Lower Duwamish Waterway NPDES Inspection Sampling Support

Technical Memorandum

Final

Prepared for

Toxics Cleanup Program
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Bellevue, Washington

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Appendix A
Shultz Distributing

Limitation of Use: Leidos' project activities were restricted to collection and analysis of a limited number of environmental samples and visual observations obtained during the physical site visit, and from records made available by Ecology or third parties during the project. In preparing this report, Leidos has relied on verbal and written information provided by secondary sources and interviews, including information provided by the customer. Leidos has made no independent investigations concerning the accuracy or completeness of the information relied upon. Because the project activities consisted of collecting and evaluating a limited supply of information, Leidos may not have identified all potential items of concern and, therefore, Leidos warrants only that the project activities under this contract have been performed within the parameters and scope communicated by Ecology and reflected in the contract. Maps presented in this report were accurate based on the information available to Leidos at the time that the facility inspections were conducted.

This report is intended to be used in its entirety. Taking or using in any way excerpts from this report are not permitted and any party doing so does so at its own risk.

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A-1 Introduction and Background

Facility Name	**Shultz Distributing**
Address	6851 East Marginal Way S Seattle, WA 98108-3408
NPDES Permit Type	Industrial Stormwater General Permit
NPDES Permit No.	WAR002346
Permit Monitoring Requirements	Turbidity, pH, total zinc, total copper, petroleum–oil, grease
SIC Code	5171: Petroleum Bulk Station
Inspection Date	March 26, 2013
Grab Samples	1 Water Sample; 2 Solids Samples
Sample ID(s)	SD-SP-01-20130326-S SD-CB-01-20130326-S SD-SP-01-20130326-W
Water Sample Analytes	PCB Congeners, SVOCs (including phthalates and PAHs), pesticides, metals, mercury, pH, specific conductance, anions, alkalinity, TOC/DOC, TSS
Solids Sample Analytes	Dioxins/furans (CB-01), PCB Aroclors, SVOCs (including phthalates and PAHs), pesticides, TPH-Diesel and Motor Oil, TPH-Gasoline, VOCs (CB-01), metals, mercury, TOC, total solids, grain size
Split Samples with Facility	No

Shultz Distributing is a bulk oil storage and distributing facility. Petroleum products, solvents and antifreeze are delivered to the facility by truck and railcar and are either transferred to storage tanks or stored in the warehouse facility in 55-gallon drums (EMR 2003).

A-1.1 Stormwater Conveyance

Shultz Distributing operates two oil water separators. The oil water separator on the western portion of the property discharges to the Seattle Public Utilities (SPU) storm drain system. The oil water separator and roof drains on the eastern portion of the property discharge to the King County combined sewer. Shultz Distributing does not operate a stormwater treatment system (EMR 2003). A facility drainage map is presented in Figure A-1.

A-1.2 Recent Compliance History

Based on available discharge monitoring reports, Shultz Distributing exceeded benchmarks for copper and turbidity during the 1st quarter of 2011 and zinc during the 1st and 2nd quarter of 2011. The facility exceeded benchmarks for zinc during the 1st and 2nd quarter of 2012 (Ecology 2013).

A-2 Inspection and Sampling

A-2.1 March 2013 Stormwater Compliance Inspection

On March 26, 2013, Ecology conducted a stormwater compliance inspection at Shultz Distributing. Leidos assisted Ecology with the inspection and sampling of the facility's stormwater conveyance system. The inspection included investigating influent and effluent points at drainage structures, written and photographic documentation, and assessing whether the drainage structures contained sufficient sampleable material. The coordinates of sample locations were recorded with a survey-quality global positioning system and plotted on Figure A-2 using geographic information system software. An inspection photographic log and field documentation are presented in Attachments A-1 and A-2, respectively.

The field team inspected the following stormwater conveyance structures at Shultz Distributing (Figure A-2): catch basin 01 (CB-01), oil water separator 01 (WS-01), catch basin 02 (CB-02), catch basin 03 (CB-03), catch basin 04 (CB-04), sump pump 01 (SP-01), catch basin 05 (CB-05), catch basin 06 (CB-06), and oil water separator 02 (WS-02). Locations SP-01 and CB-01 contained sufficient sampleable material and were representative of storm drain solids at the facility. Location SP-01 contained sufficient water to collect a water grab sample. Storm drain structure inspection locations are presented in Figure A-2.

At the time of the March 2013 inspection, Shultz Distributing was out of permit compliance for failure to complete a Level Three Corrective Action (Treatment Best Management Practices) by September 30, 2011 (Ecology 2012).

A-2.2 Stormwater Conveyance System Sampling

Ecology collected one water sample and two solids samples from the stormwater conveyance system at Shultz Distributing. Laboratory analyses for the water samples are listed on Table A-1 and analytical data are presented in Tables A-2 through A-5. Laboratory analyses for the solids samples are listed on Table A-6 and analytical data are presented in Table A-7. Chain of custody forms and the laboratory reports are provided as Attachments A-3 and A-4, respectively.

A-2.2.1 Water Sample

Water sample SD-SP-01-20130326-W was collected from SP-01 (Figure A-2, Attachment A-1). The sump receives stormwater from the area of the facility that drains the shipping and receiving yard (western portion of the facility). The sample location is representative of stormwater discharge from Shultz Distributing to the SPU storm drain system. Discharge from the sump did not occur during sample collection. Oil droplets adhered to the stainless steel sampling pail and were observed suspended in the water column.

A-2.2.2 Solids Samples

Solids sample SD-SP-01-20130326-S was collected from SP-01 (Figure A-2, Attachment A-1). Solids in the sump are representative of storm drain solids at the site that may become suspended and discharge to the SPU storm drain system. The sample material was collected from the

western portion of the sump. The sample consisted of dark brown silty sand, organic matter and debris. A strong petroleum odor was detected during sample collection. After multiple grab attempts, sufficient sample volume was obtained for all analyses with the exception of volatile organic compounds. Per discussion with Ecology, dioxin/furan analysis was not requested for this sample.

Solids sample SD-CB-01-20130326-S was collected from CB-01, located at the southeast corner of the facility. CB-01 collects stormwater from the surrounding storage lot and parking area. Stormwater is conveyed from CB-01 to a connection on the SPU storm drain system. The sample consisted of dark brown medium- to fine-grained sand and silt, organic matter, and invertebrates. A strong hydrogen sulfide odor was detected during sample collection. Sufficient sample volume was obtained for all analyses. Per discussion with Ecology, dioxin/furan analysis was requested for this sample.

A-3 Results

A-3.1 Chemical Analysis

Ecology collected one water and two solids samples during the March 26, 2013 stormwater compliance inspection at Shultz Distributing. Analytical methods, chemical results and regulatory criteria are presented in Tables A-1 through A-7.

All chemical results were independently validated by EcoChem, Inc. of Seattle, WA. A summary-level, U.S. Environmental Protection Agency (EPA) Stage 2B data validation was performed on all chemistry results; a full-level, EPA Stage 4 data validation was performed on the dioxin/furan results. A compliance-level screening (EPA Stage 2A), including a comparison of detected results to sample concentrations, was performed on the rinse blank samples. Data validation was performed following EPA guidance (EPA 1994, 2008, 2009, 2010). The data validation report is available as Attachment 2 to the draft LDW NPDES Inspection Sampling Support Technical Memorandum (Leidos 2014).

A-3.2 Inspection Results and Permit Compliance Requirements

The Ecology inspection report was not available for review.

A-4 References

Ecology. 2012. Water Quality Program, Corrections Required, Shultz Distributing. April 30, 2012.

Ecology. 2013. Water Quality Permitting and Reporting Information System, Summary Information, Shultz Distributing. November 11, 2013.

EPA (U.S. Environmental Protection Agency), Office of Emergency and Remedial Response. February 1994. *USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review.* EPA 540/R-94/013. Washington, DC.

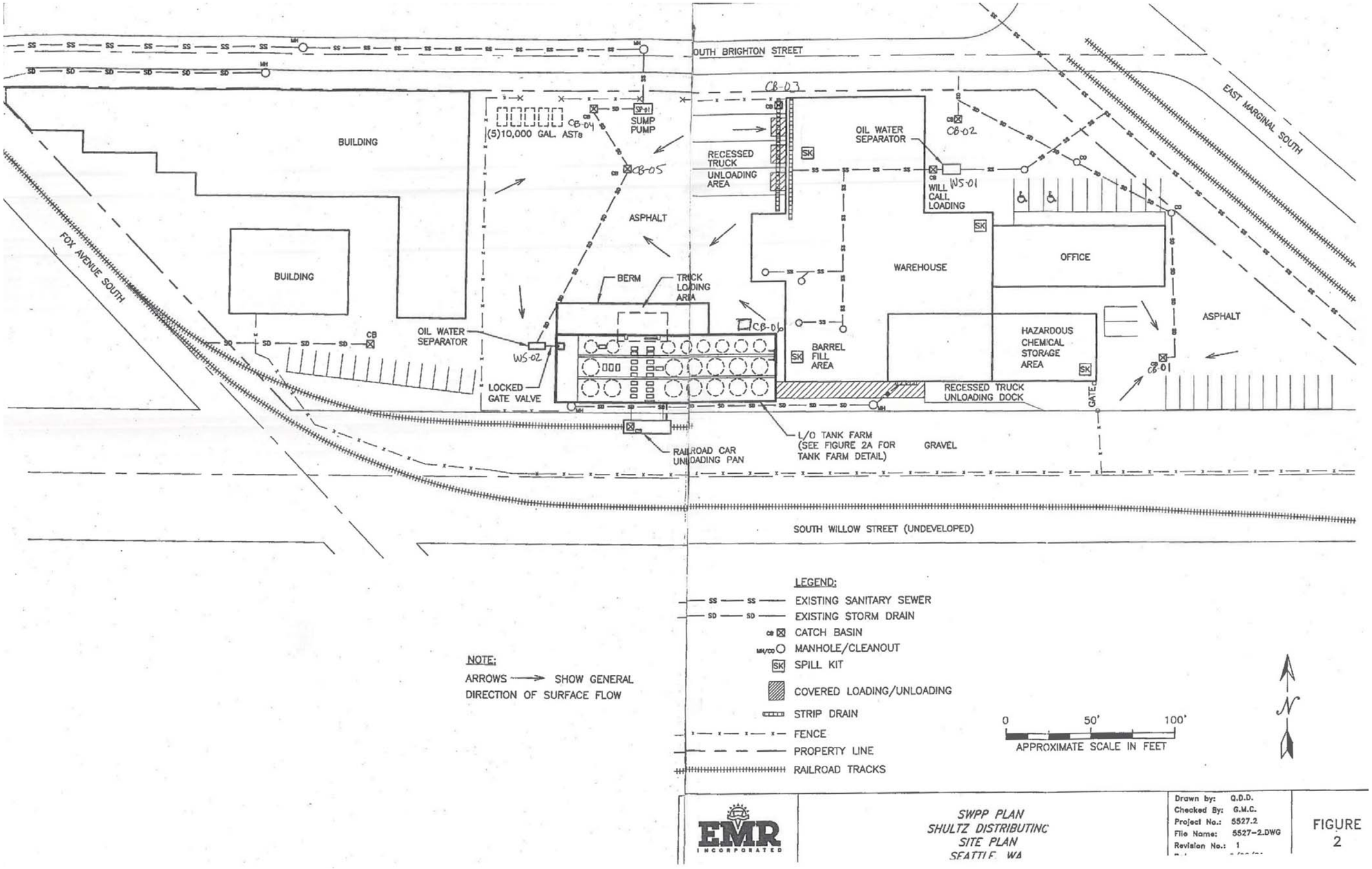
EPA, Office of Emergency and Remedial Response. June 2008. *USEPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*. EPA-540-R-08-01. Washington, DC.

EPA, Office of Emergency and Remedial Response. January 2009. *Guidance for labeling externally validated laboratory analytical data for Superfund use.* EPA-540-R-08-005. Washington, DC.

EPA, Office of Emergency and Remedial Response. January 2010. *USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*. EPA 540-R-10-011. Washington, DC.

EMR (Environmental Management Resources, Inc.). 2003. Shultz Distributing Storm Water Pollution Prevention Plan. Permit No. SO3-002346. Prepared for Shultz Distributing, Inc., 6851 East Marginal Way South, Seattle, Washington. October 2001; revised March 2003.

Figures



Source: EMR 2001 [10444]

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Figure A–1. Shultz Distributing Facility SWPPP Map

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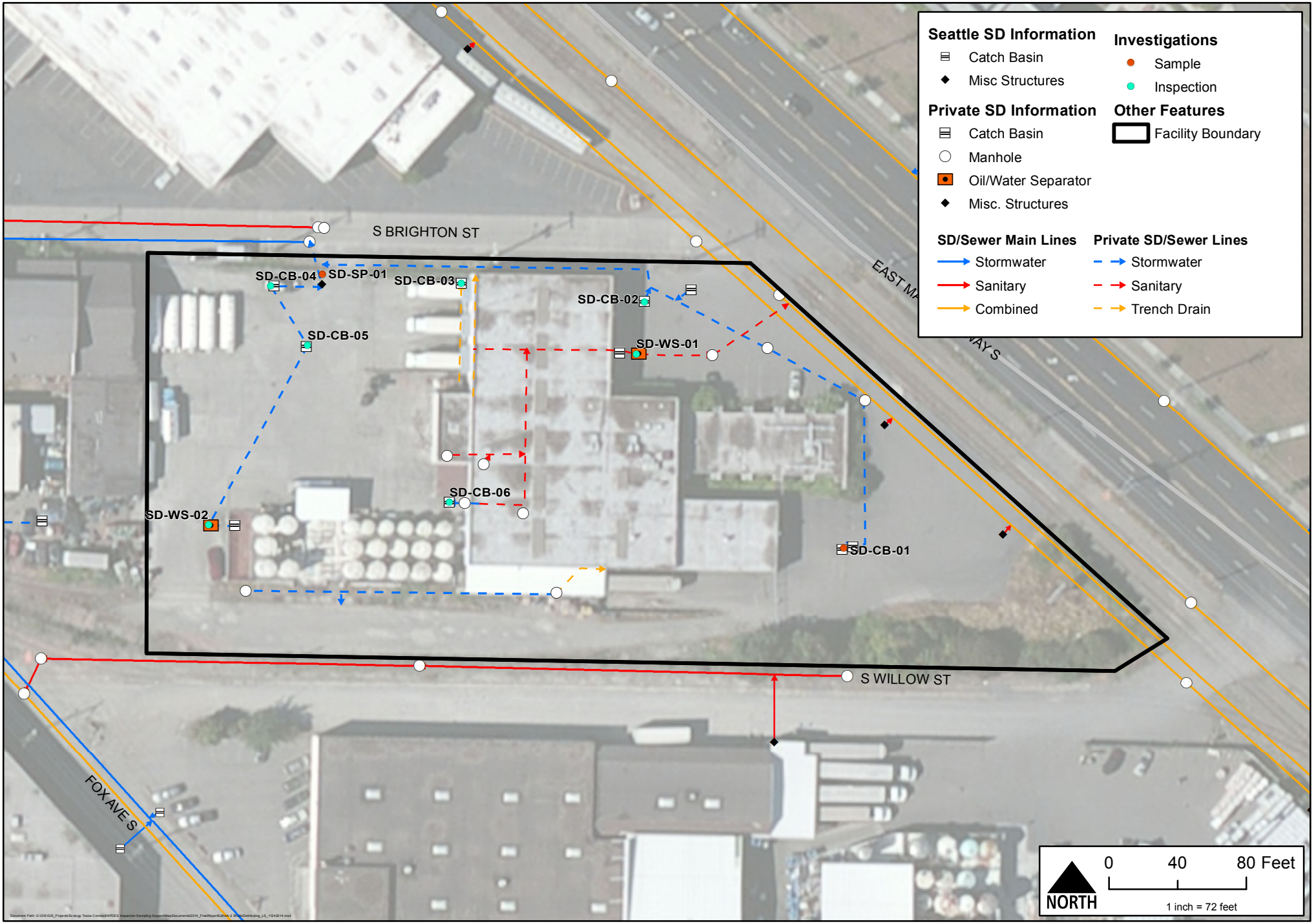

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Figure A–2. Shultz Distributing Inspection and Sample Locations

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Tables

Table A-1. Sample Analytical Methods – Water
NPDES Inspection Sampling Support: Shultz Distributing

Location ID / Collection Date		SD-SP-01
Analyte	**Units**	**3/26/2013**
Metals (Total)		
Antimony	µg/L	E200.8
Arsenic	µg/L	E200.8
Beryllium	µg/L	E200.8
Cadmium	µg/L	E200.8
Chromium	µg/L	E200.8
Copper	µg/L	E200.8
Lead	µg/L	E200.8
Mercury	µg/L	SW7470A
Nickel	µg/L	E200.8
Selenium	µg/L	E200.8
Silver	µg/L	E200.8
Thallium	µg/L	E200.8
Zinc	µg/L	E200.8
Metals (Dissolved)		
Antimony	µg/L	E200.8
Arsenic	µg/L	E200.8
Beryllium	µg/L	E200.8
Cadmium	µg/L	E200.8
Chromium	µg/L	E200.8
Copper	µg/L	E200.8
Lead	µg/L	E200.8
Mercury	µg/L	SW7470A
Nickel	µg/L	E200.8
Selenium	µg/L	E200.8
Silver	µg/L	E200.8
Thallium	µg/L	E200.8
Zinc	µg/L	E200.8
PAHs		
1-Methylnaphthalene	µg/L	SW8270DSIM
2-Chloronaphthalene	µg/L	SW8270D
2-Methylnaphthalene	µg/L	SW8270DSIM
Acenaphthene	µg/L	SW8270DSIM
Acenaphthylene	µg/L	SW8270DSIM
Anthracene	µg/L	SW8270DSIM
Benzo(a)anthracene	µg/L	SW8270DSIM
Benzo(a)pyrene	µg/L	SW8270DSIM
Benzo(b)fluoranthene	µg/L	SW8270DSIM
Benzo(g,h,i)perylene	µg/L	SW8270DSIM
Benzo(k)fluoranthene	µg/L	SW8270DSIM
Chrysene	µg/L	SW8270DSIM
Dibenz(a,h)anthracene	µg/L	SW8270DSIM
Dibenzofuran	µg/L	SW8270DSIM
Fluoranthene	µg/L	SW8270DSIM
Fluorene	µg/L	SW8270DSIM

Table A-1. Sample Analytical Methods – Water
NPDES Inspection Sampling Support: Shultz Distributing

Location ID / Collection Date		SD-SP-01
Analyte	**Units**	**3/26/2013**
Indeno(1,2,3-cd)pyrene	µg/L	SW8270DSIM
Naphthalene	µg/L	SW8270DSIM
Phenanthrene	µg/L	SW8270DSIM
Pyrene	µg/L	SW8270DSIM
Total Benzofluoranthenes	µg/L	SW8270DSIM
Total HPAHs	µg/L	SW8270DSIM
Total LPAHs	µg/L	SW8270DSIM
Total PAHs	µg/L	SW8270DSIM
cPAHs, nd RL*0	µg/L	SW8270DSIM
cPAHs, nd RL*0.5	µg/L	SW8270DSIM
cPAHs, nd RL*1	µg/L	SW8270DSIM
Phthalates		
bis(2-Ethylhexyl)phthalate	µg/L	SW8270D
Butylbenzylphthalate	µg/L	SW8270D
Di-n-Butylphthalate	µg/L	SW8270D
Diethylphthalate	µg/L	SW8270D
Dimethylphthalate	µg/L	SW8270D
Di-n-Octyl phthalate	µg/L	SW8270D
Phenols		
2,3,4,6-Tetrachlorophenol	µg/L	SW8270D
2,4,5-Trichlorophenol	µg/L	SW8270D
2,4,6-Trichlorophenol	µg/L	SW8270D
2,4-Dichlorophenol	µg/L	SW8270D
2,4-Dimethylphenol	µg/L	SW8270D
2,4-Dinitrophenol	µg/L	SW8270D
2-Chlorophenol	µg/L	SW8270D
2-Methylphenol	µg/L	SW8270D
2-Nitrophenol	µg/L	SW8270D
4,6-Dinitro-2-Methylphenol	µg/L	SW8270D
4-Chloro-3-methylphenol	µg/L	SW8270D
4-Methylphenol	µg/L	SW8270D
4-Nitrophenol	µg/L	SW8270D
Pentachlorophenol	µg/L	SW8270D
Phenol	µg/L	SW8270D
Other SVOCs		
1,2,4-Trichlorobenzene	µg/L	SW8270D
1,2-Dichlorobenzene	µg/L	SW8270D
1,2-Diphenylhydrazine	µg/L	SW8270D
1,3-Dichlorobenzene	µg/L	SW8270D
1,4-Dichlorobenzene	µg/L	SW8270D
2,4-Dinitrotoluene	µg/L	SW8270D
2,6-Dinitrotoluene	µg/L	SW8270D
2-Nitroaniline	µg/L	SW8270D
3,3'-Dichlorobenzidine	µg/L	SW8270D
3-Nitroaniline	µg/L	SW8270D

Table A-1. Sample Analytical Methods – Water
NPDES Inspection Sampling Support: Shultz Distributing

Location ID / Collection Date		SD-SP-01
Analyte	**Units**	**3/26/2013**
4-Bromophenyl-phenylether	µg/L	SW8270D
4-Chloroaniline	µg/L	SW8270D
4-Chlorophenyl-phenylether	µg/L	SW8270D
4-Nitroaniline	µg/L	SW8270D
Aniline	µg/L	SW8270D
Azobenzene	µg/L	SW8270D
Benzoic Acid	µg/L	SW8270D
Benzyl Alcohol	µg/L	SW8270D
2,2'-Oxybis(1-Chloropropane)	µg/L	SW8270D
bis(2-Chloroethoxy) Methane	µg/L	SW8270D
Bis-(2-Chloroethyl) Ether	µg/L	SW8270D
Carbazole	µg/L	SW8270D
Hexachlorobenzene	µg/L	SW8081B
Hexachlorobutadiene	µg/L	SW8081B
Hexachlorocyclopentadiene	µg/L	SW8270D
Hexachloroethane	µg/L	SW8270D
Isophorone	µg/L	SW8270D
Nitrobenzene	µg/L	SW8270D
N-Nitrosodimethylamine	µg/L	SW8270D
N-Nitroso-Di-N-Propylamine	µg/L	SW8270D
N-Nitrosodiphenylamine	µg/L	SW8270D
N-Nitrosomethylethylamine	µg/L	na
PCB Aroclors		
PCB Aroclors	µg/L	na
PCB Congeners		
PCB Congeners	pg/L	1668C
Pesticides		
Pesticides	µg/L	SW8081B
Conventionals		
Alkalinity	mg/L CaCO3	SM2320
Bicarbonate	mg/L CaCO3	SM2320
Carbonate	mg/L CaCO3	SM2320
Chloride	mg/L	EPA300.0
Conductivity	µmhos/cm	EPA120.1
Dissolved Organic Carbon	mg/L	SM5310B
Hydroxide	mg/L CaCO3	SM2320
Nitrate + Nitrite	mg-N/L	EPA353.2
N-Nitrate	mg-N/L	EPA353.2
N-Nitrite	mg-N/L	EPA353.2
pH	std units	SM4500H
Sulfate	mg/L	EPA300.0
Total Organic Carbon	mg/L	SM5310B
Total Suspended Solids	mg/L	SM2540D

Table A-1. Sample Analytical Methods – Water
NPDES Inspection Sampling Support: Shultz Distributing

Location ID / Collection Date		SD-SP-01
Analyte	Units	3/26/2013

a - This is a field duplicate of the sample directly preceding it.

µg/L - micrograms per liter
µmhos/cm - micromhos per centimeter
CaCO3 - calcium carbonate
cPAHs - carcinogenic polycyclic aromatic hydrocarbons
EPA - U.S. Environmental Protection Agency
HPAHs - high molecular weight polycyclic aromatic hydrocarbons
LPAHs - low molecular weight polycyclic aromatic hydrocarbons
mg/L - milligrams per liter
mg-N/L - milligrams per liter as nitrogen
na - not analyzed
nd - non-detect
NPDES - National Pollutant Discharge Elimination System
PAHs - polycyclic aromatic hydrocarbons
PCBs - polychlorinated biphenyls
pg/L - picograms per liter
R - Result rejected during data validation review.
RL - reporting limit
SIM - selected ion monitoring
std units - standard units
SVOCs - semivolatile organic compounds

Table A-2. Water Quality Data
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-SP-01
Collection Date			3/26/2013
Analyte	**WA NPDES ISGP**	**Unit**	**Result**
Field Parameters			
Flow	--	Yes/No	No
pH	5.0 to 9.0	std units	7.82
Conductivity	--	mS/cm	95
Temperature	--	degrees C	12.1
Total Dissolved Solids	--	g/L	0.06
Turbidity	25	NTU	**33**
Oil & Grease	No visible sheen	Yes/No	**Yes**
Dissolved Oxygen	--	mg/L	13.5

a - This is a field duplicate of the sample directly preceding it.
b - Facility's turbidity meter result was 1.81 NTU.

Results in **bold** exceed the WA NPDES ISGP.
degrees C - degrees Celsius
g/L - grams per liter
ISGP - Industrial Stormwater General Permit
mS/cm - milliSiemens per centimeter
na - not analyzed
NPDES - National Pollutant Discharge Elimination System
NTU - Nephelometric Turbidity Units
std units - standard units

WA - Washington State
> - Result exceeds equipment calibration limit.

Table A-3. Water Sample Results Compared to Criteria
NPDES Inspection Sampling Support: Shultz Distributing

Location ID						SD-SP-01				
Collection Date						3/26/2013				
Analyte	WA NPDES ISGP	WA WQC Marine Chronic	WA WQC Marine Acute	NTR WQC Human Health Organism	NR WQC Human Health Organism	Result	EF WA MC	EF WA MA	EF NTR HHO	EF NR HHO
Total Metals (µg/L)										
Antimony	--	--	--	--	--	0.6				
Arsenic	150	36	69	--	--	1.0				
Beryllium	--	--	--	--	--	< 0.2 U				
Cadmium	2.1	9.4	42	--	--	0.5				
Chromium	--	--	--	--	--	2.3				
Copper	14	3.7	5.8	--	--	***14***	3.7	2.4		
Lead	81.6	8.5	221	--	--	**8.6**	1			
Mercury	1.4	0.025	2.1	--	--	< 0.02 U				
Nickel	--	8.3	75	--	--	3.2				
Selenium	5	71	291	--	--	< 0.5 U				
Silver	3.8	--	2.2	--	--	< 0.2 U				
Thallium	--	--	--	--	--	< 0.2 U				
Zinc	117	86	95	--	--	***100 J***	1.2	1.1		
Dissolved Metals (µg/L)										
Antimony		--	--	4,300	640	0.2				
Arsenic		36	69	--	--	0.6				
Beryllium		--	--	--	--	< 0.2 U				
Cadmium		9.3	42	--	--	< 0.1 U				
Chromium		--	--	--	--	< 0.5 U				
Copper		3.1	4.8	--	--	2.6				
Lead		8.1	210	--	--	< 0.1 U				
Mercury		0.025	1.8	0.15	--	< 0.02 U				
Nickel		8.2	74	4,600	4,600	1.2				
Selenium		71	290	--	4,200	< 0.5 U				
Silver		--	1.9	--	--	< 0.2 U				
Thallium		--	--	6.3	0.47	< 0.2 U				
Zinc		81	90	--	26,000	38				
PAHs (µg/L)										
1-Methylnaphthalene		--	--	--	--	< 0.05 U				
2-Chloronaphthalene		--	--	--	1,600	< 1.0 U				
2-Methylnaphthalene		--	--	--	--	< 0.05 U				
Acenaphthene		--	--	--	990	< 0.05 U				
Acenaphthylene		--	--	--	--	< 0.05 U				
Anthracene		--	--	110,000	40,000	< 0.05 U				
Benzo(a)anthracene		--	--	0.031	0.018	**< 0.05 U**				
Benzo(a)pyrene		--	--	0.031	0.018	**< 0.05 U**				
Benzo(b)fluoranthene		--	--	0.031	0.018	**0.054**			1.7	3
Benzo(g,h,i)perylene		--	--	--	--	0.05				
Benzo(k)fluoranthene		--	--	0.031	0.018	**< 0.05 U**				
Chrysene		--	--	0.031	0.018	**< 0.05 U**				
Dibenz(a,h)anthracene		--	--	0.031	0.018	**< 0.05 U**				
Dibenzofuran		--	--	--	--	< 0.05 U				
Fluoranthene		--	--	370	140	0.064				
Fluorene		--	--	14,000	5,300	< 0.05 U				
Indeno(1,2,3-cd)pyrene		--	--	0.031	0.018	**< 0.05 U**				
Naphthalene		--	--	--	--	< 0.05 U				
Phenanthrene		--	--	--	--	0.065				
Pyrene		--	--	11,000	4,000	0.088				
Total Benzofluoranthenes		--	--	--	--	< 0.1 U				
Total HPAHs		--	--	--	--	0.2				
Total LPAHs		--	--	--	--	0.065				
Total PAHs		--	--	--	--	0.27				
cPAHs, nd RL*0		--	--	--	--	< 0 U				
cPAHs, nd RL*0.5		--	--	--	--	< 0.038 U				
cPAHs, nd RL*1		--	--	--	--	< 0.076 U				

Table A-3. Water Sample Results Compared to Criteria
NPDES Inspection Sampling Support: Shultz Distributing

Location ID						SD-SP-01				
Collection Date						3/26/2013				
Analyte	WA NPDES ISGP	WA WQC Marine Chronic	WA WQC Marine Acute	NTR WQC Human Health Organism	NR WQC Human Health Organism	Result	EF WA MC	EF WA MA	EF NTR HHO	EF NR HHO
Phthalates (µg/L)										
bis(2-Ethylhexyl)phthalate		--	--	5.9	2.2	**17**			2.9	7.7
Butylbenzylphthalate		--	--	--	1,900	< 1.0 U				
Di-n-Butylphthalate		--	--	12,000	4,500	< 1.0 U				
Diethylphthalate		--	--	120,000	44,000	< 1.0 U				
Dimethylphthalate		--	--	2,900,000	1,100,000	< 1.0 U				
Di-n-Octyl phthalate		--	--	--	--	< 1.0 U				
Phenols (µg/L)										
2,3,4,6-Tetrachlorophenol		--	--	--	--	< 1.0 U				
2,4,5-Trichlorophenol		--	--	--	3,600	< 5.0 U				
2,4,6-Trichlorophenol		--	--	6.5	2.4	< 3.0 U				
2,4-Dichlorophenol		--	--	790	290	< 3.0 U				
2,4-Dimethylphenol		--	--	--	850	< 3.0 U				
2,4-Dinitrophenol		--	--	14,000	5,300	< 20 U				
2-Chlorophenol		--	--	--	150	< 1.0 U				
2-Methylphenol		--	--	--	--	< 1.0 U				
2-Nitrophenol		--	--	--	--	< 3.0 U				
4,6-Dinitro-2-Methylphenol		--	--	765	280	< 10 U				
4-Chloro-3-methylphenol		--	--	--	--	< 3.0 U				
4-Methylphenol		--	--	--	--	< 2.0 U				
4-Nitrophenol		--	--	--	--	< 10 U				
Pentachlorophenol		7.9	13	8.2	3	**< 10 U**				
Phenol		--	--	4,600,000	860,000	< 1.0 U				
Other SVOCs (µg/L)										
1,2,4-Trichlorobenzene		--	--	--	70	< 1.0 U				
1,2-Dichlorobenzene		--	--	17,000	1,300	< 1.0 U				
1,2-Diphenylhydrazine		--	--	0.54	0.2	**< 1.0 U**				
1,3-Dichlorobenzene		--	--	2,600	960	< 1.0 U				
1,4-Dichlorobenzene		--	--	2,600	190	< 1.0 U				
2,4-Dinitrotoluene		--	--	9.1	3.4	< 3.0 U				
2,6-Dinitrotoluene		--	--	--	--	< 3.0 U				
2-Nitroaniline		--	--	--	--	< 3.0 U				
3,3'-Dichlorobenzidine		--	--	0.077	0.028	**< 5.0 U**				
3-Nitroaniline		--	--	--	--	< 3.0 U				
4-Bromophenyl-phenylether		--	--	--	--	< 1.0 U				
4-Chloroaniline		--	--	--	--	< 5.0 U				
4-Chlorophenyl-phenylether		--	--	--	--	< 1.0 U				
4-Nitroaniline		--	--	--	--	< 3.0 U				
Aniline		--	--	--	--	< 1.0 U				
Azobenzene		--	--	--	--	< 1.0 U				
Benzoic Acid		--	--	--	--	< 20 U				
Benzyl Alcohol		--	--	--	--	< 2.0 U				
2,2'-Oxybis(1-Chloropropane)		--	--	170,000	65,000	< 1.0 U				
bis(2-Chloroethoxy) Methane		--	--	--	--	< 1.0 U				
Bis-(2-Chloroethyl) Ether		--	--	1.4	0.53	< 1.0 U				
Carbazole		--	--	--	--	< 1.0 U				
Hexachlorobenzene		--	--	0.00077	0.00029	**< 0.05 U**				
Hexachlorobutadiene		--	--	50	18	< 0.05 U				
Hexachlorocyclopentadiene		--	--	17,000	1,100	< 5.0 U				
Hexachloroethane		--	--	8.9	3.3	< 2.0 U				
Isophorone		--	--	600	960	< 1.0 U				
Nitrobenzene		--	--	1,900	690	< 1.0 U				
N-Nitrosodimethylamine		--	--	8.1	3	< 3.0 U				
N-Nitroso-Di-N-Propylamine		--	--	--	0.51	< 1.0 U				
N-Nitrosodiphenylamine		--	--	16	6	< 1.0 U				
PCB Aroclors (µg/L)										
Aroclor 1016		--	--	--	--	na				
Aroclor 1221		--	--	--	--	na				

Table A-3. Water Sample Results Compared to Criteria
NPDES Inspection Sampling Support: Shultz Distributing

Location ID						SD-SP-01				
Collection Date						3/26/2013				
Analyte	WA NPDES ISGP	WA WQC Marine Chronic	WA WQC Marine Acute	NTR WQC Human Health Organism	NR WQC Human Health Organism	Result	EF WA MC	EF WA MA	EF NTR HHO	EF NR HHO
Aroclor 1232		--	--	--	--	na				
Aroclor 1242		--	--	--	--	na				
Aroclor 1248		--	--	--	--	na				
Aroclor 1254		--	--	--	--	na				
Aroclor 1260		--	--	--	--	na				
Aroclor 1262		--	--	--	--	na				
Aroclor 1268		--	--	--	--	na				
Total PCB Aroclors		0.03	10	0.00017	0.000064	na				
Pesticides (µg/L)										
4,4'-DDD		--	--	0.00084	0.00031	**< 0.1 U**				
4,4'-DDE		--	--	0.00059	0.00022	**< 0.1 U**				
4,4'-DDT		--	--	0.00059	0.00022	**< 0.1 U**				
Total DDTs		0.001	0.13	--	--	**< 0.1 U**				
Aldrin		--	--	0.00014	0.00005	**< 0.05 U**				
alpha-BHC		--	--	0.013	0.0049	**< 0.05 U**				
beta-BHC		--	--	0.046	0.017	**< 0.05 U**				
cis-Chlordane		--	--	--	--	< 0.05 U				
delta-BHC		--	--	--	--	< 0.05 U				
Dieldrin		--	--	0.00014	0.000054	**< 0.1 U**				
Endosulfan I		0.0087	0.034	2.0	89	***< 0.05 U***				
Endosulfan II		0.0087	0.034	2.0	89	***< 0.1 U***				
Endosulfan Sulfate		0.0087	0.034	2.0	89	***< 0.1 U***				
Endrin		0.0023	0.037	0.81	0.06	***< 0.1 U***				
Endrin Aldehyde		--	--	0.81	0.3	< 0.1 U				
Endrin Ketone		--	--	--	--	< 0.1 U				
Heptachlor		0.0036	0.053	0.00021	0.000079	**< 0.05 U**				
Heptachlor Epoxide		--	--	0.00011	0.000039	**< 0.05 U**				
gamma-BHC (Lindane)		--	0.16	0.063	1.8	< 0.05 U				
Methoxychlor		--	--	--	--	< 0.5 U				
Toxaphene		0.0002	0.21	0.00075	0.00028	***< 5.0 U***				
trans-Chlordane		--	--	--	--	< 0.05 U				
Total aldrin/dieldrin		0.0019	0.71	--	--	**< 0.1 U**				
Total Chlordane		0.004	0.09	0.00059	0.00081	**< 0.05 U**				

a = This is a field duplicate of the sample directly preceding it.

Results in underline exceed the WA NPDES ISGP Benchmark for that parameter.
Results in **bold** exceed the WA WQC Marine Chronic.
Results in ***bold italics*** exceed the WA WQC Marine Acute.
Results that are shaded gray exceed the NTR HHO criteria.
Exceedance Factors (EFs) are presented for detected concentrations that exceed the WA, NTR, or NR WQC.
The EFs are calculated (result/criterion) and have no regulatory relevance. They provide an indication of the general magnitude of the concentration relative to the

< - not detected
µg/L - micrograms per liter
cPAHs - carcinogenic polycyclic aromatic hydrocarbons
EF - exceedance factor (sample result/criteria value)
HHO - Human Health - Consumption of Organisms Only
HPAHs - high molecular weight polycyclic aromatic hydrocarbons
ISGP - Industrial Stormwater General Permit
J - estimated concentration
JN - estimated concentration
LPAHs - low molecular weight polycyclic aromatic hydrocarbons
MA - Marine Acute
MC - Marine Chronic
na - not analyzed
nd - non-detect
NPDES - National Pollutant Discharge Elimination System
NR - National Recommended
NTR - National Toxics Rule
PAHs - polycyclic aromatic hydrocarbons
PCBs - polychlorinated biphenyls
RL - reporting limit
SVOCs - semivolatile organic compounds
U - not detected
WA - Washington State
WQC - Water Quality Criteria

Table A-4. Water Sample Results – PCB Congeners
NPDES Inspection Sampling Support: Shultz Distributing

Location ID					SD-SP-01				
Collection Date					3/26/2013				
Analyte	WA WQC		NTR WQC	NR WQC	Result	EF			
	Marine		Human Health	Human Health		WA MC	WA MA	NTR HHO	NR HHO
	Chronic	Acute	Organism	Organism					
Total PCB Congeners (µg/L)[a]	0.03	10	0.00017	0.000064	**0.0826** J	2.8		486	1291
Total PCB Congeners (pg/L)[a]					82,600 J				
Estimated Total PCB Congeners (pg/L)[b]					83,000 J				
Total Monochlorobiphenyl (pg/L)[a]					59.7				
Estimated Total Monochlorobiphenyl (pg/L)[b]					69.3 J				
PCB-1					34.8				
PCB-2					< 9.59 U				
PCB-3					24.9				
Total Dichlorobiphenyl (pg/L)[a]					3,120				
Estimated Total Dichlorobiphenyl (pg/L)[b]					3,120				
PCB-4					642				
PCB-5					20.2				
PCB-6					219				
PCB-7					37.2				
PCB-8					1,200				
PCB-9					74.3				
PCB-10					30.1				
PCB-11					241				
PCB-12/13					73.5 C				
PCB-14					< 6.34 U				
PCB-15					582				
Total Trichlorobiphenyl (pg/L)[a]					15,700				
Estimated Total Trichlorobiphenyl (pg/L)[b]					15,700				
PCB-16					1,090				
PCB-17					915				
PCB-18/30					2,000 C				
PCB-19					232				
PCB-20/28					3,250 C				
PCB-21/33					1,800 C				
PCB-22					1,240				
PCB-23					< 10.6 U				
PCB-24					23.3				
PCB-25					230				
PCB-26/29					533 C				
PCB-27					140				
PCB-31					2,780				
PCB-32					572				
PCB-34					< 10.9 U				
PCB-35					55.8				
PCB-36					< 10.4 U				
PCB-37					829				
PCB-38					< 11.2 U				
PCB-39					13.8				
Total Tetrachlorobiphenyl (pg/L)[a]					26,800				
Estimated Total Tetrachlorobiphenyl (pg/L)[b]					26,800				
PCB-40/71					1,800 C				
PCB-41					579				
PCB-42					1,090				
PCB-43					204				
PCB-44/47/65					3,970 C				
PCB-45					745				
PCB-46					332				
PCB-48					1,020				
PCB-49/69					2,090 C				
PCB-50/53					629 C				
PCB-51					205				

Table A-4. Water Sample Results – PCB Congeners
NPDES Inspection Sampling Support: Shultz Distributing

Location ID					SD-SP-01				
Collection Date					3/26/2013				
Analyte	WA WQC		NTR WQC	NR WQC	Result	EF			
	Marine		Human Health	Human Health		WA MC	WA MA	NTR HHO	NR HHO
	Chronic	Acute	Organism	Organism					
PCB-52					4,450				
PCB-54					4.86 J				
PCB-55					< 38.1 U				
PCB-56					822				
PCB-57					< 26.9 U				
PCB-58					< 26.6 U				
PCB-59/62/75					384 C				
PCB-60					544				
PCB-61/70/74/76					4,070 C				
PCB-63					81.3				
PCB-64					1,540				
PCB-66					1,880				
PCB-67					95.8				
PCB-68					< 24.4 U				
PCB-72					< 25.9 U				
PCB-73					< 8.89 U				
PCB-77					244				
PCB-78					< 29.7 U				
PCB-79					< 24.1 U				
PCB-80					< 24.1 U				
PCB-81					< 28.5 U				
Total Pentachlorobiphenyl (pg/L)[a]					20,500				
Estimated Total Pentachlorobiphenyl (pg/L)[b]					20,700 J				
PCB-82					439				
PCB-83					172				
PCB-84					1,060				
PCB-85/116					472 C				
PCB-86/87/97/109/119/125					2,300 C				
PCB-88					639				
PCB-89					< 42.3 U				
PCB-90/101/113					2,960 C				
PCB-91					< 14.5 U				
PCB-92					533				
PCB-93/100					30.8 C				
PCB-94					28.5				
PCB-95					2,740				
PCB-96					22.4				
PCB-98					< 20.0 U				
PCB-99					1,330				
PCB-102					120				
PCB-103					< 16.1 U				
PCB-104					< 3.37 U				
PCB-105					1,210				
PCB-106					< 14.5 U				
PCB-107					195				
PCB-108/124					< 108 U				
PCB-110					3,740				
PCB-111					< 12.8 U				
PCB-112					< 13.3 U				
PCB-114					62.2				
PCB-115					< 12.6 U				
PCB-117					83.3				
PCB-118					2,320				
PCB-120					< 12.9 U				
PCB-121					< 12.9 U				
PCB-122					< 39.0 U				

Table A-4. Water Sample Results – PCB Congeners
NPDES Inspection Sampling Support: Shultz Distributing

Location ID					SD-SP-01				
Collection Date					3/26/2013				
Analyte	WA WQC		NTR WQC	NR WQC	Result	EF			
	Marine		Human Health	Human Health		WA MC	WA MA	NTR HHO	NR HHO
	Chronic	Acute	Organism	Organism					
PCB-123					35.4				
PCB-126					< 50.2 U				
PCB-127					< 18.0 U				
Total Hexachlorobiphenyl (pg/L)[a]					11,700				
Estimated Total Hexachlorobiphenyl (pg/L)[b]					11,800 J				
PCB-128/166					538 C				
PCB-129/138/163					2,840 C				
PCB-130					210				
PCB-131					47.5				
PCB-132					1,060				
PCB-133					< 11.5 U				
PCB-134					179				
PCB-135/151					754 C				
PCB-136					229				
PCB-137					158				
PCB-139/140					< 56.1 U				
PCB-141					492				
PCB-142					< 12.4 U				
PCB-143					< 12.3 U				
PCB-144					106				
PCB-145					< 4.56 U				
PCB-146					353				
PCB-147/149					1,970 C				
PCB-148					< 10.6 U				
PCB-150					< 4.25 U				
PCB-152					< 4.26 U				
PCB-153/168					1,820 C				
PCB-154					< 37.1 U				
PCB-155					< 3.94 U				
PCB-156/157					374 C				
PCB-158					296				
PCB-159					< 35.5 U				
PCB-160					< 9.22 U				
PCB-161					< 8.38 U				
PCB-162					< 35.4 U				
PCB-164					191				
PCB-165					< 8.87 U				
PCB-167					113				
PCB-169					< 31.2 U				
Total Heptachlorobiphenyl (pg/L)[a]					3,190				
Estimated Total Heptachlorobiphenyl (pg/L)[b]					3,230 J				
PCB-170					443				
PCB-171/173					126 C				
PCB-172					90.6				
PCB-174					409				
PCB-175					< 18.1 U				
PCB-176					< 34.6 U				
PCB-177					220				
PCB-178					69.3				
PCB-179					167				
PCB-180/193					862 C				

Table A-4. Water Sample Results – PCB Congeners
NPDES Inspection Sampling Support: Shultz Distributing

Location ID					SD-SP-01				
Collection Date					3/26/2013				
Analyte	WA WQC Marine Chronic	WA WQC Marine Acute	NTR WQC Human Health Organism	NR WQC Human Health Organism	Result	EF WA MC	EF WA MA	EF NTR HHO	EF NR HHO
PCB-181					< 19.0 U				
PCB-182					< 17.3 U				
PCB-183					242				
PCB-184					< 10.4 U				
PCB-185					< 19.0 U				
PCB-186					< 10.1 U				
PCB-187					472				
PCB-188					< 9.36 U				
PCB-189					20.2				
PCB-190					71.3				
PCB-191					< 15.5 U				
PCB-192					< 16.2 U				
Total Octachlorobiphenyl (pg/L)[a]					1,270				
Estimated Total Octachlorobiphenyl (pg/L)[b]					1,270				
PCB-194					232				
PCB-195					83.1				
PCB-196					153				
PCB-197					16.1				
PCB-198/199					415 C				
PCB-200					20.7				
PCB-201					46.3				
PCB-202					92.7				
PCB-203					214				
PCB-204					< 8.97 U				
PCB-205					< 16.1 U				
Total Nonachlorobiphenyl (pg/L)[a]					228				
Estimated Total Nonachlorobiphenyl (pg/L)[b]					228				
PCB-206					172				
PCB-207					< 16.7 U				
PCB-208					55.2				
Decachlorobiphenyl (pg/L)					37.9 J				
PCB-209					37.9 J				
PCB TEQ, nd SDL*0					0.148				
PCB TEQ, nd SDL*0.5					3.13				
PCB TEQ, nd SDL*1					6.11				

a - Total PCBs and total PCB homologs include only congeners that met identification criteria as required by EPA Method1668B.
b - Estimated total PCBs and estimated total PCB homologs include congeners that were identified by SGS Analytical as "estimated maximum possible concentration" or EMPC. The EMPC values were qualified by EcoChem as "U" to indicate the analyte was not detected at an elevated reporting limit that met criteria required by EPA Method1668B. Estimated total PCBs and estimated total PCB homolog values were qualified as estimated (J) where EMPCs were included in the reported totals.

c - This is a field duplicate of the sample directly preceding it.

Results in **bold** exceed the WA WQC Marine Chronic.
Results in ***bold italics*** exceed the WA WQC Marine Acute.
Results that are shaded gray exceed the NTR HHO criteria.
Exceedance Factors (EFs) are presented for detected concentrations that exceed the WA, NTR, or NR WQC.
The EFs are calculated (result/criterion) and have no regulatory relevance. They provide an indication of the general magnitude of the concentration relative t the WA, NTR, or NR WQC.

< - not detected
µg/L - micrograms per liter
C - coelution
EMPC - estimated maximum possible concentration
J - estimated concentration
nd - non-detect
NPDES - National Pollutant Discharge Elimination System
PCBs - polychlorinated biphenyls
pg/L - picograms per liter
SDL - sample detection limit
TEQ - toxic equivalency
U - not detected

Table A-5. Water Sample Results – Conventionals
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-SP-01
Collection Date			3/26/2013
Analyte	WA NPDES ISGP	Unit	Result
Conventionals			
Alkalinity	--	mg/L CaCO3	41.1
Bicarbonate	--	mg/L CaCO3	41.1
Carbonate	--	mg/L CaCO3	< 1.0 U
Chloride	--	mg/L	< 5.0 U
Conductivity	--	µmhos/cm	92.8
Dissolved Organic Carbon	--	mg/L	9.07
Hydroxide	--	mg/L CaCO3	< 1.0 U
N-Nitrate	--	mg-N/L	0.019
pH	5-9	std units	6.47
Sulfate	--	mg/L	< 5.0 U
Total Organic Carbon	--	mg/L	9.06
Total Suspended Solids	--	mg/L	26

a - This is a field duplicate of the sample directly preceding it.
Results in **bold** exceed the WA NPDES ISGP.

< - not detected
µmhos/cm - micromhos per centimeter
CaCO3 - calcium carbonate
ISGP - Industrial Stormwater General Permit
mg/L - milligrams per liter
mg-N/L - milligrams per liter as nitrogen
NPDES - National Pollutant Discharge Elimination System
std units - standard units
U - not detected
WA - Washington
J - estimated concentration

Table A-6. Sample Analytical Methods – Solids
NPDES Inspection Sampling Support: Shultz Distributing

Location ID / Collection Date	SD-CB-01	SD-SP-01
Analyte	**3/26/2013**	**3/26/2013**
Metals (Total) (mg/kg)		
Antimony	EPA200.8	EPA200.8
Arsenic	EPA200.8	EPA200.8
Beryllium	SW6010C	SW6010C
Cadmium	EPA200.8	EPA200.8
Chromium	EPA200.8	EPA200.8
Copper	SW6010C	SW6010C
Lead	EPA200.8	EPA200.8
Mercury	SW7471A	SW7471A
Nickel	EPA200.8	EPA200.8
Selenium	EPA200.8	EPA200.8
Silver	EPA200.8	EPA200.8
Thallium	EPA200.8	EPA200.8
Zinc	SW6010C	SW6010C
PAHs (µg/kg)		
1-Methylnaphthalene	SW8270D	SW8270D
2-Chloronaphthalene	SW8270D	SW8270D
2-Methylnaphthalene	SW8270D	SW8270D
Acenaphthene	SW8270D	SW8270D
Acenaphthylene	SW8270D	SW8270D
Anthracene	SW8270D	SW8270D
Benzo(a)anthracene	SW8270D	SW8270D
Benzo(a)pyrene	SW8270D	SW8270D
Benzo(g,h,i)perylene	SW8270D	SW8270D
Chrysene	SW8270D	SW8270D
Dibenz(a,h)anthracene	SW8270DSIM	SW8270DSIM
Dibenzofuran	SW8270D	SW8270D
Fluoranthene	SW8270D	SW8270D
Fluorene	SW8270D	SW8270D
Indeno(1,2,3-cd)pyrene	SW8270D	SW8270D
Naphthalene	SW8270D	SW8270D
Phenanthrene	SW8270D	SW8270D
Pyrene	SW8270D	SW8270D
Total Benzofluoranthenes	SW8270D	SW8270D
Total HPAHs	SW8270DSIM	SW8270DSIM
Total LPAHs	SW8270D	SW8270D
Total PAHs	SW8270DSIM	SW8270DSIM
cPAHs, nd RL*0	SW8270DSIM	SW8270DSIM
cPAHs, nd RL*0.5	SW8270DSIM	SW8270DSIM
cPAHs, nd RL*1	SW8270DSIM	SW8270DSIM
Phthalates (µg/kg)		
bis(2-Ethylhexyl)phthalate	SW8270D	SW8270D
Butylbenzylphthalate	SW8270DSIM	SW8270DSIM
Di-n-Butylphthalate	SW8270D	SW8270D
Diethylphthalate	SW8270DSIM	SW8270DSIM

Table A-6. Sample Analytical Methods – Solids
NPDES Inspection Sampling Support: Shultz Distributing

Location ID / Collection Date	SD-CB-01	SD-SP-01
Analyte	**3/26/2013**	**3/26/2013**
Dimethylphthalate	SW8270D	SW8270D
Di-n-Octyl phthalate	SW8270D	SW8270D
Phenols (µg/kg)		
2,4,5-Trichlorophenol	SW8270D	SW8270D
2,4,6-Trichlorophenol	SW8270D	SW8270D
2,4-Dichlorophenol	SW8270D	SW8270D
2,4-Dimethylphenol	SW8270DSIM	SW8270DSIM
2,4-Dinitrophenol	R	SW8270D
2-Chlorophenol	SW8270D	SW8270D
2-Methylphenol	SW8270DSIM	SW8270DSIM
2-Nitrophenol	R	SW8270D
4,6-Dinitro-2-Methylphenol	R	SW8270D
4-Chloro-3-methylphenol	SW8270D	SW8270D
4-Methylphenol	SW8270D	SW8270D
4-Nitrophenol	SW8270D	SW8270D
Pentachlorophenol	SW8270DSIM	SW8270DSIM
Phenol	SW8270D	SW8270D
Other SVOCs (µg/kg)		
1,2,4-Trichlorobenzene	SW8270DSIM	SW8270DSIM
1,2-Dichlorobenzene	SW8270DSIM	SW8270DSIM
1,3-Dichlorobenzene	SW8270DSIM	SW8270DSIM
1,4-Dichlorobenzene	SW8270DSIM	SW8270DSIM
2,4-Dinitrotoluene	SW8270D	SW8270D
2,6-Dinitrotoluene	SW8270D	SW8270D
2-Nitroaniline	SW8270D	SW8270D
3,3'-Dichlorobenzidine	R	SW8270D
3-Nitroaniline	R	SW8270D
4-Bromophenyl-phenylether	SW8270D	SW8270D
4-Chloroaniline	R	SW8270D
4-Chlorophenyl-phenylether	SW8270D	SW8270D
4-Nitroaniline	R	SW8270D
Aniline	R	SW8270D
Benzoic Acid	SW8270D	SW8270D
Benzyl Alcohol	R	R
2,2'-Oxybis(1-Chloropropane)	SW8270D	SW8270D
bis(2-Chloroethoxy) Methane	SW8270D	SW8270D
Bis-(2-Chloroethyl) Ether	SW8270D	SW8270D
Carbazole	SW8270D	SW8270D
Hexachlorobenzene	SW8081B	SW8081B
Hexachlorobutadiene	SW8081B	SW8081B
Hexachlorocyclopentadiene	R	SW8270D
Hexachloroethane	SW8270D	SW8270D
Isophorone	SW8270D	SW8270D
Nitrobenzene	SW8270D	SW8270D
N-Nitrosodimethylamine	SW8270DSIM	SW8270DSIM

Table A-6. Sample Analytical Methods – Solids
NPDES Inspection Sampling Support: Shultz Distributing

Location ID / Collection Date	SD-CB-01	SD-SP-01
Analyte	**3/26/2013**	**3/26/2013**
N-Nitroso-Di-N-Propylamine	SW8270DSIM	SW8270DSIM
N-Nitrosodiphenylamine	SW8270D	SW8270DSIM
PCB Aroclors (µg/kg)		
PCB Aroclors	SW8082A	SW8082A
Pesticides (µg/kg)		
Pesticides	SW8081B	SW8081B
VOCs (µg/kg)		
VOCs	SW8260C	na
TPHs (mg/kg)		
Gasoline-Range Hydrocarbons	na	na
Diesel-Range Hydrocarbons	NWTPHD	NWTPHD
Motor Oil-Range Hydrocarbons	NWTPHD	NWTPHD
Dioxins and Furans (ng/kg)		
Dioxins and Furans	EPA 1613B	EPA 1613B
Grain size (%)		
Grain size	PSEP-PS	PSEP-PS
Conventionals (%)		
Total Organic Carbon	PLUMB81TC	PLUMB81TC
Total Solids	SM2540G	SM2540G

a - This is a field duplicate of the sample directly preceding it.

% - percent
µg/kg - micrograms per kilogram
cPAHs - carcinogenic polycyclic aromatic hydrocarbons
EPA - U.S. Environmental Protection Agency
HPAHs - high molecular weight polycyclic aromatic hydrocarbons
LPAHs - low molecular weight polycyclic aromatic hydrocarbons
mg/kg - milligrams per kilogram
nd - non-detect
ng/kg - nanograms per kilogram
NPDES - National Pollutant Discharge Elimination System
PAHs - polycyclic aromatic hydrocarbons
PCBs - polychlorinated biphenyls
R - Result rejected during data validation review.
RL - reporting limit
SIM - selected ion monitoring
SVOCs - semivolatile organic compounds
TPH - total petroleum hydrocarbons
VOCs - volatile organic compounds

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Metals (Total) (mg/kg)								
Antimony	--	--	< 0.5 UJ			< 0.5 UJ		
Arsenic	57	93	3.9			9.1		
Beryllium	--	--	< 0.2 U			< 0.2 U		
Cadmium	5.1	6.7	1.2			4.3		
Chromium	260	270	28 J			76 J		
Copper	390	390	79.8 J			225 J		
Lead	450	530	62.5 J			225 J		
Mercury	0.41	0.59	0.15			0.36		
Nickel	--	--	25			74		
Selenium	--	--	< 1.0 U			< 1.0 U		
Silver	6.1	6.1	< 0.5 U			1.2		
Thallium	--	--	< 0.5 U			0.6		
Zinc	410	960	**663**	1.6		**1,710**	4.2	1.8
PAHs (µg/kg)								
1-Methylnaphthalene	--	--	300			< 420 U		
2-Chloronaphthalene	--	--	< 140 U			< 420 U		
2-Methylnaphthalene	670	1,400	**1,400**	2.1		< 420 U		
Acenaphthene	500	730	**2,400**	4.8	3.3	< 420 U		
Acenaphthylene	1,300	1,300	430			< 420 U		
Anthracene	960	4,400	**25,000**	26	5.7	< 420 U		
Benzo(a)anthracene	1,300	1,600	**17,000**	13	11	230 J		
Benzo(a)pyrene	1,600	3,000	**6,800**	4.3	2.3	< 420 U		
Benzo(g,h,i)perylene	670	720	**2,200 J**	3.3	3.1	600		
Chrysene	1,400	2,800	**33,000**	24	12	540		
Dibenz(a,h)anthracene	230	540	**1,100**	4.8	2.0	130		
Dibenzofuran	540	700	**5,000**	9.3	7.1	< 420 U		
Fluoranthene	1,700	2,500	**120,000**	71	48	790		
Fluorene	540	1,000	**16,000**	30	16	< 420 U		

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Indeno(1,2,3-cd)pyrene	600	690	**2,500**	4.2	3.6	< 420 U		
Naphthalene	2,100	2,400	710			< 420 U		
Phenanthrene	1,500	5,400	**110,000**	73	20	620		
Pyrene	2,600	3,300	**81,000**	31	25	960		
Total Benzofluoranthenes	3,200	3,600	**25,000**	7.8	6.9	940		
Total HPAHs	12,000	17,000	**290,000 J**	24	17	4,200 J		
Total LPAHs	5,200	13,000	**150,000**	29	12	620		
Total PAHs	--	--	440,000 J			4,800 J		
cPAHs, nd RL*0	1,000	--	**12,000**	12		140 J		
cPAHs, nd RL*0.5	1,000	--	**12,000**	12		370 J		
cPAHs, nd RL*1	1,000	--	**12,000**	12		600 J		
Phthalates (µg/kg)								
bis(2-Ethylhexyl)phthalate	1,300	1,900	**4,700**	3.6	2.5	**42,000**	32	22
Butylbenzylphthalate	63	900	**2,000 J**	32	2.2	**1,300**	21	1.4
Di-n-Butylphthalate	1,400	5,100	380 J			< 420 U		
Diethylphthalate	200	1,200	< 25 U			< 190 U		
Dimethylphthalate	71	160	**110 J**	1.5		**270 J**	3.8	1.7
Di-n-Octyl phthalate	6,200	--	340			< 420 U		
Phenols (µg/kg)								
2,4,5-Trichlorophenol	--	--	< 710 U			< 2,100 U		
2,4,6-Trichlorophenol	--	--	< 710 U			< 2,100 U		
2,4-Dichlorophenol	--	--	< 1,400 U			< 4,200 U		
2,4-Dimethylphenol	29	29	**150**	5.2	5.2	**< 420 U**		
2,4-Dinitrophenol	--	--	R			< 18,000 U		
2-Chlorophenol	--	--	< 140 U			< 420 U		
2-Methylphenol	63	63	**530 J**	8.4	8.4	**< 100 U**		
2-Nitrophenol	--	--	R			< 2,100 U		
4,6-Dinitro-2-Methylphenol	--	--	R			< 4,200 U		
4-Chloro-3-methylphenol	--	--	< 710 U			< 2,100 U		

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
4-Methylphenol	670	670	**7,300**	11	11	**3,800**	5.7	5.7
4-Nitrophenol	--	--	< 710 U			< 2,100 U		
Pentachlorophenol	360	690	< 360 UJ			**< 1,000 UJ**		
Phenol	420	1,200	**2,400 J**	5.7	2.0	**500 J**	1.2	
Other SVOCs (µg/kg)								
1,2,4-Trichlorobenzene	31	51	**< 36 U**			**< 100 U**		
1,2-Dichlorobenzene	35	50	**< 36 U**			**< 100 U**		
1,3-Dichlorobenzene	--	--	< 36 U			< 100 U		
1,4-Dichlorobenzene	110	120	< 36 U			< 100 U		
2,4-Dinitrotoluene	--	--	< 710 U			< 2,100 U		
2,6-Dinitrotoluene	--	--	< 710 U			< 2,100 U		
2-Nitroaniline	--	--	< 710 U			< 2,100 U		
3,3'-Dichlorobenzidine	--	--	R			< 3,100 U		
3-Nitroaniline	--	--	R			< 2,100 U		
4-Bromophenyl-phenylether	--	--	< 140 U			< 420 U		
4-Chloroaniline	--	--	R			< 5,600 U		
4-Chlorophenyl-phenylether	--	--	< 140 U			< 420 U		
4-Nitroaniline	--	--	R			< 2,100 U		
Aniline	--	--	R			< 11,000 U		
Benzoic Acid	650	650	**6,200**	9.5	9.5	**< 8,300 U**		
Benzyl Alcohol	57	73	R			R		
2,2'-Oxybis(1-Chloropropane)	--	--	< 140 U			< 420 U		
bis(2-Chloroethoxy) Methane	--	--	< 140 U			< 420 U		
Bis-(2-Chloroethyl) Ether	--	--	< 140 U			< 420 U		
Carbazole	--	--	21,000			< 420 U		
Hexachlorobenzene	22	70	**< 36 U**			< 21 UJ		
Hexachlorobutadiene	11	120	**< 36 U**			**< 21 UJ**		
Hexachlorocyclopentadiene	--	--	R			< 8,300 U		
Hexachloroethane	--	--	< 140 U			< 420 U		

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Isophorone	--	--	< 140 U			< 420 U		
Nitrobenzene	--	--	< 140 U			< 420 U		
N-Nitrosodimethylamine	--	--	< 180 U			< 520 U		
N-Nitroso-Di-N-Propylamine	--	--	< 86 U			< 250 U		
N-Nitrosodiphenylamine	28	40	**140 J**	5.0	3.5	**110 J**	3.9	2.8
PCB Aroclors (µg/kg)								
Aroclor 1016	--	--	< 7.1 U			< 8.4 U		
Aroclor 1221	--	--	< 7.1 U			< 8.4 U		
Aroclor 1232	--	--	< 7.1 U			< 8.4 U		
Aroclor 1242	--	--	< 7.1 U			< 8.4 U		
Aroclor 1248	--	--	170			180		
Aroclor 1254	--	--	200			300		
Aroclor 1260	--	--	130			93		
Aroclor 1262	--	--	< 7.1 U			< 8.4 U		
Aroclor 1268	--	--	< 7.1 U			< 8.4 U		
Total PCB Aroclors	130	1,000	**500**	3.8		**570**	4.4	
Pesticides (µg/kg)								
4,4'-DDD	--	--	< 36 U			< 21 UJ		
4,4'-DDE	--	--	< 36 U			< 21 UJ		
4,4'-DDT	--	--	< 36 U			< 21 UJ		
Total DDTs	--	--	< 36 U			< 21 UJ		
Aldrin	--	--	< 18 U			< 11 UJ		
alpha-BHC	--	--	< 18 U			< 11 UJ		
beta-BHC	--	--	< 18 U			< 11 UJ		
cis-Chlordane	--	--	< 18 U			< 46 UJ		
delta-BHC	--	--	< 18 U			< 11 UJ		
Dieldrin	--	--	< 36 U			< 21 UJ		
Endosulfan I	--	--	< 18 U			< 11 UJ		
Endosulfan II	--	--	< 36 U			< 21 UJ		

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Endosulfan Sulfate	--	--	< 36 U			< 75 UJ		
Endrin	--	--	< 36 U			< 21 UJ		
Endrin Aldehyde	--	--	< 36 U			< 21 UJ		
Endrin Ketone	--	--	< 36 U			< 21 UJ		
Heptachlor	--	--	< 18 U			< 11 UJ		
Heptachlor Epoxide	--	--	< 36 U			< 21 UJ		
gamma-BHC (Lindane)	--	--	< 18 U			< 11 UJ		
Methoxychlor	--	--	< 180 U			< 110 UJ		
Toxaphene	--	--	< 3,600 U			< 2,100 UJ		
trans-Chlordane	--	--	< 18 U			< 11 UJ		
Total aldrin/dieldrin	--	--	< 36 U			< 21 UJ		
Total Chlordane	--	--	< 18 U			< 46 UJ		
VOCs (µg/kg)								
1,1,1,2-Tetrachloroethane	--	--	< 2,800 U			na		
1,1,1-Trichloroethane	--	--	< 2,800 U			na		
1,1,2,2-Tetrachloroethane	--	--	< 2,800 U			na		
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	< 5,600 U			na		
1,1,2-Trichloroethane	--	--	< 2,800 U			na		
1,1-Dichloroethane	--	--	< 2,800 U			na		
1,1-Dichloroethene	--	--	< 2,800 U			na		
1,1-Dichloropropene	--	--	< 2,800 U			na		
1,2,3-Trichlorobenzene	--	--	< 14,000 U			na		
1,2,3-Trichloropropane	--	--	< 5,600 U			na		
1,2,4-Trimethylbenzene	--	--	< 2,800 U			na		
1,2-Dibromo-3-chloropropane	--	--	< 14,000 U			na		
1,2-Dibromoethane	--	--	< 2,800 U			na		
1,2-Dichloroethane	--	--	< 2,800 U			na		
1,2-Dichloropropane	--	--	< 2,800 U			na		
1,3,5-Trimethylbenzene	--	--	< 2,800 U			na		

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
1,3-Dichloropropane	--	--	< 2,800 U			na		
2,2-Dichloropropane	--	--	< 2,800 U			na		
2-Chloroethylvinylether	--	--	< 14,000 UJ			na		
2-Chlorotoluene	--	--	< 2,800 U			na		
2-Hexanone	--	--	< 14,000 U			na		
4-Chlorotoluene	--	--	< 2,800 U			na		
Acetone	--	--	< 14,000 U			na		
Acrolein	--	--	< 140,000 U			na		
Acrylonitrile	--	--	< 14,000 U			na		
Benzene	--	--	< 2,800 U			na		
Bromobenzene	--	--	< 2,800 U			na		
Bromochloromethane	--	--	< 2,800 U			na		
Bromoethane	--	--	< 5,600 U			na		
Bromoform	--	--	< 2,800 U			na		
Bromomethane	--	--	< 5,600 U			na		
Carbon Disulfide	--	--	< 2,800 U			na		
Carbon Tetrachloride	--	--	< 2,800 U			na		
Chlorobenzene	--	--	< 2,800 U			na		
Dibromochloromethane	--	--	< 2,800 U			na		
Chloroethane	--	--	< 2,800 U			na		
Chloroform	--	--	< 2,800 U			na		
Chloromethane	--	--	< 2,800 U			na		
cis-1,2-Dichloroethene	--	--	< 2,800 U			na		
cis-1,3-Dichloropropene	--	--	< 2,800 U			na		
Dibromomethane	--	--	< 2,800 U			na		
Bromodichloromethane	--	--	< 2,800 U			na		
Dichlorodifluoromethane	--	--	< 2,800 U			na		
Ethylbenzene	--	--	< 2,800 U			na		
Isopropylbenzene	--	--	< 2,800 U			na		

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
m,p-Xylene	--	--	< 2,800 U			na		
2-Butanone	--	--	< 14,000 U			na		
Iodomethane	--	--	< 2,800 UJ			na		
4-Methyl-2-Pentanone (MIBK)	--	--	< 14,000 U			na		
Methyl tert-Butyl Ether	--	--	< 2,800 U			na		
Methylene Chloride	--	--	< 5,600 U			na		
n-Butylbenzene	--	--	< 2,800 U			na		
n-Propylbenzene	--	--	< 2,800 U			na		
o-Xylene	--	--	< 2,800 U			na		
4-Isopropyltoluene	--	--	< 2,800 U			na		
sec-Butylbenzene	--	--	< 2,800 U			na		
Styrene	--	--	< 2,800 U			na		
tert-Butylbenzene	--	--	< 2,800 U			na		
Tetrachloroethene	--	--	< 2,800 U			na		
Toluene	--	--	12,000			na		
Total Xylenes	--	--	< 2,800 U			na		
trans-1,2-Dichloroethene	--	--	< 2,800 U			na		
trans-1,3-Dichloropropene	--	--	< 2,800 U			na		
trans-1,4-Dichloro-2-butene	--	--	< 14,000 UJ			na		
Trichloroethene	--	--	< 2,800 U			na		
Trichlorofluoromethane	--	--	1,900 J			na		
Vinyl Acetate	--	--	< 14,000 UJ			na		
Vinyl Chloride	--	--	< 2,800 U			na		
TPH (mg/kg)								
Gasoline-Range Hydrocarbons	30/100	--	na			na		
Diesel-Range Hydrocarbons	2,000	--	1,500			**19,000**	9.5	
Motor Oil-Range Hydrocarbons	2,000	--	**4,200**	2.1		**47,000**	24	

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Dioxins and Furans (ng/kg)								
2,3,7,8-TCDD	--	--	< 0.905 U			1.47		
1,2,3,7,8-PeCDD	--	--	4.81			11.4		
1,2,3,4,7,8-HxCDD	--	--	6.5			15.1		
1,2,3,6,7,8-HxCDD	--	--	15			35.1		
1,2,3,7,8,9-HxCDD	--	--	12.1			31.8		
1,2,3,4,6,7,8-HpCDD	--	--	384			847		
OCDD	--	--	3,060			6,520 J		
2,3,7,8-TCDF	--	--	4.22			11.6		
1,2,3,7,8-PeCDF	--	--	2.06			6.07 J		
2,3,4,7,8-PeCDF	--	--	3.1			8.83		
1,2,3,4,7,8-HxCDF	--	--	5.07			12.2		
1,2,3,6,7,8-HxCDF	--	--	4.72			12.7		
1,2,3,7,8,9-HxCDF	--	--	1.25			3.42		
2,3,4,6,7,8-HxCDF	--	--	6.18			18		
1,2,3,4,6,7,8-HpCDF	--	--	86.5			236		
1,2,3,4,7,8,9-HpCDF	--	--	4.72			12.3		
OCDF	--	--	255			708		
Dioxin/Furan TEQ, nd SDL*0	25	--	17.1			**42.8 J**	1.7	
Dioxin/Furan TEQ, nd SDL*0.5	25	--	17.5			**42.8 J**	1.7	
Dioxin/Furan TEQ, nd SDL*1	25	--	18			**42.8 J**	1.7	
Total TCDD	--	--	13.2 J			35.6 J		
Total TCDF	--	--	66.1 J			235		
Total PeCDD	--	--	30.8			83.1		
Total PeCDF	--	--	78.3 J			233 J		
Total HxCDD	--	--	177			370		
Total HxCDF	--	--	124			285 J		
Total HpCDD	--	--	1,260			1,990		
Total HpCDF	--	--	241			662		

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Grain size (%)								
> 10 Phi Clay	--	--	4.6			8.7		
8-9 Phi Clay	--	--	1.3			2.7		
9-10 Phi Clay	--	--	0.4			0.7		
Very Fine Silt	--	--	1.5			4.1		
Fine Silt	--	--	2.7			9.1		
Medium Silt	--	--	4.2			15.2		
Coarse Silt	--	--	2.4			8.4		
Total Fines	--	--	17.1			48.9		
Very Fine Sand	--	--	10.9			11.4		
Fine Sand	--	--	17.3			13.1		
Medium Sand	--	--	21.7			11.9		
Coarse Sand	--	--	17.1			7.9		
Very Coarse Sand	--	--	10.7			5.3		
Gravel	--	--	5.2			1.5		
Conventionals (%)								
Total Organic Carbon	--	--	11			10.1		
Total Solids	--	--	50.82			45.42		

a - LDW RALs are presented for cPAHs and Dioxin/Furan TEQs. MTCA Method A cleanup levels for soil are presented for TPH.

b - This is a field duplicate of the sample directly preceding it.

Results in **bold** exceed the SQS/LAET/RAL.

Results in **bold and shaded gray** exceed the CSL/2LAET.

EFs are presented for detected concentrations that exceed the SMS/AET criteria, LDW RALs, or MTCA Method A cleanup levels for soil only.

The EFs are calculated (result/criterion) and have no regulatory relevance. They provide an indication of the general magnitude of the concentration relative to the SMS criteria or LDW RALs.

Table A-7. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Shultz Distributing

Location ID			SD-CB-01			SD-SP-01		
Collection Date			3/26/2013			3/26/2013		
Analyte	SMS Criteria		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET

% - percent
< - not detected
2LAET - Second Lowest Apparent Effects Threshold
AET - Apparent Effects Threshold
cPAHs - carcinogenic polycyclic aromatic hydrocarbons
CSL - Cleanup Screening Level
EF - exceedance factor (sample result/criteria value)
HPAHs - high molecular weight polycyclic aromatic hydrocarbons
J - estimated concentration
LAET - Lowest Apparent Effects Threshold
LDW - Lower Duwamish Waterway
LPAHs - low molecular weight polycyclic aromatic hydrocarbons
mg/kg - micrograms per kilogram
mg/kg - milligrams per kilogram
MTCA - Model Toxics Control Act
na - not analyzed
nc - not calculated
nd - non-detect
ng/kg - nanograms per kilogram
NPDES - National Pollutant Discharge Elimination System
OC - organic carbon
PCBs - polychlorinated biphenyls
R - Rejected completely during data validation review
RAL - Remedial Action Levels
RL - reporting limit
SDL - sample detection limit
SMS - Washington State Sediment Management Standards
SQS - Sediment Quality Standard
SVOCs - semivolatile organic compounds
TEQ - toxic equivalency
TPH - total petroleum hydrocarbons
U - not detected
VOCs - volatile organic compounds

Attachment A-1
Inspection Photographic Log

Conveyance Structure Information	
Structure Identification Number: SD-SP-01	**N➔** 
Structure Type: Wet Vault/Sump	
General Location: North central portion of facility	
Characteristics: 8 feet to bottom of structure 8-inch PVC connection to public storm drain Disconnected sanitary sewer line	
Pump Capacity (gpm): n/a	
Design Storm: n/a	
Access: Sealed grate	
Volume Gauge: No	
Sample ID: SD-SP-01-20130326-W SD-SP-01-20130326-S	
Drainage Information:	
The sump receives stormwater from the western portion of the Shultz Distributing facility. Stormwater is collected in catch basins and conveyed to SD-SP-01 prior to discharge through an 8-inch diameter PVC pipe to public storm drain line north of the facility. The sump was disconnected from the sanitary sewer (PVC tubing observed in bottom right of the top photograph) in 2010. A visible sheen and suspended petroleum product was observed in the water sample collected at this location.	

Conveyance Structure Information	
Structure Identification Number: SD-CB-05	**N←** 
Structure Type: Catch Basin	
General Location: Western portion of facility	
Characteristics: Catch basin insert	
Pump Capacity (gpm): n/a	
Design Storm: n/a	
Access: Catch basin grate	
Volume Gauge: No	
Sample ID: Not sampled	
Drainage Information:	
Catch basin SP-CB-05 is located in the central portion of the facility's western operations yard. Stormwater flows to the catch basin and is conveyed to SD-SP-01 prior to discharge to the public storm drain system.	**N↓** 

Conveyance Structure Information	
Structure Identification Number: SD-CB-06	**N➔**
Structure Type: Catch Basin	
General Location: Southern portion of facility near fuel farm	
Characteristics: Catch basin insert	
Pump Capacity (gpm): n/a	
Design Storm: n/a	
Access: Catch basin grate	
Volume Gauge: No	
Sample ID: Not sampled	
Drainage Information	
Inspection team was unable to determine if the catch basin is connected to the facility's private storm drain system or to the sanitary sewer.	**N➔**

Conveyance Structure Information	
Structure Identification Number: SD-CB-01	**N↘** 
Structure Type: Catch Basin	
General Location: Southeast portion of facility	
Characteristics: Catch basin insert	
Pump Capacity (gpm): n/a	
Design Storm: n/a	
Access: Catch basin grate	
Volume Gauge: No	
Sample ID: SD-CB-01-20130326-S	
Drainage Information	
Location SD-CB-01 receives stormwater from the southeast portion of the facility. Stormwater received by the catch basin is conveyed north to the public storm drain system at S Brighton Street.	

Attachment A-2
Field Documentation

SAIC
From Science to Solutions

Sediment Collection Form

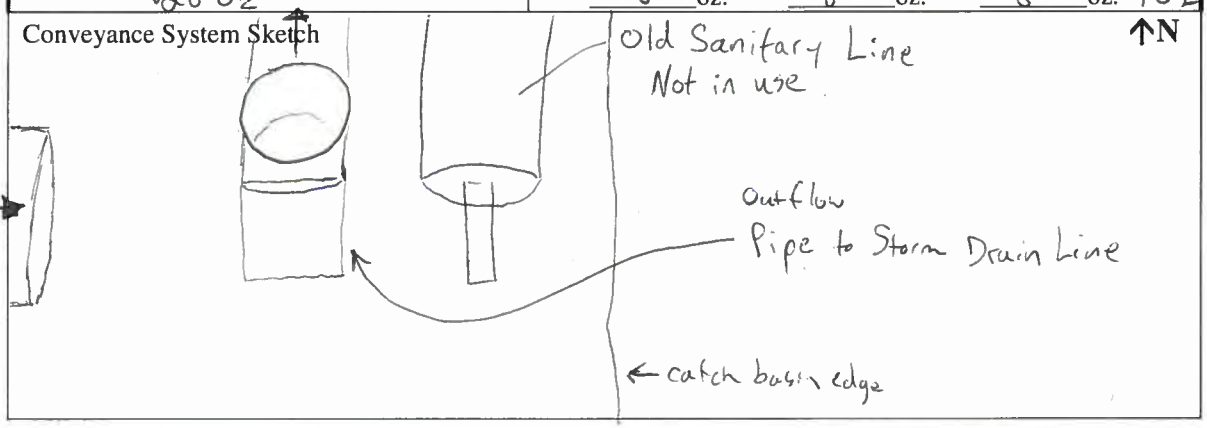
Project: NPDES Sampling Support **Sample ID:** SD-SP-01-20130326-S

Facility Name: Shultz Distributing **Ecology Inspector:** G. Stegmen, M. Alan

Sampled By: CHW **Date:** 03 / 26 / 2013 **Time:** 1435

Structure Type: Catch Basin	**Depth to Bottom:** ~8 ft	**Depth of ~~Sediment~~:** Water 2'4 ft ~~cm~~	**Discrete** / **Composite** *(circle one)*
Sediment type:	***Sediment color:***	***Sediment Odor:***	***Comments:***
Cobble Gravel (Sand) C M F (Silt/clay) (Organic matter) (Debris)	Drab olive Brown Dark Brown surface Gray Black Tan	None Slight Moderate (Strong) Overwhelming H_2S (Petroleum)	Photo ID(s): SD-SP-01-Downhole from East SD-SP-01-Sample Bucket-Oily GPS ID: SD-SP-01-20130326 102, 103
Estimated Sample Volume: 28 oz	Number of Containers 4	8 oz.	8 oz. 8 oz. 4 oz.

Conveyance System Sketch



NOTES:

- Catch basin has an old sanitary sewer pipe (~1" PVC) that was disconnected around 2010
- ~8" diameter pipe in center of drawing has an open bottom
- Flow is conveyed north to public storm drain system through 8" PVC.
- Catch basin receives inflow from ~1' diameter pipe on west side of catch basin.
- ~1' diameter pipe is fed from a catch basin approximately 20' to the west. Catch basin to the west receives site storm water from the South

SAIC
From Science to Solutions

Sediment Collection Form

LOCN ID: CB-06

Project: NPDES Sampling Support **Sample ID:** SD-CB-06-20130326-S

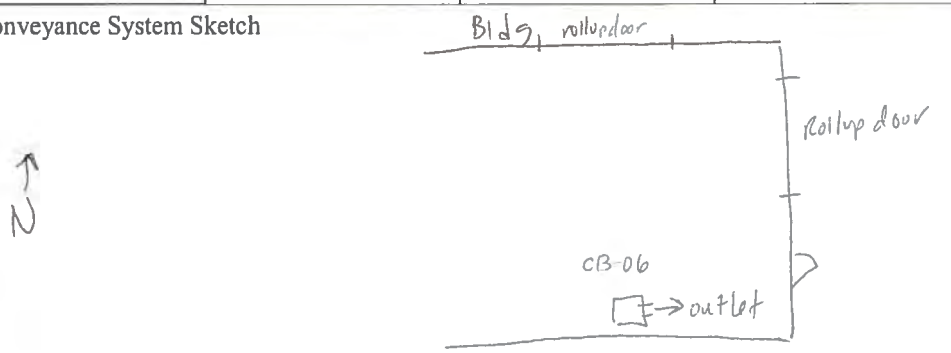
Facility Name: Shultz Distributing **Ecology Inspector:** Greg Stegman

Sampled By: C. Wilson **Date:** 3 / 26 / 2013 **Time:** 1539

Structure Type:	Depth to Bottom:	Depth of Sediment:	Discrete / Composite (circle one)
SD vault	NA ft	NA cm	D C NA

Sediment type:	*Sediment color:*	*Sediment Odor:*	***Comments:***
Cobble	Drab olive	None	
Gravel	Brown	Slight	
Sand C M F	Brown surface	Moderate	
Silt/clay	Gray	~~Strong~~	
Organic matter	Black	Overwhelming	Photo ID(s):
Debris	Tan	H_2S	
unknown	unknown	Petroleum	GPS ID: SD-CB-06

Conveyance System Sketch



NOTES: Upon arrival CB-06 was undisturbed. Accumulated sediment, moss, trash surround CB lid. Visual observance of filter fabric. Standing water from surface.

Upon removal of CB lid, filter fabric was noted to have water containment.

Discharge pipe located on east side of CB toward bldg. Believed to connect to sanitary line to bldg.

Recorded By/Date: CNancarrow **Reviewed By/Date:** _____

Version2 -030311

SAIC
From Science to Solutions

Sediment Collection Form

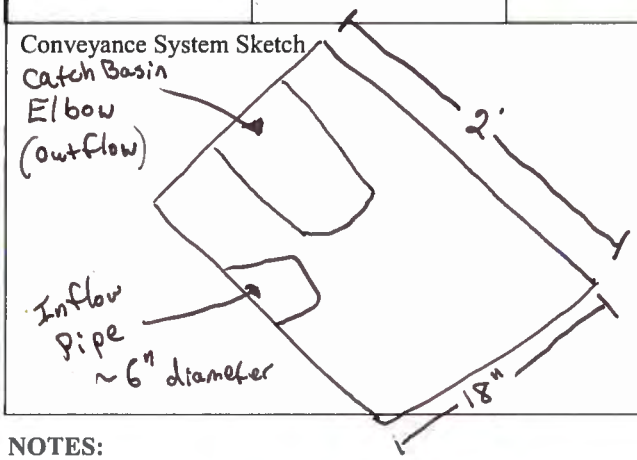
Project: NPDES Sampling Support **Sample ID:** SD-CB-01-20130326-5

Facility Name: Shultz Distributing **Ecology Inspector:** G. Stegmen + M. Alam

Sampled By: CHW **Date:** 3 / 26 / 2013 **Time:** 1651

Structure Type: Catch Basin	**Depth to Bottom:** ~6 ft	**Depth of Sediment:** ~8 cm	**Discrete** / **Composite** *(circle one)*
Sediment type:	***Sediment color:***	***Sediment Odor:***	***Comments:***
Cobble Gravel (Sand) C M F Silt/clay (Organic matter) (Debris) Worms	Drab olive Brown Dark Brown surface Gray Black Tan	None Slight Moderate (Strong) Overwhelming (H_2S) Petroleum	Photo ID(s): SD-CB-01 SedSampleCollection GPS ID: SD-CB-01

Conveyance System Sketch



NOTES:

2' x 18" Catch basin
Constructed of cinder blocks/ bricks at top 1 ft
Catch basin collects SW from south storage/parking lot at Shultz

Recorded By/Date: C. Wilson 3/26/13 **Reviewed By/Date:** _____

Version2 -030311

SAIC
From Science to Solutions

SURFACE WATER SAMPLING FORM

Client: Department of Ecology **Site:** Shultz Distributing **Job #:** 209977

Sample ID	TIME	DATE	Flow	1 pH	Electrical Conductivity 2	Temp (°C)	Total Dissolved Solids g/L	3 Turbidity (NTU) Turb D.O.	Oil & Grease (visible?)	COMMENTS ODOR/COLOR/CLARITY/ETC	ORP
SD-SP-01-2013-0326-	1237	3/26/13	No flow	7.82	0.095 m S/cm	12.1°	0.06	32.6 | 13.50	Yes	Petro. odor - free product visible/	128
					☐ S/cm						
					☐ S/cm						
					☐ S/cm						
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Sample Date:____/____/2013

26 March 2013

NPDES Sampling Support

Dry, cloudy, Shultz Distributing

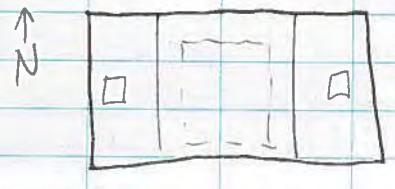
0651 CN depart home
0702 CN arrive at Tully's.
0759 CN MOB to field office (FO)
0803 CN arrive @ field office; C. Wilson present upon arrival. Decon equipment. Loading of field vehicle.
⇒ Prior to arrival C. Wilson
0640 CW depart home for ARI
0700 CW Arrive @ ARI and picked up 4 gallons of DI and a cooler
0720 CW purchased ice + 12 gallons of DI
0800 CW arrive at Storage unit
0841 M. Alam arrives at F.O.
CW + CN continue preparation of field gear
Decon Sampling equipment prepping coolers
0850 CW, CN, + MA discuss potential sampling locations at Shultz Distributing
0910 CW begin loading field vehicle
0915 G. Stegman arrives at Storage Unit
CN, CW, MA, + GS discuss drainage map and potential sampling locations
0953 CN + CW depart Storage unit in field truck following GS in one vehicle and MA in another

Shultz Distributing 3/26/13

1003 Team arrives onsite
Stop in office. Meet w/ Matt Brown

Visual inspection of CB-01
Standing water, bird seed.
believed to discharge to Comb. Sewer.

1023 MOB to WS-01
No free product per Greg S. GS lowered extendable pole to check.
No flow, org debris, min. product noted visually
DTW = 5' bgs



1034 MOB to CB-02
standing water, no flow.
~5.5' Deep
Approx 4' water.
few inches of sediment.
no visible inlet/outlet.
elbow discharge on west side

Shultz Distributing 3/26/13

1041 MOB to CB-03 (loading dock)
filter fabric present;
trash, seds visible
no flow, standing water.

1047 MOB to SP-01
Standing water, visible sheen.
disconnected to S/S

MOB to CB-05
Filter fabric present.
Standing water.

MOB to CB-06
Filter fabric, seds present.
standing water, sheen visible
unknown inlet/outlet.

MOB to WS-02 offline
Standing water, clean. Ladder inside
now capped.
Possible discharge to SW to Duwamish prior to connection to east

Shultz Distributing 3/26/13

MOB inside the office. Obtained copies of SWPPP, current DMRs, SPCC plan.

Ellen Stewart - SPU
Ecology/SPU conducted dye testing to confirm connect to sanitary
- Also may have info on WS's

1128 Greg S MOB offsite. Discuss sampling priority list
1135 - Quick break
1145.
1146 Discuss options for sampling MOB to CB-04 / SP-01

1151 Prep equipment. Calibration Log; CW collecting GPS data
1158 Calibration log complete. Note all equip was pre-calibrated by INW.
1206 GPS collected for SP-01

1237 SD-SP-01-20130326-W Collected

1359 Begin collection of sed.
2 1/4 DTB

Shultz Distributing 3/26/13

Collection complete

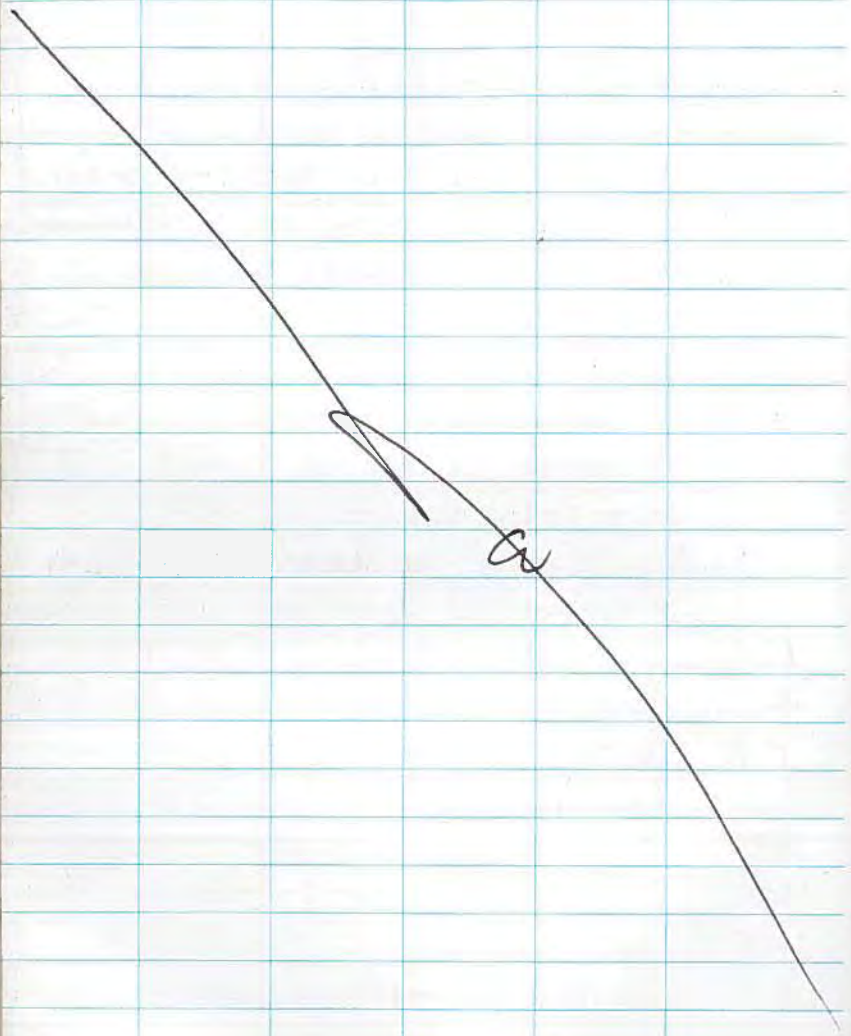
1501 M. Mam offsite. CW/CW continue to decon.
1531 Decon complete
1538 MOB to CB-06
1542 GPS collected from CB-06 - Filter fabric
1556 GPS collected from CB-05 - Filter fabric
1604 Take down decon staging area to mob to CB-01, outside of fenced area of the Site
1619 Begin collection of GPS coordinates at CB-01
1627 Setup Decon Station
1651 Begin Sample collection

1718 Sample completed
1723 Decon equipment
1535 Decon complete
Load truck
1651 MOB offsite to storage unit
1745 Stop for food
1745 Arrive @ PO.
Unload Equipment reconcile COC's

Shultz Distributing 3/26/13

Closeout paperwork

~~1928~~ 1936 MOB from F.O.



Shultz Distributing 27 March 2013

0600 C. Wilson departs home in field vehicle

0800 C. Wilson arrives at Storage unit
CW verifies sample count and labels match what is located on COC

0850 CW loads field vehicle w/ samples and field equipment

0907 CW departs Storage unit for ARI

0921 CW arrives at ARI

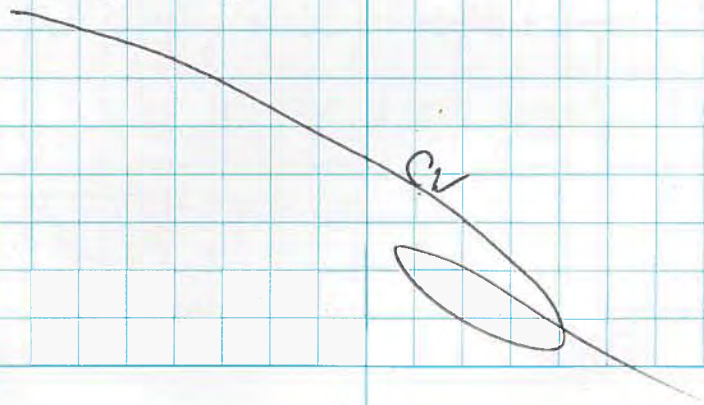
0925 CW relinquished samples to ARI

0927 CW left ARI for INW

1003 CW Arrives at INW and returned PID, Horiba, & Portable Peristaltic Pump

1009 Depart INW

1022 CW Arrive at SAIC
Stored PCB Congener samples in Environmental Storage Refrigerator at 4°C



Attachment A-3
Chain of Custody Forms

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested: 10d
ARI Client Company: SAIC	Phone: 206.300.2144
Client Contact: Christine Nancarrow	nancarrowc@saic.com
Client Project Name: NPDES Sampling Support	
Client Project #: 209977	Samplers: CHW

Date: 3.26.2013

Page: 1 of 1

No. of Coolers: Cooler Temps:

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	PCB Aroclors (EPA 8082)	SVOCs (EPA 8270 / EPA 8270-SIM)	Pesticides (EPA 8081)	Dioxins/Furans (EPA 1613B)	TPH-Diesel (NWTPH-DW)	VOCs (EPA8260)	Metals (EPA 6010/200.8)	Mercury (EPA 7471)	TOC (Plumb 1981)	Total Solids (SM2540B)	Particle Size Distribution (Sedigraph)	Notes/Comments
					Analysis Requested (Sediment Sample)											
SD-SP-01-20130326-S	3.26.13	1435	S	4	1	2	8	7	9		3	4	5	6	10	Please Composite and Homogenize 4 Jars from Sample SD-SP-01-20130326-S prior to Analysis CW 03.27.13
SD-CB-01-20130326-S	3.26.13	1651	S	6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Numbered in priority order

Comments/Special Instructions: Do not dispose of samples without written approval from the SAIC PM

Relinquished by:	Received by:	Relinquished by:	Received by:
(Signature)	(Signature)	(Signature)	(Signature)
Printed Name: Corey H. Wilson	Printed Name: Amanda Volgardsen	Printed Name:	Printed Name:
Company: SAIC	Company: ARI	Company:	Company:
Date & Time: 3/27/13 925	Date & Time: 3/27/13 925	Date & Time:	Date & Time:

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:
ARI Client Company: SAIC	Phone: 206.300.2144
Client Contact: Christine Nancarrow	nancarrowc@saic.com
Client Project Name: NPDES Sampling Support	
Client Project #: 209977	Samplers: CHW

Date: 3/26/13
Page: | of |
No. of Coolers: Cooler Temps:

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	SVOCs PAHs (EPA 8270)/8270-SIM	Pesticides (EPA 8081)	Metals (EPA 200.8)/6010 (TSS, NCBAL's 200.8)	Mercury (EPA 7470)	VOCs (EPA 8260)	pH (SM4500H)	Specific Conductance (EPA 120.1)	Anions (EPA 300.0	Alkalinity (SM2320)	TOC (SM5310)	DOC (SM5310)	TSS (SM2540D)	Notes/Comments
~~SD-TB-01-20130326a~~	~~3.26.13~~	—	W	1													~~TRIP BLANK~~
SD-SP-01-20130326-W	3.26.13	1237	W	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	See Comment below

Analysis Requested (Aqueous Sample)

Comments/Special Instructions
Do not dispose of samples without written approval from SAIC PM.
* Upon receipt, please filter dissolved metals. This bottle was NOT field filtered.

	Relinquished by:	Received by:	Relinquished by:	Received by:
(Signature)				
Printed Name:	Corey H. Wilson	Amanda Volgnadsen		
Company:	SAIC	ARI		
Date & Time:	3/27/13 925	3/27/13 925		

Attachment A-4
Laboratory Reports

Note: Laboratory reports are included with digital files. The complete SGS Analytical laboratory report for PCB congeners analysis is available from Ecology upon request.

Table of Contents: ARI Job WJ10, WJ32

Client: SAIC

Project: 209977 NPDES Sampling Support

BC
Signature

April-16-2013
Date

Table of Contents: ARI Job WJ10, WJ32

Client: SAIC

Project: 209977 NPDES Sampling Support

BC
Signature

April-17-2013
Date

Table of Contents: ARI Job WJ10, WJ32

Client: SAIC

Project: 209977 NPDES Sampling Support

BL

Signature

April-16-2013

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

April 17, 2013

Christine Nancarrow
SAIC
18912 North Creek Parkway, Suite 101
Bothell, WA 98011

RE: Project: NPDES Sampling Support, 209977
ARI Job Nos.: WJ10 & WJ32

Dear Christine:

Please find enclosed the Chain-of-Custody records (COCs), sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this data package will be kept on file with ARI. Should you have any questions or problems, please feel free to contact me at any time.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WJ10_WJ32

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WJ10, WJ32

Chain of Custody Record & Laboratory Analysis Request

(1 of 1)

ARI Assigned Number: (1 of 1)	Turn-around Requested:	Date: 3/26/13
ARI Client Company: **SAIC**	Phone: **206.300.2144** nancarrowc@saic.com	Page: 1 of 1
Client Contact: **Christine Nancarrow**		No. of Coolers: Cooler Temps:
Client Project Name: **NPDES Sampling Support**		
Client Project #: **209977**	Samplers: CHW	

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date (CW)	Time	Matrix	No. Containers	SVOCs (PAHs) (EPA 8270)/~~8270-SIM~~	Pesticides (EPA 8081)	Metals (EPA 200.8)	Mercury (EPA 7470)	VOCs (EPA 8260)	pH (SM4500H)	Specific Conductance (EPA 120.1)	Anions (EPA 300.0	Alkalinity (SM2320)	TOC (SM5310)	DOC (SM5310)	TSS (SM2540D)	Notes/Comments
	Analysis Requested (Aqueous Sample)																
SD-SP-01-20130326 TB	~~3.26.13~~ 3.18.13	–	W	1													TRIP BLANK
SD-SP-01-20130326-W	3.26.13	1237	W	10	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
Do not dispose of samples w/out written approval from SAIC PM.	Printed Name: Corey H. Wilson	Printed Name: Amanda Volgardsen	Printed Name:	Printed Name:
	Company: SAIC	Company: ARI	Company:	Company:
	Date & Time: 3/27/13 925	Date & Time: 3/27/13 925	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: W310	Turn-around Requested: 10d	Date: 3.26.2013	
ARI Client Company: **SAIC**	Phone: **206.300.2144** nancarrowc@saic.com	Page: 1 of 1	
Client Contact: **Christine Nancarrow**		No. of Coolers:	Cooler Temps:
Client Project Name: **NPDES Sampling Support**			
Client Project #: **209977**	Samplers: CHW		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	PCB Aroclors (EPA 8082)	SVOCs (EPA 8270 / EPA 8270-SIM)	Pesticides (EPA 8081)	Dioxins/Furans (EPA 1613B)	TPH-Diesel (NWTPH-DW)	VOCs (EPA8260)	Metals (EPA 6010/200.8)	Mercury (EPA 7471)	TOC (Plumb 1981)	Total Solids (SM2540B)	Particle Size Distribution (Sedigraph)	Notes/Comments
					Analysis Requested (Sediment Sample)											
SD-SP-01-20130326-S	3.26.13	1435	S	4	1	2	8	7	9		3	4	5	6	10	Numbered in priority order: 10-low
SD-CB-01-20130326-S	3.26.13	1651	S	6 9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Comments/Special Instructions: Do not dispose of samples without written approval from the SAIC PM.	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
	Printed Name: Corey H. Wilson	Printed Name: Amanda Volgardsen	Printed Name:	Printed Name:
	Company: SAIC	Company: ARI	Company:	Company:
	Date & Time: 3/27/13 925	Date & Time: 3/27/13 925	Date & Time:	Date & Time:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: SAIC
Project Name: NPDES Sampling Support
COC No(s): (NA)
Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other
Assigned ARI Job No: WJ32
Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	(YES)	NO
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2 0-6 0 °C for chemistry): 2.4 3.2
If cooler temperature is out of compliance fill out form 00070F
Temp Gun ID# 90F77952

Cooler Accepted by: AV Date 3/27/13 Time 905

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	NA	(YES)	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI.	NA		

Was Sample Split by ARI: (NA) YES Date/Time: Equipment: Split by:

Samples Logged by: JM Date 3/27/13 Time: 1623

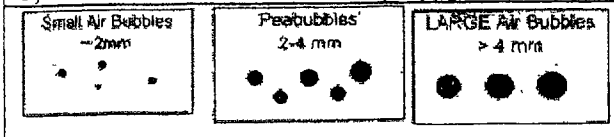
***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

~~1 liter~~ 1 large OJ has TDS on label, but it's not requested on C.O.C
1 lg OJ (PSD) + 1 500 mL HPPE (Dissolved metals) received, Tests not requested on COC. Logged for PSD + Dissolved metals. (sample SO-SP of 20130326-0)

By AV Date 3/27/13



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

WJ10 : 00005

PRESERVATION VERIFICATION 03/27/13
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WJ10**

Inquiry Number: NONE
Analysis Requested: 03/27/13
Contact: Nancarrow, Christine
Client: SAIC
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: No
Deliverables:

PC: Cheronne
VTSR: 03/27/13

Project #: 209977
Project: NPDES Sampling Support
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-6435 **WJ10A**	SD-SP-01-20130326-W						~~TOT~~ P					F										
13-6439 **WJ10E**	SD-SP-01-20130326-W						~~DIS~~ F									N		pH	<2	MP2452	2.0mL	03-27-13/NB

P = Pass, F = Fail

Sample E filtered & preserved in lab. -NB 03-27-13

TOC/DOC/Alk all from 250 mL AG.

Checked By _____ Date _____

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:
ARI Client Company: SAIC	Phone: 206.300.2144
Client Contact: Christine Nancarrow	nancarrowc@saic.com
Client Project Name: NPDES Sampling Support	
Client Project #: 209977	Samplers: CHW

Date: 3/26/13
Page: | of |
No. of Coolers:
Cooler Temps:

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	SVOCs (EPA 8270)/PAHs	Pesticides (EPA 8081)	Metals (EPA 200.8/6010)	Mercury (EPA 7470)	VOCs (EPA 8260)	pH (SM4500H)	Specific Conductance (EPA 120.1)	Anions (EPA 300.0	Alkalinity (SM2320)	TOC (SM5310)	DOC (SM5310)	TSS (SM2540D)	Notes/Comments
~~CW-03.27.13-W~~ SD-TB-01-20130326a	~~3.26.13~~ 3.26.13	-	W	1													TRIP BLANK
SD-SP-01-20130326-W	3.26.13	1237	W	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	See Comment below

Analysis Requested (Aqueous Sample)

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
Do not dispose of samples w/out written approval from SAIC PM.				
* Upon receipt, please filter dissolved metals. This bottle was NOT field filtered.	Printed Name: Corey H. Wilson	Printed Name: Amanda Volgardsen	Printed Name:	Printed Name:
	Company: SAIC	Company: ARI	Company:	Company:
	Date & Time: 3/27/13 925	Date & Time: 3/27/13 925	Date & Time	Date & Time

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Subject: SAIC Project: NPDES
From: "Wilson, Corey" <COREY.H.WILSON@saic.com>
Date: 3/27/2013 2:34 PM
To: <cheronneo@arilabs.com>
CC: "Nancarrow, Christine F." <CHRISTINE.F.NANCARROW@saic.com>

Cheronne,

Per our discussion, we would like ARI to composite and homogenize material from the four jars with sample ID: **SD-SP-01-20130326-S**. Following homogenization, please proceed with analysis in priority as listed on the COC.

Thank you,

Corey

Corey H. Wilson | SAIC
Environmental Scientist | Bothell, WA
Engineering Solutions Group
office: 425.398.2105 | mobile: 425.354.0551

Subject: RE: SAIC Project: NPDES
From: "Nancarrow, Christine F." <CHRISTINE.F.NANCARROW@saic.com>
Date: 3/28/2013 11:51 AM
To: "Cheronne Oreiro" <cheronneo@arilabs.com>

Good Morning,

Per our conversation this AM:

1. Please do not analyze SD-SP-01-20130326-W for TDS or PSD. The COC was in fact correct; the extra bottle was filled up inadvertently.

Thanks!
Christine

From: Cheronne Oreiro [mailto:cheronneo@arilabs.com]
Sent: Wednesday, March 27, 2013 3:00 PM
To: Wilson, Corey
Cc: Nancarrow, Christine F.
Subject: Re: SAIC Project: NPDES

Thank you Corey.
-Cheronne

Cheronne Oreiro
Project Manager
Analytical Resources, Inc.
4611 S. 134th Place, Suite 100
Tukwila, WA 98168-3240
cheronneo@arilabs.com
(206)-695-6214

On 3/27/2013 2:34 PM, Wilson, Corey wrote:

> Cheronne,
>
> Per our discussion, we would like ARI to composite and homogenize material from the four jars with sample ID: **SD-SP-01-20130326-S**. Following homogenization, please proceed with analysis in priority as listed on the COC.
>
> Thank you,
>
> Corey
>
> **Corey H. Wilson** | SAIC
> Environmental Scientist | Bothell, WA

(WJ10 WJ32)

Chain of Custody Record & Laboratory Analysis Request

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

ARI Assigned Number: ~~WJ10 WJ32~~	Turn-around Requested
ARI Client Company: **SAIC**	Phone: **206.300.2144** **nancarrowc@saic.com**
Client Contact: **Christine Nancarrow**	
Client Project Name: **NPDES Sampling Support**	
Client Project #: **209977**	Samplers: CHW

Date: 3/26/13

Page: 1 of 1

No of Coolers: Cooler Temps:

Sample ID	Date	Time	Matrix	No Containers	SVOCs (PAHs) (EPA 8270)/~~8270 SIM~~	Pesticides (EPA 8081)	Metals (EPA 200.8)	Mercury (EPA 7470)	VOCs (EPA 8260)	pH (SM4500H)	Specific Conductance (EPA 120.1)	Anions (EPA 300.0	Alkalinity (SM2320)	TOC (SM5310)	DOC (SM5310)	TSS (SM2540D)	Notes/Comments
	Analysis Requested (Aqueous Sample)																
SD-SP-01-20130326 TB	~~3.26.13~~ 3.18.13	–	W	1													TRIP BLANK
SD-SP-01-20130326-W	3.26.13	1237	W	10	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	

Comments/Special Instructions
Do not dispose of samples w/out written approval from SAIC PM.

	Relinquished by	Received by	Relinquished by	Received by
(Signature)				
Printed Name	Corey H. Wilson	Amanda Volgardsen		
Company	SAIC	ARI		
Date & Time	3/27/13 925	3/27/13 925		

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed egreement between ARI and the Client.*

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: SAIC
Project Name: NPDES Sampling Support
COC No(s): (NA)
Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other:
Assigned ARI Job No: WJ10
Tracking No: (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	(YES)	NO
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2 0-6.0 °C for chemistry)	2.4 3.2	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID# 90877952	

Cooler Accepted by: AV Date: 3/27/13 Time: 925

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	NA	(YES)	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	NA		3/15/13

Was Sample Split by ARI: (NA) YES Date/Time: Equipment: Split by:

Samples Logged by: JM Date: 3/27/13 Time: 1550

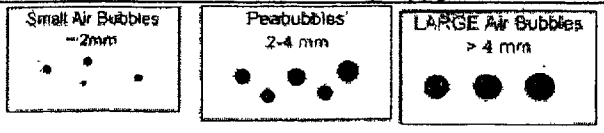
***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

~~Her~~ 1 large OJ has TDS on label, but it's not requested on C.O.C. ~~the only~~ JM Lg OJ used
1 lg OJ received + 1-500mL HDPE received, marked PSD + 500mL HDPE was marked Dissolved metals, Tests Not requested on COC, logged for both.

By: AV Date: 3/27/13



Small → "sm"	Samp16 SD-SP-01-20130326-w
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

PRESERVATION VERIFICATION 03/27/13
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WJ32**

Inquiry Number: NONE
Analysis Requested: 03/27/13
Contact: Nancarrow, Christine
Client: SAIC
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: No
Deliverables:

PC: Cheronne
VTSR: 03/27/13

Project #: 209977
Project: NPDES Sampling Support
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-6440 **WJ32A**	SD-SP-01-20130326-W						~~TOT~~ P															
13-6441 **WJ32B**	SD-SP-01-20130326-W						~~DIS~~ F									N		pH	<2	MP2452	2.0mL	03-27-13/NB

P=Pass, F=Fail

Sample B filtered & preserved in lab.
-NB 03-27-13

Shares bottles with WJ10

27209 SDG

Checked By JM Date 3/27/13

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WJ10, WJ32

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: SAIC
Project: NPDES Sampling Support, 209977
ARI Job Nos.: WJ10 & WJ32

Sample Receipt

Two water samples, two solid samples, and a trip blank were received on March 27, 2013 under ARI jobs WJ10 and WJ32. The cooler temperatures measured by IR thermometer following ARI SOP were 2.4 and 3.2°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

Volatiles by SW8260C

The samples were analyzed within the recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration (CCAL) on 4/8/13 was outside the 20% control limit high for 2-Butanone, Acrylonitrile, and Naphthalene. The CCAL fell outside the control limit low for Dichlorodifluoromethane and Methyl tert-Butyl Ether. All detected results associated with this CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

The CCAL on 4/2/13 fell outside the 20% control limit low for 1,1,2-Trichloroethane, 2-Chloroethylvinylether, 2-Hexanone, and Hexachlorobutadiene. All detected results associated with CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

Chloromethane and Iodomethane were present in **MB-040213A** at low levels. All detected results associated with this method blank have been flagged with a "B" qualifier. No further corrective action was taken.

1,2,4-Trichlorobenzene, Naphthalene, and 1,2,3-Trichlorobenzene were present in **MB-040813A** at low levels. All detected results associated with this method blank have been flagged with a "B" qualifier. No further corrective action was taken.

Several LCS and LCSD percent recoveries were outside control limits high for **LCS-040813A**. No corrective action was taken.

WJ10:0004_rev

Semivolatiles by SW8270D

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration (CCAL) on 4/4/13 was outside the 20% control limit high for 4-Nitrophenol and fell out low for Aniline. All detected results associated with this CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

The CCAL on 4/6/13 was outside the 20% control limit high for Phenol and 2-Nitrophenol. The CCAL fell outside the control limit low for Benzyl Alcohol and Hexachlorocyclopentadiene. All detected results associated with this CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

The CCAL on 4/9/13 fell outside the 20% control limit low for Hexachlorocyclopentadiene. Sample results associated with this CCAL were non-detect. No corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits.

The LCS percent recovery of 4-Chloroaniline was outside the control limits high for **LCS-040113**. All other percent recoveries were within control limits. No corrective action was taken.

The LCS percent recovery of Benzyl Alcohol fell outside the control limits low for **LCS-040313**. All other percent recoveries were within control limits. No corrective action was taken.

Several matrix spike and matrix spike duplicate percent recoveries were outside advisory control limits with wide RPDs for sample **SD-CB-01-20130326-S**. No corrective action is required for matrix QC.

SIM Semivolatiles by SW78270-SIM

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial and continuing calibrations were within method requirements.

The continuing calibration fell outside the control limits low for Benzyl Alcohol and Pentachlorophenol. All detected results for these compounds have been flagged with a "Q" qualifier. No further corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

Diethylphthalate and Benzyl Alcohol were present in **MB-040313** at levels that were greater than ½ the reporting limits. All detected results for these compounds have been flagged with a "B" qualifier. No further corrective action was taken.

The LCS percent recovery of Benzyl Alcohol fell outside the control limits low for **LCS-040313**. All other percent recoveries were within control limits. No corrective action was taken.

Several matrix spike and matrix spike duplicate percent recoveries were outside advisory control limits with wide RPDs for sample **SD-CB-01-20130326-S**. No corrective action is required for matrix QC.

Low-Level PAHs by SW8270D-SIM

The samples were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements. Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

Naphthalene was present in **MB-040113** at a level that was greater than the reporting limit. All detected results for this compound have been flagged with a "B" qualifier. No further corrective action was taken.

The LCS and LCSD percent recoveries were within control limits.

Dioxin/Furans by SW1613B

The samples were extracted and analyzed within the method recommended holding times.

Analysis was performed using the application specific RTX-Dioxin 2 column, which has a unique isomer separation for the 2378-TCDF, eliminating the need for second column confirmation.

Initial and continuing calibration results were within method requirements.

Both extraction and cleanup surrogates had recoveries within control limits.

The method blank contained reportable responses below the reporting limit for several compounds. "B" qualifiers were applied to associated results that were less than ten times the levels found in the method blank. No further corrective action was taken.

The OPR (Ongoing Precision and Accuracy or LCS) percent recoveries were within control limits. SRM PSR was analyzed as a reference material.

Specific results have been "EMPC"-flagged indicating a response not meeting requirements of positive identification. The EMPC values are treated as undetects under some programs and as hits under programs with more conservative protocols.

Select results have has been flagged with an "X" on the Form I's due to indication of a co-eluting PDBE.

The TEQ is presented with WHO2005 with ND=0 for undetects and ND=1/2 for undetects, with EMPCs included as hits.

Pesticides by SW8081

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial calibrations were within method requirements.

The closing continuing calibration on 4/9/13 was outside the 20% control limit for several compounds on both columns. The associated closing DDT/Endrin breakdown was also outside the control limits on 4/9/13. Associated samples were re-analyzed at dilutions on 4/10/13. Both initial and closing continuing calibrations were outside the control limit for several compounds for both columns on 4/10/13. Sample results for both analysis runs on 4/9/13 and 4/10/13 were undetected. Both sets of results have been reported for review. No further corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recovery of Tetrachlorometaxylene was outside the control limits high for the matrix spike of sample **SD-SP-01-20130326S**. No corrective action is required for matrix QC.

The method blanks were clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

Several matrix spike and matrix spike duplicate percent recoveries were outside advisory control limits with wide RPDs for sample **SD-SP-01-20130326-S**. No corrective action is required for matrix QC.

Aroclor PCBs by SW8082

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration on 4/8/13 at 22:22 was outside the 20% control limit high for Aroclor 1260 on the first column, but was within the control limit on the second column. No corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries of Tetrachlorometaxylene were outside the control limits high for sample **SD-SP-01-20130326-S** and the associated matrix spike. All other surrogate percent recoveries were within control limits. No corrective action was taken.

The method blank was clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike/matrix spike duplicate percent recoveries of Aroclor 1016 and the matrix spike percent recovery of Aroclor 1260 were outside advisory control limits for sample **SD-SP-01-20130326-S**. No corrective action is required for matrix QC.

NWTPH-Dx

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.
The method blank was clean at the reporting limits. The LCS percent recovery was within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

Metals and Mercury

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recovery of total zinc fell outside the control limits low for sample **SD-SP-01-20130326-W**. A post digestion spike was performed and recoveries were within control limits. All relevant data have been flagged with an "N" qualifier on the appropriate Form V. No further corrective action was taken.

The matrix spike percent recoveries of antimony, chromium, copper, and lead fell outside the control limits low for sample **SD-SP-01-20130326-S**. Post digestion spikes were performed and all recoveries were within control limits. All relevant data have been flagged with an "N" qualifier on the appropriate Form V. No further corrective action was taken.

The duplicate RPDs were within control limits.

Low-Level Mercury

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The method blanks were clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

General Chemistry

The samples and associated laboratory QC were initially prepared and analyzed within method recommended holding times.

Due to matrix interferences, sample **SD-SP-01-20130326-W** was analyzed for anions at a dilution. As a result, nitrate was reported as undetected with a raised reporting limit. The sample was re-analyzed by EPA method 353.2 outside the recommended holding time for nitrate and the result was undetected. Both sets of results have been reported for nitrate. No corrective action was taken.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The SRM percent recoveries were within limits.

The matrix spike percent recoveries and replicate RPDs were within the control limit.

Geotechnical Parameters

A laboratory-specific case narrative follows this page.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: SAIC	**ARI Job No.:** WJ10
Client Project: NPDES Sampling Support	**Client Project No.:** 209977

Case Narrative

1. Two samples were submitted for analysis on March 27, 2013, and were in good condition.
2. The samples were submitted for grain size analysis by means of X-ray diffraction using a Sedigraph 5120. The values are calculated using Stokes' Law of sedimentation and Beer's law of extinction.
3. The samples were run in a single batch and one sample from another job was chosen for triplicate analysis.
4. The standard operating procedure calls for the samples to be measured on the #4 (4750 µm) sieve, down to the 1.0 µm particle size with the Sedigraph 5120. If there were no particles measured at these extremes, the data is not included in the report.
5. The samples contained a percentage of organic material. Organic material does not absorb X-rays, and is not included in the fine portion of the analysis.
6. The data is provided in summary tables and plots.
7. There were no other noted anomalies in the samples or methods on this project.

Released by: Susanna Curtis — *Geotechnical Laboratory Manager* Date: 4/16/13

Reviewed by: Esther Tolmie — *Technician* Date: April 16, 2013

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WJ10
Client: SAIC
Project Event: 209977
Project Name: NPDES Sampling Support

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	SD-SP-01-20130326-W	WJ10A	13-6435	Water	03/26/13 12:37	03/27/13 09:25
2.	SD-SP-01-20130326-TB	WJ10B	13-6436	Water	03/26/13	03/27/13 09:25
3.	SD-SP-01-20130326-S	WJ10C	13-6437	Solids	03/26/13 14:35	03/27/13 09:25
4.	SD-CB-01-20130326-S	WJ10D	13-6438	Solids	03/26/13 16:51	03/27/13 09:25
5.	SD-SP-01-20130326-W	WJ10E	13-6439	Water	03/26/13 12:37	03/27/13 09:25

CO 4/24/13

WJ10: 00022-rev

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WJ32
Client: SAIC
Project Event: 209977
Project Name: NPDES Sampling Support

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	SD-SP-01-20130326-W	WJ32A	13-6440	Water	03/26/13 12:37	03/27/13 09:25
2.	SD-SP-01-20130326-W	WJ32B	13-6441	Water	03/26/13 12:37	03/27/13 09:25

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

DL[1] LOD[1], LOQ[1] and Control Limits Summary for VOA Analysis of Water 10 mL Purge Volume (EPA Method 8260C)

Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS Recovery[2,4]	Replicate RPD[3]
Chloromethane	0.095	0.25	**0.5**	77 – 122	≤ 40
Vinyl Chloride	0.057	0.1	**0.2**	74 – 123	≤ 40
Bromomethane	0.252	0.5	**1.0**	68 – 130	≤ 40
Chloroethane	0.086	0.1	**0.2**	68 – 133	≤ 40
Trichlorofluoromethane	0.037	0.1	**0.2**	74 – 135	≤ 40
Acrolein	2.476	2.5	**5.0**	60 – 124	≤ 40
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.043	0.1	**0.2**	76 – 124	≤ 40
Acetone	2.057	2.5	**5.0**	64 – 125	≤ 40
1,1-Dichloroethene	0.054	0.1	**0.2**	74 – 120	≤ 40
Bromoethane	0.041	0.1	**0.2**	77 – 122	≤ 40
Iodomethane (Methyl Iodide)	0.227	0.5	**1.0**	76 – 123	≤ 40
Methylene Chloride	0.485	0.5	**1.0**	71 – 125	≤ 40
Acrylonitrile	0.604	1.0	**1.0**	76 – 123	≤ 40
Carbon Disulfide	0.037	0.1	**0.2**	77 – 124	≤ 40
trans-1,2-Dichloroethene	0.048	0.1	**0.2**	75 – 120	≤ 40
Vinyl Acetate	0.069	0.1	**0.2**	74 – **120**	≤ 40
1,1-Dichloroethane	0.053	0.1	**0.2**	80 – 120	≤ 40
2-Butanone	0.814	2.5	**5.0**	73 – 123	≤ 40
2,2-Dichloropropane	0.052	0.1	**0.2**	72 – 133	≤ 40
cis-1,2-Dichloroethene	0.043	0.1	**0.2**	78 – 120	≤ 40
Chloroform	0.027	0.1	**0.2**	**80 – 120**	≤ 40
Bromochloromethane	0.061	0.1	**0.2**	**80 – 120**	≤ 40
1,1,1-Trichloroethane	0.041	0.1	**0.2**	79 – 124	≤ 40
1,1-Dichloropropene	0.034	0.1	**0.2**	**80 – 120**	≤ 40
Carbon Tetrachloride	0.044	0.1	**0.2**	71 – 139	≤ 40
1,2-Dichloroethane	0.072	0.1	**0.2**	**80** – 121	≤ 40
Benzene	0.027	0.1	**0.2**	**80 – 120**	≤ 40
Trichloroethene	0.049	0.1	**0.2**	**80 – 120**	≤ 40
1,2-Dichloropropane	0.035	0.1	**0.2**	**80 – 120**	≤ 40
Bromodichloromethane	0.051	0.1	**0.2**	**80** – 122	≤ 40
Dibromomethane	0.145	0.2	**0.2**	**80 – 120**	≤ 40
2-Chloroethylvinyl Ether	0.250	0.5	**1.0**	62 – 130	≤ 40
4-Methyl-2-Pentanone	0.974	2.5	**5.0**	**80** – 125	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary for VOA Analysis of Water 10 mL Purge Volume (EPA Method 8260C)

Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS Recovery[2,4]	Replicate RPD[3]
cis 1,3-dichloropropene	0.061	0.1	**0.2**	**80** – 127	≤ 40
Toluene	0.040	0.1	**0.2**	**80 – 120**	≤ 40
trans 1,3-Dichloropropene	0.081	0.1	**0.2**	79 – 132	≤ 40
2-Hexanone	0.902	2.5	**5.0**	80 – 129	≤ 40
1,1,2-Trichloroethane	0.129	0.2	**0.2**	**80 – 120**	≤ 40
1,3-Dichloropropane	0.062	0.1	**0.2**	**80 – 120**	≤ 40
Tetrachloroethene	0.047	0.1	**0.2**	**80 – 120**	≤ 40
Dibromochloromethane	0.048	0.1	**0.2**	**80** – 120	≤ 40
1,2-Dibromoethane (Ethylene Dibromide)	0.075	0.1	**0.2**	**80 – 120**	≤ 40
Chlorobenzene	0.023	0.1	**0.2**	**80 – 120**	≤ 40
Ethyl Benzene	0.037	0.1	**0.2**	**80 – 120**	≤ 40
1,1,1,2-Tetrachloroethane	0.040	0.1	**0.2**	**80** – 128	≤ 40
m,p-xylene	0.052	0.2	**0.4**	**80 – 120**	≤ 40
o-Xylene	0.035	0.1	**0.2**	**80** – 120	≤ 40
Styrene	0.045	0.1	**0.2**	**80** – 121	≤ 40
Bromoform	0.062	0.1	**0.2**	62 – 149	≤ 40
1,1,2,2-Tetrachloroethane	0.060	0.1	**0.2**	**80 – 120**	≤ 40
1,2,3-Trichloropropane	0.131	0.25	**0.5**	**80 – 120**	≤ 40
trans-1,4-Dichloro 2-Butene	0.324	0.5	**1.0**	47 – 147	≤ 40
n-Propyl Benzene	0.023	0.1	**0.2**	**80 – 120**	≤ 40
Bromobenzene	0.060	0.1	**0.2**	**80 – 120**	≤ 40
iso-propyl Benzene	0.021	0.1	**0.2**	**80 – 120**	≤ 40
2-Chloro Toluene	0.024	0.1	**0.2**	**80 – 120**	≤ 40
4-Chloro Toluene	0.016	0.1	**0.2**	**80 – 120**	≤ 40
tert-Butyl Benzene	0.026	0.1	**0.2**	**80** – 121	≤ 40
1,3,5-Trimethyl Benzene	0.015	0.1	**0.2**	**80 – 120**	≤ 40
1,2,4-Trimethylbenzene	0.024	0.1	**0.2**	**80** – 122	≤ 40
sec-Butyl Benzene	0.024	0.1	**0.2**	**80** – 121	≤ 40
4-Isopropyl Toluene	0.026	0.1	**0.2**	**80** – 124	≤ 40
1,3-Dichlorobenzene	0.036	0.1	**0.2**	**80 – 120**	≤ 40
1,4-Dichlorobenzene	0.040	0.1	**0.2**	**80 – 120**	≤ 40
n-Butyl Benzene	0.025	0.1	**0.2**	**80** – 125	≤ 40
1,2-Dichlorobenzene	0.036	0.1	**0.2**	**80 – 120**	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary for VOA Analysis of Water 10 mL Purge Volume (EPA Method 8260C)

Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS Recovery[2,4]	Replicate RPD[3]
1,2-Dibromo 3-Chloropropane	0.366	0.5	**0.5**	79 – 129	≤ 40
1,2,4-Trichlorobenzene	0.107	0.25	**0.5**	77 – 127	≤ 40
Hexachloro-1,3-Butadiene	0.073	0.25	**0.5**	80 – 135	≤ 40
Naphthalene	0.118	0.25	**0.5**	**80** – 128	≤ 40
1,2,3-Trichlorobenzene	0.110	0.25	**0.5**	**80** - 125	≤ 40
Dichlorodifluoromethane	0.052	0.1	**0.2**	68 – 133	≤ 40
Methyl-*tert*-butyl ether	0.073	0.25	**0.5**	79 – 121	≤ 40
Surrogate Standards			**MB / LCS**	**Samples**	**RPD**
1,2-Dichloroethane-d_4			**80 – 120**	**80** – 130	≤ 40
1,2-Dichlorobenzene-d_4			**80 – 120**	**80 – 120**	≤ 40
Toluene-d_8			**80 – 120**	**80 – 120**	≤ 40
4-Bromofluorobenzene			**80 – 120**	**80 – 120**	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Control limits calculated using all data from 1/1/12 through 5/31/12.
(3) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(4) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that:
a. ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit or
b. Control limits for analyzes with no separate preparation procedure are adjusted to reflect the minimum uncertainty in the calibration of the instrument allowed by the referenced analytical method.

DL[1] LOD[1], LOQ[1] and Control Limits Summary
VOA Analysis of Soil (EPA Method 8260C)

Analyte	DL[1,5] µg/kg	LOD[1] µg/kg	LOQ[1] µg/kg	LCS Recovery[2,4]	Replicate RPD[3]
Dichlorodifluoromethane	0.207	0.5	**1.0**	67 – 142	≤ 40
Chloromethane	0.263	0.5	**1.0**	65 – 129	≤ 40
Vinyl Chloride	0.235	0.5	**1.0**	74 – 134	≤ 40
Bromomethane	0.187	0.5	**1.0**	40 – 172	≤ 40
Chloroethane	0.462	0.5	**1.0**	53 – 154	≤ 40
Trichlorofluoromethane	0.266	0.5	**1.0**	57 – 161	≤ 40
Acrolein*	3.809	25	**50.0**	60 – 130	≤ 40
Acetone*	0.482	2.5	**5.0**	48 – 132	≤ 40
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.287	1.0	**2.0**	72 – 142	≤ 40
1,1-Dichloroethene	0.336	0.5	**1.0**	73 – 138	≤ 40
Bromoethane	0.440	1.0	**2.0**	74 – 132	≤ 40
Iodomethane (Methyl Iodide)	0.215	0.5	**1.0**	34 – 181	≤ 40
Methylene Chloride	0.635	1.0	**2.0**	61 – 128	≤ 40
Carbon Disulfide	0.559	1.0	**1.0**	72 – 146	≤ 40
Acrylonitrile	1.026	2.5	**5.0**	59 – 124	≤ 40
Methyl-t-butyl ether (MTBE)	0.231	0.5	**1.0**	68 – 124	≤ 40
trans-1,2-Dichloroethene	0.266	0.5	**1.0**	73 – 131	≤ 40
Vinyl Acetate	0.381	2.5	**5.0**	54 – 138	≤ 40
1,1-Dichloroethane	0.203	0.5	**1.0**	65 – 139	≤ 40
2-Butanone*	0.513	2.5	**5.0**	64 – 120	≤ 40
2,2-Dichloropropane	0.292	0.5	**1.0**	77 – 137	≤ 40
cis-1,2-Dichloroethene	0.240	0.5	**1.0**	75 – 124	≤ 40
Chloroform	0.234	0.5	**1.0**	75 – 126	≤ 40
Bromochloromethane	0.323	0.5	**1.0**	69 – 133	≤ 40
1,1,1-Trichloroethane	0.226	0.5	**1.0**	78 – 133	≤ 40
1,1-Dichloropropene	0.312	0.5	**1.0**	80 – 123	≤ 40
Carbon Tetrachloride	0.213	0.5	**1.0**	76 – 136	≤ 40
1,2-Dichloroethane	0.191	0.5	**1.0**	77 – **120**	≤ 40
Benzene	0.296	0.5	**1.0**	80 – **120**	≤ 40
Trichloroethene	0.212	0.5	**1.0**	80 – 120	≤ 40
1,2-Dichloropropane	0.162	0.5	**1.0**	74 – **120**	≤ 40
Bromodichloromethane	0.254	0.5	**1.0**	80 – 122	≤ 40
Dibromomethane	0.147	0.5	**1.0**	80 – **120**	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary
VOA Analysis of Soil (EPA Method 8260C)

Analyte	DL[1,5] µg/kg	LOD[1] µg/kg	LOQ[1] µg/kg	LCS Recovery[2,4]	Replicate RPD[3]
2-Chloroethyl Vinyl Ether	0.276	2.5	**5.0**	20 – 157	≤ 40
4-Methyl-2-Pentanone*	0.420	2.5	**5.0**	70 – 124	≤ 40
cis-1,3-Dichloropropene	0.226	0.5	**1.0**	80 – 124	≤ 40
Toluene	0.151	0.5	**1.0**	78 – **120**	≤ 40
trans-1,3-Dichloropropene	0.216	0.5	**1.0**	80 – 126	≤ 40
1,1,2-Trichloroethane	0.286	0.5	**1.0**	77 – **120**	≤ 40
1,2-Dibromoethane (Ethylene Dibromide)	0.176	0.5	**1.0**	79 – **120**	≤ 40
2-Hexanone*	0.439	2.5	**5.0**	62 – 128	≤ 40
1,3-Dichloropropane	0.209	0.5	**1.0**	77 – **120**	≤ 40
Tetrachloroethene	0.257	0.5	**1.0**	76 – 131	≤ 40
Dibromochloromethane	0.266	0.5	**1.0**	77 – 123	≤ 40
Chlorobenzene	0.219	0.5	**1.0**	80 – **120**	≤ 40
1,1,1,2-Tetrachloroethane	0.233	0.5	**1.0**	80 – **120**	≤ 40
Ethyl Benzene	0.202	0.5	**1.0**	**80** – **120**	≤ 40
m,p-Xylene	0.392	0.5	**1.0**	**80** – 123	≤ 40
o-Xylene	0.224	0.5	**1.0**	**80** – **120**	≤ 40
Styrene	0.138	0.5	**1.0**	**80** – 122	≤ 40
Bromoform	0.297	0.5	**1.0**	63 – **120**	≤ 40
Isopropyl Benzene	0.233	0.5	**1.0**	77 – 127	≤ 40
1,1,2,2-Tetrachloroethane	0.253	0.5	**1.0**	71 – **120**	≤ 40
1,2,3-Trichloropropane	0.517	1.0	**2.0**	75 – **120**	≤ 40
trans-1,4-Dichloro-2-Butene	0.437	2.5	**5.0**	62 – 127	≤ 40
n-Propyl Benzene	0.272	0.5	**1.0**	76 – 126	≤ 40
Bromobenzene	0.153	0.5	**1.0**	75 – **120**	≤ 40
1,3,5-Trimethylbenzene	0.254	0.5	**1.0**	77 – 126	≤ 40
2-Chlorotoluene	0.300	0.5	**1.0**	76 – 120	≤ 40
4-Chlorotoluene	0.277	0.5	**1.0**	75 – 121	≤ 40
t-Butylbenzene	0.306	0.5	**1.0**	77 – 125	≤ 40
1,2,4-Trimethylbenzene	0.230	0.5	**1.0**	77 – 125	≤ 40
s-Butylbenzene	0.240	0.5	**1.0**	77 – 127	≤ 40
4-Isopropyl Toluene	0.236	0.5	**1.0**	78 – 131	≤ 40
1,3-Dichlorobenzene	0.227	0.5	**1.0**	76 – 120	≤ 40
1,4-Dichlorobenzene	0.232	0.5	**1.0**	75 – **120**	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary VOA Analysis of Soil (EPA Method 8260C)					
Analyte	**DL[1,5] µg/kg**	**LOD[1] µg/kg**	**LOQ[1] µg/kg**	**LCS Recovery[2,4]**	**Replicate RPD[3]**
n-Butylbenzene	0.262	0.5	**1.0**	75 – 134	≤ 40
1,2-Dichlorobenzene	0.293	0.5	**1.0**	77 – **120**	≤ 40
1,2-Dibromo-3-Chloropropane	0.586	2.5	**5.0**	61 – 128	≤ 40
1,2,4-Trichlorobenzene	0.332	2.5	**5.0**	75 – 130	≤ 40
Hexachloro-1,3-Butadiene	0.410	2.5	**5.0**	72 – 135	≤ 40
Naphthalene	0.429	2.5	**5.0**	71 – 122	≤ 40
1,2,3-Trichlorobenzene	0.305	2.5	**5.0**	76 – 122	≤ 40
Surrogate Standards			**MB / LCS**	**Samples**	**RPD**
1,2-Dichloroethane-d_4			**80** – 122	**80** – 149	≤ 40
1,2-Dichlorobenzene-d_4			**80 – 120**	**80 – 120**	≤ 40
Toluene-d_8			**80 – 120**	77 – **120**	≤ 40
4-Bromofluorobenzene			**80 – 120**	**80 – 120**	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Control limits calculated using all data from 1/1/12 through 5/31/12.
(3) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(4) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that:
a. ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit or
b. Control limits for analyzes with no separate preparation procedure are adjusted to reflect the minimum uncertainty in the calibration of the instrument allowed by the referenced analytical method.
(5) MDL study QD19 – 3/8/10

LOD, LOQ and Control Limits Summary
GC - MS – SVOA Analysis of Aqueous Samples
EPA Method 8270D
ARI Analysis: BANWLI & BANWSI

Continuous Liquid-Liquid (EPA Method 3520C, Bench Sheet 3006F) or Separatory Funnel (EPA method 3510C, Bench Sheet 3010F) extraction using 500mL sample concentrated to 0.5 mL final extract volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS, MS Recovery[2,3]	Replicate RPD[4]
Phenol	**0.445**	**0.5**	**1**	26 – 112	≤ 40
Bis(2-Chloroethyl)ether	**0.257**	**0.5**	**1**	51 – **100**	≤ 40
2-Chlorophenol	**0.246**	**0.5**	**1**	50 – **100**	≤ 40
1,3-Dichlorobenzene	**0.499**	**0.5**	**1**	27 – **100**	≤ 40
1,4-Dichlorobenzene	**0.470**	**0.5**	**1**	29 – **100**	≤ 40
1,2-Dichlorobenzene	**0.436**	**0.5**	**1**	32 – **100**	≤ 40
Benzyl alcohol	**0.409**	**1.0**	**2**	**10** - 128	≤ 40
2,2'-oxybis(1-Chloropropane)	**0.221**	**0.5**	**1**	39 - 101	≤ 40
2-Methylphenol	**0.329**	**0.5**	**1**	47 – **100**	≤ 40
Hexachloroethane	**0.610**	**1.0**	**2**	19 – **100**	≤ 40
N-Nitroso-di-n-propylamine	**0.365**	**0.5**	**1**	46 – **100**	≤ 40
4-Methylphenol	**0.536**	**1.0**	**2**	46 – **100**	≤ 40
Nitrobenzene	**0.490**	**0.5**	**1**	46 – 103	≤ 40
Isophorone	**0.258**	**0.5**	**1**	62 – 105	≤ 40
2-Nitrophenol	**0.979**	**1.5**	**3**	32 – 116	≤ 40
2,4-Dimethylphenol	**0.627**	**1.5**	**3**	15 – **100**	≤ 40
Bis(2-Chloroethoxy)methane	**0.252**	**0.5**	**1**	44 – **100**	≤ 40
2,4-Dichlorophenol	**1.109**	**1.5**	**3**	35 – 114	≤ 40
1,2,4-Trichlorobenzene	**0.495**	**0.5**	**1**	34 – **100**	≤ 40
Naphthalene	**0.326**	**0.5**	**1**	48 – **100**	≤ 40
Benzoic acid	**8.647**	**10**	**20**	**10** - 172	≤ 40
4-Chloroaniline	**1.733**	**2.5**	**5**	**10** - 153	≤ 40
2,6-Dinitrotoluene	**1.300**	**1.5**	**3**	32 – 129	≤ 40
Hexachlorobutadiene	**0.604**	**1.5**	**3**	22 – **100**	≤ 40
4-Chloro-3-methylphenol	**0.919**	**1.5**	**3**	33 – 123	≤ 40
Hexachlorocyclopentadiene	**1.862**	**2.5**	**5**	**10** – **100**	≤ 40
2,4,6-Trichlorophenol	**1.235**	**1.5**	**3**	37 – 120	≤ 40
2,4,5-Trichlorophenol	**1.706**	**2.5**	**5**	37 – 124	≤ 40
2-Chloronaphthalene	**0.340**	**0.5**	**1**	49 – **100**	≤ 40
2-Nitroaniline	**0.784**	**1.5**	**3**	18 – 140	≤ 40
Acenaphthylene	**0.274**	**0.5**	**1**	47 – 110	≤ 40
Dimethylphthalate	**0.264**	**0.5**	**1**	60 – 106	≤ 40
Acenaphthene	**0.347**	**0.5**	**1**	55 – 101	≤ 40

LOD, LOQ and Control Limits Summary
GC - MS – SVOA Analysis of Aqueous Samples
EPA Method 8270D
ARI Analysis: BANWLI & BANWSI

Continuous Liquid-Liquid (EPA Method 3520C, Bench Sheet 3006F) or Separatory Funnel (EPA method 3510C, Bench Sheet 3010F) extraction using 500mL sample concentrated to 0.5 mL final extract volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS, MS Recovery[2,3]	Replicate RPD[4]
3-Nitroaniline	1.140	1.5	3	10 – 208	≤ 40
2-Methylnaphthalene	0.241	0.5	1	38 – 100	≤ 40
2,4-Dinitrophenol	5.474	10	20	10 – 224	≤ 40
Dibenzofuran	0.198	0.5	1	46 – 108	≤ 40
4-Nitrophenol	2.895	5.0	10	10 – 103	≤ 40
2,4-Dinitrotoluene	1.277	1.5	3	33 – 134	≤ 40
Fluorene	0.266	0.5	1	59 – 108	≤ 40
4-Chlorophenyl-phenylether	0.342	0.5	1	54 – 104	≤ 40
Diethylphthalate	0.407	0.5	1	60 - 108	≤ 40
4-Nitroaniline	1.366	1.5	3	13 – 144	≤ 40
4,6-Dinitro-2-methylphenol	4.928	5.0	10	10 – 190	≤ 40
N-Nitrosodiphenylamine	0.392	0.5	1	39 – 100	≤ 40
4-Bromophenyl-phenylether	0.262	0.5	1	56 – 105	≤ 40
Hexachlorobenzene	0.335	0.5	1	54 – 108	≤ 40
Pentachlorophenol	2.746	5.0	10	25 – 144	≤ 40
Phenanthrene	0.283	0.5	1	64 – 115	≤ 40
Anthracene	0.303	0.5	1	59 – 107	≤ 40
Carbazole	0.251	0.5	1	36 – 123	≤ 40
Di-n-butylphthalate	0.304	0.5	1	62 – 110	≤ 40
Fluoranthene	0.290	0.5	1	63 – 119	≤ 40
Pyrene	0.379	0.5	1	57 – 117	≤ 40
Butylbenzylphthalate	0.402	0.5	1	49 – 118	≤ 40
Benzo(a)anthracene	0.373	0.5	1	61 – 113	≤ 40
3,3'-Dichlorobenzidine	1.553	2.5	5	10 – 151	≤ 40
Chrysene	0.397	0.5	1	62 – 115	≤ 40
bis(2-Ethylhexyl)phthalate	1.050	1.5	3	47 – 127	≤ 40
Di-n-octylphthalate	0.331	0.5	1	60 – 106	≤ 40
Benzo(b)fluoranthene	0.298	0.5	1	61 – 120	≤ 40
Benzo(k)fluoranthene	0.487	0.5	1	59 – 120	≤ 40
Benzo(a)pyrene	0.425	0.5	1	46 – 105	≤ 40
Indeno(1,2,3-cd)pyrene	0.435	0.5	1	42 – 134	≤ 40
Dibenzo(a,h)anthracene	0.437	0.5	1	46 – 132	≤ 40
Benzo(g,h,i)perylene	0.464	0.5	1	33 – 135	≤ 40
N-Nitrosodimethylamine	1.209	1.5	3	17 - 106	≤ 40

LOD, LOQ and Control Limits Summary
GC - MS – SVOA Analysis of Aqueous Samples
EPA Method 8270D
ARI Analysis: BANWLI & BANWSI

Continuous Liquid-Liquid (EPA Method 3520C, Bench Sheet 3006F) or Separatory Funnel (EPA method 3510C, Bench Sheet 3010F) extraction using 500mL sample concentrated to 0.5 mL final extract volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS, MS Recovery[2,3]	Replicate RPD[4]
Aniline	**0.470**	**0.5**	**1**	**10** – 113	≤ 40
1-methylnaphthalene	**0.199**	**0.5**	**1**	43 – **100**	≤ 40
Azobenzene (1,2-DP-Hydrazine)	**0.214**	**0.5**	**1**	52 – 111	≤ 40
Benzofluoranthenes, Total	**2.317**	**2.5**	**5**	60 – 130[5]	≤ 40
Surrogate Standard Recovery			**MB / LCS**	**Samples**	**RPD**
2-Fluorophenol			33 – 100	23 – **100**	≤ 40
Phenol-d_5			15 - 121	16 – 106	≤ 40
2-Chlorophenol-d_4			46 – 102	33 – 100	≤ 40
1,2-Dichlorobenzene-d_4			40 – **100**	27 – **100**	≤ 40
Nitrobenzene-d_5			50 – **100**	34 – 101	≤ 40
2-Fluorobiphenyl			51 – **100**	38 – **100**	≤ 40
2,4,6-Tribromophenol			46 – 125	31 – 128	≤ 40
p-Terphenyl-d_{14}			54 – 117	27 – 122	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Control limits calculated using all data from 8/1/10 through 7/31/11.
(3) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(5) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits.

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis			SIM Analysis			LCS, MS Control Limits (%)		RPD[2]
	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	Full Scan	SIM	
Phenol	8.65	10	**20**	2.56	5	**5**	34 – 105	30 – 160	≤ 40
bis-(2-Chloroethyl)ether	3.35	10	**20**	--	--	--	36 – **100**	--	≤ 40
2-Chlorophenol	2.39	10	**20**	--	--	--	39 – **100**	--	≤ 40
1,3-Dichlorobenzene	2.63	10	**20**	1.31	2.5	**5**	40 – **100**	30 – **100**	≤ 40
1,4-Dichlorobenzene	2.86	10	**20**	1.19	2.5	**5**	39 – **100**	36 – **100**	≤ 40
1,2-Dichlorobenzene	2.50	10	**20**	1.10	2.5	**5**	40 – **100**	36 – **100**	≤ 40
Benzyl alcohol	6.09	10	**20**	7.04	10	**20**[3]	19 – 117	25 – 123	≤ 40
2,2'-oxy-*bis*-(1-Chloropropane)	3.76	10	**20**	--	--	--	32 – **100**	--	≤ 40
2-Methylphenol	5.25	10	**20**	1.81	2.5	**5**	28 – **100**	26 – **100**	≤ 40
Hexachloroethane	2.94	10	**20**	--	--	--	38 – **100**	--	≤ 40
N-Nitroso-di-n-propylamine	3.36	10	**20**	9.48	10	**12**[3]	34 – **100**	30 – 160	≤ 40
4-Methylphenol[6]	6.63	10	**20**	2.52	5	**10**	29 – 100	30 – 160	≤ 40
Nitrobenzene	4.06	10	**20**	--	--	--	36 – **100**	--	≤ 40
Isophorone	2.86	10	**20**	--	--	--	37 – 101	--	≤ 40
2-Nitrophenol	38.7	50	**100**	--	--	--	30 – 112	--	≤ 40
2,4-Dimethylphenol	3.46	20	**40**	2.89	10	**20**	**10** – 100	10 – 103	≤ 40
bis-(2-Chloroethoxy)methane	2.00	10	**20**	--	--	--	39 – **100**	--	≤ 40
2,4-Dichlorophenol	21.5	100	**200**	--	--	--	28 – 112	--	≤ 40
1,2,4-Trichlorobenzene	3.48	10	**20**	1.86	2.5	**5**	35 – 103	35 – **100**	≤ 40
Naphthalene	2.76	10	**20**	--	--	--	43 – 100	--	≤ 40
Benzoic acid	101	200	**400**[5]	--	--	--	**10** – 107	--	≤ 40
4-Chloroaniline	22.3	135	**270**[4]	--	--	--	11 – **100**	--	≤ 40
Hexachlorobutadiene	4.57	10	**20**	0.96	2.5	**5**	37 – **100**	34 – **100**	≤ 40
4-Chloro-3-methylphenol	15.1	50	**100**	--	--	--	32 – 117	--	≤ 40
2-Methylnaphthalene	3.06	10	**20**	--	--	--	43 – **100**	--	≤ 40
Hexachlorocyclopentadiene	66.4	200	**400**[4]	--	--	--	**10** – 103	--	≤ 40
2,4,6-Trichlorophenol	22.4	50	**100**	--	--	--	30 – 113	--	≤ 40
2,4,5-Trichlorophenol	21.4	50	**100**	--	--	--	28 – 118	--	≤ 40
2-Chloronaphthalene	2.64	10	**20**	--	--	--	40 – **100**	--	≤ 40
2-Nitroaniline	18.4	50	**100**	--	--	--	31 – 126	--	≤ 40
Acenaphthylene	5.71	10	**20**	--	--	--	42 – 102	--	≤ 40
Dimethylphthalate	2.90	10	**20**	1.34	2.5	**5**	43 – 114	38 – 112	≤ 40
2,6-Dinitrotoluene	30.6	50	**100**	--	--	--	33 – 123	--	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis			SIM Analysis			LCS, MS Control Limits (%)		RPD[2]
	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	Full Scan	SIM	
Acenaphthene	3.28	10	**20**	--	--	--	45 – **100**	--	≤ 40
3-Nitroaniline	22.5	50	**100**	--	--	--	22 – 113	--	≤ 40
2,4-Dinitrophenol	111	425	**850[4]**	--	--	--	**10** – 105	--	≤ 40
Dibenzofuran	4.10	10	**20**	--	--	--	43 – 103	--	≤ 40
4-Nitrophenol	34.7	50	**100**	--	--	--	15 – 138	--	≤ 40
2,4-Dinitrotoluene	19.5	50	**100**	--	--	--	35 – 127	--	≤ 40
Fluorene	4.35	10	**20**	--	--	--	45 – 107	--	≤ 40
4-Chlorophenyl-phenylether	5.29	10	**20**	--	--	--	32 – 116	--	≤ 40
Diethylphthalate	36.6	50	**50[3]**	3.26	5.0	**5.0**	50 – 120	55 – 104	≤ 40
4-Nitroaniline	37.9	50	**100**	--	--	--	24 – 125	--	≤ 40
4,6-Dinitro-2-methylphenol	21.2	100	**200**	--	--	--	24 – 119	--	≤ 40
N-Nitrosodiphenylamine	5.39	10	**20**	1.38	10	**20**	36 – 111	27 – 115	≤ 40
4-Bromophenyl-phenylether	5.03	10	**20**	--	--	--	39 – 114	--	≤ 40
Hexachlorobenzene	4.29	10	**20**	1.26	2.5	**5**	33 – 113	32 – 106	≤ 40
Pentachlorophenol	48.5	100	**200[4]**	14.3	25	**50**	16 – 120	26 – 106	≤ 40
Phenanthrene	3.64	10	**20**	--	--	--	49 – 112	--	≤ 40
Anthracene	4.50	10	**20**	--	--	--	45 – 106	--	≤ 40
Carbazole	2.69	10	**20**	--	--	--	43 – 135	--	≤ 40
Di-n-butylphthalate	8.16	10	**20**	--	--	--	48 – 126	--	≤ 40
Fluoranthene	2.91	10	**20**	--	--	--	53 – 118	--	≤ 40
Pyrene	1.94	10	**20**	--	--	--	48 – 121	--	≤ 40
Butylbenzylphthalate	6.14	10	**20**	2.89	5.0	**5**	45 – 132	32 – 142	≤ 40
Benzo(a)anthracene	3.29	10	**20**	--	--	--	49 – 115	--	≤ 40
3,3'-Dichlorobenzidine	17.8	75	**150[4]**	--	--	--	**10** – **100**	--	≤ 40
Chrysene	3.75	10	**20**	--	--	--	47 – 115	--	≤ 40
bis-(2-Ethylhexyl)phthalate	14.6	20	**25[3]**	--	--	--	34 – 130	--	≤ 40
Di-n-octylphthalate	5.84	10	**20**	--	--	--	28 – 124	--	≤ 40
Benzo(b)fluoranthene[7]	3.47	10	**20**	--	--	--	42 – 132	--	≤ 40
Benzo(k)fluoranthene[7]	4.18	10	**20**	--	--	--	39 – 129	--	≤ 40
Benzofluoranthene-Total[8]	6.67	20	**40**	--	--	--	30 – 160	--	≤ 40
Benzo(a)pyrene	5.45	10	**20**	--	--	--	42 – 113	--	≤ 40
Indeno(1,2,3-cd)pyrene	4.68	10	**20**	--	--	--	42 – 123	--	≤ 40
Dibenzo(a,h)anthracene	4.31	10	**20**	2.02	2.5	**5**	30 – 133	28 – 125	≤ 40
Benzo(g,h,i)perylene	4.40	10	**20**	--	--	--	38 – 126	--	≤ 40
N-Nitrosodimethylamine	14.1	50	**100**	3.15	13	**25**	17 – **100**	30 – 160	≤ 40
Aniline	40.0	270	**540[4]**	--	--	--	**10** – 134	--	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis			SIM Analysis			LCS, MS Control Limits (%)		RPD[2]
	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	Full Scan	SIM	
Pyridine	32.7	75	**150**[4]	--	--	--	**10** – 147	--	≤ 40
1-Methylnaphthalene	2.68	10	**20**	--	--	--	42 – **100**	--	≤ 40
Azobenzene (1,2-DP-Hydrazine)	2.98	10	**20**	--	--	--	35 – 112	--	≤ 40
Retene [9]	4.01	10	**20**	--	--	--	30 – 160	--	≤ 40
Surrogate Standards							**MB / LCS**	**Samples**	**RPD**
2-Fluorophenol							32 – **100**	27 – **100**	≤ 40
Phenol-d_5							32 – 101	29 – **100**	≤ 40
2-Chlorophenol-d_4							36 – 101	31 – **100**	≤ 40
1,2-Dichlorobenzene-d_4							37 – **100**	32 – **100**	≤ 40
Nitrobenzene-d_5							33 –102	30 – **100**	≤ 40
2-Fluorobiphenyl							35 –101	35 – **100**	≤ 40
2,4,6-Tribromophenol							23 – 133	24 – 134	≤ 40
p-Terphenyl-d_{14}							42 – 124	37 – 111	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD), Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(3) Spiked at 5 ppb
(4) Spiked at 100 ppb
(5) Spiked at 200 ppb
(6) 3-Methylphenol (not calibrated) co-elutes with 4-Methylphennol (calibrated)
(7) Benzo(b)fluoranthene and Benzo(k)fluoranthene are reported as separate analytes only when the height of the valley between the isomer peaks is less than than 50% of the average of the two peak heights, otherwise total Benzofluoranthenes are reported.
(8) Benzo(b)fluoranthene + Benzo(j)fluoranthene + Benzo(k)fluoranthene (only the b & k isomers are calibrated)
(9) LOD study WC15 (2/5/13)

LOD[1], LOQ[2] and Control Limits Summary
Analysis of Water Samples for Low Concentration PNA
EPA Method 8270 – SIM
ARI Analysis: PNLWSL

Separatory Funnel Extraction (EPA Method 3510C) using 500 mL sample with extract concentrated to 0.5 mL final volume. Silica gel cleanup performed on extract prior to analysis. ARI bench Sheet 3071F

DL, LOD & LOQ units are nanograms per liter (ng/L) = parts-per-trillion (ppt). LOD Spike level = LOQ

Analyte	DL[1] ng/L	LOD[1] ng/L	LOQ[1] ng/L	LCS Control Limit[2]	Replicate RPD[3]
Naphthalene	0.85	5	10	37 – 90	≤ 40
2-Methylnaphthalene	0.72	5	10	39 – 90	≤ 40
Acenaphthylene	0.81	5	10	35 – 95	≤ 40
Acenaphthene	0.83	5	10	38 – 94	≤ 40
Dibenzofuran	0.94	5	10	36 – 94	≤ 40
Fluorene	1.41	5	10	41 – 102	≤ 40
Phenanthrene	1.01	5	10	41 – 101	≤ 40
Anthracene	0.58	5	10	28 – 101	≤ 40
Fluoranthene	0.92	5	10	49 – 114	≤ 40
Pyrene	0.70	5	10	42 - 114	≤ 40
Benzo(a)anthracene	1.27	5	10	42 – 111	≤ 40
Chrysene	1.57	5	10	46 – 106	≤ 40
Benzo(b)fluoranthene	2.54	5	10	39 – 119	≤ 40
Benzo(k)fluoranthene	0.85	5	10	50 – 117	≤ 40
Benzo(j)fluoranthene	1.65	5	10	30 – 160[4]	≤ 40
Benzo(a)pyrene	1.14	5	10	20 – 99	≤ 40
Indeno(1,2,3-cd)pyrene	1.82	5	10	32 – 113	≤ 40
Dibenz(a,h)anthracene	0.97	5	10	30 – 113	≤ 40
Benzo(g,h,i)perylene	1.87	5	10	27 – 113	≤ 40
1-Methylnaphthalene	0.88	5	10	38 – 95	≤ 40
Perylene	3.21	5	10	30 – 160[4]	≤ 40
Surrogate Standard Recovery			**MB / LCS**	**Samples**	**RPD**
2-Methylnapthalene-d_{10}			40 – 93	35 – 94	≤ 40
Dibenzo(a,h)anthracene-d_{14}			31 – 115	26 – 115	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ)are defined in ARI SOP 1018S

(2) Control limits calculated using data from all samples prepared between 4/1/11 through 3/31/12.

(3) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(4) Default limits pending generation of historic limits for Benzo(j)fluoranthene.

DL[1], LOD[1], LOQ[1] and Control Limits Summary
Analysis of Soil Samples for Dioxins & Furans
EPA Method 1613B

Soxhlet (EPA Method 3540C) Extraction using 10 g sample with extract concentrated to 0.02 mL final volume. ARI Bench Sheet 3083F

LOD Spike level = LOQ = 0.1 ppt (ng/kg) = 1 pg/g

Analyte	DL[1] pg/g	LOD[1] pg/g	LOQ[1] pg/g	OPR Control Limit[2,3]	Sample Replicate RPD[3,4]
2,3,7,8-TCDF	0.230	**0.5**	**1**	75 – 158	≤ 25
2,3,7,8-TCDD	0.274	**0.5**	**1**	67 – 158	≤ 25
1,2,3,7,8-PeCDF	0.832	**2.5**	**5**	80 – 134	≤ 25
2,3,4,7,8-PeCDF	1.076	**2.5**	**5**	68 – 160	≤ 25
1,2,3,7,8-PeCDD	0.647	**2.5**	**5**	70 – 142	≤ 25
1,2,3,4,7,8-HxCDF	0.991	**2.5**	**5**	72 – 134	≤ 25
1,2,3,6,7,8-HxCDF	0.769	**2.5**	**5**	84 – 130	≤ 25
2,3,4,6,7,8-HxCDF	0.904	**2.5**	**5**	70 – 156	≤ 25
1,2,3,7,8,9-HxCDF	0.857	**2.5**	**5**	78 – 130	≤ 25
1,2,3,4,7,8-HxCDD	0.481	**2.5**	**5**	70 – 164	≤ 25
1,2,3,6,7,8-HxCDD	0.561	**2.5**	**5**	76 – 134	≤ 25
1,2,3,7,8,9-HxCDD	0.886	**2.5**	**5**	64 – 162	≤ 25
1,2,3,4,6,7,8-HpCDF	1.165	**2.5**	**5**	82 – 122	≤ 25
1,2,3,4,7,8,9-HpCDF	0.688	**2.5**	**5**	78 – 138	≤ 25
1,2,3,4,6,7,8-HpCDD	0.828	**2.5**	**5**	70 – 140	≤ 25
OCDF	2.176	**5.0**	**10**	63 – 170	≤ 25
OCDD	7.452	**5.0**	**10**	78 – 144	≤ 25

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) are defined in ARI SOP 1018S

(2) Ongoing precision and recovery (OPR) analyzes as specified in the referenced method.

(3) Method specified control limits.

(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

4

DL[1], LOD[1], LOQ[1] and Control Limits Summary
Analysis of Soil/Sediment Samples for Chlorinated Pesticides
EPA Method 8081B

Microwave (EPA Method 3546) Extraction using 12.5g (dry weight) sample with extract concentrated to 2.5 mL final volume. ARI Bench Sheet 3046F

LOD Spike level = LOQ Concentration

Analyte	DL[1,2] µg/kg	LOD[1] µg/kg	LOQ[1] µg/kg	LCS Control Limit[3,4]	Replicate RPD[5]
alpha-BHC	0.081	0.25	**0.5**	68 – 115	≤ 40
beta-BHC	0.139	0.25	**0.5**	60 – 126	≤ 40
gamma-BHC (Lindane)	0.048	0.25	**0.5**	68 – 134	≤ 40
delta-BHC	0.082	0.25	**0.5**	71 – 154	≤ 40
Heptachlor	0.132	0.25	**0.5**	66 – 115	≤ 40
Aldrin	0.055	0.25	**0.5**	66 – 115	≤ 40
Heptachlor Epoxide	0.085	0.25	**0.5**	65 – 127	≤ 40
trans-Chlordane (*beta*-Chlordane, *gamma*-Chlordane)	0.077	0.25	**0.5**	73 – 136	≤ 40
cis-Chlordane (*alpha*-chlordane)	0.051	0.25	**0.5**	77 – 124	≤ 40
Endosulfan I	0.072	0.25	**0.5**	28 – **100**	≤ 40
4,4'-DDE	0.124	0.5	**1.0**	71 – 149	≤ 40
Dieldrin	0.100	0.5	**1.0**	74 – 131	≤ 40
Endrin	0.215	0.5	**1.0**	72 – 135	≤ 40
Endosulfan II	0.116	0.5	**1.0**	37 – 110	≤ 40
4,4'-DDD	0.135	0.5	**1.0**	76 – 137	≤ 40
Endrin Aldehyde	0.218	0.5	**1.0**	38 – 109	≤ 40
4,4'-DDT	0.192	0.5	**1.0**	58 – 144	≤ 40
Endosulfan Sulfate	0.192	0.5	**1.0**	47 – 148	≤ 40
Endrin Ketone	0.119	0.5	**1.0**	29 – 165	≤ 40
Methoxychlor	0.698	2.5	**5.0**	65 – 123	≤ 40
Hexachlorobutadiene	0.138	0.5	**1.0**	43 – 104	≤ 40
Hexachlorobenzene	0.094	0.5	**1.0**	62 – 119	≤ 40
Surrogate Standard Recovery			**MB / LCS**	**Samples**	**RPD**
Tetrachloro-*m*-xylene (TCMX)			47 – 124	34 – 169	≤ 40
Decachlorobiphenyl			60 – 149	36 – 182	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation as defined in ARI SOP 1018S.
(2) MDL study QZ38
(3) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Control limits calculated using all data from 1/1/12 through 7/31/12.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

DL[1], LOD[1], LOQ[1] and Control Limits Summary
Analysis of Water Samples for Chlorinated Pesticides
EPA Method 8081B

Separatory Funnel (EPA Method 3510C) Extraction using 500 mL sample with extract concentrated to 5 mL final volume. ARI Bench Sheet 3038F

LOD Spike level = LOQ Concentration

Analyte	DL[1,2] µg/L	LOD[1] µg/L	LOQ[1] µg/L	LCS Control Limit[3,4]	Replicate RPD[5]
alpha-BHC	0.0085	0.025	**0.05**	51 – 120	≤ 40
beta-BHC	0.0098	0.025	**0.05**	44 – 134	≤ 40
gamma-BHC (Lindane)	0.0159	0.025	**0.05**	59 – 131	≤ 40
delta-BHC	0.0087	0.025	**0.05**	44 – 156	≤ 40
Heptachlor	0.0113	0.025	**0.05**	47 – 110	≤ 40
Aldrin	0.0103	0.025	**0.05**	47 – 106	≤ 40
Heptachlor Epoxide	0.0079	0.025	**0.05**	62 – 121	≤ 40
trans-Chlordane (*beta*-Chlordane, *gamma*-Chlordane)	0.0082	0.025	**0.05**	63 – 125	≤ 40
cis-Chlordane (*alpha*-chlordane)	0.0082	0.025	**0.05**	62 – 123	≤ 40
Endosulfan I	0.0089	0.025	**0.05**	**10** – 110	≤ 40
4,4'-DDE	0.0184	0.05	**0.10**	61 – 138	≤ 40
Dieldrin	0.0168	0.05	**0.10**	64 – 123	≤ 40
Endrin	0.0167	0.05	**0.10**	53 – 127	≤ 40
Endosulfan II	0.0139	0.05	**0.10**	23 – 102	≤ 40
4,4'-DDD	0.0186	0.05	**0.10**	53 – 133	≤ 40
Endrin Aldehyde	0.0163	0.05	**0.10**	28 – 107	≤ 40
4,4'-DDT	0.0169	0.05	**0.10**	49 – 127	≤ 40
Endosulfan Sulfate	0.0235	0.05	**0.10**	49 – 121	≤ 40
Endrin Ketone	0.0151	0.05	**0.10**	45 – 126	≤ 40
Methoxychlor	0.0744	0.25	**0.50**	48 – 118	≤ 40
Hexachlorobutadiene	0.0123	0.05	**0.10**	23 – **100**	≤ 40
Hexachlorobenzene	0.0101	0.05	**0.10**	44 – 101	≤ 40
Surrogate Standard Recovery			**MB / LCS**	**Samples**	**RPD**
Tetrachloro-*m*-xylene (TCMX)			38 – 103	30 – 105	≤ 40
Decachlorobiphenyl			37 – 125	11 – 144	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation as defined in ARI SOP 1018S.
(2) MDL study QD48
(3) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Control limits calculated using all data from 1/1/12 through 7/31/12.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

Analytical Resources, Incorporated
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Quality Control Criteria for Analysis of Solid Matrix Samples for Aroclors (Polychlorinated Biphenyls – PCB) EPA Method 8082B

Extraction Bench Sheet	Extraction	DL[1] (ppb)	LOD[1] (ppb)	LOQ[1] (ppb)	Analyte	Spike Recovery Control Limits (%)[2,3,5]			RPD[4]
						LCS	MB/LCS Surrogate	Sample Surrogate	
Soil / Sediment Samples (Microwave Extraction – EPA Method 3546)									
PCB 15-3067F	12g to 4 mL	10.69	17	33	Aroclor 1016	62 – 111	--	--	≤ 40
		14.42	17	33	Aroclor 1260	59 – 118	--	--	
PCB 08-3025F		--	--	--	TCMX	--	58 – 112	53 – 116	
		--	--	--	DCBP	--	59 – 115	35 – 133	
PCB 05-3017F	5 g to 5 mL[6]	8.00	10	20	Aroclor 1016	56 – 115	--	--	≤ 40
		9.28	10	20	Aroclor 1260	58 – 120	--	--	
PCB 06-3026F		--	--	--	TCMX	--	52 – 117	57 – 109	
		--	--	--	DCBP	--	61 – 114	54 – 115	
PCB 18-3098F	5 g to 2.5 mL[6]	4.61	5	10	Aroclor 1016	66 – 114	--	--	≤ 40
		4.97	5	10	Aroclor 1260	63 – 120	--	--	
PCB06-3026F		--	--	--	TCMX	--	57 – 114	71 – 108	
		--	--	--	DCBP	--	59 – 118	53 – 126	
PCB 19-3099F	12.5 g to 2.5 mL[6]	1.56	2	4	Aroclor 1016	64 – **100**	--	--	≤ 40
		0.589	2	4	Aroclor 1260	64 – 107	--	--	
PCB 06-3026F		--	--	--	TCMX	--	54 – **100**	45 – 102	
		--	--	--	DCBP	--	64 – 105	37 – 128	
Soil / Sediment Samples Medium Level (Vortex Extraction – EPA Method 3546)									
PCB 12-3019F	5 g to 40 mL	38.2	400	800	Aroclor 1016	30 – 160	--	--	≤ 40
		73.1	400	800	Aroclor 1260	30 – 160	--	--	
		--	--	--	TCMX	--	30 – 160	30 – 160	
		--	--	--	DCBP	--	30 – 160	30 – 160	

(1) Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) are defined in ARI SOP 1018S.
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) Control Limits calculated usng all data generated between 6/1/12 and 12/31/12

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Quality Control Criteria
Total Petroleum Hydrocarbons
(Diesel & Motor Oil)

Analysis Code	Analyte[5]	DL[1] ppm	LOD[1] ppm	LOQ[2] ppm	Spike % Recovery Control Limits[3]			RPD[4]
					LCS	MB/LCS Surrogate	Sample Surrogate	
HCIWVX	NWTPH-HCID – Water Samples	--	--	0.50 [7]	--	--	50-150	≤ 40
HCISVX	NWTPH-HCID – Solid Samples	--	--	50 [7]	--	--	50-150	
Aqueous Samples – No Extract Clean-up – Separatory Funnel Extraction – 500 to 1.0 mL								
DIESWI	DRO – NWTPH-Dext (C_{12}-C_{24})	0.022	0.05	0.1	64-112	50-150	50-150	≤ 40
AK2WSI	DRO – AK102 (C_{10}-C_{25})	0.022	0.05	0.1	75-125 [6]	60-120	50-150	
OILWSI	RRO – NWTPH-Dext (C_{24}-C_{38})	0.044	0.1	0.2	60 – 130 [8]	50-150	50-150	
AK3WSI	RRO – AK103 (C_{25}-C_{36})	0.030 [9]	0.1	0.2	60-120 [6]	60-120	50-150	
Aqueous Samples – With Acid and/or Silica Gel Clean-up – Separatory Funnel Extraction – 500 to 1.0 mL								
DIESWI	DRO – NWTPH-Dext (C_{12}-C_{24})	0.039	0.05	0.1	61-104	50-150	50-150	≤ 40
AK2WSI	DRO – AK102 (C_{10}-C_{25})	0.042	0.05	0.1	75-125 [6]	60-120	50-150	
OILWSI	RRO – NWTPH-Dext (C_{24}-C_{38})	0.010	0.1	0.2	60 – 130 [8]	50-150	50-150	
AK3WSI	RRO – AK103 (C_{25}-C_{36})	0.030 [8]	0.1	0.2	60-120 [6]	60-120	50-150	
Solid Matrix Samples – No Extract Clean-up – Microwave Extraction – 10 g to 1 mL								
DIESMI	DRO – NWTPH-Dext (C_{12}-C_{24})	1.35	2.5	5	62-119	50-150	50-150	≤ 40
DIESMI	DRO – NWTPH-Dext Jet A	2.22 [11]	2.5	5	60 – 130 [8]	50-150	50-150	
AK2SMI	DRO – AK102 (C_{10}-C_{25})	2.43	2.5	5	75-125 [6]	60-120	50-150	
OILSMI	RRO – NWTPH-Dext (C_{24}-C_{38})	2.48	5	10	60 – 130 [8]	50-150	50-150	
AK3SMI	RRO – AK103 (C_{25}-C_{36})	0.665 [9]	5	10	60-120 [6]	60-120	50-150	
Solid Matrix Samples – With Acid and/or Silica Gel Clean-up – Microwave Extraction – 10 g to 1 mL								
DIESMI	DRO – NWTPH-Dext (C_{12}-C_{24})	1.28	2.5	5	60-108	50-150	50-150	≤ 40
AK2SMI	DRO – AK102 (C_{10}-C_{25})	2.06	2.5	5	75-125 [6]	60-120	50-150	
OILSMI	RRO – NWTPH-Dext (C_{24}-C_{38})	1.57	5	10	60 – 130 [8]	50-150	50-150	
AK3SMI	RRO – AK103 (C_{25}-C_{36})	0.665 [10]	5	10	60-120 [6]	60-120	50-150	

(1) DL (Detection Limit) and LOD (Limit of Detection) as defined in ARI SOP 1018S.
(2) Limit of Quantitation as defined in ARI SOP 1018S. The spike concentration used to determine the DL and the concentration of the lowest standard used to calibrate the GC-FID instrument.
(3) All surrogate recovery limits are specified in the published methods (AK102, AK103 & NWTPH-Dext). The surrogate standard is *o*-Terphenyl.
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$
(5) DRO = Diesel Range Organics and RRO = Residual Range Organics as defined in the methods referenced in footnote 3.
(6) Method specified LCS acceptance limits.
(7) Method specified reporting limits
(8) Default LCS control limits pending calculation of historic limits
(9) MDL study QD55 completed 2/12/10
(10) MDL study QD35 completed 1/29/10
(11) LOD Study UI44 completed 2/28/12

Quality Control Parameters for Metals Analysis-ICP-OES EPA Methods 200.7 and 6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$
(6) ARI does not analyze for Silicon in solids or tissue samples

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Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A								
Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_O=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	LOD[1] mg/kg	LOQ[1] mg/kg	Matrix Spike	LCS	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	LOD[1] mg/kg	LOQ[1] mg/kg	Matrix Spike	LCS	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

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Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 125	75 - 125
Chloride	75 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
Duplicate RPDs		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

Volatile Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: SD-SP-01-20130326-TB**

SAMPLE

ANALYTICAL RESOURCES INCORPORATED

Lab Sample ID: WJ10B
LIMS ID: 13-6436
Matrix: Water
Data Release Authorized:
Reported: 04/24/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Instrument/Analyst: NT3/PAB
Date Analyzed: 04/08/13 18:39

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	0.10	1.0	< 1.0 U
74-83-9	Bromomethane	0.25	1.0	< 1.0 U
75-01-4	Vinyl Chloride	0.06	1.0	< 1.0 U
75-00-3	Chloroethane	0.09	1.0	< 1.0 U
75-09-2	Methylene Chloride	0.48	2.0	< 2.0 U
67-64-1	Acetone	2.1	10	< 10 U
75-15-0	Carbon Disulfide	0.04	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	0.05	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	0.05	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	0.05	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	0.04	1.0	< 1.0 U
67-66-3	Chloroform	0.03	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	0.07	1.0	< 1.0 U
78-93-3	2-Butanone	0.81	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	0.04	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	0.04	1.0	< 1.0 U
108-05-4	Vinyl Acetate	0.07	5.0	< 5.0 U
75-27-4	Bromodichloromethane	0.05	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	0.04	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	0.06	1.0	< 1.0 U
79-01-6	Trichloroethene	0.05	1.0	< 1.0 U
124-48-1	Dibromochloromethane	0.05	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	0.13	1.0	< 1.0 U
71-43-2	Benzene	0.03	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	0.08	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	0.25	5.0	< 5.0 U
75-25-2	Bromoform	0.06	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	0.97	5.0	< 5.0 U
591-78-6	2-Hexanone	0.90	5.0	< 5.0 U
127-18-4	Tetrachloroethene	0.05	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	0.06	1.0	< 1.0 U
108-88-3	Toluene	0.04	1.0	< 1.0 U
108-90-7	Chlorobenzene	0.02	1.0	< 1.0 U
100-41-4	Ethylbenzene	0.04	1.0	< 1.0 U
100-42-5	Styrene	0.04	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	0.04	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.04	2.0	< 2.0 U
179601-23-1	m,p-Xylene	0.05	2.0	< 2.0 U
95-47-6	o-Xylene	0.04	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	0.04	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	0.04	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	0.04	1.0	< 1.0 U
107-02-8	Acrolein	2.5	10	< 10 U
74-88-4	Iodomethane	0.23	1.0	< 1.0 U
74-96-4	Bromoethane	0.04	2.0	< 2.0 U
107-13-1	Acrylonitrile	0.60	5.0	< 5.0 U
563-58-6	1,1-Dichloropropene	0.03	1.0	< 1.0 U
74-95-3	Dibromomethane	0.14	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	0.04	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	0.04	5.0	< 5.0 U

04/24/13

WJ10:0005Ø_rev

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: SD-SP-01-20130326-TB**

SAMPLE

Lab Sample ID: WJ10B
LIMS ID: 13-6436
Matrix: Water
Date Analyzed: 04/08/13 18:39

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
96-18-4	1,2,3-Trichloropropane	0.13	2.0	< 2.0 U
110-57-6	trans-1,4-Dichloro-2-butene	0.32	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	0.02	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	0.02	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	0.07	5.0	< 5.0 U
106-93-4	1,2-Dibromoethane	0.08	1.0	< 1.0 U
74-97-5	Bromochloromethane	0.06	1.0	< 1.0 U
75-71-8	Dichlorodifluoromethane	0.05	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	0.05	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	0.06	5.0	< 5.0 U
98-82-8	Isopropylbenzene	0.02	1.0	< 1.0 U
103-65-1	n-Propylbenzene	0.02	1.0	< 1.0 U
108-86-1	Bromobenzene	0.06	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	0.02	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	0.02	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	0.03	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	0.02	1.0	< 1.0 U
99-87-6	4-Isopropyltoluene	0.03	1.0	< 1.0 U
104-51-8	n-Butylbenzene	0.02	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	0.11	5.0	< 5.0 U
91-20-3	Naphthalene	0.12	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	0.11	5.0	< 5.0 U
1634-04-4	Methyl tert-Butyl Ether	0.07	1.0	< 1.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	105%
d8-Toluene	101%
Bromofluorobenzene	99.0%
d4-1,2-Dichlorobenzene	104%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

EPA SW-846 indicates that vinyl chloride and styrene may degrade in the presence of acid preservative.

4/24/13

WJ10: 00051_rev

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-040813A	Method Blank	10	102%	101%	98.9%	102%	0
LCS-040813A	Lab Control	10	104%	103%	106%	102%	0
LCSD-040813A	Lab Control Dup	10	99.3%	104%	105%	103%	0
WJ10B	SD-SP-01-20130326-TB	10	105%	101%	99.0%	104%	0

SW8260C	LCS/MB LIMITS	QC LIMITS
(DCE) = d4-1,2-Dichloroethane	(80-120)	(80-130)
(TOL) = d8-Toluene	(80-120)	(80-120)
(BFB) = Bromofluorobenzene	(80-120)	(80-120)
(DCB) = d4-1,2-Dichlorobenzene	(80-120)	(80-120)

Prep Method: SW5030B
Log Number Range: 13-6436 to 13-6436

4/24/13

WJ10:00052_rev

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: SD-CB-01-20130326-S**
 SAMPLE

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 05/13/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Instrument/Analyst: NT9/PAB
Date Analyzed: 04/02/13 15:15

Sample Amount: 1.79 mg-dry-wt
Purge Volume: 5.0 mL
Moisture: 59.9%

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	1400	2800	< 2,800 U
74-83-9	Bromomethane	2800	5600	< 5,600 U
75-01-4	Vinyl Chloride	1400	2800	< 2,800 U
75-00-3	Chloroethane	1700	2800	< 2,800 U
75-09-2	Methylene Chloride	2000	5600	< 5,600 U
67-64-1	Acetone	13000	14000	< 14,000 U
75-15-0	Carbon Disulfide	870	2800	< 2,800 U
75-35-4	1,1-Dichloroethene	1400	2800	< 2,800 U
75-34-3	1,1-Dichloroethane	1300	2800	< 2,800 U
156-60-5	trans-1,2-Dichloroethene	1300	2800	< 2,800 U
156-59-2	cis-1,2-Dichloroethene	1300	2800	< 2,800 U
67-66-3	Chloroform	1100	2800	< 2,800 U
107-06-2	1,2-Dichloroethane	1100	2800	< 2,800 U
78-93-3	2-Butanone	6000	14000	< 14,000 U
71-55-6	1,1,1-Trichloroethane	840	2800	< 2,800 U
56-23-5	Carbon Tetrachloride	1400	2800	< 2,800 U
108-05-4	Vinyl Acetate	1300	14000	< 14,000 U
75-27-4	Bromodichloromethane	1400	2800	< 2,800 U
78-87-5	1,2-Dichloropropane	1400	2800	< 2,800 U
10061-01-5	cis-1,3-Dichloropropene	1500	2800	< 2,800 U
79-01-6	Trichloroethene	940	2800	< 2,800 U
124-48-1	Dibromochloromethane	1400	2800	< 2,800 U
79-00-5	1,1,2-Trichloroethane	1300	2800	< 2,800 U
71-43-2	Benzene	990	2800	< 2,800 U
10061-02-6	trans-1,3-Dichloropropene	1600	2800	< 2,800 U
110-75-8	2-Chloroethylvinylether	4700	14000	< 14,000 U
75-25-2	Bromoform	1500	2800	< 2,800 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	12000	14000	< 14,000 U
591-78-6	2-Hexanone	1500	14000	< 14,000 U
127-18-4	Tetrachloroethene	1300	2800	< 2,800 U
79-34-5	1,1,2,2-Tetrachloroethane	1500	2800	< 2,800 U
108-88-3	**Toluene**	**2600**	**2800**	**12,000**
108-90-7	Chlorobenzene	1300	2800	< 2,800 U
100-41-4	Ethylbenzene	1300	2800	< 2,800 U
100-42-5	Styrene	1700	2800	< 2,800 U
75-69-4	**Trichlorofluoromethane**	**1100**	**2800**	**1,900 J**
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	1400	5600	< 5,600 U
179601-23-1	m,p-Xylene	2800	2800	< 2,800 U
95-47-6	o-Xylene	1600	2800	< 2,800 U
95-50-1	1,2-Dichlorobenzene	1500	2800	< 2,800 U
541-73-1	1,3-Dichlorobenzene	1900	2800	< 2,800 U
106-46-7	1,4-Dichlorobenzene	2000	2800	< 2,800 U
107-02-8	Acrolein	8300	140000	< 140,000 U

w 5/13/13

WJ10 : 00053_rev

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: SD-CB-01-20130326-S**
 SAMPLE

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Date Analyzed: 04/02/13 15:15

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
74-88-4	Iodomethane	1600	2800	< 2,800 U
74-96-4	Bromoethane	840	5600	< 5,600 U
107-13-1	Acrylonitrile	1000	14000	< 14,000 U
563-58-6	1,1-Dichloropropene	1900	2800	< 2,800 U
74-95-3	Dibromomethane	2100	2800	< 2,800 U
630-20-6	1,1,1,2-Tetrachloroethane	2000	2800	< 2,800 U
96-12-8	1,2-Dibromo-3-chloropropane	4500	14000	< 14,000 U
96-18-4	1,2,3-Trichloropropane	5600	5600	< 5,600 U
110-57-6	trans-1,4-Dichloro-2-butene	280	14000	< 14,000 U
108-67-8	1,3,5-Trimethylbenzene	2000	2800	< 2,800 U
95-63-6	1,2,4-Trimethylbenzene	1700	2800	< 2,800 U
87-68-3	Hexachlorobutadiene	3200	14000	< 14,000 U
106-93-4	1,2-Dibromoethane	1600	2800	< 2,800 U
74-97-5	Bromochloromethane	1300	2800	< 2,800 U
75-71-8	Dichlorodifluoromethane	1700	2800	< 2,800 U
594-20-7	2,2-Dichloropropane	2200	2800	< 2,800 U
142-28-9	1,3-Dichloropropane	1800	2800	< 2,800 U
98-82-8	Isopropylbenzene	1700	2800	< 2,800 U
103-65-1	n-Propylbenzene	1800	2800	< 2,800 U
108-86-1	Bromobenzene	930	2800	< 2,800 U
95-49-8	2-Chlorotoluene	1900	2800	< 2,800 U
106-43-4	4-Chlorotoluene	2300	2800	< 2,800 U
98-06-6	tert-Butylbenzene	1900	2800	< 2,800 U
135-98-8	sec-Butylbenzene	2100	2800	< 2,800 U
99-87-6	4-Isopropyltoluene	2100	2800	< 2,800 U
104-51-8	n-Butylbenzene	2500	2800	< 2,800 U
120-82-1	1,2,4-Trichlorobenzene	3800	14000	< 14,000 U
91-20-3	Naphthalene	3300	14000	< 14,000 U
87-61-6	1,2,3-Trichlorobenzene	3400	14000	< 14,000 U
1634-04-4	Methyl tert-Butyl Ether	1700	2800	< 2,800 U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	115%
d8-Toluene	98.0%
Bromofluorobenzene	93.6%
d4-1,2-Dichlorobenzene	106%

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

05/2/13

WJ10: 00054_rev

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Solids

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-040213A	Method Blank	Med	114%	98.3%	94.9%	104%	0
LCS-040213A	Lab Control	Med	104%	99.8%	97.7%	102%	0
LCSD-040213A	Lab Control Dup	Med	108%	100%	97.8%	101%	0
WJ10D	SD-CB-01-20130326-S	Med	115%	98.0%	93.6%	106%	0

	LCS/MB LIMITS		QC LIMITS	
SW8260C	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	80-122	76-120	80-149	69-120
(TOL) = d8-Toluene	80-120	80-120	77-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	80-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 13-6438 to 13-6438

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-040813A**
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-040813A
LIMS ID: 13-6436
Matrix: Water
Data Release Authorized:
Reported: 04/17/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT3/PAB
LCSD: NT3/PAB
Date Analyzed LCS: 04/08/13 10:07
LCSD: 04/08/13 10:33

Sample Amount LCS: 10.0 mL
LCSD: 10.0 mL
Purge Volume LCS: 10.0 mL
LCSD: 10.0 mL

Analyte	LCS		Spike Added-LCS	LCS Recovery	LCSD		Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	9.48		10.0	94.8%	9.29		10.0	92.9%	2.0%
Bromomethane	11.0		10.0	110%	10.8		10.0	108%	1.8%
Vinyl Chloride	8.65		10.0	86.5%	8.65		10.0	86.5%	0.0%
Chloroethane	8.29		10.0	82.9%	8.78		10.0	87.8%	5.7%
Methylene Chloride	10.6		10.0	106%	10.6		10.0	106%	0.0%
Acetone	61.0		50.0	122%	58.6		50.0	117%	4.0%
Carbon Disulfide	8.25		10.0	82.5%	8.18		10.0	81.8%	0.9%
1,1-Dichloroethene	8.12		10.0	81.2%	7.62		10.0	76.2%	6.4%
1,1-Dichloroethane	9.27		10.0	92.7%	9.29		10.0	92.9%	0.2%
trans-1,2-Dichloroethene	9.40		10.0	94.0%	9.31		10.0	93.1%	1.0%
cis-1,2-Dichloroethene	9.54		10.0	95.4%	9.60		10.0	96.0%	0.6%
Chloroform	9.83		10.0	98.3%	9.86		10.0	98.6%	0.3%
1,2-Dichloroethane	10.3		10.0	103%	10.8		10.0	108%	4.7%
2-Butanone	83.5	Q	50.0	167%	81.0	Q	50.0	162%	3.0%
1,1,1-Trichloroethane	8.80		10.0	88.0%	8.87		10.0	88.7%	0.8%
Carbon Tetrachloride	9.54		10.0	95.4%	9.25		10.0	92.5%	3.1%
Vinyl Acetate	10.2		10.0	102%	10.5		10.0	105%	2.9%
Bromodichloromethane	10.9		10.0	109%	10.8		10.0	108%	0.9%
1,2-Dichloropropane	10.0		10.0	100%	10.2		10.0	102%	2.0%
cis-1,3-Dichloropropene	11.0		10.0	110%	11.0		10.0	110%	0.0%
Trichloroethene	10.0		10.0	100%	10.6		10.0	106%	5.8%
Dibromochloromethane	10.6		10.0	106%	10.8		10.0	108%	1.9%
1,1,2-Trichloroethane	10.3		10.0	103%	11.2		10.0	112%	8.4%
Benzene	9.89		10.0	98.9%	10.2		10.0	102%	3.1%
trans-1,3-Dichloropropene	11.2		10.0	112%	11.7		10.0	117%	4.4%
2-Chloroethylvinylether	11.3		10.0	113%	12.1		10.0	121%	6.8%
Bromoform	11.2		10.0	112%	11.8		10.0	118%	5.2%
4-Methyl-2-Pentanone (MIBK)	59.2		50.0	118%	63.5		50.0	127%	7.0%
2-Hexanone	55.5		50.0	111%	59.3		50.0	119%	6.6%
Tetrachloroethene	10.6		10.0	106%	11.0		10.0	110%	3.7%
1,1,2,2-Tetrachloroethane	10.0		10.0	100%	10.6		10.0	106%	5.8%
Toluene	10.6		10.0	106%	11.0		10.0	110%	3.7%
Chlorobenzene	10.8		10.0	108%	11.2		10.0	112%	3.6%
Ethylbenzene	11.3		10.0	113%	11.7		10.0	117%	3.5%
Styrene	11.6		10.0	116%	11.7		10.0	117%	0.9%
Trichlorofluoromethane	8.57		10.0	85.7%	8.63		10.0	86.3%	0.7%
1,1,2-Trichloro-1,2,2-trifluoroetha	9.12		10.0	91.2%	8.58		10.0	85.8%	6.1%
m,p-Xylene	22.9		20.0	114%	23.5		20.0	118%	2.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-040813A**
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-040813A QC Report No: WJ10-SAIC
LIMS ID: 13-6436 Project: NPDES Sampling Support
Matrix: Water 209977

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
o-Xylene	11.1	10.0	111%	11.5	10.0	115%	3.5%
1,2-Dichlorobenzene	10.7	10.0	107%	10.9	10.0	109%	1.9%
1,3-Dichlorobenzene	10.3	10.0	103%	10.8	10.0	108%	4.7%
1,4-Dichlorobenzene	10.4	10.0	104%	10.8	10.0	108%	3.8%
Acrolein	48.2	50.0	96.4%	45.0	50.0	90.0%	6.9%
Iodomethane	9.80	10.0	98.0%	9.54	10.0	95.4%	2.7%
Bromoethane	9.17	10.0	91.7%	8.96	10.0	89.6%	2.3%
Acrylonitrile	13.3 Q	10.0	133%	16.1 Q	10.0	161%	19.0%
1,1-Dichloropropene	9.84	10.0	98.4%	10.2	10.0	102%	3.6%
Dibromomethane	10.6	10.0	106%	11.1	10.0	111%	4.6%
1,1,1,2-Tetrachloroethane	10.7	10.0	107%	11.0	10.0	110%	2.8%
1,2-Dibromo-3-chloropropane	12.5	10.0	125%	12.8	10.0	128%	2.4%
1,2,3-Trichloropropane	11.3	10.0	113%	11.8	10.0	118%	4.3%
trans-1,4-Dichloro-2-butene	9.94	10.0	99.4%	10.3	10.0	103%	3.6%
1,3,5-Trimethylbenzene	11.3	10.0	113%	11.7	10.0	117%	3.5%
1,2,4-Trimethylbenzene	11.4	10.0	114%	11.9	10.0	119%	4.3%
Hexachlorobutadiene	9.18	10.0	91.8%	9.33	10.0	93.3%	1.6%
1,2-Dibromoethane	11.0	10.0	110%	11.7	10.0	117%	6.2%
Bromochloromethane	9.62	10.0	96.2%	9.84	10.0	98.4%	2.3%
Dichlorodifluoromethane	8.22 Q	10.0	82.2%	7.69 Q	10.0	76.9%	6.7%
2,2-Dichloropropane	9.78	10.0	97.8%	10.1	10.0	101%	3.2%
1,3-Dichloropropane	10.6	10.0	106%	10.9	10.0	109%	2.8%
Isopropylbenzene	11.3	10.0	113%	11.9	10.0	119%	5.2%
n-Propylbenzene	11.0	10.0	110%	11.6	10.0	116%	5.3%
Bromobenzene	10.2	10.0	102%	10.7	10.0	107%	4.8%
2-Chlorotoluene	10.7	10.0	107%	11.0	10.0	110%	2.8%
4-Chlorotoluene	10.6	10.0	106%	11.0	10.0	110%	3.7%
tert-Butylbenzene	11.2	10.0	112%	11.5	10.0	115%	2.6%
sec-Butylbenzene	11.0	10.0	110%	11.4	10.0	114%	3.6%
4-Isopropyltoluene	11.2	10.0	112%	11.6	10.0	116%	3.5%
n-Butylbenzene	10.6	10.0	106%	10.6	10.0	106%	0.0%
1,2,4-Trichlorobenzene	11.0 B	10.0	110%	11.3 B	10.0	113%	2.7%
Naphthalene	14.0 QB	10.0	140%	14.7 QB	10.0	147%	4.9%
1,2,3-Trichlorobenzene	10.6 B	10.0	106%	11.1 B	10.0	111%	4.6%
Methyl tert-Butyl Ether	8.44 Q	10.0	84.4%	8.59 Q	10.0	85.9%	1.8%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	104%	99.3%
d8-Toluene	103%	104%
Bromofluorobenzene	106%	105%
d4-1,2-Dichlorobenzene	102%	103%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-040213A**
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-040213A
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 05/13/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT9/PAB
LCSD: NT9/PAB
Date Analyzed LCS: 04/02/13 12:14
LCSD: 04/02/13 12:36

Sample Amount LCS: 100 mg-dry-wt
LCSD: 100 mg-dry-wt
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL
Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	2510 B	2500	100%	2620 B	2500	105%	4.3%
Bromomethane	2580	2500	103%	2630	2500	105%	1.9%
Vinyl Chloride	2470	2500	98.8%	2570	2500	103%	4.0%
Chloroethane	2400	2500	96.0%	2490	2500	99.6%	3.7%
Methylene Chloride	2140	2500	85.6%	2240	2500	89.6%	4.6%
Acetone	10600	12500	84.8%	10400	12500	83.2%	1.9%
Carbon Disulfide	2510	2500	100%	2610	2500	104%	3.9%
1,1-Dichloroethene	2410	2500	96.4%	2550	2500	102%	5.6%
1,1-Dichloroethane	2180	2500	87.2%	2330	2500	93.2%	6.7%
trans-1,2-Dichloroethene	2240	2500	89.6%	2330	2500	93.2%	3.9%
cis-1,2-Dichloroethene	2470	2500	98.8%	2270	2500	90.8%	8.4%
Chloroform	2150	2500	86.0%	2240	2500	89.6%	4.1%
1,2-Dichloroethane	2020	2500	80.8%	2110	2500	84.4%	4.4%
2-Butanone	11400	12500	91.2%	11100	12500	88.8%	2.7%
1,1,1-Trichloroethane	2200	2500	88.0%	2340	2500	93.6%	6.2%
Carbon Tetrachloride	2230	2500	89.2%	2340	2500	93.6%	4.8%
Vinyl Acetate	2220	2500	88.8%	2270	2500	90.8%	2.2%
Bromodichloromethane	2080	2500	83.2%	2180	2500	87.2%	4.7%
1,2-Dichloropropane	2110	2500	84.4%	2220	2500	88.8%	5.1%
cis-1,3-Dichloropropene	2320	2500	92.8%	2390	2500	95.6%	3.0%
Trichloroethene	2140	2500	85.6%	2230	2500	89.2%	4.1%
Dibromochloromethane	2090	2500	83.6%	2120	2500	84.8%	1.4%
1,1,2-Trichloroethane	2030 Q	2500	81.2%	2090 Q	2500	83.6%	2.9%
Benzene	2120	2500	84.8%	2250	2500	90.0%	5.9%
trans-1,3-Dichloropropene	2220	2500	88.8%	2300	2500	92.0%	3.5%
2-Chloroethylvinylether	1760 Q	2500	70.4%	1770 Q	2500	70.8%	0.6%
Bromoform	2170	2500	86.8%	2110	2500	84.4%	2.8%
4-Methyl-2-Pentanone (MIBK)	11400	12500	91.2%	11500	12500	92.0%	0.9%
2-Hexanone	9540 Q	12500	76.3%	9550 Q	12500	76.4%	0.1%
Tetrachloroethene	2240	2500	89.6%	2310	2500	92.4%	3.1%
1,1,2,2-Tetrachloroethane	2080	2500	83.2%	2060	2500	82.4%	1.0%
Toluene	2110	2500	84.4%	2250	2500	90.0%	6.4%
Chlorobenzene	2100	2500	84.0%	2180	2500	87.2%	3.7%
Ethylbenzene	2220	2500	88.8%	2290	2500	91.6%	3.1%
Styrene	2070	2500	82.8%	2120	2500	84.8%	2.4%
Trichlorofluoromethane	2590	2500	104%	2710	2500	108%	4.5%
1,1,2-Trichloro-1,2,2-trifluoroetha	2390	2500	95.6%	2500	2500	100%	4.5%

5/13/13

WJ10: 00058_rev

Lab Sample ID: LCS-040213A QC Report No: WJ10-SAIC
LIMS ID: 13-6438 Project: NPDES Sampling Support
Matrix: Solids 209977

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
m,p-Xylene	4830	5000	96.6%	4980	5000	99.6%	3.1%
o-Xylene	2380	2500	95.2%	2450	2500	98.0%	2.9%
1,2-Dichlorobenzene	2140	2500	85.6%	2160	2500	86.4%	0.9%
1,3-Dichlorobenzene	2240	2500	89.6%	2250	2500	90.0%	0.4%
1,4-Dichlorobenzene	2180	2500	87.2%	2200	2500	88.0%	0.9%
Acrolein	11000	12500	88.0%	10800	12500	86.4%	1.8%
Iodomethane	1960 B	2500	78.4%	2010 B	2500	80.4%	2.5%
Bromoethane	2330	2500	93.2%	2450	2500	98.0%	5.0%
Acrylonitrile	2080	2500	83.2%	2040	2500	81.6%	1.9%
1,1-Dichloropropene	2260	2500	90.4%	2380	2500	95.2%	5.2%
Dibromomethane	2040	2500	81.6%	2130	2500	85.2%	4.3%
1,1,1,2-Tetrachloroethane	2140	2500	85.6%	2190	2500	87.6%	2.3%
1,2-Dibromo-3-chloropropane	2170	2500	86.8%	2110	2500	84.4%	2.8%
1,2,3-Trichloropropane	2180	2500	87.2%	2090	2500	83.6%	4.2%
trans-1,4-Dichloro-2-butene	2280	2500	91.2%	2190	2500	87.6%	4.0%
1,3,5-Trimethylbenzene	2410	2500	96.4%	2470	2500	98.8%	2.5%
1,2,4-Trimethylbenzene	2450	2500	98.0%	2470	2500	98.8%	0.8%
Hexachlorobutadiene	2330 Q	2500	93.2%	2340 Q	2500	93.6%	0.4%
1,2-Dibromoethane	2080	2500	83.2%	2150	2500	86.0%	3.3%
Bromochloromethane	2130	2500	85.2%	2220	2500	88.8%	4.1%
Dichlorodifluoromethane	2590	2500	104%	2720	2500	109%	4.9%
2,2-Dichloropropane	2290	2500	91.6%	2390	2500	95.6%	4.3%
1,3-Dichloropropane	2130	2500	85.2%	2140	2500	85.6%	0.5%
Isopropylbenzene	1990	2500	79.6%	2000	2500	80.0%	0.5%
n-Propylbenzene	2370	2500	94.8%	2400	2500	96.0%	1.3%
Bromobenzene	2130	2500	85.2%	2140	2500	85.6%	0.5%
2-Chlorotoluene	2270	2500	90.8%	2290	2500	91.6%	0.9%
4-Chlorotoluene	2330	2500	93.2%	2340	2500	93.6%	0.4%
tert-Butylbenzene	2020	2500	80.8%	2080	2500	83.2%	2.9%
sec-Butylbenzene	2430	2500	97.2%	2480	2500	99.2%	2.0%
4-Isopropyltoluene	2070	2500	82.8%	2100	2500	84.0%	1.4%
n-Butylbenzene	2630	2500	105%	2590	2500	104%	1.5%
1,2,4-Trichlorobenzene	2540	2500	102%	2560	2500	102%	0.8%
Naphthalene	2430	2500	97.2%	2460	2500	98.4%	1.2%
1,2,3-Trichlorobenzene	2350	2500	94.0%	2400	2500	96.0%	2.1%
Methyl tert-Butyl Ether	2110	2500	84.4%	2200	2500	88.0%	4.2%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	104%	108%
d8-Toluene	99.8%	100%
Bromofluorobenzene	97.7%	97.8%
d4-1,2-Dichlorobenzene	102%	101%

ds 5/13/13

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0408

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No: WJ10

Project: NPDES SAMPLING SUPPORT

Lab File ID: MB0408

Lab Sample ID: MB0408

Date Analyzed: 04/08/13

Time Analyzed: 1100

Instrument ID: NT3

Heated Purge: (Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS0408	LCS0408	LCS0408	1007
02	LCS0408	LCS0408	LCS0408A	1033
03	SD-SP-01-20	WJ10B	WJ10B	1839
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COMMENTS:

04/24/13

WJ10: 00060_rev

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-040813A**
 METHOD BLANK

Lab Sample ID: MB-040813A
LIMS ID: 13-6436
Matrix: Water
Data Release Authorized:
Reported: 04/11/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT3/PAB
Date Analyzed: 04/08/13 11:00

Sample Amount: 10.0 mL
Purge Volume: 10.0 mL

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	0.10	1.0	< 1.0 U
74-83-9	Bromomethane	0.25	1.0	< 1.0 U
75-01-4	Vinyl Chloride	0.06	1.0	< 1.0 U
75-00-3	Chloroethane	0.09	1.0	< 1.0 U
75-09-2	Methylene Chloride	0.48	2.0	< 2.0 U
67-64-1	Acetone	2.1	10	< 10 U
75-15-0	Carbon Disulfide	0.04	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	0.05	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	0.05	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	0.05	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	0.04	1.0	< 1.0 U
67-66-3	Chloroform	0.03	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	0.07	1.0	< 1.0 U
78-93-3	2-Butanone	0.81	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	0.04	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	0.04	1.0	< 1.0 U
108-05-4	Vinyl Acetate	0.07	5.0	< 5.0 U
75-27-4	Bromodichloromethane	0.05	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	0.04	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	0.06	1.0	< 1.0 U
79-01-6	Trichloroethene	0.05	1.0	< 1.0 U
124-48-1	Dibromochloromethane	0.05	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	0.13	1.0	< 1.0 U
71-43-2	Benzene	0.03	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	0.08	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	0.25	5.0	< 5.0 U
75-25-2	Bromoform	0.06	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	0.97	5.0	< 5.0 U
591-78-6	2-Hexanone	0.90	5.0	< 5.0 U
127-18-4	Tetrachloroethene	0.05	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	0.06	1.0	< 1.0 U
108-88-3	Toluene	0.04	1.0	< 1.0 U
108-90-7	Chlorobenzene	0.02	1.0	< 1.0 U
100-41-4	Ethylbenzene	0.04	1.0	< 1.0 U
100-42-5	Styrene	0.04	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	0.04	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.04	2.0	< 2.0 U
179601-23-1	m,p-Xylene	0.05	2.0	< 2.0 U
95-47-6	o-Xylene	0.04	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	0.04	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	0.04	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	0.04	1.0	< 1.0 U
107-02-8	Acrolein	2.5	10	< 10 U
74-88-4	Iodomethane	0.23	1.0	< 1.0 U
74-96-4	Bromoethane	0.04	2.0	< 2.0 U
107-13-1	Acrylonitrile	0.60	5.0	< 5.0 U
563-58-6	1,1-Dichloropropene	0.03	1.0	< 1.0 U
74-95-3	Dibromomethane	0.14	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	0.04	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	0.04	5.0	< 5.0 U

Lab Sample ID: MB-040813A QC Report No: WJ10-SAIC
LIMS ID: 13-6436 Project: NPDES Sampling Support
Matrix: Water 209977
Date Analyzed: 04/08/13 11:00

CAS Number	Analyte	DL	LOQ	Result
96-18-4	1,2,3-Trichloropropane	0.13	2.0	< 2.0 U
110-57-6	trans-1,4-Dichloro-2-butene	0.32	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	0.02	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	0.02	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	0.07	5.0	< 5.0 U
106-93-4	1,2-Dibromoethane	0.08	1.0	< 1.0 U
74-97-5	Bromochloromethane	0.06	1.0	< 1.0 U
75-71-8	Dichlorodifluoromethane	0.05	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	0.05	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	0.06	5.0	< 5.0 U
98-82-8	Isopropylbenzene	0.02	1.0	< 1.0 U
103-65-1	n-Propylbenzene	0.02	1.0	< 1.0 U
108-86-1	Bromobenzene	0.06	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	0.02	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	0.02	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	0.03	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	0.02	1.0	< 1.0 U
99-87-6	4-Isopropyltoluene	0.03	1.0	< 1.0 U
104-51-8	n-Butylbenzene	0.02	1.0	< 1.0 U
120-82-1	**1,2,4-Trichlorobenzene**	**0.11**	**5.0**	**0.16 J**
91-20-3	**Naphthalene**	**0.12**	**5.0**	**0.34 J**
87-61-6	**1,2,3-Trichlorobenzene**	**0.11**	**5.0**	**0.19 J**
1634-04-4	Methyl tert-Butyl Ether	0.07	1.0	< 1.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	102%
d8-Toluene	101%
Bromofluorobenzene	98.9%
d4-1,2-Dichlorobenzene	102%

4A
VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0402

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No: WJ10

Project: NPDES SAMPLING SUPPORT

Lab File ID: MB0402

Lab Sample ID: MB0402

Date Analyzed: 04/02/13

Time Analyzed: 1258

Instrument ID: NT9

Heated Purge: (Y/N) Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS0402	LCS0402	LCS0402	1214
02	LCS0402	LCS0402	LCS0402A	1236
03	SD-CB-01-201	WJ10D	WJ10D2	1515
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COMMENTS:

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-040213A**
 METHOD BLANK

Lab Sample ID: MB-040213A
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 05/13/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT9/PAB
Date Analyzed: 04/02/13 12:58

Sample Amount: 100 mg-dry-wt
Purge Volume: 5.0 mL
Moisture: NA

CAS Number	Analyte	DL	LOQ	Result
74-87-3	**Chloromethane**	**25**	**50**	**34 J**
74-83-9	Bromomethane	51	100	< 100 U
75-01-4	Vinyl Chloride	25	50	< 50 U
75-00-3	Chloroethane	30	50	< 50 U
75-09-2	Methylene Chloride	36	100	< 100 U
67-64-1	Acetone	230	250	< 250 U
75-15-0	Carbon Disulfide	16	50	< 50 U
75-35-4	1,1-Dichloroethene	26	50	< 50 U
75-34-3	1,1-Dichloroethane	23	50	< 50 U
156-60-5	trans-1,2-Dichloroethene	24	50	< 50 U
156-59-2	cis-1,2-Dichloroethene	23	50	< 50 U
67-66-3	Chloroform	19	50	< 50 U
107-06-2	1,2-Dichloroethane	19	50	< 50 U
78-93-3	2-Butanone	110	250	< 250 U
71-55-6	1,1,1-Trichloroethane	15	50	< 50 U
56-23-5	Carbon Tetrachloride	24	50	< 50 U
108-05-4	Vinyl Acetate	24	250	< 250 U
75-27-4	Bromodichloromethane	24	50	< 50 U
78-87-5	1,2-Dichloropropane	26	50	< 50 U
10061-01-5	cis-1,3-Dichloropropene	27	50	< 50 U
79-01-6	Trichloroethene	17	50	< 50 U
124-48-1	Dibromochloromethane	25	50	< 50 U
79-00-5	1,1,2-Trichloroethane	23	50	< 50 U
71-43-2	Benzene	18	50	< 50 U
10061-02-6	trans-1,3-Dichloropropene	28	50	< 50 U
110-75-8	2-Chloroethylvinylether	84	250	< 250 U
75-25-2	Bromoform	27	50	< 50 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	210	250	< 250 U
591-78-6	2-Hexanone	26	250	< 250 U
127-18-4	Tetrachloroethene	23	50	< 50 U
79-34-5	1,1,2,2-Tetrachloroethane	27	50	< 50 U
108-88-3	Toluene	46	50	< 50 U
108-90-7	Chlorobenzene	24	50	< 50 U
100-41-4	Ethylbenzene	23	50	< 50 U
100-42-5	Styrene	31	50	< 50 U
75-69-4	Trichlorofluoromethane	19	50	< 50 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	24	100	< 100 U
179601-23-1	m,p-Xylene	50	50	< 50 U
95-47-6	o-Xylene	28	50	< 50 U
95-50-1	1,2-Dichlorobenzene	27	50	< 50 U
541-73-1	1,3-Dichlorobenzene	33	50	< 50 U
106-46-7	1,4-Dichlorobenzene	36	50	< 50 U
107-02-8	Acrolein	150	2500	< 2,500 U

cw 5/13/13

WJ10: 000064_rev

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-040213A**
 METHOD BLANK

Lab Sample ID: MB-040213A QC Report No: WJ10-SAIC
LIMS ID: 13-6438 Project: NPDES Sampling Support
Matrix: Solids 209977
Date Analyzed: 04/02/13 12:58

CAS Number	Analyte	DL	LOQ	Result
74-88-4	**Iodomethane**	**29**	**50**	**39 J**
74-96-4	Bromoethane	15	100	< 100 U
107-13-1	Acrylonitrile	19	250	< 250 U
563-58-6	1,1-Dichloropropene	35	50	< 50 U
74-95-3	Dibromomethane	37	50	< 50 U
630-20-6	1,1,1,2-Tetrachloroethane	36	50	< 50 U
96-12-8	1,2-Dibromo-3-chloropropane	81	250	< 250 U
96-18-4	1,2,3-Trichloropropane	100	100	< 100 U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	250	< 250 U
108-67-8	1,3,5-Trimethylbenzene	36	50	< 50 U
95-63-6	1,2,4-Trimethylbenzene	30	50	< 50 U
87-68-3	Hexachlorobutadiene	58	250	< 250 U
106-93-4	1,2-Dibromoethane	28	50	< 50 U
74-97-5	Bromochloromethane	24	50	< 50 U
75-71-8	Dichlorodifluoromethane	31	50	< 50 U
594-20-7	2,2-Dichloropropane	39	50	< 50 U
142-28-9	1,3-Dichloropropane	32	50	< 50 U
98-82-8	Isopropylbenzene	30	50	< 50 U
103-65-1	n-Propylbenzene	32	50	< 50 U
108-86-1	Bromobenzene	17	50	< 50 U
95-49-8	2-Chlorotoluene	35	50	< 50 U
106-43-4	4-Chlorotoluene	40	50	< 50 U
98-06-6	tert-Butylbenzene	34	50	< 50 U
135-98-8	sec-Butylbenzene	38	50	< 50 U
99-87-6	4-Isopropyltoluene	38	50	< 50 U
104-51-8	n-Butylbenzene	45	50	< 50 U
120-82-1	1,2,4-Trichlorobenzene	69	250	< 250 U
91-20-3	Naphthalene	59	250	< 250 U
87-61-6	1,2,3-Trichlorobenzene	61	250	< 250 U
1634-04-4	Methyl tert-Butyl Ether	31	50	< 50 U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	114%
d8-Toluene	98.3%
Bromofluorobenzene	94.9%
d4-1,2-Dichlorobenzene	104%

D 5/13/13

WJ10: 00065_REV

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES INC Contract: SAIC

Lab Code: ARI Case No.: NPDES SAMPLING SUPPORT SDG No.: WJ10

Lab File ID: BFB0322A BFB Injection Date: 03/22/13

Instrument ID: NT3 BFB Injection Time: 1220

GC Column: RTXVMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.4
75	30.0 - 60.0% of mass 95	54.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.0
173	Less than 2.0% of mass 174	0.8 (1.1)1
174	50.0 - 100.0% of mass 95	70.8
175	5.0 - 9.0% of mass 174	4.9 (7.0)1
176	95.0 - 101.0% of mass 174	67.9 (95.9)1
177	5.0 - 9.0% of mass 176	3.8 (5.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0.2	VSTD0.2	VSTD002	03/22/13	1251
02	VSTD80	VSTD80	VSTD80	03/22/13	1318
03	VSTD40	VSTD40	VSTD40	03/22/13	1344
04	VSTD20	VSTD20	VSTD20	03/22/13	1411
05	VSTD10	VSTD10	VSTD10	03/22/13	1437
06	VSTD02	VSTD02	VSTD02	03/22/13	1504
07	VSTD01	VSTD01	VSTD01	03/22/13	1530
08	VSTD0.5	VSTD0.5	VSTD005	03/22/13	1556
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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES INC Contract: SAIC

Lab Code: ARI Case No.: NPDES SAMPLING SUPPORT SDG No.: WJ10

Lab File ID: BFB0401B BFB Injection Date: 04/01/13

Instrument ID: NT9 BFB Injection Time: 1833

GC Column: RTXVMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.1
75	30.0 - 66.0% of mass 95	46.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.6 (0.7)1
174	50.0 - 101.0% of mass 95	86.4
175	4.0 - 9.0% of mass 174	6.0 (7.0)1
176	95.0 - 101.0% of mass 174	85.1 (98.5)1
177	5.0 - 9.0% of mass 176	5.5 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD200	IC0401	2000401	04/01/13	1855
02	VSTD150	IC0401	1500401	04/01/13	1917
03	VSTD100	IC0401	1000401	04/01/13	1939
04	VSTD50	IC0401	0500401	04/01/13	2002
05	VSTD10	IC0401	0100401	04/01/13	2024
06	VSTD5	IC0401	0050401	04/01/13	2046
07	VSTD2	IC0401	0020401	04/01/13	2108
08	VSTD1	IC0401	0010401	04/01/13	2130
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES INC Contract: SAIC

Lab Code: ARI Case No.: NPDES SAMPLING SUPPORT SDG No.: WJ10

Lab File ID: BFB0402 BFB Injection Date: 04/02/13

Instrument ID: NT9 BFB Injection Time: 0959

GC Column: RTXVMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 66.0% of mass 95	46.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.7 (0.8)1
174	50.0 - 101.0% of mass 95	81.5
175	4.0 - 9.0% of mass 174	5.8 (7.1)1
176	95.0 - 101.0% of mass 174	79.7 (97.9)1
177	5.0 - 9.0% of mass 176	5.5 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	CC0402	CC0402	04/02/13	1138
02	LCS0402	LCS0402	LCS0402	04/02/13	1214
03	LCS0402	LCS0402	LCS0402A	04/02/13	1236
04	MB0402	MB0402	MB0402	04/02/13	1258
05	SD-CB-01-2013032	WJ10D	WJ10D2	04/02/13	1515
06					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES INC Contract: SAIC

Lab Code: ARI Case No.: NPDES SAMPLING SUPPORT SDG No.: WJ10

Lab File ID: BFB0408 BFB Injection Date: 04/08/13

Instrument ID: NT3 BFB Injection Time: 0902

GC Column: RTXVMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.0
75	30.0 - 60.0% of mass 95	54.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 100.0% of mass 95	80.9
175	5.0 - 9.0% of mass 174	6.3 (7.7)1
176	95.0 - 101.0% of mass 174	77.4 (95.6)1
177	5.0 - 9.0% of mass 176	5.3 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD10	CC0408	CC0408	04/08/13	0932
02	LCS0408	LCS0408	LCS0408	04/08/13	1007
03	LCS0408	LCS0408	LCS0408A	04/08/13	1033
04	MB0408	MB0408	MB0408	04/08/13	1100
05	SD-SP-01-201303	WJ10B	WJ10B	04/08/13	1839
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FORM V VOA OLM3.2M

CO 4/24/13

WJ10: 00069_rev

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Calibration Date: 03/22/13

LAB FILE ID: RF0.2: VSTD002 RF0.5: VSTD005 RF1: VSTD01
RF2: VSTD02 RF10: VSTD10

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF10
Chloromethane	0.986	0.845	0.850	0.811	0.813
Vinyl Chloride	1.065	0.887	0.863	0.851	0.913
Bromomethane	0.580	0.526	0.476	0.460	0.469
Chloroethane	0.784	0.544	0.323	0.574	0.536
Trichlorofluoromethane	1.050	0.604	0.984	0.964	0.936
Acrolein		0.070	0.088	0.095	0.096
112Trichloro122Trifluoroetha	0.804	0.665	0.631	0.580	0.596
Acetone		0.106	0.172	0.120	0.095
1,1-Dichloroethene	0.698	0.657	0.657	0.598	0.607
Bromoethane	0.405	0.426	0.444	0.432	0.424
Iodomethane	1.005	0.568	0.924	0.891	0.884
Methylene Chloride		0.989	0.781	0.718	0.608
Acrylonitrile		0.106	0.128	0.178	0.137
Carbon Disulfide	2.404	2.208	2.181	2.058	2.074
Trans-1,2-Dichloroethene	0.702	0.663	0.642	0.609	0.598
Vinyl Acetate	1.296	1.049	1.102	1.089	1.096
1,1-Dichloroethane	1.199	1.260	1.214	1.176	1.134
2-Butanone	0.256	0.194	0.335	0.227	0.215
2,2-Dichloropropane	0.934	0.728	0.727	0.723	0.689
Cis-1,2-Dichloroethene	0.713	0.664	0.698	0.629	0.629
Chloroform	1.076	1.123	1.070	1.106	1.012
Bromochloromethane	0.378	0.312	0.332	0.320	0.283
1,1,1-Trichloroethane	1.100	0.937	0.983	0.916	0.896
1,1-Dichloropropene	0.508	0.510	0.510	0.512	0.493
Carbon Tetrachloride	0.381	0.557	0.491	0.481	0.450
1,2-Dichloroethane	0.534	0.500	0.528	0.514	0.460
Benzene	1.559	1.454	1.526	1.566	1.413
Trichloroethene	0.404	0.333	0.366	0.344	0.345
1,2-Dichloropropane	0.390	0.351	0.364	0.356	0.344
Bromodichloromethane	0.542	0.484	0.311	0.459	0.434
Dibromomethane	0.227	0.229	0.248	0.201	0.191
2-Chloroethyl Vinyl Ether		0.162	0.210	0.185	0.187
4-Methyl-2-Pentanone	0.358	0.368	0.415	0.368	0.368
Cis 1,3-dichloropropene	0.500	0.525	0.498	0.534	0.528
Toluene	0.901	0.749	0.819	0.824	0.793
Trans 1,3-Dichloropropene	0.544	0.456	0.500	0.506	0.518
2-Hexanone	0.325	0.288	0.313	0.305	0.301

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Calibration Date: 03/22/13

LAB FILE ID: RF0.2: VSTD002 RF0.5: VSTD005 RF1: VSTD01
RF2: VSTD02 RF10: VSTD10

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF10
1,1,2-Trichloroethane	0.300	0.286	0.314	0.310	0.260
1,3-Dichloropropane	0.588	0.528	0.576	0.531	0.526
Tetrachloroethene	0.365	0.326	0.326	0.330	0.331
Chlorodibromomethane	0.449	0.315	0.329	0.343	0.315
1,2-Dibromoethane	0.333	0.322	0.308	0.297	0.287
Chlorobenzene	0.969	0.999	0.943	0.958	0.949
Ethyl Benzene	1.512	1.481	1.683	1.624	1.665
1,1,1,2-Tetrachloroethane	0.430	0.290	0.352	0.333	0.332
m,p-xylene	0.590	0.559	0.564	0.597	0.633
o-Xylene	0.584	0.574	0.567	0.594	0.612
Styrene	0.897	0.835	0.951	0.984	1.010
Bromoform	0.411	0.371	0.418	0.447	0.416
1,1,2,2-Tetrachloroethane	1.207	0.902	0.827	0.900	0.786
1,2,3-Trichloropropane		0.261	0.237	0.259	0.239
Trans-1,4-Dichloro 2-Butene		0.355	0.299	0.327	0.307
N-Propyl Benzene	3.208	3.252	3.050	3.472	3.478
Bromobenzene	0.895	0.783	0.681	0.764	0.726
Isopropyl Benzene	2.657	2.458	2.388	2.870	2.899
2-Chloro Toluene	2.282	2.298	2.248	2.389	2.388
4-Chloro Toluene	2.242	2.127	2.131	2.303	2.235
T-Butyl Benzene	1.800	1.842	1.805	2.011	2.073
1,3,5-Trimethyl Benzene	2.098	2.178	2.191	2.351	2.442
1,2,4-Trimethylbenzene	2.216	2.041	2.158	2.276	2.444
S-Butyl Benzene	2.716	2.719	2.719	3.034	3.103
4-Isopropyl Toluene	2.211	2.176	2.073	2.294	2.458
1,3-Dichlorobenzene	1.578	1.402	1.437	1.467	1.370
1,4-Dichlorobenzene	1.715	1.428	1.524	1.481	1.430
N-Butyl Benzene	2.331	2.034	2.258	2.286	2.275
1,2-Dichlorobenzene	1.540	1.466	1.445	1.363	1.305
1,2-Dibromo 3-Chloropropane		0.180	0.225	0.155	0.155
1,2,4-Trichlorobenzene	0.762	0.661	0.821	0.695	0.685
Hexachloro 1,3-Butadiene	0.460	0.343	0.344	0.309	0.277
Naphthalene	1.858	1.756	2.050	1.701	1.786
1,2,3-Trichlorobenzene	0.859	0.641	0.778	0.625	0.627
Dichlorodifluoromethane	0.938	0.768	0.650	0.658	0.748
Methyl tert butyl ether	1.807	1.594	1.845	1.738	1.667

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Calibration Date: 03/22/13

LAB FILE ID: RF0.2: VSTD002 RF0.5: VSTD005 RF1: VSTD01
RF2: VSTD02 RF10: VSTD10

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF10
d4-1,2-Dichloroethane	0.728	0.738	0.769	0.723	0.694
d8-Toluene	1.150	1.206	1.202	1.216	1.218
4-Bromofluorobenzene	0.469	0.480	0.509	0.510	0.520
d4-1,2-Dichlorobenzene	0.897	0.919	0.940	0.887	0.866
Dibromofluoromethane	0.592	0.571	0.567	0.558	0.548

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Calibration Date: 03/22/13

LAB FILE ID: RF20: VSTD20 RF40: VSTD40 RF80: VSTD80

COMPOUND	RF20	RF40	RF80
Chloromethane	0.811	0.733	0.724
Vinyl Chloride	0.933	0.861	0.867
Bromomethane	0.469	0.434	0.430
Chloroethane	0.549	0.528	0.571
Trichlorofluoromethane	0.968	0.930	0.972
Acrolein	0.098	0.099	0.104
112Trichloro122Trifluoroetha	0.611	0.570	0.591
Acetone	0.093		
1,1-Dichloroethene	0.585	0.556	0.585
Bromoethane	0.432	0.399	0.403
Iodomethane	0.889	0.819	0.827
Methylene Chloride	0.617	0.565	0.570
Acrylonitrile	0.158	0.129	0.134
Carbon Disulfide	2.064	1.912	1.888
Trans-1,2-Dichloroethene	0.606	0.570	0.573
Vinyl Acetate	1.110	1.071	1.083
1,1-Dichloroethane	1.150	1.073	1.044
2-Butanone	0.215	0.195	0.209
2,2-Dichloropropane	0.721	0.676	0.624
Cis-1,2-Dichloroethene	0.636	0.581	0.585
Chloroform	1.023	0.941	0.926
Bromochloromethane	0.277	0.261	0.260
1,1,1-Trichloroethane	0.919	0.851	0.827
1,1-Dichloropropene	0.504	0.487	0.493
Carbon Tetrachloride	0.459	0.425	0.427
1,2-Dichloroethane	0.457	0.433	0.424
Benzene	1.410	1.290	1.180
Trichloroethene	0.338	0.325	0.333
1,2-Dichloropropane	0.354	0.341	0.347
Bromodichloromethane	0.427	0.410	0.417
Dibromomethane	0.192	0.183	0.182
2-Chloroethyl Vinyl Ether	0.174	0.194	0.210
4-Methyl-2-Pentanone	0.370	0.335	0.286
Cis 1,3-dichloropropene	0.528	0.533	0.534
Toluene	0.796	0.780	0.761
Trans 1,3-Dichloropropene	0.506	0.505	0.506
2-Hexanone	0.297	0.283	0.239

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Calibration Date: 03/22/13

LAB FILE ID: RF20: VSTD20 RF40: VSTD40 RF80: VSTD80

COMPOUND	RF20	RF40	RF80
1,1,2-Trichloroethane	0.260	0.259	0.264
1,3-Dichloropropane	0.511	0.531	0.526
Tetrachloroethene	0.334	0.343	0.346
Chlorodibromomethane	0.320	0.325	0.324
1,2-Dibromoethane	0.265	0.267	0.268
Chlorobenzene	0.931	0.928	0.888
Ethyl Benzene	1.671	1.577	1.352
1,1,1,2-Tetrachloroethane	0.348	0.335	0.330
m,p-xylene	0.639	0.617	0.561
o-Xylene	0.632	0.629	0.613
Styrene	1.044	1.031	0.970
Bromoform	0.427	0.417	0.420
1,1,2,2-Tetrachloroethane	0.799	0.773	0.738
1,2,3-Trichloropropane	0.238	0.232	0.224
Trans-1,4-Dichloro 2-Butene	0.322	0.309	0.320
N-Propyl Benzene	3.440	3.190	2.646
Bromobenzene	0.702	0.704	0.715
Isopropyl Benzene	2.962	2.806	2.423
2-Chloro Toluene	2.411	2.323	2.162
4-Chloro Toluene	2.220	2.140	1.966
T-Butyl Benzene	2.130	2.010	1.835
1,3,5-Trimethyl Benzene	2.510	2.355	2.090
1,2,4-Trimethylbenzene	2.519	2.343	2.086
S-Butyl Benzene	3.141	2.850	2.430
4-Isopropyl Toluene	2.520	2.348	2.076
1,3-Dichlorobenzene	1.394	1.331	1.301
1,4-Dichlorobenzene	1.441	1.364	1.329
N-Butyl Benzene	2.417	2.215	2.015
1,2-Dichlorobenzene	1.330	1.249	1.199
1,2-Dibromo 3-Chloropropane	0.163	0.140	0.135
1,2,4-Trichlorobenzene	0.760	0.690	0.768
Hexachloro 1,3-Butadiene	0.297	0.263	0.303
Naphthalene	1.958	1.826	1.766
1,2,3-Trichlorobenzene	0.656	0.607	0.693
Dichlorodifluoromethane	0.758	0.696	0.688
Methyl tert butyl ether	1.729	1.625	1.493

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Calibration Date: 03/22/13

LAB FILE ID: RF20: VSTD20 RF40: VSTD40 RF80: VSTD80

COMPOUND	RF20	RF40	RF80
d4-1,2-Dichloroethane	0.694	0.647	0.643
d8-Toluene	1.226	1.188	1.218
4-Bromofluorobenzene	0.513	0.504	0.503
d4-1,2-Dichlorobenzene	0.891	0.867	0.870
Dibromofluoromethane	0.552	0.511	0.505

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Calibration Date: 03/22/13

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
Chloromethane	AVRG	0.822	9.9
Vinyl Chloride	AVRG	0.905	7.8
Bromomethane	AVRG	0.480	10.3
Chloroethane	LINR		0.9985
Trichlorofluoromethane	AVRG	0.926	14.6
Acrolein	AVRG	0.093	12.0
112Trichloro122Trifluoroetha	AVRG	0.631	12.1
Acetone	LINR		0.9962
1,1-Dichloroethene	AVRG	0.618	7.8
Bromoethane	AVRG	0.421	3.8
Iodomethane	AVRG	0.851	15.0
Methylene Chloride	LINR		0.9993
Acrylonitrile	AVRG	0.139	16.8
Carbon Disulfide	AVRG	2.099	8.0
Trans-1,2-Dichloroethene	AVRG	0.620	7.3
Vinyl Acetate	AVRG	1.112	6.9
1,1-Dichloroethane	AVRG	1.156	6.2
2-Butanone	LINR		0.9987
2,2-Dichloropropane	AVRG	0.728	12.5
Cis-1,2-Dichloroethene	AVRG	0.642	7.4
Chloroform	AVRG	1.035	7.0
Bromochloromethane	AVRG	0.303	13.4
1,1,1-Trichloroethane	AVRG	0.929	9.1
1,1-Dichloropropene	AVRG	0.502	1.9
Carbon Tetrachloride	AVRG	0.459	11.5
1,2-Dichloroethane	AVRG	0.481	8.9
Benzene	AVRG	1.425	9.5
Trichloroethene	AVRG	0.348	7.3
1,2-Dichloropropane	AVRG	0.356	4.4
Bromodichloromethane	AVRG	0.436	15.2
Dibromomethane	AVRG	0.207	12.0
2-Chloroethyl Vinyl Ether	AVRG	0.189	9.4
4-Methyl-2-Pentanone	AVRG	0.358	10.3
Cis 1,3-dichloropropene	AVRG	0.522	2.9
Toluene	AVRG	0.803	5.9
Trans 1,3-Dichloropropene	AVRG	0.505	4.8
2-Hexanone	AVRG	0.294	8.8

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Calibration Date: 03/22/13

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
1,1,2-Trichloroethane	AVRG	0.282	8.4
1,3-Dichloropropane	AVRG	0.540	5.0
Tetrachloroethene	AVRG	0.338	3.9
Chlorodibromomethane	AVRG	0.340	13.2
1,2-Dibromoethane	AVRG	0.293	8.9
Chlorobenzene	AVRG	0.946	3.4
Ethyl Benzene	AVRG	1.571	7.4
1,1,1,2-Tetrachloroethane	AVRG	0.344	11.5
m,p-xylene	AVRG	0.595	5.4
o-Xylene	AVRG	0.601	4.1
Styrene	AVRG	0.965	7.3
Bromoform	AVRG	0.416	5.1
1,1,2,2-Tetrachloroethane	AVRG	0.866	17.2
1,2,3-Trichloropropane	AVRG	0.242	5.7
Trans-1,4-Dichloro 2-Butene	AVRG	0.320	5.7
N-Propyl Benzene	AVRG	3.217	8.6
Bromobenzene	AVRG	0.746	9.2
Isopropyl Benzene	AVRG	2.683	8.7
2-Chloro Toluene	AVRG	2.313	3.6
4-Chloro Toluene	AVRG	2.170	4.8
T-Butyl Benzene	AVRG	1.938	6.8
1,3,5-Trimethyl Benzene	AVRG	2.277	7.0
1,2,4-Trimethylbenzene	AVRG	2.260	7.4
S-Butyl Benzene	AVRG	2.839	8.5
4-Isopropyl Toluene	AVRG	2.270	7.3
1,3-Dichlorobenzene	AVRG	1.410	6.1
1,4-Dichlorobenzene	AVRG	1.464	8.1
N-Butyl Benzene	AVRG	2.229	6.2
1,2-Dichlorobenzene	AVRG	1.362	8.5
1,2-Dibromo 3-Chloropropane	AVRG	0.165	18.4
1,2,4-Trichlorobenzene	AVRG	0.730	7.5
Hexachloro 1,3-Butadiene	AVRG	0.324	19.0
Naphthalene	AVRG	1.838	6.3
1,2,3-Trichlorobenzene	AVRG	0.686	12.9
Dichlorodifluoromethane	AVRG	0.738	12.5
Methyl tert butyl ether	AVRG	1.687	6.9

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Calibration Date: 03/22/13

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
d4-1,2-Dichloroethane	AVRG	0.704	6.2
d8-Toluene	AVRG	1.203	2.0
4-Bromofluorobenzene	AVRG	0.501	3.5
d4-1,2-Dichlorobenzene	AVRG	0.892	3.0
Dibromofluoromethane	AVRG	0.550	5.4

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Calibration Date: 04/01/13

LAB FILE ID: RF1: 0010401 RF2: 0020401 RF5: 0050401
RF10: 0100401 RF50: 0500401

COMPOUND	RF1	RF2	RF5	RF10	RF50
Chloromethane	1.225	1.024	0.918	0.869	0.655
Vinyl Chloride	0.606	0.648	0.645	0.624	0.573
Bromomethane	0.629	0.593	0.515	0.435	0.312
Chloroethane	0.262	0.256	0.223	0.218	0.187
Trichlorofluoromethane	0.704	0.607	0.383	0.345	0.314
Acrolein	0.098	0.096	0.090	0.085	0.083
112Trichloro122Trifluoroetha	0.401	0.453	0.430	0.441	0.370
Acetone	0.171	0.164	0.138	0.124	0.115
1,1-Dichloroethene	0.452	0.470	0.449	0.455	0.372
Bromoethane	0.280	0.310	0.304	0.314	0.265
Iodomethane	0.334	0.320	0.318	0.292	0.199
Methylene Chloride		0.597	0.548	0.539	0.443
Acrylonitrile	0.198	0.186	0.175	0.161	0.152
Carbon Disulfide	1.550	1.551	1.544	1.511	1.315
Trans-1,2-Dichloroethene	0.549	0.523	0.505	0.519	0.415
Vinyl Acetate	0.894	0.997	0.963	0.949	0.932
1,1-Dichloroethane	0.931	0.962	0.946	0.948	0.792
2-Butanone	0.039	0.054	0.047	0.049	0.051
2,2-Dichloropropane	0.648	0.670	0.672	0.703	0.611
Cis-1,2-Dichloroethene	0.542	0.583	0.501	0.509	0.420
Chloroform	0.865	0.864	0.867	0.886	0.753
Bromochloromethane	0.230	0.253	0.246	0.248	0.222
1,1,1-Trichloroethane	0.713	0.702	0.702	0.729	0.614
1,1-Dichloropropene	0.328	0.371	0.350	0.387	0.348
Carbon Tetrachloride	0.285	0.304	0.303	0.322	0.288
1,2-Dichloroethane	0.344	0.374	0.347	0.358	0.314
Benzene	1.232	1.282	1.275	1.354	1.180
Trichloroethene	0.277	0.312	0.277	0.304	0.260
1,2-Dichloropropane	0.302	0.306	0.322	0.342	0.302
Bromodichloromethane	0.332	0.355	0.362	0.377	0.343
Dibromomethane	0.142	0.157	0.145	0.154	0.138
2-Chloroethyl Vinyl Ether		0.013	0.017	0.019	0.020
4-Methyl-2-Pentanone	0.072	0.088	0.099	0.109	0.111
Cis 1,3-dichloropropene	0.302	0.359	0.390	0.451	0.448
Toluene	0.815	0.803	0.806	0.862	0.729
Trans 1,3-Dichloropropene	0.324	0.376	0.392	0.418	0.394
2-Hexanone	0.110	0.142	0.163	0.181	0.196

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Calibration Date: 04/01/13

LAB FILE ID: RF1: 0010401 RF2: 0020401 RF5: 0050401
RF10: 0100401 RF50: 0500401

COMPOUND	RF1	RF2	RF5	RF10	RF50
1,1,2-Trichloroethane	0.224	0.250	0.232	0.251	0.226
1,3-Dichloropropane	0.366	0.389	0.410	0.430	0.402
Tetrachloroethene	0.290	0.289	0.288	0.300	0.260
Chlorodibromomethane	0.213	0.223	0.222	0.243	0.228
1,2-Dibromoethane	0.184	0.217	0.213	0.233	0.220
Chlorobenzene	0.890	0.882	0.868	0.906	0.766
Ethyl Benzene	1.388	1.426	1.438	1.570	1.360
1,1,1,2-Tetrachloroethane	0.230	0.254	0.258	0.272	0.244
m,p-xylene	0.435	0.505	0.550	0.609	0.531
o-Xylene	0.362	0.390	0.460	0.560	0.510
Styrene	0.563	0.665	0.807	0.948	0.882
Bromoform	0.275	0.291	0.287	0.304	0.287
1,1,2,2-Tetrachloroethane	0.544	0.559	0.528	0.564	0.520
1,2,3-Trichloropropane	0.172	0.158	0.170	0.178	0.164
Trans-1,4-Dichloro 2-Butene		0.152	0.156	0.160	0.160
N-Propyl Benzene	2.581	2.780	2.906	3.273	2.847
Bromobenzene	0.652	0.681	0.632	0.674	0.583
Isopropyl Benzene	1.581	1.996	2.283	2.718	2.402
2-Chloro Toluene	1.495	1.716	1.757	2.010	1.726
4-Chloro Toluene	1.511	1.685	1.793	2.016	1.751
T-Butyl Benzene	1.158	1.416	1.591	1.936	1.689
1,3,5-Trimethyl Benzene	1.502	1.770	1.999	2.299	1.995
1,2,4-Trimethylbenzene	1.327	1.734	1.955	2.231	1.985
S-Butyl Benzene	1.994	2.420	2.692	3.092	2.706
4-Isopropyl Toluene	1.282	1.643	1.950	2.307	2.053
1,3-Dichlorobenzene	1.178	1.236	1.209	1.294	1.104
1,4-Dichlorobenzene	1.404	1.373	1.261	1.337	1.117
N-Butyl Benzene	1.474	1.698	1.889	2.172	2.010
1,2-Dichlorobenzene	1.299	1.246	1.219	1.265	1.073
1,2-Dibromo 3-Chloropropane		0.087	0.080	0.083	0.085
1,2,4-Trichlorobenzene	0.605	0.620	0.666	0.755	0.706
Hexachloro 1,3-Butadiene	0.428	0.469	0.440	0.454	0.398
Naphthalene	1.082	1.188	1.342	1.629	1.642
1,2,3-Trichlorobenzene	0.680	0.689	0.685	0.738	0.678
Dichlorodifluoromethane	0.437	0.395	0.358	0.349	0.379
Methyl tert butyl ether	1.170	1.203	1.220	1.221	1.130

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Calibration Date: 04/01/13

LAB FILE ID: RF1: 0010401 RF2: 0020401 RF5: 0050401
RF10: 0100401 RF50: 0500401

COMPOUND	RF1	RF2	RF5	RF10	RF50
d4-1,2-Dichloroethane	0.520	0.509	0.501	0.477	0.480
d8-Toluene	1.272	1.268	1.284	1.297	1.288
4-Bromofluorobenzene	0.476	0.481	0.490	0.492	0.495
d4-1,2-Dichlorobenzene	0.894	0.889	0.884	0.887	0.885
Dibromofluoromethane	0.472	0.468	0.463	0.458	0.458

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Calibration Date: 04/01/13

LAB FILE ID: RF100: 1000401 RF150: 1500401 RF200: 2000401

COMPOUND	RF100	RF150	RF200
Chloromethane	0.745	0.712	0.630
Vinyl Chloride	0.674	0.647	0.622
Bromomethane	0.351	0.323	
Chloroethane	0.206	0.196	0.190
Trichlorofluoromethane	0.360	0.354	0.396
Acrolein	0.087	0.086	0.085
112Trichloro122Trifluoroetha	0.444	0.436	0.432
Acetone	0.121	0.120	0.096
1,1-Dichloroethene	0.438	0.413	0.293
Bromoethane	0.300	0.286	0.270
Iodomethane	0.257	0.257	0.238
Methylene Chloride	0.495	0.478	0.446
Acrylonitrile	0.162	0.161	0.161
Carbon Disulfide	1.536	1.452	1.000
Trans-1,2-Dichloroethene	0.489	0.472	0.458
Vinyl Acetate	1.006	0.993	0.961
1,1-Dichloroethane	0.924	0.900	0.864
2-Butanone	0.053	0.053	0.052
2,2-Dichloropropane	0.729	0.726	0.728
Cis-1,2-Dichloroethene	0.479	0.463	0.437
Chloroform	0.870	0.858	0.814
Bromochloromethane	0.245	0.238	0.202
1,1,1-Trichloroethane	0.734	0.720	0.713
1,1-Dichloropropene	0.423	0.417	0.431
Carbon Tetrachloride	0.347	0.345	0.353
1,2-Dichloroethane	0.351	0.344	0.338
Benzene	1.408	1.380	1.376
Trichloroethene	0.311	0.305	0.309
1,2-Dichloropropane	0.350	0.342	0.333
Bromodichloromethane	0.391	0.385	0.378
Dibromomethane	0.156	0.153	0.152
2-Chloroethyl Vinyl Ether	0.026	0.028	0.028
4-Methyl-2-Pentanone	0.120	0.116	0.115
Cis 1,3-dichloropropene	0.521	0.512	0.497
Toluene	0.863	0.844	0.834
Trans 1,3-Dichloropropene	0.447	0.433	0.416
2-Hexanone	0.215	0.219	0.226

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Calibration Date: 04/01/13

LAB FILE ID: RF100: 1000401 RF150: 1500401 RF200: 2000401

COMPOUND	RF100	RF150	RF200
1,1,2-Trichloroethane	0.253	0.250	0.245
1,3-Dichloropropane	0.453	0.455	0.457
Tetrachloroethene	0.310	0.308	0.322
Chlorodibromomethane	0.266	0.265	0.266
1,2-Dibromoethane	0.249	0.249	0.249
Chlorobenzene	0.890	0.865	0.855
Ethyl Benzene	1.633	1.626	1.650
1,1,1,2-Tetrachloroethane	0.285	0.284	0.288
m,p-xylene	0.610	0.571	0.555
o-Xylene	0.616	0.598	0.598
Styrene	1.042	1.010	1.008
Bromoform		0.331	0.345
1,1,2,2-Tetrachloroethane	0.592	0.588	0.590
1,2,3-Trichloropropane	0.176	0.174	0.178
Trans-1,4-Dichloro 2-Butene	0.190	0.189	0.205
N-Propyl Benzene	3.531	3.485	3.634
Bromobenzene	0.666	0.652	0.665
Isopropyl Benzene	3.010	2.990	3.162
2-Chloro Toluene	2.088	2.056	2.194
4-Chloro Toluene	2.109	2.098	2.205
T-Butyl Benzene	2.076	2.046	2.158
1,3,5-Trimethyl Benzene	2.406	2.359	2.475
1,2,4-Trimethylbenzene	2.415	2.407	2.524
S-Butyl Benzene	3.366	3.358	3.537
4-Isopropyl Toluene	2.557	2.548	2.656
1,3-Dichlorobenzene	1.307	1.289	1.296
1,4-Dichlorobenzene	1.299	1.265	1.263
N-Butyl Benzene	2.461	2.476	2.590
1,2-Dichlorobenzene	1.216	1.172	1.142
1,2-Dibromo 3-Chloropropane	0.091	0.088	0.095
1,2,4-Trichlorobenzene	0.830	0.750	0.766
Hexachloro 1,3-Butadiene	0.486	0.446	0.449
Naphthalene	1.856	1.683	1.794
1,2,3-Trichlorobenzene	0.759	0.666	0.684
Dichlorodifluoromethane	0.441	0.419	0.401
Methyl tert butyl ether	1.245	1.223	1.109

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Calibration Date: 04/01/13

LAB FILE ID: RF100: 1000401 RF150: 1500401 RF200: 2000401

COMPOUND	RF100	RF150	RF200
d4-1,2-Dichloroethane	0.472	0.466	0.446
d8-Toluene	1.287	1.281	1.284
4-Bromofluorobenzene	0.496	0.498	0.506
d4-1,2-Dichlorobenzene	0.874	0.861	0.850
Dibromofluoromethane	0.453	0.452	0.423

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Calibration Date: 04/01/13

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
Chloromethane	LINR		0.9911
Vinyl Chloride	AVRG	0.630	4.9
Bromomethane	LINR		0.9962
Chloroethane	AVRG	0.217	13.1
Trichlorofluoromethane	LINR		0.9932
Acrolein	AVRG	0.089	6.2
112Trichloro122Trifluoroetha	AVRG	0.426	6.4
Acetone	AVRG	0.131	19.3
1,1-Dichloroethene	AVRG	0.418	14.1
Bromoethane	AVRG	0.291	6.4
Iodomethane	AVRG	0.277	16.9
Methylene Chloride	AVRG	0.507	11.3
Acrylonitrile	AVRG	0.170	9.2
Carbon Disulfide	AVRG	1.432	13.4
Trans-1,2-Dichloroethene	AVRG	0.491	8.6
Vinyl Acetate	AVRG	0.962	3.9
1,1-Dichloroethane	AVRG	0.908	6.2
2-Butanone	AVRG	0.050	9.8
2,2-Dichloropropane	AVRG	0.686	6.3
Cis-1,2-Dichloroethene	AVRG	0.492	10.9
Chloroform	AVRG	0.847	5.1
Bromochloromethane	AVRG	0.236	7.2
1,1,1-Trichloroethane	AVRG	0.703	5.4
1,1-Dichloropropene	AVRG	0.382	10.1
Carbon Tetrachloride	AVRG	0.318	8.6
1,2-Dichloroethane	AVRG	0.346	4.9
Benzene	AVRG	1.311	6.2
Trichloroethene	AVRG	0.294	6.8
1,2-Dichloropropane	AVRG	0.325	6.0
Bromodichloromethane	AVRG	0.366	5.7
Dibromomethane	AVRG	0.149	4.6
2-Chloroethyl Vinyl Ether	LINR		0.9943
4-Methyl-2-Pentanone	AVRG	0.104	15.8
Cis 1,3-dichloropropene	AVRG	0.435	18.1
Toluene	AVRG	0.820	5.3
Trans 1,3-Dichloropropene	AVRG	0.400	9.6
2-Hexanone	LINR		0.9983

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Calibration Date: 04/01/13

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
1,1,2-Trichloroethane	AVRG	0.241	5.0
1,3-Dichloropropane	AVRG	0.420	8.1
Tetrachloroethene	AVRG	0.296	6.3
Chlorodibromomethane	AVRG	0.241	9.2
1,2-Dibromoethane	AVRG	0.227	10.1
Chlorobenzene	AVRG	0.865	5.0
Ethyl Benzene	AVRG	1.511	8.0
1,1,1,2-Tetrachloroethane	AVRG	0.264	8.0
m,p-xylene	AVRG	0.546	10.5
o-Xylene	AVRG	0.512	19.3
Styrene	LINR		0.9987
Bromoform	AVRG	0.303	8.5
1,1,2,2-Tetrachloroethane	AVRG	0.561	5.1
1,2,3-Trichloropropane	AVRG	0.171	4.0
Trans-1,4-Dichloro 2-Butene	AVRG	0.173	12.2
N-Propyl Benzene	AVRG	3.130	12.8
Bromobenzene	AVRG	0.650	4.8
Isopropyl Benzene	LINR		0.9957
2-Chloro Toluene	AVRG	1.880	12.8
4-Chloro Toluene	AVRG	1.896	12.9
T-Butyl Benzene	LINR		0.9965
1,3,5-Trimethyl Benzene	AVRG	2.101	16.4
1,2,4-Trimethylbenzene	AVRG	2.072	19.6
S-Butyl Benzene	AVRG	2.896	18.5
4-Isopropyl Toluene	LINR		0.9965
1,3-Dichlorobenzene	AVRG	1.239	5.8
1,4-Dichlorobenzene	AVRG	1.290	6.8
N-Butyl Benzene	AVRG	2.096	19.1
1,2-Dichlorobenzene	AVRG	1.204	6.0
1,2-Dibromo 3-Chloropropane	AVRG	0.087	5.9
1,2,4-Trichlorobenzene	AVRG	0.712	10.9
Hexachloro 1,3-Butadiene	AVRG	0.446	5.9
Naphthalene	AVRG	1.527	18.8
1,2,3-Trichlorobenzene	AVRG	0.698	4.7
Dichlorodifluoromethane	AVRG	0.397	8.6
Methyl tert butyl ether	AVRG	1.190	4.1

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Calibration Date: 04/01/13

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
d4-1,2-Dichloroethane	AVRG	0.484	5.1
d8-Toluene	AVRG	1.283	0.7
4-Bromofluorobenzene	AVRG	0.492	2.0
d4-1,2-Dichlorobenzene	AVRG	0.878	1.8
Dibromofluoromethane	AVRG	0.456	3.3

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

WJ10: 8GA BC 4/19/13

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Cont. Calib. Date: 04/08/13

Init. Calib. Date: 03/22/13 Cont. Calib. Time: 0932

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Chloromethane	0.822	0.7600	0.100	AVRG	-7.5	
Vinyl Chloride	0.905	0.7817	0.010	AVRG	-13.6	
Bromomethane	0.480	0.5119	0.010	AVRG	6.6	
Chloroethane	10.000	8.943	0.010	LINR	-10.6	
Trichlorofluoromethane	0.926	0.7787	0.010	AVRG	-15.9	
Acrolein	0.093	0.0838	0.010	AVRG	-9.9	
112Trichloro122Trifluoroetha	0.631	0.5488	0.010	AVRG	-13.0	
Acetone	50.000	52.099	0.010	LINR	4.2	
1,1-Dichloroethene	0.618	0.5595	0.010	AVRG	-9.5	
Bromoethane	0.421	0.3690	0.010	AVRG	-12.4	
Iodomethane	0.851	0.7527	0.010	AVRG	-11.6	
Methylene Chloride	10.000	10.274	0.010	LINR	2.7	
Acrylonitrile	0.138	0.1831	0.010	AVRG	32.7	<-
Carbon Disulfide	2.099	1.7994	0.010	AVRG	-14.3	
Trans-1,2-Dichloroethene	0.620	0.5707	0.010	AVRG	-8.0	
Vinyl Acetate	1.112	1.1196	0.010	AVRG	0.7	
1,1-Dichloroethane	1.156	1.0349	0.100	AVRG	-10.5	
2-Butanone	50.000	71.009	0.010	LINR	42.0	<-
2,2-Dichloropropane	0.728	0.7100	0.010	AVRG	-2.5	
Cis-1,2-Dichloroethene	0.642	0.6120	0.010	AVRG	-4.7	
Chloroform	1.035	0.9994	0.010	AVRG	-3.4	
Bromochloromethane	0.303	0.2903	0.010	AVRG	-4.2	
1,1,1-Trichloroethane	0.929	0.7834	0.010	AVRG	-15.7	
1,1-Dichloropropene	0.502	0.5012	0.010	AVRG	-0.2	
Carbon Tetrachloride	0.459	0.4342	0.010	AVRG	-5.4	
1,2-Dichloroethane	0.481	0.5044	0.010	AVRG	4.9	
Benzene	1.425	1.3912	0.010	AVRG	-2.4	
Trichloroethene	0.348	0.3541	0.010	AVRG	1.8	
1,2-Dichloropropane	0.356	0.3570	0.010	AVRG	0.3	
Bromodichloromethane	0.436	0.4613	0.010	AVRG	5.8	
Dibromomethane	0.207	0.2302	0.010	AVRG	11.2	
2-Chloroethyl Vinyl Ether	0.189	0.2177	0.010	AVRG	15.2	
4-Methyl-2-Pentanone	0.358	0.4165	0.010	AVRG	16.3	
Cis 1,3-dichloropropene	0.522	0.5759	0.010	AVRG	10.3	
Toluene	0.803	0.8764	0.010	AVRG	9.1	
Trans 1,3-Dichloropropene	0.505	0.5668	0.010	AVRG	12.2	
2-Hexanone	0.294	0.3202	0.010	AVRG	8.9	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Cont. Calib. Date: 04/08/13

Init. Calib. Date: 03/22/13 Cont. Calib. Time: 0932

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
1,1,2-Trichloroethane	0.282	0.2984	0.010	AVRG	5.8	
1,3-Dichloropropane	0.540	0.5790	0.010	AVRG	7.2	
Tetrachloroethene	0.338	0.3558	0.010	AVRG	5.3	
Chlorodibromomethane	0.340	0.3658	0.010	AVRG	7.6	
1,2-Dibromoethane	0.293	0.3252	0.010	AVRG	11.0	
Chlorobenzene	0.946	1.0071	0.300	AVRG	6.4	
Ethyl Benzene	1.571	1.7784	0.010	AVRG	13.2	
1,1,1,2-Tetrachloroethane	0.344	0.3729	0.010	AVRG	8.4	
m,p-xylene	0.595	0.6694	0.010	AVRG	12.5	
o-Xylene	0.601	0.6657	0.010	AVRG	10.8	
Styrene	0.965	1.0940	0.010	AVRG	13.4	
Bromoform	0.416	0.4757	0.100	AVRG	14.4	
1,1,2,2-Tetrachloroethane	0.866	0.8717	0.300	AVRG	0.6	
1,2,3-Trichloropropane	0.241	0.2708	0.010	AVRG	12.4	
Trans-1,4-Dichloro 2-Butene	0.320	0.3347	0.010	AVRG	4.6	
N-Propyl Benzene	3.217	3.4642	0.010	AVRG	7.7	
Bromobenzene	0.746	0.7714	0.010	AVRG	3.4	
Isopropyl Benzene	2.683	3.0082	0.010	AVRG	12.1	
2-Chloro Toluene	2.313	2.4580	0.010	AVRG	6.3	
4-Chloro Toluene	2.170	2.2678	0.010	AVRG	4.5	
T-Butyl Benzene	1.938	2.0956	0.010	AVRG	8.1	
1,3,5-Trimethyl Benzene	2.277	2.5148	0.010	AVRG	10.4	
1,2,4-Trimethylbenzene	2.260	2.5213	0.010	AVRG	11.6	
S-Butyl Benzene	2.839	3.0025	0.010	AVRG	5.8	
4-Isopropyl Toluene	2.270	2.4405	0.010	AVRG	7.5	
1,3-Dichlorobenzene	1.410	1.4127	0.010	AVRG	0.2	
1,4-Dichlorobenzene	1.464	1.4857	0.010	AVRG	1.5	
N-Butyl Benzene	2.229	2.2144	0.010	AVRG	-0.6	
1,2-Dichlorobenzene	1.362	1.3936	0.010	AVRG	2.3	
1,2-Dibromo 3-Chloropropane	0.165	0.1979	0.010	AVRG	19.9	
1,2,4-Trichlorobenzene	0.730	0.7471	0.010	AVRG	2.3	
Hexachloro 1,3-Butadiene	0.324	0.2751	0.010	AVRG	-15.1	
Naphthalene	1.838	2.4492	0.010	AVRG	33.2	<-
1,2,3-Trichlorobenzene	0.686	0.6606	0.010	AVRG	-3.7	
Dichlorodifluoromethane	0.738	0.5654	0.010	AVRG	-23.4	<-
Methyl tert butyl ether	1.687	1.2725	0.010	AVRG	-24.6	<-

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII VOA

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT3 Cont. Calib. Date: 04/08/13

Init. Calib. Date: 03/22/13 Cont. Calib. Time: 0932

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
d4-1,2-Dichloroethane	0.704	0.6856	0.010	AVRG	-2.6
d8-Toluene	1.203	1.2476	0.010	AVRG	3.7
4-Bromofluorobenzene	0.501	0.5115	0.010	AVRG	2.1
d4-1,2-Dichlorobenzene	0.892	0.9117	0.010	AVRG	2.2
Dibromofluoromethane	0.550	0.5248	0.010	AVRG	-4.6

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Cont. Calib. Date: 04/02/13

Init. Calib. Date: 04/01/13 Cont. Calib. Time: 1138

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Chloromethane	50.000	56.700	0.100	LINR	13.4	
Vinyl Chloride	0.630	0.7105	0.010	AVRG	12.8	
Bromomethane	50.000	55.428	0.010	LINR	10.8	
Chloroethane	0.217	0.2272	0.010	AVRG	4.7	
Trichlorofluoromethane	50.000	57.917	0.010	LINR	15.8	
Acrolein	0.089	0.0800	0.010	AVRG	-10.1	
112Trichloro122Trifluoroetha	0.426	0.4570	0.010	AVRG	7.3	
Acetone	0.131	0.1113	0.010	AVRG	-15.0	
1,1-Dichloroethene	0.418	0.4545	0.010	AVRG	8.7	
Bromoethane	0.291	0.3036	0.010	AVRG	4.3	
Iodomethane	0.277	0.2221	0.010	AVRG	-19.8	
Methylene Chloride	0.506	0.4440	0.010	AVRG	-12.2	
Acrylonitrile	0.170	0.1428	0.010	AVRG	-16.0	
Carbon Disulfide	1.432	1.6221	0.010	AVRG	13.3	
Trans-1,2-Dichloroethene	0.491	0.4752	0.010	AVRG	-3.2	
Vinyl Acetate	0.962	0.8526	0.010	AVRG	-11.4	
1,1-Dichloroethane	0.908	0.8509	0.100	AVRG	-6.3	
2-Butanone	0.050	0.0454	0.010	AVRG	-9.2	
2,2-Dichloropropane	0.686	0.6830	0.010	AVRG	-0.4	
Cis-1,2-Dichloroethene	0.492	0.5141	0.010	AVRG	4.5	
Chloroform	0.847	0.7583	0.010	AVRG	-10.5	
Bromochloromethane	0.236	0.2012	0.010	AVRG	-14.7	
1,1,1-Trichloroethane	0.703	0.6781	0.010	AVRG	-3.5	
1,1-Dichloropropene	0.382	0.3873	0.010	AVRG	1.4	
Carbon Tetrachloride	0.318	0.3166	0.010	AVRG	-0.4	
1,2-Dichloroethane	0.346	0.2826	0.010	AVRG	-18.3	
Benzene	1.311	1.1850	0.010	AVRG	-9.6	
Trichloroethene	0.294	0.2729	0.010	AVRG	-7.2	
1,2-Dichloropropane	0.325	0.2781	0.010	AVRG	-14.4	
Bromodichloromethane	0.365	0.3078	0.010	AVRG	-15.7	
Dibromomethane	0.150	0.1218	0.010	AVRG	-18.8	
2-Chloroethyl Vinyl Ether	50.000	32.306	0.010	LINR	-35.4	<-
4-Methyl-2-Pentanone	0.104	0.0964	0.010	AVRG	-7.3	
Cis 1,3-dichloropropene	0.435	0.4024	0.010	AVRG	-7.5	
Toluene	0.820	0.7331	0.010	AVRG	-10.6	
Trans 1,3-Dichloropropene	0.400	0.3520	0.010	AVRG	-12.0	
2-Hexanone	250.00	199.14	0.010	LINR	-20.3	<-

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Cont. Calib. Date: 04/02/13

Init. Calib. Date: 04/01/13 Cont. Calib. Time: 1138

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
1,1,2-Trichloroethane	0.241	0.1928	0.010	AVRG	-20.0	<- bo 4/17/13
1,3-Dichloropropane	0.420	0.3657	0.010	AVRG	-12.9	
Tetrachloroethene	0.296	0.2962	0.010	AVRG	0.1	
Chlorodibromomethane	0.241	0.2055	0.010	AVRG	-14.7	
1,2-Dibromoethane	0.227	0.1883	0.010	AVRG	-17.0	
Chlorobenzene	0.865	0.7735	0.300	AVRG	-10.6	
Ethyl Benzene	1.511	1.4639	0.010	AVRG	-3.1	
1,1,1,2-Tetrachloroethane	0.264	0.2324	0.010	AVRG	-12.0	
m,p-xylene	0.546	0.5681	0.010	AVRG	4.0	
o-Xylene	0.512	0.5164	0.010	AVRG	0.8	
Styrene	50.000	43.084	0.010	LINR	-13.8	
Bromoform	0.303	0.2663	0.100	AVRG	-12.1	
1,1,2,2-Tetrachloroethane	0.561	0.4863	0.300	AVRG	-13.3	
1,2,3-Trichloropropane	0.171	0.1532	0.010	AVRG	-10.4	
Trans-1,4-Dichloro 2-Butene	0.173	0.1647	0.010	AVRG	-4.8	
N-Propyl Benzene	3.130	3.2233	0.010	AVRG	3.0	
Bromobenzene	0.651	0.5697	0.010	AVRG	-12.5	
Isopropyl Benzene	50.000	43.618	0.010	LINR	-12.8	
2-Chloro Toluene	1.880	1.8395	0.010	AVRG	-2.2	
4-Chloro Toluene	1.896	1.8842	0.010	AVRG	-0.6	
T-Butyl Benzene	50.000	42.823	0.010	LINR	-14.4	
1,3,5-Trimethyl Benzene	2.101	2.1662	0.010	AVRG	3.1	
1,2,4-Trimethylbenzene	2.072	2.1137	0.010	AVRG	2.0	
S-Butyl Benzene	2.896	2.9303	0.010	AVRG	1.2	
4-Isopropyl Toluene	50.000	42.786	0.010	LINR	-14.4	
1,3-Dichlorobenzene	1.239	1.1539	0.010	AVRG	-6.9	
1,4-Dichlorobenzene	1.290	1.1728	0.010	AVRG	-9.1	
N-Butyl Benzene	2.096	2.1899	0.010	AVRG	4.5	
1,2-Dichlorobenzene	1.204	1.0567	0.010	AVRG	-12.2	
1,2-Dibromo 3-Chloropropane	0.087	0.0788	0.010	AVRG	-9.4	
1,2,4-Trichlorobenzene	0.712	0.6705	0.010	AVRG	-5.8	
Hexachloro 1,3-Butadiene	0.446	0.3269	0.010	AVRG	-26.7	<-
Naphthalene	1.527	1.4748	0.010	AVRG	-3.4	
1,2,3-Trichlorobenzene	0.697	0.6136	0.010	AVRG	-12.0	
Dichlorodifluoromethane	0.397	0.4738	0.010	AVRG	19.3	
Methyl tert butyl ether	1.190	0.9771	0.010	AVRG	-17.9	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT9 Cont. Calib. Date: 04/02/13

Init. Calib. Date: 04/01/13 Cont. Calib. Time: 1138

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
d4-1,2-Dichloroethane	0.484	0.4958	0.010	AVRG	2.4
d8-Toluene	1.283	1.2643	0.010	AVRG	-1.4
4-Bromofluorobenzene	0.492	0.4760	0.010	AVRG	-3.2
d4-1,2-Dichlorobenzene	0.878	0.8828	0.010	AVRG	0.5
Dibromofluoromethane	0.456	0.4612	0.010	AVRG	1.1

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: 0100401 Ical Date: 04/01/13

Instrument ID: NT9 Project Run Date: 04/02/13

		IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CLB) AREA #	RT #
	ICAL MIDPT	934883	5.26	1607018	5.65	1685432	7.71
	UPPER LIMIT	1869766	5.76	3214036	6.15	3370864	8.21
	LOWER LIMIT	467442	4.76	803509	5.15	842716	7.21
	Sample ID						
01	LCS0402	991631	5.26	1760040	5.64	1789726	7.70
02	LCS0402	1008519	5.26	1792823	5.65	1871112	7.70
03	MB0402	922850	5.26	1691155	5.65	1679714	7.70
04	SD-CB-01-201	816110	5.27	1485966	5.65	1444995	7.70
05							
06							
07							
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20							
21							
22							

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CLB) = d5-Chlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: SAIC

ARI Job No: WJ10 | Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: 0100401 | Ical Date: 04/01/13

Instrument ID: NT9 | Project Run Date: 04/02/13

		IS4 (DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	888613	9.39				
	UPPER LIMIT	1777226	9.89				
	LOWER LIMIT	444306	8.89				
	Sample ID						
01	LCS0402	951779	9.39				
02	LCS0402	1015033	9.39				
03	MB0402	847557	9.39				
04	SD-CB-01-201	706924	9.39				
05							
06							
07							
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22							

IS4 (DCB) = d4-1,4-Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: VSTD10 Ical Date: 03/22/13

Instrument ID: NT3 Project Run Date: 04/08/13

		IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CLB) AREA #	RT #
	ICAL MIDPT	536415	5.54	907870	5.92	856141	7.98
	UPPER LIMIT	1072830	6.04	1815740	6.42	1712282	8.48
	LOWER LIMIT	268208	5.04	453935	5.42	428070	7.48
	Sample ID						
01	LCS0408	487661	5.54	819749	5.93	799982	7.98
02	LCS0408	516599	5.54	852517	5.92	842545	7.98
03	MB0408	487216	5.54	818244	5.93	798684	7.98
04	SD-SP-01-20	490542	5.53	810170	5.92	785376	7.98
05							
06							
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19							
20							
21							
22							

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CLB) = d5-Chlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

4/24/13

WJ10: 00095_rev

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: SAIC

ARI Job No: WJ10 | Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: VSTD10 | Ical Date: 03/22/13

Instrument ID: NT3 | Project Run Date: 04/08/13

		IS4 (DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	481945	9.67				
	UPPER LIMIT	963890	10.17				
	LOWER LIMIT	240972	9.17				
	Sample ID						
01	LCS0408	465809	9.67				
02	LCS0408	478208	9.67				
03	MB0408	419918	9.67				
04	SD-SP-01-20	413329	9.67				
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (DCB) = d4-1,4-Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

cs 4/24/13

WJ10: 00096-rev

Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3510C
Page 1 of 2

Sample ID: SD-SP-01-20130326-W
SAMPLE

Lab Sample ID: WJ10A
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/01/13
Date Analyzed: 04/04/13 19:03
Instrument/Analyst: NT6/JZ

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	DL	LOQ	Result
108-95-2	Phenol	0.44	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	0.26	1.0	< 1.0 U
95-57-8	2-Chlorophenol	0.25	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	0.50	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	0.47	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	0.41	2.0	< 2.0 U
95-50-1	1,2-Dichlorobenzene	0.44	1.0	< 1.0 U
95-48-7	2-Methylphenol	0.33	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	0.22	1.0	< 1.0 U
106-44-5	4-Methylphenol	0.54	2.0	< 2.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	0.36	1.0	< 1.0 U
67-72-1	Hexachloroethane	0.61	2.0	< 2.0 U
98-95-3	Nitrobenzene	0.49	1.0	< 1.0 U
78-59-1	Isophorone	0.26	1.0	< 1.0 U
88-75-5	2-Nitrophenol	0.98	3.0	< 3.0 U
105-67-9	2,4-Dimethylphenol	0.63	3.0	< 3.0 U
65-85-0	Benzoic Acid	8.6	20	< 20 U
111-91-1	bis(2-Chloroethoxy) Methane	0.25	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	1.1	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	0.50	1.0	< 1.0 U
91-20-3	Naphthalene	0.33	1.0	< 1.0 U
106-47-8	4-Chloroaniline	1.7	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	0.60	3.0	< 3.0 U
59-50-7	4-Chloro-3-methylphenol	0.92	3.0	< 3.0 U
91-57-6	2-Methylnaphthalene	0.24	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	1.9	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	1.2	3.0	< 3.0 U
95-95-4	2,4,5-Trichlorophenol	1.7	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	0.34	1.0	< 1.0 U
88-74-4	2-Nitroaniline	0.78	3.0	< 3.0 U
131-11-3	Dimethylphthalate	0.26	1.0	< 1.0 U
208-96-8	Acenaphthylene	0.27	1.0	< 1.0 U
99-09-2	3-Nitroaniline	1.1	3.0	< 3.0 U
83-32-9	Acenaphthene	0.35	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	5.5	20	< 20 U
100-02-7	4-Nitrophenol	2.9	10	< 10 U
132-64-9	Dibenzofuran	0.20	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	1.3	3.0	< 3.0 U
121-14-2	2,4-Dinitrotoluene	1.3	3.0	< 3.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: SD-SP-01-20130326-W**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: WJ10A QC Report No: WJ10-SAIC
LIMS ID: 13-6435 Project: NPDES Sampling Support
Matrix: Water 209977
Date Analyzed: 04/04/13 19:03

CAS Number	Analyte	DL	LOQ	Result
84-66-2	Diethylphthalate	0.41	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	0.34	1.0	< 1.0 U
86-73-7	Fluorene	0.27	1.0	< 1.0 U
100-01-6	4-Nitroaniline	1.4	3.0	< 3.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	4.9	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	0.39	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	0.26	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	0.34	1.0	< 1.0 U
87-86-5	Pentachlorophenol	2.7	10	< 10 U
85-01-8	Phenanthrene	0.28	1.0	< 1.0 U
86-74-8	Carbazole	0.25	1.0	< 1.0 U
120-12-7	Anthracene	0.30	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	0.30	1.0	< 1.0 U
206-44-0	Fluoranthene	0.29	1.0	< 1.0 U
129-00-0	Pyrene	0.38	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	0.40	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	1.6	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	0.37	1.0	< 1.0 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**1.0**	**1.0**	**17**
218-01-9	Chrysene	0.40	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	0.33	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	0.42	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.44	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	0.44	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	0.46	1.0	< 1.0 U
62-53-3	Aniline	0.47	1.0	< 1.0 U
122-66-7	1,2-Diphenylhydrazine	0.40	1.0	< 1.0 U
62-75-9	N-Nitrosodimethylamine	1.2	3.0	< 3.0 U
103-33-3	Azobenzene	0.21	1.0	< 1.0 U
58-90-2	2,3,4,6-Tetrachlorophenol	0.15	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	0.20	1.0	< 1.0 U
TOTBFA	Total Benzofluoranthenes	2.3	5.0	< 5.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.8%	2-Fluorobiphenyl	66.8%
d14-p-Terphenyl	62.4%	d4-1,2-Dichlorobenzene	60.0%
d5-Phenol	29.1%	2-Fluorophenol	42.9%
2,4,6-Tribromophenol	77.6%	d4-2-Chlorophenol	63.5%

1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. ARI calibrates with Azobenzene and always reports these compounds as a combined concentration

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
MB-040113	70.0%	64.4%	80.0%	58.8%	32.3%	45.6%	74.4%	68.0%	0
LCS-040113	70.4%	78.0%	87.2%	61.2%	35.7%	53.3%	100%	69.9%	0
LCSD-040113	68.8%	74.4%	85.6%	58.8%	33.9%	44.5%	96.3%	66.9%	0
SD-SP-01-20130326-	64.8%	66.8%	62.4%	60.0%	29.1%	42.9%	77.6%	63.5%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(50-100)	(34-101)
(FBP) = 2-Fluorobiphenyl	(51-100)	(38-100)
(TPH) = d14-p-Terphenyl	(54-117)	(27-122)
(DCB) = d4-1,2-Dichlorobenzene	(40-100)	(27-100)
(PHL) = d5-Phenol	(15-121)	(16-106)
(2FP) = 2-Fluorophenol	(33-100)	(23-100)
(TBP) = 2,4,6-Tribromophenol	(46-125)	(31-128)
(2CP) = d4-2-Chlorophenol	(46-102)	(33-100)

Prep Method: SW3510C
Log Number Range: 13-6435 to 13-6435

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: SD-SP-01-20130326-S**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized: TMW
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 18:48
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 0.48 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 52.8%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	**Phenol**	**180**	**420**	**500 Q**
111-44-4	Bis-(2-Chloroethyl) Ether	70	420	< 420 U
95-57-8	2-Chlorophenol	50	420	< 420 U
541-73-1	1,3-Dichlorobenzene	55	420	< 420 U
106-46-7	1,4-Dichlorobenzene	60	420	< 420 U
100-51-6	Benzyl Alcohol	130	420	< 420 U
95-50-1	1,2-Dichlorobenzene	52	420	< 420 U
95-48-7	2-Methylphenol	110	420	< 420 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	78	420	< 420 U
106-44-5	**4-Methylphenol**	**140**	**420**	**3,800**
621-64-7	N-Nitroso-Di-N-Propylamine	70	420	< 420 U
67-72-1	Hexachloroethane	61	420	< 420 U
98-95-3	Nitrobenzene	85	420	< 420 U
78-59-1	Isophorone	60	420	< 420 U
88-75-5	2-Nitrophenol	810	2,100	< 2,100 U
105-67-9	2,4-Dimethylphenol	72	830	< 830 U
65-85-0	Benzoic Acid	2100	8,300	< 8,300 U
111-91-1	bis(2-Chloroethoxy) Methane	42	420	< 420 U
120-83-2	2,4-Dichlorophenol	450	4,200	< 4,200 U
120-82-1	1,2,4-Trichlorobenzene	72	420	< 420 U
91-20-3	Naphthalene	58	420	< 420 U
106-47-8	4-Chloroaniline	460	5,600	< 5,600 U
87-68-3	Hexachlorobutadiene	95	420	< 420 U
59-50-7	4-Chloro-3-methylphenol	310	2,100	< 2,100 U
91-57-6	2-Methylnaphthalene	64	420	< 420 U
77-47-4	Hexachlorocyclopentadiene	1400	8,300	< 8,300 U
88-06-2	2,4,6-Trichlorophenol	470	2,100	< 2,100 U
95-95-4	2,4,5-Trichlorophenol	450	2,100	< 2,100 U
91-58-7	2-Chloronaphthalene	55	420	< 420 U
88-74-4	2-Nitroaniline	380	2,100	< 2,100 U
131-11-3	**Dimethylphthalate**	**60**	**420**	**270 J**
208-96-8	Acenaphthylene	120	420	< 420 U
99-09-2	3-Nitroaniline	470	2,100	< 2,100 U
83-32-9	Acenaphthene	68	420	< 420 U
51-28-5	2,4-Dinitrophenol	2300	18,000	< 18,000 U
100-02-7	4-Nitrophenol	720	2,100	< 2,100 U
132-64-9	Dibenzofuran	85	420	< 420 U
606-20-2	2,6-Dinitrotoluene	640	2,100	< 2,100 U
121-14-2	2,4-Dinitrotoluene	410	2,100	< 2,100 U
84-66-2	Diethylphthalate	760	1,000	< 1,000 U
7005-72-3	4-Chlorophenyl-phenylether	110	420	< 420 U
86-73-7	Fluorene	91	420	< 420 U
100-01-6	4-Nitroaniline	790	2,100	< 2,100 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: SD-SP-01-20130326-S**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WJ10C QC Report No: WJ10-SAIC
LIMS ID: 13-6437 Project: NPDES Sampling Support
Matrix: Solids 209977
Date Analyzed: 04/06/13 18:48

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	440	4,200	< 4,200 U
86-30-6	N-Nitrosodiphenylamine	110	420	< 420 U
101-55-3	4-Bromophenyl-phenylether	100	420	< 420 U
118-74-1	Hexachlorobenzene	89	420	< 420 U
87-86-5	Pentachlorophenol	1000	4,200	< 4,200 U
85-01-8	**Phenanthrene**	**76**	**420**	**620**
86-74-8	Carbazole	56	420	< 420 U
120-12-7	Anthracene	94	420	< 420 U
84-74-2	Di-n-Butylphthalate	170	420	< 420 U
206-44-0	**Fluoranthene**	**61**	**420**	**790**
129-00-0	**Pyrene**	**40**	**420**	**960**
85-68-7	Butylbenzylphthalate	130	420	< 420 U
91-94-1	3,3'-Dichlorobenzidine	370	3,100	< 3,100 U
56-55-3	**Benzo(a)anthracene**	**69**	**420**	**230 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**300**	**520**	**42,000**
218-01-9	**Chrysene**	**78**	**420**	**540**
117-84-0	Di-n-Octyl phthalate	120	420	< 420 U
50-32-8	Benzo(a)pyrene	110	420	< 420 U
193-39-5	Indeno(1,2,3-cd)pyrene	98	420	< 420 U
53-70-3	Dibenz(a,h)anthracene	90	420	< 420 U
191-24-2	**Benzo(g,h,i)perylene**	**92**	**420**	**600**
62-53-3	Aniline	830	11,000	< 11,000 U
62-75-9	N-Nitrosodimethylamine	290	2,100	< 2,100 U
90-12-0	1-Methylnaphthalene	56	420	< 420 U
TOTBFA	**Total Benzofluoranthenes**	**57**	**830**	**940**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	66.4%	2-Fluorobiphenyl	70.0%
d14-p-Terphenyl	77.8%	d4-1,2-Dichlorobenzene	55.8%
d5-Phenol	73.5%	2-Fluorophenol	64.0%
2,4,6-Tribromophenol	67.3%	d4-2-Chlorophenol	69.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 19:25
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 8.41 g-dry-wt
Final Extract Volume: 2.0 mL
Dilution Factor: 3.00
Percent Moisture: 44.1%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	**Phenol**	**62**	**140**	**2,400 Q**
111-44-4	Bis-(2-Chloroethyl) Ether	24	140	< 140 U
95-57-8	2-Chlorophenol	17	140	< 140 U
541-73-1	1,3-Dichlorobenzene	19	140	< 140 U
106-46-7	1,4-Dichlorobenzene	20	140	< 140 U
100-51-6	Benzyl Alcohol	43	140	< 140 U
95-50-1	1,2-Dichlorobenzene	18	140	< 140 U
95-48-7	2-Methylphenol	37	140	< 140 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	27	140	< 140 U
106-44-5	**4-Methylphenol**	**47**	**140**	**7,300**
621-64-7	N-Nitroso-Di-N-Propylamine	24	140	< 140 U
67-72-1	Hexachloroethane	21	140	< 140 U
98-95-3	Nitrobenzene	29	140	< 140 U
78-59-1	Isophorone	20	140	< 140 U
88-75-5	2-Nitrophenol	280	710	< 710 U
105-67-9	**2,4-Dimethylphenol**	**25**	**280**	**140 J**
65-85-0	**Benzoic Acid**	**720**	**2,800**	**6,200**
111-91-1	bis(2-Chloroethoxy) Methane	14	140	< 140 U
120-83-2	2,4-Dichlorophenol	150	1,400	< 1,400 U
120-82-1	1,2,4-Trichlorobenzene	25	140	< 140 U
91-20-3	**Naphthalene**	**20**	**140**	**710**
106-47-8	4-Chloroaniline	160	1,900	< 1,900 U
87-68-3	Hexachlorobutadiene	33	140	< 140 U
59-50-7	4-Chloro-3-methylphenol	110	710	< 710 U
91-57-6	**2-Methylnaphthalene**	**22**	**140**	**1,400**
77-47-4	Hexachlorocyclopentadiene	470	2,800	< 2,800 U
88-06-2	2,4,6-Trichlorophenol	160	710	< 710 U
95-95-4	2,4,5-Trichlorophenol	150	710	< 710 U
91-58-7	2-Chloronaphthalene	19	140	< 140 U
88-74-4	2-Nitroaniline	130	710	< 710 U
131-11-3	**Dimethylphthalate**	**21**	**140**	**110 J**
208-96-8	**Acenaphthylene**	**41**	**140**	**430**
99-09-2	3-Nitroaniline	160	710	< 710 U
83-32-9	**Acenaphthene**	**23**	**140**	**2,400**
51-28-5	2,4-Dinitrophenol	790	6,100	< 6,100 U
100-02-7	4-Nitrophenol	250	710	< 710 U
132-64-9	**Dibenzofuran**	**29**	**140**	**5,000**
606-20-2	2,6-Dinitrotoluene	220	710	< 710 U
121-14-2	2,4-Dinitrotoluene	140	710	< 710 U
84-66-2	Diethylphthalate	260	360	< 360 U
7005-72-3	4-Chlorophenyl-phenylether	38	140	< 140 U
86-73-7	**Fluorene**	**31**	**140**	**19,000 E**
100-01-6	4-Nitroaniline	270	710	< 710 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WJ10D QC Report No: WJ10-SAIC
LIMS ID: 13-6438 Project: NPDES Sampling Support
Matrix: Solids 209977
Date Analyzed: 04/06/13 19:25

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	150	1,400	< 1,400 U
86-30-6	**N-Nitrosodiphenylamine**	**38**	**140**	**140**
101-55-3	4-Bromophenyl-phenylether	36	140	< 140 U
118-74-1	Hexachlorobenzene	31	140	< 140 U
87-86-5	Pentachlorophenol	350	1,400	< 1,400 U
85-01-8	**Phenanthrene**	**26**	**140**	**110,000 ES**
86-74-8	**Carbazole**	**19**	**140**	**22,000 E**
120-12-7	**Anthracene**	**32**	**140**	**27,000 E**
84-74-2	**Di-n-Butylphthalate**	**58**	**140**	**380**
206-44-0	**Fluoranthene**	**21**	**140**	**130,000 ES**
129-00-0	**Pyrene**	**14**	**140**	**74,000 ES**
85-68-7	**Butylbenzylphthalate**	**44**	**140**	**1,700**
91-94-1	3,3'-Dichlorobenzidine	130	1,100	< 1,100 U
56-55-3	**Benzo(a)anthracene**	**23**	**140**	**18,000 E**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**100**	**180**	**4,700**
218-01-9	**Chrysene**	**27**	**140**	**34,000 E**
117-84-0	**Di-n-Octyl phthalate**	**42**	**140**	**340**
50-32-8	**Benzo(a)pyrene**	**39**	**140**	**6,800**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**33**	**140**	**2,500**
53-70-3	**Dibenz(a,h)anthracene**	**31**	**140**	**1,000**
191-24-2	**Benzo(g,h,i)perylene**	**31**	**140**	**2,200**
62-53-3	Aniline	290	3,800	< 3,800 U
62-75-9	N-Nitrosodimethylamine	100	710	< 710 U
90-12-0	**1-Methylnaphthalene**	**19**	**140**	**300**
TOTBFA	**Total Benzofluoranthenes**	**20**	**280**	**25,000**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	38.4%	2-Fluorobiphenyl	63.6%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	56.4%
d5-Phenol	62.4%	2-Fluorophenol	62.4%
2,4,6-Tribromophenol	40.8%	d4-2-Chlorophenol	51.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
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Sample ID: SD-CB-01-20130326-S
DILUTION

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized: MW
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/09/13 12:47
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 8.41 g-dry-wt
Final Extract Volume: 2.0 mL
Dilution Factor: 60.0
Percent Moisture: 44.1%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	**Phenol**	**1200**	**2,800**	**2,100 J**
111-44-4	Bis-(2-Chloroethyl) Ether	480	2,800	< 2,800 U
95-57-8	2-Chlorophenol	340	2,800	< 2,800 U
541-73-1	1,3-Dichlorobenzene	380	2,800	< 2,800 U
106-46-7	1,4-Dichlorobenzene	410	2,800	< 2,800 U
100-51-6	Benzyl Alcohol	870	2,800	< 2,800 U
95-50-1	1,2-Dichlorobenzene	360	2,800	< 2,800 U
95-48-7	2-Methylphenol	750	2,800	< 2,800 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	540	2,800	< 2,800 U
106-44-5	**4-Methylphenol**	**950**	**2,800**	**6,700**
621-64-7	N-Nitroso-Di-N-Propylamine	480	2,800	< 2,800 U
67-72-1	Hexachloroethane	420	2,800	< 2,800 U
98-95-3	Nitrobenzene	580	2,800	< 2,800 U
78-59-1	Isophorone	410	2,800	< 2,800 U
88-75-5	2-Nitrophenol	5500	14,000	< 14,000 U
105-67-9	2,4-Dimethylphenol	490	5,700	< 5,700 U
65-85-0	Benzoic Acid	14000	57,000	< 57,000 U
111-91-1	bis(2-Chloroethoxy) Methane	290	2,800	< 2,800 U
120-83-2	2,4-Dichlorophenol	3100	28,000	< 28,000 U
120-82-1	1,2,4-Trichlorobenzene	500	2,800	< 2,800 U
91-20-3	Naphthalene	390	2,800	< 2,800 U
106-47-8	4-Chloroaniline	3200	38,000	< 38,000 U
87-68-3	Hexachlorobutadiene	650	2,800	< 2,800 U
59-50-7	4-Chloro-3-methylphenol	2200	14,000	< 14,000 U
91-57-6	2-Methylnaphthalene	440	2,800	< 2,800 U
77-47-4	Hexachlorocyclopentadiene	9500	57,000	< 57,000 U
88-06-2	2,4,6-Trichlorophenol	3200	14,000	< 14,000 U
95-95-4	2,4,5-Trichlorophenol	3100	14,000	< 14,000 U
91-58-7	2-Chloronaphthalene	380	2,800	< 2,800 U
88-74-4	2-Nitroaniline	2600	14,000	< 14,000 U
131-11-3	Dimethylphthalate	410	2,800	< 2,800 U
208-96-8	Acenaphthylene	810	2,800	< 2,800 U
99-09-2	3-Nitroaniline	3200	14,000	< 14,000 U
83-32-9	**Acenaphthene**	**470**	**2,800**	**2,300 J**
51-28-5	2,4-Dinitrophenol	16000	120,000	< 120,000 U
100-02-7	4-Nitrophenol	5000	14,000	< 14,000 U
132-64-9	**Dibenzofuran**	**590**	**2,800**	**4,700**
606-20-2	2,6-Dinitrotoluene	4400	14,000	< 14,000 U
121-14-2	2,4-Dinitrotoluene	2800	14,000	< 14,000 U
84-66-2	Diethylphthalate	5200	7,100	< 7,100 U
7005-72-3	4-Chlorophenyl-phenylether	750	2,800	< 2,800 U
86-73-7	**Fluorene**	**620**	**2,800**	**16,000**
100-01-6	4-Nitroaniline	5400	14,000	< 14,000 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WJ10D QC Report No: WJ10-SAIC
LIMS ID: 13-6438 Project: NPDES Sampling Support
Matrix: Solids 209977
Date Analyzed: 04/09/13 12:47

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	3000	28,000	< 28,000 U
86-30-6	N-Nitrosodiphenylamine	770	2,800	< 2,800 U
101-55-3	4-Bromophenyl-phenylether	720	2,800	< 2,800 U
118-74-1	Hexachlorobenzene	610	2,800	< 2,800 U
87-86-5	Pentachlorophenol	6900	28,000	< 28,000 U
85-01-8	**Phenanthrene**	**520**	**2,800**	**110,000**
86-74-8	**Carbazole**	**380**	**2,800**	**21,000**
120-12-7	**Anthracene**	**640**	**2,800**	**25,000**
84-74-2	Di-n-Butylphthalate	1200	2,800	< 2,800 U
206-44-0	**Fluoranthene**	**420**	**2,800**	**120,000**
129-00-0	**Pyrene**	**280**	**2,800**	**81,000**
85-68-7	**Butylbenzylphthalate**	**880**	**2,800**	**1,800 J**
91-94-1	3,3'-Dichlorobenzidine	2500	21,000	< 21,000 U
56-55-3	**Benzo(a)anthracene**	**470**	**2,800**	**17,000**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**2100**	**3,600**	**5,100**
218-01-9	**Chrysene**	**540**	**2,800**	**33,000**
117-84-0	Di-n-Octyl phthalate	830	2,800	< 2,800 U
50-32-8	**Benzo(a)pyrene**	**780**	**2,800**	**6,600**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**670**	**2,800**	**2,800**
53-70-3	**Dibenz(a,h)anthracene**	**610**	**2,800**	**1,400 J**
191-24-2	**Benzo(g,h,i)perylene**	**630**	**2,800**	**2,800**
62-53-3	Aniline	5700	77,000	< 77,000 U
62-75-9	N-Nitrosodimethylamine	2000	14,000	< 14,000 U
90-12-0	1-Methylnaphthalene	380	2,800	< 2,800 U
TOTBFA	**Total Benzofluoranthenes**	**390**	**5,700**	**23,000**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	D D	2-Fluorobiphenyl	D D
d14-p-Terphenyl	D D	d4-1,2-Dichlorobenzene	D D
d5-Phenol	D D	2-Fluorophenol	D D
2,4,6-Tribromophenol	D D	d4-2-Chlorophenol	D D

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Solids

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
SD-SP-01-20130326-	66.4%	70.0%	77.8%	55.8%	73.5%	64.0%	67.3%	69.6%	0
MB-040313	74.8%	69.8%	84.8%	68.6%	80.3%	73.7%	63.5%	81.2%	0
LCS-040313	71.6%	68.4%	81.8%	65.2%	79.7%	73.9%	62.9%	78.7%	0
SD-CB-01-20130326-	38.4%	63.6%	78.0%	56.4%	62.4%	62.4%	40.8%	51.2%	0
SD-CB-01-20130326- DL	D	D	D	D	D	D	D	D	0
SD-CB-01-20130326- MS	36.0%	67.2%	78.0%	56.4%	76.8%	69.6%	38.4%	60.0%	0
SD-CB-01-20130326- MSD	48.0%	74.4%	84.0%	62.4%	84.0%	73.6%	64.8%	68.8%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(33-102)	(30-100)
(FBP) = 2-Fluorobiphenyl	(35-101)	(35-100)
(TPH) = d14-p-Terphenyl	(42-124)	(37-111)
(DCB) = d4-1,2-Dichlorobenzene	(37-100)	(32-100)
(PHL) = d5-Phenol	(32-101)	(29-100)
(2FP) = 2-Fluorophenol	(32-100)	(27-100)
(TBP) = 2,4,6-Tribromophenol	(23-133)	(24-134)
(2CP) = d4-2-Chlorophenol	(37-100)	(31-100)

Prep Method: SW3546
Log Number Range: 13-6437 to 13-6438

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS

Sample ID: SD-CB-01-20130326-S
MS/MSD

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted MS/MSD: 04/03/13

Sample Amount MS: 8.39 g-dry-wt
MSD: 8.50 g-dry-wt

Date Analyzed MS: 04/06/13 20:01
MSD: 04/06/13 20:38

Final Extract Volume MS: 2.0 mL
MSD: 2.0 mL

Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ

Dilution Factor MS: 3.00
MSD: 3.00

GPC Cleanup: Yes

Percent Moisture: 44.1 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	2400 Q	2110 Q	596	NA	1820 Q	588	NA	14.8%
Bis-(2-Chloroethyl) Ether	< 140 U	379	596	63.6%	424	588	72.1%	11.2%
2-Chlorophenol	< 140 U	472	596	79.2%	487	588	82.8%	3.1%
1,3-Dichlorobenzene	< 140 U	365	596	61.2%	367	588	62.4%	0.5%
1,4-Dichlorobenzene	< 140 U	372	596	62.4%	381	588	64.8%	2.4%
Benzyl Alcohol	< 140 U	1020 Q	596	171%	1460 Q	588	248%	35.5%
1,2-Dichlorobenzene	< 140 U	400	596	67.1%	395	588	67.2%	1.3%
2-Methylphenol	< 140 U	522	596	87.6%	551	588	93.7%	5.4%
2,2'-Oxybis(1-Chloropropane)	< 140 U	522	596	87.6%	438	588	74.5%	17.5%
4-Methylphenol	7300	8800	1190	NA	8990	1180	NA	2.1%
N-Nitroso-Di-N-Propylamine	< 140 U	579	596	97.1%	628	588	107%	8.1%
Hexachloroethane	< 140 U	157	596	26.3%	247	588	42.0%	44.6%
Nitrobenzene	< 140 U	293	596	49.2%	339	588	57.7%	14.6%
Isophorone	< 140 U	479	596	80.4%	487	588	82.8%	1.7%
2-Nitrophenol	< 710 U	< 715 U	596	NA	< 706 U	588	NA	NA
2,4-Dimethylphenol	140 J	1520	1790	77.1%	1740	1760	90.9%	13.5%
Benzoic Acid	6200	6800	3280	18.3%	6610	3240	12.7%	2.8%
bis(2-Chloroethoxy) Methane	< 140 U	400	596	67.1%	431	588	73.3%	7.5%
2,4-Dichlorophenol	< 1400 U	1130 J	1790	63.1%	1290 J	1760	73.3%	13.2%
1,2,4-Trichlorobenzene	< 140 U	393	596	65.9%	438	588	74.5%	10.8%
Naphthalene	710	1310	596	101%	1230	588	88.4%	6.3%
4-Chloroaniline	< 1900 U	< 1930 U	1790	NA	< 1910 U	1760	NA	NA
Hexachlorobutadiene	< 140 U	350	596	58.7%	381	588	64.8%	8.5%
4-Chloro-3-methylphenol	< 710 U	1260	1790	70.4%	1320	1760	75.0%	4.7%
2-Methylnaphthalene	1400	2320	596	154%	1930	588	90.1%	18.4%
Hexachlorocyclopentadiene	< 2800 U	< 2860 U	1790	NA	< 2820 U	1760	NA	NA
2,4,6-Trichlorophenol	< 710 U	1320	1790	73.7%	1450	1760	82.4%	9.4%
2,4,5-Trichlorophenol	< 710 U	1060	1790	59.2%	1170	1760	66.5%	9.9%
2-Chloronaphthalene	< 140 U	429	596	72.0%	466	588	79.3%	8.3%
2-Nitroaniline	< 710 U	279 J	1790	15.6%	727	1760	41.3%	89.1%
Dimethylphthalate	110 J	794	596	115%	536	588	72.4%	38.8%
Acenaphthylene	430	787	596	59.9%	812	588	65.0%	3.1%
3-Nitroaniline	< 710 U	< 715 U	1790	NA	< 706 U	1760	NA	NA
Acenaphthene	2400	3640	596	NA	2930	588	NA	21.6%
2,4-Dinitrophenol	< 6100 U	< 6080 U	3280	NA	< 6000 U	3240	NA	NA
4-Nitrophenol	< 710 U	565 J	1790	31.6%	685 J	1760	38.9%	19.2%
Dibenzofuran	5000	6690	596	NA	5430	588	NA	20.8%
2,6-Dinitrotoluene	< 710 U	594 J	1790	33.2%	805	1760	45.7%	30.2%
2,4-Dinitrotoluene	< 710 U	479 J	1790	26.8%	720	1760	40.9%	40.2%
Diethylphthalate	< 360 U	315 J	596	52.9%	487	588	82.8%	42.9%
4-Chlorophenyl-phenylether	< 140 U	286	596	48.0%	289	588	49.1%	1.0%
Fluorene	19000 E	18900 E	596	NA	15700 E	588	NA	18.5%
4-Nitroaniline	< 710 U	< 715 U	1790	NA	< 706 U	1760	NA	NA
4,6-Dinitro-2-Methylphenol	< 1400 U	< 1430 U	3280	NA	311 J	3240	9.6%	NA
N-Nitrosodiphenylamine	140	300	596	26.8%	332	588	32.7%	10.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS

Sample ID: SD-CB-01-20130326-S
MS/MSD

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Date Analyzed MS: 04/06/13 20:01
MSD: 04/06/13 20:38

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
4-Bromophenyl-phenylether	< 140 U	586	596	98.3%	621	588	106%	5.8%
Hexachlorobenzene	< 140 U	400	596	67.1%	431	588	73.3%	7.5%
Pentachlorophenol	< 1400 U	1010 J	1790	56.4%	1110 J	1760	63.1%	9.4%
Phenanthrene	110000 ES	108000 ES	596	NA	95600 ES	588	NA	12.2%
Carbazole	22000 E	26000 E	596	NA	22800 E	588	NA	13.1%
Anthracene	27000 E	30200 E	596	NA	23600 E	588	NA	24.5%
Di-n-Butylphthalate	380	322	596	NA	981	588	102%	101%
Fluoranthene	130000 ES	128000 ES	596	NA	116000 ES	588	NA	9.8%
Pyrene	74000 ES	73500 ES	596	NA	67600 ES	588	NA	8.4%
Butylbenzylphthalate	1700	1760	596	10.1%	1040	588	NA	51.4%
3,3'-Dichlorobenzidine	< 1100 U	< 1070 U	1790	NA	< 1060 U	1760	NA	NA
Benzo(a)anthracene	18000 E	18500 E	596	NA	15700 E	588	NA	16.4%
bis(2-Ethylhexyl)phthalate	4700	6110	596	NA	6060	588	NA	0.8%
Chrysene	34000 E	34300 E	596	NA	32000 E	588	NA	6.9%
Di-n-Octyl phthalate	340	815	596	79.7%	791	588	76.7%	3.0%
Benzo(a)pyrene	6800	7230	596	NA	6540	588	NA	10.0%
Indeno(1,2,3-cd)pyrene	2500	2770	596	NA	2390	588	NA	14.7%
Dibenz(a,h)anthracene	1000	1440	596	73.8%	1260	588	44.2%	13.3%
Benzo(g,h,i)perylene	2200	2400	596	33.6%	1970	588	NA	19.7%
Aniline	< 3800 U	< 3860 U	1790	NA	< 3810 U	1760	NA	NA
N-Nitrosodimethylamine	< 710 U	1220	1790	68.2%	1280	1760	72.7%	4.8%
1-Methylnaphthalene	300	815	596	86.4%	833	588	90.6%	2.2%
Total Benzofluoranthenes	25000	25300	1190	NA	23400	1180	NA	7.8%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.
NA-No recovery due to high concentration of analyte in original sample and/or calculated negative recovery.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **MATRIX SPIKE**

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 20:01
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 8.39 g-dry-wt
Final Extract Volume: 2.0 mL
Dilution Factor: 3.00
Percent Moisture: 44.1%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	Phenol	62	140	---
111-44-4	Bis-(2-Chloroethyl) Ether	24	140	---
95-57-8	2-Chlorophenol	17	140	---
541-73-1	1,3-Dichlorobenzene	19	140	---
106-46-7	1,4-Dichlorobenzene	20	140	---
100-51-6	Benzyl Alcohol	44	140	---
95-50-1	1,2-Dichlorobenzene	18	140	---
95-48-7	2-Methylphenol	38	140	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	27	140	---
106-44-5	4-Methylphenol	47	140	---
621-64-7	N-Nitroso-Di-N-Propylamine	24	140	---
67-72-1	Hexachloroethane	21	140	---
98-95-3	Nitrobenzene	29	140	---
78-59-1	Isophorone	20	140	---
88-75-5	2-Nitrophenol	280	720	---
105-67-9	2,4-Dimethylphenol	25	290	---
65-85-0	Benzoic Acid	720	2,900	---
111-91-1	bis(2-Chloroethoxy) Methane	14	140	---
120-83-2	2,4-Dichlorophenol	150	1,400	---
120-82-1	1,2,4-Trichlorobenzene	25	140	---
91-20-3	Naphthalene	20	140	---
106-47-8	4-Chloroaniline	160	1,900	---
87-68-3	Hexachlorobutadiene	33	140	---
59-50-7	4-Chloro-3-methylphenol	110	720	---
91-57-6	2-Methylnaphthalene	22	140	---
77-47-4	Hexachlorocyclopentadiene	470	2,900	---
88-06-2	2,4,6-Trichlorophenol	160	720	---
95-95-4	2,4,5-Trichlorophenol	150	720	---
91-58-7	2-Chloronaphthalene	19	140	---
88-74-4	2-Nitroaniline	130	720	---
131-11-3	Dimethylphthalate	21	140	---
208-96-8	Acenaphthylene	41	140	---
99-09-2	3-Nitroaniline	160	720	---
83-32-9	Acenaphthene	23	140	---
51-28-5	2,4-Dinitrophenol	790	6,100	---
100-02-7	4-Nitrophenol	250	720	---
132-64-9	Dibenzofuran	29	140	---
606-20-2	2,6-Dinitrotoluene	220	720	---
121-14-2	2,4-Dinitrotoluene	140	720	---
84-66-2	Diethylphthalate	260	360	---
7005-72-3	4-Chlorophenyl-phenylether	38	140	---
86-73-7	Fluorene	31	140	---
100-01-6	4-Nitroaniline	270	720	---

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **MATRIX SPIKE**

Lab Sample ID: WJ10D QC Report No: WJ10-SAIC
LIMS ID: 13-6438 Project: NPDES Sampling Support
Matrix: Solids 209977
Date Analyzed: 04/06/13 20:01

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	150	1,400	---
86-30-6	N-Nitrosodiphenylamine	39	140	---
101-55-3	4-Bromophenyl-phenylether	36	140	---
118-74-1	Hexachlorobenzene	31	140	---
87-86-5	Pentachlorophenol	350	1,400	---
85-01-8	Phenanthrene	26	140	---
86-74-8	Carbazole	19	140	---
120-12-7	Anthracene	32	140	---
84-74-2	Di-n-Butylphthalate	58	140	---
206-44-0	Fluoranthene	21	140	---
129-00-0	Pyrene	14	140	---
85-68-7	Butylbenzylphthalate	44	140	---
91-94-1	3,3'-Dichlorobenzidine	130	1,100	---
56-55-3	Benzo(a)anthracene	24	140	---
117-81-7	bis(2-Ethylhexyl)phthalate	100	180	---
218-01-9	Chrysene	27	140	---
117-84-0	Di-n-Octyl phthalate	42	140	---
50-32-8	Benzo(a)pyrene	39	140	---
193-39-5	Indeno(1,2,3-cd)pyrene	33	140	---
53-70-3	Dibenz(a,h)anthracene	31	140	---
191-24-2	Benzo(g,h,i)perylene	31	140	---
62-53-3	Aniline	290	3,900	---
62-75-9	N-Nitrosodimethylamine	100	720	---
90-12-0	1-Methylnaphthalene	19	140	---
TOTBFA	Total Benzofluoranthenes	20	290	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	36.0%	2-Fluorobiphenyl	67.2%
d14-p-Terphenyl	78.0%	d4-1,2-Dichlorobenzene	56.4%
d5-Phenol	76.8%	2-Fluorophenol	69.6%
2,4,6-Tribromophenol	38.4%	d4-2-Chlorophenol	60.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **MATRIX SPIKE DUPLICATE**

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 20:38
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 8.50 g-dry-wt
Final Extract Volume: 2.0 mL
Dilution Factor: 3.00
Percent Moisture: 44.1%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	Phenol	61	140	---
111-44-4	Bis-(2-Chloroethyl) Ether	24	140	---
95-57-8	2-Chlorophenol	17	140	---
541-73-1	1,3-Dichlorobenzene	19	140	---
106-46-7	1,4-Dichlorobenzene	20	140	---
100-51-6	Benzyl Alcohol	43	140	---
95-50-1	1,2-Dichlorobenzene	18	140	---
95-48-7	2-Methylphenol	37	140	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	27	140	---
106-44-5	4-Methylphenol	47	140	---
621-64-7	N-Nitroso-Di-N-Propylamine	24	140	---
67-72-1	Hexachloroethane	21	140	---
98-95-3	Nitrobenzene	29	140	---
78-59-1	Isophorone	20	140	---
88-75-5	2-Nitrophenol	270	710	---
105-67-9	2,4-Dimethylphenol	24	280	---
65-85-0	Benzoic Acid	710	2,800	---
111-91-1	bis(2-Chloroethoxy) Methane	14	140	---
120-83-2	2,4-Dichlorophenol	150	1,400	---
120-82-1	1,2,4-Trichlorobenzene	25	140	---
91-20-3	Naphthalene	19	140	---
106-47-8	4-Chloroaniline	160	1,900	---
87-68-3	Hexachlorobutadiene	32	140	---
59-50-7	4-Chloro-3-methylphenol	110	710	---
91-57-6	2-Methylnaphthalene	22	140	---
77-47-4	Hexachlorocyclopentadiene	470	2,800	---
88-06-2	2,4,6-Trichlorophenol	160	710	---
95-95-4	2,4,5-Trichlorophenol	150	710	---
91-58-7	2-Chloronaphthalene	19	140	---
88-74-4	2-Nitroaniline	130	710	---
131-11-3	Dimethylphthalate	20	140	---
208-96-8	Acenaphthylene	40	140	---
99-09-2	3-Nitroaniline	160	710	---
83-32-9	Acenaphthene	23	140	---
51-28-5	2,4-Dinitrophenol	780	6,000	---
100-02-7	4-Nitrophenol	240	710	---
132-64-9	Dibenzofuran	29	140	---
606-20-2	2,6-Dinitrotoluene	220	710	---
121-14-2	2,4-Dinitrotoluene	140	710	---
84-66-2	Diethylphthalate	260	350	---
7005-72-3	4-Chlorophenyl-phenylether	37	140	---
86-73-7	Fluorene	31	140	---
100-01-6	4-Nitroaniline	270	710	---

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546

Sample ID: SD-CB-01-20130326-S
MATRIX SPIKE DUPLICATE

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Date Analyzed: 04/06/13 20:38

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	150	1,400	---
86-30-6	N-Nitrosodiphenylamine	38	140	---
101-55-3	4-Bromophenyl-phenylether	36	140	---
118-74-1	Hexachlorobenzene	30	140	---
87-86-5	Pentachlorophenol	340	1,400	---
85-01-8	Phenanthrene	26	140	---
86-74-8	Carbazole	19	140	---
120-12-7	Anthracene	32	140	---
84-74-2	Di-n-Butylphthalate	58	140	---
206-44-0	Fluoranthene	21	140	---
129-00-0	Pyrene	14	140	---
85-68-7	Butylbenzylphthalate	43	140	---
91-94-1	3,3'-Dichlorobenzidine	130	1,100	---
56-55-3	Benzo(a)anthracene	23	140	---
117-81-7	bis(2-Ethylhexyl)phthalate	100	180	---
218-01-9	Chrysene	26	140	---
117-84-0	Di-n-Octyl phthalate	41	140	---
50-32-8	Benzo(a)pyrene	38	140	---
193-39-5	Indeno(1,2,3-cd)pyrene	33	140	---
53-70-3	Dibenz(a,h)anthracene	30	140	---
191-24-2	Benzo(g,h,i)perylene	31	140	---
62-53-3	Aniline	280	3,800	---
62-75-9	N-Nitrosodimethylamine	100	710	---
90-12-0	1-Methylnaphthalene	19	140	---
TOTBFA	Total Benzofluoranthenes	19	280	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	48.0%	2-Fluorobiphenyl	74.4%
d14-p-Terphenyl	84.0%	d4-1,2-Dichlorobenzene	62.4%
d5-Phenol	84.0%	2-Fluorophenol	73.6%
2,4,6-Tribromophenol	64.8%	d4-2-Chlorophenol	68.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS

Sample ID: LCS-040113
LCS/LCSD

Lab Sample ID: LCS-040113
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted LCS/LCSD: 04/01/13

Sample Amount LCS: 500 mL
LCSD: 500 mL

Date Analyzed LCS: 04/04/13 17:19
LCSD: 04/04/13 17:54

Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL

Instrument/Analyst LCS: NT6/JZ
LCSD: NT6/JZ

Dilution Factor LCS: 1.00
LCSD: 1.00

GPC Cleanup: NO

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	9.2	25.0	36.8%	9.0	25.0	36.0%	2.2%
Bis-(2-Chloroethyl) Ether	16.5	25.0	66.0%	16.2	25.0	64.8%	1.8%
2-Chlorophenol	18.3	25.0	73.2%	18.3	25.0	73.2%	0.0%
1,3-Dichlorobenzene	14.1	25.0	56.4%	13.5	25.0	54.0%	4.3%
1,4-Dichlorobenzene	14.6	25.0	58.4%	14.1	25.0	56.4%	3.5%
Benzyl Alcohol	17.0	25.0	68.0%	17.1	25.0	68.4%	0.6%
1,2-Dichlorobenzene	14.5	25.0	58.0%	14.1	25.0	56.4%	2.8%
2-Methylphenol	16.3	25.0	65.2%	16.1	25.0	64.4%	1.2%
2,2'-Oxybis(1-Chloropropane)	14.6	25.0	58.4%	14.9	25.0	59.6%	2.0%
4-Methylphenol	32.2	50.0	64.4%	31.6	50.0	63.2%	1.9%
N-Nitroso-Di-N-Propylamine	16.1	25.0	64.4%	16.3	25.0	65.2%	1.2%
Hexachloroethane	13.6	25.0	54.4%	13.2	25.0	52.8%	3.0%
Nitrobenzene	17.8	25.0	71.2%	17.9	25.0	71.6%	0.6%
Isophorone	18.8	25.0	75.2%	18.8	25.0	75.2%	0.0%
2-Nitrophenol	20.0	25.0	80.0%	20.4	25.0	81.6%	2.0%
2,4-Dimethylphenol	47.3	75.0	63.1%	46.0	75.0	61.3%	2.8%
Benzoic Acid	41.3	138	29.9%	41.1	138	29.8%	0.5%
bis(2-Chloroethoxy) Methane	17.0	25.0	68.0%	17.2	25.0	68.8%	1.2%
2,4-Dichlorophenol	55.1	75.0	73.5%	53.9	75.0	71.9%	2.2%
1,2,4-Trichlorobenzene	14.9	25.0	59.6%	14.7	25.0	58.8%	1.4%
Naphthalene	17.1	25.0	68.4%	16.9	25.0	67.6%	1.2%
4-Chloroaniline	119	75.0	159%	115	75.0	153%	3.4%
Hexachlorobutadiene	14.0	25.0	56.0%	13.6	25.0	54.4%	2.9%
4-Chloro-3-methylphenol	57.2	75.0	76.3%	56.1	75.0	74.8%	1.9%
2-Methylnaphthalene	18.6	25.0	74.4%	18.0	25.0	72.0%	3.3%
Hexachlorocyclopentadiene	43.8	75.0	58.4%	47.3	75.0	63.1%	7.7%
2,4,6-Trichlorophenol	59.5	75.0	79.3%	62.8	75.0	83.7%	5.4%
2,4,5-Trichlorophenol	64.3	75.0	85.7%	65.6	75.0	87.5%	2.0%
2-Chloronaphthalene	23.1	25.0	92.4%	22.4	25.0	89.6%	3.1%
2-Nitroaniline	70.1	75.0	93.5%	69.0	75.0	92.0%	1.6%
Dimethylphthalate	20.7	25.0	82.8%	20.7	25.0	82.8%	0.0%
Acenaphthylene	21.1	25.0	84.4%	20.7	25.0	82.8%	1.9%
3-Nitroaniline	154	75.0	205%	152	75.0	203%	1.3%
Acenaphthene	20.4	25.0	81.6%	20.1	25.0	80.4%	1.5%
2,4-Dinitrophenol	102	138	73.9%	104	138	75.4%	1.9%
4-Nitrophenol	37.9 Q	75.0	50.5%	37.3 Q	75.0	49.7%	1.6%
Dibenzofuran	22.1	25.0	88.4%	21.8	25.0	87.2%	1.4%
2,6-Dinitrotoluene	64.2	75.0	85.6%	62.7	75.0	83.6%	2.4%
2,4-Dinitrotoluene	64.7	75.0	86.3%	63.9	75.0	85.2%	1.2%
Diethylphthalate	24.0	25.0	96.0%	23.9	25.0	95.6%	0.4%
4-Chlorophenyl-phenylether	20.7	25.0	82.8%	20.3	25.0	81.2%	2.0%
Fluorene	25.0	25.0	100%	24.5	25.0	98.0%	2.0%
4-Nitroaniline	81.2	75.0	108%	81.2	75.0	108%	0.0%
4,6-Dinitro-2-Methylphenol	97.2	138	70.4%	97.9	138	70.9%	0.7%
N-Nitrosodiphenylamine	19.3	25.0	77.2%	19.1	25.0	76.4%	1.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS

Sample ID: LCS-040113
LCS/LCSD

Lab Sample ID: LCS-040113
LIMS ID: 13-6435
Matrix: Water
Date Analyzed LCS: 04/04/13 17:19
LCSD: 04/04/13 17:54

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
4-Bromophenyl-phenylether	19.1	25.0	76.4%	19.2	25.0	76.8%	0.5%
Hexachlorobenzene	17.9	25.0	71.6%	17.8	25.0	71.2%	0.6%
Pentachlorophenol	59.8	75.0	79.7%	59.6	75.0	79.5%	0.3%
Phenanthrene	19.9	25.3	78.7%	19.5	25.3	77.1%	2.0%
Carbazole	23.9	25.0	95.6%	24.2	25.0	96.8%	1.2%
Anthracene	19.8	25.0	79.2%	19.6	25.0	78.4%	1.0%
Di-n-Butylphthalate	19.1	25.0	76.4%	19.0	25.0	76.0%	0.5%
Fluoranthene	21.3	25.0	85.2%	21.3	25.0	85.2%	0.0%
Pyrene	22.6	25.0	90.4%	22.8	25.0	91.2%	0.9%
Butylbenzylphthalate	21.1	25.0	84.4%	21.5	25.0	86.0%	1.9%
3,3'-Dichlorobenzidine	55.8	75.0	74.4%	54.5	75.0	72.7%	2.4%
Benzo(a)anthracene	21.2	25.0	84.8%	21.3	25.0	85.2%	0.5%
bis(2-Ethylhexyl)phthalate	20.3	25.0	81.2%	20.9	25.0	83.6%	2.9%
Chrysene	22.4	25.3	88.5%	21.6	25.3	85.4%	3.6%
Di-n-Octyl phthalate	19.9	25.0	79.6%	20.3	25.0	81.2%	2.0%
Benzo(a)pyrene	20.8	25.0	83.2%	21.0	25.0	84.0%	1.0%
Indeno(1,2,3-cd)pyrene	21.7	25.0	86.8%	21.9	25.0	87.6%	0.9%
Dibenz(a,h)anthracene	22.0	25.0	88.0%	22.4	25.0	89.6%	1.8%
Benzo(g,h,i)perylene	21.6	25.0	86.4%	21.9	25.0	87.6%	1.4%
Aniline	50.4 Q	75.0	67.2%	49.0 Q	75.0	65.3%	2.8%
1,2-Diphenylhydrazine	20.5	25.0	82.0%	19.9	25.0	79.6%	3.0%
N-Nitrosodimethylamine	35.3	75.0	47.1%	31.6	75.0	42.1%	11.1%
Azobenzene	20.5	25.0	82.0%	19.9	25.0	79.6%	3.0%
2,3,4,6-Tetrachlorophenol	25.2	25.0	101%	24.8	25.0	99.2%	1.6%
1-Methylnaphthalene	18.6	25.0	74.4%	18.1	25.0	72.4%	2.7%
Total Benzofluoranthenes	43.6	50.0	87.2%	41.2	50.0	82.4%	5.7%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	70.4%	68.8%
2-Fluorobiphenyl	78.0%	74.4%
d14-p-Terphenyl	87.2%	85.6%
d4-1,2-Dichlorobenzene	61.2%	58.8%
d5-Phenol	35.7%	33.9%
2-Fluorophenol	53.3%	44.5%
2,4,6-Tribromophenol	100%	96.3%
d4-2-Chlorophenol	69.9%	66.9%

Results reported in µg/L
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS **Sample ID: LCS-040313**
 LAB CONTROL

Lab Sample ID: LCS-040313
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 16:22
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.00 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Phenol	434 Q	500	86.8%
Bis-(2-Chloroethyl) Ether	387	500	77.4%
2-Chlorophenol	381	500	76.2%
1,3-Dichlorobenzene	324	500	64.8%
1,4-Dichlorobenzene	334	500	66.8%
Benzyl Alcohol	39.0 Q	500	7.8%
1,2-Dichlorobenzene	338	500	67.6%
2-Methylphenol	325	500	65.0%
2,2'-Oxybis(1-Chloropropane)	355	500	71.0%
4-Methylphenol	704	1000	70.4%
N-Nitroso-Di-N-Propylamine	375	500	75.0%
Hexachloroethane	348	500	69.6%
Nitrobenzene	371	500	74.2%
Isophorone	378	500	75.6%
2-Nitrophenol	402 Q	500	80.4%
2,4-Dimethylphenol	910	1500	60.7%
Benzoic Acid	1620	2750	58.9%
bis(2-Chloroethoxy) Methane	387	500	77.4%
2,4-Dichlorophenol	1100	1500	73.3%
1,2,4-Trichlorobenzene	353	500	70.6%
Naphthalene	326	500	65.2%
4-Chloroaniline	768	1500	51.2%
Hexachlorobutadiene	341	500	68.2%
4-Chloro-3-methylphenol	1240	1500	82.7%
2-Methylnaphthalene	348	500	69.6%
Hexachlorocyclopentadiene	743 Q	1500	49.5%
2,4,6-Trichlorophenol	1060	1500	70.7%
2,4,5-Trichlorophenol	1110	1500	74.0%
2-Chloronaphthalene	360	500	72.0%
2-Nitroaniline	1340	1500	89.3%
Dimethylphthalate	413	500	82.6%
Acenaphthylene	340	500	68.0%
3-Nitroaniline	1080	1500	72.0%
Acenaphthene	351	500	70.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS

Sample ID: LCS-040313
LAB CONTROL

Lab Sample ID: LCS-040313
LIMS ID: 13-6438
Matrix: Solids
Date Analyzed: 04/06/13 16:22

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Analyte	Lab Control	Spike Added	Recovery
2,4-Dinitrophenol	1620	2750	58.9%
4-Nitrophenol	947	1500	63.1%
Dibenzofuran	367	500	73.4%
2,6-Dinitrotoluene	1240	1500	82.7%
2,4-Dinitrotoluene	1290	1500	86.0%
Diethylphthalate	414	500	82.8%
4-Chlorophenyl-phenylether	431	500	86.2%
Fluorene	350	500	70.0%
4-Nitroaniline	1210	1500	80.7%
4,6-Dinitro-2-Methylphenol	2180	2750	79.3%
N-Nitrosodiphenylamine	400	500	80.0%
4-Bromophenyl-phenylether	402	500	80.4%
Hexachlorobenzene	341	500	68.2%
Pentachlorophenol	918	1500	61.2%
Phenanthrene	380	500	76.0%
Carbazole	531	500	106%
Anthracene	367	500	73.4%
Di-n-Butylphthalate	458	500	91.6%
Fluoranthene	409	500	81.8%
Pyrene	409	500	81.8%
Butylbenzylphthalate	470	500	94.0%
3,3'-Dichlorobenzidine	569	1500	37.9%
Benzo(a)anthracene	386	500	77.2%
bis(2-Ethylhexyl)phthalate	443	500	88.6%
Chrysene	365	500	73.0%
Di-n-Octyl phthalate	420	500	84.0%
Benzo(a)pyrene	384	500	76.8%
Indeno(1,2,3-cd)pyrene	375	500	75.0%
Dibenz(a,h)anthracene	376	500	75.2%
Benzo(g,h,i)perylene	347	500	69.4%
Aniline	371 J	1500	24.7%
N-Nitrosodimethylamine	1050	1500	70.0%
1-Methylnaphthalene	364	500	72.8%
Total Benzofluoranthenes	776	1000	77.6%

Semivolatile Surrogate Recovery	
d5-Nitrobenzene	71.6%
2-Fluorobiphenyl	68.4%
d14-p-Terphenyl	81.8%
d4-1,2-Dichlorobenzene	65.2%
d5-Phenol	79.7%
2-Fluorophenol	73.9%
2,4,6-Tribromophenol	62.9%
d4-2-Chlorophenol	78.7%

Reported in µg/kg (ppb)

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

WJ10MBW1

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No: WJ10

Project: NPDES SAMPLING SUPPO

Lab File ID: 04041306

Date Extracted: 04/01/13

Instrument ID: NT6

Date Analyzed: 04/04/13

Matrix: LIQUID

Time Analyzed: 1644

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WJ10LCSW1	WJ10LCSW1	04041307	04/04/13
02	WJ10LCSDW1	WJ10LCSDW1	04041308	04/04/13
03	SD-SP-01-2013032	WJ10A	04041310	04/04/13
04				
05				
06				
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FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: MB-040113**
Extraction Method: SW3510C **METHOD BLANK**

Lab Sample ID: MB-040113
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/01/13
Date Analyzed: 04/04/13 16:44
Instrument/Analyst: NT6/JZ

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	DL	LOQ	Result
108-95-2	Phenol	0.44	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	0.26	1.0	< 1.0 U
95-57-8	2-Chlorophenol	0.25	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	0.50	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	0.47	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	0.41	2.0	< 2.0 U
95-50-1	1,2-Dichlorobenzene	0.44	1.0	< 1.0 U
95-48-7	2-Methylphenol	0.33	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	0.22	1.0	< 1.0 U
106-44-5	4-Methylphenol	0.54	2.0	< 2.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	0.36	1.0	< 1.0 U
67-72-1	Hexachloroethane	0.61	2.0	< 2.0 U
98-95-3	Nitrobenzene	0.49	1.0	< 1.0 U
78-59-1	Isophorone	0.26	1.0	< 1.0 U
88-75-5	2-Nitrophenol	0.98	3.0	< 3.0 U
105-67-9	2,4-Dimethylphenol	0.63	3.0	< 3.0 U
65-85-0	Benzoic Acid	8.6	20	< 20 U
111-91-1	bis(2-Chloroethoxy) Methane	0.25	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	1.1	3.0	< 3.0 U
120-82-1	1,2,4-Trichlorobenzene	0.50	1.0	< 1.0 U
91-20-3	Naphthalene	0.33	1.0	< 1.0 U
106-47-8	4-Chloroaniline	1.7	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	0.60	3.0	< 3.0 U
59-50-7	4-Chloro-3-methylphenol	0.92	3.0	< 3.0 U
91-57-6	2-Methylnaphthalene	0.24	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	1.9	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	1.2	3.0	< 3.0 U
95-95-4	2,4,5-Trichlorophenol	1.7	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	0.34	1.0	< 1.0 U
88-74-4	2-Nitroaniline	0.78	3.0	< 3.0 U
131-11-3	Dimethylphthalate	0.26	1.0	< 1.0 U
208-96-8	Acenaphthylene	0.27	1.0	< 1.0 U
99-09-2	3-Nitroaniline	1.1	3.0	< 3.0 U
83-32-9	Acenaphthene	0.35	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	5.5	20	< 20 U
100-02-7	4-Nitrophenol	2.9	10	< 10 U
132-64-9	Dibenzofuran	0.20	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	1.3	3.0	< 3.0 U
121-14-2	2,4-Dinitrotoluene	1.3	3.0	< 3.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: MB-040113**
Extraction Method: SW3510C **METHOD BLANK**

Lab Sample ID: MB-040113 QC Report No: WJ10-SAIC
LIMS ID: 13-6435 Project: NPDES Sampling Support
Matrix: Water 209977
Date Analyzed: 04/04/13 16:44

CAS Number	Analyte	DL	LOQ	Result
84-66-2	Diethylphthalate	0.41	1.0	< 1.0 U
7005-72-3	4-Chlorophenyl-phenylether	0.34	1.0	< 1.0 U
86-73-7	Fluorene	0.27	1.0	< 1.0 U
100-01-6	4-Nitroaniline	1.4	3.0	< 3.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	4.9	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	0.39	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	0.26	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	0.34	1.0	< 1.0 U
87-86-5	Pentachlorophenol	2.7	10	< 10 U
85-01-8	Phenanthrene	0.28	1.0	< 1.0 U
86-74-8	Carbazole	0.25	1.0	< 1.0 U
120-12-7	Anthracene	0.30	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	0.30	1.0	< 1.0 U
206-44-0	Fluoranthene	0.29	1.0	< 1.0 U
129-00-0	Pyrene	0.38	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	0.40	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	1.6	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	0.37	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	1.0	< 1.0 U
218-01-9	Chrysene	0.40	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	0.33	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	0.42	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.44	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	0.44	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	0.46	1.0	< 1.0 U
62-53-3	Aniline	0.47	1.0	< 1.0 U
122-66-7	1,2-Diphenylhydrazine	0.40	1.0	< 1.0 U
62-75-9	N-Nitrosodimethylamine	1.2	3.0	< 3.0 U
103-33-3	Azobenzene	0.21	1.0	< 1.0 U
58-90-2	2,3,4,6-Tetrachlorophenol	0.15	1.0	< 1.0 U
90-12-0	1-Methylnaphthalene	0.20	1.0	< 1.0 U
TOTBFA	Total Benzofluoranthenes	2.3	5.0	< 5.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	70.0%	2-Fluorobiphenyl	64.4%
d14-p-Terphenyl	80.0%	d4-1,2-Dichlorobenzene	58.8%
d5-Phenol	32.3%	2-Fluorophenol	45.6%
2,4,6-Tribromophenol	74.4%	d4-2-Chlorophenol	68.0%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

WJ10MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: SAIC

ARI Job No: WJ10
Project: NPDES SAMPLING SUPPO

Lab File ID: WJ10MB
Date Extracted: 04/03/13

Instrument ID: NT10
Date Analyzed: 04/06/13

Matrix: SOLID
Time Analyzed: 1546

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WJ10LCSS1	WJ10LCSS1	WJ10SB	04/06/13
02	SD-SP-01-2013032	WJ10C	WJ10C	04/06/13
03	SD-CB-01-2013032	WJ10D	WJ10D	04/06/13
04	SD-CB-01-201303	WJ10DMS	WJ10DMS	04/06/13
05	SD-CB-01-201303	WJ10DMSD	WJ10DMSD	04/06/13
06	SD-CB-01-2013032	WJ10D	WJ10D60	04/09/13
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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: MB-040313**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-040313
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized: MW
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 15:46
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	DL	LOQ	Result
108-95-2	Phenol	8.6	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	3.4	20	< 20 U
95-57-8	2-Chlorophenol	2.4	20	< 20 U
541-73-1	1,3-Dichlorobenzene	2.6	20	< 20 U
106-46-7	1,4-Dichlorobenzene	2.9	20	< 20 U
100-51-6	Benzyl Alcohol	6.1	20	< 20 U
95-50-1	1,2-Dichlorobenzene	2.5	20	< 20 U
95-48-7	2-Methylphenol	5.2	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	3.8	20	< 20 U
106-44-5	4-Methylphenol	6.6	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	3.4	20	< 20 U
67-72-1	Hexachloroethane	2.9	20	< 20 U
98-95-3	Nitrobenzene	4.1	20	< 20 U
78-59-1	Isophorone	2.9	20	< 20 U
88-75-5	2-Nitrophenol	39	100	< 100 U
105-67-9	2,4-Dimethylphenol	3.5	40	< 40 U
65-85-0	Benzoic Acid	100	400	< 400 U
111-91-1	bis(2-Chloroethoxy) Methane	2.0	20	< 20 U
120-83-2	2,4-Dichlorophenol	22	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	3.5	20	< 20 U
91-20-3	Naphthalene	2.8	20	< 20 U
106-47-8	4-Chloroaniline	22	270	< 270 U
87-68-3	Hexachlorobutadiene	4.6	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	15	100	< 100 U
91-57-6	2-Methylnaphthalene	3.1	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	66	400	< 400 U
88-06-2	2,4,6-Trichlorophenol	22	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	21	100	< 100 U
91-58-7	2-Chloronaphthalene	2.6	20	< 20 U
88-74-4	2-Nitroaniline	18	100	< 100 U
131-11-3	Dimethylphthalate	2.9	20	< 20 U
208-96-8	Acenaphthylene	5.7	20	< 20 U
99-09-2	3-Nitroaniline	22	100	< 100 U
83-32-9	Acenaphthene	3.3	20	< 20 U
51-28-5	2,4-Dinitrophenol	110	850	< 850 U
100-02-7	4-Nitrophenol	35	100	< 100 U
132-64-9	Dibenzofuran	4.1	20	< 20 U
606-20-2	2,6-Dinitrotoluene	31	100	< 100 U
121-14-2	2,4-Dinitrotoluene	20	100	< 100 U
84-66-2	Diethylphthalate	37	50	< 50 U
7005-72-3	4-Chlorophenyl-phenylether	5.3	20	< 20 U
86-73-7	Fluorene	4.4	20	< 20 U
100-01-6	4-Nitroaniline	38	100	< 100 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: MB-040313**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-040313 QC Report No: WJ10-SAIC
LIMS ID: 13-6438 Project: NPDES Sampling Support
Matrix: Solids 209977
Date Analyzed: 04/06/13 15:46

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	21	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	5.4	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	5.0	20	< 20 U
118-74-1	Hexachlorobenzene	4.3	20	< 20 U
87-86-5	Pentachlorophenol	48	200	< 200 U
85-01-8	Phenanthrene	3.6	20	< 20 U
86-74-8	Carbazole	2.7	20	< 20 U
120-12-7	Anthracene	4.5	20	< 20 U
84-74-2	Di-n-Butylphthalate	8.2	20	< 20 U
206-44-0	Fluoranthene	2.9	20	< 20 U
129-00-0	Pyrene	1.9	20	< 20 U
85-68-7	Butylbenzylphthalate	6.1	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	18	150	< 150 U
56-55-3	Benzo(a)anthracene	3.3	20	< 20 U
117-81-7	bis(2-Ethylhexyl)phthalate	15	25	< 25 U
218-01-9	Chrysene	3.8	20	< 20 U
117-84-0	Di-n-Octyl phthalate	5.8	20	< 20 U
50-32-8	Benzo(a)pyrene	5.4	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	4.3	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	4.4	20	< 20 U
62-53-3	Aniline	40	540	< 540 U
62-75-9	N-Nitrosodimethylamine	14	100	< 100 U
90-12-0	1-Methylnaphthalene	2.7	20	< 20 U
TOTBFA	Total Benzofluoranthenes	2.8	40	< 40 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	69.8%
d14-p-Terphenyl	84.8%	d4-1,2-Dichlorobenzene	68.6%
d5-Phenol	80.3%	2-Fluorophenol	73.7%
2,4,6-Tribromophenol	63.5%	d4-2-Chlorophenol	81.2%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT6 Project: NPDES SAMPLING SUPPORT

DFTPP Injection Date: 03/06/13 DFTPP Injection Time: 1216

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	44.1
68	Less than 2.0% of mass 69	0.5 (1.2)1
69	Mass 69 relative abundance	40.7
70	Less than 2.0% of mass 69	0.1 (0.1)1
127	10.0 - 80.0% of mass 198	46.2
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 60.0% of mass 198	24.2
365	Greater than 1.0% of mass 198	3.15
441	0.0 - 24.0% of mass 442	11.9 (14.1)2
442	50.0 - 200.0% of mass 198	84.3
443	15.0 - 24.0% of mass 442	16.6 (19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	IC250306	IC250306	03061301	03/06/13	1216
02	IC020306	IC020306	03061302	03/06/13	1251
03	IC10306	IC10306	03061303	03/06/13	1325
04	IC50306	IC50306	03061304	03/06/13	1400
05	IC100306	IC100306	03061305	03/06/13	1434
06	IC400306	IC40306	03061306	03/06/13	1509
07	IC600306	IC60306	03061307	03/06/13	1543
08	IC800306	IC80306	03061308	03/06/13	1618
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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT6 Project: NPDES SAMPLING SUPPORT

DFTPP Injection Date: 04/04/13 DFTPP Injection Time: 1345

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	44.0
68	Less than 2.0% of mass 69	0.3 (0.8)1
69	Mass 69 relative abundance	41.5
70	Less than 2.0% of mass 69	0.1 (0.3)1
127	10.0 - 80.0% of mass 198	49.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	23.4
365	Greater than 1.0% of mass 198	3.12
441	0.0 - 24.0% of mass 442	10.6 (14.0)2
442	50.0 - 200.0% of mass 198	75.8
443	15.0 - 24.0% of mass 442	14.4 (19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CC0404	CC0404	04041301	04/04/13	1345
02	WJ10MBW1	WJ10MBW1	04041306	04/04/13	1644
03	WJ10LCSW1	WJ10LCSW1	04041307	04/04/13	1719
04	WJ10LCSDW1	WJ10LCSDW1	04041308	04/04/13	1754
05	SD-SP-01-2013032	WJ10A	04041310	04/04/13	1903
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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING SUPPORT

DFTPP Injection Date: 01/25/13 DFTPP Injection Time: 1243

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	24.2
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Mass 69 relative abundance	39.8
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	10.0 - 80.0% of mass 198	48.9
197	Less than 2.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	28.9
365	Greater than 1.0% of mass 198	4.43
441	0.0 - 24.0% of mass 442	16.5 (15.1)2
442	50.0 - 200.0% of mass 198	109.2
443	15.0 - 24.0% of mass 442	21.8 (20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		IC0125A	IC0125A	01/25/13	1259
02		IC0125B	IC0125B	01/25/13	1336
03		IC0125C	IC0125C	01/25/13	1413
04		IC0125D	IC0125D	01/25/13	1450
05		IC0125E	IC0125E	01/25/13	1527
06		IC0125F	IC0125F	01/25/13	1603
07		IC0125H	IC0125H	01/25/13	1716
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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING SUPPORT

DFTPP Injection Date: 04/06/13 DFTPP Injection Time: 1418

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	19.9
68	Less than 2.0% of mass 69	0.6 (1.7)1
69	Mass 69 relative abundance	35.9
70	Less than 2.0% of mass 69	0.1 (0.4)1
127	10.0 - 80.0% of mass 198	48.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.7
365	Greater than 1.0% of mass 198	3.85
441	0.0 - 24.0% of mass 442	15.2 (15.9)2
442	50.0 - 200.0% of mass 198	95.3
443	15.0 - 24.0% of mass 442	19.0 (19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		ABN 5	CC0406	04/06/13	1432
02	WJ10MBS1	WJ10MBS1	WJ10MB	04/06/13	1546
03	WJ10LCSS1	WJ10LCSS1	WJ10SB	04/06/13	1622
04	SD-SP-01-2013032	WJ10C	WJ10C	04/06/13	1848
05	SD-CB-01-2013032	WJ10D	WJ10D	04/06/13	1925
06	SD-CB-01-201303	WJ10DMS	WJ10DMS	04/06/13	2001
07	SD-CB-01-201303	WJ10DMSD	WJ10DMSD	04/06/13	2038
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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING SUPPORT

DFTPP Injection Date: 04/09/13 DFTPP Injection Time: 1156

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	18.3
68	Less than 2.0% of mass 69	0.4 (1.3)1
69	Mass 69 relative abundance	33.6
70	Less than 2.0% of mass 69	0.1 (0.3)1
127	10.0 - 80.0% of mass 198	46.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	27.3
365	Greater than 1.0% of mass 198	4.12
441	0.0 - 24.0% of mass 442	16.7 (15.9)2
442	50.0 - 200.0% of mass 198	105.2
443	15.0 - 24.0% of mass 442	20.4 (19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		CC0409	CC0409	04/09/13	1210
02	SD-CB-01-2013032	WJ10D	WJ10D60	04/09/13	1247
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6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT6 Calibration Date: 03/05/13

LAB FILE ID: RRF1 =03061303 RRF5 =03061304 RRF10 =03061305
RRF25 =03061301 RRF40 =03061306 RRF60 =03061307
RRF80 =03061308 RRF0.2=03061302

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF 0.2	___ RRF	%RSD /R^2
Phenol	1.762	1.739	1.830	1.554	1.486	1.367	1.442		1.597	11.2
Bis(2-Chloroethyl)ether	1.600	1.464	1.595	1.353	1.281	1.187	1.230		1.387	12.2
2-Chlorophenol	1.378	1.355	1.482	1.274	1.210	1.103	1.144		1.278	10.6
1,3-Dichlorobenzene	1.817	1.600	1.721	1.477	1.375	1.238	1.220		1.492	15.5
1,4-Dichlorobenzene	1.820	1.555	1.672	1.430	1.326	1.192	1.174		1.453	16.8
1,2-Dichlorobenzene	1.757	1.523	1.606	1.354	1.236	1.094	1.151		1.389	17.8
Benzyl alcohol	0.878	0.944	0.968	0.889	0.801	0.770	0.841		0.870	8.3
2,2'-oxybis(1-Chloropropane)	2.656	2.347	2.534	2.161	2.042	1.891	1.796		2.204	14.7
2-Methylphenol	1.251	1.276	1.407	1.229	1.168	1.088	1.060		1.211	9.8
Hexachloroethane	0.699	0.619	0.678	0.578	0.544	0.501	0.494		0.588	13.9
N-Nitroso-di-n-propylamine	1.195	1.074	1.162	1.020	0.964	0.914	0.956		1.041	10.3
4-Methylphenol	1.242	1.268	1.423	1.242	1.155	1.051	1.003		1.198	11.9
Nitrobenzene	0.476	0.424	0.448	0.375	0.345	0.308	0.312		0.384	17.4
Isophorone	0.781	0.689	0.747	0.635	0.616	0.595	0.624		0.670	10.7
2-Nitrophenol	0.145	0.182	0.213	0.186	0.184	0.169	0.165		0.178	12.0
2,4-Dimethylphenol	0.361	0.355	0.387	0.331	0.323	0.300	0.294		0.336	10.0
Bis(2-Chloroethoxy)methane	0.541	0.466	0.499	0.424	0.398	0.374	0.373		0.439	14.8
2,4-Dichlorophenol	0.240	0.271	0.313	0.274	0.248	0.234	0.231		0.259	11.4
1,2,4-Trichlorobenzene	0.405	0.340	0.369	0.310	0.293	0.269	0.269		0.322	16.0
Naphthalene	1.258	1.044	1.069	0.857	0.767	0.676			0.945	0.999
Benzoic acid		0.210	0.319	0.307	0.309	0.295	0.306		0.291	13.8
4-Chloroaniline	0.406	0.412	0.377	0.256	0.238	0.214			0.317	0.997
Hexachlorobutadiene	0.234	0.204	0.223	0.192	0.180	0.168	0.169		0.196	13.2
4-Chloro-3-methylphenol	0.245	0.284	0.331	0.287	0.277	0.248	0.252		0.275	11.1
2-Methylnaphthalene	0.596	0.574	0.566	0.481	0.425	0.387	0.376		0.486	19.1
Hexachlorocyclopentadiene	0.234	0.284	0.361	0.348	0.334	0.333	0.354		0.321	14.3
2,4,6-Trichlorophenol	0.285	0.328	0.365	0.343	0.342	0.340	0.350		0.336	7.5
2,4,5-Trichlorophenol	0.237	0.342	0.402	0.349	0.348	0.326	0.318		0.332	15.0
2-Chloronaphthalene	1.302	1.097	1.100	0.902	0.814	0.748	0.769		0.962	0.996
2-Nitroaniline	0.211	0.315	0.339	0.315	0.297	0.292	0.301		0.296	13.7
Acenaphthylene	2.058	1.780	1.820	1.508	1.372	1.244	1.261		1.578	19.9
Dimethylphthalate	1.478	1.260	1.342	1.162	1.101	1.004	1.079		1.204	13.8
2,6-Dinitrotoluene	0.248	0.276	0.301	0.260	0.245	0.226	0.244		0.257	9.7
Acenaphthene	1.341	1.113	1.146	0.976	0.900	0.830	0.843		1.021	18.4
3-Nitroaniline	0.219	0.260	0.219	0.192	0.172	0.144	0.140		0.192	0.996
2,4-Dinitrophenol		0.111	0.202	0.197	0.194	0.192	0.205		0.184	19.5
Dibenzofuran	1.680	1.555	1.522	1.311	1.185	1.027	1.071		1.336	19.1

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-4

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT6 Calibration Date: 03/05/13

LAB FILE ID: RRF1 =03061303 RRF5 =03061304 RRF10 =03061305
RRF25 =03061301 RRF40 =03061306 RRF60 =03061307
RRF80 =03061308 RRF0.2=03061302

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF 0.2	___ RRF	%RSD /R^2
4-Nitrophenol		0.110	0.149	0.141	0.132	0.128	0.123		0.130	10.5
2,4-Dinitrotoluene	0.304	0.354	0.412	0.358	0.346	0.326	0.335		0.348	9.7
Fluorene	1.426	1.192	1.221	1.020	0.887	0.806	0.823		1.054	0.995
4-Chlorophenyl-phenylether	0.758	0.643	0.666	0.567	0.516	0.459	0.495		0.586	18.3
Diethylphthalate		1.336	1.345	1.109	1.037	0.944	0.920		1.115	16.8
4-Nitroaniline	0.197	0.224	0.180	0.179	0.196	0.197	0.199		0.196	7.6
4,6-Dinitro-2-methylphenol		0.121	0.163	0.146	0.148	0.142	0.145		0.144	9.5
N-Nitrosodiphenylamine (1)	0.681	0.594	0.634	0.522	0.483	0.445	0.449		0.544	17.2
4-Bromophenyl-phenylether	0.252	0.228	0.251	0.212	0.206	0.184	0.203		0.219	11.5
Hexachlorobenzene	0.274	0.234	0.255	0.213	0.205	0.190	0.213		0.226	13.1
Pentachlorophenol		0.109	0.150	0.136	0.136	0.127	0.143		0.134	10.9
Phenanthrene	1.289	1.068	1.102	0.868	0.836	0.773			0.989	19.9
Anthracene	1.191	1.076	1.158	0.933	0.840	0.746			0.991	18.1
Carbazole	1.142	0.915	0.799	0.666	0.703	0.690	0.718		0.805	0.998
Di-n-butylphthalate	1.541	1.382	1.453	1.159	1.040	0.919			1.249	19.8
Fluoranthene	1.255	1.129	1.241	1.027	0.937	0.850	0.847		1.041	16.6
Pyrene	1.384	1.180	1.258	1.054	0.974	0.891	0.904		1.092	17.2
Butylbenzylphthalate	0.592	0.582	0.629	0.534	0.502	0.450	0.451		0.534	13.2
Benzo(a)anthracene	1.070	0.963	1.036	0.887	0.835	0.777	0.815		0.912	12.4
3,3'-Dichlorobenzidine	0.266	0.287	0.294	0.240	0.231	0.218	0.220		0.251	12.6
Chrysene	1.149	1.006	1.089	0.896	0.840	0.761	0.774		0.931	16.5
bis(2-Ethylhexyl)phthalate	0.647	0.607	0.679	0.590	0.557	0.518	0.523		0.589	10.3
Di-n-octylphthalate	1.130	0.976	1.035	0.935	0.888	0.821	0.824		0.944	12.0
Benzo(b)fluoranthene	0.899	0.855	1.042	0.957	0.838	0.814	0.798		0.886	0.998
Benzo(k)fluoranthene	1.393	1.257	1.260	0.963	0.962	0.803	0.808		1.064	0.994
Benzo(a)pyrene	0.925	0.862	1.024	0.861	0.820	0.745	0.746		0.855	11.6
Indeno(1,2,3-cd)pyrene	1.048	1.019	1.202	1.022	1.000	0.940	0.970		1.029	8.2
Dibenzo(a,h)anthracene	0.726	0.819	0.976	0.828	0.796	0.753	0.772		0.810	10.1
Benzo(g,h,i)perylene	0.829	0.858	1.027	0.887	0.887	0.824	0.847		0.880	7.9
N-Nitrosodimethylamine	0.996	0.924	1.016	0.929	0.904	0.881	0.941		0.942	5.1
Aniline	2.223	2.101	1.970	1.670	1.485	1.393	1.546		1.770	18.4
Benzidine			0.109	0.082	0.088	0.102	0.104		0.097	11.7
Pyridine	1.431	1.468	1.751	1.627	1.389	1.336	1.453		1.494	9.7
1-methylnaphthalene	0.610	0.570	0.564	0.484	0.437	0.400	0.392		0.494	17.9
Azobenzene (1,2-DP-Hydrazine	1.598	1.419	1.455	1.244	1.130	1.028	0.996		1.267	18.2
2,3,4,6-Tetrachlorophenol	0.211	0.277	0.332	0.308	0.301	0.276	0.293		0.285	13.3
1,2,4,5-Tetrachlorobenzene	0.597	0.500	0.533	0.472	0.449	0.429	0.439		0.488	12.3

(1) Cannot be seperated from Diphenylamine

<- Outside QC limits: %RSD <20% or R^2 > 0.990

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT6 Calibration Date: 03/05/13

LAB FILE ID: RRF1 =03061303 RRF5 =03061304 RRF10 =03061305
RRF25 =03061301 RRF40 =03061306 RRF60 =03061307
RRF80 =03061308 RRF0.2=03061302

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	RRF 0.2	___ RRF	%RSD /R^2
Total Benzofluoranthenes	1.078	1.027	1.108	0.895	0.836	0.757	0.744		0.921	16.4
2-Fluorophenol	1.397	1.385	1.437	1.223	1.197	1.136			1.296	9.7
Phenol-d5	1.709	1.712	1.702	1.399	1.326	1.254			1.517	14.1
2-Chlorophenol-d4	1.467	1.398	1.431	1.205	1.128	1.064			1.282	13.4
1,2-Dichlorobenzene-d4	1.122	1.025	1.001	0.827	0.761	0.679			0.902	19.1
Nitrobenzene-d5	0.462	0.434	0.441	0.373	0.357	0.340			0.401	12.7
2-Fluorobiphenyl	1.606	1.460	1.337	1.112	1.066	0.993			1.262	19.3
2,4,6-Tribromophenol	0.148	0.171	0.179	0.156	0.148	0.146			0.158	8.6
Terphenyl-d14	0.836	0.810	0.754	0.631	0.606	0.575			0.702	16.0

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-6

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Calibration Date: 01/25/13

LAB FILE ID: RRF0.2=IC0125C RRF0.5=IC0125H RRF1 =IC0125E
RRF2.5=IC0125F RRF5 =IC0125A RRF10 =IC0125D
RRF20 =IC0125B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	$\overline{RRF}$	%RSD /R^2
Phenol	1.852	1.689	1.647	1.637	1.690	1.617	1.561	1.670	5.5
Bis(2-Chloroethyl)ether	1.405	1.303	1.303	1.247	1.283	1.211	1.143	1.271	6.5
2-Chlorophenol	1.595	1.461	1.477	1.405	1.455	1.419	1.363	1.454	5.1
1,3-Dichlorobenzene	1.834	1.635	1.581	1.518	1.535	1.523	1.446	1.582	7.9
1,4-Dichlorobenzene	1.825	1.555	1.602	1.503	1.518	1.510	1.450	1.566	7.9
1,2-Dichlorobenzene	1.738	1.523	1.513	1.446	1.472	1.449	1.401	1.506	7.3
Benzyl alcohol	0.840	0.769	0.792	0.773	0.813	0.817	0.791	0.799	3.2
2,2'-oxybis(1-Chloropropane)	0.480	0.448	0.443	0.443	0.448	0.445	0.424	0.447	3.8
2-Methylphenol	1.350	1.220	1.246	1.223	1.300	1.267	1.221	1.261	3.9
Hexachloroethane	0.680	0.602	0.638	0.592	0.610	0.614	0.597	0.619	5.0
N-Nitroso-di-n-propylamine	0.916	0.796	0.856	0.819	0.862	0.846	0.803	0.842	4.9
4-Methylphenol	1.342	1.292	1.314	1.307	1.336	1.313	1.275	1.311	1.8
Nitrobenzene	0.387	0.340	0.348	0.341	0.348	0.344	0.342	0.350	4.8
Isophorone	0.633	0.568	0.608	0.594	0.627	0.618	0.621	0.610	3.7
2-Nitrophenol	0.193	0.184	0.205	0.208	0.219	0.217	0.213	0.206	6.2
2,4-Dimethylphenol	0.376	0.348	0.358	0.346	0.353	0.341	0.330	0.350	4.1
Bis(2-Chloroethoxy)methane	0.421	0.396	0.385	0.380	0.383	0.364	0.361	0.384	5.3
2,4-Dichlorophenol	0.318	0.294	0.308	0.307	0.314	0.306	0.297	0.306	2.8
1,2,4-Trichlorobenzene	0.403	0.363	0.355	0.335	0.339	0.329	0.317	0.349	8.2
Naphthalene	1.171	1.066	1.041	1.002	1.012	1.007	0.987	1.041	6.1
Benzoic acid		0.168	0.242	0.273	0.305	0.306	0.314	0.268	0.999
4-Chloroaniline	0.436	0.407	0.416	0.409	0.424	0.417	0.423	0.419	2.4
Hexachlorobutadiene	0.234	0.212	0.220	0.214	0.214	0.215	0.211	0.217	3.6
4-Chloro-3-methylphenol	0.265	0.271	0.296	0.292	0.313	0.319	0.317	0.296	7.3
2-Methylnaphthalene	0.738	0.668	0.674	0.657	0.702	0.683	0.688	0.687	3.9
Hexachlorocyclopentadiene	0.445	0.408	0.446	0.444	0.480	0.467	0.469	0.451	5.3
2,4,6-Trichlorophenol	0.379	0.370	0.409	0.401	0.416	0.415	0.416	0.401	4.7
2,4,5-Trichlorophenol	0.379	0.396	0.423	0.438	0.449	0.451	0.446	0.426	6.7
2-Chloronaphthalene	1.237	1.069	1.096	1.077	1.109	1.074	1.072	1.105	5.4
2-Nitroaniline	0.217	0.223	0.256	0.268	0.285	0.282	0.283	0.259	11.0
Acenaphthylene	1.864	1.821	1.856	1.806	1.824	1.741	1.701	1.802	3.3
Dimethylphthalate	1.309	1.228	1.231	1.180	1.219	1.174	1.128	1.210	4.7
2,6-Dinitrotoluene	0.257	0.256	0.280	0.285	0.294	0.284	0.280	0.276	5.2
Acenaphthene	1.185	1.134	1.118	1.082	1.094	1.069	1.050	1.104	4.1
3-Nitroaniline	0.227	0.255	0.291	0.273	0.260	0.263	0.217	0.255	10.0
2,4-Dinitrophenol		0.114	0.165	0.208	0.243	0.249	0.253	0.205	0.999
Dibenzofuran	1.690	1.549	1.565	1.497	1.527	1.480	1.448	1.536	5.1

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-1

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Calibration Date: 01/25/13

LAB FILE ID: RRF0.2=IC0125C RRF0.5=IC0125H RRF1 =IC0125E
RRF2.5=IC0125F RRF5 =IC0125A RRF10 =IC0125D
RRF20 =IC0125B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	___ RRF	%RSD /R^2
4-Nitrophenol		0.100	0.130	0.161	0.180	0.176	0.179	0.154	0.999
2,4-Dinitrotoluene	0.317	0.346	0.381	0.389	0.406	0.391	0.385	0.374	8.3
Fluorene	1.403	1.351	1.321	1.303	1.297	1.245	1.216	1.305	4.8
4-Chlorophenyl-phenylether	0.649	0.643	0.631	0.592	0.600	0.579	0.564	0.608	5.4
Diethylphthalate	1.359	1.231	1.288	1.262	1.291	1.233	1.207	1.267	4.0
4-Nitroaniline	0.243	0.272	0.278	0.267	0.272	0.281	0.272	0.269	4.7
4,6-Dinitro-2-methylphenol	0.113	0.135	0.160	0.170	0.183	0.181	0.180	0.160	16.8
N-Nitrosodiphenylamine (1)	0.526	0.486	0.512	0.479	0.473	0.458	0.438	0.482	6.3
4-Bromophenyl-phenylether	0.242	0.214	0.218	0.217	0.226	0.223	0.222	0.223	4.2
Hexachlorobenzene	0.307	0.283	0.288	0.273	0.277	0.270	0.262	0.280	5.2
Pentachlorophenol	0.151	0.165	0.189	0.189	0.208	0.203	0.202	0.187	11.4
Phenanthrene	1.209	1.074	1.063	1.003	1.062	1.029	1.023	1.066	6.4
Anthracene	1.117	1.020	1.065	1.048	1.104	1.099	1.062	1.074	3.2
Carbazole		0.862	0.878	0.650	0.517	0.658	0.738	0.717	19.3
Di-n-butylphthalate	1.119	0.992	1.078	1.112	1.230	1.241	1.247	1.146	8.5
Fluoranthene	1.285	1.126	1.219	1.190	1.272	1.246	1.258	1.228	4.5
Pyrene	1.170	1.065	1.142	1.136	1.154	1.158	1.150	1.139	3.0
Butylbenzylphthalate	0.416	0.361	0.430	0.433	0.463	0.467	0.454	0.432	8.4
Benzo(a)anthracene	1.199	1.074	1.123	1.108	1.100	1.112	1.096	1.116	3.6
3,3'-Dichlorobenzidine	0.585	0.521	0.474	0.382	0.358	0.470	0.476	0.466	16.6
Chrysene	1.132	1.022	1.018	0.971	0.985	0.981	0.968	1.011	5.7
bis(2-Ethylhexyl)phthalate	0.594	0.506	0.519	0.530	0.531	0.511	0.504	0.528	5.9
Di-n-octylphthalate	1.158	1.024	0.982	0.930	0.934	0.915	0.886	0.976	9.5
Benzo(b)fluoranthene	1.206	1.106	1.092	1.149	1.141	1.204	1.217	1.159	4.3
Benzo(k)fluoranthene	1.420	1.260	1.290	1.205	1.269	1.165	1.158	1.252	7.2
Benzo(a)pyrene	1.077	0.949	0.979	0.983	1.014	1.008	1.008	1.002	4.0
Indeno(1,2,3-cd)pyrene	1.259	1.150	1.216	1.223	1.276	1.272	1.258	1.236	3.6
Dibenzo(a,h)anthracene	0.971	0.924	0.986	0.983	1.004	1.001	0.985	0.979	2.8
Benzo(g,h,i)perylene	1.081	1.010	1.046	1.045	1.083	1.080	1.081	1.061	2.6
N-Nitrosodimethylamine	0.833	0.733	0.747	0.736	0.796	0.756	0.724	0.761	5.2
Aniline	4.034	3.608	3.698	3.544	3.670	3.463	3.216	3.605	6.9
Benzidine		0.373	0.356	0.208	0.161	0.193	0.226	0.253	0.995
Retene	0.562	0.585	1.008	0.545	0.562	0.571	0.546	0.626	0.998
Perylene	1.319	1.138	1.160	1.114	1.115	1.112	1.108	1.152	6.6
Pyridine	0.666	0.652	0.657	0.637	0.680	0.638	0.613	0.649	3.4
1-methylnaphthalene	0.687	0.616	0.617	0.610	0.625	0.629	0.629	0.630	4.1
Azobenzene (1,2-DP-Hydrazine	1.198	1.135	1.184	1.156	1.172	1.126	1.076	1.150	3.6

(1) Cannot be seperated from Diphenylamine

<- Outside QC limits: %RSD <20% or R^2 > 0.990

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Calibration Date: 01/25/13

LAB FILE ID: RRF0.2=IC0125C RRF0.5=IC0125H RRF1 =IC0125E
RRF2.5=IC0125F RRF5 =IC0125A RRF10 =IC0125D
RRF20 =IC0125B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	___ RRF	%RSD /R^2
2,3,4,6-Tetrachlorophenol	0.329	0.344	0.373	0.382	0.393	0.392	0.395	0.372	7.0
Total Benzofluoranthenes	1.238	1.131	1.130	1.111	1.140	1.118	1.120	1.141	3.8
2-Fluorophenol	1.346	1.221	1.319	1.250	1.327	1.274	1.216	1.279	4.1
Phenol-d5	1.640	1.529	1.548	1.558	1.646	1.601	1.589	1.587	2.8
2-Chlorophenol-d4	1.454	1.368	1.391	1.344	1.389	1.367	1.306	1.374	3.3
1,2-Dichlorobenzene-d4	1.188	0.999	1.001	0.957	0.978	0.992	0.953	1.010	8.0
Nitrobenzene-d5	0.395	0.354	0.368	0.361	0.372	0.367	0.368	0.369	3.5
2-Fluorobiphenyl	1.492	1.363	1.371	1.342	1.369	1.328	1.341	1.372	4.0
2,4,6-Tribromophenol	0.243	0.241	0.254	0.262	0.263	0.262	0.262	0.255	3.8
Terphenyl-d14	0.805	0.736	0.790	0.761	0.768	0.774	0.743	0.768	3.2

<- Outside QC limits: %RSD <20% or R^2 > 0.990

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT6 Cont. Calib. Date: 04/04/13

Init. Calib. Date: 03/05/13 Cont. Calib. Time: 1345

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Phenol	1.597	1.370	0.800	AVRG	-14.2
Bis(2-Chloroethyl)ether	1.387	1.240	0.700	AVRG	-10.6
2-Chlorophenol	1.278	1.240	0.800	AVRG	-3.0
1,3-Dichlorobenzene	1.492	1.466	0.010	AVRG	-1.7
1,4-Dichlorobenzene	1.453	1.444	0.010	AVRG	-0.6
1,2-Dichlorobenzene	1.389	1.358	0.010	AVRG	-2.2
Benzyl alcohol	0.870	0.760	0.010	AVRG	-12.6
2,2'-oxybis(1-Chloropropane)	2.204	1.799	0.010	AVRG	-18.4
2-Methylphenol	1.211	1.078	0.700	AVRG	-11.0
Hexachloroethane	0.588	0.574	0.300	AVRG	-2.4
N-Nitroso-di-n-propylamine	1.041	0.892	0.500	AVRG	-14.3
4-Methylphenol	1.198	1.126	0.600	AVRG	-6.0
Nitrobenzene	0.384	0.364	0.200	AVRG	-5.2
Isophorone	0.670	0.592	0.400	AVRG	-11.6
2-Nitrophenol	0.178	0.182	0.100	AVRG	2.2
2,4-Dimethylphenol	0.336	0.324	0.200	AVRG	-3.6
Bis(2-Chloroethoxy)methane	0.439	0.400	0.300	AVRG	-8.9
2,4-Dichlorophenol	0.259	0.272	0.200	AVRG	5.0
1,2,4-Trichlorobenzene	0.322	0.322	0.010	AVRG	0.0
Naphthalene	25.00	25.93	0.700	2ORDR	3.7
Benzoic acid	0.291	0.245	0.010	AVRG	-15.8
4-Chloroaniline	25.00	26.27	0.010	2ORDR	5.1
Hexachlorobutadiene	0.196	0.205	0.010	AVRG	4.6
4-Chloro-3-methylphenol	0.275	0.281	0.200	AVRG	2.2
2-Methylnaphthalene	0.486	0.493	0.400	AVRG	1.4
Hexachlorocyclopentadiene	0.321	0.360	0.050	AVRG	12.1
2,4,6-Trichlorophenol	0.336	0.338	0.200	AVRG	0.6
2,4,5-Trichlorophenol	0.332	0.352	0.200	AVRG	6.0
2-Chloronaphthalene	25.00	27.65	0.800	2ORDR	10.6
2-Nitroaniline	0.296	0.301	0.010	AVRG	1.7
Acenaphthylene	1.578	1.534	0.900	AVRG	-2.8
Dimethylphthalate	1.204	1.147	0.010	AVRG	-4.7
2,6-Dinitrotoluene	0.257	0.271	0.200	AVRG	5.4
Acenaphthene	1.021	0.975	0.900	AVRG	-4.5
3-Nitroaniline	25.00	27.39	0.010	2ORDR	9.6
2,4-Dinitrophenol	0.184	0.193	0.010	AVRG	4.9
Dibenzofuran	1.336	1.322	0.800	AVRG	-1.0

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT6 Cont. Calib. Date: 04/04/13

Init. Calib. Date: 03/05/13 Cont. Calib. Time: 1345

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	0.130	0.161	0.010	AVRG	23.8	<-
2,4-Dinitrotoluene	0.348	0.367	0.200	AVRG	5.4	
Fluorene	25.00	28.06	0.900	2ORDR	12.2	
4-Chlorophenyl-phenylether	0.586	0.590	0.400	AVRG	0.7	
Diethylphthalate	1.115	1.132	0.010	AVRG	1.5	
4-Nitroaniline	0.196	0.188	0.010	AVRG	-4.1	
4,6-Dinitro-2-methylphenol	0.144	0.149	0.010	AVRG	3.5	
N-Nitrosodiphenylamine(1)	0.544	0.521	0.010	AVRG	-4.2	
4-Bromophenyl-phenylether	0.219	0.213	0.100	AVRG	-2.7	
Hexachlorobenzene	0.226	0.220	0.100	AVRG	-2.6	
Pentachlorophenol	0.134	0.124	0.050	AVRG	-7.5	
Phenanthrene	0.989	0.893	0.700	AVRG	-9.7	
Anthracene	0.991	0.909	0.700	AVRG	-8.3	
Carbazole	25.00	26.31	0.010	2ORDR	5.2	
Di-n-butylphthalate	1.249	1.119	0.010	AVRG	-10.4	
Fluoranthene	1.041	1.003	0.600	AVRG	-3.6	
Pyrene	1.092	1.053	0.600	AVRG	-3.6	
Butylbenzylphthalate	0.534	0.524	0.010	AVRG	-1.9	
Benzo(a)anthracene	0.912	0.915	0.800	AVRG	0.3	
3,3'-Dichlorobenzidine	0.251	0.270	0.010	AVRG	7.6	
Chrysene	0.931	0.910	0.700	AVRG	-2.2	
bis(2-Ethylhexyl)phthalate	0.589	0.572	0.010	AVRG	-2.9	
Di-n-octylphthalate	0.944	0.919	0.010	AVRG	-2.6	
Benzo(b)fluoranthene	25.00	26.61	0.700	2ORDR	6.4	
Benzo(k)fluoranthene	25.00	24.46	0.700	2ORDR	-2.2	
Benzo(a)pyrene	0.855	0.854	0.700	AVRG	-0.1	
Indeno(1,2,3-cd)pyrene	1.029	1.161	0.500	AVRG	12.8	
Dibenzo(a,h)anthracene	0.810	0.940	0.400	AVRG	16.0	
Benzo(g,h,i)perylene	0.880	1.020	0.500	AVRG	15.9	
N-Nitrosodimethylamine	0.942	0.817	0.010	AVRG	-13.3	
Aniline	1.770	1.400	0.010	AVRG	-20.9	<-
Benzidine	0.097	0.033	0.010	AVRG	-66.0	<- NC
Pyridine	1.494	1.305	0.010	AVRG	-12.6	
1-methylnaphthalene	0.494	0.496	0.010	AVRG	0.4	
Azobenzene (1,2-DP-Hydrazine	1.267	1.183	0.010	AVRG	-6.6	
2,3,4,6-Tetrachlorophenol	0.285	0.308	0.010	AVRG	8.1	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

04/10/13

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT6 Cont. Calib. Date: 04/04/13

Init. Calib. Date: 03/05/13 Cont. Calib. Time: 1345

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
1,2,4,5-Tetrachlorobenzene	0.488		0.010	AVRG	
Total Benzofluoranthenes	0.921	0.903	0.010	AVRG	-2.0
2-Fluorophenol	1.296	1.136	0.010	AVRG	-12.3
Phenol-d5	1.517	1.382	0.010	AVRG	-8.9
2-Chlorophenol-d4	1.282	1.161	0.010	AVRG	-9.4
1,2-Dichlorobenzene-d4	0.902	0.808	0.010	AVRG	-10.4
Nitrobenzene-d5	0.401	0.366	0.010	AVRG	-8.7
2-Fluorobiphenyl	1.262	1.126	0.010	AVRG	-10.8
2,4,6-Tribromophenol	0.158	0.170	0.010	AVRG	7.6
Terphenyl-d14	0.702	0.645	0.010	AVRG	-8.1

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Cont. Calib. Date: 04/06/13

Init. Calib. Date: 01/25/13 Cont. Calib. Time: 1432

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.670	2.048	0.800	AVRG	22.6	<-
Bis(2-Chloroethyl)ether	1.271	1.199	0.700	AVRG	-5.7	
2-Chlorophenol	1.454	1.548	0.800	AVRG	6.5	
1,3-Dichlorobenzene	1.582	1.418	0.010	AVRG	-10.4	
1,4-Dichlorobenzene	1.566	1.418	0.010	AVRG	-9.4	
1,2-Dichlorobenzene	1.506	1.332	0.010	AVRG	-11.6	
Benzyl alcohol	0.799	0.620	0.010	AVRG	-22.4	<-
2,2'-oxybis(1-Chloropropane)	0.447	0.404	0.010	AVRG	-9.6	
2-Methylphenol	1.261	1.348	0.700	AVRG	6.9	
Hexachloroethane	0.619	0.572	0.300	AVRG	-7.6	
N-Nitroso-di-n-propylamine	0.842	0.818	0.500	AVRG	-2.8	
4-Methylphenol	1.311	1.407	0.600	AVRG	7.3	
Nitrobenzene	0.350	0.339	0.200	AVRG	-3.1	
Isophorone	0.610	0.635	0.400	AVRG	4.1	
2-Nitrophenol	0.206	0.251	0.100	AVRG	21.8	<-
2,4-Dimethylphenol	0.350	0.412	0.200	AVRG	17.7	
Bis(2-Chloroethoxy)methane	0.384	0.388	0.300	AVRG	1.0	
2,4-Dichlorophenol	0.306	0.318	0.200	AVRG	3.9	
1,2,4-Trichlorobenzene	0.349	0.328	0.010	AVRG	-6.0	
Naphthalene	1.041	0.960	0.700	AVRG	-7.8	
Benzoic acid	20.00	18.51	0.010	2ORDR	-7.4	
4-Chloroaniline	0.419	0.390	0.010	AVRG	-6.9	
Hexachlorobutadiene	0.217	0.209	0.010	AVRG	-3.7	
4-Chloro-3-methylphenol	0.296	0.333	0.200	AVRG	12.5	
2-Methylnaphthalene	0.687	0.677	0.400	AVRG	-1.4	
Hexachlorocyclopentadiene	0.451	0.356	0.050	AVRG	-21.1	<-
2,4,6-Trichlorophenol	0.401	0.397	0.200	AVRG	-1.0	
2,4,5-Trichlorophenol	0.426	0.458	0.200	AVRG	7.5	
2-Chloronaphthalene	1.105	1.053	0.800	AVRG	-4.7	
2-Nitroaniline	0.259	0.292	0.010	AVRG	12.7	
Acenaphthylene	1.802	1.720	0.900	AVRG	-4.6	
Dimethylphthalate	1.210	1.160	0.010	AVRG	-4.1	
2,6-Dinitrotoluene	0.276	0.280	0.200	AVRG	1.4	
Acenaphthene	1.104	1.036	0.900	AVRG	-6.2	
3-Nitroaniline	0.255	0.276	0.010	AVRG	8.2	
2,4-Dinitrophenol	20.00	18.91	0.010	2ORDR	-5.4	
Dibenzofuran	1.536	1.550	0.800	AVRG	0.9	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Cont. Calib. Date: 04/06/13

Init. Calib. Date: 01/25/13 Cont. Calib. Time: 1432

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	10.00	9.977	0.010	2ORDR	-0.2	
2,4-Dinitrotoluene	0.374	0.383	0.200	AVRG	2.4	
Fluorene	1.305	1.252	0.900	AVRG	-4.1	
4-Chlorophenyl-phenylether	0.608	0.660	0.400	AVRG	8.6	
Diethylphthalate	1.267	1.202	0.010	AVRG	-5.1	
4-Nitroaniline	0.269	0.291	0.010	AVRG	8.2	
4,6-Dinitro-2-methylphenol	0.160	0.175	0.010	AVRG	9.4	
N-Nitrosodiphenylamine(1)	0.482	0.447	0.010	AVRG	-7.3	
4-Bromophenyl-phenylether	0.223	0.218	0.100	AVRG	-2.2	
Hexachlorobenzene	0.280	0.262	0.100	AVRG	-6.4	
Pentachlorophenol	0.187	0.165	0.050	AVRG	-11.8	
Phenanthrene	1.066	1.009	0.700	AVRG	-5.3	
Anthracene	1.074	1.044	0.700	AVRG	-2.8	
Carbazole	0.717	0.678	0.010	AVRG	-5.4	
Di-n-butylphthalate	1.146	1.130	0.010	AVRG	-1.4	
Fluoranthene	1.228	1.225	0.600	AVRG	-0.2	
Pyrene	1.139	1.147	0.600	AVRG	0.7	
Butylbenzylphthalate	0.432	0.434	0.010	AVRG	0.5	
Benzo(a)anthracene	1.116	1.077	0.800	AVRG	-3.5	
3,3'-Dichlorobenzidine	0.466	0.428	0.010	AVRG	-8.2	
Chrysene	1.011	0.928	0.700	AVRG	-8.2	
bis(2-Ethylhexyl)phthalate	0.528	0.493	0.010	AVRG	-6.6	
Di-n-octylphthalate	0.976	0.837	0.010	AVRG	-14.2	
Benzo(b)fluoranthene	1.159	1.118	0.700	AVRG	-3.5	
Benzo(k)fluoranthene	1.252	1.160	0.700	AVRG	-7.3	
Benzo(a)pyrene	1.002	0.943	0.700	AVRG	-5.9	
Indeno(1,2,3-cd)pyrene	1.236	1.127	0.500	AVRG	-8.8	
Dibenzo(a,h)anthracene	0.979	0.883	0.400	AVRG	-9.8	
Benzo(g,h,i)perylene	1.061	0.909	0.500	AVRG	-14.3	
N-Nitrosodimethylamine	0.761	0.753	0.010	AVRG	-1.0	
Aniline	3.605	3.717	0.010	AVRG	3.1	
Benzidine	10.00	7.812	0.010	2ORDR	-21.9	<-
Retene	5.000	0.000	0.010	2ORDR		
Perylene	1.152	1.035	0.010	AVRG	-10.2	
Pyridine	0.649	0.640	0.010	AVRG	-1.4	
1-methylnaphthalene	0.630	0.613	0.010	AVRG	-2.7	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Cont. Calib. Date: 04/06/13

Init. Calib. Date: 01/25/13 Cont. Calib. Time: 1432

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Azobenzene (1,2-DP-Hydrazine	1.150	1.066	0.010	AVRG	-7.3
2,3,4,6-Tetrachlorophenol	0.372	0.370	0.010	AVRG	-0.5
Total Benzofluoranthenes	1.141	1.061	0.010	AVRG	-7.0
2-Fluorophenol	1.279	1.282	0.010	AVRG	0.2
Phenol-d5	1.587	1.679	0.010	AVRG	5.8
2-Chlorophenol-d4	1.374	1.467	0.010	AVRG	6.8
1,2-Dichlorobenzene-d4	1.010	0.928	0.010	AVRG	-8.1
Nitrobenzene-d5	0.369	0.374	0.010	AVRG	1.4
2-Fluorobiphenyl	1.372	1.299	0.010	AVRG	-5.3
2,4,6-Tribromophenol	0.255	0.225	0.010	AVRG	-11.8
Terphenyl-d14	0.768	0.736	0.010	AVRG	-4.2

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Cont. Calib. Date: 04/09/13

Init. Calib. Date: 01/25/13 Cont. Calib. Time: 1210

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.670	1.827	0.800	AVRG	9.4	
Bis(2-Chloroethyl)ether	1.271	1.208	0.700	AVRG	-5.0	
2-Chlorophenol	1.454	1.378	0.800	AVRG	-5.2	
1,3-Dichlorobenzene	1.582	1.428	0.010	AVRG	-9.7	
1,4-Dichlorobenzene	1.566	1.376	0.010	AVRG	-12.1	
1,2-Dichlorobenzene	1.506	1.350	0.010	AVRG	-10.4	
Benzyl alcohol	0.799	0.824	0.010	AVRG	3.1	
2,2'-oxybis(1-Chloropropane)	0.447	0.418	0.010	AVRG	-6.5	
2-Methylphenol	1.261	1.327	0.700	AVRG	5.2	
Hexachloroethane	0.619	0.586	0.300	AVRG	-5.3	
N-Nitroso-di-n-propylamine	0.842	0.833	0.500	AVRG	-1.1	
4-Methylphenol	1.311	1.368	0.600	AVRG	4.3	
Nitrobenzene	0.350	0.346	0.200	AVRG	-1.1	
Isophorone	0.610	0.645	0.400	AVRG	5.7	
2-Nitrophenol	0.206	0.211	0.100	AVRG	2.4	
2,4-Dimethylphenol	0.350	0.376	0.200	AVRG	7.4	
Bis(2-Chloroethoxy)methane	0.384	0.389	0.300	AVRG	1.3	
2,4-Dichlorophenol	0.306	0.310	0.200	AVRG	1.3	
1,2,4-Trichlorobenzene	0.349	0.380	0.010	AVRG	8.9	
Naphthalene	1.041	0.963	0.700	AVRG	-7.5	
Benzoic acid	20.00	18.99	0.010	2ORDR	-5.0	
4-Chloroaniline	0.419	0.449	0.010	AVRG	7.2	
Hexachlorobutadiene	0.217	0.207	0.010	AVRG	-4.6	
4-Chloro-3-methylphenol	0.296	0.334	0.200	AVRG	12.8	
2-Methylnaphthalene	0.687	0.676	0.400	AVRG	-1.6	
Hexachlorocyclopentadiene	0.451	0.342	0.050	AVRG	-24.2	<-
2,4,6-Trichlorophenol	0.401	0.411	0.200	AVRG	2.5	
2,4,5-Trichlorophenol	0.426	0.440	0.200	AVRG	3.3	
2-Chloronaphthalene	1.105	1.040	0.800	AVRG	-5.9	
2-Nitroaniline	0.259	0.296	0.010	AVRG	14.3	
Acenaphthylene	1.802	1.710	0.900	AVRG	-5.1	
Dimethylphthalate	1.210	1.138	0.010	AVRG	-6.0	
2,6-Dinitrotoluene	0.276	0.276	0.200	AVRG	0.0	
Acenaphthene	1.104	1.049	0.900	AVRG	-5.0	
3-Nitroaniline	0.255	0.272	0.010	AVRG	6.7	
2,4-Dinitrophenol	20.00	16.20	0.010	2ORDR	-19.0	
Dibenzofuran	1.536	1.534	0.800	AVRG	-0.1	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Cont. Calib. Date: 04/09/13

Init. Calib. Date: 01/25/13 Cont. Calib. Time: 1210

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
4-Nitrophenol	10.00	9.848	0.010	2ORDR	-1.5
2,4-Dinitrotoluene	0.374	0.374	0.200	AVRG	0.0
Fluorene	1.305	1.233	0.900	AVRG	-5.5
4-Chlorophenyl-phenylether	0.608	0.564	0.400	AVRG	-7.2
Diethylphthalate	1.267	1.180	0.010	AVRG	-6.9
4-Nitroaniline	0.269	0.286	0.010	AVRG	6.3
4,6-Dinitro-2-methylphenol	0.160	0.173	0.010	AVRG	8.1
N-Nitrosodiphenylamine(1)	0.482	0.451	0.010	AVRG	-6.4
4-Bromophenyl-phenylether	0.223	0.216	0.100	AVRG	-3.1
Hexachlorobenzene	0.280	0.257	0.100	AVRG	-8.2
Pentachlorophenol	0.187	0.173	0.050	AVRG	-7.5
Phenanthrene	1.066	1.011	0.700	AVRG	-5.2
Anthracene	1.074	1.053	0.700	AVRG	-2.0
Carbazole	0.717	0.683	0.010	AVRG	-4.7
Di-n-butylphthalate	1.146	1.157	0.010	AVRG	1.0
Fluoranthene	1.228	1.245	0.600	AVRG	1.4
Pyrene	1.139	1.154	0.600	AVRG	1.3
Butylbenzylphthalate	0.432	0.432	0.010	AVRG	0.0
Benzo(a)anthracene	1.116	1.044	0.800	AVRG	-6.4
3,3'-Dichlorobenzidine	0.466	0.431	0.010	AVRG	-7.5
Chrysene	1.011	0.921	0.700	AVRG	-8.9
bis(2-Ethylhexyl)phthalate	0.528	0.481	0.010	AVRG	-8.9
Di-n-octylphthalate	0.976	0.832	0.010	AVRG	-14.8
Benzo(b)fluoranthene	1.159	1.076	0.700	AVRG	-7.2
Benzo(k)fluoranthene	1.252	1.271	0.700	AVRG	1.5
Benzo(a)pyrene	1.002	0.967	0.700	AVRG	-3.5
Indeno(1,2,3-cd)pyrene	1.236	1.163	0.500	AVRG	-5.9
Dibenzo(a,h)anthracene	0.979	0.912	0.400	AVRG	-6.8
Benzo(g,h,i)perylene	1.061	0.950	0.500	AVRG	-10.5
N-Nitrosodimethylamine	0.761	0.740	0.010	AVRG	-2.8
Aniline	3.605	3.865	0.010	AVRG	7.2
Benzidine	10.00	8.292	0.010	2ORDR	-17.1
Retene	5.000	0.000	0.010	2ORDR	
Perylene	1.152	1.080	0.010	AVRG	-6.2
Pyridine	0.649	0.657	0.010	AVRG	1.2
1-methylnaphthalene	0.630	0.617	0.010	AVRG	-2.1

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Cont. Calib. Date: 04/09/13

Init. Calib. Date: 01/25/13 Cont. Calib. Time: 1210

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Azobenzene (1,2-DP-Hydrazine	1.150	1.094	0.010	AVRG	-4.9
2,3,4,6-Tetrachlorophenol	0.372	0.366	0.010	AVRG	-1.6
Total Benzofluoranthenes	1.141	1.086	0.010	AVRG	-4.8
2-Fluorophenol	1.279	1.325	0.010	AVRG	3.6
Phenol-d5	1.587	1.703	0.010	AVRG	7.3
2-Chlorophenol-d4	1.374	1.291	0.010	AVRG	-6.0
1,2-Dichlorobenzene-d4	1.010	0.925	0.010	AVRG	-8.4
Nitrobenzene-d5	0.369	0.384	0.010	AVRG	4.1
2-Fluorobiphenyl	1.372	1.299	0.010	AVRG	-5.3
2,4,6-Tribromophenol	0.255	0.220	0.010	AVRG	-13.7
Terphenyl-d14	0.768	0.732	0.010	AVRG	-4.7

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: 03061301 Ical Date: 03/05/13

Instrument ID: NT6 Cont. Cal Date: 04/04/13

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	458117	8.39	1718341	10.42	1010041	13.29
	UPPER LIMIT	916234		3436682		2020082	
	LOWER LIMIT	229058		859170		505020	
	CCAL	477903	8.21	1772966	10.25	1071457	13.11
	UPPER LIMIT		8.71		10.75		13.61
	LOWER LIMIT		7.71		9.75		12.61
01	WJ10MBW1	466002	8.21	1662991	10.25	996708	13.11
02	WJ10LCSW1	491754	8.21	1818586	10.25	998045	13.12
03	WJ10LCSDW1	554236	8.21	2034911	10.25	1039174	13.12
04	SD-SP-01-201	457303	8.21	1624755	10.25	979767	13.11
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: 03061301 Ical Date: 03/05/13

Instrument ID: NT6 Cont. Cal Date: 04/04/13

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	1666734	15.66	1675752	19.98	1637524	22.14
	UPPER LIMIT	3333468		3351504		3275048	
	LOWER LIMIT	833367		837876		818762	
	CCAL	1837069	15.49	1804522	19.80	1838548	21.95
	UPPER LIMIT		15.99		20.30		22.45
	LOWER LIMIT		14.99		19.30		21.45
01	WJ10MBW1	1636944	15.49	1622613	19.79	1541456	21.95
02	WJ10LCSW1	1822083	15.49	1695304	19.80	1802136	21.95
03	WJ10LCSDW1	1892292	15.49	1716543	19.80	1790601	21.95
04	SD-SP-01-201	1620713	15.49	1698228	19.84	1921105	22.01
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: 03061301 Ical Date: 03/05/13

Instrument ID: NT6 Cont. Cal Date: 04/04/13

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	2026355	21.09				
	UPPER LIMIT	4052710					
	LOWER LIMIT	1013178					
	CCAL	2226804	20.91				
	UPPER LIMIT		21.41				
	LOWER LIMIT		20.41				
01	WJ10MBW1	2043453	20.91				
02	WJ10LCSW1	2335785	20.92				
03	WJ10LCSDW1	2192877	20.91				
04	SD-SP-01-201	1643014	20.96				
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: IC0125A Ical Date: 01/25/13

Instrument ID: NT10 Cont. Cal Date: 04/06/13

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	46623	9.08	176978	11.76	110872	15.66
	UPPER LIMIT	93246		353956		221744	
	LOWER LIMIT	23312		88489		55436	
	CCAL	42895	8.09	156217	10.73	97299	14.59
	UPPER LIMIT		8.59		11.23		15.09
	LOWER LIMIT		7.59		10.23		14.09
01	WJ10MBS1	38072	8.09	149862	10.73	91166	14.59
02	WJ10LCSS1	38218	8.09	143682	10.73	89116	14.60
03	SD-SP-01-201	44089	8.09	165419	10.74	98501	14.61
04	SD-CB-01-201	38530	8.10	162513	10.74	91312	14.61
05	SD-CB-01-201	40364	8.10	164689	10.74	95360	14.61
06	SD-CB-01-201	39936	8.10	157630	10.75	92971	14.62
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: IC0125A Ical Date: 01/25/13

Instrument ID: NT10 Cont. Cal Date: 04/06/13

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	188290	18.94	213681	24.01	208584	26.51
	UPPER LIMIT	376580		427362		417168	
	LOWER LIMIT	94145		106840		104292	
	CCAL	168757	17.83	184517	23.07	173421	25.37
	UPPER LIMIT		18.33		23.57		25.87
	LOWER LIMIT		17.33		22.57		24.87
01	WJ10MBS1	155649	17.84	167971	23.07	148650	25.38
02	WJ10LCSS1	155572	17.84	171640	23.07	158429	25.38
03	SD-SP-01-201	132066	17.87	154232	23.16	149923	25.50
04	SD-CB-01-201	119617	17.89	156479	23.12	146490	25.44
05	SD-CB-01-201	120930	17.89	160666	23.13	148974	25.45
06	SD-CB-01-201	124676	17.89	161368	23.13	143745	25.45
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: SAIC

ARI Job No: WJ10 | Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: IC0125A | Ical Date: 01/25/13

Instrument ID: NT10 | Cont. Cal Date: 04/06/13

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	264159	25.10				
	UPPER LIMIT	528318					
	LOWER LIMIT	132080					
	CCAL	222491	24.27				
	UPPER LIMIT		24.77				
	LOWER LIMIT		23.77				
01	WJ10MBS1	196468	24.28				
02	WJ10LCSS1	206194	24.28				
03	SD-SP-01-201	190565	24.37				
04	SD-CB-01-201	202938	24.33				
05	SD-CB-01-201	207881	24.33				
06	SD-CB-01-201	201639	24.33				
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: IC0125A Ical Date: 01/25/13

Instrument ID: NT10 Cont. Cal Date: 04/09/13

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	46623	9.08	176978	11.76	110872	15.66
	UPPER LIMIT	93246		353956		221744	
	LOWER LIMIT	23312		88489		55436	
	CCAL	47316	7.95	170847	10.57	107094	14.42
	UPPER LIMIT		8.45		11.07		14.92
	LOWER LIMIT		7.45		10.07		13.92
01	SD-CB-01-201	46932	7.94	178473	10.57	105776	14.41
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No: WJ10

Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: IC0125A

Ical Date: 01/25/13

Instrument ID: NT10

Cont. Cal Date: 04/09/13

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	188290	18.94	213681	24.01	208584	26.51
	UPPER LIMIT	376580		427362		417168	
	LOWER LIMIT	94145		106840		104292	
	CCAL	182140	17.66	200794	22.89	186300	25.18
	UPPER LIMIT		18.16		23.39		25.68
	LOWER LIMIT		17.16		22.39		24.68
01	SD-CB-01-201	178044	17.66	181143	22.89	178382	25.17
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No: WJ10

Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: IC0125A

Ical Date: 01/25/13

Instrument ID: NT10

Cont. Cal Date: 04/09/13

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	264159	25.10				
	UPPER LIMIT	528318					
	LOWER LIMIT	132080					
	CCAL	251719	24.10				
	UPPER LIMIT		24.60				
	LOWER LIMIT		23.60				
01	SD-CB-01-201	231831	24.10				
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

SIM Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: SD-SP-01-20130326-S**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 18:48
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 0.48 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 52.8 %

CAS Number	Analyte	DL	LOQ	Result
53-70-3	**Dibenz(a,h)anthracene**	**42**	**100**	**130**
106-46-7	1,4-Dichlorobenzene	25	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	39	100	< 100 U
118-74-1	Hexachlorobenzene	26	100	< 100 U
87-68-3	Hexachlorobutadiene	20	100	< 100 U
131-11-3	**Dimethylphthalate**	**28**	**100**	**210**
84-66-2	**Diethylphthalate**	**68**	**100**	**190 B**
85-68-7	**Butylbenzylphthalate**	**60**	**100**	**1,300**
95-48-7	2-Methylphenol	38	100	< 100 U
105-67-9	2,4-Dimethylphenol	60	420	< 420 U
86-30-6	**N-Nitrosodiphenylamine**	**29**	**420**	**110 J**
100-51-6	Benzyl Alcohol	150	420	< 420 U
87-86-5	Pentachlorophenol	300	1,000	< 1,000 U
95-50-1	1,2-Dichlorobenzene	23	100	< 100 U
541-73-1	1,3-Dichlorobenzene	27	100	< 100 U
621-64-7	N-Nitroso-Di-N-Propylamine	200	250	< 250 U
62-75-9	N-Nitrosodimethylamine	66	520	< 520 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	63.3%
d14-p-Terphenyl	69.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **SAMPLE**
Page 1 of 1

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 19:25
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 8.41 g-dry-wt
Final Extract Volume: 2.0 mL
Dilution Factor: 3.00
Percent Moisture: 44.1 %

CAS Number	Analyte	DL	LOQ	Result
53-70-3	**Dibenz(a,h)anthracene**	**14**	**36**	**1,100**
106-46-7	1,4-Dichlorobenzene	8.5	36	< 36 U
120-82-1	1,2,4-Trichlorobenzene	13	36	< 36 U
118-74-1	Hexachlorobenzene	9.0	36	< 36 U
87-68-3	Hexachlorobutadiene	6.8	36	< 36 U
131-11-3	**Dimethylphthalate**	**9.6**	**36**	**97**
84-66-2	**Diethylphthalate**	**23**	**36**	**25 J**
85-68-7	**Butylbenzylphthalate**	**21**	**36**	**2,000**
95-48-7	**2-Methylphenol**	**13**	**36**	**530**
105-67-9	**2,4-Dimethylphenol**	**21**	**140**	**150**
86-30-6	**N-Nitrosodiphenylamine**	**9.8**	**140**	**110 J**
100-51-6	Benzyl Alcohol	50	140	< 140 U
87-86-5	Pentachlorophenol	100	360	< 360 U
95-50-1	1,2-Dichlorobenzene	7.8	36	< 36 U
541-73-1	1,3-Dichlorobenzene	9.3	36	< 36 U
621-64-7	N-Nitroso-Di-N-Propylamine	68	86	< 86 U
62-75-9	N-Nitrosodimethylamine	22	180	< 180 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	60.0%
d14-p-Terphenyl	75.6%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Solids

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Client ID	FPH	TER	TOT OUT
SD-SP-01-20130326-S	63.3%	69.0%	0
MB-040313	69.9%	75.6%	0
LCS-040313	73.2%	73.4%	0
SD-CB-01-20130326-S	60.0%	75.6%	0
SD-CB-01-20130326-S MS	65.6%	75.6%	0
SD-CB-01-20130326-S MSD	71.2%	82.8%	0

	LCS/MB LIMITS	QC LIMITS
(FPH) = 2-Fluorophenol	(32-100)	(27-100)
(TER) = d14-p-Terphenyl	(42-124)	(37-111)

Prep Method: SW3546
Log Number Range: 13-6437 to 13-6438

FORM-II SIM SW8270

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: SD-CB-01-20130326-S**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
Event: 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted MS/MSD: 04/03/13

Sample Amount MS: 8.39 g-dry-wt
MSD: 8.50 g-dry-wt

Date Analyzed MS: 04/06/13 20:01
MSD: 04/06/13 20:38

Final Extract Volume MS: 2.0 mL
MSD: 2.0 mL

Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ

Dilution Factor MS: 3.00
MSD: 3.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Dibenz(a,h)anthracene	1100	1430	596	55.4%	1280	588	30.6%	11.1%
1,4-Dichlorobenzene	< 36 U	366	596	61.4%	385	588	65.5%	5.1%
1,2,4-Trichlorobenzene	< 36 U	370	596	62.1%	404	588	68.7%	8.8%
Hexachlorobenzene	< 36 U	466	596	78.2%	478	588	81.3%	2.5%
Hexachlorobutadiene	< 36 U	366	596	61.4%	392	588	66.7%	6.9%
Dimethylphthalate	97	284	596	31.4%	606	588	86.6%	72.4%
Diethylphthalate	25 J	330 B	596	51.2%	460 B	588	74.0%	32.9%
Butylbenzylphthalate	2000	1930	596	NA	1320	588	NA	37.5%
2-Methylphenol	530	517	596	NA	515	588	NA	0.4%
2,4-Dimethylphenol	150	1260	1790	62.0%	1420	1760	72.2%	11.9%
N-Nitrosodiphenylamine	110 J	451	596	57.2%	320	588	35.7%	34.0%
Benzyl Alcohol	< 140 U	825 QB	596	138%	1280 QB	588	218%	43.2%
Pentachlorophenol	< 360 U	1070 Q	1790	59.8%	1200 Q	1760	68.2%	11.5%
1,2-Dichlorobenzene	< 36 U	376	596	63.1%	390	588	66.3%	3.7%
1,3-Dichlorobenzene	< 36 U	355	596	59.6%	366	588	62.2%	3.1%
N-Nitroso-Di-N-Propylamine	< 86 U	627	596	105%	682	588	116%	8.4%
N-Nitrosodimethylamine	< 180 U	1440	1790	80.4%	1380	1760	78.4%	4.3%

Reported in µg/kg (ppb)

NA-No recovery due to high concentration (> 4X) of analyte in original sample, calculated negative recovery, or undetected spike.
RPD, calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **MATRIX SPIKE**

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 20:01
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 8.39 g-dry-wt
Final Extract Volume: 2.0 mL
Dilution Factor: 3.00
Percent Moisture: 44.1 %

CAS Number	Analyte	DL	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	14	36	---
106-46-7	1,4-Dichlorobenzene	8.5	36	---
120-82-1	1,2,4-Trichlorobenzene	13	36	---
118-74-1	Hexachlorobenzene	9.0	36	---
87-68-3	Hexachlorobutadiene	6.9	36	---
131-11-3	Dimethylphthalate	9.6	36	---
84-66-2	Diethylphthalate	23	36	---
85-68-7	Butylbenzylphthalate	21	36	---
95-48-7	2-Methylphenol	13	36	---
105-67-9	2,4-Dimethylphenol	21	140	---
86-30-6	N-Nitrosodiphenylamine	9.9	140	---
100-51-6	Benzyl Alcohol	50	140	---
87-86-5	Pentachlorophenol	100	360	---
95-50-1	1,2-Dichlorobenzene	7.9	36	---
541-73-1	1,3-Dichlorobenzene	9.4	36	---
621-64-7	N-Nitroso-Di-N-Propylamine	68	86	---
62-75-9	N-Nitrosodimethylamine	23	180	---

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	65.6%
d14-p-Terphenyl	75.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **MATRIX SPIKE DUP**

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 20:38
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 8.50 g-dry-wt
Final Extract Volume: 2.0 mL
Dilution Factor: 3.00
Percent Moisture: 44.1 %

CAS Number	Analyte	DL	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	14	35	---
106-46-7	1,4-Dichlorobenzene	8.4	35	---
120-82-1	1,2,4-Trichlorobenzene	13	35	---
118-74-1	Hexachlorobenzene	8.9	35	---
87-68-3	Hexachlorobutadiene	6.8	35	---
131-11-3	Dimethylphthalate	9.5	35	---
84-66-2	Diethylphthalate	23	35	---
85-68-7	Butylbenzylphthalate	20	35	---
95-48-7	2-Methylphenol	13	35	---
105-67-9	2,4-Dimethylphenol	20	140	---
86-30-6	N-Nitrosodiphenylamine	9.7	140	---
100-51-6	Benzyl Alcohol	50	140	---
87-86-5	Pentachlorophenol	100	350	---
95-50-1	1,2-Dichlorobenzene	7.8	35	---
541-73-1	1,3-Dichlorobenzene	9.2	35	---
621-64-7	N-Nitroso-Di-N-Propylamine	67	85	---
62-75-9	N-Nitrosodimethylamine	22	180	---

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	71.2%
d14-p-Terphenyl	82.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: LCS-040313**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-040313
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/03/13
Date Analyzed LCS: 04/06/13 16:22
Instrument/Analyst LCS: NT10/YZ

Sample Amount LCS: 10.00 g-dry-wt
Final Extract Volume LCS: 1.0 mL
Dilution Factor LCS: 1.00

Analyte	LCS	Spike Added	Recovery
Dibenz(a,h)anthracene	380	500	76.0%
1,4-Dichlorobenzene	324	500	64.8%
1,2,4-Trichlorobenzene	338	500	67.6%
Hexachlorobenzene	337	500	67.4%
Hexachlorobutadiene	338	500	67.6%
Dimethylphthalate	392	500	78.4%
Diethylphthalate	396 B	500	79.2%
Butylbenzylphthalate	509	500	102%
2-Methylphenol	376	500	75.2%
2,4-Dimethylphenol	810	1500	54.0%
N-Nitrosodiphenylamine	412	500	82.4%
Benzyl Alcohol	27.7 QB	500	5.5%
Pentachlorophenol	1040 Q	1500	69.3%
1,2-Dichlorobenzene	331	500	66.2%
1,3-Dichlorobenzene	320	500	64.0%
N-Nitroso-Di-N-Propylamine	348	500	69.6%
N-Nitrosodimethylamine	968	1500	64.5%

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	73.2%
d14-p-Terphenyl	73.4%

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

WJ10MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: SAIC

ARI Job No: WJ10
Project: NPDES SAMPLING SUPPO

Lab File ID: WJ10MB
Date Extracted: 04/03/13

Instrument ID: NT10
Date Analyzed: 04/06/13

Matrix: SOLID
Time Analyzed: 1546

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WJ10LCSS1	WJ10LCSS1	WJ10SB	04/06/13
02	SD-SP-01-2013032	WJ10C	WJ10C	04/06/13
03	SD-CB-01-2013032	WJ10D	WJ10D	04/06/13
04	SD-CB-01-201303	WJ10DMS	WJ10DMS	04/06/13
05	SD-CB-01-201303	WJ10DMSD	WJ10DMSD	04/06/13
06				
07				
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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: MB-040313**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-040313
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/10/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/03/13
Date Analyzed: 04/06/13 15:46
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	DL	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	2.0	5.0	< 5.0 U
106-46-7	1,4-Dichlorobenzene	1.2	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.9	5.0	< 5.0 U
118-74-1	Hexachlorobenzene	1.3	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	0.96	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.3	5.0	< 5.0 U
84-66-2	**Diethylphthalate**	**3.3**	**5.0**	**6.6**
85-68-7	Butylbenzylphthalate	2.9	5.0	< 5.0 U
95-48-7	2-Methylphenol	1.8	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	2.9	20	< 20 U
86-30-6	N-Nitrosodiphenylamine	1.4	20	< 20 U
100-51-6	**Benzyl Alcohol**	**7.0**	**20**	**8.7 J**
87-86-5	Pentachlorophenol	14	50	< 50 U
95-50-1	1,2-Dichlorobenzene	1.1	5.0	< 5.0 U
541-73-1	1,3-Dichlorobenzene	1.3	5.0	< 5.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	9.5	12	< 12 U
62-75-9	N-Nitrosodimethylamine	3.2	25	< 25 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	69.9%
d14-p-Terphenyl	75.6%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING SUPPORT

DFTPP Injection Date: 01/25/13 DFTPP Injection Time: 1243

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	24.2
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Mass 69 relative abundance	39.8
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	10.0 - 80.0% of mass 198	48.9
197	Less than 2.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	28.9
365	Greater than 1.0% of mass 198	4.43
441	0.0 - 24.0% of mass 442	16.5 (15.1)2
442	50.0 - 200.0% of mass 198	109.2
443	15.0 - 24.0% of mass 442	21.8 (20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		IC0125A	IC0125A	01/25/13	1259
02		IC0125C	IC0125C	01/25/13	1413
03		IC0125E	IC0125E	01/25/13	1527
04		IC0125F	IC0125F	01/25/13	1603
05		IC0125G	IC0125G	01/25/13	1640
06		IC0125H	IC0125H	01/25/13	1716
07		IC0125I	IC0125I	01/25/13	1753
08					
09					
10					
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20					
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22					

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING SUPPORT

DFTPP Injection Date: 04/06/13 DFTPP Injection Time: 1418

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	19.9
68	Less than 2.0% of mass 69	0.6 (1.7)1
69	Mass 69 relative abundance	35.9
70	Less than 2.0% of mass 69	0.1 (0.4)1
127	10.0 - 80.0% of mass 198	48.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.7
365	Greater than 1.0% of mass 198	3.85
441	0.0 - 24.0% of mass 442	15.2 (15.9)2
442	50.0 - 200.0% of mass 198	95.3
443	15.0 - 24.0% of mass 442	19.0 (19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		ABN 1	CC0406A	04/06/13	1509
02	WJ10MBS1	WJ10MBS1	WJ10MB	04/06/13	1546
03	WJ10LCSS1	WJ10LCSS1	WJ10SB	04/06/13	1622
04	SD-SP-01-2013032	WJ10C	WJ10C	04/06/13	1848
05	SD-CB-01-2013032	WJ10D	WJ10D	04/06/13	1925
06	SD-CB-01-201303	WJ10DMS	WJ10DMS	04/06/13	2001
07	SD-CB-01-201303	WJ10DMSD	WJ10DMSD	04/06/13	2038
08					
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6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Calibration Date: 01/25/13

LAB FILE ID: RRF0.05=IC0125G RRF0.1=IC0125I RRF0.2=IC0125C
RRF0.5=IC0125H RRF1 =IC0125E RRF2.5=IC0125F
RRF5 =IC0125A

COMPOUND	RRF 0.05	RRF 0.1	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	___ RRF	%RSD /R^2
Phenol	1.601	1.526	1.748	1.603	1.643	1.579	1.613	1.616	4.2
1,3-Dichlorobenzene	1.699	1.643	1.783	1.628	1.586	1.508	1.512	1.623	6.1
1,4-Dichlorobenzene	1.693	1.663	1.780	1.620	1.578	1.502	1.505	1.620	6.2
1,2-Dichlorobenzene	1.595	1.565	1.691	1.527	1.505	1.429	1.429	1.534	6.1
Benzyl alcohol	0.900	0.896	1.033	0.938	0.976	0.957	1.003	0.958	5.3
2-Methylphenol	1.162	1.143	1.334	1.208	1.243	1.198	1.224	1.216	5.1
N-Nitroso-di-n-propylamine	0.762	0.755	0.862	0.784	0.802	0.776	0.802	0.792	4.5
4-Methylphenol	1.156	1.173	1.372	1.262	1.286	1.266	1.301	1.259	5.9
2,4-Dimethylphenol	0.317	0.316	0.382	0.343	0.358	0.346	0.351	0.345	6.7
1,2,4-Trichlorobenzene	0.375	0.423	0.400	0.373	0.357	0.338	0.340	0.372	8.4
Hexachlorobutadiene	0.236	0.226	0.246	0.222	0.222	0.214	0.215	0.226	5.1
Dimethylphthalate	1.176	1.163	1.340	1.210	1.233	1.198	1.203	1.218	4.8
Diethylphthalate	1.319	1.462	1.578	1.408	1.426	1.370	1.394	1.422	5.8
N-Nitrosodiphenylamine (1)	0.394	0.422	0.515	0.477	0.497	0.476	0.472	0.465	9.1
Hexachlorobenzene	0.314	0.306	0.329	0.308	0.296	0.280	0.284	0.302	5.6
Pentachlorophenol		0.128	0.169	0.168	0.193	0.201	0.213	0.179	17.0
Butylbenzylphthalate	0.324	0.315	0.404	0.357	0.410	0.413	0.453	0.382	13.4
Dibenzo(a,h)anthracene	0.870	0.840	1.028	0.946	1.004	0.974	1.011	0.953	7.6
N-Nitrosodimethylamine	0.751	0.750	0.815	0.754	0.748	0.729	0.768	0.759	3.6
2-Fluorophenol	1.241	1.219	1.388	1.258	1.279	1.241	1.282	1.272	4.4
Terphenyl-d14	0.496	0.580	0.577	0.517	0.529	0.500	0.520	0.531	6.5

(1) Cannot be seperated from Diphenylamine

<- Outside QC limits: %RSD <20% or R^2 > 0.990

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Instrument ID: NT10 Cont. Calib. Date: 04/06/13

Init. Calib. Date: 01/25/13 Cont. Calib. Time: 1509

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	1.616	2.048	0.800	AVRG	26.7	<-
1,3-Dichlorobenzene	1.623	1.554	0.010	AVRG	-4.2	
1,4-Dichlorobenzene	1.620	1.561	0.010	AVRG	-3.6	
1,2-Dichlorobenzene	1.534	1.488	0.010	AVRG	-3.0	
Benzyl alcohol	0.958	0.640	0.010	AVRG	-33.2	<-
2-Methylphenol	1.216	1.399	0.700	AVRG	15.0	
N-Nitroso-di-n-propylamine	0.792	0.781	0.500	AVRG	-1.4	
4-Methylphenol	1.259	1.420	0.600	AVRG	12.8	
2,4-Dimethylphenol	0.345	0.347	0.200	AVRG	0.6	
1,2,4-Trichlorobenzene	0.372	0.367	0.010	AVRG	-1.3	
Hexachlorobutadiene	0.226	0.228	0.010	AVRG	0.9	
Dimethylphthalate	1.218	1.207	0.010	AVRG	-0.9	
Diethylphthalate	1.422	1.402	0.010	AVRG	-1.4	
N-Nitrosodiphenylamine(1)	0.465	0.483	0.010	AVRG	3.9	
Hexachlorobenzene	0.302	0.291	0.100	AVRG	-3.6	
Pentachlorophenol	0.179	0.122	0.050	AVRG	-31.8	<-
Butylbenzylphthalate	0.382	0.442	0.010	AVRG	15.7	
Dibenzo(a,h)anthracene	0.953	0.948	0.400	AVRG	-0.5	
N-Nitrosodimethylamine	0.759	0.729	0.010	AVRG	-4.0	
2-Fluorophenol	1.272	1.298	0.010	AVRG	2.0	
Terphenyl-d14	0.531	0.474	0.010	AVRG	-10.7	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: IC0125E Ical Date: 01/25/13

Instrument ID: NT10 Cont. Cal Date: 04/06/13

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	53853	9.09	200104	11.75	112392	15.66
	UPPER LIMIT	107706		400208		224784	
	LOWER LIMIT	26926		100052		56196	
	CCAL	47730	8.09	175489	10.73	98933	14.59
	UPPER LIMIT		8.59		11.23		15.09
	LOWER LIMIT		7.59		10.23		14.09
01	WJ10MBS1	46388	8.09	174225	10.73	97975	14.59
02	WJ10LCSS1	44654	8.09	164864	10.73	95522	14.59
03	SD-SP-01-201	51020	8.10	191772	10.74	105453	14.61
04	SD-CB-01-201	46103	8.10	187940	10.75	98278	14.62
05	SD-CB-01-201	47413	8.10	191190	10.75	100274	14.62
06	SD-CB-01-201	47337	8.11	182847	10.75	100525	14.62
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING SUPPORT

Ical Midpoint ID: IC0125E Ical Date: 01/25/13

Instrument ID: NT10 Cont. Cal Date: 04/06/13

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	ICAL MIDPT	210710	18.94	240805	24.01	230834	26.51
	UPPER LIMIT	421420		481610		461668	
	LOWER LIMIT	105355		120402		115417	
	CCAL	188120	17.84	211464	23.06	197758	25.38
	UPPER LIMIT		18.34		23.56		25.88
	LOWER LIMIT		17.34		22.56		24.88
01	WJ10MBS1	179304	17.84	202629	23.07	181183	25.38
02	WJ10LCSS1	178510	17.84	203519	23.07	192181	25.39
03	SD-SP-01-201	157334	17.87	183913	23.16	180788	25.50
04	SD-CB-01-201	142816	17.89	184018	23.13	179404	25.44
05	SD-CB-01-201	143695	17.89	197050	23.13	183431	25.45
06	SD-CB-01-201	146975	17.89	190099	23.13	172494	25.45
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

SIM PAH Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS **Sample ID: SD-SP-01-20130326-W**
Extraction Method: SW3510C **SAMPLE**
Page 1 of 1

Lab Sample ID: WJ10A
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized: MW
Reported: 04/03/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/01/13
Date Analyzed: 04/02/13 23:07
Instrument/Analyst: NT11/VTS

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 5.00

CAS Number	Analyte	DL	LOQ	Result
91-20-3	Naphthalene	0.0042	0.050	< 0.050 U
91-57-6	2-Methylnaphthalene	0.0036	0.050	< 0.050 U
90-12-0	1-Methylnaphthalene	0.0044	0.050	< 0.050 U
208-96-8	Acenaphthylene	0.0040	0.050	< 0.050 U
83-32-9	Acenaphthene	0.0042	0.050	< 0.050 U
86-73-7	Fluorene	0.0070	0.050	< 0.050 U
85-01-8	**Phenanthrene**	**0.0050**	**0.050**	**0.065**
120-12-7	Anthracene	0.0029	0.050	< 0.050 U
206-44-0	**Fluoranthene**	**0.0046**	**0.050**	**0.064**
129-00-0	**Pyrene**	**0.0035**	**0.050**	**0.088**
56-55-3	Benzo(a)anthracene	0.0064	0.050	< 0.050 U
218-01-9	Chrysene	0.0078	0.050	< 0.050 U
205-99-2	**Benzo(b)fluoranthene**	**0.013**	**0.050**	**0.054**
207-08-9	Benzo(k)fluoranthene	0.0042	0.050	< 0.050 U
50-32-8	Benzo(a)pyrene	0.0057	0.050	< 0.050 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0091	0.050	< 0.050 U
53-70-3	Dibenz(a,h)anthracene	0.0048	0.050	< 0.050 U
191-24-2	**Benzo(g,h,i)perylene**	**0.0094**	**0.050**	**0.050**
132-64-9	Dibenzofuran	0.0047	0.050	< 0.050 U
TOTBFA	Total Benzofluoranthenes	0.013	0.10	< 0.10 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	60.8%
d14-Dibenzo(a,h)anthracen	53.0%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Client ID	MNP	DBA	TOT OUT
MB-040113	65.0%	67.0%	0
LCS-040113	68.3%	67.3%	0
LCSD-040113	68.0%	68.0%	0
SD-SP-01-20130326-W	60.8%	53.0%	0

	LCS/MB LIMITS	QC LIMITS
(MNP) = d10-2-Methylnaphthalene	(40-93)	(35-94)
(DBA) = d14-Dibenzo(a,h)anthracene	(31-115)	(26-115)

Prep Method: SW3510C
Log Number Range: 13-6435 to 13-6435

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS **Sample ID: LCS-040113**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-040113
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized: MW
Reported: 04/03/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 04/01/13

Date Analyzed LCS: 04/02/13 21:41
LCSD: 04/02/13 22:09
Instrument/Analyst LCS: NT11/VTS
LCSD: NT11/VTS

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	0.205 B	0.300	68.3%	0.208 B	0.300	69.3%	1.5%
2-Methylnaphthalene	0.196	0.300	65.3%	0.198	0.300	66.0%	1.0%
1-Methylnaphthalene	0.199	0.300	66.3%	0.200	0.300	66.7%	0.5%
Acenaphthylene	0.198	0.300	66.0%	0.201	0.300	67.0%	1.5%
Acenaphthene	0.198	0.300	66.0%	0.204	0.300	68.0%	3.0%
Fluorene	0.201	0.300	67.0%	0.210	0.300	70.0%	4.4%
Phenanthrene	0.203	0.300	67.7%	0.215	0.300	71.7%	5.7%
Anthracene	0.205	0.300	68.3%	0.206	0.300	68.7%	0.5%
Fluoranthene	0.221	0.300	73.7%	0.232	0.300	77.3%	4.9%
Pyrene	0.212	0.300	70.7%	0.223	0.300	74.3%	5.1%
Benzo(a)anthracene	0.208	0.300	69.3%	0.218	0.300	72.7%	4.7%
Chrysene	0.212	0.300	70.7%	0.225	0.300	75.0%	5.9%
Benzo(b)fluoranthene	0.193	0.300	64.3%	0.197	0.300	65.7%	2.1%
Benzo(k)fluoranthene	0.225	0.300	75.0%	0.239	0.300	79.7%	6.0%
Benzo(a)pyrene	0.187	0.300	62.3%	0.192	0.300	64.0%	2.6%
Indeno(1,2,3-cd)pyrene	0.211	0.300	70.3%	0.217	0.300	72.3%	2.8%
Dibenz(a,h)anthracene	0.191	0.300	63.7%	0.198	0.300	66.0%	3.6%
Benzo(g,h,i)perylene	0.204	0.300	68.0%	0.207	0.300	69.0%	1.5%
Dibenzofuran	0.200	0.300	66.7%	0.206	0.300	68.7%	3.0%
Total Benzofluoranthenes	0.643	0.900	71.4%	0.672	0.900	74.7%	4.4%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

SIM Semivolatile Surrogate Recovery

	LCS	LCSD
d10-2-Methylnaphthalene	68.3%	68.0%
d14-Dibenzo(a,h)anthracene	67.3%	68.0%

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

WJ10MBW1

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No: WJ10

Project: NPDES SAMPLING SUPPO

Lab File ID: WJ10MB

Date Extracted: 04/01/13

Instrument ID: NT11

Date Analyzed: 04/02/13

Matrix: LIQUID

Time Analyzed: 2111

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WJ10LCSW1	WJ10LCSW1	WJ10SB	04/02/13
02	WJ10LCSDW1	WJ10LCSDW1	WJ10SBD	04/02/13
03	SD-SP-01-2013032	WJ10A	WJ10A	04/02/13
04				
05				
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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by Low Level SW8270D-SIM GC/MS **Sample ID: MB-040113**
Extraction Method: SW3510C **METHOD BLANK**

Lab Sample ID: MB-040113
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized: MW
Reported: 04/03/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/01/13
Date Analyzed: 04/02/13 21:11
Instrument/Analyst: NT11/VTS

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	DL	LOQ	Result
91-20-3	**Naphthalene**	**0.00085**	**0.010**	**0.020**
91-57-6	2-Methylnaphthalene	0.00072	0.010	< 0.010 U
90-12-0	1-Methylnaphthalene	0.00088	0.010	< 0.010 U
208-96-8	Acenaphthylene	0.00081	0.010	< 0.010 U
83-32-9	Acenaphthene	0.00083	0.010	< 0.010 U
86-73-7	Fluorene	0.0014	0.010	< 0.010 U
85-01-8	Phenanthrene	0.0010	0.010	< 0.010 U
120-12-7	Anthracene	0.00058	0.010	< 0.010 U
206-44-0	Fluoranthene	0.00092	0.010	< 0.010 U
129-00-0	Pyrene	0.00070	0.010	< 0.010 U
56-55-3	Benzo(a)anthracene	0.0013	0.010	< 0.010 U
218-01-9	Chrysene	0.0016	0.010	< 0.010 U
205-99-2	Benzo(b)fluoranthene	0.0025	0.010	< 0.010 U
207-08-9	Benzo(k)fluoranthene	0.00085	0.010	< 0.010 U
50-32-8	Benzo(a)pyrene	0.0011	0.010	< 0.010 U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0018	0.010	< 0.010 U
53-70-3	Dibenz(a,h)anthracene	0.00097	0.010	< 0.010 U
191-24-2	Benzo(g,h,i)perylene	0.0019	0.010	< 0.010 U
132-64-9	Dibenzofuran	0.00094	0.010	< 0.010 U
TOTBFA	Total Benzofluoranthenes	0.0025	0.020	< 0.020 U

Reported in µg/L (ppb)

SIM Semivolatile Surrogate Recovery

d10-2-Methylnaphthalene	65.0%
d14-Dibenzo(a,h)anthracen	67.0%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT11 Project: NPDES SAMPLING

DFTPP Injection Date: 02/23/13 DFTPP Injection Time: 0936

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	37.1
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	10.0 - 80.0% of mass 198	48.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	23.6
365	Greater than 1.0% of mass 198	2.90
441	0.0 - 24.0% of mass 442	13.0 (14.7)2
442	50.0 - 200.0% of mass 198	88.6
443	15.0 - 24.0% of mass 442	17.0 (19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SIM 250	IC0223A	02/23/13	0951
02		SIM 1000	IC0223B	02/23/13	1020
03		SIM 10	IC0223C	02/23/13	1050
04		SIM 500	IC0223D	02/23/13	1119
05		SIM 50	IC0223E	02/23/13	1148
06		SIM 100	IC0223F	02/23/13	1217
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT11 Project: NPDES SAMPLING

DFTPP Injection Date: 04/02/13 DFTPP Injection Time: 1504

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	31.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	37.4
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	10.0 - 80.0% of mass 198	48.8
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	24.4
365	Greater than 1.0% of mass 198	2.82
441	0.0 - 24.0% of mass 442	14.0 (14.8)2
442	50.0 - 200.0% of mass 198	94.7
443	15.0 - 24.0% of mass 442	17.8 (18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SIM 250	CC0402	04/02/13	1520
02	WJ10MBW1	WJ10MBW1	WJ10MB	04/02/13	2111
03	WJ10LCSW1	WJ10LCSW1	WJ10SB	04/02/13	2141
04	WJ10LCSDW1	WJ10LCSDW1	WJ10SBD	04/02/13	2209
05	SD-SP-01-2013032	WJ10A	WJ10A	04/02/13	2307
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FORM V SV

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING

Instrument ID: NT11 Calibration Date: 02/23/13

LAB FILE ID: RRF10 =IC0223C RRF50 =IC0223E RRF100=IC0223F
RRF250=IC0223A RRF500=IC0223D RRF1000=IC0223B

COMPOUND	RRF 10	RRF 50	RRF 100	RRF 250	RRF 500	RRF 1000	___ RRF	%RSD /R^2
Naphthalene	1.180	1.070	1.122	1.072	1.056	1.070	1.095	4.3
2-Methylnaphthalene	0.700	0.654	0.700	0.688	0.678	0.691	0.685	2.5
Acenaphthylene	1.840	1.680	1.755	1.786	1.782	1.871	1.786	3.7
Acenaphthene	1.228	1.136	1.199	1.164	1.165	1.180	1.179	2.7
Dibenzofuran	1.818	1.675	1.786	1.661	1.669	1.694	1.717	3.9
Fluorene	1.337	1.223	1.283	1.270	1.271	1.306	1.282	3.0
Phenanthrene	1.291	1.191	1.283	1.207	1.215	1.224	1.235	3.4
Anthracene	1.162	1.072	1.181	1.160	1.159	1.219	1.159	4.2
Fluoranthene	1.216	1.137	1.251	1.236	1.236	1.252	1.221	3.6
Pyrene	1.744	1.537	1.695	1.674	1.700	1.699	1.675	4.3
Benzo(a)anthracene	1.430	1.292	1.401	1.399	1.379	1.402	1.384	3.4
Chrysene	1.514	1.356	1.486	1.406	1.411	1.408	1.430	4.1
Benzo(b)fluoranthene	1.639	1.535	1.649	1.505	1.610	1.572	1.585	3.6
Benzo(k)fluoranthene	1.829	1.548	1.664	1.774	1.758	1.769	1.724	5.9
Benzo(j)fluoranthene	1.711	1.801	1.886	1.701	1.704	1.693	1.749	4.5
Benzo(a)pyrene	1.375	1.251	1.359	1.348	1.342	1.352	1.338	3.3
Indeno(1,2,3-cd)pyrene	1.643	1.524	1.703	1.647	1.676	1.686	1.646	3.9
Dibenzo(a,h)anthracene	1.423	1.201	1.366	1.301	1.324	1.329	1.324	5.6
Benzo(g,h,i)perylene	1.637	1.395	1.504	1.428	1.448	1.427	1.473	6.0
1-methylnaphthalene	0.740	0.654	0.700	0.684	0.672	0.684	0.689	4.3
Perylene	1.606	1.450	1.575	1.502	1.503	1.508	1.524	3.7
2-Methylnaphthalene-d10	0.630	0.616	0.649	0.635	0.629	0.638	0.633	1.7
Dibenzo(a,h)anthracene-d14	1.083	1.081	1.180	1.163	1.172	1.179	1.143	4.2
Fluoranthene-d10	0.998	0.959	1.044	1.065	1.060	1.094	1.037	4.7

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-1

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING

Instrument ID: NT11 Cont. Calib. Date: 04/02/13

Init. Calib. Date: 02/23/13 Cont. Calib. Time: 1520

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Naphthalene	1.095	1.018	0.700	AVRG	-7.0
2-Methylnaphthalene	0.685	0.639	0.400	AVRG	-6.7
Acenaphthylene	1.786	1.633	0.900	AVRG	-8.6
Acenaphthene	1.179	1.065	0.900	AVRG	-9.7
Dibenzofuran	1.717	1.541	0.800	AVRG	-10.2
Fluorene	1.282	1.162	0.900	AVRG	-9.4
Phenanthrene	1.235	1.121	0.700	AVRG	-9.2
Anthracene	1.159	1.100	0.700	AVRG	-5.1
Fluoranthene	1.221	1.163	0.600	AVRG	-4.8
Pyrene	1.675	1.505	0.600	AVRG	-10.1
Benzo(a)anthracene	1.384	1.238	0.800	AVRG	-10.5
Chrysene	1.430	1.249	0.700	AVRG	-12.6
Benzo(b)fluoranthene	1.585	1.468	0.700	AVRG	-7.4
Benzo(k)fluoranthene	1.724	1.441	0.700	AVRG	-16.4
Benzo(j)fluoranthene	1.749	1.708	0.010	AVRG	-2.3
Benzo(a)pyrene	1.338	1.176	0.700	AVRG	-12.1
Indeno(1,2,3-cd)pyrene	1.646	1.487	0.500	AVRG	-9.6
Dibenzo(a,h)anthracene	1.324	1.163	0.400	AVRG	-12.2
Benzo(g,h,i)perylene	1.473	1.314	0.500	AVRG	-10.8
1-methylnaphthalene	0.689	0.647	0.010	AVRG	-6.1
Perylene	1.524	1.329	0.010	AVRG	-12.8
2-Methylnaphthalene-d10	0.633	0.600	0.010	AVRG	-5.2
Dibenzo(a,h)anthracene-d14	1.143	1.019	0.010	AVRG	-10.8
Fluoranthene-d10	1.037	0.990	0.010	AVRG	-4.5

<- Exceeds QC limit of 20% D

* RF less than minimum RF

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING

Ical Midpoint ID: IC0223A Ical Date: 02/23/13

Instrument ID: NT11 Cont. Cal Date: 04/02/13

		IS1(NPT) AREA #	RT #	IS2(ANT) AREA #	RT #	IS3(PHN) AREA #	RT #
	ICAL MIDPT	255285	6.13	142891	9.11	220853	11.76
	UPPER LIMIT	510570		285782		441706	
	LOWER LIMIT	127642		71446		110426	
	CCAL	263819	6.13	150628	9.11	239866	11.75
	UPPER LIMIT		6.63		9.61		12.25
	LOWER LIMIT		5.63		8.61		11.25
01	WJ10MBW1	248276	6.13	137577	9.11	224530	11.75
02	WJ10LCSW1	251125	6.13	141658	9.11	220970	11.75
03	WJ10LCSDW1	245836	6.13	139228	9.11	219710	11.75
04	SD-SP-01-201	235071	6.13	134994	9.11	177656	11.76
05							
06							
07							
08							
09							
10							
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13							
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15							
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17							
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19							
20							
21							
22							
23							
24							
25							

IS1 = Naphthalene-d8
IS2 = Acenaphthene-d10
IS3 = Phenanthrene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WJ10 Project: NPDES SAMPLING

Ical Midpoint ID: IC0223A Ical Date: 02/23/13

Instrument ID: NT11 Cont. Cal Date: 04/02/13

		IS4(CRY) AREA #	RT #	IS5(PRY) AREA #	RT #	AREA #	RT #
	ICAL MIDPT	162525	16.47	139028	19.06		
	UPPER LIMIT	325050		278056			
	LOWER LIMIT	81262		69514			
	CCAL	182380	16.46	150378	19.05		
	UPPER LIMIT		16.96		19.55		
	LOWER LIMIT		15.96		18.55		
01	WJ10MBW1	158908	16.46	136479	19.05		
02	WJ10LCSW1	164775	16.46	139159	19.05		
03	WJ10LCSDW1	164867	16.46	140154	19.05		
04	SD-SP-01-201	147847	16.49	194398	19.07		
05							
06							
07							
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14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS4 = Chrysene-d12
IS5 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

Dioxin Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: SD-SP-01-20130326-S**
Page 1 of 1

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized: MW
Reported: 04/15/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/08/13
Date Analyzed: 04/12/13 04:27
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.75	0.65-0.89		0.200	11.6	
2,3,7,8-TCDD	0.72	0.65-0.89		0.200	1.47	
1,2,3,7,8-PeCDF	1.55	1.32-1.78		0.999	6.07	X
2,3,4,7,8-PeCDF	1.47	1.32-1.78		0.999	8.83	
1,2,3,7,8-PeCDD	1.64	1.32-1.78		0.999	11.4	
1,2,3,4,7,8-HxCDF	1.19	1.05-1.43		0.999	12.2	
1,2,3,6,7,8-HxCDF	1.18	1.05-1.43		0.999	12.7	
2,3,4,6,7,8-HxCDF	1.12	1.05-1.43		0.999	18.0	
1,2,3,7,8,9-HxCDF	1.34	1.05-1.43		0.999	3.42	
1,2,3,4,7,8-HxCDD	1.24	1.05-1.43		0.999	15.1	
1,2,3,6,7,8-HxCDD	1.21	1.05-1.43		0.999	35.1	
1,2,3,7,8,9-HxCDD	1.23	1.05-1.43		0.999	31.8	
1,2,3,4,6,7,8-HpCDF	0.99	0.88-1.20		0.999	236	
1,2,3,4,7,8,9-HpCDF	1.01	0.88-1.20		0.999	12.3	
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		0.999	847	
OCDF	0.87	0.76-1.02		2.00	708	
OCDD	0.88	0.76-1.02		2.00	6,520	E

Homologue Group	EDL	RL	Result	
Total TCDF		0.999	235	
Total TCDD		0.999	35.6	EMPC
Total PeCDF		2.00	233	EMPC
Total PeCDD		0.999	83.1	
Total HxCDF		2.00	285	EMPC
Total HxCDD		2.00	370	
Total HpCDF		2.00	662	
Total HpCDD		2.00	1,990	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 42.8

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 42.8

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: SD-SP-01-20130326-S**

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized: MW
Reported: 04/15/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/08/13
Date Analyzed: 04/12/13 04:27
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.77	0.65-0.89	65.1	24-169	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	64.0	25-164	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	68.5	24-185	
13C-2,3,4,7,8-PeCDF	1.55	1.32-1.78	67.5	21-178	
13C-1,2,3,7,8-PeCDD	1.58	1.32-1.78	67.1	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	57.1	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	54.8	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	54.7	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	62.7	29-147	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	56.5	32-141	
13C-1,2,3,6,7,8-HxCDD	1.23	1.05-1.43	54.3	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	54.1	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	60.5	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20	59.6	23-140	
13C-OCDD	0.89	0.76-1.02	47.5	17-157	
37Cl4-2,3,7,8-TCDD			80.1	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: SD-CB-01-20130326-S**
Page 1 of 1

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/15/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/08/13
Date Analyzed: 04/12/13 05:19
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.72	0.65-0.89		0.199	4.22	
2,3,7,8-TCDD	0.61	0.65-0.89		0.199	0.905	BEMPC
1,2,3,7,8-PeCDF	1.51	1.32-1.78		0.994	2.06	
2,3,4,7,8-PeCDF	1.53	1.32-1.78		0.994	3.10	
1,2,3,7,8-PeCDD	1.47	1.32-1.78		0.994	4.81	
1,2,3,4,7,8-HxCDF	1.19	1.05-1.43		0.994	5.07	
1,2,3,6,7,8-HxCDF	1.20	1.05-1.43		0.994	4.72	
2,3,4,6,7,8-HxCDF	1.18	1.05-1.43		0.994	6.18	
1,2,3,7,8,9-HxCDF	1.20	1.05-1.43		0.994	1.25	
1,2,3,4,7,8-HxCDD	1.29	1.05-1.43		0.994	6.50	
1,2,3,6,7,8-HxCDD	1.20	1.05-1.43		0.994	15.0	
1,2,3,7,8,9-HxCDD	1.20	1.05-1.43		0.994	12.1	
1,2,3,4,6,7,8-HpCDF	0.99	0.88-1.20		0.994	86.5	
1,2,3,4,7,8,9-HpCDF	0.93	0.88-1.20		0.994	4.72	
1,2,3,4,6,7,8-HpCDD	1.02	0.88-1.20		0.994	384	
OCDF	0.85	0.76-1.02		1.99	255	
OCDD	0.88	0.76-1.02		1.99	3,060	

Homologue Group	EDL	RL	Result	
Total TCDF		0.994	66.1	EMPC
Total TCDD		0.994	13.2	EMPC
Total PeCDF		1.99	78.3	EMPC
Total PeCDD		0.994	30.8	
Total HxCDF		1.99	124	
Total HxCDD		1.99	177	
Total HpCDF		1.99	241	
Total HpCDD		1.99	1,260	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 18.0

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 18.0

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: SD-CB-01-20130326-S**
Page 1 of 1

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized: MW
Reported: 04/15/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/08/13
Date Analyzed: 04/12/13 05:19
Instrument/Analyst: AS1/PK

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.76	0.65-0.89	84.3	24-169	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	84.8	25-164	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	85.9	24-185	
13C-2,3,4,7,8-PeCDF	1.55	1.32-1.78	90.3	21-178	
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	89.2	25-181	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	78.0	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	71.5	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	72.2	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	51.6	29-147	
13C-1,2,3,4,7,8-HxCDD	1.25	1.05-1.43	78.1	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	73.2	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	67.2	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	74.1	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20	72.2	23-140	
13C-OCDD	0.89	0.76-1.02	47.3	17-157	
37Cl4-2,3,7,8-TCDD			102	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-040813**

Lab Sample ID: OPR-040813
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized: MW
Reported: 04/15/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/08/13
Date Analyzed: 04/11/13 16:03
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	RL	Result
2,3,7,8-TCDF	0.71	0.65-0.89	0.200	22.2
2,3,7,8-TCDD	0.77	0.65-0.89	0.200	20.3
1,2,3,7,8-PeCDF	1.51	1.32-1.78	1.00	105
2,3,4,7,8-PeCDF	1.51	1.32-1.78	1.00	106
1,2,3,7,8-PeCDD	1.53	1.32-1.78	1.00	103
1,2,3,4,7,8-HxCDF	1.19	1.05-1.43	1.00	105
1,2,3,6,7,8-HxCDF	1.20	1.05-1.43	1.00	102
2,3,4,6,7,8-HxCDF	1.19	1.05-1.43	1.00	107
1,2,3,7,8,9-HxCDF	1.18	1.05-1.43	1.00	106
1,2,3,4,7,8-HxCDD	1.23	1.05-1.43	1.00	102
1,2,3,6,7,8-HxCDD	1.22	1.05-1.43	1.00	98.9
1,2,3,7,8,9-HxCDD	1.23	1.05-1.43	1.00	103
1,2,3,4,6,7,8-HpCDF	0.99	0.88-1.20	1.00	115
1,2,3,4,7,8,9-HpCDF	0.98	0.88-1.20	1.00	106
1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	1.00	101
OCDF	0.88	0.76-1.02	2.00	213
OCDD	0.90	0.76-1.02	2.00	197

Homologue Group	EDL	RL	Result	
Total TCDF		1.00	23.2	EMPC
Total TCDD		1.00	21.1	EMPC
Total PeCDF		2.00	216	EMPC
Total PeCDD		1.00	103	EMPC
Total HxCDF		2.00	422	EMPC
Total HxCDD		2.00	303	EMPC
Total HpCDF		2.00	223	EMPC
Total HpCDD		2.00	103	

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-040813**

Lab Sample ID: OPR-040813
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/15/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/08/13
Date Analyzed: 04/11/13 16:03
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.77	0.65-0.89	92.2	22-152	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	91.6	20-175	
13C-1,2,3,7,8-PeCDF	1.55	1.32-1.78	99.0	21-192	
13C-2,3,4,7,8-PeCDF	1.55	1.32-1.78	99.4	13-328	
13C-1,2,3,7,8-PeCDD	1.57	1.32-1.78	95.4	21-227	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	95.9	19-202	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	95.0	21-159	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	92.9	22-176	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	97.0	17-205	
13C-1,2,3,4,7,8-HxCDD	1.26	1.05-1.43	92.4	21-193	
13C-1,2,3,6,7,8-HxCDD	1.25	1.05-1.43	91.4	25-163	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	93.6	21-158	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	96.8	20-186	
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	95.6	26-166	
13C-OCDD	0.89	0.76-1.02	85.0	13-198	
37Cl4-2,3,7,8-TCDD			101	31-191	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-040813**

Lab Sample ID: OPR-040813 QC Report No: WJ10-SAIC
LIMS ID: 13-6437 Project: NPDES Sampling Support
Matrix: Solids 209977
Data Release Authorized: WW Date Sampled: NA
Reported: 04/15/13 Date Received: NA

Date Extracted: 04/08/13 Sample Amount: 10.0 g-dry-wt
Date Analyzed: 04/11/13 16:03 Final Extract Volume: 20 uL
Instrument/Analyst: AS1/PK Dilution Factor: 1.00

Analyte	OPR	Spiked	Recovery	Limits
2,3,7,8-TCDF	22.2	20.0	111	75-158
2,3,7,8-TCDD	20.3	20.0	102	67-158
1,2,3,7,8-PeCDF	105	100	105	80-134
2,3,4,7,8-PeCDF	106	100	106	68-160
1,2,3,7,8-PeCDD	103	100	103	70-142
1,2,3,4,7,8-HxCDF	105	100	105	72-134
1,2,3,6,7,8-HxCDF	102	100	102	84-130
2,3,4,6,7,8-HxCDF	107	100	107	70-156
1,2,3,7,8,9-HxCDF	106	100	106	78-130
1,2,3,4,7,8-HxCDD	102	100	102	70-164
1,2,3,6,7,8-HxCDD	98.9	100	98.9	76-134
1,2,3,7,8,9-HxCDD	103	100	103	64-162
1,2,3,4,6,7,8-HpCDF	115	100	115	82-132
1,2,3,4,7,8,9-HpCDF	106	100	106	78-138
1,2,3,4,6,7,8-HpCDD	101	100	101	70-140
OCDF	213	200	106	63-170
OCDD	197	200	98.5	78-144

Reported in pg/g

4DF - FORM IV-HR CDD
CDD/CDF METHOD BLANK SUMMARY
HIGH RESOLUTION

Blank No.
WJ10MB

Lab Name: ANALYTICAL RESOURCES, INC. Contract: SAIC

Lab Code: WJ10 Project: 209977

Matrix:(Soil/Water/Ash/Tissue/Oil) SOIL Lab Sample ID: WJ10MBS

Sample wt/vol: 10 (g/ml) g Lab File ID: 13041107

Water Sample Prep: (sep/spe) Date Received: 27-MAR-13

GC Column: RTX-DIOXIN2 ID: 0.25 mm Date Extracted: 08-APR-13

Instrument ID: AUTOSPEC1 Date Analyzed: 11-APR-13

Client Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
WJ10OPR	WJ10OPR	13041108	04/11/13
SD-SP-01-20130326-S	WJ10C	13041122	04/12/13
SD-CB-01-20130326-S	WJ10D	13041123	04/12/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: MB-040813**

Lab Sample ID: MB-040813
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/15/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/08/13
Date Analyzed: 04/11/13 15:13
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF		0.65-0.89	0.0480	0.200	< 0.0480	U
2,3,7,8-TCDD	0.16	0.65-0.89		0.200	0.140	JEMPC
1,2,3,7,8-PeCDF		1.32-1.78	0.0500	1.00	< 0.0500	U
2,3,4,7,8-PeCDF		1.32-1.78	0.0520	1.00	< 0.0520	U
1,2,3,7,8-PeCDD		1.32-1.78	0.0560	1.00	< 0.0560	U
1,2,3,4,7,8-HxCDF		1.05-1.43	0.0320	1.00	< 0.0320	U
1,2,3,6,7,8-HxCDF		1.05-1.43	0.0300	1.00	< 0.0300	U
2,3,4,6,7,8-HxCDF		1.05-1.43	0.0340	1.00	< 0.0340	U
1,2,3,7,8,9-HxCDF		1.05-1.43	0.0380	1.00	< 0.0380	U
1,2,3,4,7,8-HxCDD		1.05-1.43	0.0500	1.00	< 0.0500	U
1,2,3,6,7,8-HxCDD	1.20	1.05-1.43		1.00	0.0540	J
1,2,3,7,8,9-HxCDD	1.67	1.05-1.43		1.00	0.0560	JEMPC
1,2,3,4,6,7,8-HpCDF		0.88-1.20	0.0280	1.00	< 0.0280	U
1,2,3,4,7,8,9-HpCDF		0.88-1.20	0.0400	1.00	< 0.0400	U
1,2,3,4,6,7,8-HpCDD	1.02	0.88-1.20		1.00	0.196	J
OCDF	0.69	0.76-1.02		2.00	0.0400	JEMPC
OCDD	0.78	0.76-1.02		2.00	0.966	J

Homologue Group	EDL	RL	Result	
Total TCDF	0.0480	1.00	< 0.0480	U
Total TCDD		1.00	0.258	EMPC
Total PeCDF	0.0520	2.00	< 0.0520	U
Total PeCDD	0.0560	1.00	< 0.0560	U
Total HxCDF	0.0380	2.00	< 0.0380	U
Total HxCDD		2.00	0.161	EMPC
Total HpCDF	0.0400	2.00	< 0.0400	U
Total HpCDD		2.00	0.389	EMPC

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.15

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.20

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: MB-040813**

Lab Sample ID: MB-040813
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/15/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/08/13
Date Analyzed: 04/11/13 15:13
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.77	0.65-0.89	88.5	24-169	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	89.4	25-164	
13C-1,2,3,7,8-PeCDF	1.56	1.32-1.78	101	24-185	
13C-2,3,4,7,8-PeCDF	1.55	1.32-1.78	99.6	21-178	
13C-1,2,3,7,8-PeCDD	1.59	1.32-1.78	95.7	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	93.2	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	93.2	26-123	
13C-2,3,4,6,7,8-HxCDF	0.52	0.43-0.59	90.0	28-136	
13C-1,2,3,7,8,9-HxCDF	0.51	0.43-0.59	93.9	29-147	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	90.5	32-141	
13C-1,2,3,6,7,8-HxCDD	1.24	1.05-1.43	86.4	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	90.8	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	97.2	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.06	0.88-1.20	94.8	23-140	
13C-OCDD	0.90	0.76-1.02	84.8	17-157	
37Cl4-2,3,7,8-TCDD			97.3	35-197	

Reported in Percent Recovery

5DFA - FORM V-HR CDD-1
CDD/CDF WINDOW DEFINING MIX (WDM) SUMMARY
HIGH RESOLUTION

Standard No.: CS3

Lab Name: ANALYTICAL RESOURCES, INC. Contract: SAIC

Lab Code: WJ10 Project: 209977

GC Column: RTX-DIOXIN2 ID: 0.25 mm Lab File ID: 13041105

Instrument ID: AUTOSPEC1 Date Analyzed: 11-APR-13

Time Analyzed: 1235

CDD/CDF	RT First Eluting	RT Last Eluting
TCDD	23.75	27.20
TCDF	22.46	27.45
PeCDD	28.99	32.10
PeCDF	27.30	32.49
HxCDD	34.21	36.93
HxCDF	33.41	37.38
HpCDD	39.98	41.23
HpCDF	39.44	42.12

5DFB - FORM V-HR CDD-2
CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY
HIGH RESOLUTION

Standard No.

TETRA ISC

Lab Name:	ANALYTICAL RESOURCES, INC.	Contract:	SAIC
Lab Code:	WJ10	Project:	209977
GC Column:	RTX-DIOXIN2 ID: .25 mm	Lab File ID:	13041106
Instrument:	AUTOSPEC1	Date Analyzed:	11-APR-13
		Time Analyzed:	14:14

Percent Valley determination for RTX-DIOXIN2 column -
For the column performance solution beginning 12-hour period:

1278-TCDD/2378-TCDD: 11.0

Quality Control (QC) Limits:
Percent Valley between the TCDD isomers must be less than or equal to 25%

Percent Valley determination for RTX-DIOXIN2 column -
For the column performance solution beginning 12-hour period:

3467-TCDF/2378-TCDF: 11.1

QC Limits:
Percent Valley between the TCDD/TCDF isomers must be less than or equal to 25%

5DFB - FORM V-HR CDD-3
CDD/CDF ANALTYICAL SEQUENCE SUMMARY
HIGH RESOLUTION

Lab Name: ANALYTICAL RESOURCES, INC. Contract: SAIC

Lab Code: WJ10 Project: 209977

GC Column: RTX-DIOXIN2 ID: 0.25 mm Instrument ID: AUTOSPEC1

Init. Calib. Date(s): 12-MAR-13

Init: Calib. Times: 15:01 to 19:20

The Analytical Sequence of standards, samples, blanks, and Laboratory Control Samples (LCS) is as follows:

Client Sample No.	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
CS3	CS3	13041105	04/11/13	1235
ISC01	ISC	13041106	04/11/13	1414
WJ10MB	WJ10MBS	13041107	04/11/13	1513
WJ10OPR	WJ10OPR	13041108	04/11/13	1603
CS3	CS3	13041116	04/11/13	2301
SD-SP-01-20130326-S	WJ10C	13041122	04/12/13	0427
SD-CB-01-20130326-S	WJ10D	13041123	04/12/13	0519
CS3	CS3	13041128	04/12/13	0940

6DFA - Form VI-HR CDD-1
CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY
HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES, INC.	Contract:	SAIC
Lab Code:	WJ10	Case No.:	209977
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CSL:	12-Mar-13	Init.Calib.Time CSL:	15:01:10
Init.Calib.Date CS1:	12-Mar-13	Init.Calib.Time CS1:	15:57:32
Init.Calib.Date CS2:	12-Mar-13	Init.Calib.Time CS2:	16:46:52
Init.Calib.Date CS3:	12-Mar-13	Init.Calib.Time CS3:	17:38:09
Init.Calib.Date CS4:	12-Mar-13	Init.Calib.Time CS4:	18:29:32
Init.Calib.Date CS5:	12-Mar-13	Init.Calib.Time CS5:	19:20:50

Target Analytes	RR/RRF						Mean RR/RRF	% RSD	Limits (% +/-)
	CSL	CS1	CS2	CS3	CS4	CS5			
2378-TCDD	1.08	0.93	0.97	0.96	0.96	0.97	0.98	5.4	20.0
2378-TCDF	0.75	0.73	0.75	0.79	0.77	0.79	0.76	3.2	20.0
12378-PeCDF	0.84	0.83	0.82	0.82	0.85	0.85	0.84	1.8	20.0
12378-PeCDD	0.96	0.90	0.94	0.94	0.97	0.96	0.95	2.5	20.0
23478-PeCDF	0.81	0.85	0.85	0.86	0.87	0.87	0.85	2.6	20.0
123478-HxCDF	1.00	1.00	1.01	1.01	1.03	1.05	1.02	1.9	20.0
123678-HxCDF	1.00	1.04	1.03	1.01	0.99	1.01	1.01	1.6	20.0
123478-HxCDD	0.94	0.96	0.93	0.93	0.93	0.96	0.94	1.8	20.0
123678-HxCDD	0.91	0.87	0.88	0.86	0.91	0.88	0.88	2.5	20.0
123789-HxCDD[2]	0.90	0.86	0.90	0.83	0.85	0.87	0.87	3.0	20.0
234678-HxCDF	1.06	0.99	0.99	1.08	1.03	1.01	1.03	3.4	20.0
123789-HxCDF	0.85	0.93	0.92	0.93	0.98	0.97	0.93	5.0	20.0
1234678-HpCDF	1.09	1.10	1.15	1.16	1.20	1.21	1.15	4.2	20.0
1234678-HpCDD	1.04	0.92	0.92	0.91	0.93	0.96	0.95	5.3	20.0
1234789-HpCDF	1.17	1.09	1.13	1.15	1.17	1.18	1.15	3.0	20.0
OCDD	1.09	0.96	0.93	0.91	0.96	0.97	0.97	6.4	20.0
OCDF[1]	0.87	0.95	0.96	0.95	1.02	1.03	0.96	6.1	20.0
37CL-2378-TCDD	0.97	0.94	0.98	1.00	1.02	1.09	1.00	5.0	20.0

(1) The Relative Response (RR) is calculated based on the labeled analogs of the other two HxCDDs
(2) The RR is calculated based on the labeled analog of OCDD.

Labeled Compounds	RR/RRF						Mean RR/RRF	% RSD	Limits (% +/-)
	CSL	CS1	CS2	CS3	CS4	CS5			
13C-2378-TCDD	0.95	0.97	0.93	0.95	0.95	1.02	0.96	3.0	35.0
13C-12378-PeCDD	0.68	0.68	0.69	0.69	0.70	0.79	0.70	6.1	35.0
13C-123478-HxCDD	1.01	0.97	1.00	1.05	1.04	1.03	1.02	2.7	35.0
13C-123678-HxCDD	1.12	1.07	1.08	1.17	1.08	1.07	1.10	3.5	35.0
13C-1234678-HpCDD	0.80	0.83	0.86	0.84	0.82	0.82	0.83	2.7	35.0
13C-OCDD	0.72	0.77	0.81	0.74	0.75	0.83	0.77	5.3	35.0
13C-2378-TCDF	1.31	1.37	1.29	1.26	1.32	1.36	1.32	3.2	35.0
13C-12378-PeCDF	0.98	1.01	0.99	1.02	1.01	1.14	1.03	5.6	35.0
13C-23478-PeCDF	0.90	0.95	0.94	0.94	0.98	1.08	0.97	6.4	35.0
13C-123478-HxCDF	1.11	1.08	1.13	1.18	1.13	1.11	1.12	3.1	35.0
13C-123678-HxCDF	1.24	1.16	1.20	1.26	1.25	1.19	1.22	3.3	35.0
13C-234678-HxCDF	1.09	1.09	1.13	1.08	1.13	1.11	1.11	1.9	35.0
13C-123789-HxCDF	0.96	0.99	1.02	1.01	0.99	1.00	0.99	2.1	35.0
13C-1234678-HpCDF	0.89	0.89	0.91	0.91	0.89	0.89	0.90	1.2	35.0
13C-1234789-HpCDF	0.66	0.70	0.73	0.67	0.69	0.72	0.69	4.0	35.0

6DFB - Form VI-HR CDD-2
CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY
HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES, INC.	Contract:	SAIC
Lab Code:	WJ10	Case No.:	209977
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CSL:	12-Mar-13	Init.Calib.Time CSL:	15:01:10
Init.Calib.Date CS1:	12-Mar-13	Init.Calib.Time CS1:	15:57:32
Init.Calib.Date CS2:	12-Mar-13	Init.Calib.Time CS2:	16:46:52
Init.Calib.Date CS3:	12-Mar-13	Init.Calib.Time CS3:	17:38:09
Init.Calib.Date CS4:	12-Mar-13	Init.Calib.Time CS4:	18:29:32
Init.Calib.Date CS5:	12-Mar-13	Init.Calib.Time CS5:	19:20:50

Target Analytes	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ratio QC Limits#
		CSL	CS1	CS2	CS3	CS4	CS5		
2378-TCDD	320/322	0.74	0.73	0.79	0.75	0.77	0.78		0.65 - 0.89
2378-TCDF	304/306	0.80	0.66	0.73	0.70	0.72	0.71		0.65 - 0.89
12378-PeCDF	340/342	1.59	1.46	1.48	1.48	1.47	1.49		1.32 - 1.78
12378-PeCDD	356/358	1.44	1.55	1.55	1.56	1.48	1.54		1.32 - 1.78
23478-PeCDF	340/342	1.44	1.45	1.47	1.49	1.46	1.48		1.32 - 1.78
123478-HxCDF	374/376	1.06	1.10	1.19	1.20	1.17	1.17		1.05 - 1.43
123678-HxCDF	374/376	1.23	1.12	1.17	1.13	1.15	1.18		1.05 - 1.43
123478-HxCDD	390/392	1.18	1.18	1.19	1.26	1.23	1.23		1.05 - 1.43
123678-HxCDD	390/392	1.21	1.23	1.23	1.24	1.24	1.23		1.05 - 1.43
123789-HxCDD	390/392	1.35	1.25	1.25	1.17	1.25	1.22		1.05 - 1.43
234678-HxCDF	374/376	1.25	1.12	1.17	1.18	1.19	1.18		1.05 - 1.43
123789-HxCDF	374/376	1.10	1.12	1.18	1.17	1.15	1.19		1.05 - 1.43
1234678-HpCDF	408/410	1.08	0.97	1.05	0.96	1.00	0.98		0.89 - 1.21
1234678-HpCDD	424/426	0.95	1.03	1.02	1.05	1.03	1.03		0.89 - 1.21
1234789-HpCDF	408/410	0.94	1.00	0.93	0.98	0.94	0.98		0.89 - 1.21
OCDD	458/460	0.81	0.88	0.84	0.88	0.86	0.85		0.76 - 1.02
OCDF	442/444	0.86	0.90	0.84	0.85	0.84	0.85		0.76 - 1.02

Labeled Compounds	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ratio QC Limits
		CSL	CS1	CS2	CS3	CS4	CS5		
13C-2378-TCDD	332/334	0.77	0.77	0.76	0.78	0.76	0.77		0.65 - 0.89
13C-12378-PeCDD	368/370	1.58	1.59	1.57	1.52	1.53	1.56		1.32 - 1.78
13C-123478-HxCDD	402/404	1.28	1.25	1.26	1.30	1.26	1.26		1.05 - 1.43
13C-123678-HxCDD	402/404	1.24	1.23	1.25	1.20	1.22	1.24		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.99	1.02	1.07	1.05	1.01	1.03		0.89 - 1.21
13C-OCDD	470/472	0.89	0.88	0.91	0.88	0.91	0.90		0.76 - 1.02
13C-2378-TCDF	316/318	0.78	0.76	0.77	0.77	0.78	0.77		0.65 - 0.89
13C-12378-PeCDF	352/354	1.54	1.58	1.57	1.53	1.54	1.55		1.32 - 1.78
13C-23478-PeCDF	352/354	1.55	1.49	1.51	1.53	1.55	1.54		1.32 - 1.78
13C-123478-HxCDF	384/386	0.51	0.51	0.51	0.51	0.51	0.51		0.43 - 0.59
13C-123678-HxCDF	384/386	0.50	0.52	0.51	0.52	0.50	0.52		0.43 - 0.59
13C-234678-HxCDF	384/386	0.53	0.51	0.52	0.52	0.51	0.51		0.43 - 0.59
13C-123789-HxCDF	384/386	0.52	0.52	0.51	0.50	0.52	0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.43	0.44	0.45	0.45	0.44	0.45		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.45	0.44	0.45	0.43	0.44	0.44		0.37 - 0.51

Internal Standards	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ion Ratio QC Limits
		CSL	CS1	CS2	CS3	CS4	CS5		
13C-1234-TCDD	332/334	0.78	0.78	0.77	0.76	0.77	0.77		0.65 - 0.89
13C-123789-HxCDD	402/404	1.25	1.25	1.25	1.22	1.24	1.23		1.05 - 1.43

(#) Quality Control (QC) limits represent ±15% window around the theoretical ion abundance ratio. The laboratory must flag any analyte in any calibration solution which does not meet the ion abundance ratio QC limit by placing an asterisk in the flag column.

7DFA - Form VII-HR CDD-1
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name.	ARI	Contract:	SAIC
Lab Code:	WJ10	Case No :	209977
TO No :		SDG No :	
GC Column.	RTX-DIOXIN2	ID (mm).	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	13041105
Date Analysed	11-Apr-13	Time Analysed	12:35:01
Init.Calib.Date:	12-MAR-13	Init.Calib.Time:	

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	0.99	0.98	1.3		0.76		0.65 - 0.89
2378-TCDF	304/306	0.85	0.76	11.0		0.74		0.65 - 0.89
12378-PeCDF	340/342	0.89	0.84	5.9		1 52		1 32 - 1.78
12378-PeCDD	356/358	0.96	0.95	1.6		1 53		1 32 - 1.78
23478-PeCDF	340/342	0.91	0.85	6.3		1 48		1.32 - 1.78
123478-HxCDF	374/376	1.05	1.02	3.1		1.18		1.05 - 1.43
123678-HxCDF	374/376	1.03	1.01	1 4		1.20		1 05 - 1.43
123478-HxCDD	390/392	0.94	0.94	0.1		1.23		1.05 - 1.43
123678-HxCDD	390/392	0.86	0.88	-2.4		1.24		1.05 - 1.43
123789-HxCDD	390/392	0.90	0.87	3.6		1 24		1.05 - 1.43
234678-HxCDF	374/376	1.11	1.03	8.2		1.19		1.05 - 1.43
123789-HxCDF	374/376	0.99	0.93	6.1		1.20		1.05 - 1.43
1234678-HpCDF	408/410	1 22	1.15	6.1		0.98		0 89 - 1.21
1234678-HpCDD	424/426	0.96	0.95	1.0		1.04		0 89 - 1.21
1234789-HpCDF	408/410	1.22	1.15	5.8		1.01		0.89 - 1.21
OCDD	458/460	0.94	0.97	-2.7		0.87		0.76 - 1.02
OCDF	442/444	1.04	0.96	7.6		0.85		0.76 - 1.02

Labeled Compounds	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
13C-2378-TCDD	332/334	0 99	0.96	2.7		0.77		0.65 - 0.89
13C-12378-PeCDD	368/370	0 75	0.70	6.4		1.57		1.32 - 1.78
13C-123478-HxCDD	402/404	1.01	1.02	-1.0		1.26		1.05 - 1.43
13C-123678-HxCDD	402/404	1 06	1.10	-3.4		1.24		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.89	0.83	7.6		1.04		0.89 - 1.21
13C-OCDD	470/472	0 86	0.77	11.3		0.89		0.76 - 1.02
13C-2378-TCDF	316/318	1.41	1.32	7.0		0.77		0.65 - 0 89
13C-12378-PeCDF	352/354	1 10	1.03	7.4		1.55		1.32 - 1 78
13C-23478-PeCDF	352/354	1.09	0.97	12.4		1.55		1.32 - 1 78
13C-123478-HxCDF	384/386	1 16	1.12	3.1		0.52		0.43 - 0.59
13C-123678-HxCDF	384/386	1 21	1.22	-0.4		0.52		0.43 - 0 59
13C-234678-HxCDF	384/386	1 10	1.11	-0.8		0.52		0 43 - 0.59
13C-123789-HxCDF	384/386	1.09	0.99	9.7		0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	0 97	0.90	8.8		0.45		0 37 - 0.51
13C-1234789-HpCDF	418/420	0.81	0.69	17.2		0.44		0.37 - 0.51

Clean-up	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
37CL-2378-TCDD	328	1.06	1 00	6.0		NA	NA	NA

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-1234-TCDD	332/334	NA	NA	NA	NA	0.78		0.65 - 0 89
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1.23		1.05 - 1.43

(#) The laboratory must flag any analyte which does not meet the criteria for Percentage Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

7DFB - Form VII-HR CDD-2
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name:	ARI	Contract:	SAIC
Lab Code:	WJ10	Case No.:	209977
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	13041105
Date Analysed	11-Apr-13	Time Analysed	12:35:01
Init.Calib.Date:	12-MAR-13	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1.00	26.60
2378-TCDF	1.00	25.97
12378-PeCDF	1.00	30.11
12378-PeCDD	1.00	31.72
23478-PeCDF	1.00	31 46
123478-HxCDF	1.00	35.14
123678-HxCDF	1.00	35.28
123478-HxCDD	1.00	36.37
123678-HxCDD	1.00	36.50
123789-HxCDD	1.01	36 93
234678-HxCDF	1.00	36.24
123789-HxCDF	1.00	37.38
1234678-HpCDF	1.00	39.44
1234678-HpCDD	1.00	41.23
1234789-HpCDF	1.00	42.12
OCDD	1.00	47.12
OCDF	1 01	47.40

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	26.59
13C-12378-PeCDD	1.23	31.70
13C-123478-HxCDD	0.98	36.34
13C-123678-HxCDD	0.99	36.48
13C-1234678-HpCDD	1.12	41 22
13C-OCDD	1.28	47.10
13C-2378-TCDF	1.01	25.94
13C-12378-PeCDF	1.17	30.10
13C-23478-PeCDF	1 22	31.44
13C-123478-HxCDF	0.95	35.12
13C-123678-HxCDF	0.96	35.27
13C-234678-HxCDF	0 98	36 21
13C-123789-HxCDF	1.01	37 35
13C-1234678-HpCDF	1.07	39 41
13C-1234789-HpCDF	1 14	42.10

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1.03	26.60

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	25.78
13C-123789-HxCDD	0.00	36.90

(#) RRT = (RT of Analyte)/(RT of appropriate labeled compound).

7DFA - Form VII-HR CDD-1
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name:	ARI	Contract.	SAIC
Lab Code:	WJ10	Case No.:	209977
TO No.:		SDG No..	
GC Column:	RTX-DIOXIN2	ID (mm).	25
Instrument ID.	AUTOSPEC1	Lab File ID:	13041116
Date Analysed	11-Apr-13	Time Analysed	23:01:37
Init.Calib.Date:	12-MAR-13	Init.Calib Time:	

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	0.98	0.98	0.3		0.77		0.65 - 0.89
2378-TCDF	304/306	0.85	0 76	12.1		0.74		0.65 - 0.89
12378-PeCDF	340/342	0.88	0.84	5.8		1.51		1.32 - 1.78
12378-PeCDD	356/358	0.95	0.95	0.3		1.53		1.32 - 1.78
23478-PeCDF	340/342	0.91	0.85	6.4		1.52		1.32 - 1.78
123478-HxCDF	374/376	1 06	1.02	4.0		1.19		1 05 - 1.43
123678-HxCDF	374/376	1.04	1.01	2.7		1.19		1 05 - 1.43
123478-HxCDD	390/392	0 94	0.94	-0 1		1.24		1.05 - 1.43
123678-HxCDD	390/392	0.88	0.88	-0.6		1 22		1.05 - 1.43
123789-HxCDD	390/392	0.90	0.87	3.2		1.24		1.05 - 1.43
234678-HxCDF	374/376	1 11	1.03	8 1		1.20		1.05 - 1.43
123789-HxCDF	374/376	0.99	0.93	6.7		1.20		1 05 - 1.43
1234678-HpCDF	408/410	1.22	1.15	5.6		0.97		0.89 - 1.21
1234678-HpCDD	424/426	0.95	0.95	0.1		1.02		0.89 - 1.21
1234789-HpCDF	408/410	1.22	1.15	6 5		0.99		0.89 - 1 21
OCDD	458/460	0.95	0 97	-2.5		0.88		0.76 - 1.02
OCDF	442/444	1.02	0.96	5.6		0.87		0.76 - 1.02

Labeled Compounds	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
13C-2378-TCDD	332/334	1.02	0.96	6.5		0.77		0.65 - 0.89
13C-12378-PeCDD	368/370	0.86	0.70	21.6		1.56		1.32 - 1.78
13C-123478-HxCDD	402/404	1.02	1.02	0.1		1.27		1.05 - 1.43
13C-123678-HxCDD	402/404	1.06	1.10	-3 1		1.25		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.89	0.83	7.8		1 04		0.89 - 1.21
13C-OCDD	470/472	0 88	0.77	14 4		0.89		0.76 - 1.02
13C-2378-TCDF	316/318	1.43	1.32	8.9		0.77		0.65 - 0.89
13C-12378-PeCDF	352/354	1 16	1.03	12.9		1.55		1.32 - 1.78
13C-23478-PeCDF	352/354	1.19	0.97	22.9		1.56		1.32 - 1.78
13C-123478-HxCDF	384/386	1 15	1 12	2.3		0.51		0 43 - 0.59
13C-123678-HxCDF	384/386	1 20	1 22	-1.4		0 52		0.43 - 0.59
13C-234678-HxCDF	384/386	1.12	1.11	0.9		0 51		0.43 - 0.59
13C-123789-HxCDF	384/386	1.13	0.99	14.1		0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.95	0.90	6.0		0.44		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.79	0.69	14 3		0.45		0.37 - 0.51

Clean-up	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
37CL-2378-TCDD	328	1 09	1.00	9.2		NA	NA	NA

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-1234-TCDD	332/334	NA	NA	NA	NA	0.78		0.65 - 0.89
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1.24		1.05 - 1 43

(#) The laboratory must flag any analyte which does not meet the criteria for Percentage Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

7DFB - Form VII-HR CDD-2
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name:	ARI	Contract:	SAIC
Lab Code:	WJ10	Case No.:	209977
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	13041116
Date Analysed	11-Apr-13	Time Analysed	23:01:37
Init.Calib.Date:	12-MAR-13	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1.00	26.62
2378-TCDF	1.00	25 97
12378-PeCDF	1 00	30 12
12378-PeCDD	1 00	31 72
23478-PeCDF	1 00	31 47
123478-HxCDF	1.00	35.14
123678-HxCDF	1.00	35.29
123478-HxCDD	1.00	36.38
123678-HxCDD	1 00	36 50
123789-HxCDD	1 01	36 92
234678-HxCDF	1.00	36.23
123789-HxCDF	1.00	37.39
1234678-HpCDF	1.00	39.44
1234678-HpCDD	1.00	41.24
1234789-HpCDF	1.00	42 13
OCDD	1.00	47 13
OCDF	1.01	47.41

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	26.59
13C-12378-PeCDD	1.23	31.70
13C-123478-HxCDD	0.98	36.35
13C-123678-HxCDD	0.99	36.49
13C-1234678-HpCDD	1 12	41.22
13C-OCDD	1.28	47.11
13C-2378-TCDF	1.01	25.96
13C-12378-PeCDF	1.17	30.10
13C-23478-PeCDF	1.22	31.44
13C-123478-HxCDF	0.95	35.13
13C-123678-HxCDF	0.96	35.27
13C-234678-HxCDF	0.98	36.22
13C-123789-HxCDF	1.01	37.36
13C-1234678-HpCDF	1.07	39 42
13C-1234789-HpCDF	1 14	42 11

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1.03	26.62

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	25 78
13C-123789-HxCDD	0.00	36.91

(#) RRT = (RT of Analyte)/(RT of appropriate labeled compound).

7DFA - Form VII-HR CDD-1
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name:	ARI	Contract:	SAIC
Lab Code:	WJ10	Case No..	209977
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID.	AUTOSPEC1	Lab File ID:	13041128
Date Analysed	12-Apr-13	Time Analysed	09:40:57
Init.Calib.Date:	12-MAR-13	Init.Calib.Time:	

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	0.98	0.98	0.2		0.76		0.65 - 0.89
2378-TCDF	304/306	0.86	0.76	12.2		0 75		0.65 - 0.89
12378-PeCDF	340/342	0.88	0.84	5.7		1 53		1.32 - 1.78
12378-PeCDD	356/358	0.94	0.95	-1.0		1 54		1.32 - 1.78
23478-PeCDF	340/342	0.90	0.85	5.4		1.52		1.32 - 1.78
123478-HxCDF	374/376	1.05	1 02	3.1		1.20		1.05 - 1.43
123678-HxCDF	374/376	1.02	1 01	0.8		1.19		1.05 - 1.43
123478-HxCDD	390/392	0.94	0.94	-0 1		1.22		1.05 - 1.43
123678-HxCDD	390/392	0.89	0.88	0.3		1.23		1.05 - 1 43
123789-HxCDD	390/392	0.93	0.87	6.8		1.24		1 05 - 1 43
234678-HxCDF	374/376	1 10	1.03	7.5		1.18		1.05 - 1.43
123789-HxCDF	374/376	0.98	0.93	5.3		1.20		1.05 - 1.43
1234678-HpCDF	408/410	1.21	1.15	5.2		0 98		0.89 - 1.21
1234678-HpCDD	424/426	0 95	0.95	0.3		1 02		0.89 - 1.21
1234789-HpCDF	408/410	1.21	1.15	5 4		0.98		0.89 - 1.21
OCDD	458/460	0.94	0.97	-3.2		0.89		0.76 - 1.02
OCDF	442/444	1 01	0.96	4 6		0.87		0.76 - 1.02

Labeled Compounds	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
13C-2378-TCDD	332/334	1.00	0 96	4.0		0.77		0.65 - 0 89
13C-12378-PeCDD	368/370	0.80	0 70	14.3		1.57		1.32 - 1.78
13C-123478-HxCDD	402/404	0.98	1 02	-3.1		1.26		1.05 - 1.43
13C-123678-HxCDD	402/404	1.03	1.10	-6.4		1.23		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.84	0.83	1 6		1 05		0.89 - 1.21
13C-OCDD	470/472	0 71	0.77	-7.4		0.88		0.76 - 1.02
13C-2378-TCDF	316/318	1 39	1.32	5.6		0.77		0 65 - 0.89
13C-12378-PeCDF	352/354	1.11	1 03	8.6		1.54		1.32 - 1.78
13C-23478-PeCDF	352/354	1.11	0.97	15 2		1.53		1.32 - 1 78
13C-123478-HxCDF	384/386	1.11	1 12	-1.5		0.51		0.43 - 0.59
13C-123678-HxCDF	384/386	1 15	1 22	-5.5		0.52		0.43 - 0.59
13C-234678-HxCDF	384/386	1.05	1.11	-5.0		0 52		0.43 - 0.59
13C-123789-HxCDF	384/386	1.07	0.99	7 5		0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	0 90	0.90	0 2		0.45		0.37 - 0.51
13C-1234789-HpCDF	418/420	0 73	0.69	5.4		0.45		0.37 - 0.51

Clean-up	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
37CL-2378-TCDD	328	1.06	1 00	6.3		NA	NA	NA

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-1234-TCDD	332/334	NA	NA	NA	NA	0 78		0.65 - 0 89
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1 24		1.05 - 1.43

(#) The laboratory must flag any analyte which does not meet the criteria for Percentage Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

7DFB - Form VII-HR CDD-2
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name:	ARI	Contract:	SAIC
Lab Code:	WJ10	Case No.:	209977
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	13041128
Date Analysed	12-Apr-13	Time Analysed	09:40:57
Init.Calib.Date:	12-MAR-13	Init.Calib.Time:	

Target Analytes	RRT#	RT
2378-TCDD	1 00	26.65
2378-TCDF	1.00	26.00
12378-PeCDF	1.00	30.15
12378-PeCDD	1.00	31.75
23478-PeCDF	1.00	31.50
123478-HxCDF	1 00	35.17
123678-HxCDF	1 00	35.33
123478-HxCDD	1.00	36.40
123678-HxCDD	1.00	36.53
123789-HxCDD	1.01	36.96
234678-HxCDF	1 00	36.27
123789-HxCDF	1 00	37.42
1234678-HpCDF	1 00	39.47
1234678-HpCDD	1.00	41.28
1234789-HpCDF	1 00	42.17
OCDD	1.00	47.19
OCDF	1.01	47.47

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	26.62
13C-12378-PeCDD	1 23	31 73
13C-123478-HxCDD	0 98	36.39
13C-123678-HxCDD	0 99	36.52
13C-1234678-HpCDD	1 12	41 27
13C-OCDD	1.28	47.17
13C-2378-TCDF	1.01	25.99
13C-12378-PeCDF	1.17	30.13
13C-23478-PeCDF	1.22	31.48
13C-123478-HxCDF	0.95	35.16
13C-123678-HxCDF	0.96	35.31
13C-234678-HxCDF	0.98	36.25
13C-123789-HxCDF	1.01	37.40
13C-1234678-HpCDF	1.07	39.46
13C-1234789-HpCDF	1.14	42 16

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1 03	26.65

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	25.81
13C-123789-HxCDD	0.00	36.95

(#) RRT = (RT of Analyte)/(RT of appropriate labeled compound).

Pesticide Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method SW8081B **Sample ID: SD-SP-01-20130326-W**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: WJ10A
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized:
Reported: 04/12/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/01/13
Date Analyzed: 04/06/13 00:22
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	0.0085	0.050	< 0.050 U
319-85-7	beta-BHC	0.0098	0.050	< 0.050 U
319-86-8	delta-BHC	0.0087	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.016	0.050	< 0.050 U
76-44-8	Heptachlor	0.011	0.050	< 0.050 U
309-00-2	Aldrin	0.010	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.0079	0.050	< 0.050 U
959-98-8	Endosulfan I	0.0089	0.050	< 0.050 U
60-57-1	Dieldrin	0.017	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.018	0.10	< 0.10 U
72-20-8	Endrin	0.017	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.014	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.019	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.024	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.017	0.10	< 0.10 U
72-43-5	Methoxychlor	0.074	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.015	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.016	0.10	< 0.10 U
5103-74-2	trans-Chlordane	0.0082	0.050	< 0.050 U
5103-71-9	cis-Chlordane	0.0082	0.050	< 0.050 U
8001-35-2	Toxaphene	0.22	5.0	< 5.0 U
118-74-1	Hexachlorobenzene	0.010	0.050	< 0.050 U
87-68-3	Hexachlorobutadiene	0.012	0.050	< 0.050 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	84.8%
Tetrachlorometaxylene	68.2%

This analyte (CAS registry No. 5103-74-2) is named trans-Chlordane in EPA Method 8081B(Feb 2007). It has also been named gamma-Chlordane and beta-Chlordane.

$ This analyte (CAS registry No. 5103-71-9) is named cis-Chlordane in EPA Method 8081B(Feb 2007). It has also been named alpha-Chlordane.

ANALYTICAL RESOURCES INCORPORATED

SW8081/PESTICIDE WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Client ID	DCBP	TCMX	TOT OUT
MB-040113	56.2%	48.8%	0
LCS-040113	62.0%	60.0%	0
LCSD-040113	50.2%	51.5%	0
SD-SP-01-20130326-W	84.8%	68.2%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(37-125)	(11-144)
(TCMX) = Tetrachlorometaxylene	(38-103)	(30-105)

Prep Method: SW3510C
Log Number Range: 13-6435 to 13-6435

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546

Sample ID: SD-SP-01-20130326-S
SAMPLE

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 05/07/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/09/13 16:49
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.91 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 52.8%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	1.7	11	< 11 U
319-85-7	beta-BHC	2.9	11	< 11 U
319-86-8	delta-BHC	1.7	11	< 11 U
58-89-9	gamma-BHC (Lindane)	1.0	11	< 11 U
76-44-8	Heptachlor	2.8	11	< 11 U
309-00-2	Aldrin	1.2	11	< 11 U
1024-57-3	Heptachlor Epoxide	1.8	21	< 21 U
959-98-8	Endosulfan I	1.5	11	< 11 U
60-57-1	Dieldrin	2.1	21	< 21 U
72-55-9	4,4'-DDE	2.6	21	< 21 U
72-20-8	Endrin	4.6	21	< 21 U
33213-65-9	Endosulfan II	2.5	21	< 21 U
72-54-8	4,4'-DDD	2.9	21	< 21 U
1031-07-8	Endosulfan Sulfate	4.1	75	< 75 Y
50-29-3	4,4'-DDT	4.1	21	< 21 U
72-43-5	Methoxychlor	15	110	< 110 U
53494-70-5	Endrin Ketone	2.5	21	< 21 U
7421-93-4	Endrin Aldehyde	4.6	21	< 21 U
5103-74-2	trans-Chlordane	1.6	11	< 11 U
5103-71-9	cis-Chlordane	1.1	46	< 46 Y
8001-35-2	Toxaphene	730	2100	< 2,100 U
118-74-1	Hexachlorobenzene	2.0	21	< 21 U
87-68-3	Hexachlorobutadiene	2.9	21	< 21 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	96.8%

This analyte (CAS registry No. 5103-74-2) is named trans-Chlordane in EPA Method 8081B(Feb 2007). It has also been named gamma-Chlordane and beta-Chlordane.

$ This analyte (CAS registry No. 5103-71-9) is named cis-Chlordane in EPA Method 8081B(Feb 2007). It has also been named alpha-Chlordane.

WJ10: 206R 5/8/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: SD-SP-01-20130326-S
DILUTION

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 05/07/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/10/13 17:57
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.91 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 50.0
Silica Gel: Yes

Percent Moisture: 52.8%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	17	110	< 110 U
319-85-7	beta-BHC	29	110	< 110 U
319-86-8	delta-BHC	17	110	< 110 U
58-89-9	gamma-BHC (Lindane)	10	110	< 110 U
76-44-8	Heptachlor	28	110	< 110 U
309-00-2	Aldrin	12	110	< 110 U
1024-57-3	Heptachlor Epoxide	18	210	< 210 U
959-98-8	Endosulfan I	15	110	< 110 U
60-57-1	Dieldrin	21	210	< 210 U
72-55-9	4,4'-DDE	26	210	< 210 U
72-20-8	Endrin	46	210	< 210 U
33213-65-9	Endosulfan II	25	210	< 210 U
72-54-8	4,4'-DDD	29	210	< 210 U
1031-07-8	Endosulfan Sulfate	41	210	< 210 U
50-29-3	4,4'-DDT	41	210	< 210 U
72-43-5	Methoxychlor	150	1100	< 1,100 U
53494-70-5	Endrin Ketone	25	210	< 210 U
7421-93-4	Endrin Aldehyde	46	210	< 210 U
5103-74-2	trans-Chlordane	16	110	< 110 U
5103-71-9	cis-Chlordane	11	110	< 110 U
8001-35-2	Toxaphene	7300	21000	< 21,000 U
118-74-1	Hexachlorobenzene	20	210	< 210 U
87-68-3	Hexachlorobutadiene	29	210	< 210 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

WJ10: 207R BC 5/8/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: SD-CB-01-20130326-S
SAMPLE

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 05/07/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/10/13 18:50
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 6.99 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 44.1%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	2.9	18	< 18 U
319-85-7	beta-BHC	5.0	18	< 18 U
319-86-8	delta-BHC	2.9	18	< 18 U
58-89-9	gamma-BHC (Lindane)	1.7	18	< 18 U
76-44-8	Heptachlor	4.7	18	< 18 U
309-00-2	Aldrin	2.0	18	< 18 U
1024-57-3	Heptachlor Epoxide	3.0	36	< 36 U
959-98-8	Endosulfan I	2.6	18	< 18 U
60-57-1	Dieldrin	3.6	36	< 36 U
72-55-9	4,4'-DDE	4.4	36	< 36 U
72-20-8	Endrin	7.7	36	< 36 U
33213-65-9	Endosulfan II	4.1	36	< 36 U
72-54-8	4,4'-DDD	4.8	36	< 36 U
1031-07-8	Endosulfan Sulfate	6.9	36	< 36 U
50-29-3	4,4'-DDT	6.9	36	< 36 U
72-43-5	Methoxychlor	25	180	< 180 U
53494-70-5	Endrin Ketone	4.3	36	< 36 U
7421-93-4	Endrin Aldehyde	7.8	36	< 36 U
5103-74-2	trans-Chlordane	2.8	18	< 18 U
5103-71-9	cis-Chlordane	1.8	18	< 18 U
8001-35-2	Toxaphene	1200	3600	< 3,600 U
118-74-1	Hexachlorobenzene	3.4	36	< 36 U
87-68-3	Hexachlorobutadiene	4.9	36	< 36 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	122%

This analyte (CAS registry No. 5103-74-2) is named trans-Chlordane in EPA Method 8081B(Feb 2007). It has also been named gamma-Chlordane and beta-Chlordane.

$ This analyte (CAS registry No. 5103-71-9) is named cis-Chlordane in EPA Method 8081B(Feb 2007). It has also been named alpha-Chlordane.

WJ10: 208R dc 5/9/13

ANALYTICAL RESOURCES INCORPORATED

SW8081 PESTICIDE SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Solids

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Client ID	DCBP	TCMX	TOT OUT
MB-040413	102%	79.8%	0
LCS-040413	110%	86.8%	0
SD-SP-01-20130326-S	NR	96.8%	0
SD-SP-01-20130326-S DL	D	D	0
SD-SP-01-20130326-S MS	NR	126%*	1
SD-SP-01-20130326-S MSD	NR	113%	0
SD-CB-01-20130326-S	NR	122%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(60-149)	(36-182)
(TCMX) = Tetrachlorometaxylene	(47-124)	(34-169)

Prep Method: SW3546
Log Number Range: 13-6437 to 13-6438

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: SD-SP-01-20130326-S
MS/MSD

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 05/07/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted MS/MSD: 04/04/13

Date Analyzed MS: 04/09/13 17:07
MSD: 04/09/13 17:25
Instrument/Analyst MS: ECD6/YZ
MSD: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount MS: 5.91 g-dry-wt
MSD: 5.90 g-dry-wt
Final Extract Volume MS: 5.0 mL
MSD: 5.0 mL
Dilution Factor MS: 5.00
MSD: 5.00
Silica Gel: Yes

Percent Moisture: 52.8%

Analyte	Sample	MS		Spike Added-MS	MS Recovery	MSD		Spike Added-MSD	MSD Recovery	RPD
alpha-BHC	< 10.6	19.5	JP	8.46	230%	22.8	JP	8.47	269%	15.6%
beta-BHC	< 10.6	17.9		8.46	212%	18.1		8.47	214%	1.1%
delta-BHC	< 10.6	27.3	P	8.46	323%	31.3	P	8.47	370%	13.7%
gamma-BHC (Lindane)	< 10.6	18.2	JP	8.46	215%	10.8	J	8.47	128%	51.0%
Heptachlor	< 10.6	26.0	JP	8.46	307%	31.3	JP	8.47	370%	18.5%
Aldrin	< 10.6	57.5	P	8.46	680%	74.2	P	8.47	876%	25.4%
Heptachlor Epoxide	< 21.2	101	JP	8.46	1190%	32.8		8.47	387%	102%
Endosulfan I	< 10.6	175	J	8.46	2070%	22.6	JP	8.47	267%	154%
Dieldrin	< 21.2	21.6		16.9	128%	9.79	J	16.9	57.9%	75.2%
4,4'-DDE	< 21.2	52.9	JP	16.9	313%	109	JP	16.9	645%	69.3%
Endrin	< 21.2	21.4		16.9	127%	< 21.2	U	16.9	NA	NA
Endosulfan II	< 21.2	35.9	JP	16.9	212%	63.6	P	16.9	376%	55.7%
4,4'-DDD	< 21.2	26.1		16.9	154%	35.7		16.9	211%	31.1%
Endosulfan Sulfate	< 74.9	78.7	P	16.9	NA	88.6	P	16.9	NA	11.8%
4,4'-DDT	< 21.2	12.2	JP	16.9	72.2%	6.53	J	16.9	38.6%	60.5%
Methoxychlor	< 106	546		84.6	645%	517		84.7	610%	5.5%
Endrin Ketone	< 21.2	90.9	JP	16.9	538%	115	JP	16.9	680%	23.4%
Endrin Aldehyde	< 21.2	81.6		16.9	483%	95.3	P	16.9	564%	15.5%
trans-Chlordane	< 10.6	62.2	P	8.46	735%	50.0	P	8.47	590%	21.7%
cis-Chlordane	< 46.5	162	P	8.46	NA	22.6		8.47	NA	151%
Hexachlorobenzene	< 21.2	16.5	JP	8.46	195%	25.9	JP	8.47	306%	44.3%
Hexachlorobutadiene	< 21.2	8.33	J	8.46	98.5%	6.53	J	8.47	77.1%	24.2%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

FORM III

WJ10 · 210P BC 5/8/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: SD-SP-01-20130326-S
MATRIX SPIKE

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 05/07/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/09/13 17:07
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.91 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 52.8%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	1.7	11	---
319-85-7	beta-BHC	2.9	11	---
319-86-8	delta-BHC	1.7	11	---
58-89-9	gamma-BHC (Lindane)	1.0	11	---
76-44-8	Heptachlor	2.8	11	---
309-00-2	Aldrin	1.2	11	---
1024-57-3	Heptachlor Epoxide	1.8	21	---
959-98-8	Endosulfan I	1.5	11	---
60-57-1	Dieldrin	2.1	21	---
72-55-9	4,4'-DDE	2.6	21	---
72-20-8	Endrin	4.6	21	---
33213-65-9	Endosulfan II	2.5	21	---
72-54-8	4,4'-DDD	2.9	21	---
1031-07-8	Endosulfan Sulfate	4.1	21	---
50-29-3	4,4'-DDT	4.1	21	---
72-43-5	Methoxychlor	15	110	---
53494-70-5	Endrin Ketone	2.5	21	---
7421-93-4	Endrin Aldehyde	4.6	21	---
5103-74-2	trans-Chlordane	1.6	11	---
5103-71-9	cis-Chlordane	1.1	11	---
8001-35-2	Toxaphene	730	2100	< 2,100 U
118-74-1	Hexachlorobenzene	2.0	21	---
87-68-3	Hexachlorobutadiene	2.9	21	---

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	126%

FORM I

WJ10: 2LR BL 5/4/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: SD-SP-01-20130326-S MATRIX SPIKE DUP

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 05/07/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/09/13 17:25
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.90 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 52.8%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	1.7	11	---
319-85-7	beta-BHC	2.9	11	---
319-86-8	delta-BHC	1.7	11	---
58-89-9	gamma-BHC (Lindane)	1.0	11	---
76-44-8	Heptachlor	2.8	11	---
309-00-2	Aldrin	1.2	11	---
1024-57-3	Heptachlor Epoxide	1.8	21	---
959-98-8	Endosulfan I	1.5	11	---
60-57-1	Dieldrin	2.1	21	---
72-55-9	4,4'-DDE	2.6	21	---
72-20-8	Endrin	4.6	21	---
33213-65-9	Endosulfan II	2.5	21	---
72-54-8	4,4'-DDD	2.9	21	---
1031-07-8	Endosulfan Sulfate	4.1	21	---
50-29-3	4,4'-DDT	4.1	21	---
72-43-5	Methoxychlor	15	110	---
53494-70-5	Endrin Ketone	2.5	21	---
7421-93-4	Endrin Aldehyde	4.6	21	---
5103-74-2	trans-Chlordane	1.6	11	---
5103-71-9	cis-Chlordane	1.1	11	---
8001-35-2	Toxaphene	730	2100	< 2,100 U
118-74-1	Hexachlorobenzene	2.0	21	---
87-68-3	Hexachlorobutadiene	2.9	21	---

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	NR
Tetrachlorometaxylene	113%

FORM I

WTW: 212R BC 5/8/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method SW8081B **Sample ID: LCS-040113**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-040113 QC Report No: WJ10-SAIC
LIMS ID: 13-6435 Project: NPDES Sampling Support
Matrix: Water 209977
Data Release Authorized: Date Sampled: 03/26/13
Reported: 04/12/13 Date Received: 03/27/13

Date Extracted LCS/LCSD: 04/01/13 Sample Amount LCS: 500 mL
LCSD: 500 mL
Date Analyzed LCS: 04/05/13 23:47 Final Extract Volume LCS: 5.0 mL
LCSD: 04/06/13 00:05 LCSD: 5.0 mL
Instrument/Analyst LCS: ECD6/YZ Dilution Factor LCS: 1.00
LCSD: ECD6/YZ LCSD: 1.00
GPC Cleanup: No Sulfur Cleanup: Yes
Florisil Cleanup: No Silica Gel: Yes

Analyte	LCS		Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
alpha-BHC	0.152		0.200	76.0%	0.136	0.200	68.0%	11.1%
beta-BHC	0.156		0.200	78.0%	0.137	0.200	68.5%	13.0%
delta-BHC	0.167		0.200	83.5%	0.150	0.200	75.0%	10.7%
gamma-BHC (Lindane)	0.213		0.200	106%	0.154	0.200	77.0%	32.2%
Heptachlor	0.140		0.200	70.0%	0.121	0.200	60.5%	14.6%
Aldrin	0.129		0.200	64.5%	0.102	0.200	51.0%	23.4%
Heptachlor Epoxide	0.177		0.200	88.5%	0.152	0.200	76.0%	15.2%
Endosulfan I	0.177		0.200	88.5%	0.153	0.200	76.5%	14.5%
Dieldrin	0.359		0.400	89.8%	0.315	0.400	78.8%	13.1%
4,4'-DDE	0.387		0.400	96.8%	0.341	0.400	85.2%	12.6%
Endrin	0.358		0.400	89.5%	0.307	0.400	76.8%	15.3%
Endosulfan II	0.348		0.400	87.0%	0.299	0.400	74.8%	15.1%
4,4'-DDD	0.348		0.400	87.0%	0.298	0.400	74.5%	15.5%
Endosulfan Sulfate	0.335		0.400	83.8%	0.294	0.400	73.5%	13.0%
4,4'-DDT	0.351		0.400	87.8%	0.298	0.400	74.5%	16.3%
Methoxychlor	1.68		2.00	84.0%	1.45	2.00	72.5%	14.7%
Endrin Ketone	0.550	P	0.400	138%	0.306	0.400	76.5%	57.0%
Endrin Aldehyde	0.225		0.400	56.2%	0.185	0.400	46.2%	19.5%
trans-Chlordane	0.172		0.200	86.0%	0.150	0.200	75.0%	13.7%
cis-Chlordane	0.170		0.200	85.0%	0.149	0.200	74.5%	13.2%
Hexachlorobenzene	0.123		0.200	61.5%	0.110	0.200	55.0%	11.2%
Hexachlorobutadiene	0.0636		0.200	31.8%	0.0518	0.200	25.9%	20.5%

Pest/PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	62.0%	50.2%
Tetrachlorometaxylene	60.0%	51.5%

Results reported in µg/L (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: LCS-040413
LAB CONTROL

Lab Sample ID: LCS-040413
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 05/07/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/09/13 16:13
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
alpha-BHC	3.86	4.00	96.5%
beta-BHC	4.20	4.00	105%
delta-BHC	4.30	4.00	108%
gamma-BHC (Lindane)	4.04	4.00	101%
Heptachlor	3.90	4.00	97.5%
Aldrin	3.70	4.00	92.5%
Heptachlor Epoxide	4.12	4.00	103%
Endosulfan I	4.10	4.00	102%
Dieldrin	8.52	8.00	106%
4,4'-DDE	9.52	8.00	119%
Endrin	8.64	8.00	108%
Endosulfan II	8.54	8.00	107%
4,4'-DDD	8.50	8.00	106%
Endosulfan Sulfate	8.48	8.00	106%
4,4'-DDT	8.50	8.00	106%
Methoxychlor	41.2	40.0	103%
Endrin Ketone	8.74	8.00	109%
Endrin Aldehyde	4.32	8.00	54.0%
trans-Chlordane	4.16	4.00	104%
cis-Chlordane	4.10	4.00	102%
Hexachlorobenzene	3.52	4.00	88.0%
Hexachlorobutadiene	3.00	4.00	75.0%

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	110%
Tetrachlorometaxylene	86.8%

Reported in µg/kg (ppb)

FORM III

WJ10: 214R BE 5/8/13

FORM 4
PESTICIDE METHOD BLANK SUMMARY

BLANK NO.

WJ10MBW1

Lab Name: ANALYTICAL RESOURCES INC
Client: SAIC

ARI Job No.: WJ10
Project: NPDES SAMPLING SUPPO

Lab Sample ID: WJ10MBW1
Lab File ID: 0405A040

Date Extracted: 04/01/13
Matrix: LIQUID

Date Analyzed: 04/05/13
Instrument ID: ECD6

Time Analyzed: 2329
GC Columns: STX-CLP1/STX-CLP2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	WJ10LCSW1	WJ10LCSW1	04/05/13
02	WJ10LCSDW1	WJ10LCSDW1	04/06/13
03	SD-SP-01-20130326-W	WJ10A	04/06/13

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides/PCB by GC/ECD Method SW8081B **Sample ID: MB-040113**
Extraction Method: SW3510C **METHOD BLANK**

Page 1 of 1
Lab Sample ID: MB-040113 QC Report No: WJ10-SAIC
LIMS ID: 13-6435 Project: NPDES Sampling Support
Matrix: Water 209977
Data Release Authorized: Date Sampled: NA
Reported: 04/12/13 Date Received: NA

Date Extracted: 04/01/13 Sample Amount: 500 mL
Date Analyzed: 04/05/13 23:29 Final Extract Volume: 5.0 mL
Instrument/Analyst: ECD6/YZ Dilution Factor: 1.00
GPC Cleanup: No Silica Gel: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	0.0085	0.050	< 0.050 U
319-85-7	beta-BHC	0.0098	0.050	< 0.050 U
319-86-8	delta-BHC	0.0087	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.016	0.050	< 0.050 U
76-44-8	Heptachlor	0.011	0.050	< 0.050 U
309-00-2	Aldrin	0.010	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.0079	0.050	< 0.050 U
959-98-8	Endosulfan I	0.0089	0.050	< 0.050 U
60-57-1	Dieldrin	0.017	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.018	0.10	< 0.10 U
72-20-8	Endrin	0.017	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.014	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.019	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.024	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.017	0.10	< 0.10 U
72-43-5	Methoxychlor	0.074	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.015	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.016	0.10	< 0.10 U
5103-74-2	trans-Chlordane	0.0082	0.050	< 0.050 U
5103-71-9	cis-Chlordane	0.0082	0.050	< 0.050 U
8001-35-2	Toxaphene	0.22	5.0	< 5.0 U
118-74-1	Hexachlorobenzene	0.010	0.050	< 0.050 U
87-68-3	Hexachlorobutadiene	0.012	0.050	< 0.050 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	56.2%
Tetrachlorometaxylene	48.8%

FORM 4
PESTICIDE METHOD BLANK SUMMARY

BLANK NO.

WJ10MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: SAIC

ARI Job No.: WJ10
Project: NPDES SAMPLING SUPPO

Lab Sample ID: WJ10MBS1
Lab File ID: 0409A017

Date Extracted: 04/04/13
Matrix: SOLID

Date Analyzed: 04/09/13
Instrument ID: ECD6

Time Analyzed: 1555
GC Columns: STX-CLP1/STX-CLP2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	WJ10LCSS1	WJ10LCSS1	04/09/13
02	SD-SP-01-20130326-S	WJ10C	04/09/13
03	SD-SP-01-201303 MS	WJ10CMS	04/09/13
04	SD-SP-01-201303 MSD	WJ10CMSD	04/09/13
05	SD-SP-01-20130326-S	WJ10C	04/10/13
06	SD-CB-01-20130326-S	WJ10D	04/10/13

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD **Sample ID: MB-040413**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-040413
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 05/07/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/04/13
Date Analyzed: 04/09/13 15:55
Instrument/Analyst: ECD6/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	0.081	0.50	< 0.50 U
319-85-7	beta-BHC	0.14	0.50	< 0.50 U
319-86-8	delta-BHC	0.082	0.50	< 0.50 U
58-89-9	gamma-BHC (Lindane)	0.048	0.50	< 0.50 U
76-44-8	Heptachlor	0.13	0.50	< 0.50 U
309-00-2	Aldrin	0.055	0.50	< 0.50 U
1024-57-3	Heptachlor Epoxide	0.085	1.0	< 1.0 U
959-98-8	Endosulfan I	0.072	0.50	< 0.50 U
60-57-1	Dieldrin	0.10	1.0	< 1.0 U
72-55-9	4,4'-DDE	0.12	1.0	< 1.0 U
72-20-8	Endrin	0.22	1.0	< 1.0 U
33213-65-9	Endosulfan II	0.12	1.0	< 1.0 U
72-54-8	4,4'-DDD	0.14	1.0	< 1.0 U
1031-07-8	Endosulfan Sulfate	0.19	1.0	< 1.0 U
50-29-3	4,4'-DDT	0.19	1.0	< 1.0 U
72-43-5	Methoxychlor	0.70	5.0	< 5.0 U
53494-70-5	Endrin Ketone	0.12	1.0	< 1.0 U
7421-93-4	Endrin Aldehyde	0.22	1.0	< 1.0 U
5103-74-2	trans-Chlordane	0.077	0.50	< 0.50 U
5103-71-9	cis-Chlordane	0.051	0.50	< 0.50 U
8001-35-2	Toxaphene	35	100	< 100 U
118-74-1	Hexachlorobenzene	0.094	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	0.14	1.0	< 1.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	102%
Tetrachlorometaxylene	79.8%

WSD: 218R BC 5/8/13

6D
8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 04/05/13

COMPOUND	RT OF STANDARDS							MEAN	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.28	4.38
beta-BHC	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.64	4.74
delta-BHC	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.81	4.91
gamma-BHC (Lindane)	4.61	4.61	4.61	4.61	4.62	4.62	4.61	4.61	4.56	4.66
Heptachlor	5.06	5.06	5.06	5.07	5.07	5.07	5.07	5.07	5.02	5.12
Aldrin	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.31	5.41
Heptachlor epoxide b	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.89	5.99
Endosulfan I	6.31	6.31	6.31	6.31	6.32	6.32	6.31	6.31	6.26	6.36
Dieldrin	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.54	6.49	6.59
4,4'-DDE	6.23	6.23	6.23	6.23	6.24	6.24	6.23	6.23	6.18	6.28
Endrin	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.71	6.81
Endosulfan II	6.96	6.96	6.96	6.96	6.96	6.96	6.96	6.96	6.91	7.01
4,4'-DDD	6.79	6.79	6.79	6.79	6.79	6.79	6.79	6.79	6.74	6.84
Endosulfan sulfate	7.73	7.73	7.73	7.73	7.73	7.73	7.73	7.73	7.68	7.78
4,4'-DDT	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.00	7.10
Methoxychlor	7.47	7.47	7.47	7.47	7.47	7.47	7.47	7.47	7.42	7.52
Endrin ketone	7.98	7.98	7.98	7.98	7.99	7.99	7.98	7.98	7.93	8.03
Endrin aldehyde	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.29	7.39
gamma-Chlordane	6.05	6.06	6.05	6.05	6.06	6.06	6.06	6.06	6.01	6.11
alpha-Chlordane	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.13	6.23
Hexachlorobutadiene	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.29	2.39
Hexachlorobenzene	4.18	4.18	4.18	4.18	4.18	4.18	4.18	4.18	4.13	4.23
Tetrachloro-m-xylene	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.84	3.79	3.89
Decachlorobiphenyl	8.83	8.83	8.83	8.83	8.83	8.83	8.83	8.83	8.78	8.88

6D
8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 04/05/13

COMPOUND	RT OF STANDARDS							MEAN	RT WINDOW	
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	4.75	4.75	4.76	4.76	4.76	4.76	4.76	4.76	4.71	4.81
beta-BHC	5.18	5.18	5.18	5.19	5.19	5.19	5.18	5.18	5.13	5.23
delta-BHC	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.45	5.55
gamma-BHC (Lindane)	5.11	5.11	5.11	5.12	5.12	5.12	5.12	5.12	5.07	5.17
Heptachlor	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.53	5.63
Aldrin	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.87	5.97
Heptachlor epoxide b	6.47	6.47	6.47	6.47	6.48	6.48	6.48	6.47	6.43	6.53
Endosulfan I	6.86	6.86	6.86	6.86	6.86	6.86	6.86	6.86	6.81	6.91
Dieldrin	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.07	7.17
4,4'-DDE	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.87	6.97
Endrin	7.41	7.41	7.41	7.41	7.41	7.41	7.41	7.41	7.36	7.46
Endosulfan II	7.60	7.60	7.60	7.60	7.60	7.60	7.60	7.60	7.55	7.65
4,4'-DDD	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.41	7.51
Endosulfan sulfate	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.14	8.09	8.19
4,4'-DDT	7.74	7.74	7.75	7.74	7.75	7.75	7.75	7.75	7.70	7.80
Methoxychlor	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.28	8.38
Endrin ketone	8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.58	8.68
Endrin aldehyde	7.89	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.85	7.95
gamma-Chlordane	6.66	6.66	6.66	6.66	6.66	6.66	6.66	6.66	6.61	6.71
alpha-Chlordane	6.79	6.79	6.79	6.79	6.80	6.80	6.80	6.79	6.75	6.85
Hexachlorobutadiene	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.45	2.55
Hexachlorobenzene	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.58	4.68
Tetrachloro-m-xylene	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.12	4.22
Decachlorobiphenyl	9.79	9.79	9.79	9.79	9.80	9.80	9.80	9.79	9.75	9.85

6E

8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 04/05/13

	CALIBRATION FACTORS								R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.5850	1.5728	1.6410	1.6367	2.0398	2.0141	1.8276	1.7596	11.4
beta-BHC	0.7516	0.7010	0.6787	0.6433	0.7667	0.7377	0.6558	0.7050	6.8
delta-BHC	1.4166	1.4025	1.4623	1.4604	1.8203	1.7847	1.6161	1.5661	11.2
gamma-BHC (Lindane)	1.4575	1.4395	1.4917	1.4788	1.8271	1.7978	1.6242	1.5881	10.4
Heptachlor	1.4735	1.4270	1.4526	1.4223	1.7348	1.6690	1.4754	1.5221	8.3
Aldrin	1.4032	1.3779	1.4068	1.3920	1.7226	1.6694	1.4810	1.4933	9.6
Heptachlor epoxide b	1.3942	1.3016	1.3050	1.2572	1.5332	1.4673	1.2957	1.3649	7.5
Endosulfan I	1.2716	1.2077	1.1957	1.1518	1.4084	1.3437	1.1884	1.2525	7.5
Dieldrin	1.2547	1.2325	1.2540	1.2295	1.5164	1.4573	1.3018	1.3209	8.9
4,4'-DDE	1.0492	1.0057	1.0114	0.9825	1.2247	1.1988	1.1032	1.0822	8.9
Endrin	1.2287	1.1484	1.1743	1.1357	1.4263	1.3755	1.1993	1.2412	9.2
Endosulfan II	1.2958	1.2034	1.2123	1.1559	1.4237	1.3960	1.2149	1.2717	8.1
4,4'-DDD	1.1576	1.0913	1.1167	1.0799	1.3430	1.3243	1.1709	1.1834	9.1
Endosulfan sulfate	1.1636	1.0661	1.0652	1.0098	1.2453	1.2235	1.0748	1.1212	8.0
4,4'-DDT	1.1719	1.0973	1.1136	1.0691	1.3368	1.3322	1.1810	1.1860	9.2
Methoxychlor	0.6219	0.5648	0.5574	0.5292	0.6557	0.6473	0.5877	0.5948	8.1
Endrin ketone	1.5031	1.3537	1.3294	1.2557	1.5429	1.5240	1.3456	1.4078	8.0
Endrin aldehyde	1.0911	1.0015	0.9985	0.9428	1.1527	1.1352	0.9891	1.0444	7.8
gamma-Chlordane	1.3619	1.3157	1.3122	1.2826	1.5801	1.5369	1.3761	1.3951	8.4
alpha-Chlordane	1.3546	1.2820	1.2742	1.2303	1.5034	1.4533	1.2952	1.3418	7.5
Hexachlorobutadiene	1.8641	1.7656	1.7595	1.7111	2.0820	1.9921	1.7878	1.8517	7.4
Hexachlorobenzene	1.3836	1.2836	1.2500	1.1765	1.3833	1.3244	1.1736	1.2821	6.8
Tetrachloro-m-xylene	1.2209	1.1752	1.1709	1.1202	1.3321	1.2746	1.1300	1.2034	6.4
Decachlorobiphenyl	1.2271	1.3922	1.1835	1.0386	1.1890	1.1472	0.9966	1.1677	11.1

6E

8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 04/05/13

COMPOUND	CALIBRATION FACTORS								R^2
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.7014	1.7557	1.8534	1.8750	2.2358	2.2060	2.0002	1.9468	10.8
beta-BHC	0.7515	0.7378	0.7316	0.7113	0.8367	0.8205	0.7240	0.7590	6.5
delta-BHC	1.4851	1.5056	1.5835	1.5918	1.8774	1.8601	1.6804	1.6548	9.6
gamma-BHC (Lindane)	1.5439	1.5596	1.6289	1.6378	1.9541	1.9248	1.7456	1.7135	9.8
Heptachlor	1.5359	1.5297	1.5603	1.5410	1.7948	1.7071	1.4537	1.5889	7.5
Aldrin	1.3793	1.3704	1.3986	1.3874	1.6421	1.5853	1.3771	1.4486	7.9
Heptachlor epoxide b	1.2760	1.2167	1.2236	1.1904	1.3960	1.3359	1.1461	1.2550	6.9
Endosulfan I	1.0760	1.0597	1.0631	1.0394	1.2180	1.1843	1.0179	1.0940	7.0
Dieldrin	1.0687	1.0634	1.0785	1.0572	1.2262	1.1701	1.0227	1.0981	6.6
4,4'-DDE	1.0723	1.0733	1.0978	1.0785	1.2486	1.2032	1.0559	1.1185	6.8
Endrin	2.1787	2.0481	2.0959	2.0218	2.5718	2.3364	1.9560	2.1727	9.9
Endosulfan II	2.4375	2.2805	2.3036	2.1955	2.7593	2.5634	2.1645	2.3863	9.0
4,4'-DDD	2.2608	2.1456	2.2046	2.1344	2.6910	2.5143	2.1449	2.2994	9.5
Endosulfan sulfate	1.9830	1.8458	1.8784	1.8141	2.3056	2.1776	1.8671	1.9816	9.5
4,4'-DDT	2.0590	1.9308	1.9780	1.9201	2.3980	2.3029	2.0225	2.0873	9.0
Methoxychlor	0.9420	0.8584	0.8524	0.7968	0.9929	0.9315	0.6825	0.8652	12.0
Endrin ketone	2.0825	1.9243	1.9309	1.8415	2.3113	2.1946	1.9037	2.0270	8.6
Endrin aldehyde	1.9336	1.7928	1.8028	1.7227	2.1623	2.0316	1.7287	1.8821	8.9
gamma-Chlordane	1.2314	1.2052	1.2171	1.1959	1.4062	1.3753	1.2095	1.2629	7.0
alpha-Chlordane	1.1539	1.1266	1.1246	1.1000	1.2919	1.2588	1.1016	1.1653	6.7
Hexachlorobutadiene	1.6896	1.5477	1.5250	1.4472	1.5155	1.5688	1.4323	1.5323	5.6
Hexachlorobenzene	1.8543	1.7715	1.7637	1.6852	1.9613	1.8781	1.6389	1.7933	6.3
Tetrachloro-m-xylene	1.4581	1.4253	1.4216	1.3602	1.5724	1.4790	1.1884	1.4150	8.4
Decachlorobiphenyl	2.0796	1.8792	1.8282	1.7001	2.1061	1.9737	1.7103	1.8967	8.7

6G

8081 INITIAL CALIBRATION OF SINGLE POINT PCBs and TOXAPHENE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 04/05/13

Toxaphene			
Peak	RT	RT WIN	Cal Factor
1	7.012	6.96- 7.06	0.0515
2	7.063	7.01- 7.11	0.0350
3	7.320	7.27- 7.37	0.0588
4	7.645	7.59- 7.69	0.0593
5	7.684	7.63- 7.73	0.0392
6	7.966	7.92- 8.02	0.0336

6G

8081 INITIAL CALIBRATION OF SINGLE POINT PCBs and TOXAPHENE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 04/05/13

Toxaphene			
Peak	RT	RT WIN	Cal Factor
1	7.344	7.29- 7.39	0.0735
2	7.668	7.62- 7.72	0.1100
3	7.898	7.85- 7.95	0.1175
4	8.366	8.32- 8.42	0.0849
5	8.406	8.36- 8.46	0.1075

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: WJ10

Analysis Date: 05-APR-2013 22:18 Init. Calib. Date: 05-APR-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.233	88421
Endrin	6.755	6459564
4,4'-DDD	6.789	159201
4,4'-DDT	7.048	6551978
Endrin ketone	7.984	353694
Endrin aldehyde	7.338	284167

DDT Percent Breakdown = 3.6 %
((88421+159201) * 100)/(88421+159201+6551978)

Endrin Percent Breakdown = 9.0 %
((284167+353694) * 100)/(284167+353694+6459564)

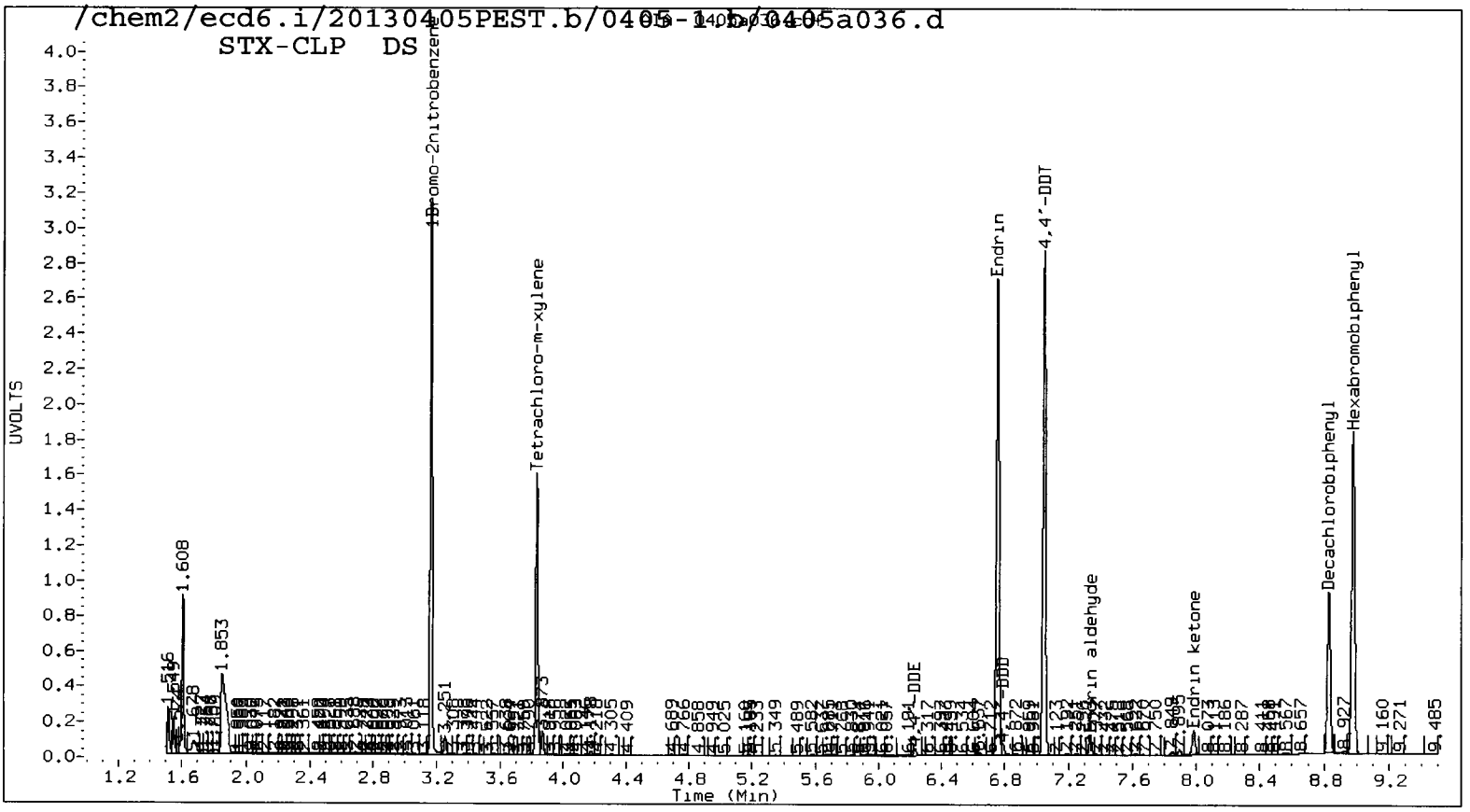
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.918	382114
Endrin	7.409	23800242
4,4'-DDD	7.456	1228520
4,4'-DDT	7.744	24874313
Endrin ketone	8.631	1079869
Endrin aldehyde	7.894	1207565

DDT Percent Breakdown = 6.1 %
((382114+1228520) * 100)/(382114+1228520+24874313)

Endrin Percent Breakdown = 8.8 %
((1207565+1079869) * 100)/(1207565+1079869+23800242)

Form VII Pest-1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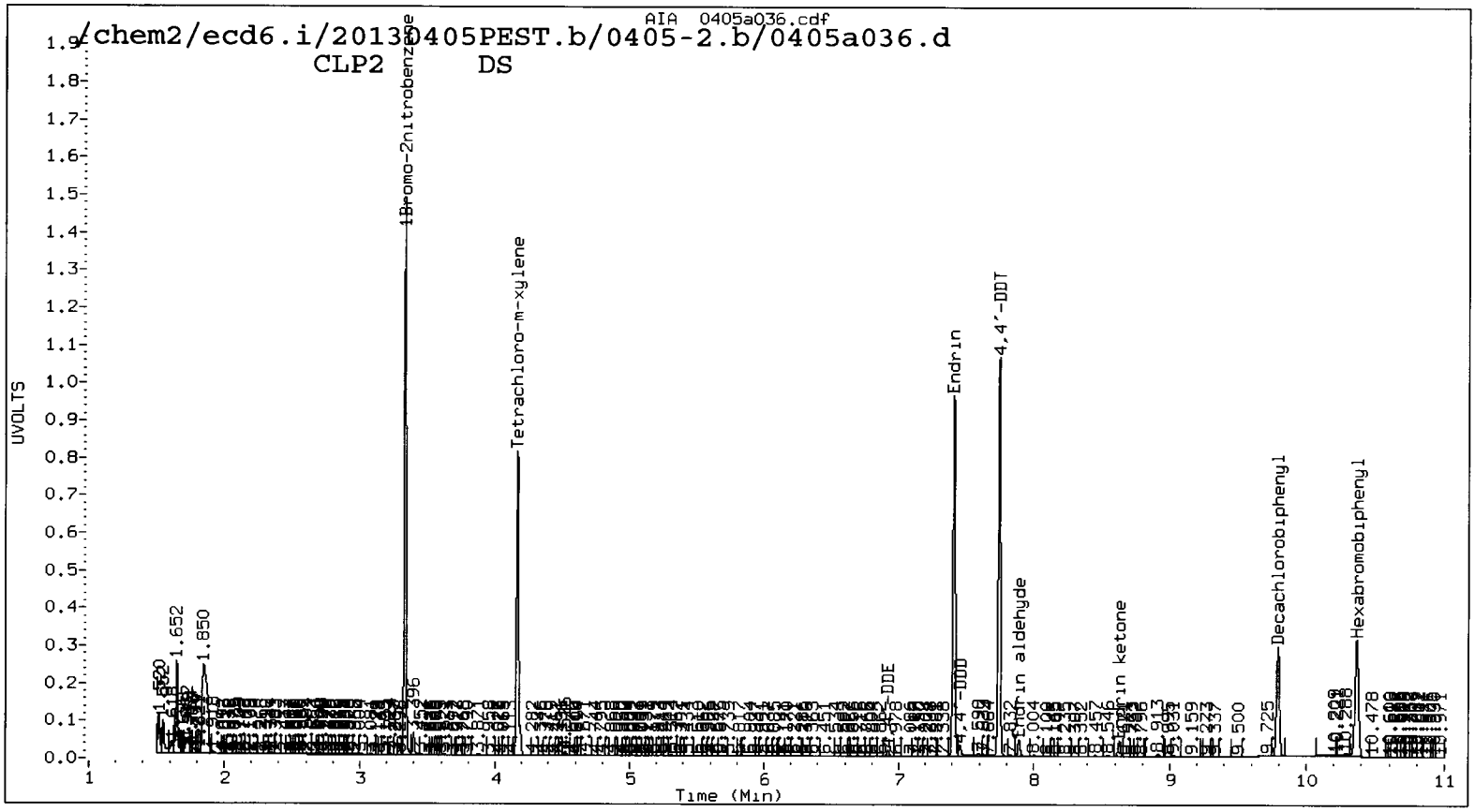
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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UVOLTS
Time (Min)
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Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/05/13,2235

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
alpha-BHC	4.33	4.28	4.38	23.2	20.0	16.0
beta-BHC	4.69	4.64	4.74	21.9	20.0	9.4
delta-BHC	4.86	4.81	4.91	23.2	20.0	16.1
gamma-BHC (Lindane)	4.61	4.56	4.66	23.2	20.0	15.9
Heptachlor	5.06	5.02	5.12	22.8	20.0	13.8
Aldrin	5.36	5.31	5.41	22.9	20.0	14.7
Heptachlor epoxide b	5.94	5.89	5.99	22.4	20.0	12.0
Endosulfan I	6.31	6.26	6.36	22.3	20.0	11.3
Dieldrin	6.54	6.49	6.59	45.6	40.0	14.0
4,4'-DDE	6.23	6.18	6.28	44.4	40.0	11.1
Endrin	6.75	6.71	6.81	45.0	40.0	12.5
Endosulfan II	6.96	6.91	7.01	45.1	40.0	12.7
4,4'-DDD	6.79	6.74	6.84	45.5	40.0	13.6
Endosulfan sulfate	7.73	7.68	7.78	44.5	40.0	11.4
4,4'-DDT	7.05	7.00	7.10	45.6	40.0	13.9
Methoxychlor	7.47	7.42	7.52	219.2	200.0	9.6
Endrin ketone	7.98	7.93	8.03	44.3	40.0	10.8
Endrin aldehyde	7.34	7.29	7.39	44.8	40.0	12.0
gamma-Chlordane	6.05	6.01	6.11	22.6	20.0	13.2
alpha-Chlordane	6.18	6.13	6.23	22.4	20.0	11.9
Hexachlorobutadiene	2.34	2.29	2.39	22.2	20.0	11.1
Hexachlorobenzene	4.18	4.13	4.23	23.2	20.0	15.8
Tetrachloro-m-xylene	3.83	3.79	3.89	44.2	40.0	10.6
Decachlorobiphenyl	8.83	8.78	8.88	40.6	40.0	1.6

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/05/13,2235

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	4.75	4.71	4.81	23.5	20.0	17.3
beta-BHC	5.18	5.13	5.23	22.9	20.0	14.3
delta-BHC	5.50	5.45	5.55	23.5	20.0	17.6
gamma-BHC (Lindane)	5.11	5.07	5.17	23.4	20.0	17.0
Heptachlor	5.58	5.53	5.63	23.2	20.0	16.2
Aldrin	5.92	5.87	5.97	23.5	20.0	17.2
Heptachlor epoxide b	6.47	6.43	6.53	23.2	20.0	16.1
Endosulfan I	6.86	6.81	6.91	23.5	20.0	17.4
Dieldrin	7.12	7.07	7.17	46.5	40.0	16.4
4,4'-DDE	6.92	6.87	6.97	46.3	40.0	15.8
Endrin	7.41	7.36	7.46	43.1	40.0	7.7
Endosulfan II	7.60	7.55	7.65	43.5	40.0	8.6
4,4'-DDD	7.46	7.41	7.51	43.8	40.0	9.6
Endosulfan sulfate	8.14	8.09	8.19	43.5	40.0	8.8
4,4'-DDT	7.74	7.70	7.80	44.2	40.0	10.5
Methoxychlor	8.33	8.28	8.38	209.9	200.0	4.9
Endrin ketone	8.63	8.58	8.68	42.8	40.0	6.9
Endrin aldehyde	7.89	7.85	7.95	43.5	40.0	8.8
gamma-Chlordane	6.66	6.61	6.71	23.4	20.0	17.2
alpha-Chlordane	6.79	6.75	6.85	23.3	20.0	16.5
Hexachlorobutadiene	2.50	2.45	2.55	21.6	20.0	7.8
Hexachlorobenzene	4.63	4.58	4.68	22.4	20.0	11.8
Tetrachloro-m-xylene	4.16	4.12	4.22	44.4	40.0	10.9
Decachlorobiphenyl	9.79	9.75	9.85	40.8	40.0	2.1

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: WJ10

Analysis Date: 06-APR-2013 00:40 Init. Calib. Date: 05-APR-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.232	66596
Endrin	6.754	6364919
4,4'-DDD	6.789	156364
4,4'-DDT	7.047	6312044
Endrin ketone	7.983	325502
Endrin aldehyde	7.337	229885

DDT Percent Breakdown = 3.4 %
((66596+156364) * 100)/(66596+156364+6312044)

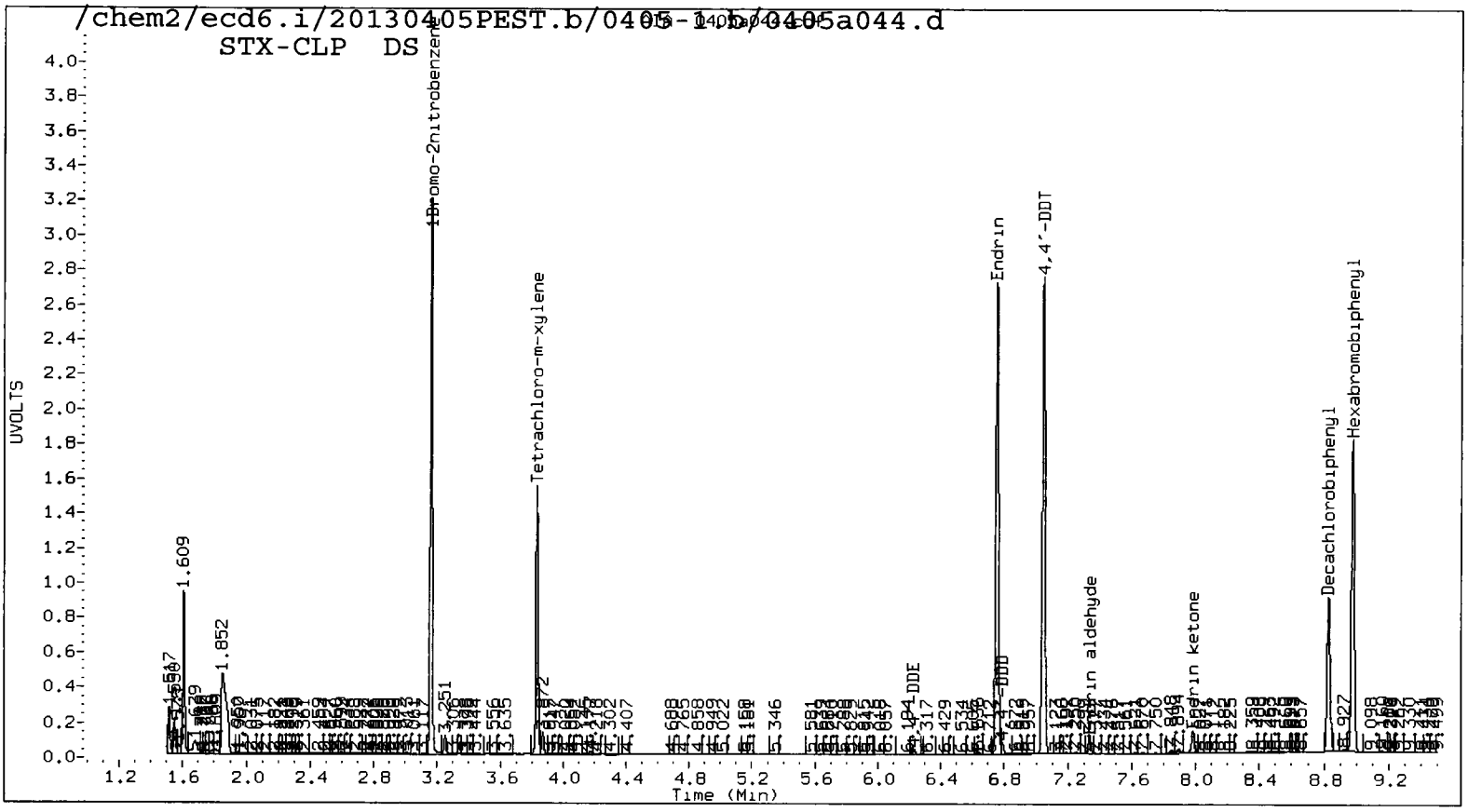
Endrin Percent Breakdown = 8.0 %
((229885+325502) * 100)/(229885+325502+6364919)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.918	261409
Endrin	7.408	19291504
4,4'-DDD	7.455	1128948
4,4'-DDT	7.744	19688039
Endrin ketone	8.630	1133779
Endrin aldehyde	7.894	836392

DDT Percent Breakdown = 6.6 %
((261409+1128948) * 100)/(261409+1128948+19688039)

Endrin Percent Breakdown = 9.3 %
((836392+1133779) * 100)/(836392+1133779+19291504)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UVOLTS
Time (Min)
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Tetrachloro-m-xylene
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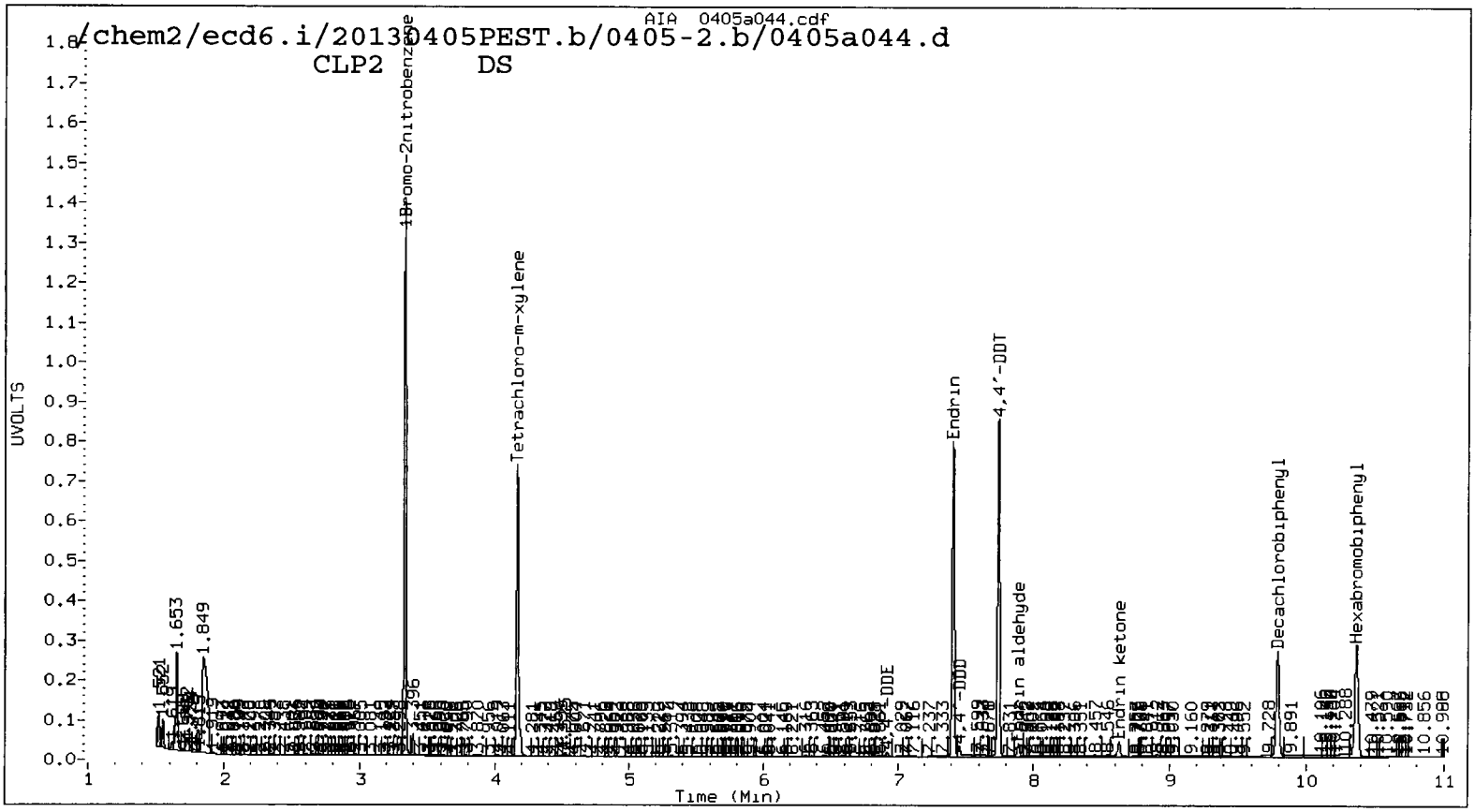
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
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1.849
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
4,4'-DDE
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/06/13,0058

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	4.75	4.71	4.81	22.6	20.0	13.1
beta-BHC	5.18	5.13	5.23	21.9	20.0	9.7
delta-BHC	5.50	5.45	5.55	22.8	20.0	14.2
gamma-BHC (Lindane)	5.11	5.07	5.17	22.6	20.0	13.1
Heptachlor	5.58	5.53	5.63	22.4	20.0	11.8
Aldrin	5.92	5.87	5.97	22.1	20.0	10.7
Heptachlor epoxide b	6.47	6.43	6.53	21.8	20.0	8.9
Endosulfan I	6.86	6.81	6.91	21.3	20.0	6.7
Dieldrin	7.12	7.07	7.17	43.0	40.0	7.6
4,4'-DDE	6.92	6.87	6.97	41.9	40.0	4.7
Endrin	7.41	7.36	7.46	40.9	40.0	2.3
Endosulfan II	7.60	7.55	7.65	41.6	40.0	3.9
4,4'-DDD	7.45	7.41	7.51	41.7	40.0	4.2
Endosulfan sulfate	8.14	8.09	8.19	41.3	40.0	3.2
4,4'-DDT	7.74	7.70	7.80	41.9	40.0	4.8
Methoxychlor	8.33	8.28	8.38	207.5	200.0	3.7
Endrin ketone	8.63	8.58	8.68	41.4	40.0	3.6
Endrin aldehyde	7.89	7.85	7.95	41.6	40.0	3.9
gamma-Chlordane	6.66	6.61	6.71	21.7	20.0	8.2
alpha-Chlordane	6.79	6.75	6.85	21.2	20.0	6.2
Hexachlorobutadiene	2.50	2.45	2.55	21.5	20.0	7.7
Hexachlorobenzene	4.63	4.58	4.68	21.5	20.0	7.4
Tetrachloro-m-xylene	4.16	4.12	4.22	43.0	40.0	7.6
Decachlorobiphenyl	9.79	9.75	9.85	39.9	40.0	-0.2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/06/13,0058

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
alpha-BHC	4.33	4.28	4.38	23.1	20.0	15.5
beta-BHC	4.69	4.64	4.74	21.4	20.0	7.1
delta-BHC	4.86	4.81	4.91	22.9	20.0	14.6
gamma-BHC (Lindane)	4.61	4.56	4.66	22.8	20.0	14.2
Heptachlor	5.06	5.02	5.12	22.5	20.0	12.5
Aldrin	5.36	5.31	5.41	22.8	20.0	13.8
Heptachlor epoxide b	5.93	5.89	5.99	21.9	20.0	9.6
Endosulfan I	6.31	6.26	6.36	21.7	20.0	8.7
Dieldrin	6.53	6.49	6.59	44.6	40.0	11.5
4,4'-DDE	6.23	6.18	6.28	43.9	40.0	9.8
Endrin	6.75	6.71	6.81	45.6	40.0	14.1
Endosulfan II	6.96	6.91	7.01	45.3	40.0	13.2
4,4'-DDD	6.79	6.74	6.84	45.9	40.0	14.6
Endosulfan sulfate	7.73	7.68	7.78	44.6	40.0	11.5
4,4'-DDT	7.05	7.00	7.10	45.3	40.0	13.3
Methoxychlor	7.47	7.42	7.52	221.4	200.0	10.7
Endrin ketone	7.98	7.93	8.03	44.5	40.0	11.2
Endrin aldehyde	7.34	7.29	7.39	45.0	40.0	12.6
gamma-Chlordane	6.05	6.01	6.11	22.0	20.0	10.1
alpha-Chlordane	6.18	6.13	6.23	21.7	20.0	8.7
Hexachlorobutadiene	2.34	2.29	2.39	22.0	20.0	10.2
Hexachlorobenzene	4.18	4.13	4.23	21.3	20.0	6.7
Tetrachloro-m-xylene	3.83	3.79	3.89	44.1	40.0	10.3
Decachlorobiphenyl	8.83	8.78	8.88	40.6	40.0	1.4

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPHENE Date/Time Analyzed: 04/05/13,2311

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
Toxaphene -1	7.01	6.96	7.06	2530	2500	1.2
Toxaphene -2	7.06	7.01	7.11	2520	2500	0.8
Toxaphene -3	7.32	7.27	7.37	2530	2500	1.2
Toxaphene -4	7.64	7.59	7.69	2520	2500	0.8
Toxaphene -5	7.68	7.63	7.73	2510	2500	0.4
Toxaphene -6	7.96	7.92	8.02	2500	2500	0.0

AVERAGE %D = 0.7

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPHENE Date/Time Analyzed: 04/05/13,2311

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Toxaphene -1	7.34	7.29	7.39	2460	2500	-1.6
Toxaphene -2	7.67	7.62	7.72	2460	2500	-1.6
Toxaphene -3	7.90	7.85	7.95	2460	2500	-1.6
Toxaphene -4	8.37	8.32	8.42	2470	2500	-1.2
Toxaphene -5	8.41	8.36	8.46	2470	2500	-1.2

AVERAGE %D = 1.4

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPHENE Date/Time Analyzed: 04/06/13,0116

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Toxaphene -1	7.34	7.29	7.39	2380	2500	-4.8
Toxaphene -2	7.67	7.62	7.72	2410	2500	-3.6
Toxaphene -3	7.90	7.85	7.95	2350	2500	-6.0
Toxaphene -4	8.36	8.32	8.42	2400	2500	-4.0
Toxaphene -5	8.40	8.36	8.46	2390	2500	-4.4

AVERAGE %D = 4.6

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPHENE Date/Time Analyzed: 04/06/13,0116

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
Toxaphene -1	7.01	6.96	7.06	2520	2500	0.8
Toxaphene -2	7.06	7.01	7.11	2510	2500	0.4
Toxaphene -3	7.32	7.27	7.37	2510	2500	0.4
Toxaphene -4	7.64	7.59	7.69	2500	2500	0.0
Toxaphene -5	7.68	7.63	7.73	2510	2500	0.4
Toxaphene -6	7.96	7.92	8.02	2470	2500	-1.2

AVERAGE %D = 0.5

FORM VII PEST-3

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: WJ10

Analysis Date: 09-APR-2013 15:02 Init. Calib. Date: 05-APR-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.233	76573
Endrin	6.755	6030356
4,4'-DDD	6.789	192739
4,4'-DDT	7.048	6061652
Endrin ketone	7.984	386318
Endrin aldehyde	7.338	284615

DDT Percent Breakdown = 4.3 %
((76573+192739) * 100)/(76573+192739+6061652)

Endrin Percent Breakdown = 10.0 %
((284615+386318) * 100)/(284615+386318+6030356)

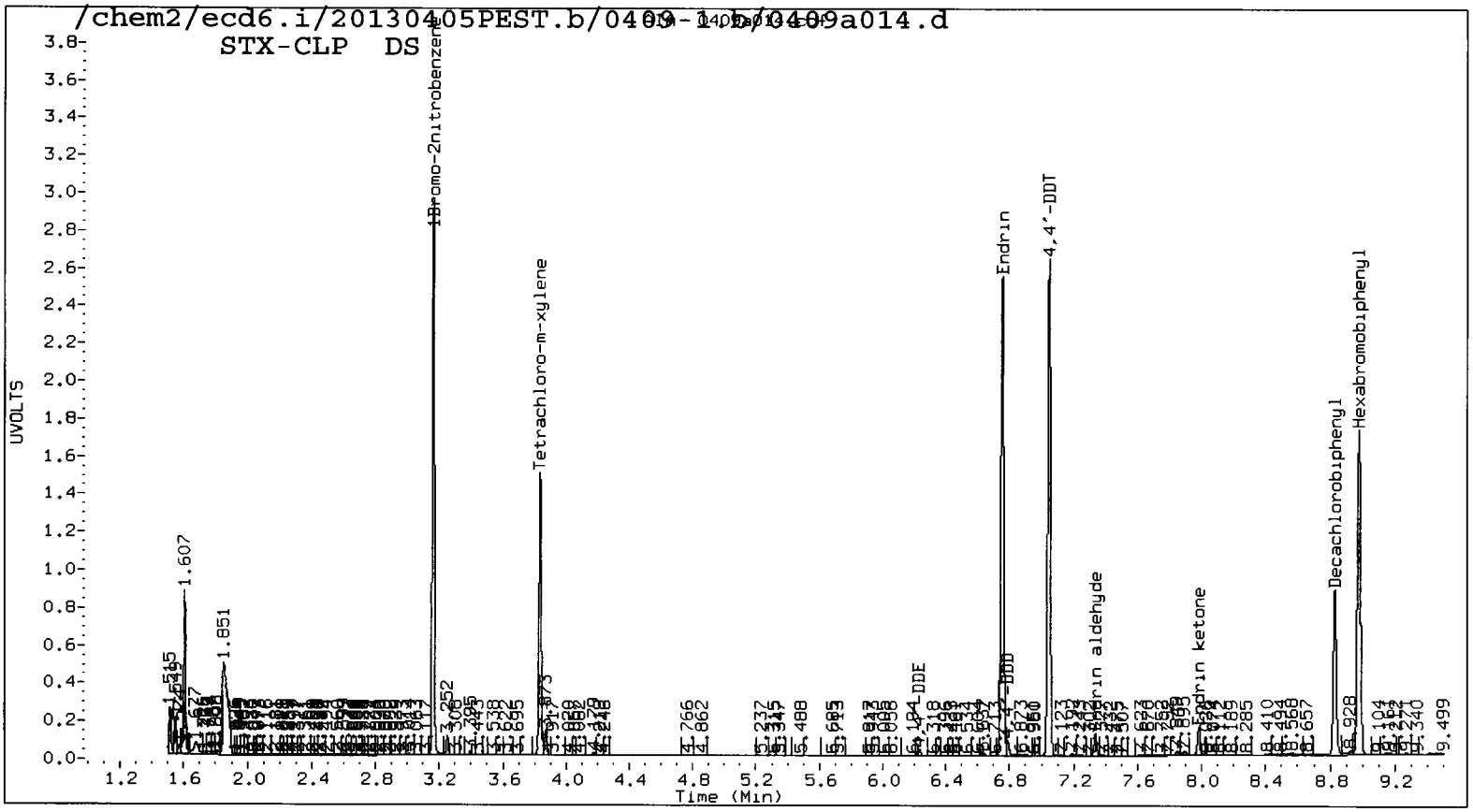
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.919	314458
Endrin	7.410	20547999
4,4'-DDD	7.457	1210767
4,4'-DDT	7.746	21303092
Endrin ketone	8.632	1094702
Endrin aldehyde	7.895	1098245

DDT Percent Breakdown = 6.7 %
((314458+1210767) * 100)/(314458+1210767+21303092)

Endrin Percent Breakdown = 9.6 %
((1098245+1094702) * 100)/(1098245+1094702+20547999)

Form VII Pest-1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UVOLTS
Time (Min)
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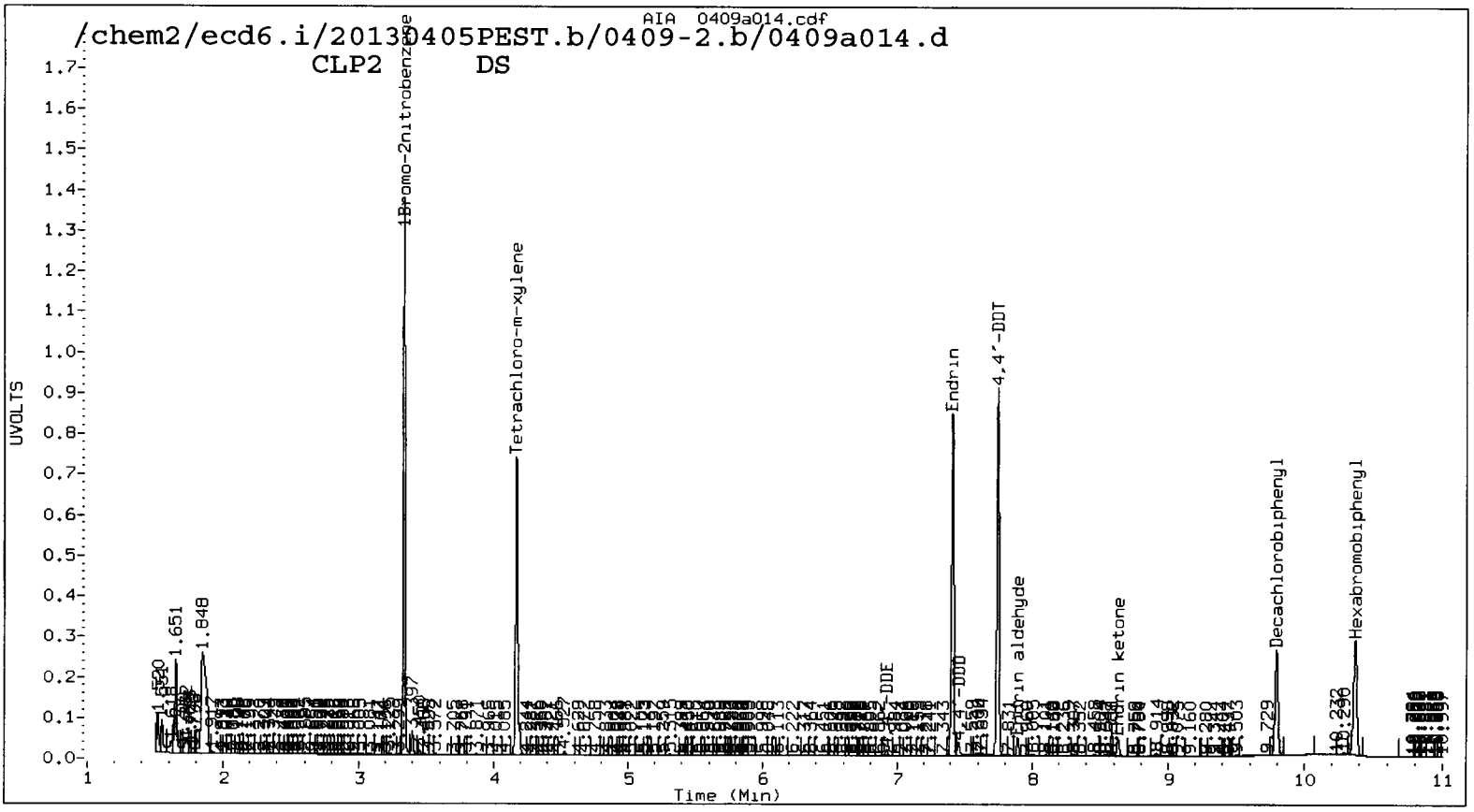
1.851
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
1.651
1.848
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/09/13,1520

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.33	4.28	4.38	17.8	20.0	-10.8	
beta-BHC	4.69	4.64	4.74	16.7	20.0	-16.7	
delta-BHC	4.86	4.81	4.91	17.6	20.0	-11.9	
gamma-BHC (Lindane)	4.61	4.56	4.66	17.7	20.0	-11.3	
Heptachlor	5.06	5.02	5.12	17.3	20.0	-13.6	
Aldrin	5.36	5.31	5.41	17.6	20.0	-12.2	
Heptachlor epoxide b	5.94	5.89	5.99	17.2	20.0	-14.0	
Endosulfan I	6.31	6.26	6.36	17.2	20.0	-14.2	
Dieldrin	6.54	6.49	6.59	35.1	40.0	-12.2	
4,4'-DDE	6.23	6.18	6.28	33.9	40.0	-15.2	
Endrin	6.75	6.71	6.81	33.8	40.0	-15.6	
Endosulfan II	6.96	6.91	7.01	34.5	40.0	-13.9	
4,4'-DDD	6.79	6.74	6.84	34.6	40.0	-13.5	
Endosulfan sulfate	7.73	7.68	7.78	34.0	40.0	-15.0	
4,4'-DDT	7.05	7.00	7.10	34.2	40.0	-14.4	
Methoxychlor	7.47	7.42	7.52	166.0	200.0	-17.0	
Endrin ketone	7.98	7.93	8.03	34.0	40.0	-15.1	
Endrin aldehyde	7.34	7.29	7.39	33.7	40.0	-15.9	
gamma-Chlordane	6.05	6.01	6.11	17.3	20.0	-13.4	
alpha-Chlordane	6.18	6.13	6.23	17.1	20.0	-14.4	
Hexachlorobutadiene	2.34	2.29	2.39	17.0	20.0	-15.0	
Hexachlorobenzene	4.18	4.13	4.23	16.4	20.0	-17.8	
Tetrachloro-m-xylene	3.84	3.79	3.89	33.9	40.0	-15.3	
Decachlorobiphenyl	8.83	8.78	8.88	31.2	40.0	-22.0	<-

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/09/13,1520

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
alpha-BHC	4.76	4.71	4.81	18.0	20.0	-9.8
beta-BHC	5.19	5.13	5.23	17.2	20.0	-14.1
delta-BHC	5.50	5.45	5.55	17.7	20.0	-11.7
gamma-BHC (Lindane)	5.12	5.07	5.17	17.9	20.0	-10.4
Heptachlor	5.58	5.53	5.63	17.4	20.0	-12.8
Aldrin	5.92	5.87	5.97	17.6	20.0	-11.9
Heptachlor epoxide b	6.47	6.43	6.53	17.6	20.0	-11.8
Endosulfan I	6.86	6.81	6.91	17.7	20.0	-11.5
Dieldrin	7.12	7.07	7.17	35.1	40.0	-12.2
4,4'-DDE	6.92	6.87	6.97	34.6	40.0	-13.4
Endrin	7.41	7.36	7.46	32.3	40.0	-19.3
Endosulfan II	7.60	7.55	7.65	32.9	40.0	-17.6
4,4'-DDD	7.46	7.41	7.51	33.0	40.0	-17.5
Endosulfan sulfate	8.14	8.09	8.19	33.2	40.0	-17.0
4,4'-DDT	7.75	7.70	7.80	33.1	40.0	-17.2
Methoxychlor	8.33	8.28	8.38	160.0	200.0	-20.0
Endrin ketone	8.63	8.58	8.68	32.7	40.0	-18.3
Endrin aldehyde	7.90	7.85	7.95	32.7	40.0	-18.2
gamma-Chlordane	6.66	6.61	6.71	17.6	20.0	-12.2
alpha-Chlordane	6.79	6.75	6.85	17.6	20.0	-12.2
Hexachlorobutadiene	2.50	2.45	2.55	16.8	20.0	-15.8
Hexachlorobenzene	4.63	4.58	4.68	17.4	20.0	-13.1
Tetrachloro-m-xylene	4.17	4.12	4.22	34.2	40.0	-14.5
Decachlorobiphenyl	9.80	9.75	9.85	32.0	40.0	-20.0

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 04/09/13,1538

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
Toxaphene -1	7.01	6.96	7.06	2270	2500	-9.2
Toxaphene -2	7.06	7.01	7.11	2250	2500	-10.0
Toxaphene -3	7.32	7.27	7.37	2250	2500	-10.0
Toxaphene -4	7.64	7.59	7.69	2230	2500	-10.8
Toxaphene -5	7.68	7.63	7.73	2230	2500	-10.8
Toxaphene -6	7.97	7.92	8.02	2200	2500	-12.0

AVERAGE %D = 10.5

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 04/09/13,1538

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
Toxaphene -1	7.34	7.29	7.39	2280	2500	-8.8
Toxaphene -2	7.67	7.62	7.72	2260	2500	-9.6
Toxaphene -3	7.90	7.85	7.95	2260	2500	-9.6
Toxaphene -4	8.37	8.32	8.42	2250	2500	-10.0
Toxaphene -5	8.41	8.36	8.46	2250	2500	-10.0

AVERAGE %D = 9.6

FORM VII PEST-3

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: WJ10 YZ 4/11/13

Analysis Date: 09-APR-2013 18:54 Init. Calib. Date: 05-APR-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.233	59807
Endrin	6.755	3567414
4,4'-DDD	6.789	2131771
4,4'-DDT	7.043	1292843
Endrin ketone	7.983	1442659
Endrin aldehyde	7.337	223580

DDT Percent Breakdown = 62.9 %
((59807+2131771) * 100)/(59807+2131771+1292843)

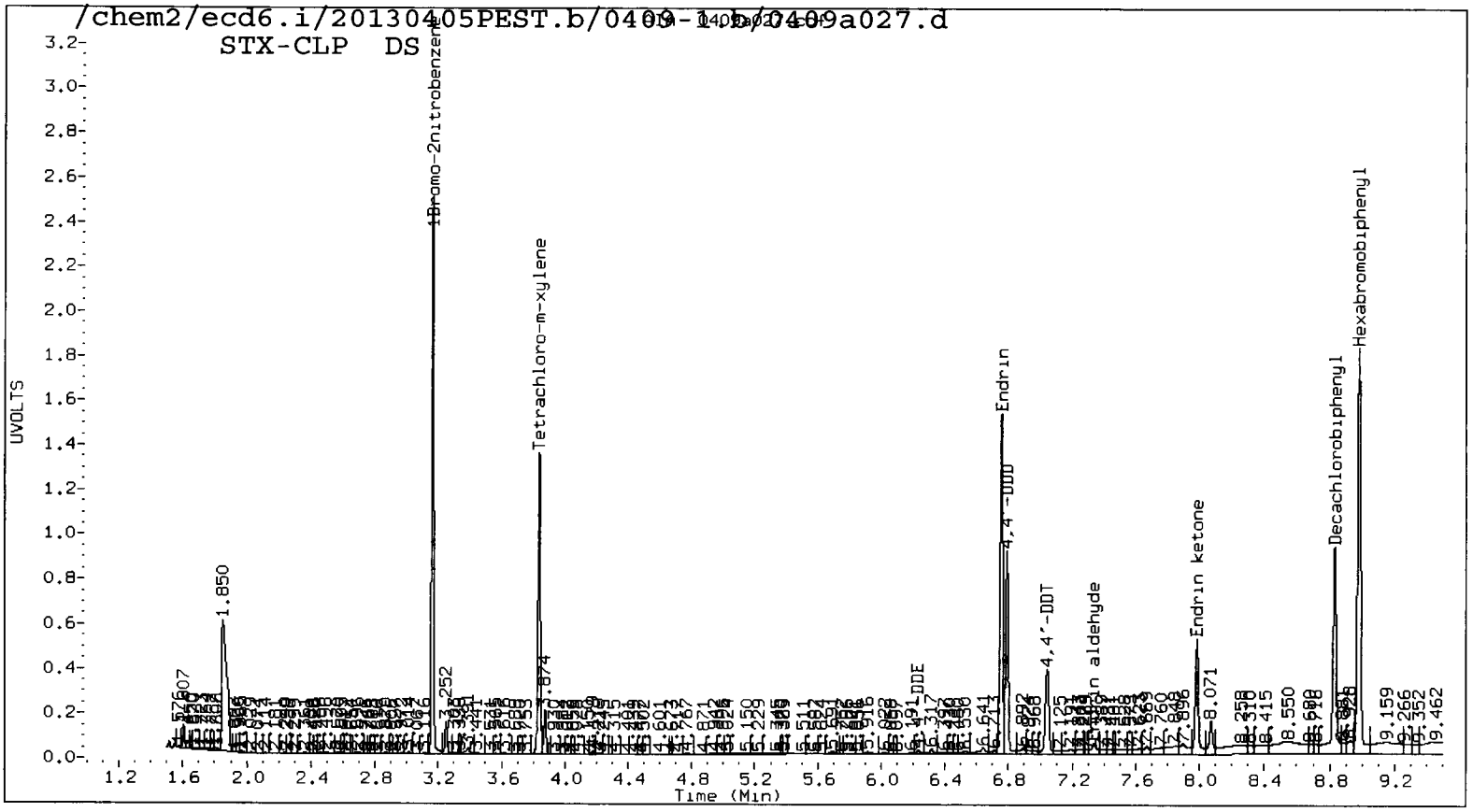
Endrin Percent Breakdown = 31.8 %
((223580+1442659) * 100)/(223580+1442659+3567414)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.918	280146
Endrin	7.409	9910940
4,4'-DDD	7.457	6352674
4,4'-DDT	7.745	2023816
Endrin ketone	8.631	3154998
Endrin aldehyde	7.894	348744

DDT Percent Breakdown = 76.6 %
((280146+6352674) * 100)/(280146+6352674+2023816)

Endrin Percent Breakdown = 26.1 %
((348744+3154998) * 100)/(348744+3154998+9910940)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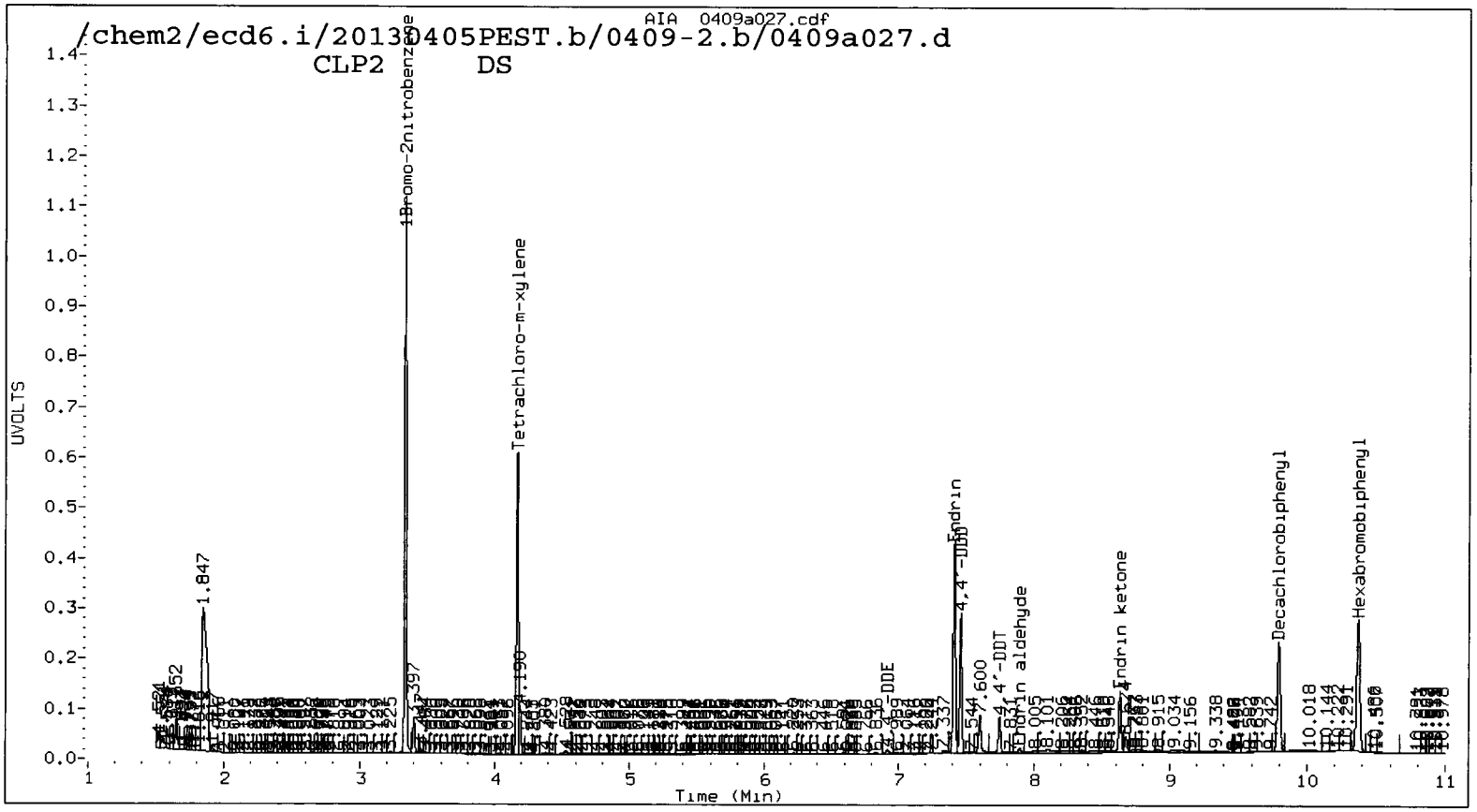
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
1.850
DDE
UVOLTS
Time (Min)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CLP2 DS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
1.847
DDE
UVOLTS
Time (Min)

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/09/13,1912

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.76	4.71	4.81	17.4	20.0	-13.0	
beta-BHC	5.19	5.13	5.23	14.5	20.0	-27.7	<-
delta-BHC	5.50	5.45	5.55	15.7	20.0	-21.7	<-
gamma-BHC (Lindane)	5.12	5.07	5.17	13.6	20.0	-31.9	<-
Heptachlor	5.58	5.53	5.63	8.2	20.0	-59.1	<-
Aldrin	5.92	5.87	5.97	16.6	20.0	-17.2	
Heptachlor epoxide b	6.48	6.43	6.53	15.2	20.0	-24.0	<-
Endosulfan I	6.86	6.81	6.91	16.0	20.0	-20.0	
Dieldrin	7.12	7.07	7.17	33.3	40.0	-16.8	
4,4'-DDE	6.92	6.87	6.97	32.1	40.0	-19.8	
Endrin	7.41	7.36	7.46	18.2	40.0	-54.5	<-
Endosulfan II	7.60	7.55	7.65	34.6	40.0	-13.5	
4,4'-DDD	7.46	7.41	7.51	35.3	40.0	-11.8	
Endosulfan sulfate	8.14	8.09	8.19	26.6	40.0	-33.4	<-
4,4'-DDT	7.75	7.70	7.80	4.6	40.0	-88.4	<-
Methoxychlor	8.33	8.28	8.38	35.3	200.0	-82.4	<-
Endrin ketone	8.63	8.58	8.68	20.2	40.0	-49.5	<-
Endrin aldehyde	7.90	7.85	7.95	26.2	40.0	-34.5	<-
gamma-Chlordane	6.66	6.61	6.71	15.5	20.0	-22.6	<-
alpha-Chlordane	6.79	6.75	6.85	15.4	20.0	-22.8	<-
Hexachlorobutadiene	2.50	2.45	2.55	18.6	20.0	-7.2	
Hexachlorobenzene	4.63	4.58	4.68	17.9	20.0	-10.6	
Tetrachloro-m-xylene	4.17	4.12	4.22	31.9	40.0	-20.2	<-
Decachlorobiphenyl	9.80	9.75	9.85	30.4	40.0	-24.0	<-

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/09/13,1912

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.33	4.28	4.38	18.4	20.0	-8.2	
beta-BHC	4.69	4.64	4.74	15.4	20.0	-22.9	<-
delta-BHC	4.86	4.81	4.91	17.7	20.0	-11.4	
gamma-BHC (Lindane)	4.61	4.56	4.66	15.1	20.0	-24.5	<-
Heptachlor	5.06	5.02	5.12	9.2	20.0	-54.1	<-
Aldrin	5.36	5.31	5.41	18.8	20.0	-6.2	
Heptachlor epoxide b	5.94	5.89	5.99	17.7	20.0	-11.3	
Endosulfan I	6.31	6.26	6.36	18.3	20.0	-8.3	
Dieldrin	6.54	6.49	6.59	38.4	40.0	-4.0	
4,4'-DDE	6.23	6.18	6.28	39.4	40.0	-1.6	
Endrin	6.75	6.71	6.81	19.7	40.0	-50.8	<-
Endosulfan II	6.96	6.91	7.01	28.9	40.0	-27.8	<-
4,4'-DDD	6.79	6.74	6.84	39.3	40.0	-1.8	
Endosulfan sulfate	7.73	7.68	7.78	27.8	40.0	-30.6	<-
4,4'-DDT	7.04	7.00	7.10	13.0	40.0	-67.4	<-
Methoxychlor	7.47	7.42	7.52	31.2	200.0	-84.4	<-
Endrin ketone	7.98	7.93	8.03	21.4	40.0	-46.5	<-
Endrin aldehyde	7.34	7.29	7.39	26.2	40.0	-34.6	<-
gamma-Chlordane	6.05	6.01	6.11	17.4	20.0	-12.8	
alpha-Chlordane	6.18	6.13	6.23	17.4	20.0	-13.0	
Hexachlorobutadiene	2.34	2.29	2.39	18.8	20.0	-6.2	
Hexachlorobenzene	4.18	4.13	4.23	17.2	20.0	-14.2	
Tetrachloro-m-xylene	3.84	3.79	3.89	35.8	40.0	-10.5	
Decachlorobiphenyl	8.83	8.78	8.88	35.6	40.0	-11.1	

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 04/09/13,1930

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
Toxaphene -1	7.34	7.29	7.39	922	2500	-63.1	<-
Toxaphene -2	7.67	7.62	7.72	628	2500	-74.9	<-
Toxaphene -3	7.90	7.85	7.95	486	2500	-80.6	<-
Toxaphene -4	8.37	8.32	8.42	268	2500	-89.3	<-
Toxaphene -5	8.41	8.36	8.46	195	2500	-92.2	<-

AVERAGE %D = 80.0

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 04/09/13,1930

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
Toxaphene -1	7.01	6.96	7.06	395	2500	-84.2	<-
Toxaphene -2	7.06	7.01	7.11	620	2500	-75.2	<-
Toxaphene -3	7.32	7.27	7.37	271	2500	-89.2	<-
Toxaphene -4	7.65	7.59	7.69	416	2500	-83.4	<-
Toxaphene -5	7.69	7.63	7.73	390	2500	-84.4	<-
Toxaphene -6	7.97	7.92	8.02	324	2500	-87.0	<-

AVERAGE %D = 83.9

FORM VII PEST-3

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: WJ10

Analysis Date: 10-APR-2013 16:28 Init. Calib. Date: 05-APR-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.235	74477
Endrin	6.756	7756474
4,4'-DDD	6.792	172556
4,4'-DDT	7.050	7413462
Endrin ketone	7.985	268783
Endrin aldehyde	7.340	154374

DDT Percent Breakdown = 3.2 %
((74477+172556) * 100)/(74477+172556+7413462)

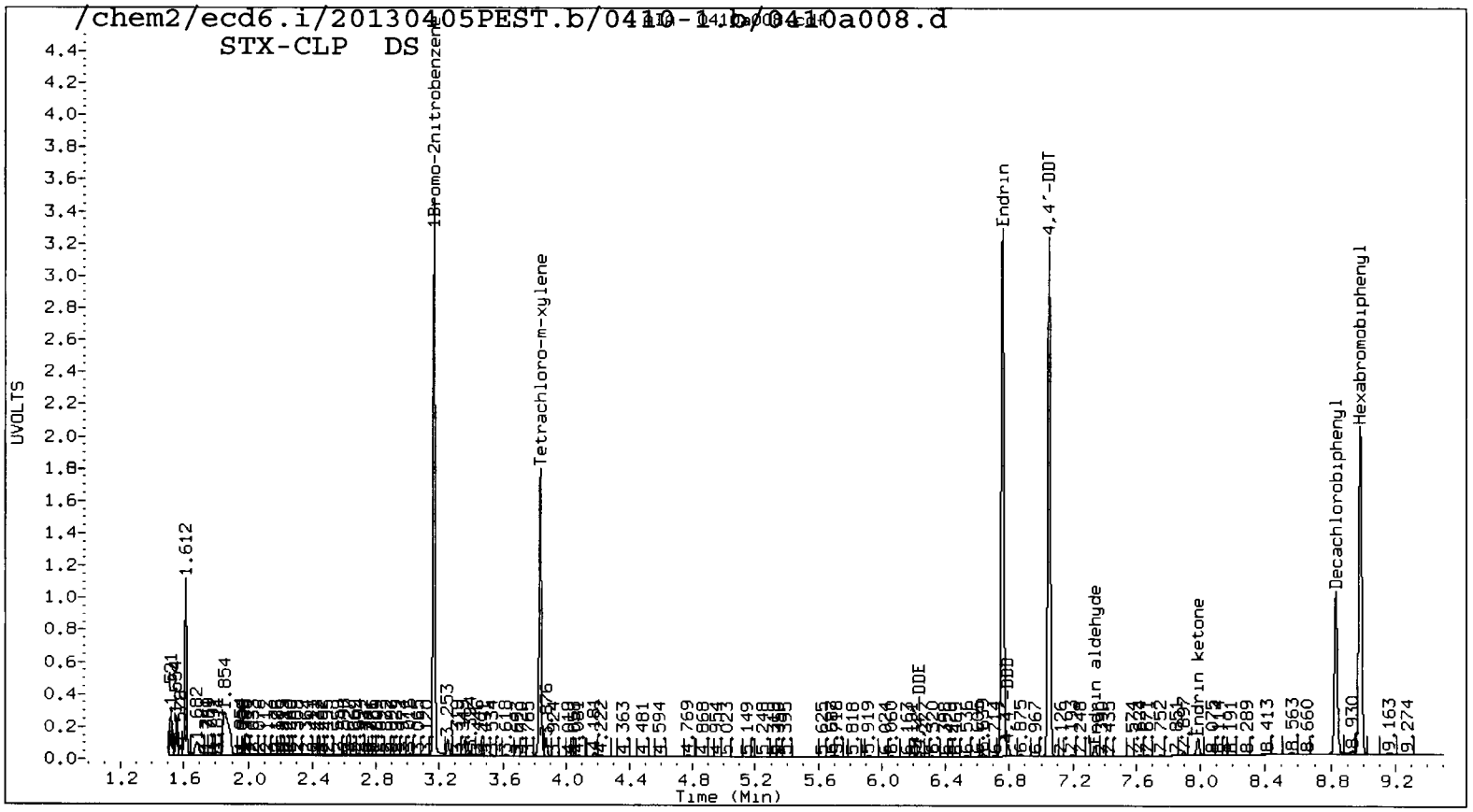
Endrin Percent Breakdown = 5.2 %
((154374+268783) * 100)/(154374+268783+7756474)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.920	323216
Endrin	7.410	26260014
4,4'-DDD	7.457	1349036
4,4'-DDT	7.746	25017556
Endrin ketone	8.632	771790
Endrin aldehyde	7.895	645938

DDT Percent Breakdown = 6.3 %
((323216+1349036) * 100)/(323216+1349036+25017556)

Endrin Percent Breakdown = 5.1 %
((645938+771790) * 100)/(645938+771790+26260014)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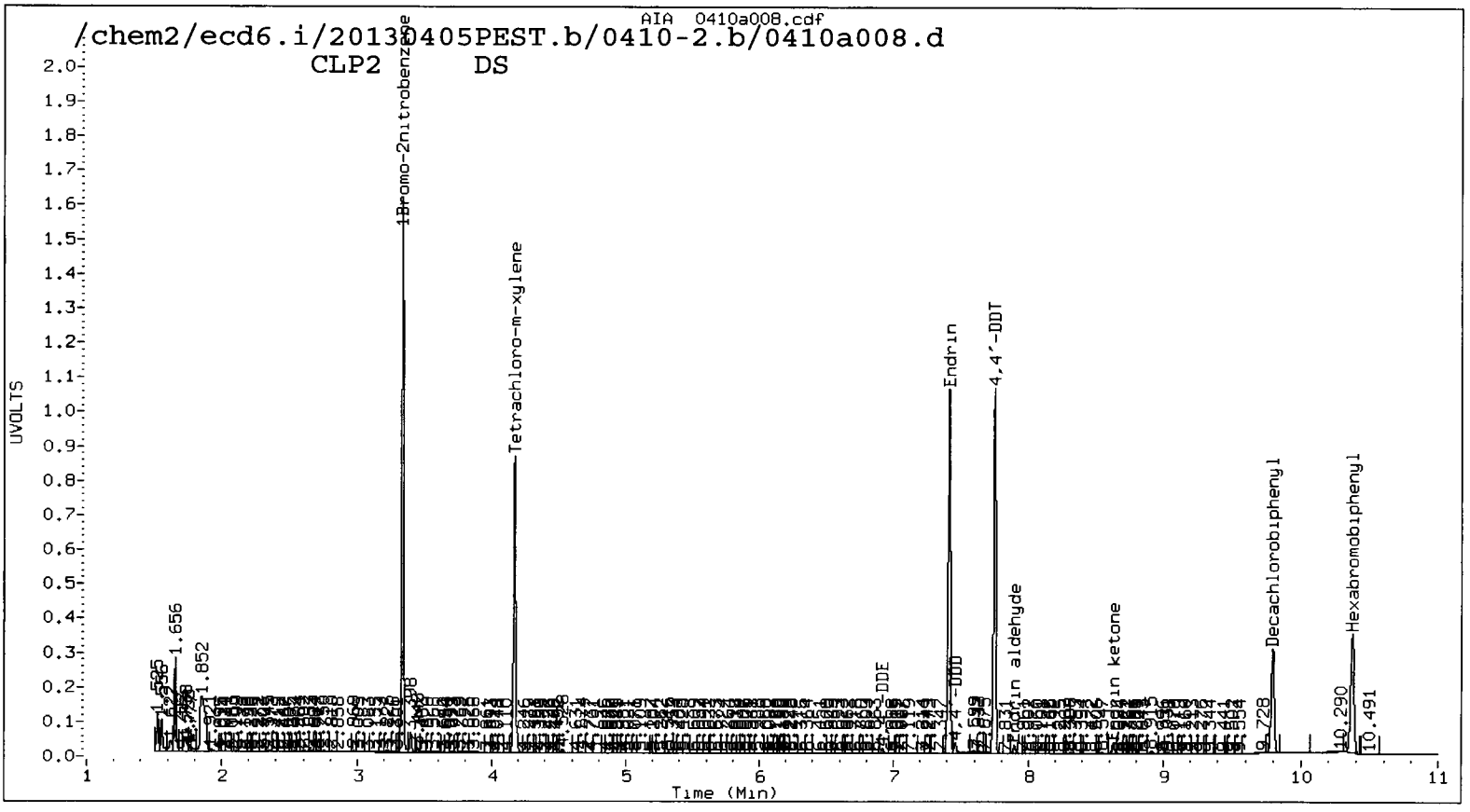
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
1.612
1.854
DDE
UVOLTS
Time (Min)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CLP2 DS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
1.656
1.852
DDE
10.290
10.491
UVOLTS
Time (Min)

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/10/13,1646

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.33	4.28	4.38	24.7	20.0	23.5	<-
beta-BHC	4.69	4.64	4.74	22.7	20.0	13.6	
delta-BHC	4.86	4.81	4.91	23.7	20.0	18.4	
gamma-BHC (Lindane)	4.61	4.56	4.66	24.5	20.0	22.4	<-
Heptachlor	5.06	5.02	5.12	23.8	20.0	19.0	
Aldrin	5.36	5.31	5.41	24.0	20.0	19.8	
Heptachlor epoxide b	5.94	5.89	5.99	23.6	20.0	18.1	
Endosulfan I	6.31	6.26	6.36	23.6	20.0	17.8	
Dieldrin	6.54	6.49	6.59	48.6	40.0	21.5	<-
4,4'-DDE	6.23	6.18	6.28	55.9	40.0	39.8	<-
Endrin	6.75	6.71	6.81	49.7	40.0	24.2	<-
Endosulfan II	6.96	6.91	7.01	45.8	40.0	14.5	
4,4'-DDD	6.79	6.74	6.84	48.0	40.0	20.0	
Endosulfan sulfate	7.73	7.68	7.78	46.4	40.0	16.0	
4,4'-DDT	7.05	7.00	7.10	47.7	40.0	19.2	
Methoxychlor	7.47	7.42	7.52	234.4	200.0	17.2	
Endrin ketone	7.98	7.93	8.03	45.3	40.0	13.3	
Endrin aldehyde	7.34	7.29	7.39	45.8	40.0	14.4	
gamma-Chlordane	6.05	6.01	6.11	23.4	20.0	17.2	
alpha-Chlordane	6.18	6.13	6.23	22.9	20.0	14.4	
Hexachlorobutadiene	2.34	2.29	2.39	24.5	20.0	22.6	<-
Hexachlorobenzene	4.18	4.13	4.23	25.1	20.0	25.3	<-
Tetrachloro-m-xylene	3.84	3.79	3.89	51.1	40.0	27.7	<-
Decachlorobiphenyl	8.83	8.78	8.88	46.9	40.0	17.3	

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/10/13,1646

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.76	4.71	4.81	24.3	20.0	21.3	<-
beta-BHC	5.19	5.13	5.23	22.7	20.0	13.5	
delta-BHC	5.50	5.45	5.55	23.4	20.0	16.9	
gamma-BHC (Lindane)	5.12	5.07	5.17	24.1	20.0	20.3	<-
Heptachlor	5.58	5.53	5.63	23.2	20.0	15.8	
Aldrin	5.92	5.87	5.97	23.4	20.0	16.8	
Heptachlor epoxide b	6.47	6.43	6.53	23.3	20.0	16.6	
Endosulfan I	6.86	6.81	6.91	23.6	20.0	18.0	
Dieldrin	7.12	7.07	7.17	47.4	40.0	18.5	
4,4'-DDE	6.92	6.87	6.97	46.4	40.0	16.0	
Endrin	7.41	7.36	7.46	45.1	40.0	12.8	
Endosulfan II	7.60	7.55	7.65	41.4	40.0	3.6	
4,4'-DDD	7.46	7.41	7.51	43.1	40.0	7.7	
Endosulfan sulfate	8.14	8.09	8.19	41.4	40.0	3.6	
4,4'-DDT	7.74	7.70	7.80	41.6	40.0	3.9	
Methoxychlor	8.33	8.28	8.38	208.3	200.0	4.2	
Endrin ketone	8.63	8.58	8.68	40.4	40.0	1.0	
Endrin aldehyde	7.89	7.85	7.95	40.6	40.0	1.4	
gamma-Chlordane	6.66	6.61	6.71	23.1	20.0	15.4	
alpha-Chlordane	6.79	6.75	6.85	23.1	20.0	15.3	
Hexachlorobutadiene	2.50	2.45	2.55	25.1	20.0	25.6	<-
Hexachlorobenzene	4.63	4.58	4.68	24.2	20.0	21.1	<-
Tetrachloro-m-xylene	4.17	4.12	4.22	48.6	40.0	21.5	<-
Decachlorobiphenyl	9.79	9.75	9.85	43.7	40.0	9.3	

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 04/10/13,1704

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
Toxaphene -1	7.01	6.96	7.06	3140	2500	25.6	<-
Toxaphene -2	7.06	7.01	7.11	3120	2500	24.8	<-
Toxaphene -3	7.32	7.27	7.37	3120	2500	24.8	<-
Toxaphene -4	7.64	7.59	7.69	3130	2500	25.2	<-
Toxaphene -5	7.68	7.63	7.73	3130	2500	25.2	<-
Toxaphene -6	7.97	7.92	8.02	3030	2500	21.2	<-

AVERAGE %D = 24.5

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 04/10/13,1704

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
Toxaphene -1	7.34	7.29	7.39	2940	2500	17.6
Toxaphene -2	7.67	7.62	7.72	2860	2500	14.4
Toxaphene -3	7.90	7.85	7.95	2840	2500	13.6
Toxaphene -4	8.37	8.32	8.42	2810	2500	12.4
Toxaphene -5	8.41	8.36	8.46	2820	2500	12.8

AVERAGE %D = 14.2

FORM VII PEST-3

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: WJ10 YE 4/11/13

Analysis Date: 10-APR-2013 19:44 Init. Calib. Date: 05-APR-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.232	73129
Endrin	6.754	7099652
4,4'-DDD	6.789	779379
4,4'-DDT	7.047	5263953
Endrin ketone	7.983	671167
Endrin aldehyde	7.337	149300

DDT Percent Breakdown = 13.9 %
((73129+779379) * 100)/(73129+779379+5263953)

Endrin Percent Breakdown = 10.4 %
((149300+671167) * 100)/(149300+671167+7099652)

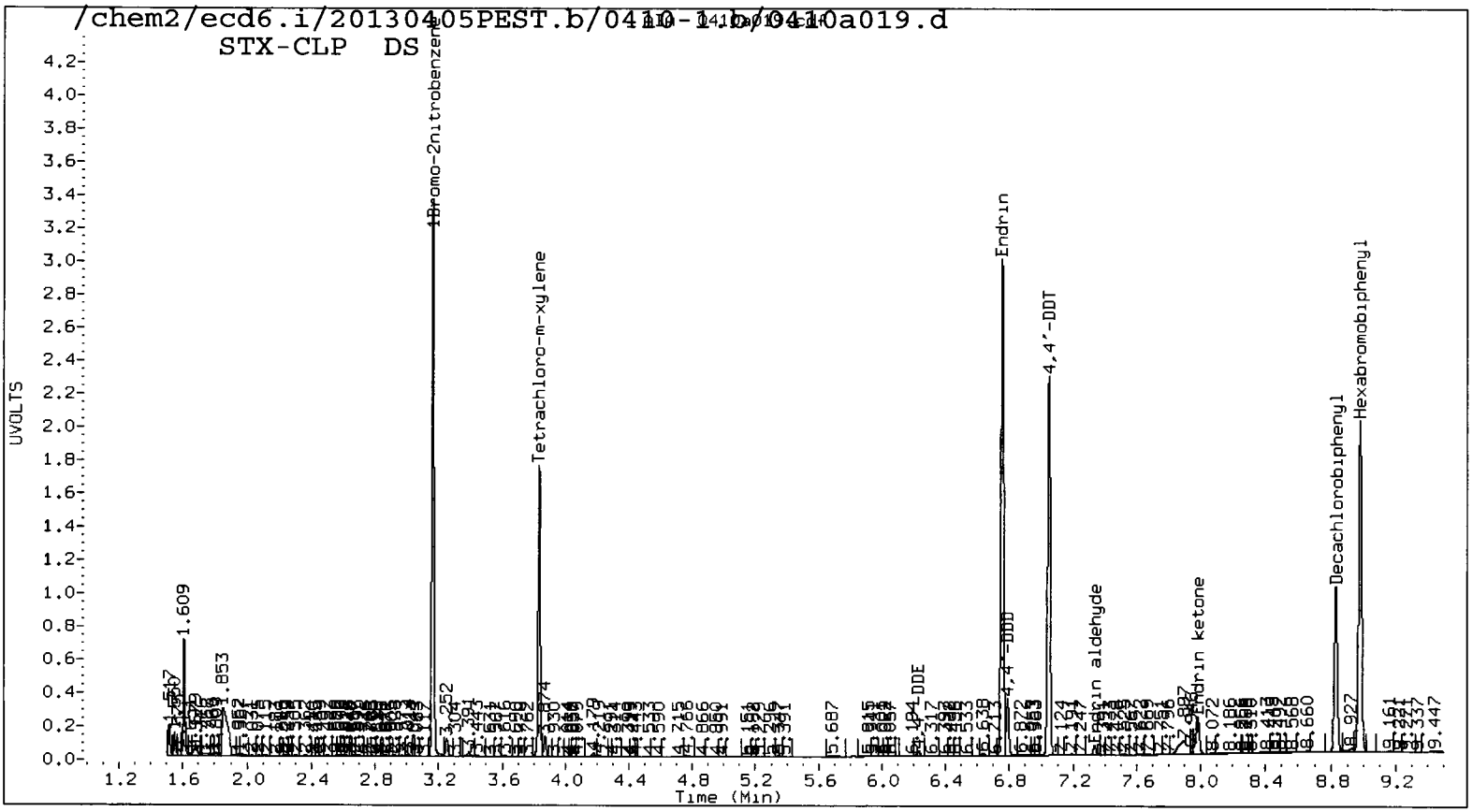
GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.918	269666
Endrin	7.409	21114232
4,4'-DDD	7.456	2516455
4,4'-DDT	7.745	16015410
Endrin ketone	8.631	1334549
Endrin aldehyde	7.895	416210

DDT Percent Breakdown = 14.8 %
((269666+2516455) * 100)/(269666+2516455+16015410)

Endrin Percent Breakdown = 7.7 %
((416210+1334549) * 100)/(416210+1334549+21114232)

Form VII Pest-1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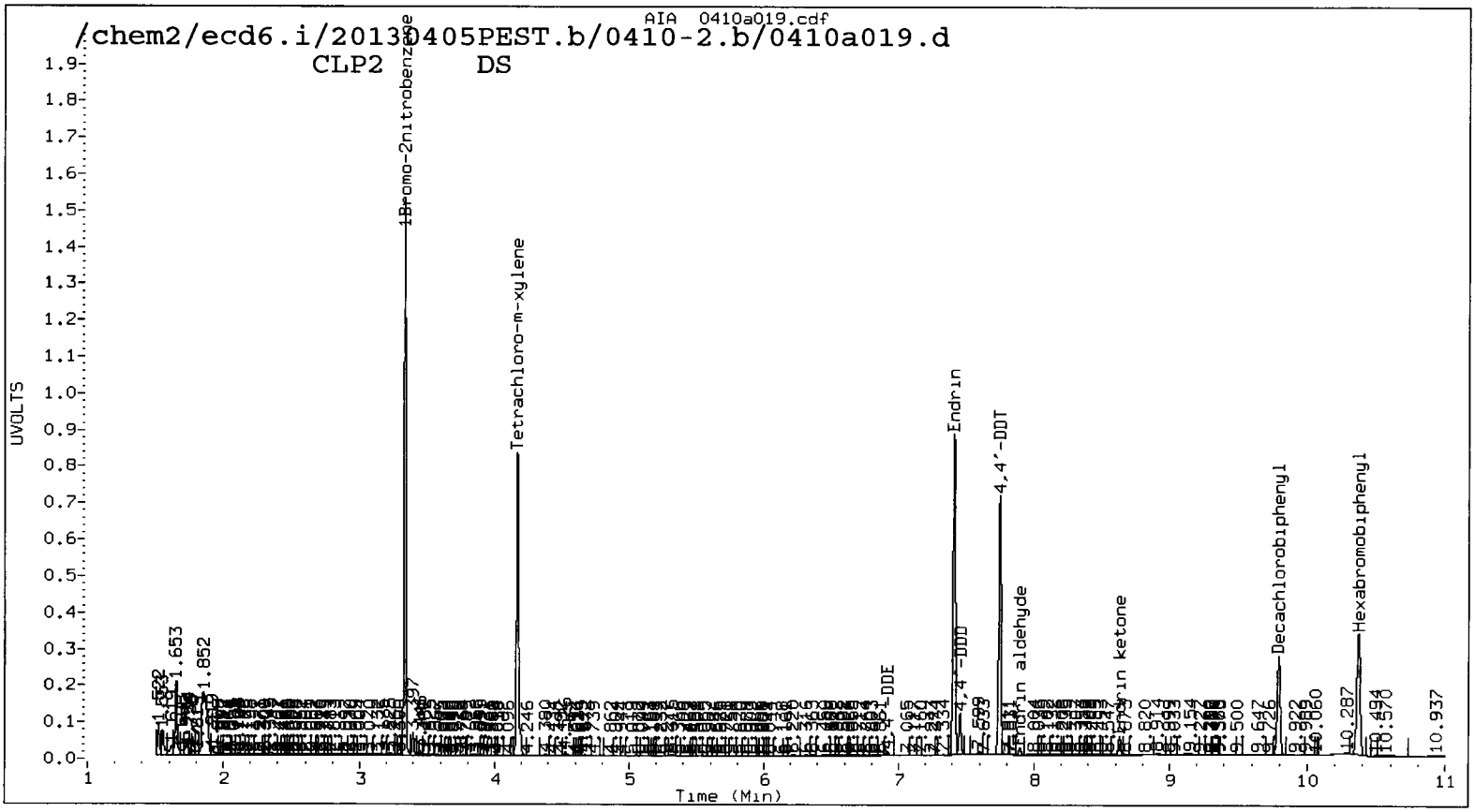
STX-CLP DS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
Endrin aldehyde
Endrin ketone
1.609
1.853
3.252
3.874
UVOLTS
Time (Min)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CLP2 DS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
Endrin aldehyde
Endrin ketone
1.653
1.852
10.282
10.494
10.937
UVOLTS
Time (Min)

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/10/13,2002

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.33	4.28	4.38	25.0	20.0	24.9	<-
beta-BHC	4.69	4.64	4.74	22.7	20.0	13.6	
delta-BHC	4.86	4.81	4.91	23.2	20.0	16.2	
gamma-BHC (Lindane)	4.61	4.56	4.66	24.5	20.0	22.6	<-
Heptachlor	5.06	5.02	5.12	22.8	20.0	14.1	
Aldrin	5.36	5.31	5.41	24.3	20.0	21.4	<-
Heptachlor epoxide b	5.93	5.89	5.99	23.6	20.0	18.1	
Endosulfan I	6.31	6.26	6.36	23.6	20.0	18.0	
Dieldrin	6.53	6.49	6.59	48.5	40.0	21.1	<-
4,4'-DDE	6.23	6.18	6.28	55.8	40.0	39.6	<-
Endrin	6.75	6.71	6.81	45.9	40.0	14.8	
Endosulfan II	6.96	6.91	7.01	44.0	40.0	10.0	
4,4'-DDD	6.79	6.74	6.84	50.1	40.0	25.3	<-
Endosulfan sulfate	7.73	7.68	7.78	43.9	40.0	9.8	
4,4'-DDT	7.05	7.00	7.10	35.1	40.0	-12.3	
Methoxychlor	7.47	7.42	7.52	183.2	200.0	-8.4	
Endrin ketone	7.98	7.93	8.03	43.2	40.0	8.1	
Endrin aldehyde	7.34	7.29	7.39	39.4	40.0	-1.5	
gamma-Chlordane	6.05	6.01	6.11	23.2	20.0	16.2	
alpha-Chlordane	6.18	6.13	6.23	23.0	20.0	14.9	
Hexachlorobutadiene	2.34	2.29	2.39	25.1	20.0	25.4	<-
Hexachlorobenzene	4.18	4.13	4.23	23.8	20.0	18.8	
Tetrachloro-m-xylene	3.84	3.79	3.89	51.5	40.0	28.9	<-
Decachlorobiphenyl	8.83	8.78	8.88	45.3	40.0	13.1	

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: INDAE Date/Time Analyzed: 04/10/13,2002

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.75	4.71	4.81	24.3	20.0	21.5	<-
beta-BHC	5.18	5.13	5.23	22.1	20.0	10.6	
delta-BHC	5.50	5.45	5.55	22.0	20.0	9.9	
gamma-BHC (Lindane)	5.11	5.07	5.17	23.5	20.0	17.5	
Heptachlor	5.58	5.53	5.63	21.4	20.0	7.1	
Aldrin	5.92	5.87	5.97	22.7	20.0	13.3	
Heptachlor epoxide b	6.47	6.43	6.53	21.9	20.0	9.7	
Endosulfan I	6.86	6.81	6.91	22.0	20.0	10.0	
Dieldrin	7.12	7.07	7.17	43.7	40.0	9.3	
4,4'-DDE	6.92	6.87	6.97	42.6	40.0	6.5	
Endrin	7.41	7.36	7.46	40.4	40.0	1.0	
Endosulfan II	7.60	7.55	7.65	39.8	40.0	-0.6	
4,4'-DDD	7.46	7.41	7.51	43.1	40.0	7.7	
Endosulfan sulfate	8.14	8.09	8.19	38.5	40.0	-3.8	
4,4'-DDT	7.74	7.70	7.80	29.0	40.0	-27.4	<-
Methoxychlor	8.33	8.28	8.38	161.8	200.0	-19.1	
Endrin ketone	8.63	8.58	8.68	37.9	40.0	-5.3	
Endrin aldehyde	7.89	7.85	7.95	34.8	40.0	-13.0	
gamma-Chlordane	6.66	6.61	6.71	21.5	20.0	7.5	
alpha-Chlordane	6.79	6.75	6.85	21.4	20.0	6.8	
Hexachlorobutadiene	2.50	2.45	2.55	25.3	20.0	26.4	<-
Hexachlorobenzene	4.63	4.58	4.68	24.6	20.0	23.0	<-
Tetrachloro-m-xylene	4.17	4.12	4.22	49.4	40.0	23.4	<-
Decachlorobiphenyl	9.79	9.75	9.85	42.5	40.0	6.3	

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 04/10/13,2019

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
Toxaphene -1	7.01	6.96	7.06	2820	2500	12.8
Toxaphene -2	7.06	7.01	7.11	2850	2500	14.0
Toxaphene -3	7.32	7.27	7.37	2670	2500	6.8
Toxaphene -4	7.64	7.59	7.69	2600	2500	4.0
Toxaphene -5	7.68	7.63	7.73	2430	2500	-2.8
Toxaphene -6	7.96	7.92	8.02	2420	2500	-3.2

AVERAGE %D = 7.3

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 04/05/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 04/10/13,2019

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
Toxaphene -1	7.34	7.29	7.39	2780	2500	11.2
Toxaphene -2	7.67	7.62	7.72	2610	2500	4.4
Toxaphene -3	7.90	7.85	7.95	2000	2500	-20.0
Toxaphene -4	8.37	8.32	8.42	2250	2500	-10.0
Toxaphene -5	8.41	8.36	8.46	2050	2500	-18.0

AVERAGE %D = 12.7

FORM VII PEST-3

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 04/05/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

					IS1 AREA	RT	IS2 AREA	RT
				ICAL MIDPT	5448520	3.165	4807902	8.980
				UPPER LIMIT	10897040	3.215	9615804	9.030
				LOWER LIMIT	2724260	3.115	2403951	8.930
	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		INDAE	04/05/13	1247	5448520	3.165	4807902	8.980
02		INDAA	04/05/13	1305	6225835	3.164	5241456	8.979
03		INDAB	04/05/13	1323	6111022	3.164	5357211	8.979
04		INDAC	04/05/13	1341	5854383	3.165	5133358	8.979
05		INDAD	04/05/13	1358	5880001	3.165	5227384	8.979
06		INDAF	04/05/13	1417	4847986	3.165	4193877	8.980
07		INDAG	04/05/13	1435	5342959	3.165	4760154	8.980
08		TOXAPHENE	04/05/13	1528	5312805	3.165	4975008	8.979
09		DS	04/05/13	2218	5455177	3.164	4697990	8.978
10		INDAE	04/05/13	2235	4470177	3.164	3897078	8.978
11		TOXAPHENE	04/05/13	2311	5003729	3.164	4674764	8.978
12	WJ10MBW1	WJ10MBW1	04/05/13	2329	5251079	3.163	4671912	8.977
13	WJ10LCSW1	WJ10LCSW1	04/05/13	2347	5150208	3.163	4456497	8.978
14	WJ10LCSDW1	WJ10LCSDW1	04/06/13	0005	5484149	3.163	4819837	8.977
15	SD-SP-01-201	WJ10A	04/06/13	0022	5274634	3.163	6231824	9.007
16		DS	04/06/13	0040	5494085	3.164	4611396	8.978
17		INDAE	04/06/13	0058	4572615	3.164	3903925	8.978
18		TOXAPHENE	04/06/13	0116	5103104	3.164	4689885	8.978

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 04/05/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	21702340	3.333	7681727	10.368
	UPPER LIMIT	43404680	3.383	15363454	10.418
	LOWER LIMIT	10851170	3.283	3840864	10.318

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		INDAE	04/05/13	1247	21702340	3.333	7681727	10.368
02		INDAA	04/05/13	1305	24741508	3.333	9038709	10.366
03		INDAB	04/05/13	1323	25491655	3.333	9687228	10.367
04		INDAC	04/05/13	1341	25508207	3.333	9574018	10.367
05		INDAD	04/05/13	1358	26036651	3.334	9979752	10.368
06		INDAF	04/05/13	1417	21952139	3.333	8109922	10.368
07		INDAG	04/05/13	1435	24214609	3.333	9338784	10.367
08		TOXAPHENE	04/05/13	1528	24507429	3.333	9646485	10.367
09		DS	04/05/13	2218	27129053	3.332	10794884	10.366
10		INDAE	04/05/13	2235	22753889	3.332	8985138	10.365
11		TOXAPHENE	04/05/13	2311	25462192	3.332	10251405	10.366
12	WJ10MBW1	WJ10MBW1	04/05/13	2329	25499533	3.332	10718627	10.364
13	WJ10LCSW1	WJ10LCSW1	04/05/13	2347	25386437	3.332	10260018	10.366
14	WJ10LCSDW1	WJ10LCSDW1	04/06/13	0005	26977312	3.332	10886630	10.365
15	SD-SP-01-201	WJ10A	04/06/13	0022	24662050	3.332	7465814	10.382
16		DS	04/06/13	0040	25335003	3.332	9926578	10.365
17		INDAE	04/06/13	0058	23061549	3.332	8674432	10.365
18		TOXAPHENE	04/06/13	0116	25657430	3.332	10079306	10.365

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 04/05/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			IS1 AREA	RT	IS2 AREA	RT
		ICAL MIDPT	5448520	3.165	4807902	8.980
		UPPER LIMIT	10897040	3.215	9615804	9.030
		LOWER LIMIT	2724260	3.115	2403951	8.930

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		INDAE	04/05/13	1247	5448520	3.165	4807902	8.980
02		INDAA	04/05/13	1305	6225835	3.164	5241456	8.979
03		INDAB	04/05/13	1323	6111022	3.164	5357211	8.979
04		INDAC	04/05/13	1341	5854383	3.165	5133358	8.979
05		INDAD	04/05/13	1358	5880001	3.165	5227384	8.979
06		INDAF	04/05/13	1417	4847986	3.165	4193877	8.980
07		INDAG	04/05/13	1435	5342959	3.165	4760154	8.980
08		TOXAPHENE	04/05/13	1528	5312805	3.165	4975008	8.979
09		DS	04/09/13	1502	5109666	3.164	4535529	8.979
10		INDAE	04/09/13	1520	5455792	3.164	4782811	8.979
11		TOXAPH	04/09/13	1538	5601706	3.164	5203000	8.979
12	WJ10MBS1	WJ10MBS1	04/09/13	1555	5256694	3.163	4482819	8.978
13	WJ10LCSS1	WJ10LCSS1	04/09/13	1613	5047935	3.164	4417870	8.979
14	SD-SP-01-201	WJ10C	04/09/13	1649	4978204	3.163	6636302	9.065*
15	SD-SP-01-201	WJ10CMS	04/09/13	1707	4762665	3.163	8189269	9.088*
16	SD-SP-01-201	WJ10CMSD	04/09/13	1725	4932431	3.164	7490152	9.098*
17		DS	04/09/13	1854	4338120	3.164	5045833	8.979
18		INDAE	04/09/13	1912	4733048	3.164	5166326	8.980
19		TOXAPH	04/09/13	1930	4865993	3.164	5419349	8.981
20		DS	04/10/13	1628	5977555	3.166	5240551	8.981
21		INDAE	04/10/13	1646	4485056	3.165	4003657	8.979
22		TOXAPH	04/10/13	1704	4769884	3.165	4477527	8.979
23	SD-SP-01-201	WJ10C	04/10/13	1757	5152373	3.165	4668894	8.992
24	SD-CB-01-201	WJ10D	04/10/13	1850	4942333	3.165	4979830	8.984
25		DS	04/10/13	1944	5807543	3.164	5172139	8.979
26		INDAE	04/10/13	2002	4416422	3.164	4000929	8.978
27		TOXAPH	04/10/13	2019	4752264	3.165	4523695	8.979

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDESSAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 04/05/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	IS1 AREA	RT	IS2 AREA	RT
ICAL MIDPT	21702340	3.333	7681727	10.368
UPPER LIMIT	43404680	3.383	15363454	10.418
LOWER LIMIT	10851170	3.283	3840864	10.318

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		INDAE	04/05/13	1247	21702340	3.333	7681727	10.368
02		INDAA	04/05/13	1305	24741508	3.333	9038709	10.366
03		INDAB	04/05/13	1323	25491655	3.333	9687228	10.367
04		INDAC	04/05/13	1341	25508207	3.333	9574018	10.367
05		INDAD	04/05/13	1358	26036651	3.334	9979752	10.368
06		INDAF	04/05/13	1417	21952139	3.333	8109922	10.368
07		INDAG	04/05/13	1435	24214609	3.333	9338784	10.367
08		TOXAPHENE	04/05/13	1528	24507429	3.333	9646485	10.367
09		DS	04/09/13	1502	24631253	3.333	9470369	10.366
10		INDAE	04/09/13	1520	26219410	3.333	10173716	10.367
11		TOXAPH	04/09/13	1538	26768327	3.333	10175799	10.367
12	WJ10MBS1	WJ10MBS1	04/09/13	1555	23706549	3.333	9229348	10.366
13	WJ10LCSS1	WJ10LCSS1	04/09/13	1613	23376494	3.333	9058502	10.367
14	SD-SP-01-201	WJ10C	04/09/13	1649	18690919	3.333	6126073	10.421*
15	SD-SP-01-201	WJ10CMS	04/09/13	1707	14750908	3.332	5831166	10.436*
16	SD-SP-01-201	WJ10CMSD	04/09/13	1725	13581015	3.332	5149897	10.442*
17		DS	04/09/13	1854	19895964	3.333	8689486	10.367
18		INDAE	04/09/13	1912	22266524	3.333	9367729	10.369
19		TOXAPH	04/09/13	1930	22690681	3.333	9846928	10.370
20		DS	04/10/13	1628	29029705	3.334	11808462	10.368
21		INDAE	04/10/13	1646	22308017	3.334	8991371	10.366
22		TOXAPH	04/10/13	1704	23664959	3.334	9515182	10.367
23	SD-SP-01-201	WJ10C	04/10/13	1757	23945112	3.334	7444776	10.374
24	SD-CB-01-201	WJ10D	04/10/13	1850	19772302	3.333	9172872	10.370
25		DS	04/10/13	1944	27827494	3.334	10774704	10.366
26		INDAE	04/10/13	2002	21852908	3.333	8639272	10.367
27		TOXAPH	04/10/13	2019	23463840	3.334	9388039	10.366

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

PCB Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546

Sample ID: SD-SP-01-20130326-S
SAMPLE

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/09/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/08/13 18:19
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.93 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 52.8%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	2.1	8.4	< 8.4 U
53469-21-9	Aroclor 1242	2.9	8.4	< 8.4 U
12672-29-6	**Aroclor 1248**	**2.9**	**8.4**	**180**
11097-69-1	**Aroclor 1254**	**2.9**	**8.4**	**300**
11096-82-5	**Aroclor 1260**	**2.9**	**8.4**	**93**
11104-28-2	Aroclor 1221	2.9	8.4	< 8.4 U
11141-16-5	Aroclor 1232	2.9	8.4	< 8.4 U
37324-23-5	Aroclor 1262	2.9	8.4	< 8.4 U
11100-14-4	Aroclor 1268	2.9	8.4	< 8.4 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	68.0%
Tetrachlorometaxylene	109%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: SD-CB-01-20130326-S**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/09/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/08/13 19:20
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 7.02 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 44.1%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.8	7.1	< 7.1 U
53469-21-9	Aroclor 1242	2.4	7.1	< 7.1 U
12672-29-6	**Aroclor 1248**	**2.4**	**7.1**	**170**
11097-69-1	**Aroclor 1254**	**2.4**	**7.1**	**200**
11096-82-5	**Aroclor 1260**	**2.4**	**7.1**	**130**
11104-28-2	Aroclor 1221	2.4	7.1	< 7.1 U
11141-16-5	Aroclor 1232	2.4	7.1	< 7.1 U
37324-23-5	Aroclor 1262	2.4	7.1	< 7.1 U
11100-14-4	Aroclor 1268	2.4	7.1	< 7.1 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	79.0%
Tetrachlorometaxylene	91.8%

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Solids

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-040413	87.8%	64-105	79.2%	54-100	0
LCS-040413	93.8%	64-105	85.0%	54-100	0
SD-SP-01-20130326-S	68.0%	37-128	109%*	45-102	1
SD-SP-01-20130326-S MS	67.8%	37-128	108%*	45-102	1
SD-SP-01-20130326-S MSD	66.5%	37-128	102%	45-102	0
SD-CB-01-20130326-S	79.0%	37-128	91.8%	45-102	0

Microwave (MARS) Control Limits PCBSMM
Prep Method: SW3546
Log Number Range: 13-6437 to 13-6438

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: SD-SP-01-20130326-S
MS/MSD

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/09/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted MS/MSD: 04/04/13

Date Analyzed MS: 04/08/13 18:39
MSD: 04/08/13 19:00
Instrument/Analyst MS: ECD7/JGR
MSD: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 5.94 g-dry-wt
MSD: 5.94 g-dry-wt
Final Extract Volume MS: 2.5 mL
MSD: 2.5 mL
Dilution Factor MS: 1.00
MSD: 1.00
Silica Gel: Yes

Percent Moisture: 52.8%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 8.4 U	301	212	142%	281	212	133%	6.9%
Aroclor 1260	93	189	212	45.3%	234	212	66.5%	21.3%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: SD-SP-01-20130326-S
MATRIX SPIKE

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/09/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/08/13 18:39
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.94 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 52.8%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	2.1	8.4	---
53469-21-9	Aroclor 1242	2.9	8.4	< 8.4 U
12672-29-6	**Aroclor 1248**	**2.9**	**8.4**	**260**
11097-69-1	**Aroclor 1254**	**2.9**	**8.4**	**340**
11096-82-5	Aroclor 1260	2.9	8.4	---
11104-28-2	Aroclor 1221	2.9	8.4	< 8.4 U
11141-16-5	Aroclor 1232	2.9	8.4	< 8.4 U
37324-23-5	Aroclor 1262	2.9	8.4	< 8.4 U
11100-14-4	Aroclor 1268	2.9	8.4	< 8.4 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	67.8%
Tetrachlorometaxylene	108%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: SD-SP-01-20130326-S
MATRIX SPIKE DUP

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/09/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted: 04/04/13
Date Analyzed: 04/08/13 19:00
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 5.94 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 52.8%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	2.1	8.4	---
53469-21-9	Aroclor 1242	2.9	8.4	< 8.4 U
12672-29-6	**Aroclor 1248**	**2.9**	**8.4**	**240**
11097-69-1	**Aroclor 1254**	**2.9**	**8.4**	**370**
11096-82-5	Aroclor 1260	2.9	8.4	---
11104-28-2	Aroclor 1221	2.9	8.4	< 8.4 U
11141-16-5	Aroclor 1232	2.9	8.4	< 8.4 U
37324-23-5	Aroclor 1262	2.9	8.4	< 8.4 U
11100-14-4	Aroclor 1268	2.9	8.4	< 8.4 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	66.5%
Tetrachlorometaxylene	102%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: LCS-040413
LAB CONTROL

Lab Sample ID: LCS-040413
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/09/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/04/13
Date Analyzed: 04/08/13 16:58
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
Aroclor 1016	84.1	101	83.3%
Aroclor 1260	95.9	101	95.0%

PCB Surrogate Recovery

Decachlorobiphenyl	93.8%
Tetrachlorometaxylene	85.0%

Results reported in µg/kg (ppb)

PCB METHOD BLANK SUMMARY

BLANK NO.

WJ10MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: SAIC

ARI Job No.: WJ10
Project: NPDES SAMPLING SUPPO

Lab Sample ID: WJ10MBS1
Lab File ID: 0408A013

Date Extracted: 04/04/13
Matrix: SOLID

Date Analyzed: 04/08/13
Instrument ID: ECD7

Time Analyzed: 1638
GC Columns: ZB5/ZB35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	WJ10LCSS1	WJ10LCSS1	04/08/13
02	SD-SP-01-20130326-S	WJ10C	04/08/13
03	SD-SP-01-201303 MS	WJ10CMS	04/08/13
04	SD-SP-01-201303 MSD	WJ10CMSD	04/08/13
05	SD-CB-01-20130326-S	WJ10D	04/08/13

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: MB-040413**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-040413
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/09/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/04/13
Date Analyzed: 04/08/13 16:38
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	Aroclor 1248	1.4	4.0	< 4.0 U
11097-69-1	Aroclor 1254	1.4	4.0	< 4.0 U
11096-82-5	Aroclor 1260	1.4	4.0	< 4.0 U
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	87.8%
Tetrachlorometaxylene	79.2%

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB5 Instrument ID: ECD7

Calibration Date: 02/26/13

SURROGATES

	RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX	6.17- 6.37	0.9490	0.9929	1.0406	1.0956	1.0823	1.1196	1.0467	6.3
DCB	14.76-14.96	1.4039	1.3653	1.3635	1.3202	1.2820	1.3010	1.3393	3.4

Aroclor-1016 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	8.18- 8.38	0.0261	0.0257	0.0259	0.0255	0.0245	0.0246	0.0254	2.8
2	8.67- 8.87	0.0846	0.0846	0.0860	0.0859	0.0830	0.0836	0.0846	1.4
3	8.84- 9.04	0.0351	0.0348	0.0350	0.0341	0.0325	0.0325	0.0340	3.5
4	8.97- 9.17	0.0233	0.0240	0.0238	0.0233	0.0224	0.0227	0.0232	2.6

AROCLOR AVERAGE %RSD = 2.6

Aroclor-1260 Peak	RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1	11.73-11.93	0.0855	0.0852	0.0852	0.0840	0.0809	0.0805	0.0836	2.7
2	12.33-12.53	0.0561	0.0561	0.0565	0.0555	0.0543	0.0541	0.0554	1.8
3	12.65-12.85	0.0552	0.0558	0.0566	0.0563	0.0555	0.0556	0.0558	0.9
4	13.38-13.58	0.0675	0.0697	0.0714	0.0727	0.0723	0.0736	0.0712	3.2
5	13.48-13.68	0.0290	0.0284	0.0288	0.0283	0.0280	0.0285	0.0285	1.2

AROCLOR AVERAGE %RSD = 2.0

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB35 Instrument ID: ECD7

Calibration Date: 02/26/13

SURROGATES

RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX 6.27- 6.47	1.1586	1.1111	1.1102	1.1117	1.0463	1.0774	1.1025	3.4
DCB 15.07-15.27	1.5640	1.4211	1.3622	1.2764	1.1973	1.2280	1.3415	10.2

Aroclor-1016 Peak RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1 8.40- 8.60	0.0534	0.0486	0.0463	0.0425	0.0387	0.0372	0.0445	13.9
2 9.14- 9.34	0.1059	0.0983	0.0933	0.0880	0.0812	0.0798	0.0911	11.1
3 9.57- 9.77	0.0225	0.0249	0.0238	0.0226	0.0209	0.0204	0.0225	7.5
4 9.68- 9.88	0.0291	0.0306	0.0287	0.0261	0.0237	0.0227	0.0268	11.8

AROCLOR AVERAGE %RSD = 11.1

Aroclor-1260 Peak RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1 12.61-12.81	0.1131	0.1005	0.0958	0.0871	0.0799	0.0807	0.0928	13.8
2 13.38-13.58	0.1729	0.1555	0.1516	0.1406	0.1312	0.1355	0.1479	10.4
3 13.88-14.08	0.1215	0.1086	0.1050	0.0953	0.0881	0.0896	0.1013	12.6
4 14.44-14.64	0.0420	0.0395	0.0390	0.0366	0.0333	0.0325	0.0371	10.1

AROCLOR AVERAGE %RSD = 11.7

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB5 Instrument ID: ECD7

Calibration Date: 02/26/13

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	6.719	6.62- 6.82	0.01036
2	6.931	6.83- 7.03	0.00770
3	7.055	6.95- 7.15	0.02626

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	8.278	8.18- 8.38	0.01030
2	8.770	8.67- 8.87	0.03377
3	8.944	8.84- 9.04	0.01374
4	10.319	10.22-10.42	0.01603

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	8.277	8.18- 8.38	0.01977
2	8.768	8.67- 8.87	0.06584
3	8.943	8.84- 9.04	0.02633
4	10.565	10.46-10.66	0.02248

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	9.340	9.24- 9.44	0.02680
2	9.672	9.57- 9.77	0.03260
3	10.318	10.22-10.42	0.05133
4	10.565	10.46-10.66	0.03623

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB5 Instrument ID: ECD7

Calibration Date: 02/26/13

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	10.324	10.22-10.42	0.03689
2	10.646	10.55-10.75	0.05160
3	11.030	10.93-11.13	0.03106
4	11.169	11.07-11.27	0.06353
5	11.886	11.79-11.99	0.03903

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	12.432	12.33-12.53	0.09120
2	12.748	12.65-12.85	0.06611
3	13.111	13.01-13.21	0.18040
4	13.582	13.48-13.68	0.06113
5	13.647	13.55-13.75	0.06577

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	13.582	13.48-13.68	0.19706
2	13.645	13.54-13.74	0.18291
3	13.969	13.87-14.07	0.15506
4	14.572	14.47-14.67	0.47380

6G
8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB35 Instrument ID: ECD7

Calibration Date: 02/26/13

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	7.185	7.09- 7.29	0.01257
2	7.483	7.38- 7.58	0.00772
3	7.622	7.52- 7.72	0.02310
4	8.494	8.39- 8.59	0.00836

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	8.494	8.39- 8.59	0.01961
2	9.231	9.13- 9.33	0.03713
3	9.659	9.56- 9.76	0.00977
4	10.216	10.12-10.32	0.01326

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	8.501	8.40- 8.60	0.03340
2	9.241	9.14- 9.34	0.06911
3	9.668	9.57- 9.77	0.01820
4	11.134	11.03-11.23	0.02809

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	9.776	9.68- 9.88	0.03201
2	10.220	10.12-10.32	0.03434
3	10.776	10.68-10.88	0.03492
4	11.134	11.03-11.23	0.04657

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB35 Instrument ID: ECD7

Calibration Date: 02/26/13

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	10.838	10.74-10.94	0.03131
2	11.010	10.91-11.11	0.03904
3	11.546	11.45-11.65	0.02954
4	11.697	11.60-11.80	0.06539
5	12.485	12.39-12.59	0.03651

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	12.796	12.70-12.90	0.09042
2	13.241	13.14-13.34	0.07778
3	13.482	13.38-13.58	0.17213
4	13.929	13.83-14.03	0.06669
5	13.978	13.88-14.08	0.10960

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	13.929	13.83-14.03	0.17977
2	13.978	13.88-14.08	0.17605
3	14.324	14.22-14.42	0.14281
4	14.889	14.79-14.99	0.43968

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1242 Time Analyzed :1315

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	8.28	8.18	8.38	251.4	250.0	0.5
Aroclor-1242-2	8.77	8.67	8.87	252.3	250.0	0.9
Aroclor-1242-3	8.94	8.84	9.04	251.8	250.0	0.7
Aroclor-1242-4	10.56	10.46	10.66	259.7	250.0	3.9

AVERAGE %D = 1.5

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1242 Time Analyzed :1315

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	8.50	8.40	8.60	256.2	250.0	2.5
Aroclor-1242-2	9.24	9.14	9.34	260.1	250.0	4.0
Aroclor-1242-3	9.67	9.57	9.77	259.9	250.0	4.0
Aroclor-1242-4	11.13	11.03	11.23	258.0	250.0	3.2

AVERAGE %D = 3.4

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :1335

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	8.28	8.18	8.38	236.5	250.0	-5.4
Aroclor-1016-2	8.77	8.67	8.87	238.6	250.0	-4.6
Aroclor-1016-3	8.94	8.84	9.04	236.2	250.0	-5.5
Aroclor-1016-4	9.07	8.97	9.17	240.1	250.0	-4.0

AVERAGE %D = 4.9

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :1335

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	11.83	11.73	11.93	280.2	250.0	12.1
Aroclor-1260-2	12.43	12.33	12.53	280.3	250.0	12.1
Aroclor-1260-3	12.75	12.65	12.85	281.4	250.0	12.6
Aroclor-1260-4	13.48	13.38	13.58	275.9	250.0	10.4
Aroclor-1260-5	13.58	13.48	13.68	270.0	250.0	8.0

AVERAGE %D = 11.0

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :1335

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	8.50	8.40	8.60	228.9	250.0	-8.4
Aroclor-1016-2	9.24	9.14	9.34	234.3	250.0	-6.3
Aroclor-1016-3	9.67	9.57	9.77	245.7	250.0	-1.7
Aroclor-1016-4	9.78	9.68	9.88	236.1	250.0	-5.6

AVERAGE %D = 5.5

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :1335

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	12.71	12.61	12.81	261.8	250.0	4.7
Aroclor-1260-2	13.48	13.38	13.58	256.7	250.0	2.7
Aroclor-1260-3	13.98	13.88	14.08	247.4	250.0	-1.0
Aroclor-1260-4	14.54	14.44	14.64	250.8	250.0	0.3

AVERAGE %D = 2.2

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No.: WJ10

Project: NPDES

GC Column: ZB5

Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1248

Time Analyzed :1718

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	9.34	9.24	9.44	252.9	250.0	1.2
Aroclor-1248-2	9.67	9.57	9.77	251.1	250.0	0.4
Aroclor-1248-3	10.32	10.22	10.42	249.9	250.0	-0.0
Aroclor-1248-4	10.56	10.46	10.66	253.8	250.0	1.5

AVERAGE %D = 0.8

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No.: WJ10

Project: NPDES

GC Column: ZB35

Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1248

Time Analyzed :1718

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	9.78	9.68	9.88	258.8	250.0	3.5
Aroclor-1248-2	10.22	10.12	10.32	227.7	250.0	-8.9
Aroclor-1248-3	10.78	10.68	10.88	249.4	250.0	-0.2
Aroclor-1248-4	11.13	11.03	11.23	260.3	250.0	4.1

AVERAGE %D = 4.2

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :1738

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	8.28	8.18	8.38	238.5	250.0	-4.6
Aroclor-1016-2	8.77	8.67	8.87	239.7	250.0	-4.1
Aroclor-1016-3	8.94	8.84	9.04	238.6	250.0	-4.6
Aroclor-1016-4	9.07	8.97	9.17	242.1	250.0	-3.2

AVERAGE %D = 4.1

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :1738

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	11.83	11.73	11.93	264.3	250.0	5.7
Aroclor-1260-2	12.43	12.33	12.53	264.0	250.0	5.6
Aroclor-1260-3	12.75	12.65	12.85	266.2	250.0	6.5
Aroclor-1260-4	13.48	13.38	13.58	265.0	250.0	6.0
Aroclor-1260-5	13.58	13.48	13.68	259.4	250.0	3.7

AVERAGE %D = 5.5

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :1738

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	8.50	8.40	8.60	228.4	250.0	-8.6
Aroclor-1016-2	9.24	9.14	9.34	234.0	250.0	-6.4
Aroclor-1016-3	9.67	9.57	9.77	246.3	250.0	-1.5
Aroclor-1016-4	9.78	9.68	9.88	236.1	250.0	-5.6

AVERAGE %D = 5.5

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :1738

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	12.71	12.61	12.81	268.2	250.0	7.3
Aroclor-1260-2	13.48	13.38	13.58	265.3	250.0	6.1
Aroclor-1260-3	13.98	13.88	14.08	256.6	250.0	2.6
Aroclor-1260-4	14.54	14.44	14.64	265.8	250.0	6.3

AVERAGE %D = 5.6

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1254 Time Analyzed :2202

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	10.32	10.22	10.42	234.1	250.0	-6.4
Aroclor-1254-2	10.65	10.55	10.75	233.9	250.0	-6.4
Aroclor-1254-3	11.03	10.93	11.13	233.3	250.0	-6.7
Aroclor-1254-4	11.17	11.07	11.27	226.9	250.0	-9.2
Aroclor-1254-5	11.89	11.79	11.99	227.3	250.0	-9.1

AVERAGE %D = 7.6

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No.: WJ10

Project: NPDES

GC Column: ZB35

Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1254

Time Analyzed :2202

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	10.84	10.74	10.94	221.4	250.0	-11.4
Aroclor-1254-2	11.01	10.91	11.11	222.5	250.0	-11.0
Aroclor-1254-3	11.55	11.45	11.65	212.2	250.0	-15.1
Aroclor-1254-4	11.70	11.60	11.80	218.8	250.0	-12.5
Aroclor-1254-5	12.49	12.39	12.59	213.5	250.0	-14.6

AVERAGE %D = 12.9

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :2222

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Aroclor-1016-1	8.28	8.18	8.38	237.2	250.0	-5.1	
Aroclor-1016-2	8.77	8.67	8.87	239.8	250.0	-4.1	
Aroclor-1016-3	8.94	8.84	9.04	236.9	250.0	-5.2	
Aroclor-1016-4	9.07	8.97	9.17	239.6	250.0	-4.1	

AVERAGE %D = 4.6

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :2222

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Aroclor-1260-1	11.83	11.73	11.93	318.0	250.0	27.2	<-
Aroclor-1260-2	12.43	12.33	12.53	313.6	250.0	25.4	<-
Aroclor-1260-3	12.75	12.65	12.85	309.1	250.0	23.6	
Aroclor-1260-4	13.48	13.38	13.58	288.3	250.0	15.3	
Aroclor-1260-5	13.58	13.48	13.68	281.5	250.0	12.6	

AVERAGE %D = 20.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 02/26/13

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :2222

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	8.50	8.40	8.60	225.8	250.0	-9.7
Aroclor-1016-2	9.24	9.14	9.34	228.8	250.0	-8.5
Aroclor-1016-3	9.67	9.57	9.77	233.3	250.0	-6.7
Aroclor-1016-4	9.78	9.68	9.88	224.3	250.0	-10.3

AVERAGE %D = 8.8

Date Analyzed :04/08/13

Lab Standard ID: AR1660 Time Analyzed :2222

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	12.71	12.61	12.81	296.6	250.0	18.6
Aroclor-1260-2	13.48	13.38	13.58	283.7	250.0	13.5
Aroclor-1260-3	13.98	13.88	14.08	278.2	250.0	11.3
Aroclor-1260-4	14.54	14.44	14.64	241.2	250.0	-3.5

AVERAGE %D = 11.7

FORM VII PCB

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD7

Init. Calib. Date: 02/26/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	4719825	3.289	3725865	15.121
	UPPER LIMIT	9439650	3.389	7451730	15.221
	LOWER LIMIT	2359912	3.189	1862932	15.021

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	02/26/13	1233	4748886	3.290	3617024	15.120
02		0.25PPMAR166	02/26/13	1253	4719825	3.289	3725865	15.121
03		0.02PPMAR166	02/26/13	1313	4768370	3.289	3712663	15.121
04		0.05PPMAR166	02/26/13	1333	4829985	3.290	3718913	15.121
05		1PPMAR1660	02/26/13	1354	4673818	3.290	3706522	15.120
06		0.1PPMAR1660	02/26/13	1414	4795812	3.289	3755869	15.120
07		0.5PPMAR1660	02/26/13	1434	4831436	3.289	3780764	15.120
08		AR1242	02/26/13	1454	4817550	3.290	3842719	15.120
09		AR1248	02/26/13	1515	4881797	3.290	3876159	15.120
10		AR1254	02/26/13	1535	4838130	3.289	3872955	15.120
11		AR2162	02/26/13	1555	4842108	3.287	3890747	15.121
12		AR3268	02/26/13	1615	4856396	3.287	3912890	15.120
13	ZZZZZ	ZZZZZ	02/26/13	1636	4802440	3.289	3766785	15.120
14	ZZZZZ	ZZZZZ	02/26/13	1656	4835869	3.287	3789832	15.120
15	ZZZZZ	ZZZZZ	02/26/13	1716	4973458	3.287	3871094	15.121
16	ZZZZZ	ZZZZZ	02/26/13	1736	4778265	3.288	3751047	15.120
17	ZZZZZ	ZZZZZ	02/26/13	1757	4866470	3.289	3796441	15.120
18	ZZZZZ	ZZZZZ	02/26/13	1817	4983533	3.288	3866731	15.121
19		AR1242	04/08/13	1315	4896848	3.284	3159580	15.120
20		AR1660	04/08/13	1335	4838228	3.284	3193839	15.119
21	WJ10MBS1	WJ10MBS1	04/08/13	1638	5164021	3.286	3791090	15.119
22	WJ10LCSS1	WJ10LCSS1	04/08/13	1658	5039844	3.286	3806368	15.118
23		AR1248	04/08/13	1718	4988003	3.286	3543189	15.119
24		AR1660	04/08/13	1738	4802567	3.287	3451231	15.119
25	ZZZZZ	ZZZZZ	04/08/13	1759	5034151	3.288	3922270	15.119
26	SD-SP-01-201	WJ10C	04/08/13	1819	4866320	3.303	2138373	15.167
27	SD-SP-01-201	WJ10CMS	04/08/13	1839	5044197	3.301	2263327	15.161
28	SD-SP-01-201	WJ10CMSD	04/08/13	1900	5129021	3.303	2200299	15.156
29	SD-CB-01-201	WJ10D	04/08/13	1920	4806219	3.293	2701536	15.122
30		AR1254	04/08/13	2202	4882640	3.289	2576337	15.119
31		AR1660	04/08/13	2222	4797833	3.287	2588294	15.119

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WJ10 Project: NPDES

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD7

Init. Calib. Date: 02/26/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	8033370	4.123	5424940	15.761
	UPPER LIMIT	16066740	4.223	10849880	15.861
	LOWER LIMIT	4016685	4.023	2712470	15.662

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	02/26/13	1233	8017444	4.123	5243833	15.762
02		0.25PPMAR166	02/26/13	1253	8033370	4.123	5424940	15.761
03		0.02PPMAR166	02/26/13	1313	8087331	4.123	5462888	15.762
04		0.05PPMAR166	02/26/13	1333	8300943	4.124	5568518	15.762
05		1PPMAR1660	02/26/13	1354	7972351	4.125	5392534	15.762
06		0.1PPMAR1660	02/26/13	1414	8238401	4.125	5510607	15.762
07		0.5PPMAR1660	02/26/13	1434	8268176	4.123	5686107	15.762
08		AR1242	02/26/13	1454	8211282	4.125	5675467	15.761
09		AR1248	02/26/13	1515	8401253	4.125	5835065	15.762
10		AR1254	02/26/13	1535	8379221	4.123	5853419	15.761
11		AR2162	02/26/13	1555	8239474	4.123	5861226	15.762
12		AR3268	02/26/13	1615	8333424	4.122	5883565	15.762
13	ZZZZZ	ZZZZZ	02/26/13	1636	8345183	4.125	5725428	15.761
14	ZZZZZ	ZZZZZ	02/26/13	1656	8291193	4.123	5718199	15.761
15	ZZZZZ	ZZZZZ	02/26/13	1716	8505480	4.122	5843956	15.762
16	ZZZZZ	ZZZZZ	02/26/13	1736	8299746	4.122	5613481	15.761
17	ZZZZZ	ZZZZZ	02/26/13	1757	8352197	4.124	5712227	15.761
18	ZZZZZ	ZZZZZ	02/26/13	1817	8485781	4.123	5837356	15.761
19		AR1242	04/08/13	1315	8449860	4.114	4846005	15.758
20		AR1660	04/08/13	1335	8482611	4.115	4930322	15.758
21	WJ10MBS1	WJ10MBS1	04/08/13	1638	9225201	4.117	5562667	15.758
22	WJ10LCSS1	WJ10LCSS1	04/08/13	1658	8939576	4.117	5437066	15.758
23		AR1248	04/08/13	1718	8840051	4.118	5273015	15.758
24		AR1660	04/08/13	1738	8595728	4.117	5087731	15.757
25	ZZZZZ	ZZZZZ	04/08/13	1759	8866348	4.118	5544414	15.758
26	SD-SP-01-201	WJ10C	04/08/13	1819	7501197	4.132	3252234	15.784
27	SD-SP-01-201	WJ10CMS	04/08/13	1839	7569564	4.131	3635193	15.781
28	SD-SP-01-201	WJ10CMSD	04/08/13	1900	7875101	4.131	3619628	15.778
29	SD-CB-01-201	WJ10D	04/08/13	1920	7481567	4.122	4462157	15.760
30		AR1254	04/08/13	2202	8352024	4.119	3728274	15.758
31		AR1660	04/08/13	2222	8237129	4.119	3713194	15.758

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

TPHD Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS

NWTPHD by GC/FID
Extraction Method: SW3546
Page 1 of 1

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Matrix: Solids

Date Received: 03/27/13

Data Release Authorized:
Reported: 04/04/13

ARI ID	Sample ID	Analysis Date	DF	Range	Result	RL	MDL
WJ10C	SD-SP-01-20130326-S	04/02/13	5.0	**Diesel**	**19,000**	530	140
13-6437		FID9		**Motor Oil**	**47,000**	1,000	260
				HC ID	DRO/MOTOR OIL		
				o-Terphenyl	60.4%		
MB-040113	Method Blank	04/02/13	1.0	Diesel	< 50 U	50	14
13-6438		FID9		Motor Oil	< 100 U	100	25
				HC ID	---		
				o-Terphenyl	85.0%		
WJ10D	SD-CB-01-20130326-S	04/02/13	5.0	**Diesel**	**1,500**	450	120
13-6438		FID9		**Motor Oil**	**4,200**	890	220
				HC ID	DIESEL/MOTOR OIL		
				o-Terphenyl	68.2%		

Reported in mg/kg (ppm)

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicates results of organics or additional hydrocarbons in ranges are not identifiable.

ANALYTICAL RESOURCES INCORPORATED

TPHD SURROGATE RECOVERY SUMMARY

Matrix: Solids

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977

Client ID	OTER	TOT OUT
SD-SP-01-20130326-S	60.4%	0
040113MBS	85.0%	0
040113LCS	77.8%	0
SD-CB-01-20130326-S	68.2%	0
SD-CB-01-20130326-S MS	69.6%	0
SD-CB-01-20130326-S MSD	62.6%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(50-150)	(50-150)

Prep Method: SW3546
Log Number Range: 13-6437 to 13-6438

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID
Page 1 of 1

Sample ID: SD-CB-01-20130326-S
MS/MSD

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized: MW
Reported: 04/04/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Date Extracted MS/MSD: 04/01/13

Date Analyzed MS: 04/02/13 15:47
MSD: 04/02/13 16:10
Instrument/Analyst MS: FID9/JLW
MSD: FID9/JLW

Sample Amount MS: 5.62 g-dry-wt
MSD: 5.61 g-dry-wt
Final Extract Volume MS: 10 mL
MSD: 10 mL
Dilution Factor MS: 5.00
MSD: 5.00
Percent Moisture: 44.1%

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	1,500	3,700	2,670	82.4%	3,340	2,670	68.9%	10.2%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	69.6%	62.6%

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID
Page 1 of 1

Sample ID: LCS-040113
LAB CONTROL

Lab Sample ID: LCS-040113
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/04/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 04/01/13
Date Analyzed: 04/02/13 16:54
Instrument/Analyst: FID9/JLW

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 10 mL
Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
Diesel	1,230	1,500	82.0%

TPHD Surrogate Recovery

o-Terphenyl	77.8%

Results reported in mg/kg

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

Matrix: Solids
Date Received: 03/27/13

ARI Job: WJ10
Project: NPDES Sampling Support
209977

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
13-6437-WJ10C	SD-SP-01-20130326-S	4.74 g	10.0 mL	D	04/01/13
13-6438-040113MB1	Method Blank	10.0 g	10.0 mL	-	04/01/13
13-6438-040113LCS1	Lab Control	10.0 g	10.0 mL	-	04/01/13
13-6438-WJ10D	SD-CB-01-20130326-S	5.61 g	10.0 mL	D	04/01/13
13-6438-WJ10DMS	SD-CB-01-20130326-S	5.62 g	10.0 mL	D	04/01/13
13-6438-WJ10DMSD	SD-CB-01-20130326-S	5.61 g	10.0 mL	D	04/01/13

Basis: D=Dry Weight W=As Received

4

TPH METHOD BLANK SUMMARY

BLANK NO.

WJ10MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

SDG No.: WJ10

Project No.: NPDES SAMPLING SUPP

Date Extracted: 04/01/13

Matrix: SOLID

Date Analyzed : 04/02/13

Instrument ID : FID9

Time Analyzed : 1632

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	SD-CB-01-201	WJ10D	04/02/13
02	SD-SP-01-201	WJ10C	04/02/13
03	SD-CB-01-201	WJ10DMS	04/02/13
04	SD-CB-01-201	WJ10DMSD	04/02/13
05	WJ10LCSS1	WJ10LCSS1	04/02/13
06			
07			
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FORM IV TPH

6a
DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: SAIC

Instrument: FID9.I Project: NPDES Sampling Supp

Calibration Date: 24-JAN-2013 SDG No.: WJ10

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	19285	20316	20102	20764	21013	20655	20356	3.0
AK Diesel	23158	24066	23642	24376	24729	24101	24012	2.3
OR Diesel	23250	24156	23739	24477	24832	24216	24112	2.3
Cal Diesel	23098	24004	23585	24311	24660	24037	23949	2.3
o-Terph	24647	26731	27001	27788	27741	25351	26543	4.8

<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (3.853-7.249)
AK Diesel C10-C25 (2.943-7.496)
OR Diesel C10-C28 (2.943-8.182)
Cal Diesel C10-C24 (2.943-7.249)

Calibration Files	Analysis Time
0124A014.D	24-JAN-2013 17:50
0124A015.D	24-JAN-2013 18:12
0124A016.D	24-JAN-2013 18:34
0124A017.D	24-JAN-2013 18:56
0124A018.D	24-JAN-2013 19:18
0124A019.D	24-JAN-2013 19:40

6a

NW MOTOR OIL RANGE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: SAIC

Instrument: FID9.I

Project: NPDES Sampling Supp

Calibration Date: 24-JAN-2013

SDG No.: WJ10

Product Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil C24-C38	15475	15868	15883	16689	15771	15895	15930	2.5
Triac Surr	19048	19715	19998	21798	21319	23072	20825	7.2

<- Indicates %RSD outside limits
Surrogate areas are not included in Motor Oil RF calculation.

Calibration Files	Analysis Time
0124A021.D	24-JAN-2013 20:24
0124A022.D	24-JAN-2013 20:46
0124A023.D	24-JAN-2013 21:07
0124A024.D	24-JAN-2013 21:29
0124A025.D	24-JAN-2013 21:51
0124A026.D	24-JAN-2013 22:13

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: SAIC

ICal Date: 24-JAN-2013 Project: NPDES Sampling Supp

CCal Date: 02-APR-2013 SDG No.: WJ10

Analysis Time: 13:47 Lab ID: DIESEL#1

Instrument: FID9.I Lab File Name: 0402a004.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	4690215	230.4	250	-7.8
AK102 (C10-C25)	5460837	227.4	250	-9.0
ITDies(C10-C24)	5445373	227.4	250	-9.1
Terphenyl	1109905	41.8	45	-7.1

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: SAIC

ICal Date: 24-JAN-2013 Project: NPDES Sampling Supp

CCal Date: 02-APR-2013 SDG No.: WJ10

Analysis Time: 14:09 Lab ID: MOIL#1

Instrument: FID9.I Lab File Name: 0402a005.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D	
WAMoil(C24-C38)	7516470	471.8	500	-5.6	
AK103 (C25-C36)	6458315	542.3	500	8.5	
n-Triacontane	791613	38.0	45	-15.5	<-

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: SAIC

ICal Date: 24-JAN-2013 Project: NPDES Sampling Supp

CCal Date: 02-APR-2013 SDG No.: WJ10

Analysis Time: 17:17 Lab ID: DIESEL#2

Instrument: FID9.I Lab File Name: 0402a012.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	4945662	243.0	250	-2.8
AK102 (C10-C25)	5734260	238.8	250	-4.5
ITDies(C10-C24)	5716950	238.7	250	-4.5
Terphenyl	1145716	43.2	45	-4.1

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: SAIC

ICal Date: 24-JAN-2013 Project: WJ10

CCal Date: 02-APR-2013 SDG No.: WJ10

Analysis Time: 17:39 Lab ID: MOIL#2

Instrument: FID9.I Lab File Name: 0402a013.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	7979565	500.9	500	0.2
AK103 (C25-C36)	6843163	574.6	500	14.9
n-Triacontane	917139	44.0	45	-2.1

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

8
TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

SDG No.: WJ10 Project: NPDES Sampling Supp

Instrument ID: FID9 GC Column: RTX-1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 5.79 TRIAC: 8.59

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01		RT	01/24/13	1705	5.79	8.59
02		IB	01/24/13	1727	5.78	8.59
03		50PPMDIESEL	01/24/13	1750	5.77	8.60
04		100PPMDIESEL	01/24/13	1812	5.78	8.60
05		250PPMDIESEL	01/24/13	1834	5.79	8.60
06		500PPMDIESEL	01/24/13	1856	5.80	8.59
07		1000PPMDIESE	01/24/13	1918	5.81	8.59
08		2500PPMDIESE	01/24/13	1940	5.84*	8.60
09		DIESELICV	01/24/13	2002	5.79	8.59
10		100PPMMOIL	01/24/13	2024	5.79	8.58
11		250PPMMOIL	01/24/13	2046	5.79	8.59
12		500PPMMOIL	01/24/13	2107	5.79	8.59
13		1000PPMMOIL	01/24/13	2129	5.79	8.61
14		2500PPMMOIL	01/24/13	2151	5.79	8.63
15		5000PPMMOIL	01/24/13	2213	5.79	8.68*
16		MOILICV	01/24/13	2235	5.79	8.59

	QC LIMITS
TERPH = o-terph	(+/- 0.05 MINUTES)
TRIAC = Triacon Surr	(+/- 0.05 MINUTES)

* Values outside of QC limits.

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

SDG No.: WJ10 Project: NPDES SAMPLING SUPP

Instrument ID: FID9 GC Column: RTX-1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 5.84 TRIAC: 8.69

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	ZZZZZ	ZZZZZ	04/02/13	1241	5.84	8.70
02		RT0402	04/02/13	1303	5.84	8.69
03	ZZZZZ	ZZZZZ	04/02/13	1325	5.84	8.69
04	NPDES SAMPLI	DIESEL#1	04/02/13	1347	5.84	8.69
05	NPDES SAMPLI	MOIL#1	04/02/13	1409	5.84	8.69
06	SD-CB-01-201	WJ10D	04/02/13	1503	5.83	8.68
07	SD-SP-01-201	WJ10C	04/02/13	1525	5.83	8.70
08	SD-CB-01-201	WJ10DMS	04/02/13	1547	5.83	8.68
09	SD-CB-01-201	WJ10DMSD	04/02/13	1610	5.83	8.68
10	WJ10MBS1	WJ10MBS1	04/02/13	1632	5.84	8.69
11	WJ10LCSS1	WJ10LCSS1	04/02/13	1654	5.84	8.69
12	NPDES SAMPLI	DIESEL#2	04/02/13	1717	5.84	8.69
13	WJ10	MOIL#2	04/02/13	1739	5.84	8.69
14	ZZZZZ	ZZZZZ	04/02/13	1801	5.83	8.69
15	ZZZZZ	ZZZZZ	04/02/13	1823	5.84	8.69
16	ZZZZZ	ZZZZZ	04/02/13	1846	5.84	8.69
17	ZZZZZ	ZZZZZ	04/02/13	1908	5.84	8.69
18	ZZZZZ	ZZZZZ	04/02/13	1930	5.84	8.69
19	ZZZZZ	ZZZZZ	04/02/13	1952	5.84	8.69
20	ZZZZZ	ZZZZZ	04/02/13	2014	5.84	8.69
21	ZZZZZ	ZZZZZ	04/02/13	2036	5.84	8.69
22	ZZZZZ	ZZZZZ	04/02/13	2058	5.84	8.69
23	ZZZZZ	ZZZZZ	04/02/13	2120	5.84	8.69
24	ZZZZZ	ZZZZZ	04/02/13	2142	5.84	8.69
25	ZZZZZ	ZZZZZ	04/02/13	2204	5.84	8.69
26	ZZZZZ	ZZZZZ	04/02/13	2226	5.84	8.69
27	EVERETT EAST	DIESEL#3	04/02/13	2248	5.84	8.70
28	EVERETT EAST	MOIL#3	04/02/13	2309	5.85	8.69

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SD-SP-01-20130326-	WJ10A	13-6435	
SD-SP-01-20130326-D	WJ10ADUP	13-6435	
SD-SP-01-20130326-S	WJ10ASPK	13-6435	
PBW	WJ10MB1	13-6435	
LCSW	WJ10MB1SPK	13-6435	
SD-SP-01-20130326-	WJ10C	13-6437	
SD-SP-01-20130326-D	WJ10CDUP	13-6437	
SD-SP-01-20130326-S	WJ10CSPK	13-6437	
SD-CB-01-20130326-	WJ10D	13-6438	
PBS	WJ10MB2	13-6438	
LCSS	WJ10MB2SPK	13-6438	
SD-SP-01-20130326-	WJ10E	13-6439	
SD-SP-01-20130326-D	WJ10EDUP	13-6439	
SD-SP-01-20130326-S	WJ10ESPK	13-6439	
PBW	WJ10MB3	13-6439	
LCSW	WJ10MB3SPK	13-6439	

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 4/9/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SD-SP-01-20130326-W
SAMPLE

Lab Sample ID: WJ10A
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	LOQ	Result	Q
200.8	04/01/13	200.8	04/04/13	**7440-36-0**	**Antimony**	0.010	0.2	**0.6**	
200.8	04/01/13	200.8	04/04/13	**7440-38-2**	**Arsenic**	0.048	0.2	**1.0**	
200.8	04/01/13	200.8	04/04/13	7440-41-7	Beryllium	0.021	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	**7440-43-9**	**Cadmium**	0.010	0.1	**0.5**	
200.8	04/01/13	200.8	04/04/13	**7440-47-3**	**Chromium**	0.045	0.5	**2.3**	
200.8	04/01/13	200.8	04/04/13	**7440-50-8**	**Copper**	0.158	0.5	**14.0**	
200.8	04/01/13	200.8	04/04/13	**7439-92-1**	**Lead**	0.046	0.1	**8.6**	
200.8	04/01/13	200.8	04/04/13	**7440-02-0**	**Nickel**	0.079	0.5	**3.2**	
200.8	04/01/13	200.8	04/04/13	7782-49-2	Selenium	0.127	0.5	0.5	U
200.8	04/01/13	200.8	04/05/13	7440-22-4	Silver	0.008	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-28-0	Thallium	0.004	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	**7440-66-6**	**Zinc**	0.50	4	**100**	

Reported in ug/L (ppb).
U-Analyte undetected at given LOQ
LOQ-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SD-SP-01-20130326-W
MATRIX SPIKE

Lab Sample ID: WJ10A
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.6	24.3	25.0	94.8%	
Arsenic	200.8	1.0	25.3	25.0	97.2%	
Beryllium	200.8	0.2 U	21.8	25.0	87.2%	
Cadmium	200.8	0.5	23.4	25.0	91.6%	
Chromium	200.8	2.3	24.9	25.0	90.4%	
Copper	200.8	14.0	37.2	25.0	92.8%	
Lead	200.8	8.6	32.5	25.0	95.6%	
Nickel	200.8	3.2	26.3	25.0	92.4%	
Selenium	200.8	0.5 U	74.8	80.0	93.5%	
Silver	200.8	0.2 U	21.6	25.0	86.4%	
Thallium	200.8	0.2 U	24.1	25.0	96.4%	
Zinc	200.8	100	158	80	72.5%	N

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SD-SP-01-20130326-W
DUPLICATE

Lab Sample ID: WJ10A
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.6	0.7	15.4%	+/- 0.2	L
Arsenic	200.8	1.0	1.1	9.5%	+/- 20%	
Beryllium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Cadmium	200.8	0.5	0.5	0.0%	+/- 20%	
Chromium	200.8	2.3	2.7	16.0%	+/- 0.5	L
Copper	200.8	14.0	14.9	6.2%	+/- 20%	
Lead	200.8	8.6	9.3	7.8%	+/- 20%	
Nickel	200.8	3.2	3.4	6.1%	+/- 20%	
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Zinc	200.8	100	101	1.0%	+/- 20%	

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: SD-SP-01-20130326-W
SAMPLE

Lab Sample ID: WJ10E
LIMS ID: 13-6439
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	DL	LOQ	Result	Q
200.8	04/01/13	200.8	04/04/13	**7440-36-0**	**Antimony**	0.010	0.2	**0.2**	
200.8	04/01/13	200.8	04/04/13	**7440-38-2**	**Arsenic**	0.048	0.2	**0.6**	
200.8	04/01/13	200.8	04/04/13	7440-41-7	Beryllium	0.021	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-43-9	Cadmium	0.010	0.1	0.1	U
200.8	04/01/13	200.8	04/04/13	7440-47-3	Chromium	0.045	0.5	0.5	U
200.8	04/01/13	200.8	04/04/13	**7440-50-8**	**Copper**	0.158	0.5	**2.6**	
200.8	04/01/13	200.8	04/04/13	7439-92-1	Lead	0.046	0.1	0.1	U
200.8	04/01/13	200.8	04/04/13	**7440-02-0**	**Nickel**	0.079	0.5	**1.2**	
200.8	04/01/13	200.8	04/04/13	7782-49-2	Selenium	0.127	0.5	0.5	U
200.8	04/01/13	200.8	04/05/13	7440-22-4	Silver	0.008	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-28-0	Thallium	0.004	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	**7440-66-6**	**Zinc**	0.50	4	**38**	

Reported In µg/L (ppb)
U-Analyte undetected at given LOQ
LOQ-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: SD-SP-01-20130326-W
MATRIX SPIKE

Lab Sample ID: WJ10E
LIMS ID: 13-6439
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.2	23.0	25.0	91.2%	
Arsenic	200.8	0.6	25.8	25.0	101%	
Beryllium	200.8	0.2 U	23.1	25.0	92.4%	
Cadmium	200.8	0.1 U	25.0	25.0	100%	
Chromium	200.8	0.5 U	25.6	25.0	102%	
Copper	200.8	2.6	28.5	25.0	104%	
Lead	200.8	0.1 U	25.8	25.0	103%	
Nickel	200.8	1.2	25.7	25.0	98.0%	
Selenium	200.8	0.5 U	79.7	80.0	99.6%	
Silver	200.8	0.2 U	23.3	25.0	93.2%	
Thallium	200.8	0.2 U	25.0	25.0	100%	
Zinc	200.8	38	109	80.0	88.8%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: SD-SP-01-20130326-W
DUPLICATE

Lab Sample ID: WJ10E
LIMS ID: 13-6439
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.2	0.2	0.0%	+/- 0.2	L
Arsenic	200.8	0.6	0.6	0.0%	+/- 0.2	L
Beryllium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Chromium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Copper	200.8	2.6	2.7	3.8%	+/- 20%	
Lead	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Nickel	200.8	1.2	1.2	0.0%	+/- 0.5	L
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Zinc	200.8	38	38	0.0%	+/- 20%	

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SD-SP-01-20130326-S
SAMPLE

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Percent Total Solids: 42.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	04/01/13	200.8	04/04/13	7440-36-0	Antimony	0.031	0.5	0.5	U
3050B	04/01/13	200.8	04/04/13	**7440-38-2**	**Arsenic**	0.20	0.5	**9.1**	
3050B	04/01/13	6010C	04/02/13	7440-41-7	Beryllium	0.022	0.2	0.2	U
3050B	04/01/13	200.8	04/04/13	**7440-43-9**	**Cadmium**	0.028	0.2	**4.3**	
3050B	04/01/13	200.8	04/04/13	**7440-47-3**	**Chromium**	0.089	1	**76**	
3050B	04/01/13	6010C	04/02/13	**7440-50-8**	**Copper**	0.11	0.4	**225**	
3050B	04/01/13	200.8	04/04/13	**7439-92-1**	**Lead**	0.11	0.2	**225**	
CLP	04/01/13	7471A	04/05/13	**7439-97-6**	**Mercury**	0.0027	0.05	**0.36**	
3050B	04/01/13	200.8	04/04/13	**7440-02-0**	**Nickel**	0.12	1	**74**	
3050B	04/01/13	200.8	04/04/13	7782-49-2	Selenium	0.23	1	1	U
3050B	04/01/13	200.8	04/05/13	**7440-22-4**	**Silver**	0.019	0.5	**1.2**	
3050B	04/01/13	200.8	04/04/13	**7440-28-0**	**Thallium**	0.0070	0.5	**0.6**	
3050B	04/01/13	6010C	04/02/13	**7440-66-6**	**Zinc**	0.27	2	**1,710**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SD-CB-01-20130326-S
SAMPLE

Lab Sample ID: WJ10D
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Percent Total Solids: 40.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	04/01/13	200.8	04/04/13	7440-36-0	Antimony	0.031	0.5	0.5	U
3050B	04/01/13	200.8	04/04/13	**7440-38-2**	**Arsenic**	0.21	0.5	**3.9**	
3050B	04/01/13	6010C	04/02/13	7440-41-7	Beryllium	0.024	0.2	0.2	U
3050B	04/01/13	200.8	04/04/13	**7440-43-9**	**Cadmium**	0.029	0.2	**1.2**	
3050B	04/01/13	200.8	04/04/13	**7440-47-3**	**Chromium**	0.091	1	**28**	
3050B	04/01/13	6010C	04/02/13	**7440-50-8**	**Copper**	0.12	0.5	**79.8**	
3050B	04/01/13	200.8	04/04/13	**7439-92-1**	**Lead**	0.11	0.2	**62.5**	
CLP	04/01/13	7471A	04/05/13	**7439-97-6**	**Mercury**	0.0031	0.06	**0.15**	
3050B	04/01/13	200.8	04/04/13	**7440-02-0**	**Nickel**	0.12	1	**25**	
3050B	04/01/13	200.8	04/04/13	7782-49-2	Selenium	0.24	1	1	U
3050B	04/01/13	200.8	04/05/13	7440-22-4	Silver	0.019	0.5	0.5	U
3050B	04/01/13	200.8	04/04/13	7440-28-0	Thallium	0.0072	0.5	0.5	U
3050B	04/01/13	6010C	04/02/13	**7440-66-6**	**Zinc**	0.29	2	**663**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SD-SP-01-20130326-S**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample		Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.5	U	7.2	58.6	12.3%	N
Arsenic	200.8	9.1		67.7	58.6	100%	
Beryllium	6010C	0.2	U	109	112	97.3%	
Cadmium	200.8	4.3		61.4	58.6	97.4%	
Chromium	200.8	76		116	58.6	68.3%	N
Copper	6010C	225		251	112	23.2%	N
Lead	200.8	225		236	58.6	18.8%	N
Mercury	7471A	0.36		0.96	0.509	118%	
Nickel	200.8	74		118	58.6	75.1%	
Selenium	200.8	1	U	192	188	102%	
Silver	200.8	1.2		57.9	58.6	96.8%	
Thallium	200.8	0.6		58.8	58.6	99.3%	
Zinc	6010C	1,710		1,390	112	-286%	H

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SD-SP-01-20130326-S
DUPLICATE

Lab Sample ID: WJ10C
LIMS ID: 13-6437
Matrix: Solids
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Arsenic	200.8	9.1	10.2	11.4%	+/- 20%	
Beryllium	6010C	0.2 U	0.2 U	0.0%	+/- 0.2	L
Cadmium	200.8	4.3	3.8	12.3%	+/- 20%	
Chromium	200.8	76	73	4.0%	+/- 20%	
Copper	6010C	225	189	17.4%	+/- 20%	
Lead	200.8	225	202	10.8%	+/- 20%	
Mercury	7471A	0.36	0.31	14.9%	+/- 20%	
Nickel	200.8	74	74	0.0%	+/- 20%	
Selenium	200.8	1 U	1 U	0.0%	+/- 1	L
Silver	200.8	1.2	1.0	18.2%	+/- 0.5	L
Thallium	200.8	0.6	0.6	0.0%	+/- 0.5	L
Zinc	6010C	1,710	1,480	14.4%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: WJ10LCS
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	26.2	25.0	105%	
Arsenic	200.8	25.8	25.0	103%	
Beryllium	200.8	22.8	25.0	91.2%	
Cadmium	200.8	25.3	25.0	101%	
Chromium	200.8	25.4	25.0	102%	
Copper	200.8	27.5	25.0	110%	
Lead	200.8	26.7	25.0	107%	
Nickel	200.8	26.4	25.0	106%	
Selenium	200.8	81.0	80.0	101%	
Silver	200.8	23.4	25.0	93.6%	
Thallium	200.8	26.0	25.0	104%	
Zinc	200.8	83	80	104%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: WJ10MB
LIMS ID: 13-6435
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	LOQ	Result	Q
200.8	04/01/13	200.8	04/04/13	7440-36-0	Antimony	0.010	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-38-2	Arsenic	0.048	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-41-7	Beryllium	0.021	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-43-9	Cadmium	0.010	0.1	0.1	U
200.8	04/01/13	200.8	04/04/13	7440-47-3	Chromium	0.045	0.5	0.5	U
200.8	04/01/13	200.8	04/04/13	7440-50-8	Copper	0.158	0.5	0.5	U
200.8	04/01/13	200.8	04/04/13	7439-92-1	Lead	0.046	0.1	0.1	U
200.8	04/01/13	200.8	04/04/13	7440-02-0	Nickel	0.079	0.5	0.5	U
200.8	04/01/13	200.8	04/04/13	7782-49-2	Selenium	0.127	0.5	0.5	U
200.8	04/01/13	200.8	04/05/13	7440-22-4	Silver	0.008	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-28-0	Thallium	0.004	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-66-6	Zinc	0.50	4	4	U

Reported in ug/L (ppb).
U-Analyte undetected at given LOQ
LOQ-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: WJ10LCS
LIMS ID: 13-6439
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	26.4	25.0	106%	
Arsenic	200.8	26.2	25.0	105%	
Beryllium	200.8	24.2	25.0	96.8%	
Cadmium	200.8	25.6	25.0	102%	
Chromium	200.8	26.2	25.0	105%	
Copper	200.8	28.3	25.0	113%	
Lead	200.8	27.0	25.0	108%	
Nickel	200.8	26.9	25.0	108%	
Selenium	200.8	80.0	80.0	100%	
Silver	200.8	24.6	25.0	98.4%	
Thallium	200.8	26.4	25.0	106%	
Zinc	200.8	84	80	105%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS **Sample ID: METHOD BLANK**

Lab Sample ID: WJ10MB
LIMS ID: 13-6439
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	DL	LOQ	Result	Q
200.8	04/01/13	200.8	04/04/13	7440-36-0	Antimony	0.010	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-38-2	Arsenic	0.048	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-41-7	Beryllium	0.021	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-43-9	Cadmium	0.010	0.1	0.1	U
200.8	04/01/13	200.8	04/04/13	7440-47-3	Chromium	0.045	0.5	0.5	U
200.8	04/01/13	200.8	04/04/13	7440-50-8	Copper	0.158	0.5	0.5	U
200.8	04/01/13	200.8	04/04/13	7439-92-1	Lead	0.046	0.1	0.1	U
200.8	04/01/13	200.8	04/04/13	7440-02-0	Nickel	0.079	0.5	0.5	U
200.8	04/01/13	200.8	04/04/13	7782-49-2	Selenium	0.127	0.5	0.5	U
200.8	04/01/13	200.8	04/05/13	7440-22-4	Silver	0.008	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-28-0	Thallium	0.004	0.2	0.2	U
200.8	04/01/13	200.8	04/04/13	7440-66-6	Zinc	0.50	4	4	U

Reported In µg/L (ppb)
U-Analyte undetected at given LOQ
LOQ-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: WJ10LCS
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	25.7	25.0	103%	
Arsenic	200.8	26.2	25.0	105%	
Beryllium	6010C	50.3	50.0	101%	
Cadmium	200.8	25.6	25.0	102%	
Chromium	200.8	25.6	25.0	102%	
Copper	6010C	50.7	50.0	101%	
Lead	200.8	26.7	25.0	107%	
Mercury	7471A	0.50	0.50	100%	
Nickel	200.8	25.4	25.0	102%	
Selenium	200.8	83.3	80.0	104%	
Silver	200.8	25.2	25.0	101%	
Thallium	200.8	26.3	25.0	105%	
Zinc	6010C	50	50	100%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: WJ10MB
LIMS ID: 13-6438
Matrix: Solids
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ10-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	04/01/13	200.8	04/04/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	04/01/13	200.8	04/04/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	04/01/13	6010C	04/02/13	7440-41-7	Beryllium	0.010	0.1	0.1	U
3050B	04/01/13	200.8	04/04/13	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	04/01/13	200.8	04/04/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	04/01/13	6010C	04/02/13	7440-50-8	Copper	0.050	0.2	0.2	U
3050B	04/01/13	200.8	04/04/13	7439-92-1	Lead	0.047	0.1	0.1	U
CLP	04/01/13	7471A	04/05/13	7439-97-6	Mercury	0.0013	0.02	0.02	U
3050B	04/01/13	200.8	04/04/13	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	04/01/13	200.8	04/04/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	04/01/13	200.8	04/05/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	04/01/13	200.8	04/04/13	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	04/01/13	6010C	04/02/13	7440-66-6	Zinc	0.12	1	1	U

Reported in mg/kg (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS040411	50.0	51.62	**103.2**	50.0	51.50	**103.0**	51.57	**103.1**	51.69	**103.4**	51.71	**103.4**	51.65	**103.3**
Arsenic	AS	PMS	MS040411	50.0	50.69	**101.4**	50.0	49.39	**98.8**	49.04	**98.1**	50.70	**101.4**	50.02	**100.0**	50.80	**101.6**
Beryllium	BE	PMS	MS040411	50.0	48.18	**96.4**	50.0	49.69	**99.4**	48.66	**97.3**	49.56	**99.1**	48.29	**96.6**	48.72	**97.4**
Beryllium	BE	ICP	IP040271	1000.0	1041.23	**104.1**	1000.0	1043.37	**104.3**	1023.22	**102.3**	1027.30	**102.7**	1019.59	**102.0**	1019.36	**101.9**
Cadmium	CD	PMS	MS040411	50.0	49.12	**98.2**	50.0	50.42	**100.8**	50.81	**101.6**	50.37	**100.7**	50.87	**101.7**	51.04	**102.1**
Chromium	CR	PMS	MS040411	50.0	49.39	**98.8**	50.0	49.74	**99.5**	50.89	**101.8**	49.60	**99.2**	49.52	**99.0**	49.87	**99.7**
Copper	CU	PMS	MS040411	50.0	53.75	**107.5**	50.0	50.97	**101.9**	49.43	**98.9**	51.44	**102.9**	50.06	**100.1**	51.88	**103.8**
Copper	CU	ICP	IP040271	1000.0	1039.66	**104.0**	1000.0	1045.78	**104.6**	1028.51	**102.9**	1027.57	**102.8**	1025.22	**102.5**	1021.49	**102.1**
Lead	PB	PMS	MS040411	50.0	50.90	**101.8**	50.0	51.22	**102.4**	51.30	**102.6**	50.56	**101.1**	51.04	**102.1**	50.34	**100.7**
Mercury	HG	CVA	HG040502	8.0	8.20	**102.5**	4.0	4.00	**100.0**	4.01	**100.3**	4.00	**100.0**	4.01	**100.3**	4.06	**101.5**
Nickel	NI	PMS	MS040411	50.0	49.05	**98.1**	50.0	48.58	**97.2**	48.01	**96.0**	49.49	**99.0**	47.77	**95.5**	49.01	**98.0**
Selenium	SE	PMS	MS040411	80.0	77.98	**97.5**	50.0	50.29	**100.6**	52.02	**104.0**	53.35	**106.7**	52.54	**105.1**	53.19	**106.4**
Thallium	TL	PMS	MS040411	50.0	51.12	**102.2**	50.0	53.14	**106.3**	52.69	**105.4**	53.28	**106.6**	52.82	**105.6**	53.00	**106.0**
Zinc	ZN	ICP	IP040271	1000.0	1033.28	**103.3**	1000.0	1031.50	**103.2**	1023.06	**102.3**	1032.30	**103.2**	1022.80	**102.3**	1027.31	**102.7**
Zinc	ZN	PMS	MS040411	50.0	50.54	**101.1**	50.0	49.29	**98.6**	50.15	**100.3**	51.21	**102.4**	50.85	**101.7**	51.78	**103.6**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS040411	50.0												
Arsenic	AS	PMS	MS040411	50.0												
Beryllium	BE	PMS	MS040411	50.0												
Beryllium	BE	ICP	IP040271	1000.0												
Cadmium	CD	PMS	MS040411	50.0												
Chromium	CR	PMS	MS040411	50.0												
Copper	CU	PMS	MS040411	50.0												
Copper	CU	ICP	IP040271	1000.0												
Lead	PB	PMS	MS040411	50.0												
Mercury	HG	CVA	HG040502	4.0	4.01	**100.3**	4.05	**101.3**								
Nickel	NI	PMS	MS040411	50.0												
Selenium	SE	PMS	MS040411	50.0												
Thallium	TL	PMS	MS040411	50.0												
Zinc	ZN	ICP	IP040271	1000.0												
Zinc	ZN	PMS	MS040411	50.0												

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Silver	AG	PMS	MS040511	50.0	48.24	**96.5**	50.0	47.25	**94.5**	45.33	**90.7**	46.59	**93.2**	47.29	**94.6**		

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS040411	0.2	0.22	**110.0**										
Arsenic	AS	PMS	MS040411	0.2	0.23	**115.0**										
Beryllium	BE	PMS	MS040411	0.2	0.19	**95.0**										
Beryllium	BE	ICP	IP040271	1.0	1.00	**100.0**	0.98	**98.0**								
Cadmium	CD	PMS	MS040411	0.1	0.11	**110.0**										
Chromium	CR	PMS	MS040411	0.5	0.60	**120.0**										
Copper	CU	ICP	IP040271	2.0	2.25	**112.5**	2.23	**111.5**								
Copper	CU	PMS	MS040411	0.5	0.52	**104.0**										
Lead	PB	PMS	MS040411	0.1	0.11	**110.0**										
Mercury	HG	CVA	HG040502	0.1	0.09	**90.0**										
Nickel	NI	PMS	MS040411	0.5	0.52	**104.0**										
Selenium	SE	PMS	MS040411	0.5	0.53	**106.0**										
Thallium	TL	PMS	MS040411	0.2	0.21	**105.0**										
Zinc	ZN	ICP	IP040271	10.0	10.09	**100.9**	9.87	**98.7**								
Zinc	ZN	PMS	MS040411	4.0	3.97	**99.3**										

Control Limits: no control limits have been established by the EPA at this time.

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Silver	AG	PMS	MS040511		0.2	0.19	**95.0**										

Control Limits: no control limits have been established by the EPA at this time.

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS040411	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS040411	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Beryllium	BE	PMS	MS040411	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Beryllium	BE	ICP	IP040271	5.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	CD	PMS	MS040411	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Chromium	CR	PMS	MS040411	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Copper	CU	PMS	MS040411	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Copper	CU	ICP	IP040271	25.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Lead	PB	PMS	MS040411	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Mercury	HG	CVA	HG040502	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	NI	PMS	MS040411	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Selenium	SE	PMS	MS040411	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Thallium	TL	PMS	MS040411	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	ICP	IP040271	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U
Zinc	ZN	PMS	MS040411	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

UNITS: ug/L

SDG: WJ10

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS040411	60.0	0.2												
Arsenic	AS	PMS	MS040411	10.0	0.2												
Beryllium	BE	PMS	MS040411	5.0	0.2												
Beryllium	BE	ICP	IP040271	5.0	1.0												
Cadmium	CD	PMS	MS040411	5.0	0.1												
Chromium	CR	PMS	MS040411	10.0	0.5												
Copper	CU	PMS	MS040411	25.0	0.5												
Copper	CU	ICP	IP040271	25.0	2.0												
Lead	PB	PMS	MS040411	3.0	0.1												
Mercury	HG	CVA	HG040502	0.2	0.1	0.1	U	0.1	U								
Nickel	NI	PMS	MS040411	40.0	0.5												
Selenium	SE	PMS	MS040411	5.0	0.5												
Thallium	TL	PMS	MS040411	10.0	0.2												
Zinc	ZN	ICP	IP040271	20.0	10.0												
Zinc	ZN	PMS	MS040411	20.0	4.0												

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Silver	AG	PMS	MS040511	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

ICS SOURCE: I.V.

PROJECT: NPDES Sampling Suppo

RUNID: IP040271

SDG: WJ10

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	204500.6	202325.0	**101.2**	196807.7	197841.7	**98.9**			
Antimony		1000	-0.2	1011.5	**101.2**	-4.1	986.5	**98.7**			
Arsenic		1000	30.8	1058.9	**105.9**	29.3	1031.1	**103.1**			
Barium		1000	-3.0	1024.0	**102.4**	-2.5	1022.1	**102.2**			
Beryllium		1000	0.1	1025.9	**102.6**	0.1	1000.2	**100.0**			
Boron			16.1	3.6		13.0	2.9				
Cadmium		1000	2.7	1039.0	**103.9**	2.7	1031.3	**103.1**			
Calcium	100000	100000	102687.2	101917.5	**101.9**	99234.2	99471.9	**99.5**			
Chromium		1000	-4.9	1029.6	**103.0**	-4.4	1012.3	**101.2**			
Cobalt		1000	1.7	985.1	**98.5**	1.7	963.4	**96.3**			
Copper		1000	1.5	1069.2	**106.9**	1.4	1043.1	**104.3**			
Iron	200000	200000	189804.2	190373.6	**95.2**	181643.7	183144.9	**91.6**			
Lead		1000	-13.6	998.3	**99.8**	-14.2	975.6	**97.6**			
Magnesium	100000	100000	105917.1	100961.6	**101.0**	102151.0	98728.1	**98.7**			
Manganese		1000	0.7	978.9	**97.9**	0.6	945.0	**94.5**			
Molybdenum			4.8	4.9		4.6	4.3				
Nickel		1000	-0.9	1013.5	**101.4**	0.7	996.4	**99.6**			
Potassium			10.3	-15.4		21.9	-12.9				
Selenium		1000	-23.1	1001.6	**100.2**	-14.8	978.9	**97.9**			
Silicon			-4.8	-7.3		-2.6	-5.4				
Silver		1000	-0.6	1096.2	**109.6**	-0.3	1070.3	**107.0**			
Sodium			19.8	15.3		28.8	19.7				
Strontium			4.2	4.2		4.1	4.1				
Thallium		1000	10.8	969.7	**97.0**	12.9	947.8	**94.8**			
Tin			-9.8	-10.8		-11.7	-8.7				
Titanium			2.9	2.9		2.8	2.9				
Vanadium		1000	-1.1	1005.5	**100.6**	-1.3	978.2	**97.8**			
Zinc		1000	-1.8	989.9	**99.0**	-1.4	969.7	**97.0**			

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

ICS SOURCE: I.V.

PROJECT: NPDES Sampling Suppo

RUNID: MS040411

SDG: WJ10

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.8	**99.0**						
Cadmium		20	0.2	19.8	**99.0**						
Chromium		20	0.7	20.0	**100.0**						
Cobalt		20	0.0	19.3	**96.5**						
Copper		20	1.2	20.9	**104.5**						
Manganese		20	0.1	19.1	**95.5**						
Molybdenum	400	400	416.8	461.3	**115.3**						
Nickel		20	0.4	20.0	**100.0**						
Selenium			-0.2	-0.2							
Silver		20	0.0	22.4	**112.0**						
Vanadium			0.2	0.1							
Zinc		20	1.0	19.9	**99.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

ICS SOURCE: I.V.

RUNID: MS040511

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.4	**97.0**						
Cadmium		20	0.1	19.6	**98.0**						
Copper		20	0.7	19.7	**98.5**						
Nickel		20	0.3	19.9	**99.5**						
Selenium			-0.2	-0.1							
Silver		20	0.0	20.0	**100.0**						
Zinc		20	0.9	19.4	**97.0**						

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

ANALYSIS METHOD: ICP

SDG: WJ10

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Copper	SD-SP-01-20130326-	WJ10CPOST	IP040271	3099.54		2008.68		1000	Solid	**109.1**
Zinc	SD-SP-01-20130326-	WJ10APOST	MS040411	374.26		199.52		200	Water	**87.4**
Chromium	SD-SP-01-20130326-	WJ10CPOST	MS040411	1152.40		648.80		500	Solid	**100.7**
Lead	SD-SP-01-20130326-	WJ10CPOST	MS040411	2383.86		1911.80		500	Solid	**94.4**
Antimony	SD-SP-01-20130326-	WJ10CPOST	MS040411	516.62	**B**	1000.00	**U**	500	Solid	**103.3**

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Beryllium	BE	PMS	NEXION 300D MS	0.00		5	0.2	4/1/2012		
Beryllium	BE	ICP	OPTIMA ICP 2	313.04		5	1.0	4/1/2012	5000.0	1/22/2013
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Chromium	CR	PMS	NEXION 300D MS	0.00		10	0.5	4/1/2012		
Copper	CU	PMS	NEXION 300D MS	0.00		25	0.5	4/1/2012		
Copper	CU	ICP	OPTIMA ICP 2	324.75		25	2.0	4/1/2012	40000.0	1/22/2013
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Nickel	NI	PMS	NEXION 300D MS	0.00		40	0.5	4/1/2012		
Selenium	SE	PMS	NEXION 300D MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Zinc	ZN	PMS	NEXION 300D MS	0.00		20	4.0	4/1/2012		
Zinc	ZN	ICP	OPTIMA ICP 2	213.86		20	10.0	4/1/2012	100000.0	1/22/2013

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

IEC DATE: 1/22/2013

SDG: WJ10

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	13.7020120	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0911890	0.0000000	-1.1057220	1.4447090	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1795110	0.0000000	0.0000000	0.1469350
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	5.5964570	0.0000000	0.0000000	0.0000000	0.0000000	0.1385480	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0295099	0.0000000	0.1250000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0309050
Cobalt	228.62	0.0000000	0.0000000	0.1133150	0.0000000	0.0000000	0.0000000	0.0000000	-0.0333930	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1698980	-0.0211960	0.0000000	-0.0491600
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7025530	0.0000000	0.0000000
Lead	220.35	-0.2707930	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.8104440	1.2410760	0.0536970
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1060020	0.0000000	-1.4277330	-1.1381670	0.0000000	0.5549620
Manganese	257.61	0.0049690	0.0000000	0.0000000	0.0000000	0.0038740	0.0000000	0.0125790	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0117860	0.0000000	0.0000000	0.0509920	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.1149780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.4775670	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.2795240	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0054570	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.9747620	0.3985520	0.0000000	-0.1326730
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0837380	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0594390	0.0000000	0.0000000	0.1892210	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.3335490	0.0000000	0.0501910
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1801790	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

IEC DATE: 1/22/2013

SDG: WJ10

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.5877940	0.0000000	0.0000000	0.0000000	2.0603180	0.0000000	14.5677200	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7545320	0.0000000	-3.8306350	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.3991370	0.0000000	0.0000000	0.0000000	-34.6204750	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1174000	0.0000000	0.0000000	0.0000000	0.0000000	0.2171460	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0100680	0.0000000	0.2372710	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9200350	0.0000000	0.0000000	0.0000000	0.0000000	0.0629730	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0938730	0.0834700	0.0738780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3293430	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1425980	0.1557020	0.0000000	0.0000000	1.7571760	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0053240	0.0000000	0.3083290	0.0000000	0.0000000	0.0000000	0.1931400	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	6.3157650	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-4.9970650	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.1877320	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.4494500	0.0000000	0.4360770	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5722860	0.0000000
Silicon	288.16	-0.1122540	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.3208460	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	-1.6204090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.6226430	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5136310	-0.1873890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.0549050	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1522160	-0.5618640	0.0000000	0.0000000	0.0000000	0.5717940	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2590480	0.0000000	-0.0606610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 4/1/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SD-SP-01-20130326-	WJ10C	1.060	0.0	50.0
SD-SP-01-20130326-D	WJ10CDUP	1.064	0.0	50.0
SD-SP-01-20130326-S	WJ10CSPK	1.061	0.0	50.0
SD-CB-01-20130326-	WJ10D	1.045	0.0	50.0
PBS	WJ10MB2	1.000	0.0	50.0
LCSS	WJ10MB2SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 4/1/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SD-SP-01-20130326-	WJ10A	0.000	50.0	25.0
SD-SP-01-20130326-D	WJ10ADUP	0.000	50.0	25.0
SD-SP-01-20130326-S	WJ10ASPK	0.000	50.0	25.0
SD-SP-01-20130326-	WJ10E	0.000	50.0	25.0
SD-SP-01-20130326-D	WJ10EDUP	0.000	50.0	25.0
SD-SP-01-20130326-S	WJ10ESPK	0.000	50.0	25.0
PBW	WJ10MB1	0.000	50.0	25.0
LCSW	WJ10MB1SPK	0.000	50.0	25.0
PBW	WJ10MB3	0.000	50.0	25.0
LCSW	WJ10MB3SPK	0.000	50.0	25.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 4/1/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SD-SP-01-20130326-	WJ10C	1.009	0.0	50.0
SD-SP-01-20130326-D	WJ10CDUP	1.010	0.0	50.0
SD-SP-01-20130326-S	WJ10CSPK	1.011	0.0	50.0
SD-CB-01-20130326-	WJ10D	1.037	0.0	50.0
PBS	WJ10MB2	1.000	0.0	50.0
LCSS	WJ10MB2SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ10

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 4/1/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SD-SP-01-20130326-	WJ10C	0.232	0.0	50.0
SD-SP-01-20130326-D	WJ10CDUP	0.236	0.0	50.0
SD-SP-01-20130326-S	WJ10CSPK	0.233	0.0	50.0
SD-CB-01-20130326-	WJ10D	0.212	0.0	50.0
PBS	WJ10MB2	0.200	0.0	50.0
LCSW	WJ10MB2SPK	0.200	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 4/2/2013

SDG: WJ10 | RUNID: IP040271 | METHOD: ICP | END DATE: 4/2/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08274							X					X																		X
S2	S2	1.00	08320												X																		
S3	S3	1.00	08340							X																							X
S4	S4	1.00	08364																														
S5	S5	1.00	08385																														
ICV	ICV	1.00	08415							X					X																		X
ICB	ICB	1.00	08454							X					X																		X
CRI	CRII	1.00	08500							X					X																		X
ICSA	ICSAI	1.00	08542							X					X																		X
ICSAB	ICSABI	1.00	08583							X					X																		X
CCV	CCV1	1.00	09023							X					X																		X
CCB	CCB1	1.00	09055							X					X																		X
ZZZZZZ	WJ51MB2	1.00	09101																														
ZZZZZZ	WJ51G-L	5.00	09143																														
ZZZZZZ	WJ51G	1.00	09184																														
ZZZZZZ	WJ51GDUP	1.00	09230																														
ZZZZZZ	WJ51GSPK	1.00	09271																														
ZZZZZZ	WJ51H	1.00	09312																														
ZZZZZZ	WJ51I	1.00	09353																														
ZZZZZZ	WJ51J	1.00	09401																														
ZZZZZZ	WJ51K	1.00	09443																														
ZZZZZZ	WJ51MB2SPK	1.00	09485																														
CCV	CCV2	1.00	09525							X					X																		X
CCB	CCB2	1.00	09565							X					X																		X
ZZZZZZ	WJ51MB2SPK	1.00	10053																														
CCV	CCV3	1.00	10093							X					X																		X
CCB	CCB3	1.00	10134							X					X																		X
CRI	CRIF	1.00	10175							X					X																		X
ICSA	ICSAF	1.00	10221							X					X																		X
ICSAB	ICSABF	1.00	10263							X					X																		X
CCV	CCV4	1.00	10303							X					X																		X
CCB	CCB4	1.00	10343							X					X																		X
ZZZZZZ	WJ08MB1	2.00	10385																														
PBS	WJ10MB2	2.00	10431							X					X																		X
SD-SP-01-20130326-D	WJ10CDUP	2.00	10472							X					X																		X

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 4/2/2013

SDG: WJ10 | RUNID: IP040271 | METHOD: ICP | END DATE: 4/2/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SD-SP-01-20130326-	WJ10C	2.00	10512							X					X																		X
SD-SP-01-20130326-S	WJ10CSPK	2.00	10553							X					X																		X
SD-SP-01-20130326-A	WJ10CPOST	2.00	10593												X																		
SD-CB-01-20130326-	WJ10D	2.00	11033							X					X																		X
ZZZZZZ	WJ08B	2.00	11073																														
ZZZZZZ	WJ08MB1SPK	2.00	11120																														
LCSS	WJ10MB2SPK	2.00	11160							X					X																		X
CCV	CCV5	1.00	11200							X					X																		X
CCB	CCB5	1.00	11240							X					X																		X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: NEXION 300D MS | START DATE: 4/4/2013

SDG: WJ10 | RUNID: MS040411 | METHOD: PMS | END DATE: 4/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09070				X			X		X		X	X								X	X	X	X				X			X
S1	S1	1.00	09110				X			X		X		X	X								X	X	X	X				X			X
S2	S2	1.00	09150				X			X		X		X	X								X	X	X	X				X			X
S3	S3	1.00	09200				X			X		X		X	X								X	X	X	X				X			X
S4	S4	1.00	09240				X			X		X		X	X								X	X	X	X				X			X
S5	S5	1.00	09300																														
ZZZZZZ	Rinse sampl	1.00	09370																														
ICV	MICV	1.00	09450				X			X		X		X	X								X	X	X	X				X			X
ICB	ICB	1.00	09520				X			X		X		X	X								X	X	X	X				X			X
CCV	MCCV1	1.00	09560				X			X		X		X	X								X	X	X	X				X			X
CCB	CCB1	1.00	10020				X			X		X		X	X								X	X	X	X				X			X
CRI	MCRI	1.00	10060				X			X		X		X	X								X	X	X	X				X			X
ICSA	ICSAI	1.00	10100				X			X		X		X	X								X	X	X	X				X			X
ICSAB	ICSABI	1.00	10170				X			X		X		X	X								X	X	X	X				X			X
ZZZZZZ	LR200	1.00	10240																														
ZZZZZZ	B1	1.00	10310																														
ZZZZZZ	DI CHECK	1.00	10370																														
ZZZZZZ	ERAP197	10.00	10420																														
CCV	MCCV2	1.00	10470				X			X		X		X	X								X	X	X	X				X			X
CCB	CCB2	1.00	10540				X			X		X		X	X								X	X	X	X				X			X
PBS	WJ10MB2	20.00	11000																														
SD-SP-01-20130326-D	WJ10ADUP	2.00	11040				X			X		X		X	X								X	X	X	X				X			X
SD-SP-01-20130326-	WJ10A	2.00	11080				X			X		X		X	X								X	X	X	X				X			X
SD-SP-01-20130326-S	WJ10ASPK	2.00	11120				X			X		X		X	X								X	X	X	X				X			X
SD-CB-01-20130326-	WJ10D	20.00	11160				X					X		X									X	X	X	X				X			
SD-SP-01-20130326-D	WJ10CDUP	20.00	11200				X					X		X									X	X	X	X				X			
SD-SP-01-20130326-	WJ10C	20.00	11250				X					X		X									X	X	X	X				X			
SD-SP-01-20130326-S	WJ10CSPK	20.00	11290				X					X		X									X	X	X	X				X			
SD-SP-01-20130326-A	WJ10CPOST	20.00	11330											X										X	X								
LCSS	WJ10MB2SPK	20.00	11370				X					X		X									X	X	X	X				X			
CCV	MCCV3	1.00	11420				X			X		X		X	X								X	X	X	X				X			X
CCB	CCB3	1.00	11490				X			X		X		X	X								X	X	X	X				X			X
PBS	WJ10MB2	20.00	11550				X					X		X									X	X	X	X				X			
PBW	WJ10MB1	2.00	11590				X			X		X		X	X								X	X	X	X				X			X
PBW	WJ10MB3	2.00	12030				X			X		X		X	X								X	X	X	X				X			X

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: NEXION 300D MS | START DATE: 4/4/2013

SDG: WJ10 | RUNID: MS040411 | METHOD: PMS | END DATE: 4/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SD-SP-01-20130326-D	WJ10EDUP	2.00	12070				X			X		X		X	X								X	X	X	X				X			X
SD-SP-01-20130326-	WJ10E	2.00	12110																														
SD-SP-01-20130326-S	WJ10ESPK	2.00	12150				X			X		X		X	X								X	X	X	X				X			X
SD-SP-01-20130326-A	WJ10APOST	2.00	12220																														X
ZZZZZZ	ZZZZZZ	2.00	12260																														
LCSW	WJ10MB1SPK	2.00	12310				X			X		X		X	X								X	X	X	X				X			X
LCSW	WJ10MB3SPK	2.00	12350				X			X		X		X	X								X	X	X	X				X			X
CCV	MCCV4	1.00	12400				X			X		X		X	X								X	X	X	X				X			X
CCB	CCB4	1.00	12470				X			X		X		X	X								X	X	X	X				X			X
SD-SP-01-20130326-	WJ10E	2.00	12510				X			X		X		X	X								X	X	X	X				X			X
CCV	MCCV5	1.00	12590				X			X		X		X	X								X	X	X	X				X			X
CCB	CCB5	1.00	13060				X			X		X		X	X								X	X	X	X				X			X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: NEXION 300D MS | START DATE: 4/5/2013

SDG: WJ10 | RUNID: MS040511 | METHOD: PMS | END DATE: 4/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09480		X																												
S1	S1	1.00	09520		X																												
S2	S2	1.00	09550		X																												
S3	S3	1.00	09590		X																												
S4	S4	1.00	10030		X																												
S5	S5	1.00	10080																														
ZZZZZZ	Rinse sampl	1.00	10150																														
ICV	MICV	1.00	10210		X																												
ICB	ICB	1.00	10270		X																												
CCV	MCCV1	1.00	10310		X																												
CCB	CCB1	1.00	10370		X																												
CRI	MCRI	1.00	10400		X																												
ICSA	ICSAI	1.00	10440		X																												
ICSAB	ICSABI	1.00	10500		X																												
ZZZZZZ	LR200	1.00	10560																														
ZZZZZZ	B1	1.00	11020																														
ZZZZZZ	B2	1.00	11070																														
CCV	MCCV2	1.00	11110		X																												
CCB	CCB2	1.00	11180		X																												
PBW	WJ10MB1	2.00	11270		X																												
PBW	WJ10MB3	2.00	11300		X																												
SD-SP-01-20130326-D	WJ10ADUP	2.00	11340		X																												
SD-SP-01-20130326-	WJ10A	2.00	11370		X																												
SD-SP-01-20130326-S	WJ10ASPK	2.00	11410		X																												
SD-SP-01-20130326-D	WJ10EDUP	2.00	11440		X																												
SD-SP-01-20130326-	WJ10E	2.00	11480		X																												
SD-SP-01-20130326-S	WJ10ESPK	2.00	11510		X																												
LCSW	WJ10MB1SPK	2.00	11550		X																												
LCSW	WJ10MB3SPK	2.00	11580		X																												
CCV	MCCV3	1.00	12030		X																												
CCB	CCB3	1.00	12090		X																												
PBS	WJ10MB2	20.00	12130		X																												
ZZZZZZ	WJ75ADUP	20.00	12160																														
ZZZZZZ	WJ75A	20.00	12200																														
ZZZZZZ	WJ75ASPK	20.00	12240																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: NEXION 300D MS | START DATE: 4/5/2013

SDG: WJ10 | RUNID: MS040511 | METHOD: PMS | END DATE: 4/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SD-CB-01-20130326-	WJ10D	20.00	12270		X																												
SD-SP-01-20130326-D	WJ10CDUP	20.00	12310		X																												
SD-SP-01-20130326-	WJ10C	20.00	12340		X																												
SD-SP-01-20130326-S	WJ10CSPK	20.00	12380		X																												
LCSS	WJ10MB2SPK	20.00	12410		X																												
ZZZZZZ	WJ75MBSPK	20.00	12450																														
CCV	MCCV4	1.00	12490		X																												
CCB	CCB4	1.00	12560		X																												

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: CETAC MERCURY | START DATE: 4/5/2013

SDG: WJ10 | RUNID: HG040502 METHOD: CVA | END DATE: 4/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09120														X																
S0.1	S0.1	1.00	09134														X																
S0.5	S0.5	1.00	09151														X																
S1	S1	1.00	09165														X																
S2	S2	1.00	09183														X																
S5	S5	1.00	09200														X																
S10	S10	1.00	09214														X																
ICV	AICV	1.00	09251														X																
ICB	ICB	1.00	09264														X																
CCV	ACCV1	1.00	09282														X																
CCB	CCB1	1.00	09300														X																
CRA	CRA	1.00	09314														X																
ZZZZZZ	WJ49MB1	1.00	09331																														
ZZZZZZ	WJ49MB1SPK	1.00	09345																														
ZZZZZZ	WJ49A	1.00	09362																														
ZZZZZZ	WJ49B	1.00	09380																														
ZZZZZZ	WJ49BDUP	1.00	09394																														
ZZZZZZ	WJ49BSPK	1.00	09411																														
ZZZZZZ	WJ49C	1.00	09425																														
ZZZZZZ	WJ49D	1.00	09443																														
ZZZZZZ	WJ49E	1.00	09461																														
CCV	ACCV2	1.00	09474														X																
CCB	CCB2	1.00	09493														X																
ZZZZZZ	WJ49F	1.00	09510																														
ZZZZZZ	WJ49G	1.00	09524																														
ZZZZZZ	WJ49H	1.00	09541																														
ZZZZZZ	WJ49I	1.00	09555																														
ZZZZZZ	WJ49J	1.00	09573																														
ZZZZZZ	WJ49K	1.00	09590																														
ZZZZZZ	WJ49L	1.00	10004																														
ZZZZZZ	WJ49M	1.00	10022																														
ZZZZZZ	WJ49N	1.00	10035																														
ZZZZZZ	WJ49P	1.00	10053																														
CCV	ACCV3	1.00	10071														X																
CCB	CCB3	1.00	10085														X																

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: CETAC MERCURY | START DATE: 4/5/2013

SDG: WJ10 | RUNID: HG040502 | METHOD: CVA | END DATE: 4/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WJ91MB1	1.00	10103																														
ZZZZZZ	WJ91MB1SPK	1.00	10121																														
ZZZZZZ	WJ91A	1.00	10134																														
ZZZZZZ	WJ91B	1.00	10152																														
ZZZZZZ	WJ91BDUP	1.00	10170																														
ZZZZZZ	WJ91BSPK	1.00	10183																														
ZZZZZZ	WJ91C	1.00	10201																														
ZZZZZZ	WJ91D	1.00	10215																														
ZZZZZZ	WJ91E	1.00	10232																														
ZZZZZZ	WJ91F	1.00	10250																														
CCV	ACCV4	1.00	10264														X																
CCB	CCB4	1.00	10282														X																
ZZZZZZ	WJ91G	1.00	10300																														
ZZZZZZ	WJ91H	1.00	10314																														
ZZZZZZ	WJ91I	1.00	10332																														
ZZZZZZ	WJ91K	1.00	10345																														
ZZZZZZ	WJ91L	1.00	10363																														
ZZZZZZ	WJ91M	1.00	10381																														
ZZZZZZ	WJ91N	1.00	10394																														
ZZZZZZ	WJ91O	1.00	10412																														
ZZZZZZ	WJ91P	1.00	10430																														
ZZZZZZ	WJ91Q	1.00	10443																														
CCV	ACCV5	1.00	10461														X																
CCB	CCB5	1.00	10475														X																
ZZZZZZ	WJ91R	1.00	10493																														
ZZZZZZ	WJ91S	1.00	10511																														
ZZZZZZ	WJ90MB1	1.00	10525																														
ZZZZZZ	WJ90MB1SPK	1.00	10543																														
ZZZZZZ	WJ90A	1.00	10560																														
ZZZZZZ	WJ90B	1.00	10574																														
ZZZZZZ	WJ90C	1.00	10592																														
ZZZZZZ	WJ90D	1.00	11010																														
ZZZZZZ	WJ90E	1.00	11023																														
ZZZZZZ	WJ90F	1.00	11041																														
CCV	ACCV6	1.00	11055														X																

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: CETAC MERCURY | START DATE: 4/5/2013

SDG: WJ10 | RUNID: HG040502 | METHOD: CVA | END DATE: 4/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCB	CCB6	1.00	11073														X																
ZZZZZZ	WJ90FDUP	1.00	11091																														
ZZZZZZ	WJ90FSPK	1.00	11105																														
PBW	WJ10MB2	1.00	11122														X																
LCSW	WJ10MB2SPK	1.00	11140														X																
SD-SP-01-20130326-	WJ10C	1.00	11154														X																
SD-SP-01-20130326-D	WJ10CDUP	1.00	11172														X																
SD-SP-01-20130326-S	WJ10CSPK	1.00	11190														X																
SD-CB-01-20130326-	WJ10D	1.00	11204														X																
CCV	ACCV7	1.00	11222														X																
CCB	CCB7	1.00	11240														X																

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ32

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SD-SP-01-20130326-	WJ32A	13-6440	
SD-SP-01-20130326-D	WJ32ADUP	13-6440	
SD-SP-01-20130326-S	WJ32ASPK	13-6440	
PBW	WJ32MB1	13-6440	
LCSW	WJ32MB1SPK	13-6440	
SD-SP-01-20130326-	WJ32B	13-6441	
SD-SP-01-20130326-D	WJ32BDUP	13-6441	
SD-SP-01-20130326-S	WJ32BSPK	13-6441	
PBW	WJ32MB2	13-6441	
LCSW	WJ32MB2SPK	13-6441	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 4/9/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 04/08/13
Date Received: 03/27/13
Page 1 of 1

QC Report No: WJ32-SAIC
Project: NPDES Sampling Support
209977

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
SD-SP-01-20130326-W WJ32A 13-6440	03/26/13	Water	04/01/13 04/05/13	20.0	20.0 U
MB-040113 Method Blank	NA	Water	04/01/13 04/05/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SD-SP-01-20130326-W
MATRIX SPIKE

Lab Sample ID: WJ32A
LIMS ID: 13-6440
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ32-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	97.9	100	97.9%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SD-SP-01-20130326-W
DUPLICATE

Lab Sample ID: WJ32A
LIMS ID: 13-6440
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ32-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: WJ32LCS
LIMS ID: 13-6440
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ32-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	192	200	96.0%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

Data Release Authorized:
Reported: 04/08/13
Date Received: 03/27/13
Page 1 of 1

QC Report No238: WJ32-SAIC
Project: NPDES Sampling Support
209977

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
SD-SP-01-20130326-W WJ32B 13-6441	03/26/13	Water	04/01/13 04/05/13	20.0	20.0 U
MB-040113 Method Blank	NA	Water	04/01/13 04/05/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: SD-SP-01-20130326-W
MATRIX SPIKE

Lab Sample ID: WJ32B
LIMS ID: 13-6441
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ32-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	102	100	102%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: SD-SP-01-20130326-W
DUPLICATE

Lab Sample ID: WJ32B
LIMS ID: 13-6441
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ32-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 03/26/13
Date Received: 03/27/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS **Sample ID: LAB CONTROL**

Lab Sample ID: WJ32LCS
LIMS ID: 13-6441
Matrix: Water
Data Release Authorized:
Reported: 04/08/13

QC Report No: WJ32-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	205	200	102%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ32

UNITS: ng/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG040503	500.0	522.00	**104.4**	500.0	501.00	**100.2**	503.00	**100.6**	504.00	**100.8**	462.00	**92.4**	466.00	**93.2**

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ32

UNITS:ng/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG040503		20.0	20.60	**103.0**										

Control Limits: no control limits have been established by the EPA at this time.

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ32

UNITS:ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG040503	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ32 UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ32

ANALYSIS METHOD: CVL

ARI PREP CODE: DLM

PREPDATE: 4/1/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SD-SP-01-20130326-	WJ32B	0.000	20.0	20.0
SD-SP-01-20130326-D	WJ32BDUP	0.000	20.0	20.0
SD-SP-01-20130326-S	WJ32BSPK	0.000	20.0	20.0
PBW	WJ32MB2	0.000	20.0	20.0
LCSW	WJ32MB2SPK	0.000	20.0	20.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WJ32

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 4/1/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SD-SP-01-20130326-	WJ32A	0.000	20.0	20.0
SD-SP-01-20130326-D	WJ32ADUP	0.000	20.0	20.0
SD-SP-01-20130326-S	WJ32ASPK	0.000	20.0	20.0
PBW	WJ32MB1	0.000	20.0	20.0
LCSW	WJ32MB1SPK	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: CETAC MERCURY | START DATE: 4/5/2013

SDG: WJ32 | RUNID: HG040503 | METHOD: CVL | END DATE: 4/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	12553														X																
S20	S20	1.00	12581														X																
S50	S50	1.00	13005														X																
S100	S100	1.00	13033														X																
S200	S200	1.00	13061														X																
S400	S400	1.00	13090														X																
S1000	S1000	1.00	13114														X																
ICV	AICV	1.00	13160														X																
ICB	ICB	1.00	13184														X																
CCV	ACCV1	1.00	13212														X																
CCB	CCB1	1.00	13241														X																
CRA	CRA	1.00	13265														X																
ZZZZZZ	LODMB	1.00	13293																														
ZZZZZZ	LOD1	1.00	13321																														
ZZZZZZ	LOD2	1.00	13345																														
ZZZZZZ	LOD3	1.00	13373																														
PBW	WJ32MB2	1.00	13401														X																
LCSW	WJ32MB2SPK	1.00	13430														X																
SD-SP-01-20130326-	WJ32B	1.00	13454														X																
SD-SP-01-20130326-D	WJ32BDUP	1.00	13482														X																
SD-SP-01-20130326-S	WJ32BSPK	1.00	13510														X																
CCV	ACCV2	1.00	13535														X																
CCB	CCB2	1.00	13563														X																
ZZZZZZ	WJ52MB1	1.00	13592																														
ZZZZZZ	WJ52MB1SPK	1.00	14020																														
ZZZZZZ	WJ52A	1.00	14044																														
ZZZZZZ	WJ52ADUP	1.00	14072																														
ZZZZZZ	WJ52ASPK	1.00	14100																														
ZZZZZZ	WJ52B	1.00	14124																														
ZZZZZZ	WJ52C	1.00	14152																														
ZZZZZZ	WJ52D	1.00	14180																														
ZZZZZZ	WJ52E	1.00	14205																														
ZZZZZZ	WJ52MB2	1.00	14233																														
CCV	ACCV3	1.00	14261														X																
CCB	CCB3	1.00	14290														X																

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: CETAC MERCURY | START DATE: 4/5/2013

SDG: WJ32 | RUNID: HG040503 | METHOD: CVL | END DATE: 4/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WJ52MB2SPK	1.00	14314																														
ZZZZZZ	WJ52F	1.00	14343																														
ZZZZZZ	WJ52FDUP	1.00	14371																														
ZZZZZZ	WJ52FSPK	1.00	14395																														
ZZZZZZ	WJ52G	1.00	14423																														
ZZZZZZ	WJ52H	1.00	14451																														
ZZZZZZ	WJ52I	1.00	14475																														
ZZZZZZ	WJ52J	1.00	14503																														
PBW	WJ32MB1	1.00	14532														X																
LCSW	WJ32MB1SPK	1.00	14560														X																
CCV	ACCV4	1.00	14584														X																
CCB	CCB4	1.00	15013														X																
SD-SP-01-20130326-	WJ32A	1.00	15041														X																
SD-SP-01-20130326-D	WJ32ADUP	1.00	15065														X																
SD-SP-01-20130326-S	WJ32ASPK	1.00	15094														X																
CCV	ACCV5	1.00	15122														X																
CCB	CCB5	1.00	15151														X																

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

SAMPLE RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Client ID: SD-SP-01-20130326-W
ARI ID: 13-6435 WJ10A

Analyte	Date Batch	Method	Units	RL	Sample
pH	03/27/13 032713#1	SM4500H	std units	0.01	6.47
Alkalinity	03/28/13 032813#1	SM 2320	mg/L CaCO3	1.0	41.1
Carbonate	03/28/13	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Bicarbonate	03/28/13	SM 2320	mg/L CaCO3	1.0	41.1
Hydroxide	03/28/13	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Conductivity	04/02/13 040213#1	EPA 120.1	umhos/cm	1.00	92.8
Total Suspended Solids	04/01/13 040113#1	SM2540D	mg/L	2.1	26.0
Chloride	03/27/13 032713#1	EPA 300.0	mg/L	5.0	< 5.0 U
N-Nitrate	03/27/13 032713#1	EPA 300.0	mg-N/L	5.0	< 5.0 U
N-Nitrate	04/01/13	Calculated	mg-N/L	0.010	0.019
N-Nitrite	04/01/13 040113#1	EPA 353.2	mg-N/L	0.010	< 0.010 U
Nitrate + Nitrite	03/28/13 032813#1	EPA 353.2	mg-N/L	0.010	0.019
Sulfate	03/27/13 032713#1	EPA 300.0	mg/L	5.0	< 5.0 U
Total Organic Carbon	03/29/13 032913#1	SM5310B	mg/L	1.50	9.06
Dissolved Organic Carbon	03/29/13 032913#1	SM5310B	mg/L	1.50	9.07

RL Analytical reporting limit
U Undetected at reported detection limit

MS/MSD RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Analyte	Method	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: WJ10A Client ID: SD-SP-01-20130326-W							
N-Nitrite	EPA 353.2	04/01/13	mg-N/L	< 0.010	0.514	0.500	102.8%
Nitrate + Nitrite	EPA 353.2	03/28/13	mg-N/L	0.019	0.560	0.500	108.2%

REPLICATE RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: WJ10A Client ID: SD-SP-01-20130326-W						
pH	SM4500H	03/27/13	std units	6.47	6.51	0.04
Conductivity	EPA 120.1	04/02/13	umhos/cm	92.8	93.0	0.2%
Total Suspended Solids	SM2540D	04/01/13	mg/L	26.0	28.5	9.2%
N-Nitrite	EPA 353.2	04/01/13	mg-N/L	< 0.010	< 0.010	NA
Nitrate + Nitrite	EPA 353.2	03/28/13	mg-N/L	0.019	< 0.010	NA

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

LAB CONTROL RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
pH SM4500H	ICVL	03/27/13	std units	7.03	7.00	0.03
Total Suspended Solids SM2540D	ICVL	04/01/13	mg/L	49.9	50.0	99.8%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

METHOD BLANK RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Analyte	Method	Date	Units	Blank	ID
Conductivity	EPA 120.1	04/02/13	umhos/cm	< 1.00 U	
Total Suspended Solids	SM2540D	04/01/13	mg/L	< 1.0 U	
Chloride	EPA 300.0	03/27/13	mg/L	< 0.1 U	
N-Nitrate	EPA 300.0	03/27/13	mg-N/L	< 0.1 U	
N-Nitrite	EPA 353.2	04/01/13	mg-N/L	< 0.010 U	FB
Nitrate + Nitrite	EPA 353.2	03/28/13	mg-N/L	< 0.010 U	FB
Sulfate	EPA 300.0	03/27/13	mg/L	< 0.1 U	
Total Organic Carbon	SM5310B	03/29/13	mg/L	< 1.50 U	
Dissolved Organic Carbon	SM5310B	03/29/13	mg/L	< 1.50 U	
		03/29/13		< 1.50 U	FB

FB Filtration Blank

STANDARD REFERENCE RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
Alkalinity ERA #P114506	SM 2320	03/28/13	mg/L CaCO3	41.2	41.9	98.3%
Conductivity Ricca #4110724	EPA 120.1	04/02/13	umhos/cm	1,010	1,000	101.0%
Chloride ERA 210312	EPA 300.0	03/27/13	mg/L	3.0	3.0	100.0%
N-Nitrate EAR 230511	EPA 300.0	03/27/13	mg-N/L	3.0	3.0	100.0%
N-Nitrite ERA #23034	EPA 353.2	04/01/13	mg-N/L	0.500	0.500	100.0%
Nitrate + Nitrite ERA #20034	EPA 353.2	03/28/13	mg-N/L	0.491	0.500	98.2%
Sulfate ERA 240312	EPA 300.0	03/27/13	mg/L	3.1	3.0	103.3%
Total Organic Carbon ERA 0409-12-01	SM5310B	03/29/13	mg/L	20.8	20.0	104.0%
Dissolved Organic Carbon ERA 0409-12-01	SM5310B	03/29/13	mg/L	20.8	20.0	104.0%

SAMPLE RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Solids
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Client ID: SD-SP-01-20130326-S
ARI ID: 13-6437 WJ10C

Analyte	Date	Method	Units	RL	Sample
Total Solids	04/01/13 040113#1	SM2540G	Percent	0.01	45.42
Total Organic Carbon	04/11/13 041113#1	Plumb,1981	Percent	0.196	10.1

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Solids
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Client ID: SD-CB-01-20130326-S
ARI ID: 13-6438 WJ10D

Analyte	Date	Method	Units	RL	Sample
Total Solids	04/01/13 040113#1	SM2540G	Percent	0.01	50.82
Total Organic Carbon	04/11/13 041113#1	Plumb,1981	Percent	0.200	11.0

RL Analytical reporting limit
U Undetected at reported detection limit

MS/MSD RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Solids
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: WJ10C Client ID: SD-SP-01-20130326-S						
Total Organic Carbon	04/11/13	Percent	10.1	28.5	18.9	97.2%

REPLICATE RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Solids
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 03/26/13
Date Received: 03/27/13

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: WJ10C Client ID: SD-SP-01-20130326-S					
Total Solids	04/01/13	Percent	45.42	43.65 44.38	2.0%
Total Organic Carbon	04/11/13	Percent	10.1	9.57 7.76	13.4%

LAB CONTROL RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Solids
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb,1981	ICVL	04/11/13	Percent	0.092	0.100	92.0%

METHOD BLANK RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Solids
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	04/01/13	Percent	< 0.01 U
Total Organic Carbon	04/11/13	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
WJ10-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Solids
Data Release Authorized:
Reported: 04/12/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST 1941B	04/11/13	Percent	2.72	2.99	91.0%

Geotechnical Analysis
Report and Summary QC Forms

ARI Job ID: WJ10, WJ32

SAIC
NPDES Sampling Support
209977

Modified PSEP - Sieve/Sedigraph Method
Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
SD-SP-01-20130326-S	100.0	100.0	98.5	93.2	85.3	73.5	60.3	48.9	40.5	25.3	16.2	12.1	9.4	8.7
SD-CB-01-20130326-S	100.0	99.9	94.8	84.1	67.0	45.3	28.0	17.1	14.7	10.5	7.8	6.3	5.0	4.6

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

WJ10

SAIC
NPDES Sampling Support
209977

Modified PSEP - Sieve/Sedigraph Method
Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	< -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	> 10	> 4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62 5-31 0	31 0-15.6	15.6-7.8	7 8-3.9	3 9-2.0	2 0-1 0	<1 0	<230 (<62)
SD-SP-01-20130326-S	1.5	5.3	7 9	11.9	13.1	11.4	8.4	15.2	9.1	4 1	2.7	0.7	8.7	48.9
SD-CB-01-20130326-S	5.2	10.7	17.1	21.7	17.3	10.9	2.4	4.2	2.7	1.5	1.3	0.4	4.6	17.1

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

WJ10

Total Solids

ARI Job ID: WJ10, WJ32

Volatiles Total Solids-voats
Data By: Pat Basilio
Created: 4/ 3/13

Worklist: 577
Analyst: PAB
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

ARI ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids
1. WJ10D 13-6438	_____	_____		% 40.11

Worklist ID: 577 Page: 1
* - VOA TS Copied From BETX TS
% - VOA TS Copied From Metals TS
$ - VOA TS Copied From Extraction TS

Total Solids Targets-Extractions
Data By: Steve Potter
Created: 4/ 1/13

Worklist: 9682
Analyst: SDP
Comments:

	ARI ID	Target Dry Wt (g)	Total Solids	Min Wet Wt (g)
1.	WJ10C	10.00	47.2	21.19
2.	WJ10D	10.00	55.9	17.89

Extractions Total Solids-extts
Data By: Yen Luu
Created: 3/28/13

Worklist: 9277
Analyst: RVR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	WJ10C 13-6437 SD-SP-01-20130326-S	1.17	12.22	6.39	47.2	NR
2.	WJ10D 13-6438 SD-CB-01-20130326-S	1.16	11.70	7.05	55.9	NR

Extractions Total Solids-extts
Data By: Yen Luu
Created: 3/28/13

Worklist: 9277
Analyst: YL
Comments:

Oven ID: Φ15

Balance ID: B14642614

Samples In: Date: 3/28/13 Time: 15:45 Temp: 162 Analyst: YL

Samples Out: Date: 03/29/13 Time: 06:40 Temp: 100°C Analyst: RR

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	WJ10C 13-6437 SD-SP-01-20130326-S	1.17	12.22	6.39		NR
2.	WJ10D 13-6438 SD-CB-01-20130326-S	1.16	11.70	7.05		NR

Solids Data Entry Report Checked by: MB Date: 04/02/13
Date: 04/02/13 Data Analyst: DM

Solids Determination performed on 04/01/13 by CB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
WJ10	C	SD-SP-01-20130326-S	0.977	10.620	5.044	42.18
WJ10	D	SD-CB-01-20130326-S	0.972	10.016	4.600	40.11

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section metals

Oven Identification: 07 **Balance ID:** 068752

Samples in Oven: Date: 4-01-13 Time: 0910 Temp: 104°C Analyst: CB

Removed from Oven: Date: 4-02-13 Time: 0715 Temp: 103°C Analyst: CB

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
WJ62 A	0.961	10.944	10.155	-	√
WJ61 A	0.997	CB 4/1/13 10.968 ~~10.966~~	7.668	-	J
" B	1.017	10.503	7.894	-	J
WJ10 C	0.977	10.620	5.044	-	J
" D	0.972	10.016	4.600	-	J
WJ08 A	0.963	10.464	10.035	-	J
" B	0.999	10.454	10.049	-	J
" C	1.016	10.522	10.174	-	J
" D	1.027	10.319	9.893	-	J
		CB 4-01-13			

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

Volatile Raw Data
Preparation Log

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Method 5035 Extraction Bench Sheet

(8260B, 8260B-SIM, 8021, NWTPH-Gx, AK-101, TPH-G, VPH, TCLP-ZHE)

ARI Project No.	Client ID	Prep/Extraction Date	MeOH Lot No.	Analyst
WJ10		4/1/13		IP

	Lab ID	Vial No.	Preservative			Method 5035 Sample Weight					Comments
			$NaHSO_3$	CH_3OH	Lot #	Vial Weight (g)	Tare (from vial) (g)	Sample Weight (g)	Extract Volume (mL)	MeOH Spilt Volume (µL)	
1	WJ10D	1	-		W778-7	43.85	35.14	8.69			
2											
3	D2	2		-	DE695	37.70	28.136	9.564	Spike	5 mL	
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
					Balance ID:						

Volatile Raw Data
Initial Calibration Notes and Raw Data

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Initial Calibration Notes

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.3) **710S**(RSK-175)

Instrument: NT-2 NT-3 NT-5 NT-7 NT-9 PID-1 PID-2 PID-3 FID-6

Curve Date(s): 3/22/13 Internal Standard ID VW7884 Expiration 9/14/13

BFB Tune Meets Criteria?	YES / NO	ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria?	YES / NO	ICV Exceeding ±30%?	4/1/13 YES / NO
Q flag applied?	YES / NO	Linear Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Quadratic Fits Used?	YES / NO
Spectral Library Updated?	YES / NO	Calibration Points Dropped?	YES / NO
Minimum Response Factors Met	YES / NO	Purge Volume (mL)	10

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
ultra	VW789-3	8/16/13	accustd	VW767-4	4/9/13
absolute	VW786-2	8/26/13	SPEX	VW783-1	3/6/13
	VW790-1	6/30/13	supelco	↓	↓
restek	VW787-3	6/17/13	ultra	I7948	7/26/13

Detail problems, corrective actions and/or other pertinent information below:

ICV - acetone 122% R, DCA 121% R, VA 52% n, trans-1,4-dichloro-2-butene 78% n

Analyst: MJ / LH **Date:** 4/1/13

Reviewer: _____ **Date:** _____

WJ10:00401

Analytical Resources Inc.: Organics Instrument Log

NT-3 Serial No.: US81221575

Date: 3/22/13 Analysis: SVMC Analyst: JM

GC Program: WA1 Column No: 941944 Column Type: MTX VOA

Instrument Tune (.U or .CT.): bfb0322.U EM Voltage: 1988

Calibration File: b(90)22 Curve Date: 3/22/13 Injection Vol.: 10

IS/SS	Ical/Ccal	LCS/ICV
W788-1	W790-2	W767-4
	W790-3	W787-1
		ICV4

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt3.i/03222013.b

	Time	Filename	LabID	ClientID	Vial#	pH	DF							
1	0830	bfb0322.d	BFB0322	BFB0322			1							
2	1220	bfb0322a.d	BFB0322A	BFB0322			1							
3	1251	vstd002.d	VSTD0 2	VSTD0.2			1	5 53	476193	5 92	804868	7 98	721875	9 67 379074
4	1318	vstd80.d	VSTD80	VSTD80			1	5.53	596282	5.92	1011180	7 98	932158	9.67 504831
5	1344	vstd40.d	VSTD40	VSTD40			1	5.53	596124	5.92	1024897	7.98	928880	9.67 513512
6	1411	vstd20.d	VSTD20	VSTD20			1	5.53	545323	5 92	[illegible]	7.98	872780	9.66 495118
7	1437	vstd10 d	VSTD10	VSTD10			1	5.54	536425	5 92	907870	7.98	856141	9.67 481945
8	1504	vstd02.d	VSTD02	VSTD02			1	5 53	540344	5.92	897637	7.98	870944	9.67 468437
9	1530	vstd01.d	VSTD01	VSTD01			1	5.53	533907	5.92	893593	7.98	871355	9.67 528584
10	1556	vstd005 d	VSTD0.5	VSTD0 5			1	5 53	502972	5.92	843637	7.98	826171	9.67 434203

3/25/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Data File: /chem3/nt3.i/03222013.b/bfb0322a.d

Date : 22-MAR-2013 12:20

Client ID: BFB0322

Instrument: nt3.i

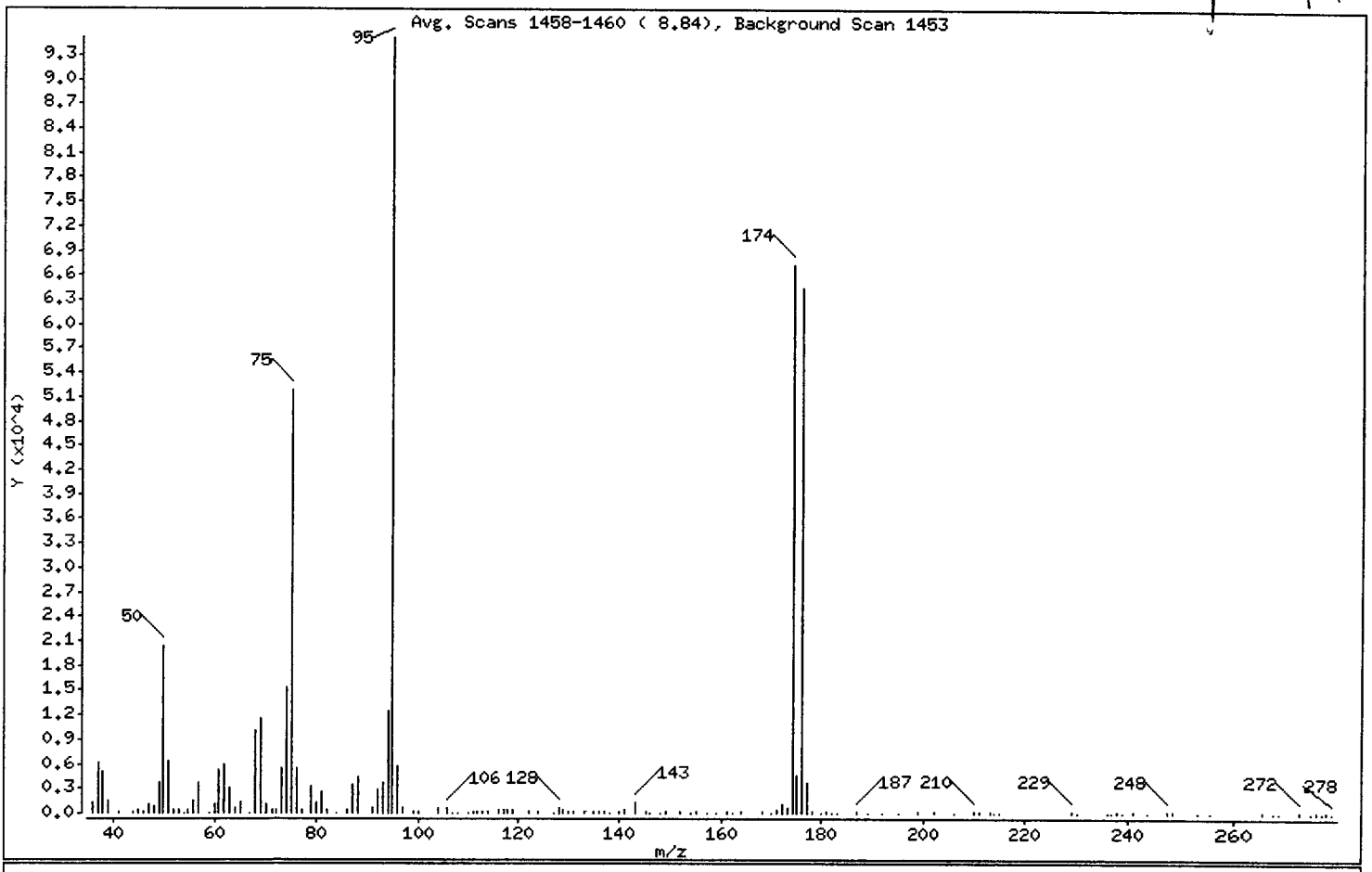
Sample Info: BFB0322A,BFB0322,,1,22MAR13,,

Operator: LH

Column phase: RTXVMS

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.42
75	30.00 - 60.00% of mass 95	54.54
96	5.00 - 9.00% of mass 95	5.99
173	Less than 2.00% of mass 174	0.79 (1.12)
174	50.00 - 100.00% of mass 95	70.79
175	5.00 - 9.00% of mass 174	4.94 (6.98)
176	95.00 - 101.00% of mass 174	67.86 (95.85)
177	5.00 - 9.00% of mass 176	3.82 (5.63)

WJ10:00483

Data File: /chem3/nt3.i/03222013.b/bfb0322a.d

Date : 22-MAR-2013 12:20

Client ID: BFB0322

Instrument: nt3.i

Sample Info: BFB0322A,BFB0322,,1,22MAR13,,

Operator: LH

Column phase: RTXVMS

Column diameter: 0.18

Data File: bfb0322a.d
Spectrum: Avg. Scans 1458-1460 (8.84), Background Scan 1453
Location of Maximum: 95.00
Number of points: 147

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1282	79.00	3214	129.00	514	183.00	73
37.00	6087	80.00	1344	130.00	211	187.00	213
38.00	5054	81.00	2555	131.00	245	189.00	54
39.00	1464	82.00	463	133.00	272	190.00	93
41.00	284	84.00	93	135.00	319	192.00	84
44.00	275	86.00	346	136.00	116	195.00	50
45.00	489	87.00	3590	137.00	252	199.00	136
46.00	194	88.00	4313	138.00	81	202.00	123
47.00	1169	91.00	592	140.00	128	206.00	89
48.00	769	92.00	2793	141.00	478	210.00	237
49.00	3746	93.00	3771	143.00	1345	211.00	143
50.00	20384	94.00	12490	145.00	323	213.00	130
51.00	6367	95.00	95144	146.00	88	214.00	50
52.00	539	96.00	5700	148.00	101	215.00	75
53.00	457	97.00	608	149.00	211	229.00	210
54.00	84	99.00	164	152.00	293	230.00	55
55.00	399	100.00	117	154.00	84	236.00	79
56.00	1463	102.00	75	155.00	125	237.00	5
57.00	3635	104.00	575	157.00	67	238.00	124
59.00	101	105.00	76	159.00	58	239.00	52
60.00	1049	106.00	699	161.00	187	241.00	168
61.00	5316	107.00	93	162.00	85	244.00	61
62.00	5902	108.00	87	164.00	125	248.00	266
63.00	3168	110.00	54	166.00	50	249.00	165
64.00	599	111.00	117	168.00	210	254.00	78
65.00	1224	112.00	192	170.00	63	256.00	94
67.00	28	113.00	293	171.00	392	265.00	119
68.00	9985	114.00	158	172.00	1029	266.00	96
69.00	11582	116.00	338	173.00	753	267.00	94
70.00	1192	117.00	407	174.00	67352	268.00	51
71.00	335	118.00	446	175.00	4700	272.00	195
72.00	383	119.00	362	176.00	64560	274.00	101
73.00	5393	122.00	210	177.00	3635	275.00	115
74.00	15335	124.00	314	178.00	115	276.00	66
75.00	51888	126.00	104	180.00	50	277.00	149

Data File: /chem3/nt3.i/03222013.b/bfb0322a.d

Date : 22-MAR-2013 12:20

Client ID: BFB0322

Instrument: nt3.i

Sample Info: BFB0322A,BFB0322,,1,22MAR13,,

Operator: LH

Column phase: RTXVMS

Column diameter: 0.18

Data File: bfb0322a.d

Spectrum: Avg. Scans 1458-1460 (8.84), Background Scan 1453

Location of Maximum: 95.00

Number of points: 147

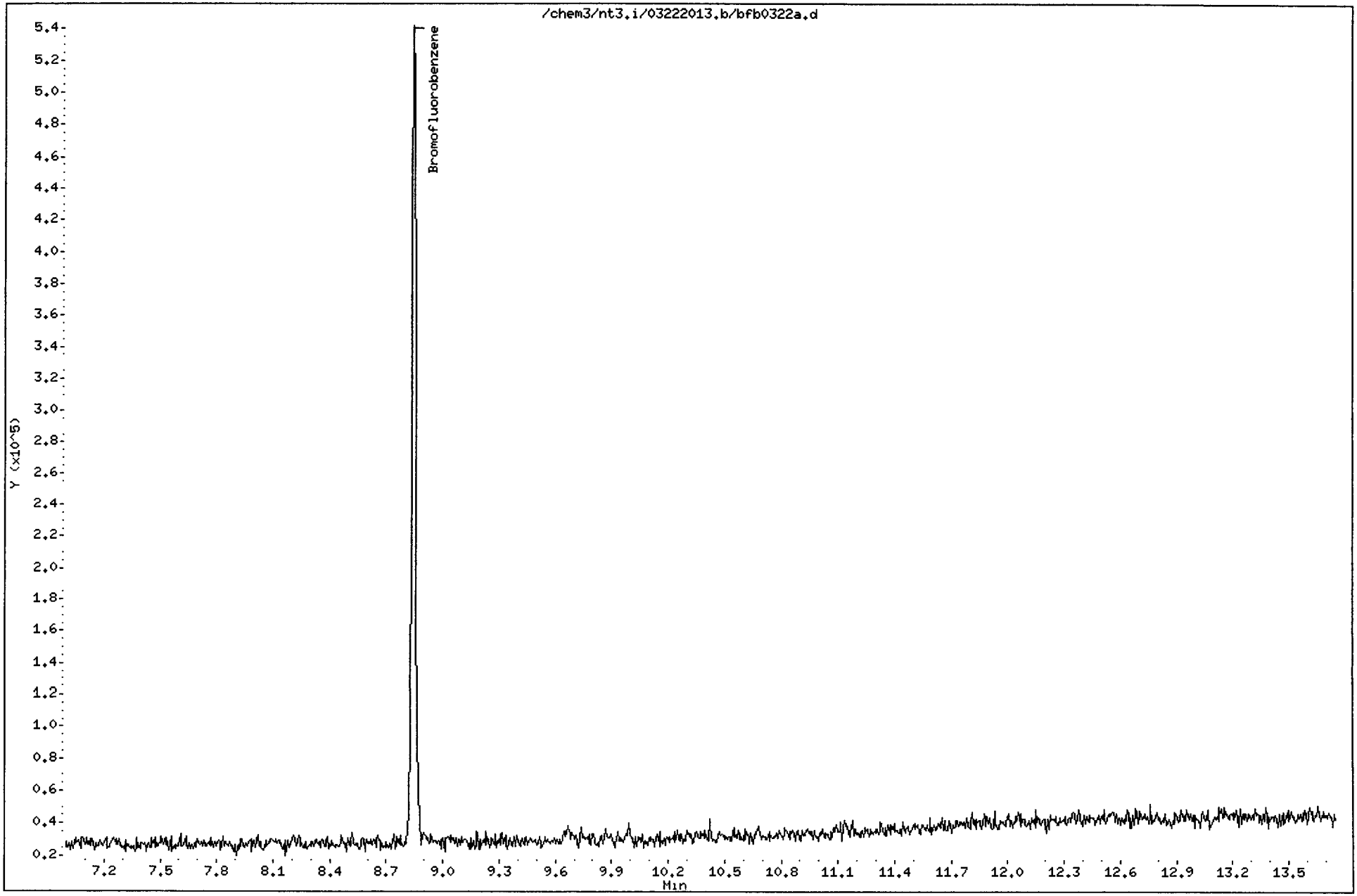
m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	5359	127.00	53	181.00	203	278.00	91
77.00	530	128.00	579	182.00	66		

Data File: /chem3/nt3.i/03222013.b/bfb0322a.d
Date : 22-MAR-2013 12:20
Client ID: BFB0322
Sample Info: BFB0322A,BFB0322,,1,22MAR13,,

Instrument: nt3.i

Operator: LH
Column diameter: 0.18

Column phase: RTXVMS



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Calibration File Names:
Level 1: /chem3/nt3.i/03222013.b/vstd002.d
Level 2: /chem3/nt3.i/03222013.b/vstd005.d
Level 3: /chem3/nt3.i/03222013.b/vstd01.d
Level 4: /chem3/nt3.i/03222013.b/vstd02.d
Level 5: /chem3/nt3.i/03222013.b/vstd10.d
Level 6: /chem3/nt3.i/03222013.b/vstd20.d
Level 7: /chem3/nt3.i/03222013.b/vstd40.d
Level 8: /chem3/nt3.i/03222013.b/vstd80.d

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	40 Level 7	80 Level 8									
1 Dichlorodifluoromethane	0.93838	0.76756	0.65053	0.65815	0.74772	0.75782					
	0.69633	0.68810					AVRG		0.73807		12.51925
2 Chloromethane	0.98647	0.84522	0.85041	0.81138	0.81282	0.81104					
	0.73308	0.72351					AVRG		0.82174		9.89925
3 Vinyl Chloride	1.06480	0.88693	0.86346	0.85112	0.91344	0.93333					
	0.86100	0.86687					AVRG		0.90512		7.78481

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	40 Level 7	80 Level 8									
4 Bromomethane	0.57960	0.52615	0.47624	0.46006	0.46887	0.46862					
	0.43438	0.43031					AVRG		0.48053		10.33446
5 Chloroethane	7470	13694	17251	62025	287699	599309					
	1258397	2722889					LINR	0.000e+00	0.56181		0.99854
6 Trichlorofluoromethane	1.04999	0.60373	0.98390	0.96431	0.93609	0.96844					
	0.93042	0.97217					AVRG		0.92613		14.60702
7 1,1-Dichloroethene	0.69814	0.65749	0.65740	0.59829	0.60727	0.58483					
	0.55594	0.58481					AVRG		0.61802		7.75788
8 Carbon Disulfide	2.40449	2.20808	2.18092	2.05845	2.07404	2.06380					
	1.91233	1.88754					AVRG		2.09871		7.95262
9 112Trichloro122Trifluoroethan	0.80451	0.66521	0.63105	0.57959	0.59594	0.61078					
	0.57055	0.59087					AVRG		0.63106		12.10081
10 Iodomethane	1.00484	0.56790	0.92421	0.89136	0.88380	0.88883					
	0.81949	0.82669					AVRG		0.85089		15.05630

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	40 Level 7	80 Level 8										
11 Bromoethane	0.40540	0.42639	0.44364	0.43194	0.42439	0.43157						
	0.39944	0.40304					AVRG		0.42072		3.82652	
12 Acrolein	+++++	0.07004	0.08814	0.09526	0.09652	0.09851						
	0.09873	0.10399					AVRG		0.09303		12.03706	
13 Methylene Chloride	+++++	24874	41705	77638	326253	673263						
	1347259	2720538					LINR	0.000e+00	0.57233		0.99927	
14 Acetone	+++++	13391	45952	64832	254144	506882						
	+++++	+++++					LINR	0.000e+00	0.09388		0.99624	
15 Trans-1,2-Dichloroethene	0.70182	0.66270	0.64163	0.60934	0.59831	0.60637						
	0.56990	0.57317					AVRG		0.62040		7.32508	
173 n-hexane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
16 Methyl tert butyl ether	1.80725	1.59444	1.84549	1.73811	1.66661	1.72895						
	1.62491	1.49278					AVRG		1.68732		6.88641	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	40 Level 7	80 Level 8										
17 1,1-Dichloroethane	1.19888	1.26047	1.21457	1.17636	1.13379	1.15000						
	1.07347	1.04408					AVRG		1.15645		6.24077	
18 Acrylonitrile	+++++	0.10613	0.12770	0.17855	0.13724	0.15776						
	0.12947	0.13383					AVRG		0.13867		16.76938	
19 Vinyl Acetate	1.29643	1.04904	1.10227	1.08938	1.09659	1.10986						
	1.07101	1.08293					AVRG		1.11219		6.91060	
20 Cis-1,2-Dichloroethene	0.71347	0.66405	0.69834	0.62944	0.62869	0.63647						
	0.58125	0.58518					AVRG		0.64211		7.45806	
21 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
22 2,2-Dichloropropane	0.93429	0.72815	0.72747	0.72309	0.68930	0.72150						
	0.67568	0.62410					AVRG		0.72795		12.46676	
23 Bromochloromethane	0.37800	0.31199	0.33238	0.31950	0.28297	0.27670						
	0.26105	0.25977					AVRG		0.30279		13.42206	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	40 Level 7	80 Level 8									
24 Chloroform	1.07593	1.12308	1.07047	1.10555	1.01167	1.02300					
	0.94128	0.92598					AVRG		1.03462		7.02937
25 Carbon Tetrachloride	0.38087	0.55690	0.49149	0.48087	0.45002	0.45903					
	0.42550	0.42748					AVRG		0.45902		11.47437
27 1,1,1-Trichloroethane	1.10050	0.93731	0.98322	0.91597	0.89608	0.91916					
	0.85093	0.82684					AVRG		0.92875		9.12739
28 2-Butanone	12198	24452	89347	122582	577841	1172553					
	2325837	4979965					LINR	0.000e+00	0.20678		0.99875
29 1,1-Dichloropropene	0.50822	0.51031	0.50989	0.51215	0.49285	0.50400					
	0.48739	0.49273					AVRG		0.50219		1.93347
30 Benzene	1.55883	1.45456	1.52587	1.56610	1.41325	1.41054					
	1.29030	1.18002					AVRG		1.42493		9.46665
33 1,2-Dichloroethane	0.53369	0.50007	0.52770	0.51432	0.46050	0.45683					
	0.43261	0.42436					AVRG		0.48126		8.94933

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	40 Level 7	80 Level 8										
34 Trichloroethene	0.40392	0.33268	0.36583	0.34395	0.34505	0.33777						
	0.32491	0.33268					AVRG		0.34835		7.33976	
35 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
37 Dibromomethane	0.22749	0.22872	0.24818	0.20139	0.19080	0.19233						
	0.18289	0.18187					AVRG		0.20671		12.00205	
38 1,2-Dichloropropane	0.39056	0.35091	0.36430	0.35576	0.34450	0.35359						
	0.34075	0.34687					AVRG		0.35590		4.43427	
39 Bromodichloromethane	0.54251	0.48438	0.31125	0.45865	0.43354	0.42697						
	0.41049	0.41705					AVRG		0.43561		15.24186	
40 2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
41 2-Chloroethyl Vinyl Ether	+++++	0.16178	0.20977	0.18476	0.18703	0.17423						
	0.19453	0.21029					AVRG		0.18891		9.41054	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	40 Level 7	80 Level 8									
42 Cis 1,3-dichloropropene	0.49977	0.52478	0.49758	0.53370	0.52821	0.52780					
	0.53286	0.53382					AVRG		0.52231		2.86192
44 Toluene	0.90127	0.74928	0.81908	0.82431	0.79281	0.79576					
	0.78025	0.76134					AVRG		0.80301		5.89083
45 Tetrachloroethene	0.36481	0.32577	0.32581	0.32971	0.33106	0.33390					
	0.34314	0.34603					AVRG		0.33753		3.94286
46 4-Methyl-2-Pentanone	0.35788	0.36846	0.41544	0.36780	0.36851	0.37028					
	0.33463	0.28573					AVRG		0.35859		10.29146
47 Trans 1,3-Dichloropropene	0.54357	0.45600	0.50016	0.50627	0.51837	0.50629					
	0.50544	0.50659					AVRG		0.50534		4.78661
48 1,1,2-Trichloroethane	0.30042	0.28612	0.31371	0.30995	0.26057	0.26032					
	0.25882	0.26457					AVRG		0.28181		8.39046
49 Chlorodibromomethane	0.44876	0.31495	0.32950	0.34287	0.31496	0.32049					
	0.32513	0.32379					AVRG		0.34006		13.18238

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	40 Level 7	80 Level 8									
50 1,3-Dichloropropane	0.58812	0.52788	0.57629	0.53082	0.52623	0.51136					
	0.53121	0.52625					AVRG		0.53977		5.01986
51 1,2-Dibromoethane	0.33266	0.32187	0.30804	0.29734	0.28725	0.26480					
	0.26701	0.26840					AVRG		0.29342		8.88592
52 2-Hexanone	0.32490	0.28834	0.31339	0.30546	0.30125	0.29671					
	0.28305	0.23937					AVRG		0.29406		8.77262
54 Chlorobenzene	0.96880	0.99895	0.94346	0.95859	0.94869	0.93126					
	0.92751	0.88815					AVRG		0.94568		3.43826
55 Ethyl Benzene	1.51238	1.48115	1.68293	1.62457	1.66477	1.67094					
	1.57731	1.35225					AVRG		1.57079		7.36087
56 1,1,1,2-Tetrachloroethane	0.43048	0.29047	0.35199	0.33289	0.33160	0.34782					
	0.33506	0.33010					AVRG		0.34380		11.51557
57 m,p-xylene	0.58951	0.55947	0.56353	0.59683	0.63345	0.63903					
	0.61745	0.56103					AVRG		0.59504		5.44993

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	40 Level 7	80 Level 8									
58 o-Xylene	0.58438	0.57359	0.56736	0.59433	0.61242	0.63214					
	0.62911	0.61328					AVRG		0.60083		4.09850
59 Styrene	0.89725	0.83462	0.95122	0.98431	1.00964	1.04405					
	1.03078	0.96971					AVRG		0.96520		7.29895
60 Bromoform	0.41100	0.37066	0.41859	0.44695	0.41617	0.42670					
	0.41743	0.41958					AVRG		0.41589		5.12110
61 Isopropyl Benzene	2.65713	2.45788	2.38853	2.86950	2.89889	2.96256					
	2.80652	2.42262					AVRG		2.68295		8.69166
63 Bromobenzene	0.89547	0.78327	0.68125	0.76440	0.72637	0.70253					
	0.70381	0.71470					AVRG		0.74648		9.23891
64 N-Propyl Benzene	3.20808	3.25249	3.05057	3.47188	3.47821	3.43996					
	3.18981	2.64657					AVRG		3.21719		8.61777
65 1,1,2,2-Tetrachloroethane	1.20689	0.90239	0.82664	0.90029	0.78562	0.79942					
	0.77342	0.73788					AVRG		0.86657		17.23439

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	40 Level 7	80 Level 8										
66 2-Chloro Toluene	2.28240	2.29787	2.24780	2.38862	2.38807	2.41149						
	2.32320	2.16244					AVRG		2.31274		3.62649	
67 1,3,5-Trimethyl Benzene	2.09761	2.17801	2.19136	2.35079	2.44200	2.50955						
	2.35545	2.09056					AVRG		2.27692		6.98328	
68 1,2,3-Trichloropropane	+++++	0.26121	0.23693	0.25918	0.23947	0.23794						
	0.23245	0.22402					AVRG		0.24160		5.67150	
70 Trans-1,4-Dichloro 2-Butene	+++++	0.35523	0.29927	0.32746	0.30710	0.32217						
	0.30933	0.32021					AVRG		0.32011		5.71926	
71 4-Chloro Toluene	2.24191	2.12698	2.13135	2.30266	2.23515	2.22036						
	2.14040	1.96569					AVRG		2.17056		4.78495	
69 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
72 T-Butyl Benzene	1.79991	1.84236	1.80524	2.01091	2.07339	2.13059						
	2.01012	1.83499					AVRG		1.93844		6.82133	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	40 Level 7	80 Level 8									
73 1,2,4-Trimethylbenzene	2.21553	2.04117	2.15831	2.27640	2.44372	2.51947					
	2.34285	2.08646					AVRG		2.26049		7.45008
74 S-Butyl Benzene	2.71570	2.71947	2.71881	3.03447	3.10349	3.14067					
	2.85032	2.43013					AVRG		2.83913		8.52854
75 4-Isopropyl Toluene	2.21091	2.17557	2.07273	2.29449	2.45801	2.52028					
	2.34860	2.07564					AVRG		2.26953		7.33277
76 1,3-Dichlorobenzene	1.57819	1.40197	1.43680	1.46675	1.37026	1.39403					
	1.33107	1.30137					AVRG		1.41006		6.12155
78 1,4-Dichlorobenzene	1.71550	1.42795	1.52419	1.48138	1.42975	1.44116					
	1.36409	1.32876					AVRG		1.46410		8.09966
79 N-Butyl Benzene	2.33134	2.03389	2.25834	2.28600	2.27481	2.41708					
	2.21519	2.01503					AVRG		2.22896		6.25568
81 1,2-Dichlorobenzene	1.54046	1.46554	1.44494	1.36309	1.30500	1.32950					
	1.24891	1.19887					AVRG		1.36204		8.46974

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	40 Level 7	80 Level 8									
82 1,2-Dibromo 3-Chloropropane	+++++	0.18038	0.22477	0.15492	0.15545	0.16265					
	0.14005	0.13535					AVRG		0.16480		18.38667
83 Hexachloro 1,3-Butadiene	0.45954	0.34279	0.34390	0.30865	0.27695	0.29692					
	0.26276	0.30339					AVRG		0.32436		18.96033
84 1,2,4-Trichlorobenzene	0.76212	0.66094	0.82078	0.69476	0.68532	0.75984					
	0.68981	0.76781					AVRG		0.73017		7.53973
85 Naphthalene	1.85795	1.75646	2.05042	1.70076	1.78592	1.95802					
	1.82652	1.76653					AVRG		1.83782		6.28393
86 1,2,3-Trichlorobenzene	0.85907	0.64099	0.77832	0.62503	0.62707	0.65629					
	0.60674	0.69261					AVRG		0.68577		12.91410
$ 26 Dibromofluoromethane	0.59248	0.57132	0.56719	0.55792	0.54757	0.55183					
	0.51099	0.50493					AVRG		0.55053		5.39573
$ 32 d4-1,2-Dichloroethane	0.72790	0.73808	0.76928	0.72265	0.69381	0.69419					
	0.64706	0.64267					AVRG		0.70445		6.24403

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
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Quant Method : ISTD
Origin : Force
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Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	10 Level 5	20 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	40 Level 7	80 Level 8									
$ 43 d8-Toluene	1.14965	1.20615	1.20253	1.21570	1.21766	1.22590					
	1.18858	1.21811					AVRG		1.20303		2.03432
$ 62 4-Bromofluorobenzene	0.46869	0.48048	0.50932	0.51005	0.52048	0.51282					
	0.50357	0.50321					AVRG		0.50108		3.49497
$ 80 d4-1,2-Dichlorobenzene	0.89735	0.91938	0.93959	0.88701	0.86603	0.89139					
	0.86723	0.86955					AVRG		0.89219		2.95328

Analytical Resources, Inc.

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Start Cal Date : 22-MAR-2013 12:51
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Origin : Force
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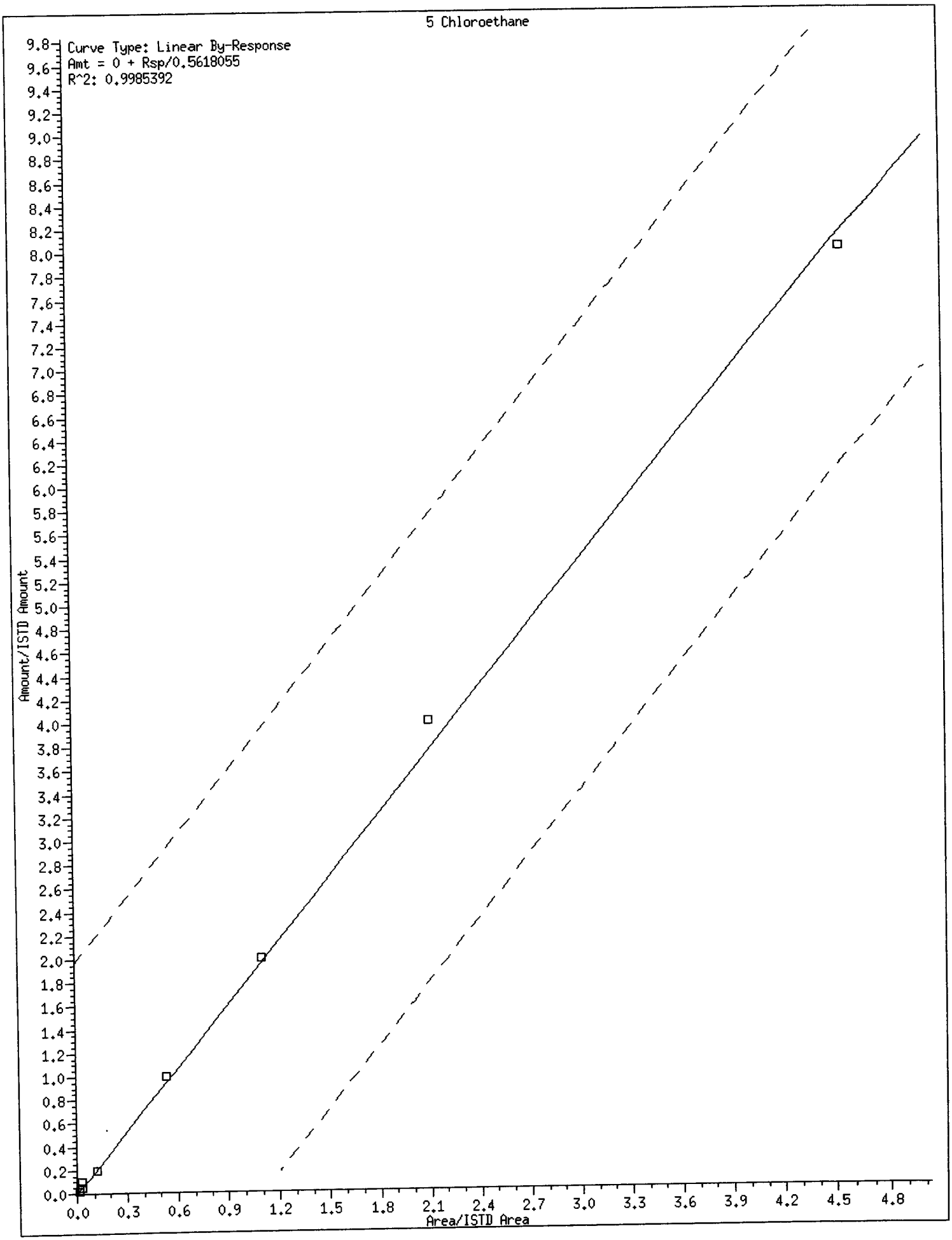
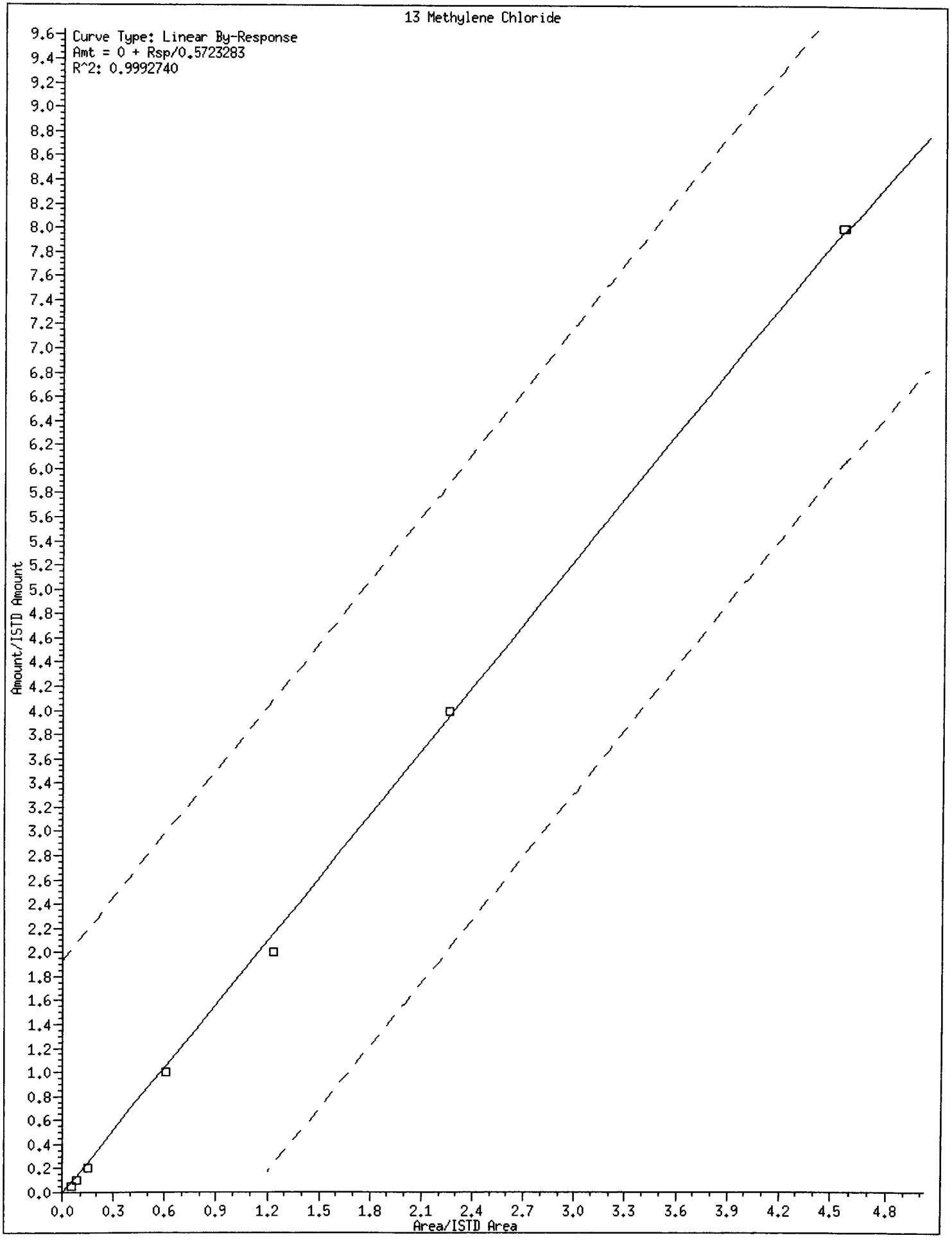
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/8260C032213L.m
Cal Date : 28-Mar-2013 13:53 patrickb

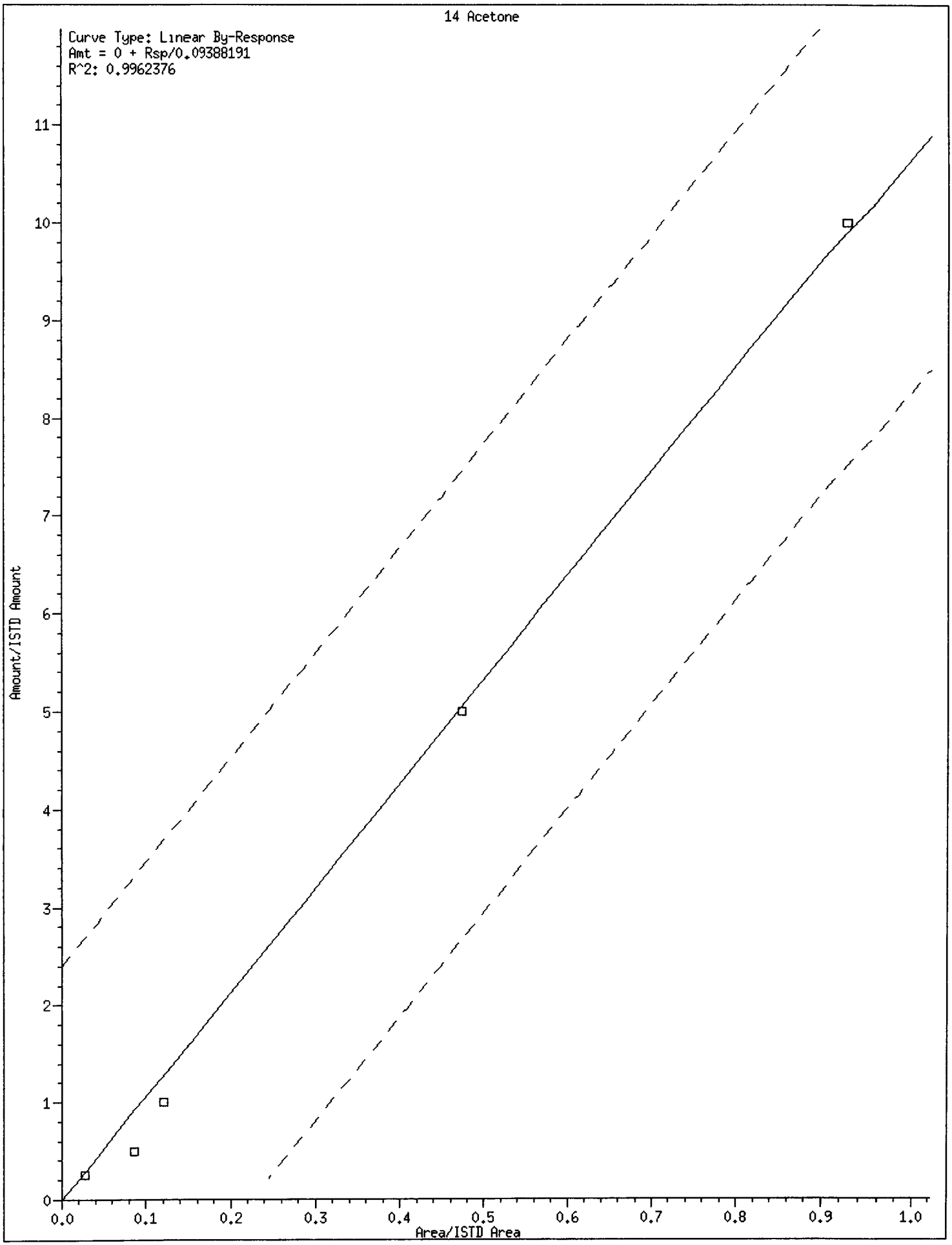
Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

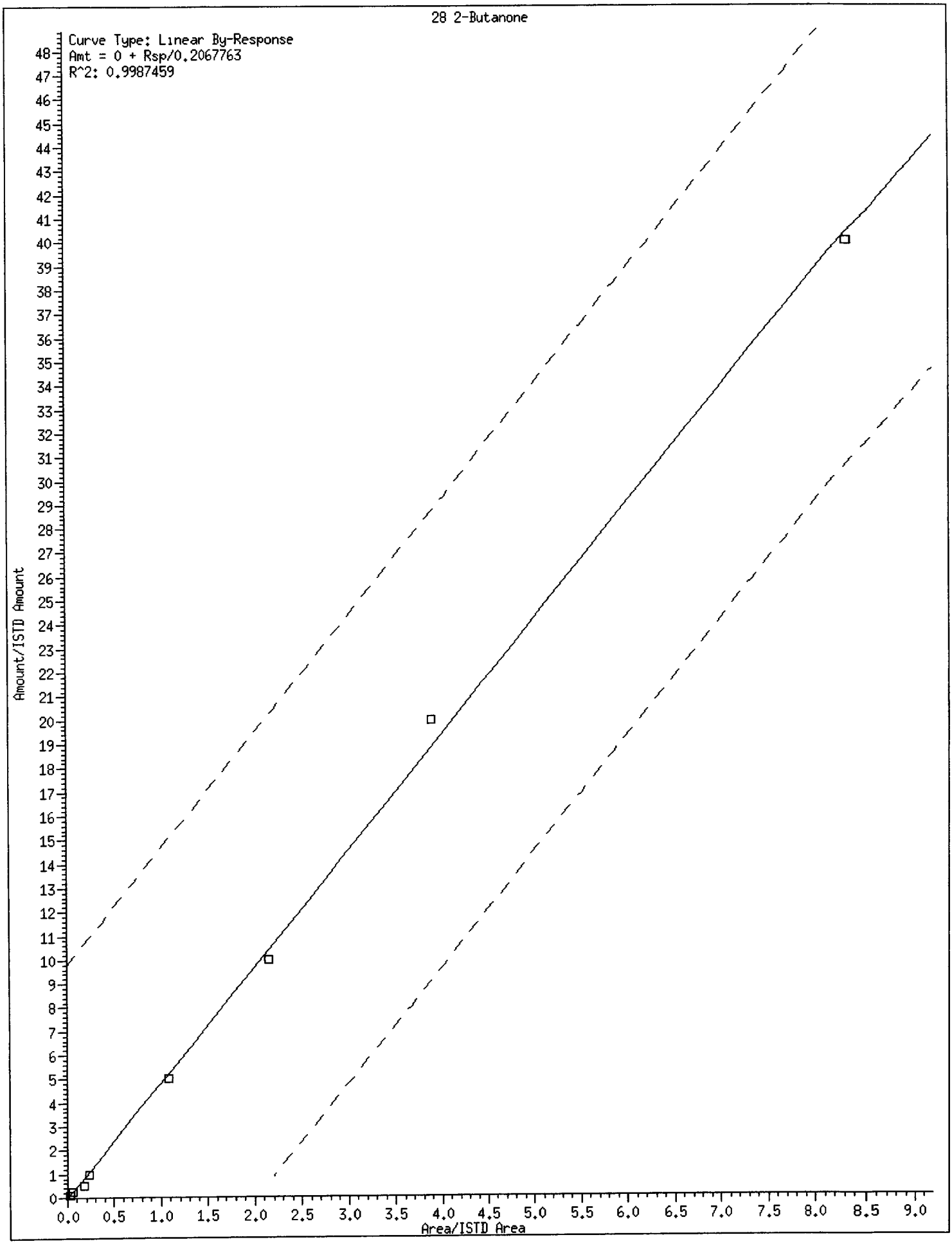

5 Chloroethane
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.5618055
R^2: 0.9985392
Amount/ISTD Amount
Area/ISTD Area
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 5.0 5.2 5.4 5.6 5.8 6.0 6.2 6.4 6.6 6.8 7.0 7.2 7.4 7.6 7.8 8.0 8.2 8.4 8.6 8.8 9.0 9.2 9.4 9.6 9.8

WJ10:00421


13 Methylene Chloride
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.5723283
R^2: 0.9992740
Amount/ISTD Amount
Area/ISTD Area
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 5.0 5.2 5.4 5.6 5.8 6.0 6.2 6.4 6.6 6.8 7.0 7.2 7.4 7.6 7.8 8.0 8.2 8.4 8.6 8.8 9.0 9.2 9.4 9.6

WJ10:00422


14 Acetone
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.09388191
R^2: 0.9962376
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0


28 2-Butanone
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.2067763
R^2: 0.9987459
Amount/ISTD Amount
Area/ISTD Area
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/SampleInfo/8260C032213L.m
Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Calibration File Names:
Level 1: /chem3/nt3.i/03222013.b/vstd002.d
Level 2: /chem3/nt3.i/03222013.b/vstd005.d
Level 3: /chem3/nt3.i/03222013.b/vstd01.d
Level 4: /chem3/nt3.i/03222013.b/vstd02.d
Level 5: /chem3/nt3.i/03222013.b/vstd10.d
Level 6: /chem3/nt3.i/03222013.b/vstd20.d
Level 7: /chem3/nt3.i/03222013.b/vstd40.d
Level 8: /chem3/nt3.i/03222013.b/vstd80.d

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	40.000 Level 7	80.000 Level 8	RRF	% RSD	
1 Dichlorodifluoromethane	0.93838	0.76756	0.65053	0.65815	0.74772	0.75782	0.69633	0.68810	0.73807	12.519	
2 Chloromethane	0.98647	0.84522	0.85041	0.81138	0.81282	0.81104	0.73308	0.72351	0.82174	9.899	
3 Vinyl Chloride	1.06480	0.88693	0.86346	0.85112	0.91344	0.93333	0.86100	0.86687	0.90512	7.785	
4 Bromomethane	0.57960	0.52615	0.47624	0.46006	0.46887	0.46862	0.43438	0.43031	0.48053	10.334	
5 Chloroethane	0.78435	0.54452	0.32311	0.57394	0.53634	0.54950	0.52774	0.57081	0.55129	22.542	<-
6 Trichlorofluoromethane	1.04999	0.60373	0.98390	0.96431	0.93609	0.96844	0.93042	0.97217	0.92613	14.607	

Analytical Resources, Inc.

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Method file : /chem3/nt3.i/03222013.b/SampleInfo/8260C032213L.m
Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	40.000 Level 7	80.000 Level 8	___ RRF	% RSD	
7 1,1-Dichloroethene	0.69814	0.65749	0.65740	0.59829	0.60727	0.58483					
							0.55594	0.58481	0.61802	7.758	
8 Carbon Disulfide	2.40449	2.20808	2.18092	2.05845	2.07404	2.06380					
							1.91233	1.88754	2.09871	7.953	
9 112Trichloro122Trifluoroethan	0.80451	0.66521	0.63105	0.57959	0.59594	0.61078					
							0.57055	0.59087	0.63106	12.101	
10 Iodomethane	1.00484	0.56790	0.92421	0.89136	0.88380	0.88883					
							0.81949	0.82669	0.85089	15.056	
11 Bromoethane	0.40540	0.42639	0.44364	0.43194	0.42439	0.43157					
							0.39944	0.40304	0.42072	3.827	
12 Acrolein	+++++	0.07004	0.08814	0.09526	0.09652	0.09851					
							0.09873	0.10399	0.09303	12.037	
13 Methylene Chloride	+++++	0.98908	0.78113	0.71841	0.60821	0.61731					
							0.56501	0.57031	0.69278	22.083	<-
14 Acetone	+++++	0.10649	0.17213	0.11998	0.09476	0.09295					
							+++++	+++++	0.11726	27.738	<-
15 Trans-1,2-Dichloroethene	0.70182	0.66270	0.64163	0.60934	0.59831	0.60637					
							0.56990	0.57317	0.62040	7.325	

Analytical Resources, Inc.

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Method file : /chem3/nt3.i/03222013.b/SampleInfo/8260C032213L.m
Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	40.000 Level 7	80.000 Level 8	RRF	% RSD	
173 n-hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
16 Methyl tert butyl ether	1.80725	1.59444	1.84549	1.73811	1.66661	1.72895	1.62491	1.49278	1.68732	6.886	
17 1,1-Dichloroethane	1.19888	1.26047	1.21457	1.17636	1.13379	1.15000	1.07347	1.04408	1.15645	6.241	
18 Acrylonitrile	+++++	0.10613	0.12770	0.17855	0.13724	0.15776	0.12947	0.13383	0.13867	16.769	
19 Vinyl Acetate	1.29643	1.04904	1.10227	1.08938	1.09659	1.10986	1.07101	1.08293	1.11219	6.911	
20 Cis-1,2-Dichloroethene	0.71347	0.66405	0.69834	0.62944	0.62869	0.63647	0.58125	0.58518	0.64211	7.458	
21 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
22 2,2-Dichloropropane	0.93429	0.72815	0.72747	0.72309	0.68930	0.72150	0.67568	0.62410	0.72795	12.467	
23 Bromochloromethane	0.37800	0.31199	0.33238	0.31950	0.28297	0.27670	0.26105	0.25977	0.30279	13.422	

Analytical Resources, Inc.

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Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	40.000 Level 7	80.000 Level 8	RRF	% RSD	
24 Chloroform	1.07593	1.12308	1.07047	1.10555	1.01167	1.02300	0.94128	0.92598	1.03462	7.029	
25 Carbon Tetrachloride	0.38087	0.55690	0.49149	0.48087	0.45002	0.45903	0.42550	0.42748	0.45902	11.474	
27 1,1,1-Trichloroethane	1.10050	0.93731	0.98322	0.91597	0.89608	0.91916	0.85093	0.82684	0.92875	9.127	
28 2-Butanone	0.25616	0.19446	0.33469	0.22686	0.21545	0.21502	0.19508	0.20879	0.23081	20.067	<-
29 1,1-Dichloropropene	0.50822	0.51031	0.50989	0.51215	0.49285	0.50400	0.48739	0.49273	0.50219	1.933	
30 Benzene	1.55883	1.45456	1.52587	1.56610	1.41325	1.41054	1.29030	1.18002	1.42493	9.467	
33 1,2-Dichloroethane	0.53369	0.50007	0.52770	0.51432	0.46050	0.45683	0.43261	0.42436	0.48126	8.949	
34 Trichloroethene	0.40392	0.33268	0.36583	0.34395	0.34505	0.33777	0.32491	0.33268	0.34835	7.340	
35 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Analytical Resources, Inc.

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Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD	
	40.000 Level 7	80.000 Level 8							
37 Dibromomethane	0.22749	0.22872	0.24818	0.20139	0.19080	0.19233			
	0.18289	0.18187					0.20671	12.002	
38 1,2-Dichloropropane	0.39056	0.35091	0.36430	0.35576	0.34450	0.35359			
	0.34075	0.34687					0.35590	4.434	
39 Bromodichloromethane	0.54251	0.48438	0.31125	0.45865	0.43354	0.42697			
	0.41049	0.41705					0.43561	15.242	
40 2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
41 2-Chloroethyl Vinyl Ether	+++++	0.16178	0.20977	0.18476	0.18703	0.17423			
	0.19453	0.21029					0.18891	9.411	
42 Cis 1,3-dichloropropene	0.49977	0.52478	0.49758	0.53370	0.52821	0.52780			
	0.53286	0.53382					0.52231	2.862	
44 Toluene	0.90127	0.74928	0.81908	0.82431	0.79281	0.79576			
	0.78025	0.76134					0.80301	5.891	
45 Tetrachloroethene	0.36481	0.32577	0.32581	0.32971	0.33106	0.33390			
	0.34314	0.34603					0.33753	3.943	
46 4-Methyl-2-Pentanone	0.35788	0.36846	0.41544	0.36780	0.36851	0.37028			
	0.33463	0.28573					0.35859	10.291	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/SampleInfo/8260C032213L.m
Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	80.000 Level 8						
47 Trans 1,3-Dichloropropene	0.54357	0.45600	0.50016	0.50627	0.51837	0.50629		
	0.50544	0.50659					0.50534	4.787
48 1,1,2-Trichloroethane	0.30042	0.28612	0.31371	0.30995	0.26057	0.26032		
	0.25882	0.26457					0.28181	8.390
49 Chlorodibromomethane	0.44876	0.31495	0.32950	0.34287	0.31496	0.32049		
	0.32513	0.32379					0.34006	13.182
50 1,3-Dichloropropane	0.58812	0.52788	0.57629	0.53082	0.52623	0.51136		
	0.53121	0.52625					0.53977	5.020
51 1,2-Dibromoethane	0.33266	0.32187	0.30804	0.29734	0.28725	0.26480		
	0.26701	0.26840					0.29342	8.886
52 2-Hexanone	0.32490	0.28834	0.31339	0.30546	0.30125	0.29671		
	0.28305	0.23937					0.29406	8.773
54 Chlorobenzene	0.96880	0.99895	0.94346	0.95859	0.94869	0.93126		
	0.92751	0.88815					0.94568	3.438
55 Ethyl Benzene	1.51238	1.48115	1.68293	1.62457	1.66477	1.67094		
	1.57731	1.35225					1.57079	7.361
56 1,1,1,2-Tetrachloroethane	0.43048	0.29047	0.35199	0.33289	0.33160	0.34782		
	0.33506	0.33010					0.34380	11.516

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/SampleInfo/8260C032213L.m
Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	80.000 Level 8						
57 m,p-xylene	0.58951	0.55947	0.56353	0.59683	0.63345	0.63903		
	0.61745	0.56103					0.59504	5.450
58 o-Xylene	0.58438	0.57359	0.56736	0.59433	0.61242	0.63214		
	0.62911	0.61328					0.60083	4.099
59 Styrene	0.89725	0.83462	0.95122	0.98431	1.00964	1.04405		
	1.03078	0.96971					0.96520	7.299
60 Bromoform	0.41100	0.37066	0.41859	0.44695	0.41617	0.42670		
	0.41743	0.41958					0.41589	5.121
61 Isopropyl Benzene	2.65713	2.45788	2.38853	2.86950	2.89889	2.96256		
	2.80652	2.42262					2.68295	8.692
63 Bromobenzene	0.89547	0.78327	0.68125	0.76440	0.72637	0.70253		
	0.70381	0.71470					0.74648	9.239
64 N-Propyl Benzene	3.20808	3.25249	3.05057	3.47188	3.47821	3.43996		
	3.18981	2.64657					3.21719	8.618
65 1,1,2,2-Tetrachloroethane	1.20689	0.90239	0.82664	0.90029	0.78562	0.79942		
	0.77342	0.73788					0.86657	17.234
66 2-Chloro Toluene	2.28240	2.29787	2.24780	2.38862	2.38807	2.41149		
	2.32320	2.16244					2.31274	3.626

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/SampleInfo/8260C032213L.m
Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD	
	40.000 Level 7	80.000 Level 8							
67 1,3,5-Trimethyl Benzene	2.09761	2.17801	2.19136	2.35079	2.44200	2.50955			
	2.35545	2.09056					2.27692	6.983	
68 1,2,3-Trichloropropane	+++++	0.26121	0.23693	0.25918	0.23947	0.23794			
	0.23245	0.22402					0.24160	5.671	
70 Trans-1,4-Dichloro 2-Butene	+++++	0.35523	0.29927	0.32746	0.30710	0.32217			
	0.30933	0.32021					0.32011	5.719	
71 4-Chloro Toluene	2.24191	2.12698	2.13135	2.30266	2.23515	2.22036			
	2.14040	1.96569					2.17056	4.785	
69 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
72 T-Butyl Benzene	1.79991	1.84236	1.80524	2.01091	2.07339	2.13059			
	2.01012	1.83499					1.93844	6.821	
73 1,2,4-Trimethylbenzene	2.21553	2.04117	2.15831	2.27640	2.44372	2.51947			
	2.34285	2.08646					2.26049	7.450	
74 S-Butyl Benzene	2.71570	2.71947	2.71881	3.03447	3.10349	3.14067			
	2.85032	2.43013					2.83913	8.529	
75 4-Isopropyl Toluene	2.21091	2.17557	2.07273	2.29449	2.45801	2.52028			
	2.34860	2.07564					2.26953	7.333	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/SampleInfo/8260C032213L.m
Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	80.000 Level 8						
76 1,3-Dichlorobenzene	1.57819	1.40197	1.43680	1.46675	1.37026	1.39403		
	1.33107	1.30137					1.41006	6.122
78 1,4-Dichlorobenzene	1.71550	1.42795	1.52419	1.48138	1.42975	1.44116		
	1.36409	1.32876					1.46410	8.100
79 N-Butyl Benzene	2.33134	2.03389	2.25834	2.28600	2.27481	2.41708		
	2.21519	2.01503					2.22896	6.256
81 1,2-Dichlorobenzene	1.54046	1.46554	1.44494	1.36309	1.30500	1.32950		
	1.24891	1.19887					1.36204	8.470
82 1,2-Dibromo 3-Chloropropane	+++++	0.18038	0.22477	0.15492	0.15545	0.16265		
	0.14005	0.13535					0.16480	18.387
83 Hexachloro 1,3-Butadiene	0.45954	0.34279	0.34390	0.30865	0.27695	0.29692		
	0.26276	0.30339					0.32436	18.960
84 1,2,4-Trichlorobenzene	0.76212	0.66094	0.82078	0.69476	0.68532	0.75984		
	0.68981	0.76781					0.73017	7.540
85 Naphthalene	1.85795	1.75646	2.05042	1.70076	1.78592	1.95802		
	1.82652	1.76653					1.83782	6.284
86 1,2,3-Trichlorobenzene	0.85907	0.64099	0.77832	0.62503	0.62707	0.65629		
	0.60674	0.69261					0.68577	12.914

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAR-2013 12:51
End Cal Date : 22-MAR-2013 15:56
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt3.i/03222013.b/SampleInfo/8260C032213L.m
Cal Date : 01-Apr-2013 15:35 patrickb
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	1.000 Level 3	2.000 Level 4	10.000 Level 5	20.000 Level 6	RRF	% RSD
	40.000 Level 7	80.000 Level 8						
$ 26 Dibromofluoromethane	0.59248	0.57132	0.56719	0.55792	0.54757	0.55183		
	0.51099	0.50493					0.55053	5.396
$ 32 d4-1,2-Dichloroethane	0.72790	0.73808	0.76928	0.72265	0.69381	0.69419		
	0.64706	0.64267					0.70445	6.244
$ 43 d8-Toluene	1.14965	1.20615	1.20253	1.21570	1.21766	1.22590		
	1.18858	1.21811					1.20303	2.034
$ 62 4-Bromofluorobenzene	0.46869	0.48048	0.50932	0.51005	0.52048	0.51282		
	0.50357	0.50321					0.50108	3.495
$ 80 d4-1,2-Dichlorobenzene	0.89735	0.91938	0.93959	0.88701	0.86603	0.89139		
	0.86723	0.86955					0.89219	2.953

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt3.i/03222013.b

ARI Job No.: BFB0 Method: bfb8260.m Instrument: nt3.i Date: 22-MAR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1220	bfb0322a.d	BFB0322A	BFB0322	1	NO MANUAL INTEGRATION
1251	vstd002.d	VSTD0.2	VSTD0.2	1	Chloroethane, Acrolein, 112Trichloro122Trifluoroethane, 1,1-Dichloroethene, Bromoethane, Trans-1,2-Dichloroethene, Vinyl Acetate, 1,1,1-Trichloroethane, Carbon Tetrachloride, Trichloroethene, 1,2-Dichloropropane, Bromodichloromethane, 4-Methyl-2-Pentanone, Trans 1,3-Dichloropropene, Chlorodibromomethane, Bromoform, 1,2,3-Trichloropropane, Trans-1,4-Dichloro 2-But
1318	vstd80.d	VSTD80	VSTD80	1	NO MANUAL INTEGRATION
1344	vstd40.d	VSTD40	VSTD40	1	Acetone,
1411	vstd20.d	VSTD20	VSTD20	1	Acrolein, Acetone,
1437	vstd10.d	VSTD10	VSTD10	1	Acetone,
1504	vstd02.d	VSTD02	VSTD02	1	Acetone,
1530	vstd01.d	VSTD01	VSTD01	1	Acetone, 4-Methyl-2-Pentanone,
1556	vstd005.d	VSTD0.5	VSTD0.5	1	Acetone, 4-Methyl-2-Pentanone,

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Batch File: /chem3/nt3.i/03222013.b
Inst ID: nt3.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	vstd002	vstd80	vstd40	vstd20	vstd10	vstd02	vstd01	vstd005
INJ.DATE:	22-MAR-2013	22-MAR-2013	22-MAR-2013	22-MAR-2013	22-MAR-2013	22-MAR-2013	22-MAR-2013	22-MAR-2013
INJ.TIME:	12:51	13:18	13:44	14:11	14:37	15:04	15:30	15:56

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Dichlorodifluoromethan	1.617	1.609	1.606	1.614	1.618	1.612	1.617	1.612	1.618	1.546-1.690	1.613	0.004
2 Chloromethane	1.753	1.756	1.759	1.761	1.765	1.760	1.765	1.759	1.765	1.693-1.837	1.760	0.004
3 Vinyl Chloride	1.832	1.841	1.838	1.840	1.844	1.839	1.838	1.839	1.844	1.772-1.916	1.839	0.003
4 Bromomethane	2.132	2.135	2.132	2.140	2.144	2.139	2.144	2.138	2.144	2.072-2.216	2.138	0.005
5 Chloroethane	2.262	2.259	2.257	2.265	2.274	2.263	2.257	2.263	2.274	2.202-2.346	2.262	0.006
6 Trichlorofluoromethane	2.398	2.406	2.409	2.412	2.421	2.410	2.409	2.404	2.421	2.349-2.493	2.409	0.007
7 1,1-Dichloroethene	2.935	2.938	2.941	2.943	2.947	2.947	2.935	2.942	2.947	2.875-3.019	2.941	0.005
8 Carbon Disulfide	2.947	2.944	2.947	2.949	2.958	2.947	2.952	2.953	2.958	2.886-3.030	2.950	0.005
9 112Trichloro122Trifluo	3.009	3.012	3.015	3.023	3.026	3.015	3.020	3.015	3.026	2.954-3.098	3.017	0.006
10 Iodomethane	3.088	3.085	3.082	3.090	3.100	3.089	3.088	3.083	3.100	3.028-3.172	3.088	0.005
11 Bromoethane	3.235	3.227	3.224	3.232	3.235	3.236	3.230	3.230	3.235	3.163-3.307	3.231	0.004
12 Acrolein	3.852	3.843	3.846	3.848	3.858	3.853	3.852	3.847	3.858	3.786-3.930	3.850	0.005
13 Methylene Chloride	3.580	3.577	3.580	3.583	3.592	3.581	3.580	3.587	3.592	3.520-3.664	3.583	0.005
14 Acetone	0.000	3.640	3.642	3.645	3.648	3.643	3.648	3.643	3.648	3.576-3.720	3.189	1.288
15 Trans-1,2-Dichloroethe	3.750	3.747	3.750	3.752	3.756	3.745	3.744	3.756	3.756	3.684-3.828	3.750	0.005
173 n-hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.532	3.460-3.604	+++++	+++++
16 Methyl tert butyl ethe	3.880	3.877	3.874	3.882	3.886	3.881	3.886	3.886	3.886	3.814-3.958	3.882	0.004

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Batch File: /chem3/nt3.i/03222013.b
Inst ID: nt3.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	17 1,1-Dichloroethane	4.333	4.330	4.327	4.329	4.333	4.333	4.333	4.333	4.333	4.261-4.405	4.331	0.002
	18 Acrylonitrile	4.367	4.369	4.372	4.380	4.384	4.373	4.372	4.373	4.384	4.312-4.456	4.374	0.006
	19 Vinyl Acetate	4.570	4.567	4.570	4.573	4.576	4.571	4.582	4.571	4.576	4.504-4.648	4.572	0.004
	20 Cis-1,2-Dichloroethene	4.791	4.793	4.791	4.793	4.797	4.792	4.797	4.797	4.797	4.725-4.869	4.794	0.003
	21 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.560	4.488-4.632	+++++	+++++
	22 2,2-Dichloropropane	4.887	4.884	4.881	4.884	4.887	4.882	4.887	4.888	4.887	4.815-4.959	4.885	0.003
	23 Bromochloromethane	4.949	4.952	4.949	4.952	4.955	4.956	4.955	4.955	4.955	4.883-5.027	4.953	0.003
	24 Chloroform	5.028	5.020	5.023	5.019	5.023	5.024	5.023	5.023	5.023	4.951-5.095	5.023	0.003
	25 Carbon Tetrachloride	5.130	5.122	5.125	5.127	5.130	5.131	5.130	5.120	5.130	5.053-5.207	5.127	0.004
$	26 Dibromofluoromethane	5.164	5.161	5.164	5.161	5.164	5.165	5.164	5.165	5.164	5.092-5.236	5.164	0.002
	27 1,1,1-Trichloroethane	5.181	5.178	5.181	5.178	5.181	5.182	5.181	5.176	5.181	5.109-5.253	5.180	0.002
	28 2-Butanone	5.266	5.263	5.260	5.263	5.266	5.267	5.266	5.267	5.266	5.194-5.338	5.265	0.002
	29 1,1-Dichloropropene	5.277	5.274	5.272	5.274	5.278	5.278	5.277	5.278	5.278	5.200-5.354	5.276	0.002
	30 Benzene	5.458	5.461	5.458	5.461	5.464	5.465	5.458	5.465	5.464	5.387-5.541	5.461	0.003
*	31 Pentafluorobenzene	5.532	5.535	5.532	5.534	5.538	5.533	5.532	5.532	5.538	5.466-5.610	5.533	0.002
$	32 d4-1,2-Dichloroethane	5.560	5.563	5.560	5.562	5.560	5.561	5.560	5.561	5.560	5.488-5.632	5.561	0.001
	33 1,2-Dichloroethane	5.617	5.614	5.611	5.613	5.617	5.617	5.611	5.612	5.617	5.540-5.694	5.614	0.003
	34 Trichloroethene	5.894	5.897	5.894	5.896	5.900	5.895	5.900	5.900	5.900	5.823-5.977	5.897	0.003
*	36 1,4-Difluorobenzene	5.922	5.919	5.922	5.919	5.922	5.923	5.922	5.923	5.922	5.845-5.999	5.922	0.002
	35 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.693	5.616-5.770	+++++	+++++
	37 Dibromomethane	6.199	6.196	6.194	6.196	6.200	6.200	6.194	6.200	6.200	6.123-6.277	6.197	0.003
	38 1,2-Dichloropropane	6.273	6.270	6.267	6.270	6.267	6.268	6.273	6.268	6.267	6.190-6.344	6.270	0.002

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Batch File: /chem3/nt3.i/03222013.b
Inst ID: nt3.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	39 Bromodichloromethane	6.330	6.315	6.312	6.315	6.318	6.313	6.313	6.313	6.318	6.241-6.395	6.316	0.006
	40 2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.327	6.255-6.399	+++++	+++++
	41 2-Chloroethyl Vinyl Et	6.714	6.717	6.714	6.716	6.720	6.715	6.720	6.720	6.720	6.643-6.797	6.717	0.003
	42 Cis 1,3-dichloropropen	6.759	6.756	6.759	6.762	6.760	6.760	6.759	6.760	6.760	6.683-6.837	6.760	0.001
$	43 d8-Toluene	6.890	6.892	6.889	6.892	6.895	6.890	6.890	6.890	6.895	6.818-6.972	6.891	0.002
	44 Toluene	6.929	6.926	6.929	6.926	6.929	6.930	6.929	6.930	6.929	6.852-7.006	6.929	0.002
	45 Tetrachloroethene	7.195	7.198	7.195	7.197	7.201	7.196	7.201	7.201	7.201	7.097-7.305	7.198	0.003
	46 4-Methyl-2-Pentanone	7.189	7.186	7.189	7.186	7.190	7.190	7.189	7.190	7.190	7.113-7.266	7.189	0.002
	47 Trans 1,3-Dichloroprop	7.212	7.215	7.212	7.214	7.212	7.213	7.212	7.213	7.212	7.135-7.289	7.213	0.001
	48 1,1,2-Trichloroethane	7.325	7.328	7.325	7.327	7.325	7.326	7.325	7.326	7.325	7.248-7.402	7.326	0.001
	49 Chlorodibromomethane	7.450	7.452	7.449	7.452	7.450	7.456	7.450	7.450	7.450	7.346-7.553	7.451	0.002
	50 1,3-Dichloropropane	7.512	7.514	7.517	7.520	7.518	7.518	7.517	7.512	7.518	7.414-7.621	7.516	0.003
	51 1,2-Dibromoethane	7.619	7.622	7.619	7.622	7.619	7.620	7.619	7.620	7.619	7.542-7.696	7.620	0.001
	52 2-Hexanone	7.772	7.769	7.766	7.769	7.767	7.767	7.772	7.767	7.767	7.663-7.870	7.769	0.002
*	53 d5-Chlorobenzene	7.976	7.978	7.976	7.978	7.976	7.976	7.976	7.976	7.976	7.872-8.080	7.976	0.001
	54 Chlorobenzene	7.987	7.990	7.987	7.989	7.987	7.988	7.987	7.988	7.987	7.883-8.091	7.988	0.001
	55 Ethyl Benzene	8.004	8.007	8.004	8.006	8.004	8.005	8.004	8.005	8.004	7.900-8.108	8.005	0.001
	56 1,1,1,2-Tetrachloroeth	8.032	8.035	8.032	8.035	8.032	8.033	8.032	8.033	8.032	7.929-8.136	8.033	0.001
	57 m,p-xylene	8.106	8.108	8.106	8.108	8.106	8.106	8.106	8.106	8.106	8.002-8.210	8.107	0.001
	58 o-Xylene	8.411	8.414	8.411	8.414	8.411	8.412	8.411	8.412	8.411	8.308-8.515	8.412	0.001
	59 Styrene	8.445	8.448	8.451	8.447	8.451	8.446	8.451	8.446	8.451	8.347-8.555	8.448	0.002
	60 Bromoform	8.462	8.470	8.473	8.476	8.474	8.469	8.473	8.468	8.474	8.348-8.599	8.471	0.004
	61 Isopropyl Benzene	8.637	8.634	8.637	8.634	8.638	8.638	8.638	8.638	8.638	8.512-8.763	8.637	0.002
$	62 4-Bromofluorobenzene	8.841	8.844	8.841	8.843	8.841	8.842	8.841	8.842	8.841	8.738-8.945	8.842	0.001

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Batch File: /chem3/nt3.i/03222013.b
Inst ID: nt3.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	63 Bromobenzene	8.926	8.923	8.926	8.923	8.926	8.921	8.926	8.921	8.926	8.800-9.052	8.924	0.002
	64 N-Propyl Benzene	8.937	8.934	8.937	8.934	8.937	8.938	8.937	8.938	8.937	8.812-9.063	8.937	0.002
	65 1,1,2,2-Tetrachloroeth	8.983	8.980	8.982	8.979	8.983	8.983	8.977	8.983	8.983	8.857-9.108	8.981	0.002
	66 2-Chloro Toluene	9.050	9.053	9.056	9.053	9.056	9.051	9.050	9.051	9.056	8.931-9.182	9.053	0.002
	67 1,3,5-Trimethyl Benzen	9.073	9.076	9.073	9.075	9.079	9.074	9.073	9.079	9.079	8.953-9.204	9.075	0.003
	68 1,2,3-Trichloropropane	9.084	9.087	9.084	9.087	9.090	9.085	9.090	9.091	9.090	8.964-9.216	9.087	0.003
	70 Trans-1,4-Dichloro 2-B	9.107	9.110	9.113	9.109	9.113	9.113	9.113	9.113	9.113	8.987-9.238	9.111	0.002
	71 4-Chloro Toluene	9.181	9.178	9.175	9.177	9.175	9.176	9.175	9.175	9.175	9.049-9.301	9.176	0.002
	69 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.878	8.774-8.982	+++++	+++++
	72 T-Butyl Benzene	9.316	9.313	9.311	9.313	9.316	9.317	9.311	9.311	9.316	9.191-9.442	9.314	0.003
	73 1,2,4-Trimethylbenzene	9.362	9.364	9.361	9.364	9.362	9.362	9.362	9.362	9.362	9.236-9.487	9.362	0.001
	74 S-Butyl Benzene	9.446	9.443	9.446	9.443	9.447	9.441	9.446	9.447	9.447	9.321-9.572	9.445	0.002
	75 4-Isopropyl Toluene	9.548	9.551	9.548	9.551	9.548	9.549	9.548	9.549	9.548	9.423-9.674	9.549	0.001
	76 1,3-Dichlorobenzene	9.610	9.613	9.610	9.613	9.611	9.617	9.616	9.611	9.611	9.485-9.736	9.613	0.003
*	77 d4-1,4-Dichlorobenzene	9.667	9.670	9.667	9.664	9.667	9.668	9.667	9.668	9.667	9.542-9.793	9.667	0.002
	78 1,4-Dichlorobenzene	9.678	9.675	9.678	9.675	9.679	9.679	9.678	9.679	9.679	9.553-9.804	9.678	0.002
	79 N-Butyl Benzene	9.865	9.868	9.865	9.867	9.865	9.866	9.865	9.866	9.865	9.739-9.991	9.866	0.001
$	80 d4-1,2-Dichlorobenzene	9.989	9.992	9.989	9.992	9.990	9.990	9.989	9.990	9.990	9.864-10.115	9.990	0.001
	81 1,2-Dichlorobenzene	9.995	9.998	9.995	9.997	9.995	9.996	9.995	9.996	9.995	9.870-10.121	9.996	0.001
	82 1,2-Dibromo 3-Chloropr	10.606	10.609	10.606	10.603	10.606	10.607	10.606	10.607	10.606	10.481-10.732	10.606	0.002
	83 Hexachloro 1,3-Butadie	11.110	11.112	11.115	11.112	11.110	11.116	11.115	11.110	11.110	10.984-11.235	11.112	0.003
	84 1,2,4-Trichlorobenzene	11.138	11.135	11.138	11.134	11.138	11.139	11.132	11.138	11.138	11.012-11.264	11.136	0.002
	85 Naphthalene	11.392	11.395	11.392	11.395	11.393	11.393	11.398	11.393	11.393	11.267-11.518	11.394	0.002

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Batch File: /chem3/nt3.i/03222013.b
Inst ID: nt3.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
86 1,2,3-Trichlorobenzene	11.545	11.542	11.539	11.542	11.540	11.540	11.539	11.540	11.540	11.414-11.665	11.541	0.002

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/03222013.b/vstd002.d
Lab Smp Id: VSTD0.2 Client Smp ID: VSTD0.2
Inj Date : 22-MAR-2013 12:51
Operator : LH Inst ID: nt3.i
Smp Info : VSTD0.2,10,10,0,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/03222013.b/8260C032213L.m
Meth Date : 01-Apr-2013 15:38 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 12:51 Cal File: vstd002.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.617	1.618	(0.292)	8937	0.20000	0.2543(M)
2 Chloromethane	50	1.753	1.765	(0.317)	9395	0.20000	0.2401
3 Vinyl Chloride	62	1.832	1.844	(0.331)	10141	0.20000	0.2353
4 Bromomethane	94	2.132	2.144	(0.385)	5520	0.20000	0.2412
5 Chloroethane	64	2.262	2.274	(0.409)	7470	0.20000	0.2792(M)
6 Trichlorofluoromethane	101	2.398	2.421	(0.433)	10000	0.20000	0.2267
7 1,1-Dichloroethene	96	2.935	2.947	(0.531)	6649	0.20000	0.2259(M)
8 Carbon Disulfide	76	2.947	2.958	(0.533)	22900	0.20000	0.2291
9 112Trichloro122Trifluoroethane	101	3.009	3.026	(0.544)	7662	0.20000	0.2550(M)
10 Iodomethane	142	3.088	3.100	(0.558)	9570	0.20000	0.2362
11 Bromoethane	108	3.235	3.235	(0.585)	3861	0.20000	0.1927(M)
12 Acrolein	56	3.852	3.858	(0.696)	8100	1.00000	1.828(M)
13 Methylene Chloride	84	3.580	3.592	(0.647)	13311	0.20000	0.4884
14 Acetone	43	Compound Not Detected.					
15 Trans-1,2-Dichloroethene	96	3.750	3.756	(0.678)	6684	0.20000	0.2262(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	16 Methyl tert butyl ether	73	3.880	3.886	(0.701)	17212	0.20000	0.2142(M)
	17 1,1-Dichloroethane	63	4.333	4.333	(0.783)	11418	0.20000	0.2073
	18 Acrylonitrile	53	4.367	4.384	(0.789)	1043	0.20000	0.1580(H)
	19 Vinyl Acetate	43	4.570	4.576	(0.826)	12347	0.20000	0.2331(M)
	20 Cis-1,2-Dichloroethene	96	4.791	4.797	(0.866)	6795	0.20000	0.2222
	22 2,2-Dichloropropane	77	4.887	4.887	(0.883)	8898	0.20000	0.2567
	23 Bromochloromethane	128	4.949	4.955	(0.895)	3600	0.20000	0.2497
	24 Chloroform	83	5.028	5.023	(0.909)	10247	0.20000	0.2080
	25 Carbon Tetrachloride	117	5.130	5.130	(0.866)	6131	0.20000	0.1659(M)
$	26 Dibromofluoromethane	111	5.164	5.164	(0.934)	282136	10.0000	10.762
	27 1,1,1-Trichloroethane	97	5.181	5.181	(0.937)	10481	0.20000	0.2370(M)
	28 2-Butanone	43	5.266	5.266	(0.952)	12198	1.00000	1.239
	29 1,1-Dichloropropene	75	5.277	5.278	(0.891)	8181	0.20000	0.2024
	30 Benzene	78	5.458	5.464	(0.922)	25093	0.20000	0.2188
*	31 Pentafluorobenzene	168	5.532	5.538	(1.000)	476193	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.560	5.560	(1.005)	346620	10.0000	10.333
	33 1,2-Dichloroethane	62	5.617	5.617	(0.948)	8591	0.20000	0.2218
	34 Trichloroethene	130	5.894	5.900	(0.995)	6502	0.20000	0.2319(M)
*	36 1,4-Difluorobenzene	114	5.922	5.922	(1.000)	804868	10.0000	
	37 Dibromomethane	93	6.199	6.200	(1.047)	3662	0.20000	0.2201
	38 1,2-Dichloropropane	63	6.273	6.267	(1.059)	6287	0.20000	0.2195(M)
	39 Bromodichloromethane	83	6.330	6.318	(1.069)	8733	0.20000	0.2491(M)
	41 2-Chloroethyl Vinyl Ether	63	6.714	6.720	(1.134)	2928	0.20000	0.1926
	42 Cis 1,3-dichloropropene	75	6.759	6.760	(1.141)	8045	0.20000	0.1914
$	43 d8-Toluene	98	6.890	6.895	(1.163)	925318	10.0000	9.556
	44 Toluene	92	6.929	6.929	(1.170)	14508	0.20000	0.2245
	45 Tetrachloroethene	166	7.195	7.201	(0.902)	5267	0.20000	0.2162
	46 4-Methyl-2-Pentanone	43	7.189	7.190	(1.214)	28805	1.00000	0.9980(TM)
	47 Trans 1,3-Dichloropropene	75	7.212	7.212	(1.218)	8750	0.20000	0.2151(M)
	48 1,1,2-Trichloroethane	97	7.325	7.325	(1.237)	4836	0.20000	0.2132
	49 Chlorodibromomethane	129	7.450	7.450	(0.934)	6479	0.20000	0.2639(M)
	50 1,3-Dichloropropane	76	7.512	7.518	(0.942)	8491	0.20000	0.2179
	51 1,2-Dibromoethane	107	7.619	7.619	(1.287)	5355	0.20000	0.2267
	52 2-Hexanone	43	7.772	7.767	(0.974)	23454	1.00000	1.105
*	53 d5-Chlorobenzene	117	7.976	7.976	(1.000)	721875	10.0000	
	54 Chlorobenzene	112	7.987	7.987	(1.001)	13987	0.20000	0.2049
	55 Ethyl Benzene	91	8.004	8.004	(1.004)	21835	0.20000	0.1926
	56 1,1,1,2-Tetrachloroethane	131	8.032	8.032	(1.007)	6215	0.20000	0.2504
	57 m,p-xylene	106	8.106	8.106	(1.016)	17022	0.40000	0.3963
	58 o-Xylene	106	8.411	8.411	(1.055)	8437	0.20000	0.1945
	59 Styrene	104	8.445	8.451	(1.059)	12954	0.20000	0.1859
	60 Bromoform	173	8.462	8.474	(0.875)	3116	0.20000	0.1977(M)
	61 Isopropyl Benzene	105	8.637	8.638	(0.893)	20145	0.20000	0.1981
$	62 4-Bromofluorobenzene	95	8.841	8.841	(1.109)	338336	10.0000	9.354
	63 Bromobenzene	156	8.926	8.926	(0.923)	6789	0.20000	0.2399
	64 N-Propyl Benzene	91	8.937	8.937	(0.924)	24322	0.20000	0.1994
	65 1,1,2,2-Tetrachloroethane	83	8.983	8.983	(0.929)	9150	0.20000	0.2785

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	66 2-Chloro Toluene	91	9.050	9.056	(0.936)	17304	0.20000	0.1974
	67 1,3,5-Trimethyl Benzene	105	9.073	9.079	(0.939)	15903	0.20000	0.1843
	68 1,2,3-Trichloropropane	110	9.084	9.090	(0.940)	2400	0.20000	0.2621(TM)
	70 Trans-1,4-Dichloro 2-Butene	53	9.107	9.113	(0.942)	5180	0.20000	0.4269(TM)
	71 4-Chloro Toluene	91	9.181	9.175	(0.950)	16997	0.20000	0.2066
	72 T-Butyl Benzene	119	9.316	9.316	(0.964)	13646	0.20000	0.1857(M)
	73 1,2,4-Trimethylbenzene	105	9.362	9.362	(0.968)	16797	0.20000	0.1960
	74 S-Butyl Benzene	105	9.446	9.447	(0.977)	20589	0.20000	0.1913
	75 4-Isopropyl Toluene	119	9.548	9.548	(0.988)	16762	0.20000	0.1948
	76 1,3-Dichlorobenzene	146	9.610	9.611	(0.994)	11965	0.20000	0.2238
*	77 d4-1,4-Dichlorobenzene	152	9.667	9.667	(1.000)	379074	10.0000	
	78 1,4-Dichlorobenzene	146	9.678	9.679	(1.001)	13006	0.20000	0.2343
	79 N-Butyl Benzene	91	9.865	9.865	(1.020)	17675	0.20000	0.2092
$	80 d4-1,2-Dichlorobenzene	152	9.989	9.990	(1.033)	340163	10.0000	10.058
	81 1,2-Dichlorobenzene	146	9.995	9.995	(1.034)	11679	0.20000	0.2262
	82 1,2-Dibromo 3-Chloropropane	75	10.606	10.606	(1.097)	2011	0.20000	0.3219(M)
	83 Hexachloro 1,3-Butadiene	225	11.110	11.110	(1.149)	3484	0.20000	0.2833
	84 1,2,4-Trichlorobenzene	180	11.138	11.138	(1.152)	5778	0.20000	0.2088
	85 Naphthalene	128	11.392	11.393	(1.178)	14086	0.20000	0.2022
	86 1,2,3-Trichlorobenzene	180	11.545	11.540	(1.194)	6513	0.20000	0.2505

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: vstd002.d
Lab Smp Id: VSTD0.2
Analysis Type: VOA
Quant Type: ISTD
Operator: LH
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 22-MAR-2013
Calibration Time: 14:37
Client Smp ID: VSTD0.2
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	476193	-11.23
36 1,4-Difluorobenze	907870	453935	1815740	804868	-11.35
53 d5-Chlorobenzene	856141	428070	1712282	721875	-15.68
77 d4-1,4-Dichlorobe	481945	240972	963890	379074	-21.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.53	-0.11
36 1,4-Difluorobenze	5.92	5.42	6.42	5.92	0.00
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.00
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

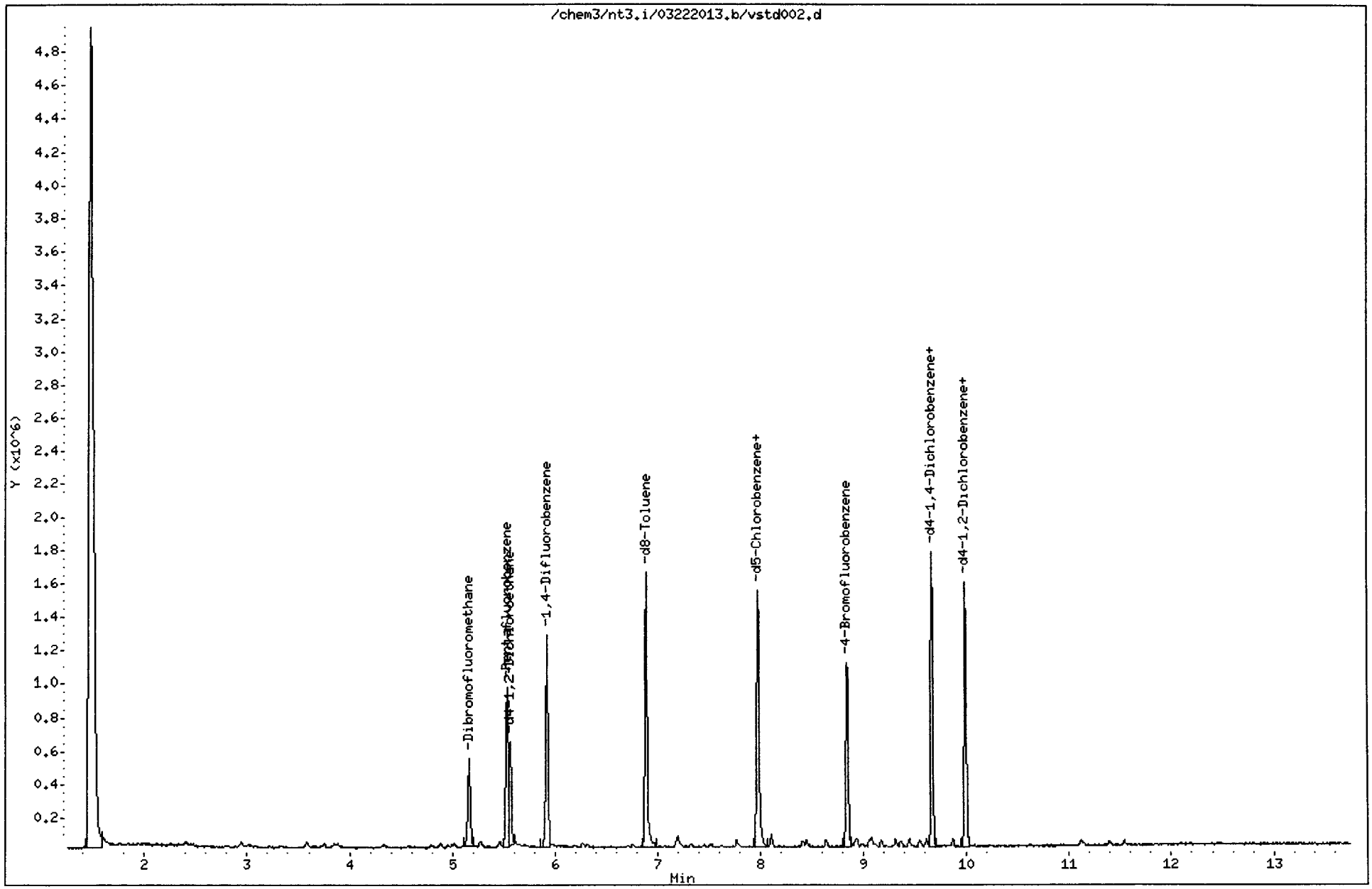
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt3.i/03222013.b/vstd002.d
Date : 22-MAR-2013 12:51
Client ID: VSTD0.2
Sample Info: VSTD0.2,10,10,0,,

Instrument: nt3.i

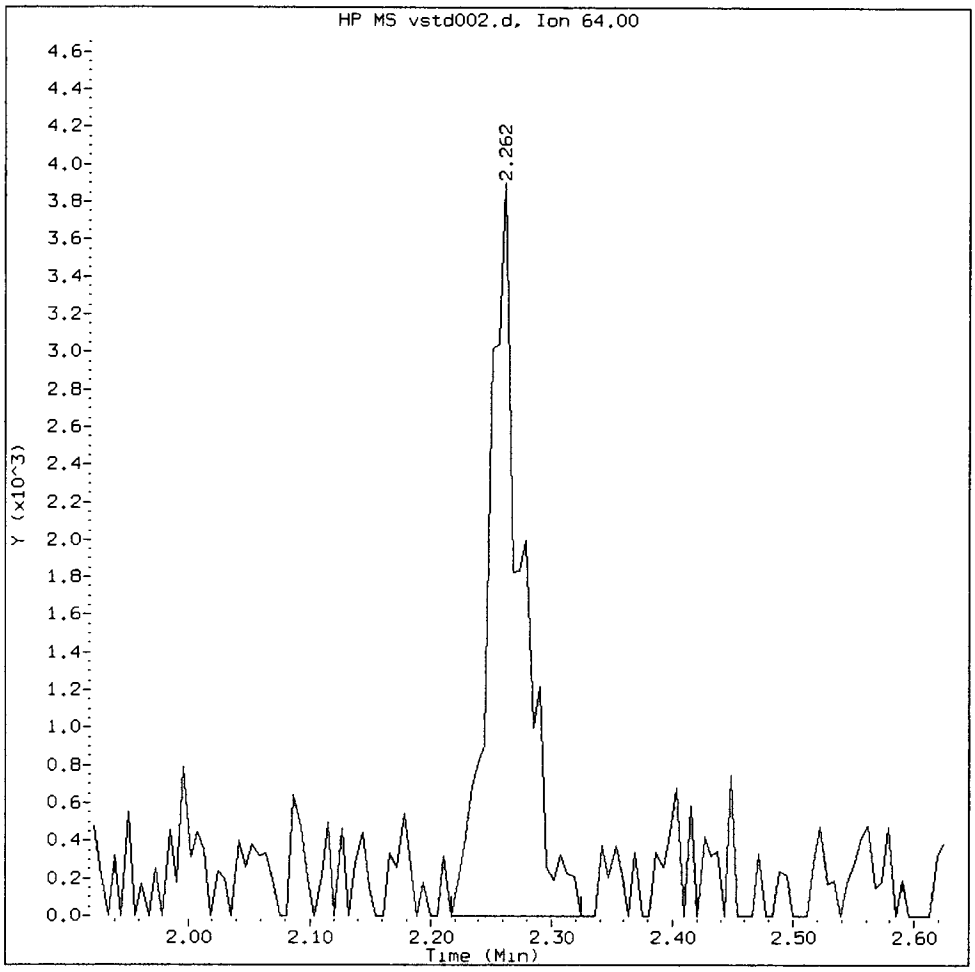
Operator: LH
Column diameter: 0.18

Column phase: RTXVMS



VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Chloroethane Amount: 0.28 Area: 7470



MANUAL INTEGRATION for Chloroethane

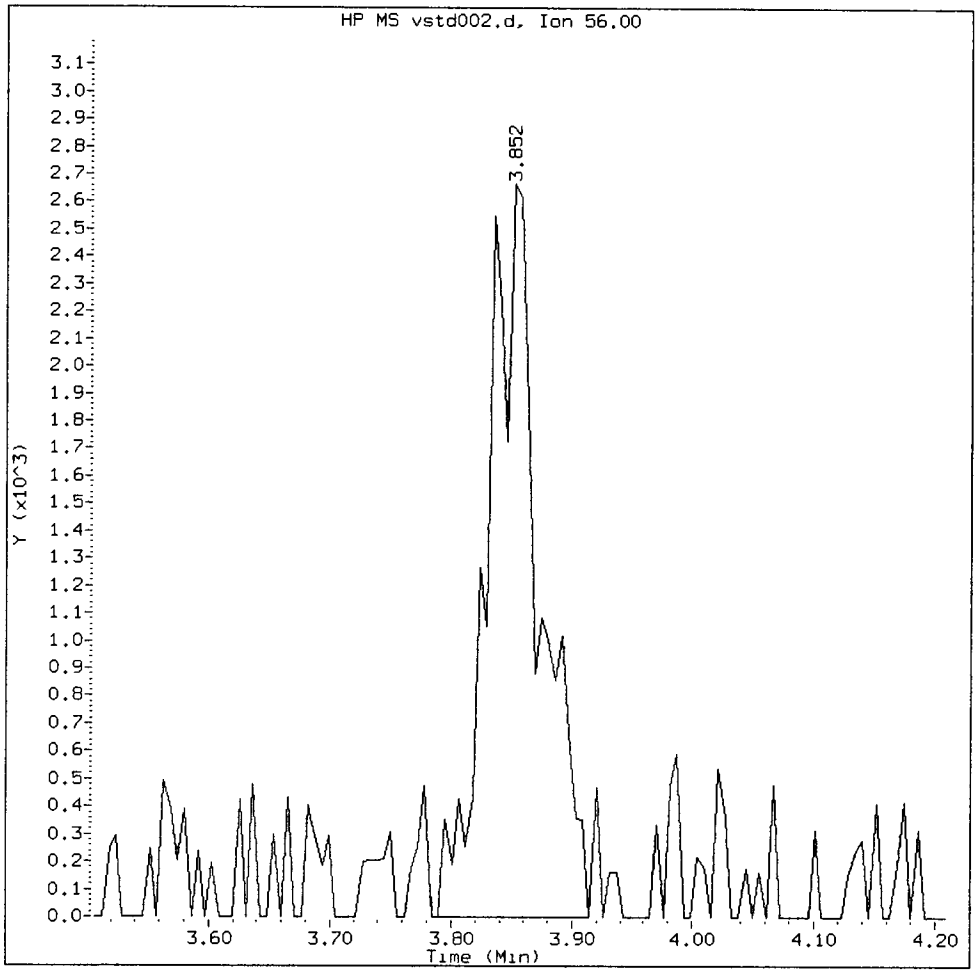
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Acrolein Amount: 1.83 Area: 8100



MANUAL INTEGRATION for Acrolein

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

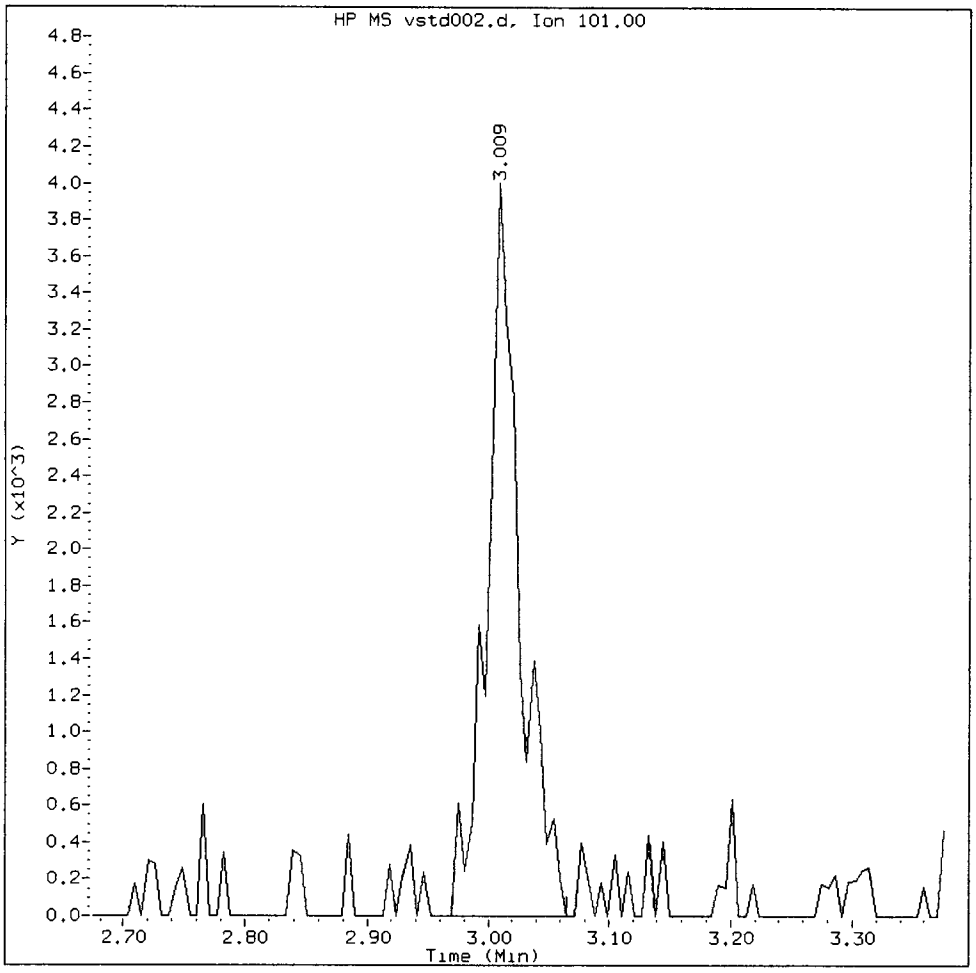
5. Other _____

Analyst: _____ Date: 4/16

WJ10:00447

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

112Trichloro122Trifluoroethane Amount: 0.25 Area: 7662



MANUAL INTEGRATION for 112Trichloro122Trifluoroethane

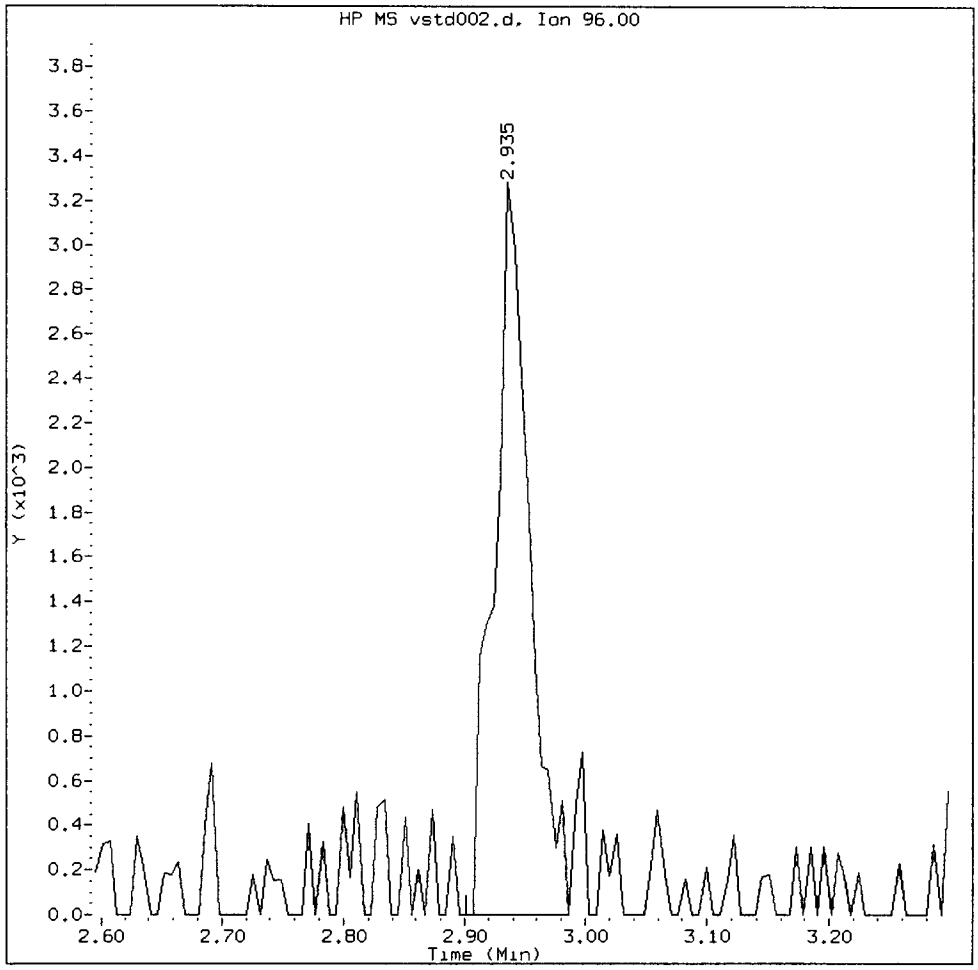
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/4/13

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

1,1-Dichloroethene Amount: 0.23 Area: 6649



MANUAL INTEGRATION for 1,1-Dichloroethene

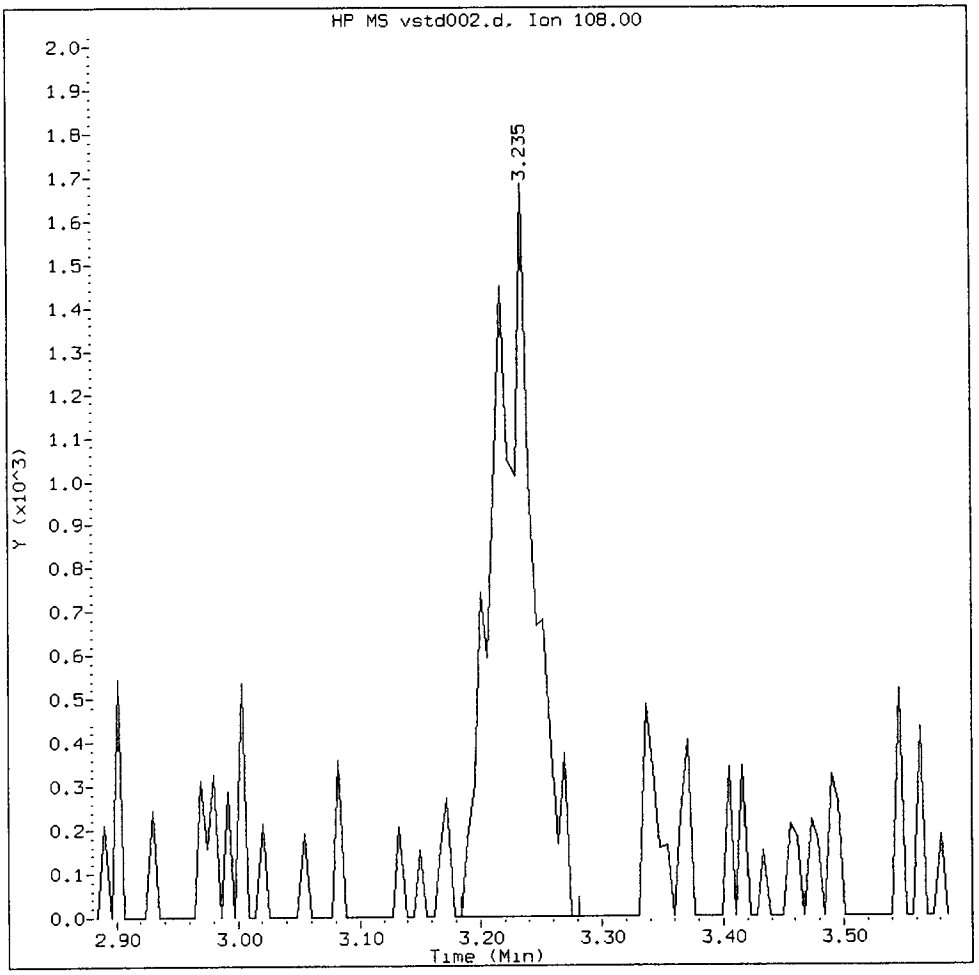
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Bromoethane Amount: 0.19 Area: 3861



MANUAL INTEGRATION for Bromoethane

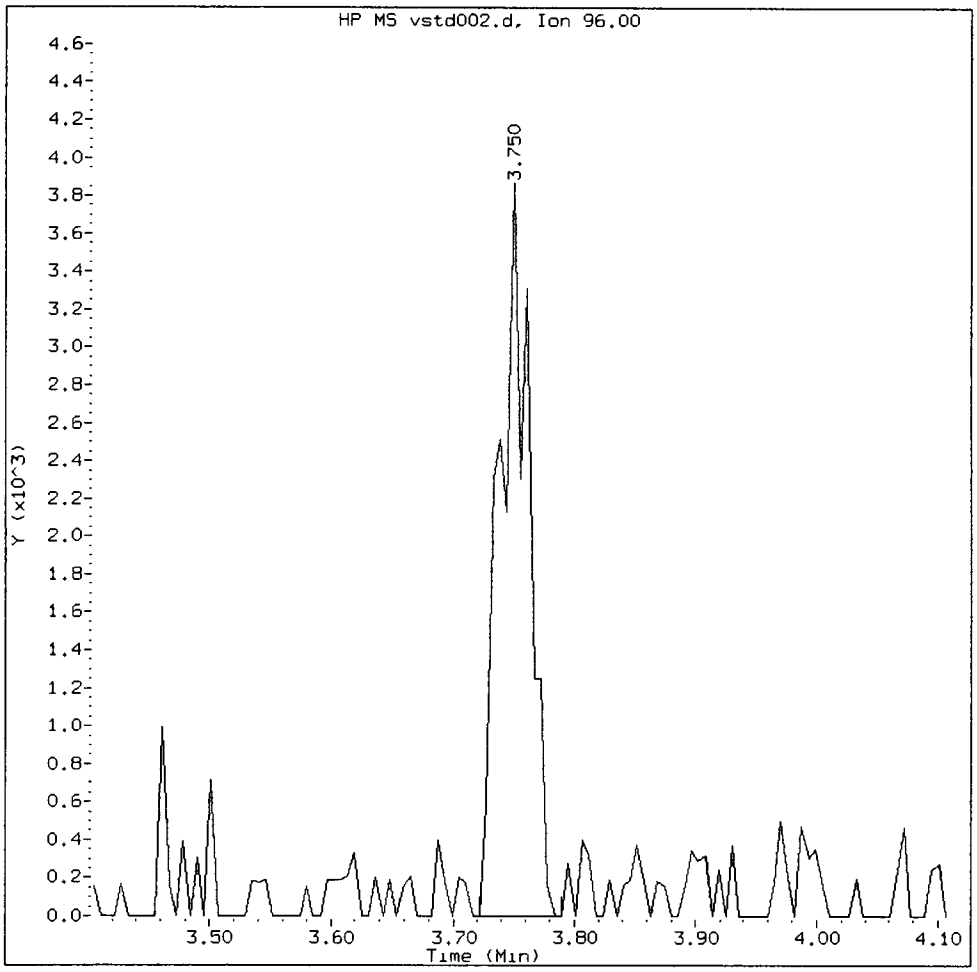
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/11/13

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Trans-1,2-Dichloroethene Amount: 0.23 Area: 6684



MANUAL INTEGRATION for Trans-1,2-Dichloroethene

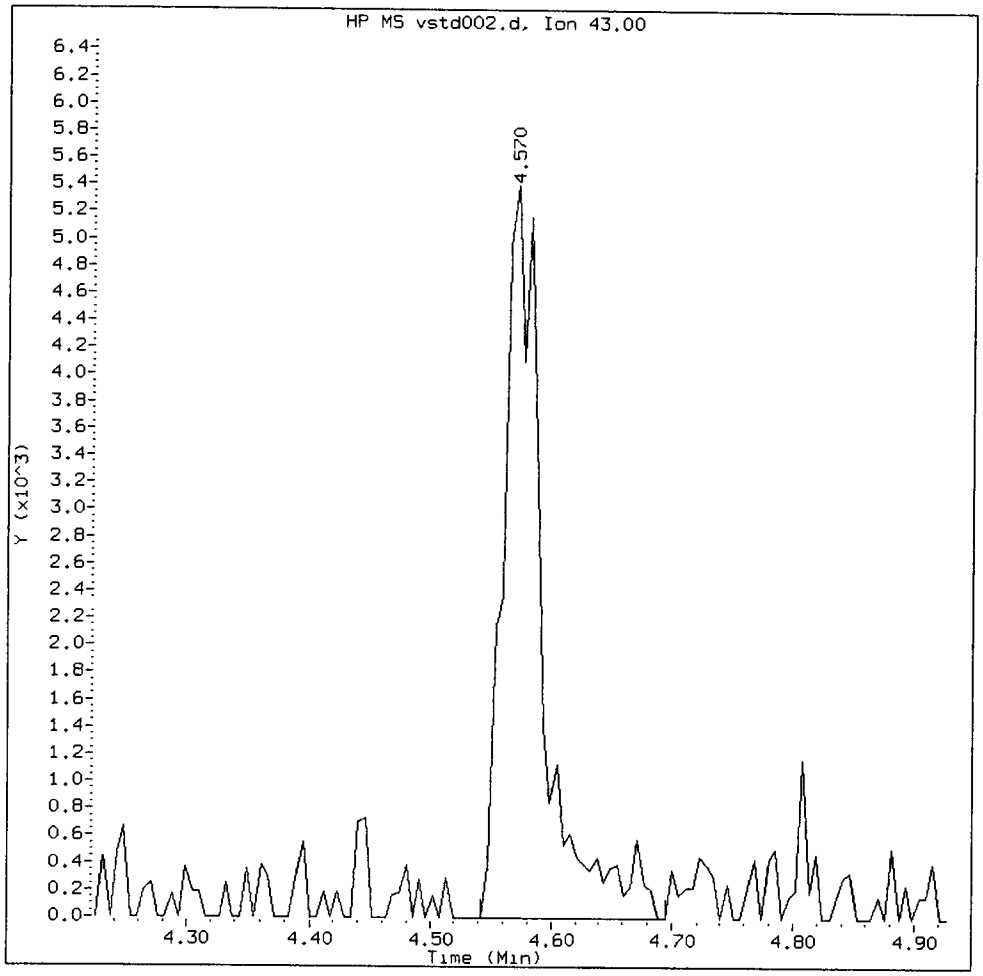
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Vinyl Acetate Amount: 0.23 Area: 12347



MANUAL INTEGRATION for Vinyl Acetate

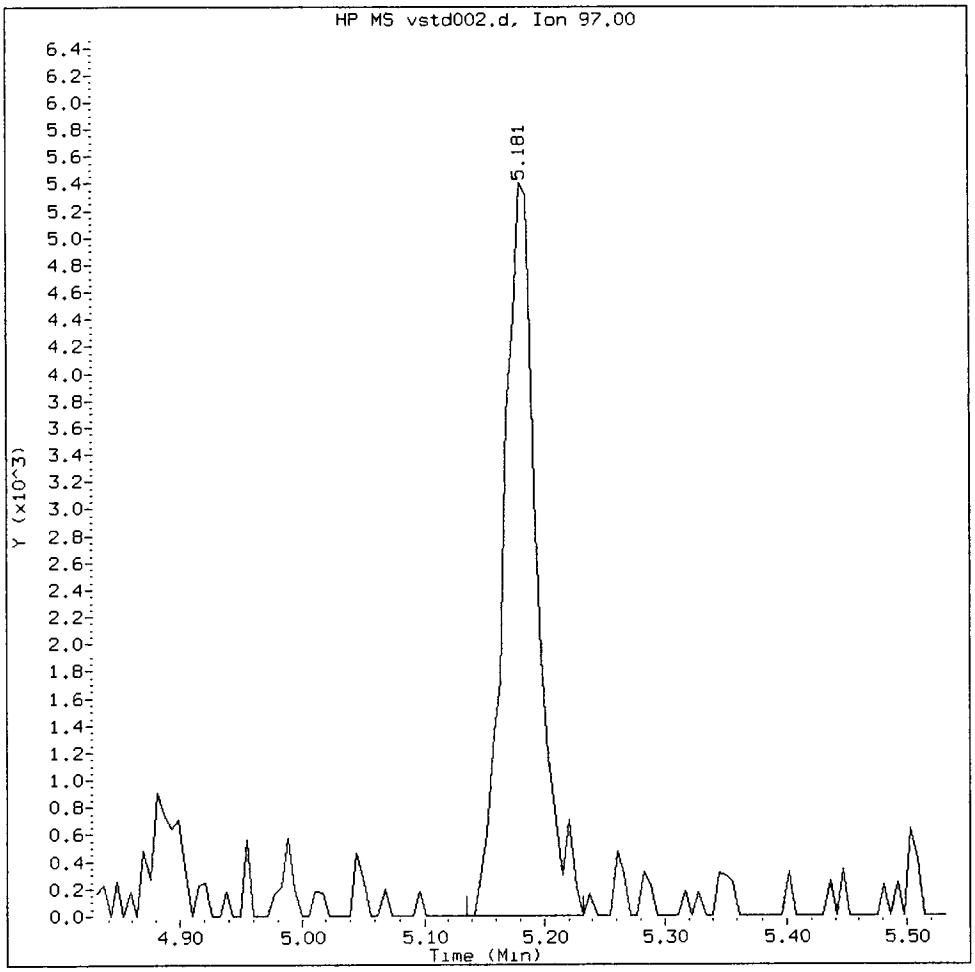
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

1,1,1-Trichloroethane Amount: 0.24 Area: 10481



MANUAL INTEGRATION for 1,1,1-Trichloroethane

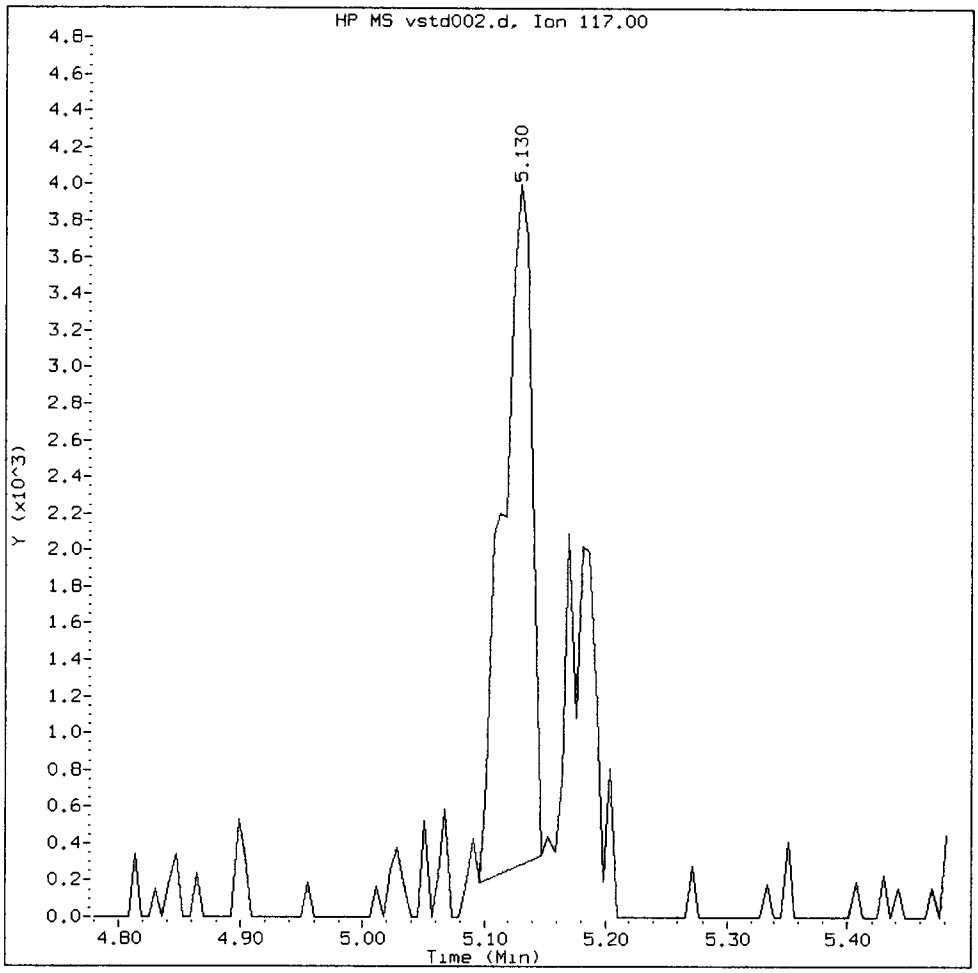
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Carbon Tetrachloride Amount: 0.17 Area: 6131



MANUAL INTEGRATION for Carbon Tetrachloride

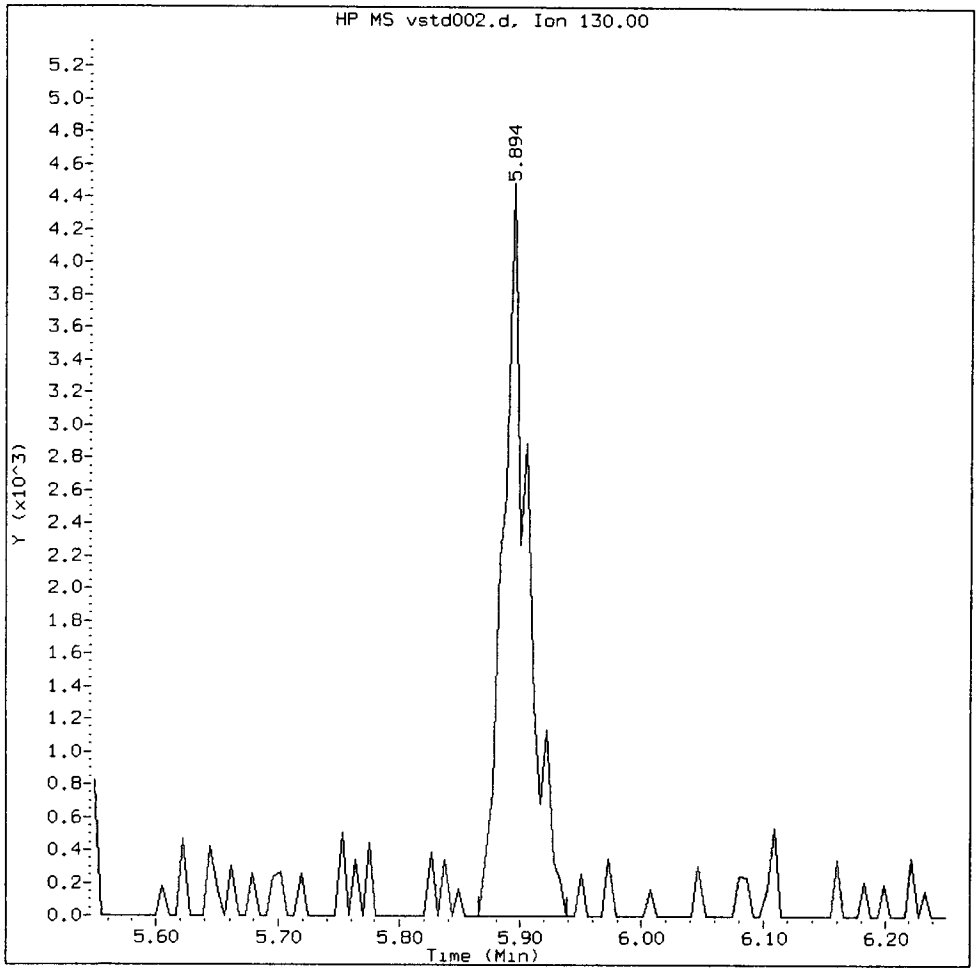
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: WJ Date: 4/16

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Trichloroethene Amount: 0.23 Area: 6502



MANUAL INTEGRATION for Trichloroethene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

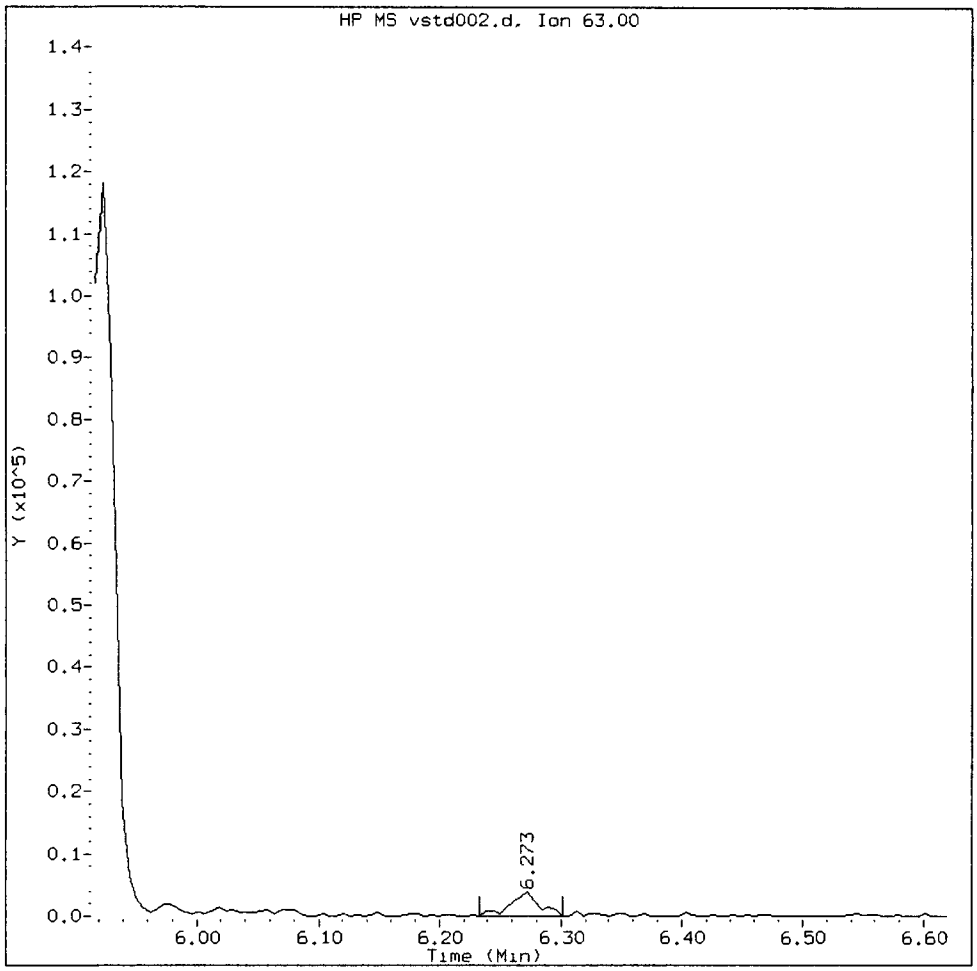
5. Other _____

Analyst: _____ Date: 4/16

WJ10:00455

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

1,2-Dichloropropane Amount: 0.22 Area: 6287



MANUAL INTEGRATION for 1,2-Dichloropropane

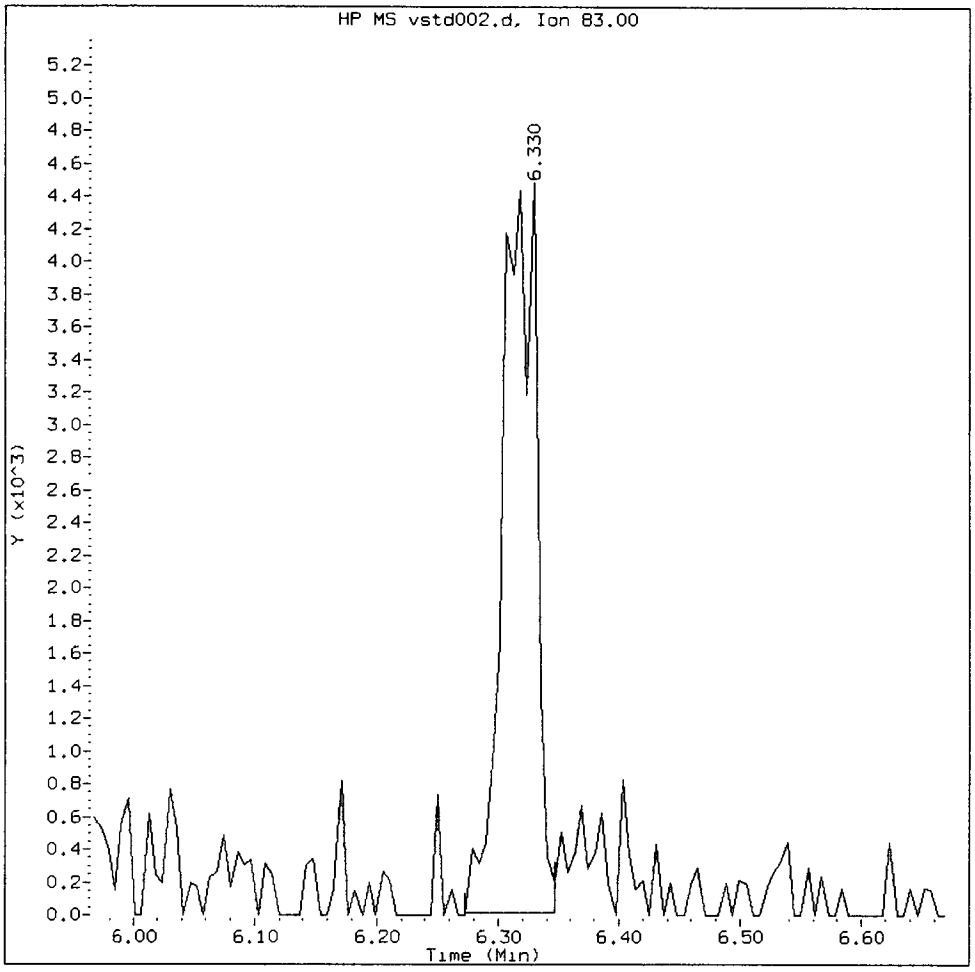
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/4

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Bromodichloromethane Amount: 0.25 Area: 8733



MANUAL INTEGRATION for Bromodichloromethane

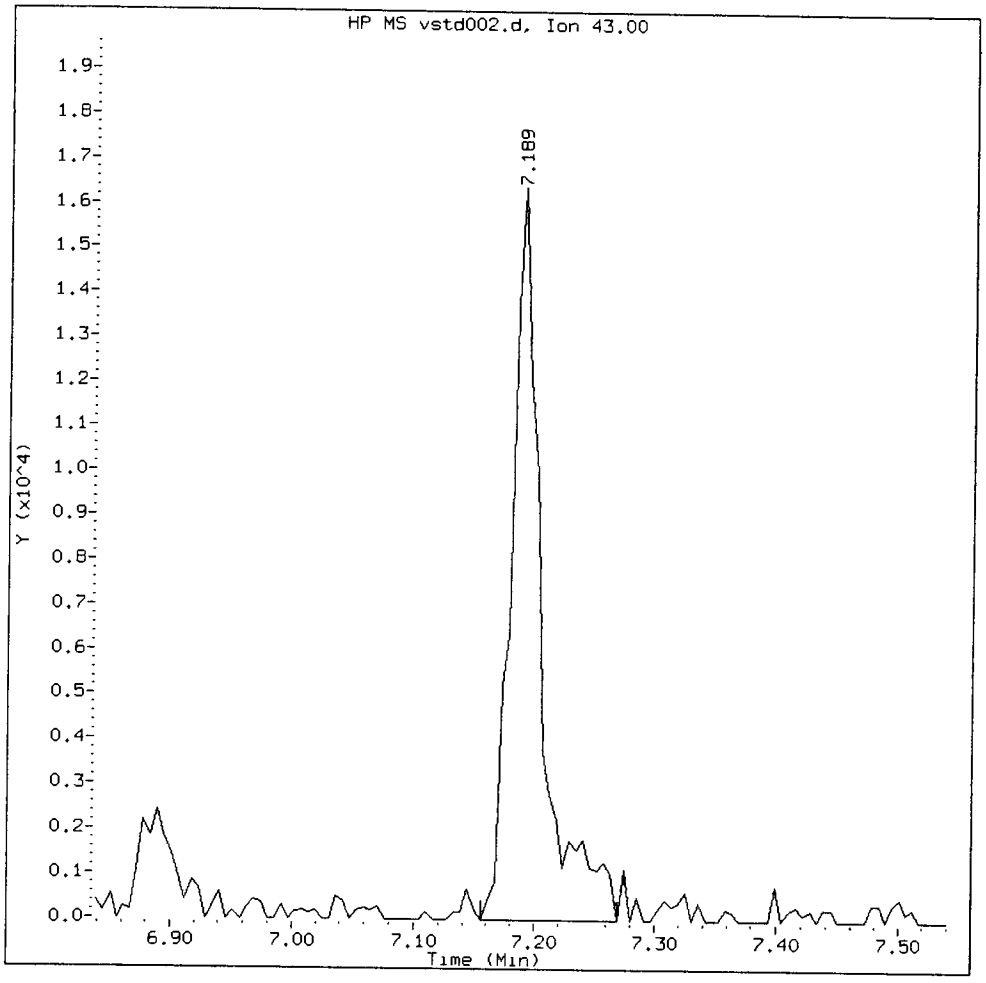
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

4-Methyl-2-Pentanone Amount: 1.00 Area: 28805



MANUAL INTEGRATION for 4-Methyl-2-Pentanone

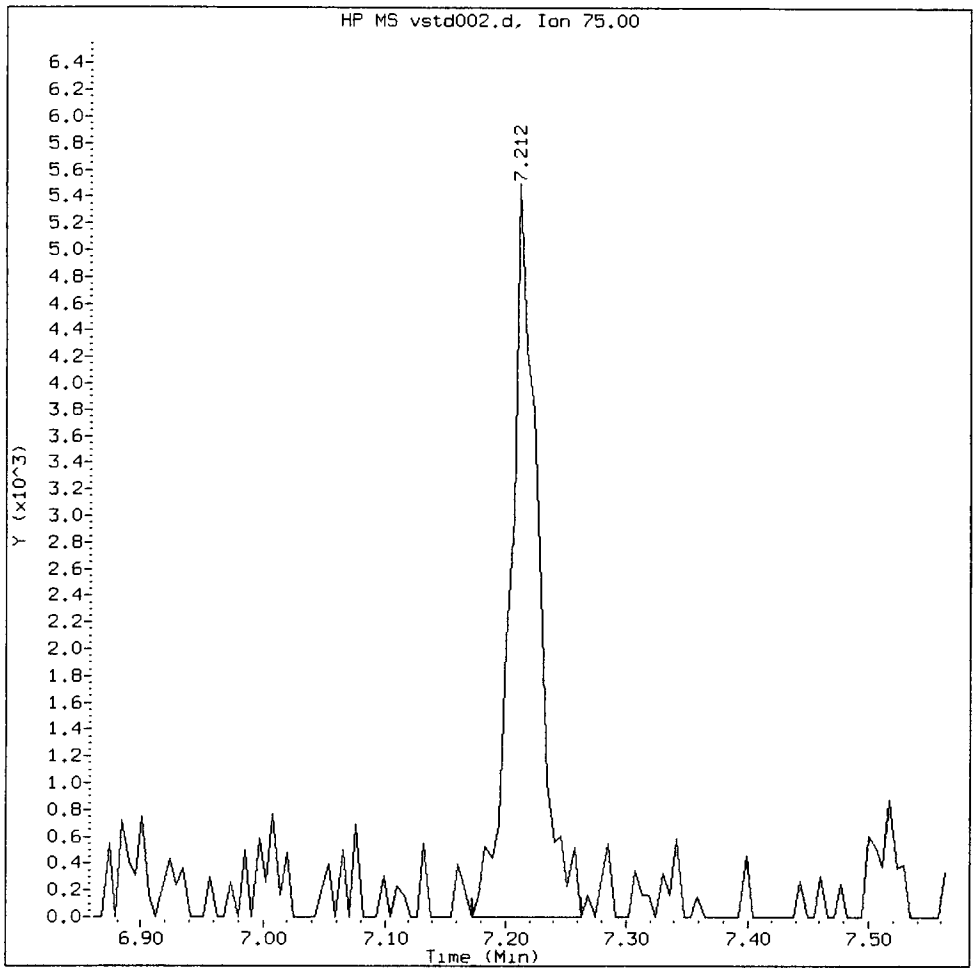
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Trans 1,3-Dichloropropene Amount: 0.22 Area: 8750



MANUAL INTEGRATION for Trans 1,3-Dichloropropene

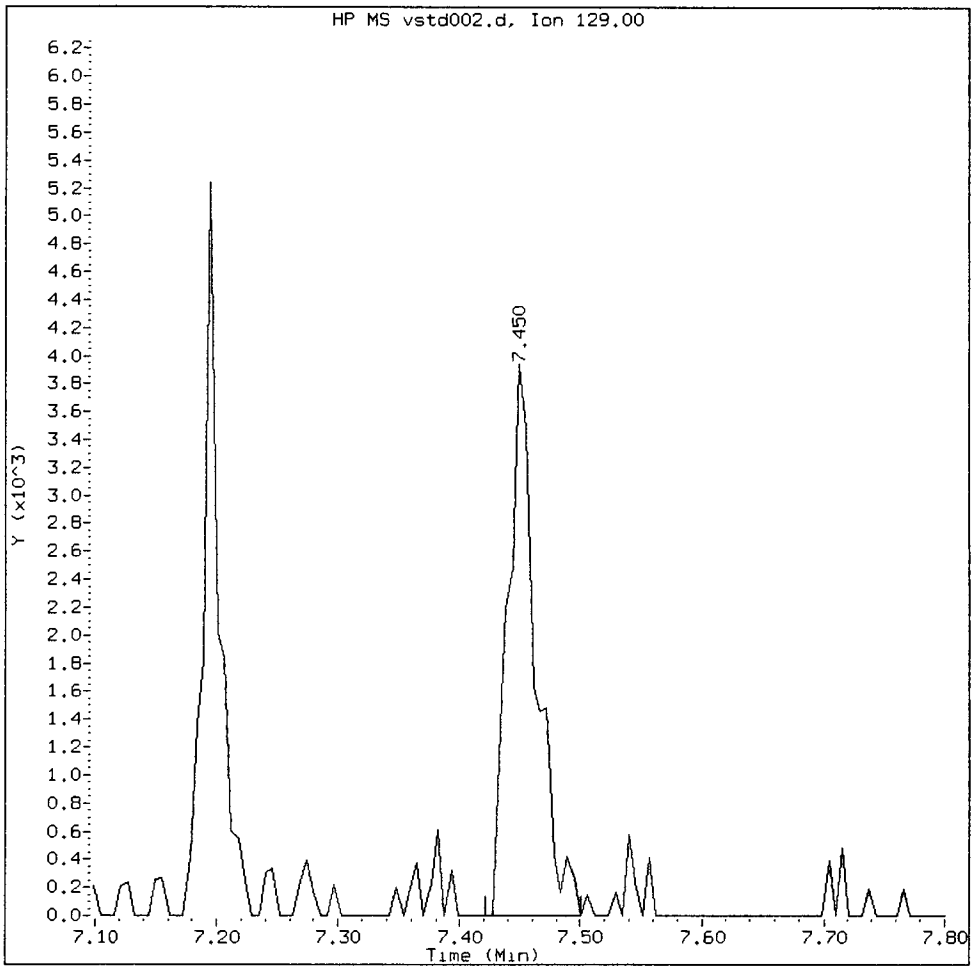
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Chlorodibromomethane Amount: 0.26 Area: 6479



MANUAL INTEGRATION for Chlorodibromomethane

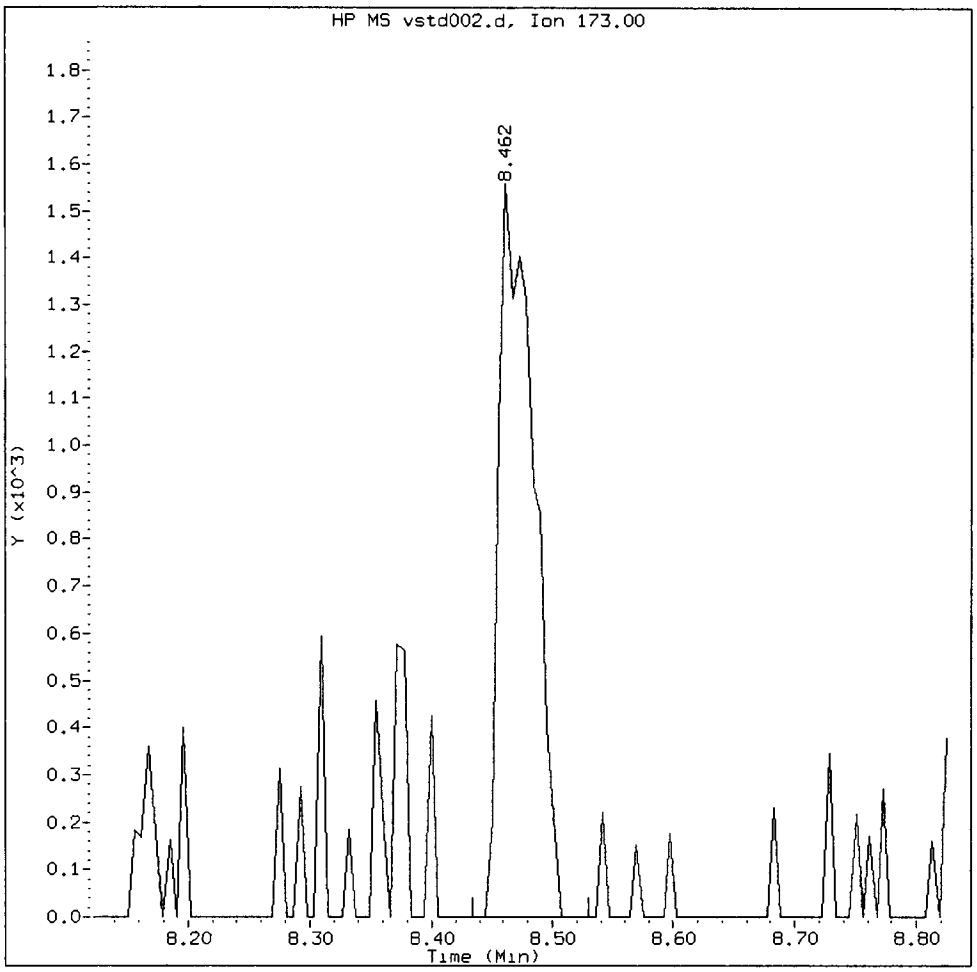
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16/13

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Bromoform Amount: 0.20 Area: 3116



MANUAL INTEGRATION for Bromoform

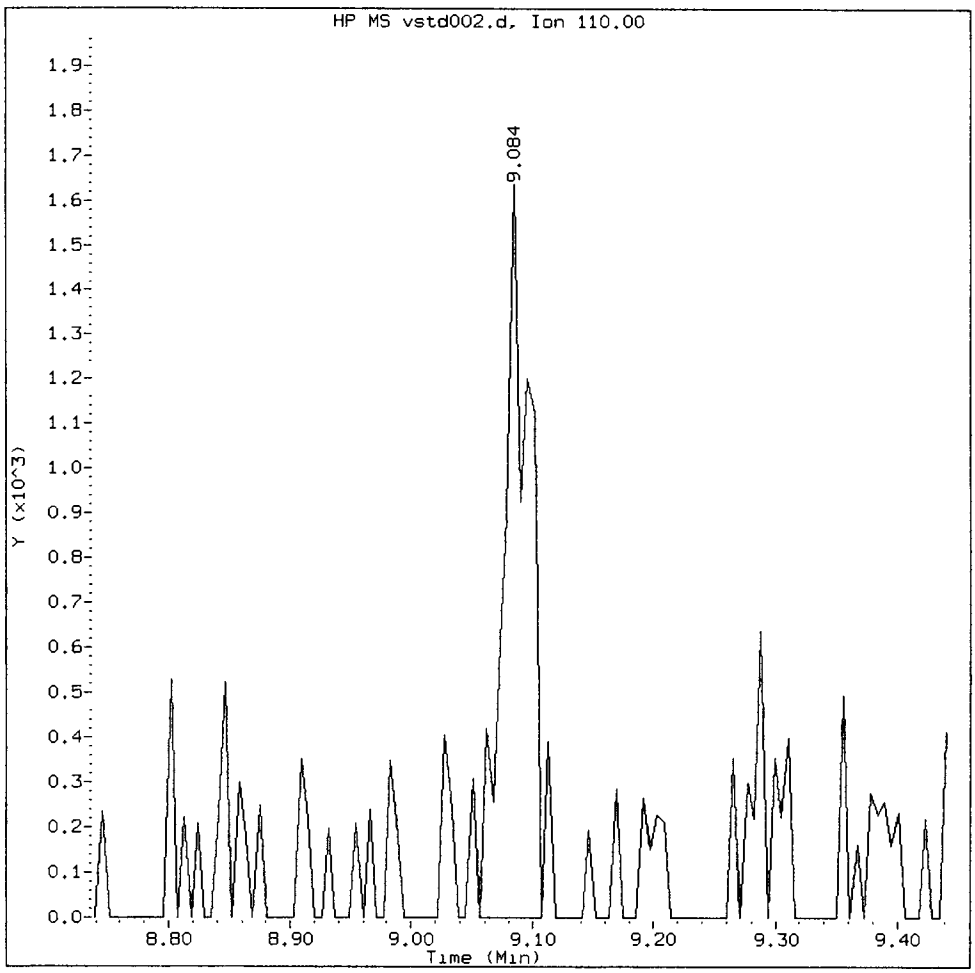
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/13/14

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

1,2,3-Trichloropropane Amount: 0.26 Area: 2400



MANUAL INTEGRATION for 1,2,3-Trichloropropane

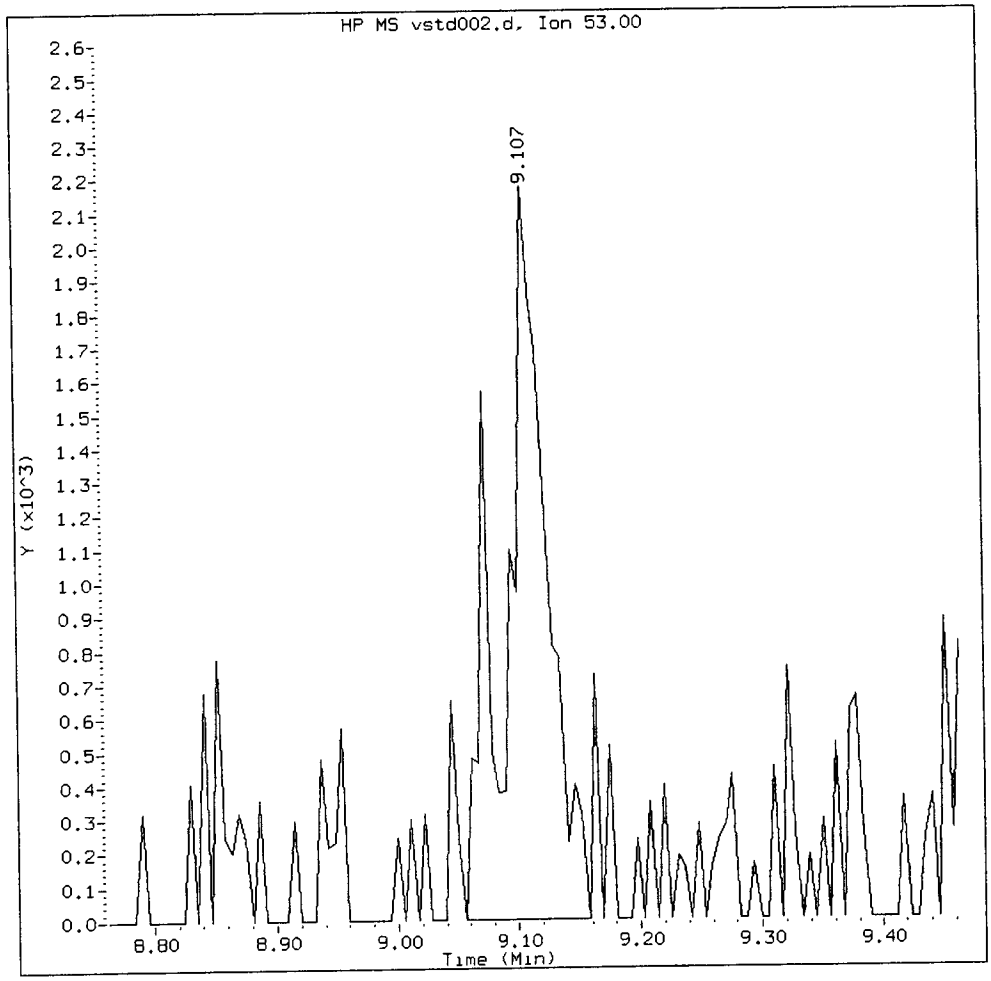
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16/14

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Trans-1,4-Dichloro 2-Butene Amount: 0.43 Area: 5180



MANUAL INTEGRATION for Trans-1,4-Dichloro 2-Butene

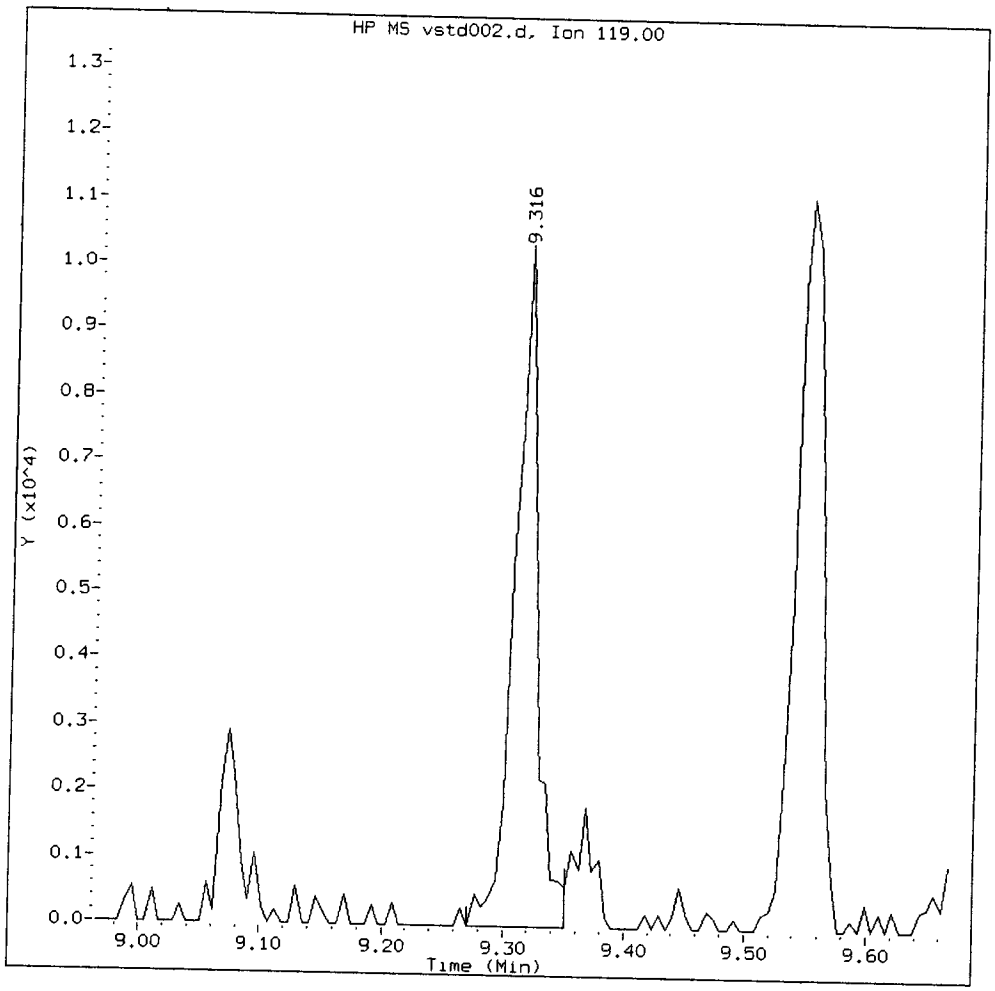
1) Baseline correction
2) Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16/13

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

T-Butyl Benzene Amount: 0.19 Area: 13646



MANUAL INTEGRATION for T-Butyl Benzene

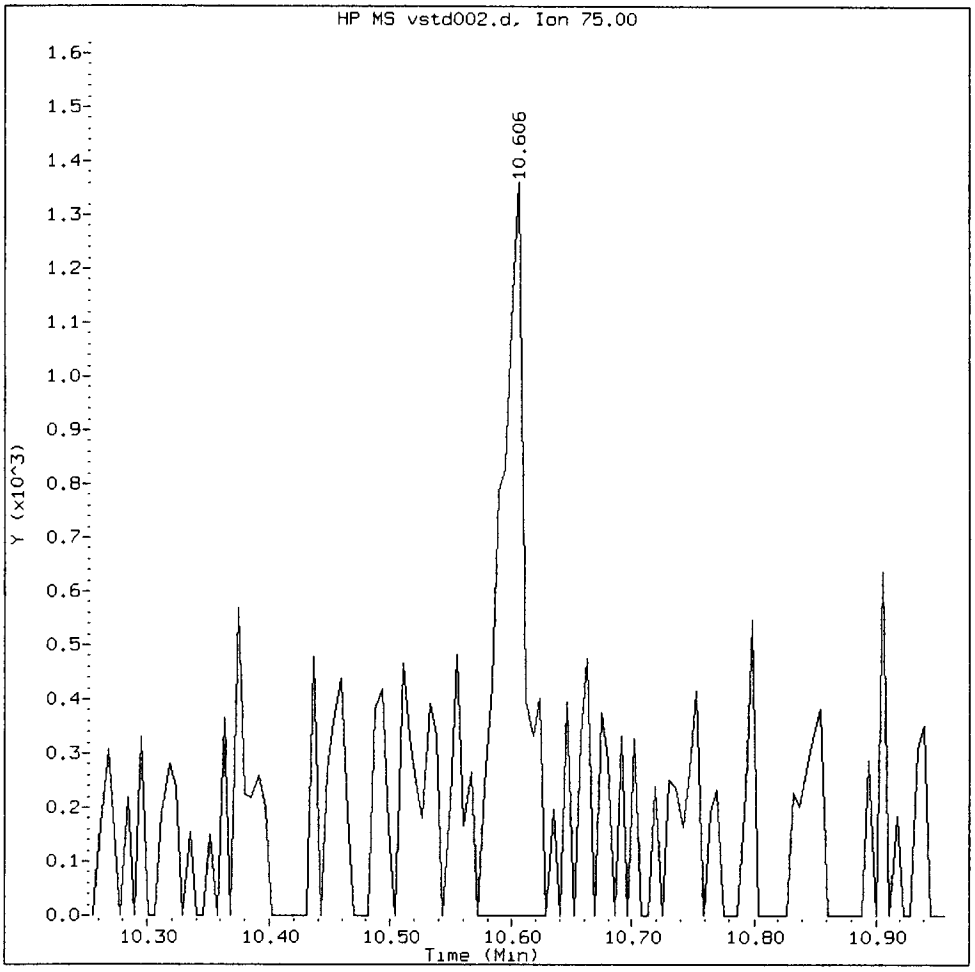
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16/14

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

1,2-Dibromo 3-Chloropropane Amount: 0.32 Area: 2011



MANUAL INTEGRATION for 1,2-Dibromo 3-Chloropropane

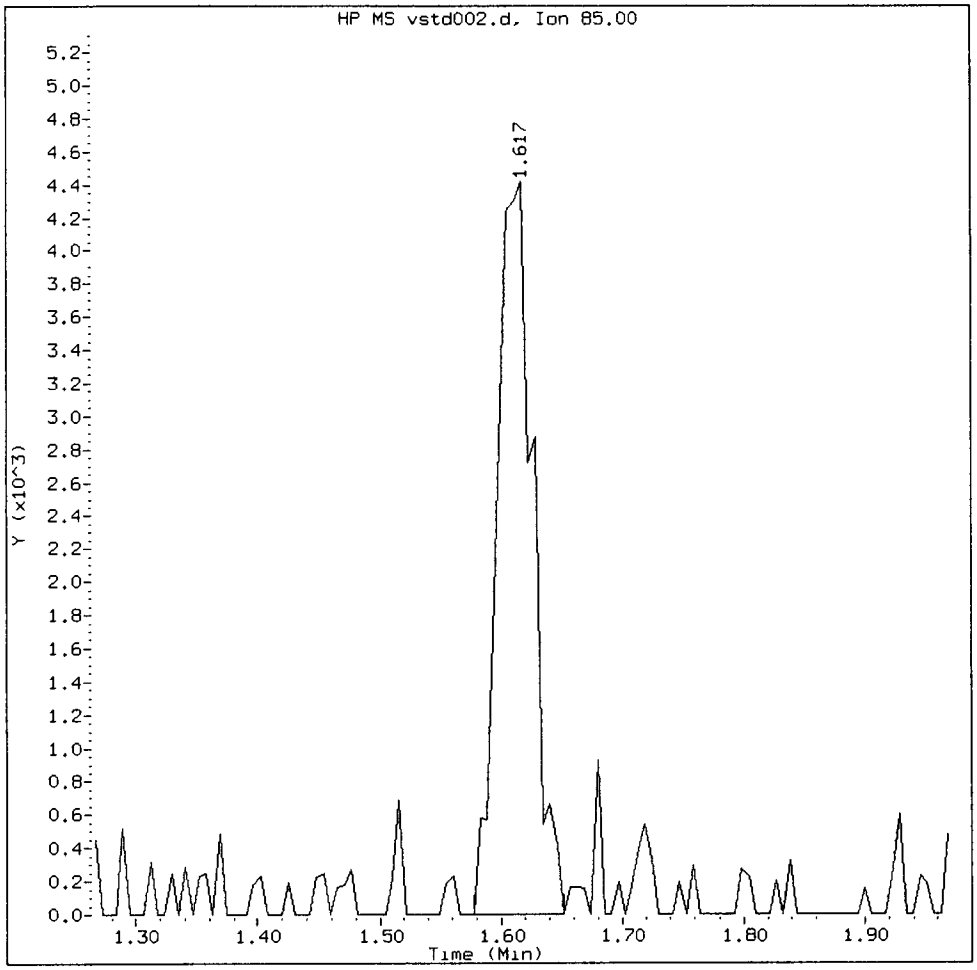
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16/14

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Dichlorodifluoromethane Amount: 0.25 Area: 8937



MANUAL INTEGRATION for Dichlorodifluoromethane

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

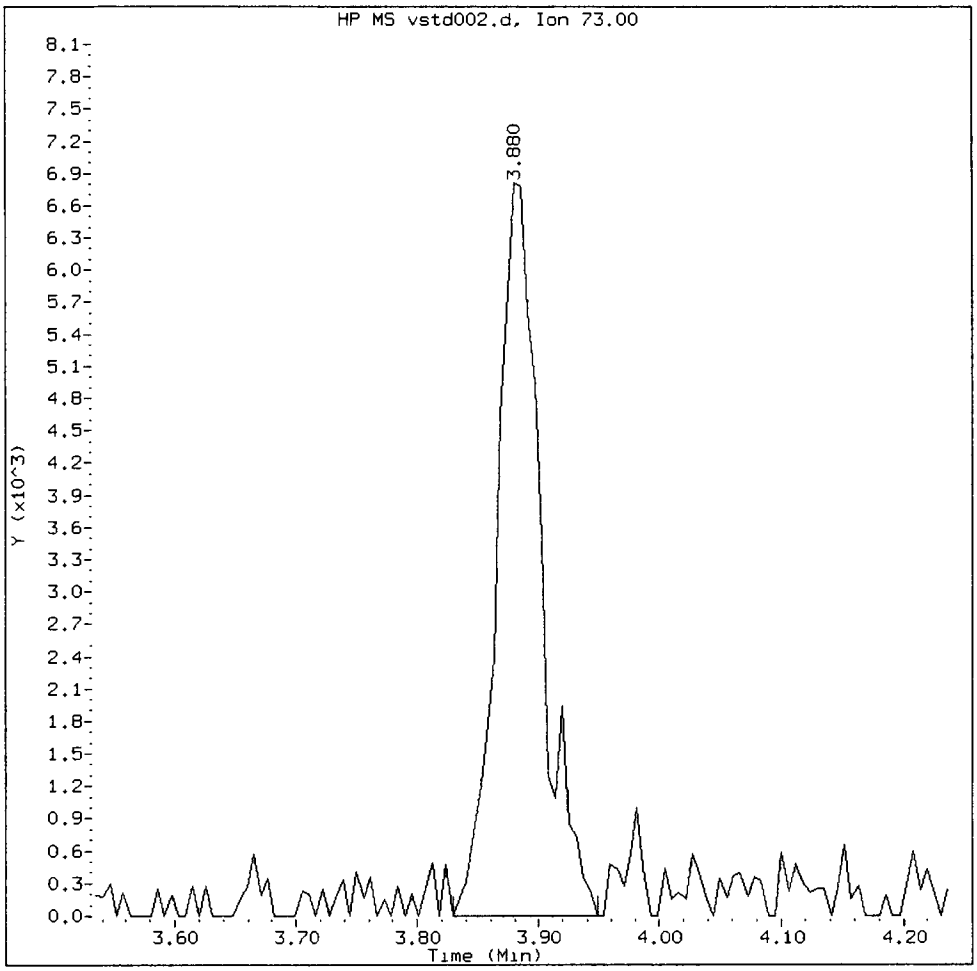
5. Other _____

Analyst: _____ Date: 4/16

WJ10 : 00466

VSTD0.2, /chem3/nt3.i/03222013.b/vstd002.d

Methyl tert butyl ether Amount: 0.21 Area: 17212



MANUAL INTEGRATION for Methyl tert butyl ether

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/1/14

WJ10:80467

CO-ELUTION SUMMARY FOR FILE - vstd002.d

Lab ID: VSTD0.2, Method: 8260C032213L.m, Instrument: nt3.i, Date: 22-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/03222013.b/vstd005.d
Lab Smp Id: VSTD0.5 Client Smp ID: VSTD0.5
Inj Date : 22-MAR-2013 15:56
Operator : LH Inst ID: nt3.i
Smp Info : VSTD0.5,10,10,0,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/03222013.b/8260C032213L.m
Meth Date : 01-Apr-2013 15:38 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 15:56 Cal File: vstd005.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.612	1.618	(0.291)	19303	0.50000	0.5200
2 Chloromethane	50	1.759	1.765	(0.318)	21256	0.50000	0.5143
3 Vinyl Chloride	62	1.839	1.844	(0.332)	22305	0.50000	0.4900
4 Bromomethane	94	2.138	2.144	(0.387)	13232	0.50000	0.5475
5 Chloroethane	64	2.263	2.274	(0.409)	13694	0.50000	0.4846
6 Trichlorofluoromethane	101	2.404	2.421	(0.435)	15183	0.50000	0.3259
7 1,1-Dichloroethene	96	2.942	2.947	(0.532)	16535	0.50000	0.5319
8 Carbon Disulfide	76	2.953	2.958	(0.534)	55530	0.50000	0.5261
9 112Trichloro122Trifluoroethane	101	3.015	3.026	(0.545)	16729	0.50000	0.5271
10 Iodomethane	142	3.083	3.100	(0.557)	14282	0.50000	0.3337
11 Bromoethane	108	3.230	3.235	(0.584)	10723	0.50000	0.5067
12 Acrolein	56	3.847	3.858	(0.695)	8807	2.50000	1.882
13 Methylene Chloride	84	3.587	3.592	(0.648)	24874	0.50000	0.8641
14 Acetone	43	3.643	3.648	(0.658)	13391	2.50000	2.836(M)
15 Trans-1,2-Dichloroethene	96	3.756	3.756	(0.679)	16666	0.50000	0.5341

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	16 Methyl tert butyl ether	73	3.886	3.886	(0.702)	40098	0.50000	0.4725
	17 1,1-Dichloroethane	63	4.333	4.333	(0.783)	31699	0.50000	0.5450
	18 Acrylonitrile	53	4.373	4.384	(0.790)	2669	0.50000	0.3827
	19 Vinyl Acetate	43	4.571	4.576	(0.826)	26382	0.50000	0.4716
	20 Cis-1,2-Dichloroethene	96	4.797	4.797	(0.867)	16700	0.50000	0.5171
	22 2,2-Dichloropropane	77	4.888	4.887	(0.883)	18312	0.50000	0.5001
	23 Bromochloromethane	128	4.955	4.955	(0.896)	7846	0.50000	0.5152
	24 Chloroform	83	5.023	5.023	(0.908)	28244	0.50000	0.5428
	25 Carbon Tetrachloride	117	5.120	5.130	(0.864)	23491	0.50000	0.6066
$	26 Dibromofluoromethane	111	5.165	5.164	(0.934)	287356	10.0000	10.378
	27 1,1,1-Trichloroethane	97	5.176	5.181	(0.936)	23572	0.50000	0.5046
	28 2-Butanone	43	5.267	5.266	(0.952)	24452	2.50000	2.351
	29 1,1-Dichloropropene	75	5.278	5.278	(0.891)	21526	0.50000	0.5081
	30 Benzene	78	5.465	5.464	(0.923)	61356	0.50000	0.5104
*	31 Pentafluorobenzene	168	5.532	5.538	(1.000)	502972	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.561	5.560	(1.005)	371236	10.0000	10.477
	33 1,2-Dichloroethane	62	5.612	5.617	(0.947)	21094	0.50000	0.5195
	34 Trichloroethene	130	5.900	5.900	(0.996)	14033	0.50000	0.4775
*	36 1,4-Difluorobenzene	114	5.923	5.922	(1.000)	843637	10.0000	
	37 Dibromomethane	93	6.200	6.200	(1.047)	9648	0.50000	0.5532
	38 1,2-Dichloropropane	63	6.268	6.267	(1.058)	14802	0.50000	0.4930
	39 Bromodichloromethane	83	6.313	6.318	(1.066)	20432	0.50000	0.5560
	41 2-Chloroethyl Vinyl Ether	63	6.720	6.720	(1.135)	6824	0.50000	0.4282
	42 Cis 1,3-dichloropropene	75	6.760	6.760	(1.141)	22136	0.50000	0.5024
$	43 d8-Toluene	98	6.890	6.895	(1.163)	1017555	10.0000	10.026
	44 Toluene	92	6.930	6.929	(1.170)	31606	0.50000	0.4665
	45 Tetrachloroethene	166	7.201	7.201	(0.903)	13457	0.50000	0.4826
	46 4-Methyl-2-Pentanone	43	7.190	7.190	(1.214)	77712	2.50000	2.569(TM)
	47 Trans 1,3-Dichloropropene	75	7.213	7.212	(1.218)	19235	0.50000	0.4512
	48 1,1,2-Trichloroethane	97	7.326	7.325	(1.237)	12069	0.50000	0.5076
	49 Chlorodibromomethane	129	7.450	7.450	(0.934)	13010	0.50000	0.4631
	50 1,3-Dichloropropane	76	7.512	7.518	(0.942)	21806	0.50000	0.4890
	51 1,2-Dibromoethane	107	7.620	7.619	(1.287)	13577	0.50000	0.5485
	52 2-Hexanone	43	7.767	7.767	(0.974)	59554	2.50000	2.451
*	53 d5-Chlorobenzene	117	7.976	7.976	(1.000)	826171	10.0000	
	54 Chlorobenzene	112	7.988	7.987	(1.001)	41265	0.50000	0.5282
	55 Ethyl Benzene	91	8.005	8.004	(1.004)	61184	0.50000	0.4715
	56 1,1,1,2-Tetrachloroethane	131	8.033	8.032	(1.007)	11999	0.50000	0.4224
	57 m,p-xylene	106	8.106	8.106	(1.016)	46222	1.00000	0.9402
	58 o-Xylene	106	8.412	8.411	(1.055)	23694	0.50000	0.4773
	59 Styrene	104	8.446	8.451	(1.059)	34477	0.50000	0.4324
	60 Bromoform	173	8.468	8.474	(0.876)	8047	0.50000	0.4456
	61 Isopropyl Benzene	105	8.638	8.638	(0.894)	53361	0.50000	0.4581
$	62 4-Bromofluorobenzene	95	8.842	8.841	(1.109)	396956	10.0000	9.589
	63 Bromobenzene	156	8.921	8.926	(0.923)	17005	0.50000	0.5246
	64 N-Propyl Benzene	91	8.938	8.937	(0.925)	70612	0.50000	0.5055
	65 1,1,2,2-Tetrachloroethane	83	8.983	8.983	(0.929)	19591	0.50000	0.5207

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	66 2-Chloro Toluene	91	9.051	9.056	(0.936)	49887	0.50000	0.4968
	67 1,3,5-Trimethyl Benzene	105	9.079	9.079	(0.939)	47285	0.50000	0.4783
	68 1,2,3-Trichloropropane	110	9.091	9.090	(0.940)	5671	0.50000	0.5406
	70 Trans-1,4-Dichloro 2-Butene	53	9.113	9.113	(0.943)	7712	0.50000	0.5548
	71 4-Chloro Toluene	91	9.175	9.175	(0.949)	46177	0.50000	0.4900
	72 T-Butyl Benzene	119	9.311	9.316	(0.963)	39998	0.50000	0.4752
	73 1,2,4-Trimethylbenzene	105	9.362	9.362	(0.968)	44314	0.50000	0.4515
	74 S-Butyl Benzene	105	9.447	9.447	(0.977)	59040	0.50000	0.4789
	75 4-Isopropyl Toluene	119	9.549	9.548	(0.988)	47232	0.50000	0.4793
	76 1,3-Dichlorobenzene	146	9.611	9.611	(0.994)	30437	0.50000	0.4971
*	77 d4-1,4-Dichlorobenzene	152	9.668	9.667	(1.000)	434203	10.0000	
	78 1,4-Dichlorobenzene	146	9.679	9.679	(1.001)	31001	0.50000	0.4877
	79 N-Butyl Benzene	91	9.866	9.865	(1.020)	44156	0.50000	0.4562
$	80 d4-1,2-Dichlorobenzene	152	9.990	9.990	(1.033)	399199	10.0000	10.305
	81 1,2-Dichlorobenzene	146	9.996	9.995	(1.034)	31817	0.50000	0.5380
	82 1,2-Dibromo 3-Chloropropane	75	10.607	10.606	(1.097)	3916	0.50000	0.5473
	83 Hexachloro 1,3-Butadiene	225	11.110	11.110	(1.149)	7442	0.50000	0.5284
	84 1,2,4-Trichlorobenzene	180	11.138	11.138	(1.152)	14349	0.50000	0.4526
	85 Naphthalene	128	11.393	11.393	(1.178)	38133	0.50000	0.4779
	86 1,2,3-Trichlorobenzene	180	11.540	11.540	(1.194)	13916	0.50000	0.4674

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: vstd005.d
Lab Smp Id: VSTD0.5
Analysis Type: VOA
Quant Type: ISTD
Operator: LH
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 22-MAR-2013
Calibration Time: 14:37
Client Smp ID: VSTD0.5
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	502972	-6.23
36 1,4-Difluorobenze	907870	453935	1815740	843637	-7.08
53 d5-Chlorobenzene	856141	428070	1712282	826171	-3.50
77 d4-1,4-Dichlorobe	481945	240972	963890	434203	-9.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.53	-0.09
36 1,4-Difluorobenze	5.92	5.42	6.42	5.92	0.01
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.01
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

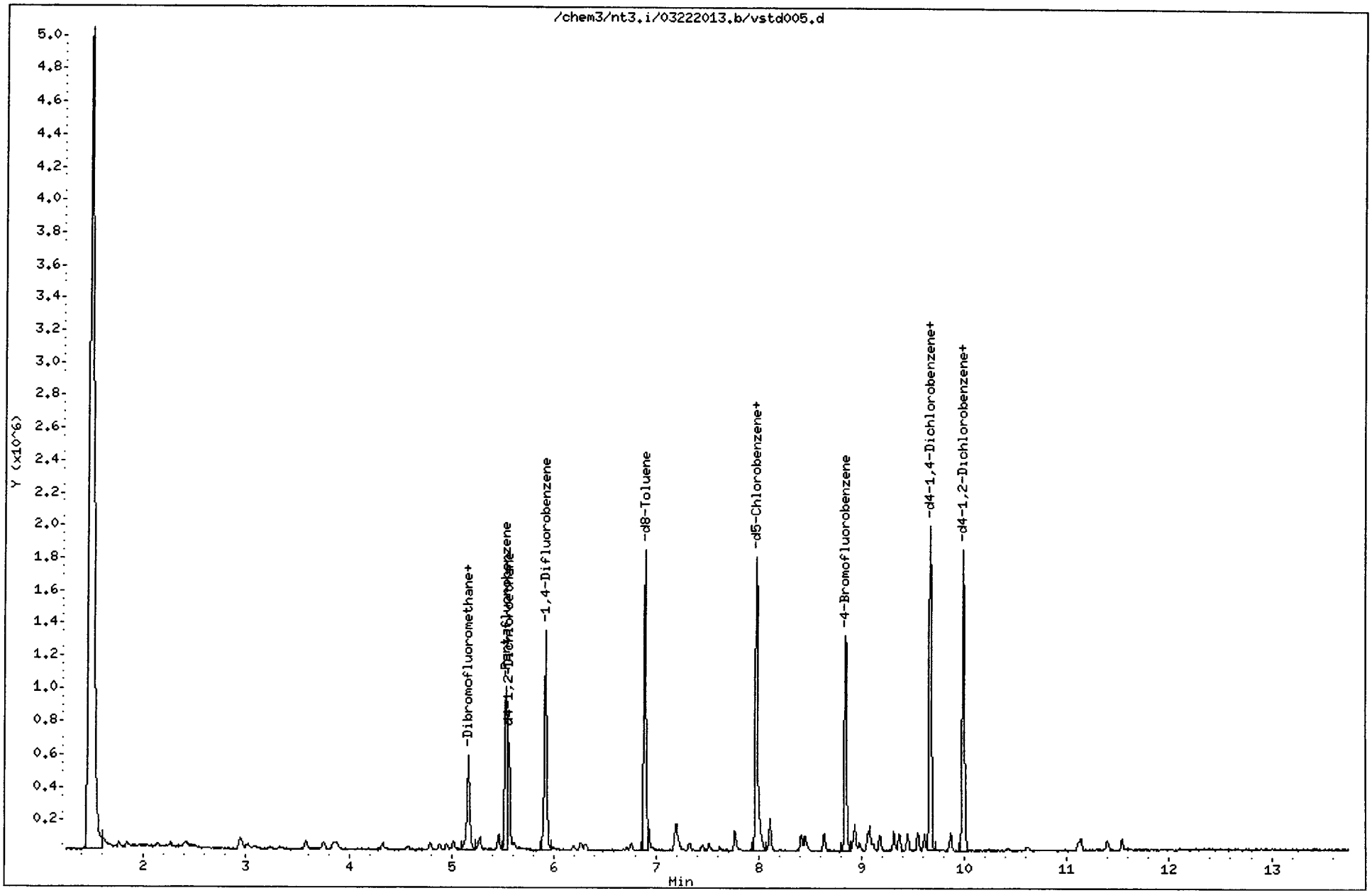
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt3.i/03222013.b/vstd005.d
Date : 22-MAR-2013 15:56
Client ID: VSTD0.5
Sample Info: VSTD0.5,10,10,0,,

Column phase: RTXVMS

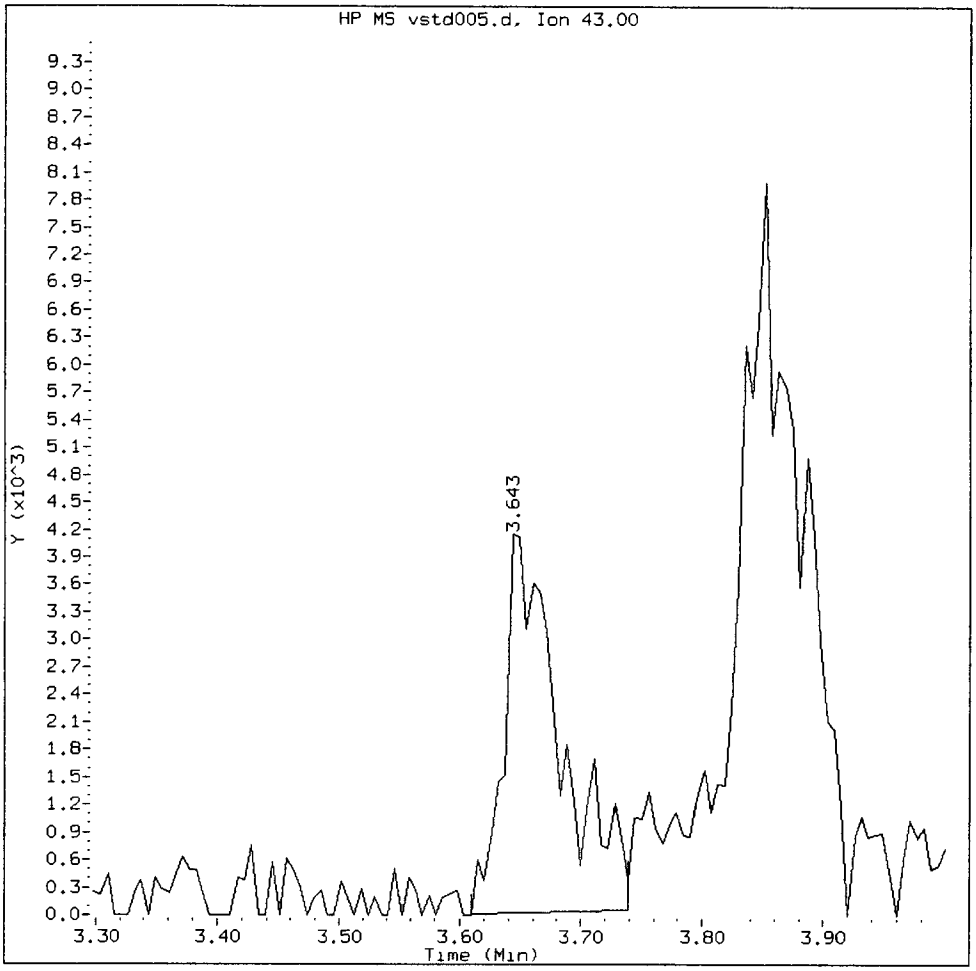
Instrument: nt3.i

Operator: LH
Column diameter: 0.18



VSTD0.5, /chem3/nt3.i/03222013.b/vstd005.d

Acetone Amount: 2.84 Area: 13391



MANUAL INTEGRATION for Acetone

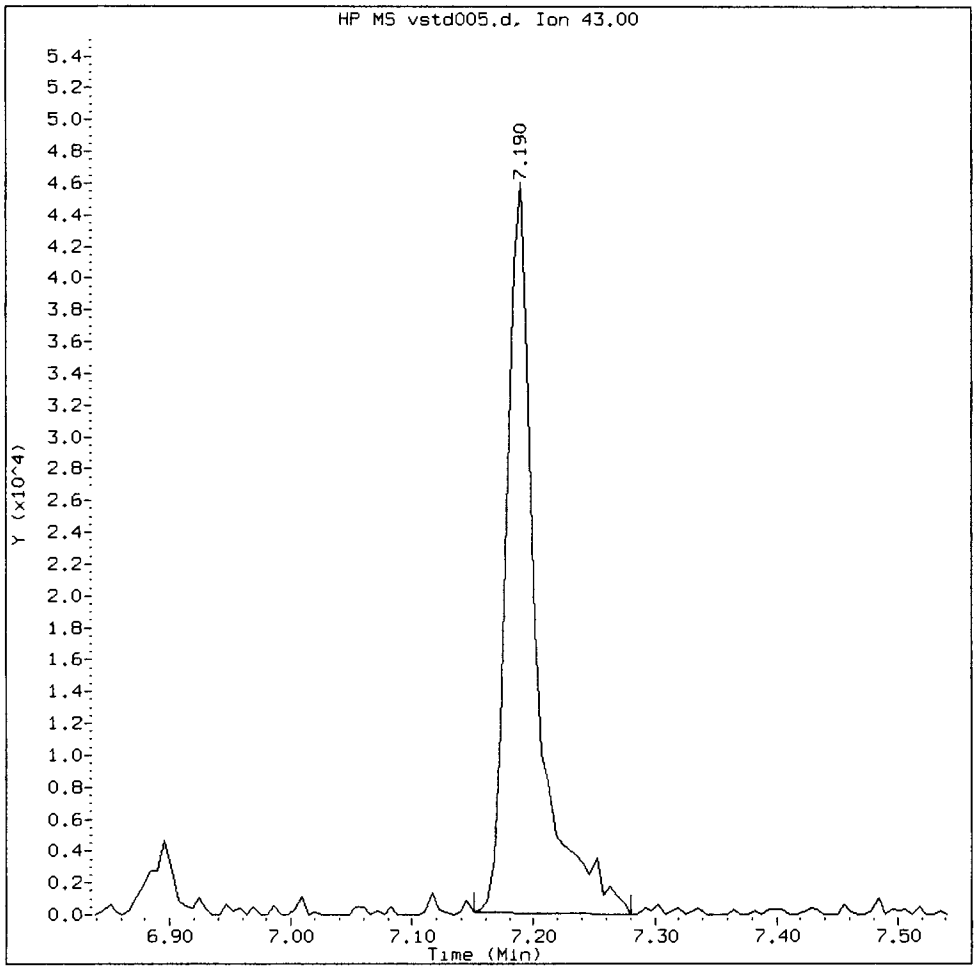
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD0.5, /chem3/nt3.i/03222013.b/vstd005.d

4-Methyl-2-Pentanone Amount: 2.57 Area: 77712



MANUAL INTEGRATION for 4-Methyl-2-Pentanone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

CO-ELUTION SUMMARY FOR FILE - vstd005.d

Lab ID: VSTD0.5, Method: 8260C032213L.m, Instrument: nt3.i, Date: 22-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/03222013.b/vstd01.d
Lab Smp Id: VSTD01 Client Smp ID: VSTD01
Inj Date : 22-MAR-2013 15:30
Operator : LH Inst ID: nt3.i
Smp Info : VSTD01,10,10,0,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/03222013.b/8260C032213L.m
Meth Date : 01-Apr-2013 15:38 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 15:30 Cal File: vstd01.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.617	1.618	(0.292)	34732	1.00000	0.8814
2 Chloromethane	50	1.765	1.765	(0.319)	45404	1.00000	1.035
3 Vinyl Chloride	62	1.838	1.844	(0.332)	46101	1.00000	0.9540
4 Bromomethane	94	2.144	2.144	(0.387)	25427	1.00000	0.9911
5 Chloroethane	64	2.257	2.274	(0.408)	17251	1.00000	0.5751
6 Trichlorofluoromethane	101	2.409	2.421	(0.436)	52531	1.00000	1.062
7 1,1-Dichloroethene	96	2.935	2.947	(0.531)	35099	1.00000	1.064
8 Carbon Disulfide	76	2.952	2.958	(0.534)	116441	1.00000	1.039
9 112Trichloro122Trifluoroethane	101	3.020	3.026	(0.546)	33692	1.00000	1.0000
10 Iodomethane	142	3.088	3.100	(0.558)	49344	1.00000	1.086
11 Bromoethane	108	3.230	3.235	(0.584)	23686	1.00000	1.054
12 Acrolein	56	3.852	3.858	(0.696)	23529	5.00000	4.737
13 Methylene Chloride	84	3.580	3.592	(0.647)	41705	1.00000	1.365
14 Acetone	43	3.648	3.648	(0.659)	45952	5.00000	9.168(M)
15 Trans-1,2-Dichloroethene	96	3.744	3.756	(0.677)	34257	1.00000	1.034

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	16 Methyl tert butyl ether	73	3.886	3.886	(0.702)	98532	1.00000	1.094
	17 1,1-Dichloroethane	63	4.333	4.333	(0.783)	64847	1.00000	1.050
	18 Acrylonitrile	53	4.372	4.384	(0.790)	6818	1.00000	0.9209
	19 Vinyl Acetate	43	4.582	4.576	(0.828)	58851	1.00000	0.9911
	20 Cis-1,2-Dichloroethene	96	4.797	4.797	(0.867)	37285	1.00000	1.088
	22 2,2-Dichloropropane	77	4.887	4.887	(0.883)	38840	1.00000	0.9993
	23 Bromochloromethane	128	4.955	4.955	(0.896)	17746	1.00000	1.098
	24 Chloroform	83	5.023	5.023	(0.908)	57153	1.00000	1.035
	25 Carbon Tetrachloride	117	5.130	5.130	(0.866)	43919	1.00000	1.071
$	26 Dibromofluoromethane	111	5.164	5.164	(0.934)	302826	10.0000	10.303
	27 1,1,1-Trichloroethane	97	5.181	5.181	(0.937)	52495	1.00000	1.059
	28 2-Butanone	43	5.266	5.266	(0.952)	89347	5.00000	8.093
	29 1,1-Dichloropropene	75	5.277	5.278	(0.891)	45563	1.00000	1.015
	30 Benzene	78	5.458	5.464	(0.922)	136351	1.00000	1.071
*	31 Pentafluorobenzene	168	5.532	5.538	(1.000)	533907	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.560	5.560	(1.005)	410722	10.0000	10.920
	33 1,2-Dichloroethane	62	5.611	5.617	(0.947)	47155	1.00000	1.096
	34 Trichloroethene	130	5.900	5.900	(0.996)	32690	1.00000	1.050
*	36 1,4-Difluorobenzene	114	5.922	5.922	(1.000)	893593	10.0000	
	37 Dibromomethane	93	6.194	6.200	(1.046)	22177	1.00000	1.201
	38 1,2-Dichloropropane	63	6.273	6.267	(1.059)	32554	1.00000	1.024
	39 Bromodichloromethane	83	6.313	6.318	(1.066)	27813	1.00000	0.7145
	41 2-Chloroethyl Vinyl Ether	63	6.720	6.720	(1.135)	18745	1.00000	1.110
	42 Cis 1,3-dichloropropene	75	6.759	6.760	(1.141)	44463	1.00000	0.9526
$	43 d8-Toluene	98	6.890	6.895	(1.163)	1074568	10.0000	9.996
	44 Toluene	92	6.929	6.929	(1.170)	73192	1.00000	1.020
	45 Tetrachloroethene	166	7.201	7.201	(0.903)	28390	1.00000	0.9653
	46 4-Methyl-2-Pentanone	43	7.189	7.190	(1.214)	185618	5.00000	5.793 (M)
	47 Trans 1,3-Dichloropropene	75	7.212	7.212	(1.218)	44694	1.00000	0.9898
	48 1,1,2-Trichloroethane	97	7.325	7.325	(1.237)	28033	1.00000	1.113
	49 Chlorodibromomethane	129	7.450	7.450	(0.934)	28711	1.00000	0.9690
	50 1,3-Dichloropropane	76	7.517	7.518	(0.943)	50215	1.00000	1.068
	51 1,2-Dibromoethane	107	7.619	7.619	(1.287)	27526	1.00000	1.050
	52 2-Hexanone	43	7.772	7.767	(0.974)	136537	5.00000	5.329
*	53 d5-Chlorobenzene	117	7.976	7.976	(1.000)	871355	10.0000	
	54 Chlorobenzene	112	7.987	7.987	(1.001)	82209	1.00000	0.9977
	55 Ethyl Benzene	91	8.004	8.004	(1.004)	146643	1.00000	1.071
	56 1,1,1,2-Tetrachloroethane	131	8.032	8.032	(1.007)	30671	1.00000	1.024
	57 m,p-xylene	106	8.106	8.106	(1.016)	98207	2.00000	1.894
	58 o-Xylene	106	8.411	8.411	(1.055)	49437	1.00000	0.9443
	59 Styrene	104	8.451	8.451	(1.060)	82885	1.00000	0.9855
	60 Bromoform	173	8.473	8.474	(0.877)	22126	1.00000	1.007
	61 Isopropyl Benzene	105	8.638	8.638	(0.894)	126254	1.00000	0.8903
$	62 4-Bromofluorobenzene	95	8.841	8.841	(1.109)	443796	10.0000	10.164
	63 Bromobenzene	156	8.926	8.926	(0.923)	36010	1.00000	0.9126
	64 N-Propyl Benzene	91	8.937	8.937	(0.924)	161248	1.00000	0.9482
	65 1,1,2,2-Tetrachloroethane	83	8.977	8.983	(0.929)	43695	1.00000	0.9539

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	66 2-Chloro Toluene	91	9.050	9.056	(0.936)	118815	1.00000	0.9719
	67 1,3,5-Trimethyl Benzene	105	9.073	9.079	(0.939)	115832	1.00000	0.9624
	68 1,2,3-Trichloropropane	110	9.090	9.090	(0.940)	12524	1.00000	0.9807
	70 Trans-1,4-Dichloro 2-Butene	53	9.113	9.113	(0.943)	15819	1.00000	0.9349
	71 4-Chloro Toluene	91	9.175	9.175	(0.949)	112660	1.00000	0.9819
	72 T-Butyl Benzene	119	9.311	9.316	(0.963)	95422	1.00000	0.9313
	73 1,2,4-Trimethylbenzene	105	9.362	9.362	(0.968)	114085	1.00000	0.9548
	74 S-Butyl Benzene	105	9.446	9.447	(0.977)	143712	1.00000	0.9576
	75 4-Isopropyl Toluene	119	9.548	9.548	(0.988)	109561	1.00000	0.9133
	76 1,3-Dichlorobenzene	146	9.616	9.611	(0.995)	75947	1.00000	1.019
*	77 d4-1,4-Dichlorobenzene	152	9.667	9.667	(1.000)	528584	10.0000	
	78 1,4-Dichlorobenzene	146	9.678	9.679	(1.001)	80566	1.00000	1.041
	79 N-Butyl Benzene	91	9.865	9.865	(1.020)	119372	1.00000	1.013
$	80 d4-1,2-Dichlorobenzene	152	9.989	9.990	(1.033)	496651	10.0000	10.531
	81 1,2-Dichlorobenzene	146	9.995	9.995	(1.034)	76377	1.00000	1.061
	82 1,2-Dibromo 3-Chloropropane	75	10.606	10.606	(1.097)	11881	1.00000	1.364
	83 Hexachloro 1,3-Butadiene	225	11.115	11.110	(1.150)	18178	1.00000	1.060
	84 1,2,4-Trichlorobenzene	180	11.132	11.138	(1.152)	43385	1.00000	1.124
	85 Naphthalene	128	11.398	11.393	(1.179)	108382	1.00000	1.116
	86 1,2,3-Trichlorobenzene	180	11.539	11.540	(1.194)	41141	1.00000	1.135

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: vstd01.d
Lab Smp Id: VSTD01
Analysis Type: VOA
Quant Type: ISTD
Operator: LH
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 22-MAR-2013
Calibration Time: 14:37
Client Smp ID: VSTD01
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	533907	-0.47
36 1,4-Difluorobenze	907870	453935	1815740	893593	-1.57
53 d5-Chlorobenzene	856141	428070	1712282	871355	1.78
77 d4-1,4-Dichlorobe	481945	240972	963890	528584	9.68

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.53	-0.10
36 1,4-Difluorobenze	5.92	5.42	6.42	5.92	0.00
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.00
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

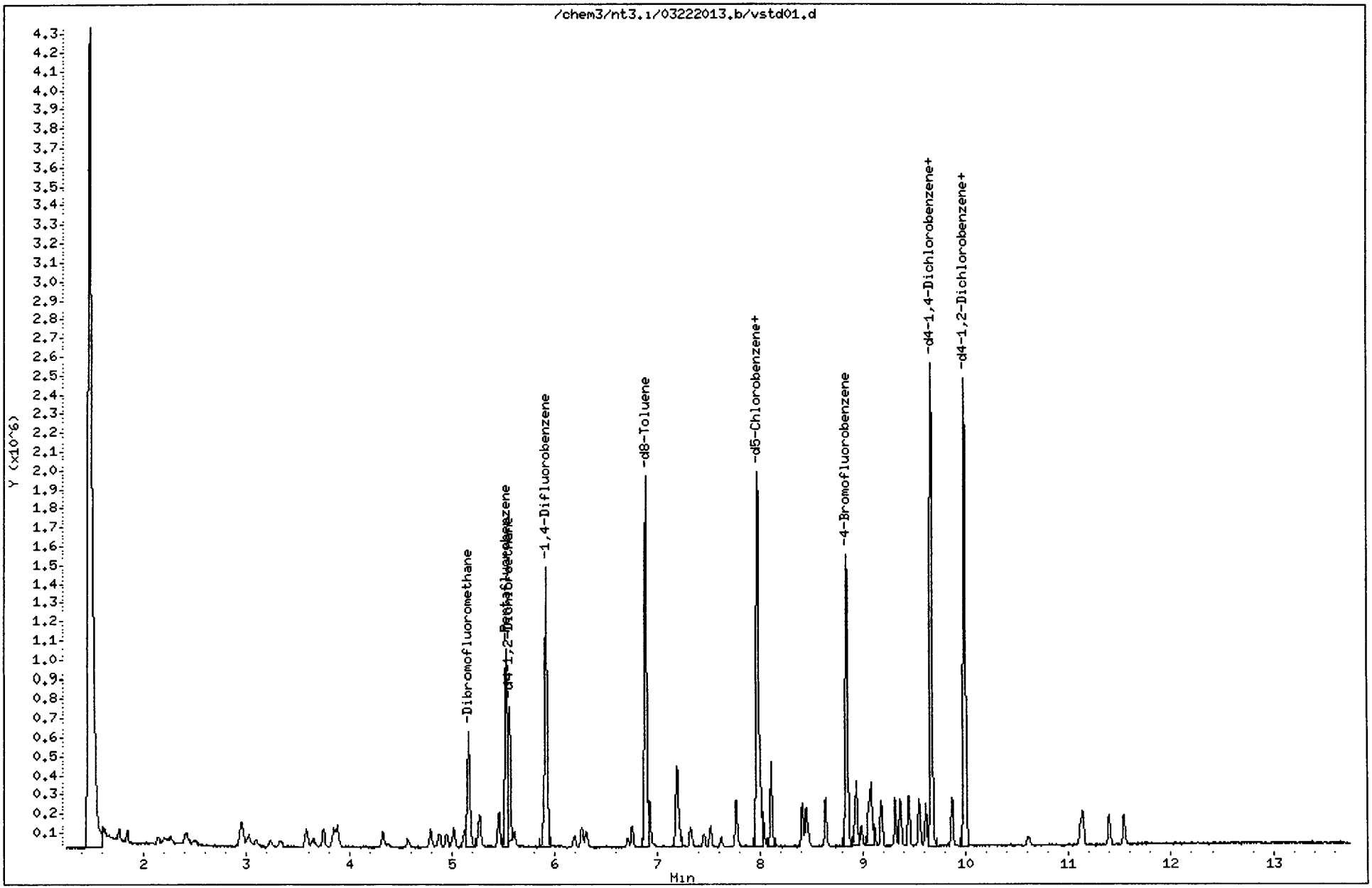
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt3.i/03222013.b/vstd01.d
Date : 22-MAR-2013 15:30
Client ID: VSTD01
Sample Info: VSTD01,10,10,0,,

Instrument: nt3.i

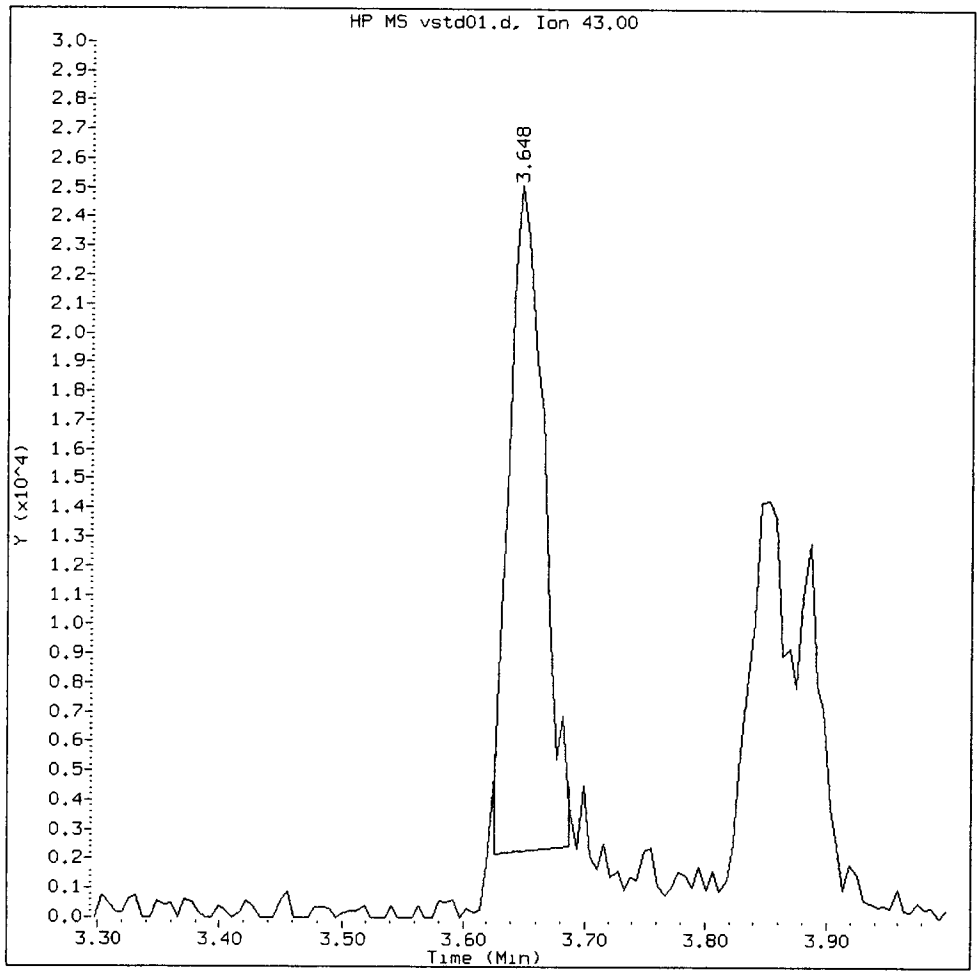
Operator: LH
Column diameter: 0.18

Column phase: RTXVMS



VSTD01, /chem3/nt3.i/03222013.b/vstd01.d

Acetone Amount: 9.17 Area: 45952



MANUAL INTEGRATION for Acetone

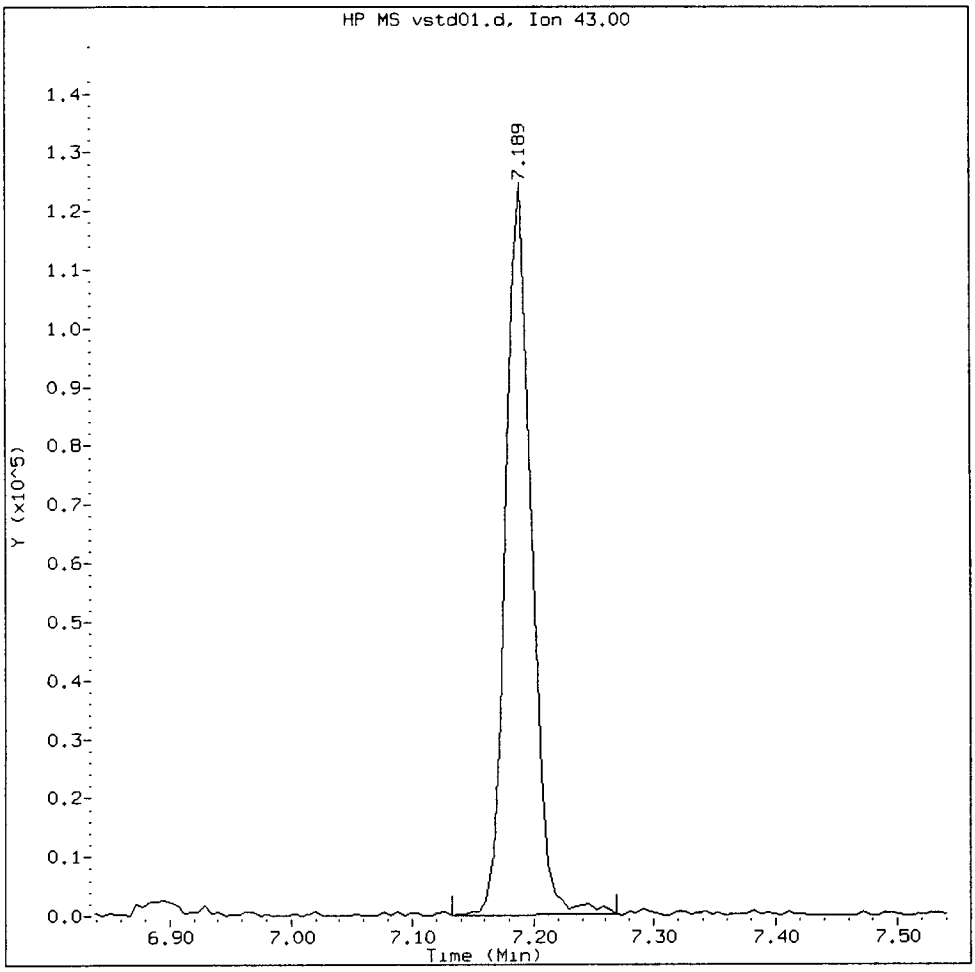
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

VSTD01, /chem3/nt3.i/03222013.b/vstd01.d

4-Methyl-2-Pentanone Amount: 5.79 Area: 185618



MANUAL INTEGRATION for 4-Methyl-2-Pentanone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16/13

CO-ELUTION SUMMARY FOR FILE - vstd01.d

Lab ID: VSTD01, Method: 8260C032213L.m, Instrument: nt3.i, Date: 22-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/03222013.b/vstd02.d
Lab Smp Id: VSTD02 Client Smp ID: VSTD02
Inj Date : 22-MAR-2013 15:04
Operator : LH Inst ID: nt3.i
Smp Info : VSTD02,10,10,0,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/03222013.b/8260C032213L.m
Meth Date : 01-Apr-2013 15:38 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 15:04 Cal File: vstd02.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

4/16

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.612	1.618	(0.291)	71126	2.00000	1.783
2 Chloromethane	50	1.760	1.765	(0.318)	87685	2.00000	1.975
3 Vinyl Chloride	62	1.839	1.844	(0.332)	91980	2.00000	1.881
4 Bromomethane	94	2.139	2.144	(0.387)	49718	2.00000	1.915
5 Chloroethane	64	2.263	2.274	(0.409)	62025	2.00000	2.043
6 Trichlorofluoromethane	101	2.410	2.421	(0.436)	104212	2.00000	2.082
7 1,1-Dichloroethene	96	2.947	2.947	(0.533)	64657	2.00000	1.936
8 Carbon Disulfide	76	2.947	2.958	(0.533)	222454	2.00000	1.962
9 112Trichloro122Trifluoroethane	101	3.015	3.026	(0.545)	62636	2.00000	1.837
10 Iodomethane	142	3.089	3.100	(0.558)	96328	2.00000	2.095
11 Bromoethane	108	3.236	3.235	(0.585)	46679	2.00000	2.053
12 Acrolein	56	3.853	3.858	(0.696)	51472	10.0000	10.240
13 Methylene Chloride	84	3.581	3.592	(0.647)	77638	2.00000	2.510
14 Acetone	43	3.643	3.648	(0.658)	64832	10.0000	12.780(M)
15 Trans-1,2-Dichloroethene	96	3.745	3.756	(0.677)	65851	2.00000	1.964

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	16 Methyl tert butyl ether	73	3.881	3.886	(0.701)	187836	2.00000	2.060
	17 1,1-Dichloroethane	63	4.333	4.333	(0.783)	127128	2.00000	2.034
	18 Acrylonitrile	53	4.373	4.384	(0.790)	19296	2.00000	2.575
	19 Vinyl Acetate	43	4.571	4.576	(0.826)	117728	2.00000	1.959
	20 Cis-1,2-Dichloroethene	96	4.792	4.797	(0.866)	68023	2.00000	1.961
	22 2,2-Dichloropropane	77	4.882	4.887	(0.882)	78144	2.00000	1.987
	23 Bromochloromethane	128	4.956	4.955	(0.896)	34528	2.00000	2.110
	24 Chloroform	83	5.024	5.023	(0.908)	119475	2.00000	2.137
	25 Carbon Tetrachloride	117	5.131	5.130	(0.866)	86329	2.00000	2.095
$	26 Dibromofluoromethane	111	5.165	5.164	(0.934)	301469	10.0000	10.134
	27 1,1,1-Trichloroethane	97	5.182	5.181	(0.937)	98988	2.00000	1.972
	28 2-Butanone	43	5.267	5.266	(0.952)	122582	10.0000	10.971
	29 1,1-Dichloropropene	75	5.278	5.278	(0.891)	91945	2.00000	2.040
	30 Benzene	78	5.465	5.464	(0.923)	281157	2.00000	2.198
*	31 Pentafluorobenzene	168	5.533	5.538	(1.000)	540344	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.561	5.560	(1.005)	390478	10.0000	10.258
	33 1,2-Dichloroethane	62	5.617	5.617	(0.948)	92335	2.00000	2.137
	34 Trichloroethene	130	5.895	5.900	(0.995)	61749	2.00000	1.975
*	36 1,4-Difluorobenzene	114	5.923	5.922	(1.000)	897637	10.0000	
	37 Dibromomethane	93	6.200	6.200	(1.047)	36155	2.00000	1.949
	38 1,2-Dichloropropane	63	6.268	6.267	(1.058)	63869	2.00000	1.999
	39 Bromodichloromethane	83	6.313	6.318	(1.066)	82341	2.00000	2.106
	41 2-Chloroethyl Vinyl Ether	63	6.715	6.720	(1.134)	33169	2.00000	1.956
	42 Cis 1,3-dichloropropene	75	6.760	6.760	(1.141)	95813	2.00000	2.044
$	43 d8-Toluene	98	6.890	6.895	(1.163)	1091258	10.0000	10.105
	44 Toluene	92	6.930	6.929	(1.170)	147986	2.00000	2.053
	45 Tetrachloroethene	166	7.196	7.201	(0.902)	57432	2.00000	1.954
	46 4-Methyl-2-Pentanone	43	7.190	7.190	(1.214)	330154	10.0000	10.257
	47 Trans 1,3-Dichloropropene	75	7.213	7.212	(1.218)	90890	2.00000	2.004
	48 1,1,2-Trichloroethane	97	7.326	7.325	(1.237)	55645	2.00000	2.200
	49 Chlorodibromomethane	129	7.456	7.450	(0.935)	59724	2.00000	2.017
	50 1,3-Dichloropropane	76	7.518	7.518	(0.943)	92463	2.00000	1.967
	51 1,2-Dibromoethane	107	7.620	7.619	(1.287)	53381	2.00000	2.027
	52 2-Hexanone	43	7.767	7.767	(0.974)	266036	10.0000	10.388
*	53 d5-Chlorobenzene	117	7.976	7.976	(1.000)	870944	10.0000	
	54 Chlorobenzene	112	7.988	7.987	(1.001)	166976	2.00000	2.027
	55 Ethyl Benzene	91	8.005	8.004	(1.004)	282982	2.00000	2.068
	56 1,1,1,2-Tetrachloroethane	131	8.033	8.032	(1.007)	57985	2.00000	1.937
	57 m,p-xylene	106	8.106	8.106	(1.016)	207922	4.00000	4.012
	58 o-Xylene	106	8.412	8.411	(1.055)	103526	2.00000	1.978
	59 Styrene	104	8.446	8.451	(1.059)	171455	2.00000	2.040
	60 Bromoform	173	8.469	8.474	(0.876)	41874	2.00000	2.149
	61 Isopropyl Benzene	105	8.638	8.638	(0.894)	268836	2.00000	2.139
$	62 4-Bromofluorobenzene	95	8.842	8.841	(1.109)	444224	10.0000	10.179
	63 Bromobenzene	156	8.921	8.926	(0.923)	71615	2.00000	2.048
	64 N-Propyl Benzene	91	8.938	8.937	(0.925)	325271	2.00000	2.158
	65 1,1,2,2-Tetrachloroethane	83	8.983	8.983	(0.929)	84346	2.00000	2.078

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
66	2-Chloro Toluene	91	9.051	9.056	(0.936)	223784	2.00000	2.066
67	1,3,5-Trimethyl Benzene	105	9.074	9.079	(0.939)	220239	2.00000	2.065
68	1,2,3-Trichloropropane	110	9.085	9.090	(0.940)	24282	2.00000	2.146
70	Trans-1,4-Dichloro 2-Butene	53	9.113	9.113	(0.943)	30679	2.00000	2.046
71	4-Chloro Toluene	91	9.176	9.175	(0.949)	215730	2.00000	2.122
72	T-Butyl Benzene	119	9.317	9.316	(0.964)	188397	2.00000	2.075
73	1,2,4-Trimethylbenzene	105	9.362	9.362	(0.968)	213270	2.00000	2.014
74	S-Butyl Benzene	105	9.441	9.447	(0.977)	284292	2.00000	2.138
75	4-Isopropyl Toluene	119	9.549	9.548	(0.988)	214965	2.00000	2.022
76	1,3-Dichlorobenzene	146	9.617	9.611	(0.995)	137416	2.00000	2.080
* 77	d4-1,4-Dichlorobenzene	152	9.668	9.667	(1.000)	468437	10.0000	
78	1,4-Dichlorobenzene	146	9.679	9.679	(1.001)	138787	2.00000	2.024
79	N-Butyl Benzene	91	9.866	9.865	(1.020)	214169	2.00000	2.051
$ 80	d4-1,2-Dichlorobenzene	152	9.990	9.990	(1.033)	415506	10.0000	9.942
81	1,2-Dichlorobenzene	146	9.996	9.995	(1.034)	127704	2.00000	2.002
82	1,2-Dibromo 3-Chloropropane	75	10.607	10.606	(1.097)	14514	2.00000	1.880
83	Hexachloro 1,3-Butadiene	225	11.116	11.110	(1.150)	28917	2.00000	1.903
84	1,2,4-Trichlorobenzene	180	11.139	11.138	(1.152)	65090	2.00000	1.903
85	Naphthalene	128	11.393	11.393	(1.178)	159340	2.00000	1.851
86	1,2,3-Trichlorobenzene	180	11.540	11.540	(1.194)	58557	2.00000	1.823

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: vstd02.d
Lab Smp Id: VSTD02
Analysis Type: VOA
Quant Type: ISTD
Operator: LH
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 22-MAR-2013
Calibration Time: 14:37
Client Smp ID: VSTD02
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	540344	0.73
36 1,4-Difluorobenze	907870	453935	1815740	897637	-1.13
53 d5-Chlorobenzene	856141	428070	1712282	870944	1.73
77 d4-1,4-Dichlorobe	481945	240972	963890	468437	-2.80

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.53	-0.09
36 1,4-Difluorobenze	5.92	5.42	6.42	5.92	0.01
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.01
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.01

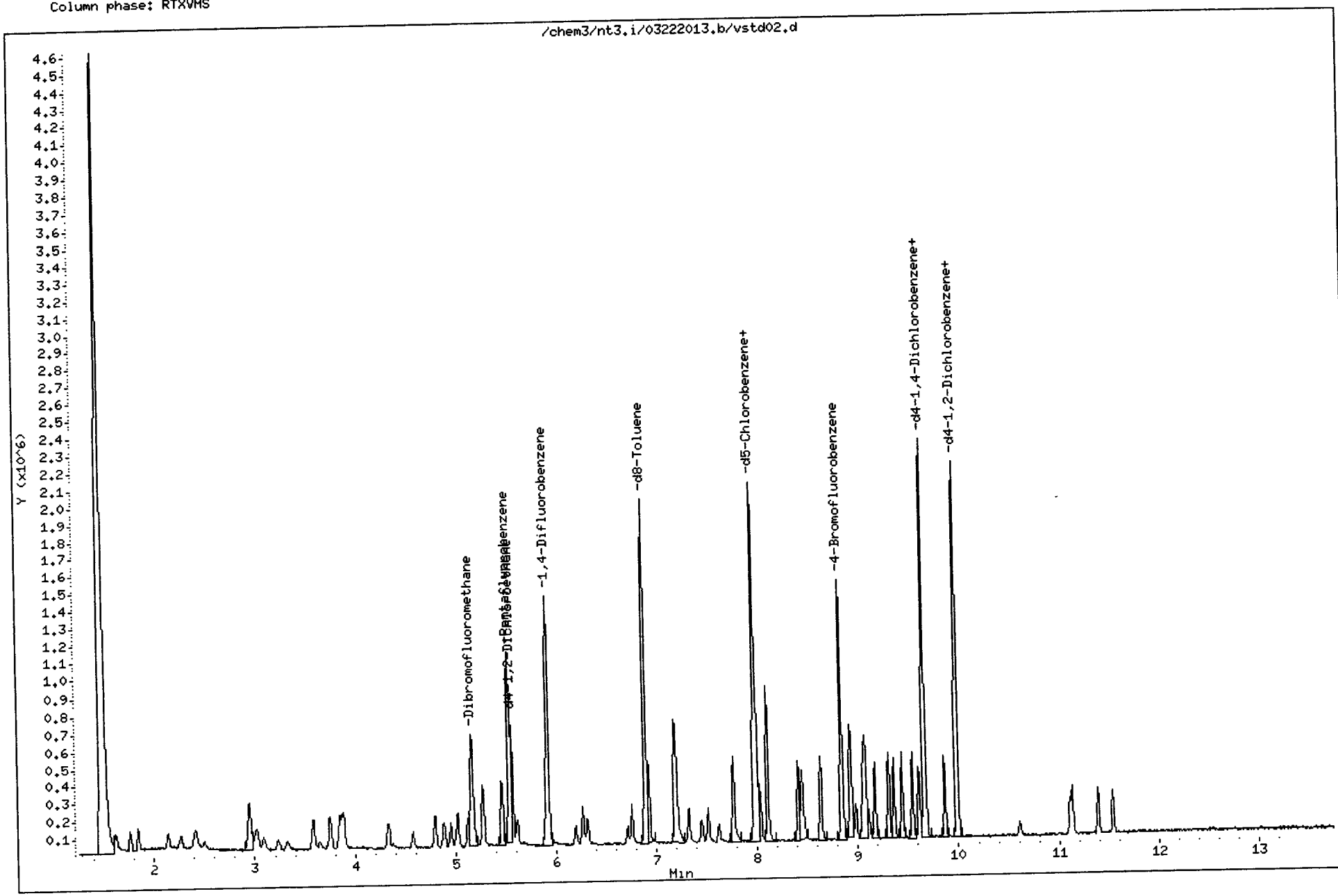
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt3.i/03222013.b/vstd02.d
Date : 22-MAR-2013 15:04
Client ID: VSTD02
Sample Info: VSTD02,10,10,0,,

Instrument: nt3.i

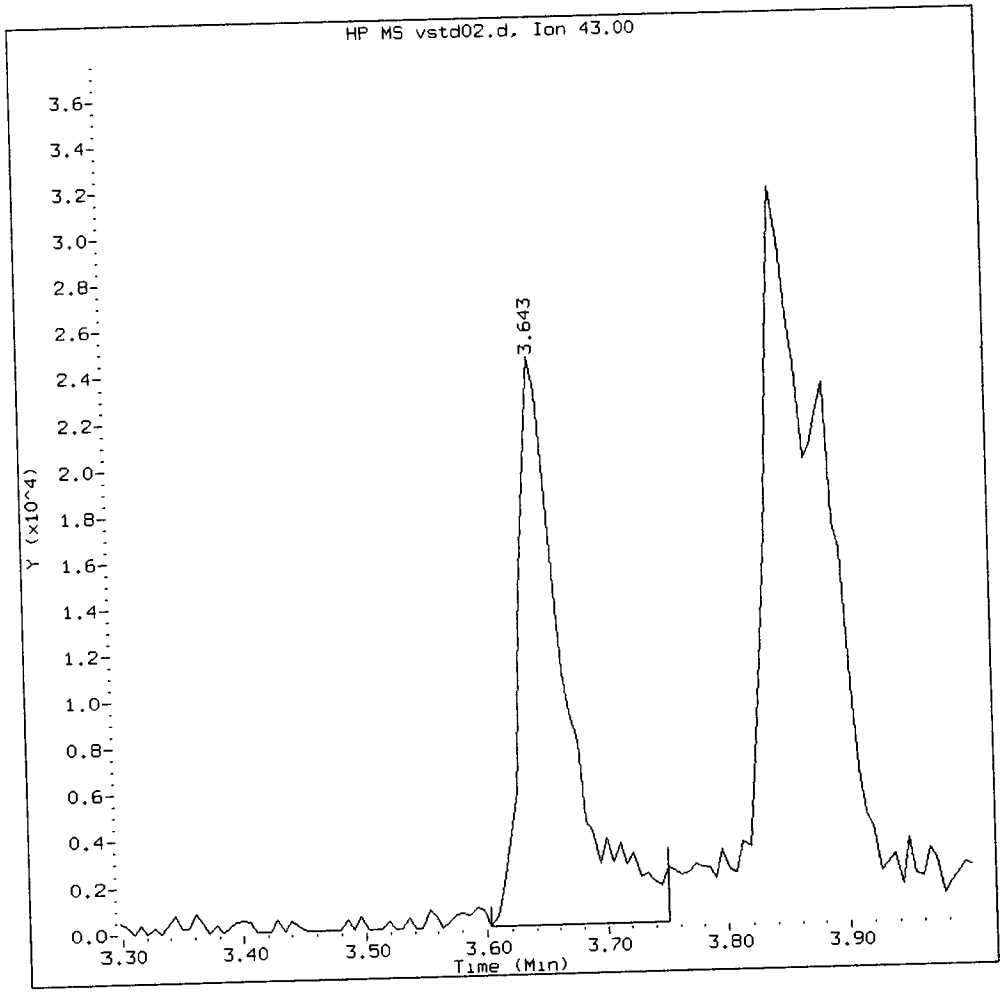
Operator: LH
Column diameter: 0.18

Column phase: RTXVMS



VSTD02, /chem3/nt3.i/03222013.b/vstd02.d

Acetone Amount: 12.78 Area: 64832



MANUAL INTEGRATION for Acetone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

WJ10:00490

CO-ELUTION SUMMARY FOR FILE - vstd02.d

Lab ID: VSTD02, Method: 8260C032213L.m, Instrument: nt3.i, Date: 22-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/03222013.b/vstd10.d
Lab Smp Id: VSTD10 Client Smp ID: VSTD10
Inj Date : 22-MAR-2013 14:37
Operator : LH Inst ID: nt3.i
Smp Info : VSTD10,10,10,0,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/03222013.b/8260C032213L.m
Meth Date : 01-Apr-2013 15:38 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 14:37 Cal File: vstd10.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.618	1.618	(0.292)	401089	10.0000	10.131
2 Chloromethane	50	1.765	1.765	(0.319)	436010	10.0000	9.891
3 Vinyl Chloride	62	1.844	1.844	(0.333)	489985	10.0000	10.092
4 Bromomethane	94	2.144	2.144	(0.387)	251508	10.0000	9.757
5 Chloroethane	64	2.274	2.274	(0.411)	287699	10.0000	9.547
6 Trichlorofluoromethane	101	2.421	2.421	(0.437)	502131	10.0000	10.108
7 1,1-Dichloroethene	96	2.947	2.947	(0.532)	325751	10.0000	9.826
8 Carbon Disulfide	76	2.958	2.958	(0.534)	1112547	10.0000	9.882
9 112Trichloro122Trifluoroethane	101	3.026	3.026	(0.546)	319673	10.0000	9.444
10 Iodomethane	142	3.100	3.100	(0.560)	474086	10.0000	10.387
11 Bromoethane	108	3.235	3.235	(0.584)	227651	10.0000	10.087
12 Acrolein	56	3.858	3.858	(0.697)	258876	50.0000	51.878
13 Methylene Chloride	84	3.592	3.592	(0.649)	326253	10.0000	10.627
14 Acetone	43	3.648	3.648	(0.659)	254144	50.0000	50.466(M)
15 Trans-1,2-Dichloroethene	96	3.756	3.756	(0.678)	320942	10.0000	9.644

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	16 Methyl tert butyl ether	73	3.886	3.886	(0.702)	893997	10.0000	9.877
	17 1,1-Dichloroethane	63	4.333	4.333	(0.782)	608183	10.0000	9.804
	18 Acrylonitrile	53	4.384	4.384	(0.792)	73618	10.0000	9.897
	19 Vinyl Acetate	43	4.576	4.576	(0.826)	588225	10.0000	9.860
	20 Cis-1,2-Dichloroethene	96	4.797	4.797	(0.866)	337240	10.0000	9.791
	22 2,2-Dichloropropane	77	4.887	4.887	(0.883)	369749	10.0000	9.469
	23 Bromochloromethane	128	4.955	4.955	(0.895)	151792	10.0000	9.345
	24 Chloroform	83	5.023	5.023	(0.907)	542676	10.0000	9.778
	25 Carbon Tetrachloride	117	5.130	5.130	(0.866)	408561	10.0000	9.804
$	26 Dibromofluoromethane	111	5.164	5.164	(0.933)	293723	10.0000	9.946
	27 1,1,1-Trichloroethane	97	5.181	5.181	(0.936)	480672	10.0000	9.648
	28 2-Butanone	43	5.266	5.266	(0.951)	577841	50.0000	52.096
	29 1,1-Dichloropropene	75	5.278	5.278	(0.891)	447440	10.0000	9.814
	30 Benzene	78	5.464	5.464	(0.923)	1283043	10.0000	9.918
*	31 Pentafluorobenzene	168	5.538	5.538	(1.000)	536415	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.560	5.560	(1.004)	372169	10.0000	9.849
	33 1,2-Dichloroethane	62	5.617	5.617	(0.948)	418072	10.0000	9.569
	34 Trichloroethene	130	5.900	5.900	(0.996)	313262	10.0000	9.905
*	36 1,4-Difluorobenzene	114	5.922	5.922	(1.000)	907870	10.0000	
	37 Dibromomethane	93	6.200	6.200	(1.047)	173226	10.0000	9.231
	38 1,2-Dichloropropane	63	6.267	6.267	(1.058)	312757	10.0000	9.679
	39 Bromodichloromethane	83	6.318	6.318	(1.067)	393598	10.0000	9.953
	41 2-Chloroethyl Vinyl Ether	63	6.720	6.720	(1.135)	169795	10.0000	9.900
	42 Cis 1,3-dichloropropene	75	6.760	6.760	(1.141)	479547	10.0000	10.113
$	43 d8-Toluene	98	6.895	6.895	(1.164)	1105473	10.0000	10.122
	44 Toluene	92	6.929	6.929	(1.170)	719764	10.0000	9.873
	45 Tetrachloroethene	166	7.201	7.201	(0.903)	283436	10.0000	9.808
	46 4-Methyl-2-Pentanone	43	7.190	7.190	(1.214)	1672811	50.0000	51.383
	47 Trans 1,3-Dichloropropene	75	7.212	7.212	(1.218)	470614	10.0000	10.258
	48 1,1,2-Trichloroethane	97	7.325	7.325	(1.237)	236560	10.0000	9.246
	49 Chlorodibromomethane	129	7.450	7.450	(0.934)	269651	10.0000	9.262
	50 1,3-Dichloropropane	76	7.518	7.518	(0.943)	450531	10.0000	9.749
	51 1,2-Dibromoethane	107	7.619	7.619	(1.287)	260785	10.0000	9.790
	52 2-Hexanone	43	7.767	7.767	(0.974)	1289562	50.0000	51.223
*	53 d5-Chlorobenzene	117	7.976	7.976	(1.000)	856141	10.0000	
	54 Chlorobenzene	112	7.987	7.987	(1.001)	812213	10.0000	10.032
	55 Ethyl Benzene	91	8.004	8.004	(1.004)	1425274	10.0000	10.598
	56 1,1,1,2-Tetrachloroethane	131	8.032	8.032	(1.007)	283894	10.0000	9.645
	57 m,p-xylene	106	8.106	8.106	(1.016)	1084643	20.0000	21.291
	58 o-Xylene	106	8.411	8.411	(1.055)	524316	10.0000	10.193
	59 Styrene	104	8.451	8.451	(1.060)	864394	10.0000	10.460
	60 Bromoform	173	8.474	8.474	(0.877)	200573	10.0000	10.007
	61 Isopropyl Benzene	105	8.638	8.638	(0.894)	1397105	10.0000	10.805
$	62 4-Bromofluorobenzene	95	8.841	8.841	(1.109)	445604	10.0000	10.387
	63 Bromobenzene	156	8.926	8.926	(0.923)	350071	10.0000	9.731
	64 N-Propyl Benzene	91	8.937	8.937	(0.924)	1676307	10.0000	10.811
	65 1,1,2,2-Tetrachloroethane	83	8.983	8.983	(0.929)	378624	10.0000	9.066

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
66	2-Chloro Toluene	91	9.056	9.056	(0.937)	1150916	10.0000	10.326
67	1,3,5-Trimethyl Benzene	105	9.079	9.079	(0.939)	1176909	10.0000	10.725
68	1,2,3-Trichloropropane	110	9.090	9.090	(0.940)	115412	10.0000	9.912
70	Trans-1,4-Dichloro 2-Butene	53	9.113	9.113	(0.943)	148006	10.0000	9.594
71	4-Chloro Toluene	91	9.175	9.175	(0.949)	1077218	10.0000	10.298
72	T-Butyl Benzene	119	9.316	9.316	(0.964)	999261	10.0000	10.696
73	1,2,4-Trimethylbenzene	105	9.362	9.362	(0.968)	1177739	10.0000	10.811
74	S-Butyl Benzene	105	9.447	9.447	(0.977)	1495712	10.0000	10.931
75	4-Isopropyl Toluene	119	9.548	9.548	(0.988)	1184627	10.0000	10.830
76	1,3-Dichlorobenzene	146	9.611	9.611	(0.994)	660392	10.0000	9.718
* 77	d4-1,4-Dichlorobenzene	152	9.667	9.667	(1.000)	481945	10.0000	
78	1,4-Dichlorobenzene	146	9.679	9.679	(1.001)	689063	10.0000	9.765
79	N-Butyl Benzene	91	9.865	9.865	(1.020)	1096333	10.0000	10.206
$ 80	d4-1,2-Dichlorobenzene	152	9.990	9.990	(1.033)	417381	10.0000	9.707
81	1,2-Dichlorobenzene	146	9.995	9.995	(1.034)	628936	10.0000	9.581
82	1,2-Dibromo 3-Chloropropane	75	10.606	10.606	(1.097)	74920	10.0000	9.433
83	Hexachloro 1,3-Butadiene	225	11.110	11.110	(1.149)	133477	10.0000	8.538
84	1,2,4-Trichlorobenzene	180	11.138	11.138	(1.152)	330287	10.0000	9.386
85	Naphthalene	128	11.393	11.393	(1.178)	860714	10.0000	9.718
86	1,2,3-Trichlorobenzene	180	11.540	11.540	(1.194)	302214	10.0000	9.144

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: vstd10.d
Lab Smp Id: VSTD10
Analysis Type: VOA
Quant Type: ISTD
Operator: LH
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 22-MAR-2013
Calibration Time: 14:37
Client Smp ID: VSTD10
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	536415	0.00
36 1,4-Difluorobenze	907870	453935	1815740	907870	0.00
53 d5-Chlorobenzene	856141	428070	1712282	856141	0.00
77 d4-1,4-Dichlorobe	481945	240972	963890	481945	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.54	0.00
36 1,4-Difluorobenze	5.92	5.42	6.42	5.92	0.00
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.00
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

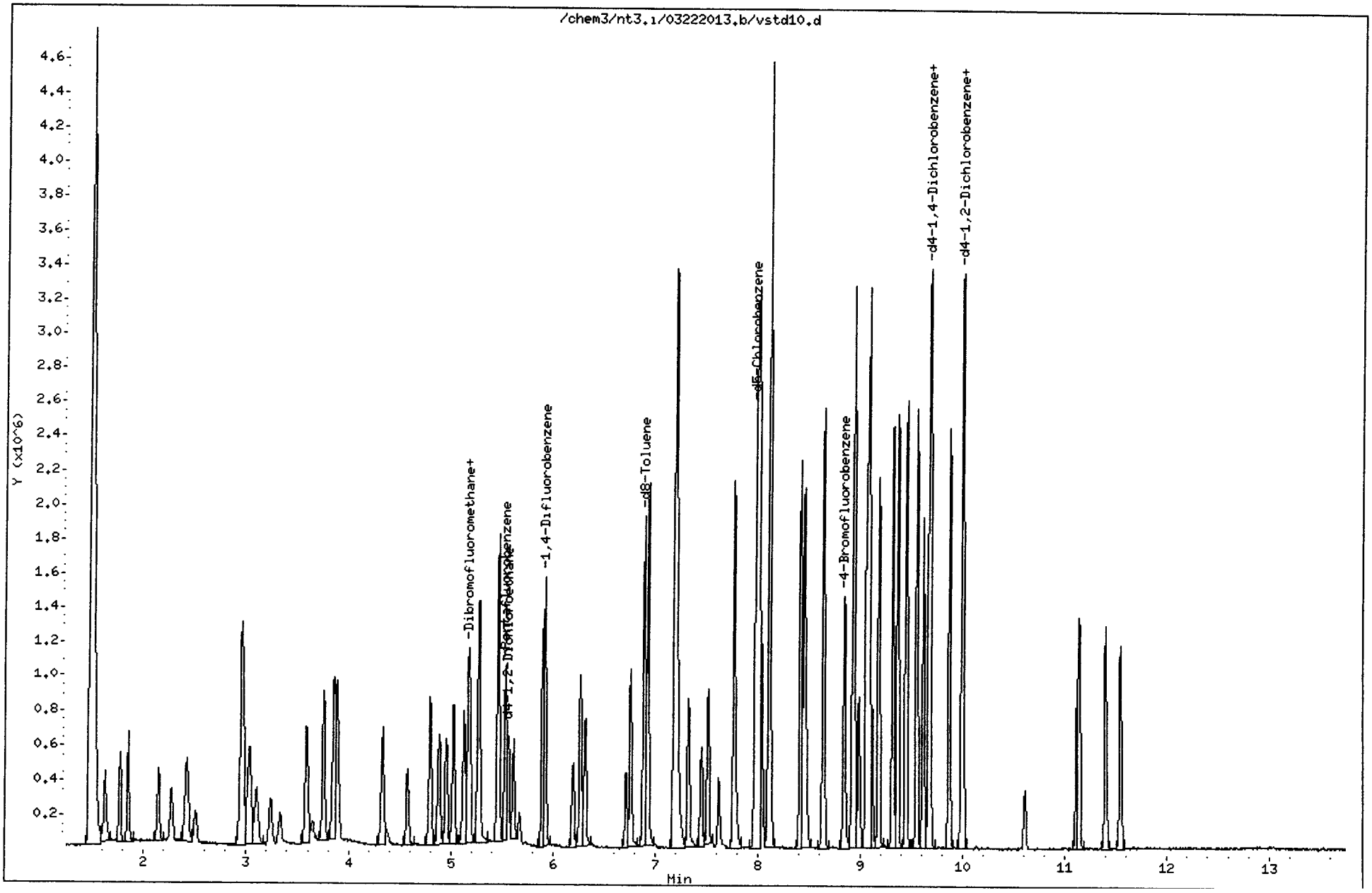
Data File: /chem3/nt3.i/03222013.b/vstd10.d
Date : 22-MAR-2013 14:37
Client ID: VSTD10
Sample Info: VSTD10,10,10,0,,

Column phase: RTXVMS

Instrument: nt3.i

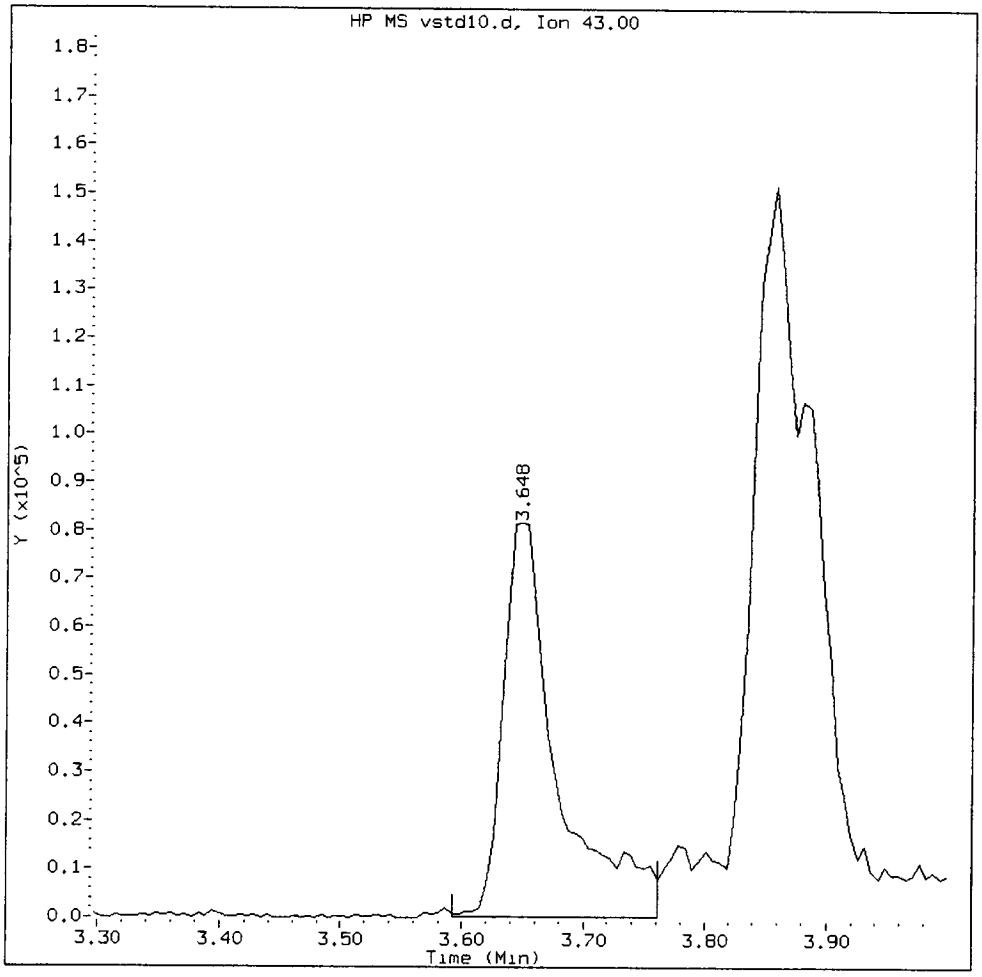
Operator: LH
Column diameter: 0.18

WJ10-00496



VSTD10, /chem3/nt3.i/03222013.b/vstd10.d

Acetone Amount: 50.47 Area: 254144



MANUAL INTEGRATION for Acetone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/15

CO-ELUTION SUMMARY FOR FILE - vstd10.d

Lab ID: VSTD10, Method: 8260C032213L.m, Instrument: nt3.i, Date: 22-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/03222013.b/vstd20.d
Lab Smp Id: VSTD20 Client Smp ID: VSTD20
Inj Date : 22-MAR-2013 14:11
Operator : LH Inst ID: nt3.i
Smp Info : VSTD20,10,10,0,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/03222013.b/8260C032213L.m
Meth Date : 01-Apr-2013 15:38 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 14:11 Cal File: vstd20.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.614	1.618	(0.292)	826518	20.0000	20.535
2	Chloromethane	50	1.761	1.765	(0.318)	884559	20.0000	19.740
3	Vinyl Chloride	62	1.840	1.844	(0.333)	1017933	20.0000	20.623
4	Bromomethane	94	2.140	2.144	(0.387)	511099	20.0000	19.504
5	Chloroethane	64	2.265	2.274	(0.409)	599309	20.0000	19.562
6	Trichlorofluoromethane	101	2.412	2.421	(0.436)	1056221	20.0000	20.914
7	1,1-Dichloroethene	96	2.943	2.947	(0.532)	637842	20.0000	18.926
8	Carbon Disulfide	76	2.949	2.958	(0.533)	2250880	20.0000	19.667
9	112Trichloro122Trifluoroethane	101	3.023	3.026	(0.546)	666142	20.0000	19.357
10	Iodomethane	142	3.090	3.100	(0.558)	969402	20.0000	20.892
11	Bromoethane	108	3.232	3.235	(0.584)	470685	20.0000	20.515
12	Acrolein	56	3.848	3.858	(0.695)	537222	100.000	105.90(M)
13	Methylene Chloride	84	3.583	3.592	(0.647)	673263	20.0000	21.572
14	Acetone	43	3.645	3.648	(0.659)	506882	100.000	99.008(M)
15	Trans-1,2-Dichloroethene	96	3.752	3.756	(0.678)	661331	20.0000	19.547

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	16 Methyl tert butyl ether	73	3.882	3.886	(0.702)	1885672	20.0000	20.493
	17 1,1-Dichloroethane	63	4.329	4.333	(0.782)	1254241	20.0000	19.888
	18 Acrylonitrile	53	4.380	4.384	(0.791)	172060	20.0000	22.753
	19 Vinyl Acetate	43	4.573	4.576	(0.826)	1210465	20.0000	19.958
	20 Cis-1,2-Dichloroethene	96	4.793	4.797	(0.866)	694159	20.0000	19.824
	22 2,2-Dichloropropane	77	4.884	4.887	(0.882)	786898	20.0000	19.823
	23 Bromochloromethane	128	4.952	4.955	(0.895)	301785	20.0000	18.277
	24 Chloroform	83	5.019	5.023	(0.907)	1115726	20.0000	19.775
$	25 Carbon Tetrachloride	117	5.127	5.130	(0.866)	856124	20.0000	20.000
	26 Dibromofluoromethane	111	5.161	5.164	(0.933)	300924	10.0000	10.024
	27 1,1,1-Trichloroethane	97	5.178	5.181	(0.936)	1002473	20.0000	19.793
	28 2-Butanone	43	5.263	5.266	(0.951)	1172553	100.000	103.99
	29 1,1-Dichloropropene	75	5.274	5.278	(0.891)	940005	20.0000	20.072
	30 Benzene	78	5.461	5.464	(0.923)	2630779	20.0000	19.798
*	31 Pentafluorobenzene	168	5.534	5.538	(1.000)	545323	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.562	5.560	(1.005)	378560	10.0000	9.854
	33 1,2-Dichloroethane	62	5.613	5.617	(0.948)	852033	20.0000	18.985
	34 Trichloroethene	130	5.896	5.900	(0.996)	629964	20.0000	19.392
*	36 1,4-Difluorobenzene	114	5.919	5.922	(1.000)	932546	10.0000	
	37 Dibromomethane	93	6.196	6.200	(1.047)	358717	20.0000	18.609
	38 1,2-Dichloropropane	63	6.270	6.267	(1.059)	659476	20.0000	19.870
	39 Bromodichloromethane	83	6.315	6.318	(1.067)	796344	20.0000	19.604
	41 2-Chloroethyl Vinyl Ether	63	6.716	6.720	(1.135)	324960	20.0000	18.446
	42 Cis 1,3-dichloropropene	75	6.762	6.760	(1.142)	984388	20.0000	20.210
$	43 d8-Toluene	98	6.892	6.895	(1.164)	1143208	10.0000	10.190
	44 Toluene	92	6.926	6.929	(1.170)	1484159	20.0000	19.819
	45 Tetrachloroethene	166	7.197	7.201	(0.902)	582847	20.0000	19.785
	46 4-Methyl-2-Pentanone	43	7.186	7.190	(1.214)	3453052	100.000	103.26
	47 Trans 1,3-Dichloropropene	75	7.214	7.212	(1.219)	944273	20.0000	20.038
	48 1,1,2-Trichloroethane	97	7.327	7.325	(1.238)	485515	20.0000	18.475
	49 Chlorodibromomethane	129	7.452	7.450	(0.934)	559437	20.0000	18.849
	50 1,3-Dichloropropane	76	7.520	7.518	(0.943)	892603	20.0000	18.947
	51 1,2-Dibromoethane	107	7.622	7.619	(1.288)	493883	20.0000	18.049
	52 2-Hexanone	43	7.769	7.767	(0.974)	2589629	100.000	100.90
*	53 d5-Chlorobenzene	117	7.978	7.976	(1.000)	872780	10.0000	
	54 Chlorobenzene	112	7.989	7.987	(1.001)	1625565	20.0000	19.695
	55 Ethyl Benzene	91	8.006	8.004	(1.004)	2916731	20.0000	21.275
	56 1,1,1,2-Tetrachloroethane	131	8.035	8.032	(1.007)	607145	20.0000	20.234
	57 m,p-xylene	106	8.108	8.106	(1.016)	2230941	40.0000	42.957
	58 o-Xylene	106	8.414	8.411	(1.055)	1103432	20.0000	21.042
	59 Styrene	104	8.447	8.451	(1.059)	1822449	20.0000	21.634
	60 Bromoform	173	8.476	8.474	(0.877)	422533	20.0000	20.520
	61 Isopropyl Benzene	105	8.634	8.638	(0.893)	2933632	20.0000	22.084
	62 4-Bromofluorobenzene	95	8.843	8.841	(1.108)	447581	10.0000	10.234
	63 Bromobenzene	156	8.923	8.926	(0.923)	695675	20.0000	18.823
	64 N-Propyl Benzene	91	8.934	8.937	(0.924)	3406369	20.0000	21.385
	65 1,1,2,2-Tetrachloroethane	83	8.979	8.983	(0.929)	791612	20.0000	18.450

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
66	2-Chloro Toluene	91	9.053	9.056	(0.937)	2387942	20.0000	20.854
67	1,3,5-Trimethyl Benzene	105	9.075	9.079	(0.939)	2485049	20.0000	22.043
68	1,2,3-Trichloropropane	110	9.087	9.090	(0.940)	235615	20.0000	19.697
70	Trans-1,4-Dichloro 2-Butene	53	9.109	9.113	(0.943)	319027	20.0000	20.129
71	4-Chloro Toluene	91	9.177	9.175	(0.950)	2198676	20.0000	20.459
72	T-Butyl Benzene	119	9.313	9.316	(0.964)	2109782	20.0000	21.982
73	1,2,4-Trimethylbenzene	105	9.364	9.362	(0.969)	2494865	20.0000	22.291
74	S-Butyl Benzene	105	9.443	9.447	(0.977)	3110000	20.0000	22.124
75	4-Isopropyl Toluene	119	9.551	9.548	(0.988)	2495676	20.0000	22.210
76	1,3-Dichlorobenzene	146	9.613	9.611	(0.995)	1380418	20.0000	19.773
* 77	d4-1,4-Dichlorobenzene	152	9.664	9.667	(1.000)	495118	10.0000	
78	1,4-Dichlorobenzene	146	9.675	9.679	(1.001)	1427086	20.0000	19.687
79	N-Butyl Benzene	91	9.867	9.865	(1.021)	2393483	20.0000	21.688
$ 80	d4-1,2-Dichlorobenzene	152	9.992	9.990	(1.034)	441343	10.0000	9.991
81	1,2-Dichlorobenzene	146	9.997	9.995	(1.035)	1316520	20.0000	19.522
82	1,2-Dibromo 3-Chloropropane	75	10.603	10.606	(1.097)	161063	20.0000	19.740
83	Hexachloro 1,3-Butadiene	225	11.112	11.110	(1.150)	294024	20.0000	18.308
84	1,2,4-Trichlorobenzene	180	11.134	11.138	(1.152)	752417	20.0000	20.813
85	Naphthalene	128	11.395	11.393	(1.179)	1938902	20.0000	21.308
86	1,2,3-Trichlorobenzene	180	11.542	11.540	(1.194)	649885	20.0000	19.140

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: vstd20.d
Lab Smp Id: VSTD20
Analysis Type: VOA
Quant Type: ISTD
Operator: LH
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 22-MAR-2013
Calibration Time: 14:37
Client Smp ID: VSTD20
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	545323	1.66
36 1,4-Difluorobenze	907870	453935	1815740	932546	2.72
53 d5-Chlorobenzene	856141	428070	1712282	872780	1.94
77 d4-1,4-Dichlorobe	481945	240972	963890	495118	2.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.53	-0.06
36 1,4-Difluorobenze	5.92	5.42	6.42	5.92	-0.06
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.03
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.66	-0.04

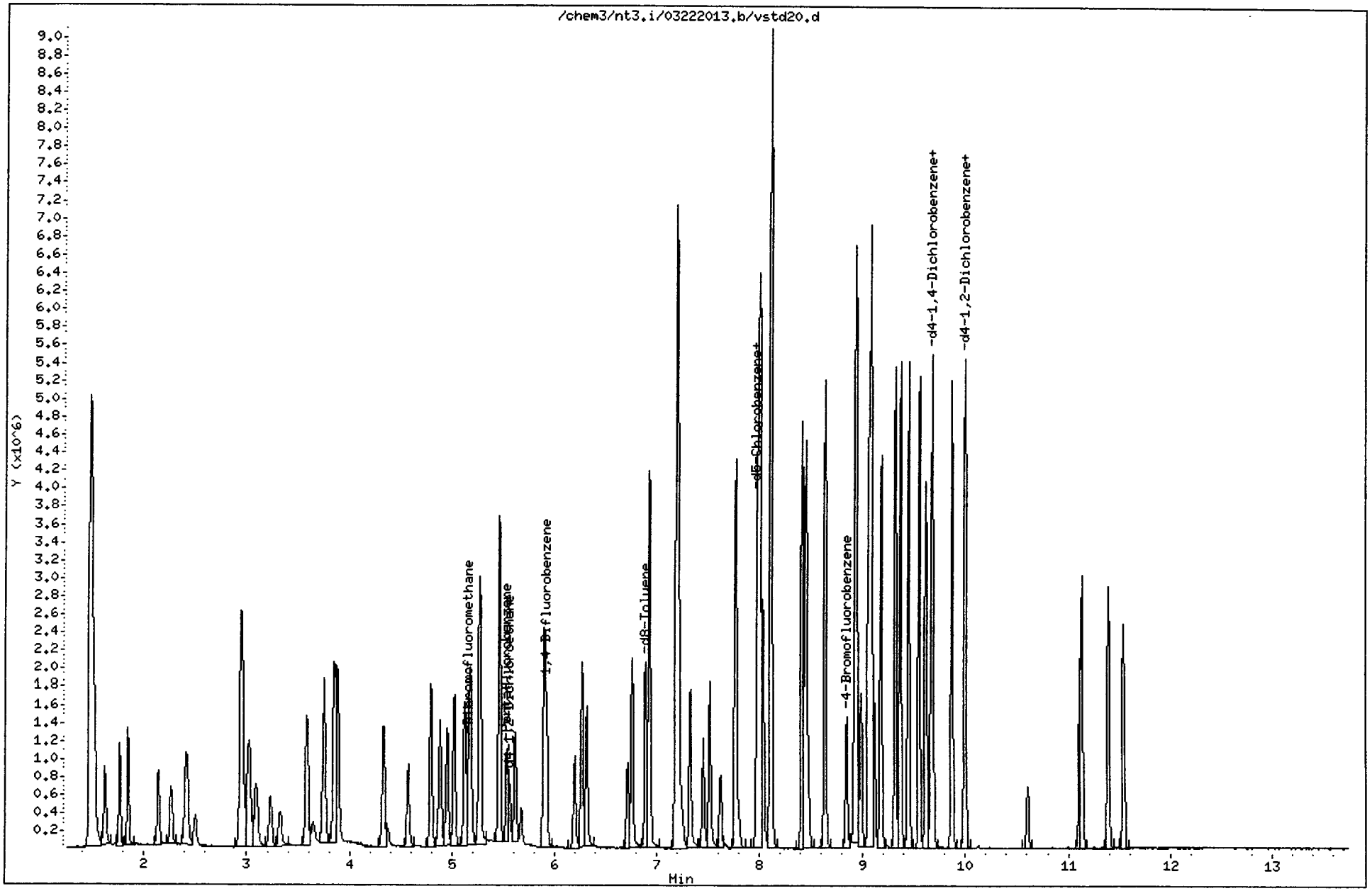
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt3.i/03222013.b/vstd20.d
Date : 22-MAR-2013 14:11
Client ID: VSTD20
Sample Info: VSTD20,10,10,0,,

Instrument: nt3.i

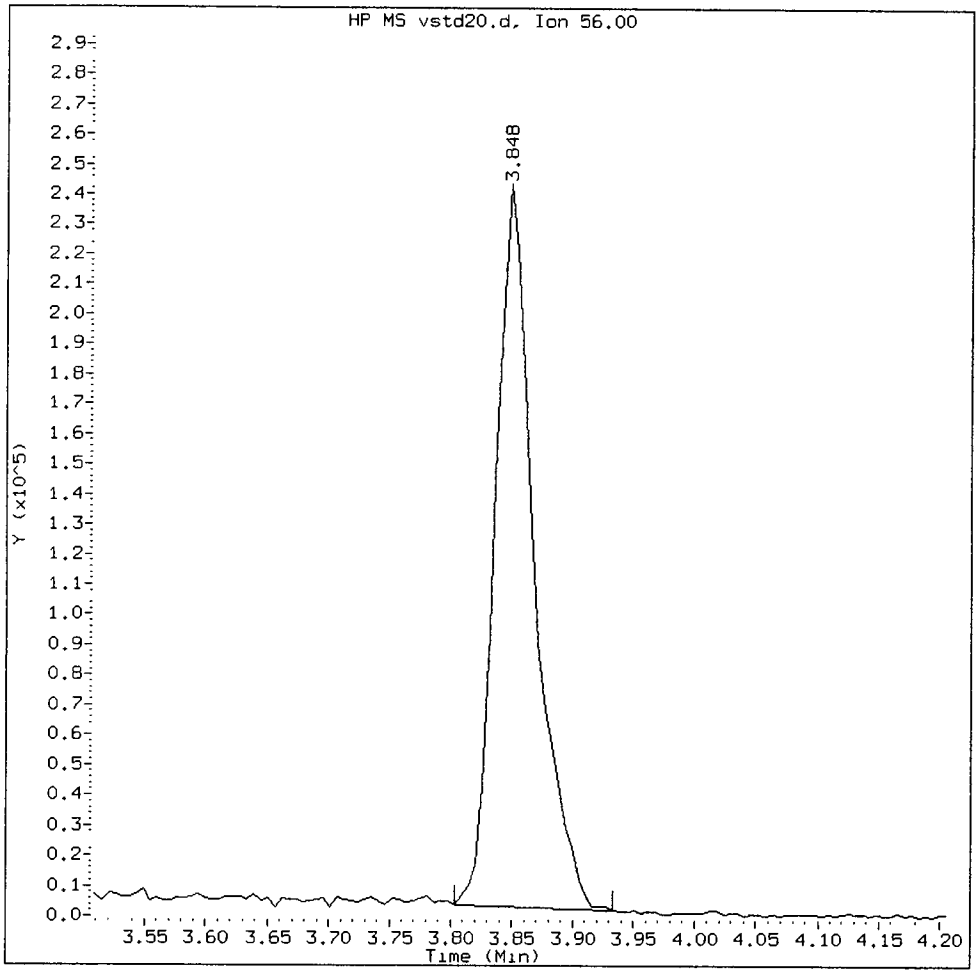
Operator: LH
Column diameter: 0.18

Column phase: RTXVMS



VSTD20, /chem3/nt3.i/03222013.b/vstd20.d

Acrolein Amount: 105.90 Area: 537222



MANUAL INTEGRATION for Acrolein

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

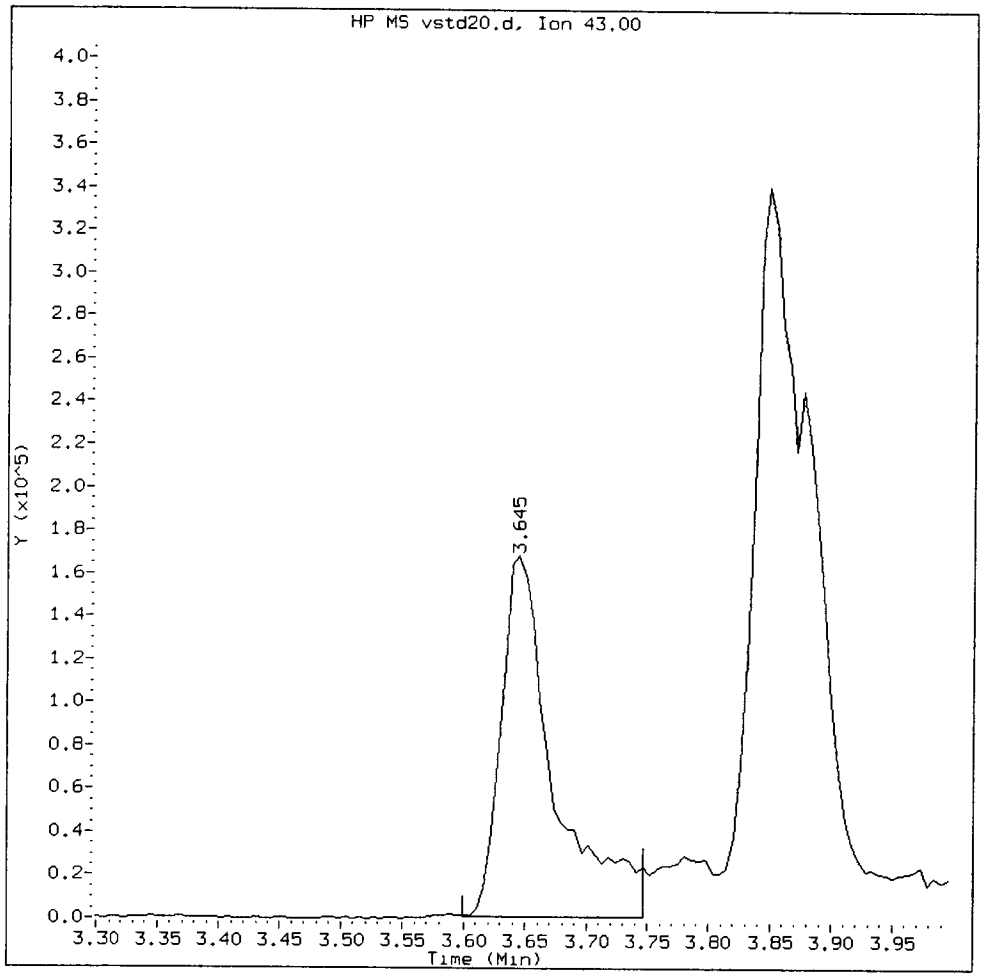
5. Other _____

Analyst: _____ Date: 4/11

WJ10:0050U

VSTD20, /chem3/nt3.i/03222013.b/vstd20.d

Acetone Amount: 99.01 Area: 506882



MANUAL INTEGRATION for Acetone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/14

CO-ELUTION SUMMARY FOR FILE - vstd20.d

Lab ID: VSTD20, Method: 8260C032213L.m, Instrument: nt3.i, Date: 22-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/03222013.b/vstd40.d
Lab Smp Id: VSTD40 Client Smp ID: VSTD40
Inj Date : 22-MAR-2013 13:44
Operator : LH Inst ID: nt3.i
Smp Info : VSTD40,10,10,0,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/03222013.b/8260C032213L.m
Meth Date : 01-Apr-2013 15:38 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 13:44 Cal File: vstd40.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.606	1.618	(0.290)	1660406	40.0000	37.738
2 Chloromethane	50	1.759	1.765	(0.318)	1748027	40.0000	35.684
3 Vinyl Chloride	62	1.838	1.844	(0.332)	2053054	40.0000	38.050
4 Bromomethane	94	2.132	2.144	(0.385)	1035775	40.0000	36.158
5 Chloroethane	64	2.257	2.274	(0.408)	1258397	40.0000	37.575
6 Trichlorofluoromethane	101	2.409	2.421	(0.436)	2218585	40.0000	40.185
7 1,1-Dichloroethene	96	2.941	2.947	(0.532)	1325634	40.0000	35.982
8 Carbon Disulfide	76	2.947	2.958	(0.533)	4559953	40.0000	36.448
9 112Trichloro122Trifluoroethane	101	3.015	3.026	(0.545)	1360470	40.0000	36.164
10 Iodomethane	142	3.082	3.100	(0.557)	1954069	40.0000	38.524
11 Bromoethane	108	3.224	3.235	(0.583)	952457	40.0000	37.976
12 Acrolein	56	3.846	3.858	(0.695)	1177056	200.000	212.25
13 Methylene Chloride	84	3.580	3.592	(0.647)	1347259	40.0000	39.488
14 Acetone	43	3.642	3.648	(0.658)	1060373	200.000	189.47(M)
15 Trans-1,2-Dichloroethene	96	3.750	3.756	(0.678)	1358924	40.0000	36.744

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	16 Methyl tert butyl ether	73	3.874	3.886	(0.700)	3874591	40.0000	38.521
	17 1,1-Dichloroethane	63	4.327	4.333	(0.782)	2559696	40.0000	37.130
	18 Acrylonitrile	53	4.372	4.384	(0.790)	308714	40.0000	37.346
	19 Vinyl Acetate	43	4.570	4.576	(0.826)	2553808	40.0000	38.519
	20 Cis-1,2-Dichloroethene	96	4.791	4.797	(0.866)	1385993	40.0000	36.209
	22 2,2-Dichloropropane	77	4.881	4.887	(0.882)	1611153	40.0000	37.128
	23 Bromochloromethane	128	4.949	4.955	(0.895)	622462	40.0000	34.485
	24 Chloroform	83	5.023	5.023	(0.908)	2244473	40.0000	36.391
	25 Carbon Tetrachloride	117	5.125	5.130	(0.865)	1744374	40.0000	37.079
$	26 Dibromofluoromethane	111	5.164	5.164	(0.934)	304616	10.0000	9.282
	27 1,1,1-Trichloroethane	97	5.181	5.181	(0.937)	2029047	40.0000	36.648
	28 2-Butanone	43	5.260	5.266	(0.951)	2325837	200.000	188.69
	29 1,1-Dichloropropene	75	5.272	5.278	(0.890)	1998094	40.0000	38.821
	30 Benzene	78	5.458	5.464	(0.922)	5289690	40.0000	36.221
*	31 Pentafluorobenzene	168	5.532	5.538	(1.000)	596124	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.560	5.560	(1.005)	385727	10.0000	9.185
	33 1,2-Dichloroethane	62	5.611	5.617	(0.947)	1773532	40.0000	35.957
	34 Trichloroethene	130	5.894	5.900	(0.995)	1331990	40.0000	37.309
*	36 1,4-Difluorobenzene	114	5.922	5.922	(1.000)	1024897	10.0000	
	37 Dibromomethane	93	6.194	6.200	(1.046)	749759	40.0000	35.390
	38 1,2-Dichloropropane	63	6.267	6.267	(1.058)	1396932	40.0000	38.297
	39 Bromodichloromethane	83	6.312	6.318	(1.066)	1682826	40.0000	37.693
	41 2-Chloroethyl Vinyl Ether	63	6.714	6.720	(1.134)	797501	40.0000	41.190
	42 Cis 1,3-dichloropropene	75	6.759	6.760	(1.141)	2184512	40.0000	40.808
$	43 d8-Toluene	98	6.889	6.895	(1.163)	1218176	10.0000	9.880
	44 Toluene	92	6.929	6.929	(1.170)	3198705	40.0000	38.866
	45 Tetrachloroethene	166	7.195	7.201	(0.902)	1274934	40.0000	40.665
	46 4-Methyl-2-Pentanone	43	7.189	7.190	(1.214)	6859141	200.000	186.63
	47 Trans 1,3-Dichloropropene	75	7.212	7.212	(1.218)	2072082	40.0000	40.008
	48 1,1,2-Trichloroethane	97	7.325	7.325	(1.237)	1061071	40.0000	36.737
	49 Chlorodibromomethane	129	7.449	7.450	(0.934)	1208043	40.0000	38.245
	50 1,3-Dichloropropane	76	7.517	7.518	(0.943)	1973722	40.0000	39.366
	51 1,2-Dibromoethane	107	7.619	7.619	(1.287)	1094643	40.0000	36.400
	52 2-Hexanone	43	7.766	7.767	(0.974)	5258442	200.000	192.51
*	53 d5-Chlorobenzene	117	7.976	7.976	(1.000)	928880	10.0000	
	54 Chlorobenzene	112	7.987	7.987	(1.001)	3446187	40.0000	39.232
	55 Ethyl Benzene	91	8.004	8.004	(1.004)	5860535	40.0000	40.166
	56 1,1,1,2-Tetrachloroethane	131	8.032	8.032	(1.007)	1244920	40.0000	38.983
	57 m,p-xylene	106	8.106	8.106	(1.016)	4588331	80.0000	83.014
	58 o-Xylene	106	8.411	8.411	(1.055)	2337482	40.0000	41.883
	59 Styrene	104	8.451	8.451	(1.060)	3829875	40.0000	42.718
	60 Bromoform	173	8.473	8.474	(0.877)	857417	40.0000	40.148
	61 Isopropyl Benzene	105	8.637	8.638	(0.893)	5764718	40.0000	41.842
$	62 4-Bromofluorobenzene	95	8.841	8.841	(1.109)	467756	10.0000	10.050
	63 Bromobenzene	156	8.926	8.926	(0.923)	1445652	40.0000	37.713
	64 N-Propyl Benzene	91	8.937	8.937	(0.924)	6552017	40.0000	39.659
	65 1,1,2,2-Tetrachloroethane	83	8.982	8.983	(0.929)	1588639	40.0000	35.700

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
66	2-Chloro Toluene	91	9.056	9.056	(0.937)	4771969	40.0000	40.181
67	1,3,5-Trimethyl Benzene	105	9.073	9.079	(0.939)	4838214	40.0000	41.380
68	1,2,3-Trichloropropane	110	9.084	9.090	(0.940)	477454	40.0000	38.484
70	Trans-1,4-Dichloro 2-Butene	53	9.113	9.113	(0.943)	635379	40.0000	38.653
71	4-Chloro Toluene	91	9.175	9.175	(0.949)	4396475	40.0000	39.444
72	T-Butyl Benzene	119	9.311	9.316	(0.963)	4128891	40.0000	41.479
73	1,2,4-Trimethylbenzene	105	9.361	9.362	(0.968)	4812323	40.0000	41.457
74	S-Butyl Benzene	105	9.446	9.447	(0.977)	5854694	40.0000	40.158
75	4-Isopropyl Toluene	119	9.548	9.548	(0.988)	4824132	40.0000	41.394
76	1,3-Dichlorobenzene	146	9.610	9.611	(0.994)	2734091	40.0000	37.759
* 77	d4-1,4-Dichlorobenzene	152	9.667	9.667	(1.000)	513512	10.0000	
78	1,4-Dichlorobenzene	146	9.678	9.679	(1.001)	2801903	40.0000	37.268
79	N-Butyl Benzene	91	9.865	9.865	(1.020)	4550115	40.0000	39.753
$ 80	d4-1,2-Dichlorobenzene	152	9.989	9.990	(1.033)	445333	10.0000	9.720
81	1,2-Dichlorobenzene	146	9.995	9.995	(1.034)	2565315	40.0000	36.678
82	1,2-Dibromo 3-Chloropropane	75	10.606	10.606	(1.097)	287661	40.0000	33.993
83	Hexachloro 1,3-Butadiene	225	11.115	11.110	(1.150)	539727	40.0000	32.403
84	1,2,4-Trichlorobenzene	180	11.138	11.138	(1.152)	1416896	40.0000	37.789
85	Naphthalene	128	11.392	11.393	(1.178)	3751754	40.0000	39.754
86	1,2,3-Trichlorobenzene	180	11.539	11.540	(1.194)	1246269	40.0000	35.390

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: vstd40.d
Lab Smp Id: VSTD40
Analysis Type: VOA
Quant Type: ISTD
Operator: LH
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 22-MAR-2013
Calibration Time: 14:37
Client Smp ID: VSTD40
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	596124	11.13
36 1,4-Difluorobenze	907870	453935	1815740	1024897	12.89
53 d5-Chlorobenzene	856141	428070	1712282	928880	8.50
77 d4-1,4-Dichlorobe	481945	240972	963890	513512	6.55

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.53	-0.11
36 1,4-Difluorobenze	5.92	5.42	6.42	5.92	0.00
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.00
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

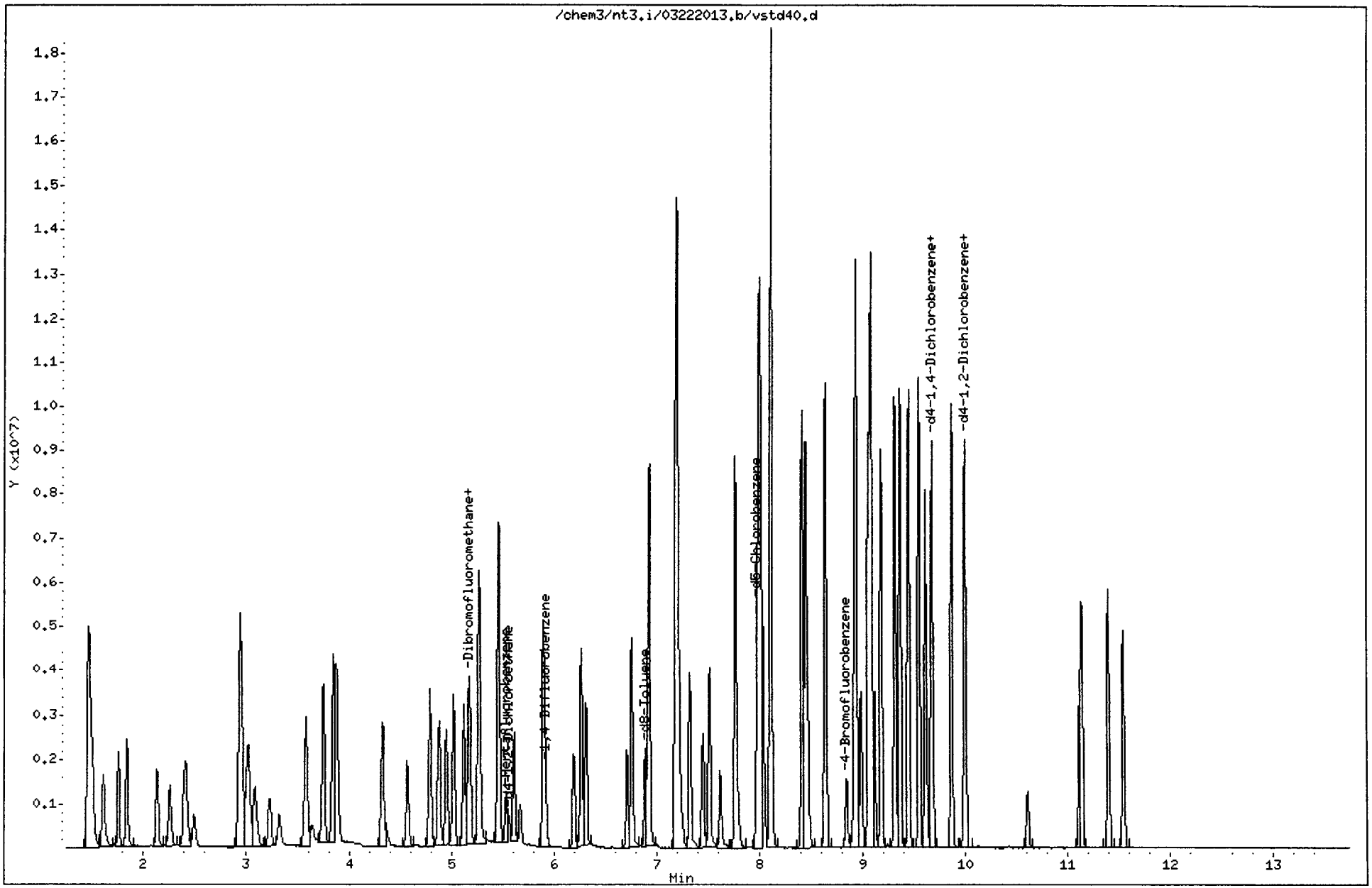
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt3.i/03222013.b/vstd40.d
Date : 22-MAR-2013 13:44
Client ID: VSTD40
Sample Info: VSTD40,10,10,0,,

Instrument: nt3.i

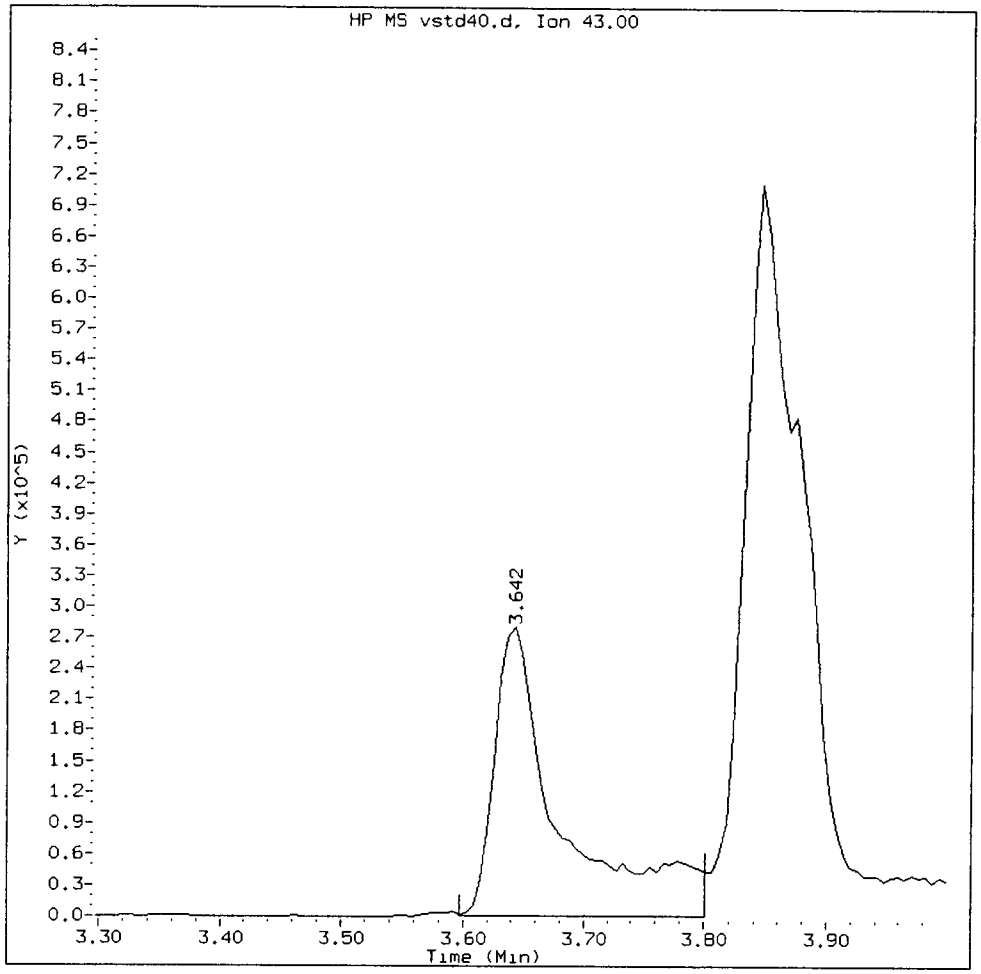
Operator: LH
Column diameter: 0.18

Column phase: RTXVMS



VSTD40, /chem3/nt3.i/03222013.b/vstd40.d

Acetone Amount: 189.47 Area: 1060373



MANUAL INTEGRATION for Acetone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/14

CO-ELUTION SUMMARY FOR FILE - vstd40.d

Lab ID: VSTD40, Method: 8260C032213L.m, Instrument: nt3.i, Date: 22-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/03222013.b/vstd80.d
Lab Smp Id: VSTD80 Client Smp ID: VSTD80
Inj Date : 22-MAR-2013 13:18
Operator : LH Inst ID: nt3.i
Smp Info : VSTD80,10,10,0,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/03222013.b/8260C032213L.m
Meth Date : 01-Apr-2013 15:38 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 13:18 Cal File: vstd80.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

14/15

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Dichlorodifluoromethane	85	1.609	1.618	(0.291)	3282423	80.0000	74.583
2 Chloromethane	50	1.756	1.765	(0.317)	3451317	80.0000	70.437
3 Vinyl Chloride	62	1.841	1.844	(0.333)	4135169	80.0000	76.619
4 Bromomethane	94	2.135	2.144	(0.386)	2052691	80.0000	71.639
5 Chloroethane	64	2.259	2.274	(0.408)	2722889	80.0000	81.282
6 Trichlorofluoromethane	101	2.406	2.421	(0.435)	4637488	80.0000	83.977
7 1,1-Dichloroethene	96	2.938	2.947	(0.531)	2789689	80.0000	75.701
8 Carbon Disulfide	76	2.944	2.958	(0.532)	9004070	80.0000	71.951
9 112Trichloro122Trifluoroethane	101	3.012	3.026	(0.544)	2818595	80.0000	74.905
10 Iodomethane	142	3.085	3.100	(0.557)	3943543	80.0000	77.725
11 Bromoethane	108	3.227	3.235	(0.583)	1922609	80.0000	76.637
12 Acrolein	56	3.843	3.858	(0.694)	2480369	400.000	447.15
13 Methylene Chloride	84	3.577	3.592	(0.646)	2720538	80.0000	79.718
14 Acetone	43	3.640	3.648	(0.658)	1701278	400.000	303.91
15 Trans-1,2-Dichloroethene	96	3.747	3.756	(0.677)	2734165	80.0000	73.909

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	
	16 Methyl tert butyl ether	73	3.877	3.886	(0.701)	7120941	80.0000	70.776	
	17 1,1-Dichloroethane	63	4.330	4.333	(0.782)	4980550	80.0000	72.227	
	18 Acrylonitrile	53	4.369	4.384	(0.789)	638408	80.0000	77.209	
	19 Vinyl Acetate	43	4.567	4.576	(0.825)	5165851	80.0000	77.895	
	20 Cis-1,2-Dichloroethene	96	4.793	4.797	(0.866)	2791440	80.0000	72.906	
	22 2,2-Dichloropropane	77	4.884	4.887	(0.882)	2977122	80.0000	68.588	
	23 Bromochloromethane	128	4.952	4.955	(0.895)	1239174	80.0000	68.633	
	24 Chloroform	83	5.020	5.023	(0.907)	4417169	80.0000	71.600	
	25 Carbon Tetrachloride	117	5.122	5.130	(0.865)	3458063	80.0000	74.503	
$	26 Dibromofluoromethane	111	5.161	5.164	(0.933)	301083	10.0000	9.172	
	27 1,1,1-Trichloroethane	97	5.178	5.181	(0.936)	3944226	80.0000	71.221	
	28 2-Butanone	43	5.263	5.266	(0.951)	4979965	400.000	403.90	
	29 1,1-Dichloropropene	75	5.274	5.278	(0.891)	3985903	80.0000	78.493	
	30 Benzene	78	5.461	5.464	(0.923)	9545709	80.0000	66.250	
*	31 Pentafluorobenzene	168	5.535	5.538	(1.000)	596282	10.0000		(T)
$	32 d4-1,2-Dichloroethane	65	5.563	5.560	(1.005)	383213	10.0000	9.123	
	33 1,2-Dichloroethane	62	5.614	5.617	(0.948)	3432823	80.0000	70.541	
	34 Trichloroethene	130	5.897	5.900	(0.996)	2691201	80.0000	76.402	
*	36 1,4-Difluorobenzene	114	5.919	5.922	(1.000)	1011180	10.0000		
	37 Dibromomethane	93	6.196	6.200	(1.047)	1471240	80.0000	70.387	
	38 1,2-Dichloropropane	63	6.270	6.267	(1.059)	2805975	80.0000	77.969	
	39 Bromodichloromethane	83	6.315	6.318	(1.067)	3373703	80.0000	76.592	
	41 2-Chloroethyl Vinyl Ether	63	6.717	6.720	(1.135)	1701105	80.0000	89.052	
	42 Cis 1,3-dichloropropene	75	6.756	6.760	(1.141)	4318273	80.0000	81.762	
$	43 d8-Toluene	98	6.892	6.895	(1.164)	1231724	10.0000	10.125	
	44 Toluene	92	6.926	6.929	(1.170)	6158848	80.0000	75.849	
	45 Tetrachloroethene	166	7.198	7.201	(0.902)	2580415	80.0000	82.014	
	46 4-Methyl-2-Pentanone	43	7.186	7.190	(1.214)	11556834	400.000	318.72	
	47 Trans 1,3-Dichloropropene	75	7.215	7.212	(1.219)	4098042	80.0000	80.199	
	48 1,1,2-Trichloroethane	97	7.328	7.325	(1.238)	2140190	80.0000	75.105	
	49 Chlorodibromomethane	129	7.452	7.450	(0.934)	2414591	80.0000	76.173	
	50 1,3-Dichloropropane	76	7.514	7.518	(0.942)	3924410	80.0000	77.997	
	51 1,2-Dibromoethane	107	7.622	7.619	(1.288)	2171205	80.0000	73.178	
	52 2-Hexanone	43	7.769	7.767	(0.974)	8925305	400.000	325.61	
*	53 d5-Chlorobenzene	117	7.978	7.976	(1.000)	932158	10.0000		
	54 Chlorobenzene	112	7.990	7.987	(1.001)	6623147	80.0000	75.133	
	55 Ethyl Benzene	91	8.007	8.004	(1.004)	10084053	80.0000	68.870	
	56 1,1,1,2-Tetrachloroethane	131	8.035	8.032	(1.007)	2461655	80.0000	76.812	
	57 m,p-xylene	106	8.108	8.106	(1.016)	8367476	160.000	150.86	
	58 o-Xylene	106	8.414	8.411	(1.055)	4573377	80.0000	81.658	
	59 Styrene	104	8.448	8.451	(1.059)	7231365	80.0000	80.374	
	60 Bromoform	173	8.470	8.474	(0.876)	1694547	80.0000	80.711	
	61 Isopropyl Benzene	105	8.634	8.638	(0.893)	9784119	80.0000	72.237	
$	62 4-Bromofluorobenzene	95	8.844	8.841	(1.108)	469067	10.0000	10.042	
	63 Bromobenzene	156	8.923	8.926	(0.923)	2886426	80.0000	76.595	
	64 N-Propyl Benzene	91	8.934	8.937	(0.924)	10688557	80.0000	65.811	
	65 1,1,2,2-Tetrachloroethane	83	8.980	8.983	(0.929)	2980023	80.0000	68.119	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	66 2-Chloro Toluene	91	9.053	9.056	(0.936)	8733352	80.0000	74.801
	67 1,3,5-Trimethyl Benzene	105	9.076	9.079	(0.939)	8443050	80.0000	73.452
	68 1,2,3-Trichloropropane	110	9.087	9.090	(0.940)	904721	80.0000	74.177
	70 Trans-1,4-Dichloro 2-Butene	53	9.110	9.113	(0.942)	1293221	80.0000	80.025
	71 4-Chloro Toluene	91	9.178	9.175	(0.949)	7938741	80.0000	72.449
	72 T-Butyl Benzene	119	9.313	9.316	(0.963)	7410861	80.0000	75.730
	73 1,2,4-Trimethylbenzene	105	9.364	9.362	(0.968)	8426476	80.0000	73.841
	74 S-Butyl Benzene	105	9.443	9.447	(0.977)	9814427	80.0000	68.475
	75 4-Isopropyl Toluene	119	9.551	9.548	(0.988)	8382771	80.0000	73.165
	76 1,3-Dichlorobenzene	146	9.613	9.611	(0.994)	5255767	80.0000	73.834
*	77 d4-1,4-Dichlorobenzene	152	9.670	9.667	(1.000)	504831	10.0000	
	78 1,4-Dichlorobenzene	146	9.675	9.679	(1.001)	5366412	80.0000	72.605
	79 N-Butyl Benzene	91	9.868	9.865	(1.020)	8138007	80.0000	72.322
$	80 d4-1,2-Dichlorobenzene	152	9.992	9.990	(1.033)	438976	10.0000	9.746
	81 1,2-Dichlorobenzene	146	9.998	9.995	(1.034)	4841800	80.0000	70.416
	82 1,2-Dibromo 3-Chloropropane	75	10.609	10.606	(1.097)	546635	80.0000	65.706
	83 Hexachloro 1,3-Butadiene	225	11.112	11.110	(1.149)	1225270	80.0000	74.826
	84 1,2,4-Trichlorobenzene	180	11.135	11.138	(1.152)	3100923	80.0000	84.124
	85 Naphthalene	128	11.395	11.393	(1.178)	7134379	80.0000	76.897
	86 1,2,3-Trichlorobenzene	180	11.542	11.540	(1.194)	2797211	80.0000	80.799

QC Flag Legend

T - Target compound detected outside RT window.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: vstd80.d
Lab Smp Id: VSTD80
Analysis Type: VOA
Quant Type: ISTD
Operator: LH
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 22-MAR-2013
Calibration Time: 14:37
Client Smp ID: VSTD80
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	596282	11.16
36 1,4-Difluorobenze	907870	453935	1815740	1011180	11.38
53 d5-Chlorobenzene	856141	428070	1712282	932158	8.88
77 d4-1,4-Dichlorobe	481945	240972	963890	504831	4.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.53	-0.06
36 1,4-Difluorobenze	5.92	5.42	6.42	5.92	-0.05
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.03
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.03

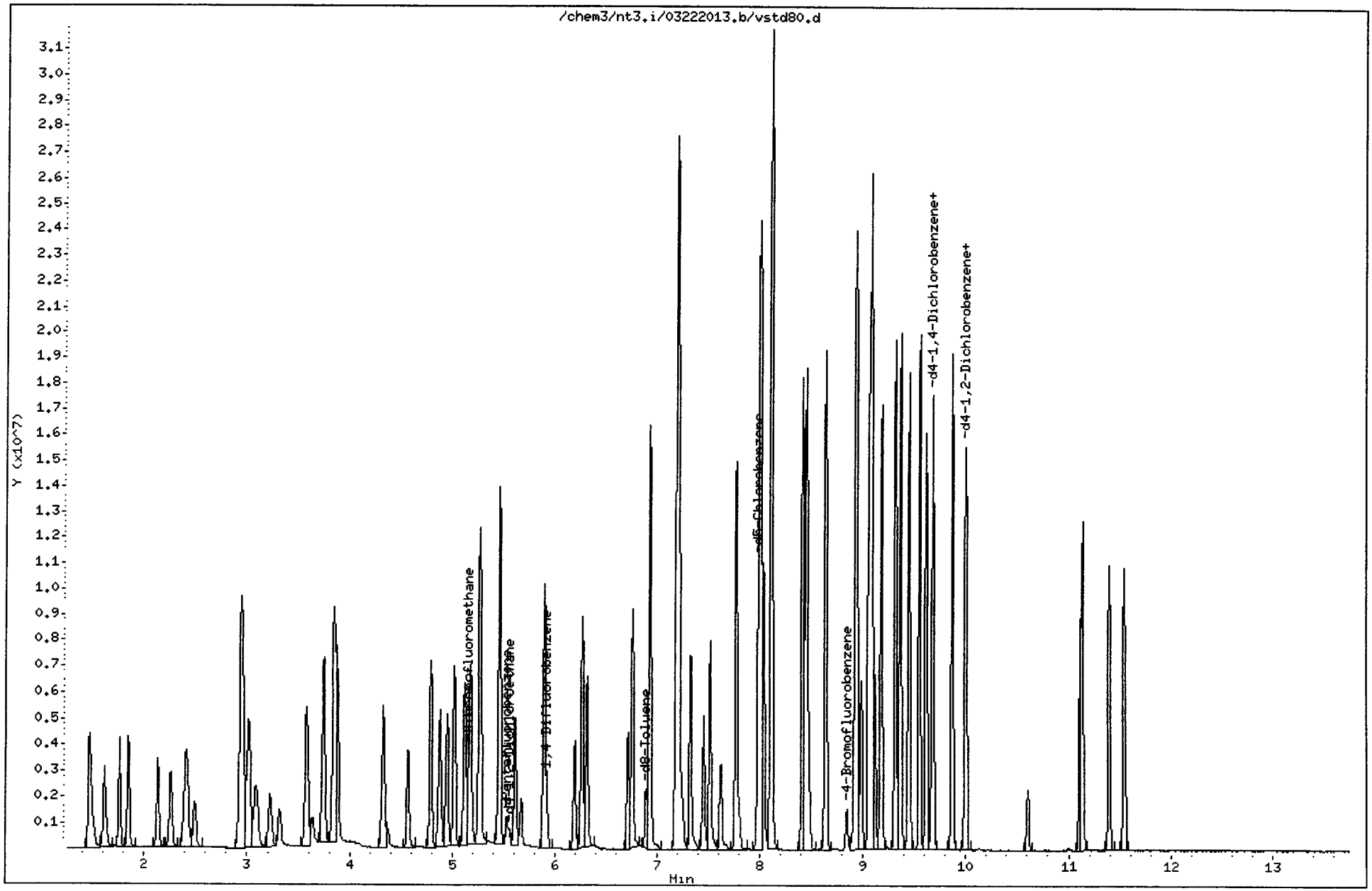
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt3.i/03222013.b/vstd80.d
Date : 22-MAR-2013 13:18
Client ID: VSTD80
Sample Info: VSTD80,10,10,0,,

Column phase: RTXVMS

Instrument: nt3.i

Operator: LH
Column diameter: 0.18



CO-ELUTION SUMMARY FOR FILE - vstd80.d

Lab ID: VSTD80, Method: 8260C032213L.m, Instrument: nt3.i, Date: 22-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/03222013.b/icv10.d
Lab Smp Id: ICV10 Client Smp ID: ICV0322
Inj Date : 22-MAR-2013 16:32
Operator : LH Inst ID: nt3.i
Smp Info : ICV10,10,10,0,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/03222013.b/8260C032213L.m
Meth Date : 01-Apr-2013 15:38 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 13:18 Cal File: vstd80.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	1.618	1.618	(0.292)	956844	24.1273	24.127(R)
2 Chloromethane	50	1.765	1.765	(0.319)	866109	19.6158	19.616
3 Vinyl Chloride	62	1.845	1.844	(0.333)	1103099	22.6818	22.682
4 Bromomethane	94	2.139	2.144	(0.387)	541426	20.9695	20.970
5 Chloroethane	64	2.269	2.274	(0.410)	622078	20.6076	20.608
6 Trichlorofluoromethane	101	2.416	2.421	(0.437)	1110819	22.3223	22.322
7 1,1-Dichloroethene	96	2.942	2.947	(0.532)	670917	20.2038	20.204
8 Carbon Disulfide	76	2.953	2.958	(0.534)	2051611	18.1933	18.193
9 112Trichloro122Trifluoroethane	101	3.027	3.026	(0.547)	715810	21.1103	21.110
10 Iodomethane	142	3.095	3.100	(0.559)	852187	18.6393	18.639
11 Bromoethane	108	3.231	3.235	(0.584)	469273	20.7585	20.759
12 Acrolein	56	3.853	3.858	(0.696)	612038	122.444	122.44(R)
13 Methylene Chloride	84	3.587	3.592	(0.648)	743655	24.1821	24.182(R)
14 Acetone	43	3.649	3.648	(0.660)	110859	21.9765	21.976
15 Trans-1,2-Dichloroethene	96	3.751	3.756	(0.678)	683311	20.4980	20.498

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	16 Methyl tert butyl ether	73	3.881	3.886	(0.701)	1943233	21.4337	21.434
	17 1,1-Dichloroethane	63	4.334	4.333	(0.783)	1262783	20.3221	20.322
	18 Acrylonitrile	53	4.379	4.384	(0.791)	176571	23.6979	23.698
	19 Vinyl Acetate	43	4.571	4.576	(0.826)	621598	10.4016	10.402(R)
	20 Cis-1,2-Dichloroethene	96	4.798	4.797	(0.867)	738934	21.4172	21.417
	22 2,2-Dichloropropane	77	4.888	4.887	(0.883)	812687	20.7775	20.777
	23 Bromochloromethane	128	4.956	4.955	(0.896)	637352	39.1742	39.174
	24 Chloroform	83	5.024	5.023	(0.908)	1163307	20.9258	20.926
	25 Carbon Tetrachloride	117	5.126	5.130	(0.865)	875562	20.3994	20.399
$	26 Dibromofluoromethane	111	5.165	5.164	(0.934)	290681	9.82665	9.827
	27 1,1,1-Trichloroethane	97	5.182	5.181	(0.937)	1007085	20.1807	20.181
	28 2-Butanone	43	5.267	5.266	(0.952)	234573	21.1128	21.113
	29 1,1-Dichloropropene	75	5.278	5.278	(0.891)	929722	19.7991	19.799
	30 Benzene	78	5.465	5.464	(0.923)	2643686	19.8416	19.842
*	31 Pentafluorobenzene	168	5.533	5.538	(1.000)	537318	10.0000	(Q)
$	32 d4-1,2-Dichloroethane	65	5.561	5.560	(1.005)	375403	9.91775	9.918
	33 1,2-Dichloroethane	62	5.612	5.617	(0.947)	869936	19.3316	19.332
	34 Trichloroethene	130	5.895	5.900	(0.995)	666382	20.4584	20.458
*	36 1,4-Difluorobenzene	114	5.923	5.922	(1.000)	935058	10.0000	
	37 Dibromomethane	93	6.195	6.200	(1.046)	368807	19.0809	19.081
	38 1,2-Dichloropropane	63	6.268	6.267	(1.058)	662377	19.9037	19.904
	39 Bromodichloromethane	83	6.314	6.318	(1.066)	917939	22.5363	22.536
	41 2-Chloroethyl Vinyl Ether	63	6.715	6.720	(1.134)	349583	19.7903	19.790
	42 Cis 1,3-dichloropropene	75	6.760	6.760	(1.141)	1079759	22.1084	22.108
$	43 d8-Toluene	98	6.891	6.895	(1.163)	1145756	10.1853	10.185
	44 Toluene	92	6.930	6.929	(1.170)	1526245	20.3266	20.327(Q)
	45 Tetrachloroethene	166	7.202	7.201	(0.903)	587538	20.2513	20.251
	46 4-Methyl-2-Pentanone	43	7.185	7.190	(1.213)	644664	19.2262	19.226
	47 Trans 1,3-Dichloropropene	75	7.213	7.212	(1.218)	936869	19.8271	19.827
	48 1,1,2-Trichloroethane	97	7.326	7.325	(1.237)	514938	19.5416	19.542
	49 Chlorodibromomethane	129	7.451	7.450	(0.934)	635820	21.7526	21.753
	50 1,3-Dichloropropane	76	7.518	7.518	(0.943)	950780	20.4927	20.493
	51 1,2-Dibromoethane	107	7.620	7.619	(1.286)	524915	19.1319	19.132
	52 2-Hexanone	43	7.767	7.767	(0.974)	516055	20.4169	20.417
*	53 d5-Chlorobenzene	117	7.977	7.976	(1.000)	859550	10.0000	
	54 Chlorobenzene	112	7.988	7.987	(1.001)	1595639	19.6301	19.630
	55 Ethyl Benzene	91	8.005	8.004	(1.004)	2962447	21.9413	21.941
	56 1,1,1,2-Tetrachloroethane	131	8.033	8.032	(1.007)	609573	20.6275	20.628
	57 m,p-xylene	106	8.107	8.106	(1.016)	2225711	43.5164	43.516(Q)
	58 o-Xylene	106	8.412	8.411	(1.055)	1061773	20.5595	20.559(Q)
	59 Styrene	104	8.446	8.451	(1.059)	1881028	22.6730	22.673
	60 Bromoform	173	8.474	8.474	(0.877)	428169	20.6357	20.636
	61 Isopropyl Benzene	105	8.638	8.638	(0.894)	2773386	20.7193	20.719
$	62 4-Bromofluorobenzene	95	8.842	8.841	(1.109)	447340	10.3863	10.386
	63 Bromobenzene	156	8.921	8.926	(0.923)	720481	19.3457	19.346
	64 N-Propyl Benzene	91	8.938	8.937	(0.925)	3369370	20.9918	20.992
	65 1,1,2,2-Tetrachloroethane	83	8.984	8.983	(0.929)	792784	18.3371	18.337

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
66	2-Chloro Toluene	91	9.057	9.056	(0.937)	2356204	20.4204	20.420
67	1,3,5-Trimethyl Benzene	105	9.074	9.079	(0.939)	2645388	23.2873	23.287
68	1,2,3-Trichloropropane	110	9.085	9.090	(0.940)	229650	19.0523	19.052(Q)
70	Trans-1,4-Dichloro 2-Butene	53	9.114	9.113	(0.943)	247677	15.5083	15.508(QR)
71	4-Chloro Toluene	91	9.176	9.175	(0.949)	2125945	19.6317	19.632
72	T-Butyl Benzene	119	9.312	9.316	(0.963)	2039553	21.0892	21.089
73	1,2,4-Trimethylbenzene	105	9.363	9.362	(0.968)	2633692	23.3529	23.353
74	S-Butyl Benzene	105	9.447	9.447	(0.977)	3033296	21.4145	21.414
75	4-Isopropyl Toluene	119	9.549	9.548	(0.988)	2496102	22.0447	22.045
76	1,3-Dichlorobenzene	146	9.611	9.611	(0.994)	1338634	19.0284	19.028
* 77	d4-1,4-Dichlorobenzene	152	9.668	9.667	(1.000)	498910	10.0000	(Q)
78	1,4-Dichlorobenzene	146	9.679	9.679	(1.001)	1473446	20.1717	20.172
79	N-Butyl Benzene	91	9.866	9.865	(1.020)	2564884	23.0645	23.064
$ 80	d4-1,2-Dichlorobenzene	152	9.990	9.990	(1.033)	438220	9.84491	9.845(Q)
81	1,2-Dichlorobenzene	146	9.996	9.995	(1.034)	1280341	18.8415	18.841
82	1,2-Dibromo 3-Chloropropane	75	10.607	10.606	(1.097)	148614	18.0756	18.076
83	Hexachloro 1,3-Butadiene	225	11.116	11.110	(1.150)	308499	19.0633	19.063
84	1,2,4-Trichlorobenzene	180	11.139	11.138	(1.152)	777614	21.3460	21.346
85	Naphthalene	128	11.393	11.393	(1.178)	1945006	21.2127	21.213
86	1,2,3-Trichlorobenzene	180	11.540	11.540	(1.194)	686887	20.0765	20.076

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: icv10.d
Lab Smp Id: ICV10
Analysis Type: VOA
Quant Type: ISTD
Operator: LH
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 22-MAR-2013
Calibration Time: 14:37
Client Smp ID: ICV0322
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	537318	0.17
36 1,4-Difluorobenze	907870	453935	1815740	935058	2.99
53 d5-Chlorobenzene	856141	428070	1712282	859550	0.40
77 d4-1,4-Dichlorobe	481945	240972	963890	498910	3.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.53	-0.09
36 1,4-Difluorobenze	5.92	5.42	6.42	5.92	0.01
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.01
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: ICV10
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: voa.sub
Method File: /chem3/nt3.i/03222013.b/8260C032213L.m
Misc Info: 13-

Client SDG: 03222013
Fraction: VOA
Client Smp ID: ICV0322
Operator: LH
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	20.000	24.127	120.64*	80-120
2 Chloromethane	20.000	19.616	98.08	80-120
3 Vinyl Chloride	20.000	22.682	113.41	80-120
4 Bromomethane	20.000	20.970	104.85	80-120
5 Chloroethane	20.000	20.608	103.04	80-120
6 Trichlorofluoromet	20.000	22.322	111.61	80-120
12 Acrolein	100.00	122.44	122.44*	80-120
9 112Trichloro122Tri	20.000	21.110	105.55	80-120
14 Acetone	20.000	21.976	109.88	80-120
7 1,1-Dichloroethene	20.000	20.204	101.02	80-120
11 Bromoethane	20.000	20.759	103.79	80-120
10 Iodomethane	20.000	18.639	93.20	80-120
13 Methylene Chloride	20.000	24.182	120.91*	80-120
18 Acrylonitrile	20.000	23.698	118.49	80-120
8 Carbon Disulfide	20.000	18.193	90.97	80-120
16 Methyl tert butyl	20.000	21.434	107.17	80-120
15 Trans-1,2-Dichloro	20.000	20.498	102.49	80-120
19 Vinyl Acetate	20.000	10.402	52.01*	80-120
17 1,1-Dichloroethane	20.000	20.322	101.61	80-120
28 2-Butanone	20.000	21.113	105.56	80-120
22 2,2-Dichloropropan	20.000	20.777	103.89	80-120
20 Cis-1,2-Dichloroet	20.000	21.417	107.09	80-120
24 Chloroform	20.000	20.926	104.63	80-120
23 Bromochloromethane	40.000	39.174	97.94	80-120
27 1,1,1-Trichloroeth	20.000	20.181	100.90	80-120
29 1,1-Dichloropropen	20.000	19.799	99.00	80-120
25 Carbon Tetrachlori	20.000	20.399	102.00	80-120
33 1,2-Dichloroethane	20.000	19.332	96.66	80-120
30 Benzene	20.000	19.842	99.21	80-120
34 Trichloroethene	20.000	20.458	102.29	80-120
38 1,2-Dichloropropan	20.000	19.904	99.52	80-120
39 Bromodichlorometha	20.000	22.536	112.68	80-120
37 Dibromomethane	20.000	19.081	95.40	80-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
41 2-Chloroethyl Viny	20.000	19.790	98.95	80-120
46 4-Methyl-2-Pentano	20.000	19.226	96.13	80-120
42 Cis 1,3-dichloropr	20.000	22.108	110.54	80-120
44 Toluene	20.000	20.327	101.63	80-120
47 Trans 1,3-Dichloro	20.000	19.827	99.14	80-120
52 2-Hexanone	20.000	20.417	102.08	80-120
48 1,1,2-Trichloroeth	20.000	19.542	97.71	80-120
50 1,3-Dichloropropan	20.000	20.493	102.46	80-120
45 Tetrachloroethene	20.000	20.251	101.26	80-120
49 Chlorodibromometha	20.000	21.753	108.76	80-120
51 1,2-Dibromoethane	20.000	19.132	95.66	80-120
54 Chlorobenzene	20.000	19.630	98.15	80-120
56 1,1,1,2-Tetrachlor	20.000	20.628	103.14	80-120
55 Ethyl Benzene	20.000	21.941	109.71	80-120
57 m,p-xylene	40.000	43.516	108.79	80-120
58 o-Xylene	20.000	20.559	102.80	80-120
59 Styrene	20.000	22.673	113.36	80-120
61 Isopropyl Benzene	20.000	20.719	103.60	80-120
60 Bromoform	20.000	20.636	103.18	80-120
65 1,1,2,2-Tetrachlor	20.000	18.337	91.69	80-120
68 1,2,3-Trichloropro	20.000	19.052	95.26	80-120
70 Trans-1,4-Dichloro	20.000	15.508	77.54*	80-120
64 N-Propyl Benzene	20.000	20.992	104.96	80-120
63 Bromobenzene	20.000	19.346	96.73	80-120
67 1,3,5-Trimethyl Be	20.000	23.287	116.44	80-120
66 2-Chloro Toluene	20.000	20.420	102.10	80-120
71 4-Chloro Toluene	20.000	19.632	98.16	80-120
72 T-Butyl Benzene	20.000	21.089	105.45	80-120
73 1,2,4-Trimethylben	20.000	23.353	116.76	80-120
74 S-Butyl Benzene	20.000	21.414	107.07	80-120
75 4-Isopropyl Toluen	20.000	22.045	110.22	80-120
76 1,3-Dichlorobenzen	20.000	19.028	95.14	80-120
78 1,4-Dichlorobenzen	20.000	20.172	100.86	80-120
79 N-Butyl Benzene	20.000	23.064	115.32	80-120
81 1,2-Dichlorobenzen	20.000	18.841	94.21	80-120
82 1,2-Dibromo 3-Chlo	20.000	18.076	90.38	80-120
84 1,2,4-Trichloroben	20.000	21.346	106.73	80-120
83 Hexachloro 1,3-But	20.000	19.063	95.32	80-120
85 Naphthalene	20.000	21.213	106.06	80-120
86 1,2,3-Trichloroben	20.000	20.076	100.38	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 26 Dibromofluorometha	10.000	9.827	98.27	80-120

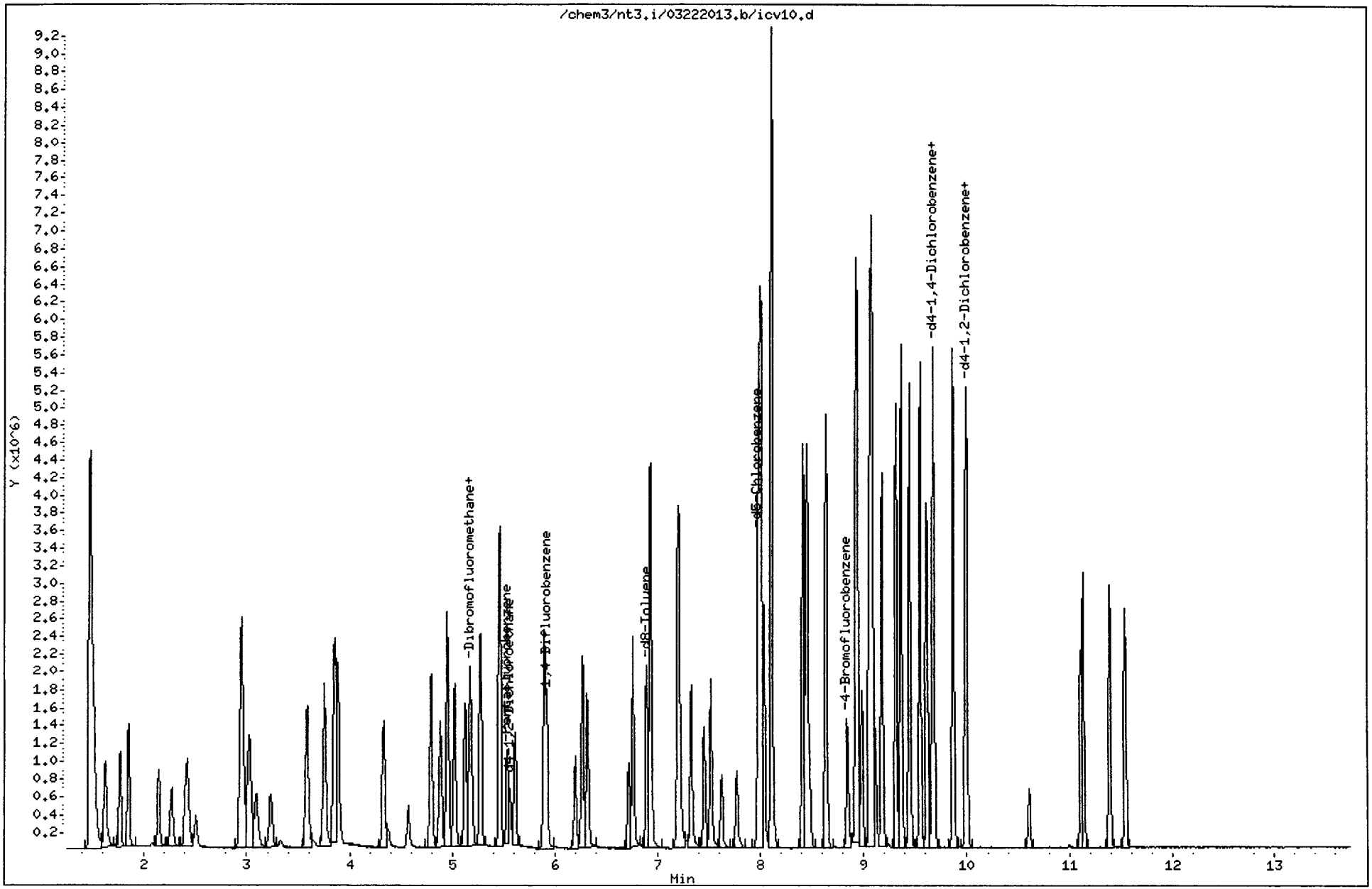
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 32 d4-1,2-Dichloroeth	10.000	9.918	99.18	80-120
$ 43 d8-Toluene	10.000	10.185	101.85	80-120
$ 62 4-Bromofluorobenze	10.000	10.386	103.86	80-120
$ 80 d4-1,2-Dichloroben	10.000	9.845	98.45	80-120

Data File: /chem3/nt3.i/03222013.b/icv10.d
Date : 22-MAR-2013 16:32
Client ID: ICV0322
Sample Info: ICV10,10,10,0,,

Instrument: nt3.i

Operator: LH
Column diameter: 0.18

Column phase: RTXVMS



CO-ELUTION SUMMARY FOR FILE - icv10.d

Lab ID: ICV10, Method: 8260C032213L.m, Instrument: nt3.i, Date: 22-MAR-2013

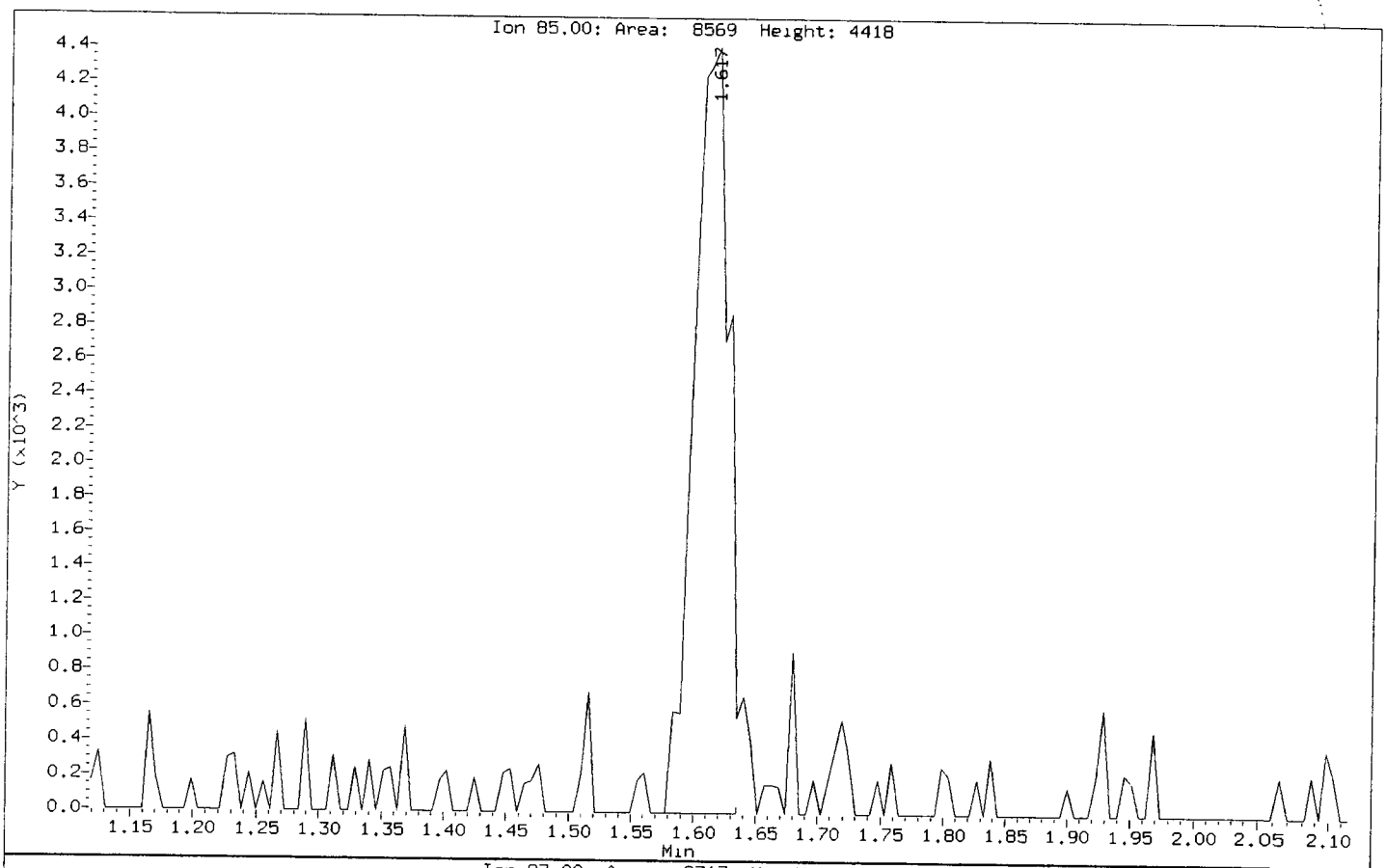
RT	CO-ELUTION COMPOUNDS

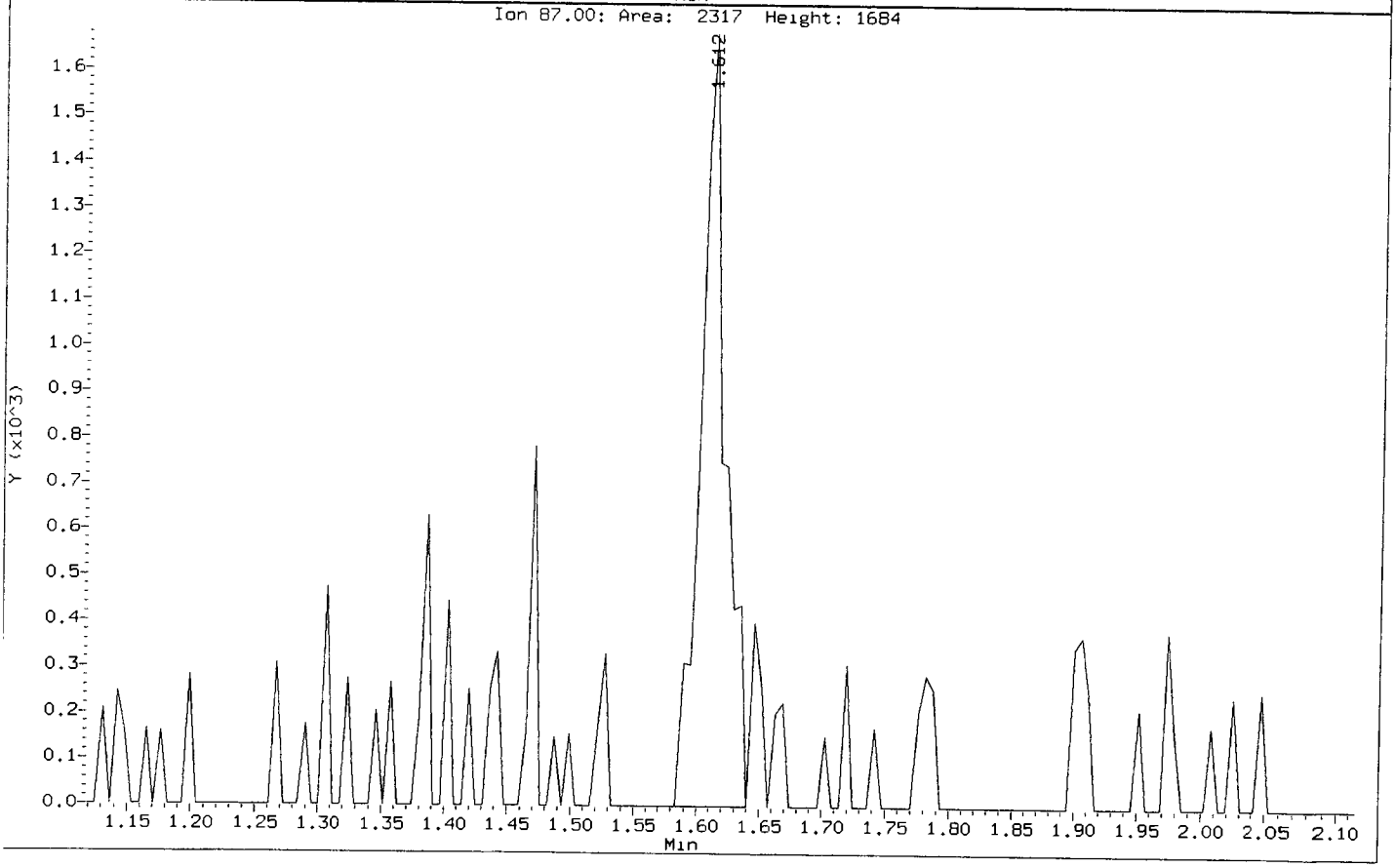
NO CO-ELUTIONS

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Dichlorodifluoromethane
CAS Number:

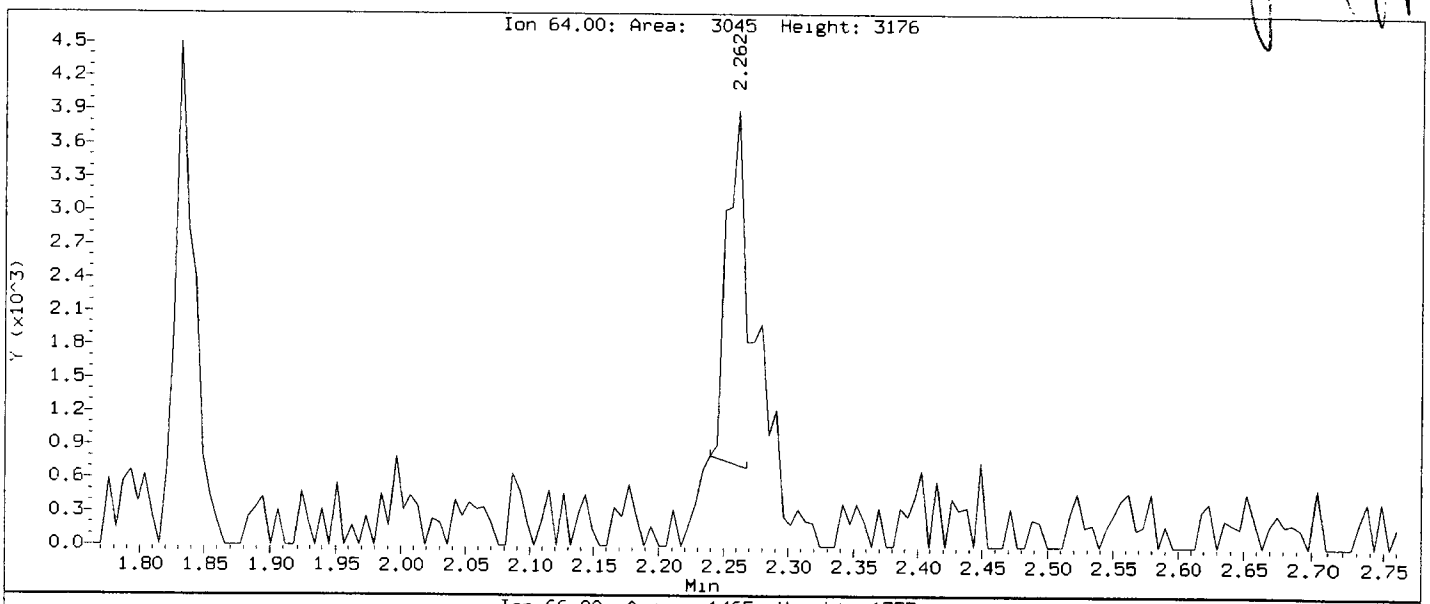
4/16

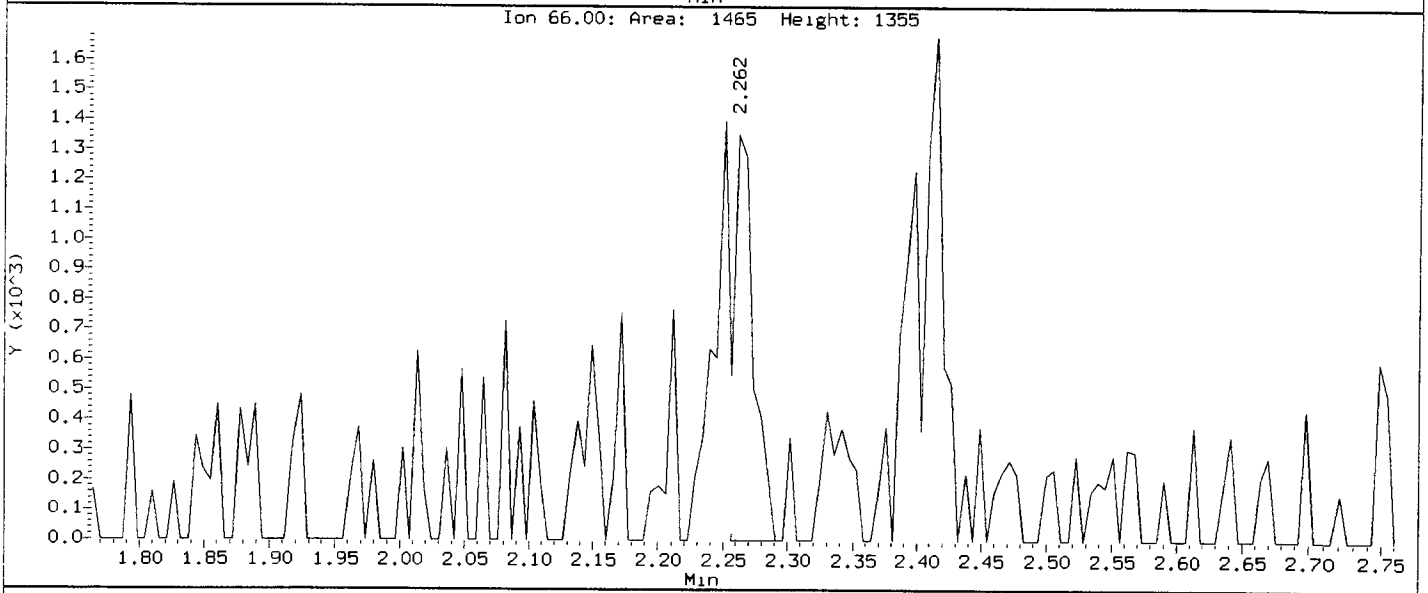


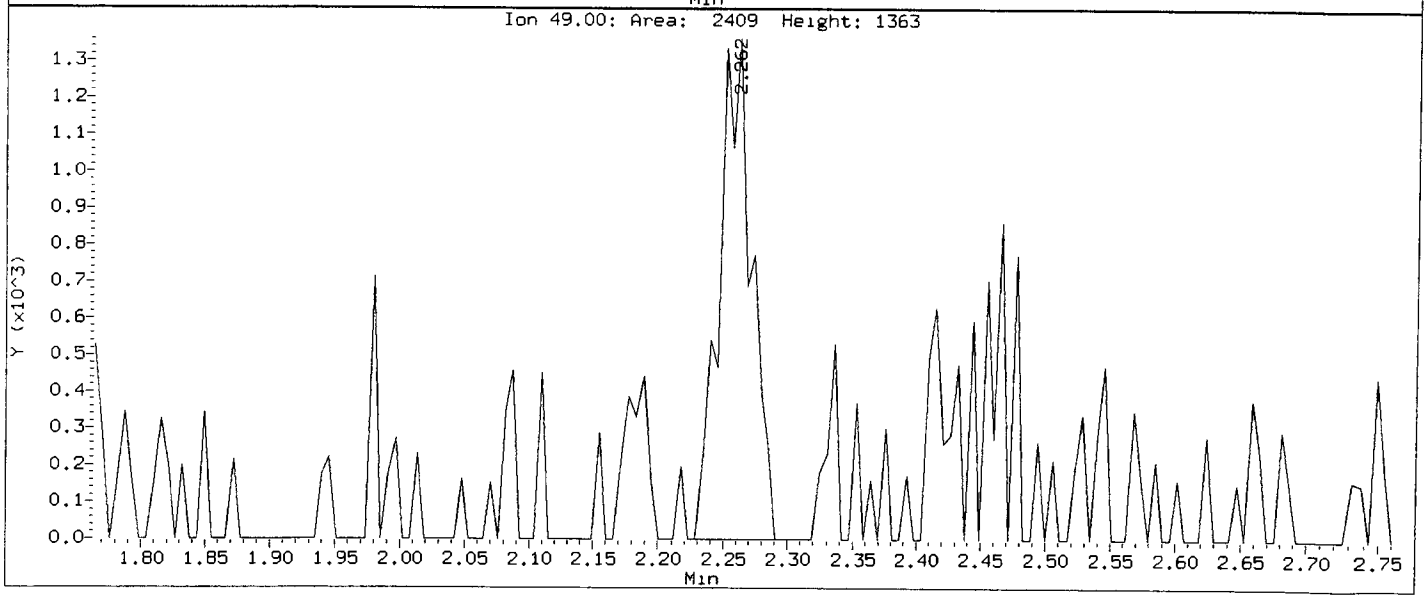


Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Chloroethane
CAS Number:





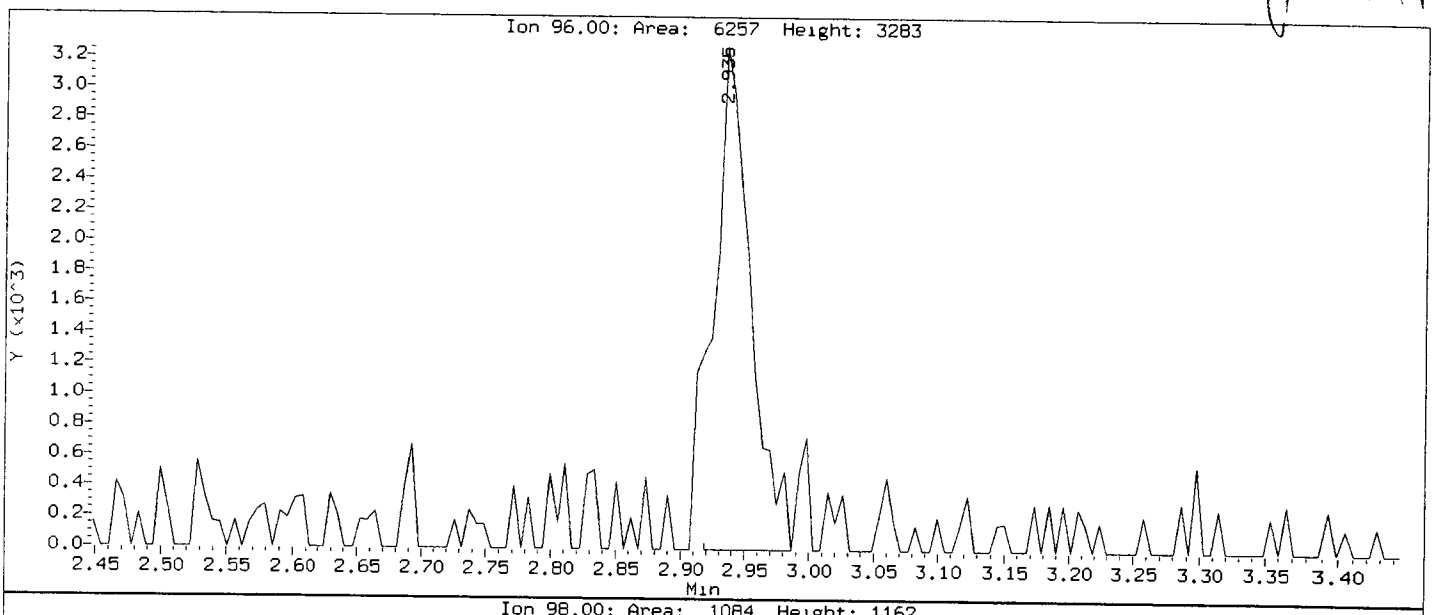


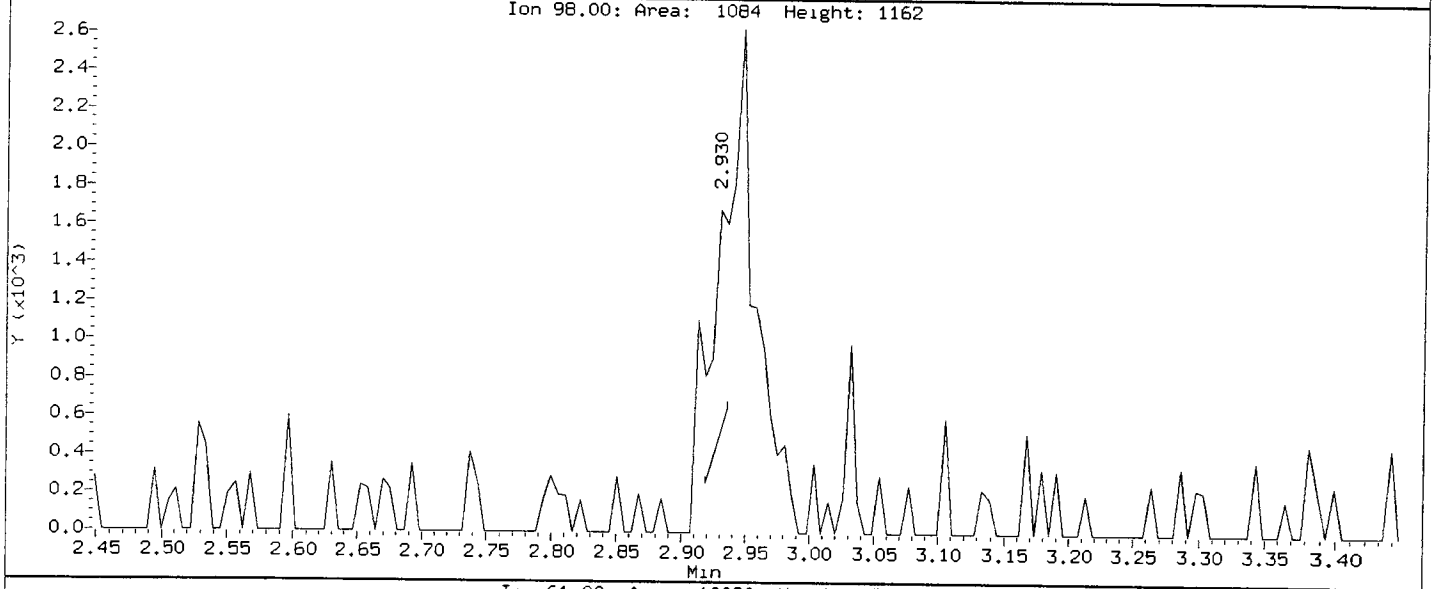
WJ10:00530

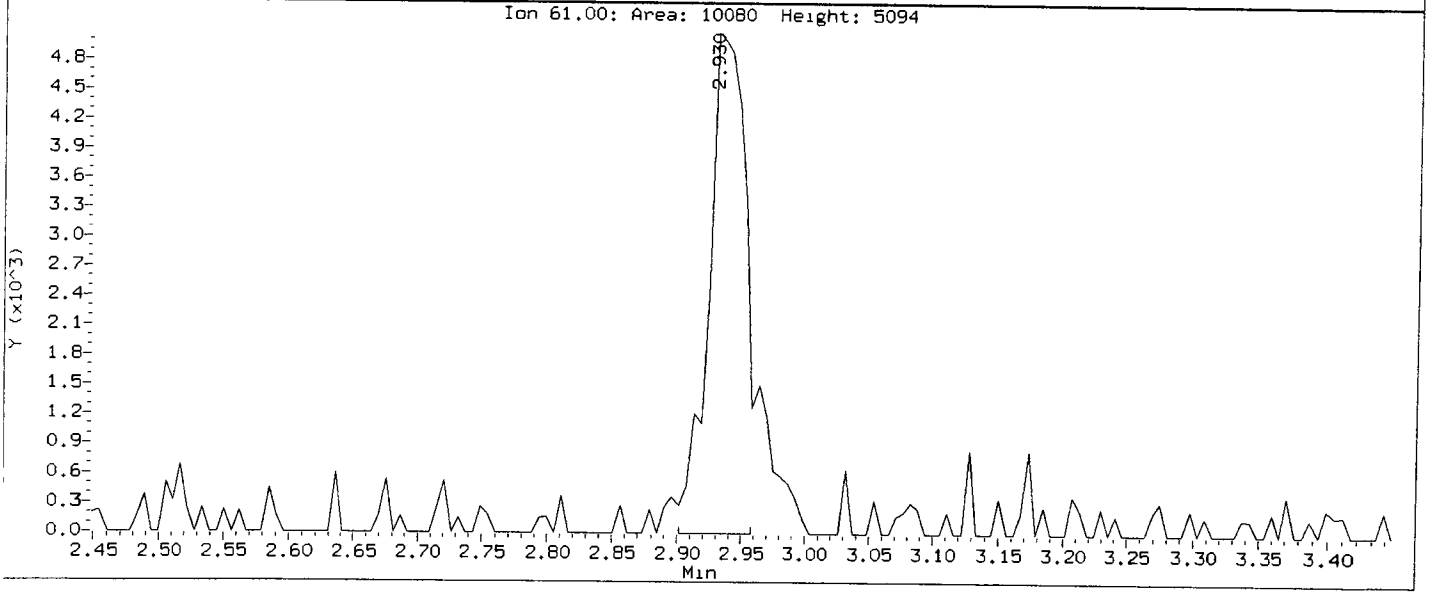
Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: 1,1-Dichloroethene
CAS Number:

1 4/1/7



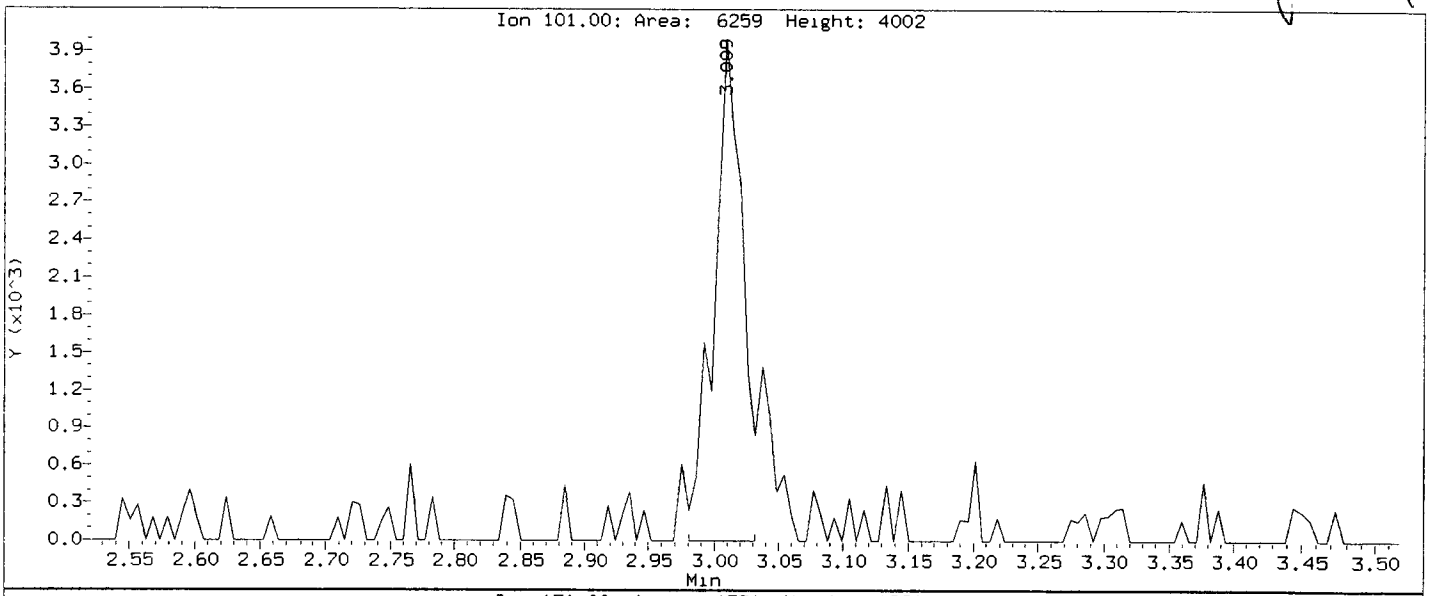


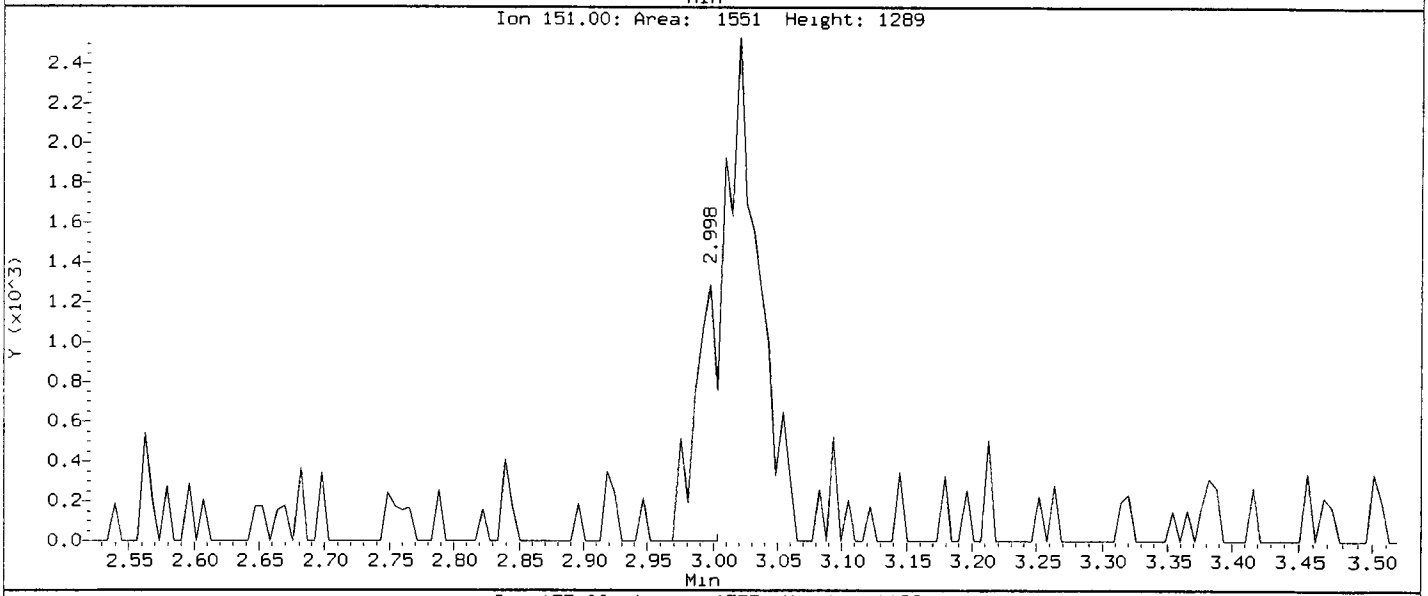


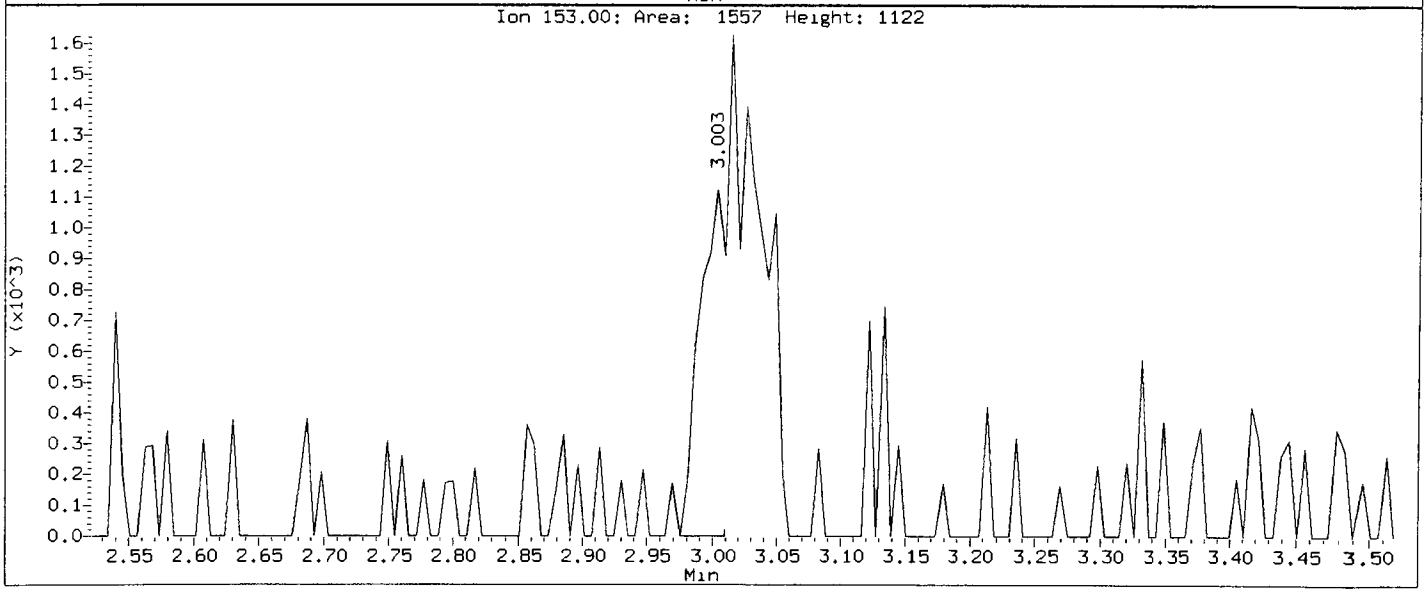
WJ10:00531

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: 112Trichloro122Trifluoroethane
CAS Number:



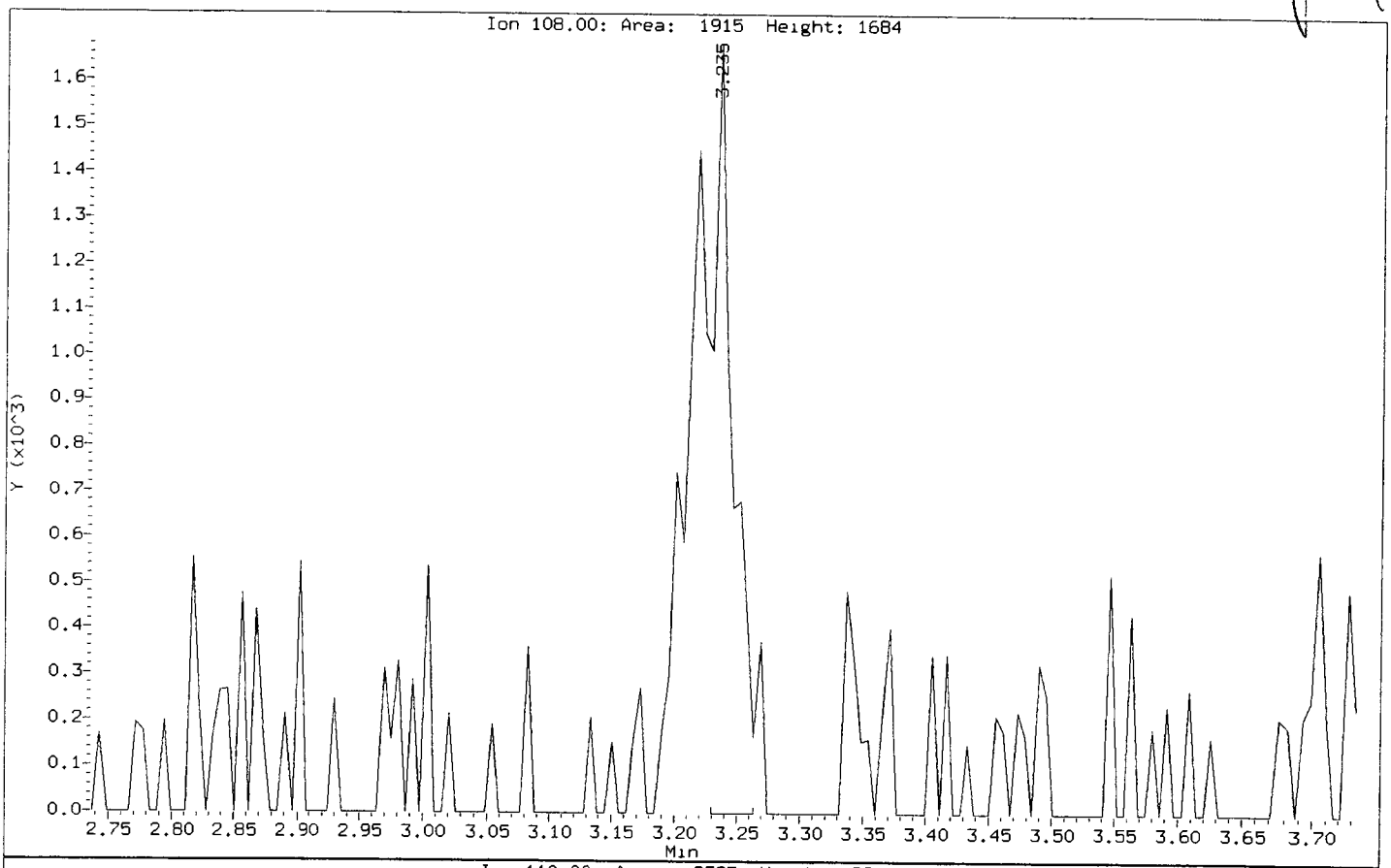


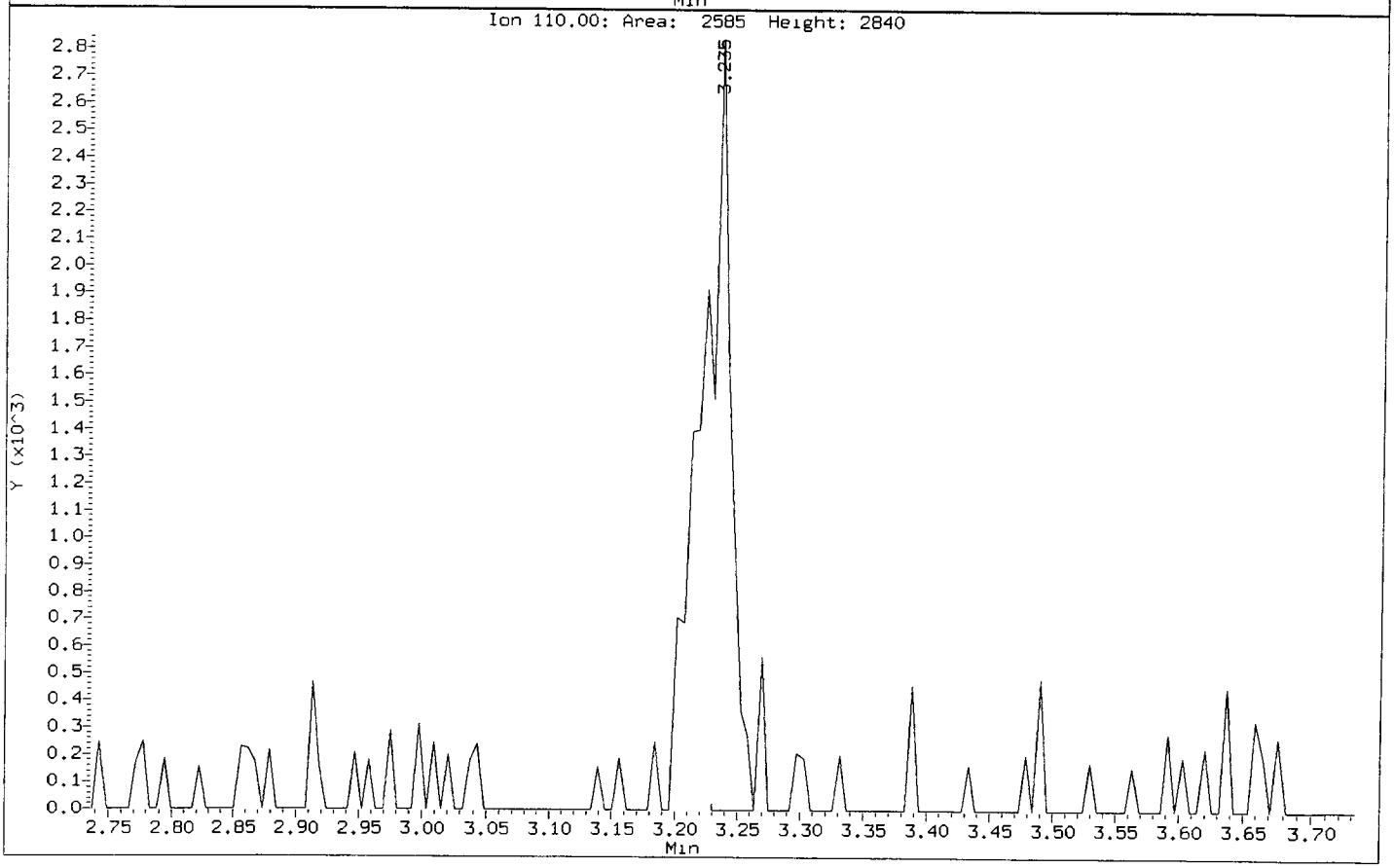


WJ10:00532

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

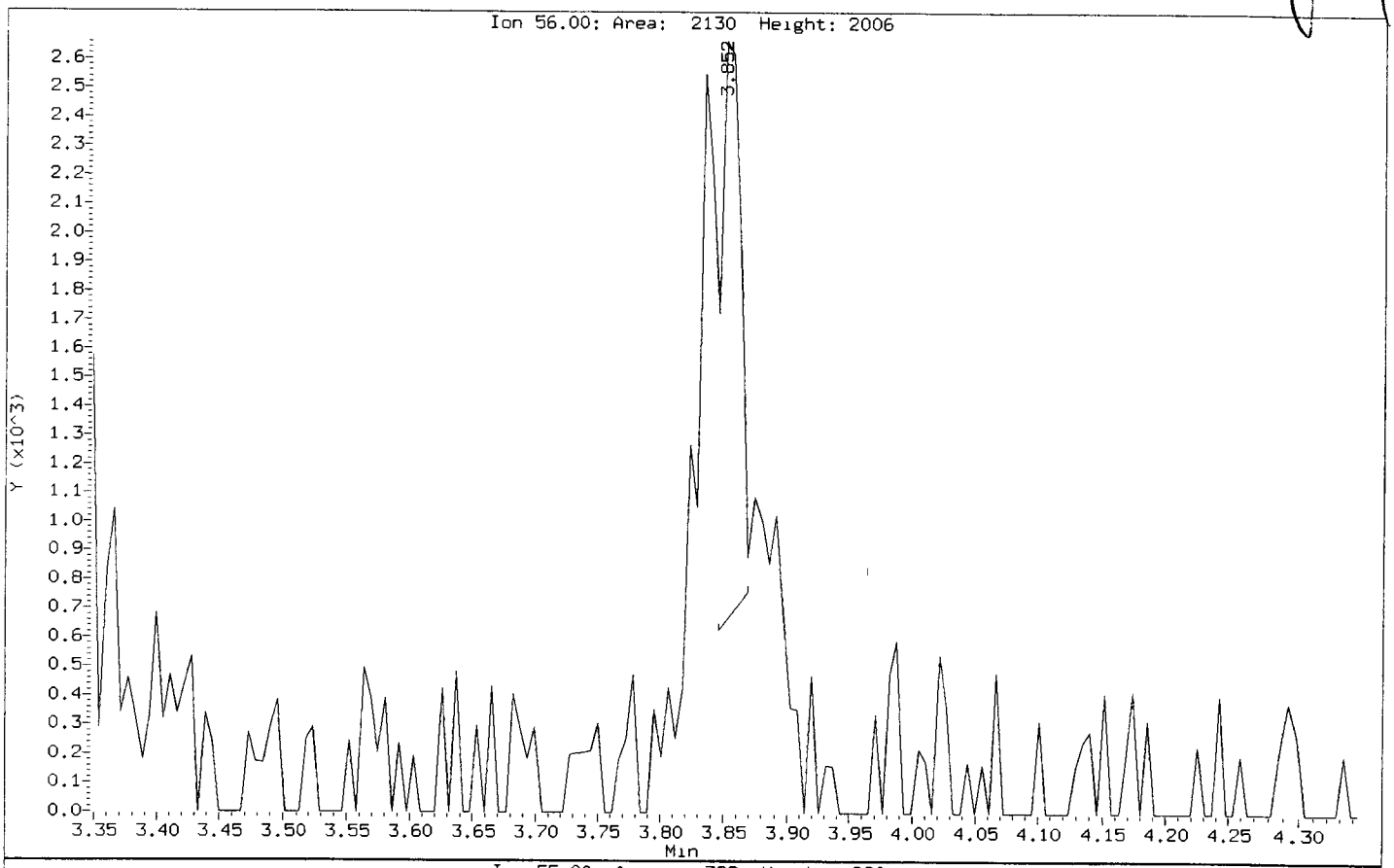
Compound: Bromoethane
CAS Number:

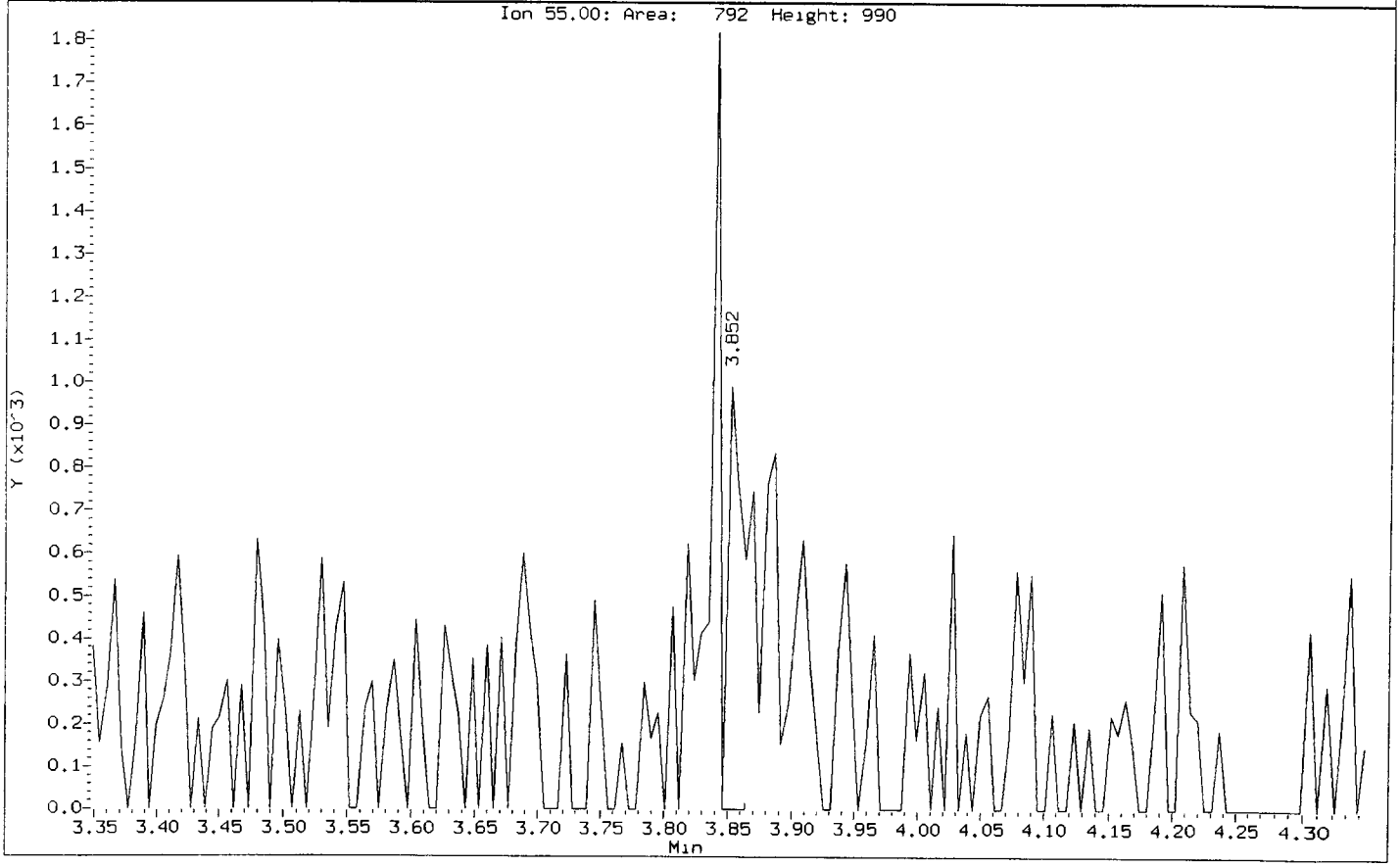




Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

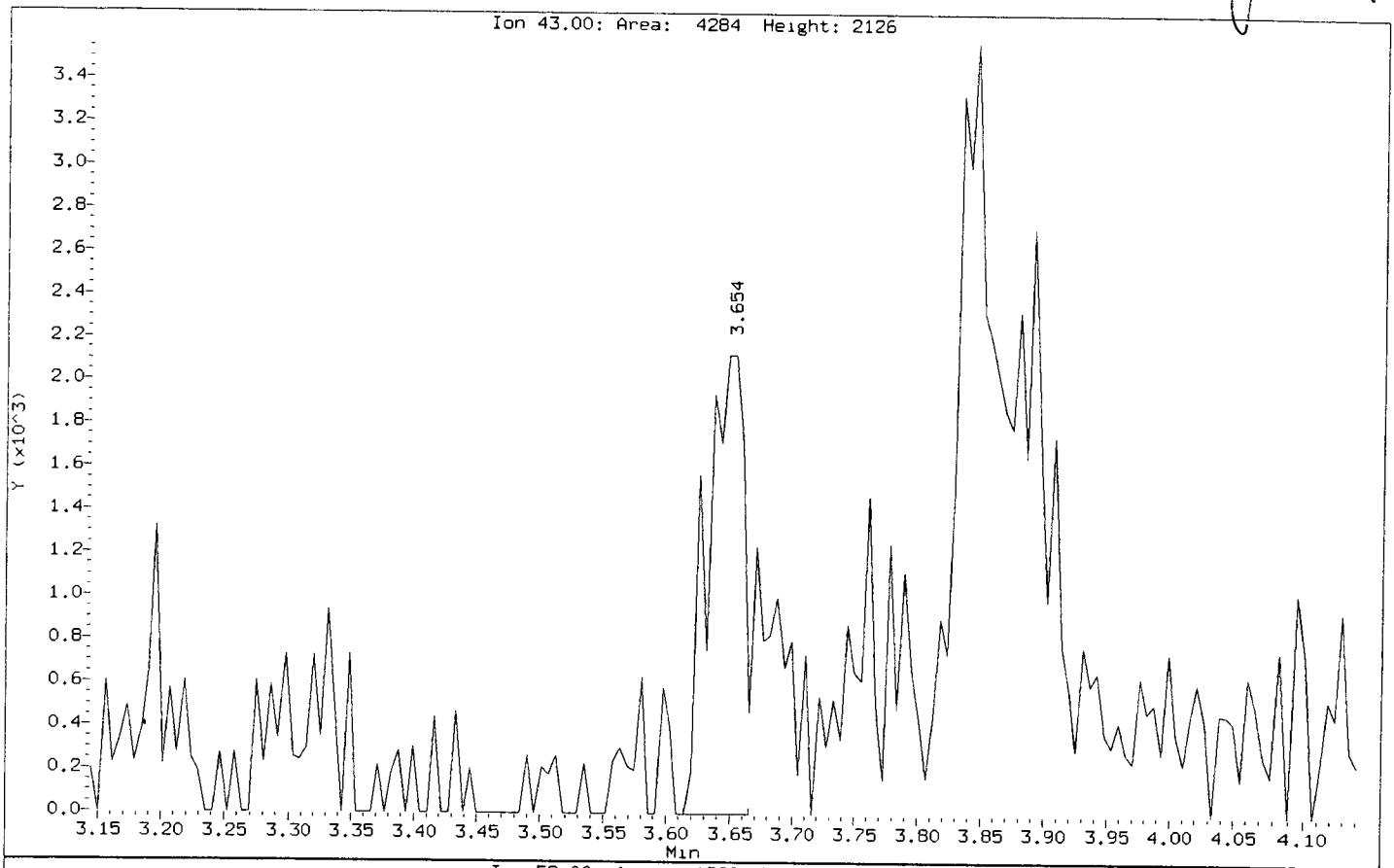
Compound: Acrolein
CAS Number:

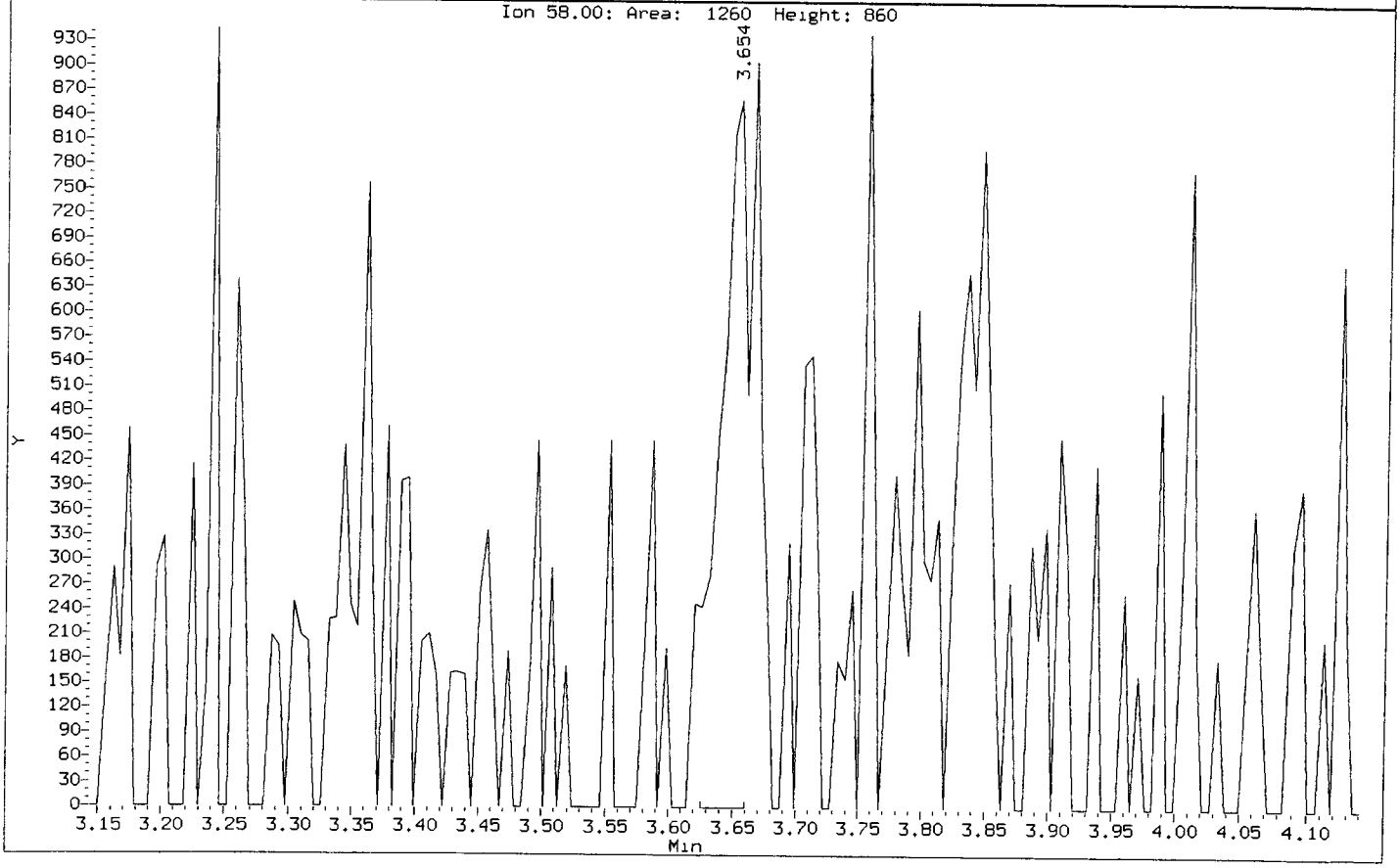




Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Acetone
CAS Number:

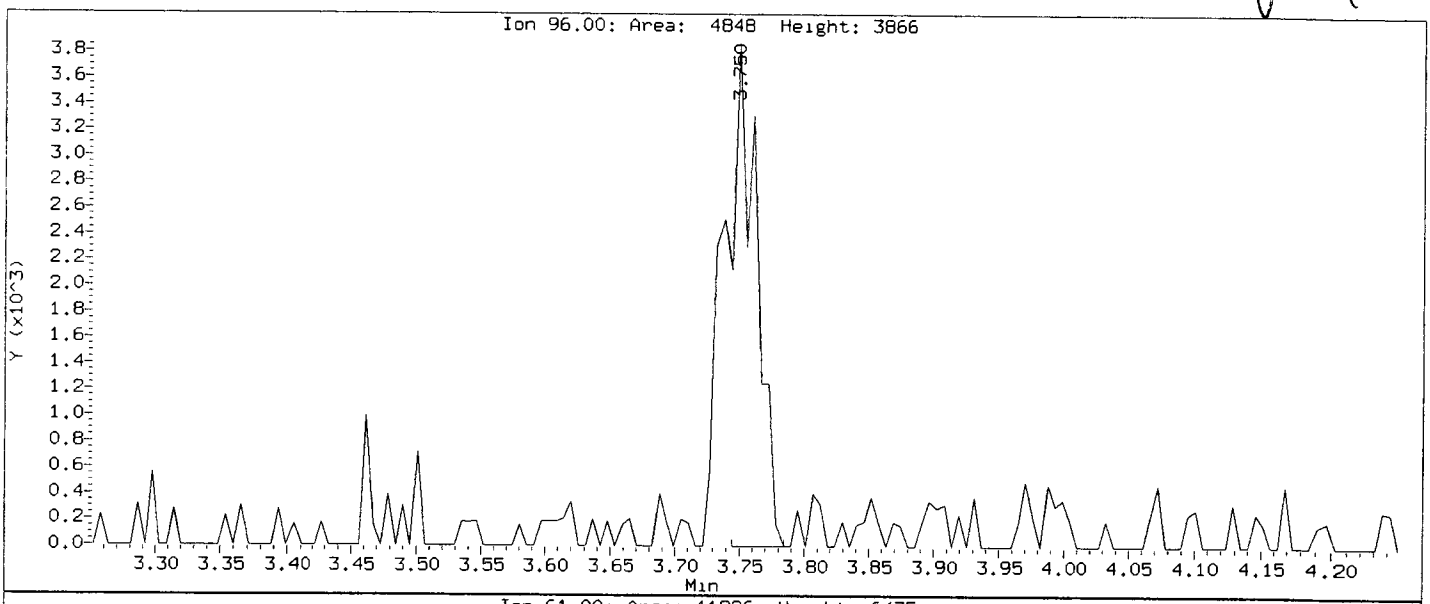


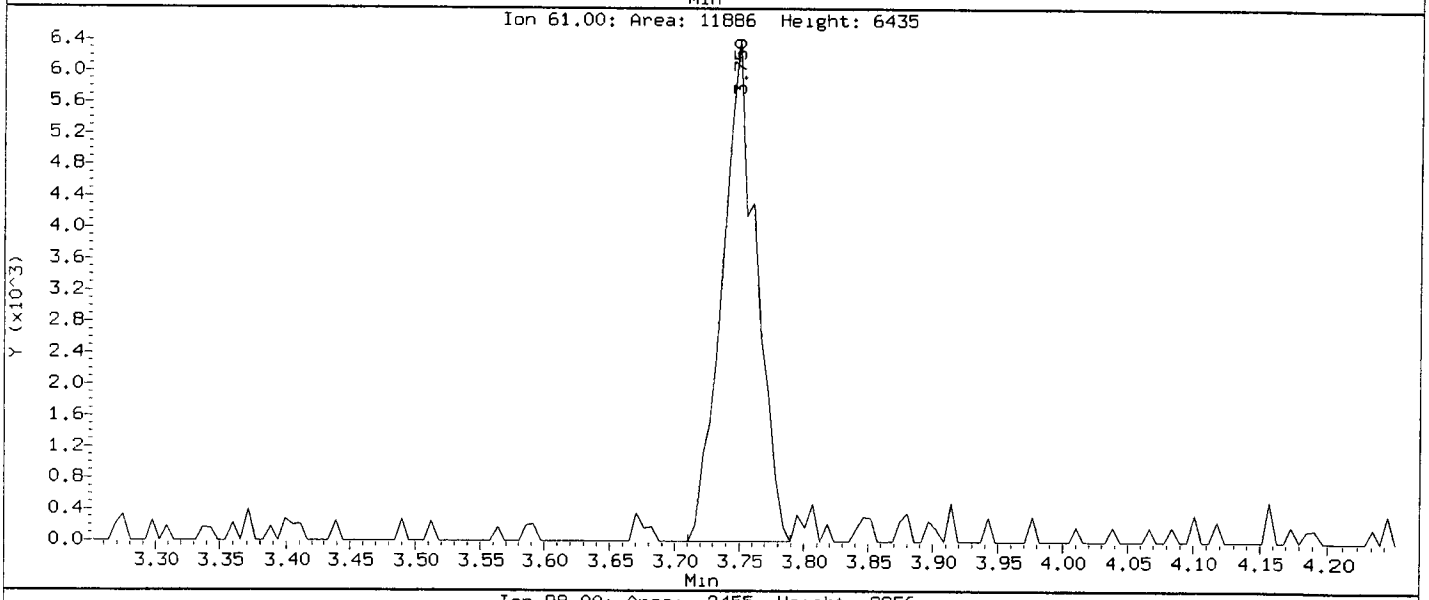


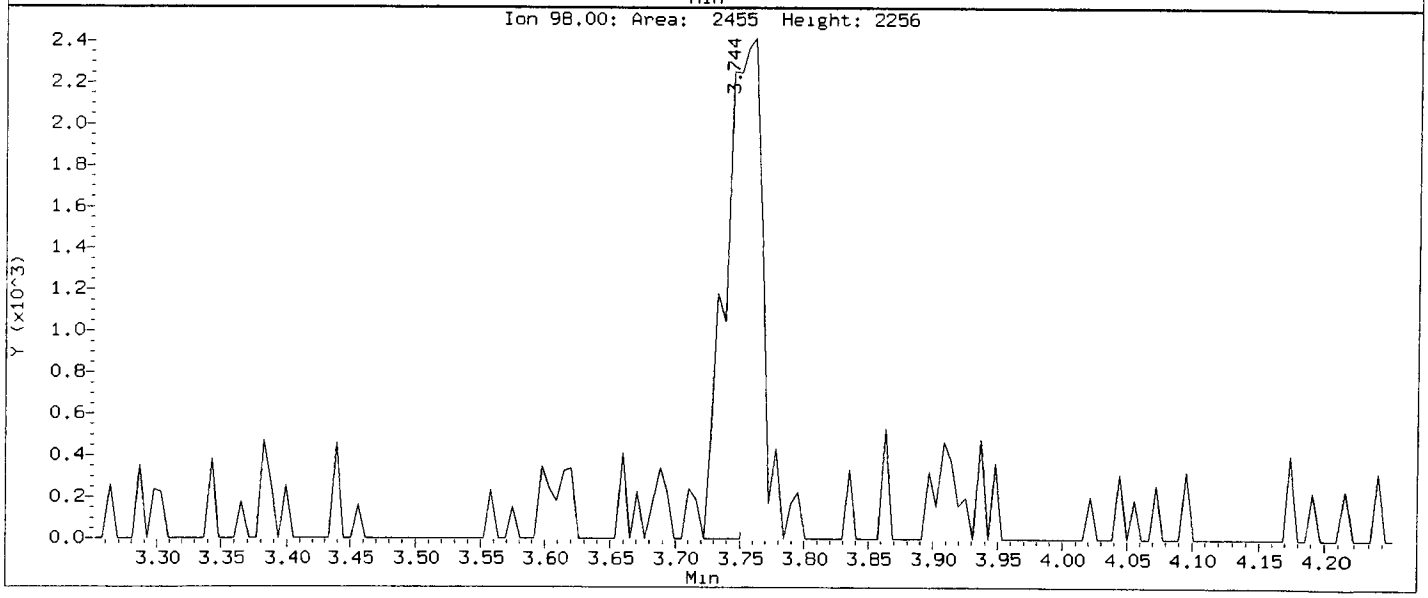
WJ10:00535

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Trans-1,2-Dichloroethene
CAS Number:



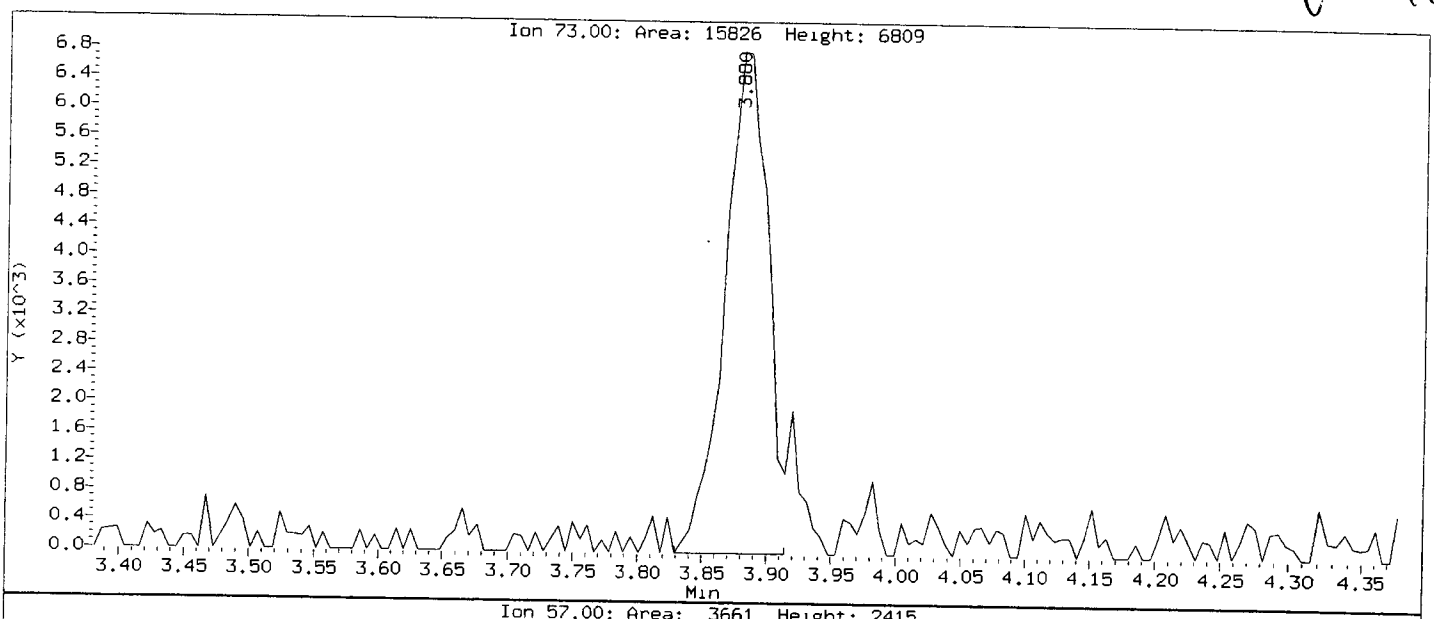


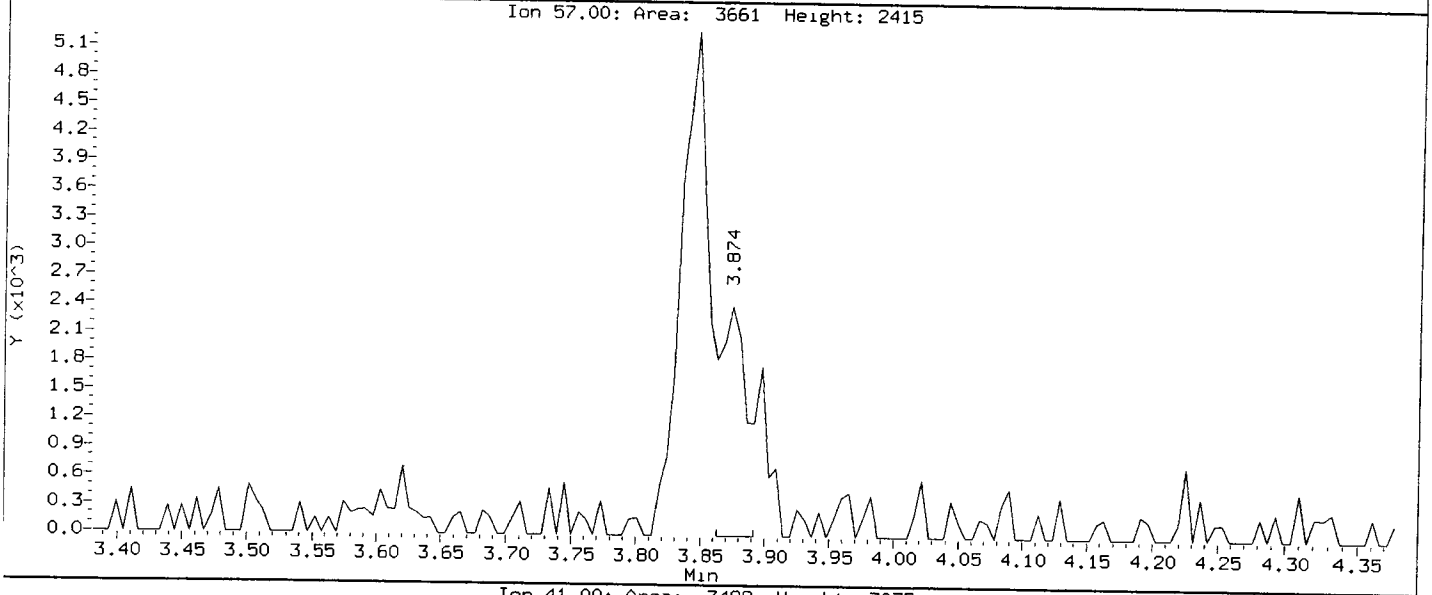


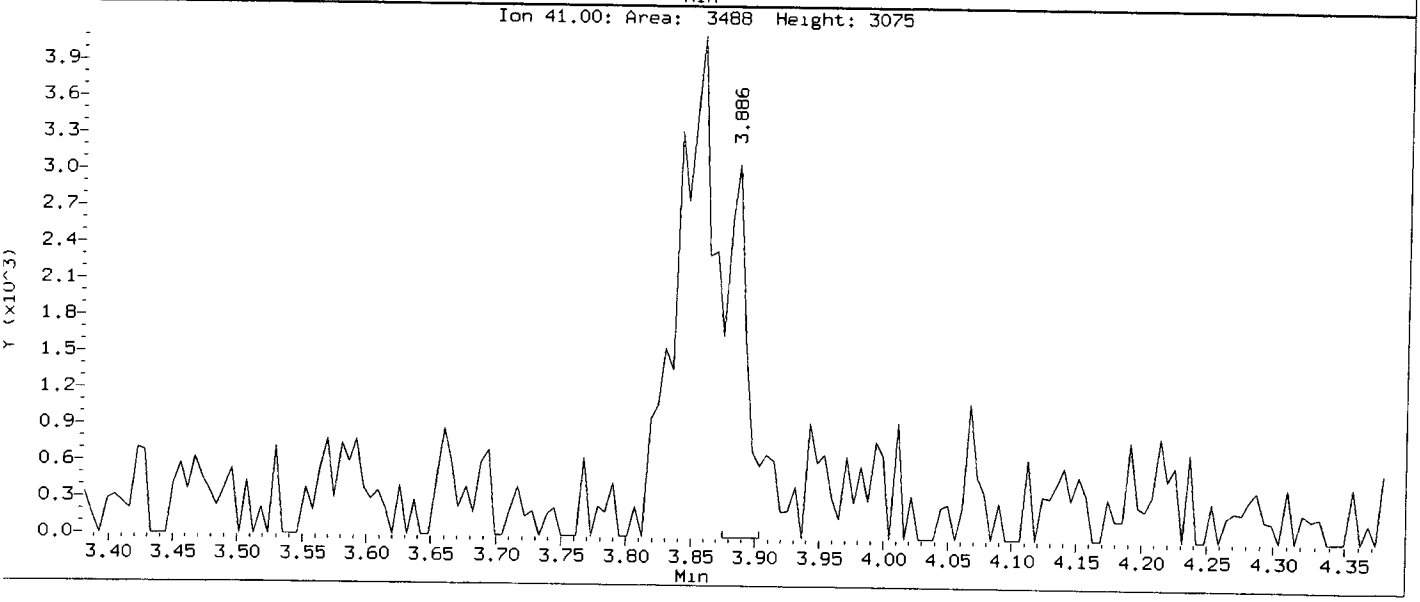
WI18 : 00536

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Methyl tert butyl ether
CAS Number:





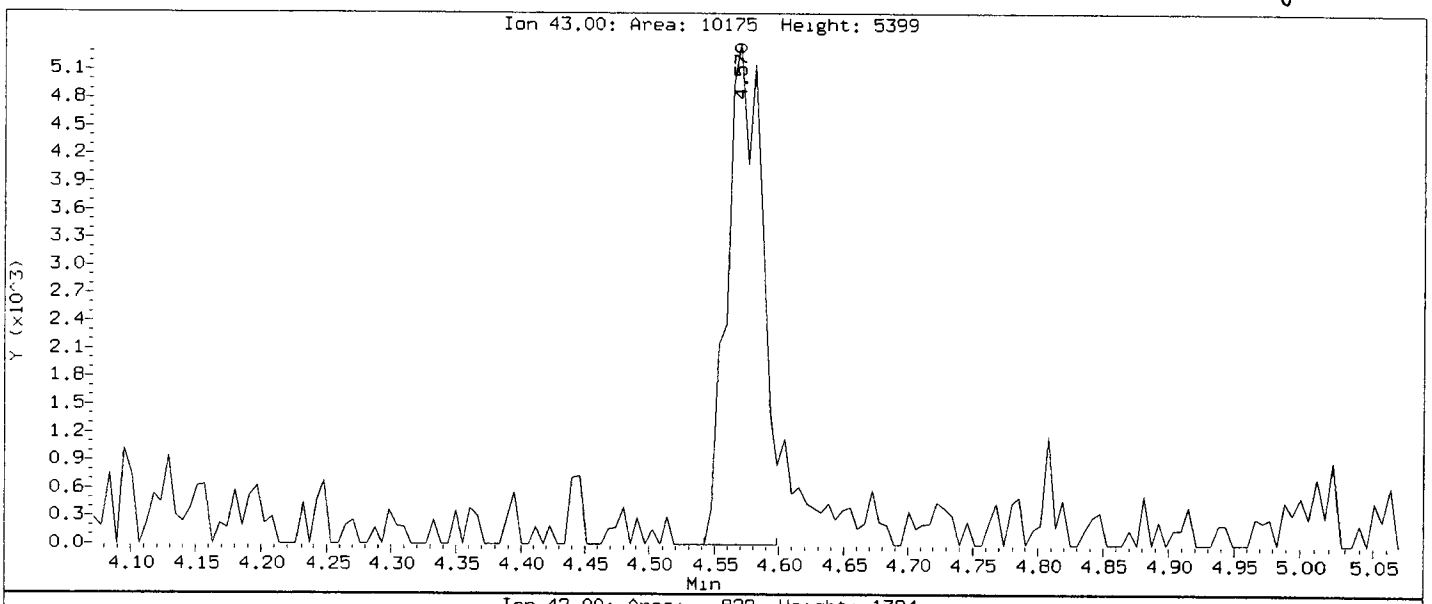


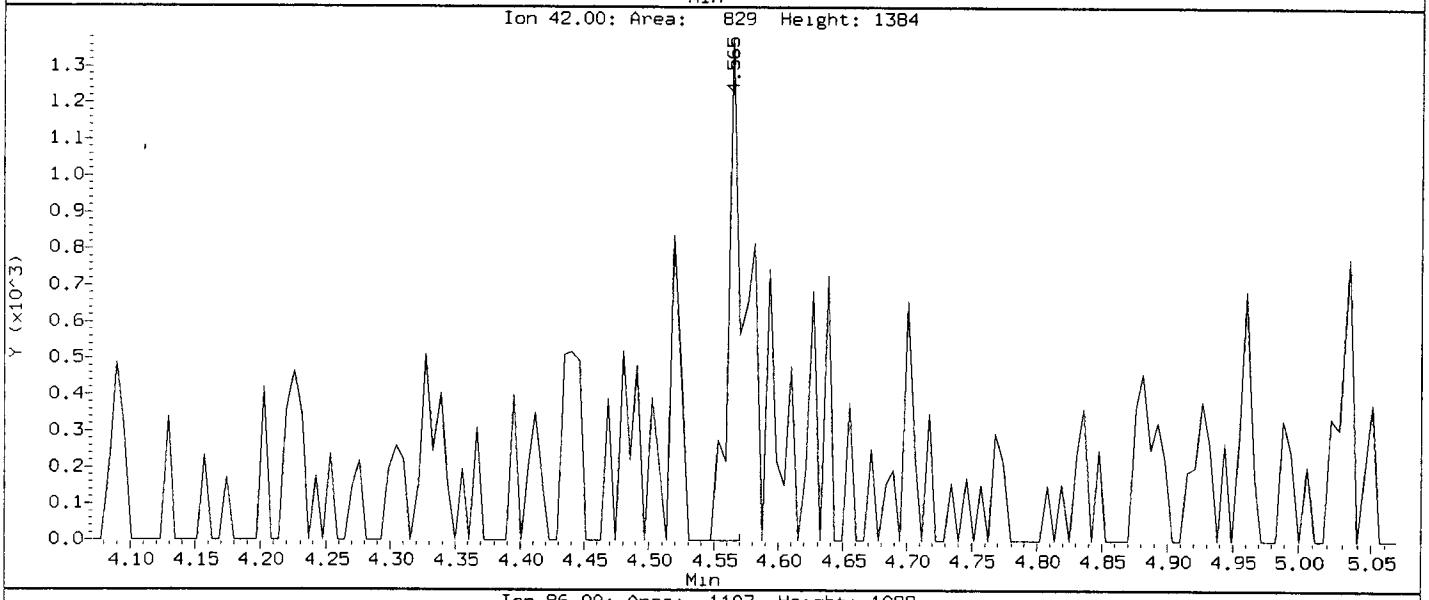
WJ10:00537

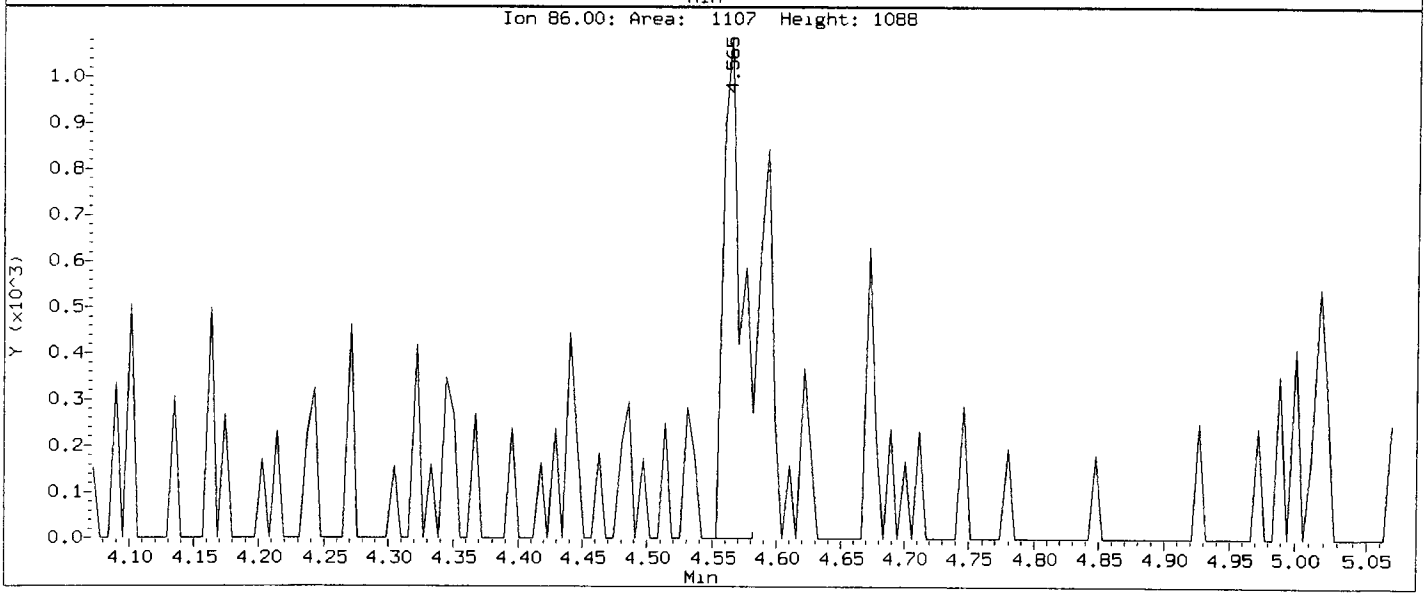
Data File: /chem3/nt3.i/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.i
Client Sample ID: VSTD0.2

Compound: Vinyl Acetate
CAS Number:

1 4/16



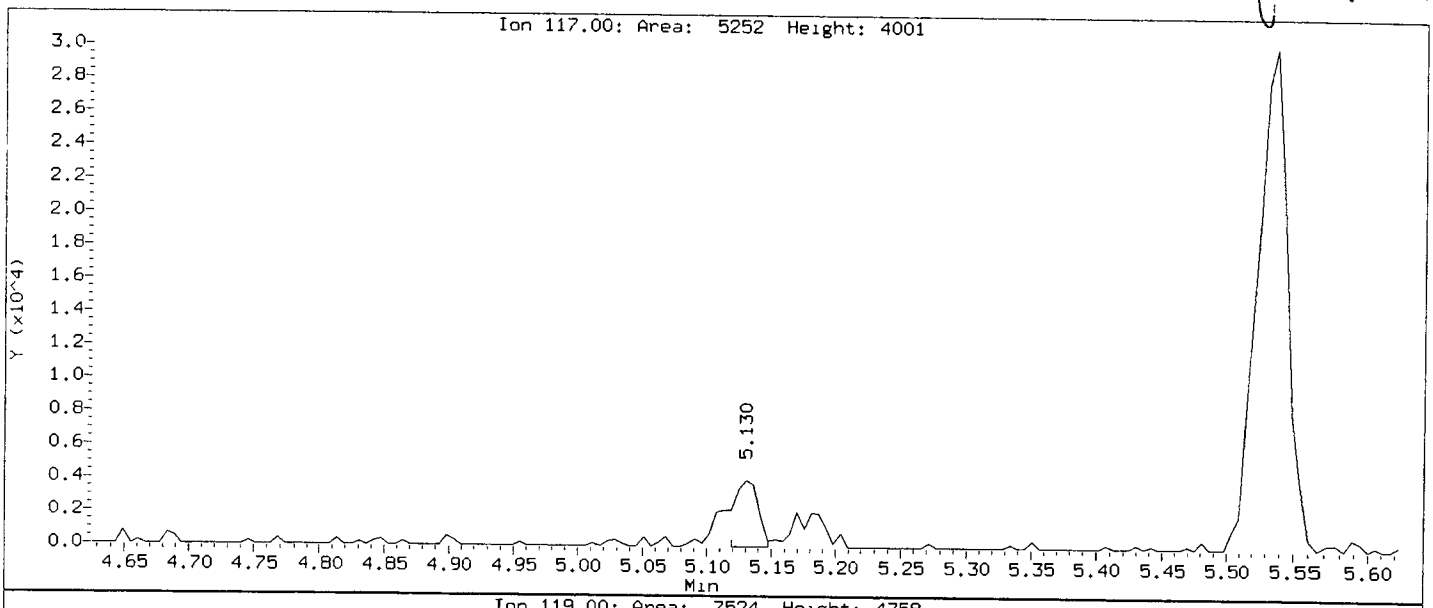


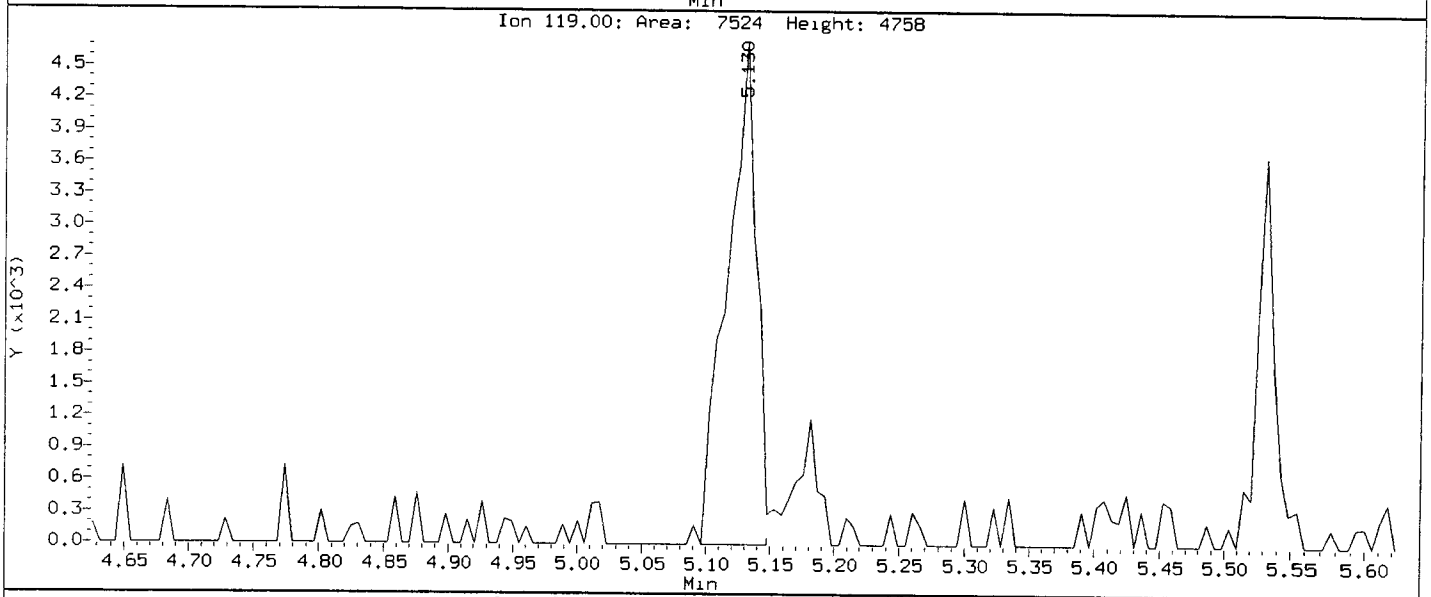


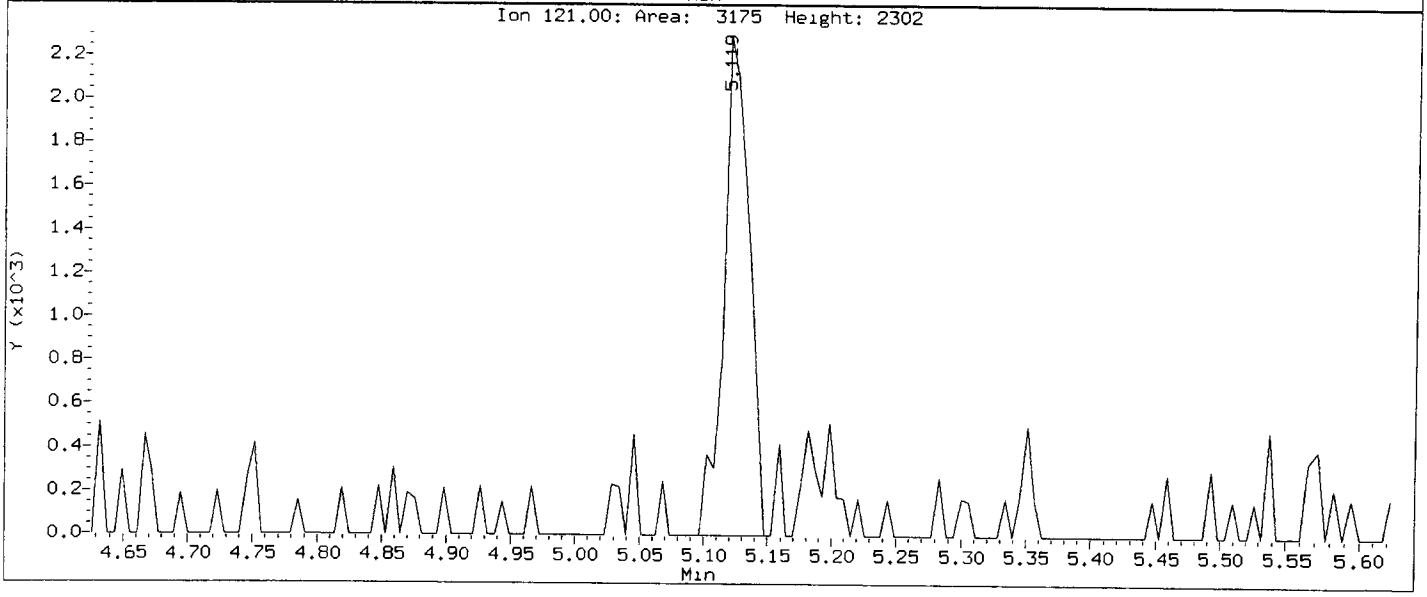
WJ10:00538

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Carbon Tetrachloride
CAS Number:



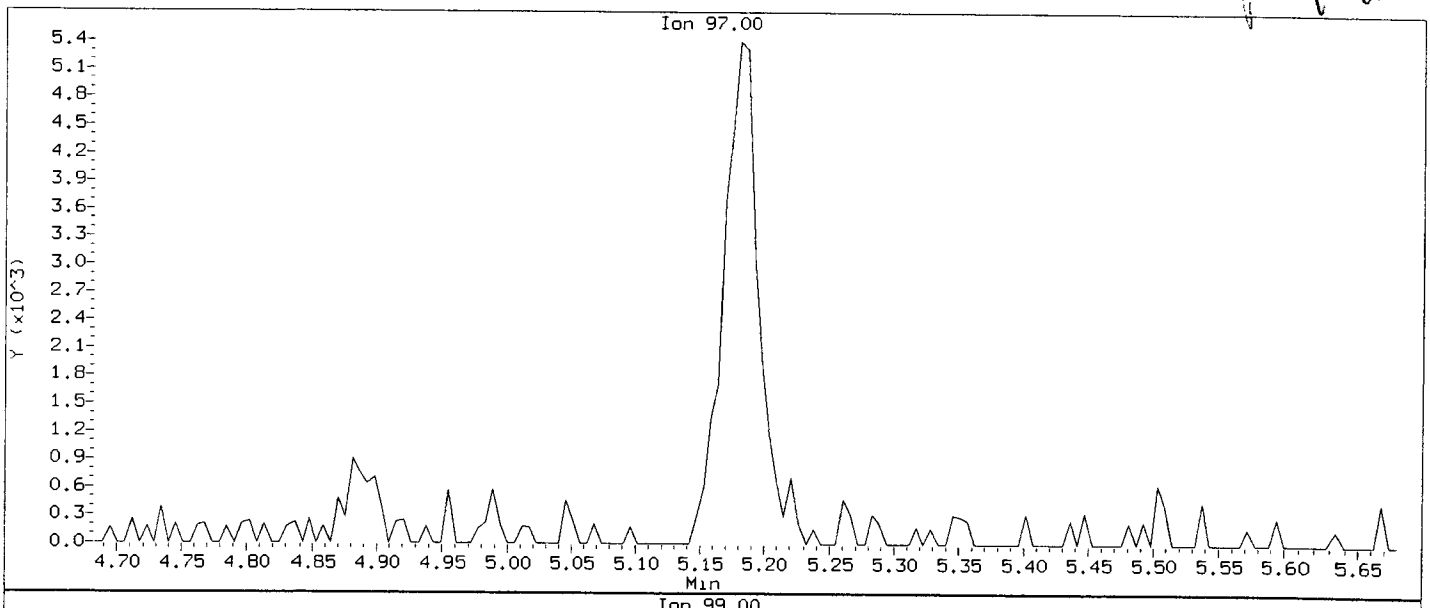


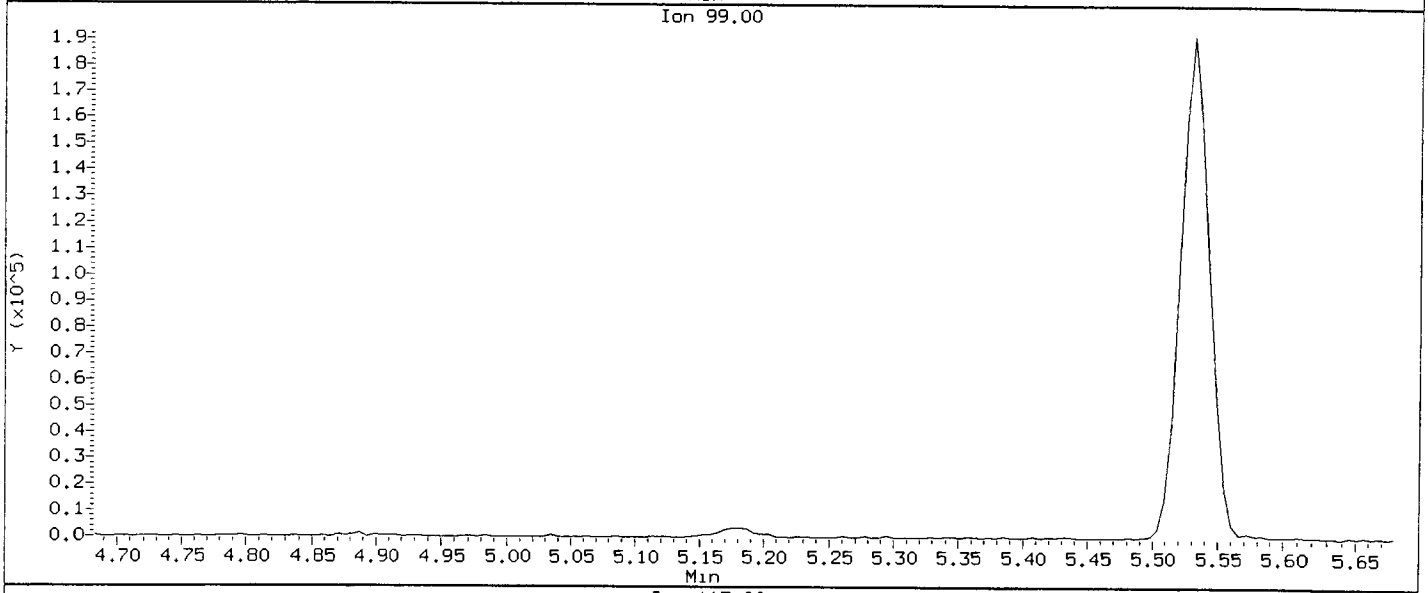


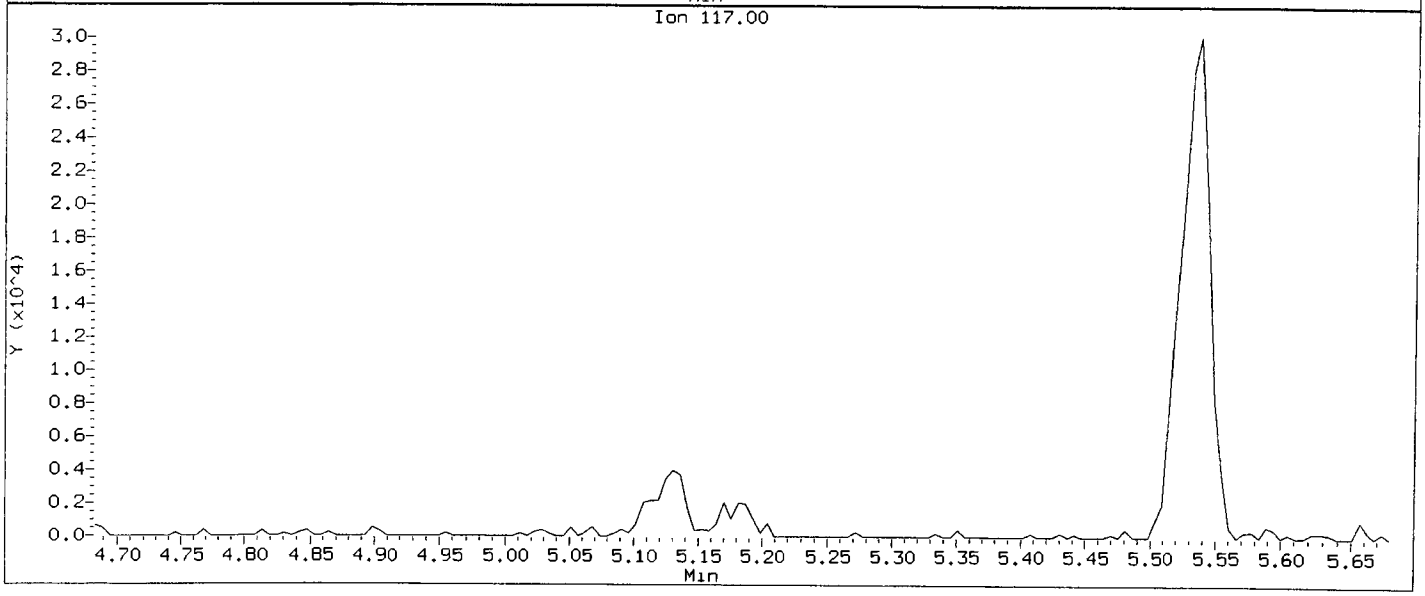
WJ18 : 00539

Data File: /chem3/nt3.i/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.i
Client Sample ID: VSTD0.2

Compound: 1,1,1-Trichloroethane
CAS Number:



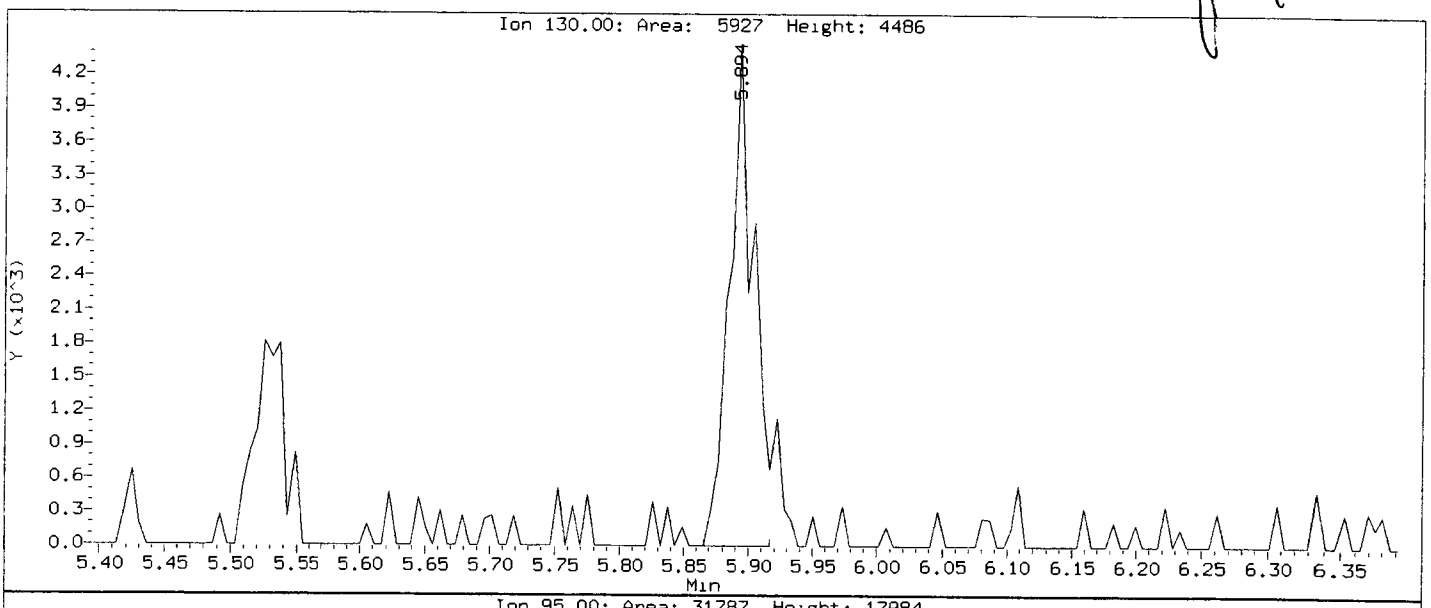


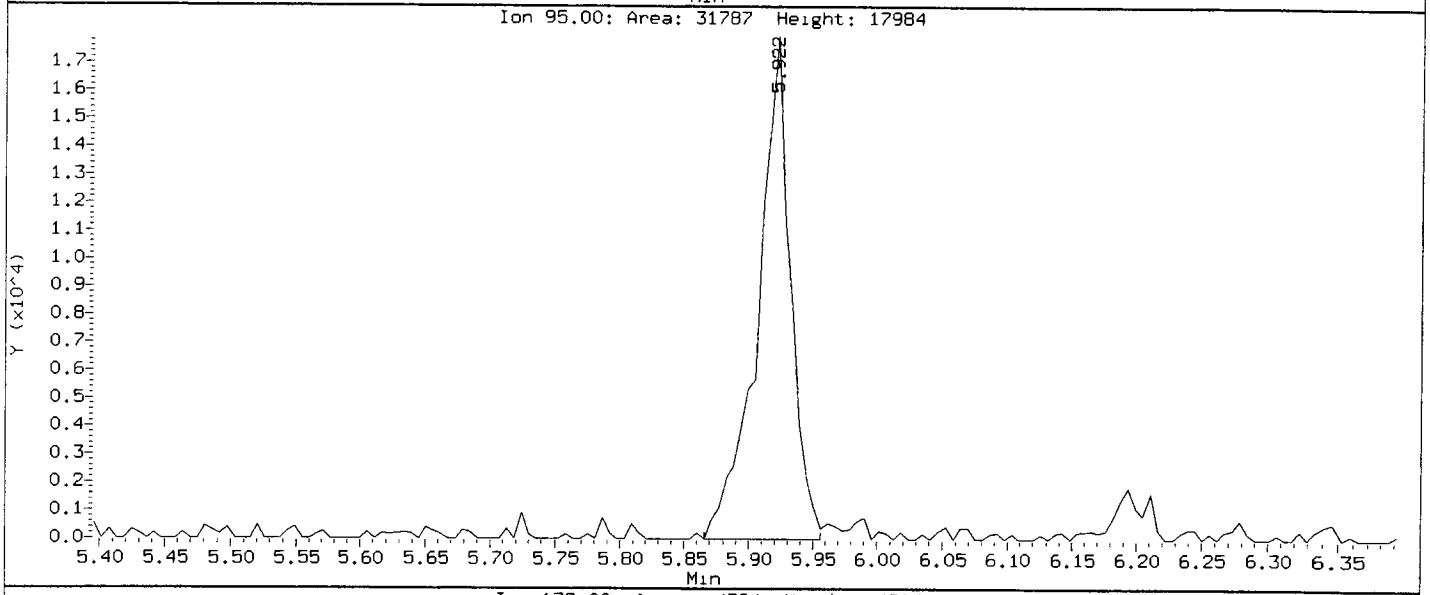


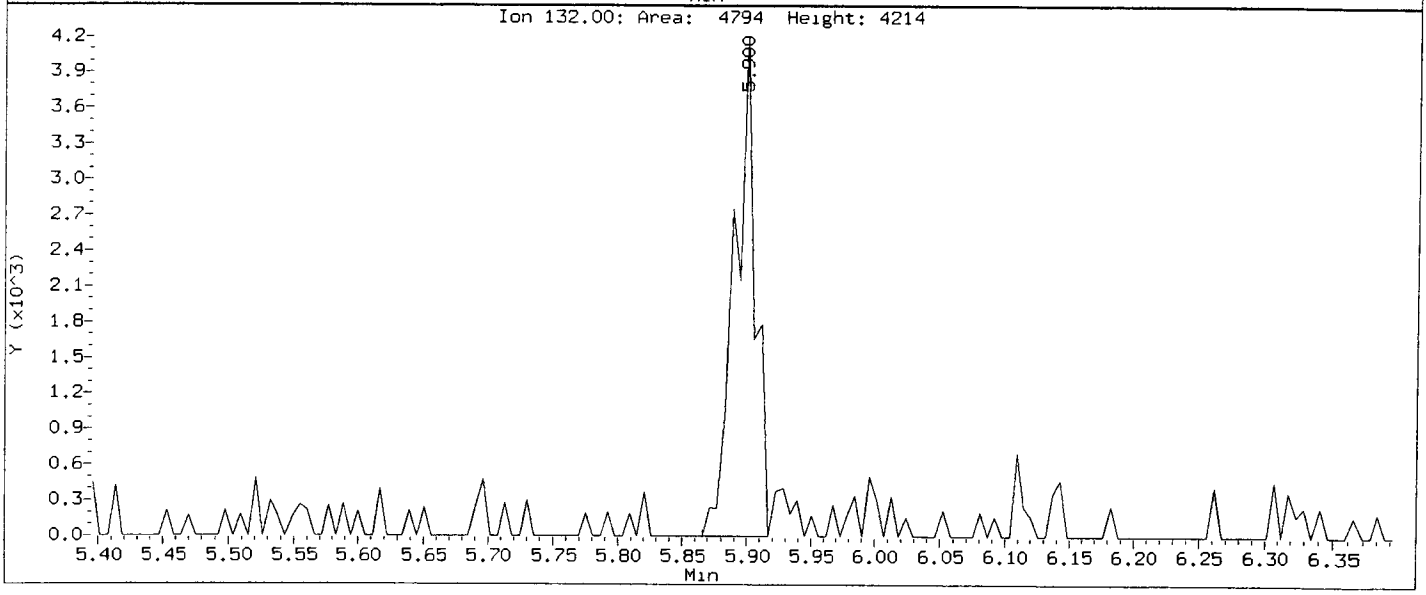
WJ10:00548

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Trichloroethene
CAS Number:

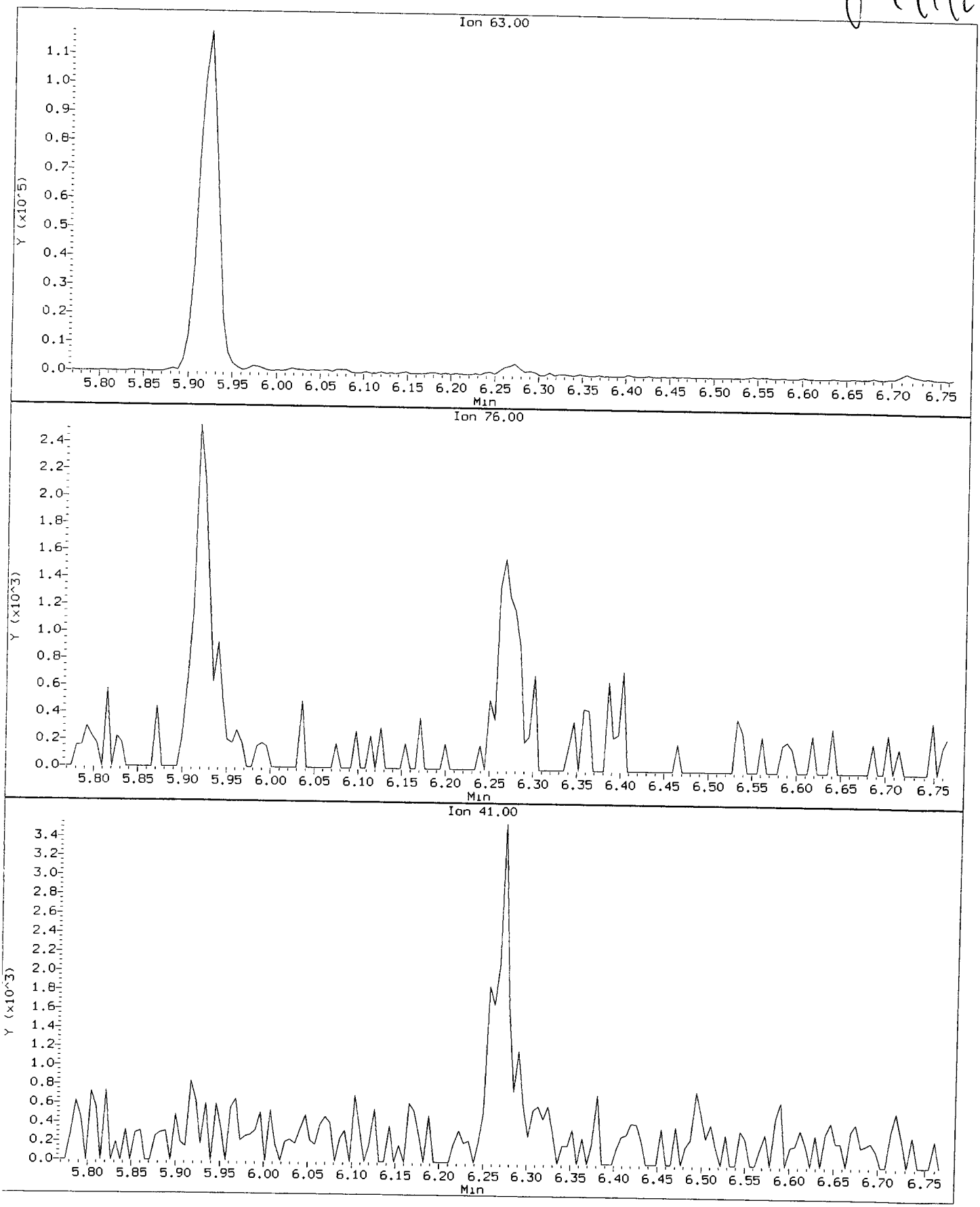






Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

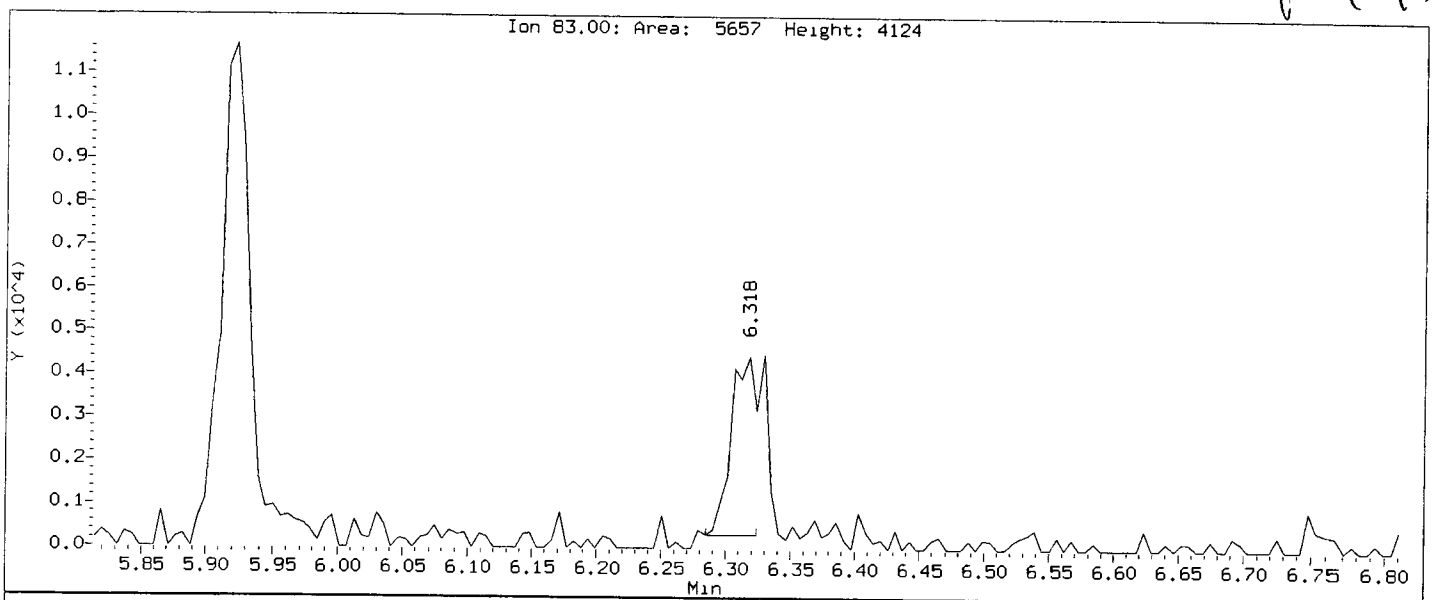
Compound: 1,2-Dichloropropane
CAS Number:

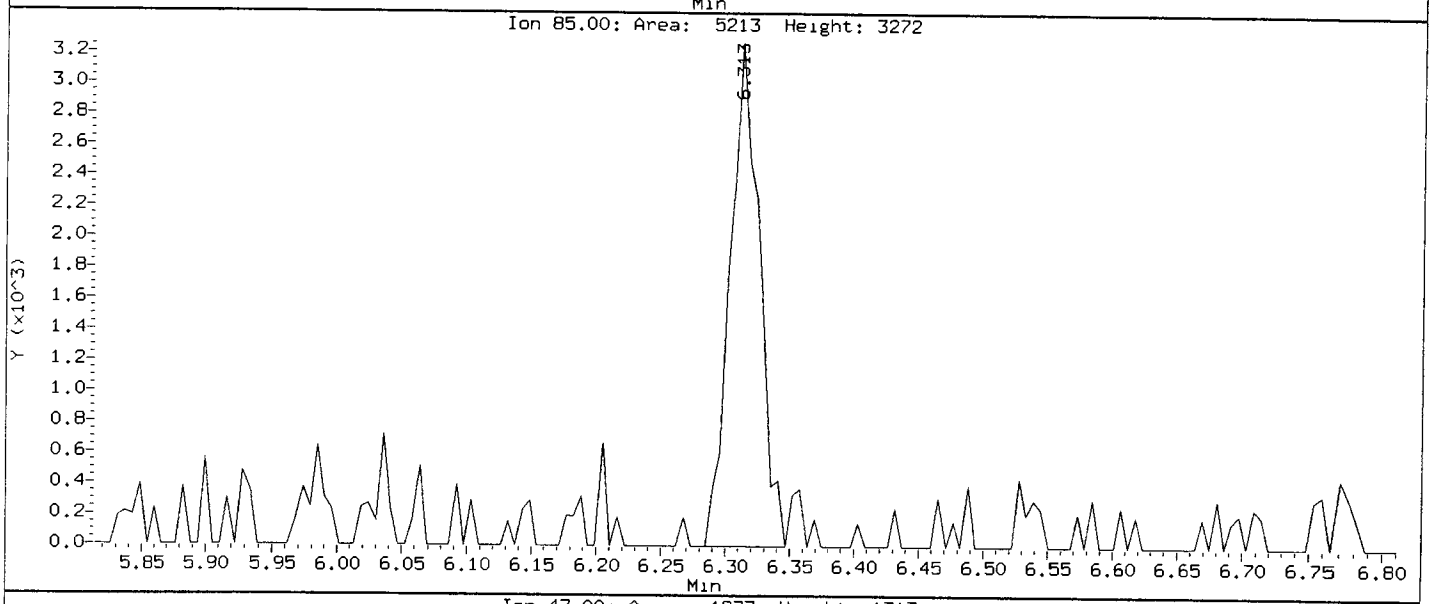


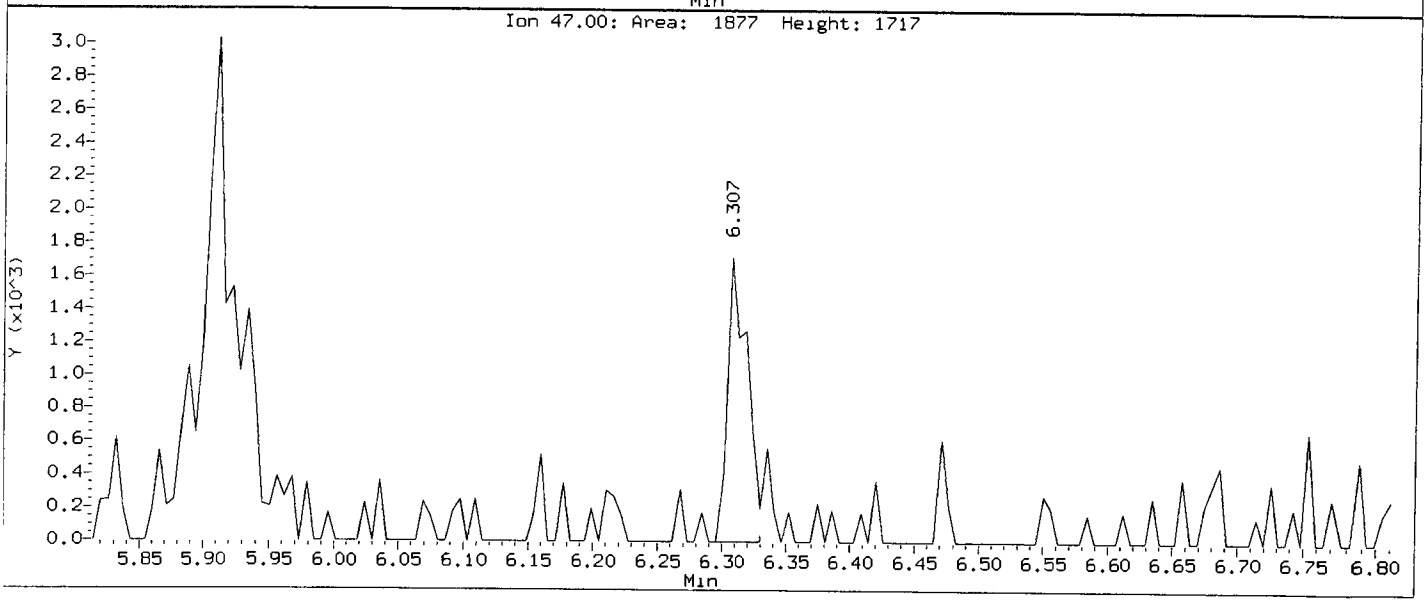
WJ10.00542

Data File: /chem3/nt3.i/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.i
Client Sample ID: VSTD0.2

Compound: Bromodichloromethane
CAS Number:





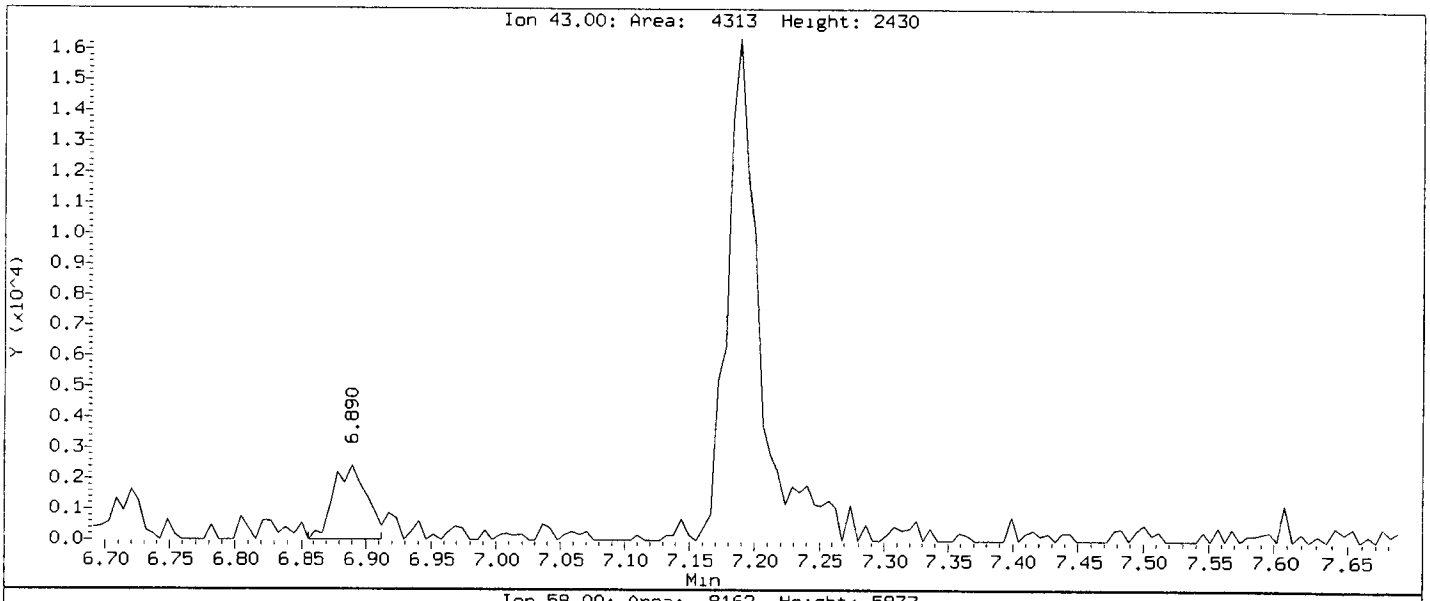


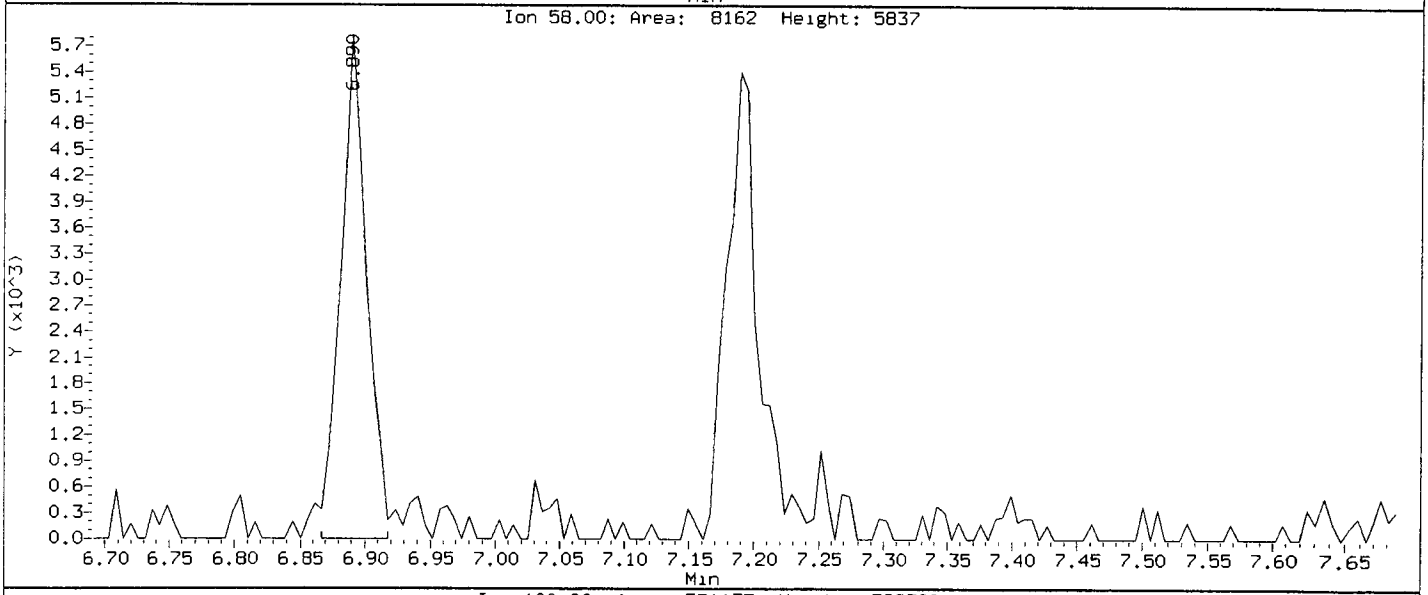
WJ10 : 00543

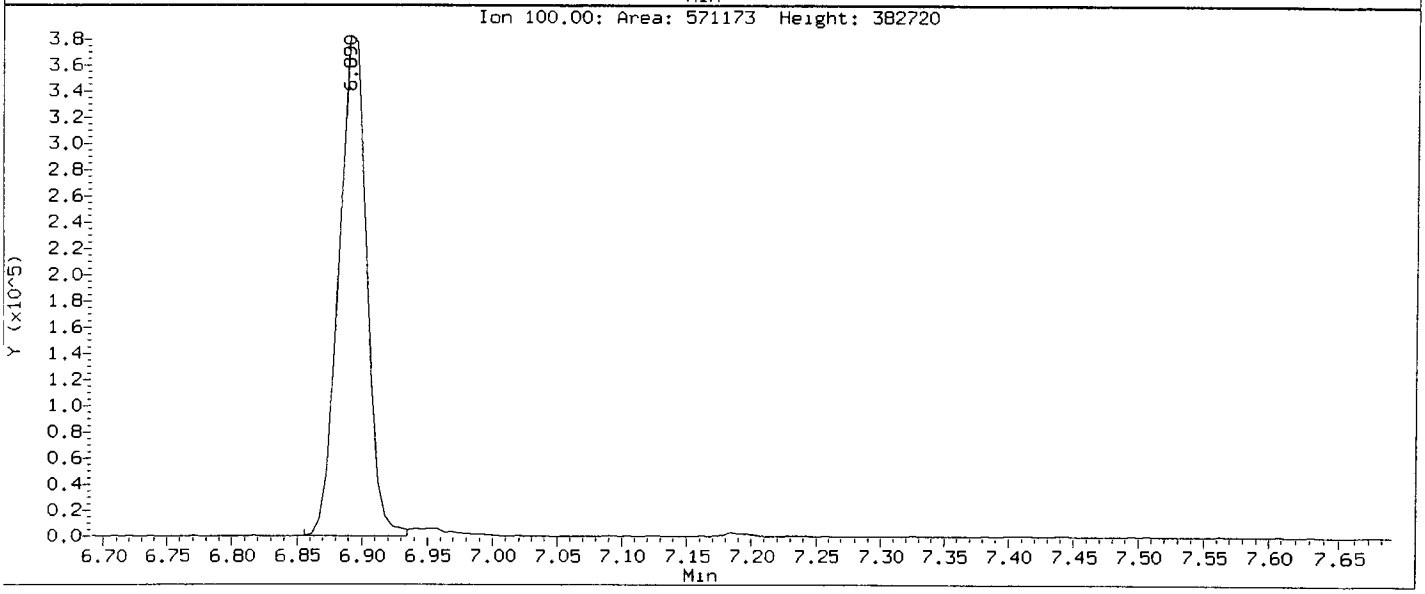
Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: 4-Methyl-2-Pentanone
CAS Number:

P4/16/13

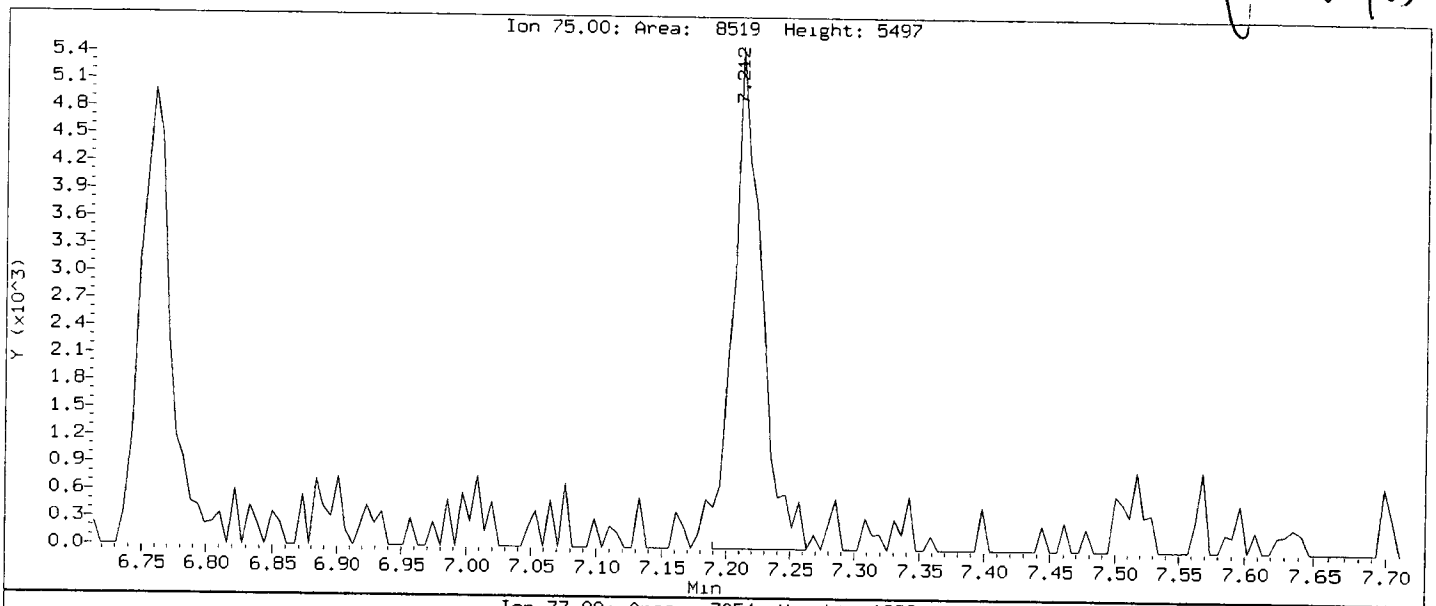


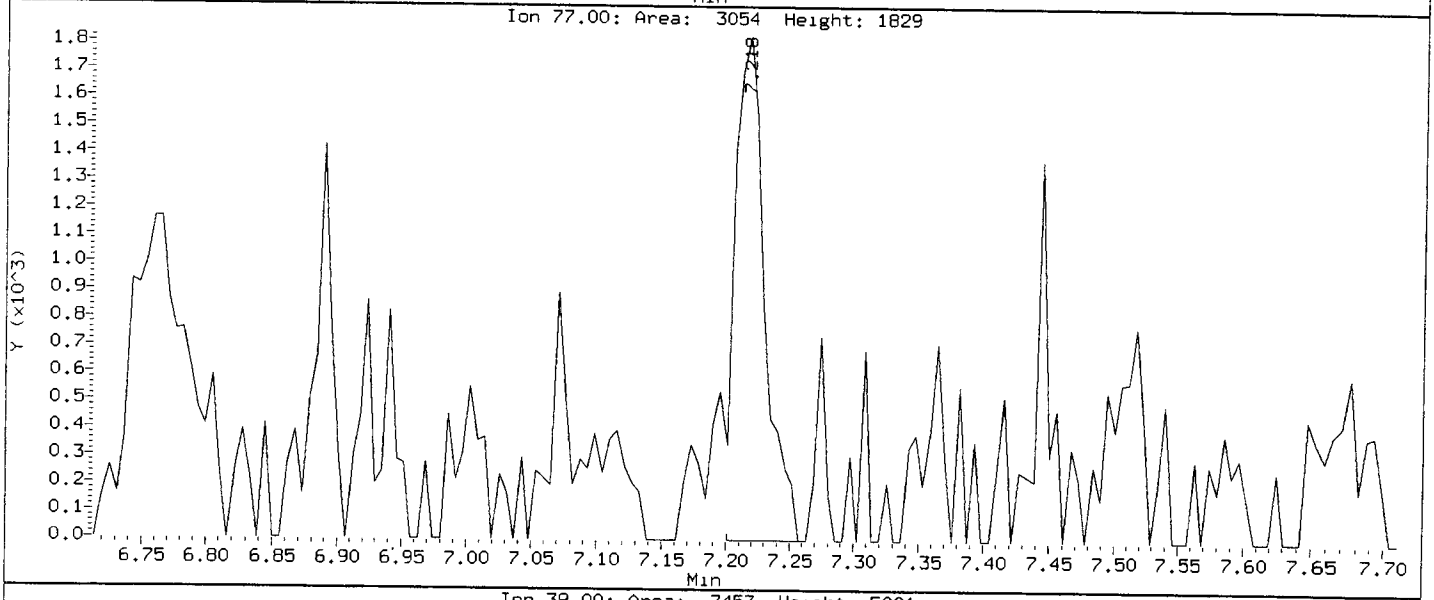


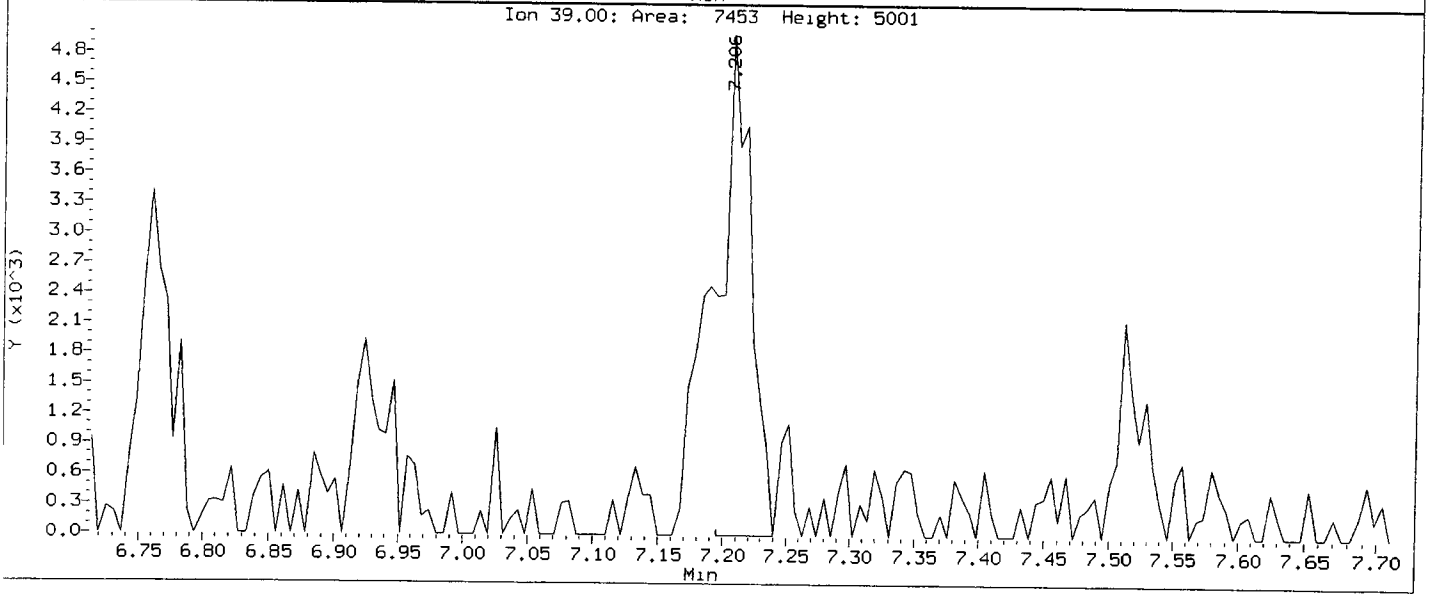


Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Trans 1,3-Dichloropropene
CAS Number:



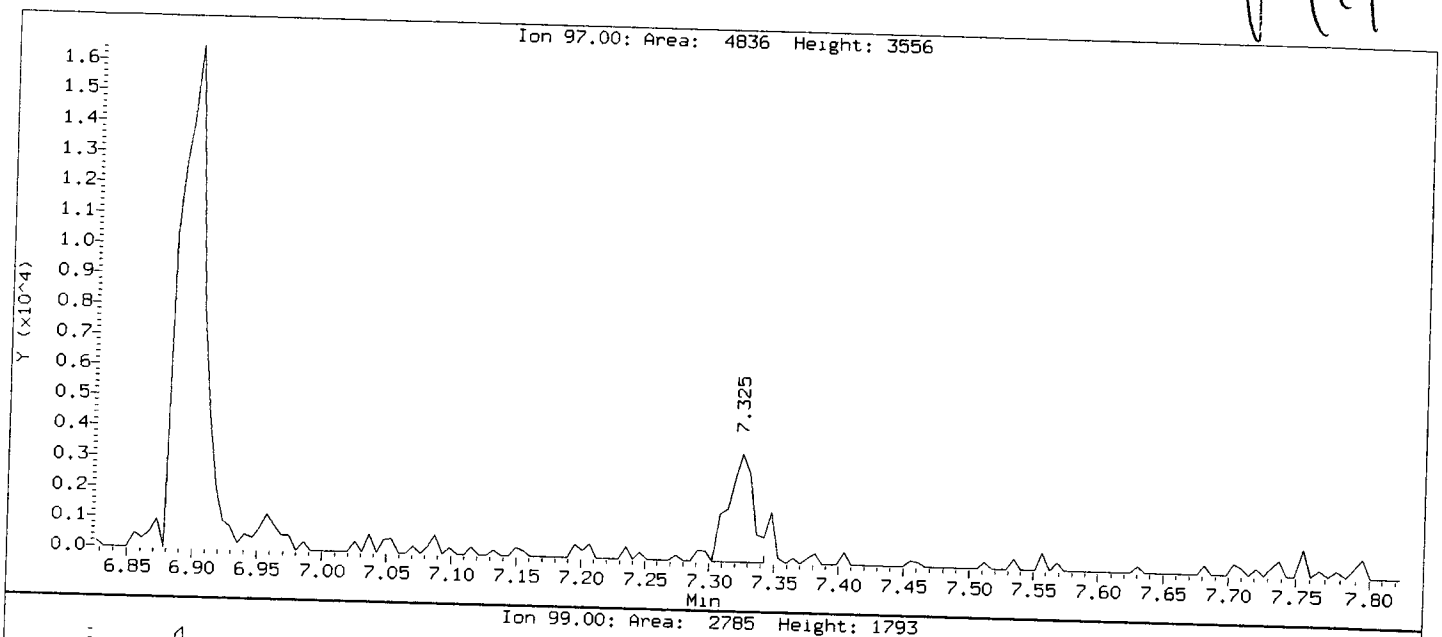


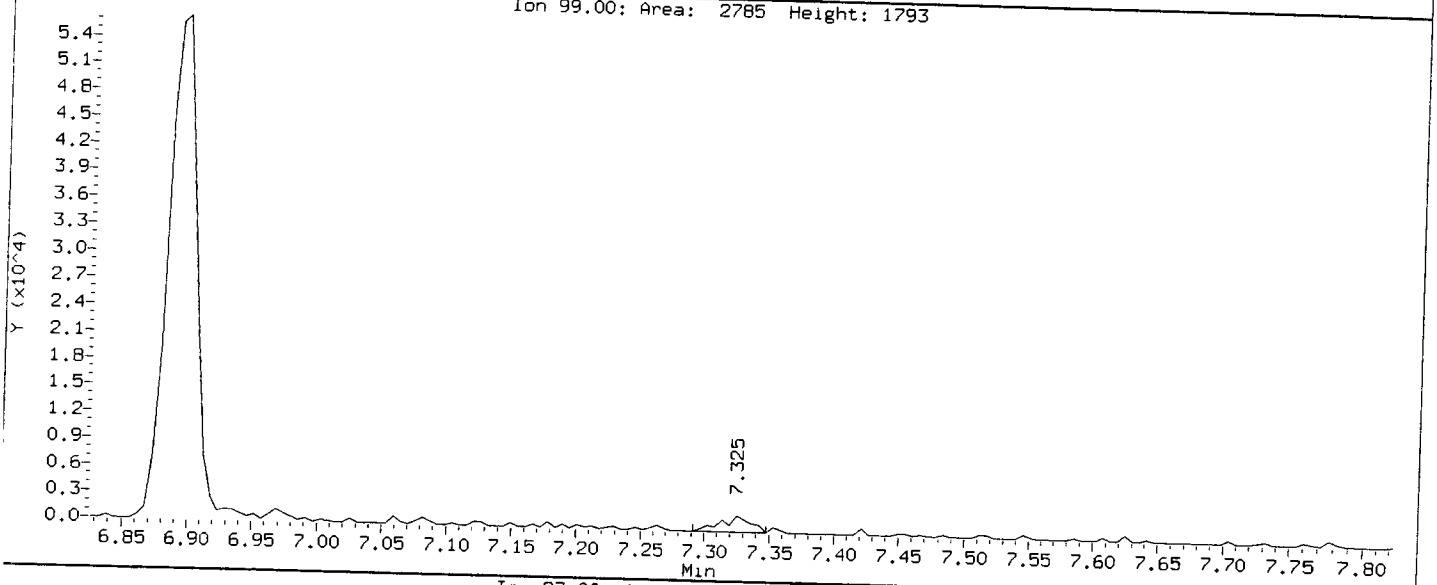


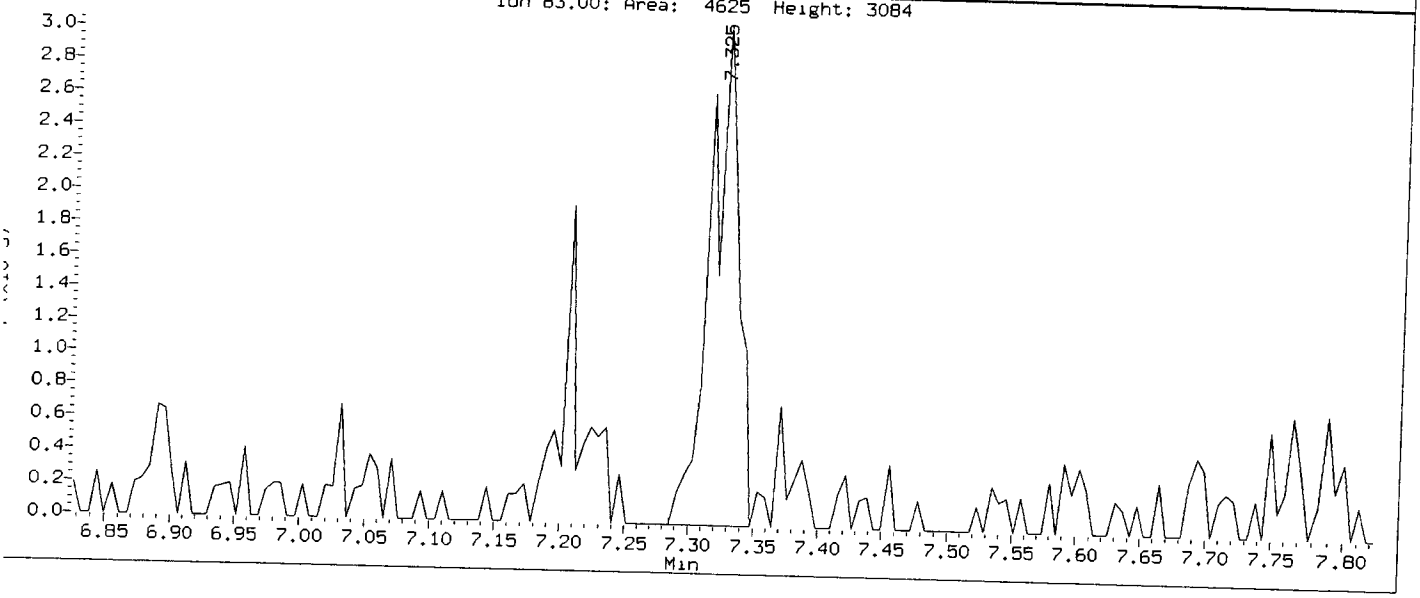
WJ10:00545

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: 1,1,2-Trichloroethane
CAS Number:



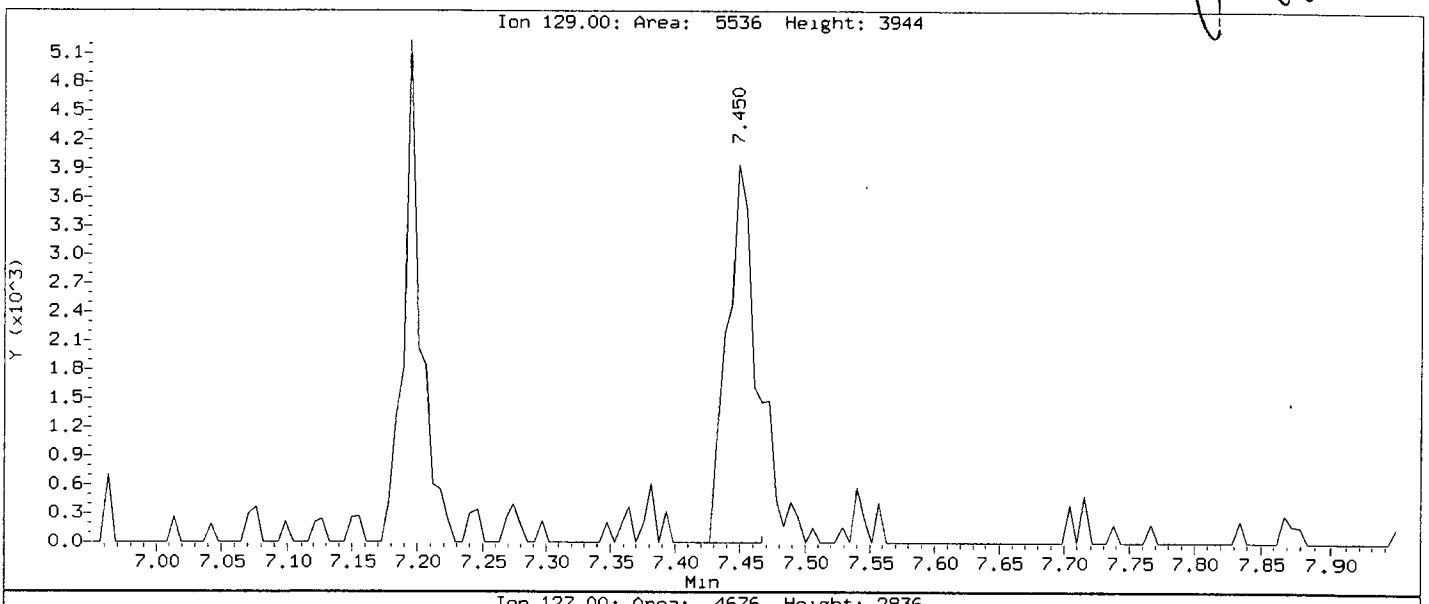


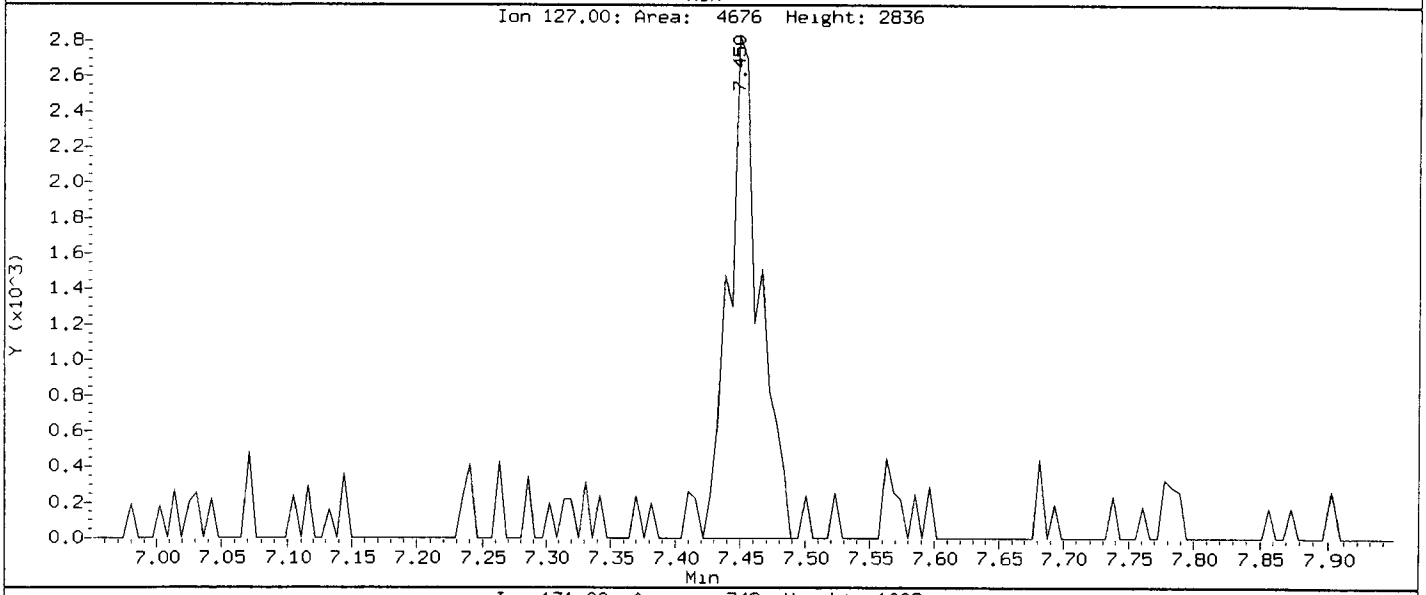


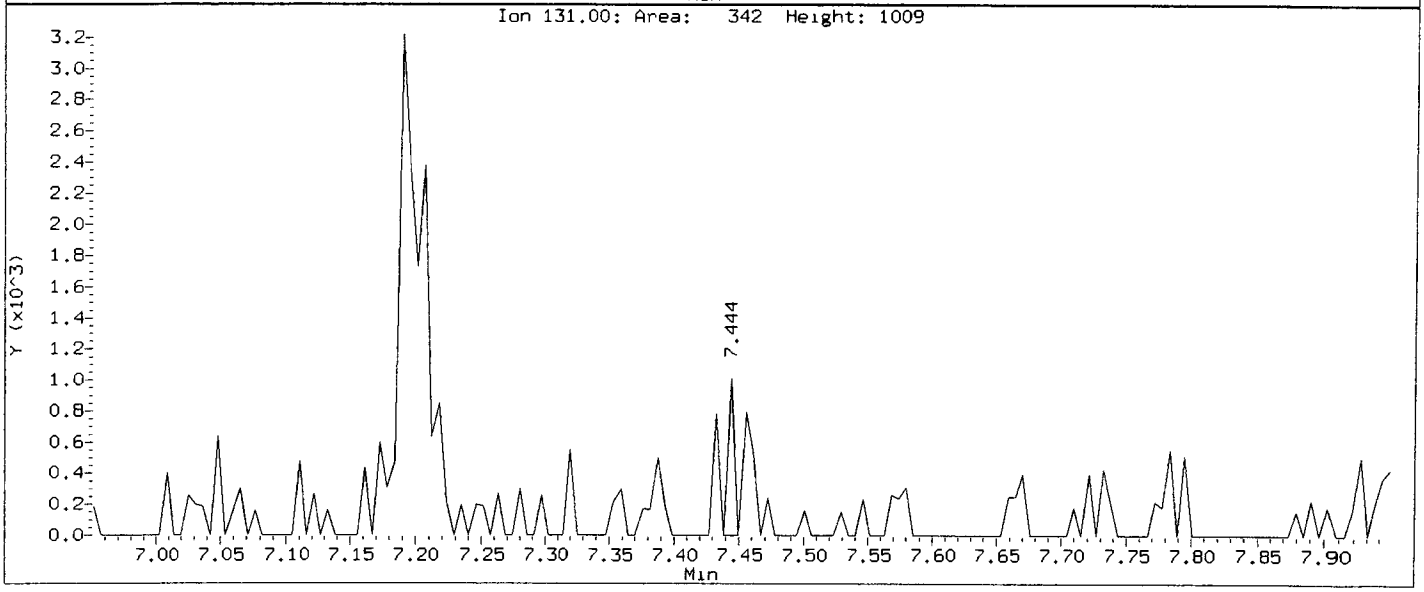
WJ10:00546

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Chlorodibromomethane
CAS Number:

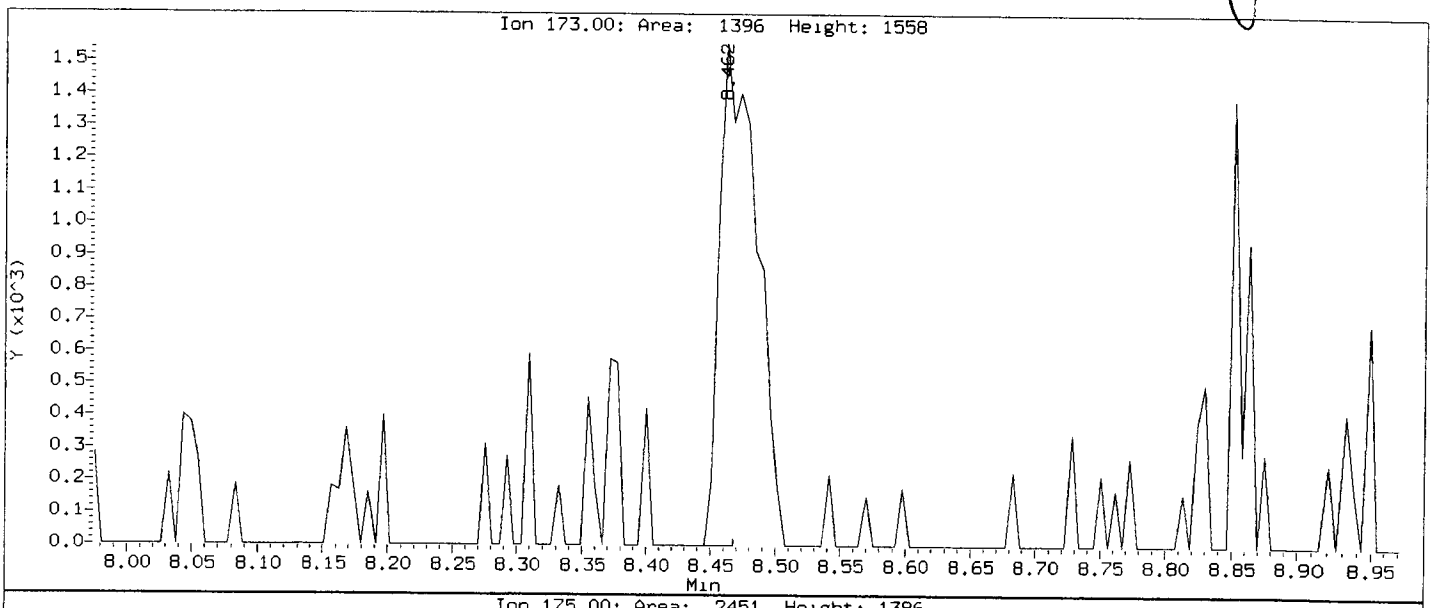


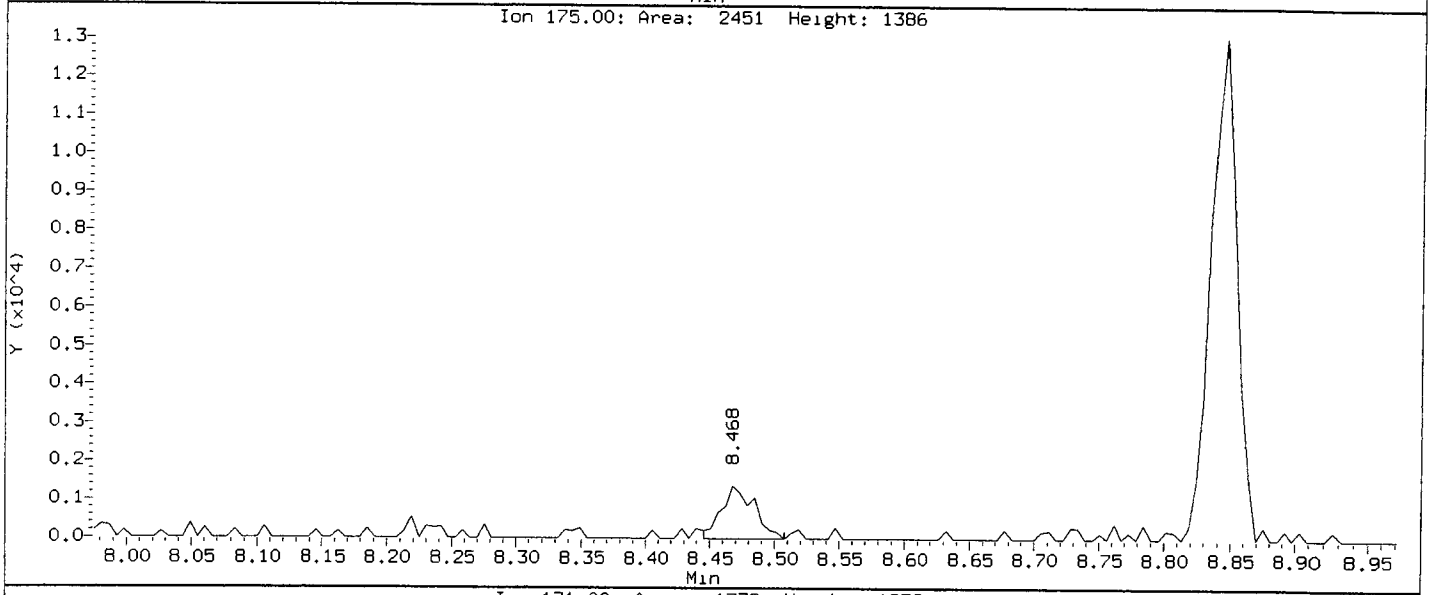


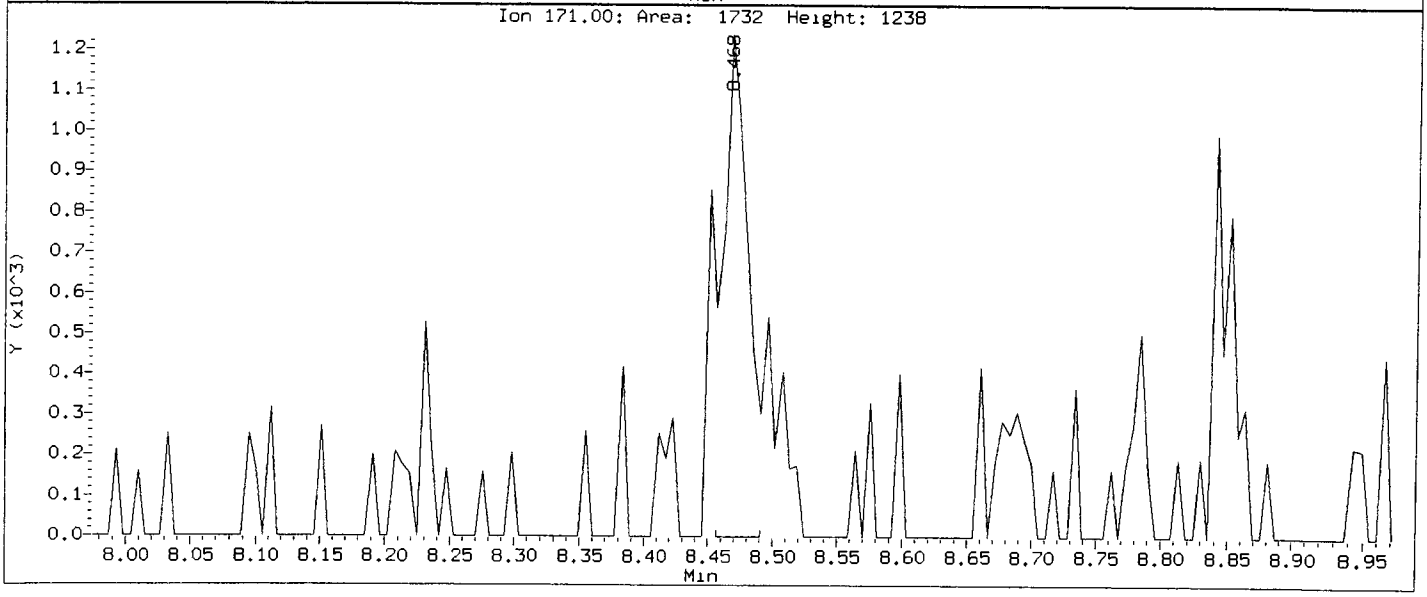


Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Bromoform
CAS Number:



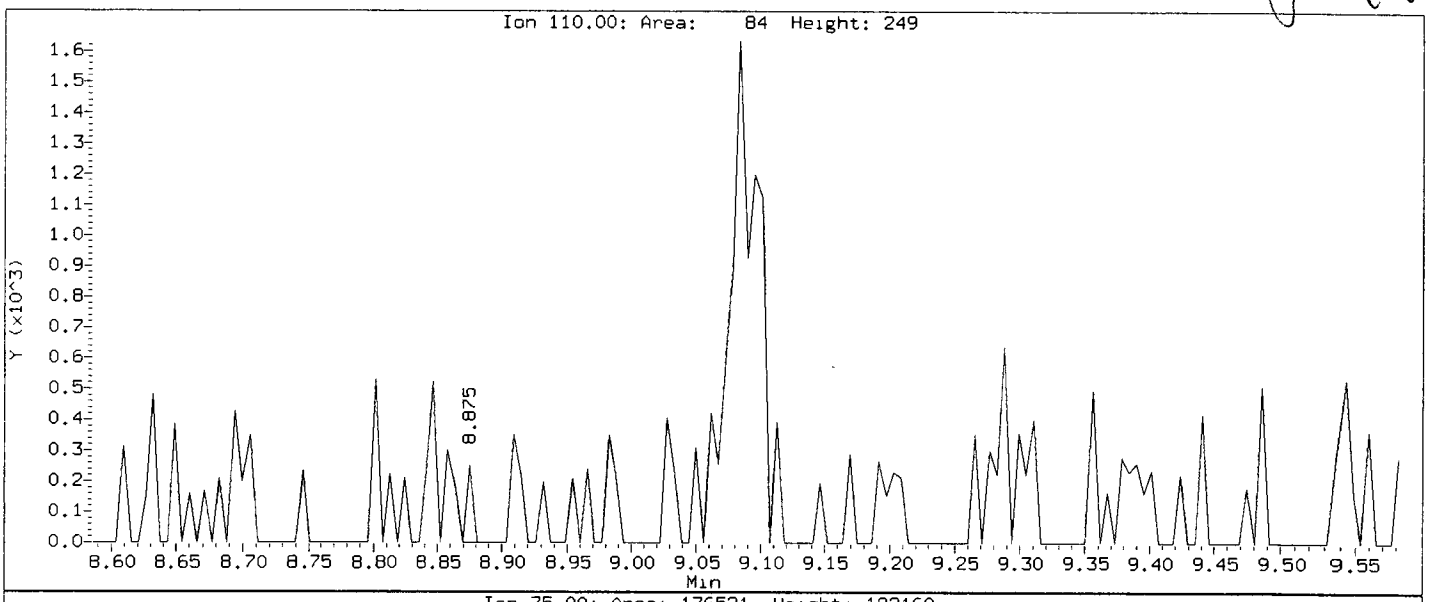


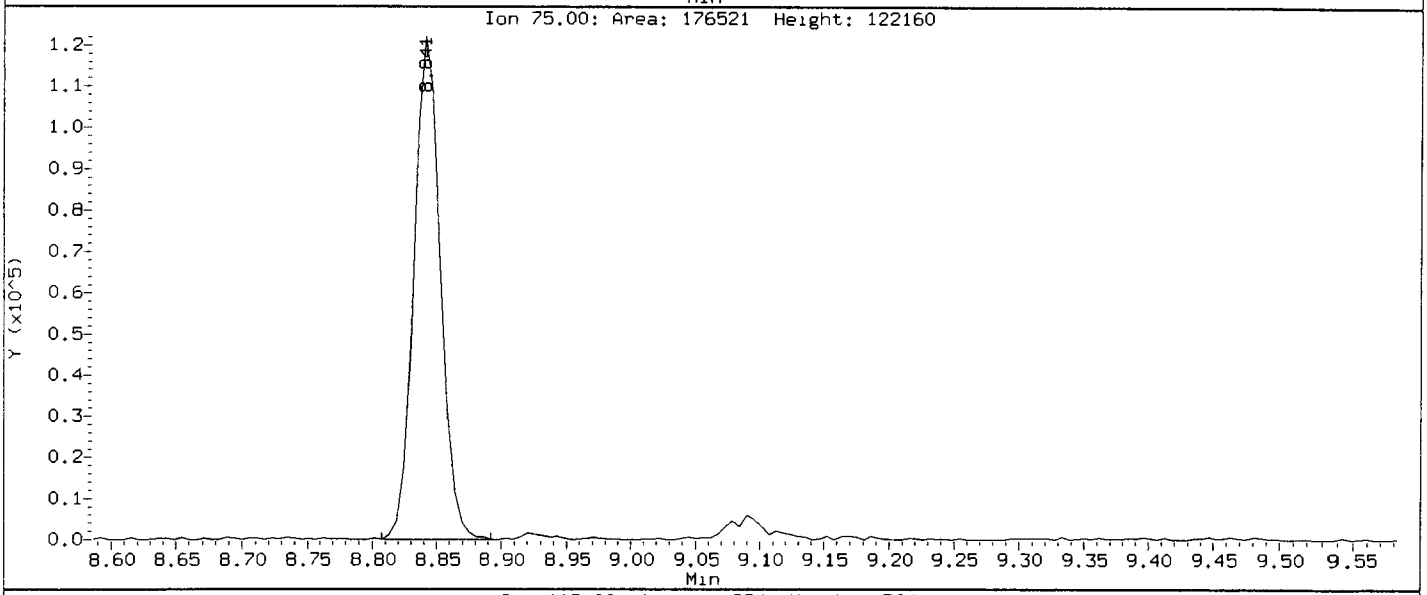


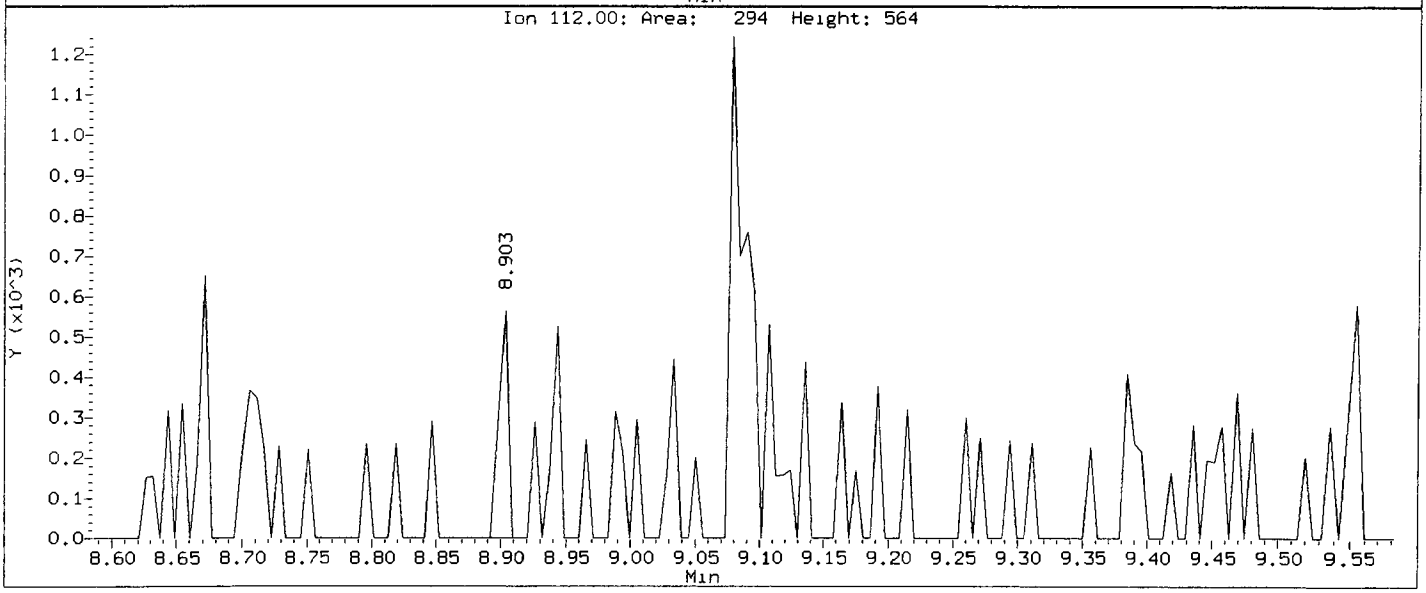
WJ10 · 00548

Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: 1,2,3-Trichloropropane
CAS Number:



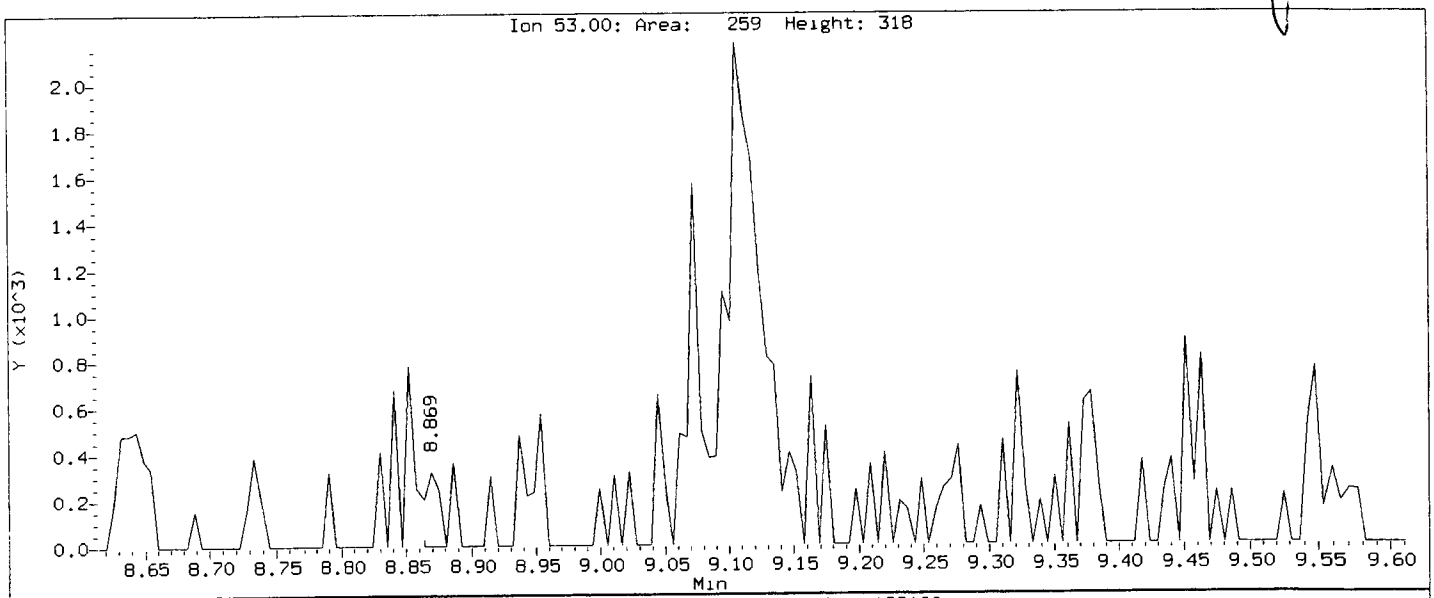


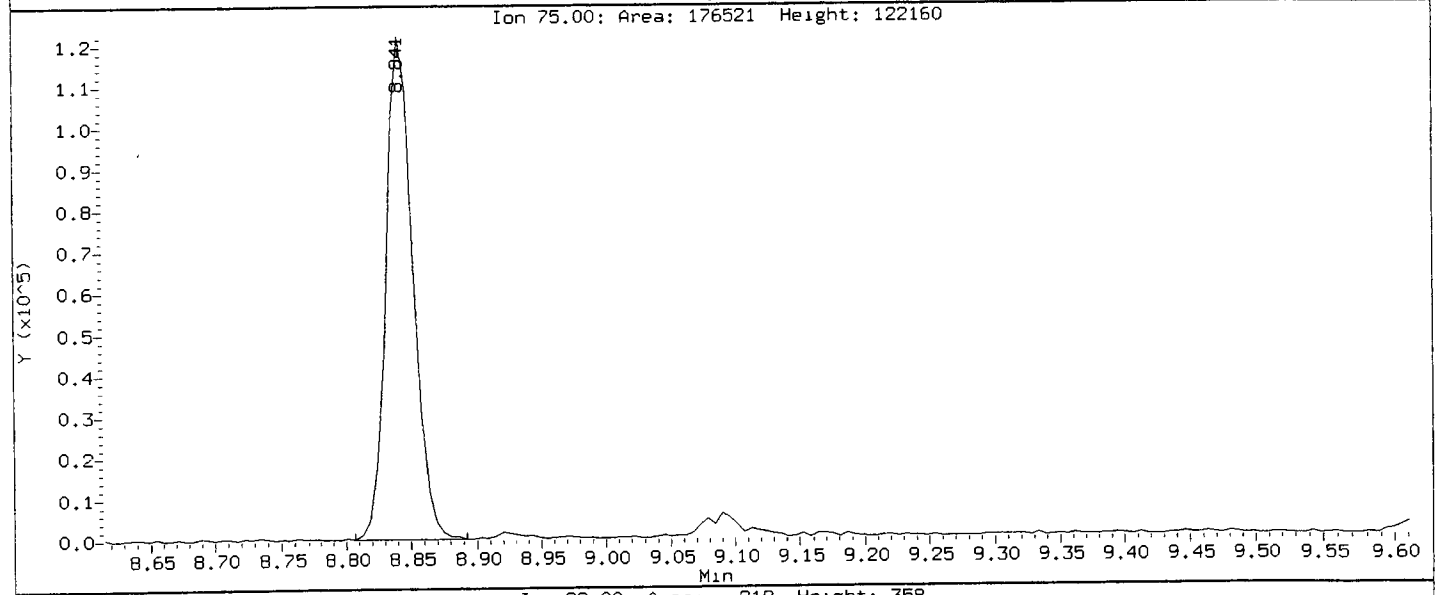


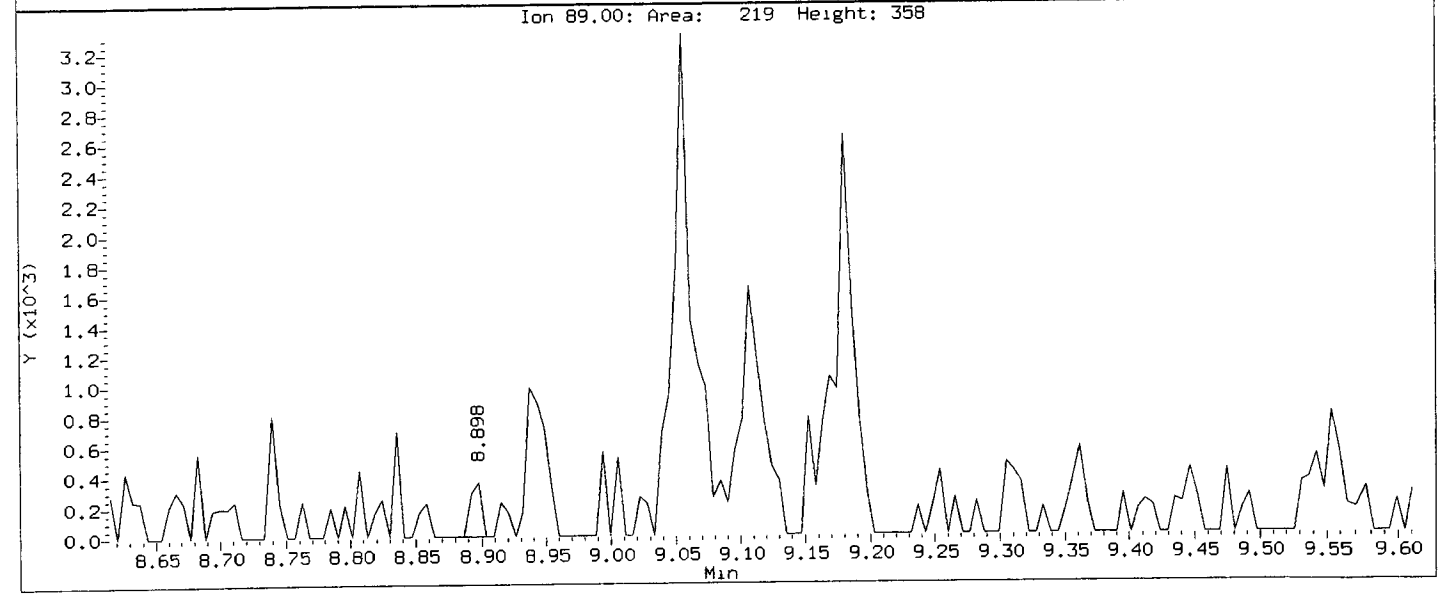
Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: Trans-1,4-Dichloro 2-Butene
CAS Number:

1464



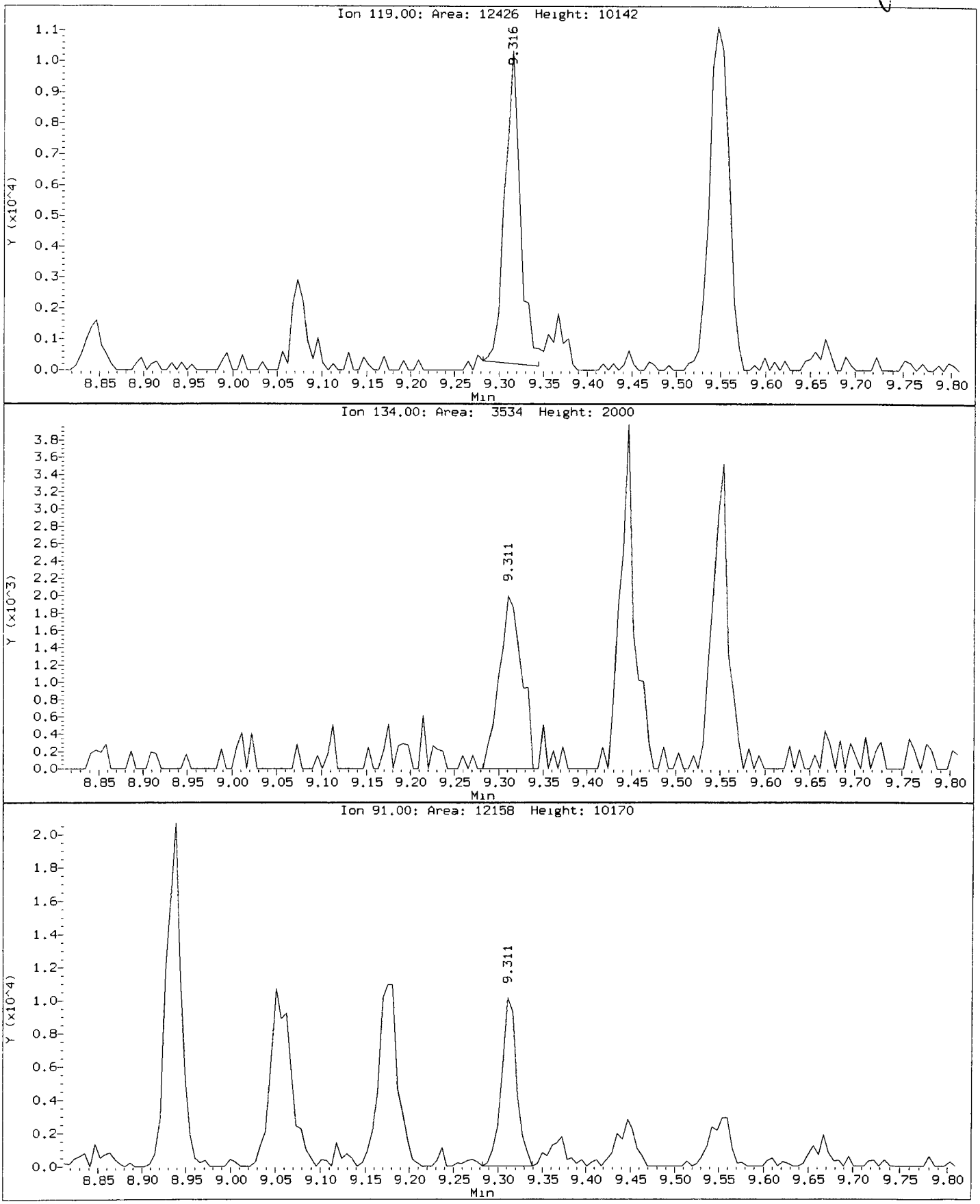




WJ10:00550

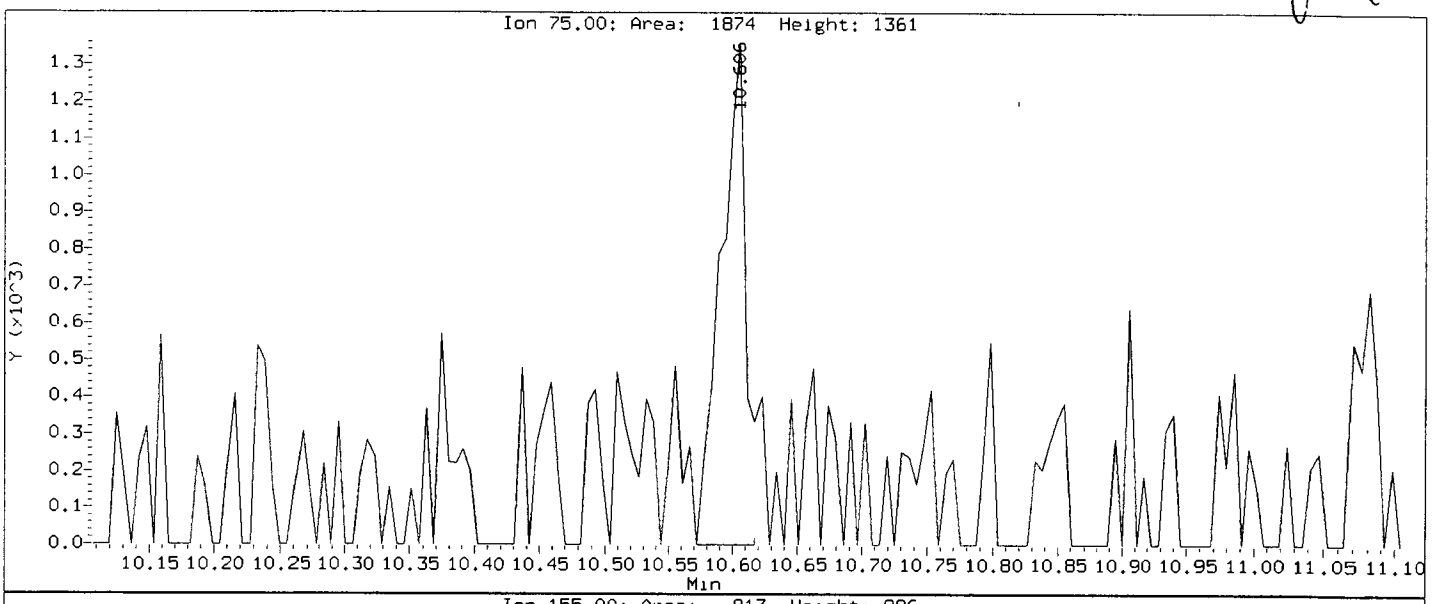
Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

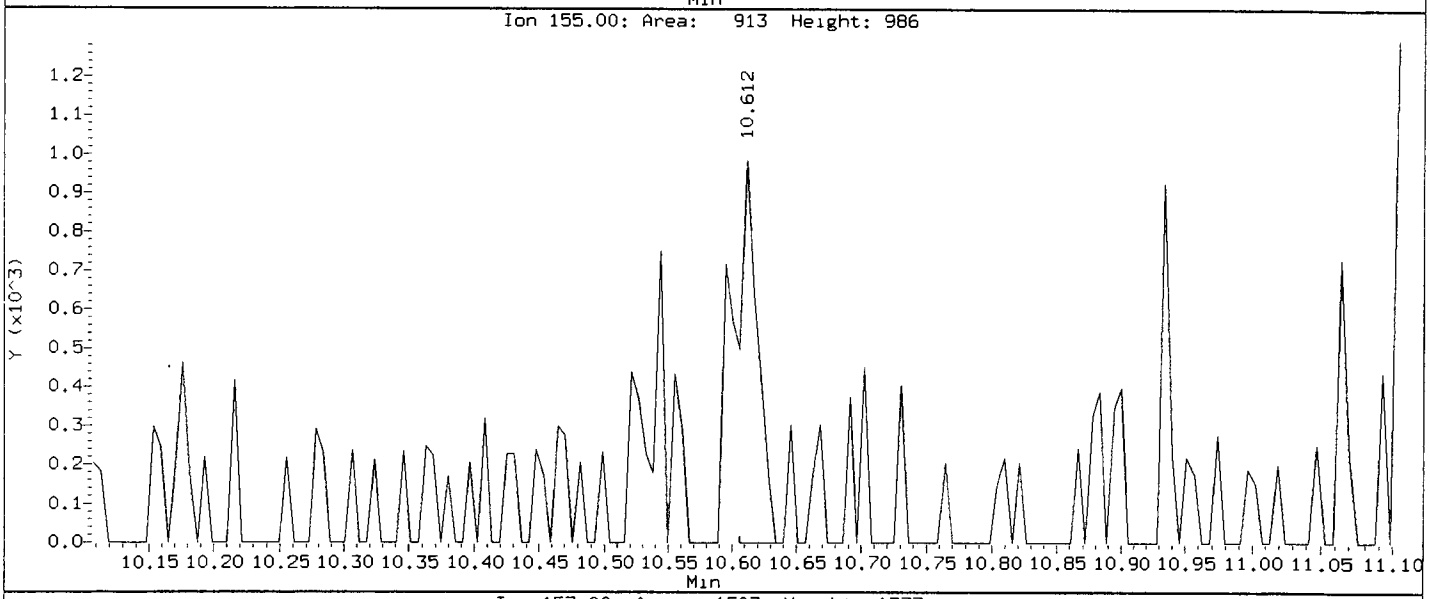
Compound: T-Butyl Benzene
CAS Number:

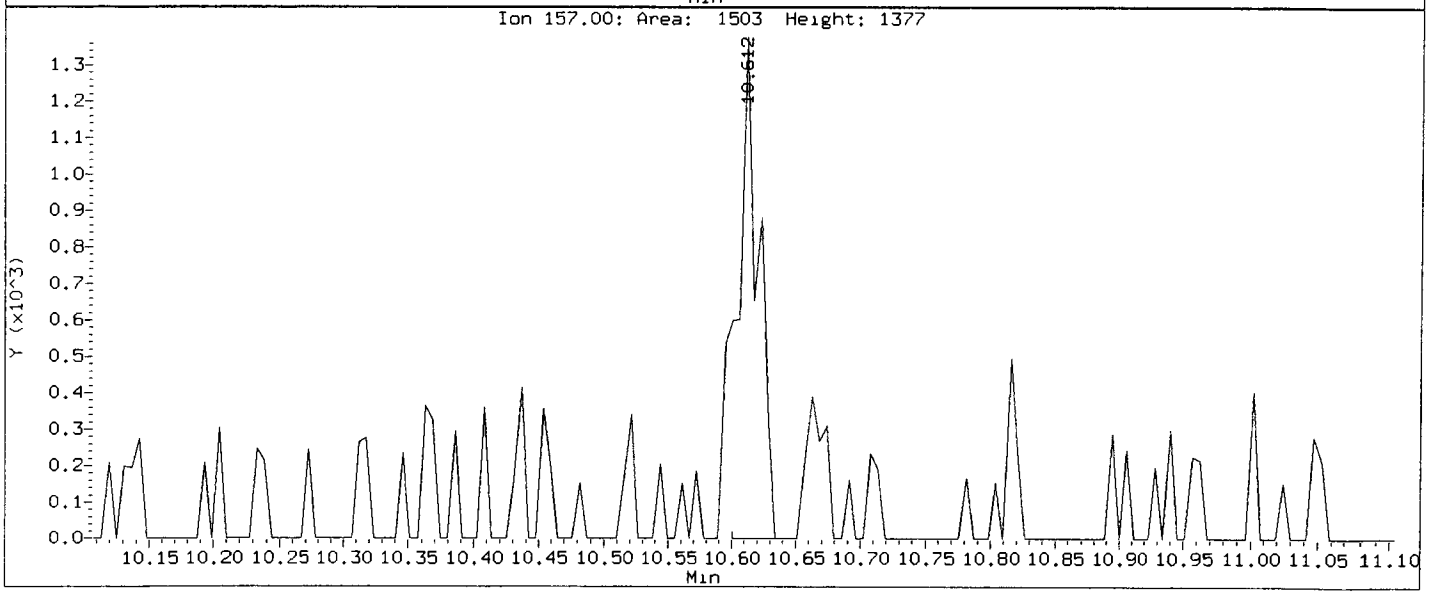


Data File: /chem3/nt3.1/03222013.b/vstd002.d
Injection Date: 22-MAR-2013 12:51
Instrument: nt3.1
Client Sample ID: VSTD0.2

Compound: 1,2-Dibromo 3-Chloropropane
CAS Number:







WI10 : 00552

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-9 Serial No.:GC=US00021704, MS=US80230047

Date: 4/2/14 Analysis: SVMS Analyst: ID

GC Program: 60A Column No: 1032714 Column Type: RTXVMS

Instrument Tune (.U or .CT.): PFBA.U EM Voltage: 2087

Calibration File: nb0402c Curve Date: 4/1/13

IS/SS	Ical/Ccal	LCS/ICV
WJ774-2	WJ792-1	WJ792-1
	WJ792-2 4/4/14	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt9.i/02APR13.b

	Time	Filename	LabID	ClientID	Vial#	pH	DF								
1	0959	bfb0402.d	BFB0402	BFB0402			1								
2	1138	cc0402.d	CC0402	VSTD50			1 | 5 26	930628 | 5.65	1638473 | 7 70	1622570 | 9 39	855442 |			
3	1214	lcs0402.d	LCS0402	LCS0402			1 | 5 26	991631 | 5 64	1760040 | 7.70	1789726 | 9.39	951779 |			
4	1236	lcs0402a.d	LCS0402	LCS0402			1 | 5 26	1008519 | 5 65	1792823 | 7 70	1871112 | 9.39	1015033 |			
5	1258	mb0402 d	MB0402	MB0402			1 | 5 26	922850 | 5 65	1691155 | 7.70	1679714 | 9.39	847557 |			
6	1409	wj65a2 d	WJ65A	MW-4-030			1 | 5 26	880544 | 5 65	1618601 | 7 70	1617812 | 9.39	831887 |			
7	1431	wj65b2.d	WJ65B	MW-4-050			1 | 5 26	862409 | 5 65	1651739 | 7 70	1722778 | 9 39	941596 |			
8	1453	wj65c2 d	WJ65C	MW-4-070			1 | 5 26	955247 | 5 65	1782046 | 7.70	1845166 | 9 39	946073 |			
9	1515	wj10d2 d	WJ10D	SD-CB-01-20130326-S			1 | 5 27	816110 | 5 65	1485966 | 7 70	1444995 | 9.39	706924 |			
10	1538	wj47a2.d	WJ47A	#1			1 | 5.26	780256 | 5 65	1484346 | 7.70	1519398 | 9 39	811281 |			
11	1600	wj62a2.d	WJ62A	PF-PA-8-0313			1 | 5.26	790347 | 5.65	1518917 | 7.70	1585691 | 9.39	824258 |			
12	1738	wj80a0.d	WJ80A	GEI-12-5.0-7.0			1 | 5 26	758564 | 5 65	1457419 | 7 70	1487224 | 9 39	841896 |			
13	1801	wj80b0 d	WJ80B	GEI-12-11.0-15 0			1 | 5.26	1066344 | 5 65	1963048 | 7 70	2062389 | 9.39	1112991 |			
14	1823	wj80c0.d	WJ80C	GEI-12-15.0-17.0			1 | 5 26	1181640 | 5.64	2168674 | 7 70	2239039 | 9 39	1158547 |			
15	1845	wj80e0.d	WJ80E	GEI-11-16 0-17.0			1 | 5.26	1255053 | 5.65	2351678 | 7.70	2431588 | 9 39	1259800 |			
16	1907	wj80f0 d	WJ80F	GEI-11-21 5-22 5			1 | 5 26	1307061 | 5.64	2446850 | 7 70	2451828 | 9.39	1265488 |			
17	1929	wj80g0 d	WJ80G	GEI-11-26 0-26.5			1 | 5 26	1330116 | 5 65	2472493 | 7.70	2519781 | 9 39	1283859 |			
18	1951	wj80h0 d	WJ80H	GEI-10-2-3			1 | 5 26	1294783 | 5.65	2387426 | 7.71	2379077 | 9.39	1191094 |			
19	2013	wj80i0.d	WJ80I	GEI-10-6.5-7 5			1 | 5 26	1321469 | 5.65	2468492 | 7.71	2449980 | 9 39	1254383 |			
20	2036	wj80j0.d	WJ80J	DUP1-032813			1 | 5.26	1279997 | 5.65	2389085 | 7 70	2412029 | 9.39	1228891 |			
21	2058	wj80k0.d	WJ80K	MW-33S-13-14			1 | 5 26	1247680 | 5 65	2326840 | 7 71	2334979 | 9.39	1167668 |			
22	2120	wj8010 d	WJ80L	MW36D-23-24			1 | 5 26	1258284 | 5 65	2350068 | 7 70	2369090 | 9.39	1209303 |			
23	2142	wj80m0 d	WJ80M	DUP-2-032813			1 | 5.26	1257621 | 5.65	2360883 | 7.71	2456662 | 9.39	1274810 |			
24	2204	wj80n0 d	WJ80N	MW33S-17-17 5			1 | 5.26	1322381 | 5.65	2498230 | 7 71	2548792 | 9 39	1355454 |			
25	2226	wj80o0.d	WJ80O	MW36D-31-32			1 | 5.26	1306659 | 5.64	2464978 | 7.70	2518502 | 9.39	1289326 |			
26	2249	wj80p0 d	WJ80P	MW-36S-14-15			1 | 5.26	1320389 | 5 65	2498685 | 7 71	2610364 | 9.39	1349054 |			

Maintena

Maintenance Verification (Identify ICal or CCal ...)

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Initial Calibration Notes

ARI SOP:**404S**(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.3) **710S**(RSK-175)

Instrument: NT-2 NT-3 NT-5 NT-7 NT-9 PID-1 PID-2 PID-3 FID-6

Curve Date(s): 4/1/14 Internal Standard ID WJ774-L Expiration 5/27/14

BFB Tune Meets Criteria?	YES / NO	ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria?	YES / NO	ICV Exceeding ±30%?	YES / NO
Q flag applied?	YES / NO	Linear Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Quadratic Fits Used?	YES / NO
Spectral Library Updated?	YES / NO	Calibration Points Dropped?	YES / NO
Minimum Response Factors Met	YES / NO	Purge Volume (mL)	5

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Ultra	WJ784-L	8/14/13	accustd	WJ767-4	4/9/14
absolute	WJ786-L	8/14/14	SPEX	WJ791-1	3/6/14
↓	WJ790-1	6/30/14	supelco	↓	↓
restek	WJ787-1	6/17/14	Ultra	I794-1	3/31/14

Detail problems, corrective actions and/or other pertinent information below:

linear - chloroethane, bromomethane, TCFM, 2CEVE, 2hexanone, styrene, isopropyl benzene, t butyl benzene, 4 isopropyl toluene

ICV - acetone - 128% R, iodomethane 59% R, VA 53% R, 2CEVE 79% R, 2hexanone - 79% R, trans 1,4 dichloro 2 butene 70% R

Analyst: _____ **Date:** 4/1/14

Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-9 Serial No.:GC=US00021704, MS=US80230047

Date: 4/1/13 Analysis: 8260 C Analyst: KP

GC Program: VOA Column No: 1032714 Column Type: MXY

Instrument Tune (.U or .CT.): BFB1Y EM Voltage: 1905

Calibration File: bfb0401y Curve Date: 4/1/13

IS/SS	Ical/Ccal	LCS/ICV
WJ774-2	WJ742-1	WJ767-4
	WJ742-2	WJ787-1
		I744Y

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt9.i/01APR13.b

	Time	Filename	LabID	ClientID	Vial#	pH	DF							
1	1811	bfb0401a.d					1							
2	1833	bfb0401b.d	BFB0401	BFB0401			1							
3	2130	0010401.d	IC0401	VSTD1			1	5.26	719911	5.65	1268810	7.70	1277875	9 39 659708
4	1855	2000401.d	IC0401	VSTD200			1	5.26	860269	5.65	1436428	7.71	1455504	9 39 761389
5	1917	1500401 d	IC0401	VSTD150			1	5.26	950760	5 65	1631942	7.71	1683683	9.39 908570
6	1939	1000401.d	IC0401	VSTD100			1	5 26	970525	5 64	1665482	7.71	1724011	9.39 927545
7	2002	0500401.d	IC0401	VSTD50			1	5.26	941473	5 65	1617500	7.71	1675930	9.39 909458
8	2024	0100401.d	IC0401	VSTD10			1	5.26	934883	5.65	1607018	7.71	1685432	9.39 888613
9	2046	0050401.d	IC0401	VSTD5			1	5 26	829667	5.65	1450336	7.70	1496568	9 39 802249
10	2108	0020401 d	IC0401	VSTD2			1	5.26	777269	5 65	1358871	7.71	1389931	9.39 725014
11	2152	icv0401.d	ICV0401	ICV0401			1	5.26	759273	5 65	1340068	7.70	1397592	9 39 764057

4/2/13

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Data File: /chem1/nt9.i/01APR13.b/bfb0401b.d

Date : 01-APR-2013 18:33

Client ID:

Instrument: nt9.i

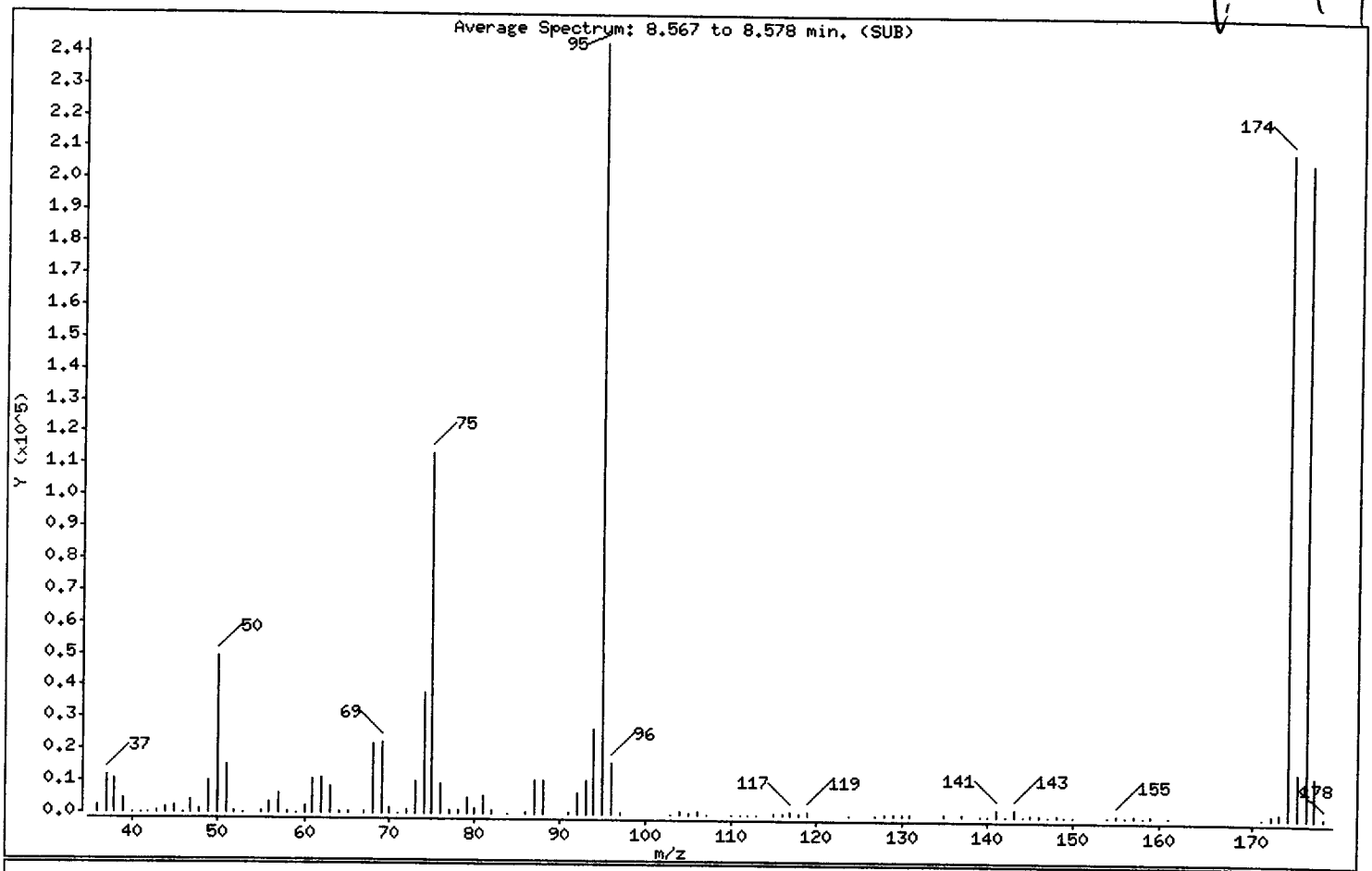
Sample Info: BFB0401,BFB0401,,1,01APR13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.14
75	30.00 - 66.00% of mass 95	46.75
96	5.00 - 9.00% of mass 95	6.69
173	Less than 2.00% of mass 174	0.62 (0.72)
174	50.00 - 101.00% of mass 95	86.39
175	4.00 - 9.00% of mass 174	6.02 (6.97)
176	95.00 - 101.00% of mass 174	85.06 (98.46)
177	5.00 - 9.00% of mass 176	5.54 (6.52)

Data File: /chem1/nt9.i/01APR13.b/bfb0401b.d

Date : 01-APR-2013 18:33

Client ID:

Instrument: nt9.i

Sample Info: BFB0401,BFB0401,,1,01APR13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

Data File: bfb0401b.d

Spectrum: Average Spectrum: 8.567 to 8.578 min. (SUB)

Location of Maximum: 95.00

Number of points: 107

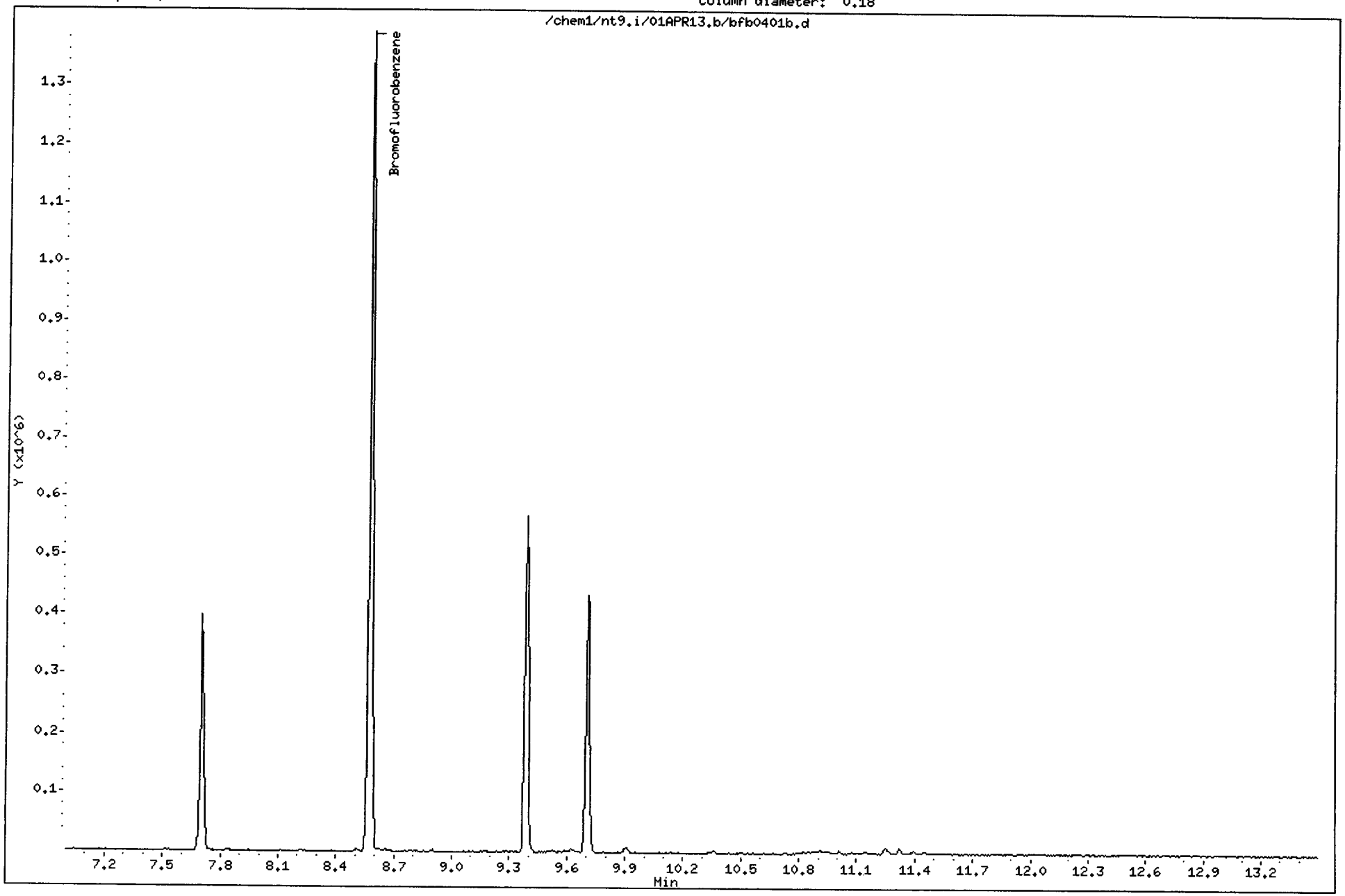
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2383	64.00	822	96.00	16280	142.00	208
37.00	11555	65.00	586	97.00	525	143.00	2460
38.00	10405	67.00	609	103.00	66	144.00	172
39.00	4396	68.00	21624	104.00	950	145.00	309
40.00	143	69.00	22328	105.00	342	146.00	342
41.00	205	70.00	1608	106.00	861	147.00	149
42.00	82	71.00	206	107.00	225	148.00	566
43.00	340	72.00	1193	110.00	51	149.00	162
44.00	1710	73.00	10313	111.00	237	150.00	248
45.00	2246	74.00	38168	112.00	59	152.00	54
46.00	188	75.00	113736	113.00	264	153.00	181
47.00	3756	76.00	9284	115.00	333	154.00	107
48.00	1328	77.00	1357	116.00	655	155.00	598
49.00	10226	78.00	979	117.00	1329	156.00	81
50.00	48992	79.00	4832	118.00	830	157.00	328
51.00	15237	80.00	1479	119.00	1123	158.00	55
52.00	647	81.00	5512	124.00	53	159.00	367
53.00	149	82.00	1193	127.00	65	161.00	143
55.00	706	84.00	56	128.00	830	171.00	130
56.00	3458	86.00	397	129.00	300	172.00	1255
57.00	6080	87.00	10883	130.00	774	173.00	1520
58.00	332	88.00	10416	131.00	459	174.00	210176
59.00	51	91.00	733	135.00	395	175.00	14646
60.00	2229	92.00	6503	137.00	452	176.00	206912
61.00	10891	93.00	10454	139.00	55	177.00	13484
62.00	10943	94.00	27080	140.00	124	178.00	292
63.00	8535	95.00	243264	141.00	2239		

Data File: /chem1/nt9.i/01APR13.b/bfb0401b.d
Date : 01-APR-2013 18:33
Client ID:
Sample Info: BFB0401,BFB0401,,1,01APR13,,

Instrument: nt9.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/VO121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Calibration File Names:
Level 1: /chem1/nt9.i/01APR13.b/0010401.d
Level 2: /chem1/nt9.i/01APR13.b/0020401.d
Level 3: /chem1/nt9.i/01APR13.b/0050401.d
Level 4: /chem1/nt9.i/01APR13.b/0100401.d
Level 5: /chem1/nt9.i/01APR13.b/0500401.d
Level 6: /chem1/nt9.i/01APR13.b/1000401.d
Level 7: /chem1/nt9.i/01APR13.b/1500401.d
Level 8: /chem1/nt9.i/01APR13.b/2000401.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
	150 Level 7	200 Level 8									
1 Dichlorodifluoromethane	0.43707	0.39513	0.35765	0.34912	0.37860	0.44076					
	0.41910	0.40089					AVRG		0.39729		8.61818
2 Chloromethane	17633	31848	76160	162462	616923	1445651					
	2031625	2167983					LINR	0.000e+00	0.67453		0.99114
3 Vinyl Chloride	0.60626	0.64813	0.64519	0.62416	0.57293	0.67449					
	0.64728	0.62212					AVRG		0.63007		4.93012

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/VO121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
4 Bromomethane	9056	18444	42724	81400	293936	681788					
	922351	+++++					LINR	0.000e+00	0.33175		0.99622
5 Chloroethane	0.26184	0.25574	0.22279	0.21837	0.18719	0.20655					
	0.19597	0.19021					AVRG		0.21733		13.13347
6 Trichlorofluoromethane	10130	18884	31747	64435	295936	699332					
	1008912	1363336					LINR	0.000e+00	0.37733		0.99324
7 1,1-Dichloroethene	0.45200	0.47027	0.44913	0.45491	0.37174	0.43757					
	0.41261	0.29310					AVRG		0.41767		14.12730
8 Carbon Disulfide	1.55054	1.55123	1.54425	1.51079	1.31490	1.53596					
	1.45253	0.99990					AVRG		1.43251		13.42045
9 112Trichloro122Trifluoroethan	0.40067	0.45267	0.43052	0.44066	0.37034	0.44387					
	0.43558	0.43173					AVRG		0.42576		6.35861
10 Iodomethane	0.33351	0.31974	0.31762	0.29207	0.19892	0.25693					
	0.25672	0.23833					AVRG		0.27673		16.89597

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/VO121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	 m1	 m2	%RSD or R^2
	150 Level 7	200 Level 8									
11 Bromoethane	0.27962	0.31045	0.30362	0.31400	0.26531	0.29997					
	0.28570	0.26977					AVRG		0.29105		6.38215
12 Acrolein	0.09787	0.09607	0.09007	0.08513	0.08283	0.08671					
	0.08606	0.08538					AVRG		0.08876		6.16520
13 Methylene Chloride	+++++	0.59706	0.54828	0.53921	0.44321	0.49507					
	0.47859	0.44550					AVRG		0.50670		11.29459
14 Acetone	0.17126	0.16434	0.13829	0.12410	0.11487	0.12127					
	0.12002	0.09649					AVRG		0.13133		19.30213
15 Trans-1,2-Dichloroethene	0.54910	0.52266	0.50525	0.51918	0.41467	0.48896					
	0.47155	0.45814					AVRG		0.49119		8.65879
16 Methyl tert butyl ether	1.17056	1.20264	1.22025	1.22120	1.12951	1.24546					
	1.22339	1.10871					AVRG		1.19021		4.12638
17 1,1-Dichloroethane	0.93116	0.96231	0.94596	0.94843	0.79199	0.92409					
	0.90000	0.86389					AVRG		0.90848		6.21097

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/VO121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	150 Level 7	200 Level 8										
18 Acrylonitrile	0.19836	0.18571	0.17548	0.16122	0.15168	0.16222						
	0.16122	0.16079					AVRG		0.16958		9.23005	
19 Vinyl Acetate	0.89379	0.99727	0.96301	0.94949	0.93227	1.00587						
	0.99273	0.96086					AVRG		0.96191		3.89156	
20 Cis-1,2-Dichloroethene	0.54153	0.58281	0.50073	0.50869	0.42056	0.47934						
	0.46283	0.43693					AVRG		0.49168		10.92584	
21 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
22 2,2-Dichloropropane	0.64855	0.67010	0.67155	0.70282	0.61124	0.72901						
	0.72574	0.72838					AVRG		0.68592		6.27317	
23 Bromochloromethane	0.23058	0.25300	0.24552	0.24799	0.22224	0.24538						
	0.23752	0.20180					AVRG		0.23550		7.17791	
24 Chloroform	0.86545	0.86350	0.86748	0.88654	0.75264	0.86970						
	0.85786	0.81375					AVRG		0.84712		5.13357	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/VO121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
25 Carbon Tetrachloride	0.28476	0.30380	0.30277	0.32228	0.28828	0.34741					
	0.34544	0.35349					AVRG		0.31853		8.65118
26 1,1,1-Trichloroethane	0.71273	0.70191	0.70229	0.72945	0.61378	0.73435					
	0.71950	0.71335					AVRG		0.70342		5.40459
28 1,1-Dichloropropene	0.32846	0.37117	0.35033	0.38660	0.34852	0.42335					
	0.41729	0.43078					AVRG		0.38206		10.11958
29 2-Butanone	0.03913	0.05432	0.04727	0.04944	0.05096	0.05316					
	0.05286	0.05224					AVRG		0.04992		9.83501
30 Benzene	1.23163	1.28174	1.27478	1.35445	1.18040	1.40774					
	1.38056	1.37627					AVRG		1.31095		6.17476
33 1,2-Dichloroethane	0.34430	0.37399	0.34735	0.35805	0.31413	0.35079					
	0.34372	0.33856					AVRG		0.34636		4.91841
34 Trichloroethene	0.27687	0.31182	0.27715	0.30372	0.25979	0.31104					
	0.30542	0.30902					AVRG		0.29435		6.80088

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/V0121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	150 Level 7	200 Level 8										
36 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
37 Dibromomethane	0.14175	0.15702	0.14475	0.15357	0.13829	0.15561						
	0.15312	0.15169					AVRG		0.14947		4.64050	
38 1,2-Dichloropropane	0.30237	0.30560	0.32221	0.34166	0.30223	0.34993						
	0.34232	0.33306					AVRG		0.32492		6.02081	
39 Bromodichloromethane	0.33256	0.35517	0.36198	0.37737	0.34329	0.39085						
	0.38501	0.37796					AVRG		0.36552		5.68010	
40 2-Chloroethyl Vinyl Ether	+++++	723	2426	6099	33220	87480						
	137850	159631					LINR	0.000e+00	0.02751		0.99426	
41 Cis 1,3-dichloropropene	0.30158	0.35943	0.39012	0.45138	0.44850	0.52126						
	0.51255	0.49730					AVRG		0.43527		18.07167	
43 Toluene	0.81506	0.80284	0.80656	0.86196	0.72907	0.86300						
	0.84424	0.83455					AVRG		0.81966		5.29283	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/VO121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
44 Tetrachloroethene	0.28954	0.28919	0.28805	0.30045	0.26041	0.31003					
	0.30819	0.32191					AVRG		0.29597		6.32668
45 4-Methyl-2-Pentanone	0.07245	0.08771	0.09900	0.10864	0.11137	0.11980					
	0.11639	0.11463					AVRG		0.10375		15.78579
46 Trans 1,3-Dichloropropene	0.32456	0.37596	0.39181	0.41827	0.39434	0.44679					
	0.43302	0.41637					AVRG		0.40014		9.56324
47 1,1,2-Trichloroethane	0.22360	0.24982	0.23165	0.25146	0.22623	0.25327					
	0.24963	0.24541					AVRG		0.24138		5.04745
48 Chlorodibromomethane	0.21317	0.22316	0.22191	0.24335	0.22840	0.26597					
	0.26477	0.26568					AVRG		0.24080		9.17810
49 1,3-Dichloropropane	0.36631	0.38874	0.40959	0.43008	0.40237	0.45335					
	0.45464	0.45727					AVRG		0.42029		8.08380
50 1,2-Dibromoethane	0.18446	0.21689	0.21264	0.23272	0.22016	0.24933					
	0.24883	0.24945					AVRG		0.22681		10.10403

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/VO121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
51 2-Hexanone	14111	39577	122297	305849	1646540	3702063					
	5534368	6595747					LINR	0.000e+00	0.22189		0.99831
53 Chlorobenzene	0.88972	0.88211	0.86807	0.90597	0.76598	0.89033					
	0.86522	0.85489					AVRG		0.86529		5.00707
54 Ethyl Benzene	1.38758	1.42617	1.43764	1.57037	1.36037	1.63343					
	1.62580	1.64961					AVRG		1.51137		7.96357
55 1,1,1,2-Tetrachloroethane	0.23003	0.25352	0.25783	0.27213	0.24444	0.28507					
	0.28428	0.28780					AVRG		0.26439		8.04981
56 m,p-xylene	0.43500	0.50537	0.54975	0.60897	0.53064	0.61043					
	0.57080	0.55515					AVRG		0.54576		10.51135
57 o-Xylene	0.36162	0.39042	0.46055	0.56048	0.51004	0.61645					
	0.59810	0.59813					AVRG		0.51197		19.27111
58 Styrene	14391	36992	120766	319404	1477785	3593956					
	5103825	5866225					LINR	0.000e+00	1.00942		0.99873

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/V0121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	150 Level 7	200 Level 8										
59 Bromoform	0.27474	0.29137	0.28669	0.30450	0.28706	+++++						
	0.33062	0.34528					AVRG		0.30290		8.53168	
60 Isopropyl Benzene	20858	57893	183177	483100	2184581	5583095						
	8149178	9631790					LINR	0.000e+00	3.07144		0.99573	
61 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
63 Bromobenzene	0.65173	0.68109	0.63171	0.67427	0.58283	0.66569						
	0.65169	0.66491					AVRG		0.65049		4.81757	
64 N-Propyl Benzene	2.58061	2.78022	2.90583	3.27301	2.84701	3.53076						
	3.48487	3.63381					AVRG		3.12951		12.75477	
65 1,1,2,2-Tetrachloroethane	0.54403	0.55889	0.52768	0.56456	0.51984	0.59232						
	0.58797	0.59020					AVRG		0.56068		5.07571	
66 2-Chloro Toluene	1.49543	1.71659	1.75737	2.01046	1.72585	2.08755						
	2.05658	2.19373					AVRG		1.88045		12.76129	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/V0121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
67 1,3,5-Trimethyl Benzene	1.50256	1.77003	1.99948	2.29936	1.99485	2.40660					
	2.35879	2.47544					AVRG		2.10089		16.37691
68 1,2,3-Trichloropropane	0.17235	0.15827	0.16987	0.17787	0.16426	0.17556					
	0.17383	0.17807					AVRG		0.17126		4.04566
69 Trans-1,4-Dichloro 2-Butene	+++++	0.15220	0.15574	0.15975	0.15985	0.19043					
	0.18948	0.20524					AVRG		0.17324		12.23004
70 4-Chloro Toluene	1.51120	1.68469	1.79308	2.01574	1.75090	2.10904					
	2.09808	2.20542					AVRG		1.89602		12.92942
71 T-Butyl Benzene	15274	41076	127633	343995	1536472	3852146					
	5575657	6573162					LINR	0.000e+00	2.10157		0.99650
72 1,2,4-Trimethylbenzene	1.32665	1.73379	1.95474	2.23116	1.98467	2.41477					
	2.40727	2.52403					AVRG		2.07214		19.56796
73 S-Butyl Benzene	1.99384	2.42054	2.69214	3.09218	2.70597	3.36581					
	3.35761	3.53694					AVRG		2.89563		18.46301

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/V0121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
74 4-Isopropyl Toluene	16912	47641	156435	410071	1866898	4743257					
	6946627	8090687					LINR	0.000e+00	2.59508		0.99652
75 1,3-Dichlorobenzene	1.17825	1.23556	1.20879	1.29442	1.10448	1.30671					
	1.28887	1.29558					AVRG		1.23908		5.79197
77 1,4-Dichlorobenzene	1.40449	1.37332	1.26086	1.33697	1.11719	1.29873					
	1.26486	1.26326					AVRG		1.28996		6.83349
78 N-Butyl Benzene	1.47391	1.69821	1.88886	2.17192	2.01030	2.46122					
	2.47617	2.59047					AVRG		2.09638		19.11162
80 1,2-Dichlorobenzene	1.29936	1.24611	1.21886	1.26537	1.07271	1.21557					
	1.17154	1.14227					AVRG		1.20397		6.04576
81 1,2-Dibromo 3-Chloropropane	+++++	0.08696	0.07950	0.08287	0.08494	0.09145					
	0.08854	0.09461					AVRG		0.08698		5.89285
82 Hexachloro 1,3-Butadiene	0.42845	0.46899	0.44026	0.45444	0.39821	0.48635					
	0.44616	0.44861					AVRG		0.44643		5.90150

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/VO121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
83 1,2,4-Trichlorobenzene	0.60550	0.61954	0.66631	0.75473	0.70577	0.82963					
	0.74998	0.76617					AVRG		0.71220		10.88343
84 Naphthalene	1.08154	1.18846	1.34223	1.62943	1.64248	1.85584					
	1.68285	1.79411					AVRG		1.52712		18.76424
85 1,2,3-Trichlorobenzene	0.68038	0.68868	0.68536	0.73858	0.67826	0.75871					
	0.66655	0.68375					AVRG		0.69753		4.68344
$ 27 Dibromofluoromethane	0.47200	0.46860	0.46299	0.45845	0.45816	0.45287					
	0.45224	0.42261					AVRG		0.45599		3.32945
$ 32 d4-1,2-Dichloroethane	0.51966	0.50943	0.50128	0.47715	0.48020	0.47170					
	0.46577	0.44573					AVRG		0.48387		5.07814
$ 42 d8-Toluene	1.27231	1.26807	1.28438	1.29706	1.28815	1.28729					
	1.28097	1.28384					AVRG		1.28276		0.71323
$ 62 4-Bromofluorobenzene	0.47579	0.48065	0.48996	0.49251	0.49522	0.49609					
	0.49844	0.50660					AVRG		0.49191		2.00014

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/V0121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

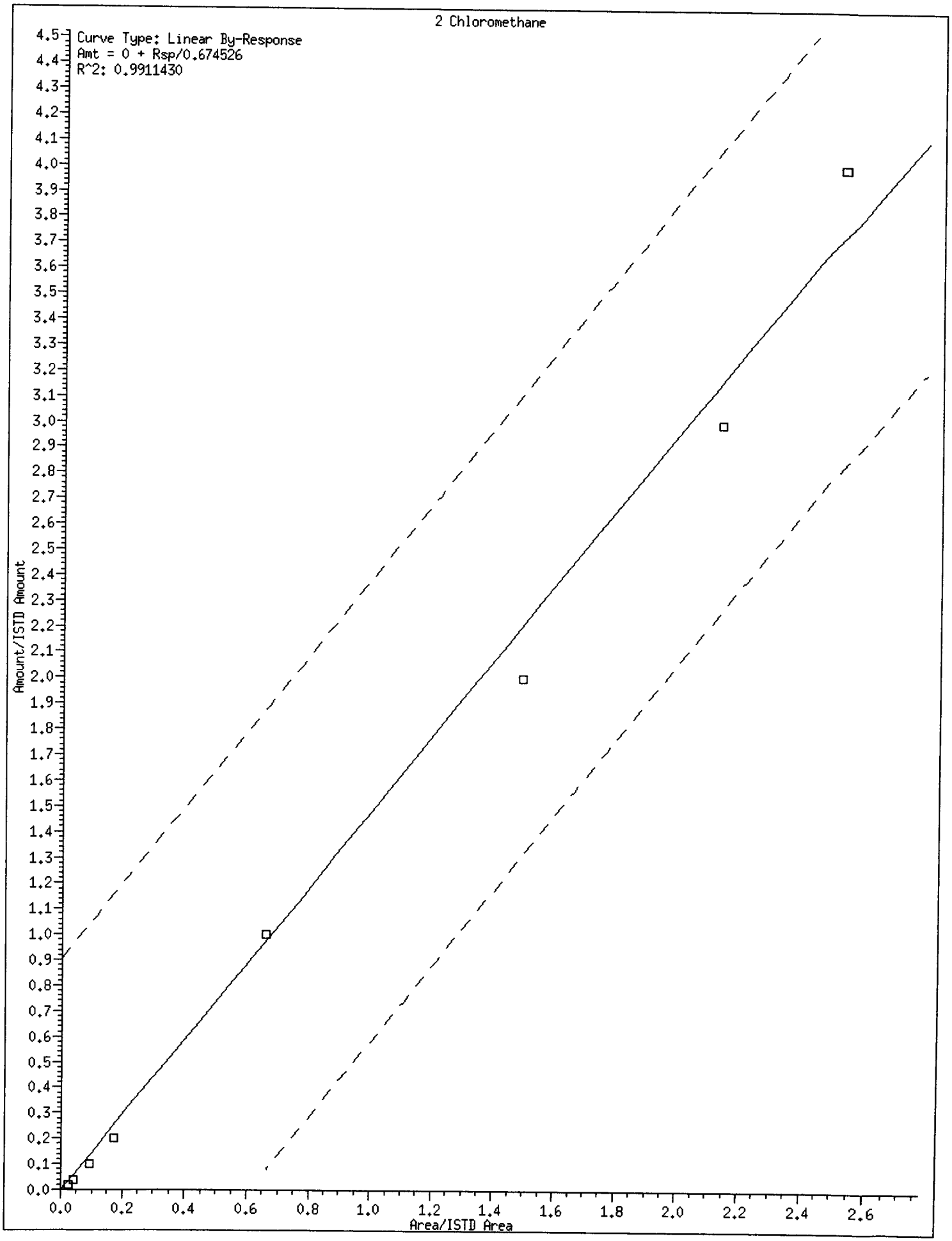
Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
$ 79 d4-1,2-Dichlorobenzene	0.89417	0.88948	0.88388	0.88723	0.88531	0.87370					
	0.86112	0.84987					AVRG		0.87810		1.75417

Analytical Resources, Inc.

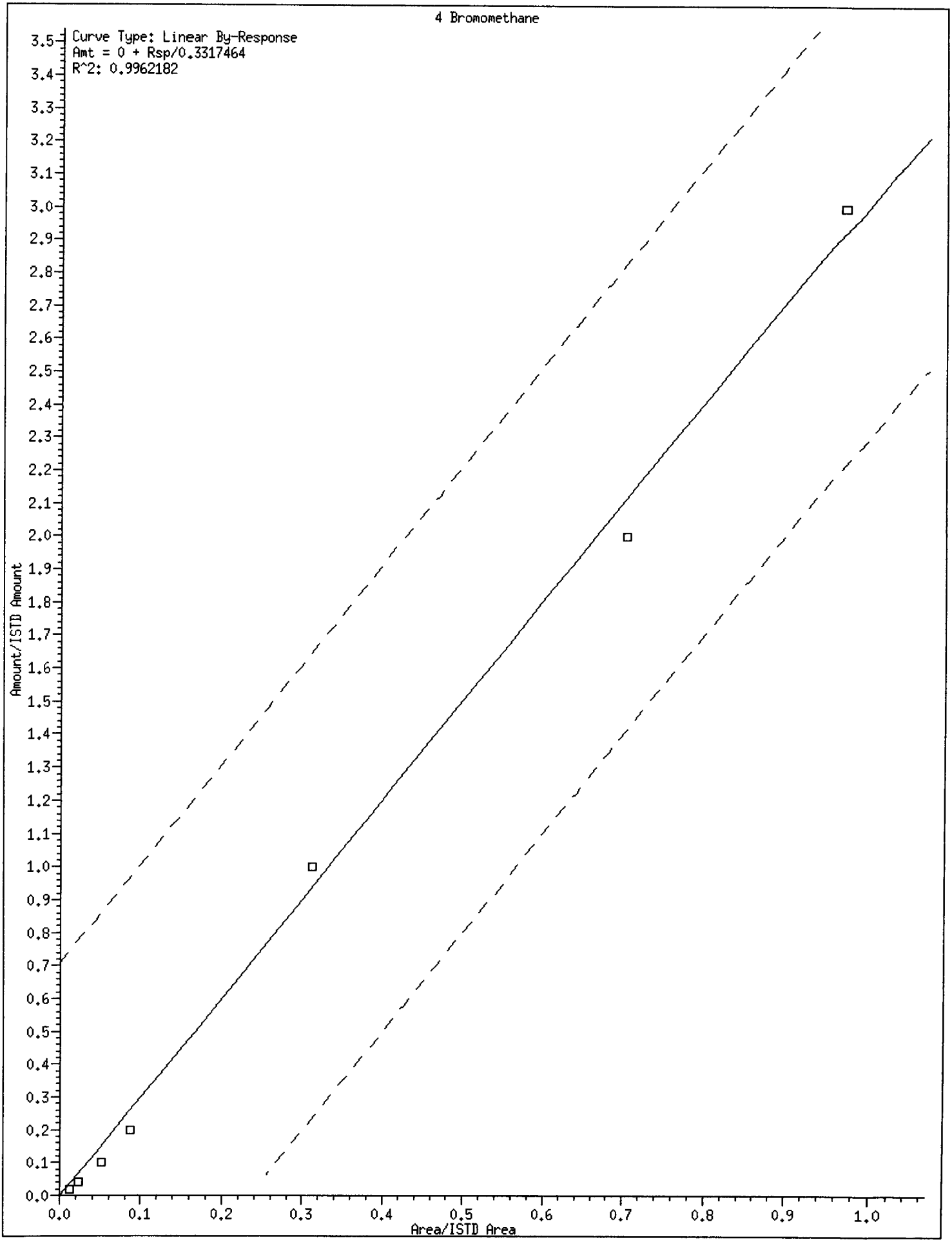
INITIAL CALIBRATION DATA

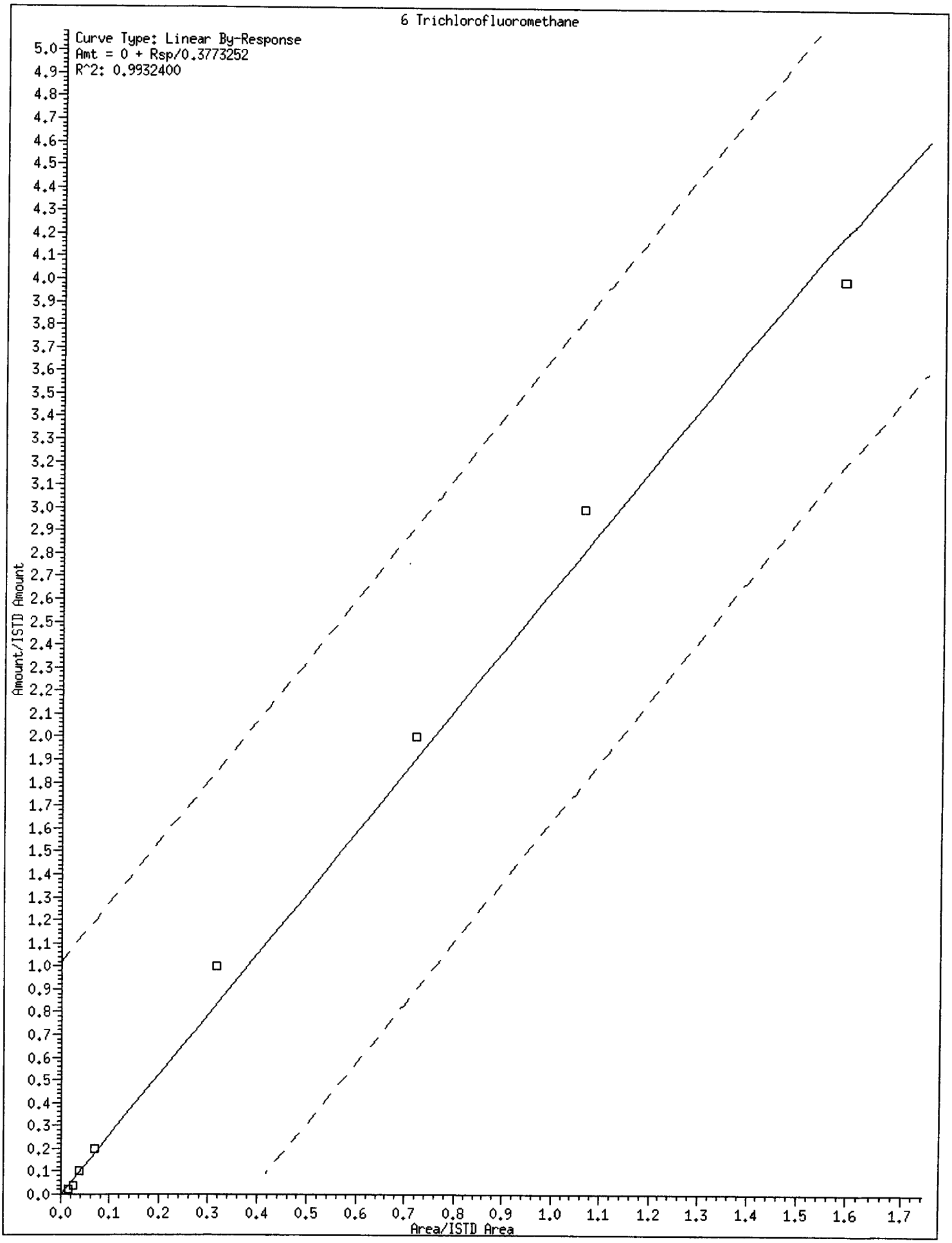
Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/V0121012S.m
Cal Date : 02-Apr-2013 09:44 patrickb

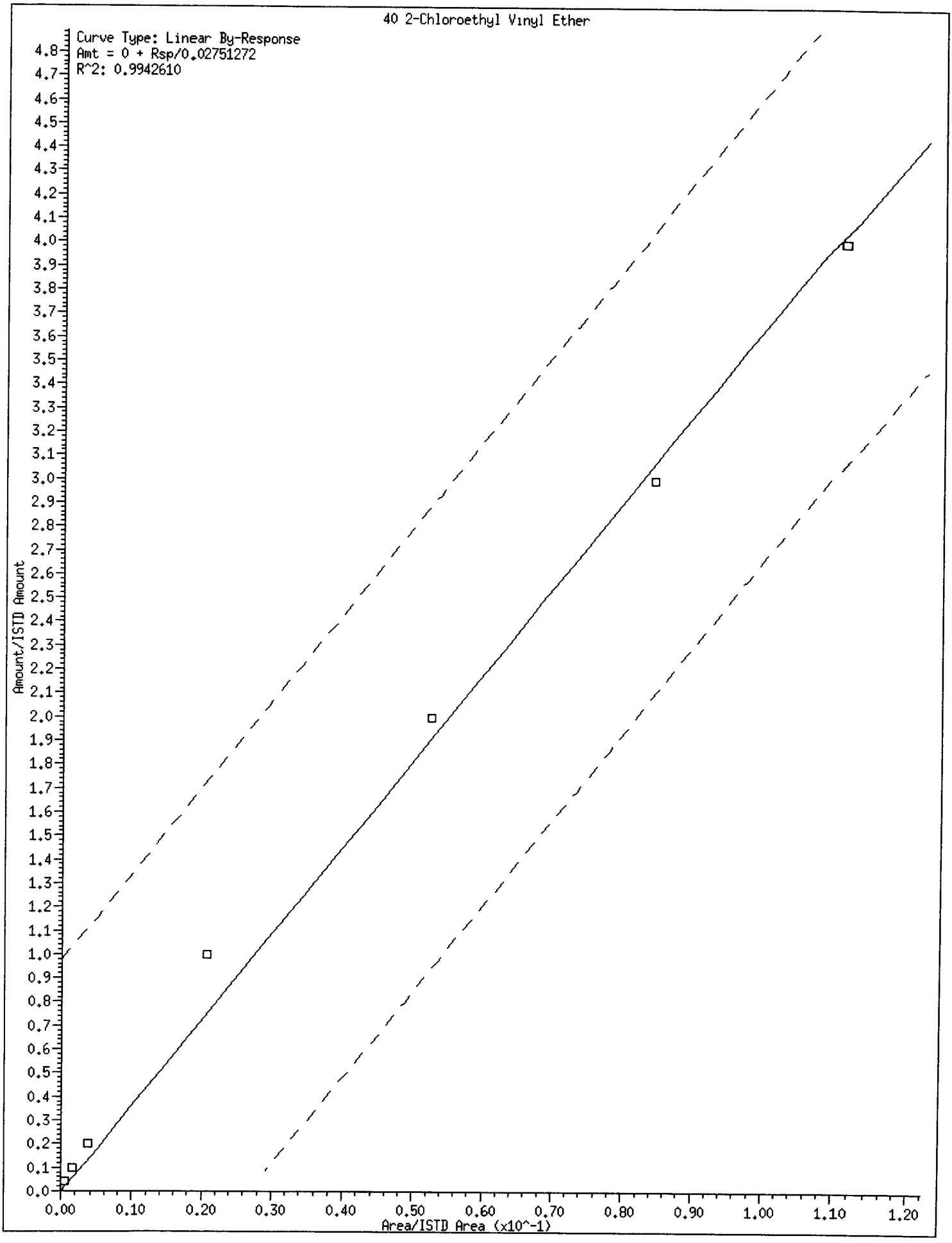
Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

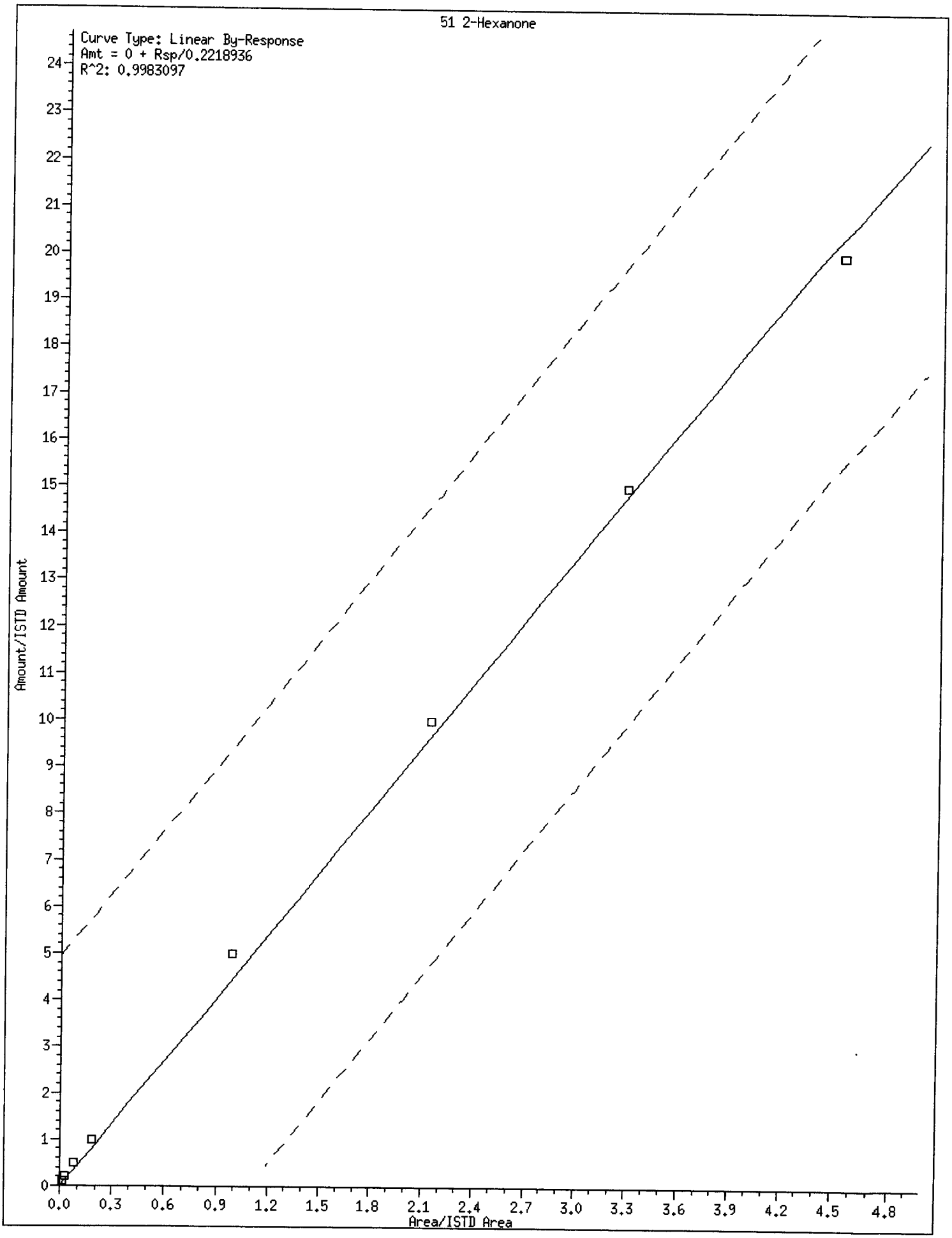

2 Chloromethane
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.674526
R^2: 0.9911430
Amount/ISTD Amount
Area/ISTD Area
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
0.1
0.3
0.5
0.7
0.9
1.1
1.3
1.5
1.7
1.9
2.1
2.3
2.5
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
3.9
4.0
4.1
4.2
4.3
4.4
4.5

WJ10:00573

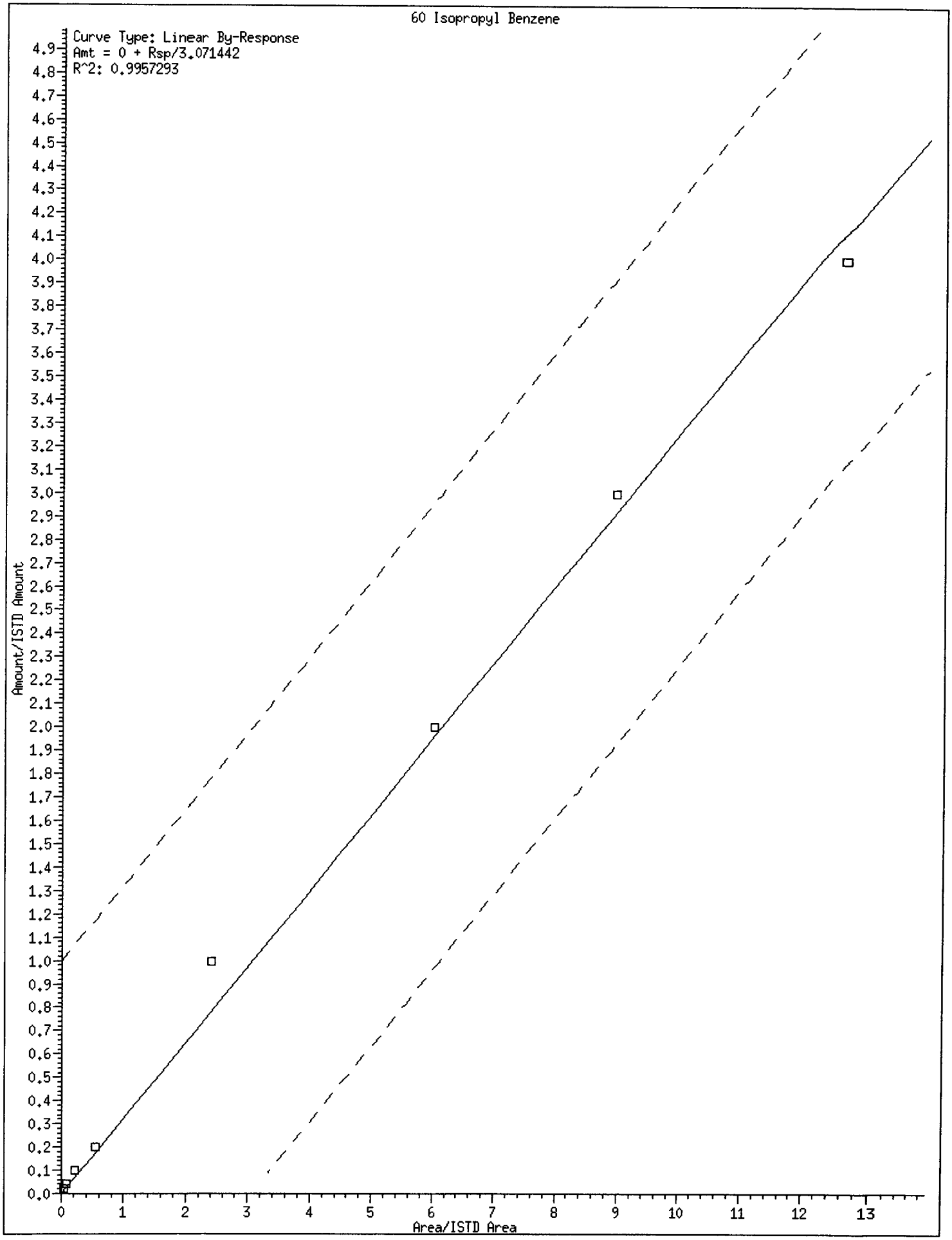

4 Bromomethane
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.3317464
R^2: 0.9962182
Amount/ISTD Amount
Area/ISTD Area
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5

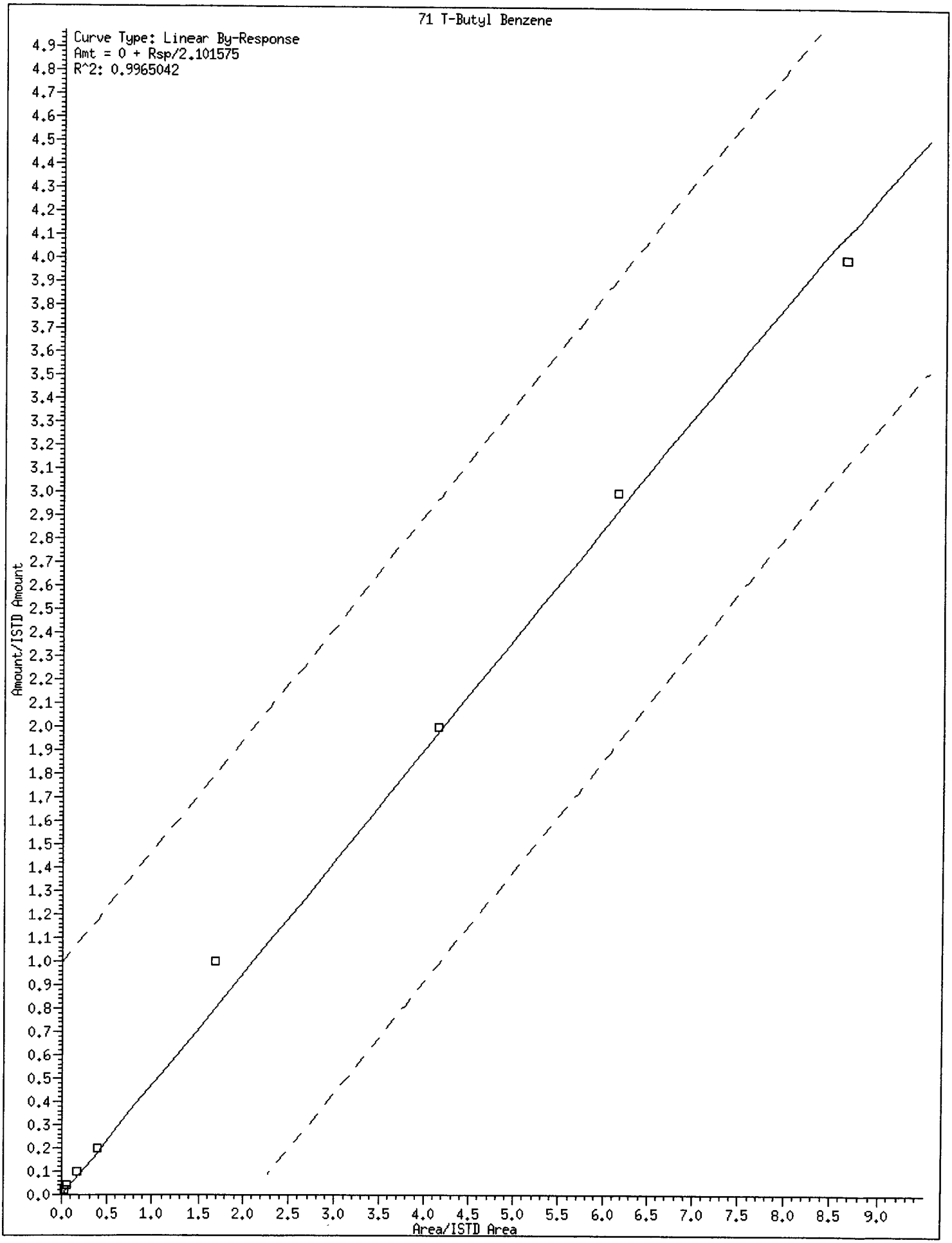

6 Trichlorofluoromethane
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.3773252
R^2: 0.9932400
Amount/ISTD Amount
Area/ISTD Area

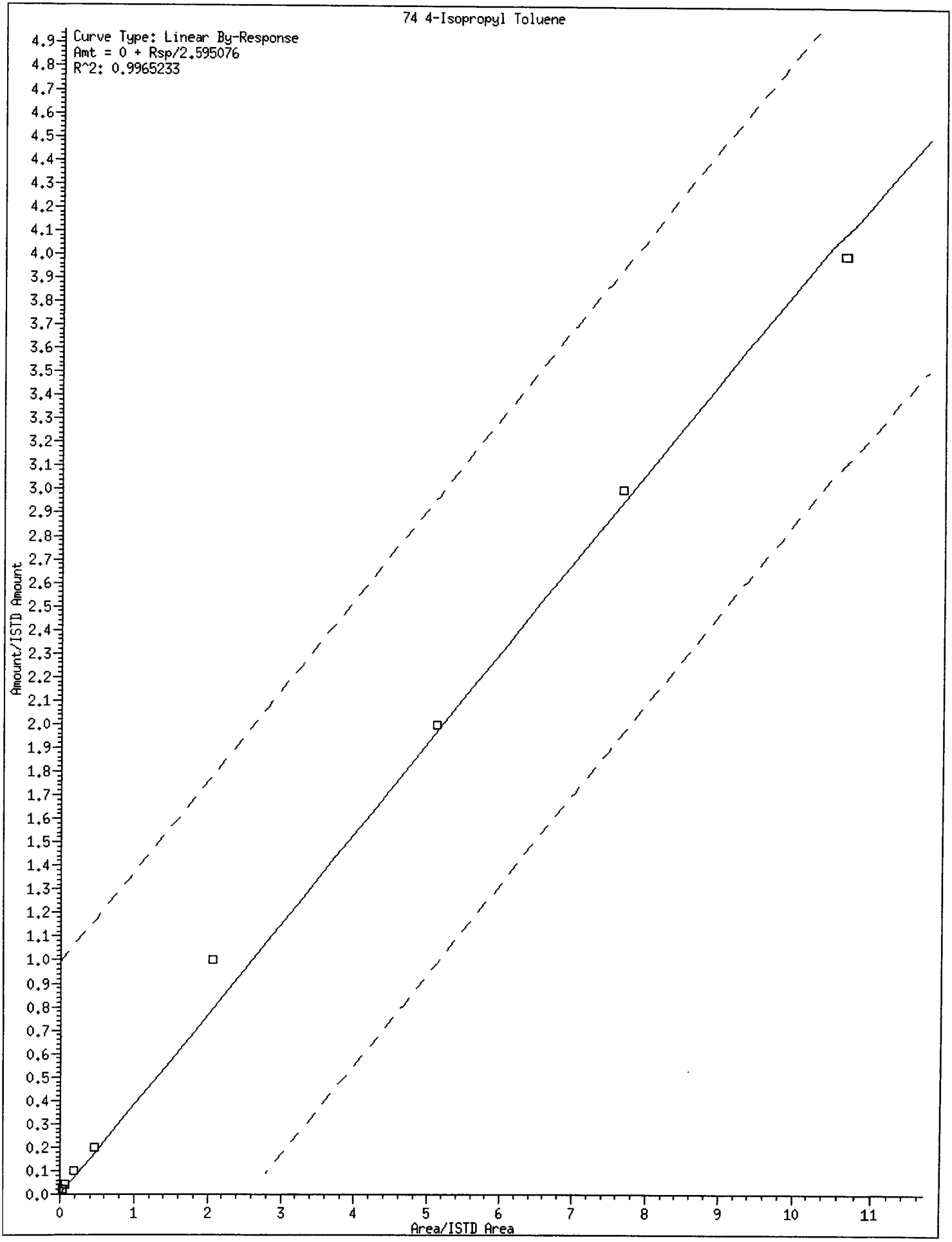

40 2-Chloroethyl Vinyl Ether
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.02751272
R^2: 0.9942610
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
3.9
4.0
4.1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
1.00
1.10
1.20


51 2-Hexanone
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.2218936
R^2: 0.9983097
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8

WJ10:00577

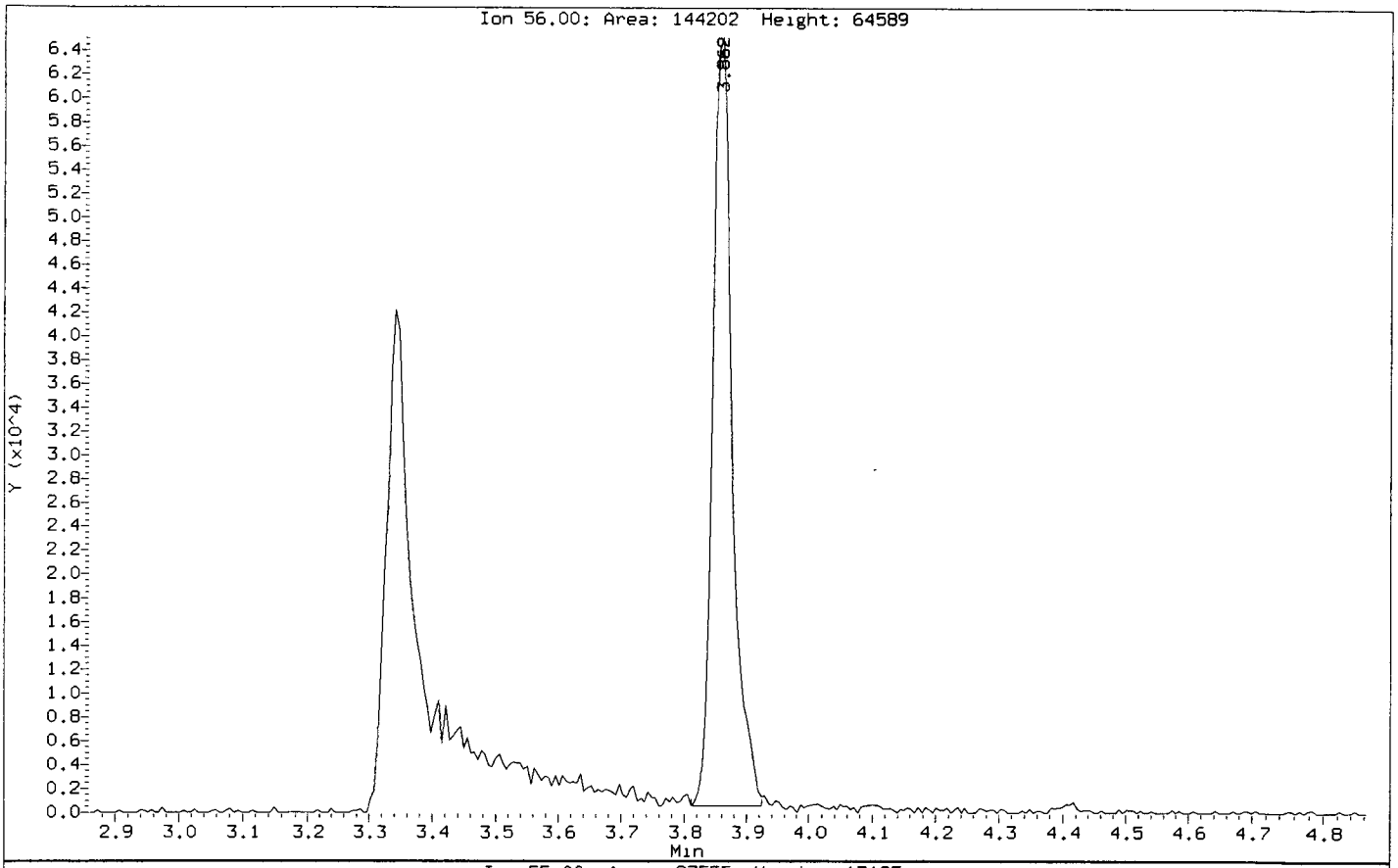

60 Isopropyl Benzene
Curve Type: Linear By-Response
Amt = 0 + Rsp/3.071442
R^2: 0.9957293
Amount/ISTD Amount
Area/ISTD Area

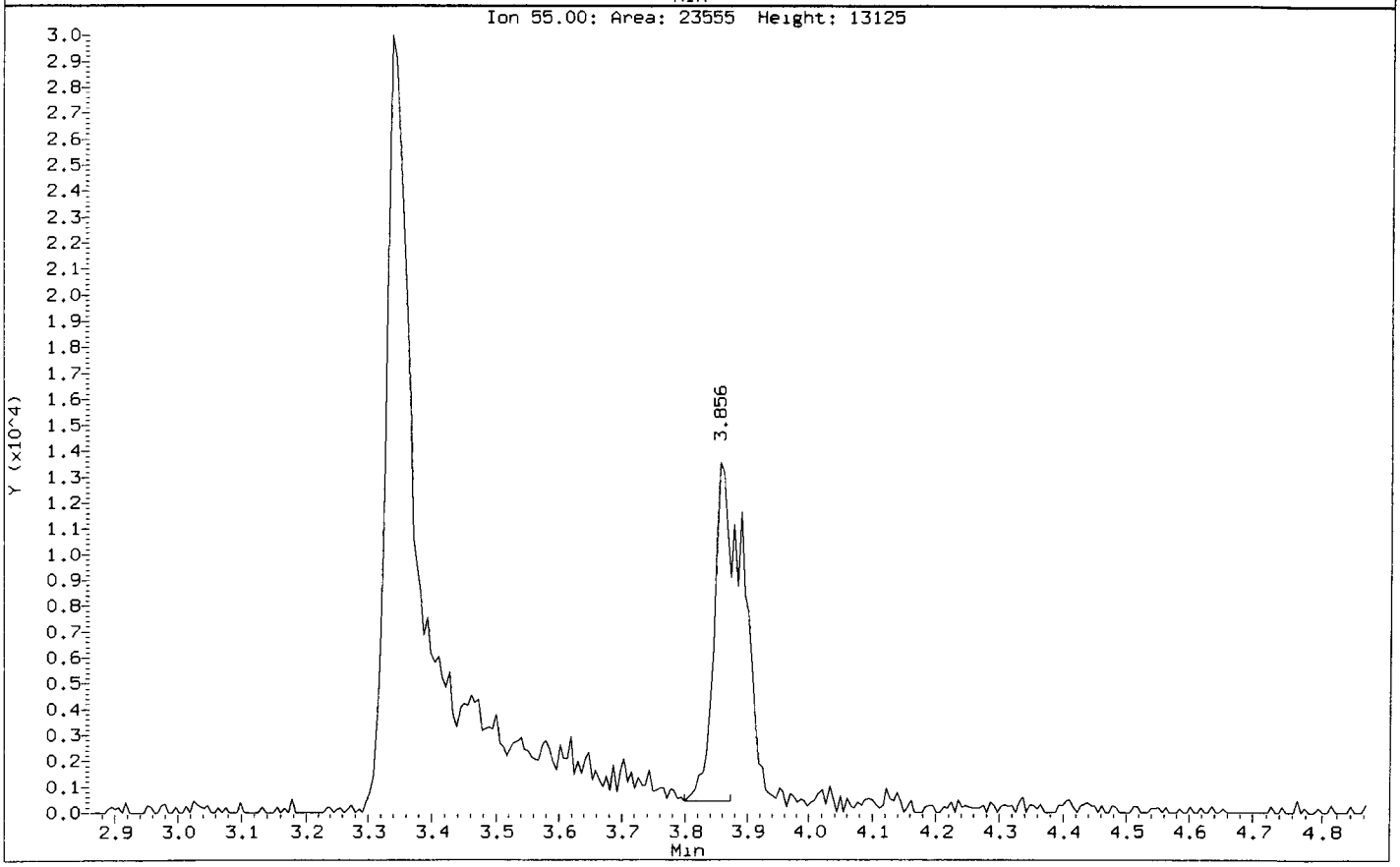

71 T-Butyl Benzene
Curve Type: Linear By-Response
Amt = 0 + Rsp/2.101575
R^2: 0.9965042
Amount/ISTD Amount
Area/ISTD Area


74 4-Isopropyl Toluene
Curve Type: Linear By-Response
Amt = 0 + Rsp/2.595076
R^2: 0.9965233
Amount/ISTD Amount
Area/ISTD Area

Data File: /chem3/nt3.1/04102013.b/1000410.d
Injection Date: 10-APR-2013 15:39
Instrument: nt3.1
Client Sample ID: IC10

Compound: Acrolein
CAS Number:





Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/VO121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Calibration File Names:
Level 1: /chem1/nt9.i/01APR13.b/0010401.d
Level 2: /chem1/nt9.i/01APR13.b/0020401.d
Level 3: /chem1/nt9.i/01APR13.b/0050401.d
Level 4: /chem1/nt9.i/01APR13.b/0100401.d
Level 5: /chem1/nt9.i/01APR13.b/0500401.d
Level 6: /chem1/nt9.i/01APR13.b/1000401.d
Level 7: /chem1/nt9.i/01APR13.b/1500401.d
Level 8: /chem1/nt9.i/01APR13.b/2000401.d

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
1 Dichlorodifluoromethane	0.43707	0.39513	0.35765	0.34912	0.37860	0.44076			
	0.41910	0.40089					0.39729	8.618	
2 Chloromethane	1.22467	1.02436	0.91796	0.86889	0.65527	0.74478			
	0.71228	0.63003					0.84728	24.107	<-
3 Vinyl Chloride	0.60626	0.64813	0.64519	0.62416	0.57293	0.67449			
	0.64728	0.62212					0.63007	4.930	
4 Bromomethane	0.62897	0.59323	0.51495	0.43535	0.31221	0.35125			
	0.32337	+++++					0.45133	28.852	<-
5 Chloroethane	0.26184	0.25574	0.22279	0.21837	0.18719	0.20655			
	0.19597	0.19021					0.21733	13.133	
6 Trichlorofluoromethane	0.70356	0.60738	0.38265	0.34462	0.31433	0.36029			
	0.35372	0.39619					0.43284	32.785	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/V0121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	150.000 Level 7	200.000 Level 8	RRF	% RSD
7 1,1-Dichloroethene	0.45200	0.47027	0.44913	0.45491	0.37174	0.43757				
							0.41261	0.29310	0.41767	14.127
8 Carbon Disulfide	1.55054	1.55123	1.54425	1.51079	1.31490	1.53596				
							1.45253	0.99990	1.43251	13.420
9 112Trichloro122Trifluoroethan	0.40067	0.45267	0.43052	0.44066	0.37034	0.44387				
							0.43558	0.43173	0.42576	6.359
10 Iodomethane	0.33351	0.31974	0.31762	0.29207	0.19892	0.25693				
							0.25672	0.23833	0.27673	16.896
11 Bromoethane	0.27962	0.31045	0.30362	0.31400	0.26531	0.29997				
							0.28570	0.26977	0.29105	6.382
12 Acrolein	0.09787	0.09607	0.09007	0.08513	0.08283	0.08671				
							0.08606	0.08538	0.08876	6.165
13 Methylene Chloride	+++++	0.59706	0.54828	0.53921	0.44321	0.49507				
							0.47859	0.44550	0.50670	11.295
14 Acetone	0.17126	0.16434	0.13829	0.12410	0.11487	0.12127				
							0.12002	0.09649	0.13133	19.302
15 Trans-1,2-Dichloroethene	0.54910	0.52266	0.50525	0.51918	0.41467	0.48896				
							0.47155	0.45814	0.49119	8.659

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/VO121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	150.000 Level 7	200.000 Level 8	RRF	% RSD	
16 Methyl tert butyl ether	1.17056	1.20264	1.22025	1.22120	1.12951	1.24546	1.22339	1.10871	1.19021	4.126	
17 1,1-Dichloroethane	0.93116	0.96231	0.94596	0.94843	0.79199	0.92409	0.90000	0.86389	0.90848	6.211	
18 Acrylonitrile	0.19836	0.18571	0.17548	0.16122	0.15168	0.16222	0.16122	0.16079	0.16958	9.230	
19 Vinyl Acetate	0.89379	0.99727	0.96301	0.94949	0.93227	1.00587	0.99273	0.96086	0.96191	3.892	
20 Cis-1,2-Dichloroethene	0.54153	0.58281	0.50073	0.50869	0.42056	0.47934	0.46283	0.43693	0.49168	10.926	
21 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
22 2,2-Dichloropropane	0.64855	0.67010	0.67155	0.70282	0.61124	0.72901	0.72574	0.72838	0.68592	6.273	
23 Bromochloromethane	0.23058	0.25300	0.24552	0.24799	0.22224	0.24538	0.23752	0.20180	0.23550	7.178	
24 Chloroform	0.86545	0.86350	0.86748	0.88654	0.75264	0.86970	0.85786	0.81375	0.84712	5.134	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/VO121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
25 Carbon Tetrachloride	0.28476	0.30380	0.30277	0.32228	0.28828	0.34741			
	0.34544	0.35349					0.31853	8.651	
26 1,1,1-Trichloroethane	0.71273	0.70191	0.70229	0.72945	0.61378	0.73435			
	0.71950	0.71335					0.70342	5.405	
28 1,1-Dichloropropene	0.32846	0.37117	0.35033	0.38660	0.34852	0.42335			
	0.41729	0.43078					0.38206	10.120	
29 2-Butanone	0.03913	0.05432	0.04727	0.04944	0.05096	0.05316			
	0.05286	0.05224					0.04992	9.835	
30 Benzene	1.23163	1.28174	1.27478	1.35445	1.18040	1.40774			
	1.38056	1.37627					1.31095	6.175	
33 1,2-Dichloroethane	0.34430	0.37399	0.34735	0.35805	0.31413	0.35079			
	0.34372	0.33856					0.34636	4.918	
34 Trichloroethene	0.27687	0.31182	0.27715	0.30372	0.25979	0.31104			
	0.30542	0.30902					0.29435	6.801	
36 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
37 Dibromomethane	0.14175	0.15702	0.14475	0.15357	0.13829	0.15561			
	0.15312	0.15169					0.14947	4.641	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/VO121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
38 1,2-Dichloropropane	0.30237	0.30560	0.32221	0.34166	0.30223	0.34993			
	0.34232	0.33306					0.32492	6.021	
39 Bromodichloromethane	0.33256	0.35517	0.36198	0.37737	0.34329	0.39085			
	0.38501	0.37796					0.36552	5.680	
40 2-Chloroethyl Vinyl Ether	+++++	0.01330	0.01673	0.01898	0.02054	0.02626			
	0.02816	0.02778					0.02168	26.868	<-
41 Cis 1,3-dichloropropene	0.30158	0.35943	0.39012	0.45138	0.44850	0.52126			
	0.51255	0.49730					0.43527	18.072	
43 Toluene	0.81506	0.80284	0.80656	0.86196	0.72907	0.86300			
	0.84424	0.83455					0.81966	5.293	
44 Tetrachloroethene	0.28954	0.28919	0.28805	0.30045	0.26041	0.31003			
	0.30819	0.32191					0.29597	6.327	
45 4-Methyl-2-Pentanone	0.07245	0.08771	0.09900	0.10864	0.11137	0.11980			
	0.11639	0.11463					0.10375	15.786	
46 Trans 1,3-Dichloropropene	0.32456	0.37596	0.39181	0.41827	0.39434	0.44679			
	0.43302	0.41637					0.40014	9.563	
47 1,1,2-Trichloroethane	0.22360	0.24982	0.23165	0.25146	0.22623	0.25327			
	0.24963	0.24541					0.24138	5.047	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/VO121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
48 Chlorodibromomethane	0.21317	0.22316	0.22191	0.24335	0.22840	0.26597			
	0.26477	0.26568					0.24080	9.178	
49 1,3-Dichloropropane	0.36631	0.38874	0.40959	0.43008	0.40237	0.45335			
	0.45464	0.45727					0.42029	8.084	
50 1,2-Dibromoethane	0.18446	0.21689	0.21264	0.23272	0.22016	0.24933			
	0.24883	0.24945					0.22681	10.104	
51 2-Hexanone	0.11043	0.14237	0.16344	0.18147	0.19649	0.21474			
	0.21914	0.22658					0.18183	22.471	<-
53 Chlorobenzene	0.88972	0.88211	0.86807	0.90597	0.76598	0.89033			
	0.86522	0.85489					0.86529	5.007	
54 Ethyl Benzene	1.38758	1.42617	1.43764	1.57037	1.36037	1.63343			
	1.62580	1.64961					1.51137	7.964	
55 1,1,1,2-Tetrachloroethane	0.23003	0.25352	0.25783	0.27213	0.24444	0.28507			
	0.28428	0.28780					0.26439	8.050	
56 m,p-xylene	0.43500	0.50537	0.54975	0.60897	0.53064	0.61043			
	0.57080	0.55515					0.54576	10.511	
57 o-Xylene	0.36162	0.39042	0.46055	0.56048	0.51004	0.61645			
	0.59810	0.59813					0.51197	19.271	

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/VO121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	150.000 Level 7	200.000 Level 8	RRF	% RSD	
58 Styrene	0.56308	0.66536	0.80695	0.94754	0.88177	1.04232	1.01045	1.00759	0.86563	20.218	<-
59 Bromoform	0.27474	0.29137	0.28669	0.30450	0.28706	+++++	0.33062	0.34528	0.30290	8.532	
60 Isopropyl Benzene	1.58085	1.99627	2.28329	2.71828	2.40207	3.00961	2.98975	3.16257	2.51784	21.954	<-
61 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
63 Bromobenzene	0.65173	0.68109	0.63171	0.67427	0.58283	0.66569	0.65169	0.66491	0.65049	4.818	
64 N-Propyl Benzene	2.58061	2.78022	2.90583	3.27301	2.84701	3.53076	3.48487	3.63381	3.12951	12.755	
65 1,1,2,2-Tetrachloroethane	0.54403	0.55889	0.52768	0.56456	0.51984	0.59232	0.58797	0.59020	0.56068	5.076	
66 2-Chloro Toluene	1.49543	1.71659	1.75737	2.01046	1.72585	2.08755	2.05658	2.19373	1.88045	12.761	
67 1,3,5-Trimethyl Benzene	1.50256	1.77003	1.99948	2.29936	1.99485	2.40660	2.35879	2.47544	2.10089	16.377	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/VO121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	150.000 Level 7	200.000 Level 8	RRF	% RSD	
68 1,2,3-Trichloropropane	0.17235	0.15827	0.16987	0.17787	0.16426	0.17556	0.17383	0.17807	0.17126	4.046	
69 Trans-1,4-Dichloro 2-Butene	+++++	0.15220	0.15574	0.15975	0.15985	0.19043	0.18948	0.20524	0.17324	12.230	
70 4-Chloro Toluene	1.51120	1.68469	1.79308	2.01574	1.75090	2.10904	2.09808	2.20542	1.89602	12.929	
71 T-Butyl Benzene	1.15763	1.41639	1.59094	1.93557	1.68944	2.07653	2.04558	2.15828	1.75879	20.224	<-
72 1,2,4-Trimethylbenzene	1.32665	1.73379	1.95474	2.23116	1.98467	2.41477	2.40727	2.52403	2.07214	19.568	
73 S-Butyl Benzene	1.99384	2.42054	2.69214	3.09218	2.70597	3.36581	3.35761	3.53694	2.89563	18.463	
74 4-Isopropyl Toluene	1.28178	1.64276	1.94996	2.30737	2.05276	2.55689	2.54856	2.65655	2.12458	22.929	<-
75 1,3-Dichlorobenzene	1.17825	1.23556	1.20879	1.29442	1.10448	1.30671	1.28887	1.29558	1.23908	5.792	
77 1,4-Dichlorobenzene	1.40449	1.37332	1.26086	1.33697	1.11719	1.29873	1.26486	1.26326	1.28996	6.833	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/VO121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Compound	1.000 Level 1 / 150.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
78 N-Butyl Benzene	1.47391	1.69821	1.88886	2.17192	2.01030	2.46122		
	2.47617	2.59047					2.09638	19.112
80 1,2-Dichlorobenzene	1.29936	1.24611	1.21886	1.26537	1.07271	1.21557		
	1.17154	1.14227					1.20397	6.046
81 1,2-Dibromo 3-Chloropropane	+++++	0.08696	0.07950	0.08287	0.08494	0.09145		
	0.08854	0.09461					0.08698	5.893
82 Hexachloro 1,3-Butadiene	0.42845	0.46899	0.44026	0.45444	0.39821	0.48635		
	0.44616	0.44861					0.44643	5.901
83 1,2,4-Trichlorobenzene	0.60550	0.61954	0.66631	0.75473	0.70577	0.82963		
	0.74998	0.76617					0.71220	10.883
84 Naphthalene	1.08154	1.18846	1.34223	1.62943	1.64248	1.85584		
	1.68285	1.79411					1.52712	18.764
85 1,2,3-Trichlorobenzene	0.68038	0.68868	0.68536	0.73858	0.67826	0.75871		
	0.66655	0.68375					0.69753	4.683
$ 27 Dibromofluoromethane	0.47200	0.46860	0.46299	0.45845	0.45816	0.45287		
	0.45224	0.42261					0.45599	3.329
$ 32 d4-1,2-Dichloroethane	0.51966	0.50943	0.50128	0.47715	0.48020	0.47170		
	0.46577	0.44573					0.48387	5.078

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-APR-2013 18:55
End Cal Date : 01-APR-2013 21:30
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt9.i/01APR13.b/SampleInfo/VO121012S.m
Cal Date : 11-Apr-2013 08:40 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
$ 42 d8-Toluene	1.27231	1.26807	1.28438	1.29706	1.28815	1.28729		
	1.28097	1.28384					1.28276	0.713
$ 62 4-Bromofluorobenzene	0.47579	0.48065	0.48996	0.49251	0.49522	0.49609		
	0.49844	0.50660					0.49191	2.000
$ 79 d4-1,2-Dichlorobenzene	0.89417	0.88948	0.88388	0.88723	0.88531	0.87370		
	0.86112	0.84987					0.87810	1.754

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Batch File: /chem1/nt9.i/01APR13.b
Inst ID: nt9.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	2000401	1500401	1000401	0500401	0100401	0050401	0020401	0010401
INJ.DATE:	01-APR-2013	01-APR-2013	01-APR-2013	01-APR-2013	01-APR-2013	01-APR-2013	01-APR-2013	01-APR-2013
INJ.TIME:	18:55	19:17	19:39	20:02	20:24	20:46	21:08	21:30

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Dichlorodifluoromethan	1.380	1.381	1.369	1.385	1.385	1.380	1.383	1.391	1.385	1.280-1.491	1.382	0.006
2 Chloromethane	1.538	1.539	1.533	1.549	1.544	1.544	1.553	1.555	1.549	1.444-1.655	1.544	0.008
3 Vinyl Chloride	1.612	1.613	1.600	1.617	1.617	1.611	1.621	1.617	1.617	1.512-1.722	1.614	0.006
4 Bromomethane	1.894	1.896	1.883	1.900	1.900	1.900	1.904	1.906	1.900	1.795-2.005	1.898	0.007
5 Chloroethane	2.007	2.009	1.996	2.013	2.013	2.007	2.017	2.019	2.013	1.908-2.118	2.010	0.007
6 Trichlorofluoromethane	2.121	2.122	2.109	2.126	2.126	2.120	2.130	2.143	2.126	2.021-2.231	2.125	0.010
7 1,1-Dichloroethene	2.579	2.591	2.590	2.624	2.607	2.618	2.627	2.635	2.624	2.518-2.729	2.609	0.020
8 Carbon Disulfide	2.579	2.585	2.590	2.624	2.607	2.624	2.639	2.641	2.624	2.518-2.729	2.611	0.024
9 112Trichloro122Trifluo	2.629	2.642	2.647	2.675	2.658	2.669	2.684	2.692	2.675	2.569-2.780	2.662	0.022
10 Iodomethane	2.726	2.738	2.737	2.771	2.760	2.771	2.786	2.793	2.771	2.665-2.876	2.760	0.024
11 Bromoethane	2.867	2.874	2.873	2.901	2.884	2.901	2.910	2.906	2.901	2.796-3.006	2.889	0.017
12 Acrolein	3.054	3.049	3.025	3.031	3.037	3.025	3.029	3.019	3.031	2.926-3.136	3.034	0.012
13 Methylene Chloride	3.257	3.258	3.252	3.268	3.263	3.263	3.272	3.263	3.268	3.163-3.374	3.262	0.006
14 Acetone	3.432	3.417	3.387	3.381	3.399	3.376	3.368	3.370	3.381	3.276-3.487	3.391	0.023
15 Trans-1,2-Dichloroethe	3.404	3.411	3.404	3.421	3.415	3.415	3.425	3.427	3.421	3.316-3.526	3.415	0.009
16 Methyl tert butyl ethe	3.636	3.626	3.602	3.602	3.613	3.596	3.594	3.591	3.602	3.497-3.707	3.608	0.016
17 1,1-Dichloroethane	4.015	4.016	4.009	4.020	4.021	4.020	4.024	4.026	4.020	3.915-4.126	4.019	0.005

Reviewer 1 _____ Date: 4/11/13
Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Batch File: /chem1/nt9.i/01APR13.b
Inst ID: nt9.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 Acrylonitrile	4.134	4.124	4.105	4.105	4.111	4.099	4.103	4.100	4.105	4.000-4.210	4.110	0.012
	19 Vinyl Acetate	4.309	4.304	4.292	4.298	4.298	4.292	4.290	4.292	4.298	4.192-4.403	4.297	0.007
	20 Cis-1,2-Dichloroethene	4.495	4.497	4.490	4.495	4.496	4.490	4.494	4.501	4.495	4.390-4.601	4.495	0.004
	21 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.560	4.455-4.665	+++++	+++++
	22 2,2-Dichloropropane	4.575	4.576	4.569	4.580	4.575	4.574	4.578	4.575	4.580	4.475-4.685	4.575	0.003
	23 Bromochloromethane	4.659	4.661	4.654	4.659	4.660	4.654	4.657	4.659	4.659	4.554-4.765	4.658	0.003
	24 Chloroform	4.739	4.734	4.727	4.733	4.733	4.727	4.731	4.733	4.733	4.628-4.838	4.732	0.004
	25 Carbon Tetrachloride	4.806	4.808	4.807	4.812	4.812	4.812	4.816	4.812	4.812	4.699-4.925	4.811	0.003
	26 1,1,1-Trichloroethane	4.874	4.876	4.869	4.874	4.874	4.874	4.878	4.874	4.874	4.769-4.980	4.874	0.003
$	27 Dibromofluoromethane	4.886	4.881	4.875	4.880	4.880	4.874	4.878	4.874	4.880	4.775-4.985	4.878	0.004
	28 1,1-Dichloropropene	4.970	4.972	4.965	4.976	4.971	4.970	4.974	4.976	4.976	4.863-5.089	4.972	0.004
	29 2-Butanone	5.038	5.028	5.016	5.010	5.021	5.010	5.014	5.004	5.010	4.905-5.115	5.018	0.011
	30 Benzene	5.168	5.170	5.163	5.168	5.168	5.168	5.172	5.168	5.168	5.055-5.281	5.168	0.003
*	31 Pentafluorobenzene	5.265	5.260	5.259	5.264	5.259	5.259	5.263	5.264	5.264	5.159-5.370	5.262	0.003
$	32 d4-1,2-Dichloroethane	5.287	5.283	5.276	5.281	5.282	5.281	5.279	5.281	5.281	5.176-5.387	5.281	0.003
	33 1,2-Dichloroethane	5.338	5.334	5.333	5.332	5.332	5.332	5.330	5.332	5.332	5.219-5.445	5.333	0.002
	34 Trichloroethene	5.615	5.611	5.610	5.615	5.609	5.609	5.613	5.615	5.615	5.502-5.728	5.612	0.003
*	35 1,4-Difluorobenzene	5.649	5.650	5.644	5.649	5.649	5.649	5.647	5.649	5.649	5.536-5.762	5.648	0.002
	36 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.693	5.580-5.806	+++++	+++++
	37 Dibromomethane	5.926	5.922	5.915	5.920	5.920	5.915	5.918	5.926	5.920	5.807-6.033	5.920	0.004
	38 1,2-Dichloropropane	6.000	5.995	5.994	5.994	5.994	5.994	5.998	5.994	5.994	5.881-6.107	5.995	0.002
	39 Bromodichloromethane	6.051	6.046	6.045	6.045	6.045	6.045	6.043	6.045	6.045	5.932-6.158	6.045	0.002

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Batch File: /chem1/nt9.i/01APR13.b
Inst ID: nt9.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	40 2-Chloroethyl Vinyl Et	6.469	6.465	6.458	6.458	6.463	6.457	6.461	6.463	6.458	6.345-6.570	6.462	0.004
	41 Cis 1,3-dichloropropen	6.497	6.493	6.492	6.492	6.492	6.491	6.495	6.486	6.492	6.379-6.604	6.492	0.003
$	42 d8-Toluene	6.622	6.623	6.622	6.622	6.622	6.621	6.620	6.622	6.622	6.509-6.734	6.622	0.001
	43 Toluene	6.661	6.657	6.656	6.656	6.656	6.655	6.659	6.655	6.656	6.542-6.768	6.657	0.002
	44 Tetrachloroethene	6.921	6.923	6.922	6.921	6.921	6.921	6.919	6.921	6.921	6.767-7.075	6.921	0.001
	45 4-Methyl-2-Pentanone	6.955	6.951	6.938	6.938	6.938	6.938	6.936	6.938	6.938	6.825-7.051	6.942	0.007
	46 Trans 1,3-Dichloroprop	6.955	6.957	6.950	6.950	6.950	6.949	6.948	6.949	6.950	6.837-7.063	6.951	0.003
	47 1,1,2-Trichloroethane	7.068	7.070	7.063	7.063	7.063	7.063	7.061	7.063	7.063	6.950-7.176	7.064	0.003
	48 Chlorodibromomethane	7.193	7.188	7.182	7.181	7.181	7.181	7.179	7.181	7.181	7.027-7.336	7.183	0.005
	49 1,3-Dichloropropane	7.255	7.256	7.249	7.249	7.249	7.249	7.253	7.249	7.249	7.095-7.403	7.251	0.003
	50 1,2-Dibromoethane	7.351	7.352	7.346	7.345	7.345	7.345	7.343	7.345	7.345	7.232-7.458	7.347	0.003
	51 2-Hexanone	7.532	7.528	7.521	7.515	7.521	7.515	7.519	7.515	7.515	7.361-7.669	7.521	0.006
*	52 d5-Chlorobenzene	7.707	7.709	7.707	7.707	7.707	7.702	7.705	7.702	7.707	7.553-7.861	7.706	0.003
	53 Chlorobenzene	7.724	7.720	7.719	7.719	7.719	7.713	7.717	7.713	7.719	7.564-7.873	7.718	0.004
	54 Ethyl Benzene	7.741	7.743	7.736	7.736	7.736	7.735	7.739	7.735	7.736	7.581-7.890	7.738	0.003
	55 1,1,1,2-Tetrachloroeth	7.770	7.765	7.764	7.764	7.764	7.764	7.762	7.764	7.764	7.610-7.918	7.764	0.002
	56 m,p-xylene	7.849	7.844	7.843	7.843	7.843	7.843	7.841	7.837	7.843	7.689-7.997	7.843	0.003
	57 o-Xylene	8.148	8.150	8.143	8.143	8.143	8.148	8.146	8.148	8.143	7.988-8.297	8.146	0.003
	58 Styrene	8.188	8.189	8.182	8.182	8.182	8.182	8.186	8.182	8.182	8.028-8.336	8.184	0.003
	59 Bromoform	8.205	8.206	8.199	8.199	8.199	8.199	8.197	8.199	8.199	8.011-8.387	8.201	0.003
	60 Isopropyl Benzene	8.375	8.370	8.369	8.369	8.369	8.369	8.367	8.369	8.369	8.181-8.557	8.370	0.002
	61 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.568	8.414-8.722	+++++	+++++
$	62 4-Bromofluorobenzene	8.572	8.574	8.573	8.572	8.573	8.572	8.571	8.572	8.572	8.418-8.727	8.572	0.001
	63 Bromobenzene	8.652	8.647	8.646	8.646	8.646	8.646	8.644	8.646	8.646	8.458-8.834	8.647	0.002

4/11/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Batch File: /chem1/nt9.i/01APR13.b
Inst ID: nt9.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	64 N-Propyl Benzene	8.674	8.670	8.669	8.669	8.669	8.668	8.667	8.668	8.669	8.481-8.856	8.669	0.002
	65 1,1,2,2-Tetrachloroeth	8.725	8.721	8.720	8.719	8.720	8.719	8.718	8.719	8.719	8.532-8.907	8.720	0.002
	66 2-Chloro Toluene	8.787	8.783	8.782	8.782	8.782	8.782	8.780	8.782	8.782	8.594-8.969	8.782	0.002
	67 1,3,5-Trimethyl Benzen	8.816	8.817	8.816	8.810	8.810	8.810	8.814	8.816	8.810	8.622-8.998	8.813	0.003
	68 1,2,3-Trichloropropane	8.827	8.823	8.821	8.816	8.816	8.816	8.819	8.816	8.816	8.628-9.003	8.819	0.004
	69 Trans-1,4-Dichloro 2-B	8.855	8.851	8.850	8.850	8.850	8.849	8.848	8.849	8.850	8.662-9.037	8.850	0.002
	70 4-Chloro Toluene	8.906	8.907	8.906	8.900	8.900	8.900	8.904	8.900	8.900	8.713-9.088	8.903	0.003
	71 T-Butyl Benzene	9.047	9.049	9.048	9.042	9.042	9.042	9.046	9.042	9.042	8.854-9.230	9.045	0.003
	72 1,2,4-Trimethylbenzene	9.098	9.100	9.099	9.098	9.098	9.098	9.096	9.098	9.098	8.910-9.286	9.098	0.001
	73 S-Butyl Benzene	9.178	9.179	9.178	9.177	9.178	9.177	9.176	9.177	9.177	8.990-9.365	9.177	0.001
	74 4-Isopropyl Toluene	9.285	9.286	9.285	9.279	9.279	9.279	9.283	9.285	9.279	9.091-9.467	9.283	0.003
	75 1,3-Dichlorobenzene	9.342	9.337	9.336	9.336	9.336	9.330	9.334	9.336	9.336	9.148-9.524	9.336	0.003
*	76 d4-1,4-Dichlorobenzene	9.392	9.394	9.393	9.392	9.387	9.387	9.390	9.387	9.392	9.205-9.580	9.390	0.003
	77 1,4-Dichlorobenzene	9.404	9.405	9.404	9.404	9.398	9.398	9.402	9.398	9.404	9.216-9.591	9.402	0.003
	78 N-Butyl Benzene	9.602	9.597	9.596	9.596	9.596	9.596	9.600	9.596	9.596	9.408-9.784	9.597	0.002
$	79 d4-1,2-Dichlorobenzene	9.709	9.710	9.709	9.709	9.709	9.709	9.707	9.709	9.709	9.521-9.897	9.709	0.001
	80 1,2-Dichlorobenzene	9.720	9.722	9.715	9.715	9.715	9.715	9.713	9.715	9.715	9.527-9.903	9.716	0.003
	81 1,2-Dibromo 3-Chloropr	10.325	10.327	10.326	10.325	10.325	10.325	10.323	10.320	10.325	10.137-10.513	10.325	0.002
	82 Hexachloro 1,3-Butadie	10.834	10.830	10.829	10.829	10.829	10.829	10.832	10.829	10.829	10.641-11.016	10.830	0.002
	83 1,2,4-Trichlorobenzene	10.851	10.853	10.851	10.851	10.851	10.851	10.849	10.851	10.851	10.663-11.039	10.851	0.001
	84 Naphthalene	11.111	11.107	11.106	11.106	11.111	11.111	11.109	11.111	11.106	10.918-11.294	11.109	0.003
	85 1,2,3-Trichlorobenzene	11.253	11.254	11.253	11.253	11.253	11.253	11.251	11.253	11.253	11.065-11.441	11.253	0.001

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt9.i/01APR13.b

ARI Job No.: IC04 Method: VO121012S.m Instrument: nt9.i Date: 01-APR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2130	0010401.d	IC0401	VSTD1	1	Acrolein, 112Trichloro122Trifluoroethane, Bromoethane, 2,2-Dichloropropane, 1,2-Dichloropropane, 2-Chloroethyl Vinyl Ether, 4-Methyl-2-Pentanone, 1,2,3-Trichloropropane, Trans-1,4-Dichloro 2-Butene,
2108	0020401.d	IC0401	VSTD2	1	2-Chloroethyl Vinyl Ether, 4-Methyl-2-Pentanone, 1,2,3-Trichloropropane, Trans-1,4-Dichloro 2-Butene,
2046	0050401.d	IC0401	VSTD5	1	2-Chloroethyl Vinyl Ether, 4-Methyl-2-Pentanone,
2024	0100401.d	IC0401	VSTD10	1	2-Chloroethyl Vinyl Ether, 4-Methyl-2-Pentanone,
2002	0500401.d	IC0401	VSTD50	1	2-Chloroethyl Vinyl Ether,
1939	1000401.d	IC0401	VSTD100	1	2-Chloroethyl Vinyl Ether,
1917	1500401.d	IC0401	VSTD150	1	2-Chloroethyl Vinyl Ether,
1855	2000401.d	IC0401	VSTD200	1	2-Chloroethyl Vinyl Ether,
2152	icv0401.d	ICV0401	ICV0401	1	2-Chloroethyl Vinyl Ether, 4-Methyl-2-Pentanone,

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/01APR13.b/0010401.d
Lab Smp Id: IC0401 Client Smp ID: VSTD1
Inj Date : 01-APR-2013 21:30
Operator : PB Inst ID: nt9.i
Smp Info : IC0401,10,10,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/01APR13.b/VO121012S.m
Meth Date : 11-Apr-2013 08:44 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 21:30 Cal File: 0010401.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume
Sa	10.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.391	1.385	(0.264)	6293	1.00000	1.100
2 Chloromethane	50	1.555	1.549	(0.295)	17633	1.00000	1.816
3 Vinyl Chloride	62	1.617	1.617	(0.307)	8729	1.00000	0.9622
4 Bromomethane	94	1.906	1.900	(0.362)	9056	1.00000	1.896
5 Chloroethane	64	2.019	2.013	(0.383)	3770	1.00000	1.205
6 Trichlorofluoromethane	101	2.143	2.126	(0.407)	10130	1.00000	1.865
7 1,1-Dichloroethene	96	2.635	2.624	(0.501)	6508	1.00000	1.082
8 Carbon Disulfide	76	2.641	2.624	(0.502)	22325	1.00000	1.082
9 112Trichloro122Trifluoroethane	101	2.692	2.675	(0.511)	5769	1.00000	0.9411(M)
10 Iodomethane	142	2.793	2.771	(0.531)	4802	1.00000	1.205
11 Bromoethane	108	2.906	2.901	(0.552)	4026	1.00000	0.9607(M)
12 Acrolein	56	3.019	3.031	(0.574)	7046	5.00000	5.513(M)
13 Methylene Chloride	84	3.263	3.268	(0.620)	9445	1.00000	1.295
14 Acetone	43	3.370	3.381	(0.640)	12329	5.00000	6.520

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.427	3.421	(0.651)	7906	1.00000	1.118
	16 Methyl tert butyl ether	73	3.591	3.602	(0.682)	16854	1.00000	0.9835
	17 1,1-Dichloroethane	63	4.026	4.020	(0.765)	13407	1.00000	1.025
	18 Acrylonitrile	53	4.100	4.105	(0.779)	2856	1.00000	1.170(T)
	19 Vinyl Acetate	43	4.292	4.298	(0.815)	12869	1.00000	0.9292
	20 Cis-1,2-Dichloroethene	96	4.501	4.495	(0.855)	7797	1.00000	1.101
	22 2,2-Dichloropropane	77	4.575	4.580	(0.869)	9338	1.00000	0.9455(M)
	23 Bromochloromethane	128	4.659	4.659	(0.885)	3320	1.00000	0.9791
	24 Chloroform	83	4.733	4.733	(0.899)	12461	1.00000	1.022
	25 Carbon Tetrachloride	117	4.812	4.812	(0.852)	7226	1.00000	0.8940
$	27 Dibromofluoromethane	111	4.874	4.880	(0.926)	339800	50.0000	51.756
	26 1,1,1-Trichloroethane	97	4.874	4.874	(0.926)	10262	1.00000	1.013
	28 1,1-Dichloropropene	75	4.976	4.976	(0.881)	8335	1.00000	0.8597
	29 2-Butanone	72	5.004	5.010	(0.951)	2817	5.00000	3.919
	30 Benzene	78	5.168	5.168	(0.915)	31254	1.00000	0.9395
*	31 Pentafluorobenzene	168	5.264	5.264	(1.000)	719911	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.281	5.281	(1.003)	374108	50.0000	53.699
	33 1,2-Dichloroethane	62	5.332	5.332	(0.944)	8737	1.00000	0.9940
	34 Trichloroethene	95	5.615	5.615	(0.994)	7026	1.00000	0.9406
*	35 1,4-Difluorobenzene	114	5.649	5.649	(1.000)	1268810	50.0000	
	37 Dibromomethane	93	5.926	5.920	(1.049)	3597	1.00000	0.9483
	38 1,2-Dichloropropane	63	5.994	5.994	(1.061)	7673	1.00000	0.9306(M)
	39 Bromodichloromethane	83	6.045	6.045	(1.070)	8439	1.00000	0.9098
	41 Cis 1,3-dichloropropene	75	6.486	6.492	(1.148)	7653	1.00000	0.6929
$	42 d8-Toluene	98	6.622	6.622	(1.172)	1614323	50.0000	49.593
	43 Toluene	92	6.655	6.656	(1.178)	20683	1.00000	0.9944
	44 Tetrachloroethene	166	6.921	6.921	(0.899)	7400	1.00000	0.9783
	45 4-Methyl-2-Pentanone	58	6.938	6.938	(1.228)	9192	5.00000	3.491(TM)
	46 Trans 1,3-Dichloropropene	75	6.949	6.950	(1.230)	8236	1.00000	0.8111
	47 1,1,2-Trichloroethane	97	7.063	7.063	(1.250)	5674	1.00000	0.9263
	48 Chlorodibromomethane	129	7.181	7.181	(0.932)	5448	1.00000	0.8852
	49 1,3-Dichloropropane	76	7.249	7.249	(0.941)	9362	1.00000	0.8716
	50 1,2-Dibromoethane	107	7.345	7.345	(1.300)	4681	1.00000	0.8133
*	52 d5-Chlorobenzene	117	7.702	7.707	(1.000)	1277875	50.0000	
	53 Chlorobenzene	112	7.713	7.719	(1.001)	22739	1.00000	1.028
	54 Ethyl Benzene	91	7.735	7.736	(1.004)	35463	1.00000	0.9181
	55 1,1,1,2-Tetrachloroethane	131	7.764	7.764	(1.008)	5879	1.00000	0.8701
	56 m,p-xylene	106	7.837	7.843	(1.018)	22235	2.00000	1.594
	57 o-Xylene	106	8.148	8.143	(1.058)	9242	1.00000	0.7063
	58 Styrene	104	8.182	8.182	(1.062)	14391	1.00000	0.5578
	59 Bromoform	173	8.199	8.199	(0.873)	3625	1.00000	0.9071
	60 Isopropyl Benzene	105	8.369	8.369	(0.892)	20858	1.00000	0.5147
$	62 4-Bromofluorobenzene	95	8.572	8.572	(1.113)	608003	50.0000	48.362
	63 Bromobenzene	156	8.646	8.646	(0.921)	8599	1.00000	1.002
	64 N-Propyl Benzene	91	8.668	8.669	(0.923)	34049	1.00000	0.8246
	65 1,1,2,2-Tetrachloroethane	83	8.719	8.719	(0.929)	7178	1.00000	0.9703
	66 2-Chloro Toluene	91	8.782	8.782	(0.936)	19731	1.00000	0.7953

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	67 1,3,5-Trimethyl Benzene	105	8.816	8.810	(0.939)	19825	1.00000	0.7152
	68 1,2,3-Trichloropropane	110	8.816	8.816	(0.939)	2274	1.00000	1.006(TM)
	69 Trans-1,4-Dichloro 2-Butene	53	8.849	8.850	(0.943)	1856	1.00000	0.8120(M)
	70 4-Chloro Toluene	91	8.900	8.900	(0.948)	19939	1.00000	0.7970
	71 T-Butyl Benzene	119	9.042	9.042	(0.963)	15274	1.00000	0.5508
	72 1,2,4-Trimethylbenzene	105	9.098	9.098	(0.969)	17504	1.00000	0.6402
	73 S-Butyl Benzene	105	9.177	9.177	(0.978)	26307	1.00000	0.6886
	75 1,3-Dichlorobenzene	146	9.336	9.336	(0.995)	15546	1.00000	0.9509
*	76 d4-1,4-Dichlorobenzene	152	9.387	9.392	(1.000)	659708	50.0000	
	77 1,4-Dichlorobenzene	146	9.398	9.404	(1.001)	18531	1.00000	1.089
	78 N-Butyl Benzene	91	9.596	9.596	(1.022)	19447	1.00000	0.7031
$	79 d4-1,2-Dichlorobenzene	152	9.709	9.709	(1.034)	589889	50.0000	50.915
	80 1,2-Dichlorobenzene	146	9.715	9.715	(1.035)	17144	1.00000	1.079
	81 1,2-Dibromo 3-Chloropropane	75	10.320	10.325	(1.099)	916	1.00000	0.7982
	82 Hexachloro 1,3-Butadiene	225	10.829	10.829	(1.154)	5653	1.00000	0.9597
	83 1,2,4-Trichlorobenzene	180	10.851	10.851	(1.156)	7989	1.00000	0.8502
	84 Naphthalene	128	11.111	11.106	(1.184)	14270	1.00000	0.7082
	85 1,2,3-Trichlorobenzene	180	11.253	11.253	(1.199)	8977	1.00000	0.9754

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: 0010401.d
Lab Smp Id: IC0401
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/01APR13.b/V0121012S.m
Misc Info: 12-

Calibration Date: 01-APR-2013
Calibration Time: 20:02
Client Smp ID: VSTD1
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	719911	-23.53
35 1,4-Difluorobenze	1617500	808750	3235000	1268810	-21.56
52 d5-Chlorobenzene	1675930	837965	3351860	1277875	-23.75
76 d4-1,4-Dichlorobe	909458	454729	1818916	659708	-27.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	0.00
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	0.00
52 d5-Chlorobenzene	7.71	7.21	8.21	7.70	-0.07
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	-0.06

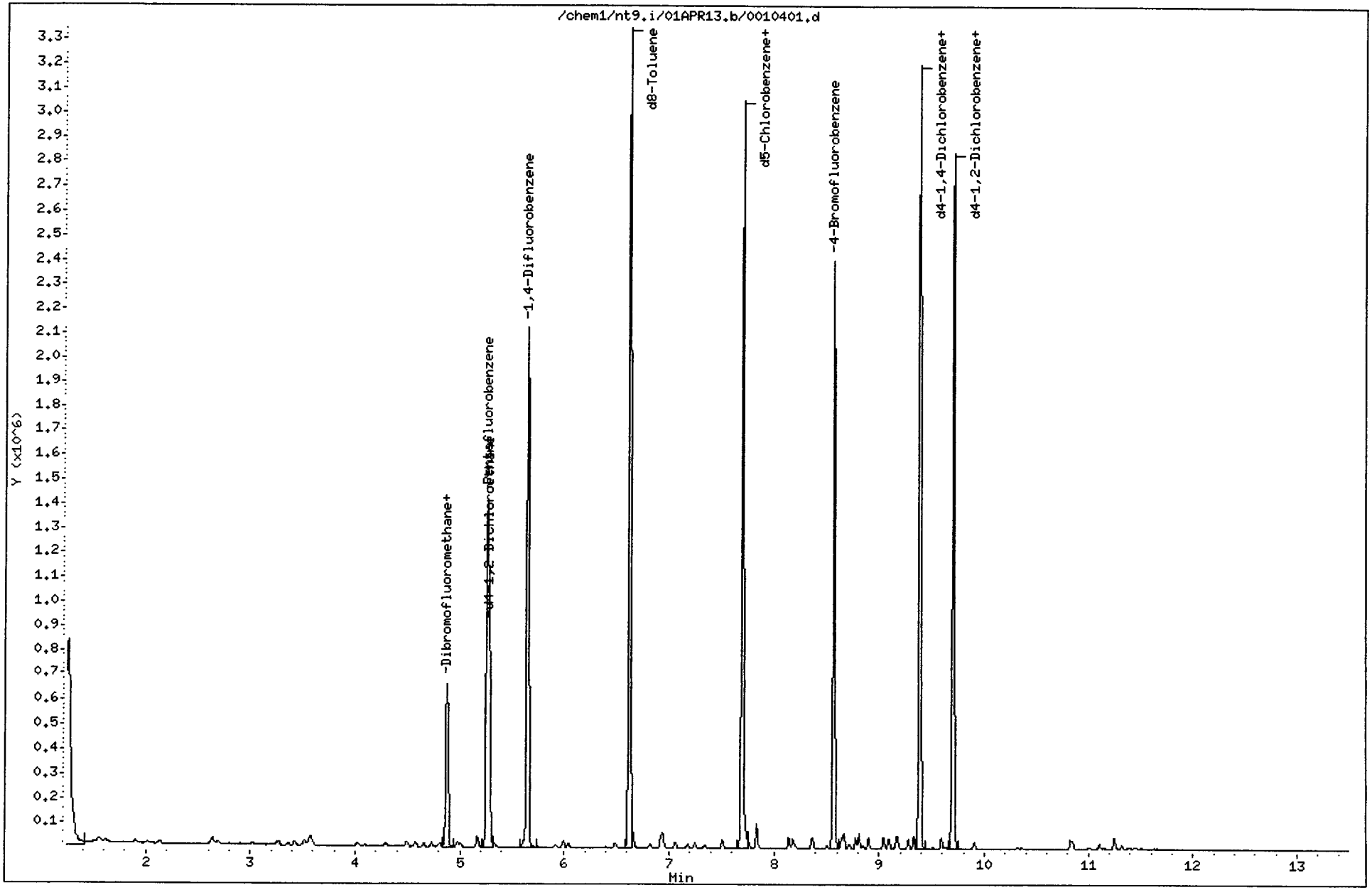
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt9.i/01APR13.b/0010401.d
Date : 01-APR-2013 21:30
Client ID: VSTD1
Sample Info: IC0401,10,10,0

Column phase: RTXVMS

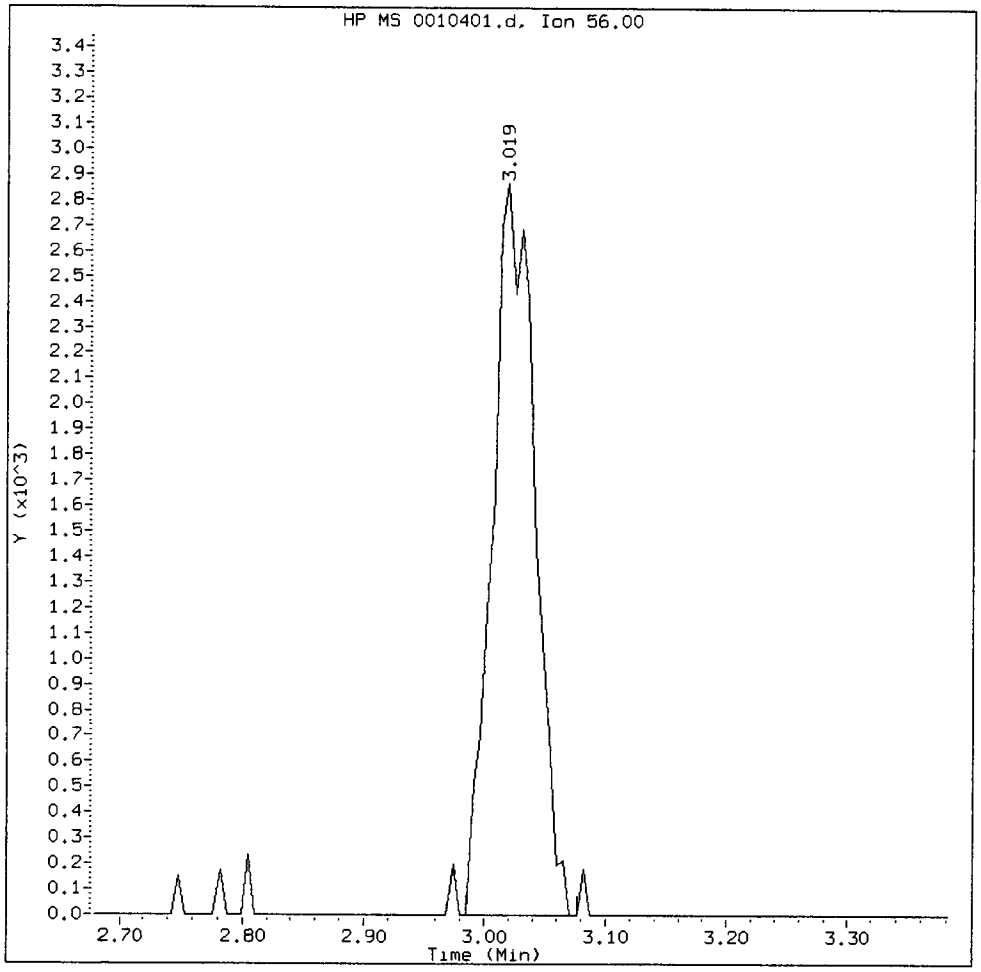
Instrument: nt9.i

Operator: PB
Column diameter: 0.18



IC0401, /chem1/nt9.i/01APR13.b/0010401.d

Acrolein Amount: 5.51 Area: 7046



MANUAL INTEGRATION for Acrolein

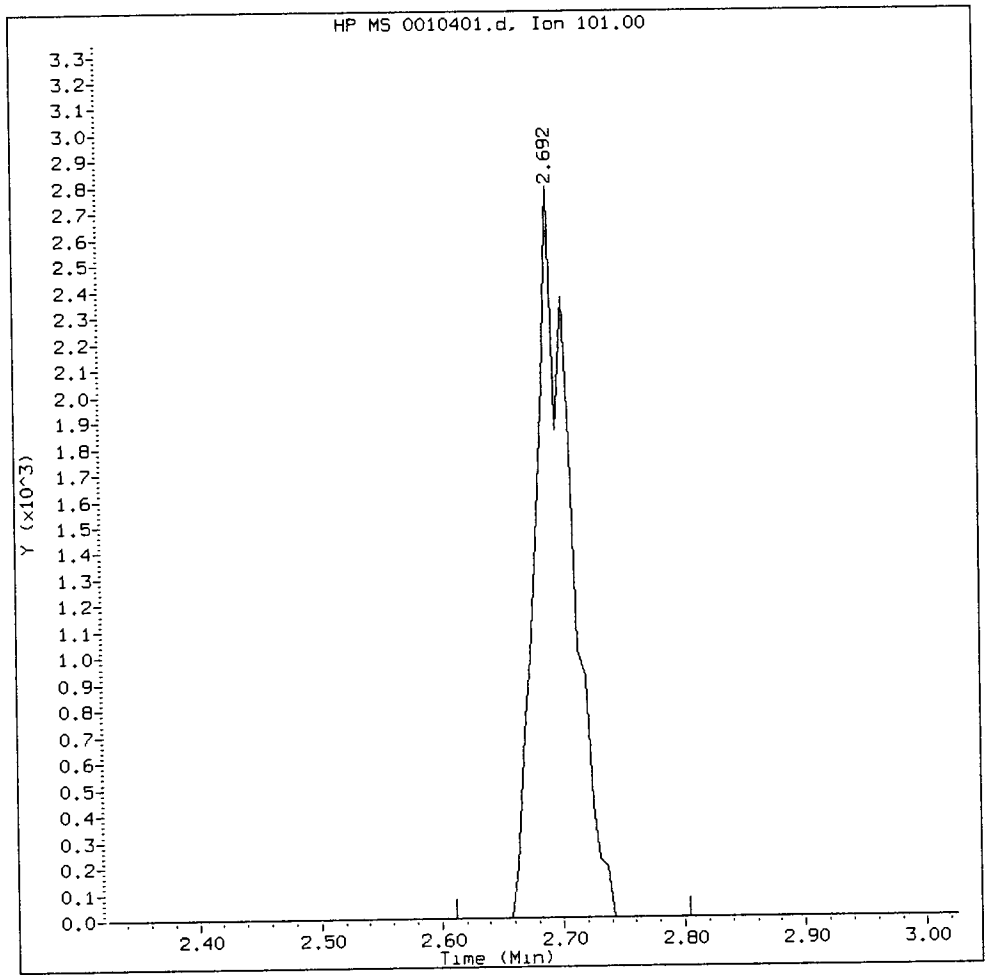
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/14

IC0401, /chem1/nt9.i/01APR13.b/0010401.d

112Trichloro122Trifluoroethane Amount: 0.94 Area: 5769



MANUAL INTEGRATION for 112Trichloro122Trifluoroethane

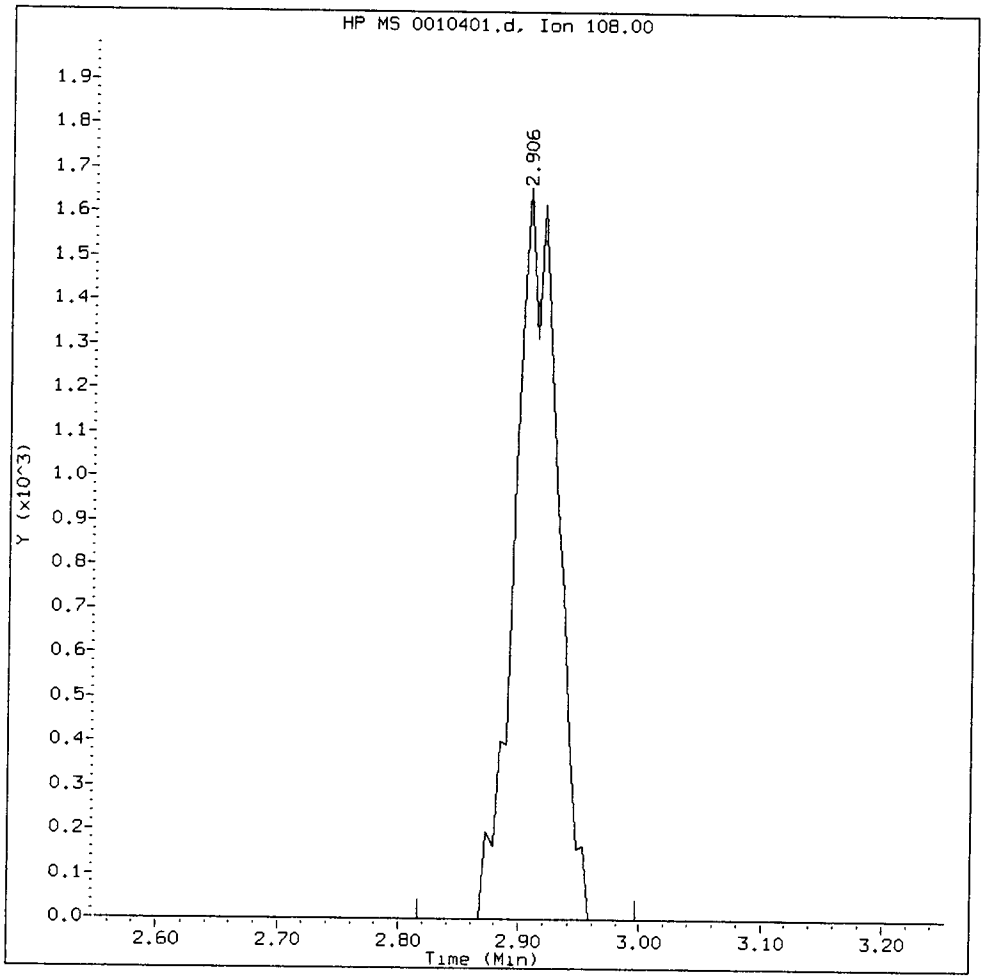
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/11/1

IC0401, /chem1/nt9.i/01APR13.b/0010401.d

Bromoethane Amount: 0.96 Area: 4026



MANUAL INTEGRATION for Bromoethane

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

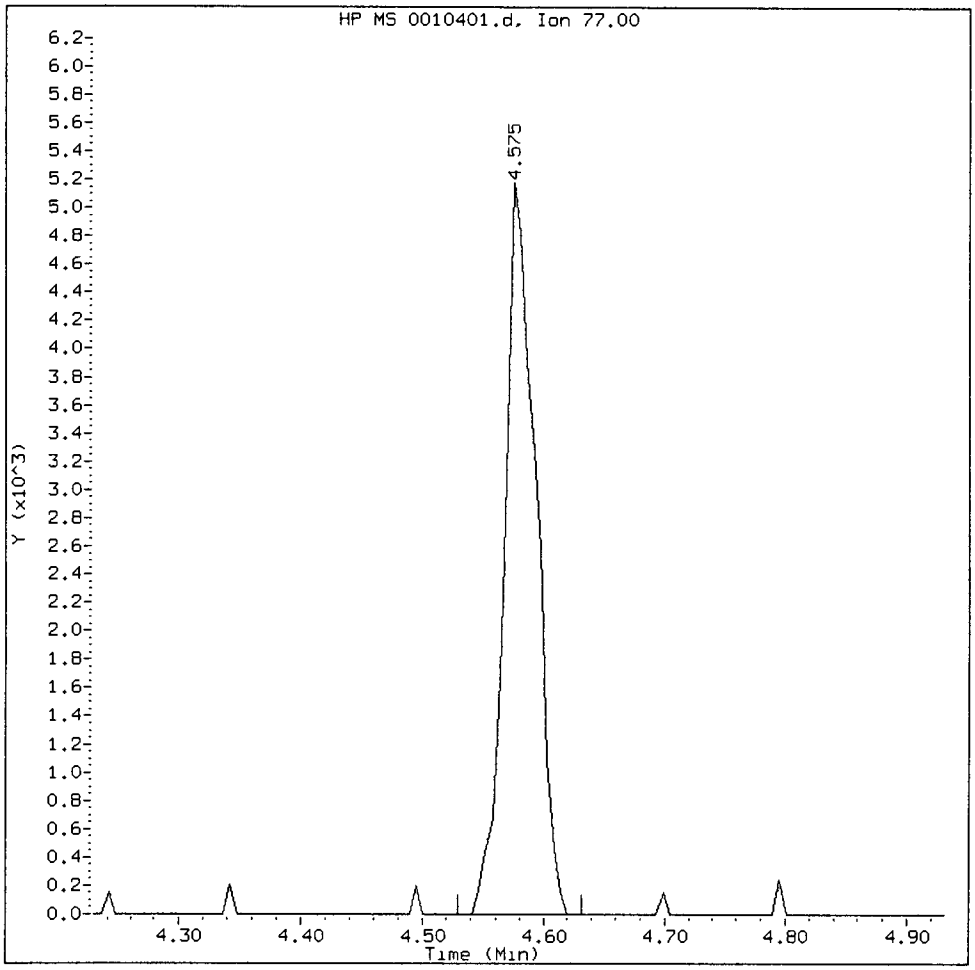
5. Other _____

Analyst: JM Date: 4/(a)/)

WJ10:00604

IC0401, /chem1/nt9.i/01APR13.b/0010401.d

2,2-Dichloropropane Amount: 0.95 Area: 9338



MANUAL INTEGRATION for 2,2-Dichloropropane

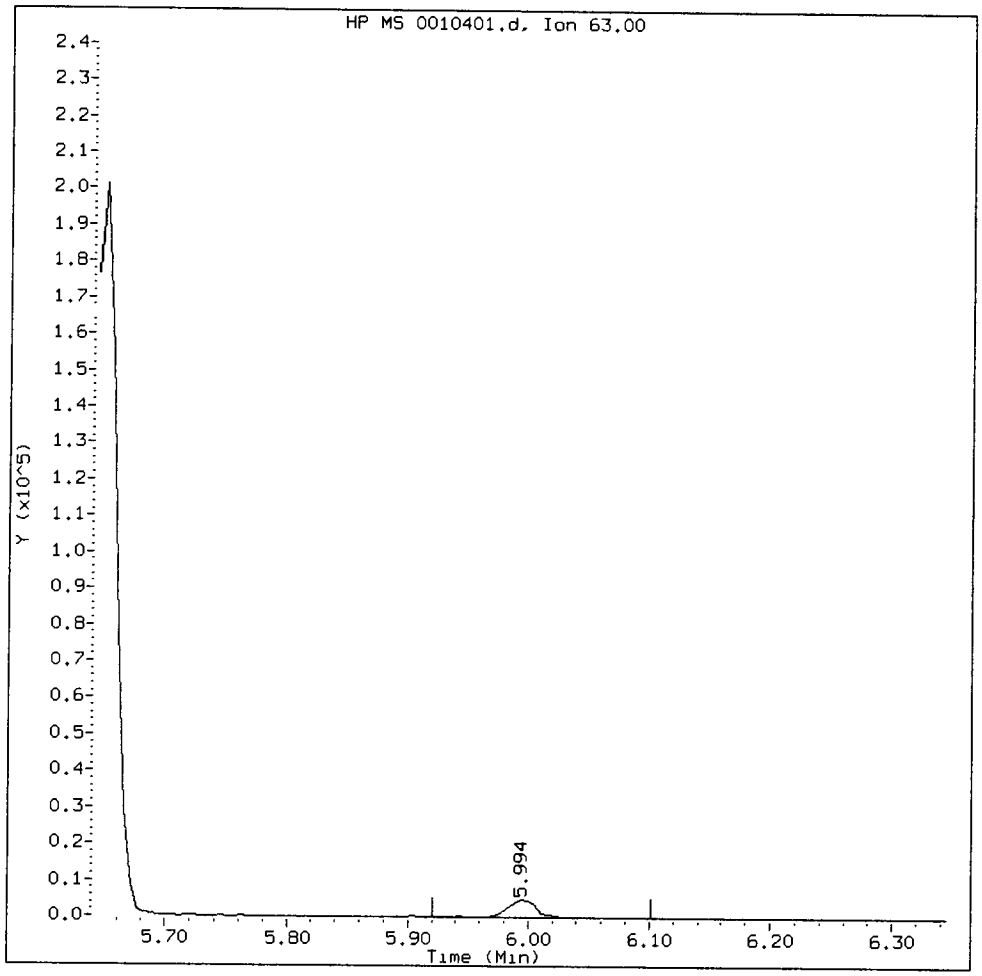
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/16

IC0401, /chem1/nt9.i/01APR13.b/0010401.d

1,2-Dichloropropane Amount: 0.93 Area: 7673



MANUAL INTEGRATION for 1,2-Dichloropropane

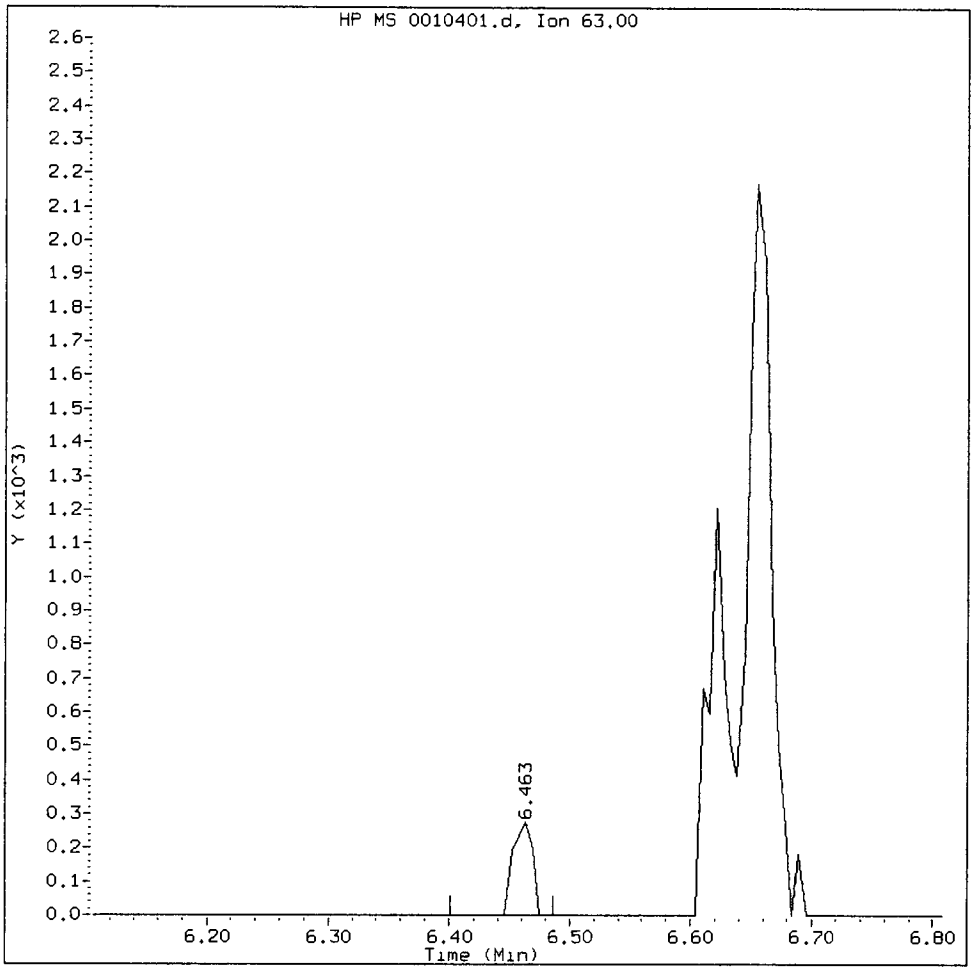
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/10/13

IC0401, /chem1/nt9.i/01APR13.b/0010401.d

2-Chloroethyl Vinyl Ether Amount: 0.44 Area: 305



MANUAL INTEGRATION for 2-Chloroethyl Vinyl Ether

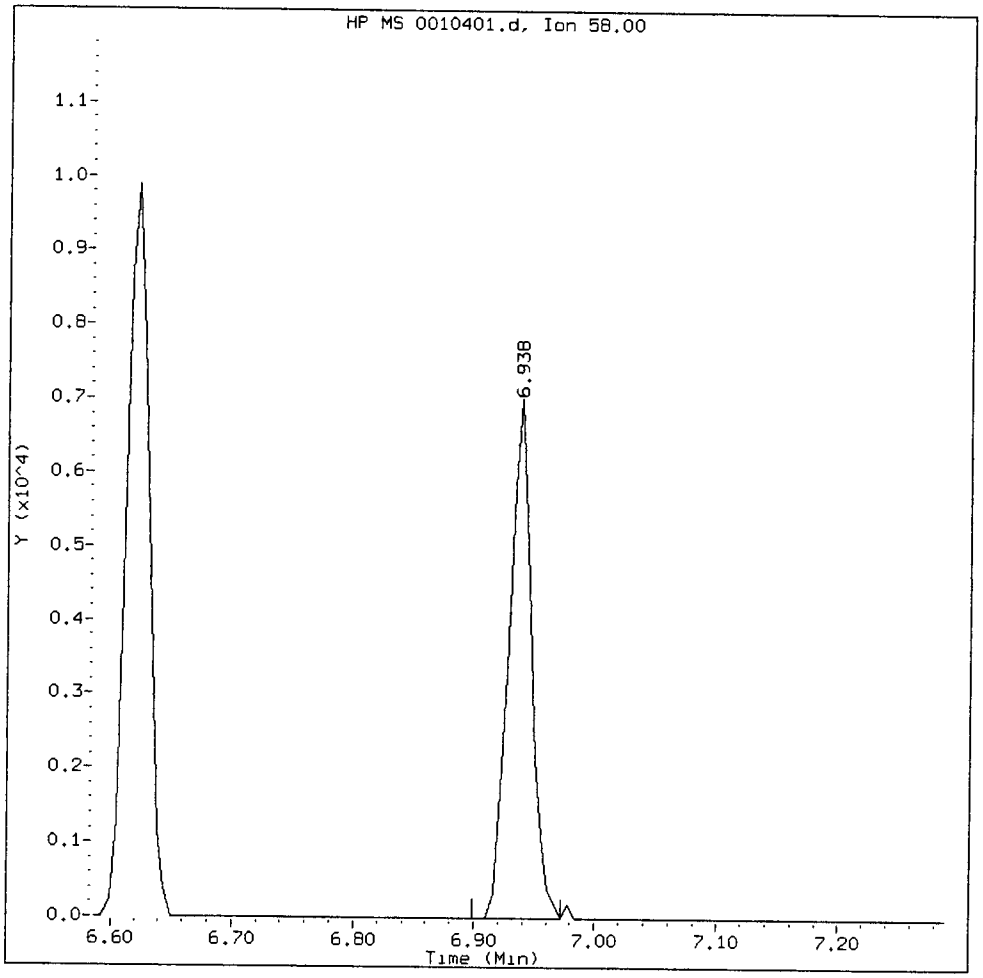
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/4/4

IC0401, /chem1/nt9.i/01APR13.b/0010401.d

4-Methyl-2-Pentanone Amount: 3.49 Area: 9192



MANUAL INTEGRATION for 4-Methyl-2-Pentanone

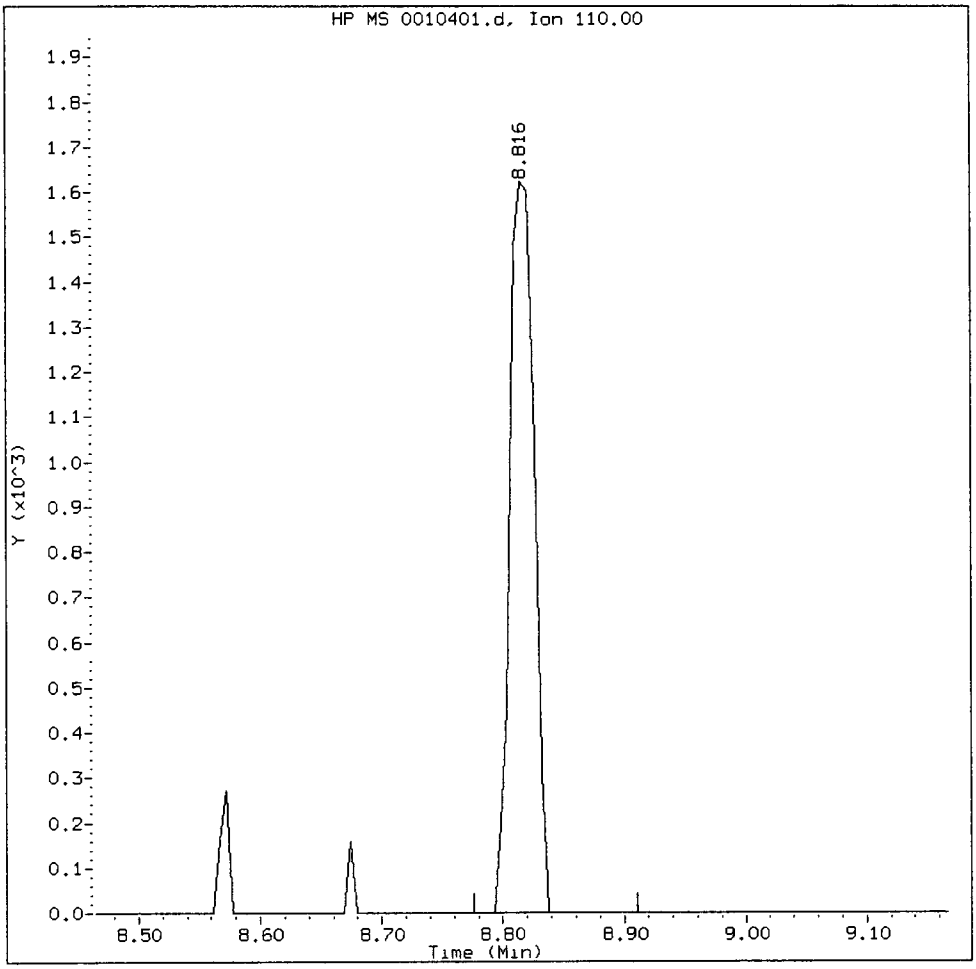
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/4/13

IC0401, /chem1/nt9.i/01APR13.b/0010401.d

1,2,3-Trichloropropane Amount: 1.01 Area: 2274



MANUAL INTEGRATION for 1,2,3-Trichloropropane

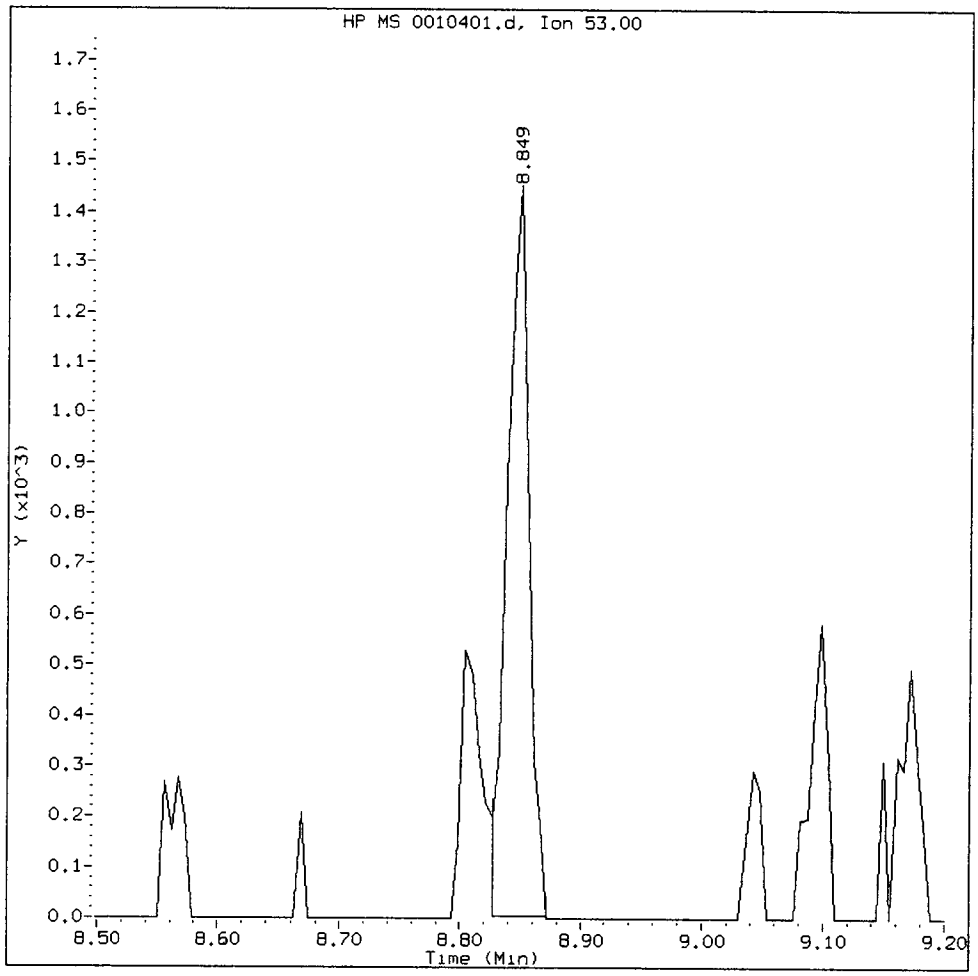
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/04

IC0401, /chem1/nt9.i/01APR13.b/0010401.d

Trans-1,4-Dichloro 2-Butene Amount: 0.81 Area: 1856



MANUAL INTEGRATION for Trans-1,4-Dichloro 2-Butene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/14

CO-ELUTION SUMMARY FOR FILE - 0010401.d

Lab ID: IC0401, Method: VO121012S.m, Instrument: nt9.i, Date: 01-APR-2013

RT	CO-ELUTION COMPOUNDS
8.816	1,2,3-Trichloropropane and 1,3,5-Trimethyl Benzene

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/01APR13.b/0020401.d
Lab Smp Id: ICO401 Client Smp ID: VSTD2
Inj Date : 01-APR-2013 21:08
Operator : PB Inst ID: nt9.i
Smp Info : ICO401,10,10,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/01APR13.b/VO121012S.m
Meth Date : 11-Apr-2013 08:44 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 21:08 Cal File: 0020401.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume
Sa	10.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.383	1.385	(0.263)	12285	2.00000	1.989
2 Chloromethane	50	1.553	1.549	(0.295)	31848	2.00000	3.037
3 Vinyl Chloride	62	1.621	1.617	(0.308)	20151	2.00000	2.057
4 Bromomethane	94	1.904	1.900	(0.362)	18444	2.00000	3.576
5 Chloroethane	64	2.017	2.013	(0.383)	7951	2.00000	2.353
6 Trichlorofluoromethane	101	2.130	2.126	(0.405)	18884	2.00000	3.219
7 1,1-Dichloroethene	96	2.627	2.624	(0.499)	14621	2.00000	2.252
8 Carbon Disulfide	76	2.639	2.624	(0.501)	48229	2.00000	2.166
9 112Trichloro122Trifluoroethane	101	2.684	2.675	(0.510)	14074	2.00000	2.126
10 Iodomethane	142	2.786	2.771	(0.529)	9941	2.00000	2.311
11 Bromoethane	108	2.910	2.901	(0.553)	9652	2.00000	2.133
12 Acrolein	56	3.029	3.031	(0.576)	14935	10.0000	10.823
13 Methylene Chloride	84	3.272	3.268	(0.622)	18563	2.00000	2.357
14 Acetone	43	3.368	3.381	(0.640)	25547	10.0000	12.513

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
15	Trans-1,2-Dichloroethene	96	3.425	3.421	(0.651)	16250	2.00000	2.128
16	Methyl tert butyl ether	73	3.594	3.602	(0.683)	37391	2.00000	2.021
17	1,1-Dichloroethane	63	4.024	4.020	(0.765)	29919	2.00000	2.119
18	Acrylonitrile	53	4.103	4.105	(0.780)	5774	2.00000	2.190
19	Vinyl Acetate	43	4.290	4.298	(0.815)	31006	2.00000	2.074
20	Cis-1,2-Dichloroethene	96	4.494	4.495	(0.854)	18120	2.00000	2.371
22	2,2-Dichloropropane	77	4.578	4.580	(0.870)	20834	2.00000	1.954
23	Bromochloromethane	128	4.657	4.659	(0.885)	7866	2.00000	2.149
24	Chloroform	83	4.731	4.733	(0.899)	26847	2.00000	2.039
25	Carbon Tetrachloride	117	4.816	4.812	(0.853)	16513	2.00000	1.908
$ 27	Dibromofluoromethane	111	4.878	4.880	(0.927)	364227	50.0000	51.383
26	1,1,1-Trichloroethane	97	4.878	4.874	(0.927)	21823	2.00000	1.996
28	1,1-Dichloropropene	75	4.974	4.976	(0.881)	20175	2.00000	1.943
29	2-Butanone	72	5.014	5.010	(0.953)	8445	10.0000	10.881
30	Benzene	78	5.172	5.168	(0.916)	69669	2.00000	1.955
* 31	Pentafluorobenzene	168	5.263	5.264	(1.000)	777269	50.0000	
$ 32	d4-1,2-Dichloroethane	65	5.279	5.281	(1.003)	395963	50.0000	52.642
33	1,2-Dichloroethane	62	5.330	5.332	(0.944)	20328	2.00000	2.160
34	Trichloroethene	95	5.613	5.615	(0.994)	16949	2.00000	2.119
* 35	1,4-Difluorobenzene	114	5.647	5.649	(1.000)	1358871	50.0000	
37	Dibromomethane	93	5.918	5.920	(1.048)	8535	2.00000	2.101
38	1,2-Dichloropropane	63	5.998	5.994	(1.062)	16611	2.00000	1.881
39	Bromodichloromethane	83	6.043	6.045	(1.070)	19305	2.00000	1.943
40	2-Chloroethyl Vinyl Ether	63	6.461	6.458	(1.144)	723	2.00000	0.9669(TM)
41	Cis 1,3-dichloropropene	75	6.495	6.492	(1.150)	19537	2.00000	1.652
$ 42	d8-Toluene	98	6.620	6.622	(1.172)	1723144	50.0000	49.427
43	Toluene	92	6.659	6.656	(1.179)	43638	2.00000	1.959
44	Tetrachloroethene	166	6.919	6.921	(0.898)	16078	2.00000	1.954
45	4-Methyl-2-Pentanone	58	6.936	6.938	(1.228)	23838	10.0000	8.454(TM)
46	Trans 1,3-Dichloropropene	75	6.948	6.950	(1.230)	20435	2.00000	1.879
47	1,1,2-Trichloroethane	97	7.061	7.063	(1.250)	13579	2.00000	2.070
48	Chlorodibromomethane	129	7.179	7.181	(0.932)	12407	2.00000	1.853
49	1,3-Dichloropropane	76	7.253	7.249	(0.941)	21613	2.00000	1.850
50	1,2-Dibromoethane	107	7.343	7.345	(1.300)	11789	2.00000	1.913
51	2-Hexanone	43	7.519	7.515	(0.976)	39577	10.0000	6.416
* 52	d5-Chlorobenzene	117	7.705	7.707	(1.000)	1389931	50.0000	
53	Chlorobenzene	112	7.717	7.719	(1.001)	49043	2.00000	2.039
54	Ethyl Benzene	91	7.739	7.736	(1.004)	79291	2.00000	1.887
55	1,1,1,2-Tetrachloroethane	131	7.762	7.764	(1.007)	14095	2.00000	1.918
56	m,p-xylene	106	7.841	7.843	(1.018)	56194	4.00000	3.704
57	o-Xylene	106	8.146	8.143	(1.057)	21706	2.00000	1.525
58	Styrene	104	8.186	8.182	(1.062)	36992	2.00000	1.318
59	Bromoform	173	8.197	8.199	(0.873)	8450	2.00000	1.924
60	Isopropyl Benzene	105	8.367	8.369	(0.891)	57893	2.00000	1.300
$ 62	4-Bromofluorobenzene	95	8.571	8.572	(1.112)	668070	50.0000	48.856
63	Bromobenzene	156	8.644	8.646	(0.920)	19752	2.00000	2.094
64	N-Propyl Benzene	91	8.667	8.669	(0.923)	80628	2.00000	1.777

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.718	8.719	(0.928)	16208	2.00000	1.994
66	2-Chloro Toluene	91	8.780	8.782	(0.935)	49782	2.00000	1.826
67	1,3,5-Trimethyl Benzene	105	8.814	8.810	(0.939)	51332	2.00000	1.685
68	1,2,3-Trichloropropane	110	8.819	8.816	(0.939)	4590	2.00000	1.848(TM)
69	Trans-1,4-Dichloro 2-Butene	53	8.848	8.850	(0.942)	4414	2.00000	1.757(M)
70	4-Chloro Toluene	91	8.904	8.900	(0.948)	48857	2.00000	1.777
71	T-Butyl Benzene	119	9.046	9.042	(0.963)	41076	2.00000	1.348
72	1,2,4-Trimethylbenzene	105	9.096	9.098	(0.969)	50281	2.00000	1.673
73	S-Butyl Benzene	105	9.176	9.177	(0.977)	70197	2.00000	1.672
74	4-Isopropyl Toluene	119	9.283	9.279	(0.989)	47641	2.00000	1.266
75	1,3-Dichlorobenzene	146	9.334	9.336	(0.994)	35832	2.00000	1.994
* 76	d4-1,4-Dichlorobenzene	152	9.390	9.392	(1.000)	725014	50.0000	
77	1,4-Dichlorobenzene	146	9.402	9.404	(1.001)	39827	2.00000	2.129
78	N-Butyl Benzene	91	9.600	9.596	(1.022)	49249	2.00000	1.620
$ 79	d4-1,2-Dichlorobenzene	152	9.707	9.709	(1.034)	644885	50.0000	50.648
80	1,2-Dichlorobenzene	146	9.713	9.715	(1.034)	36138	2.00000	2.070
81	1,2-Dibromo 3-Chloropropane	75	10.323	10.325	(1.099)	2522	2.00000	2.000
82	Hexachloro 1,3-Butadiene	225	10.832	10.829	(1.154)	13601	2.00000	2.101
83	1,2,4-Trichlorobenzene	180	10.849	10.851	(1.155)	17967	2.00000	1.740
84	Naphthalene	128	11.109	11.106	(1.183)	34466	2.00000	1.556
85	1,2,3-Trichlorobenzene	180	11.251	11.253	(1.198)	19972	2.00000	1.975

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: 0020401.d
Lab Smp Id: IC0401
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Misc Info: 12-

Calibration Date: 01-APR-2013
Calibration Time: 20:02
Client Smp ID: VSTD2
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	777269	-17.44
35 1,4-Difluorobenze	1617500	808750	3235000	1358871	-15.99
52 d5-Chlorobenzene	1675930	837965	3351860	1389931	-17.07
76 d4-1,4-Dichlorobe	909458	454729	1818916	725014	-20.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	-0.04
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	-0.03
52 d5-Chlorobenzene	7.71	7.21	8.21	7.71	-0.02
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	-0.02

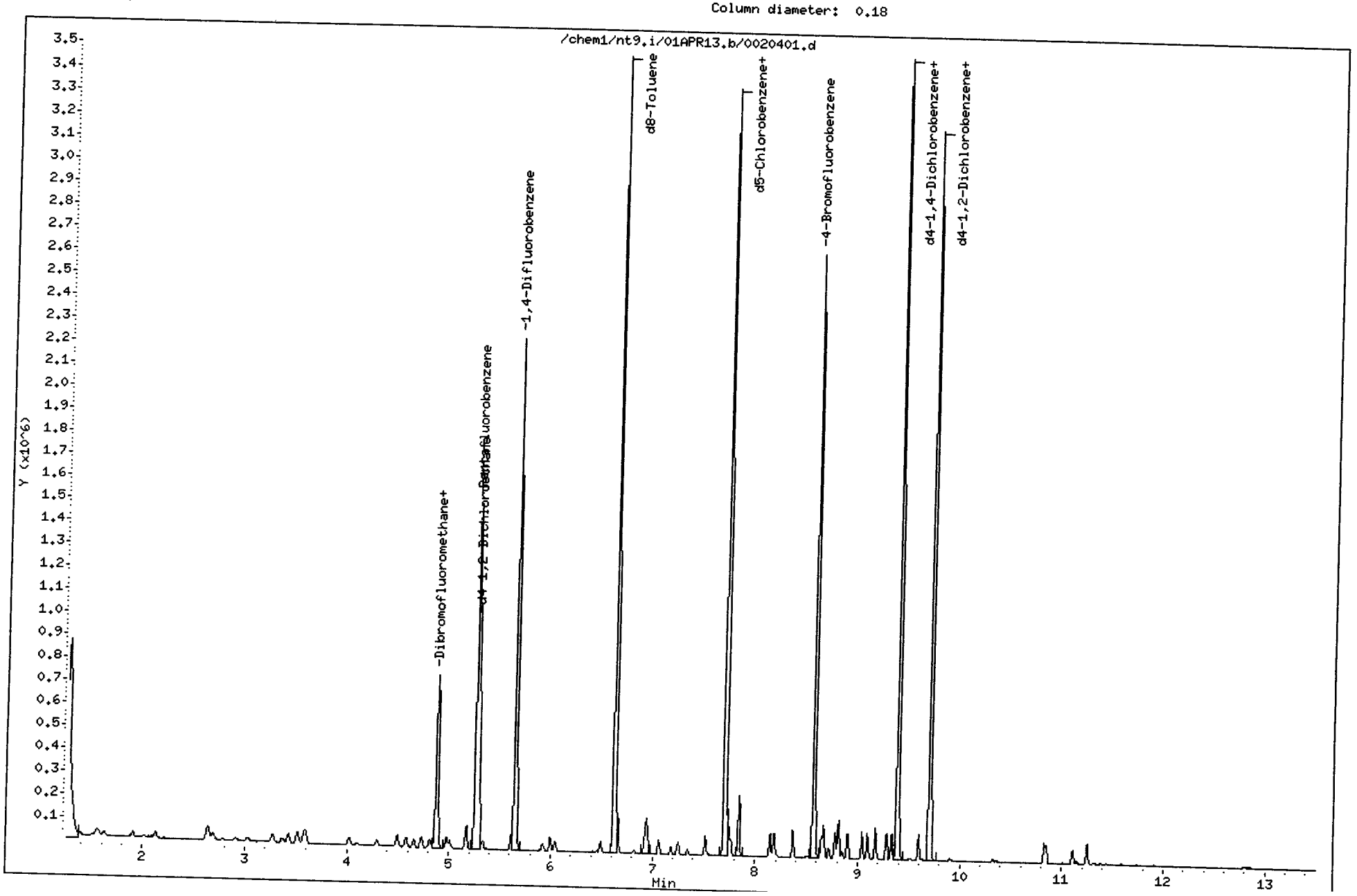
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt9.i/01APR13.b/0020401.d
Date : 01-APR-2013 21:08
Client ID: VSTD2
Sample Info: IC0401,10,10,0

Instrument: nt9.i

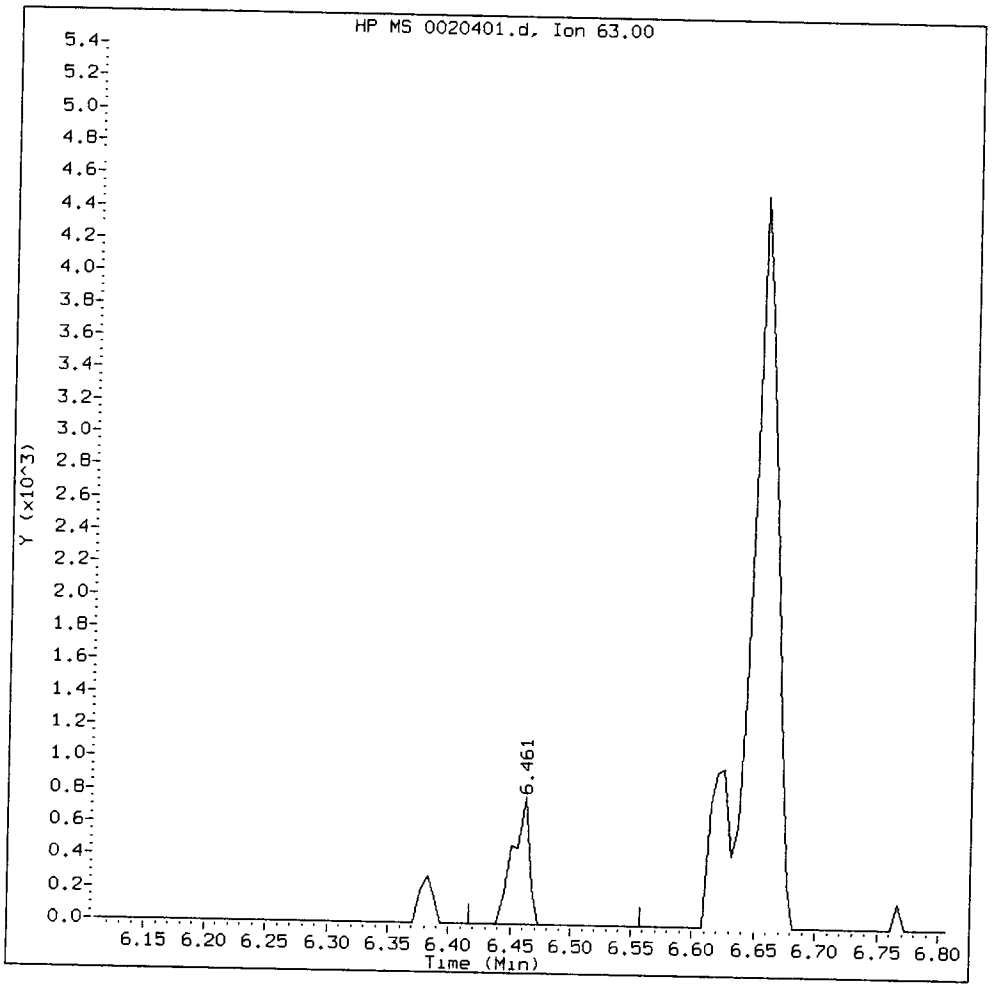
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



IC0401, /chem1/nt9.i/01APR13.b/0020401.d

2-Chloroethyl Vinyl Ether Amount: 0.97 Area: 723



MANUAL INTEGRATION for 2-Chloroethyl Vinyl Ether

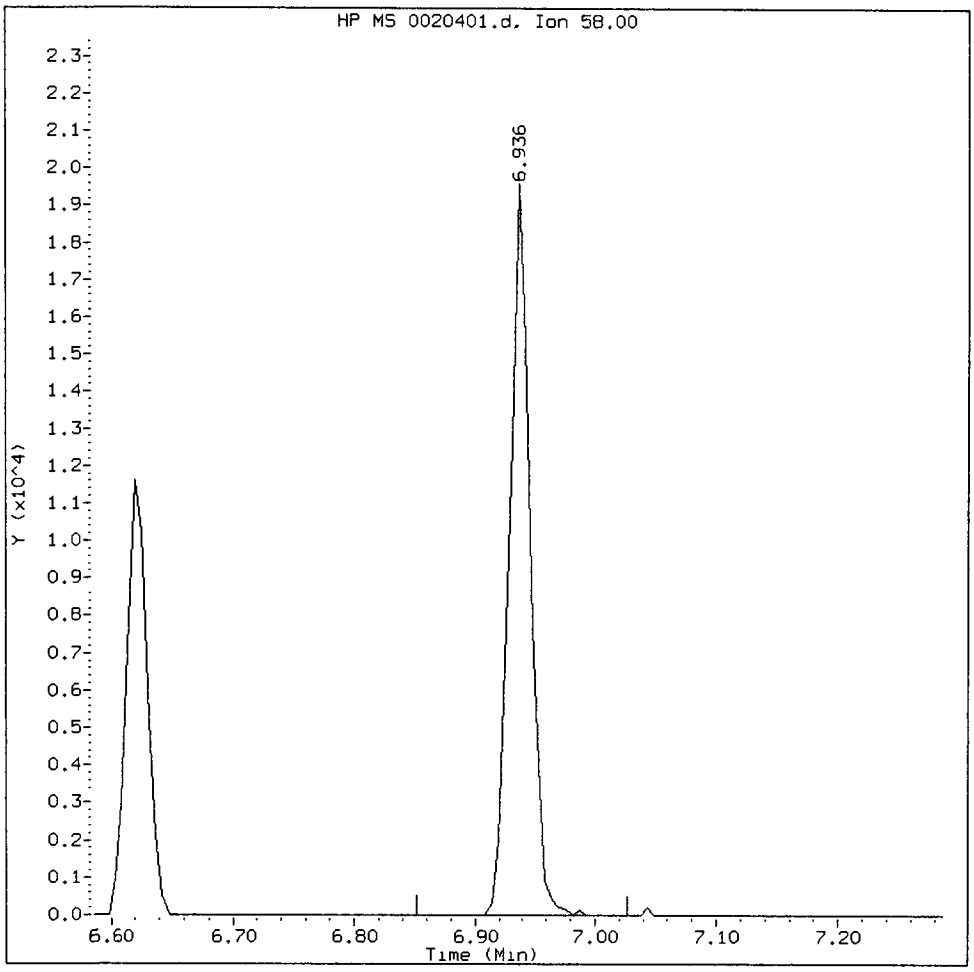
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/4/4

IC0401, /chem1/nt9.i/01APR13.b/0020401.d

4-Methyl-2-Pentanone Amount: 8.45 Area: 23838



MANUAL INTEGRATION for 4-Methyl-2-Pentanone

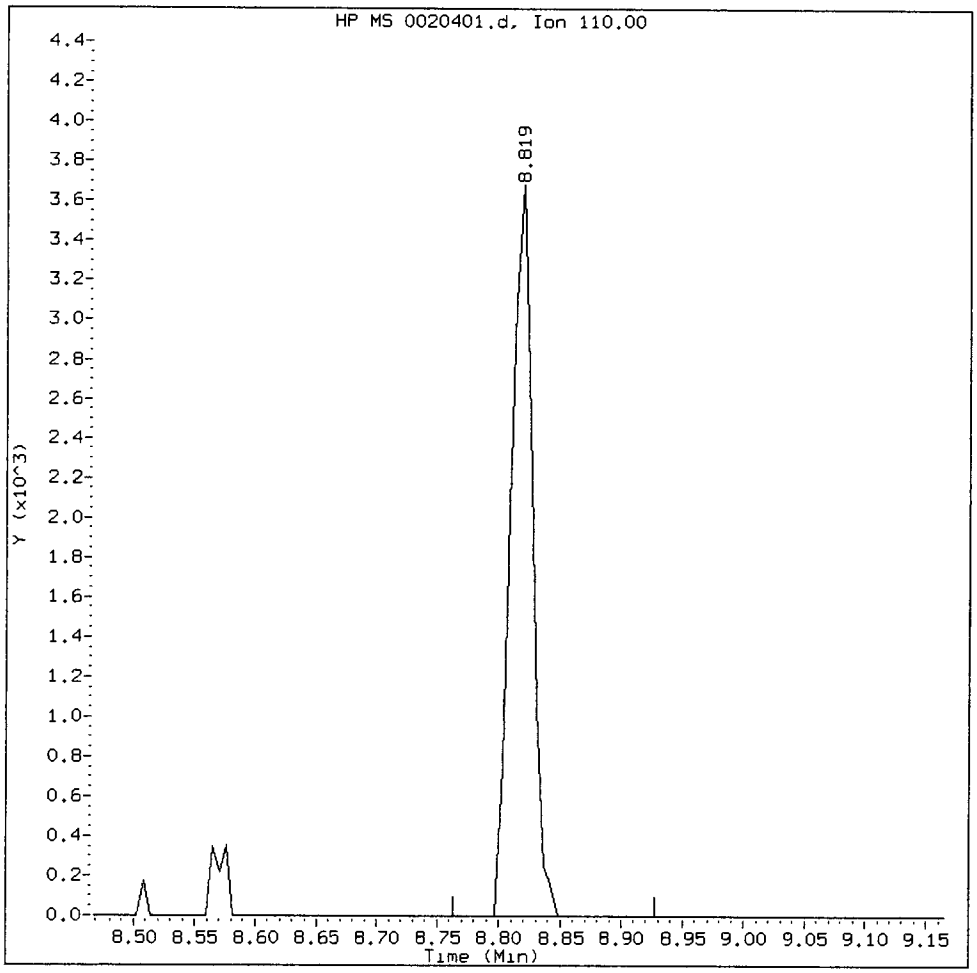
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/24

IC0401, /chem1/nt9.i/01APR13.b/0020401.d

1,2,3-Trichloropropane Amount: 1.85 Area: 4590



MANUAL INTEGRATION for 1,2,3-Trichloropropane

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

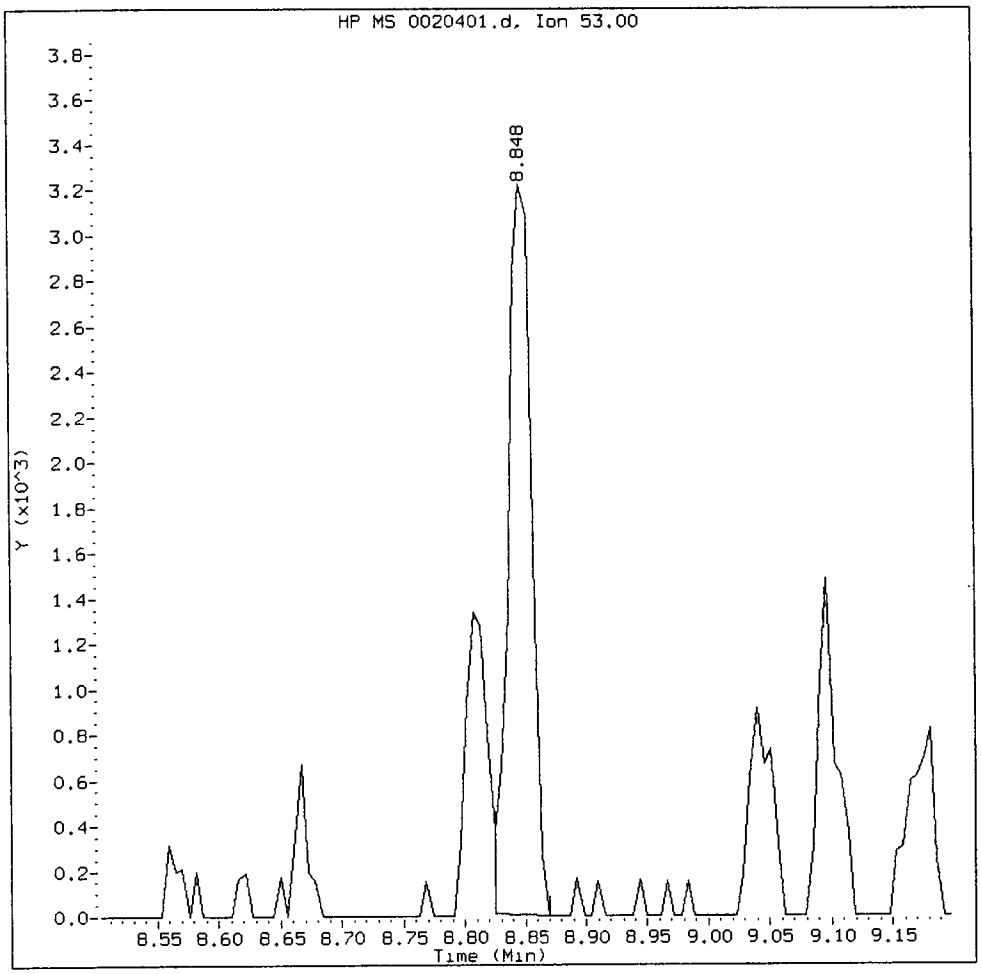
5. Other _____

Analyst: _____ Date: 4/4/13

WJ10:00619

IC0401, /chem1/nt9.i/01APR13.b/0020401.d

Trans-1,4-Dichloro 2-Butene Amount: 1.76 Area: 4414



MANUAL INTEGRATION for Trans-1,4-Dichloro 2-Butene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VT Date: 4/4/4

CO-ELUTION SUMMARY FOR FILE - 0020401.d

Lab ID: IC0401, Method: VO121012S.m, Instrument: nt9.i, Date: 01-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/01APR13.b/0050401.d
Lab Smp Id: IC0401 Client Smp ID: VSTD5
Inj Date : 01-APR-2013 20:46
Operator : PB Inst ID: nt9.i
Smp Info : IC0401,10,10,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/01APR13.b/VO121012S.m
Meth Date : 11-Apr-2013 08:44 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 20:46 Cal File: 0050401.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume
Sa	10.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.380	1.385	(0.262)	29673	5.00000	4.501
2 Chloromethane	50	1.544	1.549	(0.294)	76160	5.00000	6.804
3 Vinyl Chloride	62	1.611	1.617	(0.306)	53529	5.00000	5.120
4 Bromomethane	94	1.900	1.900	(0.361)	42724	5.00000	7.761
5 Chloroethane	64	2.007	2.013	(0.382)	18484	5.00000	5.126
6 Trichlorofluoromethane	101	2.120	2.126	(0.403)	31747	5.00000	5.071
7 1,1-Dichloroethene	96	2.618	2.624	(0.498)	37263	5.00000	5.377
8 Carbon Disulfide	76	2.624	2.624	(0.499)	128121	5.00000	5.390
9 112Trichloro122Trifluoroethane	101	2.669	2.675	(0.507)	35719	5.00000	5.056
10 Iodomethane	142	2.771	2.771	(0.527)	26352	5.00000	5.739
11 Bromoethane	108	2.901	2.901	(0.552)	25190	5.00000	5.216
12 Acrolein	56	3.025	3.031	(0.575)	37366	25.0000	25.369
13 Methylene Chloride	84	3.263	3.268	(0.620)	45489	5.00000	5.410
14 Acetone	43	3.376	3.381	(0.642)	57369	25.0000	26.326

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.415	3.421	(0.649)	41919	5.00000	5.143
	16 Methyl tert butyl ether	73	3.596	3.602	(0.684)	101240	5.00000	5.126
	17 1,1-Dichloroethane	63	4.020	4.020	(0.764)	78483	5.00000	5.206
	18 Acrylonitrile	53	4.099	4.105	(0.780)	14559	5.00000	5.174
	19 Vinyl Acetate	43	4.292	4.298	(0.816)	79898	5.00000	5.006
	20 Cis-1,2-Dichloroethene	96	4.490	4.495	(0.854)	41544	5.00000	5.092
	22 2,2-Dichloropropane	77	4.574	4.580	(0.870)	55716	5.00000	4.895
	23 Bromochloromethane	128	4.654	4.659	(0.885)	20370	5.00000	5.213
	24 Chloroform	83	4.727	4.733	(0.899)	71972	5.00000	5.120
	25 Carbon Tetrachloride	117	4.812	4.812	(0.852)	43912	5.00000	4.753
$	27 Dibromofluoromethane	111	4.874	4.880	(0.927)	384131	50.0000	50.768
	26 1,1,1-Trichloroethane	97	4.874	4.874	(0.927)	58267	5.00000	4.992
	28 1,1-Dichloropropene	75	4.970	4.976	(0.880)	50809	5.00000	4.585
	29 2-Butanone	72	5.010	5.010	(0.953)	19609	25.0000	23.670
	30 Benzene	78	5.168	5.168	(0.915)	184886	5.00000	4.862
*	31 Pentafluorobenzene	168	5.259	5.264	(1.000)	829667	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.281	5.281	(1.004)	415898	50.0000	51.800
	33 1,2-Dichloroethane	62	5.332	5.332	(0.944)	50378	5.00000	5.014
	34 Trichloroethene	95	5.609	5.615	(0.993)	40196	5.00000	4.708
*	35 1,4-Difluorobenzene	114	5.649	5.649	(1.000)	1450336	50.0000	
	37 Dibromomethane	93	5.915	5.920	(1.047)	20993	5.00000	4.842
	38 1,2-Dichloropropane	63	5.994	5.994	(1.061)	46732	5.00000	4.958
	39 Bromodichloromethane	83	6.045	6.045	(1.070)	52499	5.00000	4.952
	40 2-Chloroethyl Vinyl Ether	63	6.457	6.458	(1.143)	2426	5.00000	3.040(TM)
	41 Cis 1,3-dichloropropene	75	6.491	6.492	(1.149)	56581	5.00000	4.481
$	42 d8-Toluene	98	6.621	6.622	(1.172)	1862776	50.0000	50.063
	43 Toluene	92	6.655	6.656	(1.178)	116979	5.00000	4.920
	44 Tetrachloroethene	166	6.921	6.921	(0.899)	43108	5.00000	4.866
	45 4-Methyl-2-Pentanone	58	6.938	6.938	(1.228)	71790	25.0000	23.855(M)
	46 Trans 1,3-Dichloropropene	75	6.949	6.950	(1.230)	56825	5.00000	4.896
	47 1,1,2-Trichloroethane	97	7.063	7.063	(1.250)	33597	5.00000	4.798
	48 Chlorodibromomethane	129	7.181	7.181	(0.932)	33211	5.00000	4.608
	49 1,3-Dichloropropane	76	7.249	7.249	(0.941)	61298	5.00000	4.873
	50 1,2-Dibromoethane	107	7.345	7.345	(1.300)	30840	5.00000	4.688
	51 2-Hexanone	43	7.515	7.515	(0.976)	122297	25.0000	18.414
*	52 d5-Chlorobenzene	117	7.702	7.707	(1.000)	1496568	50.0000	
	53 Chlorobenzene	112	7.713	7.719	(1.001)	129912	5.00000	5.016
	54 Ethyl Benzene	91	7.735	7.736	(1.004)	215153	5.00000	4.756
	55 1,1,1,2-Tetrachloroethane	131	7.764	7.764	(1.008)	38586	5.00000	4.876
	56 m,p-xylene	106	7.843	7.843	(1.018)	164548	10.0000	10.073
	57 o-Xylene	106	8.148	8.143	(1.058)	68925	5.00000	4.498
	58 Styrene	104	8.182	8.182	(1.062)	120766	5.00000	3.997
	59 Bromoform	173	8.199	8.199	(0.873)	23000	5.00000	4.733
	60 Isopropyl Benzene	105	8.369	8.369	(0.892)	183177	5.00000	3.717
$	62 4-Bromofluorobenzene	95	8.572	8.572	(1.113)	733255	50.0000	49.802
	63 Bromobenzene	156	8.646	8.646	(0.921)	50679	5.00000	4.856
	64 N-Propyl Benzene	91	8.668	8.669	(0.923)	233120	5.00000	4.643

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	65 1,1,2,2-Tetrachloroethane	83	8.719	8.719	(0.929)	42333	5.00000	4.706
	66 2-Chloro Toluene	91	8.782	8.782	(0.936)	140985	5.00000	4.673
	67 1,3,5-Trimethyl Benzene	105	8.810	8.810	(0.939)	160408	5.00000	4.759
	68 1,2,3-Trichloropropane	110	8.816	8.816	(0.939)	13628	5.00000	4.959
	69 Trans-1,4-Dichloro 2-Butene	53	8.849	8.850	(0.943)	12494	5.00000	4.495
	70 4-Chloro Toluene	91	8.900	8.900	(0.948)	143850	5.00000	4.729
	71 T-Butyl Benzene	119	9.042	9.042	(0.963)	127633	5.00000	3.785
	72 1,2,4-Trimethylbenzene	105	9.098	9.098	(0.969)	156819	5.00000	4.717
	73 S-Butyl Benzene	105	9.177	9.177	(0.978)	215977	5.00000	4.649
	74 4-Isopropyl Toluene	119	9.279	9.279	(0.989)	156435	5.00000	3.757
	75 1,3-Dichlorobenzene	146	9.330	9.336	(0.994)	96975	5.00000	4.878
*	76 d4-1,4-Dichlorobenzene	152	9.387	9.392	(1.000)	802249	50.0000	
	77 1,4-Dichlorobenzene	146	9.398	9.404	(1.001)	101152	5.00000	4.887
	78 N-Butyl Benzene	91	9.596	9.596	(1.022)	151534	5.00000	4.505
$	79 d4-1,2-Dichlorobenzene	152	9.709	9.709	(1.034)	709095	50.0000	50.330
	80 1,2-Dichlorobenzene	146	9.715	9.715	(1.035)	97783	5.00000	5.062
	81 1,2-Dibromo 3-Chloropropane	75	10.325	10.325	(1.100)	6378	5.00000	4.570
	82 Hexachloro 1,3-Butadiene	225	10.829	10.829	(1.154)	35320	5.00000	4.931
	83 1,2,4-Trichlorobenzene	180	10.851	10.851	(1.156)	53455	5.00000	4.678
	84 Naphthalene	128	11.111	11.106	(1.184)	107680	5.00000	4.395
	85 1,2,3-Trichlorobenzene	180	11.253	11.253	(1.199)	54983	5.00000	4.913

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: 0050401.d
Lab Smp Id: IC0401
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Misc Info: 12-

Calibration Date: 01-APR-2013
Calibration Time: 20:02
Client Smp ID: VSTD5
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	829667	-11.88
35 1,4-Difluorobenze	1617500	808750	3235000	1450336	-10.33
52 d5-Chlorobenzene	1675930	837965	3351860	1496568	-10.70
76 d4-1,4-Dichlorobe	909458	454729	1818916	802249	-11.79

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	-0.11
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	0.00
52 d5-Chlorobenzene	7.71	7.21	8.21	7.70	-0.07
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	-0.06

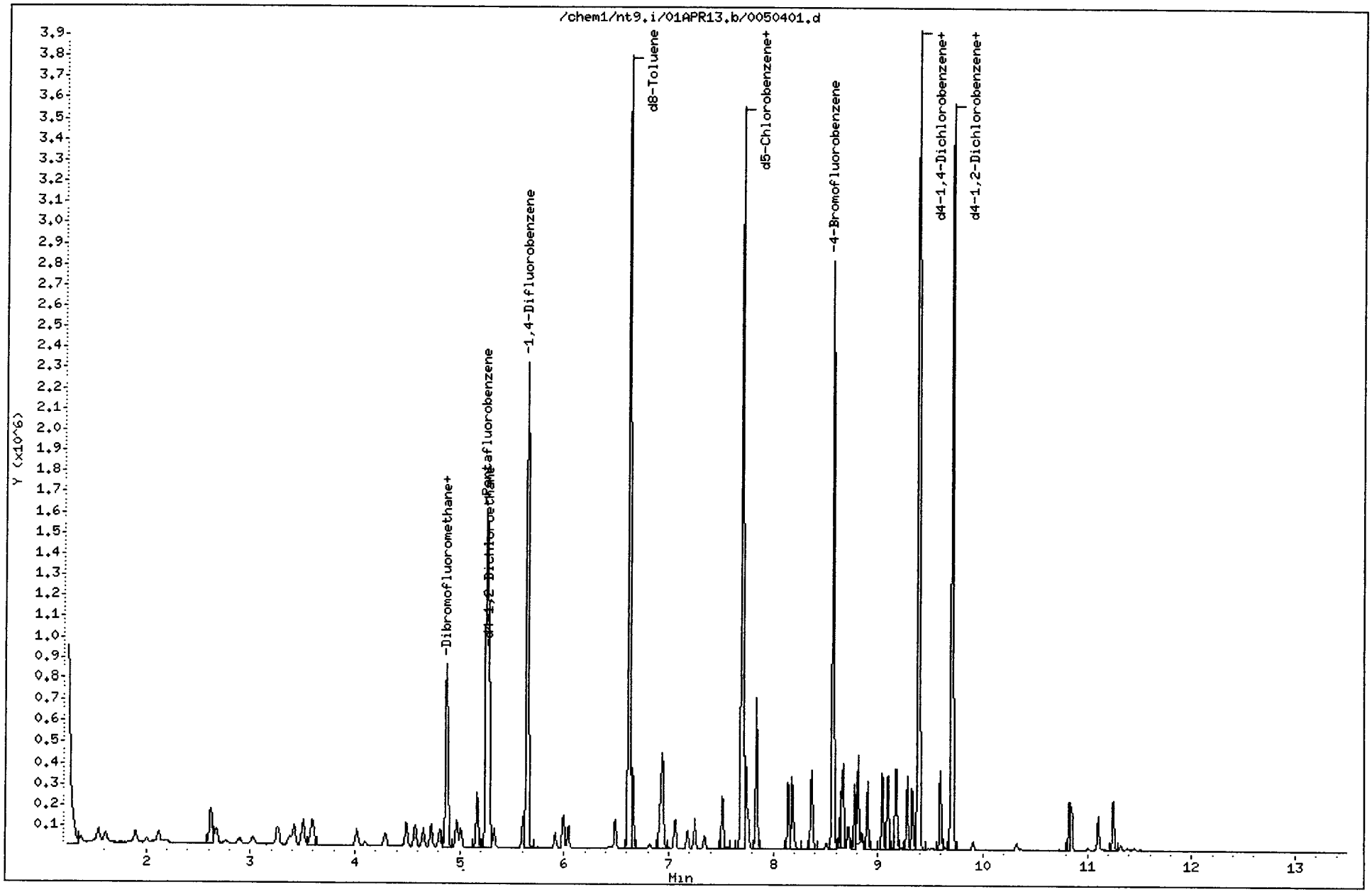
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt9.i/01APR13.b/0050401.d
Date : 01-APR-2013 20:46
Client ID: VSTD5
Sample Info: IC0401,10,10,0

Column phase: RTXVMS

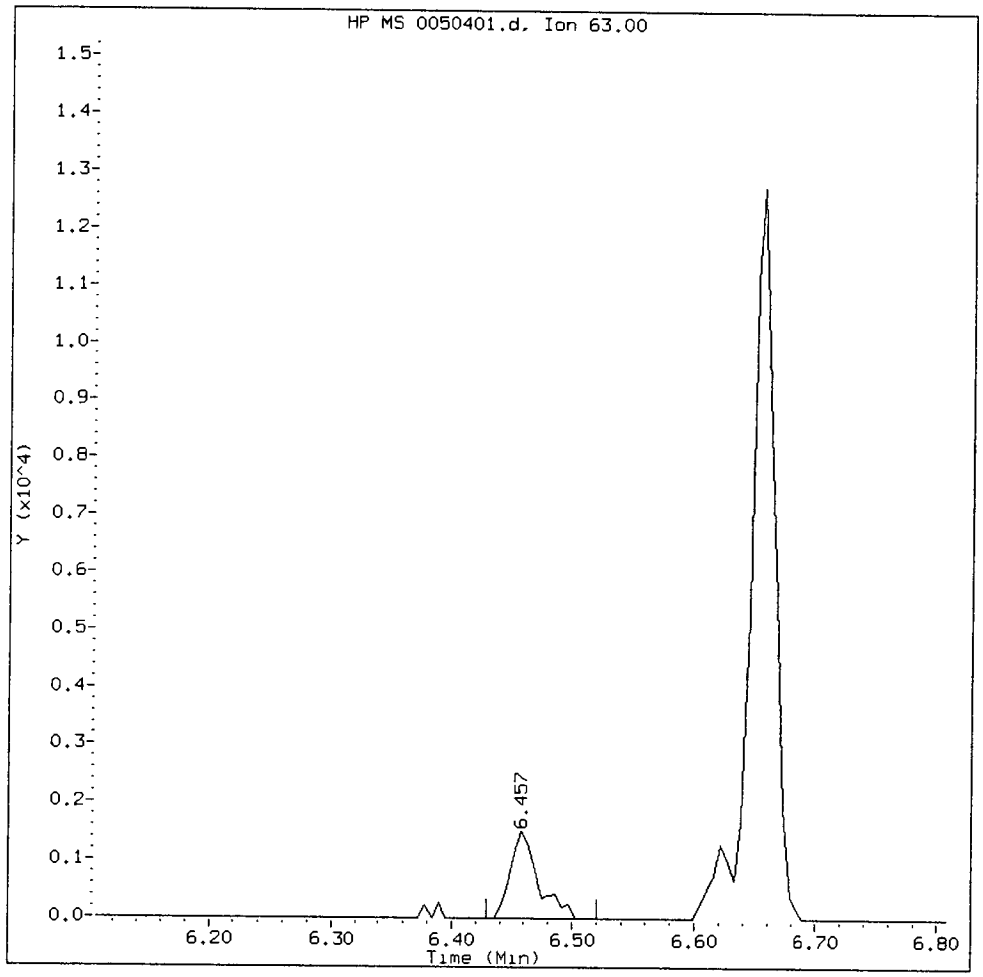
Instrument: nt9.i

Operator: PB
Column diameter: 0.18



IC0401, /chem1/nt9.i/01APR13.b/0050401.d

2-Chloroethyl Vinyl Ether Amount: 3.04 Area: 2426



MANUAL INTEGRATION for 2-Chloroethyl Vinyl Ether

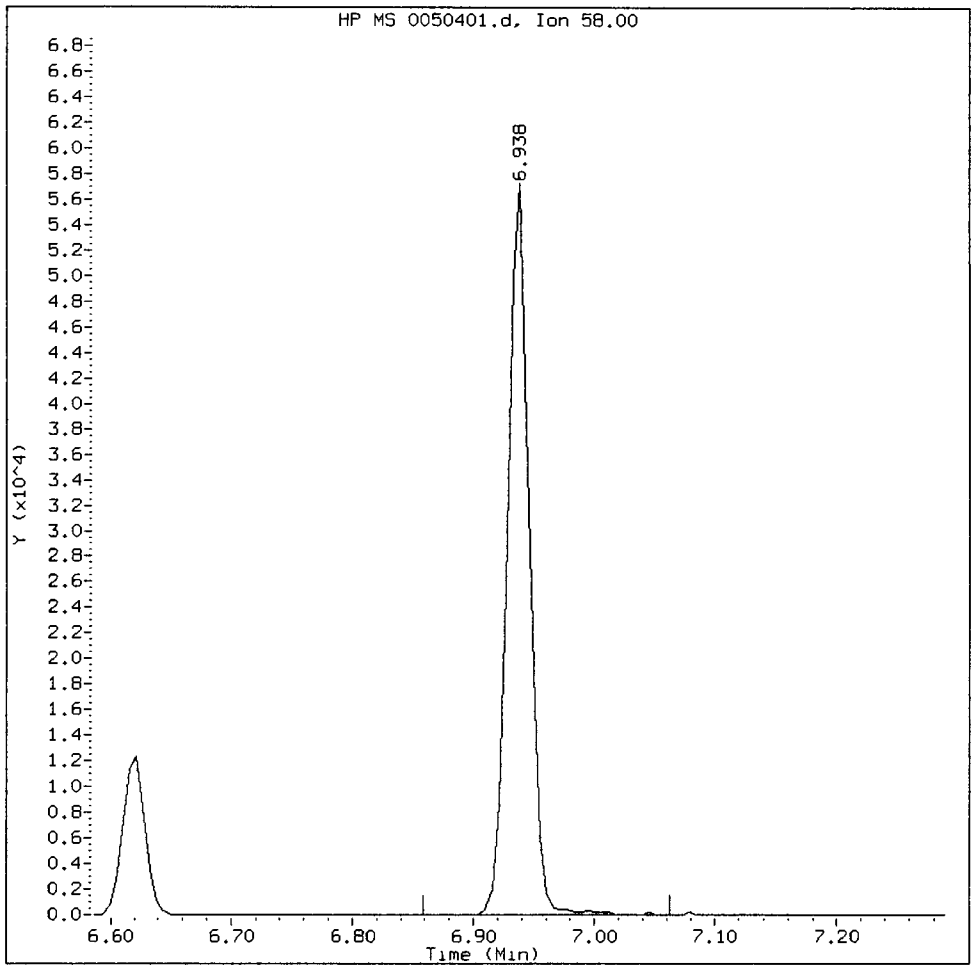
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/11/13

IC0401, /chem1/nt9.i/01APR13.b/0050401.d

4-Methyl-2-Pentanone Amount: 23.86 Area: 71790



MANUAL INTEGRATION for 4-Methyl-2-Pentanone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/24

CO-ELUTION SUMMARY FOR FILE - 0050401.d

Lab ID: IC0401, Method: VO121012S.m, Instrument: nt9.i, Date: 01-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/01APR13.b/0100401.d
Lab Smp Id: IC0401 Client Smp ID: VSTD10
Inj Date : 01-APR-2013 20:24
Operator : PB Inst ID: nt9.i
Smp Info : IC0401,10,10,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/01APR13.b/VO121012S.m
Meth Date : 11-Apr-2013 08:44 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 20:24 Cal File: 0100401.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume
Sa	10.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.385	1.385	(0.263)	65278	10.0000	8.788
2 Chloromethane	50	1.544	1.549	(0.294)	162462	10.0000	12.881
3 Vinyl Chloride	62	1.617	1.617	(0.308)	116704	10.0000	9.906
4 Bromomethane	94	1.900	1.900	(0.361)	81400	10.0000	13.123
5 Chloroethane	64	2.013	2.013	(0.383)	40831	10.0000	10.048
6 Trichlorofluoromethane	101	2.126	2.126	(0.404)	64435	10.0000	9.133
7 1,1-Dichloroethene	96	2.607	2.624	(0.496)	85058	10.0000	10.892
8 Carbon Disulfide	76	2.607	2.624	(0.496)	282483	10.0000	10.546
9 112Trichloro122Trifluoroethane	101	2.658	2.675	(0.505)	82394	10.0000	10.350
10 Iodomethane	142	2.760	2.771	(0.525)	54610	10.0000	10.554
11 Bromoethane	108	2.884	2.901	(0.548)	58711	10.0000	10.788
12 Acrolein	56	3.037	3.031	(0.577)	79583	50.0000	47.950
13 Methylene Chloride	84	3.263	3.268	(0.620)	100820	10.0000	10.642
14 Acetone	43	3.399	3.381	(0.646)	116020	50.0000	47.248

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.415	3.421	(0.649)	97074	10.0000	10.570
	16 Methyl tert butyl ether	73	3.613	3.602	(0.687)	228335	10.0000	10.260
	17 1,1-Dichloroethane	63	4.021	4.020	(0.764)	177335	10.0000	10.440
	18 Acrylonitrile	53	4.111	4.105	(0.782)	30144	10.0000	9.507
	19 Vinyl Acetate	43	4.298	4.298	(0.817)	177532	10.0000	9.871
	20 Cis-1,2-Dichloroethene	96	4.496	4.495	(0.855)	95114	10.0000	10.346
	22 2,2-Dichloropropane	77	4.575	4.580	(0.870)	131411	10.0000	10.246
	23 Bromochloromethane	128	4.660	4.659	(0.886)	46368	10.0000	10.530
	24 Chloroform	83	4.733	4.733	(0.900)	165762	10.0000	10.465
	25 Carbon Tetrachloride	117	4.812	4.812	(0.852)	103582	10.0000	10.118
$	27 Dibromofluoromethane	111	4.880	4.880	(0.928)	428593	50.0000	50.269
	26 1,1,1-Trichloroethane	97	4.874	4.874	(0.927)	136390	10.0000	10.370
	28 1,1-Dichloropropene	75	4.971	4.976	(0.880)	124255	10.0000	10.119
	29 2-Butanone	72	5.021	5.010	(0.955)	46220	50.0000	49.514
	30 Benzene	78	5.168	5.168	(0.915)	435324	10.0000	10.332
*	31 Pentafluorobenzene	168	5.259	5.264	(1.000)	934883	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.282	5.281	(1.004)	446077	50.0000	49.306
	33 1,2-Dichloroethane	62	5.332	5.332	(0.944)	115079	10.0000	10.338
	34 Trichloroethene	95	5.609	5.615	(0.993)	97616	10.0000	10.318
*	35 1,4-Difluorobenzene	114	5.649	5.649	(1.000)	1607018	50.0000	
	37 Dibromomethane	93	5.920	5.920	(1.048)	49358	10.0000	10.274
	38 1,2-Dichloropropane	63	5.994	5.994	(1.061)	109812	10.0000	10.515
	39 Bromodichloromethane	83	6.045	6.045	(1.070)	121287	10.0000	10.324
	40 2-Chloroethyl Vinyl Ether	63	6.463	6.458	(1.144)	6099	10.0000	6.897(TM)
	41 Cis 1,3-dichloropropene	75	6.492	6.492	(1.149)	145076	10.0000	10.370
$	42 d8-Toluene	98	6.622	6.622	(1.172)	2084400	50.0000	50.557
	43 Toluene	92	6.656	6.656	(1.178)	277036	10.0000	10.516
	44 Tetrachloroethene	166	6.921	6.921	(0.898)	101278	10.0000	10.151
	45 4-Methyl-2-Pentanone	58	6.938	6.938	(1.228)	174581	50.0000	52.356(M)
	46 Trans 1,3-Dichloropropene	75	6.950	6.950	(1.230)	134434	10.0000	10.453
	47 1,1,2-Trichloroethane	97	7.063	7.063	(1.250)	80819	10.0000	10.417
	48 Chlorodibromomethane	129	7.181	7.181	(0.932)	82030	10.0000	10.106
	49 1,3-Dichloropropane	76	7.249	7.249	(0.941)	144975	10.0000	10.233
	50 1,2-Dibromoethane	107	7.345	7.345	(1.300)	74796	10.0000	10.260
	51 2-Hexanone	43	7.521	7.515	(0.976)	305849	50.0000	40.890
*	52 d5-Chlorobenzene	117	7.707	7.707	(1.000)	1685432	50.0000	
	53 Chlorobenzene	112	7.719	7.719	(1.001)	305390	10.0000	10.470
	54 Ethyl Benzene	91	7.736	7.736	(1.004)	529349	10.0000	10.390
	55 1,1,1,2-Tetrachloroethane	131	7.764	7.764	(1.007)	91732	10.0000	10.293
	56 m,p-xylene	106	7.843	7.843	(1.018)	410553	20.0000	22.316
	57 o-Xylene	106	8.143	8.143	(1.056)	188931	10.0000	10.947
	58 Styrene	104	8.182	8.182	(1.062)	319404	10.0000	9.387
	59 Bromoform	173	8.199	8.199	(0.873)	54116	10.0000	10.053
	60 Isopropyl Benzene	105	8.369	8.369	(0.892)	483100	10.0000	8.850
$	62 4-Bromofluorobenzene	95	8.573	8.572	(1.112)	830088	50.0000	50.061
	63 Bromobenzene	156	8.646	8.646	(0.921)	119833	10.0000	10.366
	64 N-Propyl Benzene	91	8.669	8.669	(0.923)	581687	10.0000	10.459

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	65 1,1,2,2-Tetrachloroethane	83	8.720	8.719	(0.929)	100335	10.0000	10.069
	66 2-Chloro Toluene	91	8.782	8.782	(0.936)	357304	10.0000	10.691
	67 1,3,5-Trimethyl Benzene	105	8.810	8.810	(0.939)	408648	10.0000	10.945
	68 1,2,3-Trichloropropane	110	8.816	8.816	(0.939)	31612	10.0000	10.386
	69 Trans-1,4-Dichloro 2-Butene	53	8.850	8.850	(0.943)	28391	10.0000	9.221
	70 4-Chloro Toluene	91	8.900	8.900	(0.948)	358242	10.0000	10.631
	71 T-Butyl Benzene	119	9.042	9.042	(0.963)	343995	10.0000	9.210
	72 1,2,4-Trimethylbenzene	105	9.098	9.098	(0.969)	396528	10.0000	10.767
	73 S-Butyl Benzene	105	9.178	9.177	(0.978)	549550	10.0000	10.679
	74 4-Isopropyl Toluene	119	9.279	9.279	(0.989)	410071	10.0000	8.891
	75 1,3-Dichlorobenzene	146	9.336	9.336	(0.995)	230047	10.0000	10.447
*	76 d4-1,4-Dichlorobenzene	152	9.387	9.392	(1.000)	888613	50.0000	
	77 1,4-Dichlorobenzene	146	9.398	9.404	(1.001)	237609	10.0000	10.364
	78 N-Butyl Benzene	91	9.596	9.596	(1.022)	385999	10.0000	10.360
$	79 d4-1,2-Dichlorobenzene	152	9.709	9.709	(1.034)	788404	50.0000	50.520
	80 1,2-Dichlorobenzene	146	9.715	9.715	(1.035)	224884	10.0000	10.510
	81 1,2-Dibromo 3-Chloropropane	75	10.325	10.325	(1.100)	14728	10.0000	9.527
	82 Hexachloro 1,3-Butadiene	225	10.829	10.829	(1.154)	80764	10.0000	10.179
	83 1,2,4-Trichlorobenzene	180	10.851	10.851	(1.156)	134132	10.0000	10.597
	84 Naphthalene	128	11.111	11.106	(1.184)	289586	10.0000	10.670
	85 1,2,3-Trichlorobenzene	180	11.253	11.253	(1.199)	131263	10.0000	10.589

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: 0100401.d
Lab Smp Id: IC0401
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Misc Info: 12-

Calibration Date: 01-APR-2013
Calibration Time: 20:02
Client Smp ID: VSTD10
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	934883	-0.70
35 1,4-Difluorobenze	1617500	808750	3235000	1607018	-0.65
52 d5-Chlorobenzene	1675930	837965	3351860	1685432	0.57
76 d4-1,4-Dichlorobe	909458	454729	1818916	888613	-2.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	-0.11
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	0.00
52 d5-Chlorobenzene	7.71	7.21	8.21	7.71	0.00
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt9.i/01APR13.b/0100401.d

Date : 01-APR-2013 20:24

Client ID: VSTD10

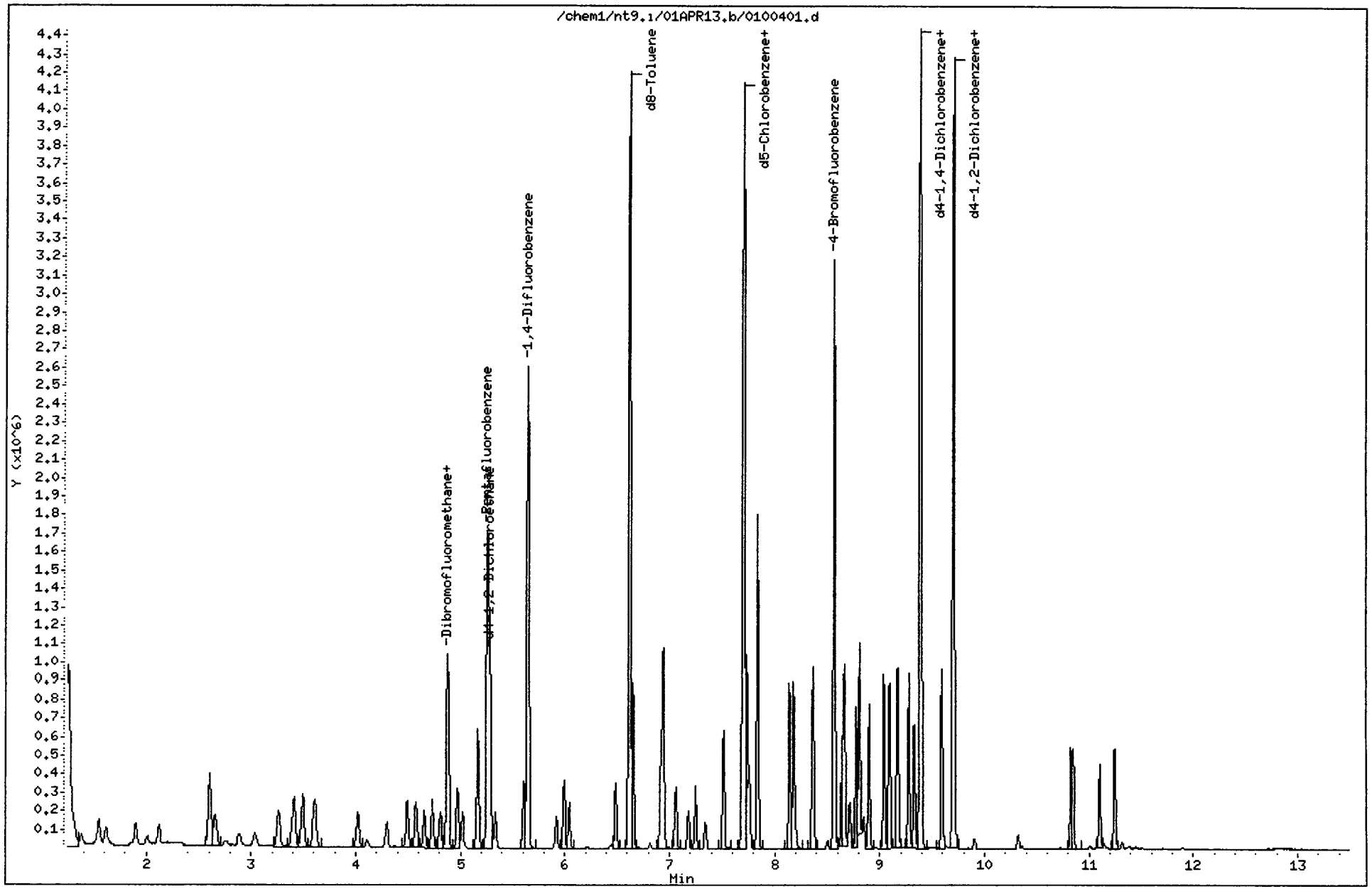
Sample Info: IC0401,10,10,0

Instrument: nt9.i

Operator: PB

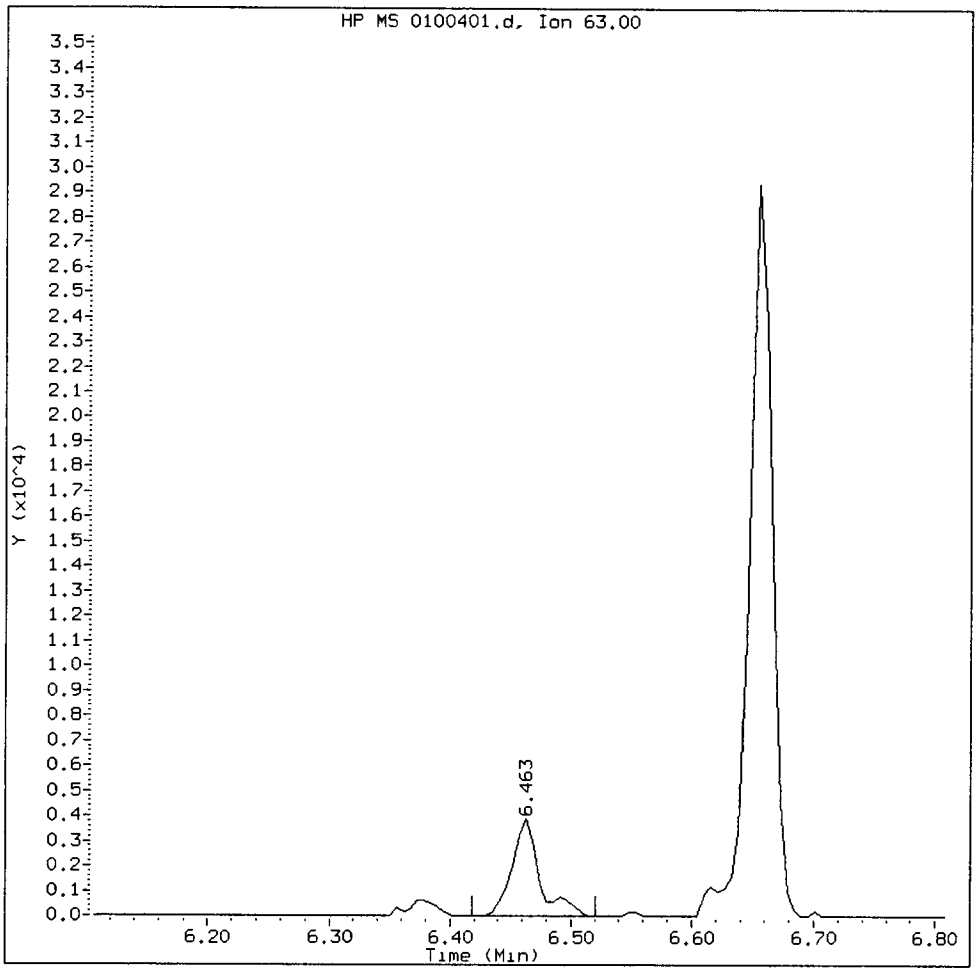
Column phase: RTXVMS

Column diameter: 0.18



IC0401, /chem1/nt9.i/01APR13.b/0100401.d

2-Chloroethyl Vinyl Ether Amount: 6.90 Area: 6099



MANUAL INTEGRATION for 2-Chloroethyl Vinyl Ether

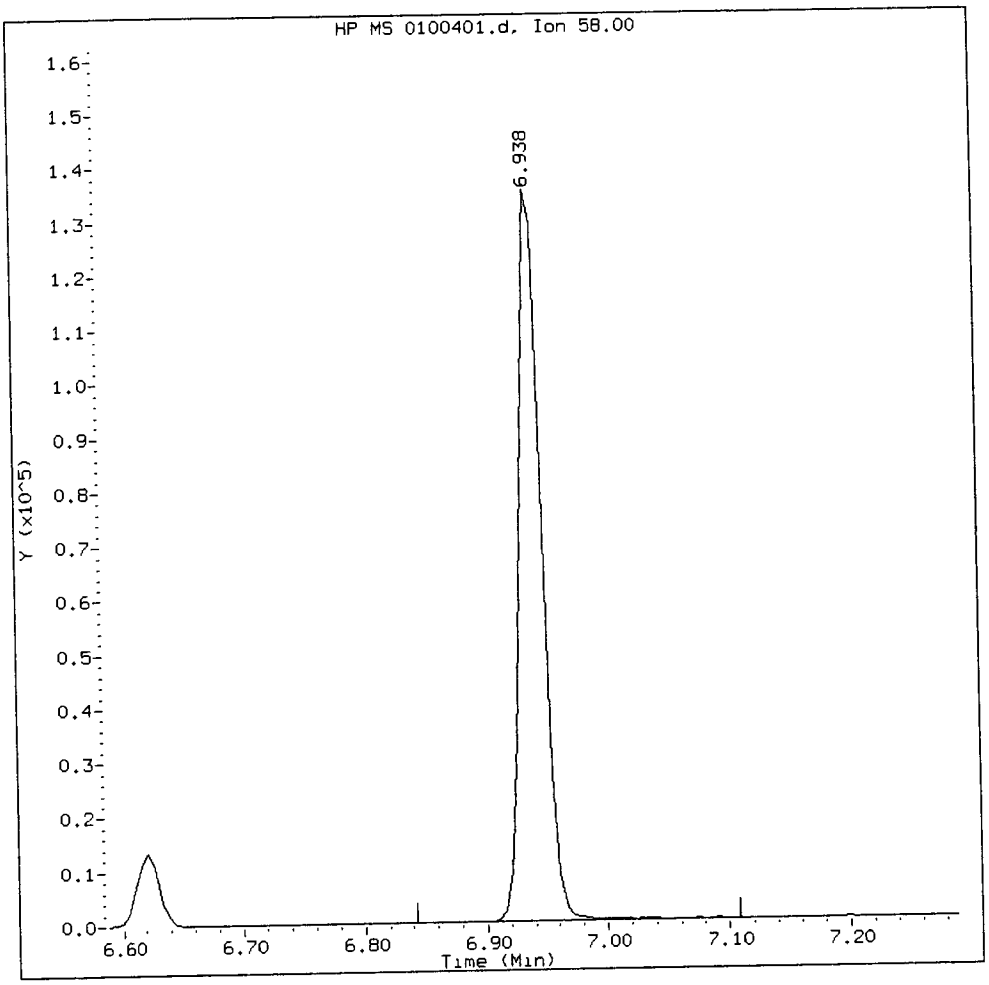
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/11/13

IC0401, /chem1/nt9.i/01APR13.b/0100401.d

4-Methyl-2-Pentanone Amount: 52.36 Area: 174581



MANUAL INTEGRATION for 4-Methyl-2-Pentanone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/4/13

CO-ELUTION SUMMARY FOR FILE - 0100401.d

Lab ID: IC0401, Method: VO121012S.m, Instrument: nt9.i, Date: 01-APR-2013

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/01APR13.b/0500401.d
Lab Smp Id: IC0401 Client Smp ID: VSTD50
Inj Date : 01-APR-2013 20:02
Operator : PB Inst ID: nt9.i
Smp Info : IC0401,10,10,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/01APR13.b/VO121012S.m
Meth Date : 11-Apr-2013 08:44 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 20:02 Cal File: 0500401.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume
Sa	10.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.385	1.385	(0.263)	356442	50.0000	47.648
2 Chloromethane	50	1.549	1.549	(0.294)	616923	50.0000	48.573
3 Vinyl Chloride	62	1.617	1.617	(0.307)	539400	50.0000	45.466
4 Bromomethane	94	1.900	1.900	(0.361)	293936	50.0000	47.055
5 Chloroethane	64	2.013	2.013	(0.382)	176237	50.0000	43.066
6 Trichlorofluoromethane	101	2.126	2.126	(0.404)	295936	50.0000	41.653
7 1,1-Dichloroethene	96	2.624	2.624	(0.498)	349984	50.0000	44.502
8 Carbon Disulfide	76	2.624	2.624	(0.498)	1237947	50.0000	45.895
9 112Trichloro122Trifluoroethane	101	2.675	2.675	(0.508)	348661	50.0000	43.492
10 Iodomethane	142	2.771	2.771	(0.526)	187276	50.0000	35.941
11 Bromoethane	108	2.901	2.901	(0.551)	249778	50.0000	45.577
12 Acrolein	56	3.031	3.031	(0.576)	389894	250.000	233.28
13 Methylene Chloride	84	3.268	3.268	(0.621)	417273	50.0000	43.735
14 Acetone	43	3.381	3.381	(0.642)	540720	250.000	218.66

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.421	3.421	(0.650)	390405	50.0000	42.211
	16 Methyl tert butyl ether	73	3.602	3.602	(0.684)	1063399	50.0000	47.450
	17 1,1-Dichloroethane	63	4.020	4.020	(0.764)	745639	50.0000	43.589
	18 Acrylonitrile	53	4.105	4.105	(0.780)	142799	50.0000	44.720
	19 Vinyl Acetate	43	4.298	4.298	(0.816)	877706	50.0000	48.459
	20 Cis-1,2-Dichloroethene	96	4.495	4.495	(0.854)	395945	50.0000	42.768
	22 2,2-Dichloropropane	77	4.580	4.580	(0.870)	575468	50.0000	44.556
	23 Bromochloromethane	128	4.659	4.659	(0.885)	209234	50.0000	47.184
	24 Chloroform	83	4.733	4.733	(0.899)	708593	50.0000	44.424
	25 Carbon Tetrachloride	117	4.812	4.812	(0.852)	466298	50.0000	45.252
$	27 Dibromofluoromethane	111	4.880	4.880	(0.927)	431344	50.0000	50.238
	26 1,1,1-Trichloroethane	97	4.874	4.874	(0.926)	577856	50.0000	43.628
	28 1,1-Dichloropropene	75	4.976	4.976	(0.881)	563737	50.0000	45.611
	29 2-Butanone	72	5.010	5.010	(0.952)	239902	250.000	255.20
	30 Benzene	78	5.168	5.168	(0.915)	1909305	50.0000	45.021
*	31 Pentafluorobenzene	168	5.264	5.264	(1.000)	941473	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.281	5.281	(1.003)	452098	50.0000	49.622
	33 1,2-Dichloroethane	62	5.332	5.332	(0.944)	508105	50.0000	45.347
	34 Trichloroethene	95	5.615	5.615	(0.994)	420209	50.0000	44.129
*	35 1,4-Difluorobenzene	114	5.649	5.649	(1.000)	1617500	50.0000	
	37 Dibromomethane	93	5.920	5.920	(1.048)	223684	50.0000	46.259
	38 1,2-Dichloropropane	63	5.994	5.994	(1.061)	488850	50.0000	46.507
	39 Bromodichloromethane	83	6.045	6.045	(1.070)	555269	50.0000	46.959
	40 2-Chloroethyl Vinyl Ether	63	6.458	6.458	(1.143)	33220	50.0000	37.324(M)
	41 Cis 1,3-dichloropropene	75	6.492	6.492	(1.149)	725452	50.0000	51.520
$	42 d8-Toluene	98	6.622	6.622	(1.172)	2083578	50.0000	50.210
	43 Toluene	92	6.656	6.656	(1.178)	1179278	50.0000	44.474
	44 Tetrachloroethene	166	6.921	6.921	(0.898)	436433	50.0000	43.993
	45 4-Methyl-2-Pentanone	58	6.938	6.938	(1.228)	900689	250.000	268.36
	46 Trans 1,3-Dichloropropene	75	6.950	6.950	(1.230)	637845	50.0000	49.275
	47 1,1,2-Trichloroethane	97	7.063	7.063	(1.250)	365920	50.0000	46.860
	48 Chlorodibromomethane	129	7.181	7.181	(0.932)	382787	50.0000	47.425
	49 1,3-Dichloropropane	76	7.249	7.249	(0.941)	674348	50.0000	47.868
	50 1,2-Dibromoethane	107	7.345	7.345	(1.300)	356103	50.0000	48.533
	51 2-Hexanone	43	7.515	7.515	(0.975)	1646540	250.000	221.38
*	52 d5-Chlorobenzene	117	7.707	7.707	(1.000)	1675930	50.0000	
	53 Chlorobenzene	112	7.719	7.719	(1.001)	1283733	50.0000	44.262
	54 Ethyl Benzene	91	7.736	7.736	(1.004)	2279892	50.0000	45.005
	55 1,1,1,2-Tetrachloroethane	131	7.764	7.764	(1.007)	409667	50.0000	46.228
	56 m,p-xylene	106	7.843	7.843	(1.018)	1778626	100.000	97.229
	57 o-Xylene	106	8.143	8.143	(1.056)	854793	50.0000	49.811
	58 Styrene	104	8.182	8.182	(1.062)	1477785	50.0000	43.677
	59 Bromoform	173	8.199	8.199	(0.873)	261065	50.0000	47.385
	60 Isopropyl Benzene	105	8.369	8.369	(0.891)	2184581	50.0000	39.103
$	62 4-Bromofluorobenzene	95	8.572	8.572	(1.112)	829958	50.0000	50.337
	63 Bromobenzene	156	8.646	8.646	(0.921)	530058	50.0000	44.799
	64 N-Propyl Benzene	91	8.669	8.669	(0.923)	2589236	50.0000	45.486

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.719	8.719	(0.928)	472773	50.0000	46.358
66	2-Chloro Toluene	91	8.782	8.782	(0.935)	1569591	50.0000	45.889
67	1,3,5-Trimethyl Benzene	105	8.810	8.810	(0.938)	1814229	50.0000	47.476
68	1,2,3-Trichloropropane	110	8.816	8.816	(0.939)	149385	50.0000	47.955
69	Trans-1,4-Dichloro 2-Butene	53	8.850	8.850	(0.942)	145381	50.0000	46.136
70	4-Chloro Toluene	91	8.900	8.900	(0.948)	1592373	50.0000	46.173
71	T-Butyl Benzene	119	9.042	9.042	(0.963)	1536472	50.0000	40.195
72	1,2,4-Trimethylbenzene	105	9.098	9.098	(0.969)	1804975	50.0000	47.890
73	S-Butyl Benzene	105	9.177	9.177	(0.977)	2460963	50.0000	46.725
74	4-Isopropyl Toluene	119	9.279	9.279	(0.988)	1866898	50.0000	39.551
75	1,3-Dichlorobenzene	146	9.336	9.336	(0.994)	1004481	50.0000	44.569
* 76	d4-1,4-Dichlorobenzene	152	9.392	9.392	(1.000)	909458	50.0000	
77	1,4-Dichlorobenzene	146	9.404	9.404	(1.001)	1016034	50.0000	43.303
78	N-Butyl Benzene	91	9.596	9.596	(1.022)	1828285	50.0000	47.947
$ 79	d4-1,2-Dichlorobenzene	152	9.709	9.709	(1.034)	805153	50.0000	50.411
80	1,2-Dichlorobenzene	146	9.715	9.715	(1.034)	975588	50.0000	44.549
81	1,2-Dibromo 3-Chloropropane	75	10.325	10.325	(1.099)	77246	50.0000	48.824
82	Hexachloro 1,3-Butadiene	225	10.829	10.829	(1.153)	362151	50.0000	44.599
83	1,2,4-Trichlorobenzene	180	10.851	10.851	(1.155)	641868	50.0000	49.548
84	Naphthalene	128	11.106	11.106	(1.182)	1493763	50.0000	53.777
85	1,2,3-Trichlorobenzene	180	11.253	11.253	(1.198)	616850	50.0000	48.619

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: 0500401.d
Lab Smp Id: IC0401
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Misc Info: 12-

Calibration Date: 01-APR-2013
Calibration Time: 20:02
Client Smp ID: VSTD50
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	941473	0.00
35 1,4-Difluorobenze	1617500	808750	3235000	1617500	0.00
52 d5-Chlorobenzene	1675930	837965	3351860	1675930	0.00
76 d4-1,4-Dichlorobe	909458	454729	1818916	909458	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	0.00
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	0.00
52 d5-Chlorobenzene	7.71	7.21	8.21	7.71	0.00
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	0.00

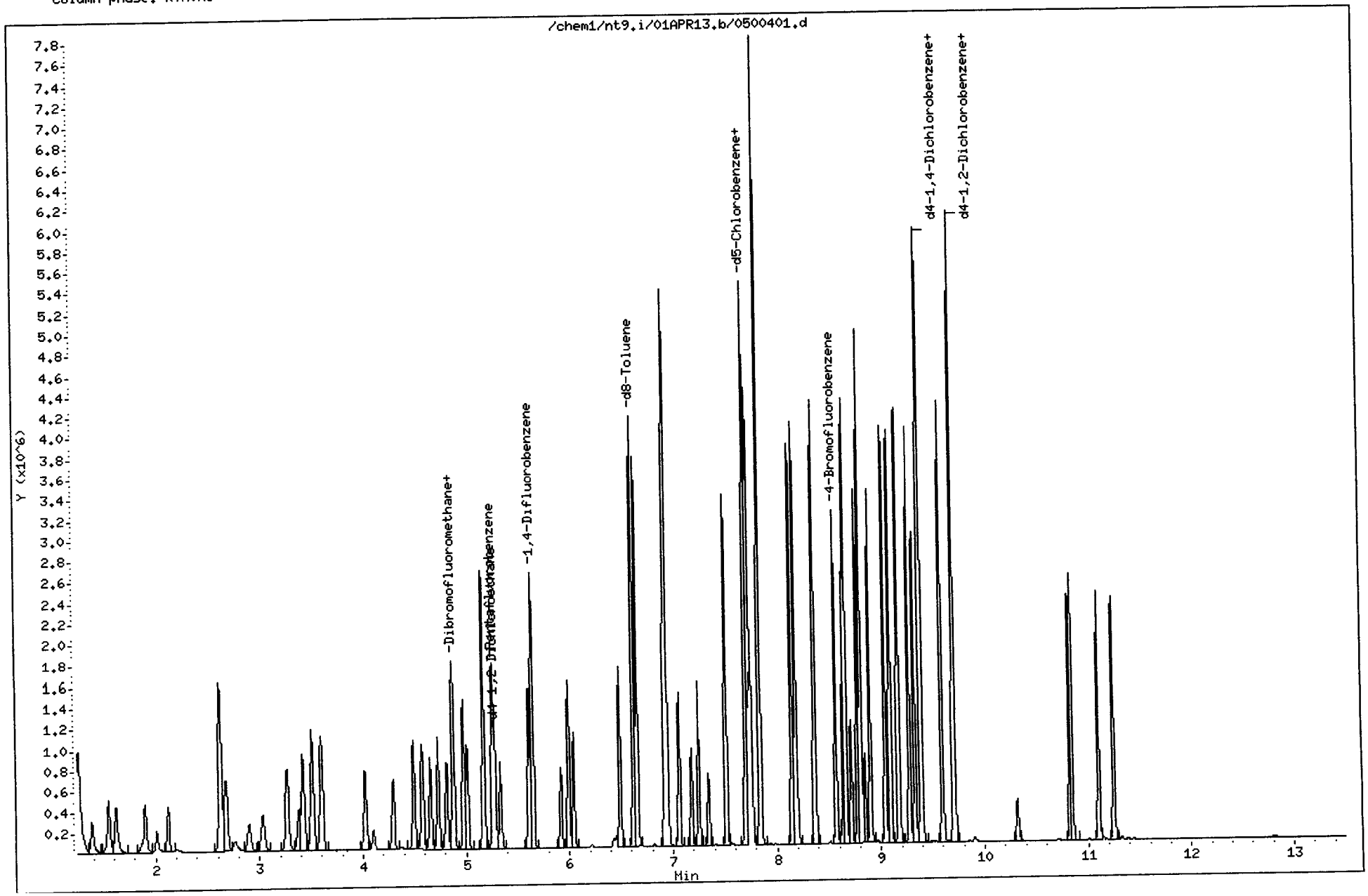
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt9.i/01APR13.b/0500401.d
Date : 01-APR-2013 20:02
Client ID: VSTD50
Sample Info: IC0401,10,10,0

Instrument: nt9.i

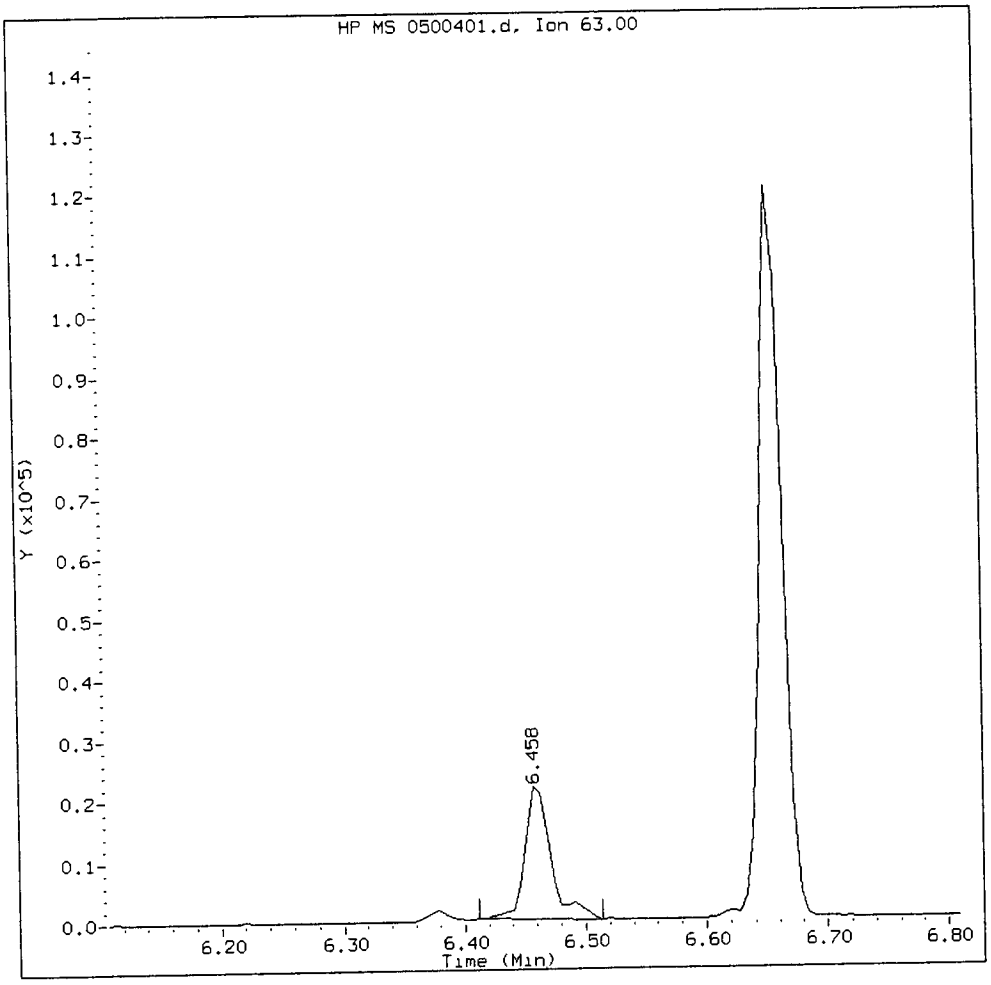
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



IC0401, /chem1/nt9.i/01APR13.b/0500401.d

2-Chloroethyl Vinyl Ether Amount: 37.32 Area: 33220



MANUAL INTEGRATION for 2-Chloroethyl Vinyl Ether

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/11/13

CO-ELUTION SUMMARY FOR FILE - 0500401.d

Lab ID: IC0401, Method: VO121012S.m, Instrument: nt9.i, Date: 01-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/01APR13.b/1000401.d
Lab Smp Id: IC0401 Client Smp ID: VSTD100
Inj Date : 01-APR-2013 19:39
Operator : PB Inst ID: nt9.i
Smp Info : IC0401,10,10,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/01APR13.b/VO121012S.m
Meth Date : 11-Apr-2013 08:44 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 19:39 Cal File: 1000401.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume
Sa	10.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.369	1.385	(0.260)	855546	100.000	110.94
2 Chloromethane	50	1.533	1.549	(0.291)	1445651	100.000	110.41
3 Vinyl Chloride	62	1.600	1.617	(0.304)	1309225	100.000	107.05
4 Bromomethane	94	1.883	1.900	(0.358)	681788	100.000	105.88
5 Chloroethane	64	1.996	2.013	(0.380)	400928	100.000	95.040
6 Trichlorofluoromethane	101	2.109	2.126	(0.401)	699332	100.000	95.484
7 1,1-Dichloroethene	96	2.590	2.624	(0.492)	849347	100.000	104.77
8 Carbon Disulfide	76	2.590	2.624	(0.492)	2981376	100.000	107.22
9 112Trichloro122Trifluoroethane	101	2.647	2.675	(0.503)	861565	100.000	104.25
10 Iodomethane	142	2.737	2.771	(0.520)	498716	100.000	92.845
11 Bromoethane	108	2.873	2.901	(0.546)	582256	100.000	103.06
12 Acrolein	56	3.025	3.031	(0.575)	841535	500.000	488.42
13 Methylene Chloride	84	3.252	3.268	(0.618)	960956	100.000	97.704
14 Acetone	43	3.387	3.381	(0.644)	1176933	500.000	461.69

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.404	3.421	(0.647)	949091	100.000	99.546
	16 Methyl tert butyl ether	73	3.602	3.602	(0.685)	2417504	100.000	104.64
	17 1,1-Dichloroethane	63	4.009	4.020	(0.762)	1793712	100.000	101.72
	18 Acrylonitrile	53	4.105	4.105	(0.781)	314869	100.000	95.655
	19 Vinyl Acetate	43	4.292	4.298	(0.816)	1952448	100.000	104.57
	20 Cis-1,2-Dichloroethene	96	4.490	4.495	(0.854)	930422	100.000	97.491
	22 2,2-Dichloropropane	77	4.569	4.580	(0.869)	1415037	100.000	106.28
	23 Bromochloromethane	128	4.654	4.659	(0.885)	476304	100.000	104.20
	24 Chloroform	83	4.727	4.733	(0.899)	1688131	100.000	102.67
	25 Carbon Tetrachloride	117	4.807	4.812	(0.852)	1157218	100.000	109.07
$	27 Dibromofluoromethane	111	4.875	4.880	(0.927)	439517	50.0000	49.658
	26 1,1,1-Trichloroethane	97	4.869	4.874	(0.926)	1425408	100.000	104.40
	28 1,1-Dichloropropene	75	4.965	4.976	(0.880)	1410147	100.000	110.81
	29 2-Butanone	72	5.016	5.010	(0.954)	515971	500.000	532.44
	30 Benzene	78	5.163	5.168	(0.915)	4689120	100.000	107.38
*	31 Pentafluorobenzene	168	5.259	5.264	(1.000)	970525	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.276	5.281	(1.003)	457800	50.0000	48.743
	33 1,2-Dichloroethane	62	5.333	5.332	(0.945)	1168483	100.000	101.28
	34 Trichloroethene	95	5.610	5.615	(0.994)	1036079	100.000	105.67
*	35 1,4-Difluorobenzene	114	5.644	5.649	(1.000)	1665482	50.0000	
	37 Dibromomethane	93	5.915	5.920	(1.048)	518341	100.000	104.11
	38 1,2-Dichloropropane	63	5.994	5.994	(1.062)	1165606	100.000	107.70
	39 Bromodichloromethane	83	6.045	6.045	(1.071)	1301923	100.000	106.93
	40 2-Chloroethyl Vinyl Ether	63	6.458	6.458	(1.144)	87480	100.000	95.456(TM)
	41 Cis 1,3-dichloropropene	75	6.492	6.492	(1.150)	1736311	100.000	119.76
$	42 d8-Toluene	98	6.622	6.622	(1.173)	2143950	50.0000	50.176
	43 Toluene	92	6.656	6.656	(1.179)	2874622	100.000	105.29
	44 Tetrachloroethene	166	6.922	6.921	(0.898)	1068996	100.000	104.75
	45 4-Methyl-2-Pentanone	58	6.938	6.938	(1.229)	1995294	500.000	577.37
	46 Trans 1,3-Dichloropropene	75	6.950	6.950	(1.231)	1488225	100.000	111.66
	47 1,1,2-Trichloroethane	97	7.063	7.063	(1.251)	843631	100.000	104.92
	48 Chlorodibromomethane	129	7.182	7.181	(0.932)	917073	100.000	110.45
	49 1,3-Dichloropropane	76	7.249	7.249	(0.941)	1563159	100.000	107.86
	50 1,2-Dibromoethane	107	7.346	7.345	(1.302)	830512	100.000	109.93
	51 2-Hexanone	43	7.521	7.515	(0.976)	3702063	500.000	483.87
*	52 d5-Chlorobenzene	117	7.707	7.707	(1.000)	1724011	50.0000	
	53 Chlorobenzene	112	7.719	7.719	(1.001)	3069890	100.000	102.89
	54 Ethyl Benzene	91	7.736	7.736	(1.004)	5632116	100.000	108.08
	55 1,1,1,2-Tetrachloroethane	131	7.764	7.764	(1.007)	982917	100.000	107.82
	56 m,p-xylene	106	7.843	7.843	(1.018)	4209530	200.000	223.70
	57 o-Xylene	106	8.143	8.143	(1.056)	2125530	100.000	120.41
	58 Styrene	104	8.182	8.182	(1.062)	3593956	100.000	103.26
	59 Bromoform	173	8.199	8.199	(0.873)	613613	100.000	109.20
	60 Isopropyl Benzene	105	8.369	8.369	(0.891)	5583095	100.000	97.987
$	62 4-Bromofluorobenzene	95	8.573	8.572	(1.112)	855262	50.0000	50.425
	63 Bromobenzene	156	8.646	8.646	(0.921)	1234915	100.000	102.34
	64 N-Propyl Benzene	91	8.669	8.669	(0.923)	6549869	100.000	112.82

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.720	8.719	(0.928)	1098805	100.000	105.64
66	2-Chloro Toluene	91	8.782	8.782	(0.935)	3872601	100.000	111.01
67	1,3,5-Trimethyl Benzene	105	8.816	8.810	(0.939)	4464458	100.000	114.55
68	1,2,3-Trichloropropane	110	8.821	8.816	(0.939)	325688	100.000	102.51
69	Trans-1,4-Dichloro 2-Butene	53	8.850	8.850	(0.942)	353268	100.000	109.92
70	4-Chloro Toluene	91	8.906	8.900	(0.948)	3912454	100.000	111.23
71	T-Butyl Benzene	119	9.048	9.042	(0.963)	3852146	100.000	98.808
72	1,2,4-Trimethylbenzene	105	9.099	9.098	(0.969)	4479613	100.000	116.54
73	S-Butyl Benzene	105	9.178	9.177	(0.977)	6243877	100.000	116.24
74	4-Isopropyl Toluene	119	9.285	9.279	(0.989)	4743257	100.000	98.528
75	1,3-Dichlorobenzene	146	9.336	9.336	(0.994)	2424066	100.000	105.46
* 76	d4-1,4-Dichlorobenzene	152	9.393	9.392	(1.000)	927545	50.0000	
77	1,4-Dichlorobenzene	146	9.404	9.404	(1.001)	2409255	100.000	100.68
78	N-Butyl Benzene	91	9.596	9.596	(1.022)	4565781	100.000	117.40
$ 79	d4-1,2-Dichlorobenzene	152	9.709	9.709	(1.034)	810400	50.0000	49.750
80	1,2-Dichlorobenzene	146	9.715	9.715	(1.034)	2254995	100.000	100.96
81	1,2-Dibromo 3-Chloropropane	75	10.326	10.325	(1.099)	169652	100.000	105.14
82	Hexachloro 1,3-Butadiene	225	10.829	10.829	(1.153)	902229	100.000	108.94
83	1,2,4-Trichlorobenzene	180	10.851	10.851	(1.155)	1539033	100.000	116.49
84	Naphthalene	128	11.106	11.106	(1.182)	3442743	100.000	121.53
85	1,2,3-Trichlorobenzene	180	11.253	11.253	(1.198)	1407482	100.000	108.77

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: 1000401.d
Lab Smp Id: IC0401
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Misc Info: 12-

Calibration Date: 01-APR-2013
Calibration Time: 20:02
Client Smp ID: VSTD100
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	970525	3.09
35 1,4-Difluorobenze	1617500	808750	3235000	1665482	2.97
52 d5-Chlorobenzene	1675930	837965	3351860	1724011	2.87
76 d4-1,4-Dichlorobe	909458	454729	1818916	927545	1.99

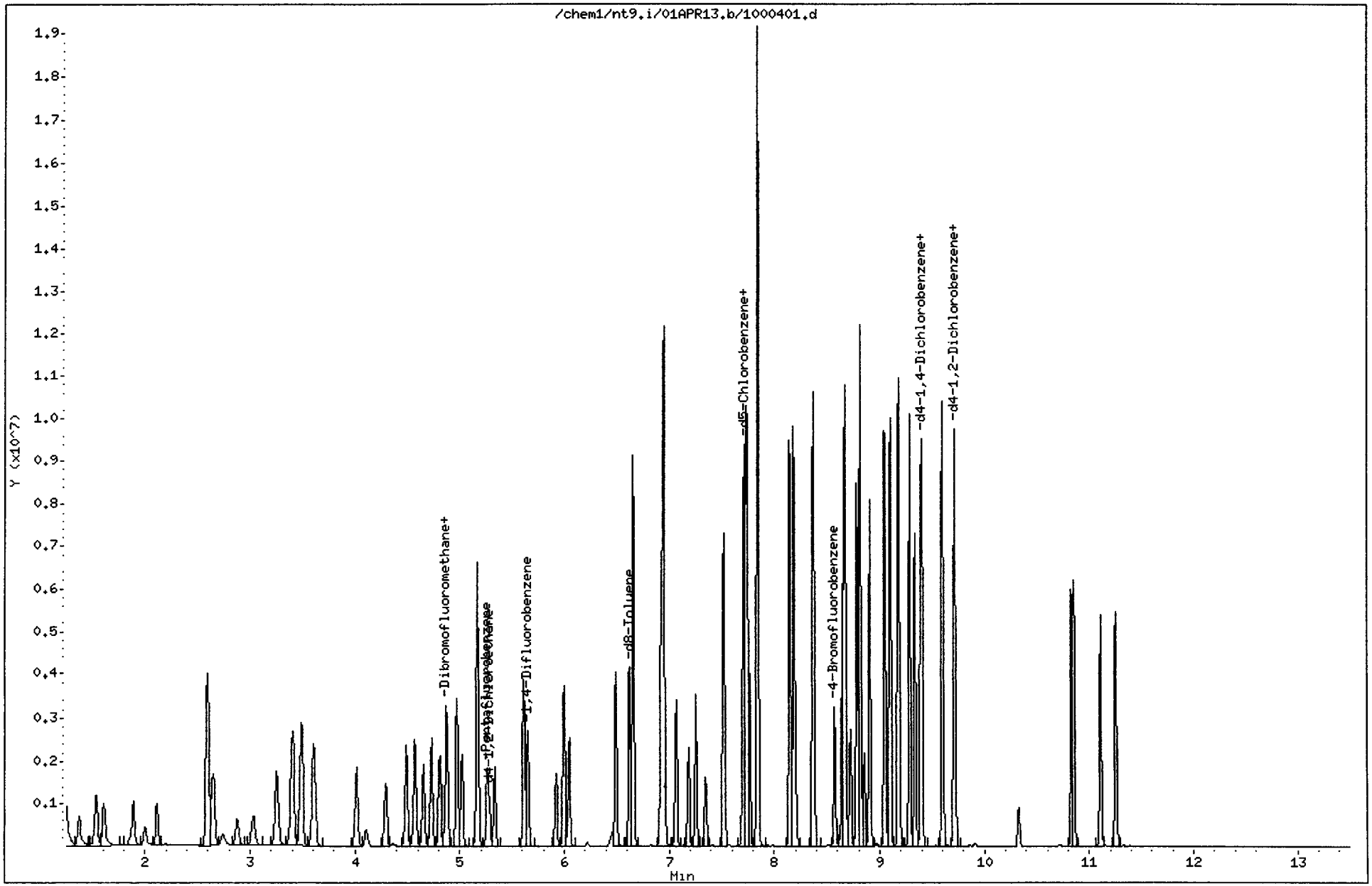
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	-0.10
35 1,4-Difluorobenze	5.65	5.15	6.15	5.64	-0.10
52 d5-Chlorobenzene	7.71	7.21	8.21	7.71	0.00
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt9.i/01APR13.b/1000401.d
Date : 01-APR-2013 19:39
Client ID: VSTD100
Sample Info: IC0401,10,10,0

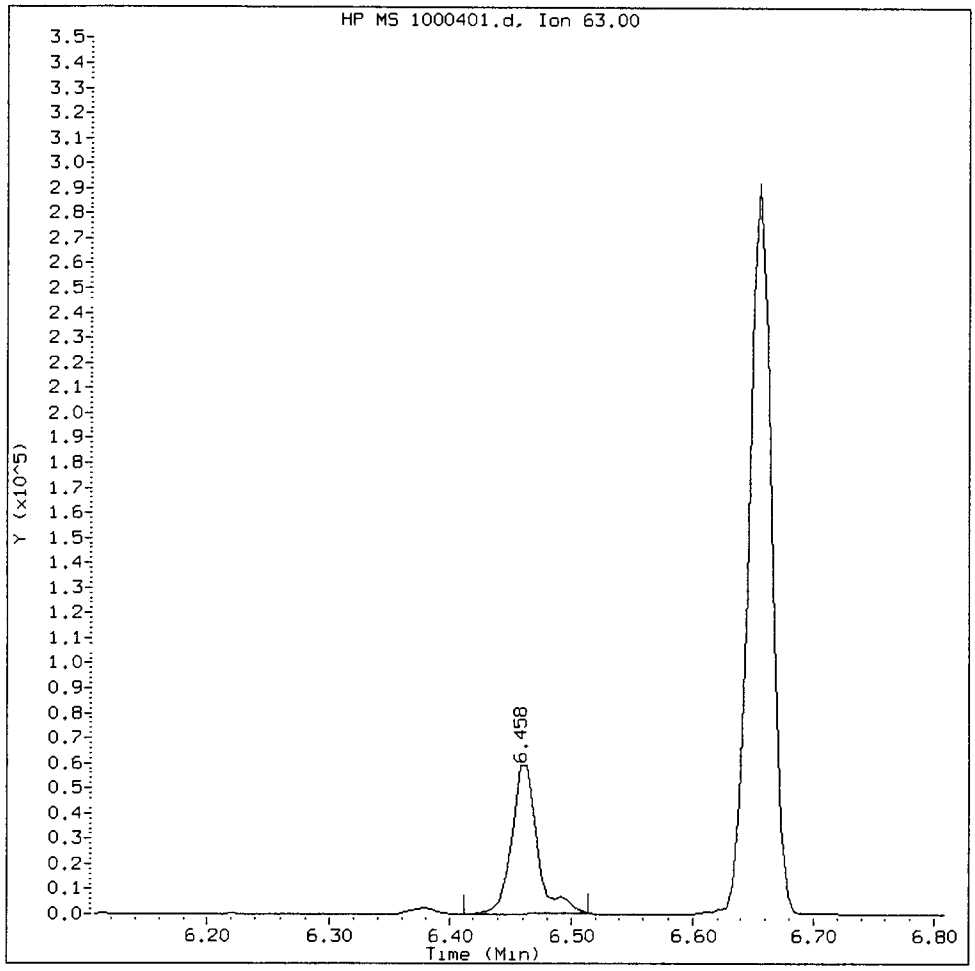
Instrument: nt9.i
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



IC0401, /chem1/nt9.i/01APR13.b/1000401.d

2-Chloroethyl Vinyl Ether Amount: 95.46 Area: 87480



MANUAL INTEGRATION for 2-Chloroethyl Vinyl Ether

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/14

CO-ELUTION SUMMARY FOR FILE - 1000401.d

Lab ID: IC0401, Method: VO121012S.m, Instrument: nt9.i, Date: 01-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/01APR13.b/1500401.d
Lab Smp Id: IC0401 Client Smp ID: VSTD150
Inj Date : 01-APR-2013 19:17
Operator : PB Inst ID: nt9.i
Smp Info : IC0401,10,10,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/01APR13.b/VO121012S.m
Meth Date : 11-Apr-2013 08:44 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 19:17 Cal File: 1500401.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume
Sa	10.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.381	1.385	(0.263)	1195394	150.000	158.23
2 Chloromethane	50	1.539	1.549	(0.293)	2031625	150.000	158.40
3 Vinyl Chloride	62	1.613	1.617	(0.307)	1846233	150.000	154.10
4 Bromomethane	94	1.896	1.900	(0.360)	922351	150.000	146.21
5 Chloroethane	64	2.009	2.013	(0.382)	558963	150.000	135.26
6 Trichlorofluoromethane	101	2.122	2.126	(0.403)	1008912	150.000	140.62
7 1,1-Dichloroethene	96	2.591	2.624	(0.493)	1176869	150.000	148.18
8 Carbon Disulfide	76	2.585	2.624	(0.492)	4143032	150.000	152.10
9 112Trichloro122Trifluoroethane	101	2.642	2.675	(0.502)	1242410	150.000	153.46
10 Iodomethane	142	2.738	2.771	(0.521)	732246	150.000	139.15
11 Bromoethane	108	2.874	2.901	(0.546)	814898	150.000	147.24
12 Acrolein	56	3.049	3.031	(0.580)	1227309	750.000	727.13
13 Methylene Chloride	84	3.258	3.268	(0.619)	1365075	150.000	141.68
14 Acetone	43	3.417	3.381	(0.650)	1711690	750.000	685.42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.411	3.421	(0.648)	1344982	150.000	144.00
	16 Methyl tert butyl ether	73	3.626	3.602	(0.689)	3489459	150.000	154.18
	17 1,1-Dichloroethane	63	4.016	4.020	(0.763)	2567058	150.000	148.60
	18 Acrylonitrile	53	4.124	4.105	(0.784)	459853	150.000	142.60
	19 Vinyl Acetate	43	4.304	4.298	(0.818)	2831557	150.000	154.81
	20 Cis-1,2-Dichloroethene	96	4.497	4.495	(0.855)	1320127	150.000	141.20
	22 2,2-Dichloropropane	77	4.576	4.580	(0.870)	2070011	150.000	158.71
	23 Bromochloromethane	128	4.661	4.659	(0.886)	677469	150.000	151.28
	24 Chloroform	83	4.734	4.733	(0.900)	2446866	150.000	151.90
	25 Carbon Tetrachloride	117	4.808	4.812	(0.851)	1691195	150.000	162.67
$	27 Dibromofluoromethane	111	4.881	4.880	(0.928)	429968	50.0000	49.589
	26 1,1,1-Trichloroethane	97	4.876	4.874	(0.927)	2052216	150.000	153.43
	28 1,1-Dichloropropene	75	4.972	4.976	(0.880)	2042991	150.000	163.83
	29 2-Butanone	72	5.028	5.010	(0.956)	753927	750.000	794.17
	30 Benzene	78	5.170	5.168	(0.915)	6759001	150.000	157.97
*	31 Pentafluorobenzene	168	5.260	5.264	(1.000)	950760	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.283	5.281	(1.004)	442838	50.0000	48.130
	33 1,2-Dichloroethane	62	5.334	5.332	(0.944)	1682781	150.000	148.85
	34 Trichloroethene	95	5.611	5.615	(0.993)	1495289	150.000	155.64
*	35 1,4-Difluorobenzene	114	5.650	5.649	(1.000)	1631942	50.0000	
	37 Dibromomethane	93	5.922	5.920	(1.048)	749644	150.000	153.66
	38 1,2-Dichloropropane	63	5.995	5.994	(1.061)	1675946	150.000	158.03
	39 Bromodichloromethane	83	6.046	6.045	(1.070)	1884932	150.000	158.00
	40 2-Chloroethyl Vinyl Ether	63	6.465	6.458	(1.144)	137850	150.000	153.51(TM)
	41 Cis 1,3-dichloropropene	75	6.493	6.492	(1.149)	2509360	150.000	176.63
$	42 d8-Toluene	98	6.623	6.622	(1.172)	2090469	50.0000	49.930
	43 Toluene	92	6.657	6.656	(1.178)	4133261	150.000	154.50
	44 Tetrachloroethene	166	6.923	6.921	(0.898)	1556683	150.000	156.19
	45 4-Methyl-2-Pentanone	58	6.951	6.938	(1.230)	2849104	750.000	841.38
	46 Trans 1,3-Dichloropropene	75	6.957	6.950	(1.231)	2119992	150.000	162.33
	47 1,1,2-Trichloroethane	97	7.070	7.063	(1.251)	1222139	150.000	155.12
	48 Chlorodibromomethane	129	7.188	7.181	(0.932)	1337385	150.000	164.93
	49 1,3-Dichloropropane	76	7.256	7.249	(0.941)	2296413	150.000	162.26
	50 1,2-Dibromoethane	107	7.352	7.345	(1.301)	1218231	150.000	164.56
	51 2-Hexanone	43	7.528	7.515	(0.977)	5534368	750.000	740.68
*	52 d5-Chlorobenzene	117	7.709	7.707	(1.000)	1683683	50.0000	
	53 Chlorobenzene	112	7.720	7.719	(1.001)	4370262	150.000	149.99
	54 Ethyl Benzene	91	7.743	7.736	(1.004)	8212011	150.000	161.36
	55 1,1,1,2-Tetrachloroethane	131	7.765	7.764	(1.007)	1435912	150.000	161.29
	56 m,p-xylene	106	7.844	7.843	(1.018)	5766276	300.000	313.76
	57 o-Xylene	106	8.150	8.143	(1.057)	3021045	150.000	175.23
	58 Styrene	104	8.189	8.182	(1.062)	5103825	150.000	150.15
	59 Bromoform	173	8.206	8.199	(0.874)	901185	150.000	163.73
	60 Isopropyl Benzene	105	8.370	8.369	(0.891)	8149178	150.000	146.01
$	62 4-Bromofluorobenzene	95	8.574	8.572	(1.112)	839222	50.0000	50.664
	63 Bromobenzene	156	8.647	8.646	(0.921)	1776308	150.000	150.28
	64 N-Propyl Benzene	91	8.670	8.669	(0.923)	9498732	150.000	167.03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.721	8.719	(0.928)	1602628	150.000	157.30
66	2-Chloro Toluene	91	8.783	8.782	(0.935)	5605654	150.000	164.05
67	1,3,5-Trimethyl Benzene	105	8.817	8.810	(0.939)	6429388	150.000	168.41
68	1,2,3-Trichloropropane	110	8.823	8.816	(0.939)	473803	150.000	152.25
69	Trans-1,4-Dichloro 2-Butene	53	8.851	8.850	(0.942)	516469	150.000	164.06
70	4-Chloro Toluene	91	8.907	8.900	(0.948)	5718767	150.000	165.99
71	T-Butyl Benzene	119	9.049	9.042	(0.963)	5575657	150.000	146.00
72	1,2,4-Trimethylbenzene	105	9.100	9.098	(0.969)	6561515	150.000	174.26
73	S-Butyl Benzene	105	9.179	9.177	(0.977)	9151884	150.000	173.93
74	4-Isopropyl Toluene	119	9.286	9.279	(0.989)	6946627	150.000	147.31
75	1,3-Dichlorobenzene	146	9.337	9.336	(0.994)	3513092	150.000	156.03
* 76	d4-1,4-Dichlorobenzene	152	9.394	9.392	(1.000)	908570	50.0000	
77	1,4-Dichlorobenzene	146	9.405	9.404	(1.001)	3447647	150.000	147.08
78	N-Butyl Benzene	91	9.597	9.596	(1.022)	6749315	150.000	177.17
$ 79	d4-1,2-Dichlorobenzene	152	9.710	9.709	(1.034)	782388	50.0000	49.033
80	1,2-Dichlorobenzene	146	9.722	9.715	(1.035)	3193270	150.000	145.96
81	1,2-Dibromo 3-Chloropropane	75	10.327	10.325	(1.099)	241326	150.000	152.68
82	Hexachloro 1,3-Butadiene	225	10.830	10.829	(1.153)	1216090	150.000	149.91
83	1,2,4-Trichlorobenzene	180	10.853	10.851	(1.155)	2044235	150.000	157.96
84	Naphthalene	128	11.107	11.106	(1.182)	4586961	150.000	165.30
85	1,2,3-Trichlorobenzene	180	11.254	11.253	(1.198)	1816816	150.000	143.34

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: 1500401.d
Lab Smp Id: IC0401
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Misc Info: 12-

Calibration Date: 01-APR-2013
Calibration Time: 20:02
Client Smp ID: VSTD150
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	950760	0.99
35 1,4-Difluorobenze	1617500	808750	3235000	1631942	0.89
52 d5-Chlorobenzene	1675930	837965	3351860	1683683	0.46
76 d4-1,4-Dichlorobe	909458	454729	1818916	908570	-0.10

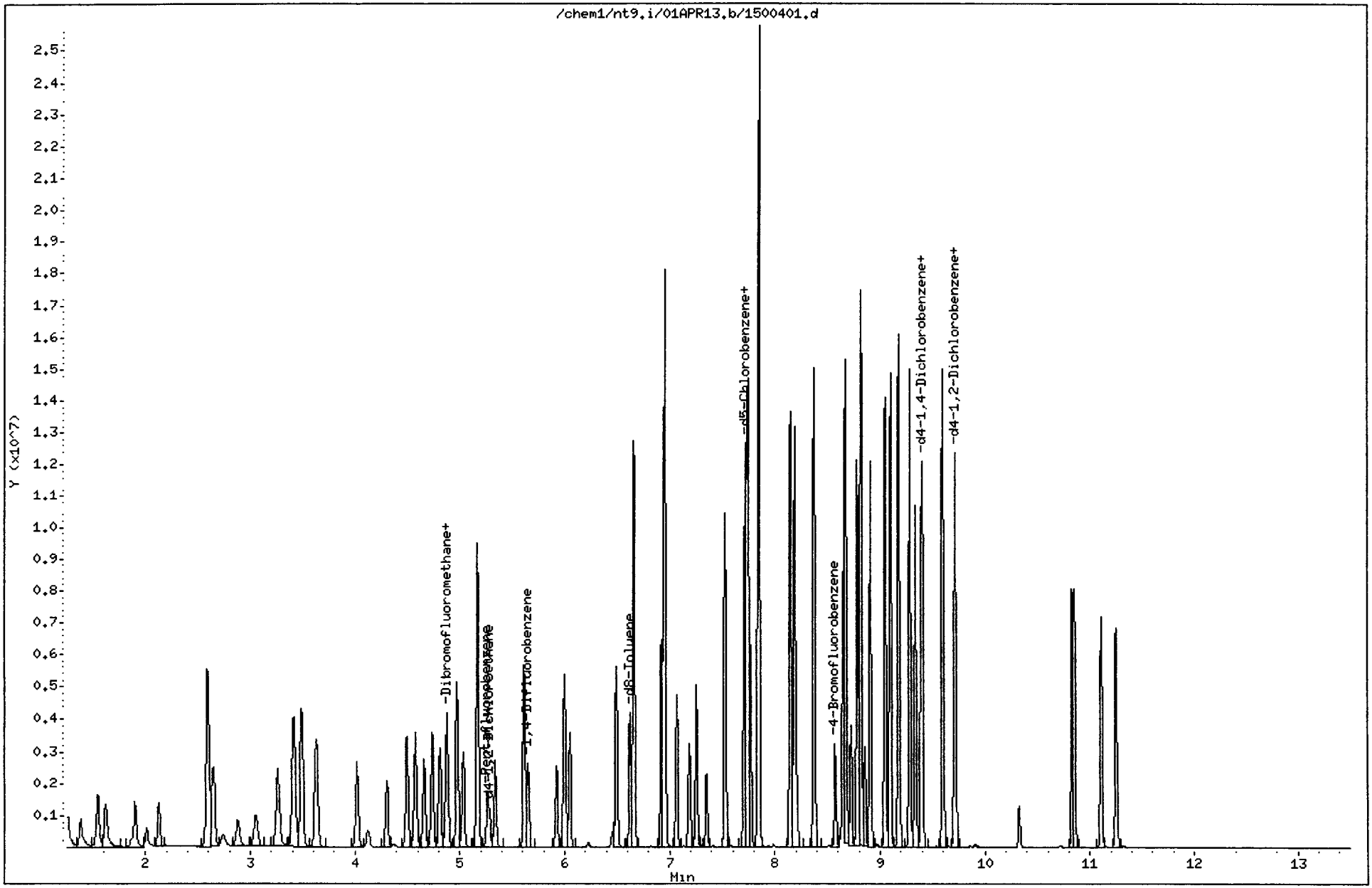
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	-0.08
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	0.02
52 d5-Chlorobenzene	7.71	7.21	8.21	7.71	0.02
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt9.i/01APR13.b/1500401.d
Date : 01-APR-2013 19:17
Client ID: VSTD150
Sample Info: IC0401,10,10,0

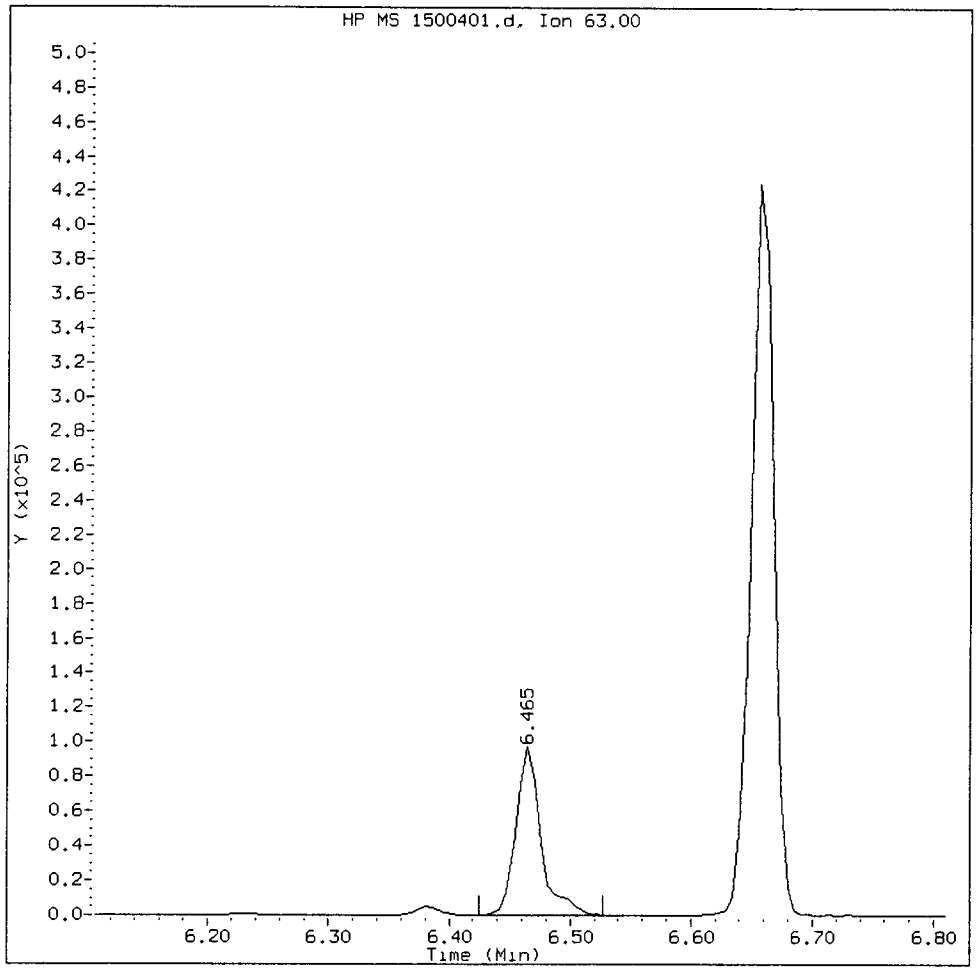
Instrument: nt9.i
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



IC0401, /chem1/nt9.i/01APR13.b/1500401.d

2-Chloroethyl Vinyl Ether Amount: 153.51 Area: 137850



MANUAL INTEGRATION for 2-Chloroethyl Vinyl Ether

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/11/13

CO-ELUTION SUMMARY FOR FILE - 1500401.d

Lab ID: IC0401, Method: VO121012S.m, Instrument: nt9.i, Date: 01-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/01APR13.b/2000401.d
Lab Smp Id: IC0401 Client Smp ID: VSTD200
Inj Date : 01-APR-2013 18:55
Operator : PB Inst ID: nt9.i
Smp Info : IC0401,10,10,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/01APR13.b/VO121012S.m
Meth Date : 11-Apr-2013 08:44 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 18:55 Cal File: 2000401.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume
Sa	10.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.380	1.385	(0.262)	1379495	200.000	201.81
2 Chloromethane	50	1.538	1.549	(0.292)	2167983	200.000	186.81
3 Vinyl Chloride	62	1.612	1.617	(0.306)	2140773	200.000	197.48
4 Bromomethane	94	1.894	1.900	(0.360)	970539	200.000	170.04
5 Chloroethane	64	2.007	2.013	(0.381)	654520	200.000	175.04
6 Trichlorofluoromethane	101	2.121	2.126	(0.403)	1363336	200.000	210.00
7 1,1-Dichloroethene	96	2.579	2.624	(0.490)	1008576	200.000	140.35
8 Carbon Disulfide	76	2.579	2.624	(0.490)	3440749	200.000	139.60
9 112Trichloro122Trifluoroethane	101	2.629	2.675	(0.499)	1485606	200.000	202.80
10 Iodomethane	142	2.726	2.771	(0.518)	820117	200.000	172.25
11 Bromoethane	108	2.867	2.901	(0.545)	928302	200.000	185.38
12 Acrolein	56	3.054	3.031	(0.580)	1468921	1000.00	961.82
13 Methylene Chloride	84	3.257	3.268	(0.619)	1533007	200.000	175.84
14 Acetone	43	3.432	3.381	(0.652)	1660213	1000.00	734.74

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.404	3.421	(0.647)	1576505	200.000	186.54
	16 Methyl tert butyl ether	73	3.636	3.602	(0.691)	3815150	200.000	186.30
	17 1,1-Dichloroethane	63	4.015	4.020	(0.763)	2972698	200.000	190.18
	18 Acrylonitrile	53	4.134	4.105	(0.785)	553298	200.000	189.63
	19 Vinyl Acetate	43	4.309	4.298	(0.818)	3306393	200.000	199.78
	20 Cis-1,2-Dichloroethene	96	4.495	4.495	(0.854)	1503511	200.000	177.73
	22 2,2-Dichloropropane	77	4.575	4.580	(0.869)	2506421	200.000	212.38
	23 Bromochloromethane	128	4.659	4.659	(0.885)	694399	200.000	171.37
	24 Chloroform	83	4.739	4.733	(0.900)	2800161	200.000	192.12
	25 Carbon Tetrachloride	117	4.806	4.812	(0.851)	2031068	200.000	221.95
$	27 Dibromofluoromethane	111	4.886	4.880	(0.928)	363556	50.0000	46.340
	26 1,1,1-Trichloroethane	97	4.874	4.874	(0.926)	2454689	200.000	202.82
	28 1,1-Dichloropropene	75	4.970	4.976	(0.880)	2475155	200.000	225.50
	29 2-Butanone	72	5.038	5.010	(0.957)	898851	1000.00	1046.4
	30 Benzene	78	5.168	5.168	(0.915)	7907649	200.000	209.97
*	31 Pentafluorobenzene	168	5.265	5.264	(1.000)	860269	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.287	5.281	(1.004)	383446	50.0000	46.059
	33 1,2-Dichloroethane	62	5.338	5.332	(0.945)	1945265	200.000	195.49
	34 Trichloroethene	95	5.615	5.615	(0.994)	1775543	200.000	209.96
*	35 1,4-Difluorobenzene	114	5.649	5.649	(1.000)	1436428	50.0000	
	37 Dibromomethane	93	5.926	5.920	(1.049)	871550	200.000	202.96
	38 1,2-Dichloropropane	63	6.000	5.994	(1.062)	1913680	200.000	205.01
	39 Bromodichloromethane	83	6.051	6.045	(1.071)	2171667	200.000	206.81
	40 2-Chloroethyl Vinyl Ether	63	6.469	6.458	(1.145)	159631	200.000	201.96(M)
	41 Cis 1,3-dichloropropene	75	6.497	6.492	(1.150)	2857365	200.000	228.50
$	42 d8-Toluene	98	6.622	6.622	(1.172)	1844149	50.0000	50.042
	43 Toluene	92	6.661	6.656	(1.179)	4795063	200.000	203.63
	44 Tetrachloroethene	166	6.921	6.921	(0.898)	1874159	200.000	217.53
	45 4-Methyl-2-Pentanone	58	6.955	6.938	(1.231)	3293280	1000.00	1104.9
	46 Trans 1,3-Dichloropropene	75	6.955	6.950	(1.231)	2392369	200.000	208.12
	47 1,1,2-Trichloroethane	97	7.068	7.063	(1.251)	1410081	200.000	203.34
	48 Chlorodibromomethane	129	7.193	7.181	(0.933)	1546816	200.000	220.67
	49 1,3-Dichloropropane	76	7.255	7.249	(0.941)	2662207	200.000	217.59
	50 1,2-Dibromoethane	107	7.351	7.345	(1.301)	1433285	200.000	219.97
	51 2-Hexanone	43	7.532	7.515	(0.977)	6595747	1000.00	1021.1
*	52 d5-Chlorobenzene	117	7.707	7.707	(1.000)	1455504	50.0000	
	53 Chlorobenzene	112	7.724	7.719	(1.002)	4977172	200.000	197.60
	54 Ethyl Benzene	91	7.741	7.736	(1.004)	9604040	200.000	218.29
	55 1,1,1,2-Tetrachloroethane	131	7.770	7.764	(1.008)	1675555	200.000	217.71
	56 m,p-xylene	106	7.849	7.843	(1.018)	6464145	400.000	406.88
	57 o-Xylene	106	8.148	8.143	(1.057)	3482312	200.000	233.66
	58 Styrene	104	8.188	8.182	(1.062)	5866225	200.000	199.64
	59 Bromoform	173	8.205	8.199	(0.874)	1051580	200.000	227.99
	60 Isopropyl Benzene	105	8.375	8.369	(0.892)	9631790	200.000	205.93
$	62 4-Bromofluorobenzene	95	8.572	8.572	(1.112)	737356	50.0000	51.493
	63 Bromobenzene	156	8.652	8.646	(0.921)	2025008	200.000	204.43
	64 N-Propyl Benzene	91	8.674	8.669	(0.924)	11066970	200.000	232.23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.725	8.719	(0.929)	1797475	200.000	210.53
66	2-Chloro Toluene	91	8.787	8.782	(0.936)	6681118	200.000	233.32
67	1,3,5-Trimethyl Benzene	105	8.816	8.810	(0.939)	7539086	200.000	235.66
68	1,2,3-Trichloropropane	110	8.827	8.816	(0.940)	542322	200.000	207.95
69	Trans-1,4-Dichloro 2-Butene	53	8.855	8.850	(0.943)	625077	200.000	236.94
70	4-Chloro Toluene	91	8.906	8.900	(0.948)	6716740	200.000	232.64
71	T-Butyl Benzene	119	9.047	9.042	(0.963)	6573162	200.000	205.40
72	1,2,4-Trimethylbenzene	105	9.098	9.098	(0.969)	7687075	200.000	243.62
73	S-Butyl Benzene	105	9.178	9.177	(0.977)	10771960	200.000	244.30
74	4-Isopropyl Toluene	119	9.285	9.279	(0.989)	8090687	200.000	204.74
75	1,3-Dichlorobenzene	146	9.342	9.336	(0.995)	3945750	200.000	209.12
* 76	d4-1,4-Dichlorobenzene	152	9.392	9.392	(1.000)	761389	50.0000	
77	1,4-Dichlorobenzene	146	9.404	9.404	(1.001)	3847315	200.000	195.86
78	N-Butyl Benzene	91	9.602	9.596	(1.022)	7889421	200.000	247.14
$ 79	d4-1,2-Dichlorobenzene	152	9.709	9.709	(1.034)	647084	50.0000	48.393
80	1,2-Dichlorobenzene	146	9.720	9.715	(1.035)	3478859	200.000	189.75
81	1,2-Dibromo 3-Chloropropane	75	10.325	10.325	(1.099)	288141	200.000	217.54
82	Hexachloro 1,3-Butadiene	225	10.834	10.829	(1.154)	1366256	200.000	200.97
83	1,2,4-Trichlorobenzene	180	10.851	10.851	(1.155)	2333424	200.000	215.16
84	Naphthalene	128	11.111	11.106	(1.183)	5464069	200.000	234.97
85	1,2,3-Trichlorobenzene	180	11.253	11.253	(1.198)	2082397	200.000	196.05

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: 2000401.d
Lab Smp Id: IC0401
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Misc Info: 12-

Calibration Date: 01-APR-2013
Calibration Time: 20:02
Client Smp ID: VSTD200
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	860269	-8.63
35 1,4-Difluorobenze	1617500	808750	3235000	1436428	-11.19
52 d5-Chlorobenzene	1675930	837965	3351860	1455504	-13.15
76 d4-1,4-Dichlorobe	909458	454729	1818916	761389	-16.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	0.00
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	0.00
52 d5-Chlorobenzene	7.71	7.21	8.21	7.71	0.00
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	0.00

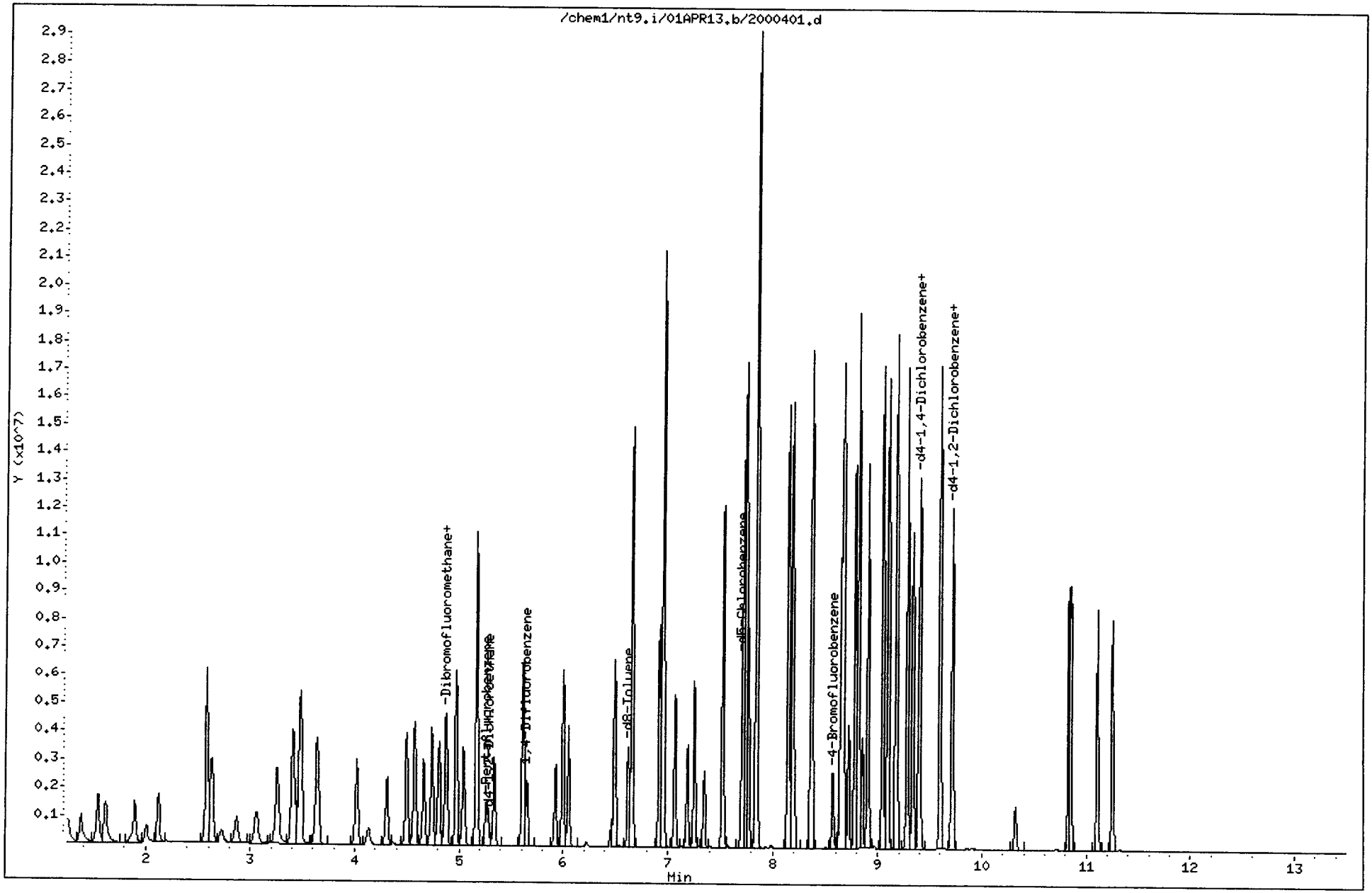
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt9.i/01APR13.b/2000401.d
Date : 01-APR-2013 18:55
Client ID: VSTD200
Sample Info: IC0401,10,10,0

Instrument: nt9.i

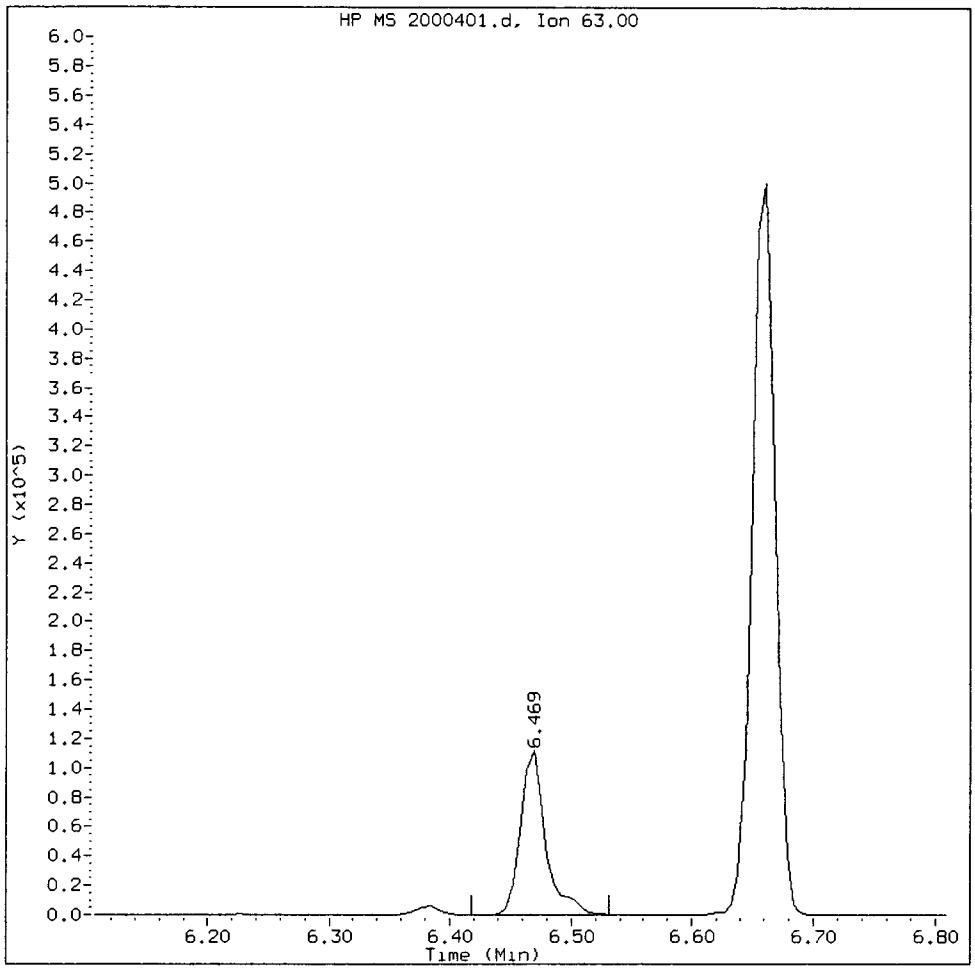
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



IC0401, /chem1/nt9.i/01APR13.b/2000401.d

2-Chloroethyl Vinyl Ether Amount: 201.96 Area: 159631



MANUAL INTEGRATION for 2-Chloroethyl Vinyl Ether

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/11/13

CO-ELUTION SUMMARY FOR FILE - 2000401.d

Lab ID: IC0401, Method: VO121012S.m, Instrument: nt9.i, Date: 01-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/01APR13.b/icv0401.d
Lab Smp Id: ICV0401 Client Smp ID: ICV0401
Inj Date : 01-APR-2013 21:52
Operator : PB Inst ID: nt9.i
Smp Info : ICV0401,10,10,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/01APR13.b/VO121012S.m
Meth Date : 11-Apr-2013 08:44 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 18:55 Cal File: 2000401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume
Sa	10.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	1.383	1.385	(0.263)	272704	45.2017	45.202
2 Chloromethane	50	1.546	1.549	(0.294)	510537	49.8426	49.843
3 Vinyl Chloride	62	1.620	1.617	(0.308)	519753	54.3224	54.322
4 Bromomethane	94	1.903	1.900	(0.362)	269681	53.5323	53.532
5 Chloroethane	64	2.016	2.013	(0.383)	180048	54.5552	54.555
6 Trichlorofluoromethane	101	2.123	2.126	(0.404)	325684	56.8398	56.840
7 1,1-Dichloroethene	96	2.627	2.624	(0.499)	352589	55.5919	55.592(Q)
8 Carbon Disulfide	76	2.632	2.624	(0.500)	932995	42.8896	42.890
9 112Trichloro122Trifluoroethane	101	2.677	2.675	(0.509)	314182	48.5951	48.595
10 Iodomethane	142	2.774	2.771	(0.527)	125478	29.8594	29.859(R)
11 Bromoethane	108	2.904	2.901	(0.552)	219898	49.7531	49.753
12 Acrolein	56	3.034	3.031	(0.577)	54963	40.7758	40.776
13 Methylene Chloride	84	3.271	3.268	(0.622)	421984	54.8421	54.842
14 Acetone	43	3.379	3.381	(0.642)	128091	64.2283	64.228(R)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.424	3.421	(0.651)	390857	52.4013	52.401
	16 Methyl tert butyl ether	73	3.599	3.602	(0.684)	926842	51.2805	51.281
	17 1,1-Dichloroethane	63	4.023	4.020	(0.765)	712875	51.6738	51.674
	18 Acrylonitrile	53	4.108	4.105	(0.781)	121280	47.0950	47.095
	19 Vinyl Acetate	43	4.300	4.298	(0.817)	386336	26.4485	26.449(R)
	20 Cis-1,2-Dichloroethene	96	4.498	4.495	(0.855)	409490	54.8447	54.845
	22 2,2-Dichloropropane	77	4.583	4.580	(0.871)	519043	49.8310	49.831
	23 Bromochloromethane	128	4.657	4.659	(0.885)	384317	107.464	107.46
	24 Chloroform	83	4.736	4.733	(0.900)	678680	52.7587	52.759
	25 Carbon Tetrachloride	117	4.815	4.812	(0.852)	433455	50.7737	50.774
$	27 Dibromofluoromethane	111	4.877	4.880	(0.927)	359825	51.9648	51.965
	26 1,1,1-Trichloroethane	97	4.877	4.874	(0.927)	545812	51.0976	51.098
	28 1,1-Dichloropropene	75	4.973	4.976	(0.880)	510029	49.8085	49.809
	29 2-Butanone	72	5.013	5.010	(0.953)	39435	52.0161	52.016(Q)
	30 Benzene	78	5.171	5.168	(0.915)	1774490	50.5047	50.505
*	31 Pentafluorobenzene	168	5.262	5.264	(1.000)	759273	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.284	5.281	(1.004)	384682	52.3539	52.354
	33 1,2-Dichloroethane	62	5.335	5.332	(0.944)	466730	50.2781	50.278
	34 Trichloroethene	95	5.612	5.615	(0.993)	402684	51.0430	51.043
*	35 1,4-Difluorobenzene	114	5.652	5.649	(1.000)	1340068	50.0000	
	37 Dibromomethane	93	5.918	5.920	(1.047)	206045	51.4326	51.433
	38 1,2-Dichloropropane	63	5.997	5.994	(1.061)	461982	53.0501	53.050
	39 Bromodichloromethane	83	6.048	6.045	(1.070)	568795	58.0610	58.061
	40 2-Chloroethyl Vinyl Ether	63	6.460	6.458	(1.143)	28995	39.3217	39.322(RM)
	41 Cis 1,3-dichloropropene	75	6.494	6.492	(1.149)	693198	59.4215	59.422
$	42 d8-Toluene	98	6.624	6.622	(1.172)	1718578	49.9882	49.988
	43 Toluene	92	6.658	6.656	(1.178)	1098341	49.9973	49.997
	44 Tetrachloroethene	166	6.918	6.921	(0.898)	395509	47.8075	47.808
	45 4-Methyl-2-Pentanone	58	6.935	6.938	(1.227)	146547	52.7034	52.703(QM)
	46 Trans 1,3-Dichloropropene	75	6.952	6.950	(1.230)	562012	52.4057	52.406(Q)
	47 1,1,2-Trichloroethane	97	7.060	7.063	(1.249)	332977	51.4697	51.470
	48 Chlorodibromomethane	129	7.184	7.181	(0.932)	387941	57.6360	57.636
	49 1,3-Dichloropropane	76	7.252	7.249	(0.941)	618257	52.6266	52.627
	50 1,2-Dibromoethane	107	7.348	7.345	(1.300)	314516	51.7396	51.740
	51 2-Hexanone	43	7.518	7.515	(0.976)	246039	39.6688	39.669(R)
*	52 d5-Chlorobenzene	117	7.704	7.707	(1.000)	1397592	50.0000	
	53 Chlorobenzene	112	7.716	7.719	(1.001)	1127268	46.6076	46.608
	54 Ethyl Benzene	91	7.738	7.736	(1.004)	2163687	51.2168	51.217
	55 1,1,1,2-Tetrachloroethane	131	7.761	7.764	(1.007)	384355	52.0094	52.009
	56 m,p-xylene	106	7.840	7.843	(1.018)	1616073	105.937	105.94
	57 o-Xylene	106	8.145	8.143	(1.057)	752582	52.5891	52.589
	58 Styrene	104	8.185	8.182	(1.062)	1391097	49.3031	49.303
	59 Bromoform	173	8.196	8.199	(0.873)	246716	53.3026	53.303
	60 Isopropyl Benzene	105	8.372	8.369	(0.892)	1931065	41.1433	41.143
$	62 4-Bromofluorobenzene	95	8.570	8.572	(1.112)	688918	50.1041	50.104
	63 Bromobenzene	156	8.649	8.646	(0.921)	490766	49.3718	49.372
	64 N-Propyl Benzene	91	8.666	8.669	(0.923)	2296040	48.0117	48.012

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)	
	65 1,1,2,2-Tetrachloroethane	83	8.717	8.719	(0.928)	425020	49.6061	49.606	
	66 2-Chloro Toluene	91	8.779	8.782	(0.935)	1390540	48.3912	48.391	
	67 1,3,5-Trimethyl Benzene	105	8.813	8.810	(0.939)	1771924	55.1933	55.193	
	68 1,2,3-Trichloropropane	110	8.818	8.816	(0.939)	131989	50.4341	50.434	
	69 Trans-1,4-Dichloro 2-Butene	53	8.847	8.850	(0.942)	96176	36.3292	36.329	(R)
	70 4-Chloro Toluene	91	8.903	8.900	(0.948)	1370799	47.3124	47.312	
	71 T-Butyl Benzene	119	9.045	9.042	(0.963)	1395599	43.4570	43.457	
	72 1,2,4-Trimethylbenzene	105	9.095	9.098	(0.969)	1760049	55.5841	55.584	
	73 S-Butyl Benzene	105	9.175	9.177	(0.977)	2186204	49.4074	49.407	
	74 4-Isopropyl Toluene	119	9.282	9.279	(0.989)	1688615	42.5819	42.582	
	75 1,3-Dichlorobenzene	146	9.333	9.336	(0.994)	872395	46.0741	46.074	
*	76 d4-1,4-Dichlorobenzene	152	9.390	9.392	(1.000)	764057	50.0000		(Q)
	77 1,4-Dichlorobenzene	146	9.401	9.404	(1.001)	944233	47.9014	47.901	
	78 N-Butyl Benzene	91	9.599	9.596	(1.022)	1704473	53.2064	53.206	
$	79 d4-1,2-Dichlorobenzene	152	9.706	9.709	(1.034)	682636	50.8735	50.873	(Q)
	80 1,2-Dichlorobenzene	146	9.717	9.715	(1.035)	858149	46.6433	46.643	
	81 1,2-Dibromo 3-Chloropropane	75	10.323	10.325	(1.099)	65601	49.3545	49.355	
	82 Hexachloro 1,3-Butadiene	225	10.831	10.829	(1.154)	327619	48.0239	48.024	
	83 1,2,4-Trichlorobenzene	180	10.848	10.851	(1.155)	550489	50.5812	50.581	
	84 Naphthalene	128	11.109	11.106	(1.183)	1255756	53.8118	53.812	
	85 1,2,3-Trichlorobenzene	180	11.250	11.253	(1.198)	537316	50.4091	50.409	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: icv0401.d
Lab Smp Id: ICV0401
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Misc Info: 12-

Calibration Date: 01-APR-2013
Calibration Time: 20:02
Client Smp ID: ICV0401
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	759273	-19.35
35 1,4-Difluorobenze	1617500	808750	3235000	1340068	-17.15
52 d5-Chlorobenzene	1675930	837965	3351860	1397592	-16.61
76 d4-1,4-Dichlorobe	909458	454729	1818916	764057	-15.99

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	-0.05
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	0.05
52 d5-Chlorobenzene	7.71	7.21	8.21	7.70	-0.04
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: ICV0401
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: voa.sub
Method File: /chem1/nt9.i/01APR13.b/VO121012S.m
Misc Info: 12-

Client SDG: 01APR13
Fraction: VOA
Client Smp ID: ICV0401
Operator: PB
SampleType: LCS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.000	45.202	90.40	80-120
2	Chloromethane	50.000	49.843	99.69	80-120
3	Vinyl Chloride	50.000	54.322	108.64	80-120
4	Bromomethane	50.000	53.532	107.06	80-120
5	Chloroethane	50.000	54.555	109.11	80-120
6	Trichlorofluoromet	50.000	56.840	113.68	80-120
12	Acrolein	50.000	40.776	81.55	80-120
9	112Trichloro122Tri	50.000	48.595	97.19	80-120
14	Acetone	50.000	64.228	128.46*	80-120
7	1,1-Dichloroethene	50.000	55.592	111.18	80-120
11	Bromoethane	50.000	49.753	99.51	80-120
10	Iodomethane	50.000	29.859	59.72*	80-120
13	Methylene Chloride	50.000	54.842	109.68	80-120
8	Carbon Disulfide	50.000	42.890	85.78	80-120
18	Acrylonitrile	50.000	47.095	94.19	80-120
15	Trans-1,2-Dichloro	50.000	52.401	104.80	80-120
16	Methyl tert butyl	50.000	51.281	102.56	80-120
19	Vinyl Acetate	50.000	26.449	52.90*	80-120
17	1,1-Dichloroethane	50.000	51.674	103.35	80-120
29	2-Butanone	50.000	52.016	104.03	80-120
22	2,2-Dichloropropan	50.000	49.831	99.66	80-120
20	Cis-1,2-Dichloroet	50.000	54.845	109.69	80-120
24	Chloroform	50.000	52.759	105.52	80-120
23	Bromochloromethane	100.00	107.46	107.46	80-120
26	1,1,1-Trichloroeth	50.000	51.098	102.20	80-120
28	1,1-Dichloropropen	50.000	49.809	99.62	80-120
25	Carbon Tetrachlori	50.000	50.774	101.55	80-120
33	1,2-Dichloroethane	50.000	50.278	100.56	80-120
30	Benzene	50.000	50.505	101.01	80-120
34	Trichloroethene	50.000	51.043	102.09	80-120
38	1,2-Dichloropropan	50.000	53.050	106.10	80-120
39	Bromodichlorometha	50.000	58.061	116.12	80-120
37	Dibromomethane	50.000	51.433	102.87	80-120

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	39.322	78.64*	80-120
45 4-Methyl-2-Pentano	50.000	52.703	105.41	80-120
41 Cis 1,3-dichloropr	50.000	59.422	118.84	80-120
43 Toluene	50.000	49.997	99.99	80-120
46 Trans 1,3-Dichloro	50.000	52.406	104.81	80-120
51 2-Hexanone	50.000	39.669	79.34*	80-120
47 1,1,2-Trichloroeth	50.000	51.470	102.94	80-120
49 1,3-Dichloropropan	50.000	52.627	105.25	80-120
44 Tetrachloroethene	50.000	47.808	95.62	80-120
48 Chlorodibromometha	50.000	57.636	115.27	80-120
50 1,2-Dibromoethane	50.000	51.740	103.48	80-120
53 Chlorobenzene	50.000	46.608	93.22	80-120
55 1,1,1,2-Tetrachlor	50.000	52.009	104.02	80-120
54 Ethyl Benzene	50.000	51.217	102.43	80-120
56 m,p-xylene	100.00	105.94	105.94	80-120
57 o-Xylene	50.000	52.589	105.18	80-120
58 Styrene	50.000	49.303	98.61	80-120
60 Isopropyl Benzene	50.000	41.143	82.29	80-120
59 Bromoform	50.000	53.303	106.61	80-120
65 1,1,2,2-Tetrachlor	50.000	49.606	99.21	80-120
68 1,2,3-Trichloropro	50.000	50.434	100.87	80-120
69 Trans-1,4-Dichloro	50.000	36.329	72.66*	80-120
64 N-Propyl Benzene	50.000	48.012	96.02	80-120
63 Bromobenzene	50.000	49.372	98.74	80-120
67 1,3,5-Trimethyl Be	50.000	55.193	110.39	80-120
66 2-Chloro Toluene	50.000	48.391	96.78	80-120
70 4-Chloro Toluene	50.000	47.312	94.62	80-120
71 T-Butyl Benzene	50.000	43.457	86.91	80-120
72 1,2,4-Trimethylben	50.000	55.584	111.17	80-120
73 S-Butyl Benzene	50.000	49.407	98.81	80-120
74 4-Isopropyl Toluen	50.000	42.582	85.16	80-120
75 1,3-Dichlorobenzen	50.000	46.074	92.15	80-120
77 1,4-Dichlorobenzen	50.000	47.901	95.80	80-120
78 N-Butyl Benzene	50.000	53.206	106.41	80-120
80 1,2-Dichlorobenzen	50.000	46.643	93.29	80-120
81 1,2-Dibromo 3-Chlo	50.000	49.355	98.71	80-120
83 1,2,4-Trichloroben	50.000	50.581	101.16	80-120
82 Hexachloro 1,3-But	50.000	48.024	96.05	80-120
84 Naphthalene	50.000	53.812	107.62	80-120
85 1,2,3-Trichloroben	50.000	50.409	100.82	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	51.965	103.93	30-160

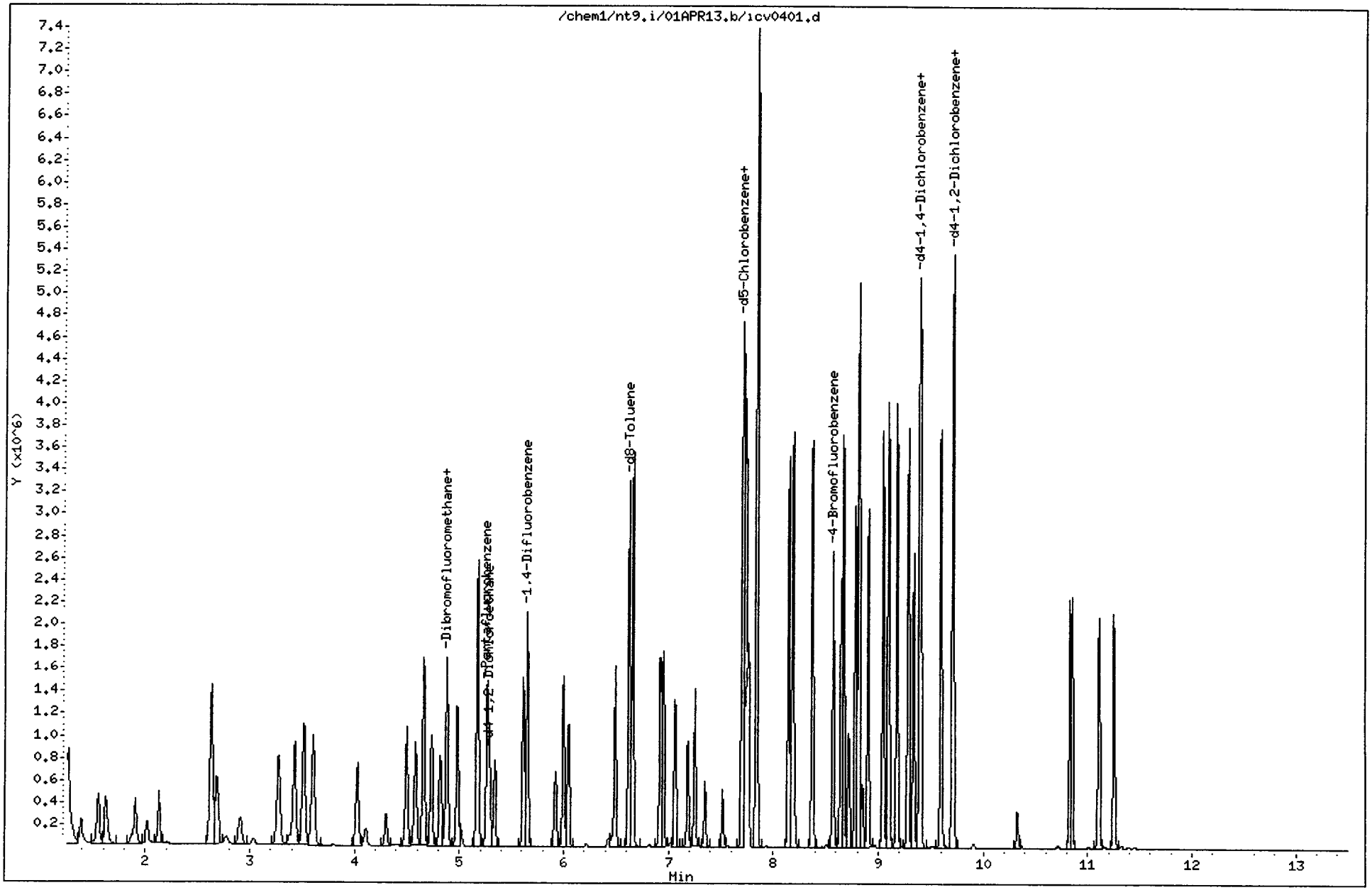
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 32 d4-1,2-Dichloroeth	50.000	52.354	104.71	75-152
$ 42 d8-Toluene	50.000	49.988	99.98	82-115
$ 62 4-Bromofluorobenze	50.000	50.104	100.21	64-120
$ 79 d4-1,2-Dichloroben	50.000	50.873	101.75	80-120

Data File: /chem1/nt9.i/01APR13.b/icv0401.d
Date : 01-APR-2013 21:52
Client ID: ICV0401
Sample Info: ICV0401,10,10,0

Column phase: RTXVMS

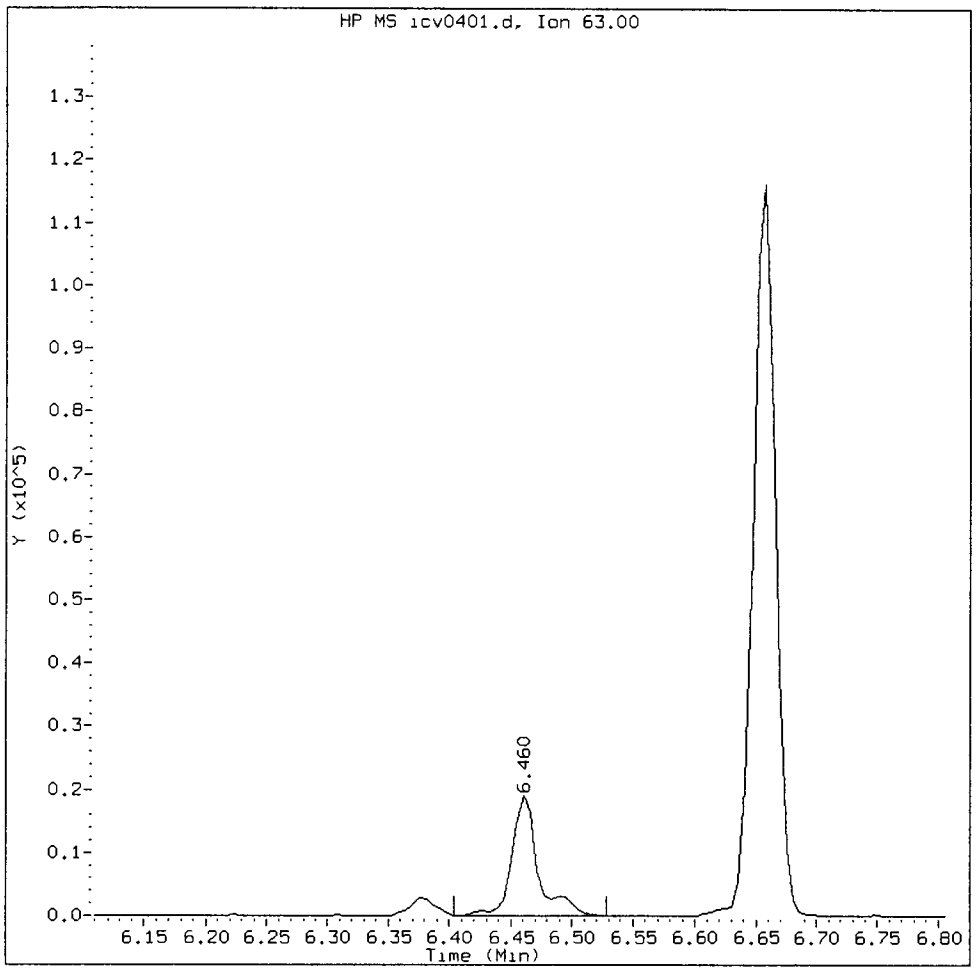
Instrument: nt9.i

Operator: PB
Column diameter: 0.18



ICV0401, /chem1/nt9.i/01APR13.b/icv0401.d

2-Chloroethyl Vinyl Ether Amount: 39.32 Area: 28995



MANUAL INTEGRATION for 2-Chloroethyl Vinyl Ether

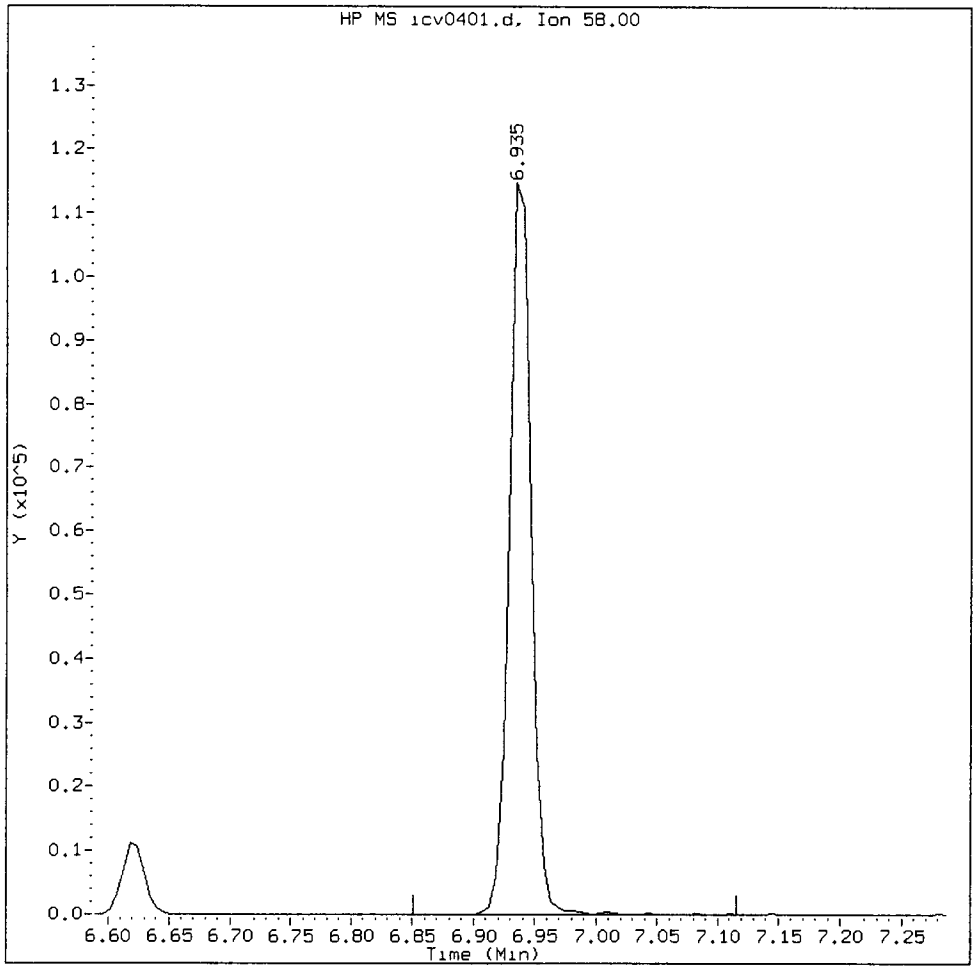
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/04

ICV0401, /chem1/nt9.i/01APR13.b/icv0401.d

4-Methyl-2-Pentanone Amount: 52.70 Area: 146547



MANUAL INTEGRATION for 4-Methyl-2-Pentanone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 4/4/13

CO-ELUTION SUMMARY FOR FILE - icv0401.d

Lab ID: ICV0401, Method: VO121012S.m, Instrument: nt9.i, Date: 01-APR-2013

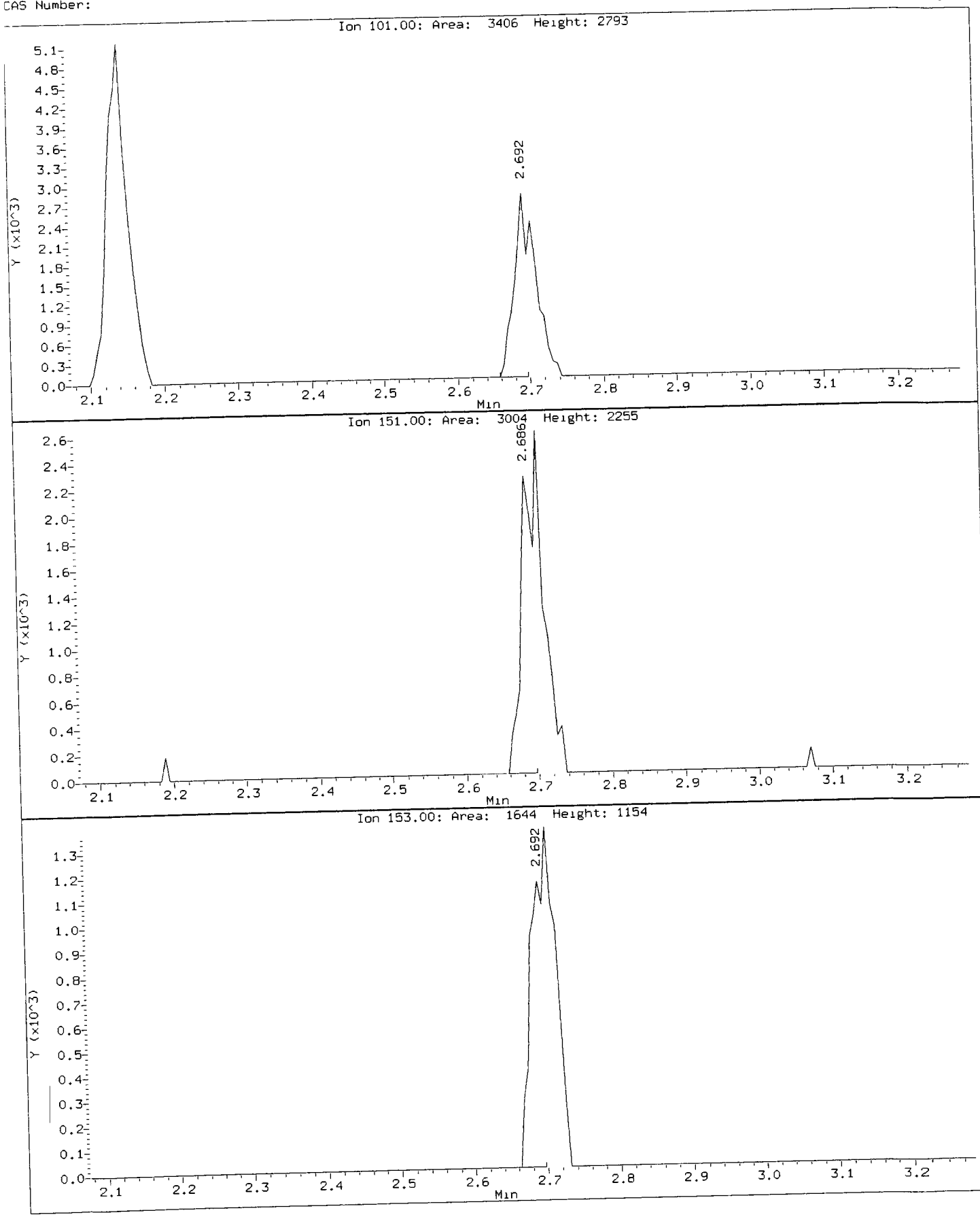
RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt9.1/01APR13.b/0010401.d
Injection Date: 01-APR-2013 21:30
Instrument: nt9.1
Client Sample ID:

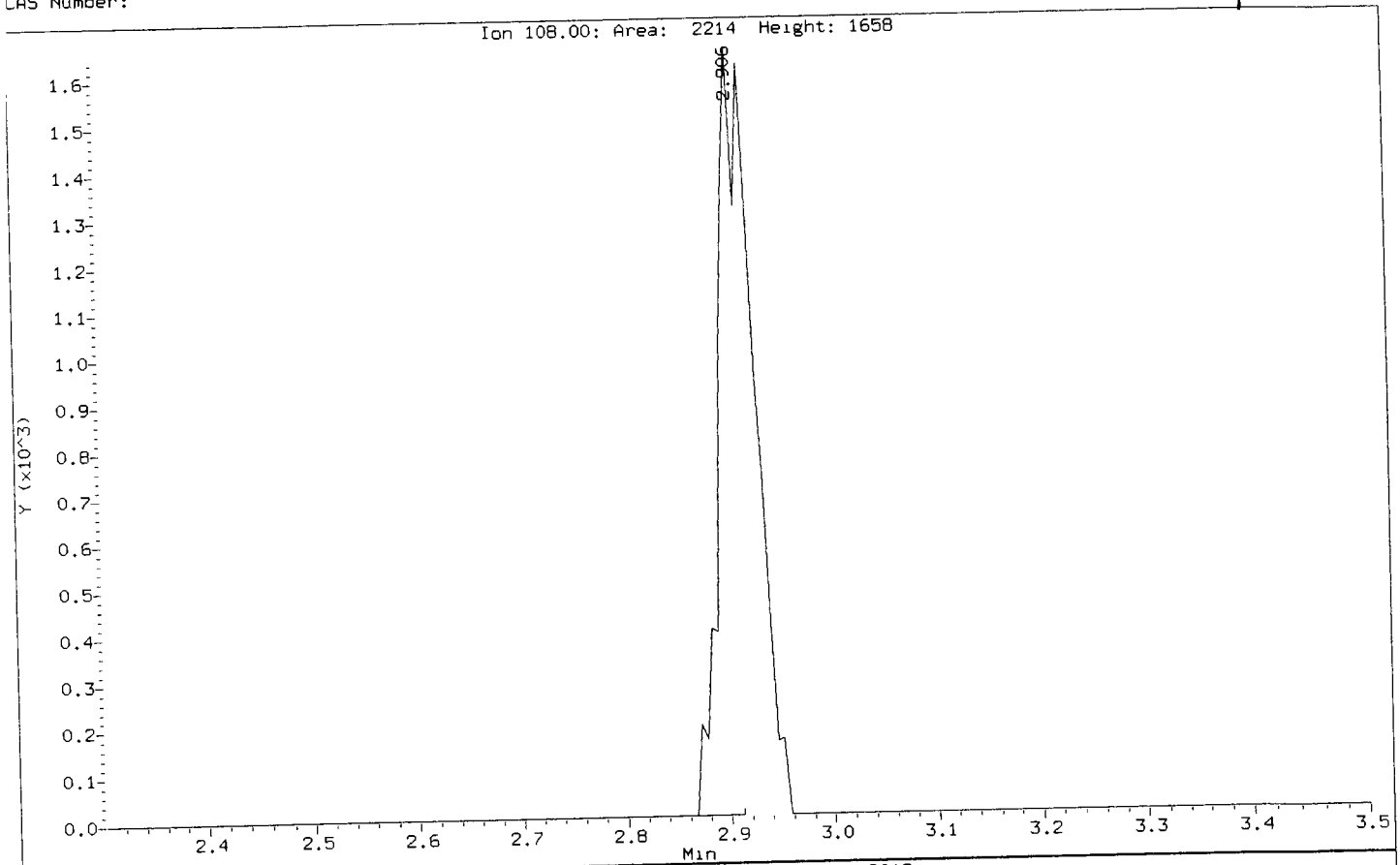
Compound: 112Trichloro122Trifluoroethane
CAS Number:

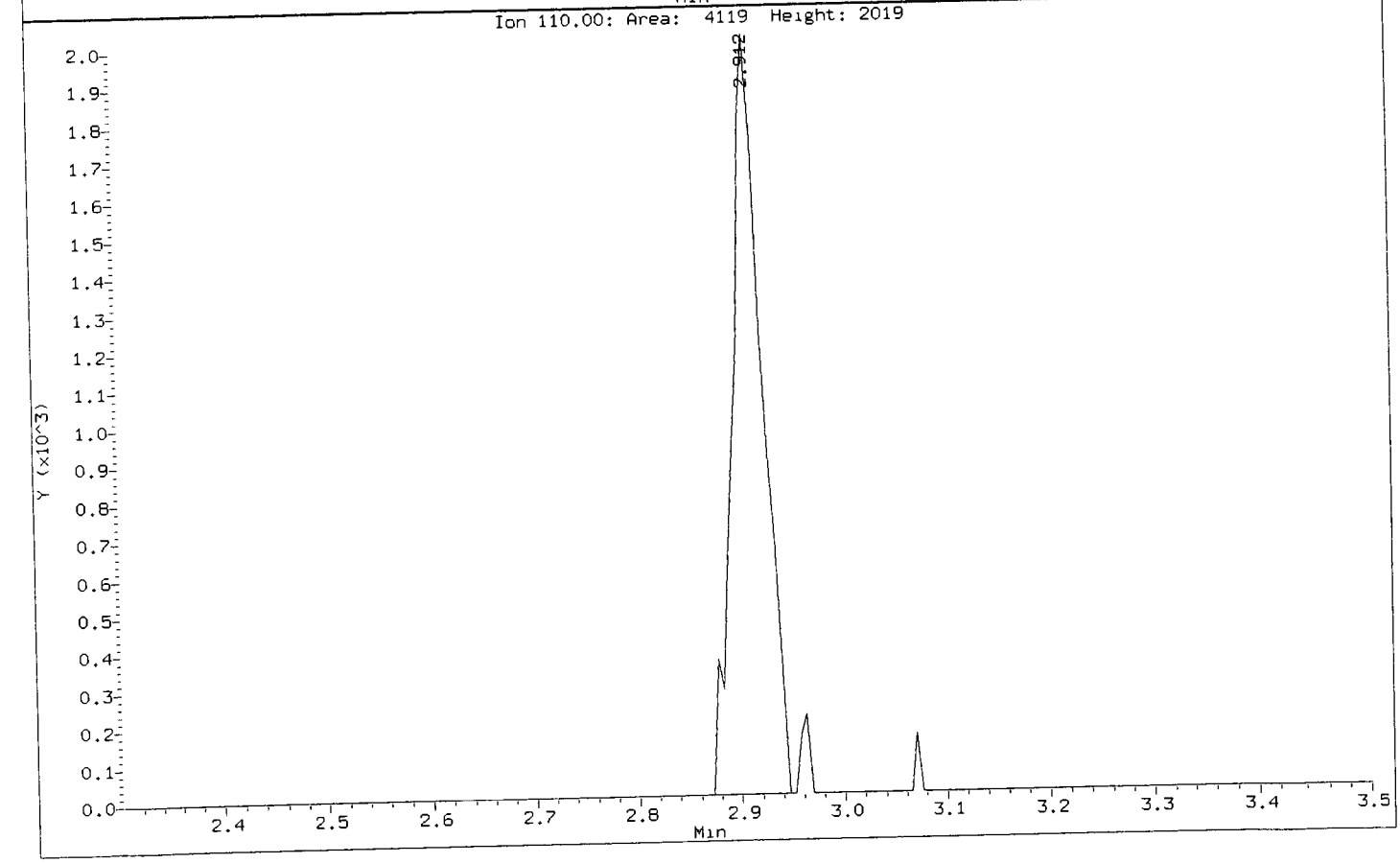
4/4b



Data File: /chem1/nt9.1/01APR13.b/0010401.d
Injection Date: 01-APR-2013 21:30
Instrument: nt9.1
Client Sample ID:

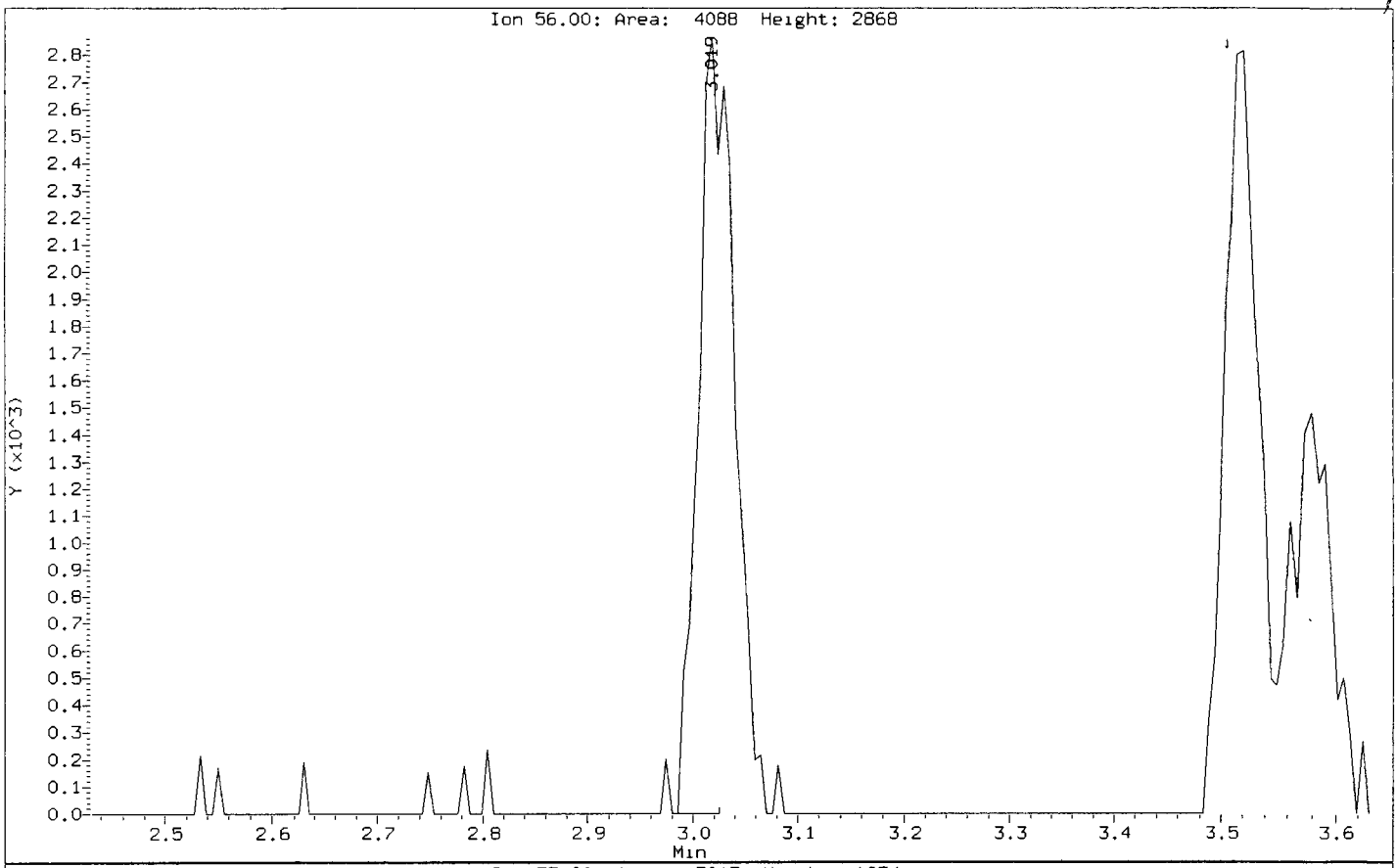
Compound: Bromoethane
CAS Number:

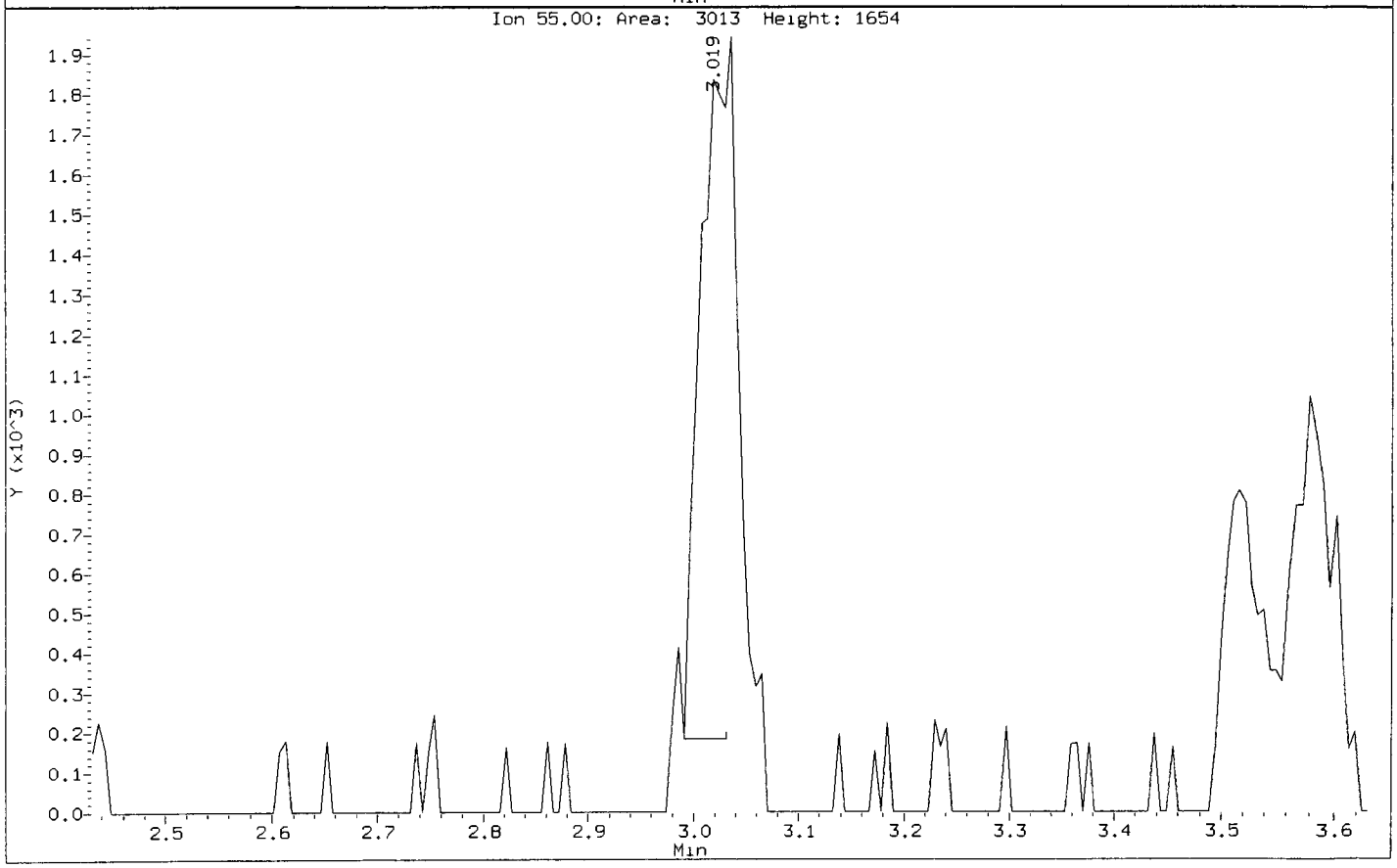




Data File: /chem1/nt9.1/01APR13.b/0010401.d
Injection Date: 01-APR-2013 21:30
Instrument: nt9.1
Client Sample ID:

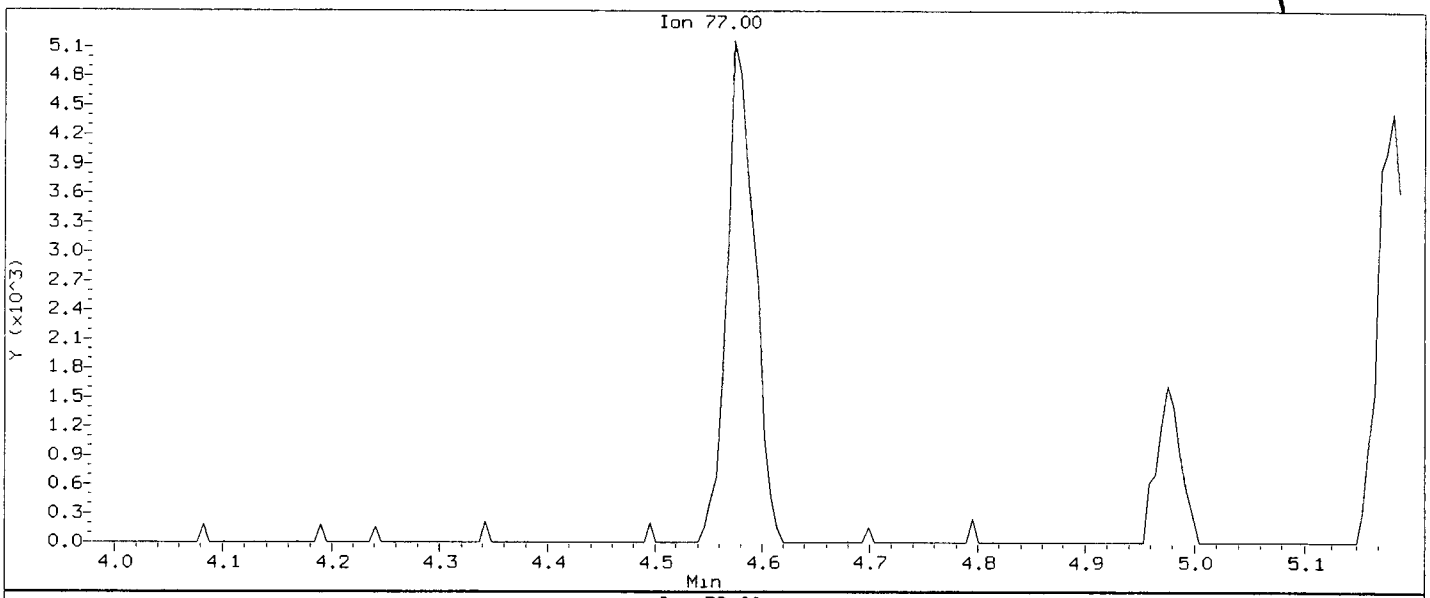
Compound: Acrolein
CAS Number:

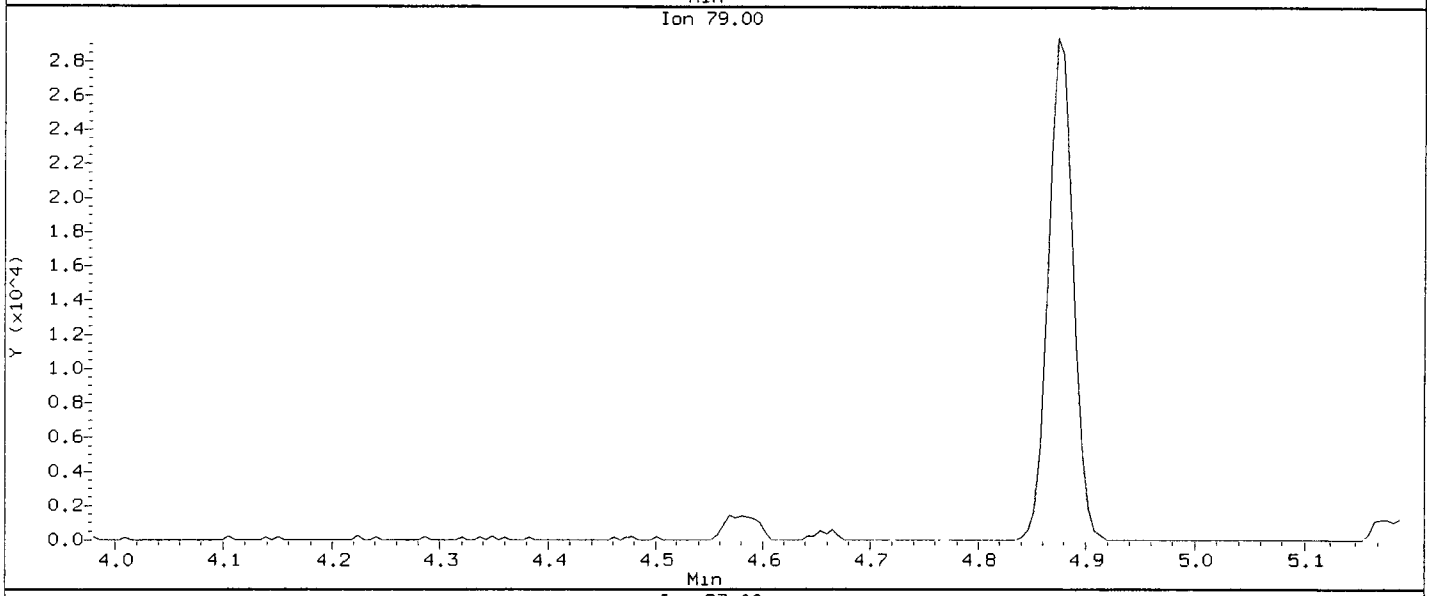


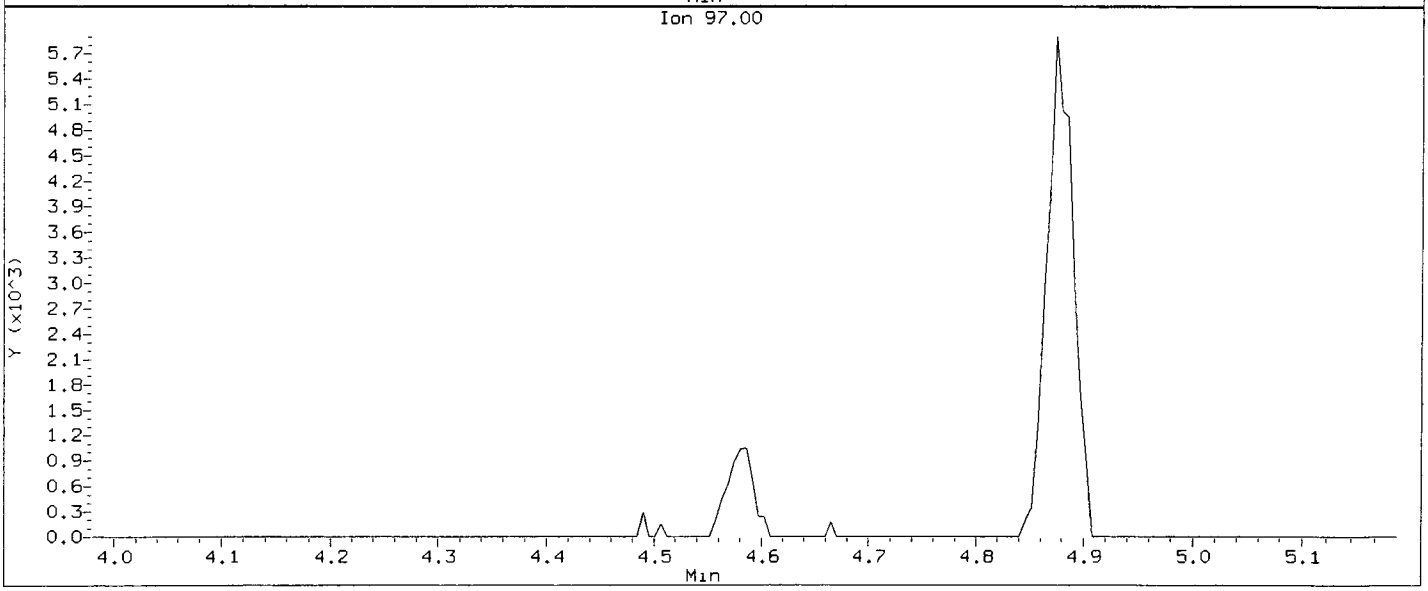


Data File: /chem1/nt9.1/01APR13.b/0010401.d
Injection Date: 01-APR-2013 21:30
Instrument: nt9.1
Client Sample ID:

Compound: 2,2-Dichloropropane
CAS Number:

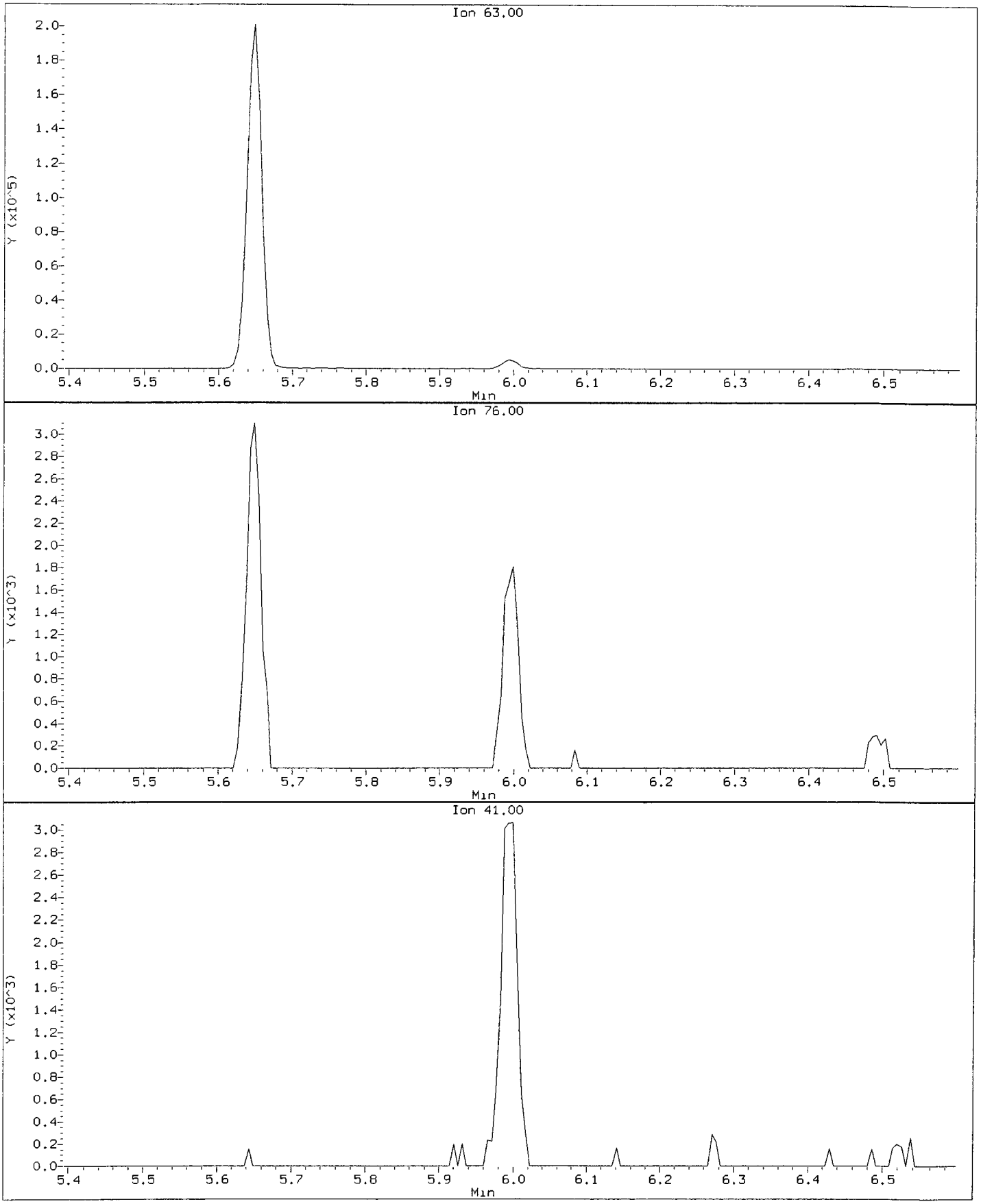






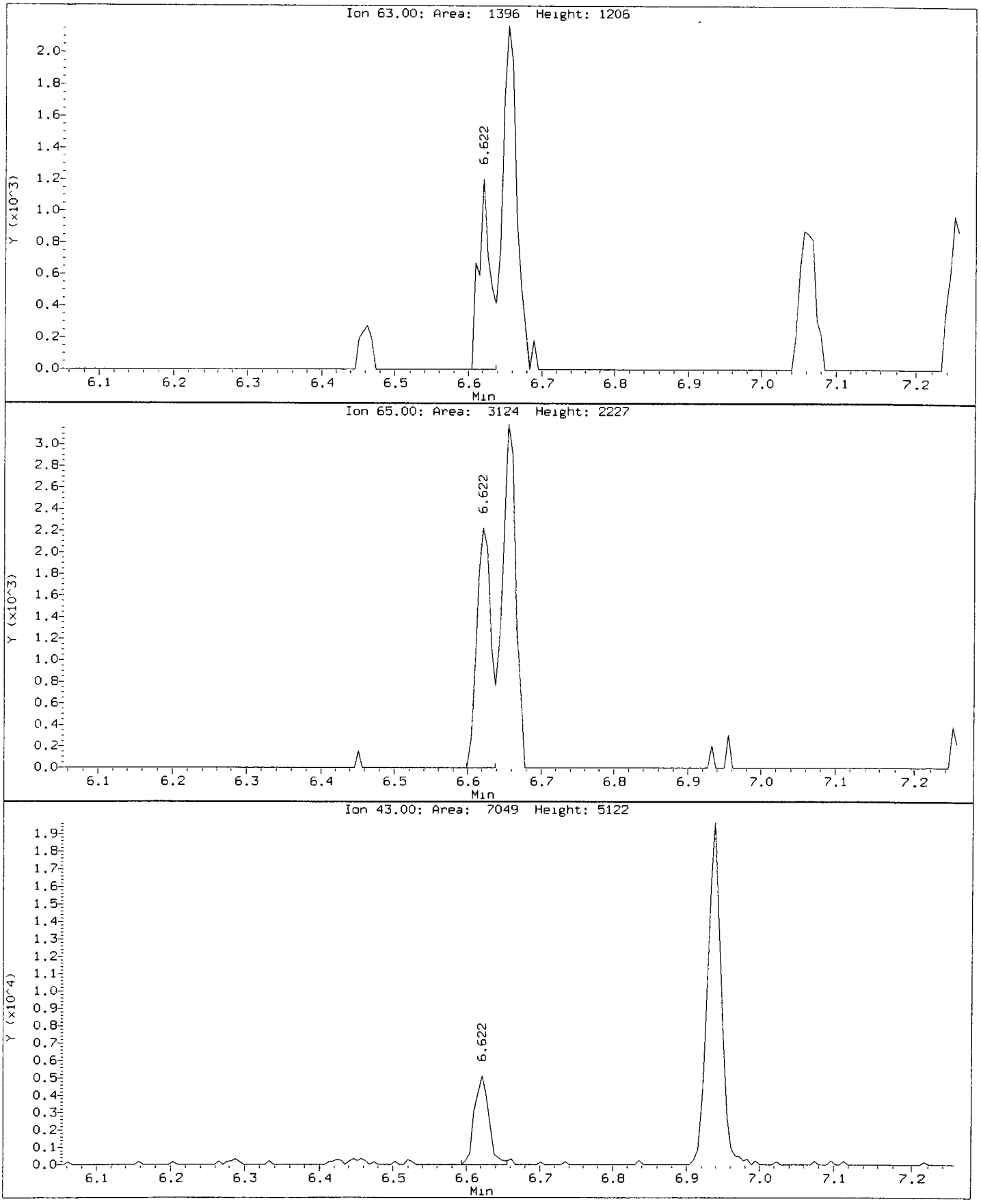
Data File: /chem1/nt9.1/01APR13.b/0010401.d
Injection Date: 01-APR-2013 21:30
Instrument: nt9.1
Client Sample ID:

Compound: 1,2-Dichloropropane
CAS Number:



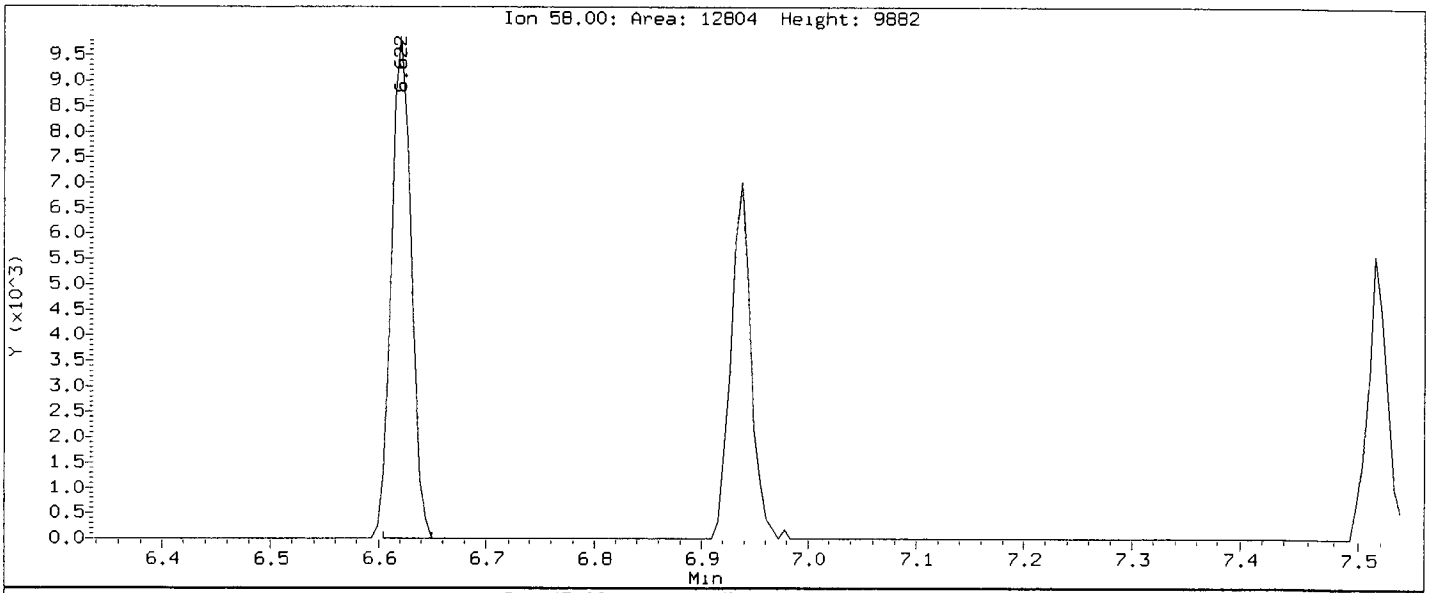
Data File: /chem1/nt9.1/01APR13.b/0010401.d
Injection Date: 01-APR-2013 21:30
Instrument: nt9.1
Client Sample ID:

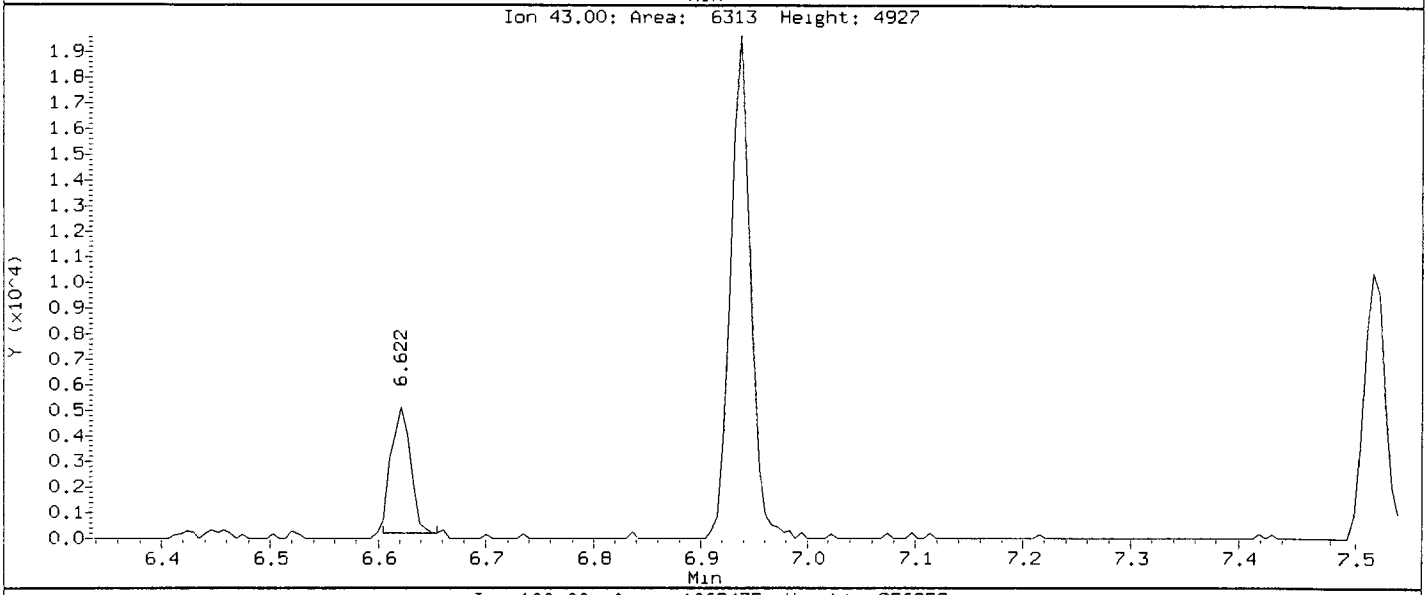
Compound: 2-Chloroethyl Vinyl Ether
CAS Number:

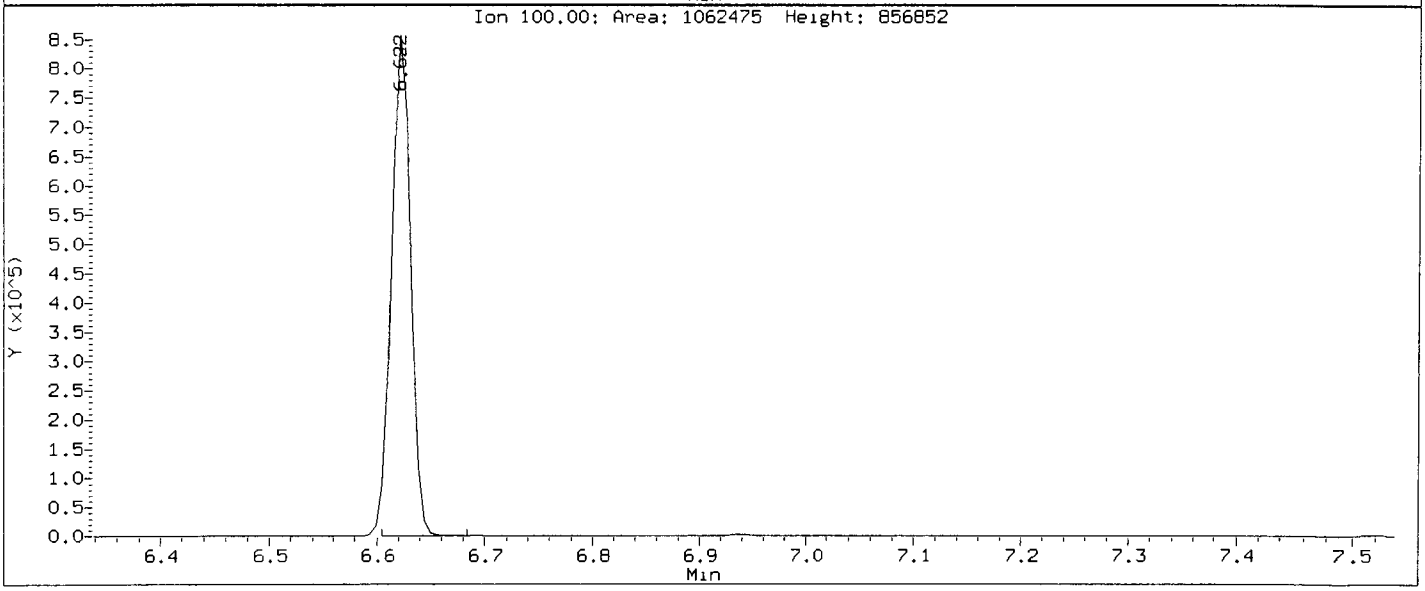


Data File: /chem1/nt9.1/01APR13.b/0010401.d
Injection Date: 01-APR-2013 21:30
Instrument: nt9.1
Client Sample ID:

Compound: 4-Methyl-2-Pentanone
CAS Number:

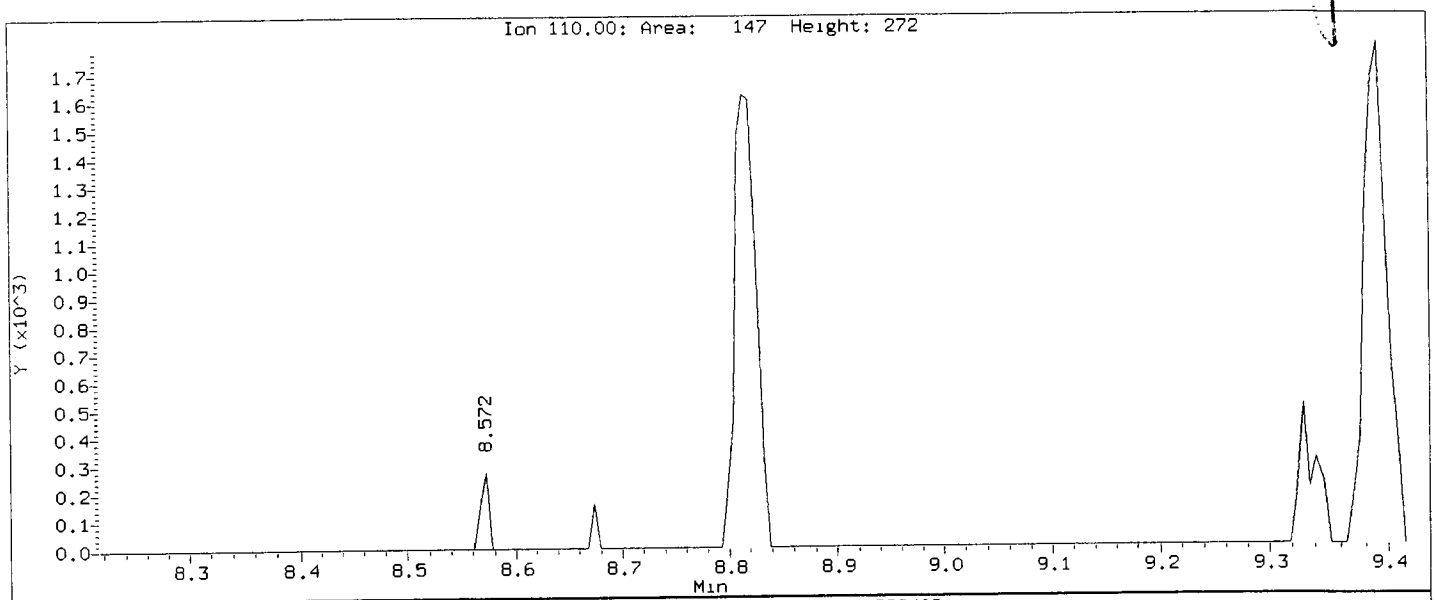


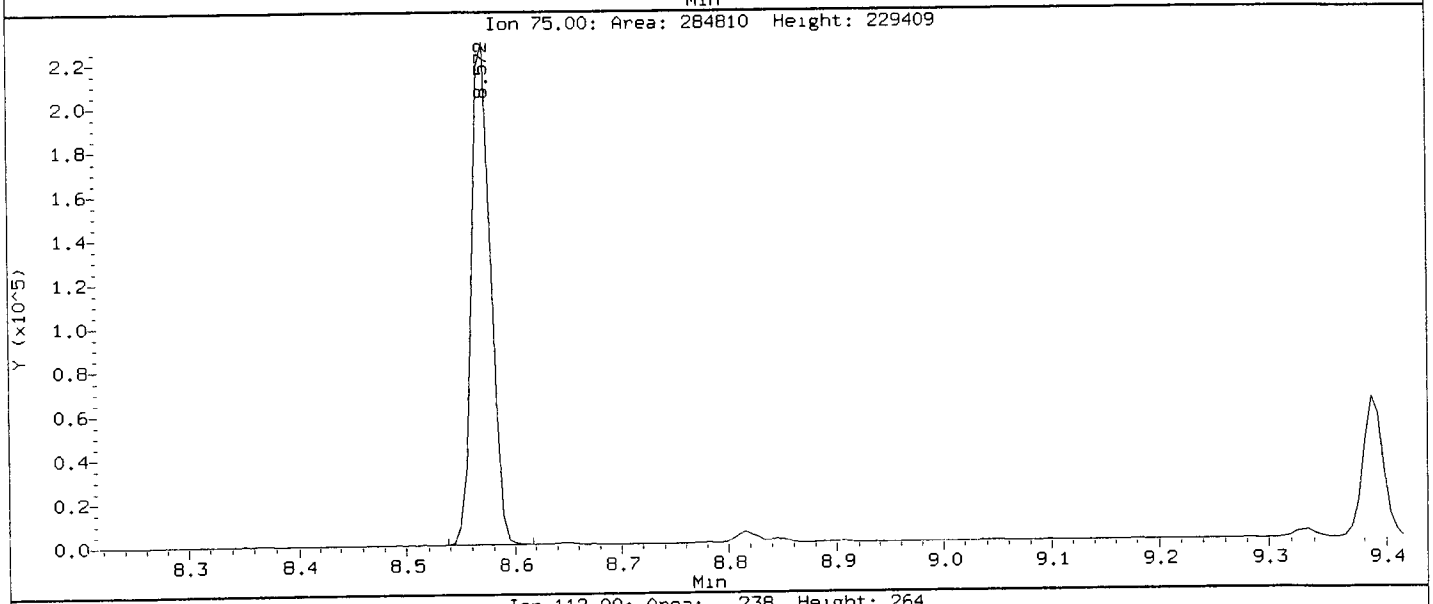


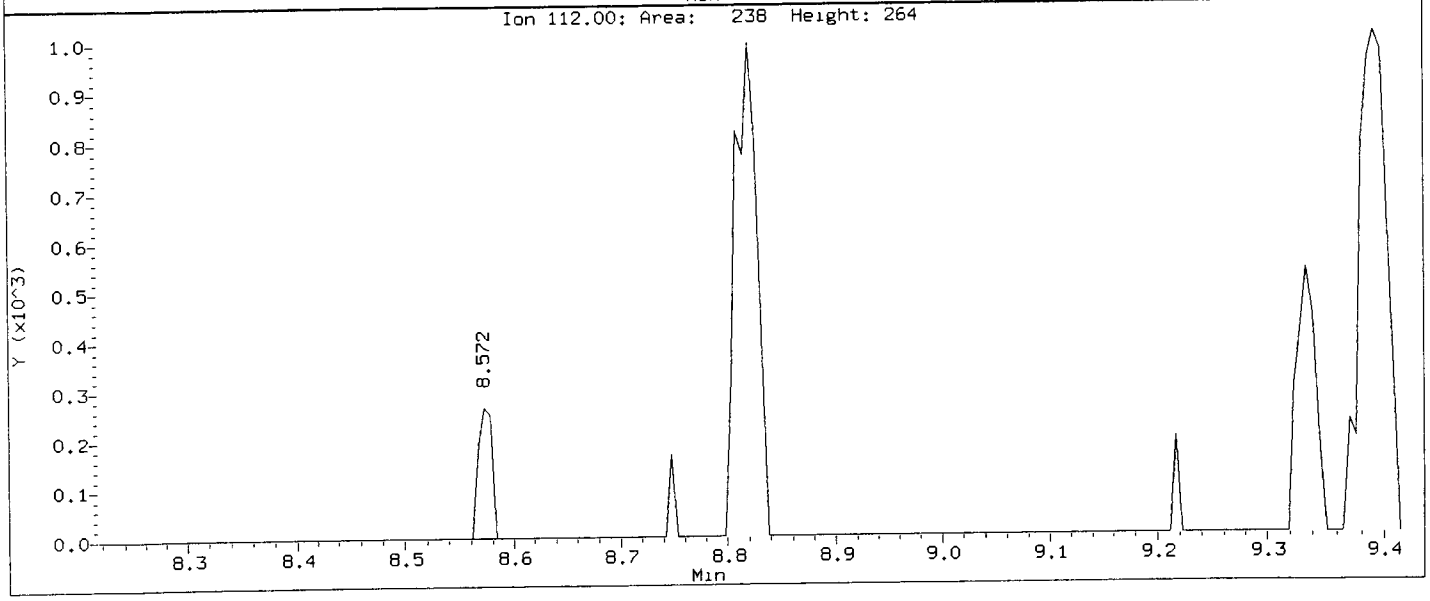


Data File: /chem1/nt9.1/01APR13.b/0010401.d
Injection Date: 01-APR-2013 21:30
Instrument: nt9.1
Client Sample ID:

Compound: 1,2,3-Trichloropropane
CAS Number:



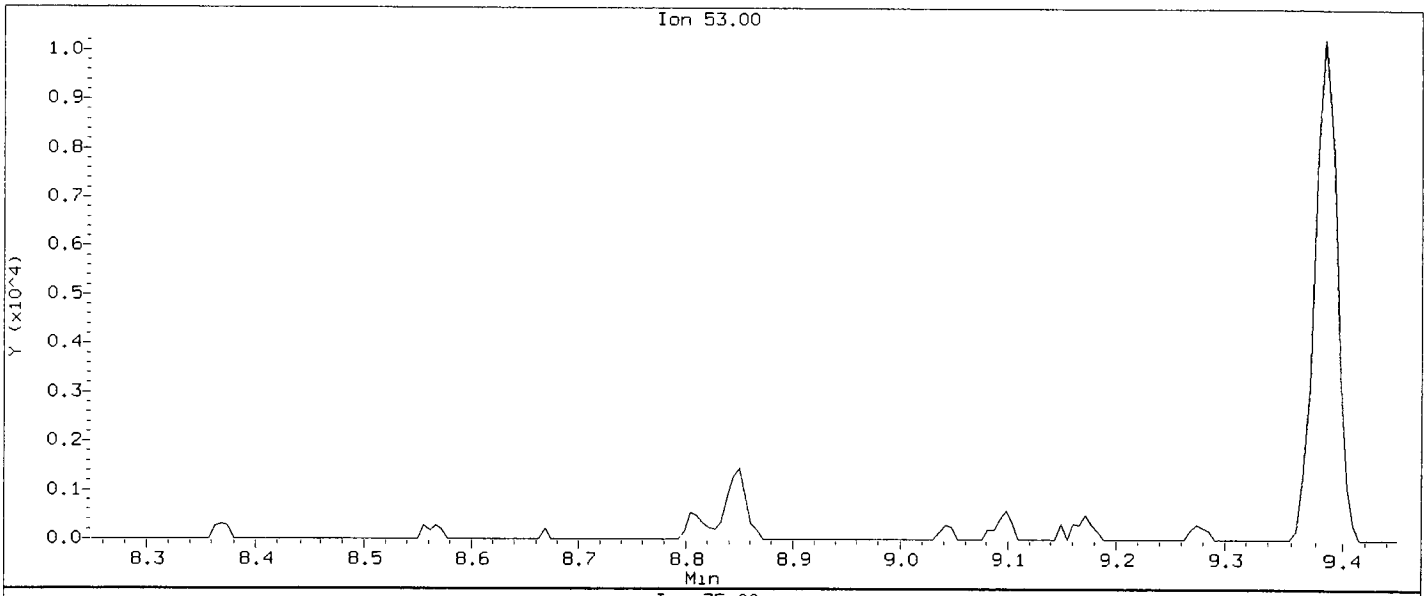


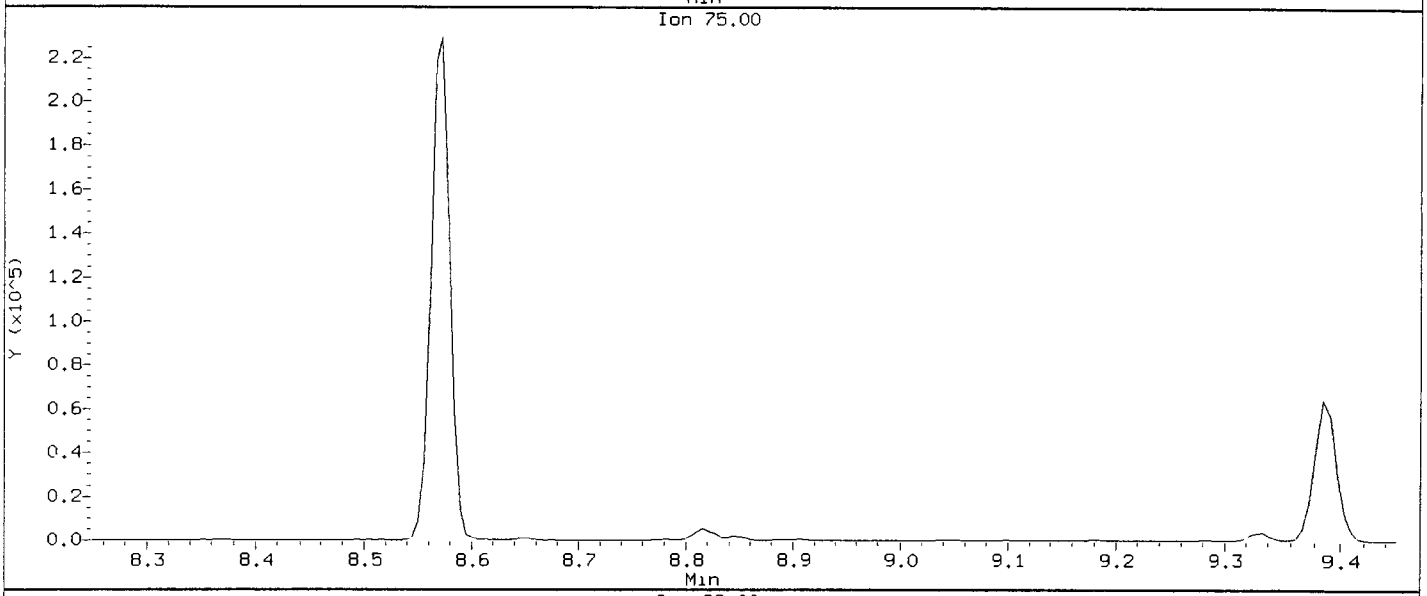


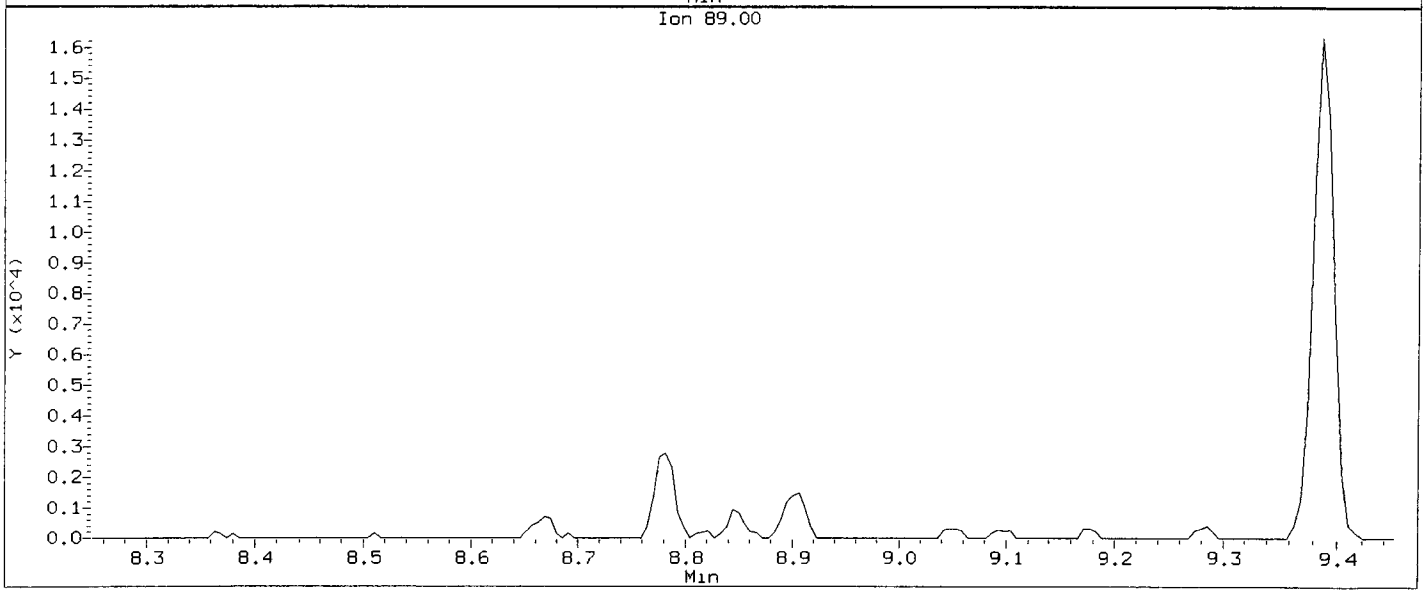
WJ18:66684

Data File: /chem1/nt9.1/01APR13.b/0010401.d
Injection Date: 01-APR-2013 21:30
Instrument: nt9.1
Client Sample ID:

Compound: Trans-1,4-Dichloro 2-Butene
CAS Number:

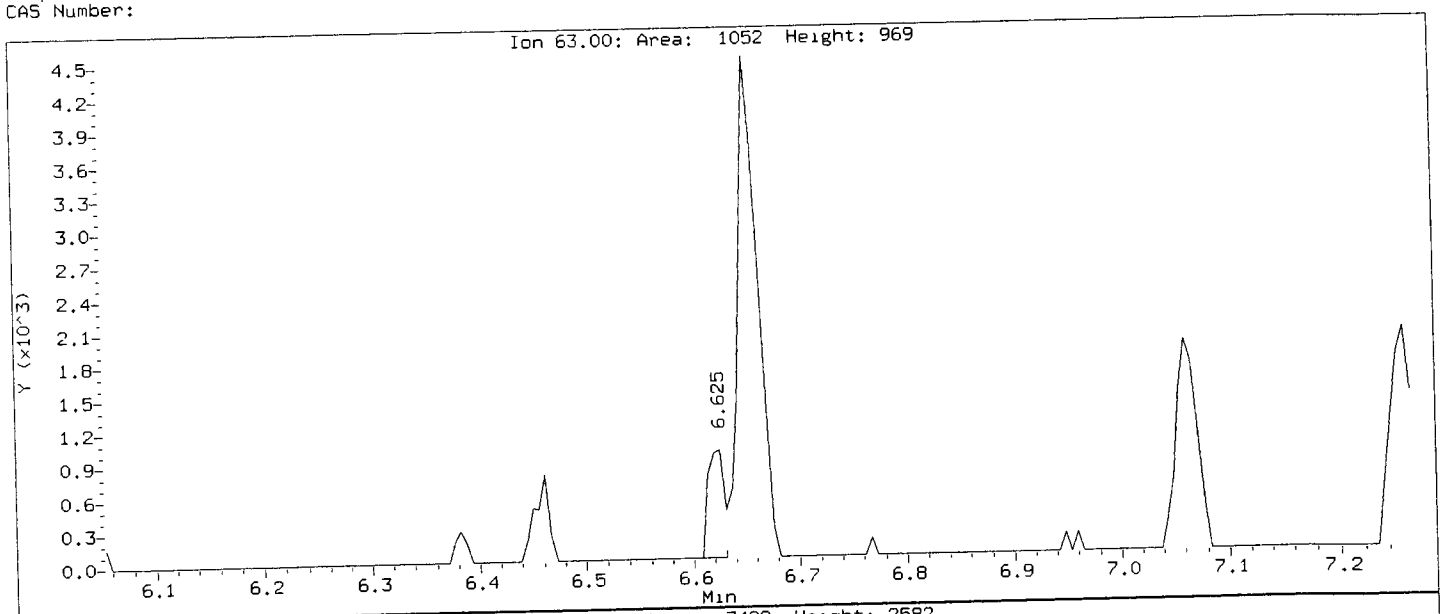


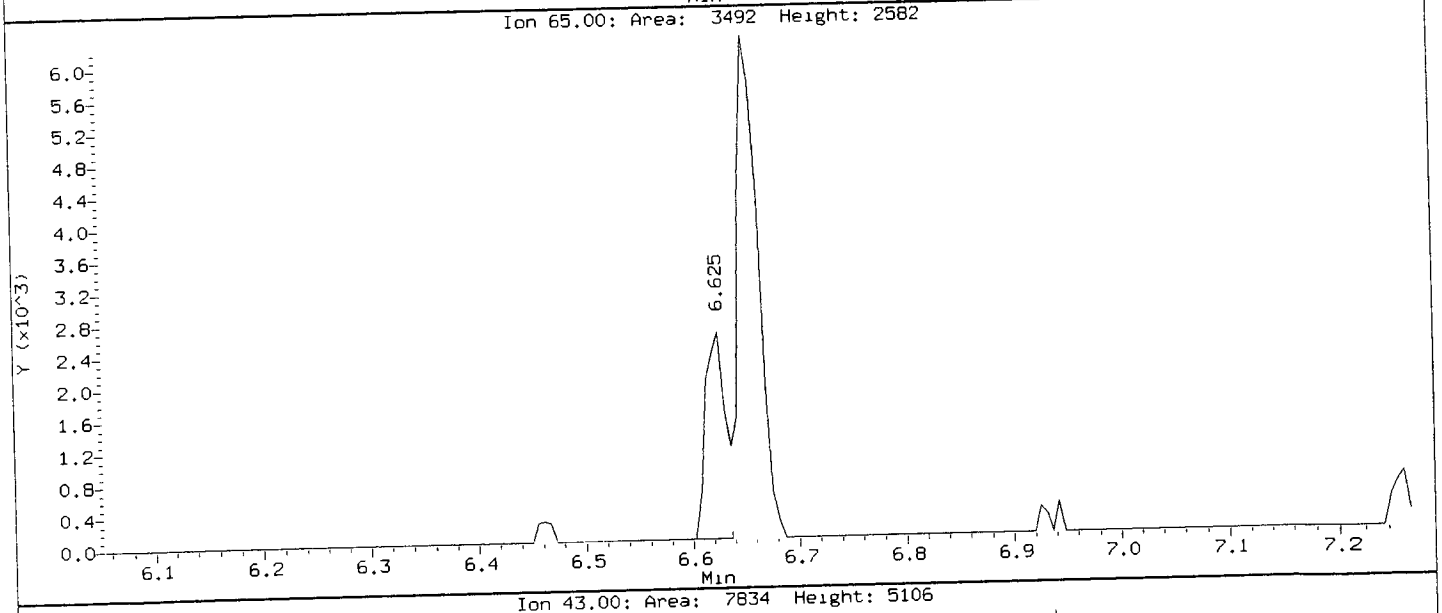


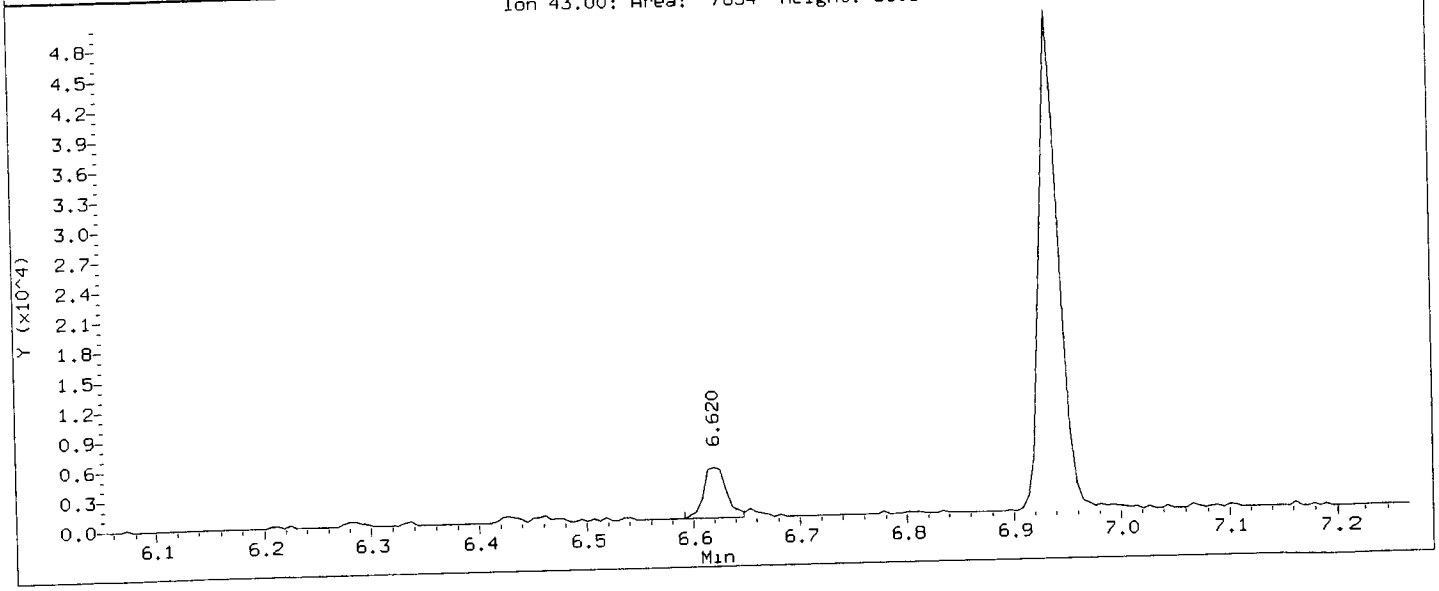


Data File: /chem1/nt9.1/01APR13.b/0020401.d
Injection Date: 01-APR-2013 21:08
Instrument: nt9.1
Client Sample ID:

Compound: 2-Chloroethyl Vinyl Ether
CAS Number:





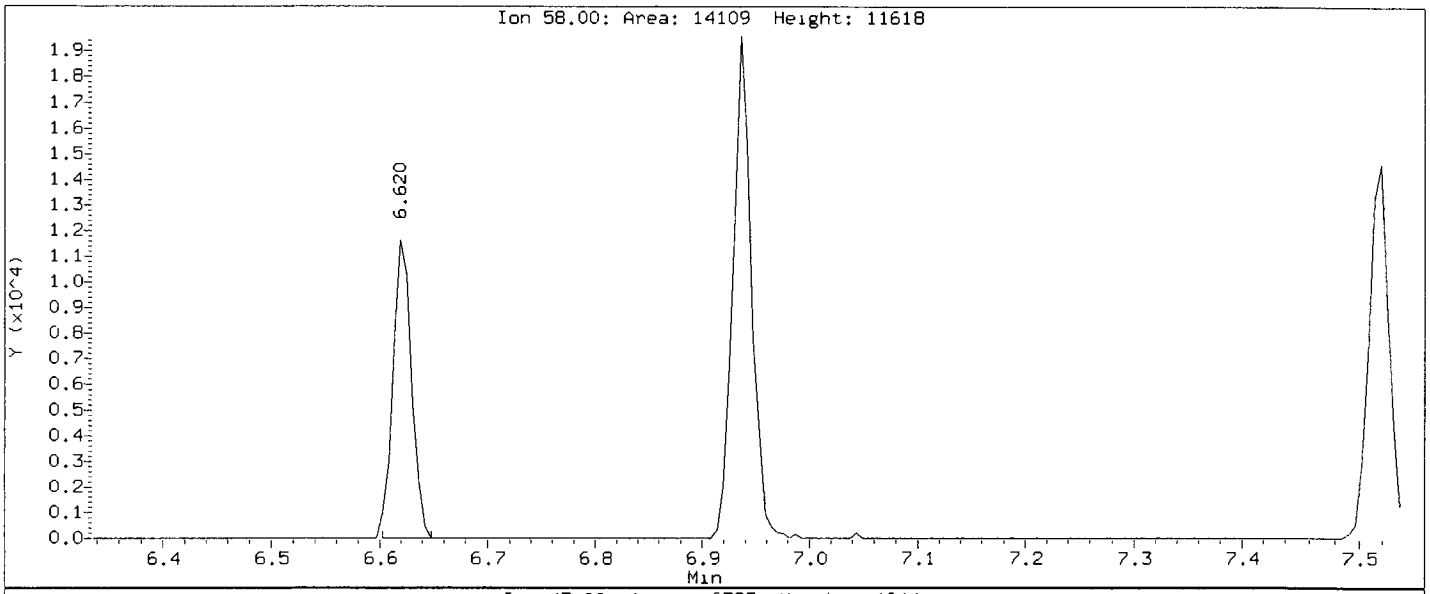


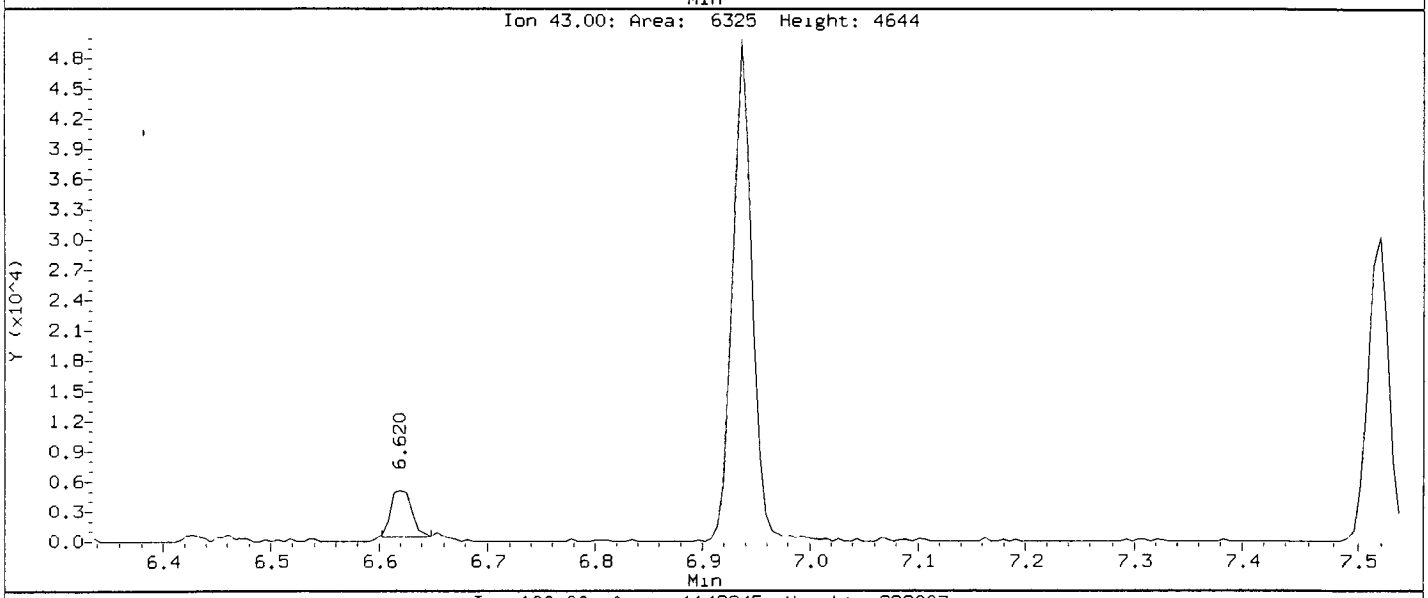
WJ10:00686

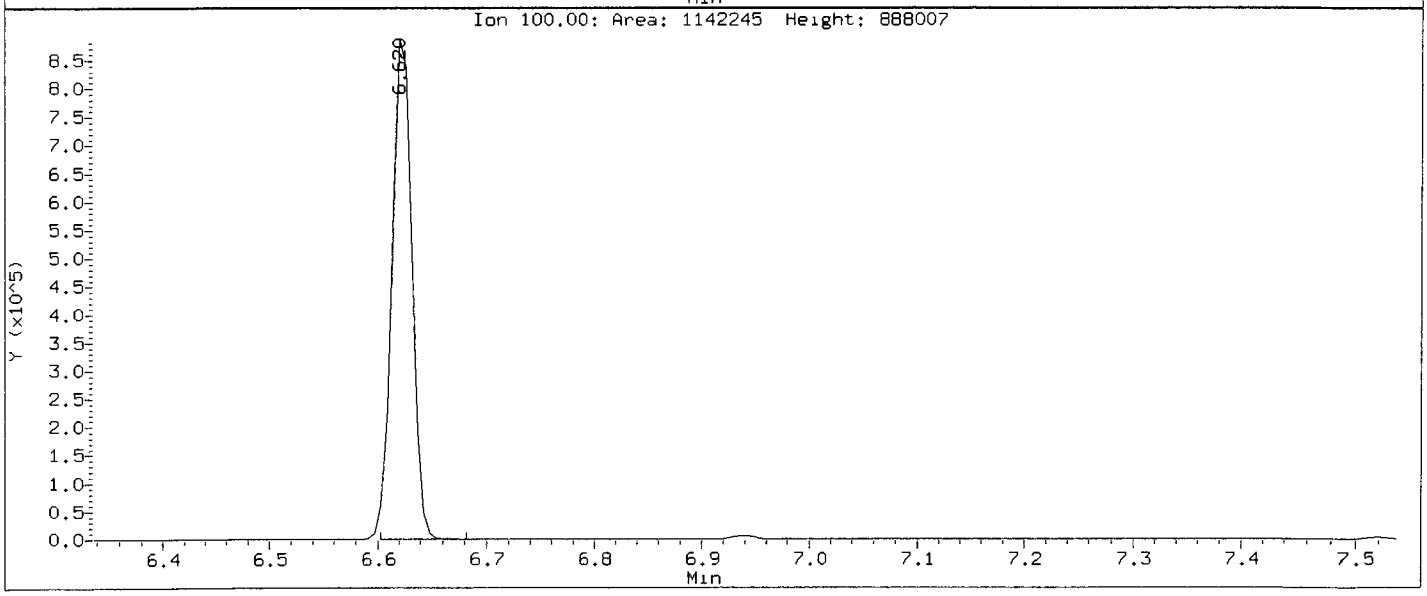
Data File: /chem1/nt9.1/01APR13.b/0020401.d
Injection Date: 01-APR-2013 21:08
Instrument: nt9.1
Client Sample ID:

Compound: 4-Methyl-2-Pentanone
CAS Number:

fb 4/4



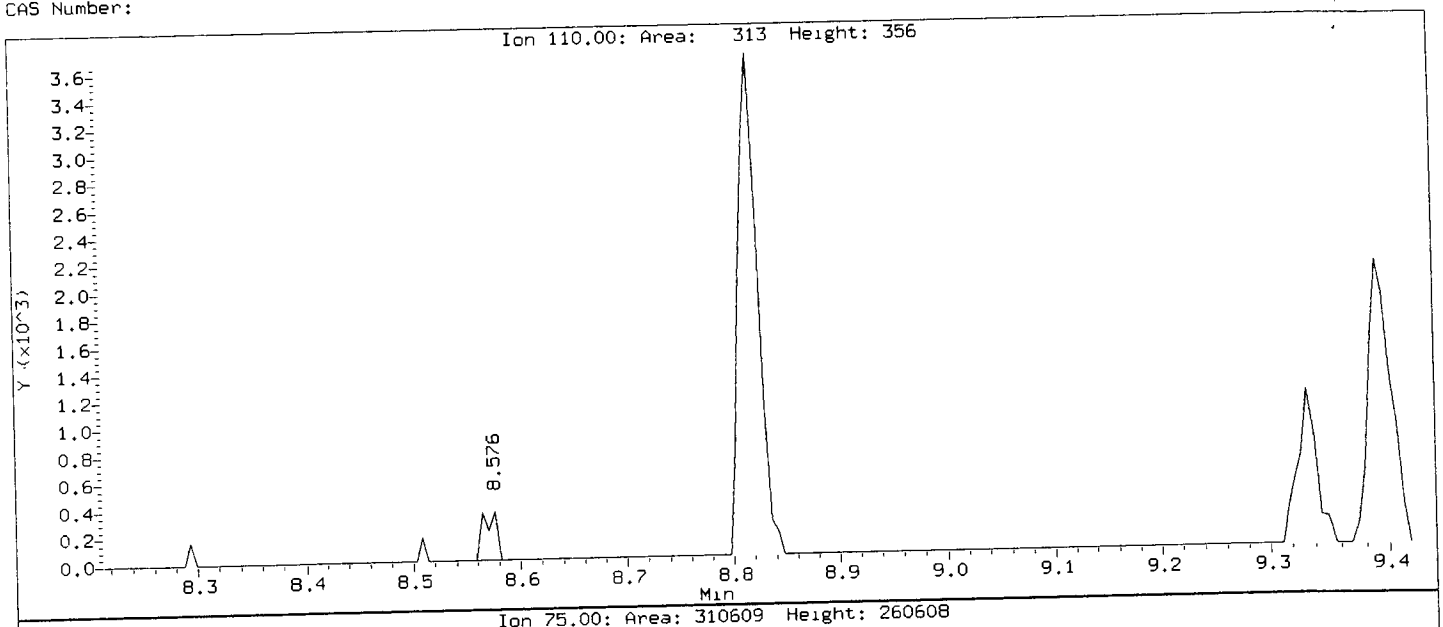


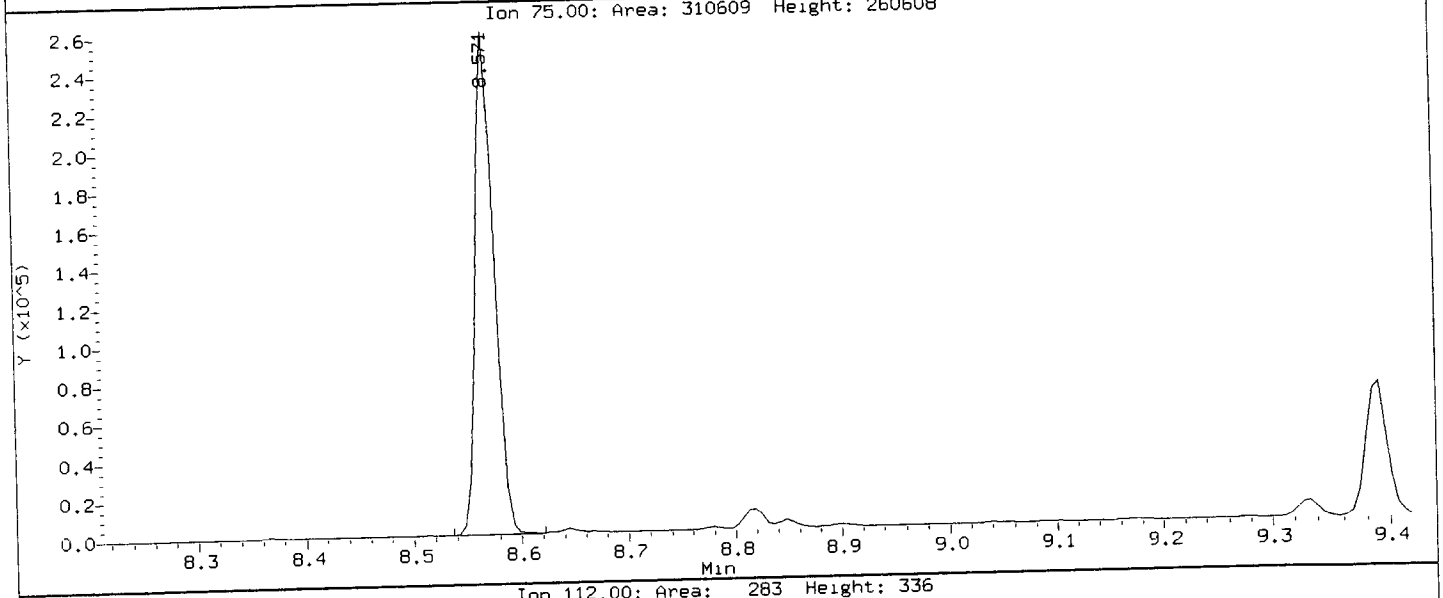


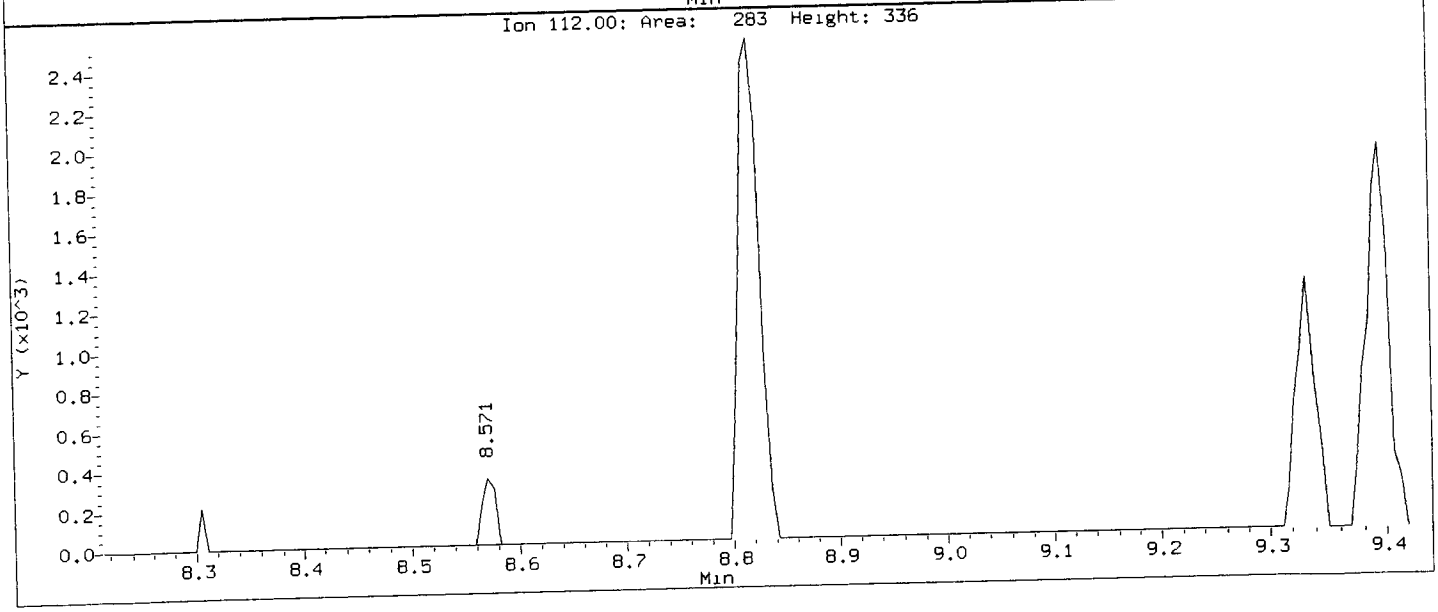
WJ10:00587

Data File: /chem1/nt9.1/01APR13.b/0020401.d
Injection Date: 01-APR-2013 21:08
Instrument: nt9.1
Client Sample ID:

Compound: 1,2,3-Trichloropropane
CAS Number:



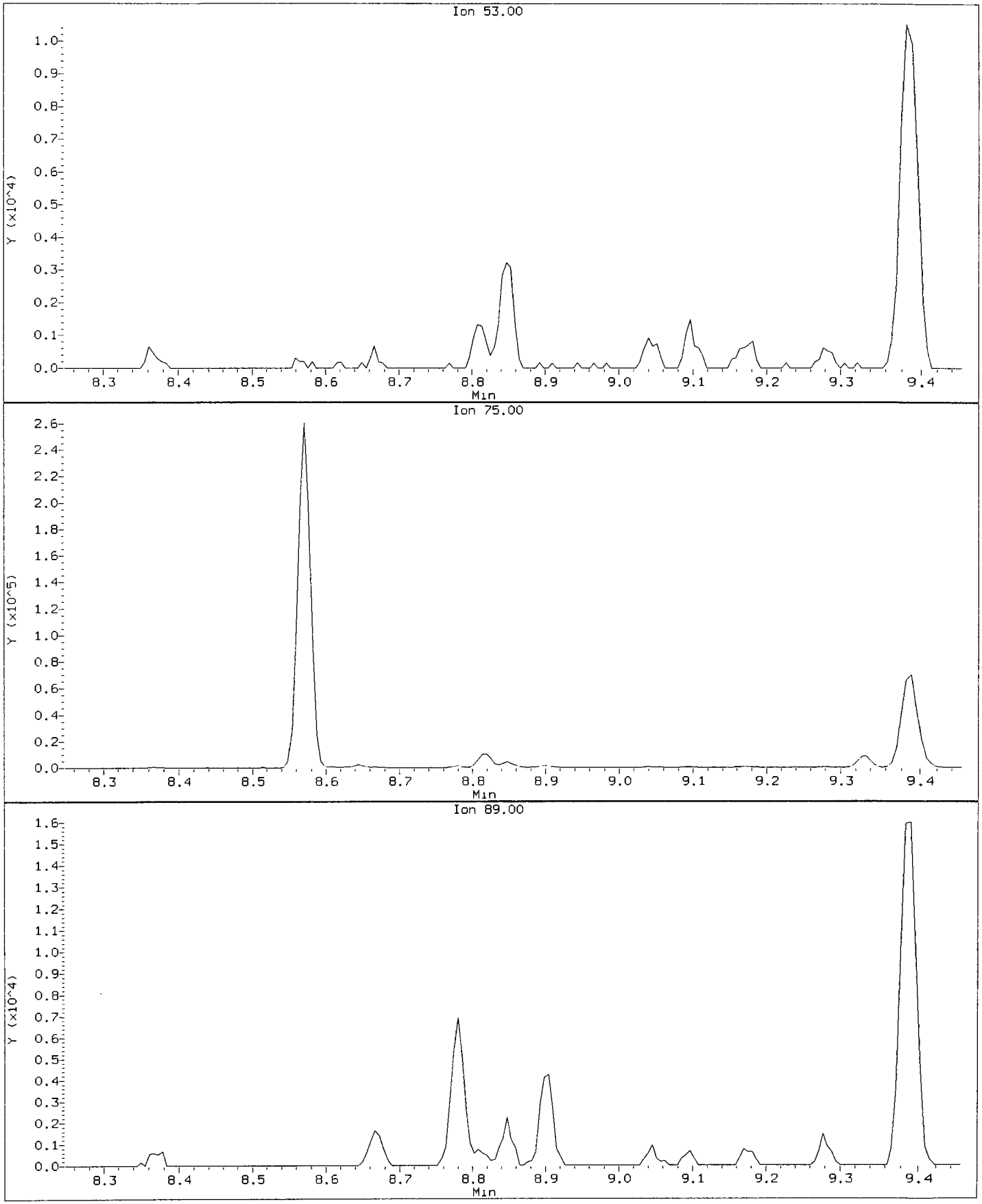




WJ10:00688

Data File: /chem1/nt9.i/01APR13.b/0020401.d
Injection Date: 01-APR-2013 21:08
Instrument: nt9.i
Client Sample ID:

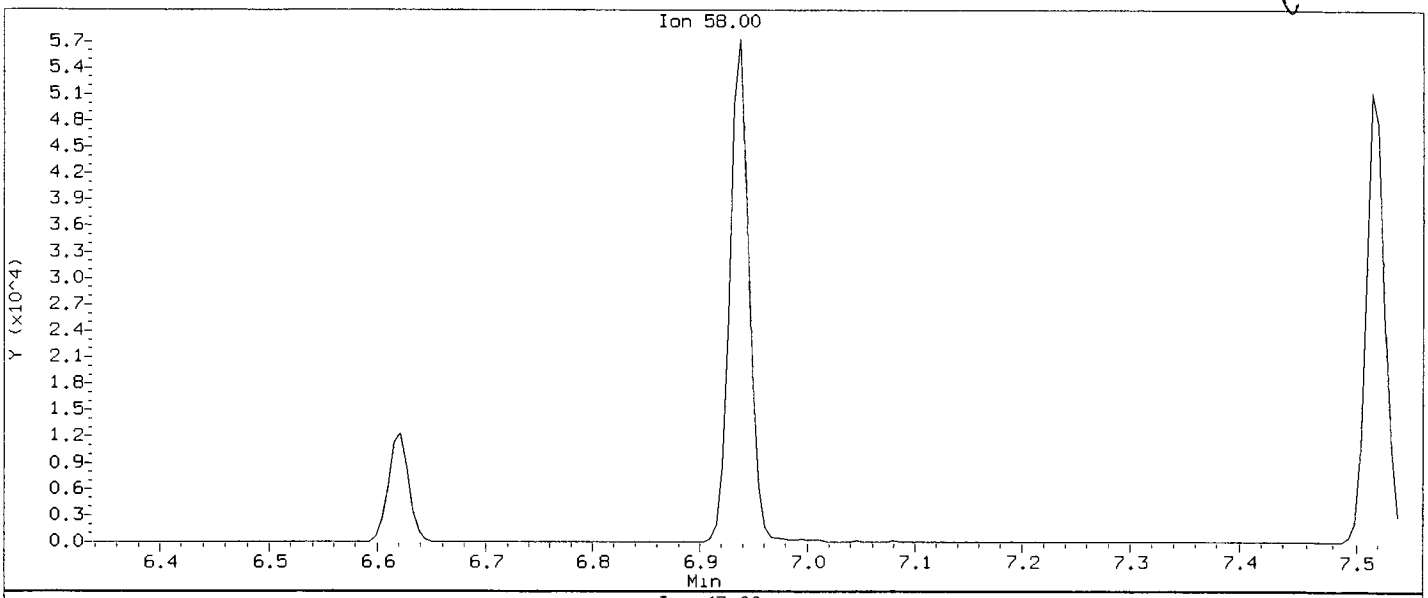
Compound: Trans-1,4-Dichloro 2-Butene
CAS Number:

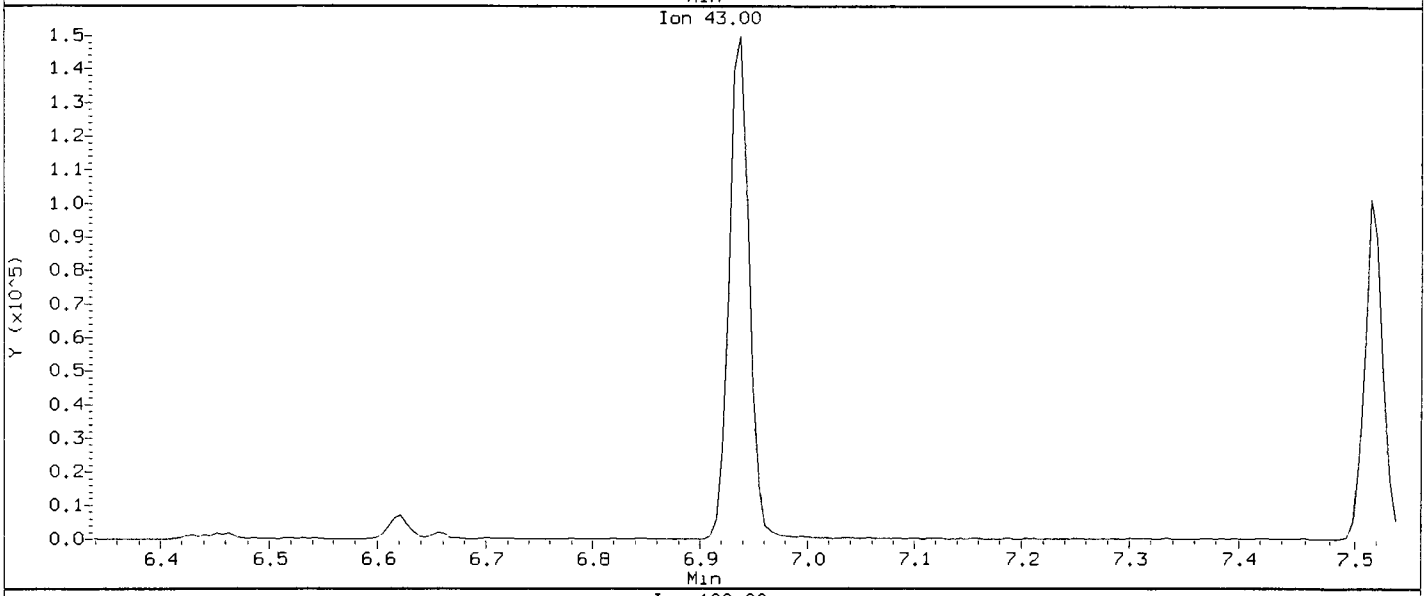


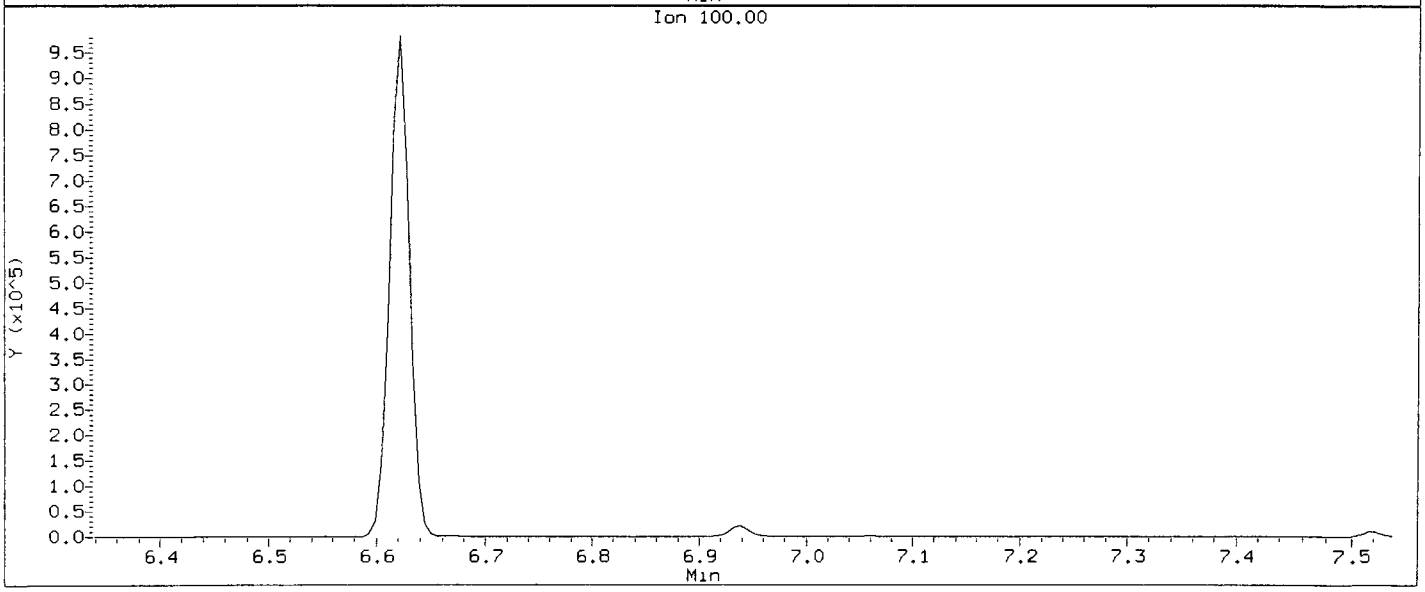
Data File: /chem1/nt9.1/01APR13.b/0050401.d
Injection Date: 01-APR-2013 20:46
Instrument: nt9.1
Client Sample ID:

Compound: 4-Methyl-2-Pentanone
CAS Number:

(4 ug/L)





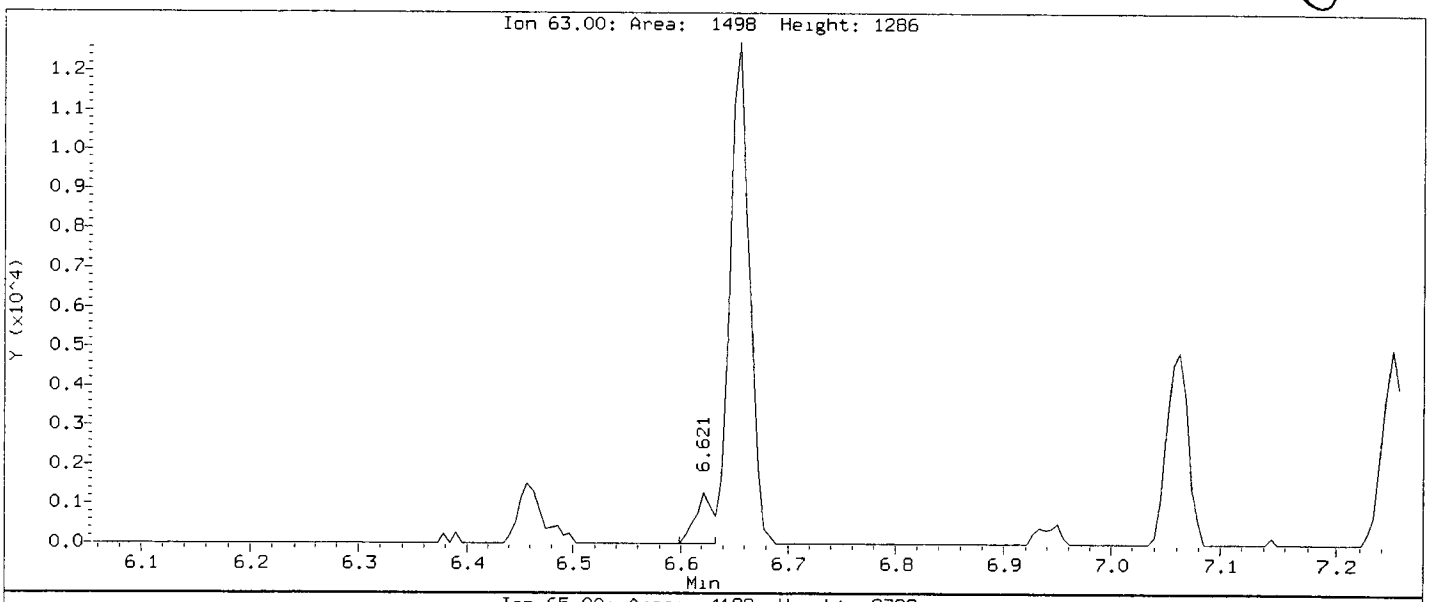


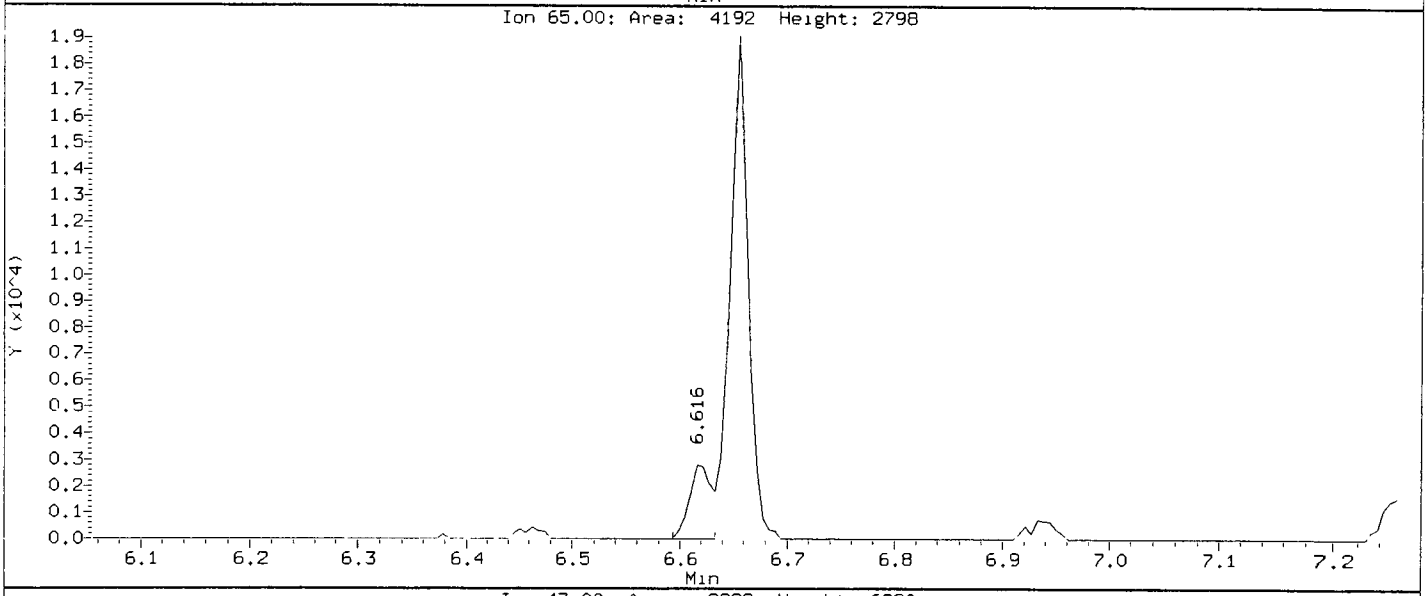
WJ10:00698

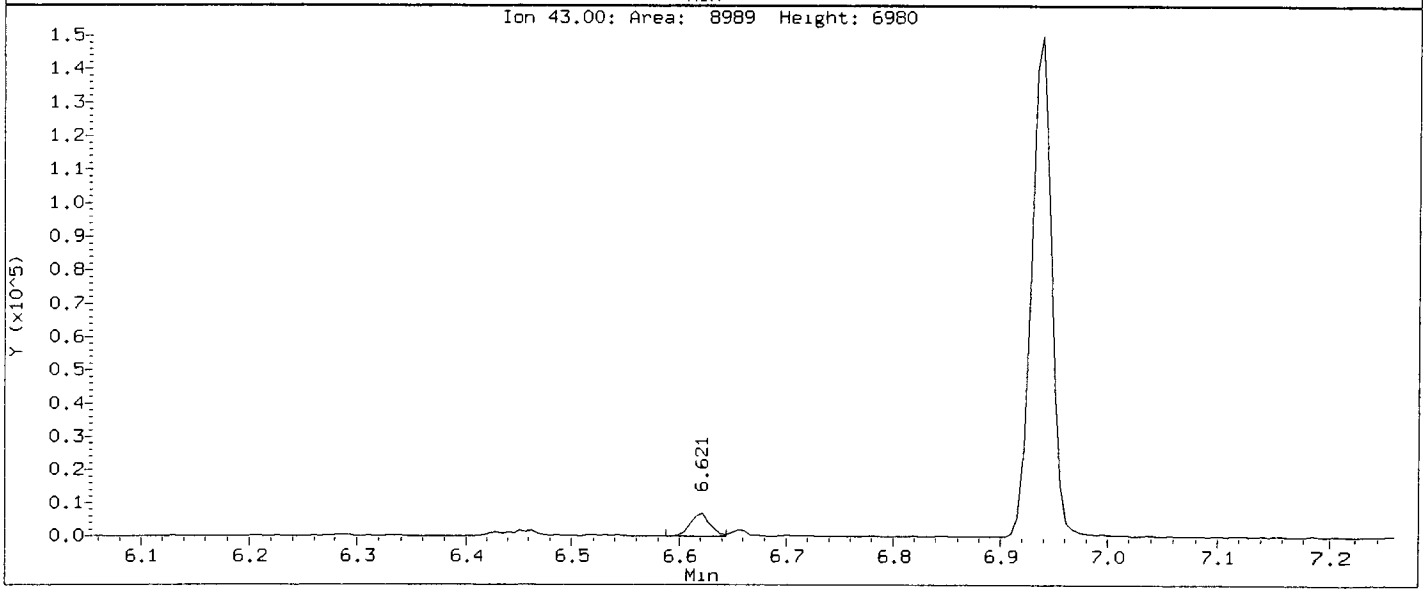
Data File: /chem1/nt9.1/01APR13.b/0050401.d
Injection Date: 01-APR-2013 20:46
Instrument: nt9.1
Client Sample ID:

Compound: 2-Chloroethyl Vinyl Ether
CAS Number:

4/4/4

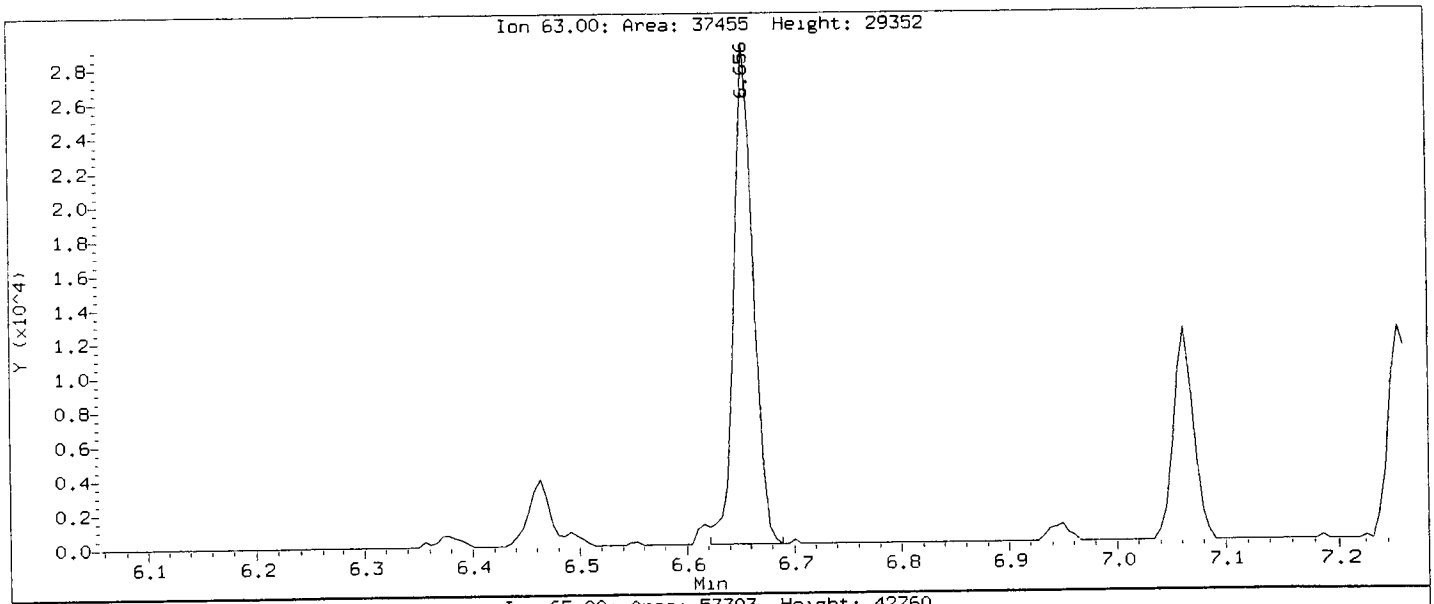


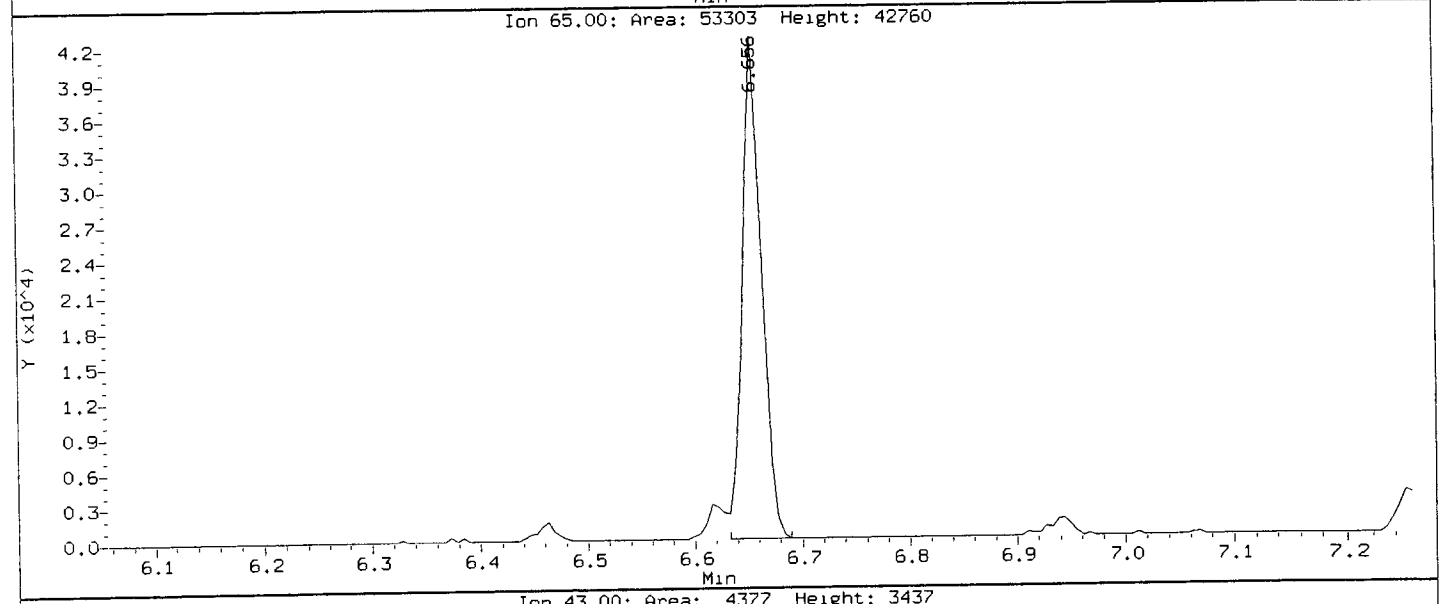


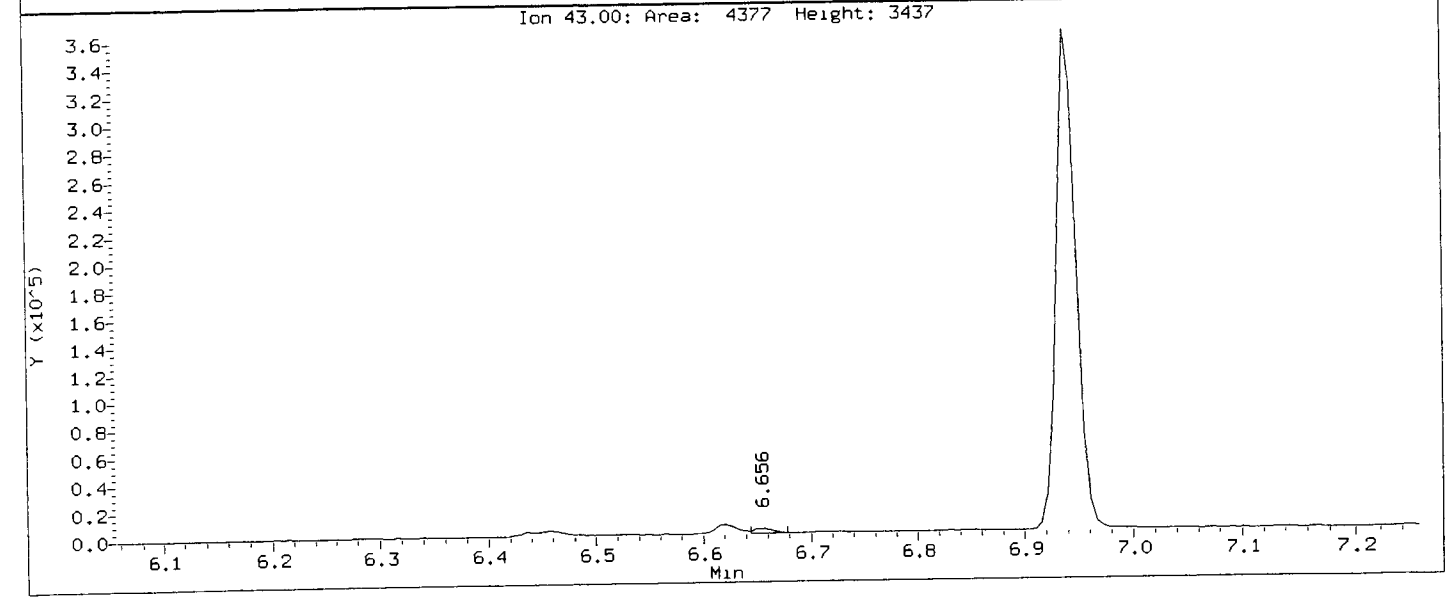


Data File: /chem1/nt9.1/01APR13.b/0100401.d
Injection Date: 01-APR-2013 20:24
Instrument: nt9.1
Client Sample ID:

Compound: 2-Chloroethyl Vinyl Ether
CAS Number:

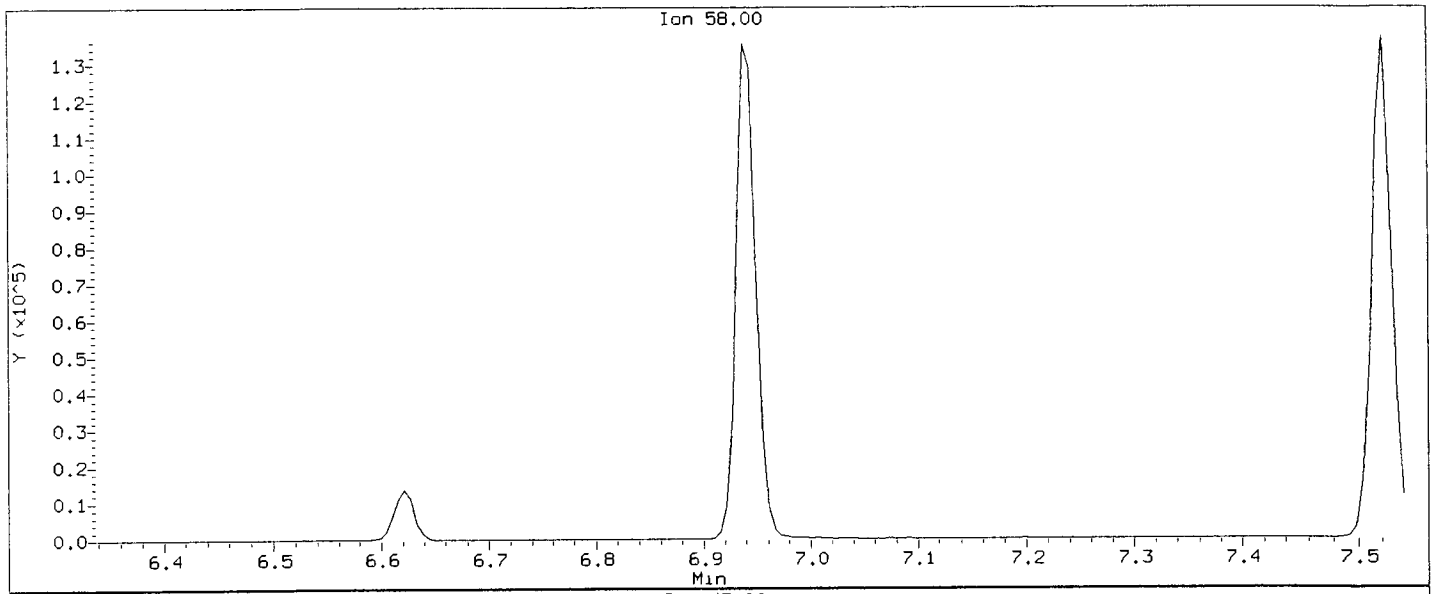


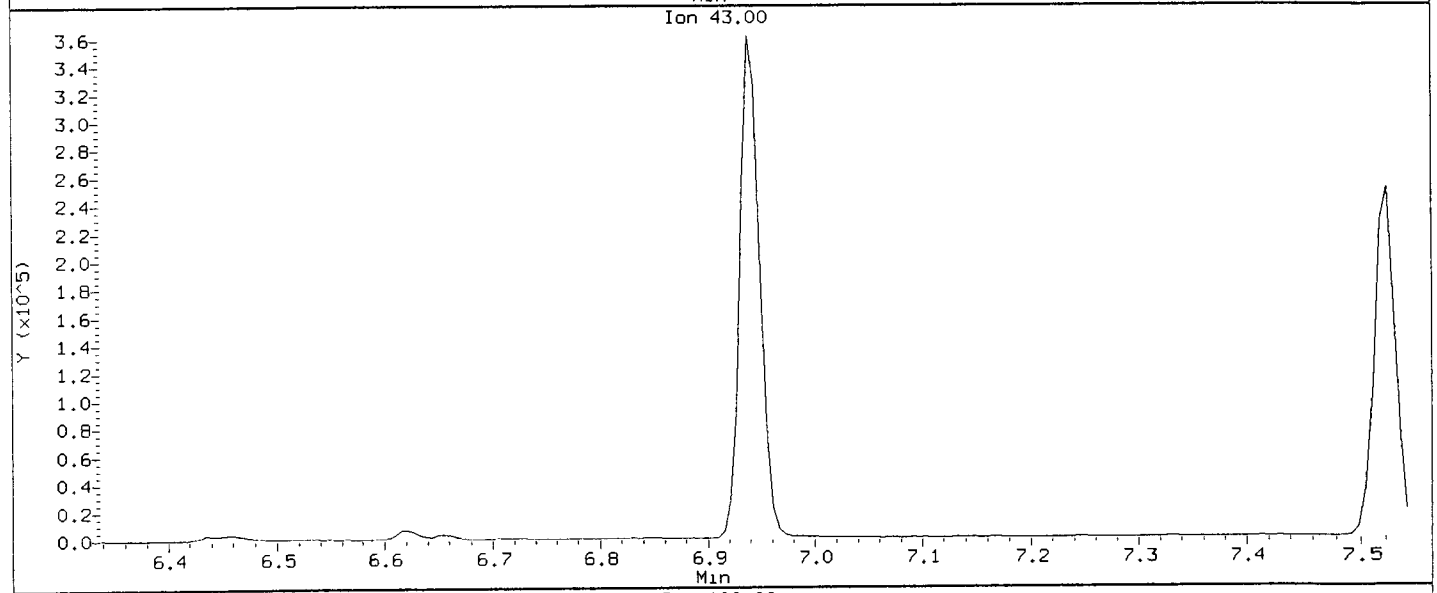


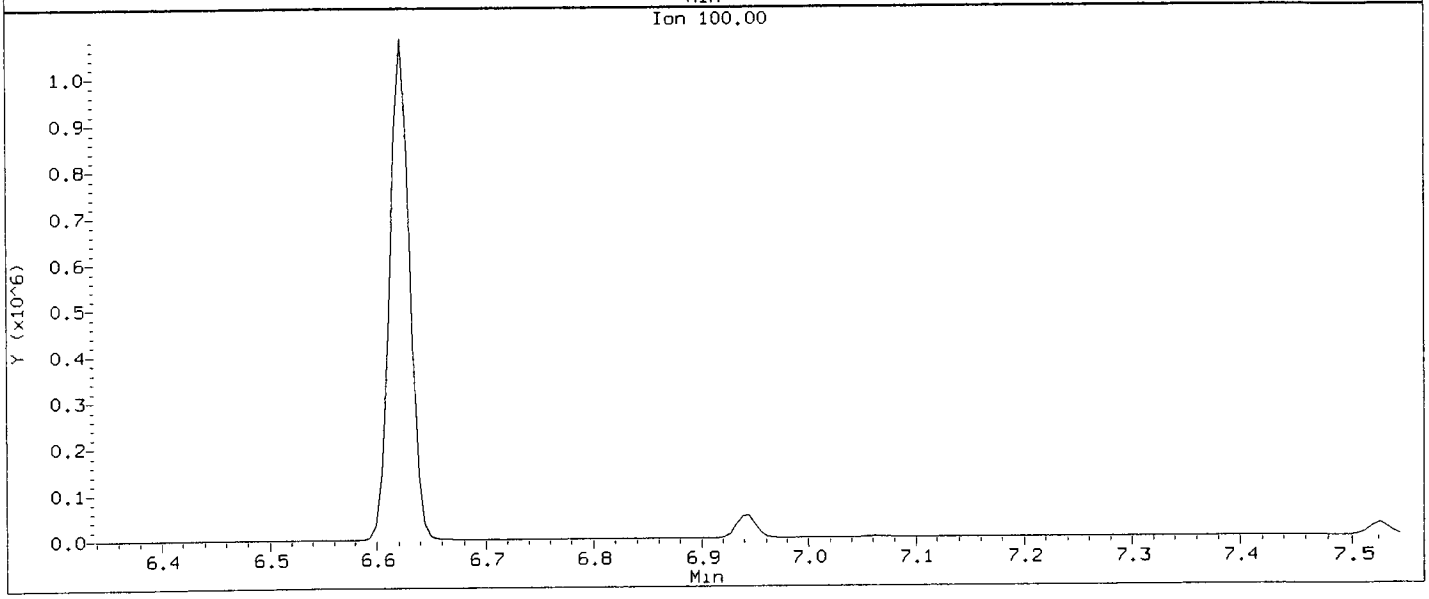


Data File: /chem1/nt9.1/01APR13.b/0100401.d
Injection Date: 01-APR-2013 20:24
Instrument: nt9.1
Client Sample ID:

Compound: 4-Methyl-2-Pentanone
CAS Number:

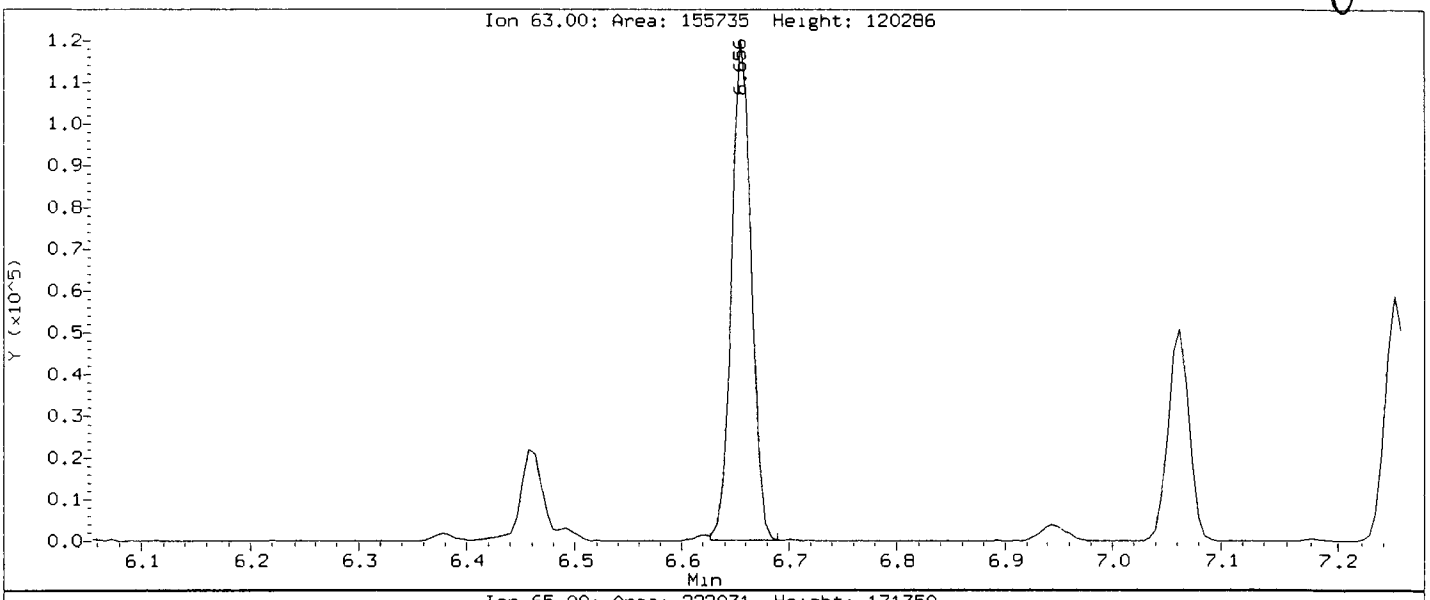


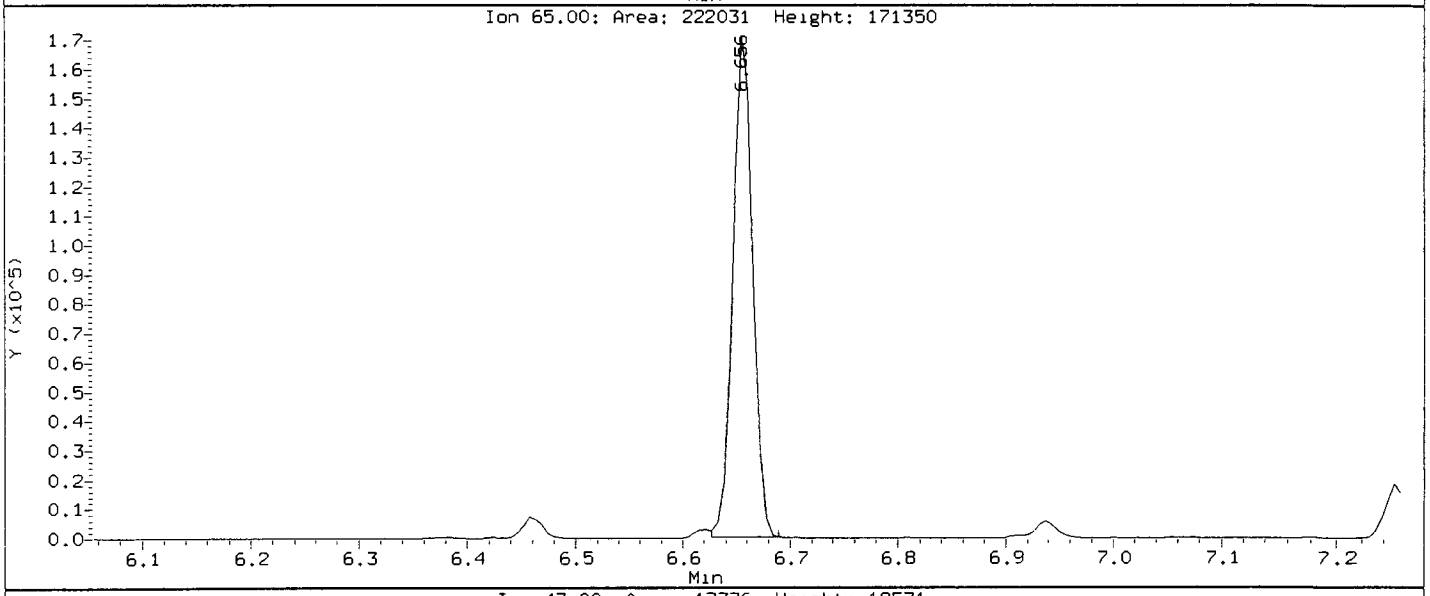


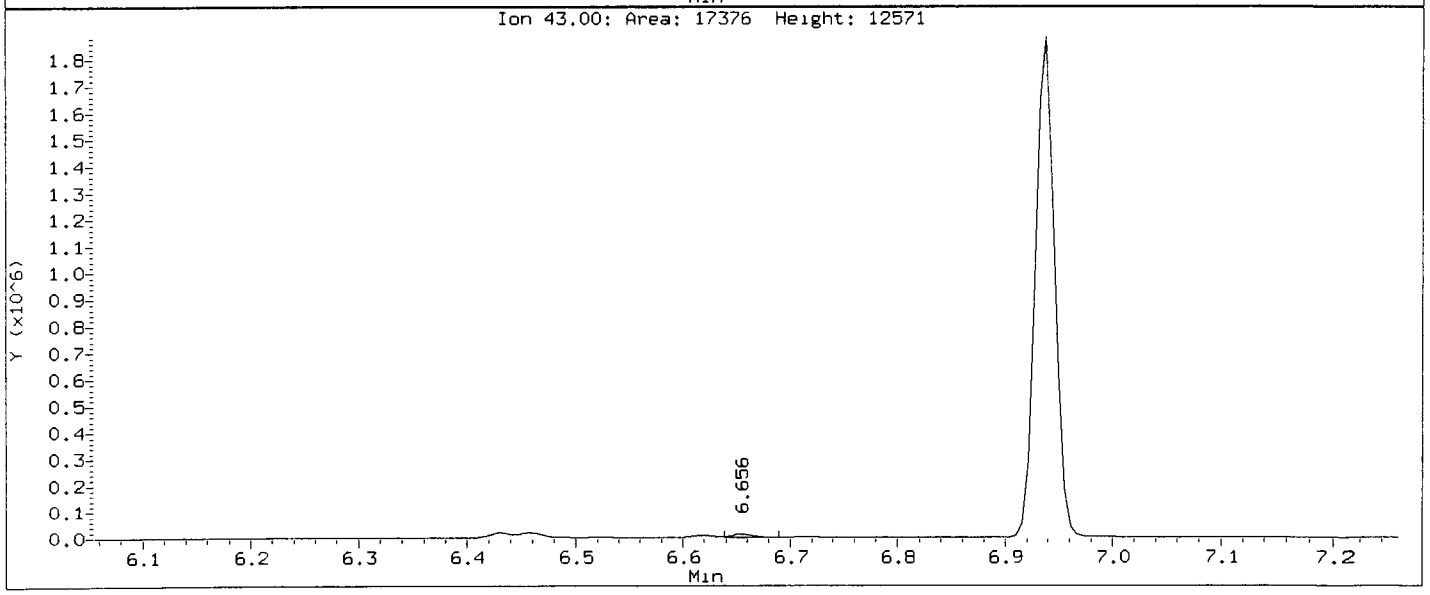


Data File: /chem1/nt9.1/01APR13.b/0500401.d
Injection Date: 01-APR-2013 20:02
Instrument: nt9.1
Client Sample ID:

Compound: 2-Chloroethyl Vinyl Ether
CAS Number:



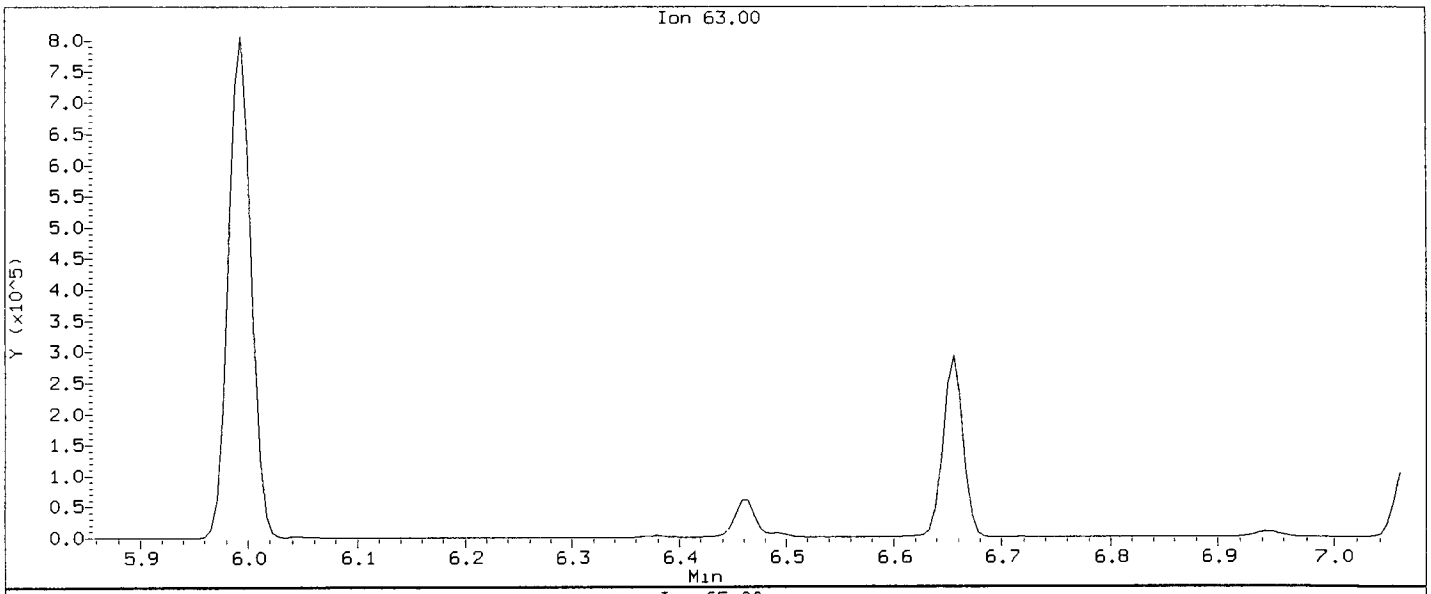


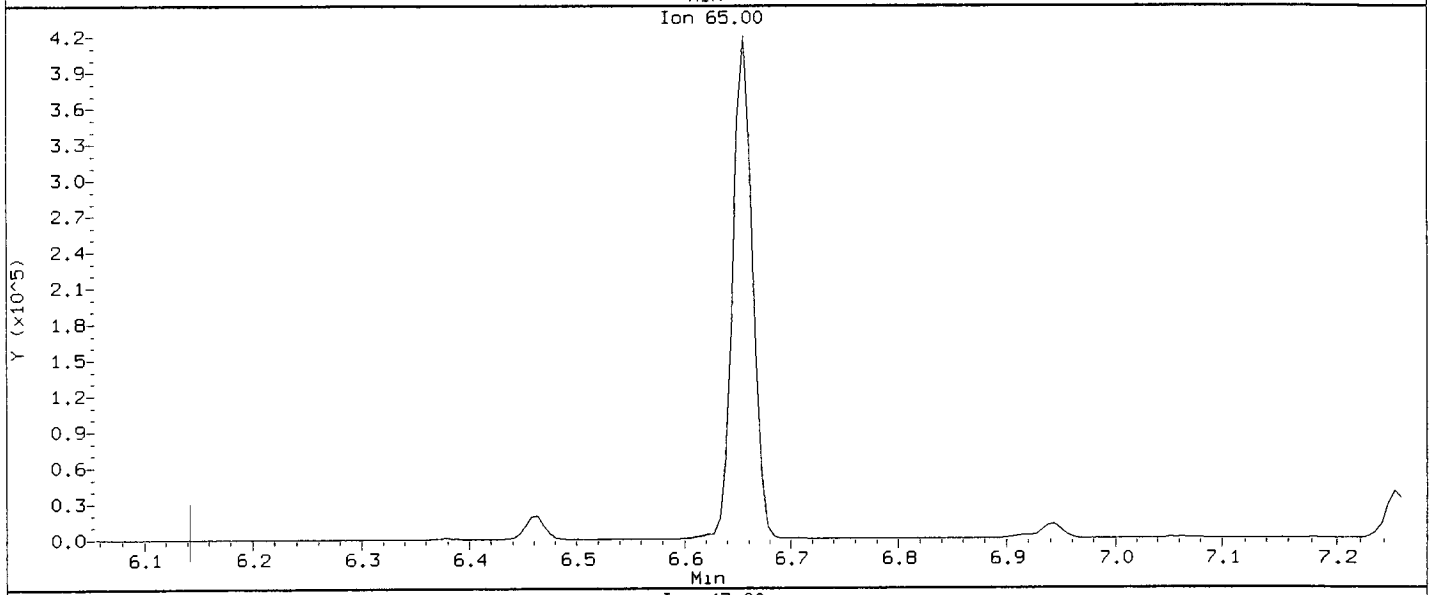


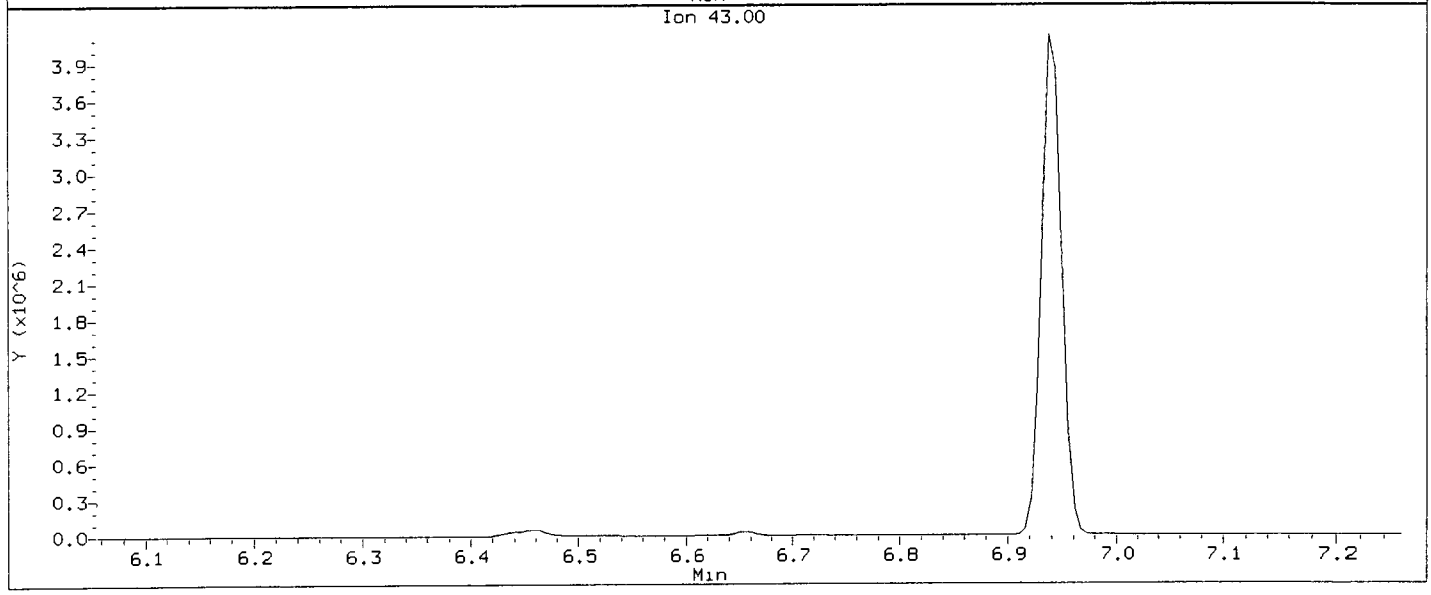
WJ10 : 00694

Data File: /chem1/nt9.1/01APR13.b/1000401.d
Injection Date: 01-APR-2013 19:39
Instrument: nt9.1
Client Sample ID:

Compound: 2-Chloroethyl Vinyl Ether
CAS Number:

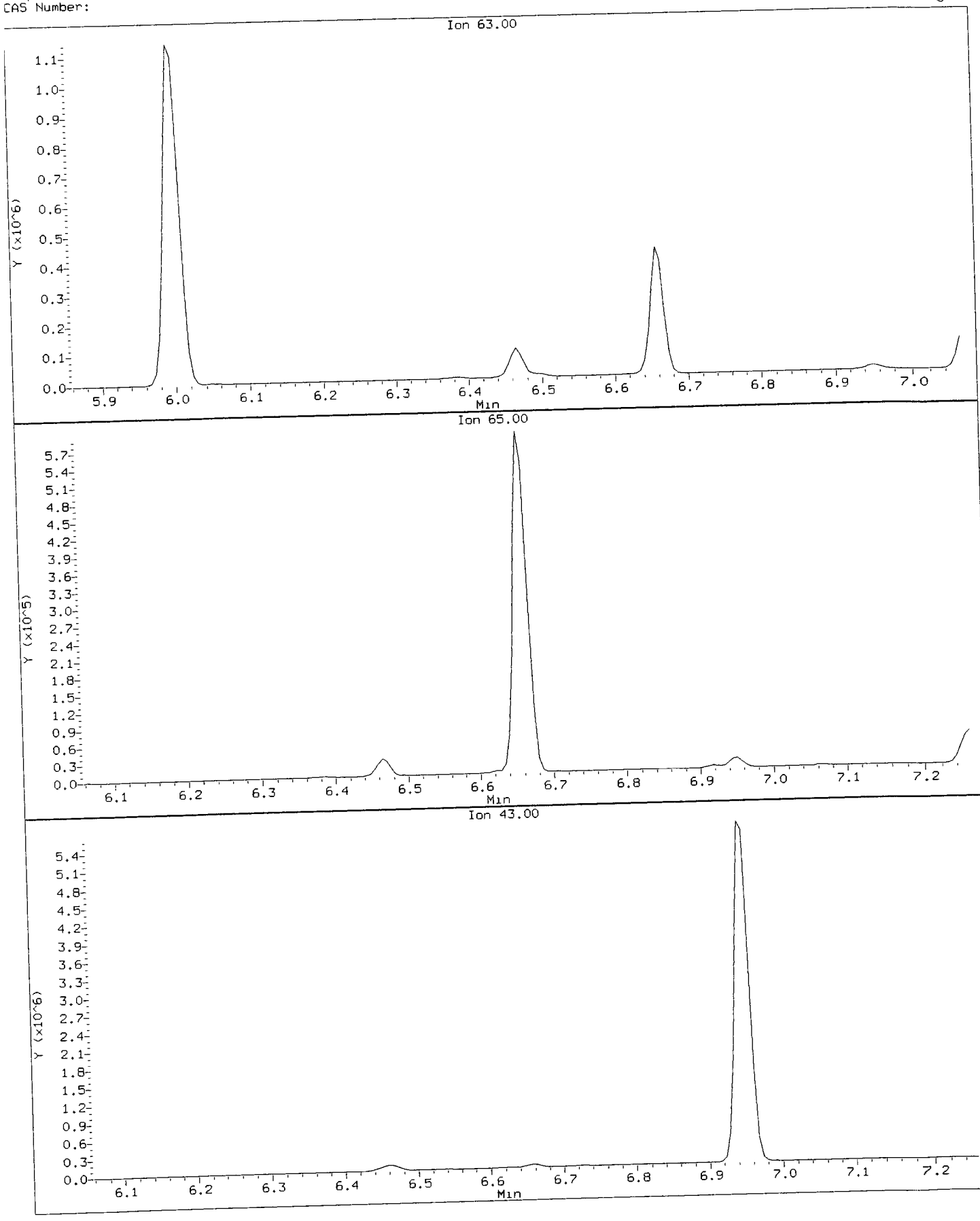






Data File: /chem1/nt9.1/01APR13.b/1500401.d
Injection Date: 01-APR-2013 19:17
Instrument: nt9.1
Client Sample ID:

Compound: 2-Chloroethyl Vinyl Ether
CAS Number:

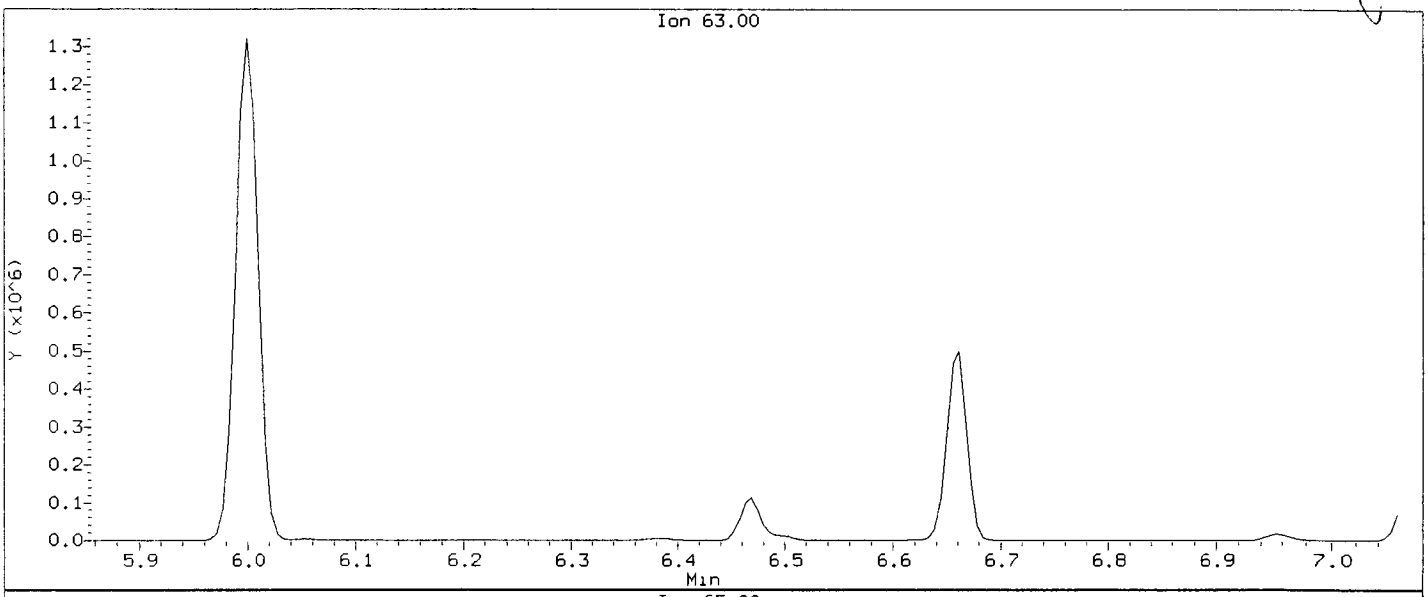


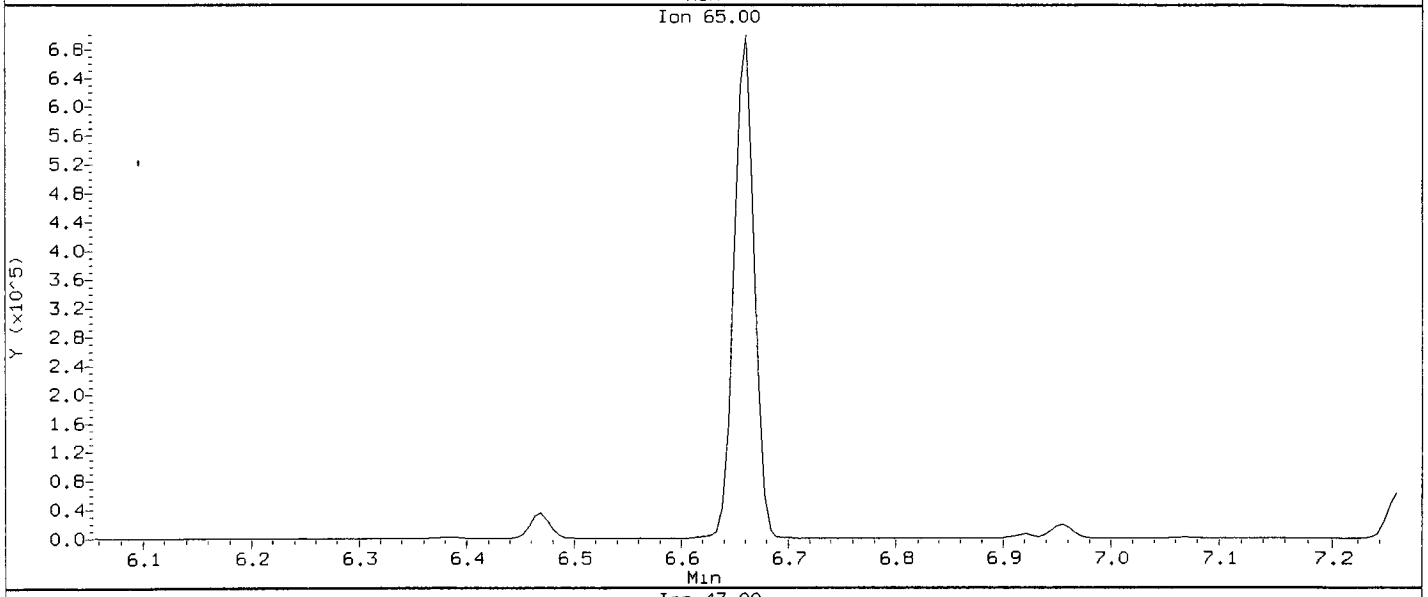
WJ10:00696

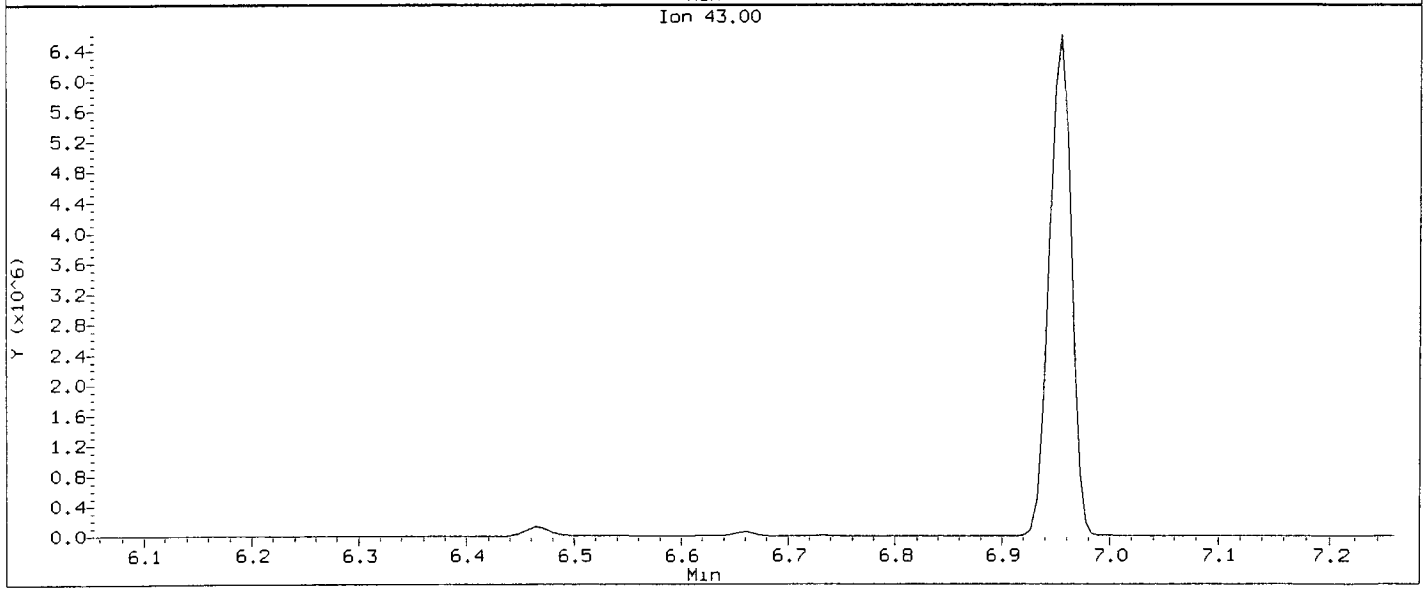
Data File: /chem1/nt9.1/01APR13.b/2000401.d
Injection Date: 01-APR-2013 18:55
Instrument: nt9.1
Client Sample ID:

Compound: 2-Chloroethyl Vinyl Ether
CAS Number:

4/11/13







WJ10 : 60697

Volatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

VOA Analyst Notes / Data Review Checklist

ARI WORK Order: WJ10 Client ID: SAIC

METHOD: **NW-TPH**(Gas) **8021B**(BTEX) **NW-VPH**(VPH) **8260C**(VOA) **8260C**(SIM VOA) **524.3**(VOA) **RSK-175**(MEE)

Instrument: NT-2 NT-3 (NT-5) NT-7 (NT-9) PID-1 PID-2 PID-3 FID-6

Purge Volume (mL) 5 Curve Date: 4/1/11 / 3/22/11 Analysis Start Date: 4/6/11 / 4/8/11

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
PH ≤ 2.0 / 5035 Preserved?	NA / (Y) / N / ✓	Method Blank In Control? (small Hit <RL (J) Flags)	(Y) / N / ✓
BFB Tune Meets Criteria?	NA / (Y) / N / ✓	Surrogate Recovery in Control?	(Y) / N / ✓
Internal STD within 50-200%?	NA / (Y) / N / ✓	LCS / LCSD Recovery Met?	(Y) / N / ✓
CCAL Meets %D	(Y) / N / ✓	LCS / LCSD RPD ≤30%?	(NA) / ✓
ICAL Q flag applied?	NA / Y / (N) / ✓	MS / MSD Recovery Met?	(NA) / Y / N / NA
CCAL Q Flag applied	NA / (Y) / N / ✓	MS / MSD RPD ≤30%?	(NA) / NA
Manual Integrations?	Y / (N) / ✓	Samples Diluted?	Y / (N) / ✓
Integration Summary?	(Y) / N / ✓	Special Analysis Request?	Y / (N) / ✓

Bubbles/Headspace: (None) SM (≤ 2mm •) PB (2-4mm ●) LG (> 4mm) Head Space

Detail problems, corrective actions and/or other pertinent information below:

4/6/11 - MT - D mm med key

4/8/11 - MT - D mm

SOIL (MEOH) ✓

(Review 1)Analyst: [signature] Date: 4/11/11

(Review 2)Reviewer: [signature] Date: 4/11/11

Analytical Resources Inc.: Organics Instrument Log

NT-3 Serial No.: US81221575

Date: 4/8/11 Analysis: 8260 Analyst: VP

GC Program: VOA1 Column No: 941864 Column Type: MTX5

Instrument Tune (.U or .CT.): bfb04 EM Voltage: (75)

Calibration File: nt3t040811 Curve Date: 3/22/13 Injection Vol.: (1)

IS/SS	Ical/Ccal	LCS/ICV
WJ758-1	WJ760-2	WJ760-2

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt3.i/04082013.b

	Time	Filename	LabID	ClientID	Vial#	pH	DF								
1	0902	bfb0408.d	BFB0408	BFB0408			1								
2	0932	cc0408.d	CC0408	VSTD10			1	5.54	496484	5.93	817326	7.98	796468	9.67	451762
3	1007	lcs0408.d	LCS0408	LCS0408			1	5.54	487661	5.93	819749	7.98	799982	9.67	465809
4	1033	lcs0408a.d	LCS0408	LCS0408			1	5.54	516599	5.92	852517	7.98	842545	9.67	478208
5	1100	mb0408.d	MB0408	MB0408			1	5.54	487216	5.93	818244	7.98	798684	9.67	419918
6	1132	wj72r2.d	WJ72R	LGC130328EGDYPW1-1	1		2	5.54	496955	5.92	806101	7.98	764945	9.67	407409
7	1201	wj72t2.d	WJ72T	LGC130328EGDYPW3-1	1		2	5.54	474700	5.92	806988	7.98	758568	9.67	423149
8	1228	wk26a.d	WK26A	MW-01B	2		1	5.54	498626	5.92	820309	7.98	802731	9.67	423684
9	1254	wk26b.d	WK26B	MW-03B	4		1	5.53	490184	5.92	782764	7.98	789977	9.67	428255
10	1321	wk26c.d	WK26C	MW-04	5		1	5.54	479930	5.92	799563	7.98	773166	9.67	408173
11	1347	wk26d.d	WK26D	MW-05B	2		1	5.53	483174	5.93	807303	7.98	772806	9.67	417857
12	1414	wk26e.d	WK26E	MW-07	10		1	5.54	487515	5.93	809226	7.98	782919	9.67	410374
13	1440	wk26f.d	WK26F	MW-08	2		1	5.54	495287	5.92	809909	7.98	794570	9.66	423191
14	1507	wk26g.d	WK26G	MW-10	2		1	5.54	470288	5.92	795851	7.98	776614	9.67	416156
15	1533	wk26h.d	WK26H	MW-11	3		1	5.54	487920	5.93	810129	7.98	771083	9.66	406431
16	1600	wk26i.d	WK26I	Culver	4		1	5.53	476916	5.92	806622	7.98	775868	9.66	407899
17	1626	wk26j.d	WK26J	Trip Blanks	2		1	5.54	482313	5.92	805831	7.98	794985	9.67	436186
18	1653	wk02a.d	WK02A	B1-032813	2		2	5.54	481091	5.92	805935	7.98	766243	9.67	414020
19	1720	wk02b.d	WK02B	Trip Blank	1		1	5.54	489151	5.92	811136	7.98	786724	9.67	417497
20	1746	wk22h.d	WK22H	RINSATE-040213	2		1	5.54	475423	5.92	804726	7.98	769787	9.67	398193
21	1813	wk22i.d	WK22I	Trip Blank	2		1	5.53	488184	5.92	804387	7.98	784188	9.67	405243
22	1839	wj10b.d	WJ10B	SD-SP-012-20130326-	1		1	5.53	490542	5.92	810170	7.98	785376	9.67	413329
23	1906	wj24b2.d	WJ24B	GK BTEX	3		1	5.53	471504	5.92	759616	7.98	758015	9.67	413534
24	1932	wk17b.d	WK17B	GK BTEX	3		1	5.54	503538	5.92	835553	7.98	828283	9.67	455515
25	1958	wk26ems.d	WK26EMS	MW-07 MS	6		1	5.54	519229	5.93	829498	7.98	817328	9.66	452013
26	2024	wk26emsd.d	WK26EMSD	MW-07 MSD	7		1	5.54	514400	5.92	834431	7.98	791250	9.67	452458

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt3.i/04082013.b

ARI Job No.: BFB0 Method: bfb8260.m Instrument: nt3.i Date: 08-APR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0902	bfb0408.d	BFB0408	BFB0408	1	NO MANUAL INTEGRATION
0932	cc0408.d	CC0408	VSTD10	1	Chloroethane, 112Trichloro122Trifluoroethane, Acetone, 1,1-Dichloroethene, Carbon Disulfide,
1007	lcs0408.d	LCS0408	LCS0408	1	112Trichloro122Trifluoroethane, Acetone,
1033	lcs0408a.d	LCS0408	LCS0408	1	112Trichloro122Trifluoroethane, Acetone,
1100	mb0408.d	MB0408	MB0408	1	NO MANUAL INTEGRATION
1839	wj10b.d	WJ10B	SD-SP-012-	1	NO MANUAL INTEGRATION

Q-FLAG SUMMARY FOR DATABATCH - /chem3/nt3.i/04082013.b

Instrument: nt3.i Date: 08-APR-2013 Method: 8260C032213L.m

INITIAL CAL: 22-MAR-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 08-APR-2013

Compound	%D
Acrylonitrile	32.0
2-Butanone	42.0
1,2-Dibromo 3-Chloropropane	20.1
Naphthalene	33.3
Dichlorodifluoromethane	-23.4
Methyl tert butyl ether	-24.6

Data File: /chem3/nt3.i/04082013.b/bfb0408.d

Date : 08-APR-2013 09:02

Client ID: BFB0408

Instrument: nt3.i

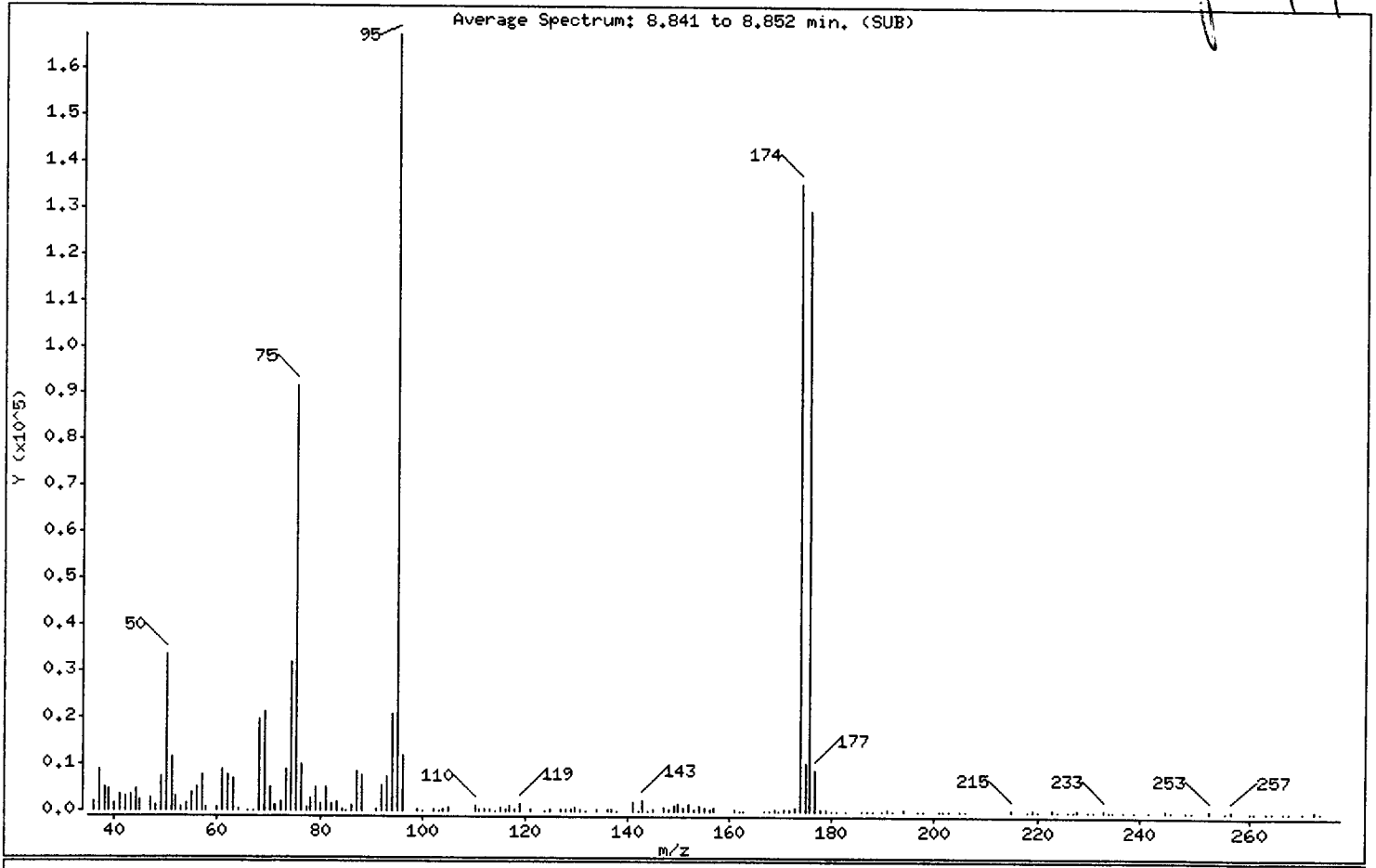
Sample Info: BFB0408,BFB0408,,1,08APR13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.02
75	30.00 - 60.00% of mass 95	54.73
96	5.00 - 9.00% of mass 95	7.15
173	Less than 2.00% of mass 174	0.52 (0.65)
174	50.00 - 100.00% of mass 95	80.91
175	5.00 - 9.00% of mass 174	6.26 (7.73)
176	95.00 - 101.00% of mass 174	77.39 (95.65)
177	5.00 - 9.00% of mass 176	5.33 (6.89)

Data File: bfb0408.d

Spectrum: Average Spectrum: 8.841 to 8.852 min. (SUB)

Location of Maximum: 95.00

Number of points: 173

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2062	82.00	1438	143.00	2175	201.00	75
37.00	8914	83.00	1945	144.00	52	202.00	185
38.00	5011	84.00	222	145.00	348	203.00	126
39.00	4647	85.00	141	147.00	749	205.00	96
40.00	1565	86.00	1041	148.00	549	206.00	55
41.00	3440	87.00	8414	149.00	1314	210.00	61
42.00	3264	88.00	7622	150.00	1354	215.00	331
43.00	3474	91.00	226	151.00	779	218.00	75
44.00	4755	92.00	5305	152.00	1631	219.00	195
45.00	2135	93.00	7360	153.00	269	220.00	81
46.00	9	94.00	20896	154.00	1151	223.00	261
47.00	2792	95.00	167168	155.00	624	224.00	55
48.00	1156	96.00	11964	156.00	238	226.00	93
49.00	7374	99.00	319	157.00	701	227.00	55
50.00	33464	100.00	79	159.00	56	228.00	245
51.00	11471	102.00	280	160.00	82	230.00	80
52.00	3244	103.00	36	161.00	308	231.00	69
53.00	735	104.00	506	162.00	170	233.00	338
54.00	1534	105.00	671	163.00	91	234.00	123
55.00	3858	110.00	1055	167.00	62	235.00	75
56.00	5091	111.00	327	168.00	61	237.00	189
57.00	7630	112.00	471	169.00	314	239.00	109
58.00	719	113.00	574	170.00	176	242.00	69
60.00	635	114.00	159	171.00	206	245.00	228
61.00	8919	115.00	634	172.00	253	246.00	143
62.00	7576	116.00	489	173.00	876	247.00	63
63.00	6968	117.00	1330	174.00	135296	249.00	116
64.00	314	118.00	220	175.00	10465	250.00	103
66.00	138	119.00	1480	176.00	129408	253.00	231
67.00	142	121.00	206	177.00	8916	256.00	119
68.00	19600	124.00	134	178.00	376	257.00	250
69.00	21144	125.00	393	179.00	385	260.00	68
70.00	5000	127.00	290	180.00	99	261.00	73
71.00	1213	128.00	529	181.00	155	263.00	113
72.00	1981	129.00	427	183.00	168	264.00	166

Data File: /chem3/nt3.i/04082013.b/bfb0408.d

Date : 08-APR-2013 09:02

Client ID: BFB0408 Instrument: nt3.i

Sample Info: BFB0408,BFB0408,,1,08APR13,,

Operator: PB

Column phase: RTXVMS Column diameter: 0.18

Data File: bfb0408.d

Spectrum: Average Spectrum: 8.841 to 8.852 min. (SUB)

Location of Maximum: 95.00

Number of points: 173

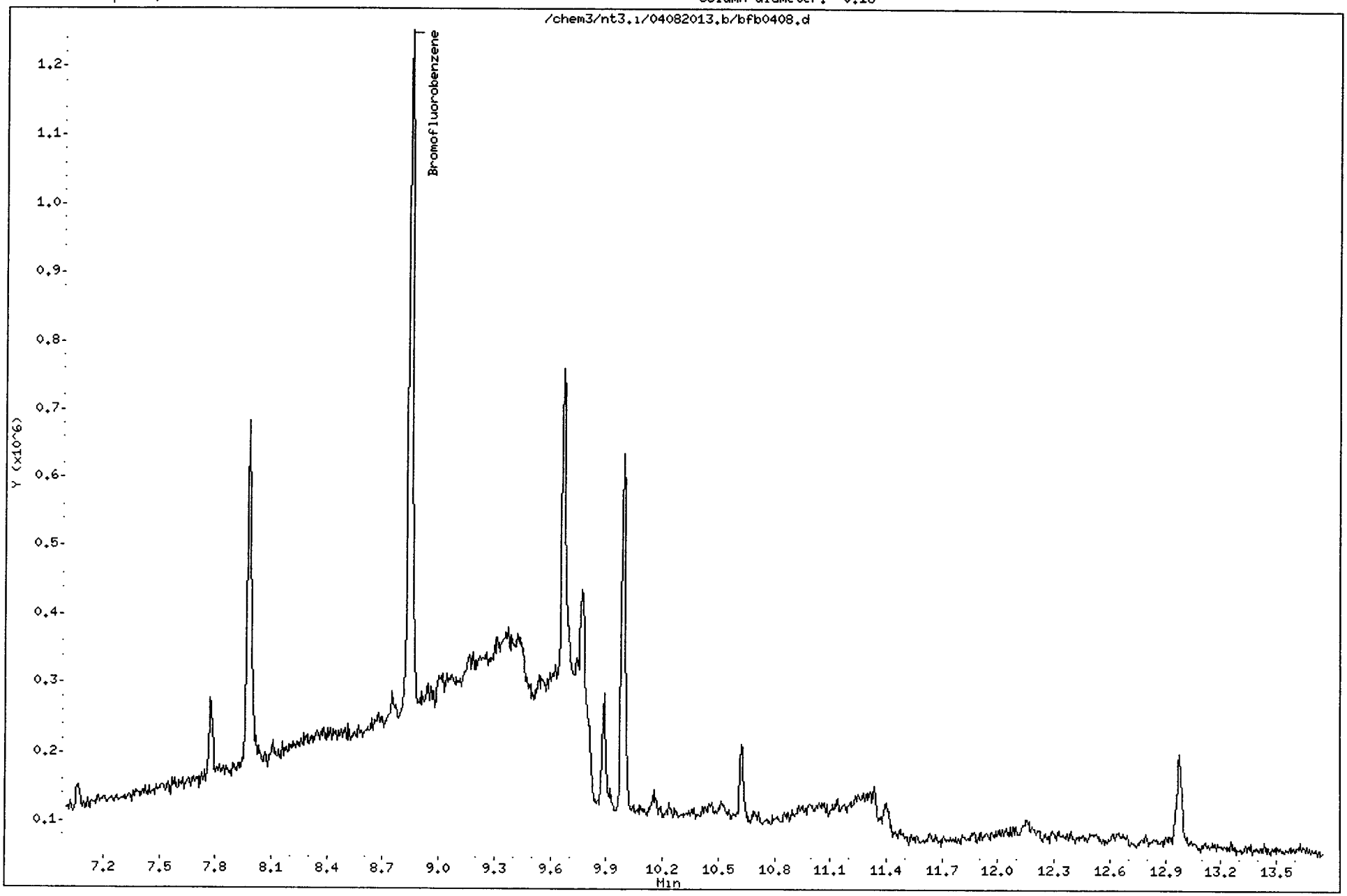
m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	8770	130.00	898	186.00	158	266.00	106
74.00	31944	131.00	433	187.00	73	267.00	92
75.00	91520	132.00	137	188.00	137	270.00	122
76.00	9966	134.00	439	190.00	19	272.00	208
77.00	623	136.00	418	191.00	210	273.00	122
78.00	2506	137.00	427	192.00	113	276.00	90
79.00	5126	138.00	175	194.00	199		
80.00	1696	141.00	2084	197.00	106		
81.00	5107	142.00	80	198.00	66		

Data File: /chem3/nt3.i/04082013.b/bfb0408.d
Date : 08-APR-2013 09:02
Client ID: BFB0408
Sample Info: BFB0408,BFB0408,,1,08APR13,,

Column phase: RTXVMS

Instrument: nt3.i

Operator: PB
Column diameter: 0.18



Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/04082013.b/cc0408.d
Lab Smp Id: CC0408 Client Smp ID: VSTD10
Inj Date : 08-APR-2013 09:32
Operator : PB Inst ID: nt3.i
Smp Info : CC0408,10,10,1,,
Misc Info : 13-
Comment :
Method : /chem3/nt3.i/04082013.b/8260C032213L.m
Meth Date : 08-Apr-2013 09:52 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 13:18 Cal File: vstd80.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

4/9/13

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.605	1.605	(0.290)	280706	10.0000	7.660
2	Chloromethane	50	1.774	1.774	(0.320)	377319	10.0000	9.248
3	Vinyl Chloride	62	1.842	1.842	(0.333)	388090	10.0000	8.636
4	Bromomethane	94	2.142	2.142	(0.387)	254147	10.0000	10.653
5	Chloroethane	64	2.266	2.266	(0.409)	249456	10.0000	8.943(M)
6	Trichlorofluoromethane	101	2.408	2.408	(0.435)	386600	10.0000	8.408
7	1,1-Dichloroethene	96	2.951	2.951	(0.533)	277775	10.0000	9.053(M)
8	Carbon Disulfide	76	2.957	2.957	(0.534)	893374	10.0000	8.574(M)
9	112Trichloro122Trifluoroethane	101	3.025	3.025	(0.546)	272492	10.0000	8.697(M)
10	Iodomethane	142	3.098	3.098	(0.560)	373705	10.0000	8.846
11	Bromoethane	108	3.239	3.239	(0.585)	183230	10.0000	8.772
12	Acrolein	56	3.856	3.856	(0.697)	207979	50.0000	45.030
13	Methylene Chloride	84	3.590	3.590	(0.648)	291937	10.0000	10.274
14	Acetone	43	3.652	3.652	(0.660)	242839	50.0000	52.099(M)
15	Trans-1,2-Dichloroethene	96	3.754	3.754	(0.678)	283349	10.0000	9.199
16	Methyl tert butyl ether	73	3.890	3.890	(0.703)	631758	10.0000	7.541
17	1,1-Dichloroethane	63	4.337	4.337	(0.783)	513792	10.0000	8.949
18	Acrylonitrile	53	4.382	4.382	(0.792)	90893	10.0000	13.202
19	Vinyl Acetate	43	4.580	4.580	(0.827)	555872	10.0000	10.067
20	Cis-1,2-Dichloroethene	96	4.801	4.801	(0.867)	303869	10.0000	9.532
22	2,2-Dichloropropane	77	4.886	4.886	(0.882)	352527	10.0000	9.754

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	23 Bromochloromethane	128	4.959	4.959	(0.896)	144133	10.0000	9.588
	24 Chloroform	83	5.027	5.027	(0.908)	496183	10.0000	9.660
	25 Carbon Tetrachloride	117	5.129	5.129	(0.865)	354857	10.0000	9.459
$	26 Dibromofluoromethane	111	5.168	5.168	(0.934)	260568	10.0000	9.533
	27 1,1,1-Trichloroethane	97	5.180	5.180	(0.936)	388953	10.0000	8.435
	28 2-Butanone	43	5.270	5.270	(0.952)	728990	50.0000	71.009
	29 1,1-Dichloropropene	75	5.276	5.276	(0.890)	409633	10.0000	9.980
	30 Benzene	78	5.468	5.468	(0.923)	1137046	10.0000	9.763
*	31 Pentafluorobenzene	168	5.536	5.536	(1.000)	496484	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.564	5.564	(1.005)	340383	10.0000	9.732
	33 1,2-Dichloroethane	62	5.615	5.615	(0.948)	412266	10.0000	10.481
	34 Trichloroethene	130	5.898	5.898	(0.995)	289428	10.0000	10.166
*	36 1,4-Difluorobenzene	114	5.926	5.926	(1.000)	817326	10.0000	
	37 Dibromomethane	93	6.198	6.198	(1.046)	188147	10.0000	11.136
	38 1,2-Dichloropropane	63	6.271	6.271	(1.058)	291746	10.0000	10.029
	39 Bromodichloromethane	83	6.317	6.317	(1.066)	377042	10.0000	10.590
	41 2-Chloroethyl Vinyl Ether	63	6.718	6.718	(1.134)	177935	10.0000	11.524
	42 Cis 1,3-dichloropropene	75	6.758	6.758	(1.140)	470731	10.0000	11.027
$	43 d8-Toluene	98	6.894	6.894	(1.163)	1019744	10.0000	10.371
	44 Toluene	92	6.928	6.928	(1.169)	716322	10.0000	10.914
	45 Tetrachloroethene	166	7.199	7.199	(0.902)	283425	10.0000	10.543
	46 4-Methyl-2-Pentanone	43	7.188	7.188	(1.213)	1701941	50.0000	58.069
	47 Trans 1,3-Dichloropropene	75	7.216	7.216	(1.218)	463275	10.0000	11.217
	48 1,1,2-Trichloroethane	97	7.329	7.329	(1.237)	243905	10.0000	10.589
	49 Chlorodibromomethane	129	7.454	7.454	(0.934)	291366	10.0000	10.758
	50 1,3-Dichloropropane	76	7.516	7.516	(0.942)	461194	10.0000	10.728
	51 1,2-Dibromoethane	107	7.623	7.623	(1.286)	265760	10.0000	11.082
	52 2-Hexanone	43	7.771	7.771	(0.974)	1275069	50.0000	54.442
*	53 d5-Chlorobenzene	117	7.980	7.980	(1.000)	796468	10.0000	
	54 Chlorobenzene	112	7.991	7.991	(1.001)	802111	10.0000	10.649
	55 Ethyl Benzene	91	8.002	8.002	(1.003)	1416414	10.0000	11.322
	56 1,1,1,2-Tetrachloroethane	131	8.031	8.031	(1.006)	297030	10.0000	10.847
	57 m,p-xylene	106	8.110	8.110	(1.016)	1066273	20.0000	22.499
	58 o-Xylene	106	8.415	8.415	(1.055)	530233	10.0000	11.080
	59 Styrene	104	8.449	8.449	(1.059)	871323	10.0000	11.334
	60 Bromoform	173	8.472	8.472	(0.876)	214890	10.0000	11.438
	61 Isopropyl Benzene	105	8.636	8.636	(0.893)	1358991	10.0000	11.212
$	62 4-Bromofluorobenzene	95	8.845	8.845	(1.108)	407426	10.0000	10.209
	63 Bromobenzene	156	8.925	8.925	(0.923)	348516	10.0000	10.335
	64 N-Propyl Benzene	91	8.936	8.936	(0.924)	1564978	10.0000	10.768
	65 1,1,2,2-Tetrachloroethane	83	8.981	8.981	(0.929)	393788	10.0000	10.059
	66 2-Chloro Toluene	91	9.055	9.055	(0.937)	1110423	10.0000	10.628
	67 1,3,5-Trimethyl Benzene	105	9.077	9.077	(0.939)	1136077	10.0000	11.045
	68 1,2,3-Trichloropropane	110	9.089	9.089	(0.940)	122326	10.0000	11.208
	70 Trans-1,4-Dichloro 2-Butene	53	9.111	9.111	(0.943)	151191	10.0000	10.455
	71 4-Chloro Toluene	91	9.173	9.173	(0.949)	1024511	10.0000	10.448
	72 T-Butyl Benzene	119	9.315	9.315	(0.964)	946731	10.0000	10.811

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
73	1,2,4-Trimethylbenzene	105	9.366	9.366	(0.969)	1139017	10.0000	11.154
74	S-Butyl Benzene	105	9.445	9.445	(0.977)	1356425	10.0000	10.575
75	4-Isopropyl Toluene	119	9.547	9.547	(0.988)	1102545	10.0000	10.754
76	1,3-Dichlorobenzene	146	9.615	9.615	(0.995)	638187	10.0000	10.018
* 77	d4-1,4-Dichlorobenzene	152	9.666	9.666	(1.000)	451762	10.0000	
78	1,4-Dichlorobenzene	146	9.677	9.677	(1.001)	671204	10.0000	10.148
79	N-Butyl Benzene	91	9.869	9.869	(1.021)	1000365	10.0000	9.935
$ 80	d4-1,2-Dichlorobenzene	152	9.988	9.988	(1.033)	411871	10.0000	10.219
81	1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	629557	10.0000	10.231
82	1,2-Dibromo 3-Chloropropane	75	10.605	10.605	(1.097)	89387	10.0000	12.007
83	Hexachloro 1,3-Butadiene	225	11.114	11.114	(1.150)	124289	10.0000	8.482
84	1,2,4-Trichlorobenzene	180	11.136	11.136	(1.152)	337511	10.0000	10.232
85	Naphthalene	128	11.391	11.391	(1.179)	1106473	10.0000	13.327
86	1,2,3-Trichlorobenzene	180	11.538	11.538	(1.194)	298419	10.0000	9.633

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: cc0408.d
Lab Smp Id: CC0408
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem3/nt3.i/04082013.b/8260C032213L.m
Misc Info: 13-

Calibration Date: 08-APR-2013
Calibration Time: 09:32
Client Smp ID: VSTD10
Level: MED
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	496484	-7.44
36 1,4-Difluorobenze	907870	453935	1815740	817326	-9.97
53 d5-Chlorobenzene	856141	428070	1712282	796468	-6.97
77 d4-1,4-Dichlorobe	481945	240972	963890	451762	-6.26

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.54	-0.03
36 1,4-Difluorobenze	5.92	5.42	6.42	5.93	0.07
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.05
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt3.i
Lab File ID: cc0408.d
Analysis Type: WATER
Lab Sample ID: CC0408
Method: /chem3/nt3.i/04082013.b/8260C032213L.m

Injection Date: 08-APR-2013 09:32
Init. Cal. Date(s): 22-MAR-2013 22-MAR-2013
Init. Cal. Times: 12:51 15:56
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF10	CCAL RRF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Dichlorodifluoromethane	0.73807	0.56539	0.56539	0.010	-23.39697	20.00000	Averaged	<-
2 Chloromethane	0.82174	0.75998	0.75998	0.100	-7.51562	20.00000	Averaged	
3 Vinyl Chloride	0.90512	0.78168	0.78168	0.010	-13.63830	20.00000	Averaged	
4 Bromomethane	0.48053	0.51189	0.51189	0.010	6.52715	20.00000	Averaged	
5 Chloroethane	8.94340	10.00000	0.50245	0.010	-10.56599	20.00000	Linear	
6 Trichlorofluoromethane	0.92613	0.77868	0.77868	0.010	-15.92164	20.00000	Averaged	
7 1,1-Dichloroethene	0.61802	0.55948	0.55948	0.010	-9.47183	20.00000	Averaged	
8 Carbon Disulfide	2.09871	1.79940	1.79940	0.010	-14.26144	20.00000	Averaged	
9 112Trichloro122Trifluoroeth	0.63106	0.54884	0.54884	0.010	-13.02849	20.00000	Averaged	
10 Iodomethane	0.85089	0.75270	0.75270	0.010	-11.53951	20.00000	Averaged	
11 Bromoethane	0.42072	0.36906	0.36906	0.010	-12.28110	20.00000	Averaged	
12 Acrolein	0.09303	0.08378	0.08378	0.010	-9.93954	20.00000	Averaged	
13 Methylene Chloride	10.27398	10.00000	0.58801	0.010	2.73978	20.00000	Linear	
14 Acetone	52.09922	50.00000	0.09782	0.010	4.19845	20.00000	Linear	
15 Trans-1,2-Dichloroethene	0.62040	0.57071	0.57071	0.010	-8.00978	20.00000	Averaged	
16 Methyl tert butyl ether	1.68732	1.27246	1.27246	0.010	-24.58664	20.00000	Averaged	<-
17 1,1-Dichloroethane	1.15645	1.03486	1.03486	0.100	-10.51433	20.00000	Averaged	
18 Acrylonitrile	0.13867	0.18307	0.18307	0.010	32.02214	20.00000	Averaged	<-
19 Vinyl Acetate	1.11219	1.11962	1.11962	0.010	0.66797	20.00000	Averaged	
20 Cis-1,2-Dichloroethene	0.64211	0.61204	0.61204	0.010	-4.68298	20.00000	Averaged	
22 2,2-Dichloropropane	0.72795	0.71005	0.71005	0.010	-2.45891	20.00000	Averaged	
23 Bromochloromethane	0.30279	0.29031	0.29031	0.010	-4.12402	20.00000	Averaged	
24 Chloroform	1.03462	0.99939	0.99939	0.010	-3.40468	20.00000	Averaged	
25 Carbon Tetrachloride	0.45902	0.43417	0.43417	0.010	-5.41381	20.00000	Averaged	
$ 26 Dibromofluoromethane	0.55053	0.52483	0.52483	0.010	-4.66863	20.00000	Averaged	
27 1,1,1-Trichloroethane	0.92875	0.78341	0.78341	0.010	-15.64859	20.00000	Averaged	
28 2-Butanone	71.00936	50.00000	0.29366	0.010	42.01871	20.00000	Linear	<-
29 1,1-Dichloropropene	0.50219	0.50119	0.50119	0.010	-0.20009	20.00000	Averaged	
30 Benzene	1.42493	1.39118	1.39118	0.010	-2.36880	20.00000	Averaged	
$ 32 d4-1,2-Dichloroethane	0.70445	0.68559	0.68559	0.010	-2.67833	20.00000	Averaged	
33 1,2-Dichloroethane	0.48126	0.50441	0.50441	0.010	4.80975	20.00000	Averaged	
34 Trichloroethene	0.34835	0.35412	0.35412	0.010	1.65583	20.00000	Averaged	
37 Dibromomethane	0.20671	0.23020	0.23020	0.010	11.36306	20.00000	Averaged	
38 1,2-Dichloropropane	0.35590	0.35695	0.35695	0.010	0.29416	20.00000	Averaged	
39 Bromodichloromethane	0.43561	0.46131	0.46131	0.010	5.90126	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt3.i
Lab File ID: cc0408.d
Analysis Type: WATER
Lab Sample ID: CC0408
Method: /chem3/nt3.i/04082013.b/8260C032213L.m

Injection Date: 08-APR-2013 09:32
Init. Cal. Date(s): 22-MAR-2013 22-MAR-2013
Init. Cal. Times: 12:51 15:56
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF10	CCAL RRF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
41 2-Chloroethyl Vinyl Ether	0.18891	0.21770	0.21770	0.010	15.24107	20.00000	Averaged
42 Cis 1,3-dichloropropene	0.52231	0.57594	0.57594	0.010	10.26732	20.00000	Averaged
$ 43 d8-Toluene	1.20303	1.24766	1.24766	0.010	3.70932	20.00000	Averaged
44 Toluene	0.80301	0.87642	0.87642	0.010	9.14193	20.00000	Averaged
45 Tetrachloroethene	0.33753	0.35585	0.35585	0.010	5.42849	20.00000	Averaged
46 4-Methyl-2-Pentanone	0.35859	0.41647	0.41647	0.010	16.13898	20.00000	Averaged
47 Trans 1,3-Dichloropropene	0.50534	0.56682	0.56682	0.010	12.16646	20.00000	Averaged
48 1,1,2-Trichloroethane	0.28181	0.29842	0.29842	0.010	5.89358	20.00000	Averaged
49 Chlorodibromomethane	0.34006	0.36582	0.36582	0.010	7.57694	20.00000	Averaged
50 1,3-Dichloropropane	0.53977	0.57905	0.57905	0.010	7.27690	20.00000	Averaged
51 1,2-Dibromoethane	0.29342	0.32516	0.32516	0.010	10.81577	20.00000	Averaged
52 2-Hexanone	0.29406	0.32018	0.32018	0.010	8.88312	20.00000	Averaged
54 Chlorobenzene	0.94568	1.00709	1.00709	0.300	6.49375	20.00000	Averaged
55 Ethyl Benzene	1.57079	1.77837	1.77837	0.010	13.21517	20.00000	Averaged
56 1,1,1,2-Tetrachloroethane	0.34380	0.37293	0.37293	0.010	8.47382	20.00000	Averaged
57 m,p-xylene	0.59504	0.66938	0.66938	0.010	12.49297	20.00000	Averaged
58 o-Xylene	0.60083	0.66573	0.66573	0.010	10.80267	20.00000	Averaged
59 Styrene	0.96520	1.09398	1.09398	0.010	13.34318	20.00000	Averaged
60 Bromoform	0.41589	0.47567	0.47567	0.100	14.37535	20.00000	Averaged
61 Isopropyl Benzene	2.68295	3.00820	3.00820	0.010	12.12272	20.00000	Averaged
$ 62 4-Bromofluorobenzene	0.50108	0.51154	0.51154	0.010	2.08843	20.00000	Averaged
63 Bromobenzene	0.74648	0.77146	0.77146	0.010	3.34668	20.00000	Averaged
64 N-Propyl Benzene	3.21719	3.46416	3.46416	0.010	7.67658	20.00000	Averaged
65 1,1,2,2-Tetrachloroethane	0.86657	0.87167	0.87167	0.010	0.58896	20.00000	Averaged
66 2-Chloro Toluene	2.31274	2.45798	2.45798	0.010	6.28026	20.00000	Averaged
67 1,3,5-Trimethyl Benzene	2.27692	2.51477	2.51477	0.010	10.44618	20.00000	Averaged
68 1,2,3-Trichloropropane	0.24160	0.27078	0.27078	0.010	12.07582	20.00000	Averaged
70 Trans-1,4-Dichloro 2-Butene	0.32011	0.33467	0.33467	0.010	4.54813	20.00000	Averaged
71 4-Chloro Toluene	2.17056	2.26781	2.26781	0.010	4.48041	20.00000	Averaged
72 T-Butyl Benzene	1.93844	2.09564	2.09564	0.010	8.10972	20.00000	Averaged
73 1,2,4-Trimethylbenzene	2.26049	2.52128	2.52128	0.010	11.53684	20.00000	Averaged
74 S-Butyl Benzene	2.83913	3.00252	3.00252	0.010	5.75493	20.00000	Averaged
75 4-Isopropyl Toluene	2.26953	2.44054	2.44054	0.010	7.53523	20.00000	Averaged
76 1,3-Dichlorobenzene	1.41006	1.41266	1.41266	0.010	0.18483	20.00000	Averaged
78 1,4-Dichlorobenzene	1.46410	1.48575	1.48575	0.010	1.47869	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

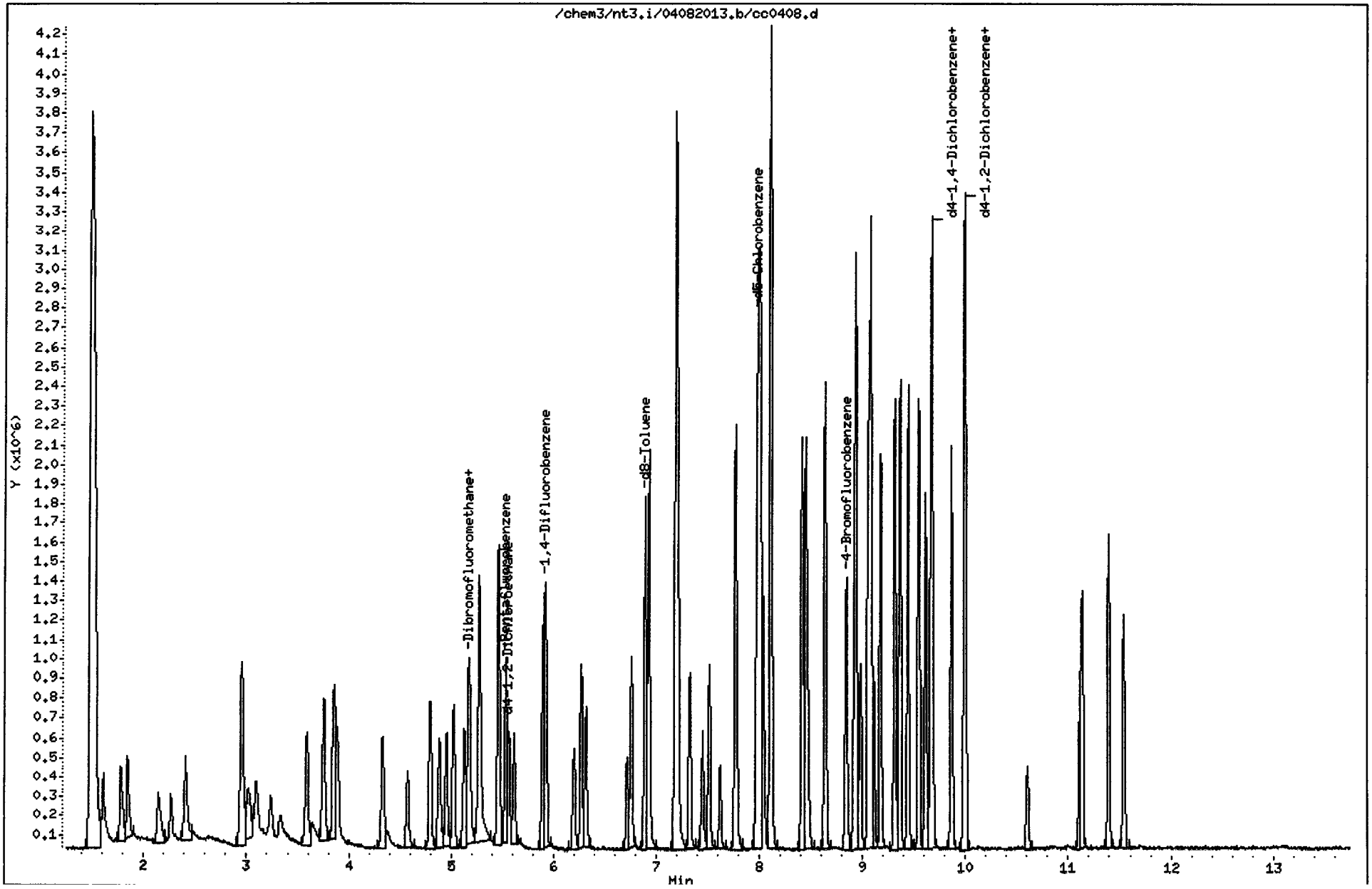
Instrument ID: nt3.i Injection Date: 08-APR-2013 09:32
Lab File ID: cc0408.d Init. Cal. Date(s): 22-MAR-2013 22-MAR-2013
Analysis Type: WATER Init. Cal. Times: 12:51 15:56
Lab Sample ID: CC0408 Quant Type: ISTD
Method: /chem3/nt3.i/04082013.b/8260C032213L.m

COMPOUND	RRF / AMOUNT	RF10	CCAL RRF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
79 N-Butyl Benzene	2.22896	2.21436	2.21436	0.010	-0.65487	20.00000	Averaged	
$ 80 d4-1,2-Dichlorobenzene	0.89219	0.91170	0.91170	0.010	2.18647	20.00000	Averaged	
81 1,2-Dichlorobenzene	1.36204	1.39356	1.39356	0.010	2.31436	20.00000	Averaged	
82 1,2-Dibromo 3-Chloropropane	0.16480	0.19786	0.19786	0.010	20.06589	20.00000	Averaged	<-
83 Hexachloro 1,3-Butadiene	0.32436	0.27512	0.27512	0.010	-15.18150	20.00000	Averaged	
84 1,2,4-Trichlorobenzene	0.73017	0.74710	0.74710	0.010	2.31841	20.00000	Averaged	
85 Naphthalene	1.83782	2.44924	2.44924	0.010	33.26858	20.00000	Averaged	<-
86 1,2,3-Trichlorobenzene	0.68577	0.66057	0.66057	0.010	-3.67448	20.00000	Averaged	

Data File: /chem3/nt3.i/04082013.b/cc0408.d
Date : 08-APR-2013 09:32
Client ID: VSTD10
Sample Info: CC0408,10,10,1,,

Instrument: nt3.i

Operator: PB
Column phase: RTXVMS
Column diameter: 0.18



Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/04082013.b/mb0408.d
Lab Smp Id: MB0408 Client Smp ID: MB0408
Inj Date : 08-APR-2013 11:00
Operator : PB Inst ID: nt3.i
Smp Info : MB0408,10,10,0,,
Misc Info : 13-6797
Comment :
Method : /chem3/nt3.i/04082013.b/8260C032213L.m
Meth Date : 09-Apr-2013 10:06 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 13:18 Cal File: vstd80.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
7 1,1-Dichloroethene	96	Compound Not Detected.					
8 Carbon Disulfide	76	Compound Not Detected.					
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
14 Acetone	43	Compound Not Detected.					
15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	16 Methyl tert butyl ether	73	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	18 Acrylonitrile	53	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
	22 2,2-Dichloropropane	77	Compound Not Detected.					
	23 Bromochloromethane	128	Compound Not Detected.					
	24 Chloroform	83	Compound Not Detected.					
	25 Carbon Tetrachloride	117	Compound Not Detected.					
$	26 Dibromofluoromethane	111	5.164	5.168	(0.933)	262844	9.79933	9.799
	27 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 2-Butanone	43	Compound Not Detected.					
	29 1,1-Dichloropropene	75	Compound Not Detected.					
	30 Benzene	78	Compound Not Detected.					
*	31 Pentafluorobenzene	168	5.537	5.536	(1.000)	487216	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.565	5.564	(1.005)	351597	10.2440	10.244
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	34 Trichloroethene	130	Compound Not Detected.					
*	36 1,4-Difluorobenzene	114	5.927	5.926	(1.000)	818244	10.0000	
	37 Dibromomethane	93	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	41 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	42 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	43 d8-Toluene	98	6.895	6.894	(1.163)	995656	10.1146	10.115
	44 Toluene	92	Compound Not Detected.					
	45 Tetrachloroethene	166	Compound Not Detected.					
	46 4-Methyl-2-Pentanone	43	Compound Not Detected.					
	47 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	48 1,1,2-Trichloroethane	97	Compound Not Detected.					
	49 Chlorodibromomethane	129	Compound Not Detected.					
	50 1,3-Dichloropropane	76	Compound Not Detected.					
	51 1,2-Dibromoethane	107	Compound Not Detected.					
	52 2-Hexanone	43	Compound Not Detected.					
*	53 d5-Chlorobenzene	117	7.975	7.980	(1.000)	798684	10.0000	
	54 Chlorobenzene	112	Compound Not Detected.					
	55 Ethyl Benzene	91	Compound Not Detected.					
	56 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	57 m,p-xylene	106	Compound Not Detected.					
	58 o-Xylene	106	Compound Not Detected.					
	59 Styrene	104	Compound Not Detected.					
	60 Bromoform	173	Compound Not Detected.					
	61 Isopropyl Benzene	105	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	8.846	8.845	(1.109)	395676	9.88692	9.887
	63 Bromobenzene	156	Compound Not Detected.					
	64 N-Propyl Benzene	91	Compound Not Detected.					
	65 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
66	2-Chloro Toluene	91	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
68	1,2,3-Trichloropropane	110	Compound Not Detected.					
70	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
71	4-Chloro Toluene	91	Compound Not Detected.					
72	T-Butyl Benzene	119	Compound Not Detected.					
73	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
74	S-Butyl Benzene	105	Compound Not Detected.					
75	4-Isopropyl Toluene	119	Compound Not Detected.					
76	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 77	d4-1,4-Dichlorobenzene	152	9.666	9.666	(1.000)	419918	10.0000	
78	1,4-Dichlorobenzene	146	Compound Not Detected.					
79	N-Butyl Benzene	91	Compound Not Detected.					
$ 80	d4-1,2-Dichlorobenzene	152	9.989	9.988	(1.033)	381980	10.1957	10.196
81	1,2-Dichlorobenzene	146	Compound Not Detected.					
82	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
83	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
84	1,2,4-Trichlorobenzene	180	11.143	11.136	(1.153)	4898	0.15975	0.1597
85	Naphthalene	128	11.397	11.391	(1.179)	26620	0.34494	0.3449
86	1,2,3-Trichlorobenzene	180	11.544	11.538	(1.194)	5500	0.19100	0.1910 (Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: mb0408.d
Lab Smp Id: MB0408
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem3/nt3.i/04082013.b/8260C032213L.m
Misc Info: 13-6797

Calibration Date: 08-APR-2013
Calibration Time: 09:32
Client Smp ID: MB0408
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	487216	-9.17
36 1,4-Difluorobenze	907870	453935	1815740	818244	-9.87
53 d5-Chlorobenzene	856141	428070	1712282	798684	-6.71
77 d4-1,4-Dichlorobe	481945	240972	963890	419918	-12.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.54	0.02
36 1,4-Difluorobenze	5.93	5.43	6.43	5.93	0.01
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	-0.06
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: MB0408
Level: LOW
Data Type: MS DATA
SpikeList File: allspike.spk
Sublist File: voa.sub
Method File: /chem3/nt3.i/04082013.b/8260C032213L.m
Misc Info: 13-6797

Client SDG: 04082013
Fraction: VOA
Client Smp ID: MB0408
Operator: PB
SampleType: BLANK
Quant Type: ISTD

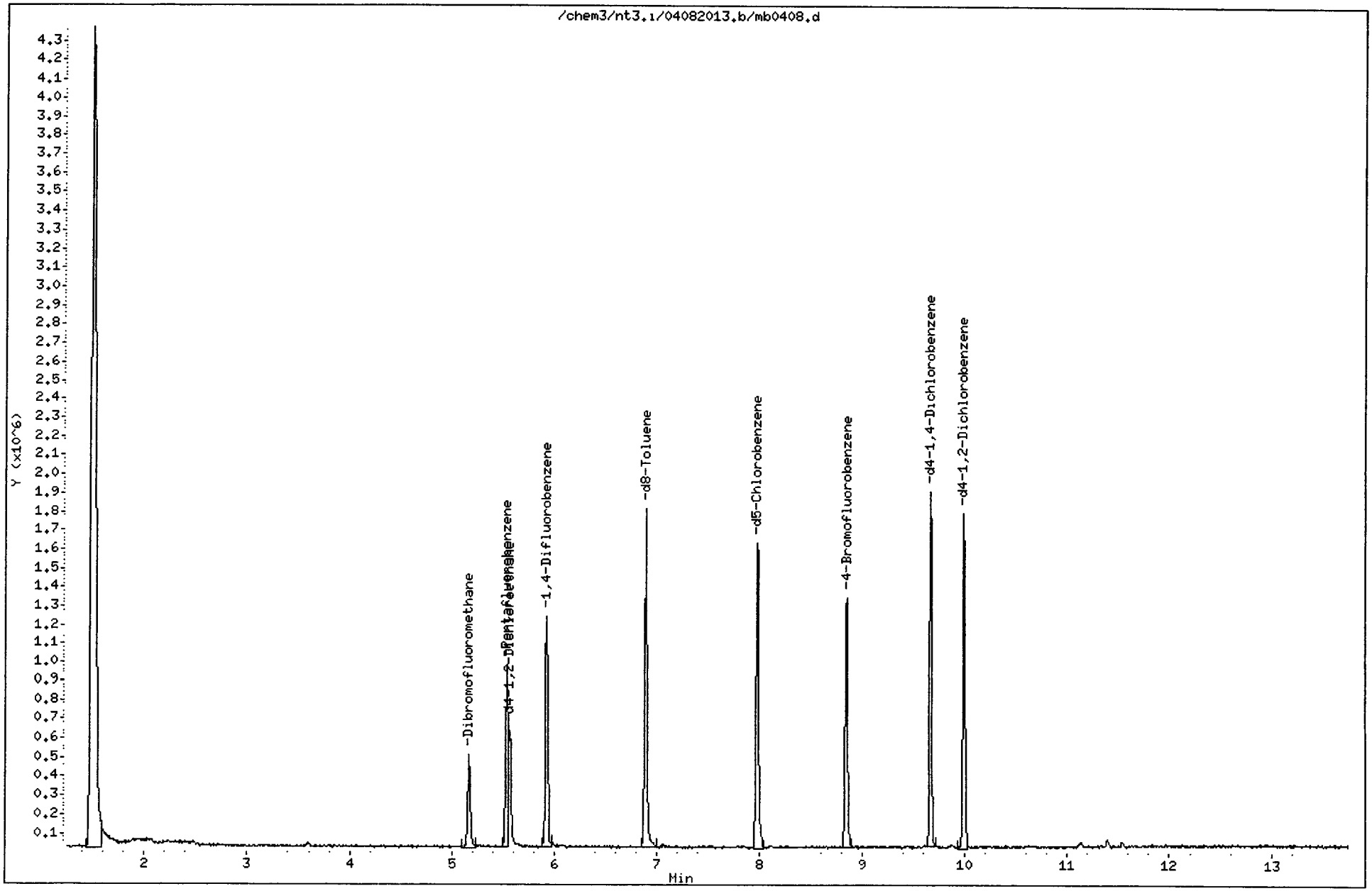
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 26 Dibromofluorometha	10.000	9.799	97.99	80-120
$ 32 d4-1,2-Dichloroeth	10.000	10.244	102.44	80-120
$ 43 d8-Toluene	10.000	10.115	101.15	80-120
$ 62 4-Bromofluorobenze	10.000	9.887	98.87	80-120
$ 80 d4-1,2-Dichloroben	10.000	10.196	101.96	80-120

Data File: /chem3/nt3.i/04082013.b/mb0408.d
Date : 08-APR-2013 11:00
Client ID: MB0408
Sample Info: MB0408,10,10,0,,

Instrument: nt3.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



CO-ELUTION SUMMARY FOR FILE - mb0408.d

Lab ID: MB0408, Method: 8260C032213L.m, Instrument: nt3.i, Date: 08-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/04082013.b/lcs0408.d
Lab Smp Id: LCS0408 Client Smp ID: LCS0408
Inj Date : 08-APR-2013 10:07
Operator : PB Inst ID: nt3.i
Smp Info : LCS0408,10,10,0,,
Misc Info : 13-6797
Comment :
Method : /chem3/nt3.i/04082013.b/8260C032213L.m
Meth Date : 09-Apr-2013 10:06 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 13:18 Cal File: vstd80.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	1.612	1.605	(0.291)	296039	8.22490	8.225
2 Chloromethane	50	1.781	1.774	(0.322)	379906	9.48032	9.480
3 Vinyl Chloride	62	1.849	1.842	(0.334)	381658	8.64670	8.647
4 Bromomethane	94	2.149	2.142	(0.388)	257009	10.9676	10.968
5 Chloroethane	64	2.268	2.266	(0.410)	227135	8.29049	8.290
6 Trichlorofluoromethane	101	2.409	2.408	(0.435)	386885	8.56627	8.566
7 1,1-Dichloroethene	96	2.952	2.951	(0.533)	244786	8.12203	8.122(Q)
8 Carbon Disulfide	76	2.964	2.957	(0.535)	843956	8.24613	8.246
9 112Trichloro122Trifluoroethane	101	3.020	3.025	(0.545)	280768	9.12343	9.123(M)
10 Iodomethane	142	3.094	3.098	(0.559)	406803	9.80374	9.804
11 Bromoethane	108	3.241	3.239	(0.585)	188230	9.17429	9.174
12 Acrolein	56	3.857	3.856	(0.697)	218459	48.1550	48.155
13 Methylene Chloride	84	3.591	3.590	(0.649)	297040	10.6427	10.643
14 Acetone	43	3.665	3.652	(0.662)	279115	60.9654	60.965(M)
15 Trans-1,2-Dichloroethene	96	3.761	3.754	(0.679)	284277	9.39613	9.396

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	16 Methyl tert butyl ether	73	3.891	3.890	(0.703)	694711	8.44285	8.443
	17 1,1-Dichloroethane	63	4.338	4.337	(0.783)	522876	9.27154	9.272
	18 Acrylonitrile	53	4.383	4.382	(0.792)	89917	13.2967	13.297(R)
	19 Vinyl Acetate	43	4.581	4.580	(0.827)	555206	10.2367	10.237
	20 Cis-1,2-Dichloroethene	96	4.802	4.801	(0.867)	298844	9.54368	9.544
	22 2,2-Dichloropropane	77	4.887	4.886	(0.883)	347099	9.77768	9.778
	23 Bromochloromethane	128	4.960	4.959	(0.896)	142046	9.61972	9.620
	24 Chloroform	83	5.028	5.027	(0.908)	495922	9.82912	9.829
	25 Carbon Tetrachloride	117	5.130	5.129	(0.865)	358847	9.53670	9.537
$	26 Dibromofluoromethane	111	5.170	5.168	(0.934)	266560	9.92880	9.929
	27 1,1,1-Trichloroethane	97	5.181	5.180	(0.936)	398423	8.79684	8.797
	28 2-Butanone	43	5.272	5.270	(0.952)	842027	83.5040	83.504(R)
	29 1,1-Dichloropropene	75	5.277	5.276	(0.890)	404914	9.83586	9.836
	30 Benzene	78	5.470	5.468	(0.923)	1155271	9.89029	9.890
*	31 Pentafluorobenzene	168	5.537	5.536	(1.000)	487661	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.566	5.564	(1.005)	356146	10.3671	10.367
	33 1,2-Dichloroethane	62	5.617	5.615	(0.948)	405571	10.2803	10.280
	34 Trichloroethene	130	5.899	5.898	(0.995)	285829	10.0095	10.010
*	36 1,4-Difluorobenzene	114	5.928	5.926	(1.000)	819749	10.0000	
	37 Dibromomethane	93	6.199	6.198	(1.046)	178749	10.5488	10.549
	38 1,2-Dichloropropane	63	6.273	6.271	(1.058)	292620	10.0297	10.030
	39 Bromodichloromethane	83	6.318	6.317	(1.066)	388143	10.8697	10.870
	41 2-Chloroethyl Vinyl Ether	63	6.714	6.718	(1.133)	175047	11.3036	11.304
	42 Cis 1,3-dichloropropene	75	6.759	6.758	(1.140)	471148	11.0039	11.004
$	43 d8-Toluene	98	6.895	6.894	(1.163)	1019479	10.3376	10.338
	44 Toluene	92	6.929	6.928	(1.169)	695031	10.5585	10.558
	45 Tetrachloroethene	166	7.201	7.199	(0.902)	285674	10.5798	10.580
	46 4-Methyl-2-Pentanone	43	7.189	7.188	(1.213)	1740791	59.2195	59.219
	47 Trans 1,3-Dichloropropene	75	7.217	7.216	(1.218)	466196	11.2540	11.254
	48 1,1,2-Trichloroethane	97	7.331	7.329	(1.237)	237608	10.2855	10.285
	49 Chlorodibromomethane	129	7.455	7.454	(0.934)	289264	10.6332	10.633
	50 1,3-Dichloropropane	76	7.517	7.516	(0.942)	455795	10.5555	10.556
	51 1,2-Dibromoethane	107	7.619	7.623	(1.285)	263452	10.9529	10.953
	52 2-Hexanone	43	7.772	7.771	(0.974)	1305342	55.4893	55.489
*	53 d5-Chlorobenzene	117	7.981	7.980	(1.000)	799982	10.0000	
	54 Chlorobenzene	112	7.987	7.991	(1.001)	820064	10.8399	10.840
	55 Ethyl Benzene	91	8.004	8.002	(1.003)	1415860	11.2674	11.267
	56 1,1,1,2-Tetrachloroethane	131	8.032	8.031	(1.006)	293137	10.6582	10.658
	57 m,p-xylene	106	8.106	8.110	(1.016)	1088514	22.8670	22.867
	58 o-Xylene	106	8.417	8.415	(1.055)	534299	11.1162	11.116
	59 Styrene	104	8.451	8.449	(1.059)	893162	11.5674	11.567
	60 Bromoform	173	8.473	8.472	(0.877)	216915	11.1972	11.197
	61 Isopropyl Benzene	105	8.637	8.636	(0.893)	1411097	11.2911	11.291
$	62 4-Bromofluorobenzene	95	8.847	8.845	(1.108)	424978	10.6019	10.602
	63 Bromobenzene	156	8.926	8.925	(0.923)	356504	10.2527	10.253
	64 N-Propyl Benzene	91	8.937	8.936	(0.924)	1650337	11.0125	11.013
	65 1,1,2,2-Tetrachloroethane	83	8.982	8.981	(0.929)	404533	10.0218	10.022

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
66	2-Chloro Toluene	91	9.056	9.055	(0.937)	1150259	10.6773	10.677
67	1,3,5-Trimethyl Benzene	105	9.079	9.077	(0.939)	1199382	11.3084	11.308
68	1,2,3-Trichloropropane	110	9.090	9.089	(0.940)	127107	11.2944	11.294(Q)
70	Trans-1,4-Dichloro 2-Butene	53	9.113	9.111	(0.943)	148243	9.94183	9.942(Q)
71	4-Chloro Toluene	91	9.175	9.173	(0.949)	1071676	10.5995	10.599
72	T-Butyl Benzene	119	9.316	9.315	(0.964)	1009703	11.1824	11.182
73	1,2,4-Trimethylbenzene	105	9.367	9.366	(0.969)	1203394	11.4287	11.429
74	S-Butyl Benzene	105	9.446	9.445	(0.977)	1457811	11.0232	11.023
75	4-Isopropyl Toluene	119	9.548	9.547	(0.988)	1183120	11.1914	11.191
76	1,3-Dichlorobenzene	146	9.616	9.615	(0.995)	677192	10.3102	10.310
* 77	d4-1,4-Dichlorobenzene	152	9.667	9.666	(1.000)	465809	10.0000	
78	1,4-Dichlorobenzene	146	9.678	9.677	(1.001)	712661	10.4497	10.450
79	N-Butyl Benzene	91	9.865	9.869	(1.020)	1100768	10.6019	10.602
$ 80	d4-1,2-Dichlorobenzene	152	9.989	9.988	(1.033)	421838	10.1503	10.150
81	1,2-Dichlorobenzene	146	9.995	9.999	(1.034)	677818	10.6836	10.684
82	1,2-Dibromo 3-Chloropropane	75	10.606	10.605	(1.097)	96252	12.5388	12.539
83	Hexachloro 1,3-Butadiene	225	11.115	11.114	(1.150)	138658	9.17708	9.177
84	1,2,4-Trichlorobenzene	180	11.138	11.136	(1.152)	374325	11.0057	11.006
85	Naphthalene	128	11.392	11.391	(1.178)	1196114	13.9721	13.972(R)
86	1,2,3-Trichlorobenzene	180	11.539	11.538	(1.194)	340169	10.6491	10.649

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: lcs0408.d
Lab Smp Id: LCS0408
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem3/nt3.i/04082013.b/8260C032213L.m
Misc Info: 13-6797

Calibration Date: 08-APR-2013
Calibration Time: 09:32
Client Smp ID: LCS0408
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	487661	-9.09
36 1,4-Difluorobenze	907870	453935	1815740	819749	-9.71
53 d5-Chlorobenzene	856141	428070	1712282	799982	-6.56
77 d4-1,4-Dichlorobe	481945	240972	963890	465809	-3.35

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.54	0.02
36 1,4-Difluorobenze	5.93	5.43	6.43	5.93	0.02
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	0.02
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS0408
Level: LOW
Data Type: MS DATA
SpikeList File: allspike.spk
Sublist File: voa.sub
Method File: /chem3/nt3.i/04082013.b/8260C032213L.m
Misc Info: 13-6797

Client SDG: 04082013
Fraction: VOA
Client Smp ID: LCS0408
Operator: PB
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	10.000	8.225	82.25	68-133
2 Chloromethane	10.000	9.480	94.80	77-122
3 Vinyl Chloride	10.000	8.647	86.47	74-123
4 Bromomethane	10.000	10.968	109.68	68-130
5 Chloroethane	10.000	8.290	82.90	68-133
6 Trichlorofluoromet	10.000	8.566	85.66	74-135
12 Acrolein	50.000	48.155	96.31	60-124
9 112Trichloro122Tri	10.000	9.123	91.23	76-124
14 Acetone	50.000	60.965	121.93	64-125
7 1,1-Dichloroethene	10.000	8.122	81.22	74-120
11 Bromoethane	10.000	9.174	91.74	77-122
10 Iodomethane	10.000	9.804	98.04	76-123
13 Methylene Chloride	10.000	10.643	106.43	71-125
18 Acrylonitrile	10.000	13.297	132.97*	76-123
8 Carbon Disulfide	10.000	8.246	82.46	77-124
16 Methyl tert butyl	10.000	8.443	84.43	79-121
15 Trans-1,2-Dichloro	10.000	9.396	93.96	75-120
19 Vinyl Acetate	10.000	10.237	102.37	74-120
17 1,1-Dichloroethane	10.000	9.272	92.72	80-120
28 2-Butanone	50.000	83.504	167.01*	73-123
22 2,2-Dichloropropan	10.000	9.778	97.78	72-133
20 Cis-1,2-Dichloroet	10.000	9.544	95.44	78-120
24 Chloroform	10.000	9.829	98.29	80-120
23 Bromochloromethane	10.000	9.620	96.20	80-120
27 1,1,1-Trichloroeth	10.000	8.797	87.97	79-124
29 1,1-Dichloropropen	10.000	9.836	98.36	80-120
25 Carbon Tetrachlori	10.000	9.537	95.37	71-139
33 1,2-Dichloroethane	10.000	10.280	102.80	80-121
30 Benzene	10.000	9.890	98.90	80-120
34 Trichloroethene	10.000	10.010	100.10	80-120
38 1,2-Dichloropropan	10.000	10.030	100.30	80-120
39 Bromodichlorometha	10.000	10.870	108.70	80-122
37 Dibromomethane	10.000	10.549	105.49	80-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
41 2-Chloroethyl Viny	10.000	11.304	113.04	62-130
46 4-Methyl-2-Pentano	50.000	59.219	118.44	80-125
42 Cis 1,3-dichloropr	10.000	11.004	110.04	80-127
44 Toluene	10.000	10.558	105.58	80-120
47 Trans 1,3-Dichloro	10.000	11.254	112.54	79-132
52 2-Hexanone	50.000	55.489	110.98	80-129
48 1,1,2-Trichloroeth	10.000	10.285	102.85	80-120
50 1,3-Dichloropropan	10.000	10.556	105.56	80-120
45 Tetrachloroethene	10.000	10.580	105.80	80-120
49 Chlorodibromometha	10.000	10.633	106.33	80-120
51 1,2-Dibromoethane	10.000	10.953	109.53	80-120
54 Chlorobenzene	10.000	10.840	108.40	80-120
56 1,1,1,2-Tetrachlor	10.000	10.658	106.58	80-128
55 Ethyl Benzene	10.000	11.267	112.67	80-120
57 m,p-xylene	20.000	22.867	114.33	80-120
58 o-Xylene	10.000	11.116	111.16	80-120
59 Styrene	10.000	11.567	115.67	80-121
61 Isopropyl Benzene	10.000	11.291	112.91	80-120
60 Bromoform	10.000	11.197	111.97	62-149
65 1,1,2,2-Tetrachlor	10.000	10.022	100.22	80-120
68 1,2,3-Trichloropro	10.000	11.294	112.94	80-120
70 Trans-1,4-Dichloro	10.000	9.942	99.42	47-147
64 N-Propyl Benzene	10.000	11.013	110.13	80-120
63 Bromobenzene	10.000	10.253	102.53	80-120
67 1,3,5-Trimethyl Be	10.000	11.308	113.08	80-120
66 2-Chloro Toluene	10.000	10.677	106.77	80-120
71 4-Chloro Toluene	10.000	10.599	105.99	80-120
72 T-Butyl Benzene	10.000	11.182	111.82	80-121
73 1,2,4-Trimethylben	10.000	11.429	114.29	80-122
74 S-Butyl Benzene	10.000	11.023	110.23	80-121
75 4-Isopropyl Toluen	10.000	11.191	111.91	80-124
76 1,3-Dichlorobenzen	10.000	10.310	103.10	80-120
78 1,4-Dichlorobenzen	10.000	10.450	104.50	80-120
79 N-Butyl Benzene	10.000	10.602	106.02	80-125
81 1,2-Dichlorobenzen	10.000	10.684	106.84	80-120
82 1,2-Dibromo 3-Chlo	10.000	12.539	125.39	79-129
84 1,2,4-Trichloroben	10.000	11.006	110.06	77-127
83 Hexachloro 1,3-But	10.000	9.177	91.77	80-135
85 Naphthalene	10.000	13.972	139.72*	80-128
86 1,2,3-Trichloroben	10.000	10.649	106.49	80-125

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 26 Dibromofluorometha	10.000	9.929	99.29	80-120

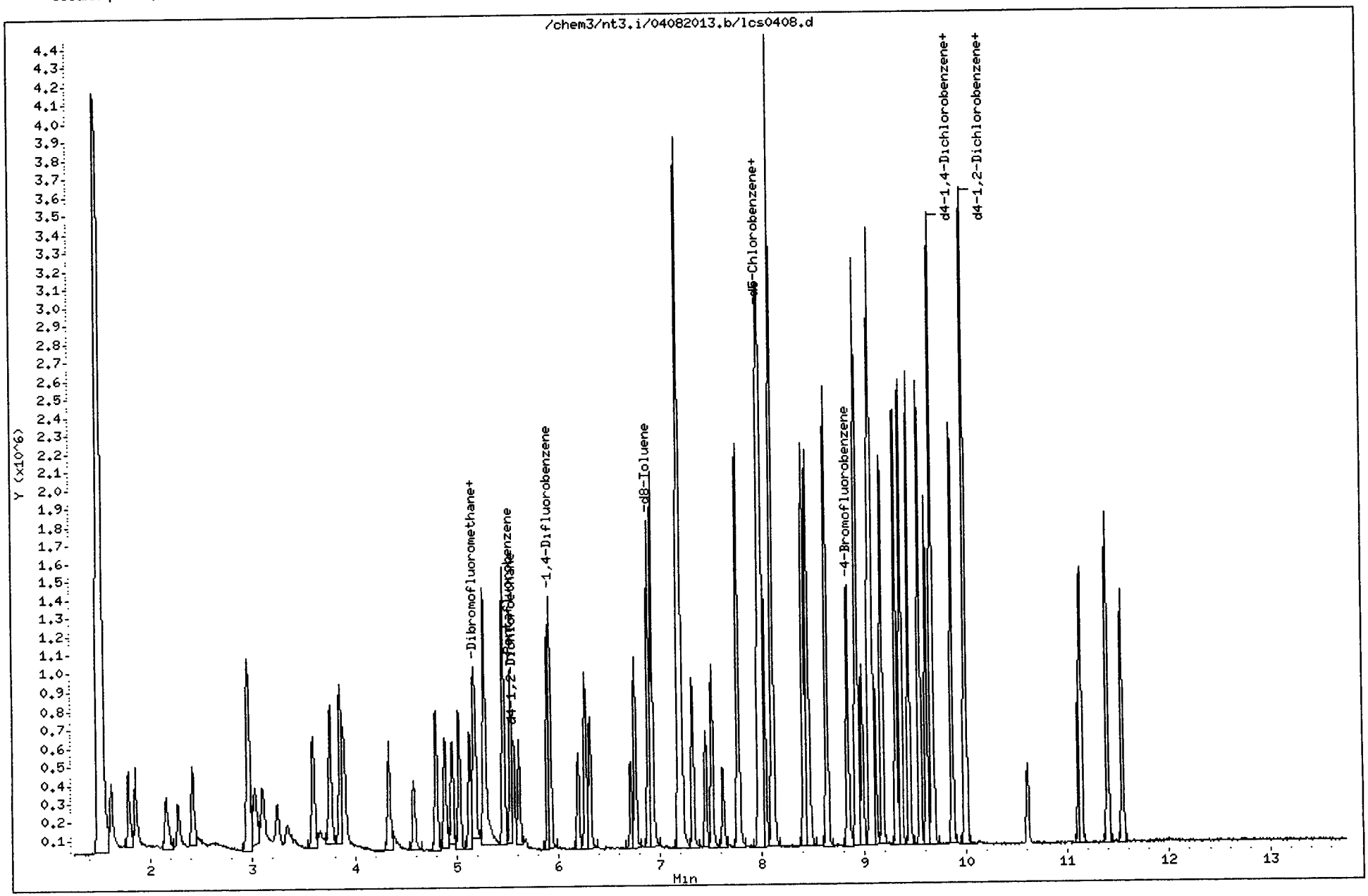
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 32 d4-1,2-Dichloroeth	10.000	10.367	103.67	80-120
$ 43 d8-Toluene	10.000	10.338	103.38	80-120
$ 62 4-Bromofluorobenze	10.000	10.602	106.02	80-120
$ 80 d4-1,2-Dichloroben	10.000	10.150	101.50	80-120

Data File: /chem3/nt3.i/04082013.b/lcs0408.d
Date : 08-APR-2013 10:07
Client ID: LCS0408
Sample Info: LCS0408,10,10,0,,

Instrument: nt3.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



CO-ELUTION SUMMARY FOR FILE - lcs0408.d

Lab ID: LCS0408, Method: 8260C032213L.m, Instrument: nt3.i, Date: 08-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/04082013.b/lcs0408a.d
Lab Smp Id: LCS0408 Client Smp ID: LCS0408
Inj Date : 08-APR-2013 10:33
Operator : PB Inst ID: nt3.i
Smp Info : LCSD0408,10,10,0,,
Misc Info : 13-6797
Comment :
Method : /chem3/nt3.i/04082013.b/8260C032213L.m
Meth Date : 09-Apr-2013 10:06 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 13:18 Cal File: vstd80.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

14/9/14

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	1.612	1.605	(0.291)	293125	7.68774	7.688
2 Chloromethane	50	1.782	1.774	(0.322)	394443	9.29171	9.292
3 Vinyl Chloride	62	1.850	1.842	(0.334)	404319	8.64698	8.647
4 Bromomethane	94	2.144	2.142	(0.387)	268498	10.8160	10.816
5 Chloroethane	64	2.269	2.266	(0.410)	254723	8.77665	8.777
6 Trichlorofluoromethane	101	2.416	2.408	(0.436)	413075	8.63382	8.634
7 1,1-Dichloroethene	96	2.953	2.951	(0.533)	243438	7.62484	7.625(Q)
8 Carbon Disulfide	76	2.964	2.957	(0.535)	886320	8.17495	8.175
9 112Trichloro122Trifluoroethane	101	3.015	3.025	(0.544)	279681	8.57902	8.579(M)
10 Iodomethane	142	3.100	3.098	(0.560)	419220	9.53705	9.537
11 Bromoethane	108	3.242	3.239	(0.585)	194781	8.96179	8.962
12 Acrolein	56	3.858	3.856	(0.697)	216015	44.9490	44.949
13 Methylene Chloride	84	3.592	3.590	(0.649)	312159	10.5579	10.558
14 Acetone	43	3.666	3.652	(0.662)	284270	58.6132	58.613(M)
15 Trans-1,2-Dichloroethene	96	3.762	3.754	(0.679)	298408	9.31070	9.311

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	16 Methyl tert butyl ether	73	3.886	3.890	(0.702)	748870	8.59124	8.591
	17 1,1-Dichloroethane	63	4.339	4.337	(0.783)	555164	9.29264	9.293
	18 Acrylonitrile	53	4.390	4.382	(0.793)	115300	16.0952	16.095(QR)
	19 Vinyl Acetate	43	4.582	4.580	(0.827)	603910	10.5109	10.511
	20 Cis-1,2-Dichloroethene	96	4.803	4.801	(0.867)	318321	9.59624	9.596
	22 2,2-Dichloropropane	77	4.888	4.886	(0.883)	380701	10.1235	10.124
	23 Bromochloromethane	128	4.961	4.959	(0.896)	153986	9.84417	9.844
	24 Chloroform	83	5.029	5.027	(0.908)	526750	9.85531	9.855
	25 Carbon Tetrachloride	117	5.125	5.129	(0.865)	361798	9.24555	9.246
$	26 Dibromofluoromethane	111	5.165	5.168	(0.933)	273769	9.62611	9.626
	27 1,1,1-Trichloroethane	97	5.182	5.180	(0.936)	425491	8.86824	8.868
	28 2-Butanone	43	5.272	5.270	(0.952)	865451	81.0192	81.019(R)
	29 1,1-Dichloropropene	75	5.284	5.276	(0.892)	438428	10.2406	10.241
	30 Benzene	78	5.465	5.468	(0.923)	1234985	10.1663	10.166
*	31 Pentafluorobenzene	168	5.538	5.536	(1.000)	516599	10.0000	
$	32 d4-1,2-Dichloroethane	65	5.566	5.564	(1.005)	361394	9.93057	9.931
	33 1,2-Dichloroethane	62	5.617	5.615	(0.948)	444397	10.8315	10.831
	34 Trichloroethene	130	5.900	5.898	(0.996)	313908	10.5703	10.570
*	36 1,4-Difluorobenzene	114	5.923	5.926	(1.000)	852517	10.0000	
	37 Dibromomethane	93	6.200	6.198	(1.047)	196373	11.1434	11.143
	38 1,2-Dichloropropane	63	6.274	6.271	(1.059)	308391	10.1640	10.164
	39 Bromodichloromethane	83	6.319	6.317	(1.067)	401186	10.8031	10.803
	41 2-Chloroethyl Vinyl Ether	63	6.720	6.718	(1.135)	194576	12.0817	12.082
	42 Cis 1,3-dichloropropene	75	6.760	6.758	(1.141)	490802	11.0223	11.022
$	43 d8-Toluene	98	6.896	6.894	(1.164)	1070718	10.4398	10.440
	44 Toluene	92	6.930	6.928	(1.170)	756329	11.0481	11.048
	45 Tetrachloroethene	166	7.201	7.199	(0.903)	314221	11.0492	11.049
	46 4-Methyl-2-Pentanone	43	7.190	7.188	(1.214)	1942473	63.5405	63.541(R)
	47 Trans 1,3-Dichloropropene	75	7.213	7.216	(1.218)	505310	11.7294	11.729
	48 1,1,2-Trichloroethane	97	7.326	7.329	(1.237)	269297	11.2092	11.209
	49 Chlorodibromomethane	129	7.456	7.454	(0.935)	310117	10.8238	10.824
	50 1,3-Dichloropropane	76	7.518	7.516	(0.943)	496790	10.9237	10.924
	51 1,2-Dibromoethane	107	7.620	7.623	(1.287)	292443	11.6908	11.691
	52 2-Hexanone	43	7.773	7.771	(0.974)	1469167	59.2984	59.298
*	53 d5-Chlorobenzene	117	7.976	7.980	(1.000)	842545	10.0000	
	54 Chlorobenzene	112	7.988	7.991	(1.001)	889122	11.1590	11.159
	55 Ethyl Benzene	91	8.005	8.002	(1.004)	1546238	11.6833	11.683
	56 1,1,1,2-Tetrachloroethane	131	8.033	8.031	(1.007)	317970	10.9771	10.977
	57 m,p-xylene	106	8.106	8.110	(1.016)	1179297	23.5226	23.523
	58 o-Xylene	106	8.412	8.415	(1.055)	581396	11.4850	11.485
	59 Styrene	104	8.451	8.449	(1.060)	951417	11.6994	11.699
	60 Bromoform	173	8.468	8.472	(0.876)	234555	11.7938	11.794
	61 Isopropyl Benzene	105	8.638	8.636	(0.894)	1521227	11.8567	11.857
$	62 4-Bromofluorobenzene	95	8.842	8.845	(1.109)	442610	10.4839	10.484
	63 Bromobenzene	156	8.927	8.925	(0.923)	380937	10.6714	10.671
	64 N-Propyl Benzene	91	8.938	8.936	(0.925)	1776425	11.5466	11.547
	65 1,1,2,2-Tetrachloroethane	83	8.983	8.981	(0.929)	440246	10.6237	10.624

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
66	2-Chloro Toluene	91	9.057	9.055	(0.937)	1219510	11.0266	11.027
67	1,3,5-Trimethyl Benzene	105	9.074	9.077	(0.939)	1278048	11.7377	11.738
68	1,2,3-Trichloropropane	110	9.085	9.089	(0.940)	136061	11.7766	11.777(Q)
70	Trans-1,4-Dichloro 2-Butene	53	9.113	9.111	(0.943)	157497	10.2886	10.289
71	4-Chloro Toluene	91	9.176	9.173	(0.949)	1142529	11.0072	11.007
72	T-Butyl Benzene	119	9.311	9.315	(0.963)	1062157	11.4583	11.458
73	1,2,4-Trimethylbenzene	105	9.362	9.366	(0.968)	1282357	11.8629	11.863
74	S-Butyl Benzene	105	9.447	9.445	(0.977)	1549589	11.4134	11.413
75	4-Isopropyl Toluene	119	9.549	9.547	(0.988)	1256739	11.5796	11.580
76	1,3-Dichlorobenzene	146	9.611	9.615	(0.994)	727006	10.7816	10.782
* 77	d4-1,4-Dichlorobenzene	152	9.668	9.666	(1.000)	478208	10.0000	
78	1,4-Dichlorobenzene	146	9.679	9.677	(1.001)	754982	10.7833	10.783
79	N-Butyl Benzene	91	9.866	9.869	(1.020)	1132578	10.6255	10.625
$ 80	d4-1,2-Dichlorobenzene	152	9.990	9.988	(1.033)	439698	10.3057	10.306
81	1,2-Dichlorobenzene	146	9.996	9.999	(1.034)	709113	10.8870	10.887
82	1,2-Dibromo 3-Chloropropane	75	10.607	10.605	(1.097)	101211	12.8430	12.843
83	Hexachloro 1,3-Butadiene	225	11.116	11.114	(1.150)	144697	9.32847	9.328
84	1,2,4-Trichlorobenzene	180	11.138	11.136	(1.152)	395176	11.3175	11.317
85	Naphthalene	128	11.393	11.391	(1.178)	1293038	14.7127	14.713(R)
86	1,2,3-Trichlorobenzene	180	11.540	11.538	(1.194)	365003	11.1302	11.130

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: lcs0408a.d
Lab Smp Id: LCS0408
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem3/nt3.i/04082013.b/8260C032213L.m
Misc Info: 13-6797

Calibration Date: 08-APR-2013
Calibration Time: 09:32
Client Smp ID: LCS0408
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	516599	-3.69
36 1,4-Difluorobenze	907870	453935	1815740	852517	-6.10
53 d5-Chlorobenzene	856141	428070	1712282	842545	-1.59
77 d4-1,4-Dichlorobe	481945	240972	963890	478208	-0.78

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.54	0.04
36 1,4-Difluorobenze	5.93	5.43	6.43	5.92	-0.06
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	-0.04
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS0408
Level: LOW
Data Type: MS DATA
SpikeList File: allspike.spk
Sublist File: voa.sub
Method File: /chem3/nt3.i/04082013.b/8260C032213L.m
Misc Info: 13-6797

Client SDG: 04082013
Fraction: VOA
Client Smp ID: LCS0408
Operator: PB
SampleType: LCSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	10.000	7.688	76.88	68-133
2 Chloromethane	10.000	9.292	92.92	77-122
3 Vinyl Chloride	10.000	8.647	86.47	74-123
4 Bromomethane	10.000	10.816	108.16	68-130
5 Chloroethane	10.000	8.777	87.77	68-133
6 Trichlorofluoromet	10.000	8.634	86.34	74-135
12 Acrolein	50.000	44.949	89.90	60-124
9 112Trichloro122Tri	10.000	8.579	85.79	76-124
14 Acetone	50.000	58.613	117.23	64-125
7 1,1-Dichloroethene	10.000	7.625	76.25	74-120
11 Bromoethane	10.000	8.962	89.62	77-122
10 Iodomethane	10.000	9.537	95.37	76-123
13 Methylene Chloride	10.000	10.558	105.58	71-125
18 Acrylonitrile	10.000	16.095	160.95*	76-123
8 Carbon Disulfide	10.000	8.175	81.75	77-124
16 Methyl tert butyl	10.000	8.591	85.91	79-121
15 Trans-1,2-Dichloro	10.000	9.311	93.11	75-120
19 Vinyl Acetate	10.000	10.511	105.11	74-120
17 1,1-Dichloroethane	10.000	9.293	92.93	80-120
28 2-Butanone	50.000	81.019	162.04*	73-123
22 2,2-Dichloropropan	10.000	10.124	101.24	72-133
20 Cis-1,2-Dichloroet	10.000	9.596	95.96	78-120
24 Chloroform	10.000	9.855	98.55	80-120
23 Bromochloromethane	10.000	9.844	98.44	80-120
27 1,1,1-Trichloroeth	10.000	8.868	88.68	79-124
29 1,1-Dichloropropen	10.000	10.241	102.41	80-120
25 Carbon Tetrachlori	10.000	9.246	92.46	71-139
33 1,2-Dichloroethane	10.000	10.831	108.31	80-121
30 Benzene	10.000	10.166	101.66	80-120
34 Trichloroethene	10.000	10.570	105.70	80-120
38 1,2-Dichloropropan	10.000	10.164	101.64	80-120
39 Bromodichlorometha	10.000	10.803	108.03	80-122
37 Dibromomethane	10.000	11.143	111.43	80-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
41 2-Chloroethyl Viny	10.000	12.082	120.82	62-130
46 4-Methyl-2-Pentano	50.000	63.541	127.08*	80-125
42 Cis 1,3-dichloropr	10.000	11.022	110.22	80-127
44 Toluene	10.000	11.048	110.48	80-120
47 Trans 1,3-Dichloro	10.000	11.729	117.29	79-132
52 2-Hexanone	50.000	59.298	118.60	80-129
48 1,1,2-Trichloroeth	10.000	11.209	112.09	80-120
50 1,3-Dichloropropan	10.000	10.924	109.24	80-120
45 Tetrachloroethene	10.000	11.049	110.49	80-120
49 Chlorodibromometha	10.000	10.824	108.24	80-120
51 1,2-Dibromoethane	10.000	11.691	116.91	80-120
54 Chlorobenzene	10.000	11.159	111.59	80-120
56 1,1,1,2-Tetrachlor	10.000	10.977	109.77	80-128
55 Ethyl Benzene	10.000	11.683	116.83	80-120
57 m,p-xylene	20.000	23.523	117.61	80-120
58 o-Xylene	10.000	11.485	114.85	80-120
59 Styrene	10.000	11.699	116.99	80-121
61 Isopropyl Benzene	10.000	11.857	118.57	80-120
60 Bromoform	10.000	11.794	117.94	62-149
65 1,1,2,2-Tetrachlor	10.000	10.624	106.24	80-120
68 1,2,3-Trichloropro	10.000	11.777	117.77	80-120
70 Trans-1,4-Dichloro	10.000	10.289	102.89	47-147
64 N-Propyl Benzene	10.000	11.547	115.47	80-120
63 Bromobenzene	10.000	10.671	106.71	80-120
67 1,3,5-Trimethyl Be	10.000	11.738	117.38	80-120
66 2-Chloro Toluene	10.000	11.027	110.27	80-120
71 4-Chloro Toluene	10.000	11.007	110.07	80-120
72 T-Butyl Benzene	10.000	11.458	114.58	80-121
73 1,2,4-Trimethylben	10.000	11.863	118.63	80-122
74 S-Butyl Benzene	10.000	11.413	114.13	80-121
75 4-Isopropyl Toluen	10.000	11.580	115.80	80-124
76 1,3-Dichlorobenzen	10.000	10.782	107.82	80-120
78 1,4-Dichlorobenzen	10.000	10.783	107.83	80-120
79 N-Butyl Benzene	10.000	10.625	106.25	80-125
81 1,2-Dichlorobenzen	10.000	10.887	108.87	80-120
82 1,2-Dibromo 3-Chlo	10.000	12.843	128.43	79-129
84 1,2,4-Trichloroben	10.000	11.317	113.17	77-127
83 Hexachloro 1,3-But	10.000	9.328	93.28	80-135
85 Naphthalene	10.000	14.713	147.13*	80-128
86 1,2,3-Trichloroben	10.000	11.130	111.30	80-125

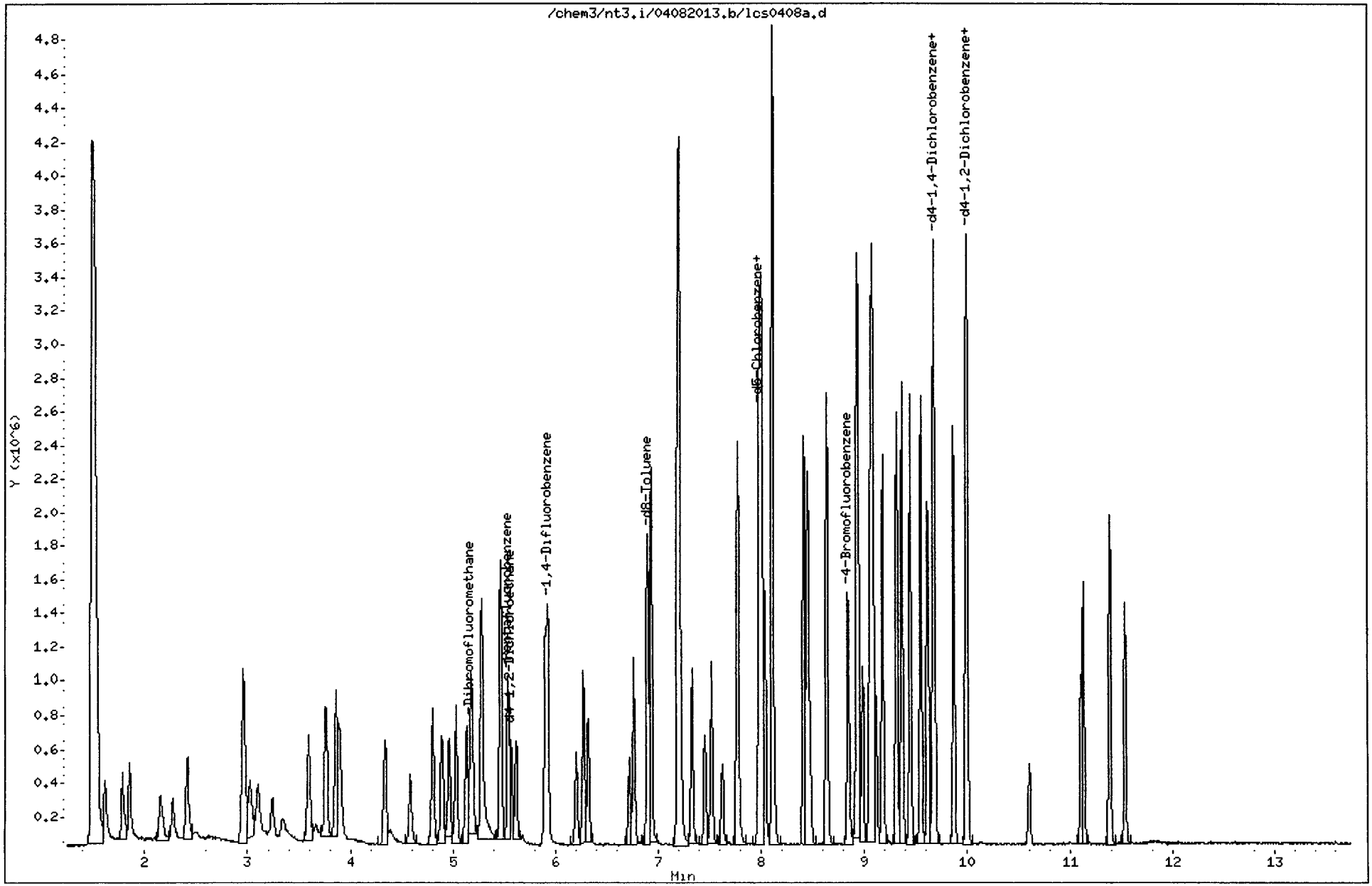
SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 26 Dibromofluorometha	10.000	9.626	96.26	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 32 d4-1,2-Dichloroeth	10.000	9.931	99.31	80-120
$ 43 d8-Toluene	10.000	10.440	104.40	80-120
$ 62 4-Bromofluorobenze	10.000	10.484	104.84	80-120
$ 80 d4-1,2-Dichloroben	10.000	10.306	103.06	80-120

Data File: /chem3/nt3.i/04082013.b/lcs0408a.d
Date : 08-APR-2013 10:33
Client ID: LCS0408
Sample Info: LCSD0408,10,10,0,,

Instrument: nt3.i
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



CO-ELUTION SUMMARY FOR FILE - lcs0408a.d

Lab ID: LCS0408, Method: 8260C032213L.m, Instrument: nt3.i, Date: 08-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

SW8260C 10 mL Purge

Data file : /chem3/nt3.i/04082013.b/wj10b.d
Lab Smp Id: WJ10B Client Smp ID: SD-SP-012-20130326-
Inj Date : 08-APR-2013 18:39
Operator : PB Inst ID: nt3.i
Smp Info : WJ10B,10,10,0
Misc Info : 13-6436
Comment :
Method : /chem3/nt3.i/04082013.b/8260C032213L.m
Meth Date : 11-Apr-2013 08:34 patrickb Quant Type: ISTD
Cal Date : 22-MAR-2013 13:18 Cal File: vstd80.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
7 1,1-Dichloroethene	96	Compound Not Detected.					
8 Carbon Disulfide	76	Compound Not Detected.					
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
13 Methylene Chloride	84	3.589	3.590	(0.648)	5582	0.19882	0.1988
14 Acetone	43	Compound Not Detected.					
15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
	16	Methyl tert butyl ether	73	Compound Not Detected.					
	17	1,1-Dichloroethane	63	Compound Not Detected.					
	18	Acrylonitrile	53	Compound Not Detected.					
	19	Vinyl Acetate	43	Compound Not Detected.					
	20	Cis-1,2-Dichloroethene	96	Compound Not Detected.					
	22	2,2-Dichloropropane	77	Compound Not Detected.					
	23	Bromochloromethane	128	Compound Not Detected.					
	24	Chloroform	83	Compound Not Detected.					
	25	Carbon Tetrachloride	117	Compound Not Detected.					
$	26	Dibromofluoromethane	111	5.167	5.168	(0.934)	258712	9.57989	9.580
	27	1,1,1-Trichloroethane	97	Compound Not Detected.					
	28	2-Butanone	43	Compound Not Detected.					
	29	1,1-Dichloropropene	75	Compound Not Detected.					
	30	Benzene	78	Compound Not Detected.					
*	31	Pentafluorobenzene	168	5.535	5.536	(1.000)	490542	10.0000	
$	32	d4-1,2-Dichloroethane	65	5.563	5.564	(1.005)	361601	10.4641	10.464
	33	1,2-Dichloroethane	62	Compound Not Detected.					
	34	Trichloroethene	130	Compound Not Detected.					
*	36	1,4-Difluorobenzene	114	5.925	5.926	(1.000)	810170	10.0000	
	37	Dibromomethane	93	Compound Not Detected.					
	38	1,2-Dichloropropane	63	Compound Not Detected.					
	39	Bromodichloromethane	83	Compound Not Detected.					
	41	2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	42	Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	43	d8-Toluene	98	6.892	6.894	(1.163)	983827	10.0940	10.094
	44	Toluene	92	Compound Not Detected.					
	45	Tetrachloroethene	166	Compound Not Detected.					
	46	4-Methyl-2-Pentanone	43	Compound Not Detected.					
	47	Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	48	1,1,2-Trichloroethane	97	Compound Not Detected.					
	49	Chlorodibromomethane	129	Compound Not Detected.					
	50	1,3-Dichloropropane	76	Compound Not Detected.					
	51	1,2-Dibromoethane	107	Compound Not Detected.					
	52	2-Hexanone	43	Compound Not Detected.					
*	53	d5-Chlorobenzene	117	7.978	7.980	(1.000)	785376	10.0000	
	54	Chlorobenzene	112	Compound Not Detected.					
	55	Ethyl Benzene	91	Compound Not Detected.					
	56	1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	57	m,p-xylene	106	Compound Not Detected.					
	58	o-Xylene	106	Compound Not Detected.					
	59	Styrene	104	Compound Not Detected.					
	60	Bromoform	173	Compound Not Detected.					
	61	Isopropyl Benzene	105	Compound Not Detected.					
$	62	4-Bromofluorobenzene	95	8.844	8.845	(1.108)	389669	9.90180	9.902
	63	Bromobenzene	156	Compound Not Detected.					
	64	N-Propyl Benzene	91	Compound Not Detected.					
	65	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
66	2-Chloro Toluene	91	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
68	1,2,3-Trichloropropane	110	Compound Not Detected.					
70	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
71	4-Chloro Toluene	91	Compound Not Detected.					
72	T-Butyl Benzene	119	Compound Not Detected.					
73	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
74	S-Butyl Benzene	105	Compound Not Detected.					
75	4-Isopropyl Toluene	119	Compound Not Detected.					
76	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 77	d4-1,4-Dichlorobenzene	152	9.670	9.666	(1.000)	413329	10.0000	
78	1,4-Dichlorobenzene	146	Compound Not Detected.					
79	N-Butyl Benzene	91	Compound Not Detected.					
$ 80	d4-1,2-Dichlorobenzene	152	9.992	9.988	(1.033)	382031	10.3596	10.360
81	1,2-Dichlorobenzene	146	Compound Not Detected.					
82	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
83	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
84	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
85	Naphthalene	128	Compound Not Detected.					
86	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt3.i
Lab File ID: wj10b.d
Lab Smp Id: WJ10B
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem3/nt3.i/04082013.b/8260C032213L.m
Misc Info: 13-6436

Calibration Date: 08-APR-2013
Calibration Time: 09:32
Client Smp ID: SD-SP-012-20130326-
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	536415	268208	1072830	490542	-8.55
36 1,4-Difluorobenze	907870	453935	1815740	810170	-10.76
53 d5-Chlorobenzene	856141	428070	1712282	785376	-8.27
77 d4-1,4-Dichlorobe	481945	240972	963890	413329	-14.24

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.54	5.04	6.04	5.53	-0.03
36 1,4-Difluorobenze	5.93	5.43	6.43	5.92	-0.03
53 d5-Chlorobenzene	7.98	7.48	8.48	7.98	-0.02
77 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: LIQUID
Lab Smp Id: WJ10B
Level: LOW
Data Type: MS DATA
SpikeList File: allspike.spk
Sublist File: voa.sub
Method File: /chem3/nt3.i/04082013.b/8260C032213L.m
Misc Info: 13-6436

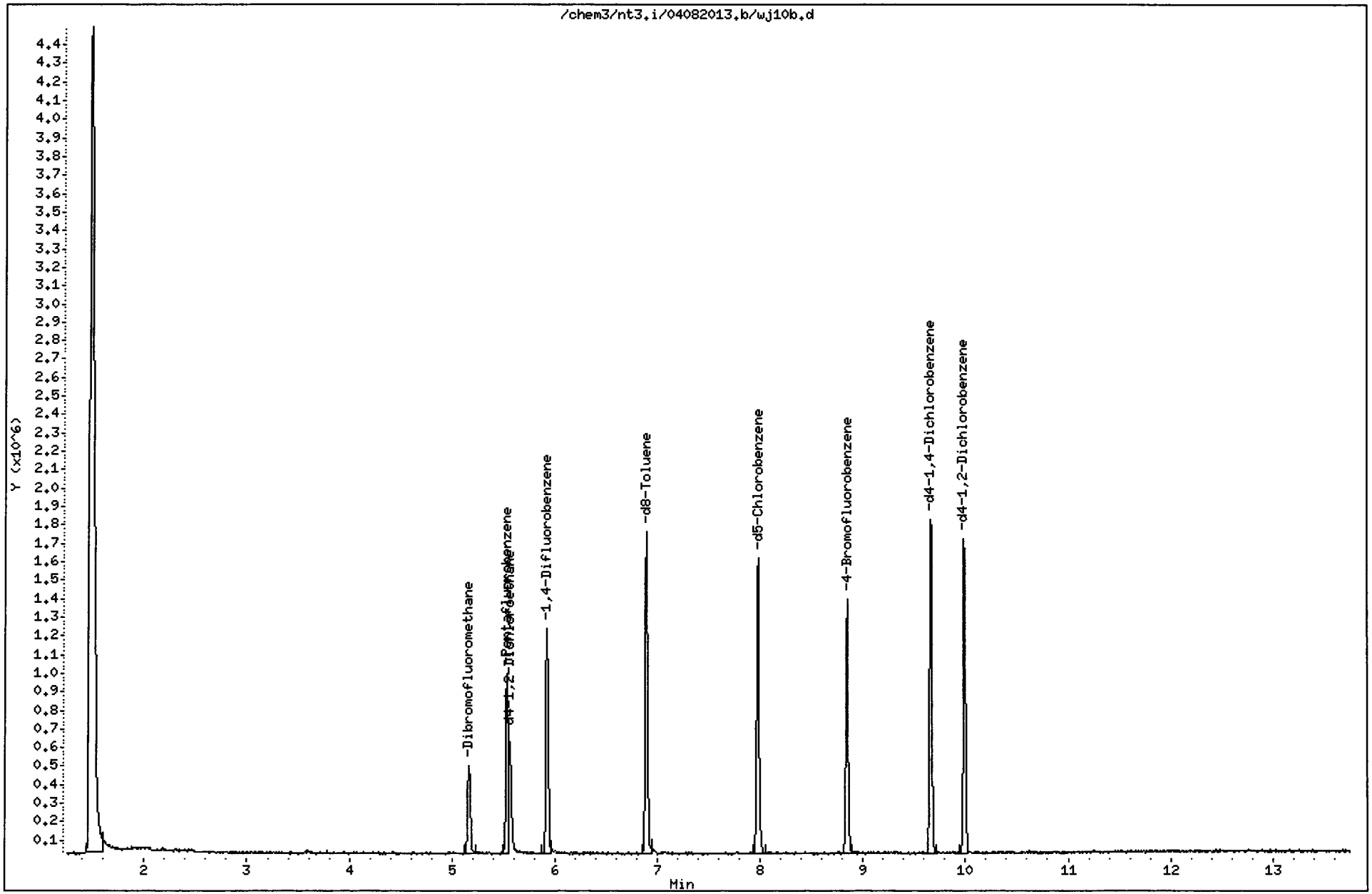
Client SDG: WJ10
Fraction: VOA
Client Smp ID: SD-SP-012-20130326-
Operator: PB
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$ 26 Dibromofluorometha	10.000	9.580	95.80	80-120
$ 32 d4-1,2-Dichloroeth	10.000	10.464	104.64	80-120
$ 43 d8-Toluene	10.000	10.094	100.94	80-120
$ 62 4-Bromofluorobenze	10.000	9.902	99.02	80-120
$ 80 d4-1,2-Dichloroben	10.000	10.360	103.60	80-120

Data File: /chem3/nt3.i/04082013.b/wj10b.d
Date : 08-APR-2013 18:39
Client ID: SD-SP-012-20130326-
Sample Info: WJ10B,10,10,0

Instrument: nt3.i

Operator: PB
Column phase: RTXVMS
Column diameter: 0.18



CO-ELUTION SUMMARY FOR FILE - wj10b.d

Lab ID: WJ10B, Method: 8260C032213L.m, Instrument: nt3.i, Date: 08-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem3/nt3.i/04082013.b/wj10b.d

Date : 08-APR-2013 18:39

Client ID: SD-SP-012-20130326-

Instrument: nt3.i

Sample Info: WJ10B,10,10,0

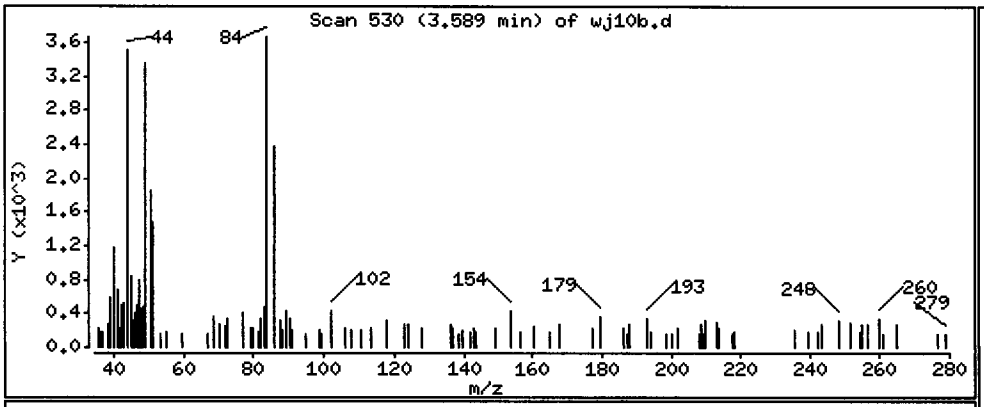
Operator: PB

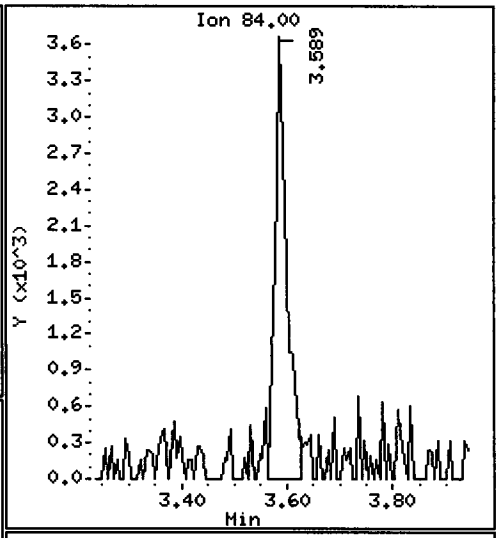
Column phase: RTXVMS

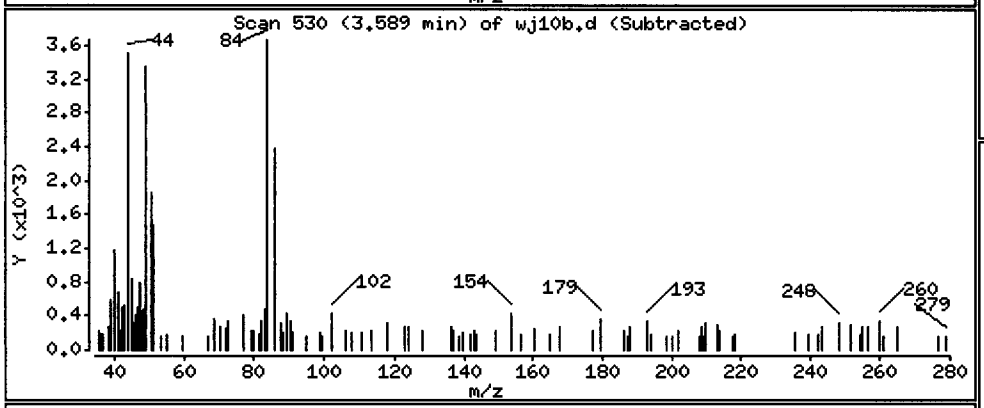
Column diameter: 0.18

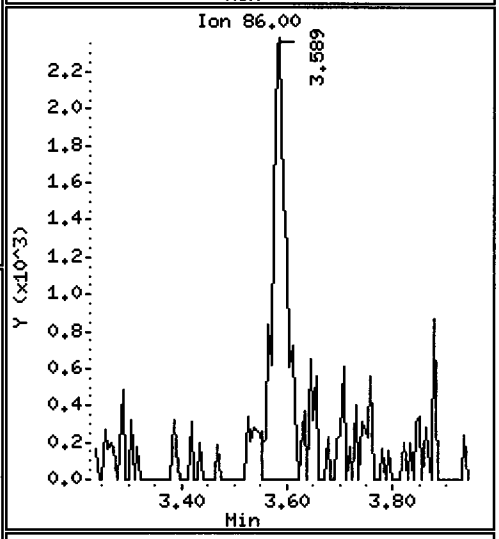
13 Methylene Chloride

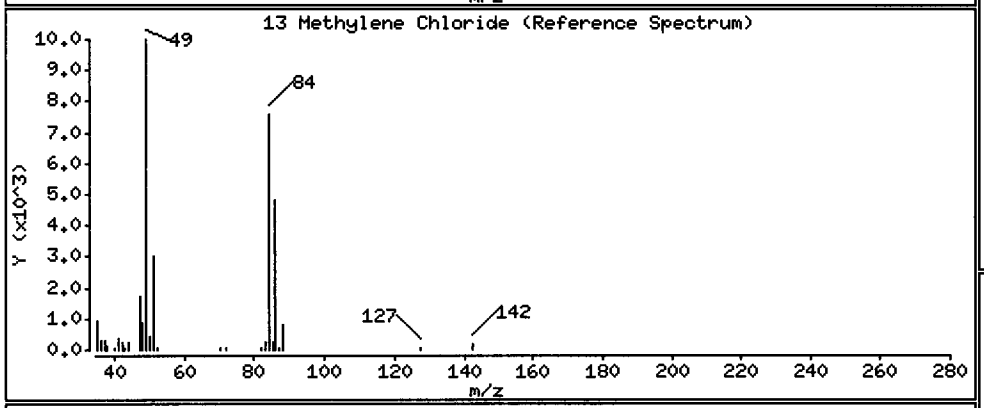
Concentration: 0.1988 ug/L

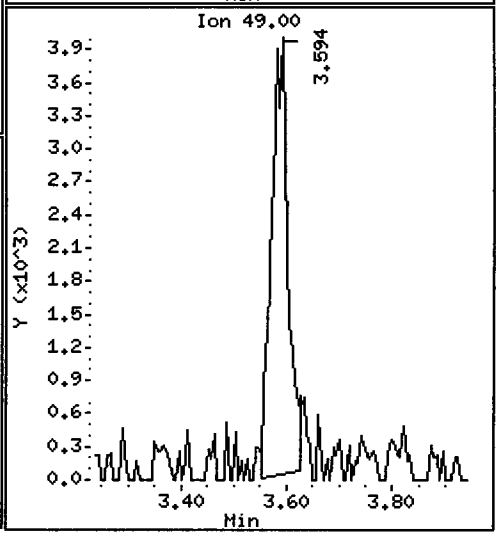


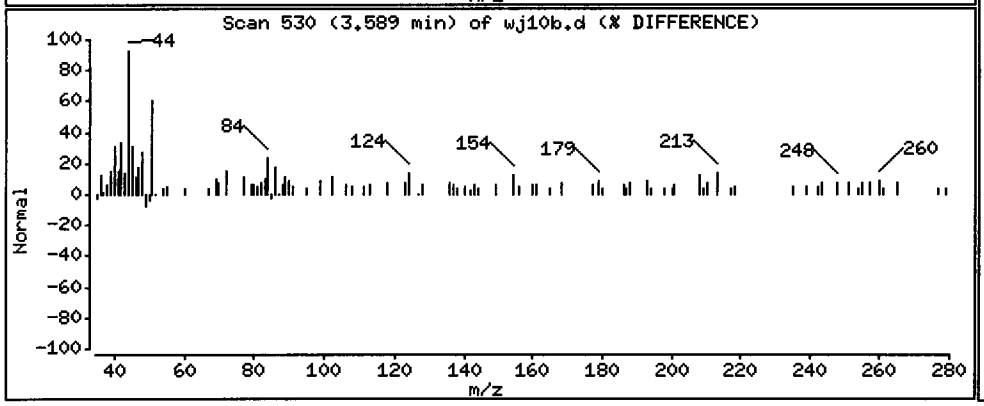












WJ10:00747

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-9 Serial No.:GC=US00021704, MS=US80230047

Date: 4/2/14 Analysis: 8260C Analyst: ID

GC Program: VOA Column No: 1032714 Column Type: RTX-VMS

Instrument Tune (.U or .CT.): DFTPP EM Voltage: 2087

Calibration File: bfb0402.d Curve Date: 4/1/14

IS/SS	Ical/Ccal	LCS/ICV
WJ774-L	WJ792-1	WJ792-1
	WJ792-2 4/4/14	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt9.i/02APR13.b

	Time	Filename	LabID	ClientID	Vial#	pH	DF								
1	0959	bfb0402.d	BFB0402	BFB0402			1								
2	1138	cc0402.d	CC0402	VSTD50			1	5.26	930628	5.65	1638473	7.70	1622570	9.39	855442
3	1214	lcs0402.d	LCS0402	LCS0402			1	5.26	991631	5.64	1760040	7.70	1789726	9.39	951779
4	1236	lcs0402a.d	LCS0402	LCS0402			1	5.26	1008519	5.65	1792823	7.70	1871112	9.39	1015033
5	1258	mb0402.d	MB0402	MB0402			1	5.26	922850	5.65	1691155	7.70	1679714	9.39	847557
6	1409	wj65a2.d	WJ65A	MW-4-030			1	5.26	880544	5.65	1618601	7.70	1617812	9.39	831887
7	1431	wj65b2.d	WJ65B	MW-4-050			1	5.26	862409	5.65	1651739	7.70	1722778	9.39	941596
8	1453	wj65c2.d	WJ65C	MW-4-070			1	5.26	955247	5.65	1782046	7.70	1845166	9.39	946073
9	1515	wj10d2.d	WJ10D	SD-CB-01-20130326-S			1	5.27	816110	5.65	1485966	7.70	1444995	9.39	706924
10	1538	wj47a2.d	WJ47A	#1			1	5.26	780256	5.65	1484346	7.70	1519398	9.39	811281
11	1600	wj62a2.d	WJ62A	PF-PA-8-0313			1	5.26	790347	5.65	1518917	7.70	1585691	9.39	824258
12	1738	wj80a0.d	WJ80A	GEI-12-5.0-7.0			1	5.26	758564	5.65	1457419	7.70	1487224	9.39	841896
13	1801	wj80b0.d	WJ80B	GEI-12-11.0-15.0			1	5.26	1066344	5.65	1963048	7.70	2062389	9.39	1112991
14	1823	wj80c0.d	WJ80C	GEI-12-15.0-17.0			1	5.26	1181640	5.64	2168674	7.70	2239039	9.39	1158547
15	1845	wj80e0.d	WJ80E	GEI-11-16.0-17.0			1	5.26	1255053	5.65	2351678	7.70	2431588	9.39	1259800
16	1907	wj80f0.d	WJ80F	GEI-11-21.5-22.5			1	5.26	1307061	5.64	2446850	7.70	2451828	9.39	1265488
17	1929	wj80g0.d	WJ80G	GEI-11-26.0-26.5			1	5.26	1330116	5.65	2472493	7.70	2519781	9.39	1283859
18	1951	wj80h0.d	WJ80H	GEI-10-2-3			1	5.26	1294783	5.65	2387426	7.71	2379077	9.39	1191094
19	2013	wj80i0.d	WJ80I	GEI-10-6.5-7.5			1	5.26	1321469	5.65	2468492	7.71	2449980	9.39	1254383
20	2036	wj80j0.d	WJ80J	DUP1-032813			1	5.26	1279997	5.65	2389085	7.70	2412029	9.39	1228891
21	2058	wj80k0.d	WJ80K	MW-33S-13-14			1	5.26	1247680	5.65	2326840	7.71	2334979	9.39	1167668
22	2120	wj80l0.d	WJ80L	MW36D-23-24			1	5.26	1258284	5.65	2350068	7.70	2369090	9.39	1209303
23	2142	wj80m0.d	WJ80M	DUP-2-032813			1	5.26	1257621	5.65	2360883	7.71	2456662	9.39	1274810
24	2204	wj80n0.d	WJ80N	MW33S-17-17.5			1	5.26	1322381	5.65	2498230	7.71	2548792	9.39	1355454
25	2226	wj80o0.d	WJ80O	MW36D-31-32			1	5.26	1306659	5.64	2464978	7.70	2518502	9.39	1289326
26	2249	wj80p0.d	WJ80P	MW-36S-14-15			1	5.26	1320389	5.65	2498685	7.71	2610364	9.39	1349054

Maintena

Maintenance Verification (Identify ical or ccal ...)

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

4/3/14

WJ10:00748

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt9.i/02APR13.b

ARI Job No.: BFB0 Method: bfb8260.m Instrument: nt9.i Date: 02-APR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0959	bfb0402.d	BFB0402	BFB0402	1	NO MANUAL INTEGRATION
1138	cc0402.d	CC0402	VSTD50	1	2-Chloroethyl Vinyl Ether,
1214	lcs0402.d	LCS0402	LCS0402	1	2-Chloroethyl Vinyl Ether,
1236	lcs0402a.d	LCS0402	LCS0402	1	2-Chloroethyl Vinyl Ether,
1258	mb0402.d	MB0402	MB0402	1	NO MANUAL INTEGRATION
1515	wj10d2.d	WJ10D	SD-CB-01-2	1	NO MANUAL INTEGRATION

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt9.i/02APR13.b

Instrument: nt9.i Date: 02-APR-2013 Method: VO121012S.m

INITIAL CAL: 01-APR-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 02-APR-2013

Compound	%D
2-Chloroethyl Vinyl Ether	-35.4
2-Hexanone	-20.3
1,1,2-Trichloroethane	-20.1
Hexachloro 1,3-Butadiene	-26.8

Data File: /chem1/nt9.i/02APR13.b/bfb0402.d

Date : 02-APR-2013 09:59

Client ID: BFB0402

Instrument: nt9.i

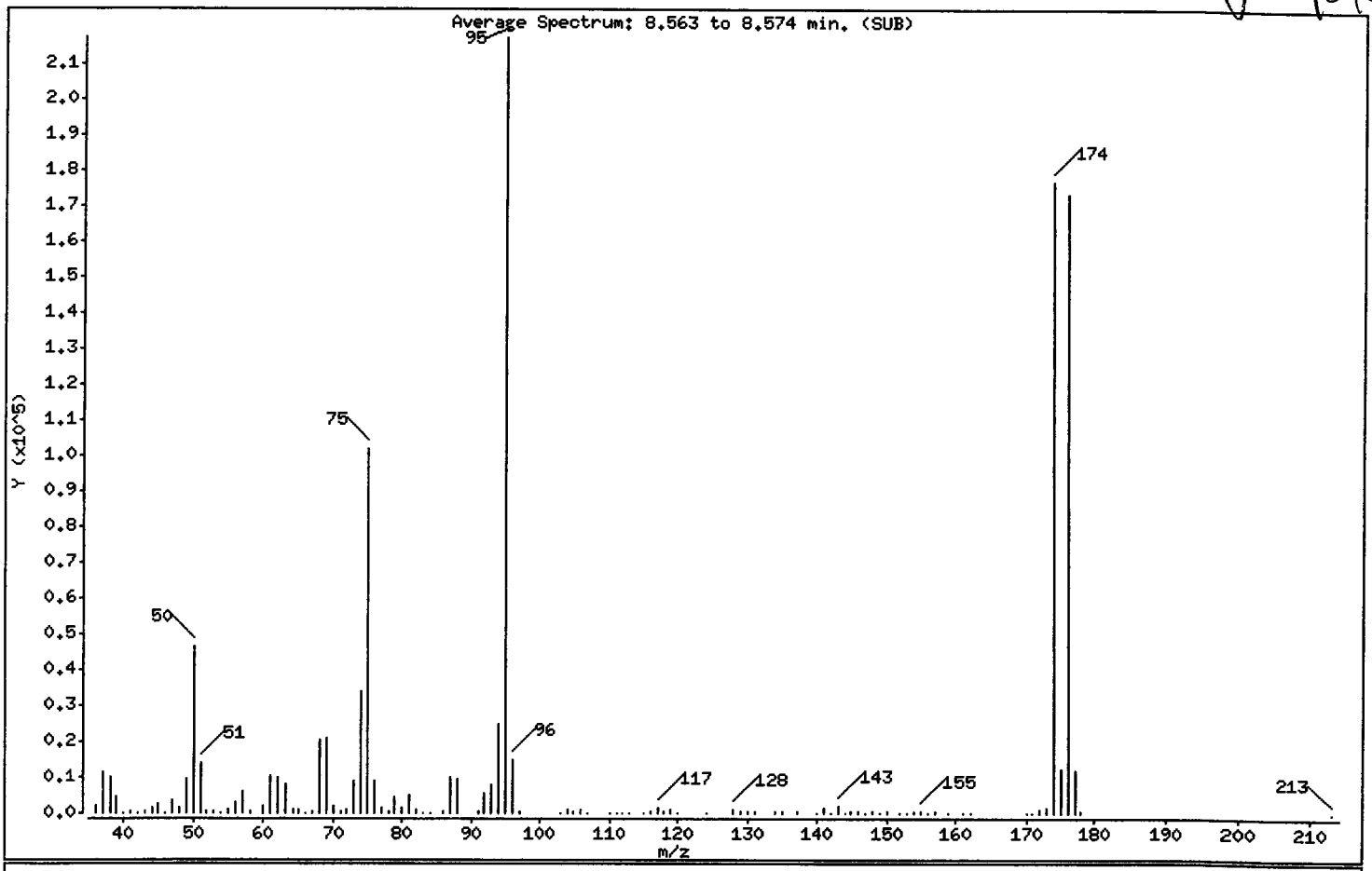
Sample Info: BFB0402,BFB0402,,1,02APR13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.33
75	30.00 - 66.00% of mass 95	46.95
96	5.00 - 9.00% of mass 95	6.89
173	Less than 2.00% of mass 174	0.66 (0.81)
174	50.00 - 101.00% of mass 95	81.45
175	4.00 - 9.00% of mass 174	5.76 (7.07)
176	95.00 - 101.00% of mass 174	79.71 (97.86)
177	5.00 - 9.00% of mass 176	5.50 (6.90)

Data File: /chem1/nt9.i/02APR13.b/bfb0402.d

Date : 02-APR-2013 09:59

Client ID: BFB0402

Instrument: nt9.i

Sample Info: BFB0402,BFB0402,,1,02APR13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

Data File: bfb0402.d

Spectrum: Average Spectrum: 8.563 to 8.574 min. (SUB)

Location of Maximum: 95.00

Number of points: 111

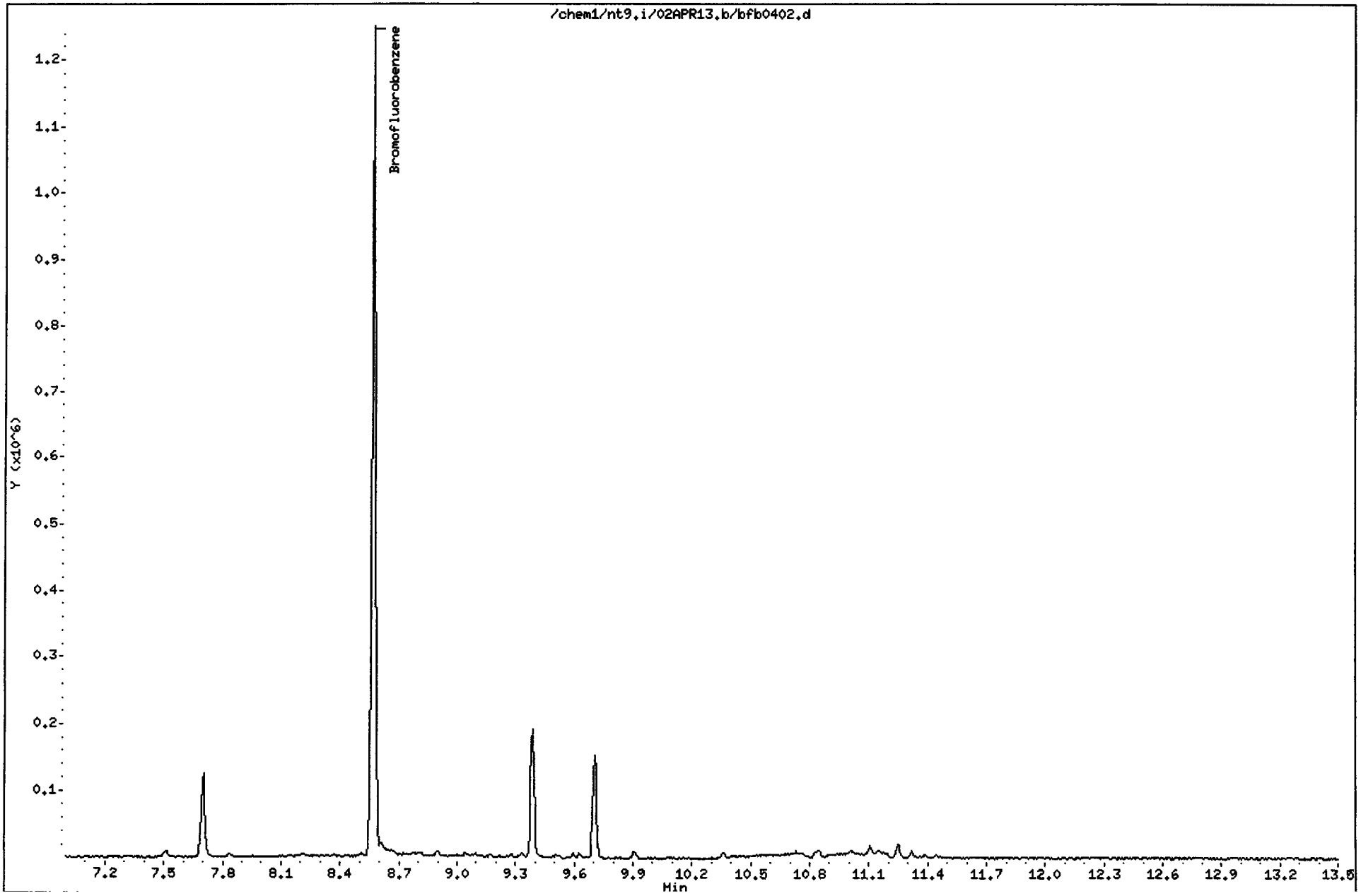
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1931	65.00	763	96.00	14989	143.00	1981
37.00	11680	66.00	123	97.00	546	144.00	72
38.00	10184	67.00	565	103.00	186	145.00	282
39.00	4586	68.00	20320	104.00	795	146.00	386
40.00	215	69.00	20944	105.00	543	147.00	103
41.00	284	70.00	1987	106.00	765	148.00	732
42.00	217	71.00	253	107.00	219	149.00	151
43.00	528	72.00	1072	110.00	74	150.00	473
44.00	1721	73.00	9205	111.00	110	152.00	200
45.00	2331	74.00	34096	112.00	139	153.00	68
46.00	145	75.00	102192	113.00	193	154.00	289
47.00	3383	76.00	9051	115.00	115	155.00	596
48.00	1315	77.00	1514	116.00	740	156.00	75
49.00	9686	78.00	682	117.00	1314	157.00	320
50.00	46432	79.00	4468	118.00	713	159.00	224
51.00	13892	80.00	1671	119.00	948	161.00	102
52.00	714	81.00	4769	120.00	55	162.00	54
53.00	260	82.00	1083	124.00	107	170.00	72
54.00	53	83.00	81	128.00	845	171.00	83
55.00	927	84.00	56	129.00	362	172.00	925
56.00	2819	86.00	390	130.00	697	173.00	1437
57.00	6223	87.00	9897	131.00	271	174.00	177280
58.00	308	88.00	9616	134.00	273	175.00	12528
60.00	1793	91.00	633	135.00	338	176.00	173504
61.00	10452	92.00	5551	137.00	255	177.00	11970
62.00	10081	93.00	7881	140.00	212	178.00	316
63.00	7994	94.00	24984	141.00	1389	213.00	54
64.00	817	95.00	217664	142.00	198		

Data File: /chem1/nt9.i/02APR13.b/bfb0402.d
Date : 02-APR-2013 09:59
Client ID: BFB0402
Sample Info: BFB0402,BFB0402,,1,02APR13,,

Instrument: nt9.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/02APR13.b/cc0402.d
Lab Smp Id: CC0402 Client Smp ID: VSTD50
Inj Date : 02-APR-2013 11:38
Operator : PB Inst ID: nt9.i
Smp Info : CC0402,5,5,0
Misc Info : 12-
Comment :
Method : /chem1/nt9.i/02APR13.b/VO121012S.m
Meth Date : 02-Apr-2013 11:55 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 18:55 Cal File: 2000401.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.371	1.371	(0.261)	440985	50.0000	59.636
2 Chloromethane	50	1.535	1.535	(0.292)	711853	50.0000	56.700
3 Vinyl Chloride	62	1.609	1.609	(0.306)	661235	50.0000	56.385
4 Bromomethane	94	1.892	1.892	(0.360)	342251	50.0000	55.428
5 Chloroethane	64	1.999	1.999	(0.380)	211458	50.0000	52.275
6 Trichlorofluoromethane	101	2.112	2.112	(0.402)	406749	50.0000	57.917
7 1,1-Dichloroethene	96	2.615	2.615	(0.498)	422984	50.0000	54.411
8 Carbon Disulfide	76	2.621	2.621	(0.499)	1509549	50.0000	56.616
9 112Trichloro122Trifluoroethane	101	2.672	2.672	(0.508)	425296	50.0000	53.669
10 Iodomethane	142	2.757	2.757	(0.524)	206678	50.0000	40.126
11 Bromoethane	108	2.893	2.893	(0.550)	282572	50.0000	52.162
12 Acrolein	56	3.017	3.017	(0.574)	372069	250.000	225.20
13 Methylene Chloride	84	3.260	3.260	(0.620)	413174	50.0000	43.810
14 Acetone	43	3.362	3.362	(0.640)	517940	250.000	211.89

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.413	3.413	(0.649)	442258	50.0000	48.375
	16 Methyl tert butyl ether	73	3.588	3.588	(0.683)	909357	50.0000	41.049
	17 1,1-Dichloroethane	63	4.012	4.012	(0.763)	791848	50.0000	46.830
	18 Acrylonitrile	53	4.091	4.091	(0.778)	132941	50.0000	42.118
	19 Vinyl Acetate	43	4.289	4.289	(0.816)	793460	50.0000	44.318
	20 Cis-1,2-Dichloroethene	96	4.487	4.487	(0.854)	478443	50.0000	52.281
	22 2,2-Dichloropropane	77	4.572	4.572	(0.870)	635621	50.0000	49.787
	23 Bromochloromethane	128	4.651	4.651	(0.885)	187255	50.0000	42.720
	24 Chloroform	83	4.725	4.725	(0.899)	705705	50.0000	44.758
	25 Carbon Tetrachloride	117	4.809	4.809	(0.852)	518680	50.0000	49.691
$	27 Dibromofluoromethane	111	4.872	4.872	(0.927)	429228	50.0000	50.574
	26 1,1,1-Trichloroethane	97	4.872	4.872	(0.927)	631077	50.0000	48.202
	28 1,1-Dichloropropene	75	4.968	4.968	(0.880)	634531	50.0000	50.681
	29 2-Butanone	72	5.007	5.007	(0.953)	211245	250.000	227.33
	30 Benzene	78	5.166	5.166	(0.915)	1941588	50.0000	45.196
*	31 Pentafluorobenzene	168	5.256	5.256	(1.000)	930628	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.279	5.279	(1.004)	461424	50.0000	51.235
	33 1,2-Dichloroethane	62	5.330	5.330	(0.944)	463112	50.0000	40.803
	34 Trichloroethene	95	5.607	5.607	(0.993)	447097	50.0000	46.351
*	35 1,4-Difluorobenzene	114	5.646	5.646	(1.000)	1638473	50.0000	
	37 Dibromomethane	93	5.918	5.918	(1.048)	199526	50.0000	40.735
	38 1,2-Dichloropropane	63	5.991	5.991	(1.061)	455730	50.0000	42.801
	39 Bromodichloromethane	83	6.042	6.042	(1.070)	504262	50.0000	42.099
	40 2-Chloroethyl Vinyl Ether	63	6.455	6.455	(1.143)	29126	50.0000	32.306(M)
	41 Cis 1,3-dichloropropene	75	6.489	6.489	(1.149)	659412	50.0000	46.231
$	42 d8-Toluene	98	6.619	6.619	(1.172)	2071487	50.0000	49.280
	43 Toluene	92	6.653	6.653	(1.178)	1201156	50.0000	44.719
	44 Tetrachloroethene	166	6.919	6.919	(0.898)	480616	50.0000	50.040
	45 4-Methyl-2-Pentanone	58	6.936	6.936	(1.228)	789813	250.000	232.31
	46 Trans 1,3-Dichloropropene	75	6.947	6.947	(1.230)	576717	50.0000	43.983
	47 1,1,2-Trichloroethane	97	7.060	7.060	(1.250)	315966	50.0000	39.945
	48 Chlorodibromomethane	129	7.179	7.179	(0.932)	333500	50.0000	42.678
	49 1,3-Dichloropropane	76	7.247	7.247	(0.941)	593451	50.0000	43.511
	50 1,2-Dibromoethane	107	7.343	7.343	(1.300)	308545	50.0000	41.513
	51 2-Hexanone	43	7.512	7.512	(0.975)	1433942	250.000	199.14
*	52 d5-Chlorobenzene	117	7.705	7.705	(1.000)	1622570	50.0000	
	53 Chlorobenzene	112	7.716	7.716	(1.001)	1255069	50.0000	44.697
	54 Ethyl Benzene	91	7.733	7.733	(1.004)	2375333	50.0000	48.431
	55 1,1,1,2-Tetrachloroethane	131	7.761	7.761	(1.007)	377047	50.0000	43.946
	56 m,p-xylene	106	7.840	7.840	(1.018)	1843571	100.000	104.09
	57 o-Xylene	106	8.146	8.146	(1.057)	837822	50.0000	50.428
	58 Styrene	104	8.180	8.180	(1.062)	1411317	50.0000	43.084
	59 Bromoform	173	8.197	8.197	(0.873)	227794	50.0000	43.957
	60 Isopropyl Benzene	105	8.366	8.366	(0.891)	2292065	50.0000	43.618
$	62 4-Bromofluorobenzene	95	8.570	8.570	(1.112)	772313	50.0000	48.381
	63 Bromobenzene	156	8.643	8.643	(0.920)	487328	50.0000	43.789
	64 N-Propyl Benzene	91	8.666	8.666	(0.923)	2757363	50.0000	51.499

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.717	8.717	(0.928)	415980	50.0000	43.364
66	2-Chloro Toluene	91	8.779	8.779	(0.935)	1573595	50.0000	48.912
67	1,3,5-Trimethyl Benzene	105	8.813	8.813	(0.939)	1853035	50.0000	51.554
68	1,2,3-Trichloropropane	110	8.819	8.819	(0.939)	131037	50.0000	44.721
69	Trans-1,4-Dichloro 2-Butene	53	8.847	8.847	(0.942)	140921	50.0000	47.544
70	4-Chloro Toluene	91	8.898	8.898	(0.948)	1611859	50.0000	49.689
71	T-Butyl Benzene	119	9.045	9.045	(0.963)	1539723	50.0000	42.823
72	1,2,4-Trimethylbenzene	105	9.096	9.096	(0.969)	1808171	50.0000	51.004
73	S-Butyl Benzene	105	9.175	9.175	(0.977)	2506716	50.0000	50.599
74	4-Isopropyl Toluene	119	9.282	9.282	(0.989)	1899650	50.0000	42.786
75	1,3-Dichlorobenzene	146	9.333	9.333	(0.994)	987074	50.0000	46.562
* 76	d4-1,4-Dichlorobenzene	152	9.390	9.390	(1.000)	855442	50.0000	
77	1,4-Dichlorobenzene	146	9.401	9.401	(1.001)	1003297	50.0000	45.460
78	N-Butyl Benzene	91	9.593	9.593	(1.022)	1873312	50.0000	52.230
$ 79	d4-1,2-Dichlorobenzene	152	9.706	9.706	(1.034)	755201	50.0000	50.269
80	1,2-Dichlorobenzene	146	9.712	9.712	(1.034)	903912	50.0000	43.882
81	1,2-Dibromo 3-Chloropropane	75	10.323	10.323	(1.099)	67412	50.0000	45.299
82	Hexachloro 1,3-Butadiene	225	10.826	10.826	(1.153)	279629	50.0000	36.611
83	1,2,4-Trichlorobenzene	180	10.849	10.849	(1.155)	573544	50.0000	47.070
84	Naphthalene	128	11.109	11.109	(1.183)	1261628	50.0000	48.288
85	1,2,3-Trichlorobenzene	180	11.250	11.250	(1.198)	524904	50.0000	43.984

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: cc0402.d
Lab Smp Id: CC0402
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/02APR13.b/VO121012S.m
Misc Info: 12-

Calibration Date: 02-APR-2013
Calibration Time: 11:04
Client Smp ID: VSTD50
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	930628	-1.15
35 1,4-Difluorobenze	1617500	808750	3235000	1638473	1.30
52 d5-Chlorobenzene	1675930	837965	3351860	1622570	-3.18
76 d4-1,4-Dichlorobe	909458	454729	1818916	855442	-5.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	-0.16
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	-0.05
52 d5-Chlorobenzene	7.71	7.21	8.21	7.70	-0.03
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt9.i Injection Date: 02-APR-2013 11:38
Lab File ID: cc0402.d Init. Cal. Date(s): 01-APR-2013 01-APR-2013
Analysis Type: SOIL Init. Cal. Times: 18:55 21:30
Lab Sample ID: CC0402 Quant Type: ISTD
Method: /chem1/nt9.i/02APR13.b/VO121012S.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Dichlorodifluoromethane	0.39729	0.47386	0.47386	0.100	19.27200	20.00000	Averaged
2 Chloromethane	56.70032	50.00000	0.76492	0.100	13.40065	20.00000	Linear
3 Vinyl Chloride	0.63007	0.71053	0.71053	0.100	12.76904	20.00000	Averaged
4 Bromomethane	55.42841	50.00000	0.36776	0.100	10.85682	20.00000	Linear
5 Chloroethane	0.21733	0.22722	0.22722	0.080	4.54985	20.00000	Averaged
6 Trichlorofluoromethane	57.91680	50.00000	0.43707	0.100	15.83359	20.00000	Linear
7 1,1-Dichloroethene	0.41767	0.45451	0.45451	0.100	8.82242	20.00000	Averaged
8 Carbon Disulfide	1.43251	1.62208	1.62208	0.010	13.23277	20.00000	Averaged
9 112Trichloro122Trifluoroeth	0.42576	0.45700	0.45700	0.010	7.33819	20.00000	Averaged
10 Iodomethane	0.27673	0.22208	0.22208	0.010	-19.74719	20.00000	Averaged
11 Bromoethane	0.29105	0.30364	0.30364	0.100	4.32303	20.00000	Averaged
12 Acrolein	0.08876	0.07996	0.07996	0.000	-9.91812	20.00000	Averaged
13 Methylene Chloride	0.50670	0.44397	0.44397	0.010	-12.38011	20.00000	Averaged
14 Acetone	0.13133	0.11131	0.11131	0.001	-15.24433	20.00000	Averaged
15 Trans-1,2-Dichloroethene	0.49119	0.47523	0.47523	0.010	-3.24992	20.00000	Averaged
16 Methyl tert butyl ether	1.19021	0.97714	0.97714	0.100	-17.90190	20.00000	Averaged
17 1,1-Dichloroethane	0.90848	0.85087	0.85087	0.100	-6.34075	20.00000	Averaged
18 Acrylonitrile	0.16958	0.14285	0.14285	0.001	-15.76429	20.00000	Averaged
19 Vinyl Acetate	0.96191	0.85261	0.85261	0.010	-11.36336	20.00000	Averaged
20 Cis-1,2-Dichloroethene	0.49168	0.51411	0.51411	0.010	4.56192	20.00000	Averaged
22 2,2-Dichloropropane	0.68592	0.68300	0.68300	0.010	-0.42597	20.00000	Averaged
23 Bromochloromethane	0.23550	0.20121	0.20121	0.050	-14.56057	20.00000	Averaged
24 Chloroform	0.84712	0.75831	0.75831	0.100	-10.48329	20.00000	Averaged
25 Carbon Tetrachloride	0.31853	0.31656	0.31656	0.100	-0.61715	20.00000	Averaged
$ 27 Dibromofluoromethane	0.45599	0.46122	0.46122	0.100	1.14816	20.00000	Averaged
26 1,1,1-Trichloroethane	0.70342	0.67812	0.67812	0.100	-3.59678	20.00000	Averaged
28 1,1-Dichloropropene	0.38206	0.38727	0.38727	0.010	1.36291	20.00000	Averaged
29 2-Butanone	0.04992	0.04540	0.04540	0.001	-9.06642	20.00000	Averaged
30 Benzene	1.31095	1.18500	1.18500	0.100	-9.60742	20.00000	Averaged
$ 32 d4-1,2-Dichloroethane	0.48387	0.49582	0.49582	0.010	2.47061	20.00000	Averaged
33 1,2-Dichloroethane	0.34636	0.28265	0.28265	0.100	-18.39494	20.00000	Averaged
34 Trichloroethene	0.29435	0.27287	0.27287	0.100	-7.29751	20.00000	Averaged
37 Dibromomethane	0.14947	0.12178	0.12178	0.010	-18.53084	20.00000	Averaged
38 1,2-Dichloropropane	0.32492	0.27814	0.27814	0.100	-14.39747	20.00000	Averaged
39 Bromodichloromethane	0.36552	0.30776	0.30776	0.100	-15.80182	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt9.i
Lab File ID: cc0402.d
Analysis Type: SOIL
Lab Sample ID: CC0402
Method: /chem1/nt9.i/02APR13.b/VO121012S.m

Injection Date: 02-APR-2013 11:38
Init. Cal. Date(s): 01-APR-2013 01-APR-2013
Init. Cal. Times: 18:55 21:30
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
40 2-Chloroethyl Vinyl Ether	32.30561	50.00000	0.01778	0.000	-35.38878	20.00000	Linear	<-
41 Cis 1,3-dichloropropene	0.43527	0.40246	0.40246	0.100	-7.53849	20.00000	Averaged	
$ 42 d8-Toluene	1.28276	1.26428	1.26428	0.010	-1.44058	20.00000	Averaged	
43 Toluene	0.81966	0.73309	0.73309	0.100	-10.56104	20.00000	Averaged	
44 Tetrachloroethene	0.29597	0.29621	0.29621	0.100	0.07952	20.00000	Averaged	
45 4-Methyl-2-Pentanone	0.10375	0.09641	0.09641	0.000	-7.07476	20.00000	Averaged	
46 Trans 1,3-Dichloropropene	0.40014	0.35198	0.35198	0.010	-12.03438	20.00000	Averaged	
47 1,1,2-Trichloroethane	0.24138	0.19284	0.19284	0.100	-20.10952	20.00000	Averaged	<-
48 Chlorodibromomethane	0.24080	0.20554	0.20554	0.100	-14.64454	20.00000	Averaged	
49 1,3-Dichloropropane	0.42029	0.36575	0.36575	0.100	-12.97824	20.00000	Averaged	
50 1,2-Dibromoethane	0.22681	0.18831	0.18831	0.010	-16.97352	20.00000	Averaged	
51 2-Hexanone	199	250	0.17675	0.010	-20.34495	20.00000	Linear	<-
53 Chlorobenzene	0.86529	0.77351	0.77351	0.300	-10.60682	20.00000	Averaged	
54 Ethyl Benzene	1.51137	1.46393	1.46393	0.100	-3.13880	20.00000	Averaged	
55 1,1,1,2-Tetrachloroethane	0.26439	0.23238	0.23238	0.010	-12.10751	20.00000	Averaged	
56 m,p-xylene	0.54576	0.56810	0.56810	0.100	4.09324	20.00000	Averaged	
57 o-Xylene	0.51197	0.51635	0.51635	0.100	0.85579	20.00000	Averaged	
58 Styrene	43.08419	50.00000	0.86980	0.100	-13.83161	20.00000	Linear	
59 Bromoform	0.30290	0.26629	0.26629	0.100	-12.08591	20.00000	Averaged	
60 Isopropyl Benzene	43.61783	50.00000	2.67939	0.010	-12.76433	20.00000	Linear	
$ 62 4-Bromofluorobenzene	0.49191	0.47598	0.47598	0.200	-3.23765	20.00000	Averaged	
63 Bromobenzene	0.65049	0.56968	0.56968	0.010	-12.42281	20.00000	Averaged	
64 N-Propyl Benzene	3.12951	3.22332	3.22332	0.010	2.99746	20.00000	Averaged	
65 1,1,2,2-Tetrachloroethane	0.56068	0.48627	0.48627	0.300	-13.27119	20.00000	Averaged	
66 2-Chloro Toluene	1.88045	1.83951	1.83951	0.010	-2.17690	20.00000	Averaged	
67 1,3,5-Trimethyl Benzene	2.10089	2.16617	2.16617	0.010	3.10745	20.00000	Averaged	
68 1,2,3-Trichloropropane	0.17126	0.15318	0.15318	0.010	-10.55717	20.00000	Averaged	
69 Trans-1,4-Dichloro 2-Butene	0.17324	0.16473	0.16473	0.001	-4.91104	20.00000	Averaged	
70 4-Chloro Toluene	1.89602	1.88424	1.88424	0.010	-0.62123	20.00000	Averaged	
71 T-Butyl Benzene	42.82301	50.00000	1.79992	0.010	-14.35398	20.00000	Linear	
72 1,2,4-Trimethylbenzene	2.07214	2.11373	2.11373	0.010	2.00719	20.00000	Averaged	
73 S-Butyl Benzene	2.89563	2.93032	2.93032	0.010	1.19793	20.00000	Averaged	
74 4-Isopropyl Toluene	42.78612	50.00000	2.22066	0.010	-14.42776	20.00000	Linear	
75 1,3-Dichlorobenzene	1.23908	1.15388	1.15388	0.100	-6.87657	20.00000	Averaged	
77 1,4-Dichlorobenzene	1.28996	1.17284	1.17284	0.100	-9.07909	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt9.i Injection Date: 02-APR-2013 11:38
Lab File ID: cc0402.d Init. Cal. Date(s): 01-APR-2013 01-APR-2013
Analysis Type: SOIL Init. Cal. Times: 18:55 21:30
Lab Sample ID: CC0402 Quant Type: ISTD
Method: /chem1/nt9.i/02APR13.b/VO121012S.m

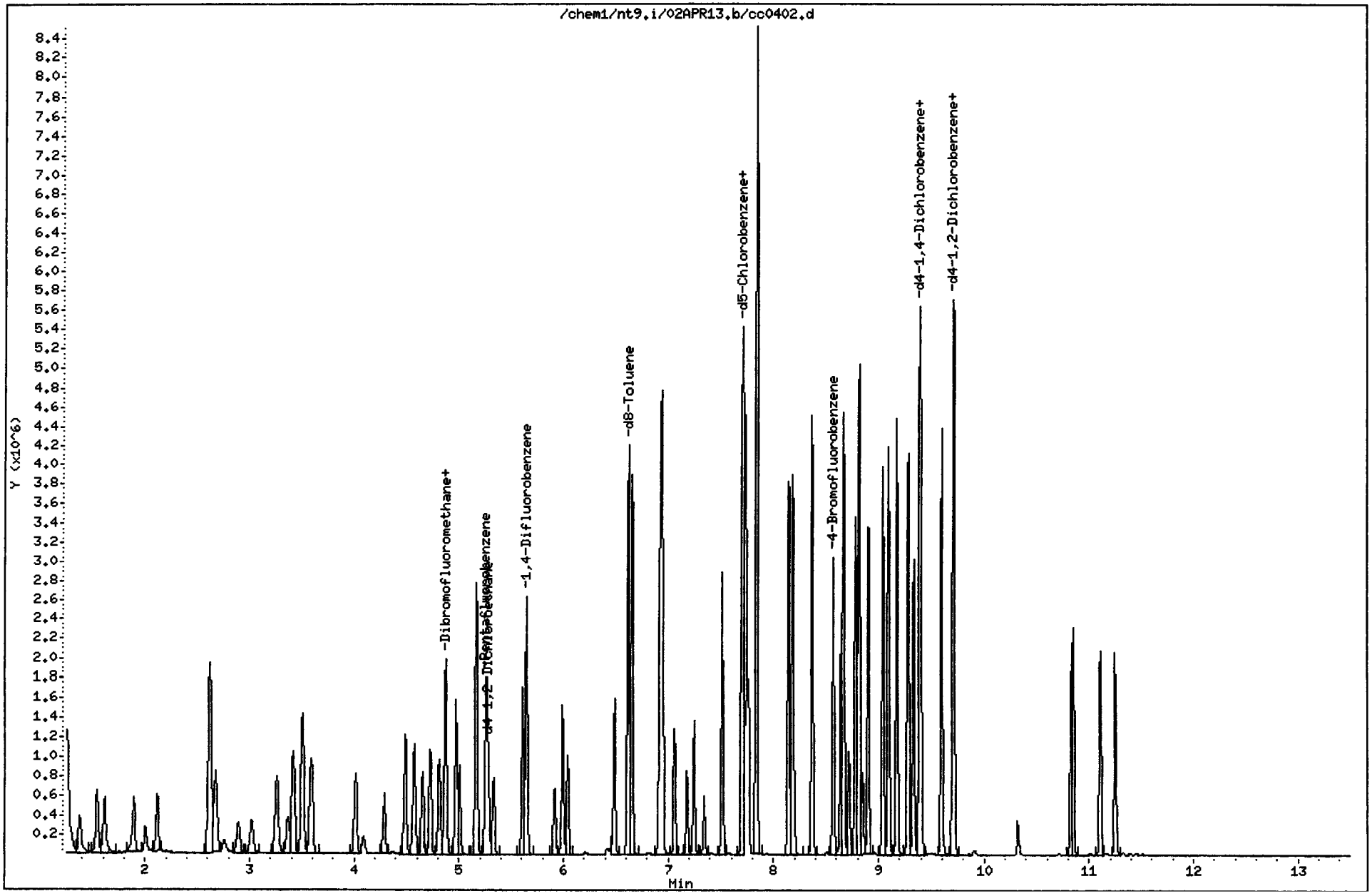
COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
78 N-Butyl Benzene	2.09638	2.18988	2.18988	0.010	4.45977	20.00000	Averaged	
$ 79 d4-1,2-Dichlorobenzene	0.87810	0.88282	0.88282	0.010	0.53794	20.00000	Averaged	
80 1,2-Dichlorobenzene	1.20397	1.05666	1.05666	0.100	-12.23565	20.00000	Averaged	
81 1,2-Dibromo 3-Chloropropane	0.08698	0.07880	0.07880	0.010	-9.40195	20.00000	Averaged	
82 Hexachloro 1,3-Butadiene	0.44643	0.32688	0.32688	0.010	-26.77895	20.00000	Averaged	<-
83 1,2,4-Trichlorobenzene	0.71220	0.67047	0.67047	0.010	-5.86048	20.00000	Averaged	
84 Naphthalene	1.52712	1.47483	1.47483	0.010	-3.42410	20.00000	Averaged	
85 1,2,3-Trichlorobenzene	0.69753	0.61361	0.61361	0.010	-12.03212	20.00000	Averaged	

Data File: /chem1/nt9.i/02APR13.b/cc0402.d
Date : 02-APR-2013 11:38
Client ID: VSTD50
Sample Info: CC0402,5,5,0

Column phase: RTXVMS

Instrument: nt9.i

Operator: PB
Column diameter: 0.18



Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/02APR13.b/wj10d2.d
Lab Smp Id: WJ10D Client Smp ID: SD-CB-01-20130326-S
Inj Date : 02-APR-2013 15:15
Operator : PB Inst ID: nt9.i
Smp Info : WJ10D,5,9.564,1,5UL
Misc Info : 13-6438
Comment :
Method : /chem1/nt9.i/02APR13.b/VO121012S.m
Meth Date : 02-Apr-2013 15:23 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 18:55 Cal File: 2000401.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Uf * 1/(Ws * (100 - M)/100) * CpndVariable

M	0.00000	% Moisture (not decanted)
Uf	1.00000	ng unit correction factor
Ws	5.00000	Weight of sample extracted (g)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	1.918	1.892	(0.364)	5474	1.01093	0.2022
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	2.138	2.112	(0.406)	4198	0.68163	0.1363(Q)
7 1,1-Dichloroethene	96	Compound Not Detected.					
8 Carbon Disulfide	76	Compound Not Detected.					
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10 Iodomethane	142	2.811	2.757	(0.534)	3386	0.74984	0.1499(Q)
11 Bromoethane	108	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
14 Acetone	43	3.359	3.362	(0.638)	7984	3.72458	0.7449
15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
16 Methyl tert butyl ether	73	Compound Not Detected.					
17 1,1-Dichloroethane	63	Compound Not Detected.					
18 Acrylonitrile	53	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	19 Vinyl Acetate	43	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
	22 2,2-Dichloropropane	77	Compound Not Detected.					
	23 Bromochloromethane	128	Compound Not Detected.					
	24 Chloroform	83	Compound Not Detected.					
	25 Carbon Tetrachloride	117	Compound Not Detected.					
$	27 Dibromofluoromethane	111	4.875	4.872	(0.926)	406719	54.6464	10.929
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	29 2-Butanone	72	Compound Not Detected.					
	30 Benzene	78	Compound Not Detected.					
*	31 Pentafluorobenzene	168	5.265	5.256	(1.000)	816110	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.282	5.279	(1.003)	455308	57.6503	11.530
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	34 Trichloroethene	95	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.650	5.646	(1.000)	1485966	50.0000	
	37 Dibromomethane	93	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.622	6.619	(1.172)	1868386	49.0098	9.802
	43 Toluene	92	6.656	6.653	(1.178)	106089	4.35510	0.8710
	44 Tetrachloroethene	166	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
	51 2-Hexanone	43	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	7.702	7.705	(1.000)	1444995	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Bromoform	173	Compound Not Detected.					
	60 Isopropyl Benzene	105	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	8.567	8.570	(1.112)	665540	46.8160	9.363
	63 Bromobenzene	156	Compound Not Detected.					
	64 N-Propyl Benzene	91	Compound Not Detected.					
	65 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	66 2-Chloro Toluene	91	Compound Not Detected.					
	67 1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
	68 1,2,3-Trichloropropane	110	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	69 Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
	70 4-Chloro Toluene	91	Compound Not Detected.					
	71 T-Butyl Benzene	119	Compound Not Detected.					
	72 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
	73 S-Butyl Benzene	105	Compound Not Detected.					
	74 4-Isopropyl Toluene	119	Compound Not Detected.					
	75 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	76 d4-1,4-Dichlorobenzene	152	9.387	9.390	(1.000)	706924	50.0000	
	77 1,4-Dichlorobenzene	146	Compound Not Detected.					
	78 N-Butyl Benzene	91	Compound Not Detected.					
$	79 d4-1,2-Dichlorobenzene	152	9.710	9.706	(1.034)	655446	52.7949	10.559
	80 1,2-Dichlorobenzene	146	Compound Not Detected.					
	81 1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
	82 Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
	83 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	84 Naphthalene	128	11.106	11.109	(1.183)	12221	0.56602	0.1132
	85 1,2,3-Trichlorobenzene	180	Compound Not Detected.					

J B CRL N.R
4/11/13

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: wj10d2.d
Lab Smp Id: WJ10D
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/02APR13.b/VO121012S.m
Misc Info: 13-6438

Calibration Date: 02-APR-2013
Calibration Time: 11:38
Client Smp ID: SD-CB-01-20130326-S
Level: MED
Sample Type: Solids

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	816110	-13.32
35 1,4-Difluorobenze	1617500	808750	3235000	1485966	-8.13
52 d5-Chlorobenzene	1675930	837965	3351860	1444995	-13.78
76 d4-1,4-Dichlorobe	909458	454729	1818916	706924	-22.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.27	0.17
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	0.06
52 d5-Chlorobenzene	7.70	7.20	8.20	7.70	-0.03
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: VOA
Lab Smp Id: WJ10D
Client Smp ID: SD-CB-01-20130326-S
Level: MED
Operator: PB
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/nt9.i/02APR13.b/VO121012S.m
Misc Info: 13-6438

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	54.646	109.29	30-160
$ 32 d4-1,2-Dichloroeth	50.000	57.650	115.30	75-152
$ 42 d8-Toluene	50.000	49.010	98.02	82-115
$ 62 4-Bromofluorobenze	50.000	46.816	93.63	64-120
$ 79 d4-1,2-Dichloroben	50.000	52.795	105.59	80-120

Data File: /chem1/nt9.i/02APR13.b/wj10d2.d

Date : 02-APR-2013 15:15

Client ID: SD-CB-01-20130326-S

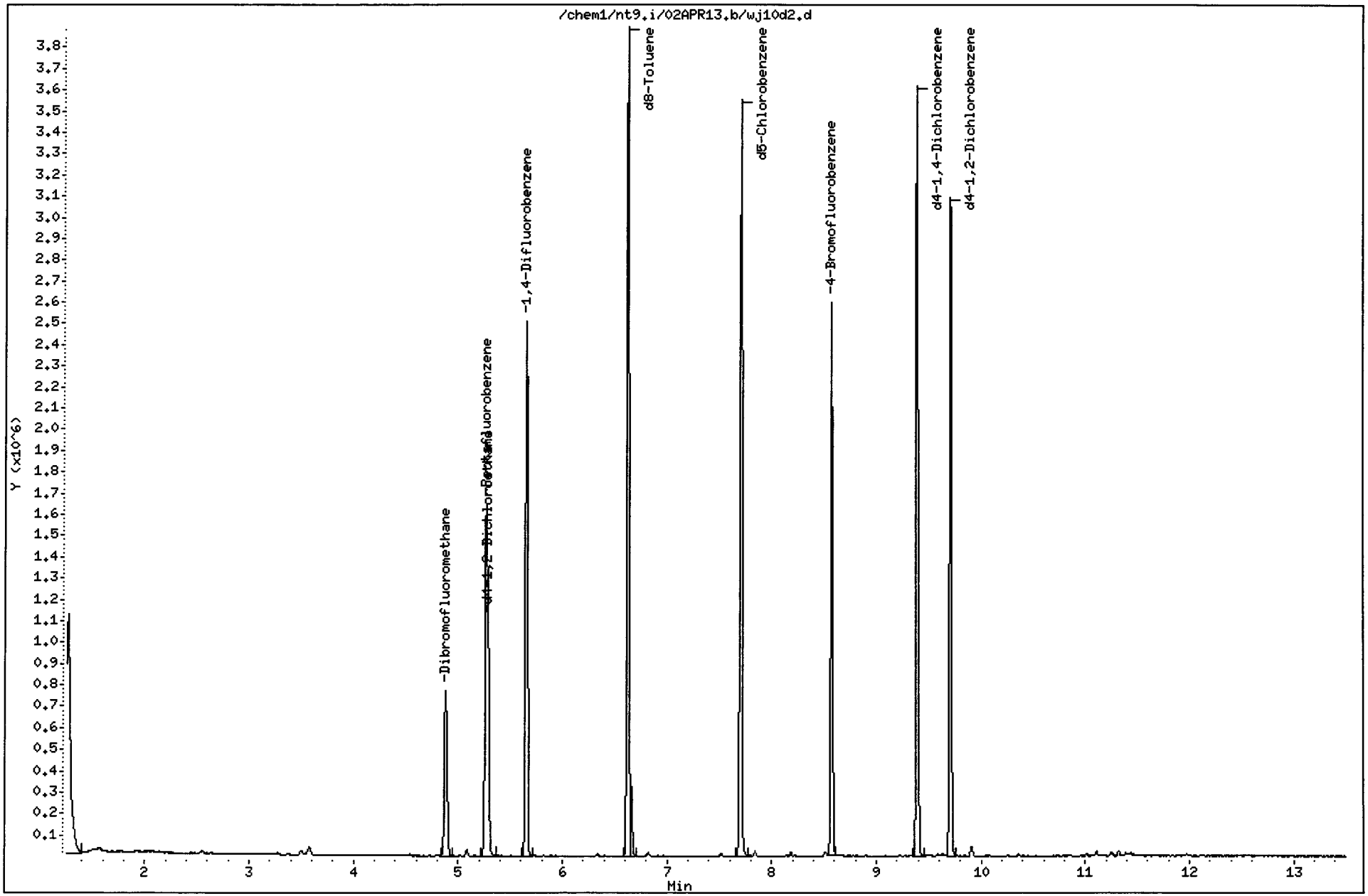
Sample Info: WJ10D,5,9.564,1,5UL

Column phase: RTXVMS

Instrument: nt9.i

Operator: PB

Column diameter: 0.18



Data File: /chem1/nt9.i/02APR13.b/wj10d2.d

Date : 02-APR-2013 15:15

Client ID: SD-CB-01-20130326-S

Instrument: nt9.i

Sample Info: WJ10D,5,9.564,1,5UL

Operator: PB

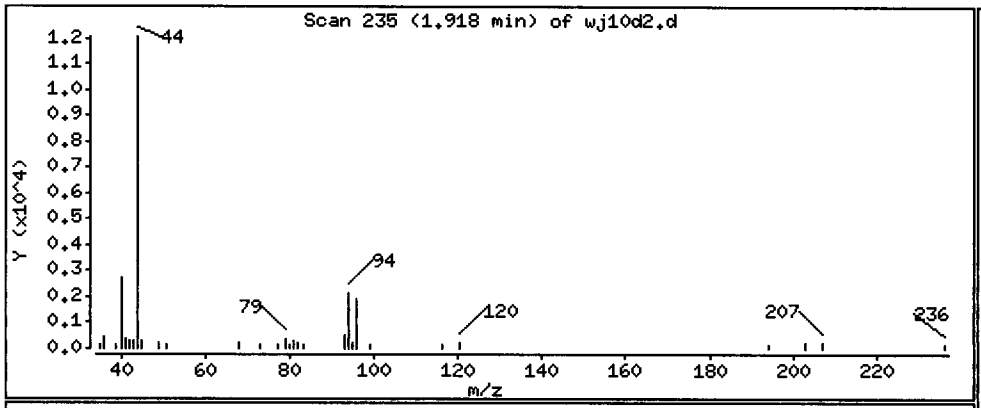
Column phase: RTXVMS

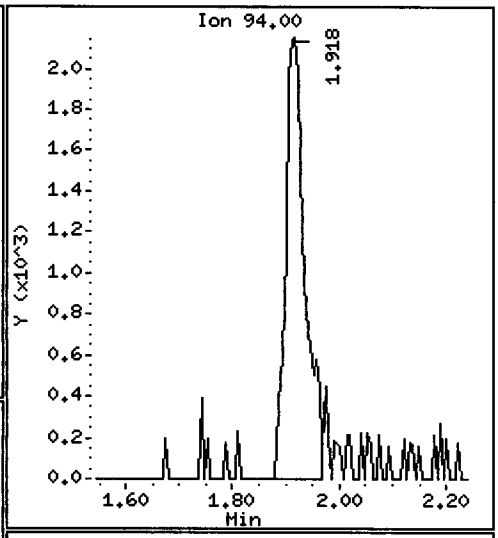
Column diameter: 0.18

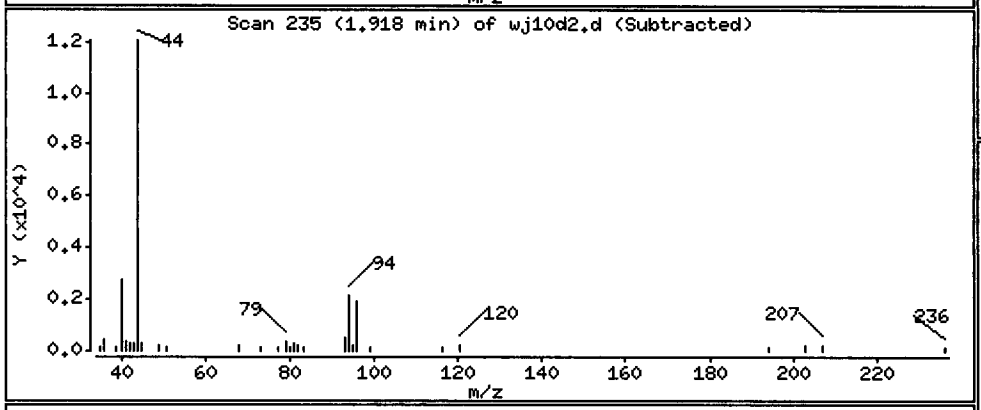
(B)

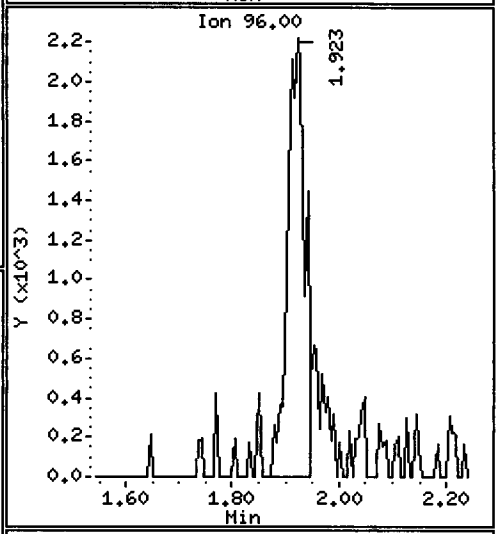
4 Bromomethane

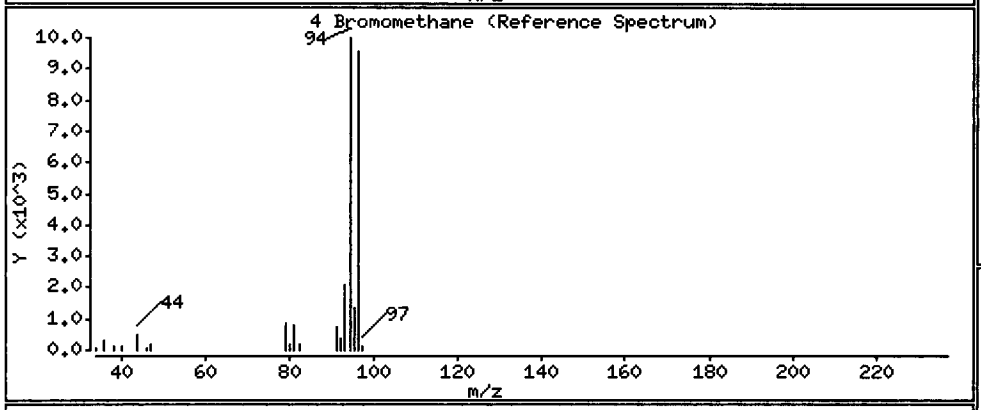
Concentration: 0.2022 ug/Kg

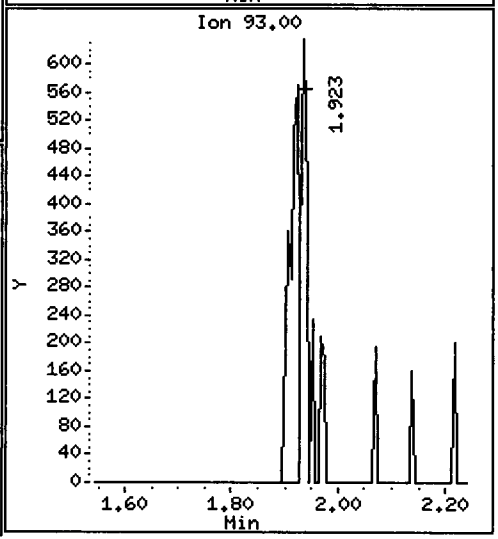


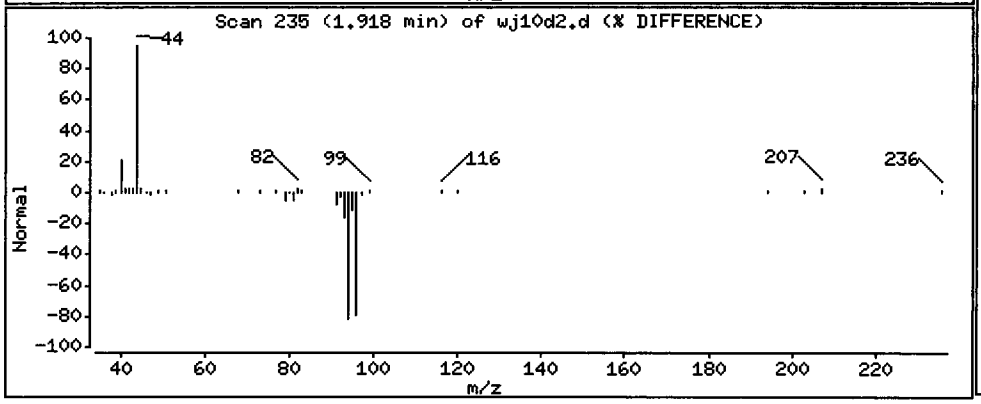












Data File: /chem1/nt9.i/02APR13.b/wj10d2.d

Date : 02-APR-2013 15:15

Client ID: SD-CB-01-20130326-S

Instrument: nt9.i

Sample Info: WJ10D,5,9.564,1,5UL

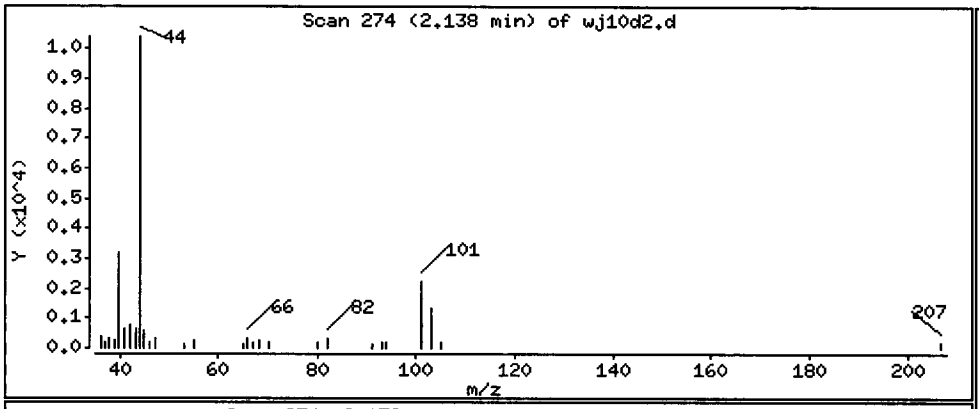
Operator: PB

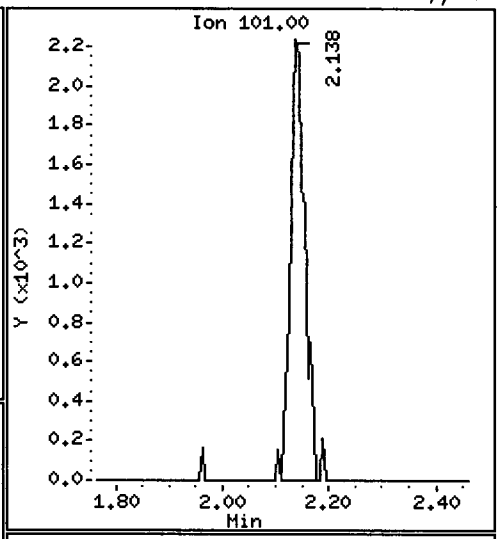
Column phase: RTXVMS

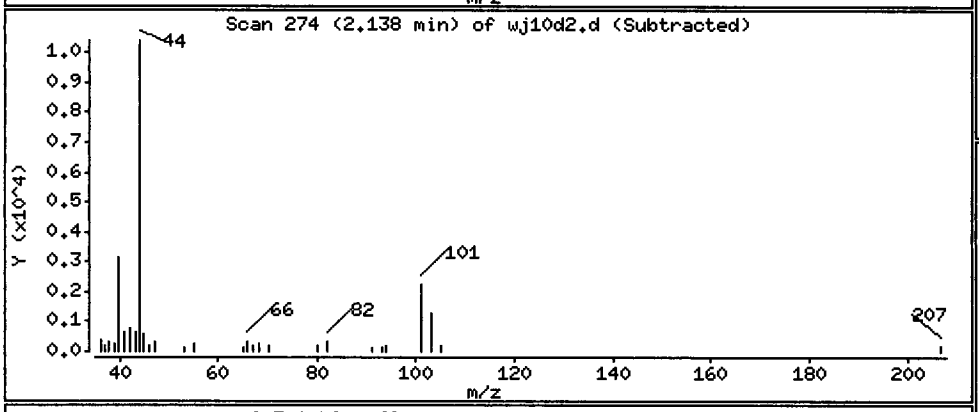
Column diameter: 0.18

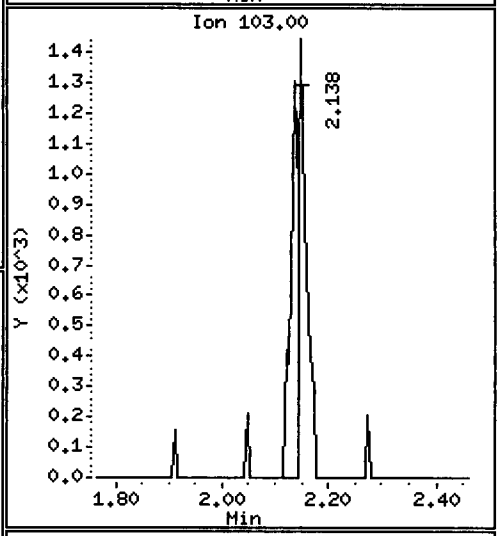
6 Trichlorofluoromethane

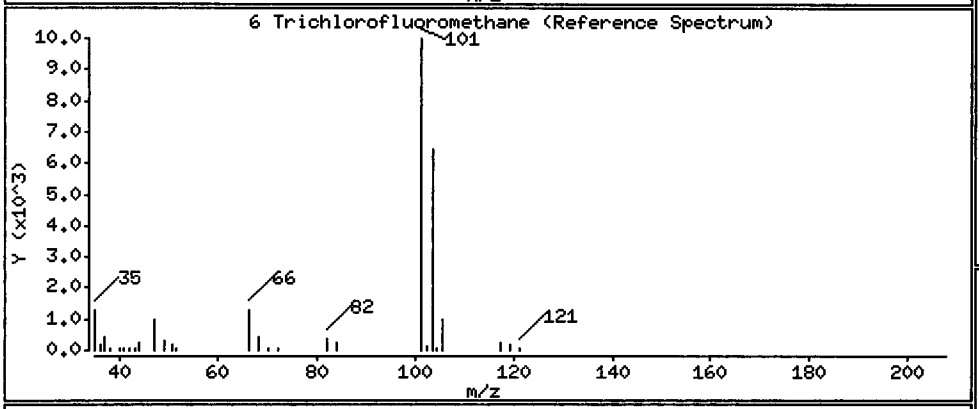
Concentration: 0.1363 ug/Kg

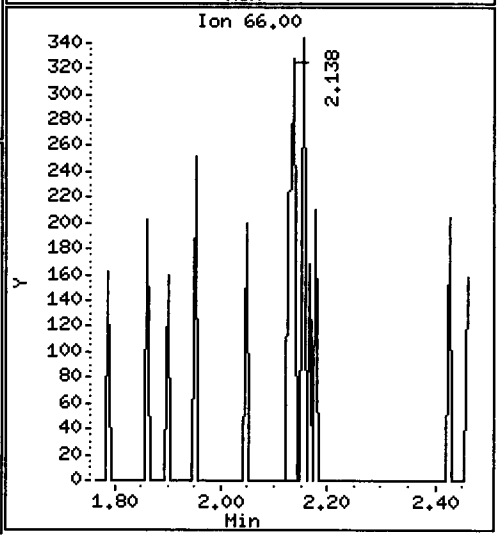


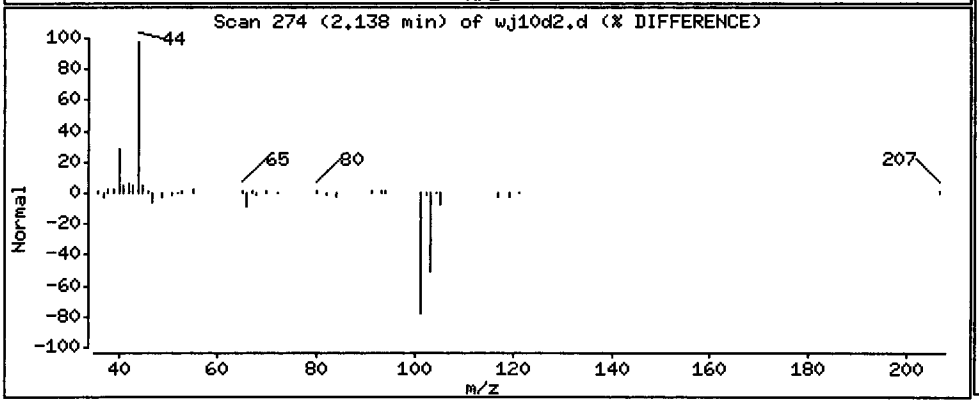












Data File: /chem1/nt9.i/02APR13.b/wj10d2.d

Date : 02-APR-2013 15:15

Client ID: SD-CB-01-20130326-S

Instrument: nt9.i

Sample Info: WJ10D,5,9.564,1,5UL

Operator: PB

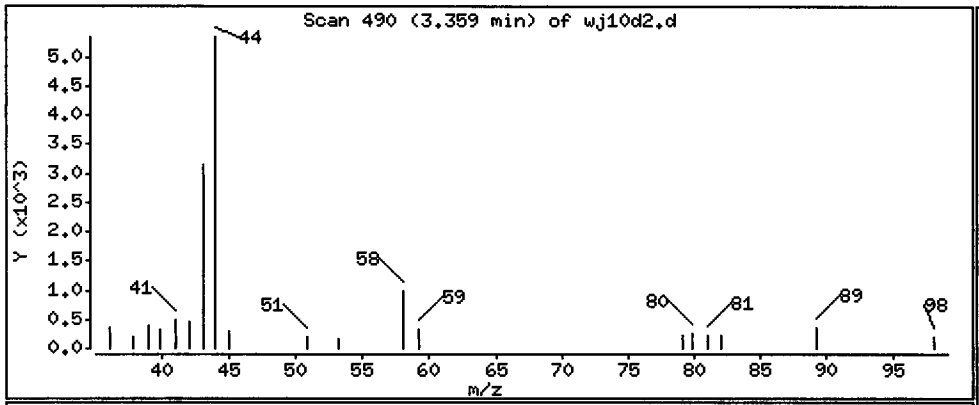
Column phase: RTXVMS

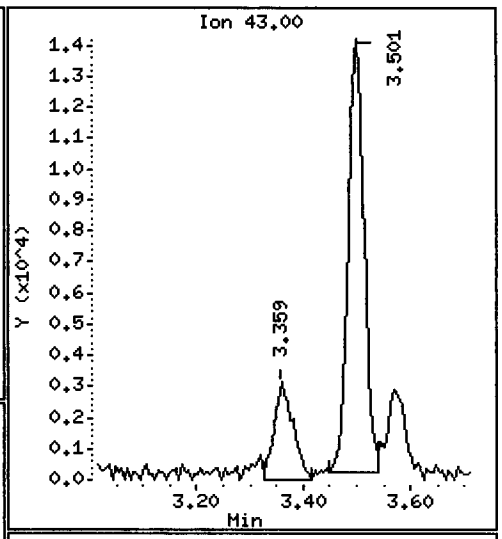
Column diameter: 0.18

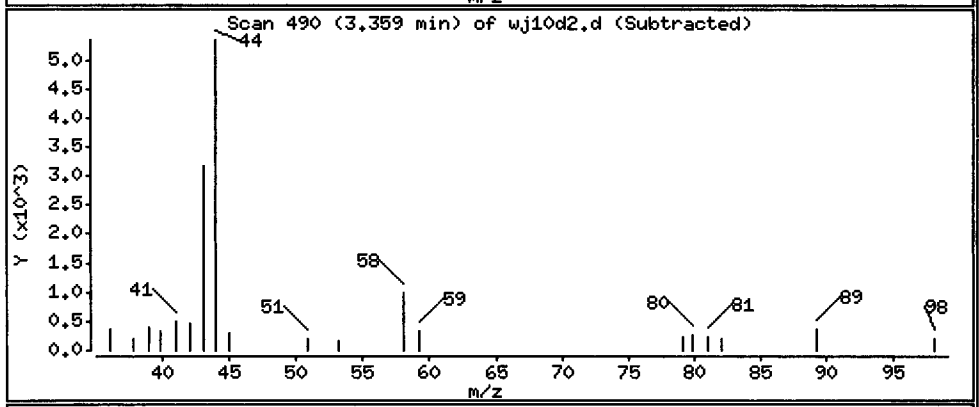
14 Acetone

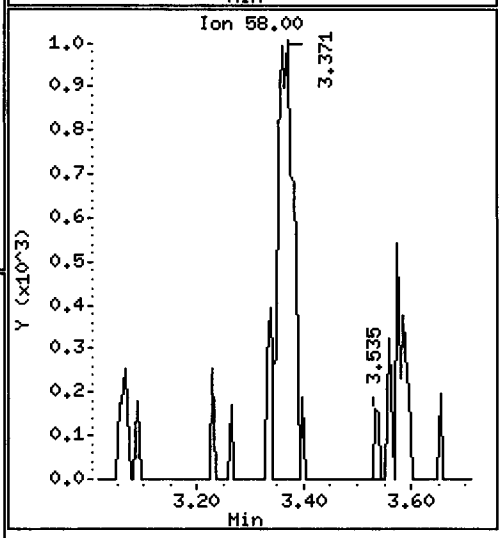
Concentration: 0.7449 ug/Kg

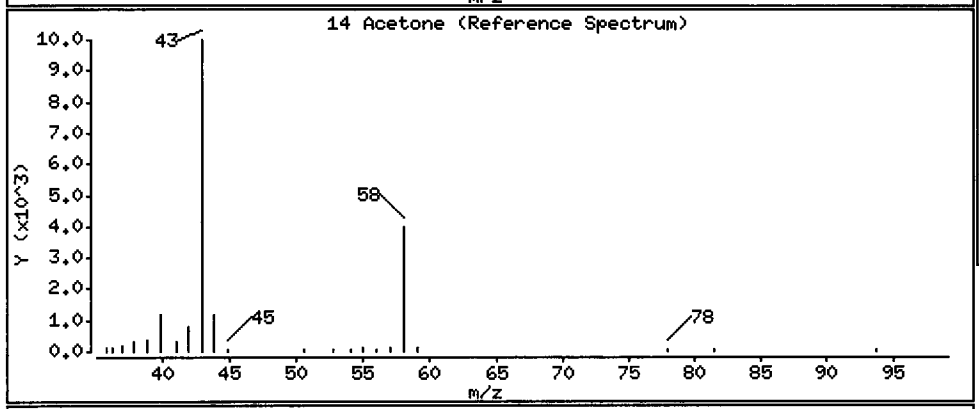
OK

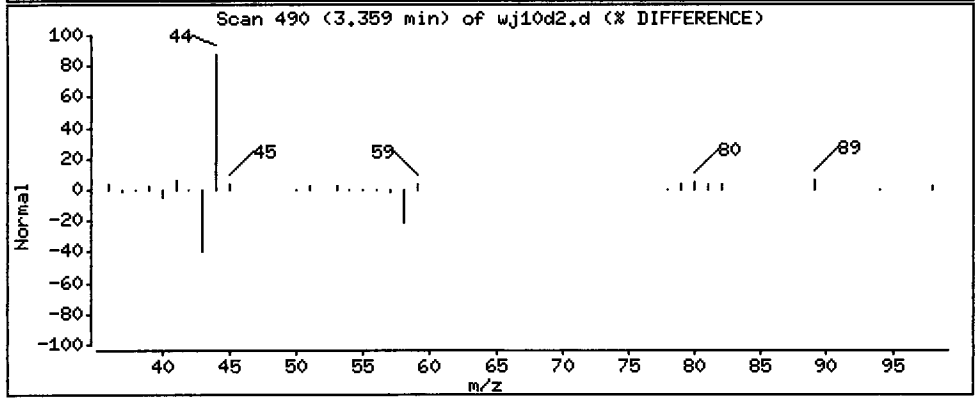












Data File: /chem1/nt9.i/02APR13.b/wj10d2.d

Date : 02-APR-2013 15:15

Client ID: SD-CB-01-20130326-S

Instrument: nt9.i

Sample Info: WJ10D,5,9.564,1,5UL

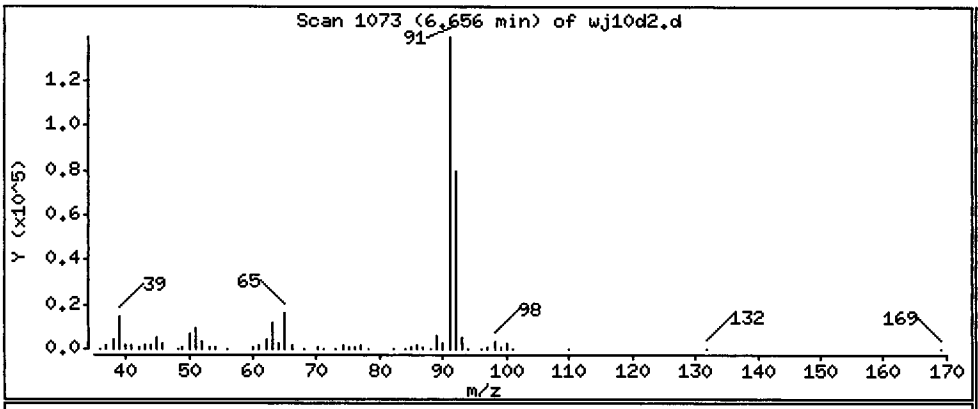
Operator: PB

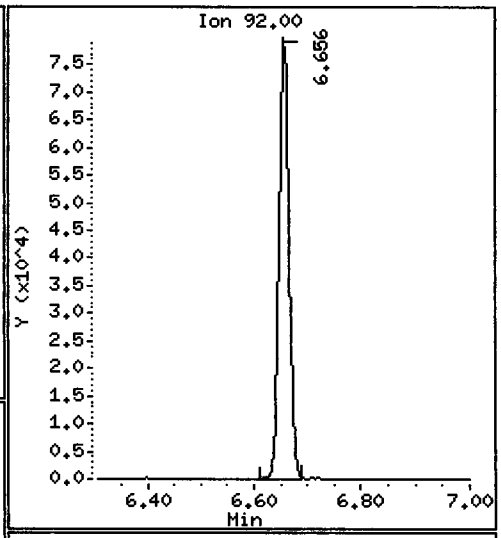
Column phase: RTXVMS

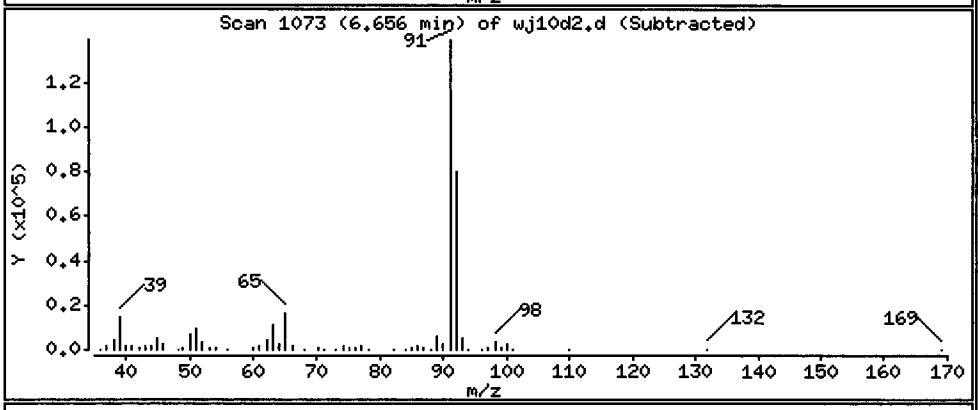
Column diameter: 0.18

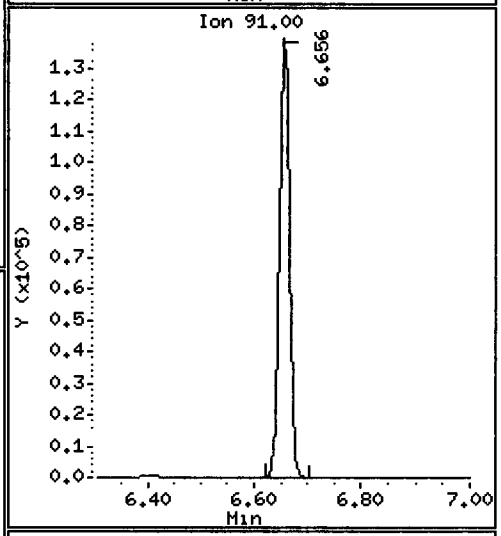
43 Toluene

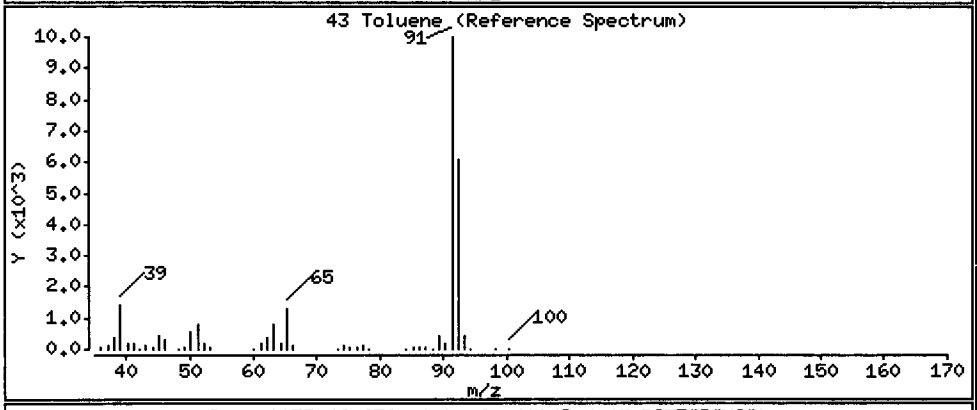
Concentration: 0.8710 ug/Kg

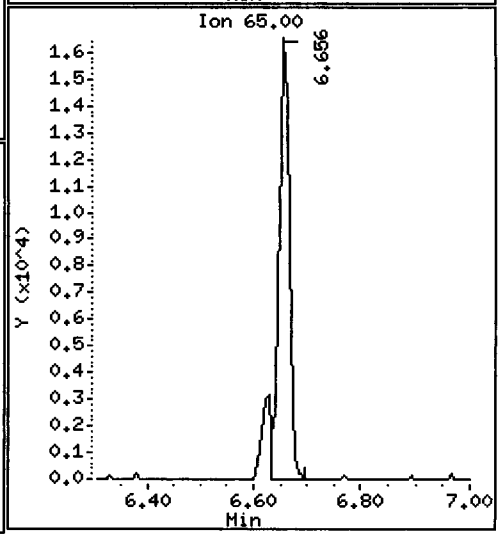


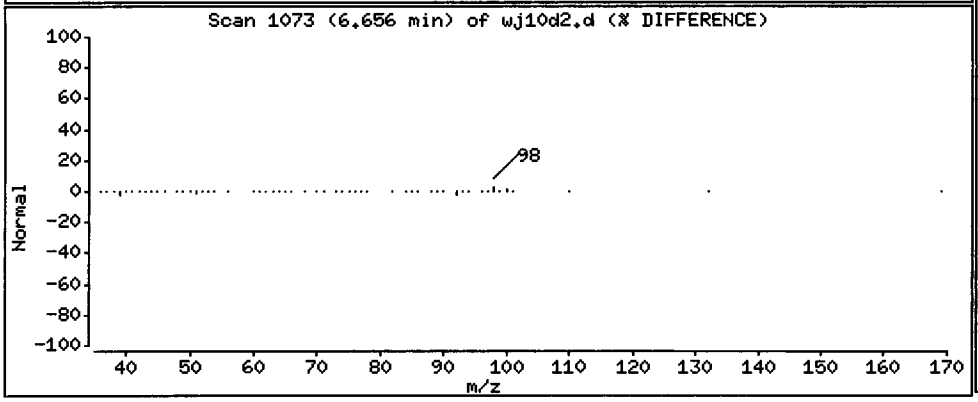












Data File: /chem1/nt9.i/02APR13.b/wj10d2.d

Date : 02-APR-2013 15:15

Client ID: SD-CB-01-20130326-S

Instrument: nt9.i

Sample Info: WJ10D,5,9.564,1,5UL

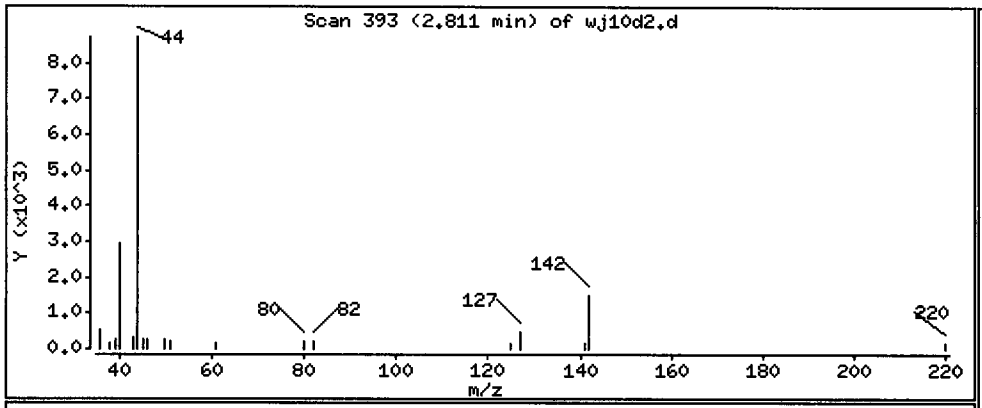
Operator: PB

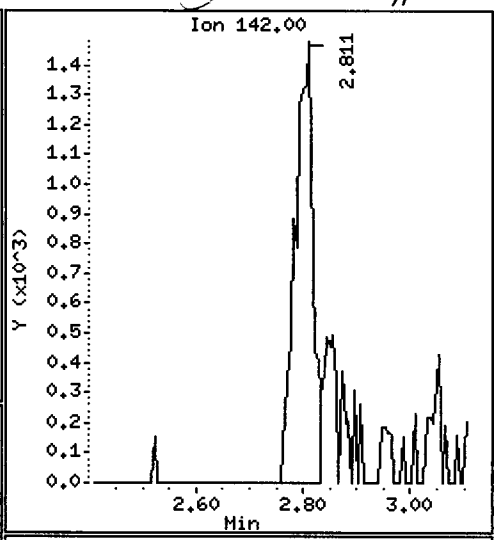
Column phase: RTXVMS

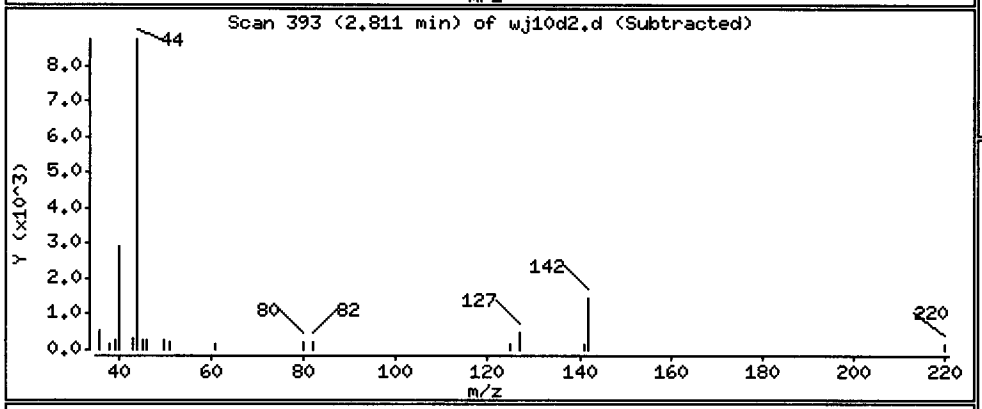
Column diameter: 0.18

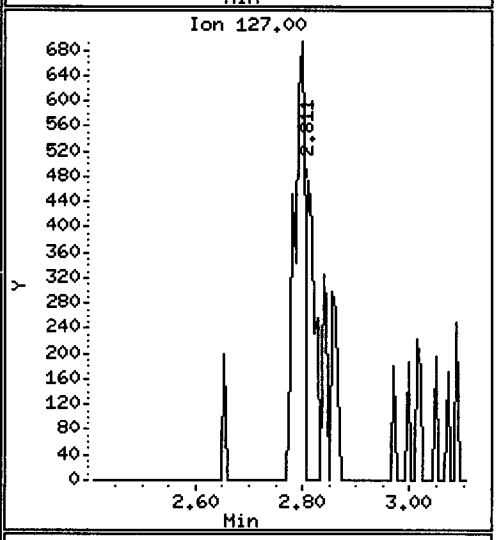
10 Iodomethane

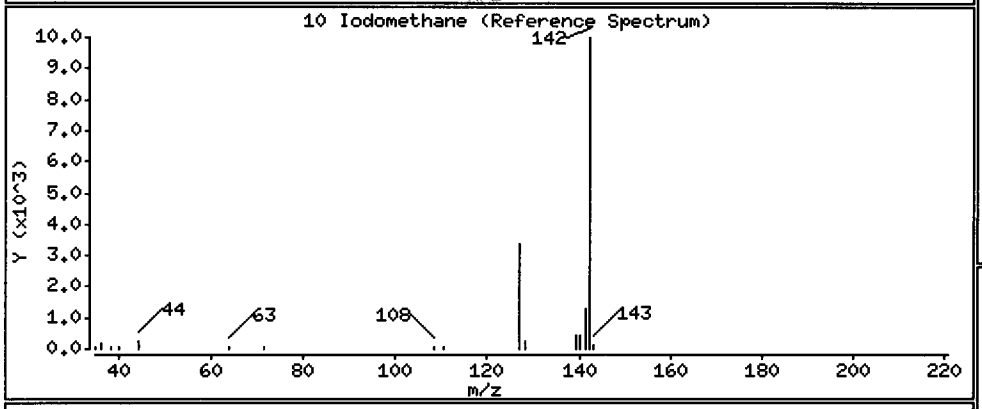
Concentration: 0.1499 ug/Kg

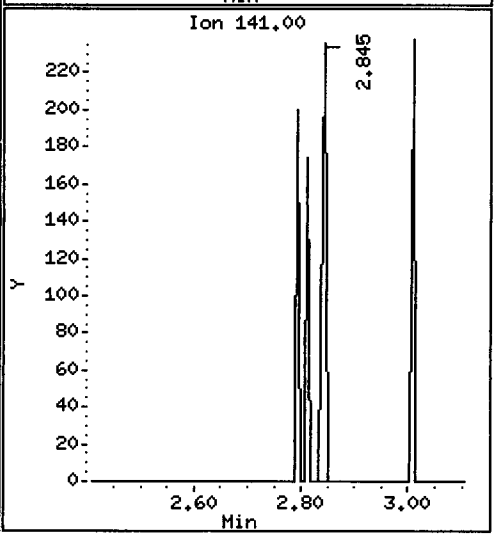


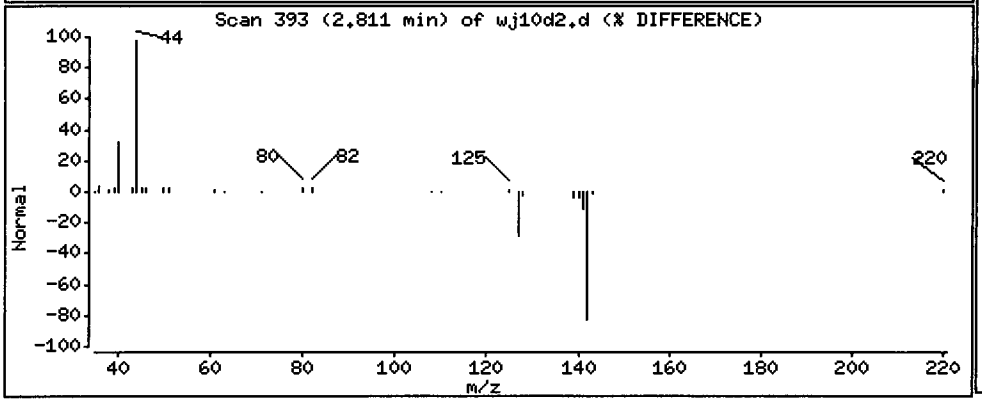












Data File: /chem1/nt9.i/02APR13.b/mb0402.d

Date : 02-APR-2013 12:58

Client ID: MB0402

Instrument: nt9.i

Sample Info: MB0402,5,5,0

Operator: PB

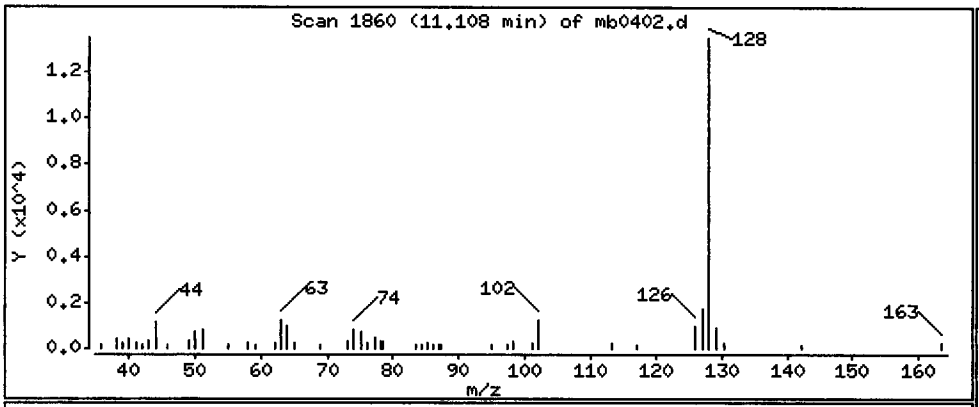
Column phase: RTXVMS

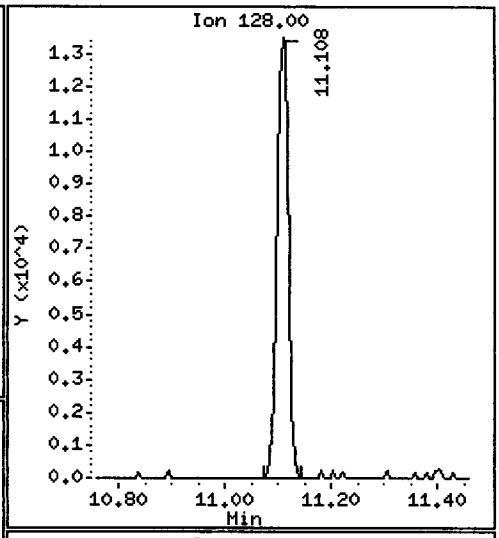
Column diameter: 0.18

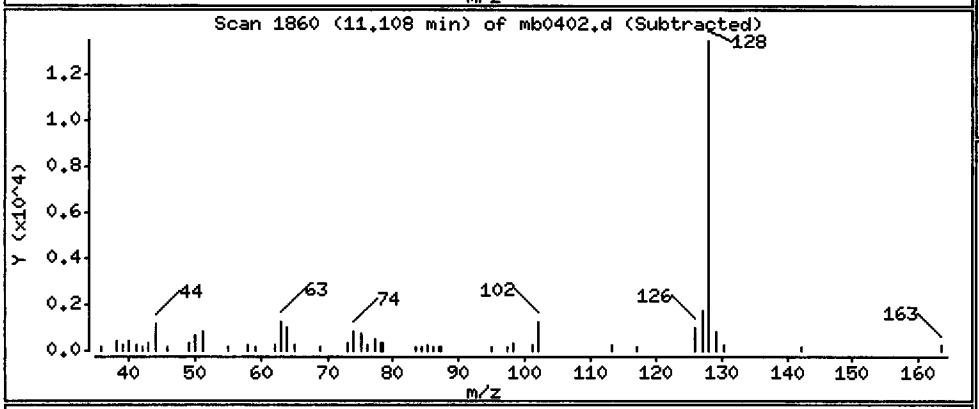
JB LRC NOS Report B/B 4/11/13

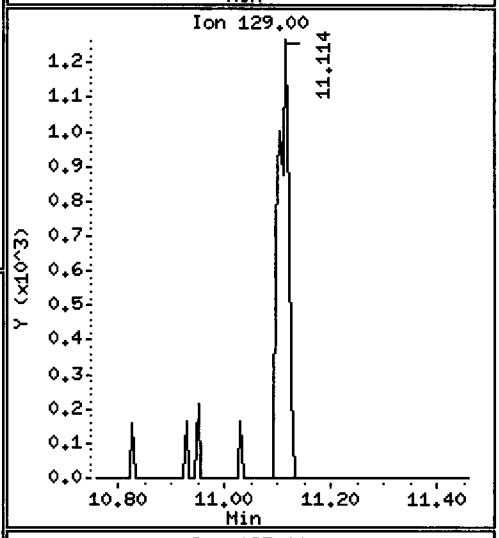
84 Naphthalene

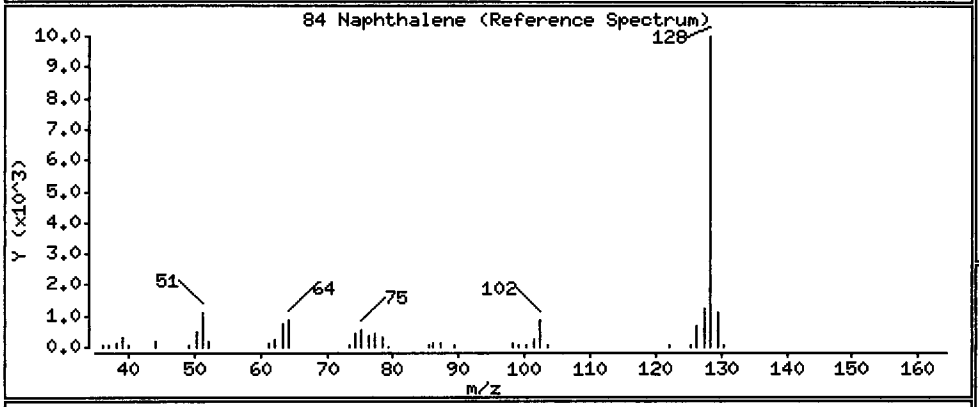
Concentration: 0.7478 ug/Kg

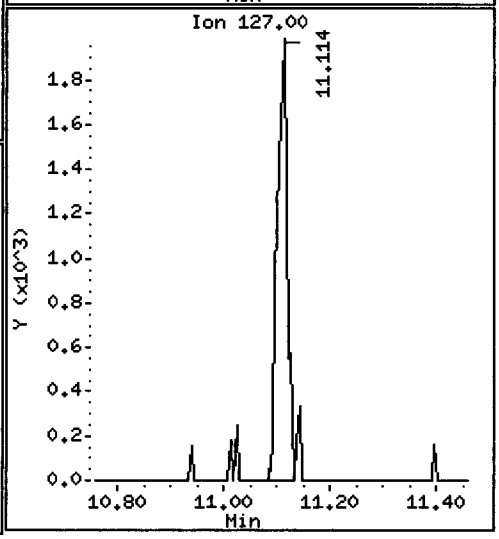


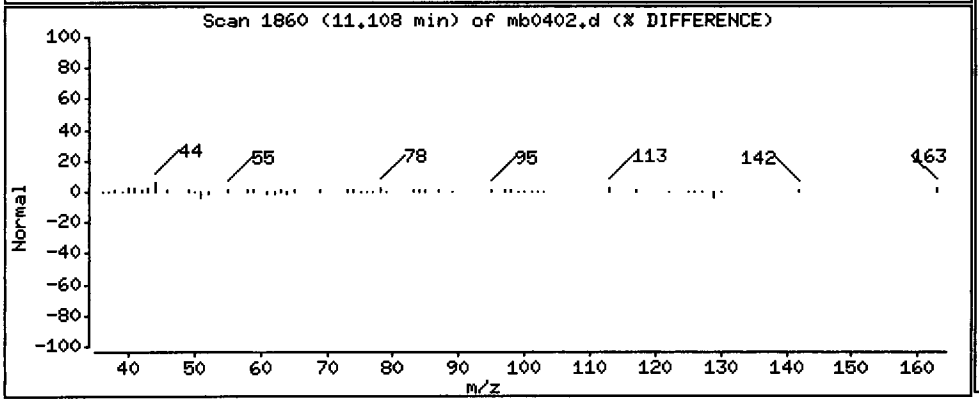












Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/02APR13.b/mb0402.d
Lab Smp Id: MB0402 Client Smp ID: MB0402
Inj Date : 02-APR-2013 12:58
Operator : PB Inst ID: nt9.i
Smp Info : MB0402,5,5,0
Misc Info : 13-6642
Comment :
Method : /chem1/nt9.i/02APR13.b/VO121012S.m
Meth Date : 03-Apr-2013 10:52 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 18:55 Cal File: 2000401.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1	Dichlorodifluoromethane	85	Compound Not Detected.					
2	Chloromethane	50	1.558	1.535	(0.296)	8563	0.68781	0.6878
3	Vinyl Chloride	62	Compound Not Detected.					
4	Bromomethane	94	1.914	1.892	(0.364)	3821	0.62404	0.6240 (Q)
5	Chloroethane	64	Compound Not Detected.					
6	Trichlorofluoromethane	101	Compound Not Detected.					
7	1,1-Dichloroethene	96	Compound Not Detected.					
8	Carbon Disulfide	76	Compound Not Detected.					
9	112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10	Iodomethane	142	2.796	2.757	(0.531)	4001	0.78334	0.7833 (Q)
11	Bromoethane	108	Compound Not Detected.					
12	Acrolein	56	Compound Not Detected.					
13	Methylene Chloride	84	Compound Not Detected.					
14	Acetone	43	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	16 Methyl tert butyl ether	73	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	18 Acrylonitrile	53	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
	22 2,2-Dichloropropane	77	Compound Not Detected.					
	23 Bromochloromethane	128	Compound Not Detected.					
	24 Chloroform	83	Compound Not Detected.					
	25 Carbon Tetrachloride	117	Compound Not Detected.					
$	27 Dibromofluoromethane	111	4.877	4.872	(0.927)	459000	54.5378	54.538
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	29 2-Butanone	72	Compound Not Detected.					
	30 Benzene	78	Compound Not Detected.					
*	31 Pentafluorobenzene	168	5.261	5.256	(1.000)	922850	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.284	5.279	(1.004)	509347	57.0332	57.033
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	34 Trichloroethene	95	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.646	5.646	(1.000)	1691155	50.0000	
	37 Dibromomethane	93	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.624	6.619	(1.173)	2133437	49.1724	49.172
	43 Toluene	92	Compound Not Detected.					
	44 Tetrachloroethene	166	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
	51 2-Hexanone	43	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	7.704	7.705	(1.000)	1679714	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Bromoform	173	Compound Not Detected.					
	60 Isopropyl Benzene	105	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	8.569	8.570	(1.112)	783802	47.4305	47.430
	63 Bromobenzene	156	Compound Not Detected.					
	64 N-Propyl Benzene	91	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
66	2-Chloro Toluene	91	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
68	1,2,3-Trichloropropane	110	Compound Not Detected.					
69	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
73	S-Butyl Benzene	105	Compound Not Detected.					
74	4-Isopropyl Toluene	119	Compound Not Detected.					
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	9.389	9.390	(1.000)	847557	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	9.706	9.706	(1.034)	771691	51.8445	51.844
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
83	1,2,4-Trichlorobenzene	180	10.854	10.849	(1.156)	6936	0.57452	0.5745
84	Naphthalene	128	11.108	11.109	(1.183)	19357	0.74777	0.7478
85	1,2,3-Trichlorobenzene	180	11.250	11.250	(1.198)	7944	0.67185	0.6719

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: mb0402.d
Lab Smp Id: MB0402
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/02APR13.b/VO121012S.m
Misc Info: 13-6642

Calibration Date: 02-APR-2013
Calibration Time: 11:38
Client Smp ID: MB0402
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	922850	-1.98
35 1,4-Difluorobenze	1617500	808750	3235000	1691155	4.55
52 d5-Chlorobenzene	1675930	837965	3351860	1679714	0.23
76 d4-1,4-Dichlorobe	909458	454729	1818916	847557	-6.81

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	0.10
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	-0.01
52 d5-Chlorobenzene	7.70	7.20	8.20	7.70	-0.01
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: MB0402
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt9.i/02APR13.b/VO121012S.m
Misc Info: 13-6642

Client SDG: 02APR13
Fraction: VOA
Client Smp ID: MB0402
Operator: PB
SampleType: BLANK
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	54.538	109.08	30-160
$ 32 d4-1,2-Dichloroeth	50.000	57.033	114.07	75-152
$ 42 d8-Toluene	50.000	49.172	98.34	82-115
$ 62 4-Bromofluorobenze	50.000	47.430	94.86	64-120
$ 79 d4-1,2-Dichloroben	50.000	51.844	103.69	80-120

Data File: /chem1/nt9.i/02APR13.b/mb0402.d

Date : 02-APR-2013 12:58

Client ID: MB0402

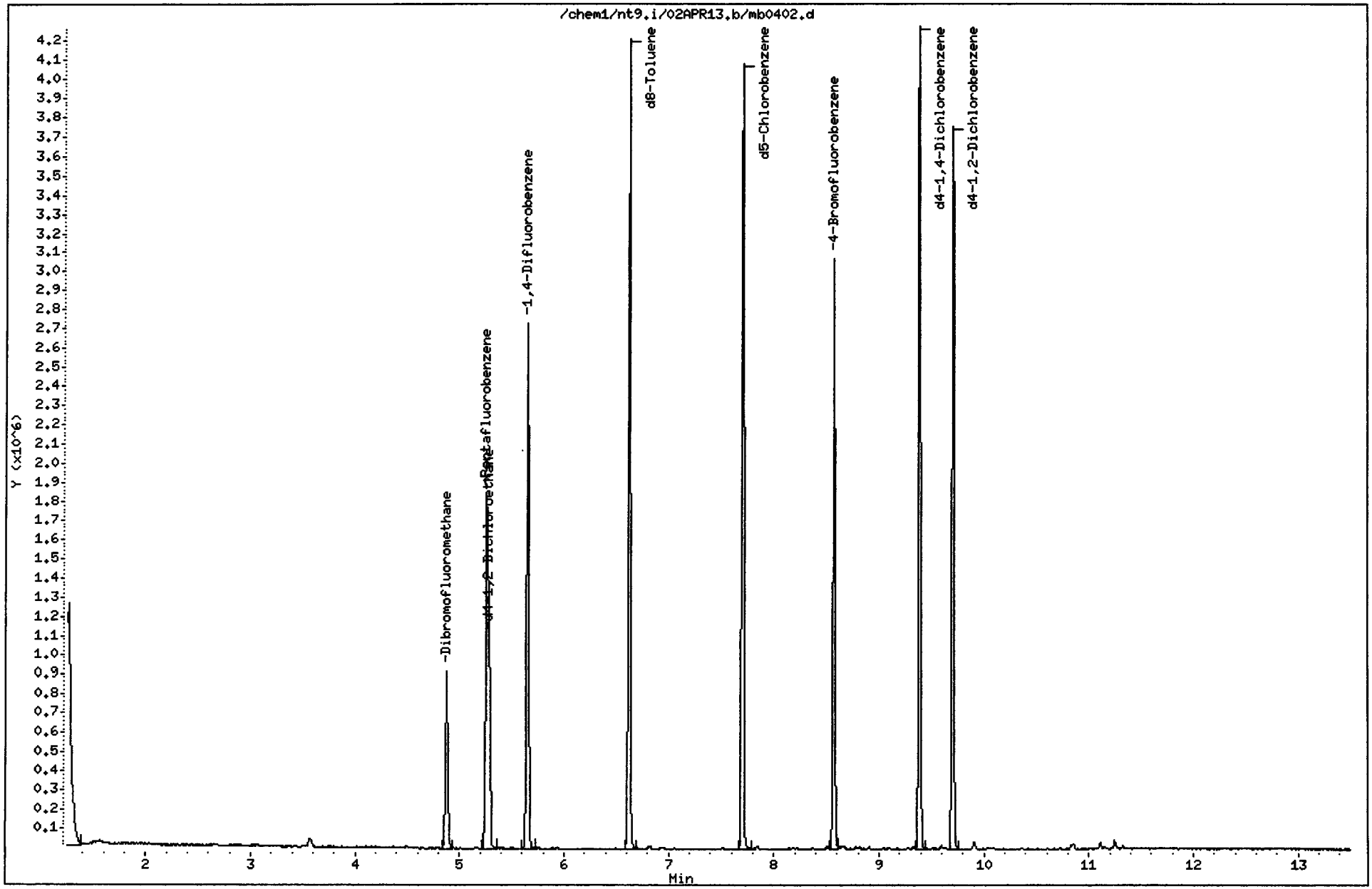
Sample Info: MB0402,5,5,0

Column phase: RTXVMS

Instrument: nt9.i

Operator: PB

Column diameter: 0.18



CO-ELUTION SUMMARY FOR FILE - mb0402.d

Lab ID: MB0402, Method: VO121012S.m, Instrument: nt9.i, Date: 02-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt9.i/02APR13.b/mb0402.d

Date : 02-APR-2013 12:58

Client ID: MB0402

Instrument: nt9.i

Sample Info: MB0402,5,5,0

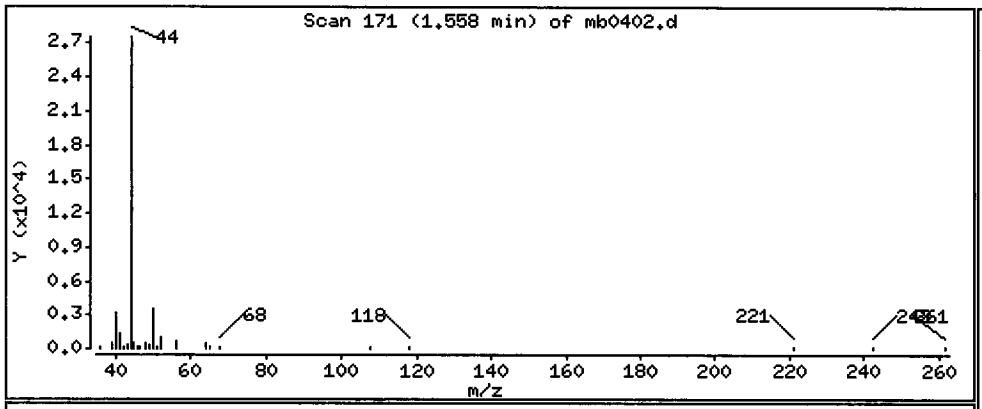
Operator: PB

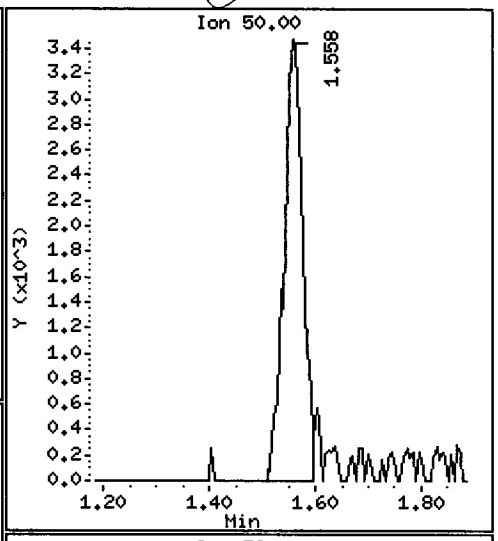
Column phase: RTXVMS

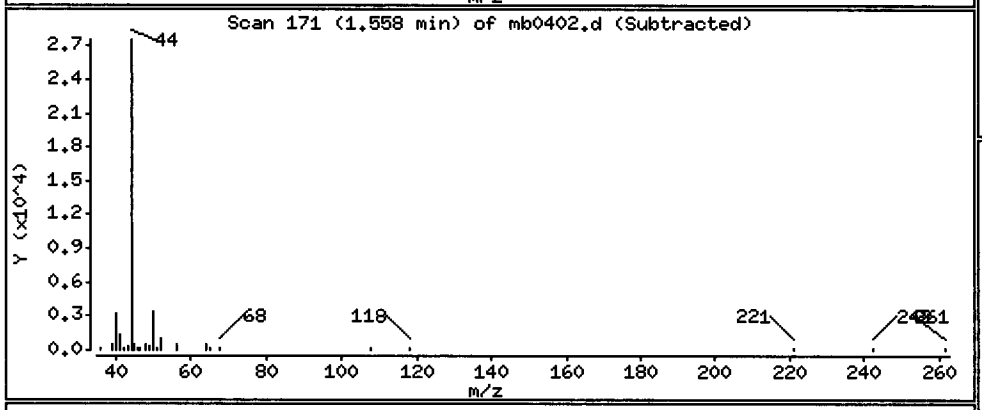
Column diameter: 0.18

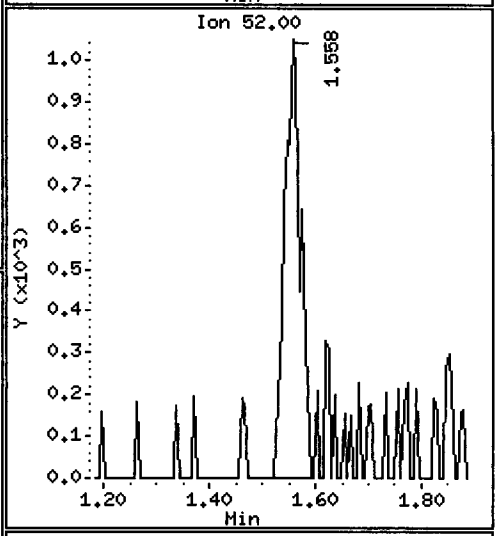
2 Chloromethane

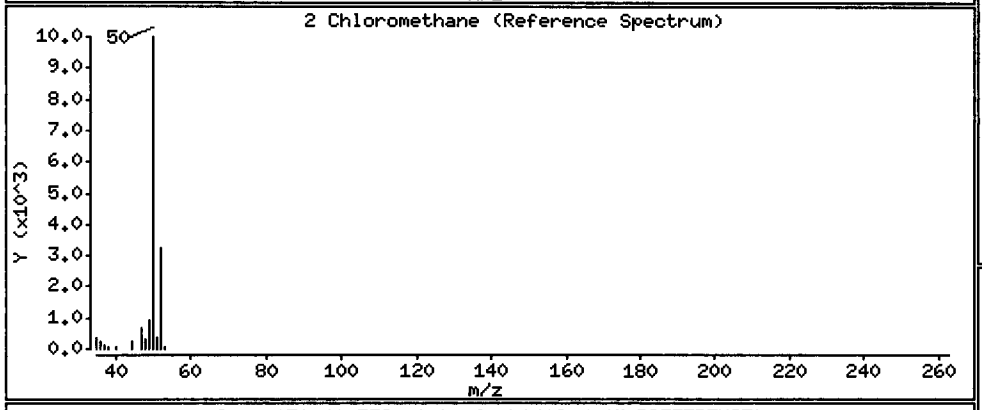
Concentration: 0.6878 ug/Kg

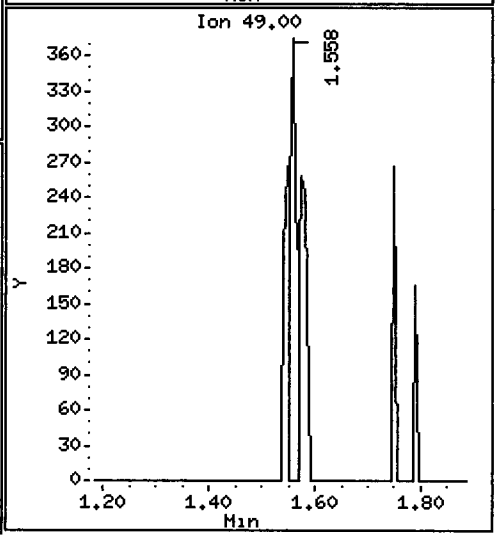


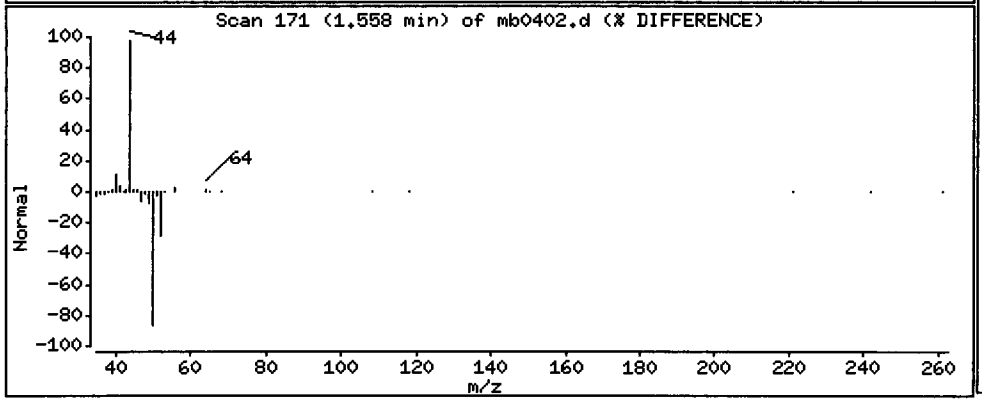












Data File: /chem1/nt9.i/02APR13.b/mb0402.d

Date : 02-APR-2013 12:58

Client ID: MB0402

Instrument: nt9.i

Sample Info: MB0402,5,5,0

Operator: PB

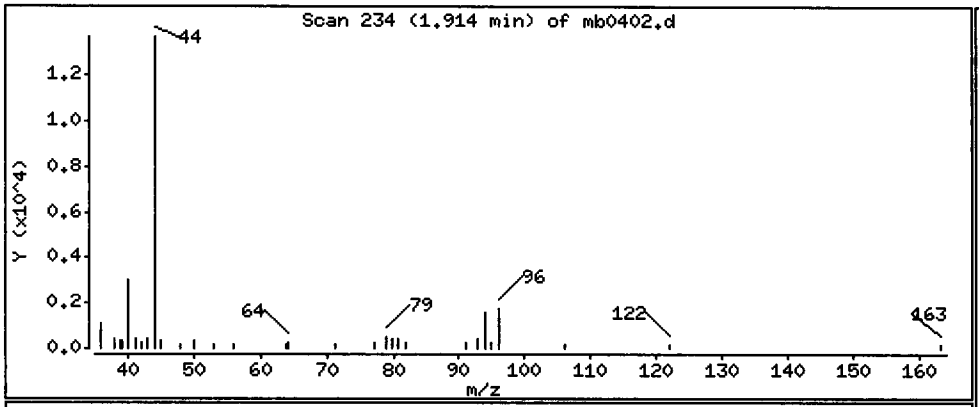
Column phase: RTXVMS

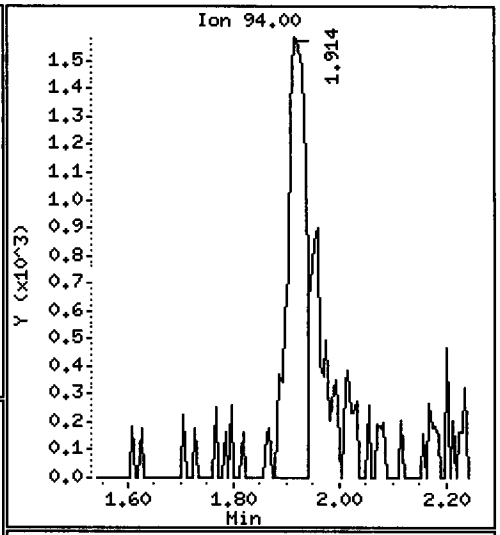
Column diameter: 0.18

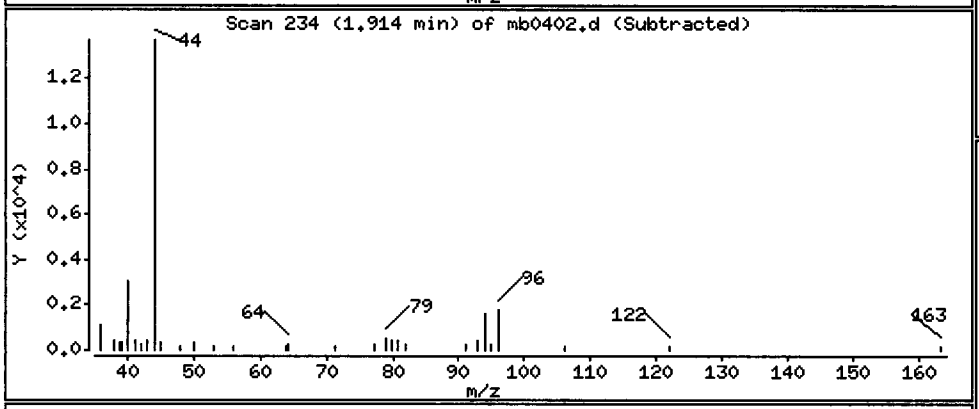
6 ul

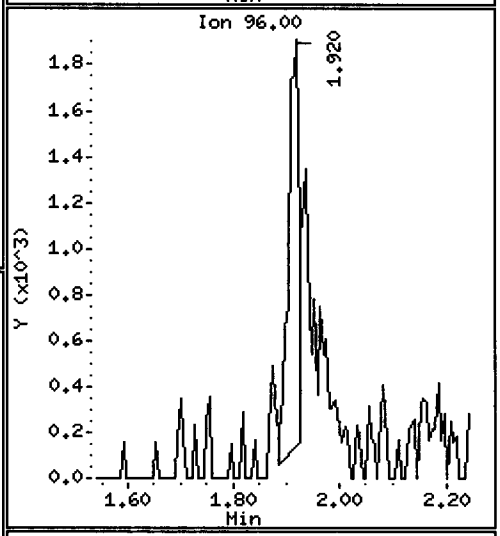
4 Bromomethane

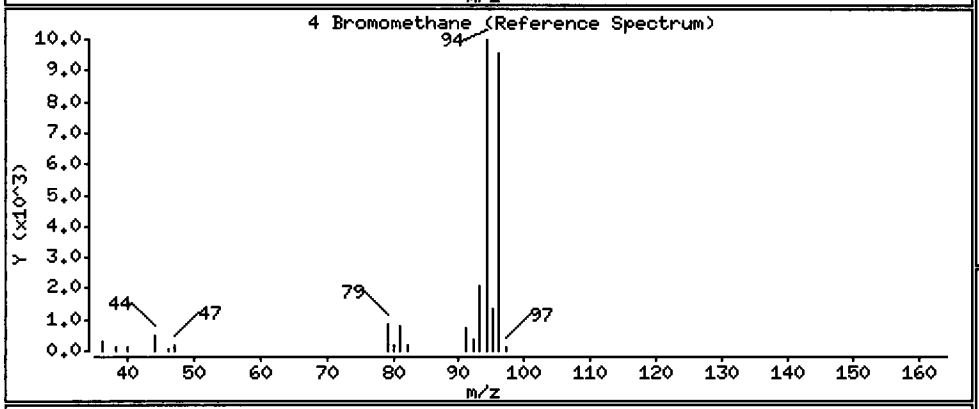
Concentration: 0.6240 ug/Kg

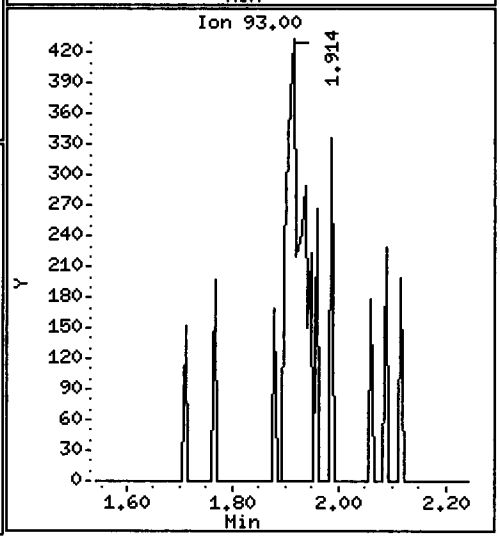


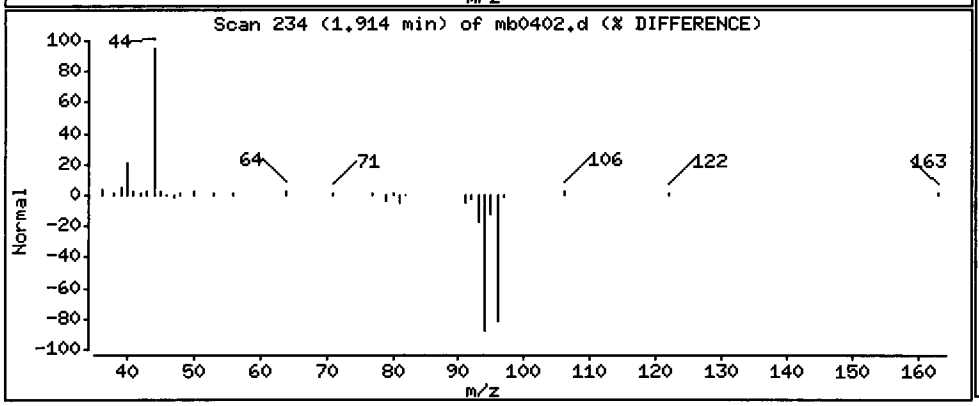












Data File: /chem1/nt9.i/02APR13.b/mb0402.d

Date : 02-APR-2013 12:58

Client ID: MB0402

Instrument: nt9.i

Sample Info: MB0402,5,5,0

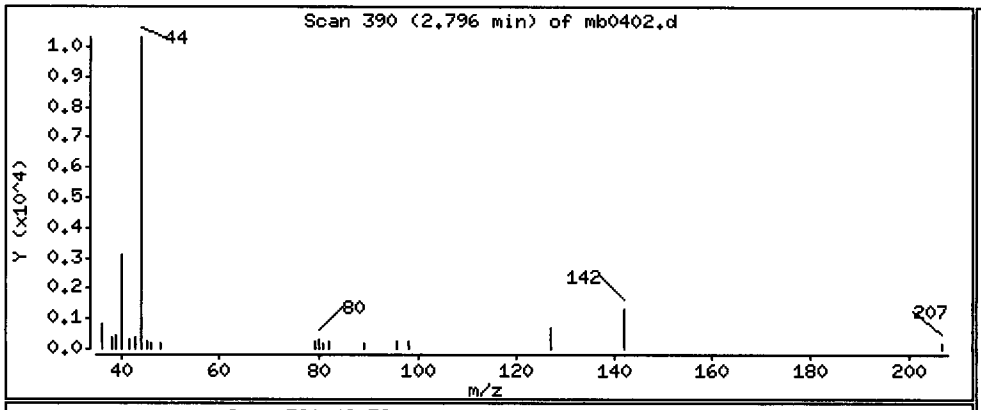
Operator: PB

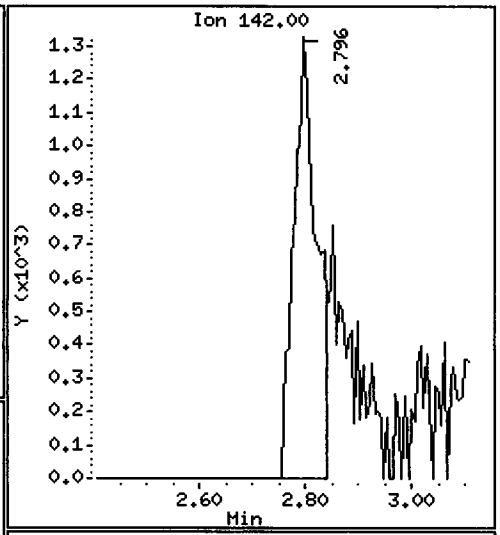
Column phase: RTXVMS

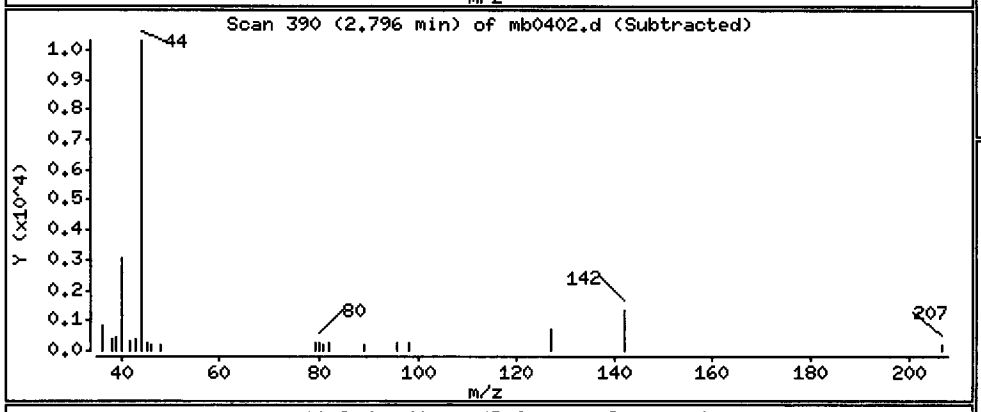
Column diameter: 0.18

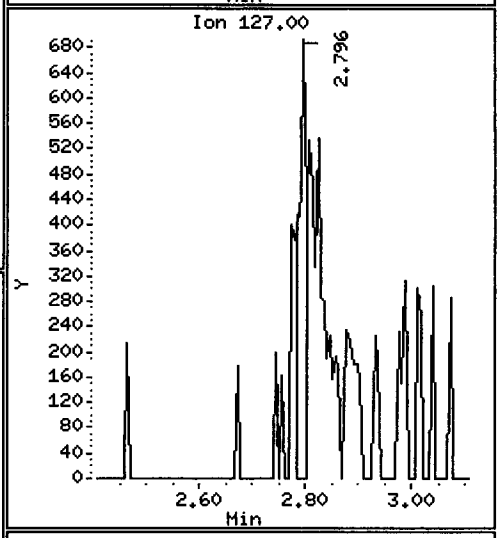
10 Iodomethane

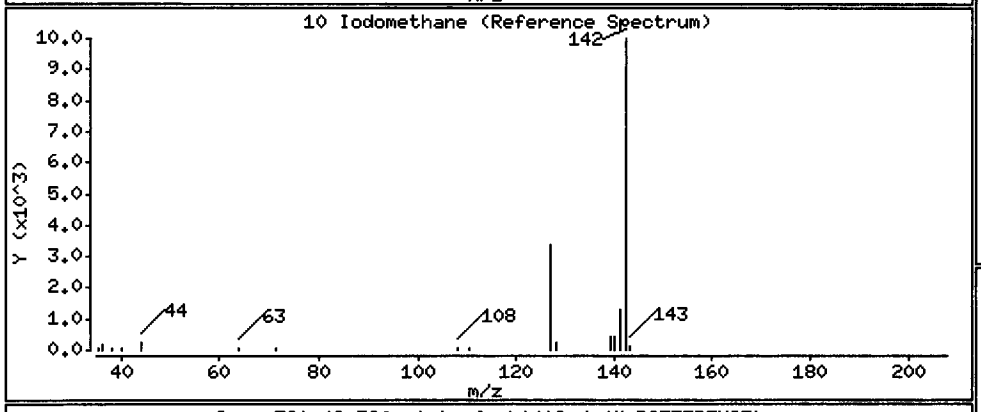
Concentration: 0.7833 ug/Kg

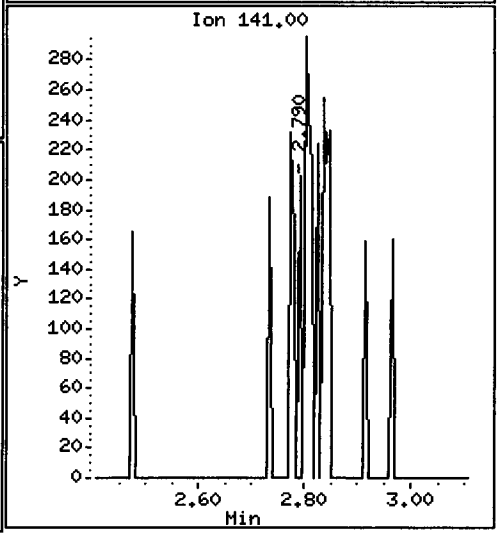


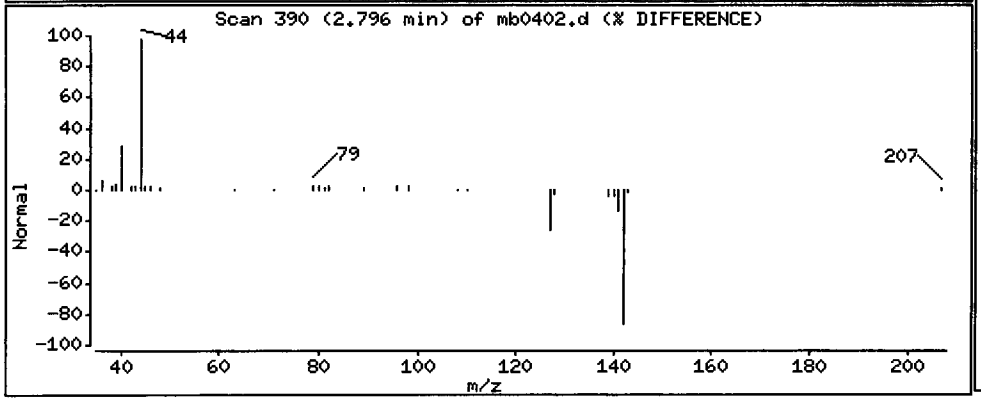












Data File: /chem1/nt9.i/02APR13.b/mb0402.d

Date : 02-APR-2013 12:58

Client ID: MB0402

Instrument: nt9.i

Sample Info: MB0402,5,5,0

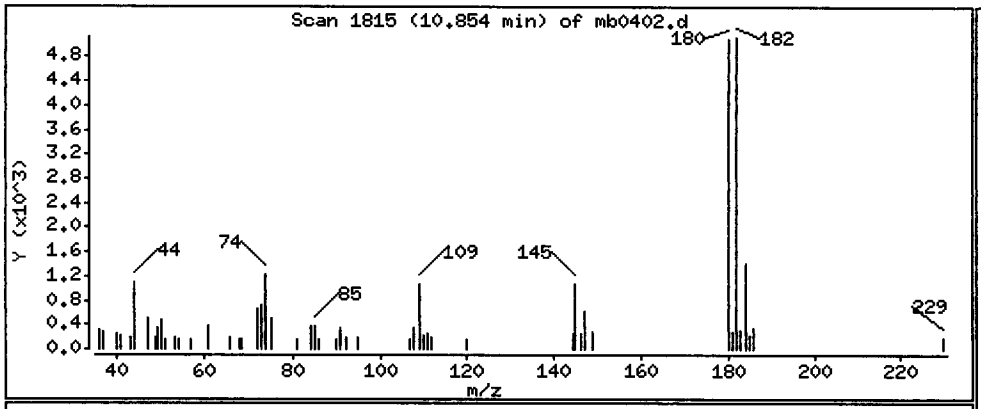
Operator: PB

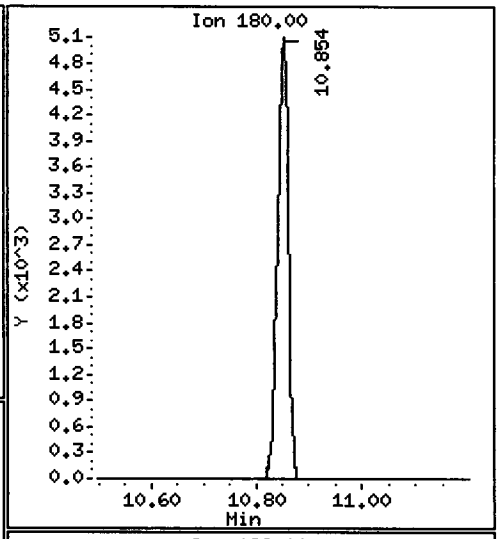
Column phase: RTXVMS

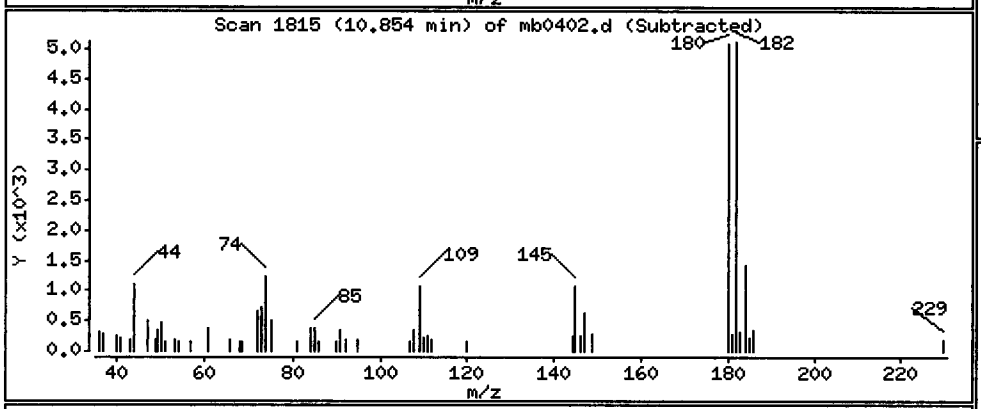
Column diameter: 0.18

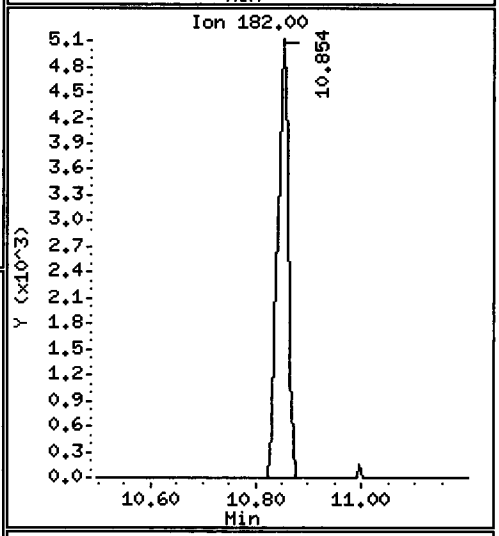
83 1,2,4-Trichlorobenzene

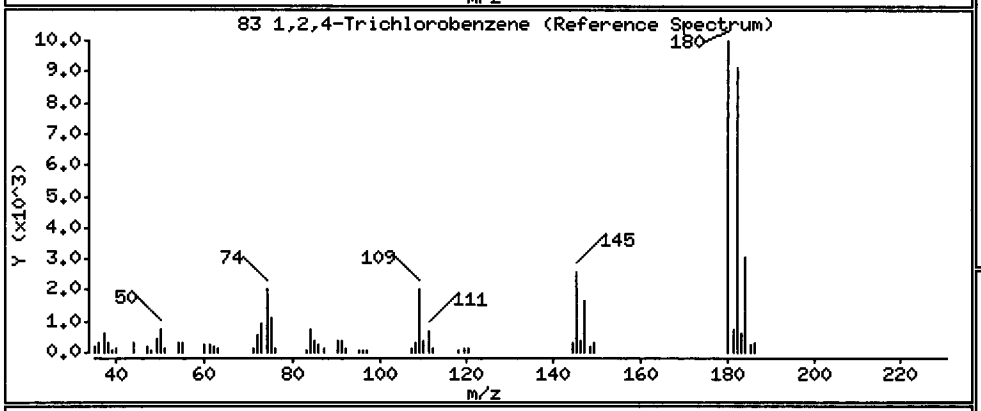
Concentration: 0.5745 ug/Kg

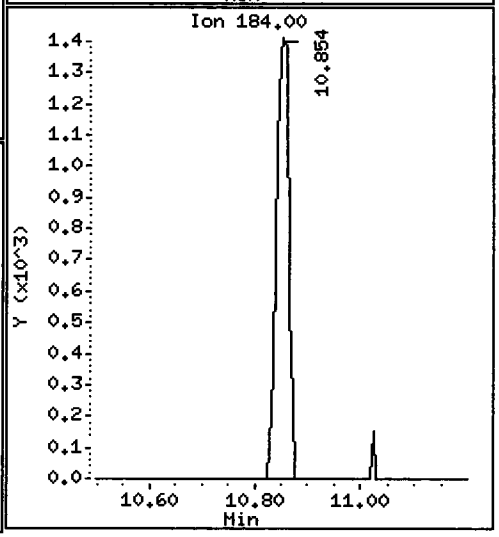


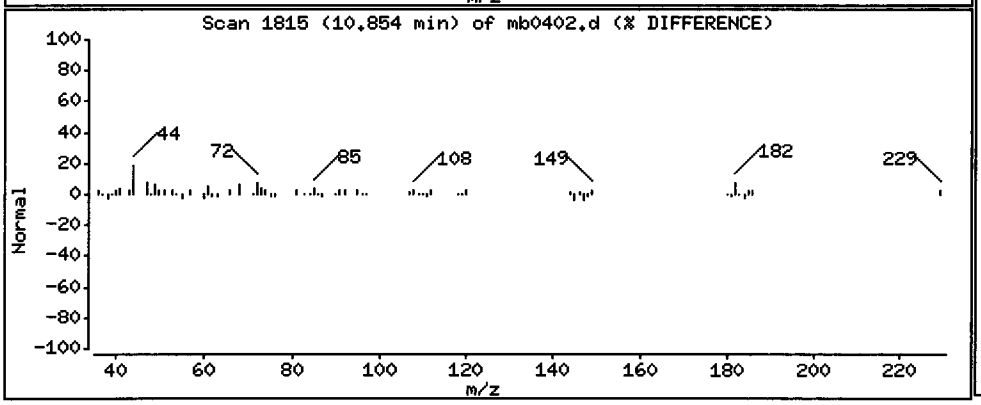












WJ10:00784

Data File: /chem1/nt9.i/02APR13.b/mb0402.d

Date : 02-APR-2013 12:58

Client ID: MB0402

Instrument: nt9.i

Sample Info: MB0402,5,5,0

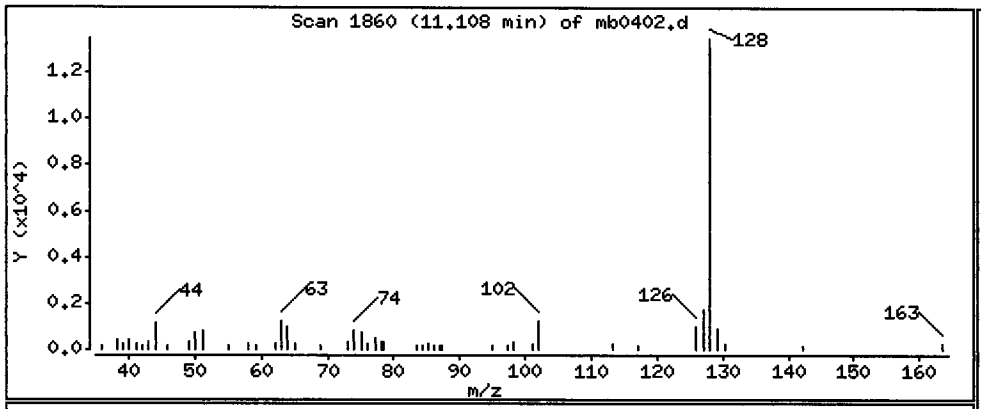
Operator: PB

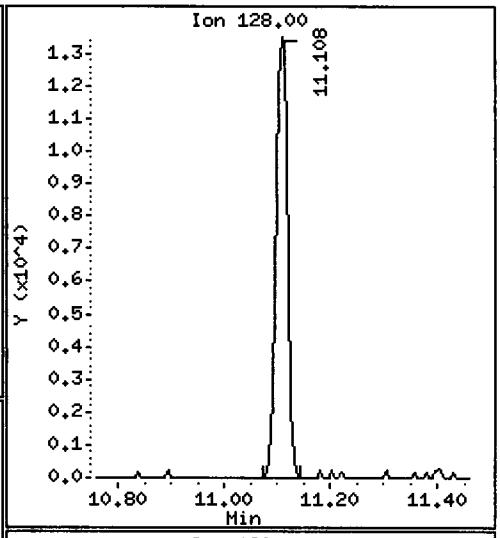
Column phase: RTXVMS

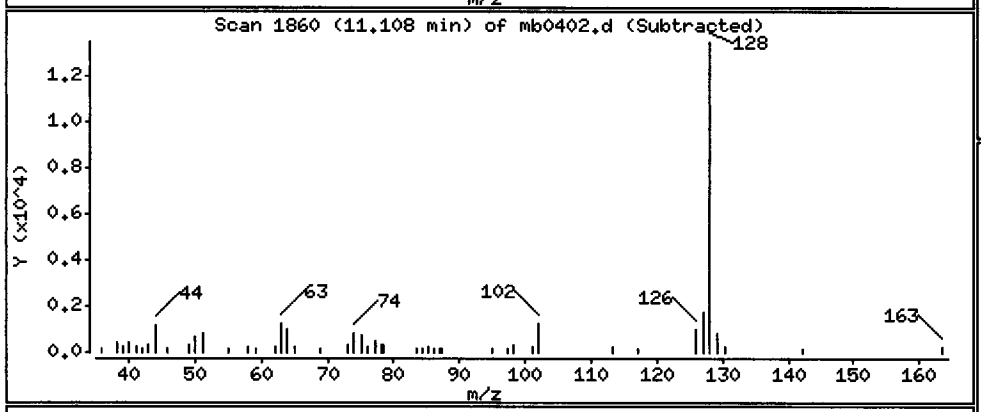
Column diameter: 0.18

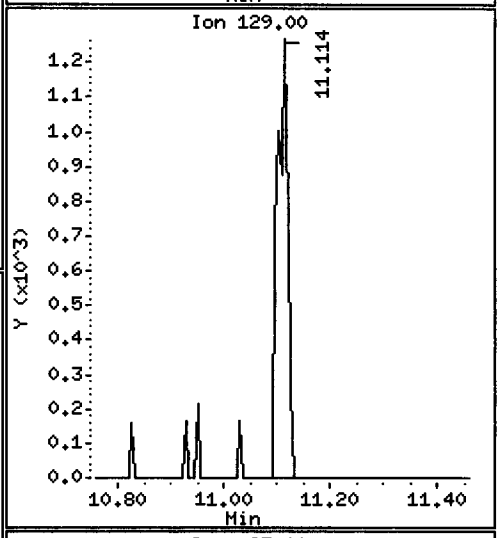
84 Naphthalene

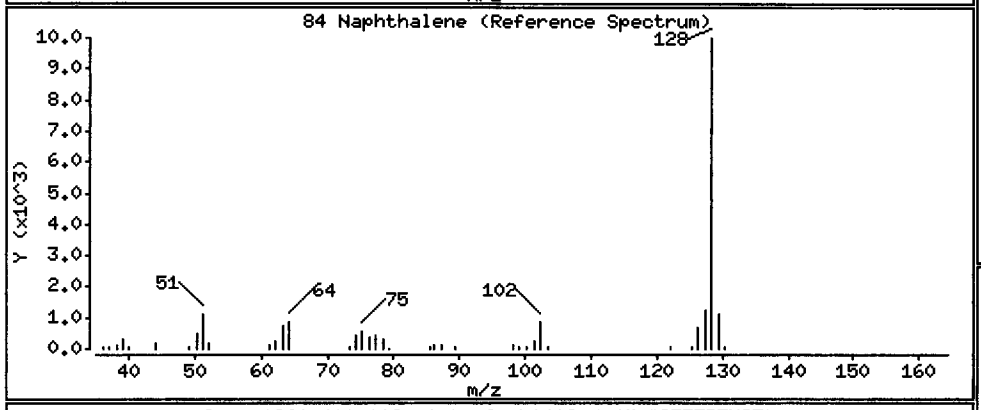
Concentration: 0.7478 ug/Kg

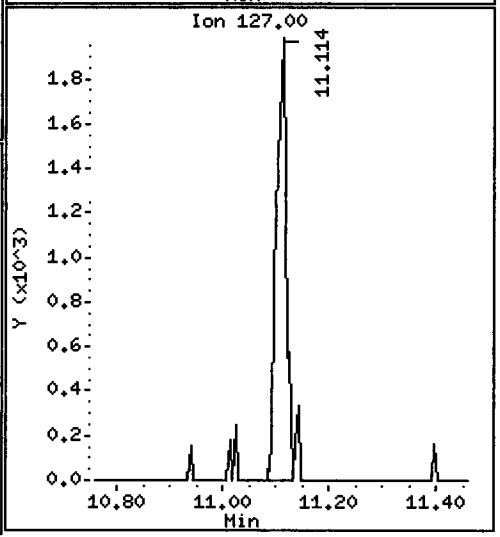


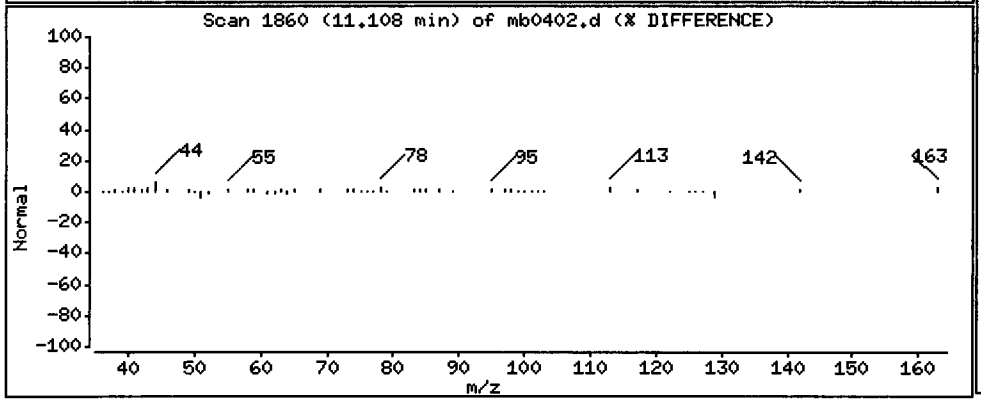












Data File: /chem1/nt9.i/02APR13.b/mb0402.d

Date : 02-APR-2013 12:58

Client ID: MB0402

Instrument: nt9.i

Sample Info: MB0402,5,5,0

Operator: PB

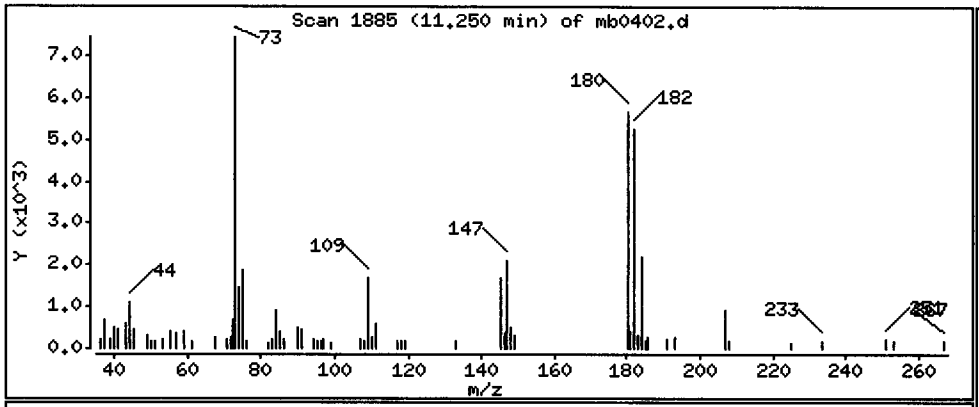
Column phase: RTXVMS

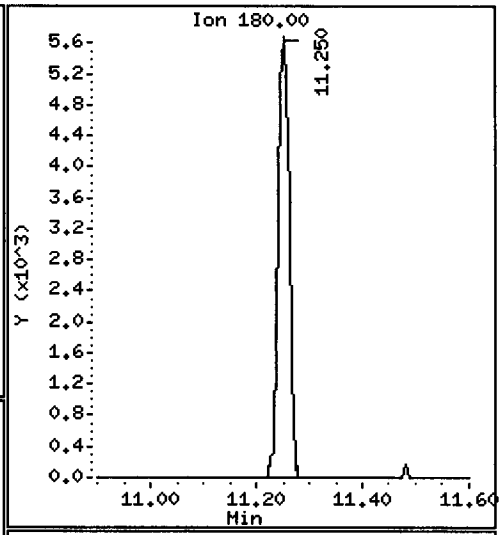
Column diameter: 0.18

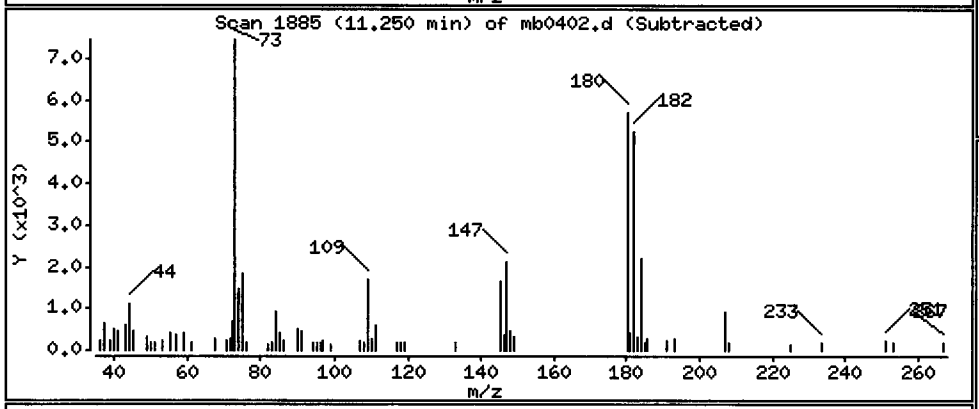
85 1,2,3-Trichlorobenzene

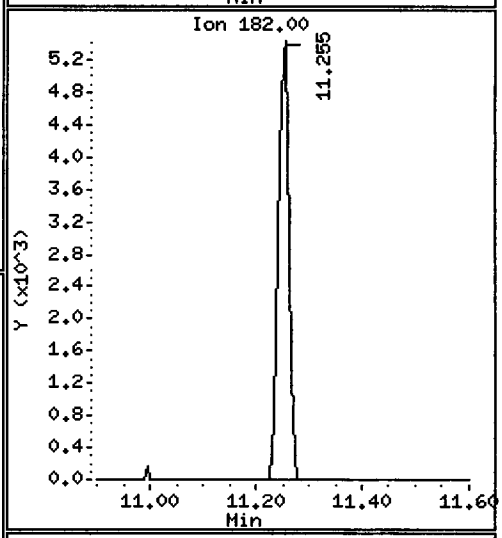
Concentration: 0.6719 ug/Kg

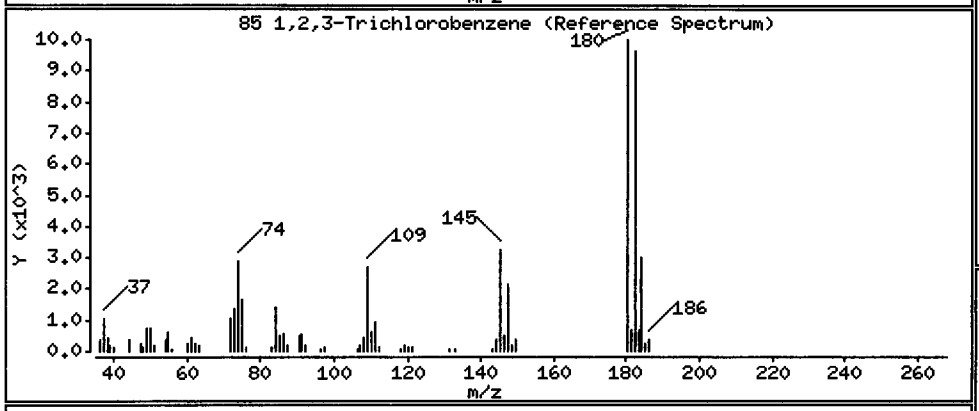
GCAL

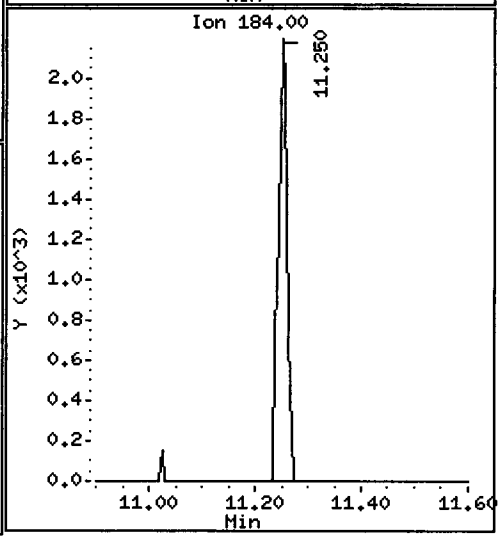


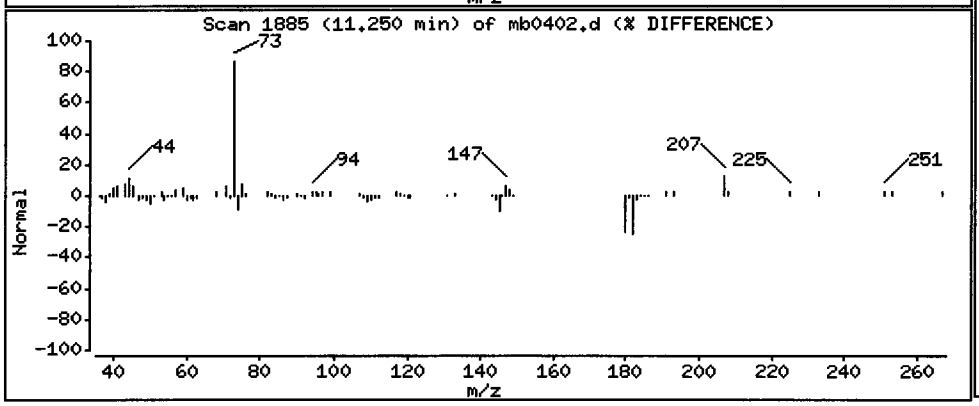












Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/02APR13.b/lcs0402.d
Lab Smp Id: LCS0402 Client Smp ID: LCS0402
Inj Date : 02-APR-2013 12:14
Operator : PB Inst ID: nt9.i
Smp Info : LCS0402,5,5,0
Misc Info : 13-6642
Comment :
Method : /chem1/nt9.i/02APR13.b/VO121012S.m
Meth Date : 03-Apr-2013 10:52 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 18:55 Cal File: 2000401.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	1.369	1.371	(0.260)	408823	51.8855	51.886
2 Chloromethane	50	1.533	1.535	(0.291)	672809	50.2936	50.294
3 Vinyl Chloride	62	1.606	1.609	(0.305)	616808	49.3606	49.361
4 Bromomethane	94	1.889	1.892	(0.359)	339995	51.6757	51.676
5 Chloroethane	64	1.997	1.999	(0.380)	206739	47.9643	47.964
6 Trichlorofluoromethane	101	2.110	2.112	(0.401)	387285	51.7529	51.753
7 1,1-Dichloroethene	96	2.619	2.615	(0.498)	399978	48.2866	48.287
8 Carbon Disulfide	76	2.619	2.621	(0.498)	1428387	50.2767	50.277
9 112Trichloro122Trifluoroethane	101	2.669	2.672	(0.508)	403536	47.7905	47.790
10 Iodomethane	142	2.760	2.757	(0.525)	215107	39.1937	39.194
11 Bromoethane	108	2.890	2.893	(0.550)	269281	46.6501	46.650
12 Acrolein	56	3.020	3.017	(0.574)	386119	219.332	219.33
13 Methylene Chloride	84	3.258	3.260	(0.619)	431160	42.9046	42.905
14 Acetone	43	3.365	3.362	(0.640)	551470	211.727	211.73

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.416	3.413	(0.649)	437008	44.8602	44.860
	16 Methyl tert butyl ether	73	3.586	3.588	(0.682)	996934	42.2339	42.234
	17 1,1-Dichloroethane	63	4.015	4.012	(0.763)	785857	43.6163	43.616
	18 Acrylonitrile	53	4.094	4.091	(0.778)	140044	41.6388	41.639
	19 Vinyl Acetate	43	4.287	4.289	(0.815)	848151	44.4588	44.459
	20 Cis-1,2-Dichloroethene	96	4.490	4.487	(0.854)	481165	49.3439	49.344
	22 2,2-Dichloropropane	77	4.575	4.572	(0.870)	623591	45.8399	45.840
	23 Bromochloromethane	128	4.654	4.651	(0.885)	198826	42.5691	42.569
	24 Chloroform	83	4.728	4.725	(0.899)	723003	43.0345	43.035
	25 Carbon Tetrachloride	117	4.807	4.809	(0.852)	499339	44.5343	44.534
$	27 Dibromofluoromethane	111	4.869	4.872	(0.926)	472086	52.2020	52.202
	26 1,1,1-Trichloroethane	97	4.869	4.872	(0.926)	613713	43.9917	43.992
	28 1,1-Dichloropropene	75	4.971	4.968	(0.881)	606646	45.1075	45.107
	29 2-Butanone	72	5.005	5.007	(0.952)	224832	227.071	227.07
	30 Benzene	78	5.163	5.166	(0.915)	1960921	42.4935	42.494
*	31 Pentafluorobenzene	168	5.259	5.256	(1.000)	991631	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.276	5.279	(1.003)	501160	52.2242	52.224
	33 1,2-Dichloroethane	62	5.327	5.330	(0.944)	493207	40.4527	40.453
	34 Trichloroethene	95	5.610	5.607	(0.994)	443155	42.7693	42.769
*	35 1,4-Difluorobenzene	114	5.644	5.646	(1.000)	1760040	50.0000	
	37 Dibromomethane	93	5.915	5.918	(1.048)	214340	40.7365	40.737
	38 1,2-Dichloropropane	63	5.989	5.991	(1.061)	483603	42.2819	42.282
	39 Bromodichloromethane	83	6.040	6.042	(1.070)	535234	41.5984	41.598
	40 2-Chloroethyl Vinyl Ether	63	6.458	6.455	(1.144)	34008	35.1152	35.115(QM)
	41 Cis 1,3-dichloropropene	75	6.486	6.489	(1.149)	710090	46.3451	46.345
$	42 d8-Toluene	98	6.616	6.619	(1.172)	2252697	49.8891	49.889
	43 Toluene	92	6.656	6.653	(1.179)	1217843	42.2090	42.209
	44 Tetrachloroethene	166	6.916	6.919	(0.898)	474941	44.8305	44.830
	45 4-Methyl-2-Pentanone	58	6.933	6.936	(1.228)	833500	228.229	228.23
	46 Trans 1,3-Dichloropropene	75	6.950	6.947	(1.231)	626722	44.4951	44.495
	47 1,1,2-Trichloroethane	97	7.058	7.060	(1.250)	345349	40.6443	40.644
	48 Chlorodibromomethane	129	7.182	7.179	(0.932)	359870	41.7511	41.751
	49 1,3-Dichloropropane	76	7.250	7.247	(0.941)	640217	42.5556	42.556
	50 1,2-Dibromoethane	107	7.346	7.343	(1.302)	332127	41.5996	41.600
	51 2-Hexanone	43	7.516	7.512	(0.976)	1515398	190.794	190.79
*	52 d5-Chlorobenzene	117	7.702	7.705	(1.000)	1789726	50.0000	
	53 Chlorobenzene	112	7.713	7.716	(1.001)	1302355	42.0487	42.049
	54 Ethyl Benzene	91	7.736	7.733	(1.004)	2401658	44.3939	44.394
	55 1,1,1,2-Tetrachloroethane	131	7.759	7.761	(1.007)	404955	42.7908	42.791
	56 m,p-xylene	106	7.838	7.840	(1.018)	1887383	96.6139	96.614
	57 o-Xylene	106	8.143	8.146	(1.057)	873969	47.6905	47.691
	58 Styrene	104	8.183	8.180	(1.062)	1493094	41.3235	41.324
	59 Bromoform	173	8.194	8.197	(0.873)	250010	43.3609	43.361
	60 Isopropyl Benzene	105	8.369	8.366	(0.892)	2325796	39.7799	39.780(R)
$	62 4-Bromofluorobenzene	95	8.567	8.570	(1.112)	860022	48.8438	48.844
	63 Bromobenzene	156	8.646	8.643	(0.921)	526987	42.5593	42.559
	64 N-Propyl Benzene	91	8.669	8.666	(0.923)	2821416	47.3614	47.361

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	65 1,1,2,2-Tetrachloroethane	83	8.714	8.717	(0.928)	444905	41.6853	41.685
	66 2-Chloro Toluene	91	8.777	8.779	(0.935)	1627056	45.4543	45.454
	67 1,3,5-Trimethyl Benzene	105	8.810	8.813	(0.939)	1925915	48.1579	48.158
	68 1,2,3-Trichloropropane	110	8.816	8.819	(0.939)	141881	43.5211	43.521
	69 Trans-1,4-Dichloro 2-Butene	53	8.844	8.847	(0.942)	150075	45.5079	45.508
	70 4-Chloro Toluene	91	8.901	8.898	(0.948)	1684931	46.6845	46.685
	71 T-Butyl Benzene	119	9.042	9.045	(0.963)	1615366	40.3794	40.379(R)
	72 1,2,4-Trimethylbenzene	105	9.093	9.096	(0.969)	1931759	48.9743	48.974
	73 S-Butyl Benzene	105	9.172	9.175	(0.977)	2677564	48.5770	48.577
	74 4-Isopropyl Toluene	119	9.280	9.282	(0.989)	2044122	41.3800	41.380
	75 1,3-Dichlorobenzene	146	9.331	9.333	(0.994)	1057796	44.8472	44.847
*	76 d4-1,4-Dichlorobenzene	152	9.387	9.390	(1.000)	951779	50.0000	
	77 1,4-Dichlorobenzene	146	9.399	9.401	(1.001)	1069858	43.5697	43.570
	78 N-Butyl Benzene	91	9.596	9.593	(1.022)	2095463	52.5102	52.510
$	79 d4-1,2-Dichlorobenzene	152	9.710	9.706	(1.034)	856749	51.2561	51.256
	80 1,2-Dichlorobenzene	146	9.715	9.712	(1.035)	983276	42.9034	42.903
	81 1,2-Dibromo 3-Chloropropane	75	10.320	10.323	(1.099)	71759	43.3394	43.339
	82 Hexachloro 1,3-Butadiene	225	10.829	10.826	(1.154)	396044	46.6038	46.604
	83 1,2,4-Trichlorobenzene	180	10.852	10.849	(1.156)	689284	50.8426	50.843
	84 Naphthalene	128	11.106	11.109	(1.183)	1415496	48.6934	48.693
	85 1,2,3-Trichlorobenzene	180	11.253	11.250	(1.199)	623695	46.9722	46.972

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: lcs0402.d
Lab Smp Id: LCS0402
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/02APR13.b/VO121012S.m
Misc Info: 13-6642

Calibration Date: 02-APR-2013
Calibration Time: 11:38
Client Smp ID: LCS0402
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	991631	5.33
35 1,4-Difluorobenze	1617500	808750	3235000	1760040	8.81
52 d5-Chlorobenzene	1675930	837965	3351860	1789726	6.79
76 d4-1,4-Dichlorobe	909458	454729	1818916	951779	4.65

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	0.06
35 1,4-Difluorobenze	5.65	5.15	6.15	5.64	-0.04
52 d5-Chlorobenzene	7.70	7.20	8.20	7.70	-0.03
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: LCS0402
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt9.i/02APR13.b/VO121012S.m
Misc Info: 13-6642

Client SDG: 02APR13
Fraction: VOA
Client Smp ID: LCS0402
Operator: PB
SampleType: LCS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.000	51.886	103.77	53-148
2	Chloromethane	50.000	50.294	100.59	64-125
3	Vinyl Chloride	50.000	49.361	98.72	63-137
4	Bromomethane	50.000	51.676	103.35	57-136
5	Chloroethane	50.000	47.964	95.93	64-131
6	Trichlorofluoromet	50.000	51.753	103.51	69-132
12	Acrolein	250.00	219.33	87.73	54-137
9	112Trichloro122Tri	50.000	47.790	95.58	74-130
14	Acetone	250.00	211.73	84.69	60-131
7	1,1-Dichloroethene	50.000	48.287	96.57	75-126
11	Bromoethane	50.000	46.650	93.30	76-126
10	Iodomethane	50.000	39.194	78.39	65-139
13	Methylene Chloride	50.000	42.905	85.81	70-123
8	Carbon Disulfide	50.000	50.277	100.55	71-129
18	Acrylonitrile	50.000	41.639	83.28	67-125
15	Trans-1,2-Dichloro	50.000	44.860	89.72	80-120
19	Vinyl Acetate	50.000	44.459	88.92	60-136
17	1,1-Dichloroethane	50.000	43.616	87.23	80-120
29	2-Butanone	250.00	227.07	90.83	70-120
22	2,2-Dichloropropan	50.000	45.840	91.68	74-123
20	Cis-1,2-Dichloroet	50.000	49.344	98.69	80-120
24	Chloroform	50.000	43.035	86.07	80-120
23	Bromochloromethane	50.000	42.569	85.14	80-120
26	1,1,1-Trichloroeth	50.000	43.992	87.98	77-121
28	1,1-Dichloropropen	50.000	45.107	90.21	80-120
25	Carbon Tetrachlori	50.000	44.534	89.07	77-122
33	1,2-Dichloroethane	50.000	40.453	80.91	76-120
30	Benzene	50.000	42.494	84.99	80-120
34	Trichloroethene	50.000	42.769	85.54	80-120
38	1,2-Dichloropropan	50.000	42.282	84.56	80-120
39	Bromodichlorometha	50.000	41.598	83.20	77-121
37	Dibromomethane	50.000	40.737	81.47	80-120
40	2-Chloroethyl Viny	50.000	35.115	70.23	10-191

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
45 4-Methyl-2-Pentano	250.00	228.23	91.29	67-120
41 Cis 1,3-dichloropr	50.000	46.345	92.69	74-120
43 Toluene	50.000	42.209	84.42	80-120
46 Trans 1,3-Dichloro	50.000	44.495	88.99	65-120
51 2-Hexanone	250.00	190.79	76.32	65-130
47 1,1,2-Trichloroeth	50.000	40.644	81.29	80-120
49 1,3-Dichloropropan	50.000	42.556	85.11	80-120
44 Tetrachloroethene	50.000	44.830	89.66	80-121
48 Chlorodibromometha	50.000	41.751	83.50	64-120
50 1,2-Dibromoethane	50.000	41.600	83.20	75-120
53 Chlorobenzene	50.000	42.049	84.10	80-120
55 1,1,1,2-Tetrachlor	50.000	42.791	85.58	69-121
54 Ethyl Benzene	50.000	44.394	88.79	80-127
56 m,p-xylene	100.00	96.614	96.61	80-125
57 o-Xylene	50.000	47.691	95.38	78-120
58 Styrene	50.000	41.324	82.65	80-123
60 Isopropyl Benzene	50.000	39.780	79.56*	80-127
59 Bromoform	50.000	43.361	86.72	60-120
65 1,1,2,2-Tetrachlor	50.000	41.685	83.37	74-120
68 1,2,3-Trichloropro	50.000	43.521	87.04	72-121
69 Trans-1,4-Dichloro	50.000	45.508	91.02	65-126
64 N-Propyl Benzene	50.000	47.361	94.72	80-132
63 Bromobenzene	50.000	42.559	85.12	80-120
67 1,3,5-Trimethyl Be	50.000	48.158	96.32	80-125
66 2-Chloro Toluene	50.000	45.454	90.91	80-125
70 4-Chloro Toluene	50.000	46.685	93.37	80-127
71 T-Butyl Benzene	50.000	40.379	80.76*	87-122
72 1,2,4-Trimethylben	50.000	48.974	97.95	80-126
73 S-Butyl Benzene	50.000	48.577	97.15	80-134
74 4-Isopropyl Toluen	50.000	41.380	82.76	80-131
75 1,3-Dichlorobenzen	50.000	44.847	89.69	80-120
77 1,4-Dichlorobenzen	50.000	43.570	87.14	80-120
78 N-Butyl Benzene	50.000	52.510	105.02	80-138
80 1,2-Dichlorobenzen	50.000	42.903	85.81	80-120
81 1,2-Dibromo 3-Chlo	50.000	43.339	86.68	59-120
83 1,2,4-Trichloroben	50.000	50.843	101.69	78-130
82 Hexachloro 1,3-But	50.000	46.604	93.21	76-129
84 Naphthalene	50.000	48.693	97.39	66-120
85 1,2,3-Trichloroben	50.000	46.972	93.94	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	52.202	104.40	30-160

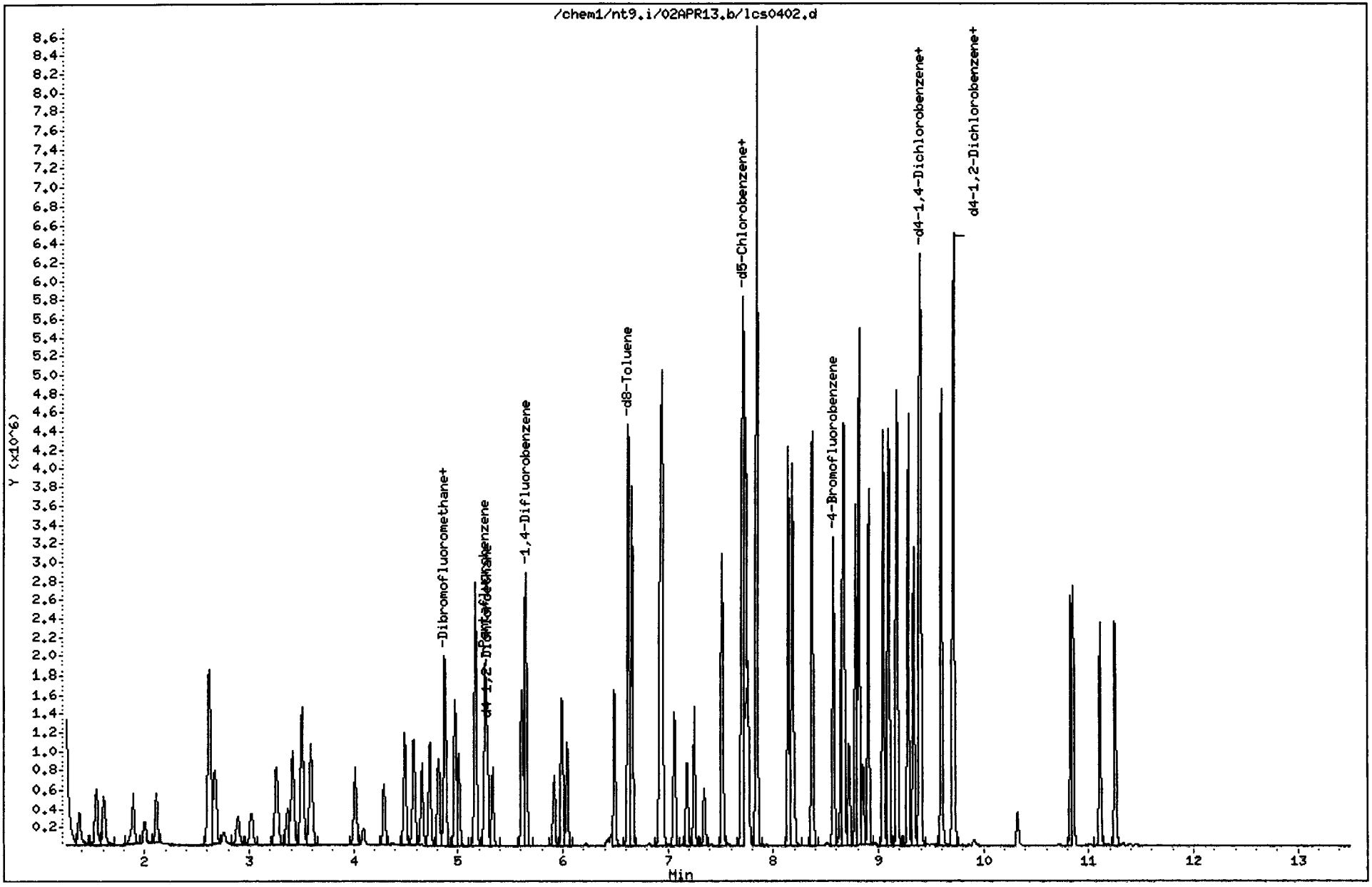
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 32 d4-1,2-Dichloroeth	50.000	52.224	104.45	75-152
$ 42 d8-Toluene	50.000	49.889	99.78	82-115
$ 62 4-Bromofluorobenze	50.000	48.844	97.69	64-120
$ 79 d4-1,2-Dichloroben	50.000	51.256	102.51	80-120

Data File: /chem1/nt9.i/02APR13.b/lcs0402.d
Date : 02-APR-2013 12:14
Client ID: LCS0402
Sample Info: LCS0402,5,5,0

Instrument: nt9.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



CO-ELUTION SUMMARY FOR FILE - lcs0402.d

Lab ID: LCS0402, Method: VO121012S.m, Instrument: nt9.i, Date: 02-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt9.i/02APR13.b/lcs0402a.d
Lab Smp Id: LCS0402 Client Smp ID: LCS0402
Inj Date : 02-APR-2013 12:36
Operator : PB Inst ID: nt9.i
Smp Info : LCS0402,5,5,0
Misc Info : 13-6642
Comment :
Method : /chem1/nt9.i/02APR13.b/VO121012S.m
Meth Date : 03-Apr-2013 10:52 patrickb Quant Type: ISTD
Cal Date : 01-APR-2013 18:55 Cal File: 2000401.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1	Dichlorodifluoromethane	85	1.382	1.371	(0.263)	436660	54.4904	54.490
2	Chloromethane	50	1.546	1.535	(0.294)	711603	52.3028	52.303
3	Vinyl Chloride	62	1.620	1.609	(0.308)	653865	51.4499	51.450
4	Bromomethane	94	1.902	1.892	(0.362)	352054	52.6125	52.613
5	Chloroethane	64	2.010	1.999	(0.382)	218515	49.8474	49.847
6	Trichlorofluoromethane	101	2.123	2.112	(0.403)	412458	54.1938	54.194
7	1,1-Dichloroethene	96	2.626	2.615	(0.499)	430001	51.0418	51.042
8	Carbon Disulfide	76	2.632	2.621	(0.500)	1507157	52.1609	52.161
9	112Trichloro122Trifluoroethane	101	2.683	2.672	(0.510)	430274	50.1037	50.104
10	Iodomethane	142	2.767	2.757	(0.526)	224853	40.2835	40.283
11	Bromoethane	108	2.903	2.893	(0.552)	287367	48.9497	48.950
12	Acrolein	56	3.028	3.017	(0.575)	386793	216.035	216.04
13	Methylene Chloride	84	3.265	3.260	(0.621)	458427	44.8541	44.854
14	Acetone	43	3.373	3.362	(0.641)	549207	207.328	207.33

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	3.423	3.413	(0.651)	461808	46.6121	46.612
	16 Methyl tert butyl ether	73	3.593	3.588	(0.683)	1056941	44.0262	44.026
	17 1,1-Dichloroethane	63	4.023	4.012	(0.765)	853805	46.5940	46.594
	18 Acrylonitrile	53	4.102	4.091	(0.780)	139754	40.8567	40.857
	19 Vinyl Acetate	43	4.294	4.289	(0.816)	882127	45.4654	45.465
	20 Cis-1,2-Dichloroethene	96	4.492	4.487	(0.854)	449610	45.3358	45.336
	22 2,2-Dichloropropane	77	4.577	4.572	(0.870)	661129	47.7855	47.785
	23 Bromochloromethane	128	4.656	4.651	(0.885)	211124	44.4452	44.445
	24 Chloroform	83	4.730	4.725	(0.899)	766764	44.8750	44.875
	25 Carbon Tetrachloride	117	4.814	4.809	(0.853)	535437	46.8805	46.880
$	27 Dibromofluoromethane	111	4.877	4.872	(0.927)	485484	52.7846	52.785
	26 1,1,1-Trichloroethane	97	4.877	4.872	(0.927)	663482	46.7628	46.763
	28 1,1-Dichloropropene	75	4.973	4.968	(0.881)	653394	47.6950	47.695
	29 2-Butanone	72	5.012	5.007	(0.953)	223138	221.587	221.59
	30 Benzene	78	5.171	5.166	(0.916)	2112871	44.9491	44.949
*	31 Pentafluorobenzene	168	5.261	5.256	(1.000)	1008519	50.0000	
$	32 d4-1,2-Dichloroethane	65	5.284	5.279	(1.004)	525457	53.8392	53.839
	33 1,2-Dichloroethane	62	5.335	5.330	(0.945)	523473	42.1500	42.150
	34 Trichloroethene	95	5.612	5.607	(0.994)	469896	44.5208	44.521
*	35 1,4-Difluorobenzene	114	5.646	5.646	(1.000)	1792823	50.0000	
	37 Dibromomethane	93	5.917	5.918	(1.048)	228466	42.6272	42.627
	38 1,2-Dichloropropane	63	5.996	5.991	(1.062)	517885	44.4513	44.451
	39 Bromodichloromethane	83	6.042	6.042	(1.070)	570576	43.5343	43.534
	40 2-Chloroethyl Vinyl Ether	63	6.460	6.455	(1.144)	34919	35.3965	35.397(QM)
	41 Cis 1,3-dichloropropene	75	6.494	6.489	(1.150)	746076	47.8034	47.803
$	42 d8-Toluene	98	6.618	6.619	(1.172)	2305837	50.1322	50.132
	43 Toluene	92	6.658	6.653	(1.179)	1320691	44.9366	44.937
	44 Tetrachloroethene	166	6.918	6.919	(0.898)	512501	46.2717	46.272
	45 4-Methyl-2-Pentanone	58	6.935	6.936	(1.228)	857575	230.528	230.53
	46 Trans 1,3-Dichloropropene	75	6.952	6.947	(1.231)	658733	45.9126	45.913
	47 1,1,2-Trichloroethane	97	7.059	7.060	(1.250)	361387	41.7541	41.754
	48 Chlorodibromomethane	129	7.184	7.179	(0.932)	382896	42.4903	42.490
	49 1,3-Dichloropropane	76	7.252	7.247	(0.941)	672912	42.7834	42.783
	50 1,2-Dibromoethane	107	7.342	7.343	(1.300)	348933	42.9054	42.905
	51 2-Hexanone	43	7.517	7.512	(0.976)	1586183	191.020	191.02
*	52 d5-Chlorobenzene	117	7.704	7.705	(1.000)	1871112	50.0000	
	53 Chlorobenzene	112	7.715	7.716	(1.001)	1408968	43.5123	43.512
	54 Ethyl Benzene	91	7.738	7.733	(1.004)	2592184	45.8316	45.832
	55 1,1,1,2-Tetrachloroethane	131	7.761	7.761	(1.007)	433357	43.8002	43.800
	56 m,p-xylene	106	7.840	7.840	(1.018)	2032803	99.5317	99.532
	57 o-Xylene	106	8.145	8.146	(1.057)	937107	48.9116	48.912
	58 Styrene	104	8.185	8.180	(1.062)	1605328	42.4973	42.497
	59 Bromoform	173	8.196	8.197	(0.873)	259553	42.2107	42.211
	60 Isopropyl Benzene	105	8.371	8.366	(0.892)	2497780	40.0592	40.059
$	62 4-Bromofluorobenzene	95	8.569	8.570	(1.112)	899937	48.8876	48.888
	63 Bromobenzene	156	8.648	8.643	(0.921)	564944	42.7814	42.781
	64 N-Propyl Benzene	91	8.665	8.666	(0.923)	3046509	47.9530	47.953

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.716	8.717	(0.928)	469337	41.2341	41.234
66	2-Chloro Toluene	91	8.778	8.779	(0.935)	1751035	45.8695	45.869
67	1,3,5-Trimethyl Benzene	105	8.812	8.813	(0.939)	2103866	49.3293	49.329
68	1,2,3-Trichloropropane	110	8.818	8.819	(0.939)	145463	41.8393	41.839
69	Trans-1,4-Dichloro 2-Butene	53	8.846	8.847	(0.942)	154293	43.8713	43.871
70	4-Chloro Toluene	91	8.903	8.898	(0.948)	1800853	46.7870	46.787
71	T-Butyl Benzene	119	9.044	9.045	(0.963)	1772726	41.5515	41.551(R)
72	1,2,4-Trimethylbenzene	105	9.095	9.096	(0.969)	2076998	49.3751	49.375
73	S-Butyl Benzene	105	9.174	9.175	(0.977)	2913164	49.5578	49.558
74	4-Isopropyl Toluene	119	9.282	9.282	(0.989)	2214945	42.0439	42.044
75	1,3-Dichlorobenzene	146	9.333	9.333	(0.994)	1133663	45.0686	45.069
* 76	d4-1,4-Dichlorobenzene	152	9.389	9.390	(1.000)	1015033	50.0000	
77	1,4-Dichlorobenzene	146	9.400	9.401	(1.001)	1150929	43.9504	43.950
78	N-Butyl Benzene	91	9.598	9.593	(1.022)	2203626	51.7794	51.779
$ 79	d4-1,2-Dichlorobenzene	152	9.706	9.706	(1.034)	899001	50.4322	50.432
80	1,2-Dichlorobenzene	146	9.717	9.712	(1.035)	1057658	43.2731	43.273
81	1,2-Dibromo 3-Chloropropane	75	10.322	10.323	(1.099)	74451	42.1631	42.163
82	Hexachloro 1,3-Butadiene	225	10.831	10.826	(1.154)	423489	46.7279	46.728
83	1,2,4-Trichlorobenzene	180	10.848	10.849	(1.155)	740299	51.2027	51.203
84	Naphthalene	128	11.108	11.109	(1.183)	1522091	49.0974	49.097
85	1,2,3-Trichlorobenzene	180	11.249	11.250	(1.198)	680366	48.0471	48.047

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt9.i
Lab File ID: lcs0402a.d
Lab Smp Id: LCS0402
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt9.i/02APR13.b/VO121012S.m
Misc Info: 13-6642

Calibration Date: 02-APR-2013
Calibration Time: 11:38
Client Smp ID: LCS0402
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	941473	470736	1882946	1008519	7.12
35 1,4-Difluorobenze	1617500	808750	3235000	1792823	10.84
52 d5-Chlorobenzene	1675930	837965	3351860	1871112	11.65
76 d4-1,4-Dichlorobe	909458	454729	1818916	1015033	11.61

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	5.26	4.76	5.76	5.26	0.09
35 1,4-Difluorobenze	5.65	5.15	6.15	5.65	-0.01
52 d5-Chlorobenzene	7.70	7.20	8.20	7.70	-0.01
76 d4-1,4-Dichlorobe	9.39	8.89	9.89	9.39	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Client SDG: 02APR13
Sample Matrix: SOLID
Fraction: VOA
Lab Smp Id: LCS0402
Client Smp ID: LCS0402
Level: LOW
Operator: PB
Data Type: MS DATA
SampleType: LCSD
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/nt9.i/02APR13.b/VO121012S.m
Misc Info: 13-6642

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.000	54.490	108.98	53-148
2	Chloromethane	50.000	52.303	104.61	64-125
3	Vinyl Chloride	50.000	51.450	102.90	63-137
4	Bromomethane	50.000	52.613	105.23	57-136
5	Chloroethane	50.000	49.847	99.69	64-131
6	Trichlorofluoromet	50.000	54.194	108.39	69-132
12	Acrolein	250.00	216.04	86.41	54-137
9	112Trichloro122Tri	50.000	50.104	100.21	74-130
14	Acetone	250.00	207.33	82.93	60-131
7	1,1-Dichloroethene	50.000	51.042	102.08	75-126
11	Bromoethane	50.000	48.950	97.90	76-126
10	Iodomethane	50.000	40.283	80.57	65-139
13	Methylene Chloride	50.000	44.854	89.71	70-123
8	Carbon Disulfide	50.000	52.161	104.32	71-129
18	Acrylonitrile	50.000	40.857	81.71	67-125
15	Trans-1,2-Dichloro	50.000	46.612	93.22	80-120
19	Vinyl Acetate	50.000	45.465	90.93	60-136
17	1,1-Dichloroethane	50.000	46.594	93.19	80-120
29	2-Butanone	250.00	221.59	88.63	70-120
22	2,2-Dichloropropan	50.000	47.785	95.57	74-123
20	Cis-1,2-Dichloroet	50.000	45.336	90.67	80-120
24	Chloroform	50.000	44.875	89.75	80-120
23	Bromochloromethane	50.000	44.445	88.89	80-120
26	1,1,1-Trichloroeth	50.000	46.763	93.53	77-121
28	1,1-Dichloropropen	50.000	47.695	95.39	80-120
25	Carbon Tetrachlori	50.000	46.880	93.76	77-122
33	1,2-Dichloroethane	50.000	42.150	84.30	76-120
30	Benzene	50.000	44.949	89.90	80-120
34	Trichloroethene	50.000	44.521	89.04	80-120
38	1,2-Dichloropropan	50.000	44.451	88.90	80-120
39	Bromodichlorometha	50.000	43.534	87.07	77-121
37	Dibromomethane	50.000	42.627	85.25	80-120
40	2-Chloroethyl Viny	50.000	35.397	70.79	10-191

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
45 4-Methyl-2-Pentano	250.00	230.53	92.21	67-120
41 Cis 1,3-dichloropr	50.000	47.803	95.61	74-120
43 Toluene	50.000	44.937	89.87	80-120
46 Trans 1,3-Dichloro	50.000	45.913	91.83	65-120
51 2-Hexanone	250.00	191.02	76.41	65-130
47 1,1,2-Trichloroeth	50.000	41.754	83.51	80-120
49 1,3-Dichloropropan	50.000	42.783	85.57	80-120
44 Tetrachloroethene	50.000	46.272	92.54	80-121
48 Chlorodibromometha	50.000	42.490	84.98	64-120
50 1,2-Dibromoethane	50.000	42.905	85.81	75-120
53 Chlorobenzene	50.000	43.512	87.02	80-120
55 1,1,1,2-Tetrachlor	50.000	43.800	87.60	69-121
54 Ethyl Benzene	50.000	45.832	91.66	80-127
56 m,p-xylene	100.00	99.532	99.53	80-125
57 o-Xylene	50.000	48.912	97.82	78-120
58 Styrene	50.000	42.497	84.99	80-123
60 Isopropyl Benzene	50.000	40.059	80.12	80-127
59 Bromoform	50.000	42.211	84.42	60-120
65 1,1,2,2-Tetrachlor	50.000	41.234	82.47	74-120
68 1,2,3-Trichloropro	50.000	41.839	83.68	72-121
69 Trans-1,4-Dichloro	50.000	43.871	87.74	65-126
64 N-Propyl Benzene	50.000	47.953	95.91	80-132
63 Bromobenzene	50.000	42.781	85.56	80-120
67 1,3,5-Trimethyl Be	50.000	49.329	98.66	80-125
66 2-Chloro Toluene	50.000	45.869	91.74	80-125
70 4-Chloro Toluene	50.000	46.787	93.57	80-127
71 T-Butyl Benzene	50.000	41.551	83.10*	87-122
72 1,2,4-Trimethylben	50.000	49.375	98.75	80-126
73 S-Butyl Benzene	50.000	49.558	99.12	80-134
74 4-Isopropyl Toluen	50.000	42.044	84.09	80-131
75 1,3-Dichlorobenzen	50.000	45.069	90.14	80-120
77 1,4-Dichlorobenzen	50.000	43.950	87.90	80-120
78 N-Butyl Benzene	50.000	51.779	103.56	80-138
80 1,2-Dichlorobenzen	50.000	43.273	86.55	80-120
81 1,2-Dibromo 3-Chlo	50.000	42.163	84.33	59-120
83 1,2,4-Trichloroben	50.000	51.203	102.41	78-130
82 Hexachloro 1,3-But	50.000	46.728	93.46	76-129
84 Naphthalene	50.000	49.097	98.19	66-120
85 1,2,3-Trichloroben	50.000	48.047	96.09	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	52.785	105.57	30-160

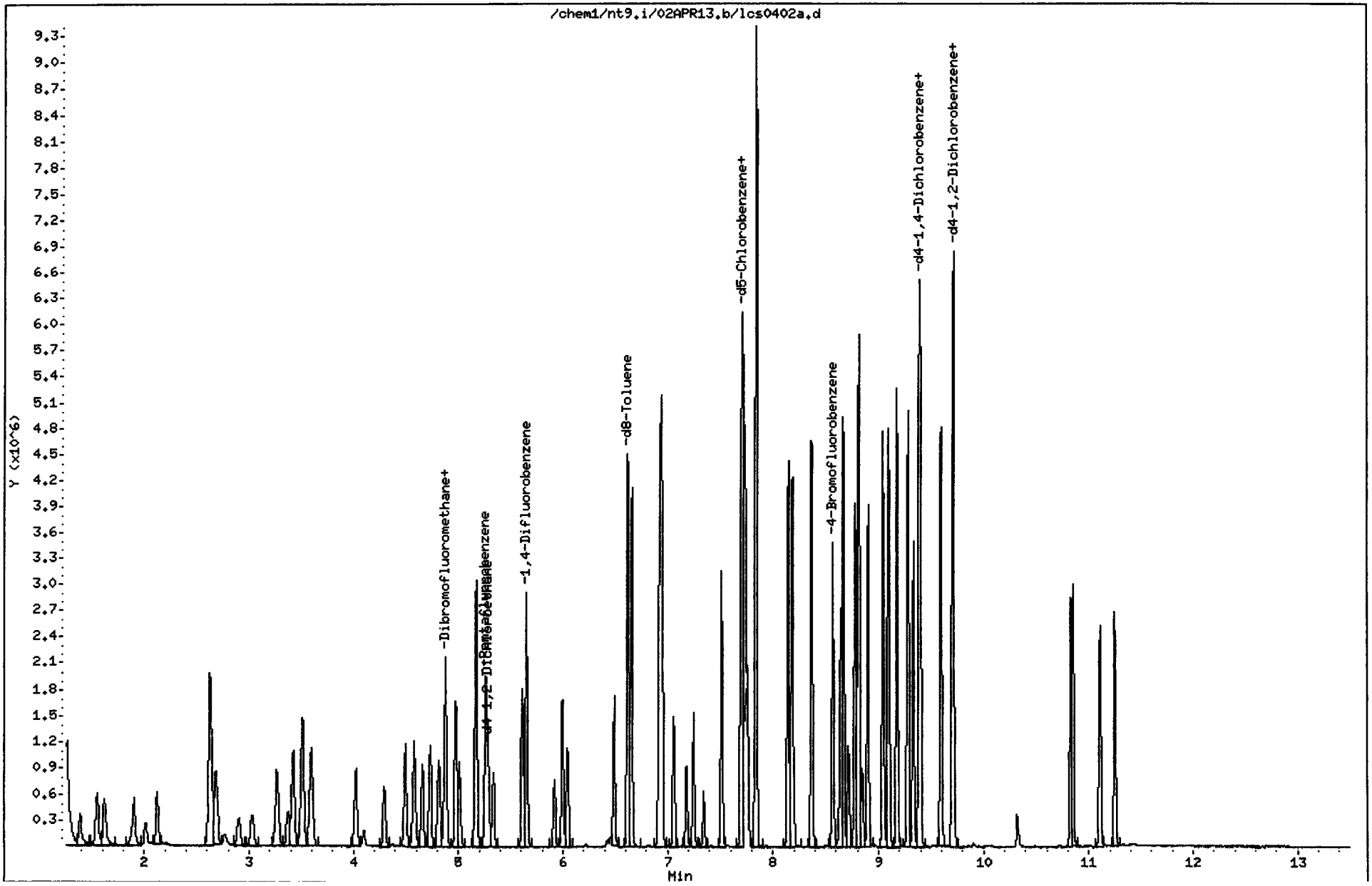
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 32 d4-1,2-Dichloroeth	50.000	53.839	107.68	75-152
$ 42 d8-Toluene	50.000	50.132	100.26	82-115
$ 62 4-Bromofluorobenze	50.000	48.888	97.78	64-120
$ 79 d4-1,2-Dichloroben	50.000	50.432	100.86	80-120

Data File: /chem1/nt9.i/02APR13.b/lcs0402a.d
Date : 02-APR-2013 12:36
Client ID: LCS0402
Sample Info: LCS0402,5,5,0

Instrument: nt9.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



CO-ELUTION SUMMARY FOR FILE - lcs0402a.d

Lab ID: LCS0402, Method: VO121012S.m, Instrument: nt9.i, Date: 02-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WJ10, WJ32

Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

(8270D) BAN –Water
Separatory Funnel (3510C) (SOP # 3311S)

Preparation Test BAN # 1 (BANWSI) In-House (1.0-5.0ppb)

ARI Job No(s) WJ14 Page 1 of 1 Batch set up by: SP

Bottle #	Extraction Requirements	Volume Extracted	Final Effective Volume	Volume to Lab	Comments	Verify Client ID
	WJ14 MBW	500mL	0.5mL	0.5mL		AC 4-1-13
	SBW	500mL	0.5mL	0.5mL		
	SBW Dup	500mL	0.5mL	0.5mL		
	QLS	500mL	0.5mL	0.5mL		
7	A	500mL	0.5mL	0.5mL		Analyst/Date
		500mL	0.5mL	0.5mL		KD 80-85°C 1 2 3 4 5 6 4/24/13
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		Analyst/Date
		500mL	0.5mL	0.5mL		TurboVap 1 2 3 SP 4/4/13
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL	SP 4/4/13	
Analyst/Date		AC 4-1-13	SP 4/4/13	SP 4/4/13		Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (2084-3)	100/150µg/mL	125µL	7/2/13	AC	WW
Full List Spike (Freezer)	7 (2065-5)	100µg/mL	125µL	1/25/14	AC	WW
Base Spike	56 (2065-2)	200µg/mL	125µL	7/31/13	AC	WW
~~Benzidine Spike~~	~~39 ( )~~	~~500µg/mL~~	~~125µL~~			
Acid Spike	38 (2074-1)	100/200µg/mL	125µL	7/31/13	AC	WW
QLS Spike (Freezer)	14 (2032-2)	10-100µg/mL	50µL	4/24/13	AC	WW
Extraction Time:	17:05					

SPECIAL INSTRUCTIONS: 1. Add surr/spk. 2. Adjust Acid (pH <2) using 1:1 Sulfuric Acid. (1/4 pipet for blanks & 1/2 pipet for samples). Verify pH! 3. Extract 1X 60mL DCM, Plus 2X 30mL DCM. 4. Adjust Basic (pH >12) using 1 pipet 10 N Sodium Hydroxide solution. Verify pH! 5. Extract 1X 60mL DCM, Plus 2X 30mL DCM.
5. Pour Acid Fraction first into KD then Basic Fraction into Acid. 6. KD to 5mL at 80°. 7. TurboVap to 0.5mL.
8. Vial in DCM.

A. Archive Y (N)

WJ14:00806

Reagent and Solutions Identification

(8270D) BAN (Soil) Sediment
Microwave (3546) (SOP # 3304S)

ARI Job No(s) WJ17

(8270D) BAN Soil/Sediment/Solid/Other:	Analyst/Date
Microwave Station: Pre-Deactivated Sodium Sulfate: (H# 110) Anhydrous Sodium Sulfate: (I# 8068 + jar date 3/18/13) 1:1 Methylene Chloride/Acetone: (H# 153) Methylene Chloride: (I# 8154) Pre-Deactivated Glasswool: (H# 139)	Microwave YC/CT 04/01/13
Pre-GPC KD Station: Pre-Deactivated Glasswool: (H# 142) Anhydrous Sodium Sulfate: (I# 8068 + jar date 3/18/13) Methylene Chloride: (I# 8164)	Pre-GPC KD RR 04/02/13
GPC Filter Prep: Methylene Chloride: (I# 8164)	GPC Filter Prep CSZ 4/3/13
GPC Station: Acetone: (I# 8053) Methylene Chloride: (I# 8164)	GPC CSZ 4/3/13
Post GPC KD Station: Methylene Chloride: (I# 8164)	Post GPC KD SP/RR 4/4/13
Vialing Station: Methylene Chloride: (I# 7981) Hexane: (I# N/A)	Vialing CSZ 4/4/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: BAN Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
(Centrifuge#1 used for all Centrifugations)	

Incorporated Analytical Chemists and Consultants

(8270D) BAN/SIM SVOA PSDDA–Soil/ Sediment/ Solids Microwave (3546) (SOP # 3304S)

Preparation Test BAN/SIM SVOA PSDDA # 9 (BANSBANSDMP)

PSDDA (5-20ppb)

ARI Job No(s) WJ1ϕ Page 1 of 1 Batch set up by: SP

Bottle #	Extraction Requirements	Weight Extracted (eq. to 10g dry wt)	(REQ) GPC (1:1) 1 or (2)	Final Effective Volume	Volume to Lab	Comments	Verify Client ID / Analyst/Date
	WJ1ϕ MBS	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	YL ϕ4/ϕ3/13 Microwave (1) 2 3
	↓ SBS	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	YL/CJ ϕ4/ϕ3/13 Analyst/Date
	~~SBS Dup~~	~~10.00g~~	~~(1:1) Y / N~~	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	KD 80-85°C (1) 2 3 4 5 6
	QLS WJ1ϕ	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	Analyst/Date 4/4/13
	QLS (SIM)	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	TurboVap (1) 2 3
3	C	1.ϕ1	(1:1) (Y) / N	1mL	1mL	See Analyst Notes	SP 4/4/13 Analyst/Date
6 ~~4/4/13~~	D	15.ϕ5	~~(1:1)~~ (1:2) (Y) / N	~~1mL~~ 2mL CJ2 4/5/13	1mL	↓	GPC Prep Filter (1:1)
6	DM.5	15.ϕ1	~~(1:1)~~ (1:2) (Y) / N	~~1mL~~ 2mL CJ2 4/5/13	1mL		SP 4/4/13
6	↓ DM.5d	15.2	~~(1:1)~~ (1:2) (Y) / N	~~1mL~~ 2mL CJ2 4/5/13	1mL		Analyst/Date
			(1:1) Y / N	1mL	1mL		Post GPC KD 80-85°C (1) 2 3 4 5 6
			(1:1) Y / N	1mL	1mL	CJ2 4/5/13	Analyst/Date 4/5/13
			(1:1) Y / N	1mL	~~1mL~~		
			(1:1) Y / N	1mL	1mL		TurboVap (1) 2 3
Analyst/Date YL ϕ4/ϕ3/13			SP 4/4/13	CJ2 4/5/13	CJ2 4/5/13		CJ2 4/5/13 Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (2ϕ84-3)	100/150µg/mL	50µL	7/ϕ2/13	YL	SP
Full List Spike (Freezer)	7 (2ϕ65-5)	100µg/mL	50µL	1/29/14	YL	SP
Base Spike	56(2ϕ65-2)	200µg/mL	50µL	7/31/13	YL	SP
Acid Spike	38(2ϕ74-1)	100/150µg/mL	50µL	7/31/13	YL	SP
QLS Spike (14 in Freezer)	14(2ϕ32-2)	100/200µg/mL	20µL	4/24/13	YL	SP
SIM QLS Spike (Freezer)	25(2ϕ42-5)	1µg/mL	50µL	4/24/13	YL	SP

Extraction Time: 1315 Balance ID: B14642614

SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 DCM/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-rehomogenize while hot then let cool 15 min in cold water. Re-homogenize while cool. 7. Decant 1:1 DCM/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using DCM only (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD (small ~~orange~~ drying column with pre-deactivated glasswool-Blanks=5g sulfate)) to 5mL at 80- 85°C. 12. GPC Req. 13. (After GPC): KD at 80-85°. 14. TurboVap. 15. Vial in DCM.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

WJ10-0685

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

ARI Job#: 12J10 Client ID: SADC

Analyst: MD Date: 4/6/13

ARI Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Dilution Factor	Primary Dilution (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Final Dilution Factor
D	100	DCM	200	3X				
DMS	100	"	"	"				
DMSD	100	"	"	"				

Reagent and Solutions Identification

(8270D) BAN/SIM SVOA PSDDA–Soil/ Sediment (Solids)
Microwave (3546) (SOP # 3304S)

ARI Job No(s) WJ10

(8270D) BAN/SIM SVOA PSDDA Soil/Sediment/Solid/Other:	Analyst/Date
Microwave Station: Pre-Deactivated Sodium Sulfate: (H# 110) Anhydrous Sodium Sulfate: (I# 8086 + jar date 03/18/13) 1:1 Methylene Chloride/Acetone: (H# 153) Methylene Chloride: (I# 8164) Pre-Deactivated Glasswool: (H# 139)	Microwave YL/CT 04/03/13
Pre-GPC KD Station: Pre-Deactivated Glasswool: (H# 147) Anhydrous Sodium Sulfate: (I# 5068 jar date 03/18/13) Methylene Chloride: (I# 8165)	Pre-GPC KD SP 04/04/13
GPC Filter Prep: Methylene Chloride: (I# 8165)	GPC Filter Prep SP 4/4/13
GPC Station: Acetone: (I# 8053) Methylene Chloride: (I# ~~8165~~ SP 4/4/13 I8174)	GPC SP 4/4/13
Post GPC KD Station: Methylene Chloride: (I# 8164)	Post-GPC KD SP 04/05/13
Vialing Station: Methylene Chloride: (I# 8164) Hexane: (I# N/A)	Vialing CSB 4/5/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: BAN/SIM SVOA Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☒ Standing Water Decanted (Not shared)= C, D	YL 3/28/13
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☒ Organics (Leaves/sticks/grass)= 5% D.	YL 3/28/13
☒ Oily, obvious fuel/sulfur odors= C, D	YL 3/28/13
☒ Other (Details)= the printer didn't printed out 2:2 paper Real time data	YL 4/3/13.
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions). GCMS analyst, (Centrifuge#1 used for all Centrifugations) reduced extraction weights for all Samples, based on Sample pre-screens.	SP 4/01/13
Sample D, DMS, DMSD - viscous extract prior to GPC. Took to 5mL, loaded 2.5mL (1:2) on GPC.	SP 4/4/13

3056F

Revision 009
08/14/12

WJ10:00812

Semivolatile Raw Data
Initial Calibration

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS,SVOA Initial Calibration Notes

ARI SOP: 801S(SIM-PNA) 802S(Butyl Tins) (804S(SVOA-8270D)) 805S(op-Pest)

Instrument: NT-4 (NT-6) NT-8 NT-10 NT11 NT12

Curve Date(s): 3/6/13 Internal Standard ID 1998-2 Expiration 7/3/13

DFTPP Tune Meets Criteria?	(YES) / NO	Minimum Response Factors Met/	(YES) / NO
DDT Breakdown <20%?	(YES) / NO	ICV Exceeding ±20%?	(YES) / NO
Peak Tailing Factor ≤2?	(YES) / NO	ICV Exceeding ±30%?	(YES) / NO
ICal Meets %RSD & r^2 Criteria?	(YES) / NO	Linear Fits Used?	YES / (NO)
Q flag applied?	(N/A) / YES / NO	Quadratic Fits Used?	(YES) / NO
Manual Integrations for ICal?	(YES) / NO	Calibration Points Dropped?	(YES) NO
Spectral Library Updated?	(YES) / NO		

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Ultra	2053-2	8/5/13	Supelco	2046-1	8/13/13
↓	2044-1	12/6/13	↓	2057-1	12/6/13
↓	2055-1	12/5/13	↓	2058-1	12/5/13
in house stock	2061-1	12/5/13	in house stock	2061-1	12/5/13
Cambridge	18031	1/23/14	Cambridge	18031	1/23/14
SPEX & Restek	2027-2	10/5/13	Aldrich	2058-2	7/2/13
Aldrich	2058-2	7/2/13			

Detail problems, corrective actions and/or other pertinent information below:

Quadratic curve fit used: Butylated hydroxy toluene, Tributyl Phosphate, Biphenyl, Naphthalene, 4-Chloroaniline, 2-chloronaphthalene, 3-Nitroaniline, Fluorene, Carbazole, Benzo(b,K) fluoranthene, & BS

1ppm point dropped: Benzoic Acid, 2,4-Dinitrophenol, 4-Nitrophenol, Diethylphthalate, 4,6-Dinitro-2-methylphenol, PCP, & Benzidine

80ppm point dropped: naphthalene, 4-chloroaniline, phenanthrene, Anthracene, Di-n-butylphthalate Benzidine. didn't met min Response factor and out of 20% limit on 1st ICV.

Analyst: _____ **Date:** 3/7/13

Reviewer: _____ **Date:** 3/7/13

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Calibration File Names:
Level 1: /chem2/nt6.i/20130306.b/03061303.D
Level 2: /chem2/nt6.i/20130306.b/03061304.D
Level 3: /chem2/nt6.i/20130306.b/03061305.D
Level 4: /chem2/nt6.i/20130306.b/03061301.D
Level 5: /chem2/nt6.i/20130306.b/03061306.D
Level 6: /chem2/nt6.i/20130306.b/03061307.D
Level 7: /chem2/nt6.i/20130306.b/03061308.D
Level 8: /chem2/nt6.i/20130306.b/03061302.D

03/07/13

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
186 Carbaryl	0.39701	0.47535	0.56117	0.49062	0.46459	0.42558		
	0.42067	+++++					0.46214	11.884
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

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Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
177 p-Benzoquinone	0.05008	0.07043	0.09004	0.08723	0.08034	0.07949		
	0.07703	+++++					0.07638	17.383
168 Pentachlorobenzene	0.54002	0.44946	0.48381	0.42999	0.39543	0.37082		
	0.39690	+++++					0.43806	13.414
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

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Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
133 Butylatedhydroxytoluene	1.14333	0.98886	1.01757	0.90348	0.73978	0.64214		
	0.61393	+++++					0.86416	23.429 <-
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

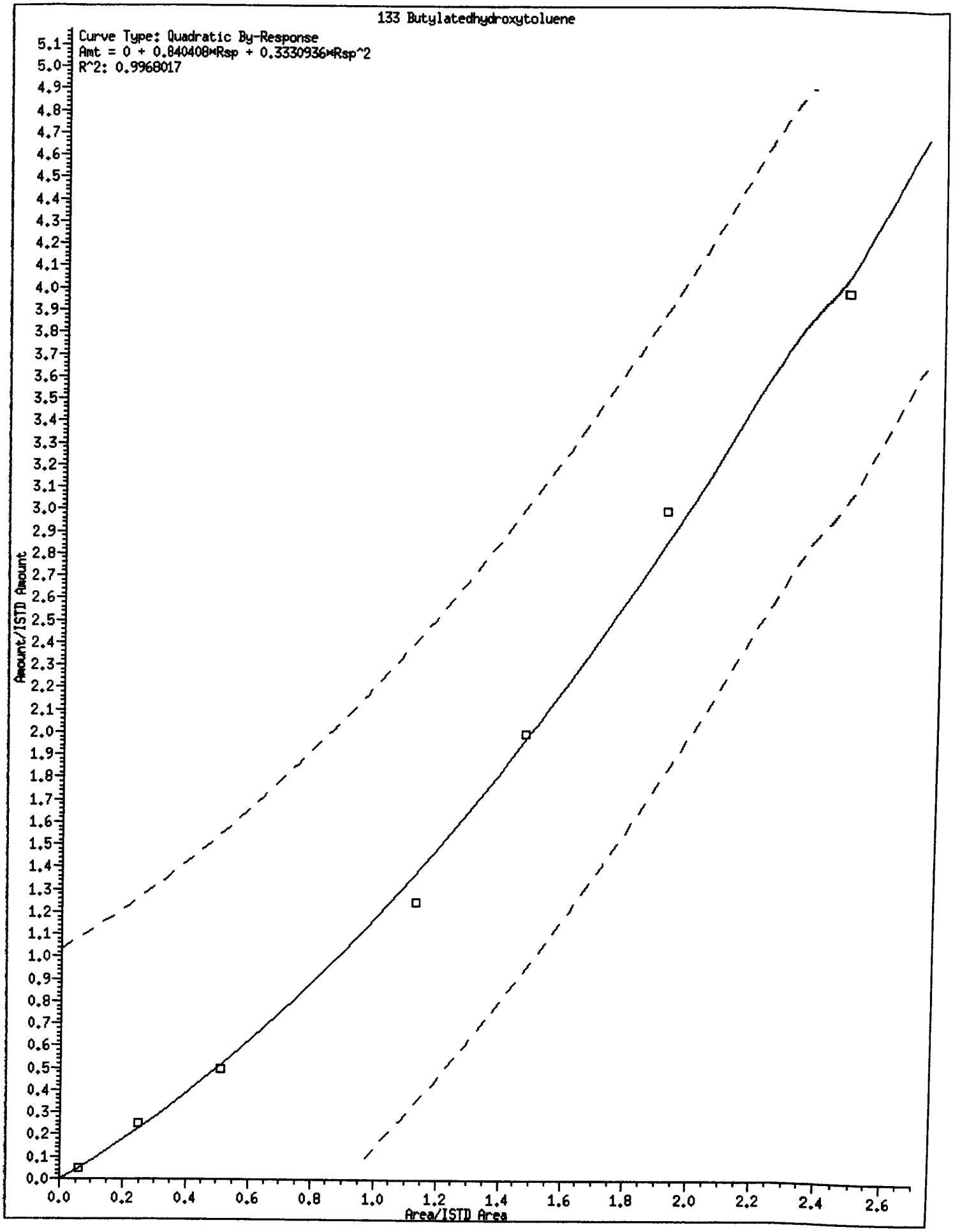
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing

JZ 03/07/13

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7	0.2000 Level 8									
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
133 Butylatedhydroxytoluene	55856	240649	644369	1140696	1474910	1855173					
	2177090	+++++					QUAD	0.000e+00	0.84041	0.33309	0.99680
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00


133 Butylatedhydroxytoluene
Curve Type: Quadratic By-Response
Amt = 0 + 0.840408*Rsp + 0.3330936*Rsp^2
R^2: 0.9968017
Amount/ISTD Amount
Area/ISTD Area

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
144 alpha-Terpineol	0.29935	0.28907	0.28287	0.25012	0.23154	0.21632		
	0.21106	+++++					0.25433	14.269
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
123 Acetophenone	2.14833	1.97774	2.14601	1.85029	1.73200	1.63910		
	1.68468	+++++					1.88259	11.294
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
143 1,4-Dioxane	0.70789	0.62615	0.68743	0.61563	0.60104	0.58481		
	0.62088	0.74708					0.64887	8.913
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
120 2,3,4,6-Tetrachlorophenol	0.21112	0.27662	0.33189	0.30795	0.30141	0.27621		
	0.29312	+++++					0.28547	13.312

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD	
	80.000 Level 7	0.20000 Level 8							
178 2-Benzyl-4-Chlorophenol	0.15564	0.16773	0.19566	0.17601	0.15696	0.14827			
	0.15928	+++++					0.16565	9.643	
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	
118 Triphenyl Phosphate	0.17525	0.16342	0.19227	0.18313	0.17027	0.16645			
	0.17518	+++++					0.17514	5.680	
117 Butyl Diphenyl Phosphate	0.21332	0.19997	0.21022	0.18688	0.17012	0.15561			
	0.15293	+++++					0.18415	13.621	
116 Dibutyl Phenyl Phosphate	0.56961	0.57941	0.64769	0.57421	0.51114	0.49019			
	0.32986	+++++					0.52887	19.190	
115 Tributyl Phosphate	1.07204	0.94669	0.98668	0.84143	0.73508	0.63101			
	0.65635	+++++					0.83847	20.377	<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	
113 Diphenyl Oxide	0.97304	0.82674	0.87158	0.78098	0.69512	0.65045			
	0.65225	+++++					0.77860	15.566	
112 Biphenyl	1.50584	1.36472	1.24623	1.05635	0.90153	0.79289			
	0.81967	+++++					1.09818	25.495	<-

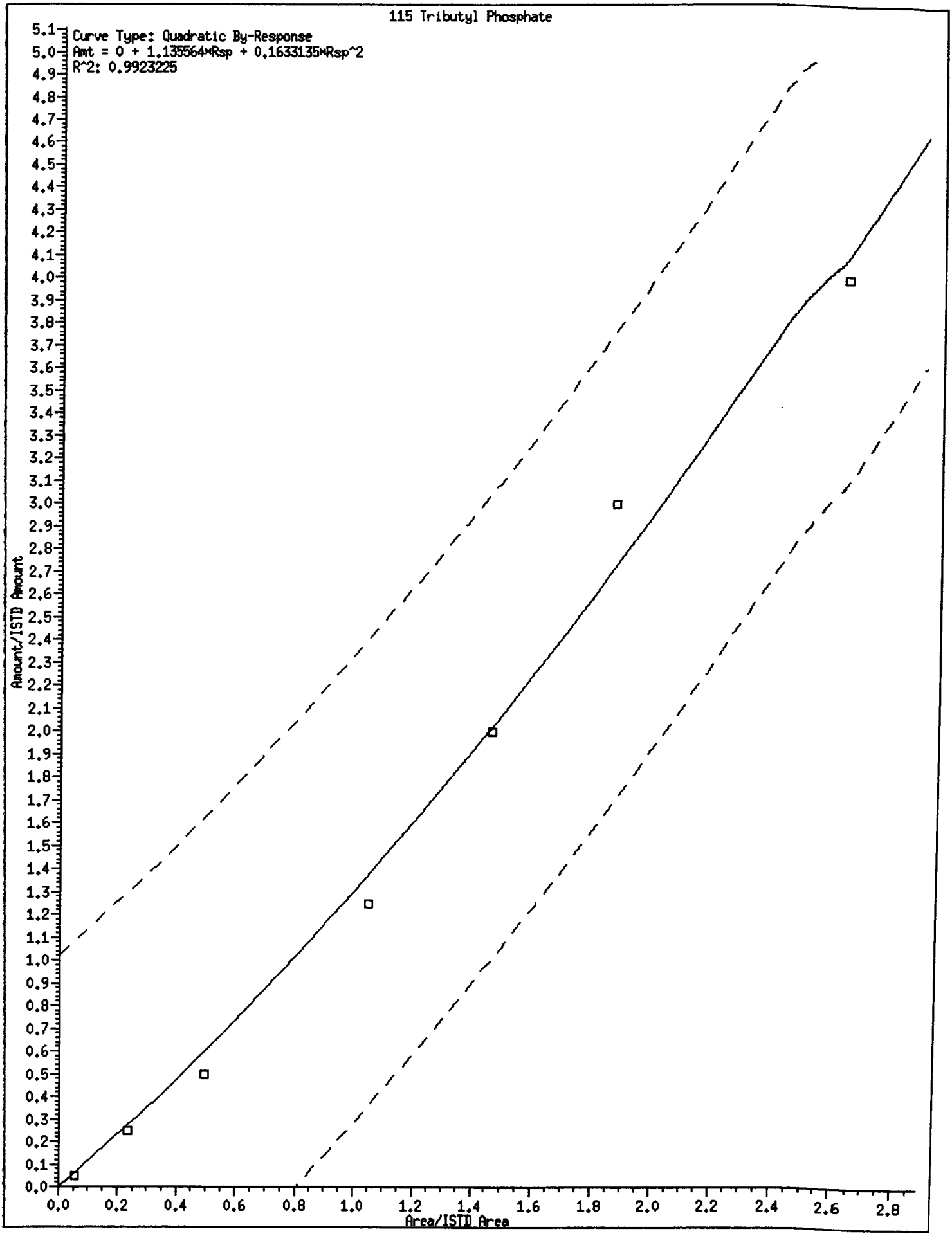
Analytical Resources, Inc.

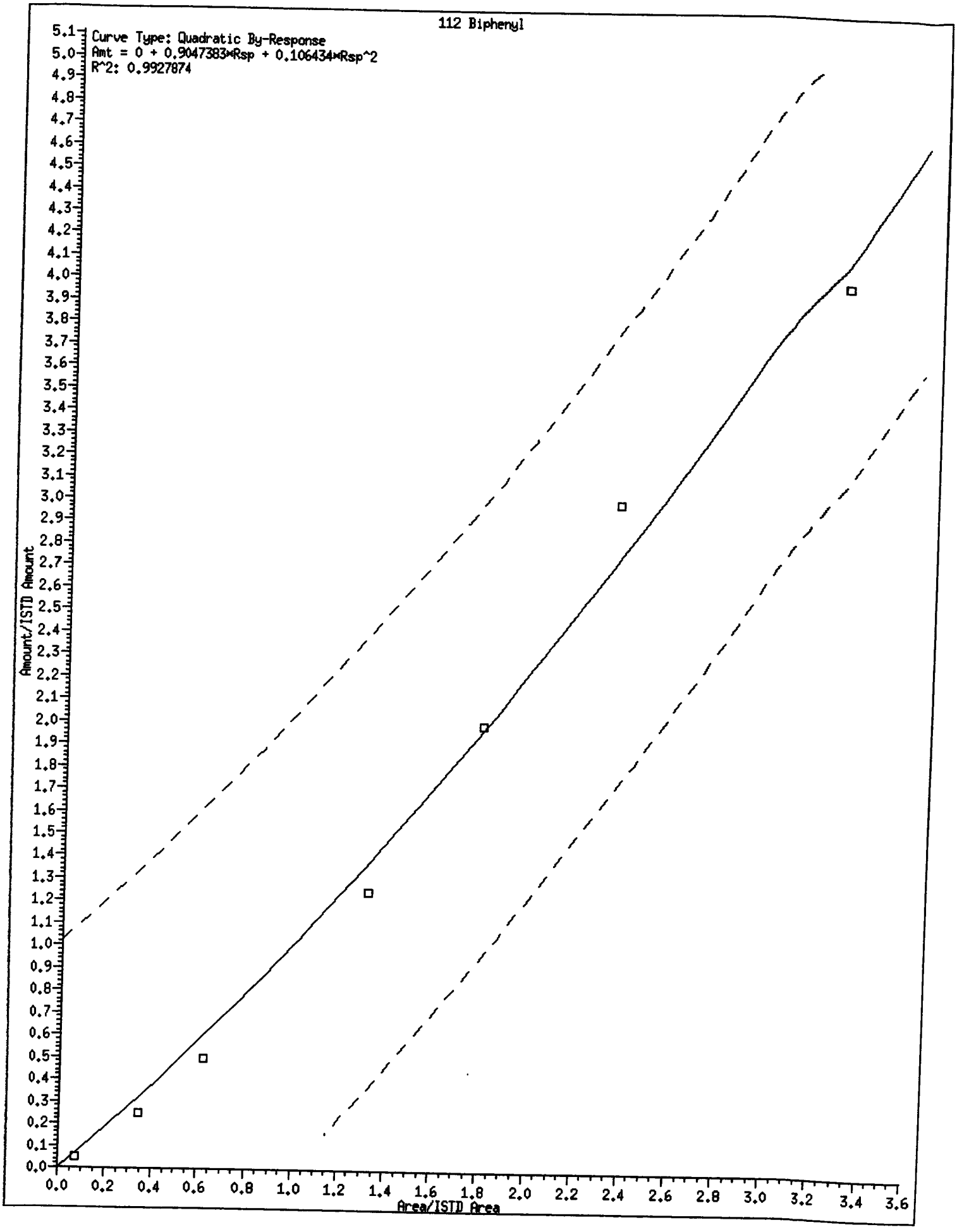
INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing

03/07/13

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
	80 Level 7	0.2000 Level 8									
117 Butyl Diphenyl Phosphate	0.21332	0.19997	0.21022	0.18688	0.17012	0.15561					
	0.15293	+++++					AVRG		0.18415		13.62056
116 Dibutyl Phenyl Phosphate	0.56961	0.57941	0.64769	0.57421	0.51114	0.49019					
	0.32986	+++++					AVRG		0.52887		19.19001
115 Tributyl Phosphate	82254	364951	993217	1753043	2401166	3026027					
	3817283	+++++					QUAD	0.000e+00	1.13556	0.16331	0.99232
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00
113 Diphenyl Oxide	0.97304	0.82674	0.87158	0.78098	0.69512	0.65045					
	0.65225	+++++					AVRG		0.77860		15.56612
112 Biphenyl	73566	332118	789168	1333701	1797394	2290712					
	2906690	+++++					QUAD	0.000e+00	0.90474	0.10643	0.99279
111 Azobenzene (1,2-DP-Hydrazine)	1.59819	1.41911	1.45514	1.24383	1.12998	1.02761					
	0.99651	+++++					AVRG		1.26720		18.16759


115 Tributyl Phosphate
Curve Type: Quadratic By-Response
Amt = 0 + 1.135564*Rsp + 0.1633135*Rsp^2
R^2: 0.9923225
Amount/ISTD Amount
Area/ISTD Area


112 Biphenyl
Curve Type: Quadratic By-Response
Amt = 0 + 0.9047383*Rsp + 0.106434*Rsp^2
R^2: 0.9927874
Amount/ISTD Amount
Area/ISTD Area

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
111 Azobenzene (1,2-DP-Hydrazine)	1.59819	1.41911	1.45514	1.24383	1.12998	1.02761		
	0.99651	+++++					1.26720	18.168
110 Tetrachloroguaiacol	0.10144	0.10936	0.12483	0.10869	0.10075	0.09321		
	0.09632	+++++					0.10494	10.074
109 3,4,5-Trichloroguaiacol	0.11477	0.11815	0.12746	0.12229	0.10934	0.09910		
	0.10860	+++++					0.11425	8.305
181 3,4,6-Trichloroguaiacol	0.43141	0.47417	0.53018	0.50138	0.41933	0.41537		
	0.42275	+++++					0.45637	10.040
108 4,5,6-Trichloroguaiacol	0.16930	0.18527	0.21198	0.20697	0.18460	0.17184		
	0.17943	+++++					0.18706	8.817
184 3,4-Dichloroguaiacol	0.43918	0.42819	0.49791	0.46649	0.40627	0.38479		
	0.40939	+++++					0.43317	8.937
107 4,5-Dichloroguaiacol	0.24196	0.24929	0.27603	0.26392	0.23066	0.21900		
	0.23005	+++++					0.24442	8.269
182 4,6-Dichloroguaiacol	0.49926	0.53426	0.61321	0.57613	0.50603	0.47974		
	0.49129	+++++					0.52856	9.333
185 4-Chloroguaiacol	0.48657	0.54944	0.65015	0.62373	0.55846	0.49724		
	0.56809	+++++					0.56195	10.695

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
106 Guaiacol	1.24586	1.15918	1.23291	1.07310	0.91138	0.81234		
	0.84782	+++++					1.04037	17.558
105 1-methylnaphthalene	0.61050	0.56976	0.56450	0.48433	0.43716	0.40010		
	0.39230	+++++					0.49409	17.868
151 1,2,4,5-Tetrachlorobenzene	0.59727	0.49980	0.53345	0.47181	0.44897	0.42889		
	0.43944	+++++					0.48852	12.333
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
3 Phenol	1.76224	1.73918	1.83003	1.55412	1.48613	1.36745		
	1.44212	+++++					1.59733	11.217
4 Bis(2-Chloroethyl)ether	1.60048	1.46370	1.59535	1.35339	1.28082	1.18687		
	1.22983	+++++					1.38721	12.206
6 2-Chlorophenol	1.37831	1.35510	1.48160	1.27414	1.21027	1.10283		
	1.14376	+++++					1.27800	10.632
7 1,3-Dichlorobenzene	1.81681	1.60019	1.72092	1.47702	1.37550	1.23803		
	1.21973	+++++					1.49260	15.521
9 1,4-Dichlorobenzene	1.82032	1.55518	1.67185	1.43038	1.32574	1.19194		
	1.17353	+++++					1.45271	16.773
11 Benzyl alcohol	0.87814	0.94410	0.96815	0.88893	0.80130	0.76972		
	0.84099	+++++					0.87019	8.282
12 1,2-Dichlorobenzene	1.75726	1.52316	1.60555	1.35410	1.23587	1.09413		
	1.15115	+++++					1.38875	17.850
13 2-Methylphenol	1.25131	1.27565	1.40693	1.22918	1.16820	1.08763		
	1.05956	+++++					1.21121	9.799

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
14 2,2'-oxybis(1-Chloropropane)	2.65572	2.34667	2.53456	2.16149	2.04249	1.89075		
	1.79656	+++++					2.20404	14.652
15 4-Methylphenol	1.24172	1.26860	1.42287	1.24234	1.15506	1.05073		
	1.00274	+++++					1.19772	11.861
16 N-Nitroso-di-n-propylamine	1.19534	1.07425	1.16253	1.02032	0.96375	0.91446		
	0.95659	+++++					1.04103	10.318
17 Hexachloroethane	0.69948	0.61914	0.67843	0.57825	0.54358	0.50067		
	0.49368	+++++					0.58761	13.924
19 Nitrobenzene	0.47644	0.42369	0.44826	0.37521	0.34533	0.30829		
	0.31169	+++++					0.38413	17.393
20 Isophorone	0.78131	0.68897	0.74735	0.63483	0.61575	0.59471		
	0.62384	+++++					0.66954	10.685
21 2-Nitrophenol	0.14475	0.18211	0.21326	0.18617	0.18391	0.16934		
	0.16463	+++++					0.17774	11.981
22 2,4-Dimethylphenol	0.36124	0.35541	0.38736	0.33105	0.32305	0.30039		
	0.29443	+++++					0.33613	10.045
23 Bis(2-Chloroethoxy)methane	0.54133	0.46642	0.49900	0.42377	0.39795	0.37399		
	0.37262	+++++					0.43930	14.803

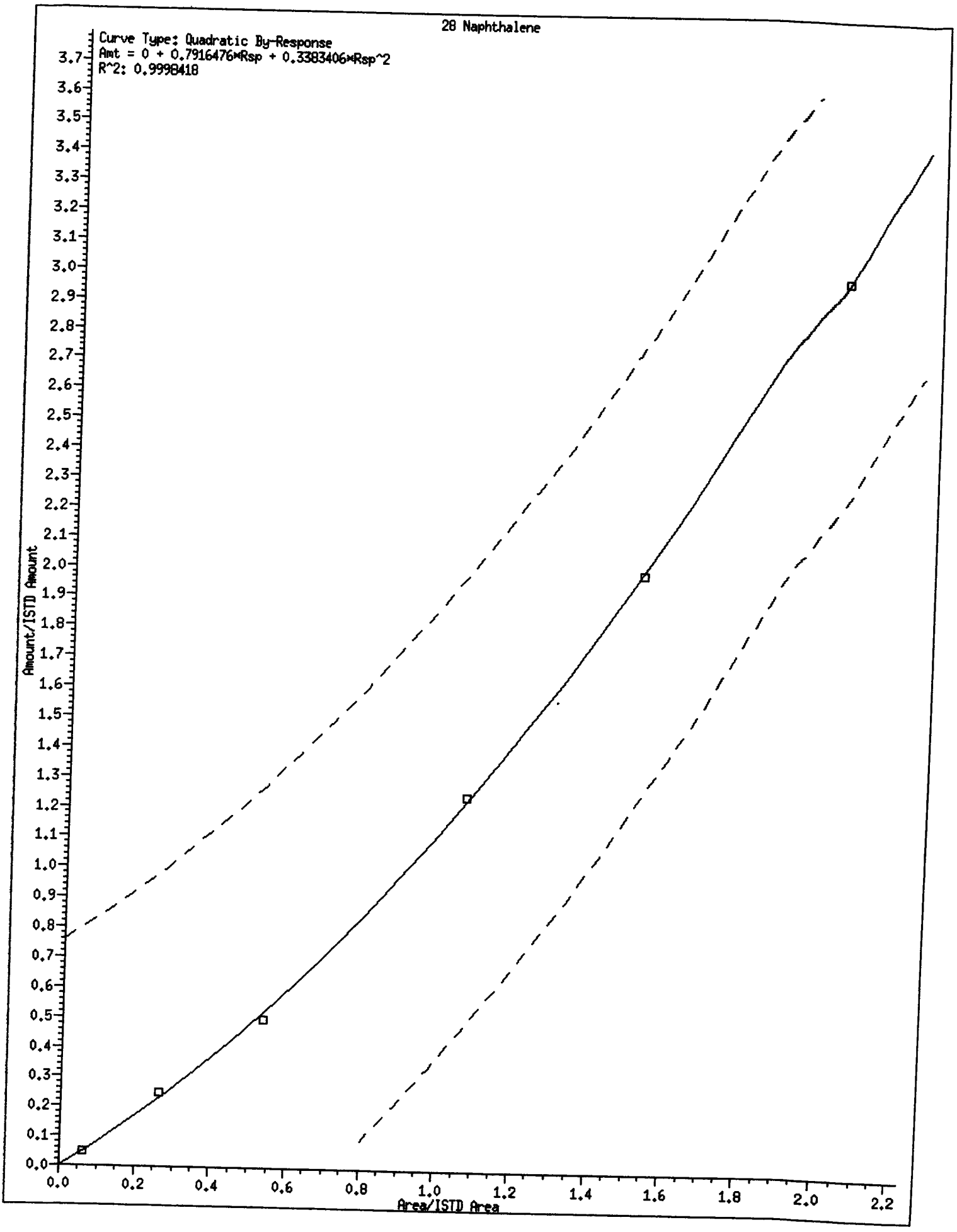
Analytical Resources, Inc.

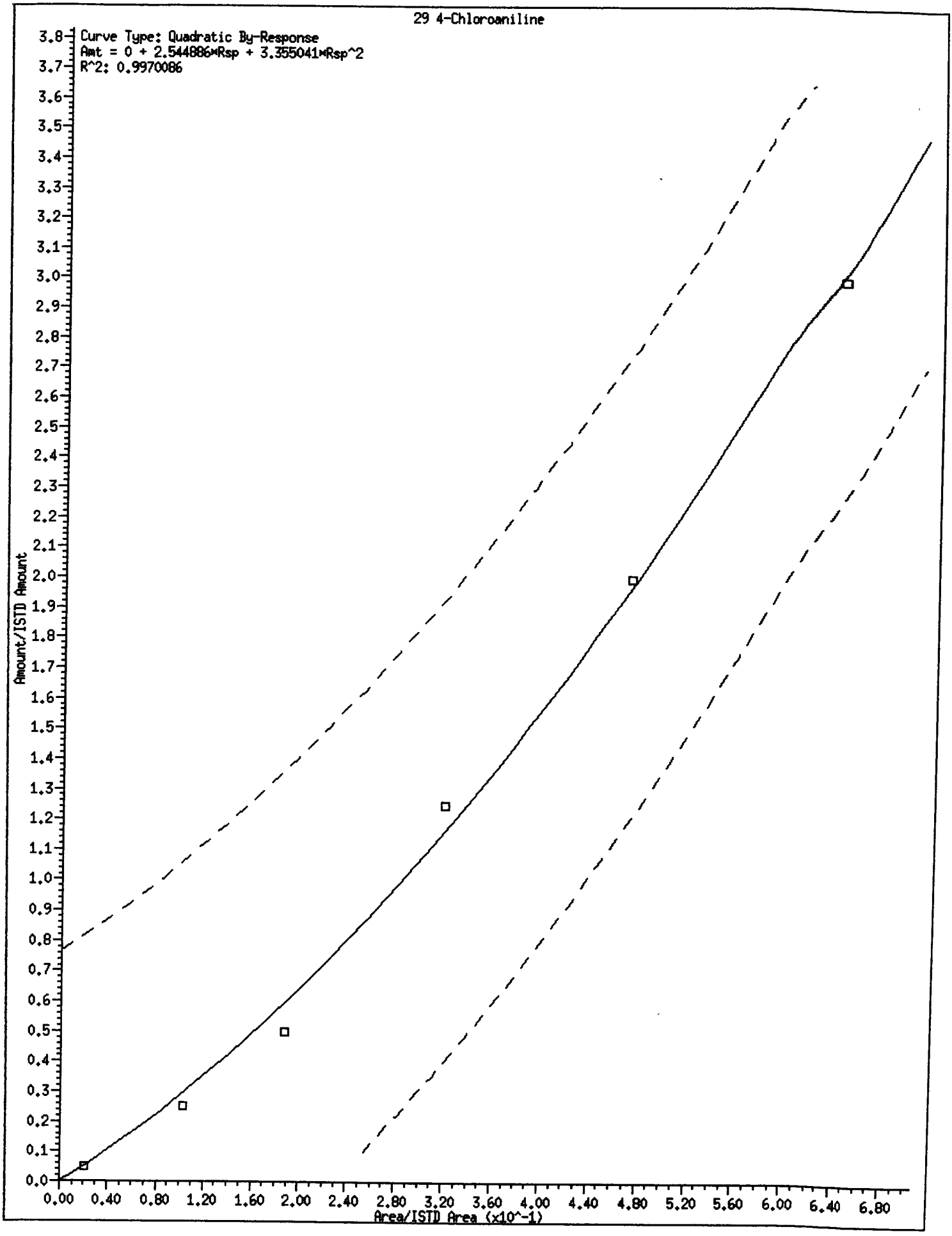
INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing

03/07/13

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7	0.2000 Level 8									
22 2,4-Dimethylphenol	0.36124	0.35541	0.38736	0.33105	0.32305	0.30039					
	0.29443	+++++					AVRG		0.33613		10.04487
23 Bis(2-Chloroethoxy)methane	0.54133	0.46642	0.49900	0.42377	0.39795	0.37399					
	0.37262	+++++					AVRG		0.43930		14.80298
24 Benzoic acid	+++++	0.21032	0.31862	0.30681	0.30884	0.29513					
	0.30610	+++++					AVRG		0.29097		13.82096
25 2,4-Dichlorophenol	0.24056	0.27100	0.31317	0.27389	0.24851	0.23391					
	0.23074	+++++					AVRG		0.25883		11.35002
26 1,2,4-Trichlorobenzene	0.40472	0.33988	0.36900	0.30997	0.29325	0.26919					
	0.26929	+++++					AVRG		0.32219		15.98220
28 Naphthalene	106156	433038	1122405	1841435	2641007	3435418					
	+++++	+++++					QUAD	0.000e+00	0.79165	0.33834	0.99984
29 4-Chloroaniline	34256	171000	395736	551083	820986	1089759					
	+++++	+++++					QUAD	0.000e+00	2.54489	3.35504	0.99701


28 Naphthalene
Curve Type: Quadratic By-Response
Amt = 0 + 0.7916476*Rsp + 0.3383406*Rsp^2
R^2: 0.9998418
Amount/ISTD Amount
Area/ISTD Area
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
0.1
0.3
0.5
0.7
0.9
1.1
1.3
1.5
1.7
1.9
2.1
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7


29 4-Chloroaniline
Curve Type: Quadratic By-Response
Amt = 0 + 2.544886*Rsp + 3.355041*Rsp^2
R^2: 0.9970086
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
0.00
0.40
0.80
1.20
1.60
2.00
2.40
2.80
3.20
3.60
4.00
4.40
4.80
5.20
5.60
6.00
6.40
6.80

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD	
	80.000 Level 7	0.20000 Level 8							
34 2,4,6-Trichlorophenol	0.28509	0.32769	0.36550	0.34273	0.34257	0.33960			
	0.35029	+++++					0.33621	7.521	
35 2,4,5-Trichlorophenol	0.23683	0.34153	0.40172	0.34946	0.34780	0.32623			
	0.31812	+++++					0.33167	14.969	
37 2-Chloronaphthalene	1.30198	1.09706	1.09950	0.90253	0.81425	0.74840			
	0.76882	+++++					0.96179	21.687	<-
38 2-Nitroaniline	0.21098	0.31500	0.33889	0.31514	0.29714	0.29154			
	0.30102	+++++					0.29567	13.698	
39 Dimethylphthalate	1.47783	1.26016	1.34236	1.16190	1.10101	1.00418			
	1.07862	+++++					1.20372	13.790	
40 Acenaphthylene	2.05852	1.77956	1.81983	1.50838	1.37166	1.24430			
	1.26069	+++++		*			1.57756	19.869	
41 2,6-Dinitrotoluene	0.24764	0.27592	0.30131	0.26038	0.24504	0.22578			
	0.24419	+++++					0.25718	9.659	
43 3-Nitroaniline	0.21873	0.26028	0.21928	0.19165	0.17183	0.14368			
	0.14011	+++++					0.19222	22.831	<-
44 Acenaphthene	1.34077	1.11343	1.14570	0.97612	0.89996	0.83034			
	0.84339	+++++					1.02139	18.356	

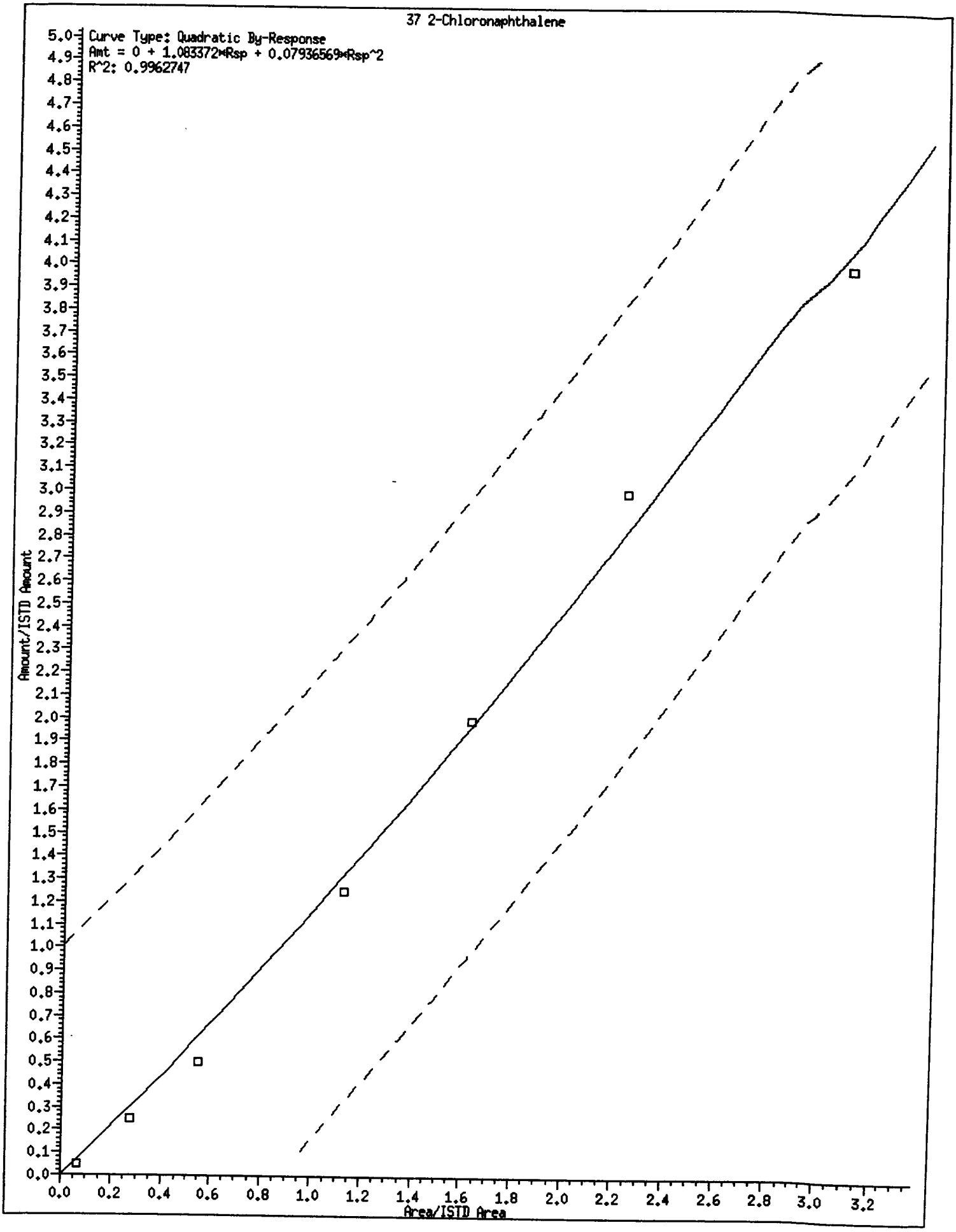
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing

03/07/13

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7	0.2000 Level 8									
30 Hexachlorobutadiene	0.23409	0.20453	0.22348	0.19224	0.18055	0.16813					
	0.16943	+++++					AVRG		0.19606		13.19319
31 4-Chloro-3-methylphenol	0.24514	0.28452	0.33097	0.28692	0.27737	0.24791					
	0.25165	+++++					AVRG		0.27493		11.05467
32 2-Methylnaphthalene	0.59617	0.57361	0.56565	0.48068	0.42538	0.38709					
	0.37604	+++++					AVRG		0.48637		19.09150
33 Hexachlorocyclopentadiene	0.23396	0.28456	0.36132	0.34785	0.33400	0.33313					
	0.35447	+++++					AVRG		0.32133		14.30942
34 2,4,6-Trichlorophenol	0.28509	0.32769	0.36550	0.34273	0.34257	0.33960					
	0.35029	+++++					AVRG		0.33621		7.52054
35 2,4,5-Trichlorophenol	0.23683	0.34153	0.40172	0.34946	0.34780	0.32623					
	0.31812	+++++					AVRG		0.33167		14.96876
37 2-Chloronaphthalene	63607	266980	696255	1139487	1623373	2162175					
	2726374	+++++					QUAD	0.000e+00	1.08337	0.07937	0.99627


37 2-Chloronaphthalene
Curve Type: Quadratic By-Response
Amt = 0 + 1.083372*Rsp + 0.07936569*Rsp^2
R^2: 0.9962747
Amount/ISTD Amount
Area/ISTD Area

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing

03/07/13

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
	80 Level 7	0.2000 Level 8									
38 2-Nitroaniline	0.21098	0.31500	0.33889	0.31514	0.29714	0.29154					
	0.30102	+++++					AVRG		0.29567		13.69777
39 Dimethylphthalate	1.47783	1.26016	1.34236	1.16190	1.10101	1.00418					
	1.07862	+++++					AVRG		1.20372		13.78953
40 Acenaphthylene	2.05852	1.77956	1.81983	1.50838	1.37166	1.24430					
	1.26069	+++++					AVRG		1.57756		19.86859
41 2,6-Dinitrotoluene	0.24764	0.27592	0.30131	0.26038	0.24504	0.22578					
	0.24419	+++++					AVRG		0.25718		9.65852
43 3-Nitroaniline	10686	63342	138858	241966	342573	415090					
	496848	+++++					QUAD	0.000e+00	4.03125	5.78360	0.99637
44 Acenaphthene	1.34077	1.11343	1.14570	0.97612	0.89996	0.83034					
	0.84339	+++++					AVRG		1.02139		18.35615
45 2,4-Dinitrophenol	+++++	0.11131	0.20259	0.19675	0.19419	0.19201					
	0.20527	+++++					AVRG		0.18369		19.49624

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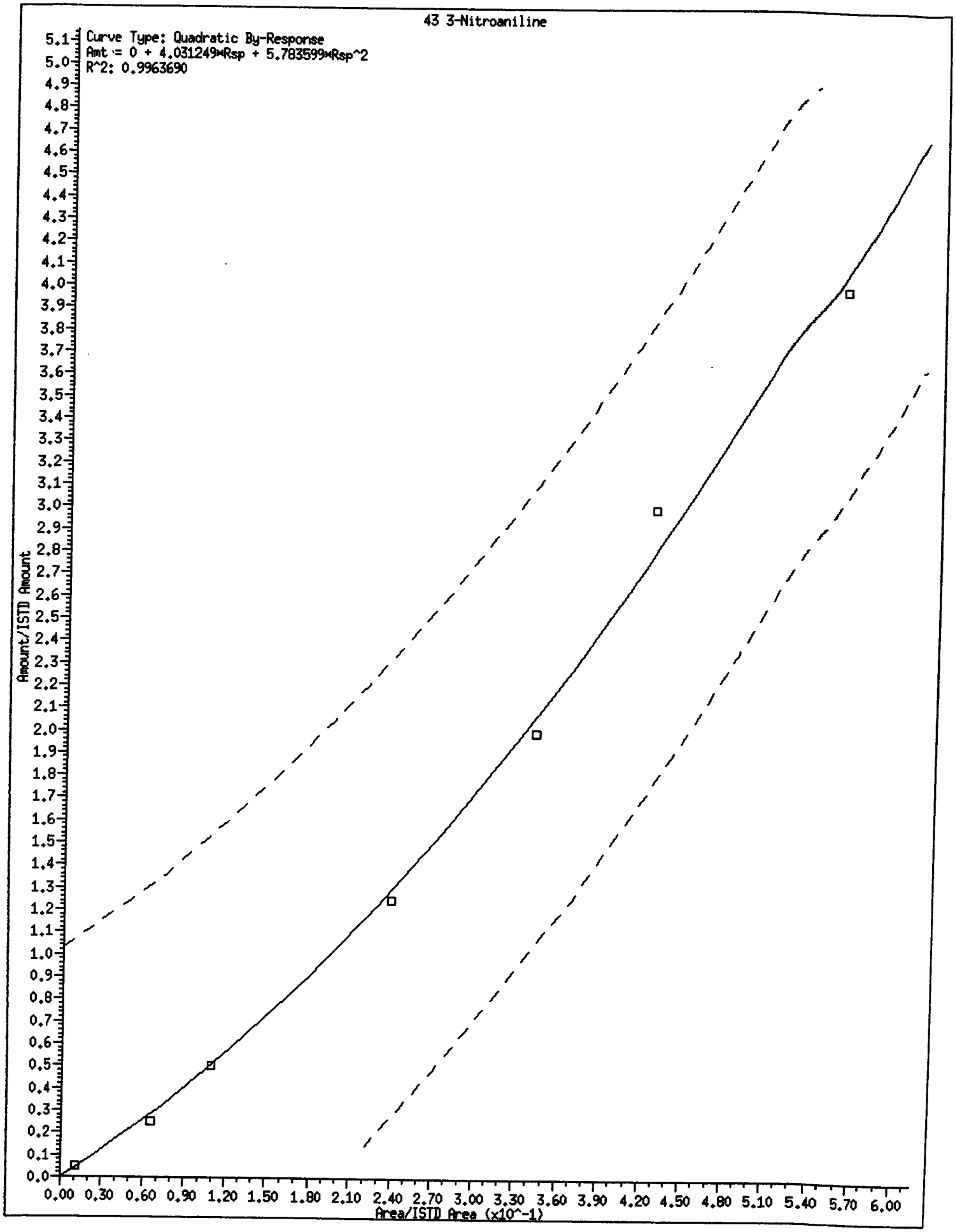

43 3-Nitroaniline
Curve Type: Quadratic By-Response
Amt = 0 + 4.031249*Rsp + 5.783599*Rsp^2
R^2: 0.9963690
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.00 0.30 0.60 0.90 1.20 1.50 1.80 2.10 2.40 2.70 3.00 3.30 3.60 3.90 4.20 4.50 4.80 5.10 5.40 5.70 6.00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD	
	80.000 Level 7	0.20000 Level 8							
45 2,4-Dinitrophenol	+++++	0.11131	0.20259	0.19675	0.19419	0.19201			
	0.20527	+++++					0.18369	19.496	
46 Dibenzofuran	1.67966	1.55463	1.52214	1.31107	1.18525	1.02741			
	1.07080	+++++					1.33585	19.072	
47 4-Nitrophenol	+++++	0.11044	0.14933	0.14144	0.13184	0.12815			
	0.12271	+++++					0.13065	10.521	
48 2,4-Dinitrotoluene	0.30384	0.35458	0.41176	0.35836	0.34621	0.32554			
	0.33475	+++++					0.34786	9.712	
49 Fluorene	1.42570	1.19230	1.22127	1.02020	0.88746	0.80652			
	0.82304	+++++					1.05379	22.212	<-
50 Diethylphthalate	+++++	1.33641	1.34532	1.10884	1.03680	0.94432			
	0.91979	+++++					1.11525	16.797	
51 4-Chlorophenyl-phenylether	0.75781	0.64324	0.66581	0.56719	0.51639	0.45871			
	0.49545	+++++					0.58637	18.257	
52 4-Nitroaniline	0.19716	0.22394	0.18022	0.17911	0.19621	0.19748			
	0.19900	+++++					0.19616	7.581	
53 4,6-Dinitro-2-methylphenol	+++++	0.12093	0.16337	0.14567	0.14760	0.14183			
	0.14470	+++++					0.14402	9.462	

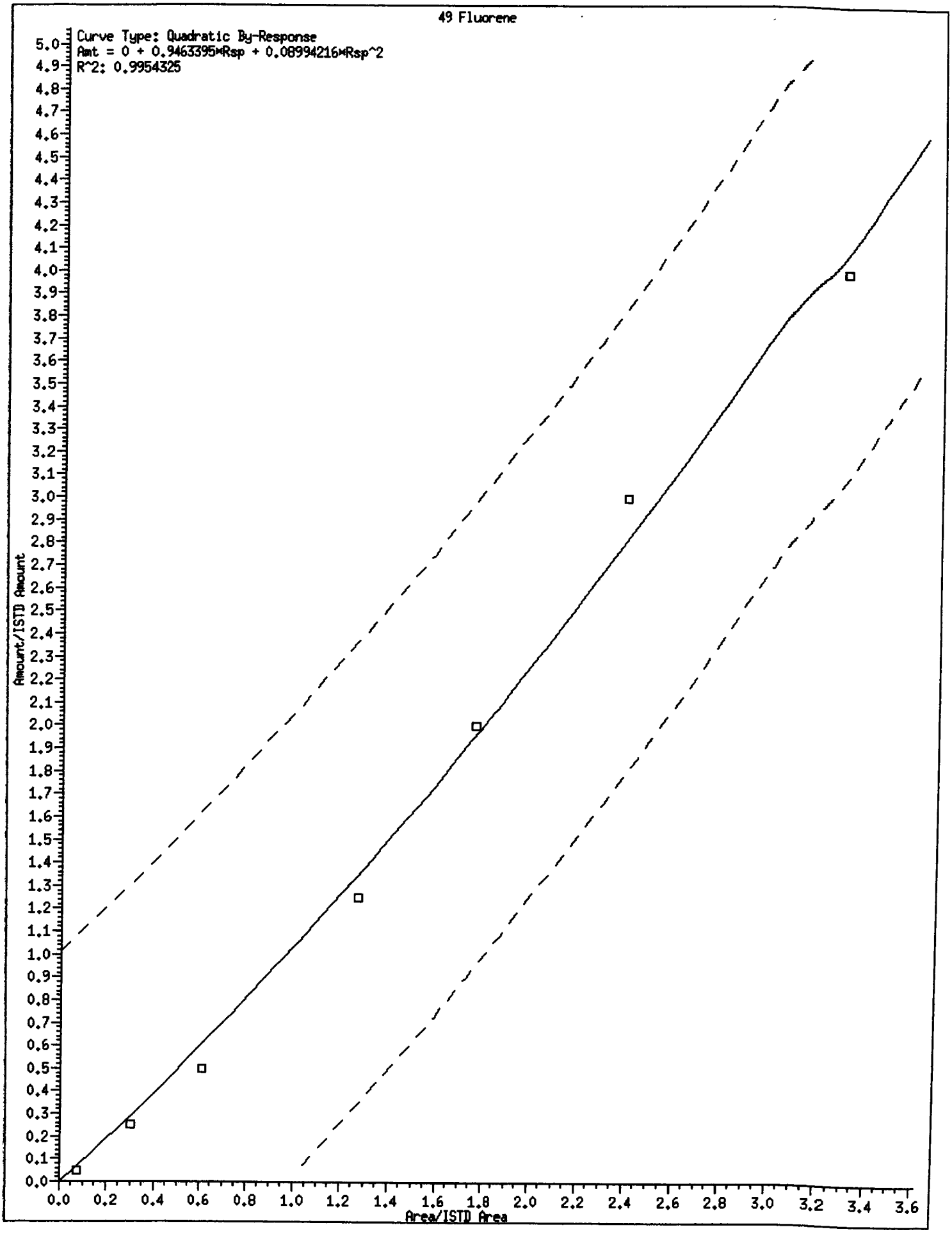
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing

03/07/13

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7	0.2000 Level 8									
46 Dibenzofuran	1.67966	1.55463	1.52214	1.31107	1.18525	1.02741					
	1.07080	+++++					AVRG		1.33585		19.07199
47 4-Nitrophenol	+++++	0.11044	0.14933	0.14144	0.13184	0.12815					
	0.12271	+++++					AVRG		0.13065		10.52089
48 2,4-Dinitrotoluene	0.30384	0.35458	0.41176	0.35836	0.34621	0.32554					
	0.33475	+++++					AVRG		0.34786		9.71205
49 Fluorene	69651	290158	773364	1288051	1769346	2330094					
	2918650	+++++					QUAD	0.000e+00	0.94634	0.08994	0.99543
50 Diethylphthalate	+++++	1.33641	1.34532	1.10884	1.03680	0.94432					
	0.91979	+++++					AVRG		1.11525		16.79699
51 4-Chlorophenyl-phenylether	0.75781	0.64324	0.66581	0.56719	0.51639	0.45871					
	0.49545	+++++					AVRG		0.58637		18.25714
52 4-Nitroaniline	0.19716	0.22394	0.18022	0.17911	0.19621	0.19748					
	0.19900	+++++					AVRG		0.19616		7.58115


49 Fluorene
Curve Type: Quadratic By-Response
Amt = 0 + 0.9463395*Rsp + 0.08994216*Rsp^2
R^2: 0.9954325
Amount/ISTD Amount
Area/ISTD Area

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 14:11 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD	
	80.000 Level 7	0.20000 Level 8							
54 N-Nitrosodiphenylamine	0.68117	0.59351	0.63351	0.52168	0.48269	0.44490			
	0.44875	+++++					0.54375	17.192	
56 4-Bromophenyl-phenylether	0.25180	0.22762	0.25074	0.21253	0.20583	0.18453			
	0.20347	+++++					0.21950	11.466	
57 Hexachlorobenzene	0.27367	0.23383	0.25499	0.21336	0.20543	0.18963			
	0.21317	+++++					0.22630	13.064	
58 Pentachlorophenol	+++++	0.10881	0.15047	0.13607	0.13563	0.12677			
	0.14329	+++++					0.13351	10.854	
60 Phenanthrene	1.28894	1.06840	1.10242	0.86833	0.83569	0.77325			
	+++++	+++++					0.98950	19.894	
61 Anthracene	1.19069	1.07644	1.15760	0.93304	0.84037	0.74643			
	+++++	+++++					0.99076	18.100	
62 Carbazole	1.14209	0.91469	0.79902	0.66574	0.70348	0.69029			
	0.71834	+++++					0.80481	21.285	<-
63 Di-n-butylphthalate	1.54066	1.38246	1.45272	1.15876	1.04056	0.91923			
	+++++	+++++					1.24906	19.764	
64 Fluoranthene	1.25483	1.12929	1.24063	1.02750	0.93710	0.85018			
	0.84693	+++++					1.04092	16.567	

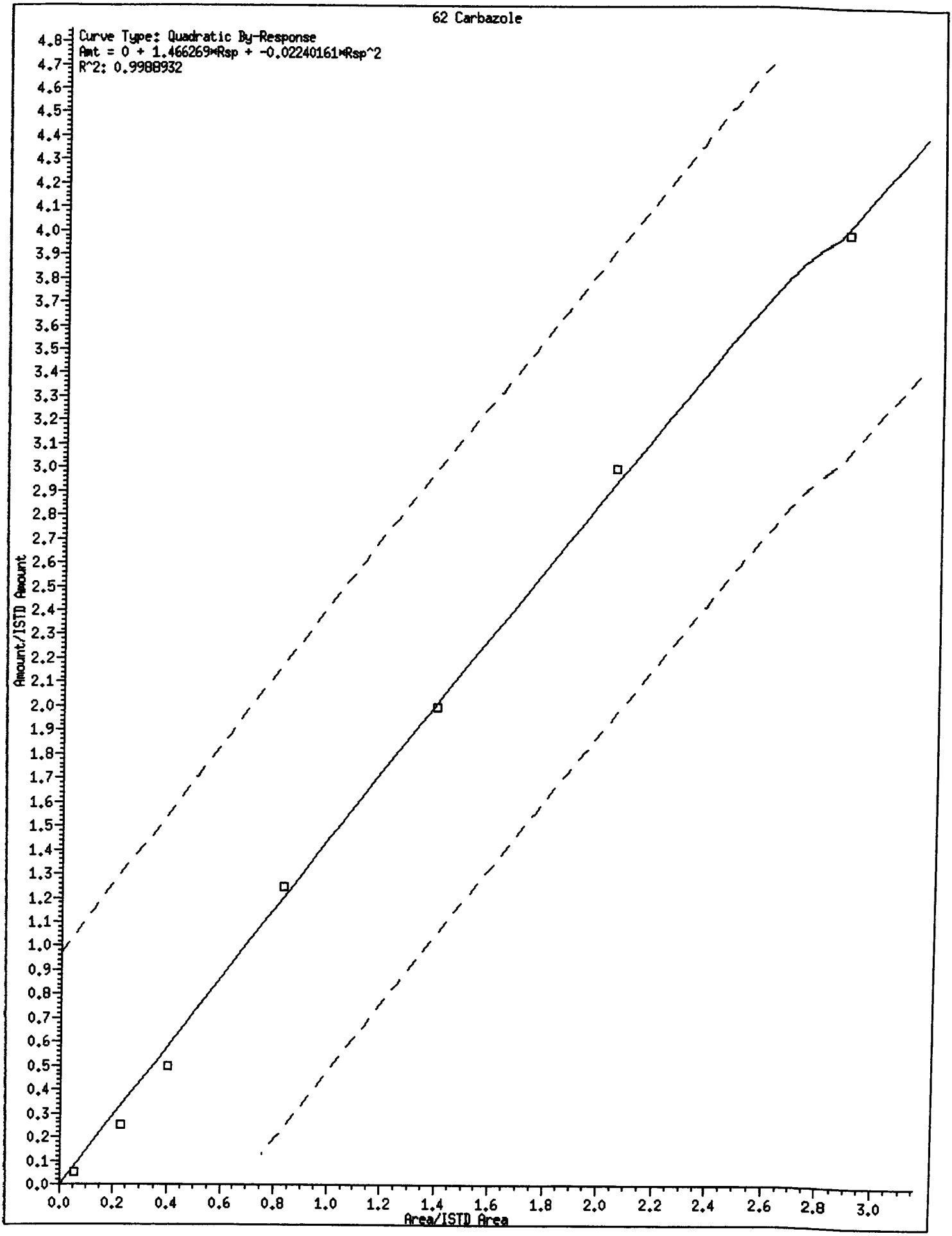
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing

03/07/13

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7	0.2000 Level 8									
62 Carbazole	87629	352615	804312	1387020	2297956	3310342					
	4177813	+++++					QUAD	0.000e+00	1.46627	-0.02240	0.99889
63 Di-n-butylphthalate	1.54066	1.38246	1.45272	1.15876	1.04056	0.91923					
	+++++	+++++					AVRG		1.24906		19.76433
64 Fluoranthene	1.25483	1.12929	1.24063	1.02750	0.93710	0.85018					
	0.84693	+++++					AVRG		1.04092		16.56672
65 Pyrene	1.38441	1.18057	1.25832	1.05458	0.97355	0.89088					
	0.90359	+++++					AVRG		1.09227		17.22487
67 Butylbenzylphthalate	0.59155	0.58245	0.62877	0.53378	0.50169	0.44980					
	0.45073	+++++					AVRG		0.53411		13.17416
68 Benzo(a)anthracene	1.07054	0.96307	1.03562	0.88663	0.83466	0.77690					
	0.81543	+++++					AVRG		0.91184		12.44208
70 3,3'-Dichlorobenzidine	0.26639	0.28674	0.29446	0.23996	0.23070	0.21759					
	0.22026	+++++					AVRG		0.25087		12.60238


62 Carbazole
Curve Type: Quadratic By-Response
Amt = 0 + 1.466269*Rsp + -0.02240161*Rsp^2
R^2: 0.9988932
Amount/ISTD Amount
Area/ISTD Area

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD	
	80.000 Level 7	0.20000 Level 8							
65 Pyrene	1.38441	1.18057	1.25832	1.05458	0.97355	0.89088			
	0.90359	+++++					1.09227	17.225	
67 Butylbenzylphthalate	0.59155	0.58245	0.62877	0.53378	0.50169	0.44980			
	0.45073	+++++					0.53411	13.174	
68 Benzo(a)anthracene	1.07054	0.96307	1.03562	0.88663	0.83466	0.77690			
	0.81543	+++++					0.91184	12.442	
70 3,3'-Dichlorobenzidine	0.26639	0.28674	0.29446	0.23996	0.23070	0.21759			
	0.22026	+++++					0.25087	12.602	
71 Chrysene	1.14947	1.00652	1.08941	0.89575	0.83974	0.76132			
	0.77370	+++++					0.93085	16.505	
72 bis(2-Ethylhexyl)phthalate	0.64692	0.60690	0.67888	0.58952	0.55677	0.51803			
	0.52262	+++++					0.58852	10.344	
73 Di-n-octylphthalate	1.12999	0.97646	1.03547	0.93501	0.88820	0.82066			
	0.82450	+++++					0.94433	11.973	
74 Benzo(b)fluoranthene	0.89938	0.85526	1.04183	0.95727	0.83840	0.81423			
	0.79806	+++++					0.88635	9.839	
75 Benzo(k)fluoranthene	1.39296	1.25661	1.25986	0.96283	0.96180	0.80306			
	0.80825	+++++					1.06362	22.310	<-

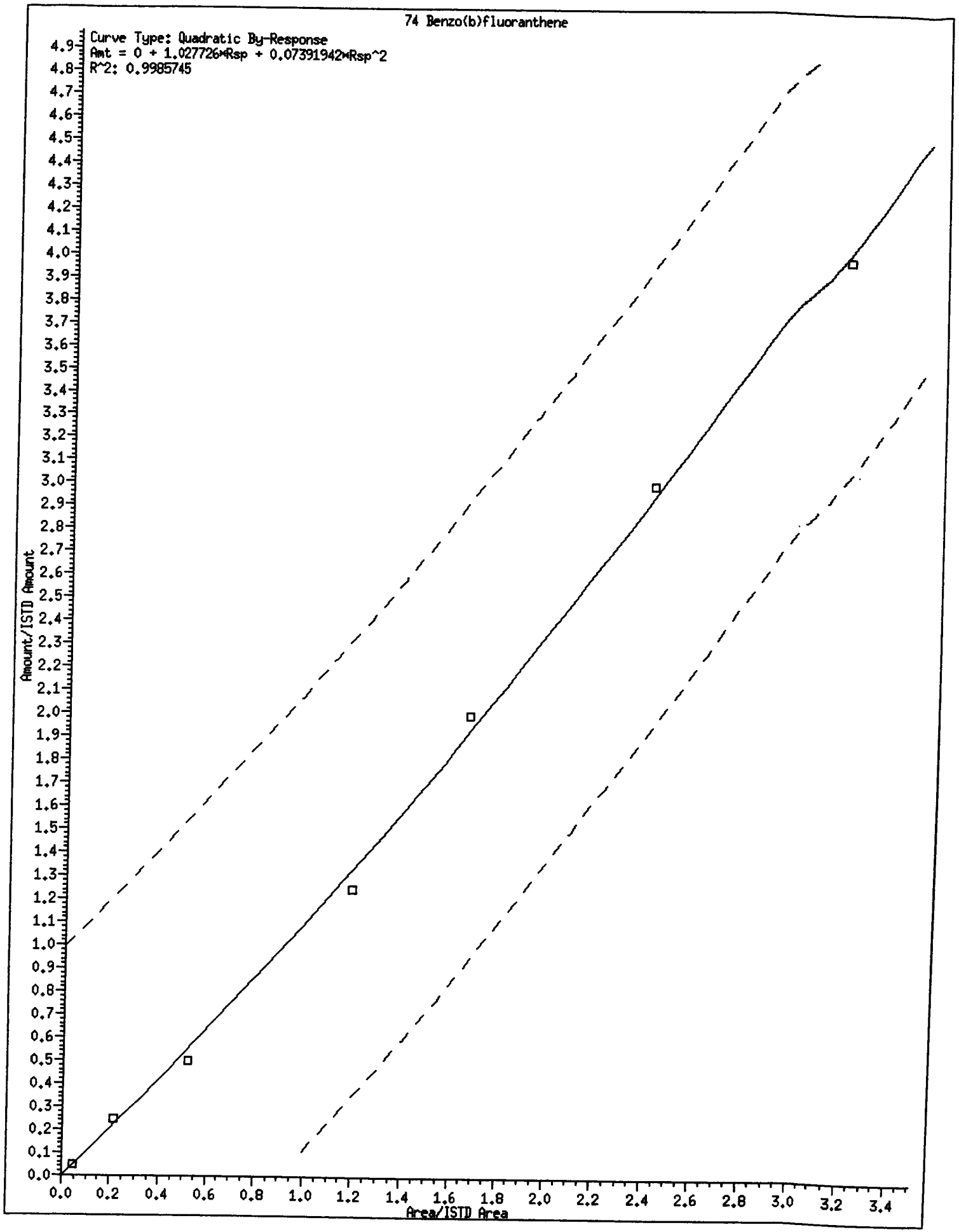
Analytical Resources, Inc.

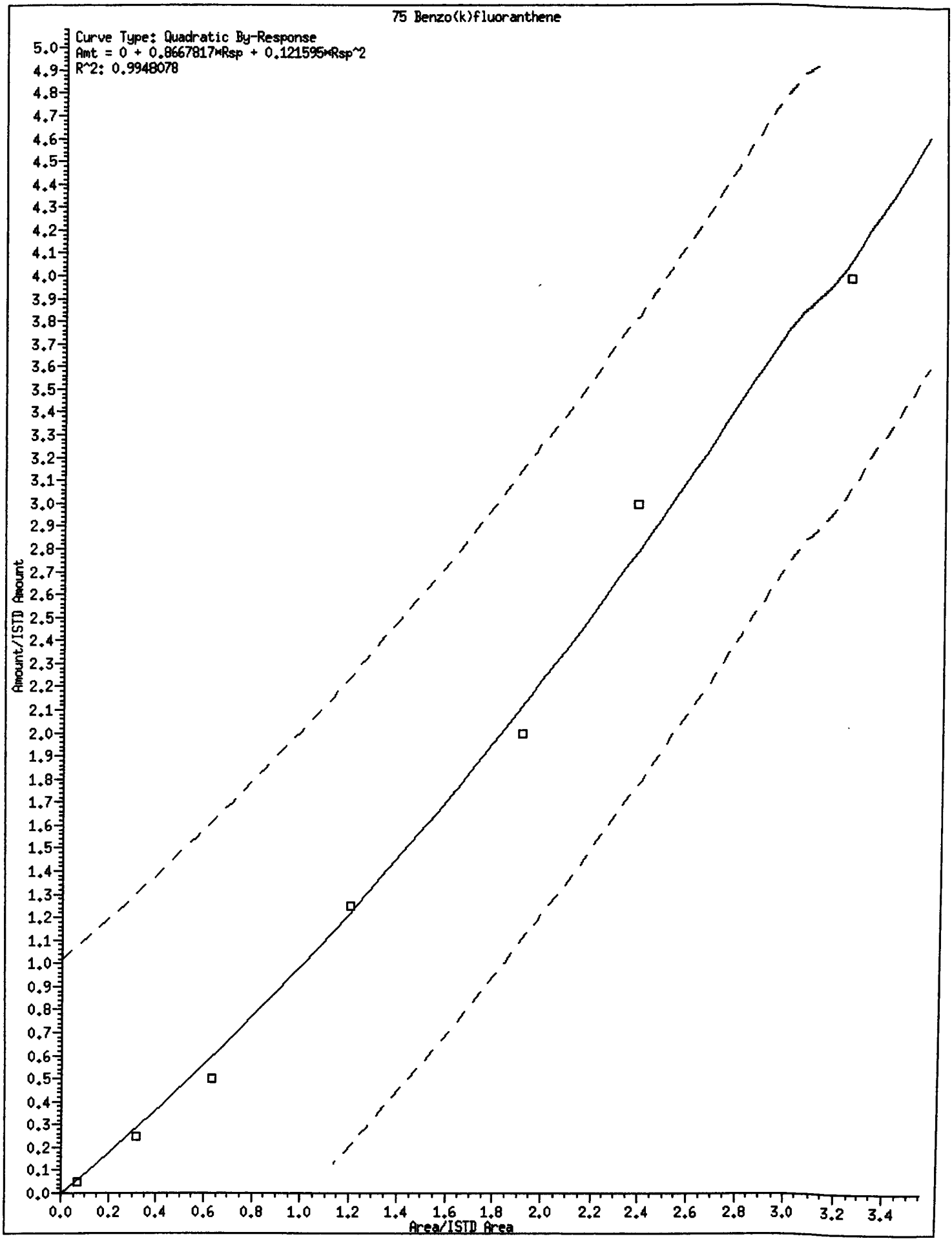
INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing

03/07/13

Compound	1 Level 1	5 Level 2	10 Level 3	25 Level 4	40 Level 5	60 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80 Level 7	0.2000 Level 8									
71 Chrysene	1.14947	1.00652	1.08941	0.89575	0.83974	0.76132					
	0.77370	+++++					AVRG		0.93085		16.50541
72 bis(2-Ethylhexyl)phthalate	0.64692	0.60690	0.67888	0.58952	0.55677	0.51803					
	0.52262	+++++					AVRG		0.58852		10.34369
73 Di-n-octylphthalate	1.12999	0.97646	1.03547	0.93501	0.88820	0.82066					
	0.82450	+++++					AVRG		0.94433		11.97291
74 Benzo(b)fluoranthene	60045	314216	1040205	1959445	2694359	3947727					
	4864908	+++++					QUAD	0.000e+00	1.02773	0.07392	0.99857
75 Benzo(k)fluoranthene	92998	461669	1257901	1970824	3090941	3893557					
	4926982	+++++					QUAD	0.000e+00	0.86678	0.12160	0.99481
76 Benzo(a)pyrene	0.92501	0.86150	1.02405	0.86112	0.82038	0.74537					
	0.74649	+++++					AVRG		0.85485		11.55589
78 Indeno(1,2,3-cd)pyrene	1.04859	1.01895	1.20212	1.02187	0.99965	0.93988					
	0.97035	+++++					AVRG		1.02877		8.20489


74 Benzo(b)fluoranthene
Curve Type: Quadratic By-Response
Amt = 0 + 1.027726*Rsp + 0.07391942*Rsp^2
R^2: 0.9985745
Amount/ISTD Amount
Area/ISTD Area


75 Benzo(k)fluoranthene
Curve Type: Quadratic By-Response
Amt = 0 + 0.8667817*Rsp + 0.121595*Rsp^2
R^2: 0.9948078
Amount/ISTD Amount
Area/ISTD Area

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
76 Benzo(a)pyrene	0.92501	0.86150	1.02405	0.86112	0.82038	0.74537		
	0.74649	+++++					0.85485	11.556
78 Indeno(1,2,3-cd)pyrene	1.04859	1.01895	1.20212	1.02187	0.99965	0.93988		
	0.97035	+++++					1.02877	8.205
79 Dibenzo(a,h)anthracene	0.72560	0.81926	0.97643	0.82797	0.79605	0.75327		
	0.77178	+++++					0.81005	10.093
80 Benzo(g,h,i)perylene	0.82862	0.85803	1.02707	0.88731	0.88688	0.82365		
	0.84702	+++++					0.87980	7.918
90 N-Nitrosodimethylamine	0.99632	0.92450	1.01613	0.92945	0.90446	0.88103		
	0.94094	+++++					0.94183	5.136
91 Aniline	2.22343	2.10141	1.97052	1.66965	1.48467	1.39278		
	1.54639	+++++					1.76984	18.445
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
93 Benzidine	+++++	+++++	0.10900	0.08219	0.08858	0.10253		
	0.10411	+++++					0.09728	11.663
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
98 Retene	0.53443	0.49274	0.52286	0.47522	0.43428	0.41626		
	0.42376	+++++					0.47136	10.167
99 Perylene	0.89315	0.82306	0.85562	0.73941	0.68087	0.63164		
	0.61789	+++++					0.74881	14.764
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
103 Pyridine	1.43098	1.46786	1.75118	1.62729	1.38945	1.33587		
	1.45312	+++++					1.49368	9.708
187 Total Benzofluoranthenes	1.07820	1.02709	1.10775	0.89502	0.83617	0.75745		
	0.74383	+++++					0.92079	16.402
188 2,6-Dichlorophenol	+++++	0.96091	1.01753	0.96424	0.81971	0.76745		
	0.78343	+++++					0.88554	12.162

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
189 N-Nitrosomethylethylamine	+++++	0.66719	0.69607	0.68402	0.62566	0.63220		
	0.65967	+++++					0.66080	4.214
$ 1 2-Fluorophenol	1.39745	1.38536	1.43699	1.22316	1.19684	1.13577		
	+++++	+++++					1.29593	9.697
$ 137 d8-1,4-Dioxane	0.67499	0.59708	0.66029	0.60426	0.58702	0.54859		
	0.57883	+++++					0.60730	7.416
$ 2 Phenol-d5	1.70898	1.71151	1.70189	1.39938	1.32653	1.25371		
	+++++	+++++					1.51700	14.086
$ 5 2-Chlorophenol-d4	1.46722	1.39820	1.43146	1.20537	1.12780	1.06397		
	+++++	+++++					1.28234	13.386
$ 10 1,2-Dichlorobenzene-d4	1.12248	1.02541	1.00084	0.82678	0.76090	0.67878		
	+++++	+++++					0.90253	19.127
$ 18 Nitrobenzene-d5	0.46223	0.43430	0.44112	0.37325	0.35728	0.33980		
	+++++	+++++					0.40133	12.653
$ 36 2-Fluorobiphenyl	1.60650	1.45970	1.33685	1.11210	1.06628	0.99323		
	+++++	+++++					1.26244	19.285
$ 55 2,4,6-Tribromophenol	0.14826	0.17093	0.17863	0.15638	0.14826	0.14641		
	+++++	+++++					0.15815	8.575

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	40.000 Level 5	60.000 Level 6	RRF	% RSD
	80.000 Level 7	0.20000 Level 8						
$ 66 Terphenyl-d14	0.83641	0.80990	0.75366	0.63080	0.60631	0.57508		
	+++++	+++++					0.70203	15.953
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAR-2013 18:33
End Cal Date : 06-MAR-2013 16:18
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20130306.b/SW846030613.m
Cal Date : 07-Mar-2013 12:52 jianqing

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/nt6.i/20130306.b

ARI Job No.: IC25 Method: SW846030613.m Instrument: nt6.i Date: 06-MAR-2013

03/07/13

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1216	03061301.D	IC250306	IC250306	1	N-Nitrosodiphenylamine,
1251	03061302.D	IC020306	IC020306	1	NO MANUAL INTEGRATION
1325	03061303.D	IC10306	IC10306	1	3-Nitroaniline, 4-Nitrophenol, 4,6-Dinitro-2-methylphenol, Benzo(k)fluoranthene, Benzidine, Total Benzofluoranthenes,
1400	03061304.D	IC50306	IC50306	1	Benzoic acid, 4-Nitrophenol,
1434	03061305.D	IC100306	IC100306	1	NO MANUAL INTEGRATION
1509	03061306.D	IC40306	IC400306	1	4-Chloroaniline, 3-Nitroaniline, N-Nitrosodiphenylamine,
1543	03061307.D	IC60306	IC600306	1	Benzoic acid, 3-Nitroaniline, N-Nitrosodiphenylamine, Phenanthrene,
1618	03061308.D	IC80306	IC800306	1	Benzoic acid, 3-Nitroaniline, N-Nitrosodiphenylamine,
1652	03061309.D	ICV0306	ICV0306	1	NO MANUAL INTEGRATION

Report Date : 07-Mar-2013 11:40

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Batch File: /chem2/nt6.i/20130306.b
Inst ID: nt6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	03061301	03061302	03061303	03061304	03061305	03061306	03061307	03061308
INJ.DATE:	06-MAR-2013	06-MAR-2013	06-MAR-2013	06-MAR-2013	06-MAR-2013	06-MAR-2013	06-MAR-2013	06-MAR-2013
INJ.TIME:	12:16	12:51	13:25	14:00	14:34	15:09	15:43	16:18

03/07/13

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.432	+++++	6.425	6.429	6.432	6.434	6.442	+++++	6.432	3.432-9.432	6.432	0.006
186 Carbaryl	16.459	+++++	16.447	16.445	16.448	16.462	16.470	16.473	16.459	13.459-19.459	16.458	0.011
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.225	5.225-11.225	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.363	11.363-17.363	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.531	15.531-21.531	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.634	13.634-19.634	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.609	14.609-20.609	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.863	13.863-19.863	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.605	17.605-23.605	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.015	14.015-20.015	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.609	14.609-20.609	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.562	14.562-20.562	+++++	+++++
177 p-Benzoquinone	7.083	+++++	7.082	7.080	7.078	7.086	7.089	7.092	7.083	4.083-10.083	7.085	0.005
168 Pentachlorobenzene	13.638	+++++	13.627	13.630	13.633	13.641	13.644	13.647	13.638	10.638-16.638	13.637	0.008
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: 3/7/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Batch File: /chem2/nt6.i/20130306.b
Inst ID: nt6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.871	10.871-16.871	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	3.039	+++++	3.060	3.047	3.050	3.047	3.061	3.086	3.039	0.039-6.039	3.056	0.015
* 134 Di-n-octylphthalate-d4	21.085	21.077	21.079	21.077	21.074	21.072	21.074	21.078	21.085	18.085-24.085	21.077	0.004
133 Butylatedhydroxytoluen	13.440	+++++	13.440	13.438	13.435	13.443	13.446	13.450	13.440	10.440-16.440	13.442	0.005
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	10.470	+++++	10.464	10.462	10.465	10.473	10.481	10.485	10.470	7.470-13.470	10.471	0.009
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Batch File: /chem2/nt6.i/20130306.b
Inst ID: nt6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	9.076	+++++	9.064	9.068	9.071	9.079	9.087	9.090	9.076	6.076-12.076	9.076	0.010
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	3.103	3.117	3.113	3.106	3.109	3.106	3.125	3.145	3.103	0.103-6.103	3.115	0.014
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	13.873	+++++	13.867	13.865	13.868	13.871	13.879	13.882	13.873	10.873-16.873	13.872	0.006
178 2-Benzyl-4-Chloropheno	16.411	+++++	16.399	16.397	16.400	16.413	16.421	16.425	16.411	13.411-19.411	16.410	0.011
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	19.482	+++++	19.476	19.474	19.472	19.480	19.482	19.486	19.482	16.482-22.482	19.479	0.005
117 Butyl Diphenyl Phospha	17.880	+++++	17.874	17.872	17.869	17.877	17.880	17.878	17.880	14.880-20.880	17.876	0.004
116 Dibutyl Phenyl Phospha	16.192	+++++	16.185	16.183	16.186	16.194	16.192	16.190	16.192	13.192-19.192	16.189	0.004
115 Tributyl Phosphate	14.461	+++++	14.444	14.442	14.450	14.469	14.477	14.486	14.461	11.461-17.461	14.461	0.017
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	12.538	+++++	12.531	12.529	12.532	12.535	12.538	12.541	12.538	9.538-15.538	12.535	0.004
112 Biphenyl	12.345	+++++	12.339	12.337	12.340	12.343	12.351	12.349	12.345	9.345-15.345	12.343	0.005
111 Azobenzene (1,2-DP-Hyd	14.423	+++++	14.412	14.415	14.413	14.426	14.429	14.438	14.423	11.423-17.423	14.422	0.010
110 Tetrachloroguaiacol	15.599	+++++	15.592	15.590	15.593	15.601	15.609	15.613	15.599	12.599-18.599	15.600	0.009
109 3,4,5-Trichloroguaiaco	13.969	+++++	13.963	13.961	13.959	13.967	13.975	13.978	13.969	10.969-16.969	13.967	0.007
181 3,4,6-Trichloroguaiaco	14.087	+++++	14.081	14.079	14.082	14.090	14.092	14.096	14.087	11.087-17.087	14.087	0.007
108 4,5,6-Trichloroguaiaco	15.000	+++++	14.994	14.992	14.990	14.998	15.000	15.004	15.000	12.000-18.000	14.997	0.005
184 3,4-Dichloroguaiacol	12.425	+++++	12.425	12.423	12.420	12.423	12.431	12.435	12.425	9.425-15.425	12.426	0.005
107 4,5-Dichloroguaiacol	13.205	+++++	13.194	13.197	13.200	13.208	13.216	13.220	13.205	10.205-16.205	13.206	0.010
182 4,6-Dichloroguaiacol	13.205	+++++	13.194	13.197	13.200	13.208	13.216	13.220	13.205	10.205-16.205	13.206	0.010
185 4-Chloroguaiacol	11.336	+++++	11.329	11.333	11.330	11.338	11.341	11.345	11.336	8.336-14.336	11.336	0.006

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Batch File: /chem2/nt6.i/20130306.b
Inst ID: nt6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	9.332	+++++	9.326	9.324	9.327	9.335	9.343	9.347	9.332	6.332-12.332	9.334	0.009
105 1-methylnaphthalene	11.747	+++++	11.741	11.739	11.742	11.744	11.747	11.751	11.747	8.747-14.747	11.744	0.004
151 1,2,4,5-Tetrachloroben	11.907	+++++	11.901	11.904	11.902	11.910	11.913	11.911	11.907	8.907-14.907	11.907	0.005
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.442	20.442-26.442	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.968	18.968-24.968	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.466	20.466-26.466	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.866	19.866-25.866	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.413	20.413-26.413	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.952	21.952-27.952	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.721	18.721-24.721	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.159	15.159-21.159	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$ 2 Phenol-d5	7.933	+++++	7.921	7.925	7.927	7.936	7.949	+++++	7.933	4.933-10.933	7.932	0.010
3 Phenol	7.954	+++++	7.942	7.941	7.943	7.957	7.970	7.969	7.954	4.954-10.954	7.954	0.012
4 Bis(2-Chloroethyl)ethe	8.050	+++++	8.044	8.047	8.045	8.053	8.061	8.059	8.050	5.050-11.050	8.051	0.007
$ 5 2-Chlorophenol-d4	8.082	+++++	8.081	8.079	8.082	8.085	8.093	+++++	8.082	5.082-11.082	8.084	0.005

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Batch File: /chem2/nt6.i/20130306.b
Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	6 2-Chlorophenol	8.109	+++++	8.103	8.101	8.104	8.112	8.114	8.118	8.109	5.109-11.109	8.109	0.007
	7 1,3-Dichlorobenzene	8.328	+++++	8.322	8.320	8.323	8.325	8.328	8.332	8.328	5.328-11.328	8.325	0.004
*	8 1,4-Dichlorobenzene-d4	8.387	8.384	8.381	8.384	8.382	8.384	8.387	8.385	8.387	5.387-11.387	8.384	0.002
	9 1,4-Dichlorobenzene	8.408	+++++	8.407	8.405	8.408	8.411	8.414	8.417	8.408	5.408-11.408	8.410	0.004
$	10 1,2-Dichlorobenzene-d4	8.681	+++++	8.680	8.683	8.681	8.683	8.686	+++++	8.681	5.681-11.681	8.682	0.002
	11 Benzyl alcohol	8.654	+++++	8.648	8.651	8.649	8.662	8.665	8.674	8.654	5.654-11.654	8.657	0.010
	12 1,2-Dichlorobenzene	8.707	+++++	8.701	8.704	8.702	8.705	8.707	8.706	8.707	5.707-11.707	8.705	0.002
	13 2-Methylphenol	8.878	+++++	8.872	8.870	8.873	8.886	8.889	8.898	8.878	5.878-11.878	8.881	0.010
	14 2,2'-oxybis(1-Chloropr	8.916	+++++	8.909	8.907	8.910	8.913	8.916	8.919	8.916	5.916-11.916	8.913	0.004
	15 4-Methylphenol	9.108	+++++	9.096	9.100	9.103	9.116	9.124	9.128	9.108	6.108-12.108	9.111	0.012
	16 N-Nitroso-di-n-propyla	9.135	+++++	9.118	9.121	9.124	9.137	9.151	9.155	9.135	6.135-12.135	9.134	0.014
	17 Hexachloroethane	9.193	+++++	9.193	9.191	9.188	9.191	9.194	9.192	9.193	6.193-12.193	9.192	0.002
$	18 Nitrobenzene-d5	9.311	+++++	9.305	9.303	9.306	9.314	9.316	+++++	9.311	6.311-12.311	9.309	0.005
	19 Nitrobenzene	9.343	+++++	9.331	9.330	9.332	9.346	9.354	9.358	9.343	6.343-12.343	9.342	0.011
	20 Isophorone	9.717	+++++	9.705	9.709	9.706	9.720	9.733	9.742	9.717	6.717-12.717	9.719	0.014
	21 2-Nitrophenol	9.851	+++++	9.850	9.848	9.845	9.853	9.856	9.860	9.851	6.851-12.851	9.852	0.005
	22 2,4-Dimethylphenol	9.947	+++++	9.940	9.939	9.941	9.949	9.952	9.961	9.947	6.947-12.947	9.947	0.008
	23 Bis(2-Chloroethoxy)met	10.096	+++++	10.090	10.093	10.091	10.099	10.107	10.111	10.096	7.096-13.096	10.098	0.008
	24 Benzoic acid	10.198	+++++	10.031	10.083	10.144	10.249	10.294	10.330	10.198	7.198-13.198	10.190	0.110
	25 2,4-Dichlorophenol	10.230	+++++	10.224	10.222	10.219	10.233	10.235	10.239	10.230	7.230-13.230	10.229	0.007
	26 1,2,4-Trichlorobenzene	10.363	+++++	10.357	10.361	10.358	10.366	10.369	10.367	10.363	7.363-13.363	10.363	0.005
*	27 Naphthalene-d8	10.422	10.419	10.421	10.419	10.422	10.425	10.428	10.426	10.422	7.422-13.422	10.423	0.003
	28 Naphthalene	10.454	+++++	10.448	10.451	10.449	10.457	10.460	10.463	10.454	7.454-13.454	10.455	0.006
	29 4-Chloroaniline	10.588	+++++	10.582	10.585	10.582	10.591	10.599	10.602	10.588	7.588-13.588	10.590	0.008

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Batch File: /chem2/nt6.i/20130306.b
Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	30 Hexachlorobutadiene	10.764	+++++	10.763	10.761	10.764	10.767	10.764	10.768	10.764	7.764-13.764	10.764	0.002
	31 4-Chloro-3-methylpheno	11.384	+++++	11.377	11.376	11.378	11.387	11.389	11.393	11.384	8.384-14.384	11.383	0.007
	32 2-Methylnaphthalene	11.571	+++++	11.564	11.563	11.565	11.568	11.576	11.580	11.571	8.571-14.571	11.570	0.006
	33 Hexachlorocyclopentadi	11.950	+++++	11.944	11.947	11.945	11.947	11.950	11.948	11.950	8.950-14.950	11.947	0.002
	34 2,4,6-Trichlorophenol	12.078	+++++	12.077	12.070	12.073	12.081	12.084	12.087	12.078	9.078-15.078	12.079	0.006
	35 2,4,5-Trichlorophenol	12.137	+++++	12.131	12.129	12.126	12.134	12.137	12.141	12.137	9.137-15.137	12.134	0.005
$	36 2-Fluorobiphenyl	12.212	+++++	12.206	12.204	12.206	12.209	12.212	+++++	12.212	9.212-15.212	12.208	0.003
	37 2-Chloronaphthalene	12.356	+++++	12.344	12.348	12.345	12.359	12.361	12.360	12.356	9.356-15.356	12.353	0.007
	38 2-Nitroaniline	12.580	+++++	12.569	12.567	12.570	12.583	12.586	12.595	12.580	9.580-15.580	12.579	0.010
	39 Dimethylphthalate	12.949	+++++	12.937	12.935	12.938	12.952	12.960	12.969	12.949	9.949-15.949	12.949	0.013
	40 Acenaphthylene	13.034	+++++	13.028	13.026	13.024	13.032	13.035	13.038	13.034	10.034-16.034	13.031	0.005
	41 2,6-Dinitrotoluene	13.045	+++++	13.034	13.032	13.040	13.048	13.056	13.060	13.045	10.045-16.045	13.045	0.011
*	42 Acenaphthene-d10	13.286	13.277	13.279	13.277	13.280	13.283	13.286	13.289	13.286	10.286-16.286	13.282	0.004
	43 3-Nitroaniline	13.264	+++++	13.247	13.245	13.254	13.262	13.270	13.273	13.264	10.264-16.264	13.259	0.011
	44 Acenaphthene	13.334	+++++	13.327	13.325	13.328	13.336	13.339	13.348	13.334	10.334-16.334	13.334	0.008
	45 2,4-Dinitrophenol	13.424	+++++	13.413	13.411	13.414	13.433	13.441	13.455	13.424	10.424-16.424	13.427	0.017
	46 Dibenzofuran	13.595	+++++	13.589	13.587	13.590	13.598	13.606	13.610	13.595	10.595-16.595	13.597	0.009
	47 4-Nitrophenol	13.547	+++++	13.536	13.534	13.537	13.545	13.558	13.567	13.547	10.547-16.547	13.546	0.013
	48 2,4-Dinitrotoluene	13.676	+++++	13.664	13.662	13.665	13.678	13.686	13.690	13.676	10.676-16.676	13.674	0.011
	49 Fluorene	14.156	+++++	14.145	14.143	14.146	14.154	14.156	14.165	14.156	11.156-17.156	14.152	0.008
	50 Diethylphthalate	14.098	+++++	14.086	14.089	14.092	14.106	14.108	14.112	14.098	11.098-17.098	14.099	0.010
	51 4-Chlorophenyl-phenyle	14.172	+++++	14.166	14.164	14.167	14.170	14.172	14.176	14.172	11.172-17.172	14.170	0.004
	52 4-Nitroaniline	14.252	+++++	14.241	14.234	14.242	14.261	14.274	14.288	14.252	11.252-17.252	14.256	0.020
	53 4,6-Dinitro-2-methylph	14.333	+++++	14.316	14.314	14.317	14.341	14.349	14.358	14.333	11.333-17.333	14.332	0.018

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Batch File: /chem2/nt6.i/20130306.b
Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	14.375	+++++	14.364	14.362	14.365	14.378	14.386	14.390	14.375	11.375-17.375	14.374	0.011
$	55 2,4,6-Tribromophenol	14.573	+++++	14.567	14.565	14.568	14.576	14.578	+++++	14.573	11.573-17.573	14.571	0.005
	56 4-Bromophenyl-phenylet	14.952	+++++	14.946	14.944	14.947	14.950	14.952	14.956	14.952	11.952-17.952	14.950	0.004
	57 Hexachlorobenzene	15.182	+++++	15.170	15.174	15.171	15.179	15.182	15.186	15.182	12.182-18.182	15.178	0.006
	58 Pentachlorophenol	15.470	+++++	15.470	15.462	15.465	15.473	15.476	15.480	15.470	12.470-18.470	15.471	0.006
*	59 Phenanthrene-d10	15.663	15.655	15.657	15.655	15.658	15.660	15.663	15.667	15.663	12.663-18.663	15.659	0.004
	60 Phenanthrene	15.700	+++++	15.694	15.692	15.690	15.703	15.706	15.709	15.700	12.700-18.700	15.699	0.007
	61 Anthracene	15.770	+++++	15.763	15.761	15.764	15.772	15.780	15.784	15.770	12.770-18.770	15.771	0.009
	62 Carbazole	16.047	+++++	16.041	16.039	16.037	16.045	16.053	16.057	16.047	13.047-19.047	16.046	0.007
	63 Di-n-butylphthalate	16.747	+++++	16.741	16.739	16.737	16.745	16.747	16.751	16.747	13.747-19.747	16.744	0.005
	64 Fluoranthene	17.639	+++++	17.628	17.626	17.629	17.631	17.639	17.643	17.639	14.639-20.639	17.634	0.007
	65 Pyrene	17.992	+++++	17.986	17.984	17.987	17.995	17.997	18.001	17.992	14.992-20.992	17.992	0.007
$	66 Terphenyl-d14	18.291	+++++	18.290	18.288	18.286	18.289	18.291	+++++	18.291	15.291-21.291	18.289	0.002
	67 Butylbenzylphthalate	19.167	+++++	19.161	19.159	19.157	19.159	19.162	19.171	19.167	16.167-22.167	19.162	0.005
	68 Benzo(a)anthracene	19.953	+++++	19.941	19.939	19.942	19.950	19.953	19.956	19.953	16.953-22.953	19.948	0.007
*	69 Chrysene-d12	19.979	19.971	19.968	19.971	19.969	19.977	19.979	19.983	19.979	16.979-22.979	19.975	0.006
	70 3,3'-Dichlorobenzidine	19.953	+++++	19.941	19.939	19.937	19.945	19.947	19.951	19.953	16.953-22.953	19.945	0.006
	71 Chrysene	20.017	+++++	20.005	20.008	20.006	20.014	20.022	20.026	20.017	17.017-23.017	20.014	0.008
	72 bis(2-Ethylhexyl)phtha	20.150	+++++	20.149	20.147	20.140	20.142	20.145	20.149	20.150	17.150-23.150	20.146	0.004
	73 Di-n-octylphthalate	21.096	+++++	21.089	21.088	21.085	21.088	21.090	21.089	21.096	18.096-24.096	21.089	0.003
	74 Benzo(b)fluoranthene	21.609	+++++	21.592	21.595	21.593	21.606	21.609	21.618	21.609	18.609-24.609	21.603	0.010
	75 Benzo(k)fluoranthene	21.641	+++++	21.629	21.627	21.625	21.638	21.646	21.655	21.641	18.641-24.641	21.637	0.011
	76 Benzo(a)pyrene	22.057	+++++	22.046	22.044	22.041	22.049	22.057	22.066	22.057	19.057-25.057	22.052	0.009
*	77 Perylene-d12	22.137	22.129	22.131	22.129	22.132	22.130	22.132	22.136	22.137	19.137-25.137	22.132	0.003

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Batch File: /chem2/nt6.i/20130306.b
Inst ID: nt6.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	78 Indeno(1,2,3-cd)pyrene	23.767	+++++	23.755	23.748	23.745	23.759	23.767	23.781	23.767	20.767-26.767	23.760	0.012
	79 Dibenzo(a,h)anthracene	23.788	+++++	23.766	23.764	23.767	23.786	23.799	23.808	23.788	20.788-26.788	23.782	0.017
	80 Benzo(g,h,i)perylene	24.226	+++++	24.199	24.202	24.205	24.224	24.237	24.251	24.226	21.226-27.226	24.221	0.020
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
	90 N-Nitrosodimethylamine	3.889	+++++	3.893	3.891	3.894	3.902	3.921	3.962	3.889	0.889-6.889	3.907	0.026
	91 Aniline	7.938	+++++	7.937	7.935	7.938	7.941	7.943	7.947	7.938	4.938-10.938	7.940	0.004
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
	93 Benzidine	17.874	+++++	17.874	17.872	17.864	17.872	17.869	17.873	17.874	14.874-20.874	17.871	0.004
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
	98 Retene	18.548	+++++	18.541	18.534	18.537	18.540	18.548	18.546	18.548	15.548-21.548	18.542	0.005
	99 Perylene	22.175	+++++	22.158	22.161	22.159	22.167	22.175	22.179	22.175	19.175-25.175	22.168	0.009
	100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.074	19.074-25.074	+++++	+++++
	101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.255	19.255-25.255	+++++	+++++
	102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.369	18.369-24.369	+++++	+++++
	103 Pyridine	3.851	+++++	3.898	3.870	3.862	3.854	3.867	3.914	3.851	0.851-6.851	3.874	0.023
	187 Total Benzofluoranthen	21.641	+++++	21.629	21.627	21.625	21.638	21.646	21.655	21.641	18.641-24.641	21.637	0.011
	188 2,6-Dichlorophenol	10.598	+++++	10.592	10.596	10.593	10.601	10.604	10.613	10.598	7.598-13.598	10.600	0.007
	189 N-Nitrosomethylethylam	5.620	+++++	5.635	5.627	5.625	5.622	5.625	5.634	5.620	2.620-8.620	5.627	0.006

Analytical Resources Inc.: Organics Instrument Log

NT-6 Serial No.:GC=US00036167, MS=US81221575

Date: 3/6/13 Analysis: 8270D Analyst: [illegible]

GC Program: [illegible] Column No: 234-149 Column Type: ZB-5ms

Instrument Tune (.U or .CT.): 17019 EM Voltage: 1647

Calibration File: 130306.1 Curve Date: 3/6/13 Injection Vol.: 1µl

IS/SS	Ical/Ccal	LCS/ICV
1998-2	~~2053-1, 2054-1~~	~~2054-1, 2057-1~~
	~~2044-1, 2041-1~~	~~2048-1, 2061-1~~
	~~1803, 2027-2~~	~~1803, 2058-1~~
	~~2068-2~~	~~2058-2~~

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem2/nt6.i/20130306.b

	Time	Filename	LabID	ClientId	DF															
1	1216	03061301.D	IC250306	IC250306	1	8.39	458117	10.42	1718341	13.29	1010041	15.66	1666734	19.98	1675752	22.14	1637524	21.09	2026355
2	1251	03061302.D	IC020306	IC020306	1	8.38	469293	10.42	1660759	13.28	977166	15.65	1519395	19.97	1581424	22.13	1491578	21.08	2063915
3	1325	03061303.D	IC10306	IC10306	1	8.38	473521	10.42	1687458	13.28	977079	15.66	1534533	19.97	1440155	22.13	1335257	21.08	1913979
4	1400	03061304.D	IC50306	IC50306	1	8.38	454719	10.42	1658379	13.28	973436	15.65	1542012	19.97	1542109	22.13	1469575	21.08	2051585
5	1434	03061305.D	IC100306	IC100306	1	8.38	570088	10.42	2100513	13.28	1266491	15.66	2013244	19.97	2072136	22.13	1996890	21.07	2636581
6	1509	03061306.D	IC40306	IC400306	1	8.38	462843	10.42	1722510	13.28	996854	15.66	1633268	19.98	1604385	22.13	1606852	21.07	1904606
7	1543	03061307.D	IC60306	IC600306	1	8.39	453135	10.43	1693833	13.29	963022	15.66	1598516	19.98	1561828	22.13	1616143	21.07	1777444
8	1618	03061308.D	IC80306	IC800306	1	8.39	415136	10.42	1588502	13.29	886542	15.67	1453987	19.98	1394767	22.14	1523971	21.08	1577157
9	1652	03061309.D	ICV0306	ICV0306	1	8.38	436336	10.42	1601740	13.28	939966	15.65	1479267	19.97	1476943	22.12	1464482	21.07	1837060

[illegible] 03/07/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

WJ10:00861

Data File: /chem2/nt6.i/20130306.b/tune.b/03061301.D

Date : 06-MAR-2013 12:16

Client ID: DFTPP0306

Sample Info: DFTPP0306

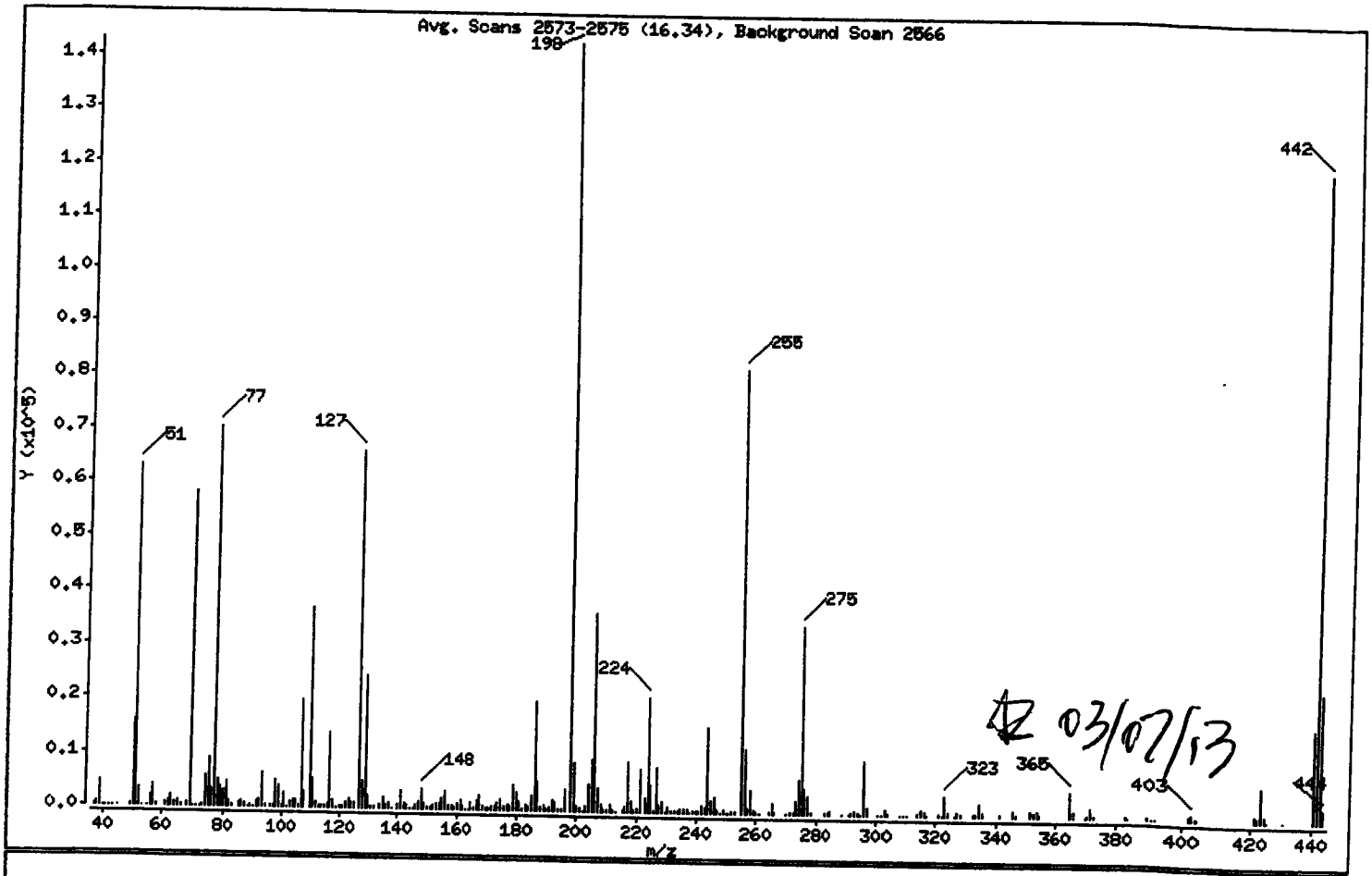
Instrument: nt6.i

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	44.13
68	Less than 2.00% of mass 69	0.49 (1.20)
69	Mass 69 relative abundance	40.66
70	Less than 2.00% of mass 69	0.05 (0.13)
127	10.00 - 80.00% of mass 198	46.23
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.29
275	10.00 - 60.00% of mass 198	24.23
365	Greater than 1.00% of mass 198	3.15
441	0.01 - 24.00% of mass 442	11.89 (14.10)
442	50.00 - 200.00% of mass 198	84.31
443	15.00 - 24.00% of mass 442	16.57 (19.65)

Data File: /chem2/nt6.i/20130306.b/tune.b/03061301.D

Date : 06-MAR-2013 12:16

Client ID: DFTPP0306

Instrument: nt6.i

Sample Info: DFTPP0306

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 03061301.D

Spectrum: Avg. Scans 2573-2575 (16.34), Background Scan 2566

Location of Maximum: 198.00

Number of points: 283

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	435	119.00	66	193.00	1619	273.00	2434
38.00	626	120.00	258	194.00	443	274.00	6366
39.00	4620	121.00	165	195.00	168	275.00	34624
40.00	86	122.00	886	196.00	3989	276.00	4716
41.00	135	123.00	1661	198.00	142912	277.00	3136
42.00	51	124.00	828	199.00	8988	278.00	473
43.00	28	125.00	867	200.00	881	283.00	323
45.00	136	127.00	66064	201.00	717	284.00	313
49.00	481	128.00	4907	202.00	116	285.00	557
50.00	15922	129.00	24440	203.00	1035	289.00	56
51.00	63072	130.00	2373	204.00	4827	291.00	57
52.00	3191	131.00	431	205.00	9390	292.00	177
53.00	162	132.00	298	206.00	36344	293.00	733
55.00	98	134.00	652	207.00	4326	294.00	208
56.00	1869	135.00	2095	208.00	1180	295.00	158
57.00	3936	136.00	536	209.00	372	296.00	9810
58.00	169	137.00	984	210.00	177	297.00	1471
61.00	642	138.00	123	211.00	1258	301.00	70
62.00	970	140.00	542	212.00	284	302.00	154
63.00	1956	141.00	3143	213.00	60	303.00	1095
64.00	580	142.00	1094	215.00	376	304.00	380
65.00	1013	143.00	721	216.00	827	308.00	75
66.00	210	144.00	116	217.00	9098	309.00	59
68.00	697	145.00	163	218.00	2040	310.00	77
69.00	58112	146.00	509	219.00	416	314.00	465
70.00	77	147.00	1412	220.00	540	315.00	1124
71.00	81	148.00	3677	221.00	7971	316.00	582
72.00	69	149.00	1042	223.00	2475	317.00	55
73.00	438	150.00	197	224.00	21088	321.00	316
74.00	5646	151.00	325	225.00	4987	322.00	65
75.00	8887	152.00	661	226.00	376	323.00	3459
76.00	3385	153.00	989	227.00	8225	324.00	632
77.00	70280	154.00	1118	228.00	1216	326.00	53
78.00	4804	155.00	1872	229.00	1823	327.00	643
79.00	3694	156.00	3281	230.00	87	328.00	319

Data File: /chem2/nt6.i/20130306.b/tune.b/03061301.D

Date : 06-MAR-2013 12:16

Client ID: DFTPP0306

Instrument: nt6.i

Sample Info: DFTPP0306

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 03061301.D

Spectrum: Avg. Scans 2673-2675 (16.34), Background Scan 2666

Location of Maximum: 198.00

Number of points: 283

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	3089	157.00	522	231.00	872	332.00	237
81.00	4436	158.00	528	232.00	224	333.00	301
82.00	972	159.00	466	233.00	206	334.00	2192
83.00	492	160.00	1036	234.00	485	335.00	686
85.00	751	161.00	1744	235.00	636	341.00	443
86.00	1051	162.00	516	236.00	521	346.00	856
87.00	634	163.00	117	237.00	702	347.00	183
88.00	127	164.00	129	238.00	55	352.00	952
89.00	252	165.00	1368	239.00	302	353.00	644
90.00	99	166.00	343	240.00	249	354.00	998
91.00	1049	167.00	1586	241.00	491	355.00	189
92.00	1155	168.00	2662	242.00	1263	365.00	4506
93.00	6399	169.00	655	243.00	1142	366.00	833
94.00	256	170.00	233	244.00	15704	370.00	64
96.00	212	171.00	359	245.00	2359	371.00	348
97.00	186	172.00	631	246.00	3012	372.00	1688
98.00	5046	173.00	729	247.00	819	373.00	481
99.00	4074	174.00	1277	248.00	77	383.00	453
100.00	397	175.00	1888	249.00	591	384.00	67
101.00	2639	176.00	773	250.00	89	390.00	264
102.00	93	177.00	1015	251.00	80	391.00	143
103.00	823	178.00	604	252.00	207	392.00	131
104.00	1234	179.00	4701	253.00	455	402.00	763
105.00	1408	180.00	3447	255.00	81992	403.00	990
106.00	237	181.00	1714	256.00	11952	404.00	418
107.00	19712	182.00	468	257.00	849	421.00	881
108.00	2948	183.00	943	258.00	4194	422.00	805
110.00	36840	184.00	660	259.00	769	423.00	6078
111.00	5315	185.00	2694	260.00	200	424.00	1104
112.00	1126	186.00	19928	261.00	83	425.00	146
113.00	289	187.00	5334	264.00	247	431.00	55
114.00	222	188.00	665	265.00	1902	441.00	16992
115.00	192	189.00	1117	266.00	328	442.00	120496
116.00	686	190.00	270	270.00	68	443.00	23680
117.00	13830	191.00	589	271.00	192	444.00	2214

Data File: /chem2/nt6.i/20130306.b/tune.b/03061301.D

Date : 06-MAR-2013 12:16

Client ID: DFTPP0306

Instrument: nt6.i

Sample Info: DFTPP0306

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 03061301.D

Spectrum: Avg. Scans 2573-2575 (16.34), Background Scan 2566

Location of Maximum: 198.00

Number of points: 283

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1156	192.00	1832	272.00	311		

Data File: /chem2/nt6.i/20130306.b/tune.b/03061301.D

Date : 06-MAR-2013 12:16

Client ID: DFTPP0306

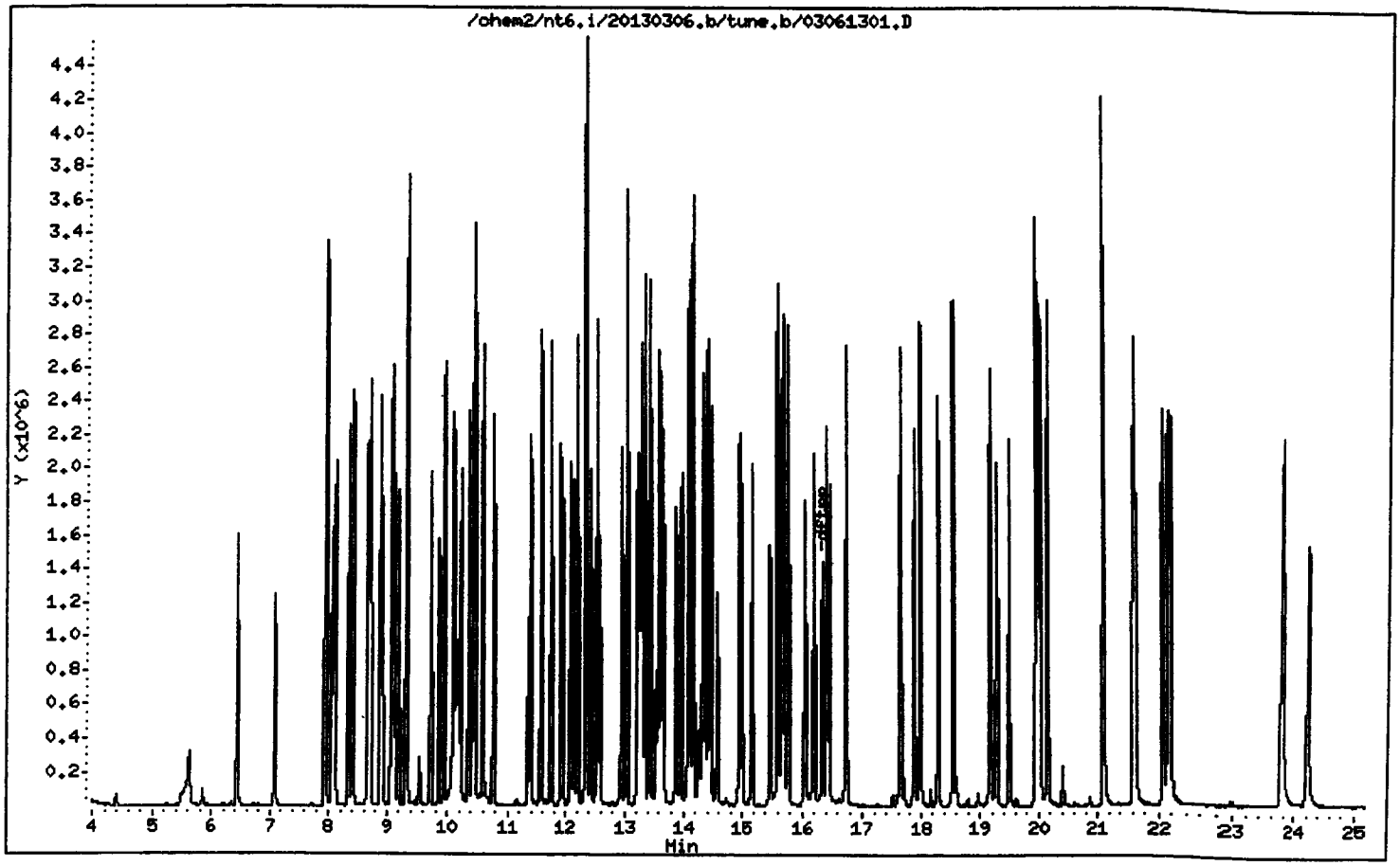
Instrument: nt6.i

Sample Info: DFTPP0306

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem2/nt6.i/20130306.b/ddt.b/03061301.D ARI ID: DDT0306
Method: /chem2/nt6.i/20130306.b/ddt.b/sw846ddt.m Misc: 13-
Analysis Date: 06-MAR-2013 12:16 Instrument: nt6.i

COMPOUND	RT	AREA
Pentachlorophenol	15.470	294213
Benzidine	17.874	166212
4,4'-DDE	----	----
4,4'-DDD	18.799	12007
4,4'-DDT	19.274	647493

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

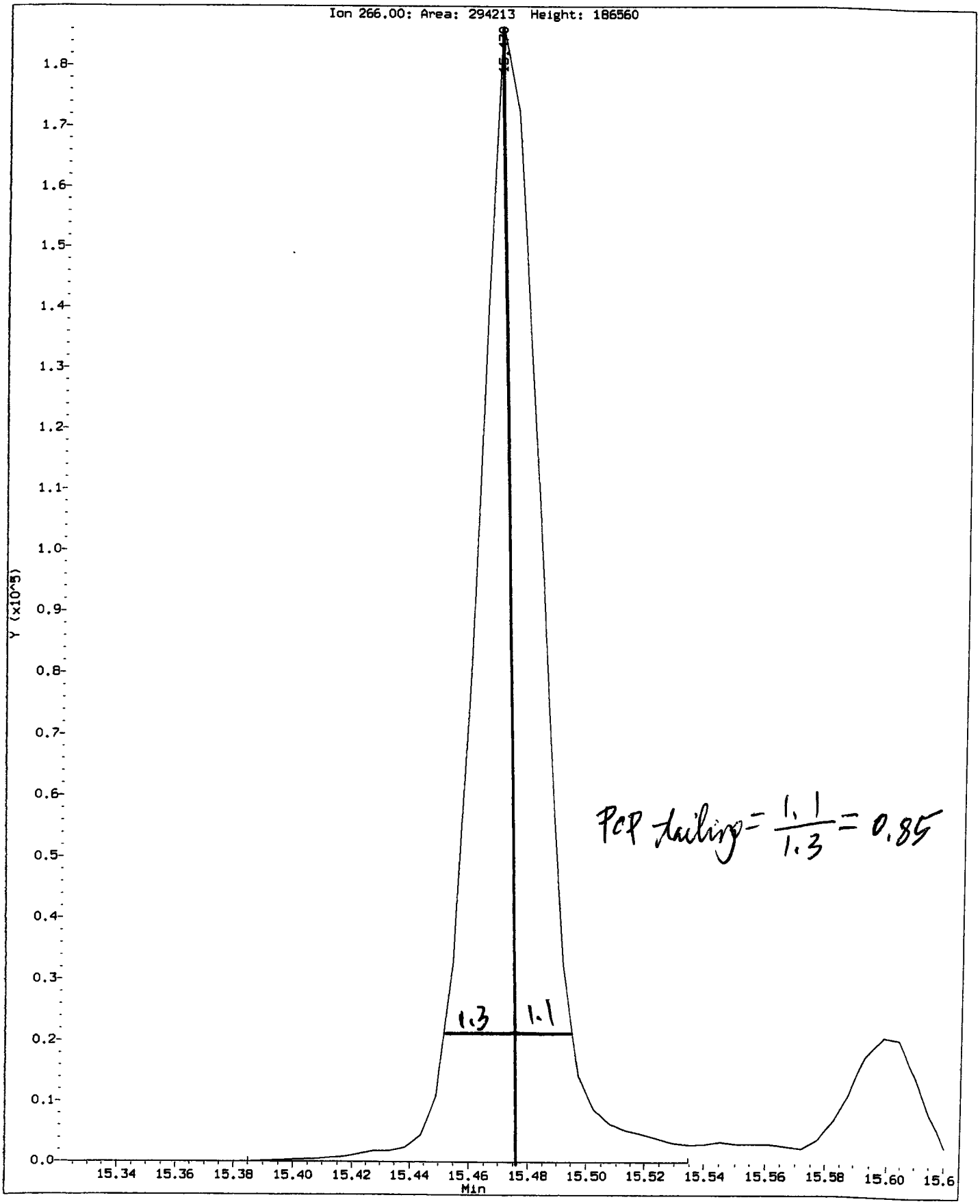
$$\text{DDT Percent Breakdown} = \frac{(0 + 12007) * 100}{(0 + 12007 + 647493)}$$

DDT Percent Breakdown = 1.8 %

03/07/13

Data File: /chem2/nt6.i/20130306.b/ddt.b/03061301.D
Injection Date: 06-MAR-2013 12:16
Instrument: nt6.i
Client Sample ID: DDT0306

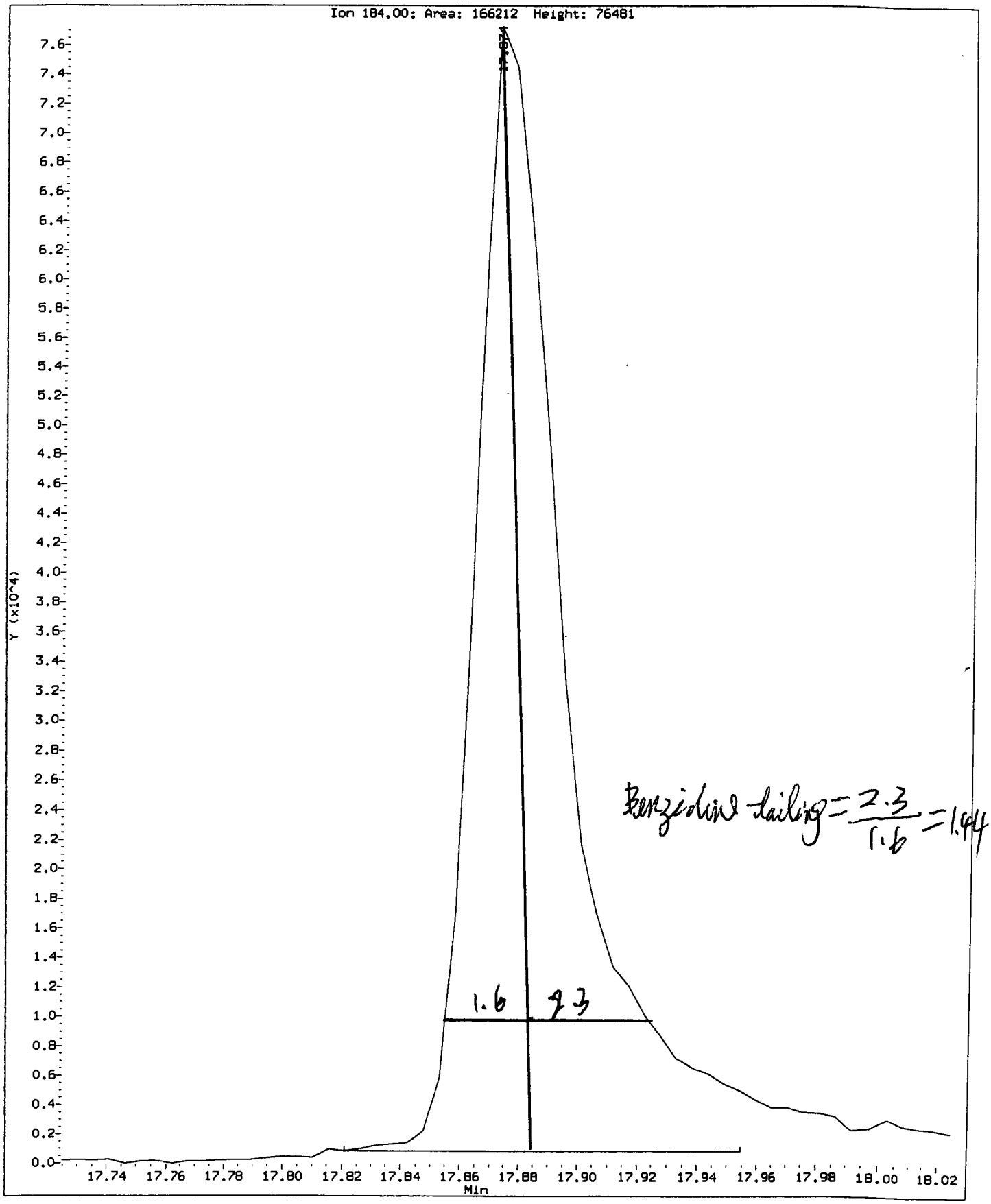
Compound: Pentachlorophenol
CAS Number: 87-86-5



WJ10 : 00068

Data File: /chem2/nt6.i/20130306.b/ddt.b/03061301.D
Injection Date: 06-MAR-2013 12:16
Instrument: nt6.i
Client Sample ID: DDT0306

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130306.b/03061302.D
Lab Smp Id: IC020306 Client Smp ID: IC020306
Inj Date : 06-MAR-2013 12:51
Operator : JZ Inst ID: nt6.i
Smp Info : IC020306,
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130306.b/SW846030613.m
Meth Date : 07-Mar-2013 11:55 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 2 Calibration Sample, Level : 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

JZ 03/07/13

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1 2-Fluorophenol	112	Compound Not Detected.					
$ 2 Phenol-d5	99	Compound Not Detected.					
3 Phenol	94	Compound Not Detected.					
$ 5 2-Chlorophenol-d4	132	Compound Not Detected.					
4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6 2-Chlorophenol	128	Compound Not Detected.					
7 1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152	8.384	8.387	(1.000)	469293	20.0000	
9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10 1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
12 1,2-Dichlorobenzene	146	Compound Not Detected.					
11 Benzyl alcohol	108	Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13 2-Methylphenol	108	Compound Not Detected.					
17 Hexachloroethane	117	Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15 4-Methylphenol	108	Compound Not Detected.					
$ 18 Nitrobenzene-d5	82	Compound Not Detected.					
19 Nitrobenzene	77	Compound Not Detected.					
20 Isophorone	82	Compound Not Detected.					
21 2-Nitrophenol	139	Compound Not Detected.					
22 2,4-Dimethylphenol	107	Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24 Benzoic acid	105	Compound Not Detected.					
25 2,4-Dichlorophenol	162	Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27 Naphthalene-d8	136	10.419	10.422	(1.000)	1660759	20.0000	
28 Naphthalene	128	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	Compound Not Detected.					
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.277	13.286	(1.000)	977166	20.0000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	Compound Not Detected.					
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	15.655	15.663	(1.000)	1519395	20.0000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	Compound Not Detected.					
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	19.971	19.979	(1.000)	1581424	20.0000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134 Di-n-octylphthalate-d4	153	21.077	21.085	(1.000)	2063915	20.0000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
187	Total Benzofluoranthenes	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	Compound Not Detected.					
* 77	Perylene-d12	264	22.129	22.137	(1.000)	1491578	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
105	1-methylnaphthalene	141	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
143	1,4-Dioxane	88	3.117	3.103	(0.372)	3506	0.20000	0.2303
$ 137	d8-1,4-Dioxane	96	Compound Not Detected.					
144	alpha-Terpineol	59	Compound Not Detected.					
177	p-Benzoquinone	82	Compound Not Detected.					
98	Retene	219	Compound Not Detected.					
99	Perylene	252	Compound Not Detected.					
133	Butylatedhydroxytoluene	205	Compound Not Detected.					
115	Tributyl Phosphate	99	Compound Not Detected.					
116	Dibutyl Phenyl Phosphate	175	Compound Not Detected.					
117	Butyl Diphenyl Phosphate	94	Compound Not Detected.					
118	Triphenyl Phosphate	326	Compound Not Detected.					
123	Acetophenone	105	Compound Not Detected.					
168	Pentachlorobenzene	250	Compound Not Detected.					
113	Diphenyl Oxide	170	Compound Not Detected.					
112	Biphenyl	154	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					
151	1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.					
110	Tetrachloroguaiacol	247	Compound Not Detected.					
109	3,4,5-Trichloroguaiacol	213	Compound Not Detected.					
181	3,4,6-Trichloroguaiacol	211	Compound Not Detected.					
108	4,5,6-Trichloroguaiacol	213	Compound Not Detected.					
184	3,4-Dichloroguaiacol	192	Compound Not Detected.					
107	4,5-Dichloroguaiacol	192	Compound Not Detected.					
182	4,6-Dichloroguaiacol	192	Compound Not Detected.					
185	4-Chloroguaiacol	115	Compound Not Detected.					
186	Carbaryl	144	Compound Not Detected.					
178	2-Benzyl-4-Chlorophenol	218	Compound Not Detected.					
106	Guaiacol	124	Compound Not Detected.					
188	2,6-Dichlorophenol	162	Compound Not Detected.					
189	N-Nitrosomethylethylamine	88	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 03061302.D
Lab Smp Id: IC020306
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

Calibration Date: 06-MAR-2013
Calibration Time: 12:16
Client Smp ID: IC020306
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	469293	2.44
27 Naphthalene-d8	1718341	859170	3436682	1660759	-3.35
42 Acenaphthene-d10	1010041	505020	2020082	977166	-3.25
59 Phenanthrene-d10	1666734	833367	3333468	1519395	-8.84
69 Chrysene-d12	1675752	837876	3351504	1581424	-5.63
134 Di-n-octylphthala	2026355	1013178	4052710	2063915	1.85
77 Perylene-d12	1637524	818762	3275048	1491578	-8.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.39	7.89	8.89	8.38	-0.03
27 Naphthalene-d8	10.42	9.92	10.92	10.42	-0.03
42 Acenaphthene-d10	13.29	12.79	13.79	13.28	-0.06
59 Phenanthrene-d10	15.66	15.16	16.16	15.65	-0.05
69 Chrysene-d12	19.98	19.48	20.48	19.97	-0.04
134 Di-n-octylphthala	21.09	20.59	21.59	21.08	-0.04
77 Perylene-d12	22.14	21.64	22.64	22.13	-0.04

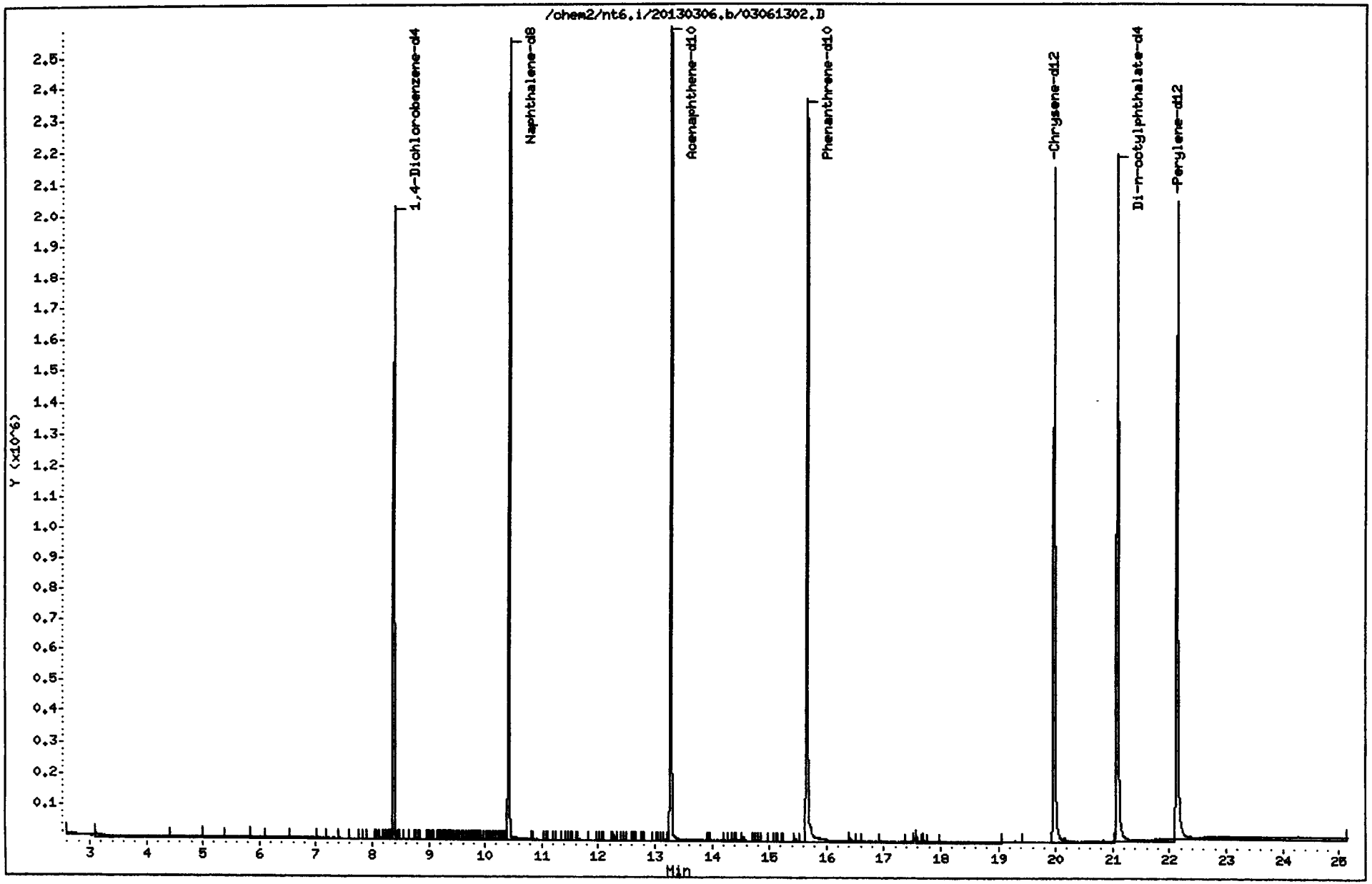
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20130306.b/03061302.D
Date : 06-MAR-2013 12:51
Client ID: IC020306
Sample Info: IC020306,

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - 03061302.D

Lab ID: IC020306, Method: SW846030613.m, Instrument: nt6.i, Date: 06-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130306.b/03061303.D
Lab Smp Id: IC10306 Client Smp ID: IC10306
Inj Date : 06-MAR-2013 13:25
Operator : JZ Inst ID: nt6.i
Smp Info : IC10306,
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130306.b/SW846030613.m
Meth Date : 07-Mar-2013 11:55 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

03/07/13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.425	6.432	(0.767)	33086	1.00000	1.078
$	2 Phenol-d5	99	7.921	7.933	(0.945)	40462	1.00000	1.127
	3 Phenol	94	7.942	7.954	(0.948)	41723	1.00000	1.103
$	5 2-Chlorophenol-d4	132	8.081	8.082	(0.964)	34738	1.00000	1.144
	4 Bis(2-Chloroethyl)ether	93	8.044	8.050	(0.960)	37893	1.00000	1.154
	6 2-Chlorophenol	128	8.103	8.109	(0.967)	32633	1.00000	1.078
	7 1,3-Dichlorobenzene	146	8.322	8.328	(0.993)	43015	1.00000	1.217
*	8 1,4-Dichlorobenzene-d4	152	8.381	8.387	(1.000)	473521	20.0000	
	9 1,4-Dichlorobenzene	146	8.407	8.408	(1.003)	43098	1.00000	1.253
$	10 1,2-Dichlorobenzene-d4	152	8.680	8.681	(1.036)	26576	1.00000	1.244
	12 1,2-Dichlorobenzene	146	8.701	8.707	(1.038)	41605	1.00000	1.265
	11 Benzyl alcohol	108	8.648	8.654	(1.032)	20791	1.00000	1.009
	14 2,2'-oxybis(1-Chloropropane)	45	8.909	8.916	(1.063)	62877	1.00000	1.205
	13 2-Methylphenol	108	8.872	8.878	(1.059)	29626	1.00000	1.033
	17 Hexachloroethane	117	9.193	9.193	(1.097)	16561	1.00000	1.190
	16 N-Nitroso-di-n-propylamine	70	9.118	9.135	(1.088)	28301	1.00000	1.148
	15 4-Methylphenol	108	9.096	9.108	(1.085)	29399	1.00000	1.037
$	18 Nitrobenzene-d5	82	9.305	9.311	(0.893)	39000	1.00000	1.152
	19 Nitrobenzene	77	9.331	9.343	(0.895)	40199	1.00000	1.240
	20 Isophorone	82	9.705	9.717	(0.931)	65921	1.00000	1.167
	21 2-Nitrophenol	139	9.850	9.851	(0.945)	12213	1.00000	0.8144
	22 2,4-Dimethylphenol	107	9.940	9.947	(0.954)	30479	1.00000	1.075
	23 Bis(2-Chloroethoxy)methane	93	10.090	10.096	(0.968)	45674	1.00000	1.232
	24 Benzoic acid	105	10.031	10.198	(0.963)	14014	2.00000	0.5712
	25 2,4-Dichlorophenol	162	10.224	10.230	(0.981)	20297	1.00000	0.9294
	26 1,2,4-Trichlorobenzene	180	10.357	10.363	(0.994)	34147	1.00000	1.256
*	27 Naphthalene-d8	136	10.421	10.422	(1.000)	1687458	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	28 Naphthalene	128	10.448	10.454	(1.003)	106156	1.00000	1.023
	29 4-Chloroaniline	127	10.582	10.588	(1.015)	34256	1.00000	1.061
	30 Hexachlorobutadiene	225	10.763	10.764	(1.033)	19751	1.00000	1.194
	31 4-Chloro-3-methylphenol	107	11.377	11.384	(1.092)	20683	1.00000	0.8916
	32 2-Methylnaphthalene	141	11.564	11.571	(1.110)	50301	1.00000	1.226
	33 Hexachlorocyclopentadiene	237	11.944	11.950	(0.899)	11430	1.00000	0.7281
	34 2,4,6-Trichlorophenol	196	12.077	12.078	(0.909)	13928	1.00000	0.8480
	35 2,4,5-Trichlorophenol	196	12.131	12.137	(0.914)	11570	1.00000	0.7141
$	36 2-Fluorobiphenyl	172	12.206	12.212	(0.919)	78484	1.00000	1.273
	37 2-Chloronaphthalene	162	12.344	12.356	(0.930)	63607	1.00000	1.417
	38 2-Nitroaniline	65	12.569	12.580	(0.946)	10307	1.00000	0.7135
	39 Dimethylphthalate	163	12.937	12.949	(0.974)	72198	1.00000	1.228
	40 Acenaphthylene	152	13.028	13.034	(0.981)	100567	1.00000	1.305
	41 2,6-Dinitrotoluene	165	13.034	13.045	(0.981)	12098	1.00000	0.9629
*	42 Acenaphthene-d10	164	13.279	13.286	(1.000)	977079	20.0000	
	43 3-Nitroaniline	138	13.247	13.264	(0.998)	10686	1.00000	0.9026 (M)
	44 Acenaphthene	153	13.327	13.334	(1.004)	65502	1.00000	1.313
	45 2,4-Dinitrophenol	184	13.413	13.424	(1.010)	2331	2.00000	0.2598
	46 Dibenzofuran	168	13.589	13.595	(1.023)	82058	1.00000	1.257
	47 4-Nitrophenol	109	13.536	13.547	(1.019)	3036	1.00000	0.4756 (M)
	48 2,4-Dinitrotoluene	165	13.664	13.676	(1.029)	14844	1.00000	0.8735
	50 Diethylphthalate	149	14.086	14.098	(1.061)	78847	1.00000	1.447
	49 Fluorene	166	14.145	14.156	(1.065)	69651	1.00000	1.358
	51 4-Chlorophenyl-phenylether	204	14.166	14.172	(1.067)	37022	1.00000	1.292
	52 4-Nitroaniline	138	14.241	14.252	(1.072)	9632	1.00000	1.005
	53 4,6-Dinitro-2-methylphenol	198	14.316	14.333	(0.914)	9300	2.00000	0.8416 (M)
	54 N-Nitrosodiphenylamine	169	14.364	14.375	(0.917)	52264	1.00000	1.217
$	55 2,4,6-Tribromophenol	330	14.567	14.573	(1.097)	7243	1.00000	0.9375
	56 4-Bromophenyl-phenylether	248	14.946	14.952	(0.955)	19320	1.00000	1.147
	57 Hexachlorobenzene	284	15.170	15.182	(0.969)	20998	1.00000	1.209
	58 Pentachlorophenol	266	15.470	15.470	(0.988)	4992	1.00000	0.4874
*	59 Phenanthrene-d10	188	15.657	15.663	(1.000)	1534533	20.0000	
	60 Phenanthrene	178	15.694	15.700	(1.002)	98896	1.00000	1.303
	61 Anthracene	178	15.763	15.770	(1.007)	91358	1.00000	1.202
	62 Carbazole	167	16.041	16.047	(1.025)	87629	1.00000	1.673
	63 Di-n-butylphthalate	149	16.741	16.747	(1.069)	118210	1.00000	1.233
	64 Fluoranthene	202	17.628	17.639	(1.126)	96279	1.00000	1.205
	65 Pyrene	202	17.986	17.992	(0.901)	99688	1.00000	1.267
$	66 Terphenyl-d14	244	18.290	18.291	(0.916)	60228	1.00000	1.191
	67 Butylbenzylphthalate	149	19.161	19.167	(0.960)	42596	1.00000	1.108
	68 Benzo(a)anthracene	228	19.941	19.953	(0.999)	77087	1.00000	1.174
*	69 Chrysene-d12	240	19.968	19.979	(1.000)	1440155	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.941	19.953	(0.999)	19182	1.00000	1.062
	71 Chrysene	228	20.005	20.017	(1.002)	82771	1.00000	1.235
	72 bis(2-Ethylhexyl)phthalate	149	20.149	20.150	(0.956)	61910	1.00000	1.099
*	134 Di-n-octylphthalate-d4	153	21.079	21.085	(1.000)	1913979	20.0000	
	73 Di-n-octylphthalate	149	21.089	21.096	(1.000)	108139	1.00000	1.197

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.592	21.609	(0.976)	60045	1.00000	0.9273
75	Benzo(k)fluoranthene	252	21.629	21.641	(0.977)	92998	1.00000	1.219 (M)
187	Total Benzofluoranthenes	252	21.629	21.641	(0.977)	143967	2.00000	2.341 (M)
76	Benzo(a)pyrene	252	22.046	22.057	(0.996)	61756	1.00000	1.082
* 77	Perylene-d12	264	22.131	22.137	(1.000)	1335257	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.755	23.767	(1.073)	70007	1.00000	1.019
79	Dibenzo(a,h)anthracene	278	23.766	23.788	(1.074)	48443	1.00000	0.8957
80	Benzo(g,h,i)perylene	276	24.199	24.226	(1.093)	55321	1.00000	0.9418
90	N-Nitrosodimethylamine	74	3.893	3.889	(0.465)	23589	1.00000	1.058
103	Pyridine	79	3.898	3.851	(0.465)	33880	1.00000	0.9580
91	Aniline	93	7.937	7.938	(0.947)	52642	1.00000	1.256
105	1-methylnaphthalene	141	11.741	11.747	(1.127)	51510	1.00000	1.236
93	Benzidine	184	17.874	17.874	(0.895)	22120	1.00000	3.150 (M)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.412	14.423	(1.085)	78078	1.00000	1.261
143	1,4-Dioxane	88	3.113	3.103	(0.371)	16760	1.00000	1.091
$ 137	d8-1,4-Dioxane	96	3.060	3.039	(0.365)	15981	1.00000	1.111
144	alpha-Terpineol	59	10.464	10.470	(1.004)	25257	1.00000	1.177
177	p-Benzoquinone	82	7.082	7.083	(0.680)	4225	1.00000	0.6556
98	Retene	219	18.541	18.548	(0.929)	38483	1.00000	1.134
99	Perylene	252	22.158	22.175	(1.001)	59629	1.00000	1.193
133	Butylatedhydroxytoluene	205	13.440	13.440	(1.012)	55856	1.00000	0.9826
115	Tributyl Phosphate	99	14.444	14.461	(0.923)	82254	1.00000	1.227
116	Dibutyl Phenyl Phosphate	175	16.185	16.192	(1.034)	43704	1.00000	1.077
117	Butyl Diphenyl Phosphate	94	17.874	17.880	(0.895)	15361	1.00000	1.158
118	Triphenyl Phosphate	326	19.476	19.482	(0.975)	12619	1.00000	1.001
123	Acetophenone	105	9.064	9.076	(1.082)	50864	1.00000	1.141
168	Pentachlorobenzene	250	13.627	13.638	(1.026)	26382	1.00000	1.233
113	Diphenyl Oxide	170	12.531	12.538	(0.944)	47537	1.00000	1.250
112	Biphenyl	154	12.339	12.345	(0.929)	73566	1.00000	1.374
120	2,3,4,6-Tetrachlorophenol	232	13.867	13.873	(1.044)	10314	1.00000	0.7395
151	1,2,4,5-Tetrachlorobenzene	216	11.901	11.907	(0.896)	29179	1.00000	1.223
110	Tetrachloroguaiacol	247	15.592	15.599	(0.996)	15567	2.00000	1.933
109	3,4,5-Trichloroguaiacol	213	13.963	13.969	(0.892)	8806	1.00000	1.005
181	3,4,6-Trichloroguaiacol	211	14.081	14.087	(1.680)	10214	1.00000	0.9453
108	4,5,6-Trichloroguaiacol	213	14.994	15.000	(1.129)	8271	1.00000	0.9051
184	3,4-Dichloroguaiacol	192	12.425	12.425	(1.483)	10398	1.00000	1.014
107	4,5-Dichloroguaiacol	192	13.194	13.205	(0.994)	23641	2.00000	1.980
182	4,6-Dichloroguaiacol	192	13.194	13.205	(1.574)	23641	2.00000	1.889
185	4-Chloroguaiacol	115	11.329	11.336	(1.352)	5760	0.50000	0.4329
186	Carbaryl	144	16.447	16.459	(1.050)	30461	1.00000	0.8591
178	2-Benzyl-4-Chlorophenol	218	16.399	16.411	(1.047)	11942	1.00000	0.9396
106	Guaiacol	124	9.326	9.332	(1.113)	29497	1.00000	1.198
188	2,6-Dichlorophenol	162	10.592	10.598	(1.264)	22124	2.00000	1.055
189	N-Nitrosomethylethylamine	88	5.635	5.620	(0.672)	14520	2.00000	0.9281

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 03061303.D
Lab Smp Id: IC10306
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

Calibration Date: 06-MAR-2013
Calibration Time: 12:16
Client Smp ID: IC10306
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	473521	3.36
27 Naphthalene-d8	1718341	859170	3436682	1687458	-1.80
42 Acenaphthene-d10	1010041	505020	2020082	977079	-3.26
59 Phenanthrene-d10	1666734	833367	3333468	1534533	-7.93
69 Chrysene-d12	1675752	837876	3351504	1440155	-14.06
134 Di-n-octylphthala	2026355	1013178	4052710	1913979	-5.55
77 Perylene-d12	1637524	818762	3275048	1335257	-18.46

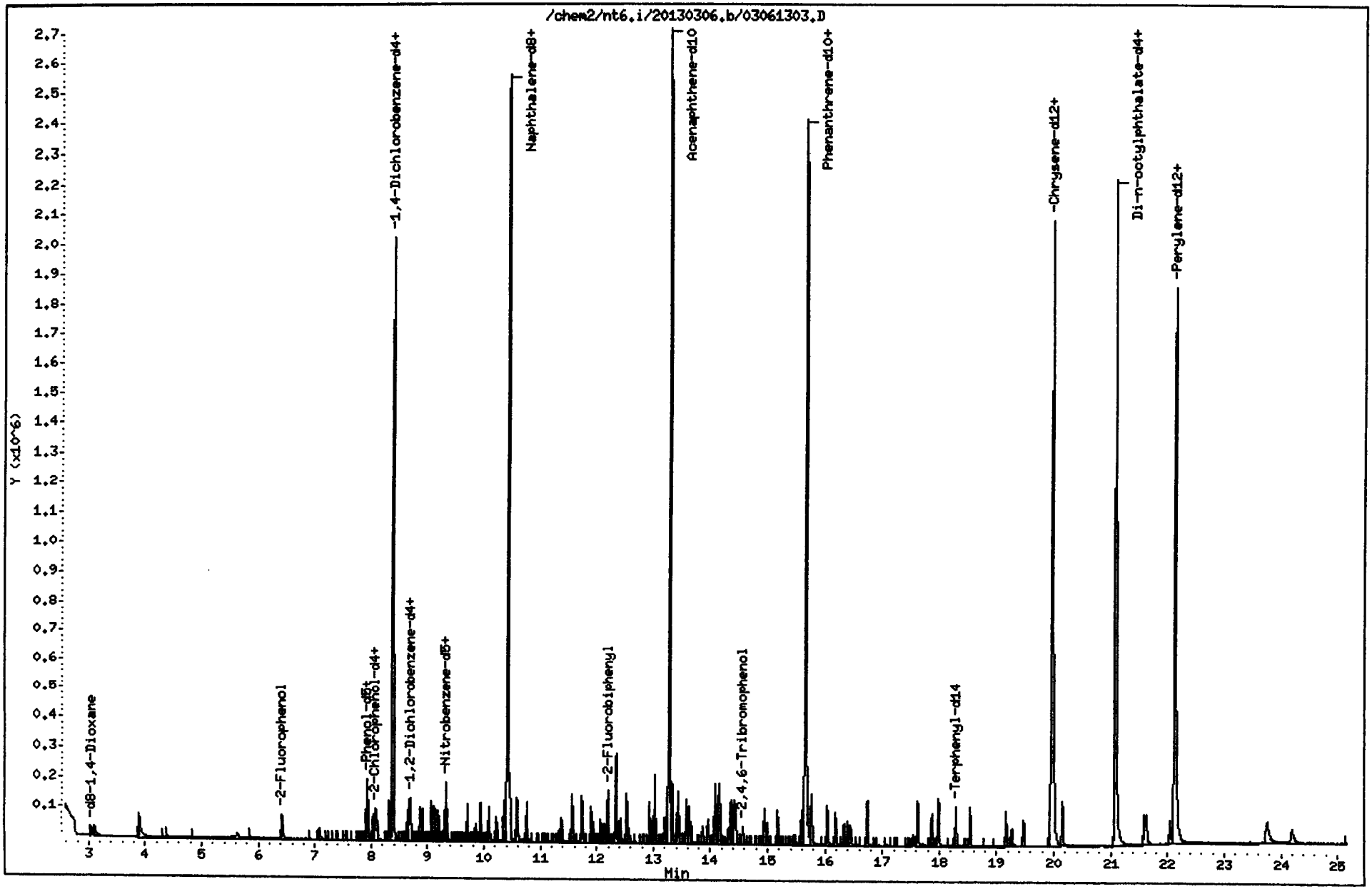
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.39	7.89	8.89	8.38	-0.07
27 Naphthalene-d8	10.42	9.92	10.92	10.42	-0.01
42 Acenaphthene-d10	13.29	12.79	13.79	13.28	-0.05
59 Phenanthrene-d10	15.66	15.16	16.16	15.66	-0.04
69 Chrysene-d12	19.98	19.48	20.48	19.97	-0.06
134 Di-n-octylphthala	21.09	20.59	21.59	21.08	-0.03
77 Perylene-d12	22.14	21.64	22.64	22.13	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20130306.b/03061303.D
Date : 06-MAR-2013 13:25
Client ID: IC10306
Sample Info: IC10306,

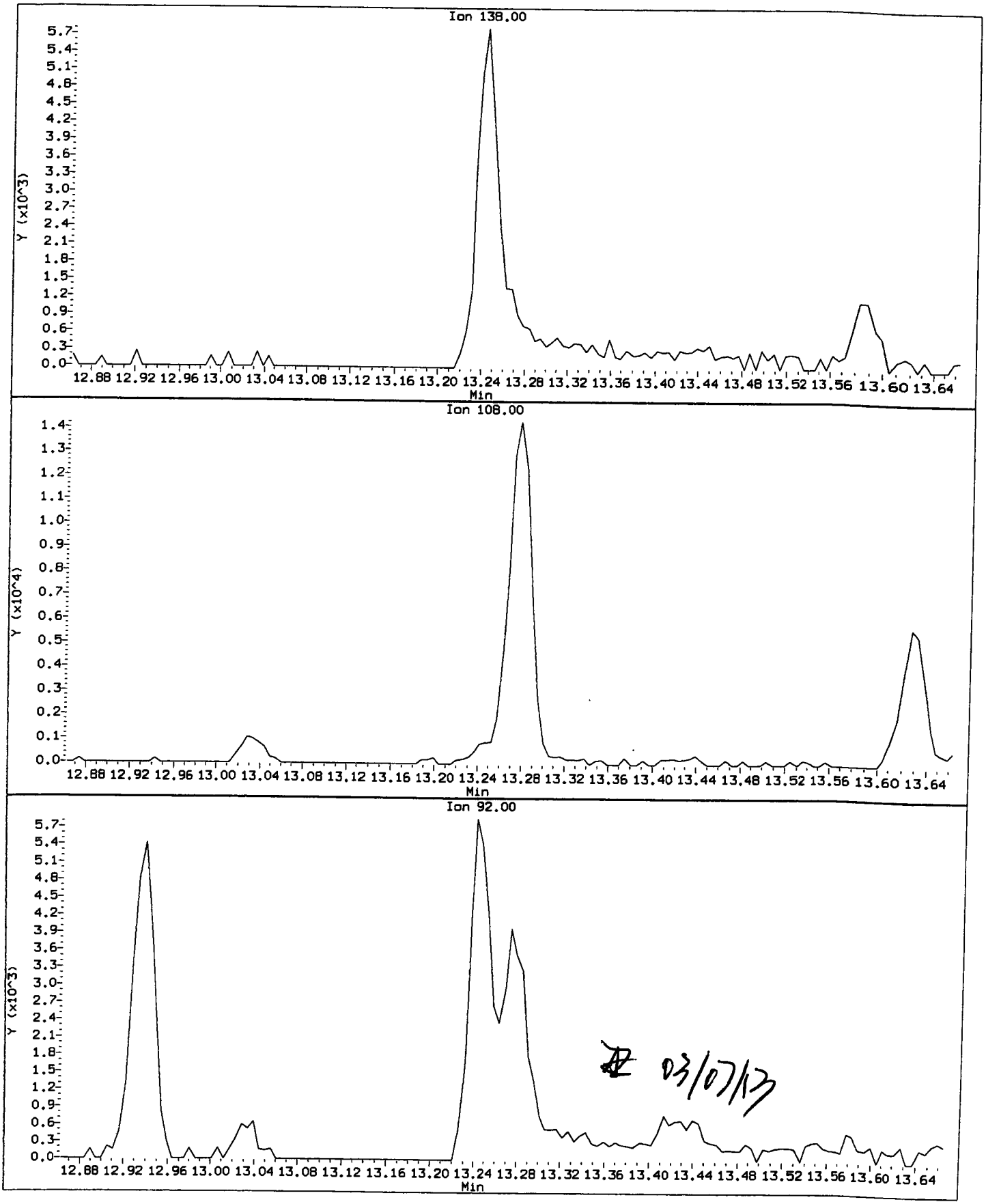
Instrument: nt6.i
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



Data File: /chem2/nt6.i/20130306.b/03061303.D
Injection Date: 06-MAR-2013 13:25
Instrument: nt6.i
Client Sample ID: IC10306

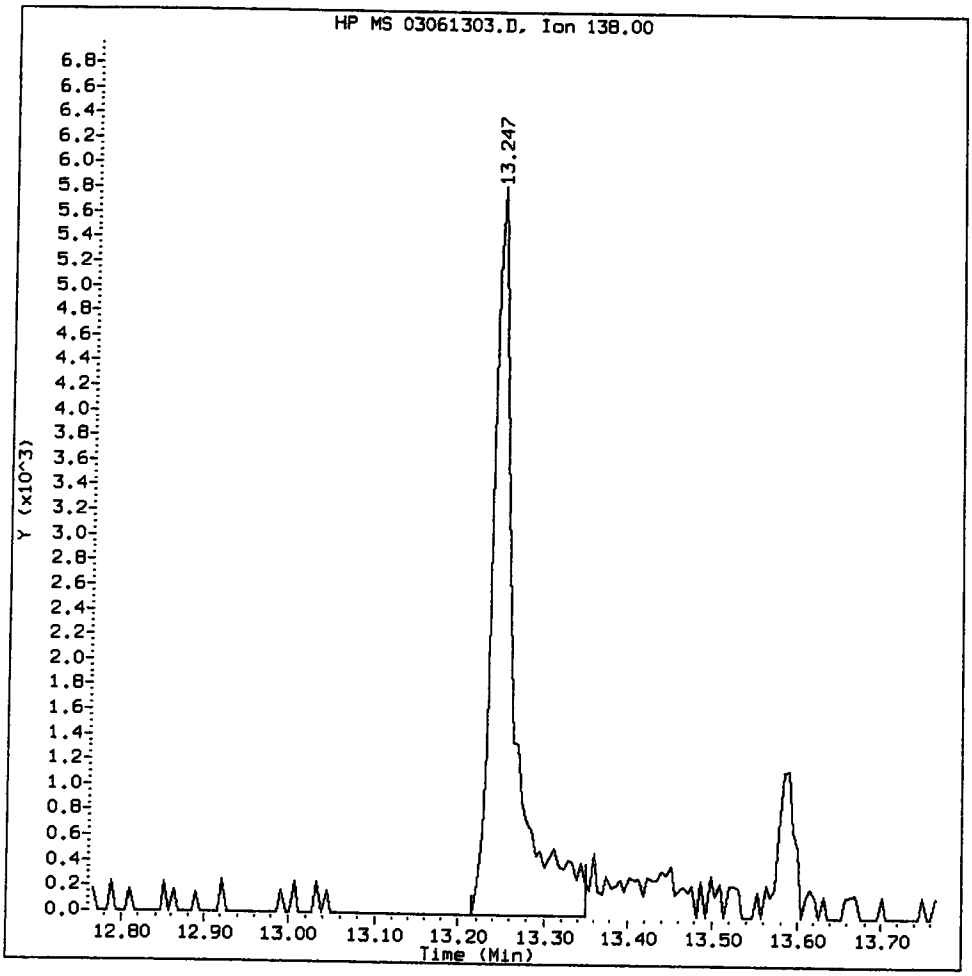
Compound: 3-Nitroaniline
CAS Number: 99-09-2



03/07/13

IC10306, /chem2/nt6.i/20130306.b/03061303.D

3-Nitroaniline Amount: 0.90 Area: 10686



MANUAL INTEGRATION for 3-Nitroaniline

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

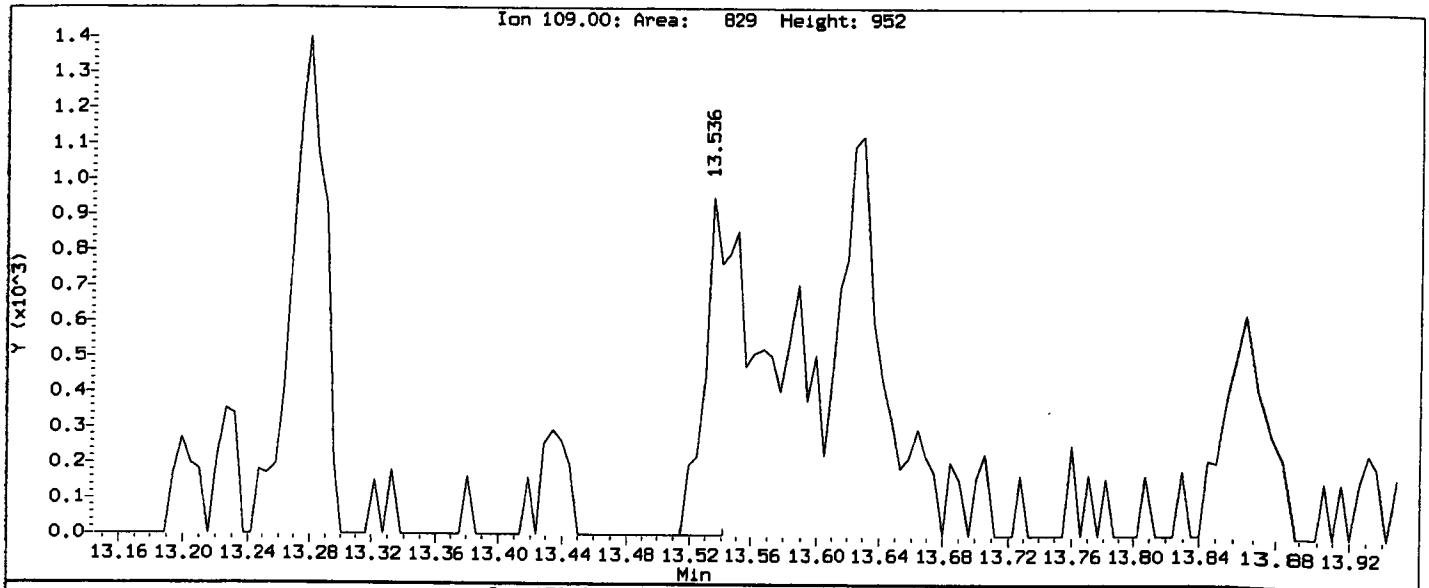
5. Other _____

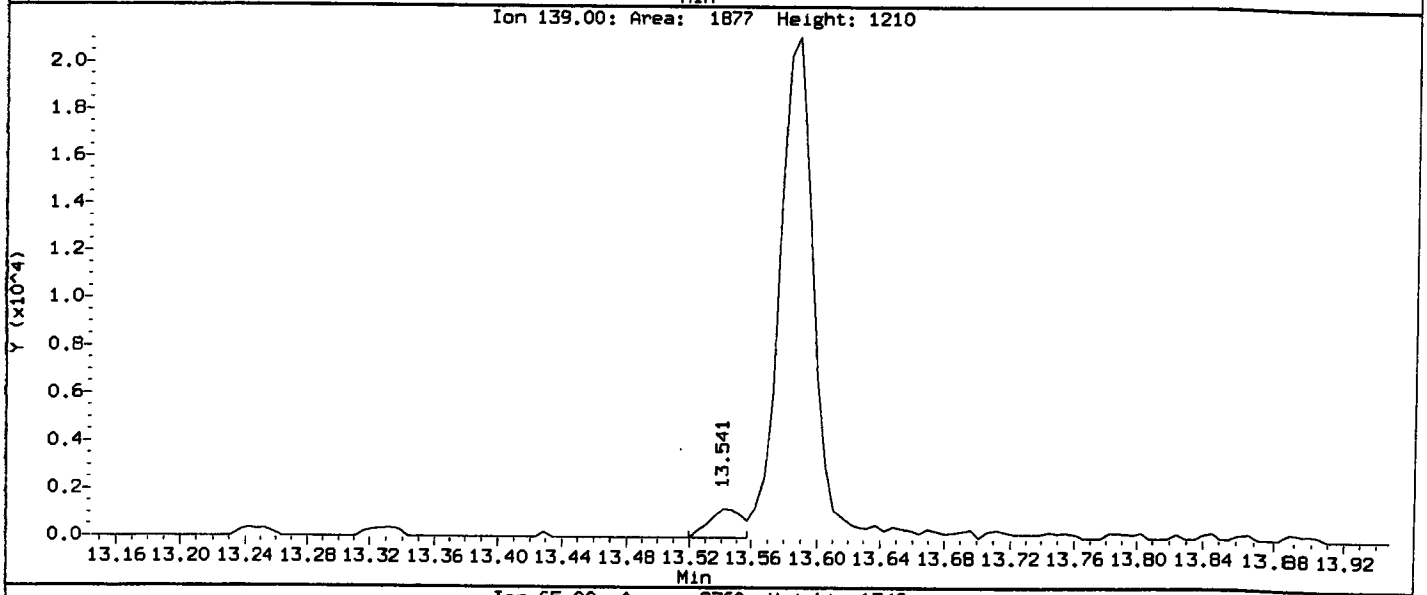
Analyst: _____ Date: 03/07/13

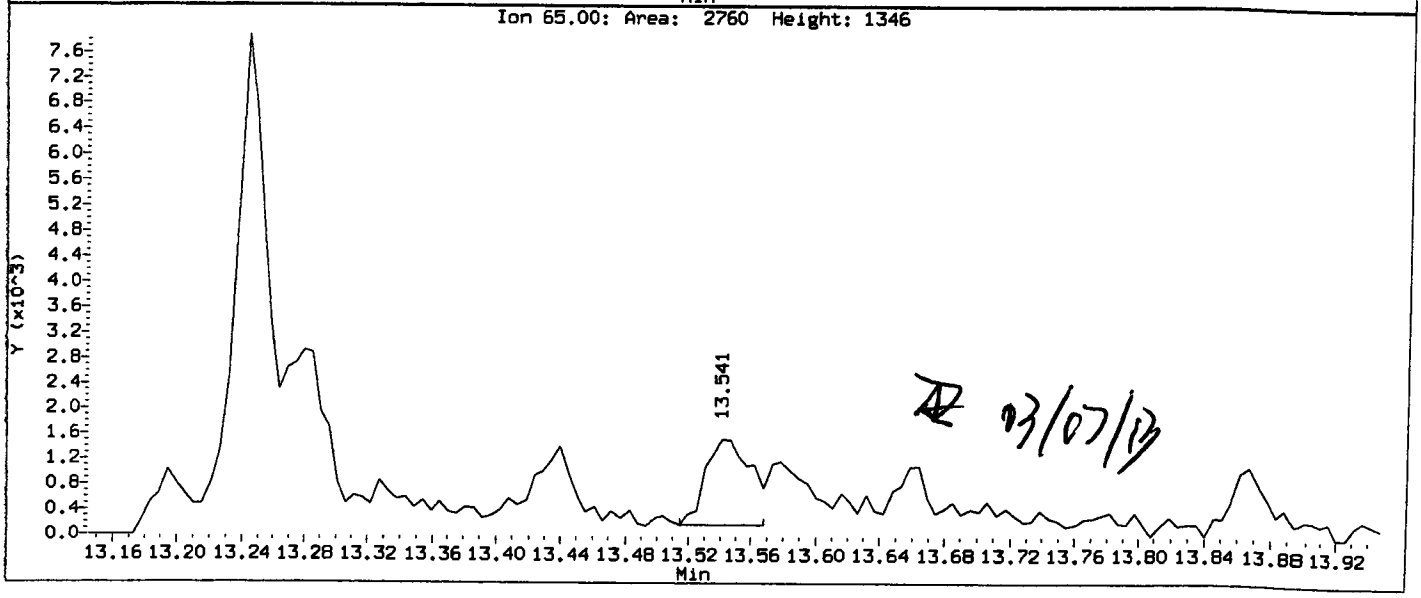
WJ10:00883

Data File: /chem2/nt6.i/20130306.b/03061303.D
Injection Date: 06-MAR-2013 13:25
Instrument: nt6.i
Client Sample ID: IC10306

Compound: 4-Nitrophenol
CAS Number: 100-02-7





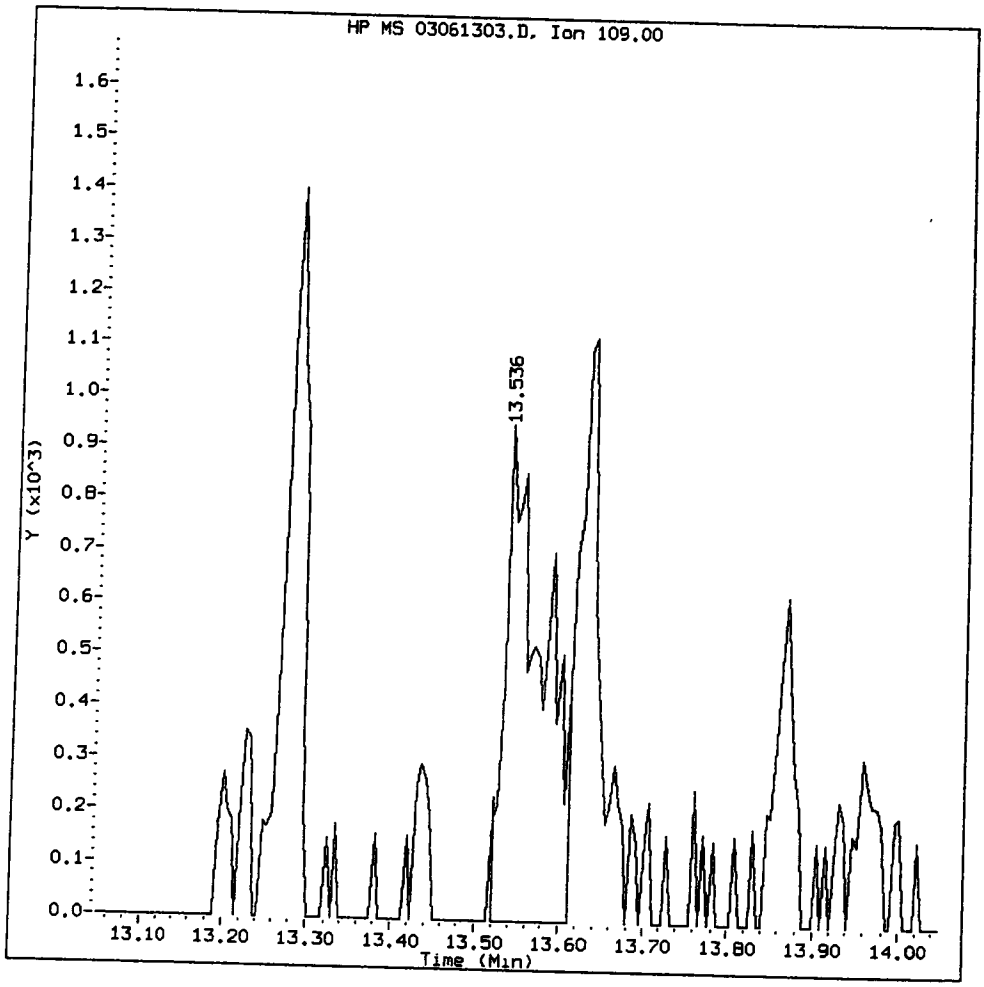


03/07/13

WJ10 : 20684

IC10306, /chem2/nt6.i/20130306.b/03061303.D

4-Nitrophenol Amount: 0.48 Area: 3036



MANUAL INTEGRATION for 4-Nitrophenol

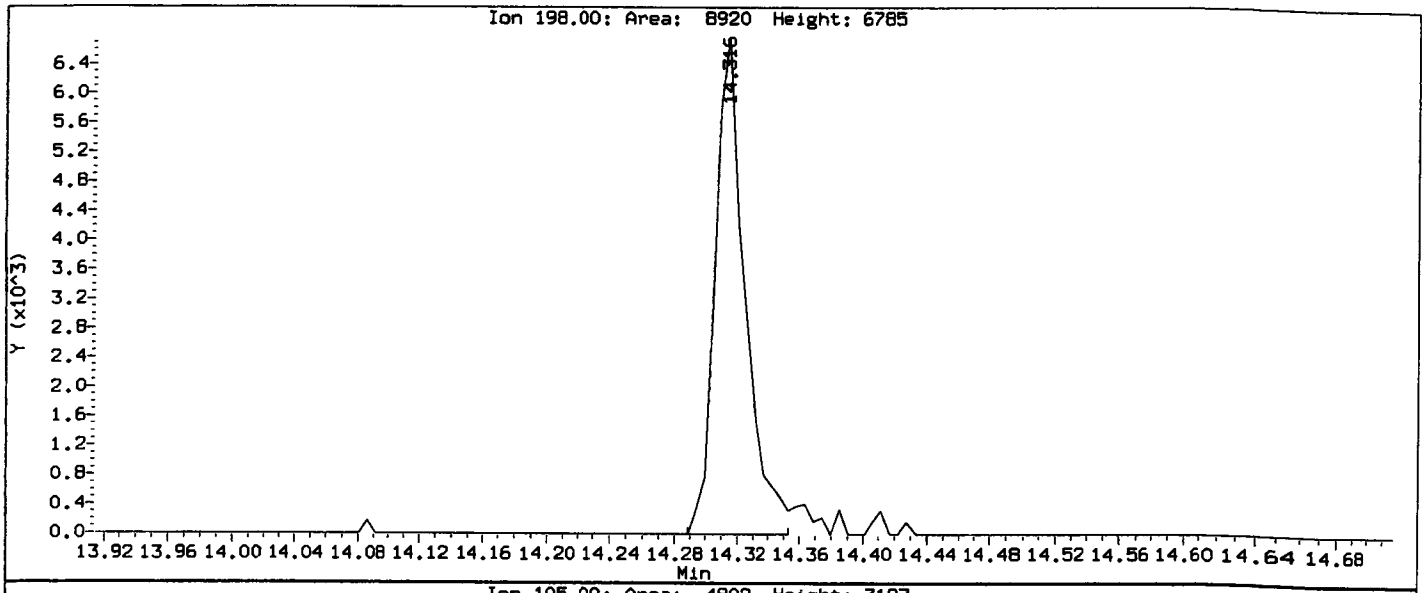
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

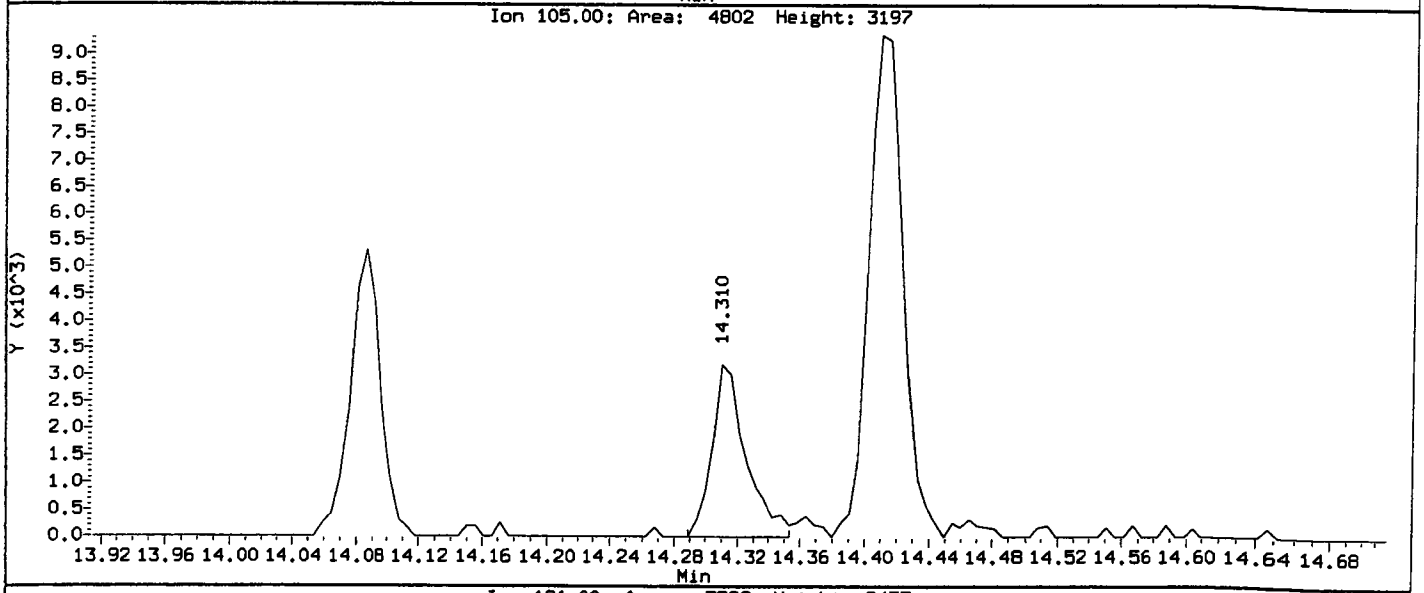
5. Other _____

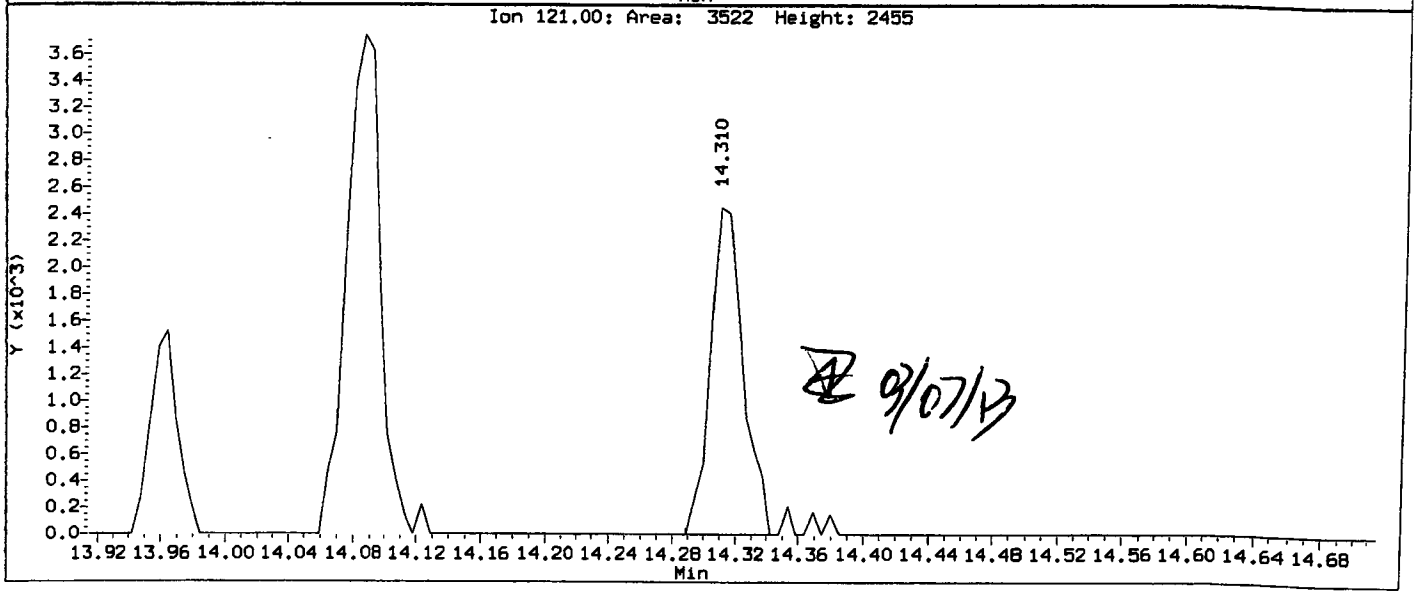
Analyst: _____ Date: 03/07/13

Data File: /chem2/nt6.i/20130306.b/03061303.D
Injection Date: 06-MAR-2013 13:25
Instrument: nt6.i
Client Sample ID: IC10306

Compound: 4,6-Dinitro-2-methylphenol
CAS Number: 534-52-1





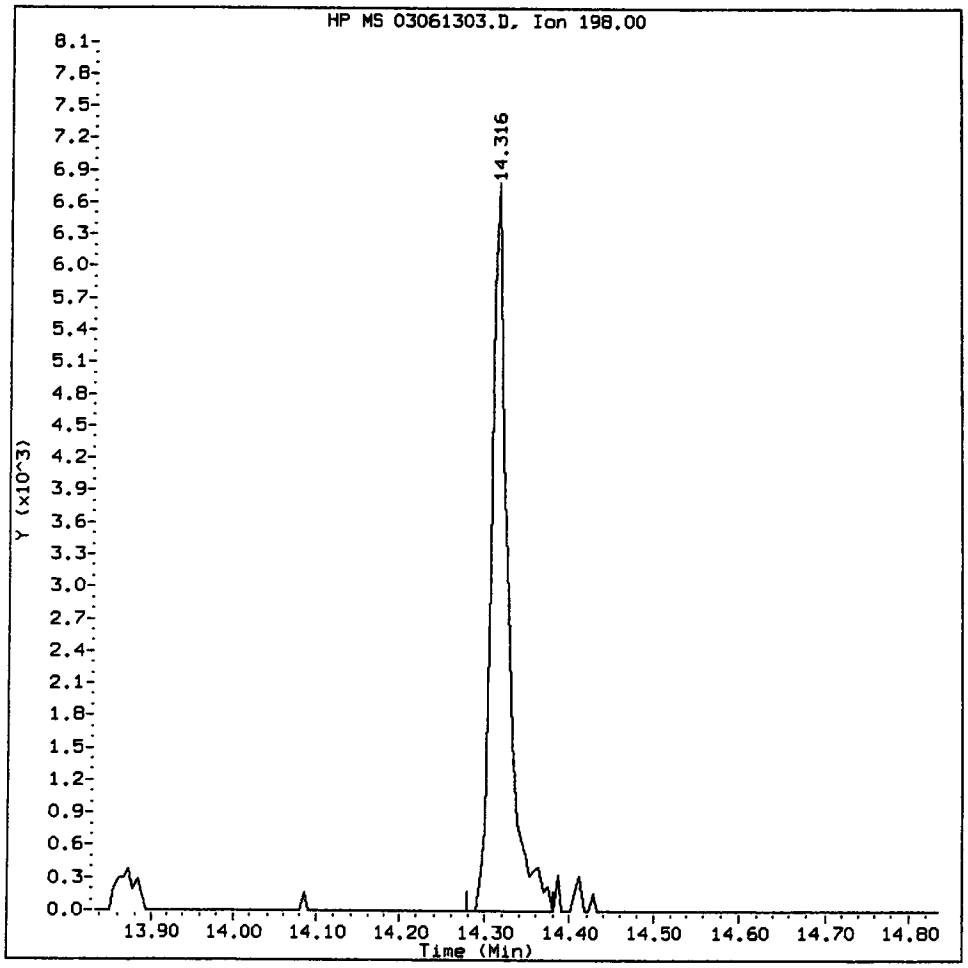


9/07/13

WJ10: 00866

IC10306, /chem2/nt6.i/20130306.b/03061303.D

4,6-Dinitro-2-methylphenol Amount: 0.84 Area: 9300



MANUAL INTEGRATION for 4,6-Dinitro-2-methylphenol

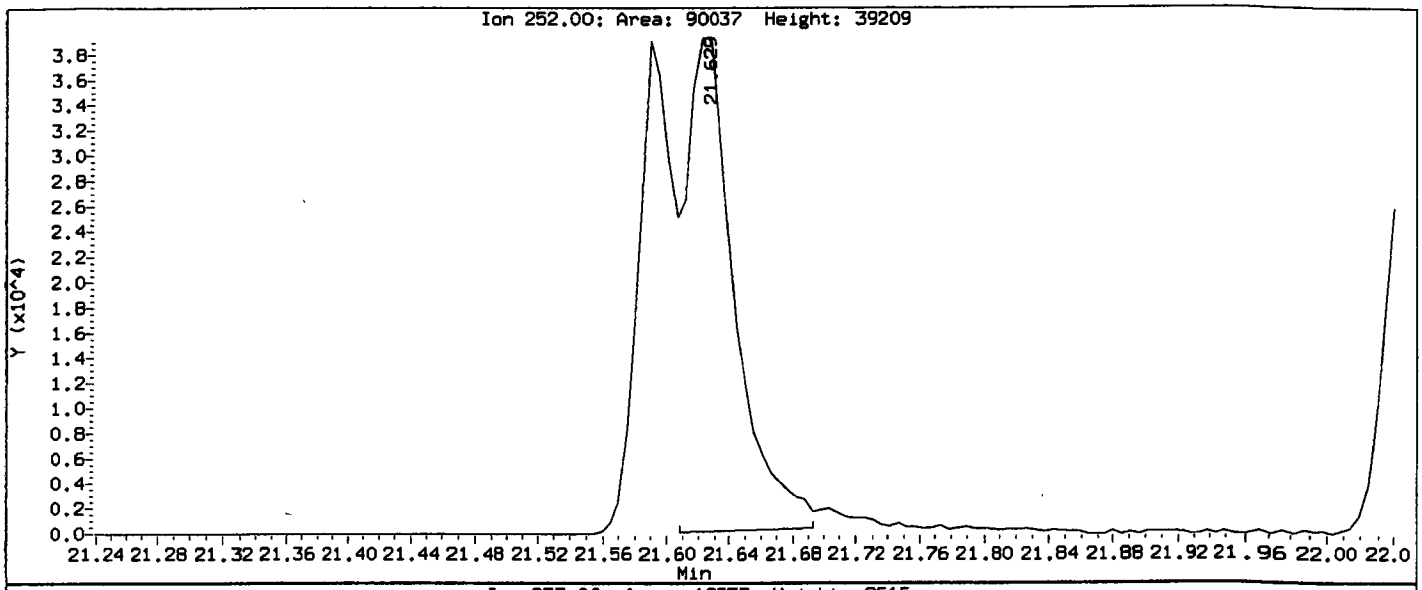
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

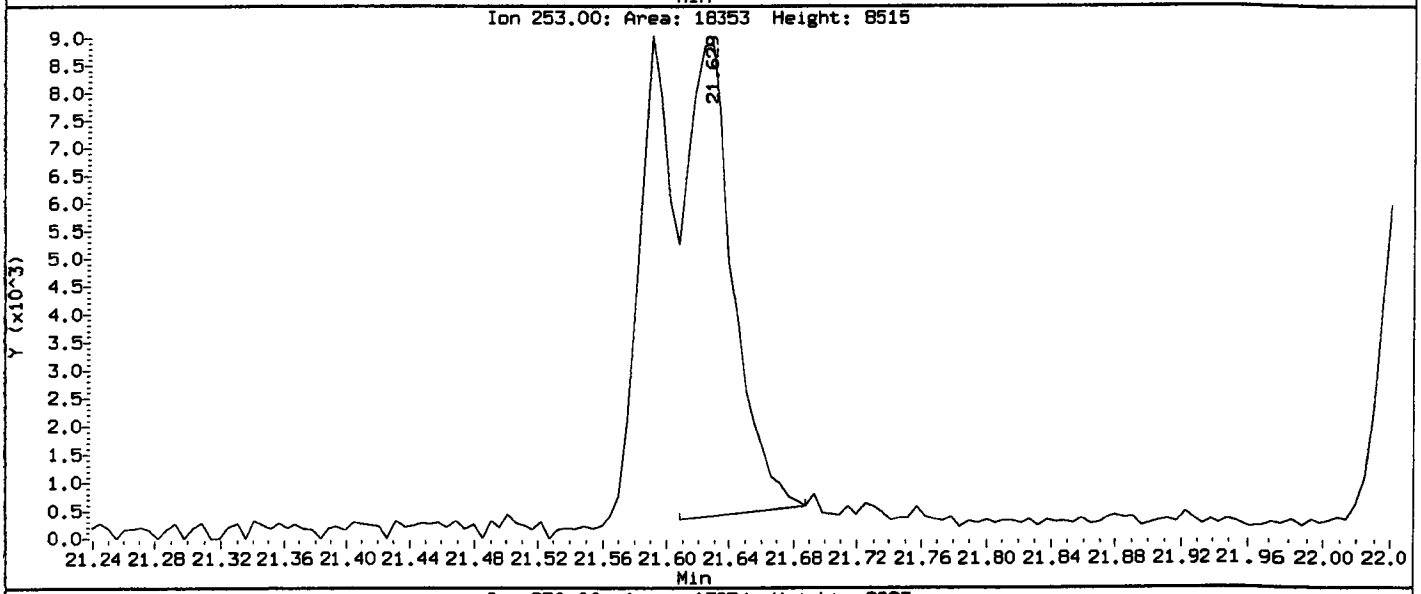
5. Other _____

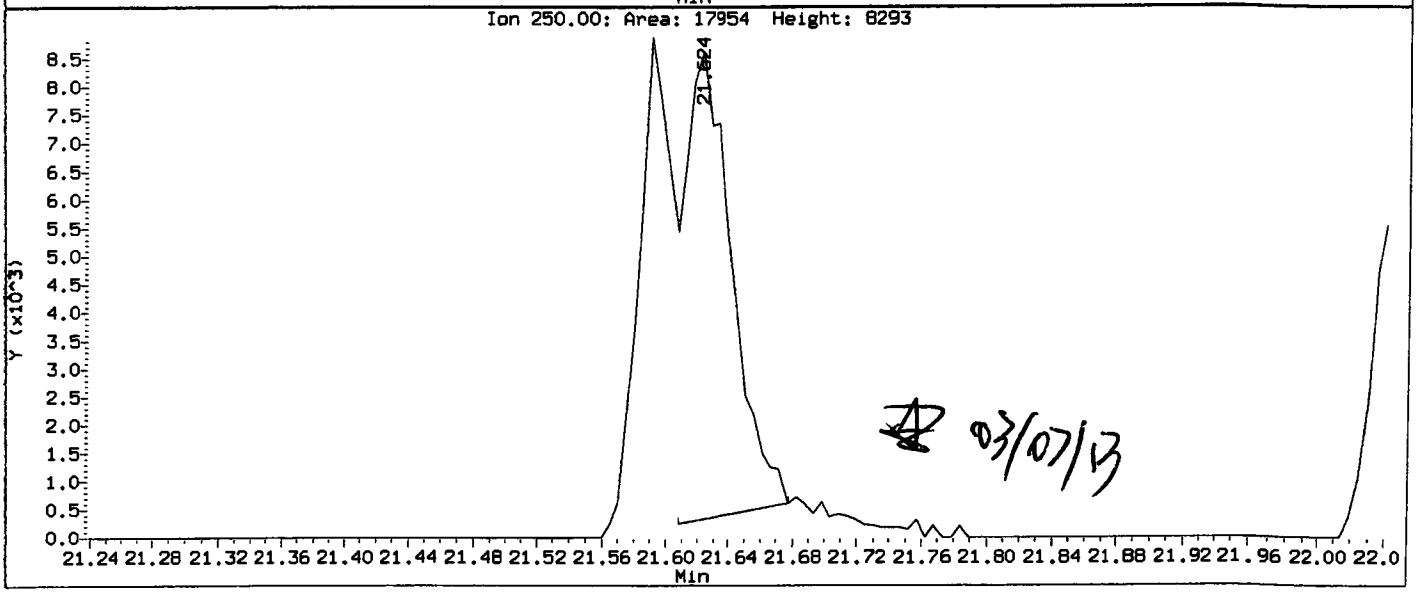
Analyst: _____ Date: 03/07/13

Data File: /chem2/nt6.i/20130306.b/03061303.D
Injection Date: 06-MAR-2013 13:25
Instrument: nt6.i
Client Sample ID: IC10306

Compound: Benzo(k)fluoranthene
CAS Number: 207-08-9





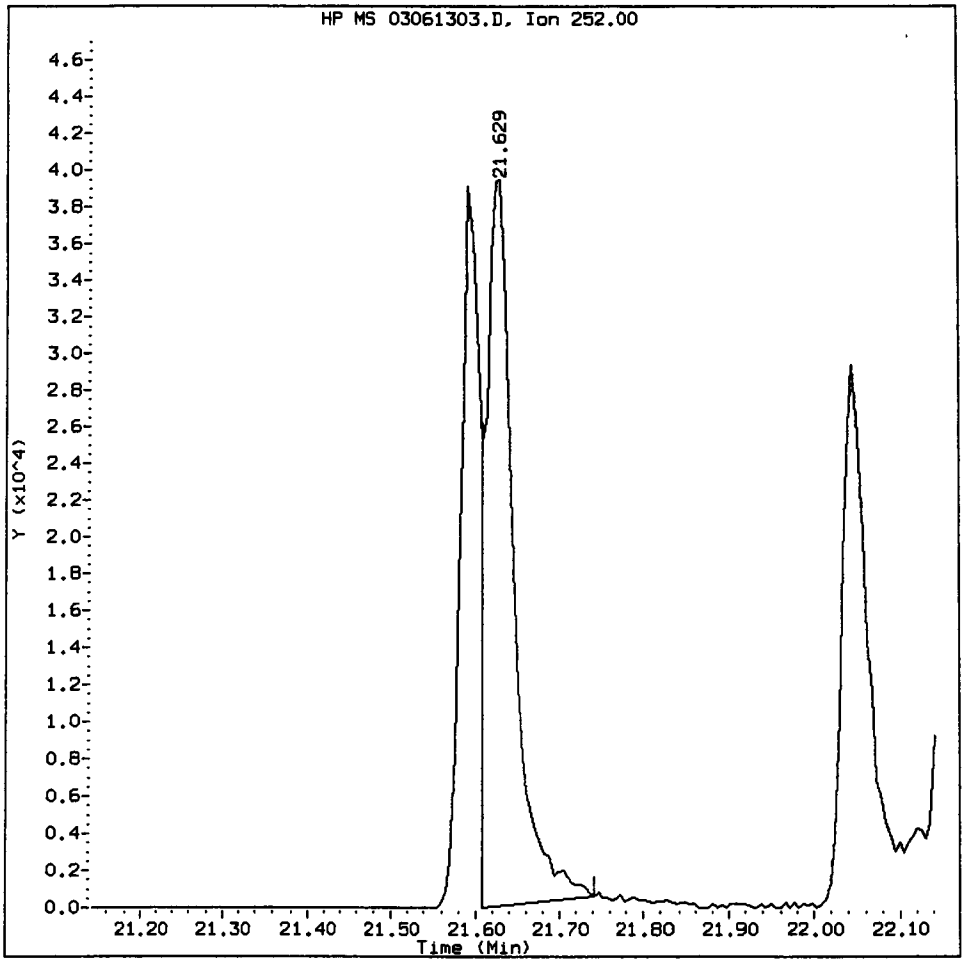


03/07/13

W110 : 00888

IC10306, /chem2/nt6.i/20130306.b/03061303.D

Benzo(k)fluoranthene Amount: 1.22 Area: 92998



MANUAL INTEGRATION for Benzo(k)fluoranthene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

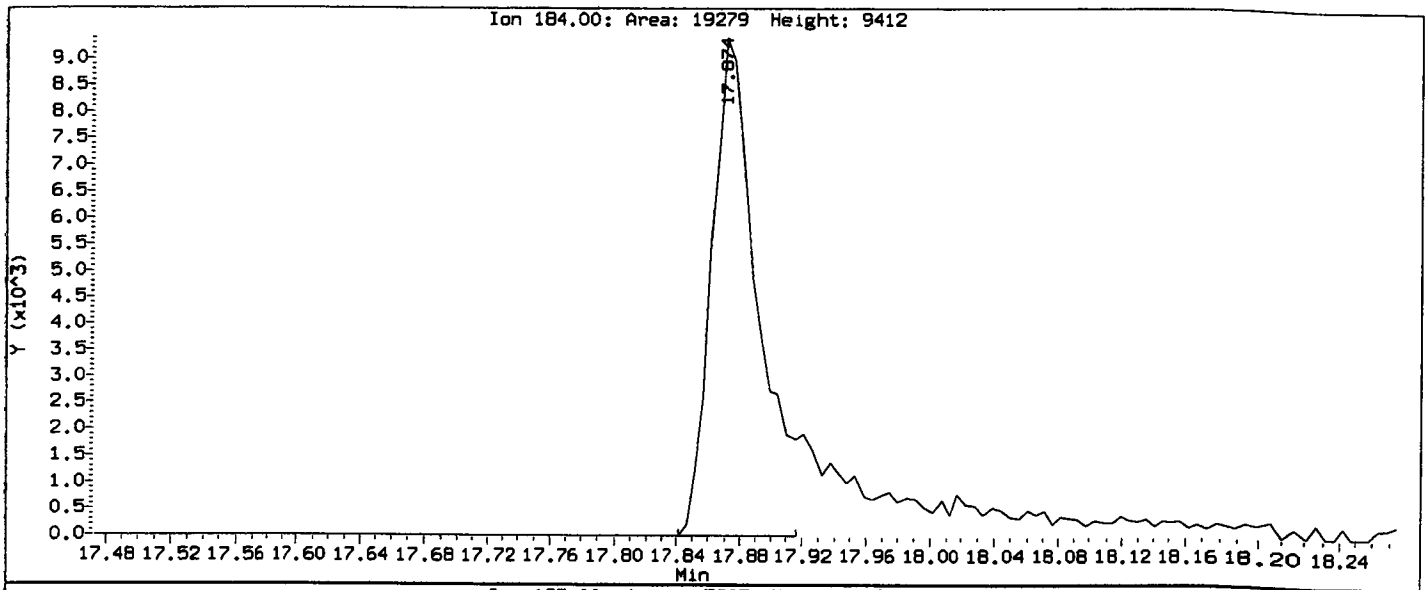
5. Other _____

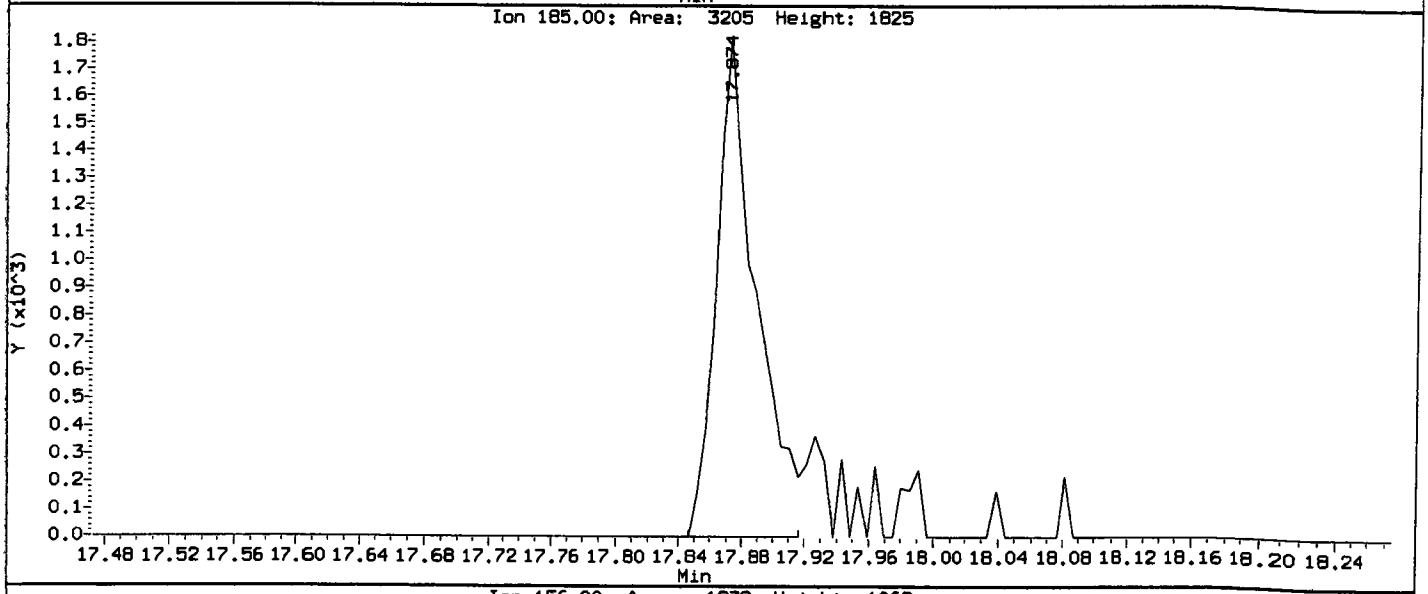
Analyst: _____ Date: 02/07/13

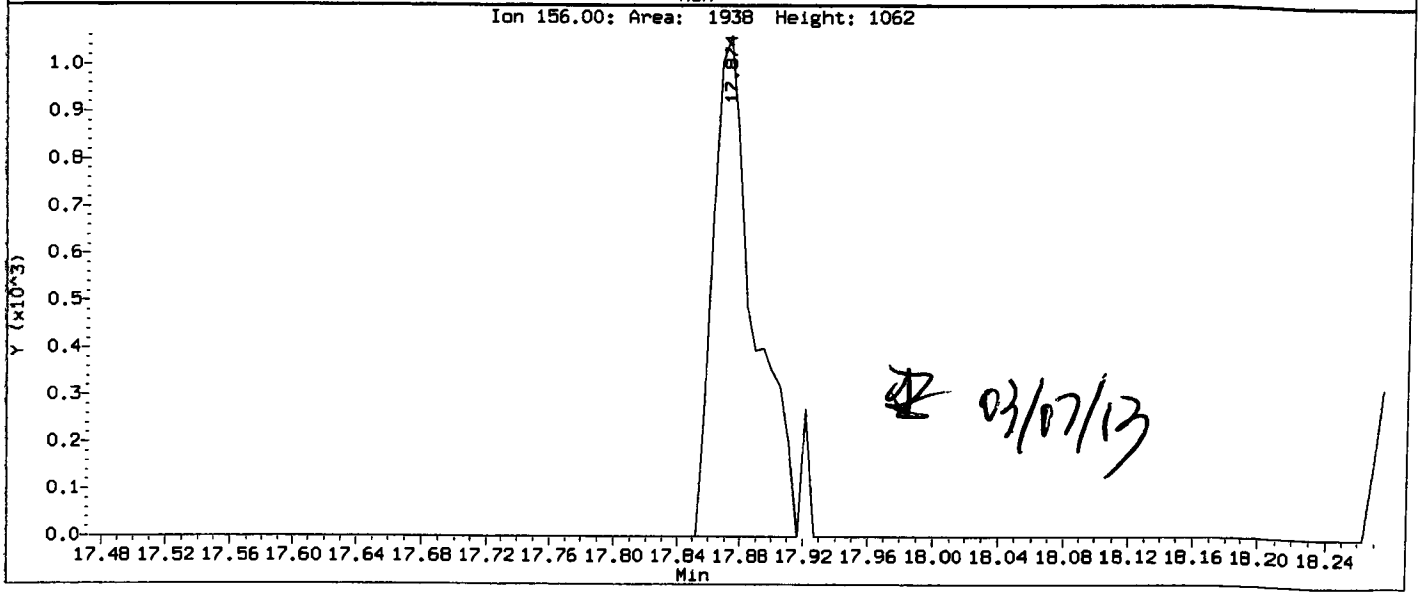
WI10:00089

Data File: /chem2/nt6.i/20130306.b/03061303.D
Injection Date: 06-MAR-2013 13:25
Instrument: nt6.i
Client Sample ID: IC10306

Compound: Benzidine
CAS Number:





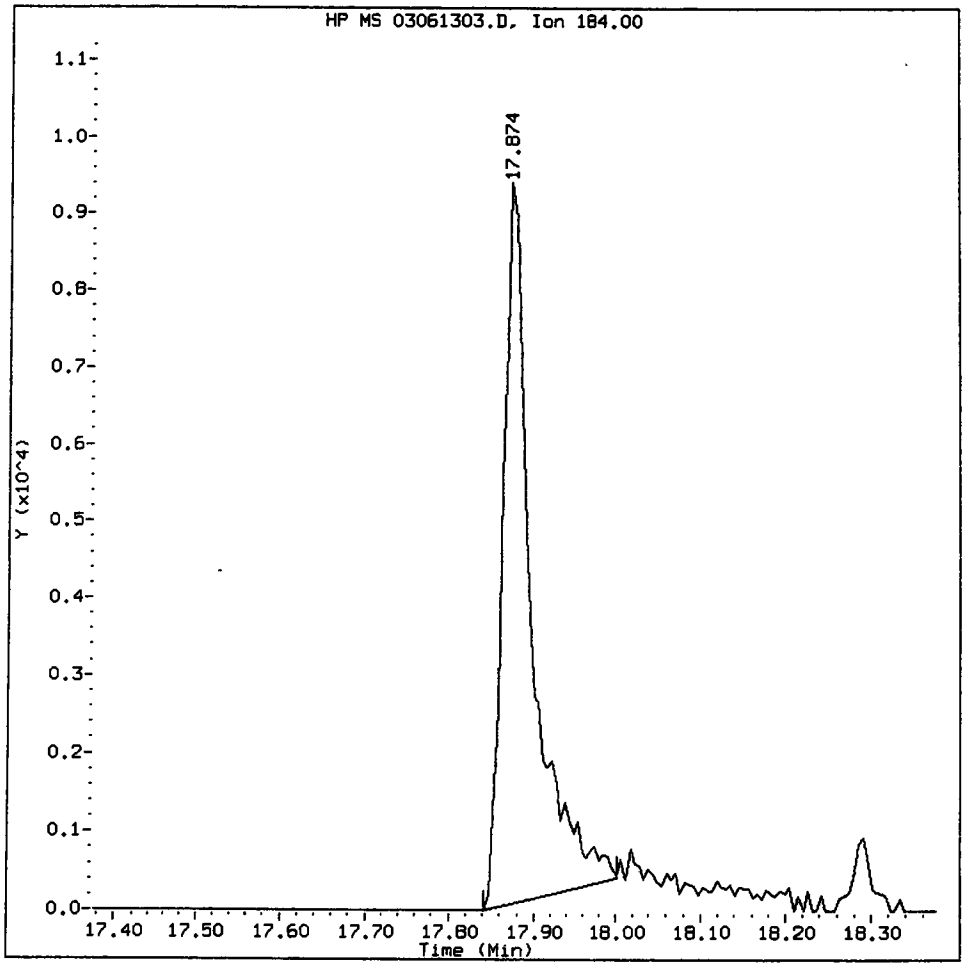


03/07/13

WJ10:00896

IC10306, /chem2/nt6.i/20130306.b/03061303.D

Benzidine Amount: 3.15 Area: 22120



MANUAL INTEGRATION for Benzidine

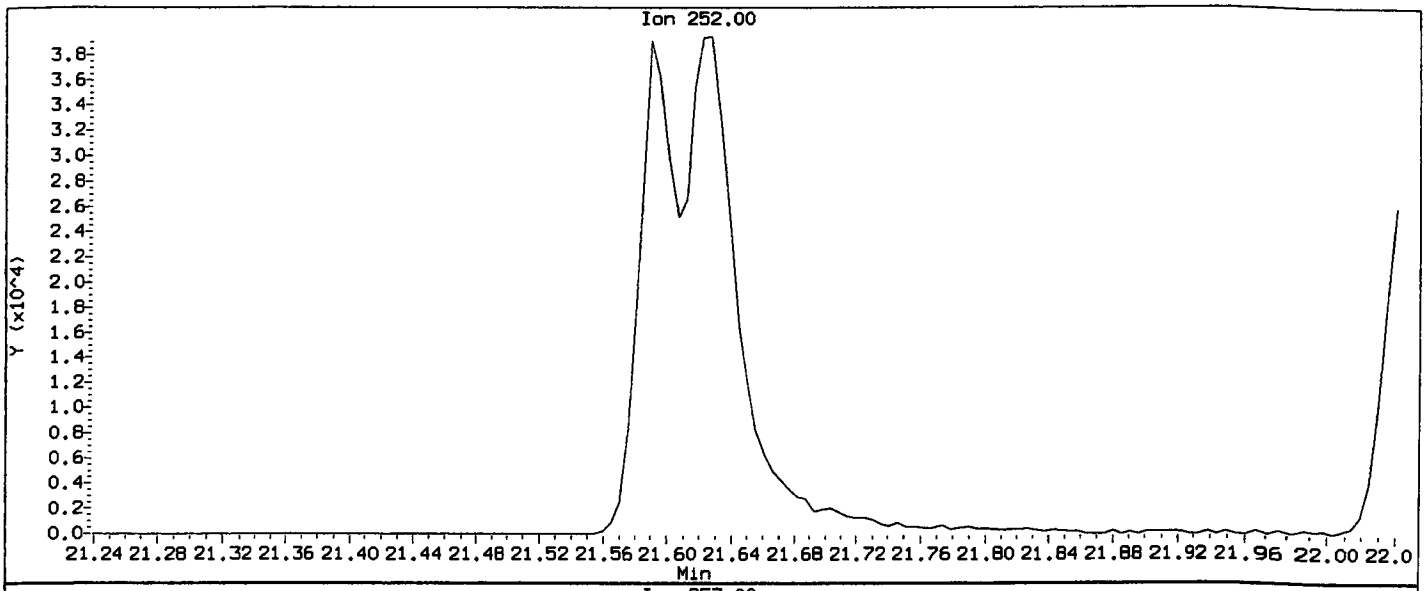
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

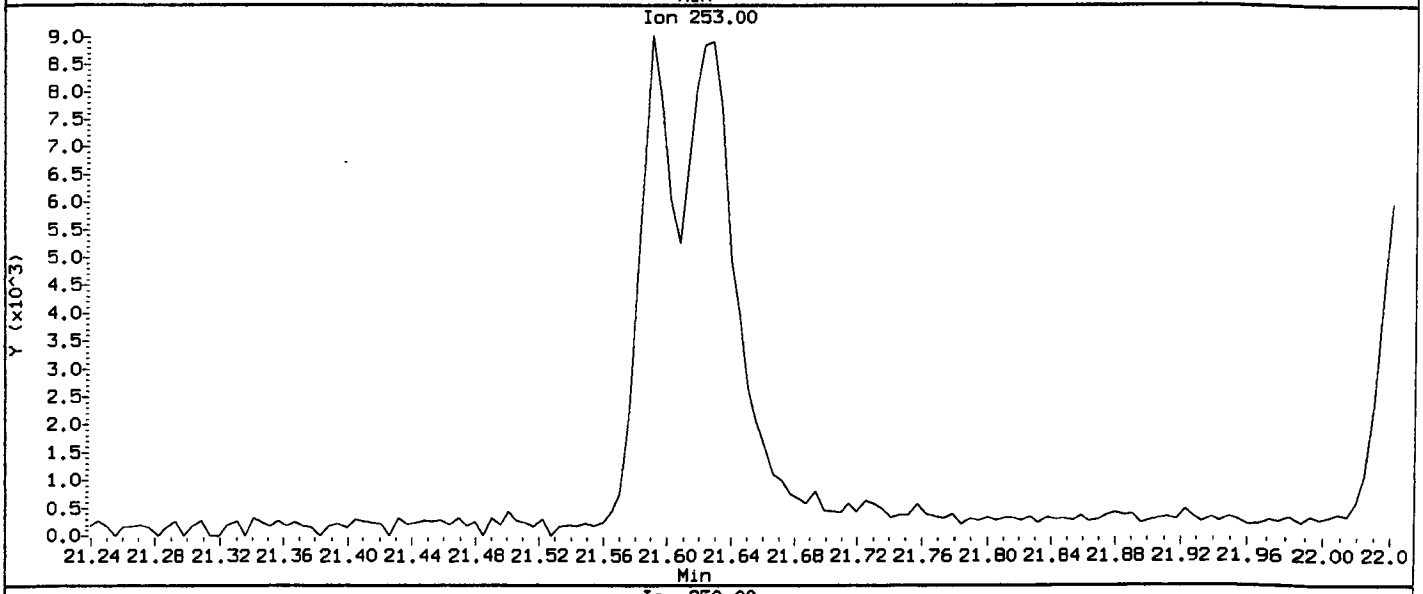
5. Other _____

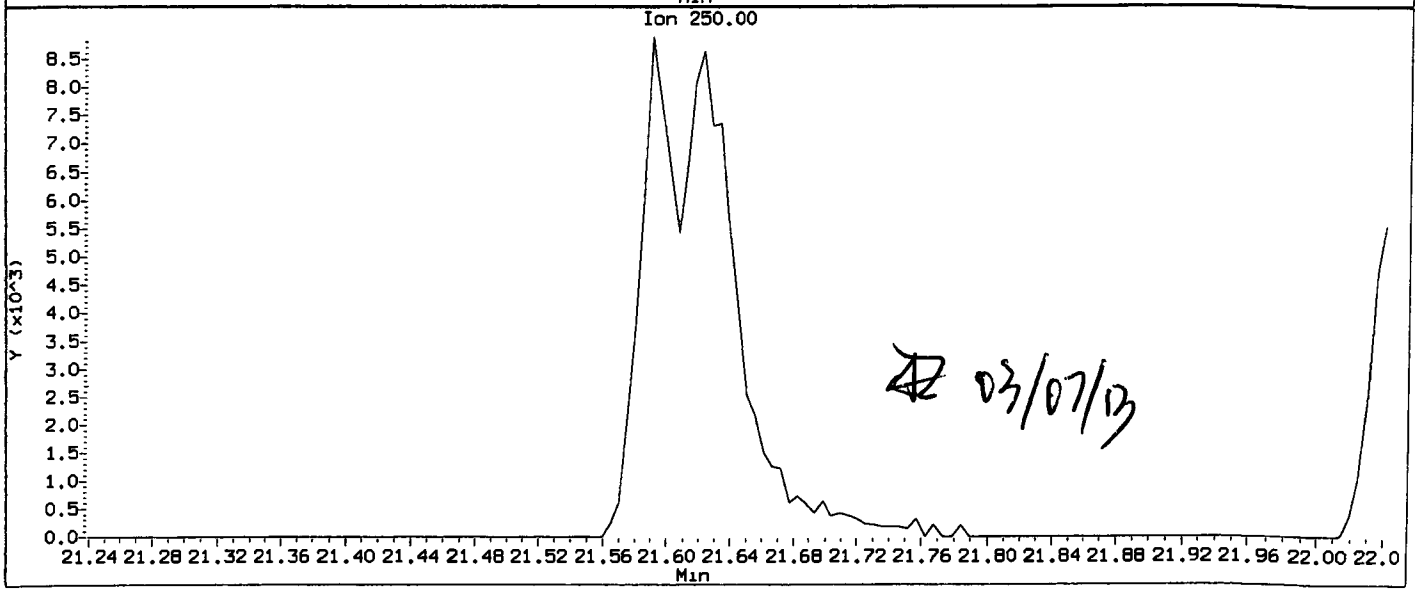
Analyst: _____ Date: 03/07/13

Data File: /chem2/nt6.i/20130306.b/03061303.D
Injection Date: 06-MAR-2013 13:25
Instrument: nt6.i
Client Sample ID: IC10306

Compound: Total Benzofluoranthenes
CAS Number:



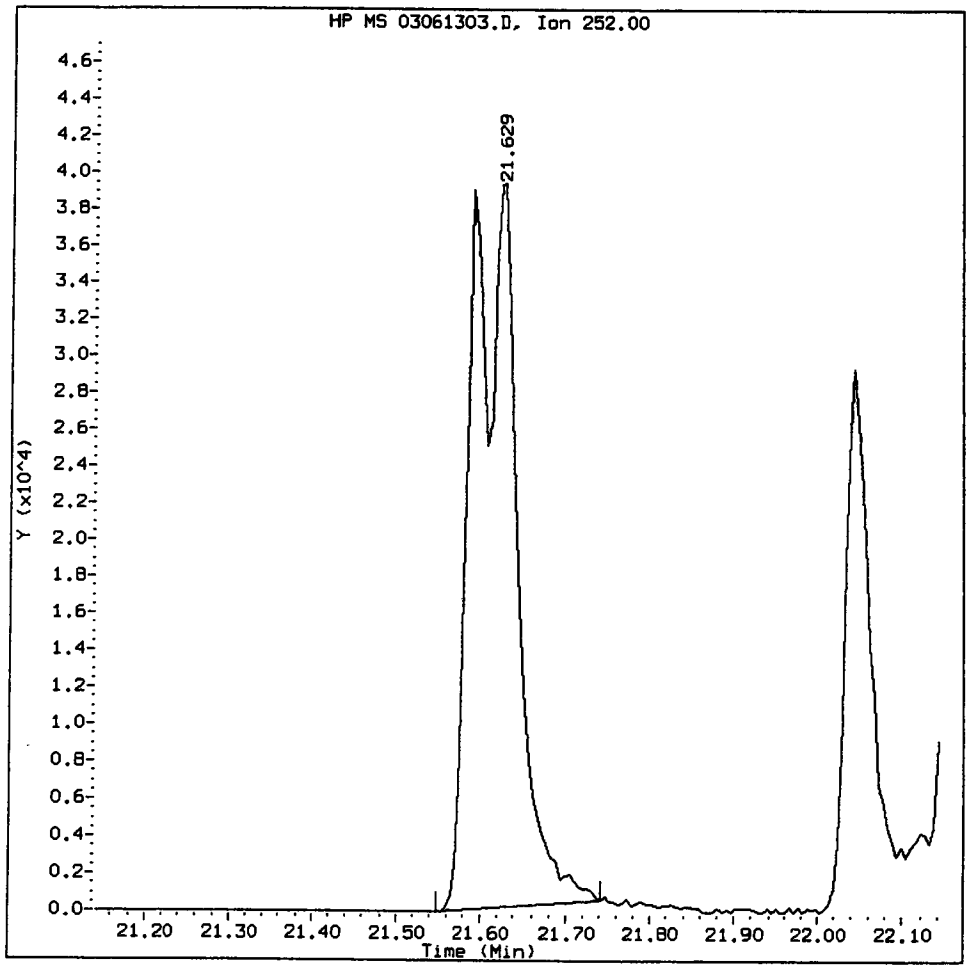




03/07/13

IC10306, /chem2/nt6.i/20130306.b/03061303.D

Total Benzofluoranthenes Amount: 2.34 Area: 143967



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 03/07/13

CO-ELUTION SUMMARY FOR FILE - 03061303.D

Lab ID: IC10306, Method: SW846030613.m, Instrument: nt6.i, Date: 06-MAR-2013

RT	CO-ELUTION COMPOUNDS
19.941	3,3'-Dichlorobenzidine and Benzo(a)anthracene

checked OK

03/07/13

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130306.b/03061304.D
Lab Smp Id: IC50306 Client Smp ID: IC50306
Inj Date : 06-MAR-2013 14:00
Operator : JZ Inst ID: nt6.i
Smp Info : IC50306,
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130306.b/SW846030613.m
Meth Date : 07-Mar-2013 11:55 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

03/07/13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.429	6.432	(0.767)	157487	5.00000	5.345
$	2 Phenol-d5	99	7.925	7.933	(0.945)	194564	5.00000	5.641
	3 Phenol	94	7.941	7.954	(0.947)	197710	5.00000	5.444
$	5 2-Chlorophenol-d4	132	8.079	8.082	(0.964)	158947	5.00000	5.452
	4 Bis(2-Chloroethyl)ether	93	8.047	8.050	(0.960)	166393	5.00000	5.276
	6 2-Chlorophenol	128	8.101	8.109	(0.966)	154047	5.00000	5.302
	7 1,3-Dichlorobenzene	146	8.320	8.328	(0.992)	181909	5.00000	5.360
*	8 1,4-Dichlorobenzene-d4	152	8.384	8.387	(1.000)	454719	20.0000	
	9 1,4-Dichlorobenzene	146	8.405	8.408	(1.003)	176793	5.00000	5.353
$	10 1,2-Dichlorobenzene-d4	152	8.683	8.681	(1.036)	116568	5.00000	5.681
	12 1,2-Dichlorobenzene	146	8.704	8.707	(1.038)	173153	5.00000	5.484
	11 Benzyl alcohol	108	8.651	8.654	(1.032)	107325	5.00000	5.425
	14 2,2'-oxybis(1-Chloropropane)	45	8.907	8.916	(1.062)	266769	5.00000	5.324
	13 2-Methylphenol	108	8.870	8.878	(1.058)	145016	5.00000	5.266
	17 Hexachloroethane	117	9.191	9.193	(1.096)	70384	5.00000	5.268
	16 N-Nitroso-di-n-propylamine	70	9.121	9.135	(1.088)	122120	5.00000	5.160
	15 4-Methylphenol	108	9.100	9.108	(1.085)	144214	5.00000	5.296
$	18 Nitrobenzene-d5	82	9.303	9.311	(0.893)	180057	5.00000	5.411
	19 Nitrobenzene	77	9.330	9.343	(0.895)	175660	5.00000	5.515
	20 Isophorone	82	9.709	9.717	(0.932)	285645	5.00000	5.145
	21 2-Nitrophenol	139	9.848	9.851	(0.945)	75503	5.00000	5.123
	22 2,4-Dimethylphenol	107	9.939	9.947	(0.954)	147352	5.00000	5.287
	23 Bis(2-Chloroethoxy)methane	93	10.093	10.096	(0.969)	193375	5.00000	5.309
	24 Benzoic acid	105	10.083	10.198	(0.968)	174391	10.0000	7.233(M)
	25 2,4-Dichlorophenol	162	10.222	10.230	(0.981)	112355	5.00000	5.235
	26 1,2,4-Trichlorobenzene	180	10.361	10.363	(0.994)	140913	5.00000	5.275
*	27 Naphthalene-d8	136	10.419	10.422	(1.000)	1658379	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.451	10.454	(1.003)	433038	5.00000	4.596
	29 4-Chloroaniline	127	10.585	10.588	(1.016)	171000	5.00000	5.962
	30 Hexachlorobutadiene	225	10.761	10.764	(1.033)	84797	5.00000	5.216
	31 4-Chloro-3-methylphenol	107	11.376	11.384	(1.092)	117962	5.00000	5.175
	32 2-Methylnaphthalene	141	11.563	11.571	(1.110)	237814	5.00000	5.897
	33 Hexachlorocyclopentadiene	237	11.947	11.950	(0.900)	69251	5.00000	4.428
	34 2,4,6-Trichlorophenol	196	12.070	12.078	(0.909)	79746	5.00000	4.873
	35 2,4,5-Trichlorophenol	196	12.129	12.137	(0.913)	83114	5.00000	5.149
$	36 2-Fluorobiphenyl	172	12.204	12.212	(0.919)	355231	5.00000	5.781
	37 2-Chloronaphthalene	162	12.348	12.356	(0.930)	266980	5.00000	6.062
	38 2-Nitroaniline	65	12.567	12.580	(0.946)	76657	5.00000	5.327
	39 Dimethylphthalate	163	12.935	12.949	(0.974)	306672	5.00000	5.234
	40 Acenaphthylene	152	13.026	13.034	(0.981)	433072	5.00000	5.640
	41 2,6-Dinitrotoluene	165	13.032	13.045	(0.981)	67148	5.00000	5.364
*	42 Acenaphthene-d10	164	13.277	13.286	(1.000)	973436	20.0000	
	43 3-Nitroaniline	138	13.245	13.264	(0.998)	63342	5.00000	5.771
	44 Acenaphthene	153	13.325	13.334	(1.004)	270963	5.00000	5.451
	45 2,4-Dinitrophenol	184	13.411	13.424	(1.010)	54175	10.0000	6.060
	46 Dibenzofuran	168	13.587	13.595	(1.023)	378333	5.00000	5.819
	47 4-Nitrophenol	109	13.534	13.547	(1.019)	26876	5.00000	4.226 (M)
	48 2,4-Dinitrotoluene	165	13.662	13.676	(1.029)	86291	5.00000	5.097
	50 Diethylphthalate	149	14.089	14.098	(1.061)	325228	5.00000	5.992
	49 Fluorene	166	14.143	14.156	(1.065)	290158	5.00000	5.801
	51 4-Chlorophenyl-phenylether	204	14.164	14.172	(1.067)	156539	5.00000	5.485
	52 4-Nitroaniline	138	14.234	14.252	(1.072)	54497	5.00000	5.708
	53 4,6-Dinitro-2-methylphenol	198	14.314	14.333	(0.914)	93237	10.0000	8.397
	54 N-Nitrosodiphenylamine	169	14.362	14.375	(0.917)	228800	5.00000	5.303
$	55 2,4,6-Tribromophenol	330	14.565	14.573	(1.097)	41598	5.00000	5.404
	56 4-Bromophenyl-phenylether	248	14.944	14.952	(0.955)	87747	5.00000	5.185
	57 Hexachlorobenzene	284	15.174	15.182	(0.969)	90144	5.00000	5.166
	58 Pentachlorophenol	266	15.462	15.470	(0.988)	41947	5.00000	4.076
*	59 Phenanthrene-d10	188	15.655	15.663	(1.000)	1542012	20.0000	
	60 Phenanthrene	178	15.692	15.700	(1.002)	411870	5.00000	5.399
	61 Anthracene	178	15.761	15.770	(1.007)	414969	5.00000	5.432
	62 Carbazole	167	16.039	16.047	(1.025)	352615	5.00000	6.682
	63 Di-n-butylphthalate	149	16.739	16.747	(1.069)	532943	5.00000	5.534
	64 Fluoranthene	202	17.626	17.639	(1.126)	435344	5.00000	5.424
	65 Pyrene	202	17.984	17.992	(0.900)	455140	5.00000	5.404
$	66 Terphenyl-d14	244	18.288	18.291	(0.916)	312240	5.00000	5.768
	67 Butylbenzylphthalate	149	19.159	19.167	(0.959)	224551	5.00000	5.453
	68 Benzo(a)anthracene	228	19.939	19.953	(0.998)	371290	5.00000	5.281
*	69 Chrysene-d12	240	19.971	19.979	(1.000)	1542109	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.939	19.953	(0.998)	110548	5.00000	5.715
	71 Chrysene	228	20.008	20.017	(1.002)	388039	5.00000	5.406
	72 bis(2-Ethylhexyl)phthalate	149	20.147	20.150	(0.956)	311275	5.00000	5.156
*	134 Di-n-octylphthalate-d4	153	21.077	21.085	(1.000)	2051585	20.0000	
	73 Di-n-octylphthalate	149	21.088	21.096	(1.000)	500822	5.00000	5.170

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.595	21.609	(0.976)	314216	5.00000	4.462
75	Benzo(k)fluoranthene	252	21.627	21.641	(0.977)	461669	5.00000	5.686
187	Total Benzofluoranthenes	252	21.627	21.641	(0.977)	754693	10.0000	11.15
76	Benzo(a)pyrene	252	22.044	22.057	(0.996)	316511	5.00000	5.039
* 77	Perylene-d12	264	22.129	22.137	(1.000)	1469575	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.748	23.767	(1.073)	374355	5.00000	4.952
79	Dibenzo(a,h)anthracene	278	23.764	23.788	(1.074)	300992	5.00000	5.057
80	Benzo(g,h,i)perylene	276	24.202	24.226	(1.094)	315235	5.00000	4.876
90	N-Nitrosodimethylamine	74	3.891	3.889	(0.464)	105097	5.00000	4.908
103	Pyridine	79	3.870	3.851	(0.462)	166866	5.00000	4.914
91	Aniline	93	7.935	7.938	(0.946)	238888	5.00000	5.937
105	1-methylnaphthalene	141	11.739	11.747	(1.127)	236218	5.00000	5.766
93	Benzidine	184	17.872	17.874	(0.895)	81370	5.00000	10.82
111	Azobenzene (1,2-DP-Hydrazine)	77	14.415	14.423	(1.086)	345354	5.00000	5.599
143	1,4-Dioxane	88	3.106	3.103	(0.370)	71181	5.00000	4.825
$ 137	d8-1,4-Dioxane	96	3.047	3.039	(0.363)	67876	5.00000	4.916
144	alpha-Terpineol	59	10.462	10.470	(1.004)	119847	5.00000	5.683
177	p-Benzoquinone	82	7.080	7.083	(0.680)	29200	5.00000	4.611
98	Retene	219	18.534	18.548	(0.928)	189965	5.00000	5.227
99	Perylene	252	22.161	22.175	(1.001)	302388	5.00000	5.496
133	Butylatedhydroxytoluene	205	13.438	13.440	(1.012)	240649	5.00000	4.562
115	Tributyl Phosphate	99	14.442	14.461	(0.923)	364951	5.00000	5.558
116	Dibutyl Phenyl Phosphate	175	16.183	16.192	(1.034)	223364	5.00000	5.478
117	Butyl Diphenyl Phosphate	94	17.872	17.880	(0.895)	77092	5.00000	5.429
118	Triphenyl Phosphate	326	19.474	19.482	(0.975)	63004	5.00000	4.666
123	Acetophenone	105	9.068	9.076	(1.082)	224829	5.00000	5.253
168	Pentachlorobenzene	250	13.630	13.638	(1.027)	109379	5.00000	5.130
113	Diphenyl Oxide	170	12.529	12.538	(0.944)	201195	5.00000	5.309
112	Biphenyl	154	12.337	12.345	(0.929)	332118	5.00000	6.421
120	2,3,4,6-Tetrachlorophenol	232	13.865	13.873	(1.044)	67318	5.00000	4.845
151	1,2,4,5-Tetrachlorobenzene	216	11.904	11.907	(0.897)	121631	5.00000	5.115
110	Tetrachloroguaiacol	247	15.590	15.599	(0.996)	84319	10.0000	10.42
109	3,4,5-Trichloroguaiacol	213	13.961	13.969	(0.892)	45547	5.00000	5.171
181	3,4,6-Trichloroguaiacol	211	14.079	14.087	(1.679)	53903	5.00000	5.195
108	4,5,6-Trichloroguaiacol	213	14.992	15.000	(1.129)	45087	5.00000	4.952
184	3,4-Dichloroguaiacol	192	12.423	12.425	(1.482)	48676	5.00000	4.941
107	4,5-Dichloroguaiacol	192	13.197	13.205	(0.994)	121336	10.0000	10.20
182	4,6-Dichloroguaiacol	192	13.197	13.205	(1.574)	121468	10.0000	10.11
185	4-Chloroguaiacol	115	11.333	11.336	(1.352)	31230	2.50000	2.444
186	Carbaryl	144	16.445	16.459	(1.050)	183249	5.00000	5.143
178	2-Benzyl-4-Chlorophenol	218	16.397	16.411	(1.047)	64662	5.00000	5.063
106	Guaiacol	124	9.324	9.332	(1.112)	131775	5.00000	5.571
188	2,6-Dichlorophenol	162	10.596	10.598	(1.264)	109236	5.00000	5.426
189	N-Nitrosomethylethylamine	88	5.627	5.620	(0.671)	75846	5.00000	5.048

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 03061304.D
Lab Smp Id: IC50306
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

Calibration Date: 06-MAR-2013
Calibration Time: 12:16
Client Smp ID: IC50306
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	454719	-0.74
27 Naphthalene-d8	1718341	859170	3436682	1658379	-3.49
42 Acenaphthene-d10	1010041	505020	2020082	973436	-3.62
59 Phenanthrene-d10	1666734	833367	3333468	1542012	-7.48
69 Chrysene-d12	1675752	837876	3351504	1542109	-7.98
134 Di-n-octylphthala	2026355	1013178	4052710	2051585	1.25
77 Perylene-d12	1637524	818762	3275048	1469575	-10.26

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.39	7.89	8.89	8.38	-0.03
27 Naphthalene-d8	10.42	9.92	10.92	10.42	-0.03
42 Acenaphthene-d10	13.29	12.79	13.79	13.28	-0.06
59 Phenanthrene-d10	15.66	15.16	16.16	15.65	-0.05
69 Chrysene-d12	19.98	19.48	20.48	19.97	-0.04
134 Di-n-octylphthala	21.09	20.59	21.59	21.08	-0.04
77 Perylene-d12	22.14	21.64	22.64	22.13	-0.04

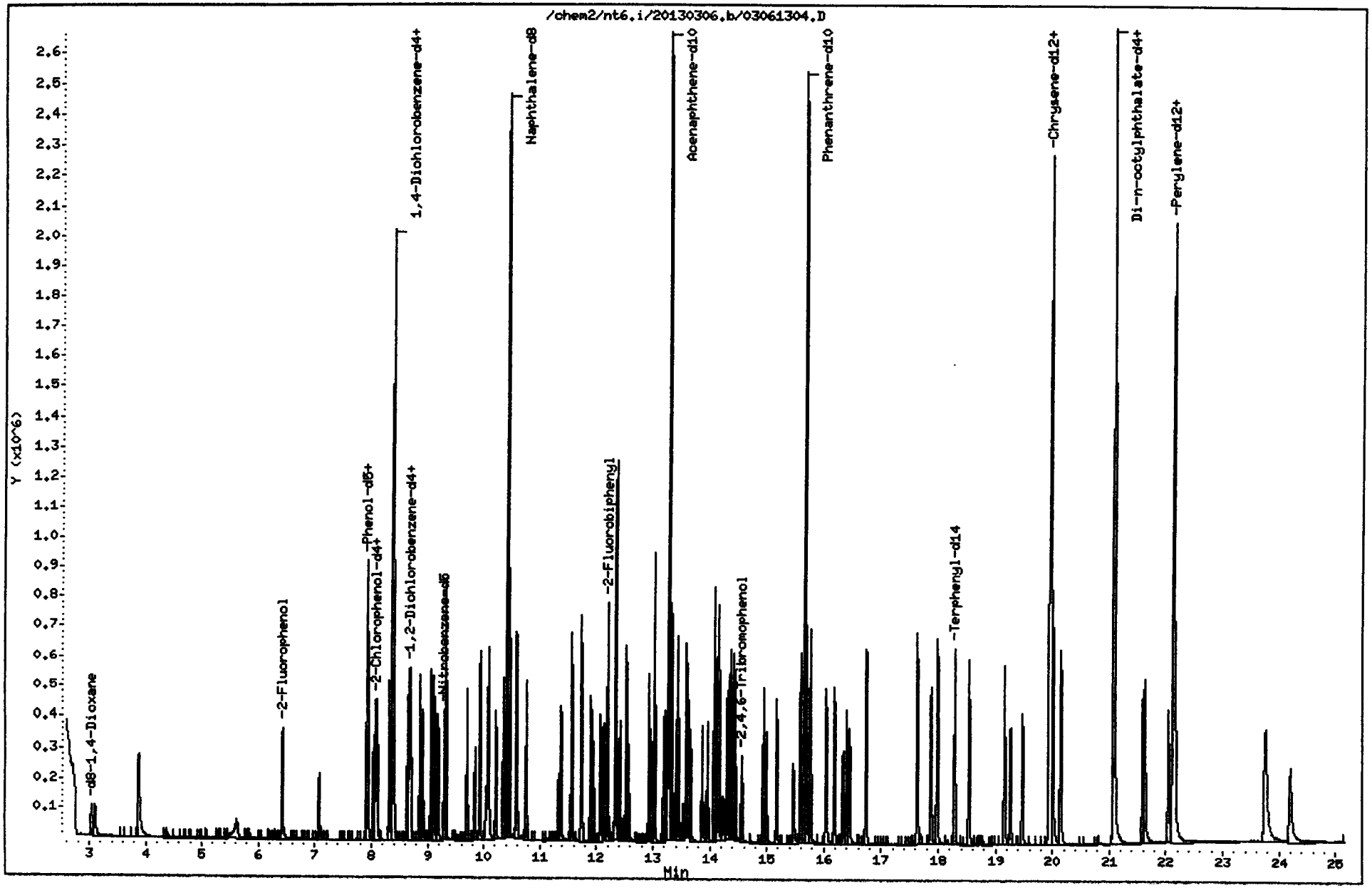
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20130306.b/03061304.D
Date : 06-MAR-2013 14:00
Client ID: IC50306
Sample Info: IC50306,

Instrument: nt6.i

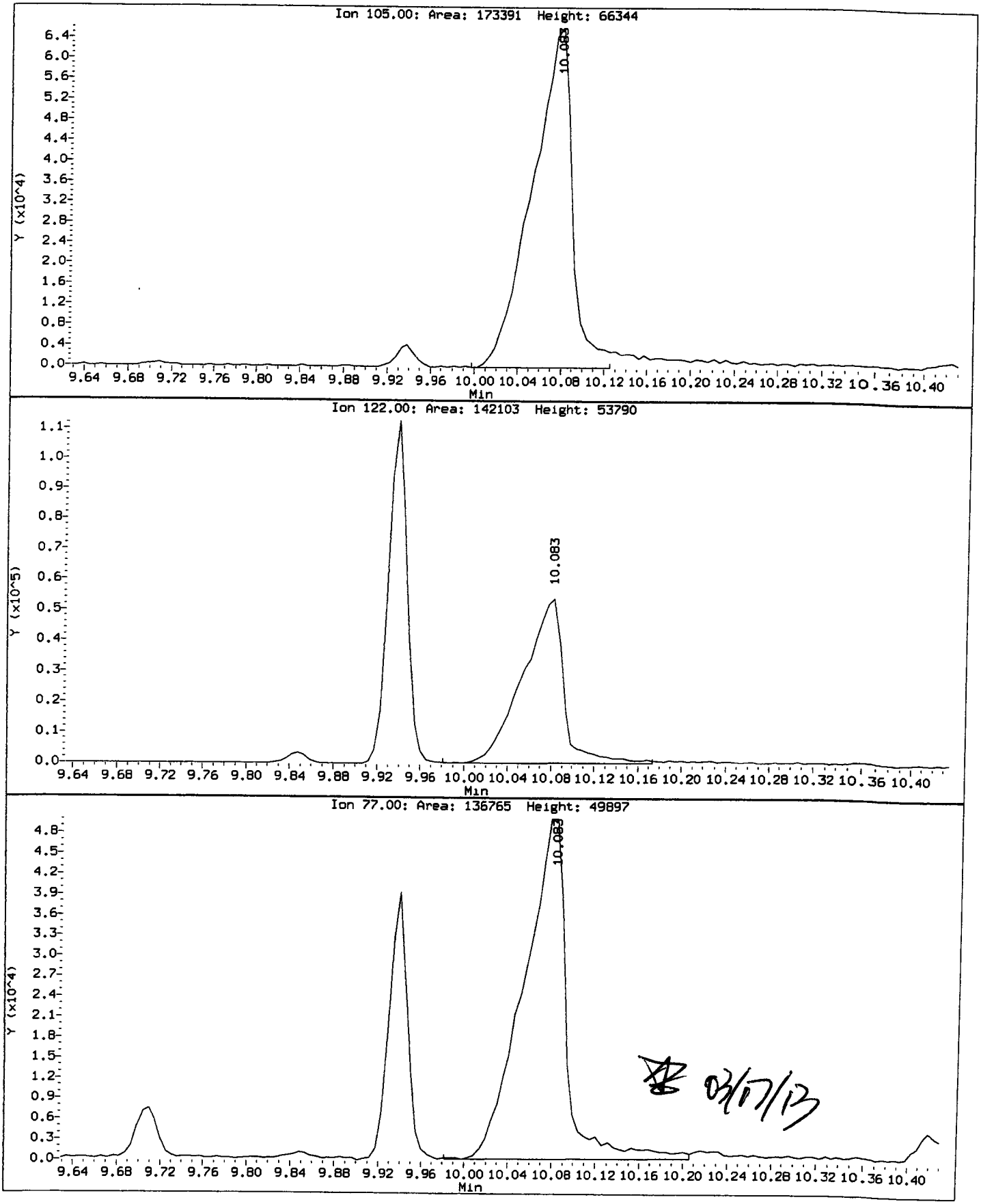
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



Data File: /chem2/nt6.i/20130306.b/03061304.D
Injection Date: 06-MAR-2013 14:00
Instrument: nt6.i
Client Sample ID: IC50306

Compound: Benzoic acid
CAS Number: 65-85-0

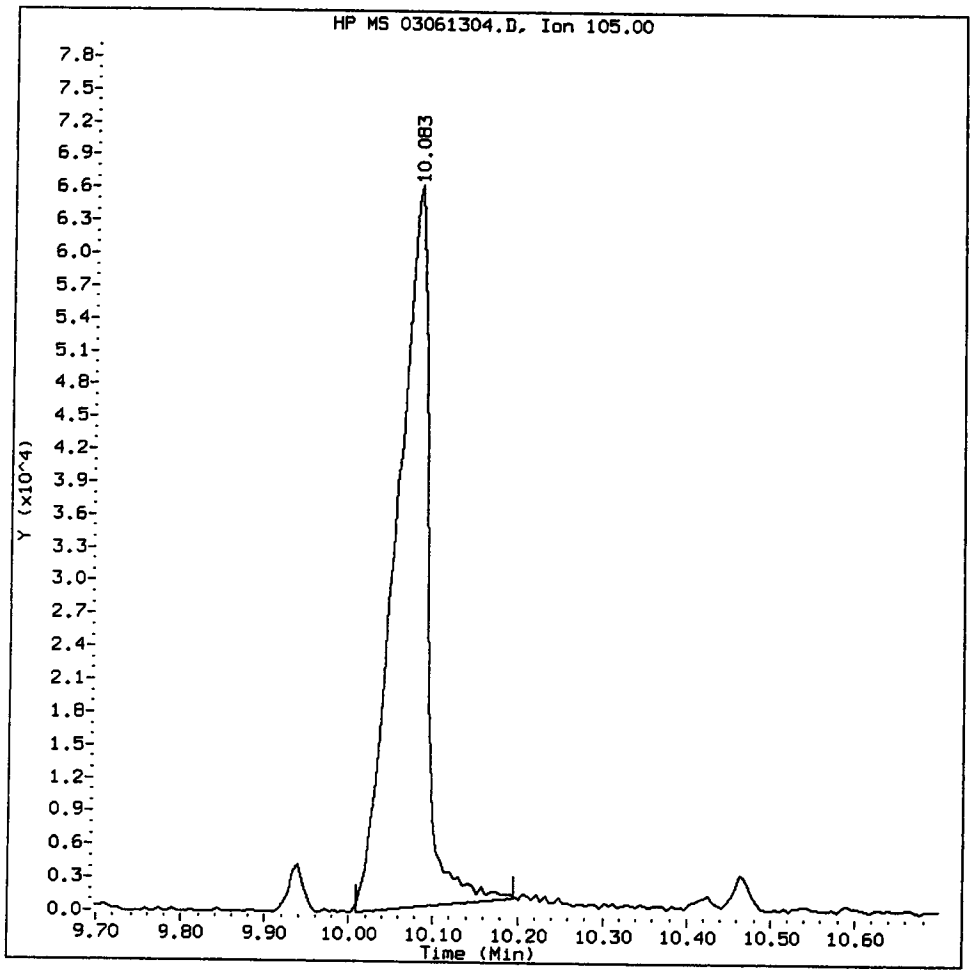


03/07/13

WJ10:00901

IC50306, /chem2/nt6.i/20130306.b/03061304.D

Benzoic acid Amount: 7.23 Area: 174391



MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

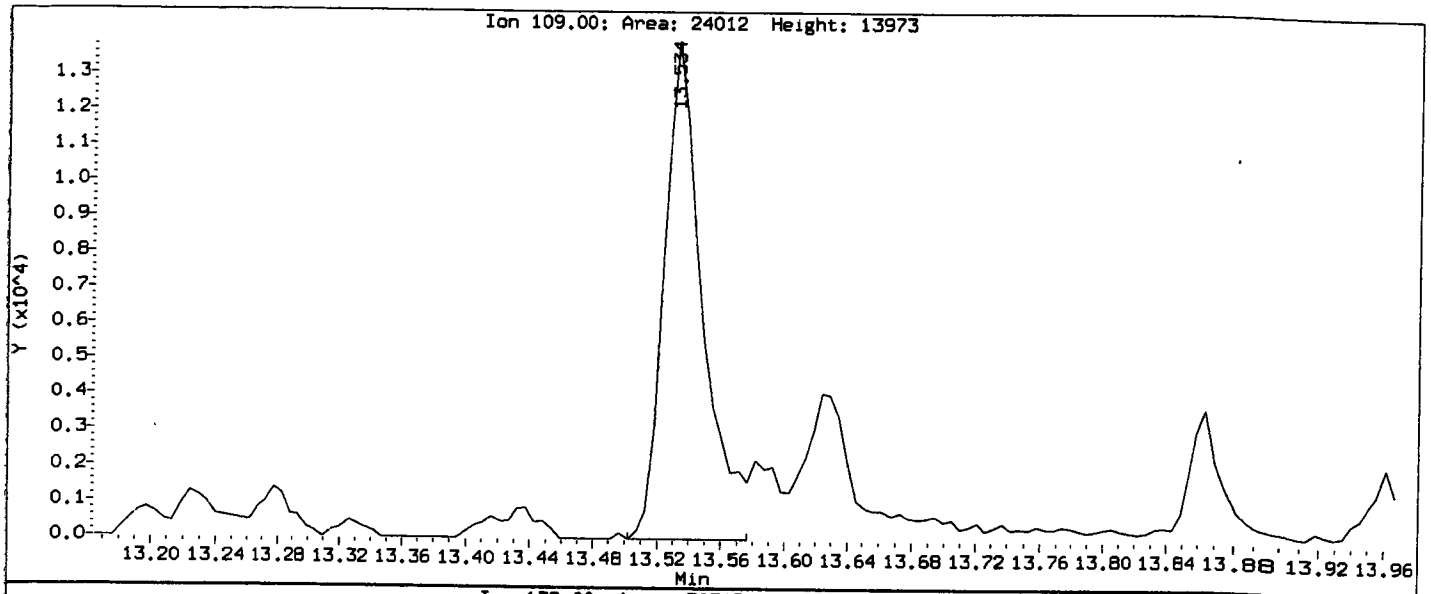
5. Other _____

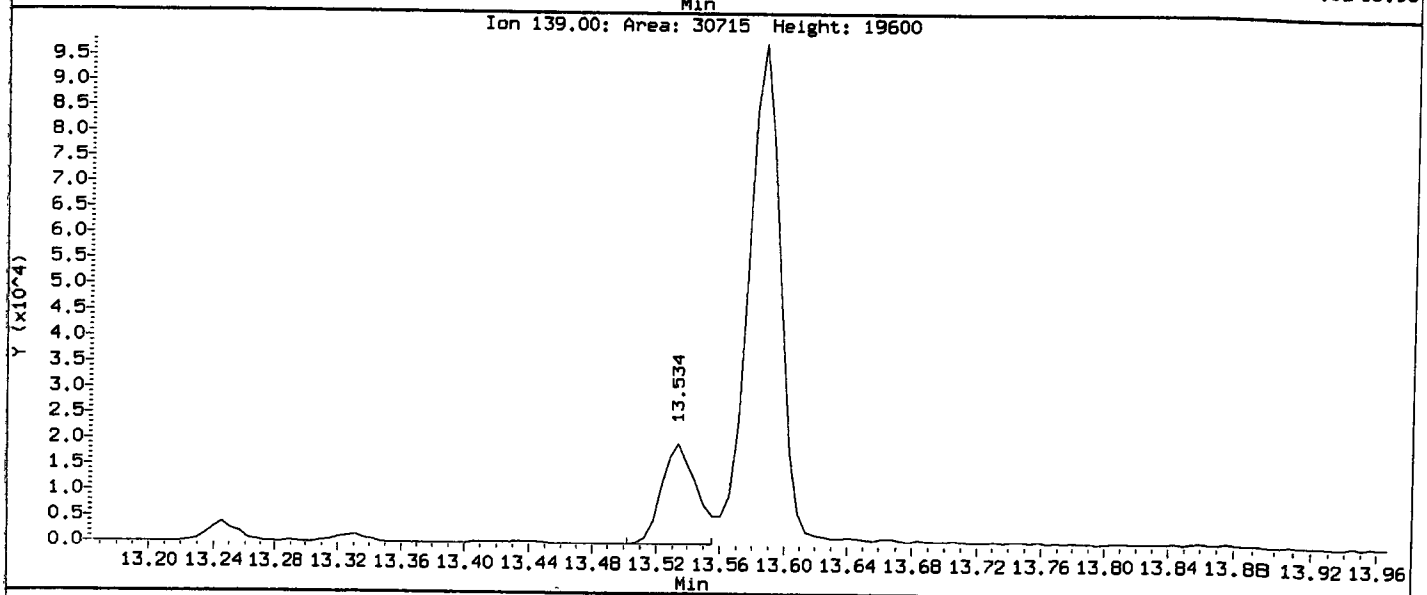
Analyst: _____ Date: 03/07/13

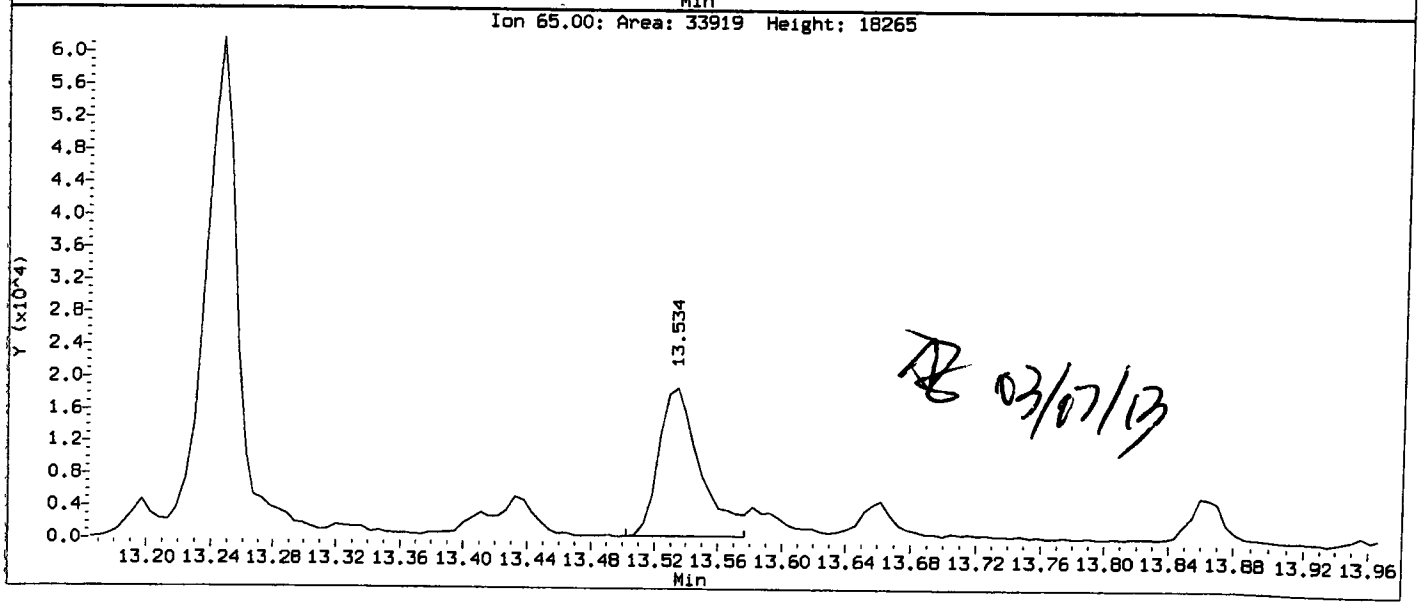
WJ10:00902

Data File: /chem2/nt6.i/20130306.b/03061304.D
Injection Date: 06-MAR-2013 14:00
Instrument: nt6.i
Client Sample ID: IC50306

Compound: 4-Nitrophenol
CAS Number: 100-02-7



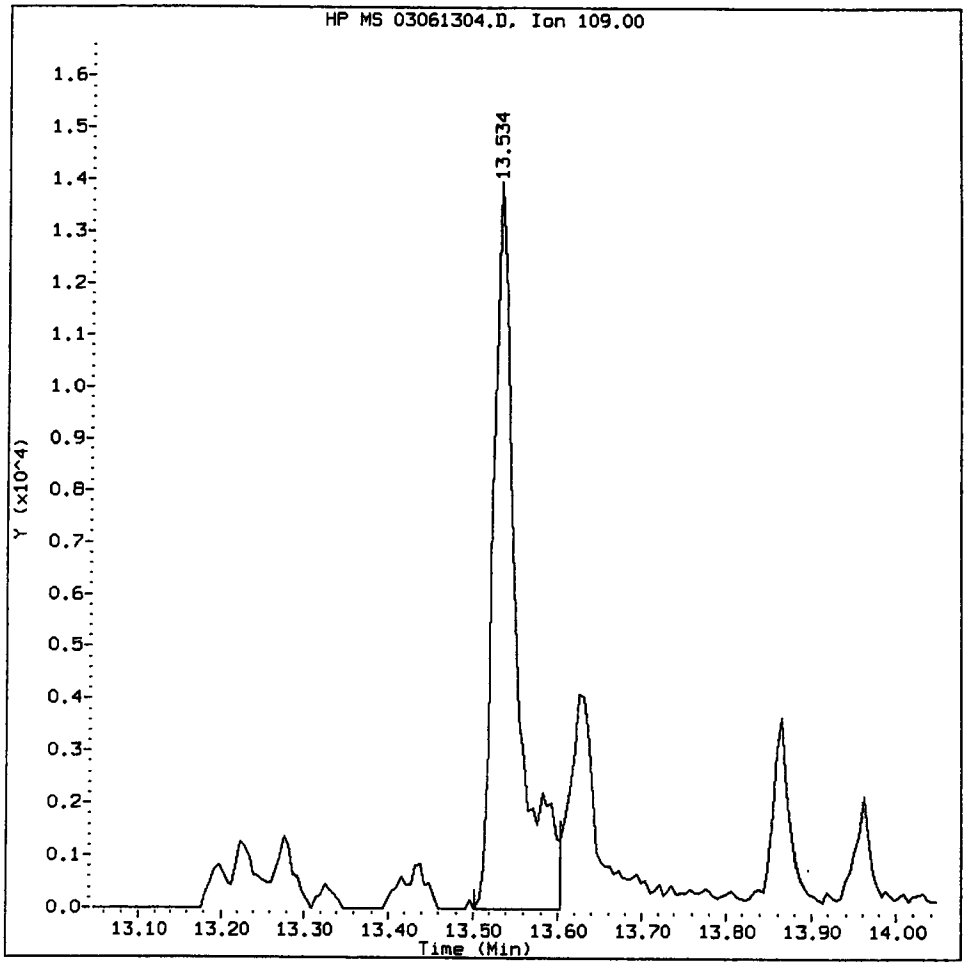




03/07/13

IC50306, /chem2/nt6.i/20130306.b/03061304.D

4-Nitrophenol Amount: 4.23 Area: 26876



MANUAL INTEGRATION for 4-Nitrophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 03/07/13

CO-ELUTION SUMMARY FOR FILE - 03061304.D

Lab ID: IC50306, Method: SW846030613.m, Instrument: nt6.i, Date: 06-MAR-2013

RT	CO-ELUTION COMPOUNDS
19.939	3,3'-Dichlorobenzidine and Benzo(a)anthracene

checked ok

03/07/13

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130306.b/03061305.D
Lab Smp Id: IC100306 Client Smp ID: IC100306
Inj Date : 06-MAR-2013 14:34
Operator : JZ Inst ID: nt6.i
Smp Info : IC100306,
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130306.b/SW846030613.m
Meth Date : 07-Mar-2013 11:55 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

03/07/13

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.432	6.432	(0.767)	409606	10.0000	11.09
$	2 Phenol-d5	99	7.927	7.933	(0.946)	485114	10.0000	11.22
	3 Phenol	94	7.943	7.954	(0.948)	521638	10.0000	11.46
$	5 2-Chlorophenol-d4	132	8.082	8.082	(0.964)	408030	10.0000	11.16
	4 Bis(2-Chloroethyl)ether	93	8.045	8.050	(0.960)	454744	10.0000	11.50
	6 2-Chlorophenol	128	8.104	8.109	(0.967)	422320	10.0000	11.59
	7 1,3-Dichlorobenzene	146	8.323	8.328	(0.993)	490538	10.0000	11.53
*	8 1,4-Dichlorobenzene-d4	152	8.382	8.387	(1.000)	570088	20.0000	
	9 1,4-Dichlorobenzene	146	8.408	8.408	(1.003)	476551	10.0000	11.51
$	10 1,2-Dichlorobenzene-d4	152	8.681	8.681	(1.036)	285284	10.0000	11.09
	12 1,2-Dichlorobenzene	146	8.702	8.707	(1.038)	457651	10.0000	11.56
	11 Benzyl alcohol	108	8.649	8.654	(1.032)	275965	10.0000	11.13
	14 2,2'-oxybis(1-Chloropropane)	45	8.910	8.916	(1.063)	722460	10.0000	11.50
	13 2-Methylphenol	108	8.873	8.878	(1.059)	401038	10.0000	11.62
	17 Hexachloroethane	117	9.188	9.193	(1.096)	193382	10.0000	11.55
	16 N-Nitroso-di-n-propylamine	70	9.124	9.135	(1.089)	331372	10.0000	11.17
	15 4-Methylphenol	108	9.103	9.108	(1.086)	405580	10.0000	11.88
$	18 Nitrobenzene-d5	82	9.306	9.311	(0.893)	463288	10.0000	10.99
	19 Nitrobenzene	77	9.332	9.343	(0.895)	470788	10.0000	11.67
	20 Isophorone	82	9.706	9.717	(0.931)	784907	10.0000	11.16
	21 2-Nitrophenol	139	9.845	9.851	(0.945)	223980	10.0000	12.00
	22 2,4-Dimethylphenol	107	9.941	9.947	(0.954)	406831	10.0000	11.52
	23 Bis(2-Chloroethoxy)methane	93	10.091	10.096	(0.968)	524076	10.0000	11.36
	24 Benzoic acid	105	10.144	10.198	(0.973)	669262	20.0000	21.92
	25 2,4-Dichlorophenol	162	10.219	10.230	(0.981)	328904	10.0000	12.10
	26 1,2,4-Trichlorobenzene	180	10.358	10.363	(0.994)	387548	10.0000	11.45
*	27 Naphthalene-d8	136	10.422	10.422	(1.000)	2100513	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.449	10.454	(1.003)	1122405	10.0000	10.39
	29 4-Chloroaniline	127	10.582	10.588	(1.015)	395736	10.0000	11.97
	30 Hexachlorobutadiene	225	10.764	10.764	(1.033)	234707	10.0000	11.40
	31 4-Chloro-3-methylphenol	107	11.378	11.384	(1.092)	347605	10.0000	12.04
	32 2-Methylnaphthalene	141	11.565	11.571	(1.110)	594073	10.0000	11.63
	33 Hexachlorocyclopentadiene	237	11.945	11.950	(0.899)	228802	10.0000	11.24
	34 2,4,6-Trichlorophenol	196	12.073	12.078	(0.909)	231449	10.0000	10.87
	35 2,4,5-Trichlorophenol	196	12.126	12.137	(0.913)	254387	10.0000	12.11
$	36 2-Fluorobiphenyl	172	12.206	12.212	(0.919)	846552	10.0000	10.59
	37 2-Chloronaphthalene	162	12.345	12.356	(0.930)	696255	10.0000	12.39
	38 2-Nitroaniline	65	12.570	12.580	(0.946)	214601	10.0000	11.46
	39 Dimethylphthalate	163	12.938	12.949	(0.974)	850044	10.0000	11.15
	40 Acenaphthylene	152	13.024	13.034	(0.981)	1152396	10.0000	11.54
	41 2,6-Dinitrotoluene	165	13.040	13.045	(0.982)	190803	10.0000	11.72
*	42 Acenaphthene-d10	164	13.280	13.286	(1.000)	1266491	20.0000	
	43 3-Nitroaniline	138	13.254	13.264	(0.998)	138858	10.0000	10.28
	44 Acenaphthene	153	13.328	13.334	(1.004)	725512	10.0000	11.22
	45 2,4-Dinitrophenol	184	13.414	13.424	(1.010)	256578	20.0000	22.06
	46 Dibenzofuran	168	13.590	13.595	(1.023)	963887	10.0000	11.39
	47 4-Nitrophenol	109	13.537	13.547	(1.019)	94565	10.0000	11.43
	48 2,4-Dinitrotoluene	165	13.665	13.676	(1.029)	260744	10.0000	11.84
	50 Diethylphthalate	149	14.092	14.098	(1.061)	851918	10.0000	12.06
	49 Fluorene	166	14.146	14.156	(1.065)	773364	10.0000	12.23
	51 4-Chlorophenyl-phenylether	204	14.167	14.172	(1.067)	421621	10.0000	11.35
	52 4-Nitroaniline	138	14.242	14.252	(1.072)	114126	10.0000	9.188
	53 4,6-Dinitro-2-methylphenol	198	14.317	14.333	(0.914)	328910	20.0000	22.69
	54 N-Nitrosodiphenylamine	169	14.365	14.375	(0.917)	637709	10.0000	11.32
$	55 2,4,6-Tribromophenol	330	14.568	14.573	(1.097)	113119	10.0000	11.30
	56 4-Bromophenyl-phenylether	248	14.947	14.952	(0.955)	252399	10.0000	11.42
	57 Hexachlorobenzene	284	15.171	15.182	(0.969)	256679	10.0000	11.27
	58 Pentachlorophenol	266	15.465	15.470	(0.988)	151470	10.0000	11.27
*	59 Phenanthrene-d10	188	15.658	15.663	(1.000)	2013244	20.0000	
	60 Phenanthrene	178	15.690	15.700	(1.002)	1109716	10.0000	11.14
	61 Anthracene	178	15.764	15.770	(1.007)	1165266	10.0000	11.68
	62 Carbazole	167	16.037	16.047	(1.024)	804312	10.0000	11.64
	63 Di-n-butylphthalate	149	16.737	16.747	(1.069)	1462335	10.0000	11.63
	64 Fluoranthene	202	17.629	17.639	(1.126)	1248849	10.0000	11.92
	65 Pyrene	202	17.987	17.992	(0.901)	1303708	10.0000	11.52
$	66 Terphenyl-d14	244	18.286	18.291	(0.916)	780843	10.0000	10.74
	67 Butylbenzylphthalate	149	19.157	19.167	(0.959)	651451	10.0000	11.77
	68 Benzo(a)anthracene	228	19.942	19.953	(0.999)	1072977	10.0000	11.36
*	69 Chrysene-d12	240	19.969	19.979	(1.000)	2072136	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.937	19.953	(0.998)	305076	10.0000	11.74
	71 Chrysene	228	20.006	20.017	(1.002)	1128707	10.0000	11.70
	72 bis(2-Ethylhexyl)phthalate	149	20.140	20.150	(0.956)	894958	10.0000	11.54
*	134 Di-n-octylphthalate-d4	153	21.074	21.085	(1.000)	2636581	20.0000	
	73 Di-n-octylphthalate	149	21.085	21.096	(1.000)	1365050	10.0000	10.97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.593	21.609	(0.976)	1040205	10.0000	11.11
75	Benzo(k)fluoranthene	252	21.625	21.641	(0.977)	1257901	10.0000	11.89
187	Total Benzofluoranthenes	252	21.625	21.641	(0.977)	2212064	20.0000	24.05
76	Benzo(a)pyrene	252	22.041	22.057	(0.996)	1022456	10.0000	11.98
* 77	Perylene-d12	264	22.132	22.137	(1.000)	1996890	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.745	23.767	(1.073)	1200253	10.0000	11.68
79	Dibenzo(a,h)anthracene	278	23.767	23.788	(1.074)	974913	10.0000	12.05
80	Benzo(g,h,i)perylene	276	24.205	24.226	(1.094)	1025473	10.0000	11.67
90	N-Nitrosodimethylamine	74	3.894	3.889	(0.465)	289642	10.0000	10.79
103	Pyridine	79	3.862	3.851	(0.461)	499164	10.0000	11.72
91	Aniline	93	7.938	7.938	(0.947)	561686	10.0000	11.13
105	1-methylnaphthalene	141	11.742	11.747	(1.127)	592868	10.0000	11.42
93	Benzidine	184	17.864	17.874	(0.895)	112934	10.0000	11.18
111	Azobenzene (1,2-DP-Hydrazine)	77	14.413	14.423	(1.085)	921459	10.0000	11.48
143	1,4-Dioxane	88	3.109	3.103	(0.371)	195949	10.0000	10.59
$ 137	d8-1,4-Dioxane	96	3.050	3.039	(0.364)	188211	10.0000	10.87
144	alpha-Terpineol	59	10.465	10.470	(1.004)	297085	10.0000	11.12
177	p-Benzoquinone	82	7.078	7.083	(0.679)	94569	10.0000	11.79
98	Retene	219	18.537	18.548	(0.928)	541721	10.0000	11.09
99	Perylene	252	22.159	22.175	(1.001)	854294	10.0000	11.43
133	Butylatedhydroxytoluene	205	13.435	13.440	(1.012)	644369	10.0000	10.28
115	Tributyl Phosphate	99	14.450	14.461	(0.923)	993217	10.0000	12.00
116	Dibutyl Phenyl Phosphate	175	16.186	16.192	(1.034)	651979	10.0000	12.25
117	Butyl Diphenyl Phosphate	94	17.869	17.880	(0.895)	217805	10.0000	11.42
118	Triphenyl Phosphate	326	19.472	19.482	(0.975)	199203	10.0000	10.98
123	Acetophenone	105	9.071	9.076	(1.082)	611708	10.0000	11.40
168	Pentachlorobenzene	250	13.633	13.638	(1.027)	306373	10.0000	11.04
113	Diphenyl Oxide	170	12.532	12.538	(0.944)	551926	10.0000	11.19
112	Biphenyl	154	12.340	12.345	(0.929)	789168	10.0000	12.10
120	2,3,4,6-Tetrachlorophenol	232	13.868	13.873	(1.044)	210165	10.0000	11.63
151	1,2,4,5-Tetrachlorobenzene	216	11.902	11.907	(0.896)	337802	10.0000	10.92
110	Tetrachloroguaiacol	247	15.593	15.599	(0.996)	251305	20.0000	23.79
109	3,4,5-Trichloroguaiacol	213	13.959	13.969	(0.892)	128306	10.0000	11.16
181	3,4,6-Trichloroguaiacol	211	14.082	14.087	(1.680)	151124	10.0000	11.62
108	4,5,6-Trichloroguaiacol	213	14.990	15.000	(1.129)	134238	10.0000	11.33
184	3,4-Dichloroguaiacol	192	12.420	12.425	(1.482)	141925	10.0000	11.49
107	4,5-Dichloroguaiacol	192	13.200	13.205	(0.994)	349586	20.0000	22.59
182	4,6-Dichloroguaiacol	192	13.200	13.205	(1.575)	349586	20.0000	23.21
185	4-Chloroguaiacol	115	11.330	11.336	(1.352)	92661	5.00000	5.785
186	Carbaryl	144	16.448	16.459	(1.050)	564889	10.0000	12.14
178	2-Benzyl-4-Chlorophenol	218	16.400	16.411	(1.047)	196958	10.0000	11.81
106	Guaiacol	124	9.327	9.332	(1.113)	351433	10.0000	11.85
188	2,6-Dichlorophenol	162	10.593	10.598	(1.264)	290040	10.0000	11.49
189	N-Nitrosomethylethylamine	88	5.625	5.620	(0.671)	198410	10.0000	10.53

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 03061305.D
Lab Smp Id: IC100306
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

Calibration Date: 06-MAR-2013
Calibration Time: 12:16
Client Smp ID: IC100306
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	570088	24.44
27 Naphthalene-d8	1718341	859170	3436682	2100513	22.24
42 Acenaphthene-d10	1010041	505020	2020082	1266491	25.39
59 Phenanthrene-d10	1666734	833367	3333468	2013244	20.79
69 Chrysene-d12	1675752	837876	3351504	2072136	23.65
134 Di-n-octylphthala	2026355	1013178	4052710	2636581	30.11
77 Perylene-d12	1637524	818762	3275048	1996890	21.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.39	7.89	8.89	8.38	-0.06
27 Naphthalene-d8	10.42	9.92	10.92	10.42	0.00
42 Acenaphthene-d10	13.29	12.79	13.79	13.28	-0.04
59 Phenanthrene-d10	15.66	15.16	16.16	15.66	-0.03
69 Chrysene-d12	19.98	19.48	20.48	19.97	-0.05
134 Di-n-octylphthala	21.09	20.59	21.59	21.07	-0.05
77 Perylene-d12	22.14	21.64	22.64	22.13	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

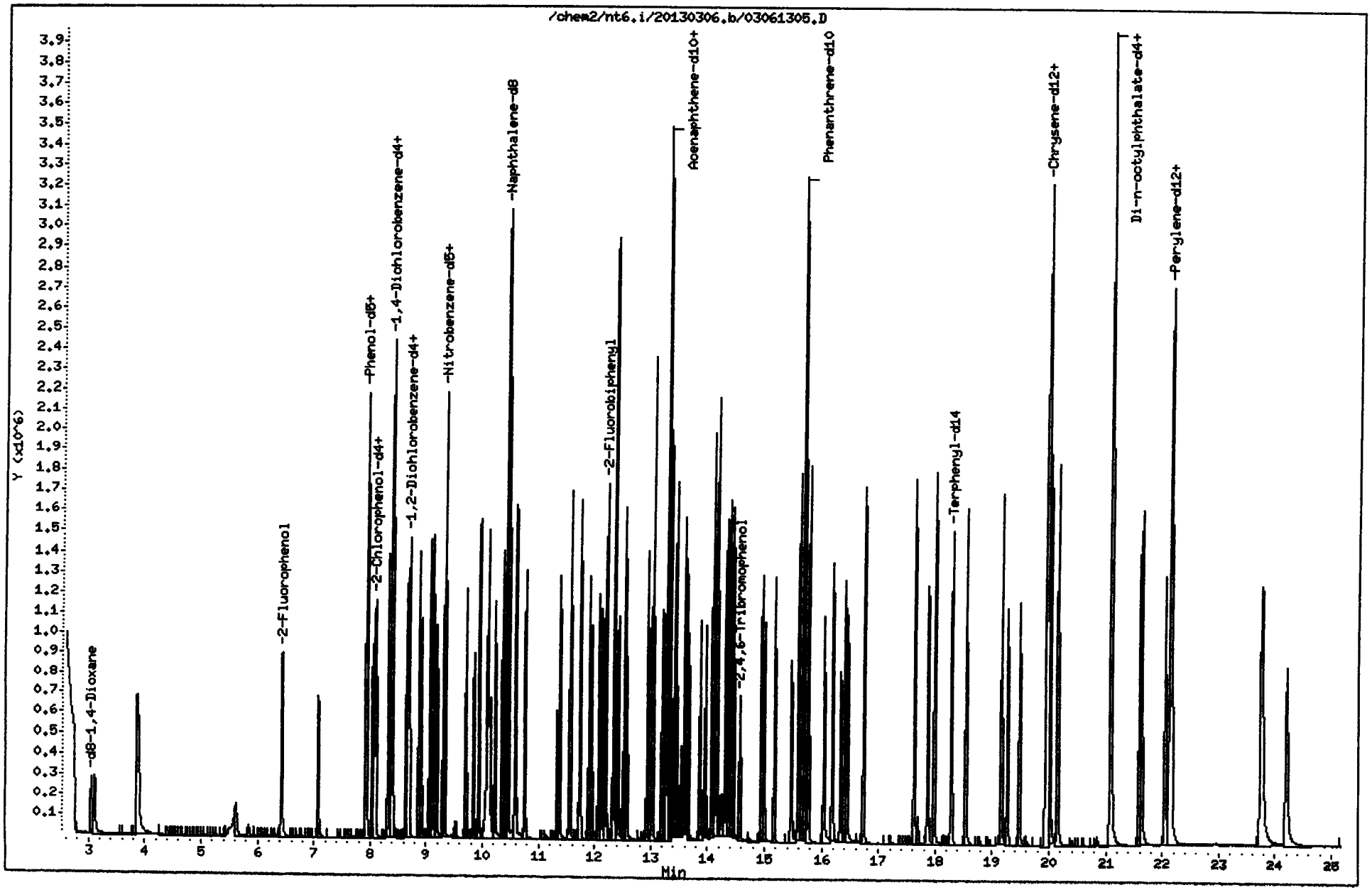
Data File: /chem2/nt6.i/20130306.b/03061305.D
Date : 06-MAR-2013 14:34
Client ID: IC100306
Sample Info: IC100306,

Instrument: nt6.i

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



CO-ELUTION SUMMARY FOR FILE - 03061305.D

Lab ID: IC100306, Method: SW846030613.m, Instrument: nt6.i, Date: 06-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130306.b/03061301.D
Lab Smp Id: IC250306 Client Smp ID: IC250306
Inj Date : 06-MAR-2013 12:16
Operator : JZ Inst ID: nt6.i
Smp Info : IC250306
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130306.b/SW846030613.m
Meth Date : 07-Mar-2013 11:55 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

JZ 03/07/13

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
$	1 2-Fluorophenol	112	6.432	6.432	(0.767)	700440	25.0000	23.60	
$	2 Phenol-d5	99	7.933	7.933	(0.946)	801352	25.0000	23.06	
	3 Phenol	94	7.954	7.954	(0.948)	889960	25.0000	24.32	
$	5 2-Chlorophenol-d4	132	8.082	8.082	(0.964)	690249	25.0000	23.50	
	4 Bis(2-Chloroethyl)ether	93	8.050	8.050	(0.960)	775014	25.0000	24.39	
	6 2-Chlorophenol	128	8.109	8.109	(0.967)	729630	25.0000	24.92	
	7 1,3-Dichlorobenzene	146	8.328	8.328	(0.993)	845812	25.0000	24.74	
*	8 1,4-Dichlorobenzene-d4	152	8.387	8.387	(1.000)	458117	20.0000		
	9 1,4-Dichlorobenzene	146	8.408	8.408	(1.003)	819102	25.0000	24.62	
$	10 1,2-Dichlorobenzene-d4	152	8.681	8.681	(1.035)	473455	25.0000	22.90	(H)
	12 1,2-Dichlorobenzene	146	8.707	8.707	(1.038)	775420	25.0000	24.38	
	11 Benzyl alcohol	108	8.654	8.654	(1.032)	509044	25.0000	25.54	
	14 2,2'-oxybis(1-Chloropropane)	45	8.916	8.916	(1.063)	1237768	25.0000	24.52	
	13 2-Methylphenol	108	8.878	8.878	(1.059)	703888	25.0000	25.37	
	17 Hexachloroethane	117	9.193	9.193	(1.096)	331130	25.0000	24.60	
	16 N-Nitroso-di-n-propylamine	70	9.135	9.135	(1.089)	584280	25.0000	24.50	
	15 4-Methylphenol	108	9.108	9.108	(1.086)	711421	25.0000	25.93	
$	18 Nitrobenzene-d5	82	9.311	9.311	(0.893)	801723	25.0000	23.25	
	19 Nitrobenzene	77	9.343	9.343	(0.896)	805918	25.0000	24.42	
	20 Isophorone	82	9.717	9.717	(0.932)	1363565	25.0000	23.70	
	21 2-Nitrophenol	139	9.851	9.851	(0.945)	399887	25.0000	26.19	
	22 2,4-Dimethylphenol	107	9.947	9.947	(0.954)	711080	25.0000	24.62	
	23 Bis(2-Chloroethoxy)methane	93	10.096	10.096	(0.969)	910222	25.0000	24.12	
	24 Benzoic acid	105	10.198	10.198	(0.978)	1318002	50.0000	52.76	
	25 2,4-Dichlorophenol	162	10.230	10.230	(0.982)	588303	25.0000	26.46	
	26 1,2,4-Trichlorobenzene	180	10.363	10.363	(0.994)	665788	25.0000	24.05	
*	27 Naphthalene-d8	136	10.422	10.422	(1.000)	1718341	20.0000		

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.454	10.454	(1.003)	1841435	25.0000	24.74
	29 4-Chloroaniline	127	10.588	10.588	(1.016)	551083	25.0000	23.22
	30 Hexachlorobutadiene	225	10.764	10.764	(1.033)	412907	25.0000	24.51
	31 4-Chloro-3-methylphenol	107	11.384	11.384	(1.092)	616289	25.0000	26.09
	32 2-Methylnaphthalene	141	11.571	11.571	(1.110)	1032469	25.0000	24.71
	33 Hexachlorocyclopentadiene	237	11.950	11.950	(0.899)	439183	25.0000	27.06
	34 2,4,6-Trichlorophenol	196	12.078	12.078	(0.909)	432718	25.0000	25.48
	35 2,4,5-Trichlorophenol	196	12.137	12.137	(0.914)	441206	25.0000	26.34
$	36 2-Fluorobiphenyl	172	12.212	12.212	(0.919)	1404089	25.0000	22.02
	37 2-Chloronaphthalene	162	12.356	12.356	(0.930)	1139487	25.0000	26.46
	38 2-Nitroaniline	65	12.580	12.580	(0.947)	397884	25.0000	26.65
	39 Dimethylphthalate	163	12.949	12.949	(0.975)	1466956	25.0000	24.13
	40 Acenaphthylene	152	13.034	13.034	(0.981)	1904411	25.0000	23.90
	41 2,6-Dinitrotoluene	165	13.045	13.045	(0.982)	328738	25.0000	25.31
*	42 Acenaphthene-d10	164	13.286	13.286	(1.000)	1010041	20.0000	
	43 3-Nitroaniline	138	13.264	13.264	(0.998)	241966	25.0000	26.00
	44 Acenaphthene	153	13.334	13.334	(1.004)	1232398	25.0000	23.89
	45 2,4-Dinitrophenol	184	13.424	13.424	(1.010)	496821	50.0000	53.56
	46 Dibenzofuran	168	13.595	13.595	(1.023)	1655296	25.0000	24.54
	47 4-Nitrophenol	109	13.547	13.547	(1.020)	178575	25.0000	27.06
	48 2,4-Dinitrotoluene	165	13.676	13.676	(1.029)	452448	25.0000	25.75
	50 Diethylphthalate	149	14.098	14.098	(1.061)	1399966	25.0000	24.86
	49 Fluorene	166	14.156	14.156	(1.066)	1288051	25.0000	27.06
	51 4-Chlorophenyl-phenylether	204	14.172	14.172	(1.067)	716110	25.0000	24.18
	52 4-Nitroaniline	138	14.252	14.252	(1.073)	226139	25.0000	22.83
	53 4,6-Dinitro-2-methylphenol	198	14.333	14.333	(0.915)	606968	50.0000	50.57
	54 N-Nitrosodiphenylamine	169	14.375	14.375	(0.918)	1086875	25.0000	23.31 (M)
$	55 2,4,6-Tribromophenol	330	14.573	14.573	(1.097)	197436	25.0000	24.72
	56 4-Bromophenyl-phenylether	248	14.952	14.952	(0.955)	442782	25.0000	24.21
	57 Hexachlorobenzene	284	15.182	15.182	(0.969)	444526	25.0000	23.57
	58 Pentachlorophenol	266	15.470	15.470	(0.988)	283481	25.0000	25.48
*	59 Phenanthrene-d10	188	15.663	15.663	(1.000)	1666734	20.0000	
	60 Phenanthrene	178	15.700	15.700	(1.002)	1809085	25.0000	21.94
	61 Anthracene	178	15.770	15.770	(1.007)	1943905	25.0000	23.54
	62 Carbazole	167	16.047	16.047	(1.025)	1387020	25.0000	24.09
	63 Di-n-butylphthalate	149	16.747	16.747	(1.069)	2414175	25.0000	23.19
	64 Fluoranthene	202	17.639	17.639	(1.126)	2140710	25.0000	24.68
	65 Pyrene	202	17.992	17.992	(0.901)	2209020	25.0000	24.14
$	66 Terphenyl-d14	244	18.291	18.291	(0.916)	1321332	25.0000	22.46
	67 Butylbenzylphthalate	149	19.167	19.167	(0.959)	1118097	25.0000	24.98
	68 Benzo(a)anthracene	228	19.953	19.953	(0.999)	1857209	25.0000	24.31
*	69 Chrysene-d12	240	19.979	19.979	(1.000)	1675752	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.953	19.953	(0.999)	502648	25.0000	23.91
	71 Chrysene	228	20.017	20.017	(1.002)	1876324	25.0000	24.06
	72 bis(2-Ethylhexyl)phthalate	149	20.150	20.150	(0.956)	1493223	25.0000	25.04
*	134 Di-n-octylphthalate-d4	153	21.085	21.085	(1.000)	2026355	20.0000	
	73 Di-n-octylphthalate	149	21.096	21.096	(1.000)	2368328	25.0000	24.75

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.609	21.609	(0.976)	1959445	25.0000	26.71 (H)
75	Benzo(k)fluoranthene	252	21.641	21.641	(0.978)	1970824	25.0000	24.39
187	Total Benzofluoranthenes	252	21.641	21.641	(0.978)	3664023	50.0000	48.58
76	Benzo(a)pyrene	252	22.057	22.057	(0.996)	1762639	25.0000	25.18
* 77	Perylene-d12	264	22.137	22.137	(1.000)	1637524	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.767	23.767	(1.074)	2091673	25.0000	24.83
79	Dibenzo(a,h)anthracene	278	23.788	23.788	(1.075)	1694786	25.0000	25.55
80	Benzo(g,h,i)perylene	276	24.226	24.226	(1.094)	1816240	25.0000	25.21
90	N-Nitrosodimethylamine	74	3.889	3.889	(0.464)	532245	25.0000	24.67
103	Pyridine	79	3.851	3.851	(0.459)	931862	25.0000	27.24
91	Aniline	93	7.938	7.938	(0.946)	956121	25.0000	23.58
105	1-methylnaphthalene	141	11.747	11.747	(1.127)	1040306	25.0000	24.51
93	Benzidine	184	17.874	17.874	(0.895)	172170	25.0000	21.07
111	Azobenzene (1,2-DP-Hydrazine)	77	14.423	14.423	(1.086)	1570394	25.0000	24.54
143	1,4-Dioxane	88	3.103	3.103	(0.370)	352540	25.0000	23.72
$ 137	d8-1,4-Dioxane	96	3.039	3.039	(0.362)	346030	25.0000	24.88
144	alpha-Terpineol	59	10.470	10.470	(1.005)	537237	25.0000	24.59
177	p-Benzoquinone	82	7.083	7.083	(0.680)	187368	25.0000	28.55
98	Retene	219	18.548	18.548	(0.928)	995435	25.0000	25.20
99	Perylene	252	22.175	22.175	(1.002)	1513496	25.0000	24.69
133	Butylatedhydroxytoluene	205	13.440	13.440	(1.012)	1140696	25.0000	27.48
115	Tributyl Phosphate	99	14.461	14.461	(0.923)	1753043	25.0000	27.50
116	Dibutyl Phenyl Phosphate	175	16.192	16.192	(1.034)	1196318	25.0000	27.14
117	Butyl Diphenyl Phosphate	94	17.880	17.880	(0.895)	391455	25.0000	25.37
118	Triphenyl Phosphate	326	19.482	19.482	(0.975)	383597	25.0000	26.14
123	Acetophenone	105	9.076	9.076	(1.082)	1059559	25.0000	24.57
168	Pentachlorobenzene	250	13.638	13.638	(1.027)	542883	25.0000	24.54
113	Diphenyl Oxide	170	12.538	12.538	(0.944)	986027	25.0000	25.08
112	Biphenyl	154	12.345	12.345	(0.929)	1333701	25.0000	27.60
120	2,3,4,6-Tetrachlorophenol	232	13.873	13.873	(1.044)	388804	25.0000	26.97
151	1,2,4,5-Tetrachlorobenzene	216	11.907	11.907	(0.896)	595688	25.0000	24.15
110	Tetrachloroguaiacol	247	15.599	15.599	(0.996)	452880	50.0000	51.78
109	3,4,5-Trichloroguaiacol	213	13.969	13.969	(0.892)	254783	25.0000	26.76
181	3,4,6-Trichloroguaiacol	211	14.087	14.087	(1.680)	287113	25.0000	27.47
108	4,5,6-Trichloroguaiacol	213	15.000	15.000	(1.129)	261306	25.0000	27.66
184	3,4-Dichloroguaiacol	192	12.425	12.425	(1.482)	267135	25.0000	26.92
107	4,5-Dichloroguaiacol	192	13.205	13.205	(0.994)	666413	50.0000	54.00
182	4,6-Dichloroguaiacol	192	13.205	13.205	(1.575)	659838	50.0000	54.51
185	4-Chloroguaiacol	115	11.336	11.336	(1.352)	178588	12.5000	13.87
186	Carbaryl	144	16.459	16.459	(1.051)	1022156	25.0000	26.54
178	2-Benzyl-4-Chlorophenol	218	16.411	16.411	(1.048)	366709	25.0000	26.56
106	Guaiacol	124	9.332	9.332	(1.113)	614508	25.0000	25.79
188	2,6-Dichlorophenol	162	10.598	10.598	(1.264)	552166	25.0000	27.22
189	N-Nitrosomethylethylamine	88	5.620	5.620	(0.670)	391699	25.0000	25.88

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 03061301.D
Lab Smp Id: IC250306
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

Calibration Date: 06-MAR-2013
Calibration Time: 12:16
Client Smp ID: IC250306
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	458117	0.00
27 Naphthalene-d8	1718341	859170	3436682	1718341	0.00
42 Acenaphthene-d10	1010041	505020	2020082	1010041	0.00
59 Phenanthrene-d10	1666734	833367	3333468	1666734	0.00
69 Chrysene-d12	1675752	837876	3351504	1675752	0.00
134 Di-n-octylphthala	2026355	1013178	4052710	2026355	0.00
77 Perylene-d12	1637524	818762	3275048	1637524	0.00

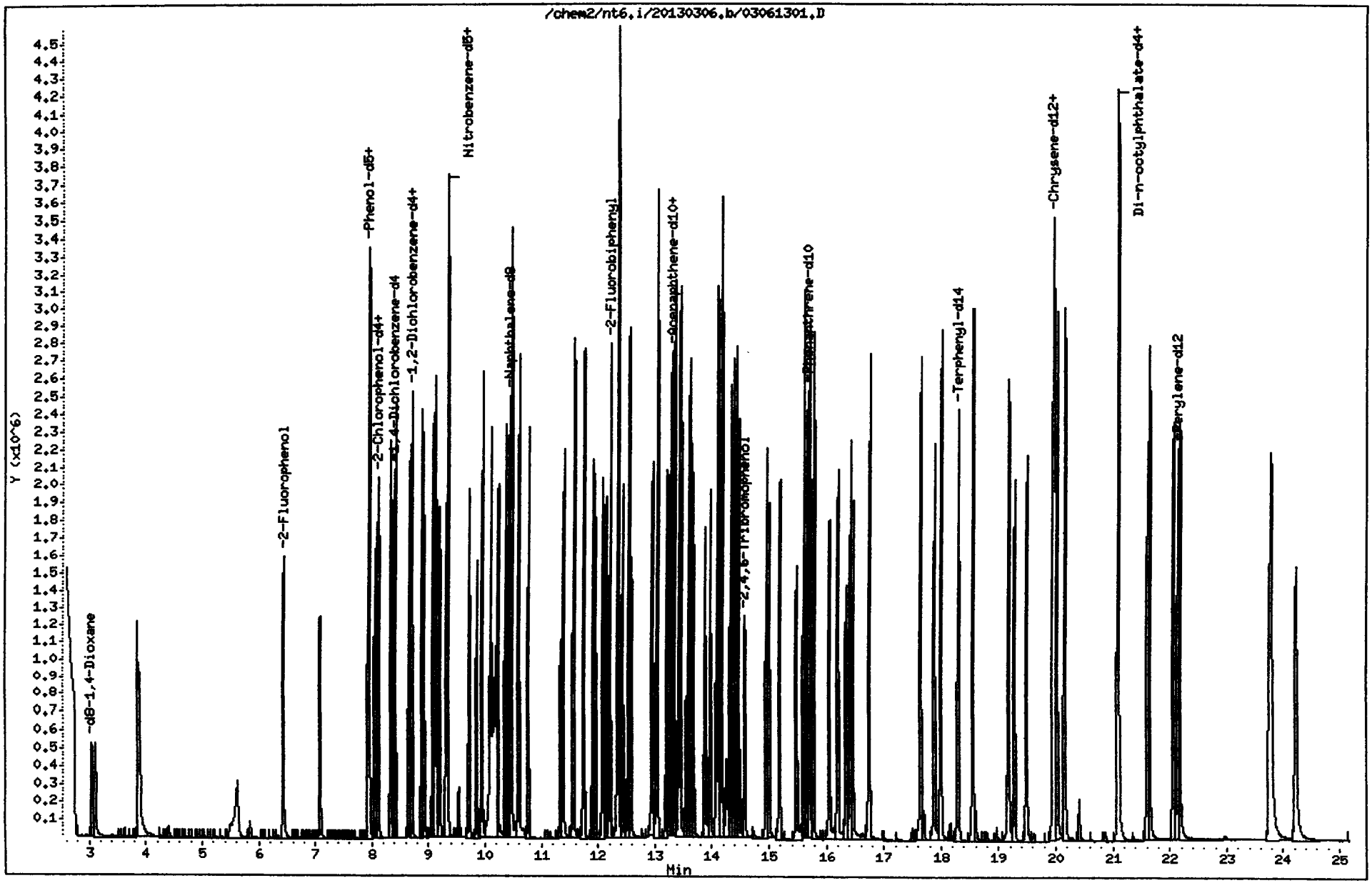
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.39	7.89	8.89	8.39	0.00
27 Naphthalene-d8	10.42	9.92	10.92	10.42	0.00
42 Acenaphthene-d10	13.29	12.79	13.79	13.29	0.00
59 Phenanthrene-d10	15.66	15.16	16.16	15.66	0.00
69 Chrysene-d12	19.98	19.48	20.48	19.98	0.00
134 Di-n-octylphthala	21.09	20.59	21.59	21.09	0.00
77 Perylene-d12	22.14	21.64	22.64	22.14	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20130306.b/03061301.D
Date : 06-MAR-2013 12:16
Client ID: IC250306
Sample Info: IC250306

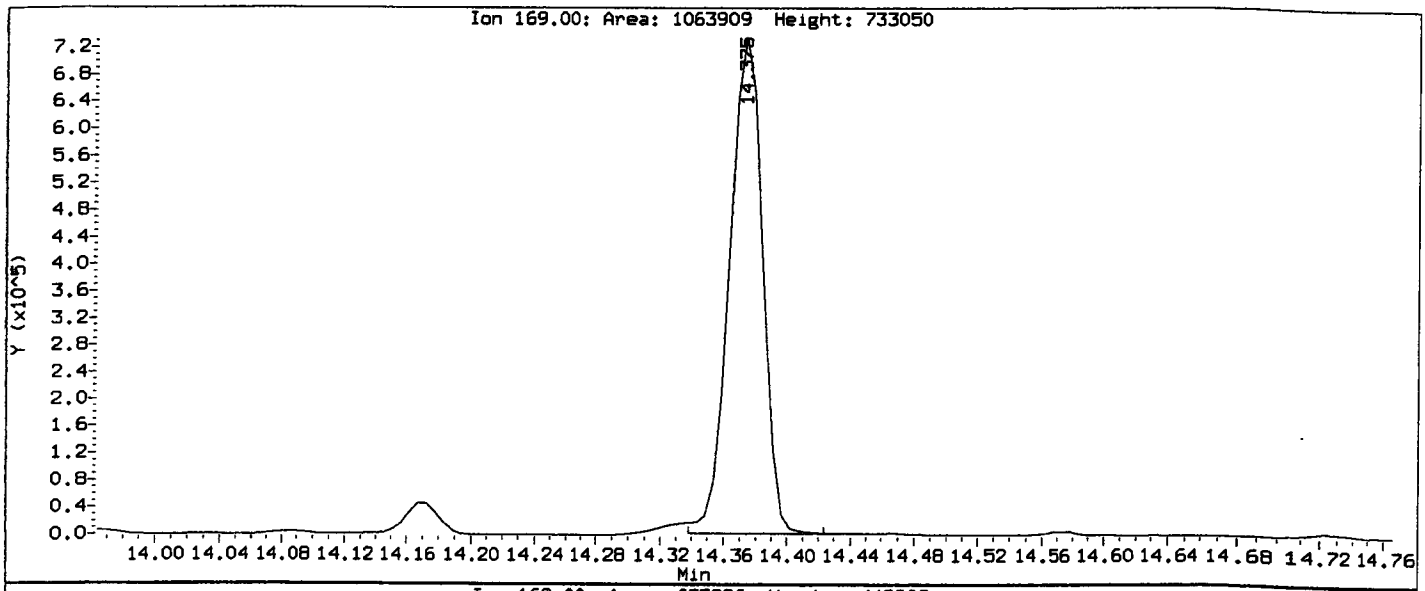
Instrument: nt6.i
Operator: JZ
Column diameter: 0.32

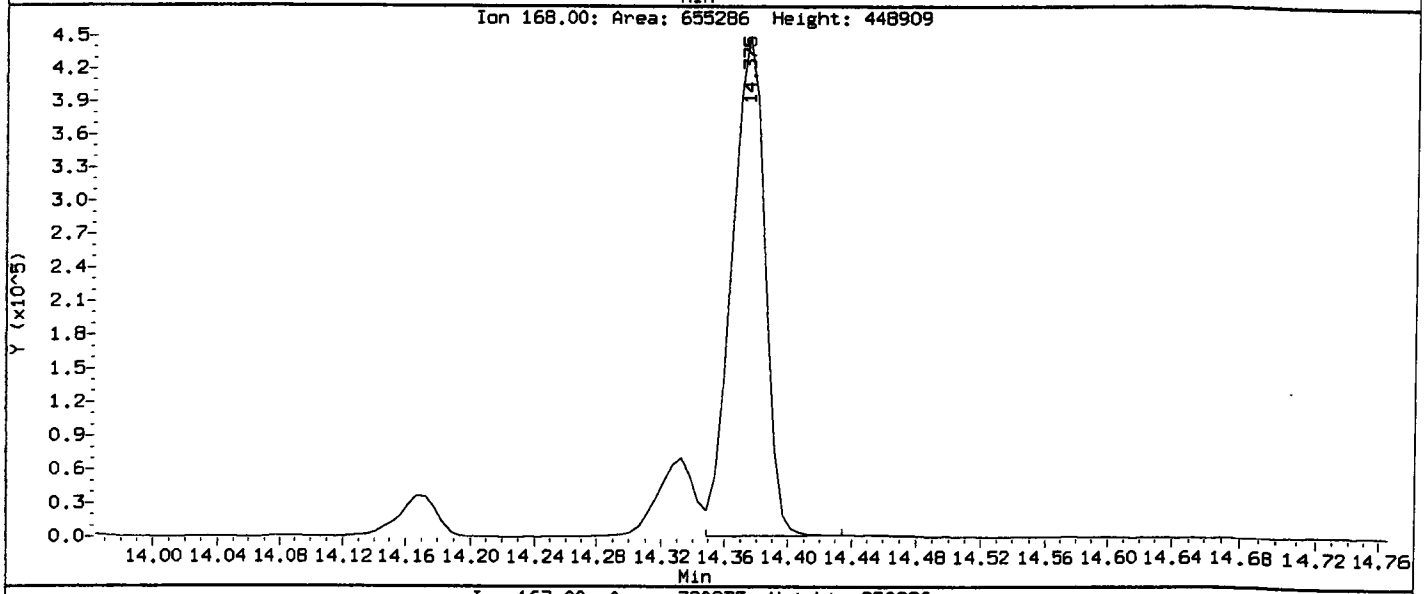
Column phase: ZB-5msi

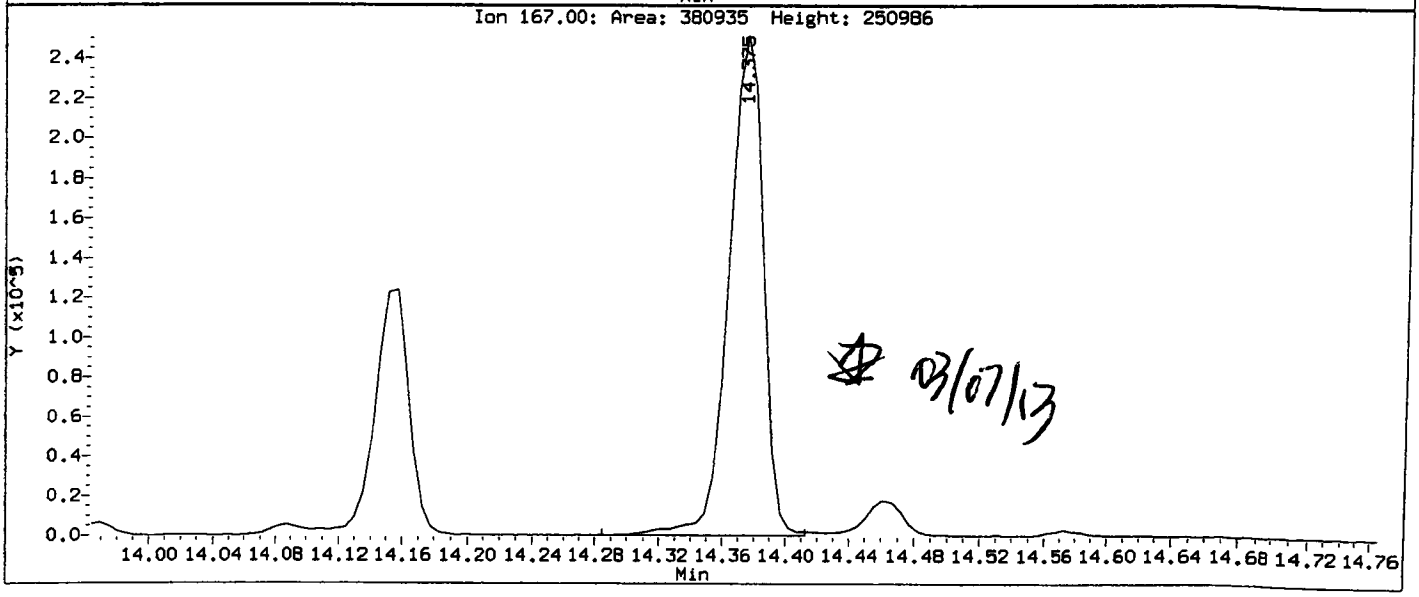


Data File: /chem2/nt6.i/20130306.b/03061301.D
Injection Date: 06-MAR-2013 12:16
Instrument: nt6.i
Client Sample ID: IC250306

Compound: N-Nitrosodiphenylamine
CAS Number: 86-30-6



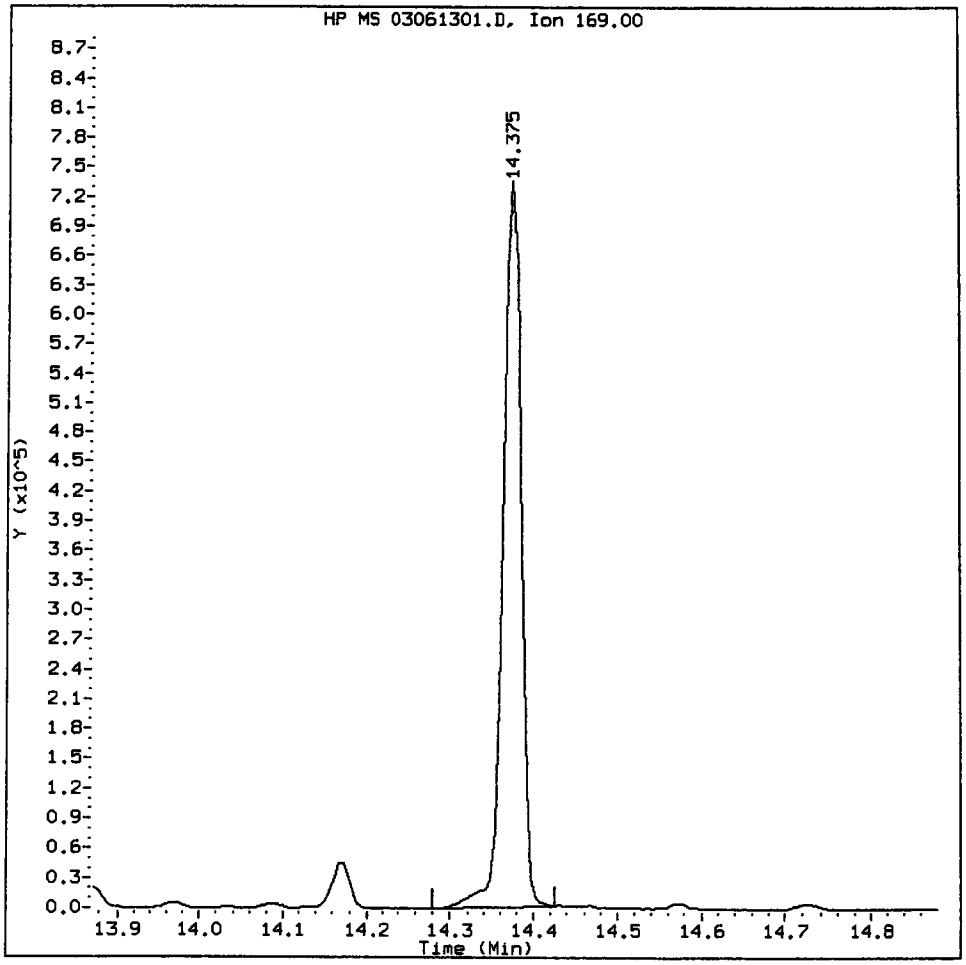




03/07/13

IC250306, /chem2/nt6.i/20130306.b/03061301.D

N-Nitrosodiphenylamine Amount: 23.31 Area: 1086875



MANUAL INTEGRATION for N-Nitrosodiphenylamine

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 03/07/13

CO-ELUTION SUMMARY FOR FILE - 03061301.D

Lab ID: IC250306, Method: SW846030613.m, Instrument: nt6.i, Date: 06-MAR-2013

RT	CO-ELUTION COMPOUNDS
19.953	3,3'-Dichlorobenzidine and Benzo(a)anthracene

Checked OK

03/07/13

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130306.b/03061306.D
Lab Smp Id: IC40306 Client Smp ID: IC400306
Inj Date : 06-MAR-2013 15:09
Operator : JZ Inst ID: nt6.i
Smp Info : IC40306,
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130306.b/SW846030613.m
Meth Date : 07-Mar-2013 11:55 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

03/07/13

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.434	6.432	(0.767)	1107900	40.0000	36.94
$	2 Phenol-d5	99	7.936	7.933	(0.946)	1227948	40.0000	34.98
	3 Phenol	94	7.957	7.954	(0.949)	1375693	40.0000	37.22
$	5 2-Chlorophenol-d4	132	8.085	8.082	(0.964)	1043987	40.0000	35.18
	4 Bis(2-Chloroethyl)ether	93	8.053	8.050	(0.960)	1185638	40.0000	36.93
	6 2-Chlorophenol	128	8.112	8.109	(0.968)	1120333	40.0000	37.88
	7 1,3-Dichlorobenzene	146	8.325	8.328	(0.993)	1273280	40.0000	36.86
*	8 1,4-Dichlorobenzene-d4	152	8.384	8.387	(1.000)	462843	20.0000	
	9 1,4-Dichlorobenzene	146	8.411	8.408	(1.003)	1227217	40.0000	36.50
$	10 1,2-Dichlorobenzene-d4	152	8.683	8.681	(1.036)	704353	40.0000	33.72
	12 1,2-Dichlorobenzene	146	8.705	8.707	(1.038)	1144025	40.0000	35.60
	11 Benzyl alcohol	108	8.662	8.654	(1.033)	741756	40.0000	36.83
	14 2,2'-oxybis(1-Chloropropane)	45	8.913	8.916	(1.063)	1890709	40.0000	37.07
	13 2-Methylphenol	108	8.886	8.878	(1.060)	1081384	40.0000	38.58
	17 Hexachloroethane	117	9.191	9.193	(1.096)	503186	40.0000	37.00
	16 N-Nitroso-di-n-propylamine	70	9.137	9.135	(1.090)	892126	40.0000	37.03
	15 4-Methylphenol	108	9.116	9.108	(1.087)	1069226	40.0000	38.58
$	18 Nitrobenzene-d5	82	9.314	9.311	(0.893)	1230848	40.0000	35.61
	19 Nitrobenzene	77	9.346	9.343	(0.896)	1189654	40.0000	35.96
	20 Isophorone	82	9.720	9.717	(0.932)	2121281	40.0000	36.79
	21 2-Nitrophenol	139	9.853	9.851	(0.945)	633587	40.0000	41.39
	22 2,4-Dimethylphenol	107	9.949	9.947	(0.954)	1112897	40.0000	38.44
	23 Bis(2-Chloroethoxy)methane	93	10.099	10.096	(0.969)	1370952	40.0000	36.24
	24 Benzoic acid	105	10.249	10.198	(0.983)	2127913	80.0000	84.97
	25 2,4-Dichlorophenol	162	10.233	10.230	(0.982)	856137	40.0000	38.41
	26 1,2,4-Trichlorobenzene	180	10.366	10.363	(0.994)	1010268	40.0000	36.41
*	27 Naphthalene-d8	136	10.425	10.422	(1.000)	1722510	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	28 Naphthalene	128	10.457	10.454	(1.003)	2641007	40.0000	40.18
	29 4-Chloroaniline	127	10.591	10.588	(1.016)	820986	40.0000	39.50 (M)
	30 Hexachlorobutadiene	225	10.767	10.764	(1.033)	622003	40.0000	36.84
	31 4-Chloro-3-methylphenol	107	11.387	11.384	(1.092)	955539	40.0000	40.36
	32 2-Methylnaphthalene	141	11.568	11.571	(1.110)	1465439	40.0000	34.98
	33 Hexachlorocyclopentadiene	237	11.947	11.950	(0.899)	665905	40.0000	41.58
	34 2,4,6-Trichlorophenol	196	12.081	12.078	(0.910)	682992	40.0000	40.76
	35 2,4,5-Trichlorophenol	196	12.134	12.137	(0.914)	693411	40.0000	41.95
$	36 2-Fluorobiphenyl	172	12.209	12.212	(0.919)	2125857	40.0000	33.78
	37 2-Chloronaphthalene	162	12.359	12.356	(0.930)	1623373	40.0000	39.49
	38 2-Nitroaniline	65	12.583	12.580	(0.947)	592401	40.0000	40.20
	39 Dimethylphthalate	163	12.952	12.949	(0.975)	2195089	40.0000	36.59
	40 Acenaphthylene	152	13.032	13.034	(0.981)	2734694	40.0000	34.78
	41 2,6-Dinitrotoluene	165	13.048	13.045	(0.982)	488547	40.0000	38.11
*	42 Acenaphthene-d10	164	13.283	13.286	(1.000)	996854	20.0000	
	43 3-Nitroaniline	138	13.262	13.264	(0.998)	342573	40.0000	41.36 (M)
	44 Acenaphthene	153	13.336	13.334	(1.004)	1794261	40.0000	35.24
	45 2,4-Dinitrophenol	184	13.433	13.424	(1.011)	774315	80.0000	84.57
	46 Dibenzofuran	168	13.598	13.595	(1.024)	2363050	40.0000	35.49
	47 4-Nitrophenol	109	13.545	13.547	(1.020)	262854	40.0000	40.36
	48 2,4-Dinitrotoluene	165	13.678	13.676	(1.030)	690237	40.0000	39.81
	50 Diethylphthalate	149	14.106	14.098	(1.062)	2067081	40.0000	37.19
	49 Fluorene	166	14.154	14.156	(1.066)	1769346	40.0000	39.26
	51 4-Chlorophenyl-phenylether	204	14.170	14.172	(1.067)	1029522	40.0000	35.23
	52 4-Nitroaniline	138	14.261	14.252	(1.074)	391191	40.0000	40.01
	53 4,6-Dinitro-2-methylphenol	198	14.341	14.333	(0.916)	964307	80.0000	81.99
	54 N-Nitrosodiphenylamine	169	14.378	14.375	(0.918)	1576736	40.0000	34.50 (M)
$	55 2,4,6-Tribromophenol	330	14.576	14.573	(1.097)	295587	40.0000	37.50
	56 4-Bromophenyl-phenylether	248	14.950	14.952	(0.955)	672353	40.0000	37.51
	57 Hexachlorobenzene	284	15.179	15.182	(0.969)	671036	40.0000	36.31
	58 Pentachlorophenol	266	15.473	15.470	(0.988)	443042	40.0000	40.64
*	59 Phenanthrene-d10	188	15.660	15.663	(1.000)	1633268	20.0000	
	60 Phenanthrene	178	15.703	15.700	(1.003)	2729819	40.0000	33.78
	61 Anthracene	178	15.772	15.770	(1.007)	2745113	40.0000	33.93
	62 Carbazole	167	16.045	16.047	(1.025)	2297956	40.0000	40.37
	63 Di-n-butylphthalate	149	16.745	16.747	(1.069)	3399020	40.0000	33.32
	64 Fluoranthene	202	17.631	17.639	(1.126)	3061055	40.0000	36.01
	65 Pyrene	202	17.995	17.992	(0.901)	3123892	40.0000	35.65
$	66 Terphenyl-d14	244	18.289	18.291	(0.915)	1945507	40.0000	34.55
	67 Butylbenzylphthalate	149	19.159	19.167	(0.959)	1609814	40.0000	37.57
	68 Benzo(a)anthracene	228	19.950	19.953	(0.999)	2678240	40.0000	36.61
*	69 Chrysene-d12	240	19.977	19.979	(1.000)	1604385	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.945	19.953	(0.998)	740264	40.0000	36.78
	71 Chrysene	228	20.014	20.017	(1.002)	2694539	40.0000	36.09
	72 bis(2-Ethylhexyl)phthalate	149	20.142	20.150	(0.956)	2120847	40.0000	37.84
*	134 Di-n-octylphthalate-d4	153	21.072	21.085	(1.000)	1904606	20.0000	
	73 Di-n-octylphthalate	149	21.088	21.096	(1.001)	3383339	40.0000	37.62

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.606	21.609	(0.976)	2694359	40.0000	38.62
75	Benzo(k)fluoranthene	252	21.638	21.641	(0.978)	3090941	40.0000	42.35
187	Total Benzofluoranthenes	252	21.638	21.641	(0.978)	5374417	80.0000	72.61
76	Benzo(a)pyrene	252	22.049	22.057	(0.996)	2636463	40.0000	38.39
* 77	Perylene-d12	264	22.130	22.137	(1.000)	1606852	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.759	23.767	(1.074)	3212593	40.0000	38.87
79	Dibenzo(a,h)anthracene	278	23.786	23.788	(1.075)	2558263	40.0000	39.31
80	Benzo(g,h,i)perylene	276	24.224	24.226	(1.095)	2850182	40.0000	40.32
90	N-Nitrosodimethylamine	74	3.902	3.889	(0.465)	837250	40.0000	38.41
103	Pyridine	79	3.854	3.851	(0.460)	1286192	40.0000	37.21
91	Aniline	93	7.941	7.938	(0.947)	1374340	40.0000	33.56
105	1-methylnaphthalene	141	11.744	11.747	(1.127)	1506021	40.0000	35.39
93	Benzidine	184	17.872	17.874	(0.895)	284218	40.0000	36.33
111	Azobenzene (1,2-DP-Hydrazine)	77	14.426	14.423	(1.086)	2252849	40.0000	35.67
143	1,4-Dioxane	88	3.106	3.103	(0.370)	556372	40.0000	37.05
$ 137	d8-1,4-Dioxane	96	3.047	3.039	(0.363)	543400	40.0000	38.66
144	alpha-Terpineol	59	10.473	10.470	(1.005)	797649	40.0000	36.41
177	p-Benzoquinone	82	7.086	7.083	(0.680)	276763	40.0000	42.07
98	Retene	219	18.540	18.548	(0.928)	1393516	40.0000	36.85
99	Perylene	252	22.167	22.175	(1.002)	2188116	40.0000	36.37
133	Butylatedhydroxytoluene	205	13.443	13.440	(1.012)	1474910	40.0000	39.45
115	Tributyl Phosphate	99	14.469	14.461	(0.924)	2401166	40.0000	40.45
116	Dibutyl Phenyl Phosphate	175	16.194	16.192	(1.034)	1669656	40.0000	38.66
117	Butyl Diphenyl Phosphate	94	17.877	17.880	(0.895)	545870	40.0000	36.95
118	Triphenyl Phosphate	326	19.480	19.482	(0.975)	546364	40.0000	38.89
123	Acetophenone	105	9.079	9.076	(1.083)	1603289	40.0000	36.80
168	Pentachlorobenzene	250	13.641	13.638	(1.027)	788366	40.0000	36.11
113	Diphenyl Oxide	170	12.535	12.538	(0.944)	1385867	40.0000	35.71
112	Biphenyl	154	12.343	12.345	(0.929)	1797394	40.0000	39.55
120	2,3,4,6-Tetrachlorophenol	232	13.871	13.873	(1.044)	600924	40.0000	42.23
151	1,2,4,5-Tetrachlorobenzene	216	11.910	11.907	(0.897)	895114	40.0000	36.76
110	Tetrachloroguaiacol	247	15.601	15.599	(0.996)	658192	80.0000	76.80
109	3,4,5-Trichloroguaiacol	213	13.967	13.969	(0.892)	357175	40.0000	38.28
181	3,4,6-Trichloroguaiacol	211	14.090	14.087	(1.680)	388170	40.0000	36.75
108	4,5,6-Trichloroguaiacol	213	14.998	15.000	(1.129)	368030	40.0000	39.47
184	3,4-Dichloroguaiacol	192	12.423	12.425	(1.482)	376077	40.0000	37.51
107	4,5-Dichloroguaiacol	192	13.208	13.205	(0.994)	919744	80.0000	75.51
182	4,6-Dichloroguaiacol	192	13.208	13.205	(1.575)	936857	80.0000	76.60
185	4-Chloroguaiacol	115	11.338	11.336	(1.352)	258479	20.0000	19.88
186	Carbaryl	144	16.462	16.459	(1.051)	1517584	40.0000	40.21
178	2-Benzyl-4-Chlorophenol	218	16.413	16.411	(1.048)	512701	40.0000	37.90
106	Guaiacol	124	9.335	9.332	(1.113)	843648	40.0000	35.04
188	2,6-Dichlorophenol	162	10.601	10.598	(1.264)	758794	40.0000	37.03
189	N-Nitrosomethylethylamine	88	5.622	5.620	(0.671)	579162	40.0000	37.87

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 03061306.D
Lab Smp Id: IC40306
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

Calibration Date: 06-MAR-2013
Calibration Time: 12:16
Client Smp ID: IC400306
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	462843	1.03
27 Naphthalene-d8	1718341	859170	3436682	1722510	0.24
42 Acenaphthene-d10	1010041	505020	2020082	996854	-1.31
59 Phenanthrene-d10	1666734	833367	3333468	1633268	-2.01
69 Chrysene-d12	1675752	837876	3351504	1604385	-4.26
134 Di-n-octylphthala	2026355	1013178	4052710	1904606	-6.01
77 Perylene-d12	1637524	818762	3275048	1606852	-1.87

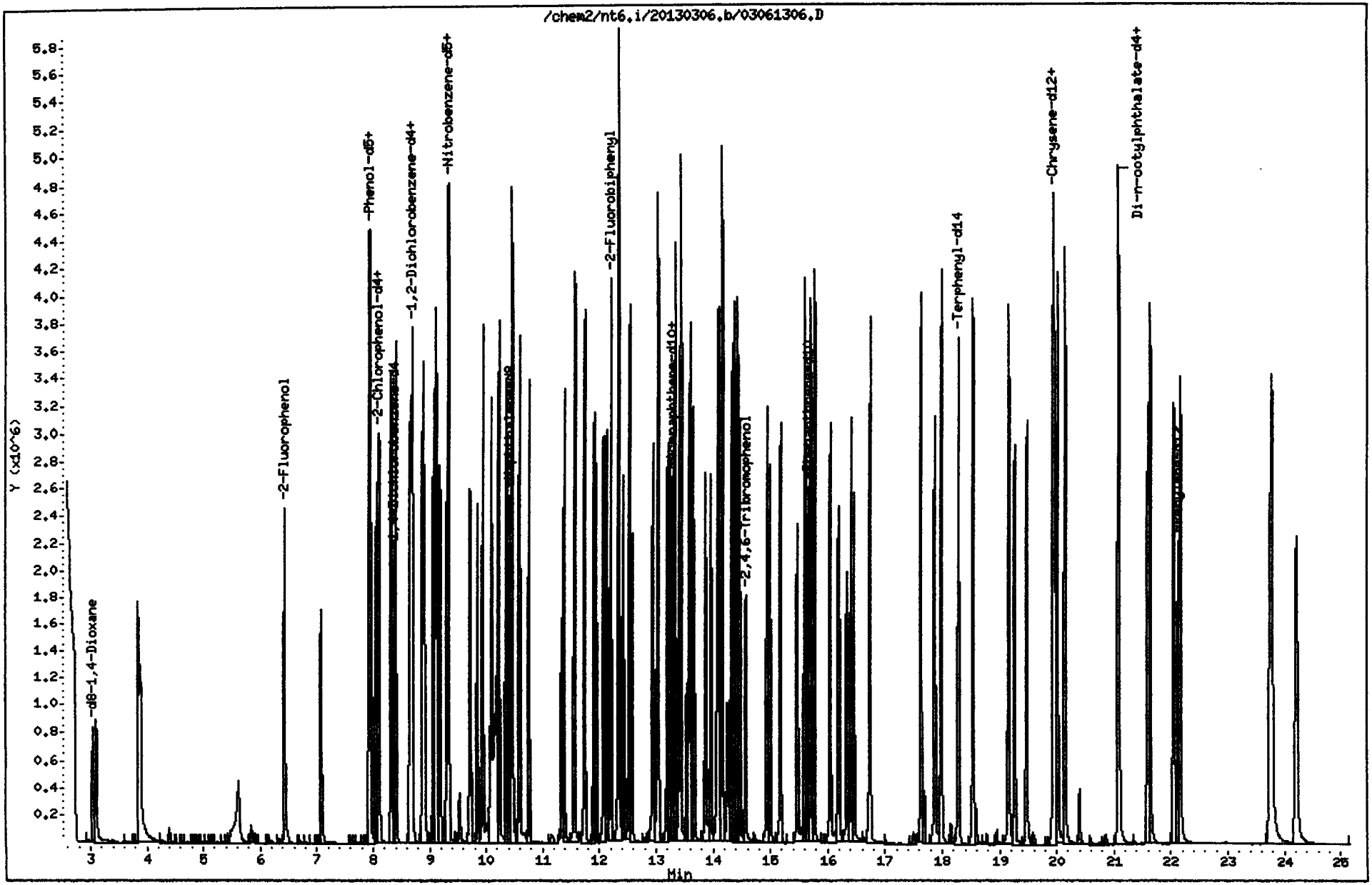
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.39	7.89	8.89	8.38	-0.03
27 Naphthalene-d8	10.42	9.92	10.92	10.42	0.03
42 Acenaphthene-d10	13.29	12.79	13.79	13.28	-0.02
59 Phenanthrene-d10	15.66	15.16	16.16	15.66	-0.02
69 Chrysene-d12	19.98	19.48	20.48	19.98	-0.01
134 Di-n-octylphthala	21.09	20.59	21.59	21.07	-0.06
77 Perylene-d12	22.14	21.64	22.64	22.13	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20130306.b/03061306.D
Date : 06-MAR-2013 15:09
Client ID: IC400306
Sample Info: IC40306,

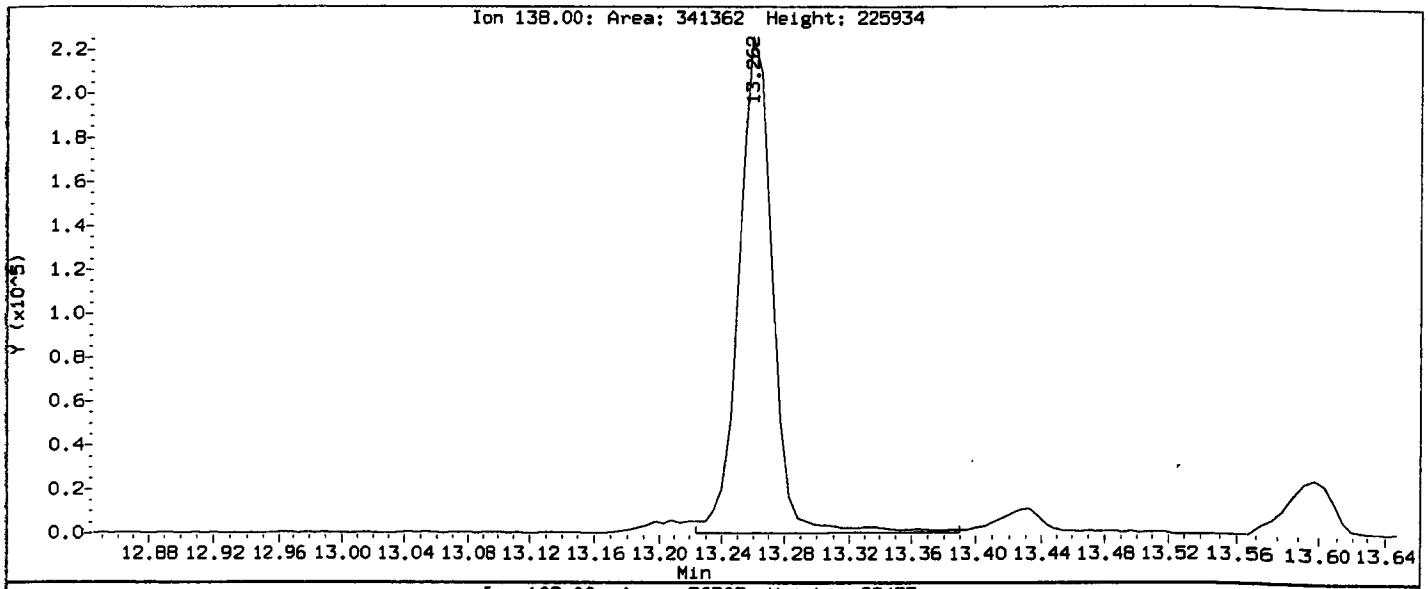
Instrument: nt6.i
Operator: JZ
Column diameter: 0.32

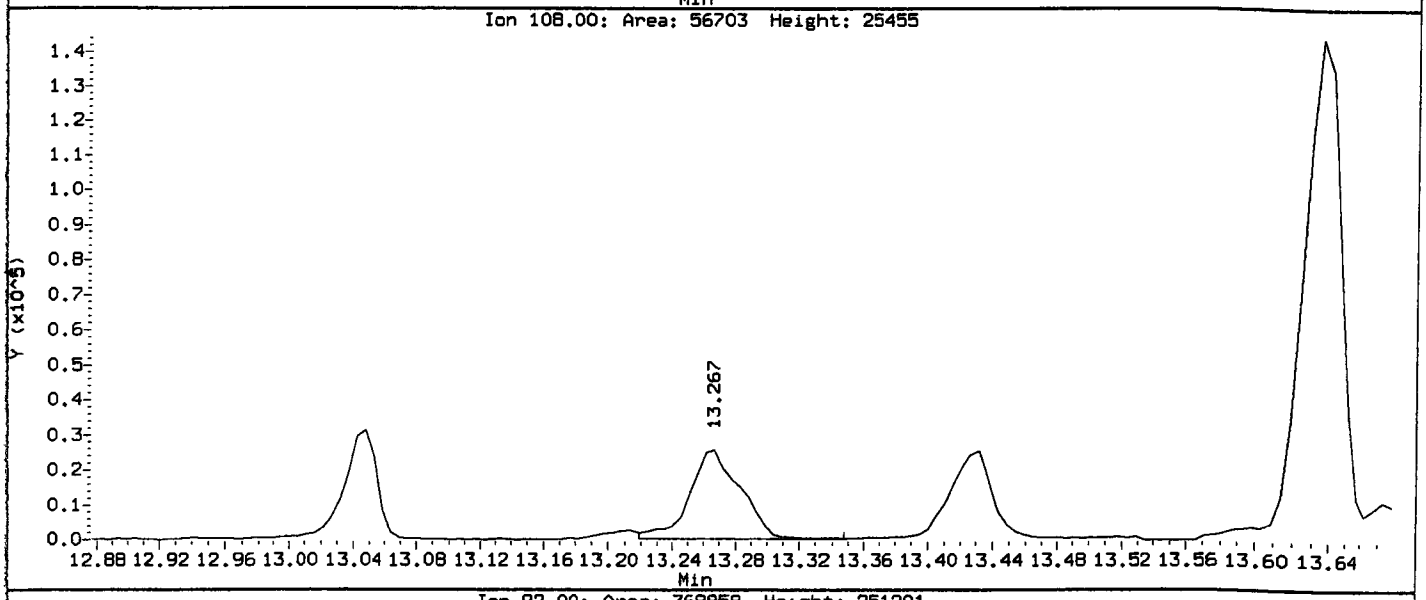
Column phase: ZB-5msi

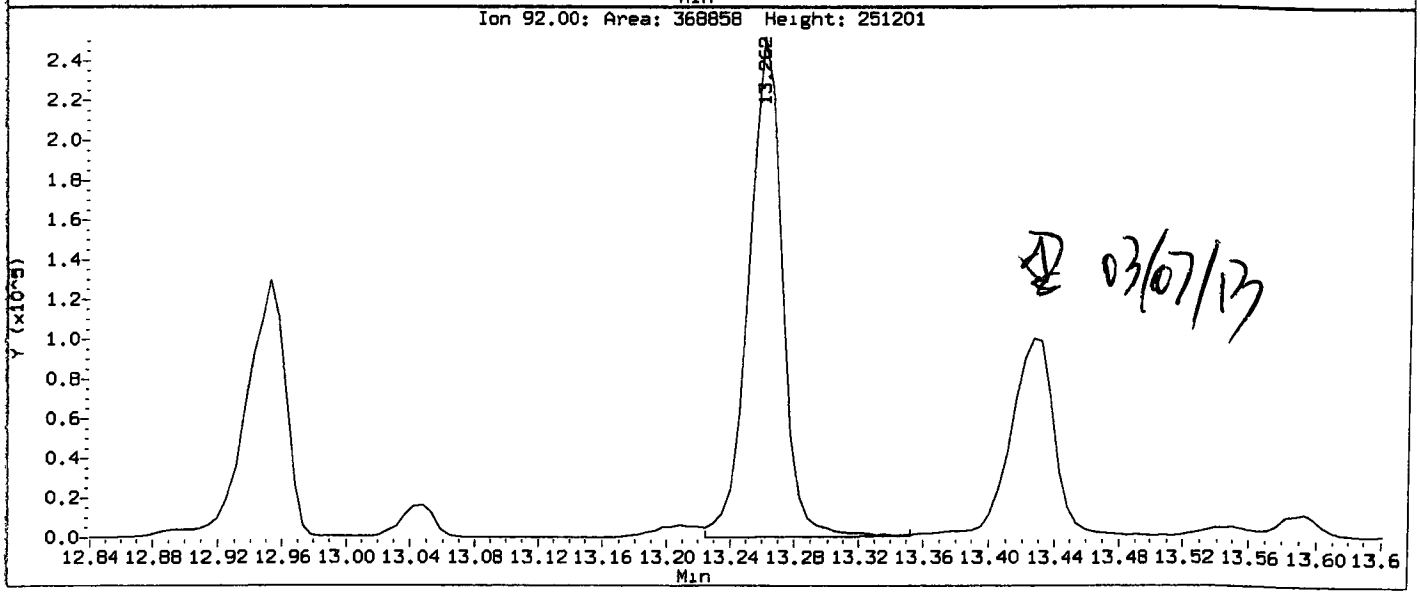


Data File: /chem2/nt6.i/20130306.b/03061306.D
Injection Date: 06-MAR-2013 15:09
Instrument: nt6.i
Client Sample ID: IC400306

Compound: 3-Nitroaniline
CAS Number: 99-09-2



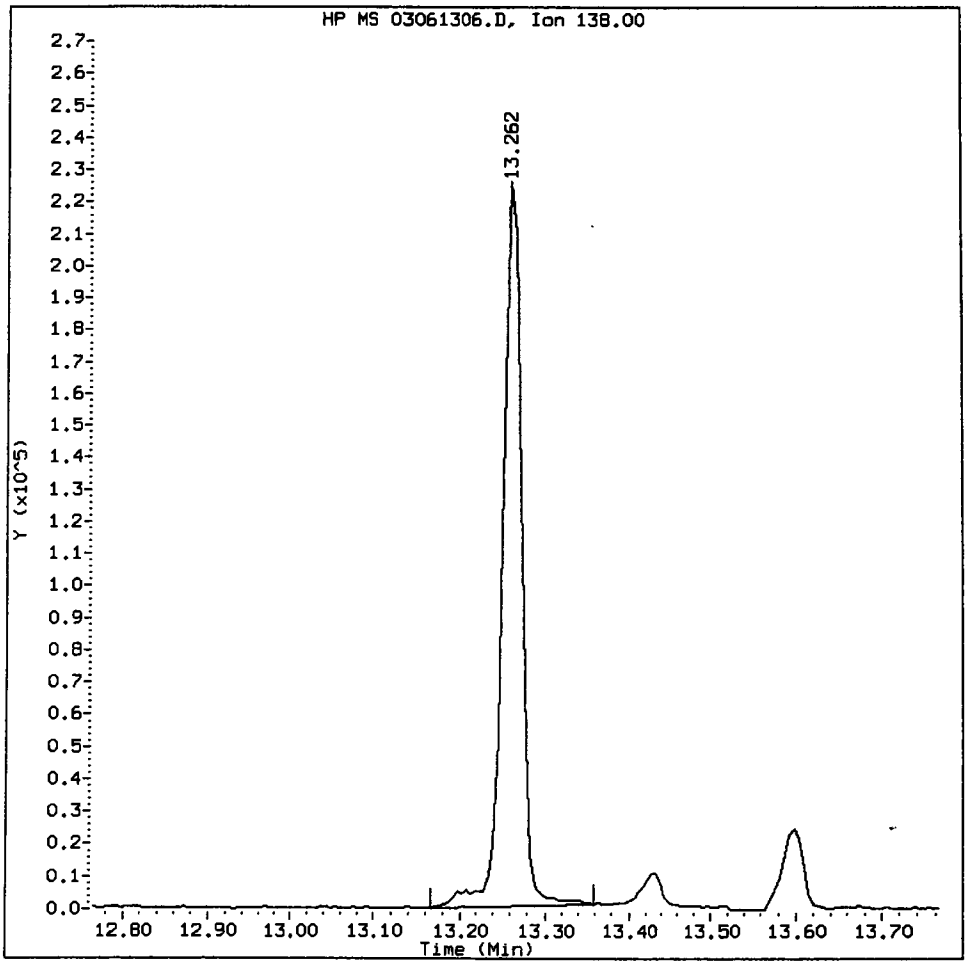




03/07/13

IC40306, /chem2/nt6.i/20130306.b/03061306.D

3-Nitroaniline Amount: 41.36 Area: 342573



MANUAL INTEGRATION for 3-Nitroaniline

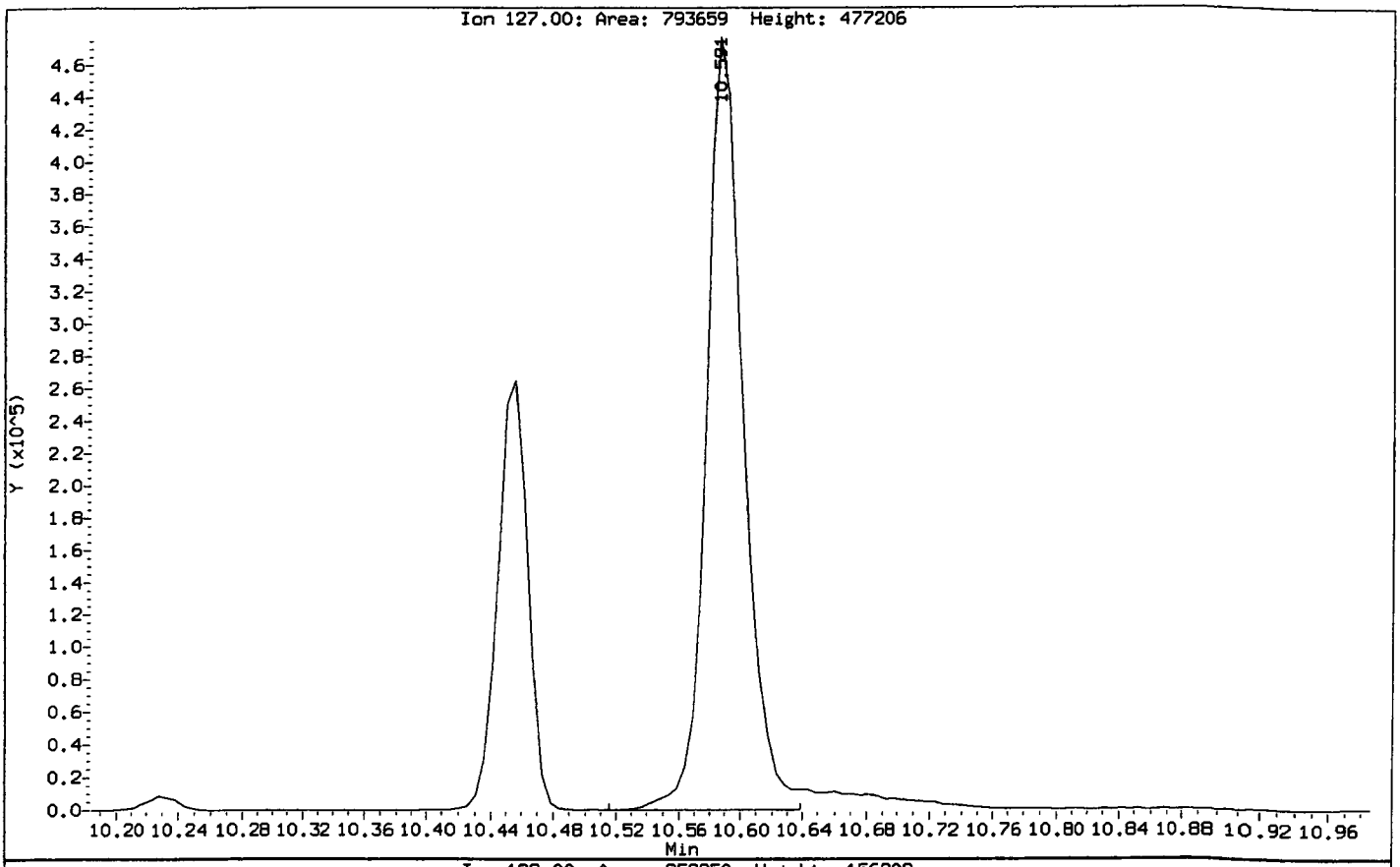
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

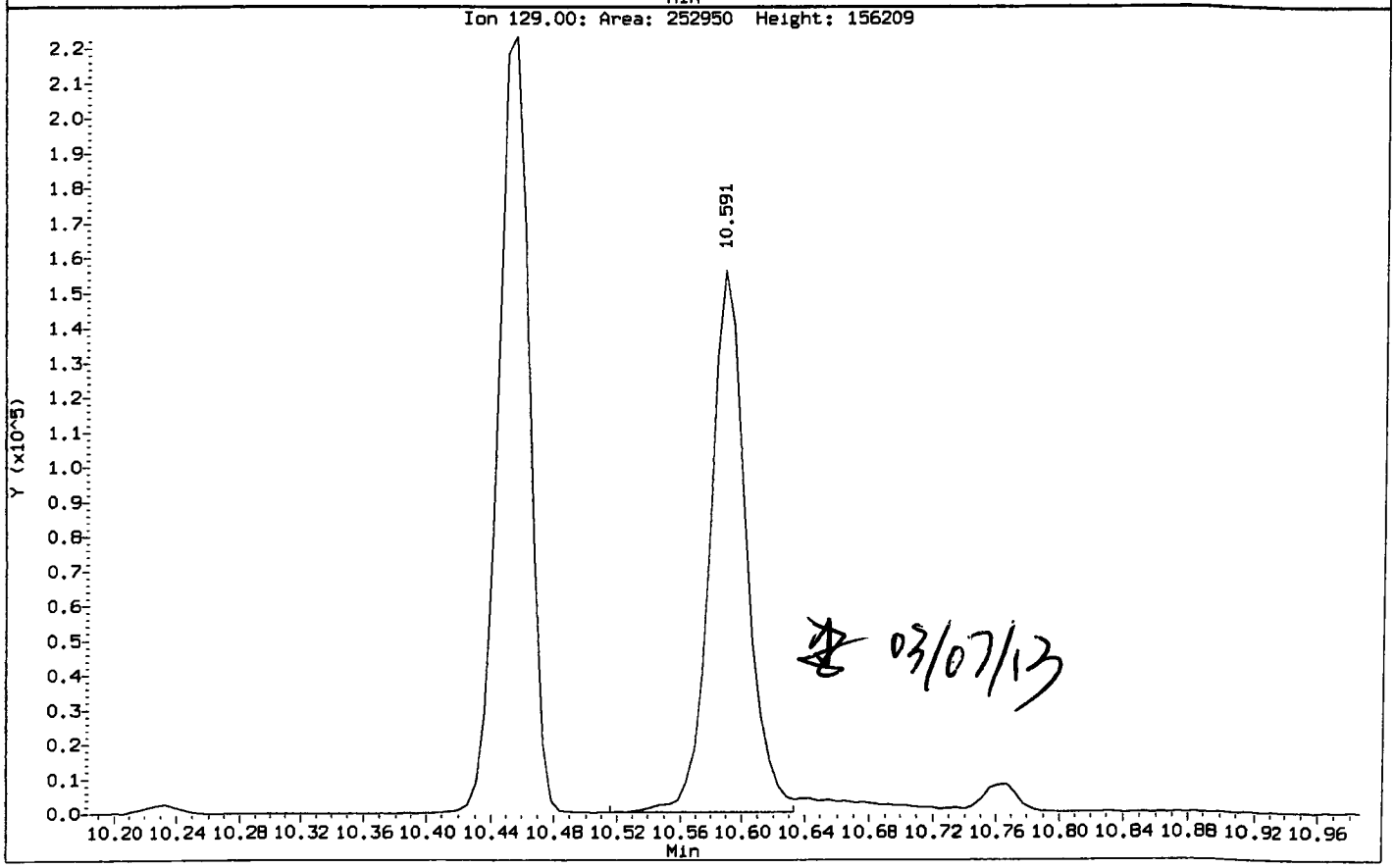
5. Other _____

Analyst: _____ Date: 03/07/13

Data File: /chem2/nt6.i/20130306.b/03061306.D
Injection Date: 06-MAR-2013 15:09
Instrument: nt6.i
Client Sample ID: IC400306

Compound: 4-Chloroaniline
CAS Number: 106-47-8

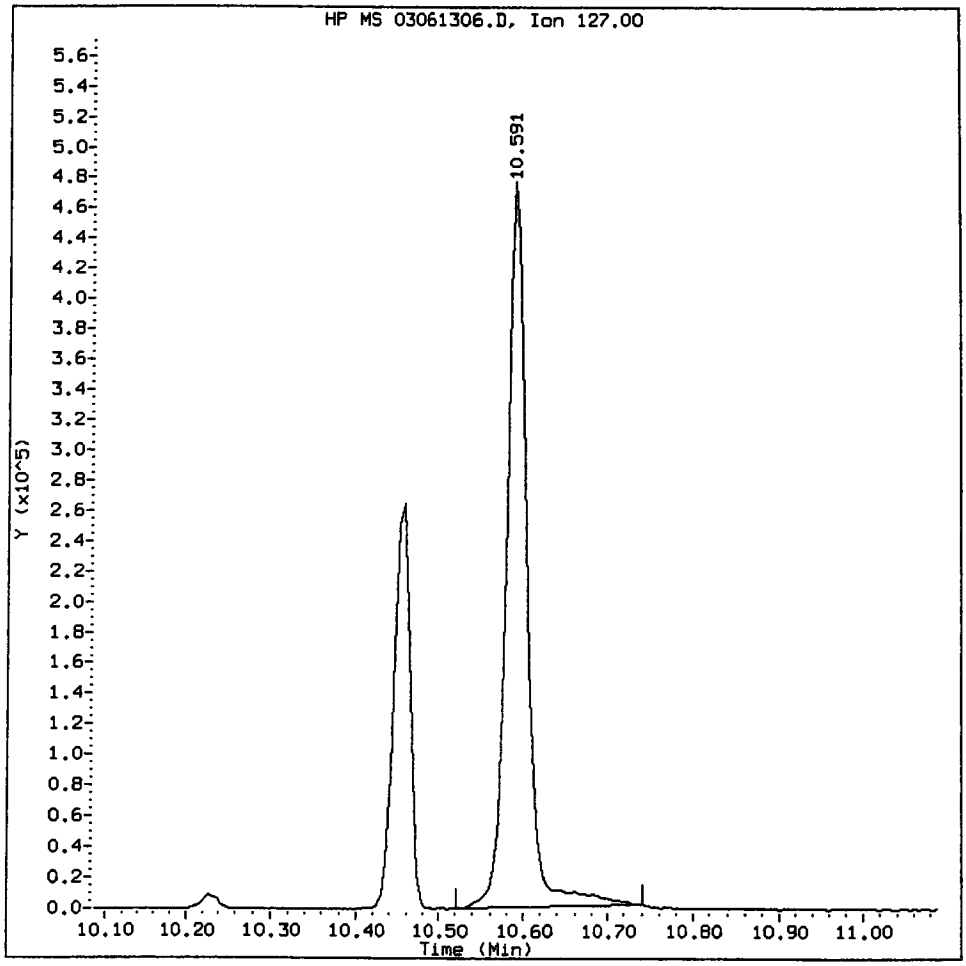




03/07/13

IC40306, /chem2/nt6.i/20130306.b/03061306.D

4-Chloroaniline Amount: 39.50 Area: 820986



MANUAL INTEGRATION for 4-Chloroaniline

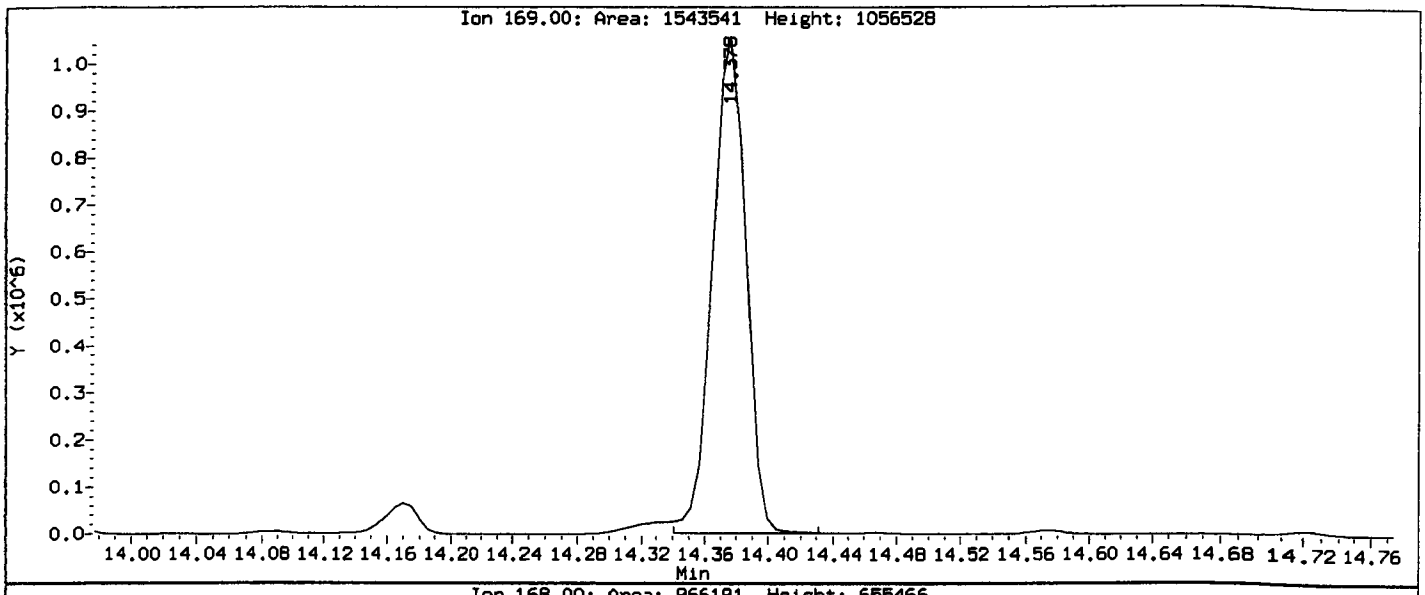
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

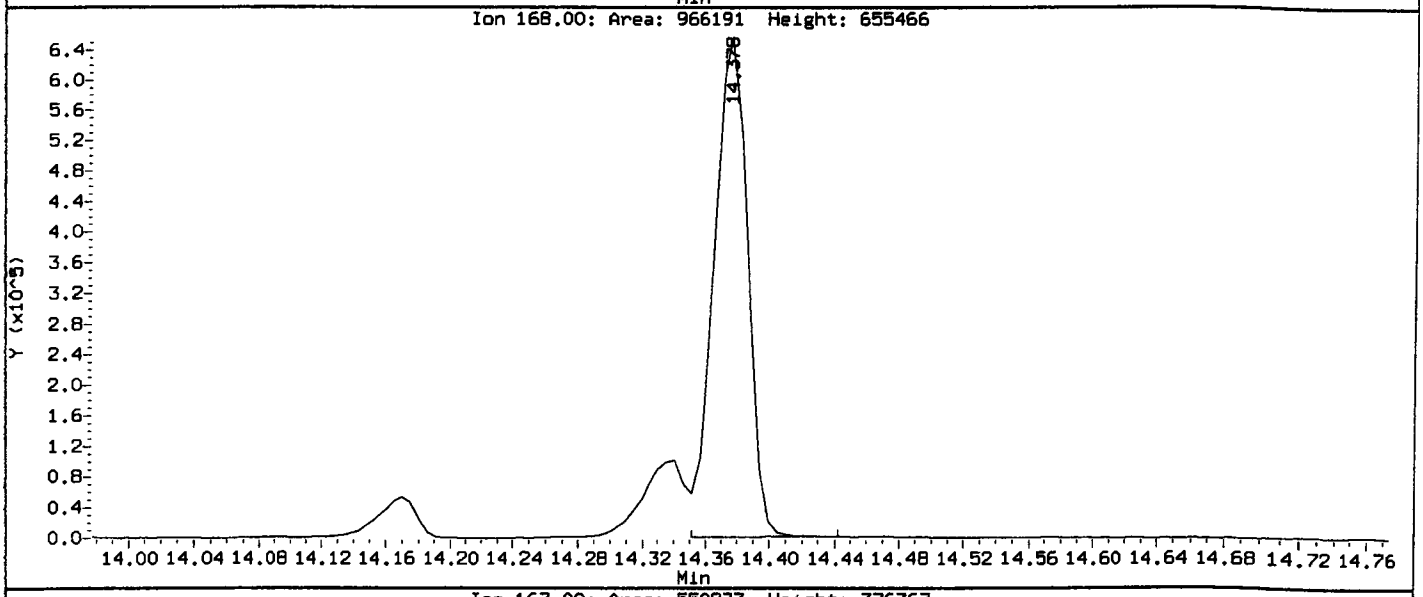
5. Other _____

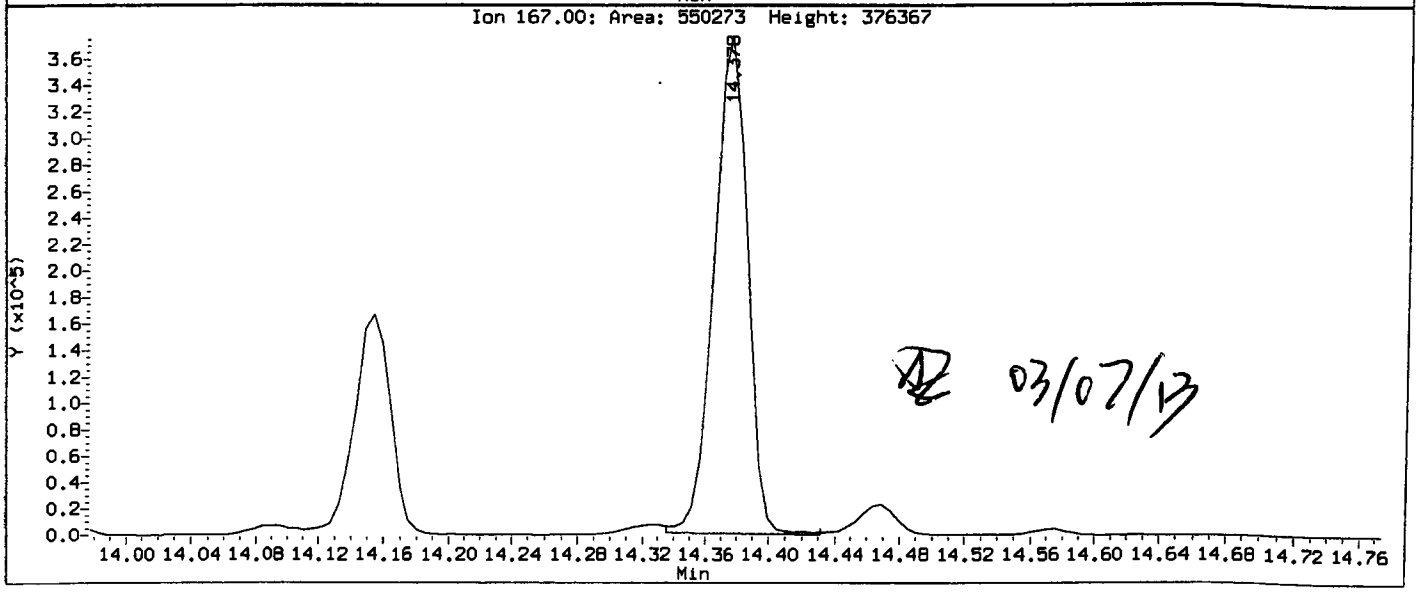
Analyst: _____ Date: 03/07/13

Data File: /chem2/nt6.i/20130306.b/03061306.D
Injection Date: 06-MAR-2013 15:09
Instrument: nt6.i
Client Sample ID: IC400306

Compound: N-Nitrosodiphenylamine
CAS Number: 86-30-6





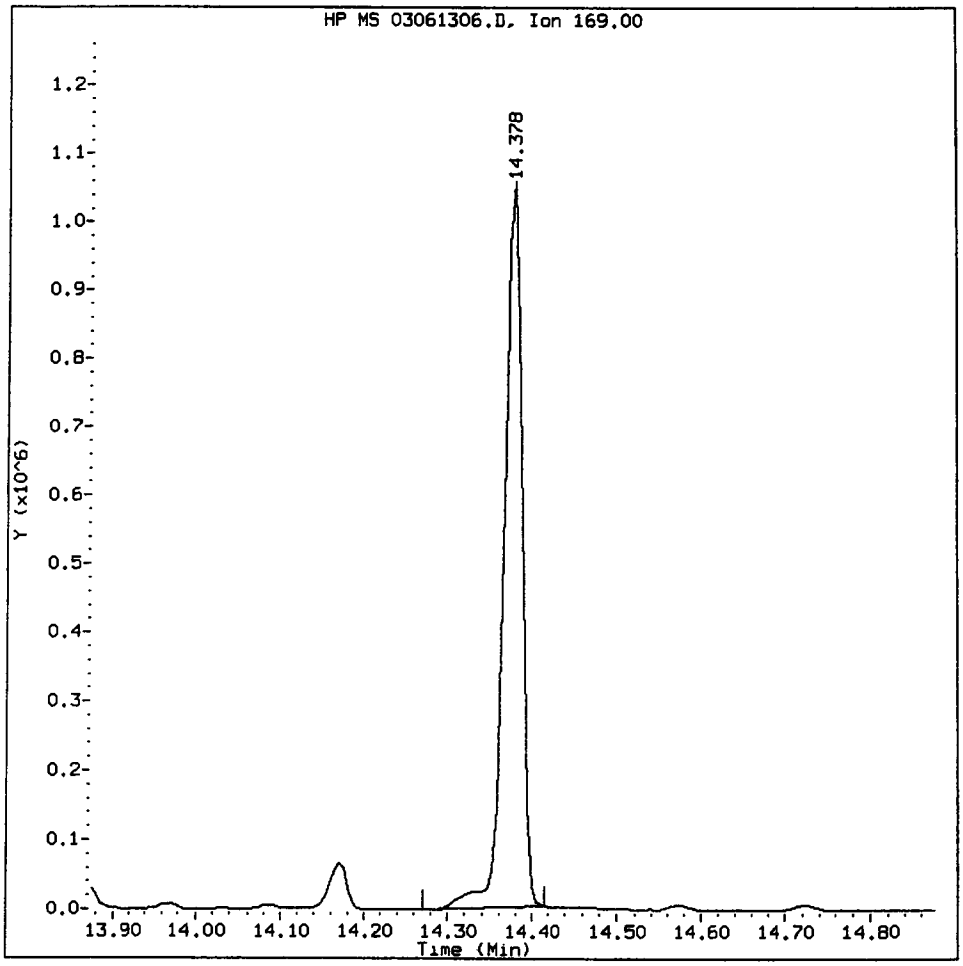


03/07/13

WJ10 : 00901

IC40306, /chem2/nt6.i/20130306.b/03061306.D

N-Nitrosodiphenylamine Amount: 34.50 Area: 1576736



MANUAL INTEGRATION for N-Nitrosodiphenylamine

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 3/07/13

CO-ELUTION SUMMARY FOR FILE - 03061306.D

Lab ID: IC40306, Method: SW846030613.m, Instrument: nt6.i, Date: 06-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130306.b/03061307.D
Lab Smp Id: IC60306 Client Smp ID: IC600306
Inj Date : 06-MAR-2013 15:43
Operator : JZ Inst ID: nt6.i
Smp Info : IC60306,
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130306.b/SW846030613.m
Meth Date : 07-Mar-2013 11:55 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

JZ 03/07/13

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	6.442	6.432	(0.768)	1543969	60.0000	52.58
$ 2	Phenol-d5	99	7.949	7.933	(0.948)	1704303	60.0000	49.59
3	Phenol	94	7.970	7.954	(0.950)	1858925	60.0000	51.37
$ 5	2-Chlorophenol-d4	132	8.093	8.082	(0.965)	1446368	60.0000	49.78
4	Bis(2-Chloroethyl)ether	93	8.061	8.050	(0.961)	1613442	60.0000	51.34
6	2-Chlorophenol	128	8.114	8.109	(0.968)	1499188	60.0000	51.78
7	1,3-Dichlorobenzene	146	8.328	8.328	(0.993)	1682990	60.0000	49.77
* 8	1,4-Dichlorobenzene-d4	152	8.387	8.387	(1.000)	453135	20.0000	
9	1,4-Dichlorobenzene	146	8.414	8.408	(1.003)	1620328	60.0000	49.23
$ 10	1,2-Dichlorobenzene-d4	152	8.686	8.681	(1.036)	922731	60.0000	45.12
12	1,2-Dichlorobenzene	146	8.707	8.707	(1.038)	1487370	60.0000	47.27
11	Benzyl alcohol	108	8.665	8.654	(1.033)	1046357	60.0000	53.07
14	2,2'-oxybis(1-Chloropropane)	45	8.916	8.916	(1.063)	2570296	60.0000	51.47
13	2-Methylphenol	108	8.889	8.878	(1.060)	1478529	60.0000	53.88
17	Hexachloroethane	117	9.194	9.193	(1.096)	680617	60.0000	51.12
16	N-Nitroso-di-n-propylamine	70	9.151	9.135	(1.091)	1243123	60.0000	52.71
15	4-Methylphenol	108	9.124	9.108	(1.088)	1428361	60.0000	52.64
$ 18	Nitrobenzene-d5	82	9.316	9.311	(0.893)	1726673	60.0000	50.80
19	Nitrobenzene	77	9.354	9.343	(0.897)	1566587	60.0000	48.15
20	Isophorone	82	9.733	9.717	(0.933)	3022002	60.0000	53.29
21	2-Nitrophenol	139	9.856	9.851	(0.945)	860516	60.0000	57.17
22	2,4-Dimethylphenol	107	9.952	9.947	(0.954)	1526425	60.0000	53.62
23	Bis(2-Chloroethoxy)methane	93	10.107	10.096	(0.969)	1900431	60.0000	51.08
24	Benzoic acid	105	10.294	10.198	(0.987)	2999389	120.000	121.8(M)
25	2,4-Dichlorophenol	162	10.235	10.230	(0.982)	1188590	60.0000	54.22
26	1,2,4-Trichlorobenzene	180	10.369	10.363	(0.994)	1367908	60.0000	50.13
* 27	Naphthalene-d8	136	10.428	10.422	(1.000)	1693833	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.460	10.454	(1.003)	3435418	60.0000	59.95
	29 4-Chloroaniline	127	10.599	10.588	(1.016)	1089759	60.0000	60.52
	30 Hexachlorobutadiene	225	10.764	10.764	(1.032)	854336	60.0000	51.45
	31 4-Chloro-3-methylphenol	107	11.389	11.384	(1.092)	1259730	60.0000	54.10
	32 2-Methylnaphthalene	141	11.576	11.571	(1.110)	1966974	60.0000	47.75
	33 Hexachlorocyclopentadiene	237	11.950	11.950	(0.899)	962426	60.0000	62.20
	34 2,4,6-Trichlorophenol	196	12.084	12.078	(0.910)	981135	60.0000	60.61
	35 2,4,5-Trichlorophenol	196	12.137	12.137	(0.914)	942506	60.0000	59.02
$	36 2-Fluorobiphenyl	172	12.212	12.212	(0.919)	2869518	60.0000	47.21
	37 2-Chloronaphthalene	162	12.361	12.356	(0.930)	2162175	60.0000	56.65
	38 2-Nitroaniline	65	12.586	12.580	(0.947)	842270	60.0000	59.16
	39 Dimethylphthalate	163	12.960	12.949	(0.975)	2901139	60.0000	50.05
	40 Acenaphthylene	152	13.035	13.034	(0.981)	3594874	60.0000	47.32
	41 2,6-Dinitrotoluene	165	13.056	13.045	(0.983)	652291	60.0000	52.67
*	42 Acenaphthene-d10	164	13.286	13.286	(1.000)	963022	20.0000	
	43 3-Nitroaniline	138	13.270	13.264	(0.999)	415090	60.0000	56.15 (M)
	44 Acenaphthene	153	13.339	13.334	(1.004)	2398903	60.0000	48.78
	45 2,4-Dinitrophenol	184	13.441	13.424	(1.012)	1109465	120.000	125.4
	46 Dibenzofuran	168	13.606	13.595	(1.024)	2968241	60.0000	46.15
	47 4-Nitrophenol	109	13.558	13.547	(1.020)	370235	60.0000	58.85
	48 2,4-Dinitrotoluene	165	13.686	13.676	(1.030)	940513	60.0000	56.15
	50 Diethylphthalate	149	14.108	14.098	(1.062)	2728210	60.0000	50.80
	49 Fluorene	166	14.156	14.156	(1.066)	2330094	60.0000	56.33
	51 4-Chlorophenyl-phenylether	204	14.172	14.172	(1.067)	1325257	60.0000	46.94
	52 4-Nitroaniline	138	14.274	14.252	(1.074)	570540	60.0000	60.40
	53 4,6-Dinitro-2-methylphenol	198	14.349	14.333	(0.916)	1360341	120.000	118.2
	54 N-Nitrosodiphenylamine	169	14.386	14.375	(0.918)	2133517	60.0000	47.70 (M)
$	55 2,4,6-Tribromophenol	330	14.578	14.573	(1.097)	422991	60.0000	55.55
	56 4-Bromophenyl-phenylether	248	14.952	14.952	(0.955)	884941	60.0000	50.44
	57 Hexachlorobenzene	284	15.182	15.182	(0.969)	909402	60.0000	50.28
	58 Pentachlorophenol	266	15.476	15.470	(0.988)	607951	60.0000	56.98
*	59 Phenanthrene-d10	188	15.663	15.663	(1.000)	1598516	20.0000	
	60 Phenanthrene	178	15.706	15.700	(1.003)	3708136	60.0000	46.89 (M)
	61 Anthracene	178	15.780	15.770	(1.008)	3579517	60.0000	45.20
	62 Carbazole	167	16.053	16.047	(1.025)	3310342	60.0000	58.81
	63 Di-n-butylphthalate	149	16.747	16.747	(1.069)	4408198	60.0000	44.16
	64 Fluoranthene	202	17.639	17.639	(1.126)	4077087	60.0000	49.01
	65 Pyrene	202	17.997	17.992	(0.901)	4174219	60.0000	48.94
$	66 Terphenyl-d14	244	18.291	18.291	(0.916)	2694546	60.0000	49.15
	67 Butylbenzylphthalate	149	19.162	19.167	(0.959)	2107544	60.0000	50.53
	68 Benzo(a)anthracene	228	19.953	19.953	(0.999)	3640168	60.0000	51.12
*	69 Chrysene-d12	240	19.979	19.979	(1.000)	1561828	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.947	19.953	(0.998)	1019524	60.0000	52.04
	71 Chrysene	228	20.022	20.017	(1.002)	3567166	60.0000	49.07
	72 bis(2-Ethylhexyl)phthalate	149	20.145	20.150	(0.956)	2762285	60.0000	52.81
*	134 Di-n-octylphthalate-d4	153	21.074	21.085	(1.000)	1777444	20.0000	
	73 Di-n-octylphthalate	149	21.090	21.096	(1.001)	4376021	60.0000	52.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.609	21.609	(0.976)	3947727	60.0000	59.03
75	Benzo(k)fluoranthene	252	21.646	21.641	(0.978)	3893557	60.0000	55.88 (H)
187	Total Benzofluoranthenes	252	21.646	21.641	(0.978)	7344864	120.000	98.66
76	Benzo(a)pyrene	252	22.057	22.057	(0.997)	3613860	60.0000	52.32
* 77	Perylene-d12	264	22.132	22.137	(1.000)	1616143	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.767	23.767	(1.074)	4556930	60.0000	54.82
79	Dibenzo(a,h)anthracene	278	23.799	23.788	(1.075)	3652156	60.0000	55.79
80	Benzo(g,h,i)perylene	276	24.237	24.226	(1.095)	3993414	60.0000	56.17
90	N-Nitrosodimethylamine	74	3.921	3.889	(0.467)	1197674	60.0000	56.13
103	Pyridine	79	3.867	3.851	(0.461)	1815991	60.0000	53.66
91	Aniline	93	7.943	7.938	(0.947)	1893346	60.0000	47.22
105	1-methylnaphthalene	141	11.747	11.747	(1.127)	2033113	60.0000	48.59
93	Benzidine	184	17.869	17.874	(0.894)	480405	60.0000	63.08
111	Azobenzene (1,2-DP-Hydrazine)	77	14.429	14.423	(1.086)	2968844	60.0000	48.66
143	1,4-Dioxane	88	3.125	3.103	(0.373)	794994	60.0000	54.08
$ 137	d8-1,4-Dioxane	96	3.061	3.039	(0.365)	745761	60.0000	54.20
144	alpha-Terpineol	59	10.481	10.470	(1.005)	1099224	60.0000	51.03
177	p-Benzoquinone	82	7.089	7.083	(0.680)	403946	60.0000	62.45
98	Retene	219	18.548	18.548	(0.928)	1950387	60.0000	52.99
99	Perylene	252	22.175	22.175	(1.002)	3062481	60.0000	50.61
133	Butylatedhydroxytoluene	205	13.446	13.440	(1.012)	1855173	60.0000	57.10
115	Tributyl Phosphate	99	14.477	14.461	(0.924)	3026027	60.0000	54.70
116	Dibutyl Phenyl Phosphate	175	16.192	16.192	(1.034)	2350712	60.0000	55.61
117	Butyl Diphenyl Phosphate	94	17.880	17.880	(0.895)	729085	60.0000	50.70
118	Triphenyl Phosphate	326	19.482	19.482	(0.975)	779896	60.0000	57.02
123	Acetophenone	105	9.087	9.076	(1.083)	2228195	60.0000	52.24
168	Pentachlorobenzene	250	13.644	13.638	(1.027)	1071312	60.0000	50.79
113	Diphenyl Oxide	170	12.538	12.538	(0.944)	1879194	60.0000	50.12
112	Biphenyl	154	12.351	12.345	(0.930)	2290712	60.0000	55.09
120	2,3,4,6-Tetrachlorophenol	232	13.879	13.873	(1.045)	798003	60.0000	58.05
151	1,2,4,5-Tetrachlorobenzene	216	11.913	11.907	(0.897)	1239101	60.0000	52.68
110	Tetrachloroguaiacol	247	15.609	15.599	(0.997)	894026	120.000	106.6
109	3,4,5-Trichloroguaiacol	213	13.975	13.969	(0.892)	475254	60.0000	52.05
181	3,4,6-Trichloroguaiacol	211	14.092	14.087	(1.680)	564659	60.0000	54.61
108	4,5,6-Trichloroguaiacol	213	15.000	15.000	(1.129)	496468	60.0000	55.12
184	3,4-Dichloroguaiacol	192	12.431	12.425	(1.482)	523084	60.0000	53.28
107	4,5-Dichloroguaiacol	192	13.216	13.205	(0.995)	1265428	120.000	107.5
182	4,6-Dichloroguaiacol	192	13.216	13.205	(1.576)	1304327	120.000	108.9
185	4-Chloroguaiacol	115	11.341	11.336	(1.352)	337977	30.0000	26.55
186	Carbaryl	144	16.470	16.459	(1.052)	2040898	60.0000	55.25
178	2-Benzyl-4-Chlorophenol	218	16.421	16.411	(1.048)	711018	60.0000	53.70
106	Guaiacol	124	9.343	9.332	(1.114)	1104296	60.0000	46.85
188	2,6-Dichlorophenol	162	10.604	10.598	(1.264)	1043274	60.0000	52.00
189	N-Nitrosomethylethylamine	88	5.625	5.620	(0.671)	859420	60.0000	57.40

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 03061307.D
Lab Smp Id: IC60306
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

Calibration Date: 06-MAR-2013
Calibration Time: 12:16
Client Smp ID: IC600306
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	453135	-1.09
27 Naphthalene-d8	1718341	859170	3436682	1693833	-1.43
42 Acenaphthene-d10	1010041	505020	2020082	963022	-4.66
59 Phenanthrene-d10	1666734	833367	3333468	1598516	-4.09
69 Chrysene-d12	1675752	837876	3351504	1561828	-6.80
134 Di-n-octylphthala	2026355	1013178	4052710	1777444	-12.28
77 Perylene-d12	1637524	818762	3275048	1616143	-1.31

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.39	7.89	8.89	8.39	0.00
27 Naphthalene-d8	10.42	9.92	10.92	10.43	0.05
42 Acenaphthene-d10	13.29	12.79	13.79	13.29	0.00
59 Phenanthrene-d10	15.66	15.16	16.16	15.66	0.00
69 Chrysene-d12	19.98	19.48	20.48	19.98	0.00
134 Di-n-octylphthala	21.09	20.59	21.59	21.07	-0.05
77 Perylene-d12	22.14	21.64	22.64	22.13	-0.02

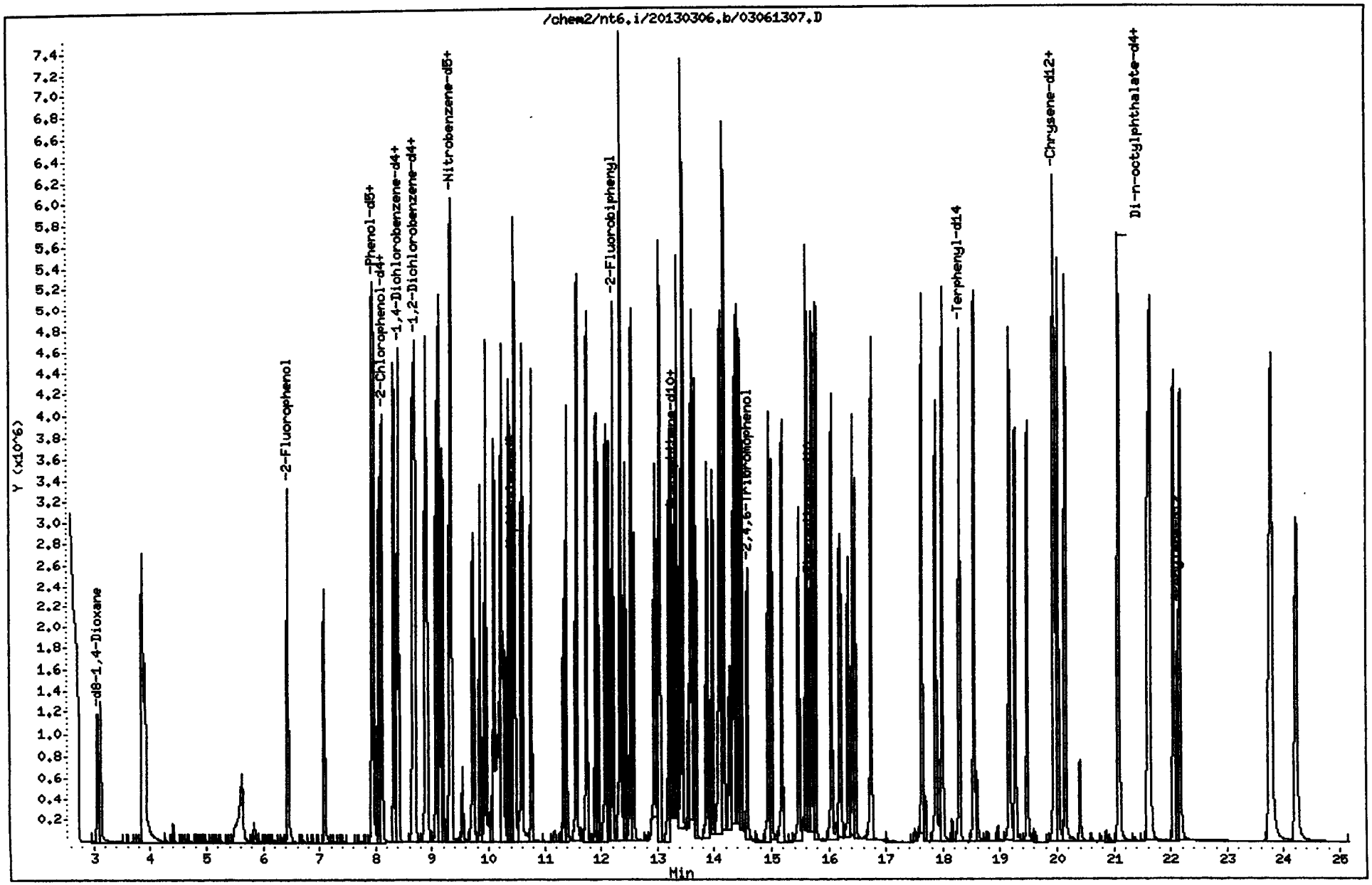
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20130306.b/03061307.D
Date : 06-MAR-2013 15:43
Client ID: IC600306
Sample Info: IC60306,

Instrument: nt6.i

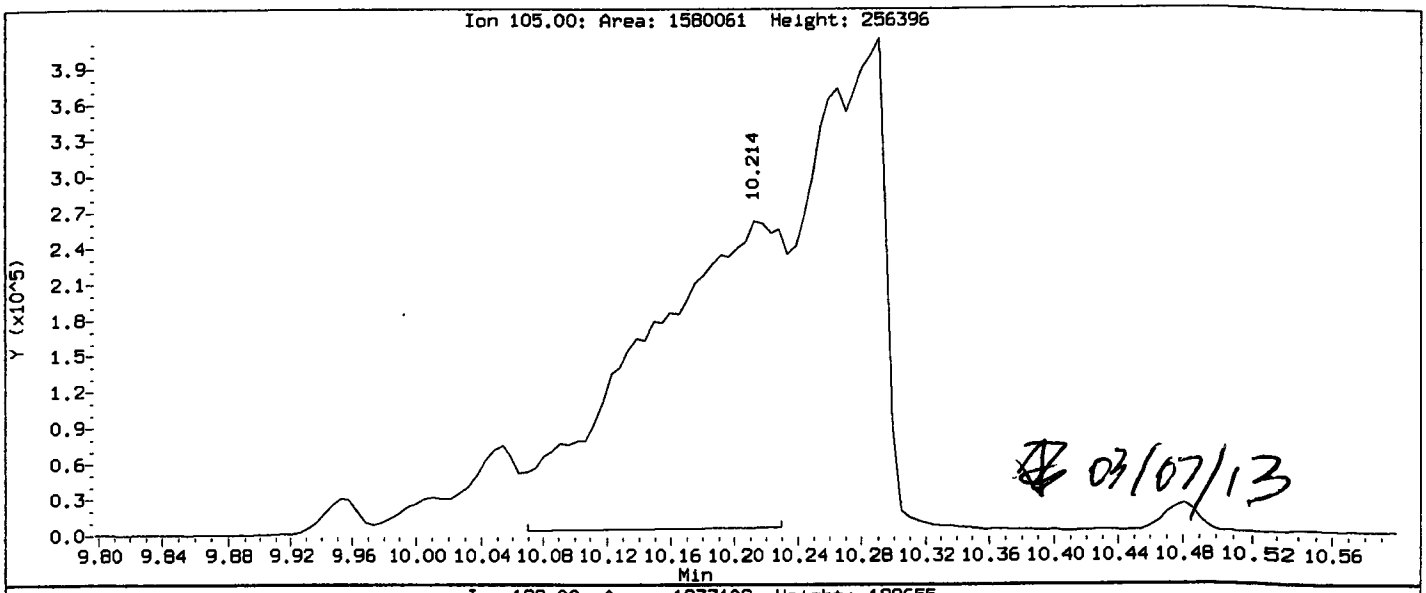
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi

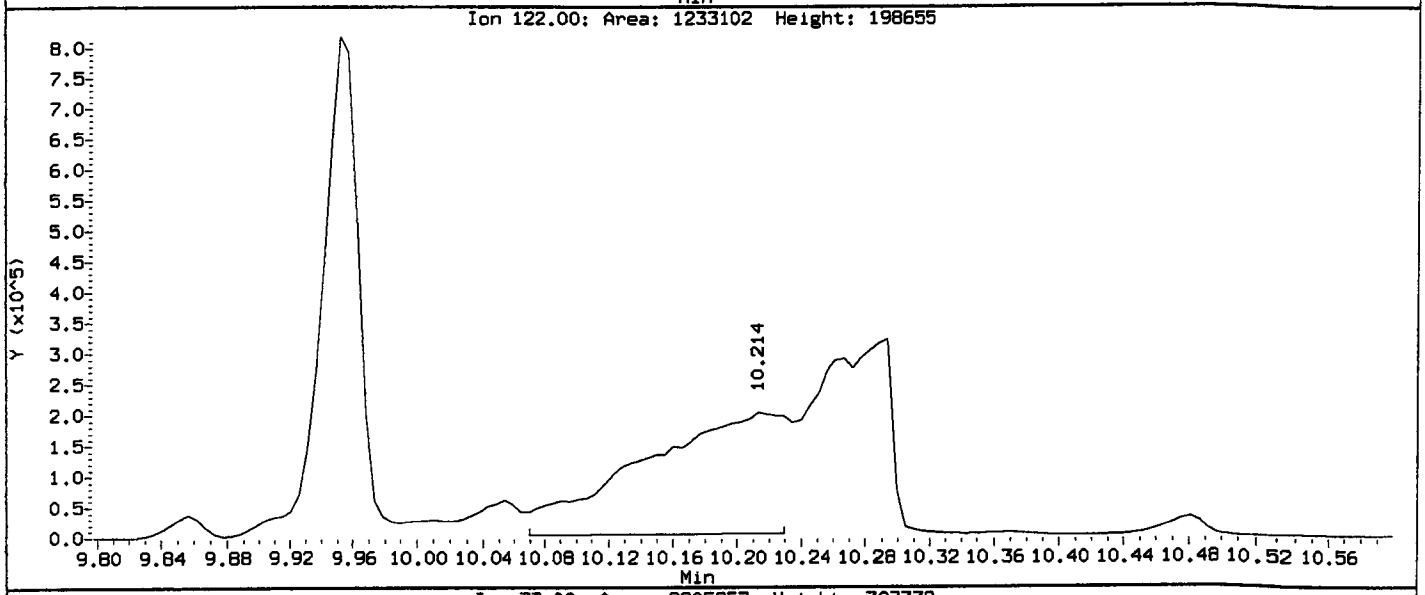


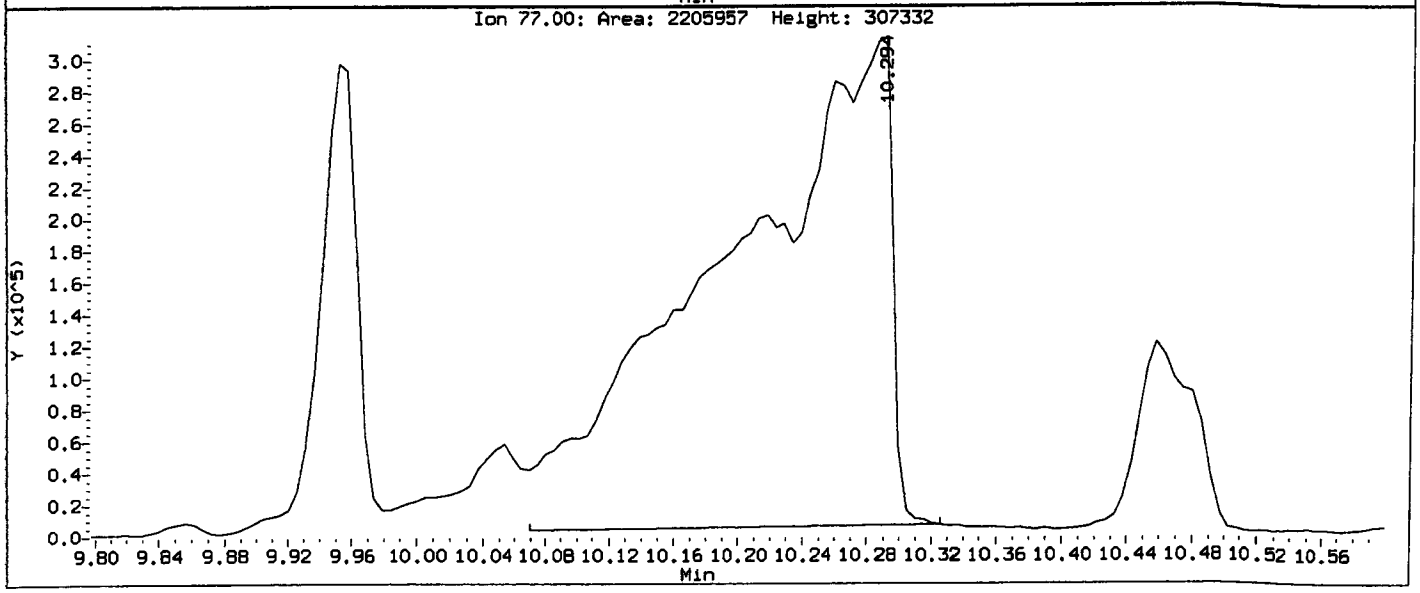
Data File: /chem2/nt6.i/20130306A.b/03061307.D
Injection Date: 06-MAR-2013 15:43
Instrument: nt6.i
Client Sample ID: IC600306

Compound: Benzoic acid
CAS Number: 65-85-0



03/07/13

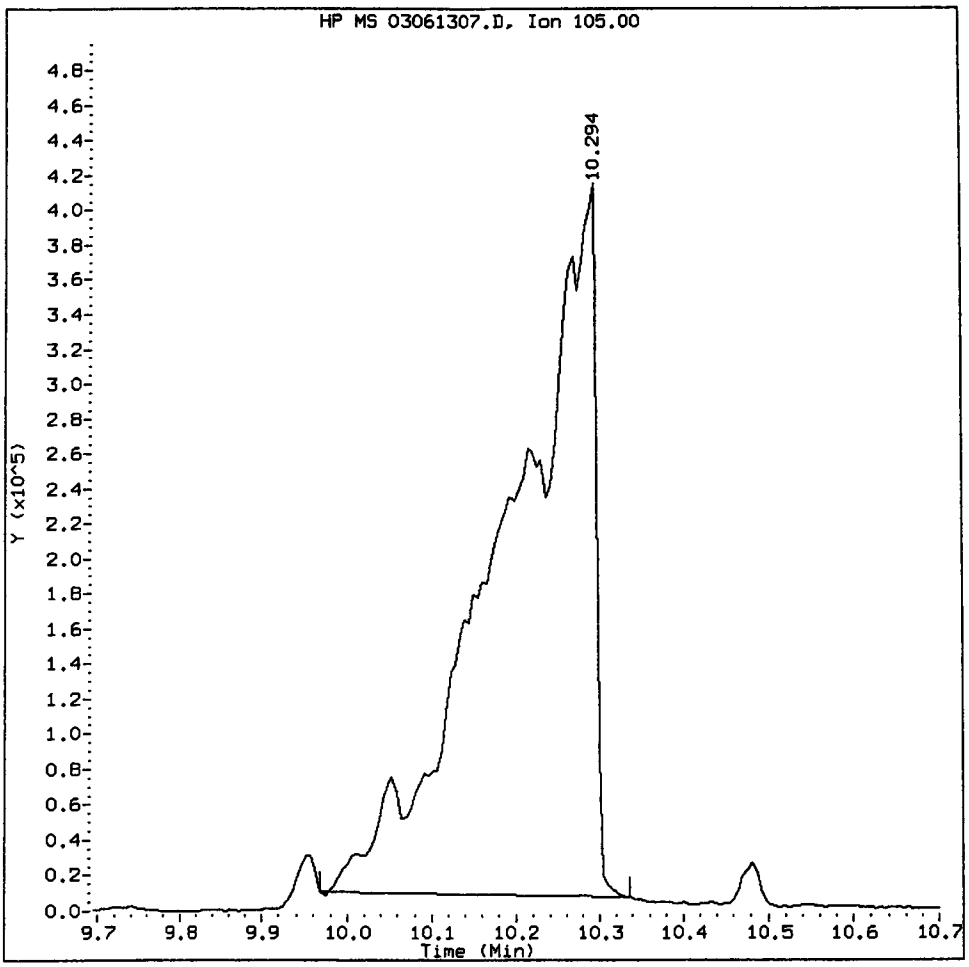




WJ10:00946

IC60306, /chem2/nt6.i/20130306.b/03061307.D

Benzoic acid Amount: 121.80 Area: 2999389



MANUAL INTEGRATION for Benzoic acid

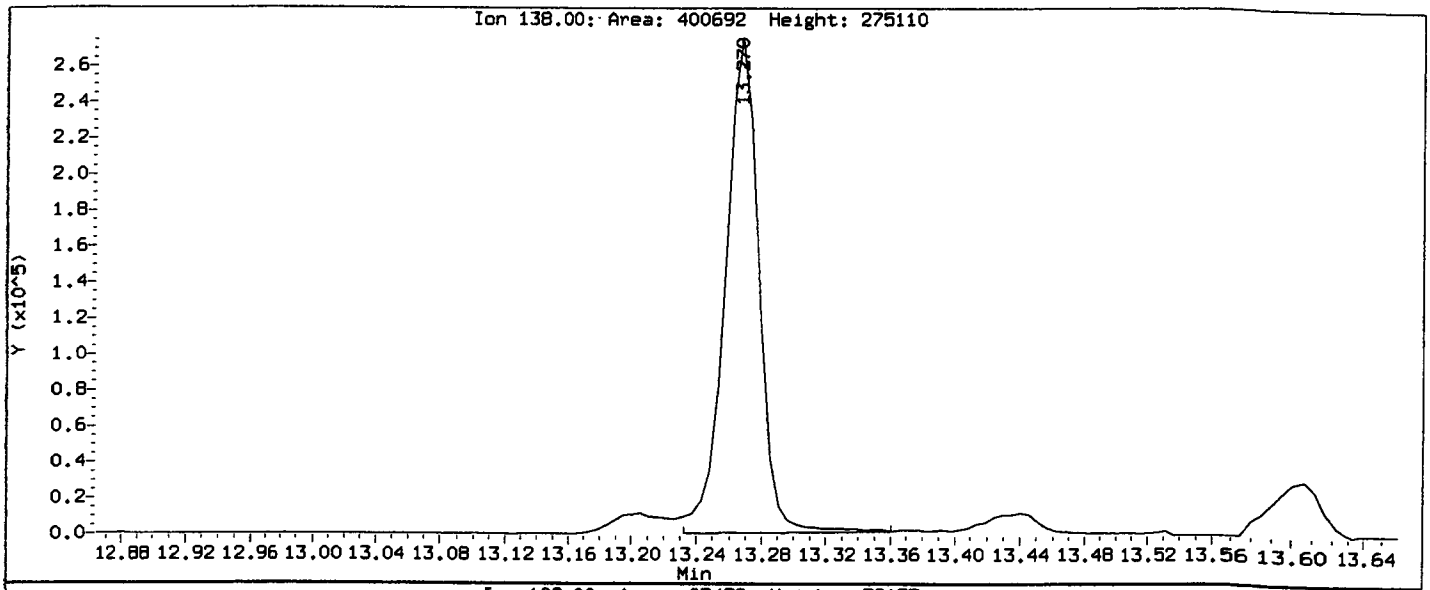
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

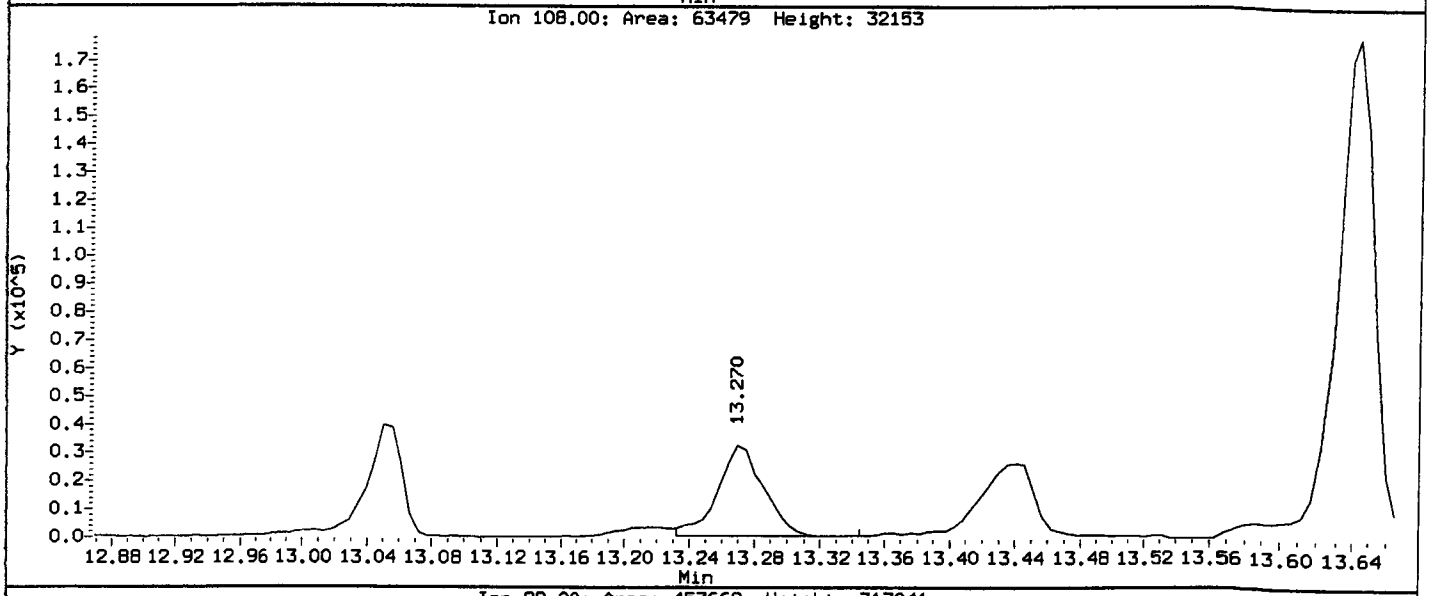
5. Other _____

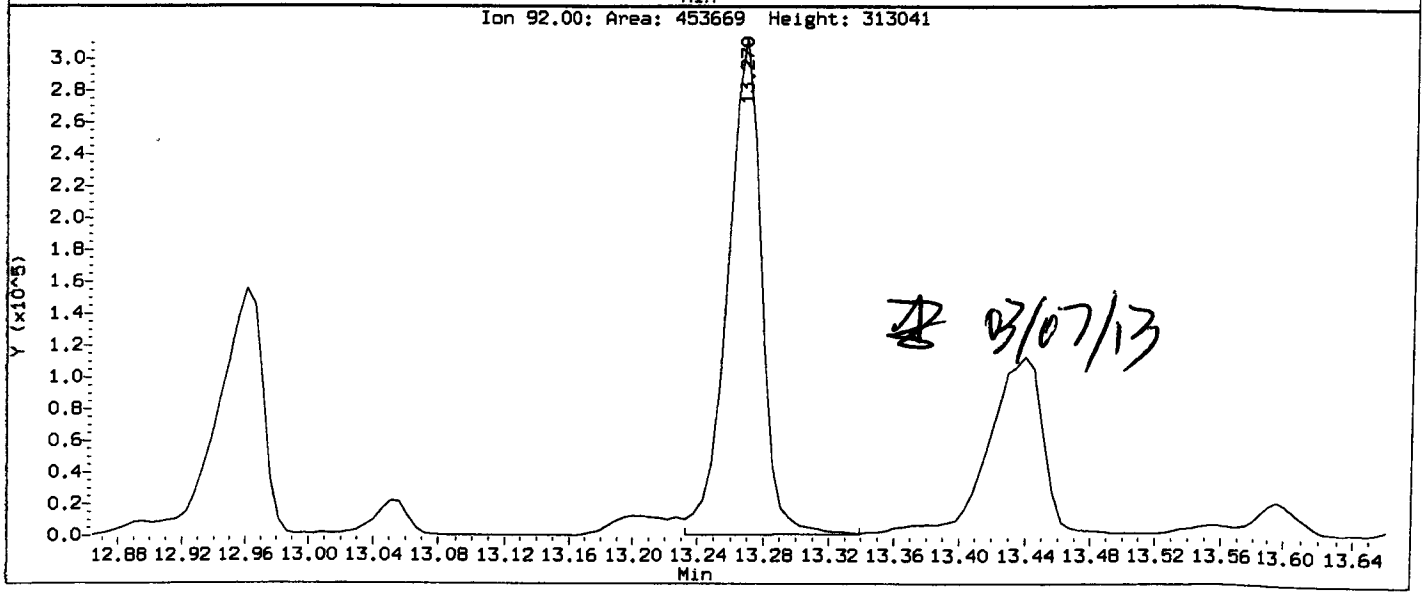
Analyst: _____ Date: 03/07/13

Data File: /chem2/nt6.i/20130306.b/03061307.D
Injection Date: 06-MAR-2013 15:43
Instrument: nt6.i
Client Sample ID: IC600306

Compound: 3-Nitroaniline
CAS Number: 99-09-2



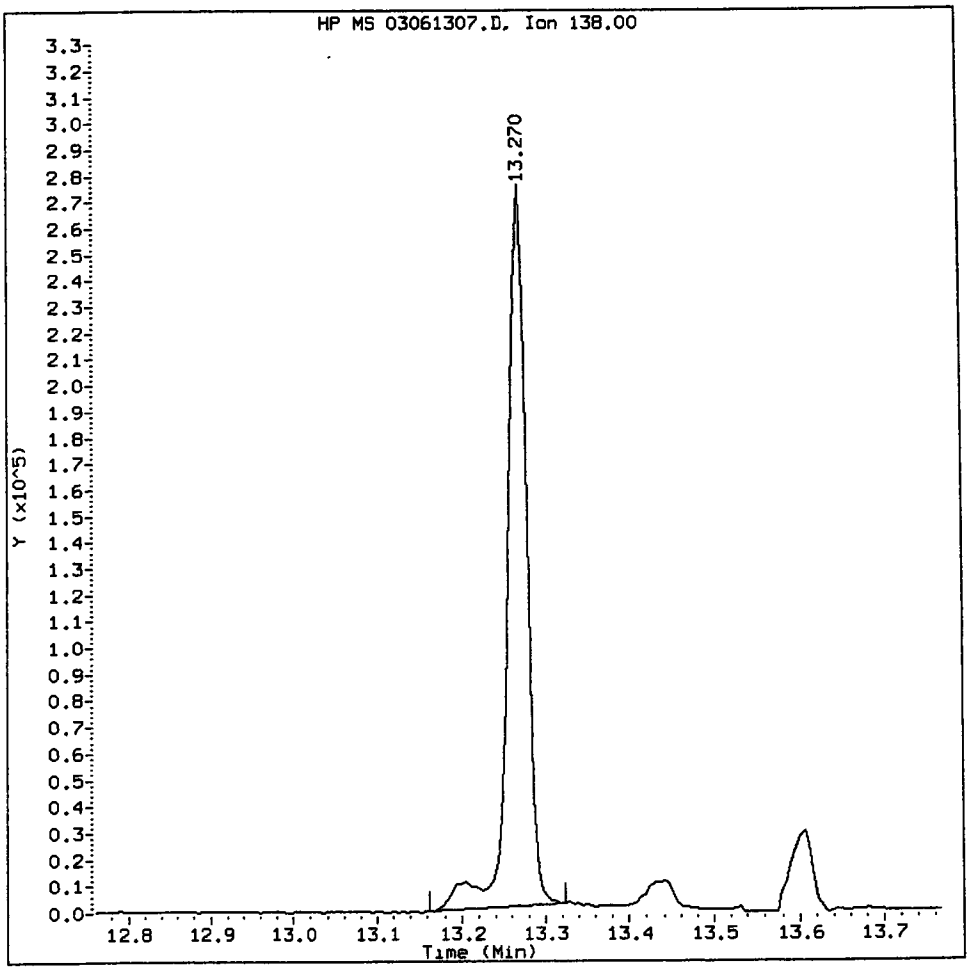




3/07/13

IC60306, /chem2/nt6.i/20130306.b/03061307.D

3-Nitroaniline Amount: 56.15 Area: 415090



MANUAL INTEGRATION for 3-Nitroaniline

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

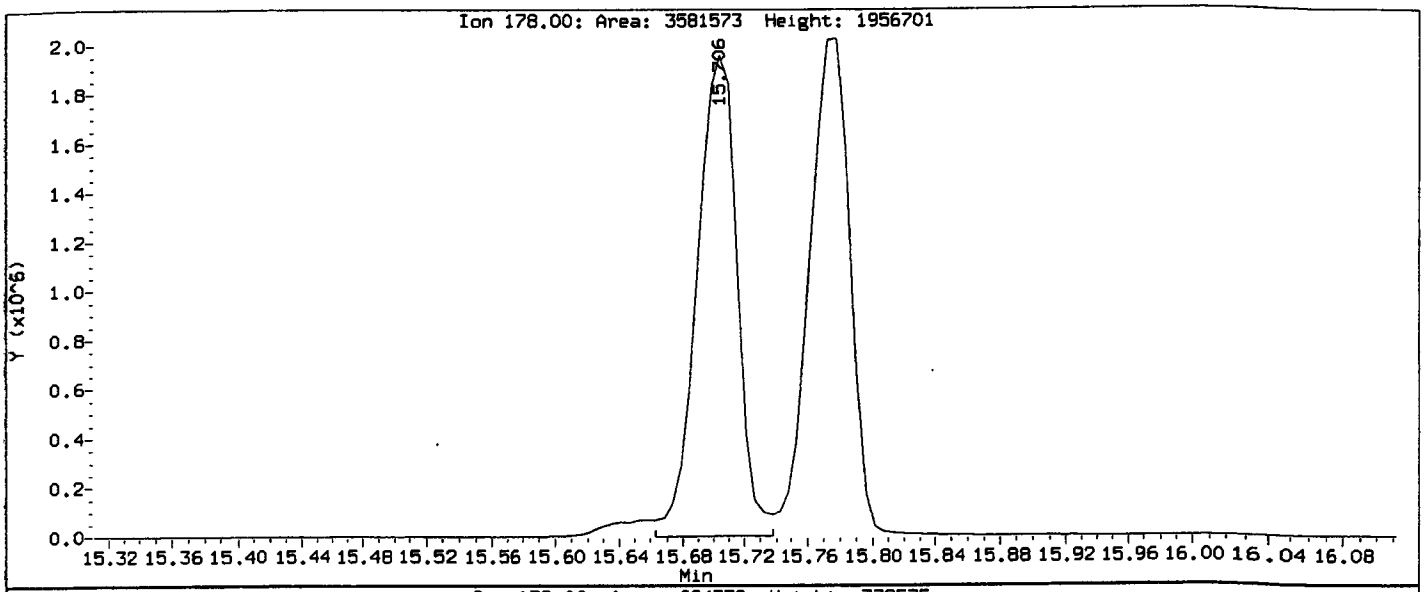
5. Other _____

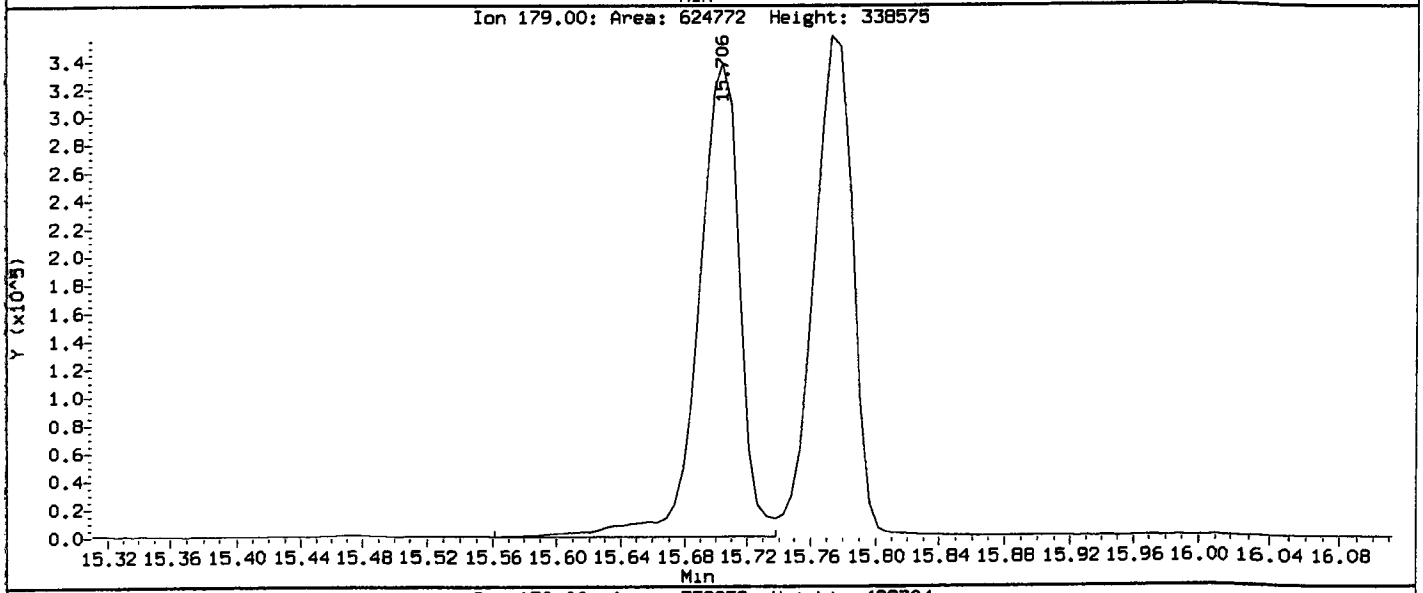
Analyst: AZ Date: 3/7/13

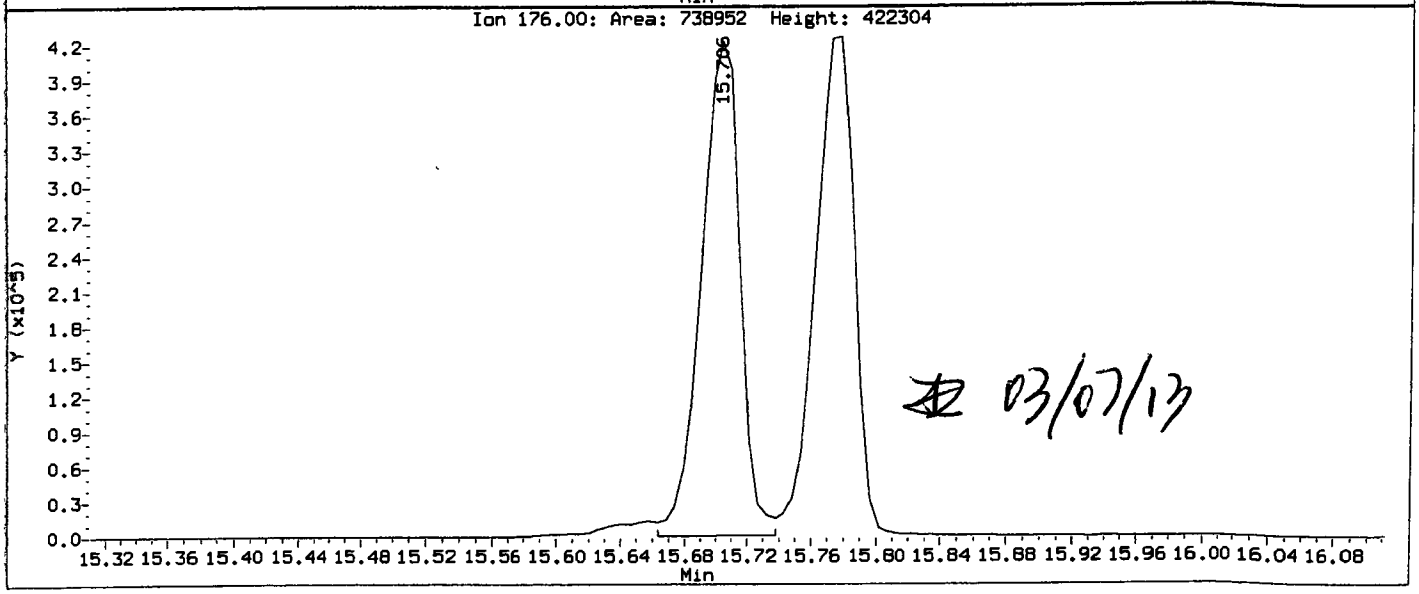
WJ16:08543

Data File: /chem2/nt6.i/20130306.b/03061307.D
Injection Date: 06-MAR-2013 15:43
Instrument: nt6.i
Client Sample ID: IC600306

Compound: Phenanthrene
CAS Number: 85-01-8





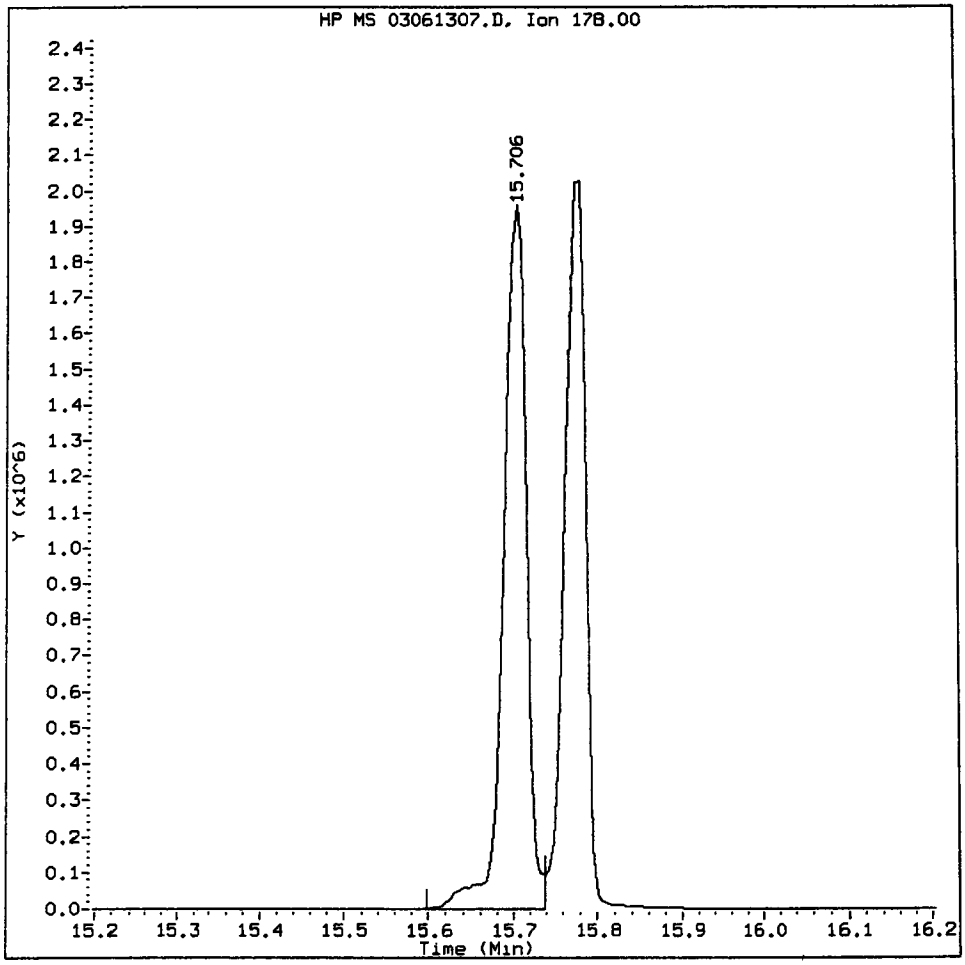


03/07/13

WJ10 : 00944

IC60306, /chem2/nt6.i/20130306.b/03061307.D

Phenanthrene Amount: 46.89 Area: 3708136



MANUAL INTEGRATION for Phenanthrene

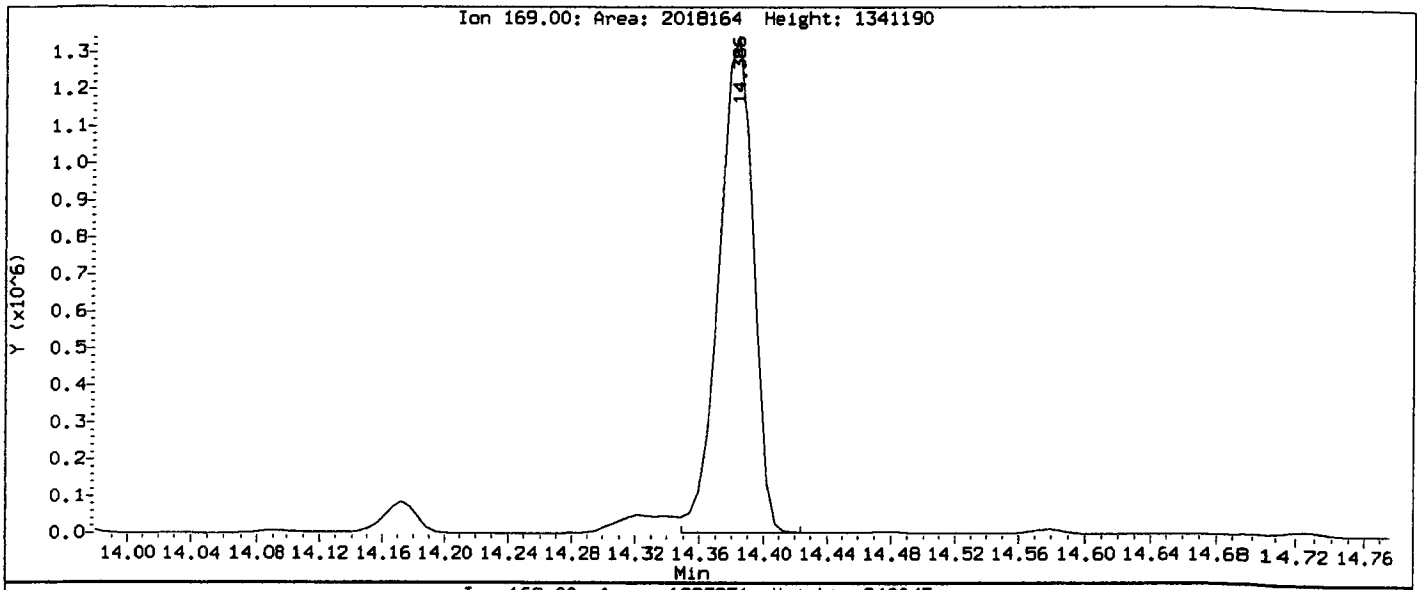
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

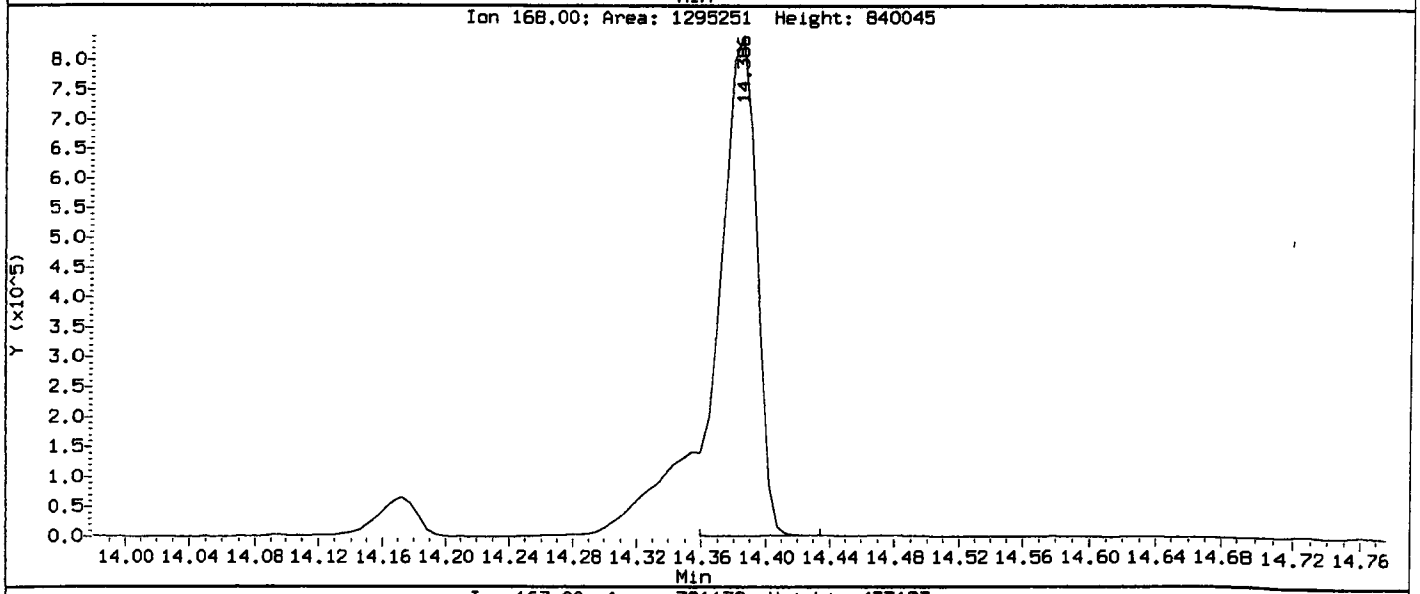
5. Other _____

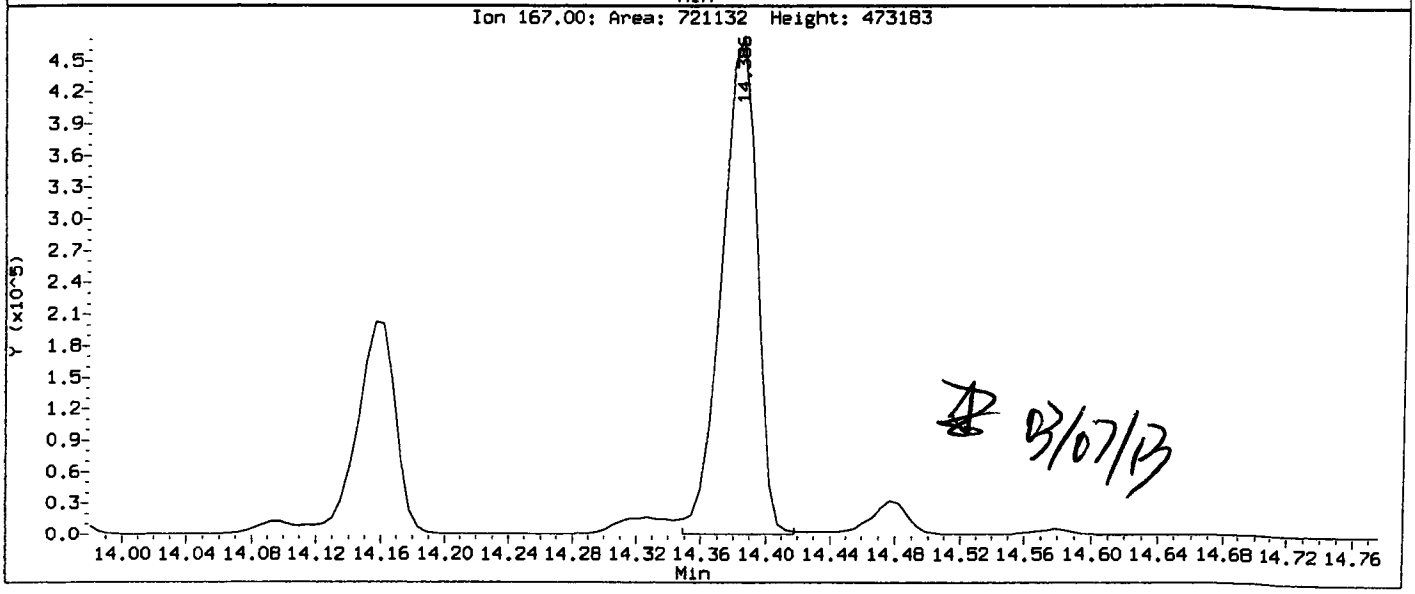
Analyst: _____ Date: 03/07/13

Data File: /chem2/nt6.i/20130306.b/03061307.D
Injection Date: 06-MAR-2013 15:43
Instrument: nt6.i
Client Sample ID: IC600306

Compound: N-Nitrosodiphenylamine
CAS Number: 86-30-6





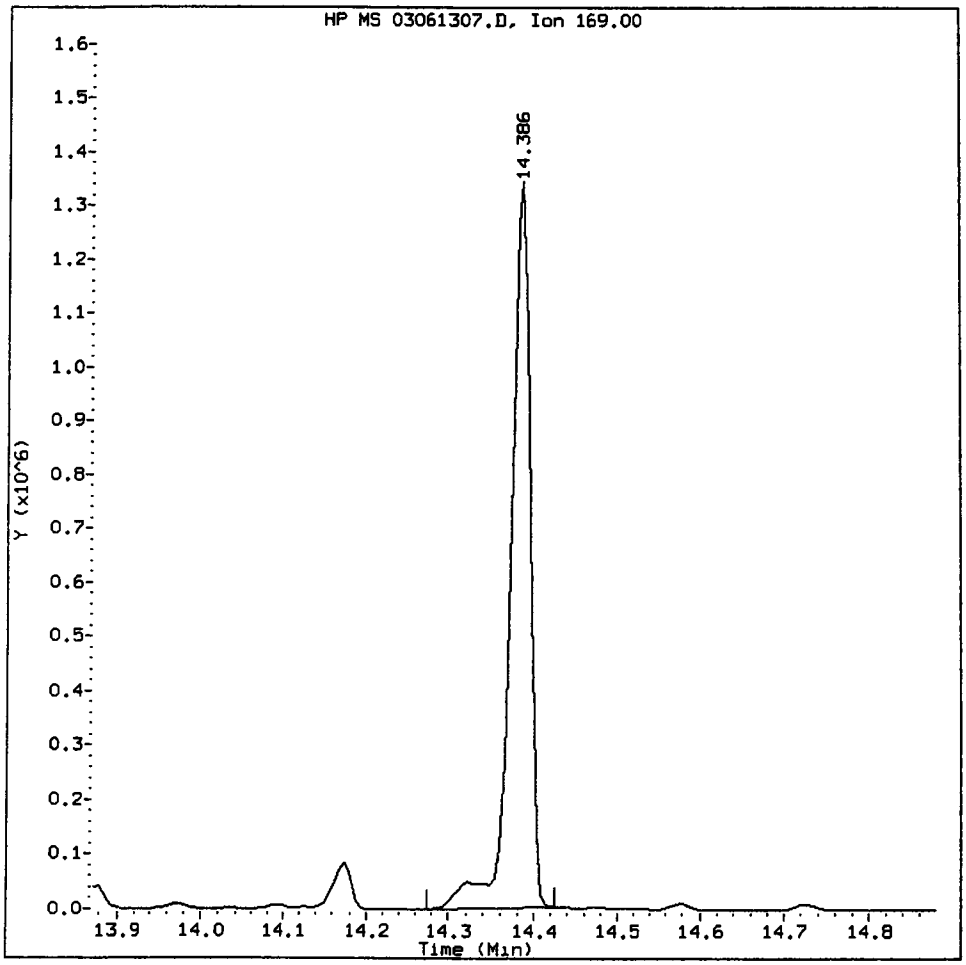


3/07/13

WJ10.00946

IC60306, /chem2/nt6.i/20130306.b/03061307.D

N-Nitrosodiphenylamine Amount: 47.70 Area: 2133517



MANUAL INTEGRATION for N-Nitrosodiphenylamine

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 03/07/13

CO-ELUTION SUMMARY FOR FILE - 03061307.D

Lab ID: IC60306, Method: SW846030613.m, Instrument: nt6.i, Date: 06-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130306.b/03061308.D
Lab Smp Id: IC80306 Client Smp ID: IC800306
Inj Date : 06-MAR-2013 16:18
Operator : JZ Inst ID: nt6.i
Smp Info : IC80306,
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130306.b/SW846030613.m
Meth Date : 07-Mar-2013 11:55 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

03/07/13

AMOUNTS

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$ 1 2-Fluorophenol	112	Compound Not Detected.					
$ 2 Phenol-d5	99	Compound Not Detected.					
3 Phenol	94	7.969	7.954	(0.950)	2394706	80.0000	72.23
$ 5 2-Chlorophenol-d4	132	Compound Not Detected.					
4 Bis(2-Chloroethyl)ether	93	8.059	8.050	(0.961)	2042188	80.0000	70.92
6 2-Chlorophenol	128	8.118	8.109	(0.968)	1899262	80.0000	71.60
7 1,3-Dichlorobenzene	146	8.332	8.328	(0.994)	2025421	80.0000	65.37
* 8 1,4-Dichlorobenzene-d4	152	8.385	8.387	(1.000)	415136	20.0000	
9 1,4-Dichlorobenzene	146	8.417	8.408	(1.004)	1948690	80.0000	64.63
$ 10 1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
12 1,2-Dichlorobenzene	146	8.706	8.707	(1.038)	1911534	80.0000	66.31
11 Benzyl alcohol	108	8.674	8.654	(1.034)	1396503	80.0000	77.32
14 2,2'-oxybis(1-Chloropropane)	45	8.919	8.916	(1.064)	2983275	80.0000	65.21
13 2-Methylphenol	108	8.898	8.878	(1.061)	1759442	80.0000	69.98
17 Hexachloroethane	117	9.192	9.193	(1.096)	819781	80.0000	67.21
16 N-Nitroso-di-n-propylamine	70	9.155	9.135	(1.092)	1588460	80.0000	73.51
15 4-Methylphenol	108	9.128	9.108	(1.089)	1665095	80.0000	66.98
$ 18 Nitrobenzene-d5	82	Compound Not Detected.					
19 Nitrobenzene	77	9.358	9.343	(0.898)	1980493	80.0000	64.91
20 Isophorone	82	9.742	9.717	(0.934)	3963893	80.0000	74.54
21 2-Nitrophenol	139	9.860	9.851	(0.946)	1046064	80.0000	74.10
22 2,4-Dimethylphenol	107	9.961	9.947	(0.955)	1870842	80.0000	70.08
23 Bis(2-Chloroethoxy)methane	93	10.111	10.096	(0.970)	2367641	80.0000	67.86
24 Benzoic acid	105	10.330	10.198	(0.991)	3889953	160.000	168.4(M)
25 2,4-Dichlorophenol	162	10.239	10.230	(0.982)	1466098	80.0000	71.32
26 1,2,4-Trichlorobenzene	180	10.367	10.363	(0.994)	1711053	80.0000	66.86
* 27 Naphthalene-d8	136	10.426	10.422	(1.000)	1588502	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	28 Naphthalene	128	10.463	10.454	(1.004)	4129583	80.0000	86.89
	29 4-Chloroaniline	127	10.602	10.588	(1.017)	1419444	80.0000	99.06
	30 Hexachlorobutadiene	225	10.768	10.764	(1.033)	1076533	80.0000	69.13
	31 4-Chloro-3-methylphenol	107	11.393	11.384	(1.093)	1599016	80.0000	73.23
	32 2-Methylnaphthalene	141	11.580	11.571	(1.111)	2389384	80.0000	61.85
	33 Hexachlorocyclopentadiene	237	11.948	11.950	(0.899)	1256994	80.0000	88.25
	34 2,4,6-Trichlorophenol	196	12.087	12.078	(0.910)	1242196	80.0000	83.35
	35 2,4,5-Trichlorophenol	196	12.141	12.137	(0.914)	1128101	80.0000	76.73
$	36 2-Fluorobiphenyl	172	Compound Not Detected.					
	37 2-Chloronaphthalene	162	12.360	12.356	(0.930)	2726374	80.0000	81.65
	38 2-Nitroaniline	65	12.595	12.580	(0.948)	1067475	80.0000	81.45
	39 Dimethylphthalate	163	12.969	12.949	(0.976)	3824957	80.0000	71.69
	40 Acenaphthylene	152	13.038	13.034	(0.981)	4470626	80.0000	63.93
	41 2,6-Dinitrotoluene	165	13.060	13.045	(0.983)	865930	80.0000	75.96
*	42 Acenaphthene-d10	164	13.289	13.286	(1.000)	886542	20.0000	
	43 3-Nitroaniline	138	13.273	13.264	(0.999)	496848	80.0000	81.26 (M)
	44 Acenaphthene	153	13.348	13.334	(1.004)	2990801	80.0000	66.06
	45 2,4-Dinitrophenol	184	13.455	13.424	(1.012)	1455877	160.000	178.8
	46 Dibenzofuran	168	13.610	13.595	(1.024)	3797229	80.0000	64.13
	47 4-Nitrophenol	109	13.567	13.547	(1.021)	435155	80.0000	75.14
	48 2,4-Dinitrotoluene	165	13.690	13.676	(1.030)	1187085	80.0000	76.98
	50 Diethylphthalate	149	14.112	14.098	(1.062)	3261747	80.0000	65.98
	49 Fluorene	166	14.165	14.156	(1.066)	2918650	80.0000	81.81
	51 4-Chlorophenyl-phenylether	204	14.176	14.172	(1.067)	1756954	80.0000	67.60
	52 4-Nitroaniline	138	14.288	14.252	(1.075)	705690	80.0000	81.16
	53 4,6-Dinitro-2-methylphenol	198	14.358	14.333	(0.916)	1683138	160.000	160.8
	54 N-Nitrosodiphenylamine	169	14.390	14.375	(0.918)	2609924	80.0000	64.16 (M)
$	55 2,4,6-Tribromophenol	330	Compound Not Detected.					
	56 4-Bromophenyl-phenylether	248	14.956	14.952	(0.955)	1183353	80.0000	74.16
	57 Hexachlorobenzene	284	15.186	15.182	(0.969)	1239812	80.0000	75.36
	58 Pentachlorophenol	266	15.480	15.470	(0.988)	833386	80.0000	85.88
*	59 Phenanthrene-d10	188	15.667	15.663	(1.000)	1453987	20.0000	
	60 Phenanthrene	178	15.709	15.700	(1.003)	4601992	80.0000	63.97
	61 Anthracene	178	15.784	15.770	(1.008)	4251383	80.0000	59.02
	62 Carbazole	167	16.057	16.047	(1.025)	4177813	80.0000	80.56
	63 Di-n-butylphthalate	149	16.751	16.747	(1.069)	5262499	80.0000	57.95
	64 Fluoranthene	202	17.643	17.639	(1.126)	4925676	80.0000	65.09
	65 Pyrene	202	18.001	17.992	(0.901)	5041196	80.0000	66.18
$	66 Terphenyl-d14	244	Compound Not Detected.					
	67 Butylbenzylphthalate	149	19.171	19.167	(0.959)	2514680	80.0000	67.51
	68 Benzo(a)anthracene	228	19.956	19.953	(0.999)	4549328	80.0000	71.54
*	69 Chrysene-d12	240	19.983	19.979	(1.000)	1394767	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.951	19.953	(0.998)	1228873	80.0000	70.24
	71 Chrysene	228	20.026	20.017	(1.002)	4316537	80.0000	66.49
	72 bis(2-Ethylhexyl)phthalate	149	20.149	20.150	(0.956)	3297035	80.0000	71.04
*	134 Di-n-octylphthalate-d4	153	21.078	21.085	(1.000)	1577157	20.0000	
	73 Di-n-octylphthalate	149	21.089	21.096	(1.000)	5201474	80.0000	69.85

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.618	21.609	(0.977)	4864908	80.0000	80.68
75	Benzo(k)fluoranthene	252	21.655	21.641	(0.978)	4926982	80.0000	81.46
187	Total Benzofluoranthenes	252	21.655	21.641	(0.978)	9068544	160.000	129.2
76	Benzo(a)pyrene	252	22.066	22.057	(0.997)	4550492	80.0000	69.86
* 77	Perylene-d12	264	22.136	22.137	(1.000)	1523971	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.781	23.767	(1.074)	5915162	80.0000	75.46
79	Dibenzo(a,h)anthracene	278	23.808	23.788	(1.076)	4704710	80.0000	76.22
80	Benzo(g,h,i)perylene	276	24.251	24.226	(1.096)	5163322	80.0000	77.02
90	N-Nitrosodimethylamine	74	3.962	3.889	(0.472)	1562474	80.0000	79.92
103	Pyridine	79	3.914	3.851	(0.467)	2412972	80.0000	77.83
91	Aniline	93	7.947	7.938	(0.948)	2567853	80.0000	69.90
105	1-methylnaphthalene	141	11.751	11.747	(1.127)	2492684	80.0000	63.52
93	Benzidine	184	17.873	17.874	(0.894)	580818	80.0000	85.40
111	Azobenzene (1,2-DP-Hydrazine)	77	14.438	14.423	(1.086)	3533789	80.0000	62.91
143	1,4-Dioxane	88	3.145	3.103	(0.375)	1031006	80.0000	76.55
$ 137	d8-1,4-Dioxane	96	3.086	3.039	(0.368)	961171	80.0000	76.25
144	alpha-Terpineol	59	10.485	10.470	(1.006)	1341096	80.0000	66.39
177	p-Benzoquinone	82	7.092	7.083	(0.680)	489430	80.0000	80.68
98	Retene	219	18.546	18.548	(0.928)	2364163	80.0000	71.92
99	Perylene	252	22.179	22.175	(1.002)	3766561	80.0000	66.01
133	Butylatedhydroxytoluene	205	13.450	13.440	(1.012)	2177090	80.0000	81.45
115	Tributyl Phosphate	99	14.486	14.461	(0.925)	3817283	80.0000	82.14
116	Dibutyl Phenyl Phosphate	175	16.190	16.192	(1.033)	1918467	80.0000	49.90
117	Butyl Diphenyl Phosphate	94	17.878	17.880	(0.895)	853223	80.0000	66.44
118	Triphenyl Phosphate	326	19.486	19.482	(0.975)	977320	80.0000	80.02
123	Acetophenone	105	9.090	9.076	(1.084)	2797491	80.0000	71.59
168	Pentachlorobenzene	250	13.647	13.638	(1.027)	1407461	80.0000	72.48
113	Diphenyl Oxide	170	12.541	12.538	(0.944)	2312992	80.0000	67.02
112	Biphenyl	154	12.349	12.345	(0.929)	2906690	80.0000	82.21
120	2,3,4,6-Tetrachlorophenol	232	13.882	13.873	(1.045)	1039446	80.0000	82.14
151	1,2,4,5-Tetrachlorobenzene	216	11.911	11.907	(0.896)	1558330	80.0000	71.96
110	Tetrachloroguaiacol	247	15.613	15.599	(0.997)	1120414	160.000	146.9
109	3,4,5-Trichloroguaiacol	213	13.978	13.969	(0.892)	631624	80.0000	76.05
181	3,4,6-Trichloroguaiacol	211	14.096	14.087	(1.681)	701991	80.0000	74.11
108	4,5,6-Trichloroguaiacol	213	15.004	15.000	(1.129)	636275	80.0000	76.74
184	3,4-Dichloroguaiacol	192	12.435	12.425	(1.483)	679803	80.0000	75.59
107	4,5-Dichloroguaiacol	192	13.220	13.205	(0.995)	1631611	160.000	150.6
182	4,6-Dichloroguaiacol	192	13.220	13.205	(1.577)	1631611	160.000	148.7
185	4-Chloroguaiacol	115	11.345	11.336	(1.353)	471670	40.0000	40.44
186	Carbaryl	144	16.473	16.459	(1.051)	2446617	80.0000	72.82
178	2-Benzyl-4-Chlorophenol	218	16.425	16.411	(1.048)	926358	80.0000	76.92
106	Guaiacol	124	9.347	9.332	(1.115)	1407845	80.0000	65.19
188	2,6-Dichlorophenol	162	10.613	10.598	(1.266)	1300919	80.0000	70.78
189	N-Nitrosomethylethylamine	88	5.634	5.620	(0.672)	1095419	80.0000	79.86

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 03061308.D
Lab Smp Id: IC80306
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

Calibration Date: 06-MAR-2013
Calibration Time: 12:16
Client Smp ID: IC800306
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	415136	-9.38
27 Naphthalene-d8	1718341	859170	3436682	1588502	-7.56
42 Acenaphthene-d10	1010041	505020	2020082	886542	-12.23
59 Phenanthrene-d10	1666734	833367	3333468	1453987	-12.76
69 Chrysene-d12	1675752	837876	3351504	1394767	-16.77
134 Di-n-octylphthala	2026355	1013178	4052710	1577157	-22.17
77 Perylene-d12	1637524	818762	3275048	1523971	-6.93

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.39	7.89	8.89	8.39	-0.02
27 Naphthalene-d8	10.42	9.92	10.92	10.43	0.04
42 Acenaphthene-d10	13.29	12.79	13.79	13.29	0.03
59 Phenanthrene-d10	15.66	15.16	16.16	15.67	0.02
69 Chrysene-d12	19.98	19.48	20.48	19.98	0.02
134 Di-n-octylphthala	21.09	20.59	21.59	21.08	-0.03
77 Perylene-d12	22.14	21.64	22.64	22.14	-0.01

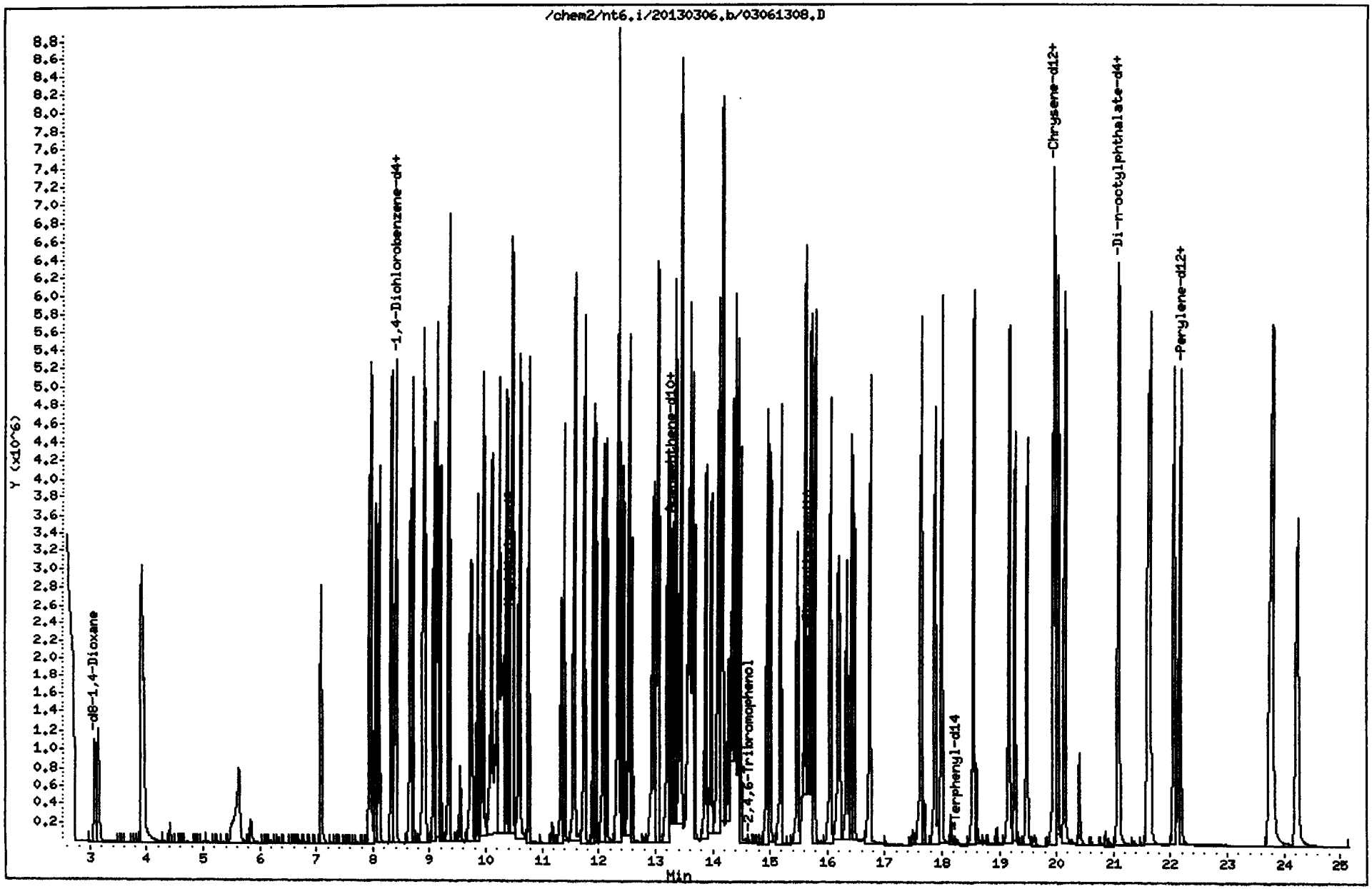
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20130306.b/03061308.D
Date : 06-MAR-2013 16:18
Client ID: IC800306
Sample Info: IC80306,

Instrument: nt6.i

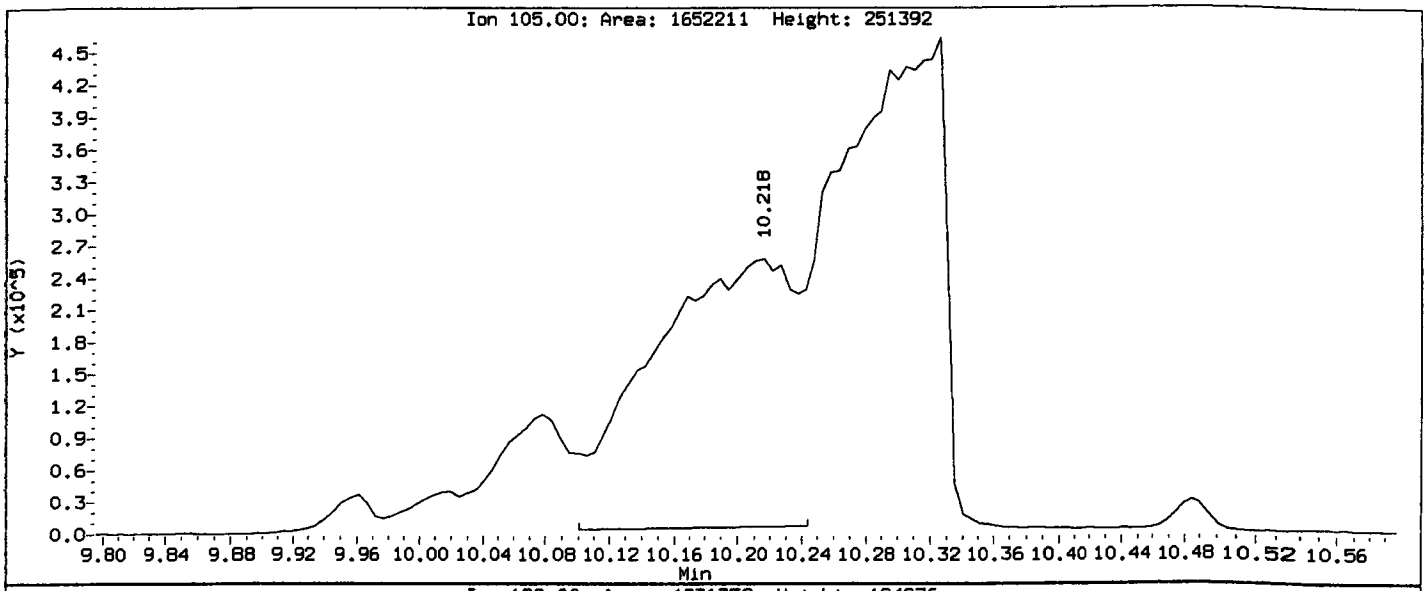
Operator: JZ
Column diameter: 0.32

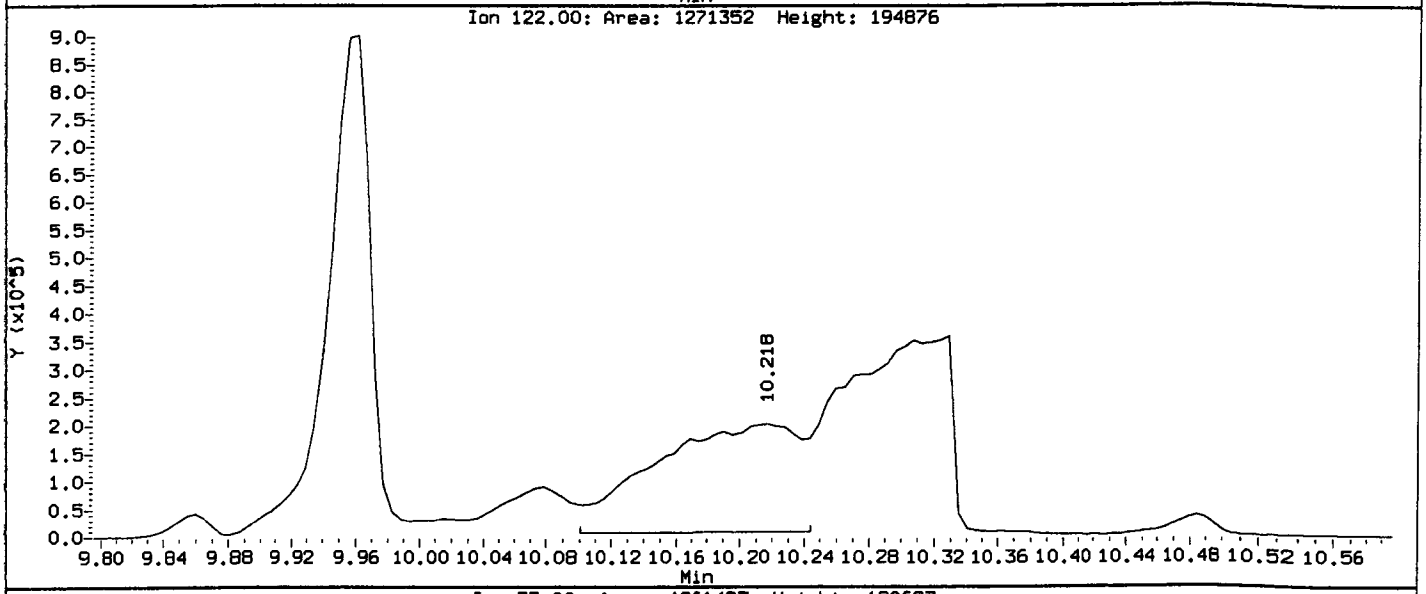
Column phase: ZB-5msi

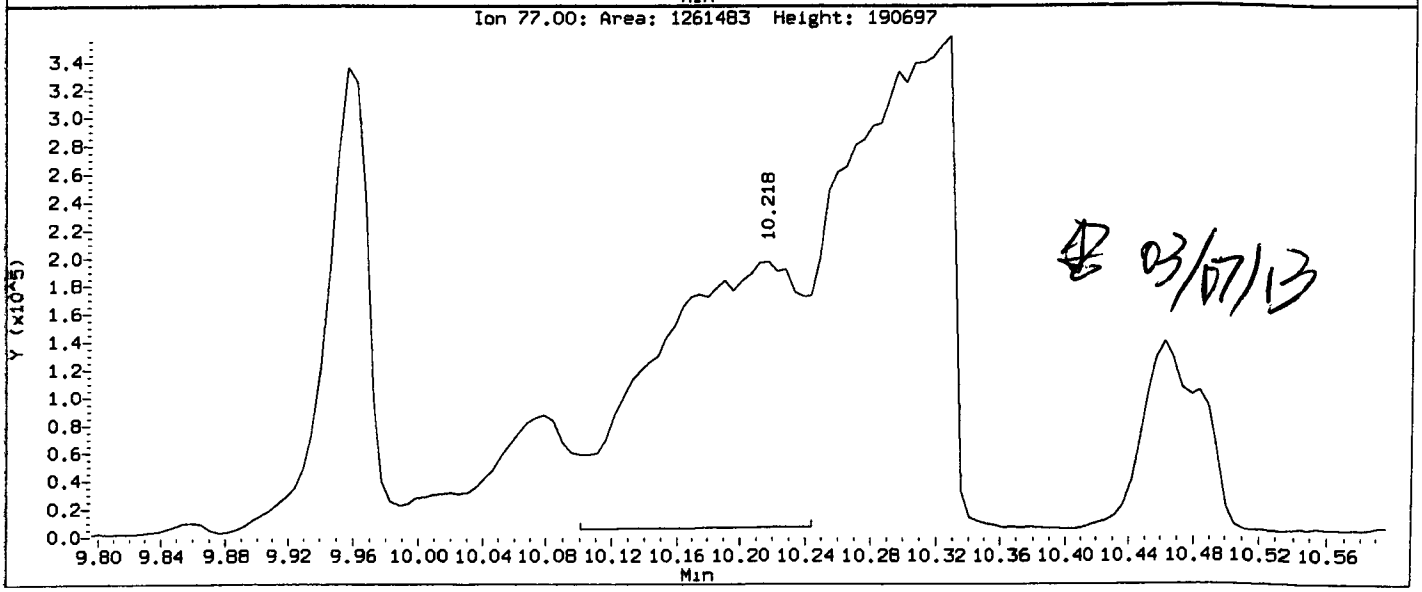


Data File: /chem2/nt6.i/20130306A.b/03061308.D
Injection Date: 06-MAR-2013 16:18
Instrument: nt6.i
Client Sample ID: IC800306

Compound: Benzoic acid
CAS Number: 65-85-0





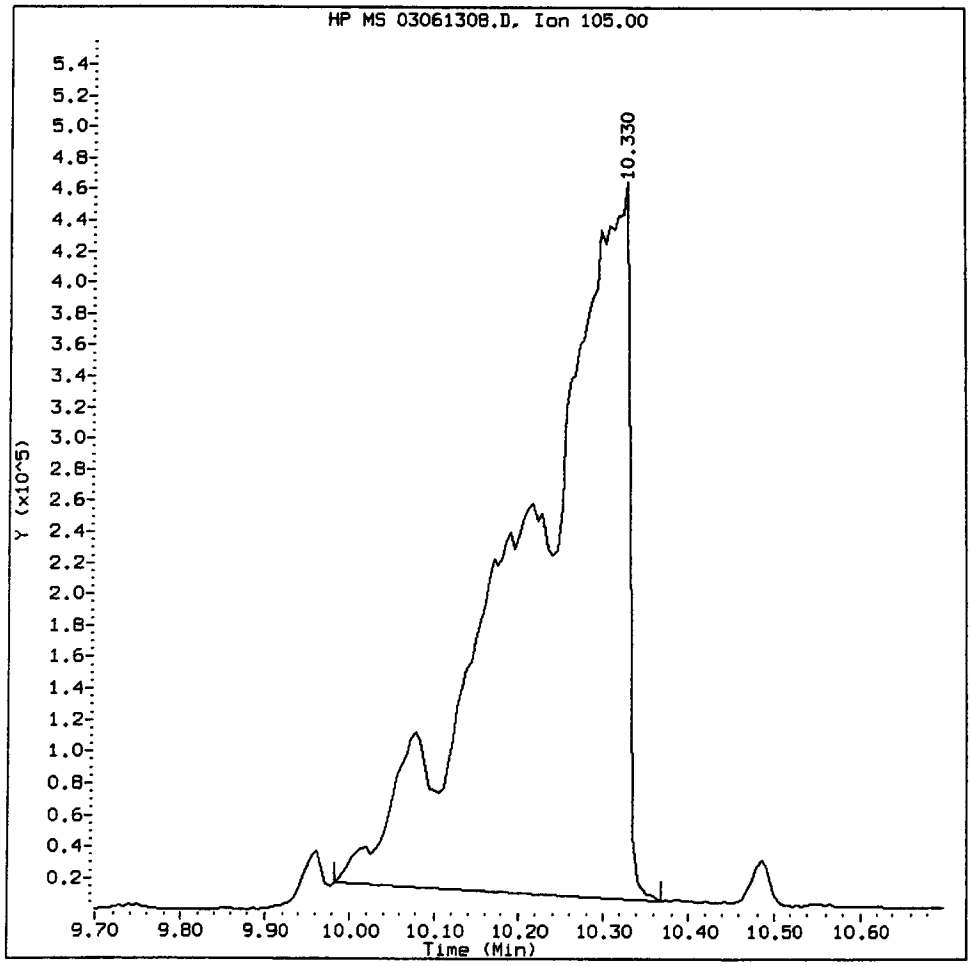


BE 03/07/13

WJ10 : 00995

IC80306, /chem2/nt6.i/20130306.b/03061308.D

Benzoic acid Amount: 168.44 Area: 3889953



MANUAL INTEGRATION for Benzoic acid

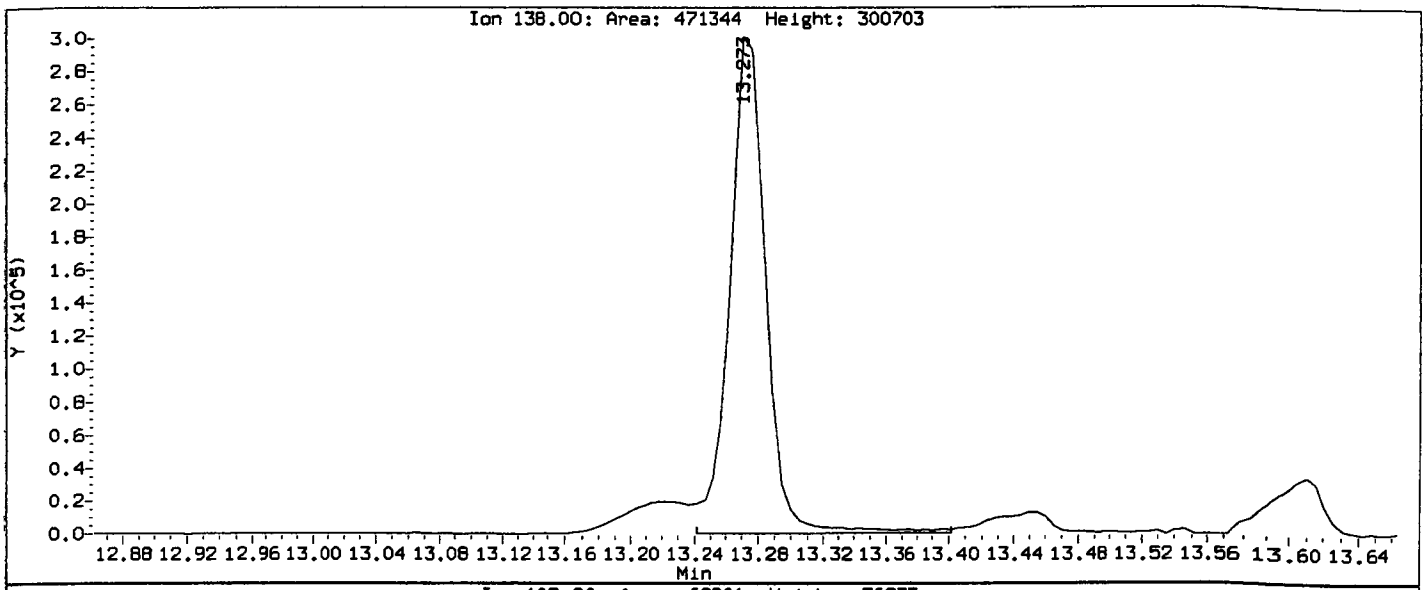
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

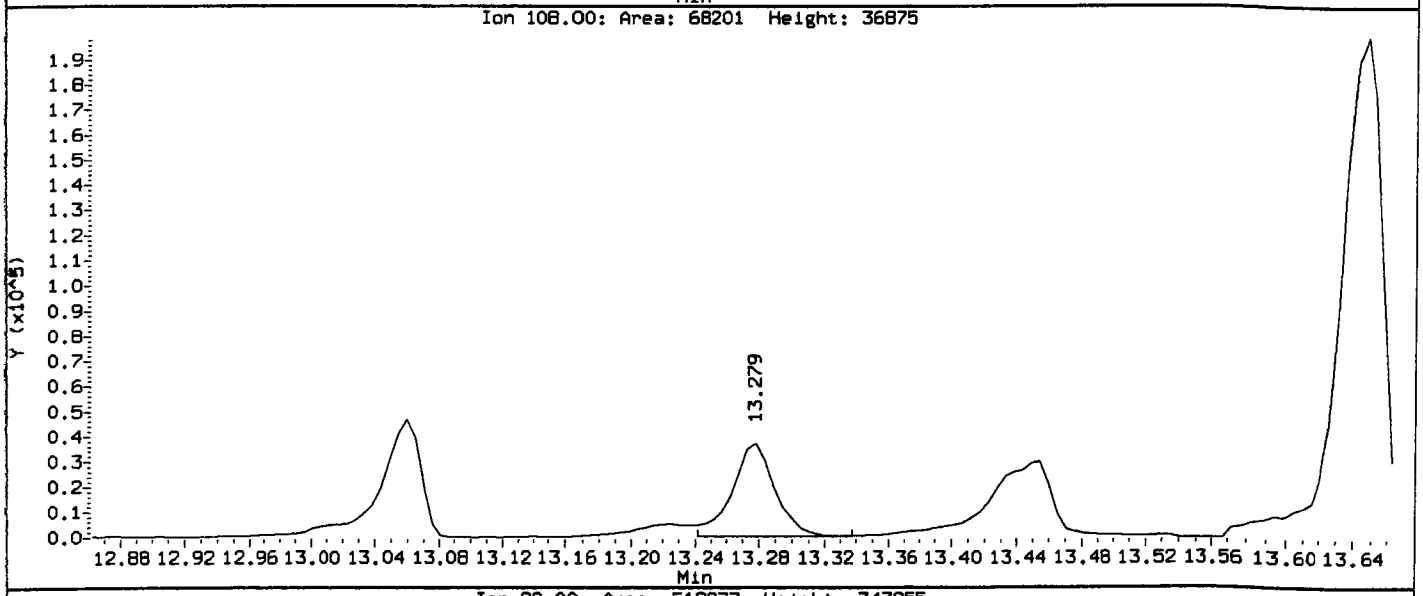
5. Other _____

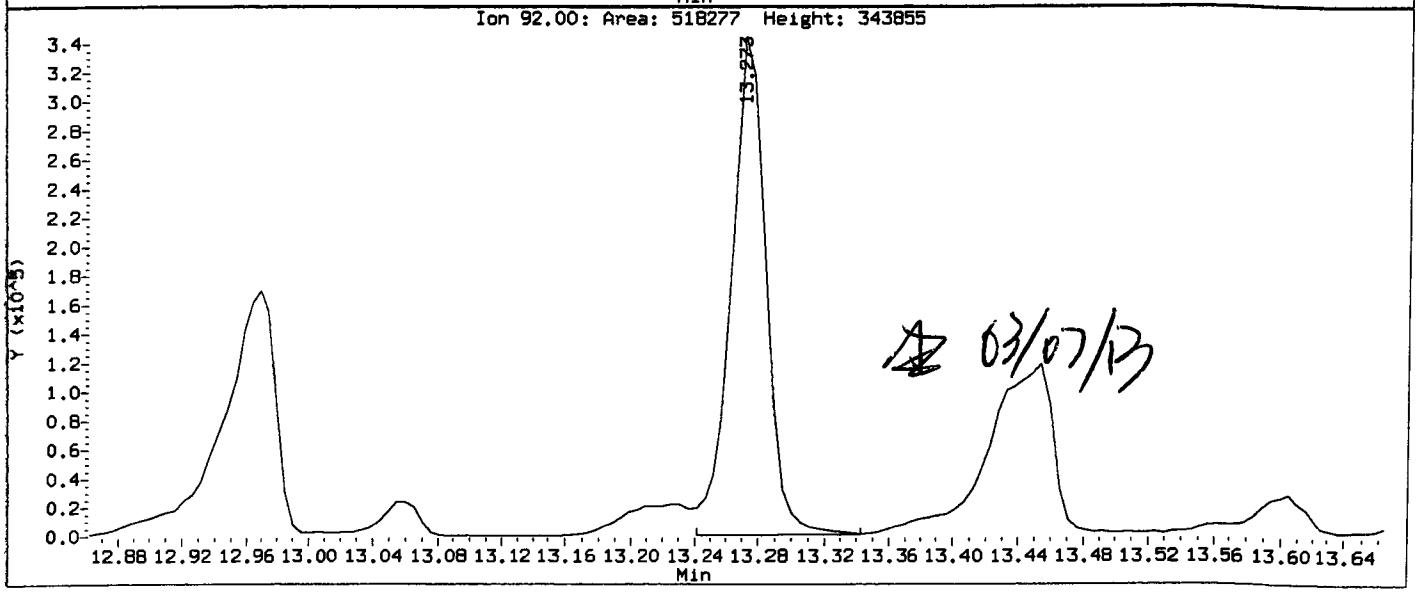
Analyst: _____ Date: 03/07/13

Data File: /chem2/nt6.i/20130306A.b/03061308.D
Injection Date: 06-MAR-2013 16:18
Instrument: nt6.i
Client Sample ID: IC800306

Compound: 3-Nitroaniline
CAS Number: 99-09-2





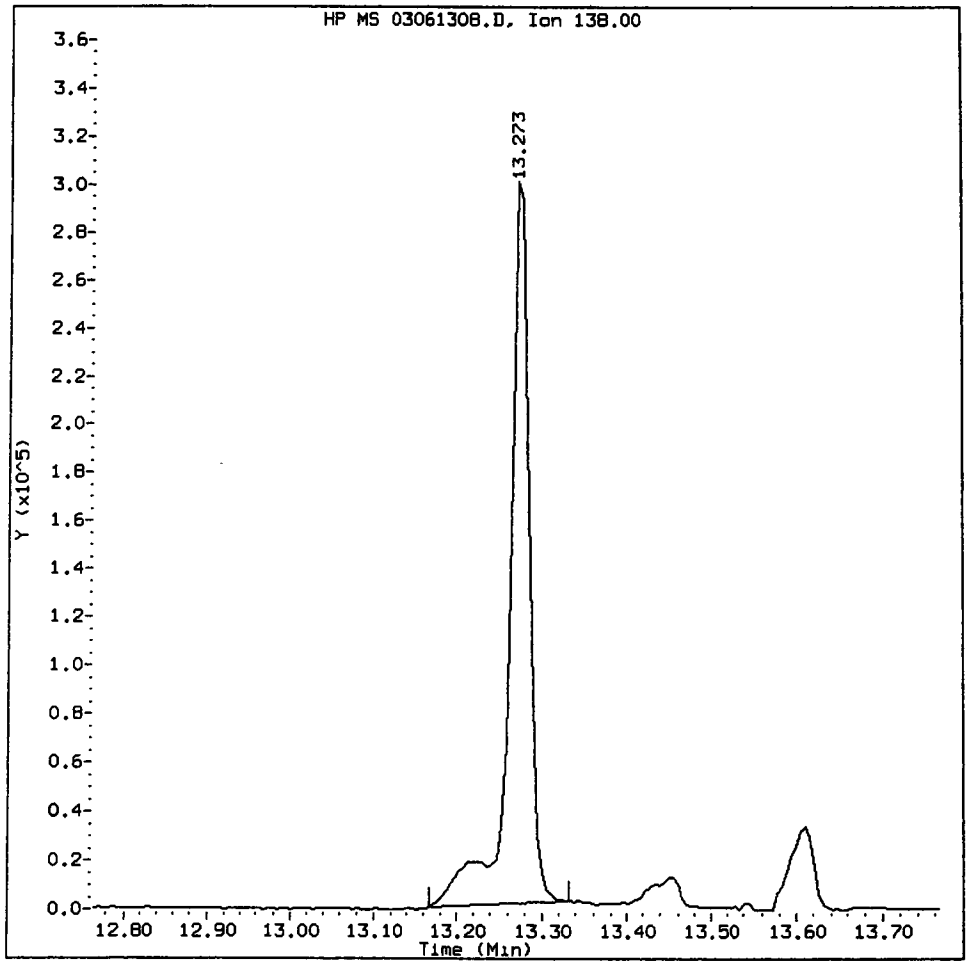


03/07/13

WJ10:00957

IC80306, /chem2/nt6.i/20130306.b/03061308.D

3-Nitroaniline Amount: 81.26 Area: 496848



MANUAL INTEGRATION for 3-Nitroaniline

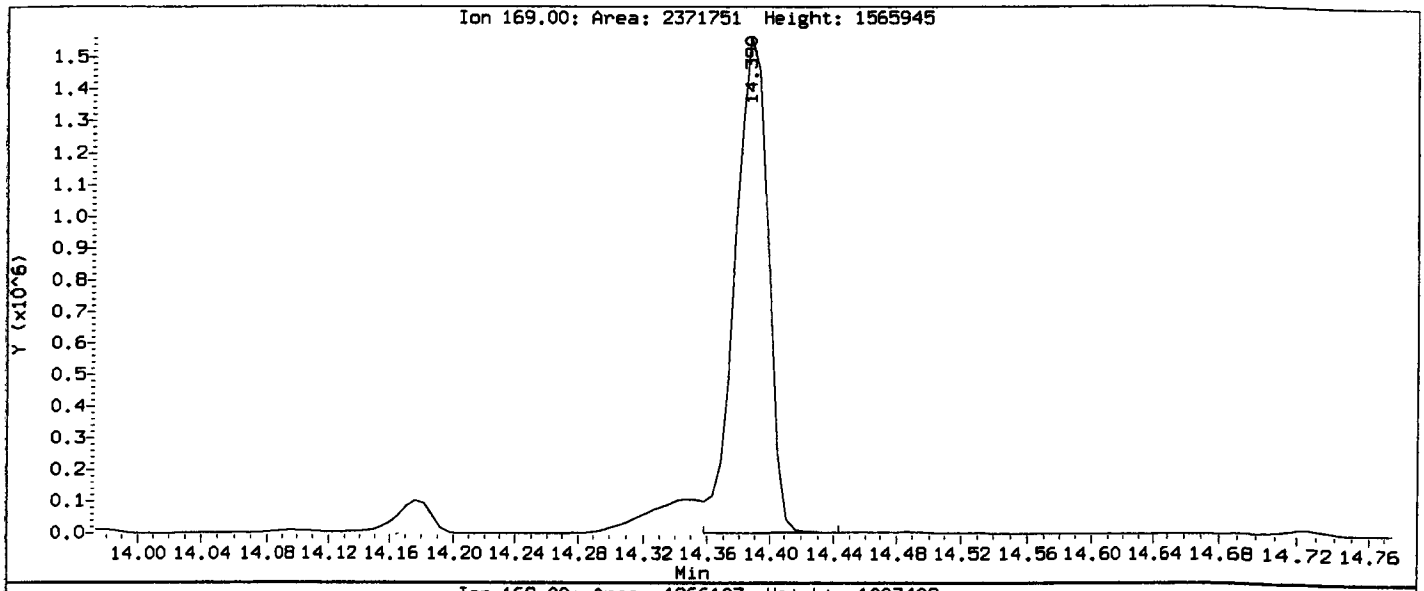
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

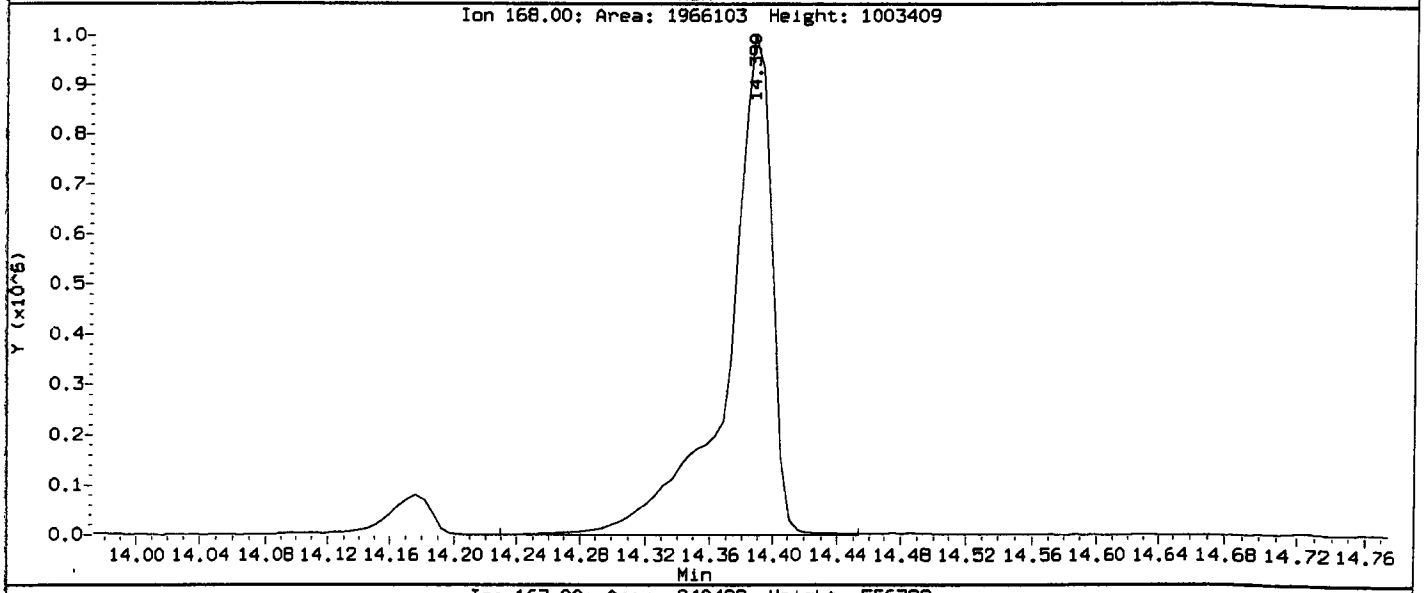
5. Other _____

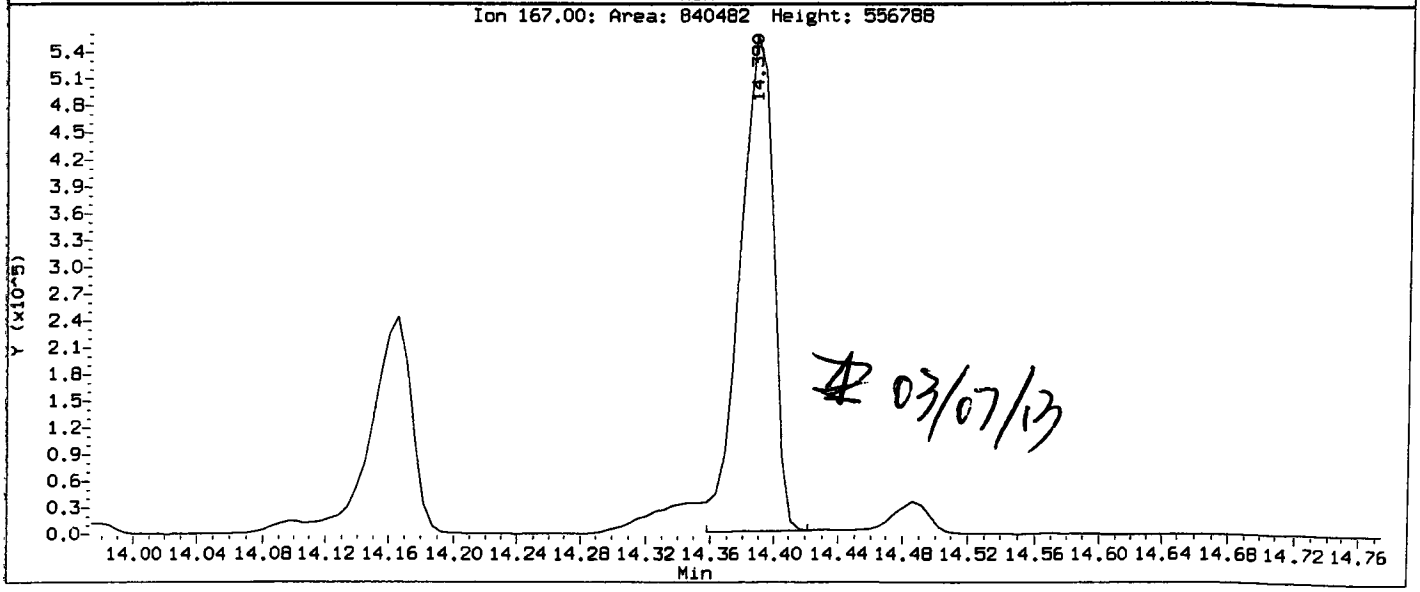
Analyst: _____ Date: 03/07/13

Data File: /chem2/nt6.i/20130306A.b/03061308.D
Injection Date: 06-MAR-2013 16:18
Instrument: nt6.i
Client Sample ID: IC800306

Compound: N-Nitrosodiphenylamine
CAS Number: 86-30-6



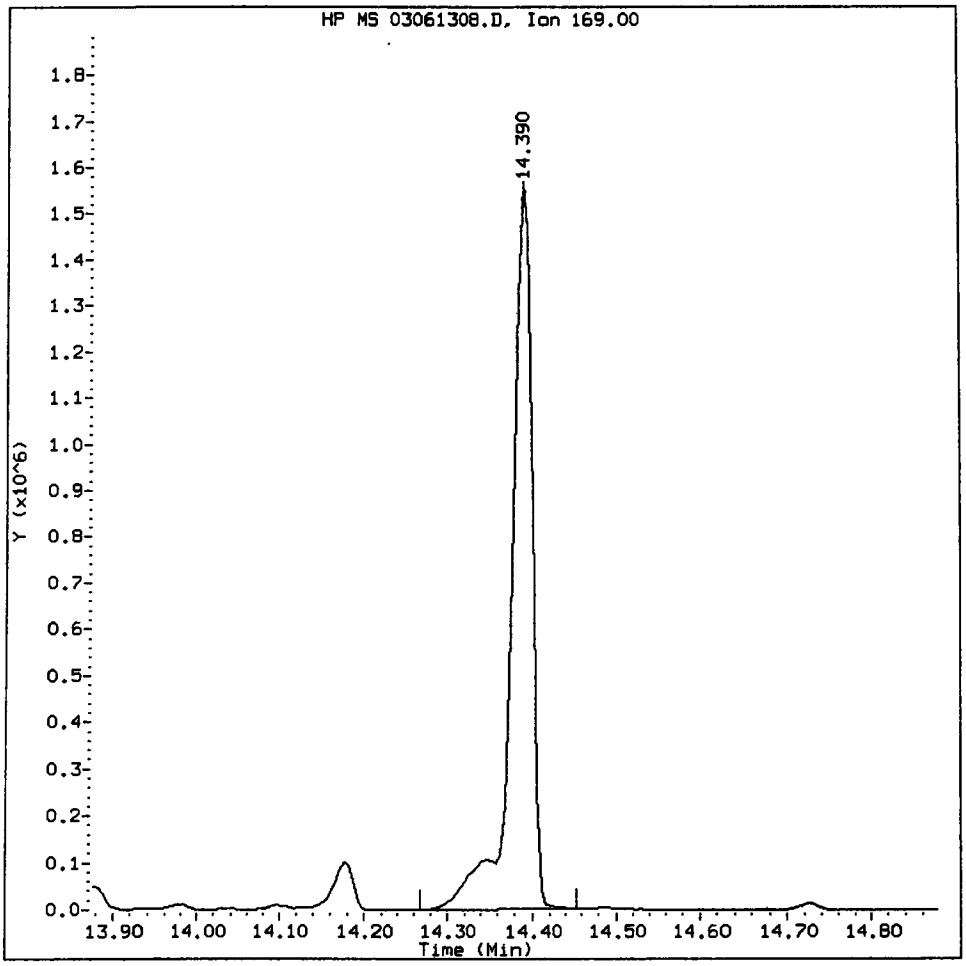




#2 03/07/13

IC80306, /chem2/nt6.i/20130306.b/03061308.D

N-Nitrosodiphenylamine Amount: 64.16 Area: 2609924



MANUAL INTEGRATION for N-Nitrosodiphenylamine

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 03/07/13

CO-ELUTION SUMMARY FOR FILE - 03061308.D

Lab ID: IC80306, Method: SW846030613.m, Instrument: nt6.i, Date: 06-MAR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130306.b/03061309.D
Lab Smp Id: ICV0306 Client Smp ID: ICV0306
Inj Date : 06-MAR-2013 16:52
Operator : JZ Inst ID: nt6.i
Smp Info : ICV0306,
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130306.b/SW846030613.m
Meth Date : 07-Mar-2013 14:16 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICVS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable 03/07/13

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$	1 2-Fluorophenol	112	6.429	6.432	(0.767)	680731	24.0771	24.08
$	2 Phenol-d5	99	7.930	7.933	(0.946)	780413	23.5802	23.58
	3 Phenol	94	7.952	7.969	(0.948)	902305	25.8922	25.89
$	5 2-Chlorophenol-d4	132	8.080	8.082	(0.964)	662890	23.6945	23.69
	4 Bis(2-Chloroethyl)ether	93	8.048	8.059	(0.960)	698741	23.0879	23.09
	6 2-Chlorophenol	128	8.107	8.118	(0.967)	729337	26.1581	26.16
	7 1,3-Dichlorobenzene	146	8.326	8.332	(0.993)	749128	23.0049	23.00
*	8 1,4-Dichlorobenzene-d4	152	8.384	8.385	(1.000)	436336	20.0000	
	9 1,4-Dichlorobenzene	146	8.411	8.417	(1.003)	733836	23.1542	23.15
$	10 1,2-Dichlorobenzene-d4	152	8.684	8.681	(1.036)	461465	23.4361	23.44
	12 1,2-Dichlorobenzene	146	8.705	8.706	(1.038)	693297	22.8826	22.88
	11 Benzyl alcohol	108	8.651	8.674	(1.032)	448309	23.6141	23.61
	14 2,2'-oxybis(1-Chloropropane)	45	8.908	8.919	(1.062)	1134956	23.6031	23.60
	13 2-Methylphenol	108	8.876	8.898	(1.059)	723080	27.3638	27.36
	17 Hexachloroethane	117	9.191	9.192	(1.096)	297182	23.1817	23.18
	16 N-Nitroso-di-n-propylamine	70	9.127	9.155	(1.089)	503015	22.1475	22.15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	15 4-Methylphenol	108	9.106	9.128	(1.086)	729199	27.9061	27.91
$	18 Nitrobenzene-d5	82	9.309	9.311	(0.893)	772979	24.0494	24.05
	19 Nitrobenzene	77	9.335	9.358	(0.896)	711278	23.1206	23.12
	20 Isophorone	82	9.715	9.742	(0.932)	1353521	25.2423	25.24
	21 2-Nitrophenol	139	9.848	9.860	(0.945)	393118	27.6169	27.62
	22 2,4-Dimethylphenol	107	9.944	9.961	(0.954)	711827	26.4423	26.44
	23 Bis(2-Chloroethoxy)methane	93	10.094	10.111	(0.969)	770762	21.9078	21.91
	24 Benzoic acid	105	10.201	10.330	(0.979)	1345602	57.7442	57.74
	25 2,4-Dichlorophenol	162	10.222	10.239	(0.981)	573091	27.6475	27.65
	26 1,2,4-Trichlorobenzene	180	10.361	10.367	(0.994)	592045	22.9449	22.94
*	27 Naphthalene-d8	136	10.420	10.426	(1.000)	1601740	20.0000	
	28 Naphthalene	128	10.452	10.463	(1.003)	1764697	25.6575	25.66
	29 4-Chloroaniline	127	10.585	10.602	(1.016)	659198	32.3122	32.31
	30 Hexachlorobutadiene	225	10.762	10.768	(1.033)	362788	23.1045	23.10
	31 4-Chloro-3-methylphenol	107	11.381	11.393	(1.092)	612805	27.8320	27.83
	32 2-Methylnaphthalene	141	11.568	11.580	(1.110)	906115	23.2622	23.26
	33 Hexachlorocyclopentadiene	237	11.942	11.948	(0.899)	375240	24.8473	24.85
	34 2,4,6-Trichlorophenol	196	12.076	12.087	(0.909)	427256	27.0392	27.04
	35 2,4,5-Trichlorophenol	196	12.129	12.141	(0.913)	468145	30.0326	30.03
$	36 2-Fluorobiphenyl	172	12.204	12.212	(0.919)	1325851	22.3460	22.35
	37 2-Chloronaphthalene	162	12.348	12.360	(0.930)	1001690	24.8929	24.89
	38 2-Nitroaniline	65	12.573	12.595	(0.947)	351131	25.2684	25.27
	39 Dimethylphthalate	163	12.941	12.969	(0.975)	1245240	22.0112	22.01
	40 Acenaphthylene	152	13.027	13.038	(0.981)	1824648	24.6099	24.61
	41 2,6-Dinitrotoluene	165	13.037	13.060	(0.982)	275947	22.8301	22.83
*	42 Acenaphthene-d10	164	13.278	13.289	(1.000)	939966	20.0000	
	43 3-Nitroaniline	138	13.256	13.273	(0.998)	239619	28.0702	28.07
	44 Acenaphthene	153	13.331	13.348	(1.004)	1129525	23.5301	23.53
	45 2,4-Dinitrophenol	184	13.422	13.455	(1.011)	479725	55.5689	55.57
	46 Dibenzofuran	168	13.593	13.610	(1.024)	1455003	23.1752	23.18
	47 4-Nitrophenol	109	13.534	13.567	(1.019)	172005	28.0119	28.01
	48 2,4-Dinitrotoluene	165	13.668	13.690	(1.029)	385311	23.5679	23.57
	50 Diethylphthalate	149	14.095	14.112	(1.062)	1220857	23.2922	23.29
	49 Fluorene	166	14.148	14.165	(1.066)	1223636	27.6871	27.69
	51 4-Chlorophenyl-phenylether	204	14.165	14.176	(1.067)	596246	21.6357	21.64
	52 4-Nitroaniline	138	14.245	14.288	(1.073)	251920	27.3255	27.33
	53 4,6-Dinitro-2-methylphenol	198	14.325	14.358	(0.915)	572575	53.7527	53.75
	54 N-Nitrosodiphenylamine	169	14.368	14.390	(0.918)	914372	22.7358	22.74
$	55 2,4,6-Tribromophenol	330	14.571	14.573	(1.097)	189554	25.5032	25.50
	56 4-Bromophenyl-phenylether	248	14.944	14.956	(0.955)	377350	23.2428	23.24
	57 Hexachlorobenzene	284	15.174	15.186	(0.969)	384515	22.9728	22.97
	58 Pentachlorophenol	266	15.468	15.480	(0.988)	287065	29.0708	29.07
*	59 Phenanthrene-d10	188	15.655	15.667	(1.000)	1479267	20.0000	
	60 Phenanthrene	178	15.692	15.709	(1.002)	1680027	22.9553	22.96
	61 Anthracene	178	15.767	15.784	(1.007)	1755058	23.9500	23.95
	62 Carbazole	167	16.040	16.057	(1.025)	1330730	26.0182	26.02
	63 Di-n-butylphthalate	149	16.734	16.751	(1.069)	2030430	21.9779	21.98

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	17.626	17.643	(1.126)	1972942	25.6259	25.63
	65 Pyrene	202	17.984	18.001	(0.901)	2056966	25.5013	25.50
$	66 Terphenyl-d14	244	18.283	18.291	(0.916)	1211475	23.3683	23.37
	67 Butylbenzylphthalate	149	19.154	19.171	(0.959)	908272	23.0277	23.03
	68 Benzo(a)anthracene	228	19.939	19.956	(0.999)	1685817	25.0357	25.04
*	69 Chrysene-d12	240	19.966	19.983	(1.000)	1476943	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.939	19.951	(0.999)	451257	24.3578	24.36
	71 Chrysene	228	20.009	20.026	(1.002)	1736178	25.2571	25.26
	72 bis(2-Ethylhexyl)phthalate	149	20.137	20.149	(0.956)	1228581	22.7274	22.73
*	134 Di-n-octylphthalate-d4	153	21.072	21.078	(1.000)	1837060	20.0000	
	73 Di-n-octylphthalate	149	21.083	21.089	(1.000)	1880578	21.6808	21.68
	74 Benzo(b)fluoranthene	252	21.595	21.618	(0.976)	1566636	23.6801	23.68
	75 Benzo(k)fluoranthene	252	21.627	21.655	(0.978)	1994452	28.1196	28.12
	187 Total Benzofluoranthenes	252	21.627	21.655	(0.978)	3327670	49.3546	49.35
	76 Benzo(a)pyrene	252	22.044	22.066	(0.996)	1613570	25.7778	25.78
*	77 Perylene-d12	264	22.124	22.136	(1.000)	1464482	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.743	23.781	(1.073)	1965367	26.0897	26.09
	79 Dibenzo(a,h)anthracene	278	23.770	23.808	(1.074)	1560578	26.3098	26.31
	80 Benzo(g,h,i)perylene	276	24.202	24.251	(1.094)	1686995	26.1865	26.19
	90 N-Nitrosodimethylamine	74	3.897	3.962	(0.465)	477683	23.2474	23.25
	103 Pyridine	79	3.860	3.914	(0.460)	714173	21.9157	21.92
	91 Aniline	93	7.941	7.947	(0.947)	926839	24.0038	24.00
	105 1-methylnaphthalene	141	11.739	11.751	(1.127)	940259	23.7617	23.76
	93 Benzidine	184	17.867	17.873	(0.895)	240615	33.4934	33.49(R)
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.416	14.438	(1.086)	1374366	23.0768	23.08
	143 1,4-Dioxane	88	3.112	3.145	(0.371)	350623	24.7683	24.77
$	137 d8-1,4-Dioxane	96	3.053	3.086	(0.364)	318432	24.0340	24.03
	144 alpha-Terpineol	59	10.468	10.485	(1.005)	525055	25.7775	25.78
	177 p-Benzoquinone	82	7.081	7.092	(0.680)	168536	27.5531	27.55
	98 Retene	219	18.534	18.546	(0.928)	857189	24.6256	24.63
	99 Perylene	252	22.156	22.179	(1.001)	1395665	25.4541	25.45
	133 Butylatedhydroxytoluene	205	13.438	13.450	(1.012)	979147	24.7376	24.74
	115 Tributyl Phosphate	99	14.453	14.486	(0.923)	1516405	26.7138	26.71
	116 Dibutyl Phenyl Phosphate	175	16.189	16.190	(1.034)	1011072	25.8473	25.85
	117 Butyl Diphenyl Phosphate	94	17.867	17.878	(0.895)	334533	24.6000	24.60
	118 Triphenyl Phosphate	326	19.475	19.486	(0.975)	321794	24.8809	24.88
	123 Acetophenone	105	9.073	9.090	(1.082)	978965	23.8352	23.84
	168 Pentachlorobenzene	250	13.636	13.647	(1.027)	526515	25.5739	25.57
	113 Diphenyl Oxide	170	12.530	12.541	(0.944)	860260	23.5091	23.51
	112 Biphenyl	154	12.338	12.349	(0.929)	1201266	26.6016	26.60
	120 2,3,4,6-Tetrachlorophenol	232	13.865	13.882	(1.044)	367023	27.3555	27.36
	151 1,2,4,5-Tetrachlorobenzene	216	11.905	11.911	(0.897)	595534	25.9384	25.94
	110 Tetrachloroguaiacol	247	15.596	15.613	(0.996)	430258	55.4316	55.43
	109 3,4,5-Trichloroguaiacol	213	13.962	13.978	(0.892)	229733	27.1873	27.19
	181 3,4,6-Trichloroguaiacol	211	14.079	14.096	(1.679)	263271	26.4421	26.44
	108 4,5,6-Trichloroguaiacol	213	14.993	15.004	(1.129)	232582	26.4561	26.46
	184 3,4-Dichloroguaiacol	192	12.423	12.435	(1.482)	244376	25.8587	25.86

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
107 4,5-Dichloroguaiacol	192	13.203	13.220	(0.994)	600400	52.2673	52.27
182 4,6-Dichloroguaiacol	192	13.203	13.220	(1.575)	597711	51.8329	51.83
185 4-Chloroguaiacol	115	11.333	11.345	(1.352)	158010	12.8882	12.89
186 Carbaryl	144	16.451	16.473	(1.051)	922128	26.9774	26.98
178 2-Benzyl-4-Chlorophenol	218	16.403	16.425	(1.048)	320599	26.1670	26.17
106 Guaiacol	124	9.330	9.347	(1.113)	546489	24.0770	24.08

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 03061309.D
Lab Smp Id: ICV0306
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

Calibration Date: 06-MAR-2013
Calibration Time: 12:16
Client Smp ID: ICV0306
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	436336	-4.75
27 Naphthalene-d8	1718341	859170	3436682	1601740	-6.79
42 Acenaphthene-d10	1010041	505020	2020082	939966	-6.94
59 Phenanthrene-d10	1666734	833367	3333468	1479267	-11.25
69 Chrysene-d12	1675752	837876	3351504	1476943	-11.86
134 Di-n-octylphthala	2026355	1013178	4052710	1837060	-9.34
77 Perylene-d12	1637524	818762	3275048	1464482	-10.57

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.39	7.89	8.89	8.38	-0.03
27 Naphthalene-d8	10.42	9.92	10.92	10.42	-0.02
42 Acenaphthene-d10	13.29	12.79	13.79	13.28	-0.06
59 Phenanthrene-d10	15.66	15.16	16.16	15.65	-0.05
69 Chrysene-d12	19.98	19.48	20.48	19.97	-0.07
134 Di-n-octylphthala	21.09	20.59	21.59	21.07	-0.06
77 Perylene-d12	22.14	21.64	22.64	22.12	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 20130306
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: ICV0306 Client Smp ID: ICV0306
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: LCS
SpikeList File: ICV.spk Quant Type: ISTD
Sublist File: ICVS.sub
Method File: /chem2/nt6.i/20130306.b/SW846030613.m
Misc Info: 13-

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3 Phenol	25.00	25.89	103.57	70-130
4 Bis(2-Chloroethyl)	25.00	23.09	92.35	70-130
6 2-Chlorophenol	25.00	26.16	104.63	70-130
7 1,3-Dichlorobenzen	25.00	23.00	92.02	70-130
9 1,4-Dichlorobenzen	25.00	23.15	92.62	70-130
11 Benzyl alcohol	25.00	23.61	94.46	70-130
12 1,2-Dichlorobenzen	25.00	22.88	91.53	70-130
13 2-Methylphenol	25.00	27.36	109.46	70-130
14 2,2'-oxybis(1-Chlo	25.00	23.60	94.41	70-130
15 4-Methylphenol	25.00	27.91	111.62	70-130
16 N-Nitroso-di-n-pro	25.00	22.15	88.59	70-130
17 Hexachloroethane	25.00	23.18	92.73	70-130
19 Nitrobenzene	25.00	23.12	92.48	70-130
20 Isophorone	25.00	25.24	100.97	70-130
21 2-Nitrophenol	25.00	27.62	110.47	70-130
22 2,4-Dimethylphenol	25.00	26.44	105.77	70-130
23 Bis(2-Chloroethoxy	25.00	21.91	87.63	70-130
24 Benzoic acid	50.00	57.74	115.49	70-130
25 2,4-Dichlorophenol	25.00	27.65	110.59	70-130
26 1,2,4-Trichloroben	25.00	22.94	91.78	70-130
28 Naphthalene	25.00	25.66	102.63	70-130
29 4-Chloroaniline	25.00	32.31	129.25	70-130
30 Hexachlorobutadien	25.00	23.10	92.42	70-130
31 4-Chloro-3-methylp	25.00	27.83	111.33	70-130
32 2-Methylnaphthalen	25.00	23.26	93.05	70-130
33 Hexachlorocyclopen	25.00	24.85	99.39	70-130
34 2,4,6-Trichlorophe	25.00	27.04	108.16	70-130
35 2,4,5-Trichlorophe	25.00	30.03	120.13	70-130
37 2-Chloronaphthalen	25.00	24.89	99.57	70-130
38 2-Nitroaniline	25.00	25.27	101.07	70-130
39 Dimethylphthalate	25.00	22.01	88.04	70-130
40 Acenaphthylene	25.00	24.61	98.44	70-130
41 2,6-Dinitrotoluene	25.00	22.83	91.32	70-130

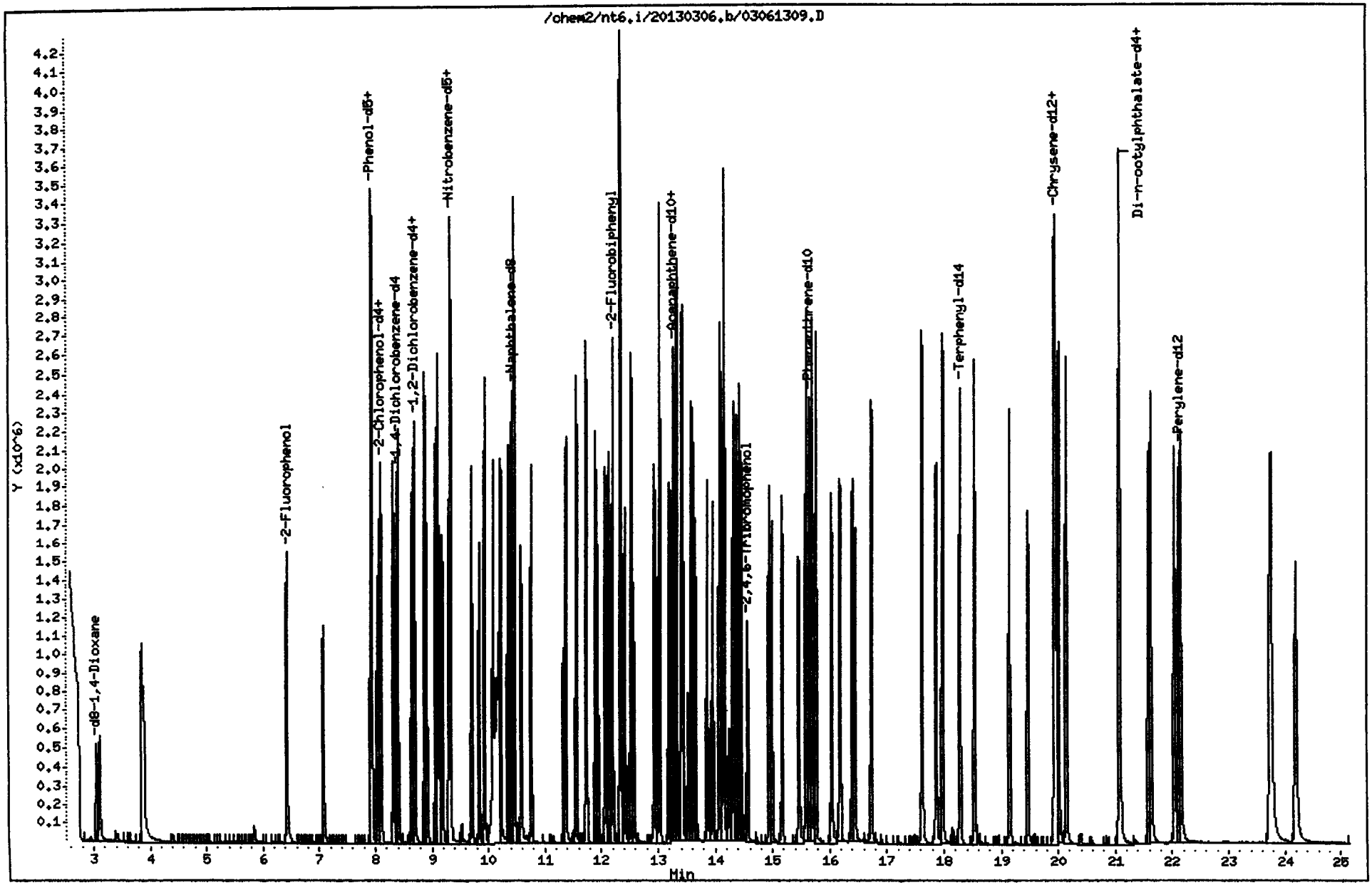
SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43	3-Nitroaniline	25.00	28.07	112.28	70-130
44	Acenaphthene	25.00	23.53	94.12	70-130
45	2,4-Dinitrophenol	50.00	55.57	111.14	70-130
46	Dibenzofuran	25.00	23.18	92.70	70-130
47	4-Nitrophenol	25.00	28.01	112.05	70-130
48	2,4-Dinitrotoluene	25.00	23.57	94.27	70-130
49	Fluorene	25.00	27.69	110.75	70-130
50	Diethylphthalate	25.00	23.29	93.17	70-130
51	4-Chlorophenyl-phe	25.00	21.64	86.54	70-130
52	4-Nitroaniline	25.00	27.33	109.30	70-130
53	4,6-Dinitro-2-meth	50.00	53.75	107.51	70-130
54	N-Nitrosodiphenyla	25.00	22.74	90.94	70-130
56	4-Bromophenyl-phen	25.00	23.24	92.97	70-130
57	Hexachlorobenzene	25.00	22.97	91.89	70-130
58	Pentachlorophenol	25.00	29.07	116.28	70-130
60	Phenanthrene	25.00	22.96	91.82	70-130
61	Anthracene	25.00	23.95	95.80	70-130
62	Carbazole	25.00	26.02	104.07	70-130
63	Di-n-butylphthalat	25.00	21.98	87.91	70-130
64	Fluoranthene	25.00	25.63	102.50	70-130
65	Pyrene	25.00	25.50	102.01	70-130
67	Butylbenzylphthala	25.00	23.03	92.11	70-130
68	Benzo(a)anthracene	25.00	25.04	100.14	70-130
70	3,3'-Dichlorobenzi	25.00	24.36	97.43	70-130
71	Chrysene	25.00	25.26	101.03	70-130
72	bis(2-Ethylhexyl)p	25.00	22.73	90.91	70-130
73	Di-n-octylphthalat	25.00	21.68	86.72	70-130
74	Benzo(b)fluoranthe	25.00	23.68	94.72	70-130
75	Benzo(k)fluoranthe	25.00	28.12	112.48	70-130
187	Total Benzofluoran	50.00	49.35	98.71	70-130
76	Benzo(a)pyrene	25.00	25.78	103.11	70-130
78	Indeno(1,2,3-cd)py	25.00	26.09	104.36	70-130
79	Dibenzo(a,h)anthra	25.00	26.31	105.24	70-130
80	Benzo(g,h,i)peryle	25.00	26.19	104.75	70-130
90	N-Nitrosodimethyla	25.00	23.25	92.99	70-130
103	Pyridine	25.00	21.92	87.66	70-130
91	Aniline	25.00	24.00	96.02	70-130
105	1-methylnaphthalen	25.00	23.76	95.05	70-130
93	Benzidine	25.00	33.49	133.97*	70-130
111	Azobenzene (1,2-DP	25.00	23.08	92.31	70-130
143	1,4-Dioxane	25.00	24.77	99.07	70-130
144	alpha-Terpineol	25.00	25.78	103.11	70-130
177	p-Benzoquinone	25.00	27.55	110.21	70-130
98	Retene	25.00	24.63	98.50	70-130
99	Perylene	25.00	25.45	101.82	70-130
133	Butylatedhydroxyto	25.00	24.74	98.95	70-130
115	Tributyl Phosphate	25.00	26.71	106.86	70-130

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
116 Dibutyl Phenyl Pho	25.00	25.85	103.39	70-130
117 Butyl Diphenyl Pho	25.00	24.60	98.40	70-130
118 Triphenyl Phosphat	25.00	24.88	99.52	70-130
123 Acetophenone	25.00	23.84	95.34	70-130
168 Pentachlorobenzene	25.00	25.57	102.30	70-130
113 Diphenyl Oxide	25.00	23.51	94.04	70-130
112 Biphenyl	25.00	26.60	106.41	70-130
120 2,3,4,6-Tetrachlor	25.00	27.36	109.42	70-130
151 1,2,4,5-Tetrachlor	25.00	25.94	103.75	70-130
106 Guaiacol	25.00	24.08	96.31	70-130
186 Carbaryl	25.00	26.98	107.91	70-130
178 2-Benzyl-4-Chlorop	25.00	26.17	104.67	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	25.00	24.08	96.31	75-125
$ 2 Phenol-d5	25.00	23.58	94.32	75-125
$ 5 2-Chlorophenol-d4	25.00	23.69	94.78	75-125
$ 10 1,2-Dichlorobenzen	25.00	23.44	93.74	75-125
$ 18 Nitrobenzene-d5	25.00	24.05	96.20	75-125
$ 36 2-Fluorobiphenyl	25.00	22.35	89.38	75-125
$ 55 2,4,6-Tribromophen	25.00	25.50	102.01	75-125
$ 66 Terphenyl-d14	25.00	23.37	93.47	75-125
$ 137 d8-1,4-Dioxane	25.00	24.03	96.14	75-125

Data File: /chem2/nt6.i/20130306.b/03061309.D
Date : 06-MAR-2013 16:52
Client ID: ICV0306
Sample Info: ICV0306,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



CO-ELUTION SUMMARY FOR FILE - 03061309.D

Lab ID: ICV0306, Method: SW846030613.m, Instrument: nt6.i, Date: 06-MAR-2013

RT	CO-ELUTION COMPOUNDS
19.939	3,3'-Dichlorobenzidine and Benzo(a)anthracene

checked dlc

03/07/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS,SVOA Initial Calibration Notes

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date(s): 01/25/13 Internal Standard ID 1998-2 Expiration 07/02/13

DFTPP Tune Meets Criteria?	YES / NO	Minimum Response Factors Met/	YES / NO
DDT Breakdown <20%?	YES / NO	ICV Exceeding ±20%?	YES / NO
Peak Tailing Factor ≤2?	YES / NO	ICV Exceeding ±30%?	YES / NO
ICal Meets %RSD & r^2 Criteria?	YES / NO	Linear Fits Used?	YES / NO
Q flag applied?	YES / NO	Quadratic Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Calibration Points Dropped?	YES / NO
Spectral Library Updated?	YES / NO		

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Supelco	2026-2	02/07/13	Ultra	2055-1	12/05/13
	2050-1	02/07/13		2054-1	12/31/13
	2050-2	8/10/13	~~04/25/13~~	2053-2	08/13/13
	2061-2	~~04/25/13~~ 04/25/14			
	1998-4	07/02/13			

Detail problems, corrective actions and/or other pertinent information below:

- Benzoic acid, 2,4 Dinitrophenol, 4 Nitrophenol, Benzidine — quadratic fit used
- Low point of the curve dropped for Benzoic acid, 2,4 Dinitrophenol 4 Nitrophenol, Benzidine, Carbazole.
- 4,6 - Dinitro -2- methylephenol ICV >30%

Analyst: YZ **Date:** 09/08/13

Reviewer: VD **Date:** 1/29/13

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 2013/01/25 Analysis: ABN/SIM ABN Analyst: YZ

GC Program: ABN2 Column No: 247358 Column Type: ZB5 MSI

Instrument Tune (.U or .CT.): 12/30414 EM Voltage: 1500

Calibration File: DF0125 Curve Date: 01/25/13 Injection Vol.: 1 uL

DF 0125A

IS/SS	Ical/Ccal	LCS/ICV
1998-2	2036-2	~~2061-1~~
	2050-1	2055-1
	2050-2	2054-1
	2064-2	2053-2
	1998-4	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130125.b

	Time	Filename	LabID	ClientId	DF												
1	1243	df0125.d	DFTPP	DFTPP	1	NO ISTDS FOUND											
2	1259	ic0125a.d	IC0125A		1	9.08	46623	11.76	176978	15.66	110872	18.94	188390	24.01	213681	26.51	208584	25.10	264139
3	1336	ic0125b.d	IC0125B		1	9.09	43631	11.76	165229	15.66	106731	18.95	180535	24.02	200009	26.52	199837	25.10	265158
4	1413	ic0125c.d	IC0125C		1	9.08	44358	11.75	169256	15.66	101836	18.93	170953	24.01	193229	26.51	179458	25.10	216698
5	1450	ic0125d.d	IC0125D		1	9.08	42972	11.76	165867	15.66	107661	18.94	182628	24.01	203223	26.52	202904	25.10	260852
6	1527	ic0125e.d	IC0125E		1	9.08	48848	11.78	183261	15.66	111683	18.94	191397	24.00	212807	26.51	206726	25.10	266669
7	1603	ic0125f.d	IC0125F		1	9.08	46627	11.75	174830	15.66	108024	18.94	188394	24.01	208658	26.51	204198	25.10	249963
8	1716	ic0125h.d	IC0125H		1	9.09	45029	11.75	169245	15.66	103177	18.94	178443	24.00	202095	26.50	191018	25.09	218395
9	1830	icv0125.d	ICV0125		1	9.09	40184	11.75	150678	15.66	93376	18.94	157911	24.01	186268	26.51	179038	25.10	217021
10	1902	df0125a.d	DFTPP	DFTPP	1	NO ISTDS FOUND											
11	1917	cc0125.d	CC0125		1	9.08	46921	11.75	170888	15.66	106773	18.94	184813	24.01	206971	26.51	204624	25.10	251016
12	1954	wa01mb.d	WA01MB1		1	9.08	40065	11.75	153584	15.66	91793	18.94	159313	24.00	174429	26.50	159429	25.10	196633
13	2030	wa01mb.d	WA01LCS1		1	9.08	42127	11.75	159658	15.66	99822	18.94	171977	24.01	196575	26.51	185431	25.10	237586
14	2106	wa01qls.d	WA01QLS		1	9.08	43091	11.75	167212	15.66	100580	18.94	170603	24.01	190229	26.50	172299	25.10	215779
15	2142	wa01a.d	WA01A		1	9.08	43275	11.75	164288	15.66	97953	18.94	165607	24.01	188349	26.52	188693	25.11	242528
16	2219	wa01b.d	WA01B		1	9.08	43764	11.75	170747	15.66	103608	18.94	179683	24.01	196568	26.52	190190	25.10	239392
17	2255	wa01c.d	WA01C		1	9.09	44751	11.75	171838	15.66	102652	18.94	175182	24.01	197188	26.52	187564	25.11	240873
18	2331	wa01d.d	WA01D		1	9.08	40012	11.76	155975	15.66	93741	18.95	162795	24.02	184984	26.55	137219	25.12	241290
19	0008	wa01e.d	WA01E		1	9.08	42943	11.76	164582	15.66	96689	18.95	166756	24.02	185290	26.52	159850	25.11	242383
20	0044	wa01f.d	WA01F		1	9.08	45587	11.76	175719	15.66	106499	18.95	185366	24.02	203487	26.53	168521	25.11	268784
21	0121	wa01g.d	WA01G		1	9.08	45396	11.76	172840	15.66	103775	18.95	176189	24.02	197623	26.52	164129	25.11	263119
22	0157	wa01gms.d	WA01GMS		1	9.09	43139	11.76	161806	15.67	99580	18.95	169688	24.02	199335	26.52	167266	25.11	264345
23	0233	wa01gmsd.d	WA01GMSD		1	9.08	41081	11.76	153485	15.67	93479	18.95	161564	24.02	186526	26.53	158512	25.11	246361

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

YZ 01/28/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/ABN.m
Batch File: /chem1/nt10.i/20130125.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	ic0125a	ic0125b	ic0125c	ic0125d	ic0125e	ic0125f	ic0125h
INJ.DATE:	25-JAN-2013	25-JAN-2013	25-JAN-2013	25-JAN-2013	25-JAN-2013	25-JAN-2013	25-JAN-2013
INJ.TIME:	12:59	13:36	14:13	14:50	15:27	16:03	17:16

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.719	6.728	6.720	6.728	6.720	6.719	6.720	6.719	3.719-9.719	6.722	0.004
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.785	15.785-21.785	+++++	+++++
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.645	5.645-11.645	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.455	14.455-20.455	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.696	17.696-23.696	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.219	16.219-22.219	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.949	19.949-25.949	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.195	16.195-22.195	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.503	17.503-23.503	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.827	4.827-10.827	+++++	+++++
168 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.842	12.842-18.842	+++++	+++++
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 _____ Date: 1/28/13
Reviewer 2 _____ Date: 1/29/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/ABN.m
Batch File: /chem1/nt10.i/20130125.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.383	13.383-19.383	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.445	0.000-5.445	+++++	+++++
* 134 Di-n-octylphthalate-d4	25.100	25.100	25.100	25.100	25.100	25.100	25.093	25.100	22.100-28.100	25.099	0.003
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.571	12.571-18.571	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.447	8.447-14.447	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/ABN.m
Batch File: /chem1/nt10.i/20130125.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.252	7.252-13.252	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	16.467	16.476	16.460	16.468	16.460	16.467	16.460	16.467	13.467-19.467	16.466	0.006
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.963	15.963-21.963	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.215	18.215-24.215	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.761	13.761-19.761	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.747	15.747-21.747	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.923	13.923-19.923	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.341	11.341-17.341	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.085	11.085-17.085	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	17.224	17.240	17.217	17.233	17.217	17.224	17.217	17.224	14.224-20.224	17.225	0.009
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.324	14.324-20.324	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.115	12.115-18.115	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.270	12.270-18.270	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.519	13.519-19.519	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.019	10.019-16.019	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.095	11.095-17.095	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.118	11.118-17.118	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.572	8.572-14.572	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/ABN.m
Batch File: /chem1/nt10.i/20130125.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.243	6.243-12.243	+++++	+++++
	105 1-methylnaphthalene	13.551	13.551	13.543	13.551	13.543	13.551	13.544	13.551	10.551-16.551	13.548	0.004
	151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
	152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
	153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.642	24.642-30.642	+++++	+++++
	154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.953	22.953-28.953	+++++	+++++
	155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.750	24.750-30.750	+++++	+++++
	156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.464	23.464-29.464	+++++	+++++
	157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.099	24.099-30.099	+++++	+++++
	158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.513	21.513-27.513	+++++	+++++
	159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.132	22.132-28.132	+++++	+++++
	160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.528	16.528-22.528	+++++	+++++
	161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
	162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
	163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
	164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
	165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
	166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
	167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$	2 Phenol-d5	8.435	8.451	8.428	8.435	8.428	8.427	8.428	8.435	5.435-11.435	8.433	0.009
	3 Phenol	8.458	8.474	8.451	8.459	8.451	8.451	8.451	8.458	5.458-11.458	8.456	0.009
	4 Bis(2-Chloroethyl)ethe	8.620	8.629	8.621	8.621	8.621	8.620	8.621	8.620	5.620-11.620	8.622	0.003
$	5 2-Chlorophenol-d4	8.698	8.706	8.698	8.698	8.698	8.698	8.698	8.698	5.698-11.698	8.699	0.003

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/ABN.m
Batch File: /chem1/nt10.i/20130125.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	6 2-Chlorophenol	8.729	8.737	8.729	8.729	8.729	8.729	8.729	8.729	5.729-11.729	8.730	0.003
	7 1,3-Dichlorobenzene	9.015	9.015	9.015	9.015	9.015	9.015	9.015	9.015	6.015-12.015	9.015	0.000
*	8 1,4-Dichlorobenzene-d4	9.085	9.085	9.085	9.085	9.085	9.085	9.085	9.085	6.085-12.085	9.085	0.000
	9 1,4-Dichlorobenzene	9.116	9.124	9.116	9.116	9.116	9.116	9.116	9.116	6.116-12.116	9.117	0.003
$	10 1,2-Dichlorobenzene-d4	9.465	9.473	9.465	9.473	9.465	9.465	9.465	9.465	6.465-12.465	9.467	0.004
	11 Benzyl alcohol	9.387	9.403	9.387	9.395	9.387	9.387	9.388	9.387	6.387-12.387	9.391	0.006
	12 1,2-Dichlorobenzene	9.496	9.504	9.496	9.496	9.496	9.496	9.496	9.496	6.496-12.496	9.497	0.003
	13 2-Methylphenol	9.651	9.659	9.644	9.652	9.644	9.643	9.644	9.651	6.651-12.651	9.648	0.006
	14 2,2'-oxybis(1-Chloropr	9.721	9.729	9.714	9.721	9.721	9.721	9.722	9.721	6.721-12.721	9.721	0.005
	15 4-Methylphenol	9.938	9.954	9.939	9.947	9.939	9.938	9.939	9.938	6.938-12.938	9.942	0.006
	16 N-Nitroso-di-n-propyla	10.000	10.016	10.001	10.001	10.001	9.993	9.993	10.000	7.000-13.000	10.001	0.008
	17 Hexachloroethane	10.132	10.133	10.125	10.133	10.133	10.132	10.133	10.132	7.132-13.132	10.132	0.003
$	18 Nitrobenzene-d5	10.264	10.273	10.257	10.265	10.265	10.264	10.257	10.264	7.264-13.264	10.263	0.005
	19 Nitrobenzene	10.303	10.311	10.296	10.303	10.296	10.295	10.296	10.303	7.303-13.303	10.300	0.006
	20 Isophorone	10.792	10.816	10.785	10.800	10.785	10.784	10.785	10.792	7.792-13.792	10.792	0.012
	21 2-Nitrophenol	10.978	10.986	10.978	10.978	10.978	10.978	10.978	10.978	7.978-13.978	10.979	0.003
	22 2,4-Dimethylphenol	11.070	11.078	11.063	11.071	11.063	11.063	11.063	11.070	8.070-14.070	11.067	0.006
	23 Bis(2-Chloroethoxy)met	11.278	11.286	11.279	11.279	11.279	11.278	11.271	11.278	8.278-14.278	11.279	0.004
	24 Benzoic acid	11.325	11.487	11.163	11.402	11.217	11.271	11.186	11.325	8.325-14.325	11.293	0.119
	25 2,4-Dichlorophenol	11.471	11.487	11.471	11.479	11.471	11.471	11.464	11.471	8.471-14.471	11.473	0.007
	26 1,2,4-Trichlorobenzene	11.671	11.672	11.664	11.672	11.664	11.671	11.664	11.671	8.671-14.671	11.668	0.004
*	27 Naphthalene-d8	11.756	11.757	11.749	11.757	11.749	11.749	11.749	11.756	8.756-14.756	11.752	0.004
	28 Naphthalene	11.795	11.803	11.795	11.795	11.795	11.795	11.795	11.795	8.795-14.795	11.796	0.003
	29 4-Chloroaniline	11.965	11.981	11.957	11.965	11.957	11.957	11.957	11.965	8.965-14.965	11.963	0.009

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/ABN.m
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Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	30 Hexachlorobutadiene	12.212	12.212	12.205	12.212	12.212	12.212	12.205	12.212	9.212-15.212	12.210	0.004
	31 4-Chloro-3-methylpheno	13.025	13.033	13.017	13.025	13.017	13.017	13.017	13.025	10.025-16.025	13.022	0.006
	32 2-Methylnaphthalene	13.311	13.311	13.303	13.311	13.311	13.311	13.311	13.311	10.311-16.311	13.310	0.003
	33 Hexachlorocyclopentadi	13.822	13.830	13.822	13.830	13.822	13.822	13.822	13.822	10.822-16.822	13.824	0.004
	34 2,4,6-Trichlorophenol	13.992	14.000	13.992	14.000	13.992	13.992	13.992	13.992	10.992-16.992	13.994	0.004
	35 2,4,5-Trichlorophenol	14.069	14.078	14.070	14.070	14.062	14.069	14.070	14.069	11.069-17.069	14.070	0.005
$	36 2-Fluorobiphenyl	14.178	14.178	14.170	14.178	14.170	14.170	14.170	14.178	11.178-17.178	14.174	0.004
	37 2-Chloronaphthalene	14.379	14.387	14.371	14.379	14.379	14.379	14.379	14.379	11.379-17.379	14.379	0.005
	38 2-Nitroaniline	14.681	14.697	14.673	14.681	14.673	14.673	14.674	14.681	11.681-17.681	14.679	0.009
	39 Dimethylphthalate	15.176	15.192	15.169	15.176	15.169	15.168	15.169	15.176	12.176-18.176	15.174	0.009
	40 Acenaphthylene	15.315	15.324	15.316	15.316	15.316	15.316	15.316	15.315	12.315-18.315	15.317	0.003
	41 2,6-Dinitrotoluene	15.308	15.324	15.300	15.316	15.300	15.308	15.300	15.308	12.308-18.308	15.308	0.009
*	42 Acenaphthene-d10	15.664	15.664	15.656	15.664	15.656	15.664	15.656	15.664	12.664-18.664	15.660	0.004
	43 3-Nitroaniline	15.609	15.625	15.594	15.618	15.594	15.602	15.594	15.609	12.609-18.609	15.605	0.013
	44 Acenaphthene	15.733	15.741	15.726	15.733	15.726	15.733	15.726	15.733	12.733-18.733	15.731	0.006
	45 2,4-Dinitrophenol	15.834	15.865	15.826	15.842	15.826	15.826	15.826	15.834	12.834-18.834	15.835	0.014
	46 Dibenzofuran	16.089	16.105	16.081	16.097	16.081	16.089	16.089	16.089	13.089-19.089	16.090	0.008
	47 4-Nitrophenol	15.980	16.012	15.973	15.989	15.973	15.973	15.973	15.980	12.980-18.980	15.982	0.014
	48 2,4-Dinitrotoluene	16.181	16.197	16.174	16.190	16.174	16.174	16.174	16.181	13.181-19.181	16.181	0.009
	49 Fluorene	16.862	16.870	16.854	16.870	16.854	16.862	16.855	16.862	13.862-19.862	16.861	0.007
	50 Diethylphthalate	16.761	16.785	16.754	16.769	16.754	16 61	16.754	16.761	13.761-19.761	16.763	0.011
	51 4-Chlorophenyl-phenyle	16.877	16.885	16.870	16.878	16.870	16.877	16.870	16.877	13.877-19.877	16.875	0.006
	52 4-Nitroaniline	16.985	17.024	16.963	16.994	16.970	16.978	16.963	16.985	13.985-19.985	16.982	0.022
	53 4,6-Dinitro-2-methylph	17.086	17.117	17.070	17.101	17.078	17.078	17.071	17.086	14.086-20.086	17.086	0.017

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/ABN.m
Batch File: /chem1/nt10.i/20130125.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	17.155	17.163	17.148	17.155	17.148	17.147	17.148	17.155	14.155-20.155	17.152	0.006
$	55 2,4,6-Tribromophenol	17.440	17.448	17.433	17.441	17.433	17.440	17.433	17.440	14.440-20.440	17.438	0.006
	56 4-Bromophenyl-phenylet	17.965	17.965	17.957	17.965	17.957	17.957	17.957	17.965	14.965-20.965	17.961	0.004
	57 Hexachlorobenzene	18.289	18.289	18.281	18.282	18.281	18.281	18.274	18.289	15.289-21.289	18.283	0.005
	58 Pentachlorophenol	18.676	18.684	18.669	18.676	18.669	18.676	18.669	18.676	15.676-21.676	18.674	0.006
*	59 Phenanthrene-d10	18.939	18.947	18.932	18.939	18.939	18.939	18.940	18.939	15.939-21.939	18.939	0.005
	60 Phenanthrene	18.986	19.001	18.986	18.994	18.986	18.986	18.986	18.986	15.986-21.986	18.989	0.006
	61 Anthracene	19.086	19.094	19.079	19.086	19.079	19.086	19.079	19.086	16.086-22.086	19.084	0.006
	62 Carbazole	19.434	19.442	19.435	19.442	19.435	19.434	19.435	19.434	16.434-22.434	19.437	0.004
	63 Di-n-butylphthalate	20.293	20.301	20.293	20.293	20.293	20.293	20.294	20.293	17.293-23.293	20.294	0.003
	64 Fluoranthene	21.399	21.400	21.392	21.400	21.392	21.392	21.392	21.399	18.399-24.399	21.395	0.004
	65 Pyrene	21.817	21.825	21.810	21.818	21.810	21.810	21.810	21.817	18.817-24.817	21.814	0.006
$	66 Terphenyl-d14	22.135	22.135	22.127	22.135	22.127	22.135	22.127	22.135	19.135-25.135	22.131	0.004
	67 Butylbenzylphthalate	23.079	23.080	23.079	23.080	23.072	23.079	23.072	23.079	20.079-26.079	23.077	0.004
	68 Benzo(a)anthracene	23.977	23.986	23.978	23.985	23.978	23.977	23.970	23.977	20.977-26.977	23.979	0.005
*	69 Chrysene-d12	24.008	24.017	24.009	24.009	24.001	24.008	24.001	24.008	21.008-27.008	24.007	0.005
	70 3,3'-Dichlorobenzidine	23.954	23.970	23.954	23.962	23.947	23.954	23.947	23.954	20.954-26.954	23.955	0.008
	71 Chrysene	24.055	24.063	24.047	24.055	24.047	24.047	24.048	24.055	21.055-27.055	24.052	0.006
	72 bis(2-Ethylhexyl)phtha	24.117	24.125	24.117	24.117	24.117	24.117	24.117	24.117	21.117-27.117	24.118	0.003
	73 Di-n-octylphthalate	25.108	25.116	25.108	25.108	25.108	25.108	25.108	25.108	22.108-28.108	25.109	0.003
	74 Benzo(b)fluoranthene	25.804	25.813	25.797	25.805	25.797	25.797	25.789	25.804	22.804-28.804	25.800	0.008
	75 Benzo(k)fluoranthene	25.843	25.859	25.836	25.843	25.836	25.835	25.836	25.843	22.843-28.843	25.841	0.009
	187 Total Benzofluoranthen	25.843	25.859	25.797	25.843	25.836	25.835	25.836	25.843	22.843-28.843	25.836	0.019
	76 Benzo(a)pyrene	26.401	26.416	26.393	26.401	26.393	26.393	26.393	26.401	23.401-29.401	26.399	0.009

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/ABN.m
Batch File: /chem1/nt10.i/20130125.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	77 Perylene-d12	26.509	26.517	26.509	26.517	26.509	26.509	26.502	26.509	23.509-29.509	26.510	0.005
	78 Indeno(1,2,3-cd)pyrene	28.942	28.958	28.926	28.942	28.926	28.934	28.919	28.942	25.942-31.942	28.935	0.013
	79 Dibenzo(a,h)anthracene	28.957	28.989	28.950	28.973	28.950	28.957	28.942	28.957	25.957-31.957	28.960	0.016
	80 Benzo(g,h,i)perylene	29.648	29.680	29.633	29.657	29.625	29.641	29.633	29.648	26.648-32.648	29.645	0.018
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
	90 N-Nitrosodimethylamine	4.442	4.457	4.450	4.450	4.442	4.434	4.442	4.442	1.442-7.442	4.445	0.008
	91 Aniline	8.512	8.521	8.505	8.513	8.505	8.512	8.505	8.512	5.512-11.512	8.510	0.006
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
	93 Benzidine	21.655	21.655	21.647	21.655	21.647	21.655	21.648	21.655	18.655-24.655	21.652	0.004
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
	98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.429	18.429-24.429	+++++	+++++
	99 Perylene	26.563	26.579	26.556	26.564	26.556	26.556	26.548	26.563	23.563-29.563	26.560	0.010
	100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.411	22.411-28.411	+++++	+++++
	101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.023	23.023-29.023	+++++	+++++
	102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
	103 Pyridine	4.457	4.450	4.496	4.457	4.473	4.457	4.481	4.457	1.457-7.457	4.467	0.017
	188 2,6-Dichlorophenol	11.980	11.988	11.973	11.988	11.973	11.980	11.973	11.980	8.980-14.980	11.979	0.007
	189 N-Nitrosomethylethylam	5.901	5.917	5.909	5.909	5.909	5.909	5.909	5.901	2.901-8.901	5.909	0.005

Analytical Resources, Inc.

Averaged.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:16
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Calibration File Names:
Level 1: /chem1/nt10.i/20130125.b/ic0125c.d
Level 2: /chem1/nt10.i/20130125.b/ic0125h.d
Level 3: /chem1/nt10.i/20130125.b/ic0125e.d
Level 4: /chem1/nt10.i/20130125.b/ic0125f.d
Level 5: /chem1/nt10.i/20130125.b/ic0125a.d
Level 6: /chem1/nt10.i/20130125.b/ic0125d.d
Level 7: /chem1/nt10.i/20130125.b/ic0125b.d

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
186 Carbaryl	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
179 n-Decane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
180 n-Octadecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
169 4-tert-Butylphenol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	

Analytical Resources, Inc.

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
120 2,3,4,6-Tetrachlorophenol	0.32876	0.34403	0.37326	0.38202	0.39296	0.39166	0.39526	AVRG		0.37257		7.03242	
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

Analytical Resources, Inc.

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
105 1-methylnaphthalene	0.68712	0.61568	0.61713	0.60970	0.62479	0.62906						
	0.62899						AVRG		0.63035		4.13400	
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
3 Phenol	1.85175	1.68940	1.64707	1.63733	1.68988	1.61673					
	1.56109						AVRG		1.67046		5.47002
4 Bis(2-Chloroethyl)ether	1.40493	1.30334	1.30347	1.24707	1.28325	1.21128					
	1.14349						AVRG		1.27098		6.47097

Analytical Resources, Inc.

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
6 2-Chlorophenol	1.59520	1.46146	1.47707	1.40489	1.45513	1.41902					
	1.36285						AVRG		1.45366		5.06063
7 1,3-Dichlorobenzene	1.83372	1.63504	1.58082	1.51847	1.53497	1.52312					
	1.44646						AVRG		1.58180		7.92392
9 1,4-Dichlorobenzene	1.82470	1.55544	1.60187	1.50303	1.51800	1.51039					
	1.45049						AVRG		1.56627		7.86403
11 Benzyl alcohol	0.84043	0.76875	0.79217	0.77311	0.81313	0.81712					
	0.79116						AVRG		0.79941		3.20420
12 1,2-Dichlorobenzene	1.73768	1.52346	1.51327	1.44648	1.47158	1.44915					
	1.40064						AVRG		1.50604		7.32876
13 2-Methylphenol	1.34993	1.22001	1.24558	1.22322	1.30059	1.26671					
	1.22080						AVRG		1.26098		3.89432
14 2,2'-oxybis(1-Chloropropane)	0.48018	0.44753	0.44284	0.44270	0.44800	0.44534					
	0.42355						AVRG		0.44716		3.75395

Analytical Resources, Inc.

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Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
15 4-Methylphenol	1.34226	1.29197	1.31371	1.30699	1.33604	1.31349					
	1.27512						AVRG		1.31137		1.78362
16 N-Nitroso-di-n-propylamine	0.91573	0.79575	0.85580	0.81875	0.86236	0.84584					
	0.80313						AVRG		0.84248		4.90461
17 Hexachloroethane	0.67992	0.60175	0.63806	0.59248	0.60974	0.61412					
	0.59743						AVRG		0.61907		4.95719
19 Nitrobenzene	0.38734	0.34048	0.34857	0.34062	0.34785	0.34389					
	0.34151						AVRG		0.35004		4.79352
20 Isophorone	0.63301	0.56793	0.60847	0.59443	0.62728	0.61846					
	0.62125						AVRG		0.61012		3.68947
21 2-Nitrophenol	0.19332	0.18421	0.20543	0.20796	0.21920	0.21663					
	0.21298						AVRG		0.20568		6.19855
22 2,4-Dimethylphenol	0.37623	0.34842	0.35856	0.34561	0.35338	0.34129					
	0.33058						AVRG		0.35058		4.10928

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Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
23 Bis(2-Chloroethoxy)methane	0.42114	0.39616	0.38461	0.37952	0.38304	0.36431						
	0.36096						AVRG		0.38425		5.27643	
24 Benzoic acid	+++++	0.16802	0.24258	0.27289	0.30536	0.30569						
	0.31370						AVRG		0.26804		20.82037	<-
25 2,4-Dichlorophenol	0.31804	0.29394	0.30839	0.30694	0.31451	0.30586						
	0.29711						AVRG		0.30640		2.81805	
26 1,2,4-Trichlorobenzene	0.40294	0.36312	0.35495	0.33490	0.33893	0.32931						
	0.31675						AVRG		0.34870		8.17173	
28 Naphthalene	1.17113	1.06629	1.04085	1.00184	1.01216	1.00690						
	0.98667						AVRG		1.04083		6.08299	
29 4-Chloroaniline	0.43597	0.40727	0.41596	0.40868	0.42429	0.41696						
	0.42308						AVRG		0.41889		2.36753	
30 Hexachlorobutadiene	0.23385	0.21233	0.22032	0.21378	0.21418	0.21548						
	0.21128						AVRG		0.21732		3.61019	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:16
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
31 4-Chloro-3-methylphenol	0.26481	0.27149	0.29550	0.29260	0.31285	0.31892					
	0.31685						AVRG		0.29615		7.33327
32 2-Methylnaphthalene	0.73829	0.66758	0.67440	0.65675	0.70171	0.68317					
	0.68851						AVRG		0.68720		3.90226
33 Hexachlorocyclopentadiene	0.44473	0.40757	0.44583	0.44429	0.47974	0.46666					
	0.46906						AVRG		0.45113		5.27242
34 2,4,6-Trichlorophenol	0.37875	0.37012	0.40921	0.40113	0.41623	0.41485					
	0.41565						AVRG		0.40085		4.72757
35 2,4,5-Trichlorophenol	0.37884	0.39598	0.42331	0.43767	0.44881	0.45127					
	0.44592						AVRG		0.42597		6.65640
37 2-Chloronaphthalene	1.23689	1.06915	1.09647	1.07749	1.10903	1.07360					
	1.07168						AVRG		1.10490		5.43307
38 2-Nitroaniline	0.21672	0.22323	0.25658	0.26793	0.28461	0.28174					
	0.28315						AVRG		0.25914		11.03790

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
39 Dimethylphthalate	1.30877	1.22841	1.23078	1.18054	1.21915	1.17353						
	1.12753						AVRG		1.20981		4.72547	
40 Acenaphthylene	1.86378	1.82126	1.85629	1.80591	1.82377	1.74121						
	1.70079						AVRG		1.80186		3.32697	
41 2,6-Dinitrotoluene	0.25669	0.25630	0.27994	0.28469	0.29374	0.28380						
	0.27957						AVRG		0.27639		5.20021	
43 3-Nitroaniline	0.22713	0.25471	0.29079	0.27321	0.26059	0.26304						
	0.21716						AVRG		0.25523		10.01066	
44 Acenaphthene	1.18524	1.13444	1.11843	1.08189	1.09441	1.06919						
	1.05036						AVRG		1.10485		4.11445	
45 2,4-Dinitrophenol	+++++	0.11441	0.16472	0.20765	0.24305	0.24872						
	0.25284						AVRG		0.20523		27.11606	<-
46 Dibenzofuran	1.68997	1.54872	1.56513	1.49747	1.52707	1.47995						
	1.44776						AVRG		1.53658		5.12483	

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:16
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
47 4-Nitrophenol	+++++	0.09998	0.13026	0.16110	0.17953	0.17551						
	0.17902						AVRG		0.15424		21.05350	<-
48 2,4-Dinitrotoluene	0.31718	0.34651	0.38077	0.38891	0.40653	0.39149						
	0.38462						AVRG		0.37372		8.26839	
49 Fluorene	1.40265	1.35139	1.32070	1.30322	1.29668	1.24547						
	1.21601						AVRG		1.30516		4.79174	
50 Diethylphthalate	1.35866	1.23097	1.28760	1.26224	1.29138	1.23346						
	1.20698						AVRG		1.26733		4.00618	
51 4-Chlorophenyl-phenylether	0.64889	0.64348	0.63067	0.59203	0.60007	0.57862						
	0.56392						AVRG		0.60824		5.43948	
52 4-Nitroaniline	0.24294	0.27239	0.27818	0.26676	0.27205	0.28138						
	0.27241						AVRG		0.26944		4.67658	
53 4,6-Dinitro-2-methylphenol	0.11263	0.13500	0.16003	0.16959	0.18328	0.18067						
	0.18008						AVRG		0.16018		16.77594	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:16
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
54 N-Nitrosodiphenylamine	0.52611	0.48647	0.51232	0.47864	0.47347	0.45779						
	0.43800						AVRG		0.48183		6.27832	
56 4-Bromophenyl-phenylether	0.24194	0.21358	0.21802	0.21684	0.22551	0.22344						
	0.22256						AVRG		0.22313		4.15933	
57 Hexachlorobenzene	0.30710	0.28329	0.28763	0.27321	0.27683	0.27013						
	0.26191						AVRG		0.28001		5.22545	
58 Pentachlorophenol	0.15074	0.16509	0.18887	0.18922	0.20807	0.20324						
	0.20185						AVRG		0.18673		11.42453	
60 Phenanthrene	1.20922	1.07453	1.06296	1.00313	1.06202	1.02943						
	1.02293						AVRG		1.06632		6.37828	
61 Anthracene	1.11703	1.02015	1.06543	1.04831	1.10358	1.09925						
	1.06181						AVRG		1.07365		3.21436	
62 Carbazole	0.94108	0.86167	0.87784	0.65476	0.51676	0.65824						
	0.74419						AVRG		0.75065		20.14812	<-

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
63 Di-n-butylphthalate	1.11890	0.99204	1.07832	1.11232	1.23021	1.24150					
	1.24670						AVRG		1.14571		8.47014
64 Fluoranthene	1.28527	1.12599	1.21902	1.18994	1.27165	1.24630					
	1.25777						AVRG		1.22799		4.50231
65 Pyrene	1.17011	1.06492	1.14258	1.13631	1.15430	1.15777					
	1.14963						AVRG		1.13938		3.03479
67 Butylbenzylphthalate	0.41650	0.36082	0.43017	0.43330	0.46321	0.46708					
	0.45389						AVRG		0.43214		8.44745
68 Benzo(a)anthracene	1.19920	1.07431	1.12286	1.10780	1.09980	1.11248					
	1.09644						AVRG		1.11613		3.55235
70 3,3'-Dichlorobenzidine	0.58480	0.52082	0.47361	0.38174	0.35778	0.46977					
	0.47574						AVRG		0.46632		16.63286
71 Chrysene	1.13171	1.02241	1.01786	0.97103	0.98519	0.98069					
	0.96753						AVRG		1.01092		5.68546

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
72 bis(2-Ethylhexyl)phthalate	0.59458	0.50606	0.51947	0.53003	0.53141	0.51142					
	0.50438						AVRG		0.52819		5.90419
73 Di-n-octylphthalate	1.15851	1.02427	0.98247	0.92974	0.93393	0.91460					
	0.88657						AVRG		0.97573		9.48185
74 Benzo(b)fluoranthene	1.20608	1.10628	1.09252	1.14920	1.14101	1.20366					
	1.21674						AVRG		1.15936		4.33609
75 Benzo(k)fluoranthene	1.42017	1.25965	1.28978	1.20526	1.26889	1.16546					
	1.15821						AVRG		1.25249		7.17965
187 Total Benzofluoranthenes	1.23756	1.13080	1.13020	1.11091	1.13997	1.11859					
	1.12045						AVRG		1.14121		3.81526
76 Benzo(a)pyrene	1.07669	0.94944	0.97894	0.98320	1.01372	1.00840					
	1.00814						AVRG		1.00265		3.95585
78 Indeno(1,2,3-cd)pyrene	1.25868	1.15059	1.21659	1.22284	1.27651	1.27173					
	1.25832						AVRG		1.23647		3.58261

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
79 Dibenzo(a,h)anthracene	0.97137	0.92360	0.98583	0.98269	1.00428	1.00142						
	0.98469						AVRG		0.97912		2.75358	
80 Benzo(g,h,i)perylene	1.08126	1.00992	1.04627	1.04488	1.08346	1.07955						
	1.08065						AVRG		1.06086		2.64699	
90 N-Nitrosodimethylamine	0.83322	0.73286	0.74717	0.73648	0.79641	0.75614						
	0.72459						AVRG		0.76098		5.20213	
91 Aniline	4.03355	3.60799	3.69841	3.54445	3.67007	3.46281						
	3.21579						AVRG		3.60472		6.90741	
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
93 Benzidine	+++++	0.37327	0.35642	0.20770	0.16127	0.19301						
	0.22575						AVRG		0.25290		35.35224	<-
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
99 Perylene	1.31908	1.13841	1.15956	1.11360	1.11501	1.11215						
	1.10824						AVRG		1.15229		6.58107	
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
103 Pyridine	0.66617	0.65238	0.65710	0.63694	0.68053	0.63792						
	0.61262						AVRG		0.64909		3.42053	

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
188 2,6-Dichlorophenol	0.30451	0.28895	0.29558	0.29116	0.30141	0.30051						
	0.30173						AVRG		0.29769		1.97814	
189 N-Nitrosomethylethylamine	0.56360	0.54392	0.55233	0.53833	0.57892	0.55478						
	0.53912						AVRG		0.55300		2.63905	
$ 1 2-Fluorophenol	1.34632	1.22090	1.31944	1.24951	1.32743	1.27358						
	1.21571						AVRG		1.27898		4.13634	
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 2 Phenol-d5	1.63984	1.52897	1.54799	1.55779	1.64552	1.60078						
	1.58876						AVRG		1.58709		2.83567	
$ 5 2-Chlorophenol-d4	1.45363	1.36836	1.39076	1.34459	1.38932	1.36694						
	1.30596						AVRG		1.37422		3.31230	
$ 10 1,2-Dichlorobenzene-d4	1.18806	0.99936	1.00074	0.95728	0.97859	0.99252						
	0.95272						AVRG		1.00989		8.00955	

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
$ 18 Nitrobenzene-d5	0.39550	0.35376	0.36820	0.36061	0.37202	0.36662					
	0.36760						AVRG		0.36919		3.53490
$ 36 2-Fluorobiphenyl	1.49260	1.36294	1.37060	1.34186	1.36884	1.32778					
	1.34117						AVRG		1.37225		4.04118
$ 55 2,4,6-Tribromophenol	0.24314	0.24083	0.25407	0.26157	0.26265	0.26204					
	0.26253						AVRG		0.25526		3.75063
$ 66 Terphenyl-d14	0.80516	0.73645	0.78962	0.76124	0.76780	0.77440					
	0.74332						AVRG		0.76828		3.16113
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

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Quant Method : ISTD
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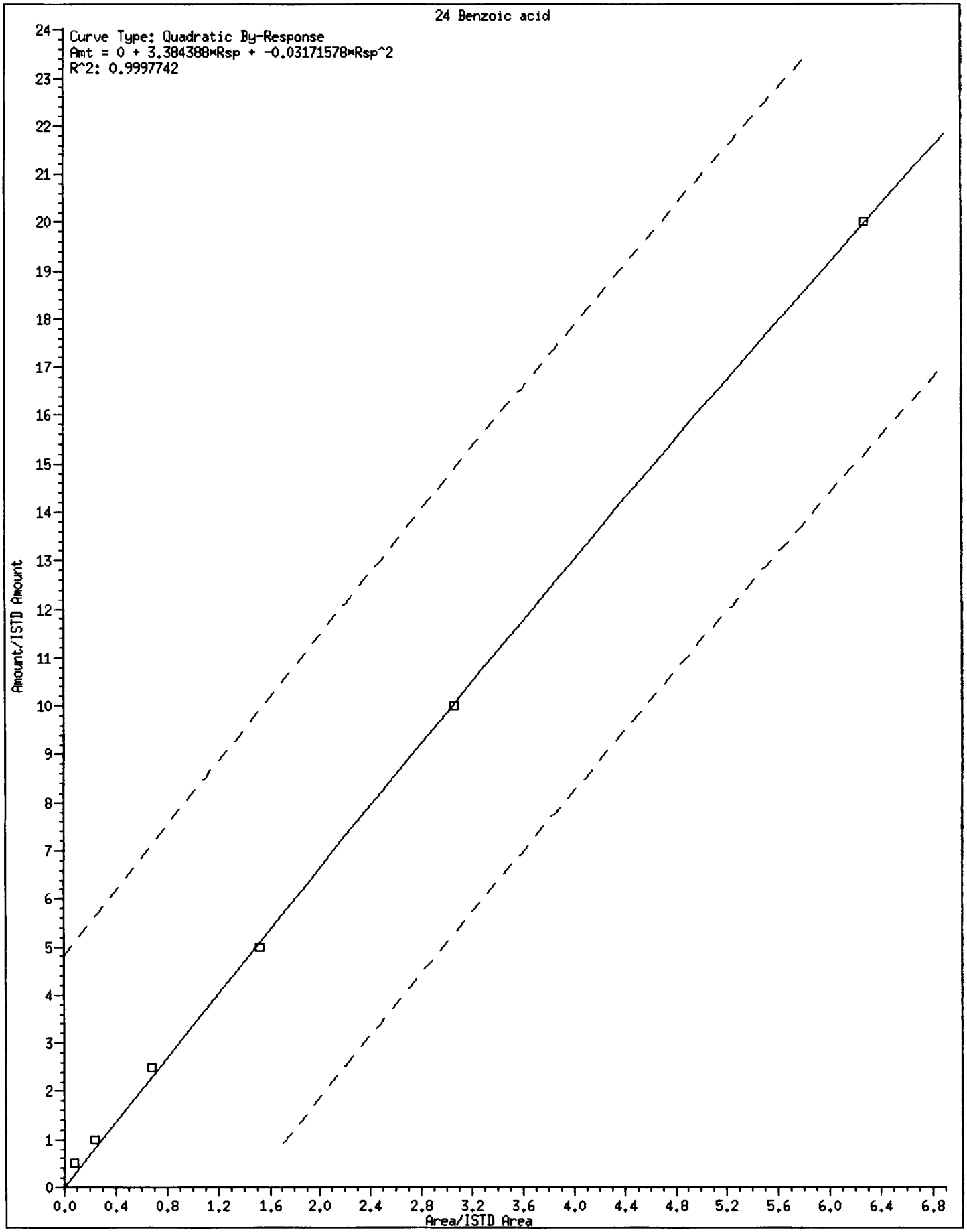
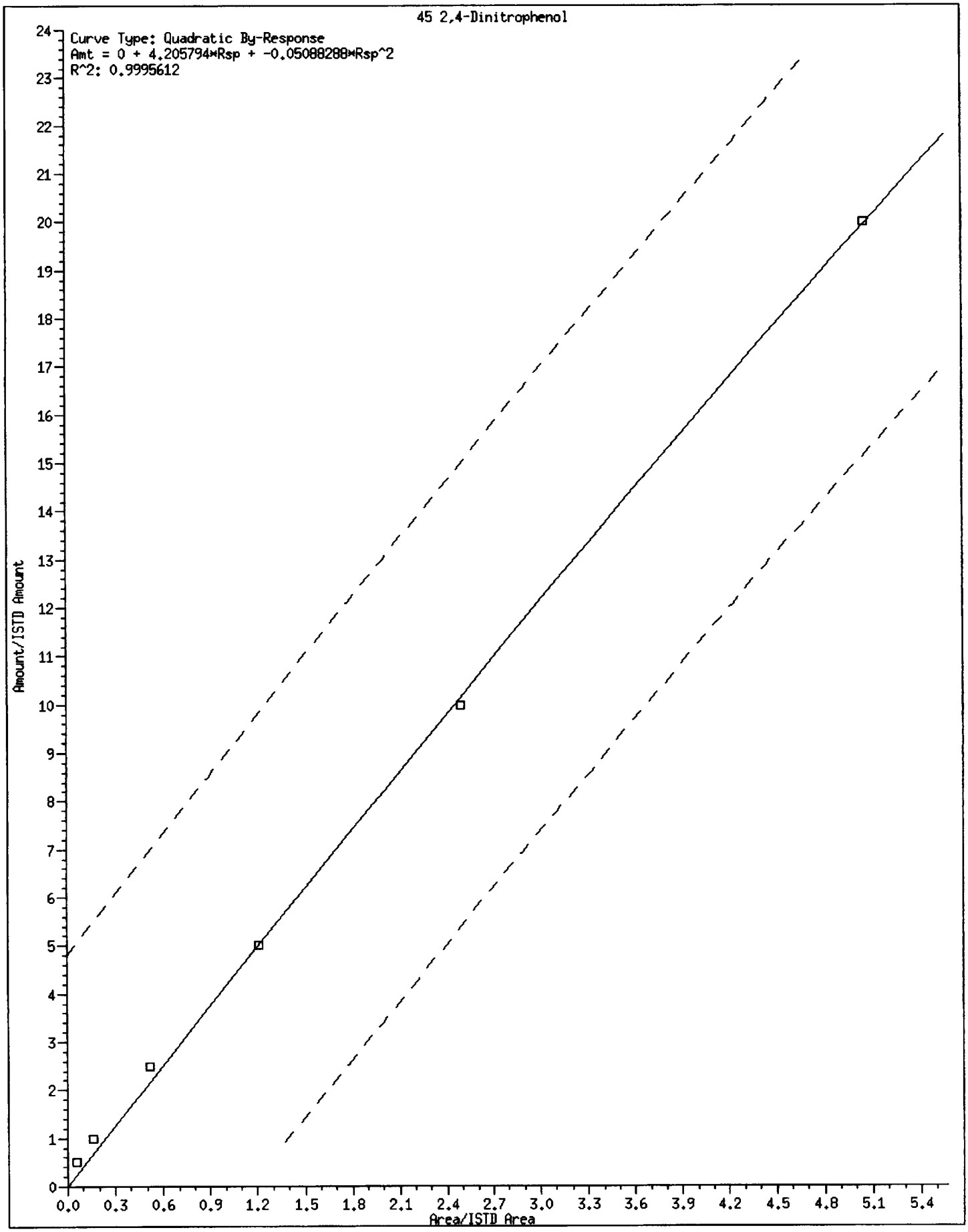
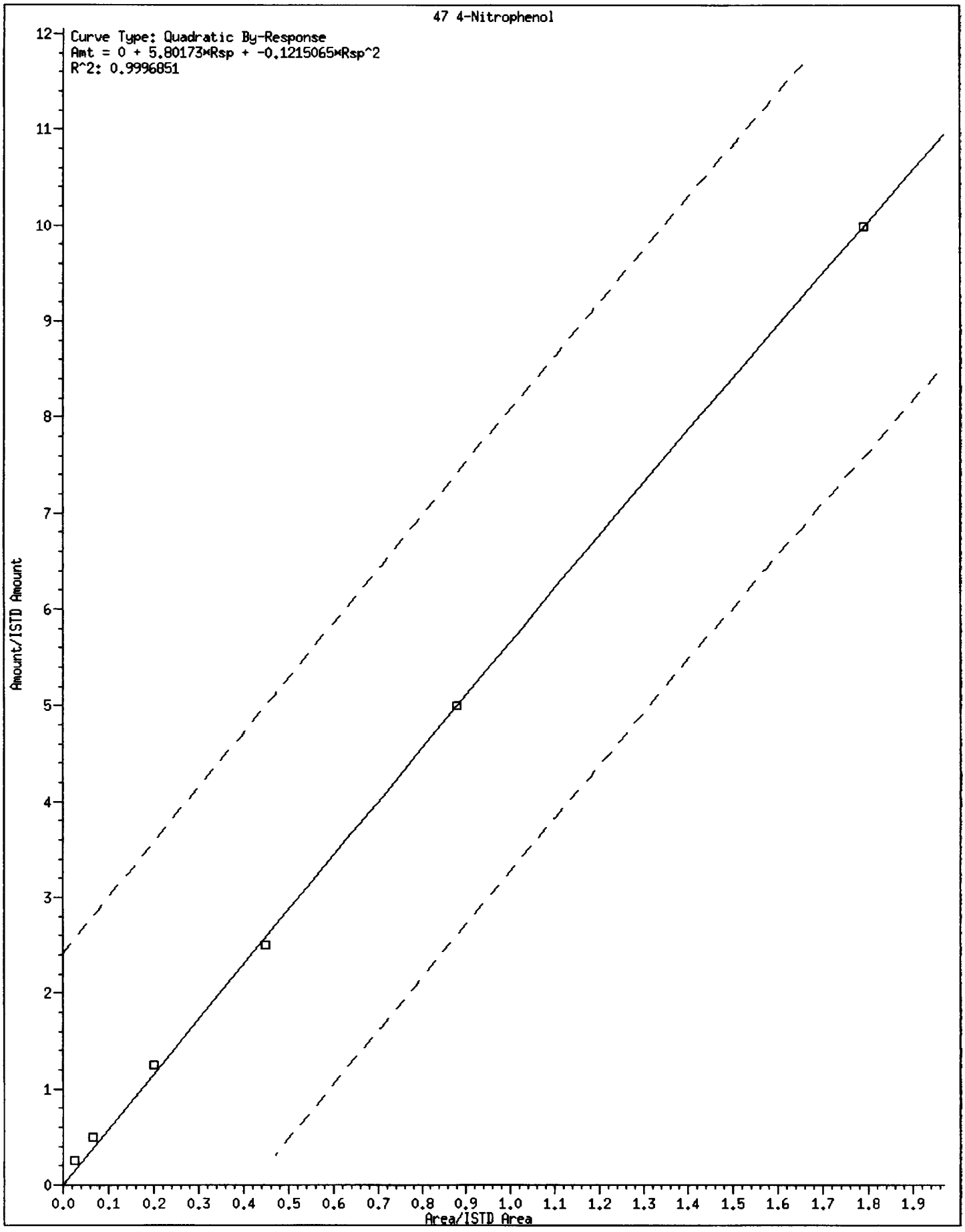
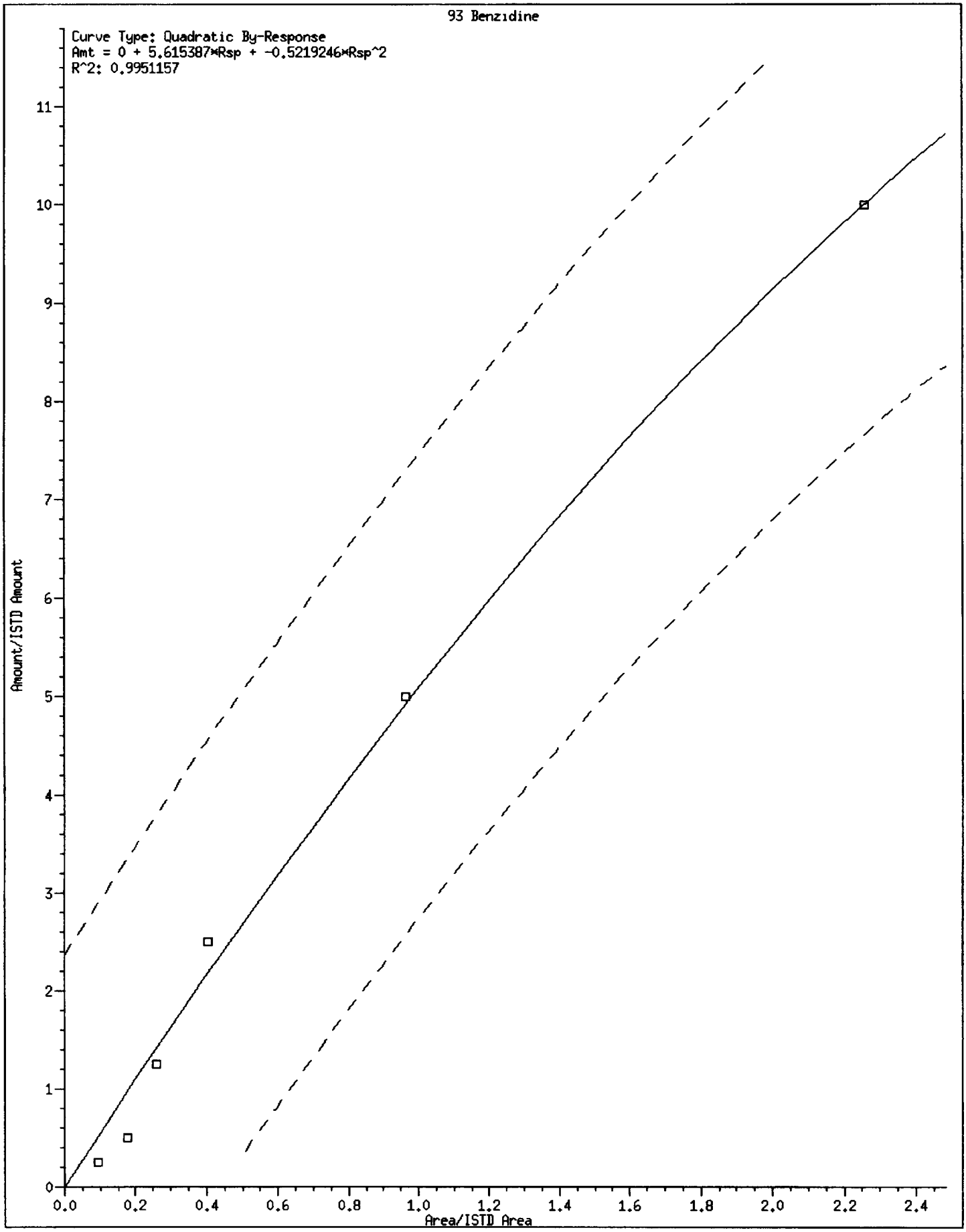
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 12:34 yev

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response


24 Benzoic acid
Curve Type: Quadratic By-Response
Amt = 0 + 3.384388*Rsp + -0.03171578*Rsp^2
R^2: 0.9997742
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
0.0
0.4
0.8
1.2
1.6
2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8


45 2,4-Dinitrophenol
Curve Type: Quadratic By-Response
Amt = 0 + 4.205794*Rsp + -0.05088288*Rsp^2
R^2: 0.9995612
Amount/ISTD Amount
Area/ISTD Area
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4


47 4-Nitrophenol
Curve Type: Quadratic By-Response
Amt = 0 + 5.80173*Rsp + -0.1215065*Rsp^2
R^2: 0.9996851
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9


93 Benzidine
Curve Type: Quadratic By-Response
Amt = 0 + 5.615387*Rsp + -0.5219246*Rsp^2
R^2: 0.9951157
Amount/ISTD Amount
Area/ISTD Area
0
1
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0.0
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0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
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Integrator : HP RTE
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quadratic

Calibration File Names:
Level 1: /chem1/nt10.i/20130125.b/ic0125c.d
Level 2: /chem1/nt10.i/20130125.b/ic0125h.d
Level 3: /chem1/nt10.i/20130125.b/ic0125e.d
Level 4: /chem1/nt10.i/20130125.b/ic0125f.d
Level 5: /chem1/nt10.i/20130125.b/ic0125a.d
Level 6: /chem1/nt10.i/20130125.b/ic0125d.d
Level 7: /chem1/nt10.i/20130125.b/ic0125b.d

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
120 2,3,4,6-Tetrachlorophenol	0.32876	0.34403	0.37326	0.38202	0.39296	0.39166						
	0.39526						AVRG		0.37257		7.03242	
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

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Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
116 Dibutyl Phenyl Phosphate	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
115 Tributyl Phosphate	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
114 Beta-Pinene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
113 Diphenyl Oxide	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
112 Biphenyl	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
111 Azobenzene (1,2-DP-Hydrazine)	1.19800 / 1.07570	1.13498	1.18460	1.15565	1.17192	1.12589	AVRG		1.14954		3.61126	
110 Tetrachloroguaiacol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+00	0.000e+00	0.000e+00	0.000e+00	<-

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
105 1-methylnaphthalene	0.68712	0.61568	0.61713	0.60970	0.62479	0.62906	0.62899						
								AVRG		0.63035		4.13400	
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
3 Phenol	1.85175	1.68940	1.64707	1.63733	1.68988	1.61673					
	1.56109						AVRG		1.67046		5.47002
4 Bis(2-Chloroethyl)ether	1.40493	1.30334	1.30347	1.24707	1.28325	1.21128					
	1.14349						AVRG		1.27098		6.47097

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
6 2-Chlorophenol	1.59520	1.46146	1.47707	1.40489	1.45513	1.41902					
	1.36285						AVRG		1.45366		5.06063
7 1,3-Dichlorobenzene	1.83372	1.63504	1.58082	1.51847	1.53497	1.52312					
	1.44646						AVRG		1.58180		7.92392
9 1,4-Dichlorobenzene	1.82470	1.55544	1.60187	1.50303	1.51800	1.51039					
	1.45049						AVRG		1.56627		7.86403
11 Benzyl alcohol	0.84043	0.76875	0.79217	0.77311	0.81313	0.81712					
	0.79116						AVRG		0.79941		3.20420
12 1,2-Dichlorobenzene	1.73768	1.52346	1.51327	1.44648	1.47158	1.44915					
	1.40064						AVRG		1.50604		7.32876
13 2-Methylphenol	1.34993	1.22001	1.24558	1.22322	1.30059	1.26671					
	1.22080						AVRG		1.26098		3.89432
14 2,2'-oxybis(1-Chloropropane)	0.48018	0.44753	0.44284	0.44270	0.44800	0.44534					
	0.42355						AVRG		0.44716		3.75395

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
15 4-Methylphenol	1.34226	1.29197	1.31371	1.30699	1.33604	1.31349					
	1.27512						AVRG		1.31137		1.78362
16 N-Nitroso-di-n-propylamine	0.91573	0.79575	0.85580	0.81875	0.86236	0.84584					
	0.80313						AVRG		0.84248		4.90461
17 Hexachloroethane	0.67992	0.60175	0.63806	0.59248	0.60974	0.61412					
	0.59743						AVRG		0.61907		4.95719
19 Nitrobenzene	0.38734	0.34048	0.34857	0.34062	0.34785	0.34389					
	0.34151						AVRG		0.35004		4.79352
20 Isophorone	0.63301	0.56793	0.60847	0.59443	0.62728	0.61846					
	0.62125						AVRG		0.61012		3.68947
21 2-Nitrophenol	0.19332	0.18421	0.20543	0.20796	0.21920	0.21663					
	0.21298						AVRG		0.20568		6.19855
22 2,4-Dimethylphenol	0.37623	0.34842	0.35856	0.34561	0.35338	0.34129					
	0.33058						AVRG		0.35058		4.10928

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
23 Bis(2-Chloroethoxy)methane	0.42114	0.39616	0.38461	0.37952	0.38304	0.36431					
	0.36096						AVRG		0.38425		5.27643
24 Benzoic acid	+++++	14218	44455	119275	270210	507039					
	1036662						QUAD	0.000e+00	3.38439	-0.03172	0.99977
25 2,4-Dichlorophenol	0.31804	0.29394	0.30839	0.30694	0.31451	0.30586					
	0.29711						AVRG		0.30640		2.81805
26 1,2,4-Trichlorobenzene	0.40294	0.36312	0.35495	0.33490	0.33893	0.32931					
	0.31675						AVRG		0.34870		8.17173
28 Naphthalene	1.17113	1.06629	1.04085	1.00184	1.01216	1.00690					
	0.98667						AVRG		1.04083		6.08299
29 4-Chloroaniline	0.43597	0.40727	0.41596	0.40868	0.42429	0.41696					
	0.42308						AVRG		0.41889		2.36753
30 Hexachlorobutadiene	0.23385	0.21233	0.22032	0.21378	0.21418	0.21548					
	0.21128						AVRG		0.21732		3.61019

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
31 4-Chloro-3-methylphenol	0.26481	0.27149	0.29550	0.29260	0.31285	0.31892					
	0.31685						AVRG		0.29615		7.33327
32 2-Methylnaphthalene	0.73829	0.66758	0.67440	0.65675	0.70171	0.68317					
	0.68851						AVRG		0.68720		3.90226
33 Hexachlorocyclopentadiene	0.44473	0.40757	0.44583	0.44429	0.47974	0.46666					
	0.46906						AVRG		0.45113		5.27242
34 2,4,6-Trichlorophenol	0.37875	0.37012	0.40921	0.40113	0.41623	0.41485					
	0.41565						AVRG		0.40085		4.72757
35 2,4,5-Trichlorophenol	0.37884	0.39598	0.42331	0.43767	0.44881	0.45127					
	0.44592						AVRG		0.42597		6.65640
37 2-Chloronaphthalene	1.23689	1.06915	1.09647	1.07749	1.10903	1.07360					
	1.07168						AVRG		1.10490		5.43307
38 2-Nitroaniline	0.21672	0.22323	0.25658	0.26793	0.28461	0.28174					
	0.28315						AVRG		0.25914		11.03790

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
39 Dimethylphthalate	1.30877	1.22841	1.23078	1.18054	1.21915	1.17353					
	1.12753						AVRG		1.20981		4.72547
40 Acenaphthylene	1.86378	1.82126	1.85629	1.80591	1.82377	1.74121					
	1.70079						AVRG		1.80186		3.32697
41 2,6-Dinitrotoluene	0.25669	0.25630	0.27994	0.28469	0.29374	0.28380					
	0.27957						AVRG		0.27639		5.20021
43 3-Nitroaniline	0.22713	0.25471	0.29079	0.27321	0.26059	0.26304					
	0.21716						AVRG		0.25523		10.01066
44 Acenaphthene	1.18524	1.13444	1.11843	1.08189	1.09441	1.06919					
	1.05036						AVRG		1.10485		4.11445
45 2,4-Dinitrophenol	+++++	5902	18391	56078	134737	267779					
	539709						QUAD	0.000e+00	4.20579	-0.05088	0.99956
46 Dibenzofuran	1.68997	1.54872	1.56513	1.49747	1.52707	1.47995					
	1.44776						AVRG		1.53658		5.12483

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
47 4-Nitrophenol	+++++	2579	7272	21754	49763	94479					
	191069						QUAD	0.000e+00	5.80173	-0.12151	0.99969
48 2,4-Dinitrotoluene	0.31718	0.34651	0.38077	0.38891	0.40653	0.39149					
	0.38462						AVRG		0.37372		8.26839
49 Fluorene	1.40265	1.35139	1.32070	1.30322	1.29668	1.24547					
	1.21601						AVRG		1.30516		4.79174
50 Diethylphthalate	1.35866	1.23097	1.28760	1.26224	1.29138	1.23346					
	1.20698						AVRG		1.26733		4.00618
51 4-Chlorophenyl-phenylether	0.64889	0.64348	0.63067	0.59203	0.60007	0.57862					
	0.56392						AVRG		0.60824		5.43948
52 4-Nitroaniline	0.24294	0.27239	0.27818	0.26676	0.27205	0.28138					
	0.27241						AVRG		0.26944		4.67658
53 4,6-Dinitro-2-methylphenol	0.11263	0.13500	0.16003	0.16959	0.18328	0.18067					
	0.18008						AVRG		0.16018		16.77594

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
54 N-Nitrosodiphenylamine	0.52611	0.48647	0.51232	0.47864	0.47347	0.45779					
	0.43800						AVRG		0.48183		6.27832
56 4-Bromophenyl-phenylether	0.24194	0.21358	0.21802	0.21684	0.22551	0.22344					
	0.22256						AVRG		0.22313		4.15933
57 Hexachlorobenzene	0.30710	0.28329	0.28763	0.27321	0.27683	0.27013					
	0.26191						AVRG		0.28001		5.22545
58 Pentachlorophenol	0.15074	0.16509	0.18887	0.18922	0.20807	0.20324					
	0.20185						AVRG		0.18673		11.42453
60 Phenanthrene	1.20922	1.07453	1.06296	1.00313	1.06202	1.02943					
	1.02293						AVRG		1.06632		6.37828
61 Anthracene	1.11703	1.02015	1.06543	1.04831	1.10358	1.09925					
	1.06181						AVRG		1.07365		3.21436
62 Carbazole	+++++	0.86167	0.87784	0.64971	0.51676	0.65824					
	0.73841						AVRG		0.71710		19.25543

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
63 Di-n-butylphthalate	1.11890	0.99204	1.07832	1.11232	1.23021	1.24150					
	1.24670						AVRG		1.14571		8.47014
64 Fluoranthene	1.28527	1.12599	1.21902	1.18994	1.27165	1.24630					
	1.25777						AVRG		1.22799		4.50231
65 Pyrene	1.17011	1.06492	1.14258	1.13631	1.15430	1.15777					
	1.14963						AVRG		1.13938		3.03479
67 Butylbenzylphthalate	0.41650	0.36082	0.43017	0.43330	0.46321	0.46708					
	0.45389						AVRG		0.43214		8.44745
68 Benzo(a)anthracene	1.19920	1.07431	1.12286	1.10780	1.09980	1.11248					
	1.09644						AVRG		1.11613		3.55235
70 3,3'-Dichlorobenzidine	0.58480	0.52082	0.47361	0.38174	0.35778	0.46977					
	0.47574						AVRG		0.46632		16.63286
71 Chrysene	1.13171	1.02241	1.01786	0.97103	0.98519	0.98069					
	0.96753						AVRG		1.01092		5.68546

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
72 bis(2-Ethylhexyl)phthalate	0.59458	0.50606	0.51947	0.53003	0.53141	0.51142					
	0.50438						AVRG		0.52819		5.90419
73 Di-n-octylphthalate	1.15851	1.02427	0.98247	0.92974	0.93393	0.91460					
	0.88657						AVRG		0.97573		9.48185
74 Benzo(b)fluoranthene	1.20608	1.10628	1.09252	1.14920	1.14101	1.20366					
	1.21674						AVRG		1.15936		4.33609
75 Benzo(k)fluoranthene	1.42017	1.25965	1.28978	1.20526	1.26889	1.16546					
	1.15821						AVRG		1.25249		7.17965
187 Total Benzofluoranthenes	1.23756	1.13080	1.13020	1.11091	1.13997	1.11859					
	1.12045						AVRG		1.14121		3.81526
76 Benzo(a)pyrene	1.07669	0.94944	0.97894	0.98320	1.01372	1.00840					
	1.00814						AVRG		1.00265		3.95585
78 Indeno(1,2,3-cd)pyrene	1.25868	1.15059	1.21659	1.22284	1.27651	1.27173					
	1.25832						AVRG		1.23647		3.58261

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:16
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 13:10 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
79 Dibenzo(a,h)anthracene	0.97137	0.92360	0.98583	0.98269	1.00428	1.00142					
	0.98469						AVRG		0.97912		2.75358
80 Benzo(g,h,i)perylene	1.08126	1.00992	1.04627	1.04488	1.08346	1.07955					
	1.08065						AVRG		1.06086		2.64699
90 N-Nitrosodimethylamine	0.83322	0.73286	0.74717	0.73648	0.79641	0.75614					
	0.72459						AVRG		0.76098		5.20213
91 Aniline	4.03355	3.60799	3.69841	3.54445	3.67007	3.46281					
	3.21579						AVRG		3.60472		6.90741
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
93 Benzidine	+++++	18859	37924	54172	86152	196119					
	451512						QUAD	0.000e+00	5.61539	-0.52192	0.99512
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:16
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 13:10 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
99 Perylene	1.31908	1.13841	1.15956	1.11360	1.11501	1.11215						
	1.10824						AVRG		1.15229		6.58107	
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
103 Pyridine	0.66617	0.65238	0.65710	0.63694	0.68053	0.63792						
	0.61262						AVRG		0.64909		3.42053	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:16
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 13:10 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
188 2,6-Dichlorophenol	0.30451	0.28895	0.29558	0.29116	0.30141	0.30051						
	0.30173						AVRG		0.29769		1.97814	
189 N-Nitrosomethylethylamine	0.56360	0.54392	0.55233	0.53833	0.57892	0.55478						
	0.53912						AVRG		0.55300		2.63905	
$ 1 2-Fluorophenol	1.34632	1.22090	1.31944	1.24951	1.32743	1.27358						
	1.21571						AVRG		1.27898		4.13634	
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 2 Phenol-d5	1.63984	1.52897	1.54799	1.55779	1.64552	1.60078						
	1.58876						AVRG		1.58709		2.83567	
$ 5 2-Chlorophenol-d4	1.45363	1.36836	1.39076	1.34459	1.38932	1.36694						
	1.30596						AVRG		1.37422		3.31230	
$ 10 1,2-Dichlorobenzene-d4	1.18806	0.99936	1.00074	0.95728	0.97859	0.99252						
	0.95272						AVRG		1.00989		8.00955	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:16
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 13:10 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
$ 18 Nitrobenzene-d5	0.39550	0.35376	0.36820	0.36061	0.37202	0.36662					
	0.36760						AVRG		0.36919		3.53490
$ 36 2-Fluorobiphenyl	1.49260	1.36294	1.37060	1.34186	1.36884	1.32778					
	1.34117						AVRG		1.37225		4.04118
$ 55 2,4,6-Tribromophenol	0.24314	0.24083	0.25407	0.26157	0.26265	0.26204					
	0.26253						AVRG		0.25526		3.75063
$ 66 Terphenyl-d14	0.80516	0.73645	0.78962	0.76124	0.76780	0.77440					
	0.74332						AVRG		0.76828		3.16113
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:16
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/ABN.m
Cal Date : 28-Jan-2013 13:10 yev

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130125.b/ic0125a.d
Lab Smp Id: IC0125A
Inj Date : 25-JAN-2013 12:59
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125A
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130125.b/ABN.m
Meth Date : 28-Jan-2013 12:45 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 12:59 Cal File: ic0125a.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.719	6.720	(0.740)	77361	5.00000	5.189
$	2 Phenol-d5	99	8.435	8.428	(0.928)	95899	5.00000	5.184
	3 Phenol	94	8.458	8.451	(0.931)	98484	5.00000	5.058
$	5 2-Chlorophenol-d4	132	8.698	8.698	(0.957)	80968	5.00000	5.055
	4 Bis(2-Chloroethyl)ether	93	8.620	8.621	(0.949)	74786	5.00000	5.048
	6 2-Chlorophenol	128	8.729	8.729	(0.961)	84803	5.00000	5.005
	7 1,3-Dichlorobenzene	146	9.015	9.015	(0.992)	89456	5.00000	4.852
*	8 1,4-Dichlorobenzene-d4	152	9.085	9.085	(1.000)	46623	4.00000	
	9 1,4-Dichlorobenzene	146	9.116	9.116	(1.003)	88467	5.00000	4.846
$	10 1,2-Dichlorobenzene-d4	152	9.465	9.465	(1.042)	57031	5.00000	4.845
	12 1,2-Dichlorobenzene	146	9.496	9.496	(1.045)	85762	5.00000	4.886
	11 Benzyl alcohol	108	9.387	9.388	(1.033)	47388	5.00000	5.086
	14 2,2'-oxybis(1-Chloropropane)	121	9.721	9.722	(1.070)	26109	5.00000	5.009
	13 2-Methylphenol	108	9.651	9.644	(1.062)	75797	5.00000	5.157
	17 Hexachloroethane	117	10.132	10.133	(1.115)	35535	5.00000	4.925
	16 N-Nitroso-di-n-propylamine	70	10.000	9.993	(1.101)	50257	5.00000	5.118
	15 4-Methylphenol	108	9.938	9.939	(1.094)	77863	5.00000	5.094
$	18 Nitrobenzene-d5	82	10.264	10.257	(0.873)	82299	5.00000	5.038
	19 Nitrobenzene	77	10.303	10.296	(0.876)	76953	5.00000	4.969
	20 Isophorone	82	10.792	10.785	(0.918)	138769	5.00000	5.141
	21 2-Nitrophenol	139	10.978	10.978	(0.934)	48492	5.00000	5.329
	22 2,4-Dimethylphenol	107	11.070	11.063	(0.942)	156350	10.0000	10.08
	23 Bis(2-Chloroethoxy)methane	93	11.278	11.271	(0.959)	84737	5.00000	4.984
	24 Benzoic acid	105	11.325	11.186	(0.963)	270210	20.0000	20.37
	25 2,4-Dichlorophenol	162	11.471	11.464	(0.976)	139155	10.0000	10.26
	26 1,2,4-Trichlorobenzene	180	11.671	11.664	(0.993)	74980	5.00000	4.860
*	27 Naphthalene-d8	136	11.756	11.749	(1.000)	176978	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.795	11.795	(1.003)	223912	5.00000	4.862
	29 4-Chloroaniline	127	11.965	11.957	(1.018)	187727	10.0000	10.13
	30 Hexachlorobutadiene	225	12.212	12.205	(1.039)	47381	5.00000	4.928
	31 4-Chloro-3-methylphenol	107	13.025	13.017	(1.108)	138421	10.0000	10.56
	32 2-Methylnaphthalene	142	13.311	13.311	(1.132)	155233	5.00000	5.106
	33 Hexachlorocyclopentadiene	237	13.822	13.822	(0.882)	132975	10.0000	10.63
	34 2,4,6-Trichlorophenol	196	13.992	13.992	(0.893)	115372	10.0000	10.38
	35 2,4,5-Trichlorophenol	196	14.069	14.070	(0.898)	124402	10.0000	10.54
$	36 2-Fluorobiphenyl	172	14.178	14.170	(0.905)	189707	5.00000	4.988
	37 2-Chloronaphthalene	162	14.379	14.379	(0.918)	153701	5.00000	5.019
	38 2-Nitroaniline	65	14.681	14.674	(0.937)	78889	10.0000	10.98
	39 Dimethylphthalate	163	15.176	15.169	(0.969)	168962	5.00000	5.039
	40 Acenaphthylene	152	15.315	15.316	(0.978)	252756	5.00000	5.061
	41 2,6-Dinitrotoluene	165	15.308	15.300	(0.977)	81419	10.0000	10.63
*	42 Acenaphthene-d10	164	15.664	15.656	(1.000)	110872	4.00000	
	43 3-Nitroaniline	138	15.609	15.594	(0.997)	72229	10.0000	10.21
	44 Acenaphthene	153	15.733	15.726	(1.004)	151674	5.00000	4.953
	45 2,4-Dinitrophenol	184	15.834	15.826	(1.011)	134737	20.0000	20.14
	46 Dibenzofuran	168	16.089	16.089	(1.027)	211637	5.00000	4.969
	47 4-Nitrophenol	109	15.980	15.973	(1.020)	49763	10.0000	10.32
	48 2,4-Dinitrotoluene	165	16.181	16.174	(1.033)	112681	10.0000	10.88
	50 Diethylphthalate	149	16.761	16.754	(1.070)	178972	5.00000	5.095
	49 Fluorene	166	16.862	16.855	(1.077)	179707	5.00000	4.968
	51 4-Chlorophenyl-phenylether	204	16.877	16.870	(1.077)	83164	5.00000	4.933
	52 4-Nitroaniline	138	16.985	16.963	(1.084)	75406	10.0000	10.10
	53 4,6-Dinitro-2-methylphenol	198	17.086	17.071	(0.902)	172550	20.0000	22.88
	54 N-Nitrosodiphenylamine	169	17.155	17.148	(0.906)	111436	5.00000	4.913
$	55 2,4,6-Tribromophenol	330	17.440	17.433	(1.113)	36401	5.00000	5.145
	56 4-Bromophenyl-phenylether	248	17.965	17.957	(0.949)	53077	5.00000	5.053
	57 Hexachlorobenzene	284	18.289	18.274	(0.966)	65155	5.00000	4.943
	58 Pentachlorophenol	266	18.676	18.669	(0.986)	97943	10.0000	11.14
*	59 Phenanthrene-d10	188	18.939	18.940	(1.000)	188290	4.00000	
	60 Phenanthrene	178	18.986	18.986	(1.002)	249959	5.00000	4.980
	61 Anthracene	178	19.086	19.079	(1.008)	259741	5.00000	5.139
	62 Carbazole	167	19.434	19.435	(1.026)	121626	5.00000	3.449
	63 Di-n-butylphthalate	149	20.293	20.294	(1.071)	289545	5.00000	5.369
	64 Fluoranthene	202	21.399	21.392	(1.130)	299299	5.00000	5.178
	65 Pyrene	202	21.817	21.810	(0.909)	308315	5.00000	5.065
$	66 Terphenyl-d14	244	22.135	22.127	(0.922)	205081	5.00000	4.997
	67 Butylbenzylphthalate	149	23.079	23.072	(0.961)	123724	5.00000	5.360
	68 Benzo(a)anthracene	228	23.977	23.970	(0.999)	293758	5.00000	4.927
*	69 Chrysene-d12	240	24.008	24.001	(1.000)	213681	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.954	23.947	(0.998)	191126	10.0000	7.672
	71 Chrysene	228	24.055	24.048	(1.002)	263146	5.00000	4.873
	72 bis(2-Ethylhexyl)phthalate	149	24.117	24.117	(0.961)	175471	5.00000	5.030
*	134 Di-n-octylphthalate-d4	153	25.100	25.093	(1.000)	264159	4.00000	
	73 Di-n-octylphthalate	149	25.108	25.108	(1.000)	308384	5.00000	4.786

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.804	25.789	(0.973)	297496	5.00000	4.921
75	Benzo(k)fluoranthene	252	25.843	25.836	(0.975)	330837	5.00000	5.065
76	Benzo(a)pyrene	252	26.401	26.393	(0.996)	264308	5.00000	5.055
* 77	Perylene-d12	264	26.509	26.502	(1.000)	208584	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.942	28.919	(1.092)	332825	5.00000	5.162
79	Dibenzo(a,h)anthracene	278	28.957	28.942	(1.092)	261845	5.00000	5.128
80	Benzo(g,h,i)perylene	276	29.648	29.633	(1.118)	282491	5.00000	5.107
90	N-Nitrosodimethylamine	74	4.442	4.442	(0.489)	92827	10.0000	10.47
91	Aniline	93	8.512	8.505	(0.937)	213887	5.00000	5.091
93	Benzidine	184	21.655	21.648	(0.902)	86152	10.0000	8.717
103	Pyridine	79	4.457	4.481	(0.491)	79321	10.0000	10.48
105	1-methylnaphthalene	142	13.551	13.544	(1.153)	138218	5.00000	4.956
111	Azobenzene (1,2-DP-Hydrazine)	77	17.224	17.217	(1.100)	162417	5.00000	5.097
187	Total Benzofluoranthenes	252	25.843	25.836	(0.975)	594451	10.0000	9.989
99	Perylene	252	26.563	26.548	(1.002)	290716	5.00000	4.838
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	16.467	16.460	(1.051)	54461	5.00000	5.274
188	2,6-Dichlorophenol	162	11.980	11.973	(1.019)	133358	10.0000	10.12
189	N-Nitrosomethylethylamine	88	5.901	5.909	(0.650)	67477	10.0000	10.47

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125a.d
Lab Smp Id: IC0125A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 12:59
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	46623	0.00
27 Naphthalene-d8	176978	88489	353956	176978	0.00
42 Acenaphthene-d10	110872	55436	221744	110872	0.00
59 Phenanthrene-d10	188290	94145	376580	188290	0.00
69 Chrysene-d12	213681	106840	427362	213681	0.00
134 Di-n-octylphthala	264159	132080	528318	264159	0.00
77 Perylene-d12	208584	104292	417168	208584	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.08	8.58	9.58	9.08	0.00
27 Naphthalene-d8	11.76	11.26	12.26	11.76	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
134 Di-n-octylphthala	25.10	24.60	25.60	25.10	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

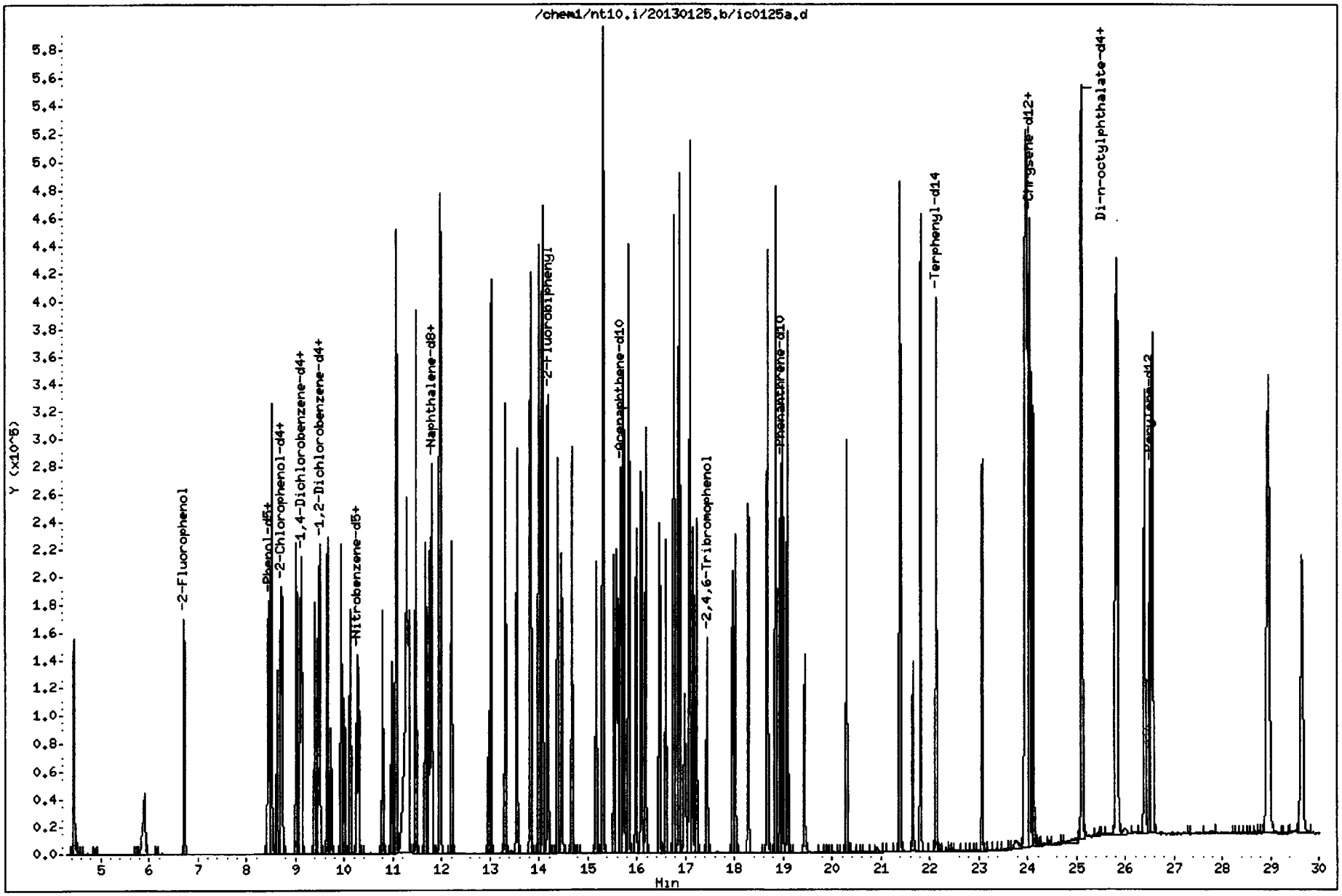
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/ic0125a.d
Date : 25-JAN-2013 12:59
Client ID:
Sample Info: IC0125A

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0125a.d

Lab ID: IC0125A, Method: ABN.m, Instrument: nt10.i, Date: 25-JAN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

YZ 1/28/13

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130125.b/ic0125b.d
Lab Smp Id: IC0125B
Inj Date : 25-JAN-2013 13:36
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125B
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130125.b/ABN.m
Meth Date : 28-Jan-2013 12:45 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 13:36 Cal File: ic0125b.d
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.728	6.720	(0.741)	264606	20.0000	19.01
$	2 Phenol-d5	99	8.451	8.428	(0.930)	345802	20.0000	20.02
	3 Phenol	94	8.474	8.451	(0.933)	339779	20.0000	18.69
$	5 2-Chlorophenol-d4	132	8.706	8.698	(0.958)	284249	20.0000	19.01
	4 Bis(2-Chloroethyl)ether	93	8.629	8.621	(0.950)	248887	20.0000	17.99
	6 2-Chlorophenol	128	8.737	8.729	(0.962)	296632	20.0000	18.75
	7 1,3-Dichlorobenzene	146	9.015	9.015	(0.992)	314829	20.0000	18.29
*	8 1,4-Dichlorobenzene-d4	152	9.085	9.085	(1.000)	43531	4.00000	
	9 1,4-Dichlorobenzene	146	9.124	9.116	(1.004)	315706	20.0000	18.52
$	10 1,2-Dichlorobenzene-d4	152	9.473	9.465	(1.043)	207364	20.0000	18.87
	12 1,2-Dichlorobenzene	146	9.504	9.496	(1.046)	304856	20.0000	18.60
	11 Benzyl alcohol	108	9.403	9.388	(1.035)	172201	20.0000	19.79
	14 2,2'-oxybis(1-Chloropropane)	121	9.729	9.722	(1.071)	92188	20.0000	18.94
	13 2-Methylphenol	108	9.659	9.644	(1.063)	265714	20.0000	19.36
	17 Hexachloroethane	117	10.133	10.133	(1.115)	130033	20.0000	19.30
	16 N-Nitroso-di-n-propylamine	70	10.016	9.993	(1.103)	174805	20.0000	19.07
	15 4-Methylphenol	108	9.954	9.939	(1.096)	277537	20.0000	19.45
$	18 Nitrobenzene-d5	82	10.273	10.257	(0.874)	303692	20.0000	19.91
	19 Nitrobenzene	77	10.311	10.296	(0.877)	282133	20.0000	19.51
	20 Isophorone	82	10.816	10.785	(0.920)	513246	20.0000	20.37
	21 2-Nitrophenol	139	10.986	10.978	(0.934)	175952	20.0000	20.71
	22 2,4-Dimethylphenol	107	11.078	11.063	(0.942)	546216	40.0000	37.72
	23 Bis(2-Chloroethoxy)methane	93	11.286	11.271	(0.960)	298208	20.0000	18.79
	24 Benzoic acid	105	11.487	11.186	(0.977)	1036662	80.0000	79.94(M)
	25 2,4-Dichlorophenol	162	11.487	11.464	(0.977)	490916	40.0000	38.79
	26 1,2,4-Trichlorobenzene	180	11.672	11.664	(0.993)	261680	20.0000	18.17
*	27 Naphthalene-d8	136	11.757	11.749	(1.000)	165229	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.803	11.795	(1.004)	815133	20.0000	18.96
	29 4-Chloroaniline	127	11.981	11.957	(1.019)	699058	40.0000	40.40
	30 Hexachlorobutadiene	225	12.212	12.205	(1.039)	174544	20.0000	19.44
	31 4-Chloro-3-methylphenol	107	13.033	13.017	(1.109)	523532	40.0000	42.80
	32 2-Methylnaphthalene	142	13.311	13.311	(1.132)	568813	20.0000	20.04
	33 Hexachlorocyclopentadiene	237	13.830	13.822	(0.883)	500637	40.0000	41.59
	34 2,4,6-Trichlorophenol	196	14.000	13.992	(0.894)	443629	40.0000	41.48
	35 2,4,5-Trichlorophenol	196	14.078	14.070	(0.899)	475930	40.0000	41.87
$	36 2-Fluorobiphenyl	172	14.178	14.170	(0.905)	715720	20.0000	19.55
	37 2-Chloronaphthalene	162	14.387	14.379	(0.918)	571909	20.0000	19.40
	38 2-Nitroaniline	65	14.697	14.674	(0.938)	302207	40.0000	43.71
	39 Dimethylphthalate	163	15.192	15.169	(0.970)	601710	20.0000	18.64
	40 Acenaphthylene	152	15.324	15.316	(0.978)	907637	20.0000	18.88
	41 2,6-Dinitrotoluene	165	15.324	15.300	(0.978)	298383	40.0000	40.46
*	42 Acenaphthene-d10	164	15.664	15.656	(1.000)	106731	4.00000	
	43 3-Nitroaniline	138	15.625	15.594	(0.998)	231778	40.0000	34.03
	44 Acenaphthene	153	15.741	15.726	(1.005)	560530	20.0000	19.01
	45 2,4-Dinitrophenol	184	15.865	15.826	(1.013)	539709	80.0000	79.87
	46 Dibenzofuran	168	16.105	16.089	(1.028)	772605	20.0000	18.84
	47 4-Nitrophenol	109	16.012	15.973	(1.022)	191069	40.0000	39.99
	48 2,4-Dinitrotoluene	165	16.197	16.174	(1.034)	410508	40.0000	41.17
	50 Diethylphthalate	149	16.785	16.754	(1.072)	644112	20.0000	19.05
	49 Fluorene	166	16.870	16.855	(1.077)	648932	20.0000	18.63
	51 4-Chlorophenyl-phenylether	204	16.885	16.870	(1.078)	300938	20.0000	18.54
	52 4-Nitroaniline	138	17.024	16.963	(1.087)	290742	40.0000	40.44
	53 4,6-Dinitro-2-methylphenol	198	17.117	17.071	(0.903)	650220	80.0000	89.94
	54 N-Nitrosodiphenylamine	169	17.163	17.148	(0.906)	395375	20.0000	18.18
$	55 2,4,6-Tribromophenol	330	17.448	17.433	(1.114)	140098	20.0000	20.57
	56 4-Bromophenyl-phenylether	248	17.965	17.957	(0.948)	200896	20.0000	19.95
	57 Hexachlorobenzene	284	18.289	18.274	(0.965)	236417	20.0000	18.71
	58 Pentachlorophenol	266	18.684	18.669	(0.986)	364411	40.0000	43.24
*	59 Phenanthrene-d10	188	18.947	18.940	(1.000)	180535	4.00000	
	60 Phenanthrene	178	19.001	18.986	(1.003)	923370	20.0000	19.19
	61 Anthracene	178	19.094	19.079	(1.008)	958468	20.0000	19.78
	62 Carbazole	167	19.442	19.435	(1.026)	666542	20.0000	19.71(M)
	63 Di-n-butylphthalate	149	20.301	20.294	(1.071)	1125365	20.0000	21.76
	64 Fluoranthene	202	21.400	21.392	(1.129)	1135359	20.0000	20.49
	65 Pyrene	202	21.825	21.810	(0.909)	1149677	20.0000	20.18
$	66 Terphenyl-d14	244	22.135	22.127	(0.922)	743352	20.0000	19.35
	67 Butylbenzylphthalate	149	23.080	23.072	(0.961)	453914	20.0000	21.01
	68 Benzo(a)anthracene	228	23.986	23.970	(0.999)	1096487	20.0000	19.65
*	69 Chrysene-d12	240	24.017	24.001	(1.000)	200009	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.970	23.947	(0.998)	951529	40.0000	40.81
	71 Chrysene	228	24.063	24.048	(1.002)	967573	20.0000	19.14
	72 bis(2-Ethylhexyl)phthalate	149	24.125	24.117	(0.961)	668708	20.0000	19.10
*	134 Di-n-octylphthalate-d4	153	25.100	25.093	(1.000)	265158	4.00000	
	73 Di-n-octylphthalate	149	25.116	25.108	(1.001)	1175410	20.0000	18.17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	74 Benzo(b)fluoranthene	252	25.813	25.789	(0.973)	1215752	20.0000	20.99
	75 Benzo(k)fluoranthene	252	25.859	25.836	(0.975)	1157269	20.0000	18.49
	76 Benzo(a)pyrene	252	26.416	26.393	(0.996)	1007316	20.0000	20.11
*	77 Perylene-d12	264	26.517	26.502	(1.000)	199837	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.958	28.919	(1.092)	1257296	20.0000	20.35
	79 Dibenzo(a,h)anthracene	278	28.989	28.942	(1.093)	983890	20.0000	20.11
	80 Benzo(g,h,i)perylene	276	29.680	29.633	(1.119)	1079771	20.0000	20.37
	90 N-Nitrosodimethylamine	74	4.457	4.442	(0.491)	315420	40.0000	38.09
	91 Aniline	93	8.521	8.505	(0.938)	699933	20.0000	17.84
	93 Benzidine	184	21.655	21.648	(0.902)	451512	40.0000	40.07
	103 Pyridine	79	4.450	4.481	(0.490)	266680	40.0000	37.75
	105 1-methylnaphthalene	142	13.551	13.544	(1.153)	519637	20.0000	19.96
	111 Azobenzene (1,2-DP-Hydrazine)	77	17.240	17.217	(1.101)	574054	20.0000	18.72
	187 Total Benzofluoranthenes	252	25.859	25.836	(0.975)	2239076	40.0000	39.27
	99 Perylene	252	26.579	26.548	(1.002)	1107338	20.0000	19.24
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	16.476	16.460	(1.052)	210935	20.0000	21.22
	188 2,6-Dichlorophenol	162	11.988	11.973	(1.020)	498549	40.0000	40.54
	189 N-Nitrosomethylethylamine	88	5.917	5.909	(0.651)	234684	40.0000	39.00

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125b.d
Lab Smp Id: IC0125B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 12:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	43531	-6.63
27 Naphthalene-d8	176978	88489	353956	165229	-6.64
42 Acenaphthene-d10	110872	55436	221744	106731	-3.73
59 Phenanthrene-d10	188290	94145	376580	180535	-4.12
69 Chrysene-d12	213681	106840	427362	200009	-6.40
134 Di-n-octylphthala	264159	132080	528318	265158	0.38
77 Perylene-d12	208584	104292	417168	199837	-4.19

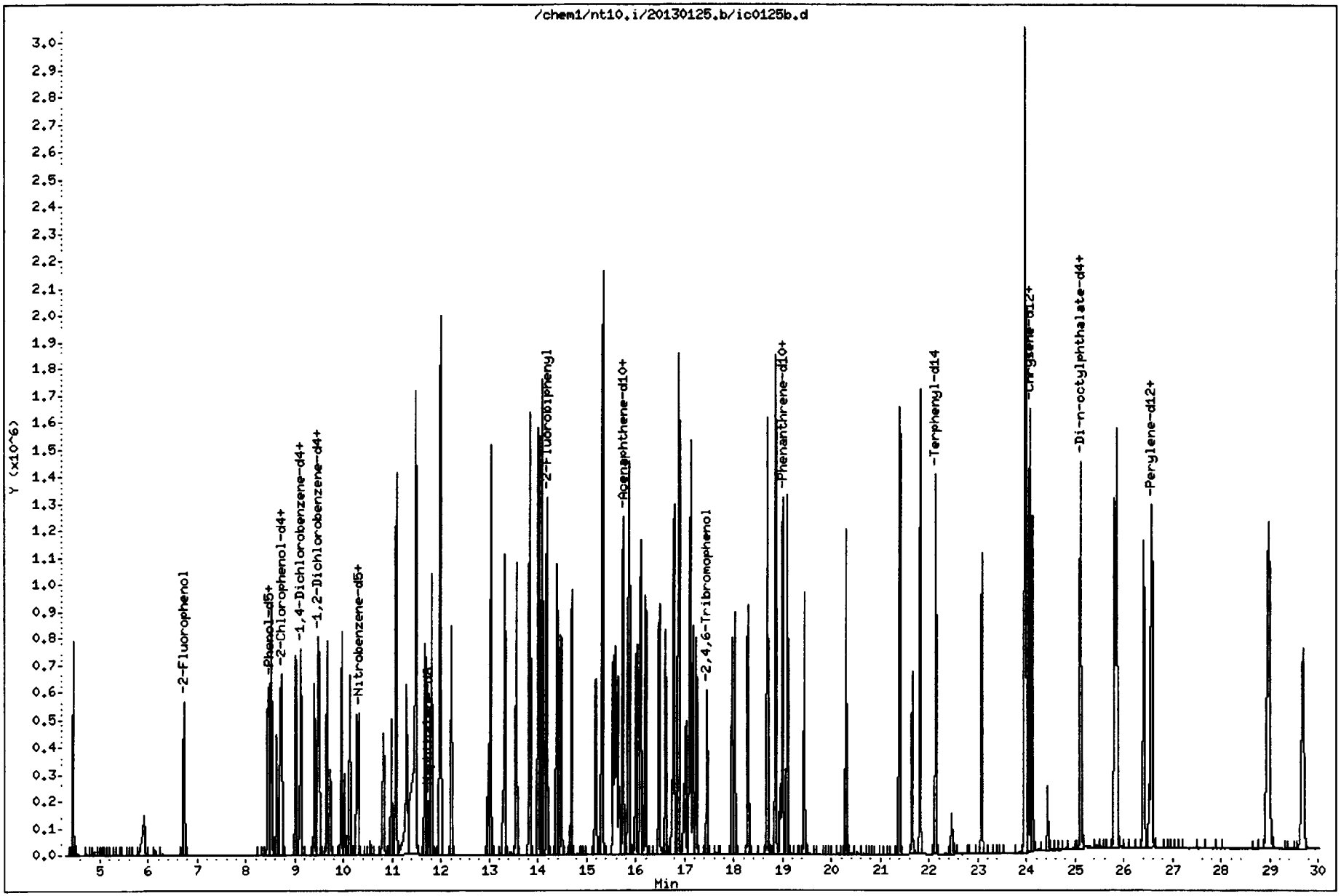
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.08	8.58	9.58	9.09	0.01
27 Naphthalene-d8	11.76	11.26	12.26	11.76	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.95	0.04
69 Chrysene-d12	24.01	23.51	24.51	24.02	0.03
134 Di-n-octylphthala	25.10	24.60	25.60	25.10	0.00
77 Perylene-d12	26.51	26.01	27.01	26.52	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/ic0125b.d
Date : 25-JAN-2013 13:36
Client ID:
Sample Info: IC0125B

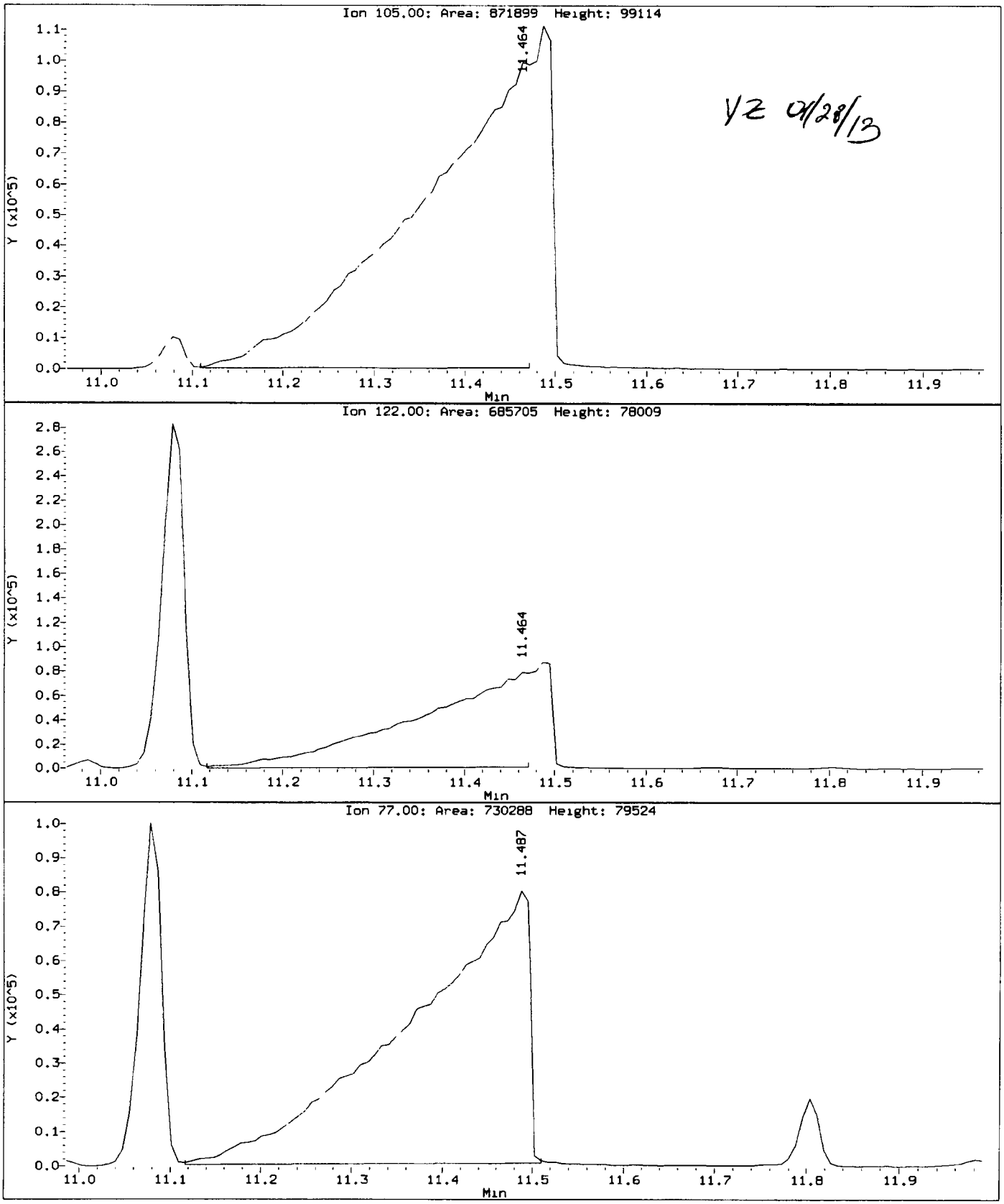
Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



Data File: /chem1/nt10.1/20130125.b/1c0125b.d
Injection Date: 25-JAN-2013 13:36
Instrument: nt10.1
Client Sample ID:

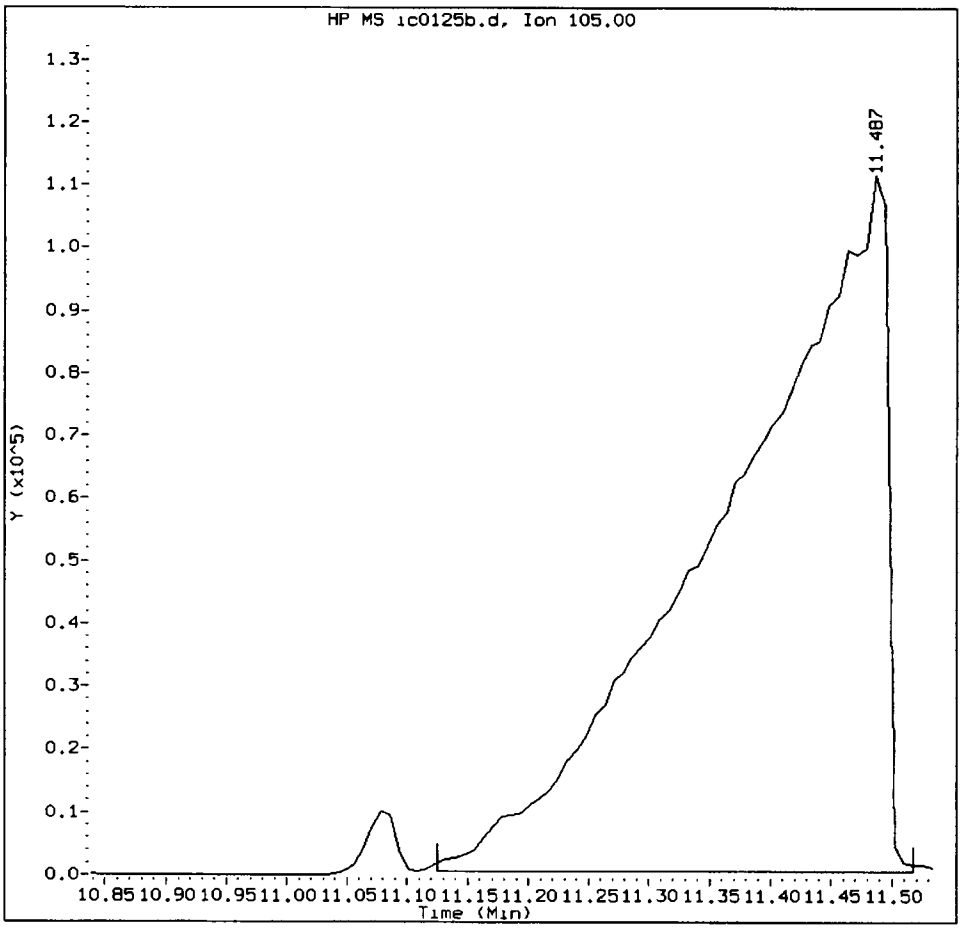
Compound: Benzoic acid
CAS Number: 65-85-0



YZ 04/28/13

IC0125B, /chem1/nt10.i/20130125.b/ic0125b.d

Benzoic acid Amount: 79.94 Area: 1036662



MANUAL INTEGRATION for Benzoic acid

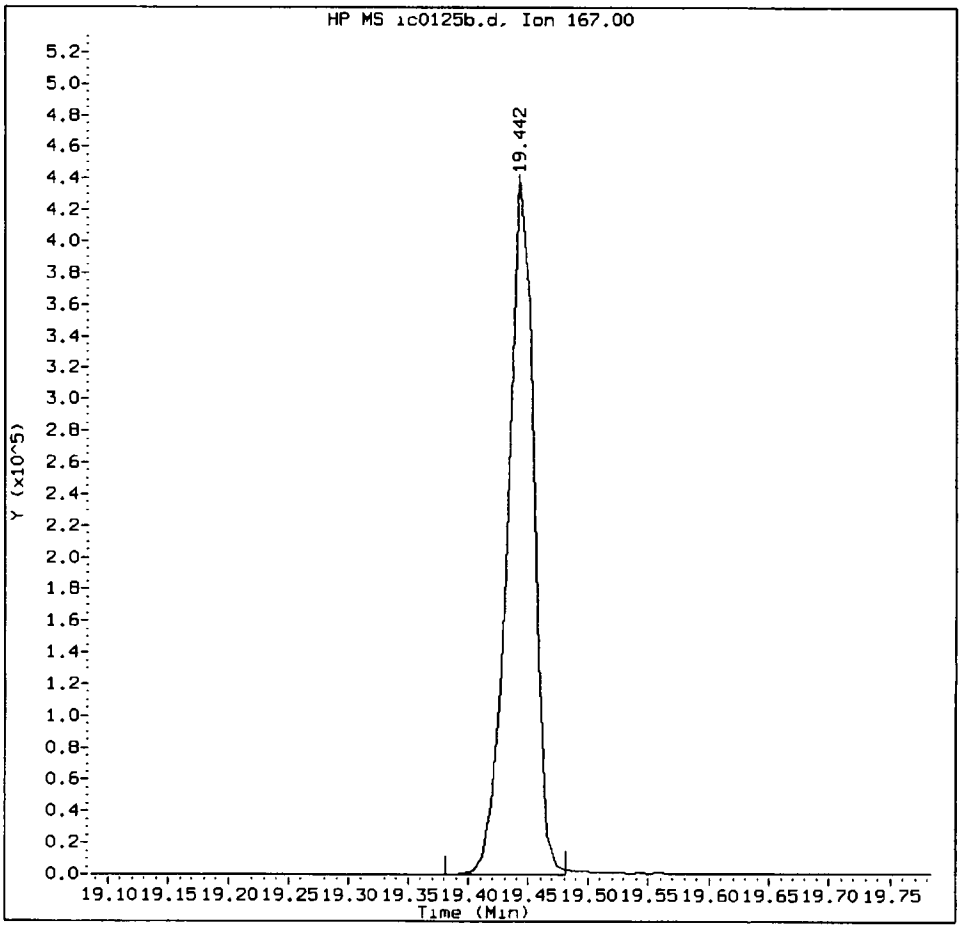
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 04/28/12

IC0125B, /chem1/nt10.i/20130125.b/ic0125b.d

Carbazole Amount: 19.71 Area: 666542



MANUAL INTEGRATION for Carbazole

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 01/23/13

CO-ELUTION SUMMARY FOR FILE - ic0125b.d

Lab ID: IC0125B, Method: ABN.m, Instrument: nt10.i, Date: 25-JAN-2013

RT	CO-ELUTION COMPOUNDS
15.324	Acenaphthylene and 2,6-Dinitrotoluene

Analytical Resources, Inc.

YZ 01/28/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130125.b/ic0125c.d
Lab Smp Id: IC0125C
Inj Date : 25-JAN-2013 14:13
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125C
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130125.b/ABN.m
Meth Date : 28-Jan-2013 12:45 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 14:13 Cal File: ic0125c.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.720	6.720	(0.740)	2986	0.20000	0.2105
$	2 Phenol-d5	99	8.428	8.428	(0.928)	3637	0.20000	0.2066
	3 Phenol	94	8.451	8.451	(0.930)	4107	0.20000	0.2217
$	5 2-Chlorophenol-d4	132	8.698	8.698	(0.957)	3224	0.20000	0.2116
	4 Bis(2-Chloroethyl)ether	93	8.621	8.621	(0.949)	3116	0.20000	0.2211
	6 2-Chlorophenol	128	8.729	8.729	(0.961)	3538	0.20000	0.2195
	7 1,3-Dichlorobenzene	146	9.015	9.015	(0.992)	4067	0.20000	0.2319
*	8 1,4-Dichlorobenzene-d4	152	9.085	9.085	(1.000)	44358	4.00000	
	9 1,4-Dichlorobenzene	146	9.116	9.116	(1.003)	4047	0.20000	0.2330
$	10 1,2-Dichlorobenzene-d4	152	9.465	9.465	(1.042)	2635	0.20000	0.2353
	12 1,2-Dichlorobenzene	146	9.496	9.496	(1.045)	3854	0.20000	0.2308
	11 Benzyl alcohol	108	9.387	9.388	(1.033)	1864	0.20000	0.2103
	14 2,2'-oxybis(1-Chloropropane)	121	9.714	9.722	(1.069)	1065	0.20000	0.2148
	13 2-Methylphenol	108	9.644	9.644	(1.062)	2994	0.20000	0.2141
	17 Hexachloroethane	117	10.125	10.133	(1.114)	1508	0.20000	0.2197
	16 N-Nitroso-di-n-propylamine	70	10.001	9.993	(1.101)	2031	0.20000	0.2174
	15 4-Methylphenol	108	9.939	9.939	(1.094)	2977	0.20000	0.2047
$	18 Nitrobenzene-d5	82	10.257	10.257	(0.873)	3347	0.20000	0.2143
	19 Nitrobenzene	77	10.296	10.296	(0.876)	3278	0.20000	0.2213
	20 Isophorone	82	10.785	10.785	(0.918)	5357	0.20000	0.2075
	21 2-Nitrophenol	139	10.978	10.978	(0.934)	1636	0.20000	0.1880
	22 2,4-Dimethylphenol	107	11.063	11.063	(0.942)	6368	0.40000	0.4293
	23 Bis(2-Chloroethoxy)methane	93	11.279	11.271	(0.960)	3564	0.20000	0.2192
	24 Benzoic acid	105	11.163	11.186	(0.950)	4260	0.80000	0.3406(M)
	25 2,4-Dichlorophenol	162	11.471	11.464	(0.976)	5383	0.40000	0.4152
	26 1,2,4-Trichlorobenzene	180	11.664	11.664	(0.993)	3410	0.20000	0.2311
*	27 Naphthalene-d8	136	11.749	11.749	(1.000)	169256	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.795	11.795	(1.004)	9911	0.20000	0.2250
	29 4-Chloroaniline	127	11.957	11.957	(1.018)	7379	0.40000	0.4163
	30 Hexachlorobutadiene	225	12.205	12.205	(1.039)	1979	0.20000	0.2152
	31 4-Chloro-3-methylphenol	107	13.017	13.017	(1.108)	4482	0.40000	0.3577
	32 2-Methylnaphthalene	142	13.303	13.311	(1.132)	6248	0.20000	0.2149
	33 Hexachlorocyclopentadiene	237	13.822	13.822	(0.883)	4529	0.40000	0.3943
	34 2,4,6-Trichlorophenol	196	13.992	13.992	(0.894)	3857	0.40000	0.3779
	35 2,4,5-Trichlorophenol	196	14.070	14.070	(0.899)	3858	0.40000	0.3557
$	36 2-Fluorobiphenyl	172	14.170	14.170	(0.905)	7600	0.20000	0.2175
	37 2-Chloronaphthalene	162	14.371	14.379	(0.918)	6298	0.20000	0.2239
	38 2-Nitroaniline	65	14.673	14.674	(0.937)	2207	0.40000	0.3345
	39 Dimethylphthalate	163	15.169	15.169	(0.969)	6664	0.20000	0.2164
	40 Acenaphthylene	152	15.316	15.316	(0.978)	9490	0.20000	0.2069
	41 2,6-Dinitrotoluene	165	15.300	15.300	(0.977)	2614	0.40000	0.3715
*	42 Acenaphthene-d10	164	15.656	15.656	(1.000)	101836	4.00000	
	43 3-Nitroaniline	138	15.594	15.594	(0.996)	2313	0.40000	0.3560 (M)
	44 Acenaphthene	153	15.726	15.726	(1.004)	6035	0.20000	0.2146
	45 2,4-Dinitrophenol	184	15.826	15.826	(1.011)	1345	0.80000	0.2222
	46 Dibenzofuran	168	16.081	16.089	(1.027)	8605	0.20000	0.2200
	47 4-Nitrophenol	109	15.973	15.973	(1.020)	692	0.40000	0.1577
	48 2,4-Dinitrotoluene	165	16.174	16.174	(1.033)	3230	0.40000	0.3395
	50 Diethylphthalate	149	16.754	16.754	(1.070)	6918	0.20000	0.2144
	49 Fluorene	166	16.854	16.855	(1.077)	7142	0.20000	0.2149
	51 4-Chlorophenyl-phenylether	204	16.870	16.870	(1.078)	3304	0.20000	0.2134
	52 4-Nitroaniline	138	16.963	16.963	(1.083)	2474	0.40000	0.3607
	53 4,6-Dinitro-2-methylphenol	198	17.070	17.071	(0.902)	3851	0.80000	0.5625
	54 N-Nitrosodiphenylamine	169	17.148	17.148	(0.906)	4497	0.20000	0.2184
$	55 2,4,6-Tribromophenol	330	17.433	17.433	(1.113)	1238	0.20000	0.1905
	56 4-Bromophenyl-phenylether	248	17.957	17.957	(0.949)	2068	0.20000	0.2169
	57 Hexachlorobenzene	284	18.281	18.274	(0.966)	2625	0.20000	0.2193
	58 Pentachlorophenol	266	18.669	18.669	(0.986)	2577	0.40000	0.3229
*	59 Phenanthrene-d10	188	18.932	18.940	(1.000)	170953	4.00000	
	60 Phenanthrene	178	18.986	18.986	(1.003)	10336	0.20000	0.2268
	61 Anthracene	178	19.079	19.079	(1.008)	9548	0.20000	0.2081
	62 Carbazole	167	19.435	19.435	(1.027)	8044	0.20000	0.2513
	63 Di-n-butylphthalate	149	20.293	20.294	(1.072)	9564	0.20000	0.1953
	64 Fluoranthene	202	21.392	21.392	(1.130)	10986	0.20000	0.2093
	65 Pyrene	202	21.810	21.810	(0.908)	11305	0.20000	0.2054
$	66 Terphenyl-d14	244	22.127	22.127	(0.922)	7779	0.20000	0.2096
	67 Butylbenzylphthalate	149	23.079	23.072	(0.961)	4024	0.20000	0.1928
	68 Benzo(a)anthracene	228	23.978	23.970	(0.999)	11586	0.20000	0.2149
*	69 Chrysene-d12	240	24.009	24.001	(1.000)	193229	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.954	23.947	(0.998)	11300	0.40000	0.5016
	71 Chrysene	228	24.047	24.048	(1.002)	10934	0.20000	0.2239
	72 bis(2-Ethylhexyl)phthalate	149	24.117	24.117	(0.961)	6441	0.20000	0.2251
*	134 Di-n-octylphthalate-d4	153	25.100	25.093	(1.000)	216658	4.00000	
	73 Di-n-octylphthalate	149	25.108	25.108	(1.000)	12550	0.20000	0.2375

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74 Benzo(b)fluoranthene	252	25.797	25.789	(0.973)	10822	0.20000	0.2081
75 Benzo(k)fluoranthene	252	25.836	25.836	(0.975)	12743	0.20000	0.2268
76 Benzo(a)pyrene	252	26.393	26.393	(0.996)	9661	0.20000	0.2148
* 77 Perylene-d12	264	26.509	26.502	(1.000)	179458	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.926	28.919	(1.091)	11294	0.20000	0.2036
79 Dibenzo(a,h)anthracene	278	28.950	28.942	(1.092)	8716	0.20000	0.1984
80 Benzo(g,h,i)perylene	276	29.633	29.633	(1.118)	9702	0.20000	0.2038
90 N-Nitrosodimethylamine	74	4.450	4.442	(0.490)	3696	0.40000	0.4380
91 Aniline	93	8.505	8.505	(0.936)	8946	0.20000	0.2238
93 Benzidine	184	21.647	21.648	(0.902)	8735	0.40000	1.011
103 Pyridine	79	4.496	4.481	(0.495)	2955	0.40000	0.4105
105 1-methylnaphthalene	142	13.543	13.544	(1.153)	5815	0.20000	0.2180
111 Azobenzene (1,2-DP-Hydrazine)	77	17.217	17.217	(1.100)	6100	0.20000	0.2084
187 Total Benzofluoranthenes	252	25.797	25.836	(0.973)	22209	0.40000	0.4338
99 Perylene	252	26.556	26.548	(1.002)	11836	0.20000	0.2289
98 Retene	219	Compound Not Detected.					
120 2,3,4,6-Tetrachlorophenol	232	16.460	16.460	(1.051)	1674	0.20000	0.1765
188 2,6-Dichlorophenol	162	11.973	11.973	(1.019)	5154	0.40000	0.4092
189 N-Nitrosomethylethylamine	88	5.909	5.909	(0.650)	2500	0.40000	0.4077

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125c.d
Lab Smp Id: IC0125C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 12:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	44358	-4.86
27 Naphthalene-d8	176978	88489	353956	169256	-4.36
42 Acenaphthene-d10	110872	55436	221744	101836	-8.15
59 Phenanthrene-d10	188290	94145	376580	170953	-9.21
69 Chrysene-d12	213681	106840	427362	193229	-9.57
134 Di-n-octylphthala	264159	132080	528318	216658	-17.98
77 Perylene-d12	208584	104292	417168	179458	-13.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.08	8.58	9.58	9.08	0.00
27 Naphthalene-d8	11.76	11.26	12.26	11.75	-0.06
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	-0.05
59 Phenanthrene-d10	18.94	18.44	19.44	18.93	-0.04
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
134 Di-n-octylphthala	25.10	24.60	25.60	25.10	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

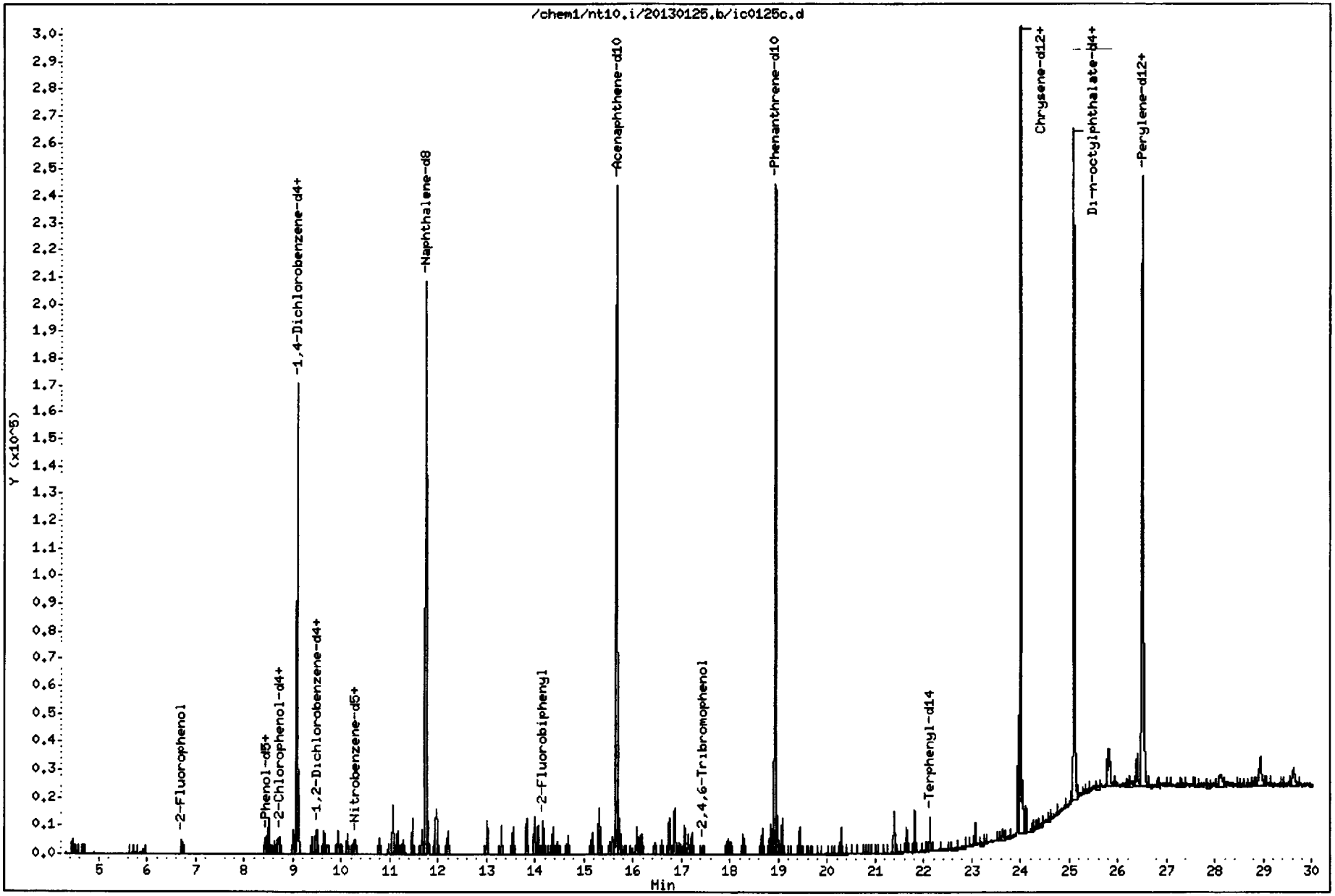
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/ic0125c.d
Date : 25-JAN-2013 14:13
Client ID:
Sample Info: IC0125C

Instrument: nt10.i

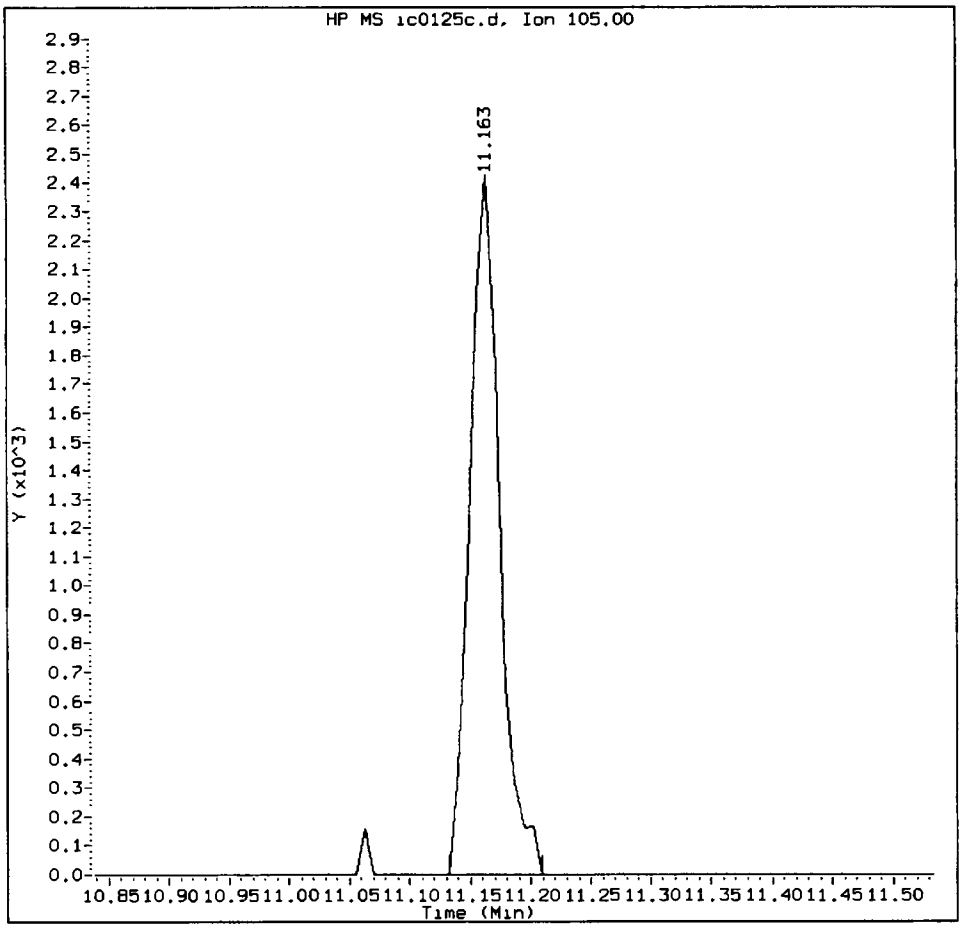
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0125C, /chem1/nt10.i/20130125.b/ic0125c.d

Benzoic acid Amount: 0.34 Area: 4260



MANUAL INTEGRATION for Benzoic acid

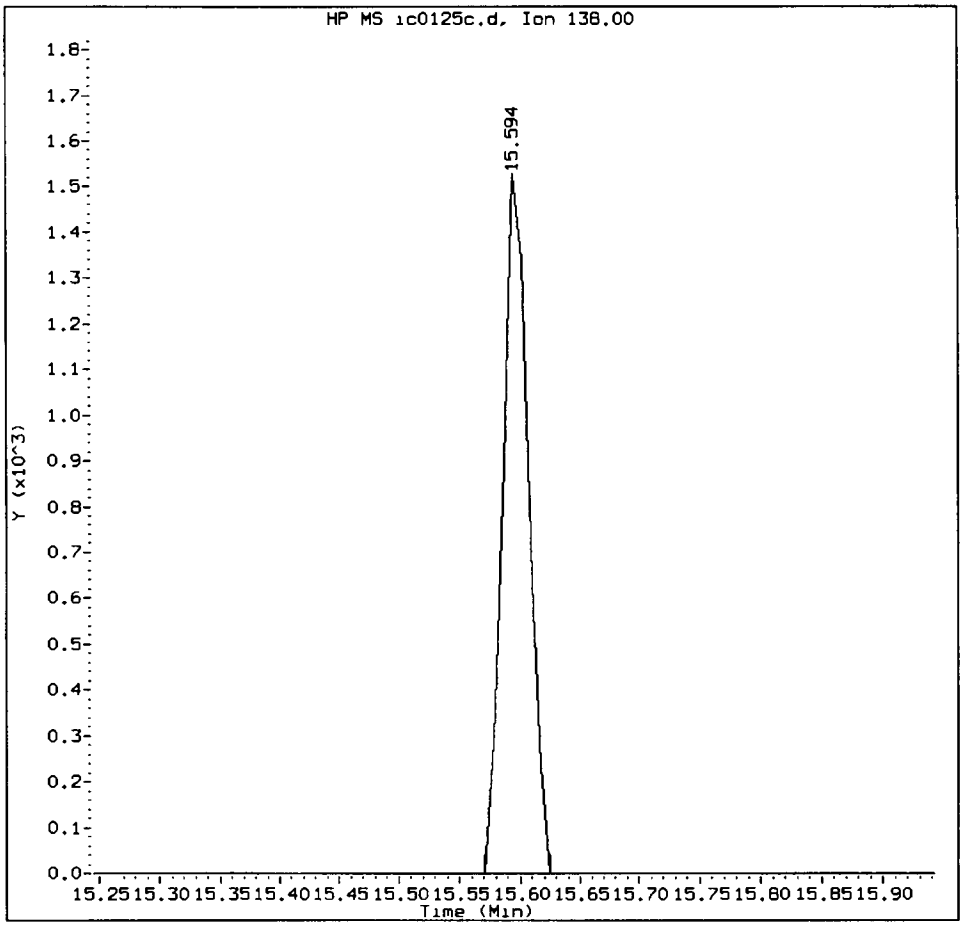
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 02/28/13

IC0125C, /chem1/nt10.i/20130125.b/ic0125c.d

3-Nitroaniline Amount: 0.36 Area: 2313



MANUAL INTEGRATION for 3-Nitroaniline

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 04/28/13

CO-ELUTION SUMMARY FOR FILE - ic0125c.d

Lab ID: IC0125C, Method: ABN.m, Instrument: nt10.i, Date: 25-JAN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 01/28/13

Data file : /chem1/nt10.i/20130125.b/ic0125d.d
Lab Smp Id: IC0125D
Inj Date : 25-JAN-2013 14:50
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125D
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130125.b/ABN.m
Meth Date : 28-Jan-2013 12:45 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 14:50 Cal File: ic0125d.d
Als bottle: 5 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.728	6.720	(0.740)	136821	10.0000	9.958
$	2	Phenol-d5	99	8.435	8.428	(0.928)	171972	10.0000	10.09
	3	Phenol	94	8.459	8.451	(0.931)	173685	10.0000	9.678
$	5	2-Chlorophenol-d4	132	8.698	8.698	(0.957)	146850	10.0000	9.947
	4	Bis(2-Chloroethyl)ether	93	8.621	8.621	(0.949)	130128	10.0000	9.530
	6	2-Chlorophenol	128	8.729	8.729	(0.961)	152445	10.0000	9.762
	7	1,3-Dichlorobenzene	146	9.015	9.015	(0.992)	163629	10.0000	9.629
*	8	1,4-Dichlorobenzene-d4	152	9.085	9.085	(1.000)	42972	4.00000	
	9	1,4-Dichlorobenzene	146	9.116	9.116	(1.003)	162261	10.0000	9.643
$	10	1,2-Dichlorobenzene-d4	152	9.473	9.465	(1.043)	106626	10.0000	9.828
	12	1,2-Dichlorobenzene	146	9.496	9.496	(1.045)	155682	10.0000	9.622
	11	Benzyl alcohol	108	9.395	9.388	(1.034)	87783	10.0000	10.22
	14	2,2'-oxybis(1-Chloropropane)	121	9.721	9.722	(1.070)	47843	10.0000	9.959
	13	2-Methylphenol	108	9.652	9.644	(1.062)	136083	10.0000	10.05
	17	Hexachloroethane	117	10.133	10.133	(1.115)	65975	10.0000	9.920
	16	N-Nitroso-di-n-propylamine	70	10.001	9.993	(1.101)	90869	10.0000	10.04
	15	4-Methylphenol	108	9.947	9.939	(1.095)	141108	10.0000	10.02
$	18	Nitrobenzene-d5	82	10.265	10.257	(0.873)	152027	10.0000	9.931
	19	Nitrobenzene	77	10.303	10.296	(0.876)	142601	10.0000	9.824
	20	Isophorone	82	10.800	10.785	(0.919)	256454	10.0000	10.14
	21	2-Nitrophenol	139	10.978	10.978	(0.934)	89829	10.0000	10.53
	22	2,4-Dimethylphenol	107	11.071	11.063	(0.942)	283047	20.0000	19.47
	23	Bis(2-Chloroethoxy)methane	93	11.279	11.271	(0.959)	151067	10.0000	9.481
	24	Benzoic acid	105	11.402	11.186	(0.970)	507039	40.0000	40.20
	25	2,4-Dichlorophenol	162	11.479	11.464	(0.976)	253663	20.0000	19.96
	26	1,2,4-Trichlorobenzene	180	11.672	11.664	(0.993)	136553	10.0000	9.444
*	27	Naphthalene-d8	136	11.757	11.749	(1.000)	165867	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	28 Naphthalene	128	11.795	11.795	(1.003)	417528	10.0000	9.674
	29 4-Chloroaniline	127	11.965	11.957	(1.018)	345799	20.0000	19.91
	30 Hexachlorobutadiene	225	12.212	12.205	(1.039)	89353	10.0000	9.916
	31 4-Chloro-3-methylphenol	107	13.025	13.017	(1.108)	264492	20.0000	21.54
	32 2-Methylnaphthalene	142	13.311	13.311	(1.132)	283288	10.0000	9.941
	33 Hexachlorocyclopentadiene	237	13.830	13.822	(0.883)	251203	20.0000	20.69
	34 2,4,6-Trichlorophenol	196	14.000	13.992	(0.894)	223317	20.0000	20.70
	35 2,4,5-Trichlorophenol	196	14.070	14.070	(0.898)	242921	20.0000	21.19
$	36 2-Fluorobiphenyl	172	14.178	14.170	(0.905)	357374	10.0000	9.676
	37 2-Chloronaphthalene	162	14.379	14.379	(0.918)	288962	10.0000	9.717
	38 2-Nitroaniline	65	14.681	14.674	(0.937)	151663	20.0000	21.74
	39 Dimethylphthalate	163	15.176	15.169	(0.969)	315858	10.0000	9.700
	40 Acenaphthylene	152	15.316	15.316	(0.978)	468651	10.0000	9.663
	41 2,6-Dinitrotoluene	165	15.316	15.300	(0.978)	152771	20.0000	20.54
*	42 Acenaphthene-d10	164	15.664	15.656	(1.000)	107661	4.00000	
	43 3-Nitroaniline	138	15.618	15.594	(0.997)	141594	20.0000	20.61
	44 Acenaphthene	153	15.733	15.726	(1.004)	287776	10.0000	9.677
	45 2,4-Dinitrophenol	184	15.842	15.826	(1.011)	267779	40.0000	40.58
	46 Dibenzofuran	168	16.097	16.089	(1.028)	398333	10.0000	9.631
	47 4-Nitrophenol	109	15.989	15.973	(1.021)	94479	20.0000	19.99
	48 2,4-Dinitrotoluene	165	16.190	16.174	(1.034)	210743	20.0000	20.95
	50 Diethylphthalate	149	16.769	16.754	(1.071)	331988	10.0000	9.733
	49 Fluorene	166	16.870	16.855	(1.077)	335222	10.0000	9.543
	51 4-Chlorophenyl-phenylether	204	16.878	16.870	(1.077)	155738	10.0000	9.513
	52 4-Nitroaniline	138	16.994	16.963	(1.085)	151466	20.0000	20.89
	53 4,6-Dinitro-2-methylphenol	198	17.101	17.071	(0.903)	329949	40.0000	45.12
	54 N-Nitrosodiphenylamine	169	17.155	17.148	(0.906)	209012	10.0000	9.501
$	55 2,4,6-Tribromophenol	330	17.441	17.433	(1.113)	70530	10.0000	10.27
	56 4-Bromophenyl-phenylether	248	17.965	17.957	(0.949)	102014	10.0000	10.01
	57 Hexachlorobenzene	284	18.282	18.274	(0.965)	123331	10.0000	9.647
	58 Pentachlorophenol	266	18.676	18.669	(0.986)	185585	20.0000	21.77
*	59 Phenanthrene-d10	188	18.939	18.940	(1.000)	182628	4.00000	
	60 Phenanthrene	178	18.994	18.986	(1.003)	470008	10.0000	9.654
	61 Anthracene	178	19.086	19.079	(1.008)	501886	10.0000	10.24
	62 Carbazole	167	19.442	19.435	(1.027)	300533	10.0000	8.787
	63 Di-n-butylphthalate	149	20.293	20.294	(1.071)	566831	10.0000	10.84
	64 Fluoranthene	202	21.400	21.392	(1.130)	569024	10.0000	10.15
	65 Pyrene	202	21.818	21.810	(0.909)	588216	10.0000	10.16
$	66 Terphenyl-d14	244	22.135	22.127	(0.922)	393438	10.0000	10.08
	67 Butylbenzylphthalate	149	23.080	23.072	(0.961)	237303	10.0000	10.81
	68 Benzo(a)anthracene	228	23.985	23.970	(0.999)	565205	10.0000	9.967
*	69 Chrysene-d12	240	24.009	24.001	(1.000)	203223	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.962	23.947	(0.998)	477339	20.0000	20.15
	71 Chrysene	228	24.055	24.048	(1.002)	498249	10.0000	9.701
	72 bis(2-Ethylhexyl)phthalate	149	24.117	24.117	(0.961)	333510	10.0000	9.682
*	134 Di-n-octylphthalate-d4	153	25.100	25.093	(1.000)	260852	4.00000	
	73 Di-n-octylphthalate	149	25.108	25.108	(1.000)	596440	10.0000	9.374

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.805	25.789	(0.973)	610570	10.0000	10.38
75	Benzo(k)fluoranthene	252	25.843	25.836	(0.975)	591193	10.0000	9.305
76	Benzo(a)pyrene	252	26.401	26.393	(0.996)	511521	10.0000	10.06
* 77	Perylene-d12	264	26.517	26.502	(1.000)	202904	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.942	28.919	(1.091)	645100	10.0000	10.29
79	Dibenzo(a,h)anthracene	278	28.973	28.942	(1.093)	507978	10.0000	10.23
80	Benzo(g,h,i)perylene	276	29.657	29.633	(1.118)	547612	10.0000	10.18
90	N-Nitrosodimethylamine	74	4.450	4.442	(0.490)	162464	20.0000	19.87
91	Aniline	93	8.513	8.505	(0.937)	372010	10.0000	9.606
93	Benzidine	184	21.655	21.648	(0.902)	196119	20.0000	19.73
103	Pyridine	79	4.457	4.481	(0.491)	137064	20.0000	19.66
105	1-methylnaphthalene	142	13.551	13.544	(1.153)	260850	10.0000	9.979
111	Azobenzene (1,2-DP-Hydrazine)	77	17.233	17.217	(1.100)	303035	10.0000	9.794
187	Total Benzofluoranthenes	252	25.843	25.836	(0.975)	1134836	20.0000	19.60
99	Perylene	252	26.564	26.548	(1.002)	564148	10.0000	9.652
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	16.468	16.460	(1.051)	105417	10.0000	10.51
188	2,6-Dichlorophenol	162	11.988	11.973	(1.020)	249221	20.0000	20.19
189	N-Nitrosomethylethylamine	88	5.909	5.909	(0.650)	119200	20.0000	20.06

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125d.d
Lab Smp Id: IC0125D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 12:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	42972	-7.83
27 Naphthalene-d8	176978	88489	353956	165867	-6.28
42 Acenaphthene-d10	110872	55436	221744	107661	-2.90
59 Phenanthrene-d10	188290	94145	376580	182628	-3.01
69 Chrysene-d12	213681	106840	427362	203223	-4.89
134 Di-n-octylphthala	264159	132080	528318	260852	-1.25
77 Perylene-d12	208584	104292	417168	202904	-2.72

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.08	8.58	9.58	9.08	0.00
27 Naphthalene-d8	11.76	11.26	12.26	11.76	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
134 Di-n-octylphthala	25.10	24.60	25.60	25.10	0.00
77 Perylene-d12	26.51	26.01	27.01	26.52	0.03

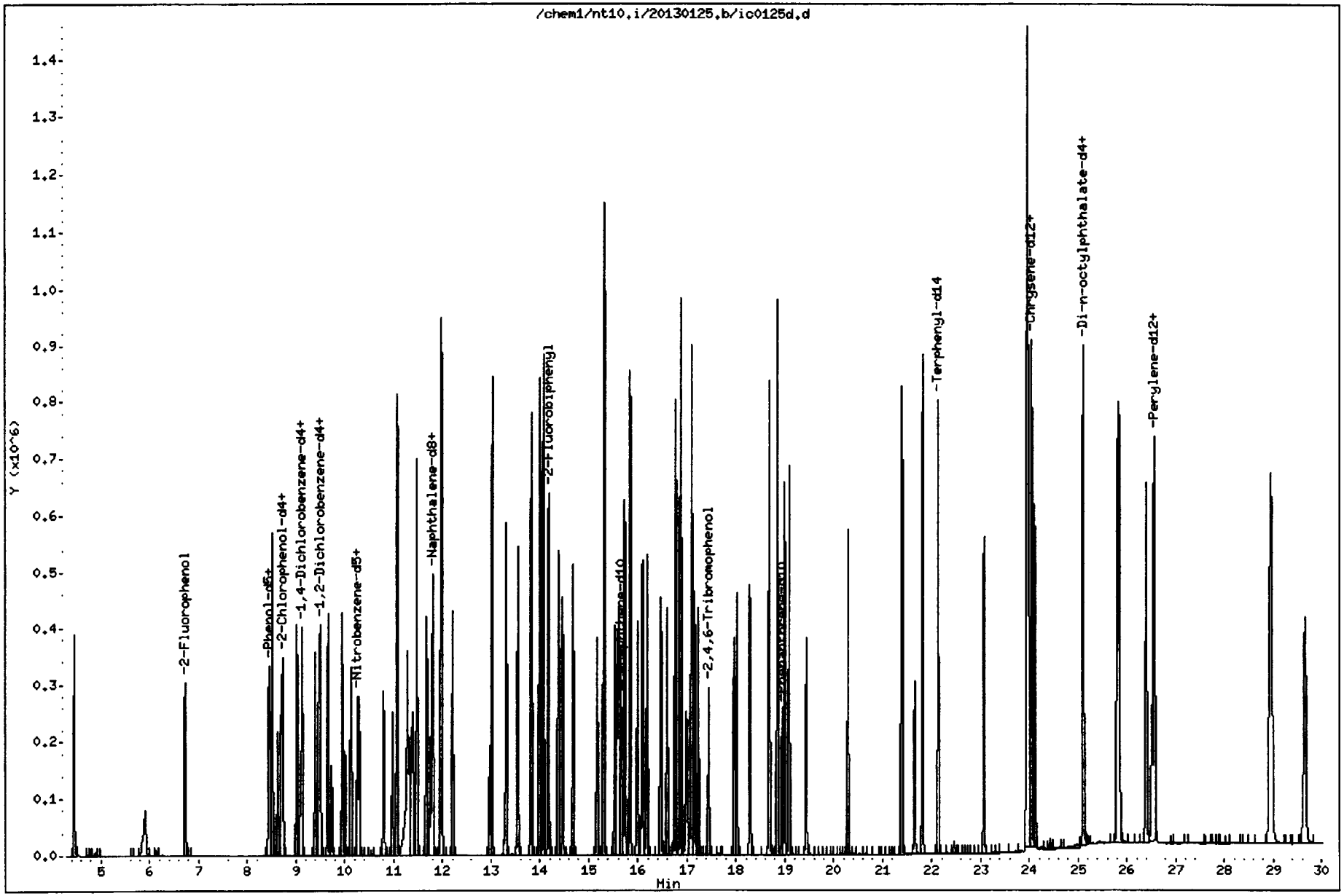
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/ic0125d.d
Date : 25-JAN-2013 14:50
Client ID:
Sample Info: IC0125D

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0125d.d

Lab ID: IC0125D, Method: ABN.m, Instrument: nt10.i, Date: 25-JAN-2013

RT	CO-ELUTION COMPOUNDS
15.316	Acenaphthylene and 2,6-Dinitrotoluene

Analytical Resources, Inc.

YZ 01/28/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130125.b/ic0125e.d
Lab Smp Id: IC0125E
Inj Date : 25-JAN-2013 15:27
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125E
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130125.b/ABN.m
Meth Date : 28-Jan-2013 12:45 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 15:27 Cal File: ic0125e.d
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.720	6.720	(0.740)	16113	1.00000	1.032
$	2 Phenol-d5	99	8.428	8.428	(0.928)	18904	1.00000	0.9754
	3 Phenol	94	8.451	8.451	(0.930)	20114	1.00000	0.9860
$	5 2-Chlorophenol-d4	132	8.698	8.698	(0.957)	16984	1.00000	1.012
	4 Bis(2-Chloroethyl)ether	93	8.621	8.621	(0.949)	15918	1.00000	1.026
	6 2-Chlorophenol	128	8.729	8.729	(0.961)	18038	1.00000	1.016
	7 1,3-Dichlorobenzene	146	9.015	9.015	(0.992)	19305	1.00000	0.9994
*	8 1,4-Dichlorobenzene-d4	152	9.085	9.085	(1.000)	48848	4.00000	
	9 1,4-Dichlorobenzene	146	9.116	9.116	(1.003)	19562	1.00000	1.023
$	10 1,2-Dichlorobenzene-d4	152	9.465	9.465	(1.042)	12221	1.00000	0.9909
	12 1,2-Dichlorobenzene	146	9.496	9.496	(1.045)	18480	1.00000	1.005
	11 Benzyl alcohol	108	9.387	9.388	(1.033)	9674	1.00000	0.9909
	14 2,2'-oxybis(1-Chloropropane)	121	9.721	9.722	(1.070)	5408	1.00000	0.9903
	13 2-Methylphenol	108	9.644	9.644	(1.062)	15211	1.00000	0.9878
	17 Hexachloroethane	117	10.133	10.133	(1.115)	7792	1.00000	1.031
	16 N-Nitroso-di-n-propylamine	70	10.001	9.993	(1.101)	10451	1.00000	1.016
	15 4-Methylphenol	108	9.939	9.939	(1.094)	16043	1.00000	1.002
$	18 Nitrobenzene-d5	82	10.265	10.257	(0.874)	16869	1.00000	0.9973
	19 Nitrobenzene	77	10.296	10.296	(0.876)	15970	1.00000	0.9958
	20 Isophorone	82	10.785	10.785	(0.918)	27877	1.00000	0.9973
	21 2-Nitrophenol	139	10.978	10.978	(0.934)	9412	1.00000	0.9988
	22 2,4-Dimethylphenol	107	11.063	11.063	(0.942)	32855	2.00000	2.046
	23 Bis(2-Chloroethoxy)methane	93	11.279	11.271	(0.960)	17621	1.00000	1.001
	24 Benzoic acid	105	11.217	11.186	(0.955)	44455	4.00000	3.276
	25 2,4-Dichlorophenol	162	11.471	11.464	(0.976)	28258	2.00000	2.013
	26 1,2,4-Trichlorobenzene	180	11.664	11.664	(0.993)	16262	1.00000	1.018
*	27 Naphthalene-d8	136	11.749	11.749	(1.000)	183261	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.795	11.795	(1.004)	47687	1.00000	1.000
	29 4-Chloroaniline	127	11.957	11.957	(1.018)	38115	2.00000	1.986
	30 Hexachlorobutadiene	225	12.212	12.205	(1.039)	10094	1.00000	1.014
	31 4-Chloro-3-methylphenol	107	13.017	13.017	(1.108)	27077	2.00000	1.996
	32 2-Methylnaphthalene	142	13.311	13.311	(1.133)	30898	1.00000	0.9814
	33 Hexachlorocyclopentadiene	237	13.822	13.822	(0.883)	24889	2.00000	1.977
	34 2,4,6-Trichlorophenol	196	13.992	13.992	(0.894)	22845	2.00000	2.042
	35 2,4,5-Trichlorophenol	196	14.062	14.070	(0.898)	23632	2.00000	1.988
$	36 2-Fluorobiphenyl	172	14.170	14.170	(0.905)	38258	1.00000	0.9988
	37 2-Chloronaphthalene	162	14.379	14.379	(0.918)	30606	1.00000	0.9924
	38 2-Nitroaniline	65	14.673	14.674	(0.937)	14324	2.00000	1.980
	39 Dimethylphthalate	163	15.169	15.169	(0.969)	34355	1.00000	1.017
	40 Acenaphthylene	152	15.316	15.316	(0.978)	51815	1.00000	1.030
	41 2,6-Dinitrotoluene	165	15.300	15.300	(0.977)	15628	2.00000	2.026
*	42 Acenaphthene-d10	164	15.656	15.656	(1.000)	111653	4.00000	
	43 3-Nitroaniline	138	15.594	15.594	(0.996)	16234	2.00000	2.279
	44 Acenaphthene	153	15.726	15.726	(1.004)	31219	1.00000	1.012
	45 2,4-Dinitrophenol	184	15.826	15.826	(1.011)	18391	4.00000	2.766
	46 Dibenzofuran	168	16.081	16.089	(1.027)	43688	1.00000	1.019
	47 4-Nitrophenol	109	15.973	15.973	(1.020)	7272	2.00000	1.509
	48 2,4-Dinitrotoluene	165	16.174	16.174	(1.033)	21257	2.00000	2.038
	50 Diethylphthalate	149	16.754	16.754	(1.070)	35941	1.00000	1.016
	49 Fluorene	166	16.854	16.855	(1.077)	36865	1.00000	1.012
	51 4-Chlorophenyl-phenylether	204	16.870	16.870	(1.078)	17604	1.00000	1.037
	52 4-Nitroaniline	138	16.970	16.963	(1.084)	15530	2.00000	2.065
	53 4,6-Dinitro-2-methylphenol	198	17.078	17.071	(0.902)	30630	4.00000	3.996
	54 N-Nitrosodiphenylamine	169	17.148	17.148	(0.905)	24514	1.00000	1.063
$	55 2,4,6-Tribromophenol	330	17.433	17.433	(1.113)	7092	1.00000	0.9953
	56 4-Bromophenyl-phenylether	248	17.957	17.957	(0.948)	10432	1.00000	0.9771
	57 Hexachlorobenzene	284	18.281	18.274	(0.965)	13763	1.00000	1.027
	58 Pentachlorophenol	266	18.669	18.669	(0.986)	18075	2.00000	2.023
*	59 Phenanthrene-d10	188	18.939	18.940	(1.000)	191397	4.00000	
	60 Phenanthrene	178	18.986	18.986	(1.002)	50862	1.00000	0.9969
	61 Anthracene	178	19.079	19.079	(1.007)	50980	1.00000	0.9923
	62 Carbazole	167	19.435	19.435	(1.026)	42004	1.00000	1.172
	63 Di-n-butylphthalate	149	20.293	20.294	(1.071)	51597	1.00000	0.9412
	64 Fluoranthene	202	21.392	21.392	(1.129)	58329	1.00000	0.9927
	65 Pyrene	202	21.810	21.810	(0.909)	60787	1.00000	1.003
$	66 Terphenyl-d14	244	22.127	22.127	(0.922)	42009	1.00000	1.028
	67 Butylbenzylphthalate	149	23.072	23.072	(0.961)	22886	1.00000	0.9955
	68 Benzo(a)anthracene	228	23.978	23.970	(0.999)	59738	1.00000	1.006
*	69 Chrysene-d12	240	24.001	24.001	(1.000)	212807	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.947	23.947	(0.998)	50394	2.00000	2.031
	71 Chrysene	228	24.047	24.048	(1.002)	54152	1.00000	1.007
	72 bis(2-Ethylhexyl)phthalate	149	24.117	24.117	(0.961)	32034	1.00000	0.9835
*	134 Di-n-octylphthalate-d4	153	25.100	25.093	(1.000)	246669	4.00000	
	73 Di-n-octylphthalate	149	25.108	25.108	(1.000)	60586	1.00000	1.007

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.797	25.789	(0.973)	56463	1.00000	0.9423
75	Benzo(k)fluoranthene	252	25.836	25.836	(0.975)	66658	1.00000	1.030
76	Benzo(a)pyrene	252	26.393	26.393	(0.996)	50593	1.00000	0.9764
* 77	Perylene-d12	264	26.509	26.502	(1.000)	206726	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.926	28.919	(1.091)	62875	1.00000	0.9839
79	Dibenzo(a,h)anthracene	278	28.950	28.942	(1.092)	50949	1.00000	1.007
80	Benzo(g,h,i)perylene	276	29.625	29.633	(1.118)	54073	1.00000	0.9863
90	N-Nitrosodimethylamine	74	4.442	4.442	(0.489)	18249	2.00000	1.964
91	Aniline	93	8.505	8.505	(0.936)	45165	1.00000	1.026
93	Benzidine	184	21.647	21.648	(0.902)	37924	2.00000	3.937
103	Pyridine	79	4.473	4.481	(0.492)	16049	2.00000	2.025
105	1-methylnaphthalene	142	13.543	13.544	(1.153)	28274	1.00000	0.9790
111	Azobenzene (1,2-DP-Hydrazine)	77	17.217	17.217	(1.100)	33066	1.00000	1.031
187	Total Benzofluoranthenes	252	25.836	25.836	(0.975)	116821	2.00000	1.981
99	Perylene	252	26.556	26.548	(1.002)	59928	1.00000	1.006
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	16.460	16.460	(1.051)	10419	1.00000	1.002
188	2,6-Dichlorophenol	162	11.973	11.973	(1.019)	27084	2.00000	1.986
189	N-Nitrosomethylethylamine	88	5.909	5.909	(0.650)	13490	2.00000	1.998

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125e.d
Lab Smp Id: IC0125E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 12:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	48848	4.77
27 Naphthalene-d8	176978	88489	353956	183261	3.55
42 Acenaphthene-d10	110872	55436	221744	111653	0.70
59 Phenanthrene-d10	188290	94145	376580	191397	1.65
69 Chrysene-d12	213681	106840	427362	212807	-0.41
134 Di-n-octylphthala	264159	132080	528318	246669	-6.62
77 Perylene-d12	208584	104292	417168	206726	-0.89

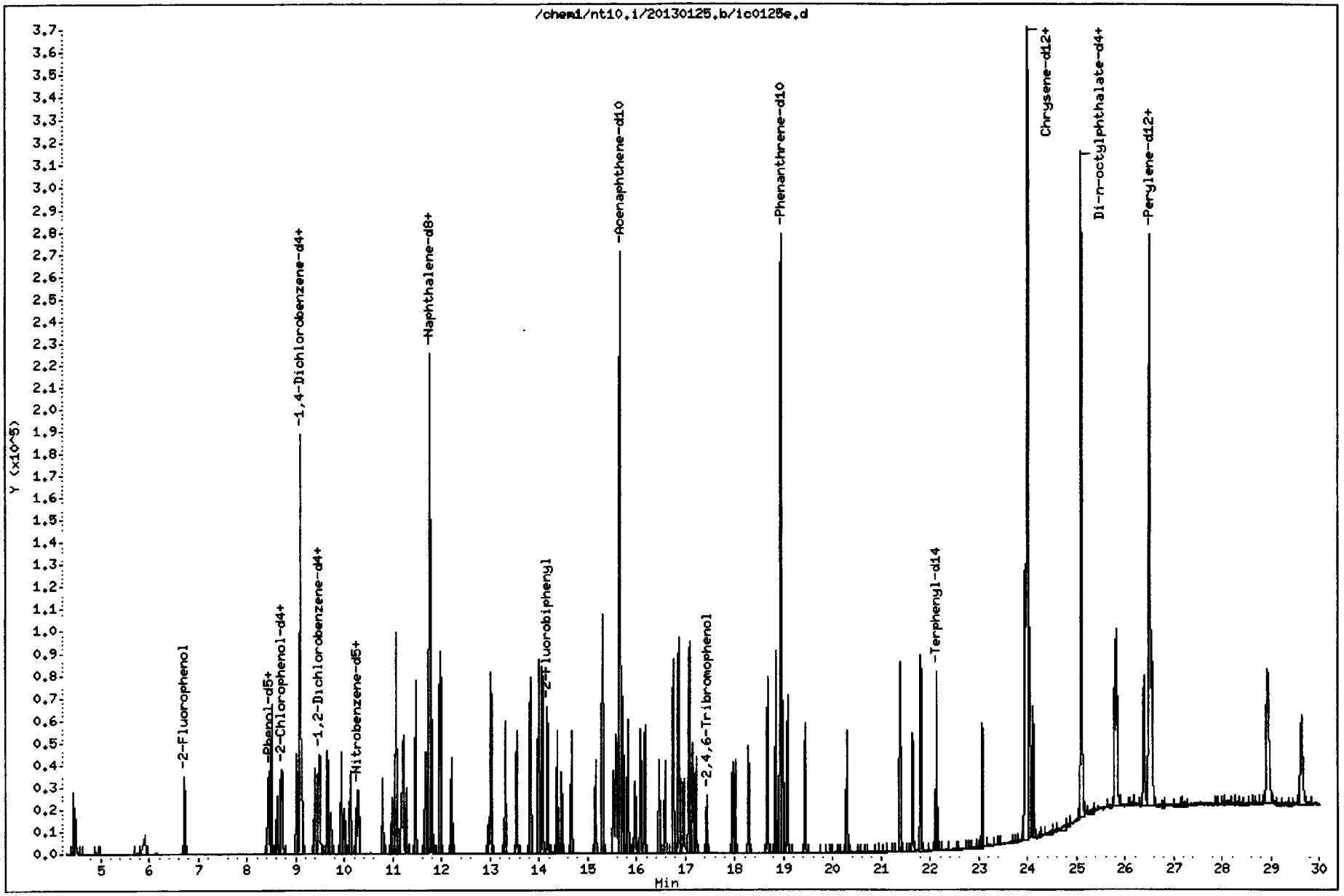
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.08	8.58	9.58	9.08	0.00
27 Naphthalene-d8	11.76	11.26	12.26	11.75	-0.06
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	-0.05
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.00	-0.03
134 Di-n-octylphthala	25.10	24.60	25.60	25.10	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/ic0125e.d
Date : 25-JAN-2013 15:27
Client ID:
Sample Info: IC0125E

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0125e.d

Lab ID: IC0125E, Method: ABN.m, Instrument: nt10.i, Date: 25-JAN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 01/28/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130125.b/ic0125f.d
Lab Smp Id: IC0125F
Inj Date : 25-JAN-2013 16:03
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125F
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130125.b/ABN.m
Meth Date : 28-Jan-2013 12:45 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 16:03 Cal File: ic0125f.d
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	6.719	6.720	(0.740)	36413	2.50000	2.442
$ 2	Phenol-d5	99	8.427	8.428	(0.928)	45397	2.50000	2.454
3	Phenol	94	8.451	8.451	(0.930)	47715	2.50000	2.450
$ 5	2-Chlorophenol-d4	132	8.698	8.698	(0.957)	39184	2.50000	2.446
4	Bis(2-Chloroethyl)ether	93	8.620	8.621	(0.949)	36342	2.50000	2.453
6	2-Chlorophenol	128	8.729	8.729	(0.961)	40941	2.50000	2.416
7	1,3-Dichlorobenzene	146	9.015	9.015	(0.992)	44251	2.50000	2.400
* 8	1,4-Dichlorobenzene-d4	152	9.085	9.085	(1.000)	46627	4.00000	
9	1,4-Dichlorobenzene	146	9.116	9.116	(1.003)	43801	2.50000	2.399
$ 10	1,2-Dichlorobenzene-d4	152	9.465	9.465	(1.042)	27897	2.50000	2.370
12	1,2-Dichlorobenzene	146	9.496	9.496	(1.045)	42153	2.50000	2.401
11	Benzyl alcohol	108	9.387	9.388	(1.033)	22530	2.50000	2.418
14	2,2'-oxybis(1-Chloropropane)	121	9.721	9.722	(1.070)	12901	2.50000	2.475
13	2-Methylphenol	108	9.643	9.644	(1.062)	35647	2.50000	2.425
17	Hexachloroethane	117	10.132	10.133	(1.115)	17266	2.50000	2.393
16	N-Nitroso-di-n-propylamine	70	9.993	9.993	(1.100)	23860	2.50000	2.430
15	4-Methylphenol	108	9.938	9.939	(1.094)	38088	2.50000	2.492
$ 18	Nitrobenzene-d5	82	10.264	10.257	(0.874)	39403	2.50000	2.442
19	Nitrobenzene	77	10.295	10.296	(0.876)	37219	2.50000	2.433
20	Isophorone	82	10.784	10.785	(0.918)	64953	2.50000	2.436
21	2-Nitrophenol	139	10.978	10.978	(0.934)	22724	2.50000	2.528
22	2,4-Dimethylphenol	107	11.063	11.063	(0.942)	75528	5.00000	4.929
23	Bis(2-Chloroethoxy)methane	93	11.278	11.271	(0.960)	41470	2.50000	2.469
24	Benzoic acid	105	11.271	11.186	(0.959)	119275	10.0000	9.177
25	2,4-Dichlorophenol	162	11.471	11.464	(0.976)	67077	5.00000	5.009
26	1,2,4-Trichlorobenzene	180	11.671	11.664	(0.993)	36594	2.50000	2.401
* 27	Naphthalene-d8	136	11.749	11.749	(1.000)	174830	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.795	11.795	(1.004)	109470	2.50000	2.406
	29 4-Chloroaniline	127	11.957	11.957	(1.018)	89311	5.00000	4.878
	30 Hexachlorobutadiene	225	12.212	12.205	(1.039)	23360	2.50000	2.459
	31 4-Chloro-3-methylphenol	107	13.017	13.017	(1.108)	63944	5.00000	4.940
	32 2-Methylnaphthalene	142	13.311	13.311	(1.133)	71762	2.50000	2.389
	33 Hexachlorocyclopentadiene	237	13.822	13.822	(0.882)	59993	5.00000	4.924
	34 2,4,6-Trichlorophenol	196	13.992	13.992	(0.893)	54164	5.00000	5.003
	35 2,4,5-Trichlorophenol	196	14.069	14.070	(0.898)	59098	5.00000	5.137
$	36 2-Fluorobiphenyl	172	14.170	14.170	(0.905)	90596	2.50000	2.445
	37 2-Chloronaphthalene	162	14.379	14.379	(0.918)	72747	2.50000	2.438
	38 2-Nitroaniline	65	14.673	14.674	(0.937)	36178	5.00000	5.170
	39 Dimethylphthalate	163	15.168	15.169	(0.968)	79704	2.50000	2.440
	40 Acenaphthylene	152	15.316	15.316	(0.978)	121926	2.50000	2.506
	41 2,6-Dinitrotoluene	165	15.308	15.300	(0.977)	38442	5.00000	5.150
*	42 Acenaphthene-d10	164	15.664	15.656	(1.000)	108024	4.00000	
	43 3-Nitroaniline	138	15.602	15.594	(0.996)	36892	5.00000	5.352
	44 Acenaphthene	153	15.733	15.726	(1.004)	73044	2.50000	2.448
	45 2,4-Dinitrophenol	184	15.826	15.826	(1.010)	56078	10.0000	8.678
	46 Dibenzofuran	168	16.089	16.089	(1.027)	101102	2.50000	2.436
	47 4-Nitrophenol	109	15.973	15.973	(1.020)	21754	5.00000	4.654
	48 2,4-Dinitrotoluene	165	16.174	16.174	(1.033)	52515	5.00000	5.203
	50 Diethylphthalate	149	16.761	16.754	(1.070)	85220	2.50000	2.490
	49 Fluorene	166	16.862	16.855	(1.076)	87987	2.50000	2.496
	51 4-Chlorophenyl-phenylether	204	16.877	16.870	(1.077)	39971	2.50000	2.433
	52 4-Nitroaniline	138	16.978	16.963	(1.084)	36020	5.00000	4.950
	53 4,6-Dinitro-2-methylphenol	198	17.078	17.071	(0.902)	79873	10.0000	10.59
	54 N-Nitrosodiphenylamine	169	17.147	17.148	(0.905)	56358	2.50000	2.483
$	55 2,4,6-Tribromophenol	330	17.440	17.433	(1.113)	17660	2.50000	2.562
	56 4-Bromophenyl-phenylether	248	17.957	17.957	(0.948)	25532	2.50000	2.430
	57 Hexachlorobenzene	284	18.281	18.274	(0.965)	32170	2.50000	2.439
	58 Pentachlorophenol	266	18.676	18.669	(0.986)	44559	5.00000	5.067
*	59 Phenanthrene-d10	188	18.939	18.940	(1.000)	188394	4.00000	
	60 Phenanthrene	178	18.986	18.986	(1.002)	118115	2.50000	2.352
	61 Anthracene	178	19.086	19.079	(1.008)	123434	2.50000	2.441
	62 Carbazole	167	19.434	19.435	(1.026)	76501	2.50000	2.168(M)
	63 Di-n-butylphthalate	149	20.293	20.294	(1.071)	130971	2.50000	2.427
	64 Fluoranthene	202	21.392	21.392	(1.129)	140111	2.50000	2.423
	65 Pyrene	202	21.810	21.810	(0.908)	148186	2.50000	2.493
$	66 Terphenyl-d14	244	22.135	22.127	(0.922)	99273	2.50000	2.477
	67 Butylbenzylphthalate	149	23.079	23.072	(0.961)	56506	2.50000	2.507
	68 Benzo(a)anthracene	228	23.977	23.970	(0.999)	144467	2.50000	2.481
*	69 Chrysene-d12	240	24.008	24.001	(1.000)	208655	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.954	23.947	(0.998)	99566	5.00000	4.093
	71 Chrysene	228	24.047	24.048	(1.002)	126632	2.50000	2.401
	72 bis(2-Ethylhexyl)phthalate	149	24.117	24.117	(0.961)	82805	2.50000	2.509
*	134 Di-n-octylphthalate-d4	153	25.100	25.093	(1.000)	249963	4.00000	
	73 Di-n-octylphthalate	149	25.108	25.108	(1.000)	145251	2.50000	2.382

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.797	25.789	(0.973)	146665	2.50000	2.478
75	Benzo(k)fluoranthene	252	25.835	25.836	(0.975)	153820	2.50000	2.406
76	Benzo(a)pyrene	252	26.393	26.393	(0.996)	125480	2.50000	2.452
* 77	Perylene-d12	264	26.509	26.502	(1.000)	204198	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.934	28.919	(1.091)	156063	2.50000	2.472
79	Dibenzo(a,h)anthracene	278	28.957	28.942	(1.092)	125414	2.50000	2.509
80	Benzo(g,h,i)perylene	276	29.641	29.633	(1.118)	133352	2.50000	2.462
90	N-Nitrosodimethylamine	74	4.434	4.442	(0.488)	42925	5.00000	4.839
91	Aniline	93	8.512	8.505	(0.937)	103292	2.50000	2.458
93	Benzidine	184	21.655	21.648	(0.902)	54172	5.00000	5.691
103	Pyridine	79	4.457	4.481	(0.491)	37123	5.00000	4.906
105	1-methylnaphthalene	142	13.551	13.544	(1.153)	66621	2.50000	2.418
111	Azobenzene (1,2-DP-Hydrazine)	77	17.224	17.217	(1.100)	78024	2.50000	2.513
187	Total Benzofluoranthenes	252	25.835	25.836	(0.975)	283558	5.00000	4.867
99	Perylene	252	26.556	26.548	(1.002)	142122	2.50000	2.416
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	16.467	16.460	(1.051)	25792	2.50000	2.563
188	2,6-Dichlorophenol	162	11.980	11.973	(1.020)	63629	5.00000	4.890
189	N-Nitrosomethylethylamine	88	5.909	5.909	(0.650)	31376	5.00000	4.867

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125f.d
Lab Smp Id: IC0125F
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 12:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	46627	0.01
27 Naphthalene-d8	176978	88489	353956	174830	-1.21
42 Acenaphthene-d10	110872	55436	221744	108024	-2.57
59 Phenanthrene-d10	188290	94145	376580	188394	0.06
69 Chrysene-d12	213681	106840	427362	208655	-2.35
134 Di-n-octylphthala	264159	132080	528318	249963	-5.37
77 Perylene-d12	208584	104292	417168	204198	-2.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.08	8.58	9.58	9.08	0.00
27 Naphthalene-d8	11.76	11.26	12.26	11.75	-0.07
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
134 Di-n-octylphthala	25.10	24.60	25.60	25.10	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/ic0125f.d

Date : 25-JAN-2013 16:03

Client ID:

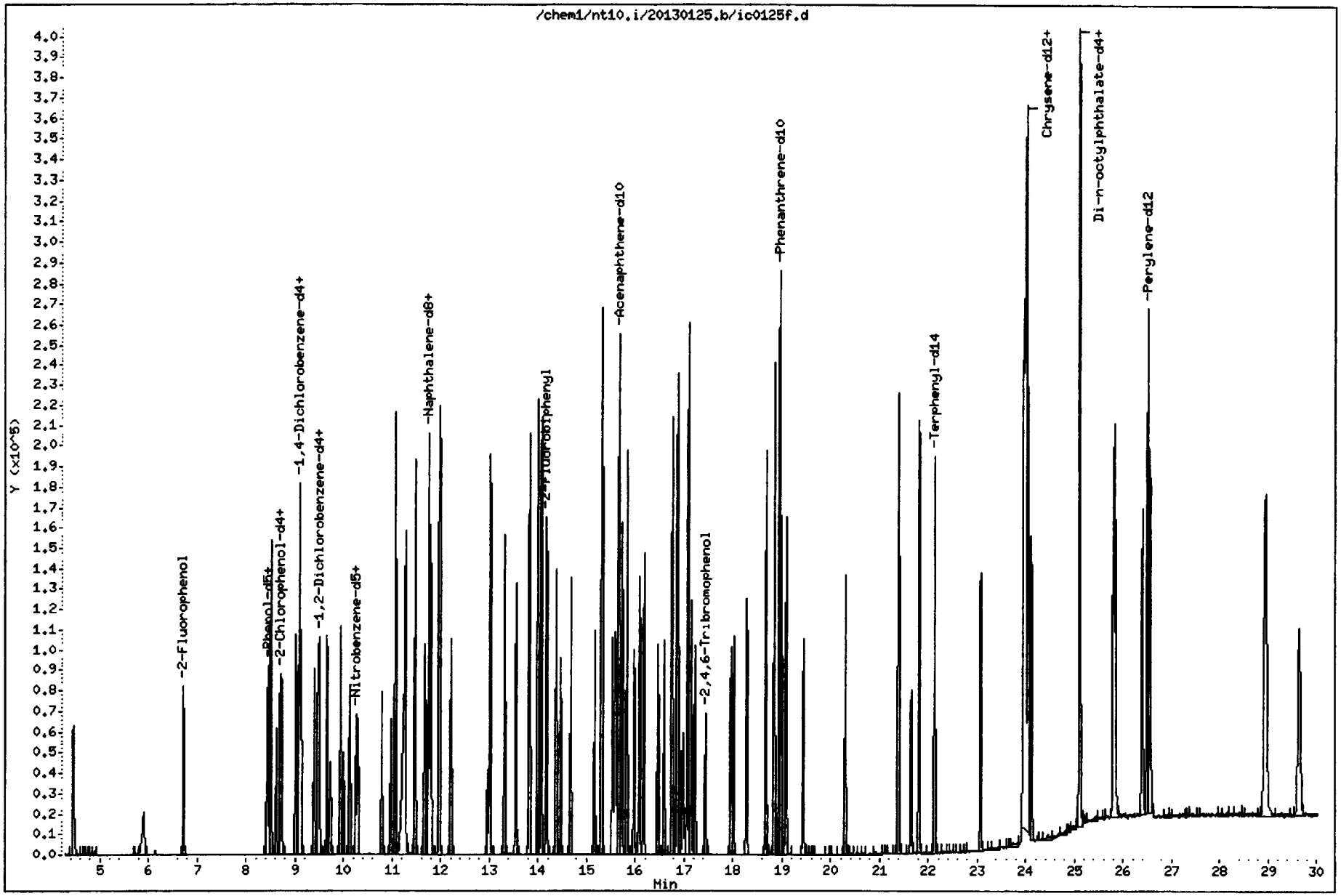
Sample Info: IC0125F

Column phase: ZB-5msi

Instrument: nt10.i

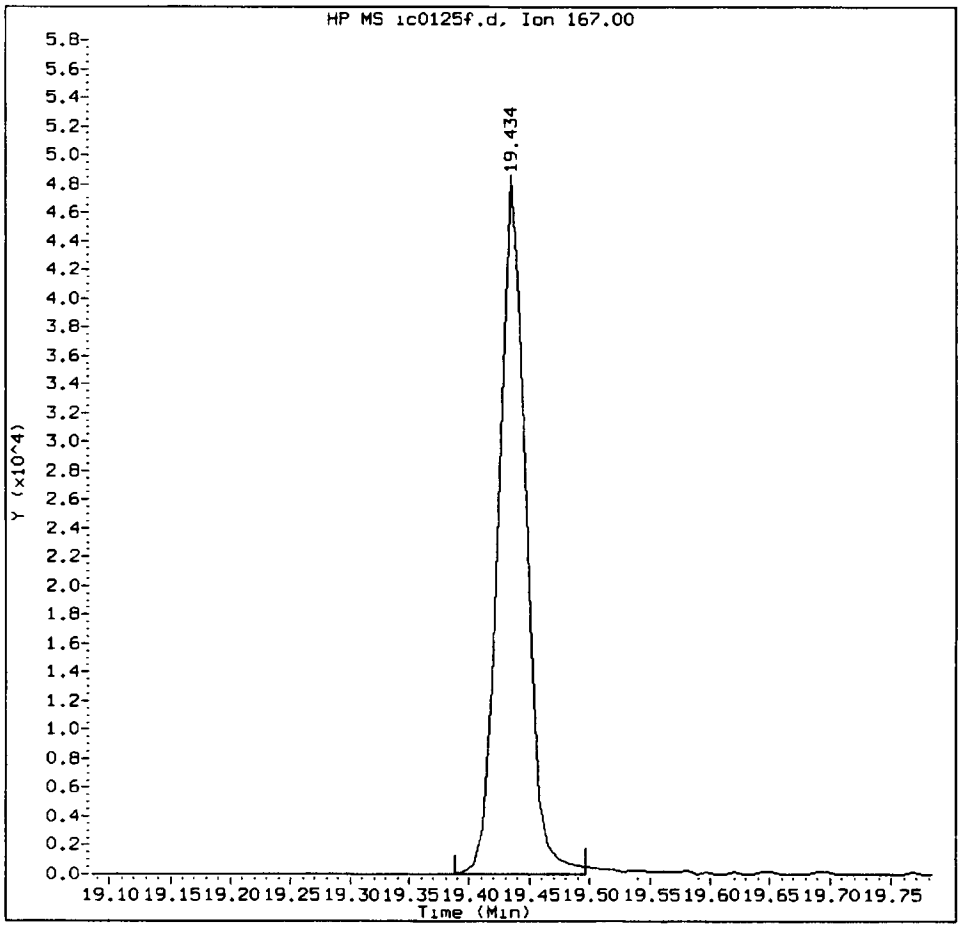
Operator: VTS/YZ

Column diameter: 0.25



IC0125F, /chem1/nt10.i/20130125.b/ic0125f.d

Carbazole Amount: 2.17 Area: 76501



MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YR Date: 04/28/13

CO-ELUTION SUMMARY FOR FILE - ic0125f.d

Lab ID: IC0125F, Method: ABN.m, Instrument: nt10.i, Date: 25-JAN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc. YZ 01/29/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130125.b/ic0125h.d
Lab Smp Id: IC0125H
Inj Date : 25-JAN-2013 17:16
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125H
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130125.b/ABN.m
Meth Date : 28-Jan-2013 12:45 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.720	6.720	(0.740)	6872	0.50000	0.4773
$	2	Phenol-d5	99	8.428	8.428	(0.928)	8606	0.50000	0.4817
	3	Phenol	94	8.451	8.451	(0.930)	9509	0.50000	0.5057
$	5	2-Chlorophenol-d4	132	8.698	8.698	(0.957)	7702	0.50000	0.4979
	4	Bis(2-Chloroethyl)ether	93	8.621	8.621	(0.949)	7336	0.50000	0.5127
	6	2-Chlorophenol	128	8.729	8.729	(0.961)	8226	0.50000	0.5027
	7	1,3-Dichlorobenzene	146	9.015	9.015	(0.992)	9203	0.50000	0.5168
*	8	1,4-Dichlorobenzene-d4	152	9.085	9.085	(1.000)	45029	4.00000	
	9	1,4-Dichlorobenzene	146	9.116	9.116	(1.003)	8755	0.50000	0.4965
$	10	1,2-Dichlorobenzene-d4	152	9.465	9.465	(1.042)	5625	0.50000	0.4948
	12	1,2-Dichlorobenzene	146	9.496	9.496	(1.045)	8575	0.50000	0.5058
	11	Benzyl alcohol	108	9.388	9.388	(1.033)	4327	0.50000	0.4808
	14	2,2'-oxybis(1-Chloropropane)	121	9.722	9.722	(1.070)	2519	0.50000	0.5004
	13	2-Methylphenol	108	9.644	9.644	(1.062)	6867	0.50000	0.4838
	17	Hexachloroethane	117	10.133	10.133	(1.115)	3387	0.50000	0.4860
	16	N-Nitroso-di-n-propylamine	70	9.993	9.993	(1.100)	4479	0.50000	0.4723
	15	4-Methylphenol	108	9.939	9.939	(1.094)	7272	0.50000	0.4926
$	18	Nitrobenzene-d5	82	10.257	10.257	(0.873)	7484	0.50000	0.4791
	19	Nitrobenzene	77	10.296	10.296	(0.876)	7203	0.50000	0.4863
	20	Isophorone	82	10.785	10.785	(0.918)	12015	0.50000	0.4654
	21	2-Nitrophenol	139	10.978	10.978	(0.934)	3897	0.50000	0.4478
	22	2,4-Dimethylphenol	107	11.063	11.063	(0.942)	14742	1.00000	0.9938
	23	Bis(2-Chloroethoxy)methane	93	11.271	11.271	(0.959)	8381	0.50000	0.5155
	24	Benzoic acid	105	11.186	11.186	(0.952)	14218	2.00000	1.136
	25	2,4-Dichlorophenol	162	11.464	11.464	(0.976)	12437	1.00000	0.9593
	26	1,2,4-Trichlorobenzene	180	11.664	11.664	(0.993)	7682	0.50000	0.5207
*	27	Naphthalene-d8	136	11.749	11.749	(1.000)	169245	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.795	11.795	(1.004)	22558	0.50000	0.5122
	29 4-Chloroaniline	127	11.957	11.957	(1.018)	17232	1.00000	0.9723
	30 Hexachlorobutadiene	225	12.205	12.205	(1.039)	4492	0.50000	0.4885
	31 4-Chloro-3-methylphenol	107	13.017	13.017	(1.108)	11487	1.00000	0.9167
	32 2-Methylnaphthalene	142	13.311	13.311	(1.133)	14123	0.50000	0.4857
	33 Hexachlorocyclopentadiene	237	13.822	13.822	(0.883)	10513	1.00000	0.9035
	34 2,4,6-Trichlorophenol	196	13.992	13.992	(0.894)	9547	1.00000	0.9233
	35 2,4,5-Trichlorophenol	196	14.070	14.070	(0.899)	10214	1.00000	0.9296
$	36 2-Fluorobiphenyl	172	14.170	14.170	(0.905)	17578	0.50000	0.4966
	37 2-Chloronaphthalene	162	14.379	14.379	(0.918)	13789	0.50000	0.4838
	38 2-Nitroaniline	65	14.674	14.674	(0.937)	5758	1.00000	0.8614
	39 Dimethylphthalate	163	15.169	15.169	(0.969)	15843	0.50000	0.5077
	40 Acenaphthylene	152	15.316	15.316	(0.978)	23489	0.50000	0.5054
	41 2,6-Dinitrotoluene	165	15.300	15.300	(0.977)	6611	1.00000	0.9273
*	42 Acenaphthene-d10	164	15.656	15.656	(1.000)	103177	4.00000	
	43 3-Nitroaniline	138	15.594	15.594	(0.996)	6570	1.00000	0.9979
	44 Acenaphthene	153	15.726	15.726	(1.004)	14631	0.50000	0.5134
	45 2,4-Dinitrophenol	184	15.826	15.826	(1.011)	5902	2.00000	0.9617
	46 Dibenzofuran	168	16.089	16.089	(1.028)	19974	0.50000	0.5039
	47 4-Nitrophenol	109	15.973	15.973	(1.020)	2579	1.00000	0.5798
	48 2,4-Dinitrotoluene	165	16.174	16.174	(1.033)	8938	1.00000	0.9272
	50 Diethylphthalate	149	16.754	16.754	(1.070)	15876	0.50000	0.4857
	49 Fluorene	166	16.855	16.855	(1.077)	17429	0.50000	0.5177
	51 4-Chlorophenyl-phenylether	204	16.870	16.870	(1.078)	8299	0.50000	0.5290
	52 4-Nitroaniline	138	16.963	16.963	(1.083)	7026	1.00000	1.011
	53 4,6-Dinitro-2-methylphenol	198	17.071	17.071	(0.901)	12045	2.00000	1.686
	54 N-Nitrosodiphenylamine	169	17.148	17.148	(0.905)	10851	0.50000	0.5048
$	55 2,4,6-Tribromophenol	330	17.433	17.433	(1.113)	3106	0.50000	0.4717
	56 4-Bromophenyl-phenylether	248	17.957	17.957	(0.948)	4764	0.50000	0.4786
	57 Hexachlorobenzene	284	18.274	18.274	(0.965)	6319	0.50000	0.5059
	58 Pentachlorophenol	266	18.669	18.669	(0.986)	7365	1.00000	0.8841
*	59 Phenanthrene-d10	188	18.940	18.940	(1.000)	178445	4.00000	
	60 Phenanthrene	178	18.986	18.986	(1.002)	23968	0.50000	0.5038
	61 Anthracene	178	19.079	19.079	(1.007)	22755	0.50000	0.4751
	62 Carbazole	167	19.435	19.435	(1.026)	19220	0.50000	0.5751
	63 Di-n-butylphthalate	149	20.294	20.294	(1.071)	22128	0.50000	0.4329
	64 Fluoranthene	202	21.392	21.392	(1.129)	25116	0.50000	0.4585
	65 Pyrene	202	21.810	21.810	(0.909)	26902	0.50000	0.4673
$	66 Terphenyl-d14	244	22.127	22.127	(0.922)	18604	0.50000	0.4793
	67 Butylbenzylphthalate	149	23.072	23.072	(0.961)	9115	0.50000	0.4175
	68 Benzo(a)anthracene	228	23.970	23.970	(0.999)	27139	0.50000	0.4813
*	69 Chrysene-d12	240	24.001	24.001	(1.000)	202095	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.947	23.947	(0.998)	26314	1.00000	1.117
	71 Chrysene	228	24.048	24.048	(1.002)	25828	0.50000	0.5057
	72 bis(2-Ethylhexyl)phthalate	149	24.117	24.117	(0.961)	13815	0.50000	0.4790
*	134 Di-n-octylphthalate-d4	153	25.093	25.093	(1.000)	218395	4.00000	
	73 Di-n-octylphthalate	149	25.108	25.108	(1.001)	27962	0.50000	0.5249

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.789	25.789	(0.973)	26415	0.50000	0.4771
75	Benzo(k)fluoranthene	252	25.836	25.836	(0.975)	30077	0.50000	0.5029
76	Benzo(a)pyrene	252	26.393	26.393	(0.996)	22670	0.50000	0.4735
* 77	Perylene-d12	264	26.502	26.502	(1.000)	191018	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.919	28.919	(1.091)	27473	0.50000	0.4653
79	Dibenzo(a,h)anthracene	278	28.942	28.942	(1.092)	22053	0.50000	0.4716
80	Benzo(g,h,i)perylene	276	29.633	29.633	(1.118)	24114	0.50000	0.4760
90	N-Nitrosodimethylamine	74	4.442	4.442	(0.489)	8250	1.00000	0.9630
91	Aniline	93	8.505	8.505	(0.936)	20308	0.50000	0.5005
93	Benzidine	184	21.648	21.648	(0.902)	18859	1.00000	2.078
103	Pyridine	79	4.481	4.481	(0.493)	7344	1.00000	1.005
105	1-methylnaphthalene	142	13.544	13.544	(1.153)	13025	0.50000	0.4884
111	Azobenzene (1,2-DP-Hydrazine)	77	17.217	17.217	(1.100)	14638	0.50000	0.4937
187	Total Benzofluoranthenes	252	25.836	25.836	(0.975)	54001	1.00000	0.9909
99	Perylene	252	26.548	26.548	(1.002)	27182	0.50000	0.4940
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	16.460	16.460	(1.051)	4437	0.50000	0.4617
188	2,6-Dichlorophenol	162	11.973	11.973	(1.019)	12226	1.00000	0.9706
189	N-Nitrosomethylethylamine	88	5.909	5.909	(0.650)	6123	1.00000	0.9836

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125h.d
Lab Smp Id: IC0125H
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 12:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	45029	-3.42
27 Naphthalene-d8	176978	88489	353956	169245	-4.37
42 Acenaphthene-d10	110872	55436	221744	103177	-6.94
59 Phenanthrene-d10	188290	94145	376580	178445	-5.23
69 Chrysene-d12	213681	106840	427362	202095	-5.42
134 Di-n-octylphthala	264159	132080	528318	218395	-17.32
77 Perylene-d12	208584	104292	417168	191018	-8.42

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.08	8.58	9.58	9.09	0.01
27 Naphthalene-d8	11.76	11.26	12.26	11.75	-0.06
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	-0.05
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.00	-0.03
134 Di-n-octylphthala	25.10	24.60	25.60	25.09	-0.03
77 Perylene-d12	26.51	26.01	27.01	26.50	-0.03

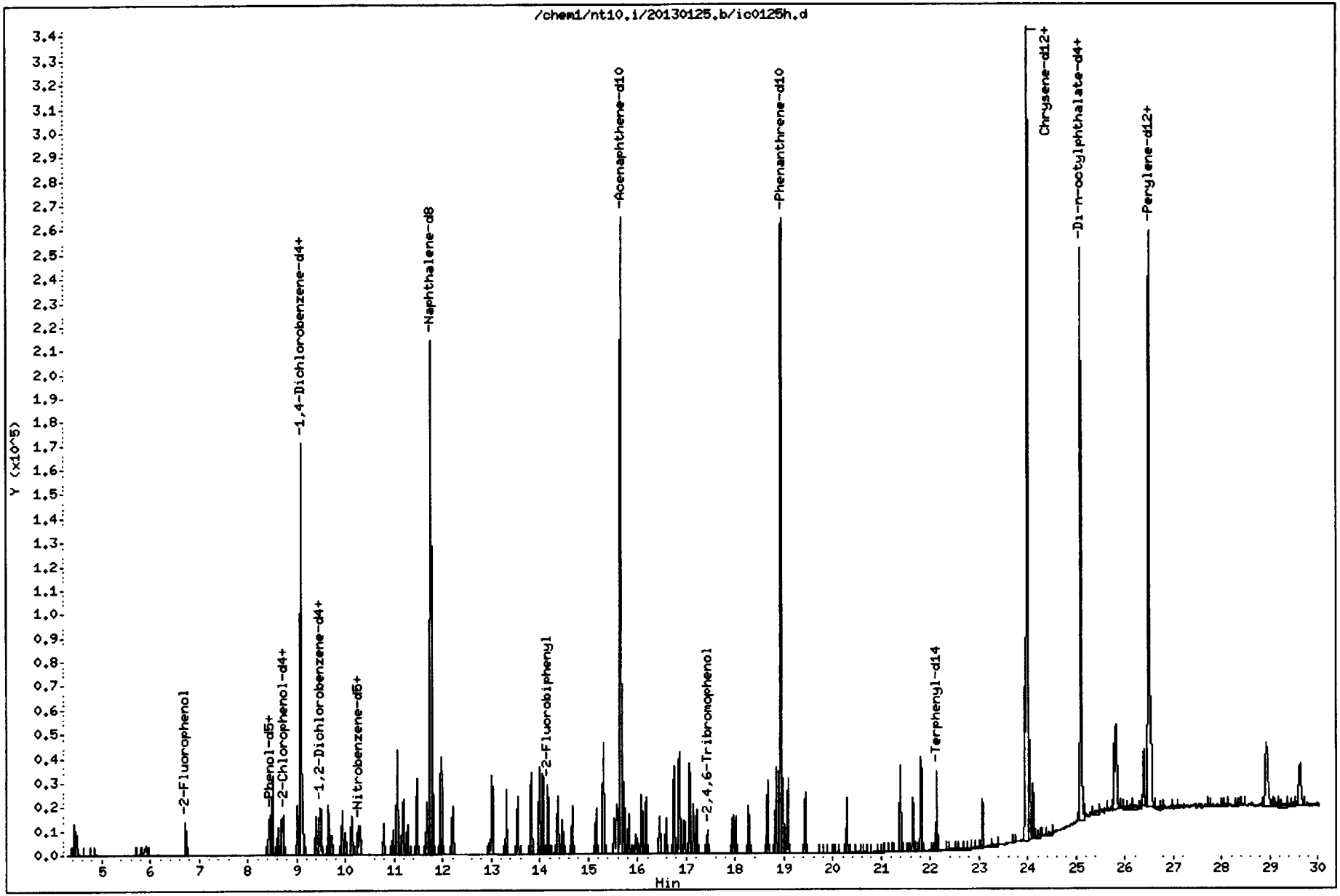
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/ic0125h.d
Date : 25-JAN-2013 17:16
Client ID:
Sample Info: IC0125H

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0125h.d

Lab ID: IC0125H, Method: ABN.m, Instrument: nt10.i, Date: 25-JAN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130125.b/icv0125.d
Lab Smp Id: ICV0125
Inj Date : 25-JAN-2013 18:30
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : ICV0125
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130125.b/ABN.m
Meth Date : 28-Jan-2013 14:27 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	Compound Not Detected.					
$ 2	Phenol-d5	99	Compound Not Detected.					
3	Phenol	94	8.451	8.451	(0.930)	90240	5.37736	5.377
$ 5	2-Chlorophenol-d4	132	Compound Not Detected.					
4	Bis(2-Chloroethyl)ether	93	8.621	8.621	(0.949)	67005	5.24779	5.248
6	2-Chlorophenol	128	8.729	8.729	(0.961)	76426	5.23342	5.233
7	1,3-Dichlorobenzene	146	9.015	9.015	(0.992)	81987	5.15942	5.159
* 8	1,4-Dichlorobenzene-d4	152	9.085	9.085	(1.000)	40184	4.00000	
9	1,4-Dichlorobenzene	146	9.116	9.116	(1.003)	80089	5.08994	5.090
$ 10	1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
12	1,2-Dichlorobenzene	146	9.496	9.496	(1.045)	78072	5.16020	5.160
11	Benzyl alcohol	108	9.388	9.387	(1.033)	37478	4.66673	4.667
14	2,2'-oxybis(1-Chloropropane)	121	9.721	9.721	(1.070)	23386	5.20590	5.206
13	2-Methylphenol	108	9.644	9.644	(1.062)	72173	5.69736	5.697
17	Hexachloroethane	117	10.125	10.125	(1.114)	32416	5.21225	5.212
16	N-Nitroso-di-n-propylamine	70	10.001	10.001	(1.101)	44778	5.29068	5.291
15	4-Methylphenol	108	9.939	9.939	(1.094)	75643	5.74184	5.742
$ 18	Nitrobenzene-d5	82	Compound Not Detected.					
19	Nitrobenzene	77	10.296	10.296	(0.876)	68075	5.16288	5.163
20	Isophorone	82	10.792	10.792	(0.919)	123290	5.36454	5.365
21	2-Nitrophenol	139	10.978	10.978	(0.934)	43581	5.62514	5.625
22	2,4-Dimethylphenol	107	11.071	11.070	(0.942)	149122	11.2920	11.29
23	Bis(2-Chloroethoxy)methane	93	11.279	11.279	(0.960)	75953	5.24749	5.247
24	Benzoic acid	105	11.333	11.332	(0.965)	260337	23.0115	23.01
25	2,4-Dichlorophenol	162	11.471	11.471	(0.976)	132923	11.5168	11.52
26	1,2,4-Trichlorobenzene	180	11.664	11.664	(0.993)	67351	5.12757	5.128
* 27	Naphthalene-d8	136	11.749	11.749	(1.000)	150675	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	28 Naphthalene	128	11.795	11.795	(1.004)	187621	4.78541	4.785
	29 4-Chloroaniline	127	11.957	11.957	(1.018)	153482	9.72700	9.727
	30 Hexachlorobutadiene	225	12.212	12.212	(1.039)	43061	5.26029	5.260
	31 4-Chloro-3-methylphenol	107	13.017	13.017	(1.108)	133464	11.9640	11.96
	32 2-Methylnaphthalene	142	13.311	13.311	(1.133)	125970	4.86634	4.866
	33 Hexachlorocyclopentadiene	237	13.822	13.822	(0.882)	112957	10.7260	10.73
	34 2,4,6-Trichlorophenol	196	13.992	13.992	(0.893)	112602	12.0334	12.03
	35 2,4,5-Trichlorophenol	196	14.070	14.070	(0.898)	126526	12.7240	12.72
$	36 2-Fluorobiphenyl	172	Compound Not Detected.					
	37 2-Chloronaphthalene	162	14.379	14.379	(0.918)	140953	5.46481	5.465
	38 2-Nitroaniline	65	14.673	14.673	(0.937)	65450	10.8194	10.82
	39 Dimethylphthalate	163	15.169	15.169	(0.968)	152463	5.39846	5.398
	40 Acenaphthylene	152	15.316	15.316	(0.978)	205925	4.89568	4.896
	41 2,6-Dinitrotoluene	165	15.308	15.308	(0.977)	74654	11.5706	11.57
*	42 Acenaphthene-d10	164	15.664	15.664	(1.000)	93376	4.00000	
	43 3-Nitroaniline	138	15.602	15.610	(0.996)	70409	11.8173	11.82
	44 Acenaphthene	153	15.734	15.733	(1.004)	127159	4.93024	4.930
	45 2,4-Dinitrophenol	184	15.834	15.834	(1.011)	130506	23.1152	23.12
	46 Dibenzofuran	168	16.089	16.089	(1.027)	176205	4.91232	4.912
	47 4-Nitrophenol	109	15.981	15.981	(1.020)	46091	11.3367	11.34
	48 2,4-Dinitrotoluene	165	16.182	16.182	(1.033)	100886	11.5642	11.56
	50 Diethylphthalate	149	16.762	16.761	(1.070)	149613	5.05715	5.057
	49 Fluorene	166	16.862	16.862	(1.076)	149065	4.89256	4.893
	51 4-Chlorophenyl-phenylether	204	16.870	16.878	(1.077)	76545	5.39097	5.391
	52 4-Nitroaniline	138	16.978	16.986	(1.084)	68248	10.8505	10.85
	53 4,6-Dinitro-2-methylphenol	198	17.086	17.086	(0.902)	170570	26.9732	26.97(R)
	54 N-Nitrosodiphenylamine	169	17.148	17.148	(0.905)	103308	5.43113	5.431
$	55 2,4,6-Tribromophenol	330	Compound Not Detected.					
	56 4-Bromophenyl-phenylether	248	17.957	17.957	(0.948)	48685	5.52706	5.527
	57 Hexachlorobenzene	284	18.282	18.281	(0.965)	60692	5.49033	5.490
	58 Pentachlorophenol	266	18.677	18.676	(0.986)	93039	12.6214	12.62
*	59 Phenanthrene-d10	188	18.940	18.939	(1.000)	157911	4.00000	
	60 Phenanthrene	178	18.986	18.986	(1.002)	207268	4.92372	4.924
	61 Anthracene	178	19.079	19.086	(1.007)	213272	5.03174	5.032
	62 Carbazole	167	19.435	19.435	(1.026)	140507	4.96322	4.963
	63 Di-n-butylphthalate	149	20.294	20.293	(1.071)	261975	5.79204	5.792
	64 Fluoranthene	202	21.392	21.392	(1.129)	251144	5.18054	5.181
	65 Pyrene	202	21.810	21.817	(0.908)	256428	4.83356	4.834
$	66 Terphenyl-d14	244	Compound Not Detected.					
	67 Butylbenzylphthalate	149	23.072	23.079	(0.961)	114331	5.68210	5.682
	68 Benzo(a)anthracene	228	23.978	23.978	(0.999)	251589	4.84113	4.841
*	69 Chrysene-d12	240	24.009	24.009	(1.000)	186248	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.955	23.954	(0.998)	167305	7.70530	7.705
	71 Chrysene	228	24.047	24.055	(1.002)	226455	4.81098	4.811
	72 bis(2-Ethylhexyl)phthalate	149	24.117	24.117	(0.961)	162652	5.67579	5.676
*	134 Di-n-octylphthalate-d4	153	25.100	25.100	(1.000)	217021	4.00000	
	73 Di-n-octylphthalate	149	25.108	25.108	(1.000)	278132	5.25388	5.254

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	74 Benzo(b)fluoranthene	252	25.797	25.797	(0.973)	260552	5.02102	5.021
	75 Benzo(k)fluoranthene	252	25.844	25.843	(0.975)	269345	4.80452	4.805
	76 Benzo(a)pyrene	252	26.401	26.401	(0.996)	216125	4.81584	4.816
*	77 Perylene-d12	264	26.509	26.509	(1.000)	179038	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	28.934	28.942	(1.091)	278396	5.03032	5.030
	79 Dibenzo(a,h)anthracene	278	28.958	28.965	(1.092)	222187	5.06986	5.070
	80 Benzo(g,h,i)perylene	276	29.657	29.641	(1.119)	235666	4.96313	4.963
	90 N-Nitrosodimethylamine	74	4.442	4.442	(0.489)	79113	10.3486	10.35
	91 Aniline	93	8.505	8.505	(0.936)	165967	4.58307	4.583
	93 Benzidine	184	21.655	21.655	(0.902)	99836	11.4404	11.44
	103 Pyridine	79	4.457	4.457	(0.491)	67216	10.3079	10.31
	105 1-methylnaphthalene	142	13.544	13.543	(1.153)	117579	4.95182	4.952
	111 Azobenzene (1,2-DP-Hydrazine)	77	17.225	17.225	(1.100)	149907	5.58630	5.586
	187 Total Benzofluoranthenes	252	25.844	25.843	(0.975)	501763	9.82305	9.823
	99 Perylene	252	26.556	26.563	(1.002)	228097	4.42254	4.423
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: icv0125.d
Lab Smp Id: ICV0125
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 19:17

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	40184	-13.81
27 Naphthalene-d8	176978	88489	353956	150675	-14.86
42 Acenaphthene-d10	110872	55436	221744	93376	-15.78
59 Phenanthrene-d10	188290	94145	376580	157911	-16.13
69 Chrysene-d12	213681	106840	427362	186248	-12.84
134 Di-n-octylphthala	264159	132080	528318	217021	-17.84
77 Perylene-d12	208584	104292	417168	179038	-14.17

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.08	8.58	9.58	9.09	0.00
27 Naphthalene-d8	11.75	11.25	12.25	11.75	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
134 Di-n-octylphthala	25.10	24.60	25.60	25.10	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG:
Sample Matrix: NONE Fraction: SV
Lab Smp Id: ICV0125
Level: Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: ICVS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
3 Phenol	5.000	5.377	107.55	
4 Bis(2-Chloroethyl)	5.000	5.248	104.96	
6 2-Chlorophenol	5.000	5.233	104.67	
7 1,3-Dichlorobenzen	5.000	5.159	103.19	
9 1,4-Dichlorobenzen	5.000	5.090	101.80	
11 Benzyl alcohol	5.000	4.667	93.33	
12 1,2-Dichlorobenzen	5.000	5.160	103.20	
13 2-Methylphenol	5.000	5.697	113.95	
14 2,2'-oxybis(1-Chlo	5.000	5.206	104.12	
15 4-Methylphenol	5.000	5.742	114.84	
16 N-Nitroso-di-n-pro	5.000	5.291	105.81	
17 Hexachloroethane	5.000	5.212	104.25	
19 Nitrobenzene	5.000	5.163	103.26	
20 Isophorone	5.000	5.365	107.29	
21 2-Nitrophenol	5.000	5.625	112.50	
22 2,4-Dimethylphenol	10.00	11.29	112.92	
23 Bis(2-Chloroethoxy	5.000	5.247	104.95	
24 Benzoic acid	20.00	23.01	115.06	
25 2,4-Dichlorophenol	10.00	11.52	115.17	
26 1,2,4-Trichloroben	5.000	5.128	102.55	
28 Naphthalene	5.000	4.785	95.71	
29 4-Chloroaniline	10.00	9.727	97.27	
30 Hexachlorobutadien	5.000	5.260	105.21	
31 4-Chloro-3-methylp	10.00	11.96	119.64	
32 2-Methylnaphthalen	5.000	4.866	97.33	
33 Hexachlorocyclopen	10.00	10.73	107.26	
34 2,4,6-Trichlorophe	10.00	12.03	120.33	
35 2,4,5-Trichlorophe	10.00	12.72	127.24	
37 2-Chloronaphthalen	5.000	5.465	109.30	
38 2-Nitroaniline	10.00	10.82	108.19	
39 Dimethylphthalate	5.000	5.398	107.97	
40 Acenaphthylene	5.000	4.896	97.91	
41 2,6-Dinitrotoluene	10.00	11.57	115.71	

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
43 3-Nitroaniline	10.00	11.82	118.17	
44 Acenaphthene	5.000	4.930	98.60	
45 2,4-Dinitrophenol	20.00	23.12	115.58	
46 Dibenzofuran	5.000	4.912	98.25	
47 4-Nitrophenol	10.00	11.34	113.37	
48 2,4-Dinitrotoluene	10.00	11.56	115.64	
49 Fluorene	5.000	4.893	97.85	
50 Diethylphthalate	5.000	5.057	101.14	
51 4-Chlorophenyl-phe	5.000	5.391	107.82	
52 4-Nitroaniline	10.00	10.85	108.50	
53 4,6-Dinitro-2-meth	20.00	26.97	134.87*	
54 N-Nitrosodiphenyla	5.000	5.431	108.62	
56 4-Bromophenyl-phen	5.000	5.527	110.54	
57 Hexachlorobenzene	5.000	5.490	109.81	
58 Pentachlorophenol	10.00	12.62	126.21	
60 Phenanthrene	5.000	4.924	98.47	
61 Anthracene	5.000	5.032	100.63	
63 Di-n-butylphthalat	5.000	5.792	115.84	
64 Fluoranthene	5.000	5.181	103.61	
65 Pyrene	5.000	4.834	96.67	
67 Butylbenzylphthala	5.000	5.682	113.64	
68 Benzo(a)anthracene	5.000	4.841	96.82	
70 3,3'-Dichlorobenzi	10.00	7.705	77.05	
71 Chrysene	5.000	4.811	96.22	
72 bis(2-Ethylhexyl)p	5.000	5.676	113.52	
73 Di-n-octylphthalat	5.000	5.254	105.08	
74 Benzo(b)fluoranthe	5.000	5.021	100.42	
75 Benzo(k)fluoranthe	5.000	4.805	96.09	
76 Benzo(a)pyrene	5.000	4.816	96.32	
78 Indeno(1,2,3-cd)py	5.000	5.030	100.61	
79 Dibenzo(a,h)anthra	5.000	5.070	101.40	
80 Benzo(g,h,i)peryle	5.000	4.963	99.26	
90 N-Nitrosodimethyla	10.00	10.35	103.49	
91 Aniline	5.000	4.583	91.66	
93 Benzidine	10.00	11.44	114.40	
105 1-methylnaphthalen	5.000	4.952	99.04	
120 2,3,4,6-Tetrachlo	5.000	0.000	*	
151 1,2,4,5-Tetrachlo	5.000	0.000	*	
110 Tetrachloroguaiac	10.00	0.000	*	
109 3,4,5-Trichlorogu	5.000	0.000	*	
181 3,4,6-Trichlorogu	5.000	0.000	*	
108 4,5,6-Trichlorogu	5.000	0.000	*	
184 3,4-Dichloroguaia	5.000	0.000	*	
107 4,5-Dichloroguaia	10.00	0.000	*	
182 4,6-Dichloroguaia	10.00	0.000	*	
185 4-Chloroguaiacol	2.500	0.000	*	
106 Guaiacol	5.000	0.000	*	

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG:
Sample Matrix: NONE Fraction: SV
Lab Smp Id: ICV0125
Level: Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: ICVS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130125.b/ABN.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	7.500	0.000	*	
$ 2 Phenol-d5	7.500	0.000	*	
$ 5 2-Chlorophenol-d4	7.500	0.000	*	
$ 10 1,2-Dichlorobenze	5.000	0.000	*	
$ 18 Nitrobenzene-d5	5.000	0.000	*	
$ 36 2-Fluorobiphenyl	5.000	0.000	*	
$ 55 2,4,6-Tribromophe	7.500	0.000	*	
$ 66 Terphenyl-d14	5.000	0.000	*	

Data File: /chem1/nt10.i/20130125.b/icv0125.d

Date : 25-JAN-2013 18:30

Client ID:

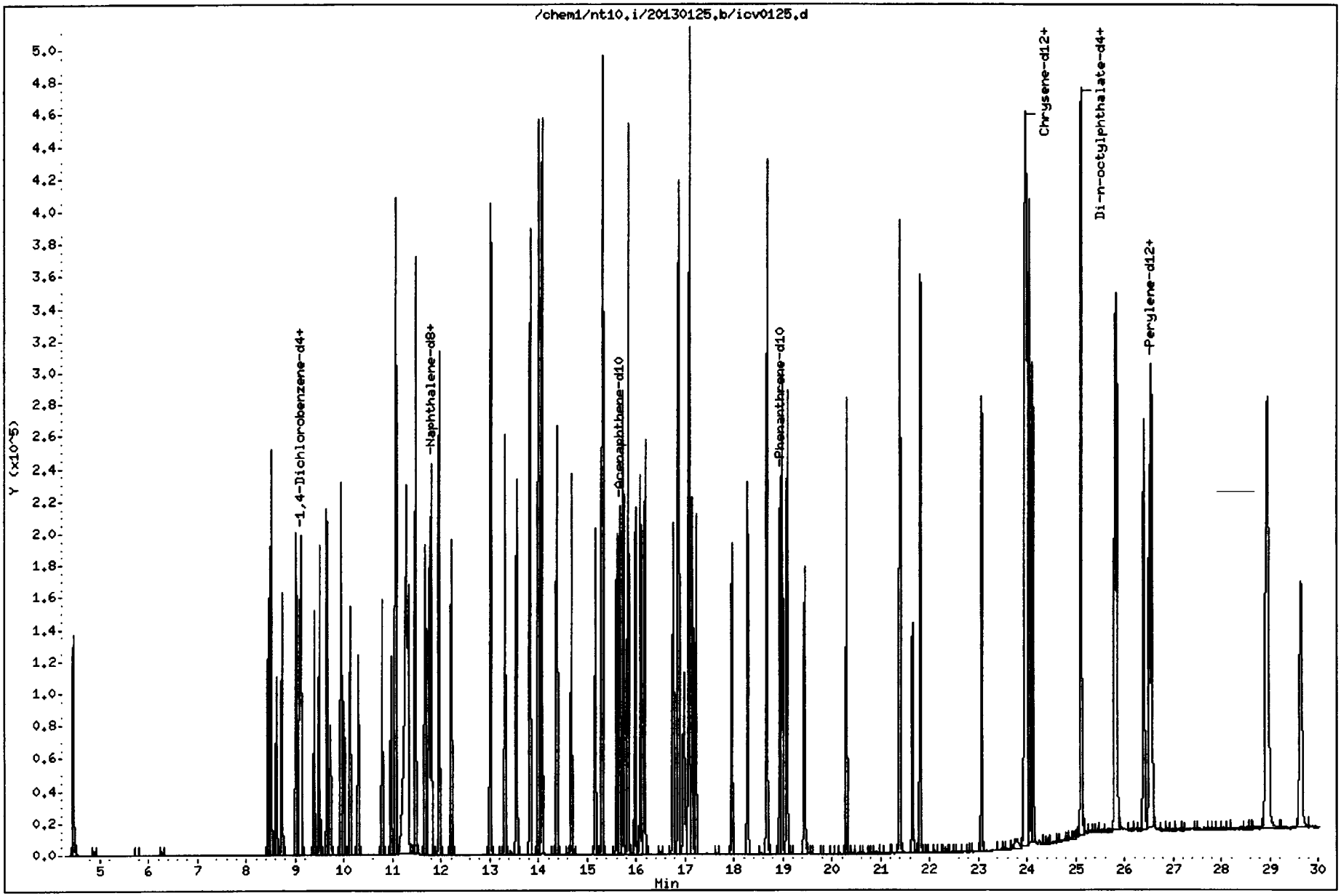
Sample Info: ICV0125

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - icv0125.d

Lab ID: ICV0125, Method: ABN.m, Instrument: nt10.i, Date: 25-JAN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt10.i/20130125.b/df0125.d

Date : 25-JAN-2013 12:43

Client ID: DFTPP

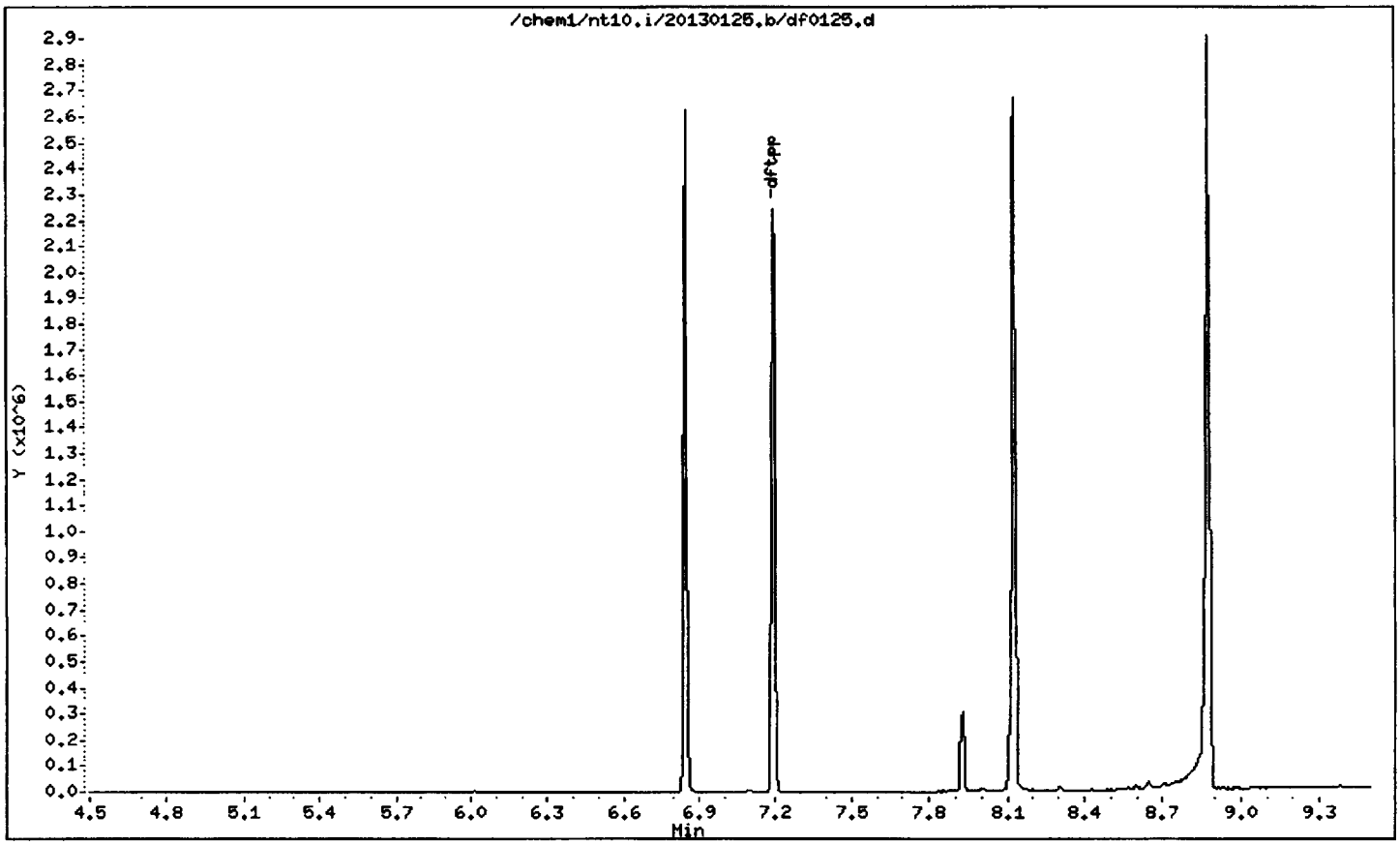
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130125.b/df0125.d

Date : 25-JAN-2013 12:43

Client ID: DFTPP

Instrument: nt10.i

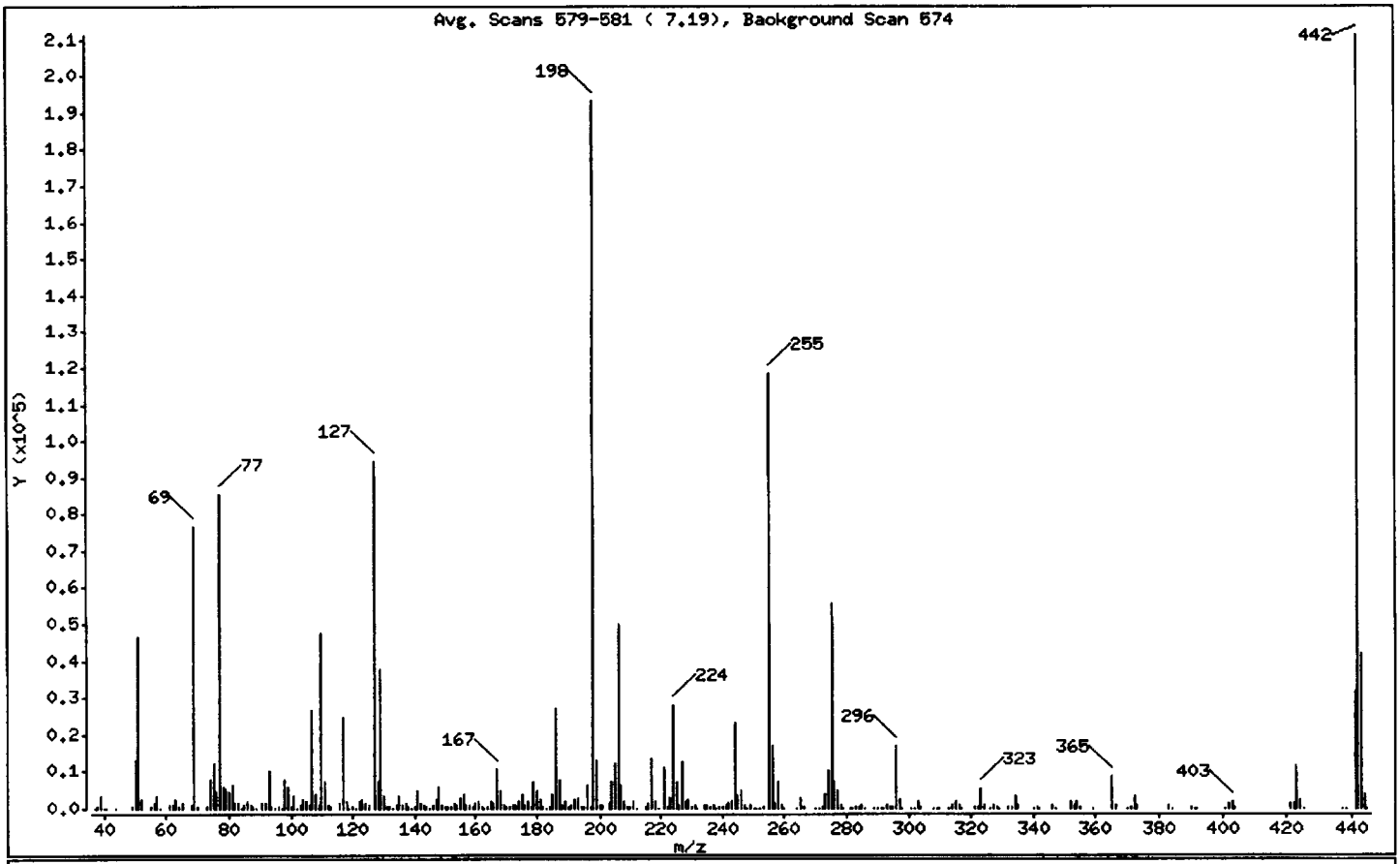
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	24.19
68	Less than 2.00% of mass 69	0.61 (1.54)
69	Mass 69 relative abundance	39.80
70	Less than 2.00% of mass 69	0.19 (0.49)
127	10.00 - 80.00% of mass 198	48.91
197	Less than 2.00% of mass 198	0.21
199	5.00 - 9.00% of mass 198	6.67
275	10.00 - 60.00% of mass 198	28.93
365	Greater than 1.00% of mass 198	4.43
441	0.01 - 24.00% of mass 442	16.45 (15.06)
442	50.00 - 200.00% of mass 198	109.23
443	15.00 - 24.00% of mass 442	21.82 (19.98)

Data File: /chem1/nt10.i/20130125.b/df0125.d

Date : 25-JAN-2013 12:43

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0125.d
Spectrum: Avg. Scans 579-581 (7.19), Background Scan 574
Location of Maximum: 442.00
Number of points: 292

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	197	129.00	37936	204.00	7247	290.00	134
38.00	705	130.00	3252	205.00	12071	291.00	73
39.00	3533	131.00	616	206.00	50152	292.00	193
40.00	113	132.00	309	207.00	6355	293.00	1040
41.00	57	133.00	201	208.00	1855	294.00	300
44.00	41	134.00	1063	209.00	685	295.00	432
49.00	407	135.00	3189	210.00	390	296.00	17168
50.00	12941	136.00	1177	211.00	2076	297.00	2409
51.00	46792	137.00	1570	212.00	126	298.00	117
52.00	2479	138.00	318	215.00	691	301.00	186
55.00	299	139.00	141	216.00	1249	302.00	228
56.00	1601	140.00	439	217.00	13670	303.00	1845
57.00	3596	141.00	5058	218.00	1710	304.00	531
58.00	186	142.00	1565	219.00	125	308.00	197
61.00	736	143.00	1108	221.00	10937	309.00	121
62.00	914	144.00	315	222.00	480	310.00	187
63.00	2618	145.00	214	223.00	3072	313.00	153
64.00	316	146.00	882	224.00	28320	314.00	792
65.00	1300	147.00	2615	225.00	7216	315.00	2023
68.00	1189	148.00	6026	226.00	852	316.00	1067
69.00	76976	149.00	1129	227.00	12743	317.00	159
70.00	375	150.00	301	228.00	1719	321.00	538
73.00	705	151.00	726	229.00	2389	322.00	299
74.00	7863	152.00	293	230.00	329	323.00	5388
75.00	12207	153.00	1577	231.00	1021	324.00	1013
76.00	4289	154.00	1181	232.00	167	326.00	50
77.00	85576	155.00	2757	233.00	188	327.00	1029
78.00	5655	156.00	4011	234.00	771	328.00	558
79.00	5556	157.00	812	235.00	861	329.00	60
80.00	4359	158.00	873	236.00	627	332.00	351
81.00	6233	159.00	710	237.00	1022	333.00	548
82.00	1534	160.00	1489	238.00	110	334.00	3620
83.00	1401	161.00	2161	239.00	541	335.00	964
84.00	112	162.00	649	240.00	417	340.00	51
85.00	1085	163.00	146	241.00	730	341.00	679

Data File: /chem1/nt10.i/20130125.b/df0125.d

Date : 25-JAN-2013 12:43

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0125.d
Spectrum: Avg. Scans 579-581 (7.19), Background Scan 574
Location of Maximum: 442.00
Number of points: 292

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	1703	164.00	290	242.00	1687	342.00	153
87.00	795	165.00	1882	243.00	1735	346.00	1164
88.00	279	166.00	1494	244.00	23312	347.00	162
89.00	81	167.00	10689	245.00	3158	352.00	1760
91.00	1338	168.00	4694	246.00	4620	353.00	1209
92.00	1619	169.00	848	247.00	978	354.00	1709
93.00	9994	170.00	329	248.00	181	355.00	309
94.00	645	171.00	378	249.00	862	359.00	64
95.00	134	172.00	865	250.00	149	365.00	8559
96.00	471	173.00	1141	251.00	169	366.00	1203
97.00	212	174.00	2025	252.00	221	370.00	156
98.00	7840	175.00	3911	253.00	585	371.00	436
99.00	5867	176.00	1174	255.00	118624	372.00	3166
100.00	531	177.00	1772	256.00	17216	373.00	730
101.00	3503	178.00	645	257.00	1329	383.00	830
102.00	180	179.00	7329	258.00	7275	384.00	228
103.00	1140	180.00	4831	259.00	1188	390.00	433
104.00	2300	181.00	2296	260.00	200	391.00	237
105.00	2067	182.00	354	261.00	142	392.00	163
106.00	732	183.00	241	264.00	186	401.00	177
107.00	26848	184.00	572	265.00	2938	402.00	1244
108.00	4043	185.00	3662	266.00	493	403.00	1787
109.00	744	186.00	27072	270.00	126	404.00	646
110.00	47768	187.00	7673	271.00	234	421.00	1637
111.00	7142	188.00	763	272.00	384	422.00	1574
112.00	909	189.00	1730	273.00	3889	423.00	11637
113.00	338	190.00	325	274.00	10079	424.00	2495
116.00	1403	191.00	859	275.00	55952	425.00	200
117.00	24664	192.00	2439	276.00	7415	437.00	50
118.00	1723	193.00	2782	277.00	4869	438.00	71
119.00	207	194.00	648	278.00	775	441.00	31824
120.00	344	195.00	439	279.00	140	442.00	211264
121.00	108	196.00	6210	281.00	108	443.00	42208
122.00	1841	197.00	402	282.00	139	444.00	4074
123.00	2656	198.00	193408	283.00	558	445.00	209

Date : 25-JAN-2013 12:43

Client ID: DFTPP Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

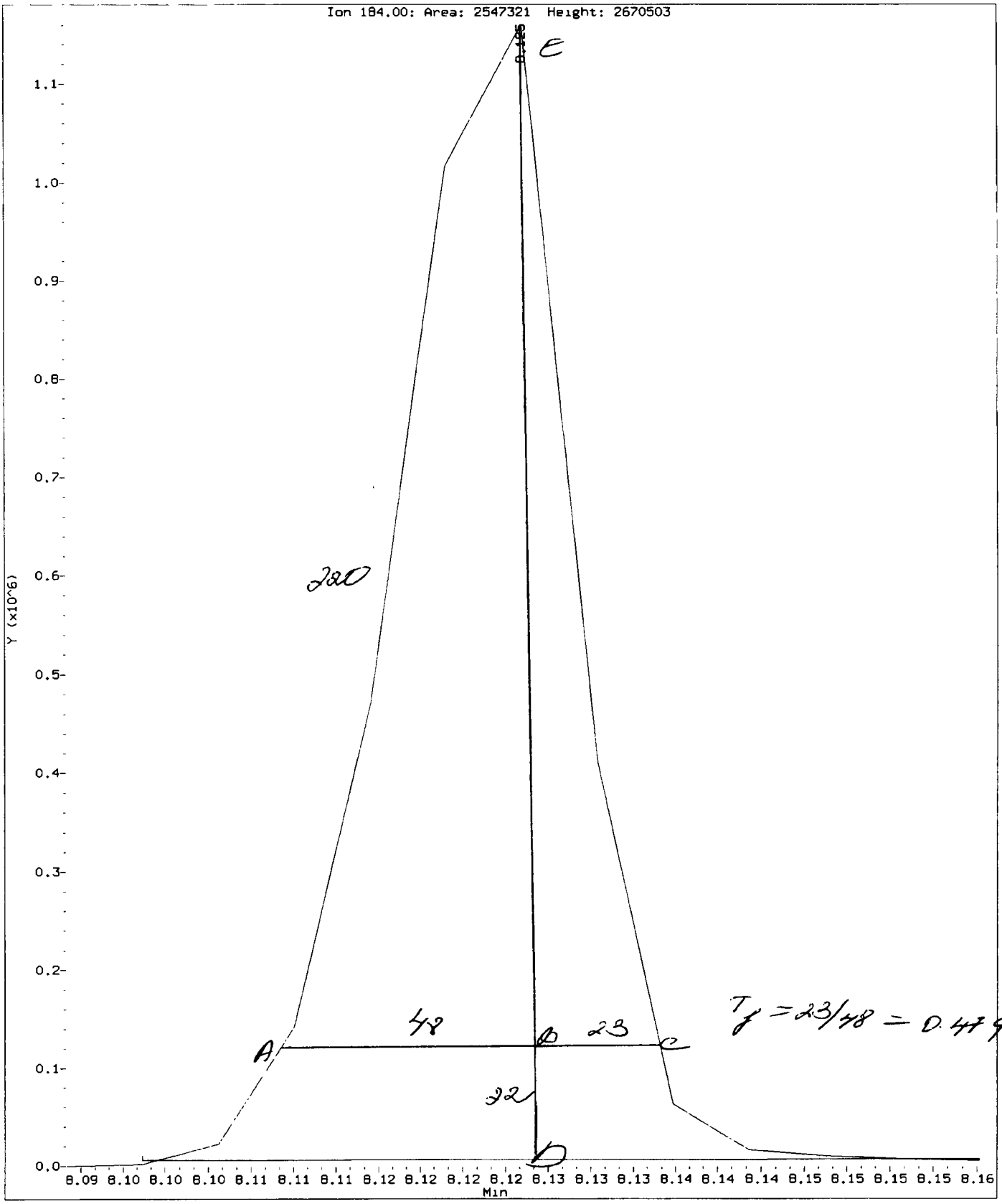
Column phase: ZB-5msi Column diameter: 0.25

Data File: df0125.d
Spectrum: Avg. Scans 579-581 (7.19), Background Scan 574
Location of Maximum: 442.00
Number of points: 292

m/z	Y	m/z	Y	m/z	Y	m/z	Y
124.00	1219	199.00	12893	284.00	387		
125.00	1090	200.00	1075	285.00	813		
127.00	94600	201.00	925	286.00	126		
128.00	7116	203.00	1424	289.00	147		

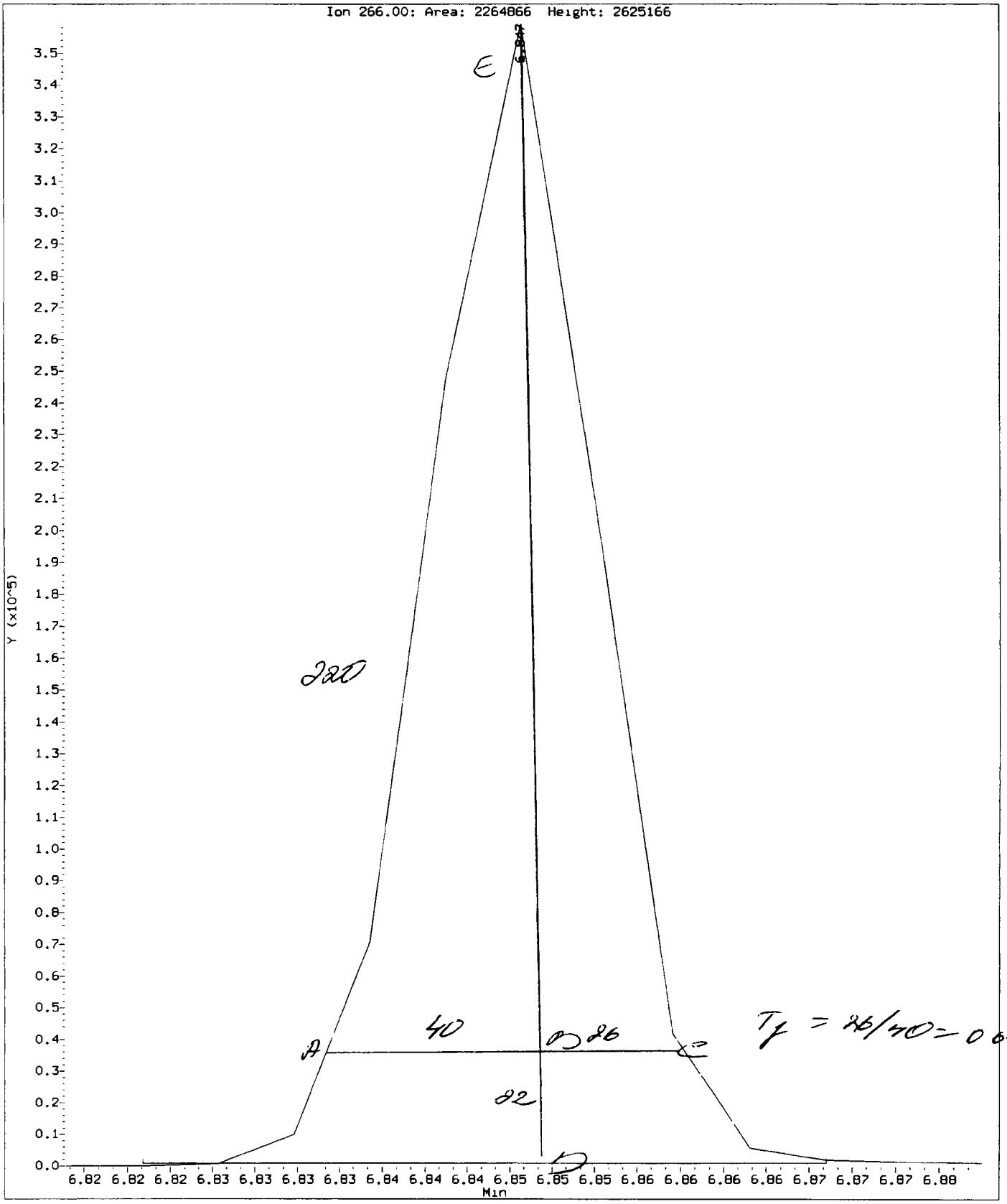
Data File: /chem1/nt10.1/20130125.b/ddt.b/df0125.d
Injection Date: 25-JAN-2013 12:43
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Data File: /chem1/nt10.1/20130125.b/ddt.b/df0125.d
Injection Date: 25-JAN-2013 12:43
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130125.b/ddt.b/df0125.d ARI ID: DFTPP
Method: /chem1/nt10.i/20130125.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 25-JAN-2013 12:43 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.847	2264865
Benzidine	8.125	2547321
4,4'-DDE	8.307	1813
4,4'-DDD	8.644	5130
4,4'-DDT	8.874	537797

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 1813 + 5130) * 100}{(\ 1813 + 5130 + 537797)}$$

DDT Percent Breakdown = 1.3 %

Semivolatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Data Review Checklist

ARI WORK Order: WJ10 Client ID: SAIC

METHOD: **8270D**(SIM-SVOA) **KRONE**(Butyl Tins) **8270D**(SVOA) **8270D**(OP-Pest)

Instrument: NT-4 (NT-6) NT-8 NT-10 NT11 NT12

Curve Date: 3/6/13 Analysis Start Date: 4/4/13.

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
DFTPP Tune met Criteria?	(Y) / N / ✓	Internal Standard within 50-200%?	(Y) / N / ✓
DDT Breakdown <20%?	(Y) / N / ✓	Retention Times within Windows?	(Y) / N / ✓
Peak Tailing Factor ≤2?	(Y) / N / ✓	Method Blank in Control?	(Y) / N / ✓
CCAL Meets %D?	(Y) / (N) / ✓	LCS / LCSD Recovery in Control?	(Y) / N /
ICAL Q Flag applied?	(N/A) / Y / (N) / ✓	LCS / LCSD RPD ≤ 30%?	(NA) / NA
CCAL Q flag applied?	(Y) / N / ✓	MS / MSD Recovery in Control?	(N/A) / Y / N / NA
Surrogate Recovery met?	(Y) / N / ✓	MS / MSD RPD ≤ 30%?	(NA) / ✓
Manual Integrations?	(Y) / N / ✓	Samples Diluted?	Y / (N) / ✓
Integration Summary?	(Y) / N / ✓	Special Analysis Request?	Y / (N) / ✓

Detail problems, corrective actions and/or other pertinent information below.

Sample A + MB/LCS/LCSD + RLs
Forms included

(Review 1) Analyst: _____ **Date:** 4/10/13

(Review 2) Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Organics Instrument Log

NT-6 Serial No.:GC=US00036167, MS=US81221575

Date: 4/4/13 Analysis: 8270D Analyst: AB

GC Program: DB-5ms w/ 2mM Column No: 234149 Column Type: ZB-5MSi

Instrument Tune (.U or .CT.): 121029 EM Voltage: 1671

Calibration File: 04041302 Curve Date: 3/6/13 Injection Vol.: 1µL

IS/SS	Ical/Ccal	LCS/ICV
1998-2	~~2053-1, 2054-1~~	
	~~2055-1, 2056-1~~	
	~~8801, 2057-2~~	
	~~2058-2~~	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem2/nt6.i/20130404.b

	Time	Filename	LabID	ClientId	DF															
1	1345	04041301.d	CC0404	CC0404	1	8.21	477903	10.25	1772966	13 11	1071457	15.49	1837069	19.80	1804522	21.95	1838548	20.91	2226804	
2	1424	04041302.d	WJ45MBW1	WJ45MBW1	1	8.21	537394	10.25	1923298	13.11	1157129	15 49	1885839	19.79	1845140	20.91	2291135	21.95	1743601	
3	1459	04041303 d	WJ45LCSW1	WJ45LCSW1	1	8 21	528740	10.25	1946672	13 12	1056185	15 49	1782538	19.80	1658151	20 92	2148176	21.95	1773859	
4	1534	04041304.d	WJ45LCSDW1	WJ45LCSDW1	1	8 21	551702	10.25	2004773	13.11	1021295	15.49	1870211	19 80	1792521	20.92	2295921	21.95	1895974	
5	1609	04041305.d	WJ45E	EQ-055	1	8.21	539845	10 25	1908474	13.11	1157627	15.48	1883838	19.79	1823208	20.92	2253256	21 95	1737785	
6	1644	04041306 d	WJ10MBW1	WJ10MBW1	1	8 21	466002	10.25	1662991	13.11	996708	15 49	1636944	19 79	1622613	20 91	2043453	21.95	1541456	
7	1719	04041307 d	WJ10LCSW1	WJ10LCSW1	1	8.21	491754	10.25	1818586	13.12	998045	15.49	1822083	19 80	1695304	20.92	2335785	21.95	1802136	
8	1754	04041308.d	WJ10LCSDW1	WJ10LCSDW1	1	8.21	554236	10.25	2034911	13.12	1039174	15.49	1892292	19.80	1716543	20.91	2192877	21.95	1790601	
9	1829	04041309.d	WJ10QLS	WJ10QLS	1	8.21	516184	10.25	1836298	13.11	1102228	15.48	1802568	19.79	1801317	20.91	2271800	21.95	1733713	
10	1903	04041310.d	WJ10A	SD-SP-01-201	1	8.21	457303	10.25	1624755	13.11	979767	15 49	1620713	19 84	1698223	22.01	1921105			
11	1938	04041311 d	2089-3	2089-3	5	8 21	565736													
12	2012	04041312.d	WJ17MBS1	WJ17MBS1	1	8 21	483566	10.25	1708927	13.11	1048928	15.48	1795271	19.79	1809321	20.91	2226808	21.95	1280134	
13	2047	04041313.d	WJ17LCSS1	WJ17LCSS1	1	8 21	484026	10.25	1795987	13.12	1055719	15.48	1847421	19.80	1779061	20.91	2238173	21.95	1812026	
14	2121	04041314.d	WJ17LCSDS1	WJ17LCSDS1	1	8.21	497524	10.25	1810438	13.11	1066072	15.48	1841433	19.80	1746827	20 91	2205353	21.95	1817116	
15	2156	04041315.d	WJ17QLS	WJ17QLS	1	8.21	513516	10.25	1817803	13.11	1112224	15.48	1830618	19.79	1819561	20.91	2280401	21.95	1589037	
16	2230	04041316.d	WJ17A	PF-PA-7-0313	1	8.21	486302	10.25	1745439	13.11	1063966	15.48	1733198	19.79	1715803	20.91	2239687	21.95	1732356	
17	2304	04041317.d	WJ62MBS1	WJ62MBS1	1	8.21	462343	10.25	1658491	13.11	1027622	15.48	1684326	19.79	1725154	20.91	2245307	21.95	1702161	
18	2338	04041318.d	WJ62LCSS1	WJ62LCSS1	1	8.21	484218	10.25	1799830	13.11	1044249	15 49	1860174	19.79	1745118	20.92	2234493	21.95	1884608	
19	0013	04041319.d	WJ62LCSDS1	WJ62LCSDS1	1	8.21	481398	10.25	1772691	13.11	1026887	15.49	1812043	19.80	1710274	20.91	2179969	21.95	1860485	
20	0047	04041320.d	WJ62QLS	WJ62QLS	1	8.20	492821	10.24	1799579	13.11	1079936	15.49	1769519	19.79	1730965	20 91	2223321	21.94	1734059	
21	0121	04041321.d	WJ62A	PF-PA-8-0313	1	8.20	492938	10.25	1808083	13.11	1103923	15.48	1805475	19.79	1793296	20.91	2349779	21.95	1764733	

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

AB 04/10/13

Q-FLAG SUMMARY FOR DATABATCH - /chem2/nt6.i/20130404.b

Instrument: nt6.i Date: 04-APR-2013 Method: SW846030613.m

INITIAL CAL: 05-MAR-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 04-APR-2013

Compound	%D
4-Nitrophenol	23.1
Aniline	-20.9

04/10/13

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i
Lab File ID: 04041301.d
Analysis Type:
Lab Sample ID: CC0404
Method: /chem2/nt6.i/20130404.b/SW846030613.m

Injection Date: 04-APR-2013 13:45
Init. Cal. Date(s): 05-MAR-2013 06-MAR-2013
Init. Cal. Times: 18:33 16:18
Quant Type: ISTD

AB 04/10/13

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 1 2-Fluorophenol	1.29593	1.13570	1.13570	0.010	-12.36423	20.00000	Averaged
$ 2 Phenol-d5	1.51700	1.38248	1.38248	0.010	-8.86785	20.00000	Averaged
3 Phenol	1.59733	1.36996	1.36996	0.010	-14.23407	20.00000	Averaged
$ 5 2-Chlorophenol-d4	1.28234	1.16105	1.16105	0.010	-9.45860	20.00000	Averaged
4 Bis(2-Chloroethyl)ether	1.38721	1.24013	1.24013	0.010	-10.60202	20.00000	Averaged
6 2-Chlorophenol	1.27800	1.23953	1.23953	0.010	-3.01029	20.00000	Averaged
7 1,3-Dichlorobenzene	1.49260	1.46584	1.46584	0.010	-1.79300	20.00000	Averaged
9 1,4-Dichlorobenzene	1.45271	1.44369	1.44369	0.010	-0.62063	20.00000	Averaged
$ 10 1,2-Dichlorobenzene-d4	0.90253	0.80785	0.80785	0.010	-10.49092	20.00000	Averaged
12 1,2-Dichlorobenzene	1.38875	1.35842	1.35842	0.010	-2.18393	20.00000	Averaged
11 Benzyl alcohol	0.87019	0.76014	0.76014	0.010	-12.64697	20.00000	Averaged
14 2,2'-oxybis(1-Chloropropane	2.20404	1.79923	1.79923	0.010	-18.36651	20.00000	Averaged
13 2-Methylphenol	1.21121	1.07830	1.07830	0.010	-10.97335	20.00000	Averaged
17 Hexachloroethane	0.58761	0.57426	0.57426	0.010	-2.27110	20.00000	Averaged
16 N-Nitroso-di-n-propylamine	1.04103	0.89248	0.89248	0.005	-14.27023	20.00000	Averaged
15 4-Methylphenol	1.19772	1.12642	1.12642	0.010	-5.95286	20.00000	Averaged
$ 18 Nitrobenzene-d5	0.40133	0.36596	0.36596	0.010	-8.81430	20.00000	Averaged
19 Nitrobenzene	0.38413	0.36383	0.36383	0.010	-5.28462	20.00000	Averaged
20 Isophorone	0.66954	0.59246	0.59246	0.010	-11.51169	20.00000	Averaged
21 2-Nitrophenol	0.17774	0.18217	0.18217	0.010	2.49242	20.00000	Averaged
22 2,4-Dimethylphenol	0.33613	0.32380	0.32380	0.010	-3.66942	20.00000	Averaged
23 Bis(2-Chloroethoxy)methane	0.43930	0.40030	0.40030	0.010	-8.87654	20.00000	Averaged
24 Benzoic acid	0.29097	0.24549	0.24549	0.010	-15.63006	20.00000	Averaged
25 2,4-Dichlorophenol	0.25883	0.27216	0.27216	0.010	5.15034	20.00000	Averaged
26 1,2,4-Trichlorobenzene	0.32219	0.32179	0.32179	0.010	-0.12236	20.00000	Averaged
28 Naphthalene	25.92717	25.00000	0.88839	0.010	3.70870	20.00000	Quadratic
29 4-Chloroaniline	26.27141	25.00000	0.28194	0.010	5.08562	20.00000	Quadratic
30 Hexachlorobutadiene	0.19606	0.20500	0.20500	0.010	4.55803	20.00000	Averaged
31 4-Chloro-3-methylphenol	0.27493	0.28145	0.28145	0.010	2.37249	20.00000	Averaged
32 2-Methylnaphthalene	0.48637	0.49329	0.49329	0.010	1.42243	20.00000	Averaged
33 Hexachlorocyclopentadiene	0.32133	0.35963	0.35963	0.010	11.91885	20.00000	Averaged
34 2,4,6-Trichlorophenol	0.33621	0.33856	0.33856	0.010	0.69760	20.00000	Averaged
35 2,4,5-Trichlorophenol	0.33167	0.35165	0.35165	0.010	6.02447	20.00000	Averaged
$ 36 2-Fluorobiphenyl	1.26244	1.12603	1.12603	0.010	-10.80580	20.00000	Averaged
37 2-Chloronaphthalene	27.65003	25.00000	0.93998	0.010	10.60013	20.00000	Quadratic

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i Injection Date: 04-APR-2013 13:45
Lab File ID: 04041301.d Init. Cal. Date(s): 05-MAR-2013 06-MAR-2013
Analysis Type: Init. Cal. Times: 18:33 16:18
Lab Sample ID: CC0404 Quant Type: ISTD
Method: /chem2/nt6.i/20130404.b/SW846030613.m

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
38 2-Nitroaniline	0.29567	0.30135	0.30135	0.010	1.92130	20.00000	Averaged	
39 Dimethylphthalate	1.20372	1.14715	1.14715	0.010	-4.70022	20.00000	Averaged	
40 Acenaphthylene	1.57756	1.53385	1.53385	0.010	-2.77078	20.00000	Averaged	
41 2,6-Dinitrotoluene	0.25718	0.27117	0.27117	0.010	5.43874	20.00000	Averaged	
43 3-Nitroaniline	27.38719	25.00000	0.20001	0.010	9.54877	20.00000	Quadratic	
44 Acenaphthene	1.02139	0.97508	0.97508	0.010	-4.53348	20.00000	Averaged	
45 2,4-Dinitrophenol	0.18369	0.19294	0.19294	0.010	5.03554	20.00000	Averaged	
46 Dibenzofuran	1.33585	1.32178	1.32178	0.010	-1.05304	20.00000	Averaged	
47 4-Nitrophenol	0.13065	0.16087	0.16087	0.010	23.12983	20.00000	Averaged	<-
48 2,4-Dinitrotoluene	0.34786	0.36738	0.36738	0.010	5.61029	20.00000	Averaged	
50 Diethylphthalate	1.11525	1.13191	1.13191	0.010	1.49428	20.00000	Averaged	
49 Fluorene	28.05784	25.00000	1.05398	0.010	12.23137	20.00000	Quadratic	
51 4-Chlorophenyl-phenylether	0.58637	0.59001	0.59001	0.010	0.62035	20.00000	Averaged	
52 4-Nitroaniline	0.19616	0.18754	0.18754	0.010	-4.39707	20.00000	Averaged	
53 4,6-Dinitro-2-methylphenol	0.14402	0.14916	0.14916	0.010	3.56989	20.00000	Averaged	
54 N-Nitrosodiphenylamine	0.54375	0.52089	0.52089	0.010	-4.20276	20.00000	Averaged	
$ 55 2,4,6-Tribromophenol	0.15815	0.16964	0.16964	0.010	7.27119	20.00000	Averaged	
56 4-Bromophenyl-phenylether	0.21950	0.21334	0.21334	0.010	-2.80611	20.00000	Averaged	
57 Hexachlorobenzene	0.22630	0.22035	0.22035	0.010	-2.62878	20.00000	Averaged	
58 Pentachlorophenol	0.13351	0.12378	0.12378	0.010	-7.28945	20.00000	Averaged	
60 Phenanthrene	0.98950	0.89328	0.89328	0.010	-9.72455	20.00000	Averaged	
61 Anthracene	0.99076	0.90932	0.90932	0.010	-8.22048	20.00000	Averaged	
62 Carbazole	26.31360	25.00000	0.72796	0.010	5.25442	20.00000	Quadratic	
63 Di-n-butylphthalate	1.24906	1.11871	1.11871	0.010	-10.43623	20.00000	Averaged	
64 Fluoranthene	1.04092	1.00298	1.00298	0.010	-3.64509	20.00000	Averaged	
65 Pyrene	1.09227	1.05279	1.05279	0.010	-3.61469	20.00000	Averaged	
$ 66 Terphenyl-d14	0.70203	0.64508	0.64508	0.010	-8.11140	20.00000	Averaged	
67 Butylbenzylphthalate	0.53411	0.52416	0.52416	0.010	-1.86349	20.00000	Averaged	
68 Benzo(a)anthracene	0.91184	0.91528	0.91528	0.010	0.37755	20.00000	Averaged	
70 3,3'-Dichlorobenzidine	0.25087	0.27034	0.27034	0.010	7.75894	20.00000	Averaged	
71 Chrysene	0.93085	0.91058	0.91058	0.010	-2.17703	20.00000	Averaged	
72 bis(2-Ethylhexyl)phthalate	0.58852	0.57190	0.57190	0.010	-2.82428	20.00000	Averaged	
73 Di-n-octylphthalate	0.94433	0.91877	0.91877	0.010	-2.70598	20.00000	Averaged	
74 Benzo(b)fluoranthene	26.61083	25.00000	0.95391	0.010	6.44330	20.00000	Quadratic	
75 Benzo(k)fluoranthene	24.45909	25.00000	0.96533	0.010	-2.16365	20.00000	Quadratic	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i Injection Date: 04-APR-2013 13:45
Lab File ID: 04041301.d Init. Cal. Date(s): 05-MAR-2013 06-MAR-2013
Analysis Type: Init. Cal. Times: 18:33 16:18
Lab Sample ID: CC0404 Quant Type: ISTD
Method: /chem2/nt6.i/20130404.b/SW846030613.m

COMPOUND	RRF / AMOUNT	RF25	CCAL RRF25	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
187 Total Benzofluoranthenes	0.92079	0.90297	0.90297	0.010	-1.93455	20.00000	Averaged	
76 Benzo(a)pyrene	0.85485	0.85360	0.85360	0.010	-0.14537	20.00000	Averaged	
78 Indeno(1,2,3-cd)pyrene	1.02877	1.16061	1.16061	0.010	12.81448	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	0.81005	0.94059	0.94059	0.010	16.11462	20.00000	Averaged	
80 Benzo(g,h,i)perylene	0.87980	1.01997	1.01997	0.010	15.93216	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.94183	0.81717	0.81717	0.010	-13.23623	20.00000	Averaged	
103 Pyridine	1.49368	1.30509	1.30509	0.010	-12.62570	20.00000	Averaged	
91 Aniline	1.76984	1.40048	1.40048	0.010	-20.86967	20.00000	Averaged	<-
105 1-methylnaphthalene	0.49409	0.49596	0.49596	0.010	0.37803	20.00000	Averaged	
111 Azobenzene (1,2-DP-Hydrazin	1.26720	1.18266	1.18266	0.010	-6.67118	20.00000	Averaged	
143 1,4-Dioxane	0.64887	0.55467	0.55467	0.010	-14.51677	20.00000	Averaged	
$ 137 d8-1,4-Dioxane	0.60730	0.52361	0.52361	0.010	-13.78076	20.00000	Averaged	
144 alpha-Terpineol	0.25433	0.23787	0.23787	0.010	-6.47223	20.00000	Averaged	
120 2,3,4,6-Tetrachlorophenol	0.28547	0.30815	0.30815	0.010	7.94485	20.00000	Averaged	

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130404.b/04041301.d
Lab Smp Id: CC0404 Client Smp ID: CC0404
Inj Date : 04-APR-2013 13:45
Operator : JZ Inst ID: nt6.i
Smp Info : CC0404
Misc Info : 13-
Comment : 1ul Injection
Method : /chem2/nt6.i/20130404.b/SW846030613.m
Meth Date : 10-Apr-2013 14:58 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALA.sub
Target Version: 3.50

04/10/13

AMOUNTS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.285	6.285	(0.765)	678441	25.0000	21.91
$	2 Phenol-d5	99	7.807	7.807	(0.951)	825862	25.0000	22.78
	3 Phenol	94	7.823	7.823	(0.953)	818386	25.0000	21.44
$	5 2-Chlorophenol-d4	132	7.925	7.925	(0.965)	693584	25.0000	22.64
	4 Bis(2-Chloroethyl)ether	93	7.882	7.882	(0.960)	740830	25.0000	22.35
	6 2-Chlorophenol	128	7.946	7.946	(0.967)	740468	25.0000	24.25
	7 1,3-Dichlorobenzene	146	8.149	8.149	(0.992)	875661	25.0000	24.55
*	8 1,4-Dichlorobenzene-d4	152	8.213	8.213	(1.000)	477903	20.0000	
	9 1,4-Dichlorobenzene	146	8.235	8.235	(1.003)	862430	25.0000	24.84
$	10 1,2-Dichlorobenzene-d4	152	8.513	8.513	(1.036)	482591	25.0000	22.38
	12 1,2-Dichlorobenzene	146	8.534	8.534	(1.039)	811489	25.0000	24.45
	11 Benzyl alcohol	108	8.502	8.502	(1.035)	454090	25.0000	21.84
	14 2,2'-oxybis(1-Chloropropane)	45	8.748	8.748	(1.065)	1074823	25.0000	20.41
	13 2-Methylphenol	108	8.742	8.742	(1.064)	644153	25.0000	22.26
	17 Hexachloroethane	117	9.015	9.015	(1.098)	343051	25.0000	24.43
	16 N-Nitroso-di-n-propylamine	70	8.967	8.967	(1.092)	533146	25.0000	21.43
	15 4-Methylphenol	108	8.972	8.972	(1.092)	672901	25.0000	23.51
$	18 Nitrobenzene-d5	82	9.143	9.143	(0.892)	811034	25.0000	22.80
	19 Nitrobenzene	77	9.170	9.170	(0.894)	806324	25.0000	23.68
	20 Isophorone	82	9.549	9.549	(0.931)	1313018	25.0000	22.12
	21 2-Nitrophenol	139	9.683	9.683	(0.944)	403728	25.0000	25.62
	22 2,4-Dimethylphenol	107	9.800	9.800	(0.956)	717608	25.0000	24.08
	23 Bis(2-Chloroethoxy)methane	93	9.934	9.934	(0.969)	887155	25.0000	22.78
	24 Benzoic acid	105	10.062	10.062	(0.981)	1088113	50.0000	42.18
	25 2,4-Dichlorophenol	162	10.078	10.078	(0.983)	603153	25.0000	26.29
	26 1,2,4-Trichlorobenzene	180	10.195	10.195	(0.994)	713157	25.0000	24.97
*	27 Naphthalene-d8	136	10.254	10.254	(1.000)	1772966	20.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.281	10.281	(1.003)	1968866	25.0000	25.93
	29 4-Chloroaniline	127	10.430	10.430	(1.017)	624830	25.0000	26.27
	30 Hexachlorobutadiene	225	10.596	10.596	(1.033)	454320	25.0000	26.14
	31 4-Chloro-3-methylphenol	107	11.253	11.253	(1.097)	623749	25.0000	25.59
	32 2-Methylnaphthalene	141	11.403	11.403	(1.112)	1093237	25.0000	25.36
	33 Hexachlorocyclopentadiene	237	11.777	11.777	(0.898)	481654	25.0000	27.98
	34 2,4,6-Trichlorophenol	196	11.921	11.921	(0.909)	453436	25.0000	25.17
	35 2,4,5-Trichlorophenol	196	11.985	11.985	(0.914)	470972	25.0000	26.51
$	36 2-Fluorobiphenyl	172	12.044	12.044	(0.918)	1508113	25.0000	22.30
	37 2-Chloronaphthalene	162	12.177	12.177	(0.929)	1258933	25.0000	27.65
	38 2-Nitroaniline	65	12.418	12.418	(0.947)	403607	25.0000	25.48
	39 Dimethylphthalate	163	12.781	12.781	(0.975)	1536396	25.0000	23.82
	40 Acenaphthylene	152	12.861	12.861	(0.981)	2054323	25.0000	24.31
	41 2,6-Dinitrotoluene	165	12.877	12.877	(0.982)	363179	25.0000	26.36
*	42 Acenaphthene-d10	164	13.112	13.112	(1.000)	1071457	20.0000	
	43 3-Nitroaniline	138	13.102	13.102	(0.999)	267875	25.0000	27.39
	44 Acenaphthene	153	13.160	13.160	(1.004)	1305950	25.0000	23.87
	45 2,4-Dinitrophenol	184	13.262	13.262	(1.011)	516809	50.0000	52.52
	46 Dibenzofuran	168	13.427	13.427	(1.024)	1770293	25.0000	24.74
	47 4-Nitrophenol	109	13.438	13.438	(1.025)	215459	25.0000	30.78
	48 2,4-Dinitrotoluene	165	13.508	13.508	(1.030)	492040	25.0000	26.40
	50 Diethylphthalate	149	13.935	13.935	(1.063)	1515996	25.0000	25.37
	49 Fluorene	166	13.983	13.983	(1.066)	1411615	25.0000	28.06
	51 4-Chlorophenyl-phenylether	204	14.004	14.004	(1.068)	790213	25.0000	25.16
	52 4-Nitroaniline	138	14.100	14.100	(1.075)	251170	25.0000	23.90
	53 4,6-Dinitro-2-methylphenol	198	14.165	14.165	(0.914)	685038	50.0000	51.78
	54 N-Nitrosodiphenylamine	169	14.207	14.207	(0.917)	1196145	25.0000	23.95
$	55 2,4,6-Tribromophenol	330	14.410	14.410	(1.099)	227208	25.0000	26.82
	56 4-Bromophenyl-phenylether	248	14.784	14.784	(0.954)	489907	25.0000	24.30
	57 Hexachlorobenzene	284	15.003	15.003	(0.969)	505999	25.0000	24.34
	58 Pentachlorophenol	266	15.308	15.308	(0.988)	284231	25.0000	23.18
*	59 Phenanthrene-d10	188	15.489	15.489	(1.000)	1837069	20.0000	
	60 Phenanthrene	178	15.521	15.521	(1.002)	2051267	25.0000	22.57
	61 Anthracene	178	15.596	15.596	(1.007)	2088095	25.0000	22.94
	62 Carbazole	167	15.879	15.879	(1.025)	1671638	25.0000	26.31
	63 Di-n-butylphthalate	149	16.579	16.579	(1.070)	2568932	25.0000	22.39
	64 Fluoranthene	202	17.461	17.461	(1.127)	2303179	25.0000	24.09
	65 Pyrene	202	17.813	17.813	(0.900)	2374726	25.0000	24.10
$	66 Terphenyl-d14	244	18.118	18.118	(0.915)	1455084	25.0000	22.97
	67 Butylbenzylphthalate	149	18.994	18.994	(0.959)	1182318	25.0000	24.53
	68 Benzo(a)anthracene	228	19.768	19.768	(0.998)	2064551	25.0000	25.09
*	69 Chrysene-d12	240	19.801	19.801	(1.000)	1804522	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.779	19.779	(0.999)	609788	25.0000	26.94
	71 Chrysene	228	19.838	19.838	(1.002)	2053955	25.0000	24.46
	72 bis(2-Ethylhexyl)phthalate	149	19.988	19.988	(0.956)	1591881	25.0000	24.29
*	134 Di-n-octylphthalate-d4	153	20.912	20.912	(1.000)	2226804	20.0000	
	73 Di-n-octylphthalate	149	20.928	20.928	(1.001)	2557412	25.0000	24.32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	21.425	21.425	(0.976)	2192256	25.0000	26.61
75	Benzo(k)fluoranthene	252	21.457	21.457	(0.977)	2218499	25.0000	24.46
187	Total Benzofluoranthenes	252	21.457	21.457	(0.977)	4150398	50.0000	49.03
76	Benzo(a)pyrene	252	21.873	21.873	(0.996)	1961736	25.0000	24.96
* 77	Perylene-d12	264	21.953	21.953	(1.000)	1838548	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	23.503	23.503	(1.071)	2667288	25.0000	28.20
79	Dibenzo(a,h)anthracene	278	23.529	23.529	(1.072)	2161648	25.0000	29.03
80	Benzo(g,h,i)perylene	276	23.941	23.941	(1.091)	2344076	25.0000	28.98
90	N-Nitrosodimethylamine	74	3.625	3.625	(0.441)	488160	25.0000	21.69
103	Pyridine	79	3.582	3.582	(0.436)	779634	25.0000	21.84
91	Aniline	93	7.775	7.775	(0.947)	836616	25.0000	19.78
105	1-methylnaphthalene	141	11.574	11.574	(1.129)	1099151	25.0000	25.09
111	Azobenzene (1,2-DP-Hydrazine)	77	14.255	14.255	(1.087)	1583960	25.0000	23.33
143	1,4-Dioxane	88	2.861	2.861	(0.348)	331348	25.0000	21.37
$ 137	d8-1,4-Dioxane	96	2.807	2.807	(0.342)	312790	25.0000	21.55
144	alpha-Terpineol	59	10.308	10.308	(1.005)	527172	25.0000	23.38
120	2,3,4,6-Tetrachlorophenol	232	13.710	13.710	(1.046)	412718	25.0000	26.99

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 04041301.d
Lab Smp Id: CC0404
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-

Calibration Date: 04-APR-2013
Calibration Time: 13:45
Client Smp ID: CC0404
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	477903	4.32
27 Naphthalene-d8	1718341	859170	3436682	1772966	3.18
42 Acenaphthene-d10	1010041	505020	2020082	1071457	6.08
59 Phenanthrene-d10	1666734	833367	3333468	1837069	10.22
69 Chrysene-d12	1675752	837876	3351504	1804522	7.68
134 Di-n-octylphthala	2026355	1013178	4052710	2226804	9.89
77 Perylene-d12	1637524	818762	3275048	1838548	12.28

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.21	7.71	8.71	8.21	0.00
27 Naphthalene-d8	10.25	9.75	10.75	10.25	0.00
42 Acenaphthene-d10	13.11	12.61	13.61	13.11	0.00
59 Phenanthrene-d10	15.49	14.99	15.99	15.49	0.00
69 Chrysene-d12	19.80	19.30	20.30	19.80	0.00
134 Di-n-octylphthala	20.91	20.41	21.41	20.91	0.00
77 Perylene-d12	21.95	21.45	22.45	21.95	0.00

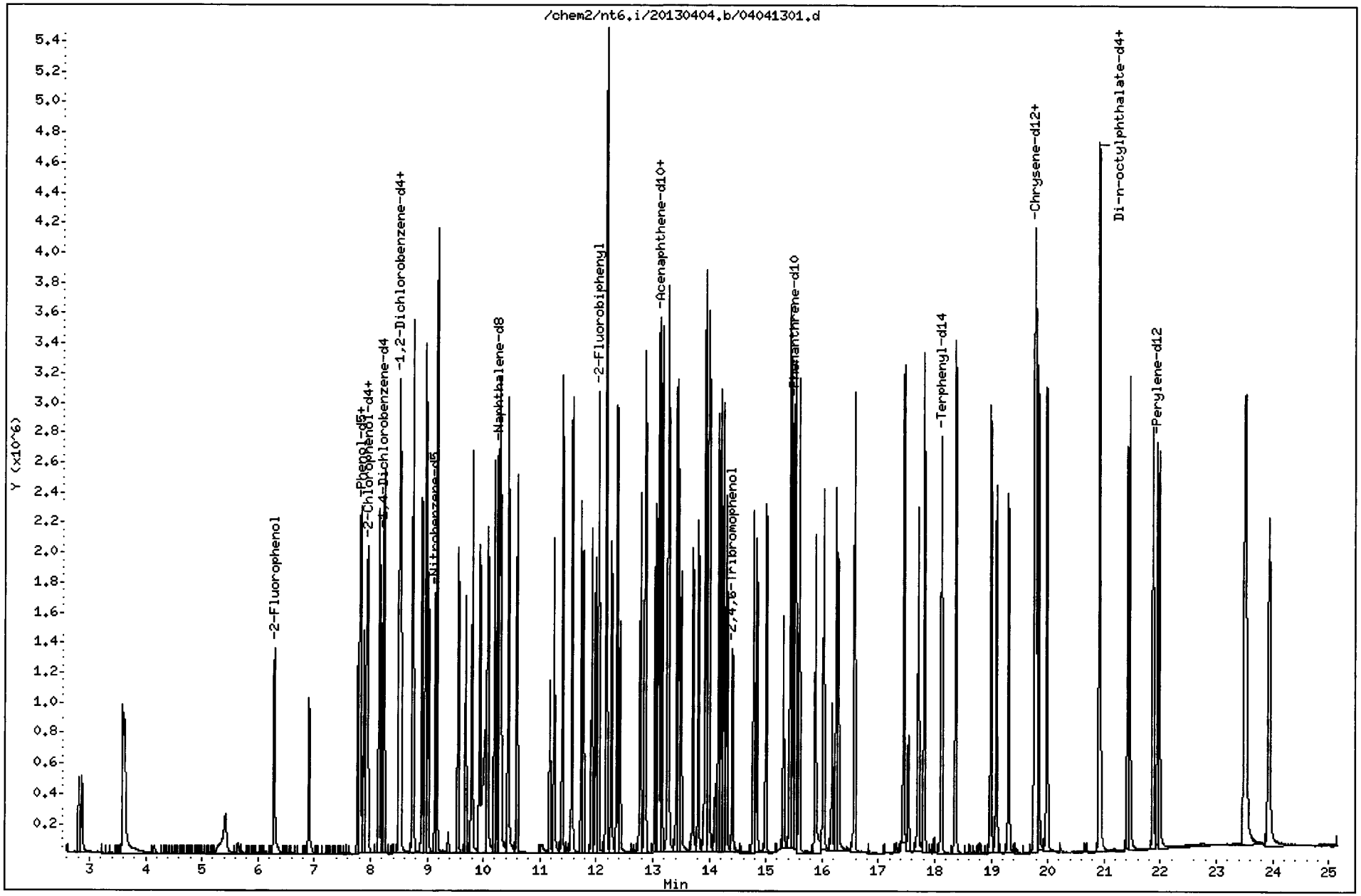
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20130404.b/04041301.d
Date : 04-APR-2013 13:45
Client ID: CC0404
Sample Info: CC0404

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - 04041301.d

Lab ID: CC0404, Method: SW846030613.m, Instrument: nt6.i, Date: 04-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/nt6.i/20130404.b

ARI Job No.: CC04 Method: SW846030613.m Instrument: nt6.i Date: 04-APR-2013

AR 04/10/13

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1345	04041301.d	CC0404	CC0404	1	NO MANUAL INTEGRATION
1644	04041306.d	WJ10MBW1	WJ10MBW1	1	NO MANUAL INTEGRATION
1719	04041307.d	WJ10LCSW1	WJ10LCSW1	1	NO MANUAL INTEGRATION
1754	04041308.d	WJ10LCSDW1	WJ10LCSDW1	1	NO MANUAL INTEGRATION
1829	04041309.d	WJ10QLS	WJ10QLS	1	Isophorone, 2,4-Dinitrophenol, 4-Nitrophenol,
1903	04041310.d	WJ10A	SD-SP-01-2	1	Di-n-octylphthalate-d4,

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130404.b/04041310.d
Lab Smp Id: WJ10A Client Smp ID: SD-SP-01-20130326-W
Inj Date : 04-APR-2013 19:03
Operator : JZ Inst ID: nt6.i
Smp Info : WJ10A
Misc Info : 13-6435
Comment : 1ul Injection
Method : /chem2/nt6.i/20130404.b/SW846030613.m
Meth Date : 10-Apr-2013 11:15 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 3.50

04/10/13

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$ 1 2-Fluorophenol	112	6.280	6.285	(0.765)	475829	16.0582	16.06
$ 2 Phenol-d5	99	7.807	7.807	(0.951)	378163	10.9023	10.90
3 Phenol	94	Compound Not Detected.					
$ 5 2-Chlorophenol-d4	132	7.925	7.925	(0.965)	698166	23.8113	23.81
4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6 2-Chlorophenol	128	Compound Not Detected.					
7 1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152	8.213	8.213	(1.000)	457303	20.0000	
9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10 1,2-Dichlorobenzene-d4	152	8.513	8.513	(1.036)	309890	15.0166	15.02
12 1,2-Dichlorobenzene	146	Compound Not Detected.					
11 Benzyl alcohol	108	Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13 2-Methylphenol	108	Compound Not Detected.					
17 Hexachloroethane	117	Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.138	9.143	(0.892)	527007	16.1643	16.16
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.249	10.254	(1.000)	1624755	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.038	12.044	(0.918)	1031391	16.6770	16.68
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.112	13.112	(1.000)	979767	20.0000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	14.405	14.410	(1.099)	225371	29.0903	29.09
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	15.489	15.489	(1.000)	1620713	20.0000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)	
	64 Fluoranthene	202	Compound Not Detected.						
	65 Pyrene	202	Compound Not Detected.						
$	66 Terphenyl-d14	244	18.139	18.118	(0.914)	930909	15.6166	15.62	
	67 Butylbenzylphthalate	149	Compound Not Detected.						
	68 Benzo(a)anthracene	228	Compound Not Detected.						
*	69 Chrysene-d12	240	19.838	19.801	(1.000)	1698228	20.0000		
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
	71 Chrysene	228	Compound Not Detected.						
	72 bis(2-Ethylhexyl)phthalate	149	20.025	19.988	(1.000)	813832	16.7393	16.74	
*	134 Di-n-octylphthalate-d4	153	20.960	20.912	(1.000)	1652211	20.0000		(M)
	73 Di-n-octylphthalate	149	Compound Not Detected.						
	74 Benzo(b)fluoranthene	252	Compound Not Detected.						
	75 Benzo(k)fluoranthene	252	Compound Not Detected.						
	76 Benzo(a)pyrene	252	Compound Not Detected.						
*	77 Perylene-d12	264	22.007	21.953	(1.000)	1921105	20.0000		
	78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
	80 Benzo(g,h,i)perylene	276	Compound Not Detected.						
	90 N-Nitrosodimethylamine	74	Compound Not Detected.						
	91 Aniline	93	Compound Not Detected.						
	93 Benzidine	184	Compound Not Detected.						
	103 Pyridine	79	Compound Not Detected.						
	105 1-methylnaphthalene	141	Compound Not Detected.						
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.						
	187 Total Benzofluoranthenes	252	Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 04041310.d
Lab Smp Id: WJ10A
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

Calibration Date: 04-APR-2013
Calibration Time: 13:45
Client Smp ID: SD-SP-01-2013032
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	457303	-0.18
27 Naphthalene-d8	1718341	859170	3436682	1624755	-5.45
42 Acenaphthene-d10	1010041	505020	2020082	979767	-3.00
59 Phenanthrene-d10	1666734	833367	3333468	1620713	-2.76
69 Chrysene-d12	1675752	837876	3351504	1698228	1.34
134 Di-n-octylphthala	2026355	1013178	4052710	1652211	-18.46
77 Perylene-d12	1637524	818762	3275048	1921105	17.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.21	7.71	8.71	8.21	0.00
27 Naphthalene-d8	10.25	9.75	10.75	10.25	-0.05
42 Acenaphthene-d10	13.11	12.61	13.61	13.11	0.00
59 Phenanthrene-d10	15.49	14.99	15.99	15.49	0.00
69 Chrysene-d12	19.80	19.30	20.30	19.84	0.19
134 Di-n-octylphthala	20.91	20.41	21.41	20.96	0.23
77 Perylene-d12	21.95	21.45	22.45	22.01	0.24

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

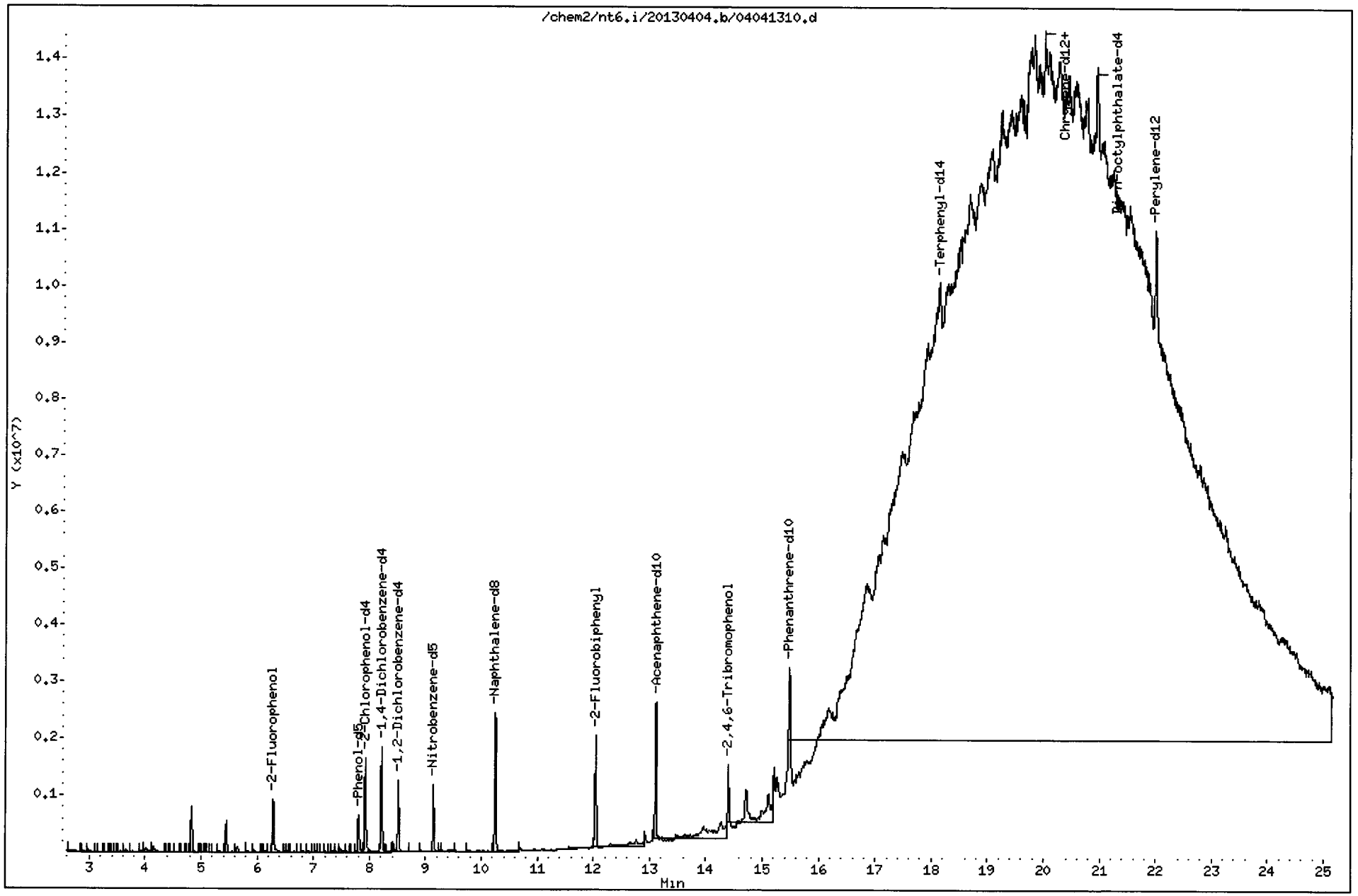
Client Name: SAIC
Sample Matrix: LIQUID
Lab Smp Id: WJ10A
Level: LOW
Data Type: MS DATA
SpikeList File: SEPLCS.spk
Sublist File: SEP.sub
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

Client SDG: WJ10
Fraction: SV
Client Smp ID: SD-SP-01-20130326-W
Operator: JZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	16.06	42.82	23-100
$ 2 Phenol-d5	37.50	10.90	29.07	16-106
$ 5 2-Chlorophenol-d4	37.50	23.81	63.50	33-100
$ 10 1,2-Dichlorobenzen	25.00	15.02	60.07	27-100
$ 18 Nitrobenzene-d5	25.00	16.16	64.66	34-101
$ 36 2-Fluorobiphenyl	25.00	16.68	66.71	38-100
$ 55 2,4,6-Tribromophen	37.50	29.09	77.57	31-128
$ 66 Terphenyl-d14	25.00	15.62	62.47	27-122

Data File: /chem2/nt6.i/20130404.b/04041310.d
Date : 04-APR-2013 19:03
Client ID: SD-SP-01-20130326-W
Sample Info: WJ10A
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



Data File: /chem2/nt6.i/20130404.b/04041310.d

Date : 04-APR-2013 19:03

Client ID: SD-SP-01-20130326-W

Instrument: nt6.i

Sample Info: WJ10A

Volume Injected (uL): 1.0

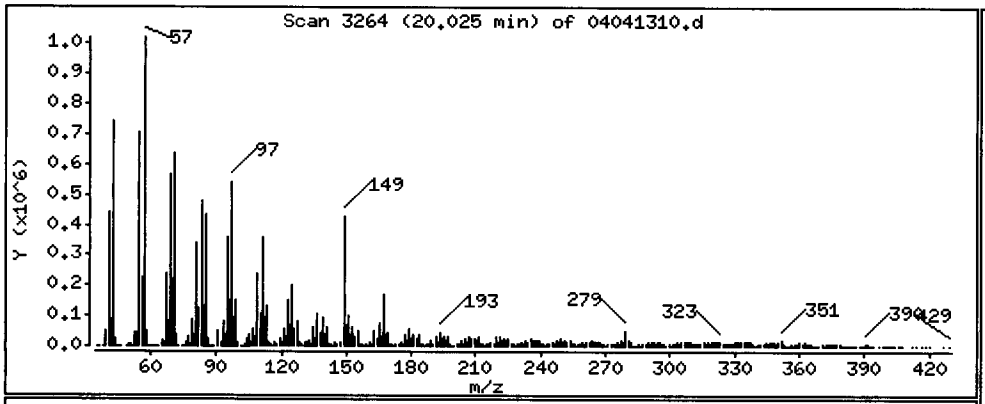
Operator: JZ

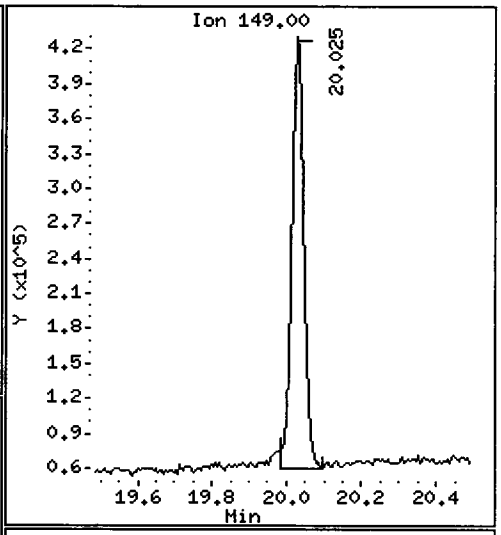
Column phase: ZB-5msi

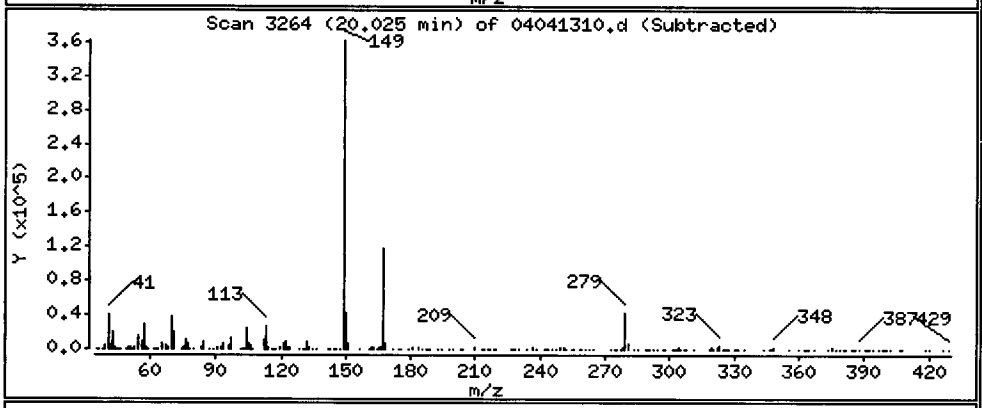
Column diameter: 0.32

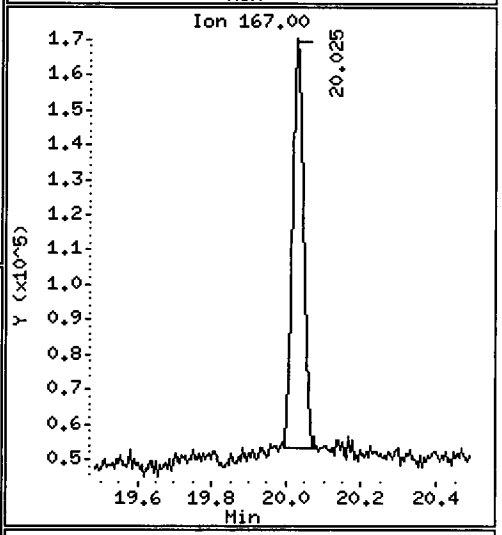
72 bis(2-Ethylhexyl)phthalate

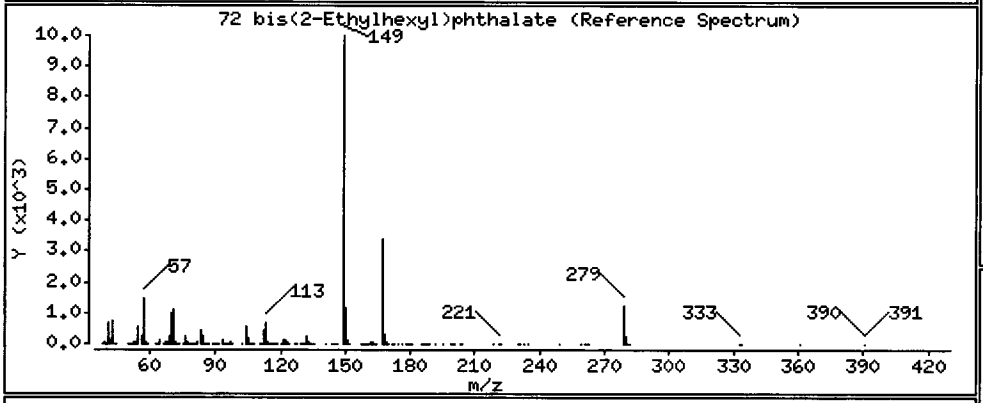
Concentration: 16.74 ug/L

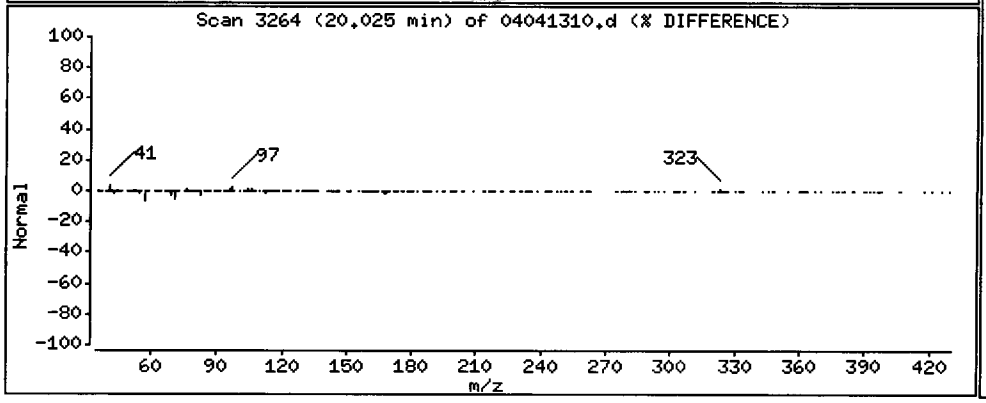


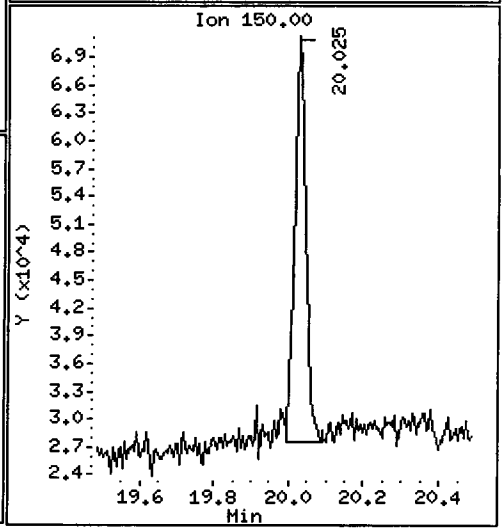






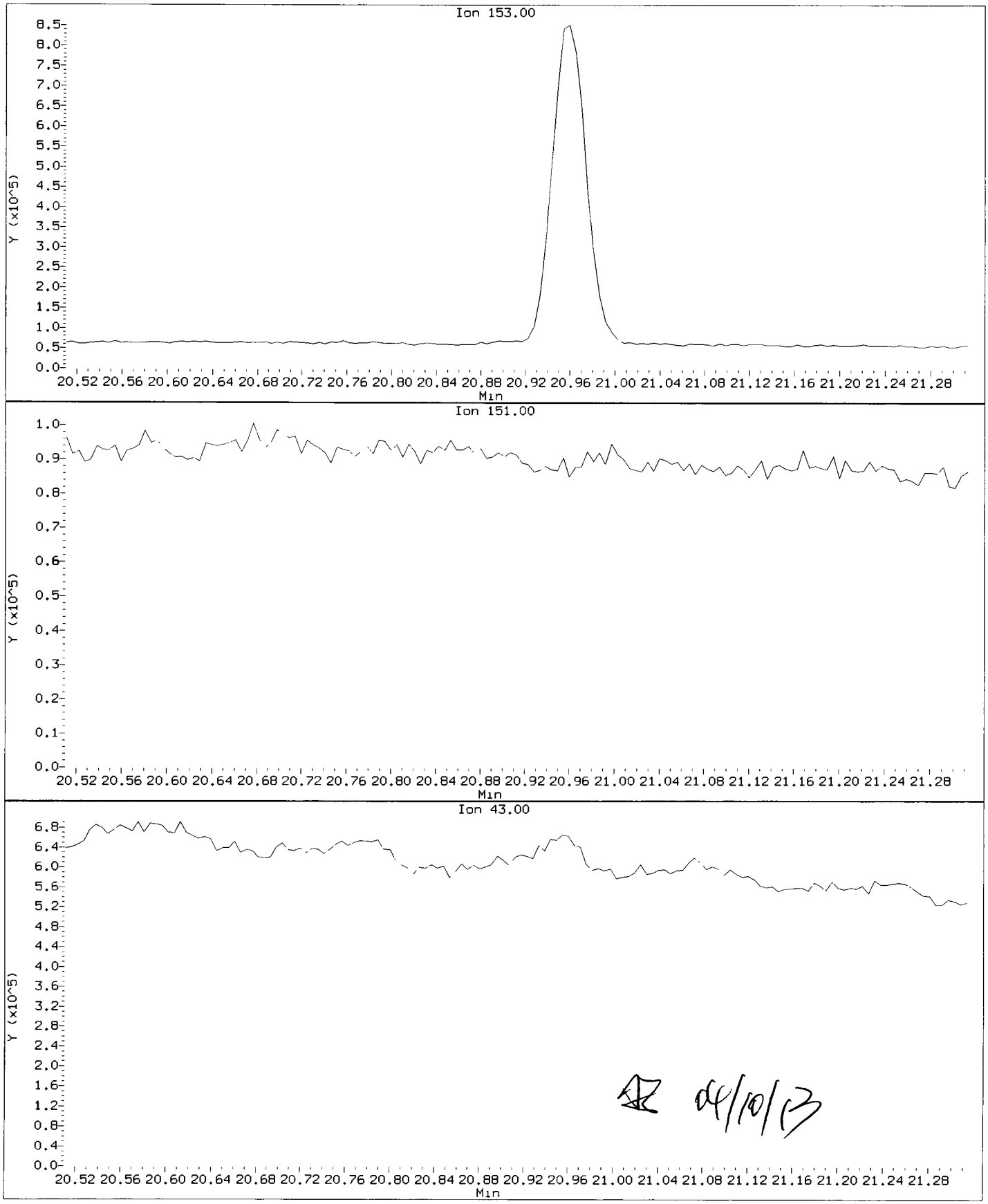






Data File: /chem2/nt6.i/20130404.b/04041310.d
Injection Date: 04-APR-2013 19:03
Instrument: nt6.i
Client Sample ID: SD-SP-01-20130326-W

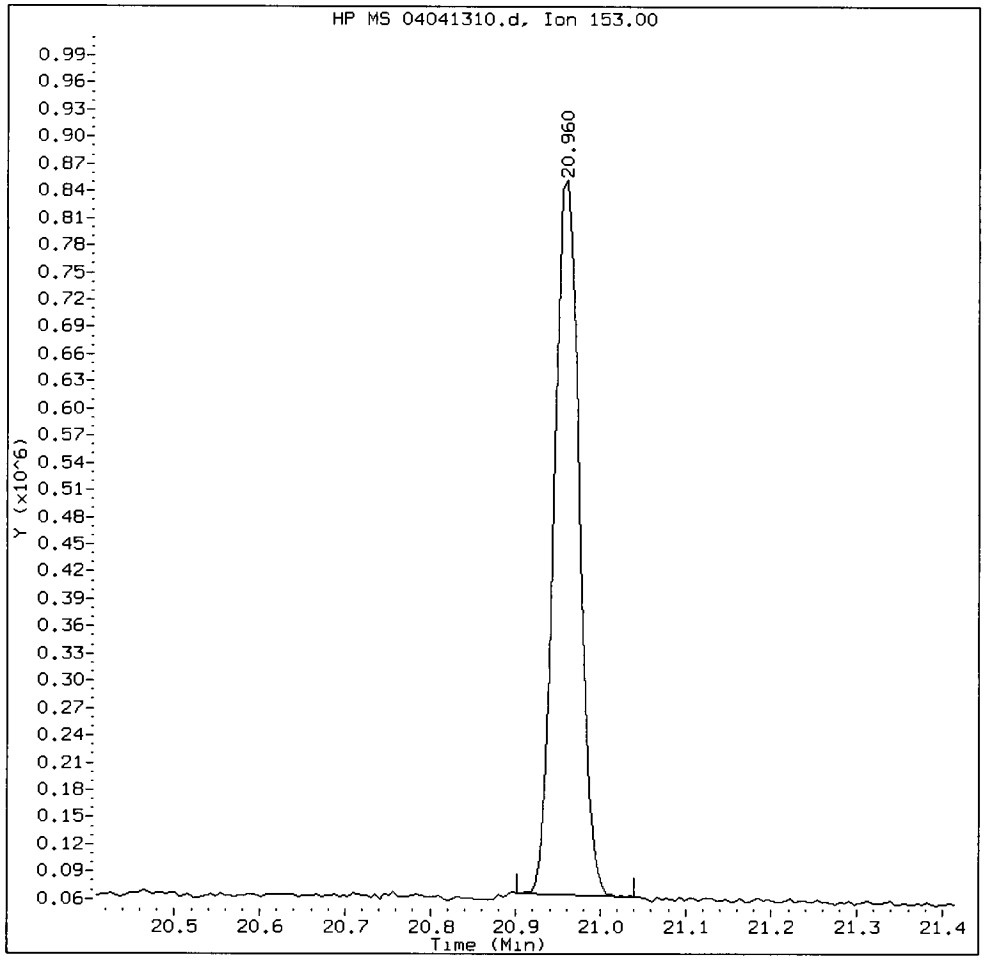
Compound: Di-n-octylphthalate-d4
CAS Number:



04/10/13

WJ10A, /chem2/nt6.i/20130404.b/04041310.d

Di-n-octylphthalate-d4 Amount: 20.00 Area: 1652211



MANUAL INTEGRATION for Di-n-octylphthalate-d4

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 04/10/13

CO-ELUTION SUMMARY FOR FILE - 04041310.d

Lab ID: WJ10A, Method: SW846030613.m, Instrument: nt6.i, Date: 04-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130404.b/04041306.d
Lab Smp Id: WJ10MBW1 Client Smp ID: WJ10MBW1
Inj Date : 04-APR-2013 16:44
Operator : JZ Inst ID: nt6.i
Smp Info : WJ10MBW1,
Misc Info : 13-6435
Comment : 1ul Injection
Method : /chem2/nt6.i/20130404.b/SW846030613.m
Meth Date : 10-Apr-2013 10:32 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEPMBLCS.sub
Target Version: 3.50

04/10/13

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.281	6.285	(0.765)	517488	17.1381	17.14
$ 2	Phenol-d5	99	7.799	7.807	(0.950)	429032	12.1380	12.14
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	7.921	7.925	(0.965)	762824	25.5308	25.53
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.210	8.213	(1.000)	466002	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.509	8.513	(1.036)	309140	14.7006	14.70
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.139	9.143	(0.892)	584931	17.5284	17.53
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.251	10.254	(1.000)	1662991	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.040	12.044	(0.918)	1015123	16.1350	16.13
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.109	13.112	(1.000)	996708	20.0000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	14.407	14.410	(1.099)	219649	27.8698	27.87
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	15.486	15.489	(1.000)	1636944	20.0000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	18.120	18.118	(0.916)	1137483	19.9713	19.97
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	19.792	19.801	(1.000)	1622613	20.0000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134 Di-n-octylphthalate-d4	153	20.914	20.912	(1.000)	2043453	20.0000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	21.950	21.953	(1.000)	1541456	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 04041306.d
Lab Smp Id: WJ10MBW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

Calibration Date: 04-APR-2013
Calibration Time: 13:45
Client Smp ID: WJ10MBW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	466002	1.72
27 Naphthalene-d8	1718341	859170	3436682	1662991	-3.22
42 Acenaphthene-d10	1010041	505020	2020082	996708	-1.32
59 Phenanthrene-d10	1666734	833367	3333468	1636944	-1.79
69 Chrysene-d12	1675752	837876	3351504	1622613	-3.17
134 Di-n-octylphthala	2026355	1013178	4052710	2043453	0.84
77 Perylene-d12	1637524	818762	3275048	1541456	-5.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.21	7.71	8.71	8.21	-0.04
27 Naphthalene-d8	10.25	9.75	10.75	10.25	-0.03
42 Acenaphthene-d10	13.11	12.61	13.61	13.11	-0.03
59 Phenanthrene-d10	15.49	14.99	15.99	15.49	-0.02
69 Chrysene-d12	19.80	19.30	20.30	19.79	-0.04
134 Di-n-octylphthala	20.91	20.41	21.41	20.91	0.01
77 Perylene-d12	21.95	21.45	22.45	21.95	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

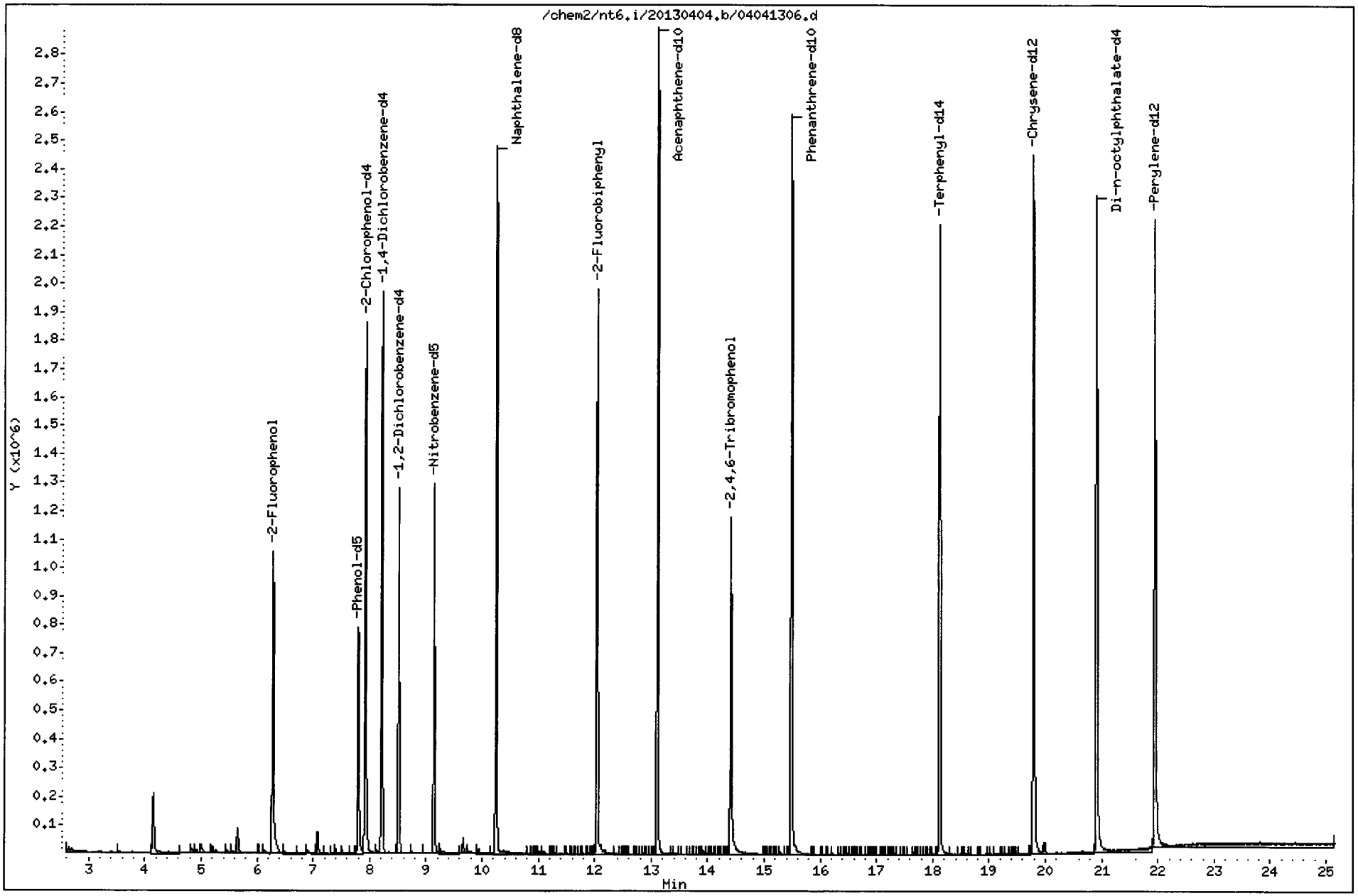
RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: WJ10MBW1
Client Smp ID: WJ10MBW1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: BLANK
SpikeList File: SEPLCS.spk
Quant Type: ISTD
Sublist File: SEPMBLCS.sub
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	17.14	45.70	33-100
$ 2 Phenol-d5	37.50	12.14	32.37	15-121
$ 5 2-Chlorophenol-d4	37.50	25.53	68.08	46-102
$ 10 1,2-Dichlorobenzen	25.00	14.70	58.80	40-100
$ 18 Nitrobenzene-d5	25.00	17.53	70.11	50-100
$ 36 2-Fluorobiphenyl	25.00	16.13	64.54	51-100
$ 55 2,4,6-Tribromophen	37.50	27.87	74.32	46-125
$ 66 Terphenyl-d14	25.00	19.97	79.89	54-117

Data File: /chem2/nt6.i/20130404.b/04041306.d
Date : 04-APR-2013 16:44
Client ID: WJ10MBW1
Sample Info: WJ10MBW1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



WJ10MBW1 04041306.d

CO-ELUTION SUMMARY FOR FILE - 04041306.d

Lab ID: WJ10MBW1, Method: SW846030613.m, Instrument: nt6.i, Date: 04-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130404.b/04041307.d
Lab Smp Id: WJ10LCSW1 Client Smp ID: WJ10LCSW1
Inj Date : 04-APR-2013 17:19
Operator : JZ Inst ID: nt6.i
Smp Info : WJ10LCSW1,
Misc Info : 13-6435
Comment : 1ul Injection
Method : /chem2/nt6.i/20130404.b/SW846030613.m
Meth Date : 10-Apr-2013 11:15 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEPMBLCS.sub
Target Version: 3.50

04/10/13

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$	1 2-Fluorophenol	112	6.280	6.285	(0.765)	638432	20.0362	20.04
$	2 Phenol-d5	99	7.802	7.807	(0.950)	501338	13.4408	13.44
	3 Phenol	94	7.824	7.823	(0.953)	361324	9.19995	9.200
$	5 2-Chlorophenol-d4	132	7.925	7.925	(0.965)	825785	26.1907	26.19
	4 Bis(2-Chloroethyl)ether	93	7.882	7.882	(0.960)	561868	16.4731	16.47
	6 2-Chlorophenol	128	7.947	7.946	(0.967)	574418	18.2801	18.28
	7 1,3-Dichlorobenzene	146	8.150	8.149	(0.992)	516257	14.0671	14.07
*	8 1,4-Dichlorobenzene-d4	152	8.214	8.213	(1.000)	491754	20.0000	
	9 1,4-Dichlorobenzene	146	8.240	8.235	(1.003)	519718	14.5503	14.55
$	10 1,2-Dichlorobenzene-d4	152	8.513	8.513	(1.036)	338555	15.2563	15.26
	12 1,2-Dichlorobenzene	146	8.534	8.534	(1.039)	494790	14.4904	14.49
	11 Benzyl alcohol	108	8.502	8.502	(1.035)	363630	16.9952	17.00
	14 2,2'-oxybis(1-Chloropropane)	45	8.748	8.748	(1.065)	791566	14.6067	14.61
	13 2-Methylphenol	108	8.737	8.742	(1.064)	486179	16.3252	16.33
	17 Hexachloroethane	117	9.015	9.015	(1.098)	196503	13.6008	13.60
	16 N-Nitroso-di-n-propylamine	70	8.962	8.967	(1.091)	413166	16.1414	16.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	15 4-Methylphenol	108	8.978	8.972	(1.093)	948548	32.2096	32.21
$	18 Nitrobenzene-d5	82	9.143	9.143	(0.892)	643219	17.6260	17.63
	19 Nitrobenzene	77	9.170	9.170	(0.894)	622952	17.8350	17.83
	20 Isophorone	82	9.549	9.549	(0.931)	1141286	18.7463	18.75
	21 2-Nitrophenol	139	9.683	9.683	(0.944)	323025	19.9869	19.99
	22 2,4-Dimethylphenol	107	9.806	9.800	(0.956)	1444941	47.2752	47.28
	23 Bis(2-Chloroethoxy)methane	93	9.939	9.934	(0.969)	679190	17.0031	17.00
	24 Benzoic acid	105	10.057	10.062	(0.981)	1060420	40.0800	40.08
	25 2,4-Dichlorophenol	162	10.078	10.078	(0.983)	1297073	55.1130	55.11
	26 1,2,4-Trichlorobenzene	180	10.196	10.195	(0.994)	437110	14.9204	14.92
*	27 Naphthalene-d8	136	10.254	10.254	(1.000)	1818586	20.0000	
	28 Naphthalene	128	10.286	10.281	(1.003)	1462739	17.1126	17.11
	29 4-Chloroaniline	127	10.431	10.430	(1.017)	1832738	119.443	119.4
	30 Hexachlorobutadiene	225	10.596	10.596	(1.033)	250111	14.0293	14.03
	31 4-Chloro-3-methylphenol	107	11.253	11.253	(1.097)	1429476	57.1817	57.18
	32 2-Methylnaphthalene	141	11.403	11.403	(1.112)	820733	18.5579	18.56
	33 Hexachlorocyclopentadiene	237	11.777	11.777	(0.898)	702453	43.8076	43.81
	34 2,4,6-Trichlorophenol	196	11.921	11.921	(0.909)	997584	59.4589	59.46
	35 2,4,5-Trichlorophenol	196	11.985	11.985	(0.914)	1064411	64.3109	64.31
$	36 2-Fluorobiphenyl	172	12.044	12.044	(0.918)	1228257	19.4965	19.50
	37 2-Chloronaphthalene	162	12.183	12.177	(0.929)	991711	23.0972	23.10
	38 2-Nitroaniline	65	12.429	12.418	(0.947)	1034468	70.1112	70.11
	39 Dimethylphthalate	163	12.787	12.781	(0.975)	1245987	20.7428	20.74
	40 Acenaphthylene	152	12.861	12.861	(0.980)	1657917	21.0599	21.06
	41 2,6-Dinitrotoluene	165	12.888	12.877	(0.982)	823971	64.2031	64.20
*	42 Acenaphthene-d10	164	13.118	13.112	(1.000)	998045	20.0000	
	43 3-Nitroaniline	138	13.107	13.102	(0.999)	855651	154.142	154.1(R)
	44 Acenaphthene	153	13.166	13.160	(1.004)	1040233	20.4089	20.41
	45 2,4-Dinitrophenol	184	13.267	13.262	(1.011)	934189	101.914	101.9
	46 Dibenzofuran	168	13.422	13.427	(1.023)	1472861	22.0945	22.09
	47 4-Nitrophenol	109	13.433	13.438	(1.024)	246971	37.8798	37.88
	48 2,4-Dinitrotoluene	165	13.518	13.508	(1.031)	1122623	64.6702	64.67
	50 Diethylphthalate	149	13.940	13.935	(1.063)	1336558	24.0157	24.02
	49 Fluorene	166	13.983	13.983	(1.066)	1184525	24.9970	25.00
	51 4-Chlorophenyl-phenylether	204	13.999	14.004	(1.067)	606811	20.7377	20.74
	52 4-Nitroaniline	138	14.111	14.100	(1.076)	794960	81.2105	81.21
	53 4,6-Dinitro-2-methylphenol	198	14.176	14.165	(0.915)	1275695	97.2283	97.23
	54 N-Nitrosodiphenylamine	169	14.213	14.207	(0.918)	956456	19.3077	19.31
$	55 2,4,6-Tribromophenol	330	14.411	14.410	(1.099)	296459	37.5653	37.57
	56 4-Bromophenyl-phenylether	248	14.785	14.784	(0.954)	382332	19.1189	19.12
	57 Hexachlorobenzene	284	15.004	15.003	(0.969)	369829	17.9382	17.94
	58 Pentachlorophenol	266	15.313	15.308	(0.989)	721289	59.3013	59.30
*	59 Phenanthrene-d10	188	15.490	15.489	(1.000)	1822083	20.0000	
	60 Phenanthrene	178	15.522	15.521	(1.002)	1794751	19.9090	19.91
	61 Anthracene	178	15.597	15.596	(1.007)	1791310	19.8456	19.85
	62 Carbazole	167	15.880	15.879	(1.025)	1501177	23.8565	23.86
	63 Di-n-butylphthalate	149	16.579	16.579	(1.070)	2173703	19.1019	19.10

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	17.461	17.461	(1.127)	2021443	21.3160	21.32
	65 Pyrene	202	17.814	17.813	(0.900)	2089449	22.5675	22.57
$	66 Terphenyl-d14	244	18.118	18.118	(0.915)	1299745	21.8417	21.84
	67 Butylbenzylphthalate	149	18.994	18.994	(0.960)	956850	21.1346	21.13
	68 Benzo(a)anthracene	228	19.769	19.768	(0.999)	1642663	21.2527	21.25
*	69 Chrysene-d12	240	19.795	19.801	(1.000)	1695304	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.779	19.779	(0.999)	1185543	55.7502	55.75
	71 Chrysene	228	19.838	19.838	(1.002)	1763686	22.3525	22.35
	72 bis(2-Ethylhexyl)phthalate	149	19.982	19.988	(0.955)	1396745	20.3214	20.32
*	134 Di-n-octylphthalate-d4	153	20.917	20.912	(1.000)	2335785	20.0000	
	73 Di-n-octylphthalate	149	20.928	20.928	(1.000)	2197650	19.9266	19.93
	74 Benzo(b)fluoranthene	252	21.425	21.425	(0.976)	1907651	23.4146	23.41
	75 Benzo(k)fluoranthene	252	21.457	21.457	(0.977)	1930682	21.3634	21.36
	76 Benzo(a)pyrene	252	21.874	21.873	(0.996)	1598187	20.7483	20.75
*	77 Perylene-d12	264	21.954	21.953	(1.000)	1802136	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.503	23.503	(1.071)	2000740	21.5831	21.58
	79 Dibenzo(a,h)anthracene	278	23.524	23.529	(1.072)	1605486	21.9956	22.00
	80 Benzo(g,h,i)perylene	276	23.941	23.941	(1.091)	1714523	21.6273	21.63
	90 N-Nitrosodimethylamine	74	3.635	3.625	(0.443)	816882	35.2750	35.28
	91 Aniline	93	7.776	7.775	(0.947)	2193432	50.4049	50.40 Q(NTC)
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	3.582	3.582	(0.436)	1368388	37.2592	37.26
	105 1-methylnaphthalene	141	11.574	11.574	(1.129)	835391	18.5942	18.59
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.256	14.255	(1.087)	1295539	20.4874	20.49
	187 Total Benzofluoranthenes	252	21.457	21.457	(0.977)	3618931	43.6178	43.62

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

04/10/13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 04041307.d
Lab Smp Id: WJ10LCSW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

Calibration Date: 04-APR-2013
Calibration Time: 13:45
Client Smp ID: WJ10LCSW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	491754	7.34
27 Naphthalene-d8	1718341	859170	3436682	1818586	5.83
42 Acenaphthene-d10	1010041	505020	2020082	998045	-1.19
59 Phenanthrene-d10	1666734	833367	3333468	1822083	9.32
69 Chrysene-d12	1675752	837876	3351504	1695304	1.17
134 Di-n-octylphthala	2026355	1013178	4052710	2335785	15.27
77 Perylene-d12	1637524	818762	3275048	1802136	10.05

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.21	7.71	8.71	8.21	0.00
27 Naphthalene-d8	10.25	9.75	10.75	10.25	0.00
42 Acenaphthene-d10	13.11	12.61	13.61	13.12	0.04
59 Phenanthrene-d10	15.49	14.99	15.99	15.49	0.00
69 Chrysene-d12	19.80	19.30	20.30	19.80	-0.03
134 Di-n-octylphthala	20.91	20.41	21.41	20.92	0.03
77 Perylene-d12	21.95	21.45	22.45	21.95	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: WJ10LCSW1
Client Smp ID: WJ10LCSW1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: LCS
SpikeList File: SEPLCS.spk
Quant Type: ISTD
Sublist File: SEPMBLCS.sub
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3	Phenol	25.00	9.200	36.80	16-100
4	Bis(2-Chloroethyl)	25.00	16.47	65.89	41-112
6	2-Chlorophenol	25.00	18.28	73.12	43-111
7	1,3-Dichlorobenzen	25.00	14.07	56.27	32-100
9	1,4-Dichlorobenzen	25.00	14.55	58.20	32-100
11	Benzyl alcohol	25.00	17.00	67.98	22-100
12	1,2-Dichlorobenzen	25.00	14.49	57.96	34-100
13	2-Methylphenol	25.00	16.33	65.30	36-110
14	2,2'-oxybis(1-Chlo	25.00	14.61	58.43	29-118
15	4-Methylphenol	50.00	32.21	64.42	38-104
16	N-Nitroso-di-n-pro	25.00	16.14	64.57	38-115
17	Hexachloroethane	25.00	13.60	54.40	24-100
19	Nitrobenzene	25.00	17.83	71.34	45-106
20	Isophorone	25.00	18.75	74.99	55-119
21	2-Nitrophenol	25.00	19.99	79.95	46-118
22	2,4-Dimethylphenol	75.00	47.28	63.03	28-105
23	Bis(2-Chloroethoxy	25.00	17.00	68.01	44-118
24	Benzoic acid	137.5	40.08	29.15	11-100
25	2,4-Dichlorophenol	75.00	55.11	73.48	43-121
26	1,2,4-Trichloroben	25.00	14.92	59.68	35-100
28	Naphthalene	25.00	17.11	68.45	36-111
29	4-Chloroaniline	75.00	119.4	159.26	10-174
30	Hexachlorobutadien	25.00	14.03	56.12	24-100
31	4-Chloro-3-methylp	75.00	57.18	76.24	45-122
32	2-Methylnaphthalen	25.00	18.56	74.23	45-103
33	Hexachlorocyclopen	75.00	43.81	58.41	23-108
34	2,4,6-Trichlorophe	75.00	59.46	79.28	48-122
35	2,4,5-Trichlorophe	75.00	64.31	85.75	48-122
37	2-Chloronaphthalen	25.00	23.10	92.39	39-118
38	2-Nitroaniline	75.00	70.11	93.48	48-118
39	Dimethylphthalate	25.00	20.74	82.97	50-120
40	Acenaphthylene	25.00	21.06	84.24	50-119
41	2,6-Dinitrotoluene	75.00	64.20	85.60	48-133

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43	3-Nitroaniline	75.00	154.1	205.52*	54-140
44	Acenaphthene	25.00	20.41	81.64	41-120
45	2,4-Dinitrophenol	137.5	101.9	74.12	23-176
46	Dibenzofuran	25.00	22.09	88.38	51-114
47	4-Nitrophenol	75.00	37.88	50.51	13-100
48	2,4-Dinitrotoluene	75.00	64.67	86.23	51-134
49	Fluorene	25.00	25.00	99.99	50-120
50	Diethylphthalate	25.00	24.02	96.06	48-122
51	4-Chlorophenyl-phe	25.00	20.74	82.95	50-118
52	4-Nitroaniline	75.00	81.21	108.28	42-136
53	4,6-Dinitro-2-meth	137.5	97.23	70.71	32-121
54	N-Nitrosodiphenyla	25.00	19.31	77.23	58-141
56	4-Bromophenyl-phen	25.00	19.12	76.48	50-122
57	Hexachlorobenzene	25.00	17.94	71.75	47-125
58	Pentachlorophenol	75.00	59.30	79.07	35-130
60	Phenanthrene	25.00	19.91	79.64	49-120
61	Anthracene	25.00	19.85	79.38	53-116
62	Carbazole	25.00	23.86	95.43	57-122
63	Di-n-butylphthalat	25.00	19.10	76.41	57-121
64	Fluoranthene	25.00	21.32	85.26	56-119
65	Pyrene	25.00	22.57	90.27	37-143
67	Butylbenzylphthala	25.00	21.13	84.54	34-152
68	Benzo(a)anthracene	25.00	21.25	85.01	49-129
70	3,3'-Dichlorobenzi	75.00	55.75	74.33	50-128
71	Chrysene	25.00	22.35	89.41	45-128
72	bis(2-Ethylhexyl)p	25.00	20.32	81.29	57-133
73	Di-n-octylphthalat	25.00	19.93	79.71	52-120
74	Benzo(b)fluoranthe	25.00	23.41	93.66	50-126
75	Benzo(k)fluoranthe	25.00	21.36	85.45	49-126
76	Benzo(a)pyrene	25.00	20.75	82.99	46-109
78	Indeno(1,2,3-cd)py	25.00	21.58	86.33	34-136
79	Dibenzo(a,h)anthra	25.00	22.00	87.98	41-134
80	Benzo(g,h,i)peryle	25.00	21.63	86.51	41-133
91	Aniline	75.00	50.40	67.21	28-126
111	Azobenzene (1,2-DP	25.00	20.49	81.95	55-119
105	1-methylnaphthalen	25.00	18.59	74.38	43-115
93	Benzidine	75.00	0.000	*	30-160
90	N-Nitrosodimethyla	75.00	35.28	47.03	31-100
103	Pyridine	75.00	37.26	49.68	25-100
187	Total Benzofluoran	50.00	43.62	87.24	30-160

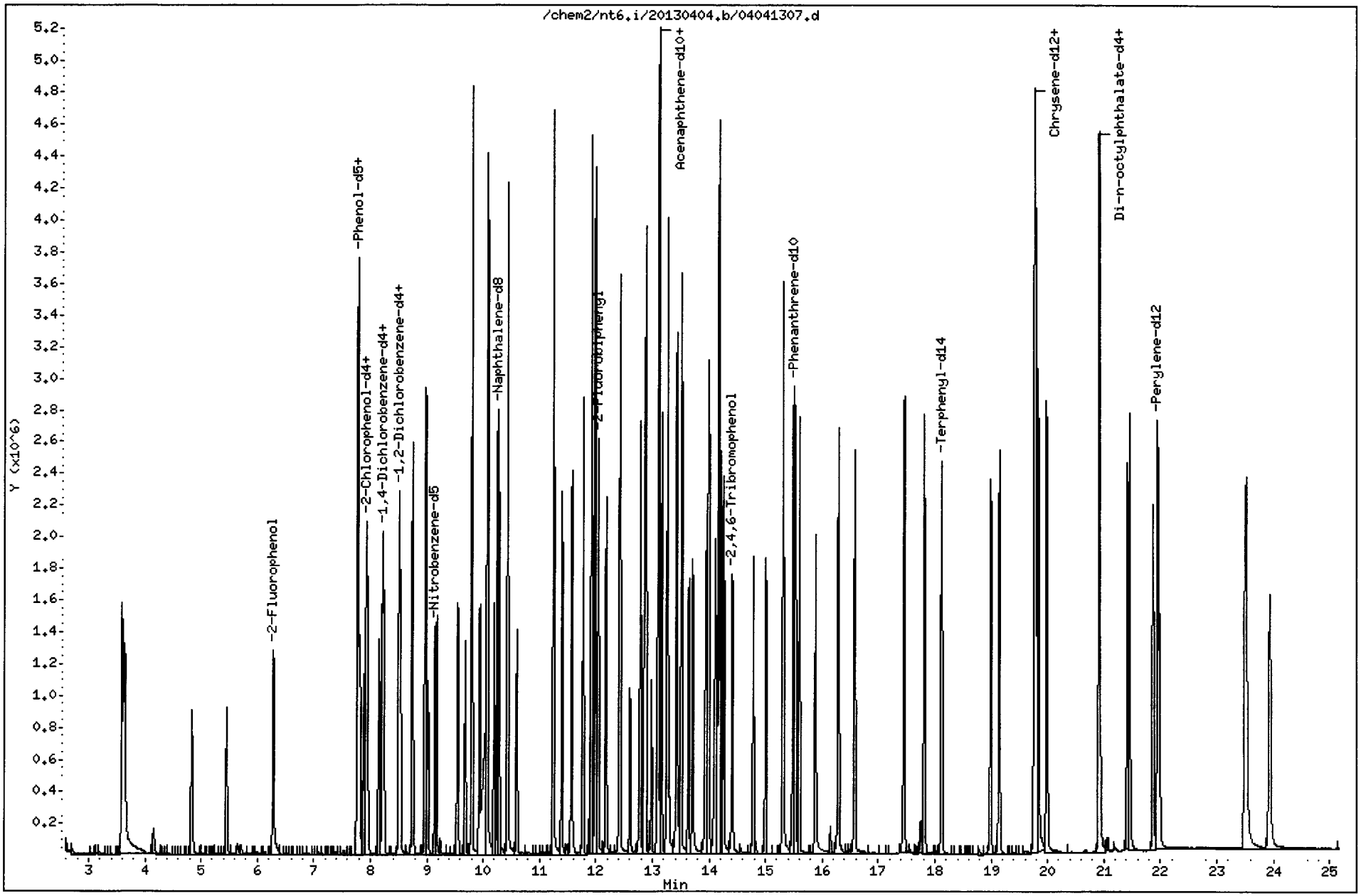
SURROGATE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	37.50	20.04	53.43	33-100

04/10/13

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 2 Phenol-d5	37.50	13.44	35.84	15-121
$ 5 2-Chlorophenol-d4	37.50	26.19	69.84	46-102
$ 10 1,2-Dichlorobenzen	25.00	15.26	61.03	40-100
$ 18 Nitrobenzene-d5	25.00	17.63	70.50	50-100
$ 36 2-Fluorobiphenyl	25.00	19.50	77.99	51-100
$ 55 2,4,6-Tribromophen	37.50	37.57	100.17	46-125
$ 66 Terphenyl-d14	25.00	21.84	87.37	54-117

Data File: /chem2/nt6.i/20130404.b/04041307.d
Date : 04-APR-2013 17:19
Client ID: WJ10LCSW1
Sample Info: WJ10LCSW1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



CO-ELUTION SUMMARY FOR FILE - 04041307.d

Lab ID: WJ10LCSW1, Method: SW846030613.m, Instrument: nt6.i, Date: 04-APR-201

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130404.b/04041308.d
Lab Smp Id: WJ10LCSDW1 Client Smp ID: WJ10LCSDW1
Inj Date : 04-APR-2013 17:54
Operator : JZ Inst ID: nt6.i
Smp Info : WJ10LCSDW1,
Misc Info : 13-6435
Comment : 1ul Injection
Method : /chem2/nt6.i/20130404.b/SW846030613.m
Meth Date : 10-Apr-2013 10:32 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 8 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEPMBLCS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

04/10/13

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.282	6.285	(0.765)	600693	16.7266	16.73
$ 2	Phenol-d5	99	7.805	7.807	(0.951)	534407	12.7122	12.71
3	Phenol	94	7.821	7.823	(0.952)	398913	9.01197	9.012
$ 5	2-Chlorophenol-d4	132	7.922	7.925	(0.965)	890674	25.0641	25.06
4	Bis(2-Chloroethyl)ether	93	7.880	7.882	(0.960)	622633	16.1967	16.20
6	2-Chlorophenol	128	7.949	7.946	(0.968)	646594	18.2573	18.26
7	1,3-Dichlorobenzene	146	8.152	8.149	(0.993)	558189	13.4950	13.49
* 8	1,4-Dichlorobenzene-d4	152	8.211	8.213	(1.000)	554236	20.0000	
9	1,4-Dichlorobenzene	146	8.238	8.235	(1.003)	566162	14.0637	14.06
$ 10	1,2-Dichlorobenzene-d4	152	8.510	8.513	(1.036)	367773	14.7046	14.70
12	1,2-Dichlorobenzene	146	8.531	8.534	(1.039)	543701	14.1277	14.13
11	Benzyl alcohol	108	8.499	8.502	(1.035)	413501	17.1474	17.15
14	2,2'-oxybis(1-Chloropropane)	45	8.745	8.748	(1.065)	910368	14.9051	14.91
13	2-Methylphenol	108	8.740	8.742	(1.064)	541207	16.1243	16.12
17	Hexachloroethane	117	9.018	9.015	(1.098)	215725	13.2480	13.25
16	N-Nitroso-di-n-propylamine	70	8.964	8.967	(1.092)	470473	16.3082	16.31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	15 4-Methylphenol	108	8.980	8.972	(1.094)	1049137	31.6090	31.61
$	18 Nitrobenzene-d5	82	9.140	9.143	(0.892)	701393	17.1769	17.18
	19 Nitrobenzene	77	9.167	9.170	(0.894)	700918	17.9338	17.93
	20 Isophorone	82	9.552	9.549	(0.932)	1279301	18.7795	18.78
	21 2-Nitrophenol	139	9.685	9.683	(0.945)	369551	20.4349	20.43
	22 2,4-Dimethylphenol	107	9.803	9.800	(0.956)	1571827	45.9596	45.96
	23 Bis(2-Chloroethoxy)methane	93	9.936	9.934	(0.969)	769844	17.2238	17.22
	24 Benzoic acid	105	10.059	10.062	(0.981)	1212764	40.9652	40.97
	25 2,4-Dichlorophenol	162	10.075	10.078	(0.983)	1420081	53.9251	53.93
	26 1,2,4-Trichlorobenzene	180	10.193	10.195	(0.994)	483247	14.7417	14.74
*	27 Naphthalene-d8	136	10.252	10.254	(1.000)	2034911	20.0000	
	28 Naphthalene	128	10.284	10.281	(1.003)	1617260	16.8575	16.86
	29 4-Chloroaniline	127	10.433	10.430	(1.018)	2005182	115.309	115.3
	30 Hexachlorobutadiene	225	10.599	10.596	(1.034)	271571	13.6136	13.61
	31 4-Chloro-3-methylphenol	107	11.251	11.253	(1.097)	1570044	56.1281	56.13
	32 2-Methylnaphthalene	141	11.400	11.403	(1.112)	889574	17.9761	17.98
	33 Hexachlorocyclopentadiene	237	11.779	11.777	(0.898)	790126	47.3250	47.32
	34 2,4,6-Trichlorophenol	196	11.924	11.921	(0.909)	1096461	62.7657	62.77
	35 2,4,5-Trichlorophenol	196	11.988	11.985	(0.914)	1129701	65.5542	65.55
$	36 2-Fluorobiphenyl	172	12.041	12.044	(0.918)	1218672	18.5787	18.58
	37 2-Chloronaphthalene	162	12.180	12.177	(0.929)	1005273	22.4460	22.45
	38 2-Nitroaniline	65	12.426	12.418	(0.947)	1059538	68.9682	68.97
	39 Dimethylphthalate	163	12.789	12.781	(0.975)	1294970	20.7050	20.70
	40 Acenaphthylene	152	12.859	12.861	(0.980)	1699517	20.7339	20.73
	41 2,6-Dinitrotoluene	165	12.885	12.877	(0.982)	837451	62.6708	62.67
*	42 Acenaphthene-d10	164	13.115	13.112	(1.000)	1039174	20.0000	
	43 3-Nitroaniline	138	13.110	13.102	(1.000)	883159	152.067	152.1(R)
	44 Acenaphthene	153	13.163	13.160	(1.004)	1064927	20.0665	20.07
	45 2,4-Dinitrophenol	184	13.270	13.262	(1.012)	990787	103.811	103.8
	46 Dibenzofuran	168	13.425	13.427	(1.024)	1511610	21.7783	21.78
	47 4-Nitrophenol	109	13.430	13.438	(1.024)	253478	37.3391	37.34
	48 2,4-Dinitrotoluene	165	13.516	13.508	(1.031)	1155206	63.9134	63.91
	50 Diethylphthalate	149	13.943	13.935	(1.063)	1382498	23.8580	23.86
	49 Fluorene	166	13.980	13.983	(1.066)	1209177	24.4587	24.46
	51 4-Chlorophenyl-phenylether	204	14.002	14.004	(1.068)	619426	20.3309	20.33
	52 4-Nitroaniline	138	14.114	14.100	(1.076)	828129	81.2506	81.25
	53 4,6-Dinitro-2-methylphenol	198	14.173	14.165	(0.915)	1333759	97.8821	97.88
	54 N-Nitrosodiphenylamine	169	14.210	14.207	(0.918)	981302	19.0743	19.07
$	55 2,4,6-Tribromophenol	330	14.408	14.410	(1.099)	297016	36.1463	36.15
	56 4-Bromophenyl-phenylether	248	14.782	14.784	(0.954)	399244	19.2239	19.22
	57 Hexachlorobenzene	284	15.006	15.003	(0.969)	379964	17.7460	17.75
	58 Pentachlorophenol	266	15.311	15.308	(0.989)	745149	58.9899	58.99
*	59 Phenanthrene-d10	188	15.487	15.489	(1.000)	1892292	20.0000	
	60 Phenanthrene	178	15.524	15.521	(1.002)	1826354	19.5079	19.51
	61 Anthracene	178	15.594	15.596	(1.007)	1834882	19.5741	19.57
	62 Carbazole	167	15.882	15.879	(1.026)	1580629	24.1828	24.18
	63 Di-n-butylphthalate	149	16.582	16.579	(1.071)	2251888	19.0548	19.05

Q

04/10/13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	64 Fluoranthene	202	17.458	17.461	(1.127)	2096335	21.2855	21.29
	65 Pyrene	202	17.816	17.813	(0.900)	2138172	22.8080	22.81
$	66 Terphenyl-d14	244	18.121	18.118	(0.915)	1292214	21.4464	21.45
	67 Butylbenzylphthalate	149	18.997	18.994	(0.960)	986178	21.5129	21.51
	68 Benzo(a)anthracene	228	19.771	19.768	(0.999)	1666607	21.2957	21.30
*	69 Chrysene-d12	240	19.798	19.801	(1.000)	1716543	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.782	19.779	(0.999)	1172617	54.4601	54.46
	71 Chrysene	228	19.835	19.838	(1.002)	1722817	21.5644	21.56
	72 bis(2-Ethylhexyl)phthalate	149	19.985	19.988	(0.956)	1346961	20.8742	20.87
*	134 Di-n-octylphthalate-d4	153	20.915	20.912	(1.000)	2192877	20.0000	
	73 Di-n-octylphthalate	149	20.925	20.928	(1.000)	2103058	20.3116	20.31
	74 Benzo(b)fluoranthene	252	21.422	21.425	(0.976)	1741320	21.3869	21.39
	75 Benzo(k)fluoranthene	252	21.454	21.457	(0.977)	1882060	20.9078	20.91
	76 Benzo(a)pyrene	252	21.871	21.873	(0.996)	1604468	20.9640	20.96
*	77 Perylene-d12	264	21.951	21.953	(1.000)	1790601	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.500	23.503	(1.071)	2015274	21.8799	21.88
	79 Dibenzo(a,h)anthracene	278	23.527	23.529	(1.072)	1624580	22.4006	22.40
	80 Benzo(g,h,i)perylene	276	23.933	23.941	(1.090)	1725081	21.9007	21.90
	90 N-Nitrosodimethylamine	74	3.638	3.625	(0.443)	824987	31.6088	31.61
	91 Aniline	93	7.778	7.775	(0.947)	2401076	48.9562	48.96
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	3.585	3.582	(0.437)	1252825	30.2669	30.27
	105 1-methylnaphthalene	141	11.571	11.574	(1.129)	908447	18.0707	18.07
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.253	14.255	(1.087)	1310941	19.9105	19.91
	187 Total Benzofluoranthenes	252	21.454	21.457	(0.977)	3396318	41.1984	41.20

Q (NTC)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

04/10/13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 04041308.d
Lab Smp Id: WJ10LCSDW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

Calibration Date: 04-APR-2013
Calibration Time: 13:45
Client Smp ID: WJ10LCSDW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	554236	20.98
27 Naphthalene-d8	1718341	859170	3436682	2034911	18.42
42 Acenaphthene-d10	1010041	505020	2020082	1039174	2.88
59 Phenanthrene-d10	1666734	833367	3333468	1892292	13.53
69 Chrysene-d12	1675752	837876	3351504	1716543	2.43
134 Di-n-octylphthala	2026355	1013178	4052710	2192877	8.22
77 Perylene-d12	1637524	818762	3275048	1790601	9.35

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.21	7.71	8.71	8.21	-0.03
27 Naphthalene-d8	10.25	9.75	10.75	10.25	-0.02
42 Acenaphthene-d10	13.11	12.61	13.61	13.12	0.02
59 Phenanthrene-d10	15.49	14.99	15.99	15.49	-0.02
69 Chrysene-d12	19.80	19.30	20.30	19.80	-0.01
134 Di-n-octylphthala	20.91	20.41	21.41	20.91	0.01
77 Perylene-d12	21.95	21.45	22.45	21.95	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: WJ10LCSDW1
Client Smp ID: WJ10LCSDW1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: LCSD
SpikeList File: SEPLCS.spk
Quant Type: ISTD
Sublist File: SEPMBLCS.sub
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3	Phenol	25.00	9.012	36.05	16-100
4	Bis(2-Chloroethyl)	25.00	16.20	64.79	41-112
6	2-Chlorophenol	25.00	18.26	73.03	43-111
7	1,3-Dichlorobenzen	25.00	13.49	53.98	32-100
9	1,4-Dichlorobenzen	25.00	14.06	56.25	32-100
11	Benzyl alcohol	25.00	17.15	68.59	22-100
12	1,2-Dichlorobenzen	25.00	14.13	56.51	34-100
13	2-Methylphenol	25.00	16.12	64.50	36-110
14	2,2'-oxybis(1-Chlo	25.00	14.91	59.62	29-118
15	4-Methylphenol	50.00	31.61	63.22	38-104
16	N-Nitroso-di-n-pro	25.00	16.31	65.23	38-115
17	Hexachloroethane	25.00	13.25	52.99	24-100
19	Nitrobenzene	25.00	17.93	71.74	45-106
20	Isophorone	25.00	18.78	75.12	55-119
21	2-Nitrophenol	25.00	20.43	81.74	46-118
22	2,4-Dimethylphenol	75.00	45.96	61.28	28-105
23	Bis(2-Chloroethoxy	25.00	17.22	68.90	44-118
24	Benzoic acid	137.5	40.97	29.79	11-100
25	2,4-Dichlorophenol	75.00	53.93	71.90	43-121
26	1,2,4-Trichloroben	25.00	14.74	58.97	35-100
28	Naphthalene	25.00	16.86	67.43	36-111
29	4-Chloroaniline	75.00	115.3	153.74	10-174
30	Hexachlorobutadien	25.00	13.61	54.45	24-100
31	4-Chloro-3-methylp	75.00	56.13	74.84	45-122
32	2-Methylnaphthalen	25.00	17.98	71.90	45-103
33	Hexachlorocyclopen	75.00	47.32	63.10	23-108
34	2,4,6-Trichlorophe	75.00	62.77	83.69	48-122
35	2,4,5-Trichlorophe	75.00	65.55	87.41	48-122
37	2-Chloronaphthalen	25.00	22.45	89.78	39-118
38	2-Nitroaniline	75.00	68.97	91.96	48-118
39	Dimethylphthalate	25.00	20.70	82.82	50-120
40	Acenaphthylene	25.00	20.73	82.94	50-119
41	2,6-Dinitrotoluene	75.00	62.67	83.56	48-133

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43	3-Nitroaniline	75.00	152.1	MC 202.76*	54-140
44	Acenaphthene	25.00	20.07	80.27	41-120
45	2,4-Dinitrophenol	137.5	103.8	75.50	23-176
46	Dibenzofuran	25.00	21.78	87.11	51-114
47	4-Nitrophenol	75.00	37.34	49.79	13-100
48	2,4-Dinitrotoluene	75.00	63.91	85.22	51-134
49	Fluorene	25.00	24.46	97.83	50-120
50	Diethylphthalate	25.00	23.86	95.43	48-122
51	4-Chlorophenyl-phe	25.00	20.33	81.32	50-118
52	4-Nitroaniline	75.00	81.25	108.33	42-136
53	4,6-Dinitro-2-meth	137.5	97.88	71.19	32-121
54	N-Nitrosodiphenyla	25.00	19.07	76.30	58-141
56	4-Bromophenyl-phen	25.00	19.22	76.90	50-122
57	Hexachlorobenzene	25.00	17.75	70.98	47-125
58	Pentachlorophenol	75.00	58.99	78.65	35-130
60	Phenanthrene	25.00	19.51	78.03	49-120
61	Anthracene	25.00	19.57	78.30	53-116
62	Carbazole	25.00	24.18	96.73	57-122
63	Di-n-butylphthalat	25.00	19.05	76.22	57-121
64	Fluoranthene	25.00	21.29	85.14	56-119
65	Pyrene	25.00	22.81	91.23	37-143
67	Butylbenzylphthala	25.00	21.51	86.05	34-152
68	Benzo(a)anthracene	25.00	21.30	85.18	49-129
70	3,3'-Dichlorobenzi	75.00	54.46	72.61	50-128
71	Chrysene	25.00	21.56	86.26	45-128
72	bis(2-Ethylhexyl)p	25.00	20.87	83.50	57-133
73	Di-n-octylphthalat	25.00	20.31	81.25	52-120
74	Benzo(b)fluoranthe	25.00	21.39	85.55	50-126
75	Benzo(k)fluoranthe	25.00	20.91	83.63	49-126
76	Benzo(a)pyrene	25.00	20.96	83.86	46-109
78	Indeno(1,2,3-cd)py	25.00	21.88	87.52	34-136
79	Dibenzo(a,h)anthra	25.00	22.40	89.60	41-134
80	Benzo(g,h,i)peryle	25.00	21.90	87.60	41-133
91	Aniline	75.00	48.96	65.27	28-126
111	Azobenzene (1,2-DP	25.00	19.91	79.64	55-119
105	1-methylnaphthalen	25.00	18.07	72.28	43-115
93	Benzidine	75.00	0.000	MC *	30-160
90	N-Nitrosodimethyla	75.00	31.61	42.15	31-100
103	Pyridine	75.00	30.27	40.36	25-100
187	Total Benzofluoran	50.00	41.20	82.40	30-160

SURROGATE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	37.50	16.73	44.60	33-100

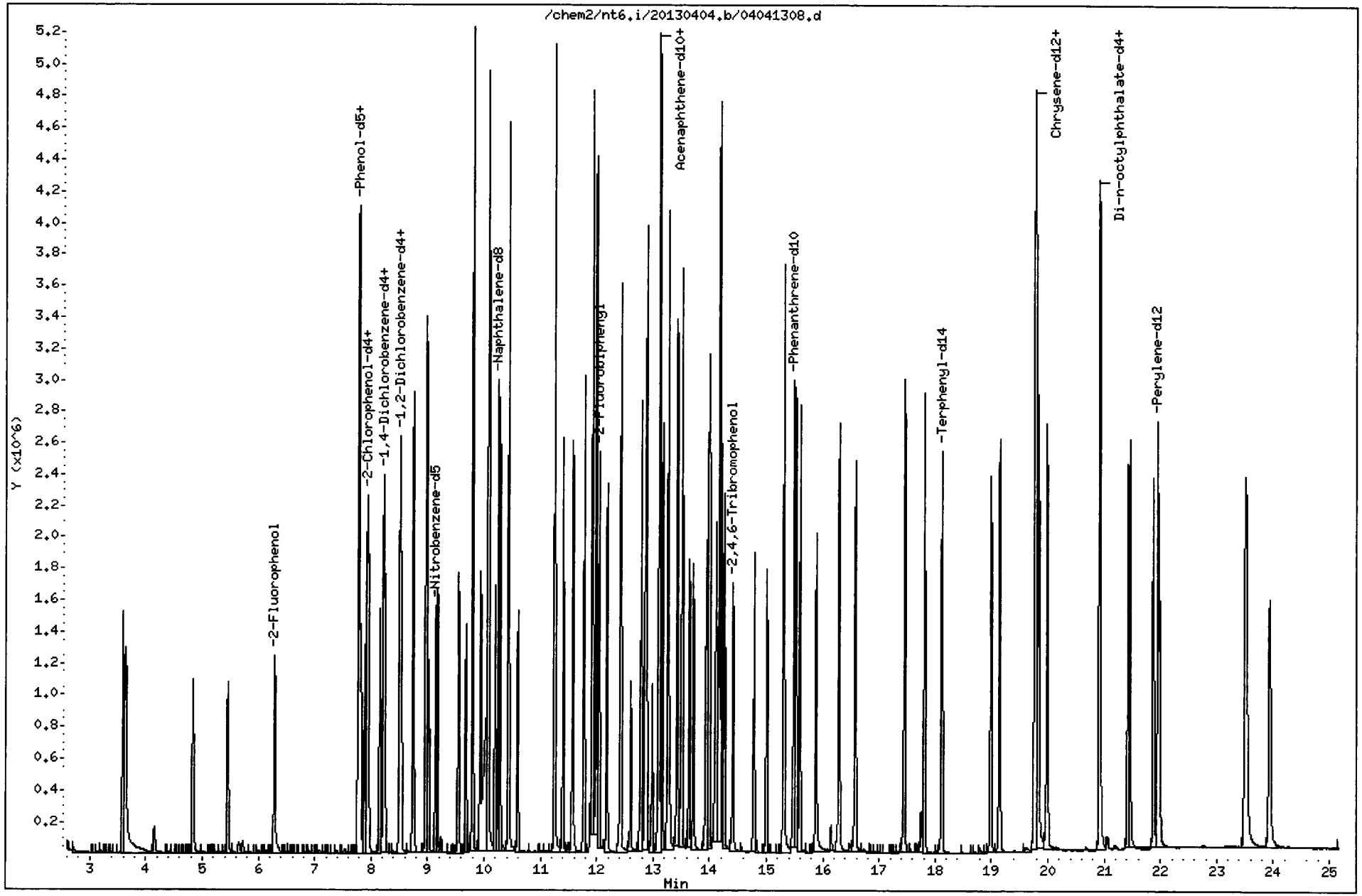
04/10/13

WJ10.0113W

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 2 Phenol-d5	37.50	12.71	33.90	15-121
$ 5 2-Chlorophenol-d4	37.50	25.06	66.84	46-102
$ 10 1,2-Dichlorobenzen	25.00	14.70	58.82	40-100
$ 18 Nitrobenzene-d5	25.00	17.18	68.71	50-100
$ 36 2-Fluorobiphenyl	25.00	18.58	74.31	51-100
$ 55 2,4,6-Tribromophen	37.50	36.15	96.39	46-125
$ 66 Terphenyl-d14	25.00	21.45	85.79	54-117

Data File: /chem2/nt6.i/20130404.b/04041308.d
Date : 04-APR-2013 17:54
Client ID: WJ10LCSDW1
Sample Info: WJ10LCSDW1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



WJ10LCSDW1

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130404.b/04041310.d
Lab Smp Id: WJ10A Client Smp ID: SD-SP-01-20130326-W
Inj Date : 04-APR-2013 19:03
Operator : JZ Inst ID: nt6.i
Smp Info : WJ10A
Misc Info : 13-6435
Comment : 1ul Injection
Method : /chem2/nt6.i/20130404.b/SW846030613.m
Meth Date : 10-Apr-2013 15:46 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEPAtclp.sub
Target Version: 3.50

04/10/13

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$	1	2-Fluorophenol	112	6.280	6.285	(0.765)	475829	16.0582	16.06
$	2	Phenol-d5	99	7.807	7.807	(0.951)	378163	10.9023	10.90
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	7.925	7.925	(0.965)	698166	23.8113	23.81
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.213	8.213	(1.000)	457303	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.513	8.513	(1.036)	309890	15.0166	15.02
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.138	9.143	(0.892)	527007	16.1643	16.16
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.249	10.254	(1.000)	1624755	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.038	12.044	(0.918)	1031391	16.6770	16.68
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.112	13.112	(1.000)	979767	20.0000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	14.405	14.410	(1.099)	225371	29.0903	29.09
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	15.489	15.489	(1.000)	1620713	20.0000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)	
	64 Fluoranthene	202	Compound Not Detected.						
	65 Pyrene	202	Compound Not Detected.						
$	66 Terphenyl-d14	244	18.139	18.118	(0.914)	930905	15.6165	15.62	
	67 Butylbenzylphthalate	149	Compound Not Detected.						
	68 Benzo(a)anthracene	228	Compound Not Detected.						
*	69 Chrysene-d12	240	19.838	19.801	(1.000)	1698228	20.0000		
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
	71 Chrysene	228	Compound Not Detected.						
	72 bis(2-Ethylhexyl)phthalate	149	20.025	19.988	(1.000)	813832	16.8330	16.83	
*	134 Di-n-octylphthalate-d4	153	20.960	20.912	(1.000)	1643014	20.0000		(M)
	73 Di-n-octylphthalate	149	Compound Not Detected.						
	74 Benzo(b)fluoranthene	252	Compound Not Detected.						
	75 Benzo(k)fluoranthene	252	Compound Not Detected.						
	76 Benzo(a)pyrene	252	Compound Not Detected.						
*	77 Perylene-d12	264	22.007	21.953	(1.000)	1921105	20.0000		
	78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
	80 Benzo(g,h,i)perylene	276	Compound Not Detected.						
	90 N-Nitrosodimethylamine	74	Compound Not Detected.						
	91 Aniline	93	Compound Not Detected.						
	93 Benzidine	184	Compound Not Detected.						
	103 Pyridine	79	Compound Not Detected.						
	105 1-methylnaphthalene	141	Compound Not Detected.						
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.						
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
	151 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
	187 Total Benzofluoranthenes	252	Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 04041310.d
Lab Smp Id: WJ10A
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

Calibration Date: 04-APR-2013
Calibration Time: 13:45
Client Smp ID: SD-SP-01-2013032
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	457303	-0.18
27 Naphthalene-d8	1718341	859170	3436682	1624755	-5.45
42 Acenaphthene-d10	1010041	505020	2020082	979767	-3.00
59 Phenanthrene-d10	1666734	833367	3333468	1620713	-2.76
69 Chrysene-d12	1675752	837876	3351504	1698228	1.34
134 Di-n-octylphthala	2026355	1013178	4052710	1643014	-18.92
77 Perylene-d12	1637524	818762	3275048	1921105	17.32

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.21	7.71	8.71	8.21	0.00
27 Naphthalene-d8	10.25	9.75	10.75	10.25	-0.05
42 Acenaphthene-d10	13.11	12.61	13.61	13.11	0.00
59 Phenanthrene-d10	15.49	14.99	15.99	15.49	0.00
69 Chrysene-d12	19.80	19.30	20.30	19.84	0.19
134 Di-n-octylphthala	20.91	20.41	21.41	20.96	0.23
77 Perylene-d12	21.95	21.45	22.45	22.01	0.24

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

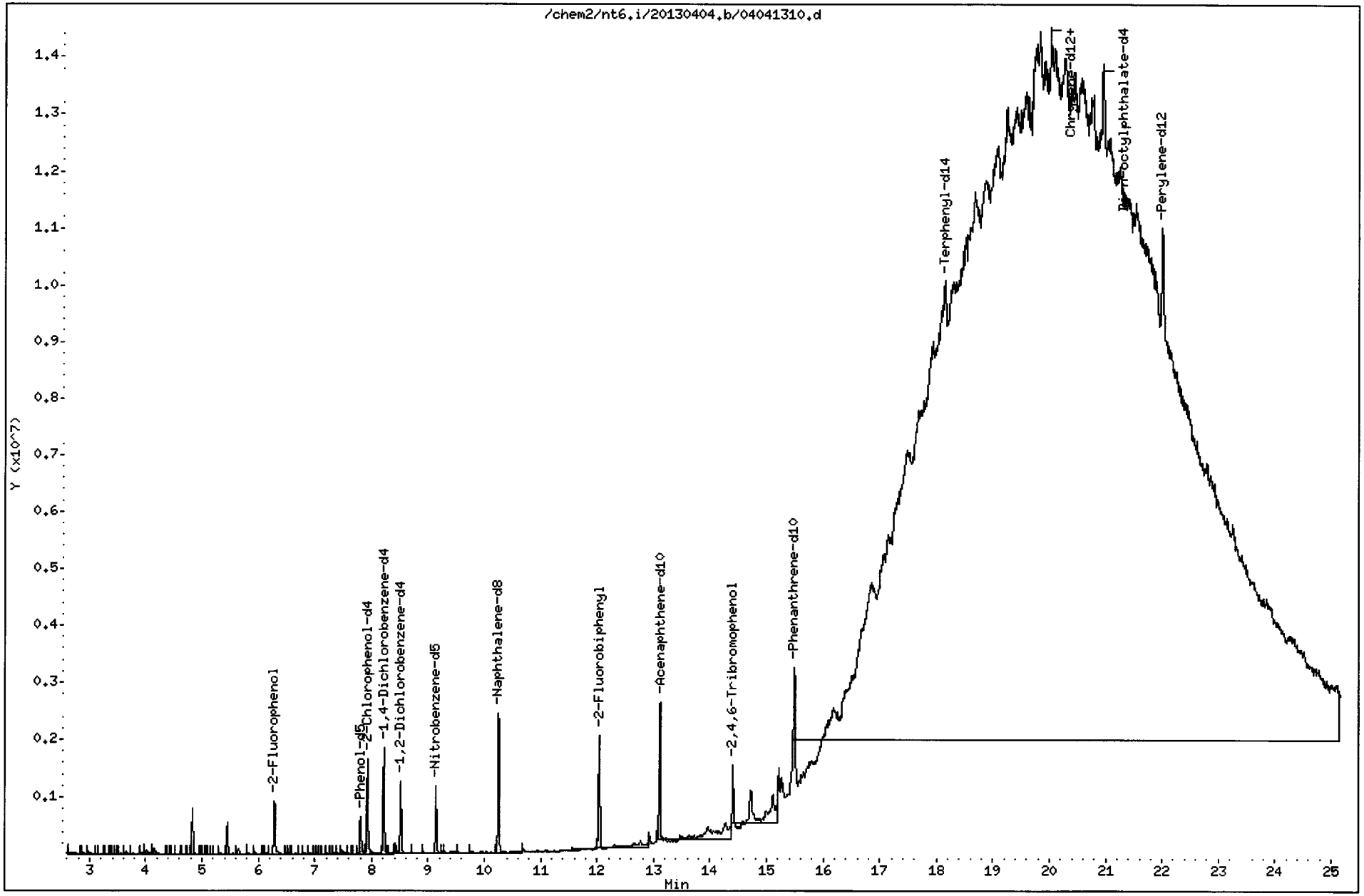
RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: WJ10A
Client Smp ID: SD-SP-01-20130326-W
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: SEPAtclpLCS.spk
Quant Type: ISTD
Sublist File: SEPAtclp.sub
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	16.06	42.82	31-100
$ 2 Phenol-d5	37.50	10.90	29.07	19-100
$ 5 2-Chlorophenol-d4	37.50	23.81	63.50	49-101
$ 10 1,2-Dichlorobenzen	25.00	15.02	60.07	40-100
$ 18 Nitrobenzene-d5	25.00	16.16	64.66	46-101
$ 36 2-Fluorobiphenyl	25.00	16.68	66.71	49-103
$ 55 2,4,6-Tribromophen	37.50	29.09	77.57	51-122
$ 66 Terphenyl-d14	25.00	15.62	62.47	57-118

Data File: /chem2/nt6.i/20130404.b/04041310.d
Date : 04-APR-2013 19:03
Client ID: SD-SP-01-20130326-W
Sample Info: WJ10A
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



Data File: /chem2/nt6.i/20130404.b/04041310.d

Date : 04-APR-2013 19:03

Client ID: SD-SP-01-20130326-W

Instrument: nt6.i

Sample Info: WJ10A

Volume Injected (uL): 1.0

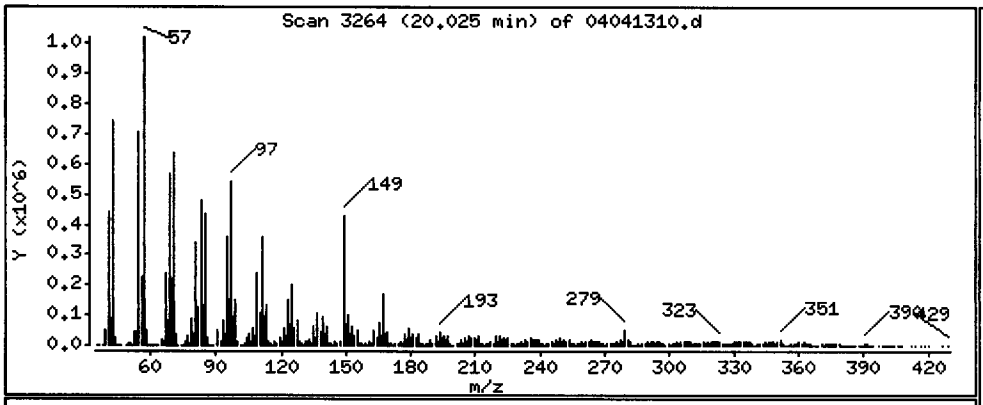
Operator: JZ

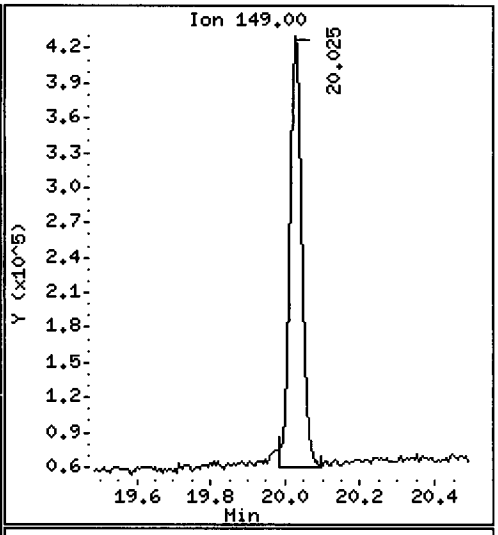
Column phase: ZB-5msi

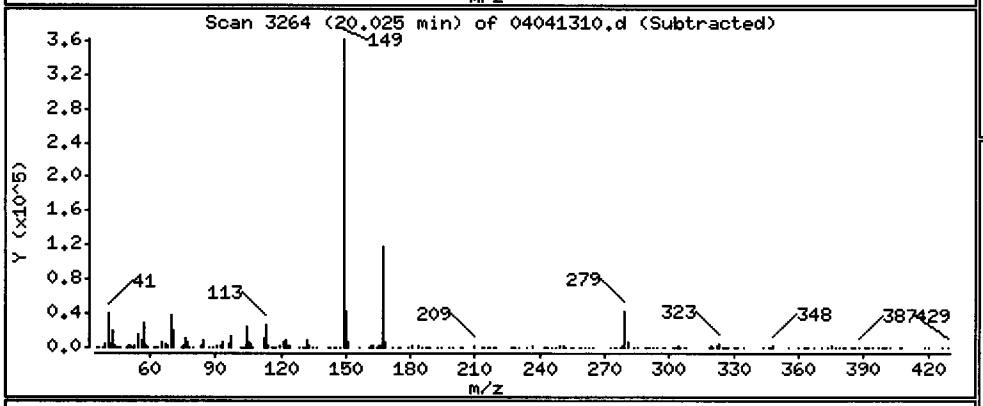
Column diameter: 0.32

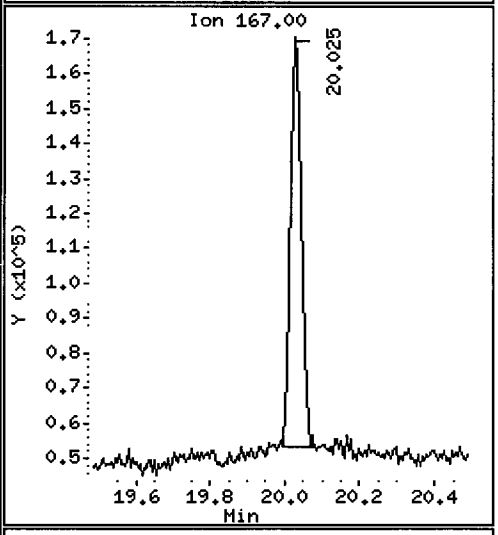
72 bis(2-Ethylhexyl)phthalate

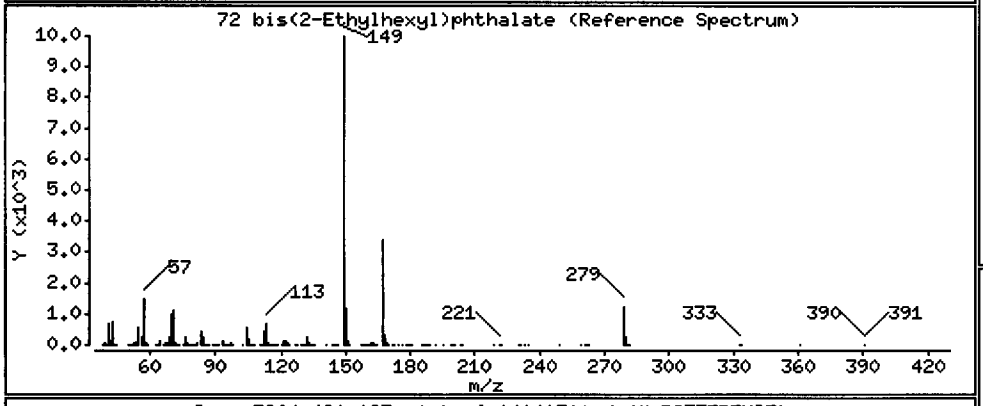
Concentration: 16.83 ug/L

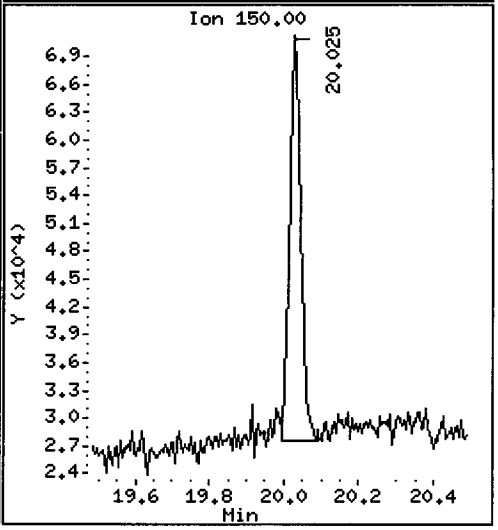


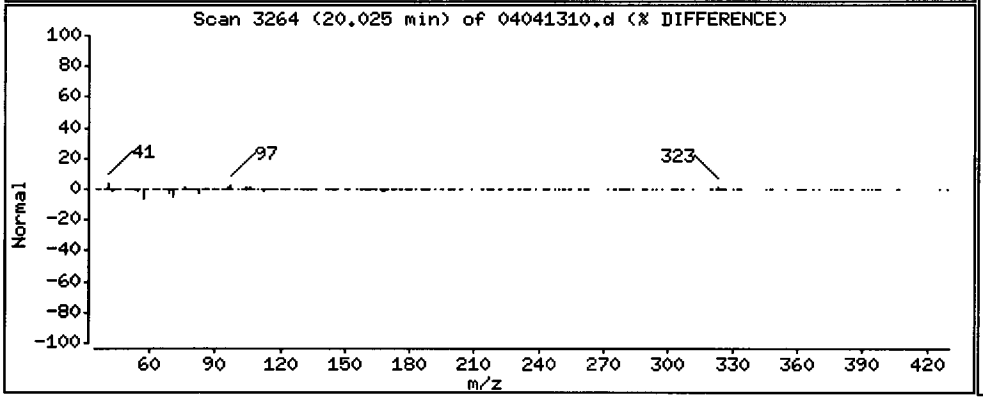






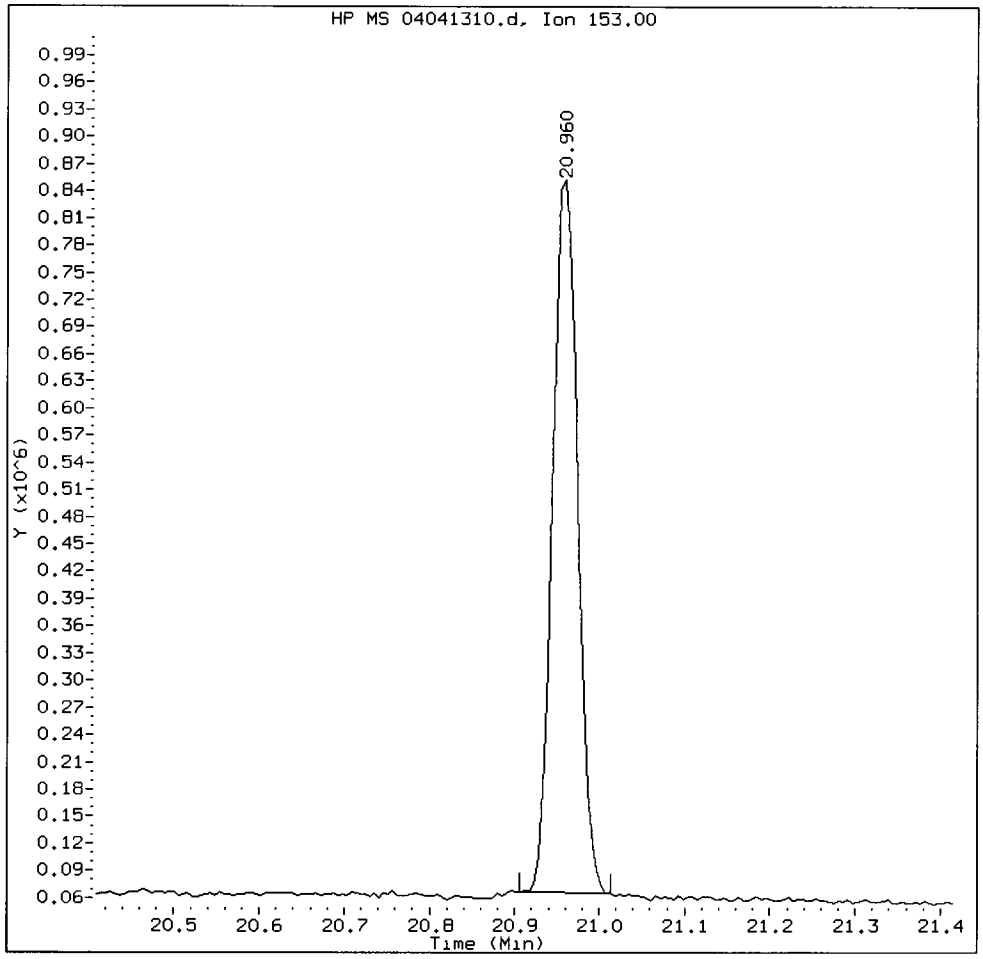






WJ10A, /chem2/nt6.i/20130404.b/04041310.d

Di-n-octylphthalate-d4 Amount: 20.00 Area: 1643014



MANUAL INTEGRATION for Di-n-octylphthalate-d4

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - 04041310.d

Lab ID: WJ10A, Method: SW846030613.m, Instrument: nt6.i, Date: 04-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130404.b/04041306.d
Lab Smp Id: WJ10MBW1 Client Smp ID: WJ10MBW1
Inj Date : 04-APR-2013 16:44
Operator : JZ Inst ID: nt6.i
Smp Info : WJ10MBW1,
Misc Info : 13-6435
Comment : 1ul Injection
Method : /chem2/nt6.i/20130404.b/SW846030613.m
Meth Date : 10-Apr-2013 14:59 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEPAtclpMBLCS.sub
Target Version: 3.50

JZ 04/10/13

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$	1 2-Fluorophenol	112	6.281	6.285	(0.765)	517488	17.1381	17.14
$	2 Phenol-d5	99	7.799	7.807	(0.950)	429032	12.1380	12.14
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	7.921	7.925	(0.965)	762824	25.5308	25.53
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.210	8.213	(1.000)	466002	20.0000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.509	8.513	(1.036)	309140	14.7006	14.70
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.139	9.143	(0.892)	584931	17.5284	17.53
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.251	10.254	(1.000)	1662991	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.040	12.044	(0.918)	1015123	16.1350	16.13
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.109	13.112	(1.000)	996708	20.0000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	14.407	14.410	(1.099)	219649	27.8698	27.87
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	15.486	15.489	(1.000)	1636944	20.0000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					
	62 Carbazole	167	Compound Not Detected.					
	63 Di-n-butylphthalate	149	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	18.120	18.118	(0.916)	1137483	19.9713	19.97
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	19.792	19.801	(1.000)	1622613	20.0000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134 Di-n-octylphthalate-d4	153	20.914	20.912	(1.000)	2043453	20.0000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	21.950	21.953	(1.000)	1541456	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					
	151 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 04041306.d
Lab Smp Id: WJ10MBW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

Calibration Date: 04-APR-2013
Calibration Time: 13:45
Client Smp ID: WJ10MBW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	466002	1.72
27 Naphthalene-d8	1718341	859170	3436682	1662991	-3.22
42 Acenaphthene-d10	1010041	505020	2020082	996708	-1.32
59 Phenanthrene-d10	1666734	833367	3333468	1636944	-1.79
69 Chrysene-d12	1675752	837876	3351504	1622613	-3.17
134 Di-n-octylphthala	2026355	1013178	4052710	2043453	0.84
77 Perylene-d12	1637524	818762	3275048	1541456	-5.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.21	7.71	8.71	8.21	-0.04
27 Naphthalene-d8	10.25	9.75	10.75	10.25	-0.03
42 Acenaphthene-d10	13.11	12.61	13.61	13.11	-0.03
59 Phenanthrene-d10	15.49	14.99	15.99	15.49	-0.02
69 Chrysene-d12	19.80	19.30	20.30	19.79	-0.04
134 Di-n-octylphthala	20.91	20.41	21.41	20.91	0.01
77 Perylene-d12	21.95	21.45	22.45	21.95	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

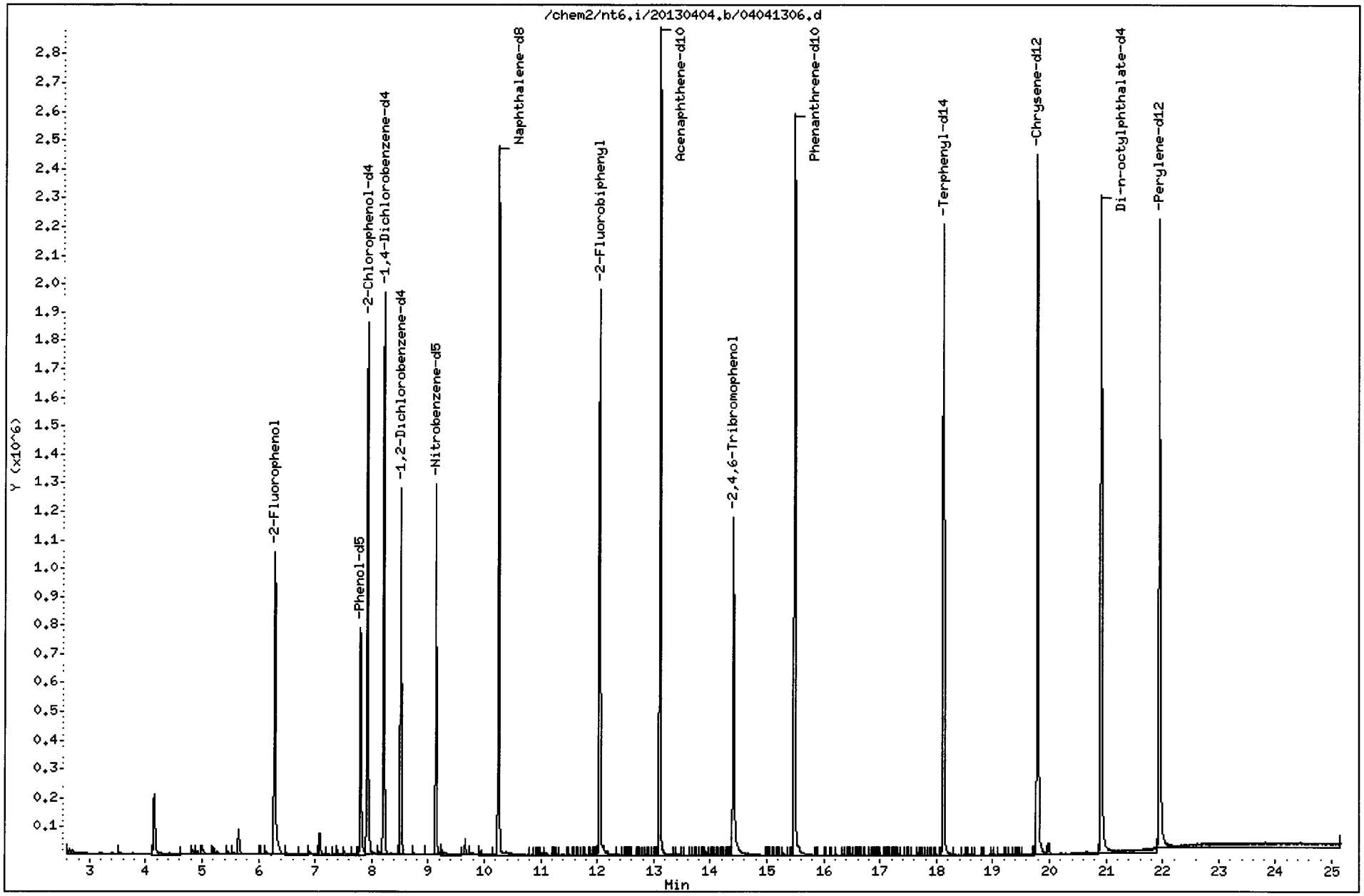
RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: WJ10MBW1
Client Smp ID: WJ10MBW1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: BLANK
SpikeList File: SEPAtclpLCS.spk
Quant Type: ISTD
Sublist File: SEPAtclpMBLCS.sub
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	17.14	45.70	33-100
$ 2 Phenol-d5	37.50	12.14	32.37	15-121
$ 5 2-Chlorophenol-d4	37.50	25.53	68.08	46-102
$ 10 1,2-Dichlorobenzen	25.00	14.70	58.80	40-100
$ 18 Nitrobenzene-d5	25.00	17.53	70.11	50-100
$ 36 2-Fluorobiphenyl	25.00	16.13	64.54	51-100
$ 55 2,4,6-Tribromophen	37.50	27.87	74.32	46-125
$ 66 Terphenyl-d14	25.00	19.97	79.89	54-117

Data File: /chem2/nt6.i/20130404.b/04041306.d
Date : 04-APR-2013 16:44
Client ID: WJ10MBW1
Sample Info: WJ10MBW1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



CO-ELUTION SUMMARY FOR FILE - 04041306.d

Lab ID: WJ10MBW1, Method: SW846030613.m, Instrument: nt6.i, Date: 04-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130404.b/04041307.d
Lab Smp Id: WJ10LCSW1 Client Smp ID: WJ10LCSW1
Inj Date : 04-APR-2013 17:19
Operator : JZ Inst ID: nt6.i
Smp Info : WJ10LCSW1,
Misc Info : 13-6435
Comment : 1ul Injection
Method : /chem2/nt6.i/20130404.b/SW846030613.m
Meth Date : 10-Apr-2013 15:38 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEPAtclpMBLCS.sub
Target Version: 3.50
Processing Host: cserv3

AB 04/10/13

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
$ 1	2-Fluorophenol	112	6.280	6.285	(0.765)	638432	20.0362	20.04
$ 2	Phenol-d5	99	7.802	7.807	(0.950)	501338	13.4408	13.44
3	Phenol	94	7.824	7.823	(0.953)	361324	9.19995	9.200
$ 5	2-Chlorophenol-d4	132	7.925	7.925	(0.965)	825785	26.1907	26.19
4	Bis(2-Chloroethyl)ether	93	7.882	7.882	(0.960)	561868	16.4731	16.47
6	2-Chlorophenol	128	7.947	7.946	(0.967)	574418	18.2801	18.28
7	1,3-Dichlorobenzene	146	8.150	8.149	(0.992)	516257	14.0671	14.07
* 8	1,4-Dichlorobenzene-d4	152	8.214	8.213	(1.000)	491754	20.0000	
9	1,4-Dichlorobenzene	146	8.240	8.235	(1.003)	519718	14.5503	14.55
$ 10	1,2-Dichlorobenzene-d4	152	8.513	8.513	(1.036)	338555	15.2563	15.26
12	1,2-Dichlorobenzene	146	8.534	8.534	(1.039)	494790	14.4904	14.49
11	Benzyl alcohol	108	8.502	8.502	(1.035)	363912	17.0084	17.01
14	2,2'-oxybis(1-Chloropropane)	45	8.748	8.748	(1.065)	791566	14.6067	14.61
13	2-Methylphenol	108	8.737	8.742	(1.064)	486179	16.3252	16.33
17	Hexachloroethane	117	9.015	9.015	(1.098)	196503	13.6008	13.60

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	16 N-Nitroso-di-n-propylamine	70	8.962	8.967	(1.091)	413166	16.1414	16.14
	15 4-Methylphenol	108	8.978	8.972	(1.093)	948548	32.2096	32.21
$	18 Nitrobenzene-d5	82	9.143	9.143	(0.892)	643219	17.6260	17.63
	19 Nitrobenzene	77	9.170	9.170	(0.894)	622952	17.8350	17.83
	20 Isophorone	82	9.549	9.549	(0.931)	1141286	18.7463	18.75
	21 2-Nitrophenol	139	9.683	9.683	(0.944)	323025	19.9869	19.99
	22 2,4-Dimethylphenol	107	9.806	9.800	(0.956)	1444941	47.2752	47.28
	23 Bis(2-Chloroethoxy)methane	93	9.939	9.934	(0.969)	679190	17.0031	17.00
	24 Benzoic acid	105	10.057	10.062	(0.981)	1091717	41.2629	41.26
	25 2,4-Dichlorophenol	162	10.078	10.078	(0.983)	1297073	55.1130	55.11
	26 1,2,4-Trichlorobenzene	180	10.196	10.195	(0.994)	437110	14.9204	14.92
*	27 Naphthalene-d8	136	10.254	10.254	(1.000)	1818586	20.0000	
	28 Naphthalene	128	10.286	10.281	(1.003)	1462739	17.1126	17.11
	29 4-Chloroaniline	127	10.431	10.430	(1.017)	1832738	119.443	119.4(R)
	30 Hexachlorobutadiene	225	10.596	10.596	(1.033)	250111	14.0293	14.03
	31 4-Chloro-3-methylphenol	107	11.253	11.253	(1.097)	1429476	57.1817	57.18
	32 2-Methylnaphthalene	141	11.403	11.403	(1.112)	820733	18.5579	18.56
	33 Hexachlorocyclopentadiene	237	11.777	11.777	(0.898)	702453	43.8076	43.81
	34 2,4,6-Trichlorophenol	196	11.921	11.921	(0.909)	997584	59.4589	59.46
	35 2,4,5-Trichlorophenol	196	11.985	11.985	(0.914)	1064411	64.3109	64.31
$	36 2-Fluorobiphenyl	172	12.044	12.044	(0.918)	1228257	19.4965	19.50
	37 2-Chloronaphthalene	162	12.183	12.177	(0.929)	991711	23.0972	23.10
	38 2-Nitroaniline	65	12.429	12.418	(0.947)	1034468	70.1112	70.11
	39 Dimethylphthalate	163	12.787	12.781	(0.975)	1245987	20.7428	20.74
	40 Acenaphthylene	152	12.861	12.861	(0.980)	1657917	21.0599	21.06
	41 2,6-Dinitrotoluene	165	12.888	12.877	(0.982)	823971	64.2031	64.20
*	42 Acenaphthene-d10	164	13.118	13.112	(1.000)	998045	20.0000	
	43 3-Nitroaniline	138	13.107	13.102	(0.999)	855651	154.142	154.1
	44 Acenaphthene	153	13.166	13.160	(1.004)	1040233	20.4089	20.41
	45 2,4-Dinitrophenol	184	13.267	13.262	(1.011)	934189	101.914	101.9
	46 Dibenzofuran	168	13.422	13.427	(1.023)	1472861	22.0945	22.09
	47 4-Nitrophenol	109	13.433	13.438	(1.024)	246971	37.8798	37.88
	48 2,4-Dinitrotoluene	165	13.518	13.508	(1.031)	1122623	64.6702	64.67
	50 Diethylphthalate	149	13.940	13.935	(1.063)	1336558	24.0157	24.02
	49 Fluorene	166	13.983	13.983	(1.066)	1184525	24.9970	25.00
	51 4-Chlorophenyl-phenylether	204	13.999	14.004	(1.067)	606811	20.7377	20.74
	52 4-Nitroaniline	138	14.111	14.100	(1.076)	794960	81.2105	81.21
	53 4,6-Dinitro-2-methylphenol	198	14.176	14.165	(0.915)	1275695	97.2283	97.23
	54 N-Nitrosodiphenylamine	169	14.213	14.207	(0.918)	956456	19.3077	19.31
$	55 2,4,6-Tribromophenol	330	14.411	14.410	(1.099)	296459	37.5653	37.57
	56 4-Bromophenyl-phenylether	248	14.785	14.784	(0.954)	382332	19.1189	19.12
	57 Hexachlorobenzene	284	15.004	15.003	(0.969)	369829	17.9382	17.94
	58 Pentachlorophenol	266	15.313	15.308	(0.989)	726957	59.7673	59.77
*	59 Phenanthrene-d10	188	15.490	15.489	(1.000)	1822083	20.0000	
	60 Phenanthrene	178	15.522	15.521	(1.002)	1794751	19.9090	19.91
	61 Anthracene	178	15.597	15.596	(1.007)	1791310	19.8456	19.85
	62 Carbazole	167	15.880	15.879	(1.025)	1501177	23.8565	23.86

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	63 Di-n-butylphthalate	149	16.579	16.579	(1.070)	2173703	19.1019	19.10
	64 Fluoranthene	202	17.461	17.461	(1.127)	2021443	21.3160	21.32
	65 Pyrene	202	17.814	17.813	(0.900)	2089449	22.5675	22.57
$	66 Terphenyl-d14	244	18.118	18.118	(0.915)	1299745	21.8417	21.84
	67 Butylbenzylphthalate	149	18.994	18.994	(0.960)	956850	21.1346	21.13
	68 Benzo(a)anthracene	228	19.769	19.768	(0.999)	1642663	21.2527	21.25
*	69 Chrysene-d12	240	19.795	19.801	(1.000)	1695304	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.779	19.779	(0.999)	1185543	55.7502	55.75
	71 Chrysene	228	19.838	19.838	(1.002)	1763686	22.3525	22.35
	72 bis(2-Ethylhexyl)phthalate	149	19.982	19.988	(0.955)	1396745	20.3214	20.32
*	134 Di-n-octylphthalate-d4	153	20.917	20.912	(1.000)	2335785	20.0000	
	73 Di-n-octylphthalate	149	20.928	20.928	(1.000)	2197650	19.9266	19.93
	74 Benzo(b)fluoranthene	252	21.425	21.425	(0.976)	1907651	23.4146	23.41
	75 Benzo(k)fluoranthene	252	21.457	21.457	(0.977)	1930682	21.3634	21.36
	76 Benzo(a)pyrene	252	21.874	21.873	(0.996)	1598187	20.7483	20.75
*	77 Perylene-d12	264	21.954	21.953	(1.000)	1802136	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.503	23.503	(1.071)	2014884	21.7356	21.74
	79 Dibenzo(a,h)anthracene	278	23.524	23.529	(1.072)	1605486	21.9956	22.00
	80 Benzo(g,h,i)perylene	276	23.941	23.941	(1.091)	1714523	21.6273	21.63
	90 N-Nitrosodimethylamine	74	3.635	3.625	(0.443)	816882	35.2750	35.28
	91 Aniline	93	7.776	7.775	(0.947)	2193432	50.4049	50.40
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	3.582	3.582	(0.436)	1368388	37.2592	37.26
	105 1-methylnaphthalene	141	11.574	11.574	(1.129)	835391	18.5942	18.59
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.256	14.255	(1.087)	1295539	20.4874	20.49
	120 2,3,4,6-Tetrachlorophenol	232	13.711	13.710	(1.045)	359367	25.2262	25.23
	151 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	21.457	21.457	(0.977)	3614991	43.5703	43.57

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: WJ10LCSW1
Client Smp ID: WJ10LCSW1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: LCS
SpikeList File: SEPAtclpLCS.spk
Quant Type: ISTD
Sublist File: SEPAtclpMBLCS.sub
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3 Phenol	25.00	9.200	36.80	26-112
4 Bis(2-Chloroethyl)	25.00	16.47	65.89	51-100
6 2-Chlorophenol	25.00	18.28	73.12	50-100
7 1,3-Dichlorobenzen	25.00	14.07	56.27	27-100
9 1,4-Dichlorobenzen	25.00	14.55	58.20	29-100
11 Benzyl alcohol	25.00	17.01	68.03	10-128
12 1,2-Dichlorobenzen	25.00	14.49	57.96	32-100
13 2-Methylphenol	25.00	16.33	65.30	47-100
14 2,2'-oxybis(1-Chlo	25.00	14.61	58.43	39-101
15 4-Methylphenol	50.00	32.21	64.42	47-100
16 N-Nitroso-di-n-pro	25.00	16.14	64.57	46-100
17 Hexachloroethane	25.00	13.60	54.40	19-100
19 Nitrobenzene	25.00	17.83	71.34	46-103
20 Isophorone	25.00	18.75	74.99	62-105
21 2-Nitrophenol	25.00	19.99	79.95	32-116
22 2,4-Dimethylphenol	75.00	47.28	63.03	15-100
23 Bis(2-Chloroethoxy	25.00	17.00	68.01	44-100
24 Benzoic acid	137.5	41.26	30.01	10-172
25 2,4-Dichlorophenol	75.00	55.11	73.48	35-114
26 1,2,4-Trichloroben	25.00	14.92	59.68	34-100
28 Naphthalene	25.00	17.11	68.45	48-100
29 4-Chloroaniline	75.00	119.4	159.26*	10-153
30 Hexachlorobutadien	25.00	14.03	56.12	22-100
31 4-Chloro-3-methylp	75.00	57.18	76.24	33-123
32 2-Methylnaphthalen	25.00	18.56	74.23	38-100
33 Hexachlorocyclopen	75.00	43.81	58.41	10-100
34 2,4,6-Trichlorophe	75.00	59.46	79.28	37-120
35 2,4,5-Trichlorophe	75.00	64.31	85.75	37-124
37 2-Chloronaphthalen	25.00	23.10	92.39	49-100
38 2-Nitroaniline	75.00	70.11	93.48	18-140
39 Dimethylphthalate	25.00	20.74	82.97	60-106
40 Acenaphthylene	25.00	21.06	84.24	47-110
41 2,6-Dinitrotoluene	75.00	64.20	85.60	32-129

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 3-Nitroaniline	75.00	154.1	205.52	10-208
44 Acenaphthene	25.00	20.41	81.64	55-101
45 2,4-Dinitrophenol	125.0	101.9	81.53	10-224
46 Dibenzofuran	25.00	22.09	88.38	46-108
47 4-Nitrophenol	75.00	37.88	50.51	10-103
48 2,4-Dinitrotoluene	75.00	64.67	86.23	33-134
49 Fluorene	25.00	25.00	99.99	59-108
50 Diethylphthalate	25.00	24.02	96.06	60-108
51 4-Chlorophenyl-phe	25.00	20.74	82.95	54-104
52 4-Nitroaniline	75.00	81.21	108.28	13-144
53 4,6-Dinitro-2-meth	137.5	97.23	70.71	10-190
54 N-Nitrosodiphenyla	25.00	19.31	77.23	39-100
56 4-Bromophenyl-phen	25.00	19.12	76.48	56-105
57 Hexachlorobenzene	25.00	17.94	71.75	54-108
58 Pentachlorophenol	75.00	59.77	79.69	25-144
60 Phenanthrene	25.00	19.91	79.64	64-115
61 Anthracene	25.00	19.85	79.38	59-107
62 Carbazole	25.00	23.86	95.43	36-123
63 Di-n-butylphthalat	25.00	19.10	76.41	62-110
64 Fluoranthene	25.00	21.32	85.26	63-119
65 Pyrene	25.00	22.57	90.27	49-118
67 Butylbenzylphthala	25.00	21.13	84.54	49-118
68 Benzo(a)anthracene	25.00	21.25	85.01	61-113
70 3,3'-Dichlorobenzi	75.00	55.75	74.33	10-151
71 Chrysene	25.00	22.35	89.41	62-115
72 bis(2-Ethylhexyl)p	25.00	20.32	81.29	47-127
73 Di-n-octylphthalat	25.00	19.93	79.71	60-106
74 Benzo(b)fluoranthe	25.00	23.41	93.66	61-120
75 Benzo(k)fluoranthe	25.00	21.36	85.45	59-120
76 Benzo(a)pyrene	25.00	20.75	82.99	46-105
78 Indeno(1,2,3-cd)py	25.00	21.74	86.94	42-134
79 Dibenzo(a,h)anthra	25.00	22.00	87.98	46-132
80 Benzo(g,h,i)peryle	25.00	21.63	86.51	33-135
91 Aniline	75.00	50.40	67.21	10-113
111 Azobenzene (1,2-DP	25.00	20.49	81.95	51-111
105 1-methylnaphthalen	25.00	18.59	74.38	43-100
90 N-Nitrosodimethyla	75.00	35.28	47.03	31-100
103 Pyridine	50.00	37.26	74.52	25-100
120 2,3,4,6-Tetrachlor	25.00	25.23	100.90	30-160
151 1,2,4,5-Tetrachlo	25.00	0.000	*	30-160
187 Total Benzofluoran	50.00	43.57	87.14	30-160

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	20.04	53.43	33-100

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 2 Phenol-d5	37.50	13.44	35.84	15-121
$ 5 2-Chlorophenol-d4	37.50	26.19	69.84	46-102
$ 10 1,2-Dichlorobenzen	25.00	15.26	61.03	40-100
$ 18 Nitrobenzene-d5	25.00	17.63	70.50	50-100
$ 36 2-Fluorobiphenyl	25.00	19.50	77.99	51-100
$ 55 2,4,6-Tribromophen	37.50	37.57	100.17	46-125
$ 66 Terphenyl-d14	25.00	21.84	87.37	54-117

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20130404.b/04041308.d
Lab Smp Id: WJ10LCSDW1 Client Smp ID: WJ10LCSDW1
Inj Date : 04-APR-2013 17:54
Operator : JZ Inst ID: nt6.i
Smp Info : WJ10LCSDW1,
Misc Info : 13-6435
Comment : 1ul Injection
Method : /chem2/nt6.i/20130404.b/SW846030613.m
Meth Date : 10-Apr-2013 15:38 jianqing Quant Type: ISTD
Cal Date : 06-MAR-2013 16:18 Cal File: 03061308.D
Als bottle: 8 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEPAtclpMBLCS.sub
Target Version: 3.50
Processing Host: cserv3

04/10/13

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
$	1 2-Fluorophenol	112	6.282	6.285	(0.765)	600693	16.7266	16.73
$	2 Phenol-d5	99	7.805	7.807	(0.951)	534407	12.7122	12.71
	3 Phenol	94	7.821	7.823	(0.952)	398913	9.01197	9.012
$	5 2-Chlorophenol-d4	132	7.922	7.925	(0.965)	890674	25.0641	25.06
	4 Bis(2-Chloroethyl)ether	93	7.880	7.882	(0.960)	622633	16.1967	16.20
	6 2-Chlorophenol	128	7.949	7.946	(0.968)	646594	18.2573	18.26
	7 1,3-Dichlorobenzene	146	8.152	8.149	(0.993)	558189	13.4950	13.49
*	8 1,4-Dichlorobenzene-d4	152	8.211	8.213	(1.000)	554236	20.0000	
	9 1,4-Dichlorobenzene	146	8.238	8.235	(1.003)	566162	14.0637	14.06
$	10 1,2-Dichlorobenzene-d4	152	8.510	8.513	(1.036)	367773	14.7046	14.70
	12 1,2-Dichlorobenzene	146	8.531	8.534	(1.039)	543701	14.1277	14.13
	11 Benzyl alcohol	108	8.499	8.502	(1.035)	411828	17.0780	17.08
	14 2,2'-oxybis(1-Chloropropane)	45	8.745	8.748	(1.065)	910368	14.9051	14.91
	13 2-Methylphenol	108	8.740	8.742	(1.064)	541207	16.1243	16.12
	17 Hexachloroethane	117	9.018	9.015	(1.098)	215725	13.2480	13.25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
	16 N-Nitroso-di-n-propylamine	70	8.964	8.967	(1.092)	470473	16.3082	16.31
	15 4-Methylphenol	108	8.980	8.972	(1.094)	1049137	31.6090	31.61
$	18 Nitrobenzene-d5	82	9.140	9.143	(0.892)	701393	17.1769	17.18
	19 Nitrobenzene	77	9.167	9.170	(0.894)	700918	17.9338	17.93
	20 Isophorone	82	9.552	9.549	(0.932)	1279301	18.7795	18.78
	21 2-Nitrophenol	139	9.685	9.683	(0.945)	369551	20.4349	20.43
	22 2,4-Dimethylphenol	107	9.803	9.800	(0.956)	1571827	45.9596	45.96
	23 Bis(2-Chloroethoxy)methane	93	9.936	9.934	(0.969)	769844	17.2238	17.22
	24 Benzoic acid	105	10.059	10.062	(0.981)	1216368	41.0869	41.09
	25 2,4-Dichlorophenol	162	10.075	10.078	(0.983)	1420081	53.9251	53.93
	26 1,2,4-Trichlorobenzene	180	10.193	10.195	(0.994)	483247	14.7417	14.74
*	27 Naphthalene-d8	136	10.252	10.254	(1.000)	2034911	20.0000	
	28 Naphthalene	128	10.284	10.281	(1.003)	1617260	16.8575	16.86
	29 4-Chloroaniline	127	10.433	10.430	(1.018)	2005182	115.309	115.3(R)
	30 Hexachlorobutadiene	225	10.599	10.596	(1.034)	271571	13.6136	13.61
	31 4-Chloro-3-methylphenol	107	11.251	11.253	(1.097)	1570044	56.1281	56.13
	32 2-Methylnaphthalene	141	11.400	11.403	(1.112)	889574	17.9761	17.98
	33 Hexachlorocyclopentadiene	237	11.779	11.777	(0.898)	790126	47.3250	47.32
	34 2,4,6-Trichlorophenol	196	11.924	11.921	(0.909)	1096461	62.7657	62.77
	35 2,4,5-Trichlorophenol	196	11.988	11.985	(0.914)	1129701	65.5542	65.55
$	36 2-Fluorobiphenyl	172	12.041	12.044	(0.918)	1218672	18.5787	18.58
	37 2-Chloronaphthalene	162	12.180	12.177	(0.929)	1005273	22.4460	22.45
	38 2-Nitroaniline	65	12.426	12.418	(0.947)	1059538	68.9682	68.97
	39 Dimethylphthalate	163	12.789	12.781	(0.975)	1294970	20.7050	20.70
	40 Acenaphthylene	152	12.859	12.861	(0.980)	1699517	20.7339	20.73
	41 2,6-Dinitrotoluene	165	12.885	12.877	(0.982)	837451	62.6708	62.67
*	42 Acenaphthene-d10	164	13.115	13.112	(1.000)	1039174	20.0000	
	43 3-Nitroaniline	138	13.110	13.102	(1.000)	883159	152.067	152.1
	44 Acenaphthene	153	13.163	13.160	(1.004)	1064927	20.0665	20.07
	45 2,4-Dinitrophenol	184	13.270	13.262	(1.012)	990787	103.811	103.8
	46 Dibenzofuran	168	13.425	13.427	(1.024)	1511610	21.7783	21.78
	47 4-Nitrophenol	109	13.430	13.438	(1.024)	253478	37.3391	37.34
	48 2,4-Dinitrotoluene	165	13.516	13.508	(1.031)	1155206	63.9134	63.91
	50 Diethylphthalate	149	13.943	13.935	(1.063)	1382498	23.8580	23.86
	49 Fluorene	166	13.980	13.983	(1.066)	1209177	24.4587	24.46
	51 4-Chlorophenyl-phenylether	204	14.002	14.004	(1.068)	619426	20.3309	20.33
	52 4-Nitroaniline	138	14.114	14.100	(1.076)	828129	81.2506	81.25
	53 4,6-Dinitro-2-methylphenol	198	14.173	14.165	(0.915)	1333759	97.8821	97.88
	54 N-Nitrosodiphenylamine	169	14.210	14.207	(0.918)	981302	19.0743	19.07
$	55 2,4,6-Tribromophenol	330	14.408	14.410	(1.099)	297016	36.1463	36.15
	56 4-Bromophenyl-phenylether	248	14.782	14.784	(0.954)	399244	19.2239	19.22
	57 Hexachlorobenzene	284	15.006	15.003	(0.969)	379964	17.7460	17.75
	58 Pentachlorophenol	266	15.311	15.308	(0.989)	752186	59.5470	59.55
*	59 Phenanthrene-d10	188	15.487	15.489	(1.000)	1892292	20.0000	
	60 Phenanthrene	178	15.524	15.521	(1.002)	1826354	19.5079	19.51
	61 Anthracene	178	15.594	15.596	(1.007)	1834882	19.5741	19.57
	62 Carbazole	167	15.882	15.879	(1.026)	1580629	24.1828	24.18

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	63 Di-n-butylphthalate	149	16.582	16.579	(1.071)	2251888	19.0548	19.05
	64 Fluoranthene	202	17.458	17.461	(1.127)	2096335	21.2855	21.29
	65 Pyrene	202	17.816	17.813	(0.900)	2138172	22.8080	22.81
$	66 Terphenyl-d14	244	18.121	18.118	(0.915)	1292214	21.4464	21.45
	67 Butylbenzylphthalate	149	18.997	18.994	(0.960)	986178	21.5129	21.51
	68 Benzo(a)anthracene	228	19.771	19.768	(0.999)	1666607	21.2957	21.30
*	69 Chrysene-d12	240	19.798	19.801	(1.000)	1716543	20.0000	
	70 3,3'-Dichlorobenzidine	252	19.782	19.779	(0.999)	1172617	54.4601	54.46
	71 Chrysene	228	19.835	19.838	(1.002)	1722817	21.5644	21.56
	72 bis(2-Ethylhexyl)phthalate	149	19.985	19.988	(0.956)	1346961	20.8742	20.87
*	134 Di-n-octylphthalate-d4	153	20.915	20.912	(1.000)	2192877	20.0000	
	73 Di-n-octylphthalate	149	20.925	20.928	(1.000)	2103058	20.3116	20.31
	74 Benzo(b)fluoranthene	252	21.422	21.425	(0.976)	1741320	21.3869	21.39
	75 Benzo(k)fluoranthene	252	21.454	21.457	(0.977)	1882060	20.9078	20.91
	76 Benzo(a)pyrene	252	21.871	21.873	(0.996)	1604468	20.9640	20.96
*	77 Perylene-d12	264	21.951	21.953	(1.000)	1790601	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.500	23.503	(1.071)	2015224	21.8794	21.88
	79 Dibenzo(a,h)anthracene	278	23.527	23.529	(1.072)	1624580	22.4006	22.40
	80 Benzo(g,h,i)perylene	276	23.933	23.941	(1.090)	1725081	21.9007	21.90
	90 N-Nitrosodimethylamine	74	3.638	3.625	(0.443)	824987	31.6088	31.61
	91 Aniline	93	7.778	7.775	(0.947)	2401076	48.9562	48.96
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	3.585	3.582	(0.437)	1252825	30.2669	30.27
	105 1-methylnaphthalene	141	11.571	11.574	(1.129)	908447	18.0707	18.07
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.253	14.255	(1.087)	1310941	19.9105	19.91
	120 2,3,4,6-Tetrachlorophenol	232	13.713	13.710	(1.046)	367909	24.8036	24.80
	151 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	21.454	21.457	(0.977)	3399697	41.2394	41.24

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 04041308.d
Lab Smp Id: WJ10LCSDW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

Calibration Date: 04-APR-2013
Calibration Time: 13:45
Client Smp ID: WJ10LCSDW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	458117	229058	916234	554236	20.98
27 Naphthalene-d8	1718341	859170	3436682	2034911	18.42
42 Acenaphthene-d10	1010041	505020	2020082	1039174	2.88
59 Phenanthrene-d10	1666734	833367	3333468	1892292	13.53
69 Chrysene-d12	1675752	837876	3351504	1716543	2.43
134 Di-n-octylphthala	2026355	1013178	4052710	2192877	8.22
77 Perylene-d12	1637524	818762	3275048	1790601	9.35

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.21	7.71	8.71	8.21	-0.03
27 Naphthalene-d8	10.25	9.75	10.75	10.25	-0.02
42 Acenaphthene-d10	13.11	12.61	13.61	13.12	0.02
59 Phenanthrene-d10	15.49	14.99	15.99	15.49	-0.02
69 Chrysene-d12	19.80	19.30	20.30	19.80	-0.01
134 Di-n-octylphthala	20.91	20.41	21.41	20.91	0.01
77 Perylene-d12	21.95	21.45	22.45	21.95	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: WJ10LCSDW1
Client Smp ID: WJ10LCSDW1
Level: LOW
Operator: JZ
Data Type: MS DATA
SampleType: LCSD
SpikeList File: SEPAtclpLCS.spk
Quant Type: ISTD
Sublist File: SEPAtclpMBLCS.sub
Method File: /chem2/nt6.i/20130404.b/SW846030613.m
Misc Info: 13-6435

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
3 Phenol	25.00	9.012	36.05	26-112
4 Bis(2-Chloroethyl)	25.00	16.20	64.79	51-100
6 2-Chlorophenol	25.00	18.26	73.03	50-100
7 1,3-Dichlorobenzen	25.00	13.49	53.98	27-100
9 1,4-Dichlorobenzen	25.00	14.06	56.25	29-100
11 Benzyl alcohol	25.00	17.08	68.31	10-128
12 1,2-Dichlorobenzen	25.00	14.13	56.51	32-100
13 2-Methylphenol	25.00	16.12	64.50	47-100
14 2,2'-oxybis(1-Chlo	25.00	14.91	59.62	39-101
15 4-Methylphenol	50.00	31.61	63.22	47-100
16 N-Nitroso-di-n-pro	25.00	16.31	65.23	46-100
17 Hexachloroethane	25.00	13.25	52.99	19-100
19 Nitrobenzene	25.00	17.93	71.74	46-103
20 Isophorone	25.00	18.78	75.12	62-105
21 2-Nitrophenol	25.00	20.43	81.74	32-116
22 2,4-Dimethylphenol	75.00	45.96	61.28	15-100
23 Bis(2-Chloroethoxy	25.00	17.22	68.90	44-100
24 Benzoic acid	137.5	41.09	29.88	10-172
25 2,4-Dichlorophenol	75.00	53.93	71.90	35-114
26 1,2,4-Trichloroben	25.00	14.74	58.97	34-100
28 Naphthalene	25.00	16.86	67.43	48-100
29 4-Chloroaniline	75.00	115.3	153.74*	10-153
30 Hexachlorobutadien	25.00	13.61	54.45	22-100
31 4-Chloro-3-methylp	75.00	56.13	74.84	33-123
32 2-Methylnaphthalen	25.00	17.98	71.90	38-100
33 Hexachlorocyclopen	75.00	47.32	63.10	10-100
34 2,4,6-Trichlorophe	75.00	62.77	83.69	37-120
35 2,4,5-Trichlorophe	75.00	65.55	87.41	37-124
37 2-Chloronaphthalen	25.00	22.45	89.78	49-100
38 2-Nitroaniline	75.00	68.97	91.96	18-140
39 Dimethylphthalate	25.00	20.70	82.82	60-106
40 Acenaphthylene	25.00	20.73	82.94	47-110
41 2,6-Dinitrotoluene	75.00	62.67	83.56	32-129

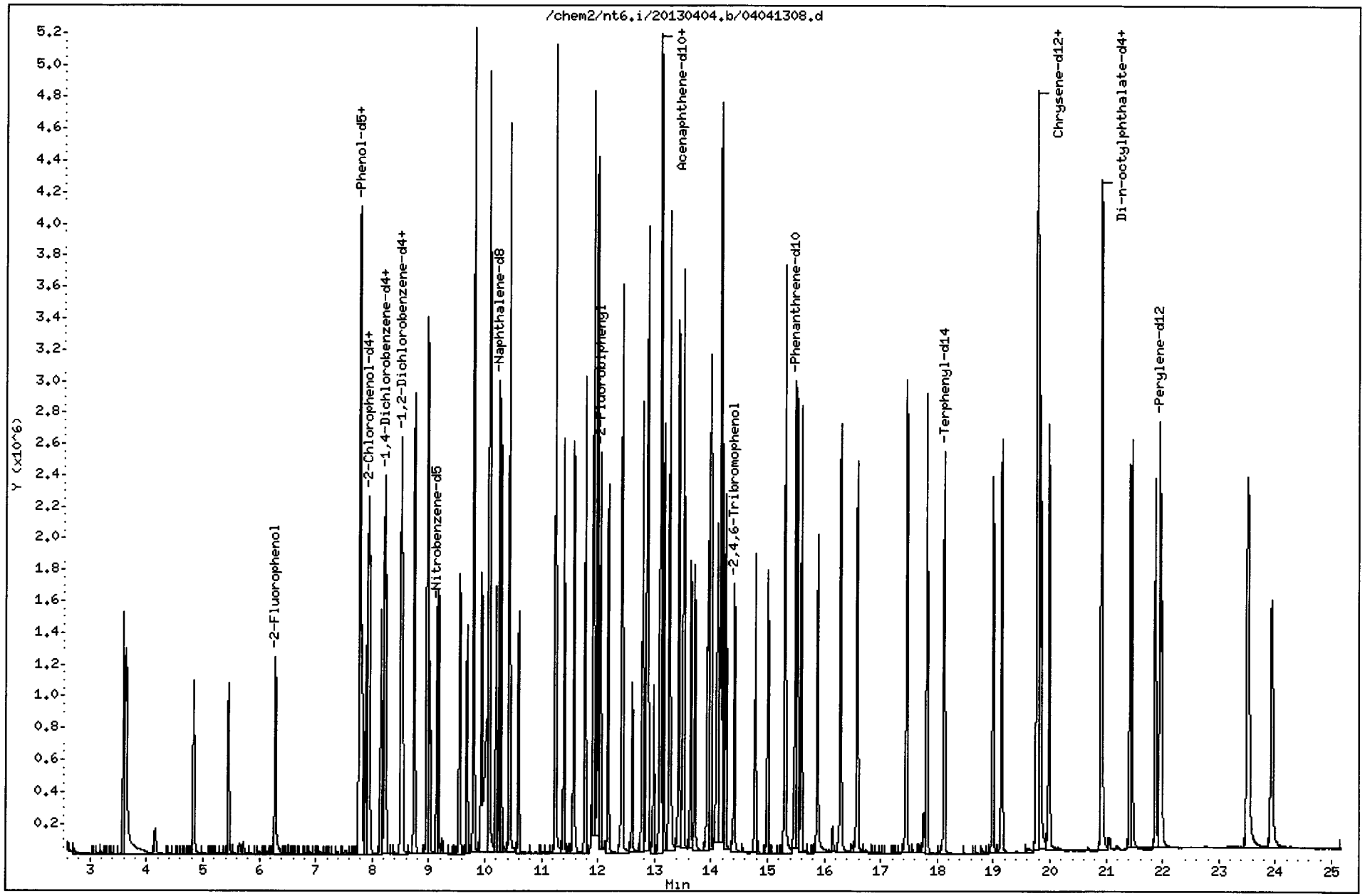
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
43 3-Nitroaniline	75.00	152.1	202.76	10-208
44 Acenaphthene	25.00	20.07	80.27	55-101
45 2,4-Dinitrophenol	125.0	103.8	83.05	10-224
46 Dibenzofuran	25.00	21.78	87.11	46-108
47 4-Nitrophenol	75.00	37.34	49.79	10-103
48 2,4-Dinitrotoluene	75.00	63.91	85.22	33-134
49 Fluorene	25.00	24.46	97.83	59-108
50 Diethylphthalate	25.00	23.86	95.43	60-108
51 4-Chlorophenyl-phe	25.00	20.33	81.32	54-104
52 4-Nitroaniline	75.00	81.25	108.33	13-144
53 4,6-Dinitro-2-meth	137.5	97.88	71.19	10-190
54 N-Nitrosodiphenyla	25.00	19.07	76.30	39-100
56 4-Bromophenyl-phen	25.00	19.22	76.90	56-105
57 Hexachlorobenzene	25.00	17.75	70.98	54-108
58 Pentachlorophenol	75.00	59.55	79.40	25-144
60 Phenanthrene	25.00	19.51	78.03	64-115
61 Anthracene	25.00	19.57	78.30	59-107
62 Carbazole	25.00	24.18	96.73	36-123
63 Di-n-butylphthalat	25.00	19.05	76.22	62-110
64 Fluoranthene	25.00	21.29	85.14	63-119
65 Pyrene	25.00	22.81	91.23	49-118
67 Butylbenzylphthala	25.00	21.51	86.05	49-118
68 Benzo(a)anthracene	25.00	21.30	85.18	61-113
70 3,3'-Dichlorobenzi	75.00	54.46	72.61	10-151
71 Chrysene	25.00	21.56	86.26	62-115
72 bis(2-Ethylhexyl)p	25.00	20.87	83.50	47-127
73 Di-n-octylphthalat	25.00	20.31	81.25	60-106
74 Benzo(b)fluoranthe	25.00	21.39	85.55	61-120
75 Benzo(k)fluoranthe	25.00	20.91	83.63	59-120
76 Benzo(a)pyrene	25.00	20.96	83.86	46-105
78 Indeno(1,2,3-cd)py	25.00	21.88	87.52	42-134
79 Dibenzo(a,h)anthra	25.00	22.40	89.60	46-132
80 Benzo(g,h,i)peryle	25.00	21.90	87.60	33-135
91 Aniline	75.00	48.96	65.27	10-113
111 Azobenzene (1,2-DP	25.00	19.91	79.64	51-111
105 1-methylnaphthalen	25.00	18.07	72.28	43-100
90 N-Nitrosodimethyla	75.00	31.61	42.15	31-100
103 Pyridine	50.00	30.27	60.53	25-100
120 2,3,4,6-Tetrachlor	25.00	24.80	99.21	30-160
151 1,2,4,5-Tetrachlo	25.00	0.000	*	30-160
187 Total Benzofluoran	50.00	41.24	82.48	30-160

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	37.50	16.73	44.60	33-100

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 2 Phenol-d5	37.50	12.71	33.90	15-121
$ 5 2-Chlorophenol-d4	37.50	25.06	66.84	46-102
$ 10 1,2-Dichlorobenzen	25.00	14.70	58.82	40-100
$ 18 Nitrobenzene-d5	25.00	17.18	68.71	50-100
$ 36 2-Fluorobiphenyl	25.00	18.58	74.31	51-100
$ 55 2,4,6-Tribromophen	37.50	36.15	96.39	46-125
$ 66 Terphenyl-d14	25.00	21.45	85.79	54-117

Data File: /chem2/nt6.i/20130404.b/04041308.d
Date : 04-APR-2013 17:54
Client ID: WJ10LCSDW1
Sample Info: WJ10LCSDW1,
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i
Operator: JZ
Column diameter: 0.32



CO-ELUTION SUMMARY FOR FILE - 04041308.d

Lab ID: WJ10LCSDW1, Method: SW846030613.m, Instrument: nt6.i, Date: 04-APR-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Data Review Checklist

ARI WORK Order: WJ10 Client ID: SAIC

METHOD: **8270D**(SIM-SVOA) **KRONE**(Butyl Tins) **8270D**(SVOA) **8270D**(OP-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 01/25/13 Analysis Start Date: 04/06/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
DFTPP Tune met Criteria?	Y / N / ✓	Internal Standard within 50-200%?	Y / N / ✓
DDT Breakdown <20%?	Y / N / ✓	Retention Times within Windows?	Y / N / ✓
Peak Tailing Factor ≤2?	Y / N / ✓	Method Blank in Control?	Y / N / ✓
CCAL Meets %D?	Y / N / ✓	LCS / LCSD Recovery in Control?	Y / N / Benzyl Alcohol - low
ICAL Q Flag applied?	Y / N / ___	LCS / LCSD RPD ≤ 30%?	NA / ___
CCAL Q flag applied?	Y / N / ✓	MS / MSD Recovery in Control?	Y / N / ✓
Surrogate Recovery met?	Y / N / ✓	MS / MSD RPD ≤ 30%?	NA / X
Manual Integrations?	Y / N / ✓	Samples Diluted?	Y / N / ✓
Integration Summary?	Y / N / ✓	Special Analysis Request?	Y / N / ___

Detail problems, corrective actions and/or other pertinent information below.

- D/Dms/Dmsd were run @ 3x dilution due to screens dark color of the extract
- D was run @ 6C x dilution on 4/9/13

(Review 1) Analyst: YZ **Date:** 4/10/13

(Review 2) Reviewer: [signature] **Date:** 4/10

Analytical Resources Inc.: Organics Instrument Log
NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 4/6/13 Analysis: ABN/SIM ABN Analyst: YS/YZ

GC Program: ABN2 Column No: 247358 Column Type: ZB 5msi

Instrument Tune (.U or .CT.): 130228.U EM Voltage: 1625

Calibration File: DF0406 Curve Date: 1/25/13 Injection Vol.: 1uL

IS/SS	Ical/Ccal	LCS/ICV
1978-2	2026-2 2050-L2	
	2064-2 1998-1	
	2068-2	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130406.b

	Time	Filename	LabID	ClientId	DF											
1	1418	df0406 d	DFTPP	DFTPP	1	NO ISTDS FOUND										
2	1432	cc0406 d	ABN 5		1	8.09	42895	10.73	156217	14.59	97299	17.83	168757	23.07	184517	25.37	173421	24.27	222691
3	1546	wj10mb d	WJ10MBS1	WJ10MBS1	1	8.09	38072	10.73	149862	14.59	91166	17.84	155649	23 07	167971	25.38	148650	24.28	196468
4	1622	wj10sb.d	WJ10LCSS1	WJ10LCSS1	1	8.09	38218	10.73	143682	14.60	89116	17.84	155572	23 07	171640	25.38	158429	24 28	206194
5	1659	wj10qlsi d	WJ10QLS1		1	8.09	40112	10.73	153422	14.60	93300	17 85	158452	23.07	175183	25.39	158771	24.29	205549
6	1848	wj10c.d	WJ10C	SD-SP-01-201	1	8.09	44089	10.74	165419	14.61	98501	17.87	132066	23.16	154232	25.50	149923	24.37	190565
7	1925	wj10d d	WJ10D	SD-CB-01-201	3	8.10	38530	10.74	162513	14.61	91312	17.89	119617	23 12	156479	25 44	146490	24.33	202938
8	2001	wj10dms d	WJ10DMS	SD-CB-01-201	3	8.10	40364	10.74	164689	14.61	95360	17.89	120930	23 13	160666	25 45	148974	24.33	207881
9	2038	wj10dmsd d	WJ10DMSD	SD-CB-01-201	3	8.10	39936	10.75	157630	14.62	92971	17.89	124676	23 13	161368	25.45	143745	24 33	201639
10	2114	wj59mb d	WJ59MBS1	WJ59MBS1	1	8.10	44495	10.74	170562	14.61	105791	17.87	170560	23.10	164259	25.42	127201	24.31	216459
11	2150	wj59sb d	WJ59LCSS1	WJ59LCSS1	1	8 09	41028	10.74	156137	14 61	97807	17.87	164643	23.10	167213	25.42	149632	24 31	215140
12	1812	wj59qlsi.d	WJ59QLS1		1	8.09	42674	10.74	164368	14.60	101522	17.86	174413	23.08	188188	25 40	159310	24.30	224546
13	2227	wj59c d	WJ59C	CS-032613<25	5	8 10	39709	10.74	154834	14 61	93400	17.87	155776	23.11	159083	25.44	143590	24 32	203834
14	2303	wj59d.d	WJ59D	HL-032613<25	5	8.11	39440	10.75	151647	14 61	90992	17.87	151952	23.12	155773	25.45	142459	24.34	199078

YZ 4/10/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20130406.b

ARI Job No.: WJ10 Method: ABN.m Instrument: nt10.i Date: 06-APR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1546	wj10mb.d	WJ10MBS1	WJ10MBS1	1	NO MANUAL INTEGRATION
1622	wj10sb.d	WJ10LCSS1	WJ10LCSS1	1	NO MANUAL INTEGRATION
1848	wj10c.d	WJ10C	SD-SP-01-2	1	Benzo(a)anthracene,
1925	wj10d.d	WJ10D	SD-CB-01-2	3	Di-n-octylphthalate, Benzo(k)fluoranthene,
2001	wj10dms.d	WJ10DMS	SD-CB-01-2	3	4-Nitrophenol, Di-n-octylphthalate, Benzo(k)fluoranthene,
2038	wj10dmsd.d	WJ10DMSD	SD-CB-01-2	3	Di-n-octylphthalate,
1247	wj10d60.d	WJ10D	SD-CB-01-2	60	Butylbenzylphthalate, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20130406.b

Instrument: nt10.i Date: 06-APR-2013 Method: ABN.m

INITIAL CAL: 25-JAN-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 06-APR-2013

Compound	%D
Phenol	22.6
Benzyl alcohol	-22.4
2-Nitrophenol	22.0
Hexachlorocyclopentadiene	-21.0
~~Benzidine~~	~~-21.9~~
~~Retene~~	~~-100.0~~

Data File: /chem1/nt10.i/20130406.b/df0406.d

Date : 06-APR-2013 14:18

Client ID: DFTPP

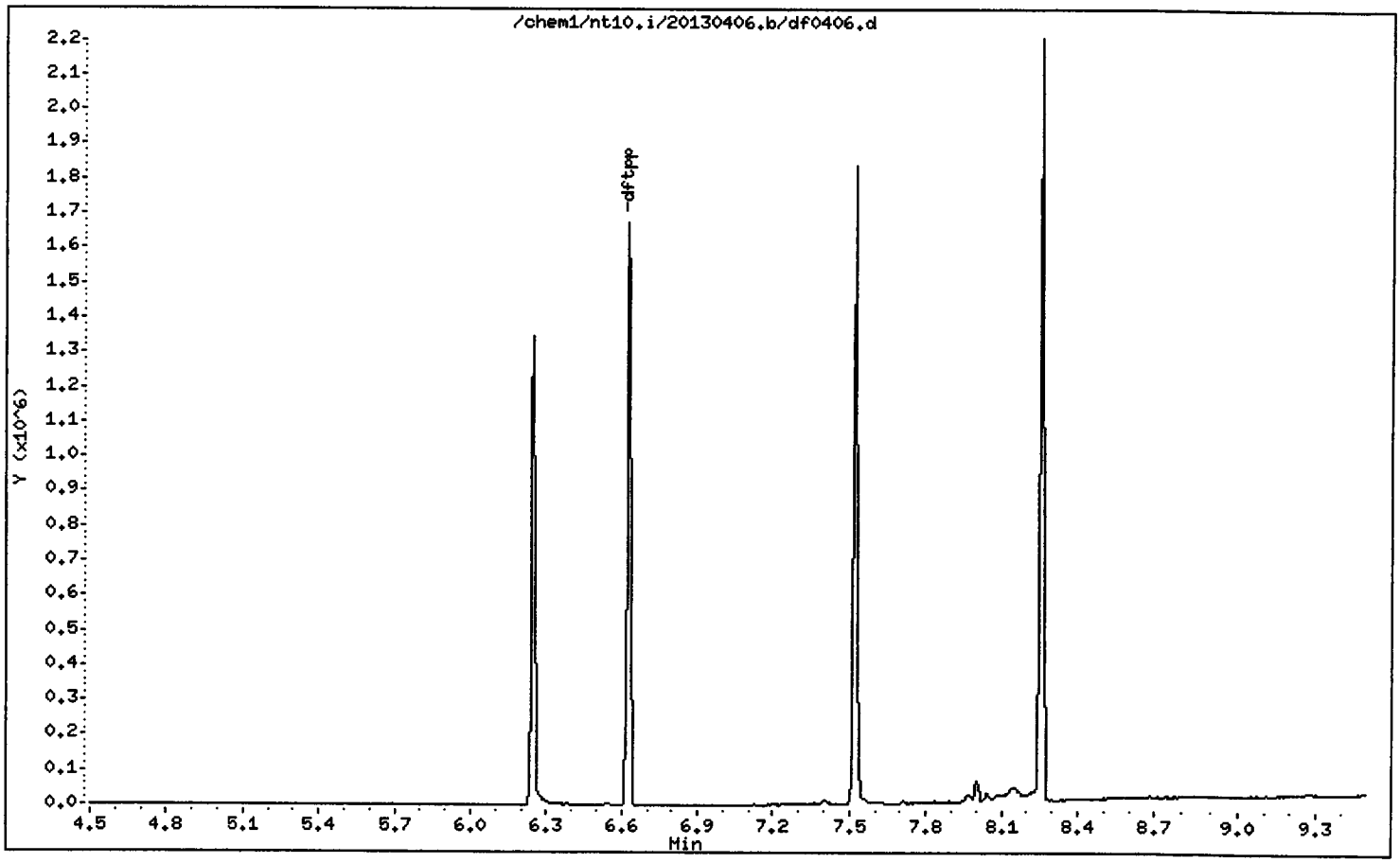
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130406.b/df0406.d

Date : 06-APR-2013 14:18

Client ID: DFTPP

Instrument: nt10.i

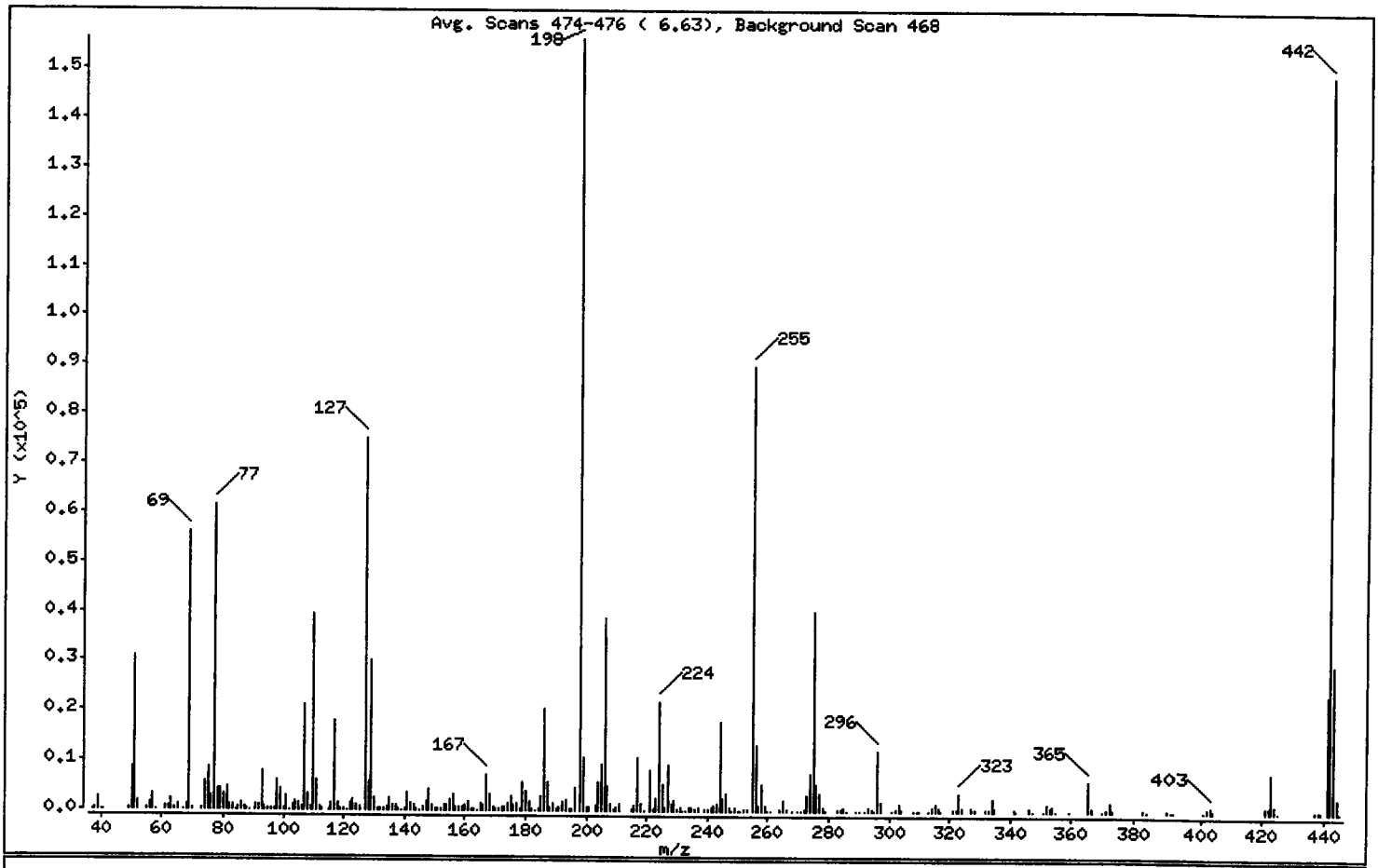
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	19.86
68	Less than 2.00% of mass 69	0.61 (1.71)
69	Mass 69 relative abundance	35.88
70	Less than 2.00% of mass 69	0.15 (0.41)
127	10.00 - 80.00% of mass 198	48.09
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 60.00% of mass 198	25.68
365	Greater than 1.00% of mass 198	3.85
441	0.01 - 24.00% of mass 442	15.19 (15.93)
442	50.00 - 200.00% of mass 198	95.33
443	15.00 - 24.00% of mass 442	18.99 (19.92)

Data File: df0406.d
Spectrum: Avg. Scans 474-476 (6.63), Background Scan 468
Location of Maximum: 198.00
Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	66	125.00	884	199.00	10623	285.00	644
38.00	454	127.00	75112	200.00	815	286.00	56
39.00	2411	128.00	5826	201.00	781	289.00	121
40.00	132	129.00	30136	203.00	1116	290.00	67
41.00	111	130.00	2632	204.00	5652	292.00	132
49.00	300	131.00	523	205.00	9430	293.00	782
50.00	8634	132.00	314	206.00	38656	294.00	281
51.00	31024	133.00	194	207.00	5001	295.00	149
52.00	1669	134.00	849	208.00	1410	296.00	12208
55.00	325	135.00	2552	209.00	490	297.00	1717
56.00	1383	136.00	989	210.00	584	301.00	70
57.00	3188	137.00	1050	211.00	1550	302.00	210
58.00	66	138.00	246	215.00	479	303.00	1457
61.00	648	139.00	125	216.00	974	304.00	397
62.00	749	140.00	341	217.00	10776	308.00	144
63.00	2081	141.00	3745	218.00	1393	309.00	62
64.00	309	142.00	1261	219.00	128	310.00	142
65.00	1048	143.00	903	221.00	8221	313.00	67
67.00	62	144.00	231	222.00	362	314.00	663
68.00	957	145.00	167	223.00	2657	315.00	1524
69.00	56048	146.00	695	224.00	21928	316.00	739
70.00	229	147.00	1950	225.00	5541	317.00	52
73.00	411	148.00	4181	226.00	583	321.00	450
74.00	5616	149.00	901	227.00	9377	322.00	200
75.00	8646	150.00	253	228.00	1447	323.00	3652
76.00	3012	151.00	479	229.00	2022	324.00	727
77.00	61504	152.00	390	230.00	317	327.00	788
78.00	4155	153.00	1205	231.00	868	328.00	412
79.00	4261	154.00	941	232.00	52	332.00	240
80.00	3391	155.00	2119	233.00	128	333.00	461
81.00	4702	156.00	3134	234.00	628	334.00	2504
82.00	1247	157.00	588	235.00	683	335.00	628
83.00	1198	158.00	688	236.00	425	341.00	443
84.00	19	159.00	555	237.00	774	342.00	115
85.00	846	160.00	1109	239.00	395	346.00	891

Data File: /chem1/nt10.i/20130406.b/df0406.d

Date : 06-APR-2013 14:18

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Avg. Scans 474-476 (6.63), Background Scan 468

Location of Maximum: 198.00

Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	1379	161.00	1795	240.00	330	347.00	127
87.00	592	162.00	496	241.00	570	351.00	55
88.00	225	163.00	204	242.00	1155	352.00	1263
89.00	79	164.00	151	243.00	1377	353.00	851
91.00	1127	165.00	1432	244.00	18080	354.00	1218
92.00	1241	166.00	1107	245.00	2438	355.00	171
93.00	8000	167.00	7238	246.00	3501	359.00	54
94.00	576	168.00	3100	247.00	692	365.00	6020
95.00	224	169.00	603	248.00	151	366.00	800
96.00	453	170.00	236	249.00	716	370.00	114
97.00	269	171.00	367	250.00	107	371.00	339
98.00	6130	172.00	750	251.00	160	372.00	1961
99.00	4441	173.00	878	252.00	232	373.00	504
100.00	457	174.00	1557	253.00	511	383.00	513
101.00	2733	175.00	2994	255.00	89816	384.00	158
102.00	116	176.00	942	256.00	13271	390.00	314
103.00	1016	177.00	1396	257.00	1013	391.00	156
104.00	1732	178.00	468	258.00	5517	392.00	53
105.00	1550	179.00	5774	259.00	910	401.00	138
106.00	565	180.00	3941	260.00	128	402.00	846
107.00	21304	181.00	1924	261.00	158	403.00	1157
108.00	3278	182.00	284	264.00	259	404.00	440
109.00	695	183.00	63	265.00	2055	421.00	1013
110.00	39328	184.00	449	266.00	404	422.00	1011
111.00	5944	185.00	2875	268.00	60	423.00	7778
112.00	691	186.00	20608	270.00	51	424.00	1570
113.00	247	187.00	5824	271.00	165	425.00	117
115.00	52	188.00	629	272.00	303	437.00	238
116.00	1304	189.00	1302	273.00	3122	438.00	337
117.00	18032	190.00	223	274.00	7420	439.00	528
118.00	1275	191.00	601	275.00	40112	441.00	23720
119.00	198	192.00	1862	276.00	5551	442.00	148864
120.00	254	193.00	2022	277.00	3656	443.00	29664
121.00	111	194.00	441	278.00	572	444.00	2723
122.00	1436	195.00	407	279.00	58	445.00	147

Data File: /chem1/nt10.i/20130406.b/df0406.d

Date : 06-APR-2013 14:18

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Avg. Scans 474-476 (6.63), Background Scan 468

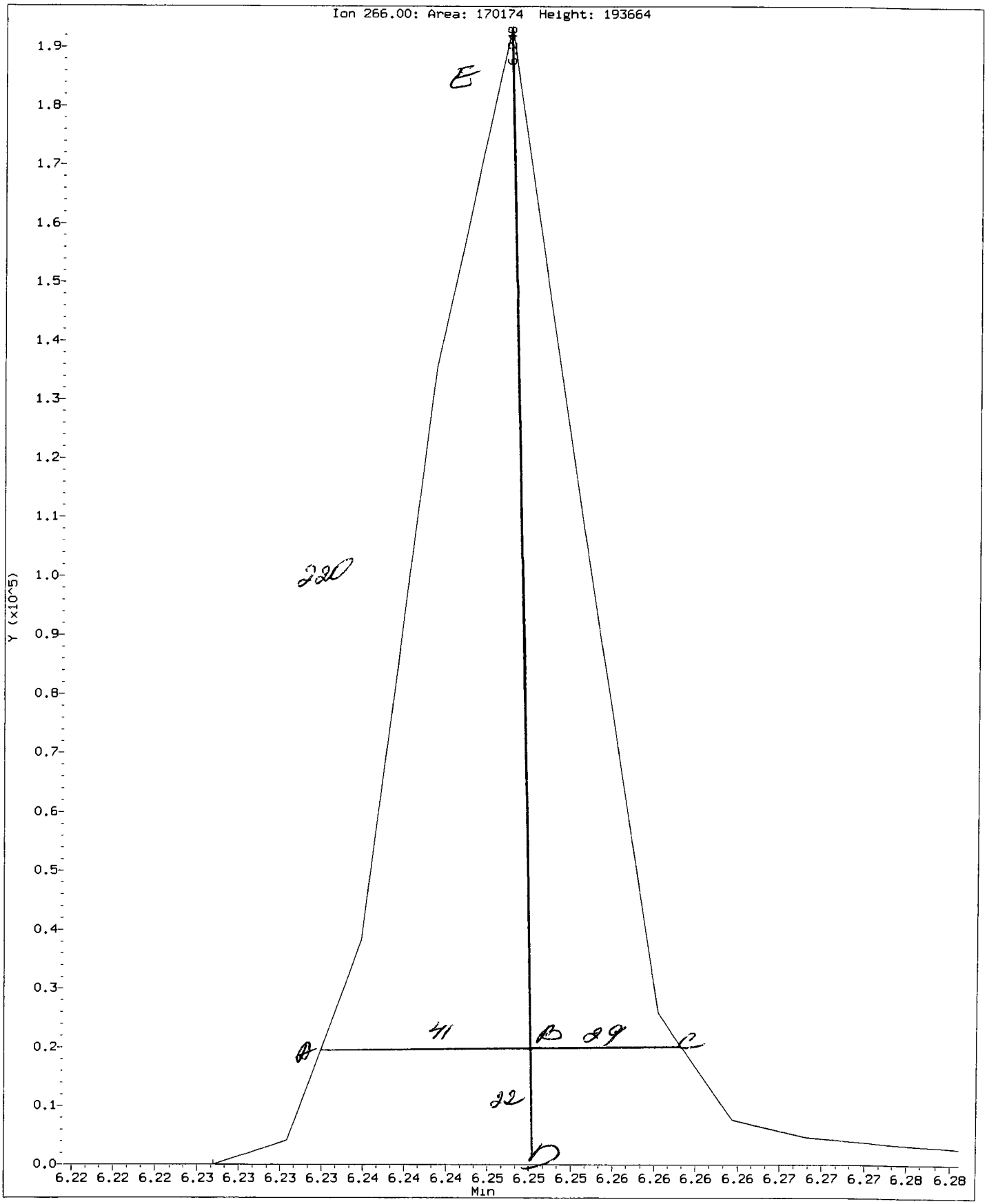
Location of Maximum: 198.00

Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	2246	196.00	4815	283.00	441		
124.00	986	198.00	156160	284.00	268		

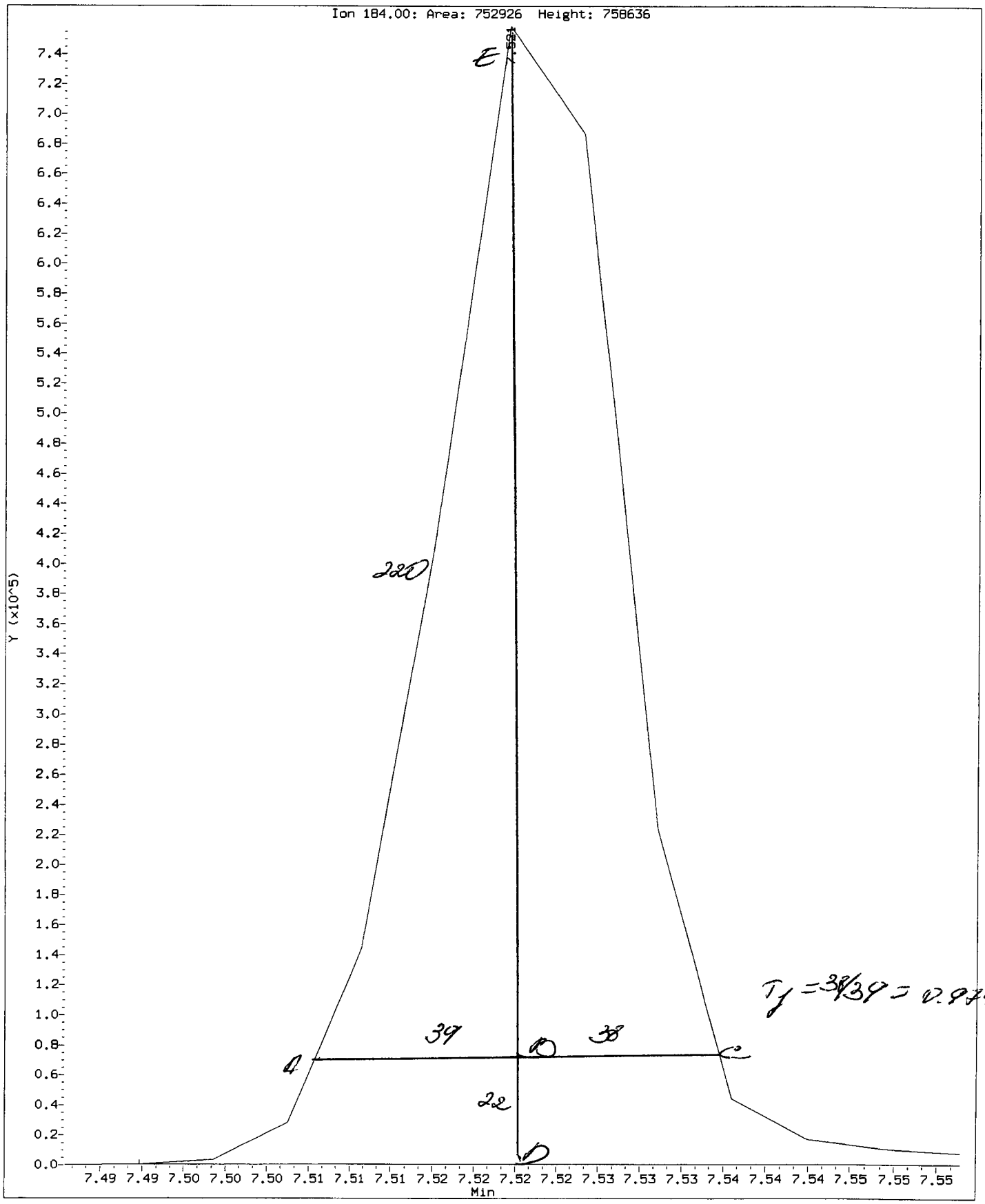
Data File: /chem1/nt10.1/20130406.b/DDT.b/df0406.d
Injection Date: 06-APR-2013 14:18
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20130406.b/DDT.b/df0406.d
Injection Date: 06-APR-2013 14:18
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130406.b/DDT.b/df0406.d
Method: /chem1/nt10.i/20130406.b/DDT.b/sw846ddt.m
Analysis Date: 06-APR-2013 14:18

ARI ID: DFTPP
Misc: 11-
Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.248	170174
Benzidine	7.521	752926
4,4'-DDE	7.713	1040
4,4'-DDD	8.002	10377
4,4'-DDT	8.259	415515

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(1040 + 10377) * 100}{(1040 + 10377 + 415515)}$$

DDT Percent Breakdown = 2.7 %

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130406.b/cc0406.d
Lab Smp Id: ABN 5
Inj Date : 06-APR-2013 14:32
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : ABN 5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130406.b/ABN.m
Meth Date : 06-Apr-2013 15:23 van Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.798	5.798	(0.717)	68758	5.00000	5.013
$	2 Phenol-d5	99	7.537	7.537	(0.932)	90046	5.00000	5.291
	3 Phenol	94	7.560	7.560	(0.935)	109814	5.00000	6.130 (M)
$	5 2-Chlorophenol-d4	132	7.714	7.714	(0.954)	78653	5.00000	5.337
	4 Bis(2-Chloroethyl)ether	93	7.660	7.660	(0.947)	64311	5.00000	4.718
	6 2-Chlorophenol	128	7.745	7.745	(0.958)	83016	5.00000	5.325
	7 1,3-Dichlorobenzene	146	8.009	8.009	(0.990)	76056	5.00000	4.484
*	8 1,4-Dichlorobenzene-d4	152	8.086	8.086	(1.000)	42895	4.00000	
	9 1,4-Dichlorobenzene	146	8.117	8.117	(1.004)	76055	5.00000	4.528
$	10 1,2-Dichlorobenzene-d4	152	8.459	8.459	(1.046)	49764	5.00000	4.595
	12 1,2-Dichlorobenzene	146	8.490	8.490	(1.050)	71410	5.00000	4.422
	11 Benzyl alcohol	108	8.435	8.435	(1.043)	33246	5.00000	3.878 (M)
	14 2,2'-oxybis(1-Chloropropane)	121	8.754	8.754	(1.083)	21648	5.00000	4.514
	13 2-Methylphenol	108	8.731	8.731	(1.080)	72287	5.00000	5.346
	17 Hexachloroethane	117	9.111	9.111	(1.127)	30694	5.00000	4.623
	16 N-Nitroso-di-n-propylamine	70	9.033	9.033	(1.117)	43859	5.00000	4.855
	15 4-Methylphenol	108	9.033	9.033	(1.117)	75455	5.00000	5.366
$	18 Nitrobenzene-d5	82	9.258	9.258	(0.863)	73133	5.00000	5.072
	19 Nitrobenzene	77	9.297	9.297	(0.867)	66244	5.00000	4.846
	20 Isophorone	82	9.802	9.802	(0.914)	123925	5.00000	5.201
	21 2-Nitrophenol	139	9.972	9.972	(0.930)	49009	5.00000	6.101
	22 2,4-Dimethylphenol	107	10.134	10.134	(0.945)	161133	10.0000	11.77
	23 Bis(2-Chloroethoxy)methane	93	10.312	10.312	(0.961)	75802	5.00000	5.051
	24 Benzoic acid	105	10.458	10.458	(0.975)	216360	20.0000	18.51
	25 2,4-Dichlorophenol	162	10.489	10.489	(0.978)	124065	10.0000	10.37
	26 1,2,4-Trichlorobenzene	180	10.651	10.651	(0.993)	64111	5.00000	4.708

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.729	10.729	(1.000)	156217	4.00000	
	28 Naphthalene	128	10.767	10.767	(1.004)	187512	5.00000	4.613
	29 4-Chloroaniline	127	10.968	10.968	(1.022)	152140	10.0000	9.300
	30 Hexachlorobutadiene	225	11.200	11.200	(1.044)	40811	5.00000	4.809
	31 4-Chloro-3-methylphenol	107	12.074	12.074	(1.125)	130090	10.0000	11.25
	32 2-Methylnaphthalene	142	12.276	12.276	(1.144)	132156	5.00000	4.924
	33 Hexachlorocyclopentadiene	237	12.786	12.786	(0.876)	86683	10.0000	7.899
	34 2,4,6-Trichlorophenol	196	12.980	12.980	(0.890)	96657	10.0000	9.913
	35 2,4,5-Trichlorophenol	196	13.057	13.057	(0.895)	111536	10.0000	10.76
$	36 2-Fluorobiphenyl	172	13.150	13.150	(0.901)	157992	5.00000	4.733
	37 2-Chloronaphthalene	162	13.320	13.320	(0.913)	128030	5.00000	4.764
	38 2-Nitroaniline	65	13.653	13.653	(0.936)	71023	10.0000	11.27
	39 Dimethylphthalate	163	14.164	14.164	(0.971)	141065	5.00000	4.793
	40 Acenaphthylene	152	14.241	14.241	(0.976)	209133	5.00000	4.771
	41 2,6-Dinitrotoluene	165	14.288	14.288	(0.979)	68151	10.0000	10.14
*	42 Acenaphthene-d10	164	14.590	14.590	(1.000)	97299	4.00000	
	43 3-Nitroaniline	138	14.574	14.574	(0.999)	67202	10.0000	10.82
	44 Acenaphthene	153	14.659	14.659	(1.005)	126062	5.00000	4.691
	45 2,4-Dinitrophenol	184	14.806	14.806	(1.015)	110879	20.0000	18.91
	46 Dibenzofuran	168	15.015	15.015	(1.029)	188507	5.00000	5.043
	47 4-Nitrophenol	109	15.038	15.038	(1.031)	42212	10.0000	9.977
	48 2,4-Dinitrotoluene	165	15.146	15.146	(1.038)	93076	10.0000	10.24
	50 Diethylphthalate	149	15.749	15.749	(1.079)	146185	5.00000	4.742
	49 Fluorene	166	15.780	15.780	(1.082)	152254	5.00000	4.796
	51 4-Chlorophenyl-phenylether	204	15.819	15.819	(1.084)	80215	5.00000	5.422
	52 4-Nitroaniline	138	15.935	15.935	(1.092)	70804	10.0000	10.80
	53 4,6-Dinitro-2-methylphenol	198	16.042	16.042	(0.900)	147465	20.0000	21.82
	54 N-Nitrosodiphenylamine	169	16.104	16.104	(0.903)	94300	5.00000	4.639
$	55 2,4,6-Tribromophenol	330	16.359	16.359	(1.121)	27317	5.00000	4.399
	56 4-Bromophenyl-phenylether	248	16.891	16.891	(0.947)	46076	5.00000	4.895
	57 Hexachlorobenzene	284	17.184	17.184	(0.964)	55346	5.00000	4.685
	58 Pentachlorophenol	266	17.602	17.602	(0.987)	69485	10.0000	8.820
*	59 Phenanthrene-d10	188	17.834	17.834	(1.000)	168757	4.00000	
	60 Phenanthrene	178	17.889	17.889	(1.003)	212852	5.00000	4.731
	61 Anthracene	178	17.989	17.989	(1.009)	220326	5.00000	4.864
	62 Carbazole	167	18.384	18.384	(1.031)	142955	5.00000	4.725
	63 Di-n-butylphthalate	149	19.359	19.359	(1.085)	238265	5.00000	4.929
	64 Fluoranthene	202	20.403	20.403	(1.144)	258349	5.00000	4.987
	65 Pyrene	202	20.821	20.821	(0.903)	264623	5.00000	5.035
$	66 Terphenyl-d14	244	21.200	21.200	(0.919)	169894	5.00000	4.794
	67 Butylbenzylphthalate	149	22.199	22.199	(0.962)	100138	5.00000	5.023
	68 Benzo(a)anthracene	228	23.035	23.035	(0.999)	248461	5.00000	4.826
*	69 Chrysene-d12	240	23.066	23.066	(1.000)	184517	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.051	23.051	(0.999)	197518	10.0000	9.182
	71 Chrysene	228	23.105	23.105	(1.002)	214058	5.00000	4.590
	72 bis(2-Ethylhexyl)phthalate	149	23.283	23.283	(0.959)	137160	5.00000	4.669
*	134 Di-n-octylphthalate-d4	153	24.274	24.274	(1.000)	222491	4.00000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73 Di-n-octylphthalate	149	24.282	24.282	(1.000)	232811	5.00000	4.290
74 Benzo(b)fluoranthene	252	24.808	24.808	(0.978)	242257	5.00000	4.820
75 Benzo(k)fluoranthene	252	24.839	24.839	(0.979)	251357	5.00000	4.629
* 76 Benzo(a)pyrene	252	25.288	25.288	(0.997)	204494	5.00000	4.704
77 Perylene-d12	264	25.373	25.373	(1.000)	173421	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	27.241	27.241	(1.074)	244375	5.00000	4.559
79 Dibenzo(a,h)anthracene	278	27.264	27.264	(1.075)	191452	5.00000	4.510
80 Benzo(g,h,i)perylene	276	27.762	27.762	(1.094)	197126	5.00000	4.286
90 N-Nitrosodimethylamine	74	3.512	3.512	(0.434)	80708	10.0000	9.890
91 Aniline	93	7.529	7.529	(0.931)	199310	5.00000	5.156
93 Benzidine	184	20.713	20.713	(0.898)	66395	10.0000	7.812
103 Pyridine	79	3.512	3.512	(0.434)	68611	10.0000	9.857
105 1-methylnaphthalene	142	12.500	12.500	(1.165)	119624	5.00000	4.859
111 Azobenzene (1,2-DP-Hydrazine)	77	16.166	16.166	(1.108)	129657	5.00000	4.637
187 Total Benzofluoranthenes	252	24.808	24.808	(0.978)	460036	10.0000	9.298
99 Perylene	252	25.412	25.412	(1.002)	224394	5.00000	4.492
98 Retene	219	Compound Not Detected.					
120 2,3,4,6-Tetrachlorophenol	232	15.417	15.417	(1.057)	45008	5.00000	4.966

QC Flag Legend

M - Compound response manually integrated.

4.6.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0406.d
Lab Smp Id: ABN 5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info:

Calibration Date: 06-APR-2013
Calibration Time: 13:45

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	42895	-8.00
27 Naphthalene-d8	176978	88489	353956	156217	-11.73
42 Acenaphthene-d10	110872	55436	221744	97299	-12.24
59 Phenanthrene-d10	188290	94145	376580	168757	-10.37
69 Chrysene-d12	213681	106840	427362	184517	-13.65
134 Di-n-octylphthala	264159	132080	528318	222491	-15.77
77 Perylene-d12	208584	104292	417168	173421	-16.86

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.09	0.00
27 Naphthalene-d8	10.73	10.23	11.23	10.73	0.00
42 Acenaphthene-d10	14.59	14.09	15.09	14.59	0.00
59 Phenanthrene-d10	17.83	17.33	18.33	17.83	0.00
69 Chrysene-d12	23.07	22.57	23.57	23.07	0.00
134 Di-n-octylphthala	24.27	23.77	24.77	24.27	0.00
77 Perylene-d12	25.37	24.87	25.87	25.37	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0406.d
Analysis Type:
Lab Sample ID: ABN 5
Method: /chem1/nt10.i/20130406.b/ABN.m

Injection Date: 06-APR-2013 14:32
Init. Cal. Date(s): 25-JAN-2013 25-JAN-2013
Init. Cal. Times: 12:59 17:16
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	1.27898	1.28235	1.28235	0.010	0.26310	20.00000	Averaged	
$ 2 Phenol-d5	1.58709	1.67938	1.67938	0.010	5.81451	20.00000	Averaged	
3 Phenol	1.67046	2.04805	2.04805	0.100	22.60388	20.00000	Averaged	<-
$ 5 2-Chlorophenol-d4	1.37422	1.46689	1.46689	0.010	6.74341	20.00000	Averaged	
4 Bis(2-Chloroethyl)ether	1.27098	1.19941	1.19941	0.700	-5.63063	20.00000	Averaged	
6 2-Chlorophenol	1.45366	1.54826	1.54826	0.800	6.50805	20.00000	Averaged	
7 1,3-Dichlorobenzene	1.58180	1.41846	1.41846	0.010	-10.32619	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.56627	1.41844	1.41844	0.010	-9.43847	20.00000	Averaged	
$ 10 1,2-Dichlorobenzene-d4	1.00989	0.92811	0.92811	0.010	-8.09849	20.00000	Averaged	
12 1,2-Dichlorobenzene	1.50604	1.33181	1.33181	0.010	-11.56851	20.00000	Averaged	
11 Benzyl alcohol	0.79941	0.62005	0.62005	0.010	-22.43667	20.00000	Averaged	<-
14 2,2'-oxybis(1-Chloropropane	0.44716	0.40374	0.40374	0.010	-9.71122	20.00000	Averaged	
13 2-Methylphenol	1.26098	1.34817	1.34817	0.700	6.91429	20.00000	Averaged	
17 Hexachloroethane	0.61907	0.57245	0.57245	0.300	-7.53102	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.84248	0.81798	0.81798	0.500	-2.90829	20.00000	Averaged	
15 4-Methylphenol	1.31137	1.40725	1.40725	0.600	7.31161	20.00000	Averaged	
$ 18 Nitrobenzene-d5	0.36919	0.37452	0.37452	0.010	1.44483	20.00000	Averaged	
19 Nitrobenzene	0.35004	0.33924	0.33924	0.200	-3.08443	20.00000	Averaged	
20 Isophorone	0.61012	0.63463	0.63463	0.300	4.01744	20.00000	Averaged	
21 2-Nitrophenol	0.20568	0.25098	0.25098	0.100	22.02663	20.00000	Averaged	<-
22 2,4-Dimethylphenol	0.35058	0.41259	0.41259	0.200	17.68661	20.00000	Averaged	
23 Bis(2-Chloroethoxy)methane	0.38425	0.38819	0.38819	0.050	1.02524	20.00000	Averaged	
24 Benzoic acid	18.50611	20.00000	0.27700	0.010	-7.46944	20.00000	Quadratic	
25 2,4-Dichlorophenol	0.30640	0.31767	0.31767	0.100	3.67955	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.34870	0.32832	0.32832	0.010	-5.84505	20.00000	Averaged	
28 Naphthalene	1.04083	0.96026	0.96026	0.100	-7.74086	20.00000	Averaged	
29 4-Chloroaniline	0.41889	0.38956	0.38956	0.010	-7.00113	20.00000	Averaged	
30 Hexachlorobutadiene	0.21732	0.20900	0.20900	0.010	-3.82863	20.00000	Averaged	
31 4-Chloro-3-methylphenol	0.29615	0.33310	0.33310	0.200	12.47848	20.00000	Averaged	
32 2-Methylnaphthalene	0.68720	0.67678	0.67678	0.300	-1.51621	20.00000	Averaged	
33 Hexachlorocyclopentadiene	0.45113	0.35636	0.35636	0.001	-21.00736	20.00000	Averaged	<-
34 2,4,6-Trichlorophenol	0.40085	0.39736	0.39736	0.200	-0.87033	20.00000	Averaged	
35 2,4,5-Trichlorophenol	0.42597	0.45853	0.45853	0.200	7.64310	20.00000	Averaged	
$ 36 2-Fluorobiphenyl	1.37225	1.29902	1.29902	0.010	-5.33661	20.00000	Averaged	
37 2-Chloronaphthalene	1.10490	1.05267	1.05267	0.700	-4.72716	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0406.d
Analysis Type:
Lab Sample ID: ABN 5
Method: /chem1/nt10.i/20130406.b/ABN.m

Injection Date: 06-APR-2013 14:32
Init. Cal. Date(s): 25-JAN-2013 25-JAN-2013
Init. Cal. Times: 12:59 17:16
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
38 2-Nitroaniline	0.25914	0.29198	0.29198	0.010	12.67339	20.00000	Averaged
39 Dimethylphthalate	1.20981	1.15985	1.15985	0.010	-4.13016	20.00000	Averaged
40 Acenaphthylene	1.80186	1.71951	1.71951	0.900	-4.57030	20.00000	Averaged
41 2,6-Dinitrotoluene	0.27639	0.28017	0.28017	0.100	1.36858	20.00000	Averaged
43 3-Nitroaniline	0.25523	0.27627	0.27627	0.010	8.24249	20.00000	Averaged
44 Acenaphthene	1.10485	1.03649	1.03649	0.100	-6.18726	20.00000	Averaged
45 2,4-Dinitrophenol	18.90687	20.00000	0.22791	0.030	-5.46564	20.00000	Quadratic
46 Dibenzofuran	1.53658	1.54992	1.54992	0.800	0.86788	20.00000	Averaged
47 4-Nitrophenol	9.97657	10.00000	0.17354	0.010	-0.23434	20.00000	Quadratic
48 2,4-Dinitrotoluene	0.37372	0.38264	0.38264	0.200	2.38774	20.00000	Averaged
50 Diethylphthalate	1.26733	1.20194	1.20194	0.010	-5.15897	20.00000	Averaged
49 Fluorene	1.30516	1.25184	1.25184	0.100	-4.08501	20.00000	Averaged
51 4-Chlorophenyl-phenylether	0.60824	0.65953	0.65953	0.100	8.43326	20.00000	Averaged
52 4-Nitroaniline	0.26944	0.29108	0.29108	0.010	8.02994	20.00000	Averaged
53 4,6-Dinitro-2-methylphenol	0.16018	0.17477	0.17477	0.001	9.10376	20.00000	Averaged
54 N-Nitrosodiphenylamine	0.48183	0.44703	0.44703	0.010	-7.22128	20.00000	Averaged
$ 55 2,4,6-Tribromophenol	0.25526	0.22460	0.22460	0.010	-12.01088	20.00000	Averaged
56 4-Bromophenyl-phenylether	0.22313	0.21843	0.21843	0.100	-2.10644	20.00000	Averaged
57 Hexachlorobenzene	0.28001	0.26237	0.26237	0.100	-6.30122	20.00000	Averaged
58 Pentachlorophenol	0.18673	0.16470	0.16470	0.010	-11.79691	20.00000	Averaged
60 Phenanthrene	1.06632	1.00903	1.00903	0.700	-5.37202	20.00000	Averaged
61 Anthracene	1.07365	1.04447	1.04447	0.700	-2.71833	20.00000	Averaged
62 Carbazole	0.71710	0.67768	0.67768	0.010	-5.49708	20.00000	Averaged
63 Di-n-butylphthalate	1.14571	1.12951	1.12951	0.010	-1.41456	20.00000	Averaged
64 Fluoranthene	1.22799	1.22471	1.22471	0.600	-0.26683	20.00000	Averaged
65 Pyrene	1.13938	1.14731	1.14731	0.600	0.69649	20.00000	Averaged
$ 66 Terphenyl-d14	0.76828	0.73660	0.73660	0.010	-4.12387	20.00000	Averaged
67 Butylbenzylphthalate	0.43214	0.43416	0.43416	0.010	0.46825	20.00000	Averaged
68 Benzo(a)anthracene	1.11613	1.07724	1.07724	0.700	-3.48413	20.00000	Averaged
70 3,3'-Dichlorobenzidine	0.46632	0.42818	0.42818	0.010	-8.17892	20.00000	Averaged
71 Chrysene	1.01092	0.92808	0.92808	0.700	-8.19453	20.00000	Averaged
72 bis(2-Ethylhexyl)phthalate	0.52819	0.49318	0.49318	0.010	-6.62865	20.00000	Averaged
73 Di-n-octylphthalate	0.97573	0.83711	0.83711	0.010	-14.20699	20.00000	Averaged
74 Benzo(b)fluoranthene	1.15936	1.11754	1.11754	0.700	-3.60651	20.00000	Averaged
75 Benzo(k)fluoranthene	1.25249	1.15952	1.15952	0.700	-7.42255	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0406.d
Analysis Type:
Lab Sample ID: ABN 5
Method: /chem1/nt10.i/20130406.b/ABN.m

Injection Date: 06-APR-2013 14:32
Init. Cal. Date(s): 25-JAN-2013 25-JAN-2013
Init. Cal. Times: 12:59 17:16
Quant Type: ISTD

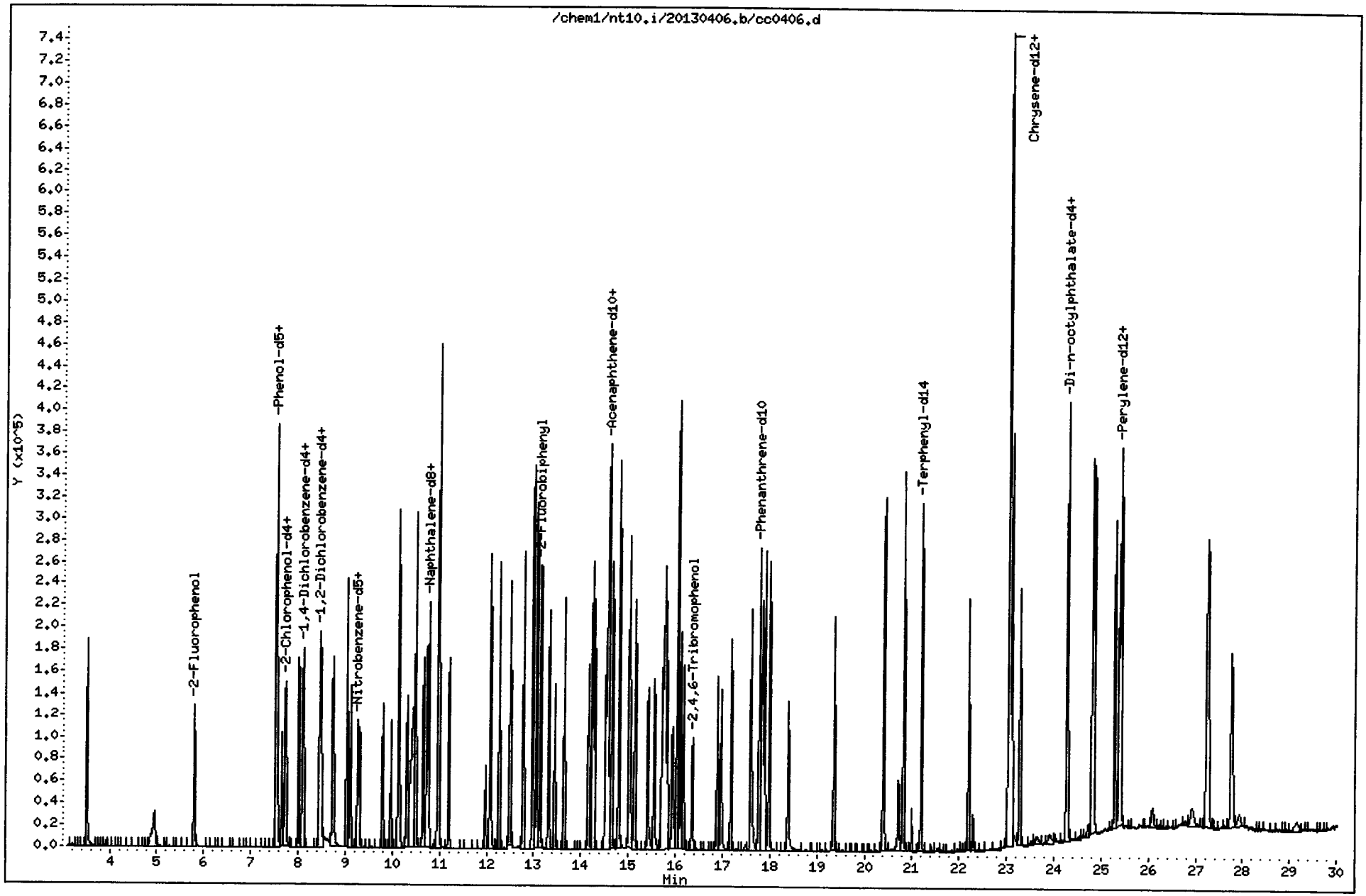
COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
76 Benzo(a)pyrene	1.00265	0.94334	0.94334	0.700	-5.91489	20.00000	Averaged	
78 Indeno(1,2,3-cd)pyrene	1.23647	1.12731	1.12731	0.500	-8.82771	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	0.97912	0.88318	0.88318	0.400	-9.79913	20.00000	Averaged	
80 Benzo(g,h,i)perylene	1.06086	0.90935	0.90935	0.500	-14.28125	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.76098	0.75261	0.75261	0.010	-1.10012	20.00000	Averaged	
91 Aniline	3.60472	3.71717	3.71717	0.010	3.11940	20.00000	Averaged	
93 Benzidine	7.81206	10.00000	0.14393	0.010	-21.87944	20.00000	Quadratic	<-
103 Pyridine	0.64909	0.63980	0.63980	0.010	-1.43124	20.00000	Averaged	
105 1-methylnaphthalene	0.63035	0.61260	0.61260	0.010	-2.81565	20.00000	Averaged	
111 Azobenzene (1,2-DP-Hydrazin	1.14954	1.06605	1.06605	0.010	-7.26258	20.00000	Averaged	
187 Total Benzofluoranthenes	1.14121	1.06108	1.06108	0.010	-7.02140	20.00000	Averaged	
99 Perylene	1.15229	1.03514	1.03514	0.010	-10.16685	20.00000	Averaged	
98 Retene	++++	++++	++++	0.010	++++	20.00000	Quadratic	<-
120 2,3,4,6-Tetrachlorophenol	0.37257	0.37006	0.37006	0.010	-0.67308	20.00000	Averaged	

Data File: /chem1/nt10.i/20130406.b/cc0406.d
Date : 06-APR-2013 14:32
Client ID:
Sample Info: ABN 5

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - cc0406.d

Lab ID: ABN 5, Method: ABN.m, Instrument: nt10.i, Date: 06-APR-2013

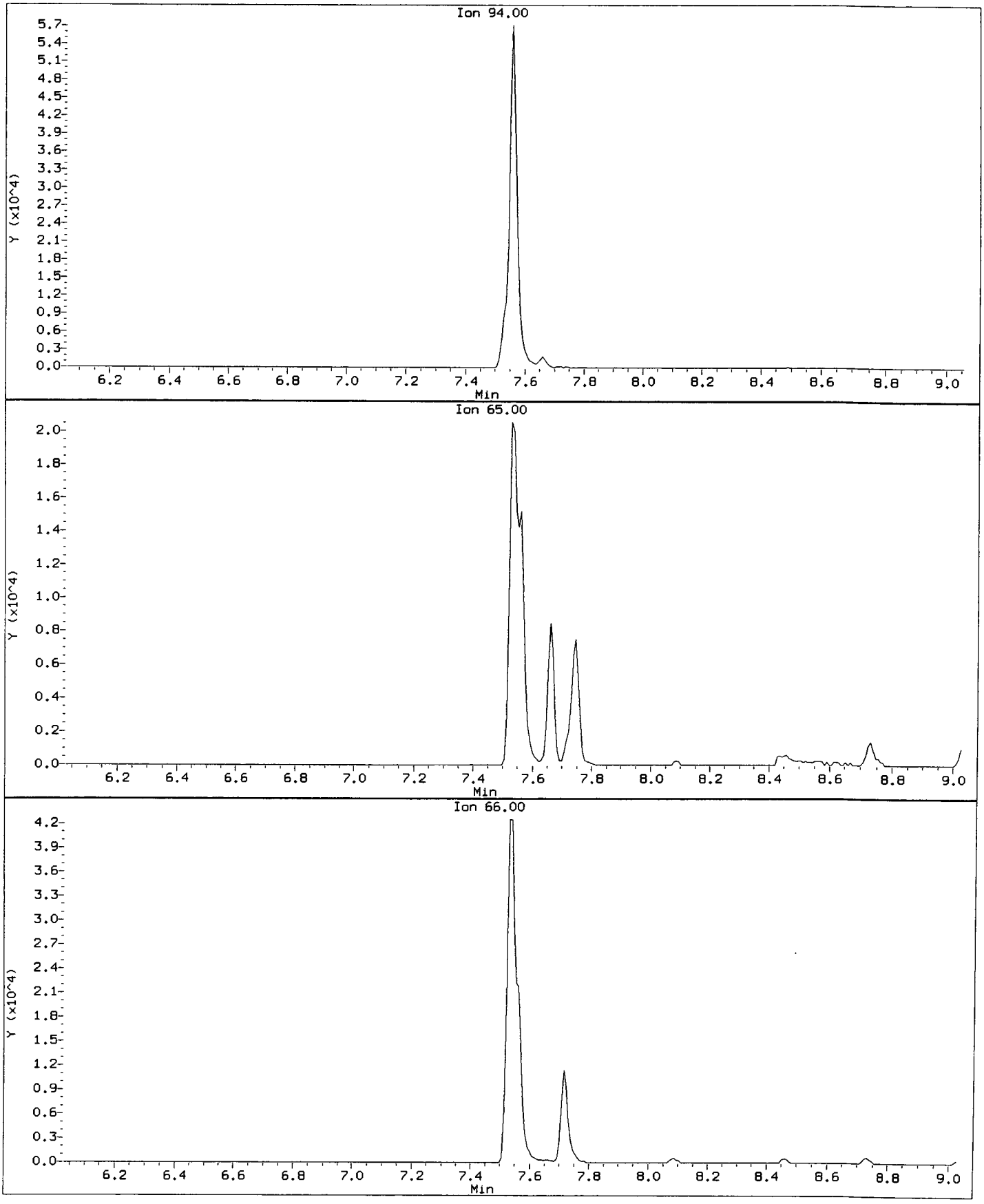
RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

VD
4.6.3

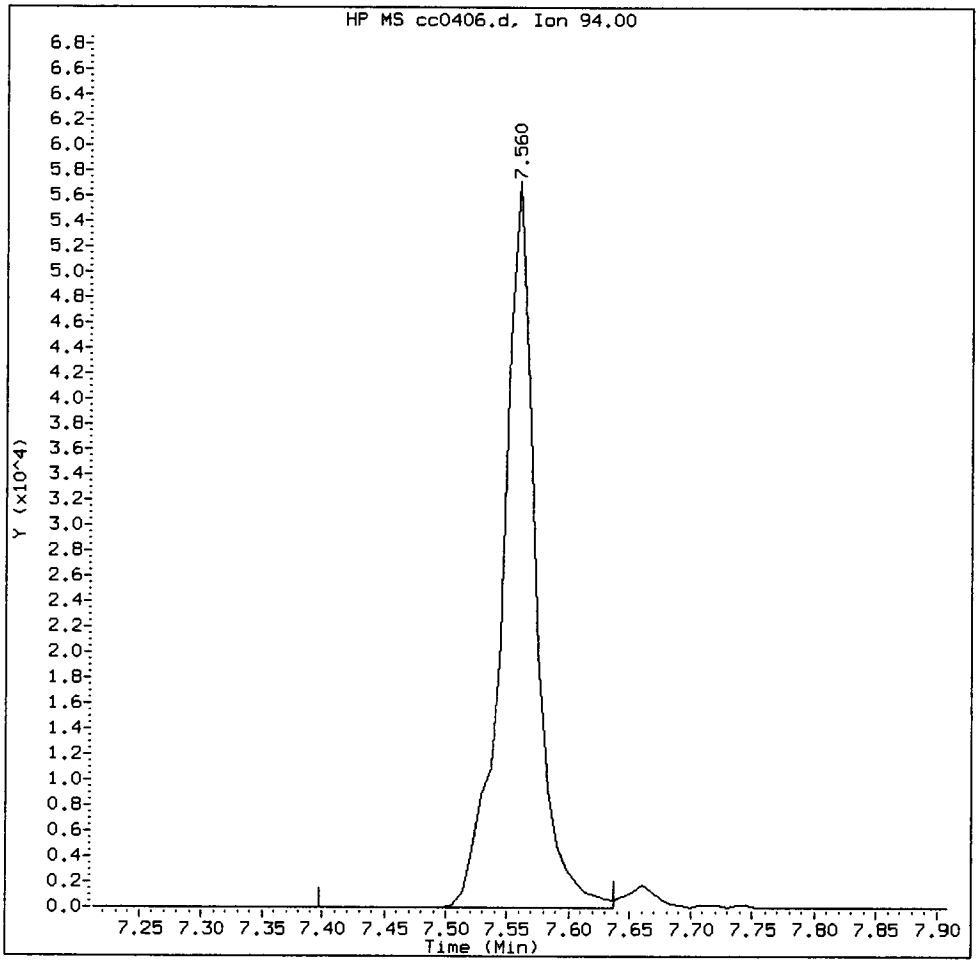
Data File: /chem1/nt10.i/20130406.b/cc0406.d
Injection Date: 06-APR-2013 14:32
Instrument: nt10.i
Client Sample ID:

Compound: Phenol
CAS Number: 108-95-2



ABN 5, /chem1/nt10.i/20130406.b/cc0406.d

Phenol Amount: 6.13 Area: 109814



MANUAL INTEGRATION for Phenol

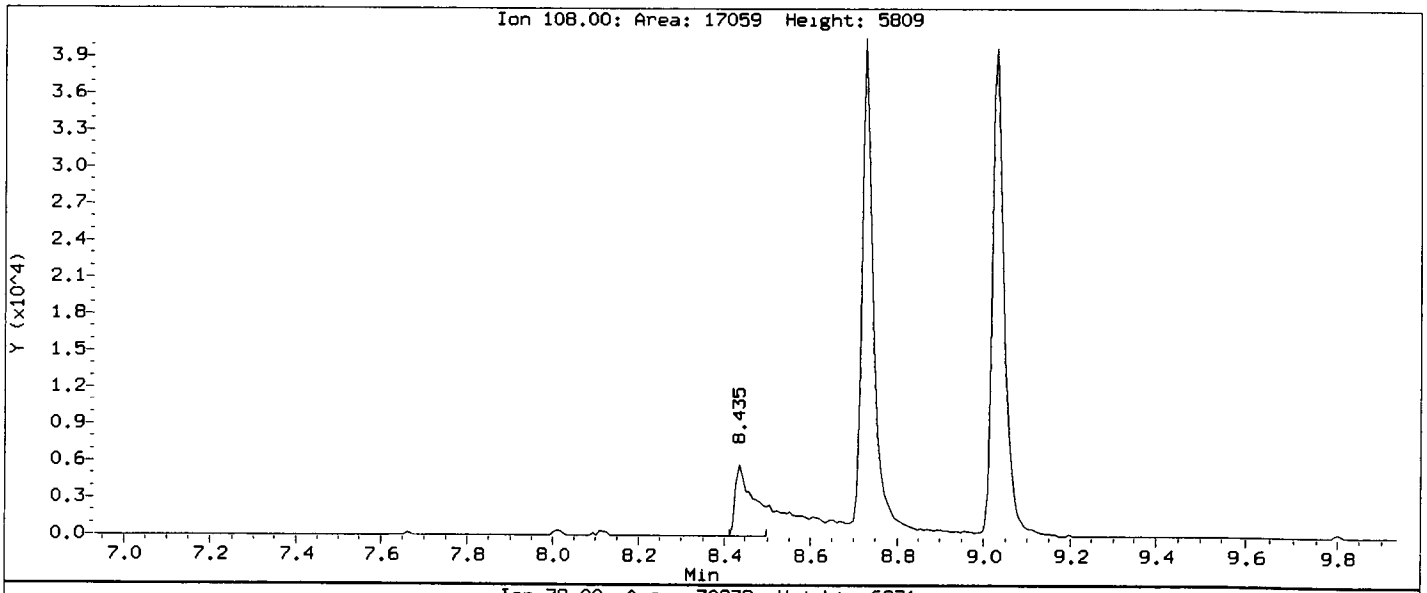
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

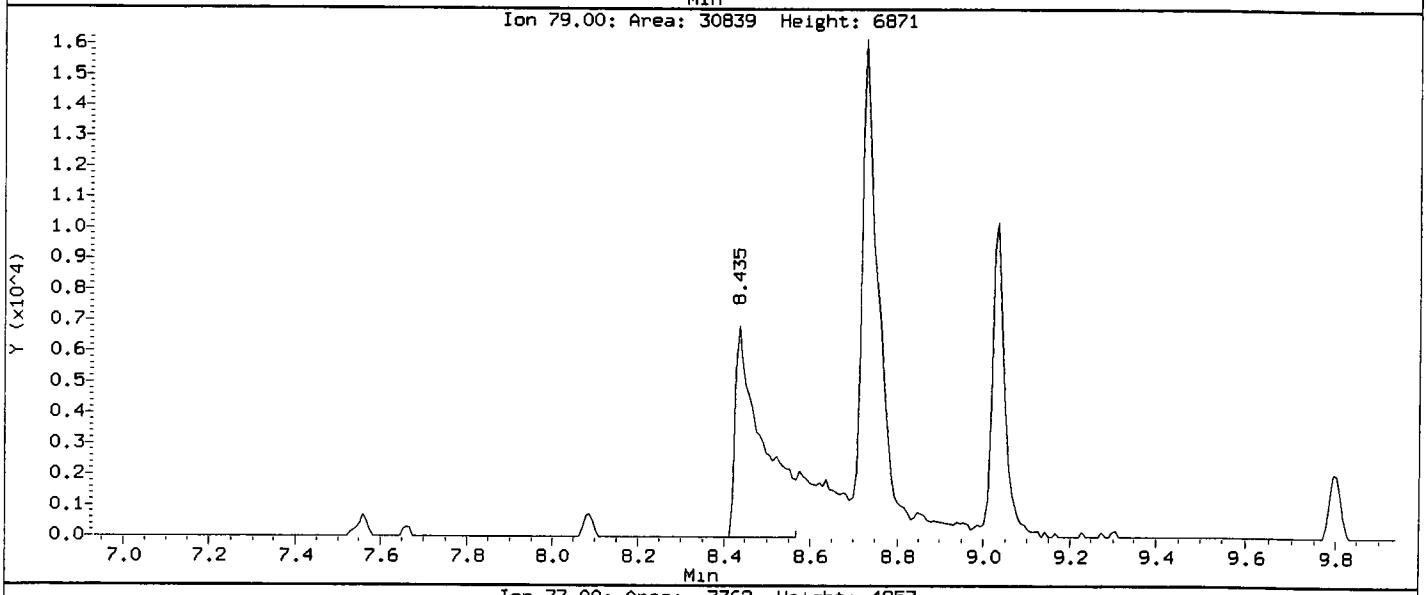
5. Other _____

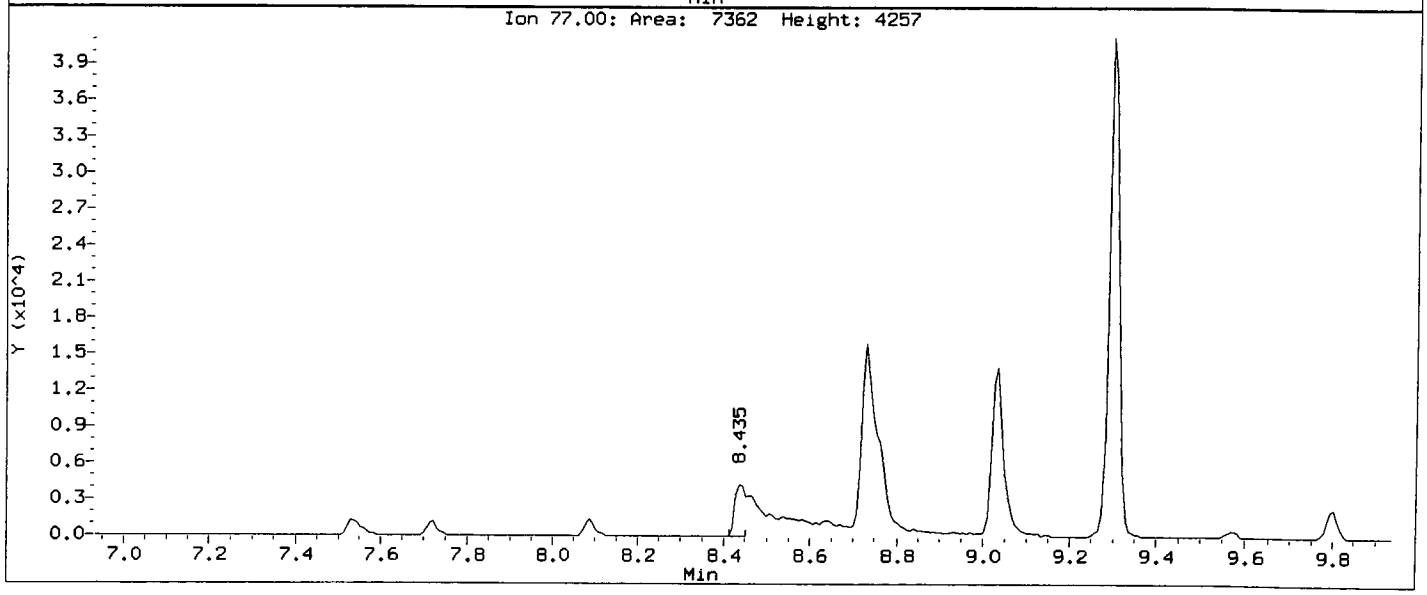
Analyst: VS Date: 4.6.10

Data File: /chem1/nt10.1/20130406.b/cc0406.d
Injection Date: 06-APR-2013 14:32
Instrument: nt10.1
Client Sample ID:

Compound: Benzyl alcohol
CAS Number: 100-51-6

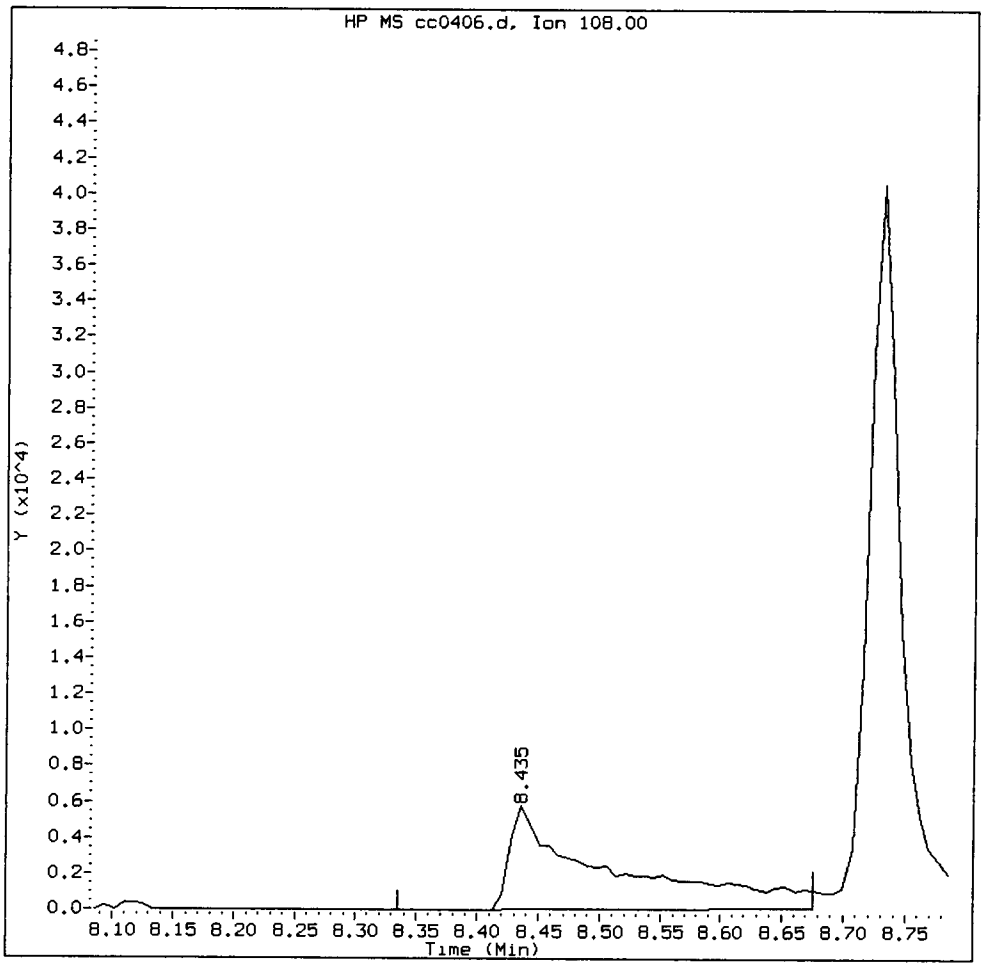






ABN 5, /chem1/nt10.i/20130406.b/cc0406.d

Benzyl alcohol Amount: 3.88 Area: 33246



MANUAL INTEGRATION for Benzyl alcohol

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: LA Date: 4.6.10

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 4/10/13

Data file : /chem1/nt10.i/20130406.b/wj10mb.d
Lab Smp Id: WJ10MBS1 Client Smp ID: WJ10MBS1
Inj Date : 06-APR-2013 15:46
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WJ10MBS1
Misc Info : 13-6438
Comment : 1ul Injection
Method : /chem1/nt10.i/20130406.b/ABN.m
Meth Date : 09-Apr-2013 15:14 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.806	5.798	(0.718)	67347	5.53232	553.2
$	2 Phenol-d5	99	7.537	7.537	(0.932)	90966	6.02186	602.2
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	7.714	7.714	(0.954)	79683	6.09204	609.2
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.086	8.086	(1.000)	38072	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.466	8.459	(1.047)	32937	3.42659	342.7
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.266	9.258	(0.864)	51682	3.73648	373.6
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.729	10.729	(1.000)	149862	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	13.150	13.150	(0.901)	109163	3.49034	349.0
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.589	14.590	(1.000)	91166	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	16.366	16.359	(1.122)	27677	4.75730	475.7
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.842	17.834	(1.000)	155649	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	Compound Not Detected.					
65	Pyrene	202	Compound Not Detected.					
$ 66	Terphenyl-d14	244	21.208	21.200	(0.919)	136843	4.24157	424.2
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	Compound Not Detected.					
* 69	Chrysene-d12	240	23.066	23.066	(1.000)	167971	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	Compound Not Detected.					
72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
* 134	Di-n-octylphthalate-d4	153	24.281	24.274	(1.000)	196468	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	Compound Not Detected.					
* 77	Perylene-d12	264	25.381	25.373	(1.000)	148650	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	Compound Not Detected.					
99	Perylene	252	Compound Not Detected.					
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10mb.d
Lab Smp Id: WJ10MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 14:32
Client Smp ID: WJ10MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

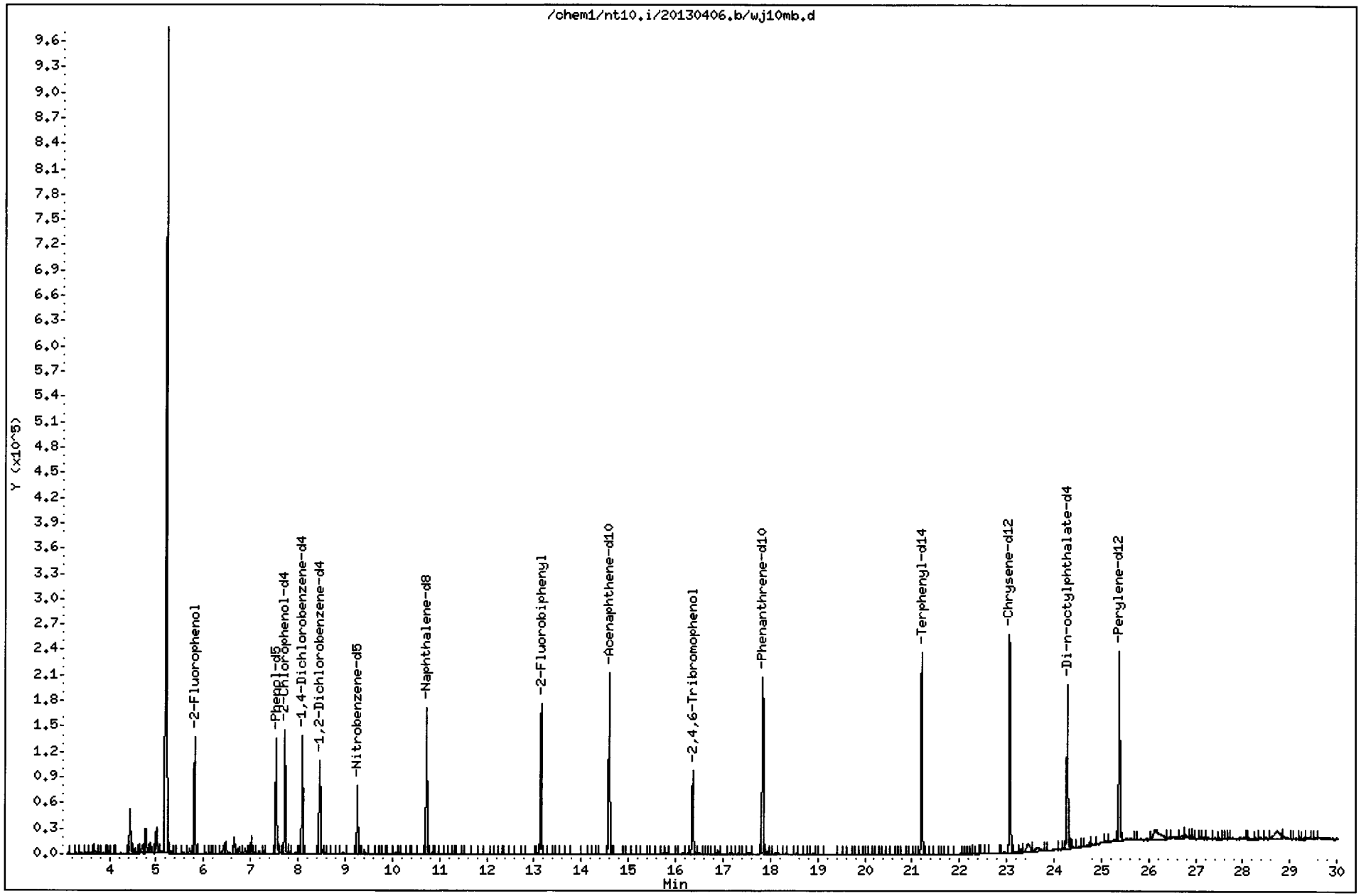
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	38072	-18.34
27 Naphthalene-d8	176978	88489	353956	149862	-15.32
42 Acenaphthene-d10	110872	55436	221744	91166	-17.77
59 Phenanthrene-d10	188290	94145	376580	155649	-17.34
69 Chrysene-d12	213681	106840	427362	167971	-21.39
134 Di-n-octylphthala	264159	132080	528318	196468	-25.63
77 Perylene-d12	208584	104292	417168	148650	-28.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.09	0.00
27 Naphthalene-d8	10.73	10.23	11.23	10.73	0.00
42 Acenaphthene-d10	14.59	14.09	15.09	14.59	0.00
59 Phenanthrene-d10	17.83	17.33	18.33	17.84	0.04
69 Chrysene-d12	23.07	22.57	23.57	23.07	0.00
134 Di-n-octylphthala	24.27	23.77	24.77	24.28	0.03
77 Perylene-d12	25.37	24.87	25.87	25.38	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130406.b/wj10mb.d
Date : 06-APR-2013 15:46
Client ID: WJ10MBS1
Sample Info: WJ10MBS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



WJ10-01137

CO-ELUTION SUMMARY FOR FILE - wj10mb.d

Lab ID: WJ10MBS1, Method: ABN.m, Instrument: nt10.i, Date: 06-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 4/9/13

Data file : /chem1/nt10.i/20130406.b/wj10sb.d
Lab Smp Id: WJ10LCSS1 Client Smp ID: WJ10LCSS1
Inj Date : 06-APR-2013 16:22
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WJ10LCSS1
Misc Info : 13-6438
Comment : 1ul Injection
Method : /chem1/nt10.i/20130406.b/ABN.m
Meth Date : 09-Apr-2013 10:02 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.806	5.798	(0.718)	67656	5.53647	553.6
$ 2	Phenol-d5	99	7.537	7.537	(0.932)	90750	5.98461	598.5
3	Phenol	94	7.560	7.560	(0.935)	69196	4.33547	433.5
$ 5	2-Chlorophenol-d4	132	7.722	7.714	(0.955)	77426	5.89687	589.7
4	Bis(2-Chloroethyl)ether	93	7.660	7.660	(0.947)	46968	3.86773	386.8
6	2-Chlorophenol	128	7.745	7.745	(0.958)	52900	3.80877	380.9
7	1,3-Dichlorobenzene	146	8.016	8.009	(0.991)	48898	3.23543	323.5
* 8	1,4-Dichlorobenzene-d4	152	8.086	8.086	(1.000)	38218	4.00000	
9	1,4-Dichlorobenzene	146	8.117	8.117	(1.004)	49959	3.33840	333.8
$ 10	1,2-Dichlorobenzene-d4	152	8.466	8.459	(1.047)	31485	3.26302	326.3
12	1,2-Dichlorobenzene	146	8.490	8.490	(1.050)	48596	3.37720	337.7
11	Benzyl alcohol	108	8.490	8.435	(1.050)	2962	0.38780	38.78(R)
14	2,2'-oxybis(1-Chloropropane)	121	8.762	8.754	(1.084)	15158	3.54786	354.8
13	2-Methylphenol	108	8.730	8.731	(1.080)	39166	3.25082	325.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	9.111	9.111	(1.127)	20587	3.48052	348.1
	16 N-Nitroso-di-n-propylamine	70	9.033	9.033	(1.117)	30196	3.75130	375.1
	15 4-Methylphenol	108	9.041	9.033	(1.118)	88203	7.03965	704.0
$	18 Nitrobenzene-d5	82	9.266	9.258	(0.864)	47468	3.57943	357.9
	19 Nitrobenzene	77	9.305	9.297	(0.867)	46638	3.70922	370.9
	20 Isophorone	82	9.794	9.802	(0.913)	82813	3.77869	377.9
	21 2-Nitrophenol	139	9.980	9.972	(0.930)	29681	4.01748	401.7
	22 2,4-Dimethylphenol	107	10.134	10.134	(0.945)	114591	9.09953	910.0
	23 Bis(2-Chloroethoxy)methane	93	10.319	10.312	(0.962)	53353	3.86549	386.5
	24 Benzoic acid	105	10.435	10.458	(0.973)	173368	16.1498	1615
	25 2,4-Dichlorophenol	162	10.497	10.489	(0.978)	121377	11.0282	1103
	26 1,2,4-Trichlorobenzene	180	10.659	10.651	(0.994)	44169	3.52634	352.6
*	27 Naphthalene-d8	136	10.729	10.729	(1.000)	143682	4.00000	
	28 Naphthalene	128	10.775	10.767	(1.004)	121749	3.25643	325.6
	29 4-Chloroaniline	127	10.968	10.968	(1.022)	115592	7.68224	768.2
	30 Hexachlorobutadiene	225	11.200	11.200	(1.044)	26606	3.40835	340.8
	31 4-Chloro-3-methylphenol	107	12.082	12.074	(1.126)	131517	12.3633	1236
	32 2-Methylnaphthalene	142	12.276	12.276	(1.144)	85986	3.48339	348.3
	33 Hexachlorocyclopentadiene	237	12.794	12.786	(0.876)	74686	7.43095	743.1
	34 2,4,6-Trichlorophenol	196	12.980	12.980	(0.889)	94898	10.6263	1063
	35 2,4,5-Trichlorophenol	196	13.065	13.057	(0.895)	105706	11.1384	1114
$	36 2-Fluorobiphenyl	172	13.150	13.150	(0.901)	104647	3.42292	342.3
	37 2-Chloronaphthalene	162	13.328	13.320	(0.913)	88559	3.59760	359.8
	38 2-Nitroaniline	65	13.653	13.653	(0.935)	77360	13.3996	1340
	39 Dimethylphthalate	163	14.172	14.164	(0.971)	111372	4.13201	413.2
	40 Acenaphthylene	152	14.249	14.241	(0.976)	136524	3.40089	340.1
	41 2,6-Dinitrotoluene	165	14.288	14.288	(0.979)	76064	12.3527	1235
*	42 Acenaphthene-d10	164	14.597	14.590	(1.000)	89116	4.00000	
	43 3-Nitroaniline	138	14.582	14.574	(0.999)	61472	10.8105	1081
	44 Acenaphthene	153	14.667	14.659	(1.005)	86478	3.51323	351.3
	45 2,4-Dinitrophenol	184	14.806	14.806	(1.014)	87006	16.2308	1623
	46 Dibenzofuran	168	15.022	15.015	(1.029)	125534	3.66699	366.7
	47 4-Nitrophenol	109	15.046	15.038	(1.031)	36667	9.46626	946.6
	48 2,4-Dinitrotoluene	165	15.154	15.146	(1.038)	107261	12.8826	1288
	50 Diethylphthalate	149	15.757	15.749	(1.079)	116894	4.14008	414.0
	49 Fluorene	166	15.780	15.780	(1.081)	101805	3.50114	350.1
	51 4-Chlorophenyl-phenylether	204	15.826	15.819	(1.084)	58429	4.31179	431.2
	52 4-Nitroaniline	138	15.942	15.935	(1.092)	72598	12.0938	1209
	53 4,6-Dinitro-2-methylphenol	198	16.042	16.042	(0.899)	135634	21.7711	2177
	54 N-Nitrosodiphenylamine	169	16.112	16.104	(0.903)	74896	3.99665	399.7
$	55 2,4,6-Tribromophenol	330	16.366	16.359	(1.121)	26844	4.72026	472.0
	56 4-Bromophenyl-phenylether	248	16.898	16.891	(0.947)	34923	4.02431	402.4
	57 Hexachlorobenzene	284	17.192	17.184	(0.964)	37132	3.40954	341.0
	58 Pentachlorophenol	266	17.610	17.602	(0.987)	66691	9.18312	918.3
*	59 Phenanthrene-d10	188	17.842	17.834	(1.000)	155572	4.00000	
	60 Phenanthrene	178	17.889	17.889	(1.003)	157762	3.80404	380.4
	61 Anthracene	178	17.989	17.989	(1.008)	153431	3.67434	367.4

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	62 Carbazole	167	18.391	18.384	(1.031)	148202	5.31374	531.4
	63 Di-n-butylphthalate	149	19.366	19.359	(1.085)	204082	4.57992	458.0
	64 Fluoranthene	202	20.411	20.403	(1.144)	195244	4.08800	408.8
	65 Pyrene	202	20.829	20.821	(0.903)	199947	4.08968	409.0
$	66 Terphenyl-d14	244	21.208	21.200	(0.919)	134901	4.09200	409.2
	67 Butylbenzylphthalate	149	22.207	22.199	(0.963)	87198	4.70245	470.2
	68 Benzo(a)anthracene	228	23.043	23.035	(0.999)	185055	3.86393	386.4
*	69 Chrysene-d12	240	23.066	23.066	(1.000)	171640	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.051	23.051	(0.999)	113921	5.69321	569.3
	71 Chrysene	228	23.113	23.105	(1.002)	158383	3.65118	365.1
	72 bis(2-Ethylhexyl)phthalate	149	23.291	23.283	(0.959)	120571	4.42828	442.8
*	134 Di-n-octylphthalate-d4	153	24.282	24.274	(1.000)	206194	4.00000	
	73 Di-n-octylphthalate	149	24.289	24.282	(1.000)	211028	4.19561	419.6
	74 Benzo(b)fluoranthene	252	24.816	24.808	(0.978)	187083	4.07420	407.4
	75 Benzo(k)fluoranthene	252	24.847	24.839	(0.979)	187244	3.77450	377.4
	76 Benzo(a)pyrene	252	25.288	25.288	(0.996)	152629	3.84339	384.3
*	77 Perylene-d12	264	25.381	25.373	(1.000)	158429	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	27.249	27.241	(1.074)	183695	3.75094	375.1
	79 Dibenzo(a,h)anthracene	278	27.280	27.264	(1.075)	145962	3.76381	376.4
	80 Benzo(g,h,i)perylene	276	27.777	27.762	(1.094)	145835	3.47081	347.1
	90 N-Nitrosodimethylamine	74	3.551	3.512	(0.439)	76616	10.5375	1054
	91 Aniline	93	7.537	7.529	(0.932)	127775	3.70993	371.0
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	3.551	3.512	(0.439)	81209	13.0945	1309
	105 1-methylnaphthalene	142	12.508	12.500	(1.166)	82457	3.64168	364.2
	111 Azobenzene (1,2-DP-Hydrazine)	77	16.174	16.166	(1.108)	99360	3.87966	388.0
	187 Total Benzofluoranthenes	252	24.816	24.808	(0.978)	350815	7.76133	776.1
	99 Perylene	252	25.420	25.412	(1.002)	78281	1.71522	171.5
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	15.424	15.417	(1.057)	30057	3.62114	362.1

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10sb.d
Lab Smp Id: WJ10LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 14:32
Client Smp ID: WJ10LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	38218	-18.03
27 Naphthalene-d8	176978	88489	353956	143682	-18.81
42 Acenaphthene-d10	110872	55436	221744	89116	-19.62
59 Phenanthrene-d10	188290	94145	376580	155572	-17.38
69 Chrysene-d12	213681	106840	427362	171640	-19.67
134 Di-n-octylphthala	264159	132080	528318	206194	-21.94
77 Perylene-d12	208584	104292	417168	158429	-24.05

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.09	0.00
27 Naphthalene-d8	10.73	10.23	11.23	10.73	0.00
42 Acenaphthene-d10	14.59	14.09	15.09	14.60	0.05
59 Phenanthrene-d10	17.83	17.33	18.33	17.84	0.04
69 Chrysene-d12	23.07	22.57	23.57	23.07	0.00
134 Di-n-octylphthala	24.27	23.77	24.77	24.28	0.03
77 Perylene-d12	25.37	24.87	25.87	25.38	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WJ10LCSS1
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6438

Client SDG: WJ10
Fraction: SV
Client Smp ID: WJ10LCSS1
Operator: VTS/YZ
SampleType: LCS
Quant Type: ISTD

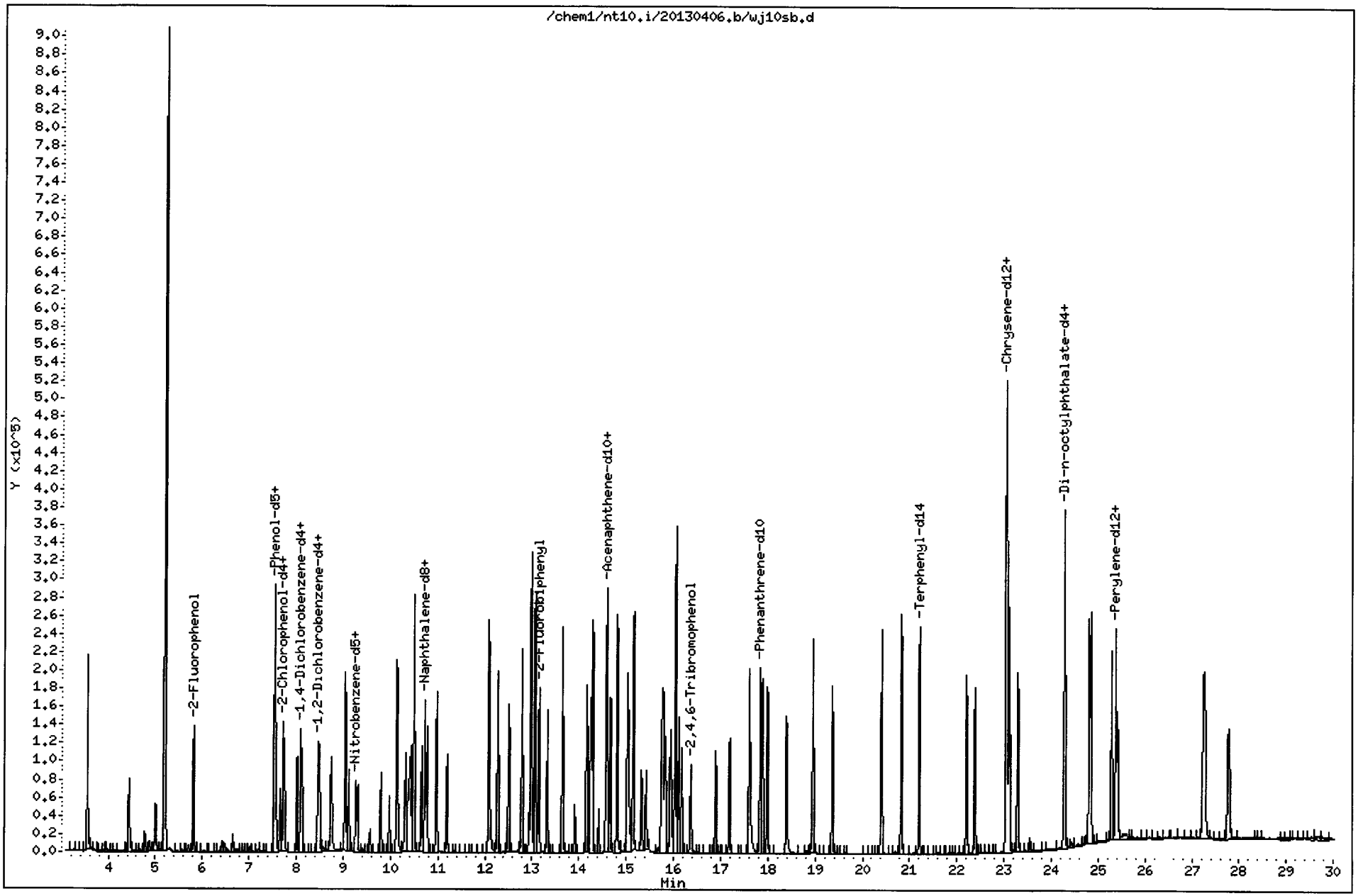
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	433.5	86.71	34-105
7	1,3-Dichlorobenzen	500.0	323.5	64.71	40-100
9	1,4-Dichlorobenzen	500.0	333.8	66.77	39-100
11	Benzyl alcohol	500.0	38.78	7.76*	19-117
12	1,2-Dichlorobenzen	500.0	337.7	67.54	40-100
13	2-Methylphenol	500.0	325.1	65.02	28-100
15	4-Methylphenol	1000	704.0	70.40	29-100
17	Hexachloroethane	500.0	348.1	69.61	38-100
22	2,4-Dimethylphenol	1500	910.0	60.66	10-100
24	Benzoic acid	2750	1615	58.73	10-107
26	1,2,4-Trichloroben	500.0	352.6	70.53	35-103
28	Naphthalene	500.0	325.6	65.13	43-100
30	Hexachlorobutadien	500.0	340.8	68.17	37-100
32	2-Methylnaphthalen	500.0	348.3	69.67	43-100
39	Dimethylphthalate	500.0	413.2	82.64	43-114
40	Acenaphthylene	500.0	340.1	68.02	42-102
44	Acenaphthene	500.0	351.3	70.26	45-100
46	Dibenzofuran	500.0	366.7	73.34	43-103
49	Fluorene	500.0	350.1	70.02	45-107
50	Diethylphthalate	500.0	414.0	82.80	50-120
54	N-Nitrosodiphenyla	500.0	399.7	79.93	36-111
57	Hexachlorobenzene	500.0	341.0	68.19	33-113
58	Pentachlorophenol	1500	918.3	61.22	16-120
60	Phenanthrene	500.0	380.4	76.08	49-112
61	Anthracene	500.0	367.4	73.49	45-106
63	Di-n-butylphthalat	500.0	458.0	91.60	48-126
64	Fluoranthene	500.0	408.8	81.76	53-118
65	Pyrene	500.0	409.0	81.79	48-121
67	Butylbenzylphthala	500.0	470.2	94.05	45-132
68	Benzo(a)anthracene	500.0	386.4	77.28	49-115
71	Chrysene	500.0	365.1	73.02	47-115
72	bis(2-Ethylhexyl)p	500.0	442.8	88.57	34-130
73	Di-n-octylphthalat	500.0	419.6	83.91	28-124

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	500.0	384.3	76.87	42-113
78 Indeno(1,2,3-cd)py	500.0	375.1	75.02	42-123
79 Dibenzo(a,h)anthra	500.0	376.4	75.28	30-133
80 Benzo(g,h,i)peryle	500.0	347.1	69.42	38-126
105 1-methylnaphthalen	500.0	364.2	72.83	42-100
187 Total Benzofluoran	1000	776.1	77.61	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	553.6	73.82	30-160
$ 2 Phenol-d5	750.0	598.5	79.79	30-160
$ 5 2-Chlorophenol-d4	750.0	589.7	78.62	30-160
$ 10 1,2-Dichlorobenzen	500.0	326.3	65.26	30-160
$ 18 Nitrobenzene-d5	500.0	357.9	71.59	30-160
$ 36 2-Fluorobiphenyl	500.0	342.3	68.46	30-160
$ 55 2,4,6-Tribromophen	750.0	472.0	62.94	30-160
$ 66 Terphenyl-d14	500.0	409.2	81.84	30-160

Data File: /chem1/nt10.i/20130406.b/wj10sb.d
Date : 06-APR-2013 16:22
Client ID: WJ10LCSS1
Sample Info: WJ10LCSS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



WJ10:91205

CO-ELUTION SUMMARY FOR FILE - wj10sb.d

Lab ID: WJ10LCSS1, Method: ABN.m, Instrument: nt10.i, Date: 06-APR-2013

RT	CO-ELUTION COMPOUNDS
8.490	1,2-Dichlorobenzene and Benzyl alcohol

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 4/10/13

Data file : /chem1/nt10.i/20130406.b/wj10dms.d
Lab Smp Id: WJ10DMS Client Smp ID: SD-CB-01-201303 MS
Inj Date : 06-APR-2013 20:01
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WJ10DMS,3
Misc Info : 13-6438
Comment : 1ul Injection
Method : /chem1/nt10.i/20130406.b/ABN.m
Meth Date : 09-Apr-2013 10:02 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 12 QC Sample: MS
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	2000.00000	Volume of final extract (uL)
Ws	15.00000	Weight of sample extracted (g)
M	44.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.837	5.798	(0.720)	11210	0.86857	621.5
$ 2	Phenol-d5	99	7.575	7.537	(0.935)	15306	0.95571	683.9
3	Phenol	94	7.598	7.560	(0.938)	49798	2.95420	2114(R)
$ 5	2-Chlorophenol-d4	132	7.737	7.714	(0.955)	10392	0.74939	536.2
4	Bis(2-Chloroethyl)ether	93	7.676	7.660	(0.947)	6771	0.52794	377.8
6	2-Chlorophenol	128	7.768	7.745	(0.959)	9643	0.65738	470.4
7	1,3-Dichlorobenzene	146	8.024	8.009	(0.990)	8150	0.51059	365.4
* 8	1,4-Dichlorobenzene-d4	152	8.102	8.086	(1.000)	40364	4.00000	
9	1,4-Dichlorobenzene	146	8.133	8.117	(1.004)	8250	0.52198	373.5
$ 10	1,2-Dichlorobenzene-d4	152	8.474	8.459	(1.046)	4837	0.47464	339.6
12	1,2-Dichlorobenzene	146	8.498	8.490	(1.049)	8525	0.56095	401.4
11	Benzyl alcohol	108	8.513	8.435	(1.051)	11441	1.41827	1015(R)
14	2,2'-oxybis(1-Chloropropane)	121	8.777	8.754	(1.083)	3273	0.72534	519.0
13	2-Methylphenol	108	8.762	8.731	(1.081)	9301	0.73095	523.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	9.119	9.111	(1.126)	1366	0.21866	156.5(R)
	16 N-Nitroso-di-n-propylamine	70	9.049	9.033	(1.117)	6856	0.80645	577.1
	15 4-Methylphenol	108	9.064	9.033	(1.119)	162907	12.3106	8809(R)
$	18 Nitrobenzene-d5	82	9.274	9.258	(0.863)	4558	0.29986	214.6
	19 Nitrobenzene	77	9.313	9.297	(0.867)	5960	0.41355	295.9
	20 Isophorone	82	9.825	9.802	(0.914)	16829	0.66995	479.4
	21 2-Nitrophenol	139	9.995	9.972	(0.930)	1445	0.17064	122.1
	22 2,4-Dimethylphenol	107	10.165	10.134	(0.946)	30761	2.13111	1525
	23 Bis(2-Chloroethoxy)methane	93	10.335	10.312	(0.962)	8900	0.56257	402.6
	24 Benzoic acid	105	10.497	10.458	(0.977)	116426	9.50690	6803(R)
	25 2,4-Dichlorophenol	162	10.520	10.489	(0.979)	19992	1.58476	1134
	26 1,2,4-Trichlorobenzene	180	10.667	10.651	(0.993)	7930	0.55235	395.2
*	27 Naphthalene-d8	136	10.744	10.729	(1.000)	164689	4.00000	
	28 Naphthalene	128	10.790	10.767	(1.004)	78514	1.83215	1311(R)
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	11.215	11.200	(1.044)	4425	0.49456	353.9
	31 4-Chloro-3-methylphenol	107	12.121	12.074	(1.128)	21486	1.76216	1261(H)
	32 2-Methylnaphthalene	142	12.299	12.276	(1.145)	91799	3.24451	2322(R)
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	13.011	12.980	(0.890)	17722	1.85449	1327
	35 2,4,5-Trichlorophenol	196	13.104	13.057	(0.897)	15010	1.47807	1058
$	36 2-Fluorobiphenyl	172	13.165	13.150	(0.901)	18265	0.55831	399.5
	37 2-Chloronaphthalene	162	13.344	13.320	(0.913)	15911	0.60404	432.2
	38 2-Nitroaniline	65	13.684	13.653	(0.936)	2383	0.38573	276.0
	39 Dimethylphthalate	163	14.195	14.164	(0.971)	31975	1.10863	793.3(R)
	40 Acenaphthylene	152	14.272	14.241	(0.977)	47057	1.09546	783.9(R)
	41 2,6-Dinitrotoluene	165	14.311	14.288	(0.979)	5439	0.82545	590.7
*	42 Acenaphthene-d10	164	14.613	14.590	(1.000)	95360	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.682	14.659	(1.005)	134011	5.08780	3641(R)
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	15.046	15.015	(1.030)	342771	9.35711	6696(R)
	47 4-Nitrophenol	109	15.115	15.038	(1.034)	3254	0.79133	566.2(M)
	48 2,4-Dinitrotoluene	165	15.177	15.146	(1.039)	5992	0.67255	481.3
	50 Diethylphthalate	149	15.772	15.749	(1.079)	13292	0.43994	314.8
	49 Fluorene	166	15.811	15.780	(1.082)	823848	26.4775	18950(R)
	51 4-Chlorophenyl-phenylether	204	15.842	15.819	(1.084)	5792	0.39944	285.8
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	16.073	16.042	(0.901)	1008	0.20815	148.9(H)
	54 N-Nitrosodiphenylamine	169	16.104	16.104	(0.903)	6080	0.41739	298.7
$	55 2,4,6-Tribromophenol	330	16.397	16.359	(1.122)	2914	0.47885	342.6
	56 4-Bromophenyl-phenylether	248	16.921	16.891	(0.949)	5548	0.82246	588.5
	57 Hexachlorobenzene	284	17.223	17.184	(0.966)	4743	0.56027	400.9(H)
	58 Pentachlorophenol	266	17.664	17.602	(0.990)	7949	1.40810	1008(H)
*	59 Phenanthrene-d10	188	17.889	17.834	(1.000)	120930	4.00000	(H)
	60 Phenanthrene	178	17.958	17.889	(1.007)	4852981	150.539 E8	107700(RH)
	61 Anthracene	178	18.043	17.989	(1.012)	1370781	42.2310 E	30220(RH)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	18.446	18.384	(1.034)	788478	36.3692 E	26020 (H)
63	Di-n-butylphthalate	149	19.366	19.359	(1.086)	15454	0.44616	319.3 (H)
64	Fluoranthene	202	20.488	20.403	(1.149)	6638575	178.816 E S	128000 (RH)
65	Pyrene	202	20.906	20.821	(0.904)	4703843	102.783 E S	73550 (R)
$ 66	Terphenyl-d14	244	21.254	21.200	(0.919)	20073	0.65047	465.5
67	Butylbenzylphthalate	149	22.253	22.199	(0.962)	42661	2.45778	1759 (R)
68	Benzo(a)anthracene	228	23.105	23.035	(0.999)	1157186	25.8123 E	18470 (R)
* 69	Chrysene-d12	240	23.128	23.066	(1.000)	160666	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.182	23.105	(1.002)	1949275	48.0057 E	34350 (R)
72	bis(2-Ethylhexyl)phthalate	149	23.337	23.283	(0.959)	234664	8.54870	6117 (R)
* 134	Di-n-octylphthalate-d4	153	24.328	24.274	(1.000)	207881	4.00000	
73	Di-n-octylphthalate	149	24.343	24.282	(1.001)	58002	1.14382	818.5 (RM)
74	Benzo(b)fluoranthene	252	24.885	24.808	(0.978)	986970	22.8579	16360
75	Benzo(k)fluoranthene	252	24.909	24.839	(0.979)	667046	14.2998	10230 (M)
76	Benzo(a)pyrene	252	25.366	25.288	(0.997)	377543	10.1104	7235 (R)
* 77	Perylene-d12	264	25.451	25.373	(1.000)	148974	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.350	27.241	(1.075)	178369	3.87335	2772 (R)
79	Dibenzo(a,h)anthracene	278	27.365	27.264	(1.075)	73464	2.01459	1442 (R)
80	Benzo(g,h,i)perylene	276	27.886	27.762	(1.096)	132920	3.36421	2407 (R)
90	N-Nitrosodimethylamine	74	3.535	3.512	(0.436)	13160	1.71375	1226
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	3.566	3.512	(0.440)	3083	0.47069	336.8
105	1-methylnaphthalene	142	12.523	12.500	(1.166)	29696	1.14422	818.8 (R)
111	Azobenzene (1,2-DP-Hydrazine)	77	16.197	16.166	(1.108)	14074	0.51356	367.5
187	Total Benzofluoranthenes	252	24.885	24.808	(0.978)	1502499	35.3506 B	25300 (R)
99	Perylene	252	25.489	25.412	(1.002)	94626	2.20494	1578
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	15.455	15.417	(1.058)	3839	0.43222	309.3

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10dms.d
Lab Smp Id: WJ10DMS
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 14:32
Client Smp ID: SD-CB-01-201303
Level: LOW
Sample Type: Solids

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	40364	-13.42
27 Naphthalene-d8	176978	88489	353956	164689	-6.94
42 Acenaphthene-d10	110872	55436	221744	95360	-13.99
59 Phenanthrene-d10	188290	94145	376580	120930	-35.77
69 Chrysene-d12	213681	106840	427362	160666	-24.81
134 Di-n-octylphthala	264159	132080	528318	207881	-21.30
77 Perylene-d12	208584	104292	417168	148974	-28.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.10	0.19
27 Naphthalene-d8	10.73	10.23	11.23	10.74	0.14
42 Acenaphthene-d10	14.59	14.09	15.09	14.61	0.16
59 Phenanthrene-d10	17.83	17.33	18.33	17.89	0.30
69 Chrysene-d12	23.07	22.57	23.57	23.13	0.27
134 Di-n-octylphthala	24.27	23.77	24.77	24.33	0.22
77 Perylene-d12	25.37	24.87	25.87	25.45	0.30

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10DMS
Client Smp ID: SD-CB-01-201303 MS
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: MS
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6438

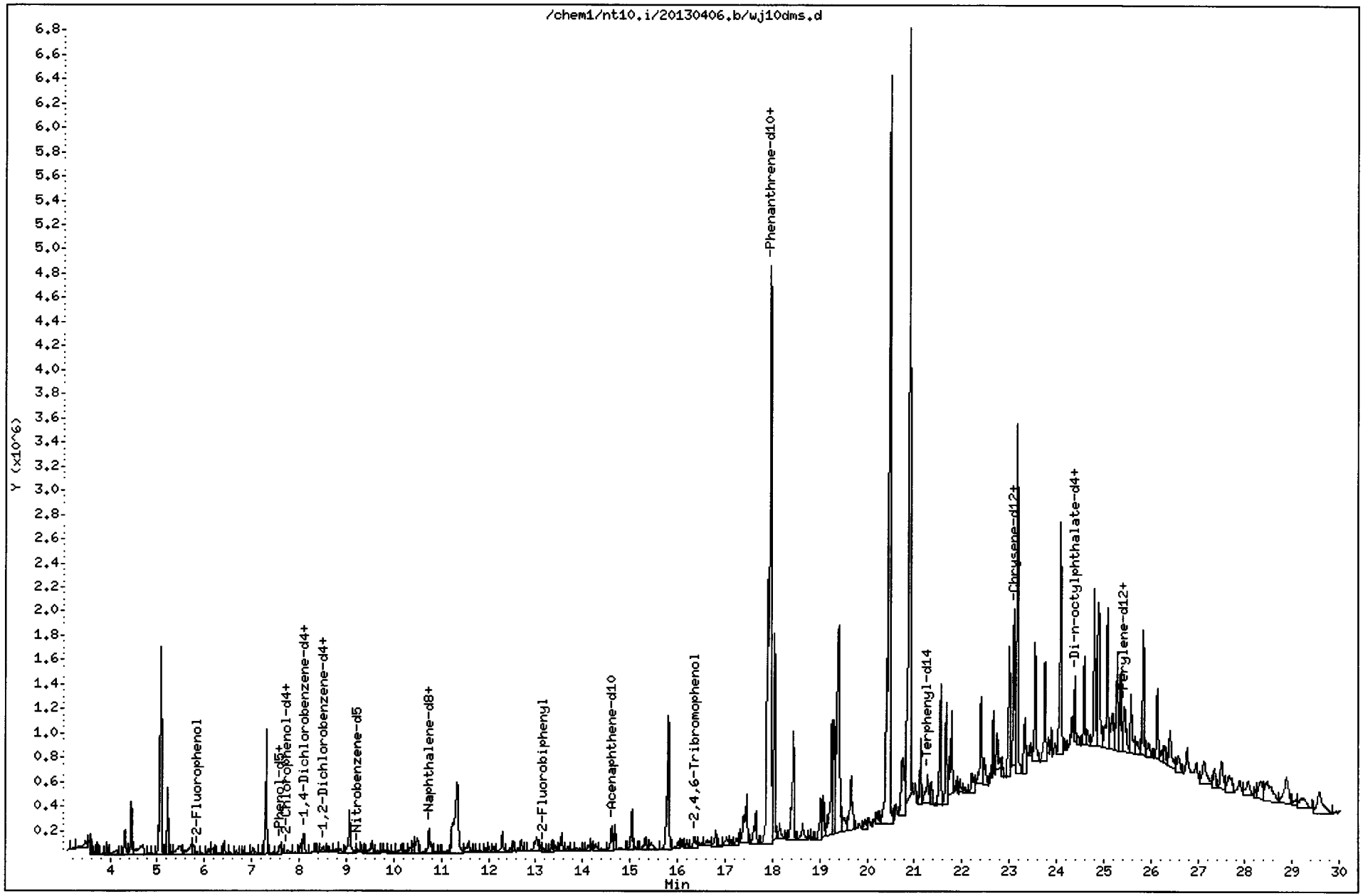
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	596.3	2114	354.50*	34-105
7	1,3-Dichlorobenzen	596.3	365.4	61.27	40-100
9	1,4-Dichlorobenzen	596.3	373.5	62.64	39-100
11	Benzyl alcohol	596.3	1015	170.19*	19-117
12	1,2-Dichlorobenzen	596.3	401.4	67.31	40-100
13	2-Methylphenol	596.3	523.0	87.71	28-100
15	4-Methylphenol	1193	8809	738.64*	29-100
17	Hexachloroethane	596.3	156.5	26.24*	38-100
22	2,4-Dimethylphenol	1789	1525	85.24	10-100
24	Benzoic acid	3280	6803	207.42*	10-107
26	1,2,4-Trichloroben	596.3	395.2	66.28	35-103
28	Naphthalene	596.3	1311	219.86*	43-100
30	Hexachlorobutadien	596.3	353.9	59.35	37-100
32	2-Methylnaphthalen	596.3	2322	389.34*	43-100
39	Dimethylphthalate	596.3	793.3	133.04*	43-114
40	Acenaphthylene	596.3	783.9	131.46*	42-102
44	Acenaphthene	596.3	3641	610.54*	45-100
46	Dibenzofuran	596.3	6696	1122.85*	43-103
49	Fluorene	596.3	18950	3177.30*	45-107
50	Diethylphthalate	596.3	314.8	52.79	50-120
54	N-Nitrosodiphenyla	596.3	298.7	50.09	36-111
57	Hexachlorobenzene	596.3	400.9	67.23	33-113
58	Pentachlorophenol	1789	1008	56.32	16-120
60	Phenanthrene	596.3	107700	18064.64*	49-112
61	Anthracene	596.3	30220	5067.72*	45-106
63	Di-n-butylphthalat	596.3	319.3	53.54	48-126
64	Fluoranthene	596.3	128000	21457.87*	53-118
65	Pyrene	596.3	73550	12333.98*	48-121
67	Butylbenzylphthala	596.3	1759	294.93*	45-132
68	Benzo(a)anthracene	596.3	18470	3097.47*	49-115
71	Chrysene	596.3	34350	5760.68*	47-115
72	bis(2-Ethylhexyl)p	596.3	6117	1025.84*	34-130
73	Di-n-octylphthalat	596.3	818.5	137.26*	28-124

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	596.3	7235	1213.25*	42-113
78 Indeno(1,2,3-cd)py	596.3	2772	464.80*	42-123
79 Dibenzo(a,h)anthra	596.3	1442	241.75*	30-133
80 Benzo(g,h,i)peryle	596.3	2407	403.71*	38-126
105 1-methylnaphthalen	596.3	818.8	137.31*	42-100
187 Total Benzofluoran	1193	25300	2121.03*	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	894.5	621.5	69.49	30-160
$ 2 Phenol-d5	894.5	683.9	76.46	30-160
$ 5 2-Chlorophenol-d4	894.5	536.2	59.95	30-160
$ 10 1,2-Dichlorobenzen	596.3	339.6	56.96	30-160
$ 18 Nitrobenzene-d5	596.3	214.6	35.98	30-160
$ 36 2-Fluorobiphenyl	596.3	399.5	67.00	30-160
$ 55 2,4,6-Tribromophen	894.5	342.6	38.31	30-160
$ 66 Terphenyl-d14	596.3	465.5	78.06	30-160

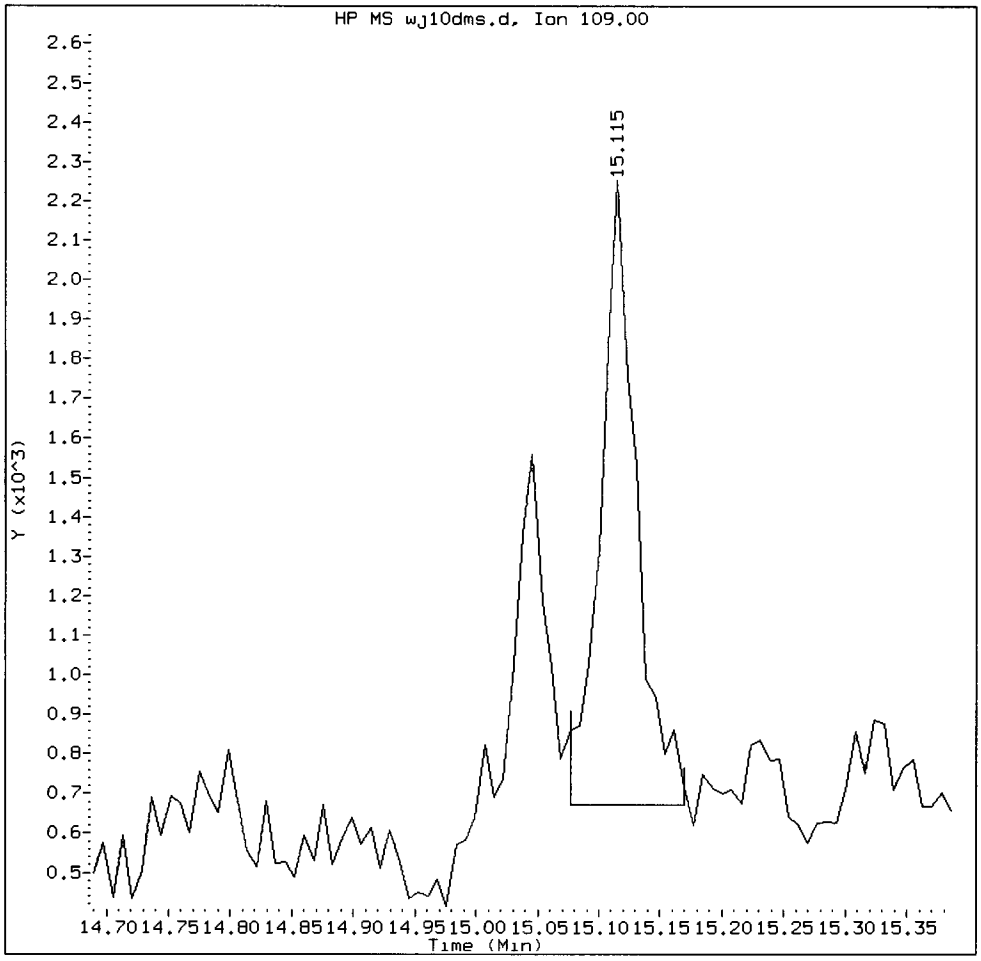
Data File: /chem1/nt10.i/20130406.b/wj10dms.d
Date : 06-APR-2013 20:01
Client ID: SD-CB-01-201303 MS
Sample Info: WJ10DMS,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



WJ10DMS, /chem1/nt10.i/20130406.b/wj10dms.d

4-Nitrophenol Amount: 0.79 Area: 3254



MANUAL INTEGRATION for 4-Nitrophenol

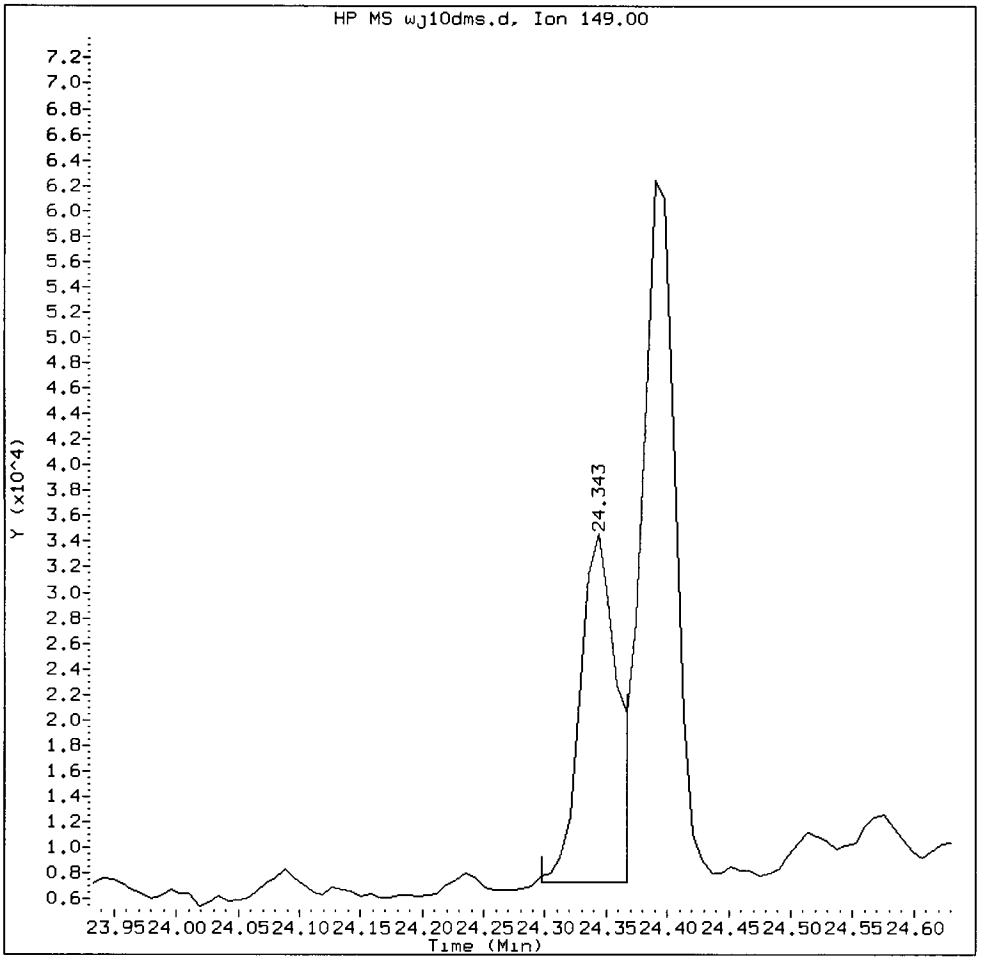
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 4/16/13

WJ10DMS, /chem1/nt10.i/20130406.b/wj10dms.d

Di-n-octylphthalate Amount: 1.14 Area: 58002



MANUAL INTEGRATION for Di-n-octylphthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found V
4. Totals calculation

5. Other _____

Analyst: YZ Date: 4/10/13

CO-ELUTION SUMMARY FOR FILE - wj10dms.d

Lab ID: WJ10DMS, Method: ABN.m, Instrument: nt10.i, Date: 06-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

yz 4/10/13

Data file : /chem1/nt10.i/20130406.b/wj10dmsd.d
Lab Smp Id: WJ10DMSD Client Smp ID: SD-CB-01-201303 MSD
Inj Date : 06-APR-2013 20:38
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WJ10DMSD,3
Misc Info : 13-6438
Comment : 1ul Injection
Method : /chem1/nt10.i/20130406.b/ABN.m
Meth Date : 09-Apr-2013 10:02 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 13 QC Sample: MSD
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	2000.00000	Volume of final extract (uL)
Ws	15.20000	Weight of sample extracted (g)
M	44.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.836	5.798	(0.720)	11724	0.91813	648.3
$ 2	Phenol-d5	99	7.575	7.537	(0.935)	16613	1.04843	740.3
3	Phenol	94	7.598	7.560	(0.938)	43004	2.57850	1821(R)
$ 5	2-Chlorophenol-d4	132	7.745	7.714	(0.956)	11746	0.85611	604.5
4	Bis(2-Chloroethyl)ether	93	7.676	7.660	(0.947)	7597	0.59869	422.8
6	2-Chlorophenol	128	7.768	7.745	(0.959)	9950	0.68558	484.1
7	1,3-Dichlorobenzene	146	8.024	8.009	(0.990)	8275	0.52398	370.0
* 8	1,4-Dichlorobenzene-d4	152	8.102	8.086	(1.000)	39936	4.00000	
9	1,4-Dichlorobenzene	146	8.133	8.117	(1.004)	8483	0.54247	383.1
$ 10	1,2-Dichlorobenzene-d4	152	8.482	8.459	(1.047)	5235	0.51920	366.6
12	1,2-Dichlorobenzene	146	8.505	8.490	(1.050)	8375	0.55699	393.3
11	Benzyl alcohol	108	8.513	8.435	(1.051)	16513	2.06896	1461(R)
14	2,2'-oxybis(1-Chloropropane)	121	8.777	8.754	(1.083)	2762	0.61866	436.9
13	2-Methylphenol	108	8.761	8.731	(1.081)	9772	0.77620	548.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
17	Hexachloroethane	117	9.126	9.111	(1.126)	2184	0.35335	249.5
16	N-Nitroso-di-n-propylamine	70	9.056	9.033	(1.118)	7513	0.89320	630.7
15	4-Methylphenol	108	9.064	9.033	(1.119)	166705	12.7327	8991(R)
$ 18	Nitrobenzene-d5	82	9.281	9.258	(0.863)	5830	0.40072	283.0
19	Nitrobenzene	77	9.320	9.297	(0.867)	6588	0.47760	337.3
20	Isophorone	82	9.832	9.802	(0.914)	16671	0.69338	489.6
21	2-Nitrophenol	139	9.995	9.972	(0.930)	1926	0.23763	167.8
22	2,4-Dimethylphenol	107	10.165	10.134	(0.945)	33963	2.45832	1736
23	Bis(2-Chloroethoxy)methane	93	10.335	10.312	(0.961)	9162	0.60506	427.3
24	Benzoic acid	105	10.489	10.458	(0.976)	109762	9.36505	6613(R)
25	2,4-Dichlorophenol	162	10.520	10.489	(0.978)	22069	1.82775	1291
26	1,2,4-Trichlorobenzene	180	10.674	10.651	(0.993)	8526	0.62046	438.1
* 27	Naphthalene-d8	136	10.752	10.729	(1.000)	157630	4.00000	
28	Naphthalene	128	10.790	10.767	(1.004)	71207	1.73605	1226(R)
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	11.223	11.200	(1.044)	4636	0.54134	382.3
31	4-Chloro-3-methylphenol	107	12.121	12.074	(1.127)	21808	1.86866	1320(H)
32	2-Methylnaphthalene	142	12.299	12.276	(1.144)	74289	2.74323	1937(R)
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					
34	2,4,6-Trichlorophenol	196	13.011	12.980	(0.890)	19220	2.06293	1457
35	2,4,5-Trichlorophenol	196	13.104	13.057	(0.896)	16458	1.66230	1174
$ 36	2-Fluorobiphenyl	172	13.173	13.150	(0.901)	19886	0.62348	440.3
37	2-Chloronaphthalene	162	13.351	13.320	(0.913)	17044	0.66368	468.7
38	2-Nitroaniline	65	13.684	13.653	(0.936)	6205	1.03021	727.5
39	Dimethylphthalate	163	14.195	14.164	(0.971)	21494	0.76438	539.8
40	Acenaphthylene	152	14.272	14.241	(0.976)	48203	1.15098	812.8(R)
41	2,6-Dinitrotoluene	165	14.311	14.288	(0.979)	7308	1.13760	803.3
* 42	Acenaphthene-d10	164	14.620	14.590	(1.000)	92971	4.00000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	14.682	14.659	(1.004)	106500	4.14723	2929(R)
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	15.045	15.015	(1.029)	274557	7.68757	5429(R)
47	4-Nitrophenol	109	15.115	15.038	(1.034)	3885	0.96890	684.2(H)
48	2,4-Dinitrotoluene	165	15.177	15.146	(1.038)	8840	1.01771	718.7
50	Diethylphthalate	149	15.780	15.749	(1.079)	20257	0.68770	485.6
49	Fluorene	166	15.811	15.780	(1.081)	673346	22.1966	15670(R)
51	4-Chlorophenyl-phenylether	204	15.842	15.819	(1.084)	5755	0.40708	287.5
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	16.081	16.042	(0.901)	2213	0.44324	313.0(H)
54	N-Nitrosodiphenylamine	169	16.104	16.104	(0.903)	7055	0.46977	331.7
$ 55	2,4,6-Tribromophenol	330	16.397	16.359	(1.122)	4798	0.80870	571.1
56	4-Bromophenyl-phenylether	248	16.921	16.891	(0.948)	6155	0.88503	625.0
57	Hexachlorobenzene	284	17.223	17.184	(0.965)	5324	0.61001	430.8
58	Pentachlorophenol	266	17.664	17.602	(0.990)	9122	1.56733	1107(H)
* 59	Phenanthrene-d10	188	17.889	17.834	(1.000)	124676	4.00000	(H)
60	Phenanthrene	178	17.958	17.889	(1.006)	4499757	135.388 E	95600(RH)
61	Anthracene	178	18.043	17.989	(1.011)	1119533	33.4542 E	23620(RH)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	18.446	18.384	(1.034)	723609	32.3742 E	22860 (H)
63	Di-n-butylphthalate	149	19.405	19.359	(1.088)	49747	1.39306	983.7 (R)
64	Fluoranthene	202	20.496	20.403	(1.149)	6293123	164.417 E	116100 (RH)
65	Pyrene	202	20.906	20.821	(0.904)	4399624	95.7175 E	67590 (R)
$ 66	Terphenyl-d14	244	21.254	21.200	(0.919)	21663	0.69894	493.6
67	Butylbenzylphthalate	149	22.253	22.199	(0.962)	25883	1.48468	1048 (R)
68	Benzo(a)anthracene	228	23.105	23.035	(0.999)	1004195	22.3022 E	15750 (R)
* 69	Chrysene-d12	240	23.128	23.066	(1.000)	161368	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.182	23.105	(1.002)	1847013	45.2893 E	31980 (R)
72	bis(2-Ethylhexyl)phthalate	149	23.337	23.283	(0.959)	228762	8.59168	6067 (R)
* 134	Di-n-octylphthalate-d4	153	24.328	24.274	(1.000)	201639	4.00000	
73	Di-n-octylphthalate	149	24.343	24.282	(1.001)	55234	1.12296	793.0 (RM)
74	Benzo(b)fluoranthene	252	24.893	24.808	(0.978)	1351196	32.4316 MFD	22900
75	Benzo(k)fluoranthene	252	24.893	24.839	(0.978)	1351201	30.0202 MFD	21200
76	Benzo(a)pyrene	252	25.365	25.288	(0.997)	333942	9.26809	6545 (R)
* 77	Perylene-d12	264	25.451	25.373	(1.000)	143745	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	27.350	27.241	(1.075)	150717	3.39193	2395 (R)
79	Dibenzo(a,h)anthracene	278	27.365	27.264	(1.075)	62950	1.78906	1263 (R)
80	Benzo(g,h,i)perylene	276	27.894	27.762	(1.096)	106536	2.79452	1973 (R)
90	N-Nitrosodimethylamine	74	3.527	3.512	(0.435)	13740	1.80846	1277
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	3.566	3.512	(0.440)	3661	0.56492	398.9
105	1-methylnaphthalene	142	12.531	12.500	(1.165)	29418	1.18427	836.3 (R)
111	Azobenzene (1,2-DP-Hydrazine)	77	16.197	16.166	(1.108)	16492	0.61725	435.9
187	Total Benzofluoranthenes	252	24.893	24.808	(0.978)	1356927	33.0869	23360 (R)
99	Perylene	252	25.489	25.412	(1.002)	81725	1.97360	1394
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	15.455	15.417	(1.057)	4095	0.47289	333.9

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10dmsd.d
Lab Smp Id: WJ10DMSD
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 14:32
Client Smp ID: SD-CB-01-201303
Level: LOW
Sample Type: Solids

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	39936	-14.34
27 Naphthalene-d8	176978	88489	353956	157630	-10.93
42 Acenaphthene-d10	110872	55436	221744	92971	-16.15
59 Phenanthrene-d10	188290	94145	376580	124676	-33.79
69 Chrysene-d12	213681	106840	427362	161368	-24.48
134 Di-n-octylphthala	264159	132080	528318	201639	-23.67
77 Perylene-d12	208584	104292	417168	143745	-31.09

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.10	0.19
27 Naphthalene-d8	10.73	10.23	11.23	10.75	0.21
42 Acenaphthene-d10	14.59	14.09	15.09	14.62	0.21
59 Phenanthrene-d10	17.83	17.33	18.33	17.89	0.30
69 Chrysene-d12	23.07	22.57	23.57	23.13	0.27
134 Di-n-octylphthala	24.27	23.77	24.77	24.33	0.22
77 Perylene-d12	25.37	24.87	25.87	25.45	0.30

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WJ10DMSD
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6438

Client SDG: WJ10
Fraction: SV
Client Smp ID: SD-CB-01-201303 MSD
Operator: VTS/YZ
SampleType: MSD
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	588.5	1821	309.42*	34-105
7	1,3-Dichlorobenzen	588.5	370.0	62.88	40-100
9	1,4-Dichlorobenzen	588.5	383.1	65.10	39-100
11	Benzyl alcohol	588.5	1461	248.27*	19-117
12	1,2-Dichlorobenzen	588.5	393.3	66.84	40-100
13	2-Methylphenol	588.5	548.1	93.14	28-100
15	4-Methylphenol	1177	8991	763.96*	29-100
17	Hexachloroethane	588.5	249.5	42.40	38-100
22	2,4-Dimethylphenol	1765	1736	98.33	10-100
24	Benzoic acid	3237	6613	204.33*	10-107
26	1,2,4-Trichloroben	588.5	438.1	74.46	35-103
28	Naphthalene	588.5	1226	208.33*	43-100
30	Hexachlorobutadien	588.5	382.3	64.96	37-100
32	2-Methylnaphthalen	588.5	1937	329.19*	43-100
39	Dimethylphthalate	588.5	539.8	91.73	43-114
40	Acenaphthylene	588.5	812.8	138.12*	42-102
44	Acenaphthene	588.5	2929	497.67*	45-100
46	Dibenzofuran	588.5	5429	922.51*	43-103
49	Fluorene	588.5	15670	2663.59*	45-107
50	Diethylphthalate	588.5	485.6	82.52	50-120
54	N-Nitrosodiphenyla	588.5	331.7	56.37	36-111
57	Hexachlorobenzene	588.5	430.8	73.20	33-113
58	Pentachlorophenol	1765	1107	62.69	16-120
60	Phenanthrene	588.5	95600	16246.55*	49-112
61	Anthracene	588.5	23620	4014.51*	45-106
63	Di-n-butylphthalat	588.5	983.7	167.17*	48-126
64	Fluoranthene	588.5	116100	19730.10*	53-118
65	Pyrene	588.5	67590	11486.10*	48-121
67	Butylbenzylphthala	588.5	1048	178.16*	45-132
68	Benzo(a)anthracene	588.5	15750	2676.26*	49-115
71	Chrysene	588.5	31980	5434.72*	47-115
72	bis(2-Ethylhexyl)p	588.5	6067	1031.00*	34-130
73	Di-n-octylphthalat	588.5	793.0	134.75*	28-124

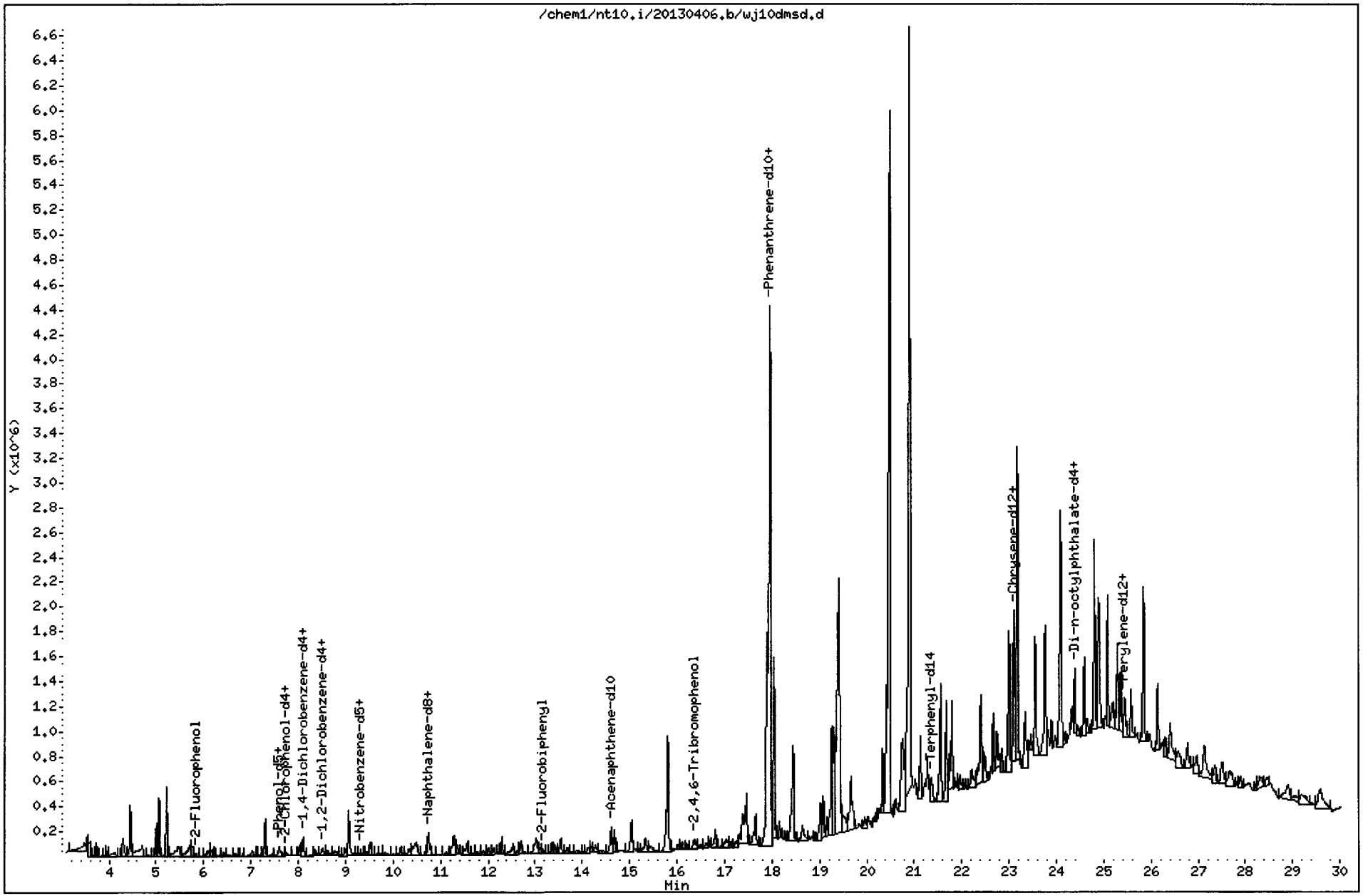
SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
76 Benzo(a)pyrene	588.5	6545	1112.17*	42-113
78 Indeno(1,2,3-cd)py	588.5	2395	407.03*	42-123
79 Dibenzo(a,h)anthra	588.5	1263	214.69*	30-133
80 Benzo(g,h,i)peryle	588.5	1973	335.34*	38-126
105 1-methylnaphthalen	588.5	836.3	142.11*	42-100
187 Total Benzofluoran	1177	23360	1985.22*	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	882.7	648.3	73.45	30-160
$ 2 Phenol-d5	882.7	740.3	83.87	30-160
$ 5 2-Chlorophenol-d4	882.7	604.5	68.49	30-160
$ 10 1,2-Dichlorobenzen	588.5	366.6	62.30	30-160
$ 18 Nitrobenzene-d5	588.5	283.0	48.09	30-160
$ 36 2-Fluorobiphenyl	588.5	440.3	74.82	30-160
$ 55 2,4,6-Tribromophen	882.7	571.1	64.70	30-160
$ 66 Terphenyl-d14	588.5	493.6	83.87	30-160

Data File: /chem1/nt10.i/20130406.b/wj10dmsd.d
Date : 06-APR-2013 20:38
Client ID: SD-CB-01-201303 MSD
Sample Info: WJ10DMSD,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

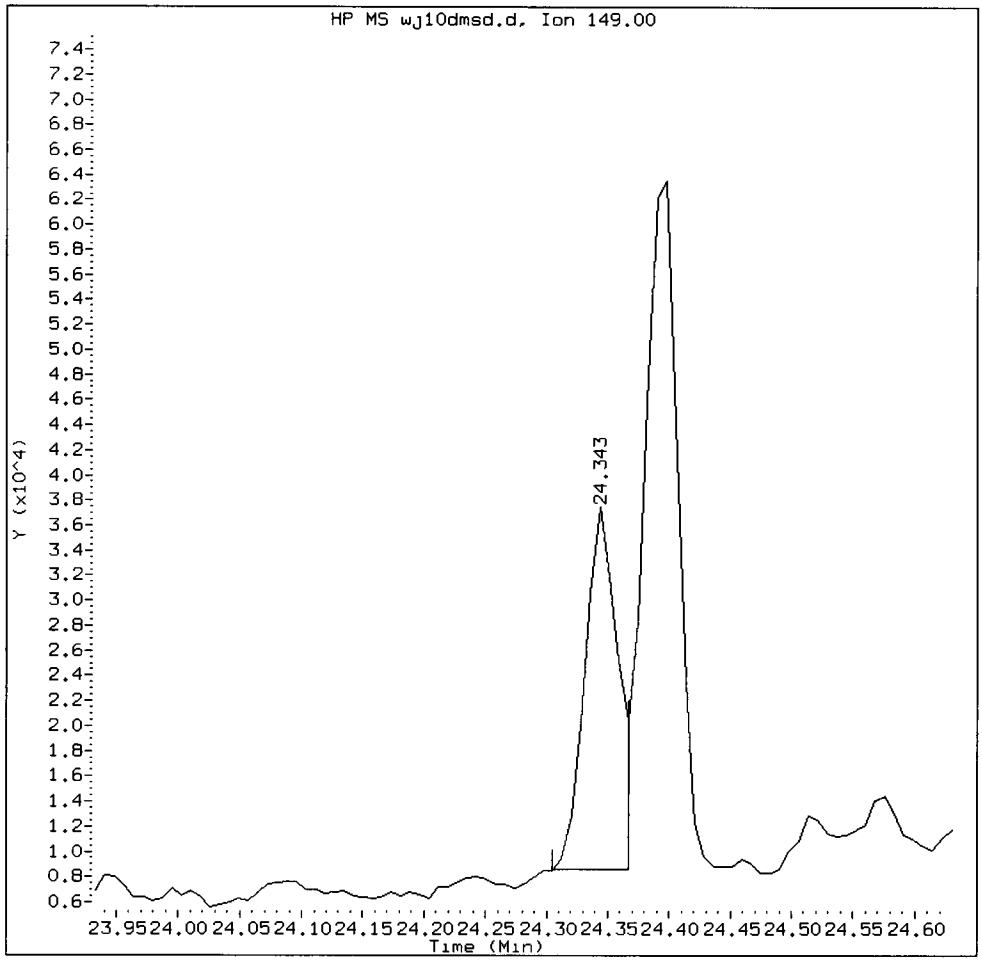
Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25

WJ10:012223



WJ10DMSD, /chem1/nt10.i/20130406.b/wj10dmsd.d

Di-n-octylphthalate Amount: 1.12 Area: 55234



MANUAL INTEGRATION for Di-n-octylphthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - wj10dmsd.d

Lab ID: WJ10DMSD, Method: ABN.m, Instrument: nt10.i, Date: 06-APR-2013

RT	CO-ELUTION COMPOUNDS
24.893	Benzo(k)fluoranthene and Benzo(b)fluoranthene

Analytical Resources, Inc.

YZ 4/10/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130406.b/wj10c.d
Lab Smp Id: WJ10C Client Smp ID: SD-SP-01-20130326-S
Inj Date : 06-APR-2013 18:48
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WJ10C
Misc Info : 13-6437
Comment : 1ul Injection
Method : /chem1/nt10.i/20130406.b/ABN.m
Meth Date : 09-Apr-2013 15:14 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	2000.00000	Volume of final extract (uL)
Ws	1.02000	Weight of sample extracted (g)
M	52.80000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.814	5.798	(0.718)	67615	4.79631	19920
$	2 Phenol-d5	99	7.552	7.537	(0.933)	96344	5.50747	22880
	3 Phenol	94	7.575	7.560	(0.936)	4470	0.24277	1009
$	5 2-Chlorophenol-d4	132	7.722	7.714	(0.954)	79032	5.21765	21680
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.094	8.086	(1.000)	44089	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.467	8.459	(1.046)	31041	2.78862	11580
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)	
	17	Hexachloroethane	117	Compound Not Detected.						
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.						
	15	4-Methylphenol	108	9.064	9.033	(1.120)	26772	1.85219	7694	
$	18	Nitrobenzene-d5	82	9.274	9.258	(0.864)	50660	3.31814	13780	
	19	Nitrobenzene	77	Compound Not Detected.						
	20	Isophorone	82	Compound Not Detected.						
	21	2-Nitrophenol	139	Compound Not Detected.						
	22	2,4-Dimethylphenol	107	Compound Not Detected.						
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.						
	24	Benzoic acid	105	Compound Not Detected.						
	25	2,4-Dichlorophenol	162	Compound Not Detected.						
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
*	27	Naphthalene-d8	136	10.736	10.729	(1.000)	165419	4.00000		
	28	Naphthalene	128	Compound Not Detected.						
	29	4-Chloroaniline	127	Compound Not Detected.						
	30	Hexachlorobutadiene	225	Compound Not Detected.						
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.						
	32	2-Methylnaphthalene	142	Compound Not Detected.						
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.						
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.						
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	36	2-Fluorobiphenyl	172	13.166	13.150	(0.901)	118290	3.50052	14540	
	37	2-Chloronaphthalene	162	Compound Not Detected.						
	38	2-Nitroaniline	65	Compound Not Detected.						
	39	Dimethylphthalate	163	14.172	14.164	(0.970)	3737	0.12544 J	521.1	
	40	Acenaphthylene	152	Compound Not Detected.						
	41	2,6-Dinitrotoluene	165	Compound Not Detected.						
*	42	Acenaphthene-d10	164	14.605	14.590	(1.000)	98501	4.00000		
	43	3-Nitroaniline	138	Compound Not Detected.						
	44	Acenaphthene	153	Compound Not Detected.						
	45	2,4-Dinitrophenol	184	Compound Not Detected.						
	46	Dibenzofuran	168	Compound Not Detected.						
	47	4-Nitrophenol	109	Compound Not Detected.						
	48	2,4-Dinitrotoluene	165	Compound Not Detected.						
	50	Diethylphthalate	149	Compound Not Detected.						
	49	Fluorene	166	Compound Not Detected.						
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.						
	52	4-Nitroaniline	138	Compound Not Detected.						
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.						
$	55	2,4,6-Tribromophenol	330	16.397	16.359	(1.123)	31754	5.05164	20990	
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.						
	57	Hexachlorobenzene	284	Compound Not Detected.						
	58	Pentachlorophenol	266	Compound Not Detected.						
*	59	Phenanthrene-d10	188	17.866	17.834	(1.000)	132066	4.00000		(H)
	60	Phenanthrene	178	17.920	17.889	(1.006)	10638	0.30216	1255	(H)
	61	Anthracene	178	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	20.450	20.403	(1.148)	15486	0.38196	1587(H)
65	Pyrene	202	20.883	20.821	(0.902)	20371	0.46369	1926
$ 66	Terphenyl-d14	244	21.262	21.200	(0.918)	115377	3.89479	16180
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	23.136	23.035	(0.999)	4888	0.11358 J	471.8(M)
* 69	Chrysene-d12	240	23.159	23.066	(1.000)	154232	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	23.198	23.105	(1.002)	10122	0.25968	1079
72	bis(2-Ethylhexyl)phthalate	149	23.384	23.283	(0.959)	502295	19.9611	82920
* 134	Di-n-octylphthalate-d4	153	24.375	24.274	(1.000)	190565	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	Compound Not Detected.					
* 77	Perylene-d12	264	25.497	25.373	(1.000)	149923	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	27.933	27.762	(1.095)	11377	0.28613	1189
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	24.932	24.808	(0.978)	19340	0.45215	1878
99	Perylene	252	Compound Not Detected.					
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10c.d
Lab Smp Id: WJ10C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6437

Calibration Date: 06-APR-2013
Calibration Time: 14:32
Client Smp ID: SD-SP-01-2013032
Level: LOW
Sample Type: Solids

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	44089	-5.44
27 Naphthalene-d8	176978	88489	353956	165419	-6.53
42 Acenaphthene-d10	110872	55436	221744	98501	-11.16
59 Phenanthrene-d10	188290	94145	376580	132066	-29.86
69 Chrysene-d12	213681	106840	427362	154232	-27.82
134 Di-n-octylphthala	264159	132080	528318	190565	-27.86
77 Perylene-d12	208584	104292	417168	149923	-28.12

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.09	0.10
27 Naphthalene-d8	10.73	10.23	11.23	10.74	0.07
42 Acenaphthene-d10	14.59	14.09	15.09	14.61	0.11
59 Phenanthrene-d10	17.83	17.33	18.33	17.87	0.17
69 Chrysene-d12	23.07	22.57	23.57	23.16	0.40
134 Di-n-octylphthala	24.27	23.77	24.77	24.37	0.41
77 Perylene-d12	25.37	24.87	25.87	25.50	0.49

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

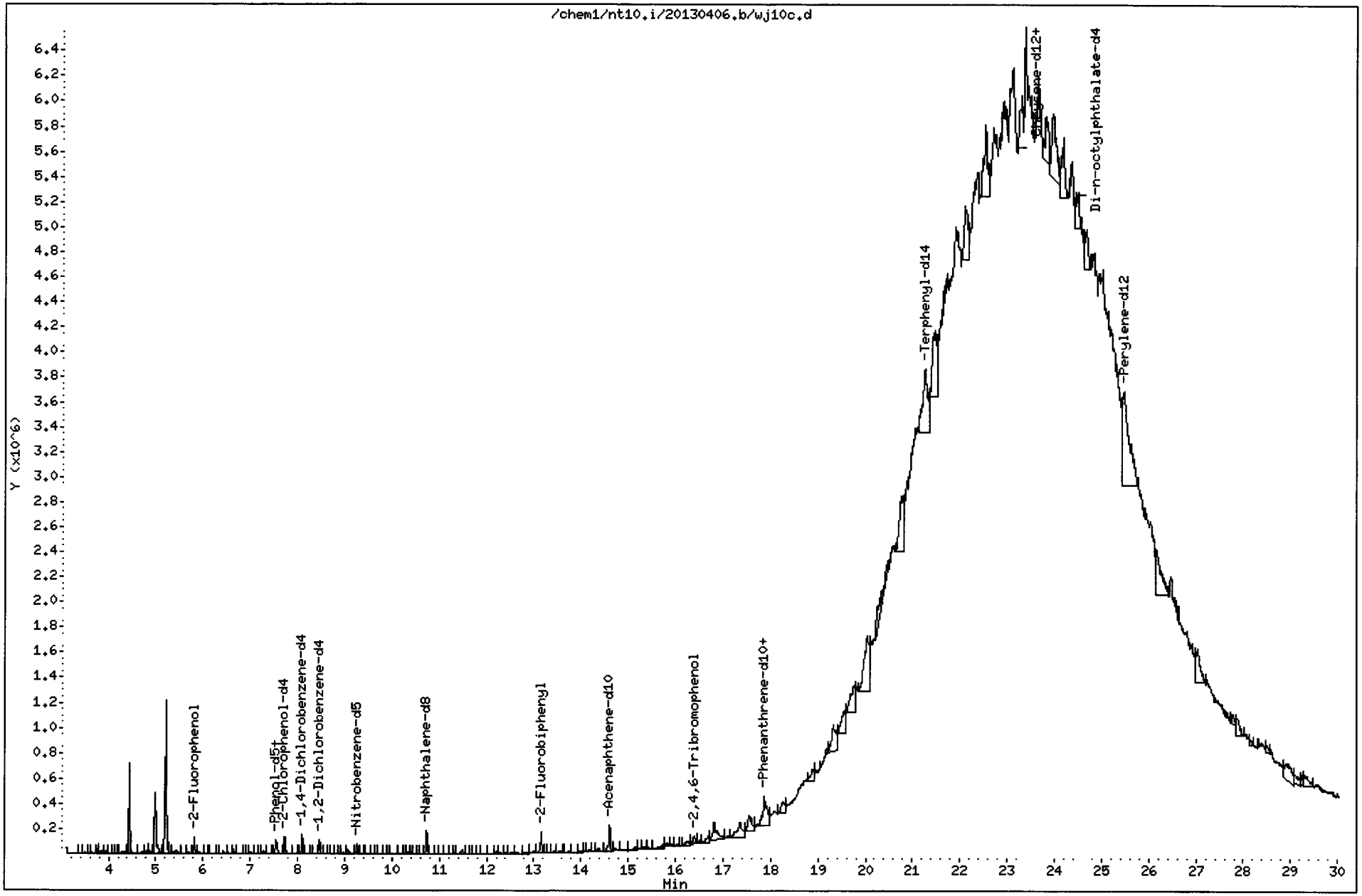
RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10C
Client Smp ID: SD-SP-01-20130326-S
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6437

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	15580	9962	63.95	30-160
$ 2 Phenol-d5	15580	11440	73.43	30-160
$ 5 2-Chlorophenol-d4	15580	10840	69.57	30-160
$ 10 1,2-Dichlorobenzen	10390	5792	55.77	30-160
$ 18 Nitrobenzene-d5	10390	6892	66.36	30-160
$ 36 2-Fluorobiphenyl	10390	7271	70.01	30-160
$ 55 2,4,6-Tribromophen	15580	10490	67.36	30-160
$ 66 Terphenyl-d14	10390	8090	77.90	30-160

Data File: /chem1/nt10.i/20130406.b/wj10c.d
Date : 06-APR-2013 18:48
Client ID: SD-SP-01-20130326-S
Sample Info: WJ10C
Volume Injected (uL): 1.0
Column phase: ZB-5ms1

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

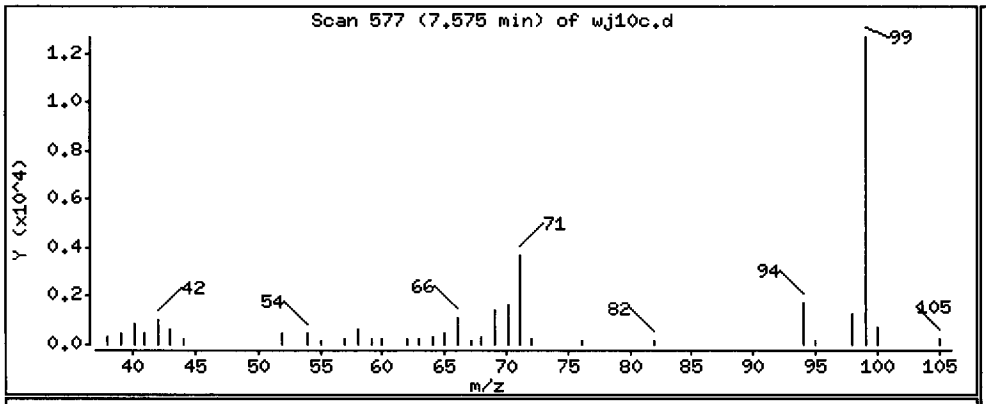
Operator: VTS/YZ

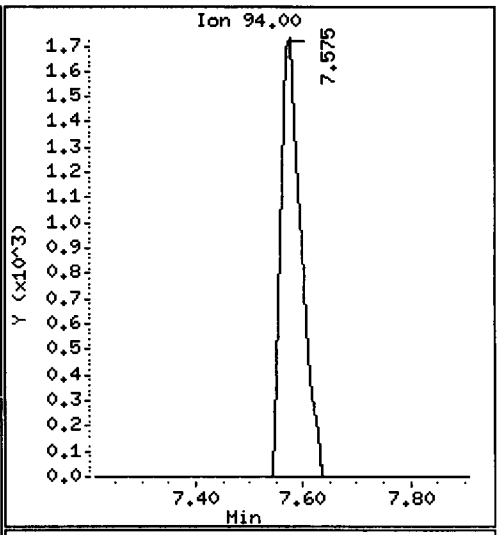
Column phase: ZB-5msi

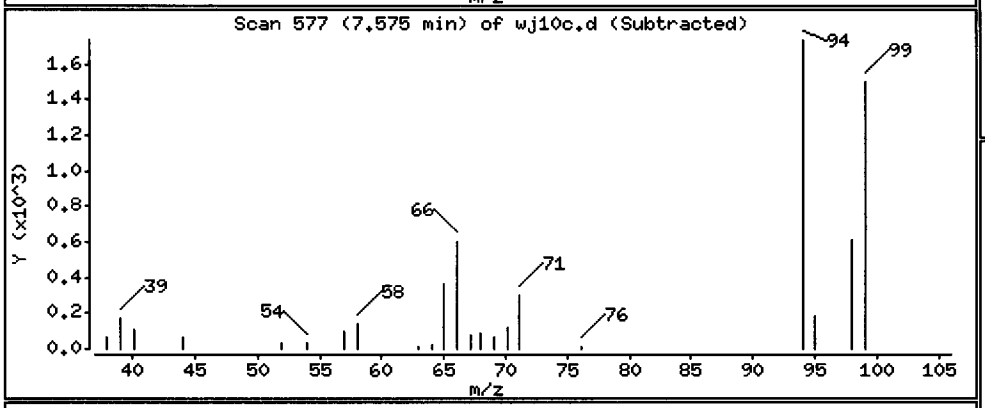
Column diameter: 0.25

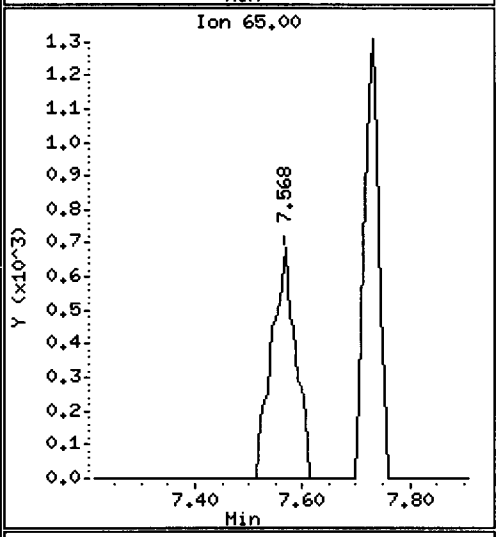
3 Phenol

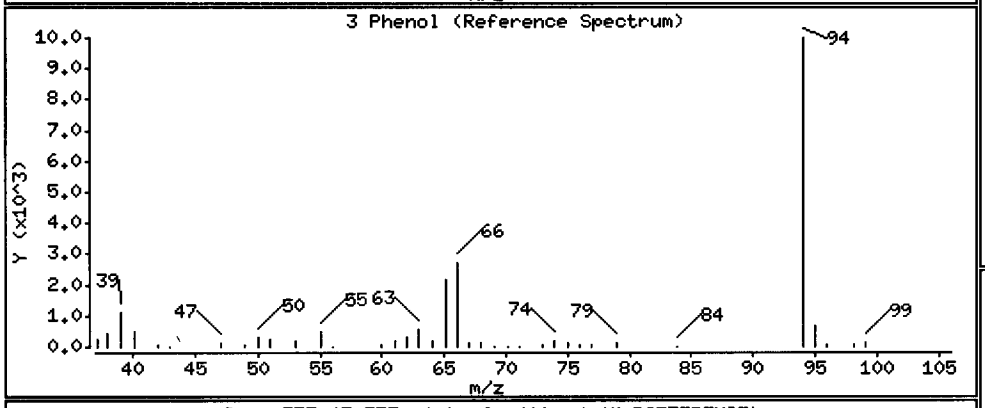
Concentration: 1009 ug/kg

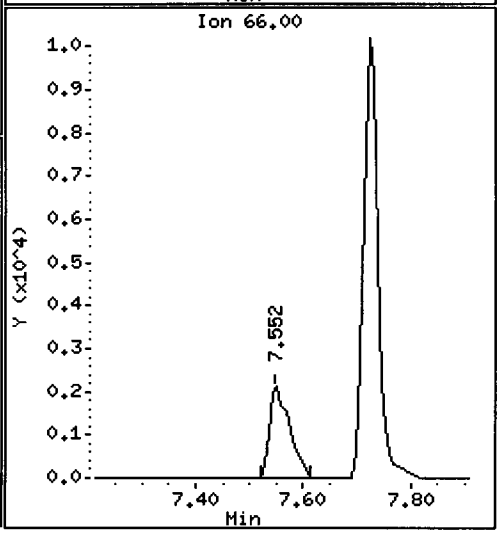


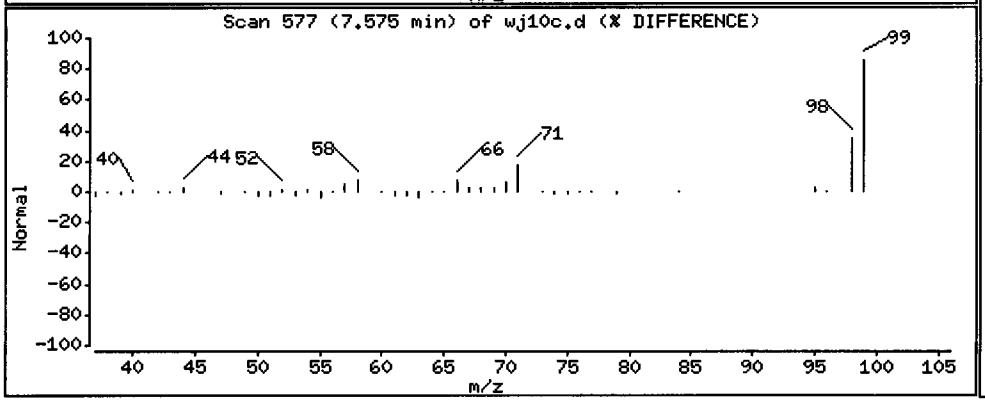












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

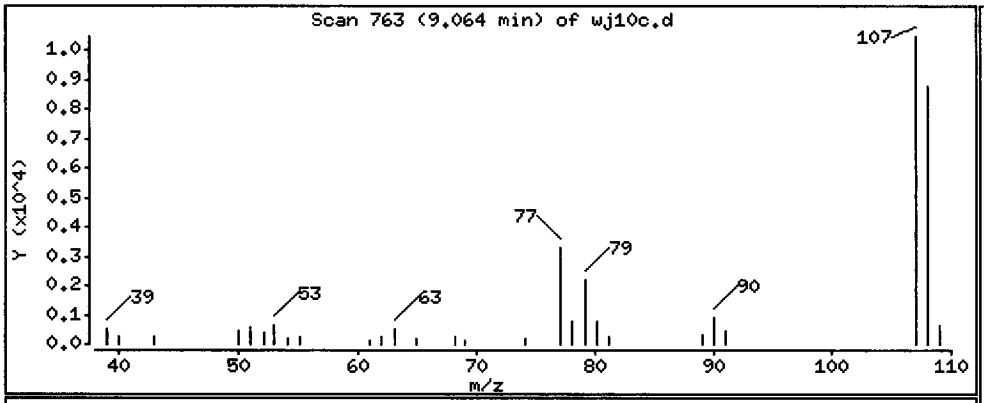
Operator: VTS/YZ

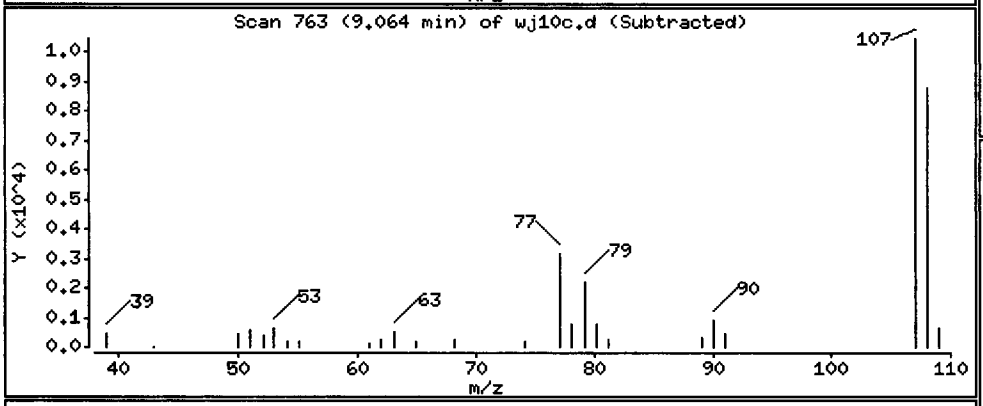
Column phase: ZB-5msi

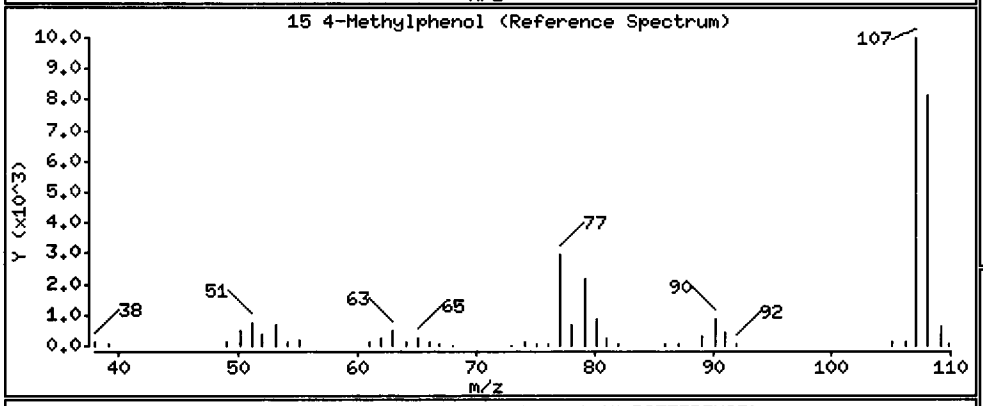
Column diameter: 0.25

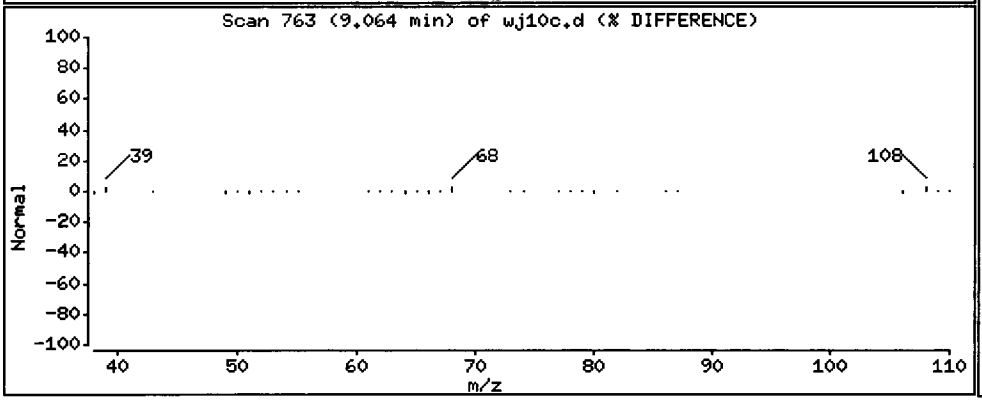
15 4-Methylphenol

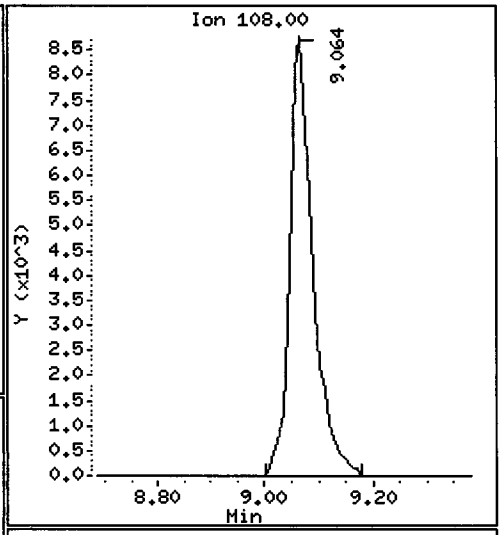
Concentration: 7694 ug/kg

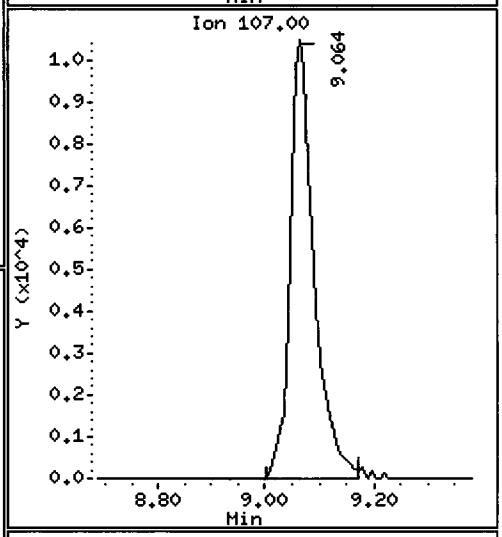


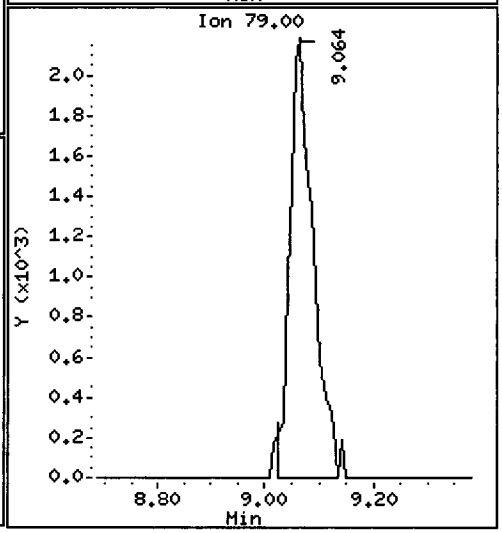












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

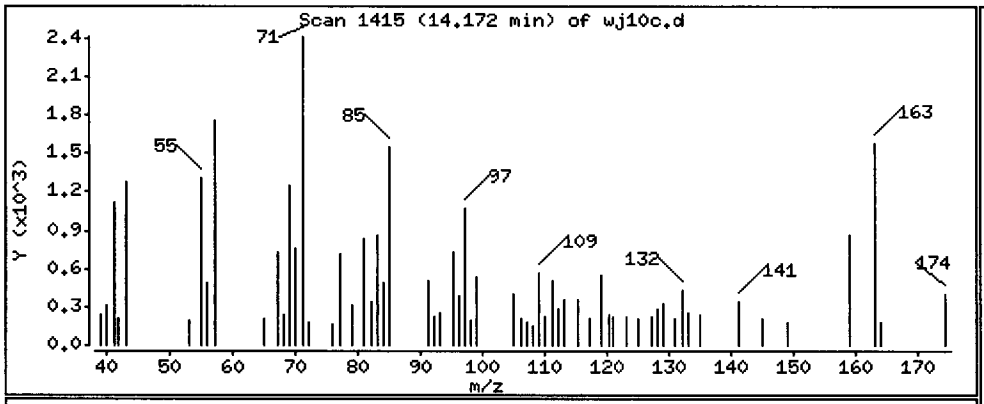
Operator: VTS/YZ

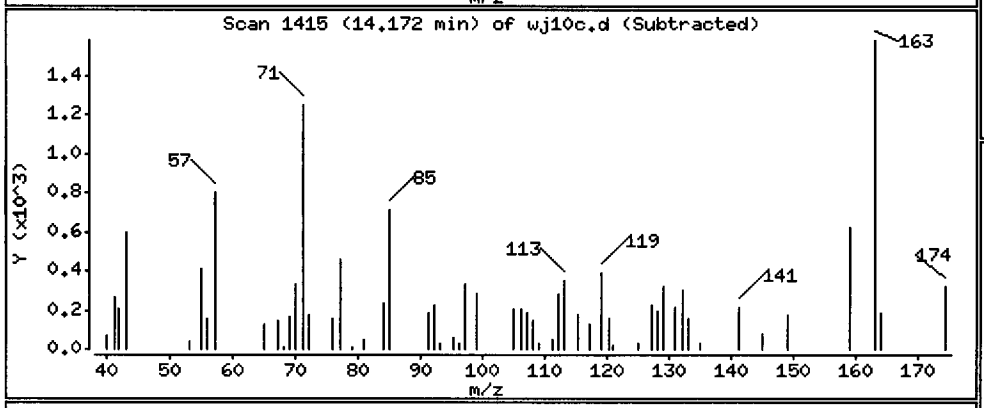
Column phase: ZB-5msi

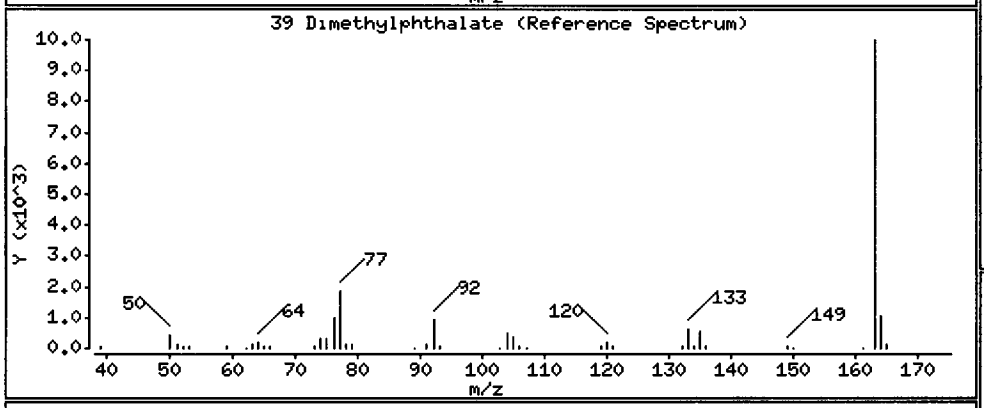
Column diameter: 0.25

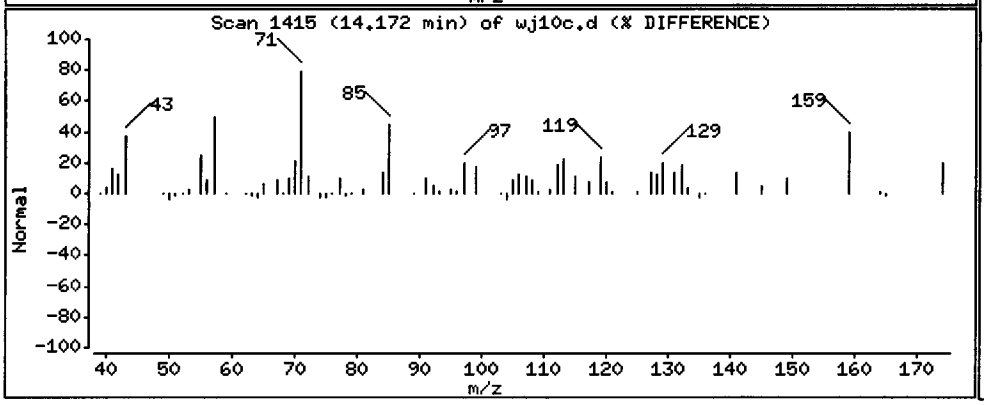
39 Dimethylphthalate

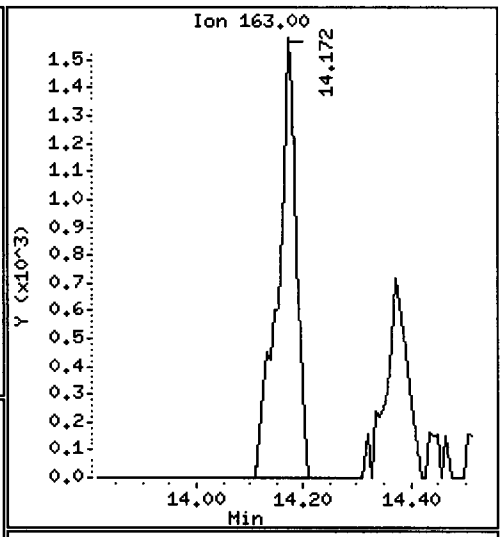
Concentration: 521.1 ug/kg

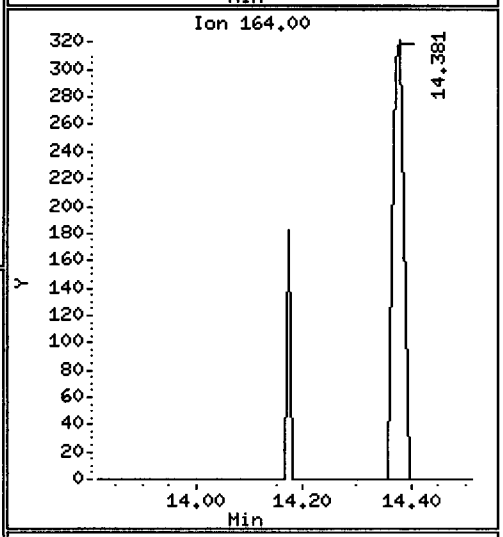


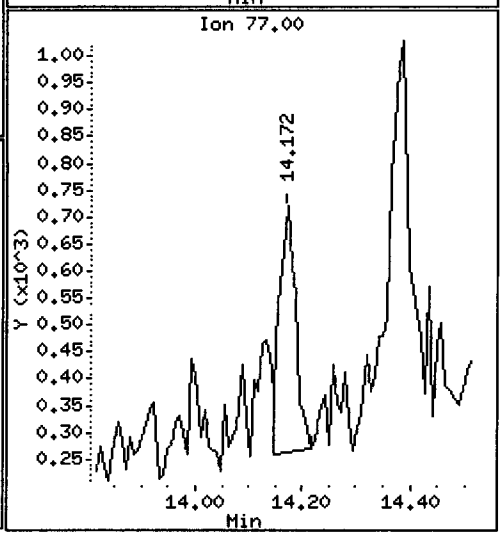












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

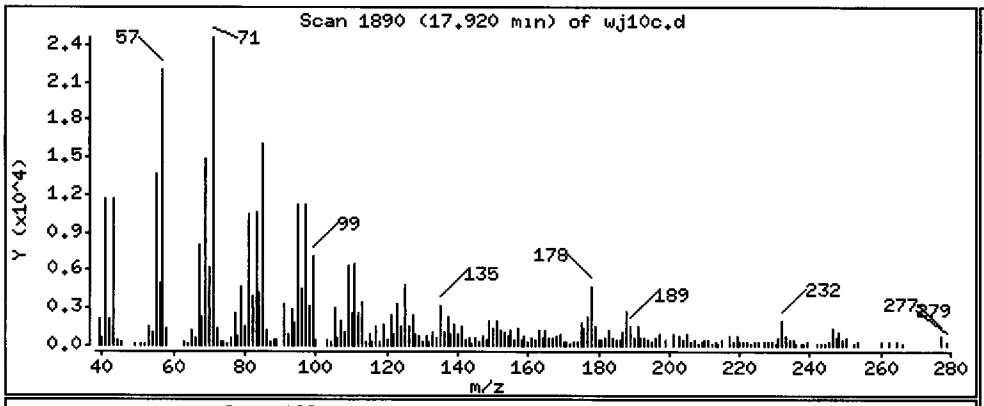
Operator: VTS/YZ

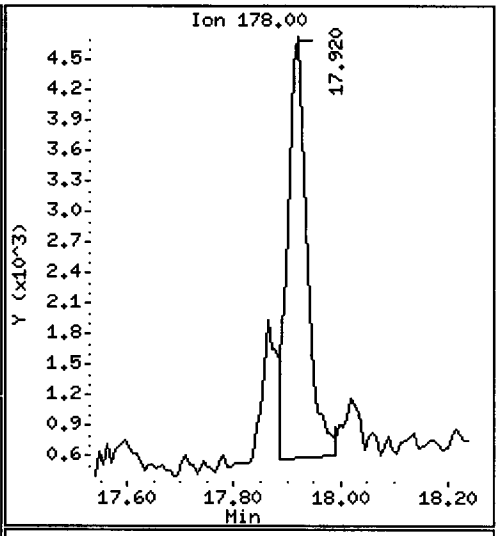
Column phase: ZB-5msi

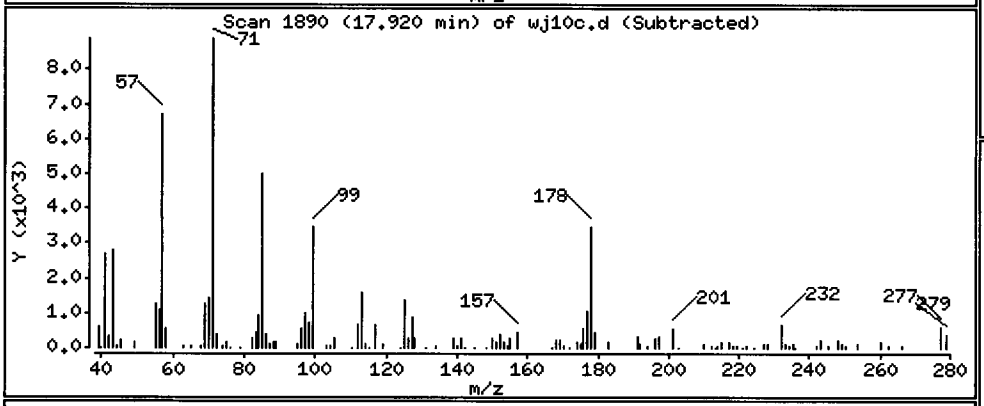
Column diameter: 0.25

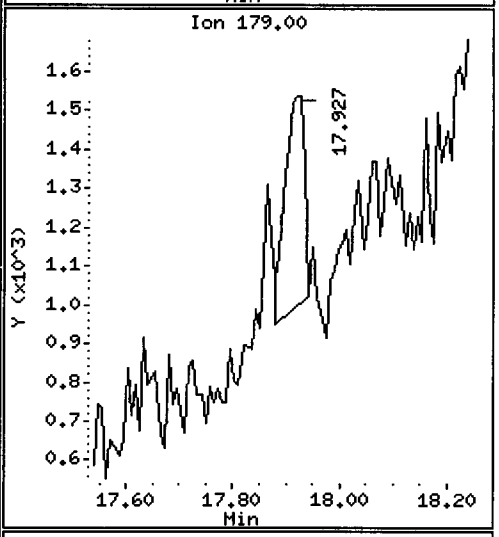
60 Phenanthrene

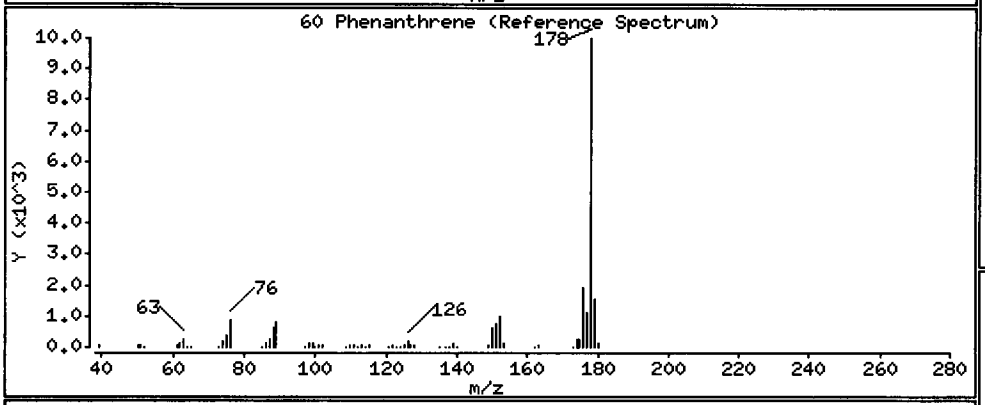
Concentration: 1255 ug/kg

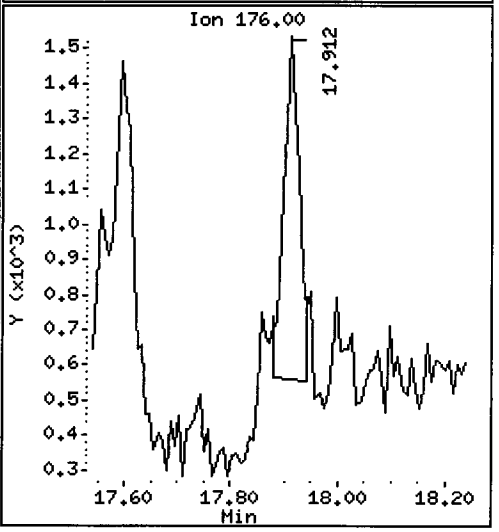


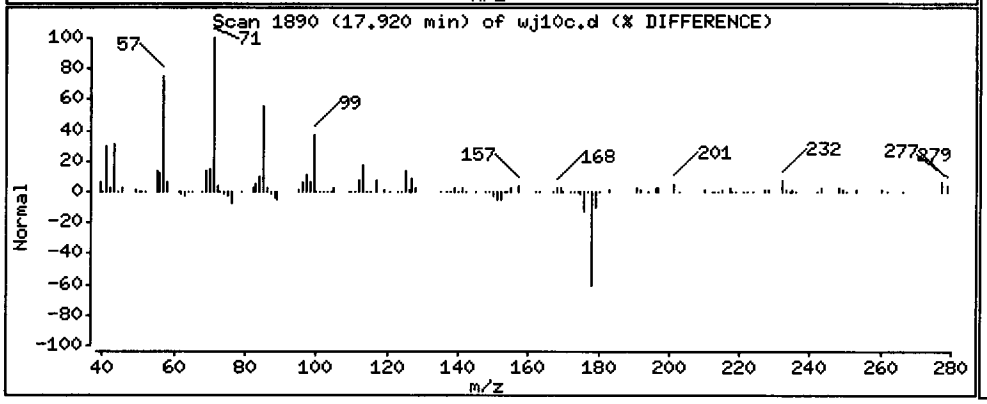












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

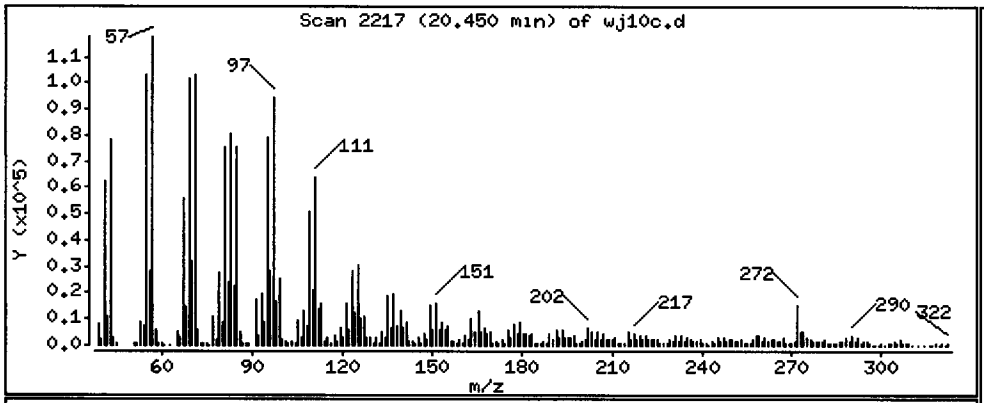
Operator: VTS/YZ

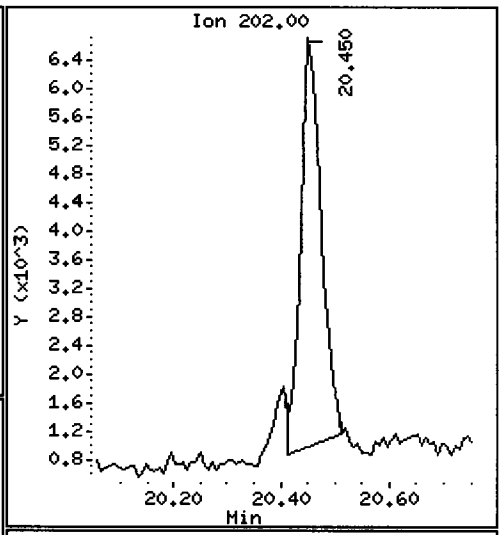
Column phase: ZB-5msi

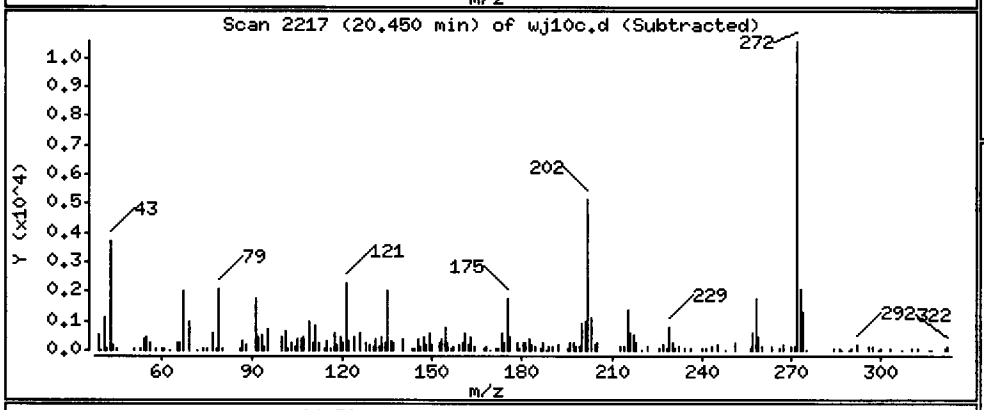
Column diameter: 0.25

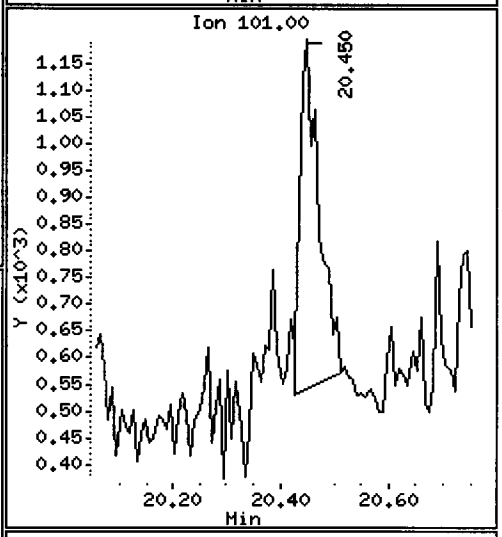
64 Fluoranthene

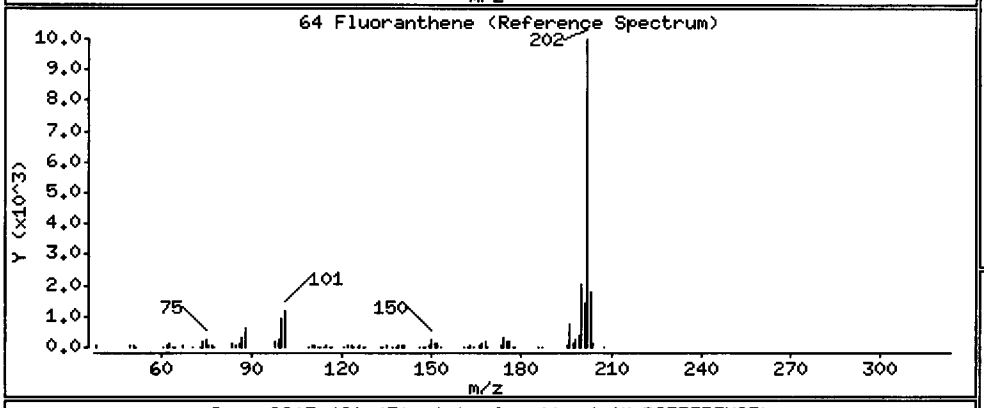
Concentration: 1587 ug/kg

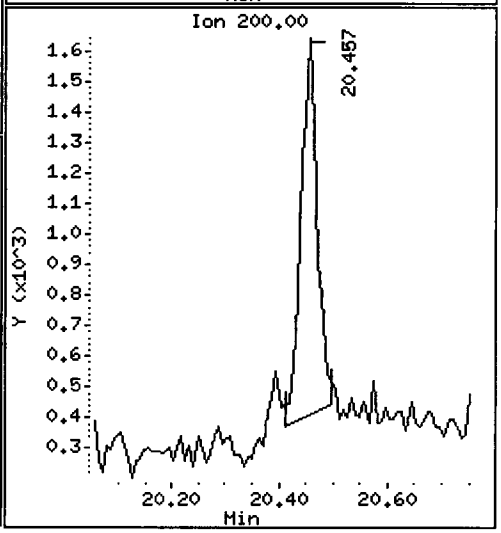


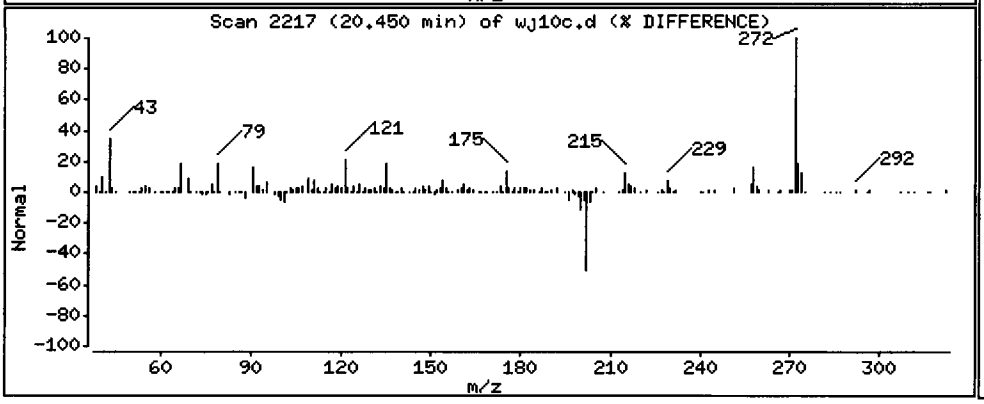












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

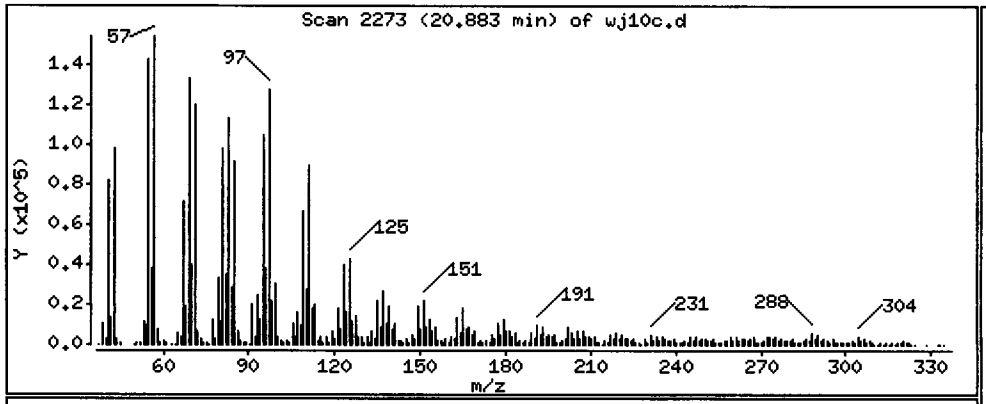
Operator: VTS/YZ

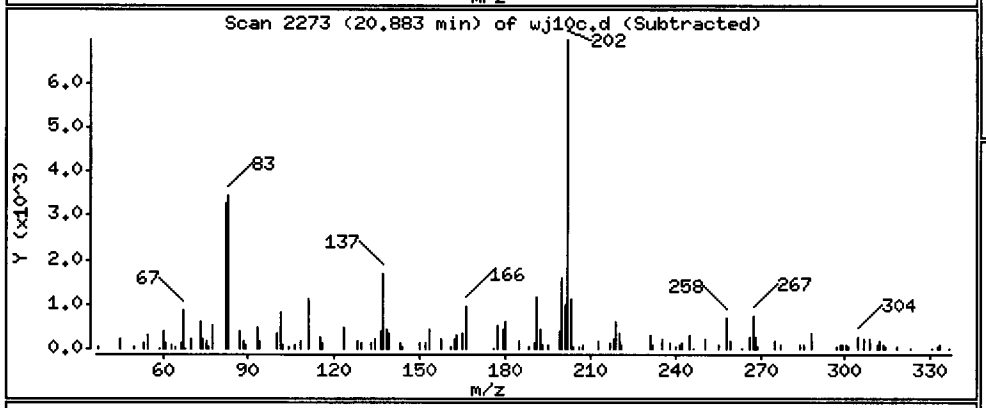
Column phase: ZB-5msi

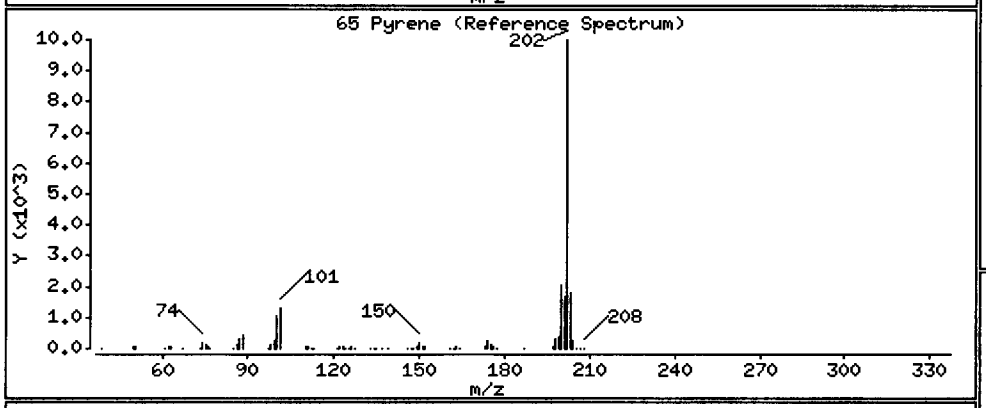
Column diameter: 0.25

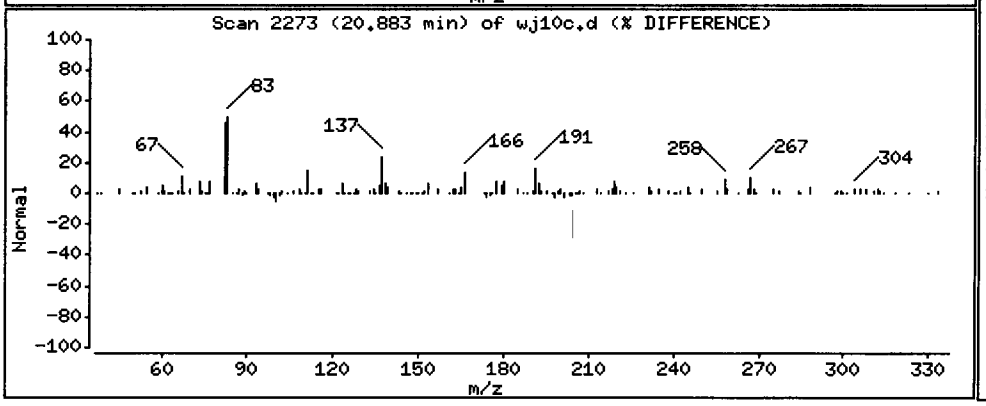
65 Pyrene

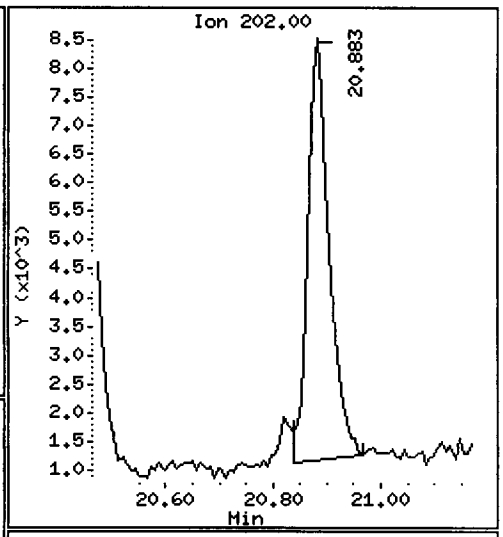
Concentration: 1926 ug/kg

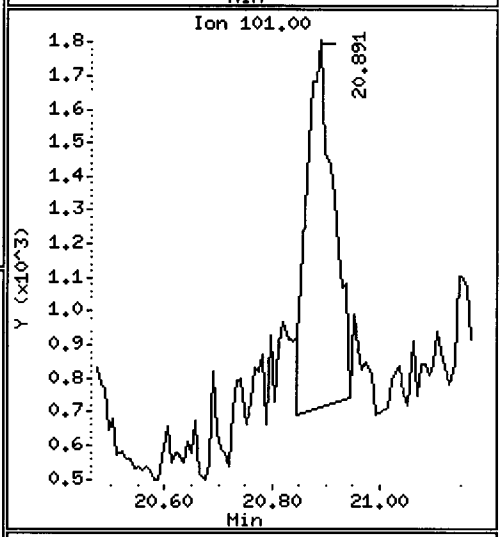


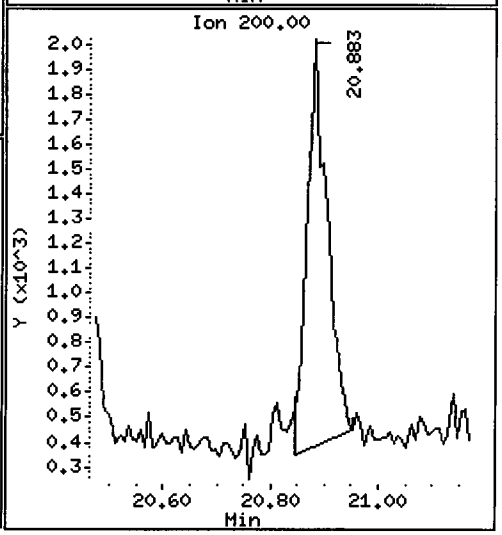












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

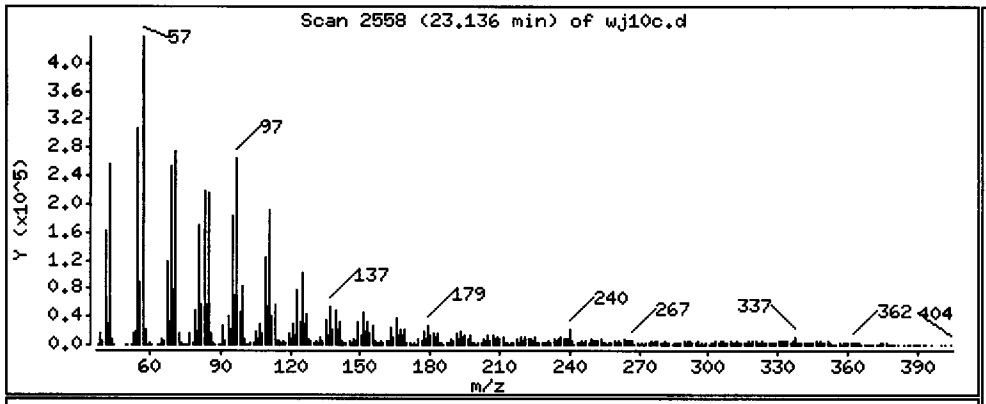
Operator: VTS/YZ

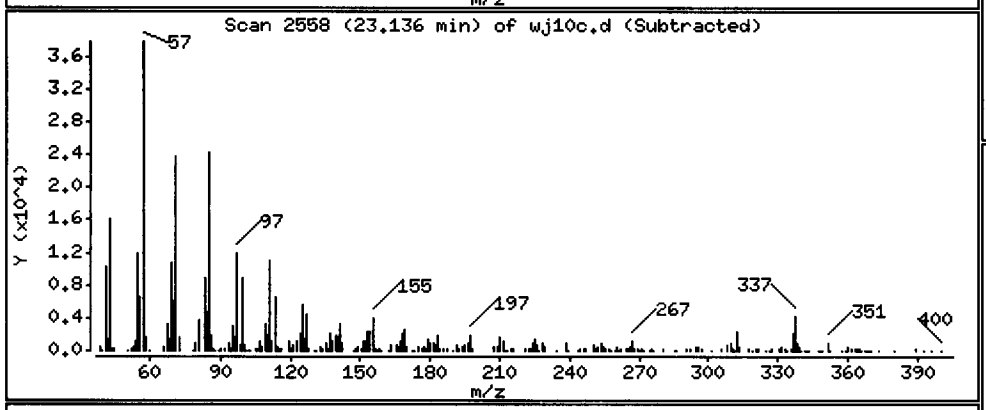
Column phase: ZB-5msi

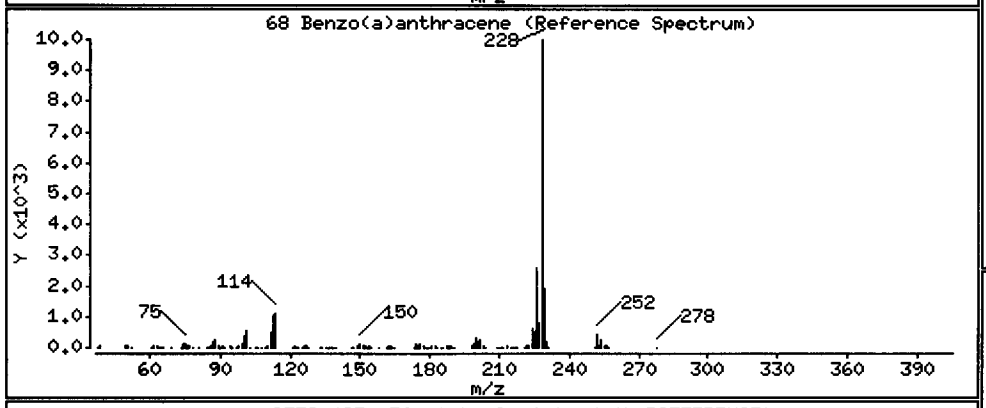
Column diameter: 0.25

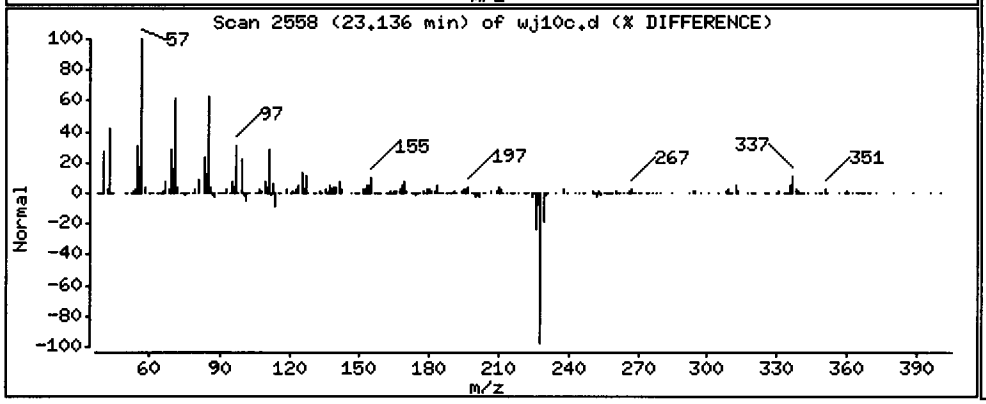
68 Benzo(a)anthracene

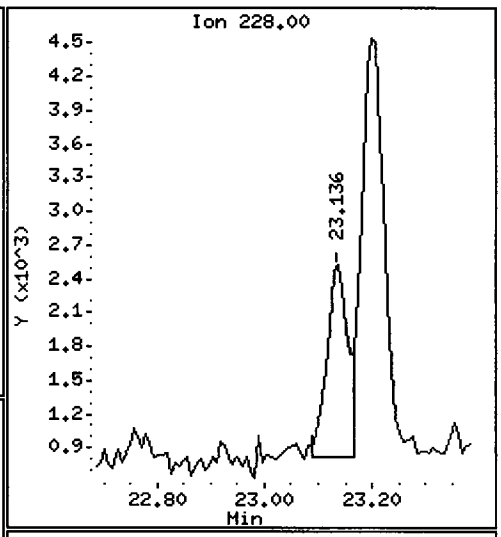
Concentration: 471.8 ug/kg

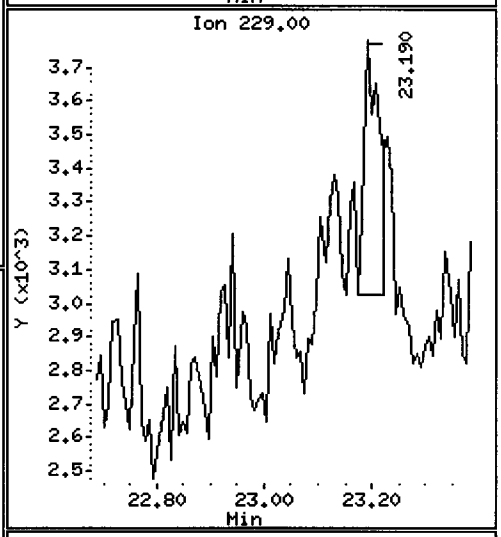


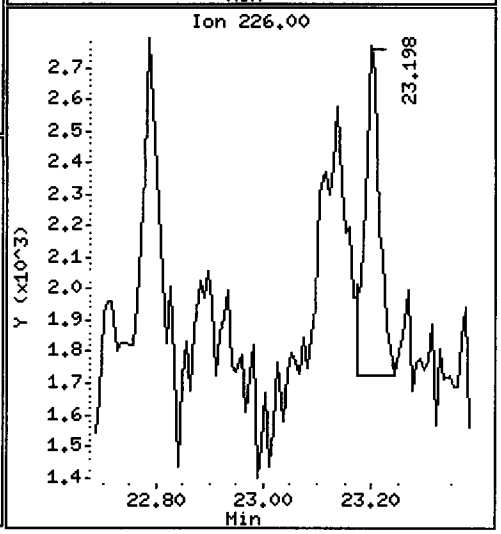












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

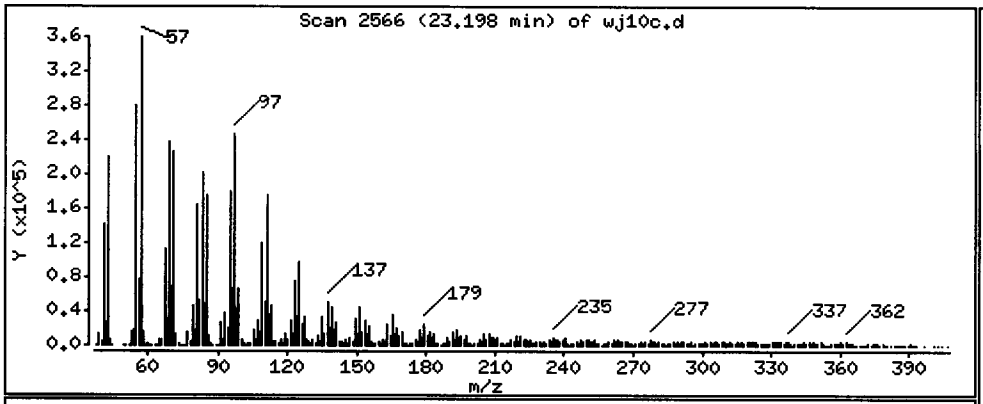
Operator: VTS/YZ

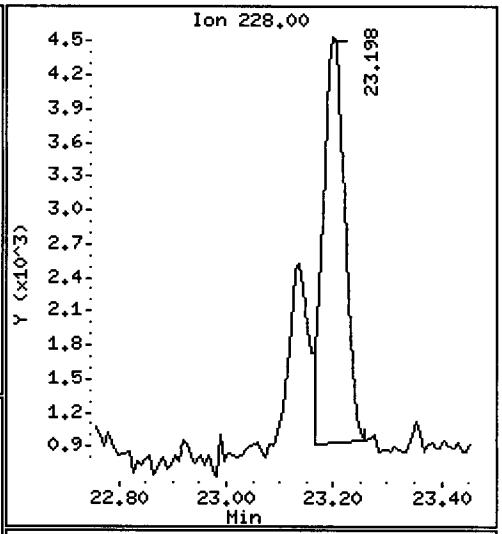
Column phase: ZB-5msi

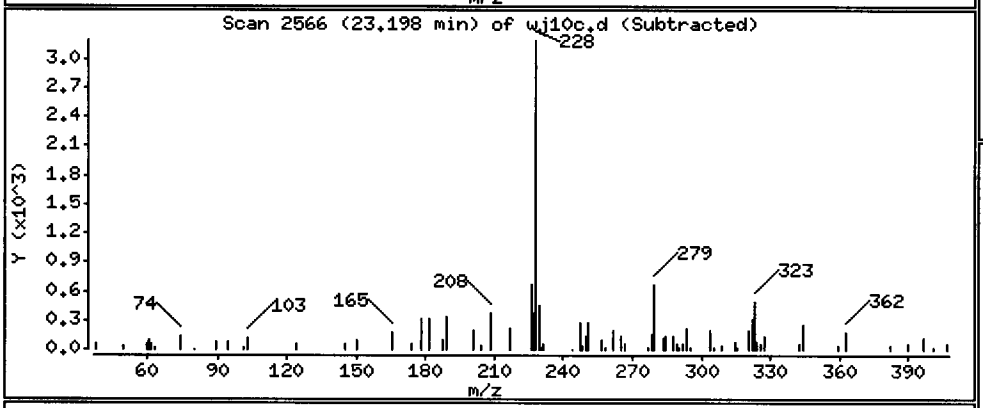
Column diameter: 0.25

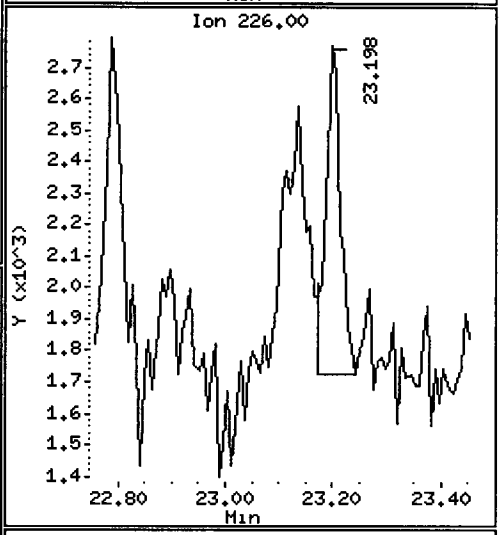
71 Chrysene

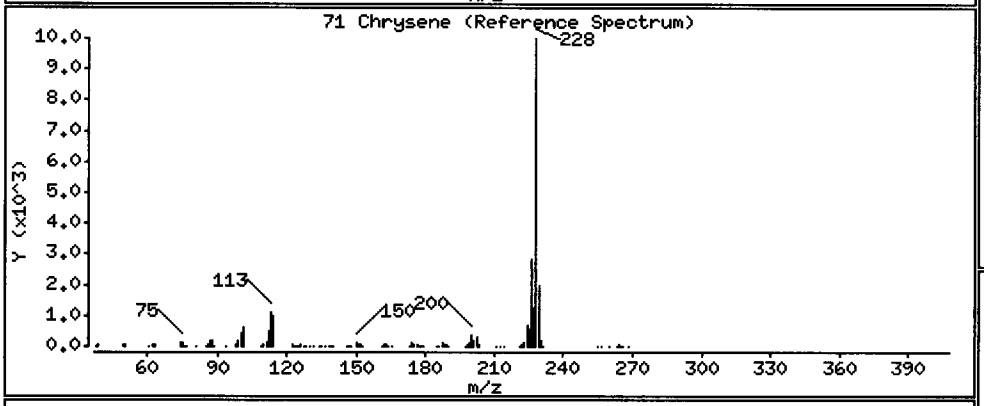
Concentration: 1079 ug/kg

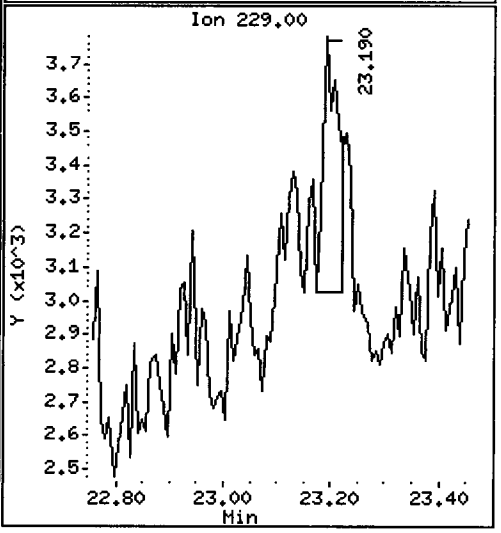


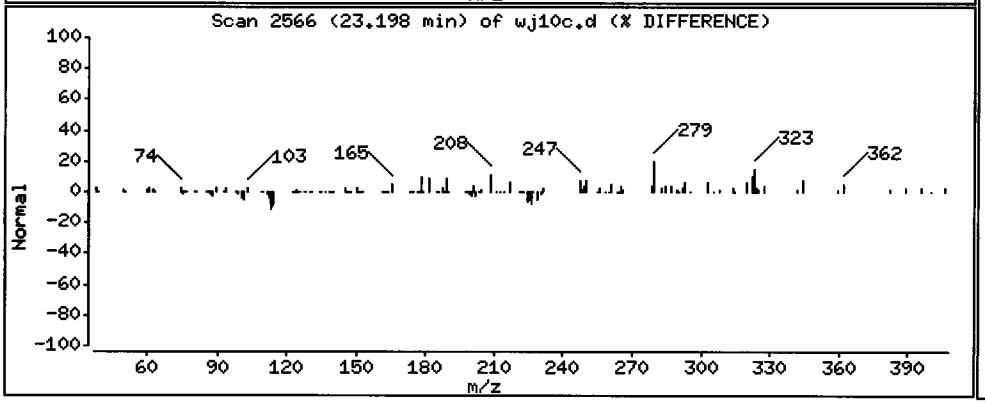












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

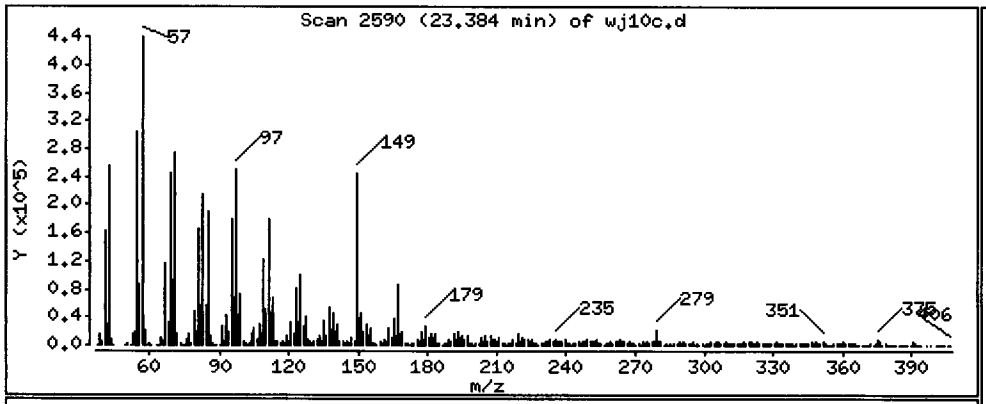
Operator: VTS/YZ

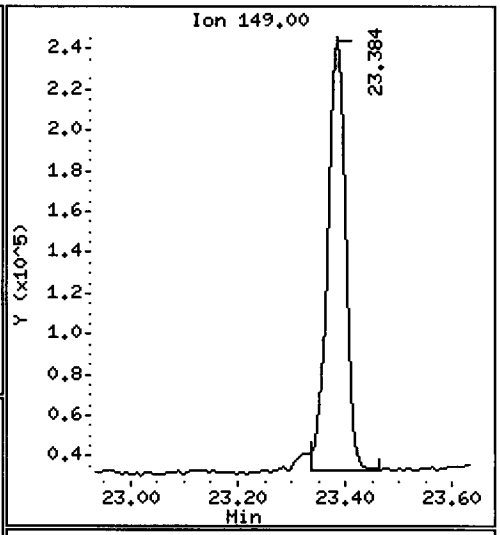
Column phase: ZB-5msi

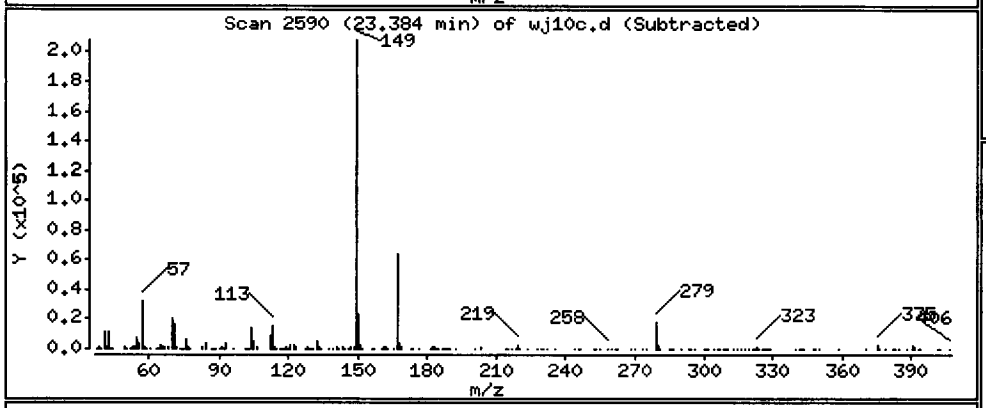
Column diameter: 0.25

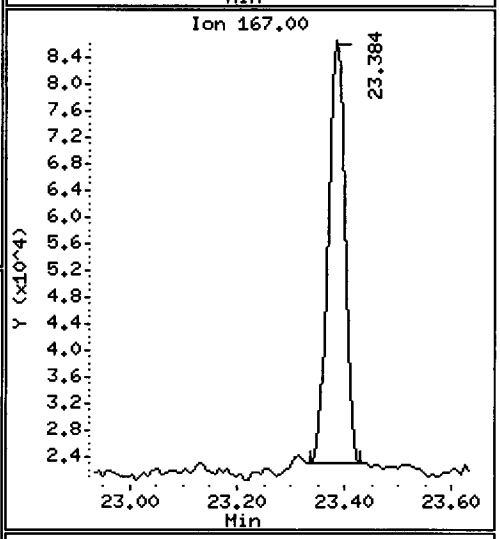
72 bis(2-Ethylhexyl)phthalate

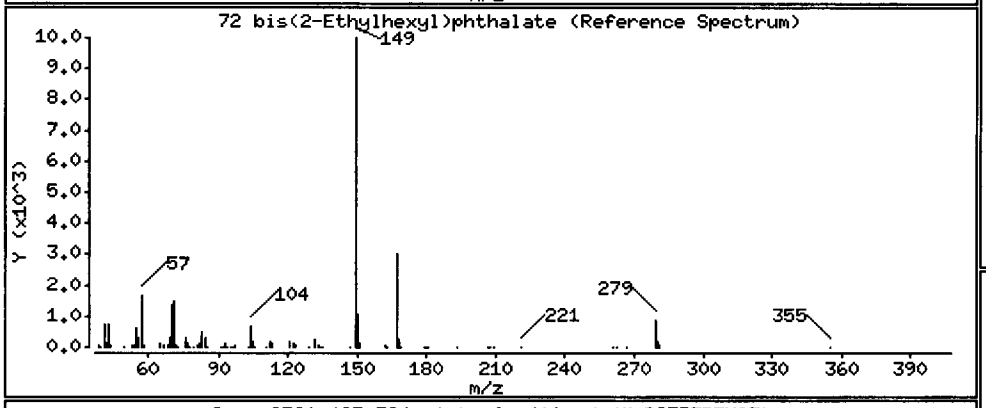
Concentration: 82920 ug/kg

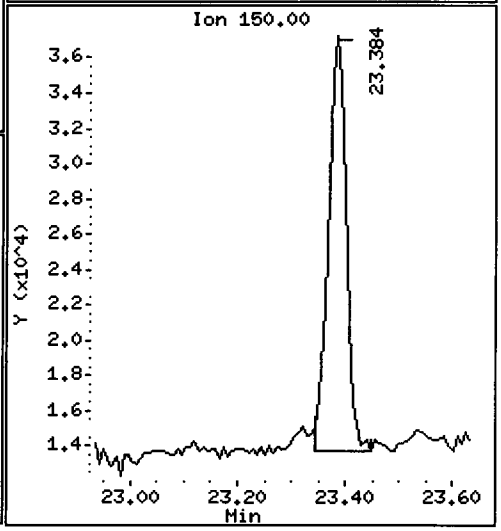


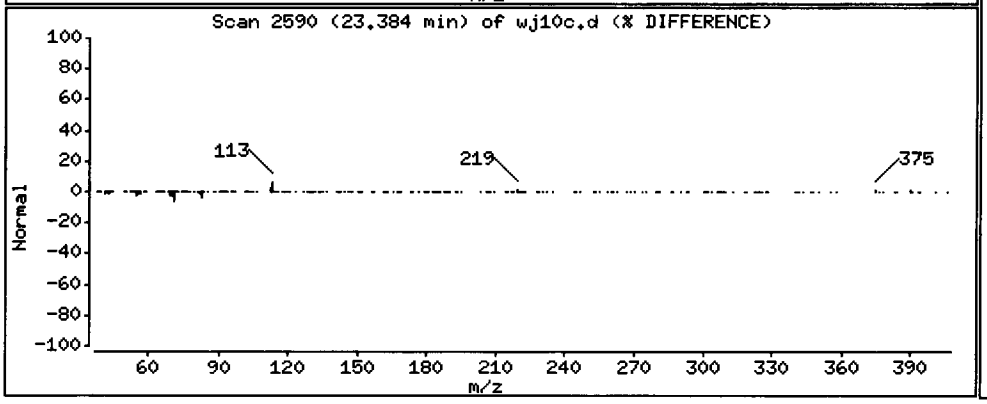












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

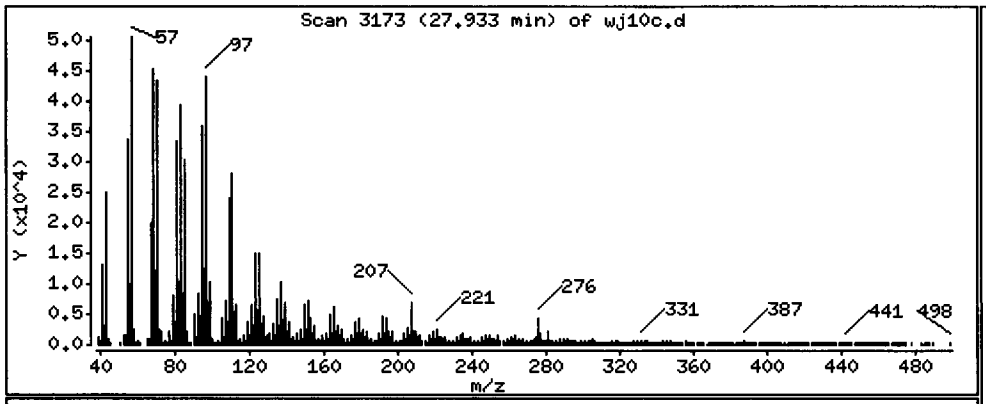
Operator: VTS/YZ

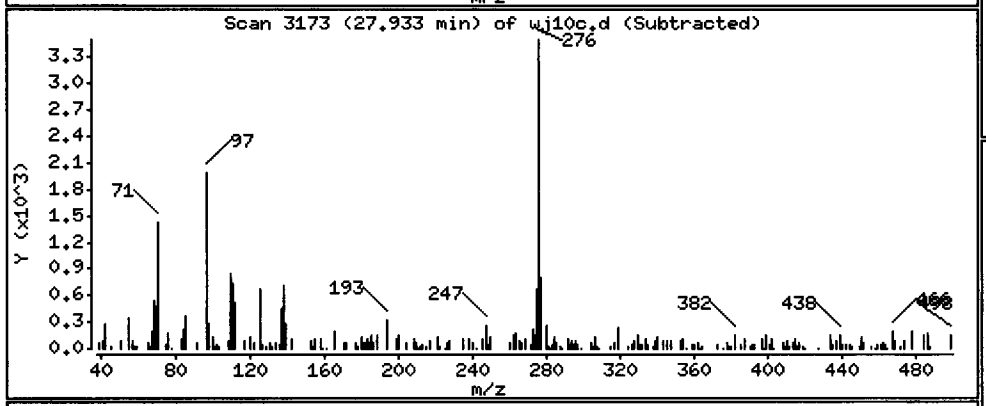
Column phase: ZB-5msi

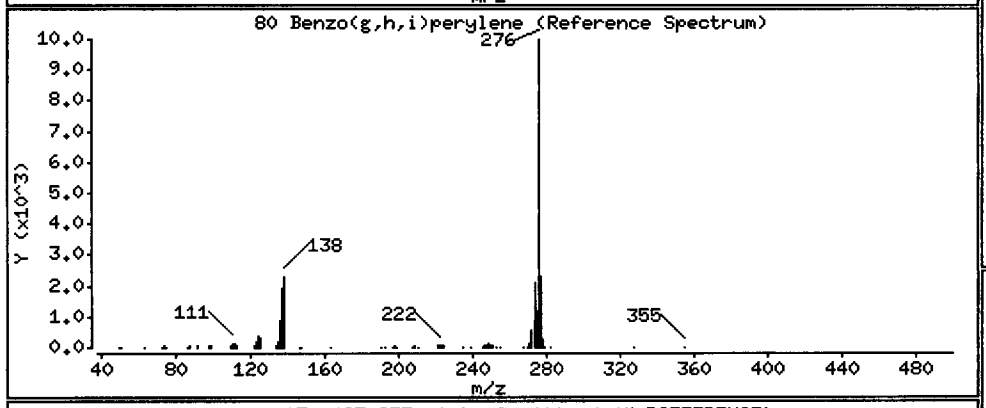
Column diameter: 0.25

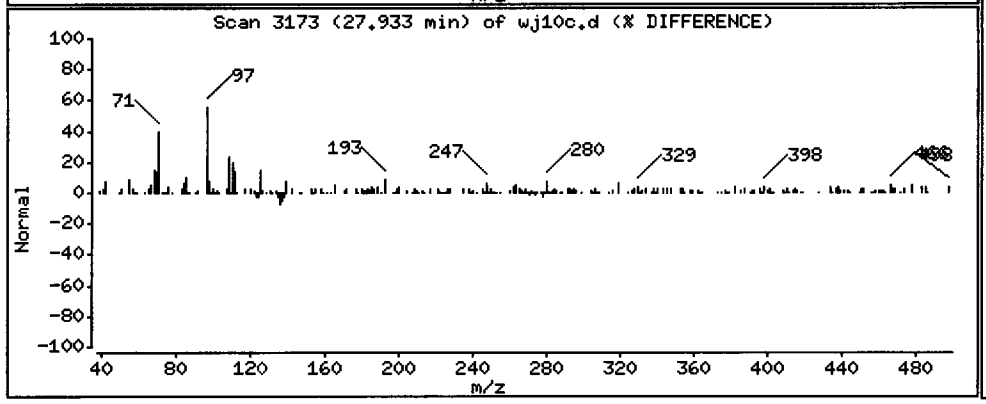
80 Benzo(g,h,i)perylene

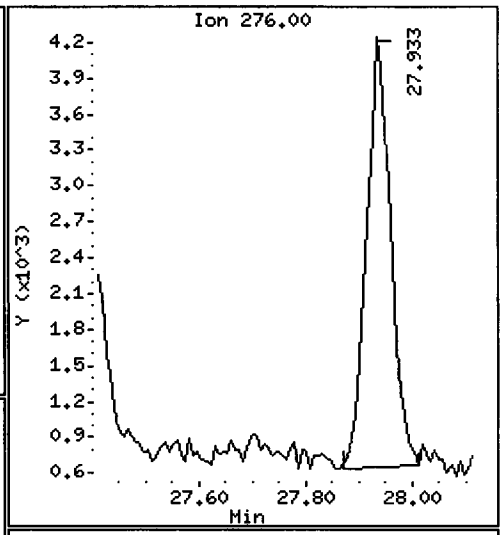
Concentration: 1189 ug/kg

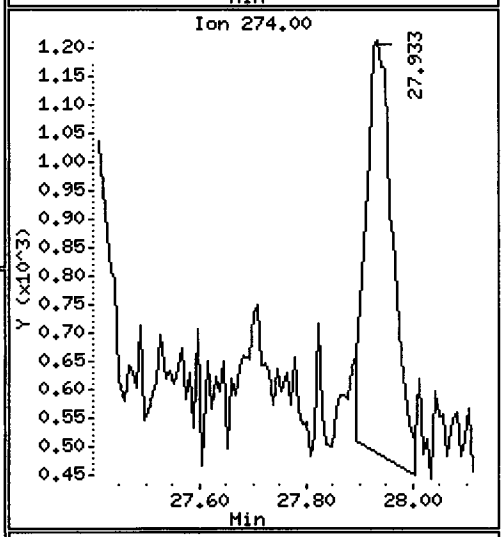


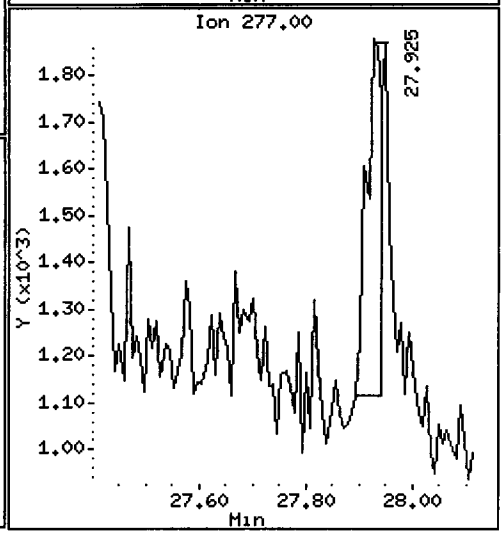












Data File: /chem1/nt10.i/20130406.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

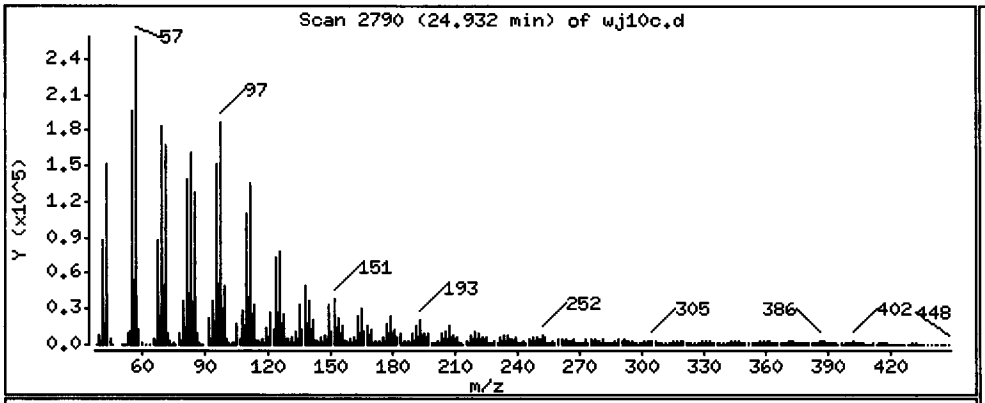
Operator: VTS/YZ

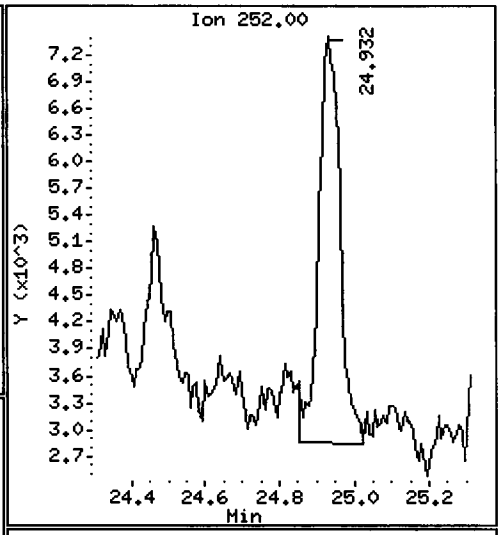
Column phase: ZB-5msi

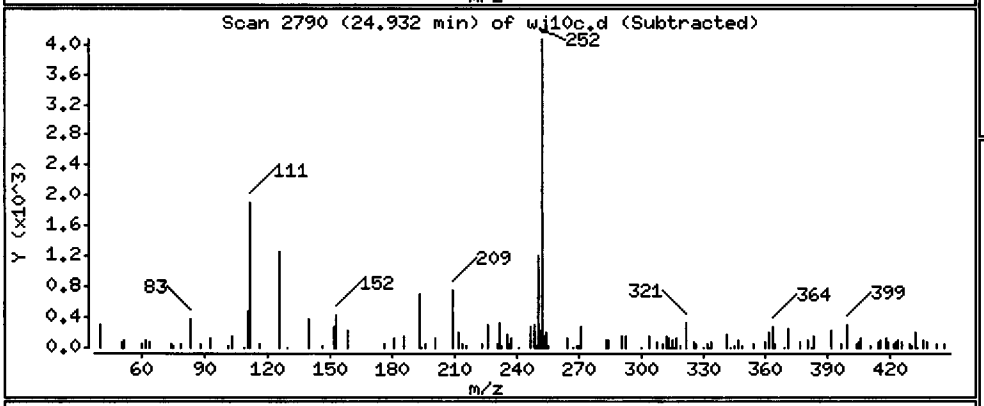
Column diameter: 0.25

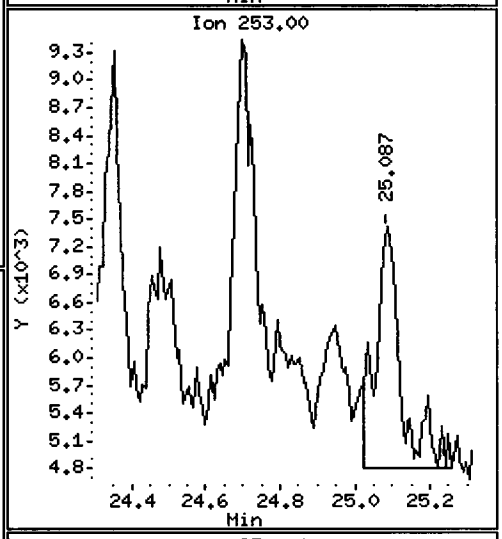
187 Total Benzofluoranthenes

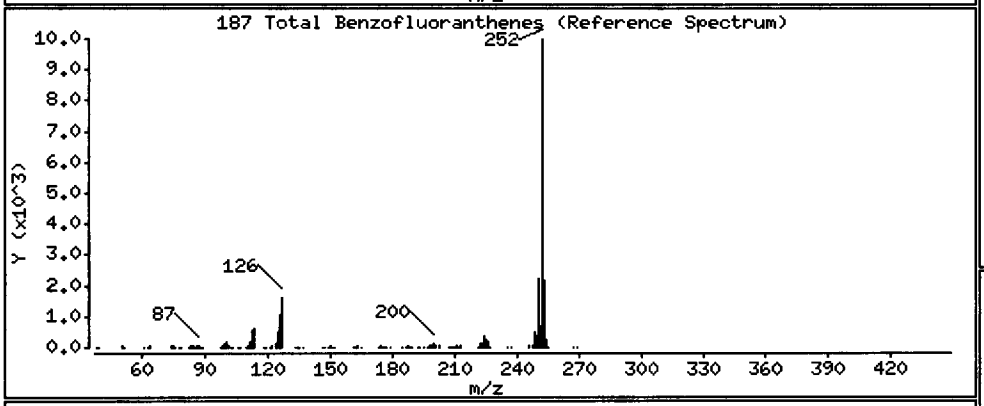
Concentration: 1878 ug/kg

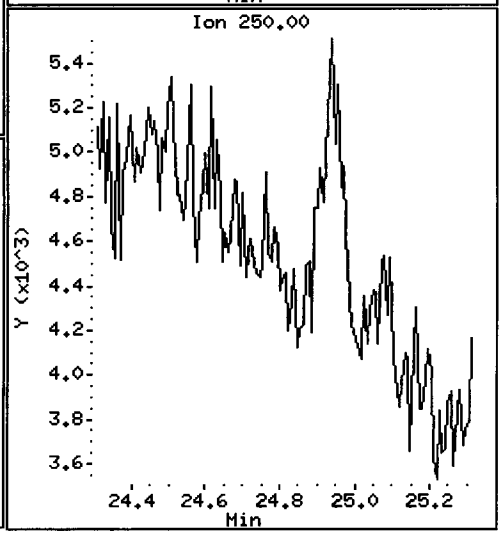


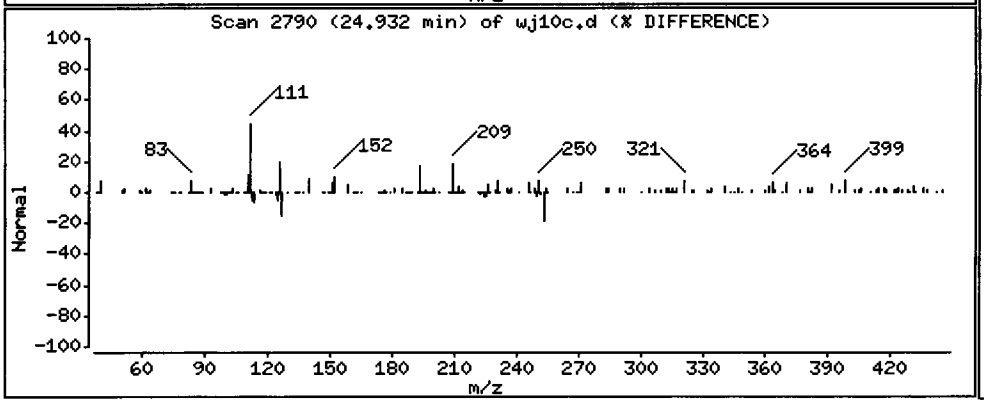






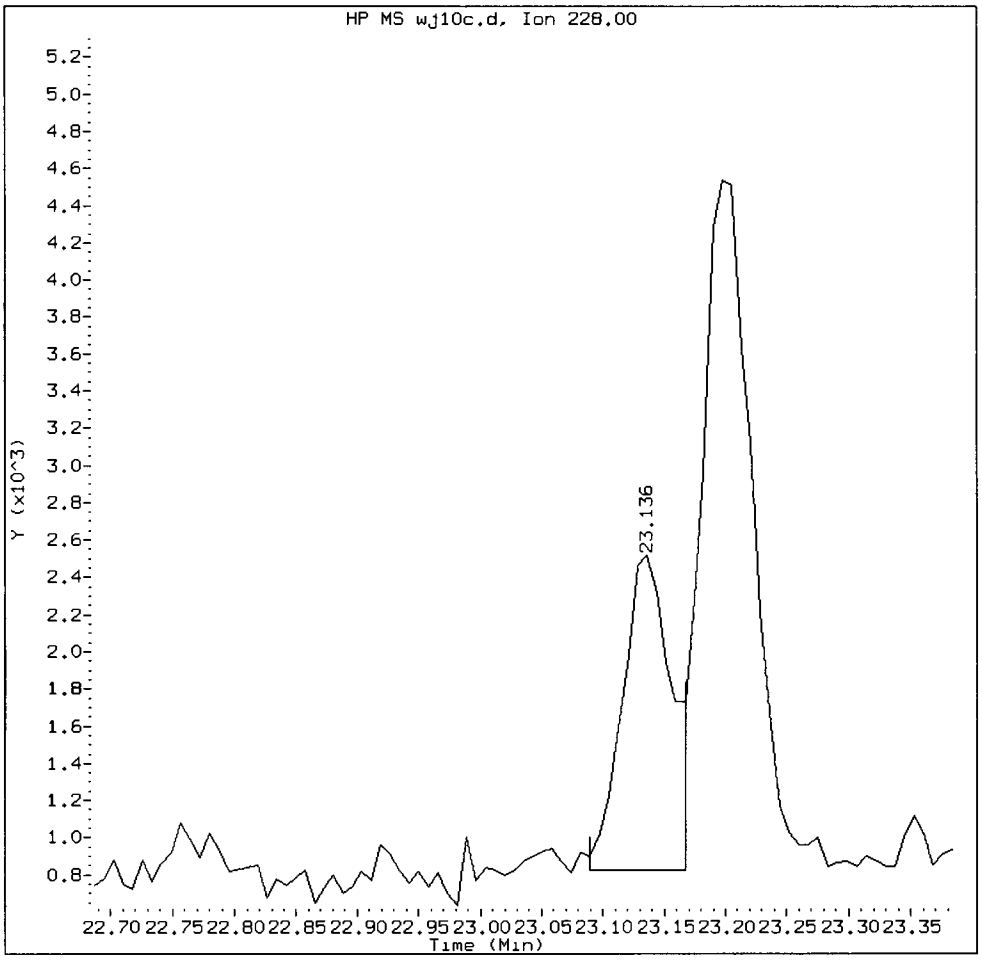






WJ10C, /chem1/nt10.i/20130406.b/wj10c.d

Benzo(a)anthracene Amount: 0.11 Area: 4888



MANUAL INTEGRATION for Benzo(a)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - wj10c.d

Lab ID: WJ10C, Method: ABN.m, Instrument: nt10.i, Date: 06-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 4/19/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130406.b/wj10d.d
Lab Smp Id: WJ10D Client Smp ID: SD-CB-01-20130326-S
Inj Date : 06-APR-2013 19:25
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WJ10D,3
Misc Info : 13-6438
Comment : 1ul Injection
Method : /chem1/nt10.i/20130406.b/ABN.m
Meth Date : 09-Apr-2013 15:14 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 11
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	2000.00000	Volume of final extract (uL)
Ws	15.00000	Weight of sample extracted (g)
M	44.10000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	5.837	5.798	(0.720)	9587	0.77818	556.8
$	2	Phenol-d5	99	7.575	7.537	(0.935)	11980	0.78364	560.7
	3	Phenol	94	7.599	7.560	(0.938)	53865	3.34758	2395
$	5	2-Chlorophenol-d4	132	7.745	7.714	(0.956)	8445	0.63797	456.5
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.102	8.086	(1.000)	38530	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.474	8.459	(1.046)	4555	0.46825	335.1
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)	
	17 Hexachloroethane	117	Compound Not Detected.						
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.						
	15 4-Methylphenol	108	9.072	9.033	(1.120)	128641	10.1839	7287	
$	18 Nitrobenzene-d5	82	9.282	9.258	(0.864)	4797	0.31981	228.8	
	19 Nitrobenzene	77	Compound Not Detected.						
	20 Isophorone	82	Compound Not Detected.						
	21 2-Nitrophenol	139	Compound Not Detected.						
	22 2,4-Dimethylphenol	107	10.165	10.134	(0.946)	2647	0.18584	133.0	
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.						
	24 Benzoic acid	105	10.505	10.458	(0.978)	104505	8.65295	6192	
	25 2,4-Dichlorophenol	162	Compound Not Detected.						
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
*	27 Naphthalene-d8	136	10.744	10.729	(1.000)	162513	4.00000		
	28 Naphthalene	128	10.783	10.767	(1.004)	41684	0.98573	705.4	
	29 4-Chloroaniline	127	Compound Not Detected.						
	30 Hexachlorobutadiene	225	Compound Not Detected.						
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.						
	32 2-Methylnaphthalene	142	12.291	12.276	(1.144)	55541	1.98931	1423	
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.						
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	36 2-Fluorobiphenyl	172	13.166	13.150	(0.901)	16605	0.53007	379.3	
	37 2-Chloronaphthalene	162	Compound Not Detected.						
	38 2-Nitroaniline	65	Compound Not Detected.						
	39 Dimethylphthalate	163	14.187	14.164	(0.971)	4485	0.16240 J	116.2	
	40 Acenaphthylene	152	14.265	14.241	(0.976)	24537	0.59653	426.9	
	41 2,6-Dinitrotoluene	165	Compound Not Detected.						
*	42 Acenaphthene-d10	164	14.613	14.590	(1.000)	91312	4.00000		
	43 3-Nitroaniline	138	Compound Not Detected.						
	44 Acenaphthene	153	14.682	14.659	(1.005)	84559	3.35265	2399	
	45 2,4-Dinitrophenol	184	Compound Not Detected.						
	46 Dibenzofuran	168	15.038	15.015	(1.029)	247067	7.04353	5040	
	47 4-Nitrophenol	109	Compound Not Detected.						
	48 2,4-Dinitrotoluene	165	Compound Not Detected.						
	50 Diethylphthalate	149	Compound Not Detected.						
	49 Fluorene	166	15.811	15.780	(1.082)	782271	26.2558 E	18790	
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.						
	52 4-Nitroaniline	138	Compound Not Detected.						
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
	54 N-Nitrosodiphenylamine	169	16.097	16.104	(0.903)	2870	0.19919 J	142.5	
$	55 2,4,6-Tribromophenol	330	16.397	16.359	(1.122)	2961	0.50814	363.6	
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.						
	57 Hexachlorobenzene	284	Compound Not Detected.						
	58 Pentachlorophenol	266	Compound Not Detected.						
*	59 Phenanthrene-d10	188	17.889	17.834	(1.000)	119617	4.00000		(H)
	60 Phenanthrene	178	17.958	17.889	(1.007)	4747444	148.881 ES	106500	(H)
	61 Anthracene	178	18.036	17.989	(1.011)	1234037	38.4355 ES	27500	(H)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	62 Carbazole	167	18.438	18.384	(1.034)	665203	31.0198 E	22200 (H)
	63 Di-n-butylphthalate	149	19.405	19.359	(1.088)	18020	0.52595	376.4
	64 Fluoranthene	202	20.488	20.403	(1.149)	6699873	182.448 ES	130600 (H)
	65 Pyrene	202	20.898	20.821	(0.904)	4643478	104.179 ES	74550
$	66 Terphenyl-d14	244	21.247	21.200	(0.919)	19649	0.65377	467.8
	67 Butylbenzylphthalate	149	22.245	22.199	(0.962)	40546	2.39844	1716
	68 Benzo(a)anthracene	228	23.097	23.035	(0.999)	1124848	25.7623 E	18430
*	69 Chrysene-d12	240	23.120	23.066	(1.000)	156479	4.00000	
	~~70 3,3'-Dichlorobenzidine~~	~~252~~	~~22.997~~	~~23.051~~	~~(0.995)~~	2580	~~0.14143~~	~~101.2~~
	71 Chrysene	228	23.175	23.105	(1.002)	1892385	47.8516 E	34240
	72 bis(2-Ethylhexyl)phthalate	149	23.329	23.283	(0.959)	176894	6.60113	4724
*	134 Di-n-octylphthalate-d4	153	24.328	24.274	(1.000)	202938	4.00000	
	73 Di-n-octylphthalate	149	24.351	24.282	(1.001)	23829	0.48136	344.4 (M)
	74 Benzo(b)fluoranthene	252	24.886	24.808	(0.978)	890938	20.9837 MFA	15020
	75 Benzo(k)fluoranthene	252	24.909	24.839	(0.979)	683824	14.9081 MFA	10670 (M)
	76 Benzo(a)pyrene	252	25.358	25.288	(0.997)	347728	9.46986	6776
*	77 Perylene-d12	264	25.443	25.373	(1.000)	146490	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	27.342	27.241	(1.075)	160423	3.54272	2535
	79 Dibenzo(a,h)anthracene	278	27.358	27.264	(1.075)	50073	1.39643	999.2
	80 Benzo(g,h,i)perylene	276	27.878	27.762	(1.096)	120588	3.10384	2221
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	12.523	12.500	(1.166)	10630	0.41507	297.0
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	24.886	24.808	(0.978)	1442087	34.5045	24690
	99 Perylene	252	Compound Not Detected.					
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10d.d
Lab Smp Id: WJ10D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 14:32
Client Smp ID: SD-CB-01-2013032
Level: LOW
Sample Type: Solids

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	38530	-17.36
27 Naphthalene-d8	176978	88489	353956	162513	-8.17
42 Acenaphthene-d10	110872	55436	221744	91312	-17.64
59 Phenanthrene-d10	188290	94145	376580	119617	-36.47
69 Chrysene-d12	213681	106840	427362	156479	-26.77
134 Di-n-octylphthala	264159	132080	528318	202938	-23.18
77 Perylene-d12	208584	104292	417168	146490	-29.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.10	0.19
27 Naphthalene-d8	10.73	10.23	11.23	10.74	0.14
42 Acenaphthene-d10	14.59	14.09	15.09	14.61	0.16
59 Phenanthrene-d10	17.83	17.33	18.33	17.89	0.30
69 Chrysene-d12	23.07	22.57	23.57	23.12	0.24
134 Di-n-octylphthala	24.27	23.77	24.77	24.33	0.22
77 Perylene-d12	25.37	24.87	25.87	25.44	0.27

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

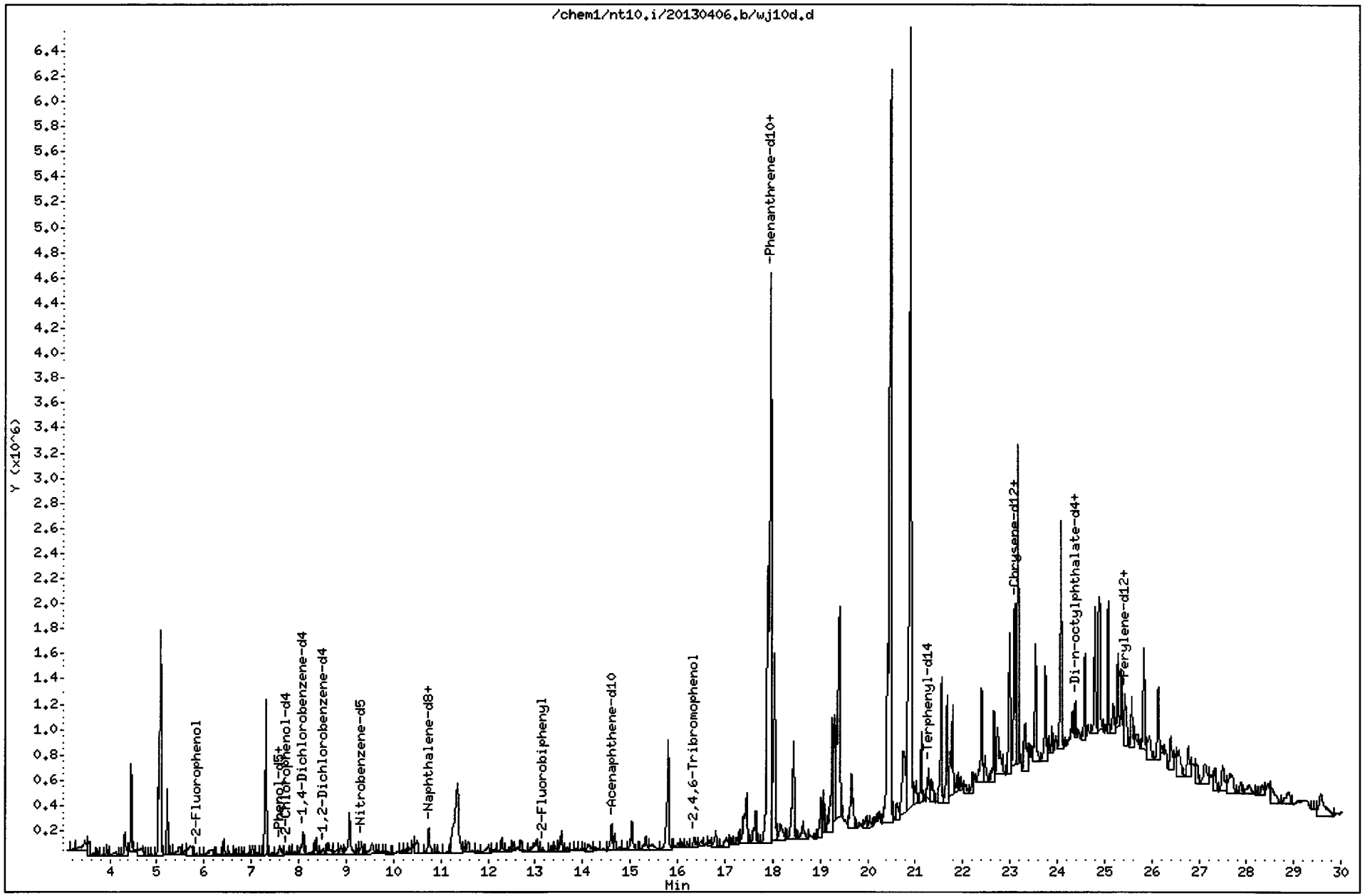
RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10D
Client Smp ID: SD-CB-01-20130326-S
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130406.b/ABN.m
Misc Info: 13-6438

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	894.5	556.8	62.25	30-160
$ 2 Phenol-d5	894.5	560.7	62.69	30-160
$ 5 2-Chlorophenol-d4	894.5	456.5	51.04	30-160
$ 10 1,2-Dichlorobenzen	596.3	335.1	56.19	30-160
$ 18 Nitrobenzene-d5	596.3	228.8	38.38	30-160
$ 36 2-Fluorobiphenyl	596.3	379.3	63.61	30-160
$ 55 2,4,6-Tribromophen	894.5	363.6	40.65	30-160
$ 66 Terphenyl-d14	596.3	467.8	78.45	30-160

Data File: /chem1/nt10.i/20130406.b/wj10d.d
Date : 06-APR-2013 19:25
Client ID: SD-CB-01-20130326-S
Sample Info: WJ10D,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



WJ10.01250

Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

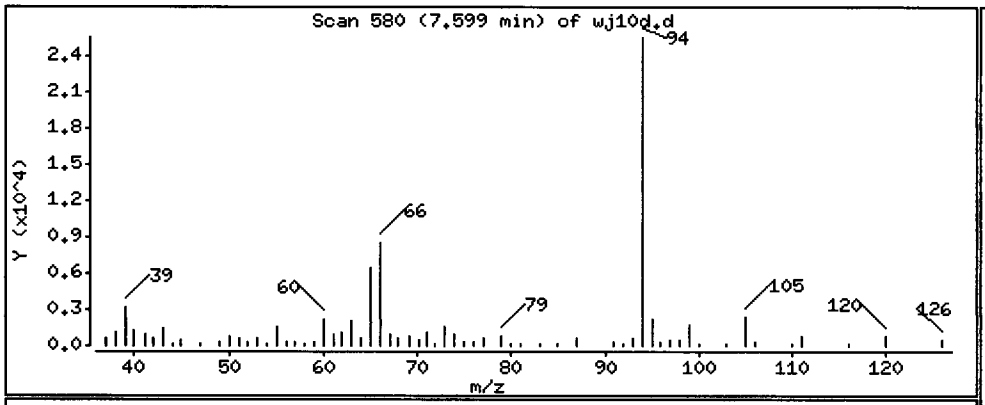
Operator: VTS/YZ

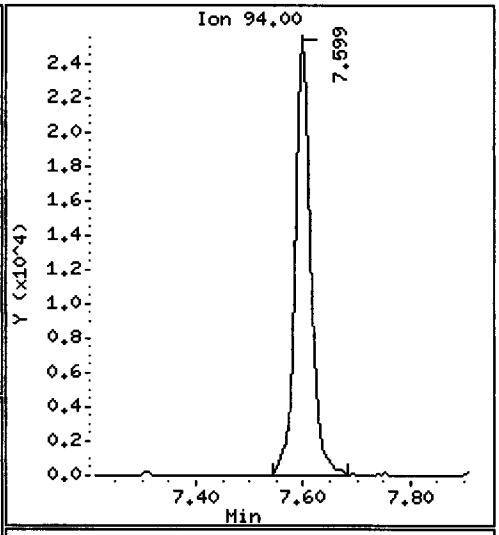
Column phase: ZB-5msi

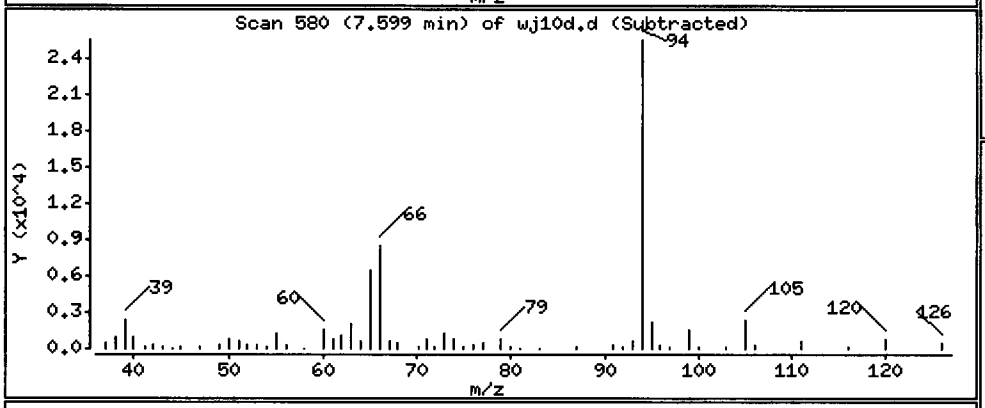
Column diameter: 0.25

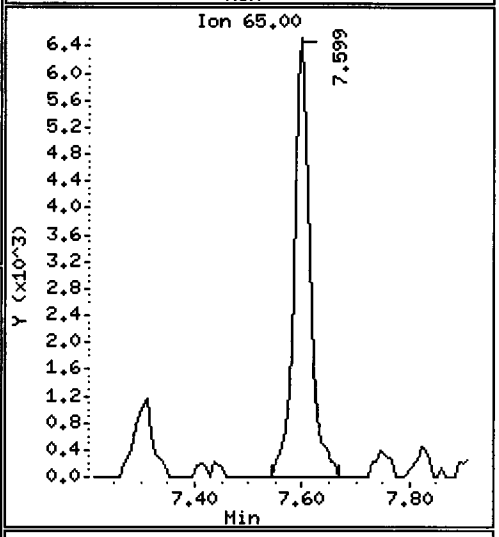
3 Phenol

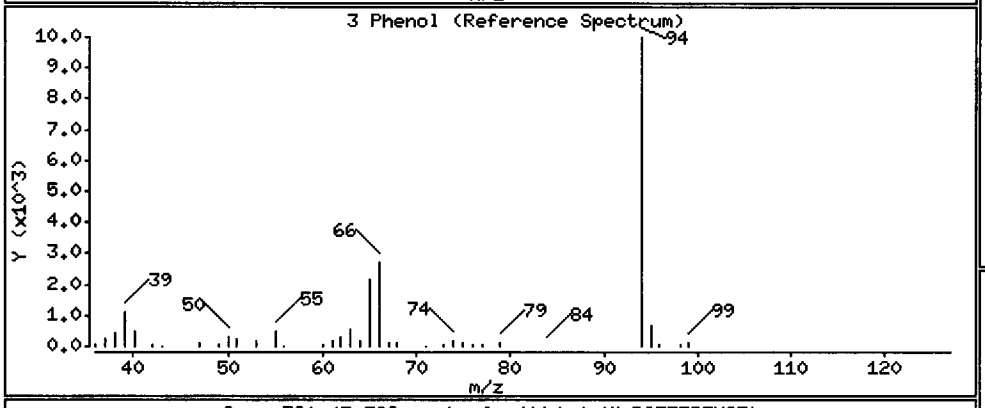
Concentration: 2395 ug/kg

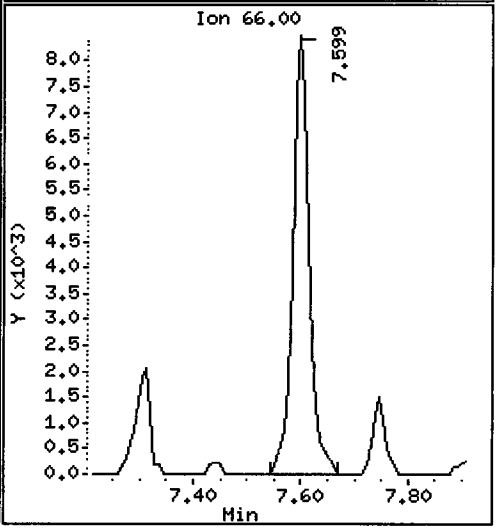


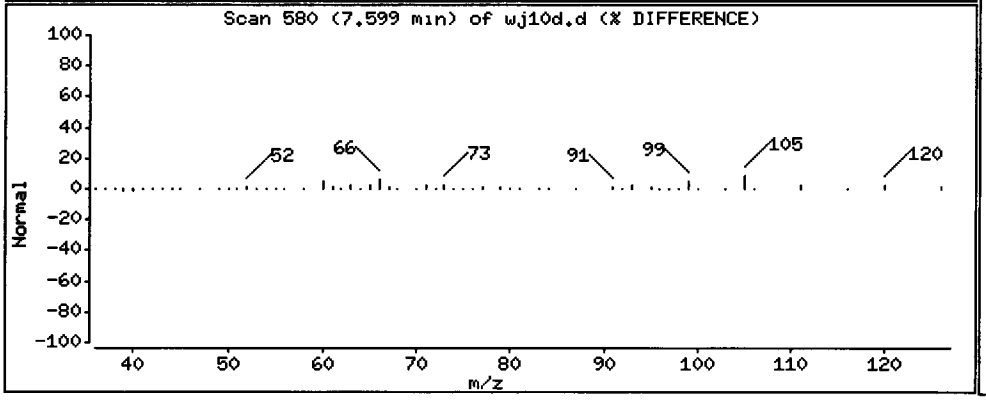












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

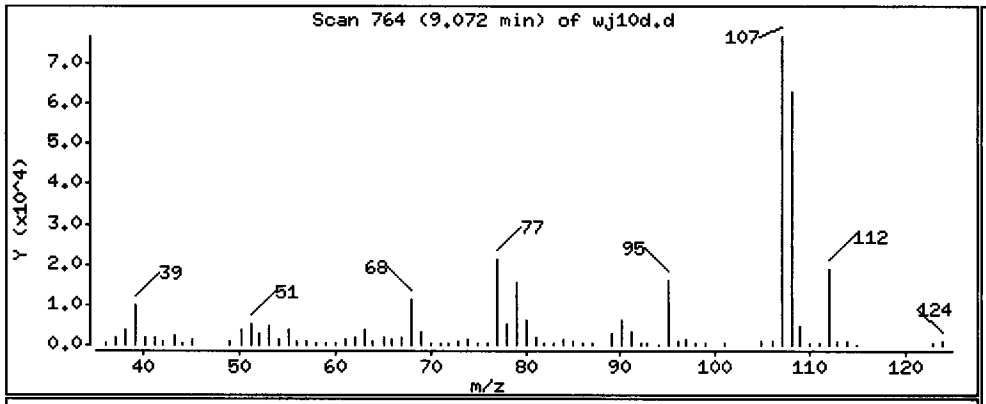
Operator: VTS/YZ

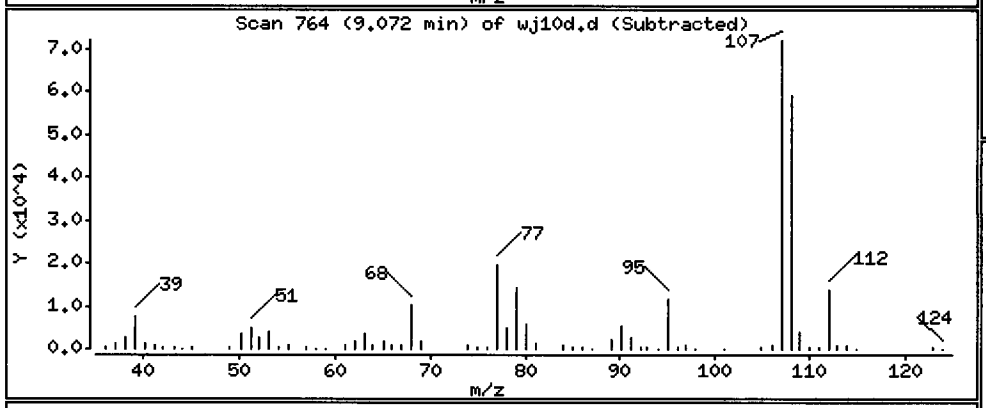
Column phase: ZB-5msi

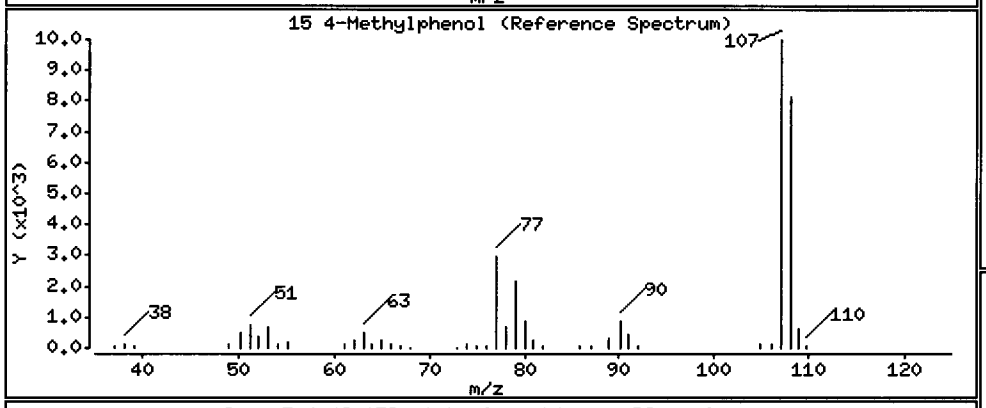
Column diameter: 0.25

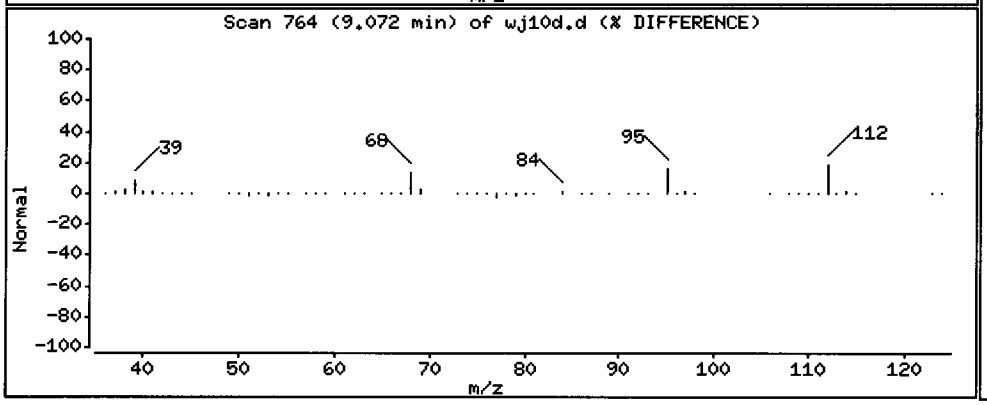
15 4-Methylphenol

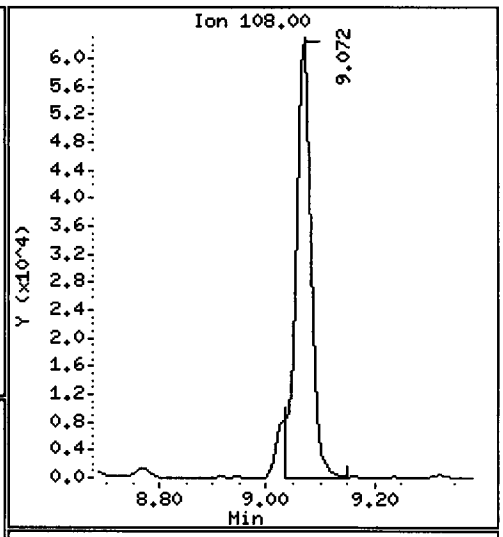
Concentration: 7287 ug/kg

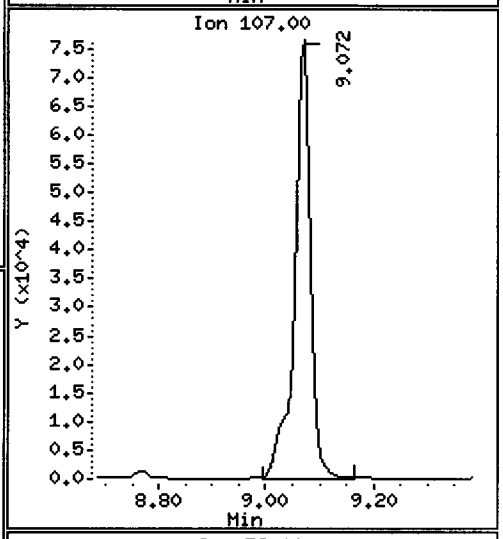


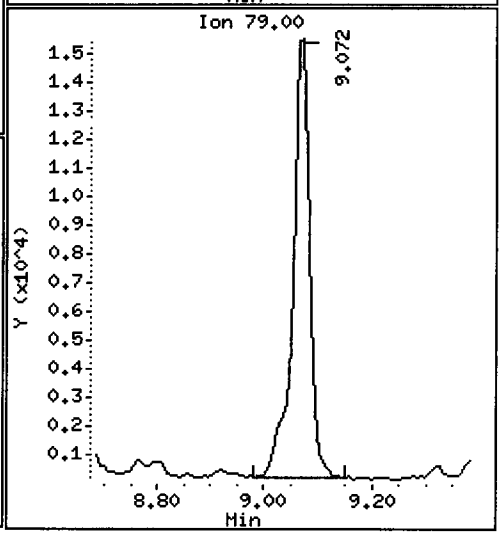












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

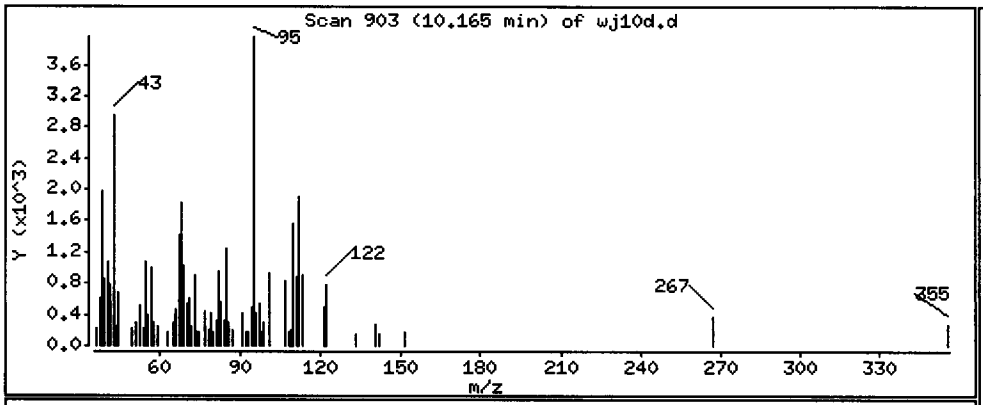
Operator: VTS/YZ

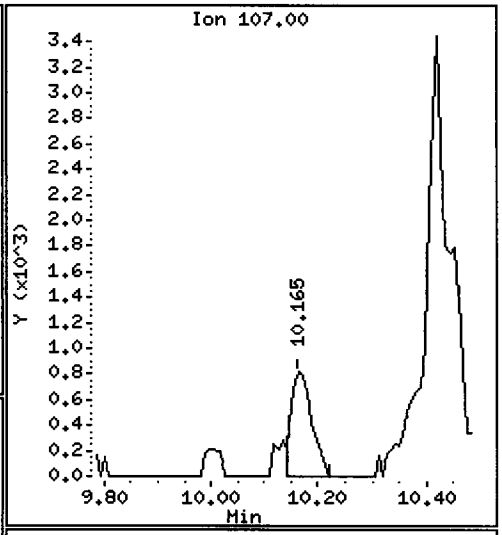
Column phase: ZB-5msi

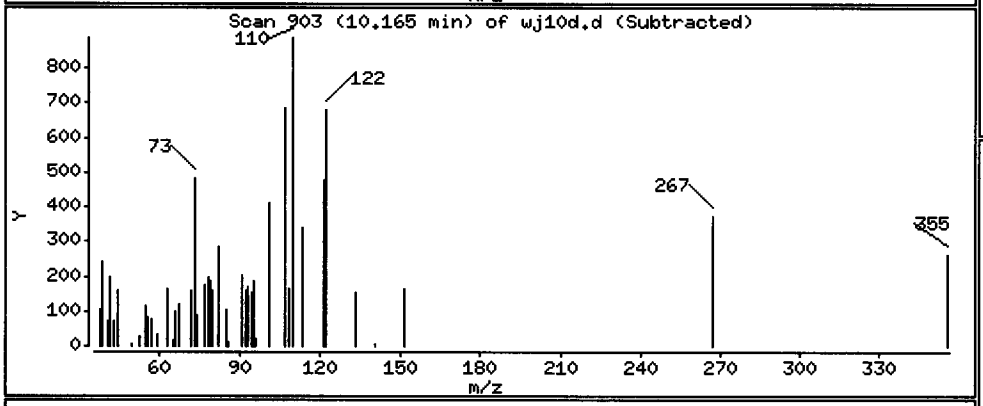
Column diameter: 0.25

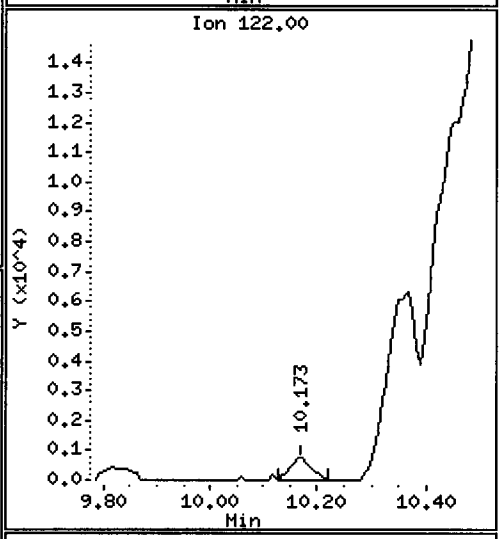
22 2,4-Dimethylphenol

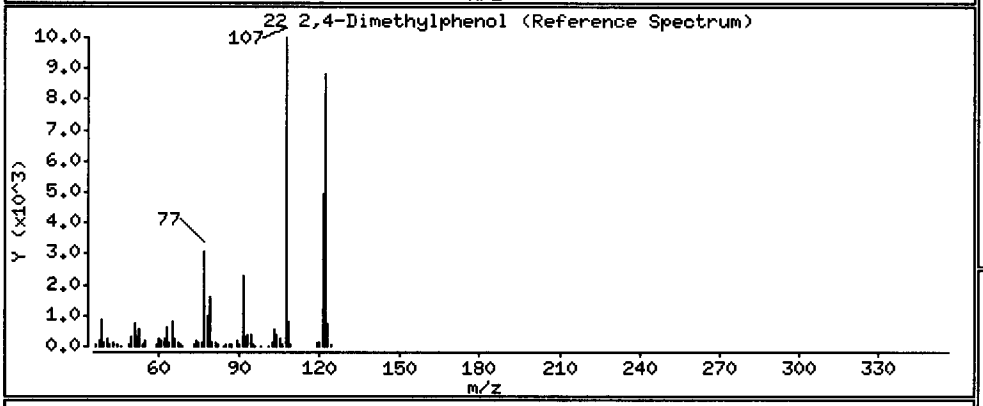
Concentration: 133.0 ug/kg

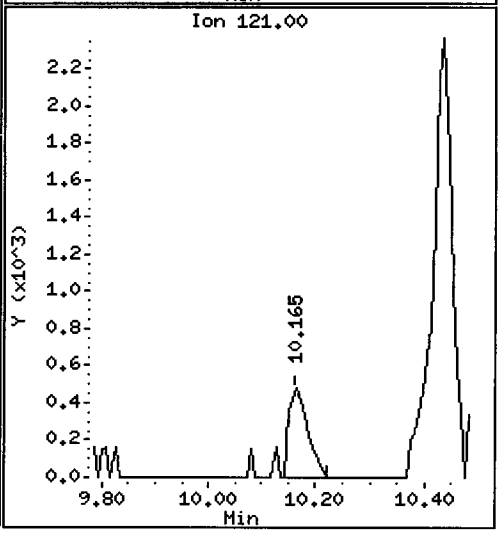


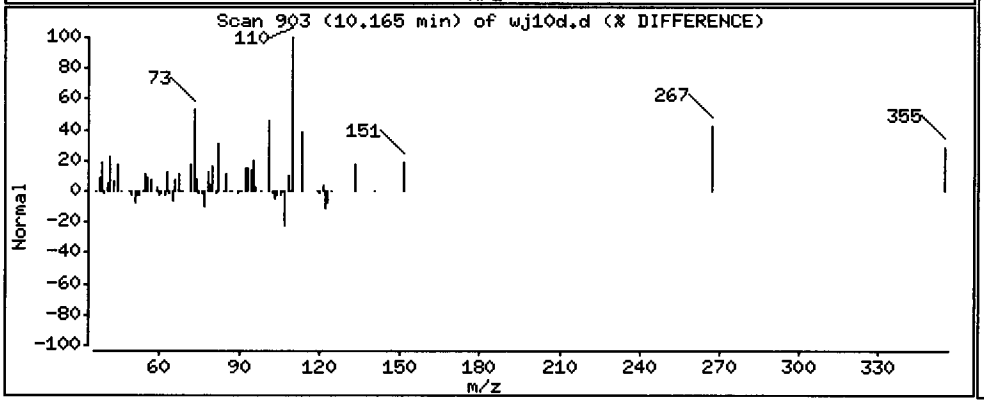












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

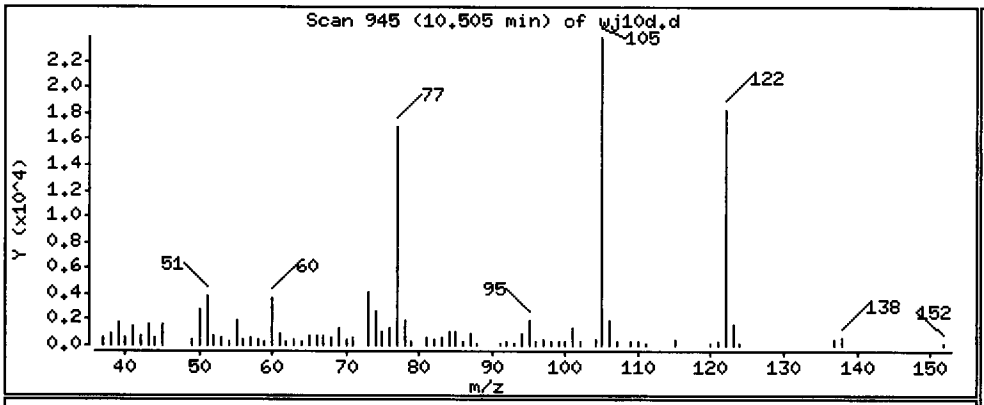
Operator: VTS/YZ

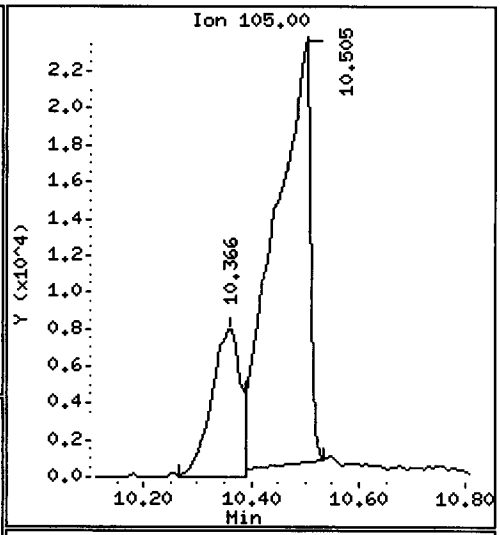
Column phase: ZB-5msi

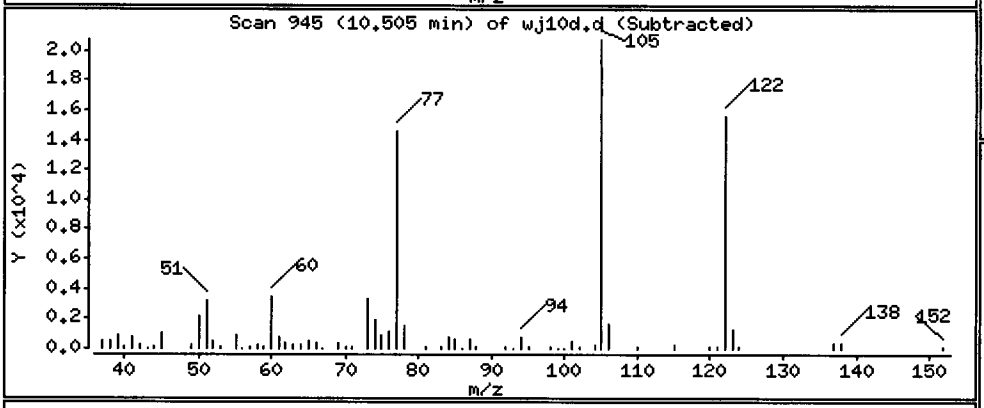
Column diameter: 0.25

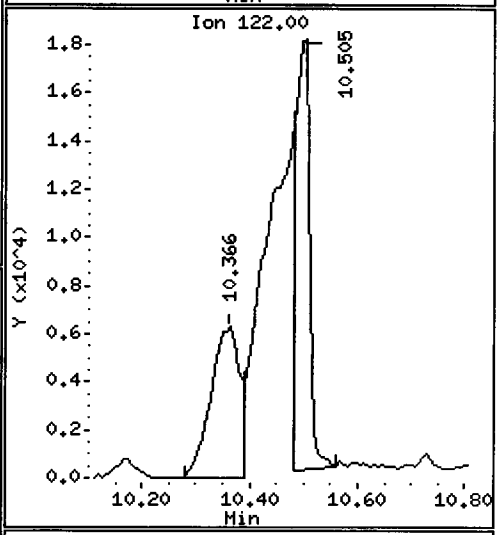
24 Benzoic acid

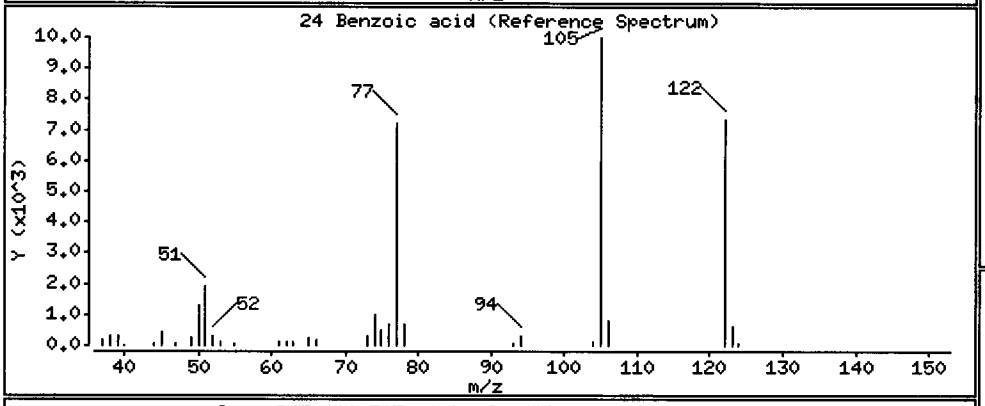
Concentration: 6192 ug/kg

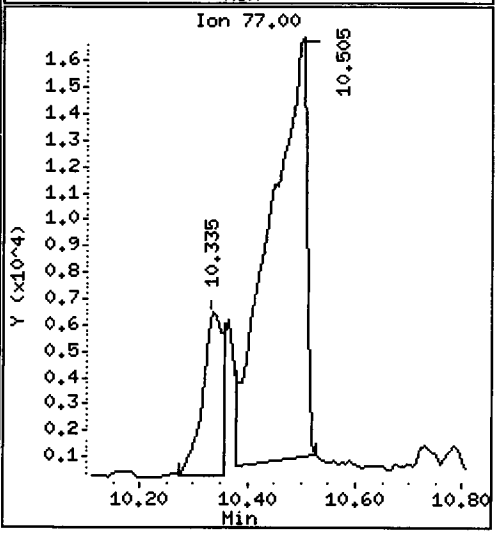


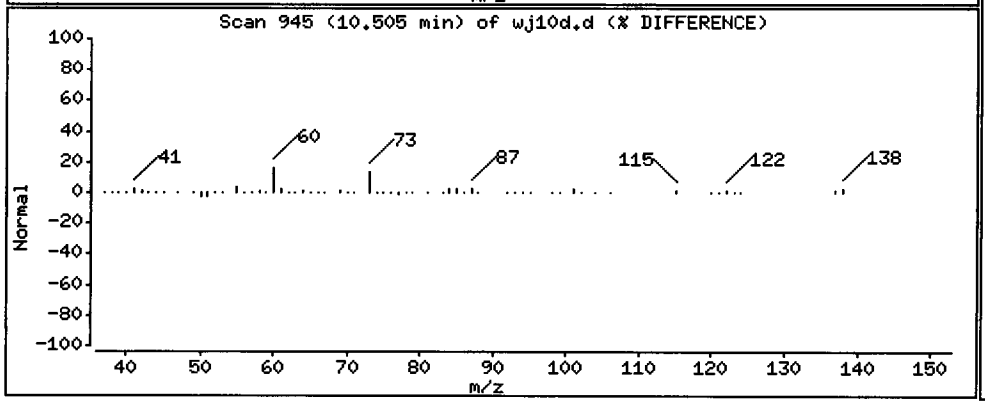












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

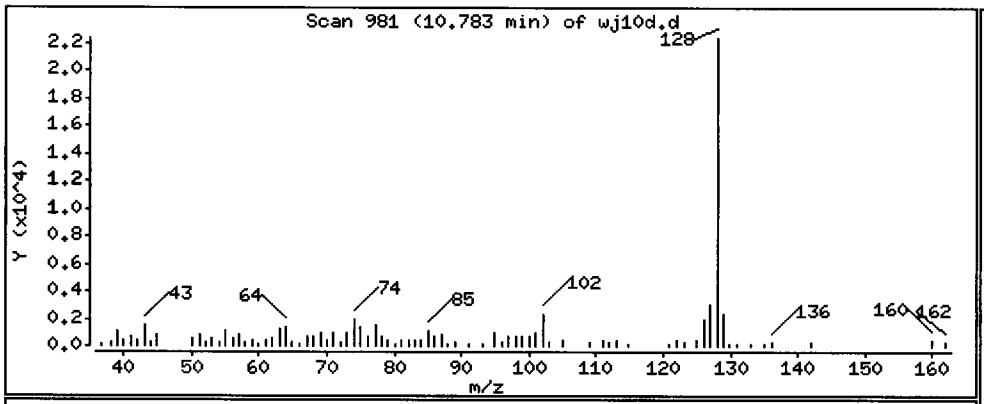
Operator: VTS/YZ

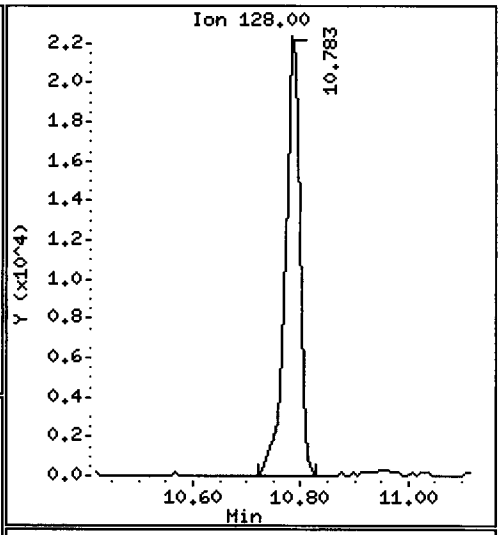
Column phase: ZB-5ms1

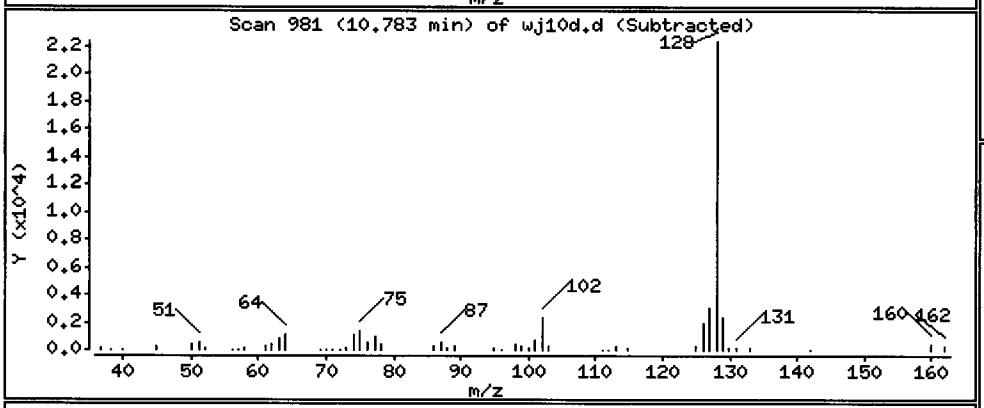
Column diameter: 0.25

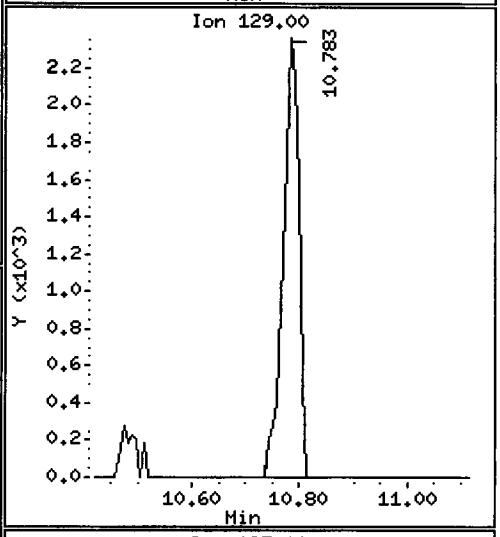
28 Naphthalene

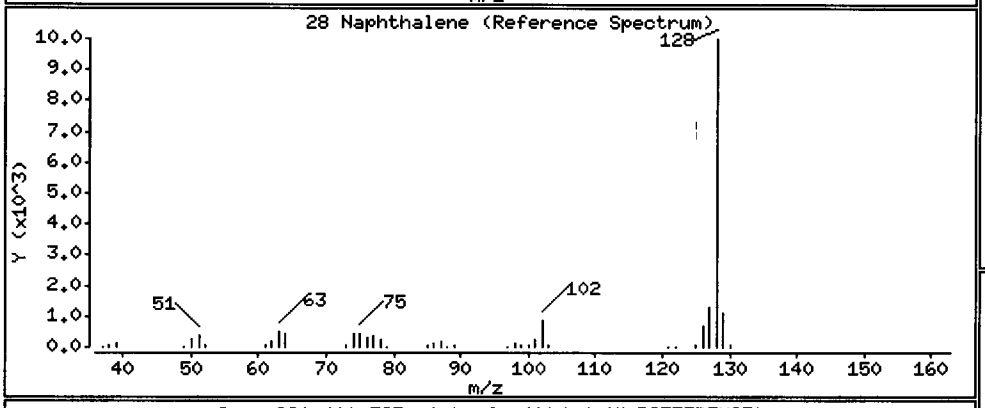
Concentration: 705.4 ug/kg

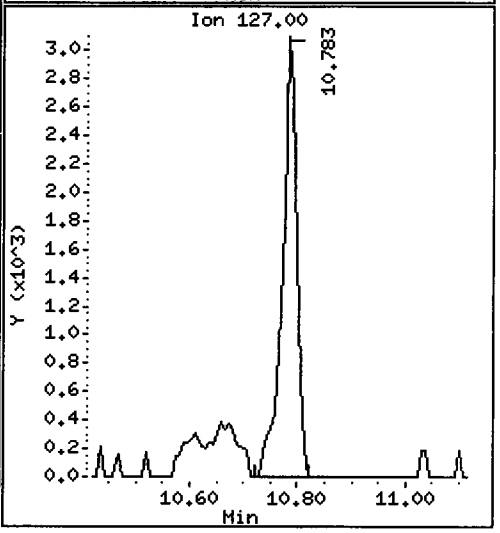


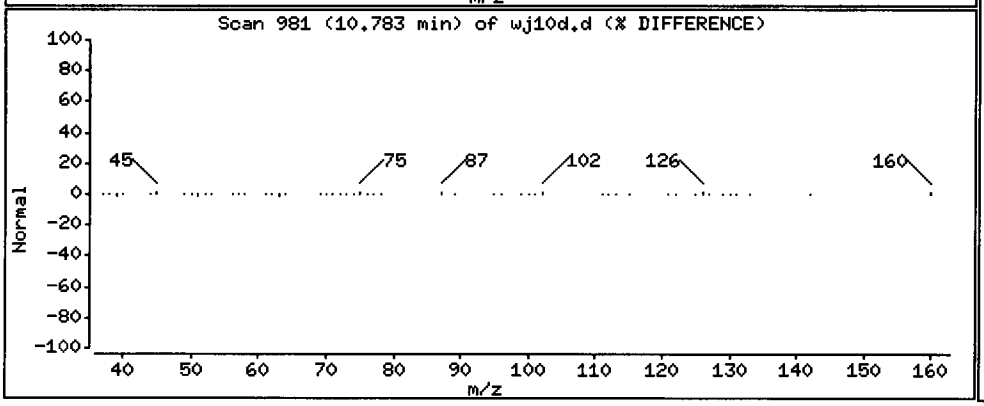












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

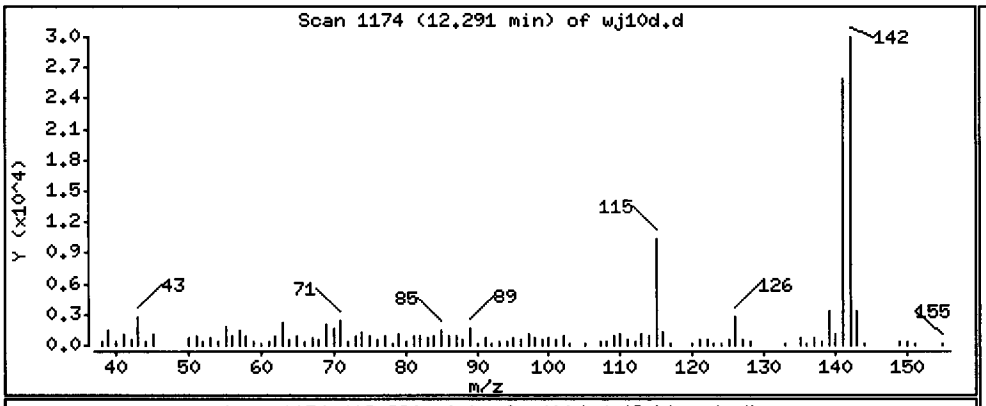
Operator: VTS/YZ

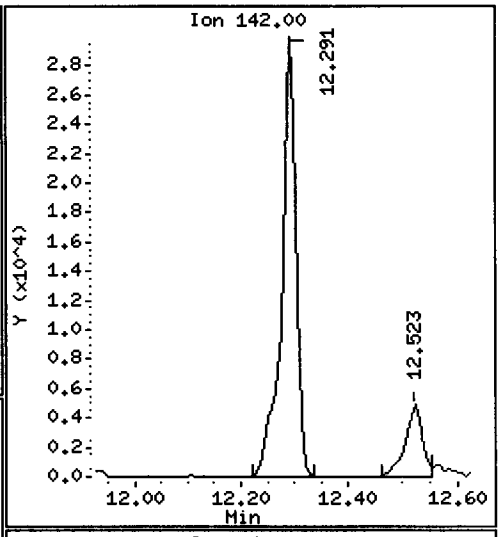
Column phase: ZB-5msi

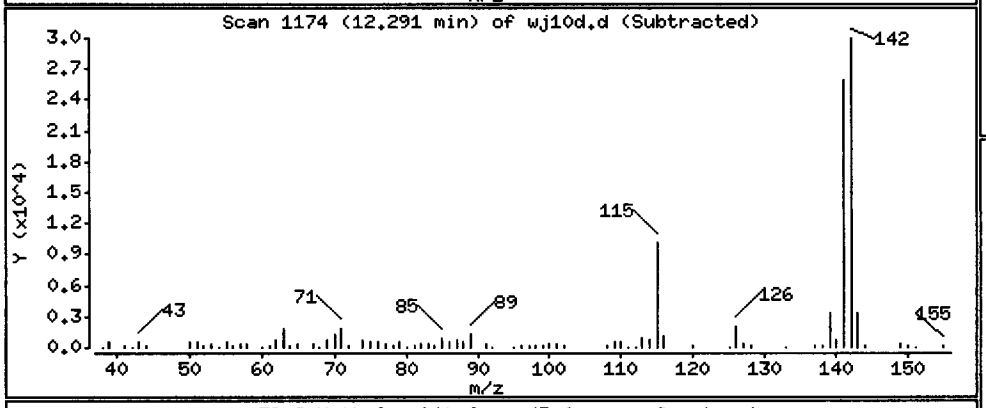
Column diameter: 0.25

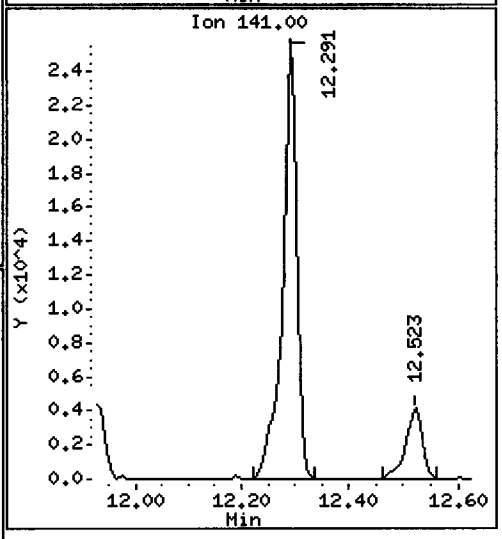
32 2-Methylnaphthalene

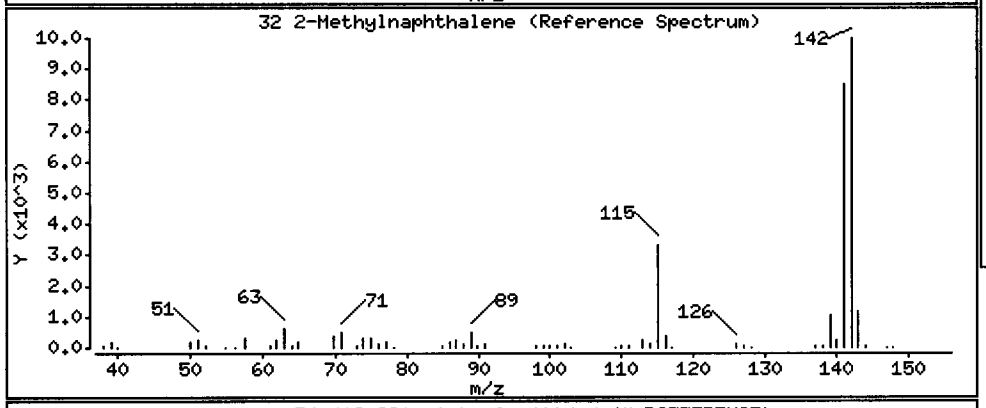
Concentration: 1423 ug/kg

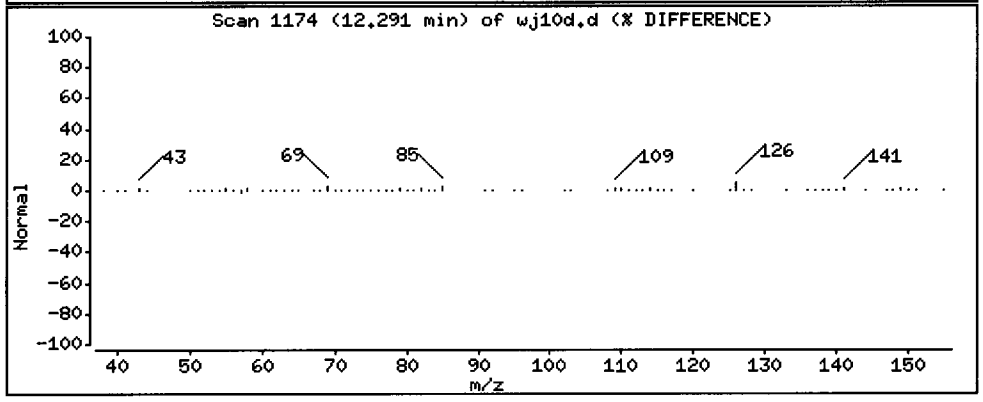












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

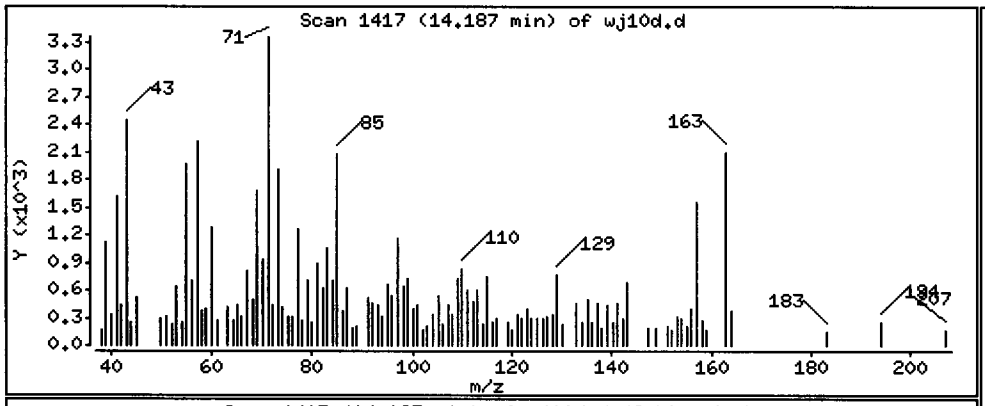
Operator: VTS/YZ

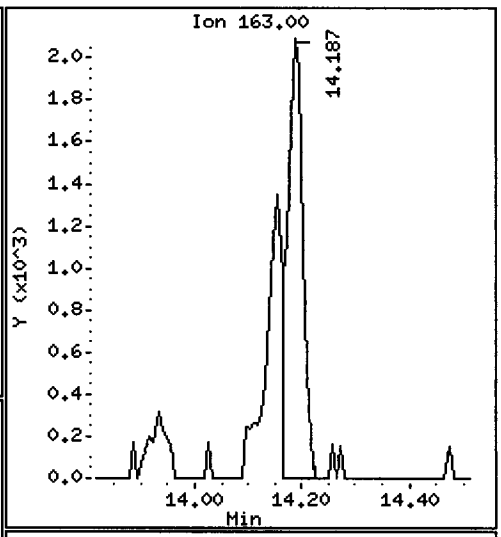
Column phase: ZB-5msi

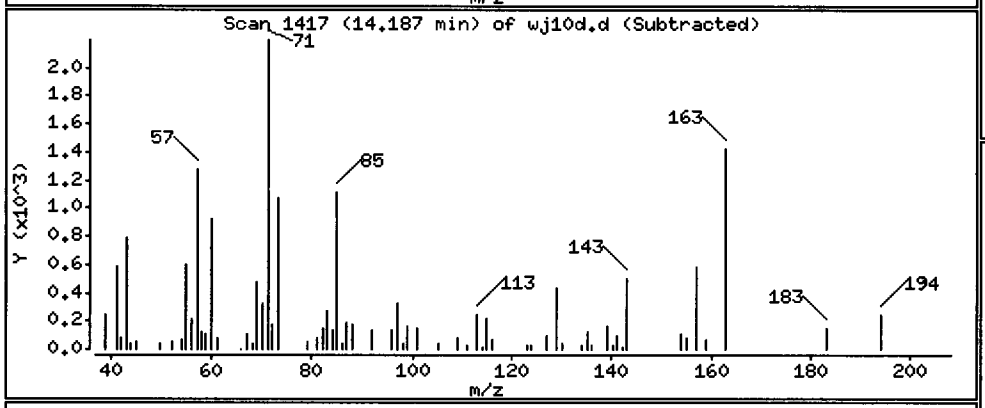
Column diameter: 0.25

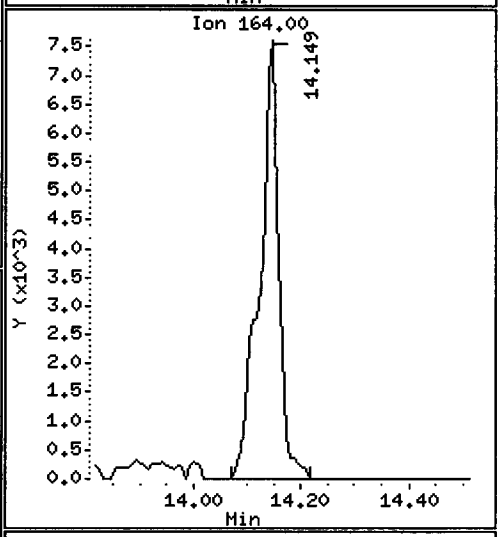
39 Dimethylphthalate

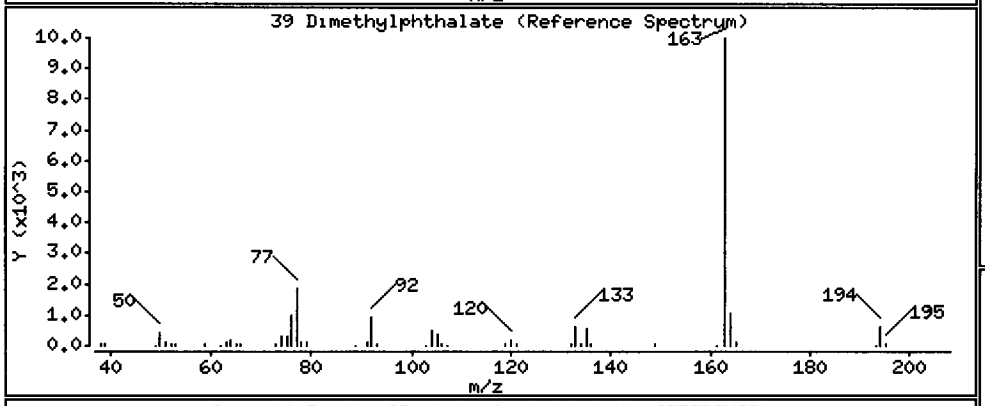
Concentration: 116.2 ug/kg

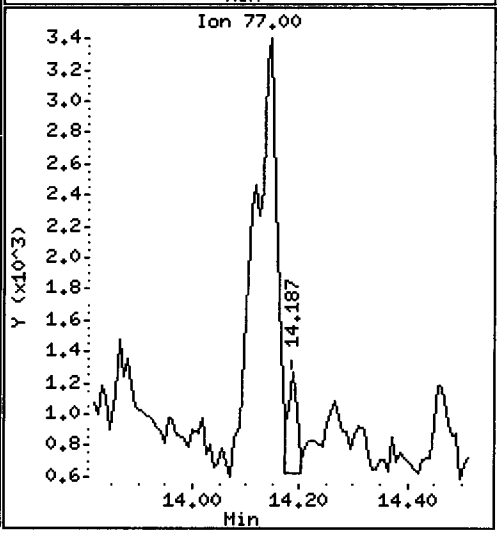


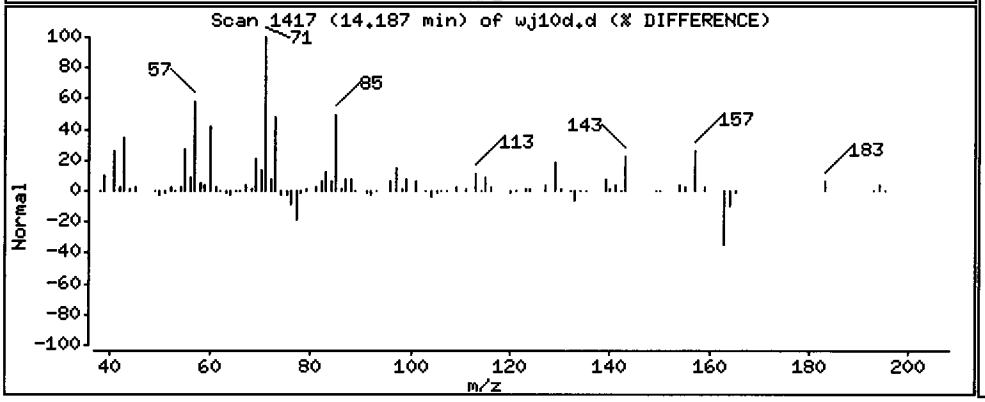












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

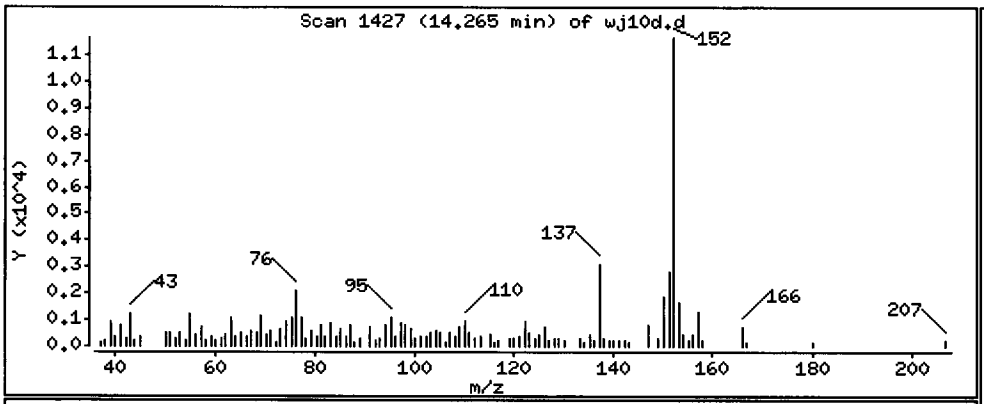
Operator: VTS/YZ

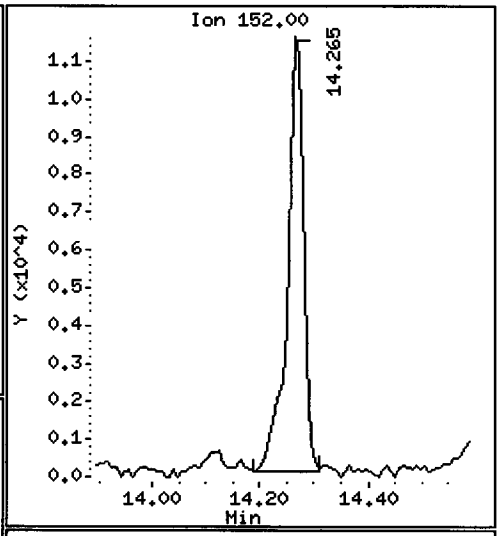
Column phase: ZB-5msi

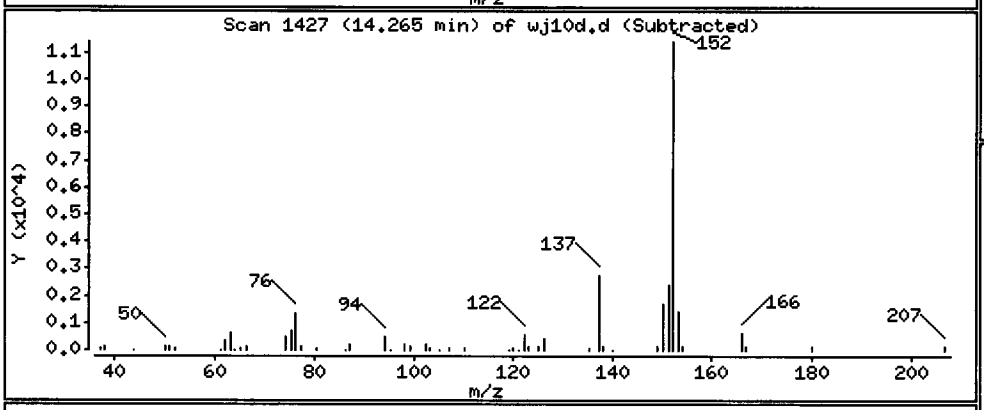
Column diameter: 0.25

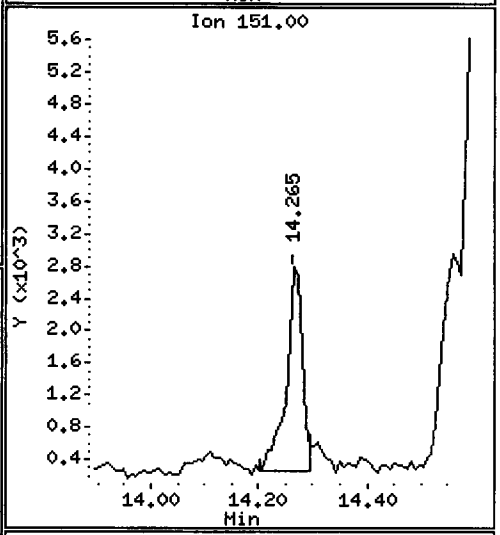
40 Acenaphthylene

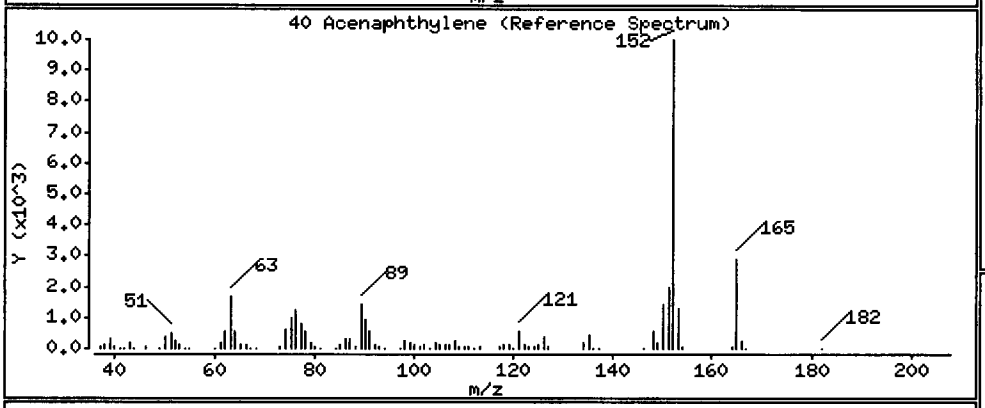
Concentration: 426.9 ug/kg

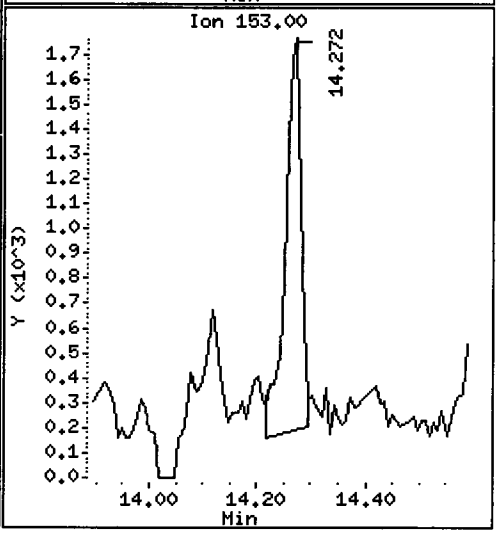


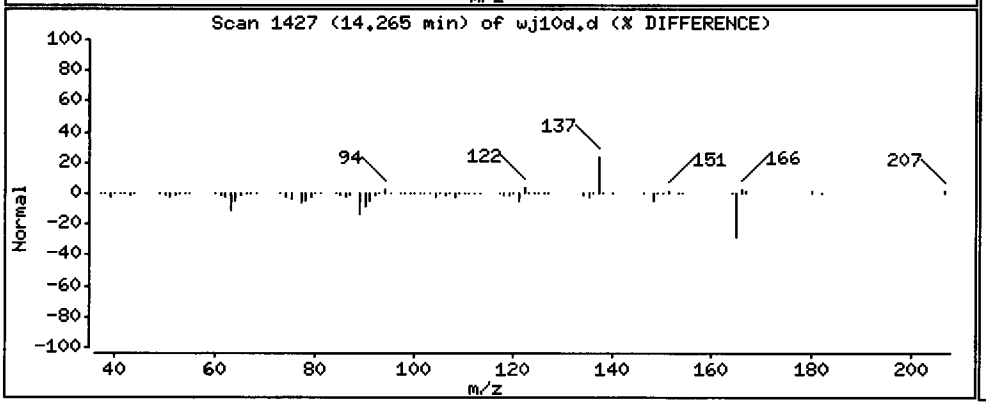












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

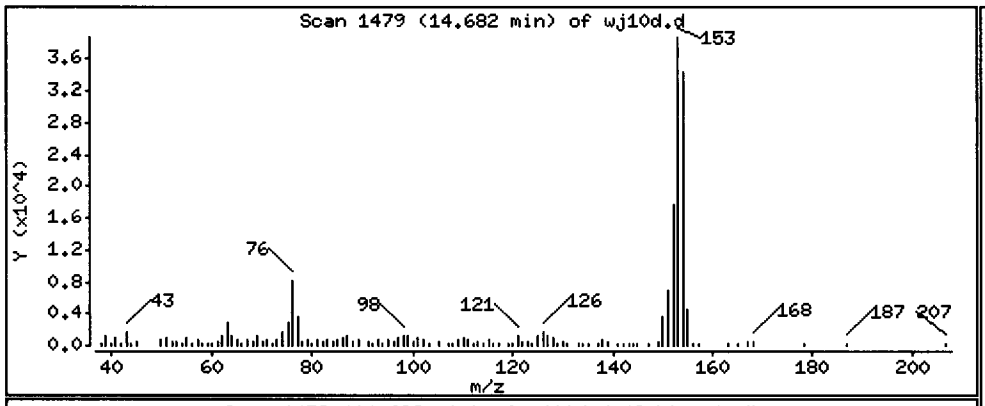
Operator: VTS/YZ

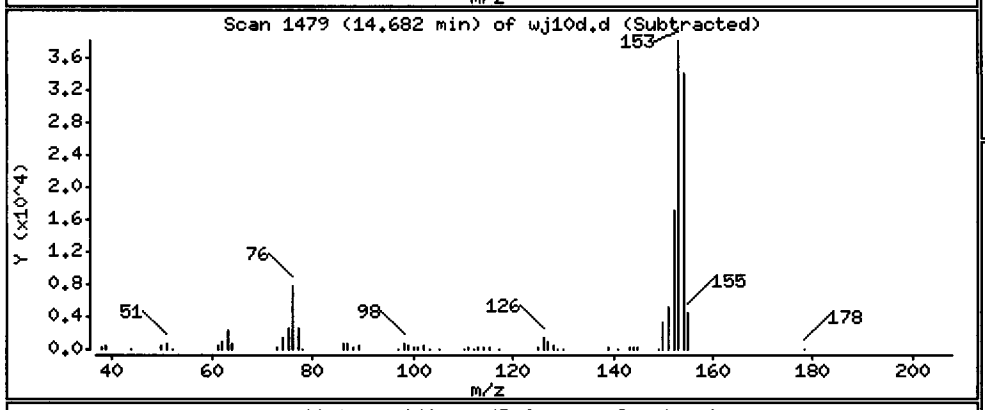
Column phase: ZB-5msi

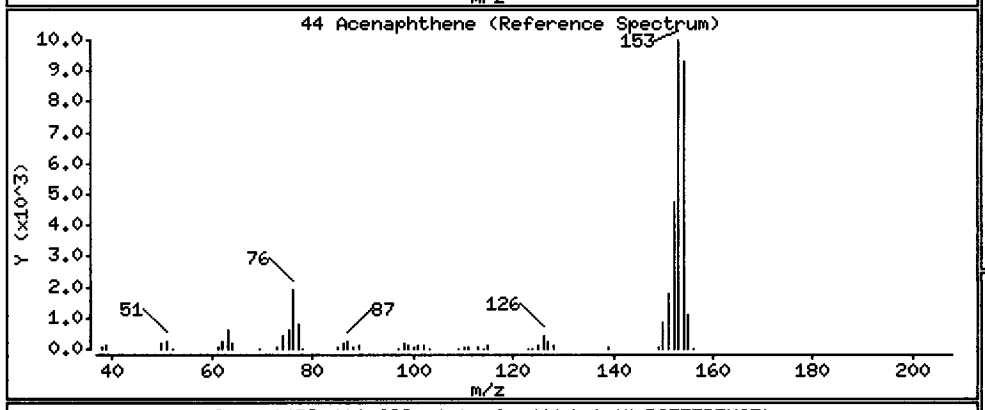
Column diameter: 0.25

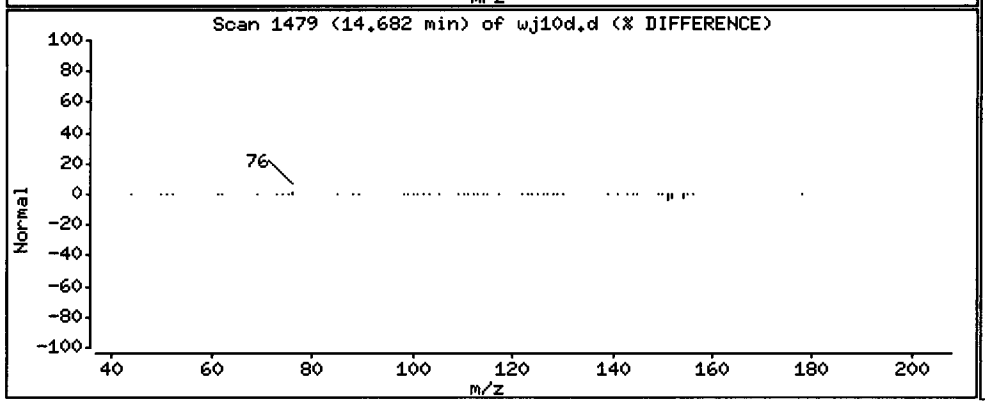
44 Acenaphthene

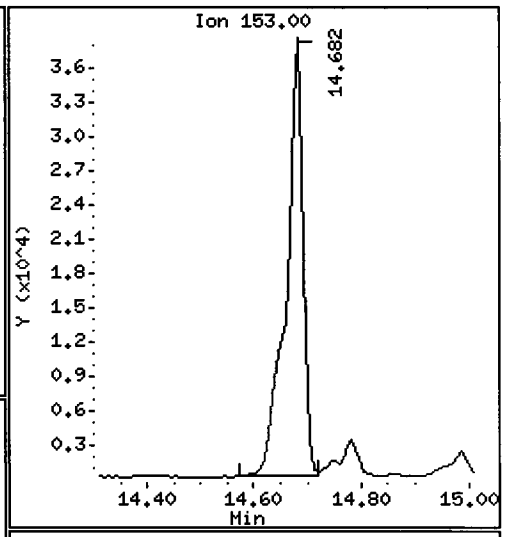
Concentration: 2399 ug/kg

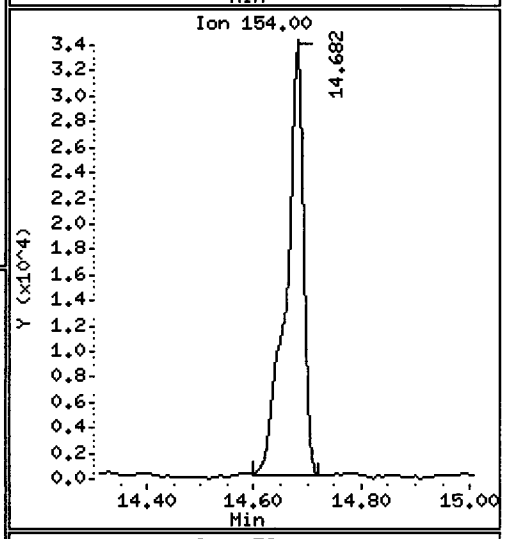


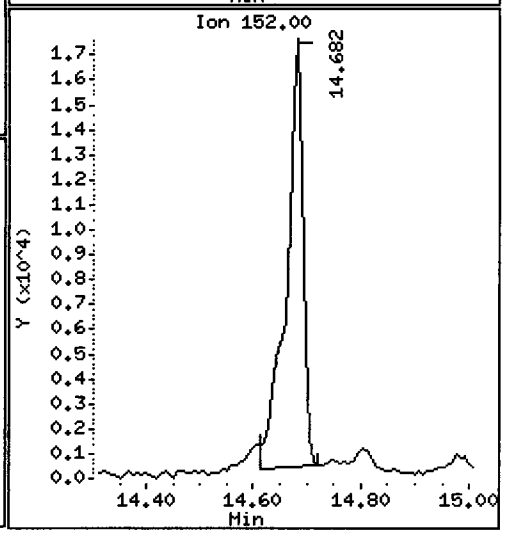












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

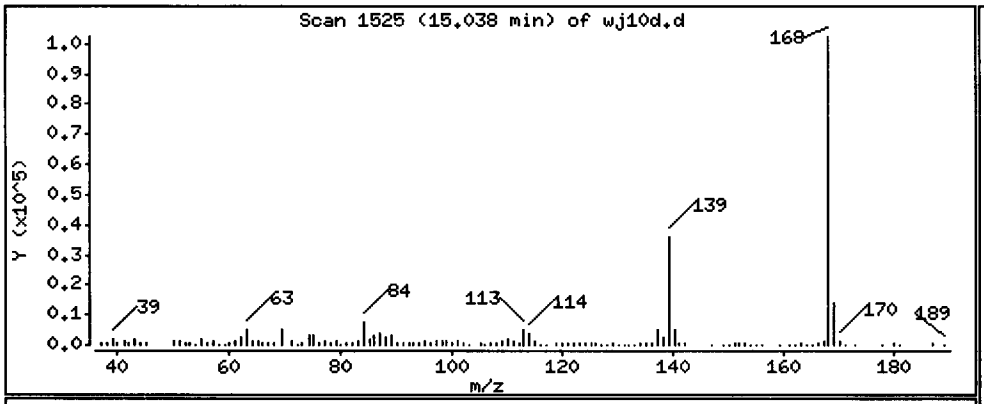
Operator: VTS/YZ

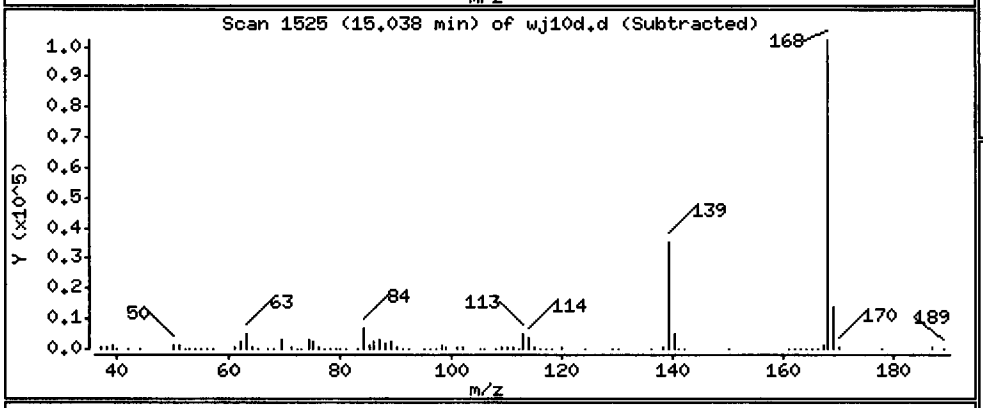
Column phase: ZB-5msi

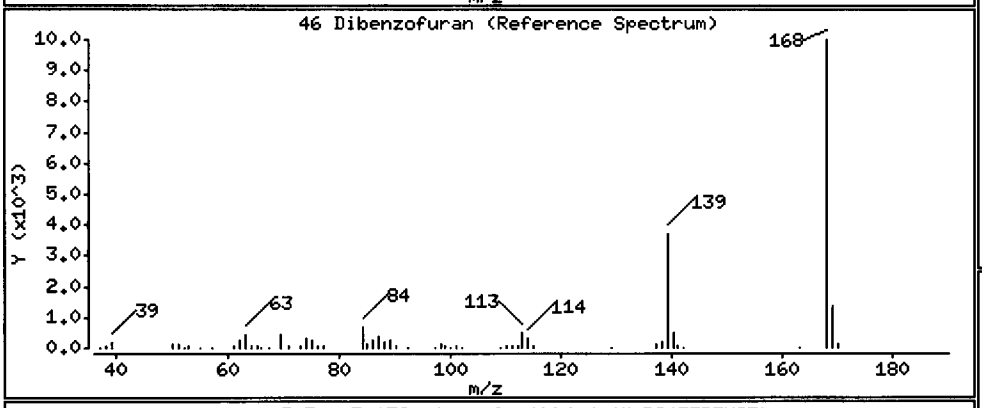
Column diameter: 0.25

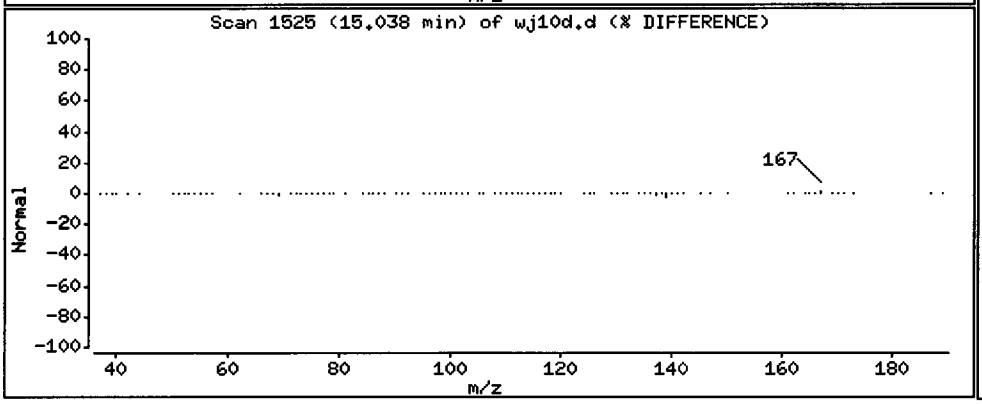
46 Dibenzofuran

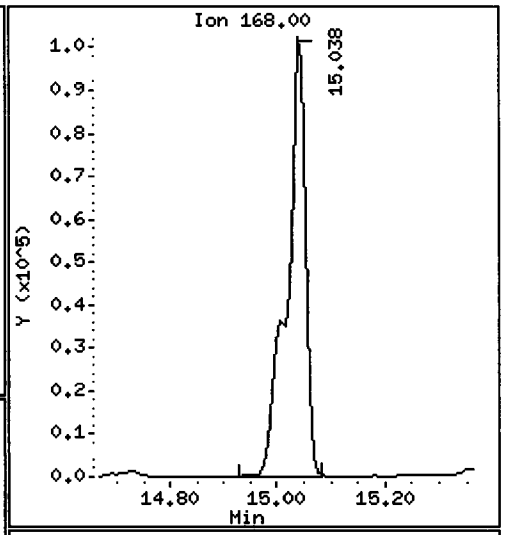
Concentration: 5040 ug/kg

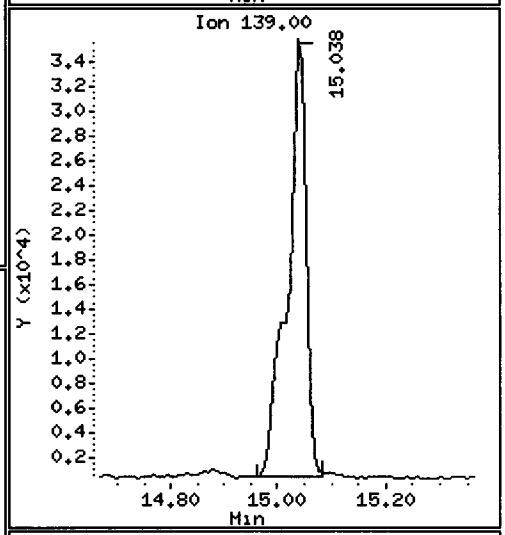


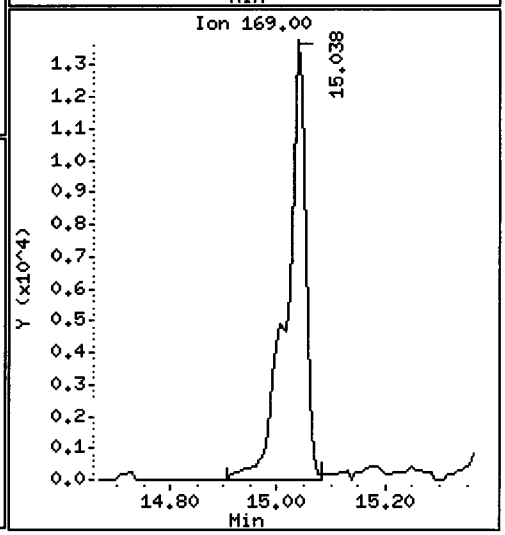












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

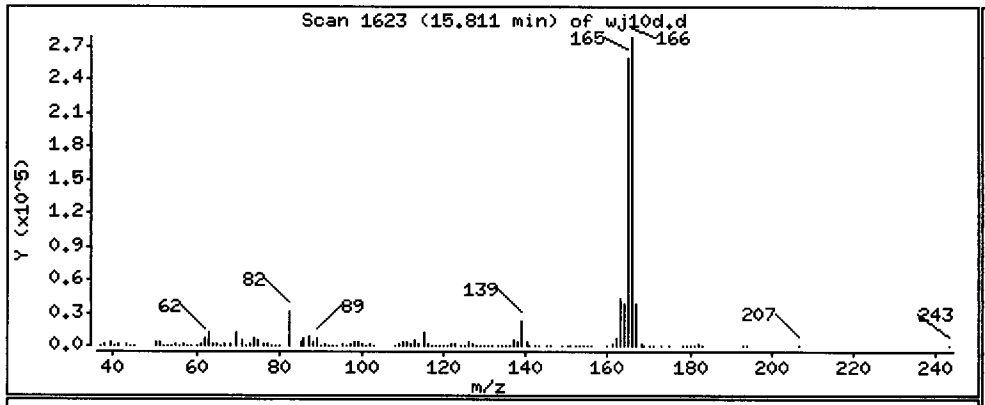
Operator: VTS/YZ

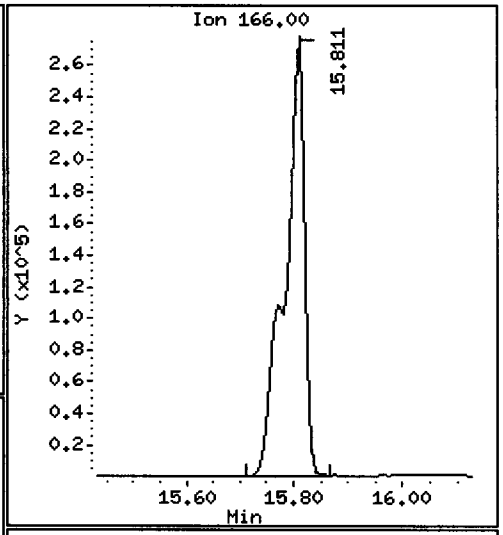
Column phase: ZB-5msi

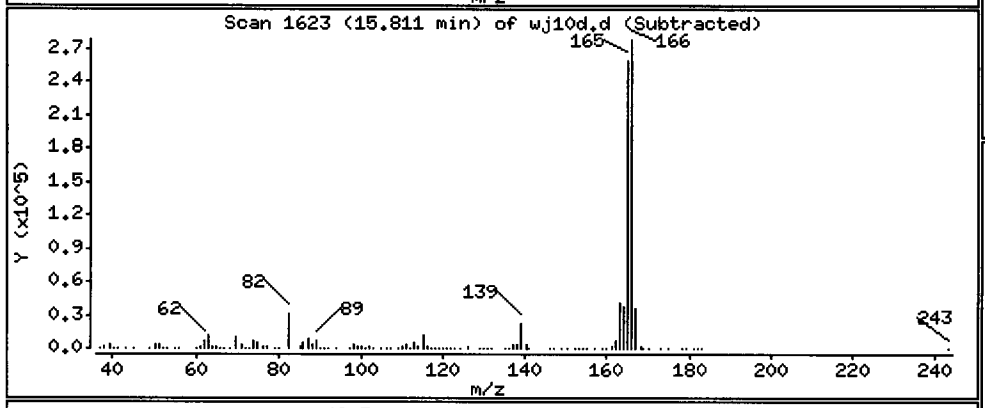
Column diameter: 0.25

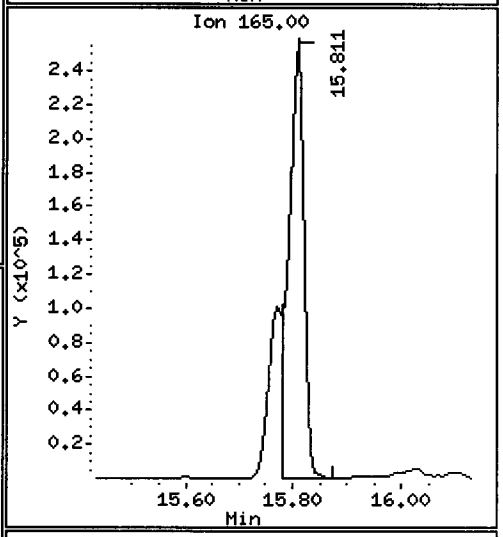
49 Fluorene

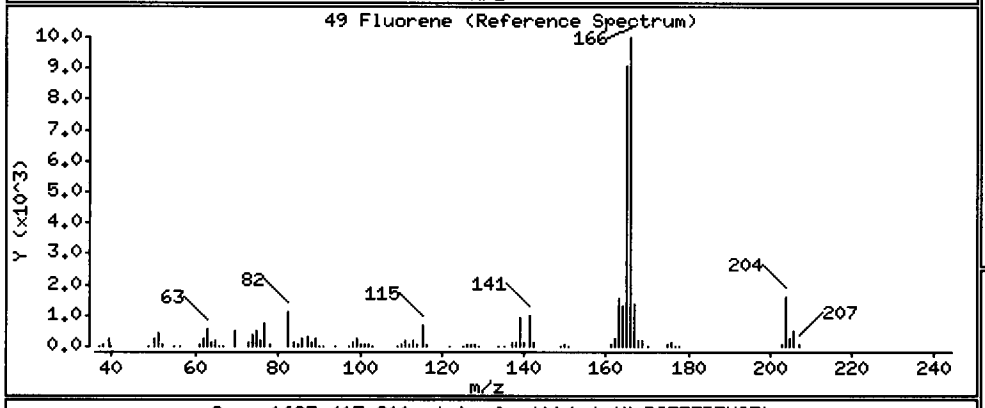
Concentration: 18790 ug/kg

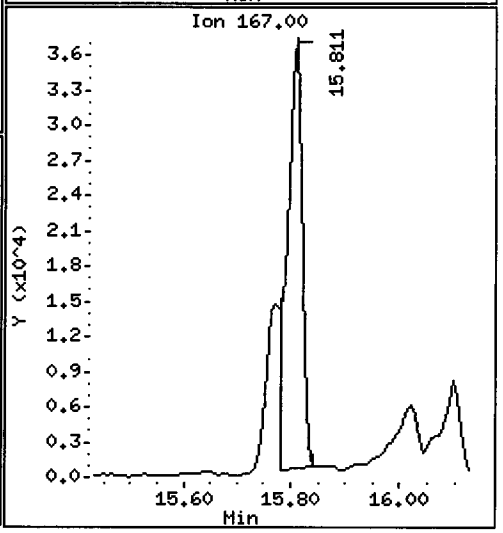


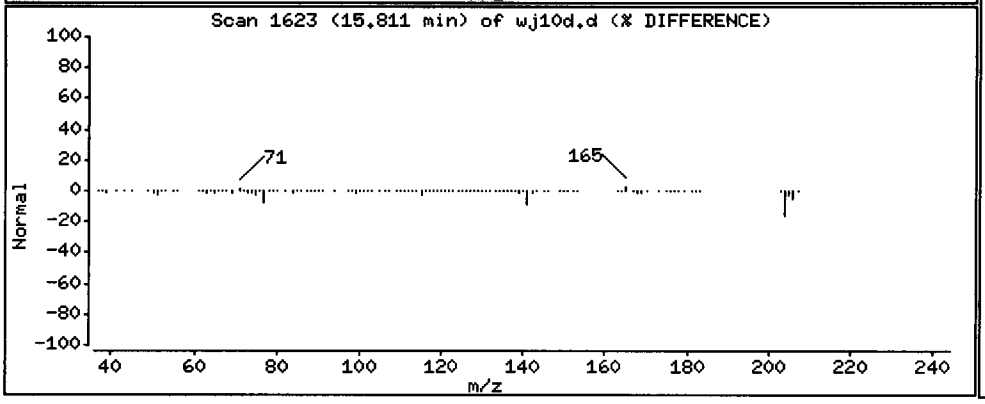












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

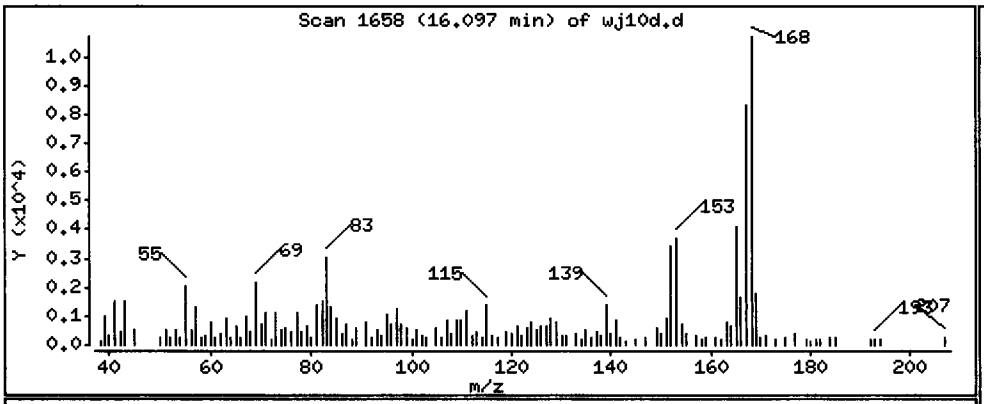
Operator: VTS/YZ

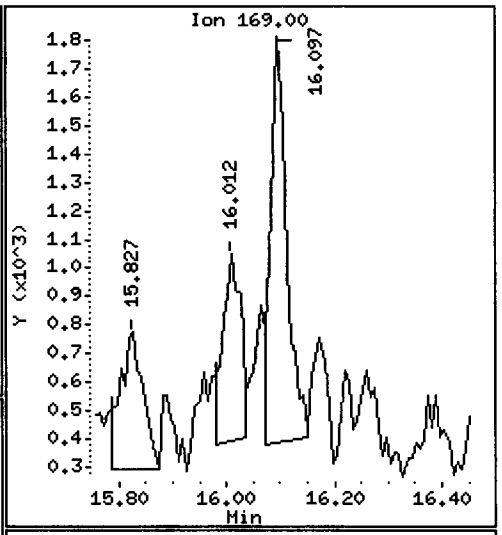
Column phase: ZB-5msi

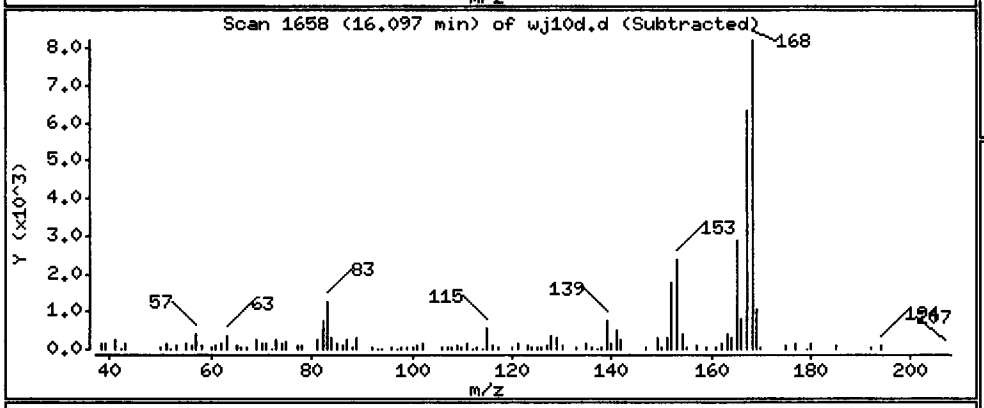
Column diameter: 0.25

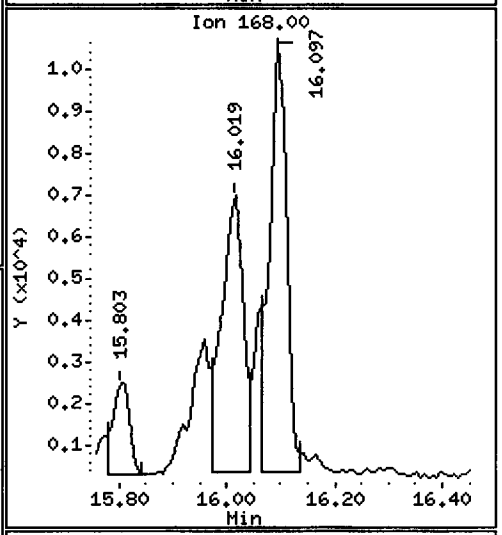
54 N-Nitrosodiphenylamine

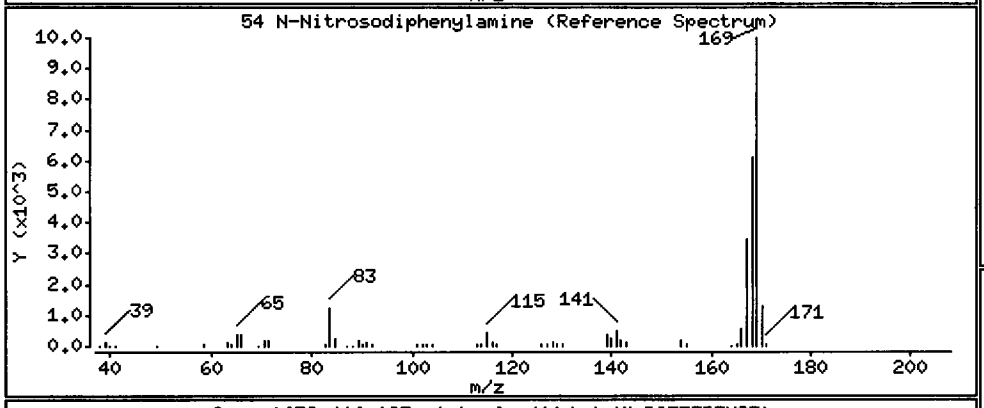
Concentration: 142.5 ug/kg

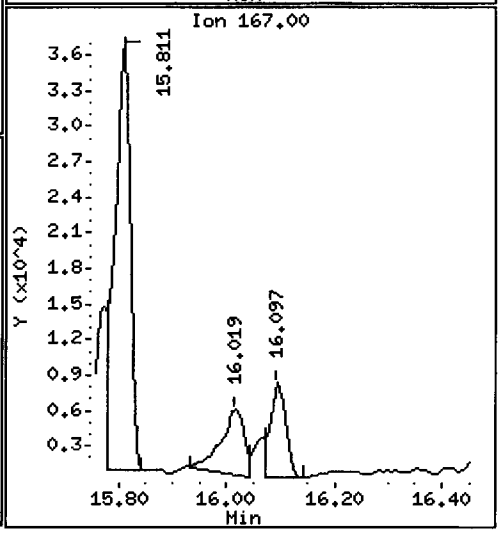


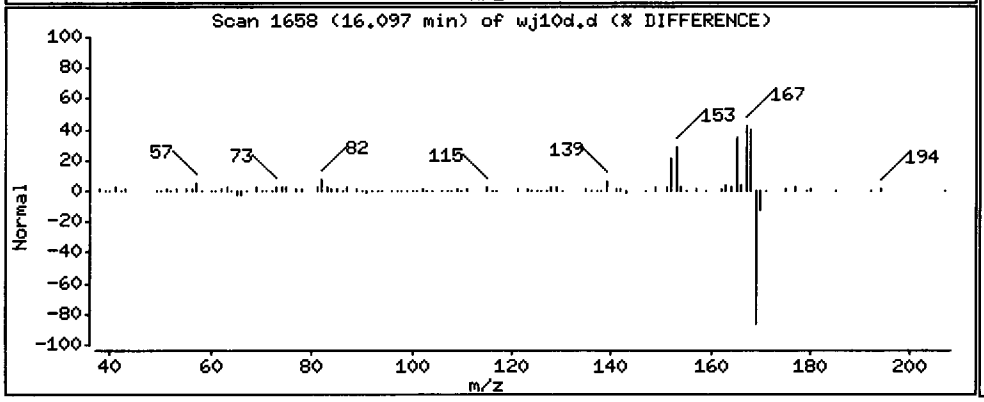












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

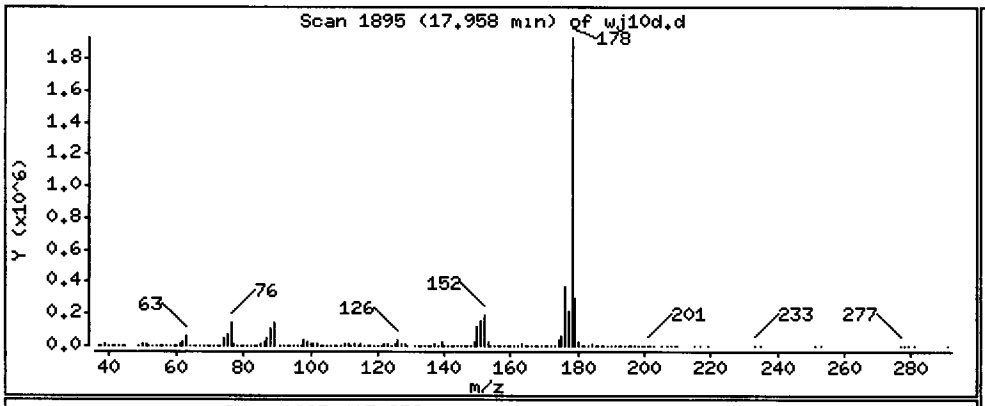
Operator: VTS/YZ

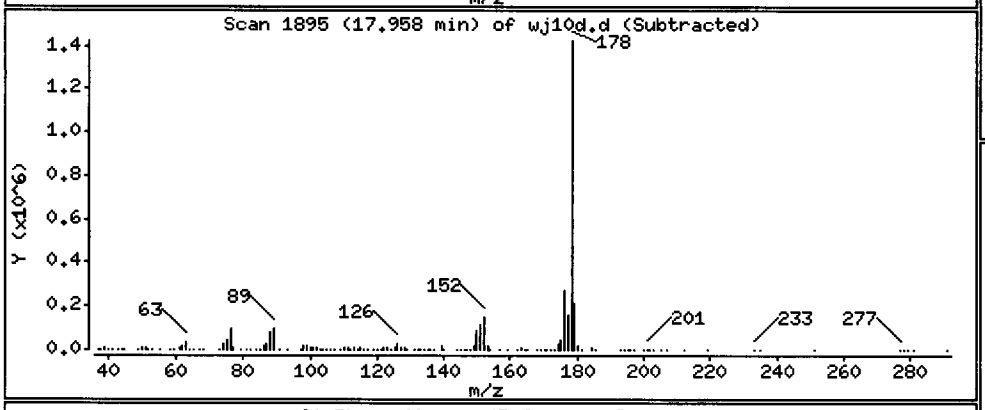
Column phase: ZB-5msi

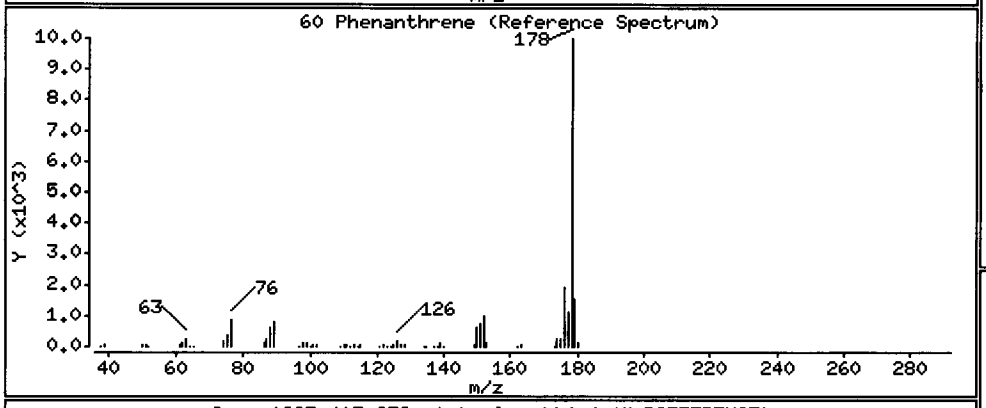
Column diameter: 0.25

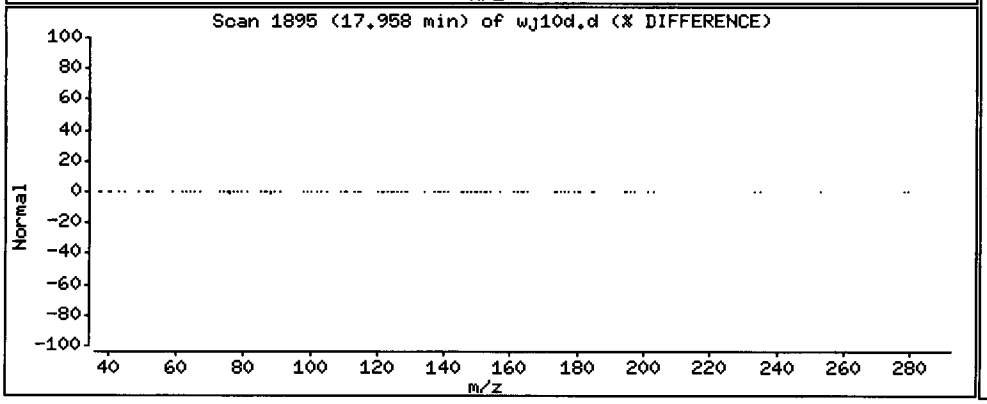
60 Phenanthrene

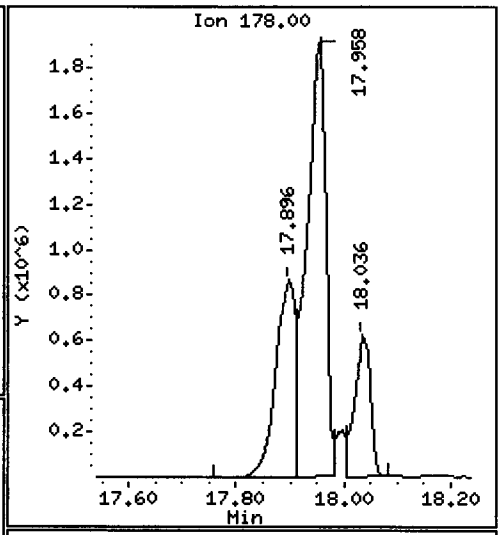
Concentration: 106500 ug/kg

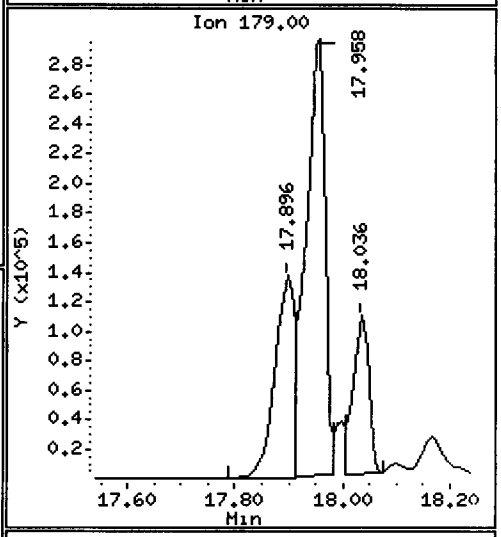


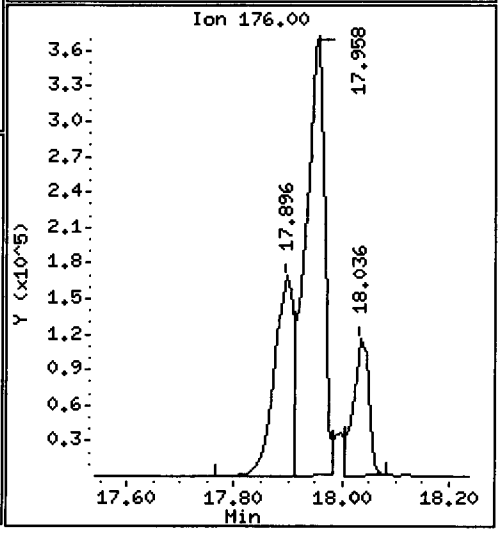












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

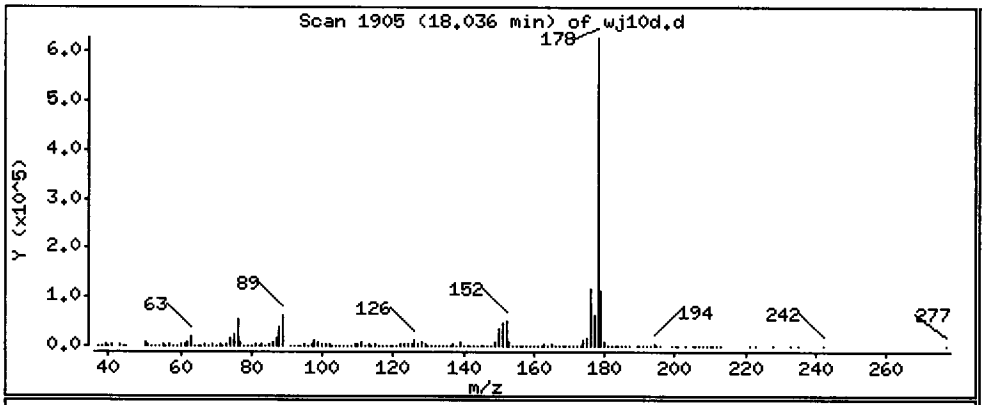
Operator: VTS/YZ

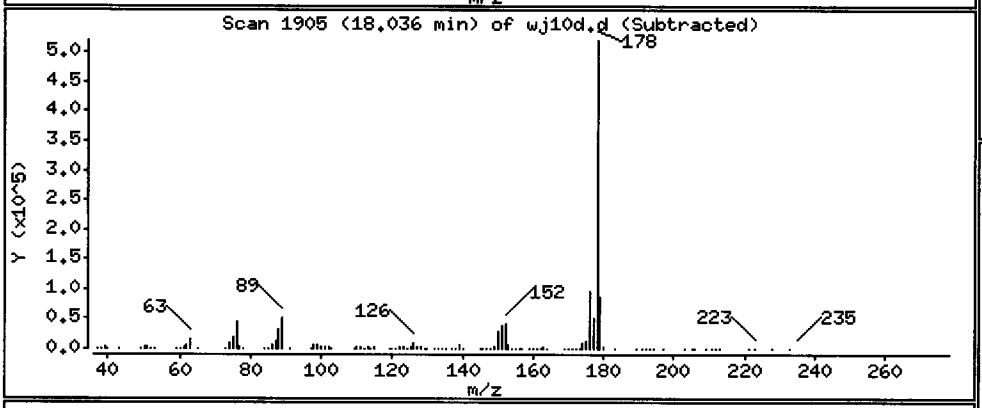
Column phase: ZB-5msi

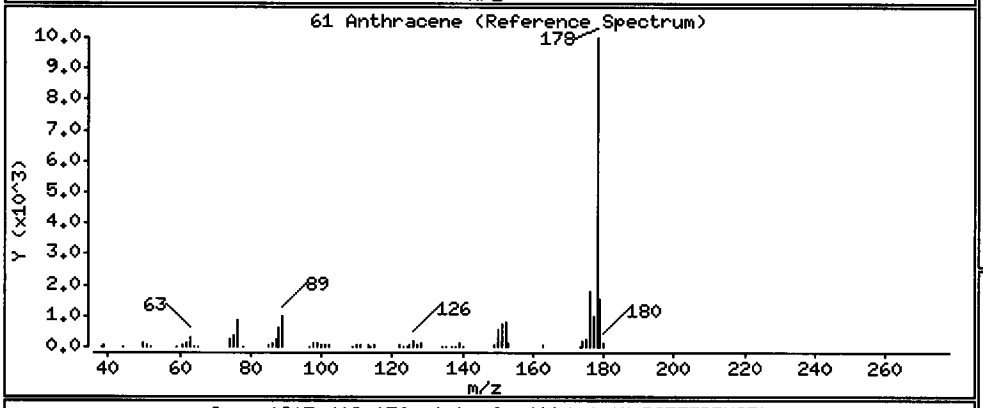
Column diameter: 0.25

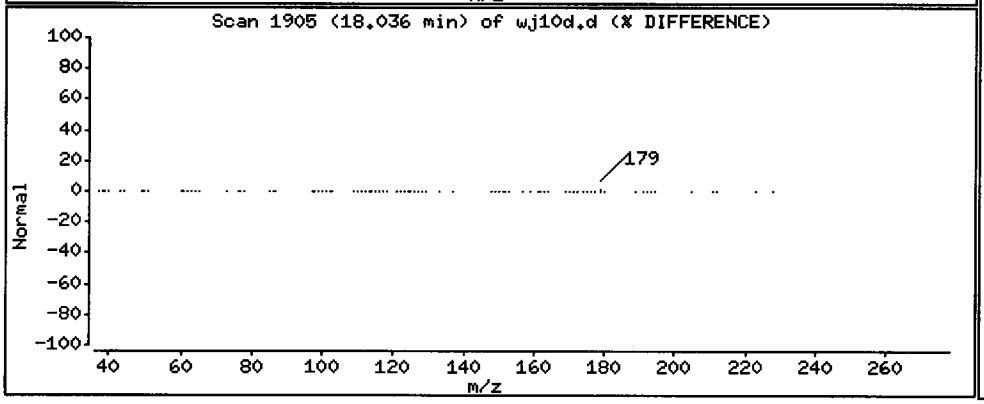
61 Anthracene

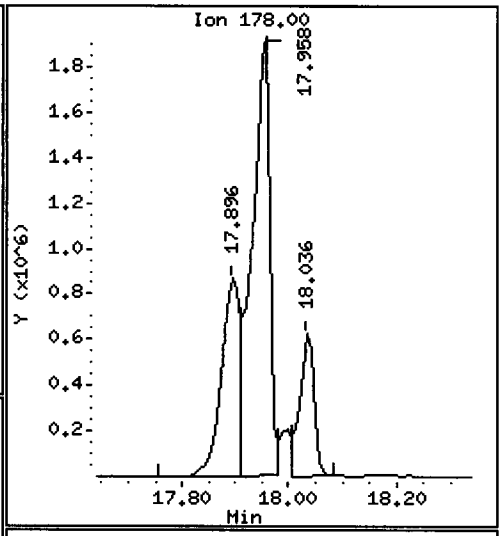
Concentration: 27500 ug/kg

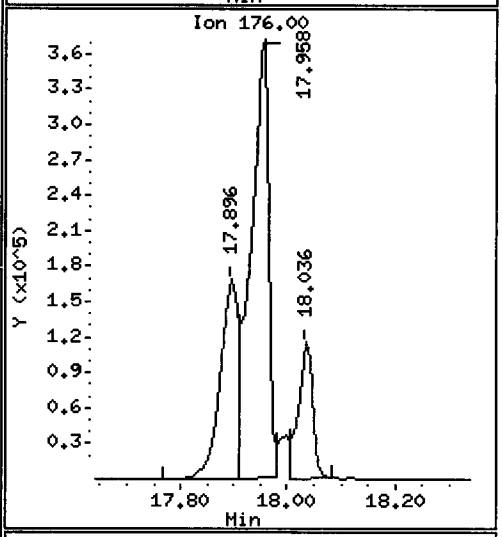


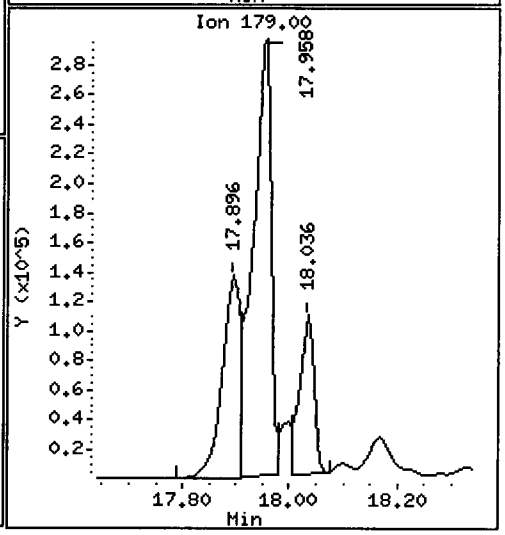












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

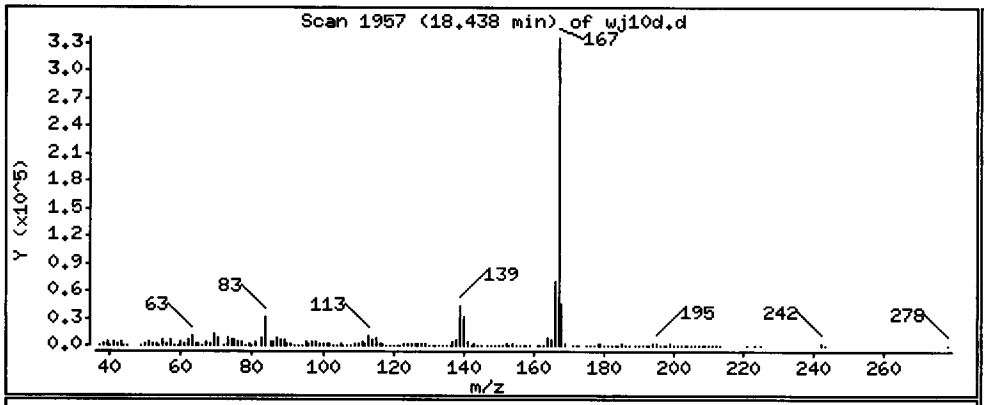
Operator: VTS/YZ

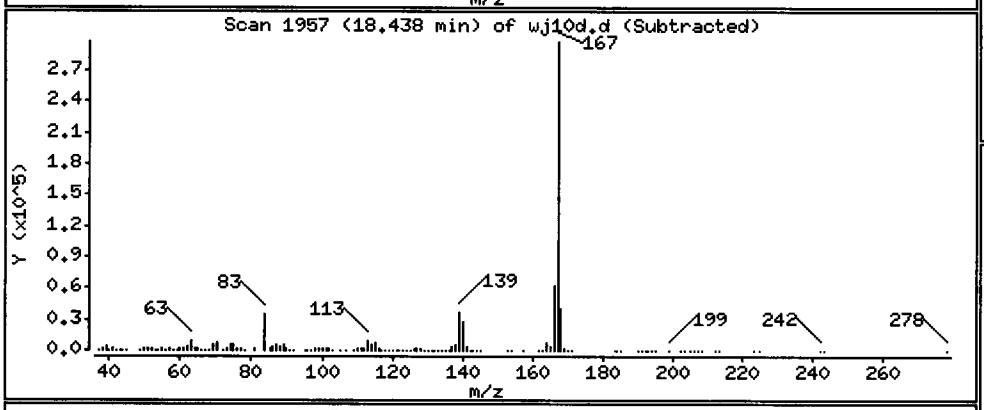
Column phase: ZB-5msi

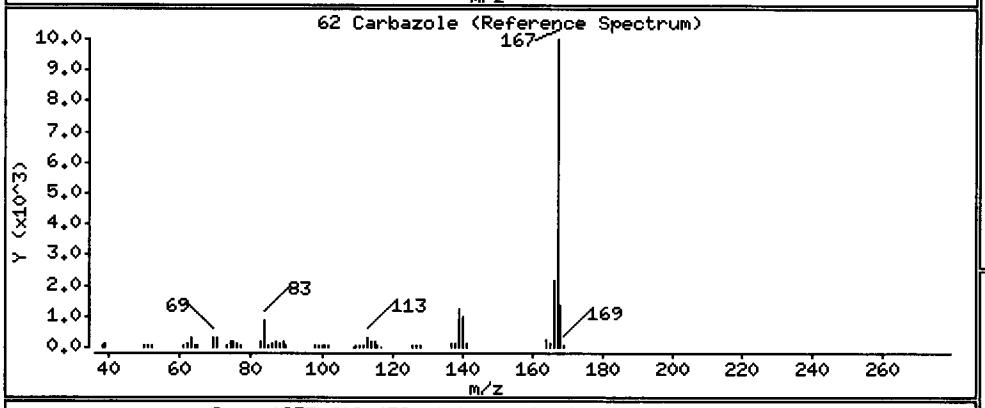
Column diameter: 0.25

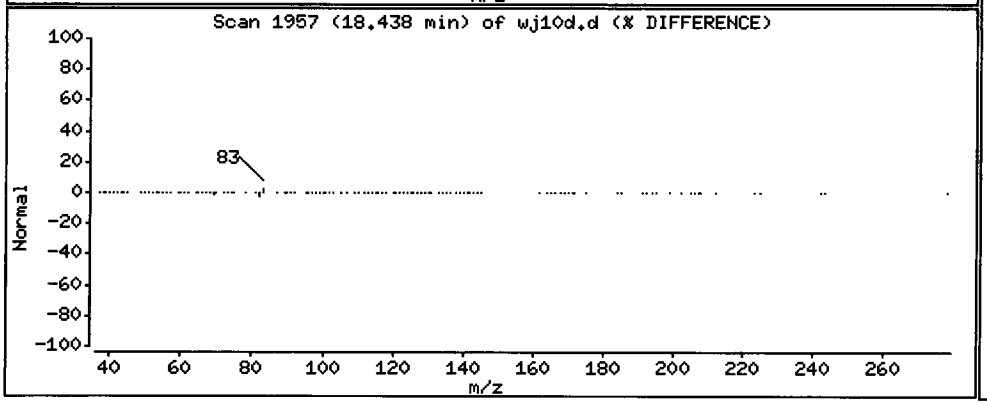
62 Carbazole

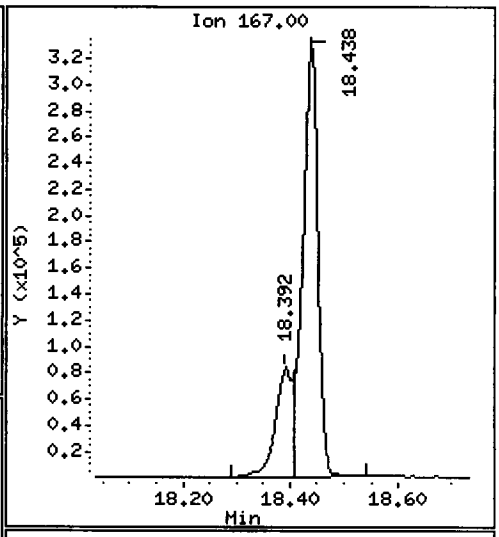
Concentration: 22200 ug/kg

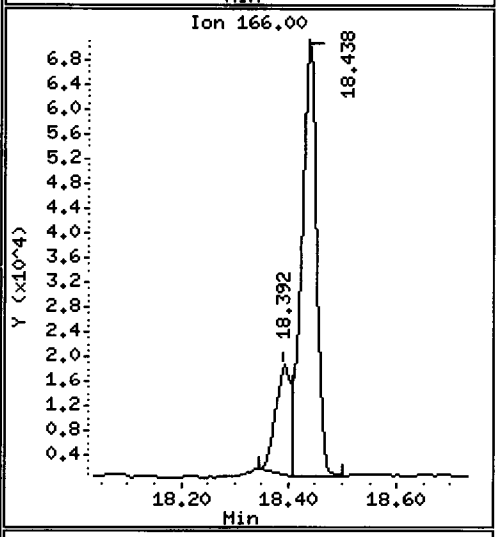


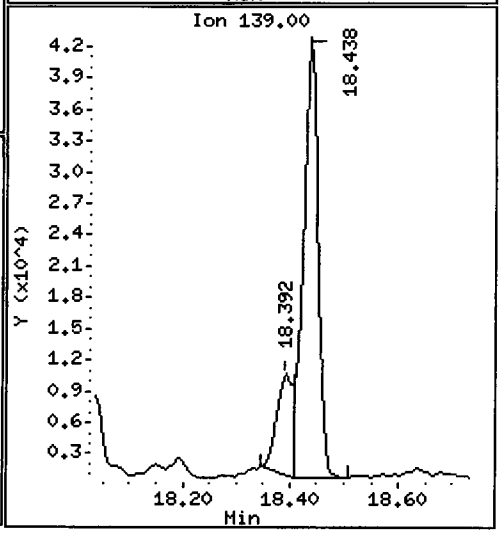












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

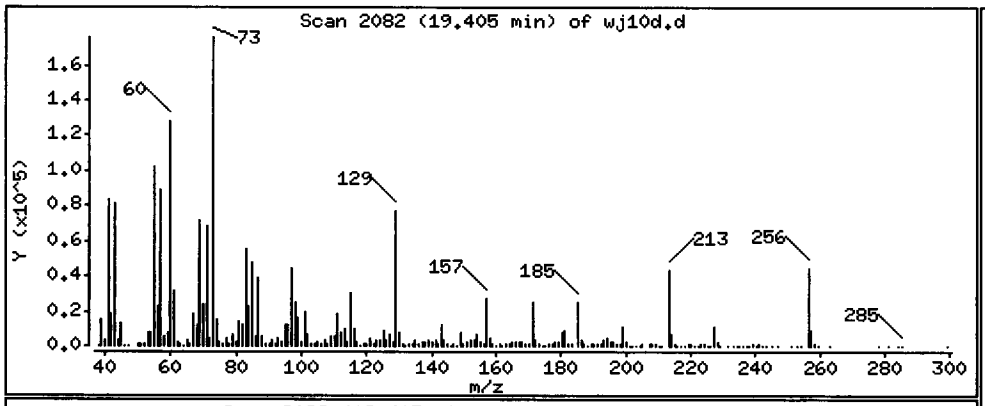
Operator: VTS/YZ

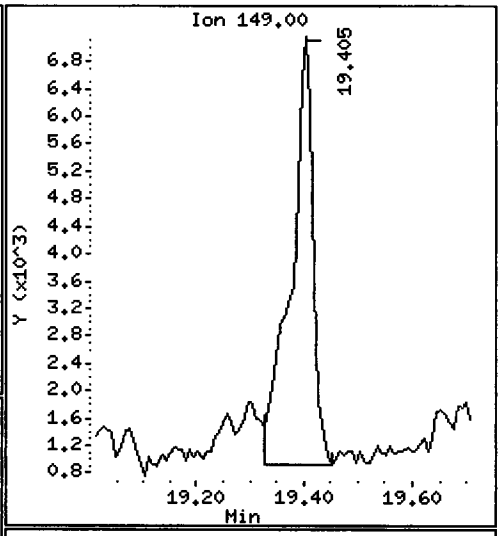
Column phase: ZB-5msi

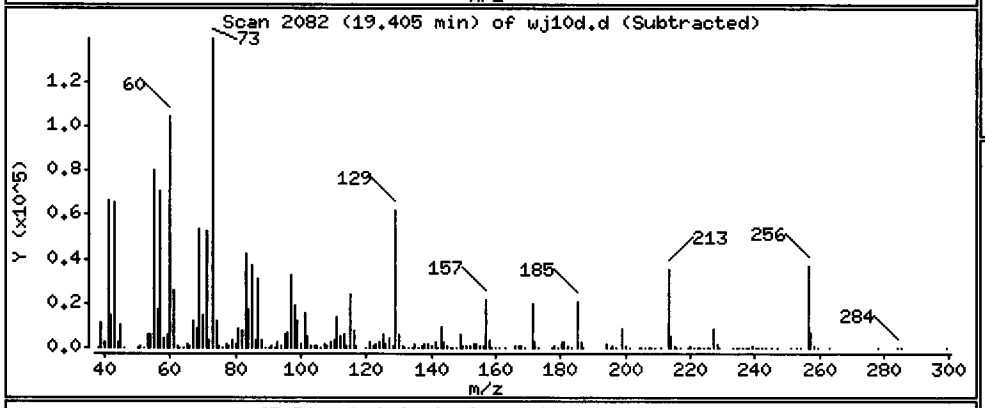
Column diameter: 0.25

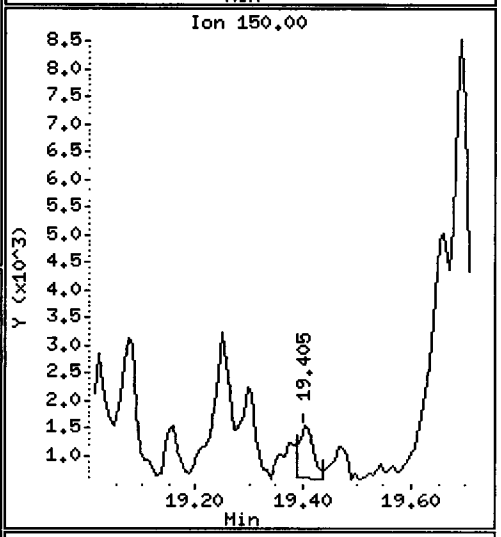
63 Di-n-butylphthalate

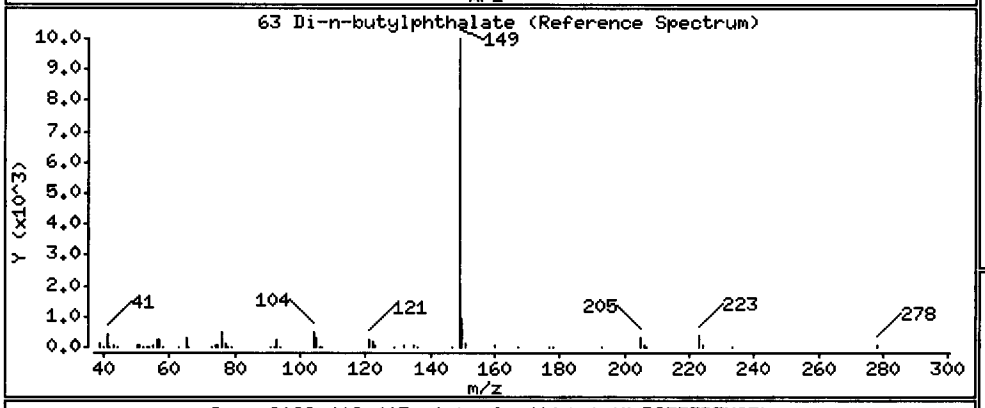
Concentration: 376.4 ug/kg

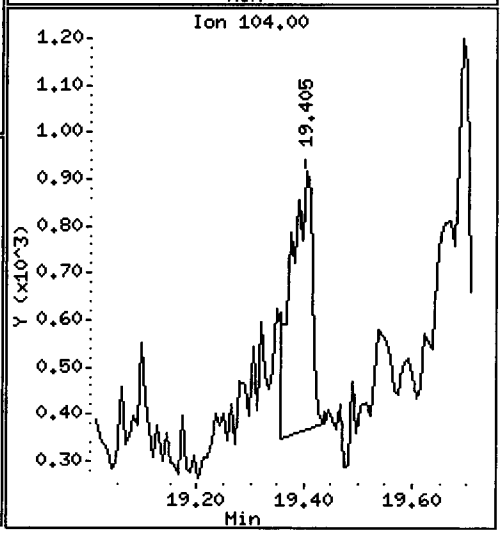


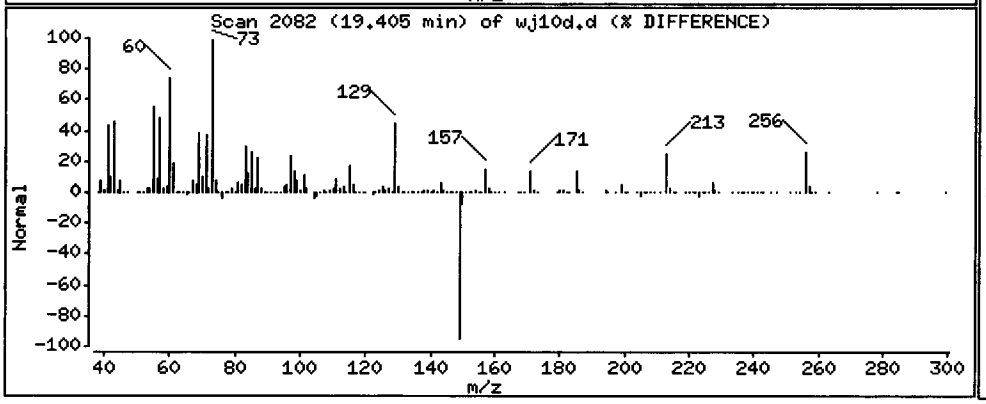












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

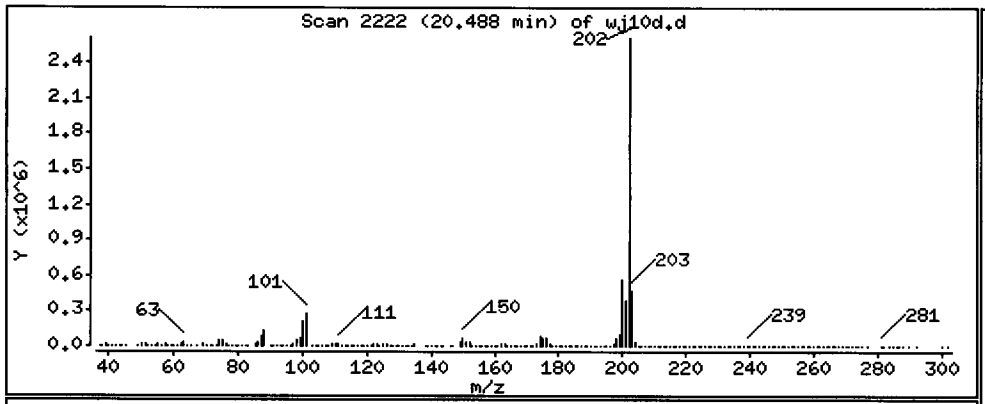
Operator: VTS/YZ

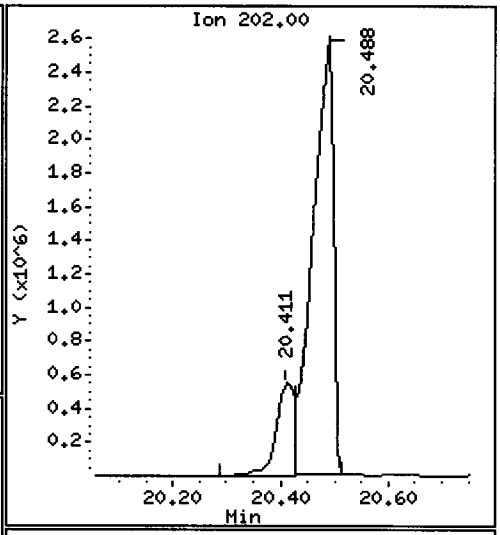
Column phase: ZB-5msi

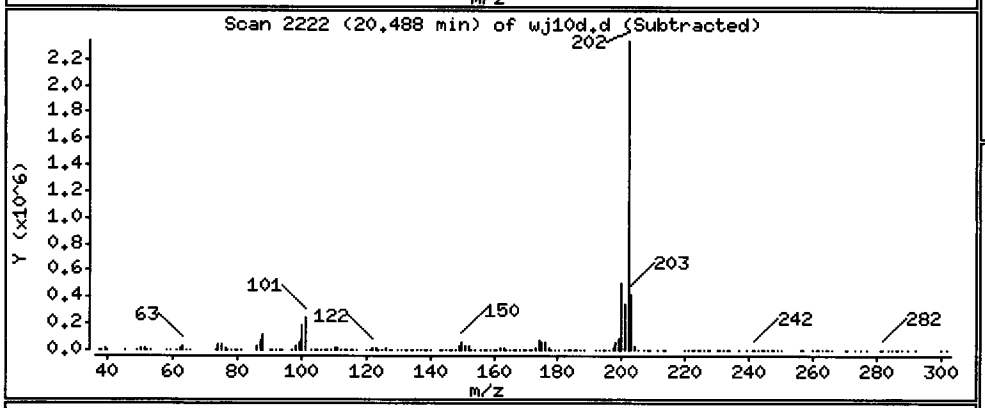
Column diameter: 0.25

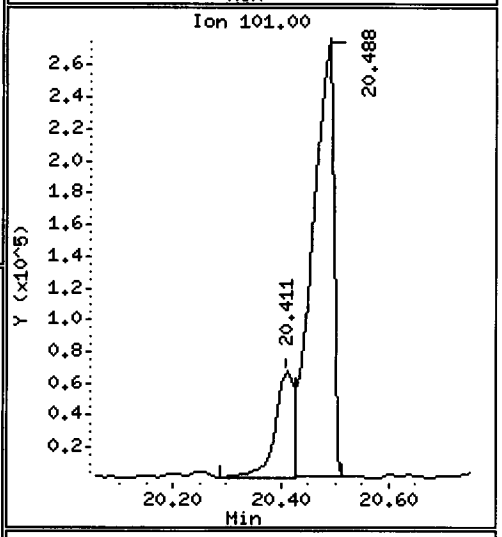
64 Fluoranthene

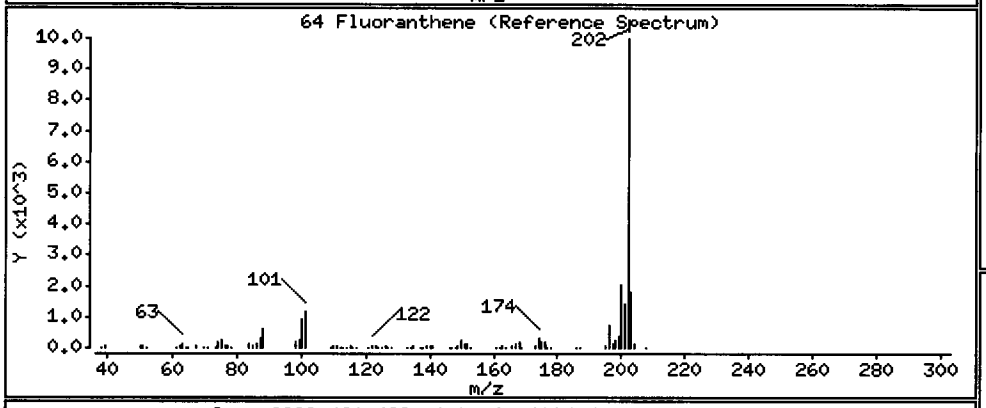
Concentration: 130600 ug/kg

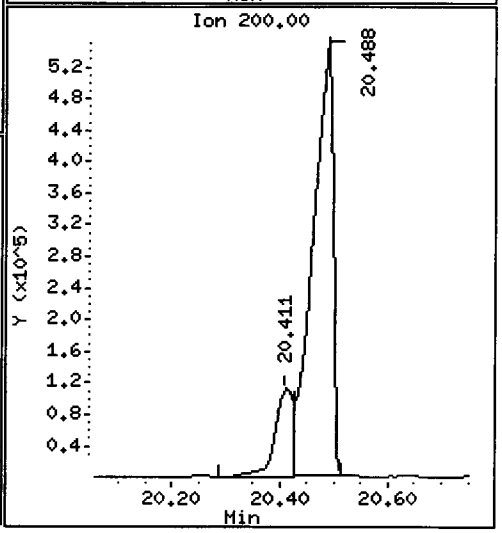


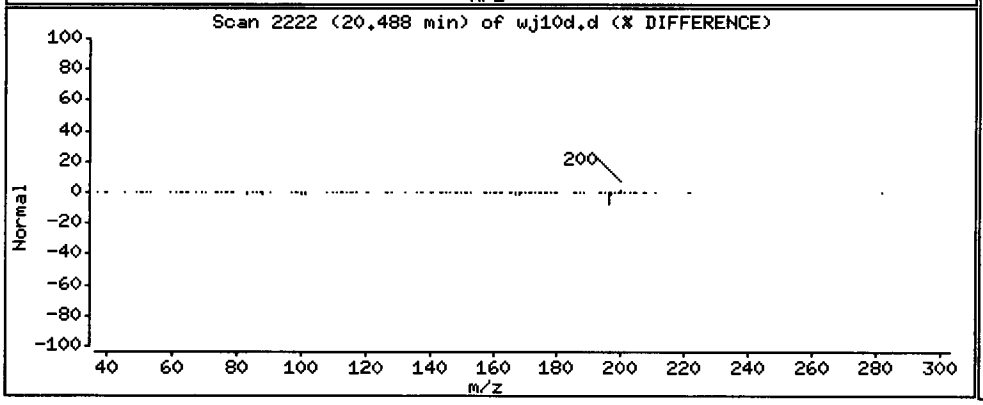












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

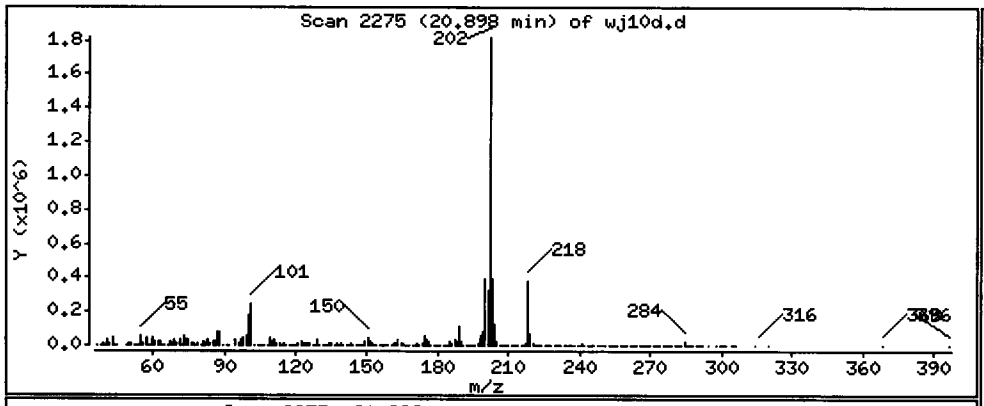
Operator: VTS/YZ

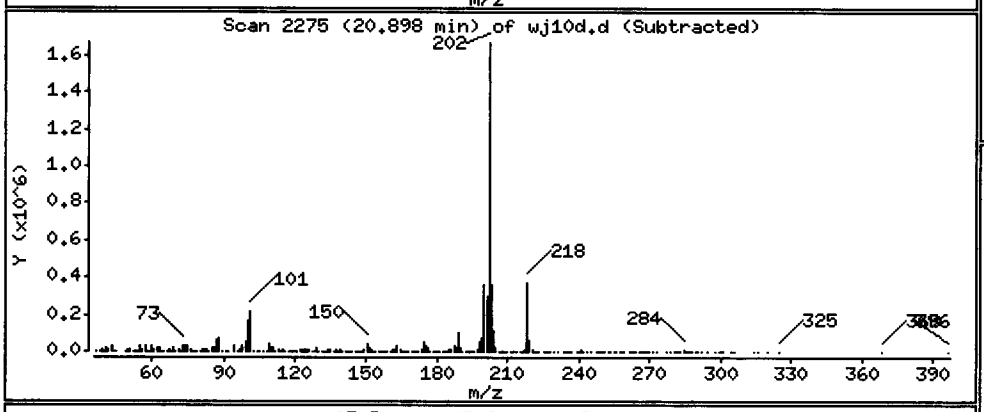
Column phase: ZB-5msi

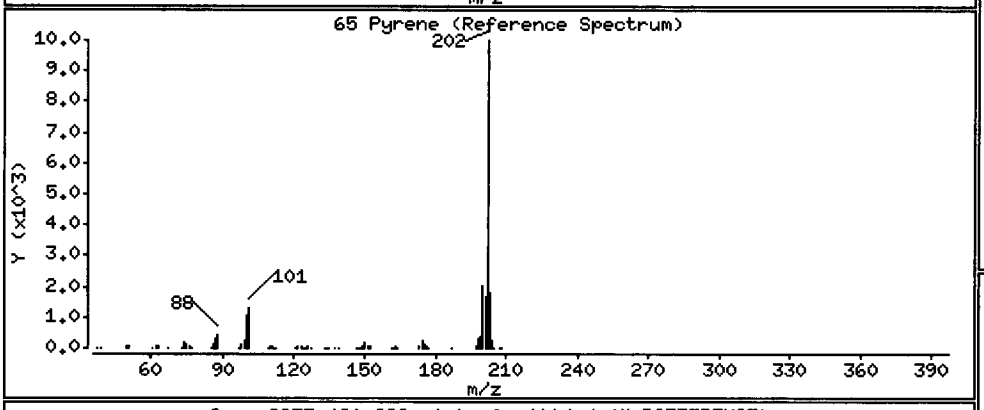
Column diameter: 0.25

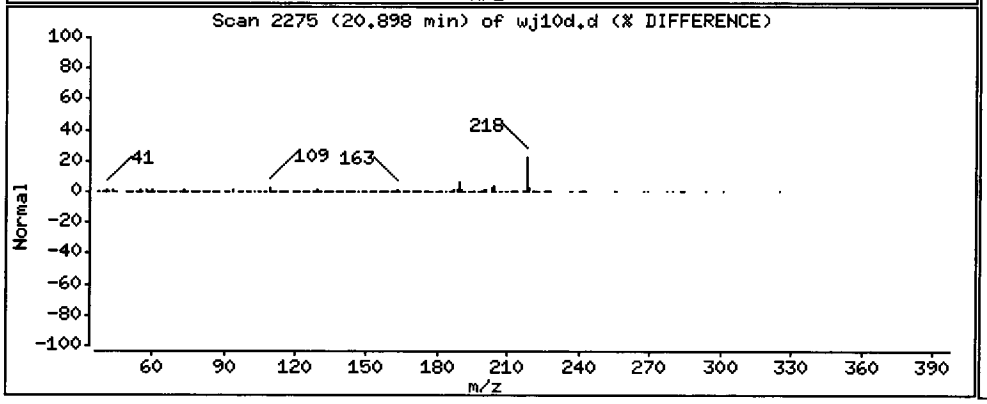
65 Pyrene

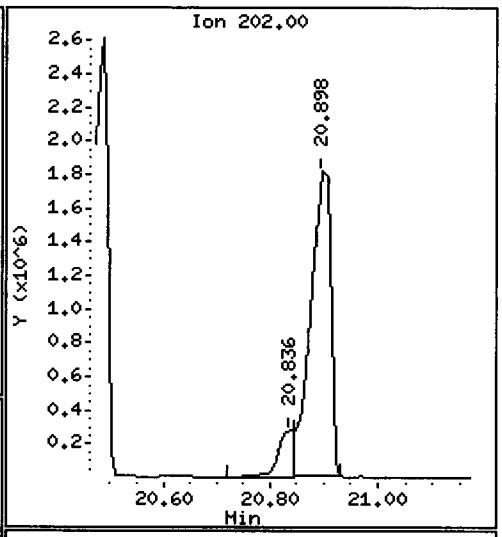
Concentration: 74550 ug/kg

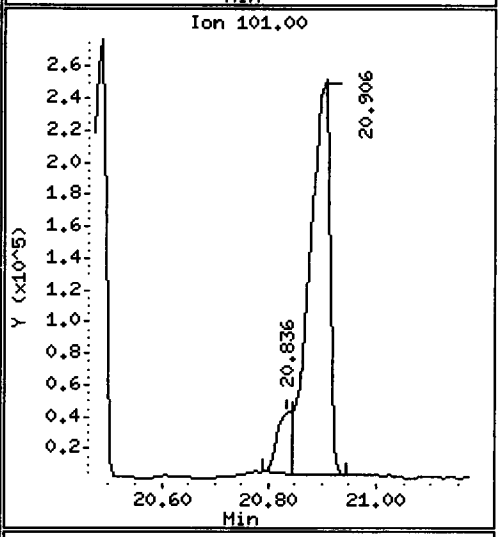


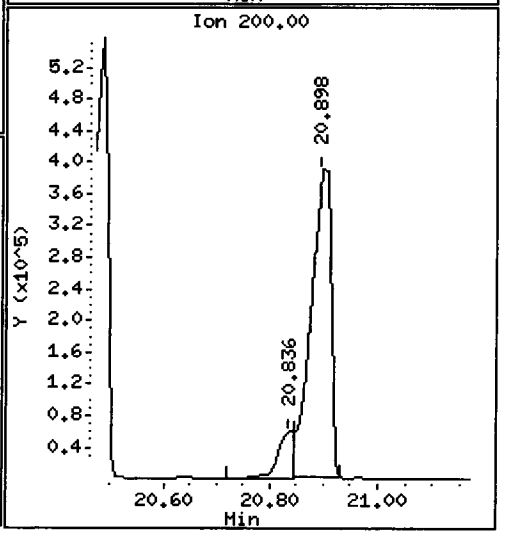












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

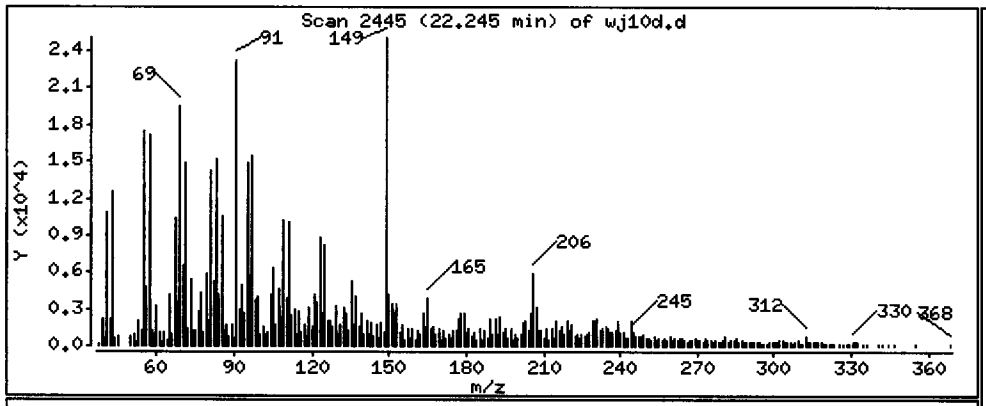
Operator: VTS/YZ

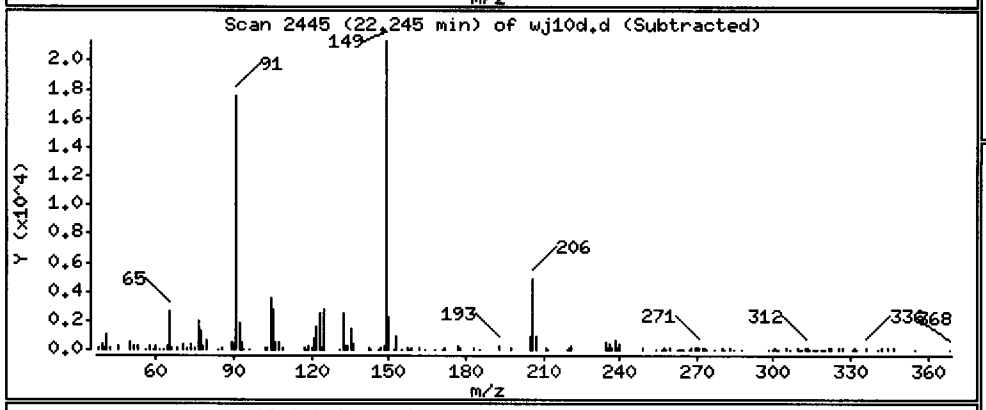
Column phase: ZB-5msi

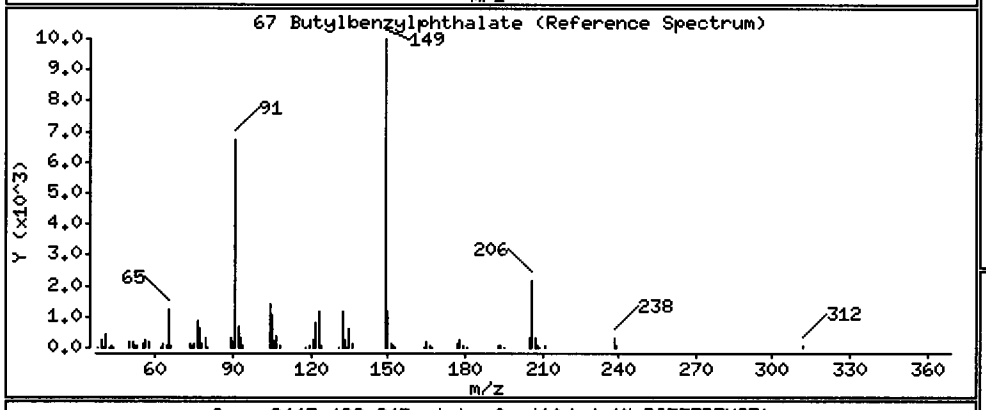
Column diameter: 0.25

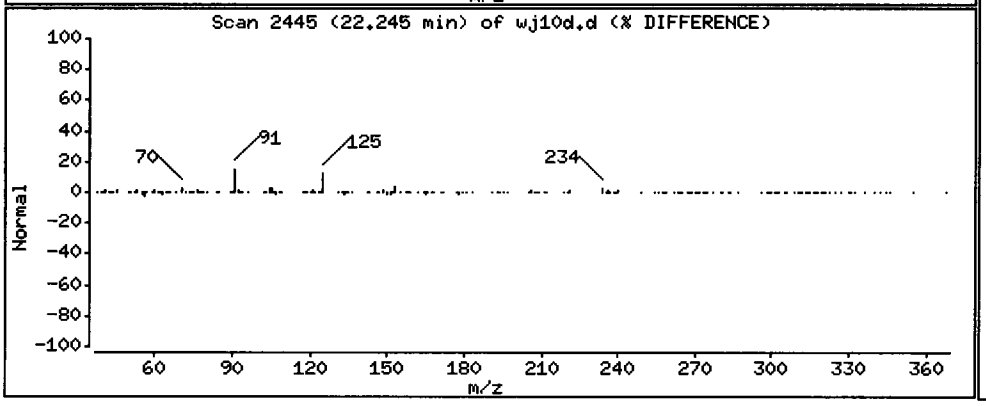
67 Butylbenzylphthalate

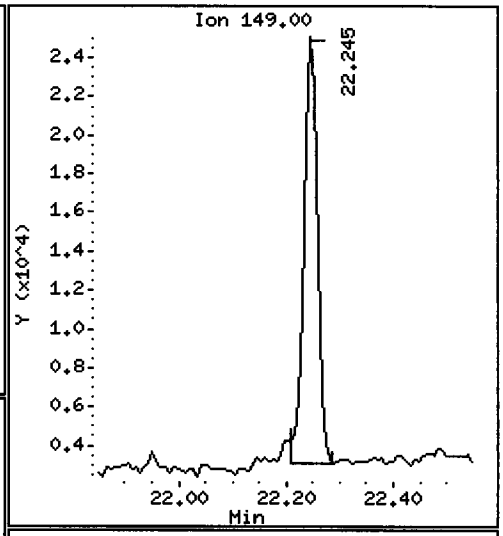
Concentration: 1716 ug/kg

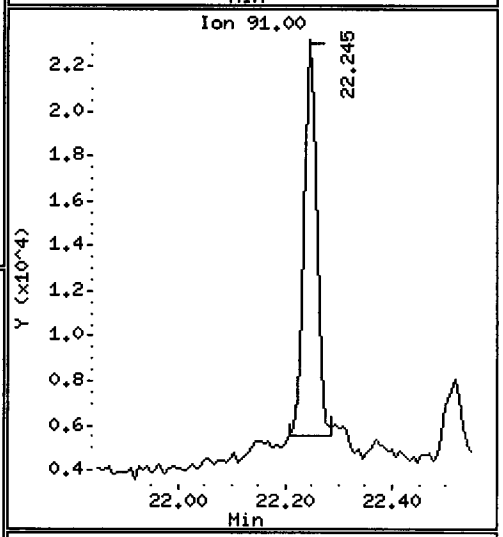


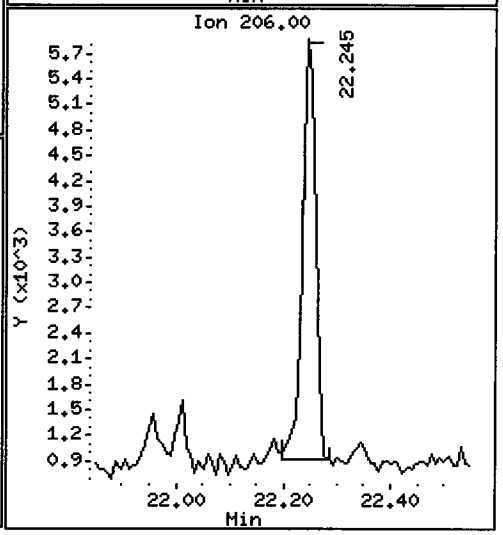












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

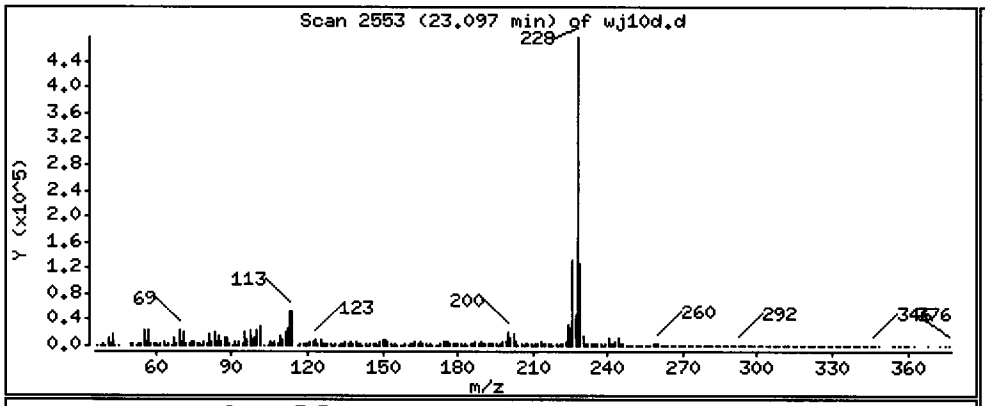
Operator: VTS/YZ

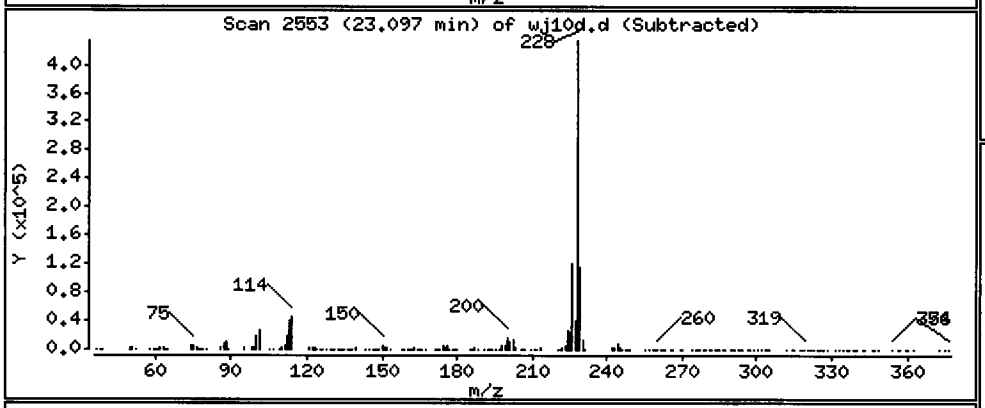
Column phase: ZB-5msi

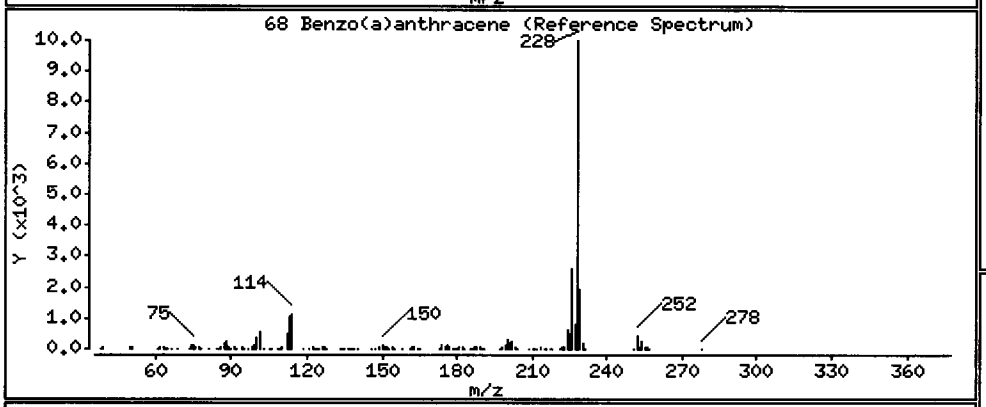
Column diameter: 0.25

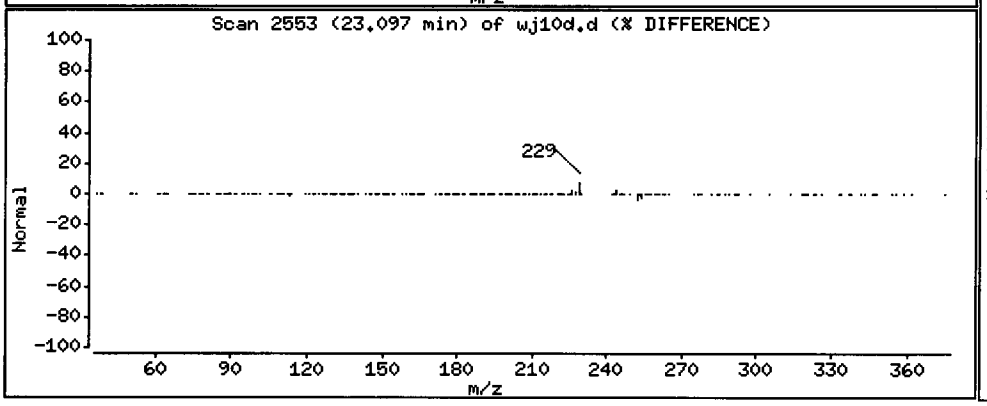
68 Benzo(a)anthracene

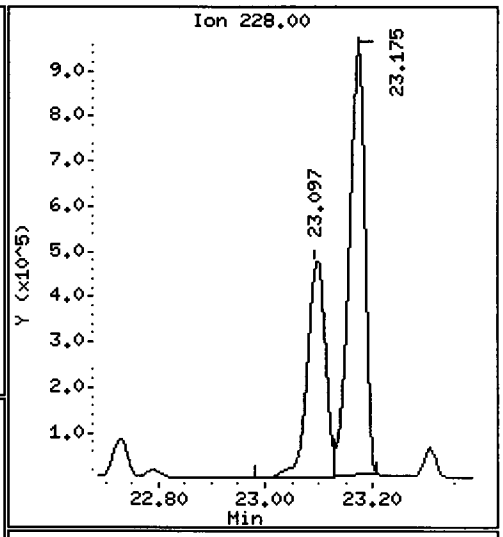
Concentration: 18430 ug/kg

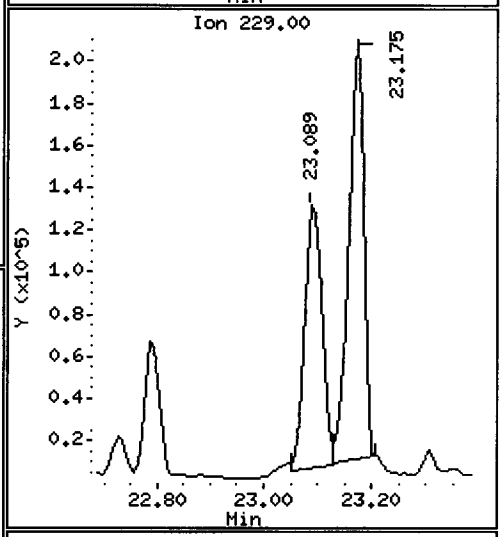


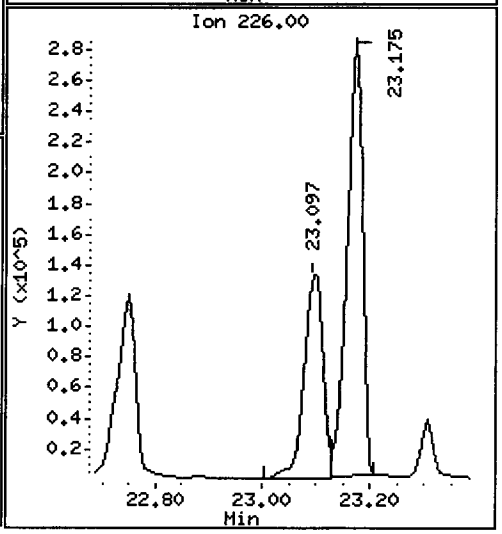












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

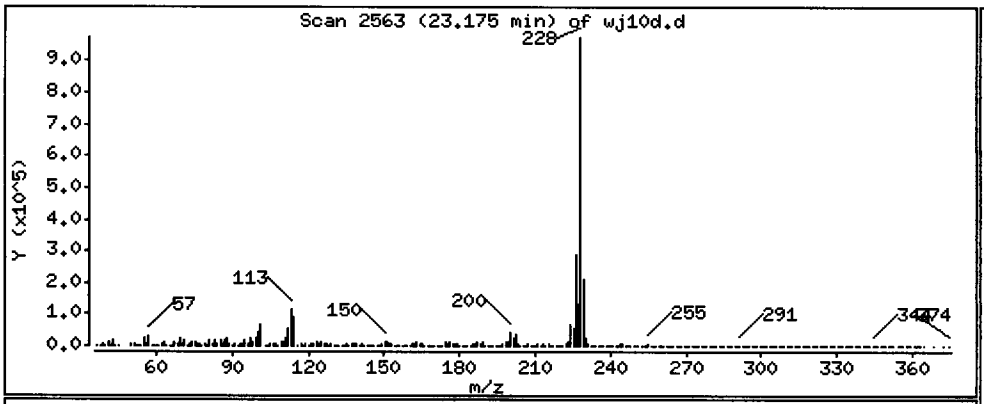
Operator: VTS/YZ

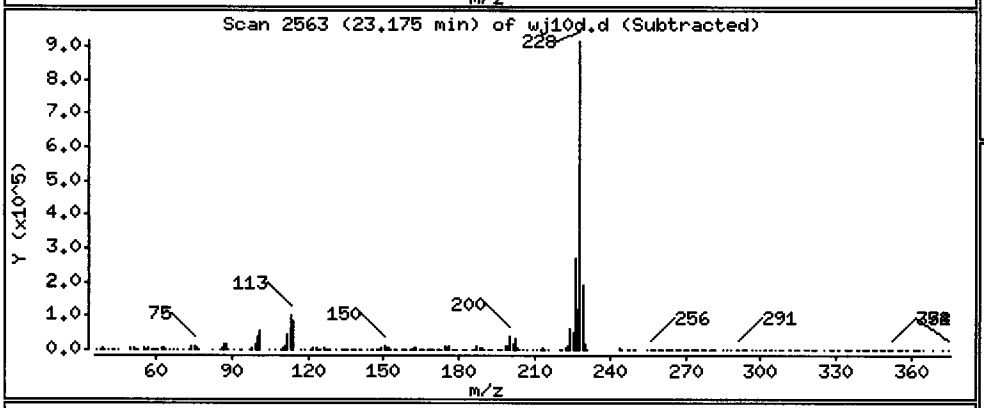
Column phase: ZB-5msi

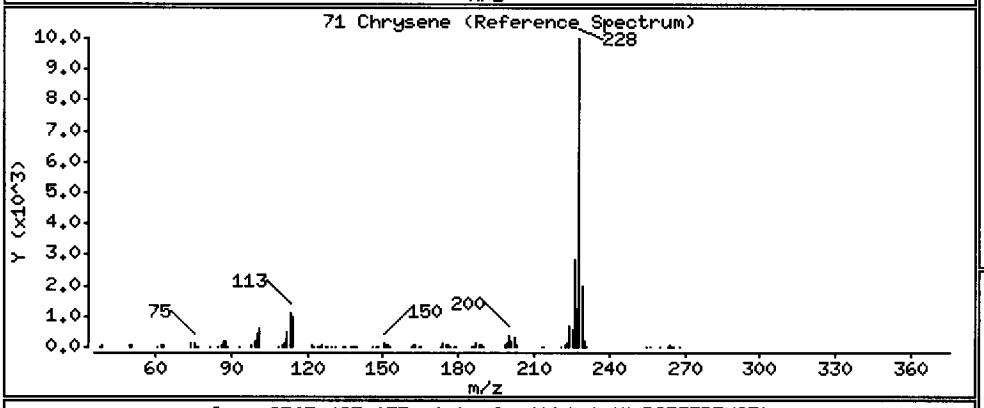
Column diameter: 0.25

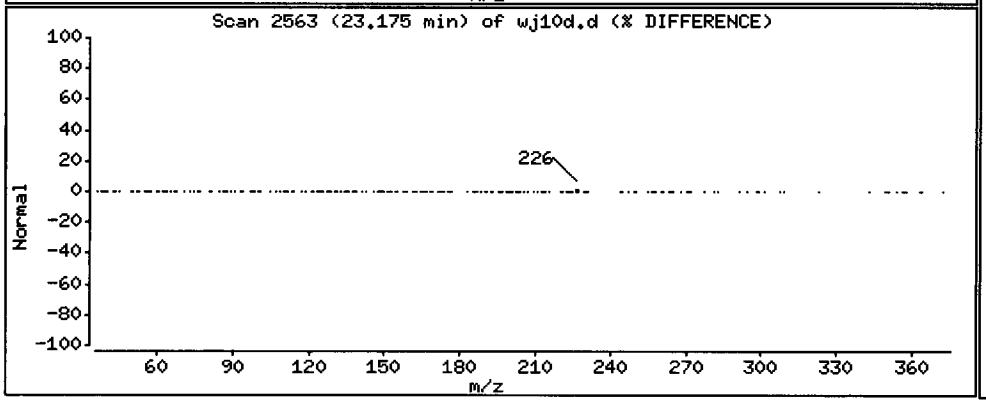
71 Chrysene

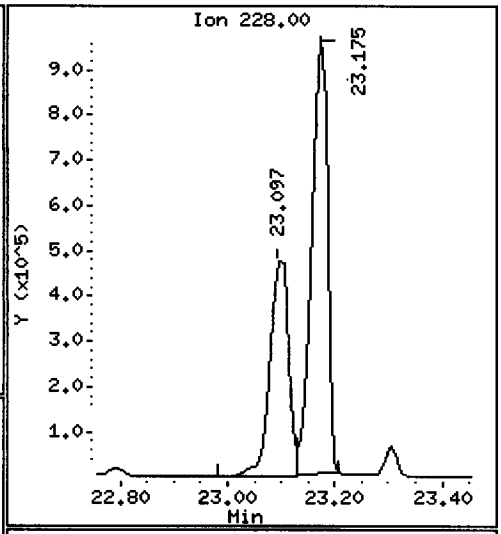
Concentration: 34240 ug/kg

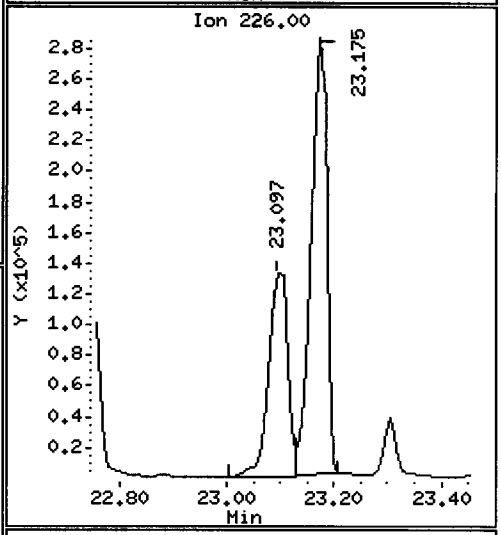


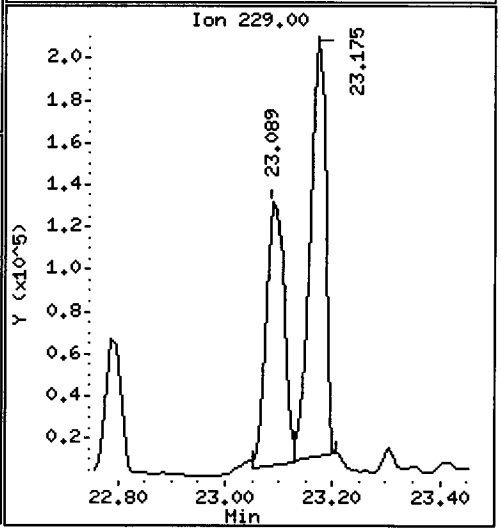












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

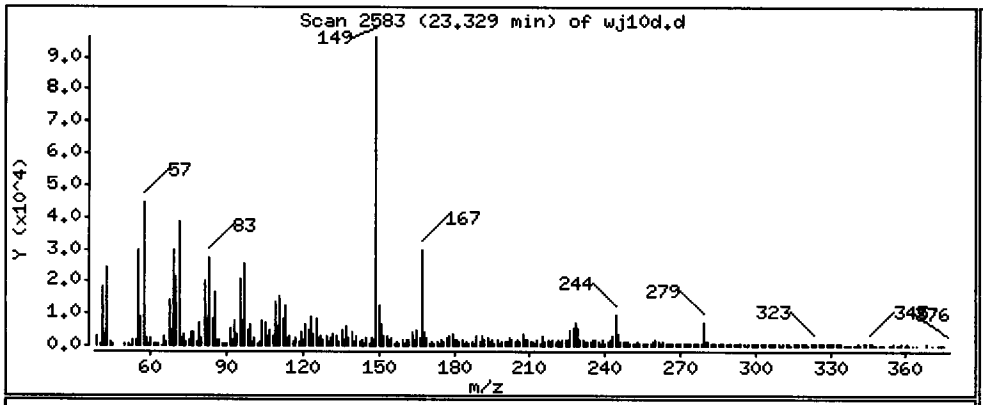
Operator: VTS/YZ

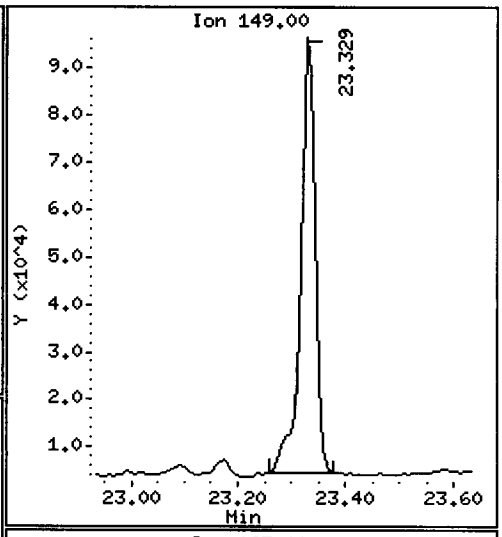
Column phase: ZB-5msi

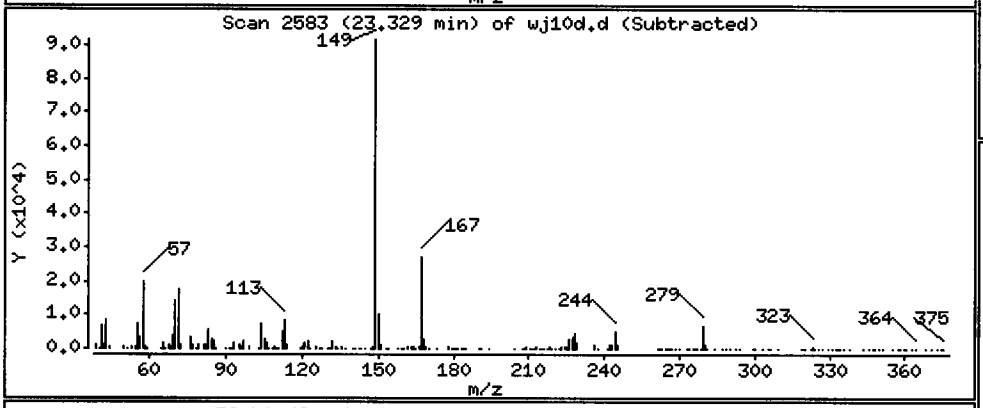
Column diameter: 0.25

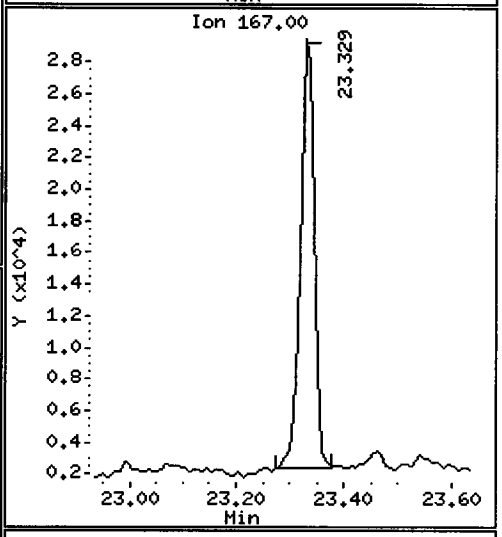
72 bis(2-Ethylhexyl)phthalate

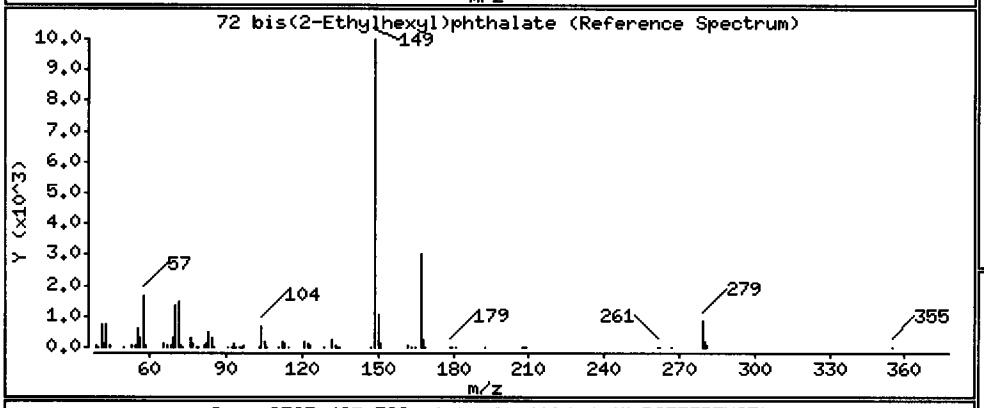
Concentration: 4724 ug/kg

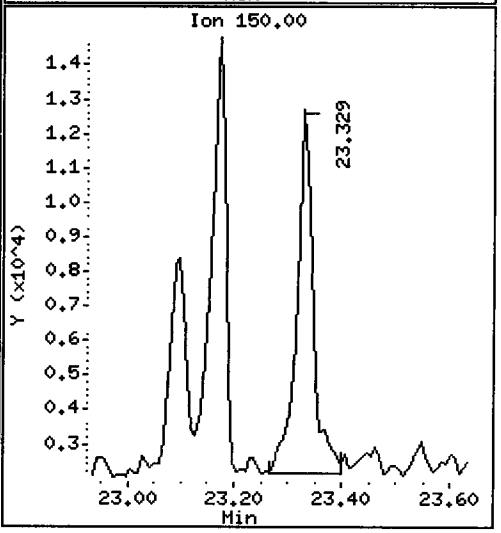


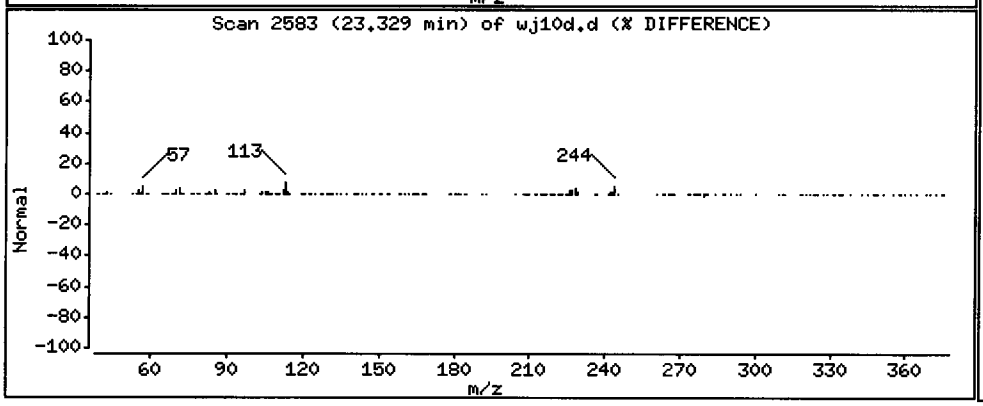












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

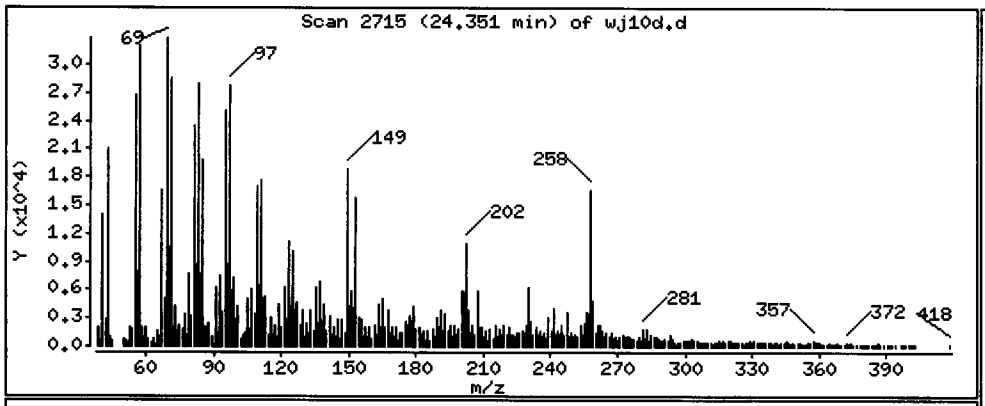
Operator: VTS/YZ

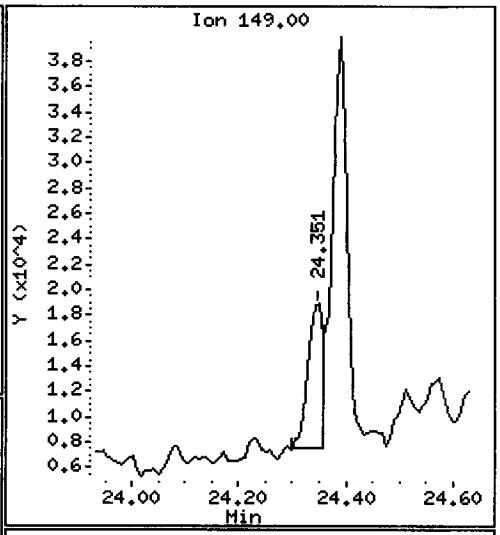
Column phase: ZB-5msi

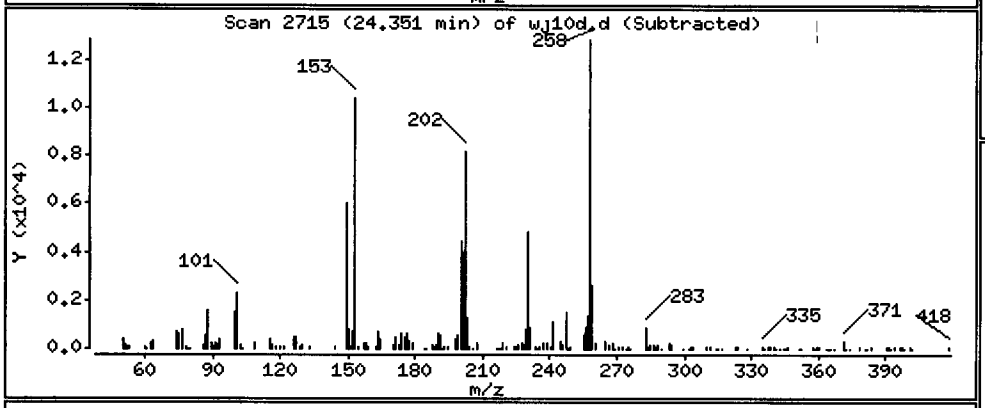
Column diameter: 0.25

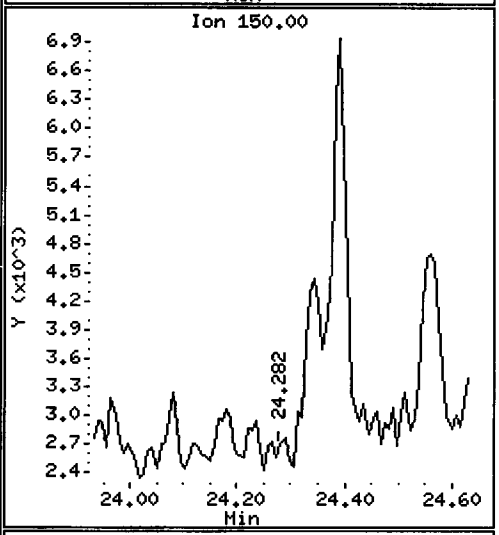
73 Di-n-octylphthalate

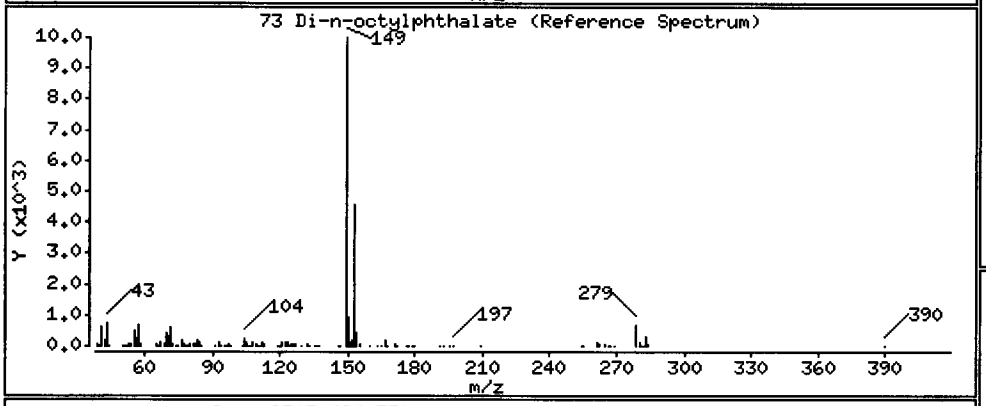
Concentration: 344.4 ug/kg

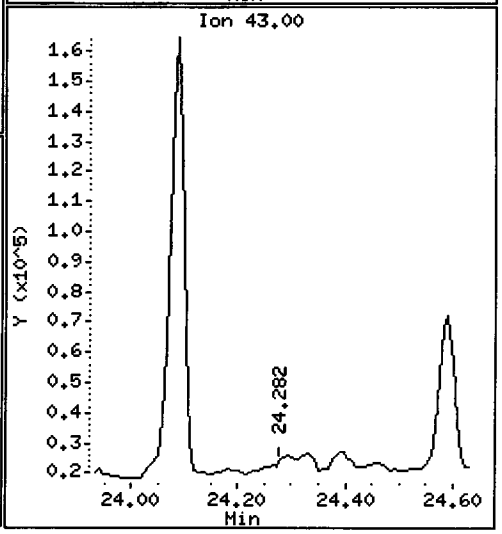


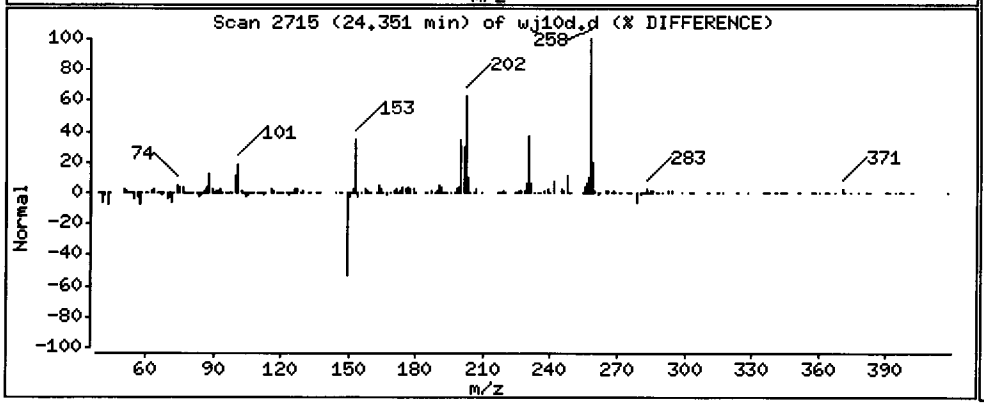












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

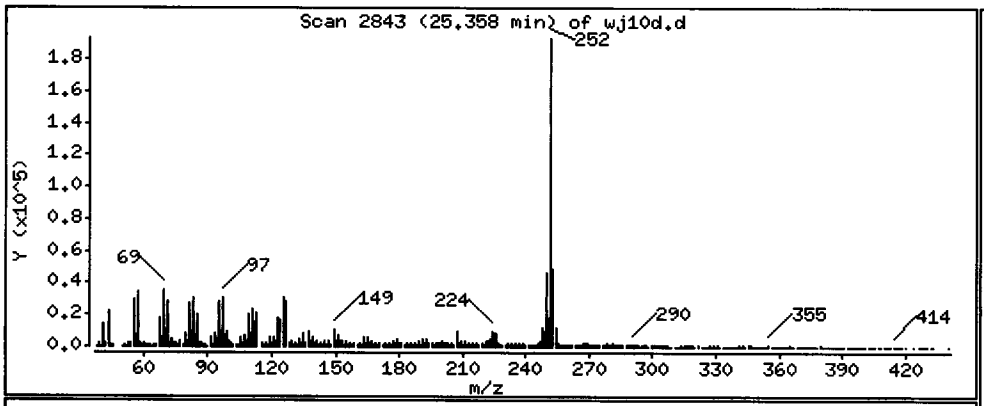
Operator: VTS/YZ

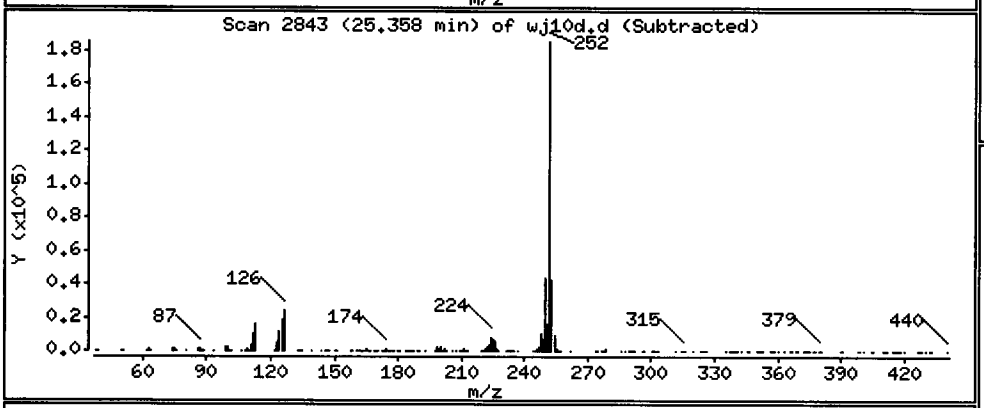
Column phase: ZB-5msi

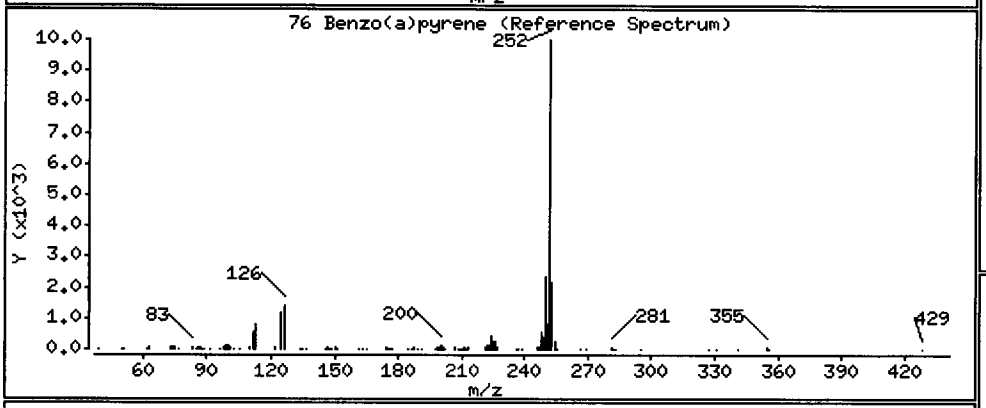
Column diameter: 0.25

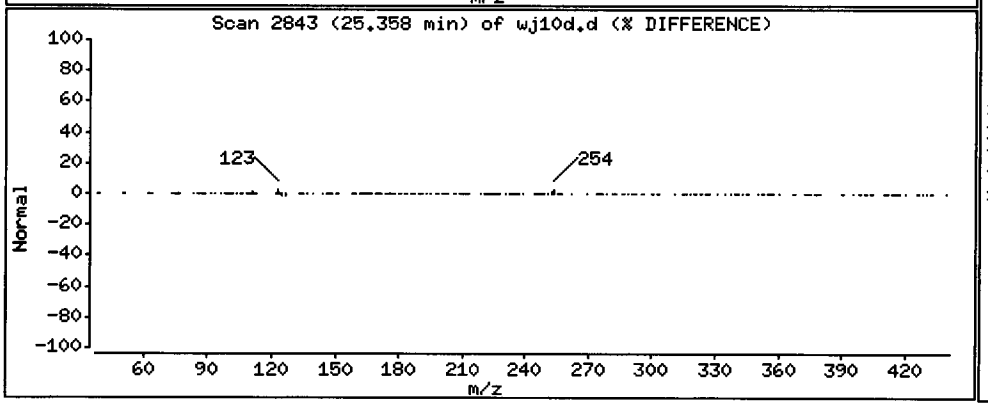
76 Benzo(a)pyrene

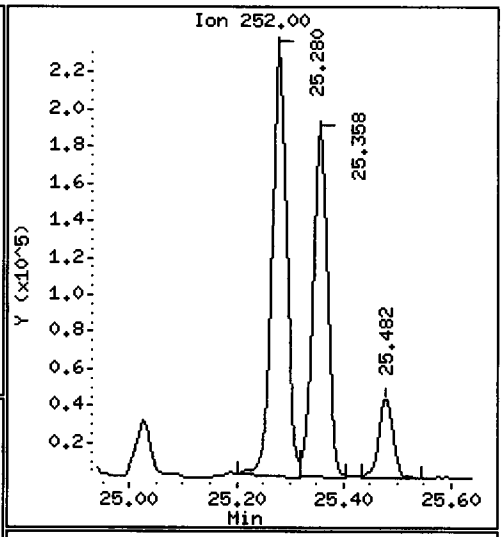
Concentration: 6776 ug/kg

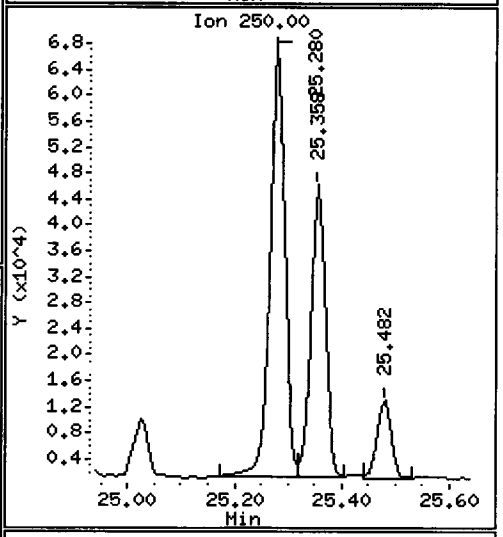


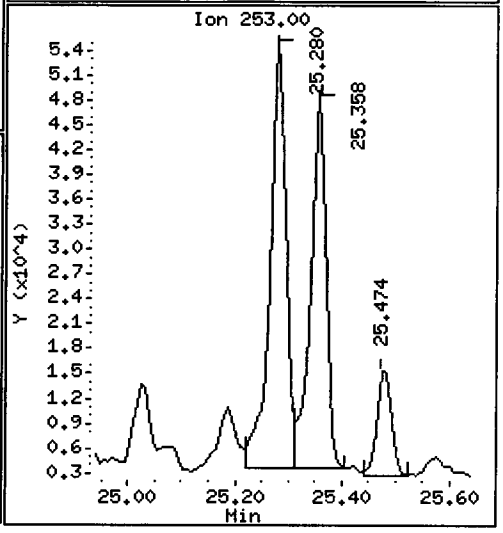












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

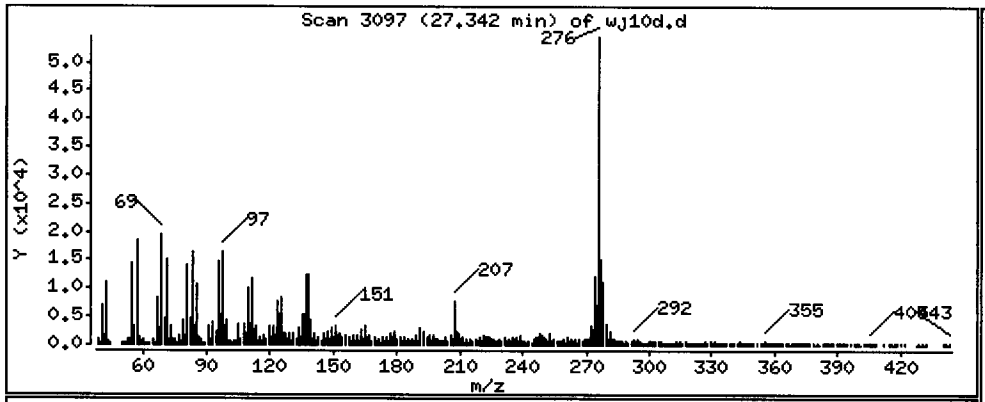
Operator: VTS/YZ

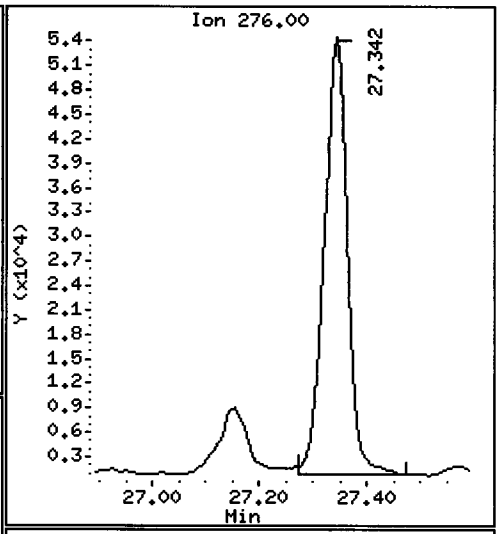
Column phase: ZB-5msi

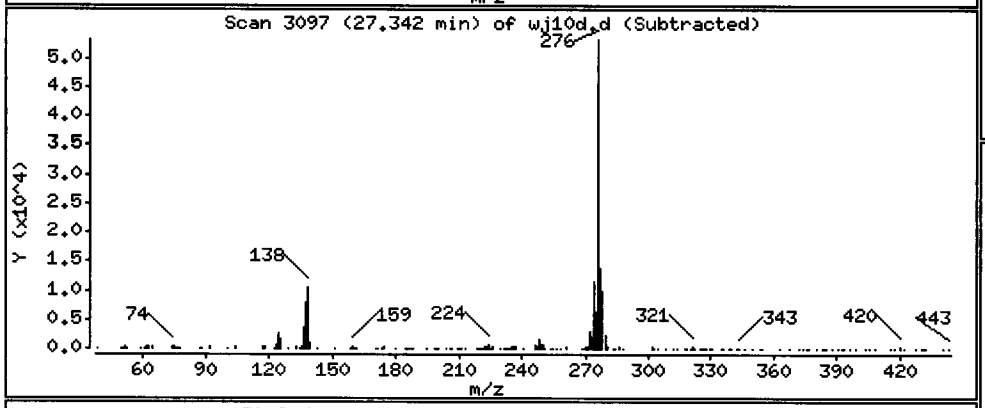
Column diameter: 0.25

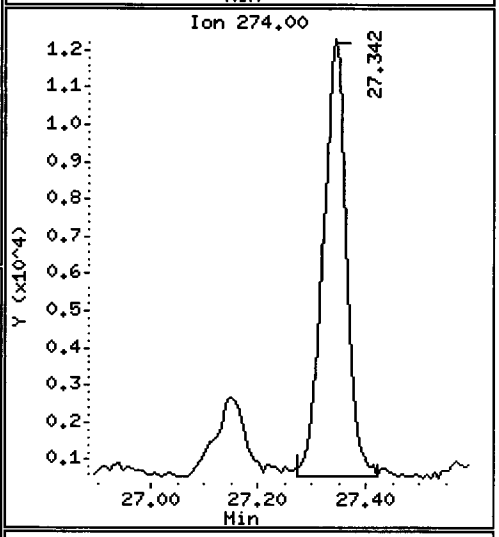
78 Indeno(1,2,3-cd)pyrene

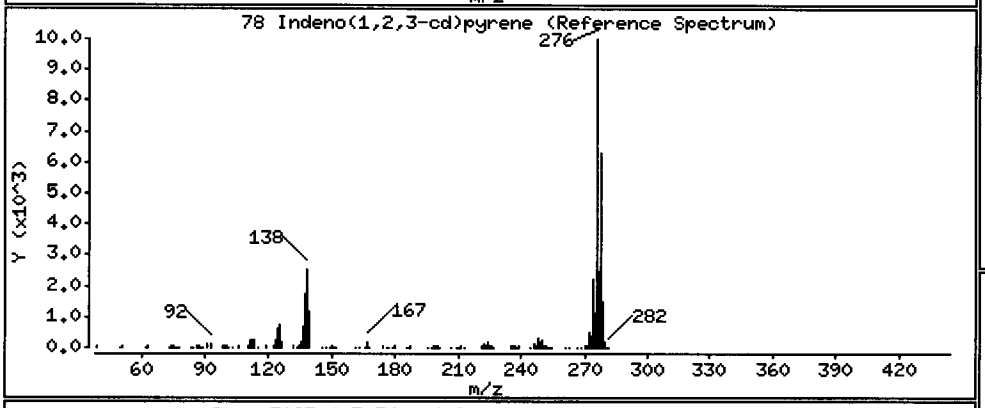
Concentration: 2535 ug/kg

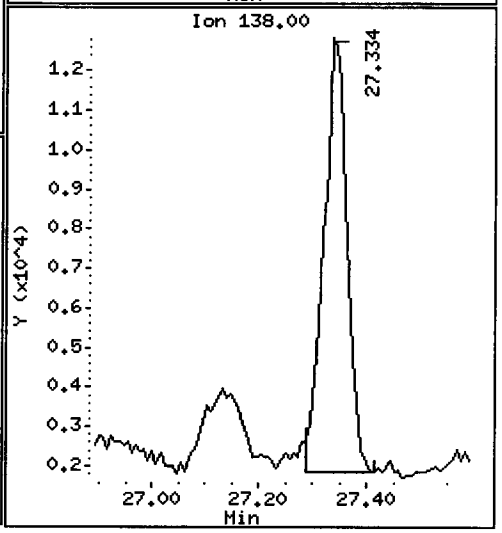


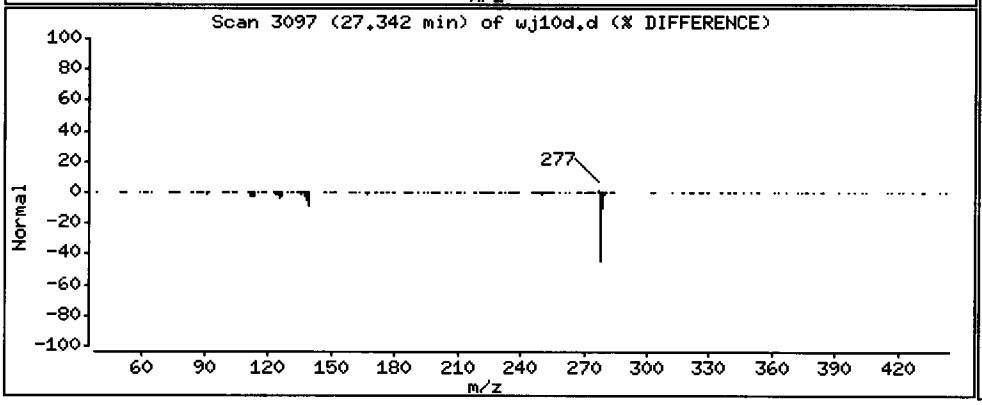












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

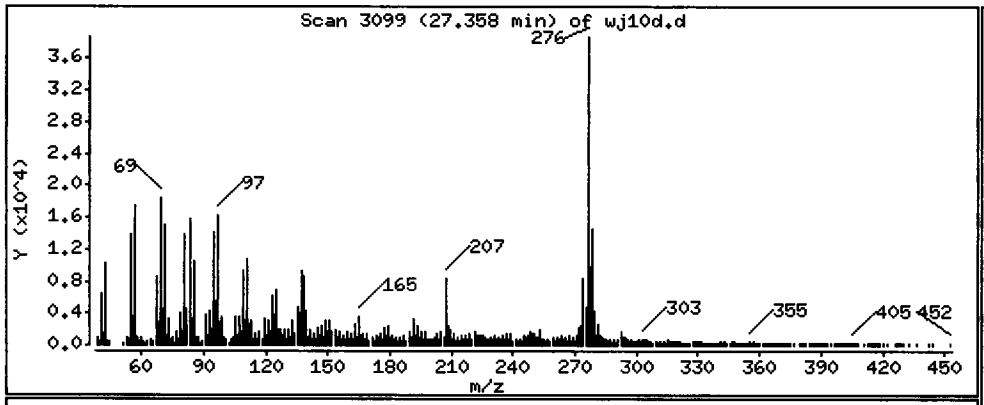
Operator: VTS/YZ

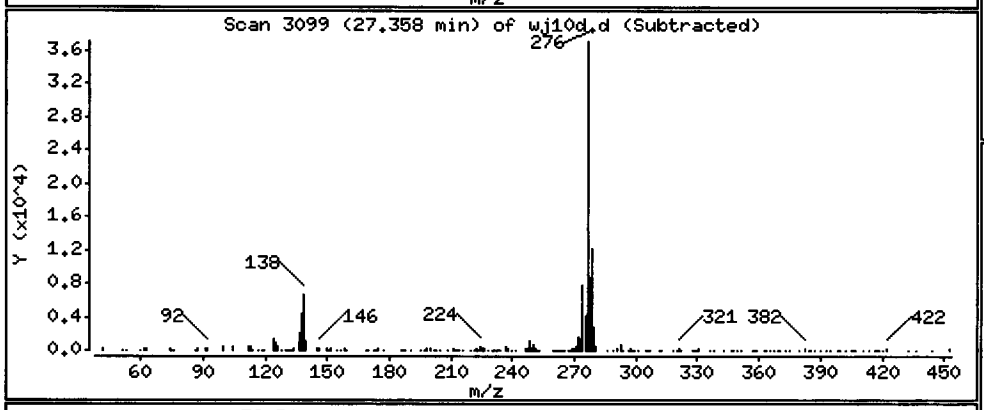
Column phase: ZB-5msi

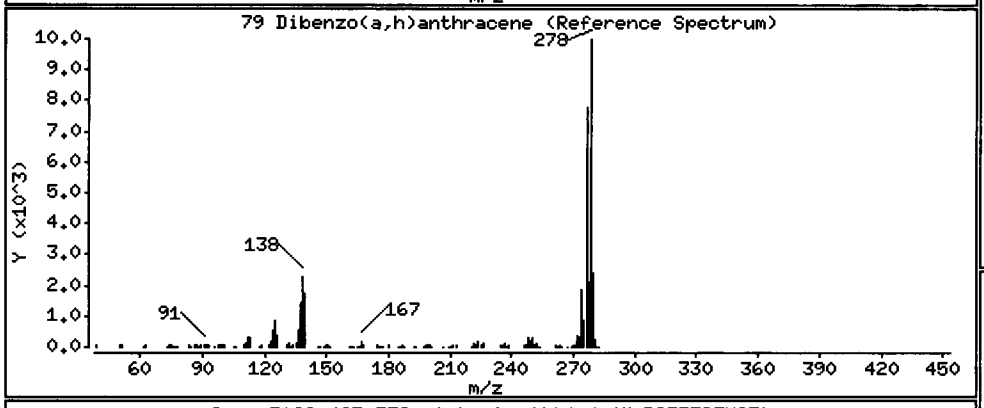
Column diameter: 0.25

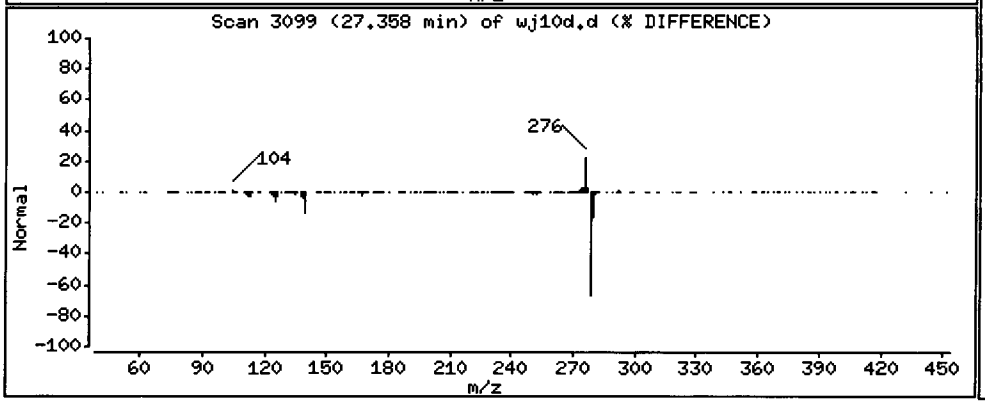
79 Dibenzo(a,h)anthracene

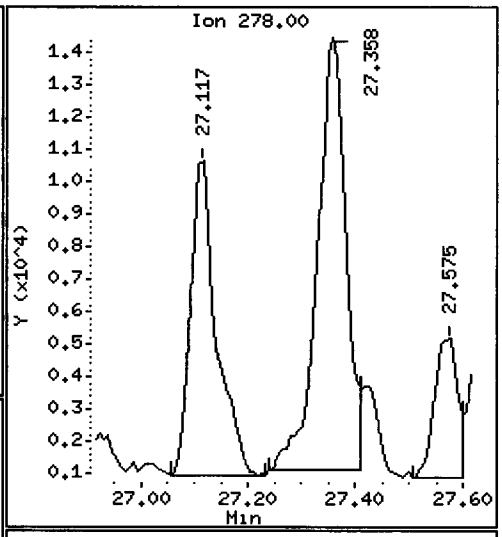
Concentration: 999.2 ug/kg

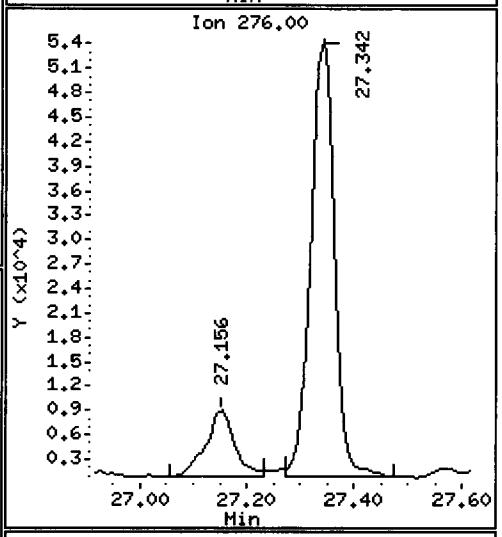


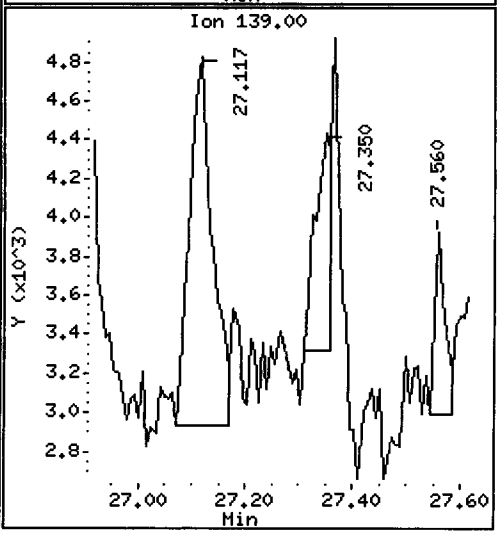












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

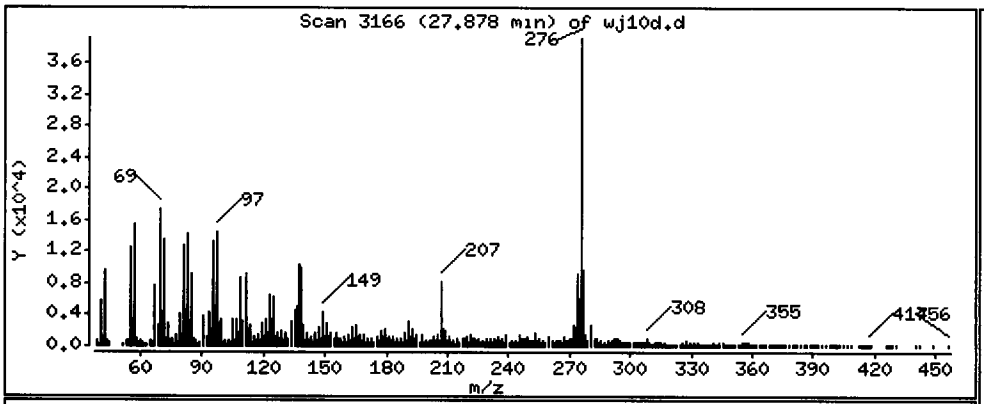
Operator: VTS/YZ

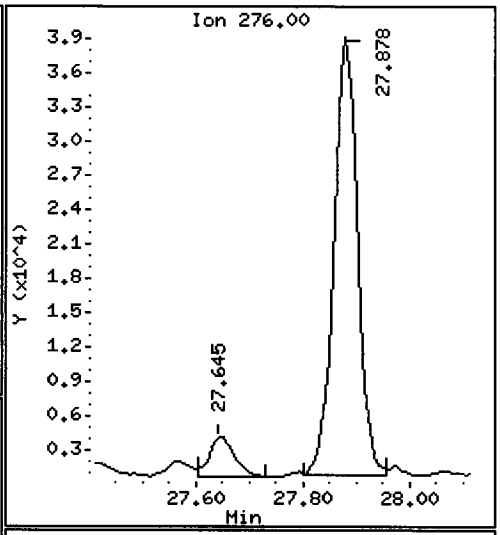
Column phase: ZB-5msi

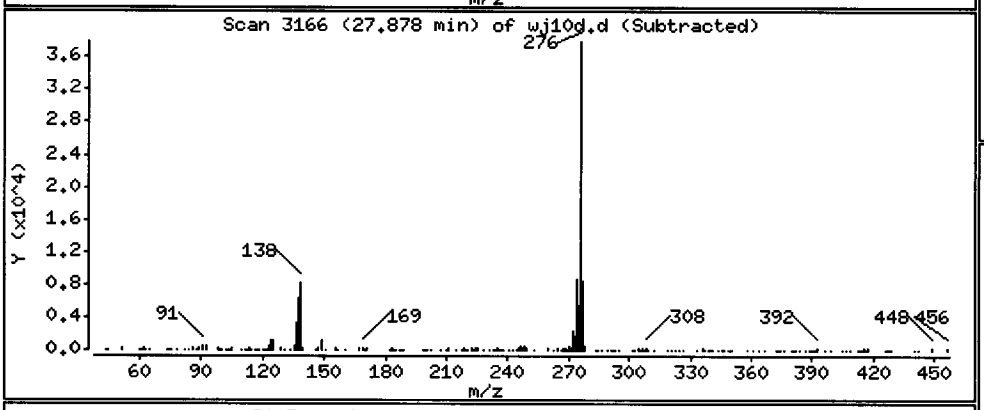
Column diameter: 0.25

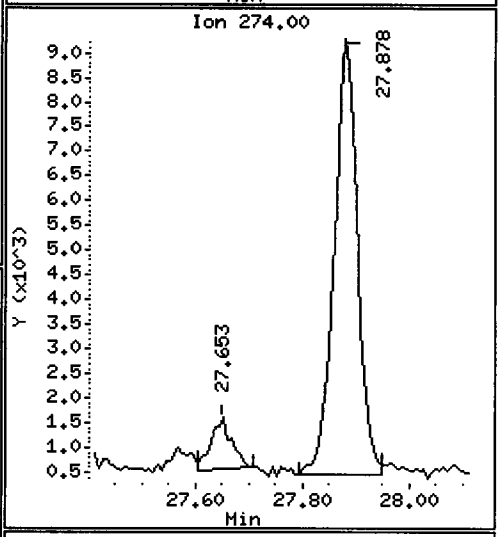
80 Benzo(g,h,i)perylene

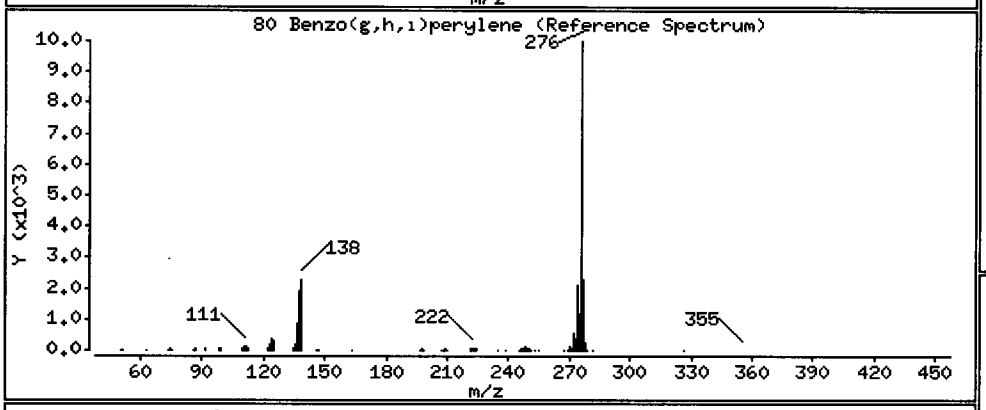
Concentration: 2221 ug/kg

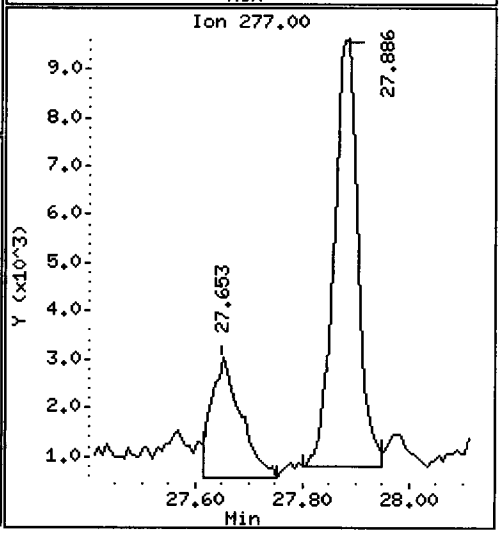


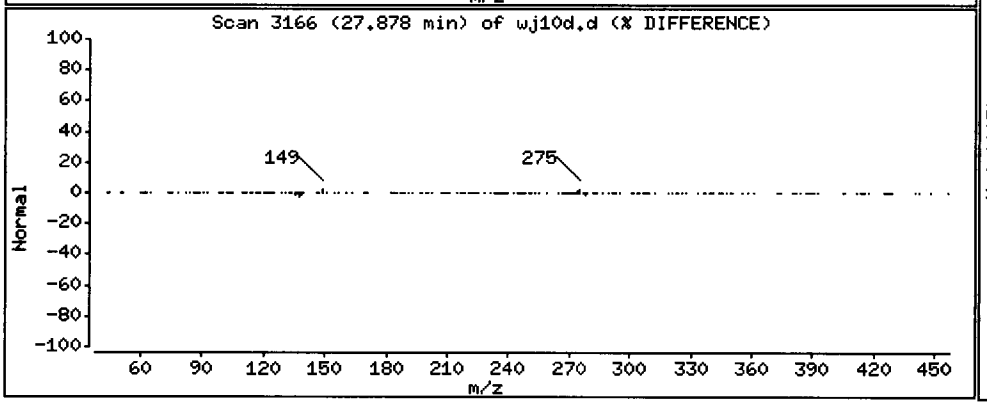












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

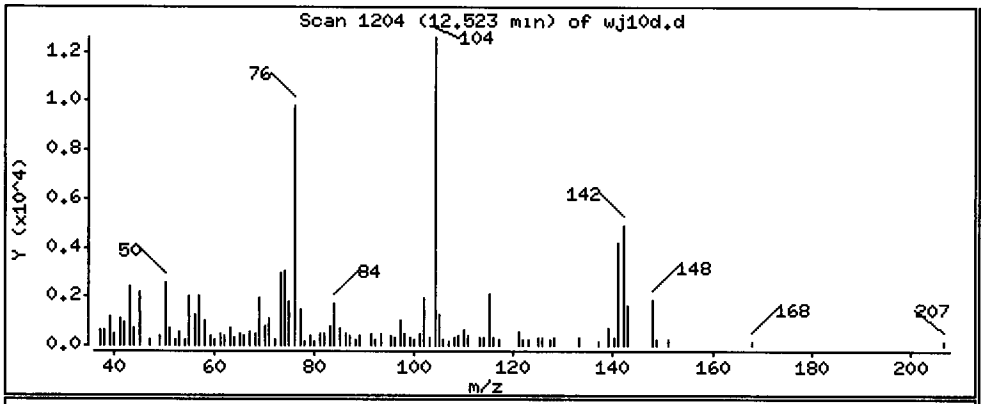
Operator: VTS/YZ

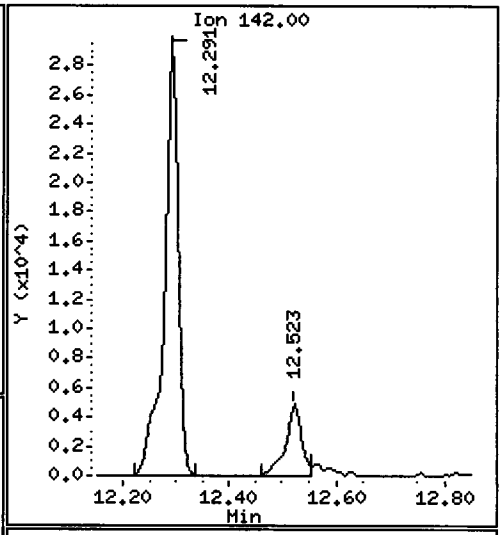
Column phase: ZB-5msi

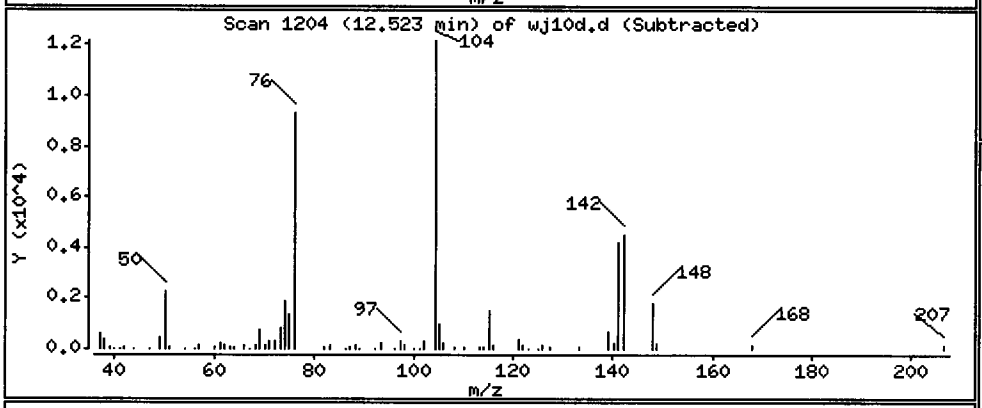
Column diameter: 0.25

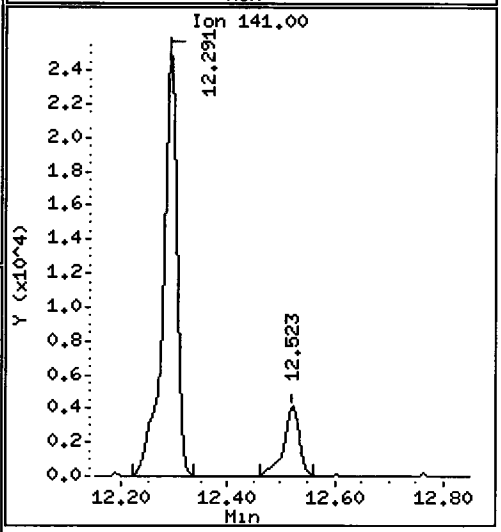
105 1-methylnaphthalene

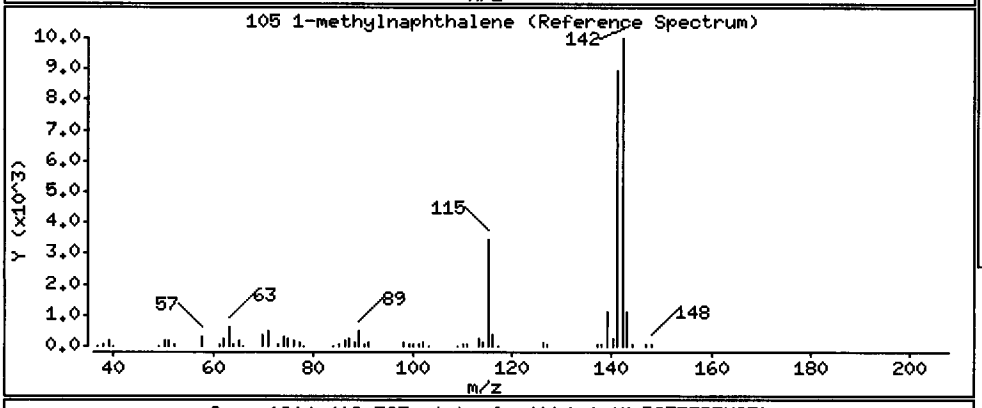
Concentration: 297.0 ug/kg

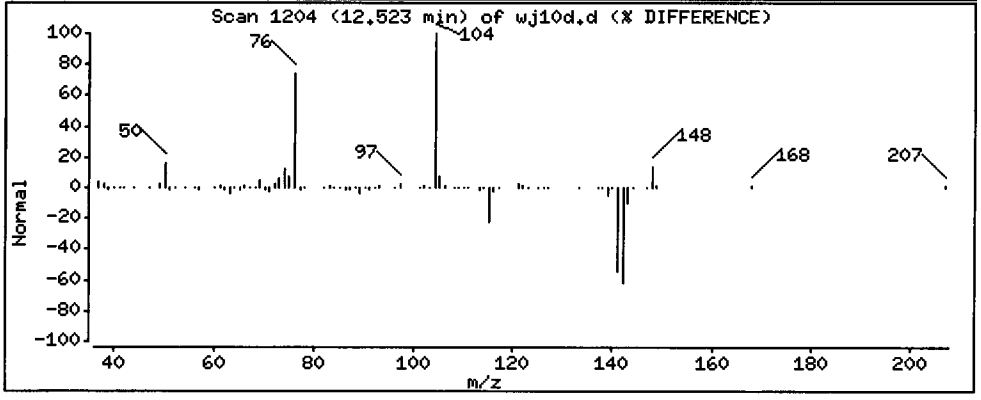












Data File: /chem1/nt10.i/20130406.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

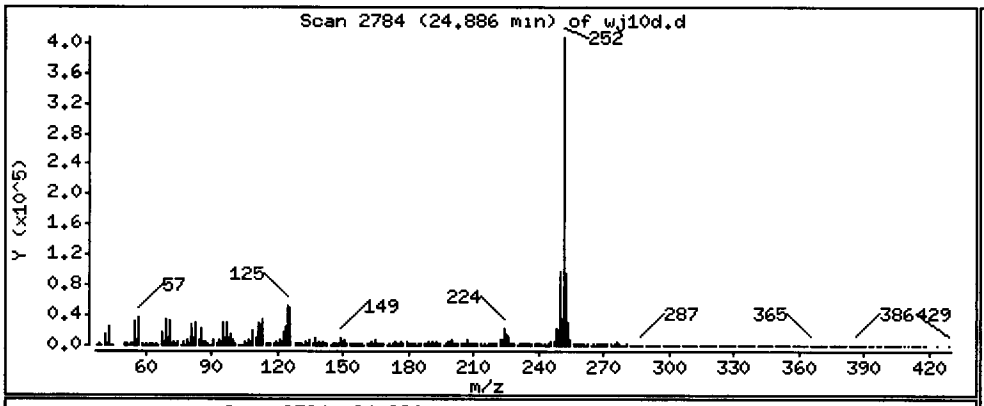
Operator: VTS/YZ

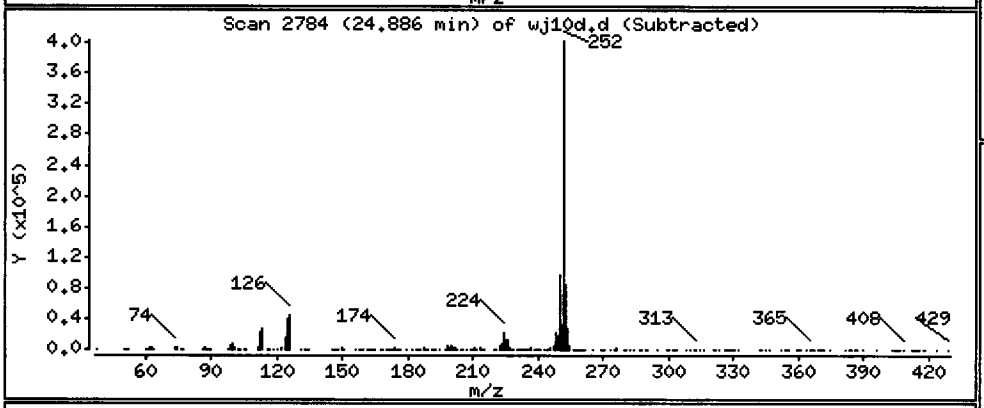
Column phase: ZB-5msi

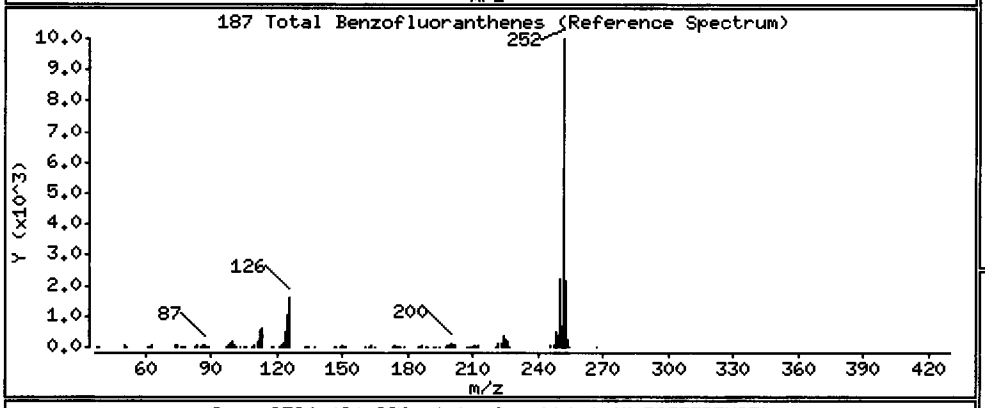
Column diameter: 0.25

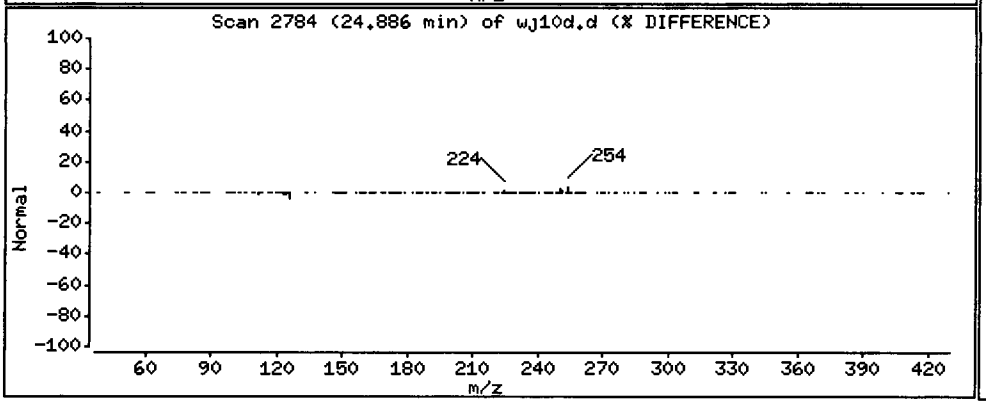
187 Total Benzofluoranthenes

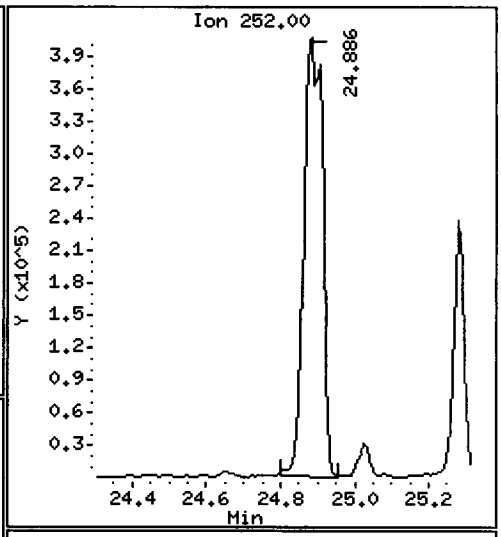
Concentration: 24690 ug/kg

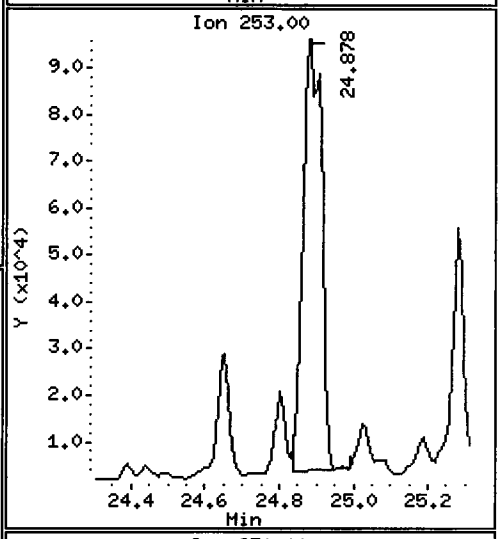


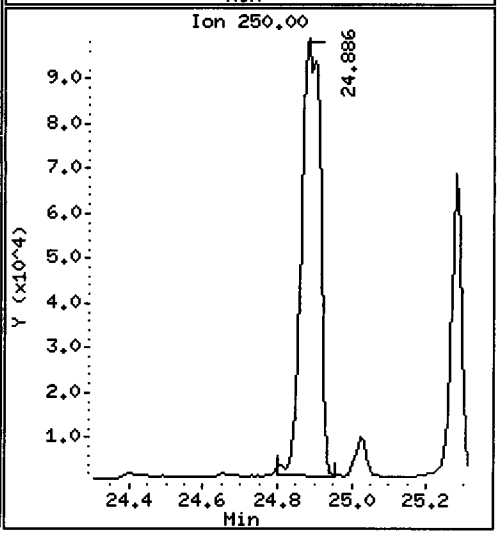






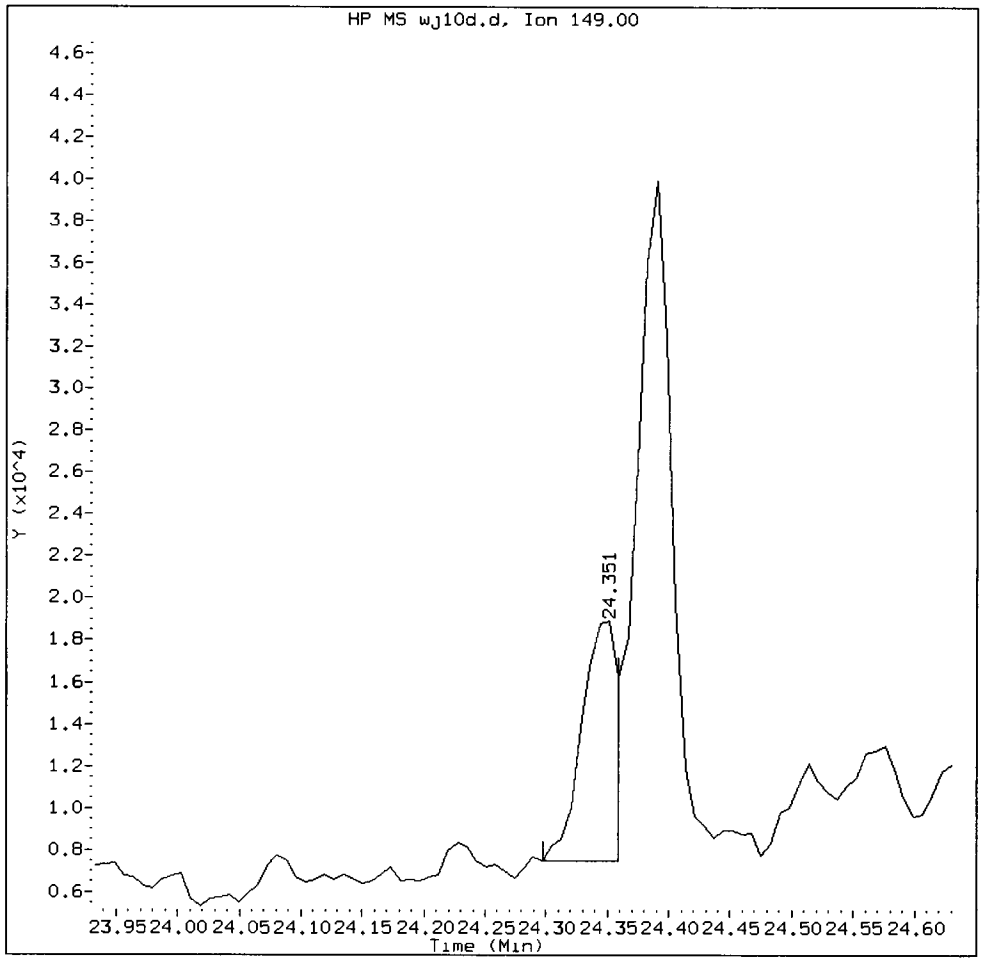






WJ10D, /chem1/nt10.i/20130406.b/wj10d.d

Di-n-octylphthalate Amount: 0.48 Area: 23829



MANUAL INTEGRATION for Di-n-octylphthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 4/16/13

CO-ELUTION SUMMARY FOR FILE - wj10d.d

Lab ID: WJ10D, Method: ABN.m, Instrument: nt10.i, Date: 06-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 4/8/13 Analysis: ABN / SIM ABN Analyst: YZ

GC Program: ABN2 Column No: 247358 Column Type: ZB5 ms 31

Instrument Tune (.U or .CT.): 130228.U EM Voltage: 1625

Calibration File: DF0408 Curve Date: 04/05/13 Injection Vol.: 1 uL

IS/SS	Ical/Ccal	LCS/ICV
1978-2	2036-2 2050-1,2	
	2064-2 1988-1	
	2068-2	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130409.b

	Time	Filename	LabID	ClientId	DF											
1	1156	df0409.d	DFTPP	DFTPP	1	NO ISTDS FOUND										
2	1210	cc0409.d	CC0409		1	7.95	47316	10.57	170847	14.42	107094	17.66	182140	22 89	200794	25.18	186300	24.10	251719
3	1247	wj10d60 d	WJ10D	SD-CB-01-201	60	7.94	46932	10.57	178473	14 41	105776	17.66	178044	22.89	181143	25.17	178382	24.10	231831

YZ 4/10/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20130409.b

Instrument: nt10.i Date: 09-APR-2013 Method: ABN.m

INITIAL CAL: 25-JAN-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 09-APR-2013

Compound	%D
Hexachlorocyclopentadiene	-24.3
Retene	-100.0

Data File: /chem1/nt10.i/20130409.b/df0409.d

Date : 09-APR-2013 11:56

Client ID: DFTPP

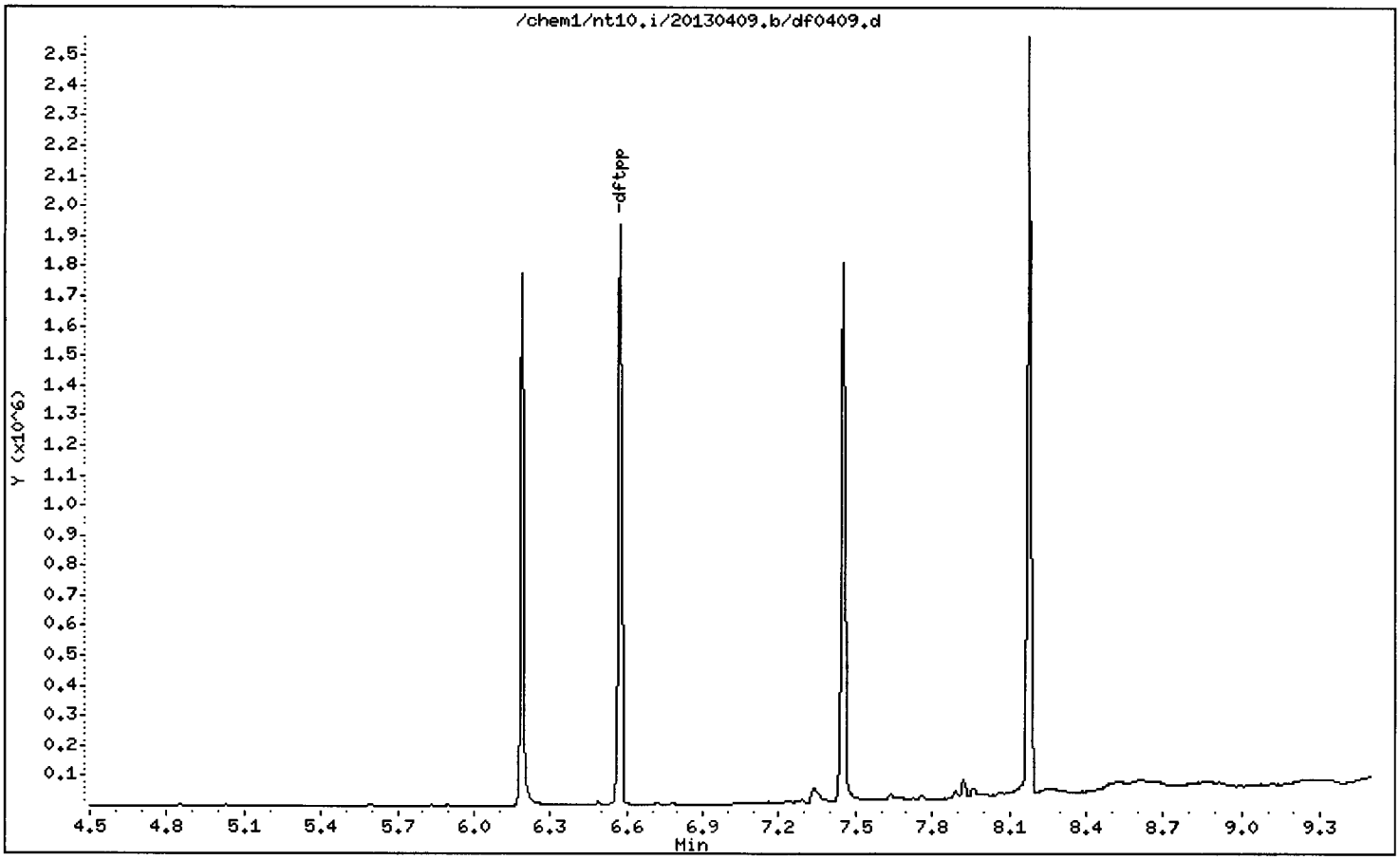
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130409.b/df0409.d

Date : 09-APR-2013 11:56

Client ID: DFTPP

Instrument: nt10.i

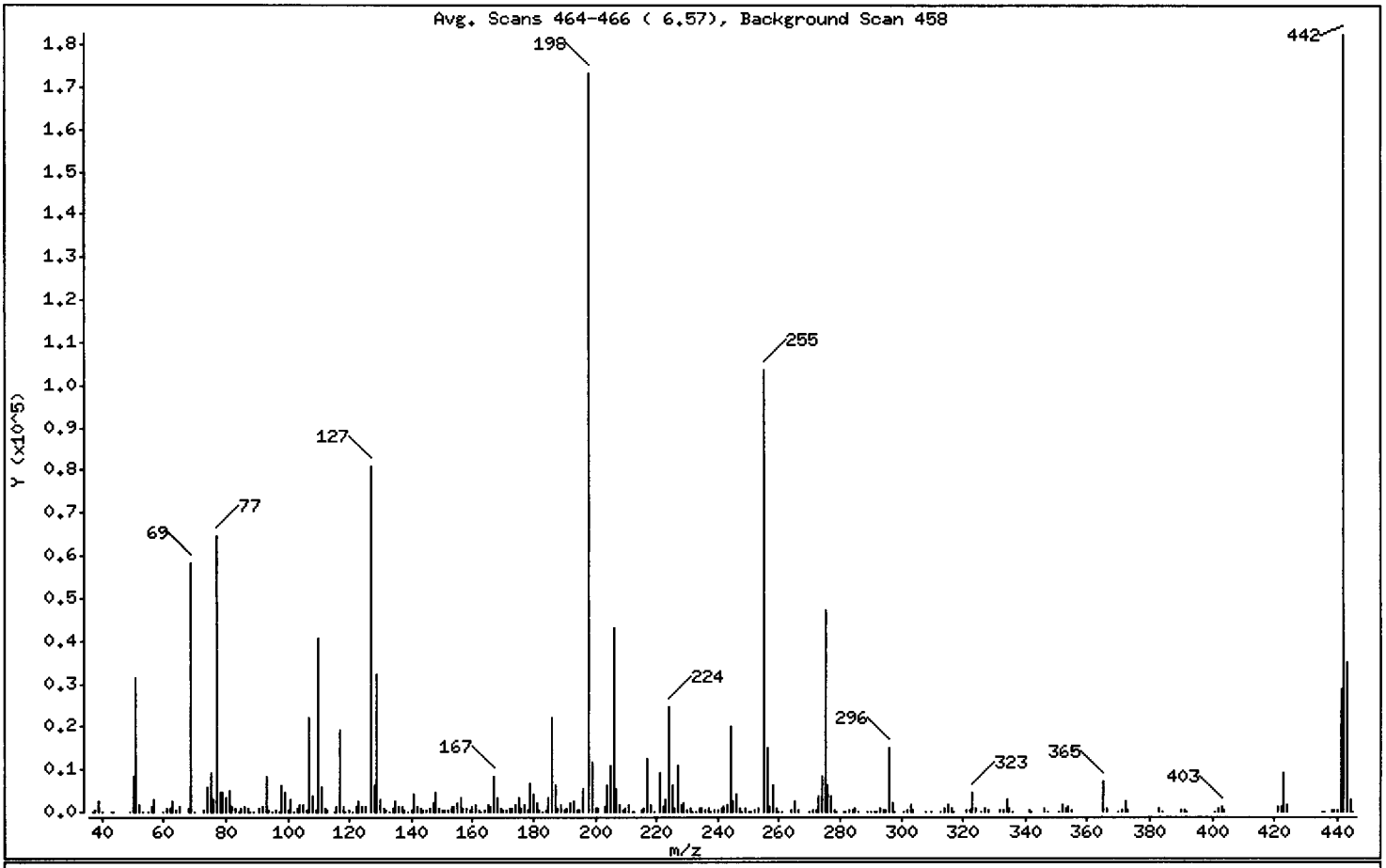
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	18.26
68	Less than 2.00% of mass 69	0.44 (1.32)
69	Mass 69 relative abundance	33.60
70	Less than 2.00% of mass 69	0.09 (0.27)
127	10.00 - 80.00% of mass 198	46.61
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 60.00% of mass 198	27.26
365	Greater than 1.00% of mass 198	4.12
441	0.01 - 24.00% of mass 442	16.68 (15.85)
442	50.00 - 200.00% of mass 198	105.24
443	15.00 - 24.00% of mass 442	20.44 (19.42)

Date : 09-APR-2013 11:56

Client ID: DFTPP Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5ms1 Column diameter: 0.25

Data File: df0409.d
Spectrum: Avg. Scans 464-466 (6.57), Background Scan 458
Location of Maximum: 442.00
Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	122	128.00	6133	205.00	10730	291.00	59
38.00	498	129.00	32104	206.00	43400	292.00	164
39.00	2507	130.00	2778	207.00	5621	293.00	932
40.00	112	131.00	638	208.00	1596	294.00	229
43.00	42	132.00	223	209.00	540	295.00	333
44.00	54	133.00	208	210.00	773	296.00	14929
49.00	199	134.00	951	211.00	1742	297.00	2105
50.00	8516	135.00	2439	212.00	170	298.00	61
51.00	31664	136.00	1051	213.00	176	301.00	157
52.00	1830	137.00	1225	215.00	506	302.00	255
53.00	51	138.00	351	216.00	1023	303.00	1596
55.00	51	139.00	168	217.00	12474	304.00	413
56.00	1236	140.00	428	218.00	1646	308.00	121
57.00	3060	141.00	4094	219.00	197	310.00	208
60.00	60	142.00	1326	221.00	9117	313.00	117
61.00	683	143.00	957	222.00	1281	314.00	699
62.00	763	144.00	219	223.00	2882	315.00	1728
63.00	2322	145.00	241	224.00	24904	316.00	835
64.00	310	146.00	726	225.00	6238	317.00	118
65.00	1102	147.00	1930	226.00	711	321.00	464
68.00	767	148.00	4460	227.00	11049	322.00	262
69.00	58272	149.00	956	228.00	1626	323.00	4488
70.00	156	150.00	237	229.00	2164	324.00	804
73.00	427	151.00	510	230.00	383	326.00	56
74.00	5766	152.00	320	231.00	875	327.00	934
75.00	9161	153.00	1225	232.00	138	328.00	493
76.00	3028	154.00	1071	233.00	179	332.00	370
77.00	64720	155.00	2254	234.00	770	333.00	499
78.00	4413	156.00	3269	235.00	807	334.00	3012
79.00	4465	157.00	633	236.00	535	335.00	779
80.00	3487	158.00	790	237.00	882	336.00	50
81.00	4890	159.00	613	238.00	106	341.00	486
82.00	1130	160.00	1256	239.00	496	342.00	61
83.00	885	161.00	1856	240.00	342	346.00	1013
84.00	13	162.00	493	241.00	711	347.00	120

Data File: /chem1/nt10.i/20130409.b/df0409.d

Date : 09-APR-2013 11:56

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0409.d
Spectrum: Avg. Scans 464-466 (6.57), Background Scan 458
Location of Maximum: 442.00
Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	699	163.00	143	242.00	1442	351.00	65
86.00	1352	164.00	282	243.00	1542	352.00	1542
87.00	654	165.00	1702	244.00	20024	353.00	1025
88.00	207	166.00	1304	245.00	2675	354.00	1414
89.00	74	167.00	8218	246.00	4088	355.00	288
91.00	1026	168.00	3269	247.00	791	365.00	7145
92.00	1295	169.00	630	248.00	155	366.00	952
93.00	8360	170.00	256	249.00	777	370.00	75
94.00	568	171.00	375	250.00	130	371.00	388
95.00	159	172.00	791	251.00	188	372.00	2480
96.00	275	173.00	996	252.00	217	373.00	590
97.00	26	174.00	1644	253.00	707	383.00	668
98.00	6134	175.00	3163	255.00	103448	384.00	152
99.00	4753	176.00	1033	256.00	15115	390.00	348
100.00	436	177.00	1508	257.00	1124	391.00	212
101.00	2819	178.00	564	258.00	6343	392.00	197
102.00	208	179.00	6527	259.00	991	401.00	122
103.00	894	180.00	4118	260.00	196	402.00	1001
104.00	1774	181.00	2000	261.00	200	403.00	1422
105.00	1745	182.00	342	264.00	290	404.00	523
106.00	602	183.00	170	265.00	2570	421.00	1348
107.00	22136	184.00	520	266.00	432	422.00	1256
108.00	3727	185.00	3154	270.00	53	423.00	9144
109.00	510	186.00	22408	271.00	295	424.00	1810
110.00	40808	187.00	6316	272.00	334	425.00	185
111.00	6034	188.00	699	273.00	3590	435.00	53
112.00	844	189.00	1529	274.00	8585	436.00	72
113.00	251	190.00	263	275.00	47272	437.00	193
115.00	193	191.00	806	276.00	6210	438.00	218
116.00	1233	192.00	2011	277.00	3914	439.00	319
117.00	19136	193.00	2343	278.00	610	440.00	333
118.00	1217	194.00	515	279.00	57	441.00	28936
119.00	193	195.00	435	281.00	203	442.00	182528
120.00	316	196.00	5489	282.00	121	443.00	35456
121.00	129	198.00	173440	283.00	488	444.00	3017

Data File: /chem1/nt10.i/20130409.b/df0409.d

Date : 09-APR-2013 11:56

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

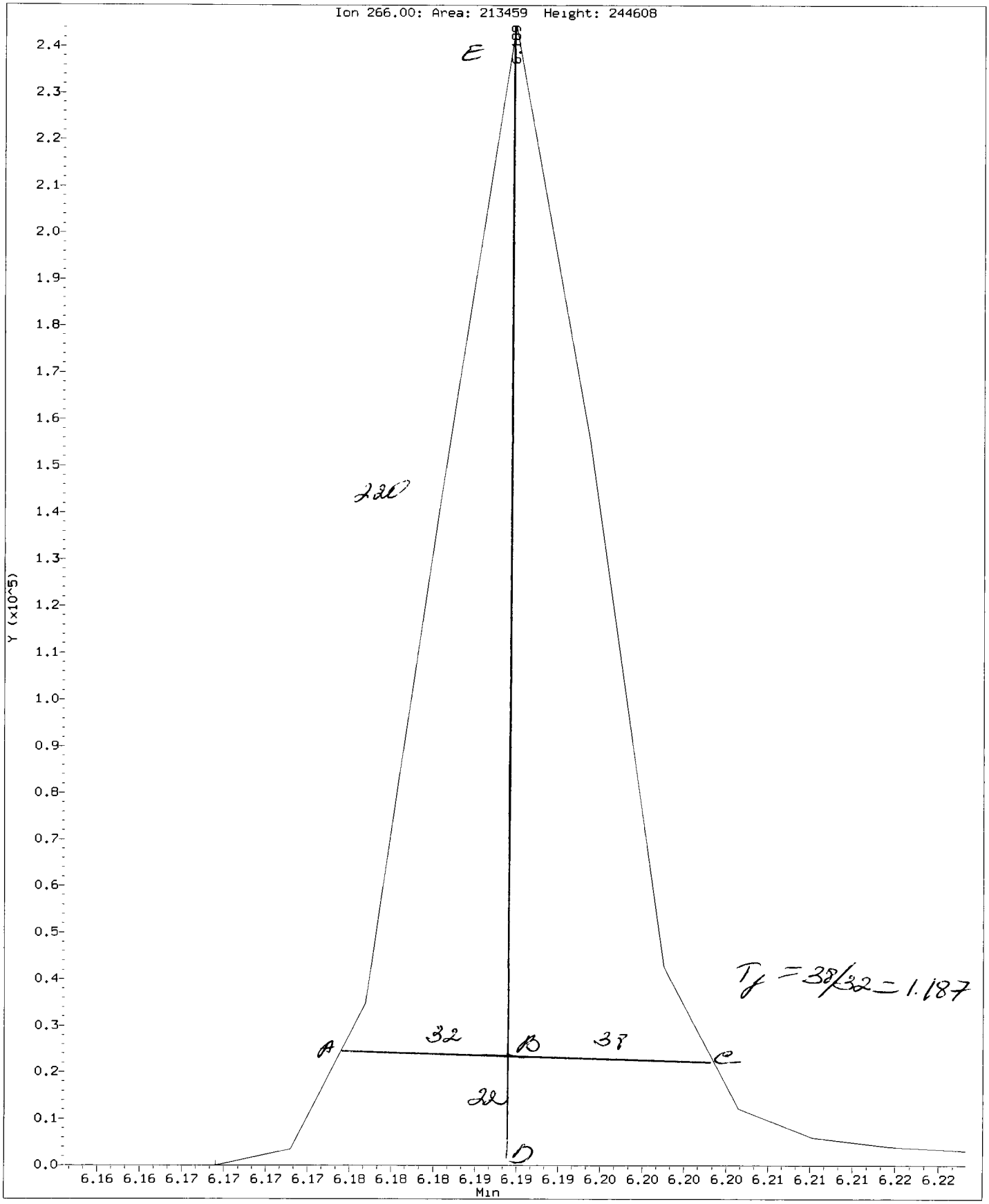
Column diameter: 0.25

Data File: df0409.d
Spectrum: Avg. Scans 464-466 (6.57), Background Scan 458
Location of Maximum: 442.00
Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	1449	199.00	11857	284.00	339	445.00	185
123.00	2349	200.00	938	285.00	707		
124.00	1145	201.00	891	286.00	51		
125.00	1180	203.00	1419	289.00	196		
127.00	80848	204.00	6381	290.00	55		

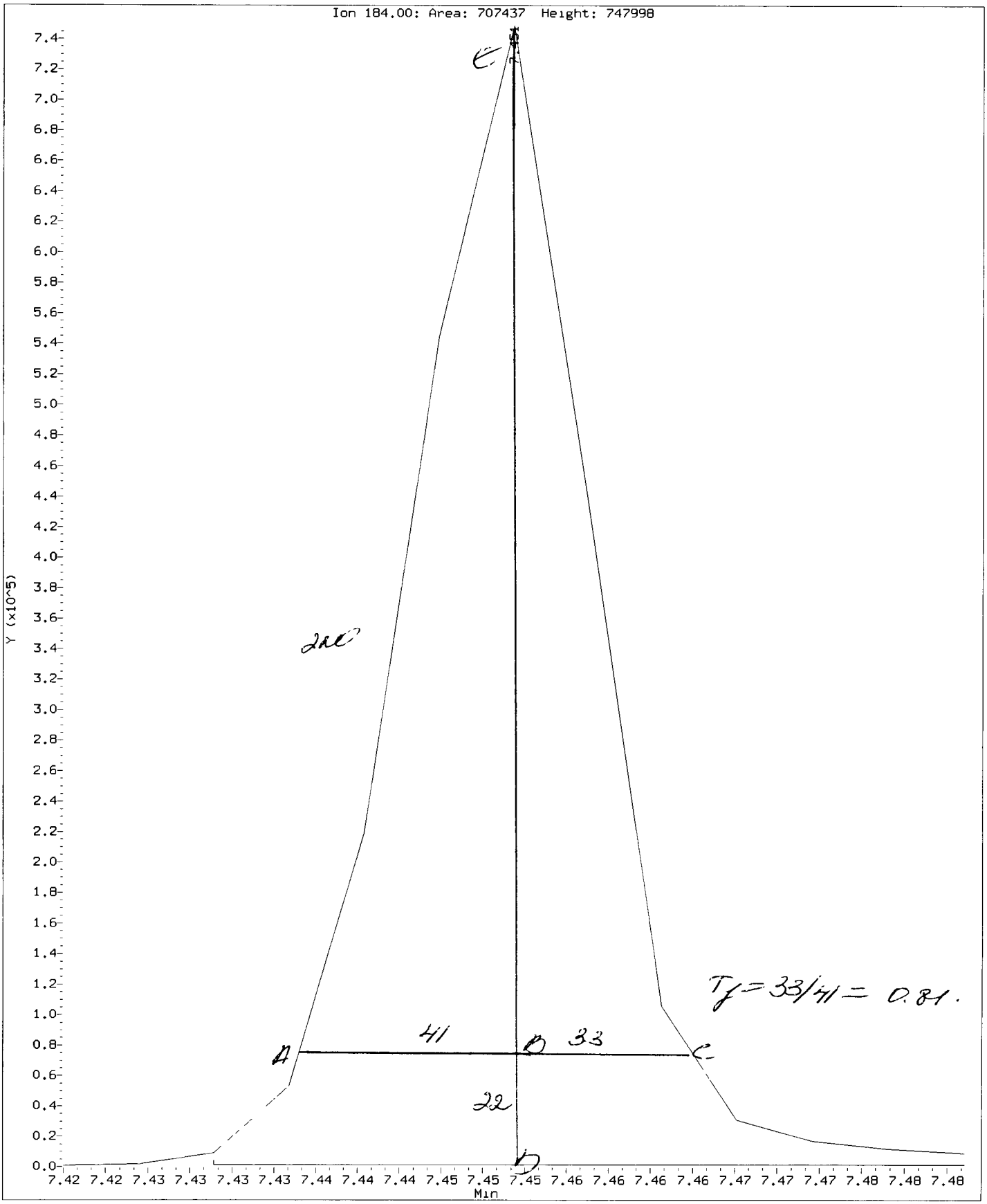
Data File: /chem1/nt10.1/20130409.b/ddt.b/df0409.d
Injection Date: 09-APR-2013 11:56
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.1/20130409.b/ddt.b/df0409.d
Injection Date: 09-APR-2013 11:56
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130409.b/ddt.b/df0409.d
Method: /chem1/nt10.i/20130409.b/ddt.b/sw846ddt.m
Analysis Date: 09-APR-2013 11:56

ARI ID: DFTPP
Misc: 11-
Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.189	213459
Benzidine	7.451	707437
4,4'-DDE	7.638	2159
4,4'-DDD	7.922	9437
4,4'-DDT	8.179	460163

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 2159 + 9437) * 100}{(\ 2159 + 9437 + 460163)}$$

DDT Percent Breakdown = 2.5 %

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 09-APR-2013 12:10
Lab File ID: cc0409.d Init. Cal. Date(s): 25-JAN-2013 25-JAN-2013
Analysis Type: Init. Cal. Times: 12:59 17:16
Lab Sample ID: CC0409 Quant Type: ISTD
Method: /chem1/nt10.i/20130409.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	1.27898	1.32504	1.32504	0.010	3.60119	20.00000	Averaged	
$ 2 Phenol-d5	1.58709	1.70300	1.70300	0.010	7.30322	20.00000	Averaged	
3 Phenol	1.67046	1.82747	1.82747	0.100	9.39867	20.00000	Averaged	
$ 5 2-Chlorophenol-d4	1.37422	1.29073	1.29073	0.010	-6.07567	20.00000	Averaged	
4 Bis(2-Chloroethyl)ether	1.27098	1.20774	1.20774	0.700	-4.97522	20.00000	Averaged	
6 2-Chlorophenol	1.45366	1.37784	1.37784	0.800	-5.21590	20.00000	Averaged	
7 1,3-Dichlorobenzene	1.58180	1.42853	1.42853	0.010	-9.68923	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.56627	1.37555	1.37555	0.010	-12.17689	20.00000	Averaged	
$ 10 1,2-Dichlorobenzene-d4	1.00989	0.92499	0.92499	0.010	-8.40710	20.00000	Averaged	
12 1,2-Dichlorobenzene	1.50604	1.34957	1.34957	0.010	-10.38954	20.00000	Averaged	
11 Benzyl alcohol	0.79941	0.82407	0.82407	0.010	3.08472	20.00000	Averaged	
14 2,2'-oxybis(1-Chloropropane	0.44716	0.41838	0.41838	0.010	-6.43678	20.00000	Averaged	
13 2-Methylphenol	1.26098	1.32713	1.32713	0.700	5.24587	20.00000	Averaged	
17 Hexachloroethane	0.61907	0.58617	0.58617	0.300	-5.31524	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.84248	0.83349	0.83349	0.500	-1.06706	20.00000	Averaged	
15 4-Methylphenol	1.31137	1.36777	1.36777	0.600	4.30130	20.00000	Averaged	
$ 18 Nitrobenzene-d5	0.36919	0.38385	0.38385	0.010	3.97078	20.00000	Averaged	
19 Nitrobenzene	0.35004	0.34659	0.34659	0.200	-0.98434	20.00000	Averaged	
20 Isophorone	0.61012	0.64478	0.64478	0.300	5.68130	20.00000	Averaged	
21 2-Nitrophenol	0.20568	0.21071	0.21071	0.100	2.44788	20.00000	Averaged	
22 2,4-Dimethylphenol	0.35058	0.37589	0.37589	0.200	7.21820	20.00000	Averaged	
23 Bis(2-Chloroethoxy)methane	0.38425	0.38898	0.38898	0.050	1.23229	20.00000	Averaged	
24 Benzoic acid	18.99206	20.00000	0.28437	0.010	-5.03971	20.00000	Quadratic	
25 2,4-Dichlorophenol	0.30640	0.31011	0.31011	0.100	1.21244	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.34870	0.37997	0.37997	0.010	8.96889	20.00000	Averaged	
28 Naphthalene	1.04083	0.96295	0.96295	0.100	-7.48306	20.00000	Averaged	
29 4-Chloroaniline	0.41889	0.44946	0.44946	0.010	7.29797	20.00000	Averaged	
30 Hexachlorobutadiene	0.21732	0.20744	0.20744	0.010	-4.54521	20.00000	Averaged	
31 4-Chloro-3-methylphenol	0.29615	0.33402	0.33402	0.200	12.78898	20.00000	Averaged	
32 2-Methylnaphthalene	0.68720	0.67578	0.67578	0.300	-1.66164	20.00000	Averaged	
33 Hexachlorocyclopentadiene	0.45113	0.34163	0.34163	0.001	-24.27084	20.00000	Averaged	<-
34 2,4,6-Trichlorophenol	0.40085	0.41072	0.41072	0.200	2.46276	20.00000	Averaged	
35 2,4,5-Trichlorophenol	0.42597	0.43982	0.43982	0.200	3.25218	20.00000	Averaged	
$ 36 2-Fluorobiphenyl	1.37225	1.29896	1.29896	0.010	-5.34131	20.00000	Averaged	
37 2-Chloronaphthalene	1.10490	1.03984	1.03984	0.700	-5.88840	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 09-APR-2013 12:10
Lab File ID: cc0409.d Init. Cal. Date(s): 25-JAN-2013 25-JAN-2013
Analysis Type: Init. Cal. Times: 12:59 17:16
Lab Sample ID: CC0409 Quant Type: ISTD
Method: /chem1/nt10.i/20130409.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
38 2-Nitroaniline	0.25914	0.29636	0.29636	0.010	14.36246	20.00000	Averaged
39 Dimethylphthalate	1.20981	1.13848	1.13848	0.010	-5.89595	20.00000	Averaged
40 Acenaphthylene	1.80186	1.71010	1.71010	0.900	-5.09263	20.00000	Averaged
41 2,6-Dinitrotoluene	0.27639	0.27592	0.27592	0.100	-0.16891	20.00000	Averaged
43 3-Nitroaniline	0.25523	0.27170	0.27170	0.010	6.45052	20.00000	Averaged
44 Acenaphthene	1.10485	1.04944	1.04944	0.100	-5.01569	20.00000	Averaged
45 2,4-Dinitrophenol	16.19993	20.00000	0.19489	0.030	-19.00036	20.00000	Quadratic
46 Dibenzofuran	1.53658	1.53380	1.53380	0.800	-0.18114	20.00000	Averaged
47 4-Nitrophenol	9.84755	10.00000	0.17127	0.010	-1.52453	20.00000	Quadratic
48 2,4-Dinitrotoluene	0.37372	0.37374	0.37374	0.200	0.00549	20.00000	Averaged
50 Diethylphthalate	1.26733	1.17982	1.17982	0.010	-6.90441	20.00000	Averaged
49 Fluorene	1.30516	1.23311	1.23311	0.100	-5.52061	20.00000	Averaged
51 4-Chlorophenyl-phenylether	0.60824	0.56460	0.56460	0.100	-7.17511	20.00000	Averaged
52 4-Nitroaniline	0.26944	0.28560	0.28560	0.010	5.99526	20.00000	Averaged
53 4,6-Dinitro-2-methylphenol	0.16018	0.17290	0.17290	0.001	7.93906	20.00000	Averaged
54 N-Nitrosodiphenylamine	0.48183	0.45136	0.45136	0.010	-6.32373	20.00000	Averaged
$ 55 2,4,6-Tribromophenol	0.25526	0.21977	0.21977	0.010	-13.90351	20.00000	Averaged
56 4-Bromophenyl-phenylether	0.22313	0.21559	0.21559	0.100	-3.37741	20.00000	Averaged
57 Hexachlorobenzene	0.28001	0.25676	0.25676	0.100	-8.30351	20.00000	Averaged
58 Pentachlorophenol	0.18673	0.17276	0.17276	0.010	-7.47924	20.00000	Averaged
60 Phenanthrene	1.06632	1.01104	1.01104	0.700	-5.18392	20.00000	Averaged
61 Anthracene	1.07365	1.05292	1.05292	0.700	-1.93096	20.00000	Averaged
62 Carbazole	0.71710	0.68267	0.68267	0.010	-4.80226	20.00000	Averaged
63 Di-n-butylphthalate	1.14571	1.15733	1.15733	0.010	1.01425	20.00000	Averaged
64 Fluoranthene	1.22799	1.24541	1.24541	0.600	1.41811	20.00000	Averaged
65 Pyrene	1.13938	1.15371	1.15371	0.600	1.25812	20.00000	Averaged
$ 66 Terphenyl-d14	0.76828	0.73164	0.73164	0.010	-4.76961	20.00000	Averaged
67 Butylbenzylphthalate	0.43214	0.43203	0.43203	0.010	-0.02546	20.00000	Averaged
68 Benzo(a)anthracene	1.11613	1.04364	1.04364	0.700	-6.49454	20.00000	Averaged
70 3,3'-Dichlorobenzidine	0.46632	0.43122	0.43122	0.010	-7.52723	20.00000	Averaged
71 Chrysene	1.01092	0.92092	0.92092	0.700	-8.90227	20.00000	Averaged
72 bis(2-Ethylhexyl)phthalate	0.52819	0.48072	0.48072	0.010	-8.98797	20.00000	Averaged
73 Di-n-octylphthalate	0.97573	0.83237	0.83237	0.010	-14.69278	20.00000	Averaged
74 Benzo(b)fluoranthene	1.15936	1.07593	1.07593	0.700	-7.19585	20.00000	Averaged
75 Benzo(k)fluoranthene	1.25249	1.27149	1.27149	0.700	1.51733	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 09-APR-2013 12:10
Lab File ID: cc0409.d Init. Cal. Date(s): 25-JAN-2013 25-JAN-2013
Analysis Type: Init. Cal. Times: 12:59 17:16
Lab Sample ID: CC0409 Quant Type: ISTD
Method: /chem1/nt10.i/20130409.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
76 Benzo(a)pyrene	1.00265	0.96699	0.96699	0.700	-3.55671	20.00000	Averaged	
78 Indeno(1,2,3-cd)pyrene	1.23647	1.16340	1.16340	0.500	-5.90963	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	0.97912	0.91248	0.91248	0.400	-6.80606	20.00000	Averaged	
80 Benzo(g,h,i)perylene	1.06086	0.95021	0.95021	0.500	-10.42955	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.76098	0.74057	0.74057	0.010	-2.68231	20.00000	Averaged	
91 Aniline	3.60472	3.86498	3.86498	0.010	7.21982	20.00000	Averaged	
93 Benzidine	8.29190	10.00000	0.15311	0.010	-17.08102	20.00000	Quadratic	
103 Pyridine	0.64909	0.65698	0.65698	0.010	1.21469	20.00000	Averaged	
105 1-methylnaphthalene	0.63035	0.61721	0.61721	0.010	-2.08528	20.00000	Averaged	
111 Azobenzene (1,2-DP-Hydrazin	1.14954	1.09377	1.09377	0.010	-4.85091	20.00000	Averaged	
187 Total Benzofluoranthenes	1.14121	1.08640	1.08640	0.010	-4.80313	20.00000	Averaged	
99 Perylene	1.15229	1.08048	1.08048	0.010	-6.23197	20.00000	Averaged	
98 Retene	++++	++++	++++	0.010	++++	20.00000	Quadratic	<-
120 2,3,4,6-Tetrachlorophenol	0.37257	0.36572	0.36572	0.010	-1.83894	20.00000	Averaged	

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 4/10/13

Data file : /chem1/nt10.i/20130409.b/cc0409.d
Lab Smp Id: CC0409
Inj Date : 09-APR-2013 12:10
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : CC0409
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130409.b/ABN.m
Meth Date : 10-Apr-2013 09:36 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	5.689	5.689	(0.716)	78370	5.00000	5.180
$ 2	Phenol-d5	99	7.413	7.413	(0.933)	100724	5.00000	5.365
3	Phenol	94	7.436	7.436	(0.936)	108085	5.00000	5.470
$ 5	2-Chlorophenol-d4	132	7.583	7.583	(0.954)	76340	5.00000	4.696
4	Bis(2-Chloroethyl)ether	93	7.529	7.529	(0.947)	71432	5.00000	4.751
6	2-Chlorophenol	128	7.614	7.614	(0.958)	81492	5.00000	4.739
7	1,3-Dichlorobenzene	146	7.869	7.869	(0.990)	84491	5.00000	4.516
* 8	1,4-Dichlorobenzene-d4	152	7.946	7.946	(1.000)	47316	4.00000	
9	1,4-Dichlorobenzene	146	7.978	7.978	(1.004)	81357	5.00000	4.391
$ 10	1,2-Dichlorobenzene-d4	152	8.319	8.319	(1.047)	54708	5.00000	4.580
12	1,2-Dichlorobenzene	146	8.342	8.342	(1.050)	79820	5.00000	4.481
11	Benzyl alcohol	108	8.296	8.296	(1.044)	48739	5.00000	5.154
14	2,2'-oxybis(1-Chloropropane)	121	8.622	8.622	(1.085)	24745	5.00000	4.678
13	2-Methylphenol	108	8.599	8.599	(1.082)	78493	5.00000	5.262
17	Hexachloroethane	117	8.963	8.963	(1.128)	34668	5.00000	4.734
16	N-Nitroso-di-n-propylamine	70	8.894	8.894	(1.119)	49297	5.00000	4.947
15	4-Methylphenol	108	8.894	8.894	(1.119)	80897	5.00000	5.215
$ 18	Nitrobenzene-d5	82	9.119	9.119	(0.862)	81973	5.00000	5.199
19	Nitrobenzene	77	9.150	9.150	(0.865)	74018	5.00000	4.951
20	Isophorone	82	9.654	9.654	(0.913)	137699	5.00000	5.284
21	2-Nitrophenol	139	9.825	9.825	(0.929)	44999	5.00000	5.122
22	2,4-Dimethylphenol	107	9.987	9.987	(0.945)	160548	10.0000	10.72
23	Bis(2-Chloroethoxy)methane	93	10.164	10.164	(0.961)	83071	5.00000	5.062
24	Benzoic acid	105	10.319	10.319	(0.976)	242921	20.0000	18.99
25	2,4-Dichlorophenol	162	10.342	10.342	(0.978)	132455	10.0000	10.12
26	1,2,4-Trichlorobenzene	180	10.496	10.496	(0.993)	81147	5.00000	5.448
* 27	Naphthalene-d8	136	10.573	10.573	(1.000)	170847	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	10.612	10.612	(1.004)	205646	5.00000	4.626
	29 4-Chloroaniline	127	10.812	10.812	(1.023)	191972	10.0000	10.73
	30 Hexachlorobutadiene	225	11.044	11.044	(1.045)	44300	5.00000	4.773
	31 4-Chloro-3-methylphenol	107	11.919	11.919	(1.127)	142666	10.0000	11.28
	32 2-Methylnaphthalene	142	12.104	12.104	(1.145)	144319	5.00000	4.917
	33 Hexachlorocyclopentadiene	237	12.623	12.623	(0.875)	91468	10.0000	7.573
	34 2,4,6-Trichlorophenol	196	12.809	12.809	(0.888)	109965	10.0000	10.25
	35 2,4,5-Trichlorophenol	196	12.894	12.894	(0.894)	117757	10.0000	10.33
$	36 2-Fluorobiphenyl	172	12.979	12.979	(0.900)	173889	5.00000	4.733
	37 2-Chloronaphthalene	162	13.149	13.149	(0.912)	139201	5.00000	4.706
	38 2-Nitroaniline	65	13.482	13.482	(0.935)	79345	10.0000	11.44
	39 Dimethylphthalate	163	14.001	14.001	(0.971)	152406	5.00000	4.705
	40 Acenaphthylene	152	14.070	14.070	(0.976)	228927	5.00000	4.745
	41 2,6-Dinitrotoluene	165	14.117	14.117	(0.979)	73874	10.0000	9.983
*	42 Acenaphthene-d10	164	14.418	14.418	(1.000)	107094	4.00000	
	43 3-Nitroaniline	138	14.411	14.411	(0.999)	72742	10.0000	10.65
	44 Acenaphthene	153	14.480	14.480	(1.004)	140486	5.00000	4.749
	45 2,4-Dinitrophenol	184	14.635	14.635	(1.015)	104357	20.0000	16.20
	46 Dibenzofuran	168	14.844	14.844	(1.029)	205327	5.00000	4.991
	47 4-Nitrophenol	109	14.882	14.882	(1.032)	45855	10.0000	9.848
	48 2,4-Dinitrotoluene	165	14.975	14.975	(1.039)	100062	10.0000	10.00
	50 Diethylphthalate	149	15.578	15.578	(1.080)	157940	5.00000	4.655
	49 Fluorene	166	15.601	15.601	(1.082)	165073	5.00000	4.724
	51 4-Chlorophenyl-phenylether	204	15.648	15.648	(1.085)	75581	5.00000	4.641
	52 4-Nitroaniline	138	15.764	15.764	(1.093)	76464	10.0000	10.60
	53 4,6-Dinitro-2-methylphenol	198	15.871	15.871	(0.899)	157460	20.0000	21.59
	54 N-Nitrosodiphenylamine	169	15.933	15.933	(0.902)	102762	5.00000	4.684
$	55 2,4,6-Tribromophenol	330	16.180	16.180	(1.122)	29420	5.00000	4.305
	56 4-Bromophenyl-phenylether	248	16.712	16.712	(0.947)	49084	5.00000	4.831
	57 Hexachlorobenzene	284	17.005	17.005	(0.963)	58458	5.00000	4.585
	58 Pentachlorophenol	266	17.424	17.424	(0.987)	78666	10.0000	9.252
*	59 Phenanthrene-d10	188	17.656	17.656	(1.000)	182140	4.00000	
	60 Phenanthrene	178	17.710	17.710	(1.003)	230188	5.00000	4.741
	61 Anthracene	178	17.803	17.803	(1.008)	239723	5.00000	4.903
	62 Carbazole	167	18.213	18.213	(1.032)	155426	5.00000	4.760
	63 Di-n-butylphthalate	149	19.195	19.195	(1.087)	263495	5.00000	5.051
	64 Fluoranthene	202	20.232	20.232	(1.146)	283547	5.00000	5.071
	65 Pyrene	202	20.650	20.650	(0.902)	289573	5.00000	5.063
$	66 Terphenyl-d14	244	21.037	21.037	(0.919)	183636	5.00000	4.762
	67 Butylbenzylphthalate	149	22.035	22.035	(0.963)	108436	5.00000	4.999
	68 Benzo(a)anthracene	228	22.864	22.864	(0.999)	261946	5.00000	4.675
*	69 Chrysene-d12	240	22.887	22.887	(1.000)	200794	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.880	22.880	(1.000)	216468	10.0000	9.247
	71 Chrysene	228	22.934	22.934	(1.002)	231145	5.00000	4.555
	72 bis(2-Ethylhexyl)phthalate	149	23.120	23.120	(0.959)	151257	5.00000	4.551
*	134 Di-n-octylphthalate-d4	153	24.103	24.103	(1.000)	251719	4.00000	
	73 Di-n-octylphthalate	149	24.110	24.110	(1.000)	261903	5.00000	4.265

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	24.621	24.621	(0.978)	250558	5.00000	4.640
75	Benzo(k)fluoranthene	252	24.660	24.660	(0.979)	296100	5.00000	5.076
76	Benzo(a)pyrene	252	25.094	25.094	(0.997)	225187	5.00000	4.822
* 77	Perylene-d12	264	25.179	25.179	(1.000)	186300	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.945	26.945	(1.070)	270926	5.00000	4.705
79	Dibenzo(a,h)anthracene	278	26.977	26.977	(1.071)	212495	5.00000	4.660
80	Benzo(g,h,i)perylene	276	27.443	27.443	(1.090)	221281	5.00000	4.479
90	N-Nitrosodimethylamine	74	3.419	3.419	(0.430)	87602	10.0000	9.732
91	Aniline	93	7.397	7.397	(0.931)	228595	5.00000	5.361
93	Benzidine	184	20.549	20.549	(0.898)	76859	10.0000	8.292
103	Pyridine	79	3.427	3.427	(0.431)	77714	10.0000	10.12
105	1-methylnaphthalene	142	12.337	12.337	(1.167)	131810	5.00000	4.896
111	Azobenzene (1,2-DP-Hydrazine)	77	15.995	15.995	(1.109)	146421	5.00000	4.757
187	Total Benzofluoranthenes	252	24.660	24.660	(0.979)	505992	10.0000	9.520
99	Perylene	252	25.218	25.218	(1.002)	251618	5.00000	4.688
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	15.246	15.246	(1.057)	48957	5.00000	4.908

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0409.d
Lab Smp Id: CC0409
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130409.b/ABN.m
Misc Info:

Calibration Date: 09-APR-2013
Calibration Time: 11:02
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	47316	1.49
27 Naphthalene-d8	176978	88489	353956	170847	-3.46
42 Acenaphthene-d10	110872	55436	221744	107094	-3.41
59 Phenanthrene-d10	188290	94145	376580	182140	-3.27
69 Chrysene-d12	213681	106840	427362	200794	-6.03
134 Di-n-octylphthala	264159	132080	528318	251719	-4.71
77 Perylene-d12	208584	104292	417168	186300	-10.68

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.95	7.45	8.45	7.95	0.00
27 Naphthalene-d8	10.57	10.07	11.07	10.57	0.00
42 Acenaphthene-d10	14.42	13.92	14.92	14.42	0.00
59 Phenanthrene-d10	17.66	17.16	18.16	17.66	0.00
69 Chrysene-d12	22.89	22.39	23.39	22.89	0.00
134 Di-n-octylphthala	24.10	23.60	24.60	24.10	0.00
77 Perylene-d12	25.18	24.68	25.68	25.18	0.00

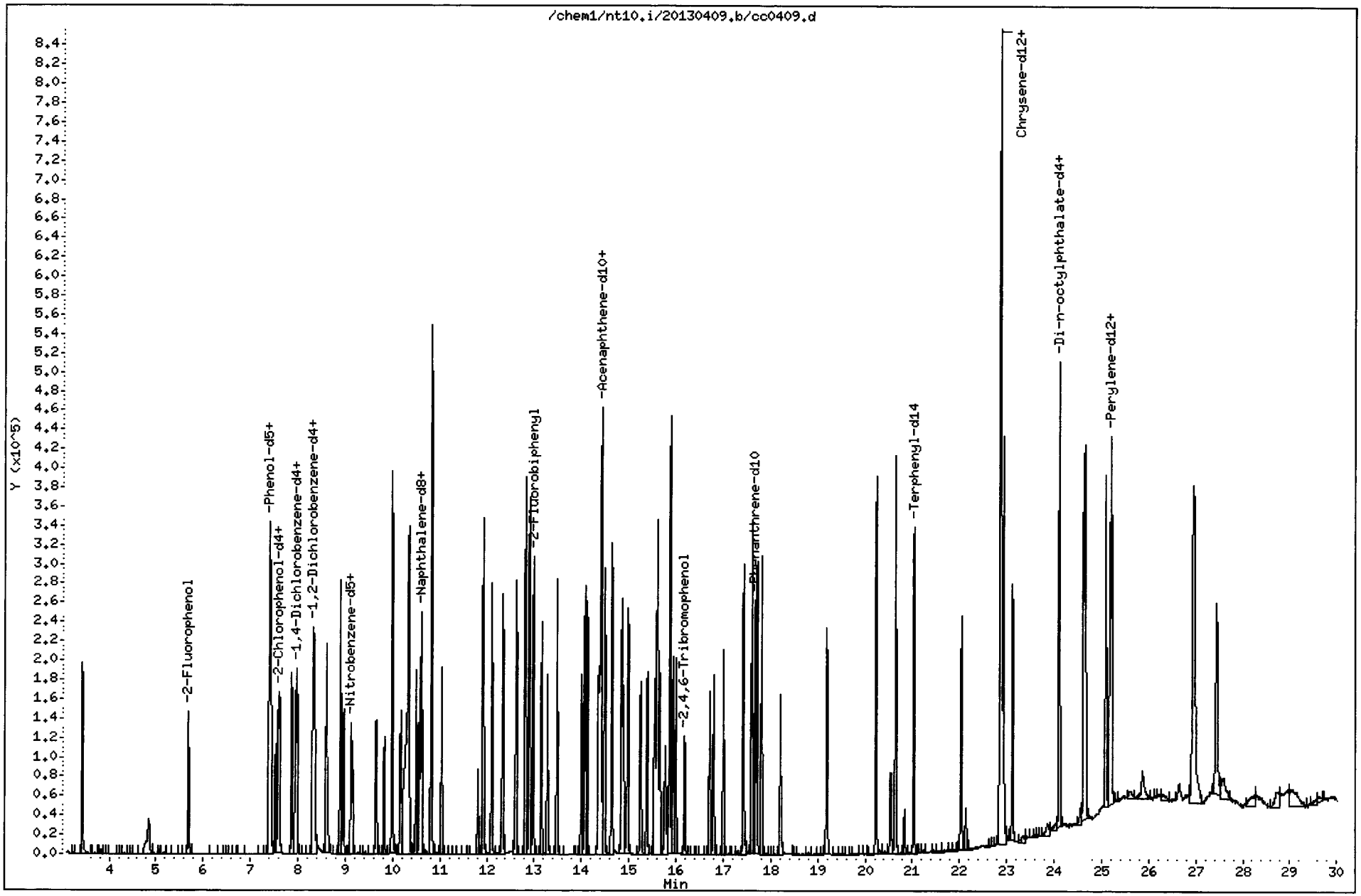
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130409.b/cc0409.d
Date : 09-APR-2013 12:10
Client ID:
Sample Info: CC0409

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - cc0409.d

Lab ID: CC0409, Method: ABN.m, Instrument: nt10.i, Date: 09-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 4/10/13

Data file : /chem1/nt10.i/20130409.b/wj10d60.d
Lab Smp Id: WJ10D Client Smp ID: SD-CB-01-20130326-S
Inj Date : 09-APR-2013 12:47
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WJ10D,60
Misc Info : 13-6438
Comment : 1ul Injection
Method : /chem1/nt10.i/20130409.b/ABN.m
Meth Date : 09-Apr-2013 14:24 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 3
Dil Factor: 60.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	60.00000	Dilution Factor
Vt	2000.00000	Volume of final extract (uL)
Ws	15.00000	Weight of sample extracted (g)
M	44.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	Compound Not Detected.					
$ 2	Phenol-d5	99	Compound Not Detected.					
3	Phenol	94	7.436	7.436	(0.937)	2969	0.15148 J	2168
$ 5	2-Chlorophenol-d4	132	Compound Not Detected.					
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	7.939	7.946	(1.000)	46932	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	8.894	8.894	(1.120)	7290	0.47380	6781
$	18 Nitrobenzene-d5	82	Compound Not Detected.					
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.566	10.573	(1.000)	178473	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.972	12.979	(0.900)	842	0.02320	332.1
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	14.411	14.418	(1.000)	105776	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	14.481	14.480	(1.005)	4775	0.16343 J	2339
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.836	14.844	(1.030)	13411	0.33005	4723
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	15.602	15.601	(1.083)	39748	1.15166	16480
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	Compound Not Detected.					
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.656	17.656	(1.000)	178044	4.00000	
	60 Phenanthrene	178	17.702	17.710	(1.003)	367998	7.75339	111000
	61 Anthracene	178	17.803	17.803	(1.008)	82957	1.73589	24840

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	18.205	18.213	(1.031)	47697	1.49431	21390
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	20.232	20.232	(1.146)	443531	8.11449	116100
65	Pyrene	202	20.650	20.650	(0.902)	293420	5.68671	81380
$ 66	Terphenyl-d14	244	Compound Not Detected.					
67	Butylbenzylphthalate	149	22.036	22.035	(0.963)	2449	0.12514	1791(M)
68	Benzo(a)anthracene	228	22.857	22.864	(0.999)	61505	1.21685	17410
* 69	Chrysene-d12	240	22.888	22.887	(1.000)	181143	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.926	22.934	(1.002)	106592	2.32834	33320
72	bis(2-Ethylhexyl)phthalate	149	23.120	23.120	(0.959)	11171	0.36491	5222
* 134	Di-n-octylphthalate-d4	153	24.103	24.103	(1.000)	231831	4.00000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	24.622	24.621	(0.978)	50713	0.98087	14040
75	Benzo(k)fluoranthene	252	24.645	24.660	(0.979)	40297	0.72145	10320(M)
76	Benzo(a)pyrene	252	25.086	25.094	(0.997)	20781	0.46476	6651
* 77	Perylene-d12	264	25.172	25.179	(1.000)	178382	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.938	26.945	(1.070)	11236	0.20377	2916
79	Dibenzo(a,h)anthracene	278	26.961	26.977	(1.071)	4485	0.10272	1470(M)
80	Benzo(g,h,i)perylene	276	27.435	27.443	(1.090)	9244	0.19539	2796
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	24.622	24.660	(0.978)	82120	1.61358	23090
99	Perylene	252	25.210	25.218	(1.002)	6161	0.11989	1716
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10d60.d
Lab Smp Id: WJ10D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130409.b/ABN.m
Misc Info: 13-6438

Calibration Date: 09-APR-2013
Calibration Time: 12:10
Client Smp ID: SD-CB-01-2013032
Level: LOW
Sample Type: Solids

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	46623	23312	93246	46932	0.66
27 Naphthalene-d8	176978	88489	353956	178473	0.84
42 Acenaphthene-d10	110872	55436	221744	105776	-4.60
59 Phenanthrene-d10	188290	94145	376580	178044	-5.44
69 Chrysene-d12	213681	106840	427362	181143	-15.23
134 Di-n-octylphthala	264159	132080	528318	231831	-12.24
77 Perylene-d12	208584	104292	417168	178382	-14.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.95	7.45	8.45	7.94	-0.09
27 Naphthalene-d8	10.57	10.07	11.07	10.57	-0.07
42 Acenaphthene-d10	14.42	13.92	14.92	14.41	-0.05
59 Phenanthrene-d10	17.66	17.16	18.16	17.66	0.00
69 Chrysene-d12	22.89	22.39	23.39	22.89	0.00
134 Di-n-octylphthala	24.10	23.60	24.60	24.10	0.00
77 Perylene-d12	25.18	24.68	25.68	25.17	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WJ10D
Level: LOW
Data Type: MS DATA
SpikeList File: SHORTPSDDA.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130409.b/ABN.m
Misc Info: 13-6438

Client SDG: WJ10
Fraction: SV
Client Smp ID: SD-CB-01-20130326-S
Operator: VTS/YZ
SampleType: SAMPLE
Quant Type: ISTD

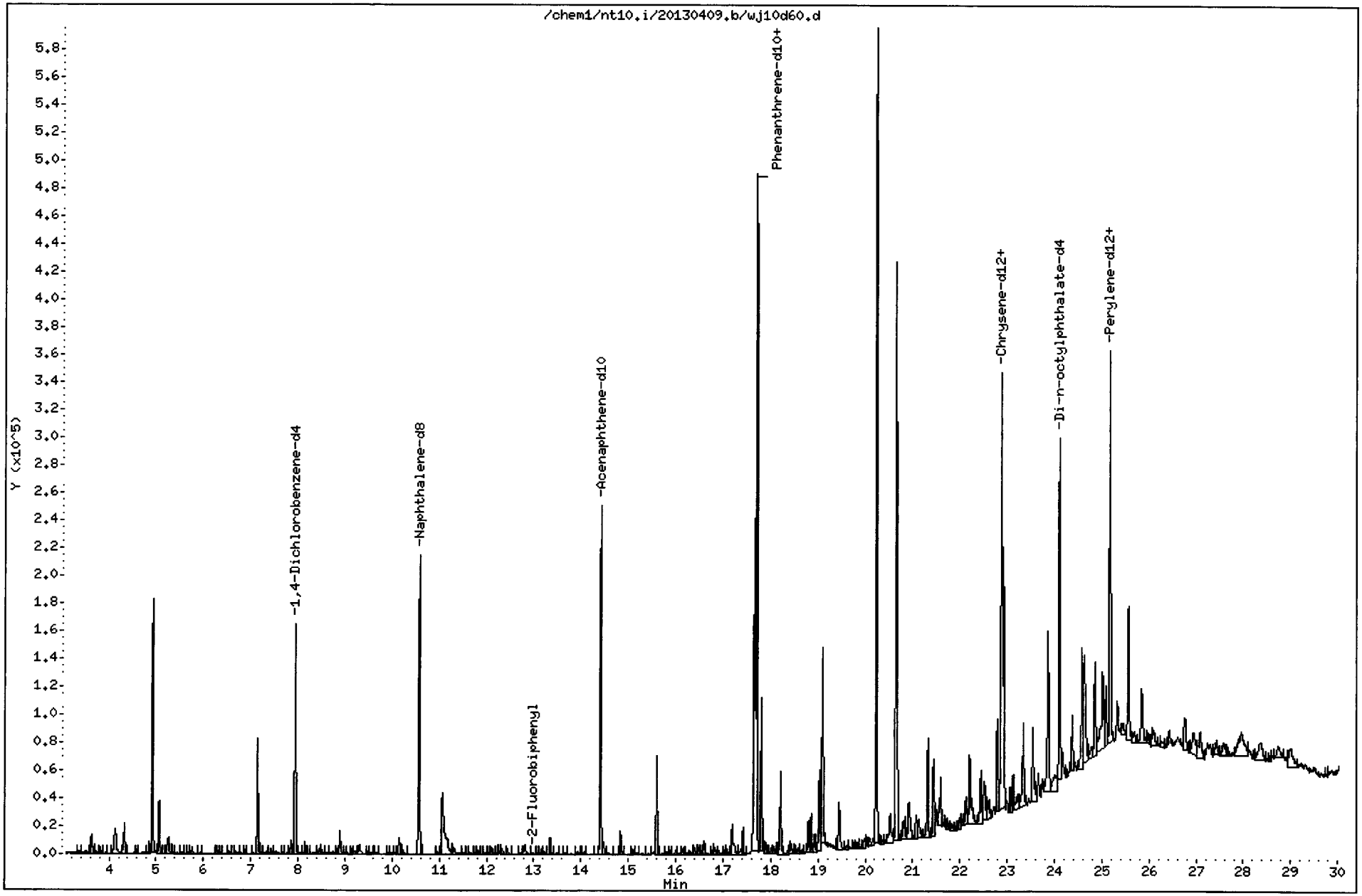
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	894.5	0.000	*	30-160
$ 2 Phenol-d5	894.5	0.000	*	30-160
$ 5 2-Chlorophenol-d4	894.5	0.000	*	30-160
$ 10 1,2-Dichlorobenze	596.3	0.000	*	30-160
$ 18 Nitrobenzene-d5	596.3	0.000	*	30-160
$ 36 2-Fluorobiphenyl	596.3	332.1	55.69	30-160
$ 55 2,4,6-Tribromophe	894.5	0.000	*	30-160
$ 66 Terphenyl-d14	596.3	0.000	*	30-160

1

60X

Data File: /chem1/nt10.i/20130409.b/wj10d60.d
Date : 09-APR-2013 12:47
Client ID: SD-CB-01-20130326-S
Sample Info: WJ10D,60
Volume Injected (uL): 1.0
Column phase: ZB-5ms1

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

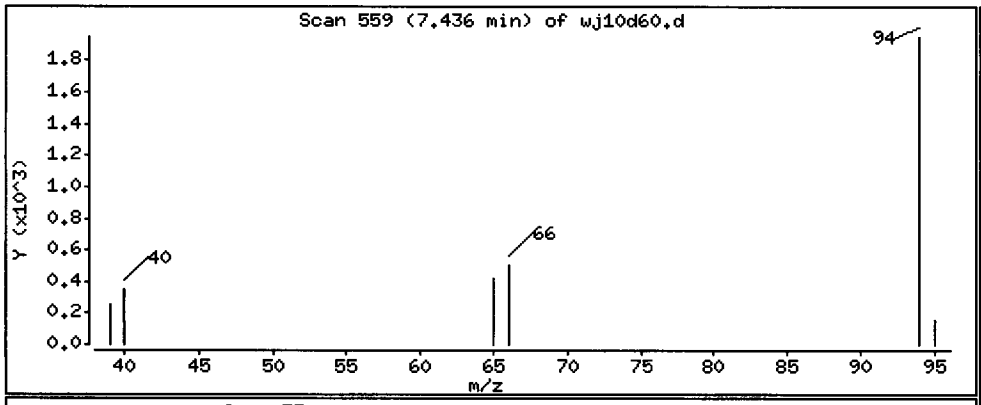
Operator: VTS/YZ

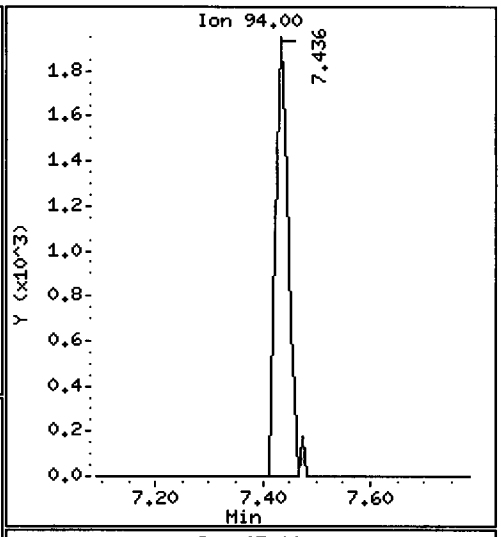
Column phase: ZB-5msi

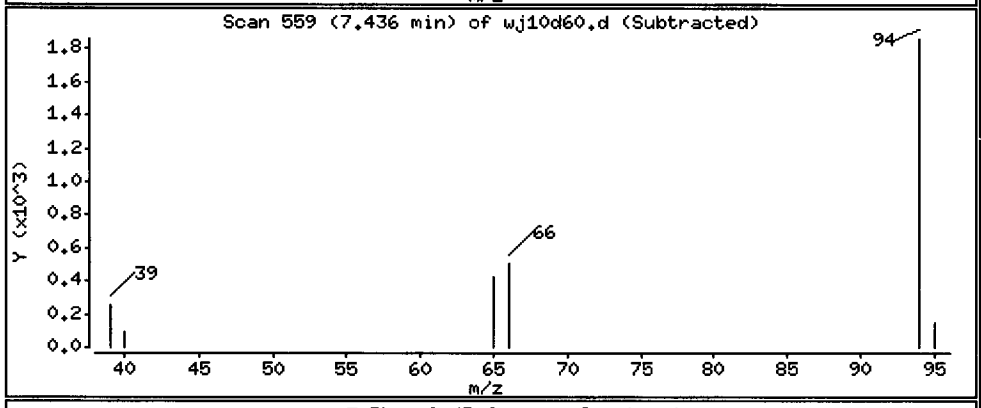
Column diameter: 0.25

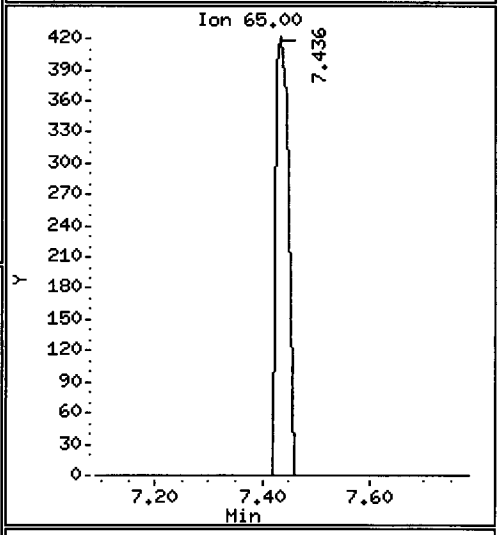
3 Phenol

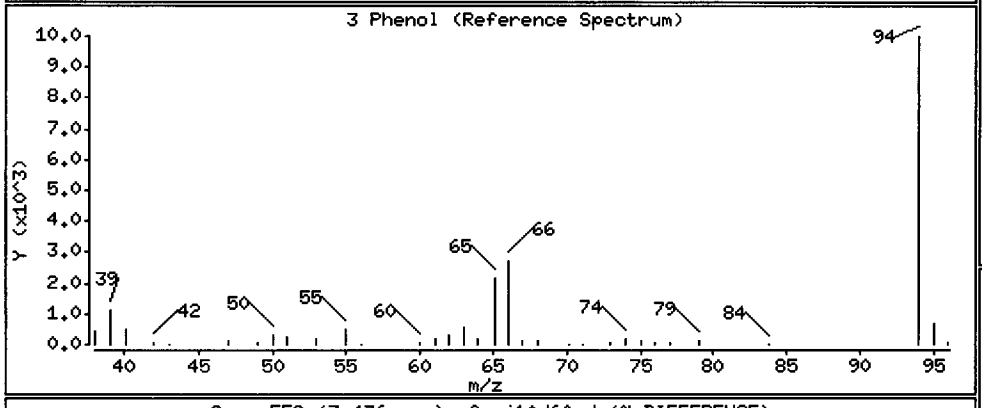
Concentration: 2168 ug/kg

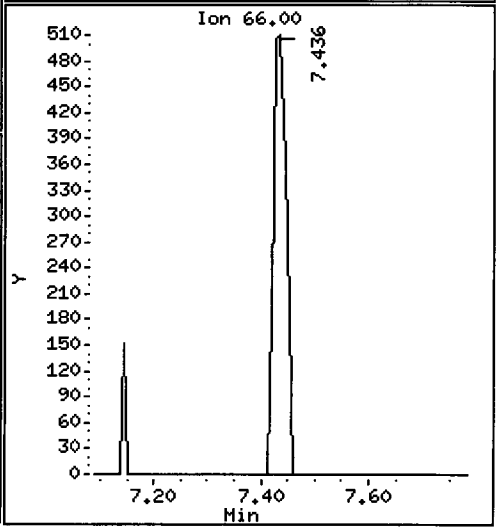


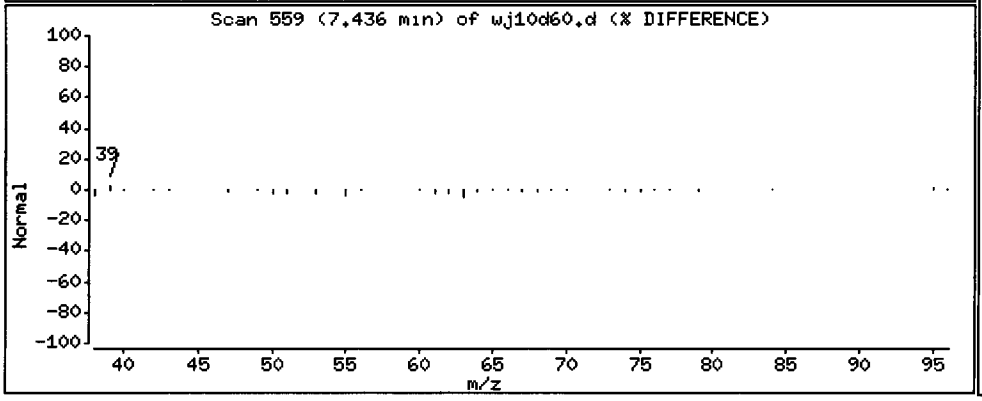












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

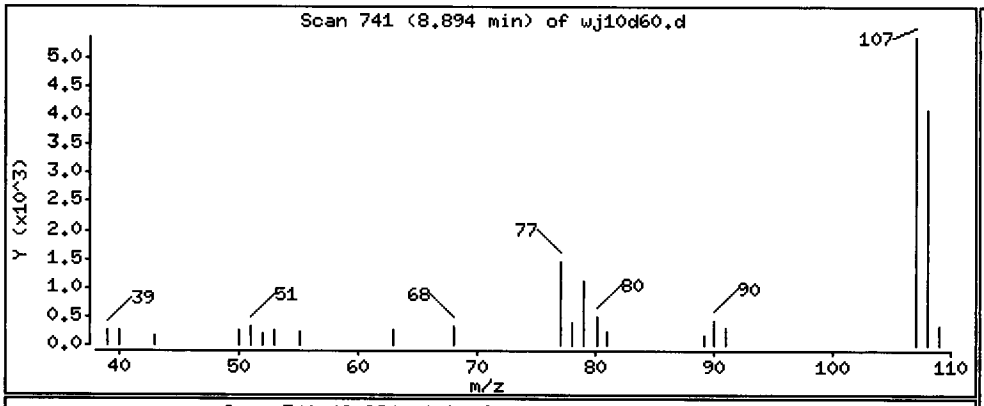
Operator: VTS/YZ

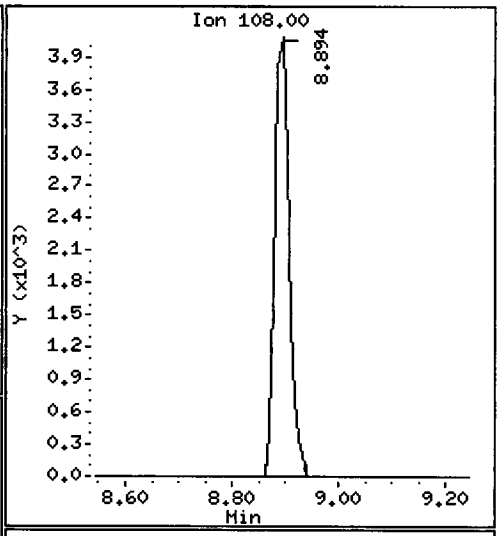
Column phase: ZB-5msi

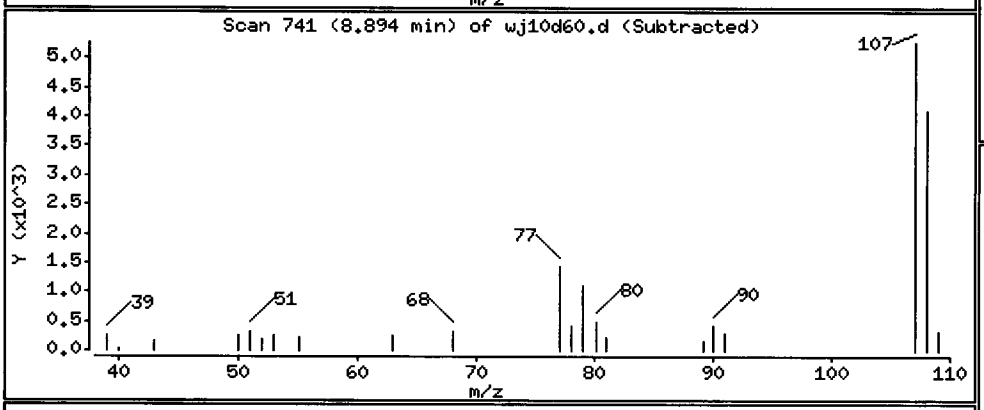
Column diameter: 0.25

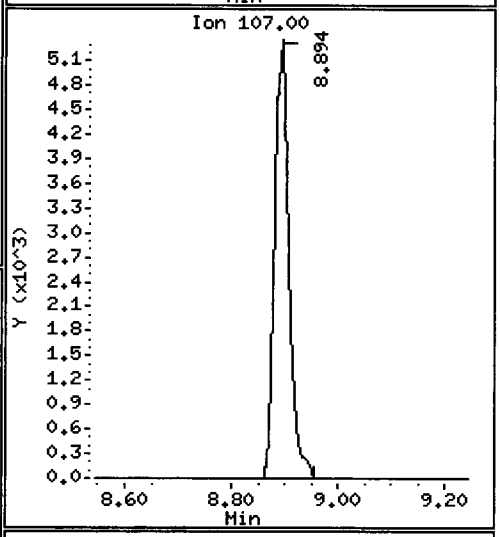
15 4-Methylphenol

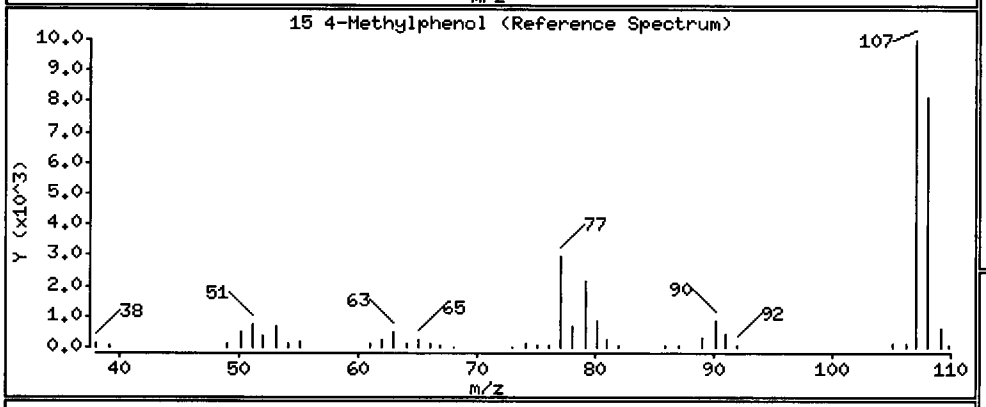
Concentration: 6781 ug/kg

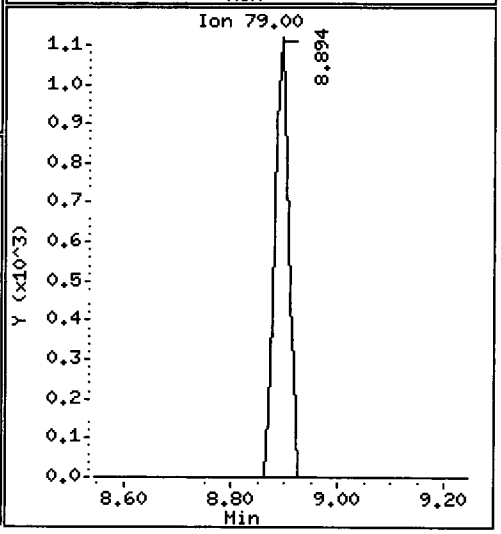


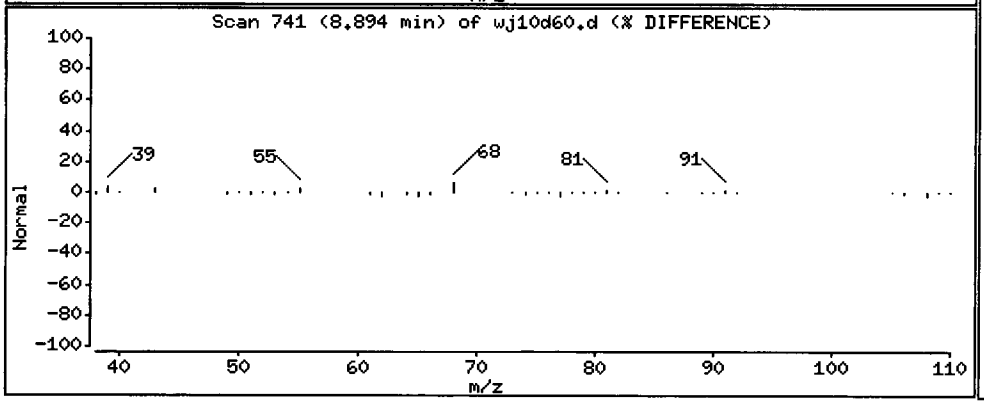












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

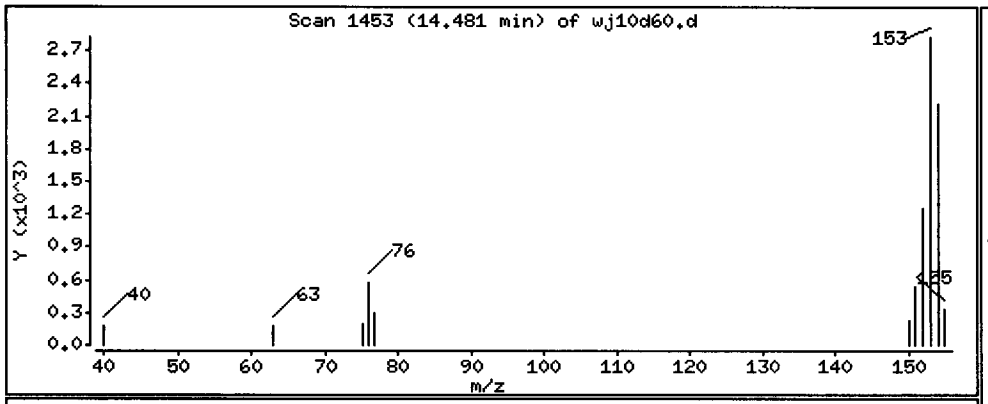
Operator: VTS/YZ

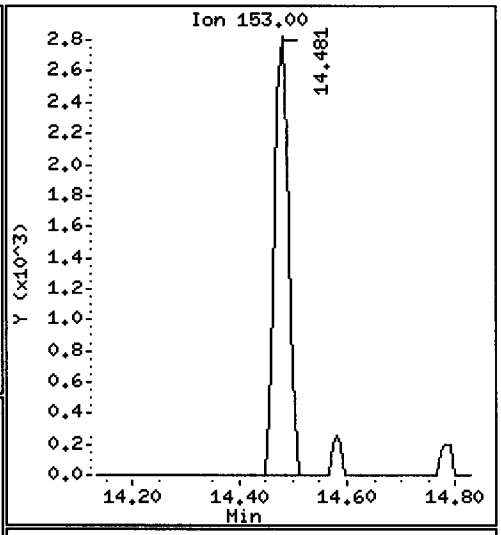
Column phase: ZB-5msi

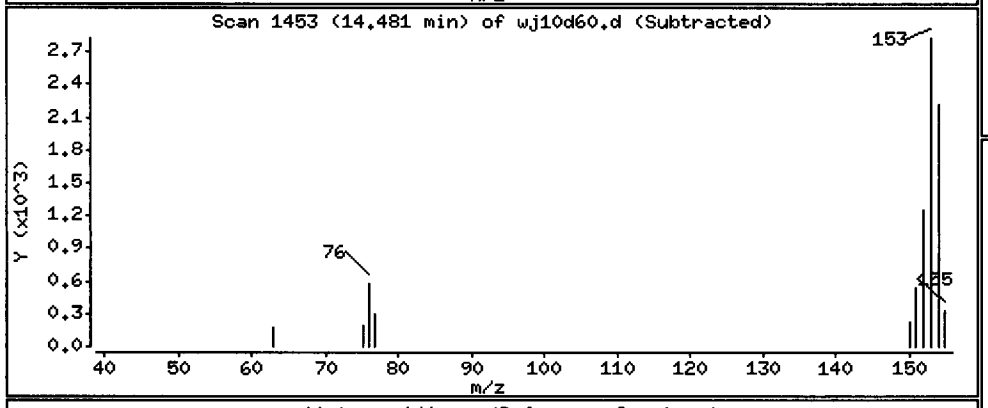
Column diameter: 0.25

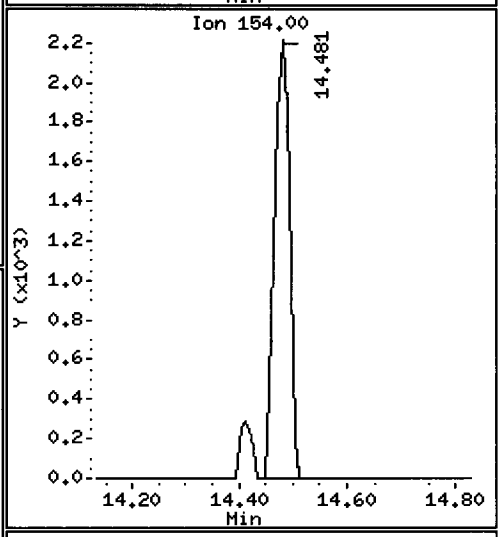
44 Acenaphthene

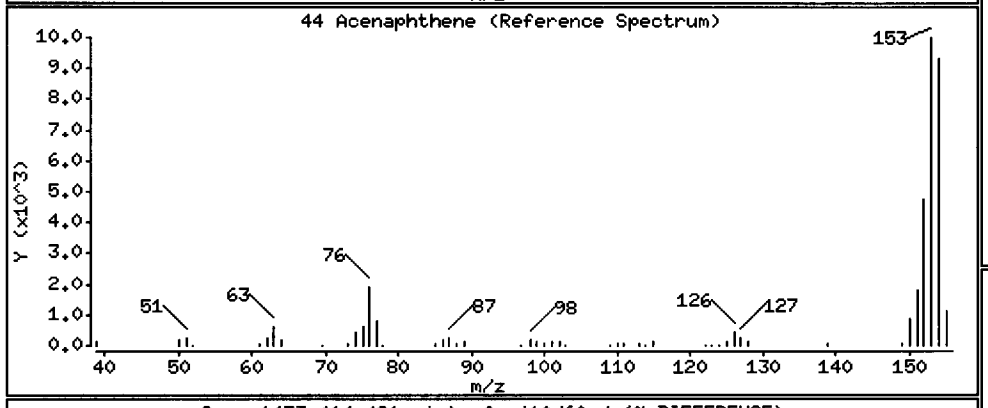
Concentration: 2339 ug/kg

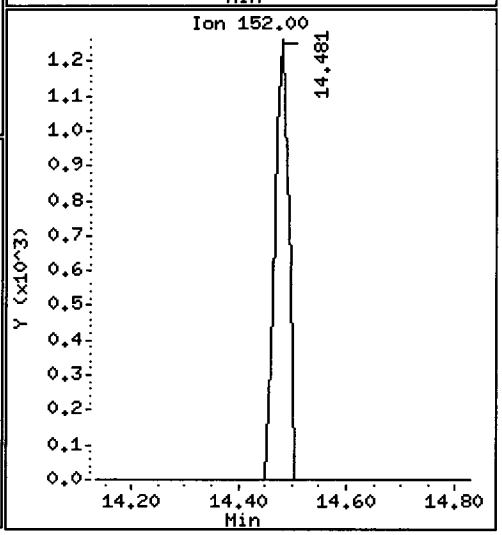


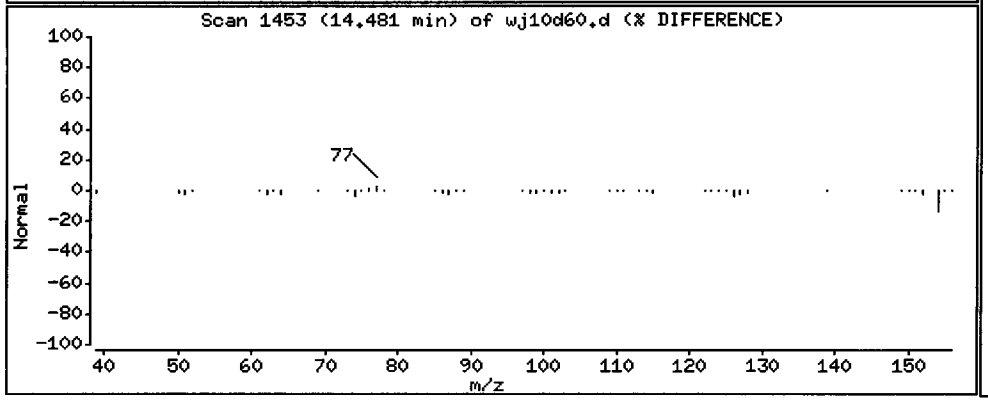












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

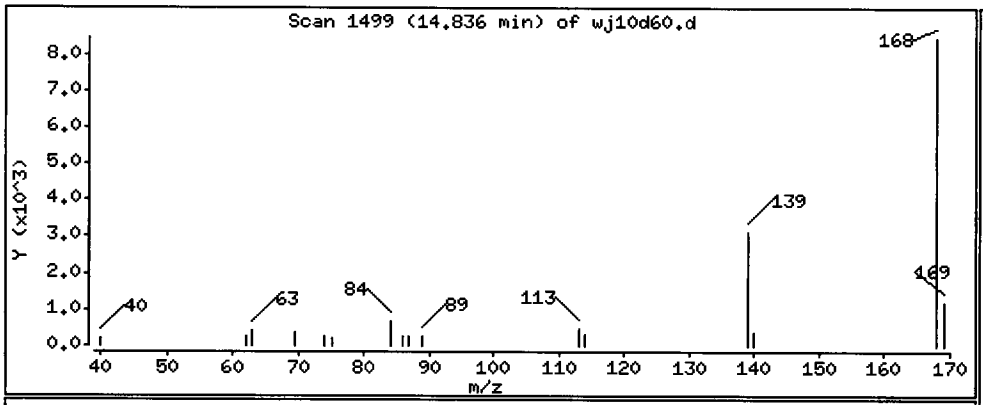
Operator: VTS/YZ

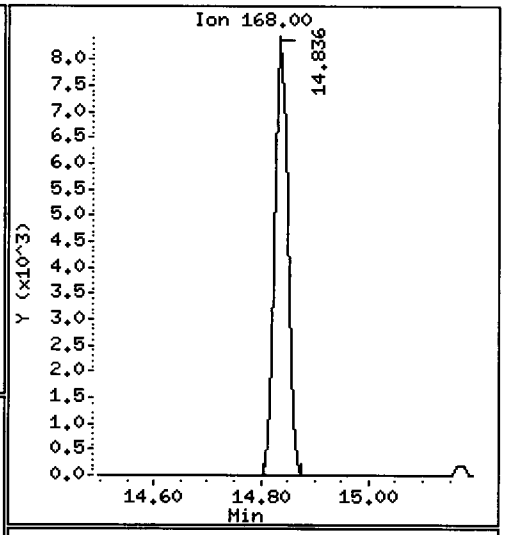
Column phase: ZB-5ms1

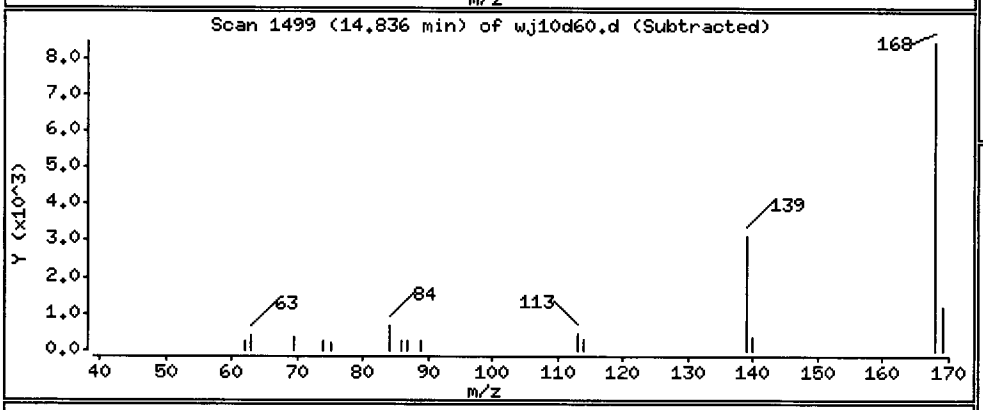
Column diameter: 0.25

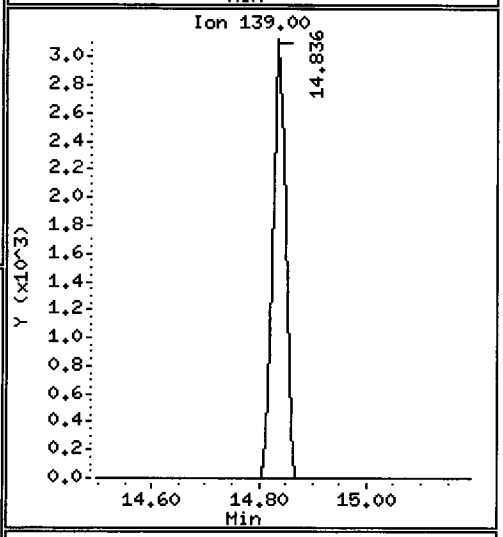
46 Dibenzofuran

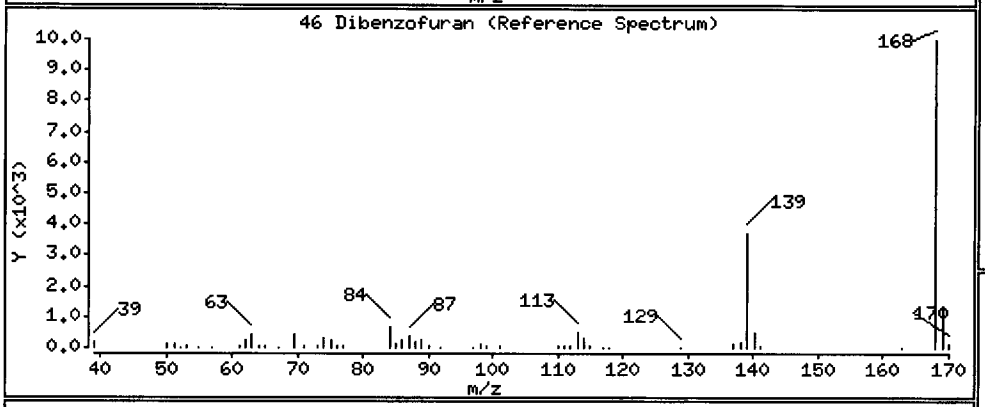
Concentration: 4723 ug/kg

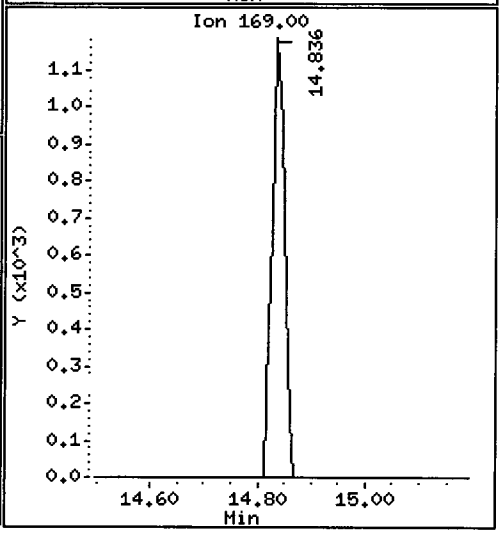


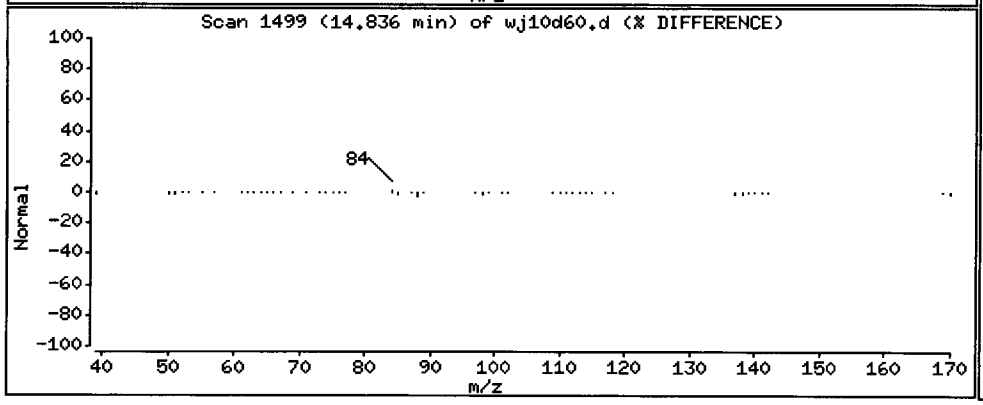












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

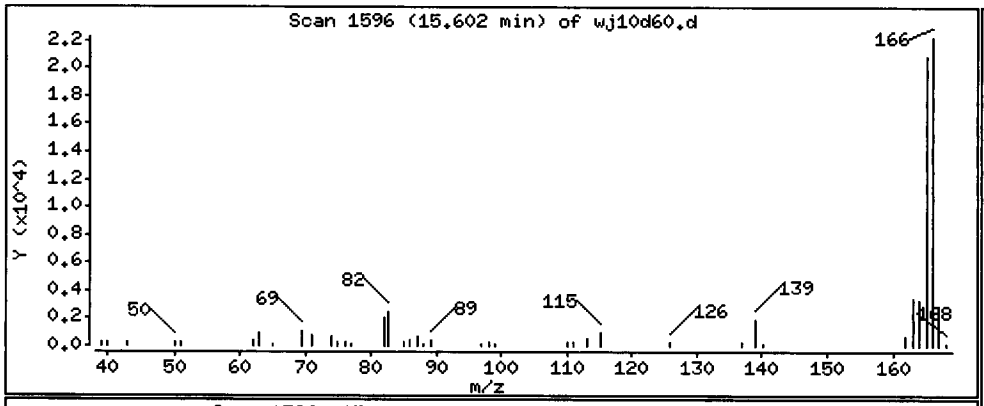
Operator: VTS/YZ

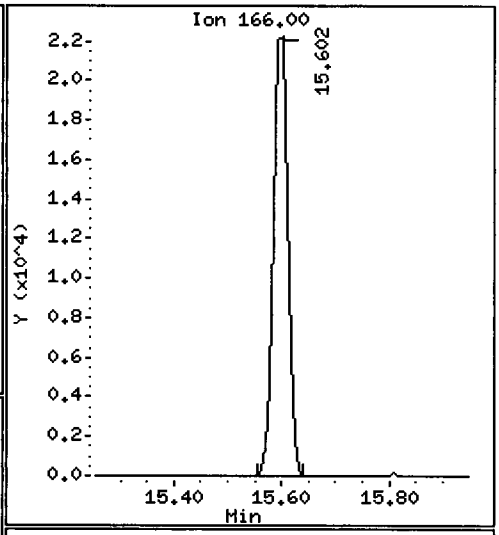
Column phase: ZB-5msi

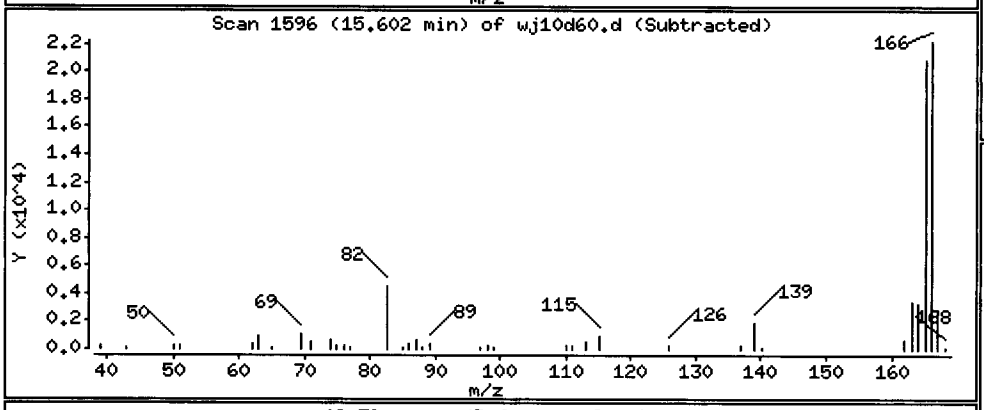
Column diameter: 0.25

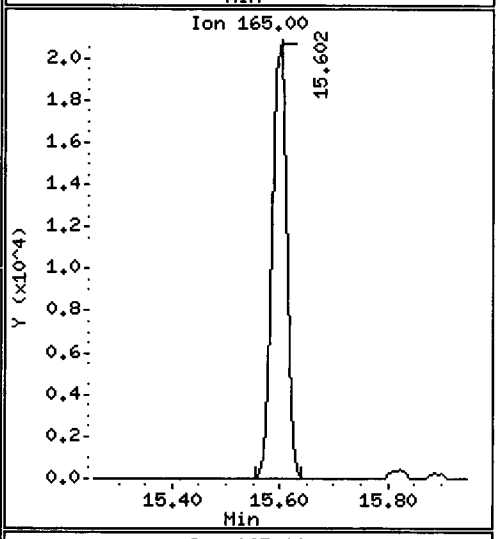
49 Fluorene

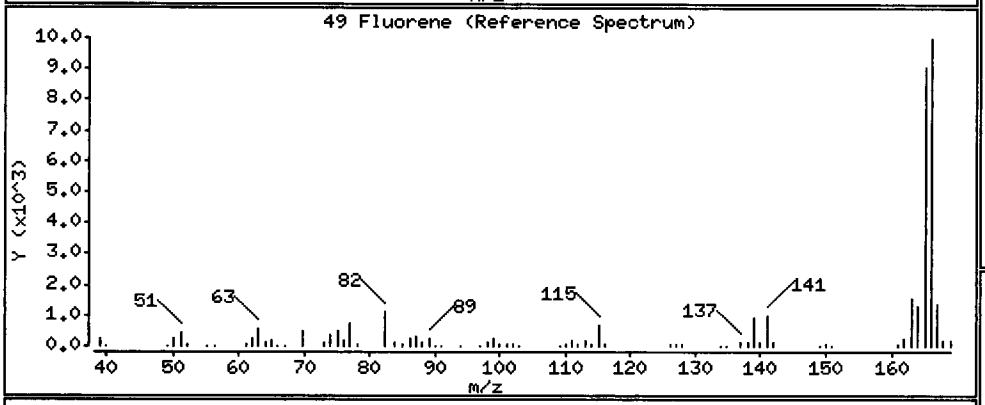
Concentration: 16480 ug/kg

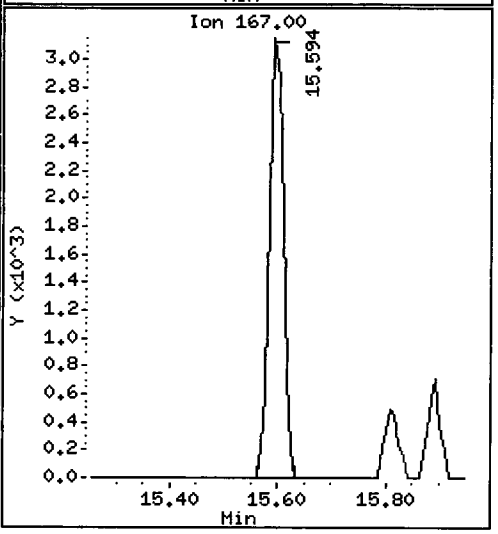


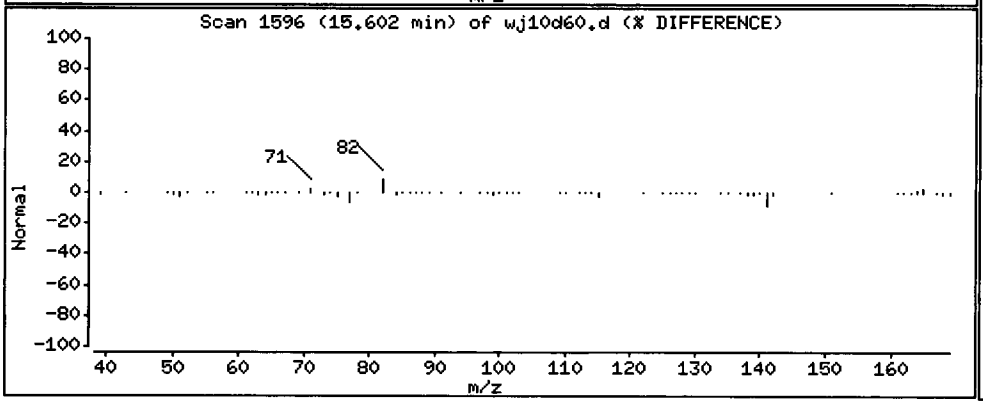












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

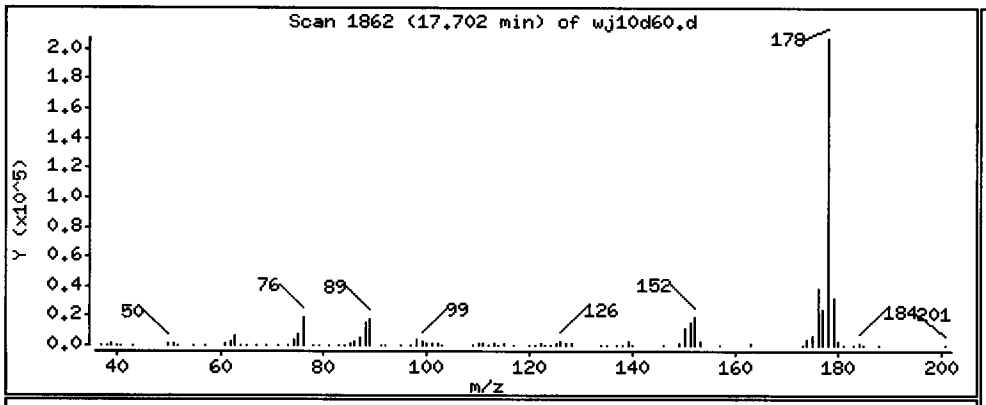
Operator: VTS/YZ

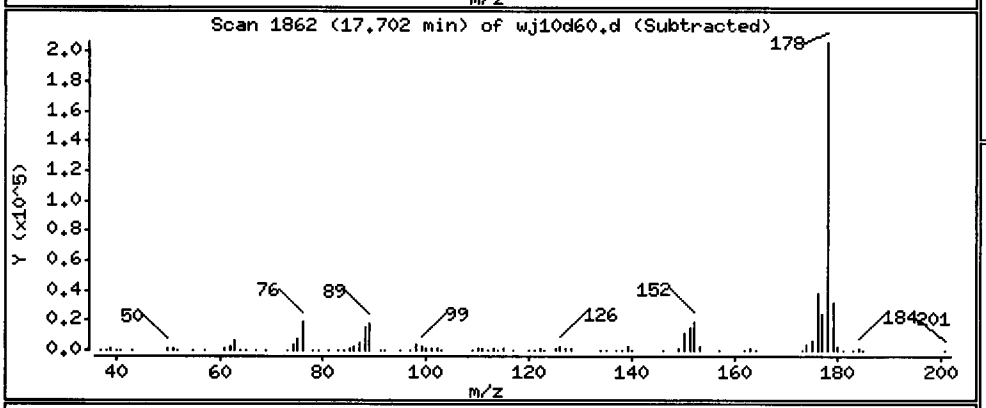
Column phase: ZB-5msi

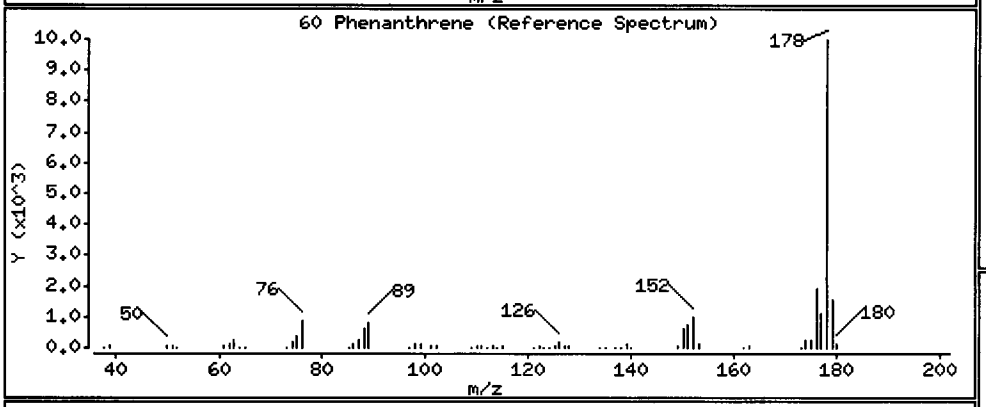
Column diameter: 0.25

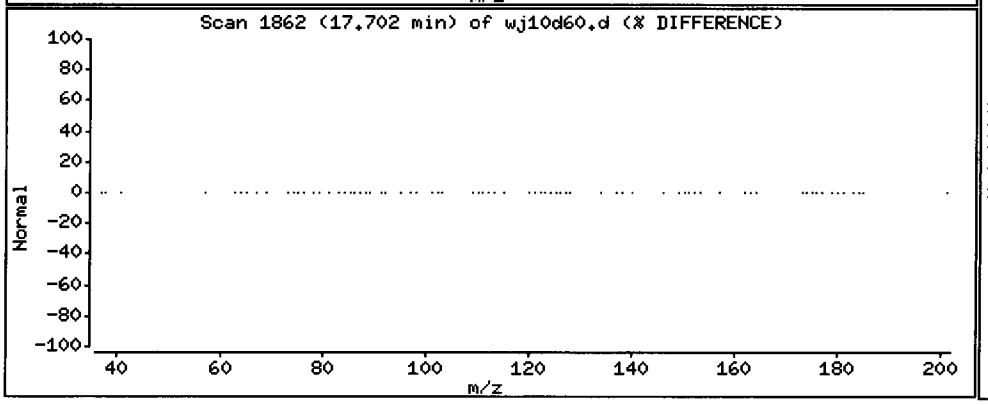
60 Phenanthrene

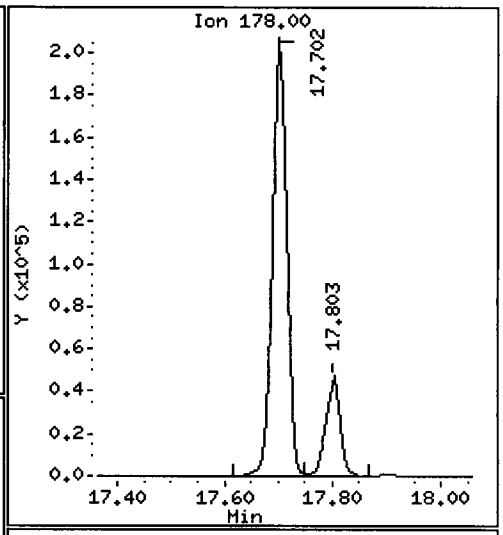
Concentration: 111000 ug/kg

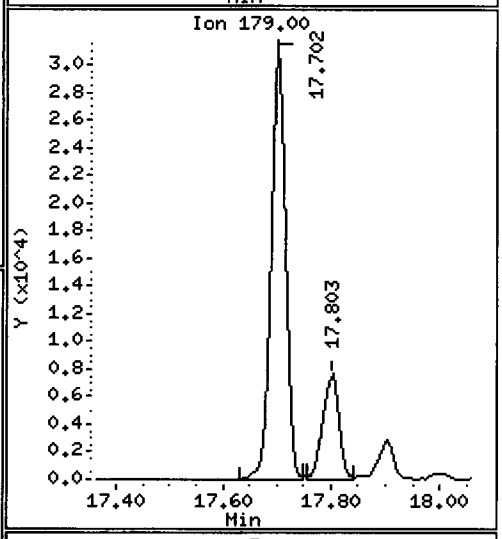


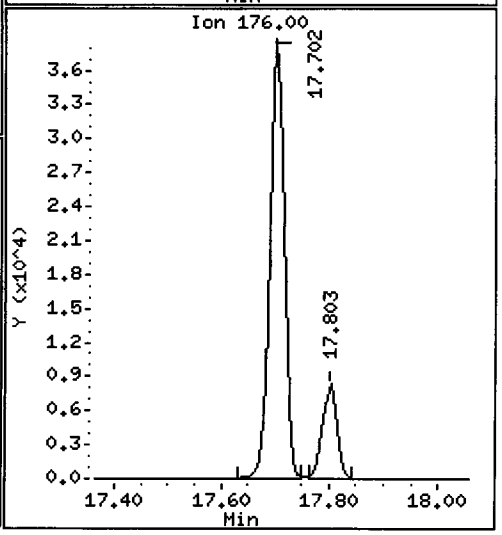












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

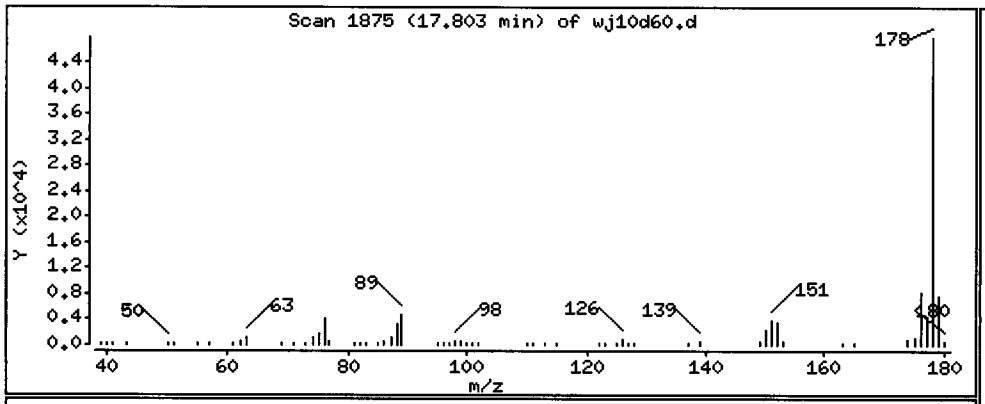
Operator: VTS/YZ

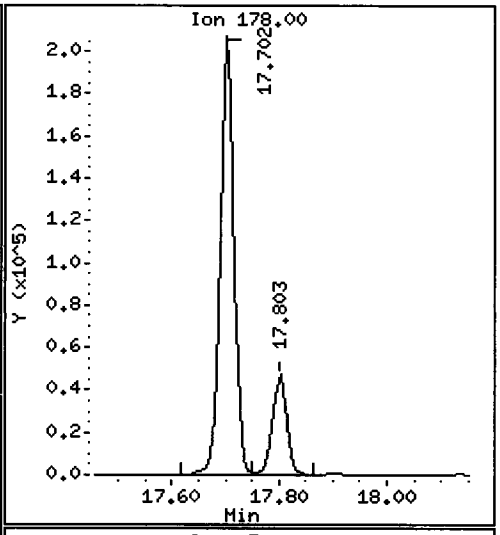
Column phase: ZB-5msi

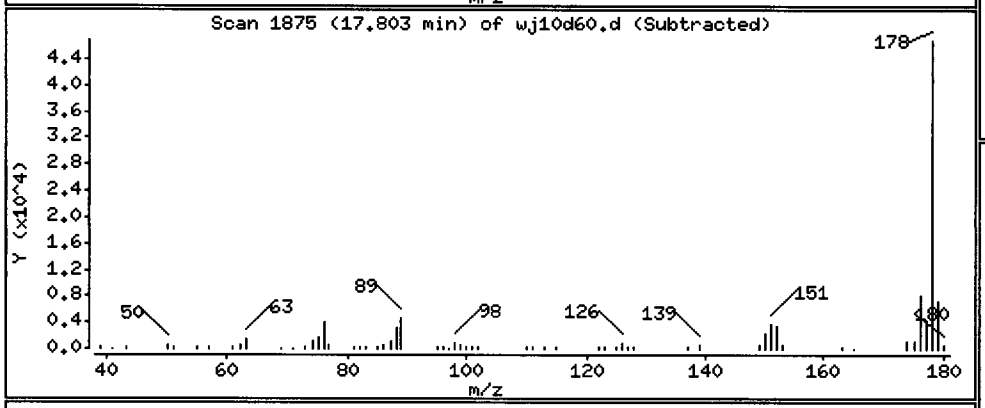
Column diameter: 0.25

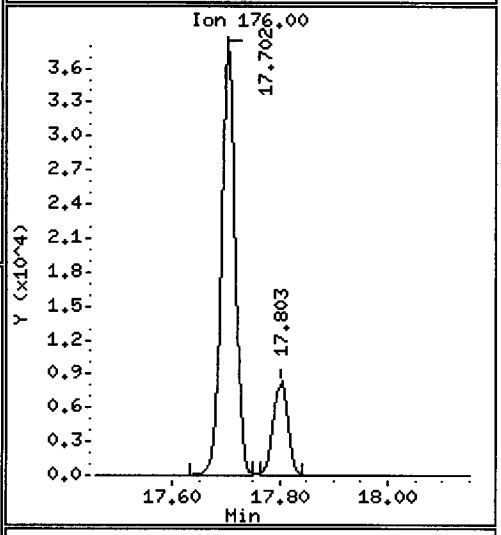
61 Anthracene

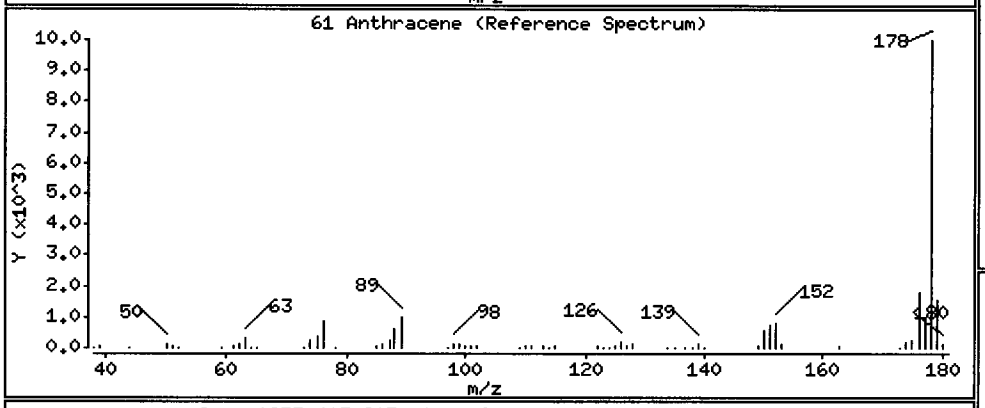
Concentration: 24840 ug/kg

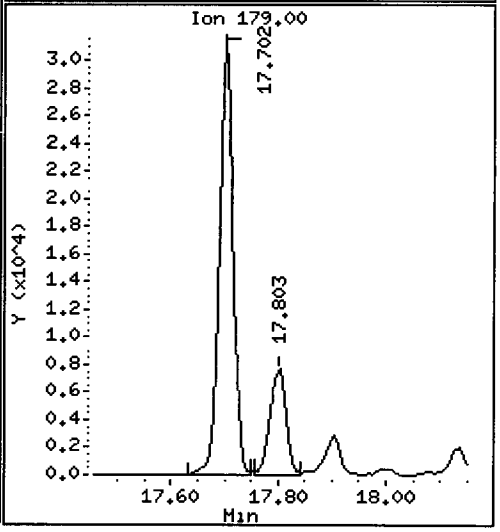


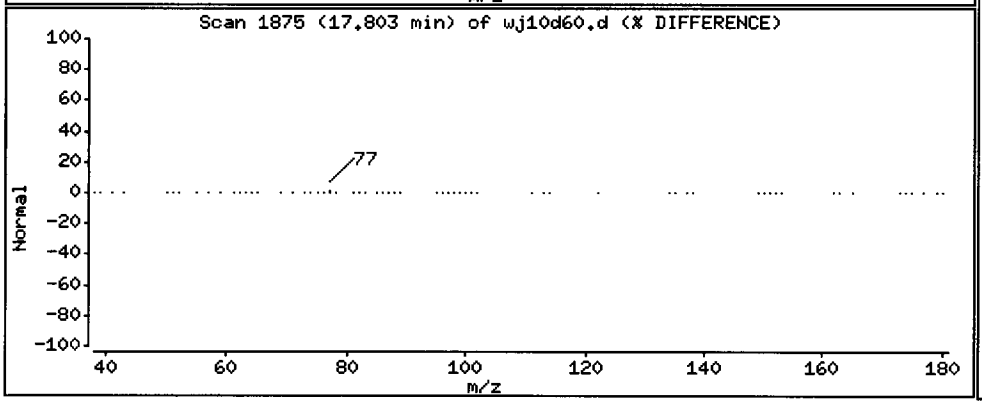












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

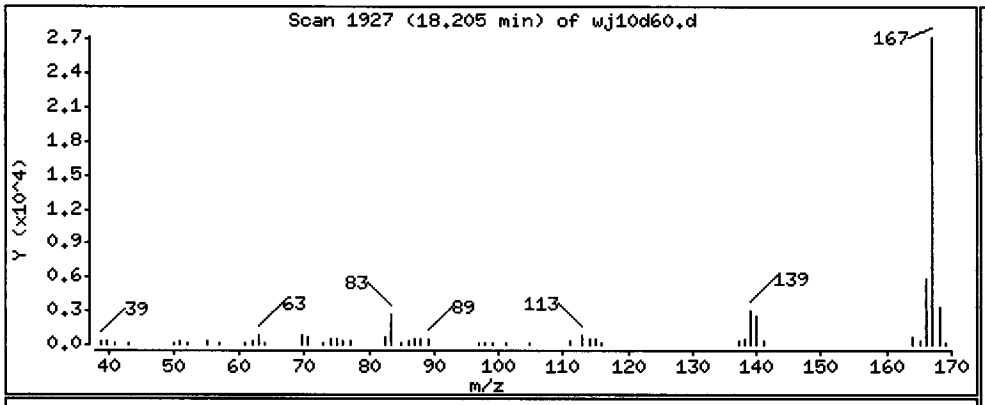
Operator: VTS/YZ

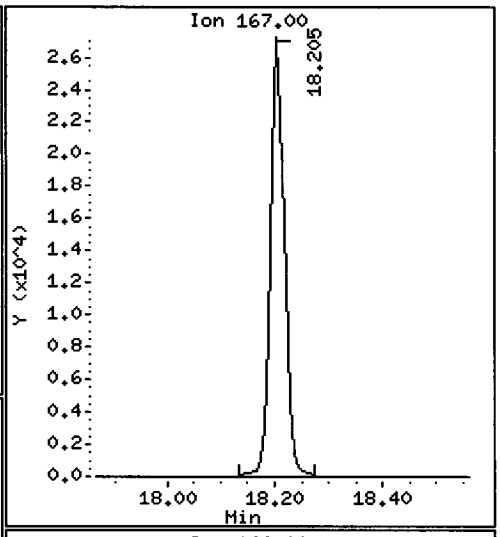
Column phase: ZB-5msi

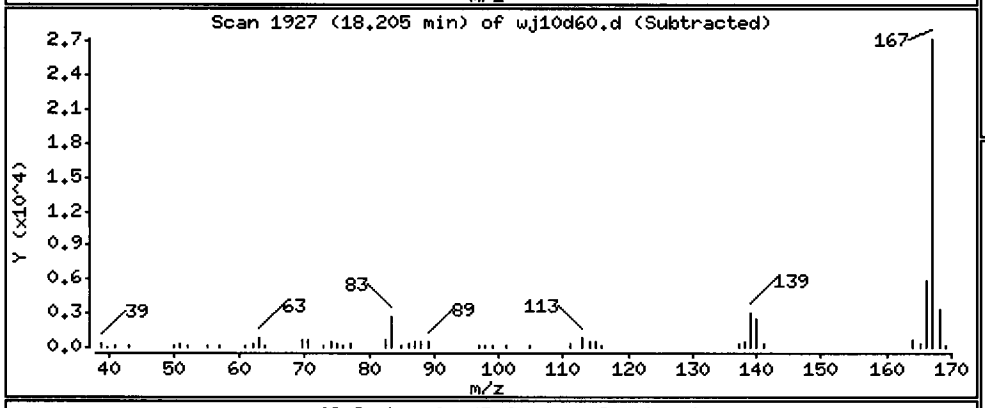
Column diameter: 0.25

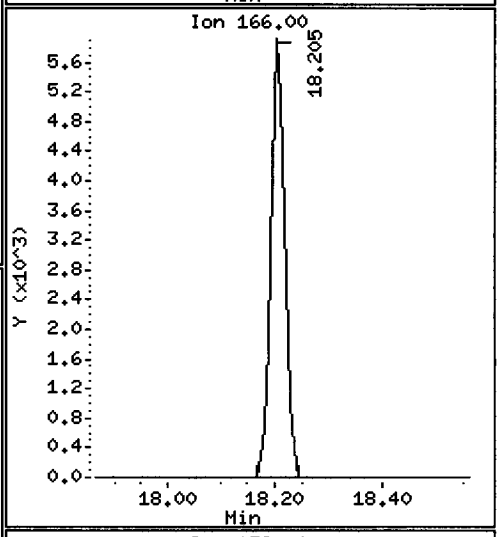
62 Carbazole

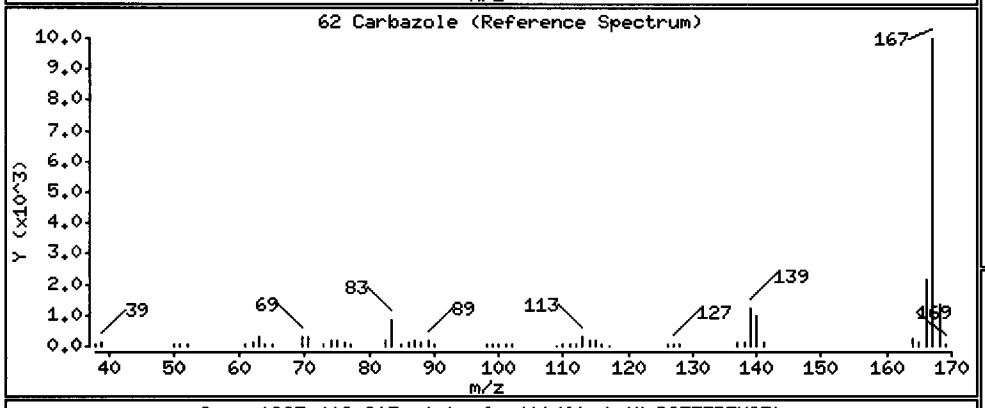
Concentration: 21390 ug/kg

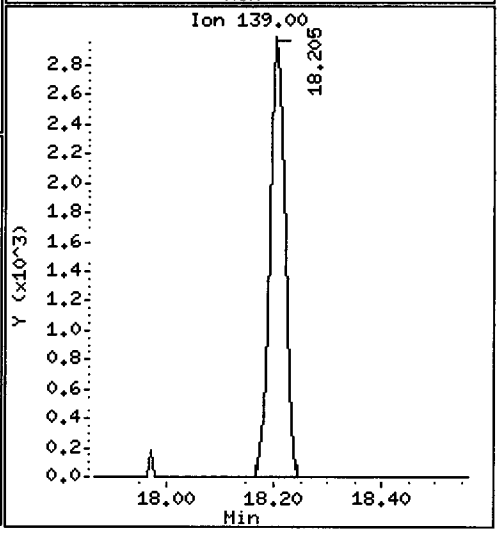


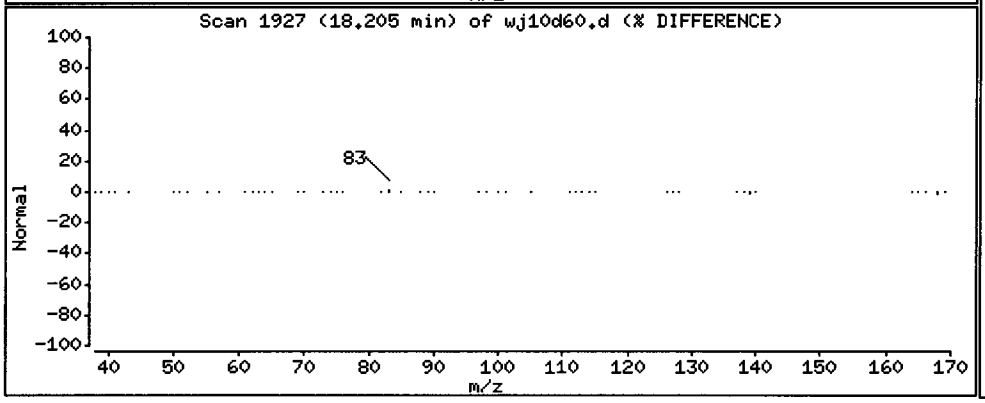












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

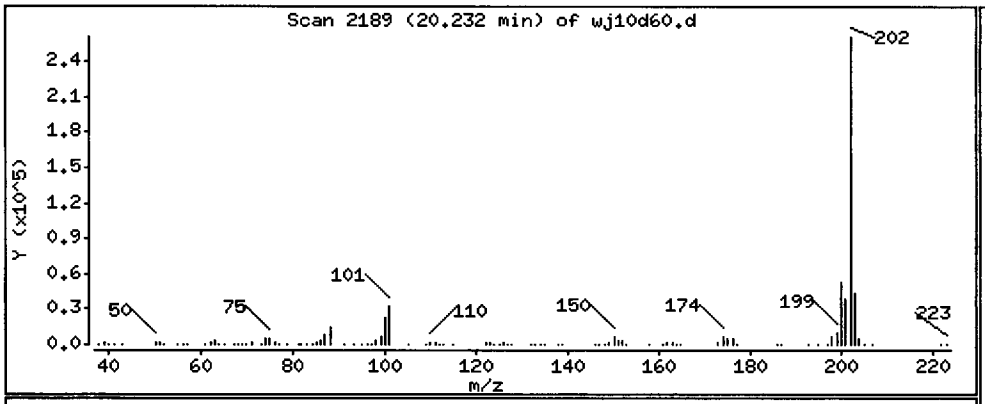
Operator: VTS/YZ

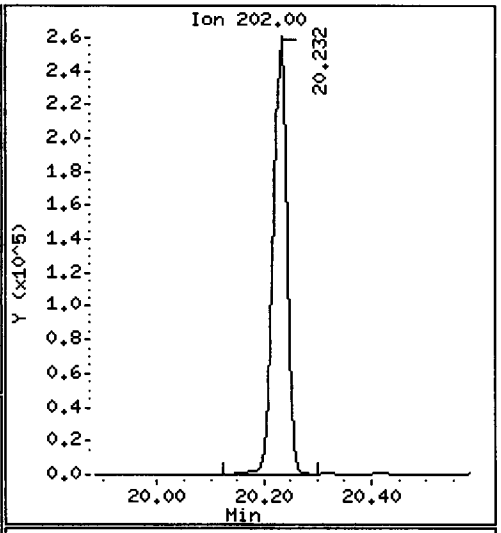
Column phase: ZB-5msi

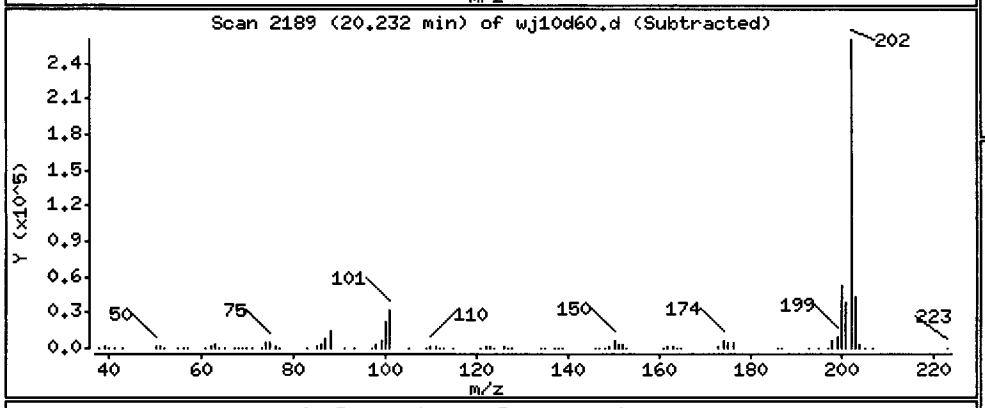
Column diameter: 0.25

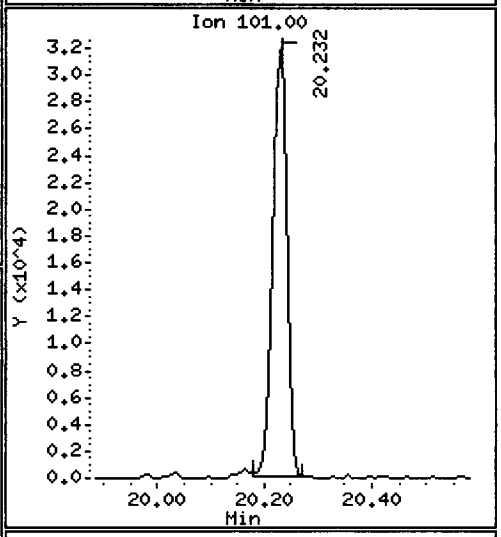
64 Fluoranthene

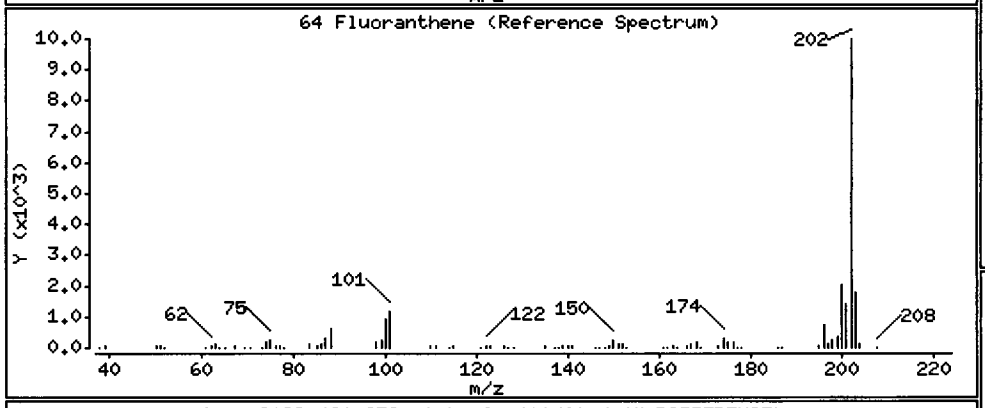
Concentration: 116100 ug/kg

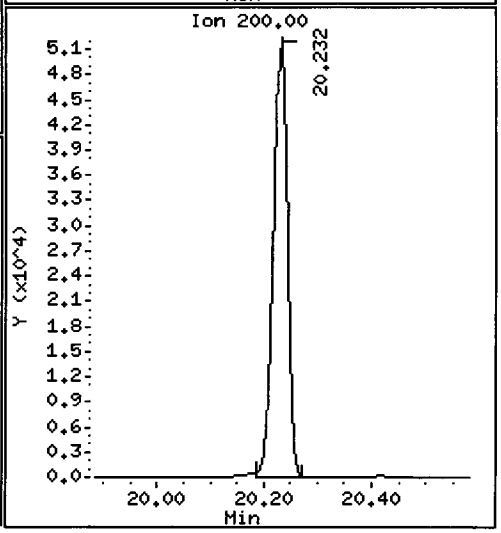


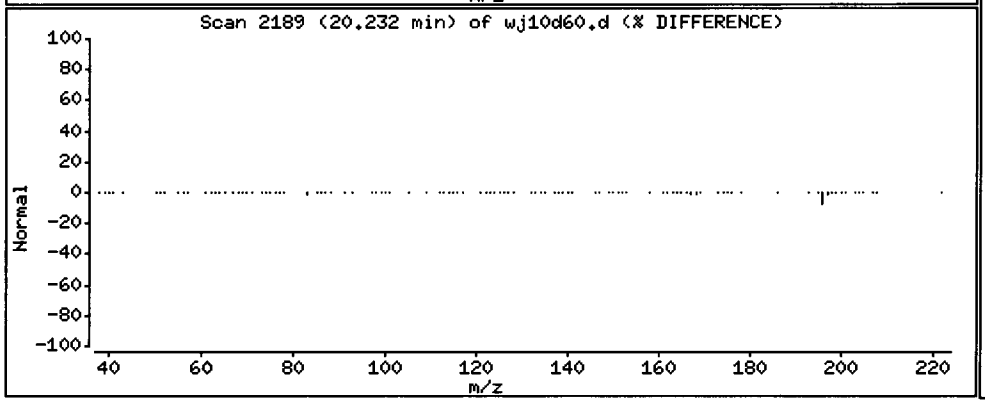












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

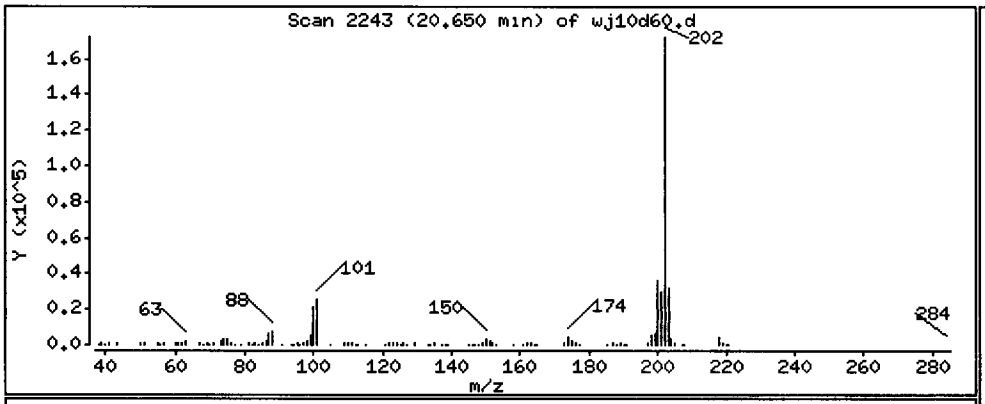
Operator: VTS/YZ

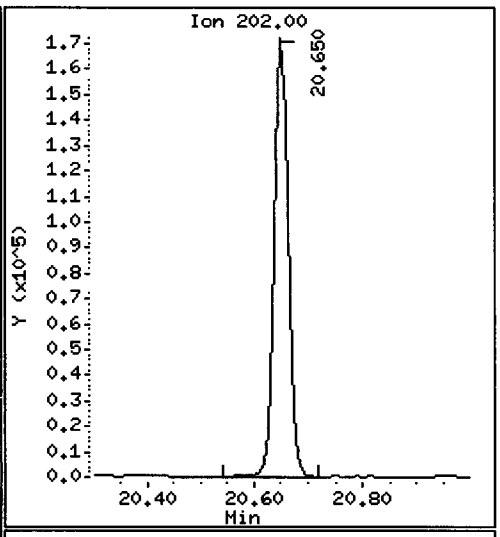
Column phase: ZB-5msi

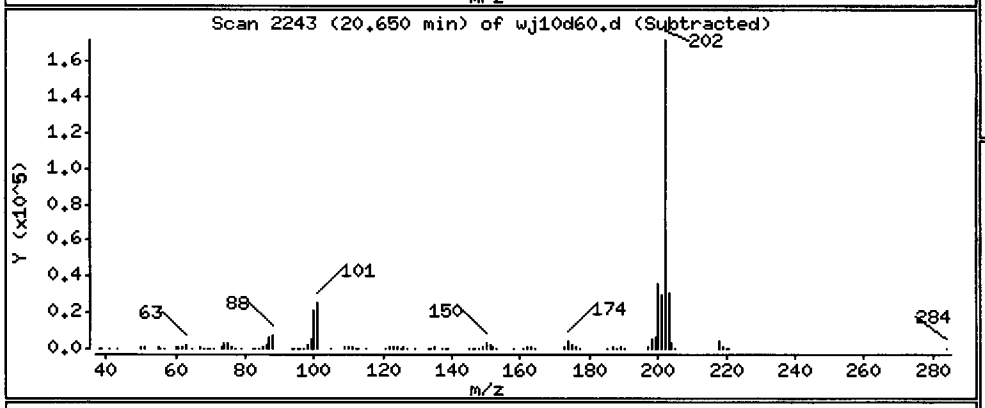
Column diameter: 0.25

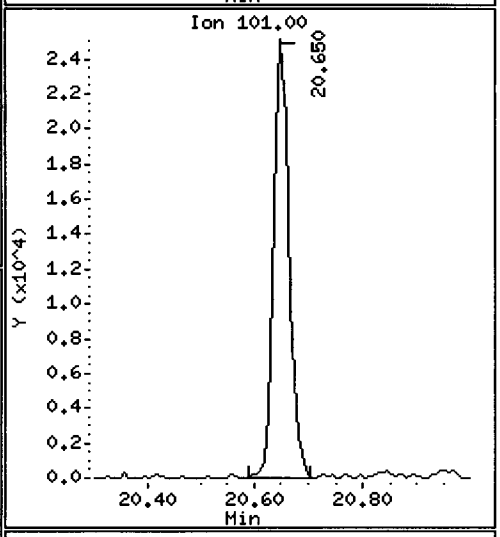
65 Pyrene

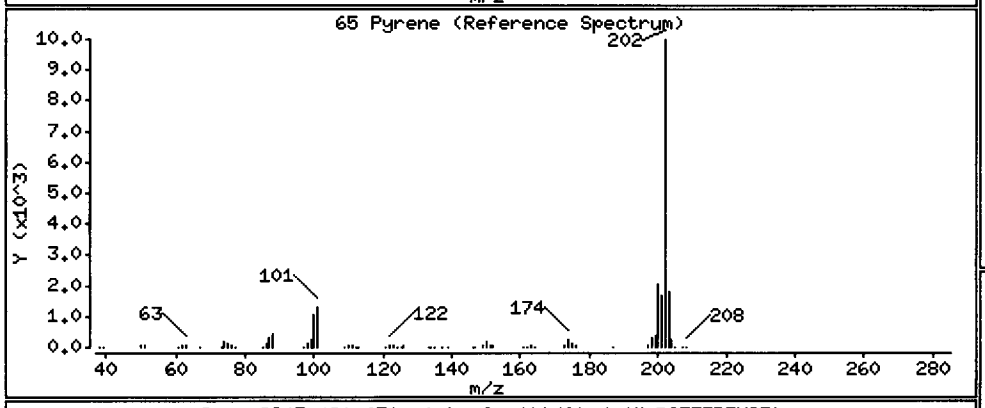
Concentration: 81380 ug/kg

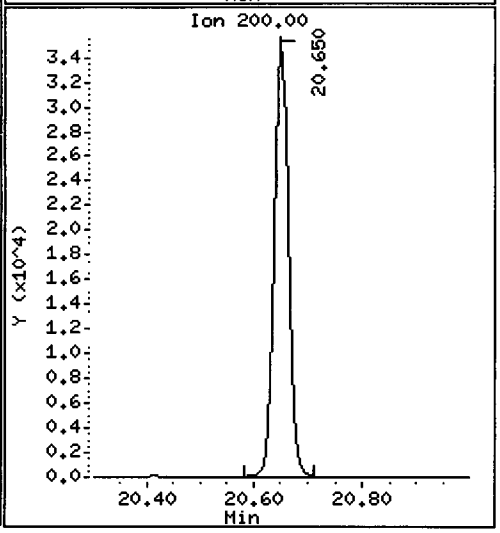


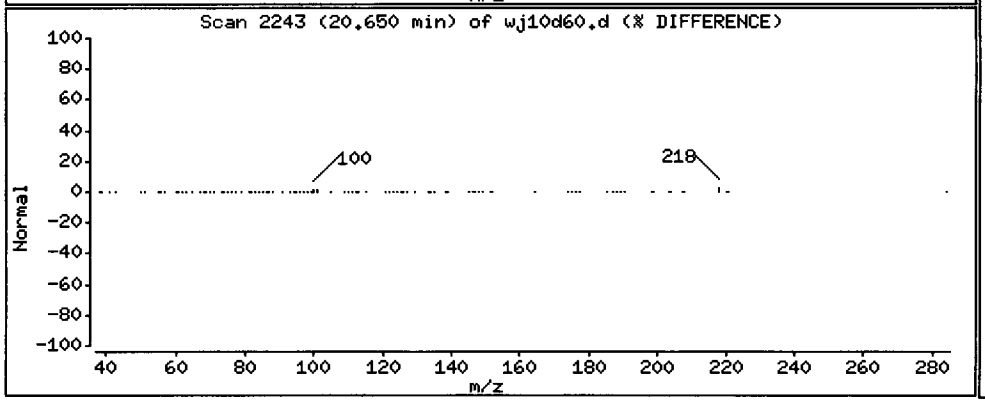












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

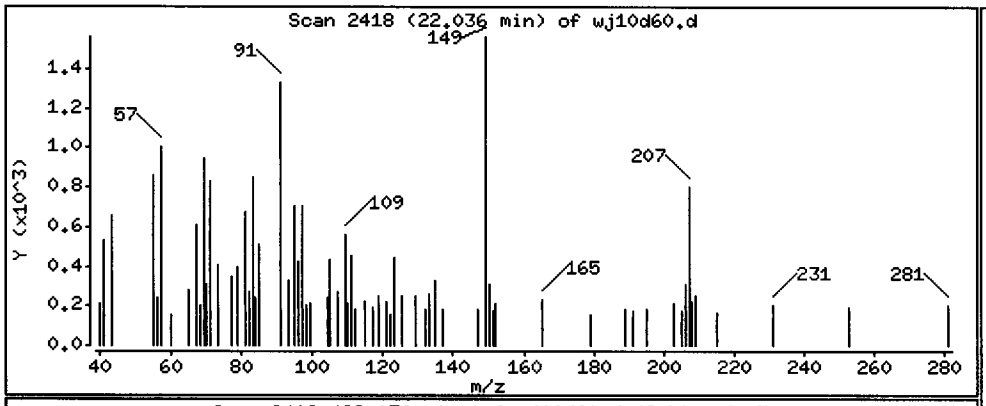
Operator: VTS/YZ

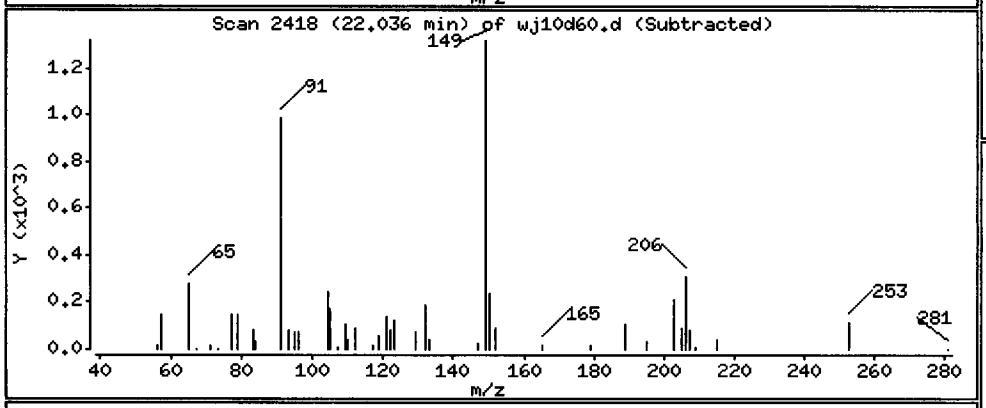
Column phase: ZB-5msi

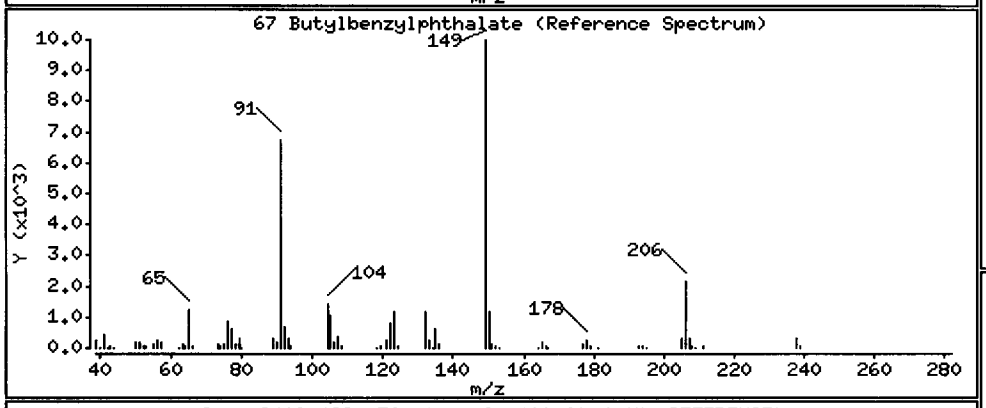
Column diameter: 0.25

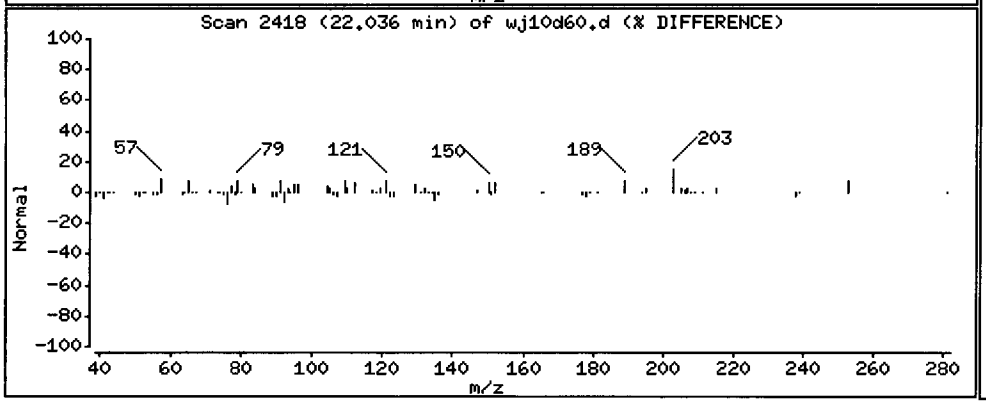
67 Butylbenzylphthalate

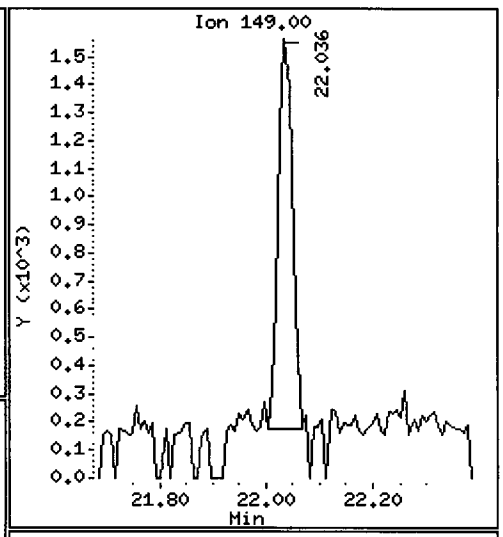
Concentration: 1791 ug/kg

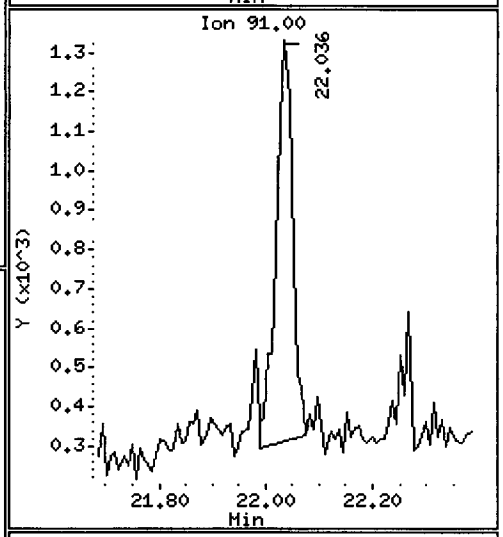


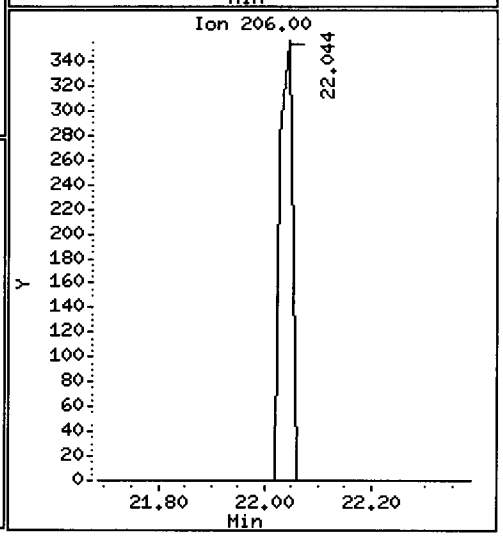












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

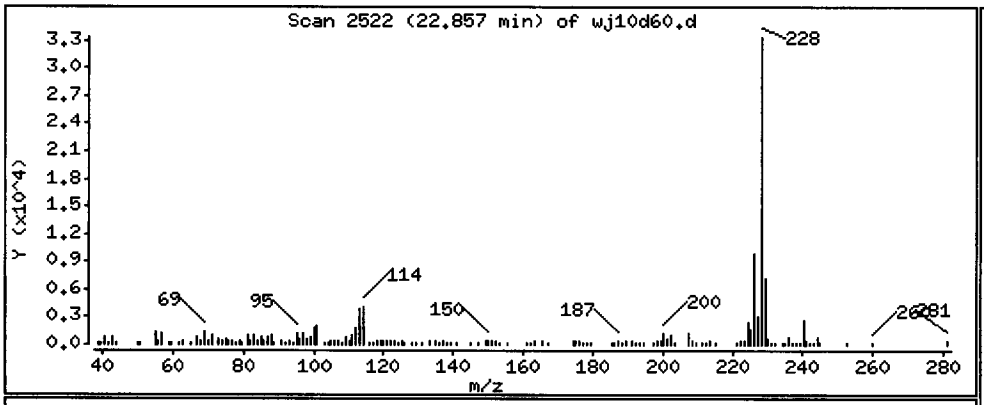
Operator: VTS/YZ

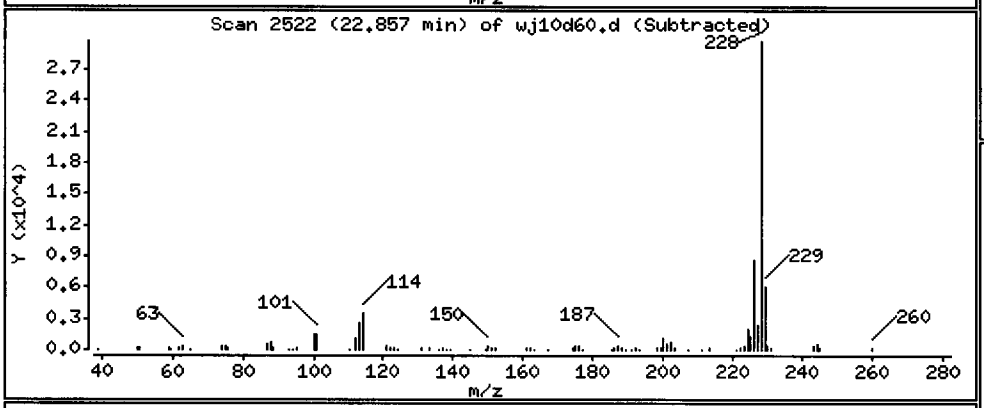
Column phase: ZB-5msi

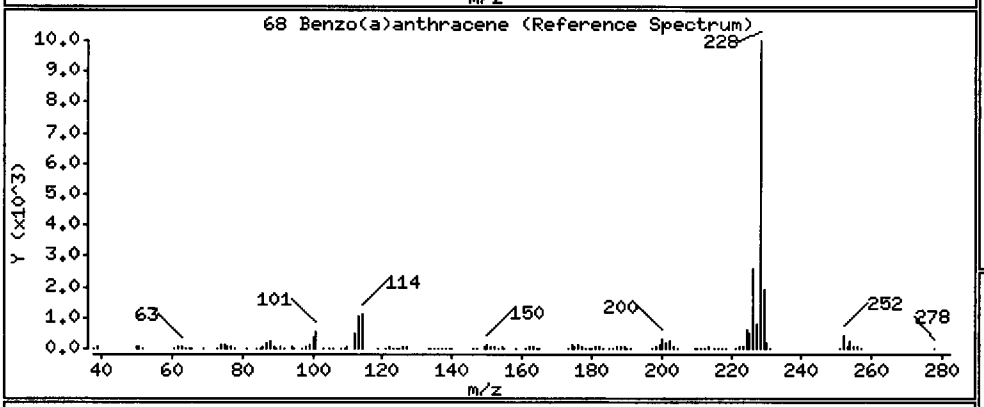
Column diameter: 0.25

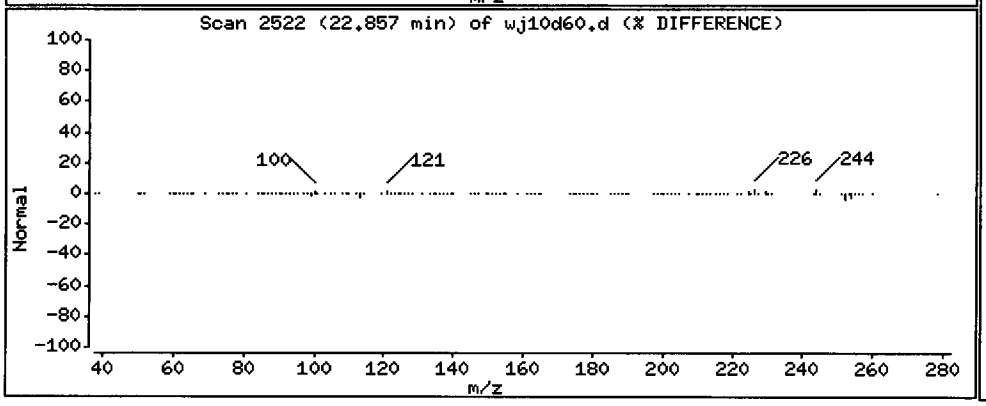
68 Benzo(a)anthracene

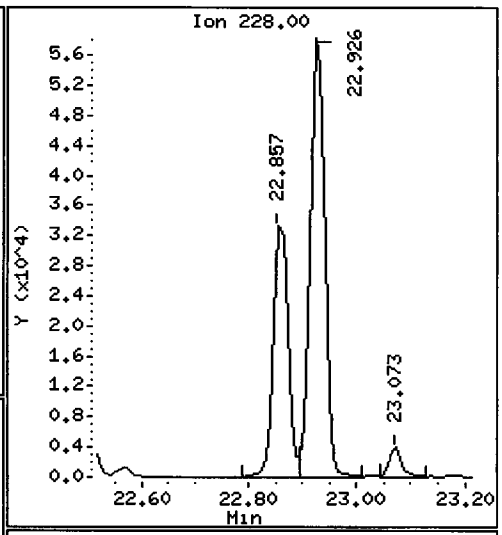
Concentration: 17410 ug/kg

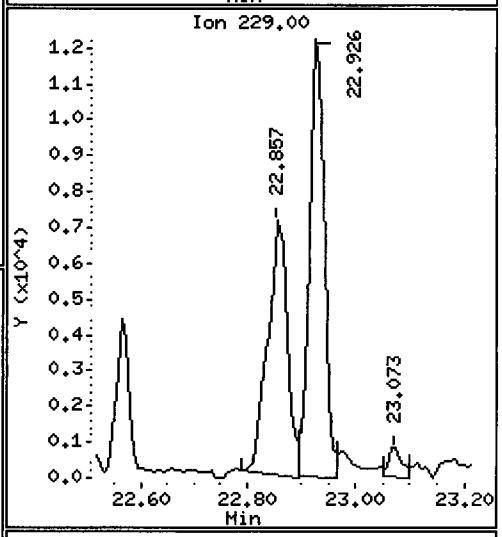


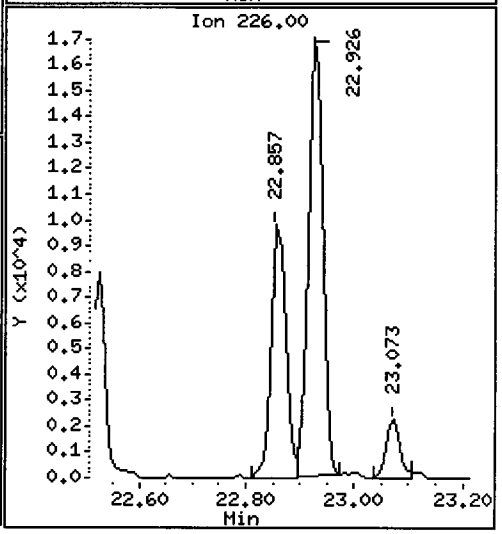












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

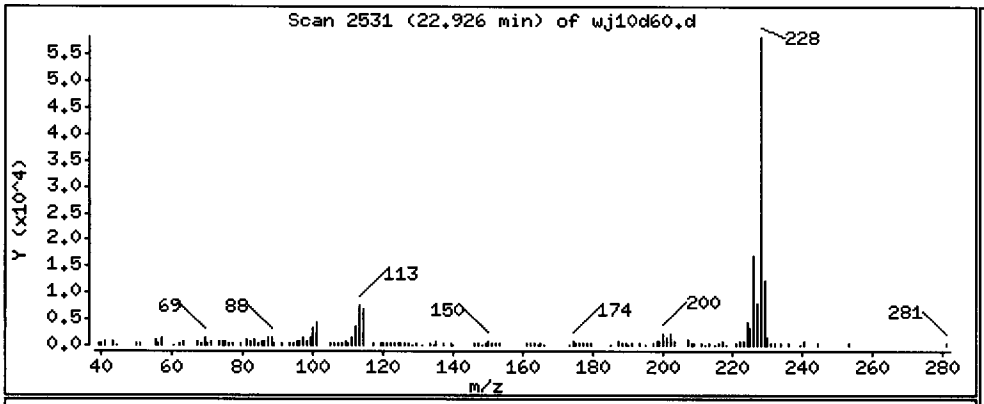
Operator: VTS/YZ

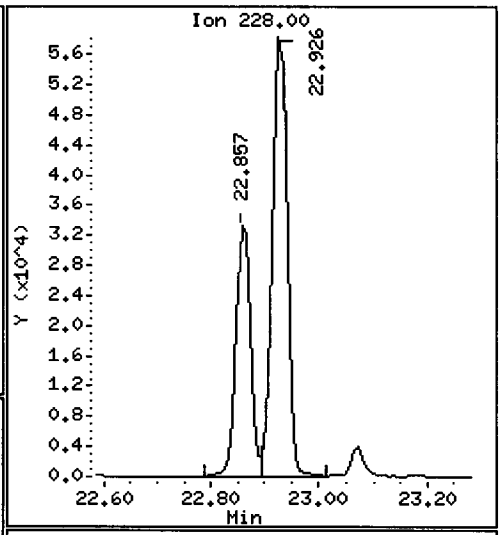
Column phase: ZB-5msi

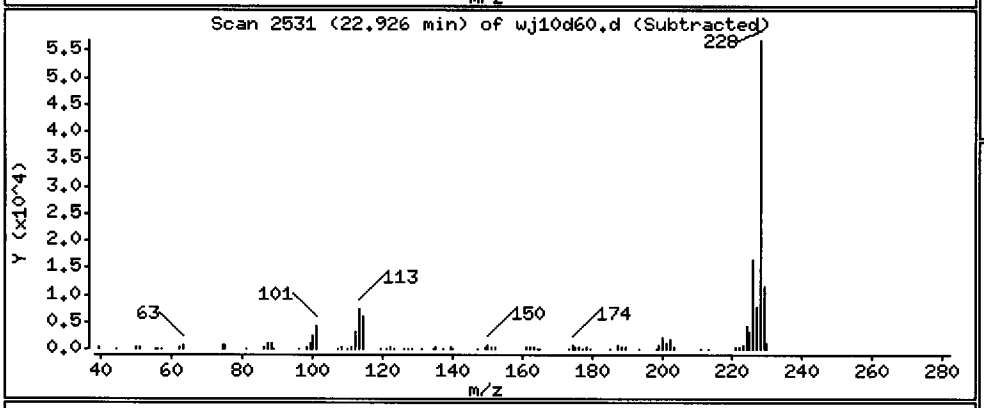
Column diameter: 0.25

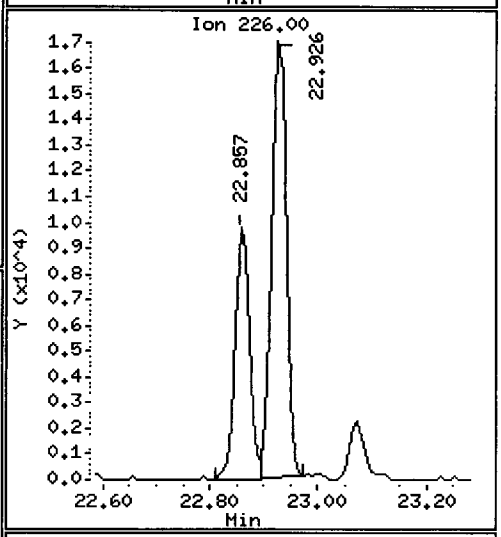
71 Chrysene

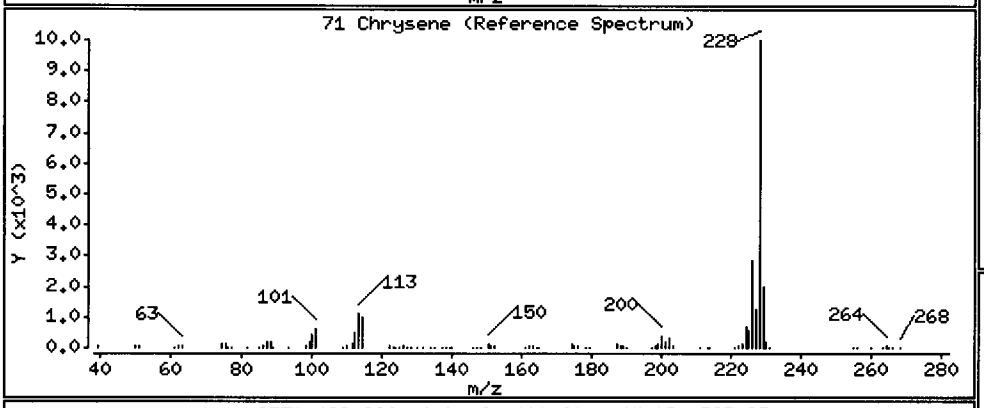
Concentration: 33320 ug/kg

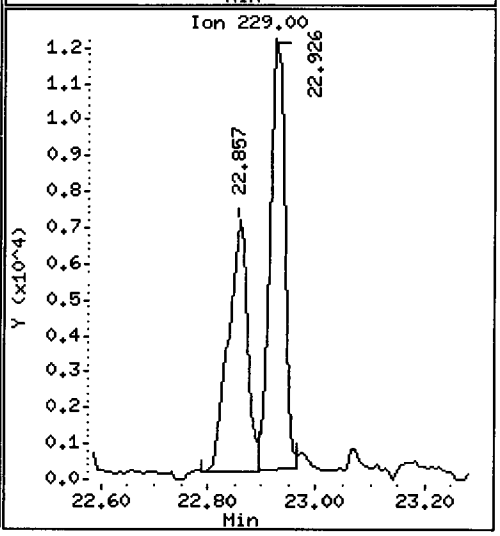


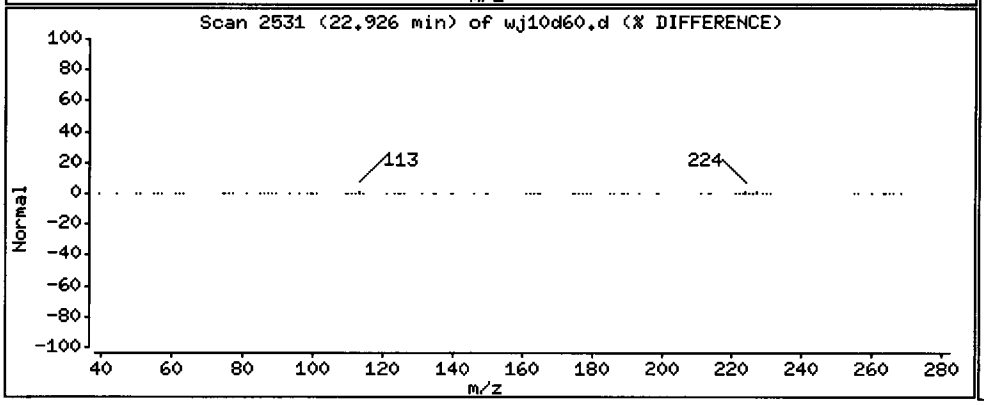












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

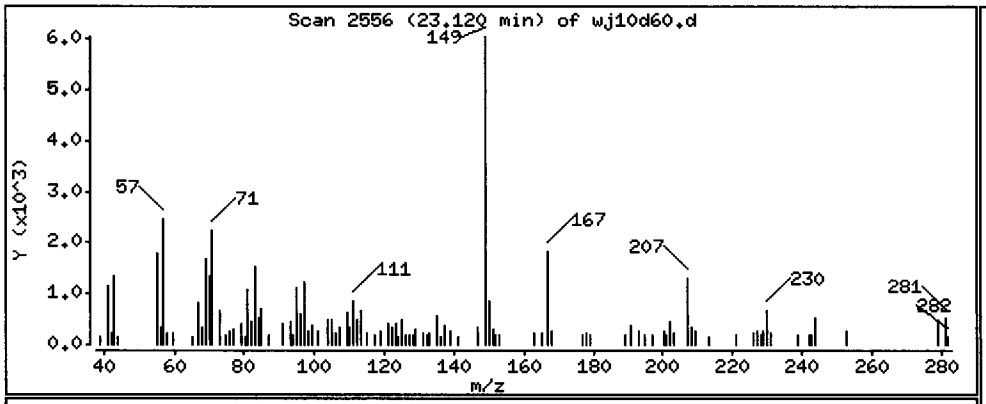
Operator: VTS/YZ

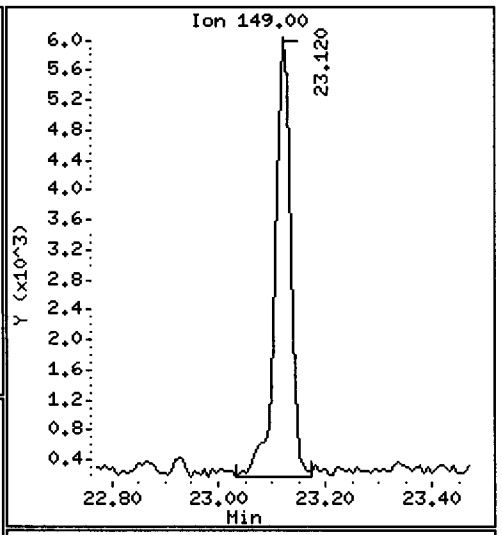
Column phase: ZB-5msi

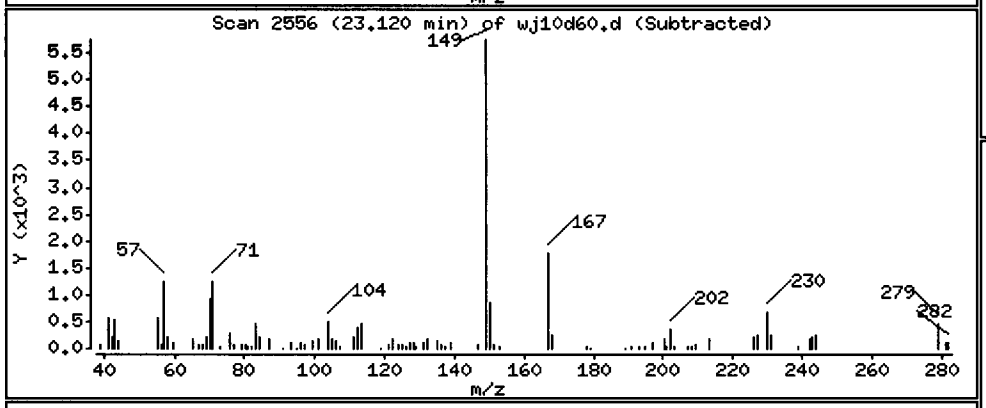
Column diameter: 0.25

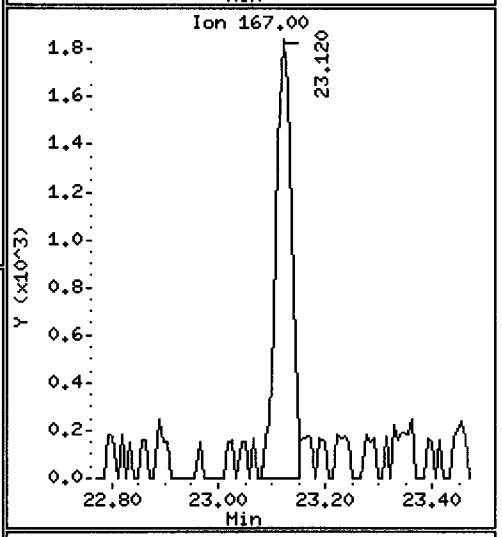
72 bis(2-Ethylhexyl)phthalate

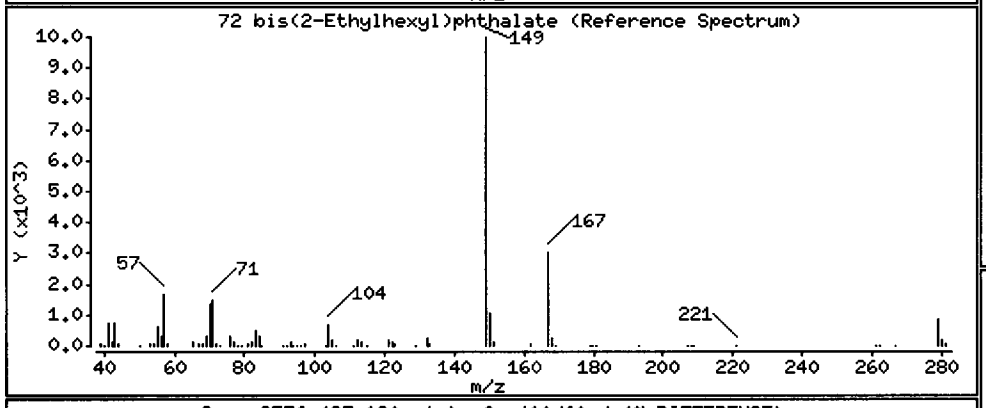
Concentration: 5222 ug/kg

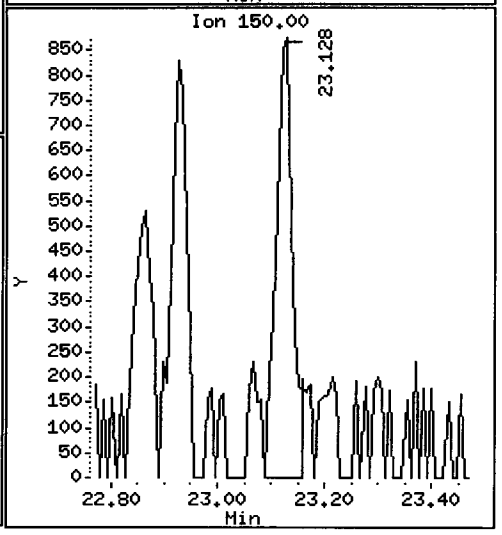


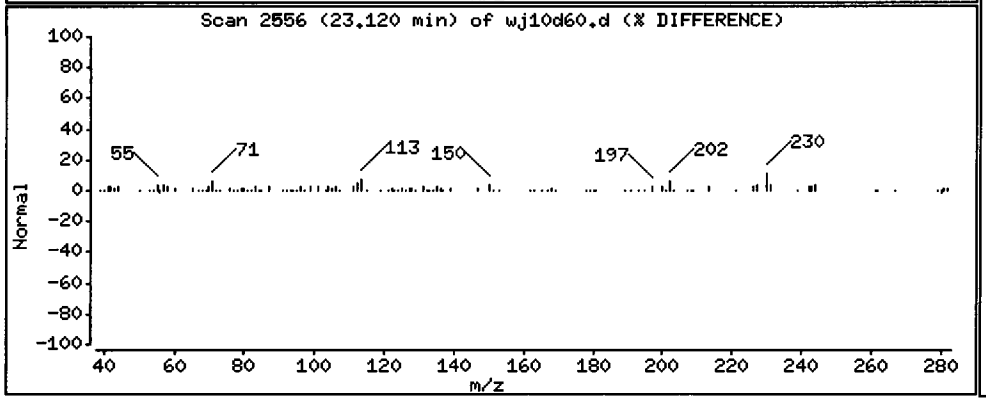












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

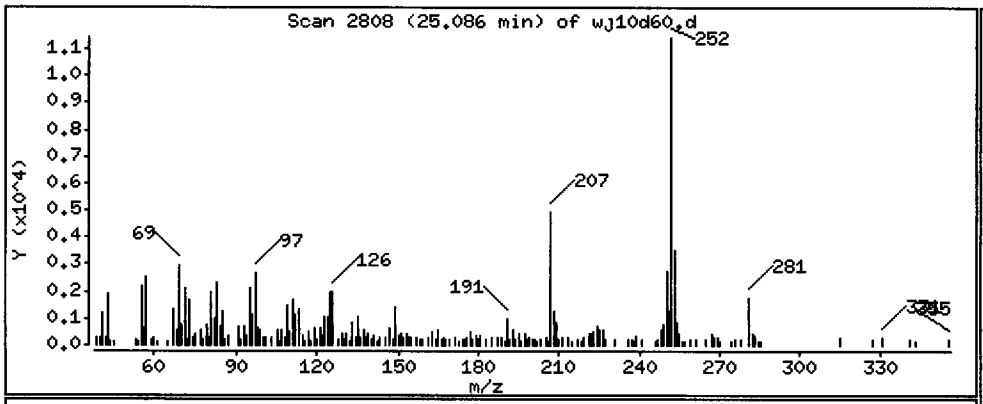
Operator: VTS/YZ

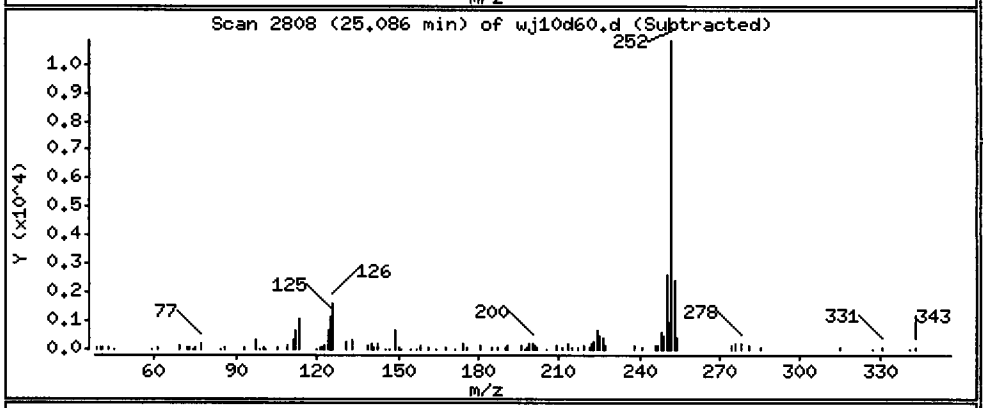
Column phase: ZB-5msi

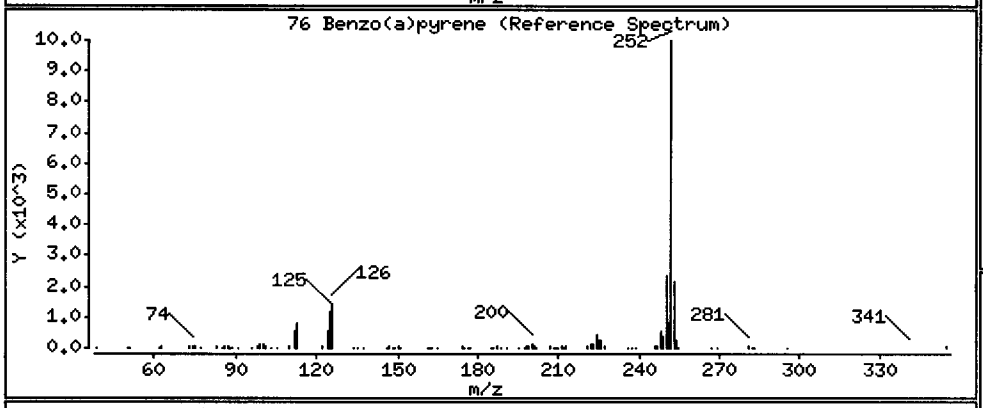
Column diameter: 0.25

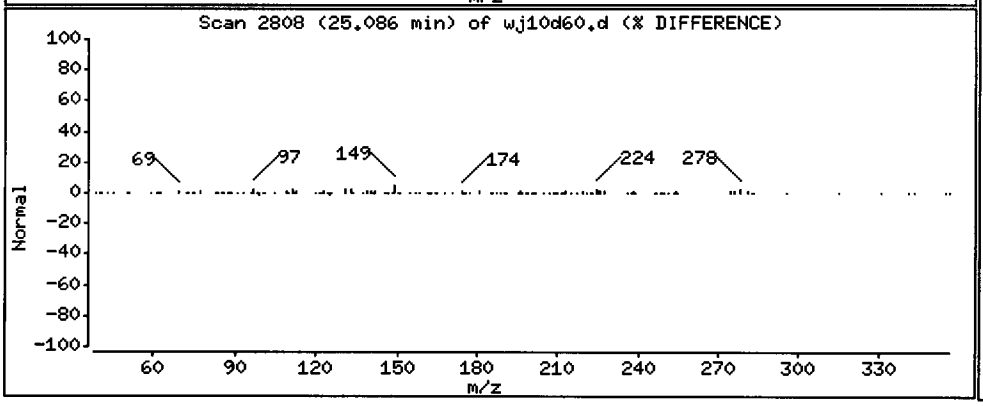
76 Benzo(a)pyrene

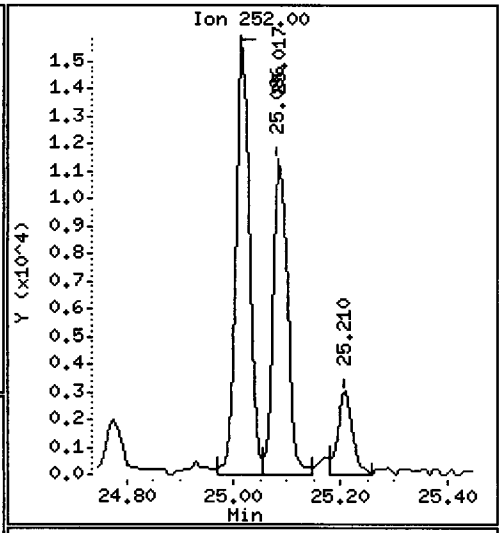
Concentration: 6651 ug/kg

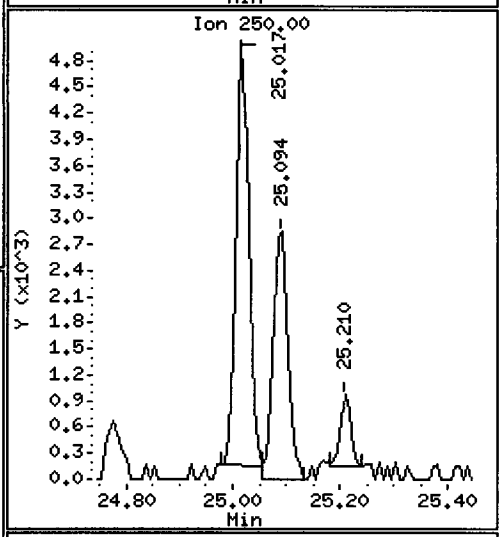


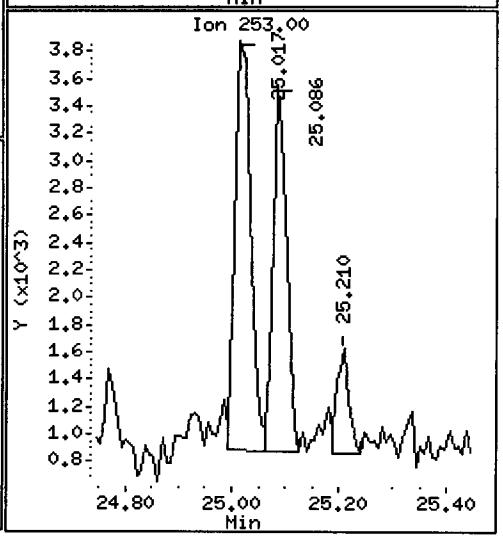












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

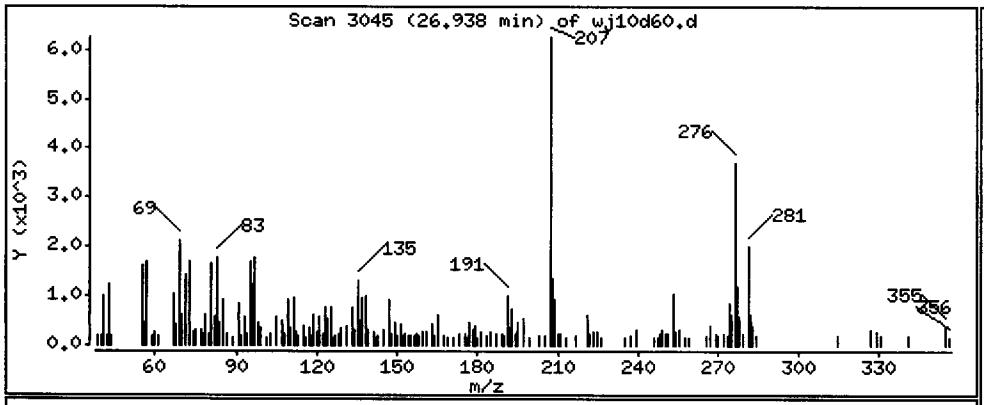
Operator: VTS/YZ

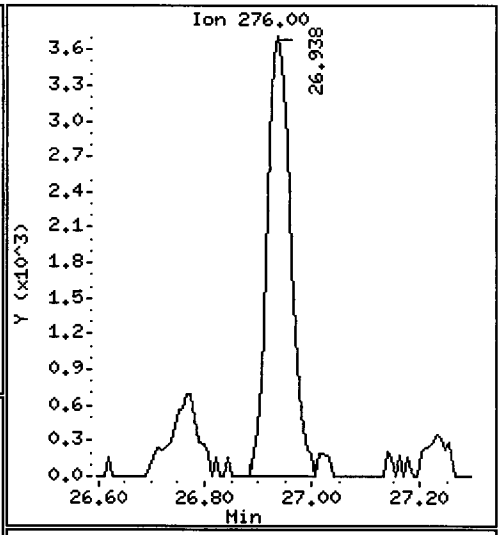
Column phase: ZB-5msi

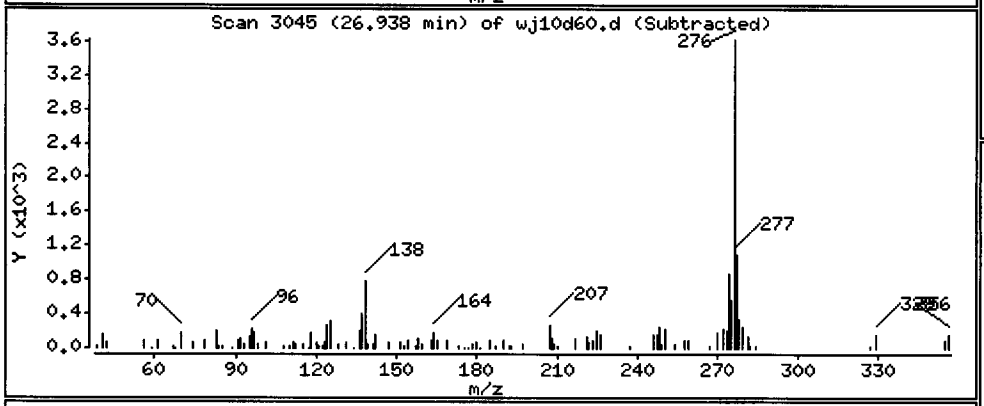
Column diameter: 0.25

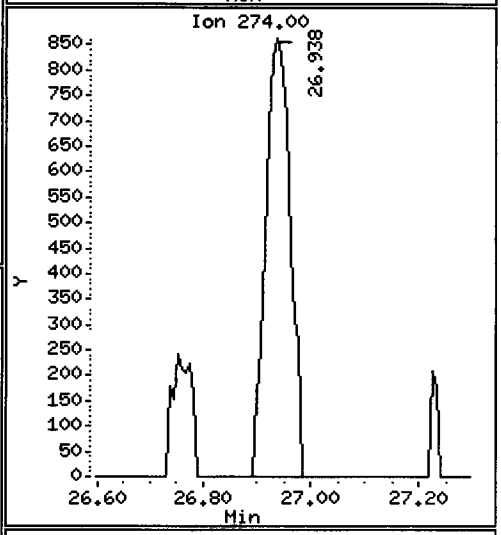
78 Indeno(1,2,3-cd)pyrene

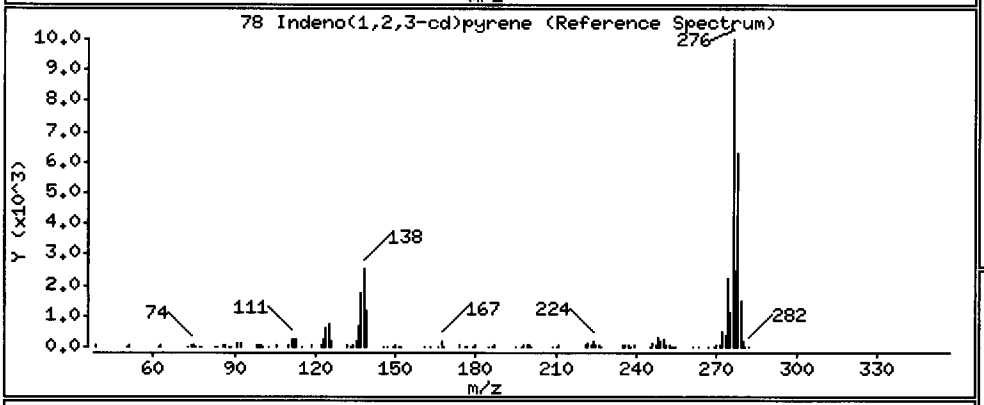
Concentration: 2916 ug/kg

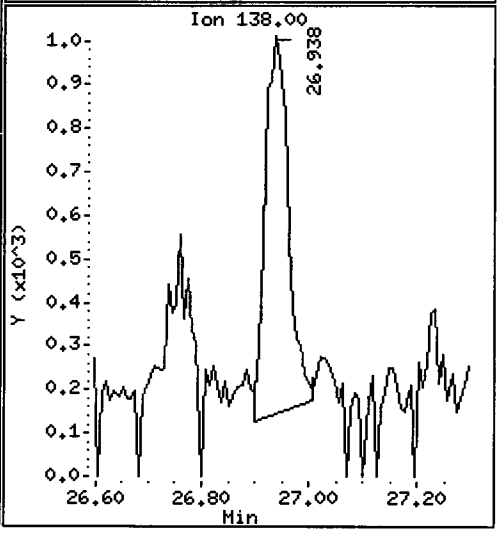


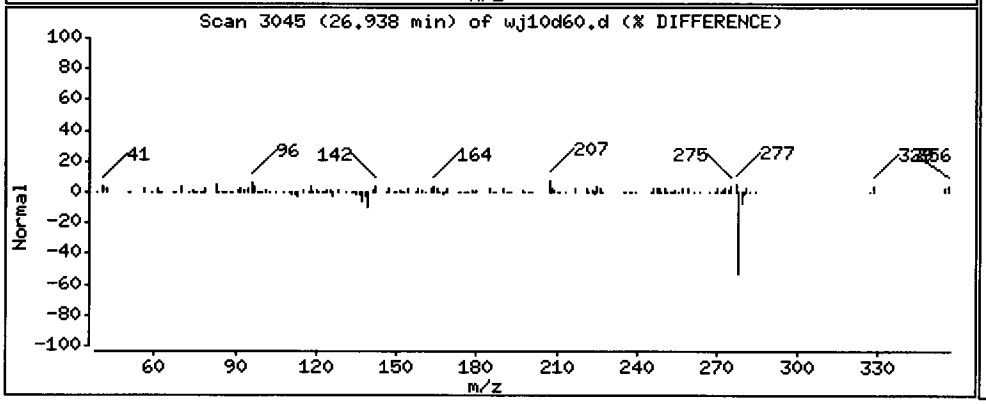












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

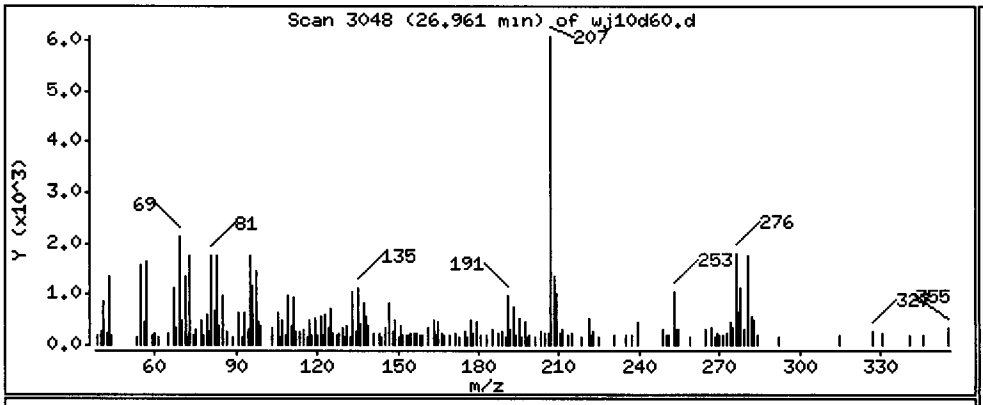
Operator: VTS/YZ

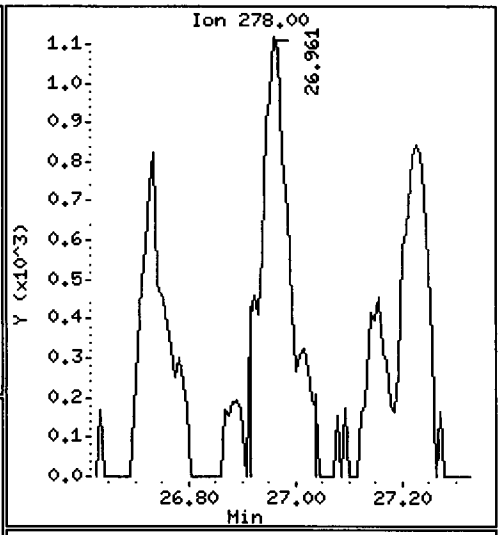
Column phase: ZB-5msi

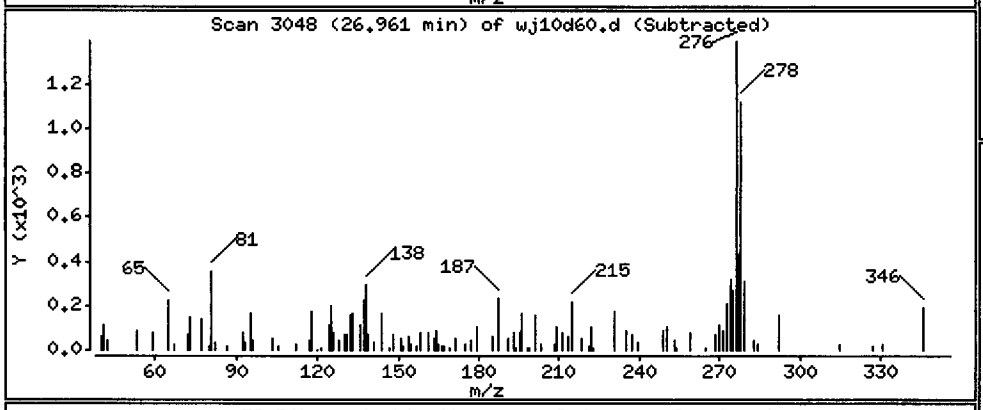
Column diameter: 0.25

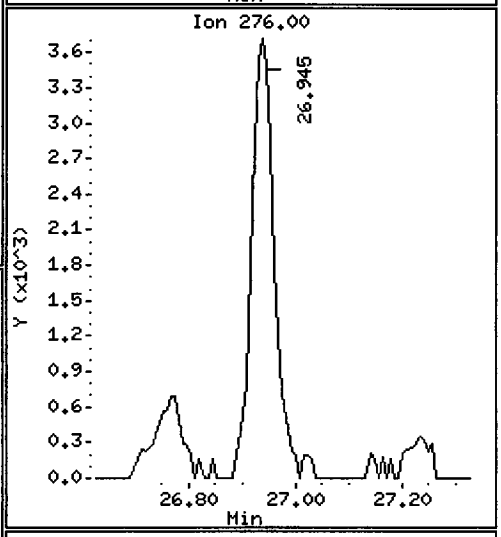
79 Dibenzo(a,h)anthracene

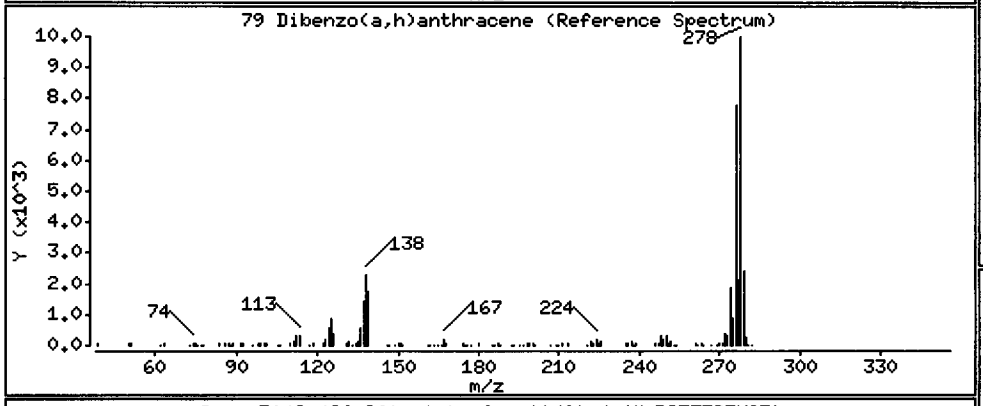
Concentration: 1470 ug/kg

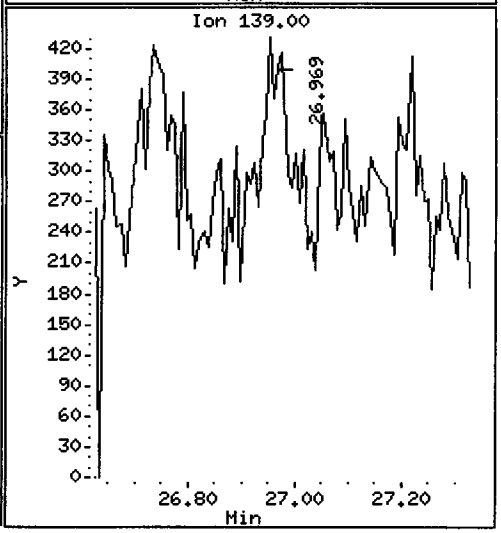


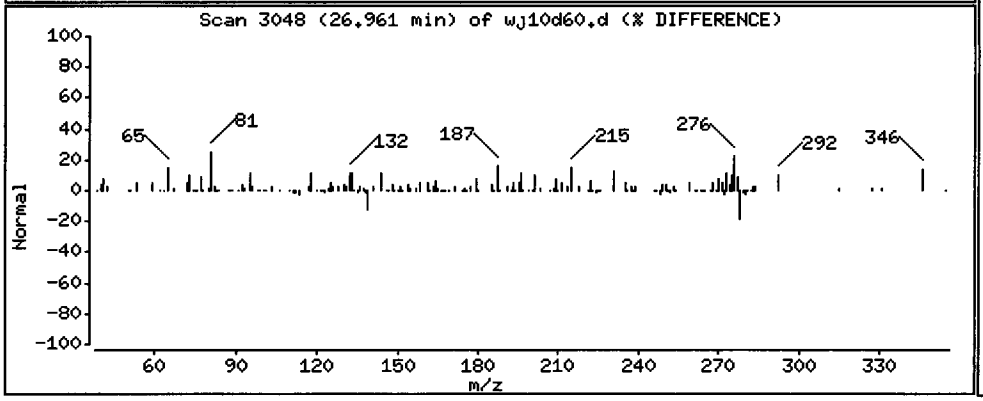












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

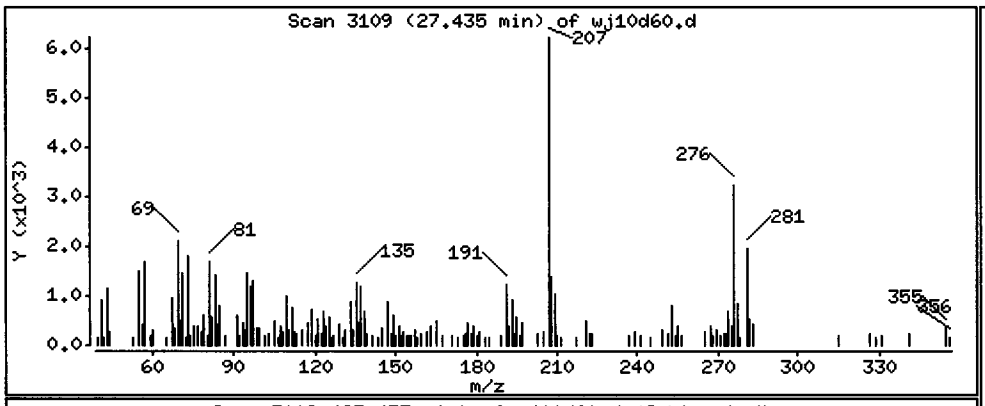
Operator: VTS/YZ

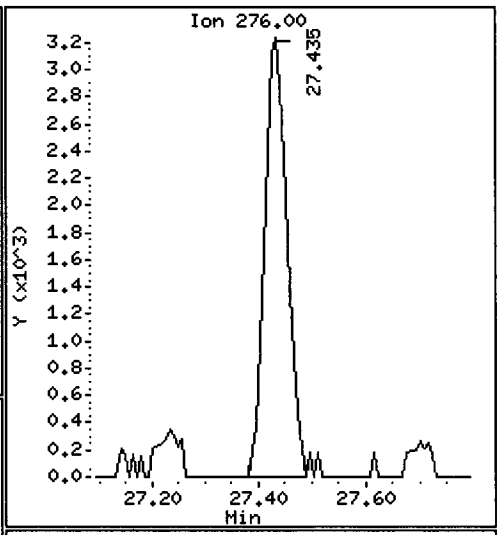
Column phase: ZB-5msi

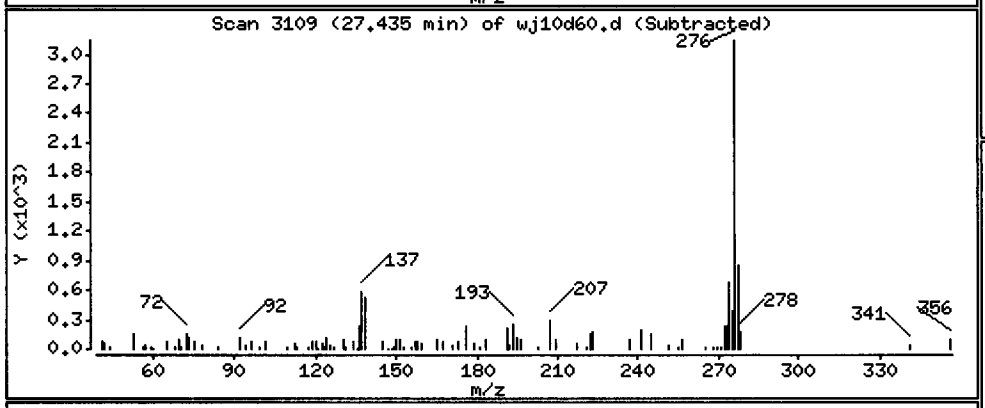
Column diameter: 0.25

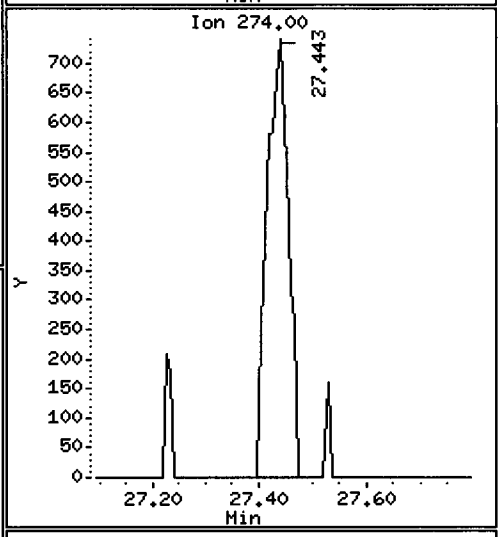
80 Benzo(g,h,i)perylene

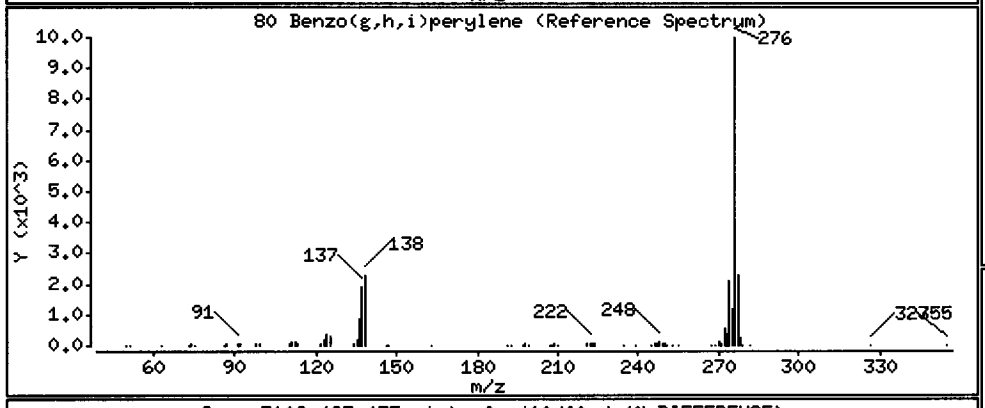
Concentration: 2796 ug/kg

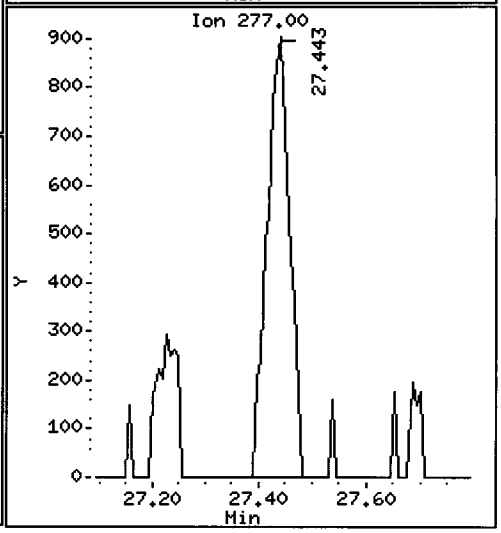


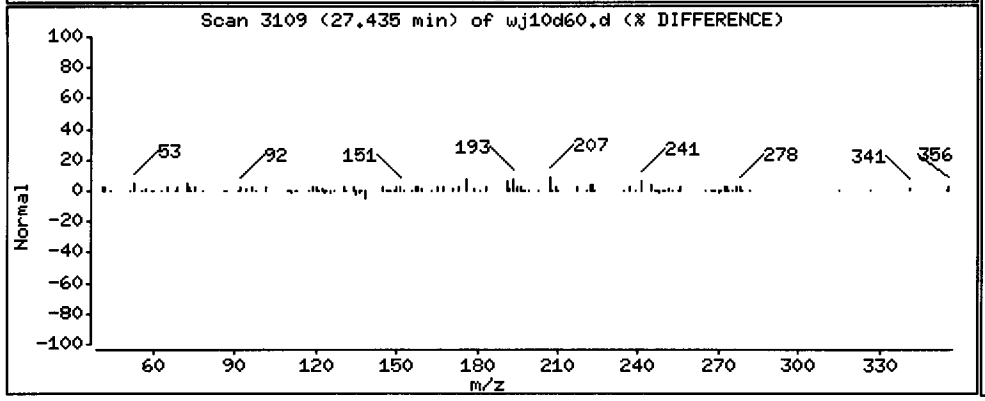












Data File: /chem1/nt10.i/20130409.b/wj10d60.d

Date : 09-APR-2013 12:47

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,60

Volume Injected (uL): 1.0

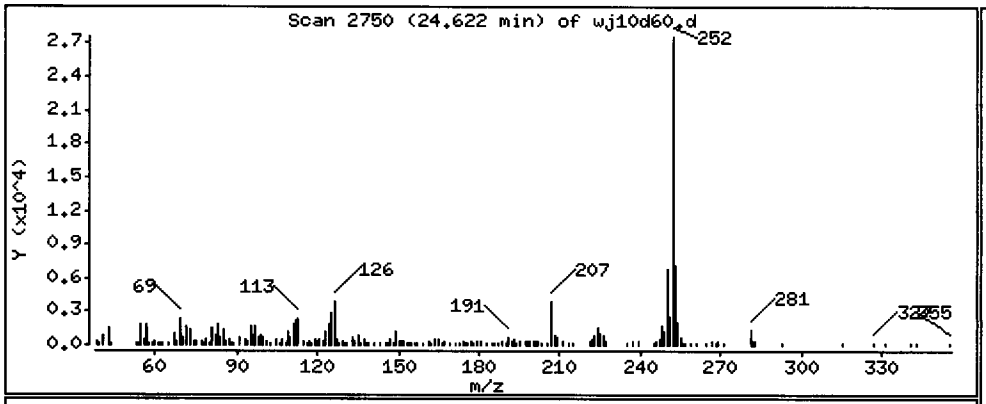
Operator: VTS/YZ

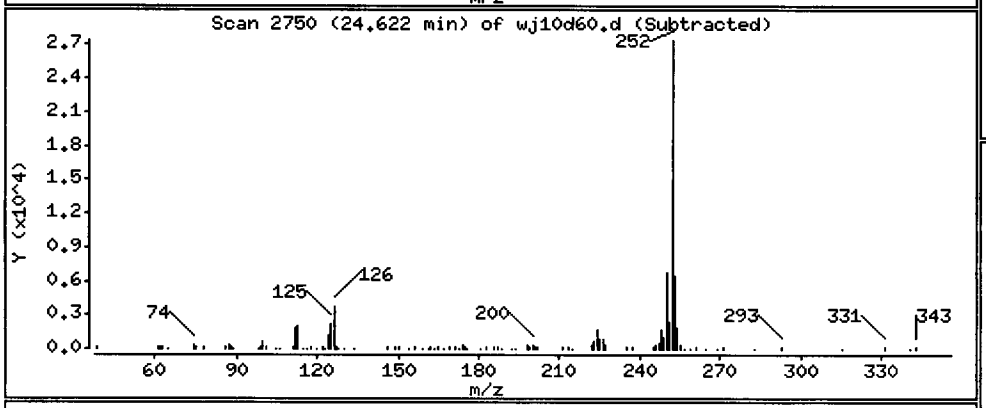
Column phase: ZB-5msi

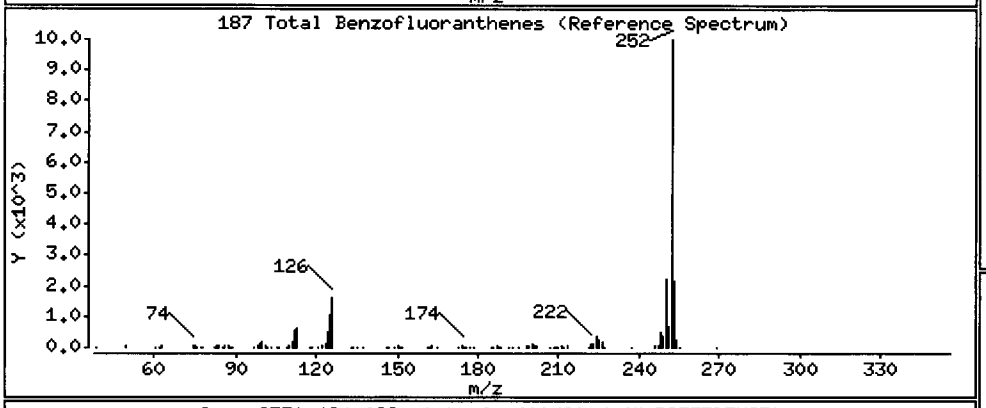
Column diameter: 0.25

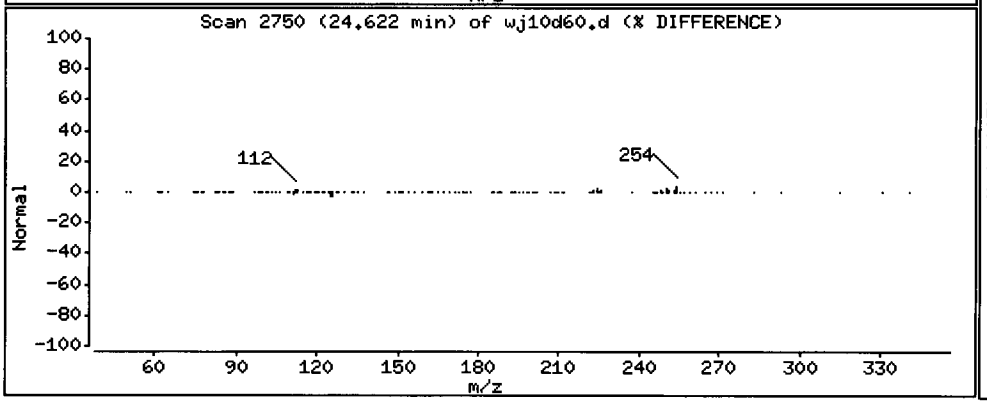
187 Total Benzofluoranthenes

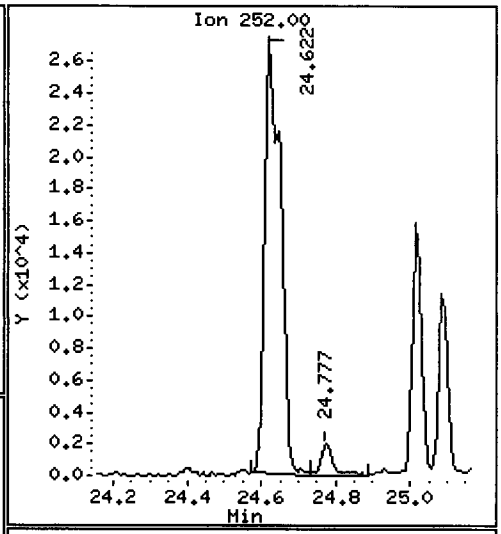
Concentration: 23090 ug/kg

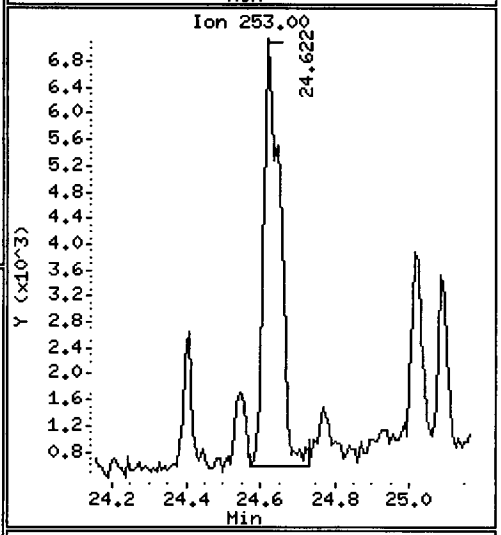


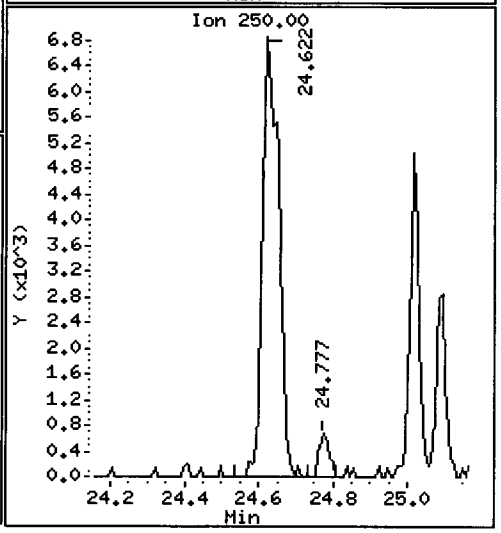






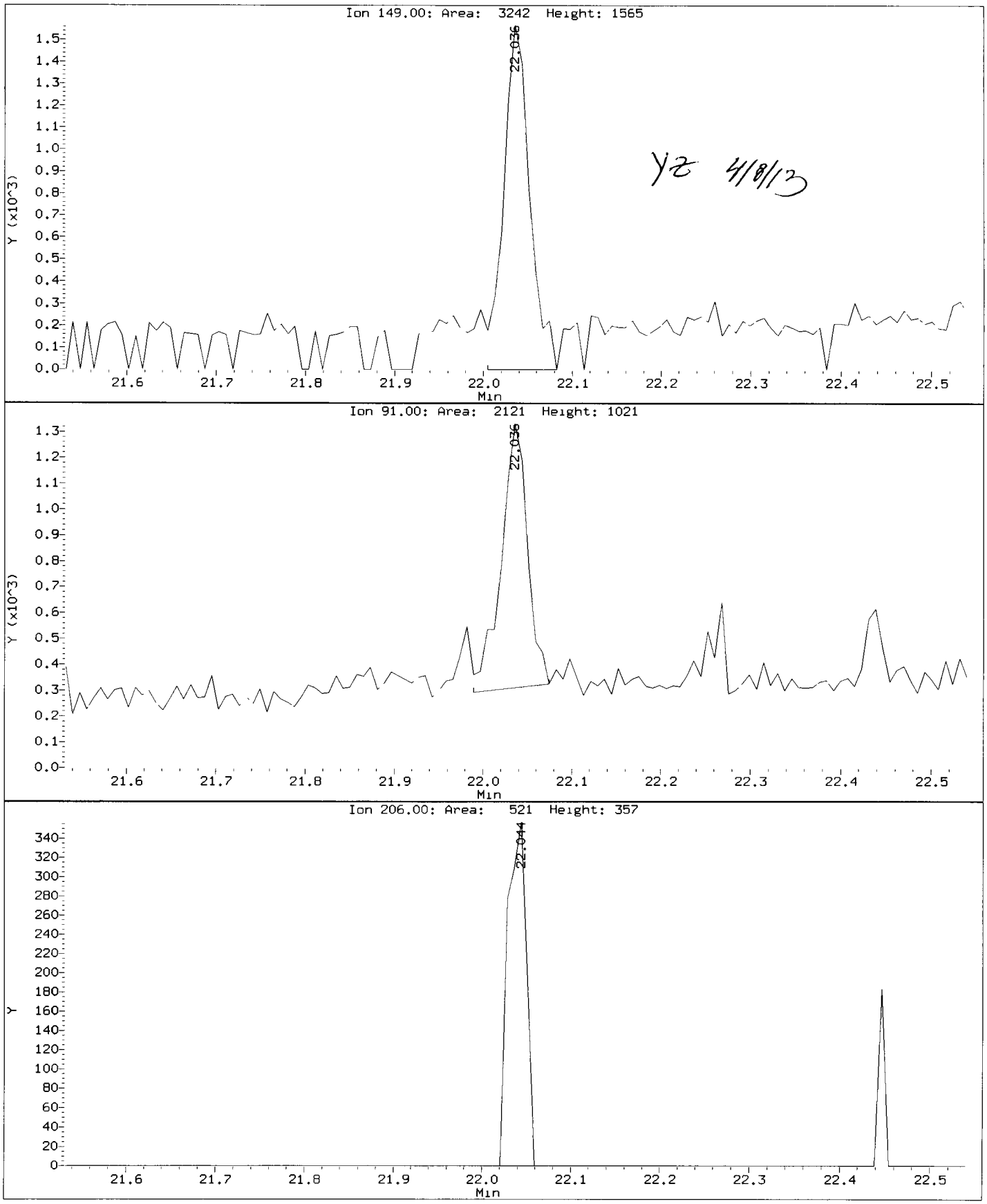






Data File: /chem1/nt10.1/20130409.b/wj10d60.d
Injection Date: 09-APR-2013 12:47
Instrument: nt10.1
Client Sample ID: SD-CB-01-20130326-S

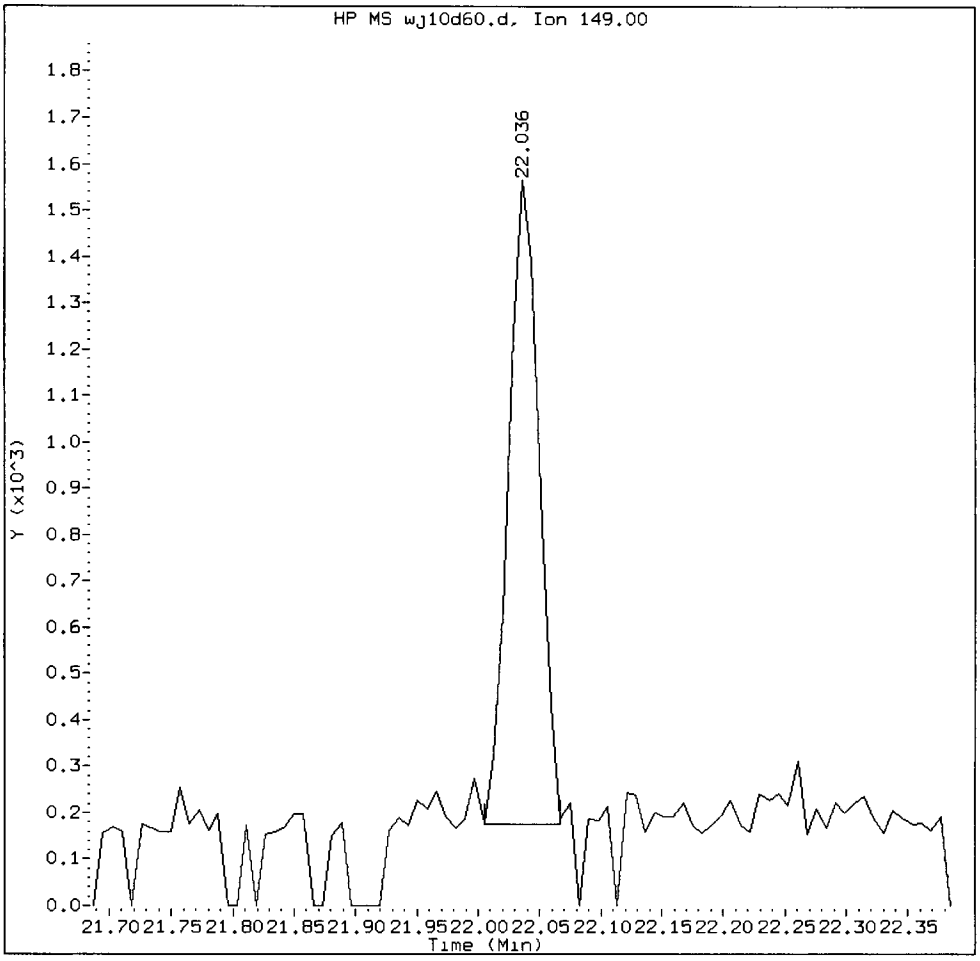
Compound: Butylbenzylphthalate
CAS Number: 85-68-7



YZ 4/8/13

WJ10D, /chem1/nt10.i/20130409.b/wj10d60.d

Butylbenzylphthalate Amount: 0.13 Area: 2449



MANUAL INTEGRATION for Butylbenzylphthalate

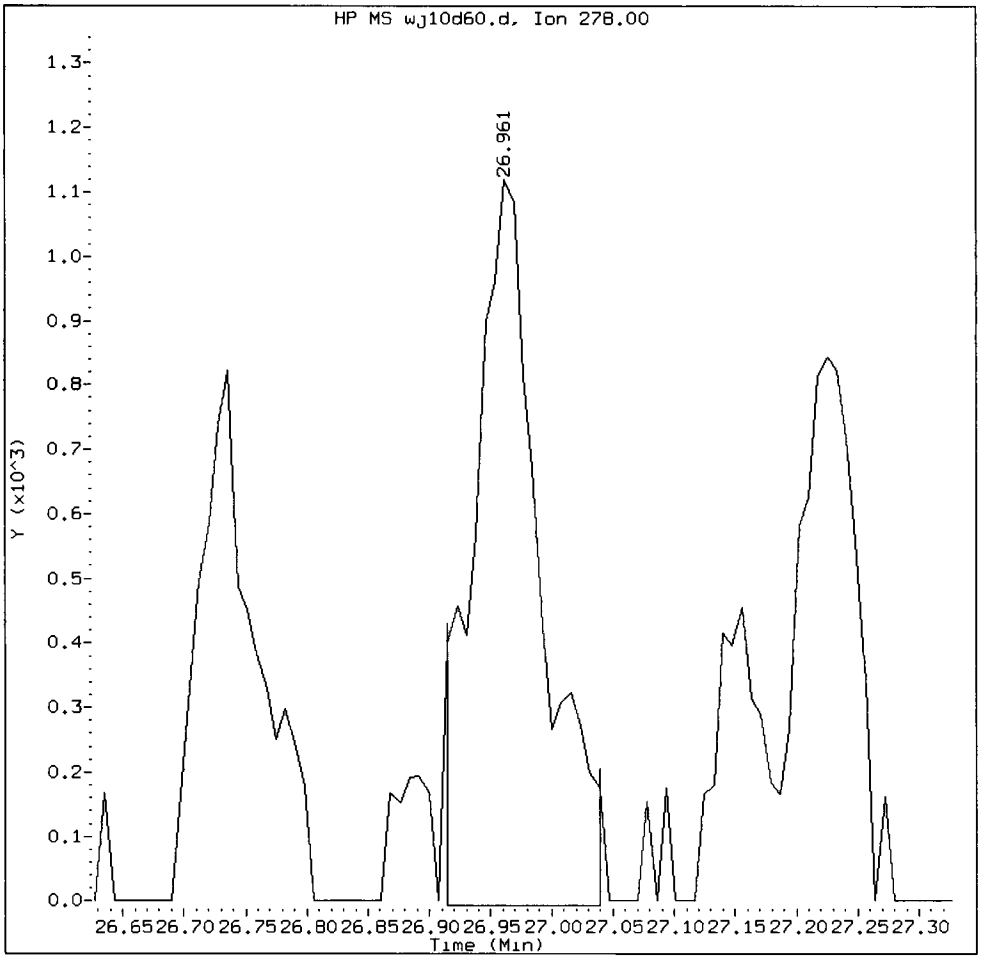
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 4/8/13

WJ10D, /chem1/nt10.i/20130409.b/wj10d60.d

Dibenzo(a,h)anthracene Amount: 0.10 Area: 4485



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 4/8/13

CO-ELUTION SUMMARY FOR FILE - wj10d60.d

Lab ID: WJ10D, Method: ABN.m, Instrument: nt10.i, Date: 09-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

SIM Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WJ10, WJ32

Analytical Chemists and Consultants

(8270D) BAN/SIM SVOA PSDDA-Soil/ Sediment Microwave (3546) (SOP # 3304S) (Solids)

Preparation Test BAN/SIM SVOA PSDDA # 9 (BANSBANSDMP)

PSDDA (5-20ppb)

ARI Job No(s) WJ10 Page 1 of 1 Batch set up by: SP

Bottle #	Extraction Requirements	Weight Extracted (eq. to 10g dry wt)	(REQ) GPC (1:1) 1 or (2)	Final Effective Volume	Volume to Lab	Comments	Verify Client ID / Analyst/Date
	WJ1φ MBS	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	Microwave (1) 2 3 — YL/CJ φ4/φ3/13 Analyst/Date
	↓ SBS	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	
	~~SBS Dup~~	~~10.00g~~	~~(1:1)~~ Y / N	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	KD ~~80-85°C~~ 1 2 3 4 5 6 — Analyst/Date 4/4/13
	QLS WJ1φ	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	
	QLS (SIM)	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	TurboVap (1) 2 3 — SP 4/4/13 Analyst/Date
3	C	1.φ1	(1:1) (Y) / N	1mL	1mL	see Analyst Notes	
6 ~~φ4/φ3~~	D	15.φ5	~~(1:1)~~ (1:2) (Y) / N	~~1mL~~ 2mL CJ2 4/5/13	1mL		GPC Prep Filter (1:1) — SP 4/4/13 Analyst/Date
6	DM.5	15.φ1	~~(1:1)~~ (1:2) (Y) / N	~~1mL~~ 2mL CJ2 4/5/13	1mL		
6	↓ DM.5d	15.2	~~(1:1)~~ (1:2) (Y) / N	~~1mL~~ 2mL CJ2 4/5/13	1mL	↓	
			(1:1) Y / N	1mL	1mL		Post GPC KD 80-85°C 1 2 3 4 5 6 — Analyst/Date 4/5/13
			(1:1) Y / N	1mL	1mL	CJ2 4/5/13	
			(1:1) Y / N	1mL	~~1mL~~		
			(1:1) Y / N	1mL	1mL		TurboVap 1 (2) 3 — CJ2 4/5/13 Analyst/Date
Analyst/Date YL φ4/φ3/13			SP 4/4/13	CJ2 4/5/13	CJ2 4/5/13		

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (2φ84-3)	100/150µg/mL	50µL	7/φ2/13	YL	SP
Full List Spike (Freezer)	7 (2φ65-5)	100µg/mL	50µL	1/29/14	YL	SP
Base Spike	56(2φ65-2)	200µg/mL	50µL	7/31/13	YL	SP
Acid Spike	38(2φ74-1)	100/150µg/mL	50µL	7/31/13	YL	SP
QLS Spike (14 in Freezer)	14(2φ32-2)	100/200µg/mL	20µL	4/24/13	YL	SP
SIM QLS Spike (Freezer)	25(2φ42-5)	1µg/mL	50µL	4/24/13	YL	SP
Extraction Time: 1315				Balance ID: B14642614		

SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 DCM/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-rehomogenize while hot then let cool 15 min in cold water. Re-homogenize while cool. 7. Decant 1:1 DCM/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using DCM only (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD (small ~~o~~ange drying column with pre-deactivated glasswool-Blanks=5g sulfate)) to 5mL at 80- 85°C. 12. GPC Req. 13. (After GPC): KD at 80-85°. 14. TurboVap. 15. Vial in DCM.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

WJ10:01331

SIM Semivolatile Raw Data
Initial Calibration

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS,SVOA Initial Calibration Notes

ARI SOP: 801S(SIM-PNA) 802S(Butyl Tins) 804S(SVOA-8270D) SIM ABN 805S(op-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date(s): 01/25/13 Internal Standard ID 1998-2 Expiration 07/03/13

DFTPP Tune Meets Criteria?	YES / NO	Minimum Response Factors Met/	YES / NO
DDT Breakdown <20%?	YES / NO	ICV Exceeding ±20%? See fuel scan	YES / NO
Peak Tailing Factor ≤2?	YES / NO	ICV Exceeding ±30%?	YES / NO
ICal Meets %RSD & r^2 Criteria?	YES / NO	Linear Fits Used?	YES / NO
Q flag applied?	YES / NO	Quadratic Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Calibration Points Dropped?	YES / NO
Spectral Library Updated?	YES / NO		

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Supelco	2036-2	02/07/13	Ultra	see fuel scan curve.	
	2050-1	03/07/13			
	2050-2	3/10/13			
	2064-2	04/25/14			
	1998-4	07/03/13			

Detail problems, corrective actions and/or other pertinent information below:

- cal point dropped for PCP.

Analyst: YB Date: 02/05/13

Reviewer: VD Date: 2.6.13

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 2013/01/25 Analysis: ABN-SIM ABN Analyst: YZ

GC Program: ABN Column No: 247358 Column Type: 2B5 ms

Instrument Tune (.U or .CT.): 12120414 EM Voltage: 1600

Calibration File: DF0125 Curve Date: 01/25/13 Injection Vol.: 1ul

IS/SS	Ical/Ccal	LCS/ICV
1998-2	2036-2	
	2050-1	
	2050-2	
	2004-2	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130125.b

	Time	Filename	LabID	ClientId	DF									
1	1243	df0125.d	DFTPP	DFTPP	1	NO ISTDS FOUND								
2	1259	ic0125a.d	IC0125A		1	9.09	52329	11.75	195391	15.66	112411	18.94	208917	24.01	237704	26.51	236168
3	1413	ic0125c.d	IC0125C		1	9.09	49909	11.75	185289	15.66	102172	18.94	190705	24.01	214940	26.51	207018
4	1527	ic0125e.d	IC0125E		1	9.09	53853	11.75	200104	15.66	112392	18.94	210710	24.01	240805	26.51	230834
5	1603	ic0125f.d	IC0125F		1	9.09	51752	11.75	191986	15.66	110315	18.94	205875	24.01	242832	26.51	234305
6	1640	ic0125g.d	IC0125G		1	9.09	51364	11.75	189071	15.66	102169	18.94	186737	24.01	216735	26.51	211470
7	1716	ic0125h.d	IC0125H		1	9.09	50086	11.75	188224	15.66	104418	18.94	198157	24.01	227339	26.51	219691
8	1753	ic0125i.d	IC0125I		1	9.08	52438	11.75	194819	15.66	105586	18.94	194976	24.01	224554	26.51	218858

YZ 02/01/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130125.b/SIM.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	ic0125a	ic0125c	ic0125e	ic0125f	ic0125g	ic0125h	ic0125i
INJ.DATE:	25-JAN-2013	25-JAN-2013	25-JAN-2013	25-JAN-2013	25-JAN-2013	25-JAN-2013	25-JAN-2013
INJ.TIME:	12:59	14:13	15:27	16:03	16:40	17:16	17:53

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.724	6.725	6.725	6.725	6.725	6.725	6.725	6.724	6.224-7.224	6.725	0.000
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.580	33.080-34.080	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.873	30.373-31.373	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.300	30.800-31.800	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.300	30.800-31.800	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.496	14.996-15.996	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.428	19.928-20.928	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.471	19.971-20.971	+++++	+++++
137 NewCpnd_131	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.612	7.112-8.112	+++++	+++++
* 134 Di-n-octylphthalate-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.900	16.400-17.400	+++++	+++++
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.190	13.690-14.690	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.262	30.762-31.762	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.196	29.696-30.696	+++++	+++++
146 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.852	23.352-24.352	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.862	27.362-28.362	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.566	20.066-21.066	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.855	19.355-20.355	+++++	+++++

Reviewer 1 YZ Date: 02/06/13
Reviewer 2 VD Date: 2.6.13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130125.b/SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.517	16.017-17.017	+++++	+++++
	107 4,5-Dichloro-2-Methoxy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.934	14.434-15.434	+++++	+++++
	106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.843	11.343-12.343	+++++	+++++
	105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.826	10.326-11.326	+++++	+++++
$	2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.886	6.386-7.386	+++++	+++++
	3 Phenol	8.463	8.456	8.456	8.456	8.456	8.456	8.456	8.463	7.963-8.963	8.457	0.003
	4 Bis(2-Chloroethyl)ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.268	7.768-8.768	+++++	+++++
$	5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.087	6.587-7.587	+++++	+++++
	6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.592	8.092-9.092	+++++	+++++
	7 1,3-Dichlorobenzene	9.020	9.012	9.012	9.020	9.012	9.013	9.012	9.020	8.520-9.520	9.015	0.004
*	8 1,4-Dichlorobenzene-d4	9.090	9.090	9.090	9.090	9.090	9.090	9.082	9.090	8.590-9.590	9.089	0.003
	9 1,4-Dichlorobenzene	9.121	9.121	9.121	9.121	9.121	9.121	9.113	9.121	8.621-9.621	9.120	0.003
$	10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.656	7.156-8.156	+++++	+++++
	11 Benzyl alcohol	9.392	9.392	9.392	9.392	9.392	9.393	9.392	9.392	8.892-9.892	9.392	0.000
	12 1,2-Dichlorobenzene	9.501	9.501	9.501	9.501	9.501	9.494	9.493	9.501	9.001-10.001	9.499	0.004
	13 2-Methylphenol	9.648	9.649	9.649	9.648	9.649	9.649	9.649	9.648	9.148-10.148	9.649	0.000
	14 2,2'-oxybis(1-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.966	8.466-9.466	+++++	+++++
	15 4-Methylphenol	9.943	9.944	9.944	9.943	9.944	9.936	9.936	9.943	9.443-10.443	9.941	0.004
	16 N-Nitroso-di-n-propyla	10.005	9.998	9.998	9.998	9.998	9.998	9.998	10.005	9.505-10.505	9.999	0.003
	17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.274	8.774-9.774	+++++	+++++
$	18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.237	7.737-8.737	+++++	+++++
	19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.618	8.118-9.118	+++++	+++++
	20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.987	8.487-9.487	+++++	+++++
	21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.356	8.856-9.856	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130125.b/SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	22 2,4-Dimethylphenol	11.068	11.068	11.068	11.068	11.068	11.068	11.068	11.068	10.568-11.568	11.068	0.000
	23 Bis(2-Chloroethoxy)met	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.356	8.856-9.856	+++++	+++++
	24 Benzoic acid	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.248	9.748-10.748	+++++	+++++
	25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.500	9.000-10.000	+++++	+++++
	26 1,2,4-Trichlorobenzene	11.669	11.669	11.669	11.669	11.669	11.669	11.669	11.669	11.169-12.169	11.669	0.000
*	27 Naphthalene-d8	11.754	11.754	11.754	11.754	11.754	11.754	11.754	11.754	11.254-12.254	11.754	0.000
	28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.480	8.980-9.980	+++++	+++++
	29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.911	9.411-10.411	+++++	+++++
	30 Hexachlorobutadiene	12.209	12.210	12.210	12.209	12.210	12.210	12.210	12.209	11.709-12.709	12.210	0.000
	31 4-Chloro-3-methylpheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.301	9.801-10.801	+++++	+++++
	32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.826	10.326-11.326	+++++	+++++
	33 Hexachlorocyclopentadi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.194	10.694-11.694	+++++	+++++
	34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.019	10.519-11.519	+++++	+++++
	35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.386	10.886-11.886	+++++	+++++
$	36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.091	10.591-11.591	+++++	+++++
	37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.600	11.100-12.100	+++++	+++++
	38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.805	11.305-12.305	+++++	+++++
	39 Dimethylphthalate	15.173	15.166	15.166	15.173	15.166	15.166	15.166	15.173	14.673-15.673	15.168	0.004
	40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.232	11.732-12.732	+++++	+++++
	41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.177	11.677-12.677	+++++	+++++
*	42 Acenaphthene-d10	15.661	15.661	15.661	15.661	15.661	15.661	15.661	15.661	15.161-16.161	15.661	0.000
	43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.508	12.008-13.008	+++++	+++++
	44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.578	12.078-13.078	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130125.b/SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.660	12.160-13.160	+++++	+++++
	46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.756	12.256-13.256	+++++	+++++
	47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.867	12.367-13.367	+++++	+++++
	48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.055	12.555-13.555	+++++	+++++
	49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.248	12.748-13.748	+++++	+++++
	50 Diethylphthalate	16.766	16.751	16.759	16.759	16.751	16.759	16.751	16.766	16.266-17.266	16.757	0.006
	51 4-Chlorophenyl-phenyle	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.368	13.868-14.868	+++++	+++++
	52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.466	12.966-13.966	+++++	+++++
	53 4,6-Dinitro-2-methylph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.587	13.087-14.087	+++++	+++++
	54 N-Nitrosodiphenylamine	17.152	17.145	17.153	17.152	17.153	17.145	17.153	17.152	16.652-17.652	17.150	0.004
$	55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.476	12.976-13.976	+++++	+++++
	56 4-Bromophenyl-phenylet	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.191	13.691-14.691	+++++	+++++
	57 Hexachlorobenzene	18.286	18.279	18.279	18.286	18.279	18.279	18.279	18.286	17.786-18.786	18.281	0.004
	58 Pentachlorophenol	18.681	18.674	18.674	18.673	18.674	18.674	18.674	18.681	18.181-19.181	18.675	0.003
*	59 Phenanthrene-d10	18.944	18.937	18.937	18.936	18.937	18.937	18.937	18.944	18.444-19.444	18.938	0.003
	60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.008	14.508-15.508	+++++	+++++
	61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.008	14.508-15.508	+++++	+++++
	62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.286	14.786-15.786	+++++	+++++
	63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.761	15.261-16.261	+++++	+++++
	64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.867	16.367-17.367	+++++	+++++
	65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.445	16.945-17.945	+++++	+++++
$	66 Terphenyl-d14	22.132	22.132	22.132	22.132	22.132	22.132	22.132	22.132	21.632-22.632	22.132	0.000
	67 Butylbenzylphthalate	23.076	23.077	23.077	23.077	23.077	23.077	23.077	23.076	22.576-23.576	23.077	0.000
	68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.250	18.750-19.750	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130125.b/SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	69 Chrysene-d12	24.013	24.006	24.006	24.006	24.006	24.006	24.006	24.013	23.513-24.513	24.007	0.003
	70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.185	19.685-20.685	+++++	+++++
	71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.339	19.839-20.839	+++++	+++++
	72 bis(2-Ethylhexyl)phtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.411	18.911-19.911	+++++	+++++
	73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.324	19.824-20.824	+++++	+++++
	74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.144	20.644-21.644	+++++	+++++
	75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.144	20.644-21.644	+++++	+++++
	76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.382	21.882-22.882	+++++	+++++
*	77 Perylene-d12	26.514	26.507	26.507	26.506	26.507	26.507	26.507	26.514	26.014-27.014	26.508	0.003
	78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.378	23.878-24.878	+++++	+++++
	79 Dibenzo(a,h)anthracene	28.962	28.947	28.947	28.955	28.955	28.947	28.947	28.962	28.462-29.462	28.951	0.006
	80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.162	24.662-25.662	+++++	+++++
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.238	16.738-17.738	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.316	28.816-29.816	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.007	25.507-26.507	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	44.609	44.109-45.109	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.597	16.097-17.097	+++++	+++++
	90 N-Nitrosodimethylamine	4.447	4.455	4.447	4.439	4.462	4.447	4.455	4.447	3.947-4.947	4.450	0.008
	91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.897	7.397-8.397	+++++	+++++
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.833	21.333-22.333	+++++	+++++
	93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.896	14.396-15.396	+++++	+++++
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.686	17.186-18.186	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.819	14.319-15.319	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.950	26.450-27.450	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Calibration File Names:
Level 1: /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d
Level 2: /chem1/nt10.i/20130125.b/SIM.b/ic0125i.d
Level 3: /chem1/nt10.i/20130125.b/SIM.b/ic0125c.d
Level 4: /chem1/nt10.i/20130125.b/SIM.b/ic0125h.d
Level 5: /chem1/nt10.i/20130125.b/SIM.b/ic0125e.d
Level 6: /chem1/nt10.i/20130125.b/SIM.b/ic0125f.d
Level 7: /chem1/nt10.i/20130125.b/SIM.b/ic0125a.d

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
111 Azobenzene (1,2-DP-Hydrazine)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 4,5-Dichloro-2-Methoxyphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Phenol	1.60112	1.52637	1.74838	1.60284	1.64321	1.57901	1.61268	1.61623	4.232
4 Bis(2-Chloroethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1 / 5.000 Level 7	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	RRF	% RSD
6 2-Chlorophenol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,3-Dichlorobenzene	1.69924 / 1.51223	1.64308	1.78325	1.62856	1.58654	1.50818	1.62301	6.095
9 1,4-Dichlorobenzene	1.69301 / 1.50526	1.66292	1.78004	1.62057	1.57859	1.50230	1.62039	6.249
11 Benzyl alcohol	0.90024 / 1.00311	0.89553	1.03348	0.93839	0.97606	0.95672	0.95765	5.338
12 1,2-Dichlorobenzene	1.59489 / 1.42882	1.56528	1.69108	1.52681	1.50484	1.42878	1.53436	6.090
13 2-Methylphenol	1.16190 / 1.22450	1.14268	1.33403	1.20848	1.24301	1.19836	1.21614	5.135
14 2,2'-oxybis(1-Chloropropane)	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 4-Methylphenol	1.15567 / 1.30063	1.17320	1.37170	1.26247	1.28580	1.26635	1.25940	5.911
16 N-Nitroso-di-n-propylamine	0.76162 / 0.80155	0.75518	0.86197	0.78377	0.80174	0.77595	0.79168	4.521

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	RRF	% RSD
	5.000 Level 7							
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
22 2,4-Dimethylphenol	0.31692	0.31658	0.38216	0.34344	0.35756	0.34627		
	0.35080						0.34482	6.669
23 Bis(2-Chloroethoxy)methane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
24 Benzoic acid	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
26 1,2,4-Trichlorobenzene	0.37531	0.42340	0.40002	0.37262	0.35731	0.33826		
	0.33970						0.37237	8.375

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	RRF	% RSD
28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Hexachlorobutadiene	0.23652	0.22579	0.24621	0.22237	0.22210	0.21458	0.21490	0.22607	5.111
31 4-Chloro-3-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Hexachlorocyclopentadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1 / 5.000 Level 7	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	___ RRF	% RSD
38 2-Nitroaniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Dimethylphthalate	1.17609 / 1.20338	1.16303	1.33970	1.21060	1.23293	1.19830	1.21772	4.796
40 Acenaphthylene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 2,6-Dinitrotoluene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 3-Nitroaniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 Acenaphthene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2,4-Dinitrophenol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 Dibenzofuran	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 4-Nitrophenol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Diethylphthalate	1.31938	1.46232	1.57851	1.40819	1.42654	1.36955	1.39419	1.42267	5.767
51 4-Chlorophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 4,6-Dinitro-2-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 N-Nitrosodiphenylamine	0.39457	0.42221	0.51525	0.47679	0.49727	0.47639	0.47257	0.46501	9.075
56 4-Bromophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Hexachlorobenzene	0.31360	0.30650	0.32868	0.30824	0.29576	0.28022	0.28438	0.30248	5.609

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	RRF	% RSD
	5.000 Level 7							
58 Pentachlorophenol	+++++	0.12822	0.16890	0.16825	0.19297	0.20079		
	0.21278						0.17865	16.990
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
67 Butylbenzylphthalate	0.32371	0.31511	0.40430	0.35715	0.40988	0.41311		
	0.45304						0.38233	13.412
68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	RRF	% RSD
	5.000 Level 7							
70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
72 bis(2-Ethylhexyl)phthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
79 Dibenzo(a,h)anthracene	0.87048	0.83963	1.02783	0.94620	1.00403	0.97443		
	1.01114						0.95339	7.630

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1 / 5.000 Level 7	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	___ RRF	% RSD
80 Benzo(g,h,i)perylene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
90 N-Nitrosodimethylamine	0.75150 / 0.76758	0.74984	0.81528	0.75422	0.74778	0.72923	0.75935	3.573
91 Aniline	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 1,2-Diphenylhydrazine	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 Benzidine	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 p-Cymene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Caffeine	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 Retene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 Perylene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 2-Fluorophenol	1.24134	1.21896	1.38853	1.25752	1.27874	1.24084	1.28235	1.27261	4.382
$ 145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-JAN-2013 12:59
End Cal Date : 25-JAN-2013 17:53
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Cal Date : 06-Feb-2013 10:56 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
$ 18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 66 Terphenyl-d14	0.49609	0.58017	0.57746	0.51719	0.52937	0.50011	0.52003	0.53149	6.455
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 02/06/13

Data file : /chem1/nt10.i/20130125.b/SIM.b/ic0125a.d
Lab Smp Id: IC0125A
Inj Date : 25-JAN-2013 12:59
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125A
Misc Info :
Comment :
Method : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Meth Date : 06-Feb-2013 11:08 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 12:59 Cal File: ic0125a.d
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.724	6.725	(0.740)	83720	5.00000	5.038
	3 Phenol	94	8.463	8.456	(0.931)	105286	5.00000	4.989
	7 1,3-Dichlorobenzene	146	9.020	9.012	(0.992)	98728	5.00000	4.659
*	8 1,4-Dichlorobenzene-d4	152	9.090	9.082	(1.000)	52229	4.00000	
	9 1,4-Dichlorobenzene	146	9.121	9.113	(1.003)	98273	5.00000	4.645
	11 Benzyl alcohol	79	9.392	9.392	(1.033)	65489	5.00000	5.237
	12 1,2-Dichlorobenzene	146	9.501	9.493	(1.045)	93282	5.00000	4.656
	13 2-Methylphenol	108	9.648	9.649	(1.061)	79943	5.00000	5.034
	15 4-Methylphenol	108	9.943	9.936	(1.094)	84913	5.00000	5.164
	16 N-Nitroso-di-n-propylamine	70	10.005	9.998	(1.101)	52330	5.00000	5.062
	22 2,4-Dimethylphenol	107	11.068	11.068	(0.942)	171357	10.0000	10.17
	26 1,2,4-Trichlorobenzene	180	11.669	11.669	(0.993)	82967	5.00000	4.561
*	27 Naphthalene-d8	136	11.754	11.754	(1.000)	195391	4.00000	
	30 Hexachlorobutadiene	225	12.209	12.210	(1.039)	52488	5.00000	4.753
	39 Dimethylphthalate	163	15.173	15.166	(0.969)	169092	5.00000	4.941
*	42 Acenaphthene-d10	162	15.661	15.661	(1.000)	112411	4.00000	
	50 Diethylphthalate	149	16.766	16.751	(1.071)	195903	5.00000	4.900
	54 N-Nitrosodiphenylamine	169	17.152	17.153	(0.905)	123410	5.00000	5.081
	57 Hexachlorobenzene	284	18.286	18.279	(0.965)	74264	5.00000	4.701
	58 Pentachlorophenol	266	18.681	18.674	(0.986)	111136	10.0000	9.992
*	59 Phenanthrene-d10	188	18.944	18.937	(1.000)	208917	4.00000	
$	66 Terphenyl-d14	244	22.132	22.132	(0.922)	154517	5.00000	4.892
	67 Butylbenzylphthalate	149	23.076	23.077	(0.961)	134613	5.00000	5.925
*	69 Chrysene-d12	240	24.013	24.006	(1.000)	237704	4.00000	
*	77 Perylene-d12	264	26.514	26.507	(1.000)	236168	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.962	28.947	(1.092)	298499	5.00000	5.303
	90 N-Nitrosodimethylamine	74	4.447	4.455	(0.489)	100225	10.0000	10.11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125a.d
Lab Smp Id: IC0125A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 15:27
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	52229	-3.02
27 Naphthalene-d8	200104	100052	400208	195391	-2.36
42 Acenaphthene-d10	112392	56196	224784	112411	0.02
59 Phenanthrene-d10	210710	105355	421420	208917	-0.85
69 Chrysene-d12	240805	120402	481610	237704	-1.29
77 Perylene-d12	230834	115417	461668	236168	2.31

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.09	8.59	9.59	9.09	0.00
27 Naphthalene-d8	11.75	11.25	12.25	11.75	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.04
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.03
77 Perylene-d12	26.51	26.01	27.01	26.51	0.03

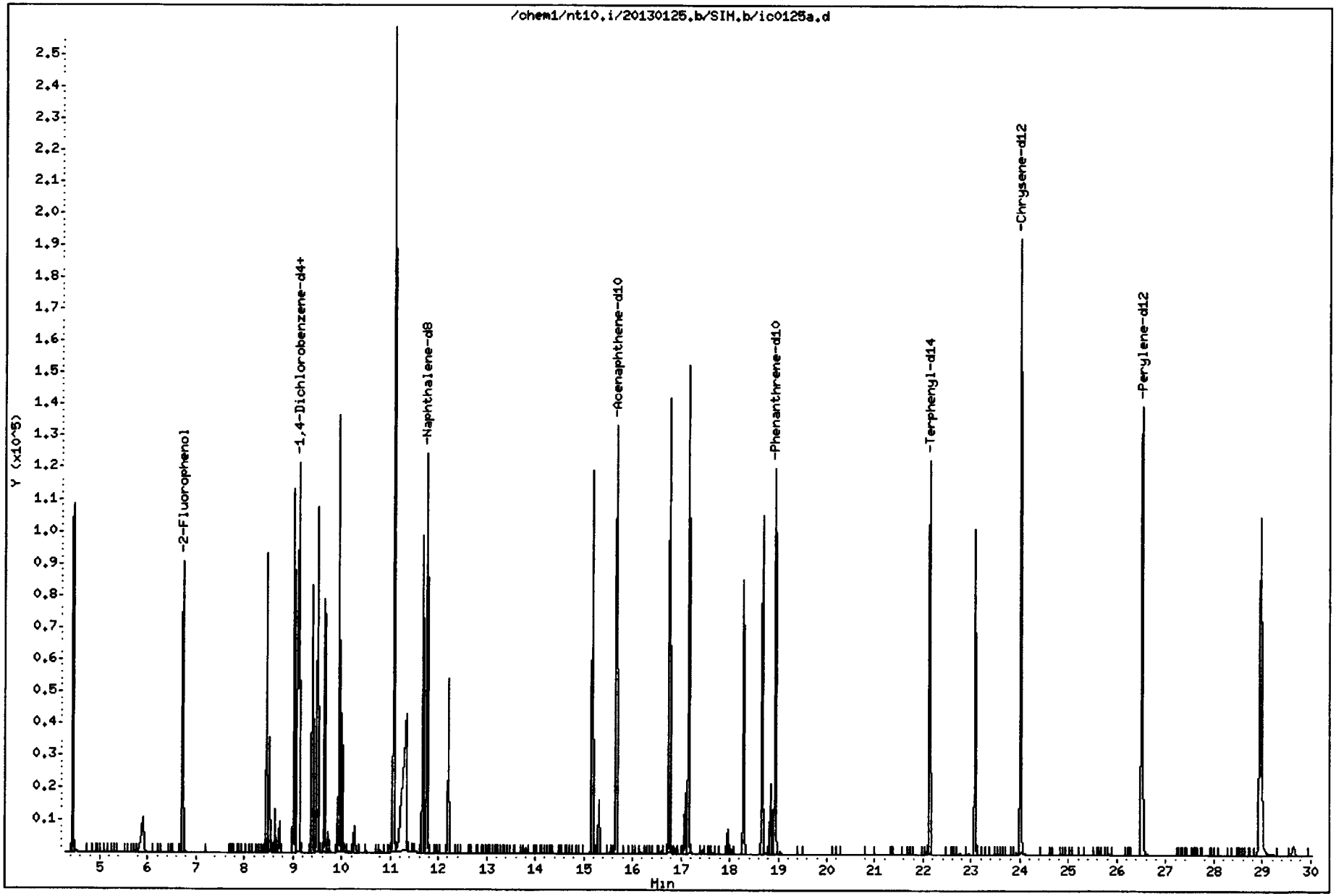
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125a.d
Date : 25-JAN-2013 12:59
Client ID:
Sample Info: IC0125A

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0125a.d

Lab ID: IC0125A, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 25-JAN-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 2/2/06/13

Data file : /chem1/nt10.i/20130125.b/SIM.b/ic0125c.d
Lab Smp Id: IC0125C
Inj Date : 25-JAN-2013 14:13
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125C
Misc Info :
Comment :
Method : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Meth Date : 06-Feb-2013 11:08 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 14:13 Cal File: ic0125c.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.725	6.725	(0.740)	3465	0.20000	0.2182
	3 Phenol	94	8.456	8.456	(0.930)	4363	0.20000	0.2164
	7 1,3-Dichlorobenzene	146	9.012	9.012	(0.991)	4450	0.20000	0.2197
*	8 1,4-Dichlorobenzene-d4	152	9.090	9.082	(1.000)	49909	4.00000	
	9 1,4-Dichlorobenzene	146	9.121	9.113	(1.003)	4442	0.20000	0.2197
	11 Benzyl alcohol	79	9.392	9.392	(1.033)	2579	0.20000	0.2158
	12 1,2-Dichlorobenzene	146	9.501	9.493	(1.045)	4220	0.20000	0.2204
	13 2-Methylphenol	108	9.649	9.649	(1.061)	3329	0.20000	0.2194
	15 4-Methylphenol	108	9.944	9.936	(1.094)	3423	0.20000	0.2178
	16 N-Nitroso-di-n-propylamine	70	9.998	9.998	(1.100)	2151	0.20000	0.2178(M)
	22 2,4-Dimethylphenol	107	11.068	11.068	(0.942)	7081	0.40000	0.4433
	26 1,2,4-Trichlorobenzene	180	11.669	11.669	(0.993)	3706	0.20000	0.2149
*	27 Naphthalene-d8	136	11.754	11.754	(1.000)	185289	4.00000	
	30 Hexachlorobutadiene	225	12.210	12.210	(1.039)	2281	0.20000	0.2178
	39 Dimethylphthalate	163	15.166	15.166	(0.968)	6844	0.20000	0.2200
*	42 Acenaphthene-d10	162	15.661	15.661	(1.000)	102172	4.00000	
	50 Diethylphthalate	149	16.751	16.751	(1.070)	8064	0.20000	0.2219
	54 N-Nitrosodiphenylamine	169	17.145	17.153	(0.905)	4913	0.20000	0.2216
	57 Hexachlorobenzene	284	18.279	18.279	(0.965)	3134	0.20000	0.2173
	58 Pentachlorophenol	266	18.674	18.674	(0.986)	3221	0.40000	0.3573
*	59 Phenanthrene-d10	188	18.937	18.937	(1.000)	190705	4.00000	
$	66 Terphenyl-d14	244	22.132	22.132	(0.922)	6206	0.20000	0.2173
	67 Butylbenzylphthalate	149	23.077	23.077	(0.961)	4345	0.20000	0.2115
*	69 Chrysene-d12	240	24.006	24.006	(1.000)	214940	4.00000	
*	77 Perylene-d12	264	26.507	26.507	(1.000)	207018	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.947	28.947	(1.092)	10639	0.20000	0.2156
	90 N-Nitrosodimethylamine	74	4.455	4.455	(0.490)	4069	0.40000	0.4295

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125c.d
Lab Smp Id: IC0125C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 15:27
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	49909	-7.32
27 Naphthalene-d8	200104	100052	400208	185289	-7.40
42 Acenaphthene-d10	112392	56196	224784	102172	-9.09
59 Phenanthrene-d10	210710	105355	421420	190705	-9.49
69 Chrysene-d12	240805	120402	481610	214940	-10.74
77 Perylene-d12	230834	115417	461668	207018	-10.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.09	8.59	9.59	9.09	0.00
27 Naphthalene-d8	11.75	11.25	12.25	11.75	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

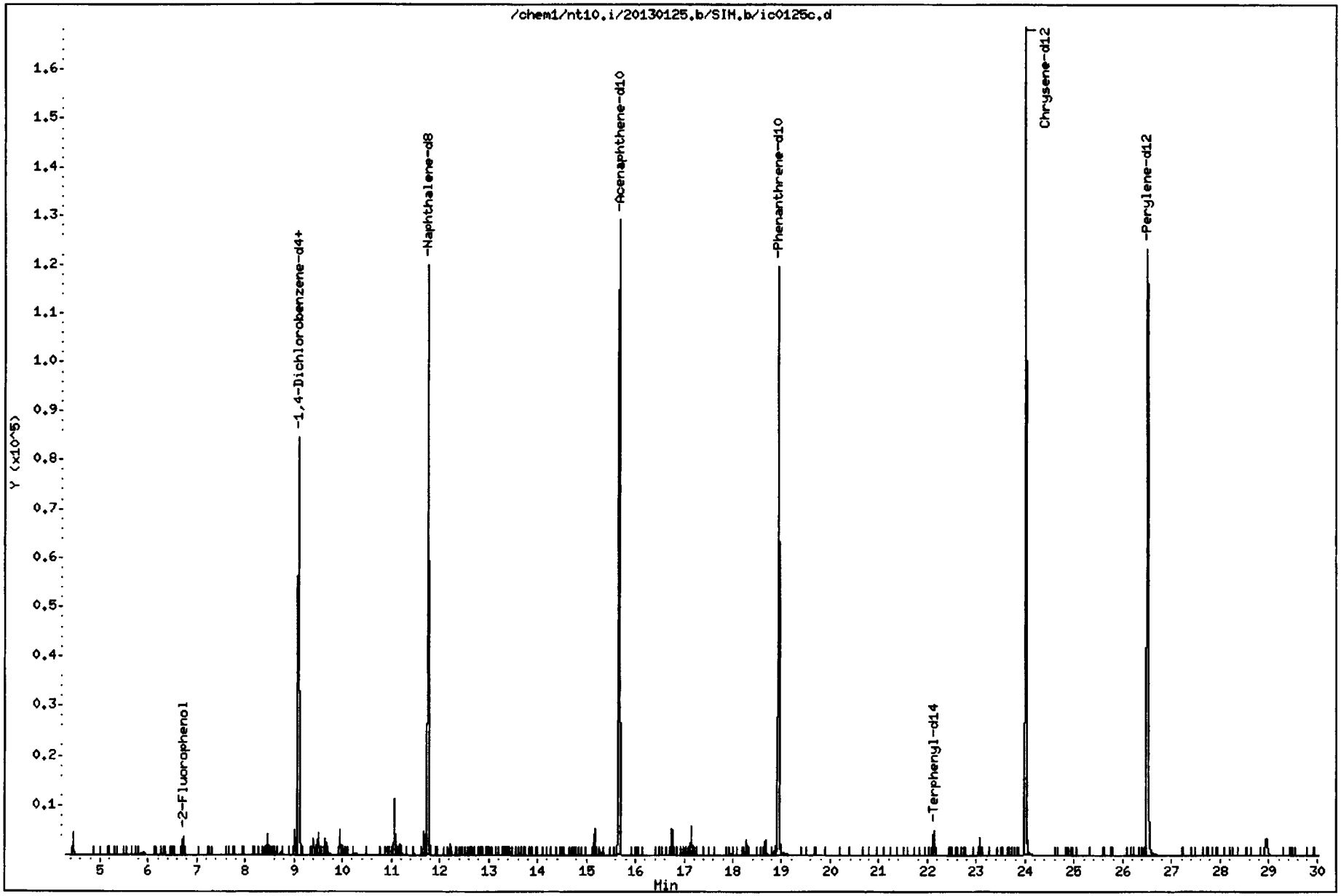
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125c.d
Date : 25-JAN-2013 14:13
Client ID:
Sample Info: IC0125C

Instrument: nt10.i

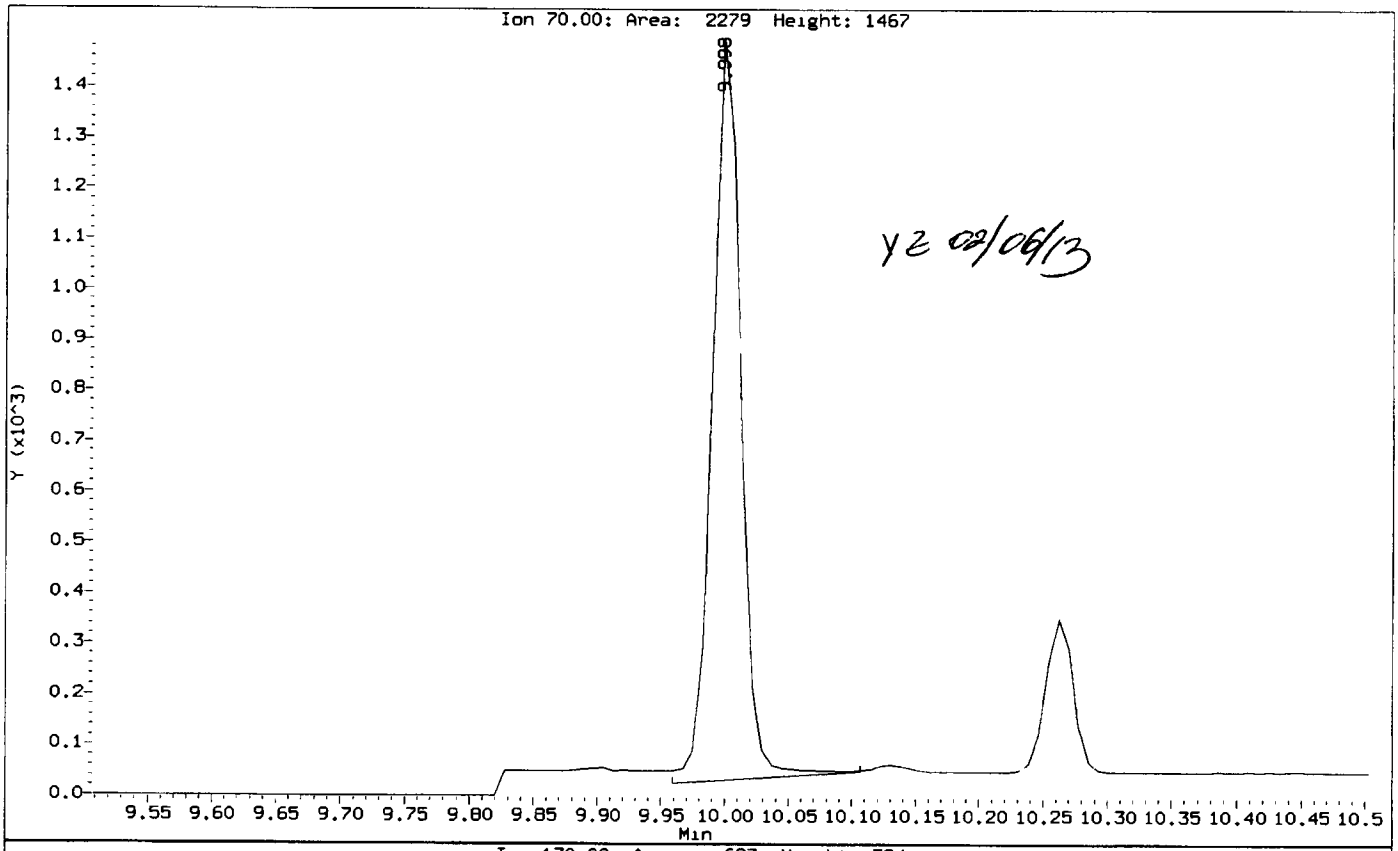
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi

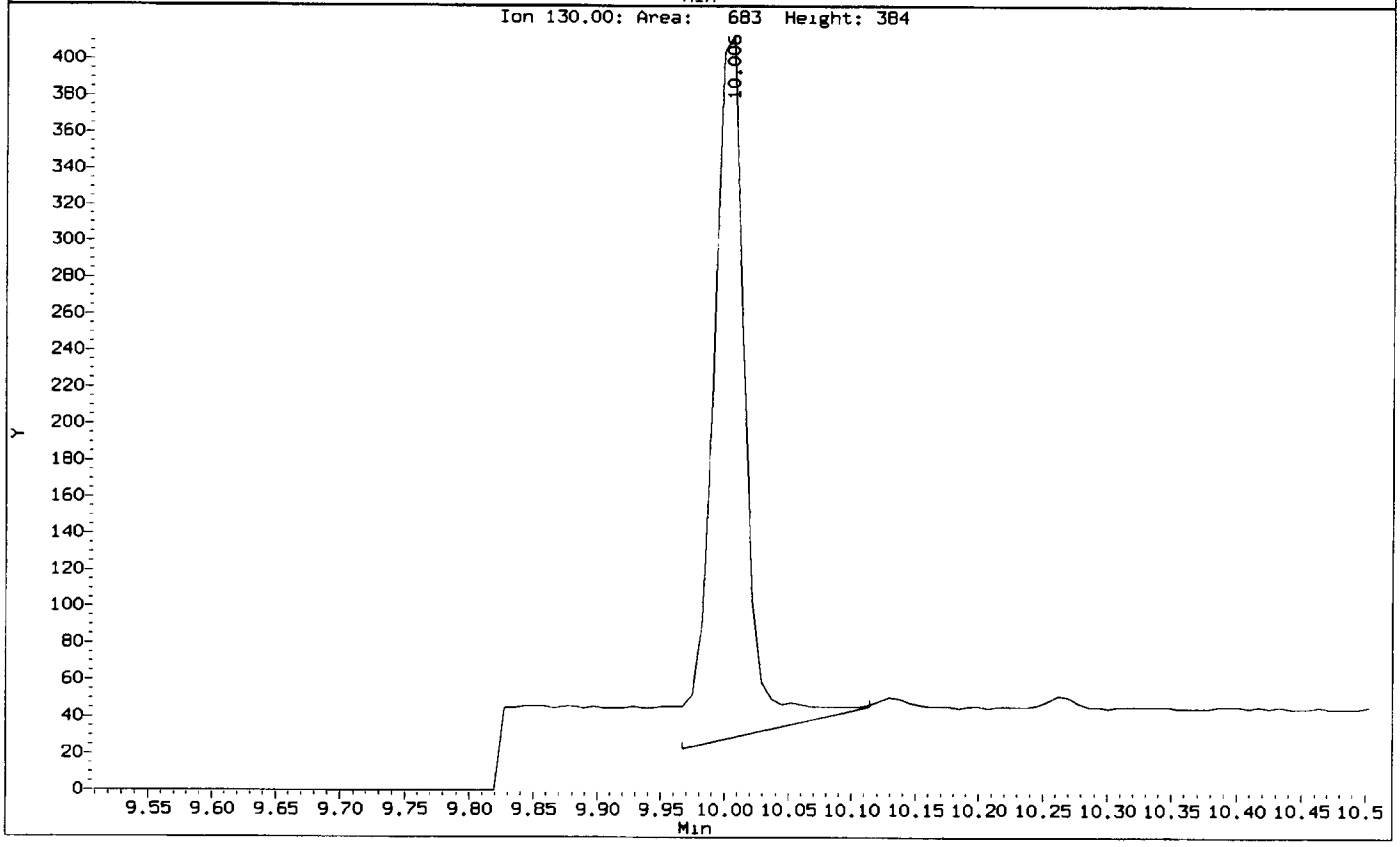


Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125c.d
Injection Date: 25-JAN-2013 14:13
Instrument: nt10.1
Client Sample ID:

Compound: N-Nitroso-di-n-propylamine
CAS Number: 621-64-7



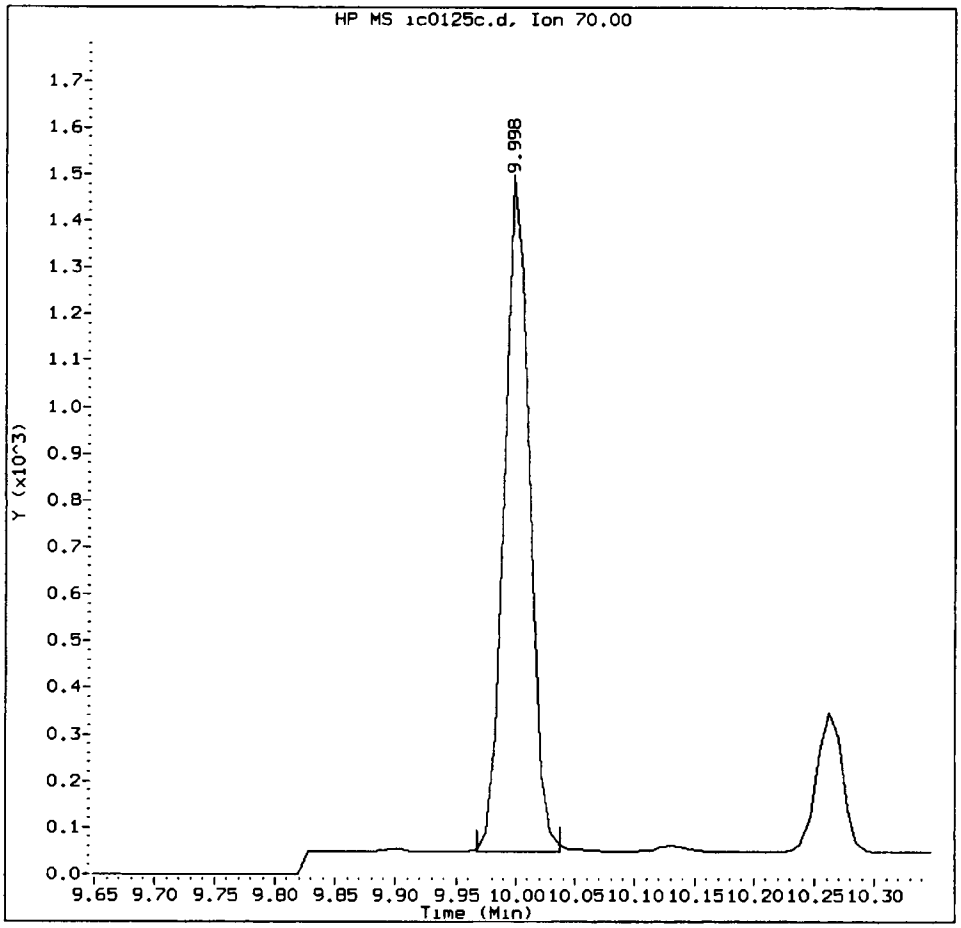
YZ 02/06/13



WJ10:01360

IC0125C, /chem1/nt10.i/20130125.b/SIM.b/ic0125c.d

N-Nitroso-di-n-propylamine Amount: 0.22 Area: 2151



MANUAL INTEGRATION for N-Nitroso-di-n-propylamine

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 02/06/13

CO-ELUTION SUMMARY FOR FILE - ic0125c.d

Lab ID: IC0125C, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 25-JAN-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130125.b/SIM.b/ic0125e.d
Lab Smp Id: IC0125E
Inj Date : 25-JAN-2013 15:27
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125E
Misc Info :
Comment :
Method : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Meth Date : 06-Feb-2013 11:08 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 15:27 Cal File: ic0125e.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

YZ 02/06/13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.725	6.725	(0.740)	17216	1.00000	1.005
	3 Phenol	94	8.456	8.456	(0.930)	22123	1.00000	1.017
	7 1,3-Dichlorobenzene	146	9.012	9.012	(0.991)	21360	1.00000	0.9775
*	8 1,4-Dichlorobenzene-d4	152	9.090	9.082	(1.000)	53853	4.00000	
	9 1,4-Dichlorobenzene	146	9.121	9.113	(1.003)	21253	1.00000	0.9742
	11 Benzyl alcohol	79	9.392	9.392	(1.033)	13141	1.00000	1.019
	12 1,2-Dichlorobenzene	146	9.501	9.493	(1.045)	20260	1.00000	0.9808
	13 2-Methylphenol	108	9.649	9.649	(1.061)	16735	1.00000	1.022
	15 4-Methylphenol	108	9.944	9.936	(1.094)	17311	1.00000	1.021
	16 N-Nitroso-di-n-propylamine	70	9.998	9.998	(1.100)	10794	1.00000	1.013
	22 2,4-Dimethylphenol	107	11.068	11.068	(0.942)	35775	2.00000	2.074
	26 1,2,4-Trichlorobenzene	180	11.669	11.669	(0.993)	17875	1.00000	0.9596
*	27 Naphthalene-d8	136	11.754	11.754	(1.000)	200104	4.00000	
	30 Hexachlorobutadiene	225	12.210	12.210	(1.039)	11111	1.00000	0.9825
	39 Dimethylphthalate	163	15.166	15.166	(0.968)	34643	1.00000	1.012
*	42 Acenaphthene-d10	162	15.661	15.661	(1.000)	112392	4.00000	
	50 Diethylphthalate	149	16.759	16.751	(1.070)	40083	1.00000	1.003
	54 N-Nitrosodiphenylamine	169	17.153	17.153	(0.906)	26195	1.00000	1.069
	57 Hexachlorobenzene	284	18.279	18.279	(0.965)	15580	1.00000	0.9778
	58 Pentachlorophenol	266	18.674	18.674	(0.986)	20330	2.00000	2.006
*	59 Phenanthrene-d10	188	18.937	18.937	(1.000)	210710	4.00000	
$	66 Terphenyl-d14	244	22.132	22.132	(0.922)	31869	1.00000	0.9960
	67 Butylbenzylphthalate	149	23.077	23.077	(0.961)	24675	1.00000	1.072
*	69 Chrysene-d12	240	24.006	24.006	(1.000)	240805	4.00000	
*	77 Perylene-d12	264	26.507	26.507	(1.000)	230834	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.947	28.947	(1.092)	57941	1.00000	1.053
	90 N-Nitrosodimethylamine	74	4.447	4.455	(0.489)	20135	2.00000	1.970

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125e.d
Lab Smp Id: IC0125E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 15:27
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	53853	0.00
27 Naphthalene-d8	200104	100052	400208	200104	0.00
42 Acenaphthene-d10	112392	56196	224784	112392	0.00
59 Phenanthrene-d10	210710	105355	421420	210710	0.00
69 Chrysene-d12	240805	120402	481610	240805	0.00
77 Perylene-d12	230834	115417	461668	230834	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.09	8.59	9.59	9.09	0.00
27 Naphthalene-d8	11.75	11.25	12.25	11.75	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

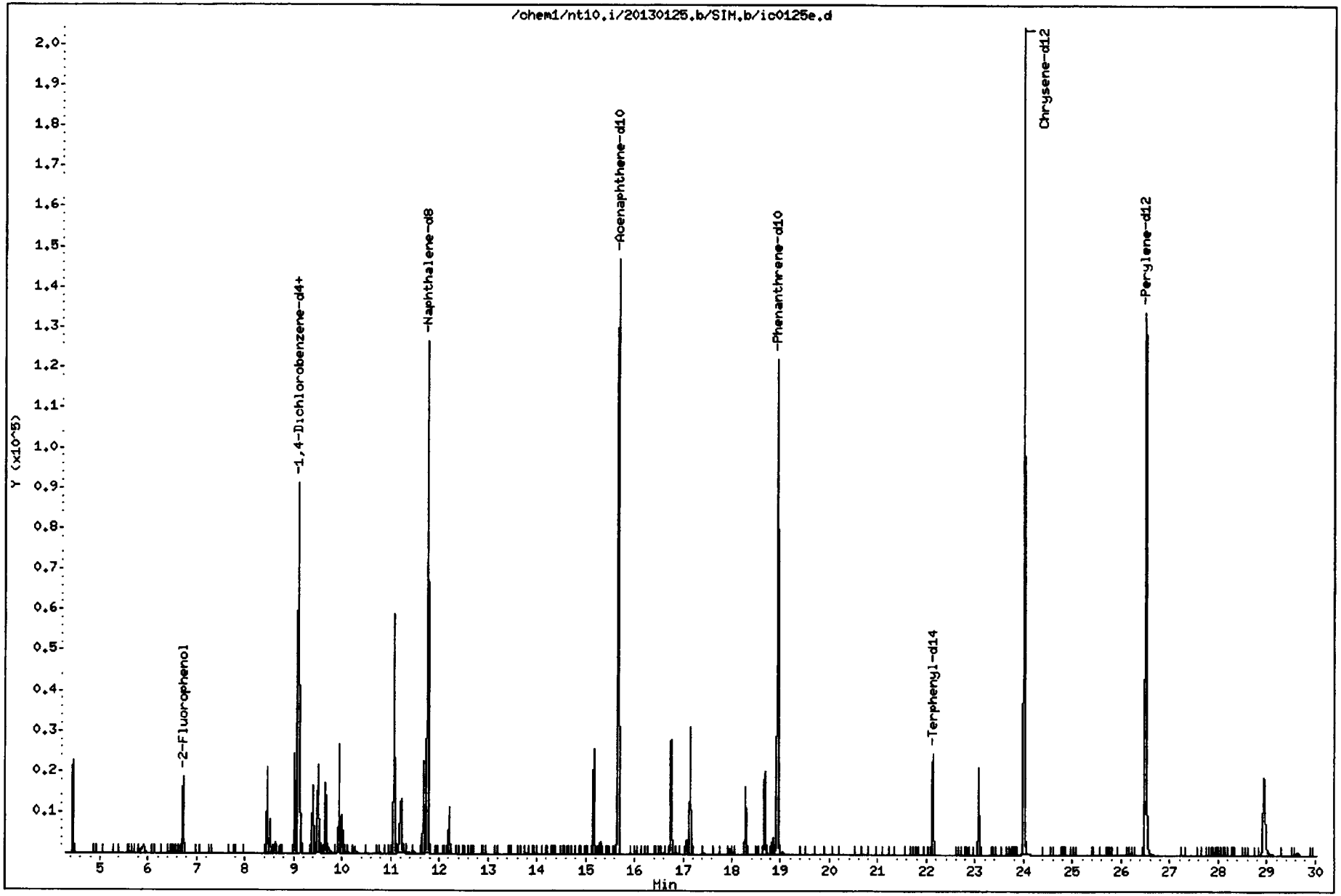
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125e.d
Date : 25-JAN-2013 15:27
Client ID:
Sample Info: IC0125E

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0125e.d

Lab ID: IC0125E, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 25-JAN-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 02/06/13

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130125.b/SIM.b/ic0125f.d
Lab Smp Id: IC0125F
Inj Date : 25-JAN-2013 16:03
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125F
Misc Info :
Comment :
Method : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Meth Date : 06-Feb-2013 11:08 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 16:03 Cal File: ic0125f.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.725	6.725	(0.740)	40135	2.50000	2.438
	3	Phenol	94	8.456	8.456	(0.930)	51073	2.50000	2.442
	7	1,3-Dichlorobenzene	146	9.020	9.012	(0.992)	48782	2.50000	2.323
*	8	1,4-Dichlorobenzene-d4	152	9.090	9.082	(1.000)	51752	4.00000	
	9	1,4-Dichlorobenzene	146	9.121	9.113	(1.003)	48592	2.50000	2.318
	11	Benzyl alcohol	79	9.392	9.392	(1.033)	30945	2.50000	2.498
	12	1,2-Dichlorobenzene	146	9.501	9.493	(1.045)	46214	2.50000	2.328
	13	2-Methylphenol	108	9.648	9.649	(1.061)	38761	2.50000	2.463
	15	4-Methylphenol	108	9.943	9.936	(1.094)	40960	2.50000	2.514
	16	N-Nitroso-di-n-propylamine	70	9.998	9.998	(1.100)	25098	2.50000	2.450
	22	2,4-Dimethylphenol	107	11.068	11.068	(0.942)	83099	5.00000	5.021
	26	1,2,4-Trichlorobenzene	180	11.669	11.669	(0.993)	40588	2.50000	2.271
*	27	Naphthalene-d8	136	11.754	11.754	(1.000)	191986	4.00000	
	30	Hexachlorobutadiene	225	12.209	12.210	(1.039)	25748	2.50000	2.373
	39	Dimethylphthalate	163	15.173	15.166	(0.969)	82619	2.50000	2.460
*	42	Acenaphthene-d10	162	15.661	15.661	(1.000)	110315	4.00000	
	50	Diethylphthalate	149	16.759	16.751	(1.070)	94426	2.50000	2.407
	54	N-Nitrosodiphenylamine	169	17.152	17.153	(0.906)	61298	2.50000	2.561
	57	Hexachlorobenzene	284	18.286	18.279	(0.966)	36057	2.50000	2.316
	58	Pentachlorophenol	266	18.673	18.674	(0.986)	51671	5.00000	5.039
*	59	Phenanthrene-d10	188	18.936	18.937	(1.000)	205875	4.00000	
$	66	Terphenyl-d14	244	22.132	22.132	(0.922)	75902	2.50000	2.352
	67	Butylbenzylphthalate	149	23.077	23.077	(0.961)	62698	2.50000	2.701
*	69	Chrysene-d12	240	24.006	24.006	(1.000)	242832	4.00000	
*	77	Perylene-d12	264	26.506	26.507	(1.000)	234305	4.00000	
	79	Dibenzo(a,h)anthracene	278	28.955	28.947	(1.092)	142696	2.50000	2.555
	90	N-Nitrosodimethylamine	74	4.439	4.455	(0.488)	47174	5.00000	4.802

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125f.d
Lab Smp Id: IC0125F
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 15:27
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	51752	-3.90
27 Naphthalene-d8	200104	100052	400208	191986	-4.06
42 Acenaphthene-d10	112392	56196	224784	110315	-1.85
59 Phenanthrene-d10	210710	105355	421420	205875	-2.29
69 Chrysene-d12	240805	120402	481610	242832	0.84
77 Perylene-d12	230834	115417	461668	234305	1.50

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.09	8.59	9.59	9.09	0.00
27 Naphthalene-d8	11.75	11.25	12.25	11.75	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

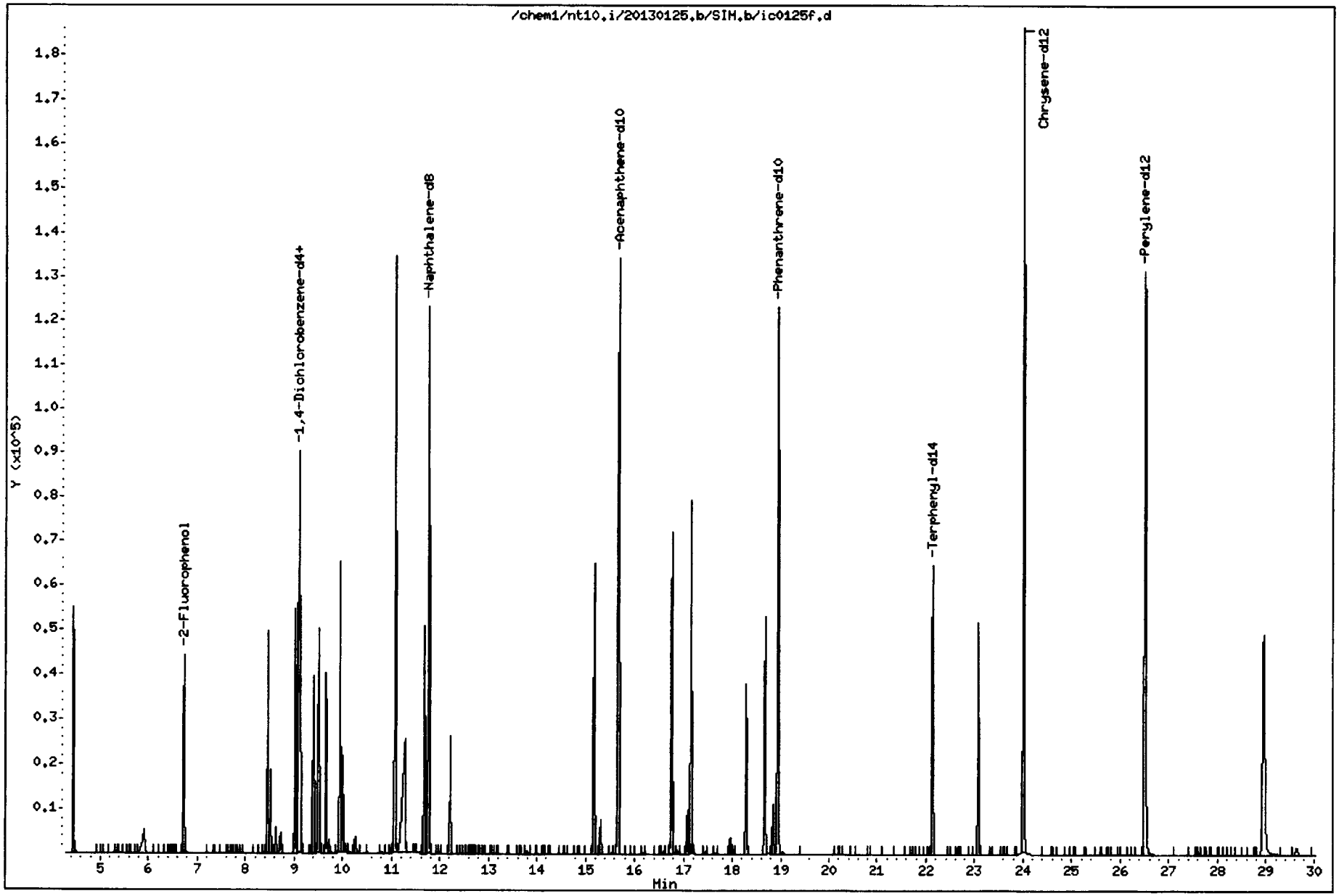
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125f.d
Date : 25-JAN-2013 16:03
Client ID:
Sample Info: IC0125F

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0125f.d

Lab ID: IC0125F, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 25-JAN-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d
Lab Smp Id: IC0125G
Inj Date : 25-JAN-2013 16:40
Operator : YZ Inst ID: nt10.i
Smp Info : IC0125G
Misc Info :
Comment :
Method : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Meth Date : 06-Feb-2013 11:08 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 16:40 Cal File: ic0125g.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

YZ 02/06/13

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.725	6.725	(0.740)	797	0.05000	0.04877(M)
	3	Phenol	94	8.456	8.456	(0.930)	1028	0.05000	0.04953
	7	1,3-Dichlorobenzene	146	9.012	9.012	(0.991)	1091	0.05000	0.05235(M)
*	8	1,4-Dichlorobenzene-d4	152	9.090	9.082	(1.000)	51364	4.00000	
	9	1,4-Dichlorobenzene	146	9.121	9.113	(1.003)	1087	0.05000	0.05224(M)
	11	Benzyl alcohol	79	9.392	9.392	(1.033)	578	0.05000	0.04700(M)
	12	1,2-Dichlorobenzene	146	9.501	9.493	(1.045)	1024	0.05000	0.05197
	13	2-Methylphenol	108	9.649	9.649	(1.061)	746	0.05000	0.04777
	15	4-Methylphenol	108	9.944	9.936	(1.094)	742	0.05000	0.04588
	16	N-Nitroso-di-n-propylamine	70	9.998	9.998	(1.100)	489	0.05000	0.04810(M)
	22	2,4-Dimethylphenol	107	11.068	11.068	(0.942)	1498	0.10000	0.09191
	26	1,2,4-Trichlorobenzene	180	11.669	11.669	(0.993)	887	0.05000	0.05039(M)
*	27	Naphthalene-d8	136	11.754	11.754	(1.000)	189071	4.00000	
	30	Hexachlorobutadiene	225	12.210	12.210	(1.039)	559	0.05000	0.05231
	39	Dimethylphthalate	163	15.166	15.166	(0.968)	1502	0.05000	0.04829
*	42	Acenaphthene-d10	162	15.661	15.661	(1.000)	102169	4.00000	
	50	Diethylphthalate	149	16.751	16.751	(1.070)	1685	0.05000	0.04637
	54	N-Nitrosodiphenylamine	169	17.153	17.153	(0.906)	921	0.05000	0.04243(M)
	57	Hexachlorobenzene	284	18.279	18.279	(0.965)	732	0.05000	0.05184
	58	Pentachlorophenol	266	18.674	18.674	(0.986)	524	0.10000	0.05954(M)
*	59	Phenanthrene-d10	188	18.937	18.937	(1.000)	186737	4.00000	
$	66	Terphenyl-d14	244	22.132	22.132	(0.922)	1344	0.05000	0.04667(M)
	67	Butylbenzylphthalate	149	23.077	23.077	(0.961)	877	0.05000	0.04233
*	69	Chrysene-d12	240	24.006	24.006	(1.000)	216735	4.00000	
*	77	Perylene-d12	264	26.507	26.507	(1.000)	211470	4.00000	
	79	Dibenzo(a,h)anthracene	278	28.955	28.947	(1.092)	2301	0.05000	0.04565(M)
	90	N-Nitrosodimethylamine	74	4.462	4.455	(0.491)	965	0.10000	0.09897

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125g.d
Lab Smp Id: IC0125G
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 15:27
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	51364	-4.62
27 Naphthalene-d8	200104	100052	400208	189071	-5.51
42 Acenaphthene-d10	112392	56196	224784	102169	-9.10
59 Phenanthrene-d10	210710	105355	421420	186737	-11.38
69 Chrysene-d12	240805	120402	481610	216735	-10.00
77 Perylene-d12	230834	115417	461668	211470	-8.39

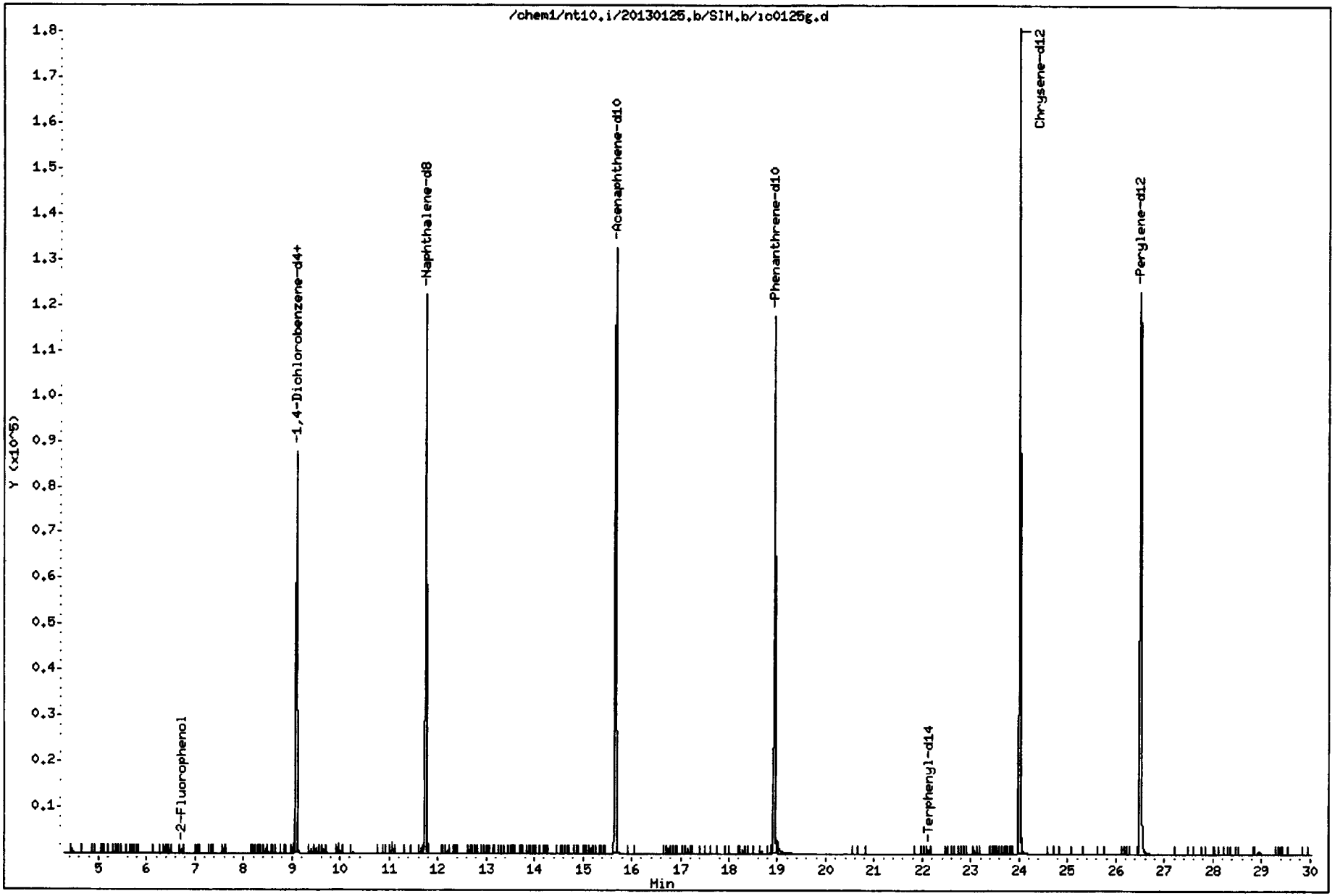
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.09	8.59	9.59	9.09	0.00
27 Naphthalene-d8	11.75	11.25	12.25	11.75	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d
Date : 25-JAN-2013 16:40
Client ID:
Sample Info: IC0125G

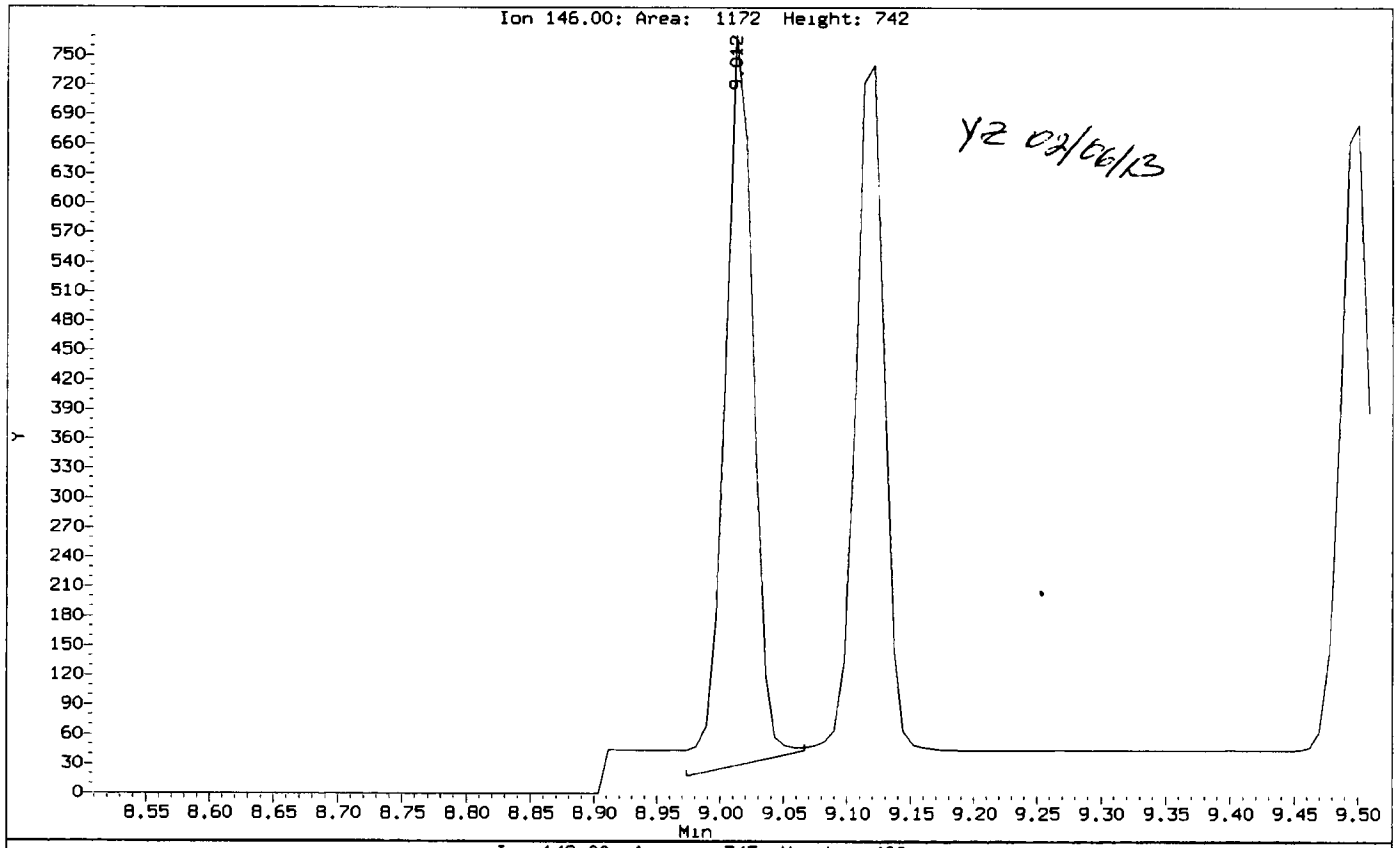
Instrument: nt10.i
Operator: YZ
Column diameter: 0.25

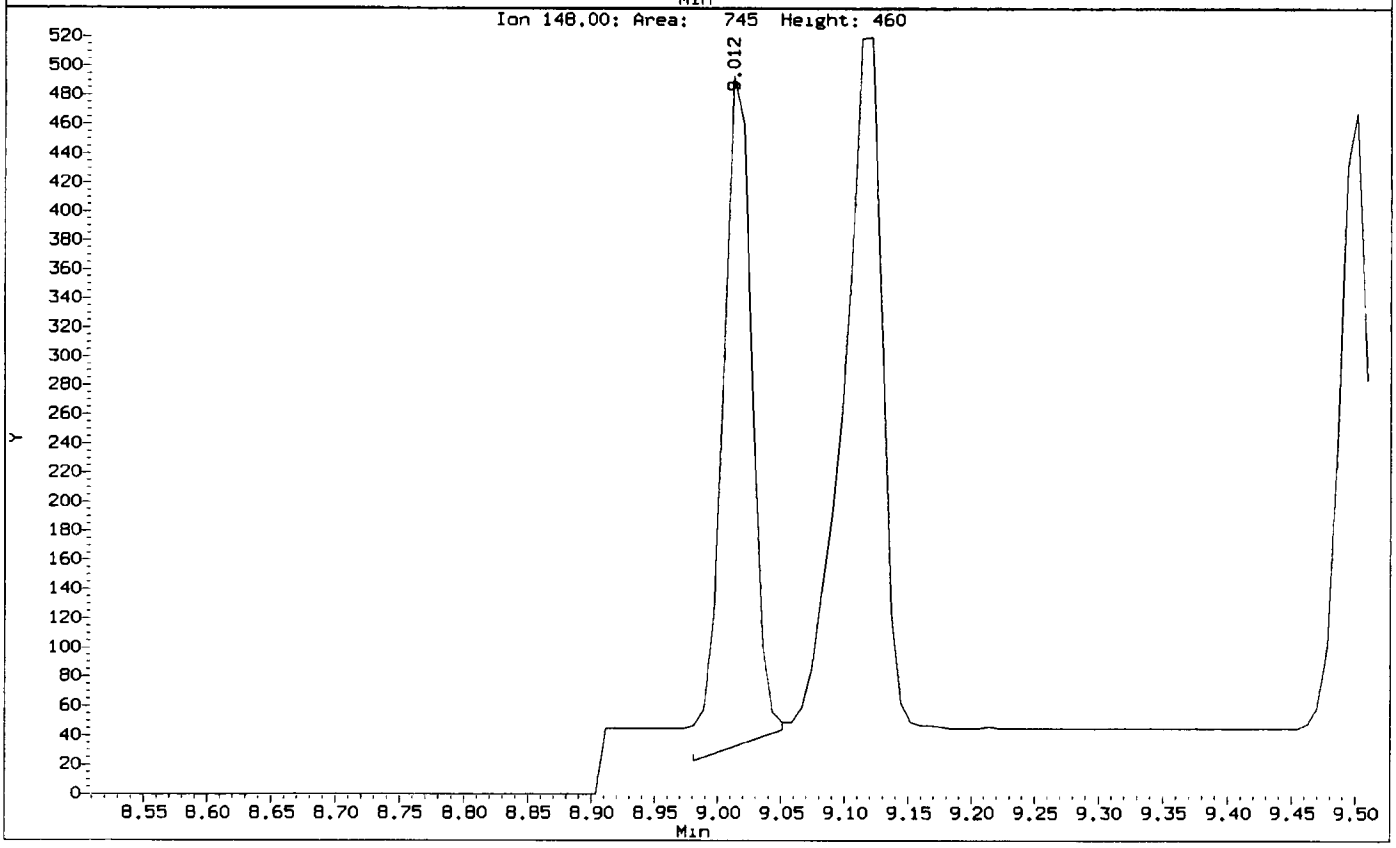
Column phase: ZB-5msi



Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125g.d
Injection Date: 25-JAN-2013 16:40
Instrument: nt10.1
Client Sample ID:

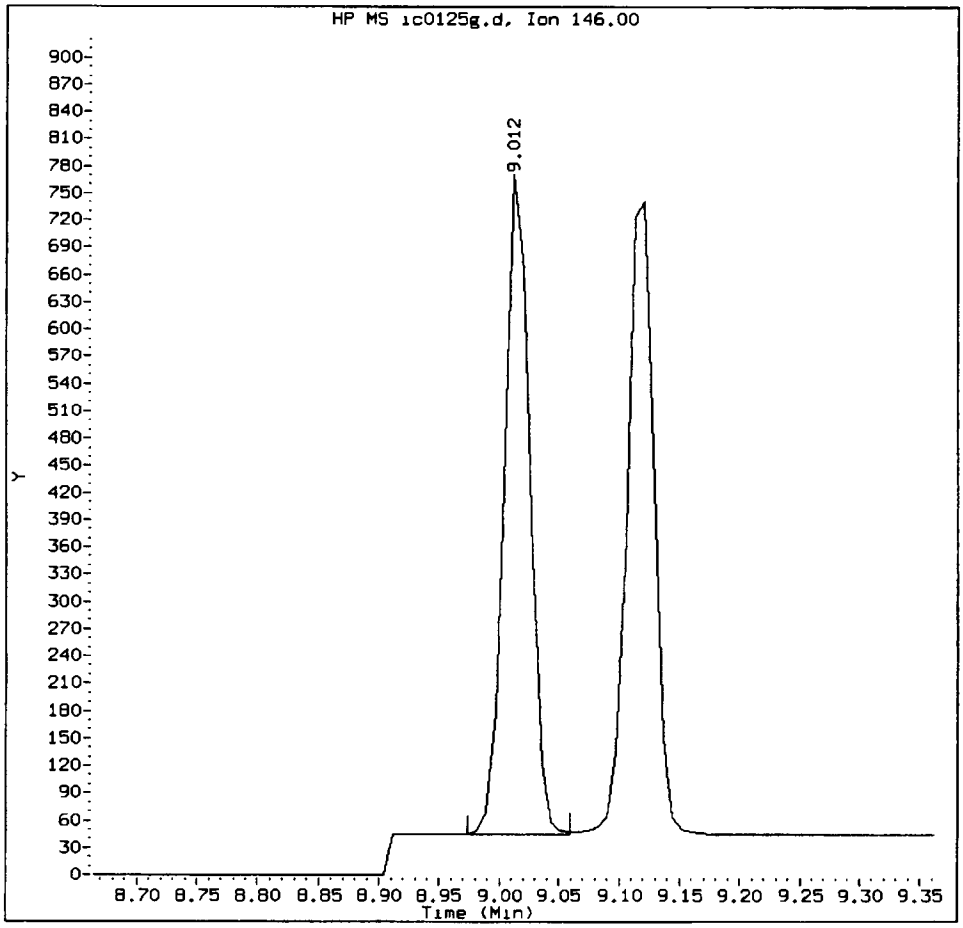
Compound: 1,3-Dichlorobenzene
CAS Number: 541-73-1





IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

1,3-Dichlorobenzene Amount: 0.05 Area: 1091



MANUAL INTEGRATION for 1,3-Dichlorobenzene

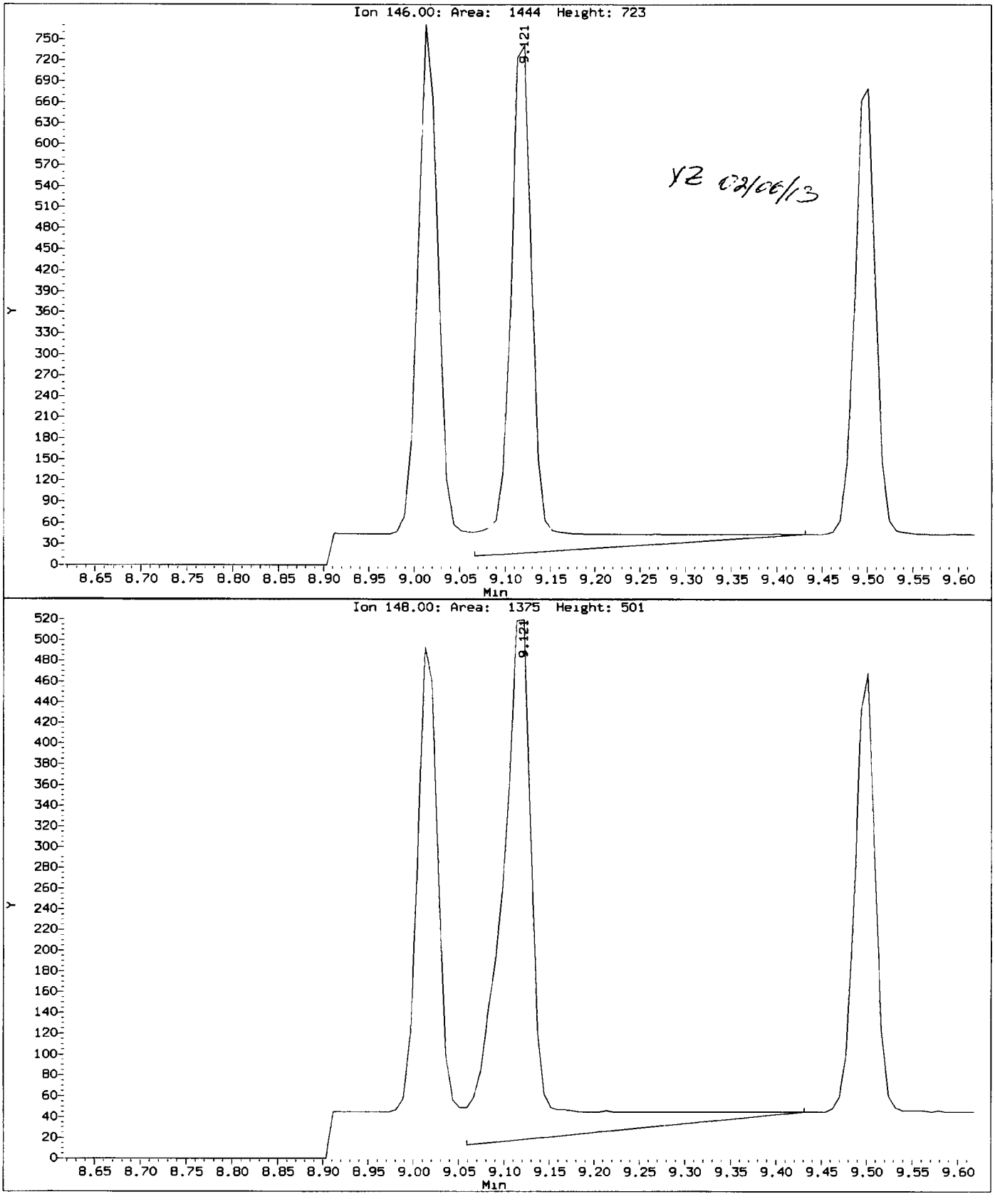
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 02/06/13

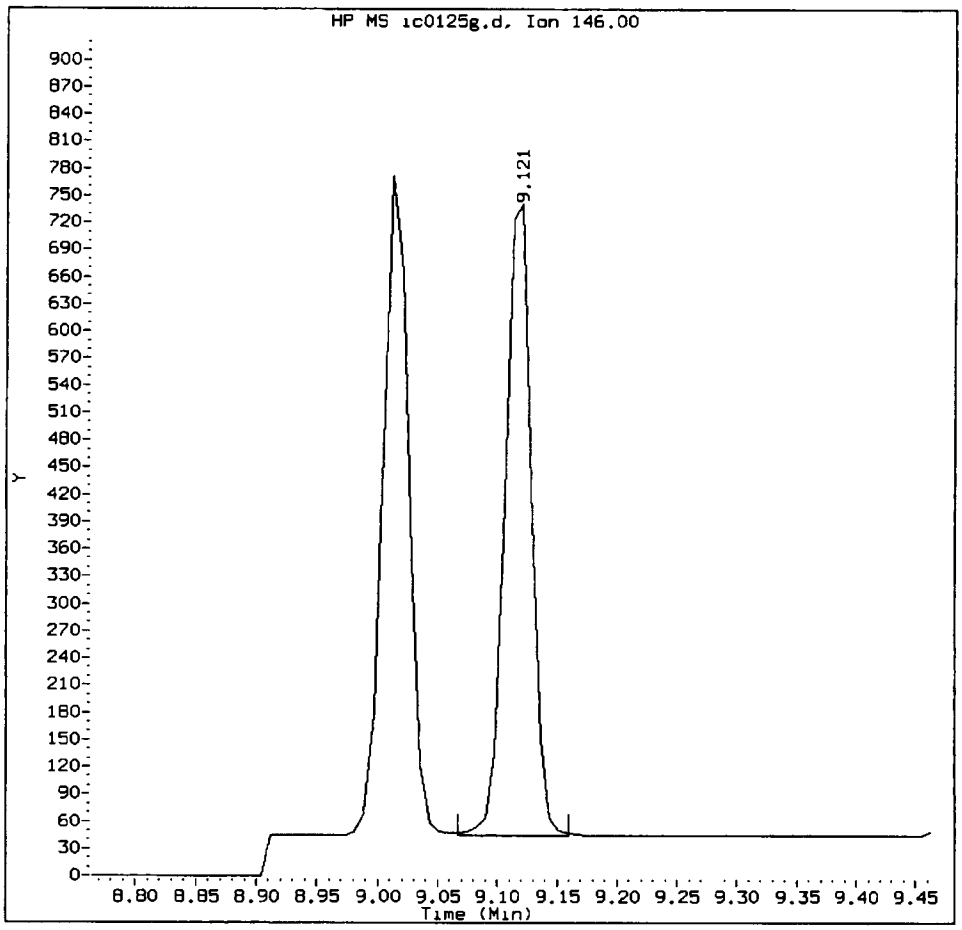
Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d
Injection Date: 25-JAN-2013 16:40
Instrument: nt10.i
Client Sample ID:

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7



IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

1,4-Dichlorobenzene Amount: 0.05 Area: 1087



MANUAL INTEGRATION for 1,4-Dichlorobenzene

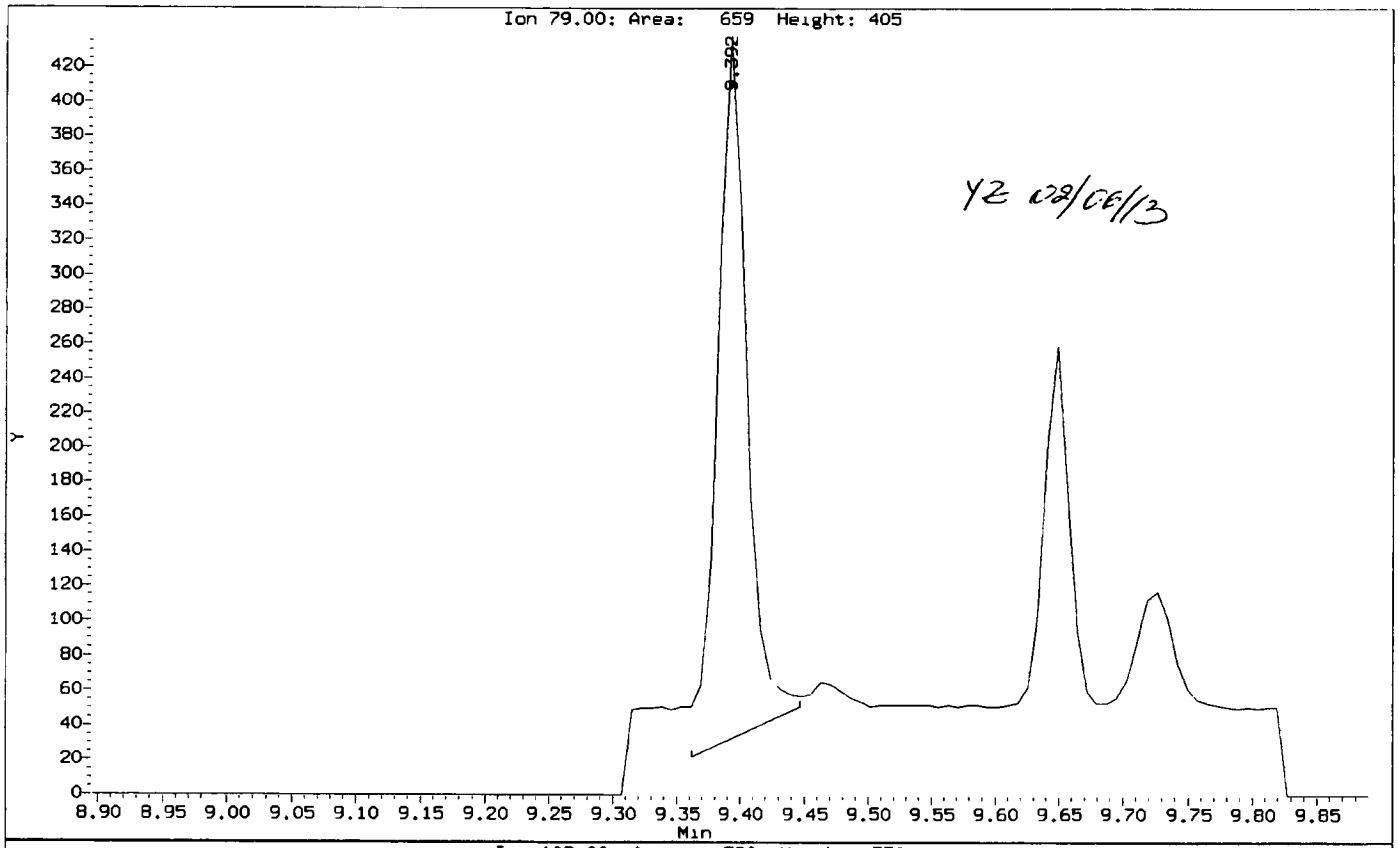
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

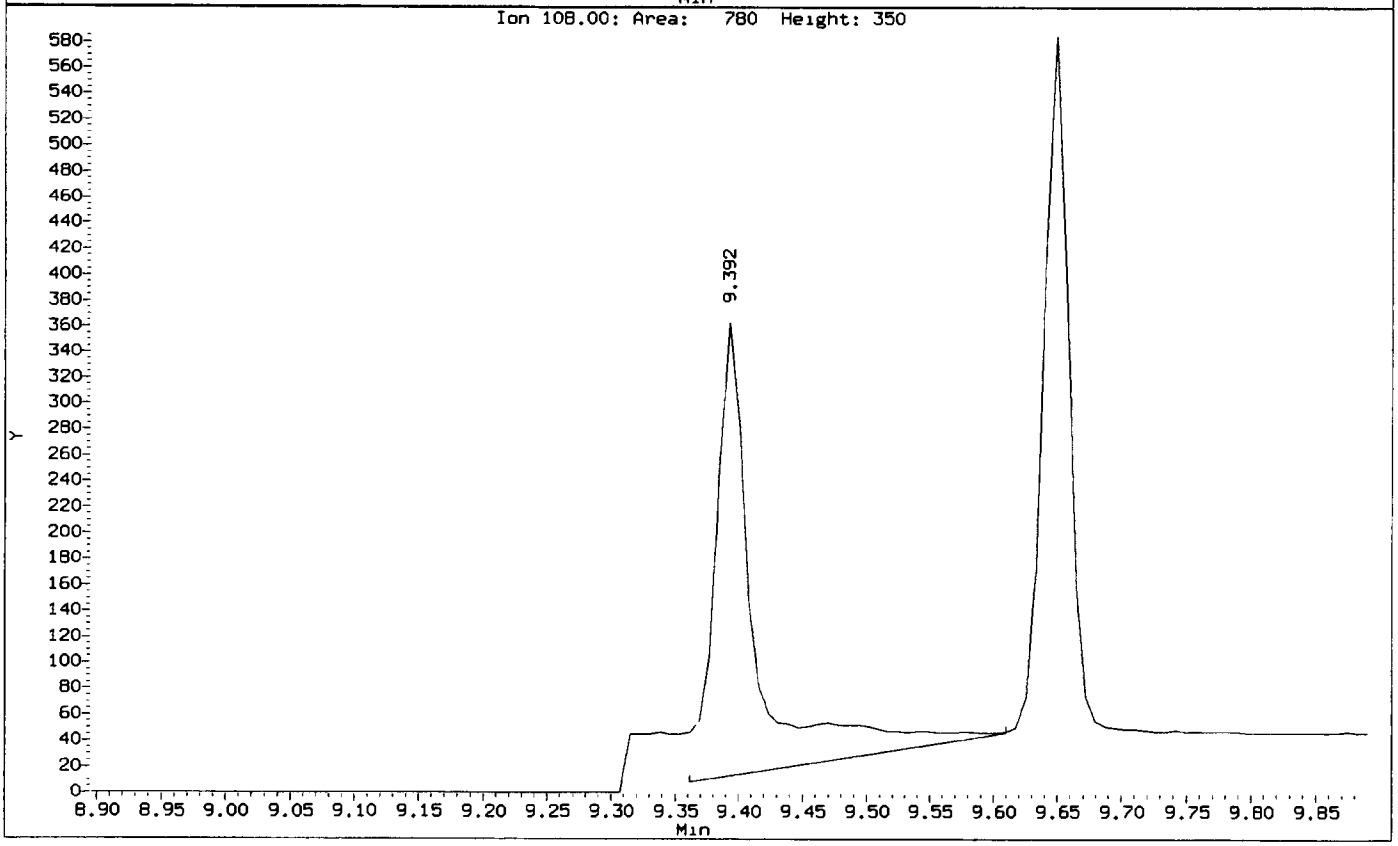
Analyst: VZ Date: 02/06/13

Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d
Injection Date: 25-JAN-2013 16:40
Instrument: nt10.i
Client Sample ID:

Compound: Benzyl alcohol
CAS Number: 100-51-6

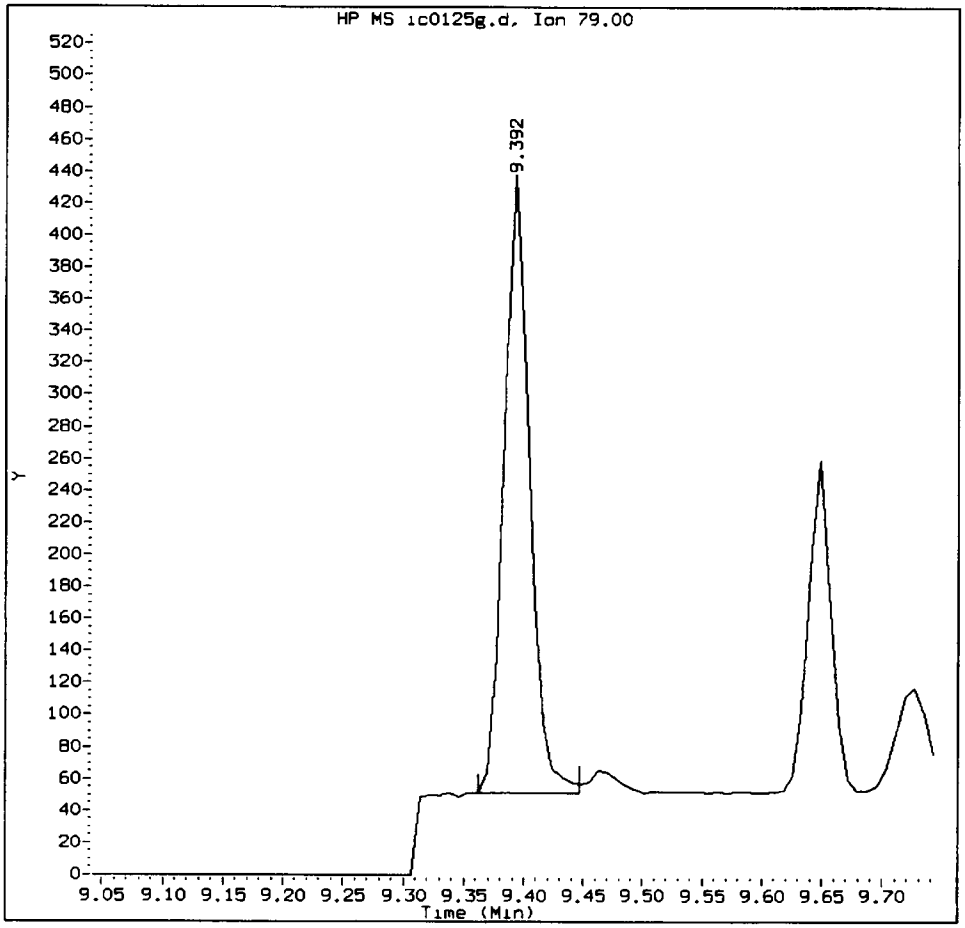


YZ 08/06/13



IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

Benzyl alcohol Amount: 0.05 Area: 578



MANUAL INTEGRATION for Benzyl alcohol

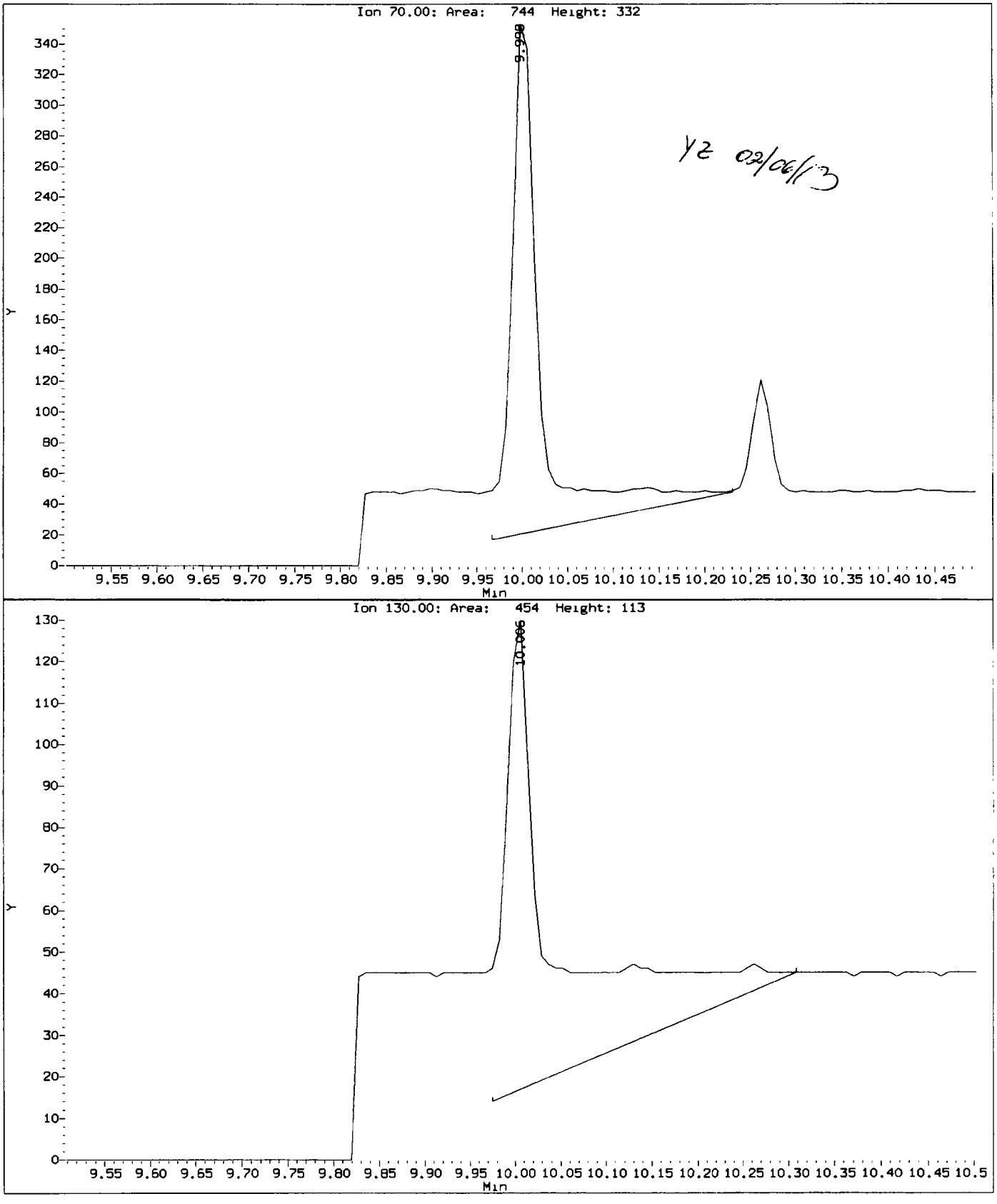
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 02/06/13

Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125g.d
Injection Date: 25-JAN-2013 16:40
Instrument: nt10.1
Client Sample ID:

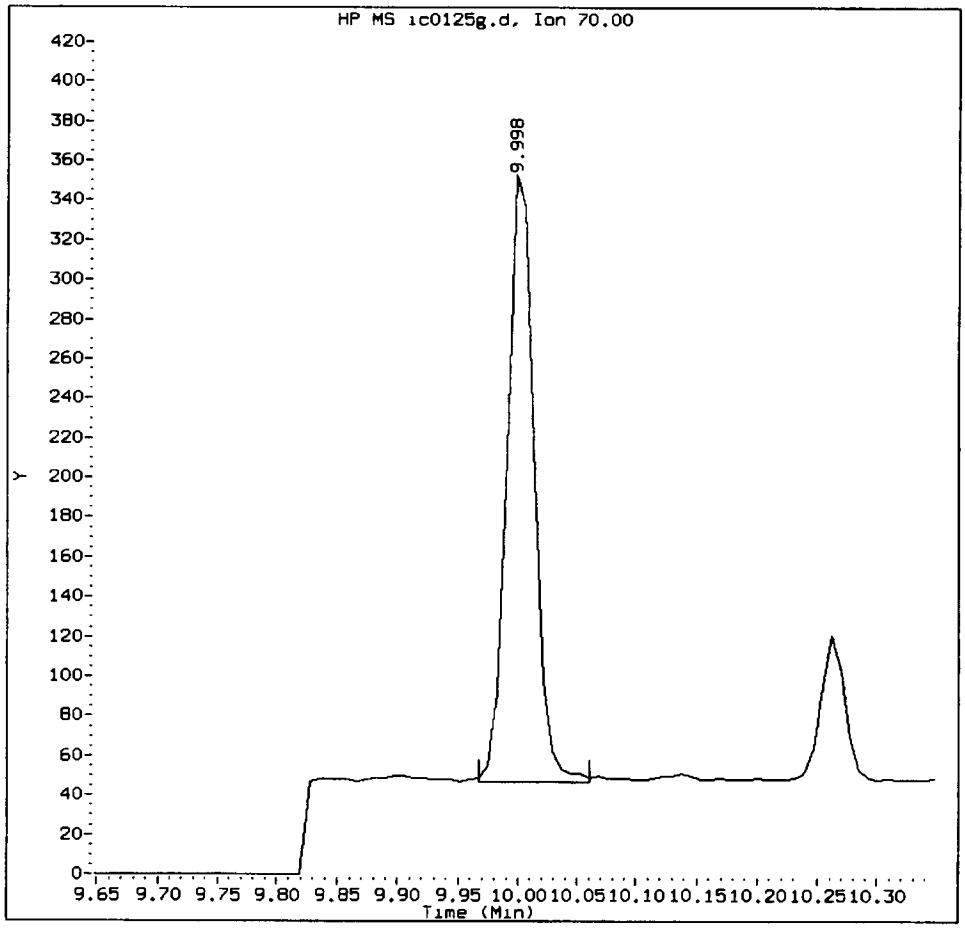
Compound: N-Nitroso-di-n-propylamine
CAS Number: 621-64-7



YZ 02/06/13

IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

N-Nitroso-di-n-propylamine Amount: 0.05 Area: 489



MANUAL INTEGRATION for N-Nitroso-di-n-propylamine

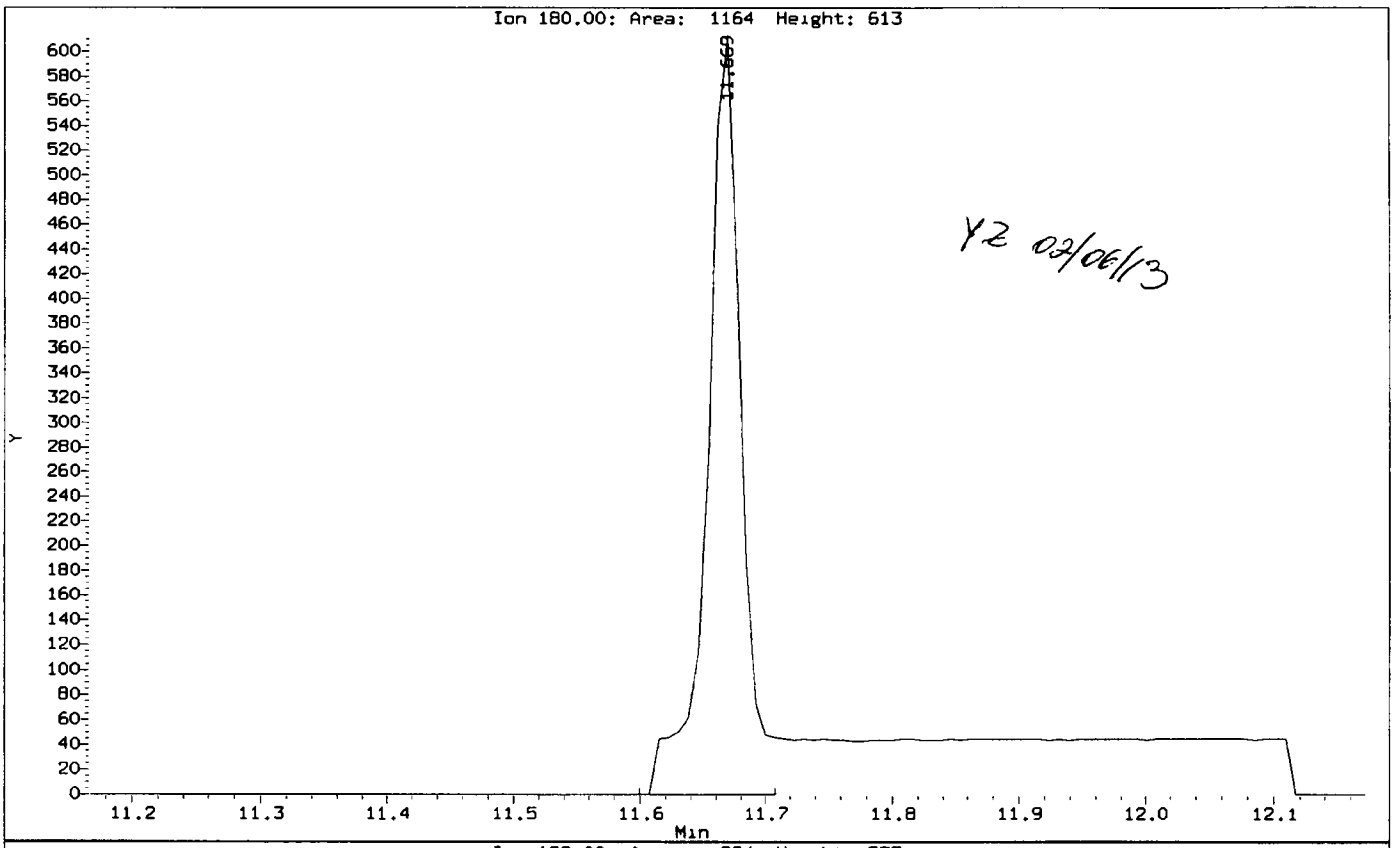
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

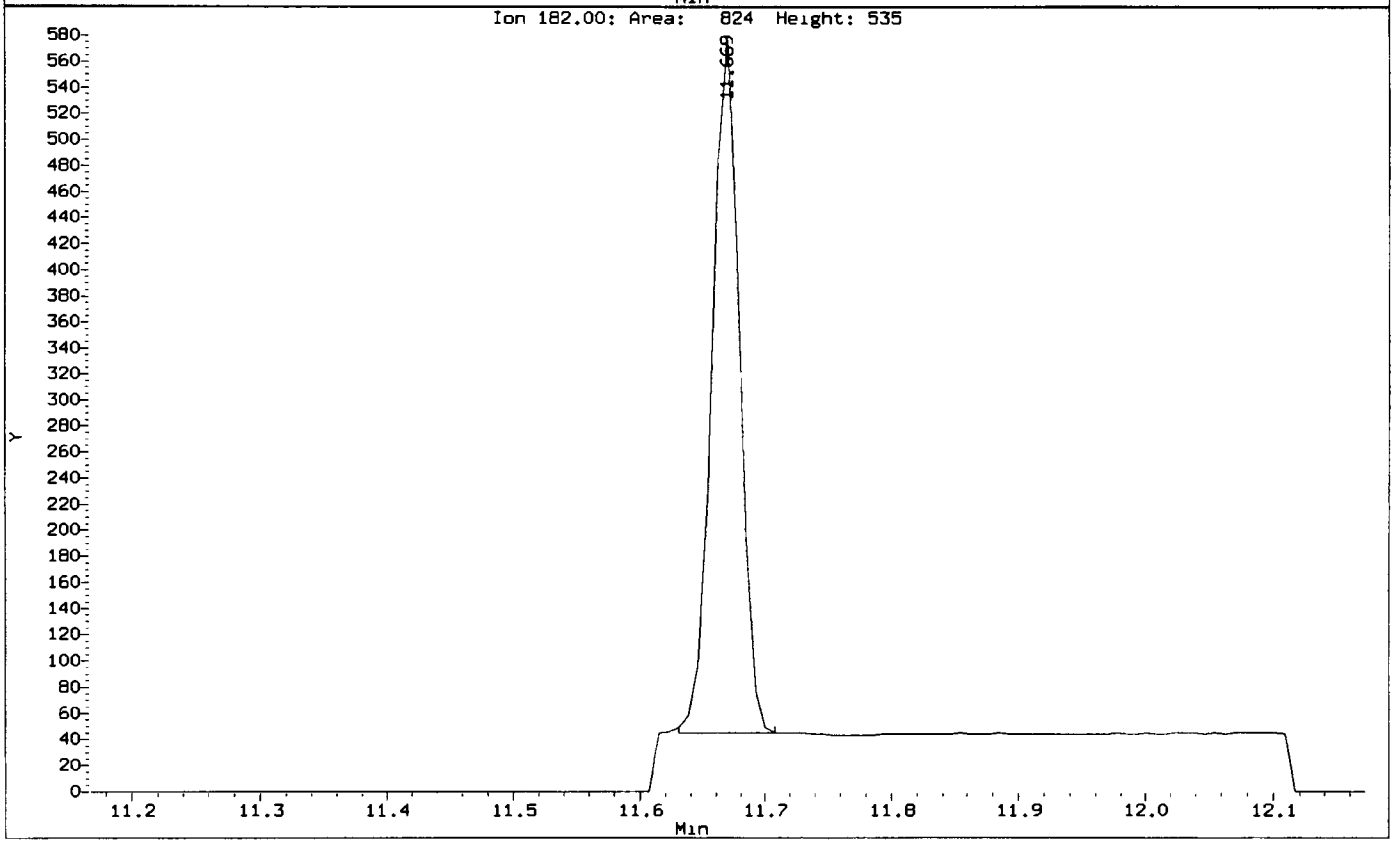
Analyst: YZ Date: 02/06/13

Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125g.d
Injection Date: 25-JAN-2013 16:40
Instrument: nt10.1
Client Sample ID:

Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



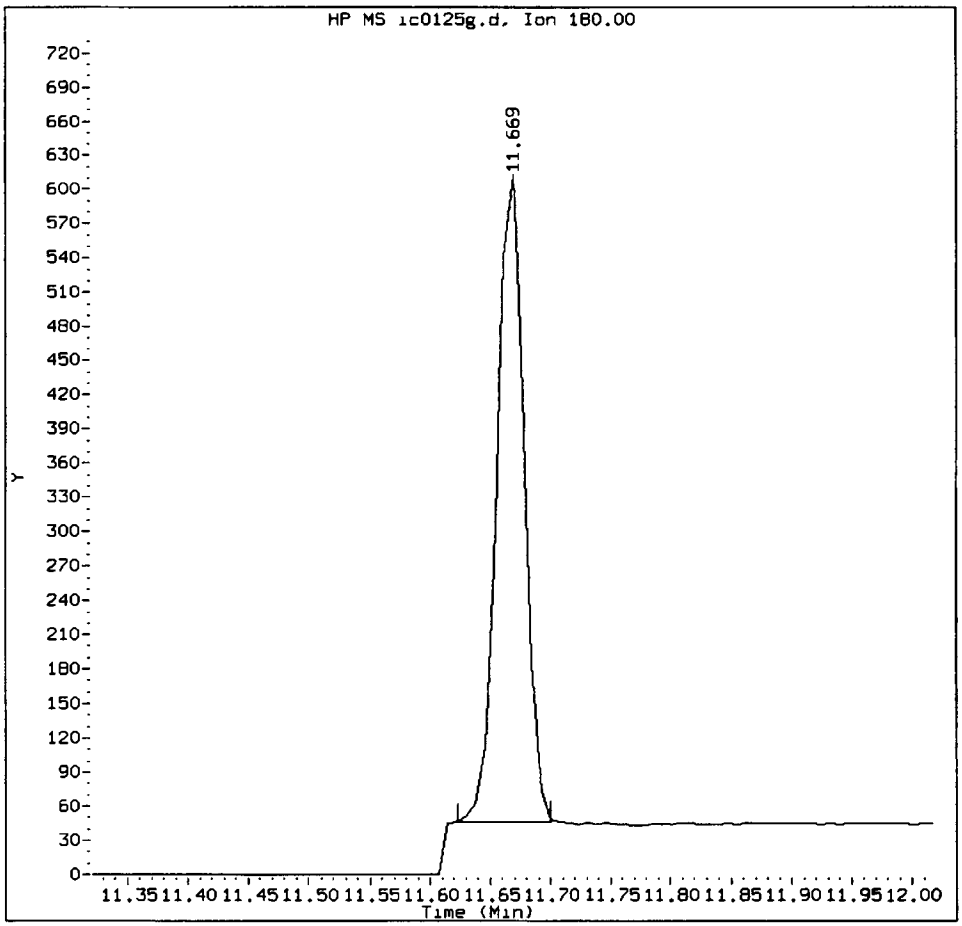
YZ 02/06/13



WI19:01383

IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

1,2,4-Trichlorobenzene Amount: 0.05 Area: 887



MANUAL INTEGRATION for 1,2,4-Trichlorobenzene

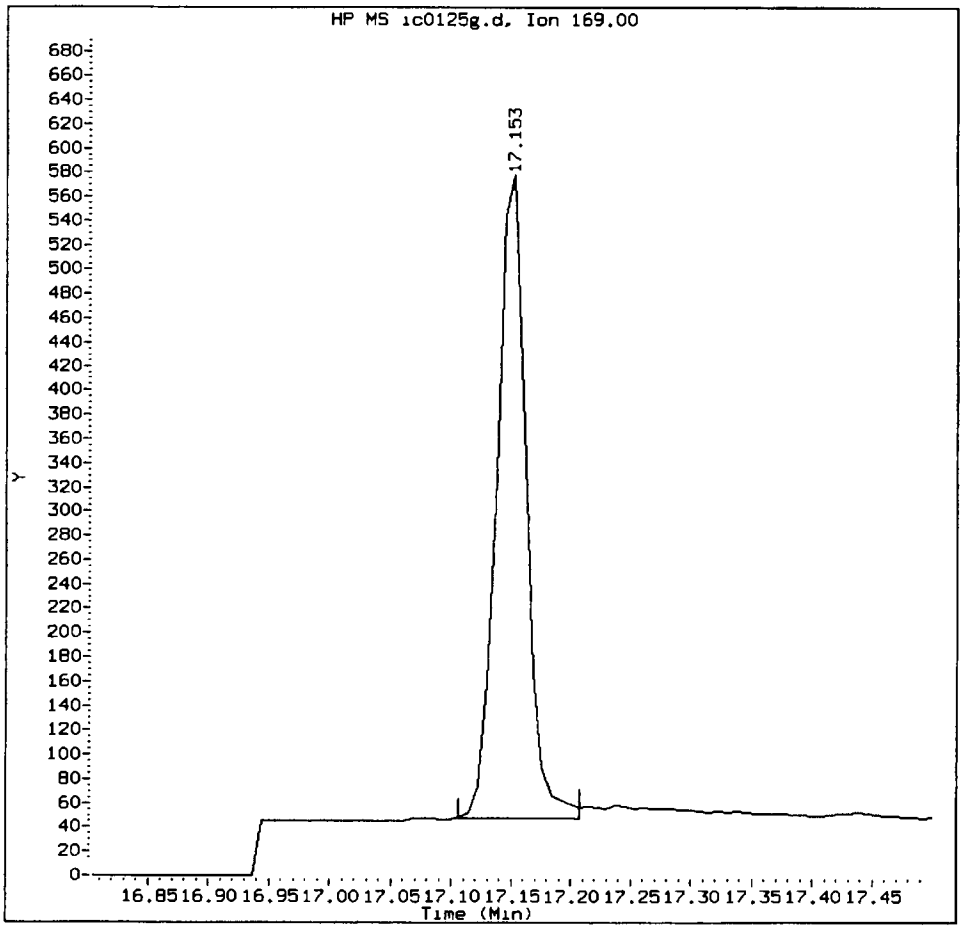
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 03/06/13

IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

N-Nitrosodiphenylamine Amount: 0.04 Area: 921



MANUAL INTEGRATION for N-Nitrosodiphenylamine

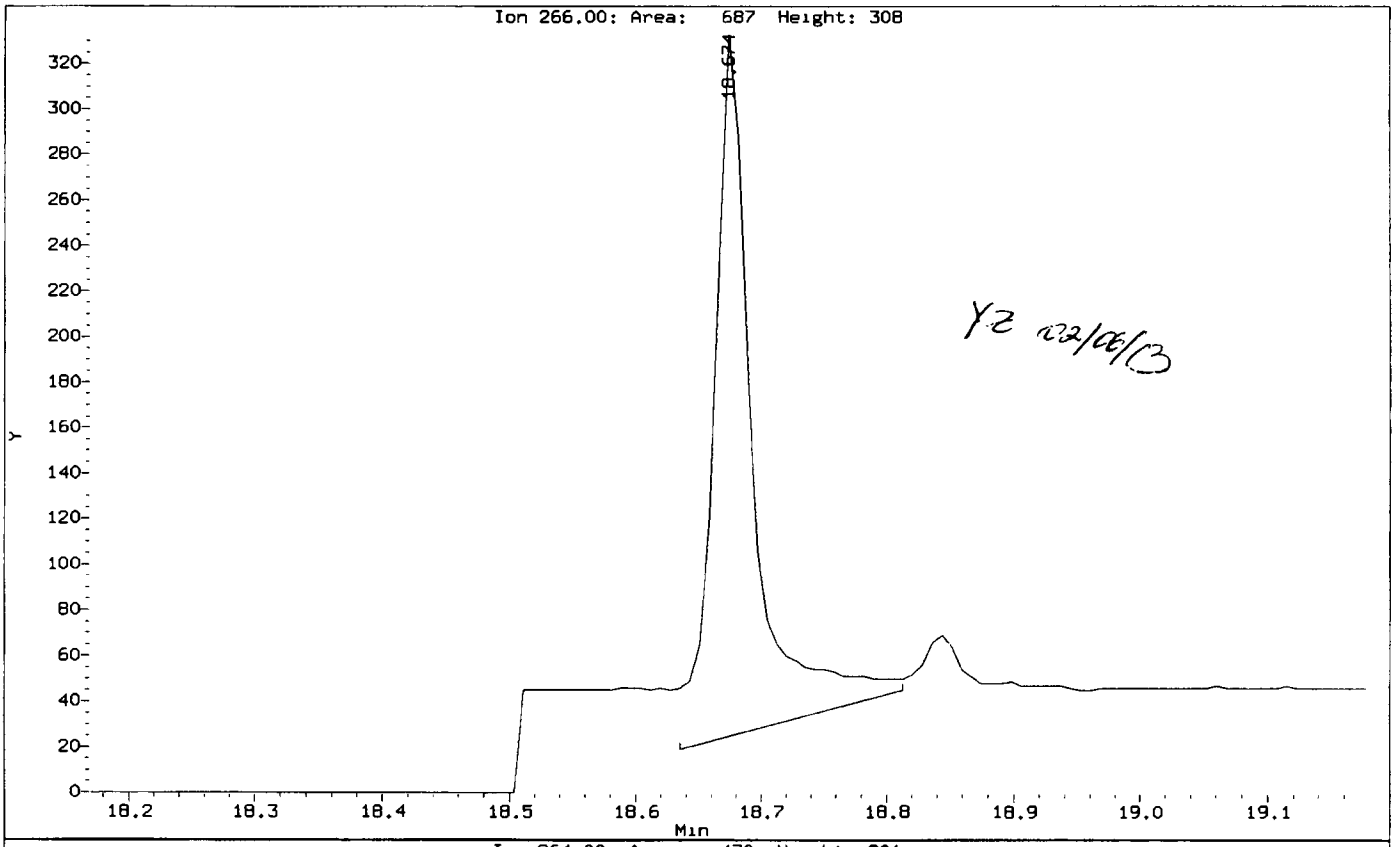
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

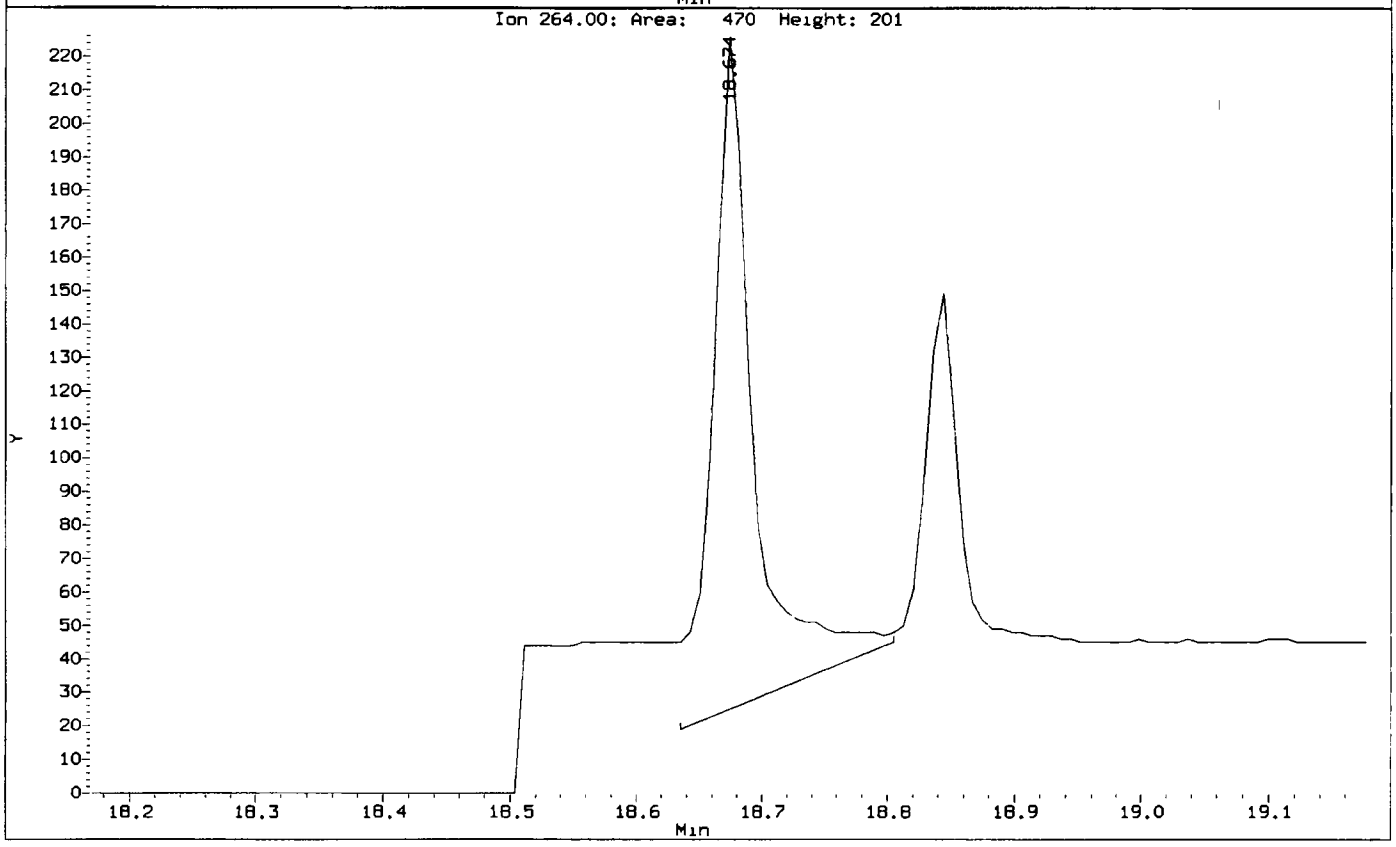
Analyst: YZ Date: 02/06/13

Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d
Injection Date: 25-JAN-2013 16:40
Instrument: nt10.i
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



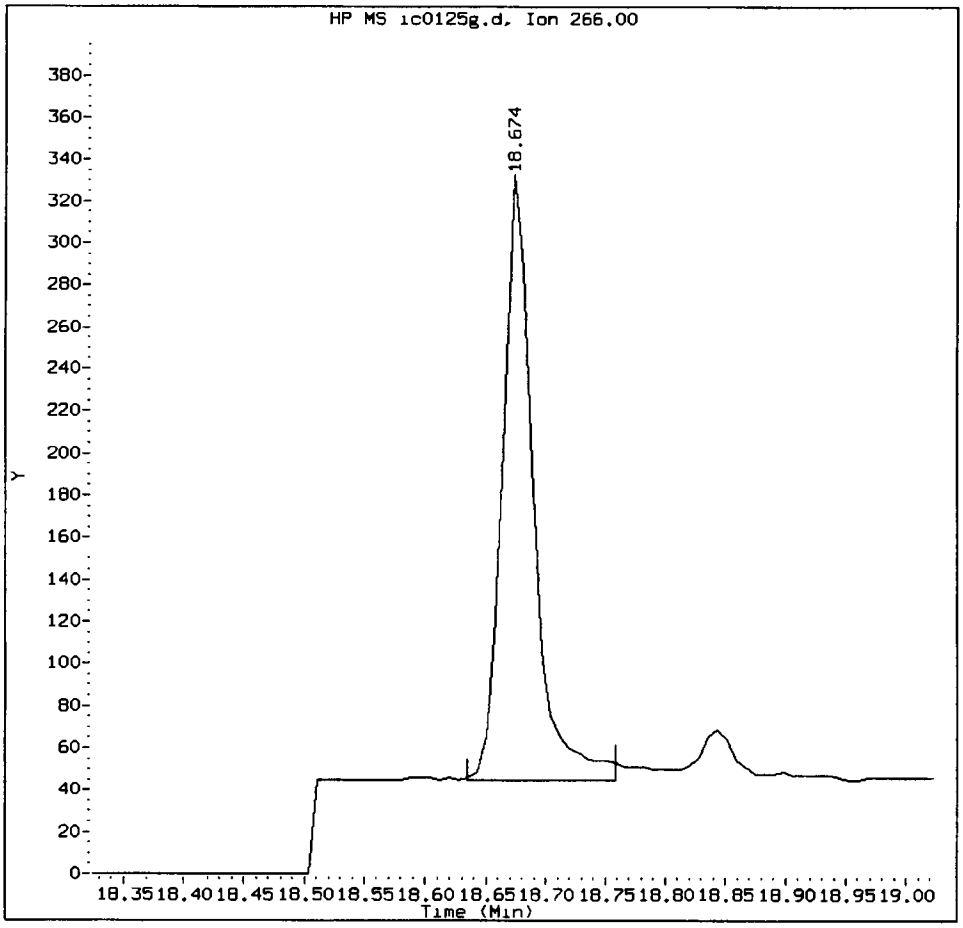
YZ 02/06/13



WJ10:01086

IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

Pentachlorophenol Amount: 0.06 Area: 524



MANUAL INTEGRATION for Pentachlorophenol

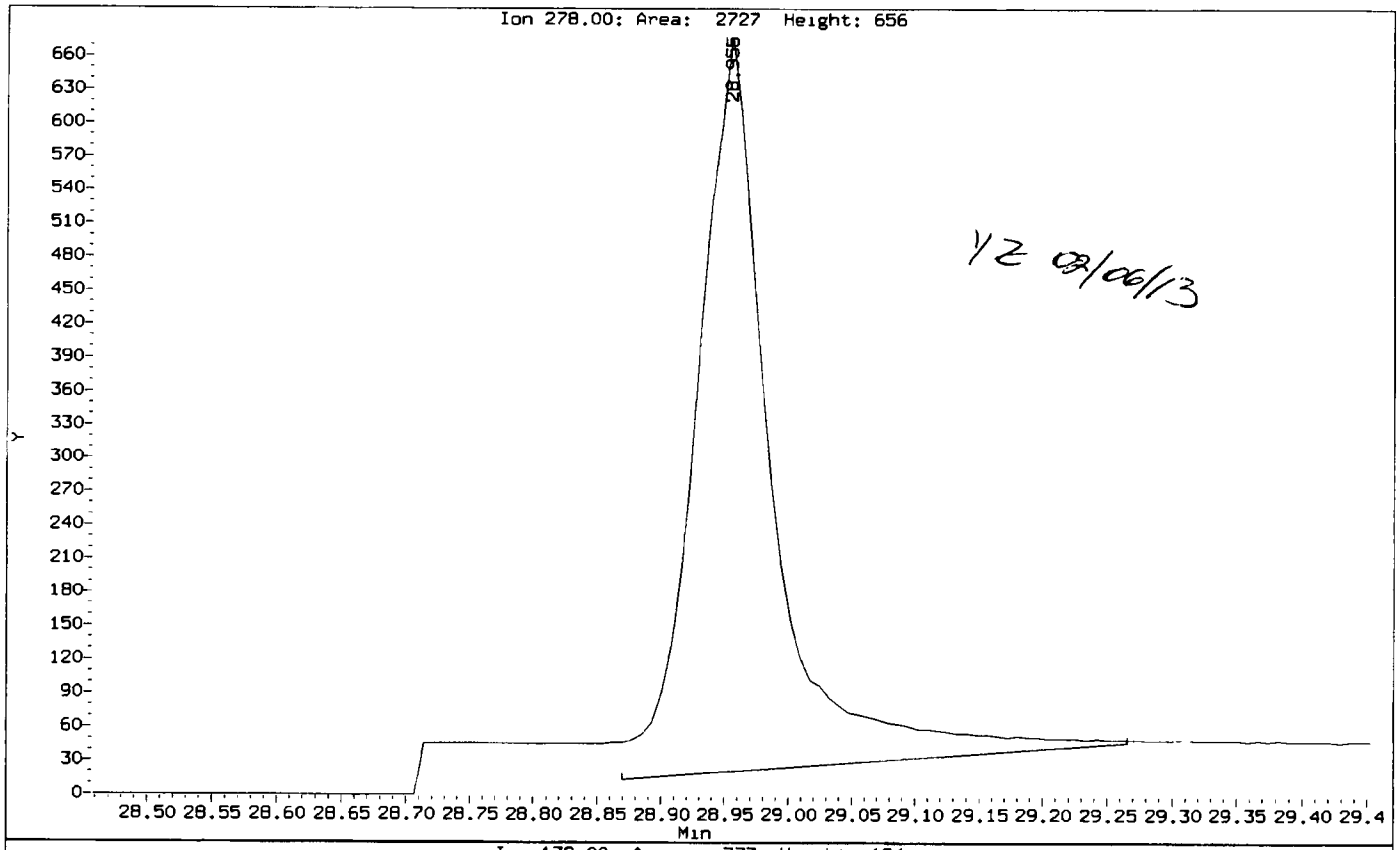
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

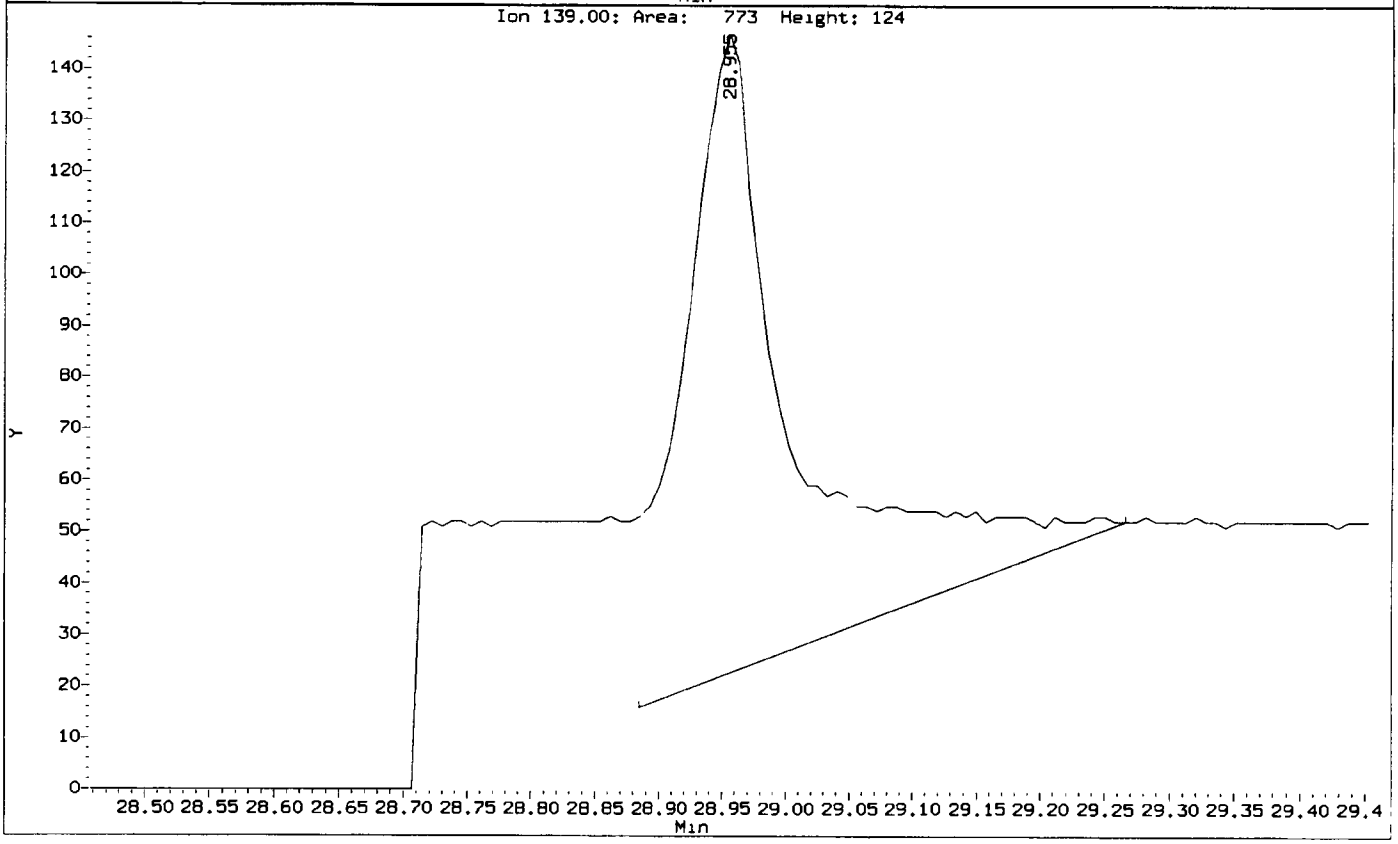
Analyst: YZ Date: 02/06/13

Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125g.d
Injection Date: 25-JAN-2013 16:40
Instrument: nt10.1
Client Sample ID:

Compound: Dibenzo(a,h)anthracene
CAS Number: 53-70-3

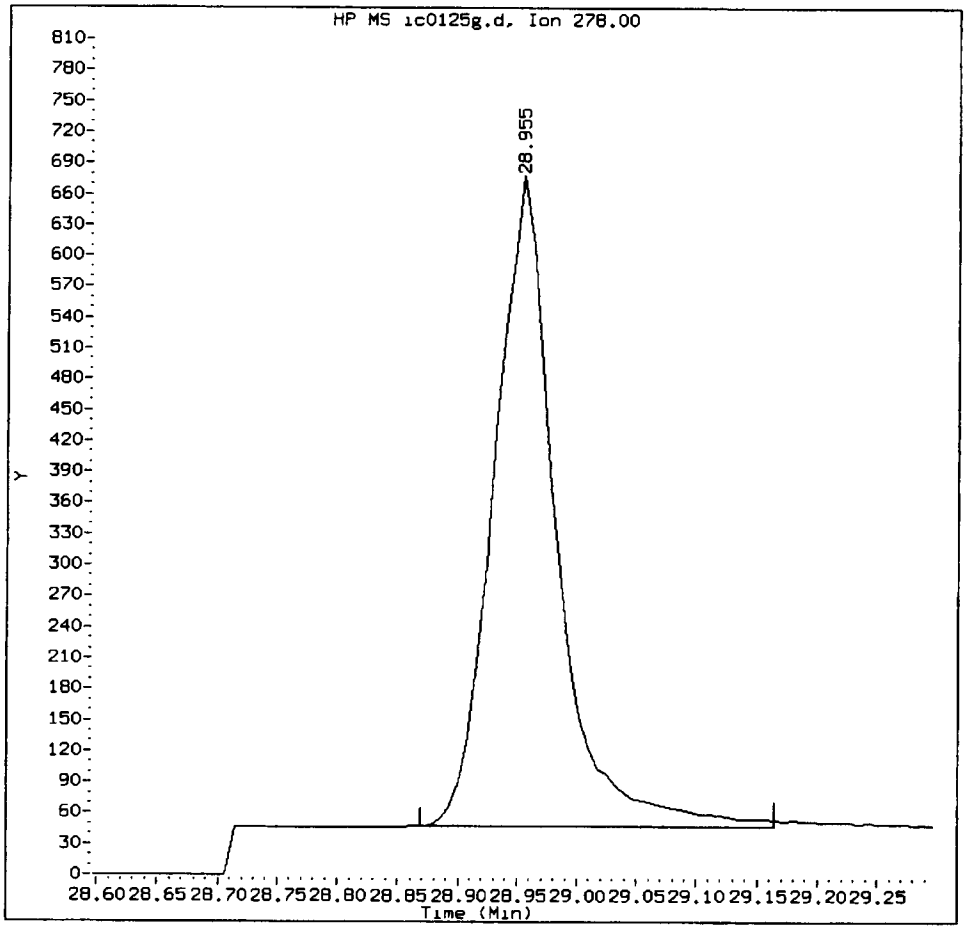


YZ 01/06/13



IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

Dibenzo(a,h)anthracene Amount: 0.05 Area: 2301



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

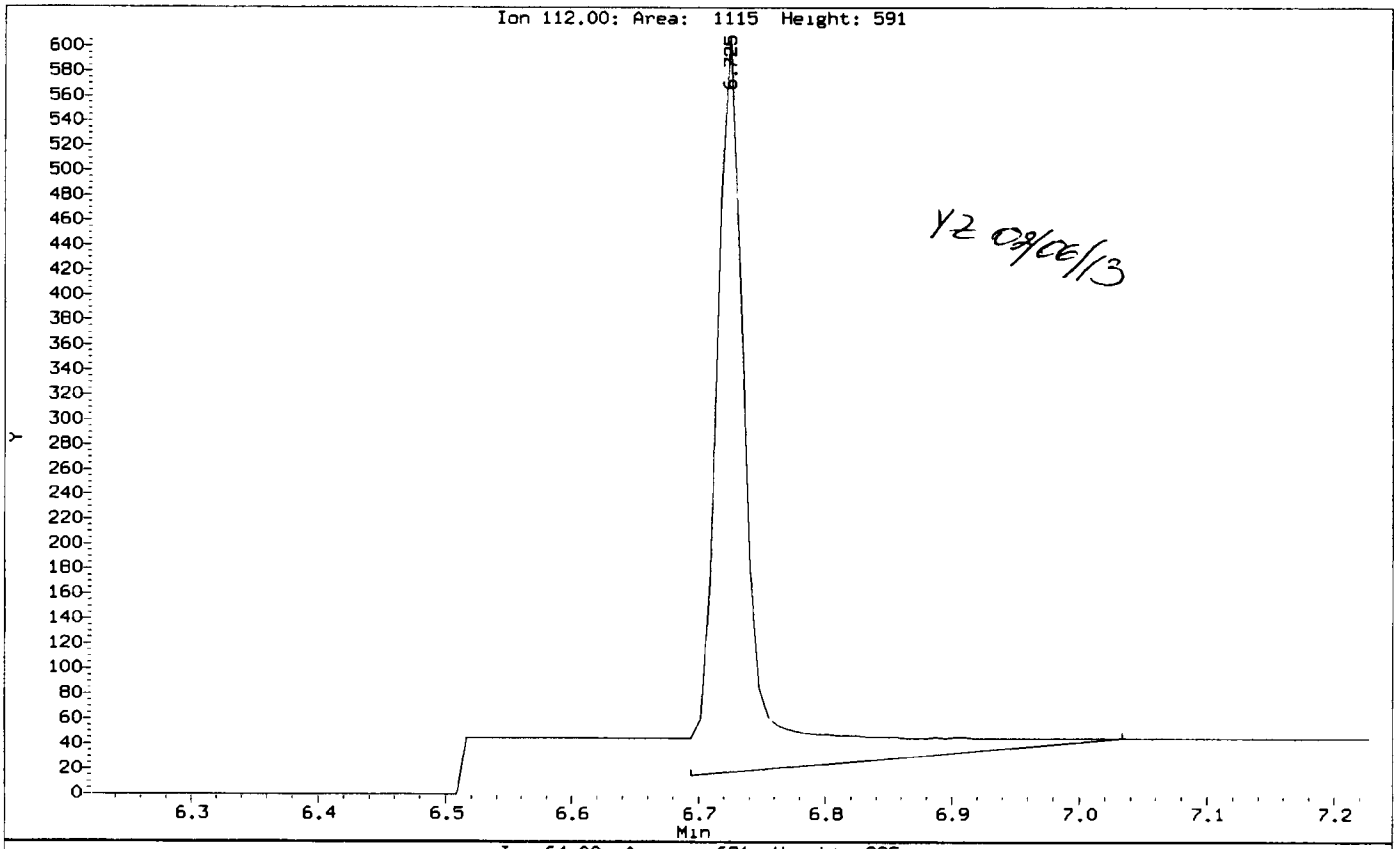
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

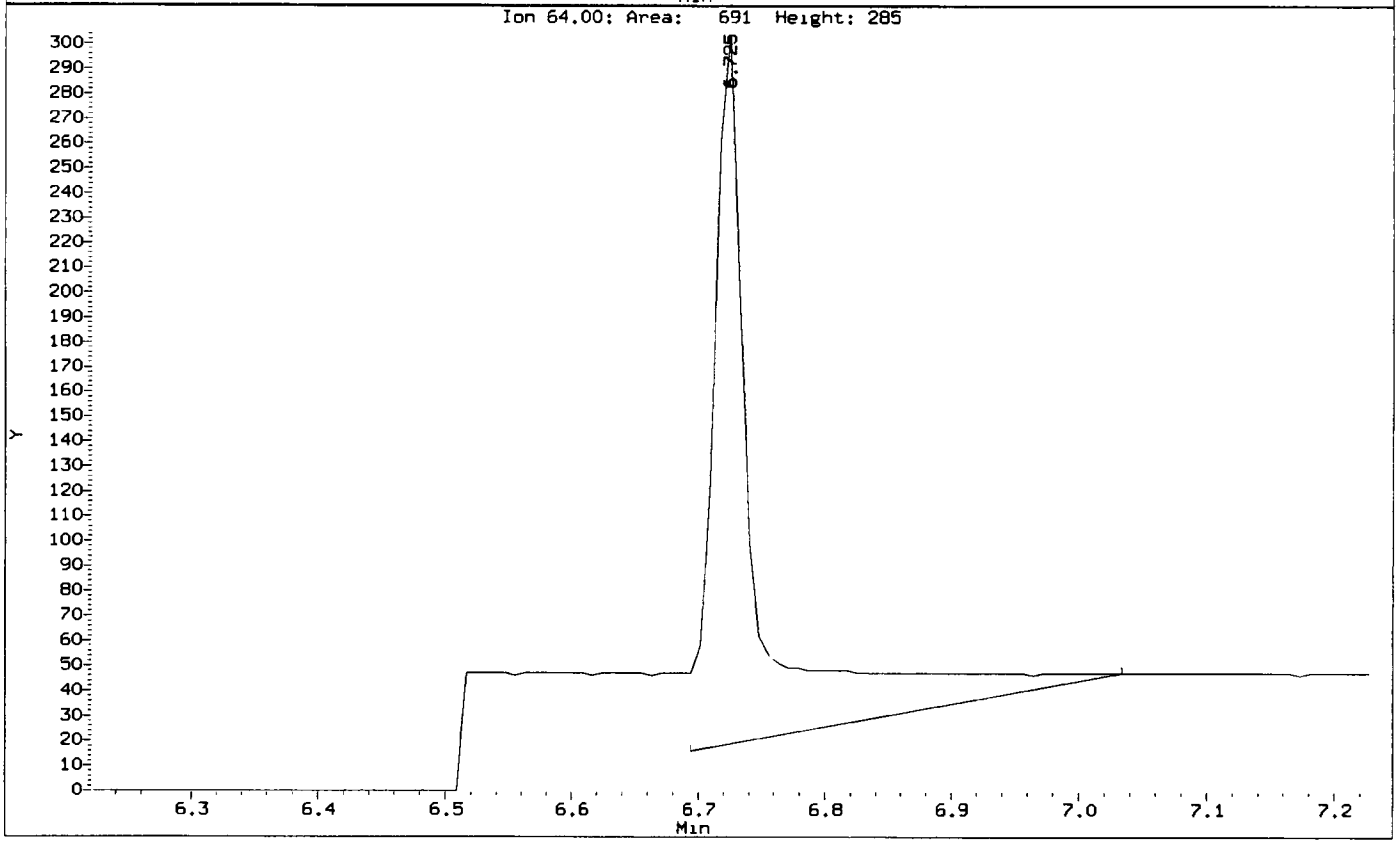
Analyst: VZ Date: 02/06/13

Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125g.d
Injection Date: 25-JAN-2013 16:40
Instrument: nt10.1
Client Sample ID:

Compound: 2-Fluorophenol
CAS Number: 367-12-4



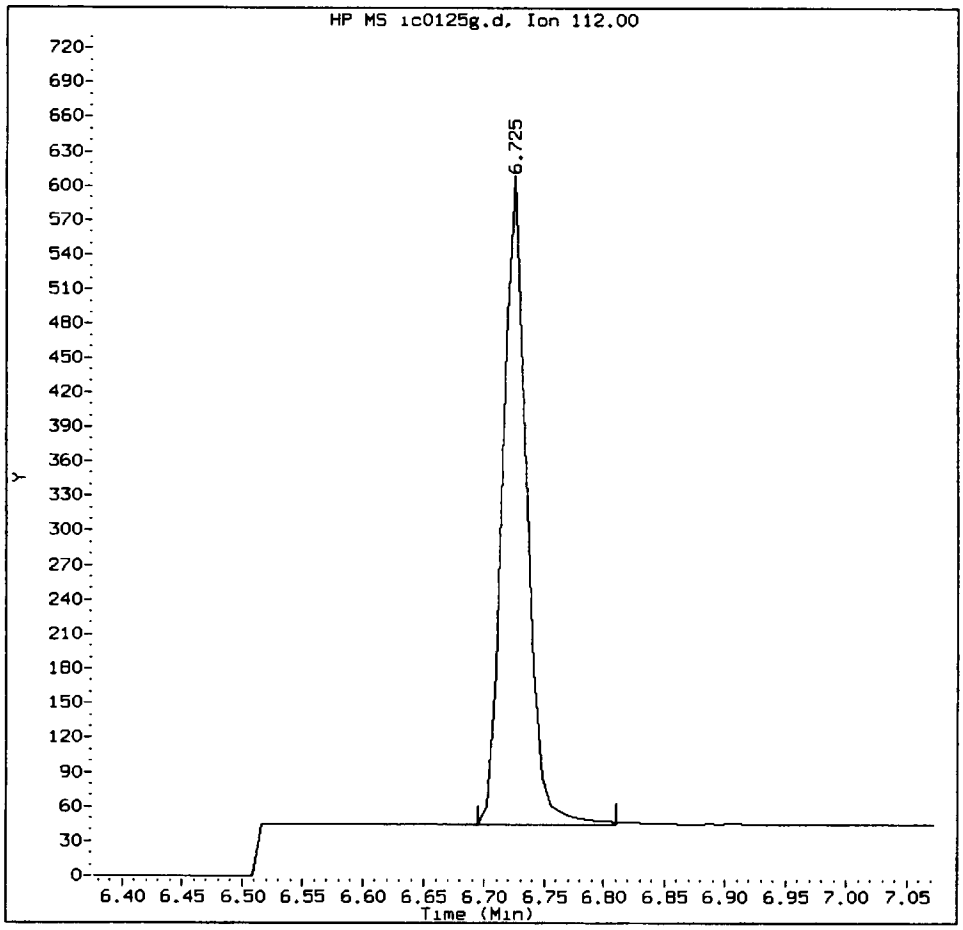
YZ 09/06/13



WJ10:01396

IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

2-Fluorophenol Amount: 0.05 Area: 797



MANUAL INTEGRATION for 2-Fluorophenol

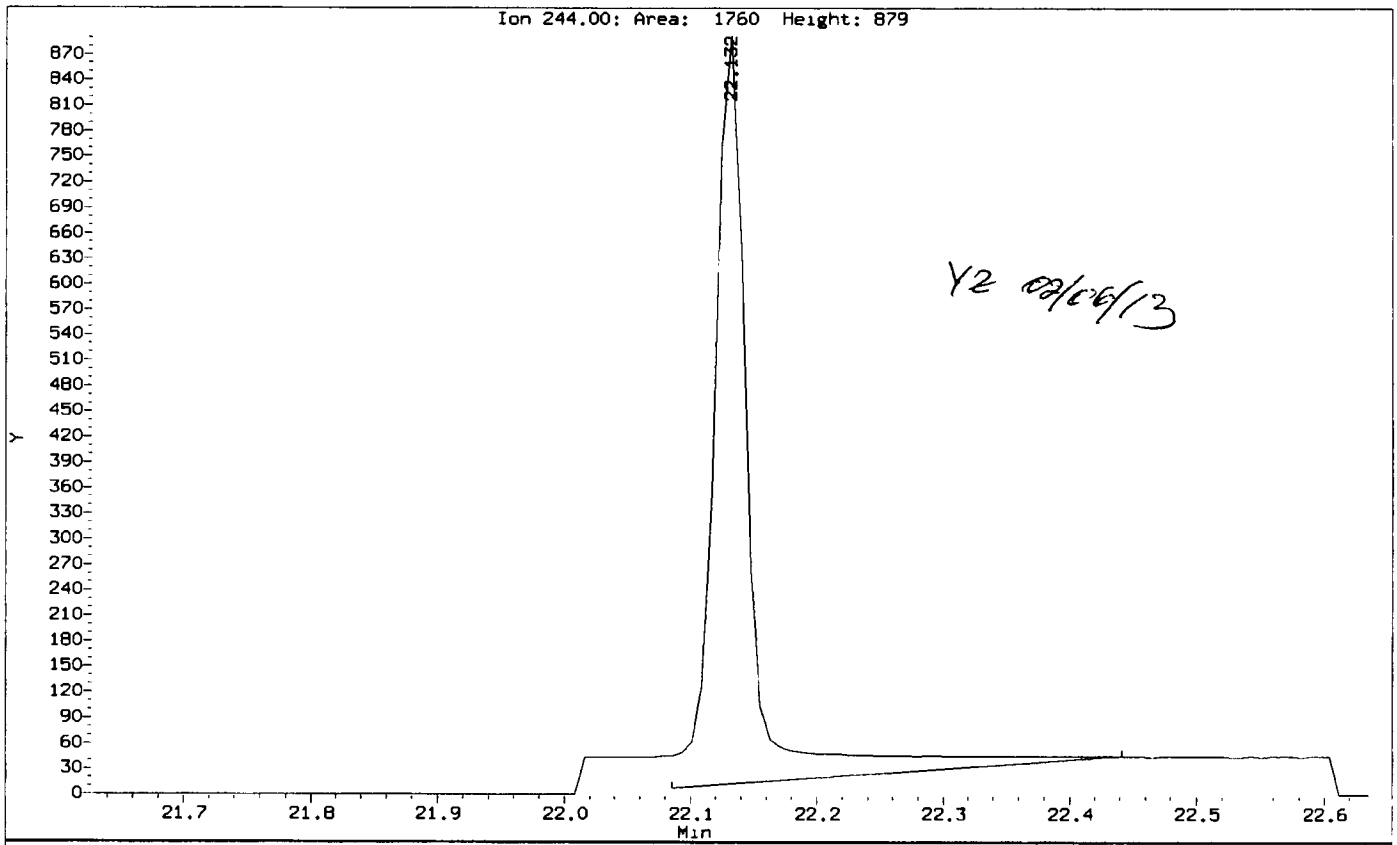
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

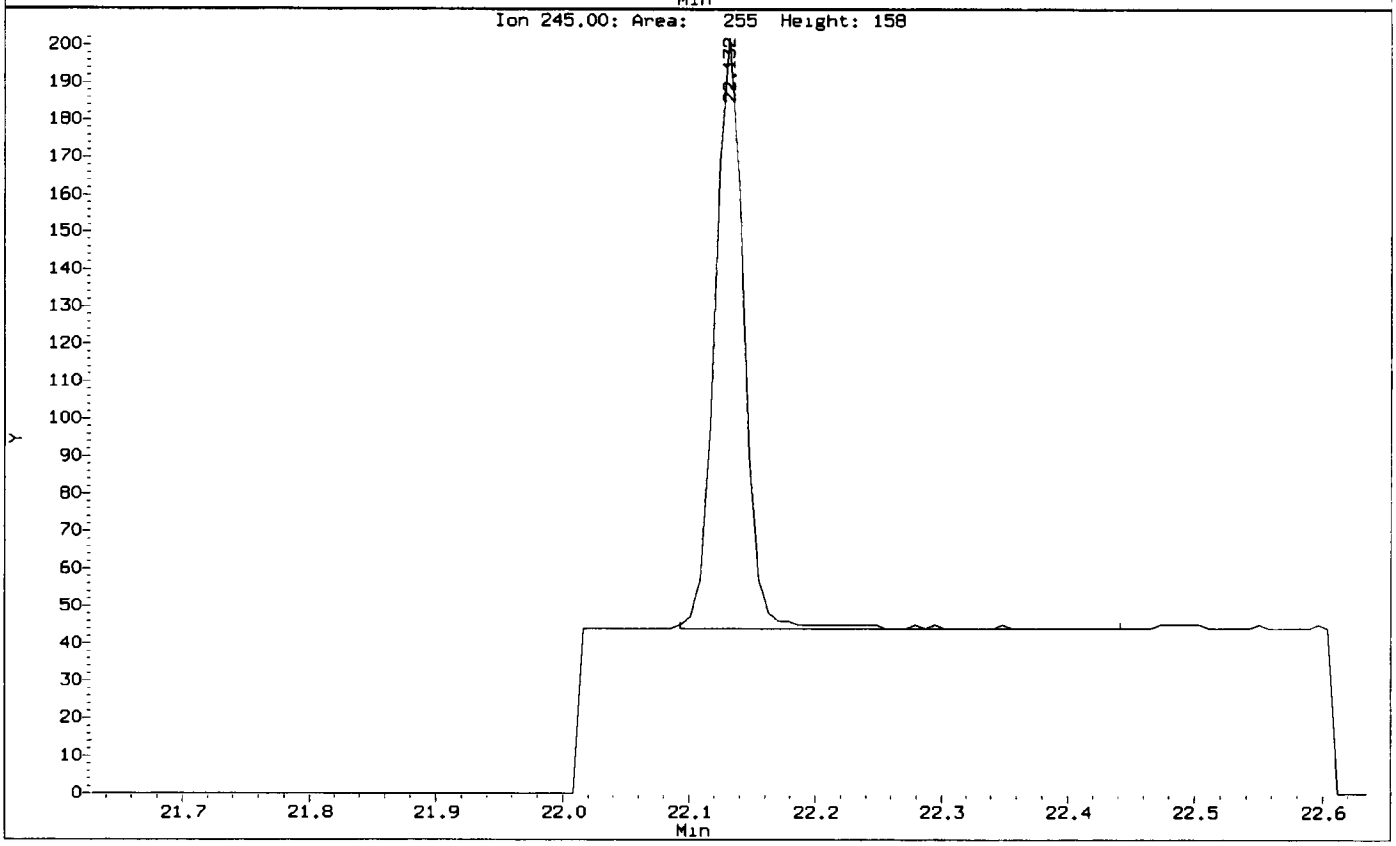
5. Other _____

Analyst: YZ Date: 02/06/13

Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125g.d
Injection Date: 25-JAN-2013 16:40
Instrument: nt10.1
Client Sample ID:

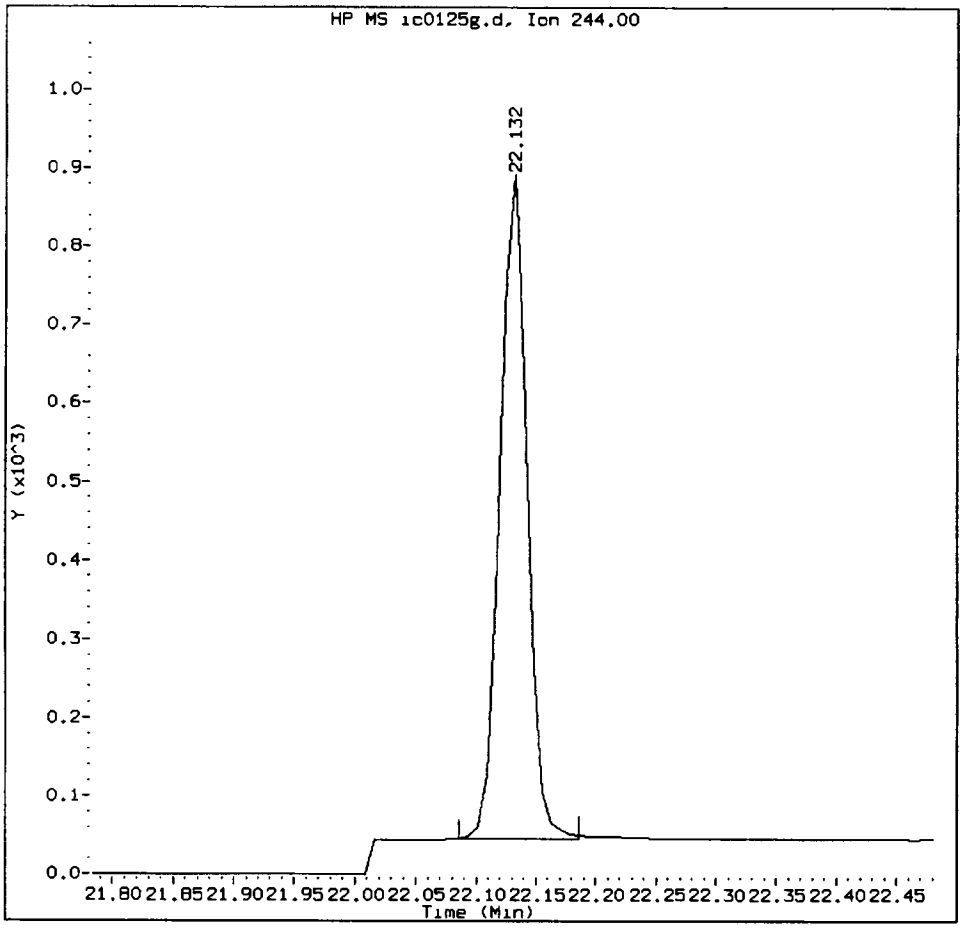
Compound: Terphenyl-d14
CAS Number:





IC0125G, /chem1/nt10.i/20130125.b/SIM.b/ic0125g.d

Terphenyl-d14 Amount: 0.05 Area: 1344



MANUAL INTEGRATION for Terphenyl-d14

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 02/06/13

CO-ELUTION SUMMARY FOR FILE - ic0125g.d

Lab ID: IC0125G, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 25-JAN-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 02/06/13

Data file : /chem1/nt10.i/20130125.b/SIM.b/ic0125h.d
Lab Smp Id: IC0125H
Inj Date : 25-JAN-2013 17:16
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0125H
Misc Info :
Comment :
Method : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Meth Date : 06-Feb-2013 11:08 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:16 Cal File: ic0125h.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.725	6.725	(0.740)	7873	0.50000	0.4941
	3 Phenol	94	8.456	8.456	(0.930)	10035	0.50000	0.4959
	7 1,3-Dichlorobenzene	146	9.013	9.012	(0.991)	10196	0.50000	0.5017
*	8 1,4-Dichlorobenzene-d4	152	9.090	9.082	(1.000)	50086	4.00000	
	9 1,4-Dichlorobenzene	146	9.121	9.113	(1.003)	10146	0.50000	0.5001
	11 Benzyl alcohol	79	9.393	9.392	(1.033)	5875	0.50000	0.4899
	12 1,2-Dichlorobenzene	146	9.494	9.493	(1.044)	9559	0.50000	0.4975
	13 2-Methylphenol	108	9.649	9.649	(1.061)	7566	0.50000	0.4969
	15 4-Methylphenol	108	9.936	9.936	(1.093)	7904	0.50000	0.5012
	16 N-Nitroso-di-n-propylamine	70	9.998	9.998	(1.100)	4907	0.50000	0.4950
	22 2,4-Dimethylphenol	107	11.068	11.068	(0.942)	16161	1.00000	0.9960
	26 1,2,4-Trichlorobenzene	180	11.669	11.669	(0.993)	8767	0.50000	0.5003
*	27 Naphthalene-d8	136	11.754	11.754	(1.000)	188224	4.00000	
	30 Hexachlorobutadiene	225	12.210	12.210	(1.039)	5232	0.50000	0.4918
	39 Dimethylphthalate	163	15.166	15.166	(0.968)	15801	0.50000	0.4971
*	42 Acenaphthene-d10	162	15.661	15.661	(1.000)	104418	4.00000	
	50 Diethylphthalate	149	16.759	16.751	(1.070)	18380	0.50000	0.4949
	54 N-Nitrosodiphenylamine	169	17.145	17.153	(0.905)	11810	0.50000	0.5127
	57 Hexachlorobenzene	284	18.279	18.279	(0.965)	7635	0.50000	0.5095
	58 Pentachlorophenol	266	18.674	18.674	(0.986)	8335	1.00000	0.8849
*	59 Phenanthrene-d10	188	18.937	18.937	(1.000)	198157	4.00000	
$	66 Terphenyl-d14	244	22.132	22.132	(0.922)	14697	0.50000	0.4865
	67 Butylbenzylphthalate	149	23.077	23.077	(0.961)	10149	0.50000	0.4671
*	69 Chrysene-d12	240	24.006	24.006	(1.000)	227335	4.00000	
*	77 Perylene-d12	264	26.507	26.507	(1.000)	219691	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.947	28.947	(1.092)	25984	0.50000	0.4962
	90 N-Nitrosodimethylamine	74	4.447	4.455	(0.489)	9444	1.00000	0.9933

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125h.d
Lab Smp Id: IC0125H
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 15:27
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

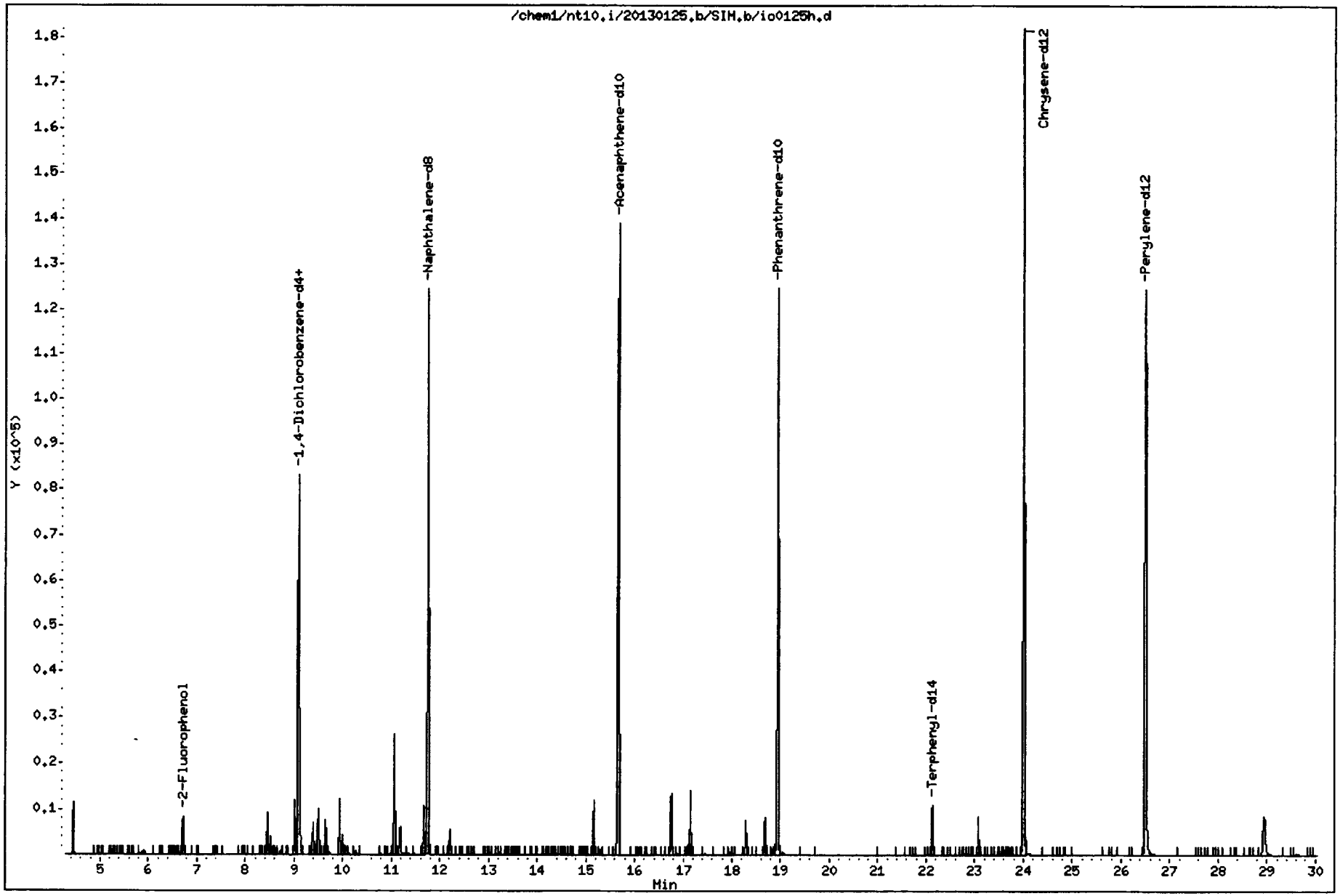
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	50086	-6.99
27 Naphthalene-d8	200104	100052	400208	188224	-5.94
42 Acenaphthene-d10	112392	56196	224784	104418	-7.09
59 Phenanthrene-d10	210710	105355	421420	198157	-5.96
69 Chrysene-d12	240805	120402	481610	227335	-5.59
77 Perylene-d12	230834	115417	461668	219691	-4.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.09	8.59	9.59	9.09	0.00
27 Naphthalene-d8	11.75	11.25	12.25	11.75	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125h.d
Date : 25-JAN-2013 17:16
Client ID:
Sample Info: IC0125H

Instrument: nt10.i
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - ic0125h.d

Lab ID: IC0125H, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 25-JAN-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 02/04/13

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130125.b/SIM.b/ic0125i.d
Lab Smp Id: IC0125I
Inj Date : 25-JAN-2013 17:53
Operator : YZ Inst ID: nt10.i
Smp Info : IC0125I
Misc Info :
Comment :
Method : /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Meth Date : 06-Feb-2013 11:08 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:53 Cal File: ic0125i.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.725	6.725	(0.740)	1598	0.10000	0.09578
	3 Phenol	94	8.456	8.456	(0.931)	2001	0.10000	0.09444
	7 1,3-Dichlorobenzene	146	9.012	9.012	(0.992)	2154	0.10000	0.1012
*	8 1,4-Dichlorobenzene-d4	152	9.082	9.082	(1.000)	52438	4.00000	
	9 1,4-Dichlorobenzene	146	9.113	9.113	(1.003)	2180	0.10000	0.1026
	11 Benzyl alcohol	79	9.392	9.392	(1.034)	1174	0.10000	0.09351(M)
	12 1,2-Dichlorobenzene	146	9.493	9.493	(1.045)	2052	0.10000	0.1020
	13 2-Methylphenol	108	9.649	9.649	(1.062)	1498	0.10000	0.09396
	15 4-Methylphenol	108	9.936	9.936	(1.094)	1538	0.10000	0.09316
	16 N-Nitroso-di-n-propylamine	70	9.998	9.998	(1.101)	990	0.10000	0.09539(M)
	22 2,4-Dimethylphenol	107	11.068	11.068	(0.942)	3079	0.20000	0.1836
	26 1,2,4-Trichlorobenzene	180	11.669	11.669	(0.993)	2059	0.10000	0.1137
*	27 Naphthalene-d8	136	11.754	11.754	(1.000)	194519	4.00000	
	30 Hexachlorobutadiene	225	12.210	12.210	(1.039)	1098	0.10000	0.09988
	39 Dimethylphthalate	163	15.166	15.166	(0.968)	3070	0.10000	0.09551(M)
*	42 Acenaphthene-d10	162	15.661	15.661	(1.000)	105586	4.00000	
	50 Diethylphthalate	149	16.751	16.751	(1.070)	3860	0.10000	0.1028
	54 N-Nitrosodiphenylamine	169	17.153	17.153	(0.906)	2058	0.10000	0.09080
	57 Hexachlorobenzene	284	18.279	18.279	(0.965)	1494	0.10000	0.1013(M)
	58 Pentachlorophenol	266	18.674	18.674	(0.986)	1250	0.20000	0.1359
*	59 Phenanthrene-d10	188	18.937	18.937	(1.000)	194974	4.00000	
$	66 Terphenyl-d14	244	22.132	22.132	(0.922)	3257	0.10000	0.1092
	67 Butylbenzylphthalate	149	23.077	23.077	(0.961)	1769	0.10000	0.08242
*	69 Chrysene-d12	240	24.006	24.006	(1.000)	224554	4.00000	
*	77 Perylene-d12	264	26.507	26.507	(1.000)	218858	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.947	28.947	(1.092)	4594	0.10000	0.08807(M)
	90 N-Nitrosodimethylamine	74	4.455	4.455	(0.490)	1966	0.20000	0.1975

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0125i.d
Lab Smp Id: IC0125I
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130125.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 25-JAN-2013
Calibration Time: 15:27
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

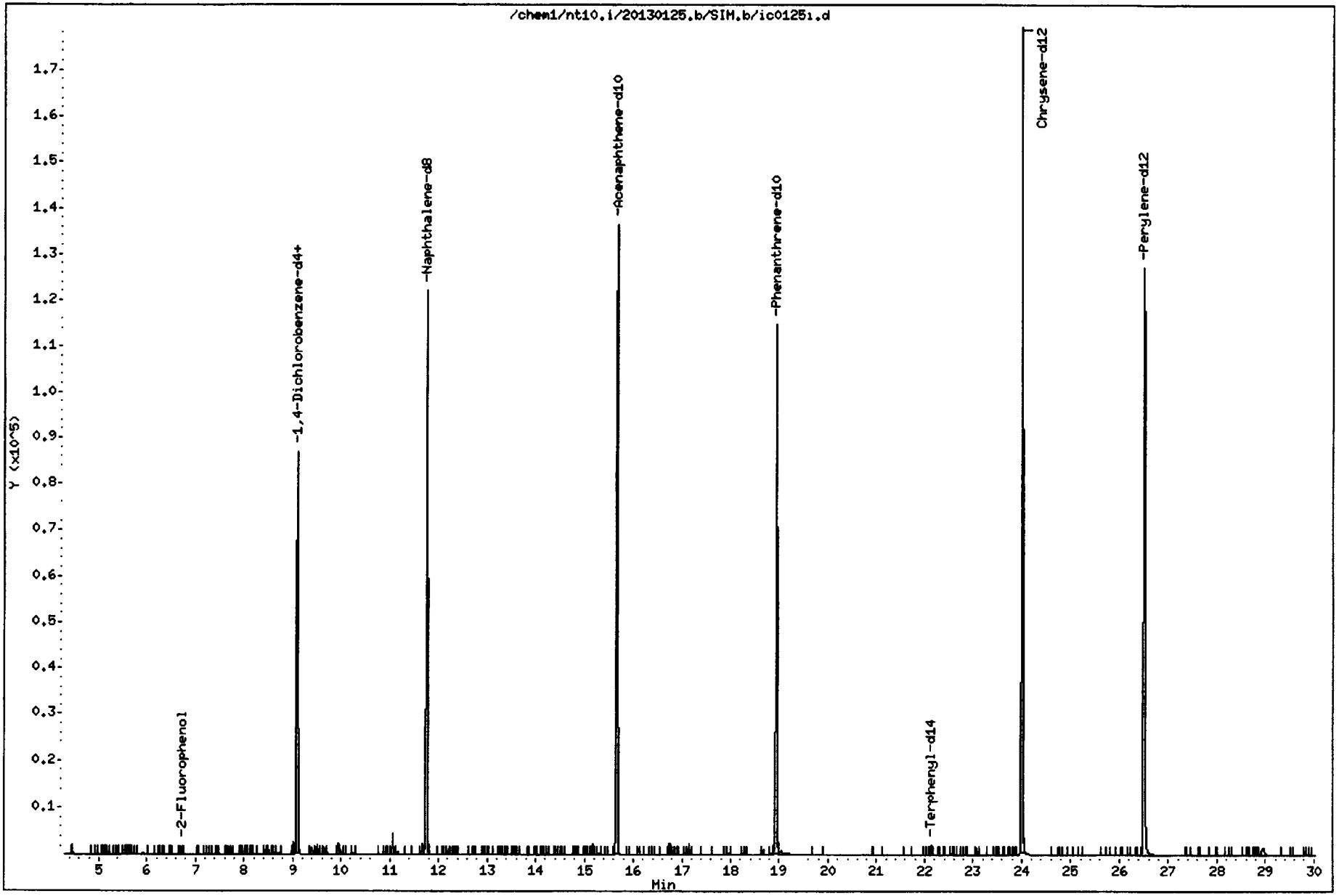
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	52438	-2.63
27 Naphthalene-d8	200104	100052	400208	194519	-2.79
42 Acenaphthene-d10	112392	56196	224784	105586	-6.06
59 Phenanthrene-d10	210710	105355	421420	194974	-7.47
69 Chrysene-d12	240805	120402	481610	224554	-6.75
77 Perylene-d12	230834	115417	461668	218858	-5.19

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	9.09	8.59	9.59	9.08	-0.09
27 Naphthalene-d8	11.75	11.25	12.25	11.75	0.00
42 Acenaphthene-d10	15.66	15.16	16.16	15.66	0.00
59 Phenanthrene-d10	18.94	18.44	19.44	18.94	0.00
69 Chrysene-d12	24.01	23.51	24.51	24.01	0.00
77 Perylene-d12	26.51	26.01	27.01	26.51	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

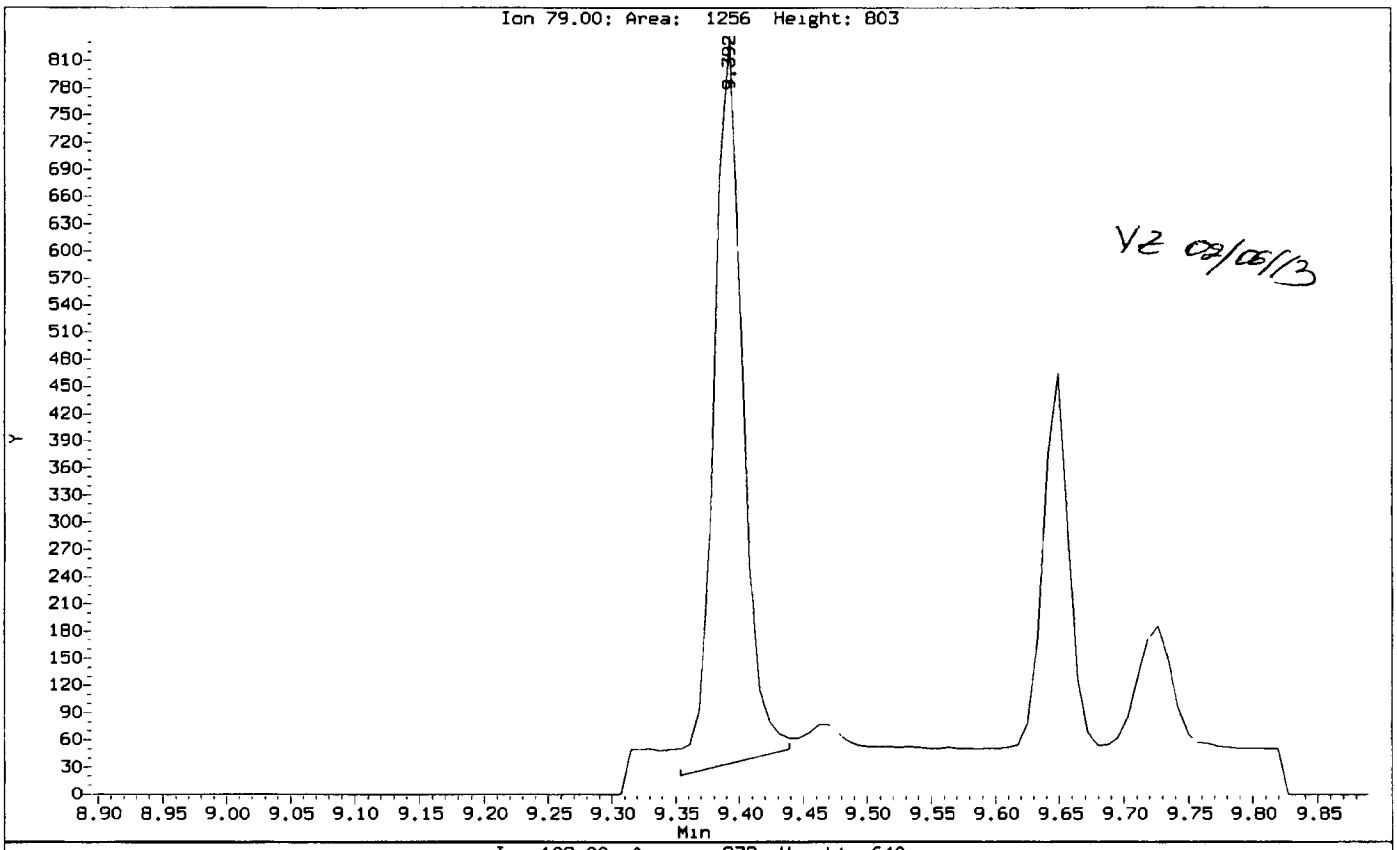
Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125i.d
Date : 25-JAN-2013 17:53
Client ID:
Sample Info: IC0125I

Instrument: nt10.i
Operator: YZ
Column phase: ZB-5msi
Column diameter: 0.25

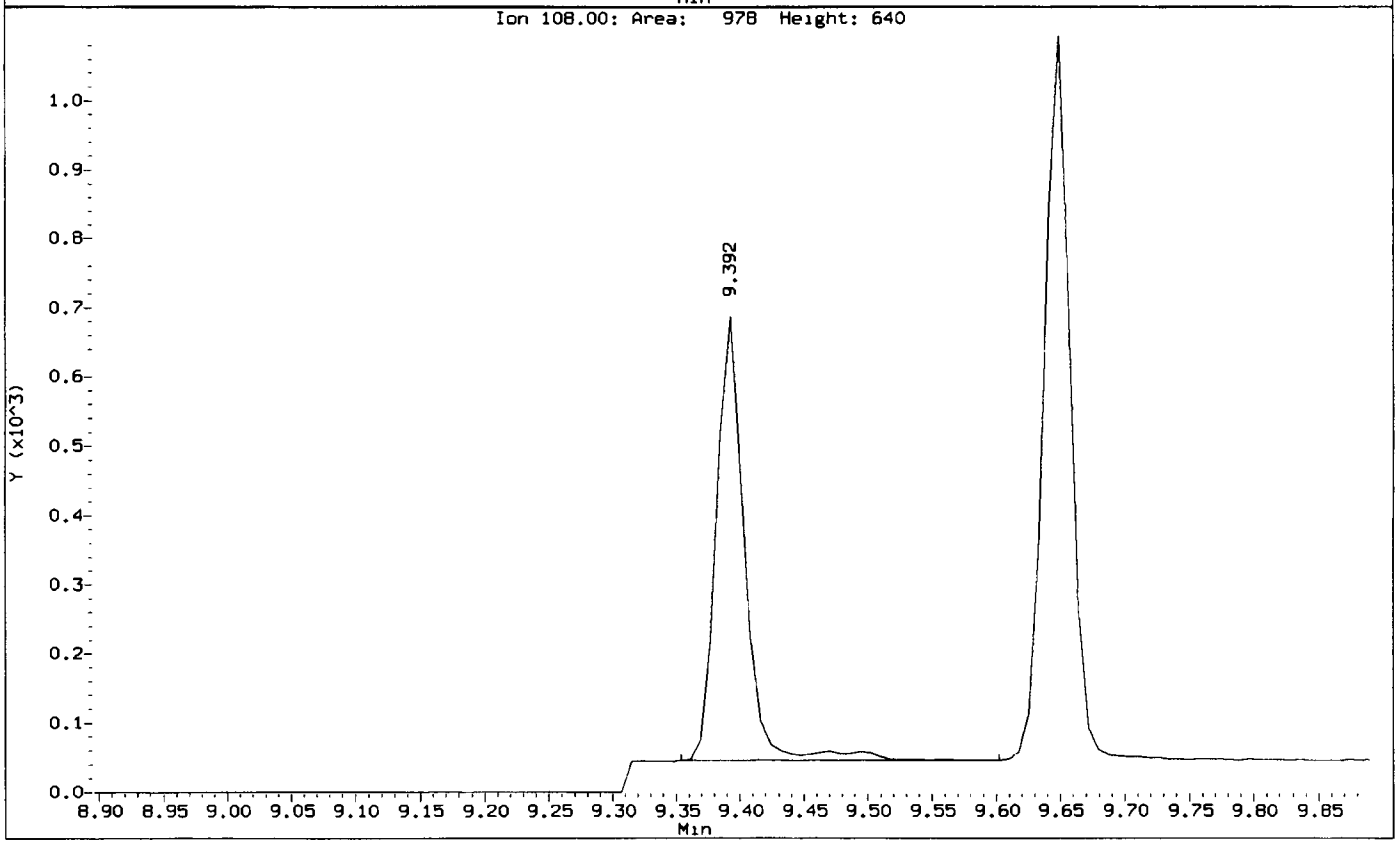


Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125i.d
Injection Date: 25-JAN-2013 17:53
Instrument: nt10.1
Client Sample ID:

Compound: Benzyl alcohol
CAS Number: 100-51-6



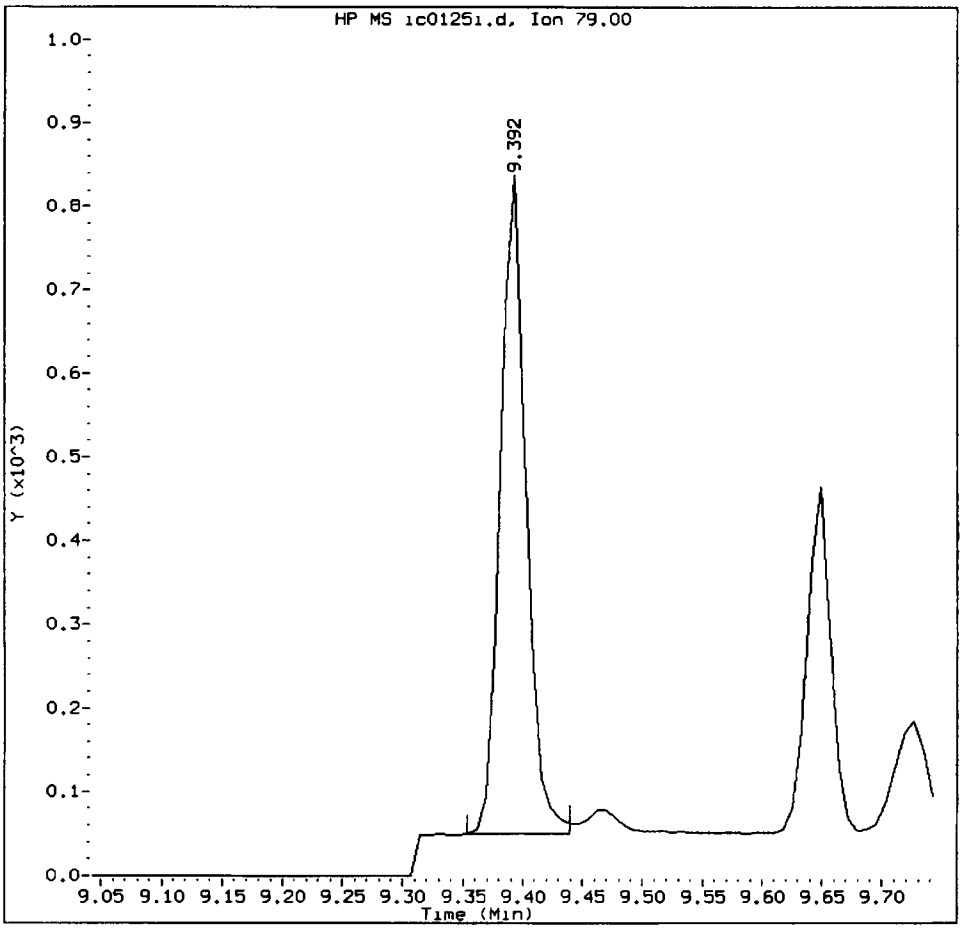
YZ 08/06/13



WJ16:81483

IC0125I, /chem1/nt10.i/20130125.b/SIM.b/ic0125i.d

Benzyl alcohol Amount: 0.09 Area: 1174



MANUAL INTEGRATION for Benzyl alcohol

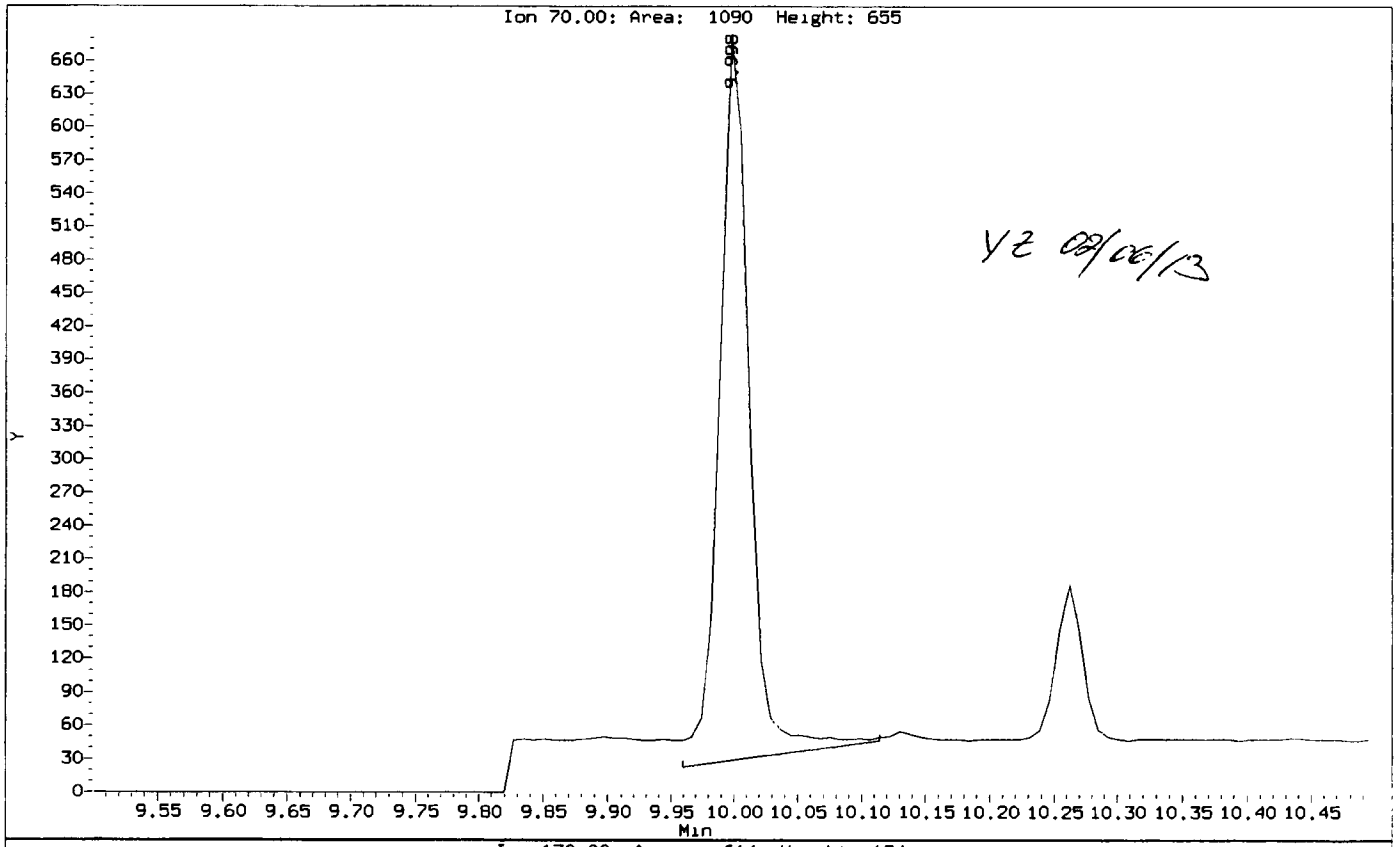
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

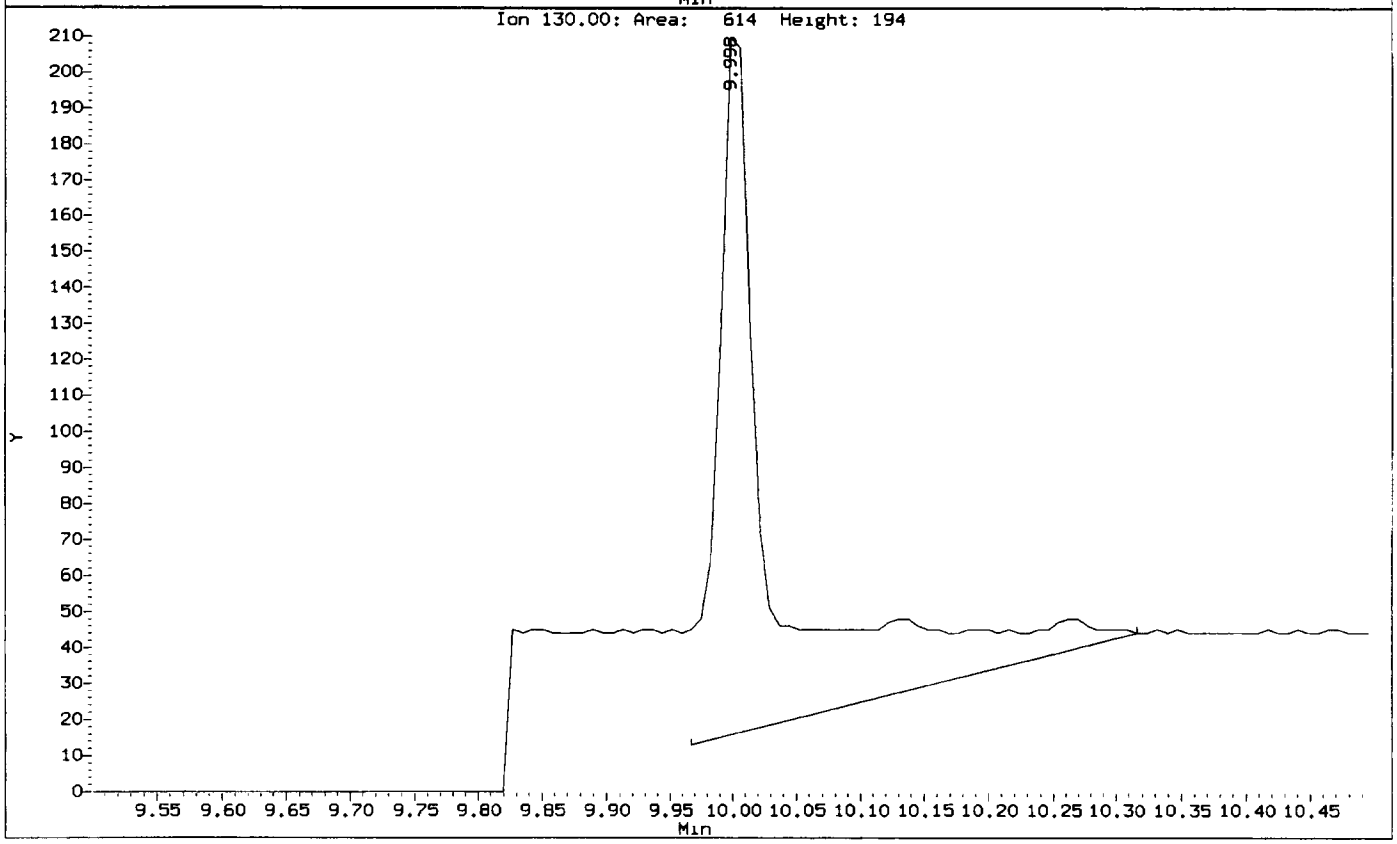
Analyst: VZ Date: 02/06/13

Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125i.d
Injection Date: 25-JAN-2013 17:53
Instrument: nt10.1
Client Sample ID:

Compound: N-Nitroso-di-n-propylamine
CAS Number: 621-64-7



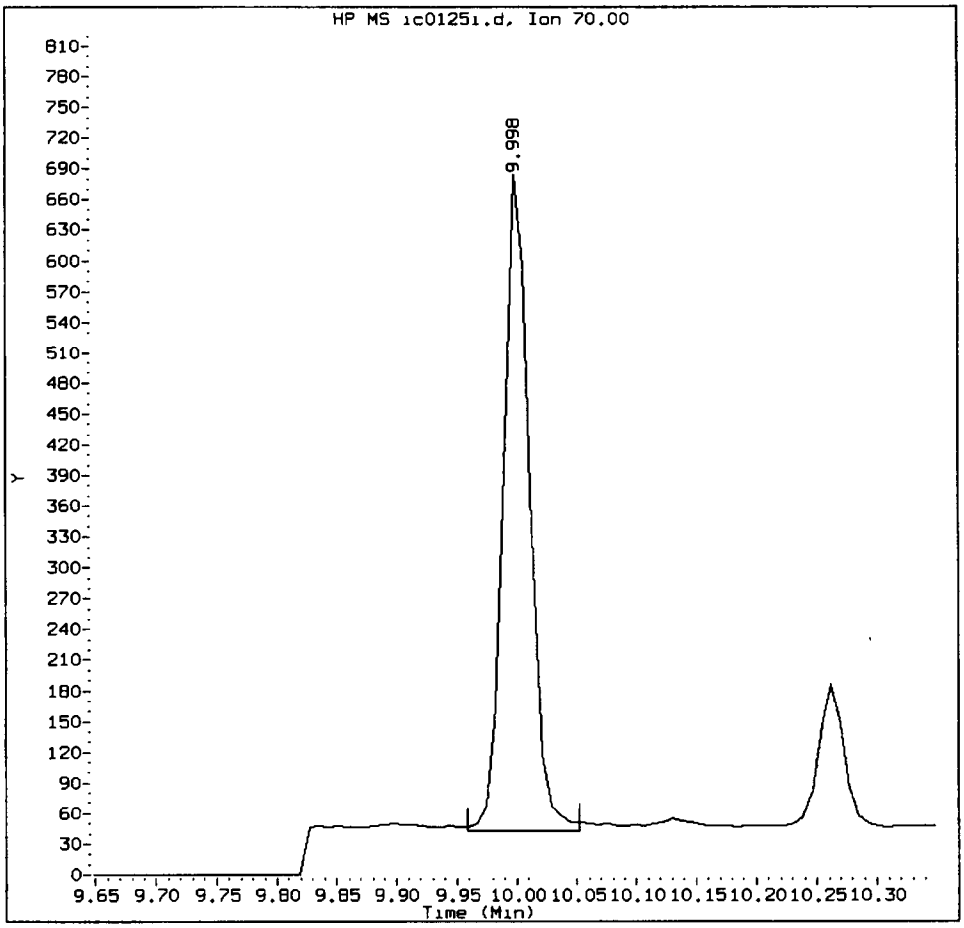
YZ 02/06/13



NT10:01405

IC0125I, /chem1/nt10.i/20130125.b/SIM.b/ic0125i.d

N-Nitroso-di-n-propylamine Amount: 0.10 Area: 990



MANUAL INTEGRATION for N-Nitroso-di-n-propylamine

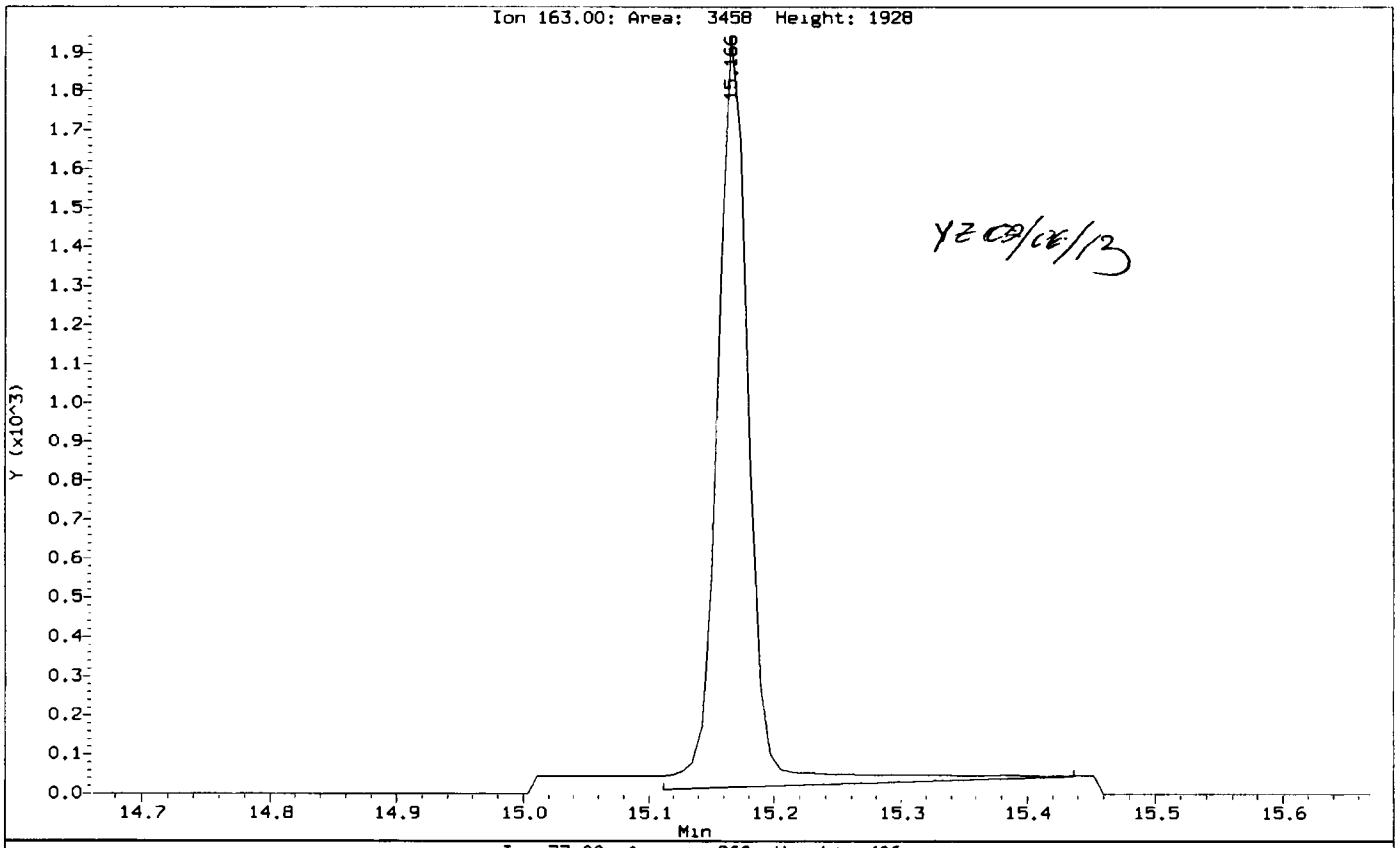
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

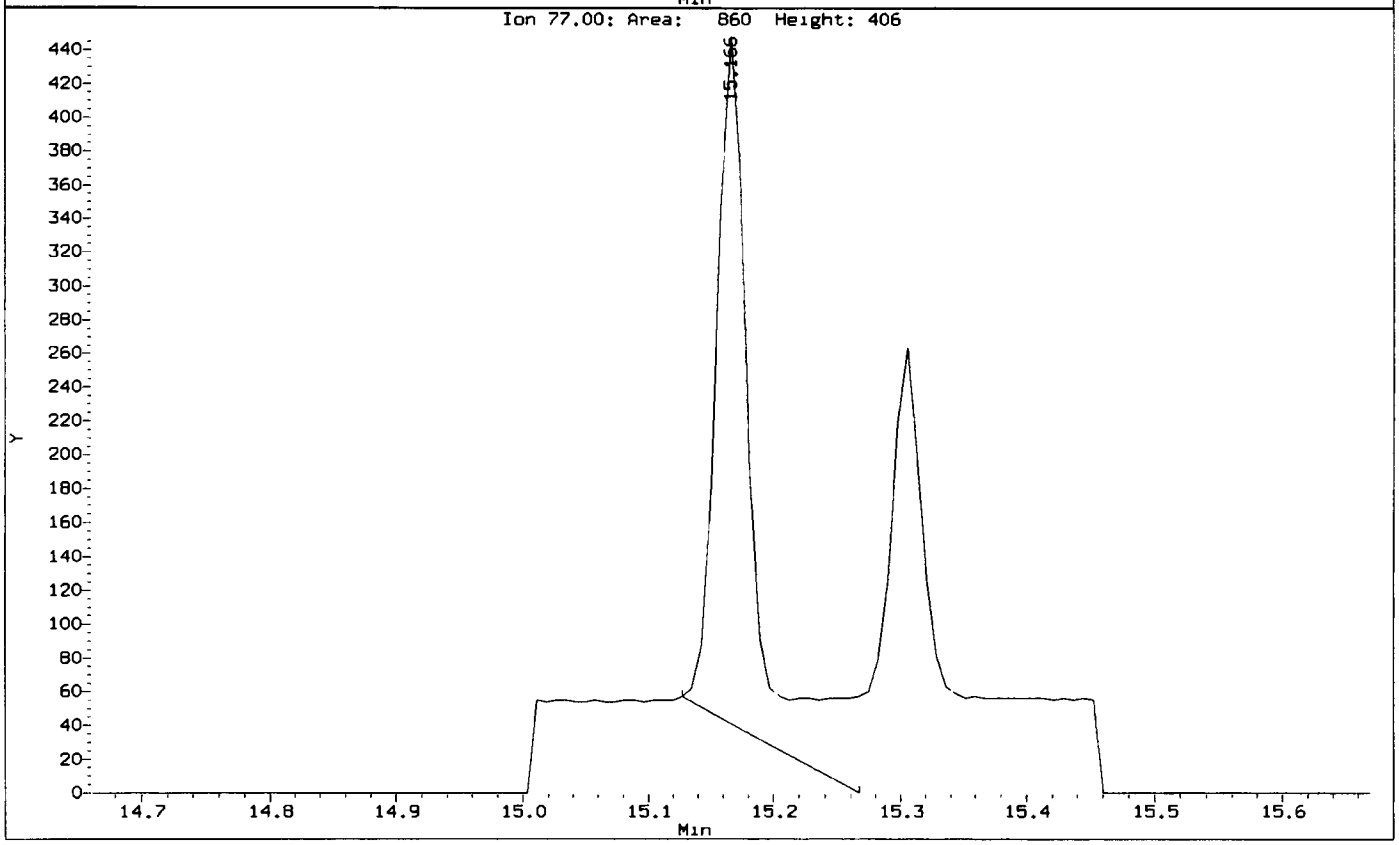
Analyst: YZ Date: 03/06/13

Data File: /chem1/nt10.i/20130125.b/SIM.b/ic0125i.d
Injection Date: 25-JAN-2013 17:53
Instrument: nt10.i
Client Sample ID:

Compound: Dimethylphthalate
CAS Number: 131-11-3



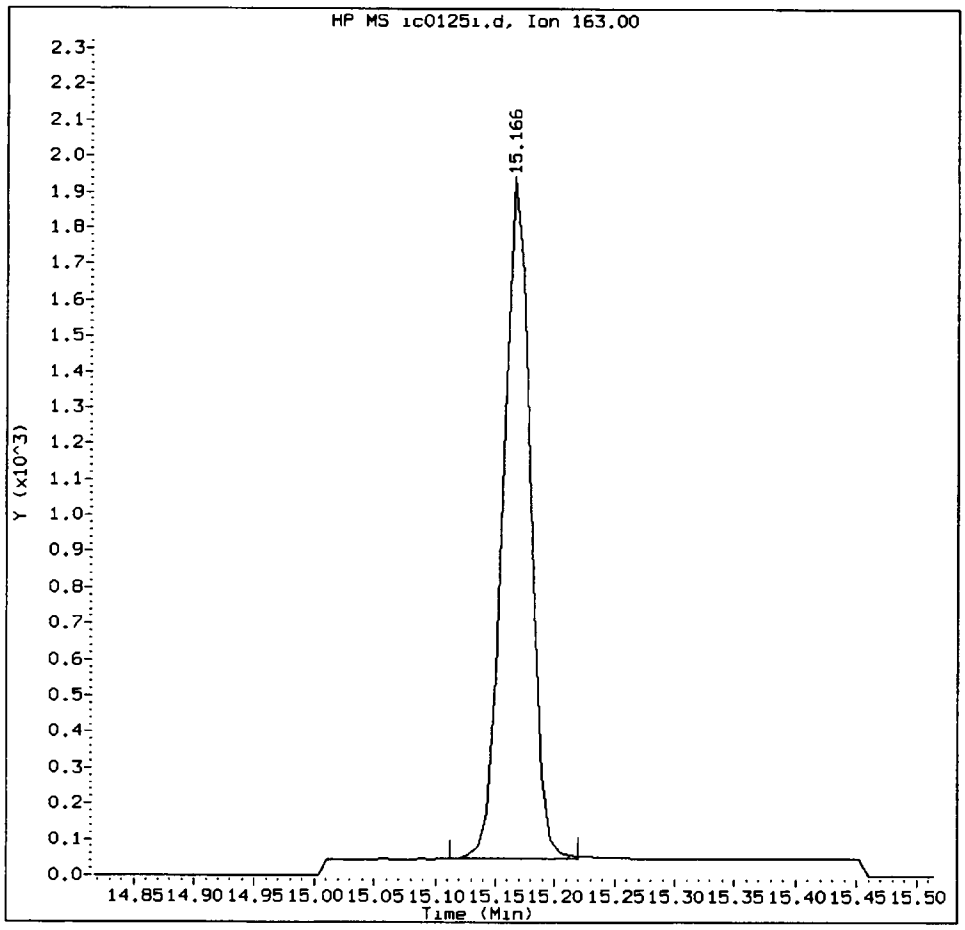
YZ 01/02/13



WJ10:01407

IC0125I, /chem1/nt10.i/20130125.b/SIM.b/ic0125i.d

Dimethylphthalate Amount: 0.10 Area: 3070



MANUAL INTEGRATION for Dimethylphthalate

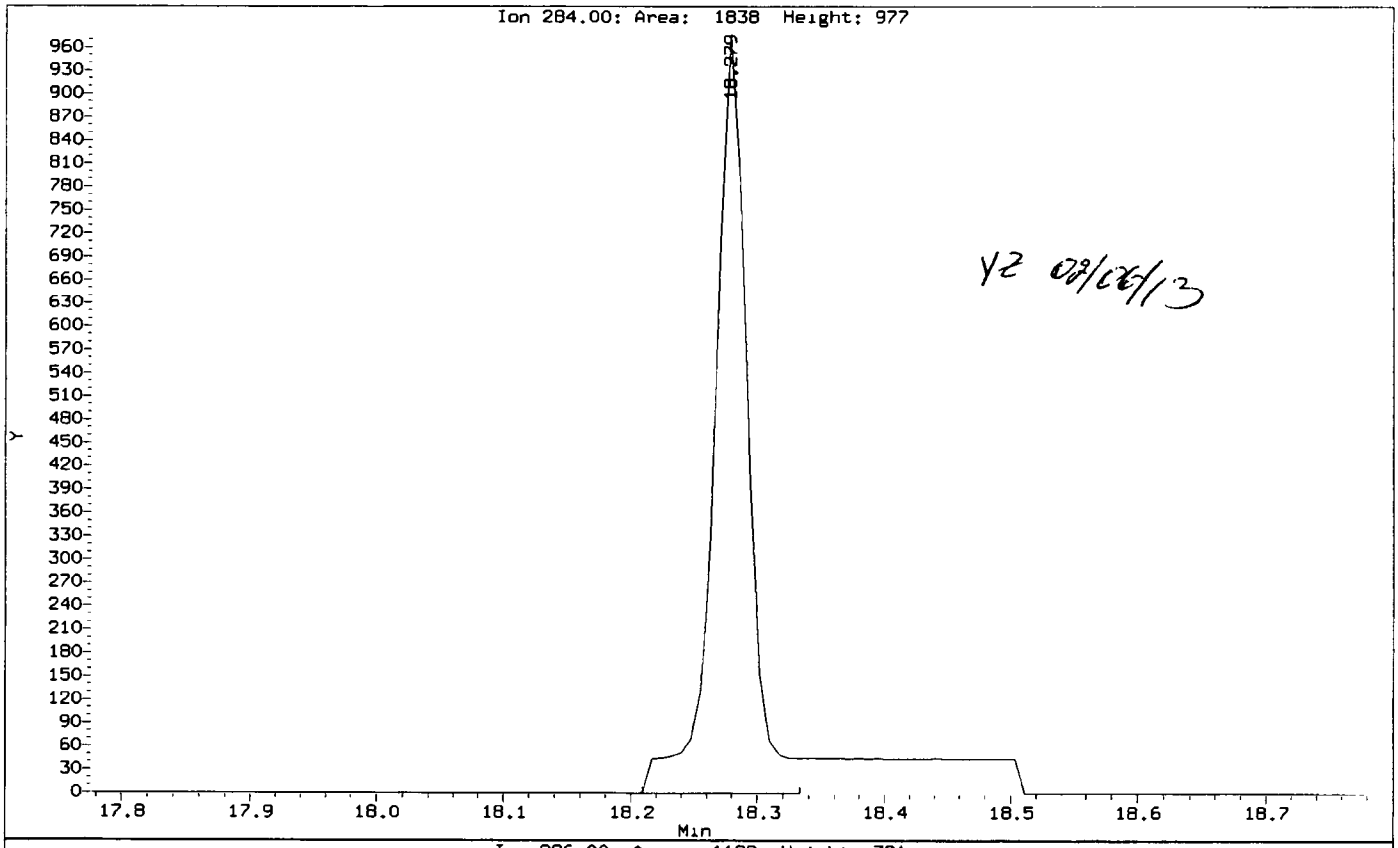
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

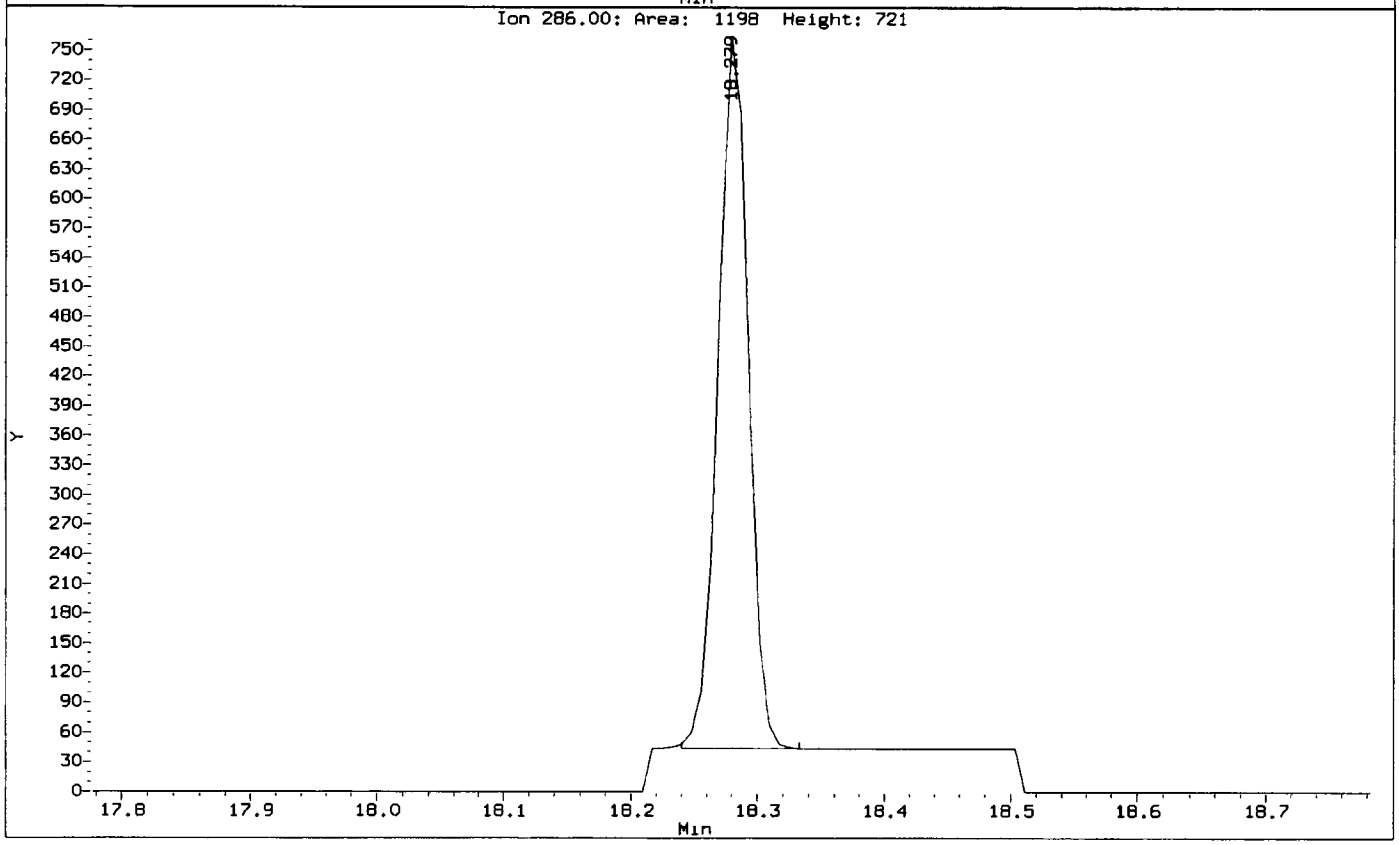
Analyst: YZ Date: 02/06/13

Data File: /chem1/nt10.1/20130125.b/SIM.b/1c0125i.d
Injection Date: 25-JAN-2013 17:53
Instrument: nt10.1
Client Sample ID:

Compound: Hexachlorobenzene
CAS Number: 118-74-1



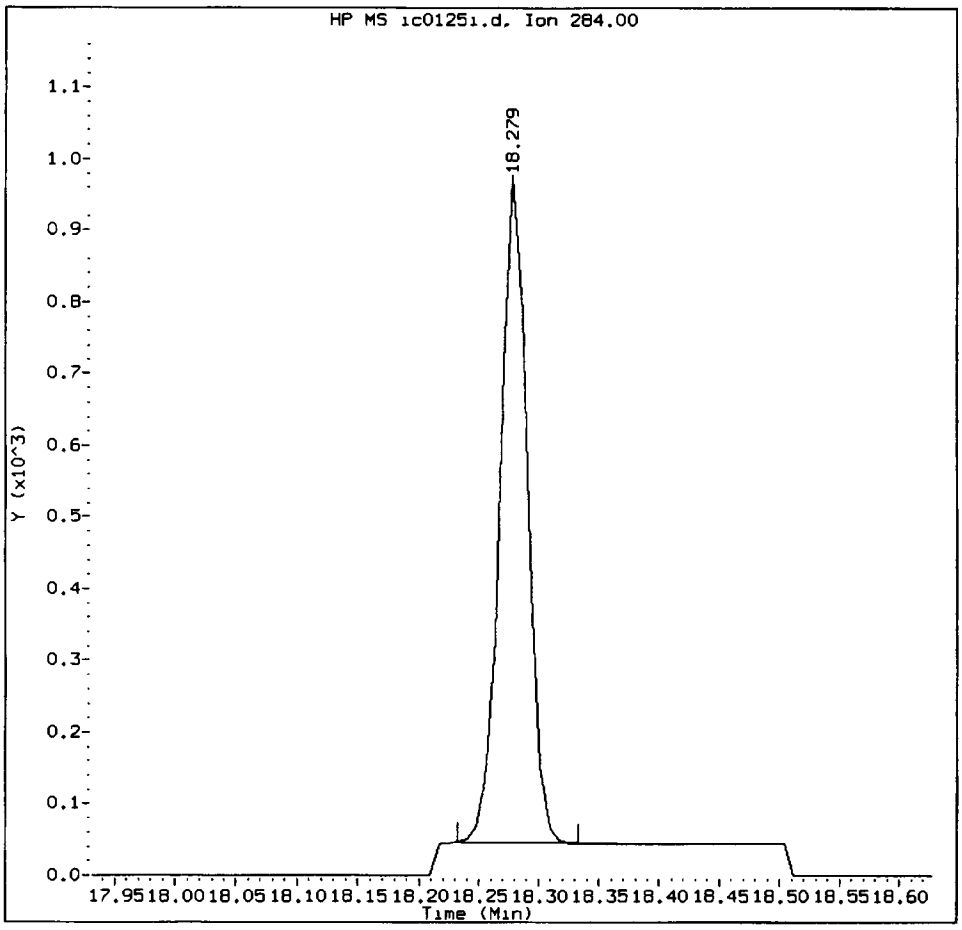
YZ 08/06/13



WJ10 : 01409

IC0125I, /chem1/nt10.i/20130125.b/SIM.b/ic0125i.d

Hexachlorobenzene Amount: 0.10 Area: 1494



MANUAL INTEGRATION for Hexachlorobenzene

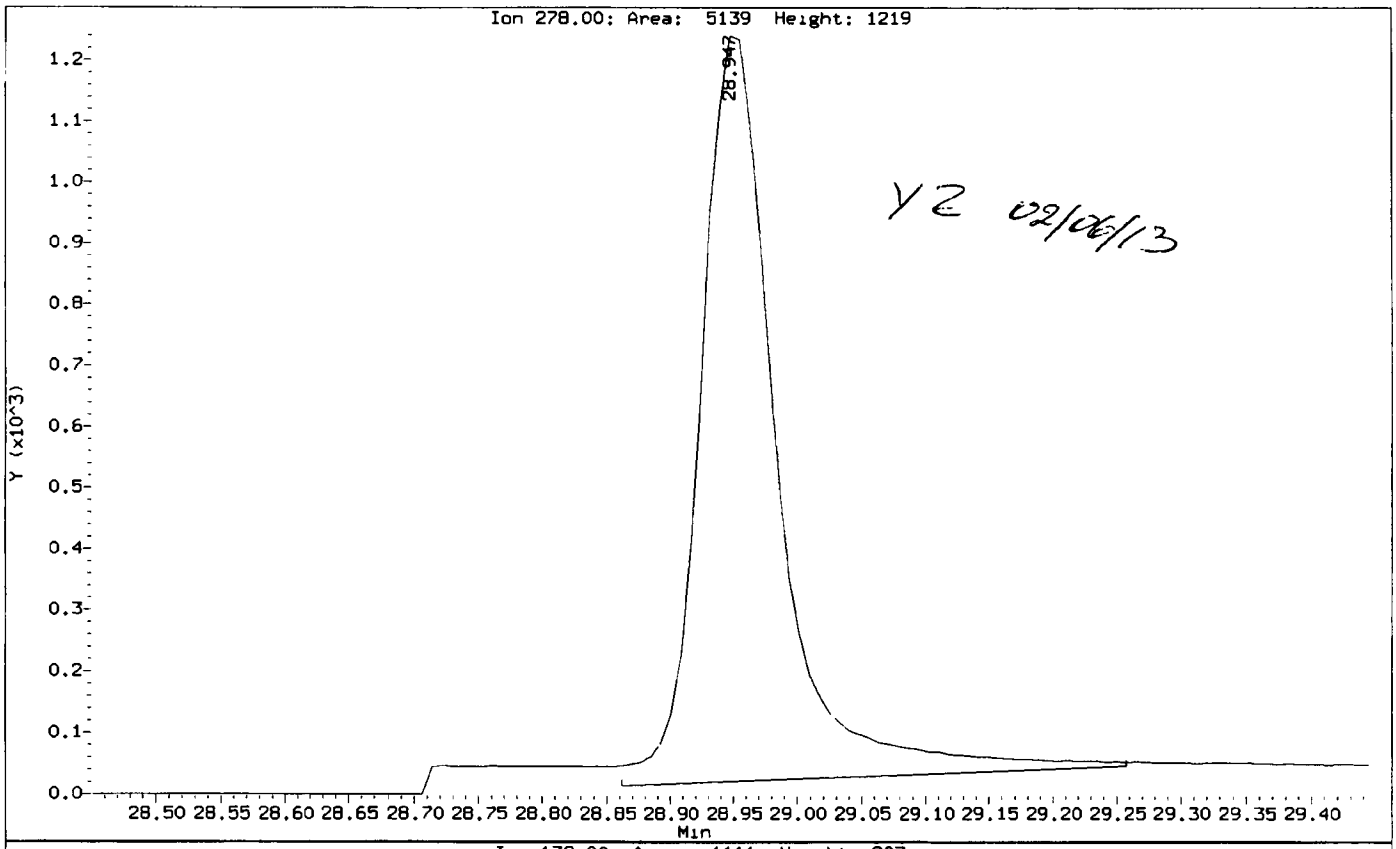
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

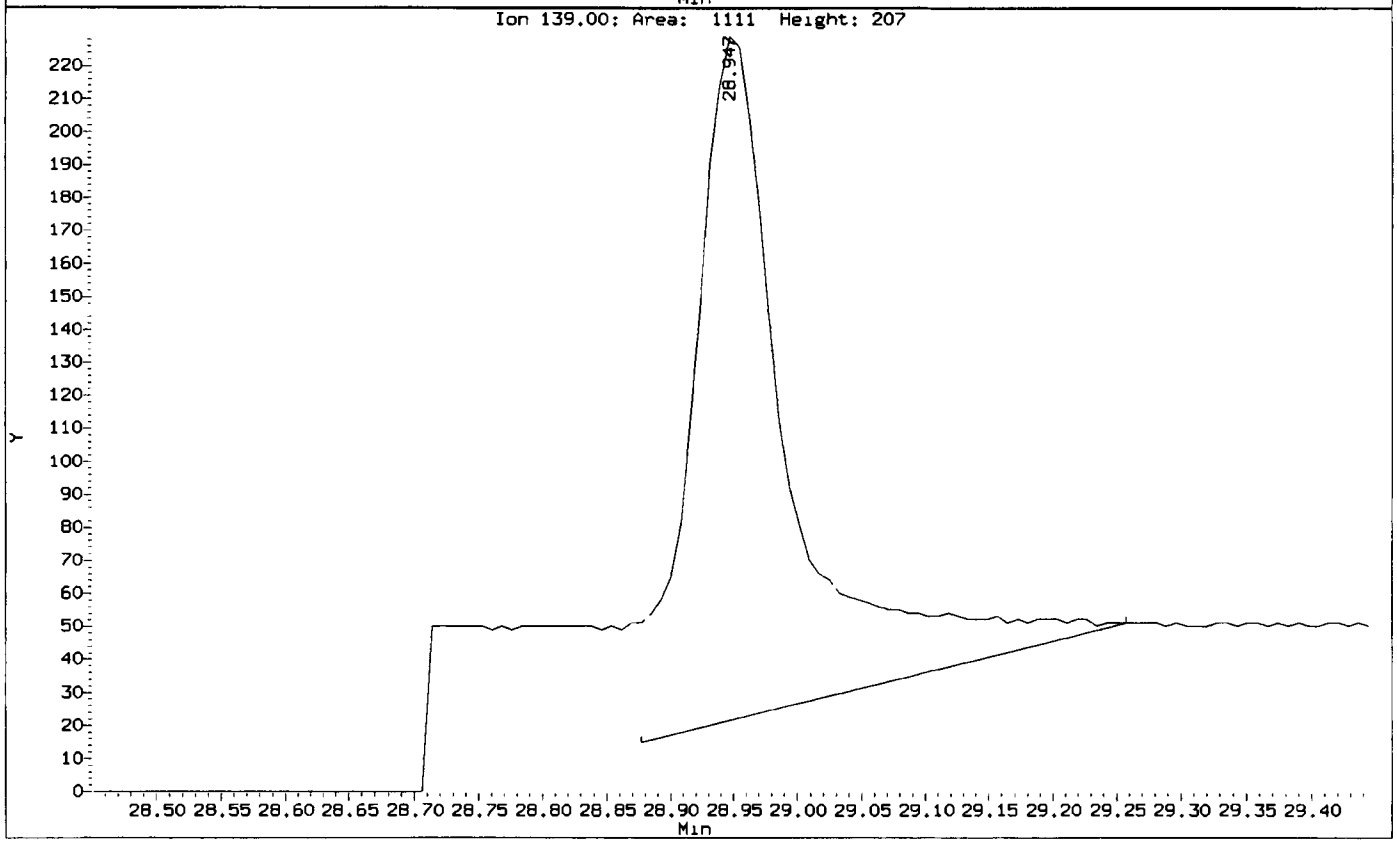
Analyst: YZ Date: 02/06/13

Data File: /chem1/nt10.1/20130125.b/SIM.b/1c01251.d
Injection Date: 25-JAN-2013 17:53
Instrument: nt10.1
Client Sample ID:

Compound: Dibenzo(a,h)anthracene
CAS Number: 53-70-3



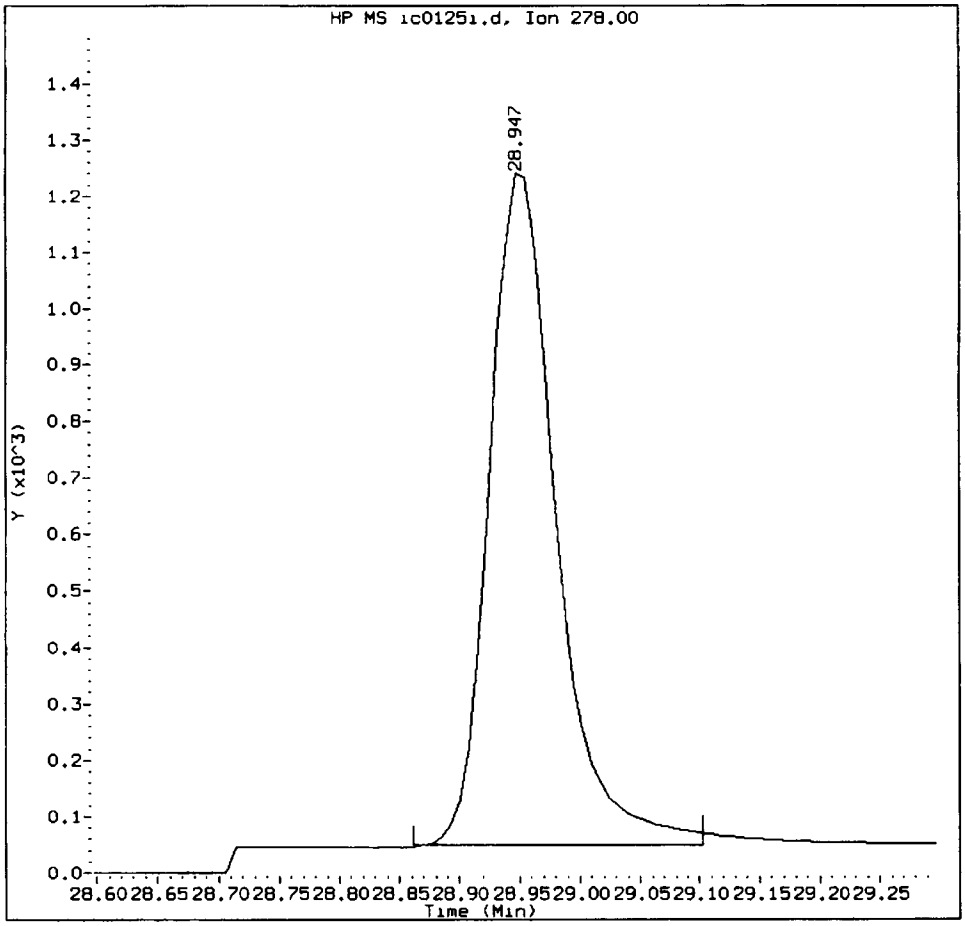
YZ 02/06/13



WJ10:01411

IC0125I, /chem1/nt10.i/20130125.b/SIM.b/ic0125i.d

Dibenzo(a,h)anthracene Amount: 0.09 Area: 4594



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 03/06/13

WJ10:01412

CO-ELUTION SUMMARY FOR FILE - ic0125i.d

Lab ID: IC0125I, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 25-JAN-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt10.i/20130125.b/df0125.d

Date : 25-JAN-2013 12:43

Client ID: DFTPP

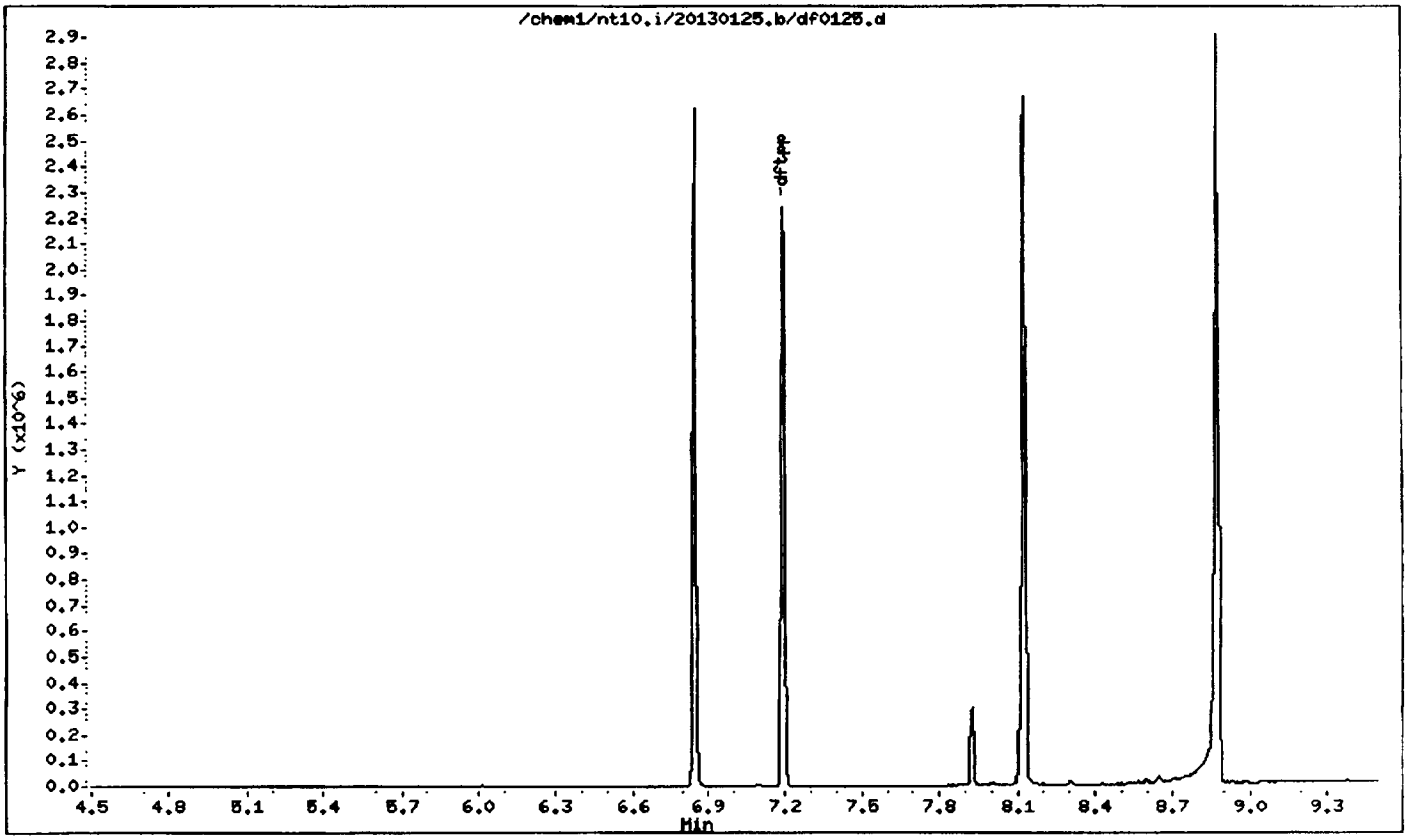
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130125.b/df0125.d

Date : 25-JAN-2013 12:43

Client ID: DFTPP

Instrument: nt10.i

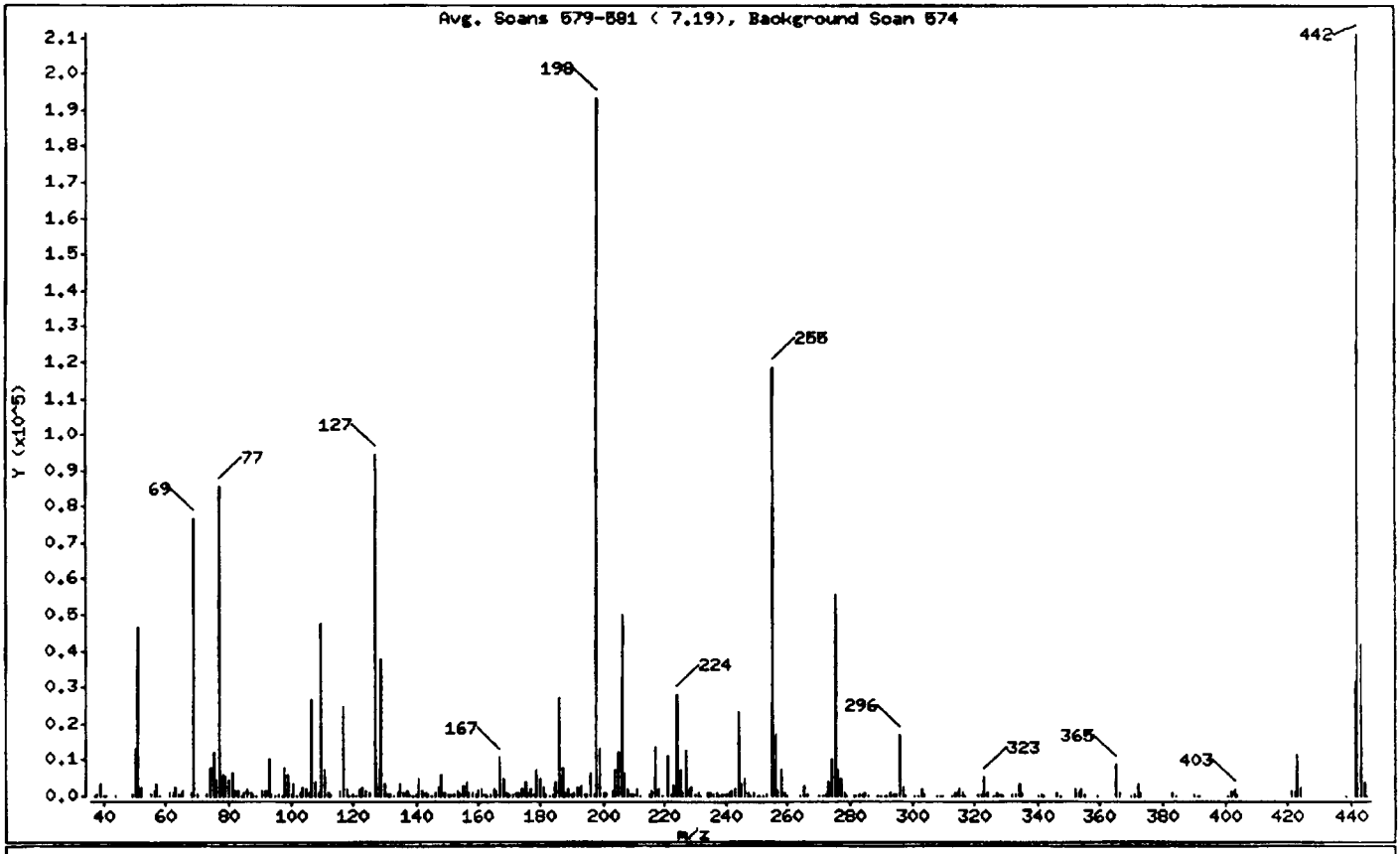
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	24.19
68	Less than 2.00% of mass 69	0.61 (1.54)
69	Mass 69 relative abundance	39.80
70	Less than 2.00% of mass 69	0.19 (0.49)
127	10.00 - 80.00% of mass 198	48.91
197	Less than 2.00% of mass 198	0.21
199	5.00 - 9.00% of mass 198	6.67
275	10.00 - 60.00% of mass 198	28.93
365	Greater than 1.00% of mass 198	4.43
441	0.01 - 24.00% of mass 442	16.45 (15.06)
442	50.00 - 200.00% of mass 198	109.23
443	15.00 - 24.00% of mass 442	21.82 (19.98)

Data File: /chem1/nt10.i/20130125.b/df0125.d

Date : 25-JAN-2013 12:43

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0125.d

Spectrum: Avg. Scans 579-581 (7.19), Background Scan 574

Location of Maximum: 442.00

Number of points: 292

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	197	129.00	37936	204.00	7247	290.00	134
38.00	705	130.00	3252	205.00	12071	291.00	73
39.00	3533	131.00	616	206.00	50152	292.00	193
40.00	113	132.00	309	207.00	6355	293.00	1040
41.00	57	133.00	201	208.00	1855	294.00	300
44.00	41	134.00	1063	209.00	685	295.00	432
49.00	407	135.00	3189	210.00	390	296.00	17168
50.00	12941	136.00	1177	211.00	2076	297.00	2409
51.00	46792	137.00	1570	212.00	126	298.00	117
52.00	2479	138.00	318	215.00	691	301.00	186
55.00	299	139.00	141	216.00	1249	302.00	228
56.00	1601	140.00	439	217.00	13670	303.00	1845
57.00	3596	141.00	5058	218.00	1710	304.00	531
58.00	186	142.00	1565	219.00	125	308.00	197
61.00	736	143.00	1108	221.00	10937	309.00	121
62.00	914	144.00	315	222.00	480	310.00	187
63.00	2618	145.00	214	223.00	3072	313.00	153
64.00	316	146.00	882	224.00	28320	314.00	792
65.00	1300	147.00	2615	225.00	7216	315.00	2023
68.00	1189	148.00	6026	226.00	852	316.00	1067
69.00	76976	149.00	1129	227.00	12743	317.00	159
70.00	375	150.00	301	228.00	1719	321.00	538
73.00	705	151.00	726	229.00	2389	322.00	299
74.00	7863	152.00	293	230.00	329	323.00	5388
75.00	12207	153.00	1577	231.00	1021	324.00	1013
76.00	4289	154.00	1181	232.00	167	326.00	50
77.00	85576	155.00	2757	233.00	188	327.00	1029
78.00	5655	156.00	4011	234.00	771	328.00	558
79.00	5556	157.00	812	235.00	861	329.00	60
80.00	4369	158.00	873	236.00	627	332.00	351
81.00	6233	159.00	710	237.00	1022	333.00	548
82.00	1534	160.00	1489	238.00	110	334.00	3620
83.00	1401	161.00	2161	239.00	541	335.00	964
84.00	112	162.00	649	240.00	417	340.00	51
85.00	1085	163.00	146	241.00	730	341.00	679

Data File: /chem1/nt10.i/20130125.b/df0125.d

Date : 25-JAN-2013 12:43

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0125.d

Spectrum: Avg. Scans 579-581 (7.19), Background Scan 574

Location of Maximum: 442.00

Number of points: 292

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	1703	164.00	290	242.00	1687	342.00	153
87.00	795	165.00	1882	243.00	1736	346.00	1164
88.00	279	166.00	1494	244.00	23312	347.00	162
89.00	81	167.00	10689	245.00	3158	352.00	1760
91.00	1338	168.00	4694	246.00	4620	353.00	1209
92.00	1519	169.00	848	247.00	978	354.00	1709
93.00	9994	170.00	329	248.00	181	355.00	309
94.00	645	171.00	378	249.00	862	359.00	64
95.00	134	172.00	865	250.00	149	365.00	8559
96.00	471	173.00	1141	251.00	169	366.00	1203
97.00	212	174.00	2025	252.00	221	370.00	156
98.00	7840	175.00	3911	253.00	585	371.00	436
99.00	5867	176.00	1174	255.00	118624	372.00	3166
100.00	531	177.00	1772	256.00	17216	373.00	730
101.00	3503	178.00	645	257.00	1329	383.00	830
102.00	180	179.00	7329	258.00	7276	384.00	228
103.00	1140	180.00	4831	259.00	1188	390.00	433
104.00	2300	181.00	2296	260.00	200	391.00	237
105.00	2067	182.00	354	261.00	142	392.00	163
106.00	732	183.00	241	264.00	186	401.00	177
107.00	26848	184.00	572	265.00	2938	402.00	1244
108.00	4043	185.00	3662	266.00	493	403.00	1787
109.00	744	186.00	27072	270.00	126	404.00	646
110.00	47768	187.00	7673	271.00	234	421.00	1637
111.00	7142	188.00	763	272.00	384	422.00	1574
112.00	909	189.00	1730	273.00	3889	423.00	11637
113.00	338	190.00	325	274.00	10079	424.00	2495
116.00	1403	191.00	859	275.00	55952	425.00	200
117.00	24664	192.00	2439	276.00	7415	437.00	50
118.00	1723	193.00	2782	277.00	4869	438.00	71
119.00	207	194.00	548	278.00	775	441.00	31824
120.00	344	195.00	439	279.00	140	442.00	211264
121.00	108	196.00	6210	281.00	108	443.00	42208
122.00	1841	197.00	402	282.00	139	444.00	4074
123.00	2656	198.00	193408	283.00	558	445.00	209

Data File: /chem1/nt10.i/20130125.b/df0125.d

Date : 25-JAN-2013 12:43

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

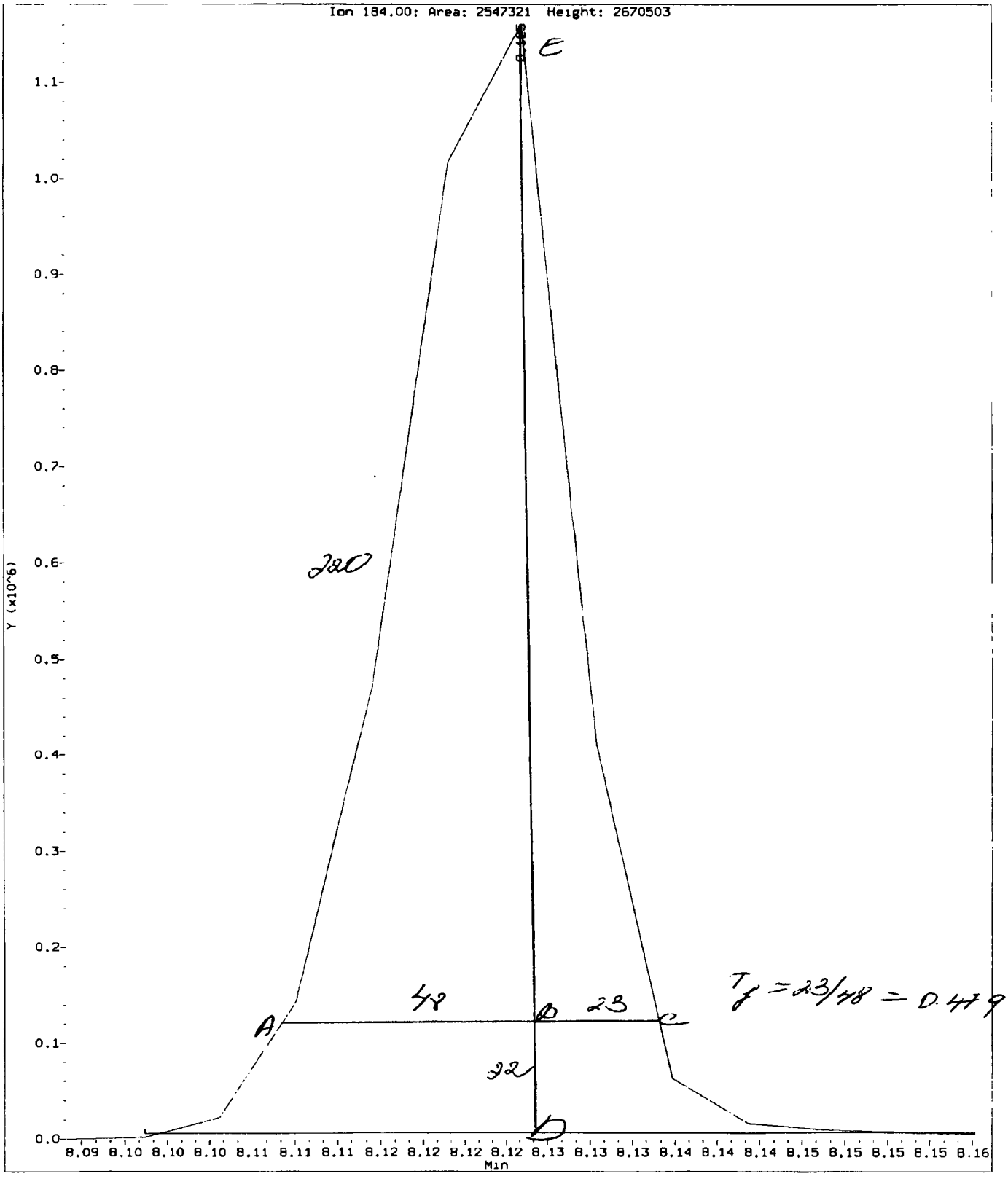
Column diameter: 0.25

Data File: df0125.d
Spectrum: Avg. Scans 579-581 (7.19), Background Scan 574
Location of Maximum: 442.00
Number of points: 292

m/z	Y	m/z	Y	m/z	Y	m/z	Y
124.00	1219	199.00	12893	284.00	387		
125.00	1090	200.00	1075	285.00	813		
127.00	94600	201.00	925	286.00	126		
128.00	7116	203.00	1424	289.00	147		

Data File: /chem1/nt10.1/20130125.b/ddt.b/df0125.d
Injection Date: 25-JAN-2013 12:43
Instrument: nt10.1
Client Sample ID: DFTPP

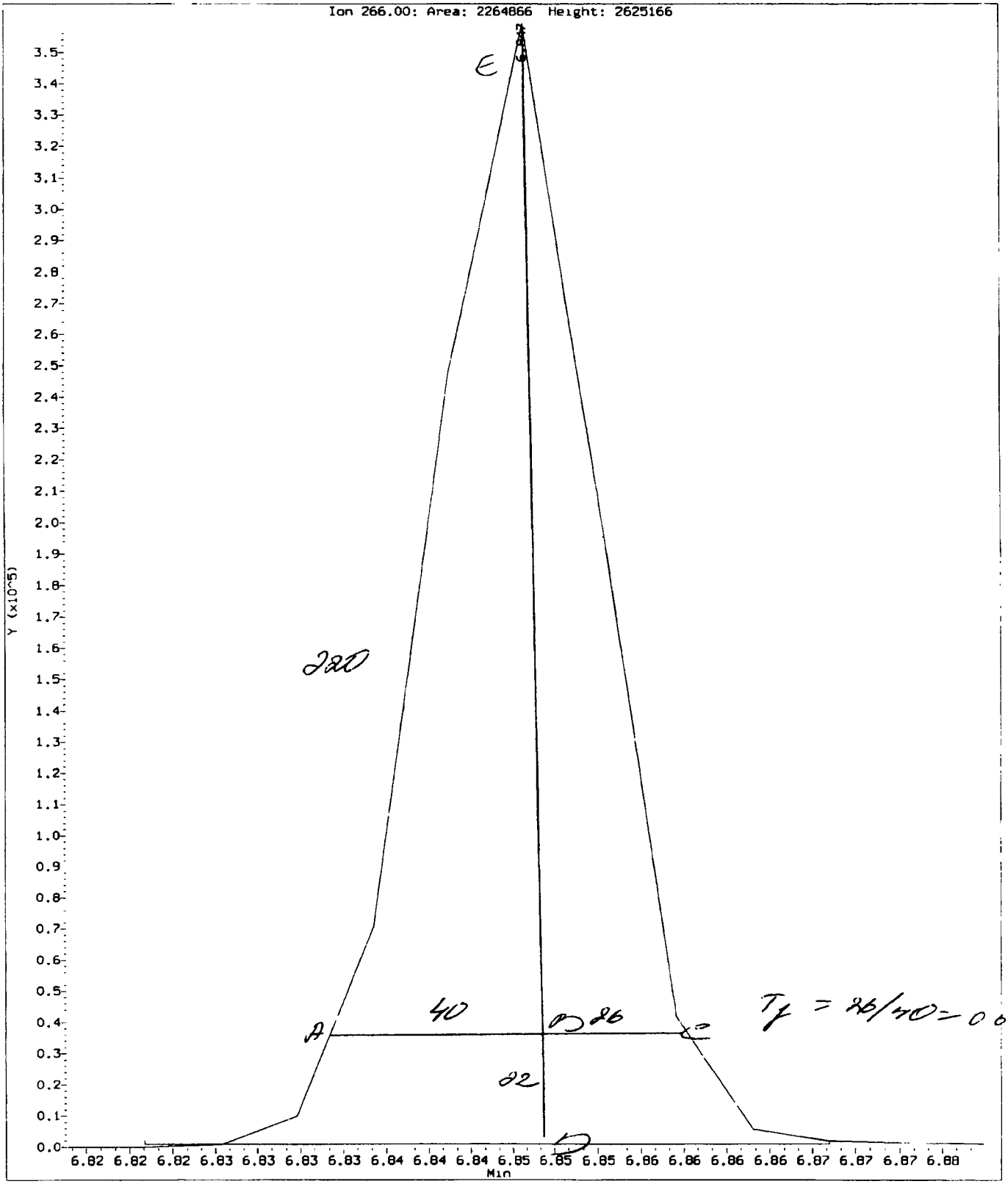
Compound: Benzidine
CAS Number:



WJ10:01419

Data File: /chem1/nt10.i/20130125.b/ddt.b/df0125.d
Injection Date: 25-JAN-2013 12:43
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



WJ10:01428

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130125.b/ddt.b/df0125.d ARI ID: DFTPP
Method: /chem1/nt10.i/20130125.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 25-JAN-2013 12:43 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.847	2264865
Benzidine	8.125	2547321
4,4'-DDE	8.307	1813
4,4'-DDD	8.644	5130
4,4'-DDT	8.874	537797

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 1813 + 5130) * 100}{(\ 1813 + 5130 + 537797)}$$

DDT Percent Breakdown = 1.3 %

SIM Semivolatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Data Review Checklist

ARI WORK Order: WJ10 Client ID: SAIC

METHOD: **8270D**(SIM-SVOA) **KRONE**(Butyl Tins) **8270D**(SVOA) **8270D**(OP-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 01/25/13 Analysis Start Date: 04/06/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
DFTPP Tune met Criteria?	Y / N / ✓	Internal Standard within 50-200%?	Y / N / ✓
DDT Breakdown <20%?	Y / N / ✓	Retention Times within Windows?	Y / N / ✓
Peak Tailing Factor ≤2?	Y / N / ✓	Method Blank in Control?	Y / N / ✓
CCAL Meets %D?	Y / N / ✓	LCS / LCSD Recovery in Control?	Y / N / Low Benzene Recovery
ICAL Q Flag applied?	Y / N / ✓	LCS / LCSD RPD ≤ 30%?	NA / ✓
CCAL Q flag applied?	Y / N / ✓	MS / MSD Recovery in Control?	Y / N / ✓
Surrogate Recovery met?	Y / N / ✓	MS / MSD RPD ≤ 30%? (2-72% Bkg)	NA / ✓
Manual Integrations?	Y / N / ✓	Samples Diluted?	Y / N / ___
Integration Summary?	Y / N / ✓	Special Analysis Request?	Y / N / ___

Detail problems, corrective actions and/or other pertinent information below.

- D/Dms/Dmsd were run at 3x dilution due to sediment dark color of the extracts

(Review 1) Analyst: YZ **Date:** 4/10/13

(Review 2) Reviewer: [signature] **Date:** 4/10/13

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20130406.b/SIM.b

ARI Job No.: WJ10 Method: SIM.b/SIMABN2.m Instrument: nt10.i Date: 06-APR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1546	wj10mb.d	WJ10MBS1	WJ10MBS1	1	NO MANUAL INTEGRATION
1622	wj10sb.d	WJ10LCSS1	WJ10LCSS1	1	NO MANUAL INTEGRATION
1848	wj10c.d	WJ10C	SD-SP-01-2	1	Phenol, Benzyl alcohol, Dimethylphthalate, Diethylphthalate,
1925	wj10d.d	WJ10D	SD-CB-01-2	3	Dimethylphthalate, Diethylphthalate, N-Nitrosodiphenylamine,
2001	wj10dms.d	WJ10DMS	SD-CB-01-2	3	N-Nitrosodiphenylamine,
2038	wj10dmsd.d	WJ10DMSD	SD-CB-01-2	3	NO MANUAL INTEGRATION

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 4/6/13 Analysis: ABN/SIMABN Analyst: YZ

GC Program: ABN_2 Column No: 247338 Column Type: 2B5 ms1

Instrument Tune (.U or .CT.): 130228.U EM Voltage: 1625

Calibration File: DF0406 Curve Date: 4/25/13 Injection Vol.: 1ul

IS/SS	Ical/Ccal		LCS/ICV
1978-2	2030-2	2050-1,2	
	2060-2	1998-1	
	2008-2		

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130406.b

	Time	Filename	LabID	ClientId	DF										
1	1418	df0406.d	DFTPP	DFTPP	1	NO ISTDS FOUND									
2	1546	wj10mb.d	WJ10MBS1	WJ10MBS1	1	8.09	46388	10.73	174225	14.59	97975	17.84	179304	23.07	202629	25.38	181183
3	1622	wj10sb.d	WJ10LCSS1	WJ10LCSS1	1	8.09	44654	10.73	164864	14.59	95522	17.84	178510	23.07	203519	25.39	192181
4	1735	wj10qls2.d	WJ10QLS2		1	8.10	48774	10.73	183147	14.60	102596	17.85	188427	23.08	212528	25.40	195020
5	1848	wj10c.d	WJ10C	SD-SP-01-201	1	8.10	51020	10.74	191772	14.61	105453	17.87	157334	23.16	183913	25.50	180788
6	1925	wj10d.d	WJ10D	SD-CB-01-201	3	8.10	46103	10.75	187940	14.62	98278	17.89	142816	23.13	184018	25.44	179404
7	2001	wj10dms.d	WJ10DMS	SD-CB-01-201	3	8.10	47413	10.75	191190	14.62	100274	17.89	143695	23.13	197050	25.45	183431
8	2038	wj10dmsd.d	WJ10DMSD	SD-CB-01-201	3	8.11	47337	10.75	182847	14.62	100525	17.89	146975	23.13	190099	25.45	172494

YZ 4/10/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20130406.b/SIM.b

Instrument: nt10.i Date: 06-APR-2013 Method: SIM.b/SIMABN2.m

INITIAL CAL: 25-JAN-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 06-APR-2013

Compound	%D
Phenol	26.7
Benzyl alcohol	-33.2
Pentachlorophenol	-31.5

Data File: /chem1/nt10.i/20130406.b/df0406.d

Date : 06-APR-2013 14:18

Client ID: DFTPP

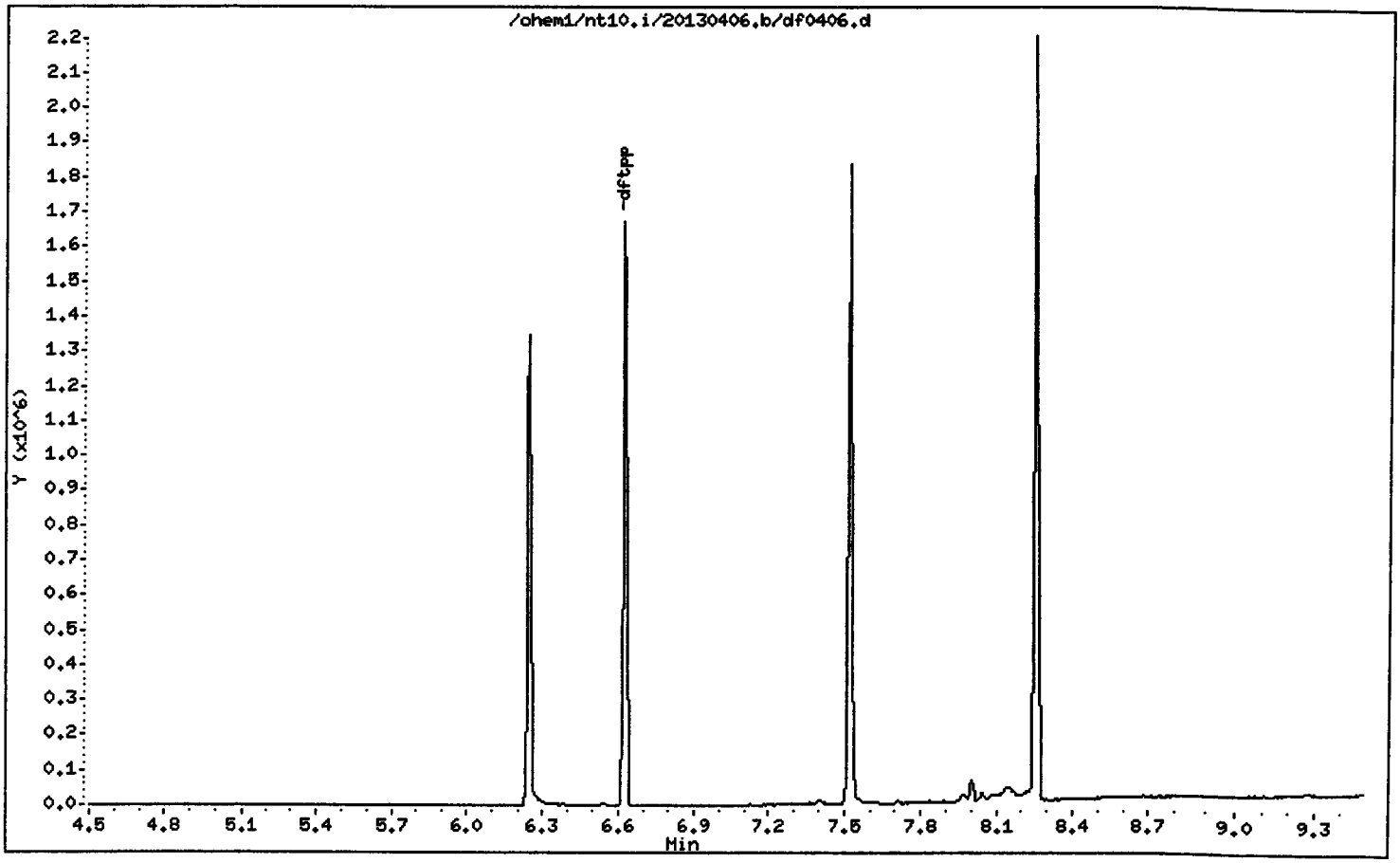
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130406.b/df0406.d

Date : 06-APR-2013 14:18

Client ID: DFTPP

Instrument: nt10.i

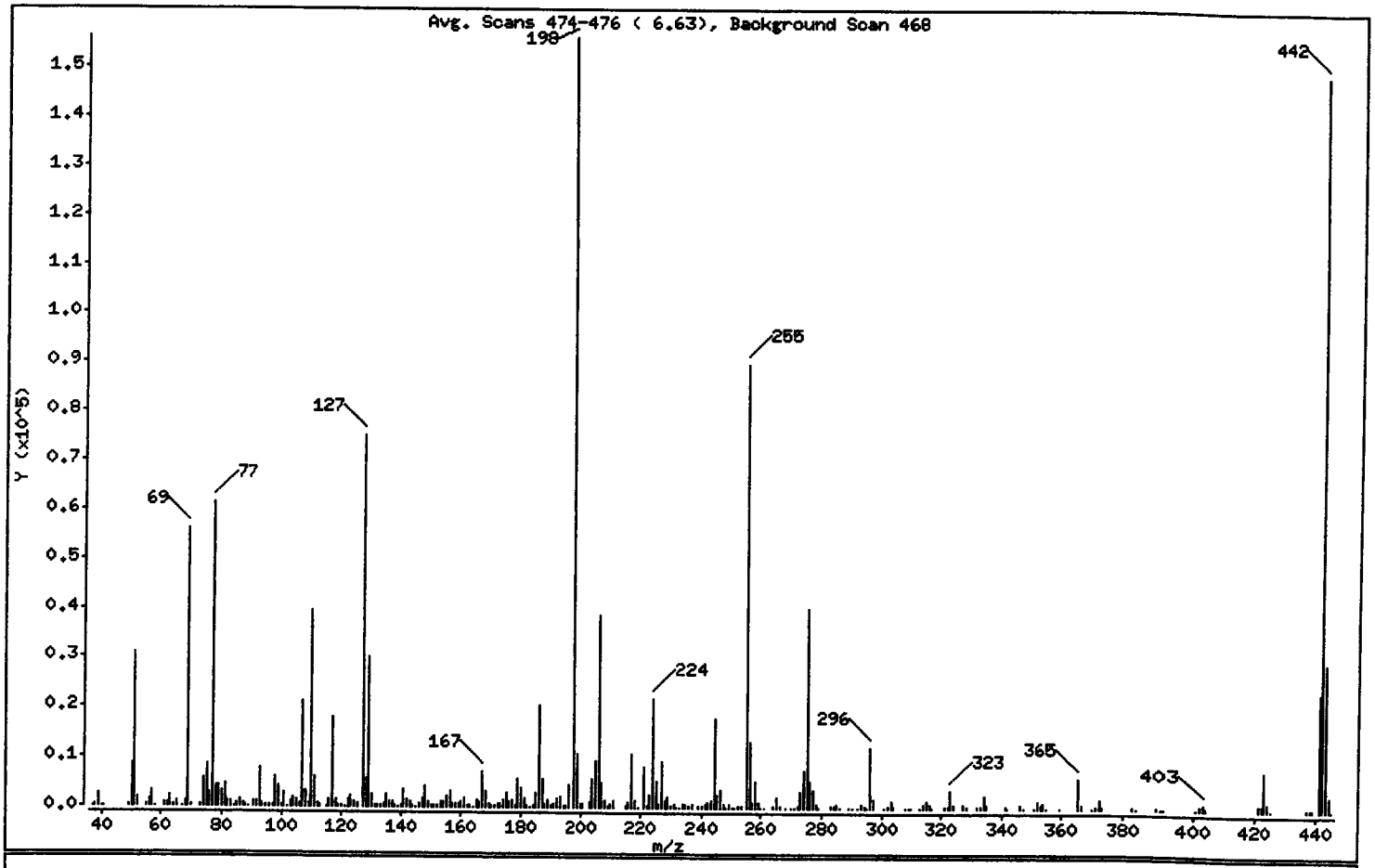
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	19.86
68	Less than 2.00% of mass 69	0.61 (1.71)
69	Mass 69 relative abundance	35.88
70	Less than 2.00% of mass 69	0.15 (0.41)
127	10.00 - 80.00% of mass 198	48.09
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 60.00% of mass 198	25.68
365	Greater than 1.00% of mass 198	3.85
441	0.01 - 24.00% of mass 442	15.19 (15.93)
442	50.00 - 200.00% of mass 198	95.33
443	15.00 - 24.00% of mass 442	18.99 (19.92)

Data File: df0406.d
Spectrum: Avg. Scans 474-476 (6.63), Background Scan 468
Location of Maximum: 198.00
Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	66	125.00	884	199.00	10623	285.00	644
38.00	454	127.00	75112	200.00	815	286.00	56
39.00	2411	128.00	5826	201.00	781	289.00	121
40.00	132	129.00	30136	203.00	1116	290.00	67
41.00	111	130.00	2632	204.00	5652	292.00	132
49.00	300	131.00	523	205.00	9430	293.00	782
50.00	8634	132.00	314	206.00	38656	294.00	281
51.00	31024	133.00	194	207.00	5001	295.00	149
52.00	1669	134.00	849	208.00	1410	296.00	12208
55.00	325	135.00	2552	209.00	490	297.00	1717
56.00	1383	136.00	989	210.00	584	301.00	70
57.00	3188	137.00	1050	211.00	1550	302.00	210
58.00	66	138.00	246	215.00	479	303.00	1457
61.00	648	139.00	125	216.00	974	304.00	397
62.00	749	140.00	341	217.00	10776	308.00	144
63.00	2081	141.00	3745	218.00	1393	309.00	62
64.00	309	142.00	1261	219.00	128	310.00	142
65.00	1048	143.00	903	221.00	8221	313.00	67
67.00	62	144.00	231	222.00	362	314.00	663
68.00	957	145.00	167	223.00	2657	315.00	1524
69.00	56048	146.00	695	224.00	21928	316.00	739
70.00	229	147.00	1950	225.00	5541	317.00	52
73.00	411	148.00	4181	226.00	583	321.00	450
74.00	5616	149.00	901	227.00	9377	322.00	200
75.00	8646	150.00	253	228.00	1447	323.00	3652
76.00	3012	151.00	479	229.00	2022	324.00	727
77.00	61504	152.00	390	230.00	317	327.00	788
78.00	4155	153.00	1205	231.00	868	328.00	412
79.00	4261	154.00	941	232.00	52	332.00	240
80.00	3391	155.00	2119	233.00	128	333.00	461
81.00	4702	156.00	3134	234.00	628	334.00	2604
82.00	1247	157.00	588	235.00	683	335.00	628
83.00	1198	158.00	688	236.00	425	341.00	443
84.00	19	159.00	555	237.00	774	342.00	115
85.00	846	160.00	1109	239.00	395	346.00	891

Data File: /chem1/nt10.i/20130406.b/df0406.d

Date : 06-APR-2013 14:18

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Avg. Scans 474-476 (6.63), Background Scan 468

Location of Maximum: 198.00

Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	1379	161.00	1795	240.00	330	347.00	127
87.00	592	162.00	496	241.00	570	351.00	55
88.00	225	163.00	204	242.00	1155	352.00	1263
89.00	79	164.00	151	243.00	1377	353.00	851
91.00	1127	165.00	1432	244.00	18080	354.00	1218
92.00	1241	166.00	1107	245.00	2438	355.00	171
93.00	8000	167.00	7238	246.00	3501	359.00	54
94.00	576	168.00	3100	247.00	692	365.00	6020
95.00	224	169.00	603	248.00	151	366.00	800
96.00	453	170.00	236	249.00	716	370.00	114
97.00	269	171.00	367	250.00	107	371.00	339
98.00	6130	172.00	750	251.00	160	372.00	1961
99.00	4441	173.00	878	252.00	232	373.00	504
100.00	457	174.00	1557	253.00	511	383.00	513
101.00	2733	175.00	2994	255.00	89816	384.00	158
102.00	116	176.00	942	256.00	13271	390.00	314
103.00	1016	177.00	1396	257.00	1013	391.00	156
104.00	1732	178.00	468	258.00	5517	392.00	53
105.00	1550	179.00	5774	259.00	910	401.00	138
106.00	565	180.00	3941	260.00	128	402.00	846
107.00	21304	181.00	1924	261.00	158	403.00	1157
108.00	3278	182.00	284	264.00	259	404.00	440
109.00	695	183.00	63	265.00	2055	421.00	1013
110.00	39328	184.00	449	266.00	404	422.00	1011
111.00	5944	185.00	2875	268.00	60	423.00	7778
112.00	691	186.00	20608	270.00	51	424.00	1570
113.00	247	187.00	5824	271.00	165	425.00	117
115.00	52	188.00	629	272.00	303	437.00	238
116.00	1304	189.00	1302	273.00	3122	438.00	337
117.00	18032	190.00	223	274.00	7420	439.00	528
118.00	1275	191.00	601	275.00	40112	441.00	23720
119.00	198	192.00	1862	276.00	5551	442.00	148864
120.00	254	193.00	2022	277.00	3656	443.00	29664
121.00	111	194.00	441	278.00	572	444.00	2723
122.00	1436	195.00	407	279.00	58	445.00	147

Data File: /chem1/nt10.i/20130406.b/df0406.d

Date : 06-APR-2013 14:18

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0406.d

Spectrum: Avg. Scans 474-476 (6.63), Background Scan 468

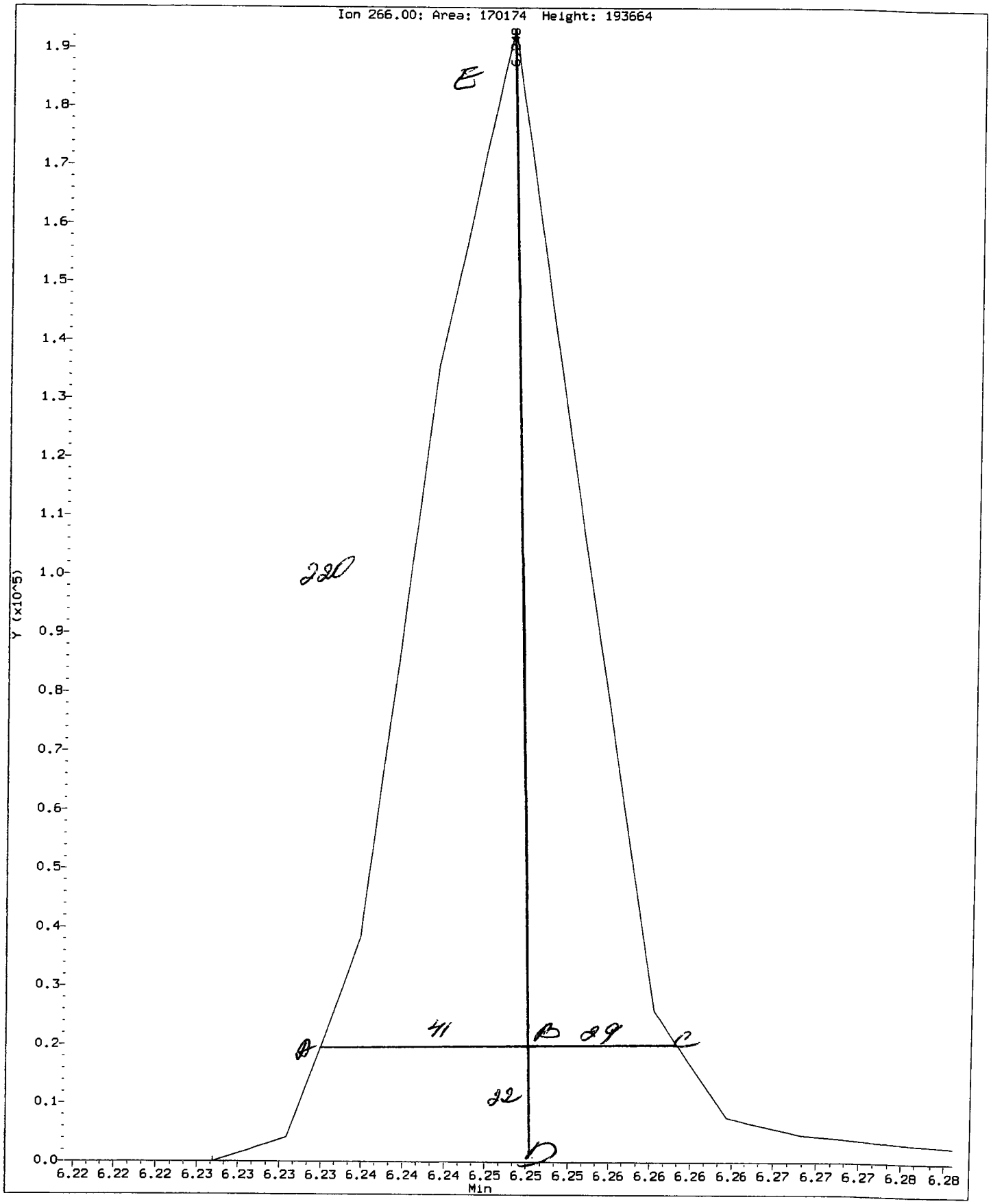
Location of Maximum: 198.00

Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	2246	196.00	4815	283.00	441		
124.00	986	198.00	156160	284.00	268		

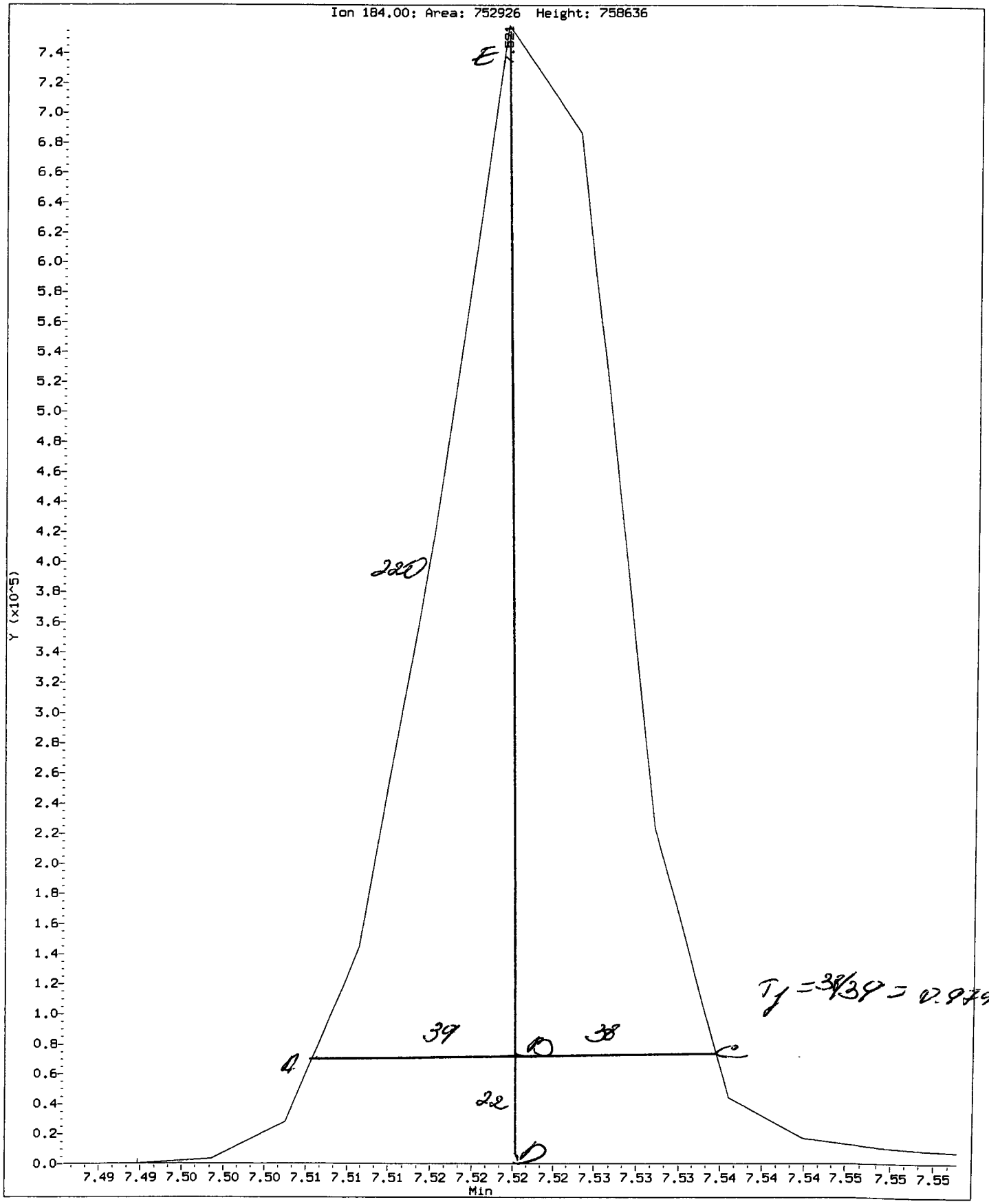
Data File: /chem1/nt10.i/20130406.b/DDT.b/df0406.d
Injection Date: 06-APR-2013 14:18
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20130406.b/DDT.b/df0406.d
Injection Date: 06-APR-2013 14:18
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130406.b/DDT.b/df0406.d
Method: /chem1/nt10.i/20130406.b/DDT.b/sw846ddt.m
Analysis Date: 06-APR-2013 14:18

ARI ID: DFTPP
Misc: 11-
Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.248	170174
Benzidine	7.521	752926
4,4'-DDE	7.713	1040
4,4'-DDD	8.002	10377
4,4'-DDT	8.259	415515

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 1040 + 10377) * 100}{(\ 1040 + 10377 + 415515)}$$

DDT Percent Breakdown = 2.7 %

WJ10:01434

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 06-APR-2013 15:09
Lab File ID: cc0406a.d Init. Cal. Date(s): 25-JAN-2013 25-JAN-2013
Analysis Type: Init. Cal. Times: 12:59 17:53
Lab Sample ID: ABN 1 Quant Type: ISTD
Method: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	1.27261	1.29767	0.010	1.96914	20.00000	Averaged	
3 Phenol	1.61623	2.04848	0.010	26.74431	20.00000	Averaged	<-
7 1,3-Dichlorobenzene	1.62301	1.55452	0.010	-4.22009	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.62039	1.56135	0.010	-3.64354	20.00000	Averaged	
11 Benzyl alcohol	0.95765	0.63969	0.010	-33.20175	20.00000	Averaged	<-
12 1,2-Dichlorobenzene	1.53436	1.48765	0.010	-3.04385	20.00000	Averaged	
13 2-Methylphenol	1.21614	1.39883	0.010	15.02251	20.00000	Averaged	
15 4-Methylphenol	1.25940	1.42011	0.010	12.76110	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.79168	0.78115	0.050	-1.33045	20.00000	Averaged	
22 2,4-Dimethylphenol	0.34482	0.34683	0.010	0.58218	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.37237	0.36737	0.010	-1.34471	20.00000	Averaged	
30 Hexachlorobutadiene	0.22607	0.22795	0.010	0.83290	20.00000	Averaged	
39 Dimethylphthalate	1.21772	1.20683	0.010	-0.89427	20.00000	Averaged	
50 Diethylphthalate	1.42267	1.40258	0.010	-1.41195	20.00000	Averaged	
54 N-Nitrosodiphenylamine	0.46501	0.48346	0.010	3.96868	20.00000	Averaged	
57 Hexachlorobenzene	0.30248	0.29120	0.010	-3.72866	20.00000	Averaged	
58 Pentachlorophenol	0.17865	0.12237	0.005	-31.50157	20.00000	Averaged	<-
$ 66 Terphenyl-d14	0.53149	0.47399	0.010	-10.81857	20.00000	Averaged	
67 Butylbenzylphthalate	0.38233	0.44229	0.010	15.68258	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	0.95339	0.94839	0.010	-0.52477	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.75935	0.72949	0.010	-3.93223	20.00000	Averaged	

Analytical Resources, Inc.

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130406.b/SIM.b/cc0406a.d
Lab Smp Id: ABN 1
Inj Date : 06-APR-2013 15:09
Operator : YZ Inst ID: nt10.i
Smp Info : ABN 1
Misc Info :
Comment :
Method : /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Meth Date : 06-Apr-2013 15:50 van Quant Type: ISTD
Cal Date : 25-JAN-2013 17:53 Cal File: ic0125i.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	5.803	5.803	(0.717)	15484	1.00000	1.020
	3	Phenol	94	7.565	7.565	(0.935)	24443	1.00000	1.267
	7	1,3-Dichlorobenzene	146	8.013	8.013	(0.990)	18549	1.00000	0.9578
*	8	1,4-Dichlorobenzene-d4	152	8.091	8.091	(1.000)	47730	4.00000	
	9	1,4-Dichlorobenzene	146	8.122	8.122	(1.004)	18630	1.00000	0.9635
	11	Benzyl alcohol	79	8.464	8.464	(1.046)	7633	1.00000	0.6680
	12	1,2-Dichlorobenzene	146	8.495	8.495	(1.050)	17751	1.00000	0.9695
	13	2-Methylphenol	108	8.735	8.735	(1.080)	16691	1.00000	1.150
	15	4-Methylphenol	108	9.030	9.030	(1.116)	16945	1.00000	1.128
	16	N-Nitroso-di-n-propylamine	70	9.038	9.038	(1.117)	9321	1.00000	0.9867
	22	2,4-Dimethylphenol	107	10.131	10.131	(0.945)	30432	2.00000	2.012
	26	1,2,4-Trichlorobenzene	180	10.656	10.656	(0.994)	16117	1.00000	0.9865
*	27	Naphthalene-d8	136	10.726	10.726	(1.000)	175489	4.00000	
	30	Hexachlorobutadiene	225	11.205	11.205	(1.045)	10000	1.00000	1.008
	39	Dimethylphthalate	163	14.161	14.161	(0.970)	29848	1.00000	0.9910
*	42	Acenaphthene-d10	162	14.594	14.594	(1.000)	98933	4.00000	
	50	Diethylphthalate	149	15.746	15.746	(1.079)	34690	1.00000	0.9859
	54	N-Nitrosodiphenylamine	169	16.109	16.109	(0.903)	22737	1.00000	1.040
	57	Hexachlorobenzene	284	17.181	17.181	(0.963)	13695	1.00000	0.9627
	58	Pentachlorophenol	266	17.599	17.599	(0.987)	11510	2.00000	1.370
*	59	Phenanthrene-d10	188	17.839	17.839	(1.000)	188120	4.00000	
$	66	Terphenyl-d14	244	21.205	21.205	(0.919)	25058	1.00000	0.8918
	67	Butylbenzylphthalate	149	22.204	22.204	(0.963)	23382	1.00000	1.157
*	69	Chrysene-d12	240	23.063	23.063	(1.000)	211464	4.00000	
*	77	Perylene-d12	264	25.378	25.378	(1.000)	197758	4.00000	
	79	Dibenzo(a,h)anthracene	278	27.269	27.269	(1.075)	46888	1.00000	0.9948

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
90 N-Nitrosodimethylamine	74	3.517	3.517	(0.435)	17409	2.00000	1.921

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0406a.d
Lab Smp Id: ABN 1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 06-APR-2013
Calibration Time: 12:49
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	47730	-11.37
27 Naphthalene-d8	200104	100052	400208	175489	-12.30
42 Acenaphthene-d10	112392	56196	224784	98933	-11.98
59 Phenanthrene-d10	210710	105355	421420	188120	-10.72
69 Chrysene-d12	240805	120402	481610	211464	-12.18
77 Perylene-d12	230834	115417	461668	197758	-14.33

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.09	0.00
27 Naphthalene-d8	10.73	10.23	11.23	10.73	0.00
42 Acenaphthene-d10	14.59	14.09	15.09	14.59	0.00
59 Phenanthrene-d10	17.84	17.34	18.34	17.84	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.06	0.00
77 Perylene-d12	25.38	24.88	25.88	25.38	0.00

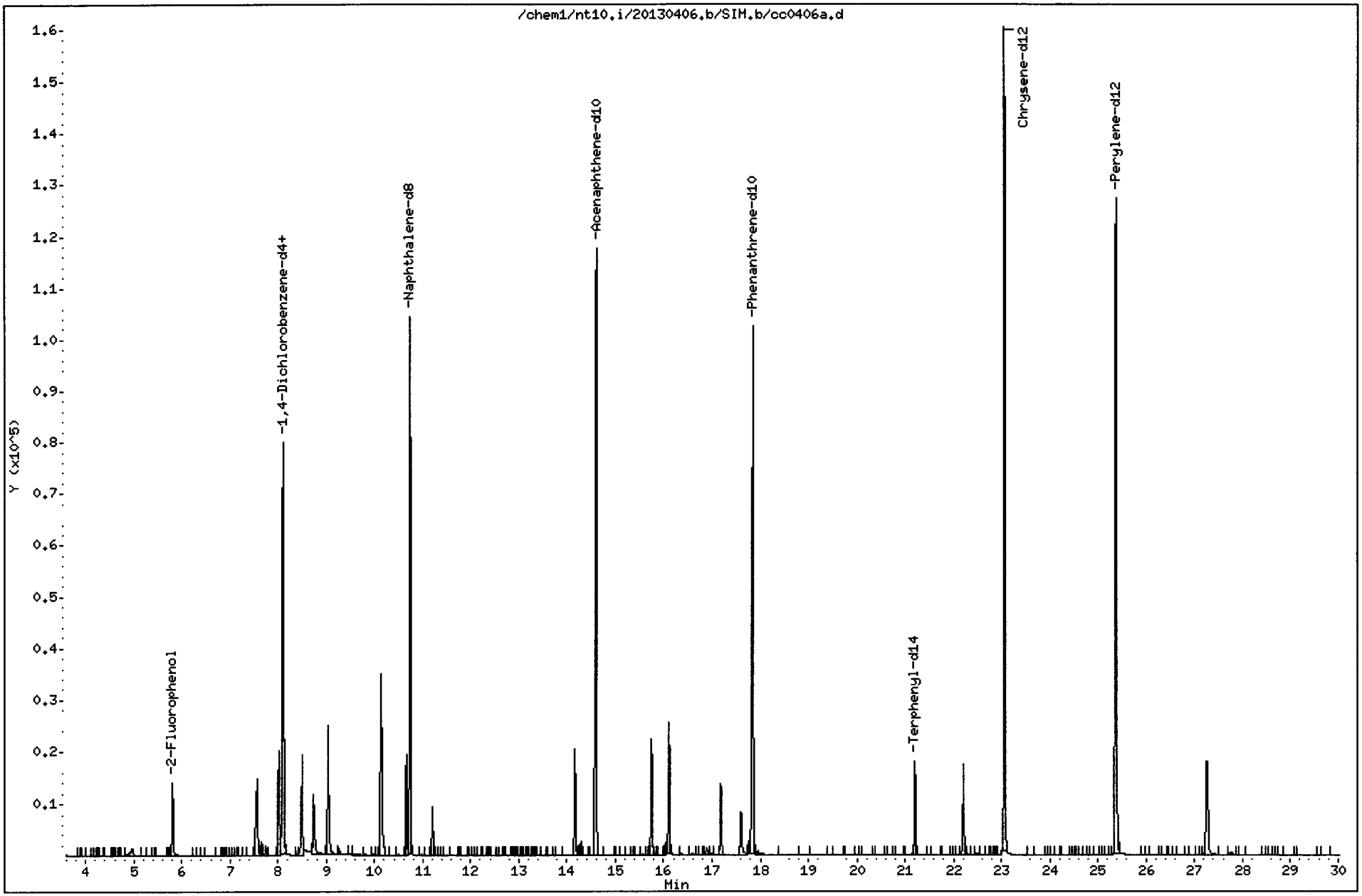
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130406.b/SIM.b/cc0406a.d
Date : 06-APR-2013 15:09
Client ID:
Sample Info: ABN 1

Instrument: nt10.i

Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - cc0406a.d

Lab ID: ABN 1, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 06-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 4/9/13

Data file : /chem1/nt10.i/20130406.b/SIM.b/wj10mb.d
Lab Smp Id: WJ10MBS1 Client Smp ID: WJ10MBS1
Inj Date : 06-APR-2013 15:46
Operator : YZ Inst ID: nt10.i
Smp Info : WJ10MBS1
Misc Info : 13-6438
Comment :
Method : /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Meth Date : 06-Apr-2013 15:50 van Quant Type: ISTD
Cal Date : 25-JAN-2013 17:53 Cal File: ic0125i.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.811	5.803	(0.718)	77384	5.24336	524.3
3	Phenol	94	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.091	8.091	(1.000)	46388	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	79	8.464	8.464	(1.046)	970	0.08734	8.734(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.726	10.726	(1.000)	174225	4.00000	
30	Hexachlorobutadiene	225	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	39 Dimethylphthalate	163	Compound Not Detected.					
*	42 Acenaphthene-d10	162	14.594	14.594	(1.000)	97975	4.00000	
	50 Diethylphthalate	149	15.746	15.746	(1.079)	2306	0.06618	6.618(R)
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.839	17.839	(1.000)	179304	4.00000	
$	66 Terphenyl-d14	244	21.205	21.205	(0.919)	101673	3.77631	377.6
	67 Butylbenzylphthalate	149	Compound Not Detected.					
*	69 Chrysene-d12	240	23.071	23.063	(1.000)	202629	4.00000	
*	77 Perylene-d12	264	25.378	25.378	(1.000)	181183	4.00000	
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10mb.d
Lab Smp Id: WJ10MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 15:09
Client Smp ID: WJ10MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	46388	-13.86
27 Naphthalene-d8	200104	100052	400208	174225	-12.93
42 Acenaphthene-d10	112392	56196	224784	97975	-12.83
59 Phenanthrene-d10	210710	105355	421420	179304	-14.90
69 Chrysene-d12	240805	120402	481610	202629	-15.85
77 Perylene-d12	230834	115417	461668	181183	-21.51

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.09	0.00
27 Naphthalene-d8	10.73	10.23	11.23	10.73	0.00
42 Acenaphthene-d10	14.59	14.09	15.09	14.59	0.00
59 Phenanthrene-d10	17.84	17.34	18.34	17.84	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.38	24.88	25.88	25.38	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10MBS1
Client Smp ID: WJ10MBS1
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: BLANK
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

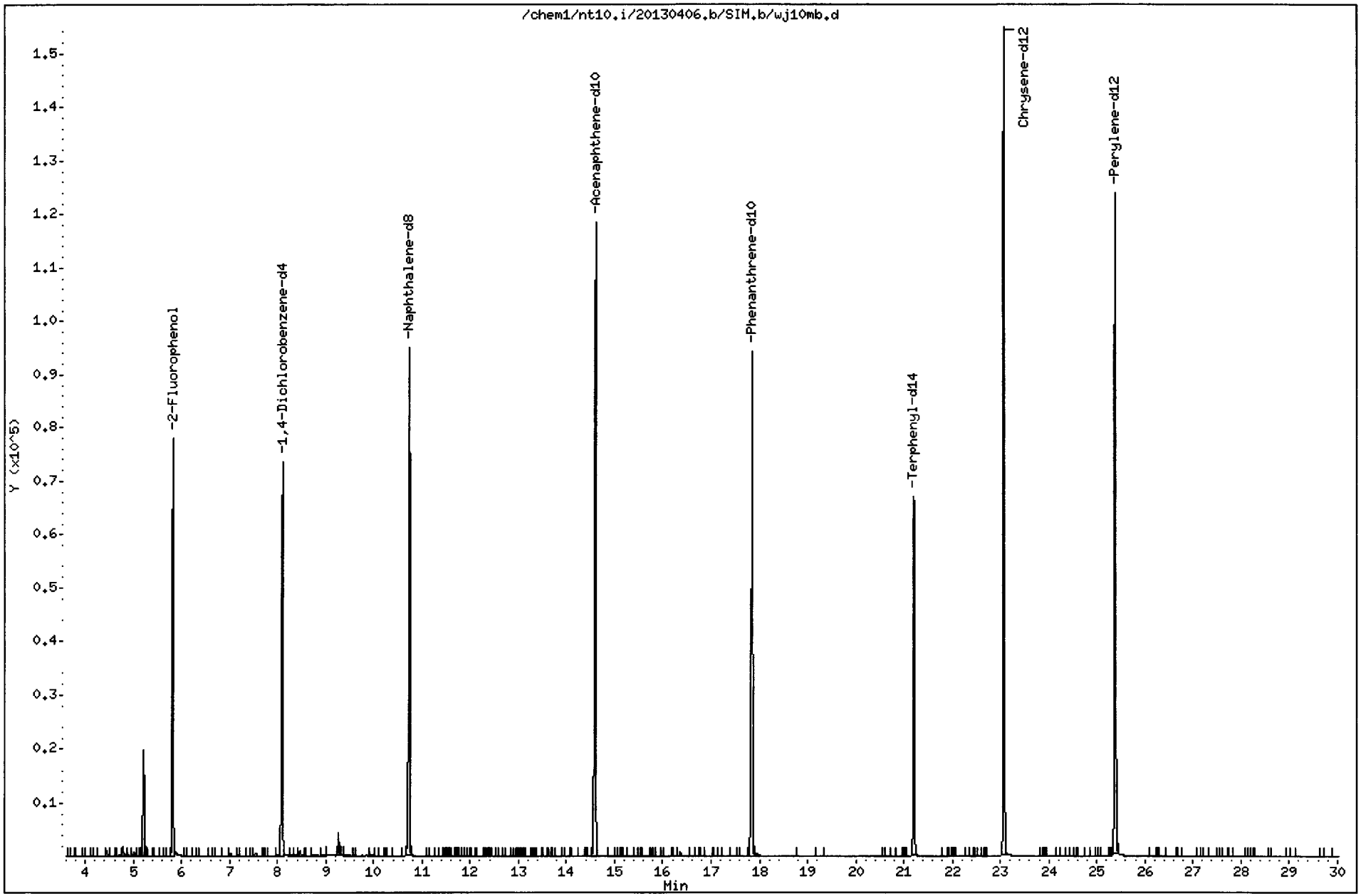
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	0.000	*	30-160
7	1,3-Dichlorobenze	500.0	0.000	*	30-160
9	1,4-Dichlorobenze	500.0	0.000	*	30-160
11	Benzyl alcohol	500.0	8.734	1.75*	30-160
12	1,2-Dichlorobenze	500.0	0.000	*	30-160
13	2-Methylphenol	500.0	0.000	*	30-160
15	4-Methylphenol	1000	0.000	*	30-160
16	N-Nitroso-di-n-pr	500.0	0.000	*	30-160
22	2,4-Dimethylphenol	1000	0.000	*	30-160
26	1,2,4-Trichlorobe	500.0	0.000	*	30-160
30	Hexachlorobutadie	500.0	0.000	*	30-160
39	Dimethylphthalate	500.0	0.000	*	30-160
50	Diethylphthalate	500.0	6.618	1.32*	30-160
54	N-Nitrosodiphenyl	500.0	0.000	*	30-160
57	Hexachlorobenzene	500.0	0.000	*	30-160
58	Pentachlorophenol	1000	0.000	*	30-160
67	Butylbenzylphthal	500.0	0.000	*	30-160
79	Dibenzo(a,h)anthr	500.0	0.000	*	30-160
90	N-Nitrosodimethyl	1000	0.000	*	30-160

SURROGATE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	750.0	524.3	69.91	30-160
$ 66	Terphenyl-d14	500.0	377.6	75.53	30-160

WJ10.B1WW

Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10mb.d
Date : 06-APR-2013 15:46
Client ID: WJ10MBS1
Sample Info: WJ10MBS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10mb.d

Date : 06-APR-2013 15:46

Client ID: WJ10MBS1

Instrument: nt10.i

Sample Info: WJ10MBS1

Volume Injected (uL): 1.0

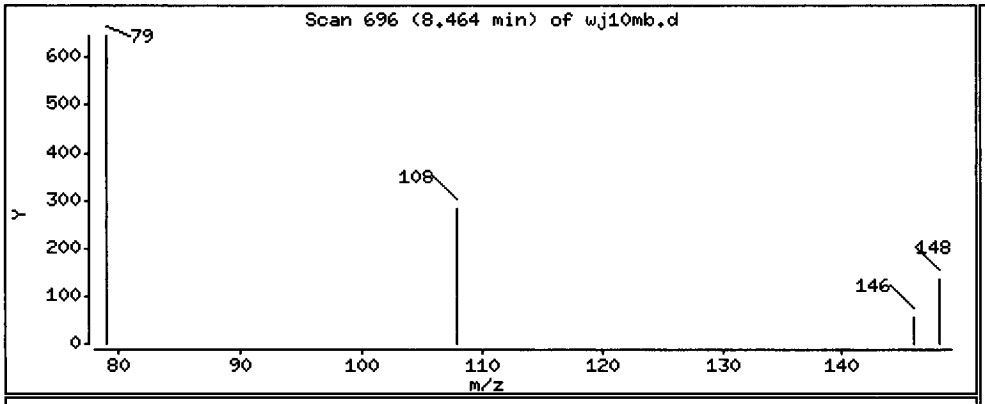
Operator: YZ

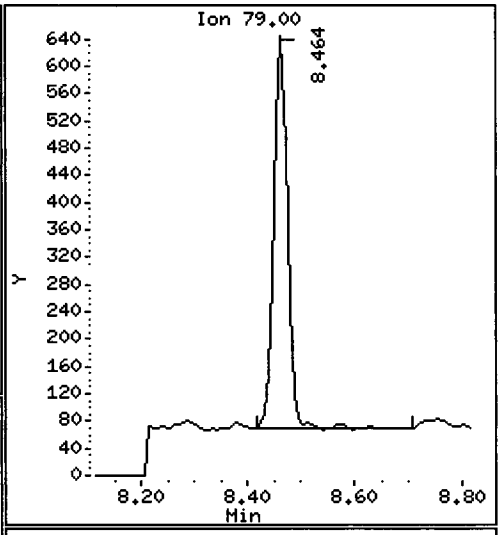
Column phase: ZB-5msi

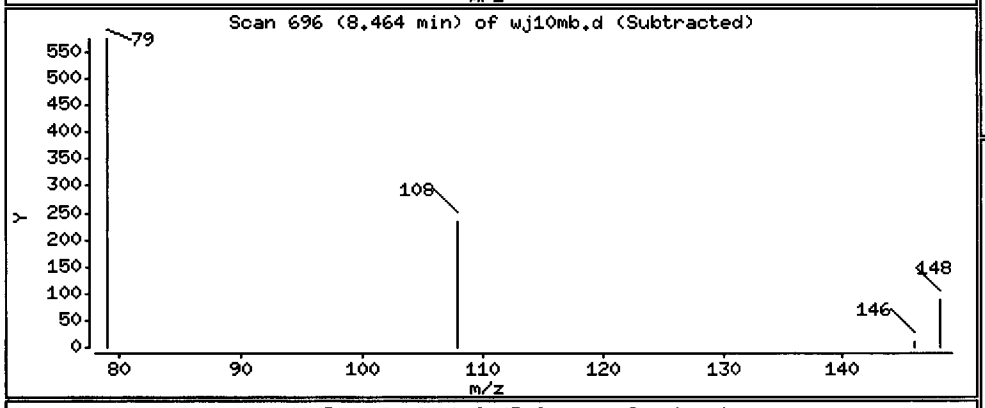
Column diameter: 0.25

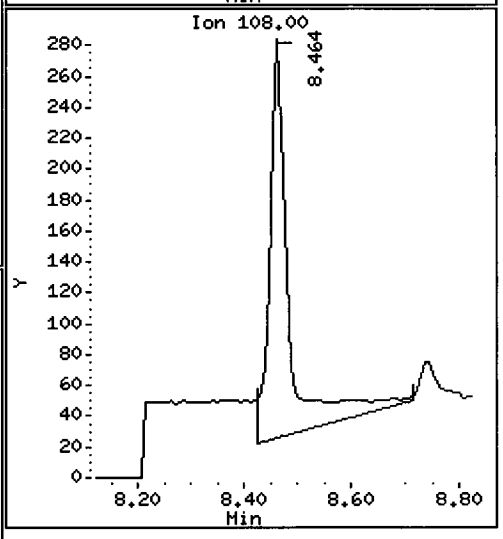
11 Benzyl alcohol

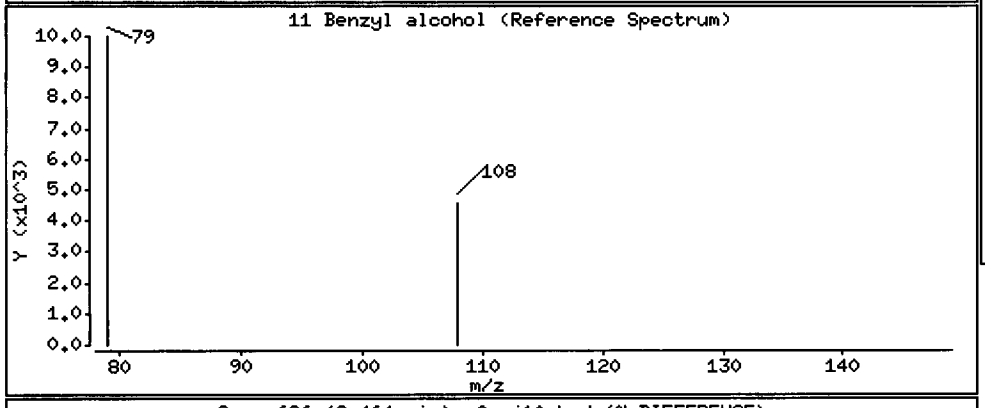
Concentration: 8.734 ug/kg

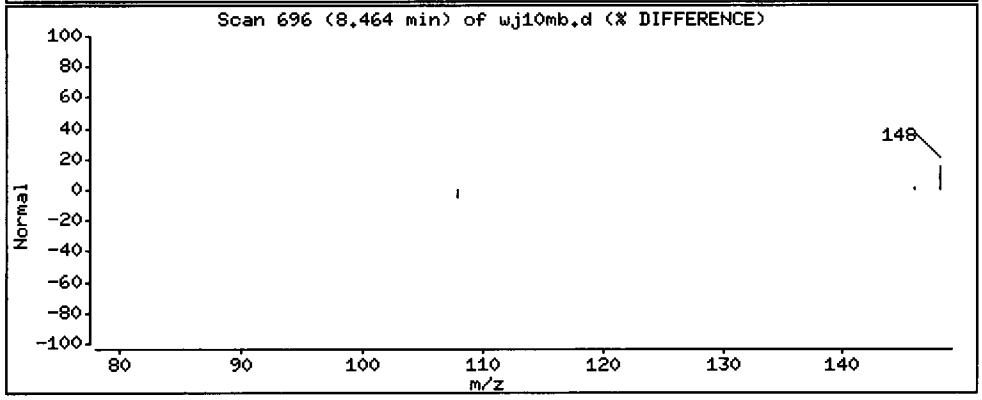












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10mb.d

Date : 06-APR-2013 15:46

Client ID: WJ10MBS1

Instrument: nt10.i

Sample Info: WJ10MBS1

Volume Injected (uL): 1.0

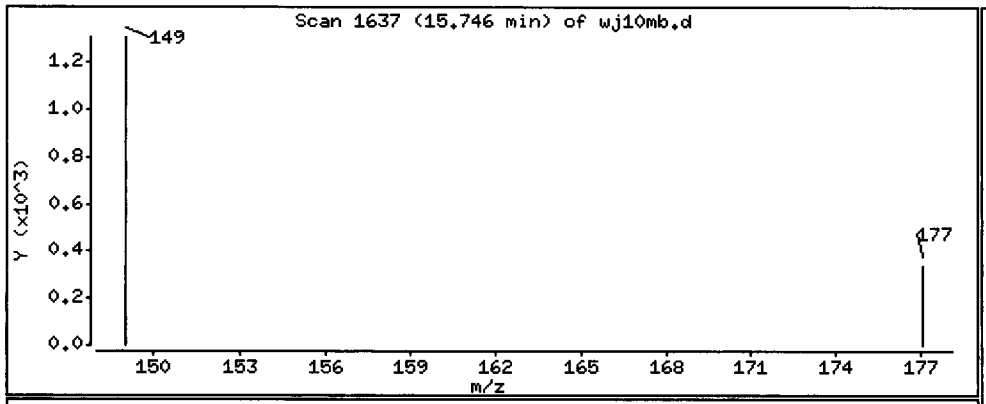
Operator: YZ

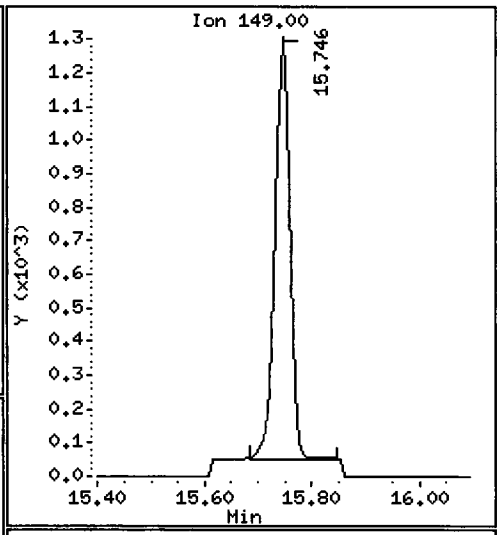
Column phase: ZB-5msi

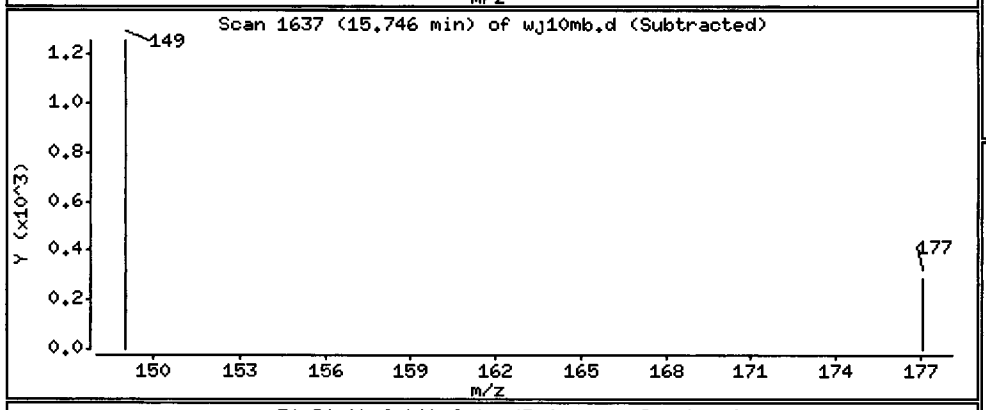
Column diameter: 0.25

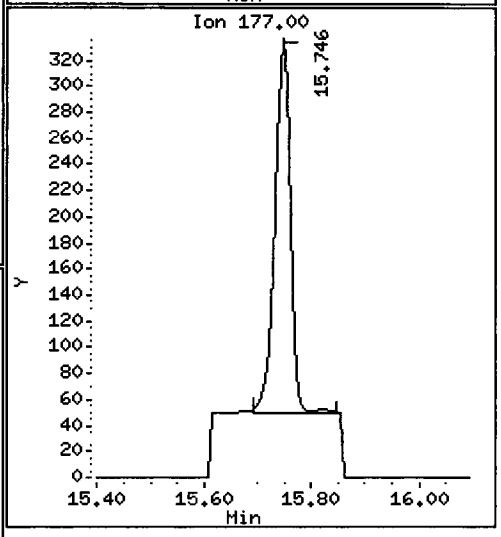
50 Diethylphthalate

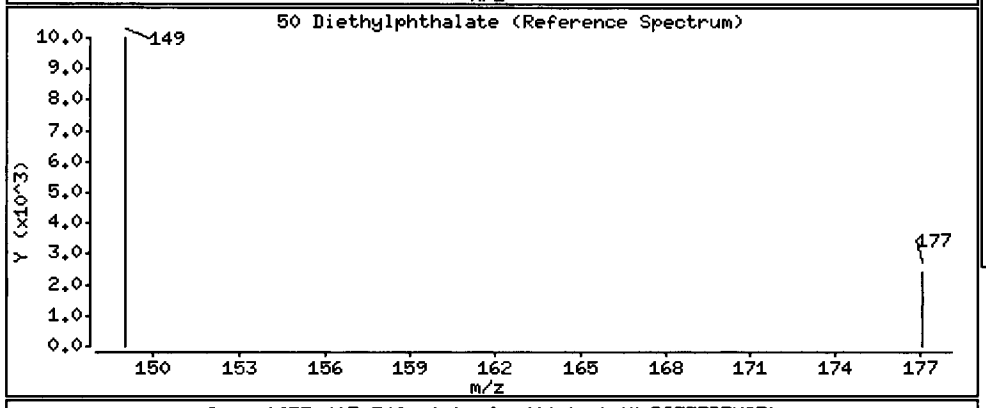
Concentration: 6.618 ug/kg

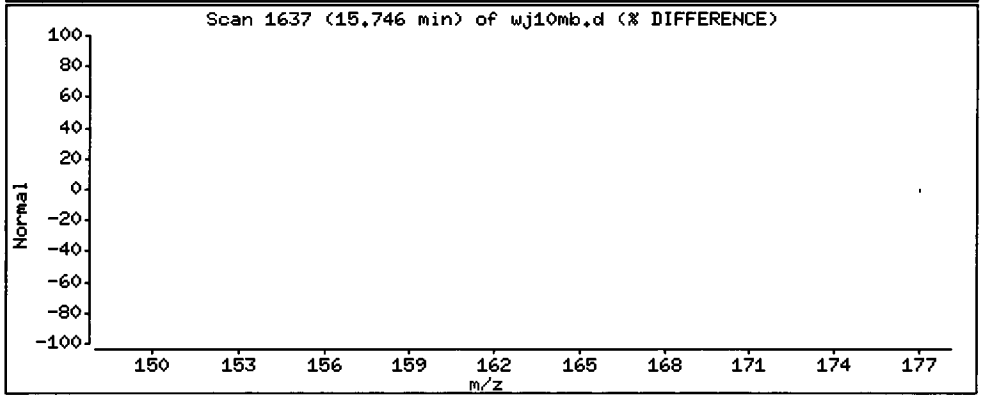












CO-ELUTION SUMMARY FOR FILE - wj10mb.d

Lab ID: WJ10MBS1, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 06-APR-2

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc. YZ 4/10/13

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130406.b/SIM.b/wj10c.d
Lab Smp Id: WJ10C Client Smp ID: SD-SP-01-20130326-S
Inj Date : 06-APR-2013 18:48
Operator : YZ Inst ID: nt10.i
Smp Info : WJ10C
Misc Info : 13-6437
Comment :
Method : /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Meth Date : 10-Apr-2013 11:27 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:53 Cal File: ic0125i.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	1.02000	Weight of sample extracted (g)
M	52.80000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	5.819	5.803	(0.718)	77092	4.74934	9865
	3	Phenol	94	7.580	7.565	(0.936)	5393	0.26161	543.4 (M)
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.099	8.091	(1.000)	51020	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	79	8.472	8.464	(1.046)	920	0.07532	156.4 (M)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	15	4-Methylphenol	108	9.069	9.030	(1.120)	30026	1.86919	3882
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.742	10.726	(1.000)	191772	4.00000	
	30	Hexachlorobutadiene	225	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
39	Dimethylphthalate	163	14.177	14.161	(0.970)	3288	0.10242	212.7(M)
* 42	Acenaphthene-d10	162	14.610	14.594	(1.000)	105453	4.00000	
50	Diethylphthalate	149	15.762	15.746	(1.079)	3431	0.09148	190.0(M)
54	N-Nitrosodiphenylamine	169	16.125	16.109	(0.905)	983	0.05374	111.6
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	17.871	17.839	(1.000)	157334	4.00000	(H)
$ 66	Terphenyl-d14	244	21.267	21.205	(0.918)	84349	3.45169	7170(H)
67	Butylbenzylphthalate	149	22.274	22.204	(0.962)	10802	0.61449	1276
* 69	Chrysene-d12	240	23.164	23.063	(1.000)	183913	4.00000	
* 77	Perylene-d12	264	25.502	25.378	(1.000)	180788	4.00000	
79	Dibenzo(a,h)anthracene	278	27.417	27.269	(1.075)	2626	0.06094	126.6
90	N-Nitrosodimethylamine	74	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10c.d
Lab Smp Id: WJ10C
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Calibration Date: 06-APR-2013
Calibration Time: 15:09
Client Smp ID: SD-SP-01-2013032
Level: LOW
Sample Type: Solids
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6437

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	51020	-5.26
27 Naphthalene-d8	200104	100052	400208	191772	-4.16
42 Acenaphthene-d10	112392	56196	224784	105453	-6.17
59 Phenanthrene-d10	210710	105355	421420	157334	-25.33
69 Chrysene-d12	240805	120402	481610	183913	-23.63
77 Perylene-d12	230834	115417	461668	180788	-21.68

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.10	0.10
27 Naphthalene-d8	10.73	10.23	11.23	10.74	0.15
42 Acenaphthene-d10	14.59	14.09	15.09	14.61	0.11
59 Phenanthrene-d10	17.84	17.34	18.34	17.87	0.18
69 Chrysene-d12	23.06	22.56	23.56	23.16	0.44
77 Perylene-d12	25.38	24.88	25.88	25.50	0.49

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

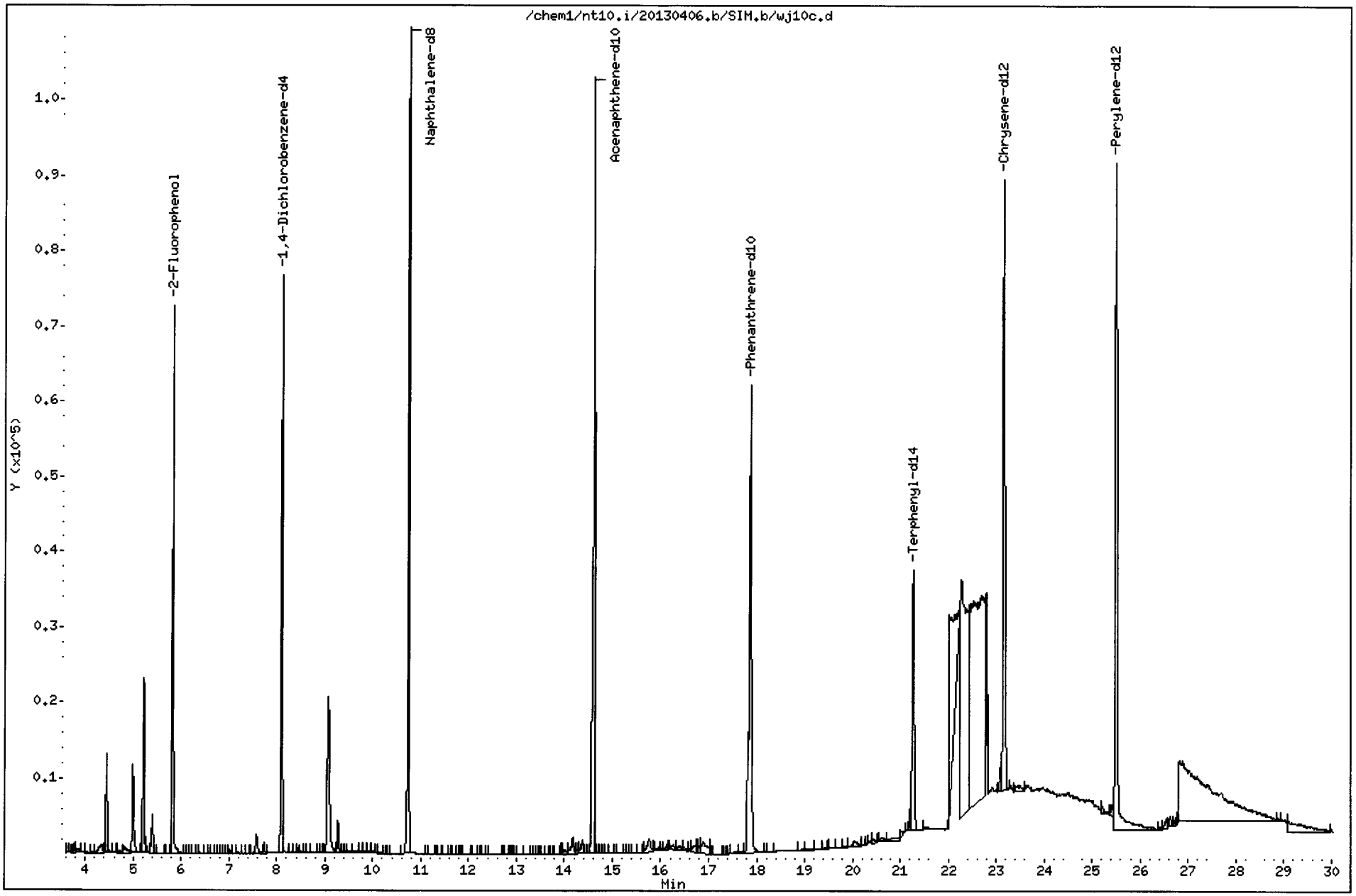
RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10C
Client Smp ID: SD-SP-01-20130326-S
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6437

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	15580	9865	63.32	30-160
$ 66 Terphenyl-d14	10390	7170	69.03	30-160

Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10c.d
Date : 06-APR-2013 18:48
Client ID: SD-SP-01-20130326-S
Sample Info: WJ10C
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

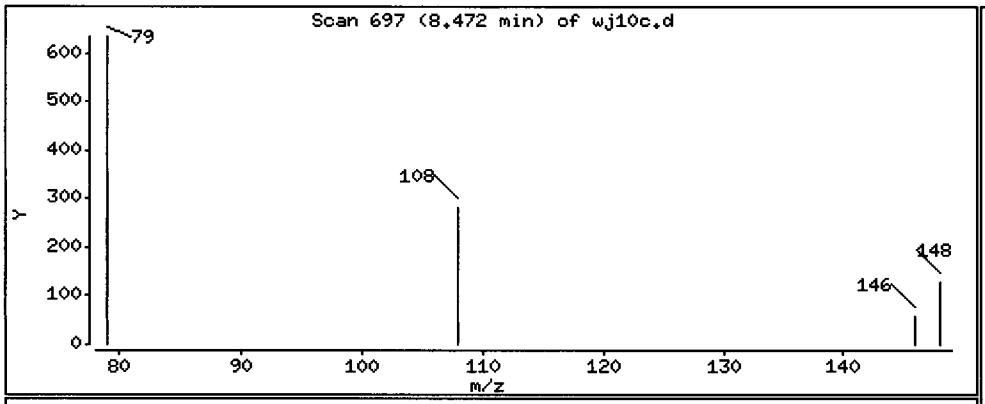
Operator: YZ

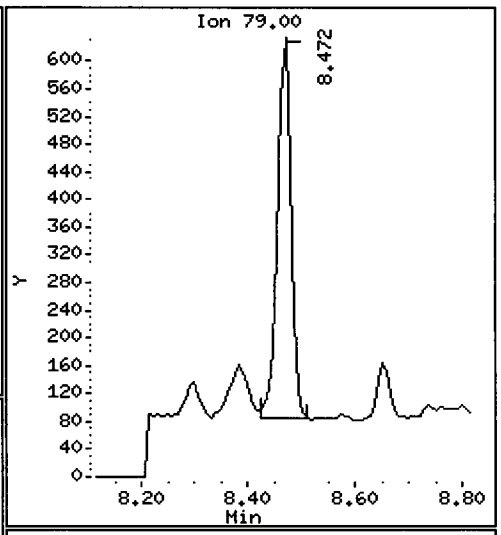
Column phase: ZB-5msi

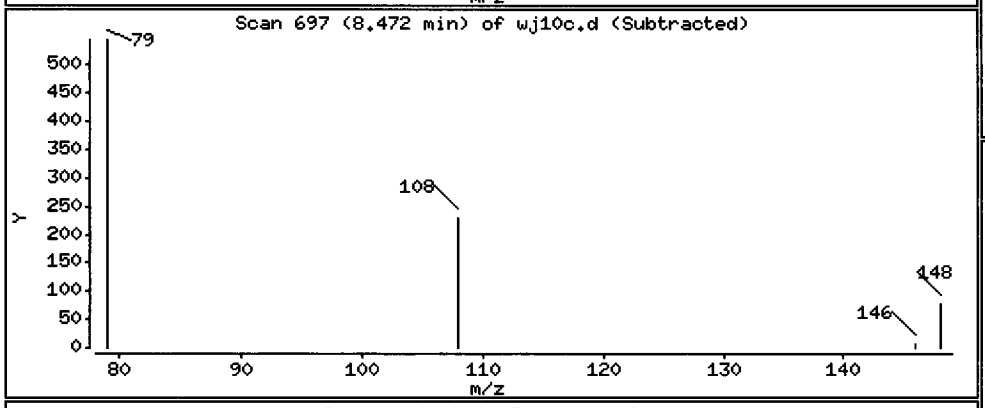
Column diameter: 0.25

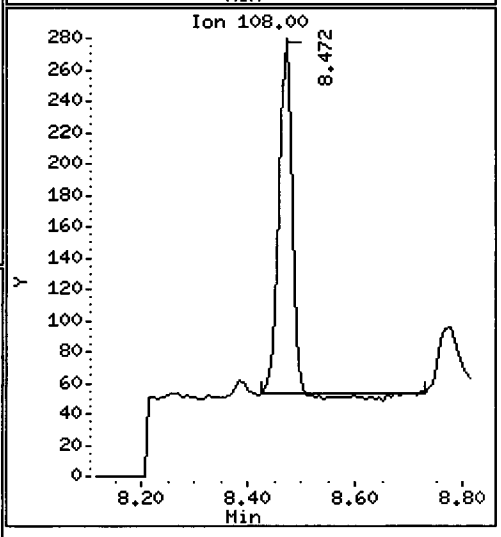
11 Benzyl alcohol

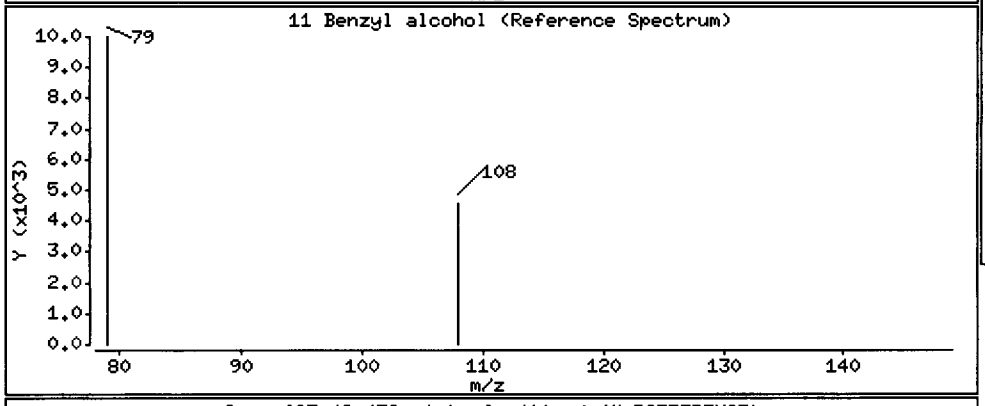
Concentration: 156.4 ug/kg

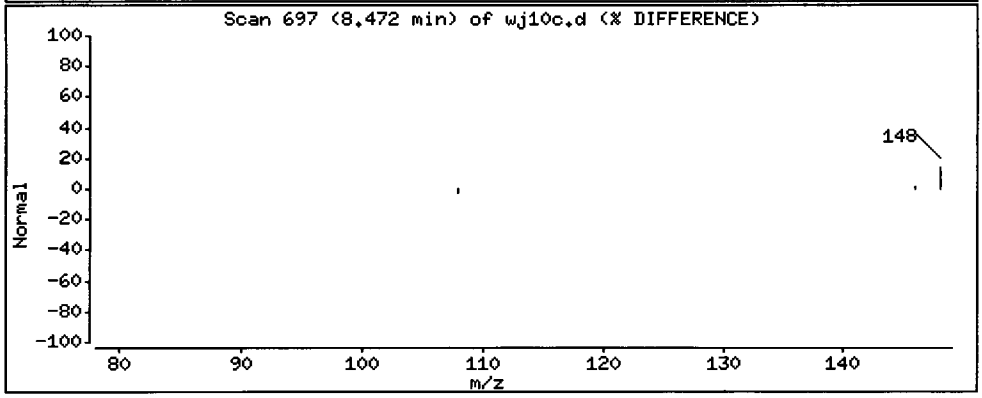












WJ10.B1105

Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

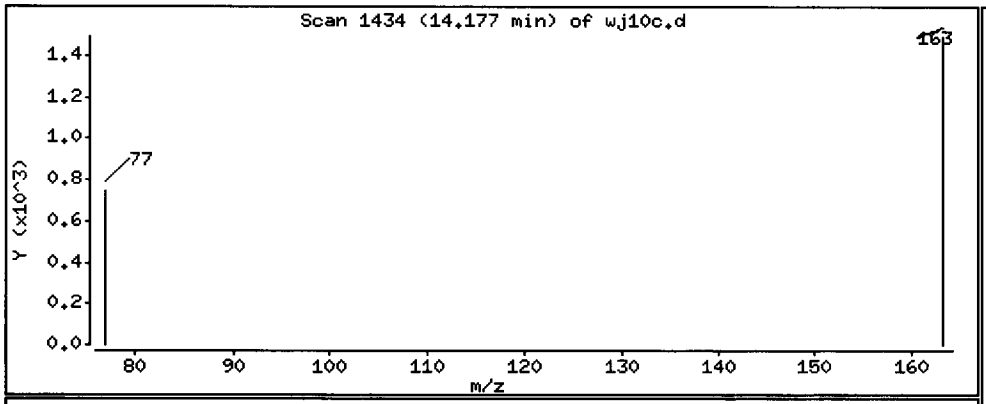
Operator: YZ

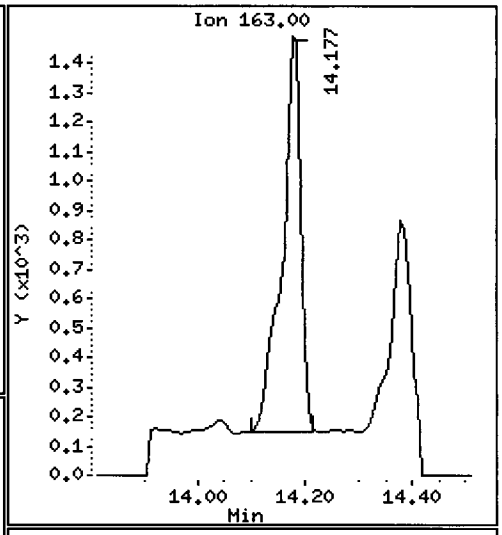
Column phase: ZB-5msi

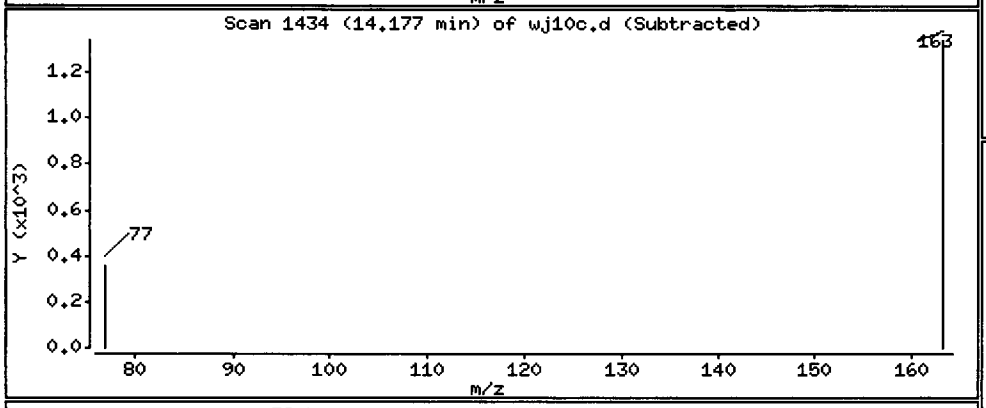
Column diameter: 0.25

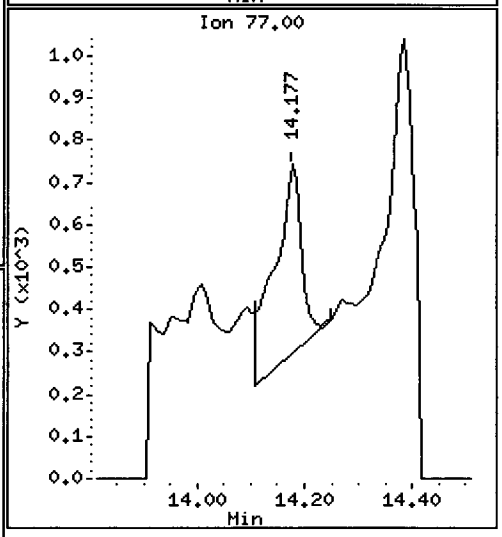
39 Dimethylphthalate

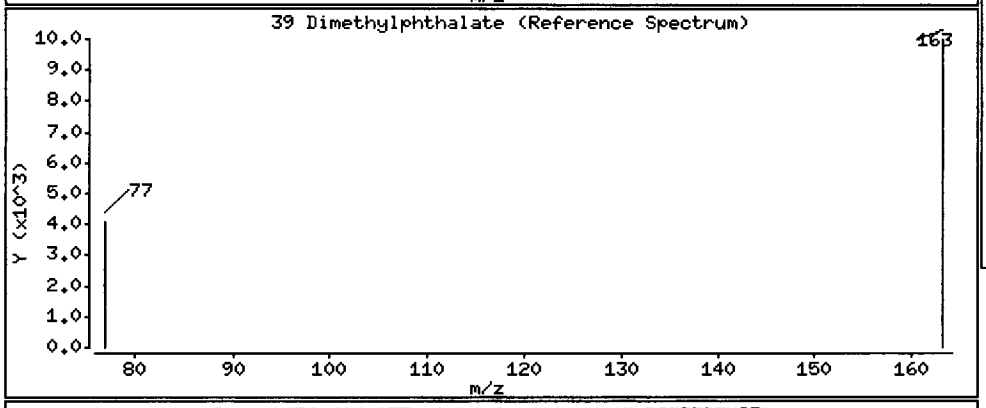
Concentration: 212.7 ug/kg

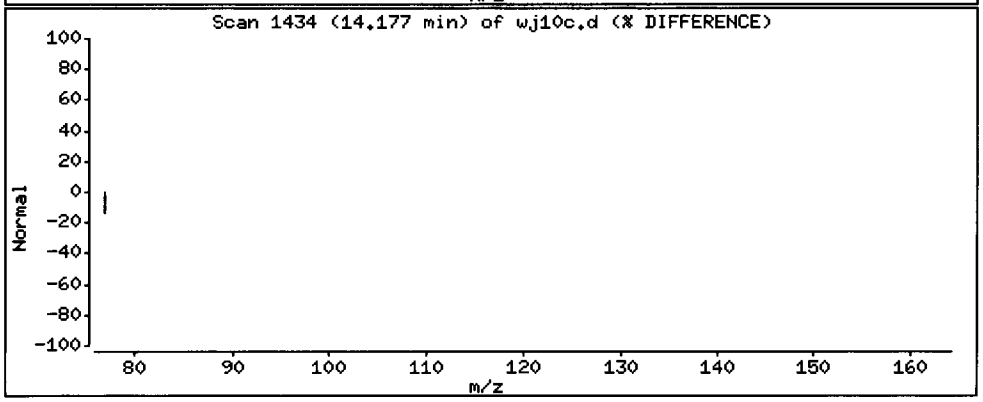












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

Operator: YZ

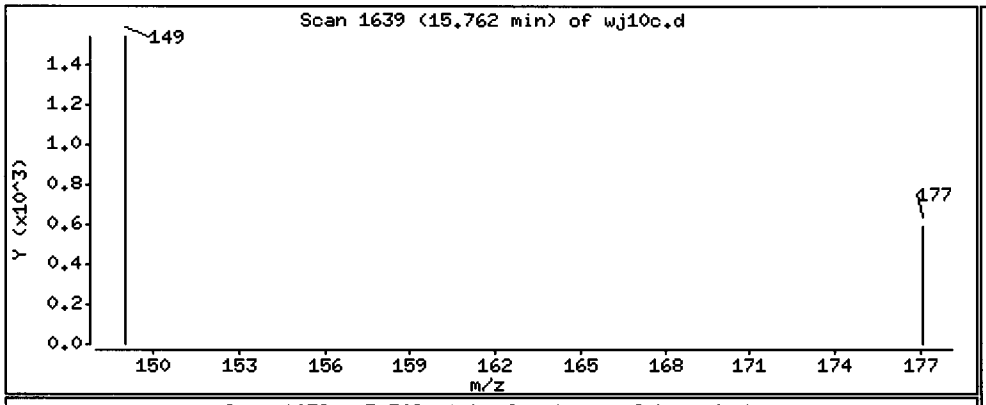
Column phase: ZB-5ms1

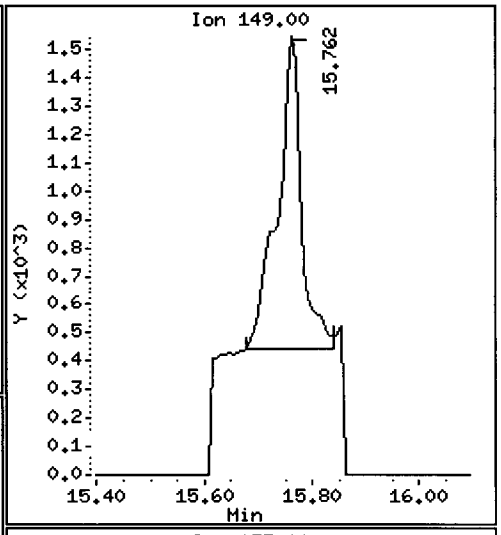
Column diameter: 0.25

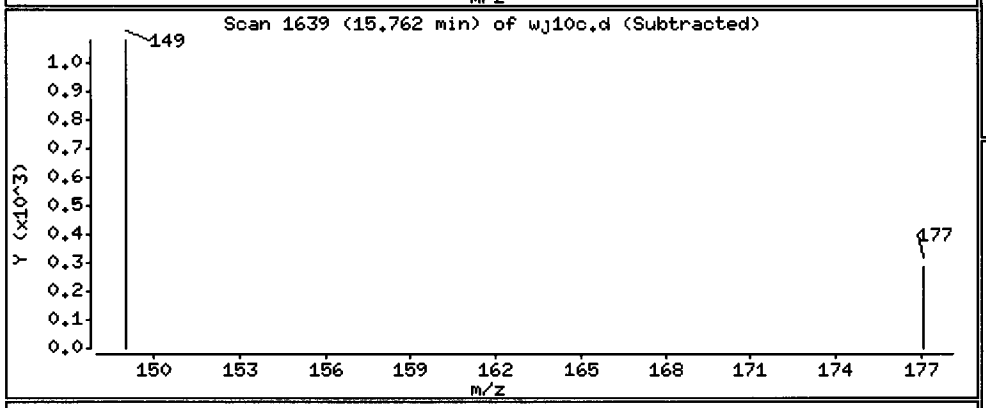
B

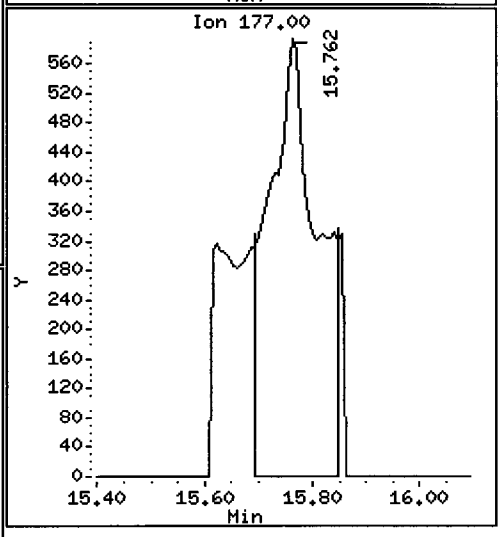
50 Diethylphthalate

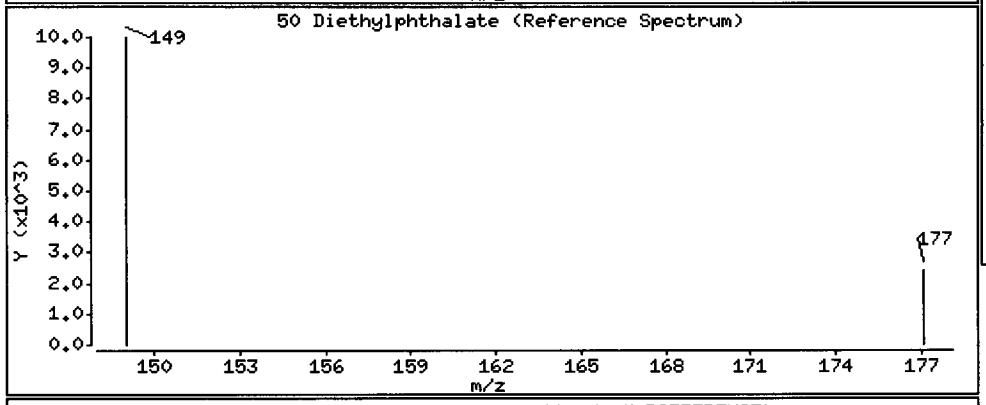
Concentration: 190.0 ug/kg

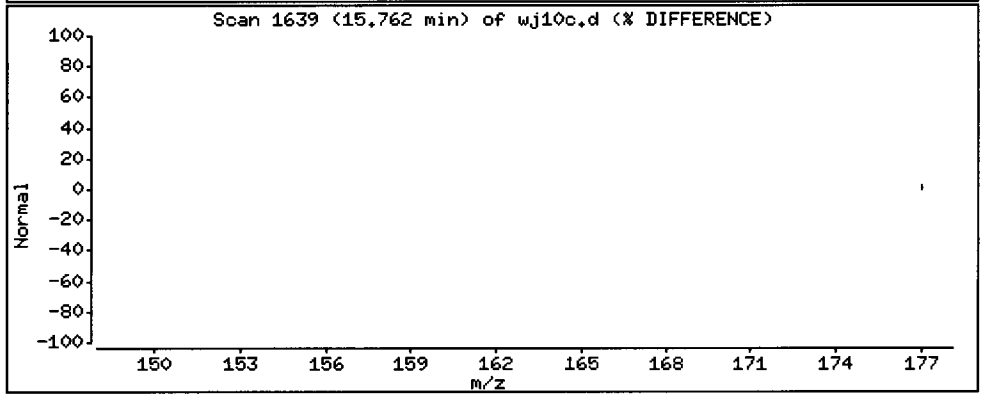












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

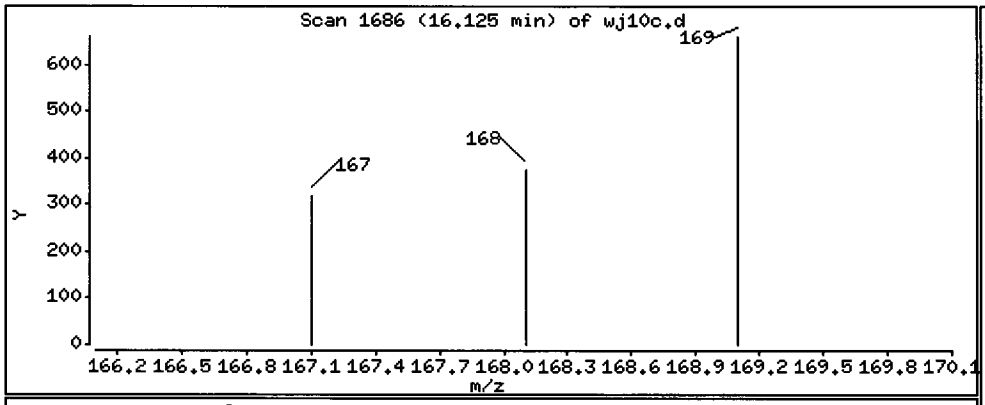
Operator: YZ

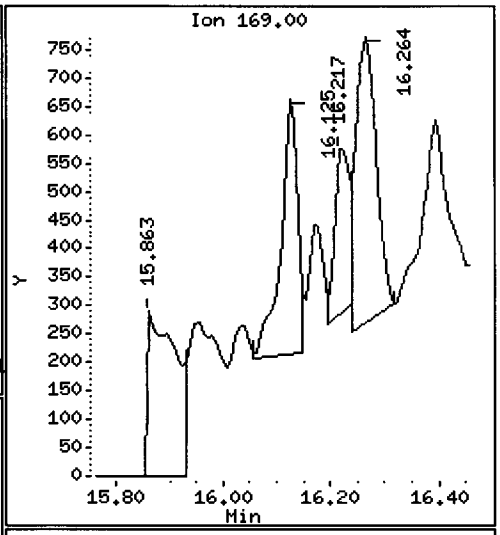
Column phase: ZB-5msi

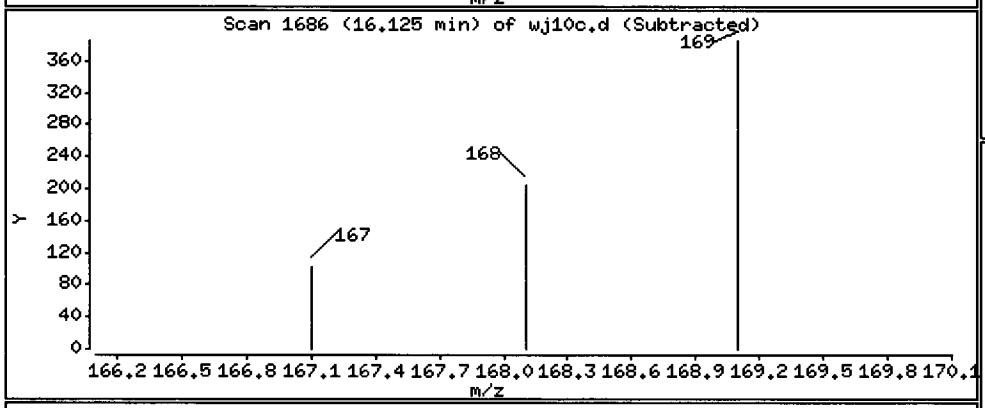
Column diameter: 0.25

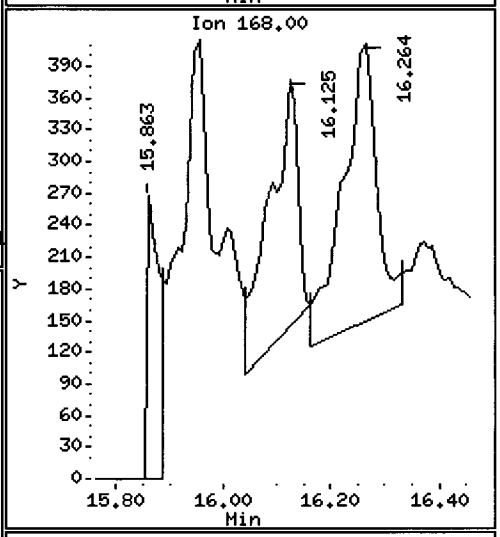
54 N-Nitrosodiphenylamine

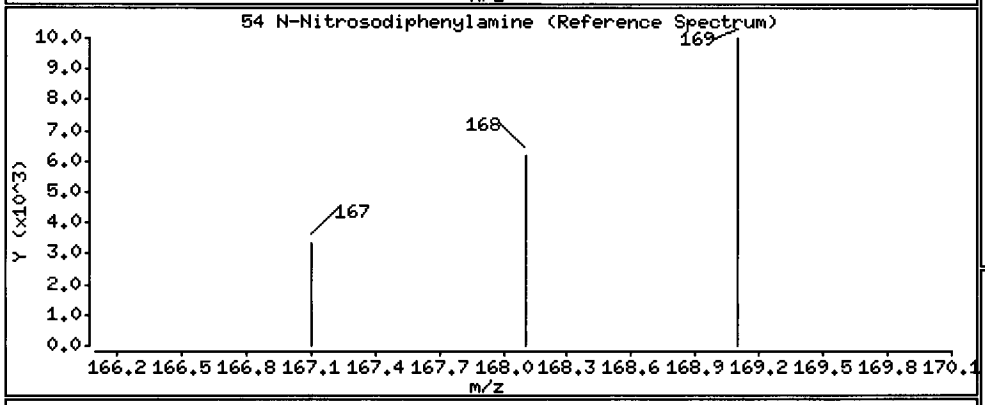
Concentration: 111.6 ug/kg

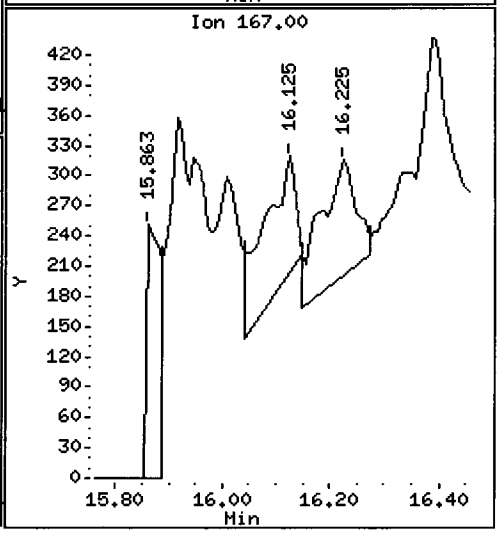


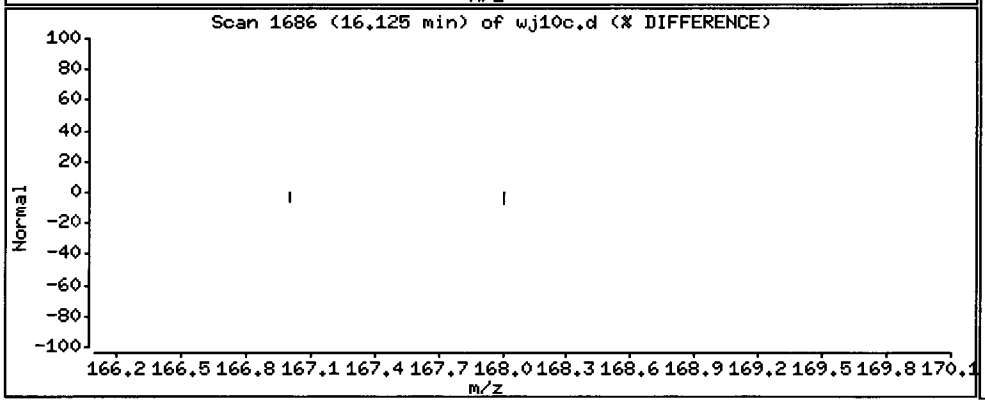












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

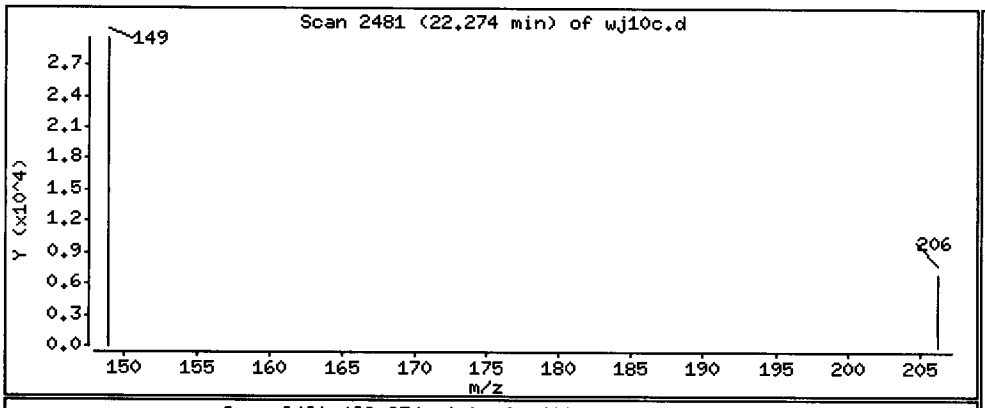
Operator: YZ

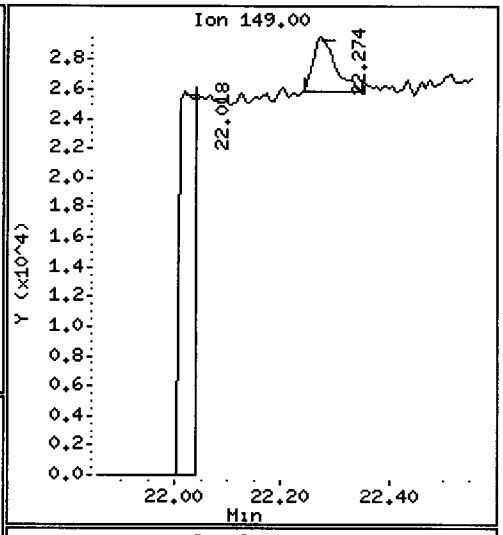
Column phase: ZB-5ms1

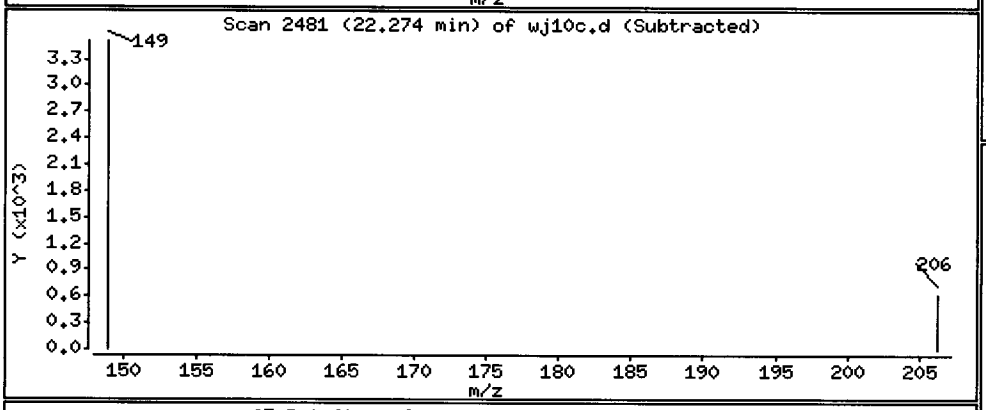
Column diameter: 0.25

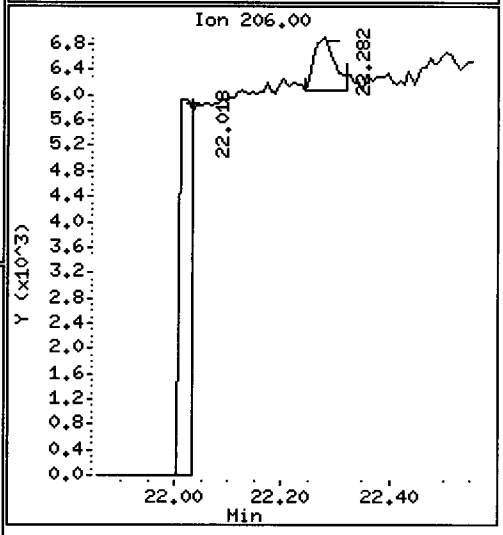
67 Butylbenzylphthalate

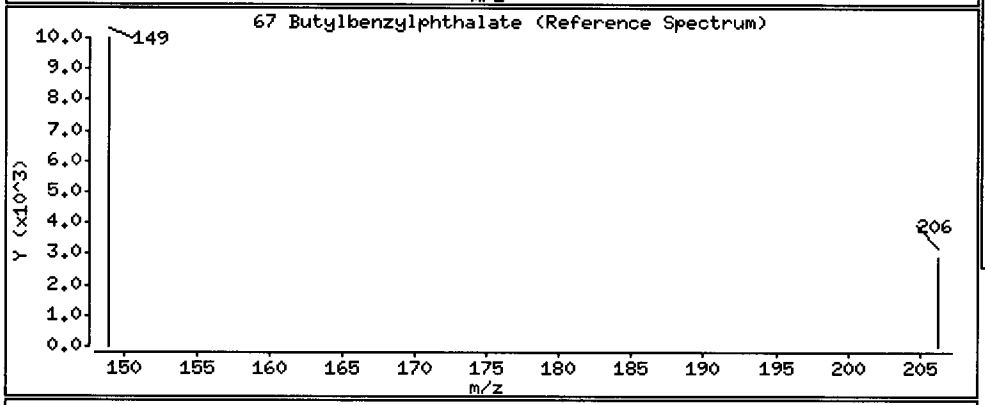
Concentration: 1276 ug/kg

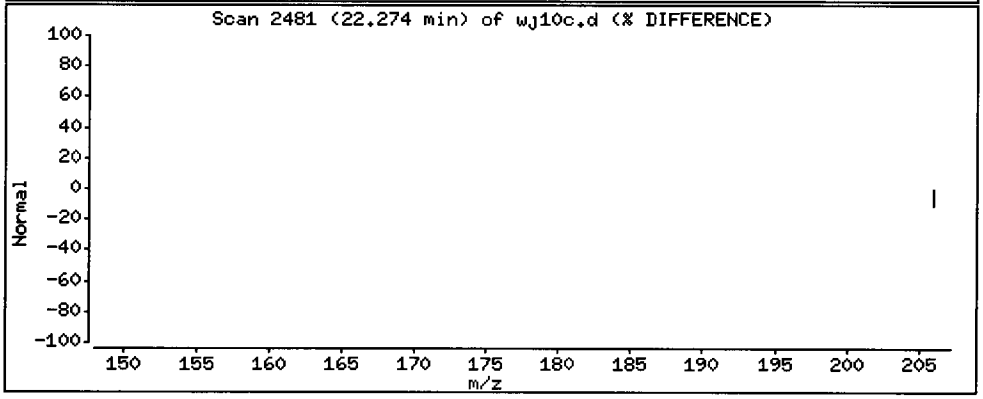












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10c.d

Date : 06-APR-2013 18:48

Client ID: SD-SP-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10C

Volume Injected (uL): 1.0

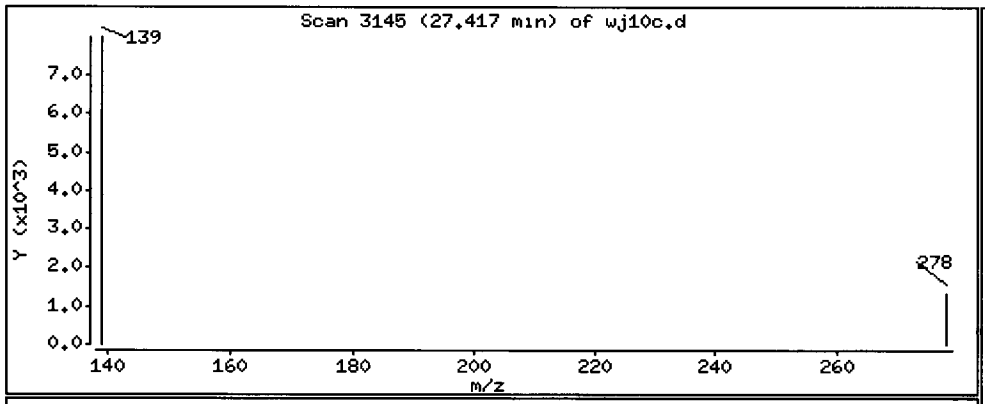
Operator: YZ

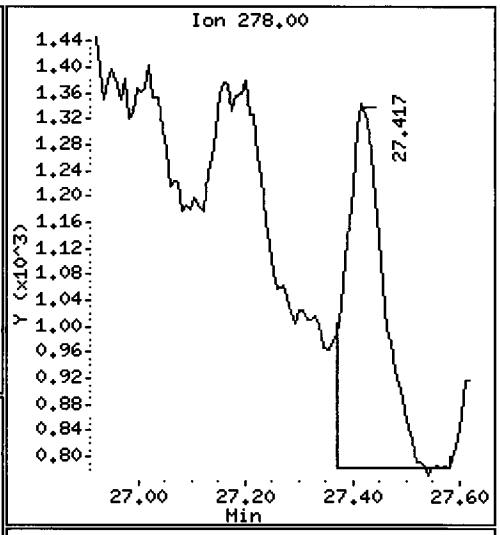
Column phase: ZB-5msi

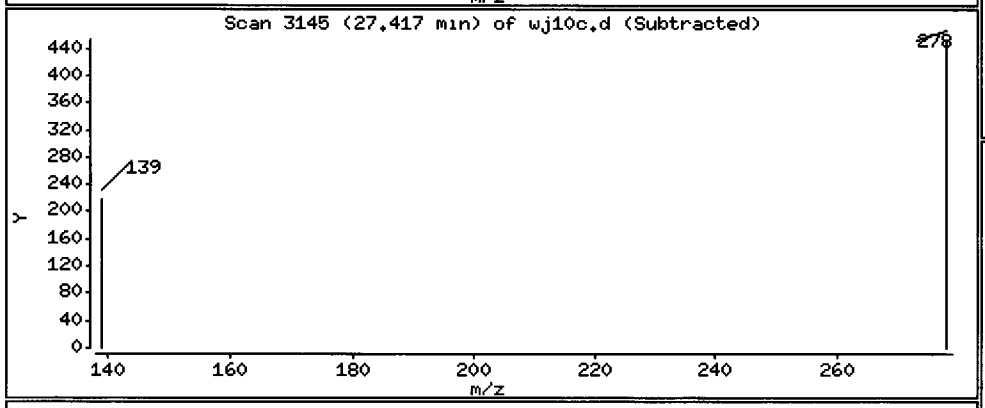
Column diameter: 0.25

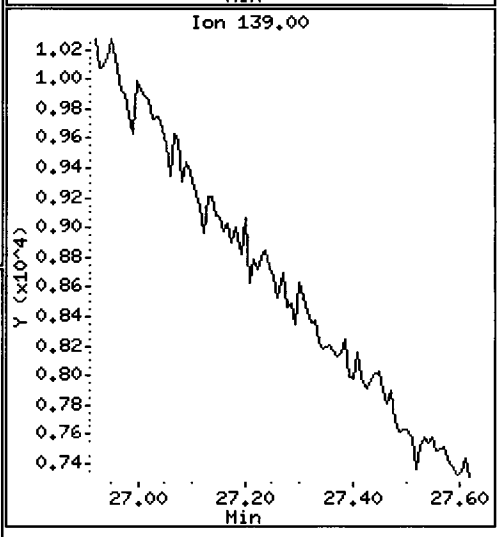
79 Dibenzo(a,h)anthracene

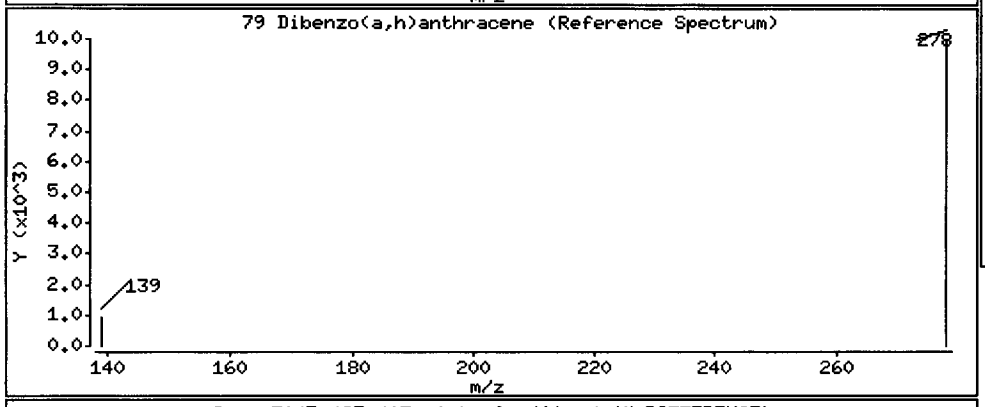
Concentration: 126.6 ug/kg

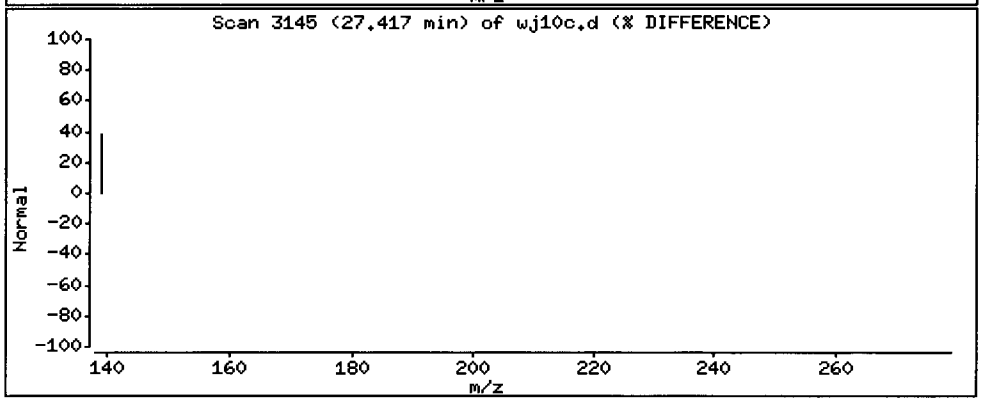






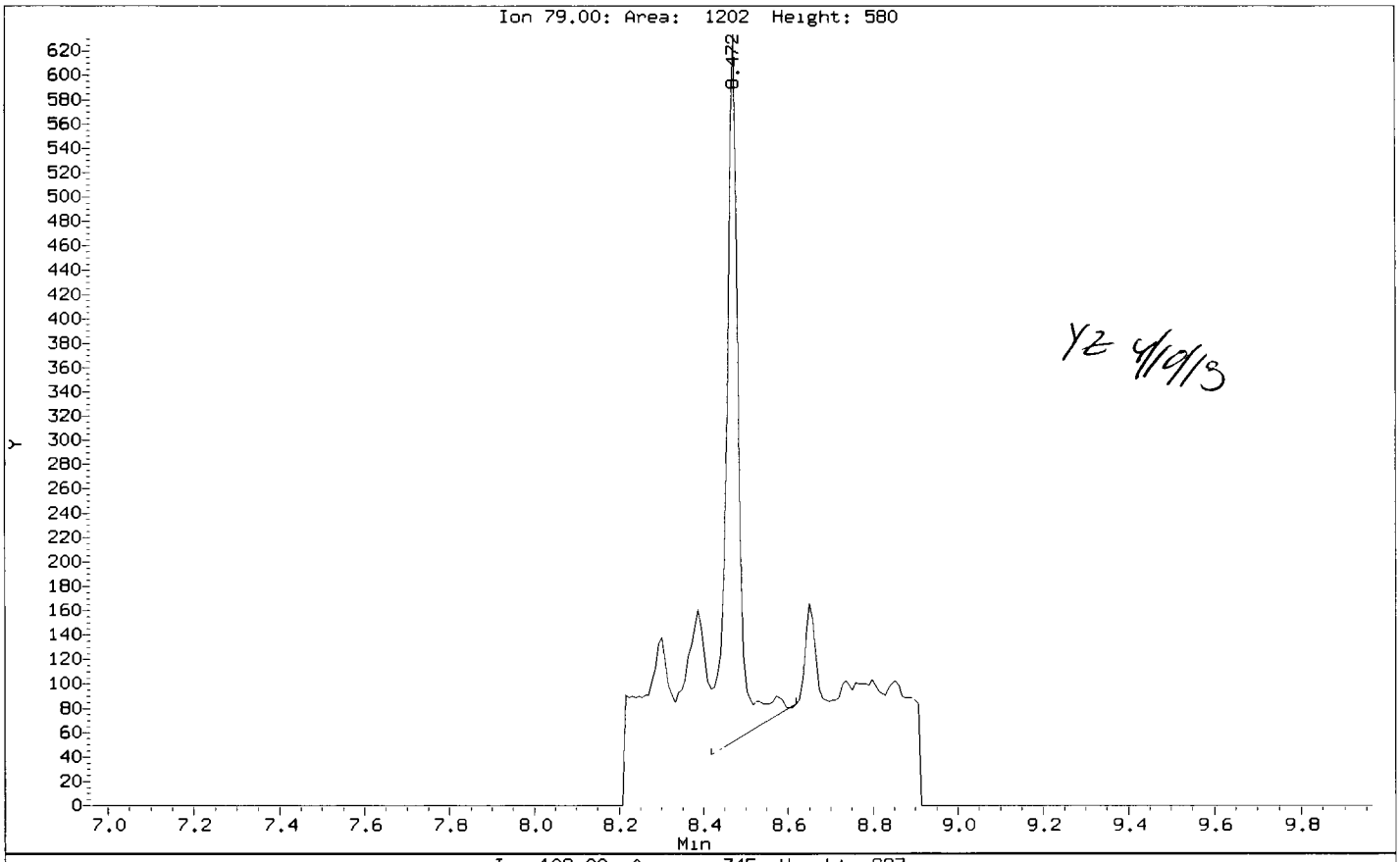




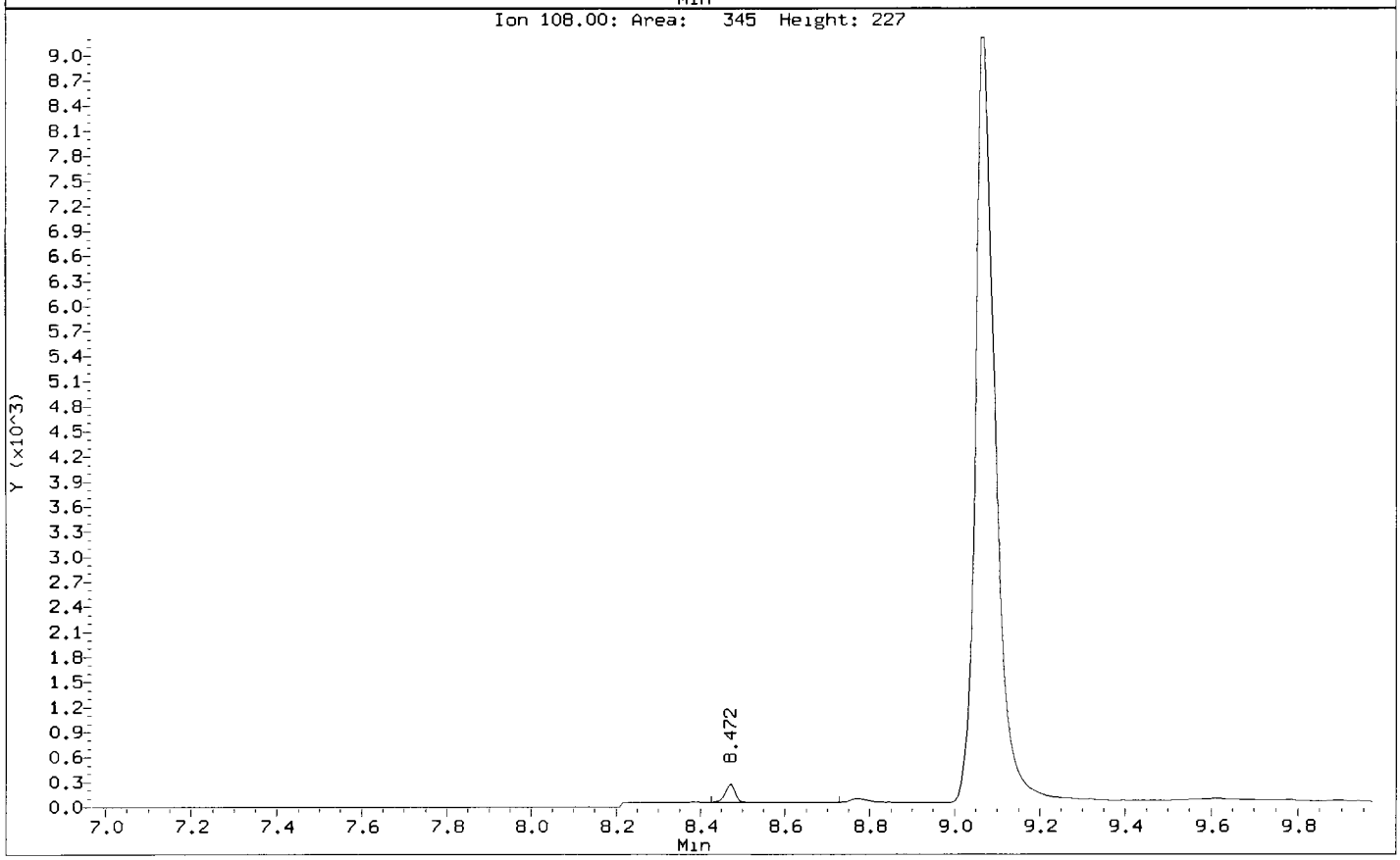


Data File: /chem1/nt10.1/20130406.b/SIM.b/wj10c.d
Injection Date: 06-APR-2013 18:48
Instrument: nt10.1
Client Sample ID: SD-SP-01-20130326-S

Compound: Benzyl alcohol
CAS Number: 100-51-6



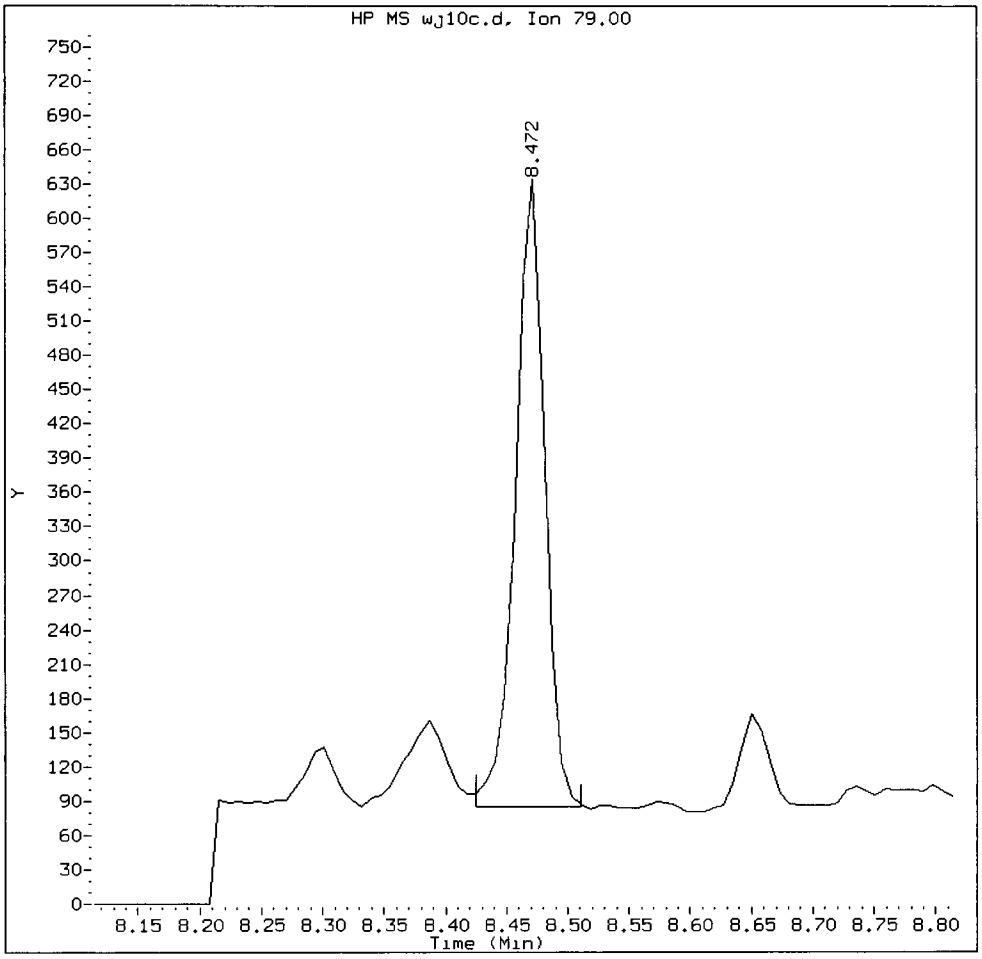
YZ 4/9/13



WJ10:01460

WJ10C, /chem1/nt10.i/20130406.b/SIM.b/wj10c.d

Benzyl alcohol Amount: 0.08 Area: 920



MANUAL INTEGRATION for Benzyl alcohol

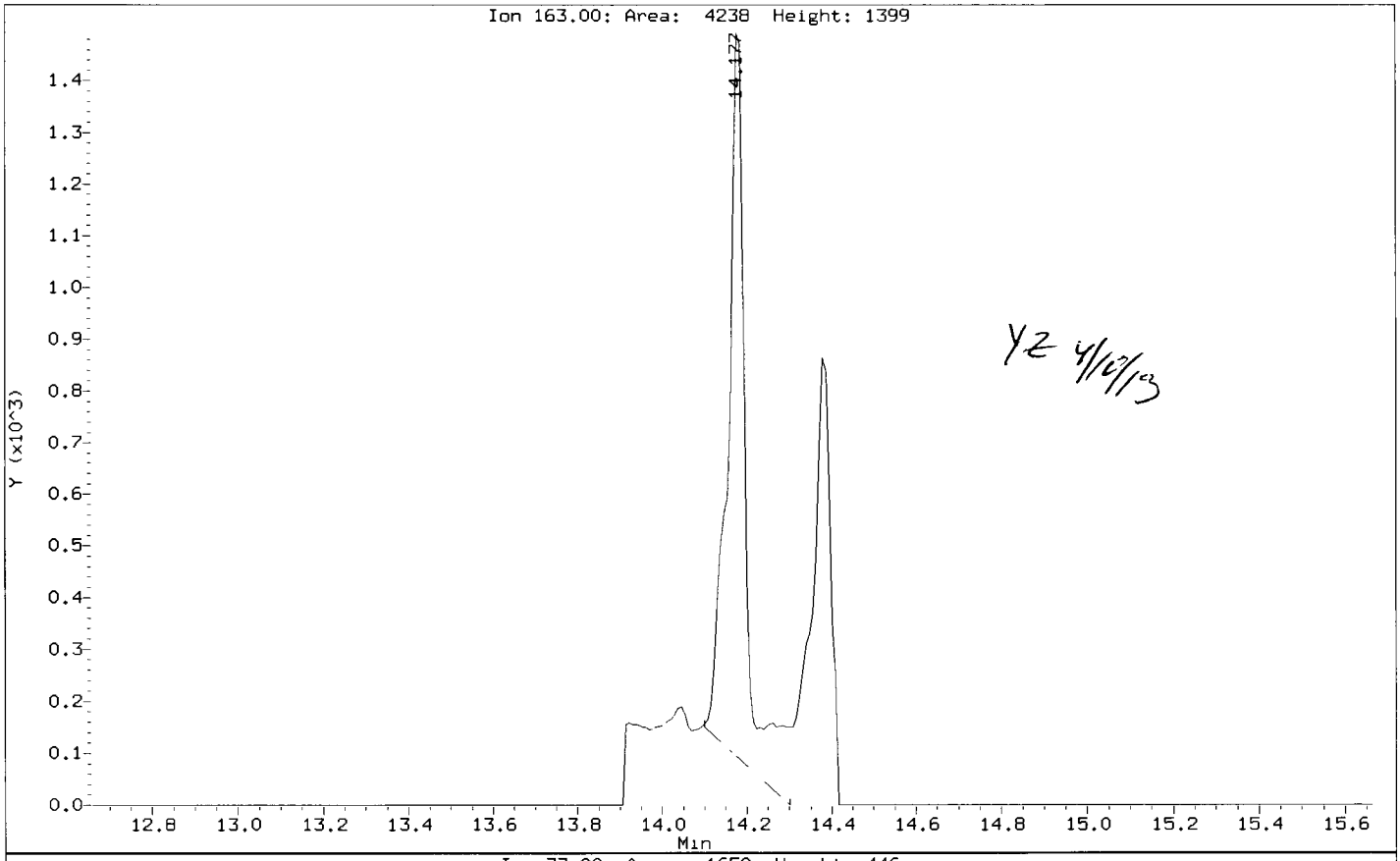
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

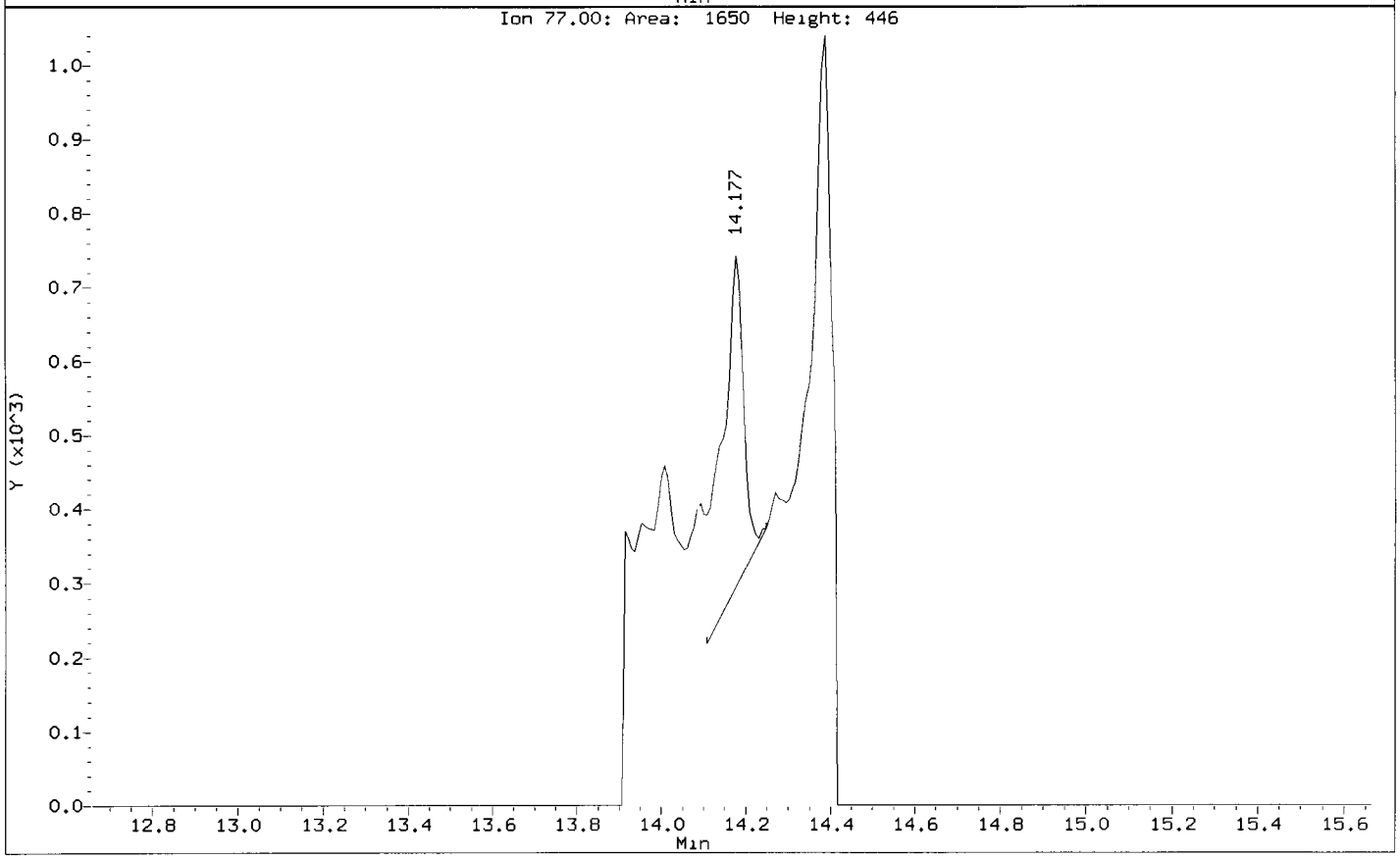
Analyst: VZ Date: 4/10/13

Data File: /chem1/nt10.1/20130406.b/SIM.b/wj10c.d
Injection Date: 06-APR-2013 18:48
Instrument: nt10.1
Client Sample ID: SD-SP-01-20130326-S

Compound: Dimethylphthalate
CAS Number: 131-11-3



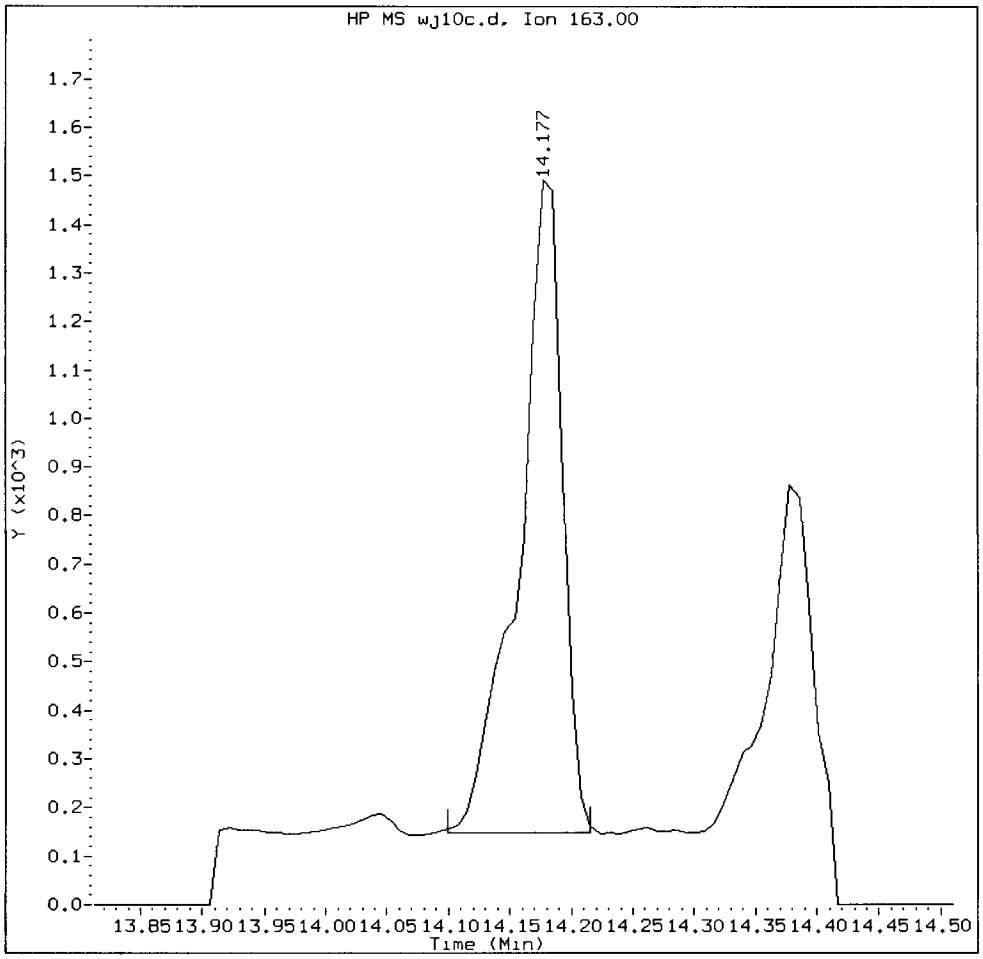
YZ 4/17/13



WJ10-01462

WJ10C, /chem1/nt10.i/20130406.b/SIM.b/wj10c.d

Dimethylphthalate Amount: 0.10 Area: 3288



MANUAL INTEGRATION for Dimethylphthalate

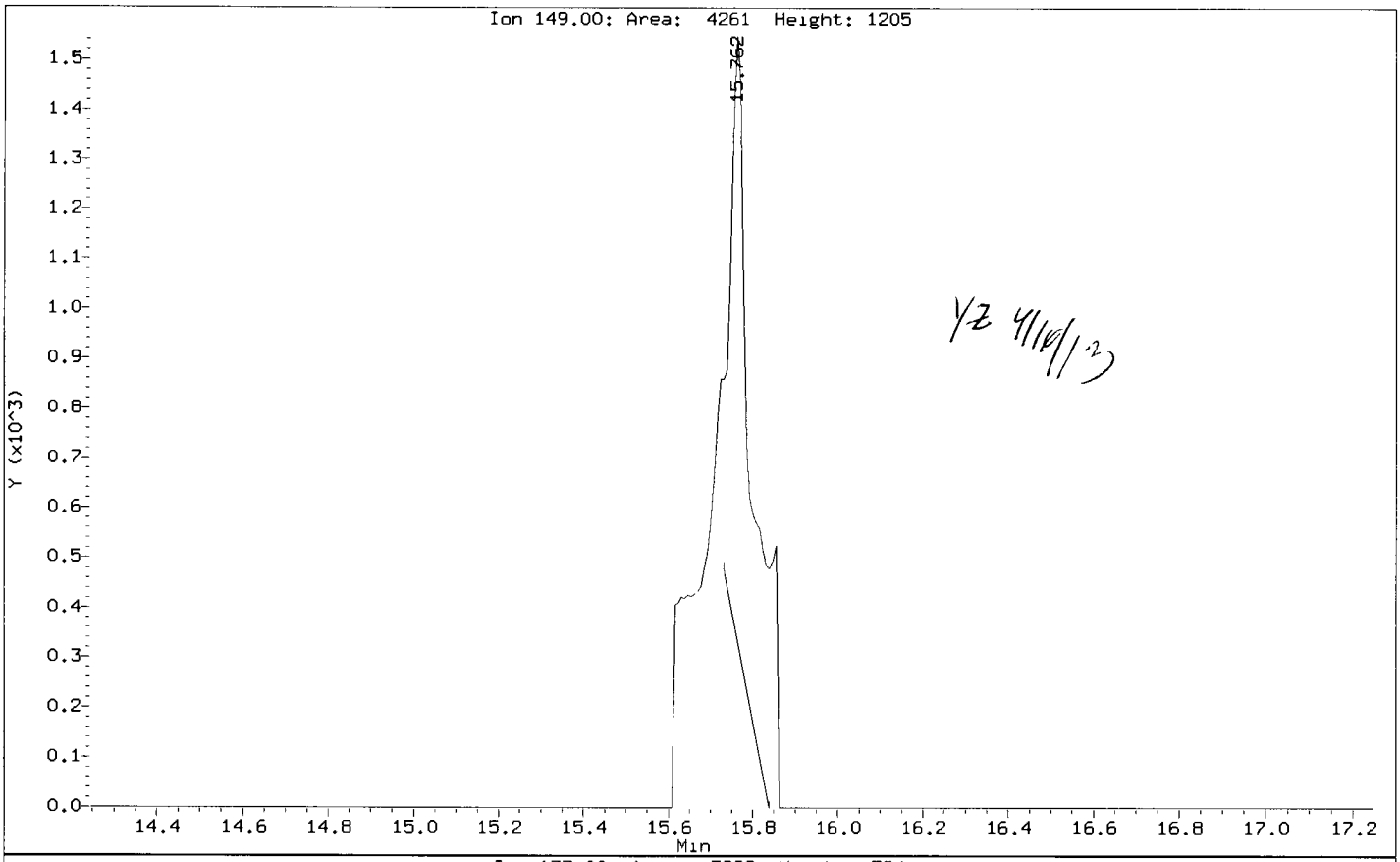
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

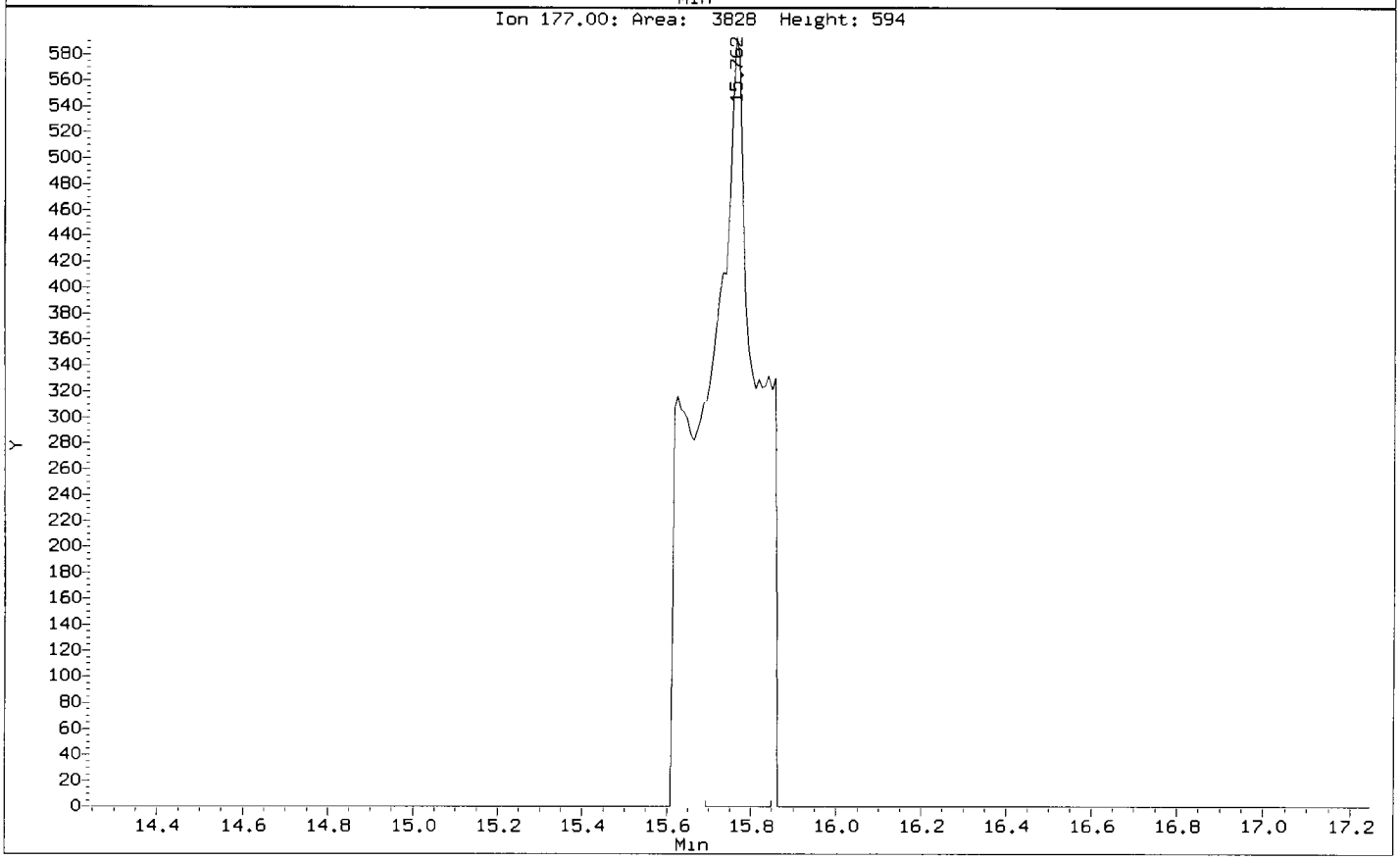
Analyst: YZ Date: 4/10/13

Data File: /chem1/nt10.1/20130406.b/SIM.b/wj10c.d
Injection Date: 06-APR-2013 18:48
Instrument: nt10.1
Client Sample ID: SD-SP-01-20130326-S

Compound: Diethylphthalate
CAS Number: 84-66-2



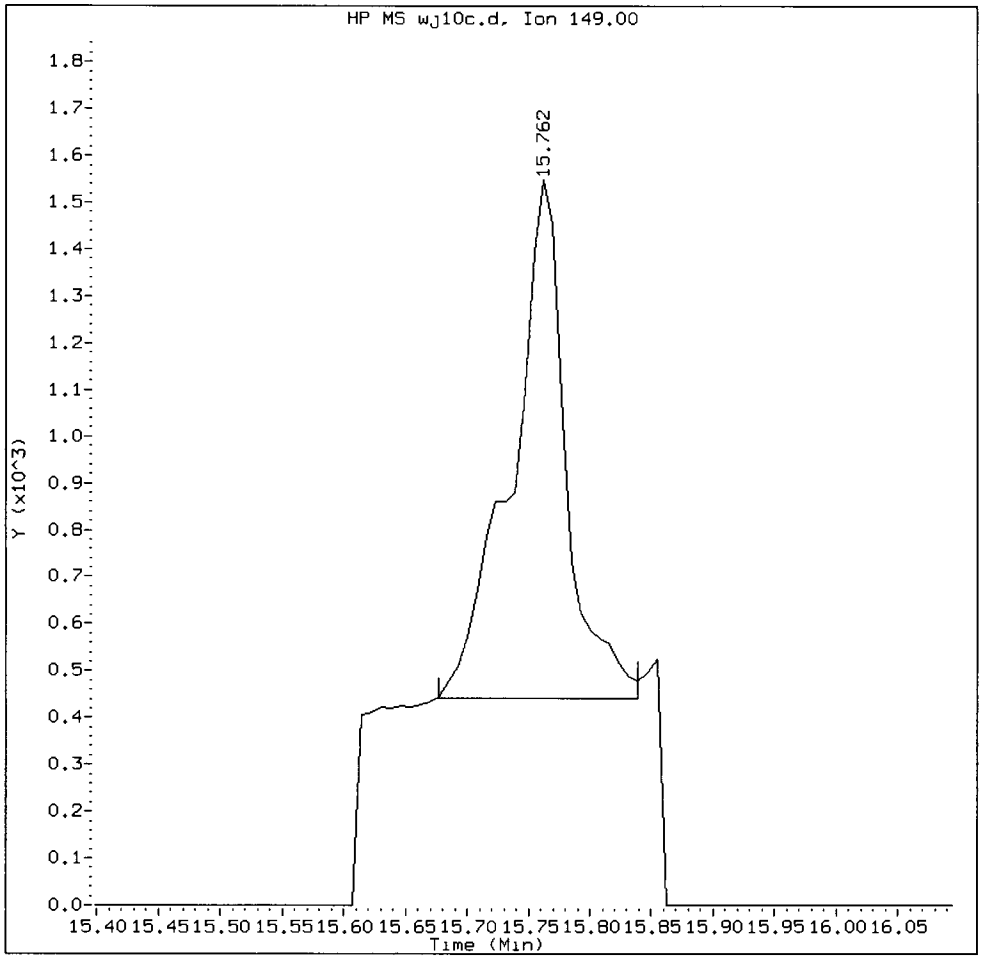
YZ 4/10/13



WJ10:01464

WJ10C, /chem1/nt10.i/20130406.b/SIM.b/wj10c.d

Diethylphthalate Amount: 0.09 Area: 3431



MANUAL INTEGRATION for Diethylphthalate

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 4/10/13

CO-ELUTION SUMMARY FOR FILE - wj10c.d

Lab ID: WJ10C, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 06-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 4/10/13

Data file : /chem1/nt10.i/20130406.b/SIM.b/wj10d.d
Lab Smp Id: WJ10D Client Smp ID: SD-CB-01-20130326-S
Inj Date : 06-APR-2013 19:25
Operator : YZ Inst ID: nt10.i
Smp Info : WJ10D,3
Misc Info : 13-6438
Comment :
Method : /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Meth Date : 10-Apr-2013 11:27 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:53 Cal File: ic0125i.d
Als bottle: 11
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	2000.00000	Volume of final extract (uL)
Ws	15.04000	Weight of sample extracted (g)
M	44.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.842	5.803	(0.721)	11011	0.75069	535.7
	3 Phenol	94	7.604	7.565	(0.939)	62177	3.33777	2382
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.099	8.091	(1.000)	46103	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	79	8.472	8.464	(1.046)	1040	0.09422	67.24(H)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	13 2-Methylphenol	108	8.604	8.735	(1.062)	10394	0.74153	529.2
	15 4-Methylphenol	108	9.069	9.030	(1.120)	148480	10.2290	7300
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	10.170	10.131	(0.946)	3451	0.21301	152.0
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.749	10.726	(1.000)	187940	4.00000	
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	39 Dimethylphthalate	163	14.192	14.161	(0.971)	4062	0.13577	96.89(MH)

- JB 4/10/13 NOT Reported

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)	
*	42 Acenaphthene-d10	162	14.618	14.594	(1.000)	98278	4.00000		
	50 Diethylphthalate	149	15.777	15.746	(1.079)	1234	0.03530	25.19	(M)
	54 N-Nitrosodiphenylamine	169	16.102	16.109	(0.903)	2662	0.16034	114.4	(M)
	57 Hexachlorobenzene	284	Compound Not Detected.						
	58 Pentachlorophenol	266	Compound Not Detected.						
*	59 Phenanthrene-d10	188	17.886	17.839	(1.000)	142816	4.00000		(H)
$	66 Terphenyl-d14	244	21.244	21.205	(0.919)	15363	0.62832	448.4	
	67 Butylbenzylphthalate	149	22.250	22.204	(0.962)	50084	2.84748	2032	
*	69 Chrysene-d12	240	23.125	23.063	(1.000)	184018	4.00000		
*	77 Perylene-d12	264	25.440	25.378	(1.000)	179404	4.00000		
	79 Dibenzo(a,h)anthracene	278	27.355	27.269	(1.075)	68251	1.59612	1139	
	90 N-Nitrosodimethylamine	74	Compound Not Detected.						

- JBL per WJ Result 8/8 4/10/13

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10d.d
Lab Smp Id: WJ10D
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Calibration Date: 06-APR-2013
Calibration Time: 15:09
Client Smp ID: SD-CB-01-2013032
Level: LOW
Sample Type: Solids
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	46103	-14.39
27 Naphthalene-d8	200104	100052	400208	187940	-6.08
42 Acenaphthene-d10	112392	56196	224784	98278	-12.56
59 Phenanthrene-d10	210710	105355	421420	142816	-32.22
69 Chrysene-d12	240805	120402	481610	184018	-23.58
77 Perylene-d12	230834	115417	461668	179404	-22.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.10	0.10
27 Naphthalene-d8	10.73	10.23	11.23	10.75	0.22
42 Acenaphthene-d10	14.59	14.09	15.09	14.62	0.16
59 Phenanthrene-d10	17.84	17.34	18.34	17.89	0.26
69 Chrysene-d12	23.06	22.56	23.56	23.13	0.27
77 Perylene-d12	25.38	24.88	25.88	25.44	0.25

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

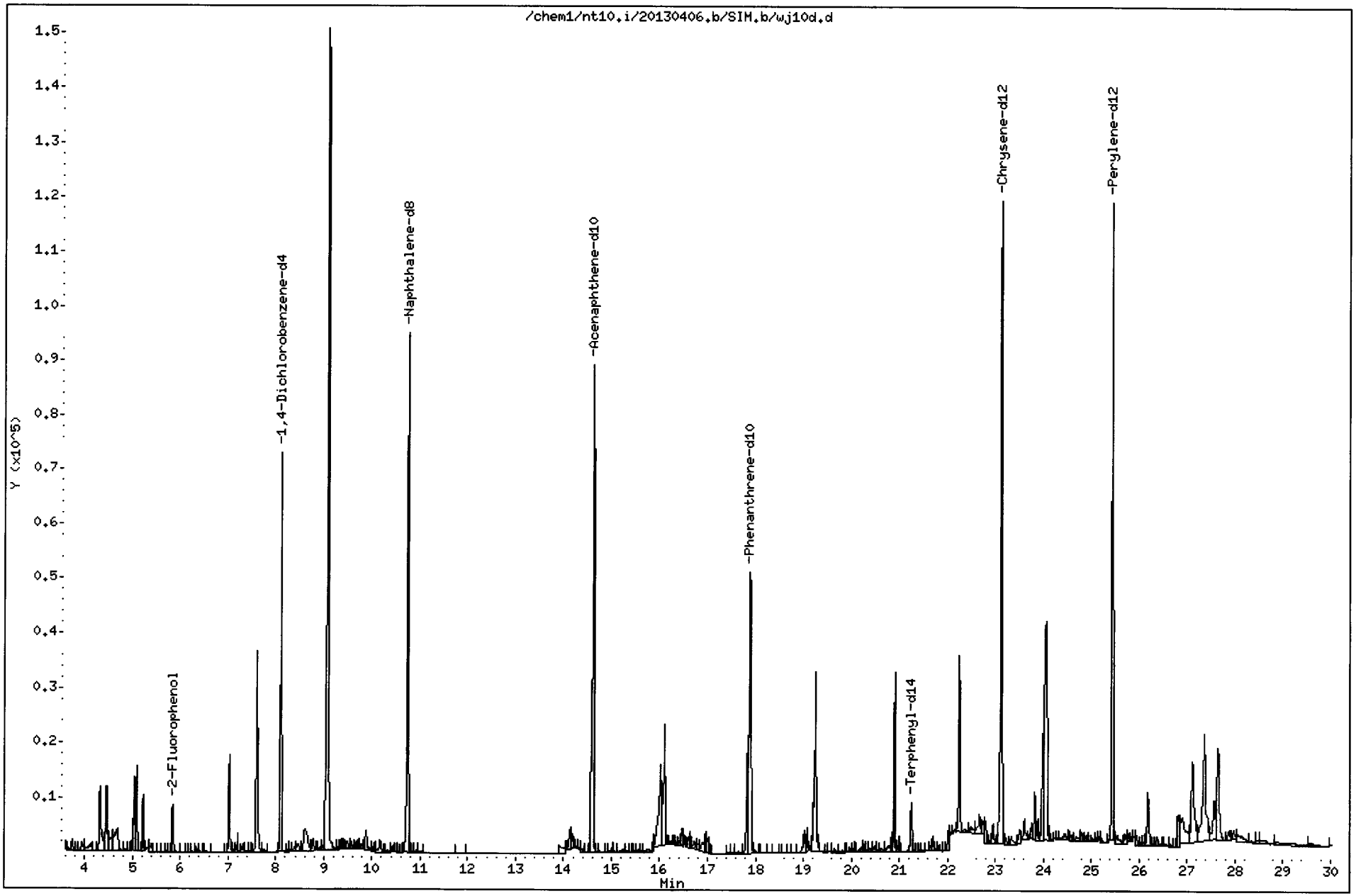
RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10D
Client Smp ID: SD-CB-01-20130326-S
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	892.1	535.7	60.06	30-160
$ 66 Terphenyl-d14	594.7	448.4	75.40	30-160

Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d
Date : 06-APR-2013 19:25
Client ID: SD-CB-01-20130326-S
Sample Info: WJ10D,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10d.d
Lab Smp Id: WJ10D
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 15:09
Client Smp ID: SD-CB-01-2013032
Level: LOW
Sample Type: Solids

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	46103	-14.39
27 Naphthalene-d8	200104	100052	400208	187940	-6.08
42 Acenaphthene-d10	112392	56196	224784	98278	-12.56
59 Phenanthrene-d10	210710	105355	421420	142816	-32.22
69 Chrysene-d12	240805	120402	481610	184018	-23.58
77 Perylene-d12	230834	115417	461668	179404	-22.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.10	0.10
27 Naphthalene-d8	10.73	10.23	11.23	10.75	0.22
42 Acenaphthene-d10	14.59	14.09	15.09	14.62	0.16
59 Phenanthrene-d10	17.84	17.34	18.34	17.89	0.26
69 Chrysene-d12	23.06	22.56	23.56	23.13	0.27
77 Perylene-d12	25.38	24.88	25.88	25.44	0.25

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10D
Client Smp ID: SD-CB-01-20130326-S
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	892.1	535.7	60.06	30-160
$ 66 Terphenyl-d14	594.7	448.4	75.40	30-160

Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Sample Info: WJ10D,3

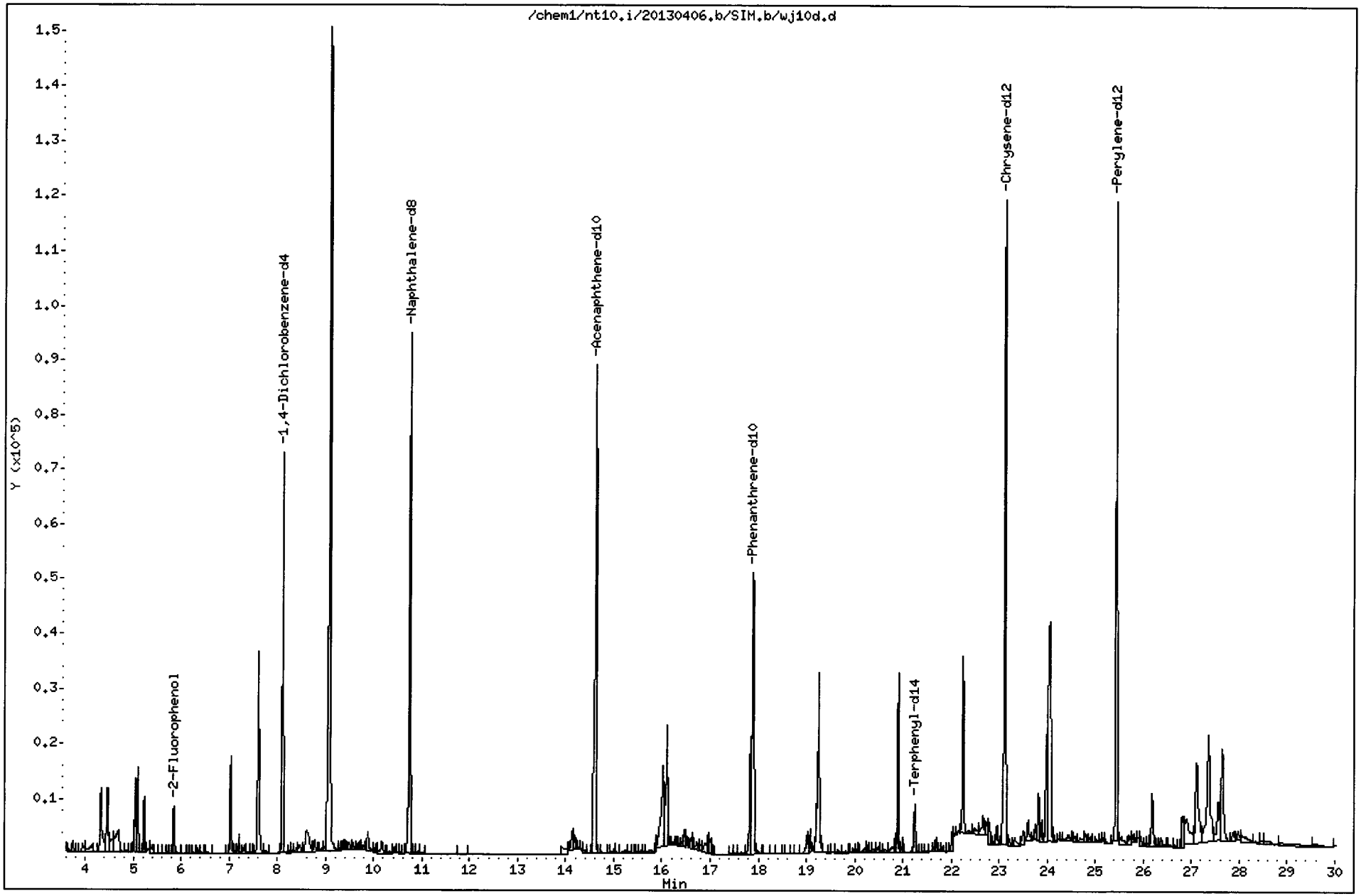
Volume Injected (uL): 1.0

Column phase: ZB-5msi

Instrument: nt10.i

Operator: YZ

Column diameter: 0.25



Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

Operator: YZ

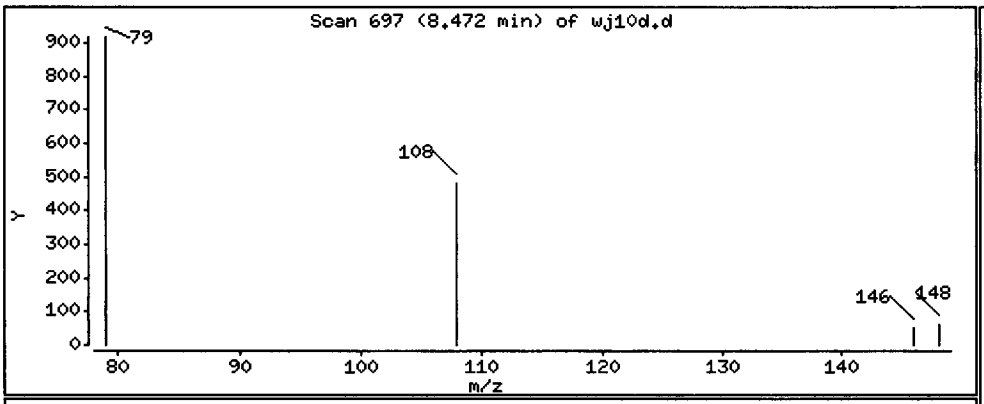
Column phase: ZB-5msi

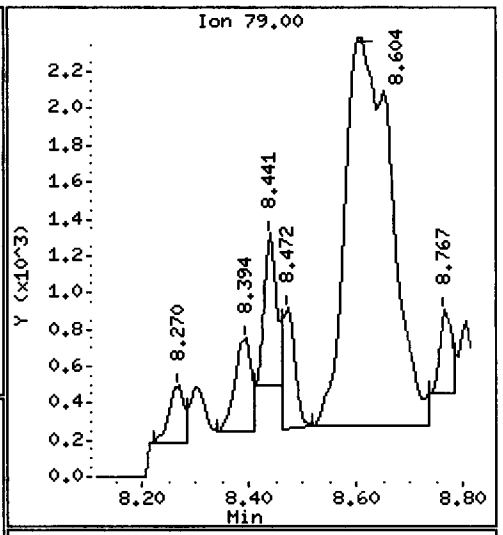
Column diameter: 0.25

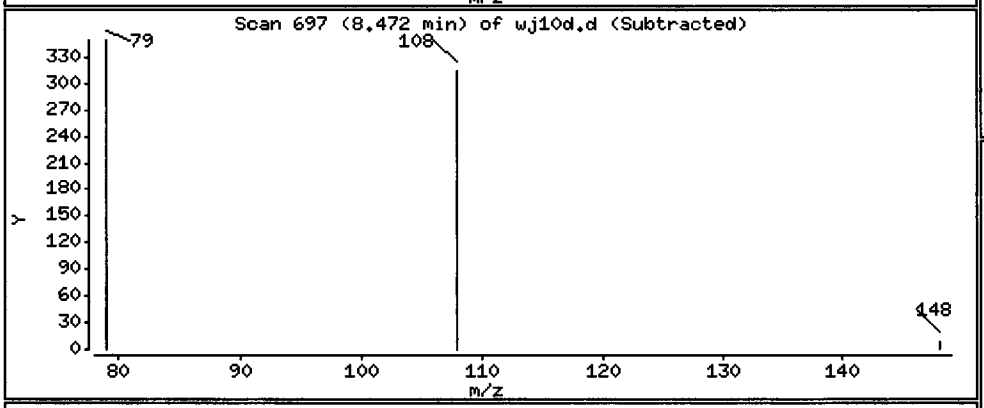
JB LR NVT reports BB 4/10/13

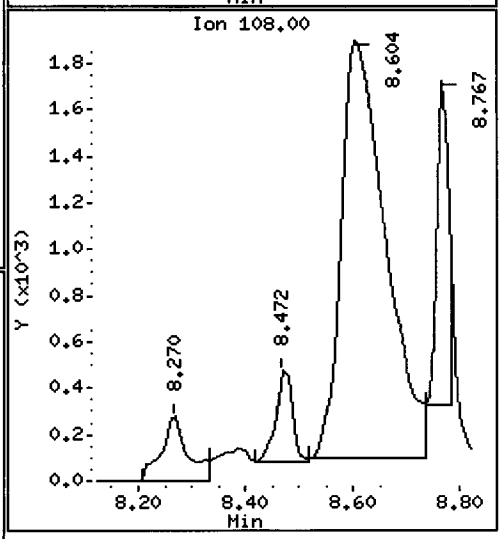
11 Benzyl alcohol

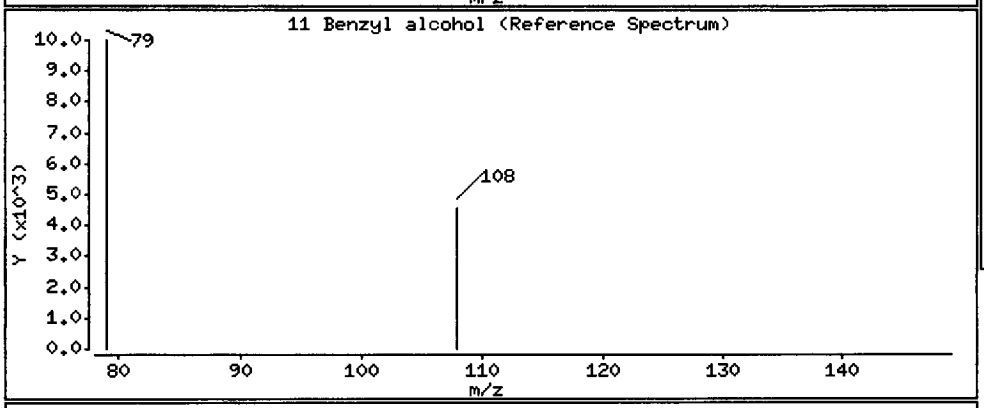
Concentration: 67.24 ug/kg

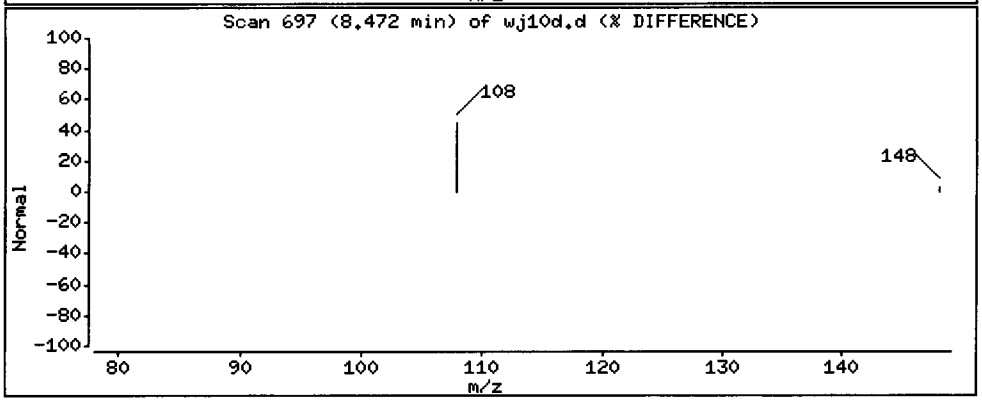












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

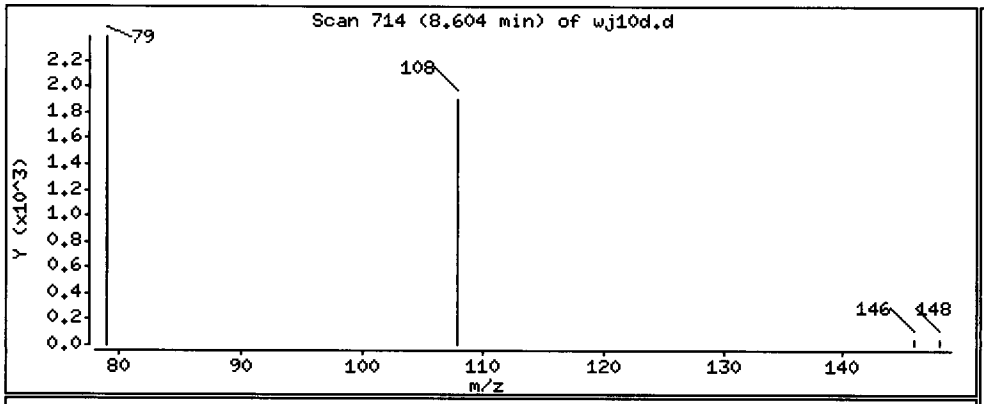
Operator: YZ

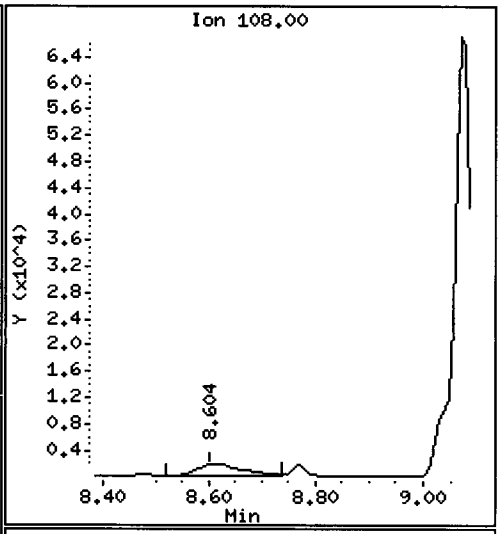
Column phase: ZB-5msi

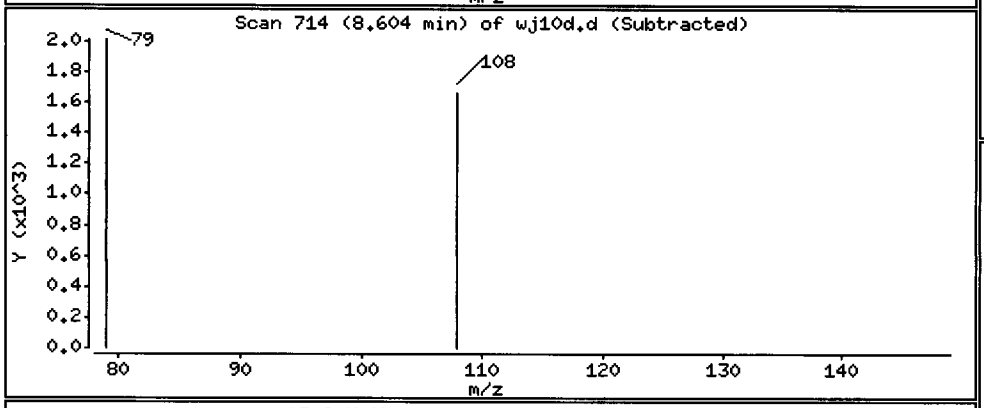
Column diameter: 0.25

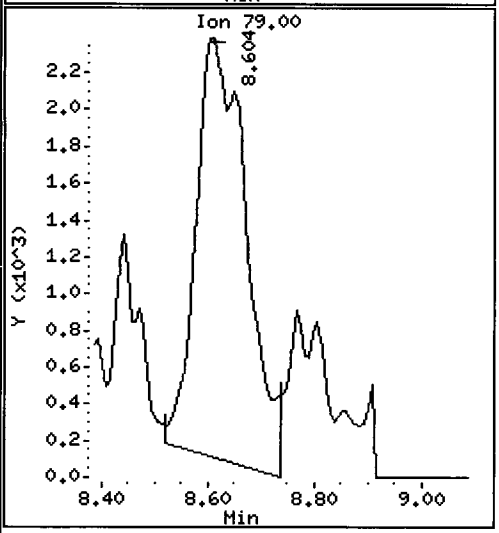
13 2-Methylphenol

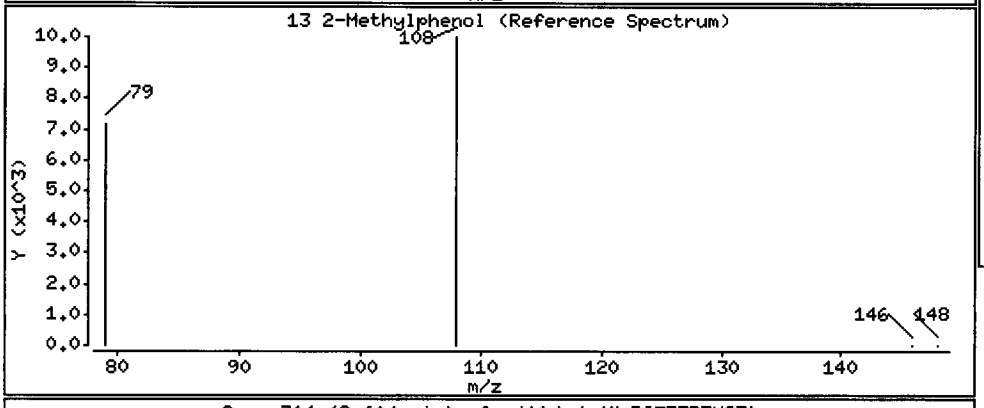
Concentration: 529.2 ug/kg

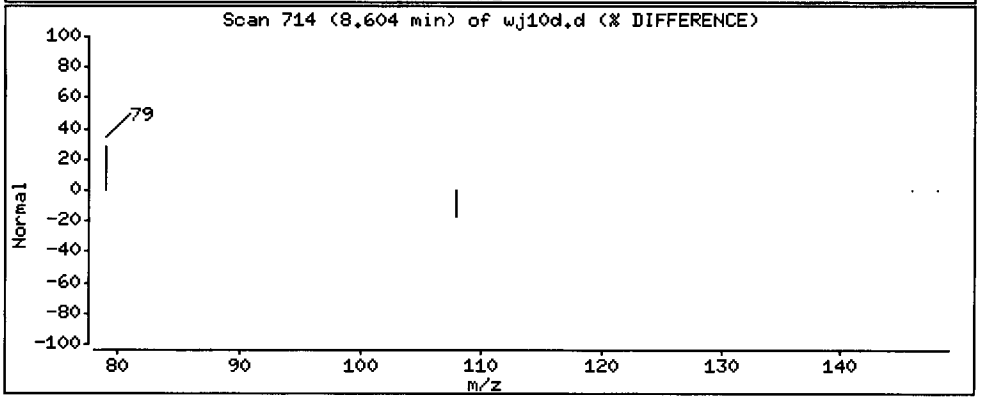












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

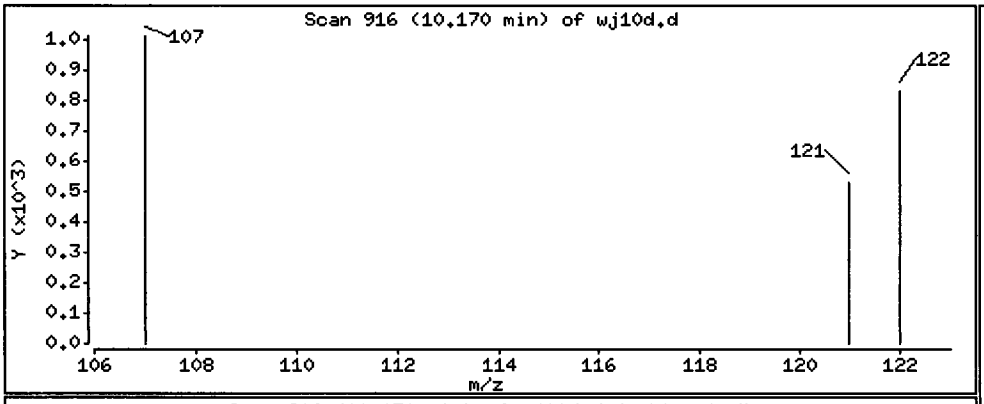
Operator: YZ

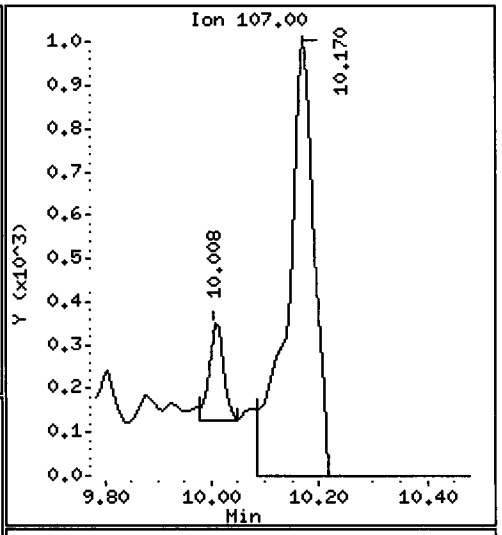
Column phase: ZB-5msi

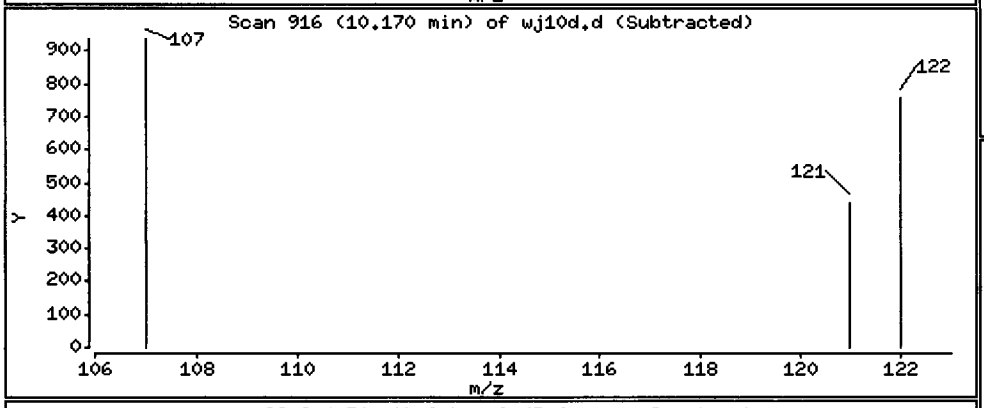
Column diameter: 0.25

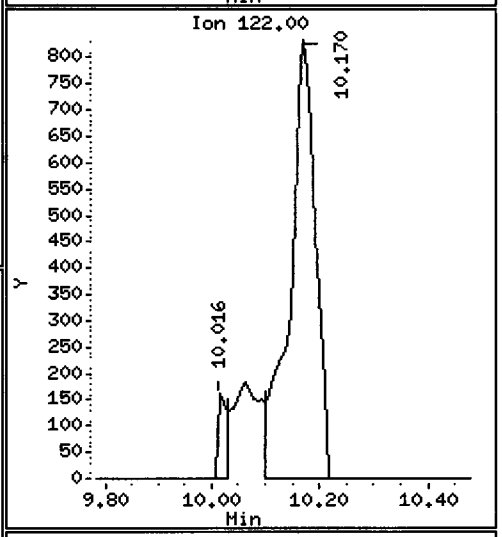
22 2,4-Dimethylphenol

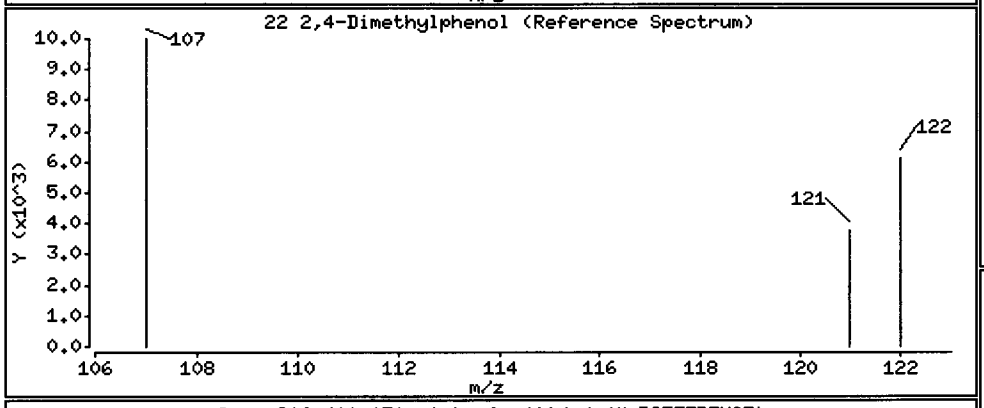
Concentration: 152.0 ug/kg

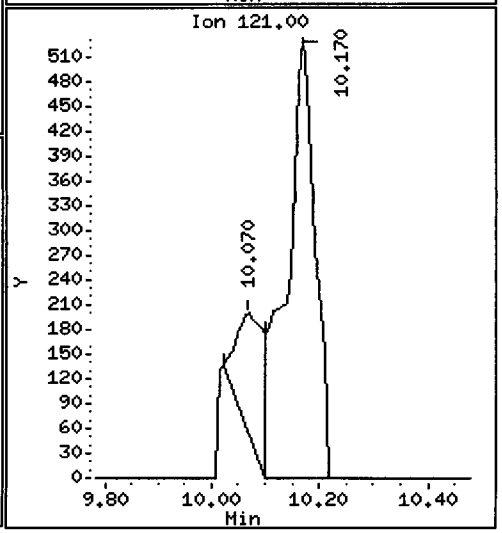


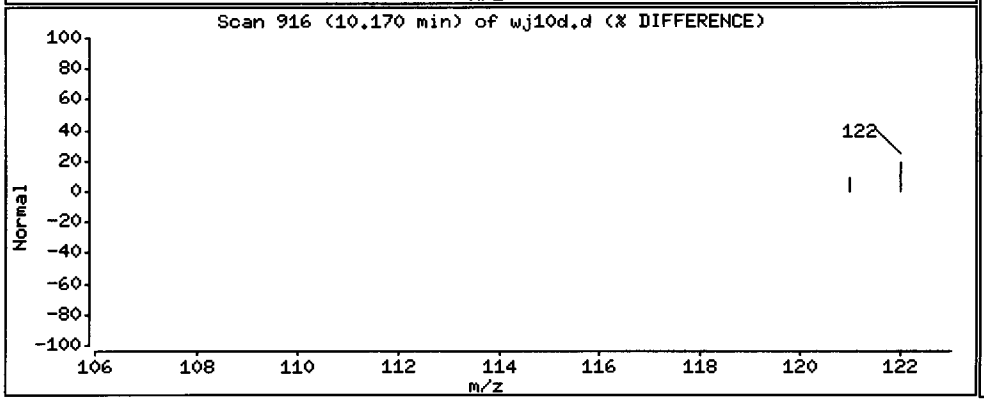












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

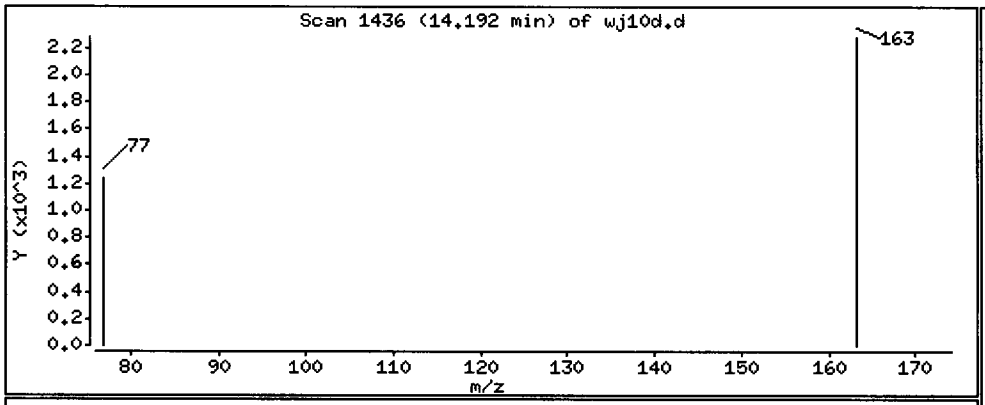
Operator: YZ

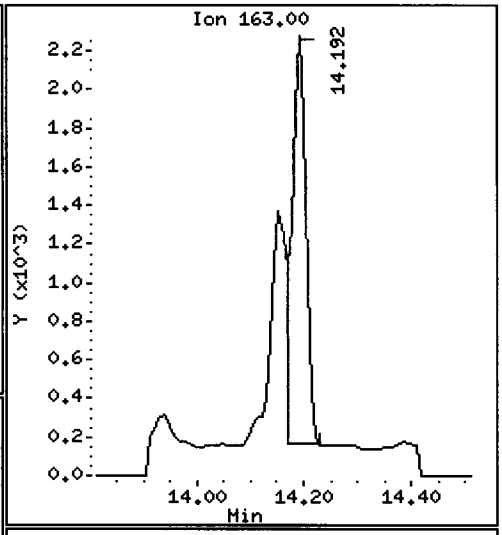
Column phase: ZB-5msi

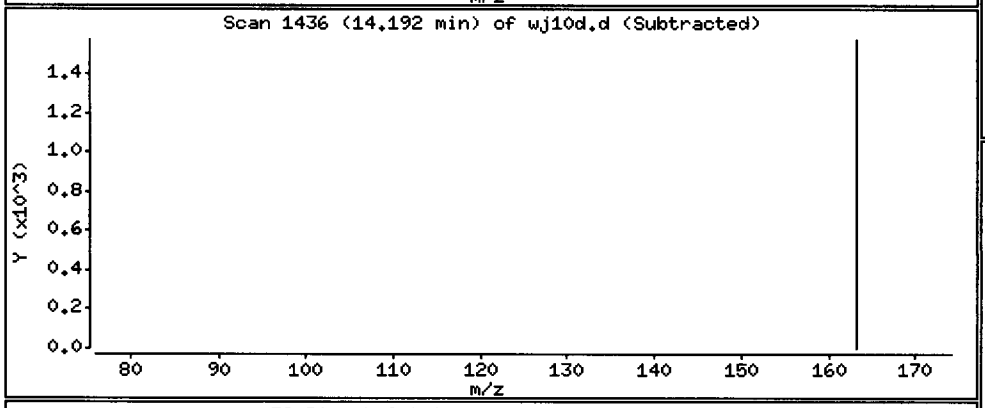
Column diameter: 0.25

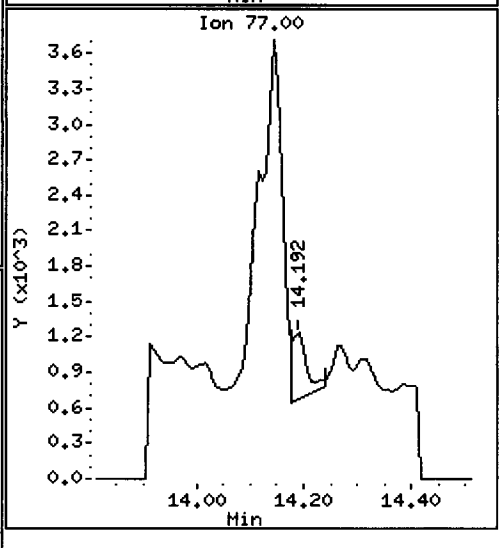
39 Dimethylphthalate

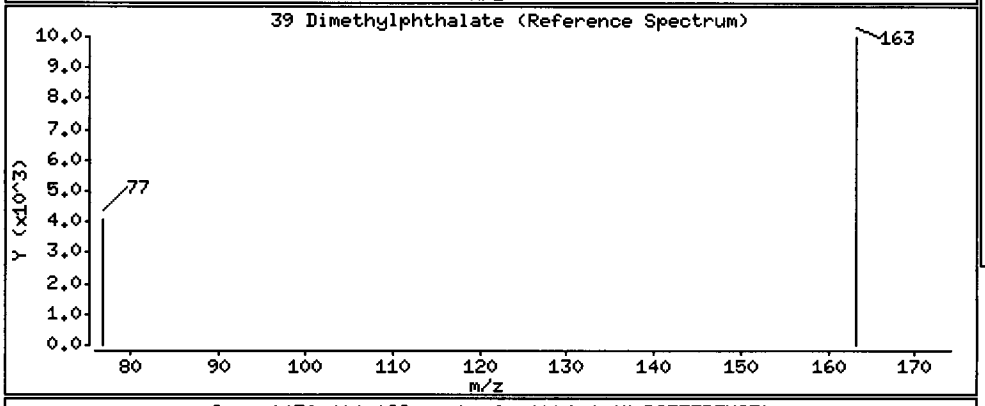
Concentration: 96.89 ug/kg

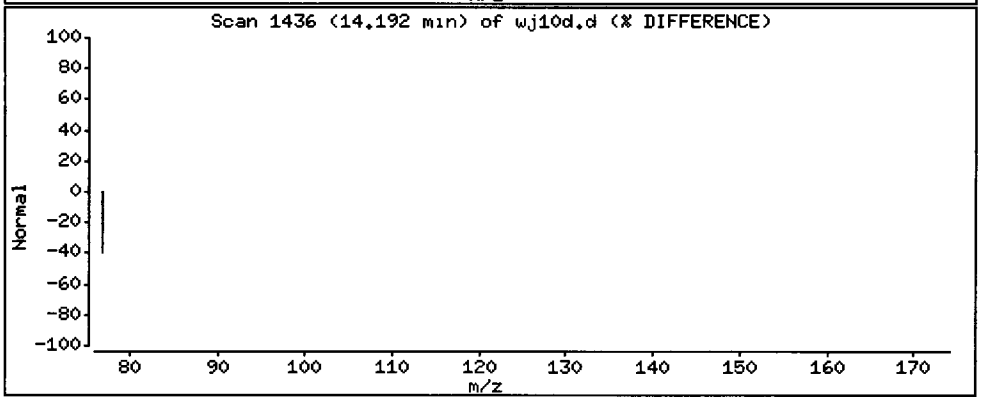












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

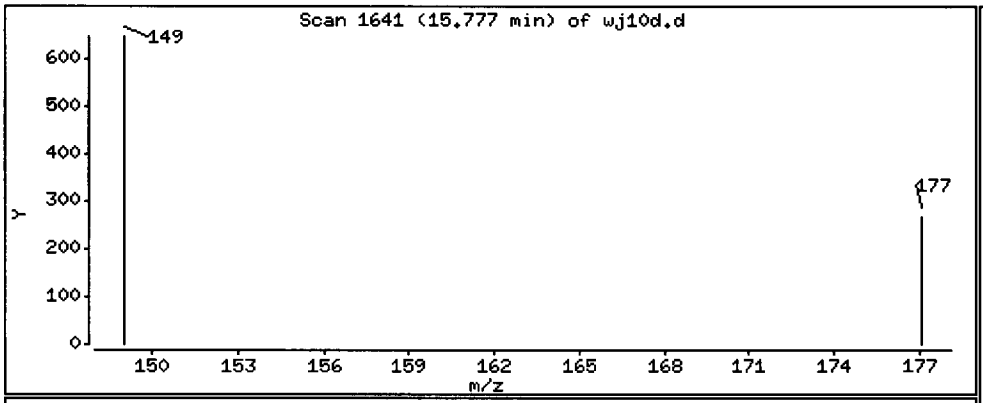
Operator: YZ

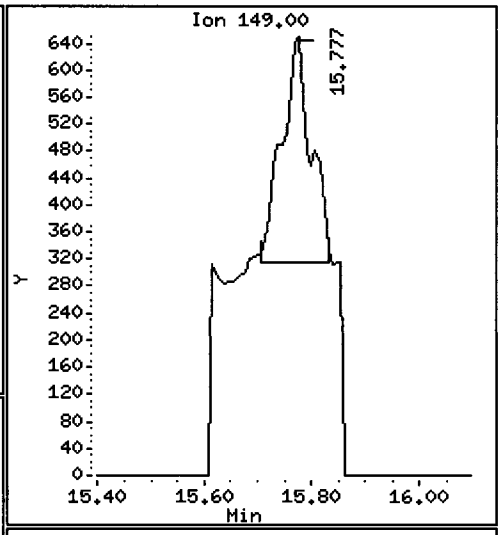
Column phase: ZB-5msi

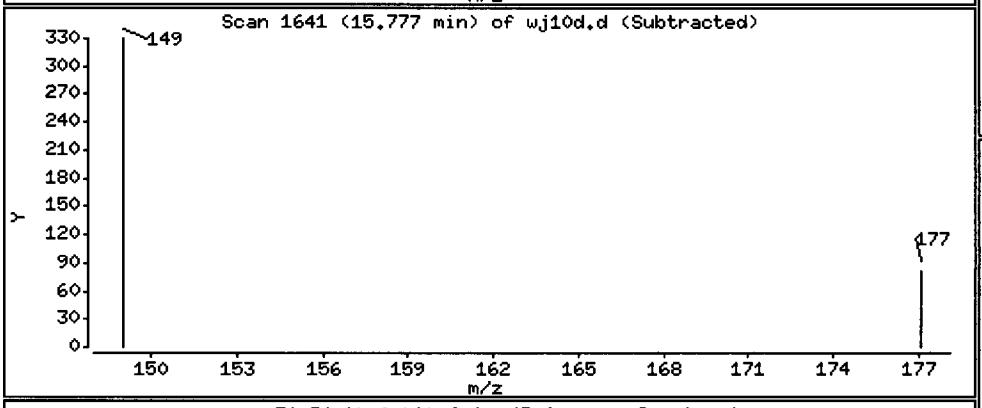
Column diameter: 0.25

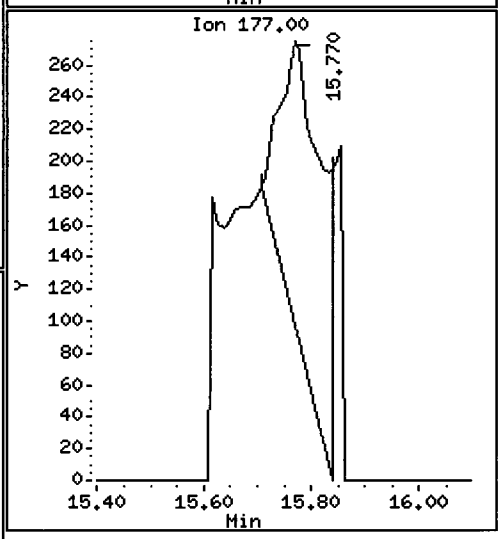
50 Diethylphthalate

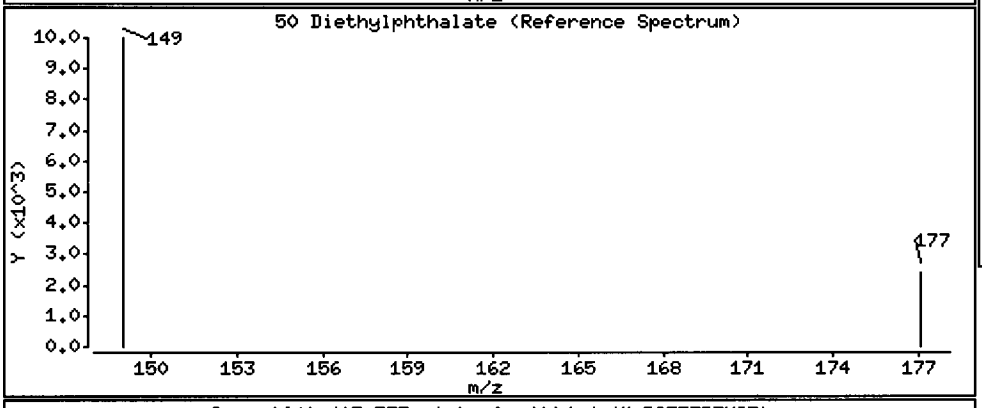
Concentration: 25.19 ug/kg

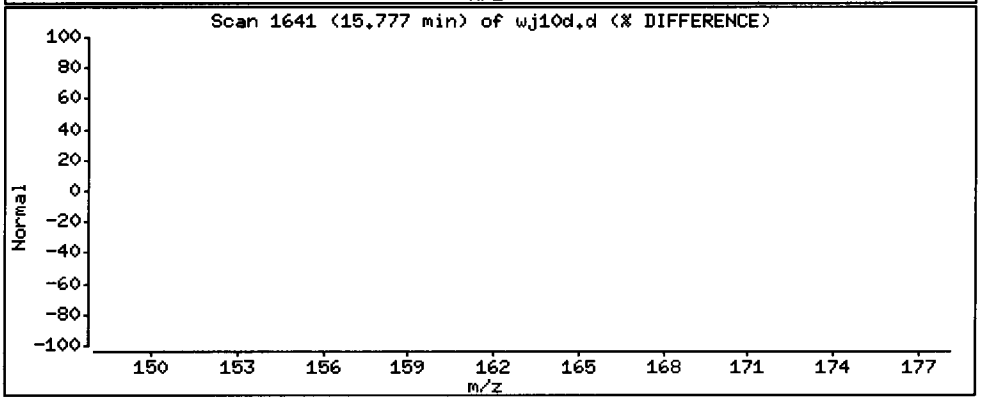












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

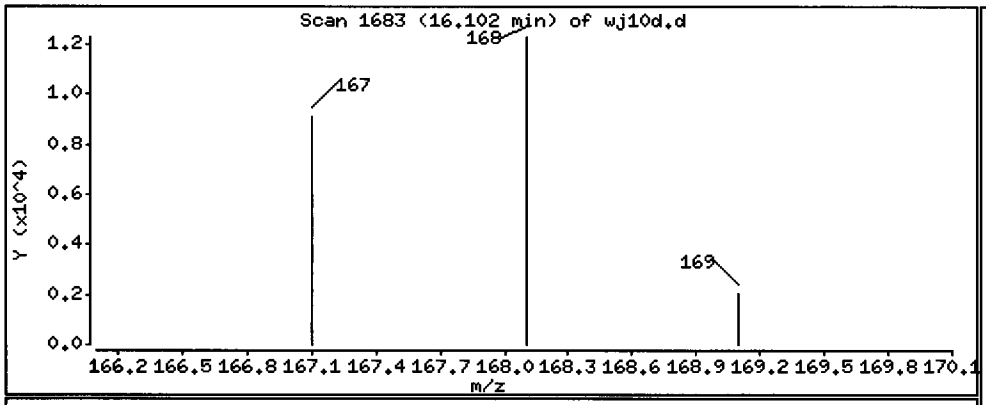
Operator: YZ

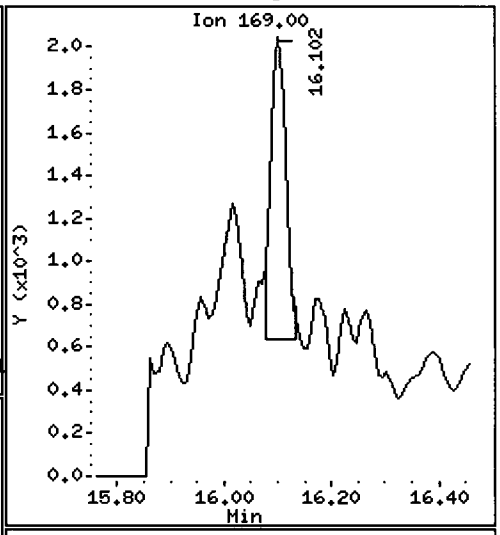
Column phase: ZB-5msi

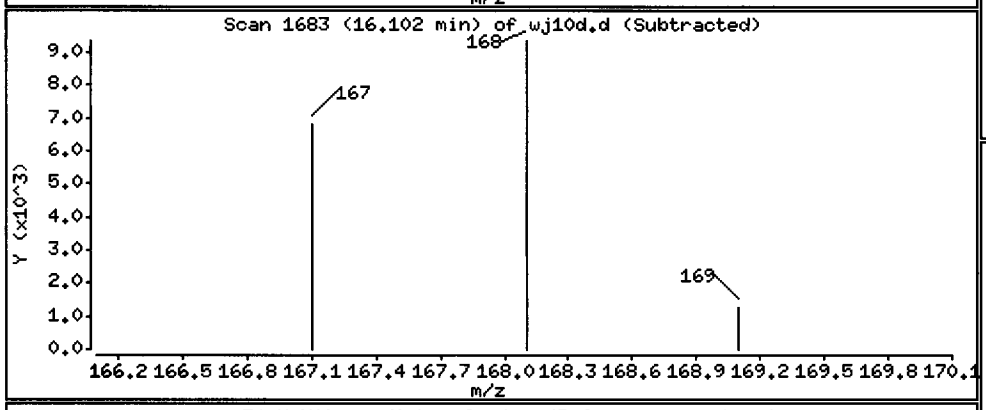
Column diameter: 0.25

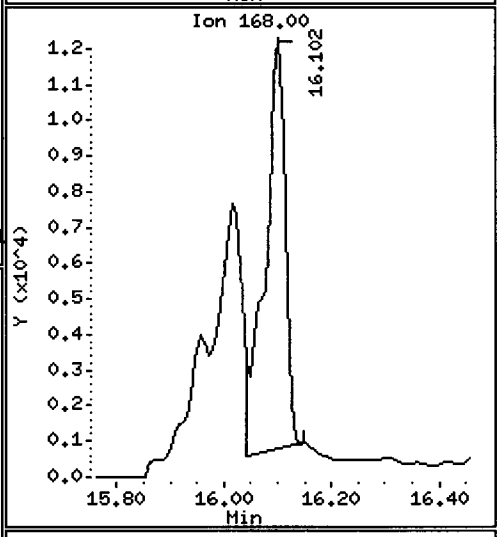
54 N-Nitrosodiphenylamine

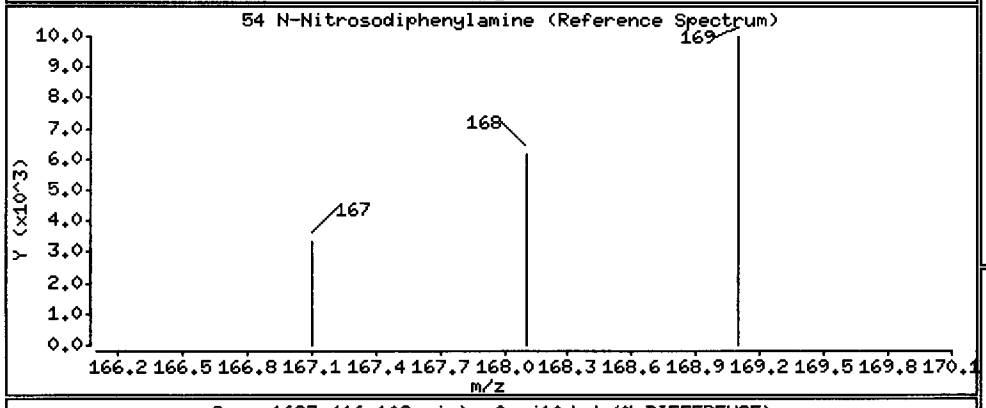
Concentration: 114.4 ug/kg

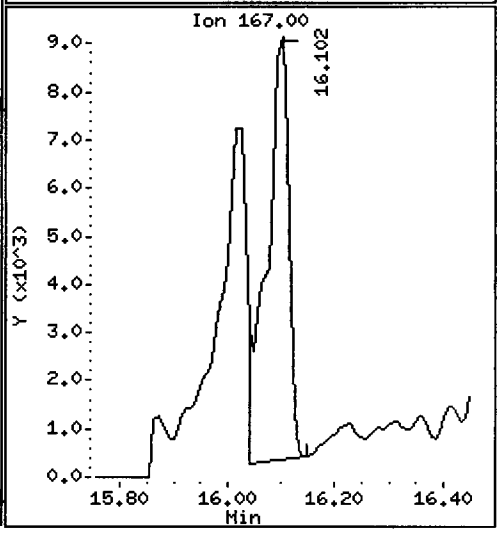


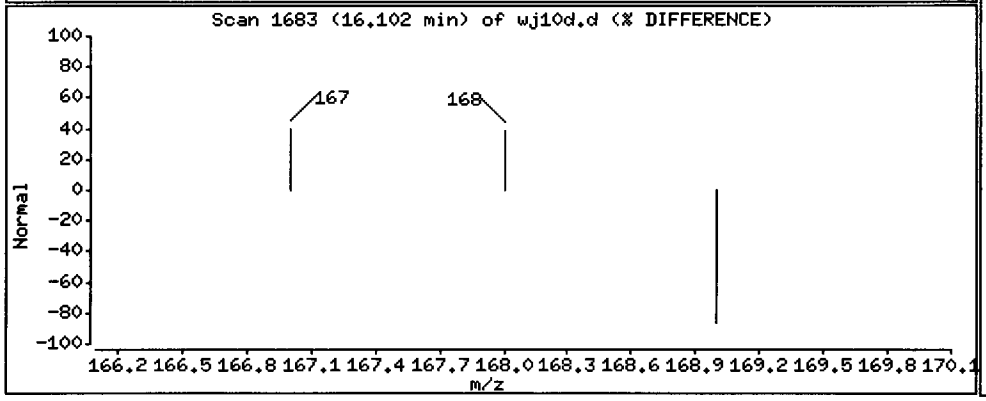












WJ10:01480

Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

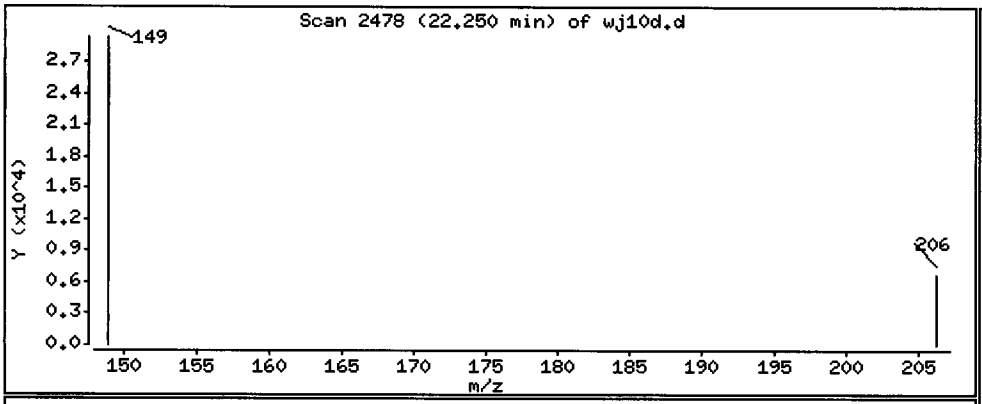
Operator: YZ

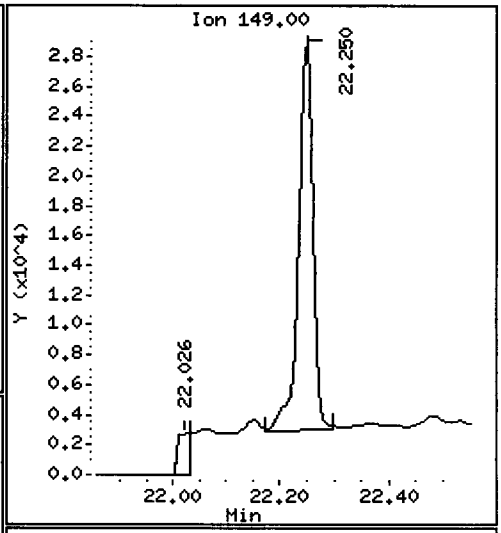
Column phase: ZB-5msi

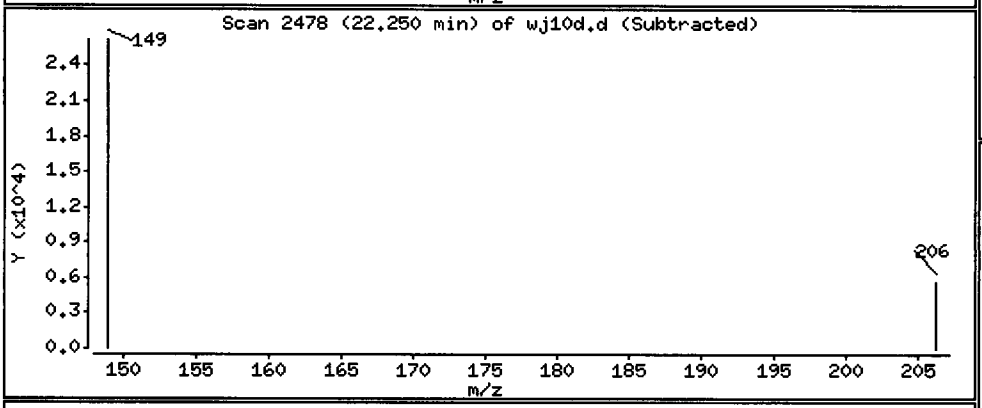
Column diameter: 0.25

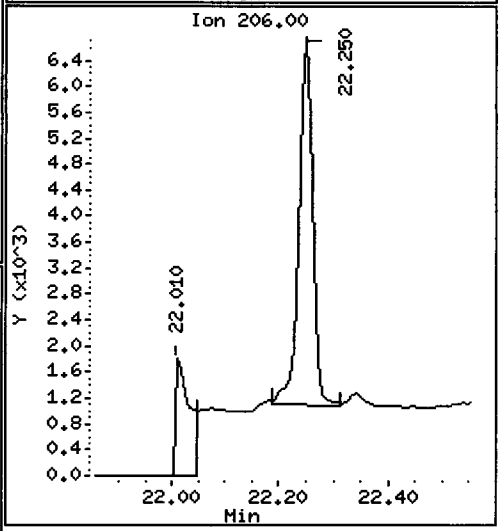
67 Butylbenzylphthalate

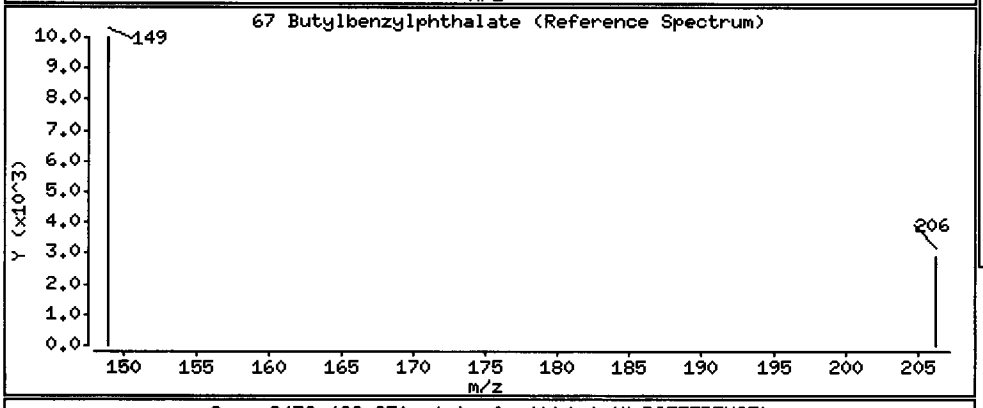
Concentration: 2032 ug/kg

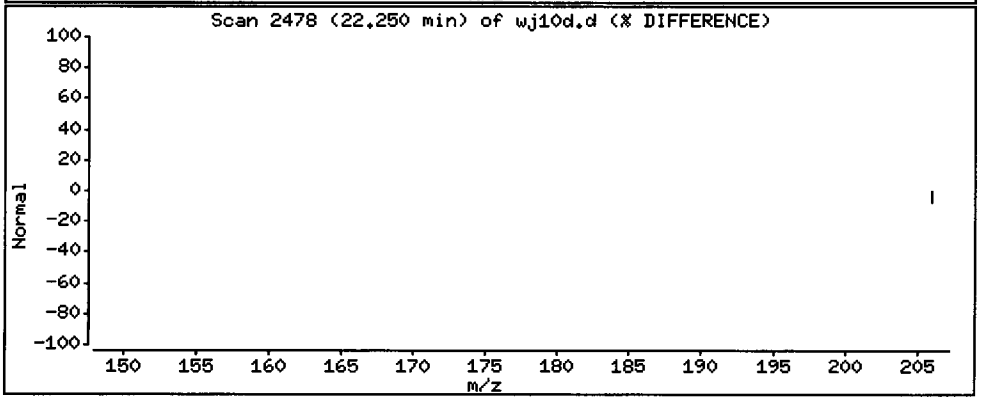












Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Date : 06-APR-2013 19:25

Client ID: SD-CB-01-20130326-S

Instrument: nt10.i

Sample Info: WJ10D,3

Volume Injected (uL): 1.0

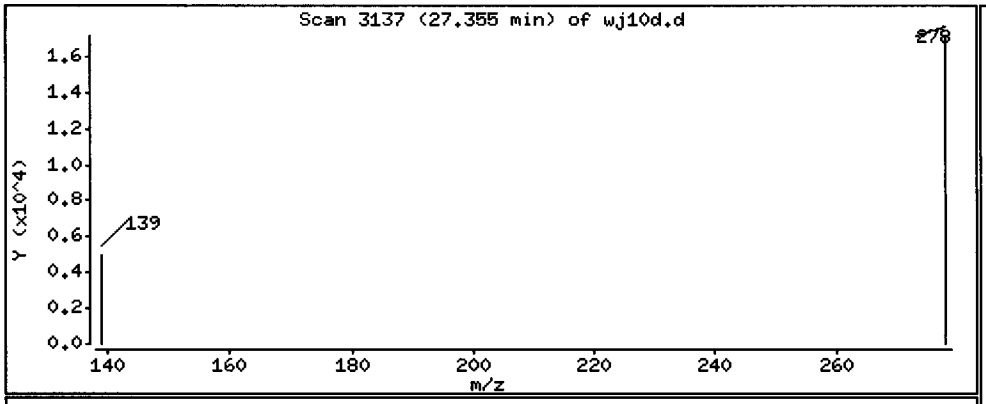
Operator: YZ

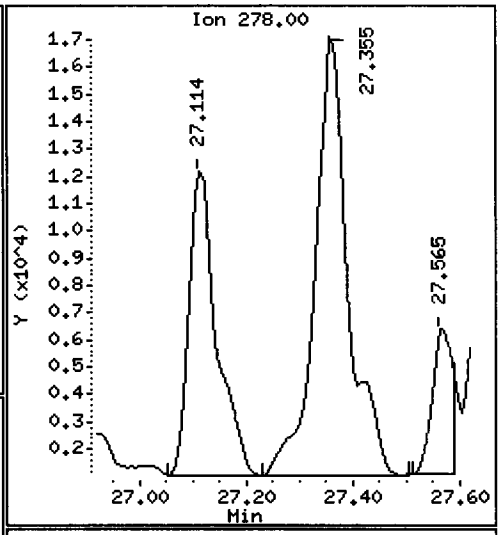
Column phase: ZB-5msi

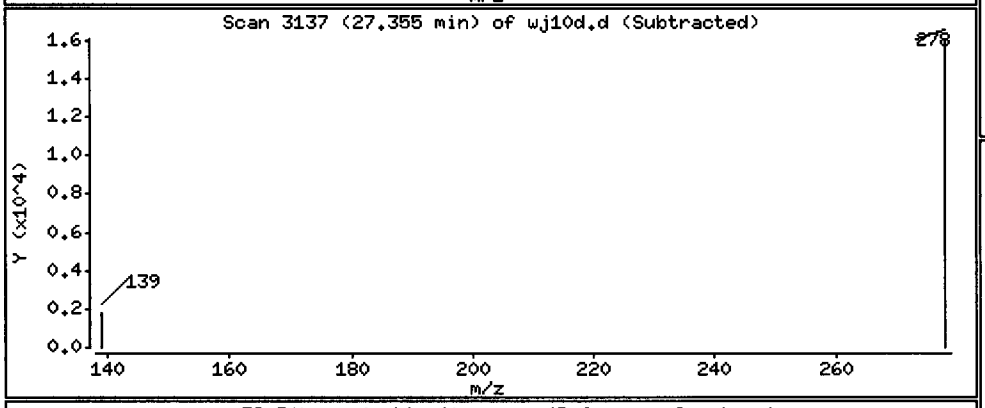
Column diameter: 0.25

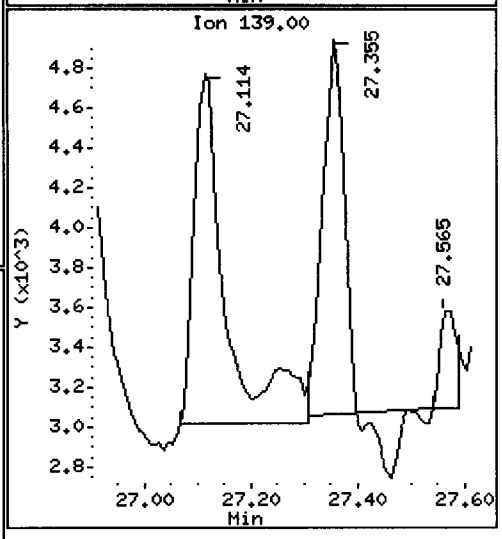
79 Dibenzo(a,h)anthracene

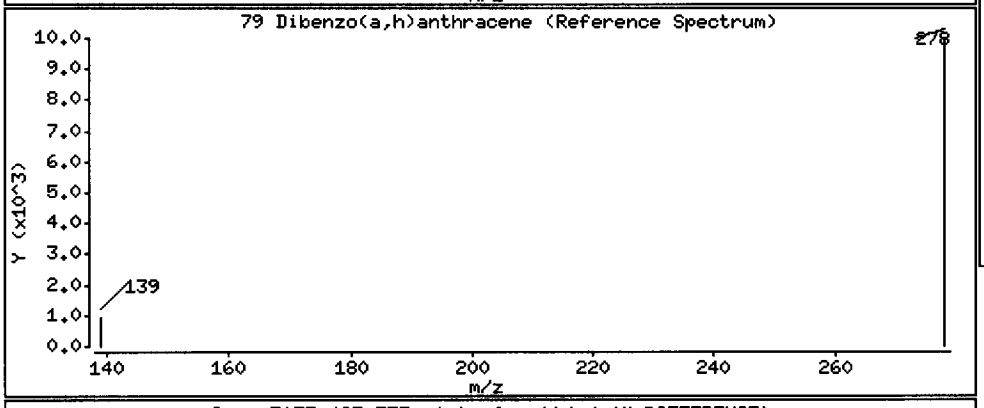
Concentration: 1139 ug/kg

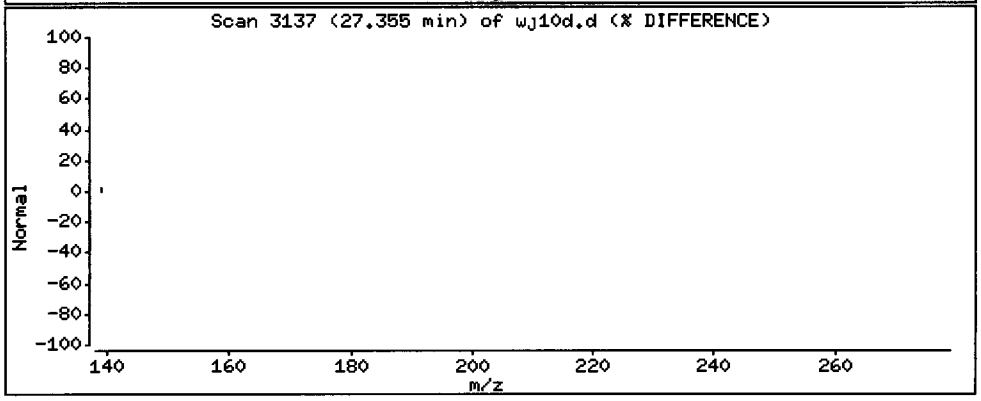






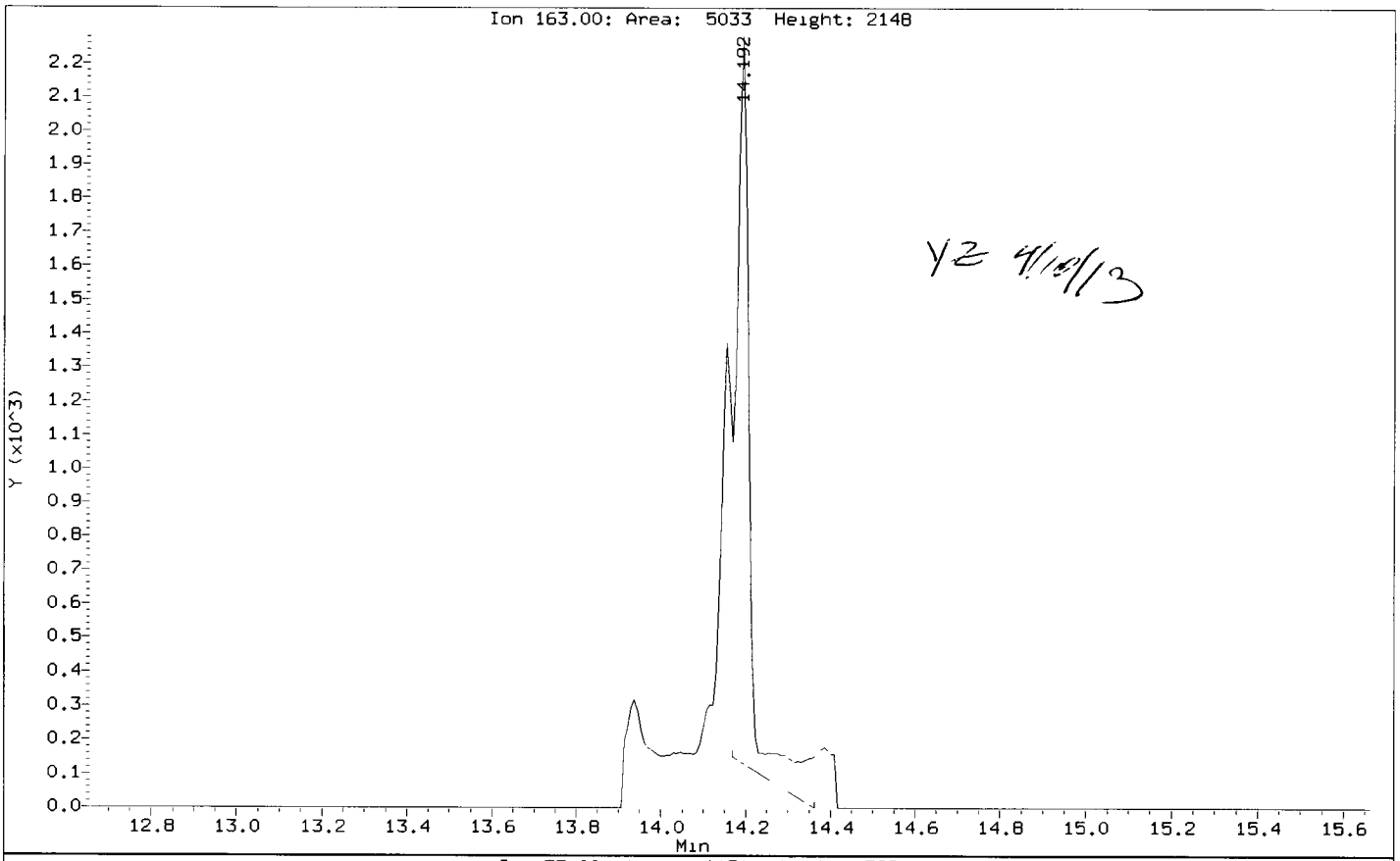




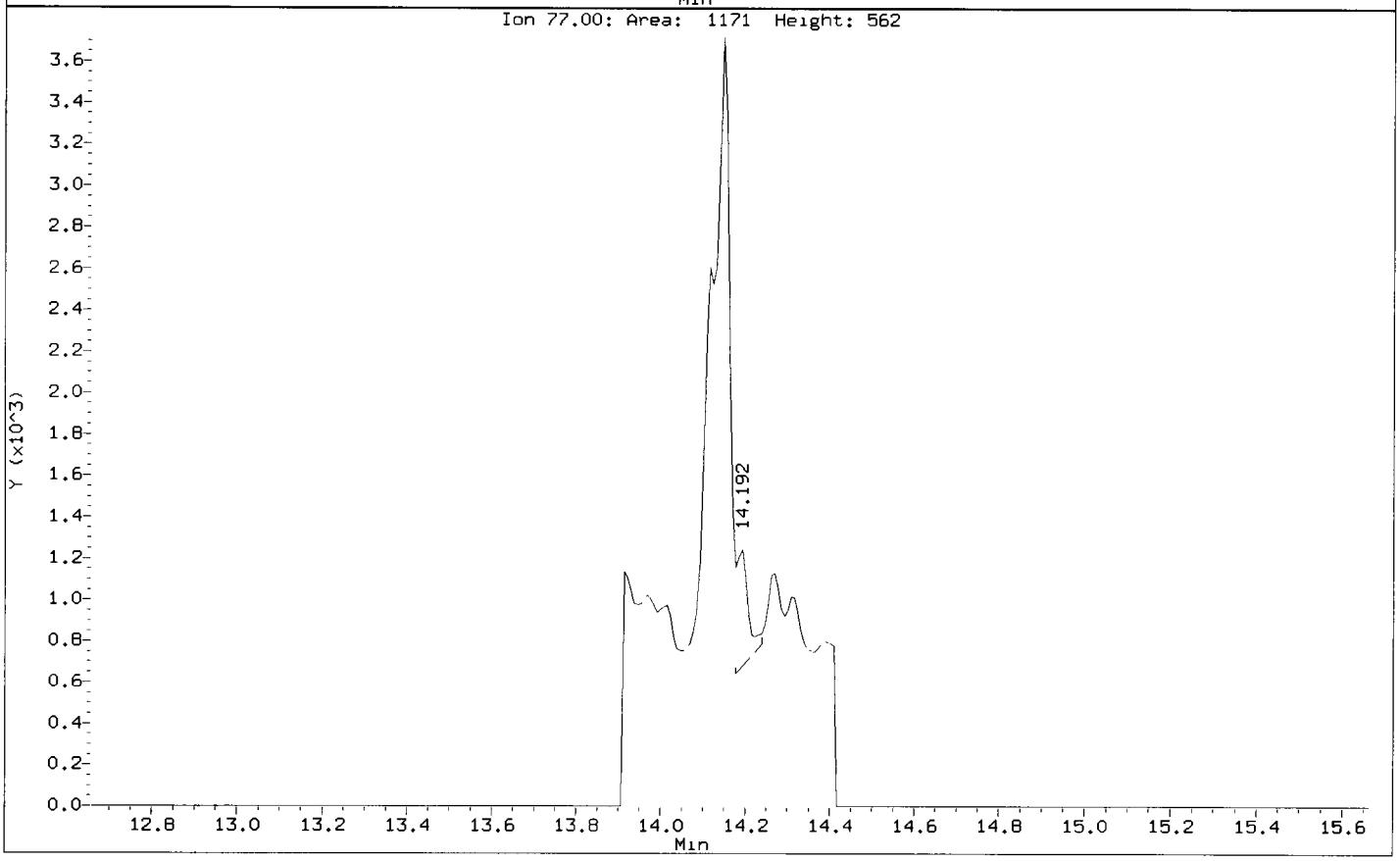


Data File: /chem1/nt10.1/20130406.b/SIM.b/wj10d.d
Injection Date: 06-APR-2013 19:25
Instrument: nt10.1
Client Sample ID: SD-CB-01-20130326-S

Compound: Dimethylphthalate
CAS Number: 131-11-3

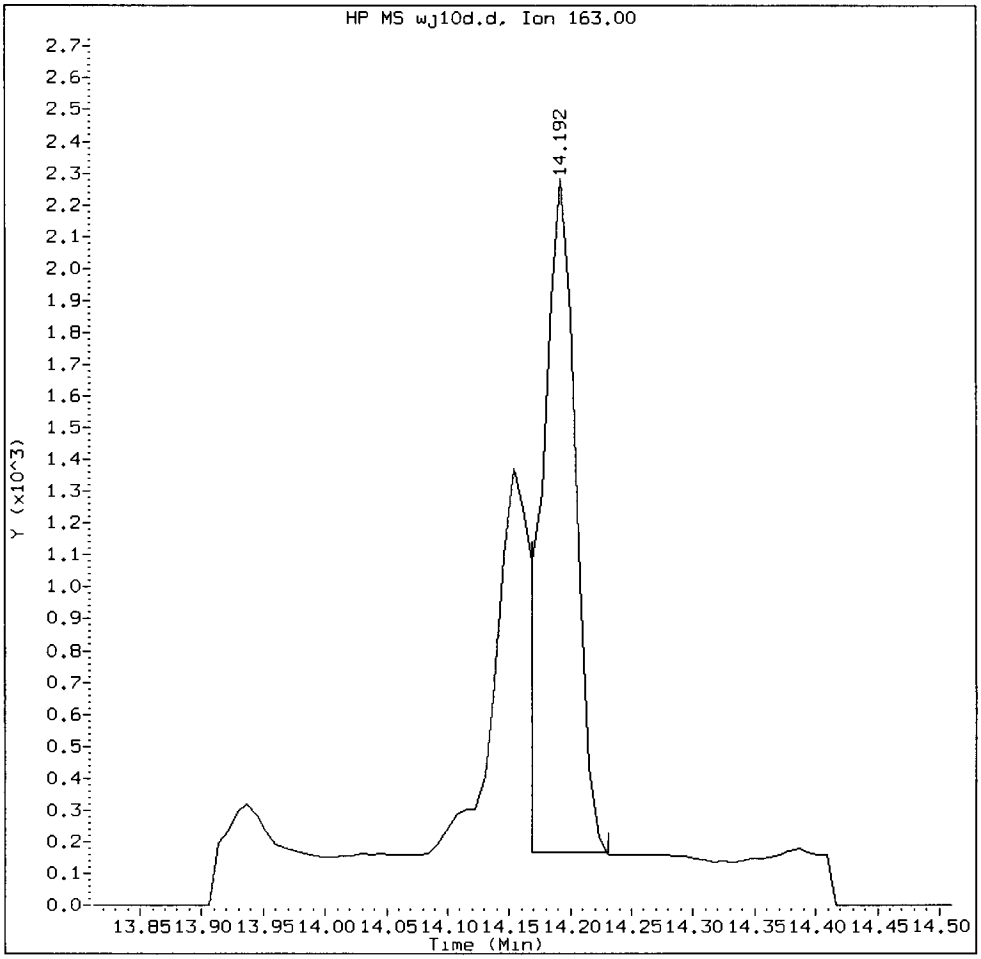


YZ 4/15/13



WJ10D, /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Dimethylphthalate Amount: 0.14 Area: 4062



MANUAL INTEGRATION for Dimethylphthalate

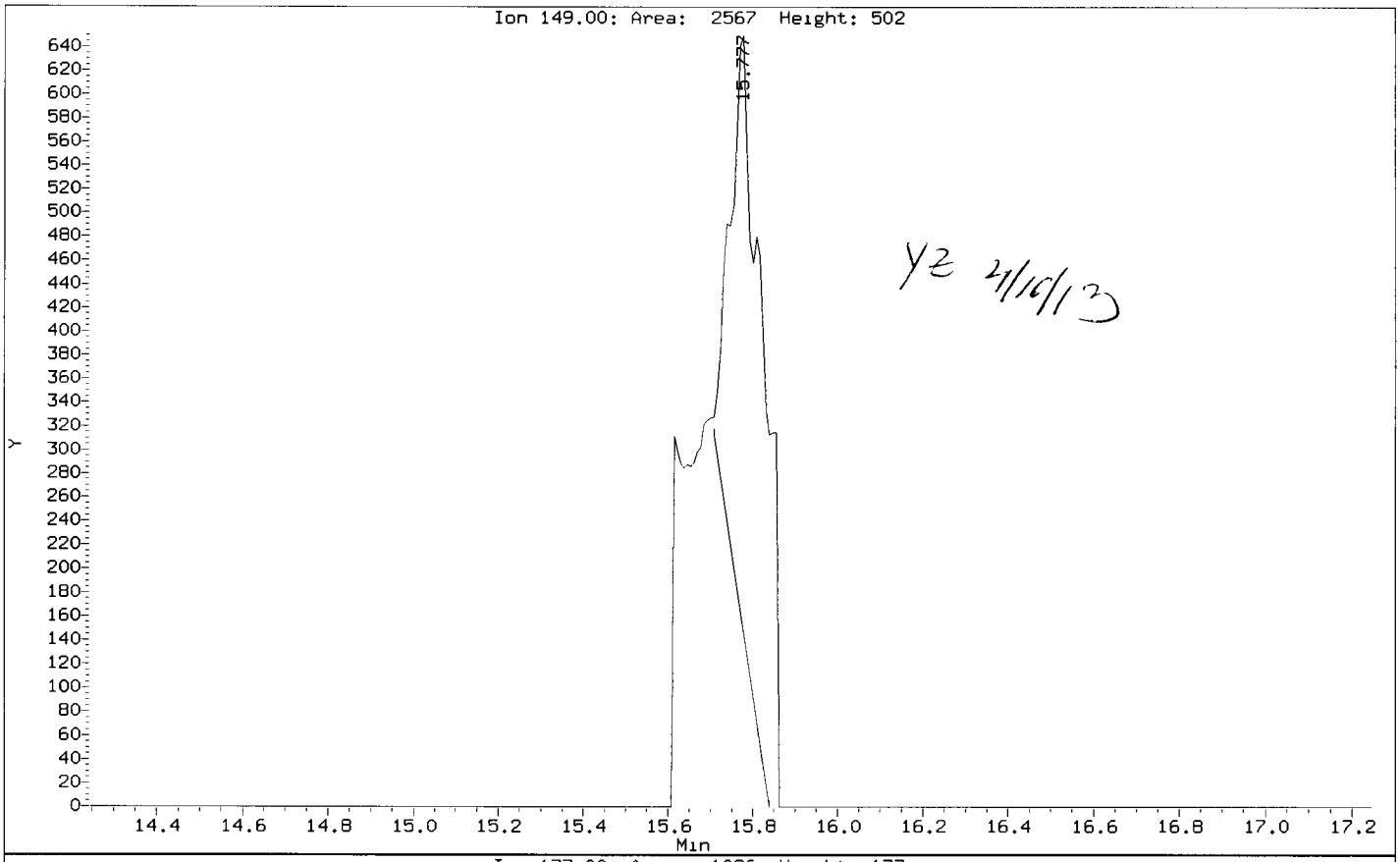
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

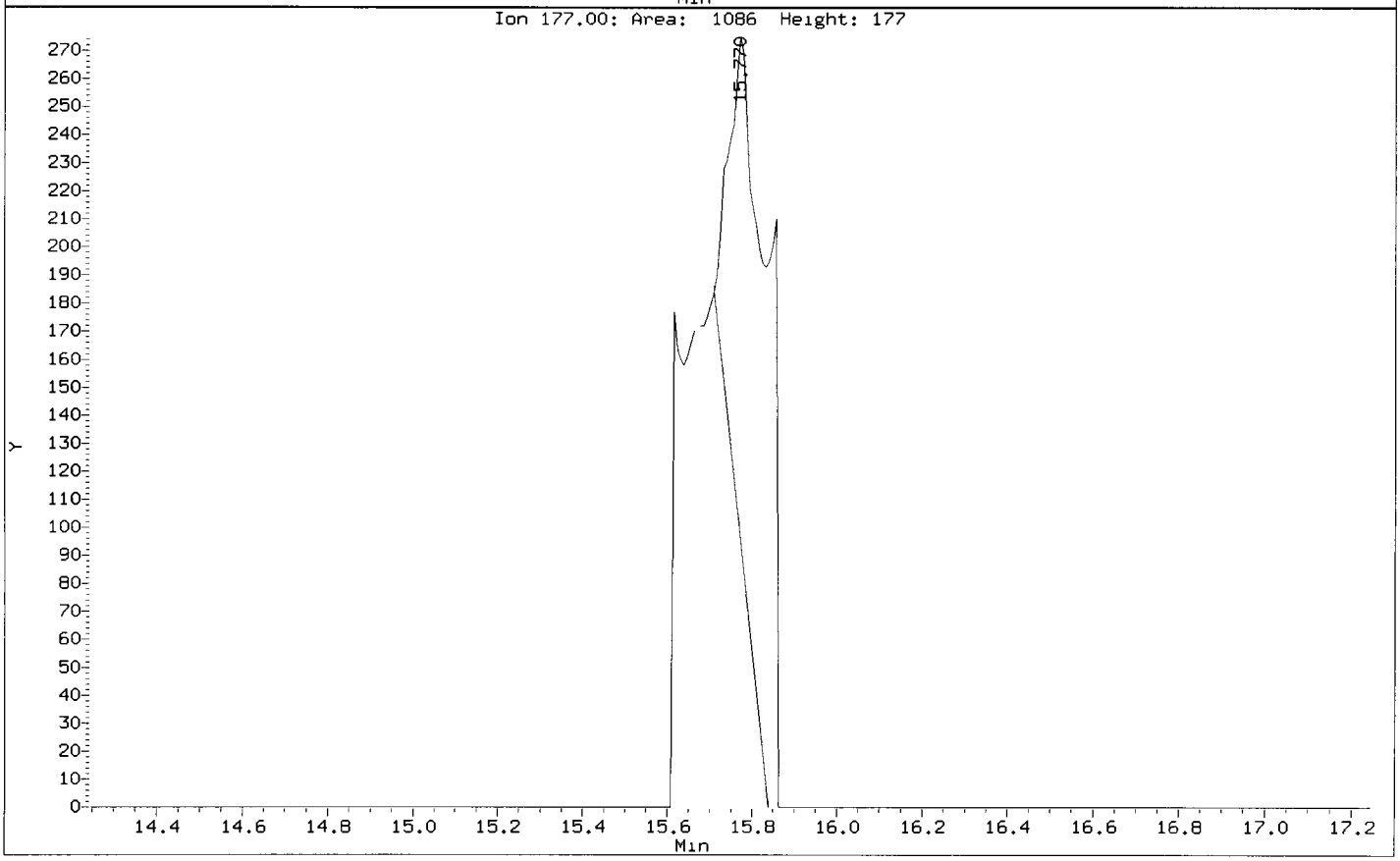
Analyst: JZ Date: 4/10/13

Data File: /chem1/nt10.1/20130406.b/SIM.b/wj10d.d
Injection Date: 06-APR-2013 19:25
Instrument: nt10.1
Client Sample ID: SD-CB-01-20130326-S

Compound: Diethylphthalate
CAS Number: 84-66-2

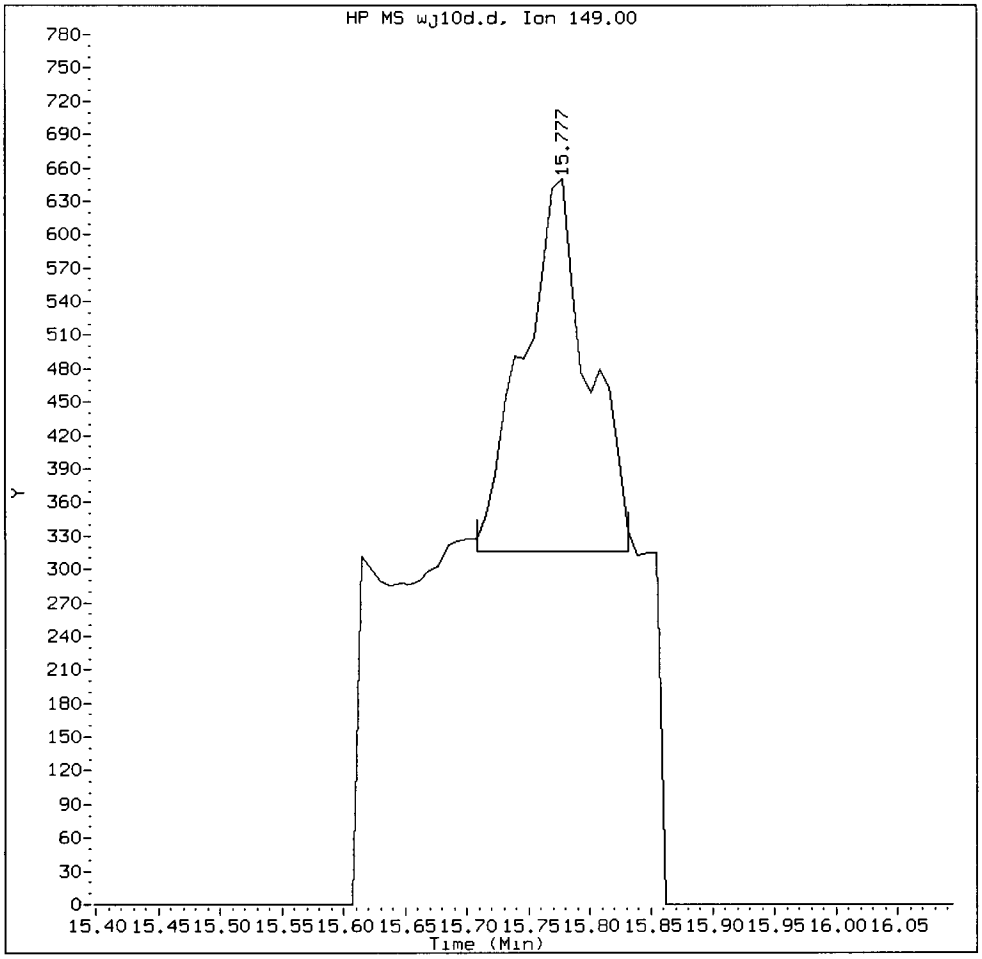


YZ 4/16/13



WJ10D, /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Diethylphthalate Amount: 0.04 Area: 1234



MANUAL INTEGRATION for Diethylphthalate

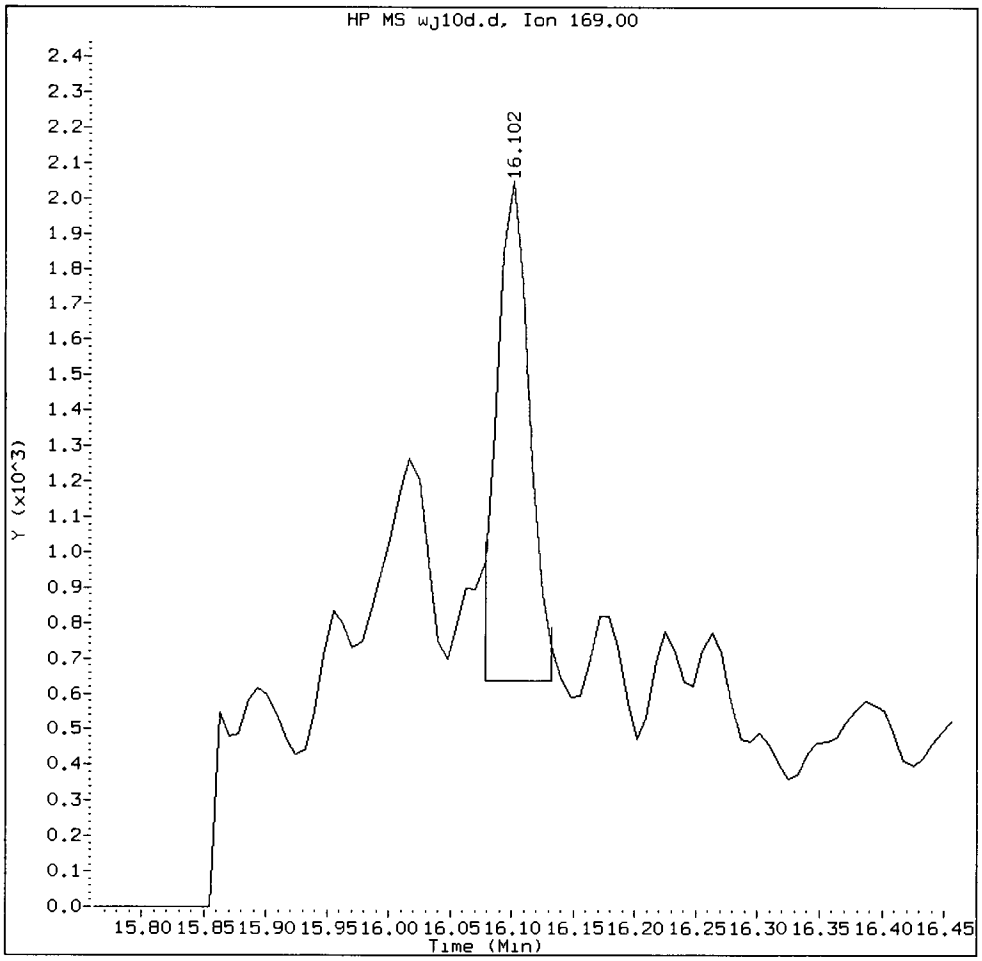
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: JP Date: 4/10/13

WJ10D, /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

N-Nitrosodiphenylamine Amount: 0.16 Area: 2662



MANUAL INTEGRATION for N-Nitrosodiphenylamine

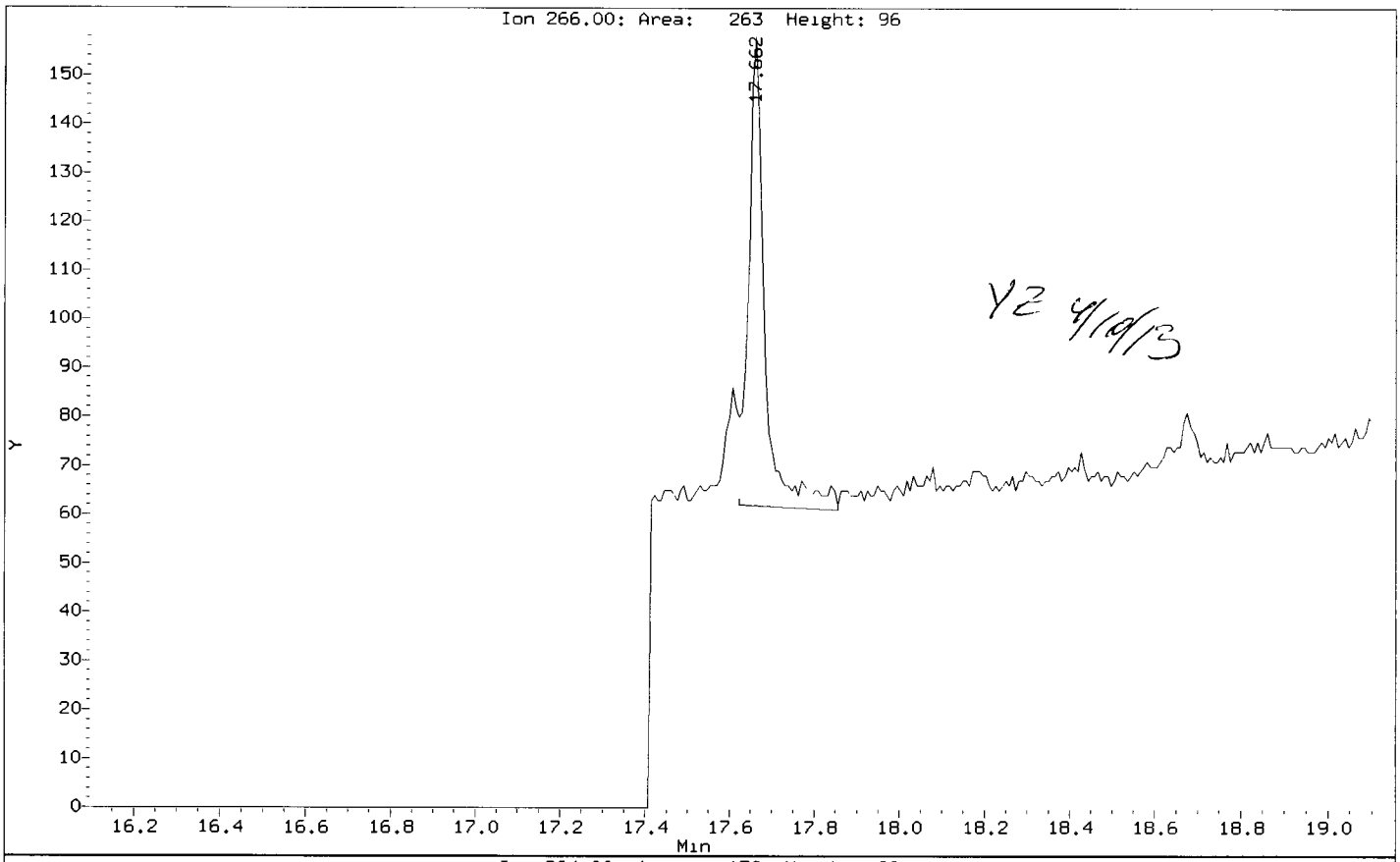
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

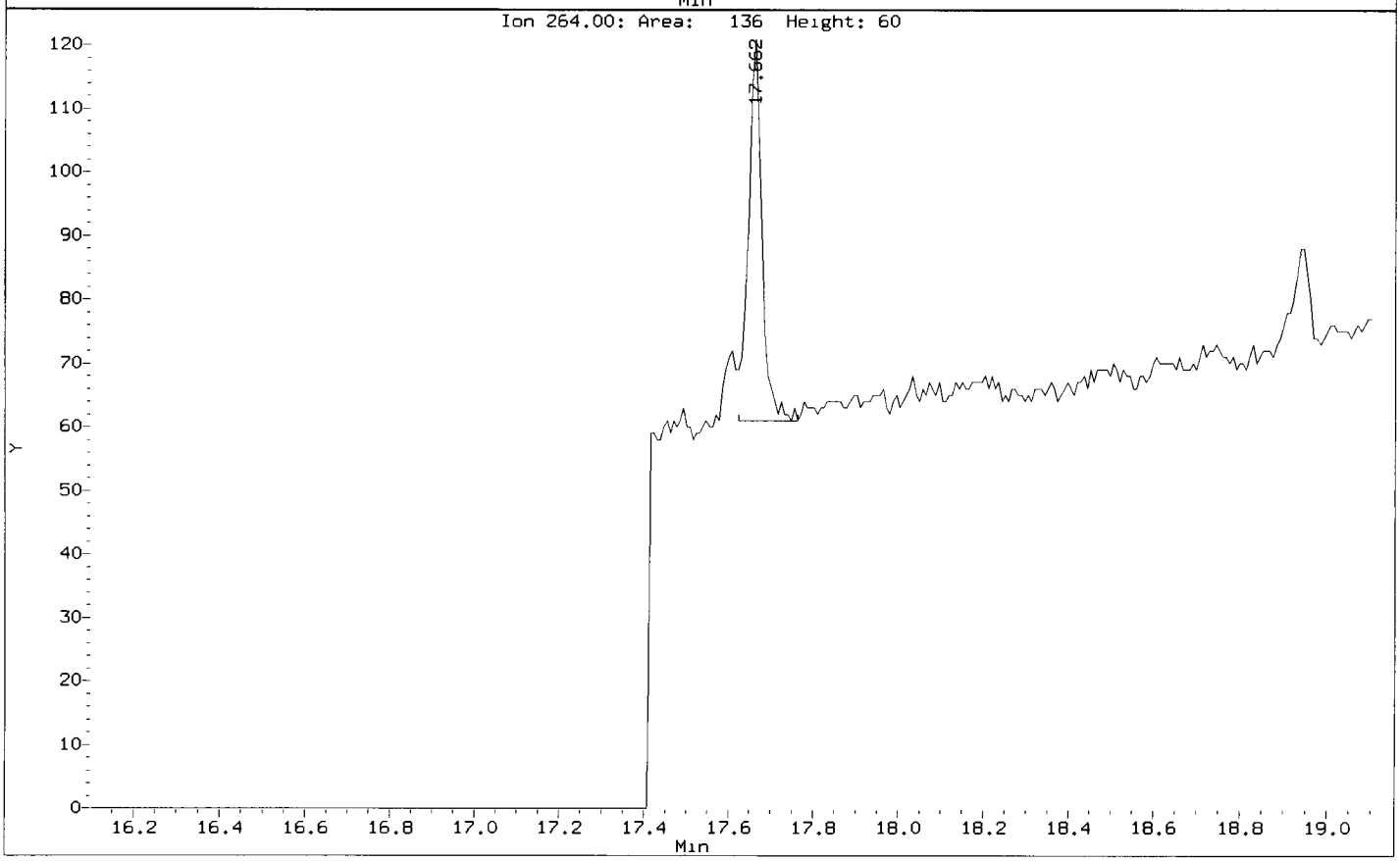
Analyst: VZ Date: 4/10/13

Data File: /chem1/nt10.1/20130406.b/SIM.b/wj10d.d
Injection Date: 06-APR-2013 19:25
Instrument: nt10.1
Client Sample ID: SD-CB-01-20130326-S

Compound: Pentachlorophenol
CAS Number: 87-86-5



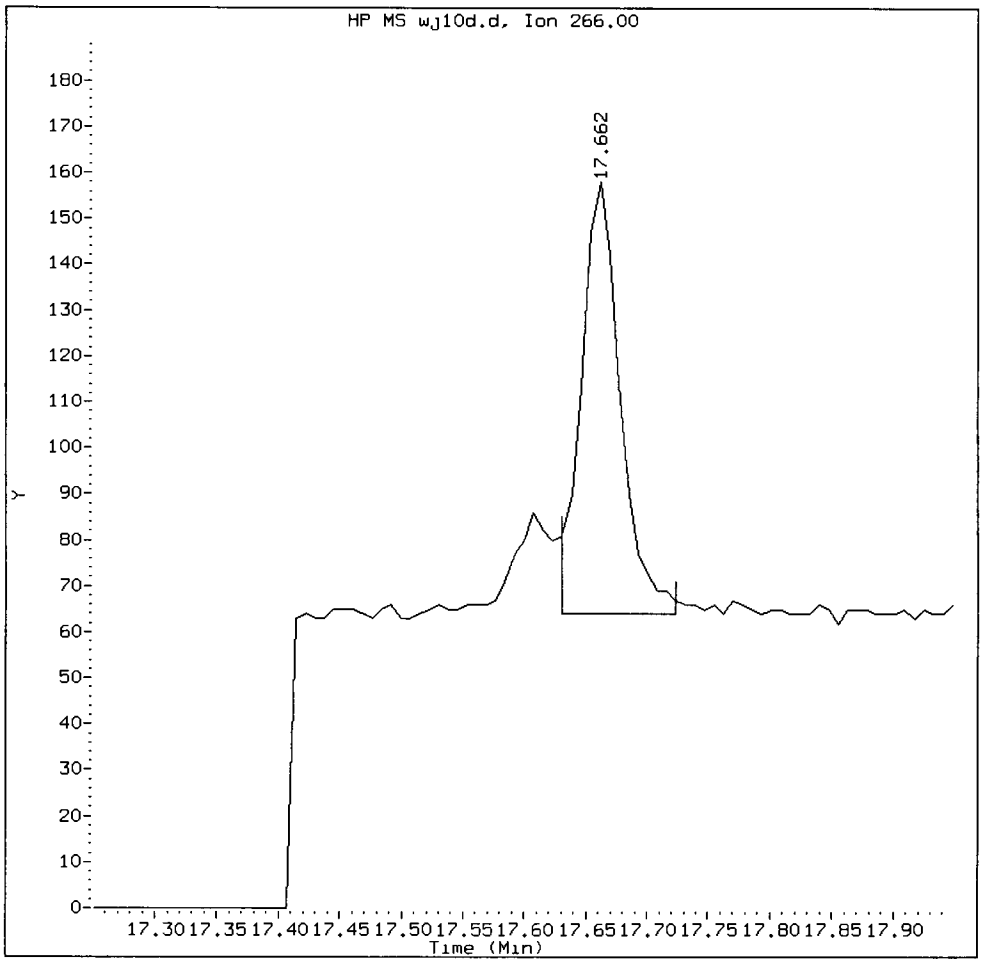
YZ 4/10/13



WJ10-01488

WJ10D, /chem1/nt10.i/20130406.b/SIM.b/wj10d.d

Pentachlorophenol Amount: 0.03 Area: 212



MANUAL INTEGRATION for Pentachlorophenol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 4/10/13

CO-ELUTION SUMMARY FOR FILE - wj10d.d

Lab ID: WJ10D, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 06-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 4/10/13

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130406.b/SIM.b/wj10dms.d
Lab Smp Id: WJ10DMS Client Smp ID: SD-CB-01-201303 MS
Inj Date : 06-APR-2013 20:01
Operator : YZ Inst ID: nt10.i
Smp Info : WJ10DMS,3
Misc Info : 13-6438
Comment :
Method : /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Meth Date : 10-Apr-2013 11:13 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:53 Cal File: ic0125i.d
Als bottle: 12 QC Sample: MS
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	2000.00000	Volume of final extract (uL)
Ws	15.01000	Weight of sample extracted (g)
M	44.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.842	5.803	(0.721)	12309	0.81600	583.5
	3 Phenol	94	7.603	7.565	(0.939)	57494	3.00111	2146(R)
	7 1,3-Dichlorobenzene	146	8.029	8.013	(0.991)	9559	0.49688	355.3
*	8 1,4-Dichlorobenzene-d4	152	8.099	8.091	(1.000)	47413	4.00000	
	9 1,4-Dichlorobenzene	146	8.130	8.122	(1.004)	9842	0.51242	366.4
	11 Benzyl alcohol	79	8.526	8.464	(1.053)	13098	1.15388	825.1(H)
	12 1,2-Dichlorobenzene	146	8.503	8.495	(1.050)	9563	0.52581	376.0
	13 2-Methylphenol	108	8.767	8.735	(1.082)	10422	0.72299	517.0
	15 4-Methylphenol	108	9.069	9.030	(1.120)	180724	12.1064	8657(R)
	16 N-Nitroso-di-n-propylamine	70	9.054	9.038	(1.118)	8232	0.87724	627.3(H)
	22 2,4-Dimethylphenol	107	10.162	10.131	(0.945)	29060	1.76319	1261(H)
	26 1,2,4-Trichlorobenzene	180	10.672	10.656	(0.993)	9221	0.51807	370.5
*	27 Naphthalene-d8	136	10.749	10.726	(1.000)	191190	4.00000	
	30 Hexachlorobutadiene	225	11.220	11.205	(1.044)	5535	0.51224	366.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	39 Dimethylphthalate	163	14.161	14.161	(0.969)	12118	0.39697	283.9
*	42 Acenaphthene-d10	162	14.618	14.594	(1.000)	100274	4.00000	
	50 Diethylphthalate	149	15.777	15.746	(1.079)	16429	0.46066	329.4(H)
	54 N-Nitrosodiphenylamine	169	16.101	16.109	(0.900)	10539	0.63090	451.1(M)
	57 Hexachlorobenzene	284	17.220	17.181	(0.965)	7090	0.65248	466.6
	58 Pentachlorophenol	266	17.669	17.599	(0.990)	9580	1.49271	1067(H)
*	59 Phenanthrene-d10	188	17.894	17.839	(1.000)	143695	4.00000	(H)
$	66 Terphenyl-d14	244	21.252	21.205	(0.919)	16522	0.63103	451.2
	67 Butylbenzylphthalate	149	22.250	22.204	(0.962)	50870	2.70090	1931(R)
*	69 Chrysene-d12	240	23.133	23.063	(1.000)	197050	4.00000	
*	77 Perylene-d12	264	25.448	25.378	(1.000)	183431	4.00000	
	79 Dibenzo(a,h)anthracene	278	27.370	27.269	(1.076)	87649	2.00476	1434(R)
	90 N-Nitrosodimethylamine	74	3.533	3.517	(0.436)	18170	2.01872	1444

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10dms.d
Lab Smp Id: WJ10DMS
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 15:09
Client Smp ID: SD-CB-01-201303
Level: LOW
Sample Type: Solids

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	47413	-11.96
27 Naphthalene-d8	200104	100052	400208	191190	-4.45
42 Acenaphthene-d10	112392	56196	224784	100274	-10.78
59 Phenanthrene-d10	210710	105355	421420	143695	-31.80
69 Chrysene-d12	240805	120402	481610	197050	-18.17
77 Perylene-d12	230834	115417	461668	183431	-20.54

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.10	0.10
27 Naphthalene-d8	10.73	10.23	11.23	10.75	0.22
42 Acenaphthene-d10	14.59	14.09	15.09	14.62	0.16
59 Phenanthrene-d10	17.84	17.34	18.34	17.89	0.30
69 Chrysene-d12	23.06	22.56	23.56	23.13	0.30
77 Perylene-d12	25.38	24.88	25.88	25.45	0.28

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

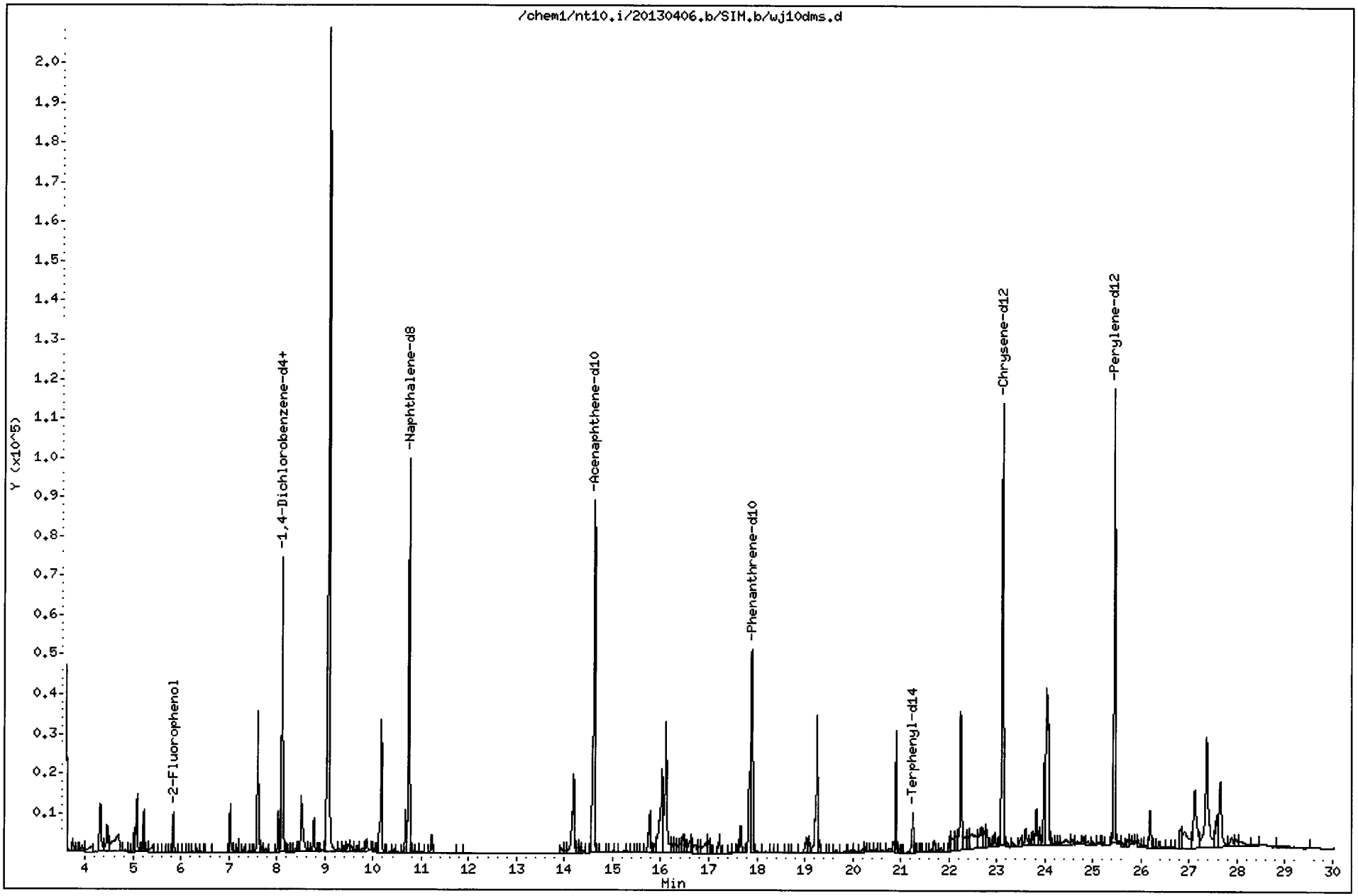
Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10DMS
Client Smp ID: SD-CB-01-201303 MS
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: MS
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3 Phenol	595.9	2146	360.13*	30-160
7 1,3-Dichlorobenzen	595.9	355.3	59.63	30-160
9 1,4-Dichlorobenzen	595.9	366.4	61.49	30-160
11 Benzyl alcohol	595.9	825.1	138.47	30-160
12 1,2-Dichlorobenzen	595.9	376.0	63.10	30-160
13 2-Methylphenol	595.9	517.0	86.76	30-160
15 4-Methylphenol	1192	8657	726.38*	30-160
16 N-Nitroso-di-n-pro	595.9	627.3	105.27	30-160
22 2,4-Dimethylphenol	1192	1261	105.79	30-160
26 1,2,4-Trichloroben	595.9	370.5	62.17	30-160
30 Hexachlorobutadien	595.9	366.3	61.47	30-160
39 Dimethylphthalate	595.9	283.9	47.64	30-160
50 Diethylphthalate	595.9	329.4	55.28	30-160
54 N-Nitrosodiphenyla	595.9	451.1	75.71	30-160
57 Hexachlorobenzene	595.9	466.6	78.30	30-160
58 Pentachlorophenol	1192	1067	89.56	30-160
67 Butylbenzylphthala	595.9	1931	324.11*	30-160
79 Dibenzo(a,h)anthra	595.9	1434	240.57*	30-160
90 N-Nitrosodimethyla	1192	1444	121.12	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	893.9	583.5	65.28	30-160
$ 66 Terphenyl-d14	595.9	451.2	75.72	30-160

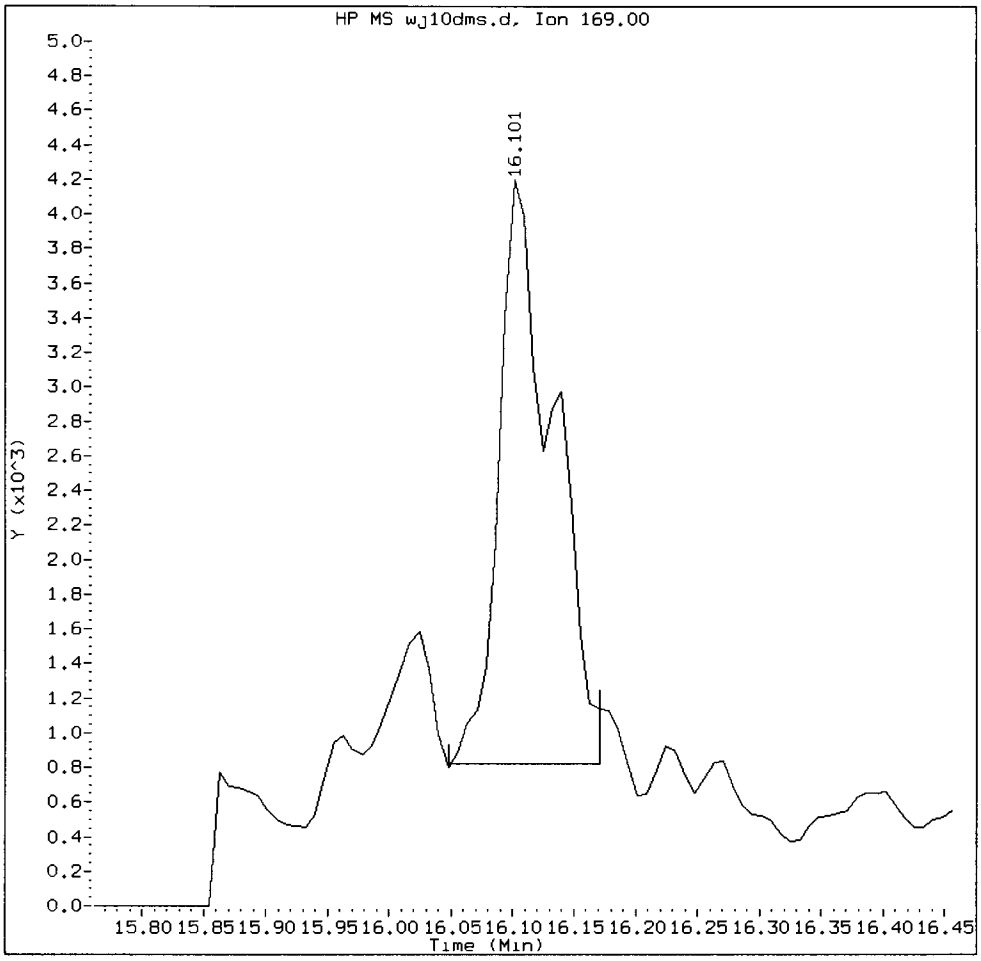
Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10dms.d
Date : 06-APR-2013 20:01
Client ID: SD-CB-01-201303 MS
Sample Info: WJ10DMS,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



WJ10DMS, /chem1/nt10.i/20130406.b/SIM.b/wj10dms.d

N-Nitrosodiphenylamine Amount: 0.63 Area: 10539



MANUAL INTEGRATION for N-Nitrosodiphenylamine

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 4/19/13

CO-ELUTION SUMMARY FOR FILE - wj10dms.d

Lab ID: WJ10DMS, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 06-APR-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 4/11/13

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130406.b/SIM.b/wj10dmsd.d
Lab Smp Id: WJ10DMSD Client Smp ID: SD-CB-01-201303 MSD
Inj Date : 06-APR-2013 20:38
Operator : YZ Inst ID: nt10.i
Smp Info : WJ10DMSD,3
Misc Info : 13-6438
Comment :
Method : /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Meth Date : 10-Apr-2013 11:13 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:53 Cal File: ic0125i.d
Als bottle: 13 QC Sample: MS
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	2000.00000	Volume of final extract (uL)
Ws	15.21000	Weight of sample extracted (g)
M	44.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.841	5.803	(0.721)	13398	0.88962	627.8
	3 Phenol	94	7.603	7.565	(0.938)	50440	2.63712	1861(R)
	7 1,3-Dichlorobenzene	146	8.029	8.013	(0.990)	9958	0.51845	365.9
*	8 1,4-Dichlorobenzene-d4	152	8.107	8.091	(1.000)	47337	4.00000	
	9 1,4-Dichlorobenzene	146	8.138	8.122	(1.004)	10466	0.54578	385.2
	11 Benzyl alcohol	79	8.510	8.464	(1.050)	20568	1.81487	1281(R)
	12 1,2-Dichlorobenzene	146	8.510	8.495	(1.050)	10030	0.55237	389.8
	13 2-Methylphenol	108	8.767	8.735	(1.081)	10504	0.72985	515.0
	15 4-Methylphenol	108	9.069	9.030	(1.119)	182990	12.2779	8664(R)
	16 N-Nitroso-di-n-propylamine	70	9.054	9.038	(1.117)	9047	0.96564	681.4(H)
	22 2,4-Dimethylphenol	107	10.170	10.131	(0.946)	31620	2.00606	1416
	26 1,2,4-Trichlorobenzene	180	10.680	10.656	(0.994)	9737	0.57203	403.7
*	27 Naphthalene-d8	136	10.749	10.726	(1.000)	182847	4.00000	
	30 Hexachlorobutadiene	225	11.220	11.205	(1.044)	5737	0.55516	391.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	39 Dimethylphthalate	163	14.192	14.161	(0.971)	26263	0.85819	605.6
*	42 Acenaphthene-d10	162	14.618	14.594	(1.000)	100525	4.00000	
	50 Diethylphthalate	149	15.777	15.746	(1.079)	23271	0.65087	459.3
	54 N-Nitrosodiphenylamine	169	16.109	16.109	(0.903)	7754	0.45382	320.3
	57 Hexachlorobenzene	284	17.220	17.181	(0.965)	7528	0.67732	478.0
	58 Pentachlorophenol	266	17.669	17.599	(0.990)	11198	1.70589	1204(H)
*	59 Phenanthrene-d10	188	17.894	17.839	(1.000)	146975	4.00000	(H)
$	66 Terphenyl-d14	244	21.252	21.205	(0.919)	17344	0.68665	484.6
	67 Butylbenzylphthalate	149	22.258	22.204	(0.962)	34067	1.87489	1323(RH)
*	69 Chrysene-d12	240	23.133	23.063	(1.000)	190099	4.00000	
*	77 Perylene-d12	264	25.448	25.378	(1.000)	172494	4.00000	
	79 Dibenzo(a,h)anthracene	278	27.378	27.269	(1.076)	74679	1.81641	1282(R)
	90 N-Nitrosodimethylamine	74	3.533	3.517	(0.436)	17533	1.95108	1377

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10dmsd.d
Lab Smp Id: WJ10DMSD
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 15:09
Client Smp ID: SD-CB-01-201303
Level: LOW
Sample Type: Solids

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	47337	-12.10
27 Naphthalene-d8	200104	100052	400208	182847	-8.62
42 Acenaphthene-d10	112392	56196	224784	100525	-10.56
59 Phenanthrene-d10	210710	105355	421420	146975	-30.25
69 Chrysene-d12	240805	120402	481610	190099	-21.06
77 Perylene-d12	230834	115417	461668	172494	-25.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.11	0.19
27 Naphthalene-d8	10.73	10.23	11.23	10.75	0.22
42 Acenaphthene-d10	14.59	14.09	15.09	14.62	0.16
59 Phenanthrene-d10	17.84	17.34	18.34	17.89	0.30
69 Chrysene-d12	23.06	22.56	23.56	23.13	0.30
77 Perylene-d12	25.38	24.88	25.88	25.45	0.28

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

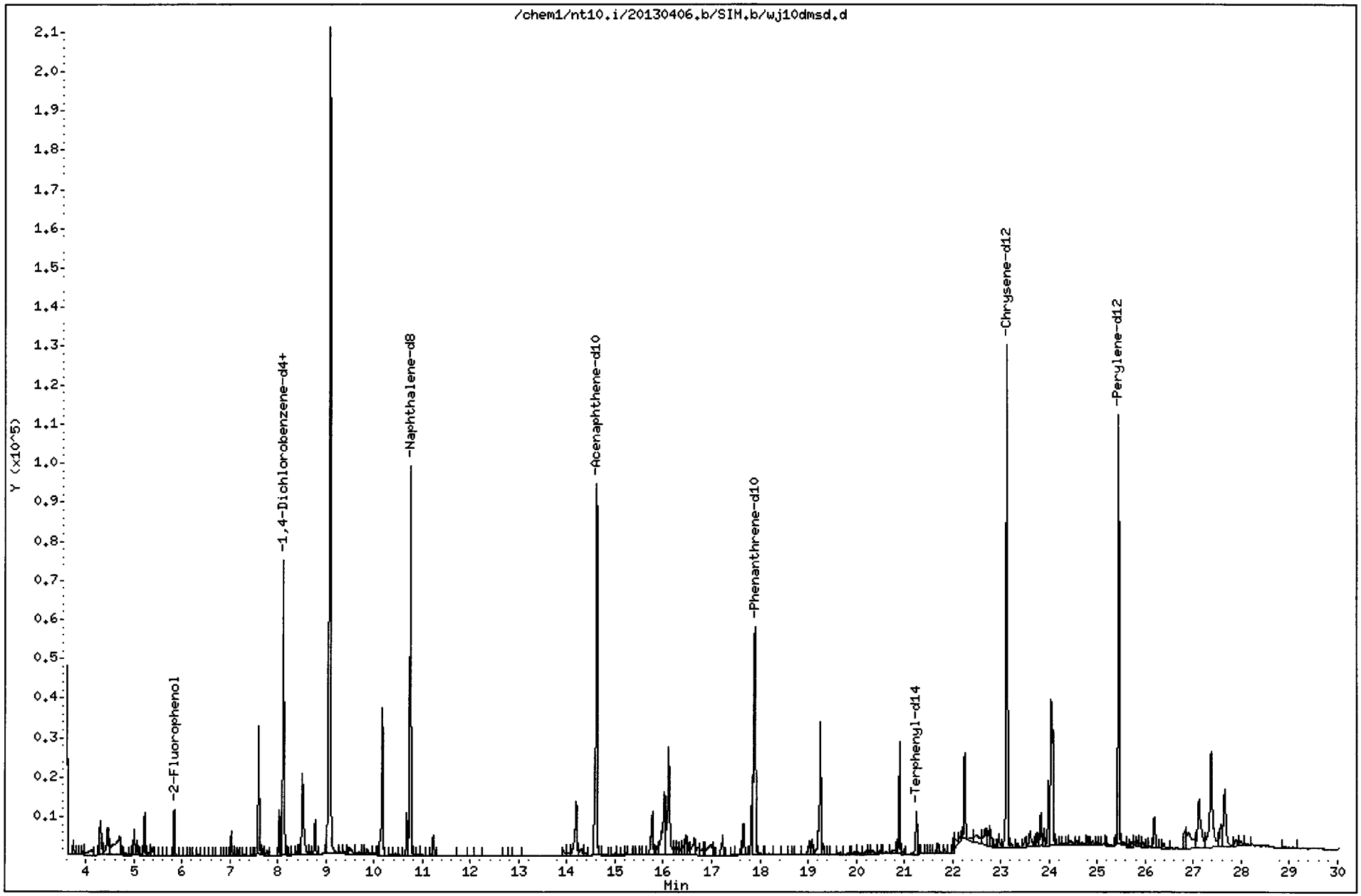
Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10DMSD
Client Smp ID: SD-CB-01-201303 MSD
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: MS
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3 Phenol	588.1	1861	316.45*	30-160
7 1,3-Dichlorobenzen	588.1	365.9	62.21	30-160
9 1,4-Dichlorobenzen	588.1	385.2	65.49	30-160
11 Benzyl alcohol	588.1	1281	217.78*	30-160
12 1,2-Dichlorobenzen	588.1	389.8	66.28	30-160
13 2-Methylphenol	588.1	515.0	87.58	30-160
15 4-Methylphenol	1176	8664	736.67*	30-160
16 N-Nitroso-di-n-pro	588.1	681.4	115.88	30-160
22 2,4-Dimethylphenol	1176	1416	120.36	30-160
26 1,2,4-Trichloroben	588.1	403.7	68.64	30-160
30 Hexachlorobutadien	588.1	391.8	66.62	30-160
39 Dimethylphthalate	588.1	605.6	102.98	30-160
50 Diethylphthalate	588.1	459.3	78.10	30-160
54 N-Nitrosodiphenyla	588.1	320.3	54.46	30-160
57 Hexachlorobenzene	588.1	478.0	81.28	30-160
58 Pentachlorophenol	1176	1204	102.35	30-160
67 Butylbenzylphthala	588.1	1323	224.99*	30-160
79 Dibenzo(a,h)anthra	588.1	1282	217.97*	30-160
90 N-Nitrosodimethyla	1176	1377	117.06	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	882.1	627.8	71.17	30-160
$ 66 Terphenyl-d14	588.1	484.6	82.40	30-160

Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10dmsd.d
Date : 06-APR-2013 20:38
Client ID: SD-CB-01-201303 MSD
Sample Info: WJ10DMSD,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wj10dmsd.d

Lab ID: WJ10DMSD, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 06-APR-2

RT	CO-ELUTION COMPOUNDS
8.510	1,2-Dichlorobenzene and Benzyl alcohol

Analytical Resources, Inc.

YZ 4/11/13

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130406.b/SIM.b/wj10sb.d
Lab Smp Id: WJ10LCSS1 Client Smp ID: WJ10LCSS1
Inj Date : 06-APR-2013 16:22
Operator : YZ Inst ID: nt10.i
Smp Info : WJ10LCSS1
Misc Info : 13-6438
Comment :
Method : /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Meth Date : 10-Apr-2013 11:13 yev Quant Type: ISTD
Cal Date : 25-JAN-2013 17:53 Cal File: ic0125i.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.811	5.803	(0.718)	77945	5.48646	548.6
	3 Phenol	94	7.565	7.565	(0.935)	79235	4.39150	439.2
	7 1,3-Dichlorobenzene	146	8.014	8.013	(0.990)	57946	3.19817	319.8
*	8 1,4-Dichlorobenzene-d4	152	8.091	8.091	(1.000)	44654	4.00000	
	9 1,4-Dichlorobenzene	146	8.122	8.122	(1.004)	58653	3.24244	324.2
	11 Benzyl alcohol	79	8.472	8.464	(1.047)	2957	0.27660	27.66(R)
	12 1,2-Dichlorobenzene	146	8.495	8.495	(1.050)	56661	3.30794	330.8
	13 2-Methylphenol	108	8.736	8.735	(1.080)	51053	3.76043	376.0
	15 4-Methylphenol	108	9.046	9.030	(1.118)	99785	7.09743	709.7
	16 N-Nitroso-di-n-propylamine	70	9.038	9.038	(1.117)	30714	3.47524	347.5
	22 2,4-Dimethylphenol	107	10.139	10.131	(0.945)	115148	8.10215	810.2
	26 1,2,4-Trichlorobenzene	180	10.656	10.656	(0.993)	51842	3.37781	337.8
*	27 Naphthalene-d8	136	10.734	10.726	(1.000)	164864	4.00000	
	30 Hexachlorobutadiene	225	11.205	11.205	(1.044)	31513	3.38206	338.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	39 Dimethylphthalate	163	14.169	14.161	(0.971)	114082	3.92307	392.3
*	42 Acenaphthene-d10	162	14.595	14.594	(1.000)	95522	4.00000	
	50 Diethylphthalate	149	15.754	15.746	(1.079)	134564	3.96079	396.1
	54 N-Nitrosodiphenylamine	169	16.117	16.109	(0.903)	85459	4.11809	411.8
	57 Hexachlorobenzene	284	17.189	17.181	(0.964)	45492	3.37002	337.0
	58 Pentachlorophenol	266	17.607	17.599	(0.987)	82770	10.3816	1038
*	59 Phenanthrene-d10	188	17.840	17.839	(1.000)	178510	4.00000	
$	66 Terphenyl-d14	244	21.205	21.205	(0.919)	99376	3.67486	367.5
	67 Butylbenzylphthalate	149	22.212	22.204	(0.963)	99000	5.08924	508.9
*	69 Chrysene-d12	240	23.071	23.063	(1.000)	203519	4.00000	
*	77 Perylene-d12	264	25.386	25.378	(1.000)	192181	4.00000	
	79 Dibenzo(a,h)anthracene	278	27.277	27.269	(1.074)	174100	3.80082	380.1
	90 N-Nitrosodimethylamine	74	3.556	3.517	(0.439)	82051	9.67928	967.9

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wj10sb.d
Lab Smp Id: WJ10LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

Calibration Date: 06-APR-2013
Calibration Time: 15:09
Client Smp ID: WJ10LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	53853	26926	107706	44654	-17.08
27 Naphthalene-d8	200104	100052	400208	164864	-17.61
42 Acenaphthene-d10	112392	56196	224784	95522	-15.01
59 Phenanthrene-d10	210710	105355	421420	178510	-15.28
69 Chrysene-d12	240805	120402	481610	203519	-15.48
77 Perylene-d12	230834	115417	461668	192181	-16.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.09	7.59	8.59	8.09	0.00
27 Naphthalene-d8	10.73	10.23	11.23	10.73	0.07
42 Acenaphthene-d10	14.59	14.09	15.09	14.59	0.00
59 Phenanthrene-d10	17.84	17.34	18.34	17.84	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.38	24.88	25.88	25.39	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

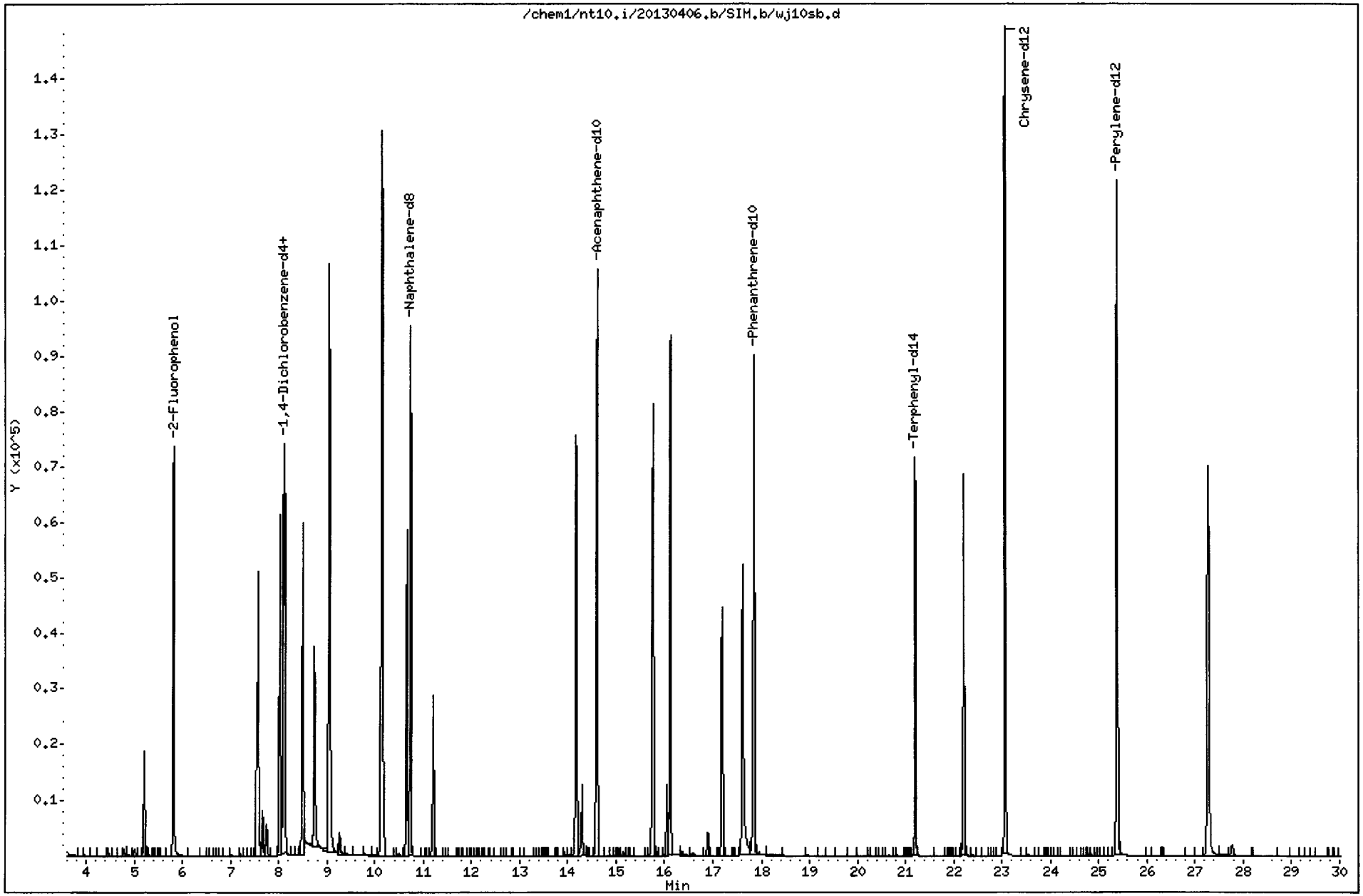
Client Name: SAIC
Client SDG: WJ10
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WJ10LCSS1
Client Smp ID: WJ10LCSS1
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: LCS
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130406.b/SIM.b/SIMABN2.m
Misc Info: 13-6438

SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	439.2	87.83	30-160
7	1,3-Dichlorobenzen	500.0	319.8	63.96	30-160
9	1,4-Dichlorobenzen	500.0	324.2	64.85	30-160
11	Benzyl alcohol	500.0	27.66	5.53*	30-160
12	1,2-Dichlorobenzen	500.0	330.8	66.16	30-160
13	2-Methylphenol	500.0	376.0	75.21	30-160
15	4-Methylphenol	1000	709.7	70.97	30-160
16	N-Nitroso-di-n-pro	500.0	347.5	69.50	30-160
22	2,4-Dimethylphenol	1000	810.2	81.02	30-160
26	1,2,4-Trichloroben	500.0	337.8	67.56	30-160
30	Hexachlorobutadien	500.0	338.2	67.64	30-160
39	Dimethylphthalate	500.0	392.3	78.46	30-160
50	Diethylphthalate	500.0	396.1	79.22	30-160
54	N-Nitrosodiphenyla	500.0	411.8	82.36	30-160
57	Hexachlorobenzene	500.0	337.0	67.40	30-160
58	Pentachlorophenol	1000	1038	103.82	30-160
67	Butylbenzylphthala	500.0	508.9	101.78	30-160
79	Dibenzo(a,h)anthra	500.0	380.1	76.02	30-160
90	N-Nitrosodimethyla	1000	967.9	96.79	30-160

SURROGATE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	750.0	548.6	73.15	30-160
$ 66	Terphenyl-d14	500.0	367.5	73.50	30-160

Data File: /chem1/nt10.i/20130406.b/SIM.b/wj10sb.d
Date : 06-APR-2013 16:22
Client ID: WJ10LCSS1
Sample Info: WJ10LCSS1
Volume Injected (uL): 1.0
Column phase: ZB-5ms1

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wj10sb.d

Lab ID: WJ10LCSS1, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 06-APR-

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

SIM PAH Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WJ10, WJ32

Organic Extractions Benchsheet

(8270D) SIM PNA-Water
Separatory Funnel (3510C) (SOP # 3311S)

Preparation Test SIM PNA L-L # 6 (SPNALWSL)

Low Level (0.01ppb)

ARI Job No(s) WJ10 Page 1 of 1 Batch set up by: SP

Bottle #	Extraction Requirements	Volume Extracted	Final Effective Volume	Volume to Lab	Comments	Verify Client ID
	WJ10 MBW	500mL	0.5mL	0.5mL		AC 4-1-13 **Analyst/Date**
	SBW	500mL	0.5mL	0.5mL		
	SBW Dup.	500mL	0.5mL	0.5mL		
	QLS	500mL	0.5mL	0.5mL		KD 80°C [✓ 1] 2 3 4 5 6 04/02/13 **Analyst/Date**
5	A	500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		TurboVap [✓ 1] 2 3 Pre-Silica Gel Shakeout SP 4/2/13 **Analyst/Date**
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		(REQ) Silica Gel Clean Shakeout (1:1) SP 4/2/13 **Analyst/Date**
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		TurboVap [✓ 1] 2 3 Post Silica Gel Shakeout SP 4/2/13 **Analyst/Date**
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL		
		500mL	0.5mL	0.5mL	SP 4/2/13	
		500mL	0.5mL	0.5mL		
Analyst/Date		AC 4-1-13	SP 4/2/13	SP 4/2/13		

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	1 (2077-4)	1.5/7.5µg/mL	**100**µL	2/21/14	AC	WW
Spike	**18** (2077-2)	1.5/7.5µg/mL	**100**µL	10/13/13	AC	WW
QLS Spike	**2** (2077-3)	0.1µg/mL	**50**µL	10/13/13	AC	WW

Extraction Time: 17:05

SPECIAL INSTRUCTIONS: Note: LOW LEVEL SIM PNA'S MUST BE COMPLETED WITHIN 48HRS!
1. USE ONLY NON-SCRATCHED GLASSWARE. 2. Rinse all glassware with Low Level DCM.
3. Extract 3X with 30mL Low Level DCM. 4. KD (no drying column) at 80°. (Thoroughly rinse Snyder Columns with Low Level DCM)! 5. TurboVap. 6. Silica Gel Clean-up Shakeout=REQUIRED. (Scintillation vial shakeout). 7. TurboVap. 8. Vial in Low Level DCM. (Pre-clean vialing syringes thoroughly)! 9. Post screen extracts with any color.

A. Archive Y [✓ N]

13-6435

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

ARI Job#: WJ10 Client ID: SAIC
Analyst: VA Date: 4/2/13

ARI Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Dilution Factor	Primary Dilution (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Final Dilution Factor
A	100	Dcm	400	5X				

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WJ 14 Client ID: SAIC

Parameter: Low level SimPAH Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
(Centrifuge#1 used for all Centrifugations)	

WJ14-01513

SIM PAH Raw Data
Initial Calibration

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS,SVOA Initial Calibration Notes

ARI SOP: (801S(SIM-PNA)) 802S(Butyl Tins) 804S(SVOA-8270D) 805S(op-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 (NT11) NT12

Curve Date(s): 2·23·13 Internal Standard ID 2005-1 Expiration 7·3·13

DFTPP Tune Meets Criteria?	(YES) / NO	Minimum Response Factors Met/	(YES) / NO
DDT Breakdown <20%?	(YES) / NO	ICV Exceeding ±20%?	YES / (NO)
Peak Tailing Factor ≤2?	(YES) / NO	ICV Exceeding ±30%?	YES (NO)
ICal Meets %RSD & r^2 Criteria?	(YES) / NO	Linear Fits Used?	YES (NO)
Q flag applied?	YES (NO)	Quadratic Fits Used?	YES (NO)
Manual Integrations for ICal?	YES (NO)	Calibration Points Dropped?	YES (NO)
Spectral Library Updated?	YES (NO)		

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Supelco	2077-1	10·13·13	Absolute	2079-01	

Detail problems, corrective actions and/or other pertinent information below:

- ICV run with curve ON 2/23 was also Supelco. ON 2/26 I made a new ICV from absolute which is presented with the ICAL

Analyst: VD **Date:** 2·27·13

Reviewer: [signature] **Date:** 2/27/13

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2013 09:51
End Cal Date : 23-FEB-2013 12:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt11.i/20130223.b/lowsim.m
Cal Date : 26-Feb-2013 08:19 van
Curve Type : Average

Calibration File Names:
Level 1: /chem3/nt11.i/20130223.b/ic0223c.d
Level 2: /chem3/nt11.i/20130223.b/ic0223e.d
Level 3: /chem3/nt11.i/20130223.b/ic0223f.d
Level 4: /chem3/nt11.i/20130223.b/ic0223a.d
Level 5: /chem3/nt11.i/20130223.b/ic0223d.d
Level 6: /chem3/nt11.i/20130223.b/ic0223b.d

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
5 Naphthalene	1.17986	1.07038	1.12173	1.07243	1.05630	1.06975	1.09508	4.315
7 2-Methylnaphthalene	0.70009	0.65437	0.70055	0.68821	0.67773	0.69131	0.68537	2.535
8 1-Methylnaphthalene	0.73994	0.65390	0.70042	0.68367	0.67218	0.68373	0.68897	4.255
10 Acenaphthylene	1.84021	1.67975	1.75477	1.78640	1.78255	1.87074	1.78573	3.748
12 Acenaphthene	1.22752	1.13659	1.19934	1.16361	1.16498	1.18041	1.17874	2.683
14 Dibenzofuran	1.81808	1.67485	1.78559	1.66071	1.66927	1.69412	1.71710	3.921
15 Fluorene	1.33744	1.22307	1.28298	1.27056	1.27104	1.30630	1.28190	2.999
17 Pentachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Phenanthrene	1.29147	1.19136	1.28319	1.20741	1.21515	1.22365	1.23537	3.376
20 Anthracene	1.16152	1.07209	1.18065	1.15970	1.15909	1.21883	1.15865	4.159
22 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Fluoranthene	1.21654	1.13663	1.25125	1.23561	1.23597	1.25192	1.22132	3.559
25 Pyrene	1.74397	1.53685	1.69519	1.67448	1.70011	1.69862	1.67487	4.259
28 Benzo(a)anthracene	1.42951	1.29246	1.40124	1.39924	1.37922	1.40235	1.38400	3.441
30 Chrysene	1.51404	1.35660	1.48567	1.40588	1.41140	1.40779	1.43023	4.073
44 Benzo(b)fluoranthene	1.63909	1.53504	1.64903	1.50529	1.61012	1.57183	1.58507	3.644
45 Benzo(k)fluoranthene	1.82896	1.54799	1.66440	1.77352	1.75834	1.76863	1.72364	5.869
46 Benzo(j)fluoranthene	1.71085	1.80116	1.88590	1.70137	1.70454	1.69282	1.74944	4.451
34 Benzo(a)pyrene	1.37546	1.25064	1.35897	1.34791	1.34169	1.35196	1.33777	3.306
37 Indeno(1,2,3-cd)pyrene	1.64325	1.52366	1.70267	1.64740	1.67639	1.68623	1.64660	3.910
38 Dibenzo(a,h)anthracene	1.42304	1.20093	1.36598	1.30065	1.32370	1.32911	1.32390	5.580

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2013 09:51
End Cal Date : 23-FEB-2013 12:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt11.i/20130223.b/lowsim.m
Cal Date : 26-Feb-2013 08:19 van
Curve Type : Average

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
39 Benzo(g,h,i)perylene	1.63740	1.39502	1.50380	1.42776	1.44835	1.42748	1.47330	5.978
47 Perylene	1.60629	1.44987	1.57488	1.50213	1.50270	1.50783	1.52395	3.718
$ 6 2-Methylnaphthalene-d10	0.62998	0.61614	0.64871	0.63509	0.62909	0.63828	0.63288	1.713
$ 16 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 23 Fluoranthene-d10	0.99851	0.95924	1.04391	1.06478	1.05975	1.09373	1.03665	4.742
$ 36 Dibenzo(a,h)anthracene-d14	1.08287	1.08091	1.18009	1.16289	1.17177	1.17924	1.14296	4.174

Analytical Resources Inc.: Organics Instrument Log

NT-11 Serial No.:GC=US10140004, MS=US10481502

Date: 2.23.13 Analysis: low sim pAA Analyst: VD

GC Program: low sim Column No: 14123 Column Type: Rxi-175ms

Instrument Tune (.U or .CT.): 121208.U EM Voltage: 2424

Calibration File: df0223 Curve Date: 2.23.13 Injection Vol.: 2ul

IS/SS	Ical/Ccal	LCS/ICV
2005-1	2077-1	2022-1

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt11.i/20130223.b

	Time	Filename	LabID	ClientId	DF									
1	0936	df0223.d	DFTPP 10		1	NO ISTDS FOUND								
2	0951	ic0223a.d	SIM 250		1	6.13	255285	9.11	142891	11.76	220853	16.47	162525	19.06	139028
3	1020	ic0223b.d	SIM 1000		1	6.13	261768	9.11	147325	11.75	227826	16.47	167463	19.05	140589
4	1050	ic0223c.d	SIM 10		1	6.13	253912	9.11	139191	11.75	212997	16.46	154487	19.05	129877
5	1119	ic0223d.d	SIM 500		1	6.13	254492	9.11	141209	11.75	217906	16.46	157662	19.05	130994
6	1148	ic0223e.d	SIM 50		1	6.13	247866	9.11	133951	11.75	207726	16.46	153360	19.05	129383
7	1217	ic0223f.d	SIM 100		1	6.13	249926	9.11	136768	11.75	209065	16.46	152652	19.05	130359
8	1245	icv0223.d	SIM ICV 250		1	6.13	245685	9.11	134404	11.75	201765	16.46	150212	19.05	124288
9	1314	207702.d	207702		1	6.13	247833	9.11	133621	11.75	203907	16.46	148956	19.05	121045
10	1343	207704.d	207704		1	6.13	250225	9.11	134310	11.75	208929	16.46	148935	19.05	125260
11	1412	we13mb.d	WE13MBW1	WE13MBW1	1	6.13	253566	9.11	140998	11.75	223272	16.46	155284	19.05	132070
12	1440	we13sb.d	WE13LCSW1	WE13LCSW1	1	6.13	254711	9.11	142690	11.75	224772	16.46	161412	19.05	137437
13	1509	we13sbd.d	WE13LCSDW1	WE13LCSDW1	1	6.13	256385	9.11	144771	11.75	228325	16.46	161988	19.05	137063
14	1538	we13qls1.d	WE13QLS1		1	6.13	258780	9.11	142624	11.75	228782	16.46	159190	19.05	133513
15	1607	we13a.d	WE13A	MW-4	1	6.13	250542	9.11	138306	11.75	223123	16.46	160298	19.05	136521
16	1636	we13b.d	WE13B	MW-5	1	6.13	258018	9.11	141346	11.75	230923	16.46	164725	19.05	139916
17	1704	i8088.d	I8088		1	6.13	251254	9.11	139045	11.75	212859	16.46	149381	19.05	120565
18	1733	207104.d	207104		1	6.13	255407	9.11	139159	11.75	216546	16.46	154762	19.05	126731

2.26.13 VD

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks in StarLIMS

WJ10:01518

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt11.i/20130223.b

ARI Job No.: DFTP Method: DF8270.m Instrument: nt11.i Date: 23-FEB-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0936	df0223.d	DFTPP 10		1	NO MANUAL INTEGRATION
0951	ic0223a.d	SIM 250		1	NO MANUAL INTEGRATION
1020	ic0223b.d	SIM 1000		1	NO MANUAL INTEGRATION
1050	ic0223c.d	SIM 10		1	NO MANUAL INTEGRATION
1119	ic0223d.d	SIM 500		1	NO MANUAL INTEGRATION
1148	ic0223e.d	SIM 50		1	NO MANUAL INTEGRATION
1217	ic0223f.d	SIM 100		1	NO MANUAL INTEGRATION
1245	icv0223.d	SIM ICV 250		1	NO MANUAL INTEGRATION
1607	we13a.d	WE13A	MW-4	1	NO MANUAL INTEGRATION
1636	we13b.d	WE13B	MW-5	1	NO MANUAL INTEGRATION
1412	we13mb.d	WE13MBW1	WE13MBW1	1	NO MANUAL INTEGRATION
1538	we13qls1.d	WE13QLS1		1	NO MANUAL INTEGRATION
1440	we13sb.d	WE13LCSW1	WE13LCSW1	1	NO MANUAL INTEGRATION
1509	we13sbd.d	WE13LCSDW1	WE13LCSDW1	1	NO MANUAL INTEGRATION

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt11.i/20130223.b/lowsim.m
Batch File: /chem3/nt11.i/20130223.b
Inst ID: nt11.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	ic0223a	ic0223b	ic0223c	ic0223d	ic0223e	ic0223f
INJ.DATE:	23-FEB-2013	23-FEB-2013	23-FEB-2013	23-FEB-2013	23-FEB-2013	23-FEB-2013
INJ.TIME:	09:51	10:20	10:50	11:19	11:48	12:17

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	4 Naphthalene-d8	6.134	6.134	6.134	6.134	6.134	6.134	6.134	5.884-6.384	6.134	0.000
	5 Naphthalene	6.176	6.165	6.176	6.165	6.165	6.165	6.176	5.926-6.426	6.169	0.005
$	6 2-Methylnaphthalene-d1	7.111	7.111	7.111	7.111	7.111	7.111	7.111	6.861-7.361	7.111	0.000
	7 2-Methylnaphthalene	7.163	7.163	7.163	7.163	7.163	7.163	7.163	6.913-7.413	7.163	0.000
	8 1-Methylnaphthalene	7.415	7.415	7.415	7.415	7.415	7.415	7.415	7.165-7.665	7.415	0.000
	10 Acenaphthylene	8.950	8.950	8.950	8.950	8.950	8.950	8.950	8.700-9.200	8.950	0.000
*	11 Acenaphthene-d10	9.105	9.105	9.105	9.105	9.105	9.105	9.105	8.855-9.355	9.105	0.000
	12 Acenaphthene	9.172	9.172	9.172	9.172	9.172	9.172	9.172	8.922-9.422	9.172	0.000
	14 Dibenzofuran	9.382	9.371	9.382	9.371	9.371	9.382	9.382	9.132-9.632	9.376	0.006
	15 Fluorene	9.991	9.991	9.991	9.991	9.991	9.991	9.991	9.741-10.241	9.991	0.000
$	16 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	12.499	12.249-12.749	+++++	+++++
	17 Pentachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	13.381	13.131-13.631	+++++	+++++
*	18 Phenanthrene-d10	11.762	11.751	11.751	11.751	11.751	11.751	11.762	11.512-12.012	11.753	0.004
	19 Phenanthrene	11.796	11.796	11.796	11.796	11.796	11.796	11.796	11.546-12.046	11.796	0.000
	20 Anthracene	11.851	11.851	11.851	11.851	11.851	11.851	11.851	11.601-12.101	11.851	0.000
	22 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	14.533	14.283-14.783	+++++	+++++
$	23 Fluoranthene-d10	13.840	13.840	13.840	13.840	13.840	13.840	13.840	13.590-14.090	13.840	0.000

Reviewer 1 VD Date: 2.26.13
Reviewer 2 Date: 2/27/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt11.i/20130223.b/lowsim.m
Batch File: /chem3/nt11.i/20130223.b
Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
24 Fluoranthene	13.868	13.868	13.869	13.868	13.869	13.869	13.868	13.618-14.118	13.869	0.000
25 Pyrene	14.358	14.358	14.359	14.358	14.359	14.359	14.358	14.108-14.608	14.359	0.000
28 Benzo(a)anthracene	16.375	16.367	16.367	16.367	16.367	16.367	16.375	16.125-16.625	16.368	0.003
* 29 Chrysene-d12	16.466	16.466	16.458	16.458	16.458	16.458	16.466	16.216-16.716	16.461	0.004
30 Chrysene	16.516	16.508	16.508	16.508	16.508	16.508	16.516	16.266-16.766	16.509	0.003
44 Benzo(b)fluoranthene	18.156	18.156	18.156	18.156	18.156	18.156	18.156	17.906-18.406	18.156	0.000
45 Benzo(k)fluoranthene	18.195	18.195	18.195	18.195	18.195	18.195	18.195	17.945-18.445	18.195	0.000
46 Benzo(j)fluoranthene	18.243	18.243	18.243	18.243	18.243	18.243	18.243	17.993-18.493	18.243	0.000
34 Benzo(a)pyrene	18.877	18.877	18.877	18.877	18.877	18.877	18.877	18.627-19.127	18.877	0.000
* 35 Perylene-d12	19.059	19.050	19.050	19.050	19.050	19.050	19.059	18.809-19.309	19.051	0.004
$ 36 Dibenzo(a,h)anthracene	21.096	21.096	21.096	21.096	21.096	21.096	21.096	20.846-21.346	21.096	0.000
37 Indeno(1,2,3-cd)pyrene	21.196	21.196	21.196	21.196	21.196	21.196	21.196	20.946-21.446	21.196	0.000
38 Dibenzo(a,h)anthracene	21.196	21.185	21.185	21.185	21.185	21.185	21.196	20.946-21.446	21.187	0.004
39 Benzo(g,h,i)perylene	22.104	22.104	22.093	22.093	22.093	22.093	22.104	21.854-22.354	22.097	0.006
47 Perylene	19.107	19.107	19.108	19.107	19.108	19.108	19.107	18.857-19.357	19.107	0.000

Data File: /chem3/nt11.i/20130223.b/df0223.d

Date : 23-FEB-2013 09:36

Client ID:

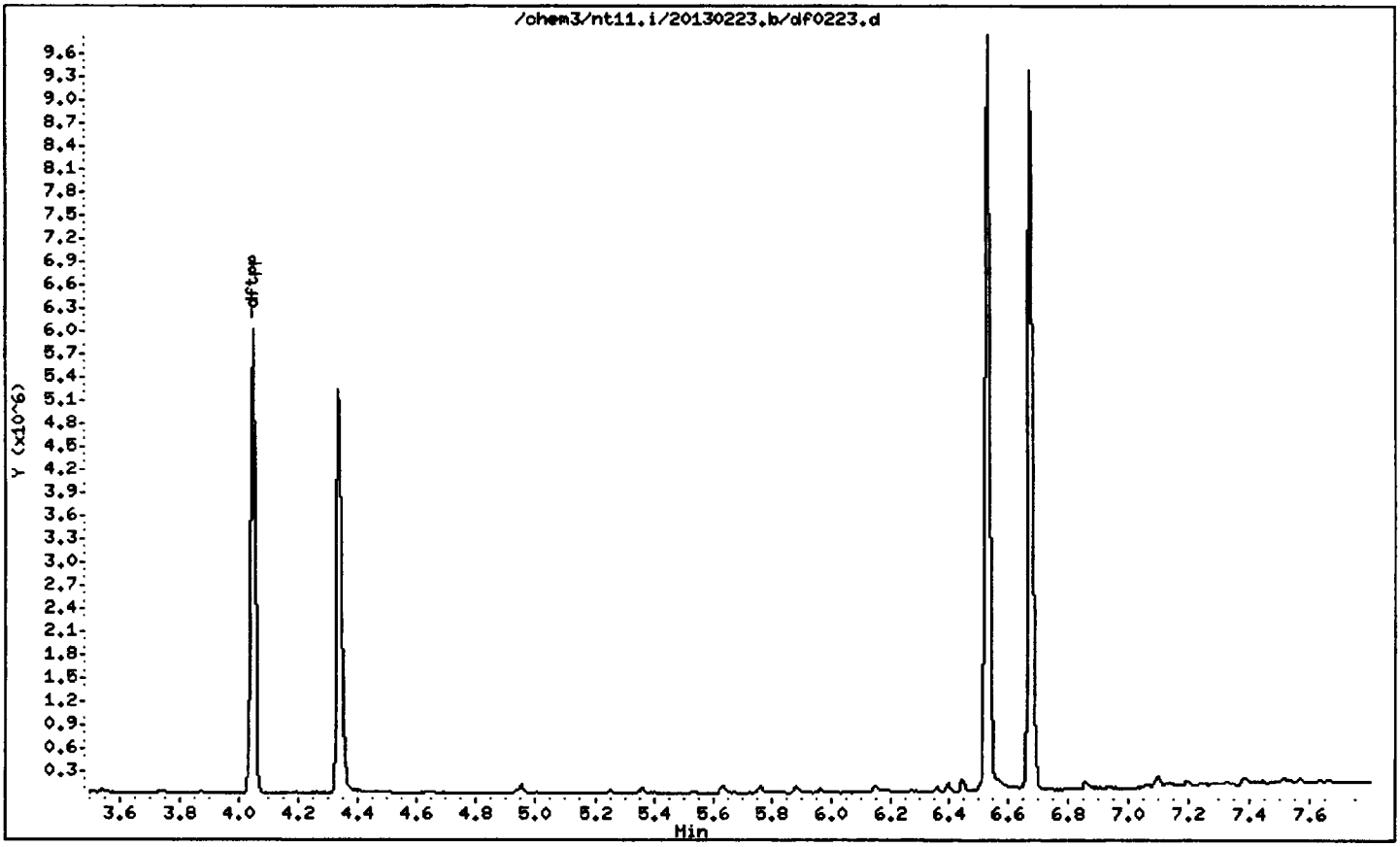
Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

Column phase: Rx1-17silms

Column diameter: 0.25



Data File: /chem3/nt11.i/20130223.b/df0223.d

Date : 23-FEB-2013 09:36

Client ID:

Instrument: nt11.i

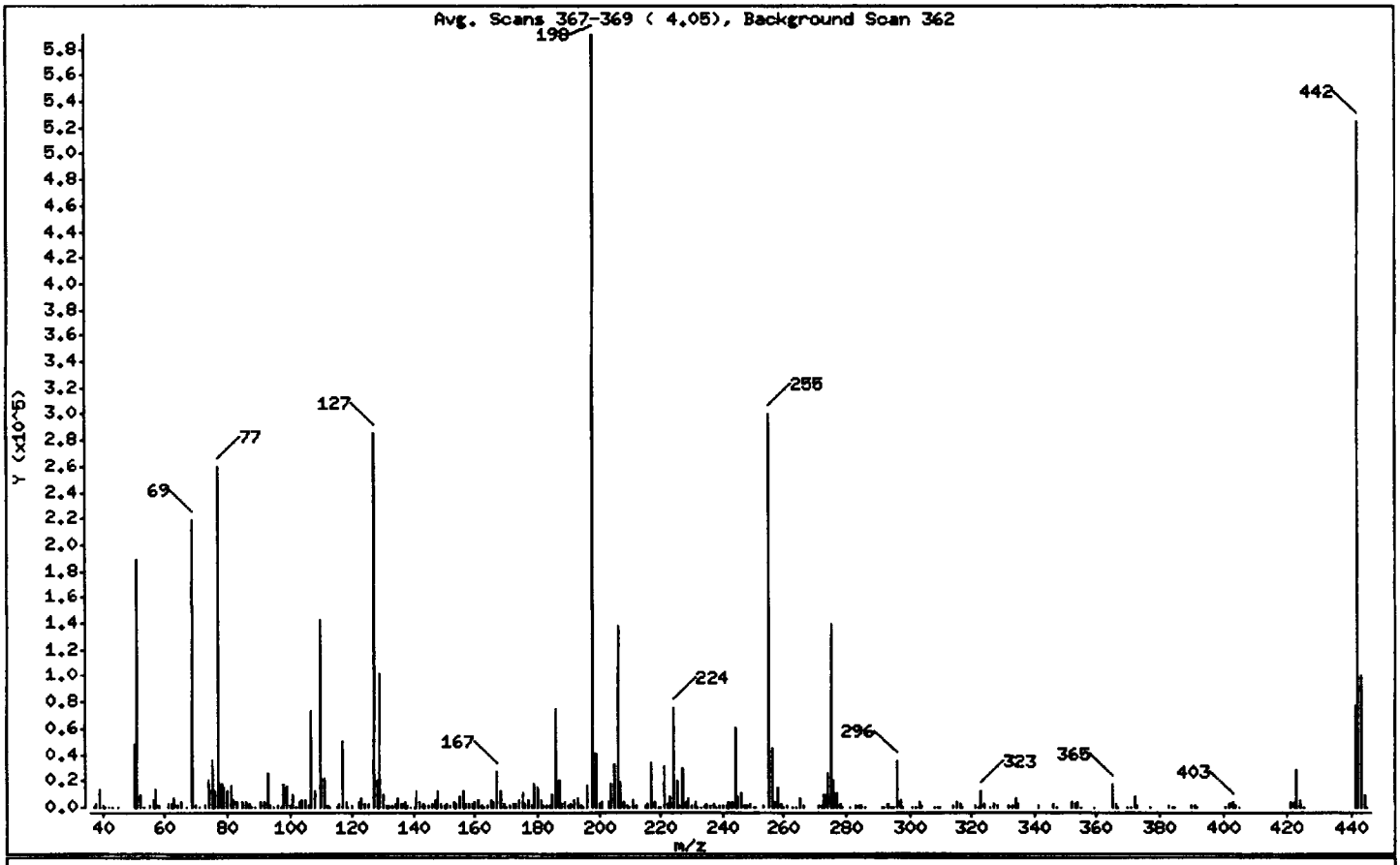
Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	31.97
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	37.09
70	Less than 2.00% of mass 69	0.20 (0.53)
127	10.00 - 80.00% of mass 198	48.29
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.85
275	10.00 - 60.00% of mass 198	23.58
365	Greater than 1.00% of mass 198	2.90
441	0.01 - 24.00% of mass 442	13.02 (14.69)
442	50.00 - 200.00% of mass 198	88.63
443	15.00 - 24.00% of mass 442	16.95 (19.13)

Data File: /chem3/nt11.i/20130223.b/df0223.d

Date : 23-FEB-2013 09:36

Client ID:

Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25

Data File: df0223.d

Spectrum: Avg. Scans 367-369 (4.05), Background Scan 362

Location of Maximum: 198.00

Number of points: 288

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	87	127.00	285696	201.00	3636	285.00	2018
38.00	2104	128.00	20472	203.00	3970	286.00	190
39.00	13694	129.00	102440	204.00	18320	291.00	440
40.00	781	130.00	8947	205.00	32432	292.00	491
41.00	369	131.00	1836	206.00	139008	293.00	2988
42.00	571	132.00	1093	207.00	18720	294.00	222
43.00	274	133.00	794	208.00	4468	295.00	393
45.00	525	134.00	2890	209.00	1199	296.00	35608
50.00	48064	135.00	7460	210.00	499	297.00	4935
51.00	189120	136.00	3328	211.00	5760	298.00	356
52.00	9614	137.00	4379	212.00	992	301.00	605
53.00	260	138.00	1207	215.00	1133	302.00	499
55.00	1592	139.00	232	216.00	2227	303.00	4743
56.00	5449	140.00	648	217.00	34312	304.00	1033
57.00	14123	141.00	11563	218.00	4578	308.00	363
58.00	761	142.00	3631	219.00	540	309.00	217
61.00	2804	143.00	2718	220.00	243	310.00	210
62.00	2969	144.00	867	221.00	31560	314.00	1587
63.00	7096	145.00	843	222.00	2462	315.00	4117
64.00	1390	146.00	2620	223.00	8679	316.00	2255
65.00	4494	147.00	5579	224.00	76032	317.00	381
67.00	663	148.00	12683	225.00	20892	321.00	1252
69.00	219456	149.00	3106	226.00	1391	322.00	301
70.00	1159	150.00	1303	227.00	29320	323.00	12190
71.00	394	151.00	2215	228.00	3963	324.00	2644
73.00	1075	152.00	1200	229.00	6381	326.00	176
74.00	21080	153.00	3757	230.00	873	327.00	2233
75.00	35568	154.00	3348	231.00	3573	328.00	1061
76.00	12220	155.00	7965	232.00	246	332.00	772
77.00	259264	156.00	11745	233.00	584	333.00	968
78.00	17496	157.00	2294	234.00	1734	334.00	7370
79.00	15272	158.00	2872	235.00	2209	335.00	2642
80.00	11616	159.00	2439	236.00	1621	341.00	1531
81.00	16672	160.00	4185	237.00	2569	346.00	2617
82.00	4861	161.00	5614	238.00	409	347.00	213

Data File: /ohem3/nt11.i/20130223.b/df0223.d

Date : 23-FEB-2013 09:36

Client ID:

Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25

Data File: df0223.d
Spectrum: Avg. Scans 367-369 (4.05), Background Scan 362
Location of Maximum: 198.00
Number of points: 288

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	3674	162.00	1873	239.00	1453	352.00	4182
85.00	4045	163.00	588	240.00	1096	353.00	2655
86.00	3583	164.00	736	241.00	1902	354.00	4443
87.00	2329	165.00	4817	242.00	4204	355.00	554
88.00	556	166.00	4083	243.00	3830	359.00	312
89.00	209	167.00	26624	244.00	61184	365.00	17144
91.00	4040	168.00	12011	245.00	8071	366.00	2766
92.00	4309	169.00	2414	246.00	10664	367.00	168
93.00	25176	170.00	669	247.00	1812	370.00	257
94.00	1657	171.00	1064	248.00	754	371.00	670
95.00	532	172.00	2358	249.00	2141	372.00	7502
96.00	1439	173.00	3256	250.00	482	373.00	1640
97.00	436	174.00	5621	251.00	265	377.00	460
98.00	18032	175.00	10303	252.00	228	383.00	1904
99.00	15688	176.00	3308	253.00	1624	384.00	238
100.00	919	177.00	5015	255.00	300224	385.00	218
101.00	9474	178.00	1568	256.00	44856	390.00	907
102.00	554	179.00	18272	257.00	3564	391.00	784
103.00	3556	180.00	14686	258.00	14980	392.00	229
104.00	5899	181.00	5483	259.00	3085	401.00	423
105.00	5084	182.00	1421	260.00	589	402.00	2971
106.00	1322	183.00	772	261.00	718	403.00	4024
107.00	73912	184.00	1234	263.00	167	404.00	1453
108.00	11775	185.00	9615	264.00	610	405.00	392
110.00	143040	186.00	75216	265.00	6208	421.00	4156
111.00	21544	187.00	19976	266.00	806	422.00	3577
112.00	1985	188.00	2441	271.00	878	423.00	28360
113.00	528	189.00	3472	272.00	862	424.00	5622
115.00	234	190.00	828	273.00	9352	425.00	391
116.00	3241	191.00	2147	274.00	25336	441.00	77024
117.00	50824	192.00	6079	275.00	139456	442.00	524416
118.00	3973	193.00	6426	276.00	20216	443.00	100312
119.00	204	194.00	1474	277.00	10549	444.00	9753
120.00	911	195.00	609	278.00	2300	445.00	435
122.00	4758	196.00	16105	279.00	484		

Date : 23-FEB-2013 09:36

Client ID: Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

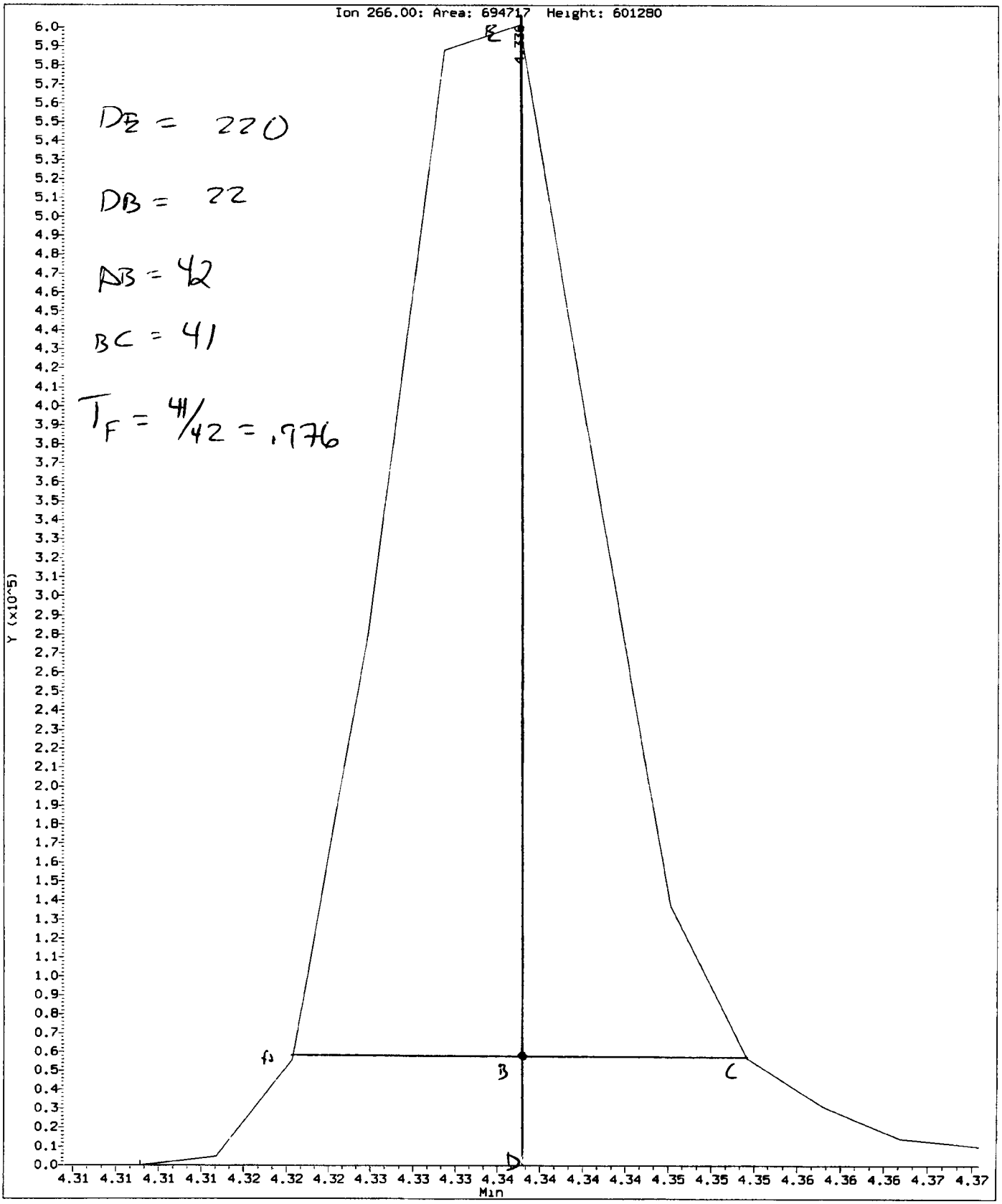
Column phase: Rxi-17sil ms Column diameter: 0.25

Data File: df0223.d
Spectrum: Avg. Scans 367-369 (4.05), Background Scan 362
Location of Maximum: 198.00
Number of points: 288

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	6967	198.00	591680	281.00	179		
124.00	3223	199.00	40552	283.00	1444		
125.00	3267	200.00	2987	284.00	926		

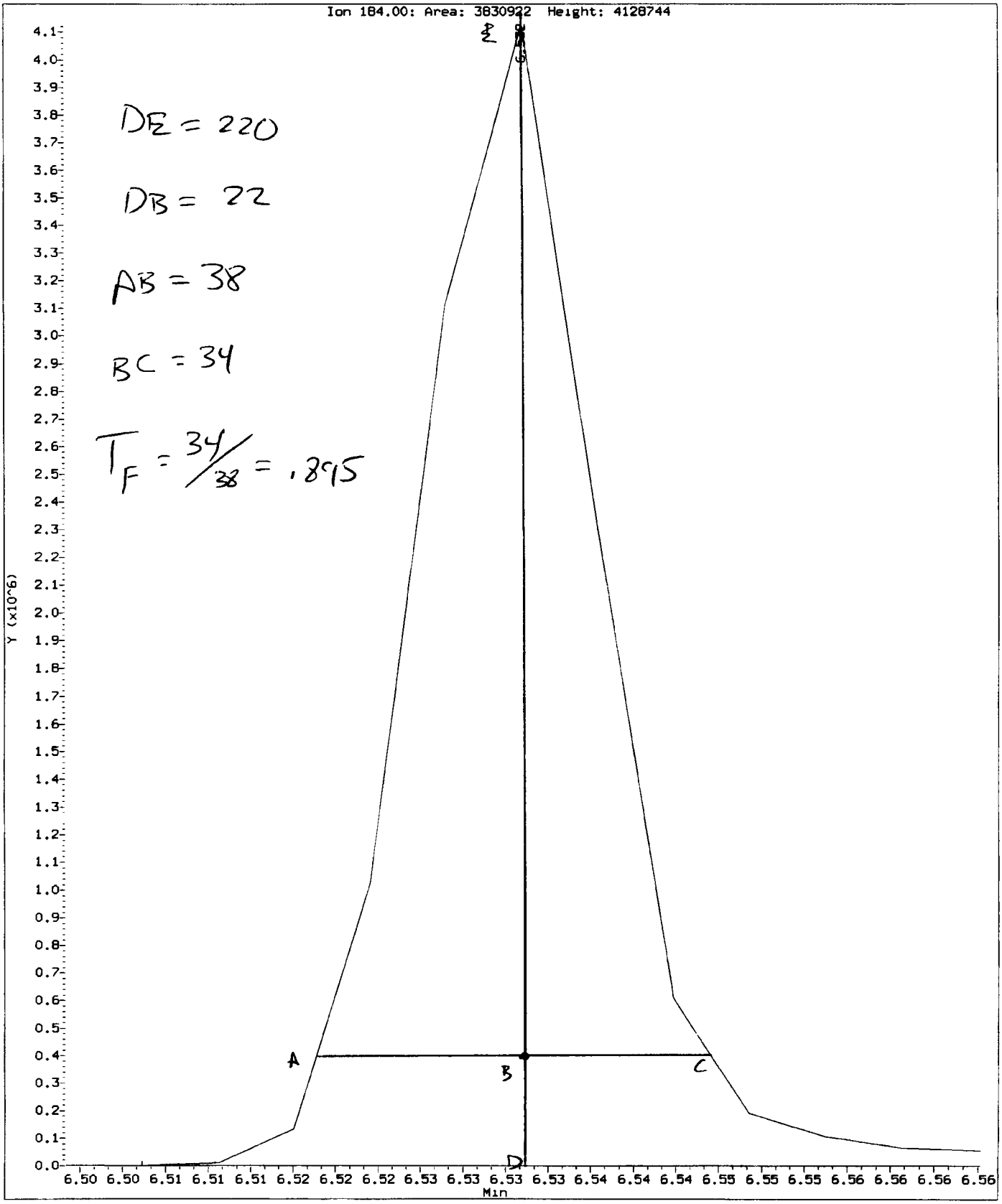
Data File: /chem3/nt11.i/20130223.b/DDT.b/df0223.d
Injection Date: 23-FEB-2013 09:36
Instrument: nt11.i
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem3/nt11.i/20130223.b/DDT.b/df0223.d
Injection Date: 23-FEB-2013 09:36
Instrument: nt11.i
Client Sample ID:

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt11.i/20130223.b/DDT.b/df0223.d ARI ID: DFTPP 10
Method: /chem3/nt11.i/20130223.b/DDT.b/sw846ddt.m Misc:
Analysis Date: 23-FEB-2013 09:36 Instrument: nt11.i

COMPOUND	RT	AREA
Pentachlorophenol	4.336	694717
Benzidine	6.532	3830922
4,4'-DDE	5.966	4749
4,4'-DDD	6.447	30439
4,4'-DDT	6.671	1775888

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 4749 + 30439) * 100}{(\ 4749 + 30439 + 1775888)}$$

DDT Percent Breakdown = 1.9 %

Q-FLAG SUMMARY FOR DATABATCH - /chem3/nt11.i/20130223.b

Instrument: nt11.i Date: 23-FEB-2013 Method: lowsim.m

INITIAL CAL: 23-FEB-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 23-FEB-2013

Compound	%D
NO Q-FLAGS	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2013 09:51
End Cal Date : 23-FEB-2013 12:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt11.i/20130223.b/lowsim.m
Cal Date : 23-Feb-2013 12:48 van
Curve Type : Average

Calibration File Names:
Level 1: /chem3/nt11.i/20130223.b/ic0223c.d
Level 2: /chem3/nt11.i/20130223.b/ic0223e.d
Level 3: /chem3/nt11.i/20130223.b/ic0223f.d
Level 4: /chem3/nt11.i/20130223.b/ic0223a.d
Level 5: /chem3/nt11.i/20130223.b/ic0223d.d
Level 6: /chem3/nt11.i/20130223.b/ic0223b.d

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
5 Naphthalene	1.17986	1.07038	1.12173	1.07243	1.05630	1.06975	1.09508	4.315
7 2-Methylnaphthalene	0.70009	0.65437	0.70055	0.68821	0.67773	0.69131	0.68537	2.535
8 1-Methylnaphthalene	0.73994	0.65390	0.70042	0.68367	0.67218	0.68373	0.68897	4.255
10 Acenaphthylene	1.84021	1.67975	1.75477	1.78640	1.78255	1.87074	1.78573	3.748
12 Acenaphthene	1.22752	1.13659	1.19934	1.16361	1.16498	1.18041	1.17874	2.683
14 Dibenzofuran	1.81808	1.67485	1.78559	1.66071	1.66927	1.69412	1.71710	3.921
15 Fluorene	1.33744	1.22307	1.28298	1.27056	1.27104	1.30630	1.28190	2.999
17 Pentachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Phenanthrene	1.29147	1.19136	1.28319	1.20741	1.21515	1.22365	1.23537	3.376
20 Anthracene	1.16152	1.07209	1.18065	1.15970	1.15909	1.21883	1.15865	4.159
22 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Fluoranthene	1.21654	1.13663	1.25125	1.23561	1.23597	1.25192	1.22132	3.559
25 Pyrene	1.74397	1.53685	1.69519	1.67448	1.70011	1.69862	1.67487	4.259
28 Benzo(a)anthracene	1.42951	1.29246	1.40124	1.39924	1.37922	1.40235	1.38400	3.441
30 Chrysene	1.51404	1.35660	1.48567	1.40588	1.41140	1.40779	1.43023	4.073
44 Benzo(b)fluoranthene	1.63909	1.53504	1.64903	1.50529	1.61012	1.57183	1.58507	3.644
45 Benzo(k)fluoranthene	1.82896	1.54799	1.66440	1.77352	1.75834	1.76863	1.72364	5.869
46 Benzo(j)fluoranthene	1.71085	1.80116	1.88590	1.70137	1.70454	1.69282	1.74944	4.451
34 Benzo(a)pyrene	1.37546	1.25064	1.35897	1.34791	1.34169	1.35196	1.33777	3.306
37 Indeno(1,2,3-cd)pyrene	1.64325	1.52366	1.70267	1.64740	1.67639	1.68623	1.64660	3.910
38 Dibenzo(a,h)anthracene	1.42304	1.20093	1.36598	1.30065	1.32370	1.32911	1.32390	5.580

Analytical Resources, Inc.

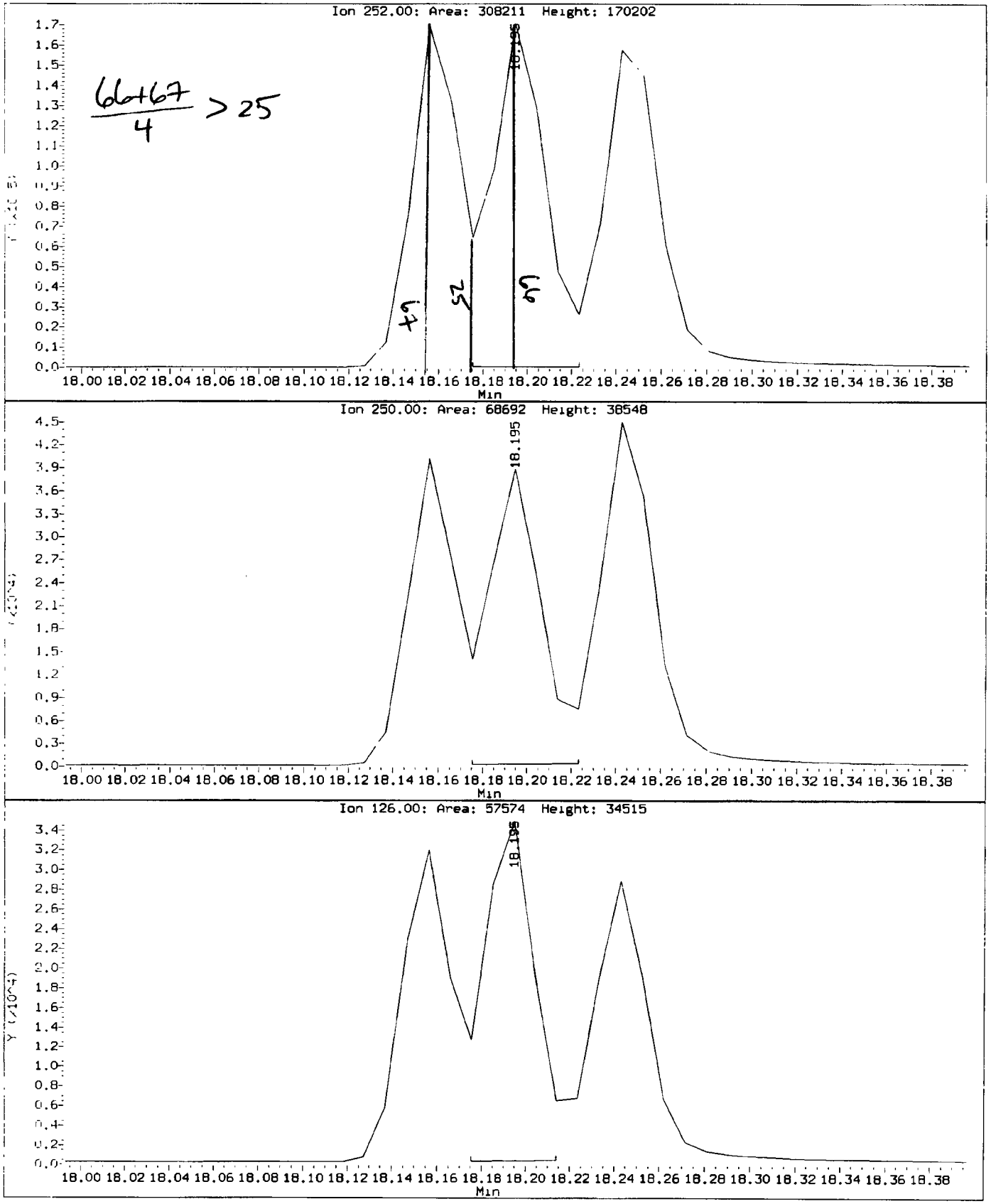
INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2013 09:51
End Cal Date : 23-FEB-2013 12:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt11.i/20130223.b/lowsim.m
Cal Date : 23-Feb-2013 12:48 van
Curve Type : Average

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
39 Benzo(g,h,i)perylene	1.63740	1.39502	1.50380	1.42776	1.44835	1.42748	1.47330	5.978
47 Perylene	1.60629	1.44987	1.57488	1.50213	1.50270	1.50783	1.52395	3.718
$ 6 2-Methylnaphthalene-d10	0.62998	0.61614	0.64871	0.63509	0.62909	0.63828	0.63288	1.713
$ 16 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 23 Fluoranthene-d10	0.99851	0.95924	1.04391	1.06478	1.05975	1.09373	1.03665	4.742
$ 36 Dibenzo(a,h)anthracene-d14	1.08287	1.08091	1.18009	1.16289	1.17177	1.17924	1.14296	4.174

Data File: /chem3/nt11.i/20130223.b/ic0223a.d
Injection Date: 23-FEB-2013 09:51
Instrument: nt11.i
Client Sample ID:

Compound: Benzo(k)fluoranthene
CAS Number:



Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130223.b/ic0223a.d
Lab Smp Id: SIM 250
Inj Date : 23-FEB-2013 09:51
Operator : VTS Inst ID: nt11.i
Smp Info : SIM 250
Misc Info :
Comment :
Method : /chem3/nt11.i/20130223.b/lowsim.m
Meth Date : 23-Feb-2013 14:06 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.134	6.134	(1.000)	255285	200 000	
	5 Naphthalene	128	6.176	6.165	(1.007)	342218	250 000	245
$	6 2-Methylnaphthalene-d10	152	7.111	7.111	(1.159)	202662	250.000	251
	7 2-Methylnaphthalene	142	7.163	7.163	(1.168)	219611	250.000	251
	8 1-methylnaphthalene	142	7.415	7.415	(1.209)	218163	250.000	248
	10 Acenaphthylene	152	8.950	8 950	(0.983)	319075	250.000	250
*	11 Acenaphthene-d10	164	9.105	9.105	(1.000)	142891	200.000	
	12 Acenaphthene	153	9.172	9.172	(1.007)	207836	250.000	247
	14 Dibenzofuran	168	9.382	9.382	(1.030)	296626	250.000	242
	15 Fluorene	166	9.991	9.991	(1.097)	226939	250 000	248
*	18 Phenanthrene-d10	188	11.762	11.751	(1.000)	220853	200.000	
	19 Phenanthrene	178	11.796	11.796	(1.003)	333326	250.000	244
	20 Anthracene	178	11 851	11.851	(1.008)	320155	250 000	250
$	23 Fluoranthene-d10	212	13.840	13.840	(1.177)	293951	250.000	257
	24 Fluoranthene	202	13.868	13.869	(1.179)	341109	250.000	253
	25 Pyrene	202	14.358	14.359	(0.872)	340181	250.000	250
	28 Benzo(a)anthracene	228	16 375	16.367	(0.994)	284264	250 000	253
*	29 Chrysene-d12	240	16.466	16.458	(1.000)	162525	200.000	
	30 Chrysene	228	16.516	16.508	(1.003)	285614	250.000	246
	44 Benzo(b)fluoranthene	252	18.156	18.156	(0.953)	261597	250.000	237
	45 Benzo(k)fluoranthene	252	18.195	18.195	(0.955)	308211	250.000	257
	46 Benzo(j)fluoranthene	252	18.243	18.243	(0.957)	295672	250.000	243
	34 Benzo(a)pyrene	252	18.877	18.877	(0.990)	234246	250.000	252
*	35 Perylene-d12	264	19.059	19.050	(1.000)	139028	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	21 196	21.196	(1.112)	286294	250.000	250
$	36 Dibenzo(a,h)anthracene-d14	292	21.096	21.096	(1.107)	202092	250.000	254

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
38 Dibenzo(a,h)anthracene	278	21.196	21.185	(1.112)	226033	250.000	246
39 Benzo(g,h,i)perylene	276	22 104	22.093	(1.160)	248124	250.000	242
47 Perylene	252	19 107	19.108	(1.003)	261047	250.000	246

2.23.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0223a.d
Lab Smp Id: SIM 250
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130223.b/lowsim.m
Misc Info:

Calibration Date: 23-FEB-2013
Calibration Time: 09:51
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	255285	0.00
11 Acenaphthene-d10	142891	71446	285782	142891	0.00
18 Phenanthrene-d10	220853	110426	441706	220853	0.00
29 Chrysene-d12	162525	81262	325050	162525	0.00
35 Perylene-d12	139028	69514	278056	139028	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.76	11.26	12.26	11.76	0.00
29 Chrysene-d12	16.47	15.97	16.97	16.47	0.00
35 Perylene-d12	19.06	18.56	19.56	19.06	0.00

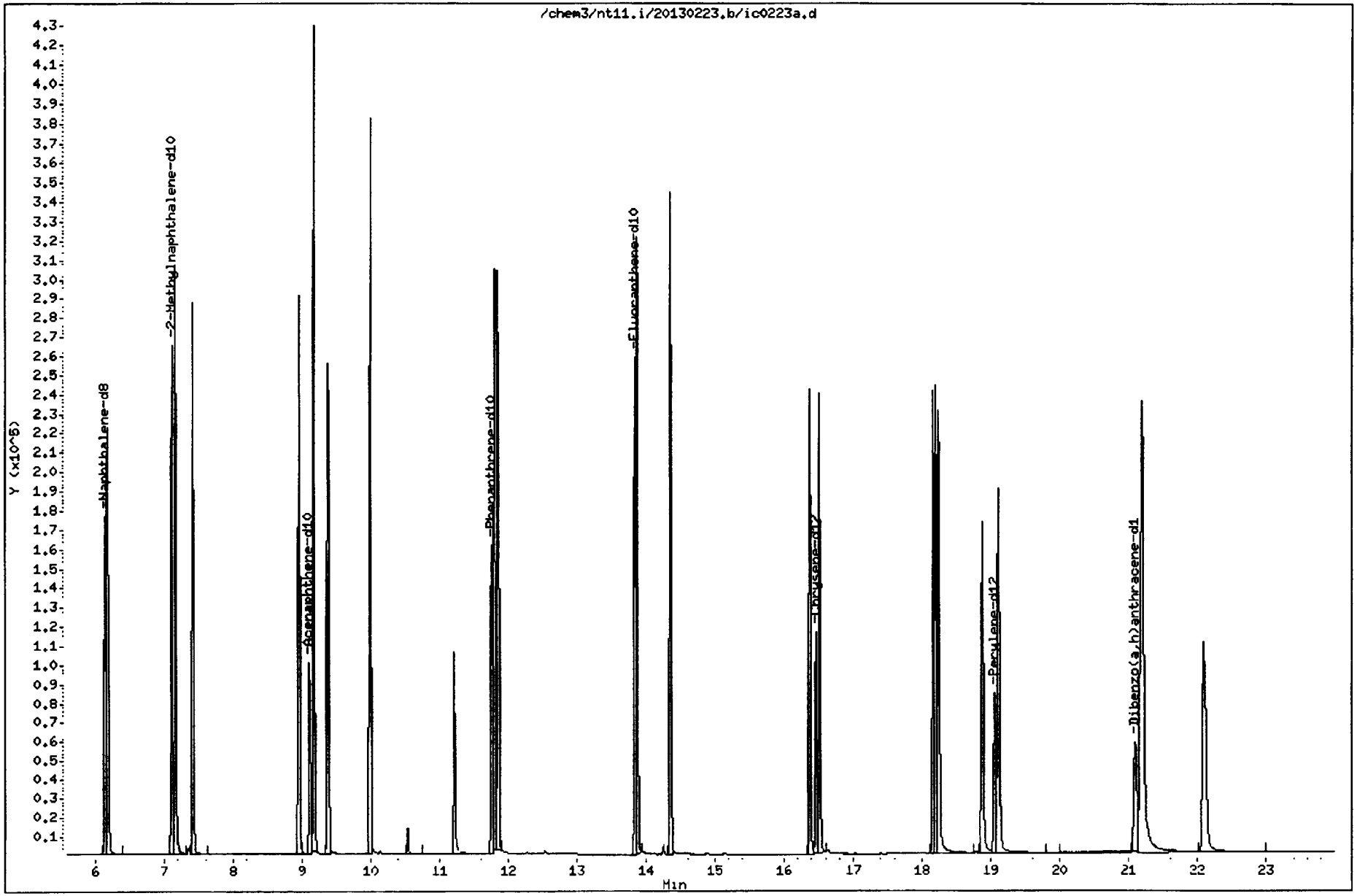
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20130223.b/ic0223a.d
Date : 23-FEB-2013 09:51
Client ID:
Sample Info: SIM 250

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



CO-ELUTION SUMMARY FOR FILE - ic0223a.d

Lab ID: SIM 250, Method: lowsim.m, Instrument: nt11.i, Date: 23-FEB-2013

RT	CO-ELUTION COMPOUNDS
21.196	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
21.196	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130223.b/ic0223b.d
Lab Smp Id: SIM 1000
Inj Date : 23-FEB-2013 10:20
Operator : VTS Inst ID: nt11.i
Smp Info : SIM 1000
Misc Info :
Comment :
Method : /chem3/nt11.i/20130223.b/lowsim.m
Meth Date : 23-Feb-2013 14:06 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	4	Naphthalene-d8	136	6.134	6.134	(1.000)	261768	200.000	
	5	Naphthalene	128	6.165	6.165	(1.005)	1400135	1000.00	977
$	6	2-Methylnaphthalene-d10	152	7.111	7.111	(1.159)	835406	1000 00	1010
	7	2-Methylnaphthalene	142	7.163	7.163	(1.168)	904810	1000.00	1010
	8	1-methylnaphthalene	142	7.415	7.415	(1.209)	894890	1000.00	992
	10	Acenaphthylene	152	8.950	8.950	(0.983)	1378031	1000.00	1050
*	11	Acenaphthene-d10	164	9.105	9.105	(1.000)	147325	200.000	
	12	Acenaphthene	153	9.172	9.172	(1.007)	869519	1000.00	1000
	14	Dibenzofuran	168	9.371	9.382	(1.029)	1247933	1000.00	987
	15	Fluorene	166	9.991	9.991	(1.097)	962250	1000.00	1020
*	18	Phenanthrene-d10	188	11.751	11.751	(1.000)	227826	200.000	
	19	Phenanthrene	178	11.796	11.796	(1.004)	1393902	1000.00	991
	20	Anthracene	178	11.851	11.851	(1.008)	1388411	1000 00	1050
$	23	Fluoranthene-d10	212	13.840	13.840	(1 178)	1245902	1000.00	1060
	24	Fluoranthene	202	13.868	13.869	(1.180)	1426096	1000.00	1030
	25	Pyrene	202	14.358	14.359	(0.872)	1422284	1000.00	1010
	28	Benzo(a)anthracene	228	16.367	16.367	(0.994)	1174210	1000.00	1010
*	29	Chrysene-d12	240	16.466	16 458	(1.000)	167463	200.000	
	30	Chrysene	228	16.508	16.508	(1.003)	1178764	1000.00	984
	44	Benzo(b)fluoranthene	252	18.156	18.156	(0.953)	1104910	1000 00	992
	45	Benzo(k)fluoranthene	252	18.195	18.195	(0.955)	1243248	1000.00	1030
	46	Benzo(j)fluoranthene	252	18 243	18.243	(0.958)	1189959	1000.00	968
	34	Benzo(a)pyrene	252	18.877	18.877	(0.991)	950356	1000 00	1010
*	35	Perylene-d12	264	19.050	19.050	(1.000)	140589	200.000	
	37	Indeno(1,2,3-cd)pyrene	276	21.196	21.196	(1.113)	1185324	1000.00	1020
$	36	Dibenzo(a,h)anthracene-d14	292	21.096	21.096	(1.107)	828941	1000.00	1030

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
38 Dibenzo(a,h)anthracene	278	21 185	21 185	(1.112)	934294	1000.00	1000
39 Benzo(g,h,i)perylene	276	22.104	22.093	(1.160)	1003437	1000.00	969
47 Perylene	252	19.107	19.108	(1.003)	1059924	1000.00	989

2.23.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0223b.d
Lab Smp Id: SIM 1000
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130223.b/lowsim.m
Misc Info:

Calibration Date: 23-FEB-2013
Calibration Time: 09:51
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	261768	2.54
11 Acenaphthene-d10	142891	71446	285782	147325	3.10
18 Phenanthrene-d10	220853	110426	441706	227826	3.16
29 Chrysene-d12	162525	81262	325050	167463	3.04
35 Perylene-d12	139028	69514	278056	140589	1.12

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.76	11.26	12.26	11.75	-0.09
29 Chrysene-d12	16.47	15.97	16.97	16.47	0.00
35 Perylene-d12	19.06	18.56	19.56	19.05	-0.05

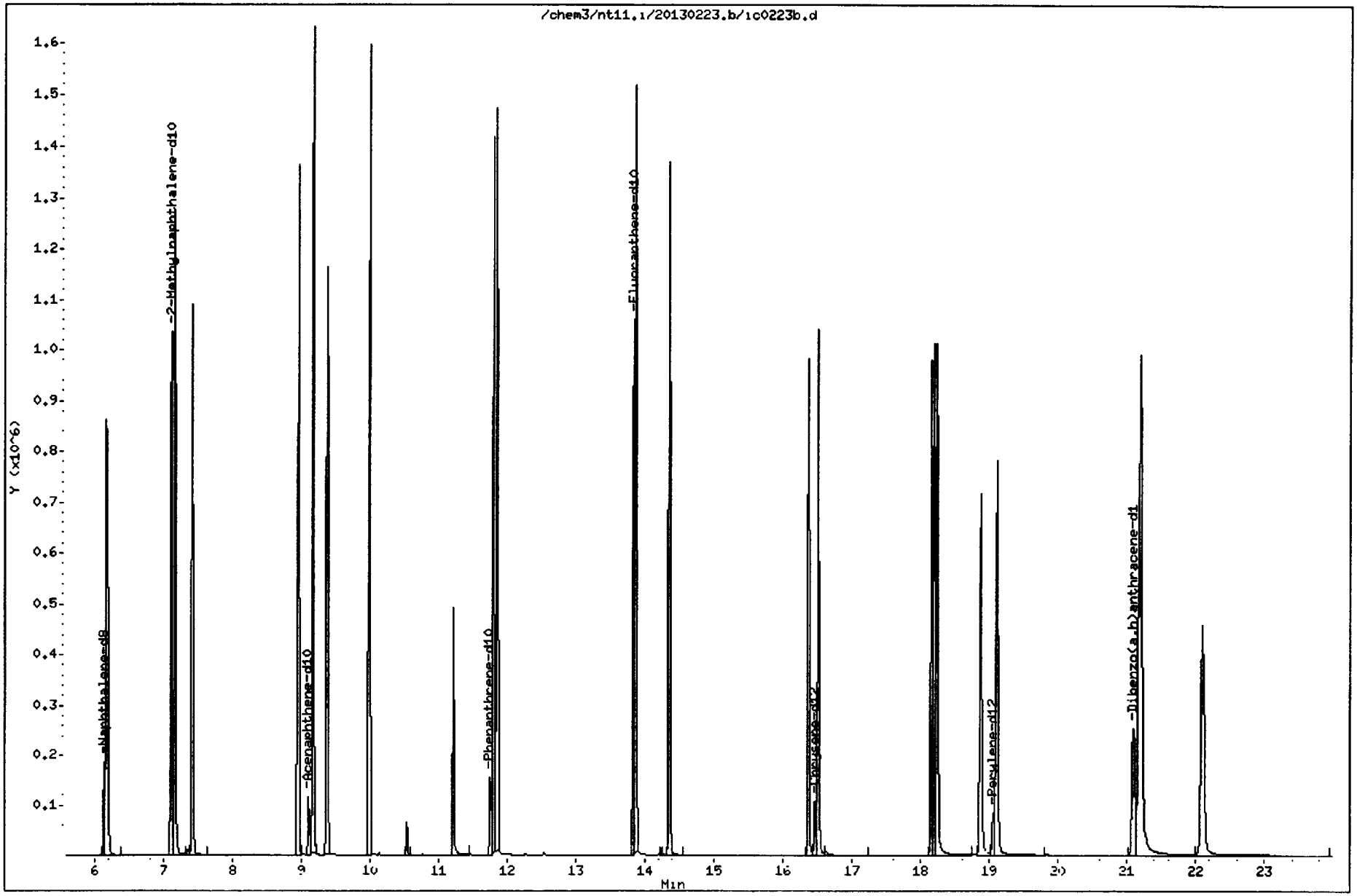
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.1/20130223.b/1c0223b.d
Date : 23-FEB-2013 10:20
Client ID:
Sample Info: SIM 1000

Instrument: nt11.1

Operator: WTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



CO-ELUTION SUMMARY FOR FILE - ic0223b.d

Lab ID: SIM 1000, Method: lowsim.m, Instrument: nt11.i, Date: 23-FEB-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130223.b/ic0223c.d
Lab Smp Id: SIM 10
Inj Date : 23-FEB-2013 10:50
Operator : VTS Inst ID: nt11.i
Smp Info : SIM 10
Misc Info :
Comment :
Method : /chem3/nt11.i/20130223.b/lowsim.m
Meth Date : 23-Feb-2013 14:06 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.134	6.134	(1.000)	253912	200.000	
	5 Naphthalene	128	6.176	6.165	(1.007)	14979	10.0000	10.8
$	6 2-Methylnaphthalene-d10	152	7.111	7.111	(1.159)	7998	10.0000	9.95
	7 2-Methylnaphthalene	142	7.163	7.163	(1.168)	8888	10.0000	10.2
	8 1-methylnaphthalene	142	7.415	7 415	(1 209)	9394	10.0000	10 7
	10 Acenaphthylene	152	8 950	8.950	(0.983)	12807	10.0000	10.3
*	11 Acenaphthene-d10	164	9 105	9.105	(1.000)	139191	200.000	
	12 Acenaphthene	153	9.172	9.172	(1.007)	8543	10.0000	10 4
	14 Dibenzofuran	168	9.382	9.382	(1.030)	12653	10.0000	10.6
	15 Fluorene	166	9.991	9.991	(1.097)	9308	10.0000	10.4
*	18 Phenanthrene-d10	188	11.751	11.751	(1.000)	212997	200.000	
	19 Phenanthrene	178	11.796	11.796	(1.004)	13754	10.0000	10.5
	20 Anthracene	178	11.851	11.851	(1.008)	12370	10 0000	10 0
$	23 Fluoranthene-d10	212	13.840	13.840	(1.178)	10634	10.0000	9.63
	24 Fluoranthene	202	13.869	13.869	(1.180)	12956	10.0000	9.96
	25 Pyrene	202	14.359	14.359	(0.872)	13471	10.0000	10.4
	28 Benzo(a)anthracene	228	16.367	16.367	(0.994)	11042	10.0000	10.3
*	29 Chrysene-d12	240	16.458	16.458	(1.000)	154487	200.000	
	30 Chrysene	228	16.508	16.508	(1.003)	11695	10.0000	10 6
	44 Benzo(b)fluoranthene	252	18.156	18.156	(0.953)	10644	10.0000	10.3
	45 Benzo(k)fluoranthene	252	18.195	18.195	(0.955)	11877	10.0000	10 6
	46 Benzo(j)fluoranthene	252	18.243	18.243	(0.958)	11110	10.0000	9.78
	34 Benzo(a)pyrene	252	18.877	18.877	(0.991)	8932	10.0000	10.3
*	35 Perylene-d12	264	19.050	19.050	(1.000)	129877	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	21.196	21 196	(1.113)	10671	10.0000	9.98
$	36 Dibenzo(a,h)anthracene-d14	292	21.096	21.096	(1.107)	7032	10.0000	9.47

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
38 Dibenzo(a,h)anthracene	278	21.185	21.185	(1.112)	9241	10.0000	10 7
39 Benzo(g,h,i)perylene	276	22.093	22.093	(1.160)	10633	10.0000	11.1
47 Perylene	252	19.108	19.108	(1.003)	10431	10.0000	10.5

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2.23.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0223c.d
Lab Smp Id: SIM 10
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130223.b/lowsim.m
Misc Info:

Calibration Date: 23-FEB-2013
Calibration Time: 09:51
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	253912	-0.54
11 Acenaphthene-d10	142891	71446	285782	139191	-2.59
18 Phenanthrene-d10	220853	110426	441706	212997	-3.56
29 Chrysene-d12	162525	81262	325050	154487	-4.95
35 Perylene-d12	139028	69514	278056	129877	-6.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.76	11.26	12.26	11.75	-0.09
29 Chrysene-d12	16.47	15.97	16.97	16.46	-0.05
35 Perylene-d12	19.06	18.56	19.56	19.05	-0.05

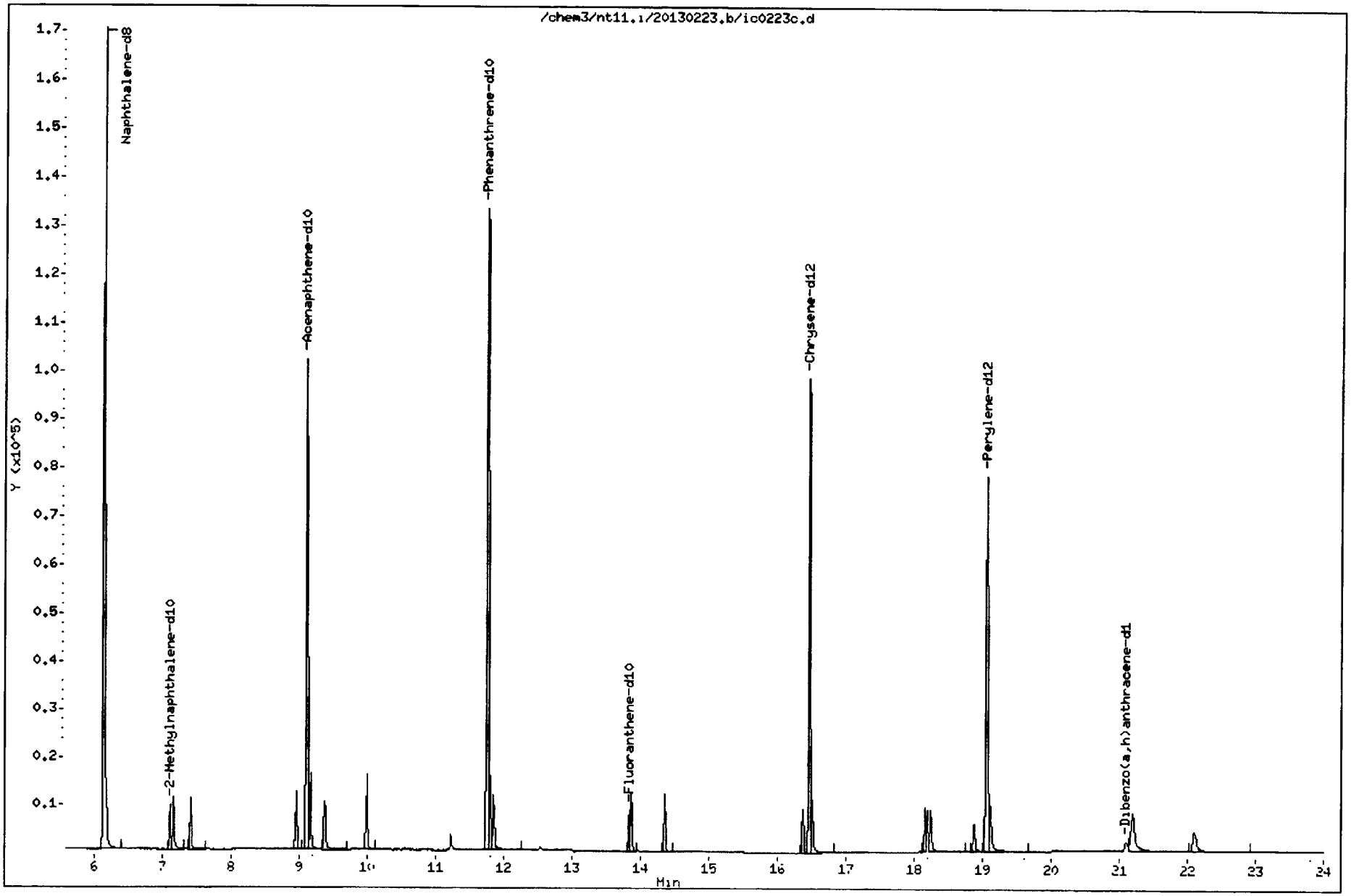
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20130223.b/ic0223c.d
Date : 23-FEB-2013 10:50
Client ID:
Sample Info: SIM 10

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



CO-ELUTION SUMMARY FOR FILE - ic0223c.d

Lab ID: SIM 10, Method: lowsim.m, Instrument: nt11.i, Date: 23-FEB-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130223.b/ic0223d.d
Lab Smp Id: SIM 500
Inj Date : 23-FEB-2013 11:19
Operator : VTS Inst ID: nt11.i
Smp Info : SIM 500
Misc Info :
Comment :
Method : /chem3/nt11.i/20130223.b/lowsim.m
Meth Date : 23-Feb-2013 14:06 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	4	Naphthalene-d8	136	6.134	6.134	(1.000)	254492	200.000	
	5	Naphthalene	128	6.165	6.165	(1.005)	672050	500.000	482
$	6	2-Methylnaphthalene-d10	152	7.111	7.111	(1.159)	400247	500.000	497
	7	2-Methylnaphthalene	142	7.163	7.163	(1.168)	431191	500.000	494
	8	1-methylnaphthalene	142	7.415	7.415	(1.209)	427661	500.000	488
	10	Acenaphthylene	152	8.950	8.950	(0.983)	629280	500.000	499
*	11	Acenaphthene-d10	164	9.105	9.105	(1.000)	141209	200.000	
	12	Acenaphthene	153	9.172	9.172	(1.007)	411264	500.000	494
	14	Dibenzofuran	168	9.371	9.382	(1.029)	589291	500 000	486
	15	Fluorene	166	9.991	9.991	(1.097)	448706	500.000	496
*	18	Phenanthrene-d10	188	11.751	11.751	(1.000)	217906	200.000	
	19	Phenanthrene	178	11.796	11.796	(1.004)	661971	500.000	492
	20	Anthracene	178	11.851	11.851	(1.008)	631431	500 000	500
$	23	Fluoranthene-d10	212	13.840	13.840	(1.178)	577312	500.000	511
	24	Fluoranthene	202	13.868	13 869	(1.180)	673313	500.000	506
	25	Pyrene	202	14.358	14.359	(0.872)	670106	500.000	508
	28	Benzo(a)anthracene	228	16.367	16.367	(0.994)	543626	500.000	498
*	29	Chrysene-d12	240	16.458	16.458	(1.000)	157662	200 000	
	30	Chrysene	228	16 508	16.508	(1.003)	556309	500.000	493
	44	Benzo(b)fluoranthene	252	18.156	18.156	(0.953)	527291	500.000	508
	45	Benzo(k)fluoranthene	252	18.195	18 195	(0.955)	575831	500.000	510
	46	Benzo(j)fluoranthene	252	18.243	18.243	(0.958)	558212	500.000	487
	34	Benzo(a)pyrene	252	18.877	18.877	(0 991)	439384	500.000	501
*	35	Perylene-d12	264	19.050	19.050	(1.000)	130994	200.000	
	37	Indeno(1,2,3-cd)pyrene	276	21 196	21.196	(1.113)	548992	500.000	509
$	36	Dibenzo(a,h)anthracene-d14	292	21.096	21.096	(1.107)	383736	500.000	513

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
38 Dibenzo(a,h)anthracene	278	21.185	21.185	(1.112)	433493	500.000	500
39 Benzo(g,h,i)perylene	276	22 093	22.093	(1.160)	474314	500.000	492
47 Perylene	252	19 107	19.108	(1.003)	492112	500.000	493

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Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0223d.d
Lab Smp Id: SIM 500
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130223.b/lowsim.m
Misc Info:

Calibration Date: 23-FEB-2013
Calibration Time: 09:51
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	254492	-0.31
11 Acenaphthene-d10	142891	71446	285782	141209	-1.18
18 Phenanthrene-d10	220853	110426	441706	217906	-1.33
29 Chrysene-d12	162525	81262	325050	157662	-2.99
35 Perylene-d12	139028	69514	278056	130994	-5.78

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.76	11.26	12.26	11.75	-0.09
29 Chrysene-d12	16.47	15.97	16.97	16.46	-0.05
35 Perylene-d12	19.06	18.56	19.56	19.05	-0.05

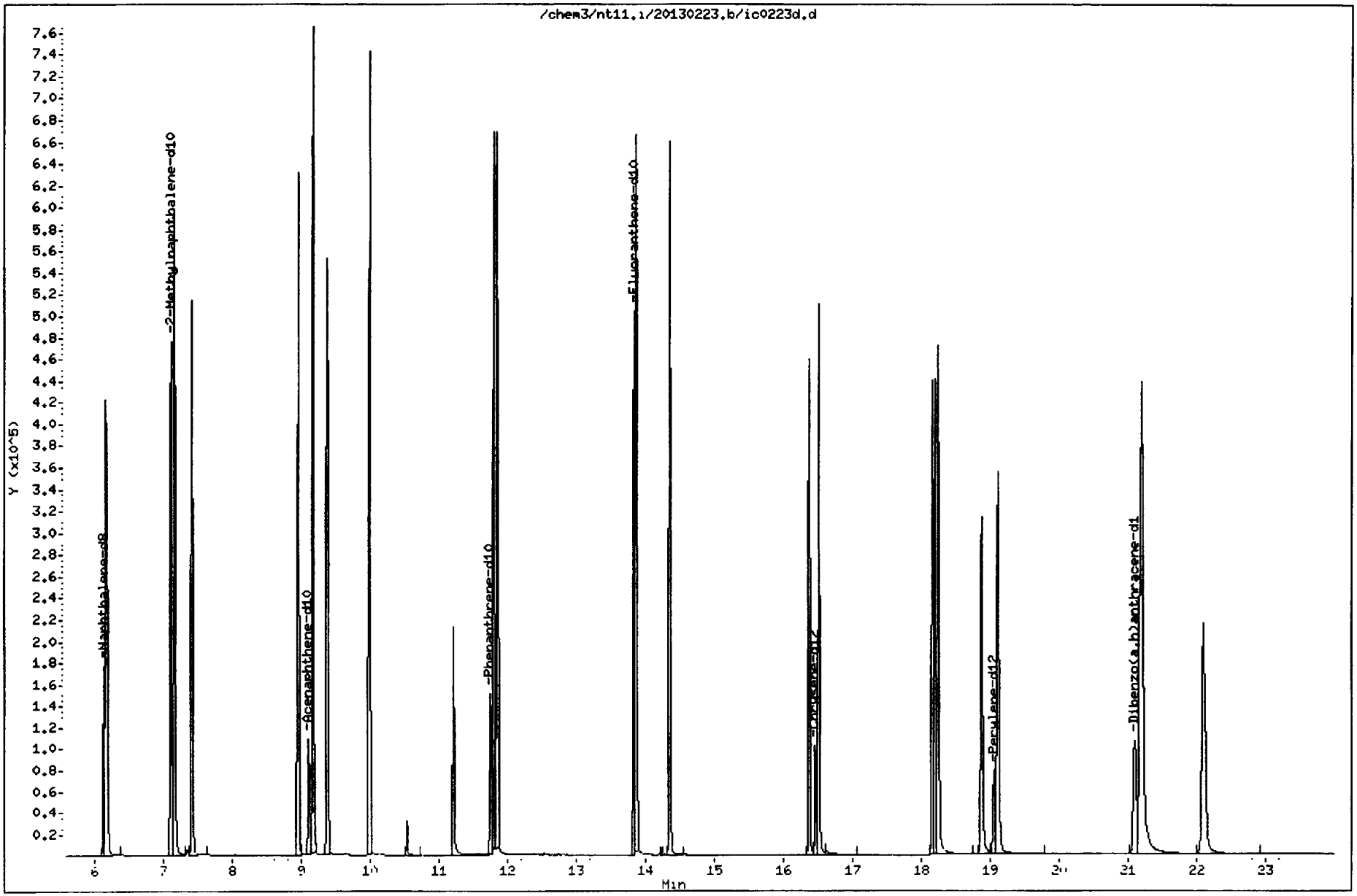
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20130223.b/ic0223d.d
Date : 23-FEB-2013 11:19
Client ID:
Sample Info: SIM 500

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



CO-ELUTION SUMMARY FOR FILE - ic0223d.d

Lab ID: SIM 500, Method: lowsim.m, Instrument: nt11.i, Date: 23-FEB-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130223.b/ic0223e.d
Lab Smp Id: SIM 50
Inj Date : 23-FEB-2013 11:48
Operator : VTS Inst ID: nt11.i
Smp Info : SIM 50
Misc Info :
Comment :
Method : /chem3/nt11.i/20130223.b/lowsim.m
Meth Date : 23-Feb-2013 14:06 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.134	6.134	(1.000)	247866	200 000	
	5 Naphthalene	128	6.165	6.165	(1.005)	66328	50.0000	48.9
$	6 2-Methylnaphthalene-d10	152	7.111	7.111	(1.159)	38180	50.0000	48.7
	7 2-Methylnaphthalene	142	7.163	7.163	(1.168)	40549	50.0000	47.7
	8 1-methylnaphthalene	142	7.415	7.415	(1 209)	40520	50.0000	47.5
	10 Acenaphthylene	152	8.950	8.950	(0.983)	56251	50.0000	47.0
*	11 Acenaphthene-d10	164	9.105	9.105	(1 000)	133951	200.000	
	12 Acenaphthene	153	9.172	9.172	(1.007)	38062	50.0000	48 2
	14 Dibenzofuran	168	9.371	9.382	(1.029)	56087	50.0000	48.8
	15 Fluorene	166	9.991	9 991	(1.097)	40958	50.0000	47 7
*	18 Phenanthrene-d10	188	11.751	11.751	(1.000)	207726	200.000	
	19 Phenanthrene	178	11.796	11.796	(1.004)	61869	50.0000	48.2
	20 Anthracene	178	11.851	11.851	(1 008)	55675	50.0000	46.3
$	23 Fluoranthene-d10	212	13.840	13.840	(1.178)	49815	50.0000	46 3
	24 Fluoranthene	202	13.869	13.869	(1.180)	59027	50 0000	46.5
	25 Pyrene	202	14 359	14.359	(0.872)	58923	50.0000	45.9
	28 Benzo(a)anthracene	228	16.367	16.367	(0 994)	49553	50.0000	46.7
*	29 Chrysene-d12	240	16.458	16.458	(1.000)	153360	200.000	
	30 Chrysene	228	16.508	16.508	(1.003)	52012	50.0000	47.4
	44 Benzo(b)fluoranthene	252	18.156	18.156	(0.953)	49652	50.0000	48.4
	45 Benzo(k)fluoranthene	252	18.195	18.195	(0.955)	50071	50.0000	44 9
	46 Benzo(j)fluoranthene	252	18.243	18.243	(0.958)	58260	50.0000	51 5
	34 Benzo(a)pyrene	252	18.877	18.877	(0.991)	40453	50.0000	46.7
*	35 Perylene-d12	264	19 050	19.050	(1.000)	129383	200 000	
	37 Indeno(1,2,3-cd)pyrene	276	21.196	21.196	(1.113)	49284	50.0000	46.3
$	36 Dibenzo(a,h)anthracene-d14	292	21.096	21.096	(1.107)	34963	50 0000	47.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
38 Dibenzo(a,h)anthracene	278	21.185	21.185	(1.112)	38845	50.0000	45.4
39 Benzo(g,h,i)perylene	276	22.093	22.093	(1.160)	45123	50.0000	47.3
47 Perylene	252	19 108	19.108	(1.003)	46897	50.0000	47.6

VD
2.23.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0223e.d
Lab Smp Id: SIM 50
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130223.b/lowsim.m
Misc Info:

Calibration Date: 23-FEB-2013
Calibration Time: 09:51
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	247866	-2.91
11 Acenaphthene-d10	142891	71446	285782	133951	-6.26
18 Phenanthrene-d10	220853	110426	441706	207726	-5.94
29 Chrysene-d12	162525	81262	325050	153360	-5.64
35 Perylene-d12	139028	69514	278056	129383	-6.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.76	11.26	12.26	11.75	-0.09
29 Chrysene-d12	16.47	15.97	16.97	16.46	-0.05
35 Perylene-d12	19.06	18.56	19.56	19.05	-0.05

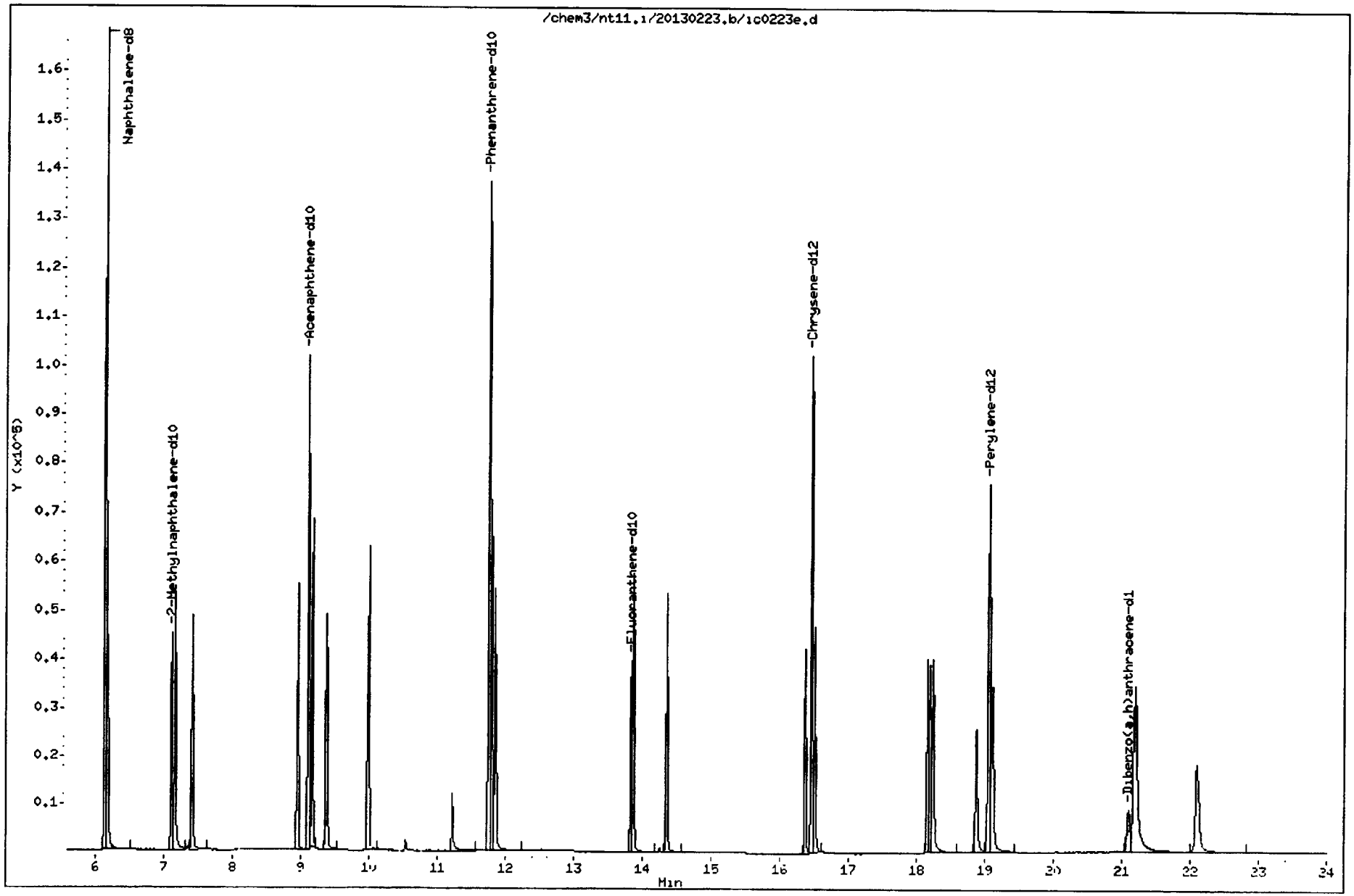
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20130223.b/1c0223e.d
Date : 23-FEB-2013 11:48
Client ID:
Sample Info: SIM 50

Column phase: Rx1-17Sil MS

Instrument: nt11.1

Operator: VTS
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - ic0223e.d

Lab ID: SIM 50, Method: lowsim.m, Instrument: nt11.i, Date: 23-FEB-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130223.b/ic0223f.d
Lab Smp Id: SIM 100
Inj Date : 23-FEB-2013 12:17
Operator : VTS Inst ID: nt11.i
Smp Info : SIM 100
Misc Info :
Comment :
Method : /chem3/nt11.i/20130223.b/lowsim.m
Meth Date : 23-Feb-2013 14:06 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.134	6.134	(1.000)	249926	200.000	
	5 Naphthalene	128	6.165	6.165	(1.005)	140175	100.000	102
$	6 2-Methylnaphthalene-d10	152	7.111	7.111	(1.159)	81065	100.000	103
	7 2-Methylnaphthalene	142	7.163	7.163	(1.168)	87543	100 000	102
	8 1-methylnaphthalene	142	7.415	7.415	(1.209)	87526	100 000	102
	10 Acenaphthylene	152	8.950	8 950	(0.983)	119998	100.000	98 3
*	11 Acenaphthene-d10	164	9.105	9.105	(1 000)	136768	200.000	
	12 Acenaphthene	153	9.172	9.172	(1 007)	82016	100.000	102
	14 Dibenzofuran	168	9.382	9.382	(1.030)	122106	100.000	104
	15 Fluorene	166	9.991	9.991	(1.097)	87735	100.000	100
*	18 Phenanthrene-d10	188	11.751	11.751	(1.000)	209065	200.000	
	19 Phenanthrene	178	11.796	11.796	(1.004)	134135	100.000	104
	20 Anthracene	178	11.851	11.851	(1.008)	123416	100.000	102
$	23 Fluoranthene-d10	212	13.840	13.840	(1.178)	109122	100.000	101
	24 Fluoranthene	202	13.869	13.869	(1.180)	130796	100.000	102
	25 Pyrene	202	14.359	14.359	(0.872)	129387	100.000	101
	28 Benzo(a)anthracene	228	16.367	16.367	(0.994)	106951	100 000	101
*	29 Chrysene-d12	240	16.458	16.458	(1.000)	152652	200.000	
	30 Chrysene	228	16 508	16 508	(1.003)	113395	100.000	104
	44 Benzo(b)fluoranthene	252	18.156	18.156	(0.953)	107483	100.000	104
	45 Benzo(k)fluoranthene	252	18.195	18.195	(0.955)	108485	100.000	96.6
	46 Benzo(j)fluoranthene	252	18.243	18.243	(0.958)	122922	100.000	108
	34 Benzo(a)pyrene	252	18.877	18.877	(0.991)	88577	100.000	102
*	35 Perylene-d12	264	19 050	19.050	(1.000)	130359	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	21.196	21.196	(1 113)	110979	100 000	103
$	36 Dibenzo(a,h)anthracene-d14	292	21.096	21.096	(1.107)	76918	100.000	103

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
38 Dibenzo(a,h)anthracene	278	21.185	21.185	(1.112)	89034	100.000	103
39 Benzo(g,h,i)perylene	276	22.093	22.093	(1.160)	98017	100.000	102
47 Perylene	252	19.108	19.108	(1.003)	102650	100.000	103

2.23.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0223f.d
Lab Smp Id: SIM 100
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130223.b/lowsim.m
Misc Info:

Calibration Date: 23-FEB-2013
Calibration Time: 09:51

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	249926	-2.10
11 Acenaphthene-d10	142891	71446	285782	136768	-4.29
18 Phenanthrene-d10	220853	110426	441706	209065	-5.34
29 Chrysene-d12	162525	81262	325050	152652	-6.07
35 Perylene-d12	139028	69514	278056	130359	-6.24

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.76	11.26	12.26	11.75	-0.09
29 Chrysene-d12	16.47	15.97	16.97	16.46	-0.05
35 Perylene-d12	19.06	18.56	19.56	19.05	-0.05

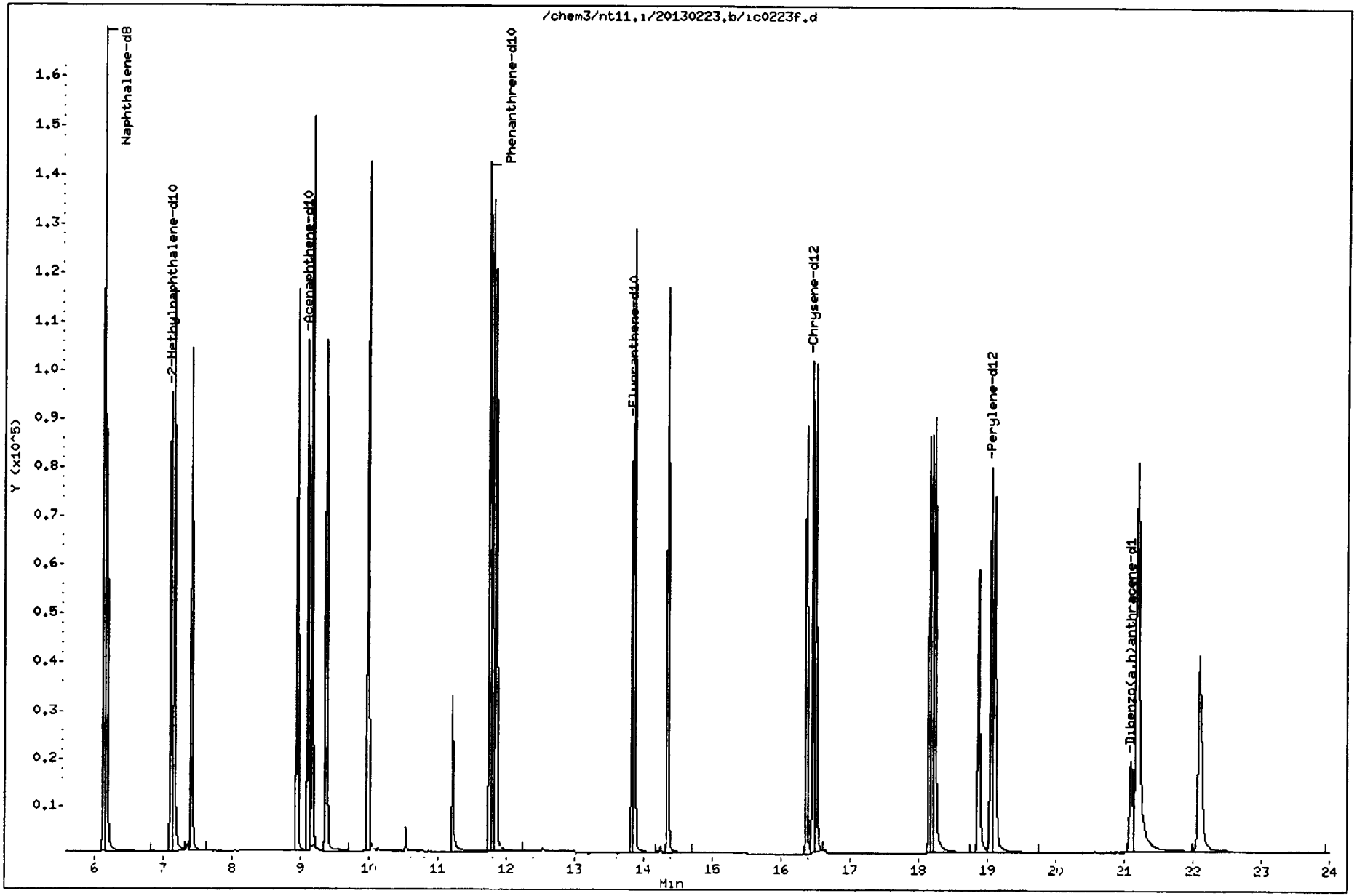
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.1/20130223.b/1c0223f.d
Date : 23-FEB-2013 12:17
Client ID:
Sample Info: SIM 100

Instrument: nt11.1

Operator: VTS
Column diameter: 0.25

Column phase: Rx1-17Sil MS



CO-ELUTION SUMMARY FOR FILE - ic0223f.d

Lab ID: SIM 100, Method: lowsim.m, Instrument: nt11.i, Date: 23-FEB-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources Inc.: Organics Instrument Log

NT-11 Serial No.:GC=US10140004, MS=US10481502

Date: 2·26·13 Analysis: low sim PNA Analyst: VTB

GC Program: lowsim Column No: 14123 Column Type: RX.-175.1ms

Instrument Tune (.U or .CT.): df0226 EM Voltage: 2424

Calibration File: df0226 Curve Date: 2·23·13 Injection Vol.: 2ul

IS/SS	Ical/Ccal	LCS/ICV
2005-1	2077-1	2079-1

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt11.i/20130226.b

	Time	Filename	LabID	ClientId	DF									
1	1503	df0226.d	DFTPP 10		1	NO ISTDS FOUND								
2	1519	cc0226.d	SIM 250		1	6.13	254099	9.10	140447	11.75	216415	16.46	161300	19.06	137382
3	1548	207901.d	SIM ICV-250		1	6.13	255409	9.11	140960	11.75	215819	16.46	154729	19.05	128752
4	1617	we64mb.d	WE64MBW1	WE64MBW1	1	6.13	261205	9.11	144571	11.75	230248	16.46	158259	19.05	127887
5	1645	we64sb.d	WE64LCSW1	WE64LCSW1	1	6.13	261298	9.11	150356	11.75	233636	16.47	164758	19.05	144129
6	1714	we64sbd.d	WE64LCSDW1	WE64LCSDW1	1	6.13	267291	9.11	153460	11.75	238537	16.46	168963	19.05	140625
7	1743	we64qls1.d	WE64QLS1		1	6.13	260997	9.11	145457	11.75	231073	16.46	159741	19.05	131463
8	1812	we64a.d	WE64A	JOR-EF-13022	1	6.13	263867	9.11	151805	11.75	235536	16.46	164860	19.05	140783

2·27·13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks in StarLIMS

WJ10-01564

Data File: /chem3/nt11.i/20130226.b/df0226.d

Date : 26-FEB-2013 15:03

Client ID:

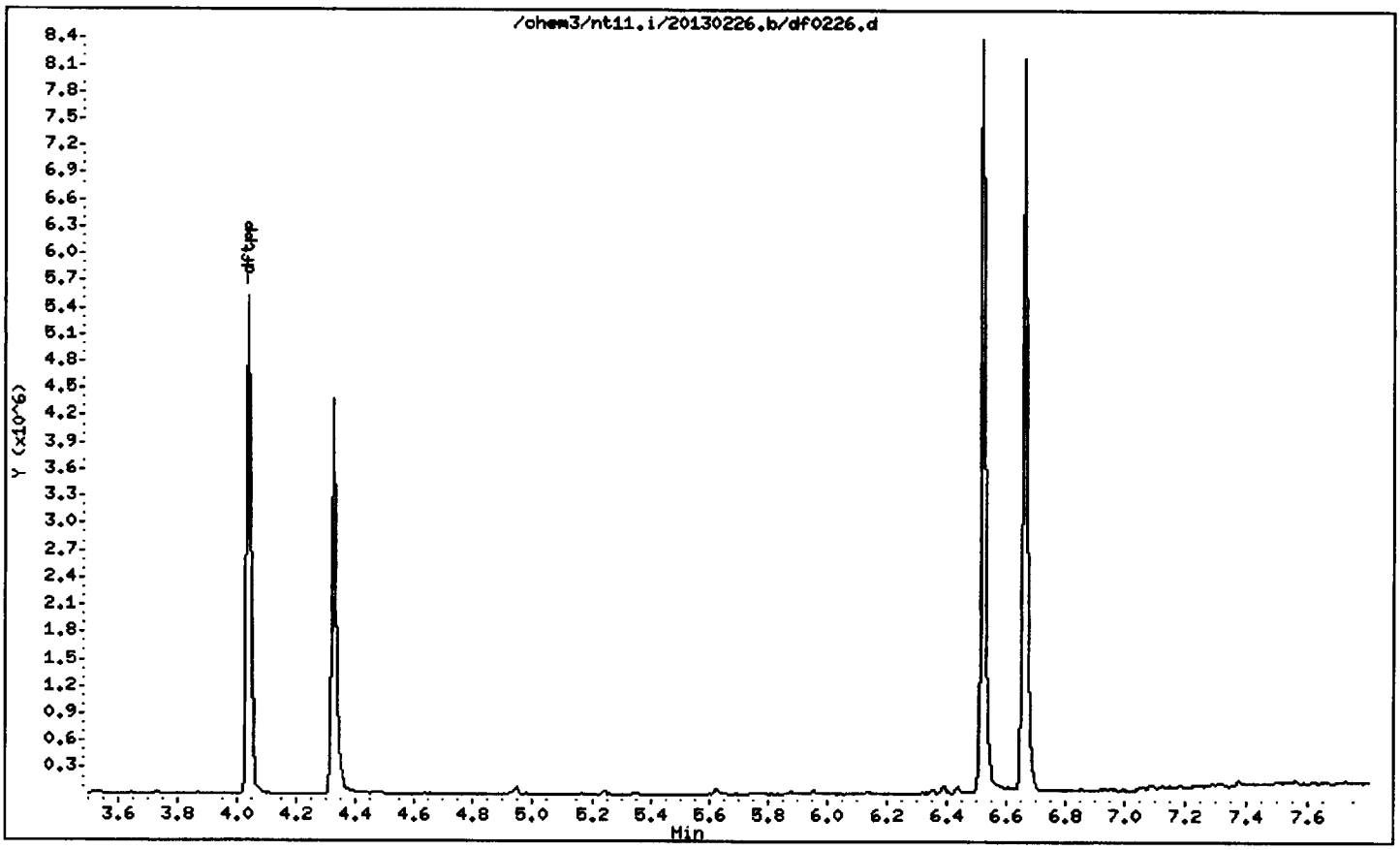
Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25



Data File: /chem3/nt11.i/20130226.b/df0226.d

Date : 26-FEB-2013 15:03

Client ID:

Instrument: nt11.i

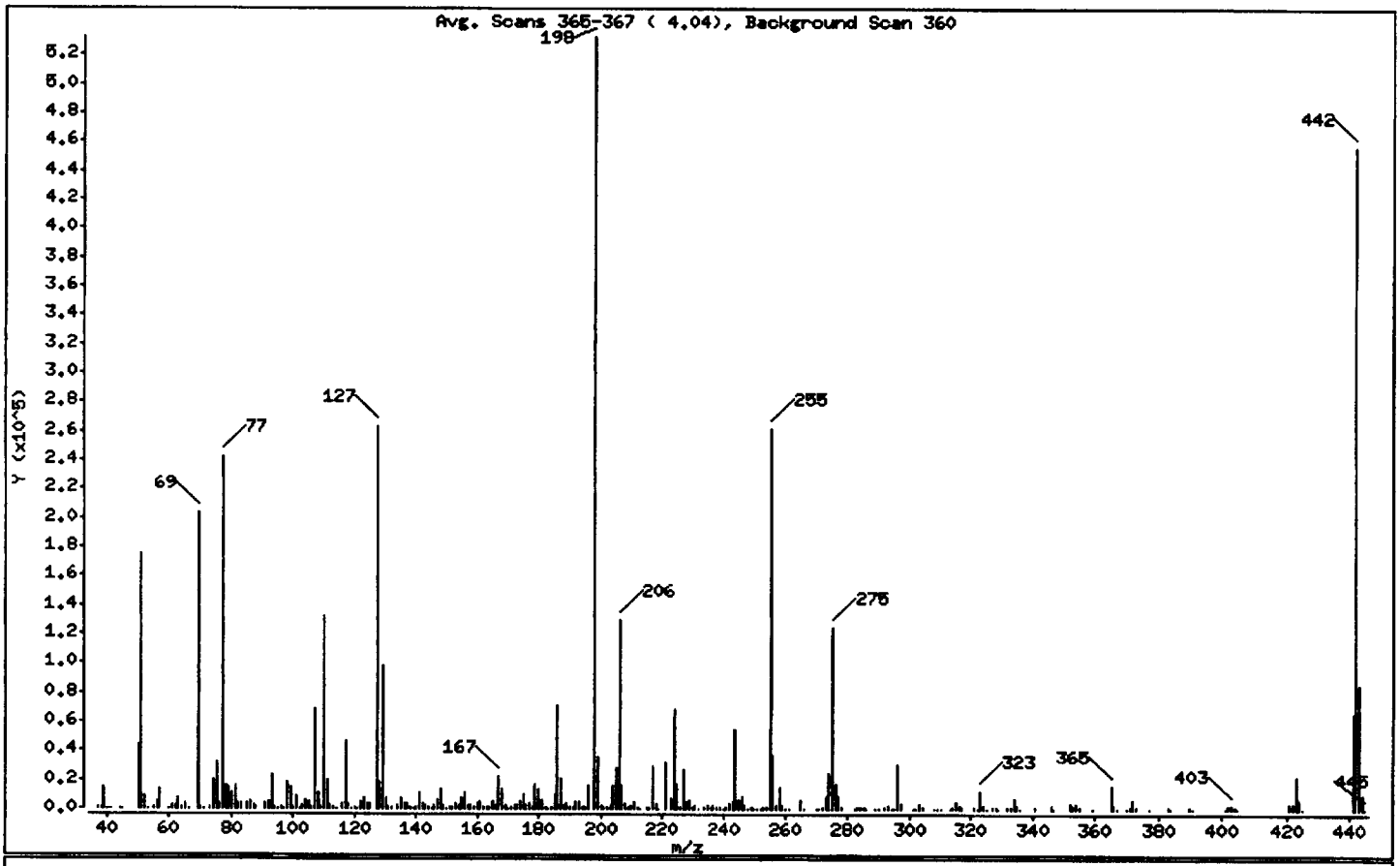
Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	32.87
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	38.21
70	Less than 2.00% of mass 69	0.24 (0.62)
127	10.00 - 80.00% of mass 198	49.53
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 60.00% of mass 198	23.38
365	Greater than 1.00% of mass 198	2.89
441	0.01 - 24.00% of mass 442	12.42 (14.48)
442	50.00 - 200.00% of mass 198	85.81
443	15.00 - 24.00% of mass 442	16.12 (18.79)

Data File: /chem3/nt11.i/20130226.b/df0226.d

Date : 26-FEB-2013 15:03

Client ID:

Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25

Data File: df0226.d

Spectrum: Avg. Scans 365-367 (4.04), Background Scan 360

Location of Maximum: 198.00

Number of points: 289

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	227	123.00	7385	199.00	35752	285.00	1818
37.00	633	124.00	3087	200.00	2183	286.00	327
38.00	1808	125.00	3154	201.00	1035	289.00	394
39.00	14814	127.00	263808	202.00	1782	290.00	234
40.00	116	128.00	18664	203.00	2945	292.00	848
41.00	184	129.00	97768	204.00	15926	293.00	2247
44.00	178	130.00	7525	205.00	28768	294.00	491
45.00	209	131.00	1287	206.00	130040	295.00	482
49.00	150	132.00	931	207.00	15715	296.00	30744
50.00	44144	134.00	2852	208.00	4245	297.00	4190
51.00	175040	135.00	7911	209.00	1279	301.00	174
52.00	8415	136.00	3095	210.00	2052	302.00	535
53.00	311	137.00	3313	211.00	4695	303.00	3449
55.00	1197	138.00	1387	212.00	955	304.00	1054
56.00	5058	139.00	596	213.00	174	308.00	398
57.00	13289	140.00	1075	215.00	1377	309.00	205
58.00	289	141.00	10651	216.00	1623	310.00	170
60.00	191	142.00	3981	217.00	29416	313.00	410
61.00	2226	143.00	2595	218.00	3979	314.00	1464
62.00	2344	144.00	968	219.00	327	315.00	4861
63.00	7517	145.00	308	221.00	32096	316.00	2273
64.00	1078	146.00	1857	223.00	7334	317.00	792
65.00	4246	147.00	5810	224.00	69048	321.00	838
66.00	394	148.00	13212	225.00	17256	322.00	483
69.00	203520	149.00	2616	226.00	1744	323.00	12291
70.00	1259	150.00	584	227.00	26808	324.00	2021
71.00	201	151.00	935	228.00	4572	325.00	185
73.00	1493	152.00	1720	229.00	6418	327.00	1781
74.00	19976	153.00	3434	230.00	957	328.00	774
75.00	31904	154.00	2942	231.00	2405	329.00	327
76.00	3906	155.00	6768	232.00	173	332.00	922
77.00	242432	156.00	10489	234.00	1824	333.00	1221
78.00	16504	157.00	2493	235.00	2419	334.00	7589
79.00	14521	158.00	2167	236.00	1541	335.00	2053
80.00	10671	159.00	1631	237.00	2783	336.00	348

Data File: /chem3/nt11.i/20130226.b/df0226.d

Date : 26-FEB-2013 15:03

Client ID:

Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25

Data File: df0226.d
Spectrum: Avg. Scans 365-367 (4.04), Background Scan 360
Location of Maximum: 198.00
Number of points: 289

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	16194	160.00	3556	238.00	631	341.00	1744
82.00	4145	161.00	4839	239.00	1140	346.00	2311
83.00	4191	162.00	1832	240.00	567	347.00	308
85.00	3076	163.00	616	241.00	1729	352.00	3526
86.00	4599	164.00	638	242.00	3422	353.00	2622
87.00	2703	165.00	4860	243.00	4292	354.00	3464
88.00	1209	166.00	2388	244.00	55288	355.00	687
91.00	3968	167.00	21720	245.00	5901	359.00	186
92.00	4324	168.00	13399	246.00	8596	365.00	15376
93.00	23304	169.00	1985	247.00	1876	366.00	2318
94.00	1784	170.00	602	248.00	558	367.00	247
95.00	607	171.00	831	249.00	1714	370.00	377
96.00	1216	172.00	2191	250.00	509	371.00	801
97.00	576	173.00	2318	251.00	279	372.00	5576
98.00	18440	174.00	5145	252.00	231	373.00	1467
99.00	14972	175.00	9497	253.00	1240	377.00	314
100.00	919	176.00	2939	254.00	1519	383.00	1766
101.00	8308	177.00	4182	255.00	261760	384.00	196
102.00	276	178.00	1093	256.00	36992	390.00	850
103.00	2808	179.00	17688	257.00	2713	391.00	465
104.00	5809	180.00	12963	258.00	14952	401.00	209
105.00	4723	181.00	6212	259.00	2065	402.00	2602
106.00	1340	182.00	998	260.00	183	403.00	2973
107.00	68008	183.00	226	261.00	234	404.00	1506
108.00	10887	184.00	1119	265.00	5607	405.00	168
109.00	864	185.00	9193	266.00	578	421.00	3675
110.00	132736	186.00	71232	270.00	191	422.00	3444
111.00	20040	187.00	20600	271.00	553	423.00	22080
112.00	2617	188.00	2429	272.00	922	424.00	5565
113.00	701	189.00	3467	273.00	8118	425.00	470
114.00	173	190.00	1080	274.00	24296	441.00	66168
116.00	3243	191.00	1632	275.00	124528	442.00	457024
117.00	46488	192.00	5208	276.00	16936	443.00	85872
118.00	3669	193.00	5379	277.00	8287	444.00	9260
119.00	480	194.00	1478	278.00	1578	445.00	188

Data File: /chem3/nt11.i/20130226.b/df0226.d

Date : 26-FEB-2013 15:03

Client ID:

Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

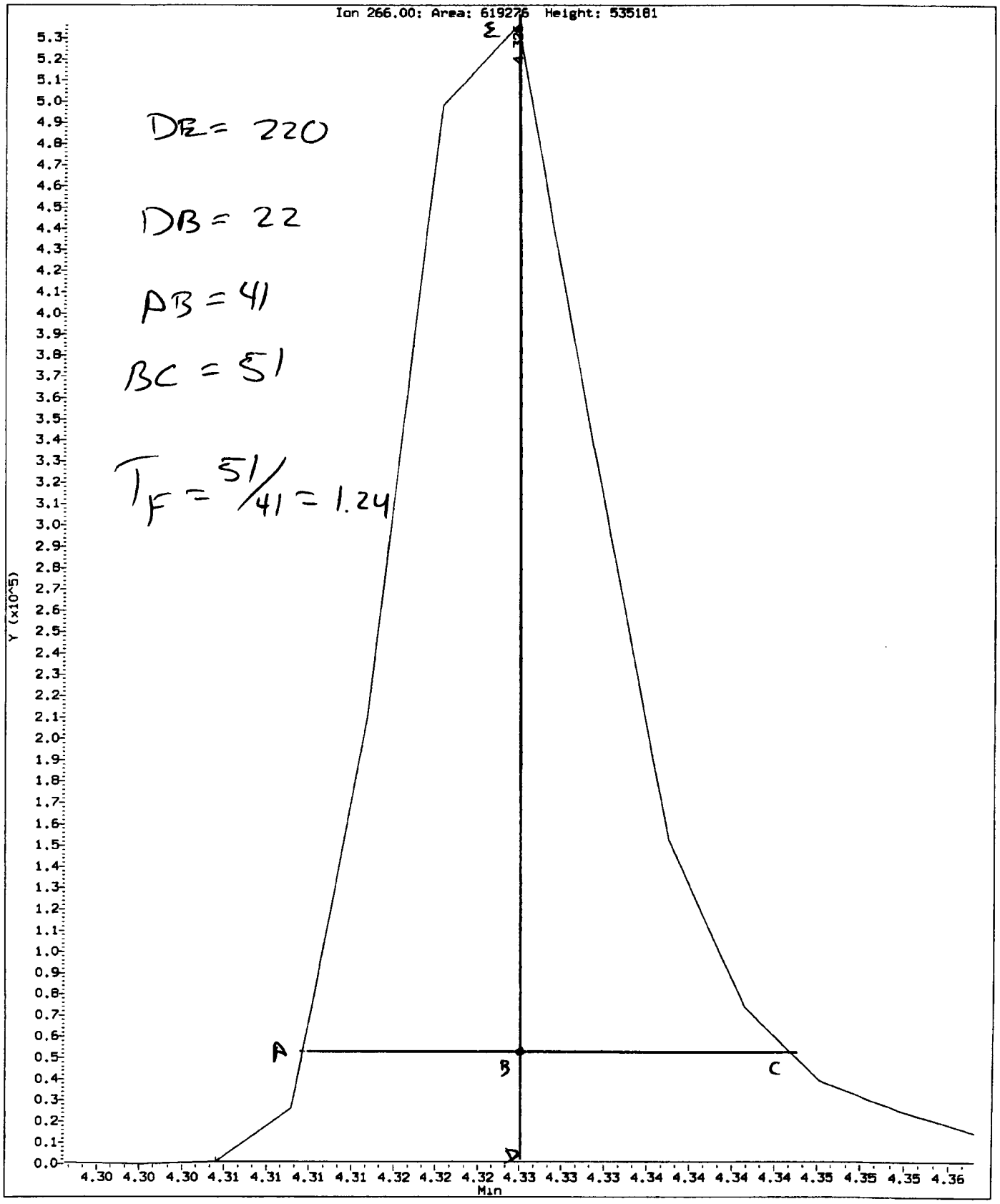
Column diameter: 0.25

Data File: df0226.d
Spectrum: Avg. Scans 365-367 (4.04), Background Scan 360
Location of Maximum: 198.00
Number of points: 289

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	1054	195.00	822	282.00	195		
121.00	426	196.00	15742	283.00	1227		
122.00	4503	198.00	532608	284.00	688		

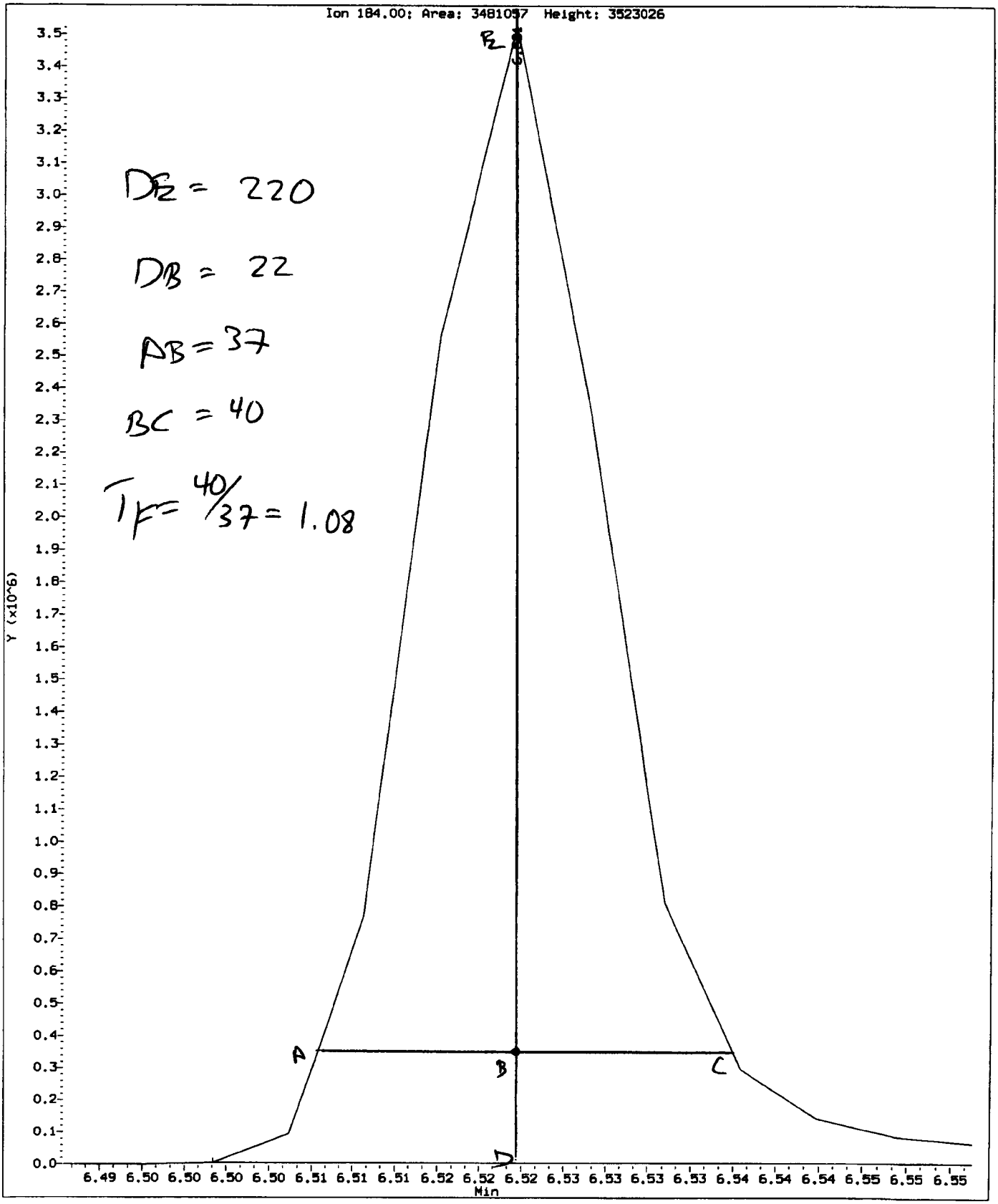
Data File: /chem3/nt11.i/20130226.b/DDT.b/df0226.d
Injection Date: 26-FEB-2013 15:03
Instrument: nt11.i
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem3/nt11.i/20130226.b/DDT.b/df0226.d
Injection Date: 26-FEB-2013 15:03
Instrument: nt11.i
Client Sample ID:

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt11.i/20130226.b/DDT.b/df0226.d
Method: /chem3/nt11.i/20130226.b/DDT.b/sw846ddt.m
Analysis Date: 26-FEB-2013 15:03

ARI ID: DFTPP 10
Misc:
Instrument: nt11.i

COMPOUND	RT	AREA
Pentachlorophenol	4.326	619276
Benzidine	6.521	3481057
4,4'-DDE	5.955	4773
4,4'-DDD	6.436	16258
4,4'-DDT	6.660	1666007

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(4773 + 16258) * 100}{(4773 + 16258 + 1666007)}$$

DDT Percent Breakdown = 1.2 %

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130226.b/207901.d
Lab Smp Id: SIM ICV-250
Inj Date : 26-FEB-2013 15:48
Operator : VTS Inst ID: nt11.i
Smp Info : SIM ICV-250
Misc Info :
Comment :
Method : /chem3/nt11.i/20130226.b/lowsim.m
Meth Date : 26-Feb-2013 15:56 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/L)
*	4 Naphthalene-d8	136	6.134	6.133	(1.000)	255409	200.000	
	5 Naphthalene	128	6.165	6.165	(1.005)	341054	243.878	244(R)
$	6 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	7 2-Methylnaphthalene	142	7.163	7.163	(1.168)	227744	260.203	260(R)
	8 1-methylnaphthalene	142	7.415	7 415	(1.209)	209111	237.667	238(R)
	10 Acenaphthylene	152	8.950	8 950	(0.983)	305146	242.452	242(R)
*	11 Acenaphthene-d10	164	9.105	9.105	(1.000)	140960	200.000	
	12 Acenaphthene	153	9.172	9.171	(1 007)	208708	251.220	251(R)
	14 Dibenzofuran	168	9.371	9.371	(1.029)	299836	247.754	248(R)
	15 Fluorene	166	9.991	9.991	(1.097)	230724	255.372	255(R)
*	18 Phenanthrene-d10	188	11.751	11.751	(1.000)	215819	200.000	
	19 Phenanthrene	178	11.796	11.795	(1.004)	351113	263.384	263(R)
	20 Anthracene	178	11.851	11.851	(1 008)	338584	270.804	271(R)
$	23 Fluoranthene-d10	212	Compound Not Detected.					
	24 Fluoranthene	202	13.868	13 868	(1.180)	329852	250 282	250

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/L)	
25	Pyrene	202	14.358	14.358	(0.872)	367313	283.474	283	
28	Benzo(a)anthracene	228	16.367	16.366	(0.994)	285167	266.330	266	
* 29	Chrysene-d12	240	16.458	16.458	(1.000)	154729	200.000		
30	Chrysene	228	16.508	16.508	(1.003)	293913	265.626	266	(R)
44	Benzo(b)fluoranthene	252	18.156	18.156	(0.953)	269023	263.644	264	
45	Benzo(k)fluoranthene	252	18.195	18.194	(0 955)	311636	280.851	281	
46	Benzo(j)fluoranthene	252	Compound Not Detected.						
34	Benzo(a)pyrene	252	18.877	18.877	(0.991)	256553	297.900	298	(R)
* 35	Perylene-d12	264	19.050	19.059	(1.000)	128752	200.000		
37	Indeno(1,2,3-cd)pyrene	276	21.196	21.196	(1.113)	273968	258.457	258	
$ 36	Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
38	Dibenzo(a,h)anthracene	278	21.185	21.185	(1.112)	212584	249.431	249	
39	Benzo(g,h,i)perylene	276	22.093	22.093	(1.160)	245681	259.033	259	
47	Perylene	252	19.107	19.107	(1.003)	252923	257.806	258	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

VD
2.27.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: 207901.d
Lab Smp Id: SIM ICV-250
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130226.b/lowsim.m
Misc Info:

Calibration Date: 26-FEB-2013
Calibration Time: 15:19

Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	255409	0.05
11 Acenaphthene-d10	142891	71446	285782	140960	-1.35
18 Phenanthrene-d10	220853	110426	441706	215819	-2.28
29 Chrysene-d12	162525	81262	325050	154729	-4.80
35 Perylene-d12	139028	69514	278056	128752	-7.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.10	8.60	9.60	9.11	0.00
18 Phenanthrene-d10	11.75	11.25	12.25	11.75	0.00
29 Chrysene-d12	16.46	15.96	16.96	16.46	0.00
35 Perylene-d12	19.06	18.56	19.56	19.05	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 20130226
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: SIM ICV-250
Level: LOW Operator: VTS
Data Type: MS DATA SampleType: LCS
SpikeList File: waterlcs.spk Quant Type: ISTD
Sublist File: newpna.sub
Method File: /chem3/nt11.i/20130226.b/lowsim.m
Misc Info:

2/28/12
70-130

SPIKE COMPOUND	CONC ADDED ng/L	CONC RECOVERED ng/L	% RECOVERED	LIMITS
5 Naphthalene	249	244	97.94*	37-90
7 2-Methylnaphthalen	249	260	104.50*	39-90
8 1-methylnaphthalen	249	238	95.45*	38-95
10 Acenaphthylene	249	242	97.37*	35-95
12 Acenaphthene	249	251	100.89*	38-94
14 Dibenzofuran	249	248	99.50*	36-94
15 Fluorene	249	255	102.56*	41-102
19 Phenanthrene	249	263	105.78*	41-101
20 Anthracene	249	271	108.76*	28-101
24 Fluoranthene	249	250	100.52	49-114
25 Pyrene	249	283	113.85	42-114
28 Benzo(a)anthracene	249	266	106.96	42-111
30 Chrysene	249	266	106.68*	46-106
44 Benzo(b)fluoranthe	249	264	105.88	30-160
45 Benzo(k)fluoranthe	249	281	112.79	30-160
46 Benzo(j)fluoranth	249	0.00	*	30-160
34 Benzo(a)pyrene	249	298	119.64*	20-99
37 Indeno(1,2,3-cd)py	249	258	103.80	32-113
38 Dibenzo(a,h)anthra	249	249	100.17	30-113
39 Benzo(g,h,i)peryle	249	259	104.03	27-113
47 Perylene	249	258	103.54	30-160

SURROGATE COMPOUND	CONC ADDED ng/L	CONC RECOVERED ng/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthale	300	0.00	*	35-94
$ 23 Fluoranthene-d10	300	0.00	*	30-160
$ 36 Dibenzo(a,h)anthr	300	0.00	*	26-115

Data File: /chem3/nt11.i/20130226.b/207901.d

Page 5

Date : 26-FEB-2013 15:48

Client ID:

Instrument: nt11.i

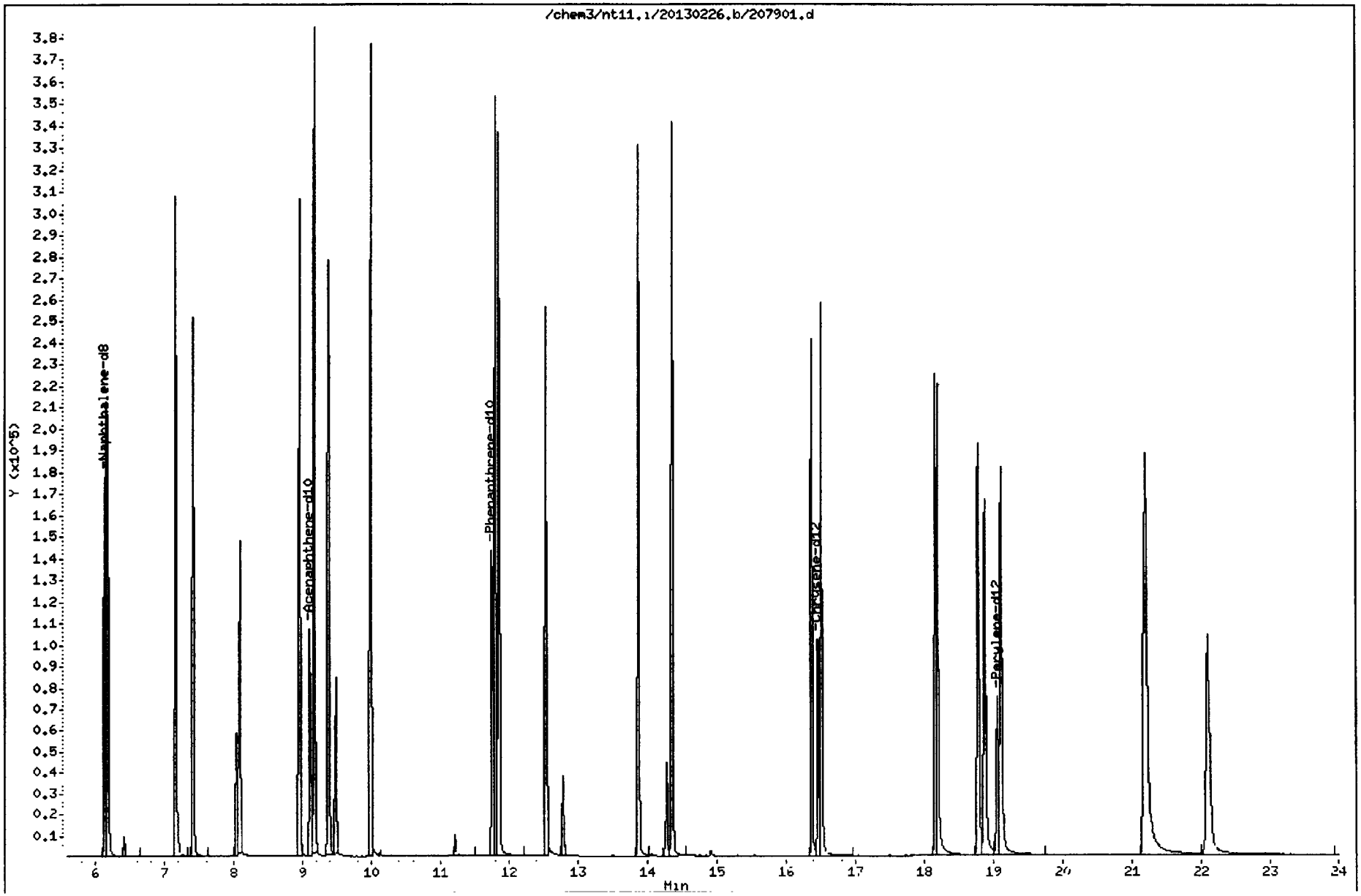
Sample Info: SIM ICV-250

Volume Injected (uL): 2.0

Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - 207901.d

Lab ID: SIM ICV-250, Method: lowsim.m, Instrument: nt11.i, Date: 26-FEB-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

SIM PAH Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Data Review Checklist

ARI WORK Order: WJ10 Client ID: SATC

METHOD: (**8270D**(SIM-SVOA)) **KRONE**(Butyl Tins) **8270D**(SVOA) **8270D**(OP-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 (NT11) NT12

Curve Date: 2.23.13 Analysis Start Date: 4.2.13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
DFTPP Tune met Criteria?	(Y) / N / ✓	Internal Standard within 50-200%?	(Y) / N / ✓
DDT Breakdown <20%?	(Y) / N / ✓	Retention Times within Windows?	(Y) / N / ✓
Peak Tailing Factor ≤2?	(Y) / N / ✓	Method Blank in Control?	(Y) / N / ✓
CCAL Meets %D?	(Y) / N / ✓	(LCS) / (LCSD) Recovery in Control?	(Y) / N / ✓
ICAL Q Flag applied?	Y / (N)	LCS / LCSD RPD ≤ 30%?	(NA) /
CCAL Q flag applied?	Y (N)	~~MS / MSD Recovery in Control?~~	~~Y / N /~~
Surrogate Recovery met?	(Y) / N / ✓	~~MS / MSD RPD ≤ 30%?~~	~~NA /~~
Manual Integrations?	(Y) / N / ✓	Samples Diluted?	VD (Y) / (N)
Integration Summary?	(Y) / N / ✓	Special Analysis Request?	(Y) / N /

Detail problems, corrective actions and/or other pertinent information below.

- Sample A run @ 5X dil. to post screen & warnings from Prep lab.
- Incl IV pulse

(Review 1) Analyst: VD **Date:** 4.3.13

(Review 2) Reviewer: MW **Date:** 4/3

WJ10:01580

Analytical Resources Inc.: Organics Instrument Log

NT-11 Serial No.:GC=US10140004, MS=US10481502

Date: 4.2.13 Analysis: low sim pwA Analyst: VD

GC Program: low sim Column No: 14123 Column Type: Rx-175.1ms

Instrument Tune (.U or .CT.): 121208.u EM Voltage: 2424

Calibration File: df0402 Curve Date: 2.23.13 Injection Vol.: 2uL

IS/SS	Ical/Ccal	LCS/ICV
2005-1	2077-1	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt11.i/20130402.b

	Time	Filename	LabID	ClientId	DF									
1	1504	df0402.d	DFTPP 10		1	NO ISTDS FOUND								
2	1520	cc0402.d	SIM 250		1	6.13	263819	9.11	150628	11.75	239866	16.46	182380	19.05	150378
3	1552	wj09mb.d	WJ09MBW1	WJ09MBW1	1	6.13	260491	9.11	142639	11.75	230806	16.46	164907	19.05	137825
4	1621	wj09sb.d	WJ09LCSW1	WJ09LCSW1	1	6.13	257172	9.11	144308	11.75	227983	16.46	168698	19.05	137679
5	1650	wj09sbd.d	WJ09LCSDW1	WJ09LCSDW1	1	6.13	256540	9.11	144694	11.75	223773	16.46	169078	19.05	138531
6	1720	wj09q.d	WJ09Q	Rinse-032513	1	6.13	258401	9.11	144251	11.75	232856	16.46	172215	19.05	143317
7	1748	wj25c.d	WJ25C	DW-13	1	6.13	345799	9.11	151730	11.75	231148	16.46	170926	19.05	145733
8	1817	wj25e.d	WJ25E	E-038	1	6.13	299794	9.11	150345	11.75	237602	16.46	177767	19.05	155560
9	1847	wj25ems.d	WJ25EMS	E-038 MS	1	6.13	305051	9.11	151485	11.75	241295	16.46	181964	19.05	160291
10	1916	wj25emsd.d	WJ25EMSD	E-038 MSD	1	6.13	299253	9.11	152779	11.75	243353	16.46	182589	19.05	161868
11	1944	wj25f.d	WJ25F	E-055	1	6.13	348769	9.11	156029	11.75	236039	16.46	173174	19.05	154171
12	2014	wj25g.d	WJ25G	E-146	1	6.13	480497	9.11	143347	11.75	229386	16.46	162500	19.05	141860
13	2043	i8163.d	I8163		1	6.13	247110	9.11	137027	11.75	219422	16.46	157514	19.05	136001
14	2111	wj10mb.d	WJ10MBW1	WJ10MBW1	1	6.13	248276	9.11	137577	11.75	224530	16.46	158908	19.05	136479
15	2141	wj10sb.d	WJ10LCSW1	WJ10LCSW1	1	6.13	251125	9.11	141658	11.75	220970	16.46	164775	19.05	139159
16	2209	wj10sbd.d	WJ10LCSDW1	WJ10LCSDW1	1	6.13	245836	9.11	139228	11.75	219710	16.46	164867	19.05	140154
17	2238	wj10qls1.d	WJ10QLS1		1	6.13	244615	9.11	137431	11.75	224582	16.46	159057	19.05	134394
18	2307	wj10a.d	WJ10A	SD-SP-01-201	5	6.13	235071	9.11	134994	11.76	177656	16.49	147847	19.07	194398

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks in StarLIMS

VD 4.3

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt11.i/20130402.b

ARI Job No.: SIM Method: lowsim.m Instrument: nt11.i Date: 02-APR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1520	cc0402.d	SIM 250		1	NO MANUAL INTEGRATION
1504	df0402.d	DFTPP 10		1	NO MANUAL INTEGRATION
1552	wj09mb.d	WJ09MBW1	WJ09MBW1	1	NO MANUAL INTEGRATION
1720	wj09q.d	WJ09Q	Rinse-0325	1	NO MANUAL INTEGRATION
1621	wj09sb.d	WJ09LCSW1	WJ09LCSW1	1	NO MANUAL INTEGRATION
1650	wj09sbd.d	WJ09LCSDW1	WJ09LCSDW1	1	NO MANUAL INTEGRATION
2307	wj10a.d	WJ10A	SD-SP-01-2	5	Phenanthrene, Fluoranthene, Chrysene, Fluoranthene-d10,
2111	wj10mb.d	WJ10MBW1	WJ10MBW1	1	NO MANUAL INTEGRATION
2238	wj10qls1.d	WJ10QLS1		1	Anthracene, Benzo(a)pyrene, Perylene,
2141	wj10sb.d	WJ10LCSW1	WJ10LCSW1	1	NO MANUAL INTEGRATION
2209	wj10sbd.d	WJ10LCSDW1	WJ10LCSDW1	1	NO MANUAL INTEGRATION
1748	wj25c.d	WJ25C	DW-13	1	NO MANUAL INTEGRATION
1817	wj25e.d	WJ25E	E-038	1	NO MANUAL INTEGRATION
1847	wj25ems.d	WJ25EMS	E-038 MS	1	NO MANUAL INTEGRATION
1916	wj25emsd.d	WJ25EMSD	E-038 MSD	1	NO MANUAL INTEGRATION
1944	wj25f.d	WJ25F	E-055	1	NO MANUAL INTEGRATION
2014	wj25g.d	WJ25G	E-146	1	NO MANUAL INTEGRATION

Q-FLAG SUMMARY FOR DATABATCH - /chem3/nt11.i/20130402.b

Instrument: nt11.i Date: 02-APR-2013 Method: lowsim.m

INITIAL CAL: 23-FEB-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 02-APR-2013

Compound	%D
NO Q-FLAGS	

Data File: /chem3/nt11.i/20130402.b/df0402.d

Date : 02-APR-2013 15:04

Client ID:

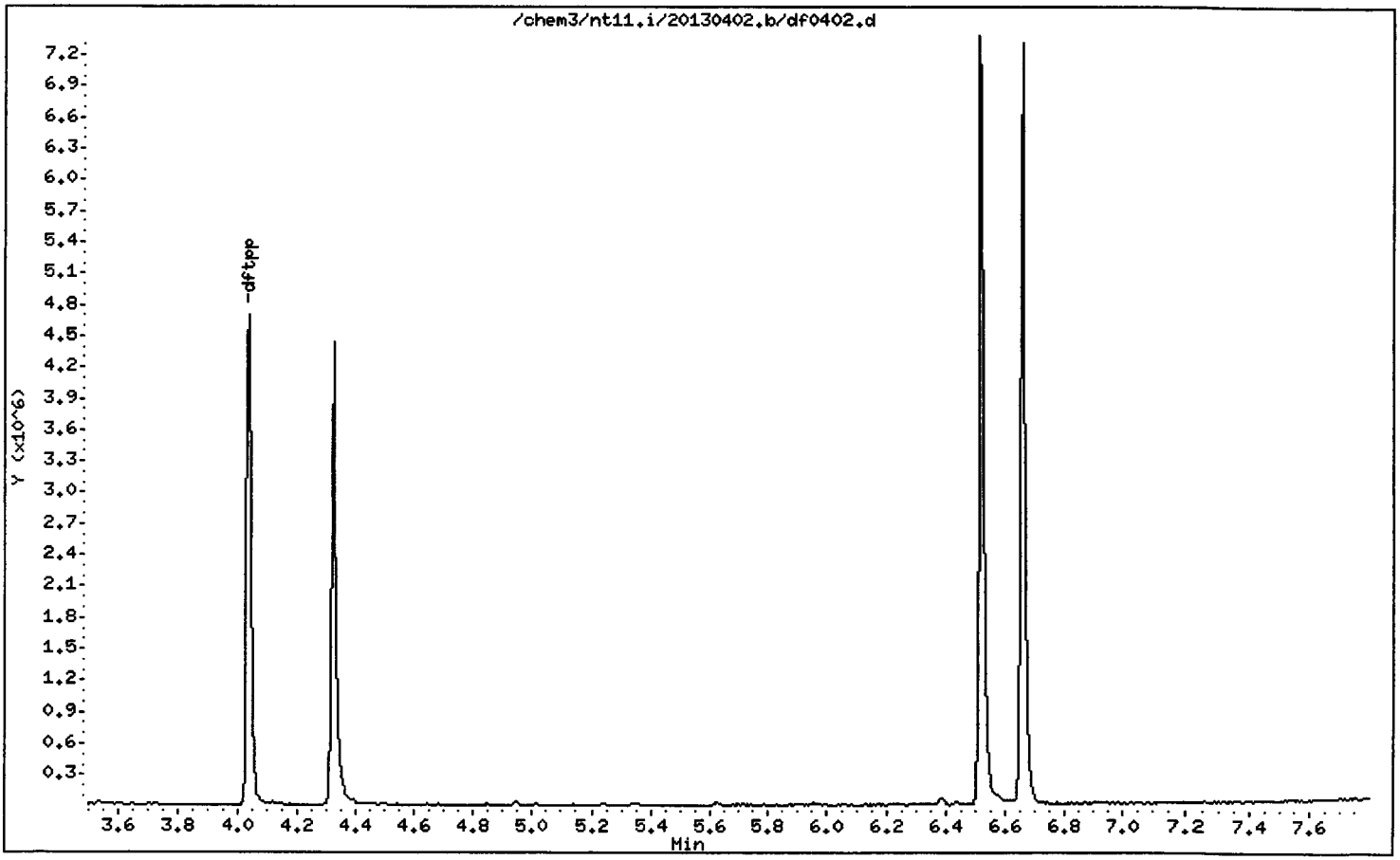
Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25



Data File: /chem3/nt11.i/20130402.b/df0402.d

Date : 02-APR-2013 15:04

Client ID:

Instrument: nt11.i

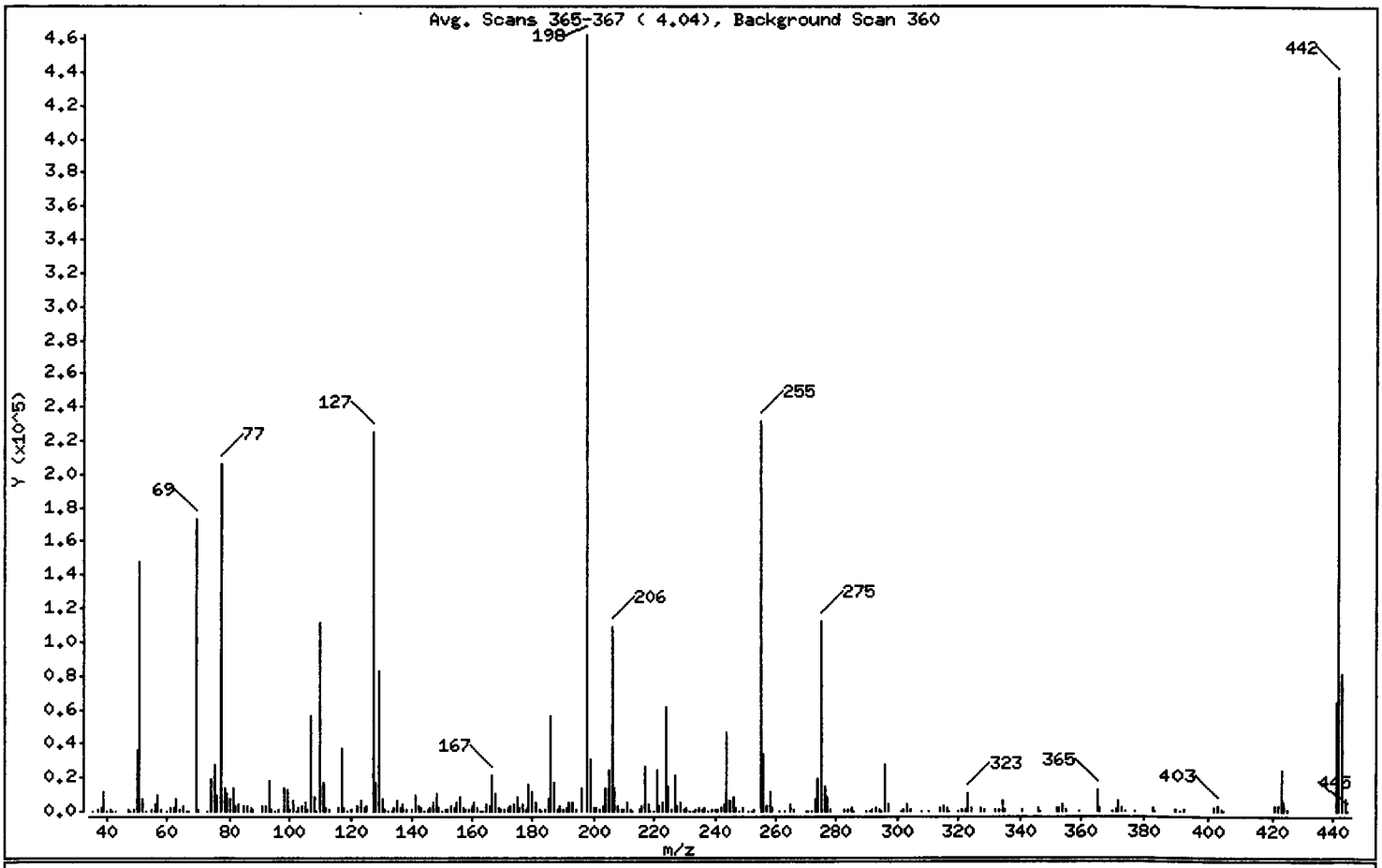
Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	31.93
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	37.39
70	Less than 2.00% of mass 69	0.19 (0.52)
127	10.00 - 80.00% of mass 198	48.76
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 60.00% of mass 198	24.37
365	Greater than 1.00% of mass 198	2.82
441	0.01 - 24.00% of mass 442	14.03 (14.82)
442	50.00 - 200.00% of mass 198	94.65
443	15.00 - 24.00% of mass 442	17.78 (18.78)

Data File: /chem3/nt11.i/20130402.b/df0402.d

Date : 02-APR-2013 15:04

Client ID:

Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

Column phase: Rxi-17silms

Column diameter: 0.25

Data File: df0402.d

Spectrum: Avg. Scans 365-367 (4.04), Background Scan 360

Location of Maximum: 198.00

Number of points: 283

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	190	122.00	3130	196.00	13458	277.00	8202
37.00	552	123.00	5872	198.00	462272	278.00	1423
38.00	1742	124.00	2487	199.00	30736	283.00	1370
39.00	11677	125.00	3036	200.00	2305	284.00	548
40.00	114	127.00	225408	201.00	1915	285.00	1965
41.00	717	128.00	16632	202.00	555	286.00	242
42.00	178	129.00	82584	203.00	2891	290.00	230
43.00	286	130.00	7013	204.00	14005	291.00	178
47.00	707	131.00	1303	205.00	24624	292.00	715
48.00	443	132.00	426	206.00	109160	293.00	2474
49.00	1350	133.00	186	207.00	13408	294.00	608
50.00	36368	134.00	2200	208.00	3682	295.00	260
51.00	147584	135.00	6021	209.00	1152	296.00	28136
52.00	7240	136.00	2419	210.00	1124	297.00	3961
53.00	403	137.00	4086	211.00	4798	301.00	359
55.00	651	138.00	767	212.00	943	302.00	555
56.00	4424	140.00	869	213.00	378	303.00	3908
57.00	9545	141.00	9885	215.00	1002	304.00	1119
58.00	622	142.00	3482	216.00	2674	308.00	477
60.00	169	143.00	2251	217.00	26240	310.00	423
61.00	1686	144.00	498	218.00	3890	314.00	1794
62.00	2220	145.00	878	219.00	475	315.00	3612
63.00	6927	146.00	2590	220.00	448	316.00	2100
64.00	1047	147.00	5209	221.00	24744	317.00	417
65.00	3365	148.00	10245	222.00	3072	320.00	372
66.00	174	149.00	2371	223.00	5589	321.00	1473
67.00	203	150.00	320	224.00	61976	322.00	693
69.00	172800	151.00	1139	225.00	15026	323.00	10393
70.00	893	152.00	689	226.00	723	324.00	2205
73.00	459	153.00	3135	227.00	21184	327.00	2274
74.00	18744	154.00	2577	228.00	3277	328.00	849
75.00	28008	155.00	5743	229.00	5147	332.00	580
76.00	9712	156.00	8171	230.00	1104	333.00	1488
77.00	205696	157.00	2246	231.00	2483	334.00	6488
78.00	14240	158.00	1485	232.00	359	335.00	1585

Data File: df0402.d
Spectrum: Avg. Scans 365-367 (4.04), Background Scan 360
Location of Maximum: 198.00
Number of points: 283

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	10553	159.00	1142	233.00	225	341.00	1146
80.00	7944	160.00	2870	234.00	1234	346.00	1959
81.00	13774	161.00	4902	235.00	1921	347.00	233
82.00	3528	162.00	1660	236.00	1023	352.00	2623
83.00	3841	163.00	182	237.00	1733	353.00	2123
85.00	3036	164.00	280	238.00	237	354.00	3843
86.00	3123	165.00	4582	239.00	555	355.00	797
87.00	1937	166.00	2956	240.00	975	359.00	189
88.00	956	167.00	21096	241.00	789	365.00	13047
91.00	3259	168.00	10645	242.00	2611	366.00	2035
92.00	3356	169.00	1627	243.00	4198	370.00	194
93.00	18528	170.00	733	244.00	47152	371.00	953
94.00	1411	171.00	1407	245.00	6327	372.00	5886
95.00	208	172.00	1756	246.00	8357	373.00	1726
96.00	1186	173.00	2676	247.00	1917	374.00	202
98.00	14227	174.00	4512	248.00	270	377.00	321
99.00	13024	175.00	8614	249.00	1625	383.00	1713
100.00	1201	176.00	2463	251.00	273	384.00	326
101.00	6626	177.00	4011	252.00	282	390.00	826
102.00	202	178.00	1381	253.00	1163	391.00	417
103.00	2611	179.00	15933	255.00	231360	392.00	611
104.00	3628	180.00	11217	256.00	34456	402.00	2199
105.00	4826	181.00	5116	257.00	3086	403.00	2951
106.00	831	182.00	1163	258.00	11998	404.00	1312
107.00	56432	183.00	496	259.00	1834	405.00	180
108.00	8970	184.00	977	261.00	173	421.00	3346
109.00	287	185.00	7562	263.00	188	422.00	3699
110.00	111824	186.00	56640	265.00	4567	423.00	23928
111.00	16656	187.00	16768	266.00	757	424.00	5275
112.00	1903	188.00	1457	270.00	261	425.00	569
113.00	770	189.00	3480	271.00	226	441.00	64864
116.00	2168	190.00	924	272.00	521	442.00	437568
117.00	37392	191.00	1705	273.00	7477	443.00	82184
118.00	2639	192.00	5221	274.00	18728	444.00	7429
119.00	420	193.00	4805	275.00	112680	445.00	438

Date : 02-APR-2013 15:04

Client ID: Instrument: nt11.i

Sample Info: DFTPP 10

Operator: VTS

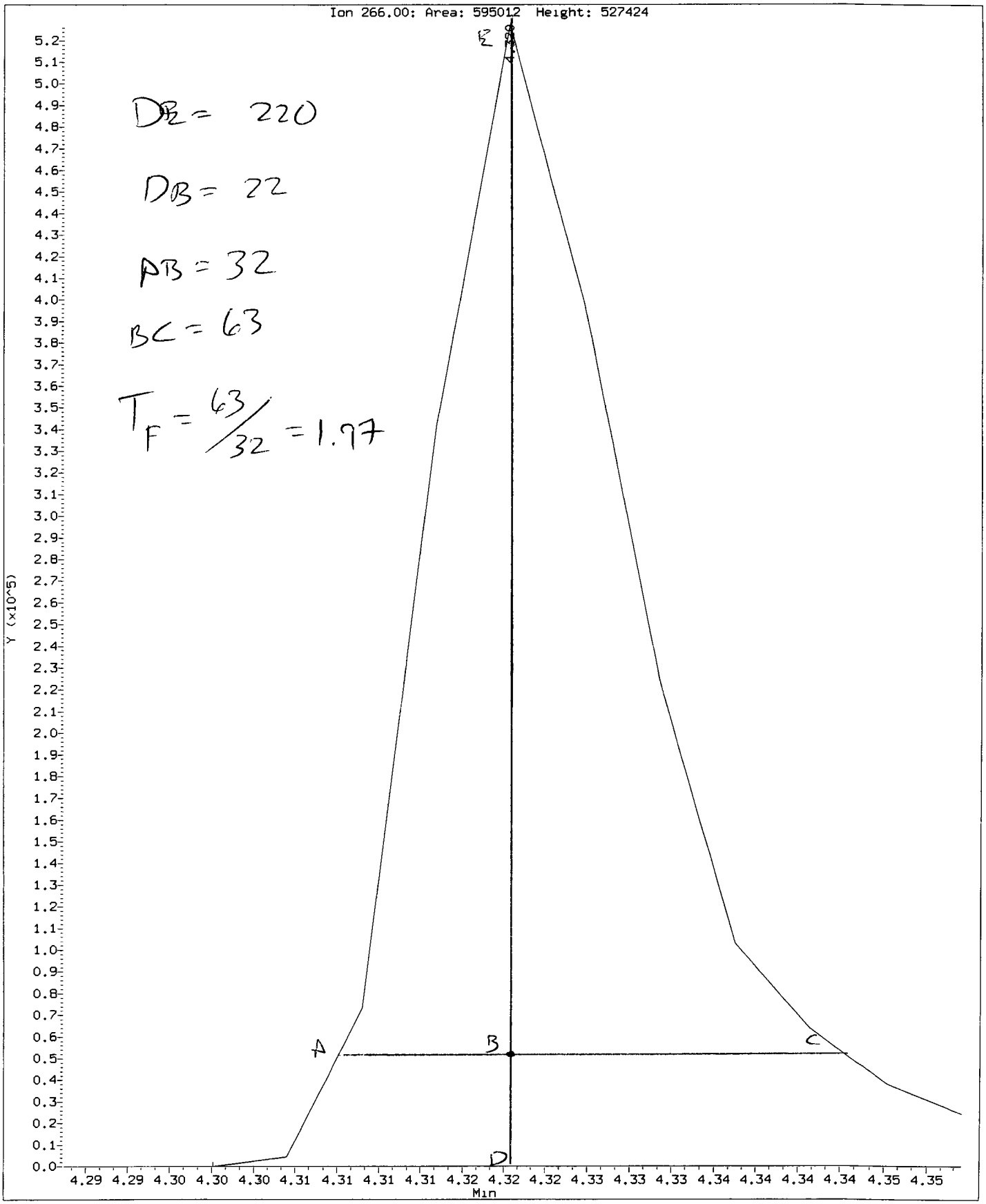
Column phase: Rxi-17silms Column diameter: 0.25

Data File: df0402.d
Spectrum: Avg. Scans 365-367 (4.04), Background Scan 360
Location of Maximum: 198.00
Number of points: 283

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	749	194.00	1011	276.00	15391		

Data File: /chem3/nt11.i/20130402.b/DDT.b/df0402.d
Injection Date: 02-APR-2013 15:04
Instrument: nt11.i
Client Sample ID:

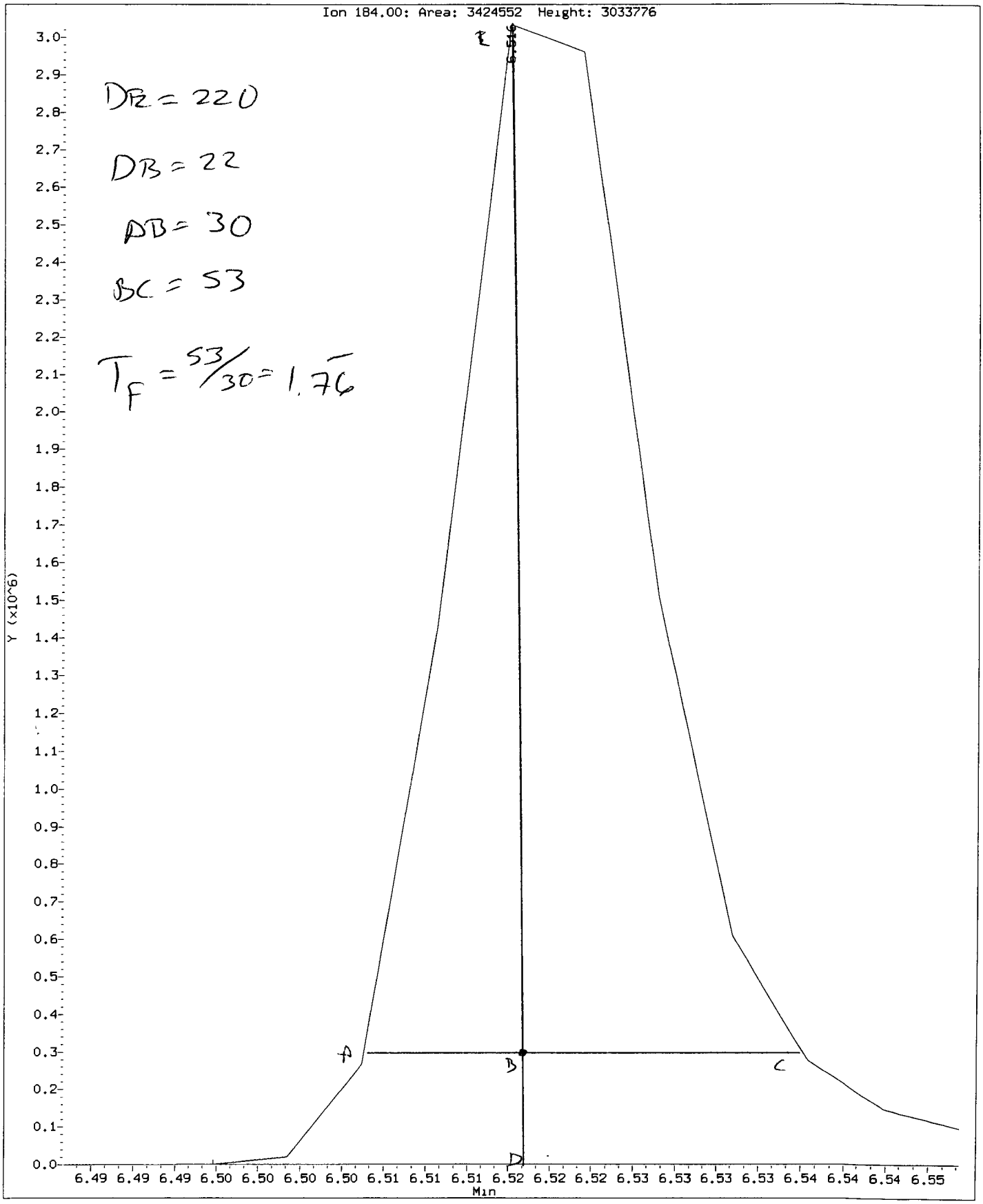
Compound: Pentachlorophenol
CAS Number: 87-86-5



WIB: 21589

Data File: /chem3/nt11.i/20130402.b/DDT.b/df0402.d
Injection Date: 02-APR-2013 15:04
Instrument: nt11.i
Client Sample ID:

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt11.i/20130402.b/DDT.b/df0402.d ARI ID: DFTPP 10
Method: /chem3/nt11.i/20130402.b/DDT.b/sw846ddt.m Misc:
Analysis Date: 02-APR-2013 15:04 Instrument: nt11.i

COMPOUND	RT	AREA
Pentachlorophenol	4.320	595012
Benzidine	6.516	3424552
4,4'-DDE	5.950	3849
4,4'-DDD	6.388	12434
4,4'-DDT	6.660	1554694

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(3849 + 12434) * 100}{(3849 + 12434 + 1554694)}$$

DDT Percent Breakdown = 1.0 %

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130402.b/cc0402.d
Lab Smp Id: SIM 250
Inj Date : 02-APR-2013 15:20
Operator : VTS Inst ID: nt11.i
Smp Info : SIM 250
Misc Info :
Comment :
Method : /chem3/nt11.i/20130402.b/lowsim.m
Meth Date : 02-Apr-2013 15:45 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.134	6.134	(1.000)	263819	200.000	
	5 Naphthalene	128	6.165	6.165	(1.005)	335668	250.000	232
$	6 2-Methylnaphthalene-d10	152	7.111	7.111	(1.159)	197911	250.000	237
	7 2-Methylnaphthalene	142	7.163	7.163	(1.168)	210650	250.000	233
	8 1-methylnaphthalene	142	7.405	7.405	(1.207)	213482	250.000	235
	10 Acenaphthylene	152	8.950	8.950	(0.983)	307434	250.000	229
*	11 Acenaphthene-d10	164	9.105	9.105	(1.000)	150628	200.000	
	12 Acenaphthene	153	9.161	9.161	(1.006)	200534	250.000	226
	14 Dibenzofuran	168	9.371	9.371	(1.029)	290176	250.000	224
	15 Fluorene	166	9.991	9.991	(1.097)	218701	250.000	227
*	18 Phenanthrene-d10	188	11.751	11.751	(1.000)	239866	200.000	
	19 Phenanthrene	178	11.796	11.796	(1.004)	336007	250.000	227
	20 Anthracene	178	11.851	11.851	(1.008)	329788	250.000	237
$	23 Fluoranthene-d10	212	13.830	13.830	(1.177)	296977	250.000	239
	24 Fluoranthene	202	13.869	13.869	(1.180)	348853	250.000	238
	25 Pyrene	202	14.349	14.349	(0.872)	343190	250.000	225
	28 Benzo(a)anthracene	228	16.367	16.367	(0.994)	282249	250.000	224
*	29 Chrysene-d12	240	16.458	16.458	(1.000)	182380	200.000	
	30 Chrysene	228	16.508	16.508	(1.003)	284703	250.000	218
	44 Benzo(b)fluoranthene	252	18.156	18.156	(0.953)	275898	250.000	231
	45 Benzo(k)fluoranthene	252	18.195	18.195	(0.955)	270828	250.000	209
	46 Benzo(j)fluoranthene	252	18.243	18.243	(0.958)	321082	250.000	244
	34 Benzo(a)pyrene	252	18.867	18.867	(0.990)	221012	250.000	220
*	35 Perylene-d12	264	19.050	19.050	(1.000)	150378	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	21.196	21.196	(1.113)	279506	250.000	226
$	36 Dibenzo(a,h)anthracene-d14	292	21.096	21.096	(1.107)	191494	250.000	223

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
38 Dibenzo(a,h)anthracene	278	21.185	21.185	(1.112)	218681	250.000	220
39 Benzo(g,h,i)perylene	276	22.093	22.093	(1.160)	246975	250.000	223
47 Perylene	252	19.108	19.108	(1.003)	249842	250.000	218

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: cc0402.d
Lab Smp Id: SIM 250
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130402.b/lowsim.m
Misc Info:

Calibration Date: 02-APR-2013
Calibration Time: 15:20

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	263819	3.34
11 Acenaphthene-d10	142891	71446	285782	150628	5.41
18 Phenanthrene-d10	220853	110426	441706	239866	8.61
29 Chrysene-d12	162525	81262	325050	182380	12.22
35 Perylene-d12	139028	69514	278056	150378	8.16

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.75	11.25	12.25	11.75	0.00
29 Chrysene-d12	16.46	15.96	16.96	16.46	0.00
35 Perylene-d12	19.05	18.55	19.55	19.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt11.i Injection Date: 02-APR-2013 15:20
Lab File ID: cc0402.d Init. Cal. Date(s): 23-FEB-2013 23-FEB-2013
Analysis Type: Init. Cal. Times: 09:51 12:17
Lab Sample ID: SIM 250 Quant Type: ISTD
Method: /chem3/nt11.i/20130402.b/lowsim.m

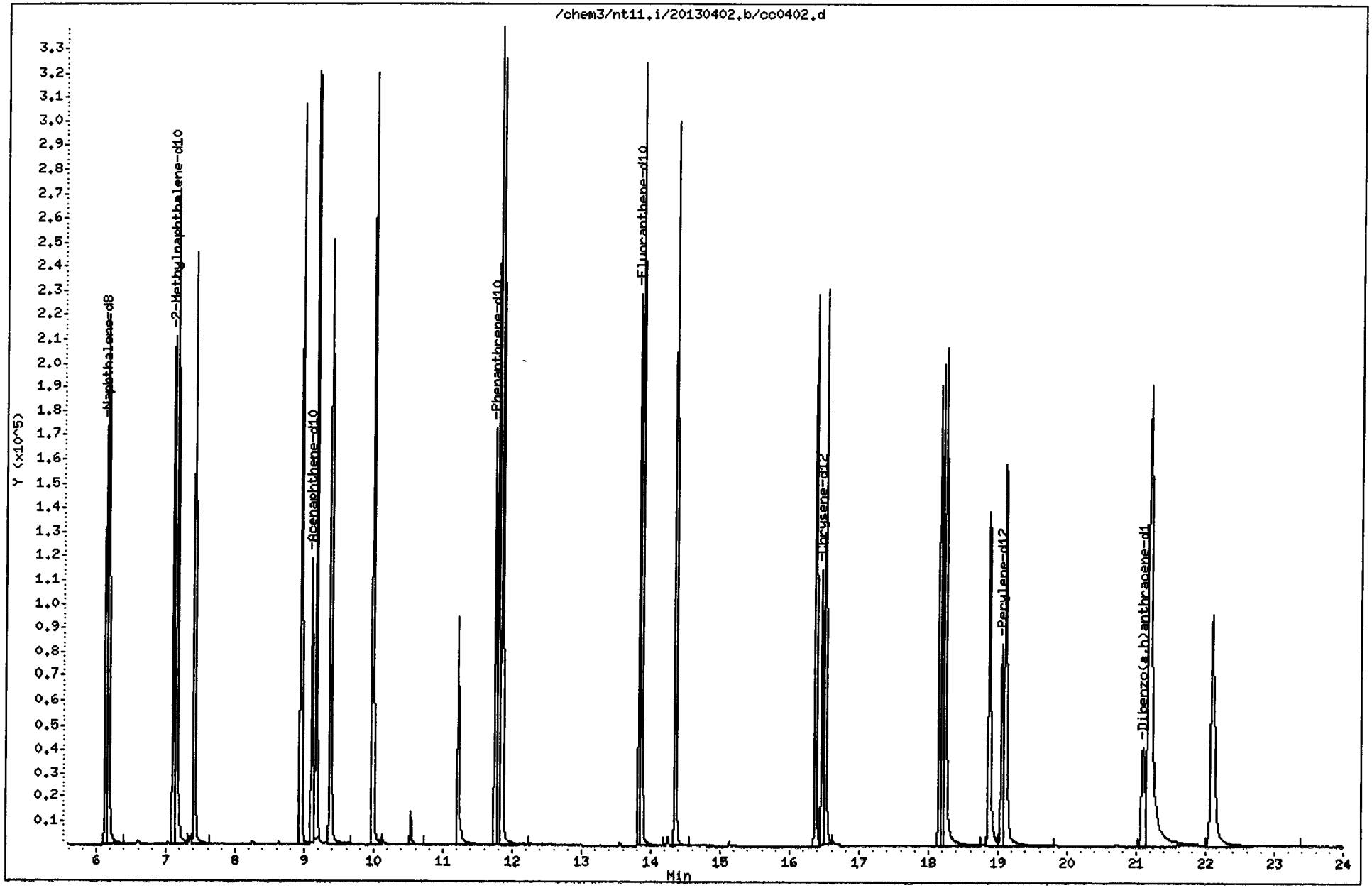
COMPOUND	RRF / AMOUNT	RF250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
5 Naphthalene	1.09508	1.01787	0.010	-7.04982	20.00000	Averaged
$ 6 2-Methylnaphthalene-d10	0.63288	0.60014	0.010	-5.17304	20.00000	Averaged
7 2-Methylnaphthalene	0.68537	0.63877	0.010	-6.79973	20.00000	Averaged
8 1-Methylnaphthalene	0.68897	0.64736	0.010	-6.03977	20.00000	Averaged
10 Acenaphthylene	1.78573	1.63281	0.010	-8.56379	20.00000	Averaged
12 Acenaphthene	1.17874	1.06505	0.010	-9.64498	20.00000	Averaged
14 Dibenzofuran	1.71710	1.54115	0.010	-10.24720	20.00000	Averaged
15 Fluorene	1.28190	1.16154	0.010	-9.38924	20.00000	Averaged
19 Phenanthrene	1.23537	1.12065	0.010	-9.28645	20.00000	Averaged
20 Anthracene	1.15865	1.09991	0.010	-5.06946	20.00000	Averaged
$ 23 Fluoranthene-d10	1.03665	0.99048	0.200	-4.45454	20.00000	Averaged
24 Fluoranthene	1.22132	1.16349	0.010	-4.73471	20.00000	Averaged
25 Pyrene	1.67487	1.50538	0.010	-10.11936	20.00000	Averaged
28 Benzo(a)anthracene	1.38400	1.23807	0.010	-10.54421	20.00000	Averaged
30 Chrysene	1.43023	1.24884	0.010	-12.68277	20.00000	Averaged
44 Benzo(b)fluoranthene	1.58507	1.46775	0.200	-7.40118	20.00000	Averaged
45 Benzo(k)fluoranthene	1.72364	1.44078	0.200	-16.41074	20.00000	Averaged
46 Benzo(j)fluoranthene	1.74944	1.70813	0.200	-2.36144	20.00000	Averaged
34 Benzo(a)pyrene	1.33777	1.17577	0.010	-12.11005	20.00000	Averaged
37 Indeno(1,2,3-cd)pyrene	1.64660	1.48695	0.010	-9.69579	20.00000	Averaged
$ 36 Dibenzo(a,h)anthracene-d14	1.14296	1.01873	0.010	-10.86923	20.00000	Averaged
38 Dibenzo(a,h)anthracene	1.32390	1.16337	0.010	-12.12602	20.00000	Averaged
39 Benzo(g,h,i)perylene	1.47330	1.31388	0.010	-10.82042	20.00000	Averaged
47 Perylene	1.52395	1.32914	0.200	-12.78330	20.00000	Averaged

Data File: /chem3/nt11.i/20130402.b/cc0402.d
Date : 02-APR-2013 15:20
Client ID:
Sample Info: SIM 250

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



CO-ELUTION SUMMARY FOR FILE - cc0402.d

Lab ID: SIM 250, Method: lowsim.m, Instrument: nt11.i, Date: 02-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130402.b/wj10mb.d
Lab Smp Id: WJ10MBW1 Client Smp ID: WJ10MBW1
Inj Date : 02-APR-2013 21:11
Operator : VTS Inst ID: nt11.i
Smp Info : WJ10MBW1
Misc Info : 13-6435
Comment :
Method : /chem3/nt11.i/20130402.b/lowsim.m
Meth Date : 02-Apr-2013 15:45 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.134	6.134	(1.000)	248276	200.000	
	5 Naphthalene	128	6.165	6.165	(1.005)	26761	19.6858	19.7
$	6 2-Methylnaphthalene-d10	152	7.111	7.111	(1.159)	153177	194.969	195
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	9.105	9.105	(1.000)	137577	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	11.751	11.751	(1.000)	224530	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
$	23 Fluoranthene-d10	212	13.830	13.830	(1.177)	243022	208.818	209
	24 Fluoranthene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	25 Pyrene	202	Compound Not Detected.					
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	16.458	16.458	(1.000)	158908	200.000	
	30 Chrysene	228	Compound Not Detected.					
	44 Benzo(b)fluoranthene	252	Compound Not Detected.					
	45 Benzo(k)fluoranthene	252	Compound Not Detected.					
	46 Benzo(j)fluoranthene	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	19.050	19.050	(1.000)	136479	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	21.085	21.096	(1.107)	156666	200.866	201
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	47 Perylene	252	Compound Not Detected.					

4.3.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: wj10mb.d
Lab Smp Id: WJ10MBW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130402.b/lowsim.m
Misc Info: 13-6435

Calibration Date: 02-APR-2013
Calibration Time: 15:20
Client Smp ID: WJ10MBW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	248276	-2.75
11 Acenaphthene-d10	142891	71446	285782	137577	-3.72
18 Phenanthrene-d10	220853	110426	441706	224530	1.66
29 Chrysene-d12	162525	81262	325050	158908	-2.23
35 Perylene-d12	139028	69514	278056	136479	-1.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.75	11.25	12.25	11.75	0.00
29 Chrysene-d12	16.46	15.96	16.96	16.46	0.00
35 Perylene-d12	19.05	18.55	19.55	19.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

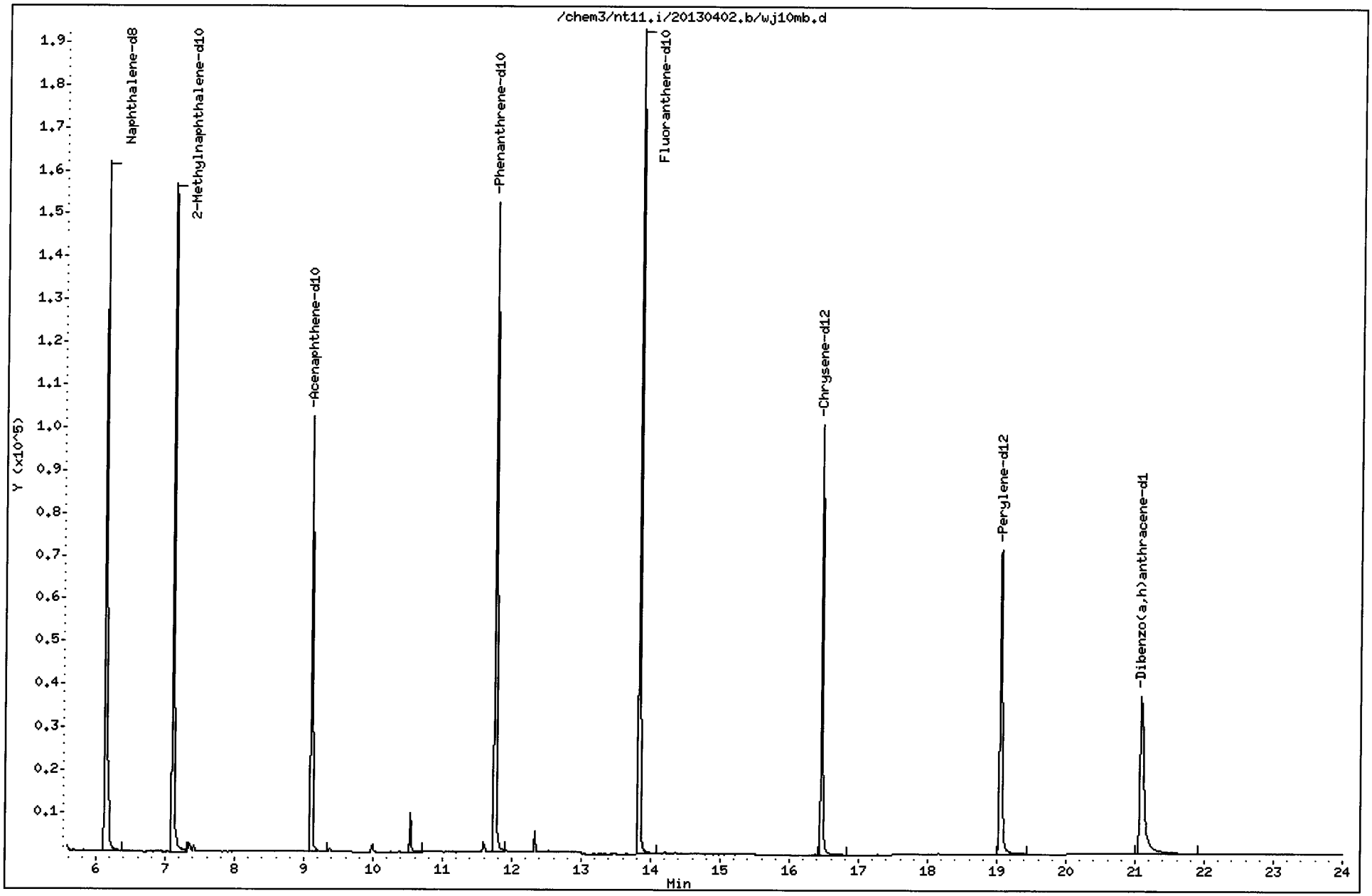
Client Name: SAIC
Sample Matrix: LIQUID
Lab Smp Id: WJ10MBW1
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: newpna.sub
Method File: /chem3/nt11.i/20130402.b/lowsim.m
Misc Info: 13-6435

Client SDG: WJ10
Fraction: SV
Client Smp ID: WJ10MBW1
Operator: VTS
SampleType: BLANK
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	195	64.99	35-94
$ 23 Fluoranthene-d10	300	209	69.61	30-160
$ 36 Dibenzo(a,h)anthra	300	201	66.96	26-115

Data File: /chem3/nt11.i/20130402.b/wj10mb.d
Date : 02-APR-2013 21:11
Client ID: WJ10MBW1
Sample Info: WJ10MBW1
Volume Injected (uL): 2.0
Column phase: Rxi-17Sil MS

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25



WJ1 5052

Data File: /chem3/nt11.i/20130402.b/wj10mb.d

Date : 02-APR-2013 21:11

Client ID: WJ10MBW1

Instrument: nt11.i

Sample Info: WJ10MBW1

Volume Injected (uL): 2.0

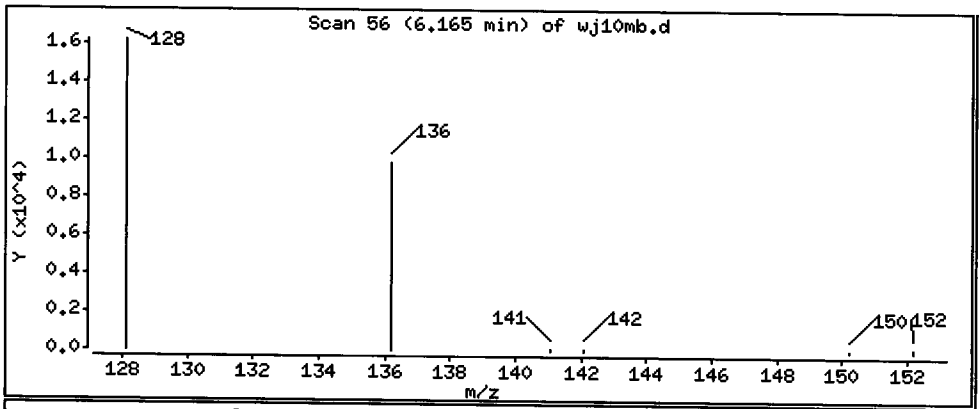
Operator: VTS

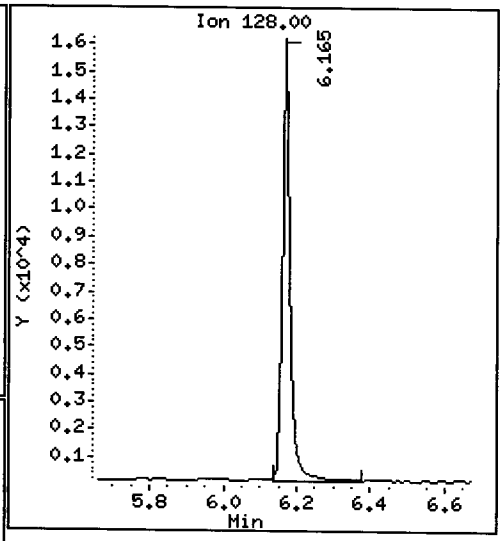
Column phase: Rxi-17Sil MS

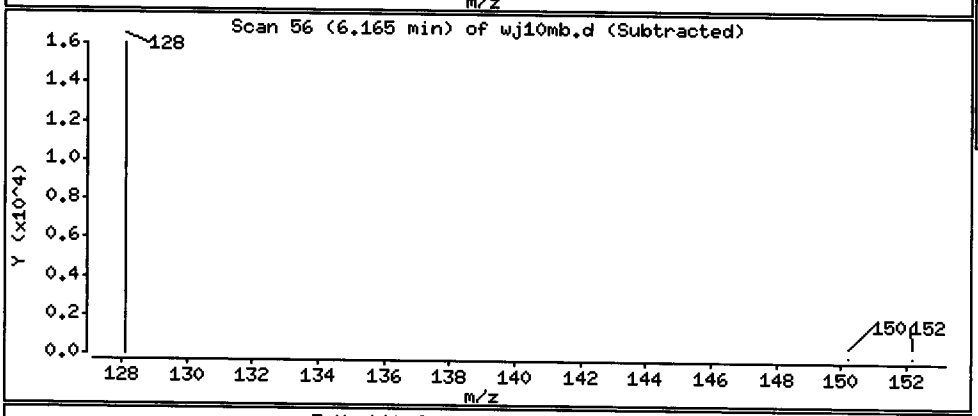
Column diameter: 0.25

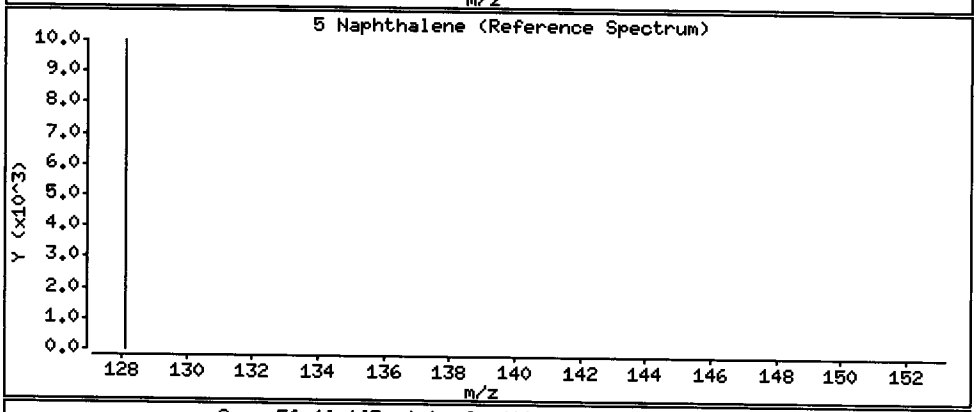
5 Naphthalene

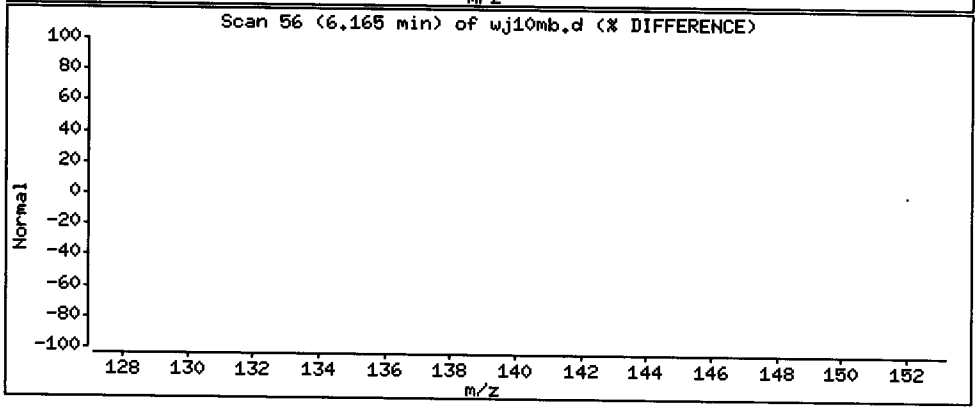
Concentration: 19.7 ug/L











CO-ELUTION SUMMARY FOR FILE - wj10mb.d

Lab ID: WJ10MBW1, Method: lowsim.m, Instrument: nt11.i, Date: 02-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130402.b/wj10sb.d
Lab Smp Id: WJ10LCSW1 Client Smp ID: WJ10LCSW1
Inj Date : 02-APR-2013 21:41
Operator : VTS Inst ID: nt11.i
Smp Info : WJ10LCSW1
Misc Info : 13-6435
Comment :
Method : /chem3/nt11.i/20130402.b/lowsim.m
Meth Date : 02-Apr-2013 15:45 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.134	6.134	(1.000)	251125	200.000	
	5 Naphthalene	128	6.165	6.165	(1.005)	281348	204.616	205
$	6 2-Methylnaphthalene-d10	152	7.100	7.111	(1.158)	162951	205.057	205
	7 2-Methylnaphthalene	142	7.163	7.163	(1.168)	168962	196.337	196
	8 1-methylnaphthalene	142	7.405	7.405	(1.207)	172089	198.926	199
	10 Acenaphthylene	152	8.950	8.950	(0.983)	250152	197.777	198
*	11 Acenaphthene-d10	164	9.105	9.105	(1.000)	141658	200.000	
	12 Acenaphthene	153	9.161	9.161	(1.006)	165468	198.191	198
	14 Dibenzofuran	168	9.371	9.371	(1.029)	243626	200.316	200
	15 Fluorene	166	9.991	9.991	(1.097)	182303	200.784	201
*	18 Phenanthrene-d10	188	11.751	11.751	(1.000)	220970	200.000	
	19 Phenanthrene	178	11.796	11.796	(1.004)	277510	203.319	203
	20 Anthracene	178	11.851	11.851	(1.008)	262830	205.315	205
$	23 Fluoranthene-d10	212	13.830	13.830	(1.177)	260614	227.542	228
	24 Fluoranthene	202	13.869	13.869	(1.180)	298425	221.158	221

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	25 Pyrene	202	14.349	14.349	(0.872)	293073	212.390	212
	28 Benzo(a)anthracene	228	16.367	16.367	(0.994)	237162	207.992	208
*	29 Chrysene-d12	240	16.458	16.458	(1.000)	164775	200.000	
	30 Chrysene	228	16.508	16.508	(1.003)	250086	212.238	212
	44 Benzo(b)fluoranthene	252	18.147	18.156	(0.953)	212530	192.704	193
	45 Benzo(k)fluoranthene	252	18.185	18.195	(0.955)	269348	224.587	225
	46 Benzo(j)fluoranthene	252	18.233	18.243	(0.957)	274818	225.769	226
	34 Benzo(a)pyrene	252	18.867	18.867	(0.990)	174342	187.300	187
*	35 Perylene-d12	264	19.050	19.050	(1.000)	139159	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	21.185	21.196	(1.112)	241258	210.578	211
$	36 Dibenzo(a,h)anthracene-d14	292	21.085	21.096	(1.107)	160269	201.528	202
	38 Dibenzo(a,h)anthracene	278	21.174	21.185	(1.111)	175777	190.820	191
	39 Benzo(g,h,i)perylene	276	22.082	22.093	(1.159)	209492	204.359	204
	47 Perylene	252	19.098	19.108	(1.003)	204824	193.165	193

VD
4.3.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: wj10sb.d
Lab Smp Id: WJ10LCSW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130402.b/lowsim.m
Misc Info: 13-6435

Calibration Date: 02-APR-2013
Calibration Time: 15:20
Client Smp ID: WJ10LCSW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	251125	-1.63
11 Acenaphthene-d10	142891	71446	285782	141658	-0.86
18 Phenanthrene-d10	220853	110426	441706	220970	0.05
29 Chrysene-d12	162525	81262	325050	164775	1.38
35 Perylene-d12	139028	69514	278056	139159	0.09

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.75	11.25	12.25	11.75	0.00
29 Chrysene-d12	16.46	15.96	16.96	16.46	0.00
35 Perylene-d12	19.05	18.55	19.55	19.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: LIQUID
Lab Smp Id: WJ10LCSW1
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: newpna.sub
Method File: /chem3/nt11.i/20130402.b/lowsim.m
Misc Info: 13-6435

Client SDG: WJ10
Fraction: SV
Client Smp ID: WJ10LCSW1
Operator: VTS
SampleType: LCS
Quant Type: ISTD

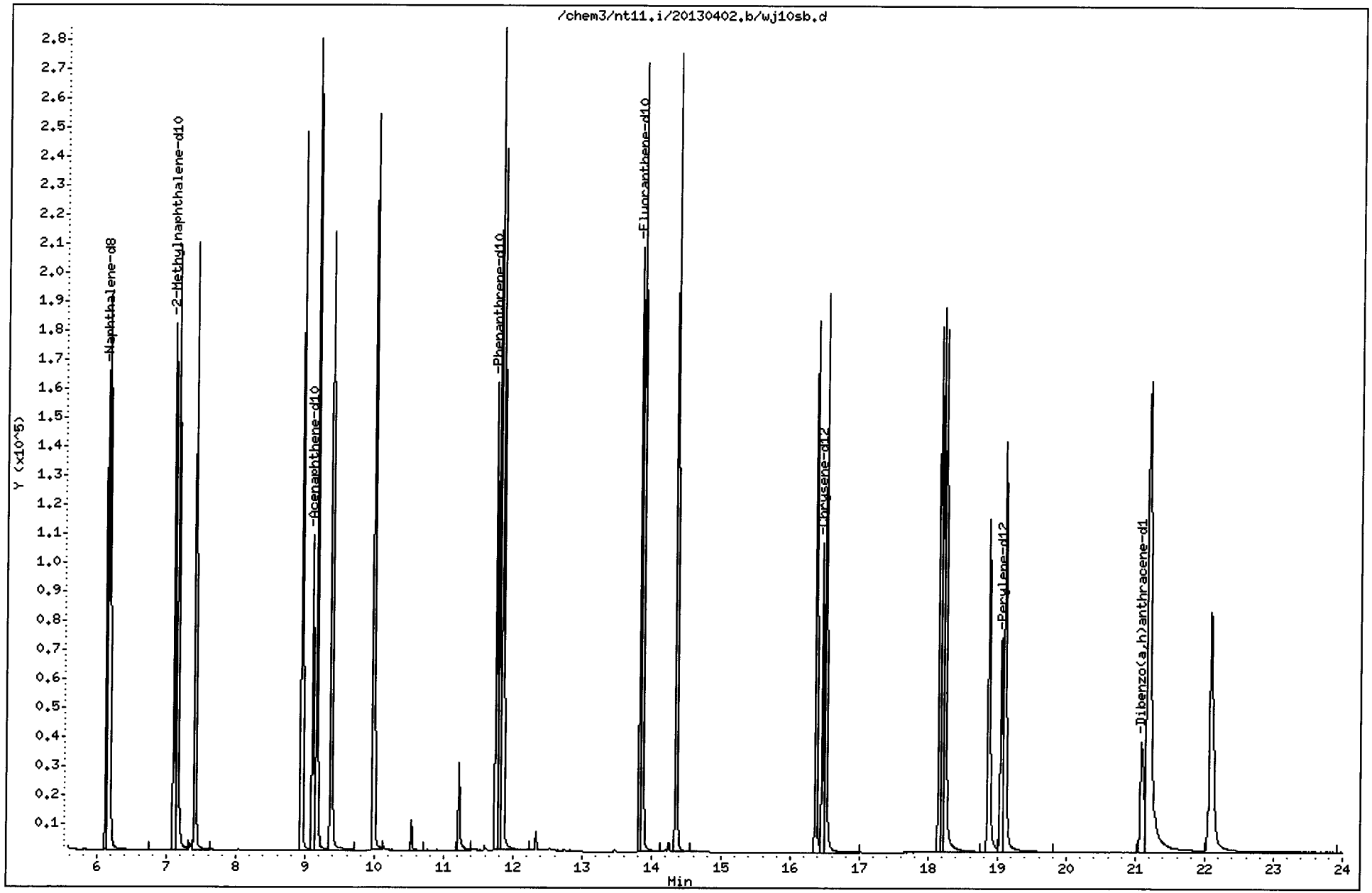
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	205	68.21	37-90
7 2-Methylnaphthalen	300	196	65.45	39-90
8 1-methylnaphthalen	300	199	66.31	38-95
10 Acenaphthylene	300	198	65.93	35-95
12 Acenaphthene	300	198	66.06	38-94
14 Dibenzofuran	300	200	66.77	36-94
15 Fluorene	300	201	66.93	41-102
19 Phenanthrene	300	203	67.77	41-101
20 Anthracene	300	205	68.44	28-101
24 Fluoranthene	300	221	73.72	49-114
25 Pyrene	300	212	70.80	42-114
28 Benzo(a)anthracene	300	208	69.33	42-111
30 Chrysene	300	212	70.75	46-106
44 Benzo(b)fluoranthe	300	193	64.23	30-160
45 Benzo(k)fluoranthe	300	225	74.86	30-160
46 Benzo(j)fluoranthe	300	226	75.26	30-160
34 Benzo(a)pyrene	300	187	62.43	20-99
37 Indeno(1,2,3-cd)py	300	211	70.19	32-113
38 Dibenzo(a,h)anthra	300	191	63.61	30-113
39 Benzo(g,h,i)peryle	300	204	68.12	27-113
47 Perylene	300	193	64.39	30-160

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	205	68.35	35-94
$ 23 Fluoranthene-d10	300	228	75.85	30-160
$ 36 Dibenzo(a,h)anthra	300	202	67.18	26-115

Data File: /chem3/nt11.i/20130402.b/wj10sb.d
Date : 02-APR-2013 21:41
Client ID: WJ10LCSW1
Sample Info: WJ10LCSW1
Volume Injected (uL): 2.0
Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25



WJ10SB.D 5916.D

CO-ELUTION SUMMARY FOR FILE - wj10sb.d

Lab ID: WJ10LCSW1, Method: lowsim.m, Instrument: nt11.i, Date: 02-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130402.b/wj10sbd.d
Lab Smp Id: WJ10LCSDW1 Client Smp ID: WJ10LCSDW1
Inj Date : 02-APR-2013 22:09
Operator : VTS Inst ID: nt11.i
Smp Info : WJ10LCSDW1
Misc Info : 13-6435
Comment :
Method : /chem3/nt11.i/20130402.b/lowsim.m
Meth Date : 02-Apr-2013 15:45 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 17 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.134	6.134	(1.000)	245836	200.000	
	5 Naphthalene	128	6.165	6.165	(1.005)	280150	208.128	208
$	6 2-Methylnaphthalene-d10	152	7.100	7.111	(1.158)	158887	204.244	204
	7 2-Methylnaphthalene	142	7.163	7.163	(1.168)	166749	197.934	198
	8 1-methylnaphthalene	142	7.405	7.405	(1.207)	169273	199.880	200
	10 Acenaphthylene	152	8.950	8.950	(0.983)	250095	201.183	201
*	11 Acenaphthene-d10	164	9.105	9.105	(1.000)	139228	200.000	
	12 Acenaphthene	153	9.161	9.161	(1.006)	167410	204.017	204
	14 Dibenzofuran	168	9.371	9.371	(1.029)	246771	206.443	206
	15 Fluorene	166	9.991	9.991	(1.097)	187138	209.707	210
*	18 Phenanthrene-d10	188	11.751	11.751	(1.000)	219710	200.000	
	19 Phenanthrene	178	11.796	11.796	(1.004)	292000	215.162	215
	20 Anthracene	178	11.851	11.851	(1.008)	261997	205.838	206
$	23 Fluoranthene-d10	212	13.830	13.830	(1.177)	268771	236.009	236
	24 Fluoranthene	202	13.869	13.869	(1.180)	310870	231.702	232

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	25 Pyrene	202	14.349	14.349	(0.872)	307624	222.810	223
	28 Benzo(a)anthracene	228	16.367	16.367	(0.994)	249044	218.291	218
*	29 Chrysene-d12	240	16.458	16.458	(1.000)	164867	200.000	
	30 Chrysene	228	16.508	16.508	(1.003)	265445	225.146	225
	44 Benzo(b)fluoranthene	252	18.147	18.156	(0.953)	218575	196.778	197
	45 Benzo(k)fluoranthene	252	18.185	18.195	(0.955)	288614	238.943	239
	46 Benzo(j)fluoranthene	252	18.243	18.243	(0.958)	289043	235.770	236
	34 Benzo(a)pyrene	252	18.867	18.867	(0.990)	179598	191.577	192
*	35 Perylene-d12	264	19.050	19.050	(1.000)	140154	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	21.185	21.196	(1.112)	250318	216.935	217
$	36 Dibenzo(a,h)anthracene-d14	292	21.085	21.096	(1.107)	163579	204.230	204
	38 Dibenzo(a,h)anthracene	278	21.174	21.185	(1.111)	183518	197.809	198
	39 Benzo(g,h,i)perylene	276	22.082	22.093	(1.159)	213819	207.100	207
	47 Perylene	252	19.098	19.108	(1.003)	215657	201.938	202

4.3.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: wj10sbd.d
Lab Smp Id: WJ10LCSDW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130402.b/lowsim.m
Misc Info: 13-6435

Calibration Date: 02-APR-2013
Calibration Time: 15:20
Client Smp ID: WJ10LCSDW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	245836	-3.70
11 Acenaphthene-d10	142891	71446	285782	139228	-2.56
18 Phenanthrene-d10	220853	110426	441706	219710	-0.52
29 Chrysene-d12	162525	81262	325050	164867	1.44
35 Perylene-d12	139028	69514	278056	140154	0.81

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.75	11.25	12.25	11.75	0.00
29 Chrysene-d12	16.46	15.96	16.96	16.46	0.00
35 Perylene-d12	19.05	18.55	19.55	19.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: LIQUID
Lab Smp Id: WJ10LCSDW1
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: newpna.sub
Method File: /chem3/nt11.i/20130402.b/lowsim.m
Misc Info: 13-6435

Client SDG: WJ10
Fraction: SV
Client Smp ID: WJ10LCSDW1
Operator: VTS
SampleType: LCSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	208	69.38	37-90
7 2-Methylnaphthalen	300	198	65.98	39-90
8 1-methylnaphthalen	300	200	66.63	38-95
10 Acenaphthylene	300	201	67.06	35-95
12 Acenaphthene	300	204	68.01	38-94
14 Dibenzofuran	300	206	68.81	36-94
15 Fluorene	300	210	69.90	41-102
19 Phenanthrene	300	215	71.72	41-101
20 Anthracene	300	206	68.61	28-101
24 Fluoranthene	300	232	77.23	49-114
25 Pyrene	300	223	74.27	42-114
28 Benzo(a)anthracene	300	218	72.76	42-111
30 Chrysene	300	225	75.05	46-106
44 Benzo(b)fluoranthe	300	197	65.59	30-160
45 Benzo(k)fluoranthe	300	239	79.65	30-160
46 Benzo(j)fluoranthe	300	236	78.59	30-160
34 Benzo(a)pyrene	300	192	63.86	20-99
37 Indeno(1,2,3-cd)py	300	217	72.31	32-113
38 Dibenzo(a,h)anthra	300	198	65.94	30-113
39 Benzo(g,h,i)peryle	300	207	69.03	27-113
47 Perylene	300	202	67.31	30-160

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	204	68.08	35-94
$ 23 Fluoranthene-d10	300	236	78.67	30-160
$ 36 Dibenzo(a,h)anthra	300	204	68.08	26-115

Data File: /chem3/nt11.i/20130402.b/wj10sbd.d

Date : 02-APR-2013 22:09

Client ID: WJ10LCSDW1

Sample Info: WJ10LCSDW1

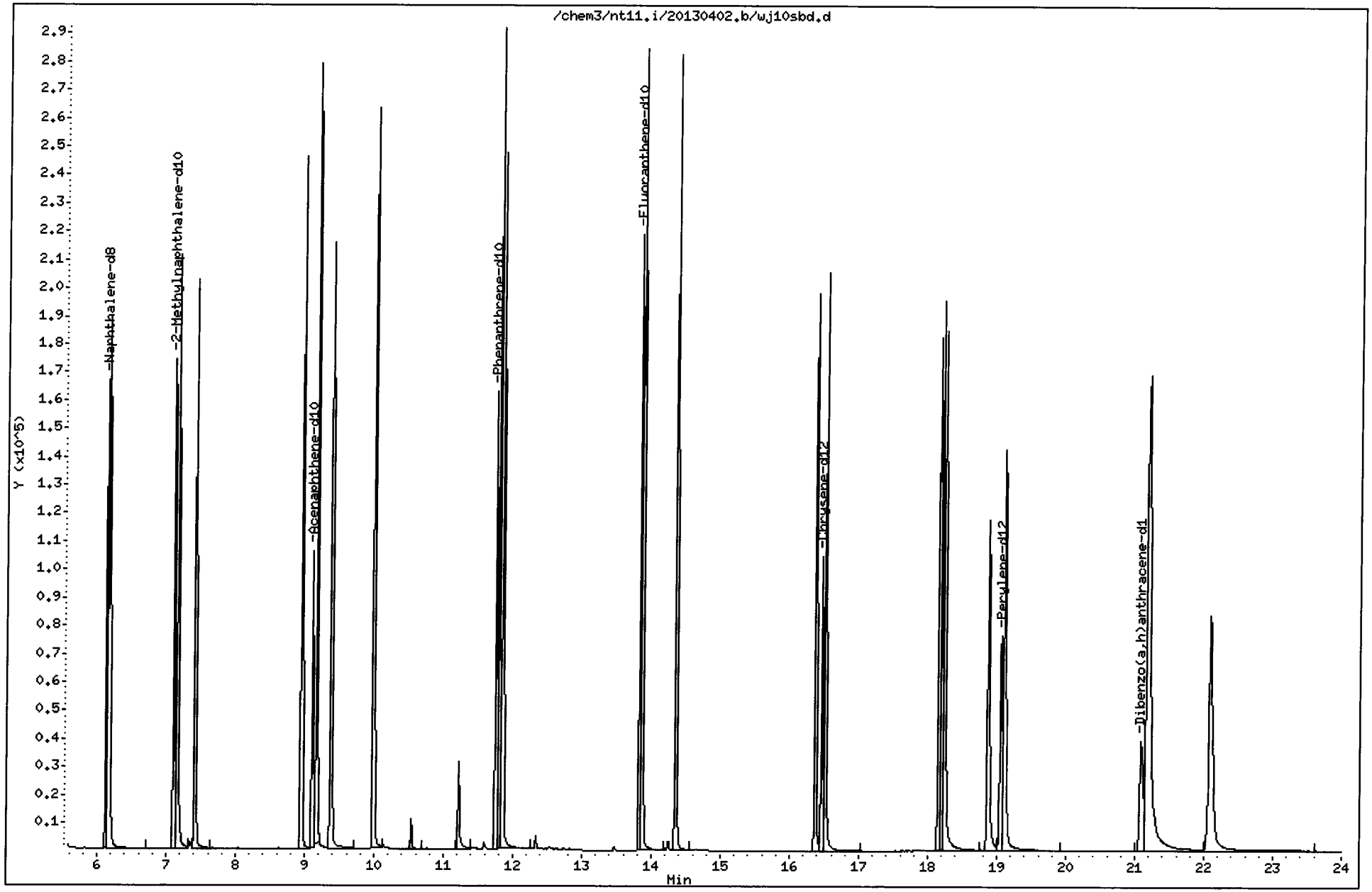
Volume Injected (uL): 2.0

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wj10sbd.d

Lab ID: WJ10LCSDW1, Method: lowsim.m, Instrument: nt11.i, Date: 02-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20130402.b/wj10a.d
Lab Smp Id: WJ10A Client Smp ID: SD-SP-01-20130326-W
Inj Date : 02-APR-2013 23:07
Operator : VTS Inst ID: nt11.i
Smp Info : WJ10A,5
Misc Info : 13-6435
Comment :
Method : /chem3/nt11.i/20130402.b/lowsim.m
Meth Date : 02-Apr-2013 15:45 van Quant Type: ISTD
Cal Date : 23-FEB-2013 12:17 Cal File: ic0223f.d
Als bottle: 19
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: newpna.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.134	6.134	(1.000)	235071	200.000	
	5 Naphthalene	128	6.176	6.165	(1.007)	8780	6.82152	34.1
$	6 2-Methylnaphthalene-d10	152	7.111	7.111	(1.159)	27127	36.4678	182
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	9.105	9.105	(1.000)	134994	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	11.762	11.751	(1.000)	177656	200.000	
	19 Phenanthrene	178	11.807	11.796	(1.004)	14354	13.0806	65.4(M)
	20 Anthracene	178	Compound Not Detected.					
$	23 Fluoranthene-d10	212	13.859	13.830	(1.178)	27651	30.0286	150(M)
	24 Fluoranthene	202	13.897	13.869	(1.182)	13968	12.8756	64.4(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	25 Pyrene	202	14.387	14.349	(0.872)	21698	17.5249	87.6
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	16.491	16.458	(1.000)	147847	200.000	
	30 Chrysene	228	16.533	16.508	(1.003)	9814	9.28321	46.4(M)
	44 Benzo(b)fluoranthene	252	18.176	18.156	(0.953)	16725	10.8557	54.3
	45 Benzo(k)fluoranthene	252	Compound Not Detected.					
	46 Benzo(j)fluoranthene	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	19.069	19.050	(1.000)	194398	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	21.107	21.096	(1.107)	35292	31.7675	159
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	22.115	22.093	(1.160)	14348	10.0193	50.1
	47 Perylene	252	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

VD 4-3-13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: wj10a.d
Lab Smp Id: WJ10A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20130402.b/lowsim.m
Misc Info: 13-6435

Calibration Date: 02-APR-2013
Calibration Time: 15:20
Client Smp ID: SD-SP-01-20130326-W
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	255285	127642	510570	235071	-7.92
11 Acenaphthene-d10	142891	71446	285782	134994	-5.53
18 Phenanthrene-d10	220853	110426	441706	177656	-19.56
29 Chrysene-d12	162525	81262	325050	147847	-9.03
35 Perylene-d12	139028	69514	278056	194398	39.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.13	5.63	6.63	6.13	0.00
11 Acenaphthene-d10	9.11	8.61	9.61	9.11	0.00
18 Phenanthrene-d10	11.75	11.25	12.25	11.76	0.10
29 Chrysene-d12	16.46	15.96	16.96	16.49	0.20
35 Perylene-d12	19.05	18.55	19.55	19.07	0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

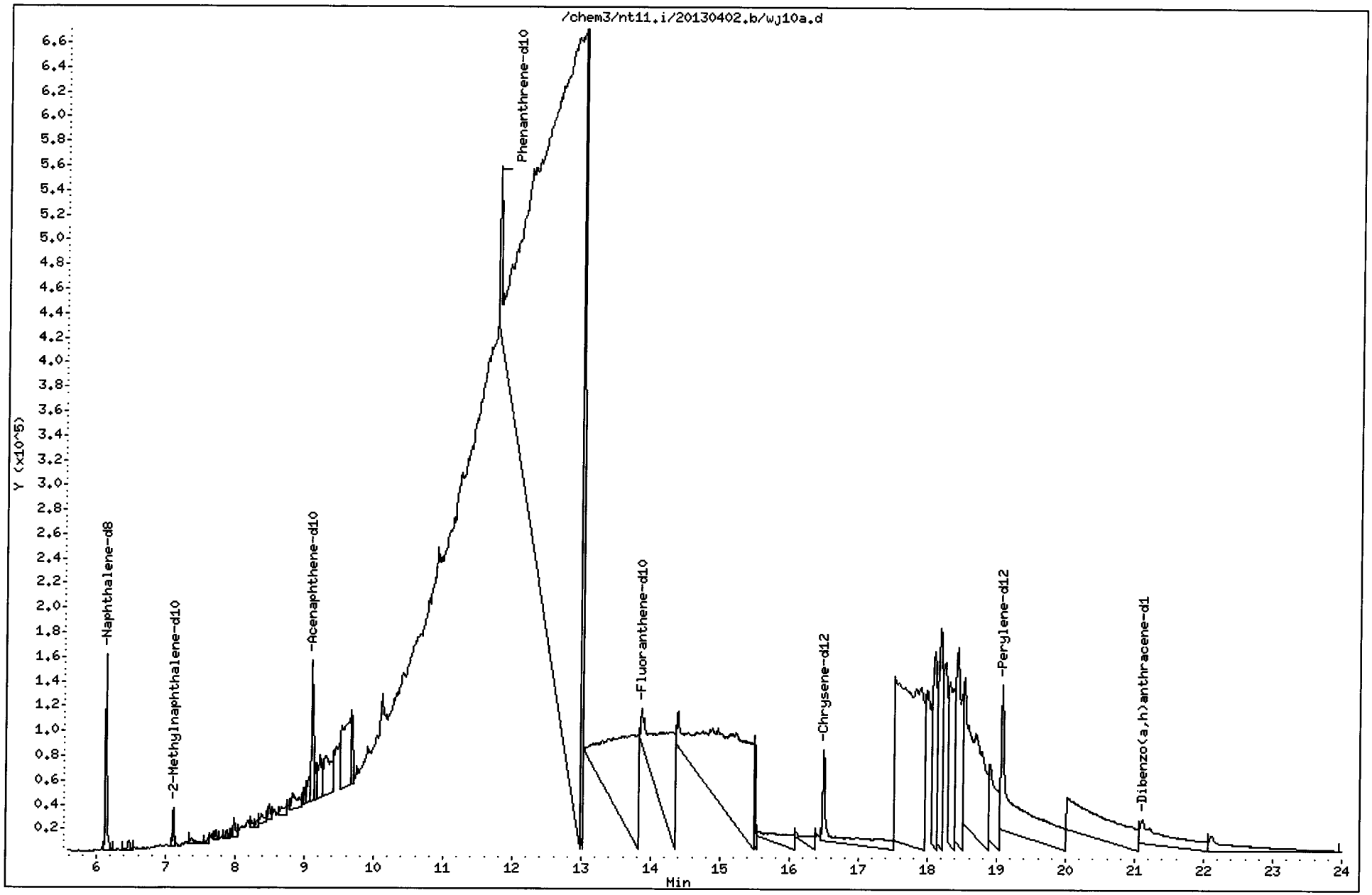
Client Name: SAIC
Sample Matrix: LIQUID
Lab Smp Id: WJ10A
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: newpna.sub
Method File: /chem3/nt11.i/20130402.b/lowsim.m
Misc Info: 13-6435

Client SDG: WJ10
Fraction: SV
Client Smp ID: SD-SP-01-20130326-W
Operator: VTS
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	182	60.78	35-94
$ 23 Fluoranthene-d10	300	150	50.05	30-160
$ 36 Dibenzo(a,h)anthra	300	159	52.95	26-115

Data File: /chem3/nt11.i/20130402.b/wj10a.d
Date : 02-APR-2013 23:07
Client ID: SD-SP-01-20130326-W
Sample Info: WJ10A,5
Volume Injected (uL): 2.0
Column phase: Rx1-17Sil MS

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25



Data File: /chem3/nt11.i/20130402.b/wj10a.d

Date : 02-APR-2013 23:07

Client ID: SD-SP-01-20130326-W

Instrument: nt11.i

Sample Info: WJ10A,5

Volume Injected (uL): 2.0

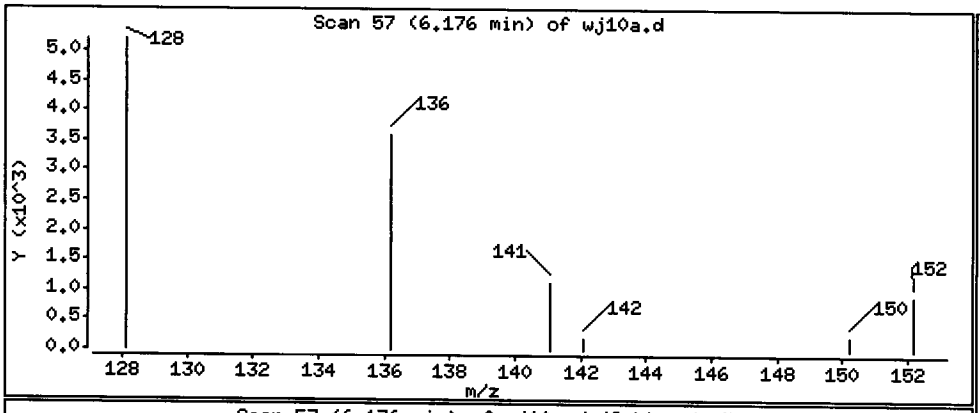
Operator: VTS

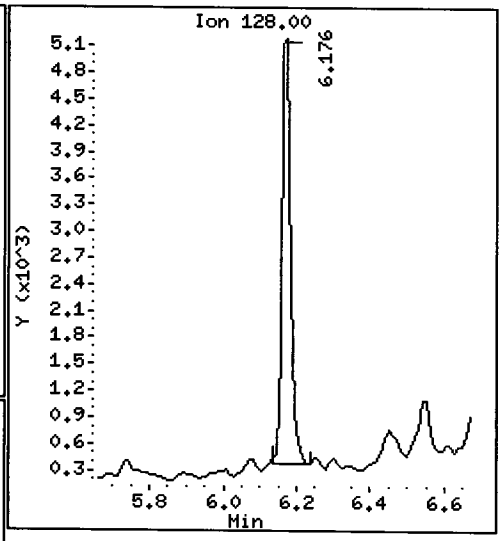
Column phase: Rxi-17Sil MS

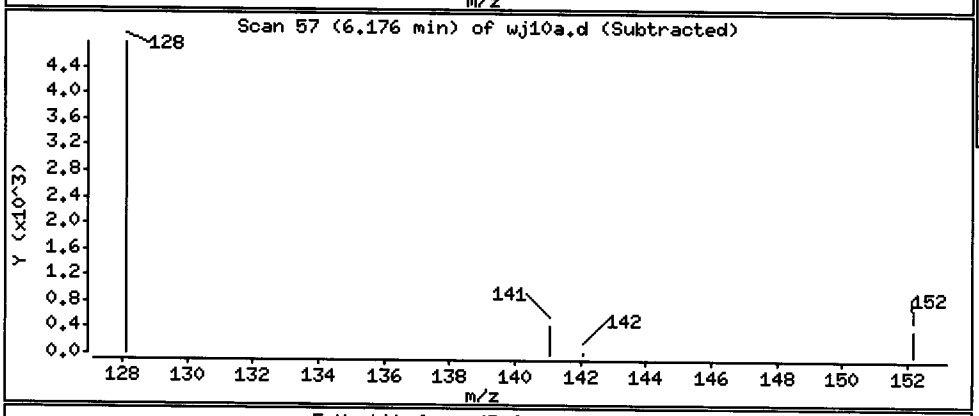
Column diameter: 0.25

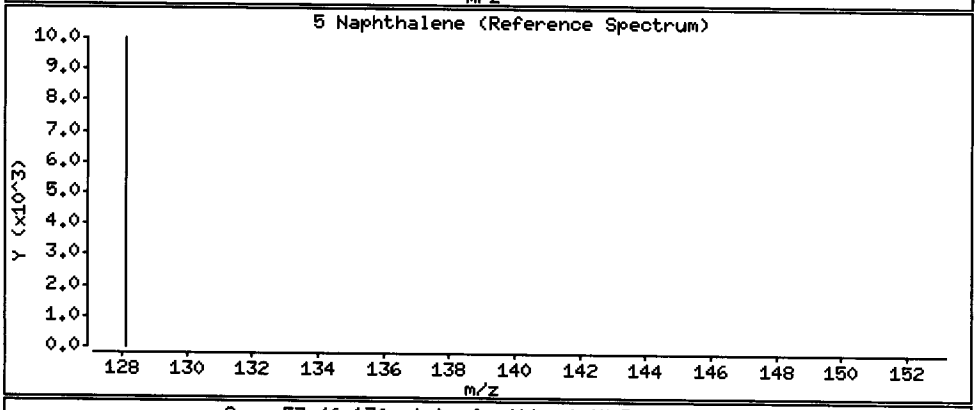
5 Naphthalene

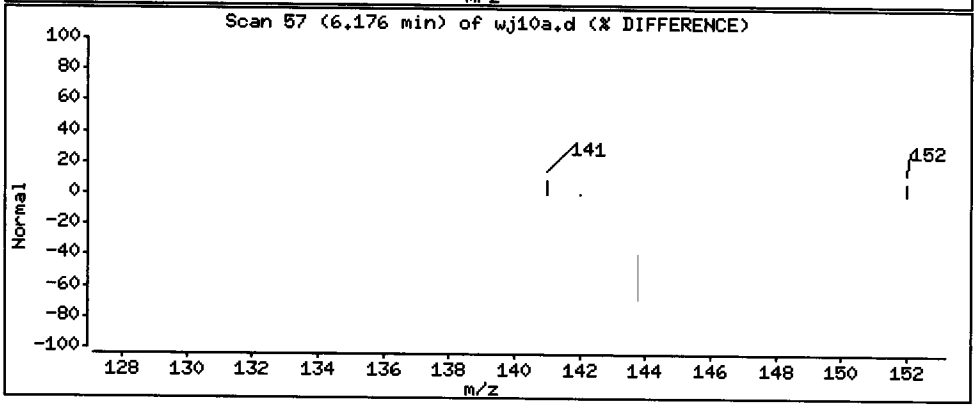
Concentration: 34.1 ug/L











Data File: /chem3/nt11.i/20130402.b/wj10a.d

Date : 02-APR-2013 23:07

Client ID: SD-SP-01-20130326-W

Instrument: nt11.i

Sample Info: WJ10A,5

Volume Injected (uL): 2.0

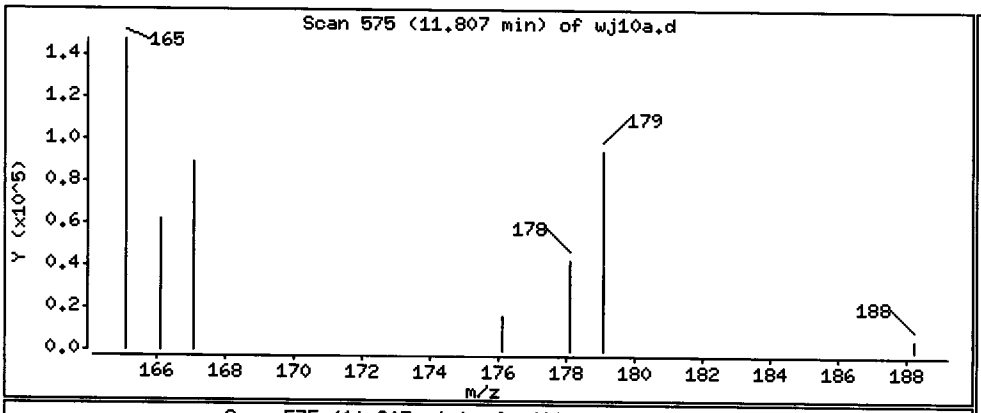
Operator: VTS

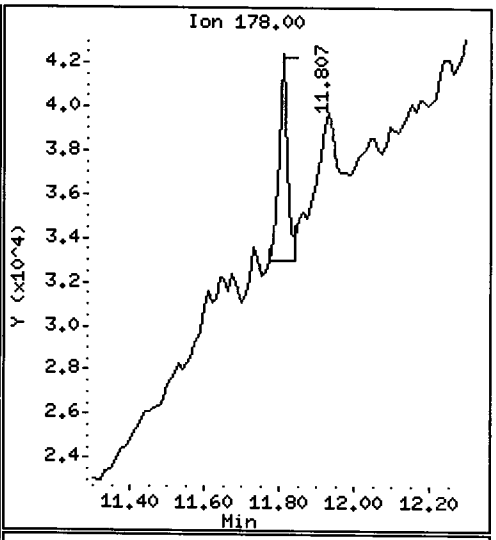
Column phase: Rxi-17Sil MS

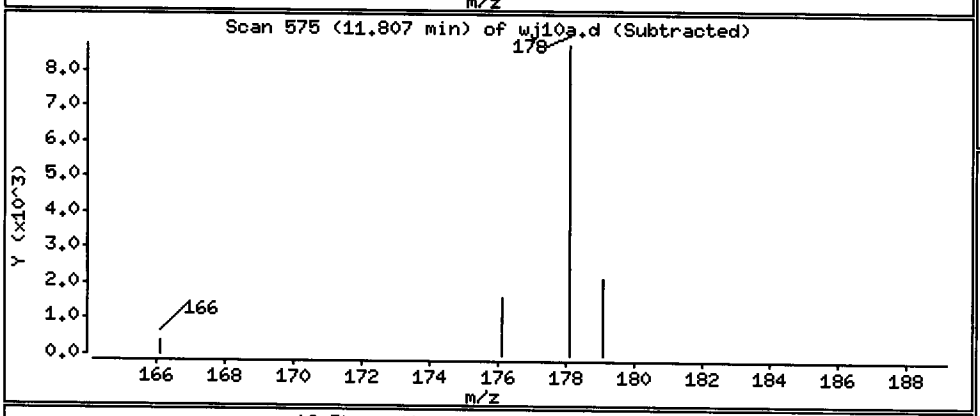
Column diameter: 0.25

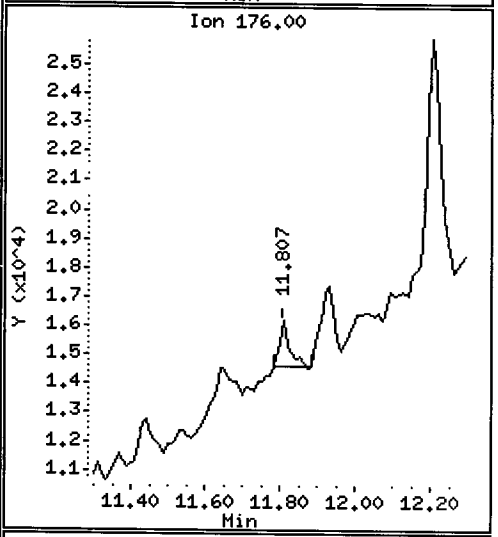
19 Phenanthrene

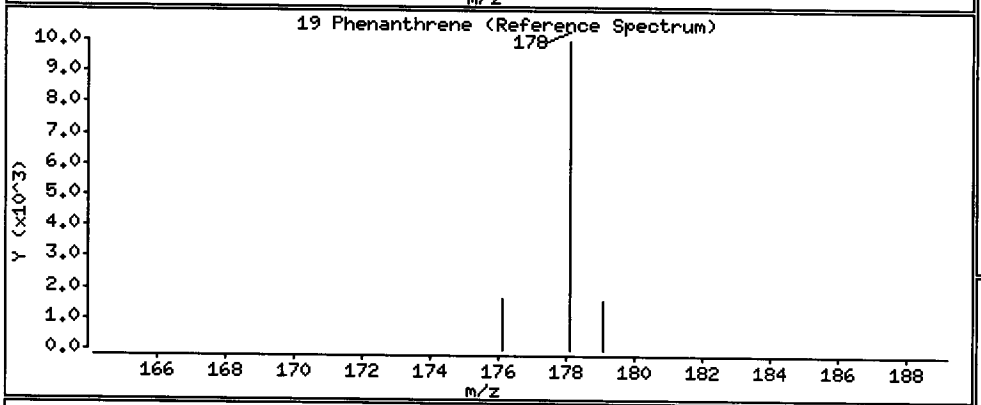
Concentration: 65.4 ug/L

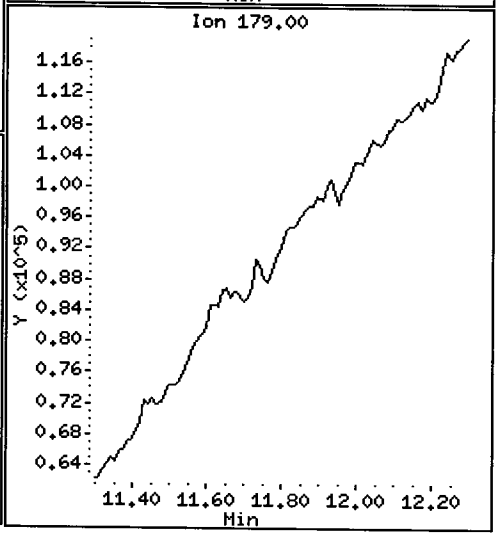


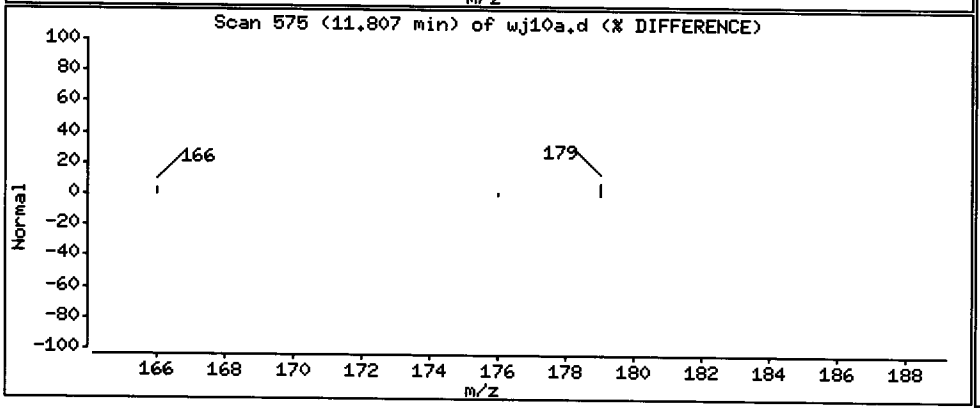












Data File: /chem3/nt11.i/20130402.b/wj10a.d

Date : 02-APR-2013 23:07

Client ID: SD-SP-01-20130326-W

Instrument: nt11.i

Sample Info: WJ10A,5

Volume Injected (uL): 2.0

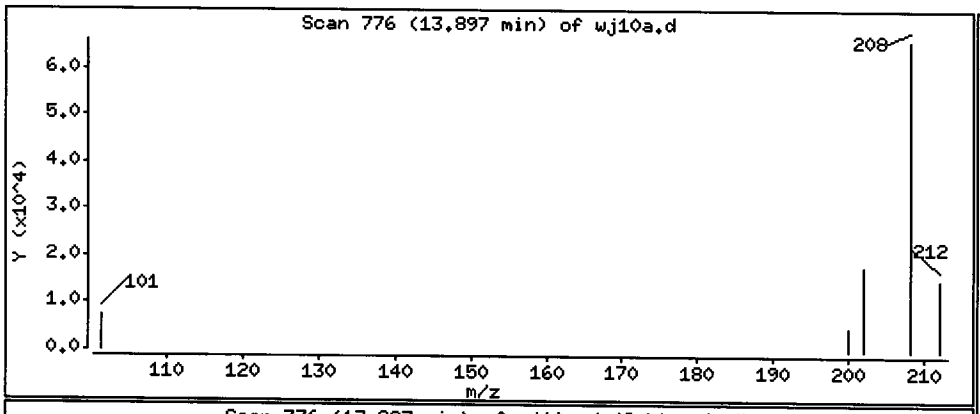
Operator: VTS

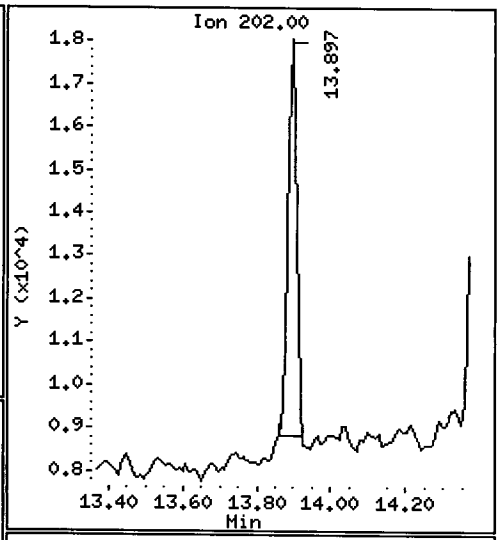
Column phase: Rxi-17Sil MS

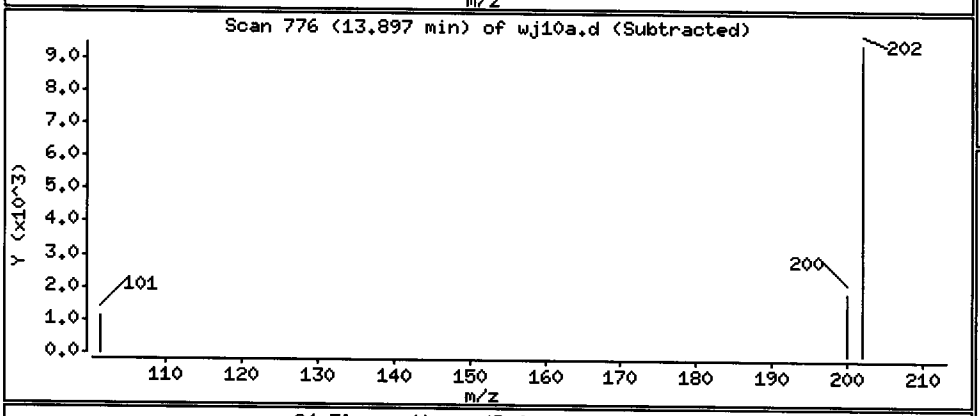
Column diameter: 0.25

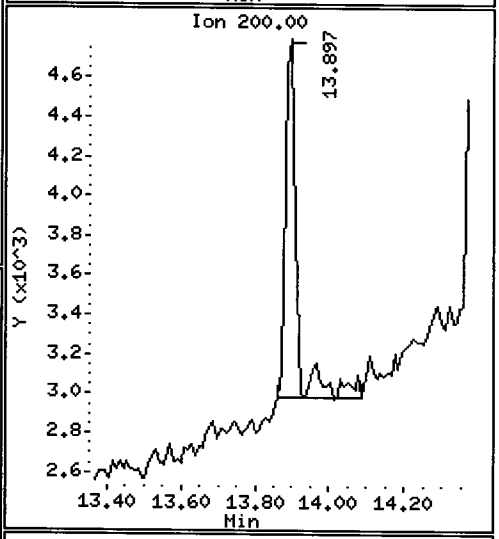
24 Fluoranthene

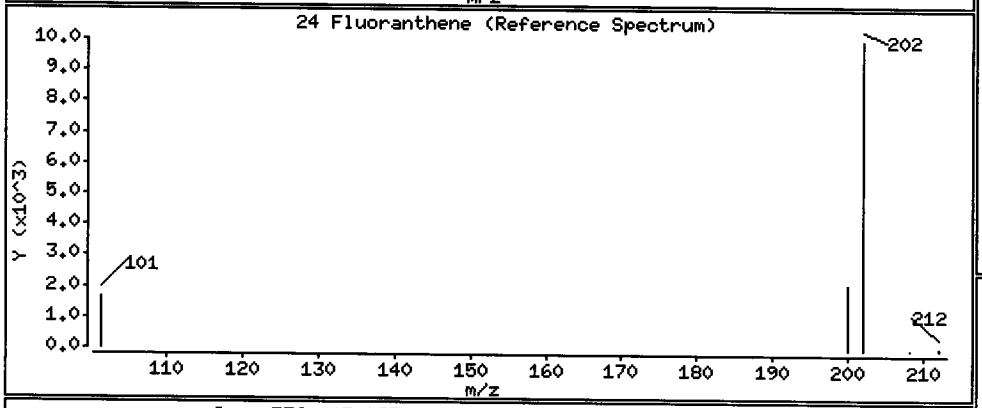
Concentration: 64.4 ug/L

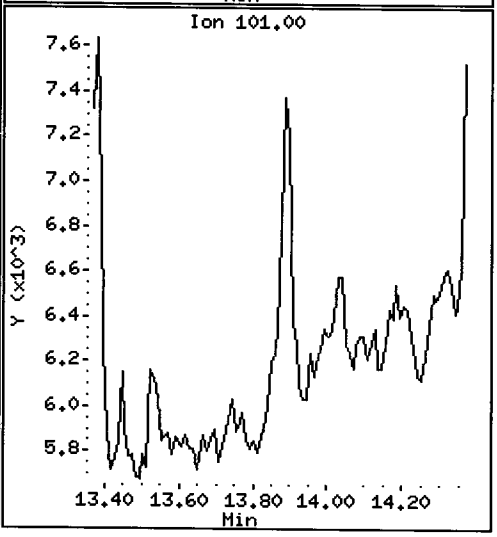


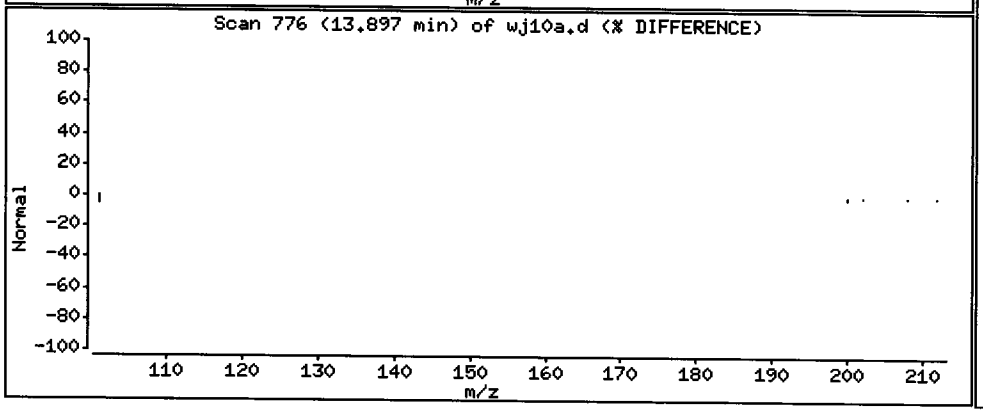












Data File: /chem3/nt11.i/20130402.b/wj10a.d

Date : 02-APR-2013 23:07

Client ID: SD-SP-01-20130326-W

Instrument: nt11.i

Sample Info: WJ10A,5

Volume Injected (uL): 2.0

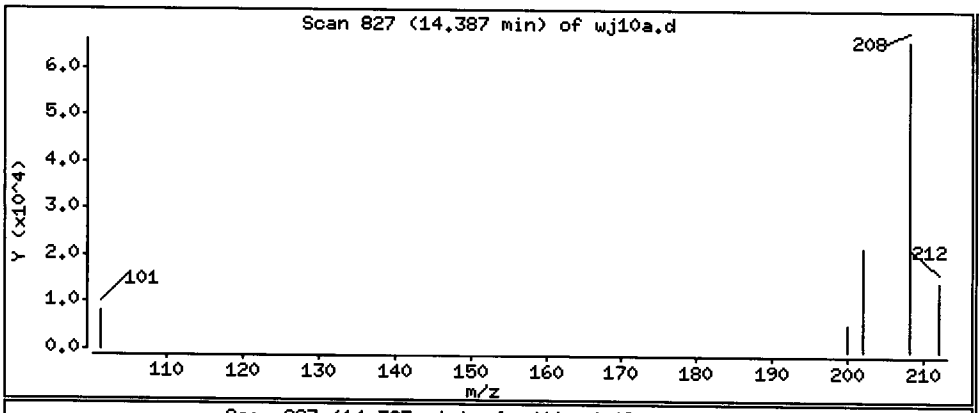
Operator: VTS

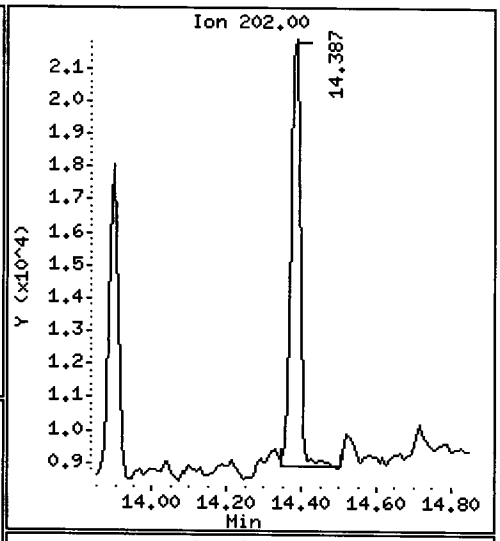
Column phase: Rxi-17Sil MS

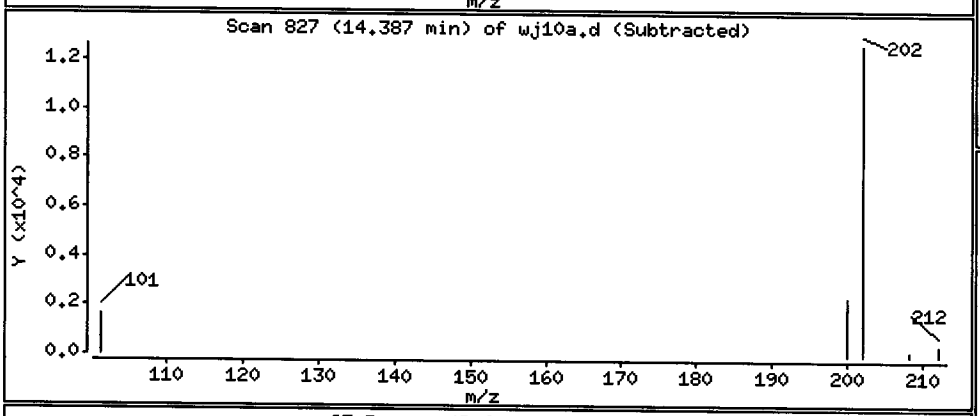
Column diameter: 0.25

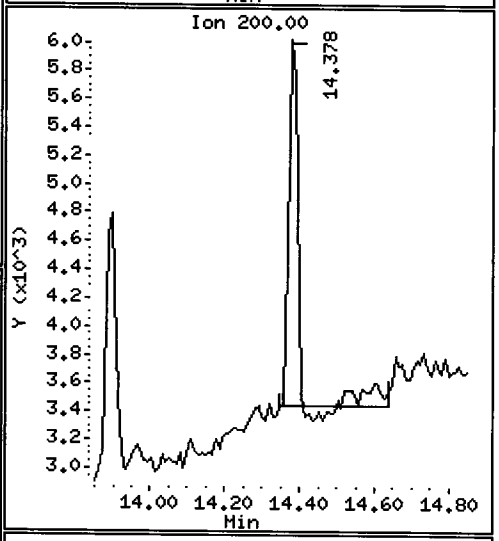
25 Pyrene

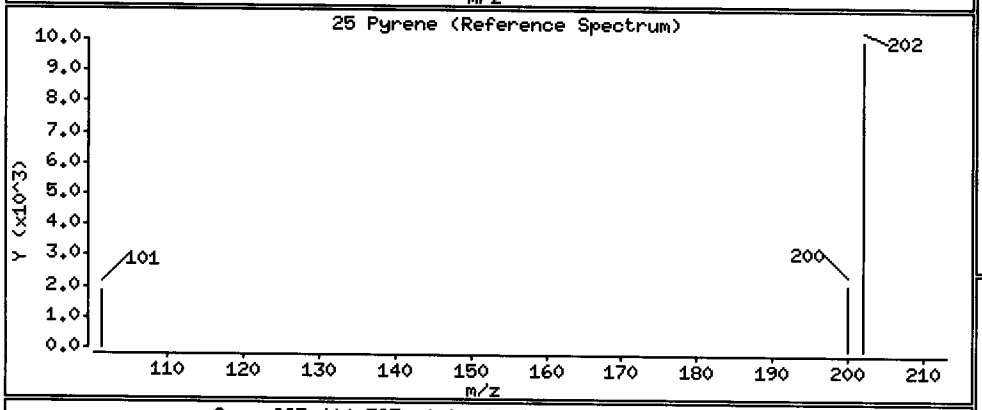
Concentration: 87.6 ug/L

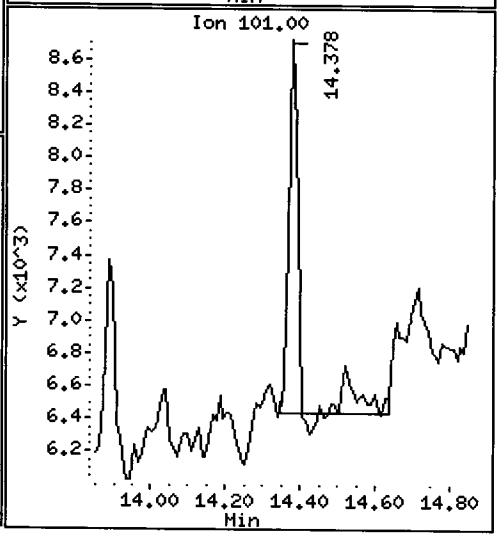


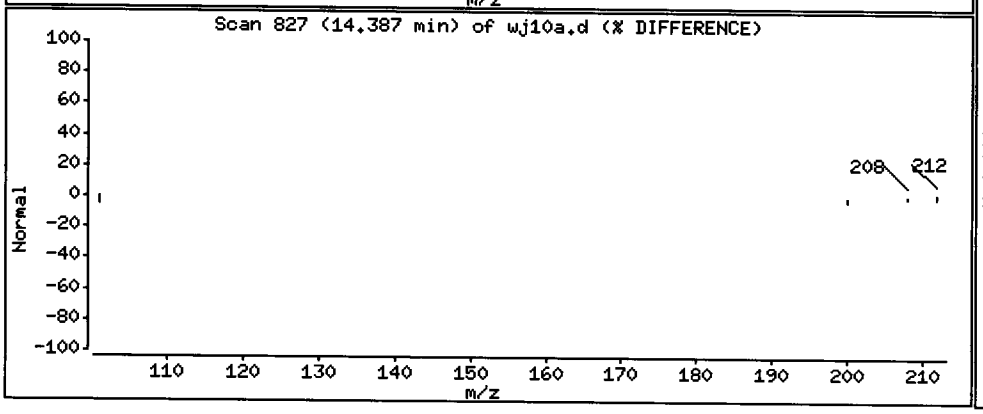












Data File: /chem3/nt11.i/20130402.b/wj10a.d

Date : 02-APR-2013 23:07

Client ID: SD-SP-01-20130326-W

Instrument: nt11.i

Sample Info: WJ10A,5

Volume Injected (uL): 2.0

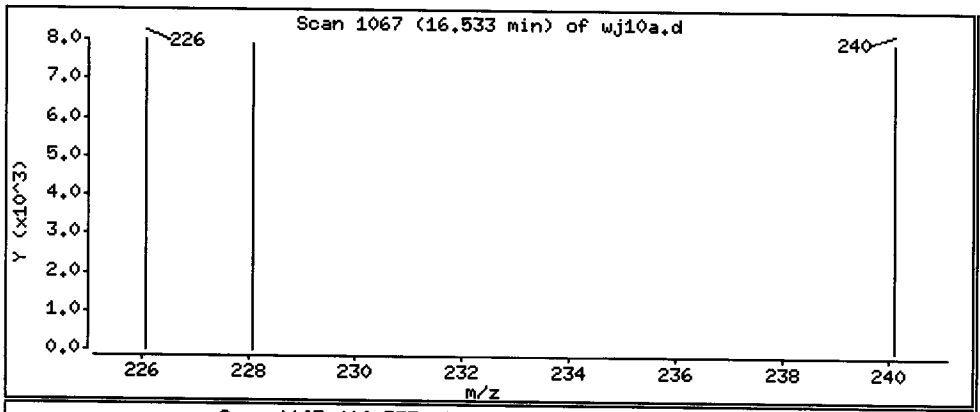
Operator: VTS

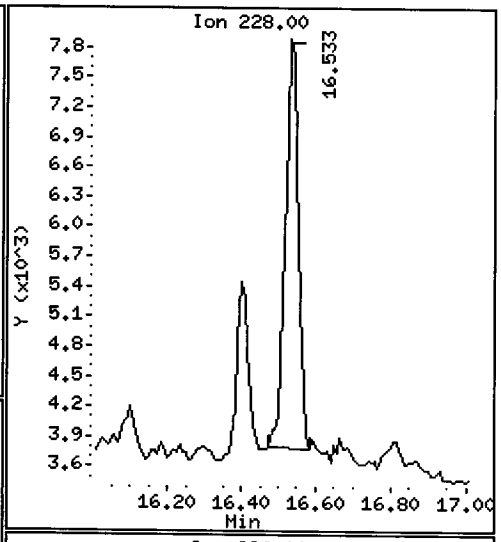
Column phase: Rxi-17Sil MS

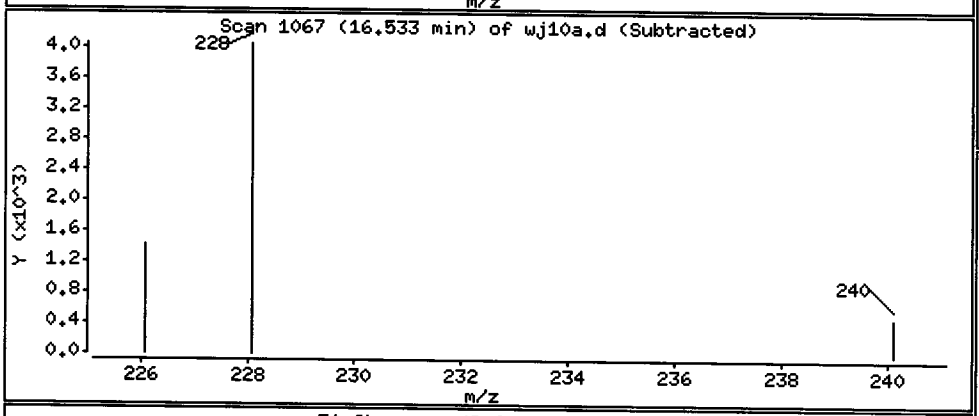
Column diameter: 0.25

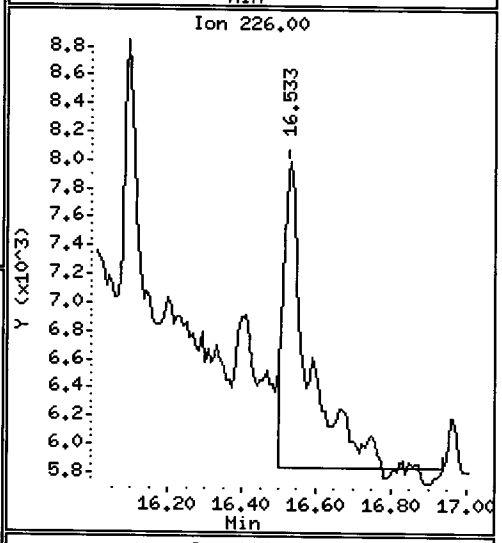
30 Chrysene

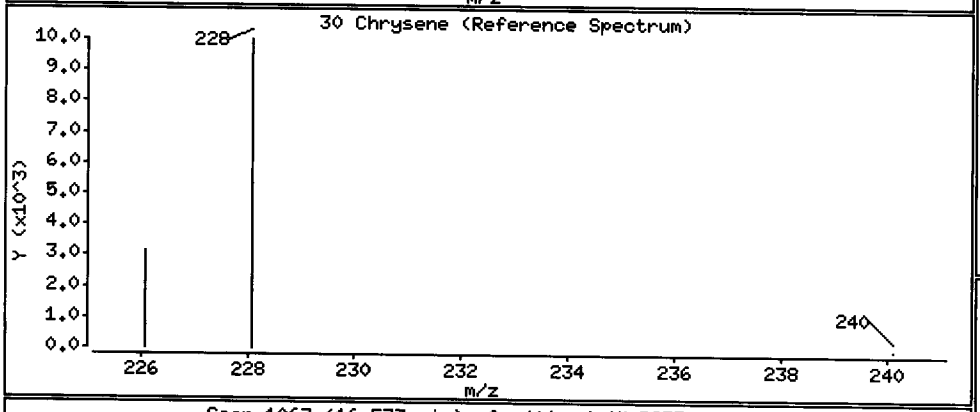
Concentration: 46.4 ug/L

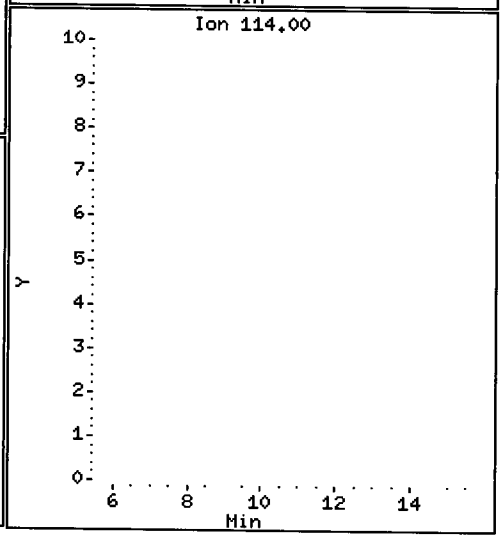


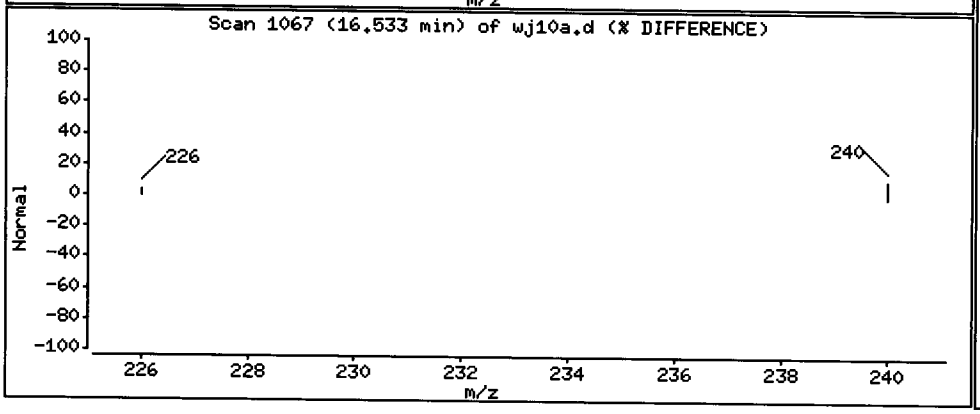












Data File: /chem3/nt11.i/20130402.b/wj10a.d

Date : 02-APR-2013 23:07

Client ID: SD-SP-01-20130326-W

Instrument: nt11.i

Sample Info: WJ10A,5

Volume Injected (uL): 2.0

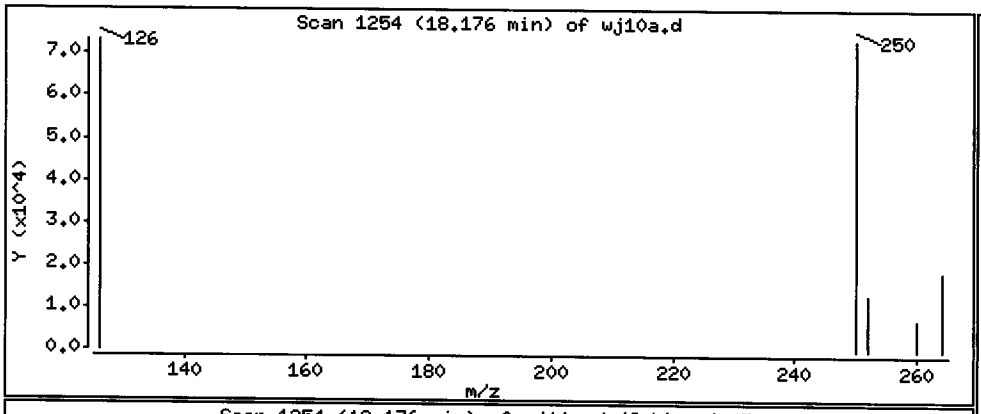
Operator: VTS

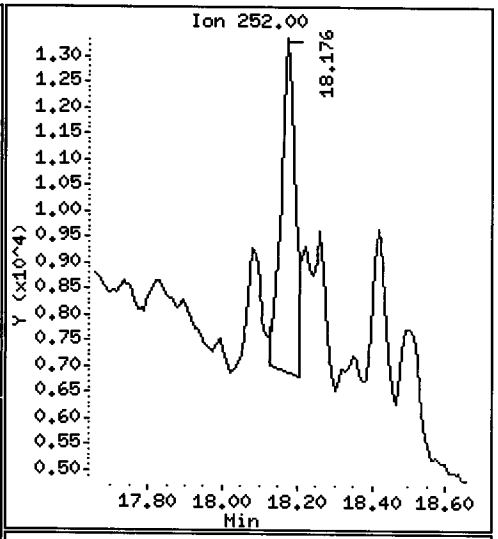
Column phase: Rxi-17Sil MS

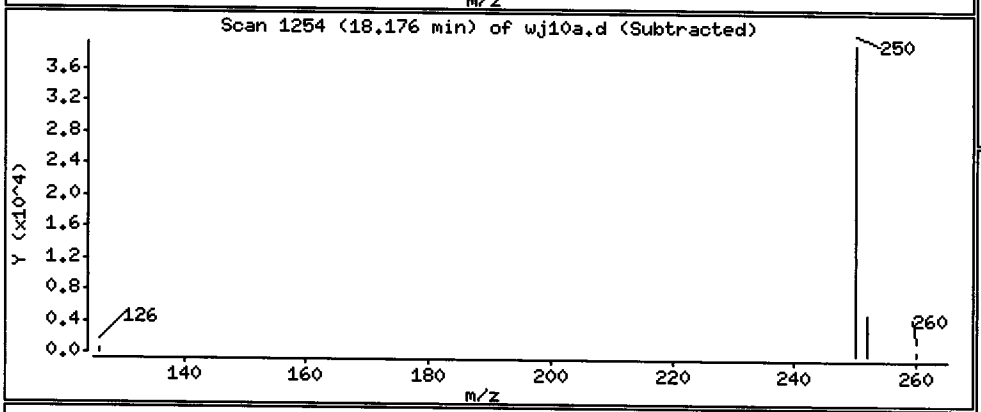
Column diameter: 0.25

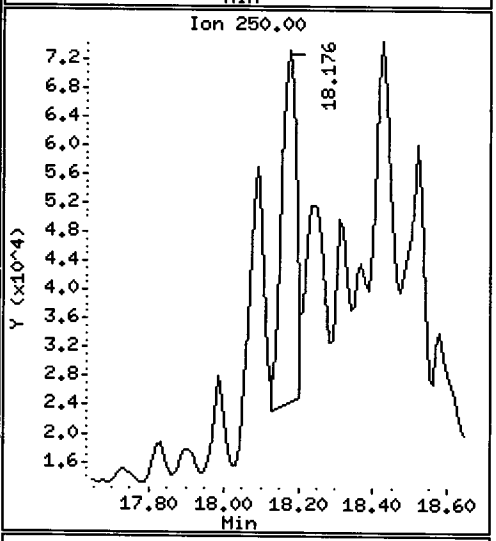
44 Benzo(b)fluoranthene

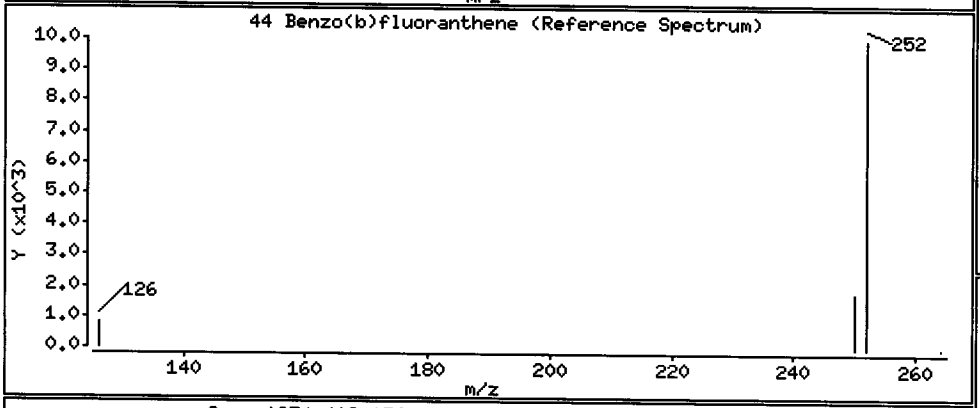
Concentration: 54.3 ug/L

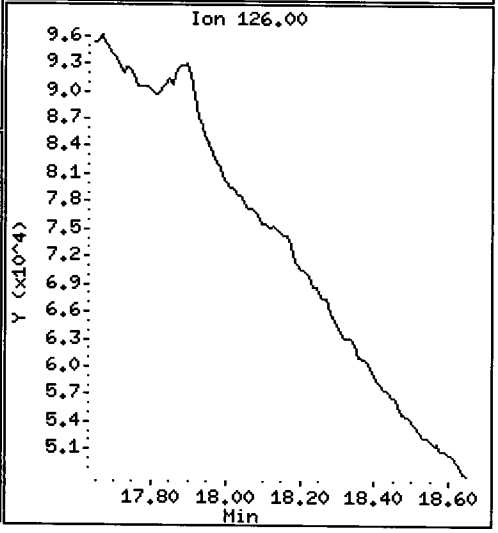


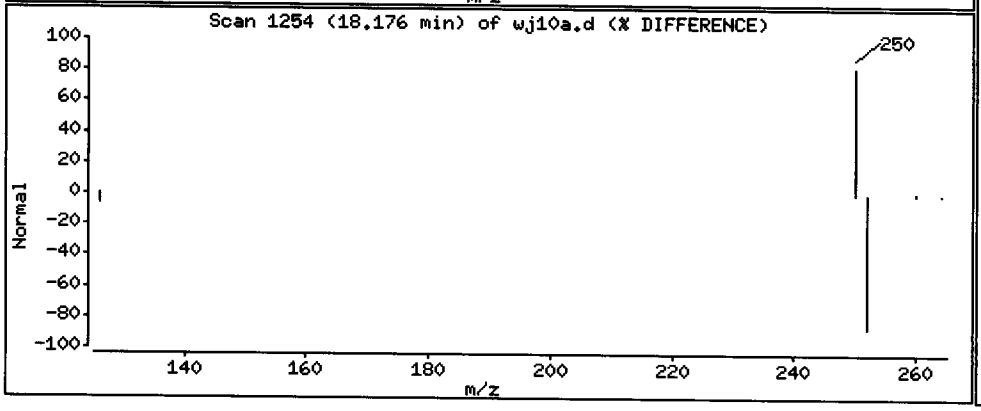












Data File: /chem3/nt11.i/20130402.b/wj10a.d

Date : 02-APR-2013 23:07

Client ID: SD-SP-01-20130326-W

Instrument: nt11.i

Sample Info: WJ10A,5

Volume Injected (uL): 2.0

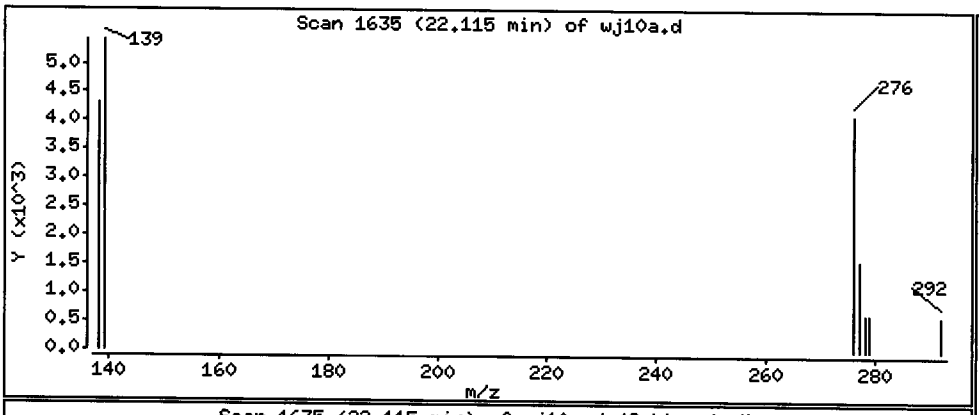
Operator: VTS

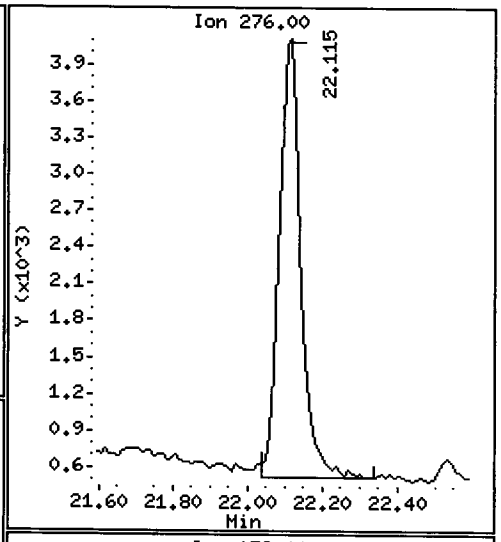
Column phase: Rxi-17Sil MS

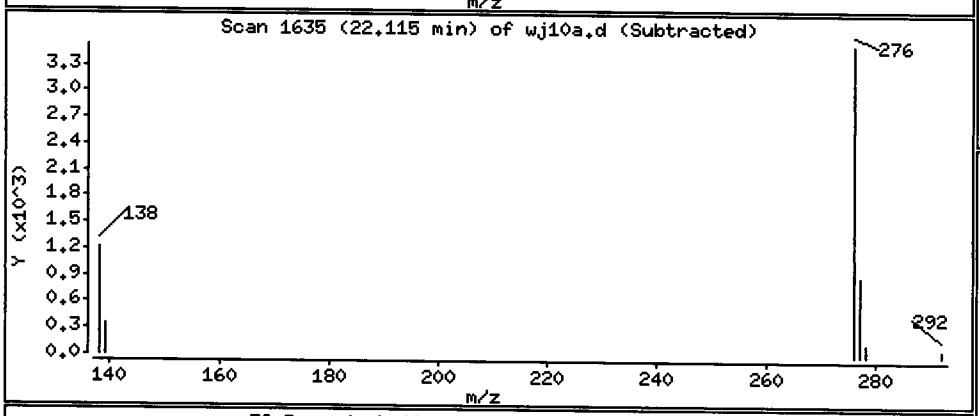
Column diameter: 0.25

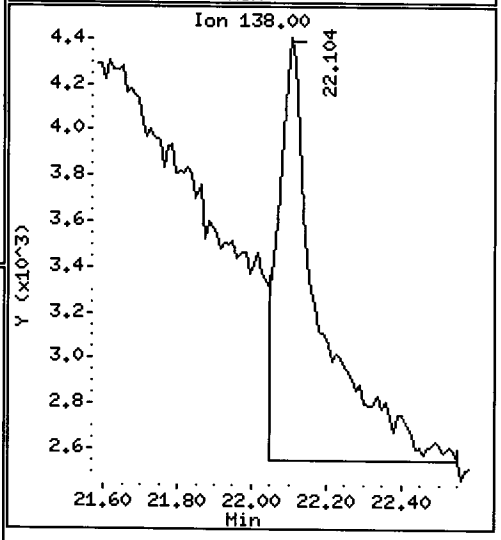
39 Benzo(g,h,i)perylene

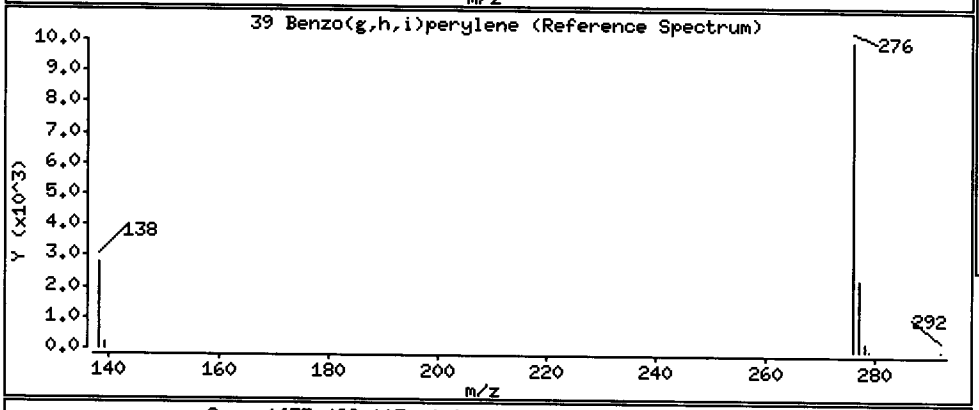
Concentration: 50.1 ug/L

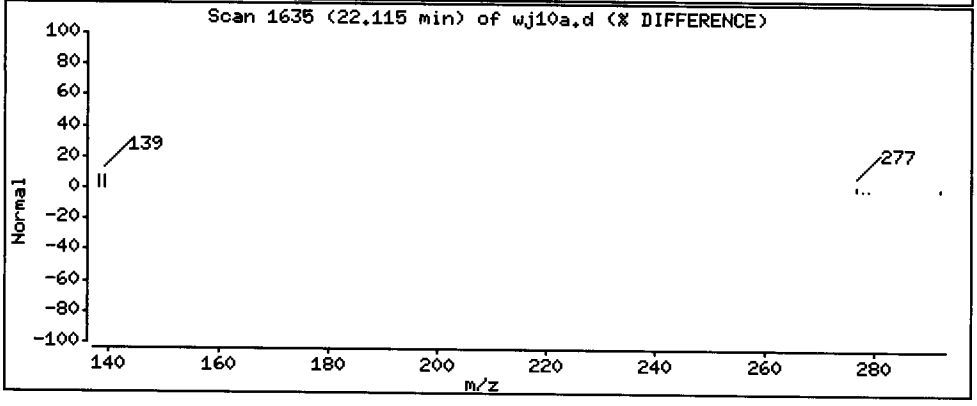






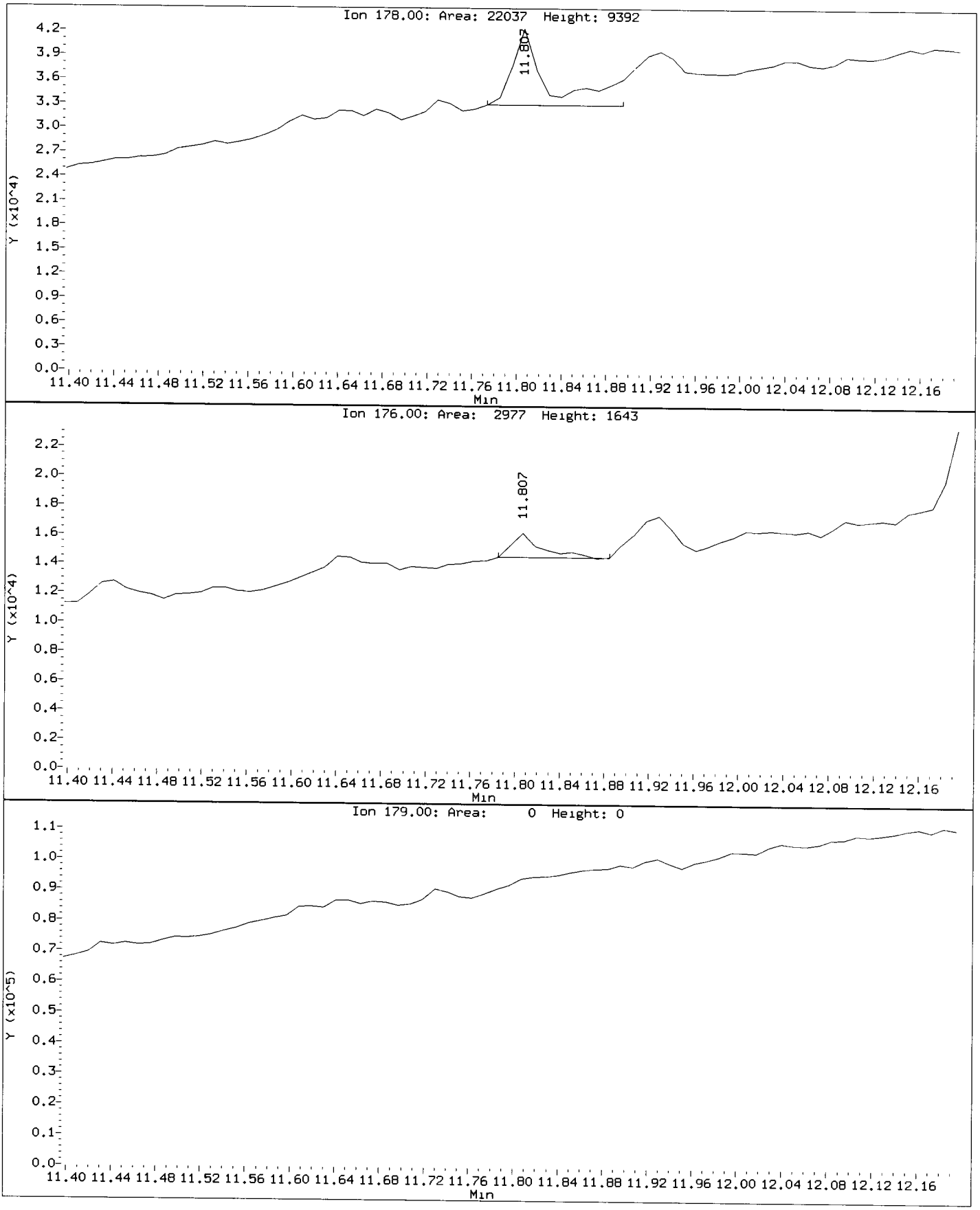






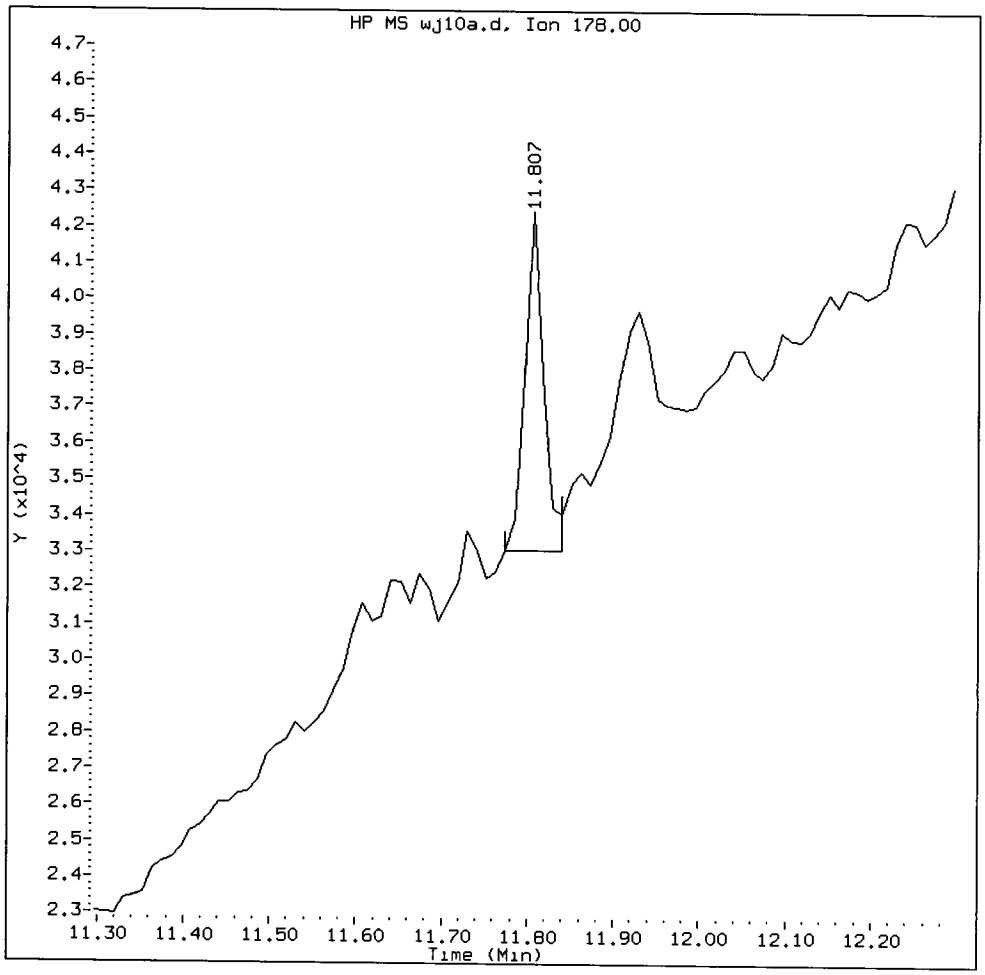
Data File: /chem3/nt11.i/20130402.b/wj10a.d
Injection Date: 02-APR-2013 23:07
Instrument: nt11.i
Client Sample ID: SD-SP-01-20130326-W

Compound: Phenanthrene
CAS Number:



WJ10A, /chem3/nt11.i/20130402.b/wj10a.d

Phenanthrene Amount: 13.08 Area: 14354



MANUAL INTEGRATION for Phenanthrene

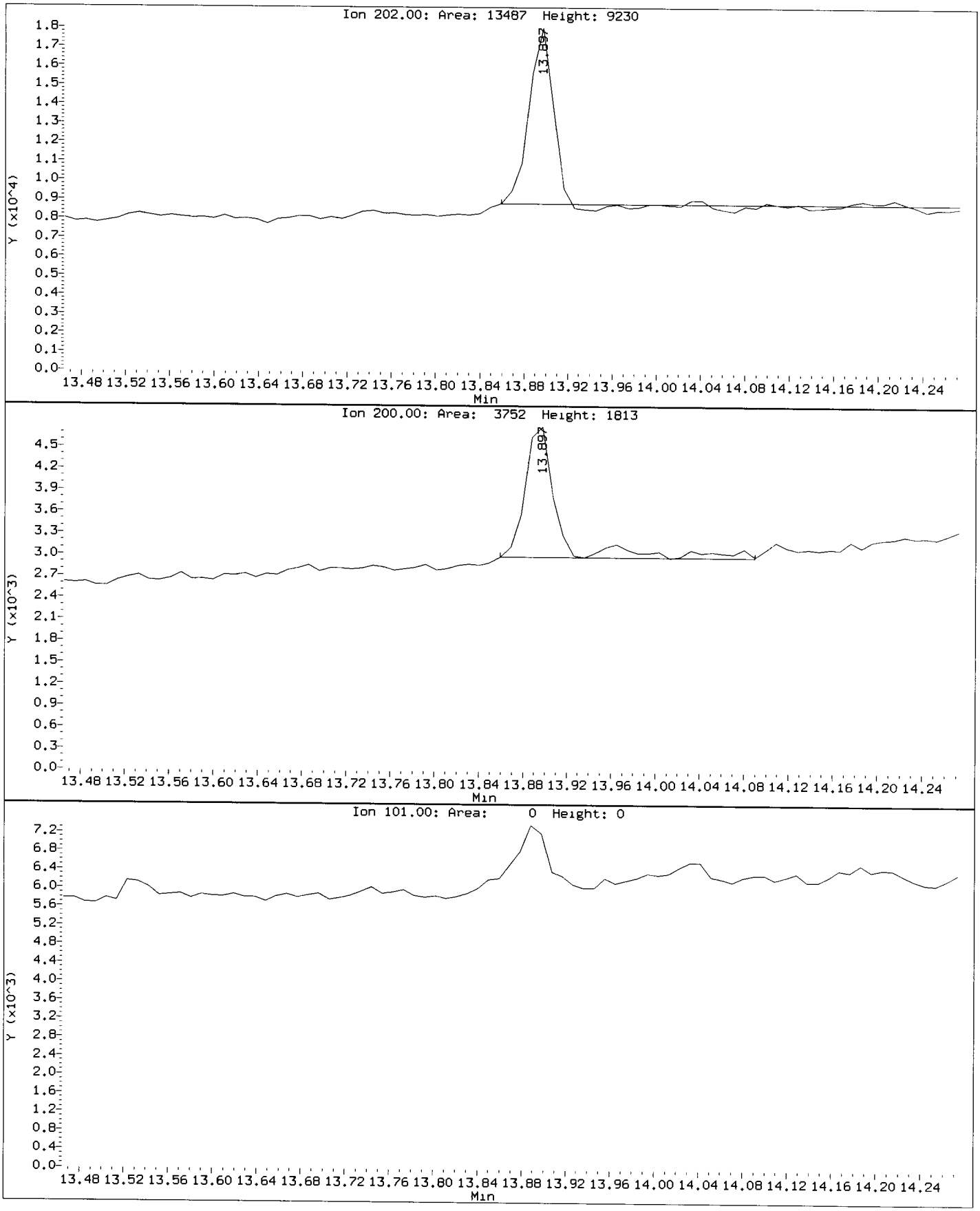
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VD Date: 4.3.13

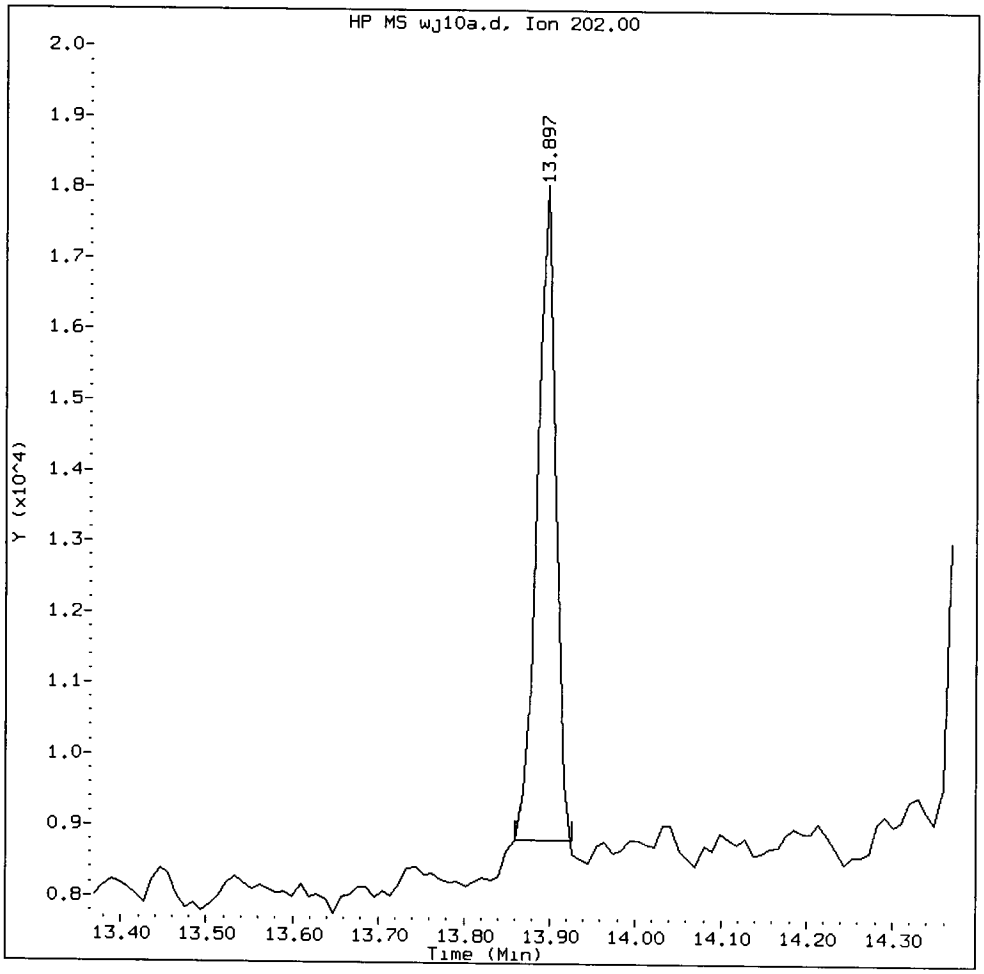
Data File: /chem3/nt11.i/20130402.b/wj10a.d
Injection Date: 02-APR-2013 23:07
Instrument: nt11.i
Client Sample ID: SD-SP-01-20130326-W

Compound: Fluoranthene
CAS Number:



WJ10A, /chem3/nt11.i/20130402.b/wj10a.d

Fluoranthene Amount: 12.88 Area: 13968



MANUAL INTEGRATION for Fluoranthene

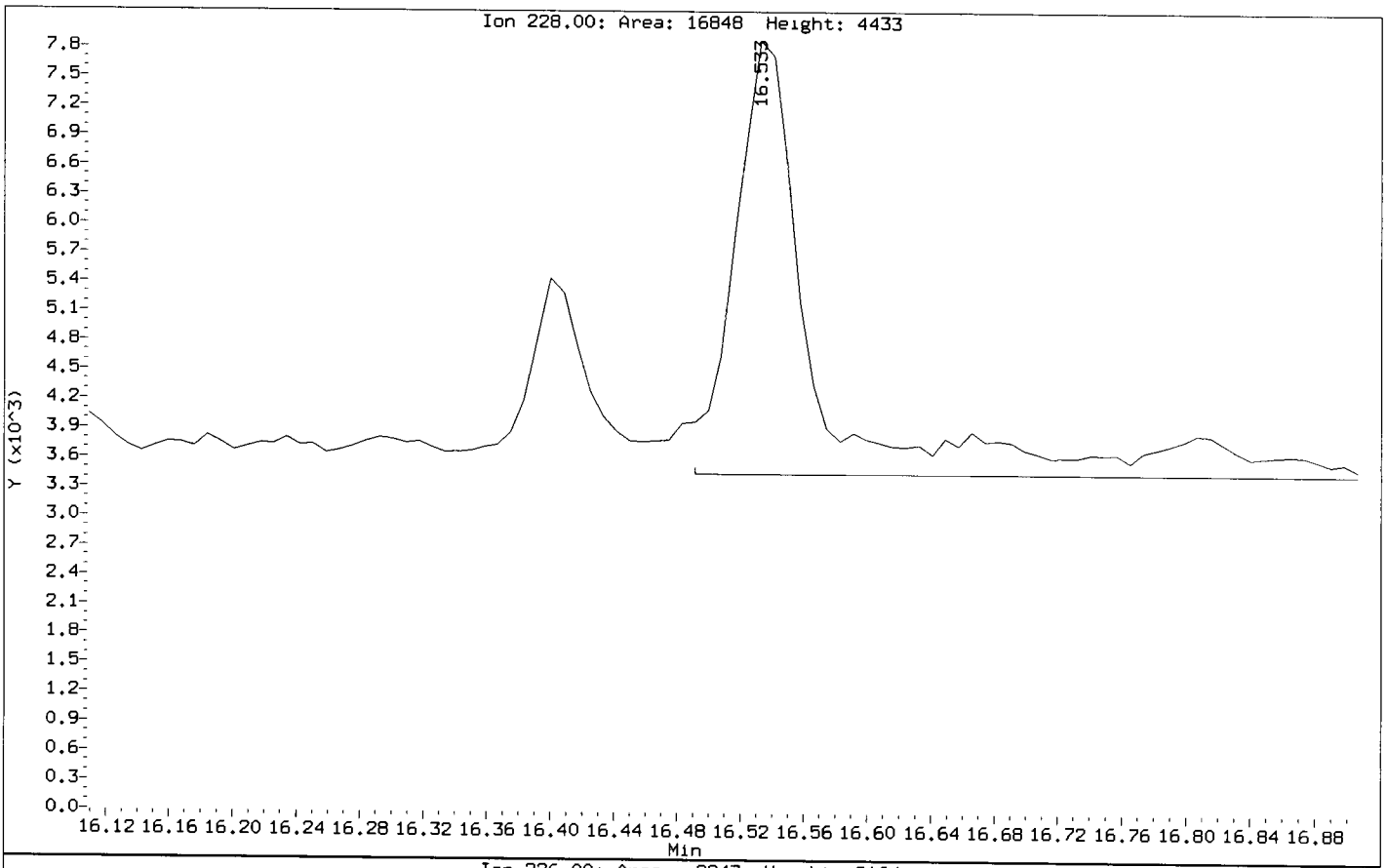
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

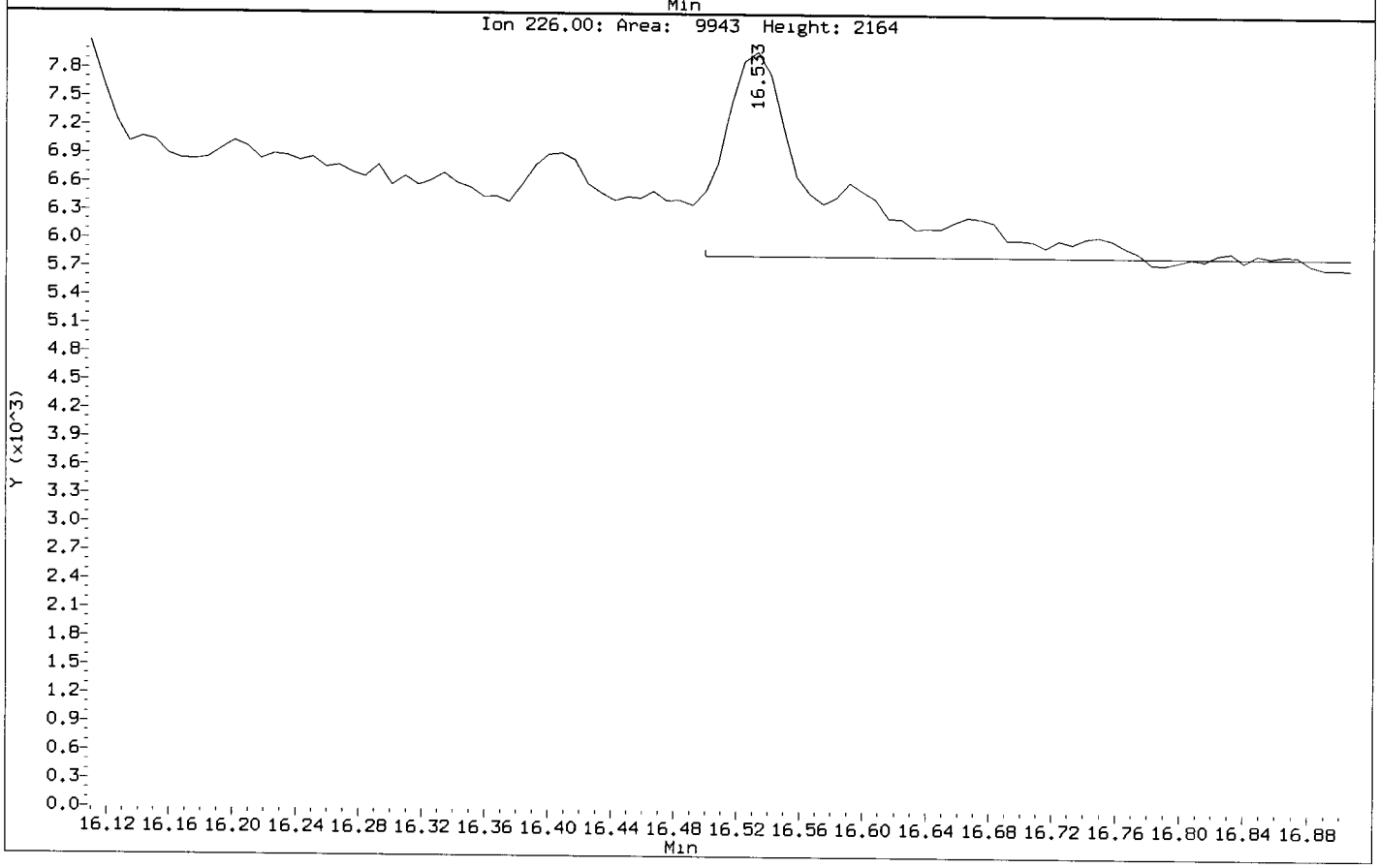
5. Other _____

Analyst: LD Date: 4-3-13

Data File: /chem3/nt11.i/20130402.b/wj10a.d
Injection Date: 02-APR-2013 23:07
Instrument: nt11.i
Client Sample ID: SD-SP-01-20130326-W

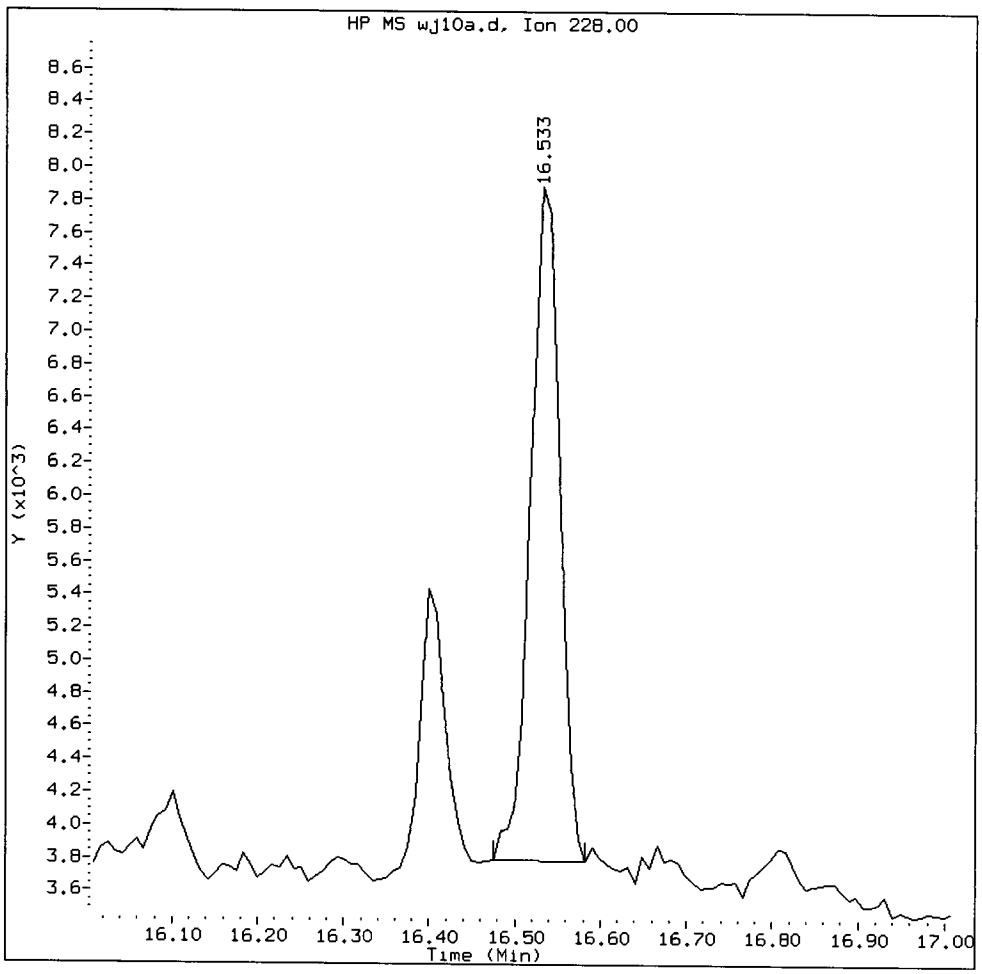
Compound: Chrysene
CAS Number:





WJ10A, /chem3/nt11.i/20130402.b/wj10a.d

Chrysene Amount: 9.28 Area: 9814



MANUAL INTEGRATION for Chrysene

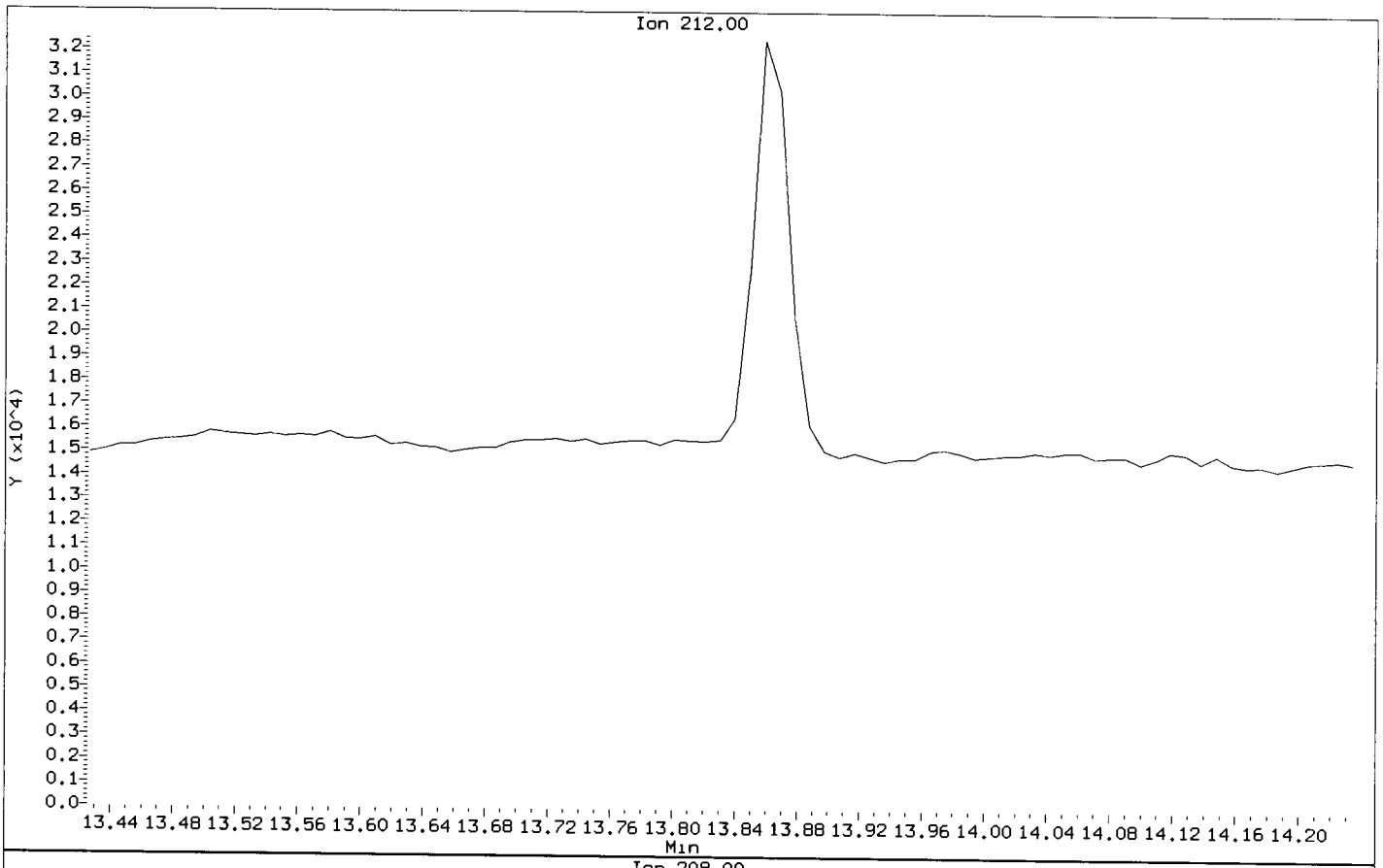
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

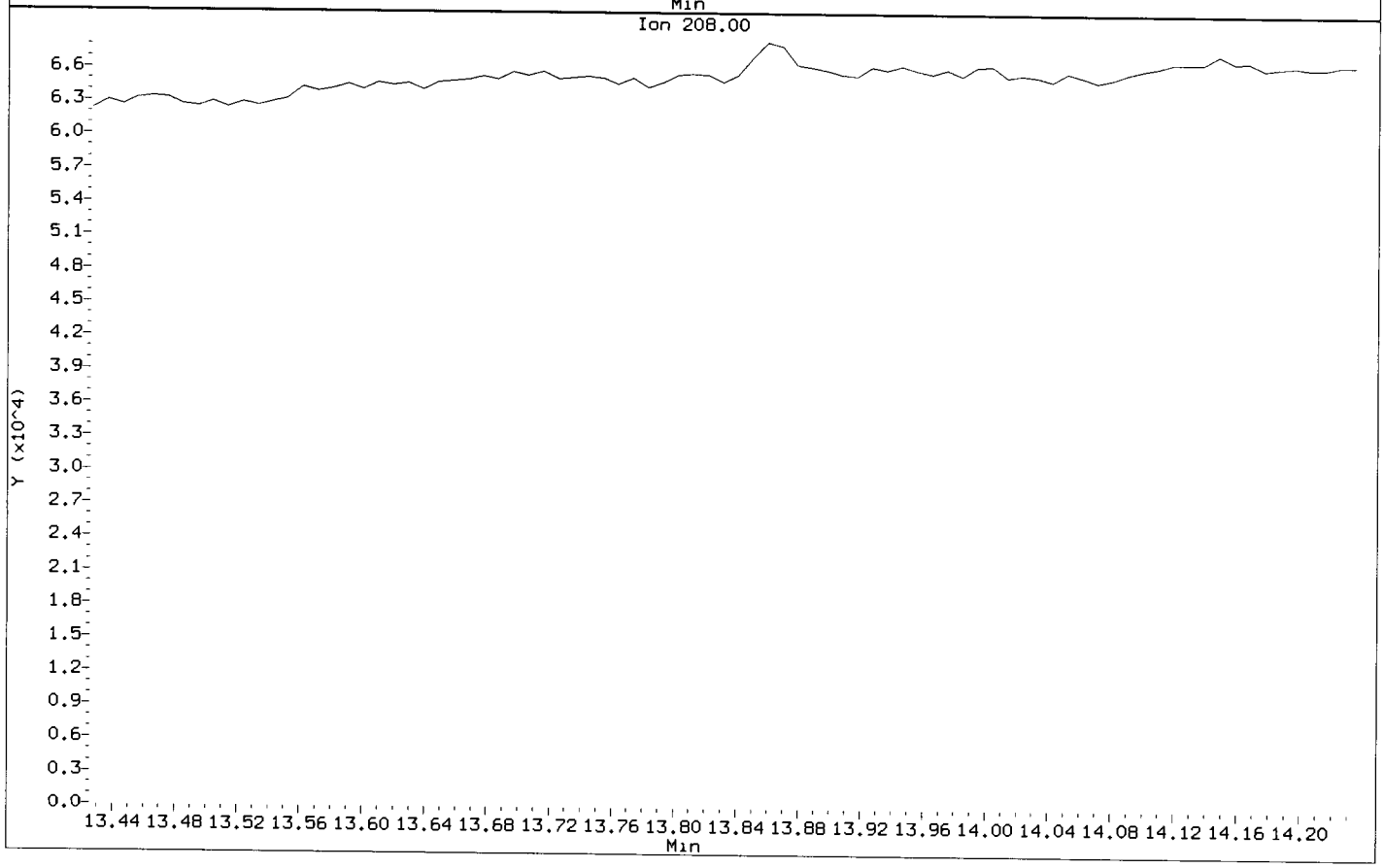
5. Other _____

Analyst: VD Date: 4-3-13

Data File: /chem3/nt11.i/20130402.b/wj10a.d
Injection Date: 02-APR-2013 23:07
Instrument: nt11.i
Client Sample ID: SD-SP-01-20130326-W

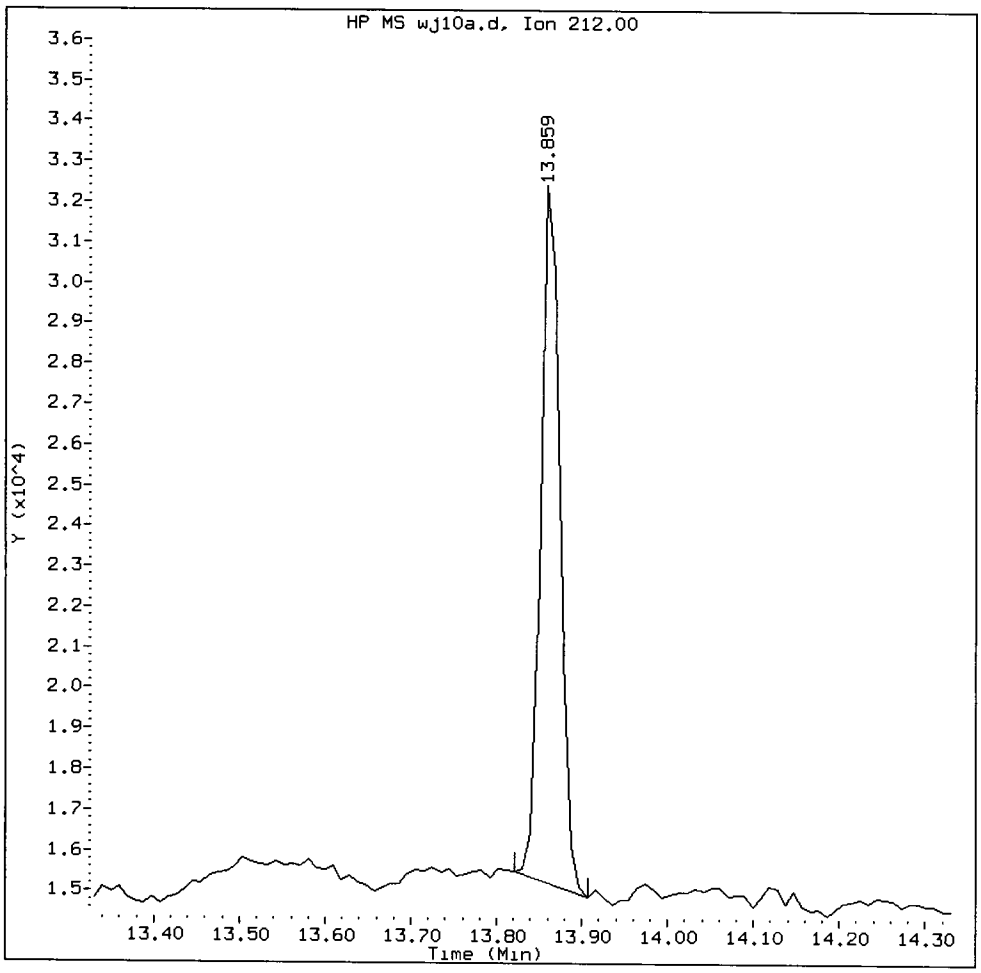
Compound: Fluoranthene-d10
CAS Number:





WJ10A, /chem3/nt11.i/20130402.b/wj10a.d

Fluoranthene-d10 Amount: 30.03 Area: 27651



MANUAL INTEGRATION for Fluoranthene-d10

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: WS Date: 4-3-13

CO-ELUTION SUMMARY FOR FILE - wj10a.d

Lab ID: WJ10A, Method: lowsim.m, Instrument: nt11.i, Date: 02-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Dioxin Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Dioxin / Furan Bench Sheet EPA Methods 8290A & 1613B
Solid Samples

ARI Job No(s) WJ98, WJ10, WK31, WK28, WK49

Matrix (circle one)	Soil	Sediment	Oil	Tissue
Extraction Method	Start Time/Date:		End Time/Date:	
Soxhlet	13:12 4/8/13		05:20 4/9/13	

Reagent / Standard	NA	ID / Lot Number	Initials	Date
Analytical Balance		SN 24650344	PD	4/8/13
Purified Sand		I8025	PD	4/8/13
Toluene		I8142/I8141	PD	4/8/13
Hexane		I8114	PD	4/9/13
CH_2Cl_2		I8489	PD	4/14/13
H_2SO_4		I8012	PD	4/10/13
Na_2SO_4		I5068	PD	4/10/13
Glasswool		5/18/12	PD	4/10/13
10 % $AgNO_3$	/			
Basic Silica		H104	PD	4/14/13
Acid Silica		H143	PD	4/10/13
0% Silica		I8035	PD	4/10/13
Activated Florisil		H43	PD	4/9/13
Dual Carbon Column	/			
Other (PSR-SRM)		I8152	PD	4/8/13
Nonane		I5162	PD	5/10/13

Bottle ID	ARI Sample ID	Sample Weight (eq to dry wt)	Roto Vap 45 °C	Final Vol.	H20 Trap Vol (mL)	Comments
4/8/13	WJ98 MB	10.00g	(1) 1 2	10uL	0.5	DFBLK08
↓	↓ OPR	10.00g	1 (2)	10uL	0.5	DLCS08
	~~QLS~~	~~10.00g~~	~~1 2~~	~~10uL~~		
1	WJ98 A	11.89	1 (2)	10uL	2.0	D77K4
1	B	12.00	(1) 1 2	10uL	2.2	D77K5
1	C	13.605	(1) 1 2	10uL	3.9	D77K6
1	D	13.18	1 (2)	10uL	3.6	D77K7
1	E	13.28	(1) 1 2	10uL	3.1	D77K8
1	F	13.30	1 (2)	10uL	3.6	D77K9
1	G	13.75	(1) 1 2	10uL	3.8	D77L0
2	H	12.98	1 (2)	10uL	3.2	D77L1
1	F	12.80	(1) 1 2	10uL	3.2	D77L2
1	↓ J	12.66	1 (2)	10uL	2.8	D77L3
7	WJ10C	21.21	(1) 1 2	10uL	6.0	
6	↓ D	17.99	1 (2)	10uL	7.8	
1	WK31 A	11.23	(1) 1 2	10uL	1.0	
1	↓ B	32.91	1 (2)	10uL	21.0	
1	WK28 A	30.21	(1) 1 2	10uL	9.8	
1	Acid	30.30	1 (2)	10uL	9.0	
1	↓ SRM	10.01	1 (2)	10uL	10.1	
9	WK49E	38.98	(1) 1 2	10uL	16.8	
9	WK70C	28.03	(1) 1 2	10uL	17.0	
			1 2	10uL		
			1 2	10uL		
Prep Analyst/Date		PD 4/8/13	PD 4/9/13	PD 4/9/13 5/10/13	PD 4/9/13	

Reagent / Standard	Vol	ID / Lot Number	Solution Conc.	Expiration Date	Initials	Date	Witness
Recovery Standard	1.0 mL	2082-3	2/4ng/mL	3/15/14	LC	4/8/13	PD
Ongoing Precision /Recovery	20 µL	2069-3	10/50/100ng/mL	2/6/14	M	4/8/13	PD
~~QLS Standard~~	~~10 µL~~	~~211~~	~~0.5/2.5/5ng/mL~~				
Clean-up Standard	1.0 mL	2082-4	0.8ng/mL	3/15/14	PDM	4/9/13	PD
Internal Standard	10 µL		200ng/mL				

Supervisor Review: _____ Bench Sheet No.: 00031

Verify Client ID
Analyst/Date PD 4/8/13

Acid Clean
(Y)N
Analyst/Date PD 4/10/13

Silica-Florisil
(Y)N
Analyst/Date PD 4/10/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: Client Project:

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☒ Standing Water Decanted (Not shared)= C, D	YL 3/28/13
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☒ Organics (Leaves/sticks/grass)= S, 6/10 D.	YL 3/28/13
☒ Oily, obvious fuel/sulfur odors= C, D	YL 3/28/13
☑ Other (Details)= C,D = Split in two VOA vials for Acid wash due to black extracts	PD 4/10/13
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions).	
(Centrifuge#1 used for all Centrifugations)	
WJ10-C - Silica gel columns broke upon 40ml Hexane run through, Sample saved and collect into Turbo and will be re-run the ~~column~~ Sample through another columns. ~~WJ10-C~~ M 4/11/13 M 4/11/13	M 4/11/13
WJ10-C,D: Use double acid.	M 4/11/13

3056F 4/11/13 Revision 009 08/14/12

WJ10:01640

Dioxin Raw Data
Initial Calibration

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

HR-GC/MS Analyst Notes / Data Review Checklist

ARI Work Order:_____ Client ID: _____

METHOD: **1613B** (Dioxins) **8290A** (Dioxins)

Instrument: **AutoSpec01**

Curve Date: 3/12/13 Analysis Start Date: _____

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Resolution Check > 10,000ppm	Y / N / _____	Signal / Noise ≥ 2.5?	Y / N / _____
TCDD / TCDF Resolution ≤ 25%	Y / N / _____	Extraction STD Limits Met?	Y / N / _____
PCDF Windows Verified	Y / N / _____	Cleanup STD Limits Met?	Y / N / _____
CCV Meets %D Limits?	Y / N / _____	Method Blank in Control?	Y / N / _____
CCV Ion Ratios within Limits?	Y / N / _____	OPR Recovery Limits Met?	Y / N / _____
CCV RRT within Limits?	Y / N / _____	Values Exceeding Curve Range?	Y / N / _____
Manual Integrations for Samples?	Y / N / _____	Samples Diluted?	Y / N / _____
Special Analysis Request?	Y / N / _____	Duplicate Sample RPD ≤ 25%?	NA / _____

Detail problems, corrective actions and/or other pertinent information below:

- All cmpds < 20% RSD
- Man Int for HpCDF, OCDF, TD in CSL.

(Review 1)Analyst: _____ **Date:** 3/13/13

(Review 2)Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Organics Instrument Log

AutoSpec01 Serial No.:GC=CN10921030, MS=P764

Date: 3/12/13 Analysis: Dioxins Analyst: JK

GC Program: 8290C Column No: I7819 Column Type: RTX Dioxin2

Inj Vol: 1ul Instrument Tune (IPR): dio13032_1-5 Detector Voltage: 350

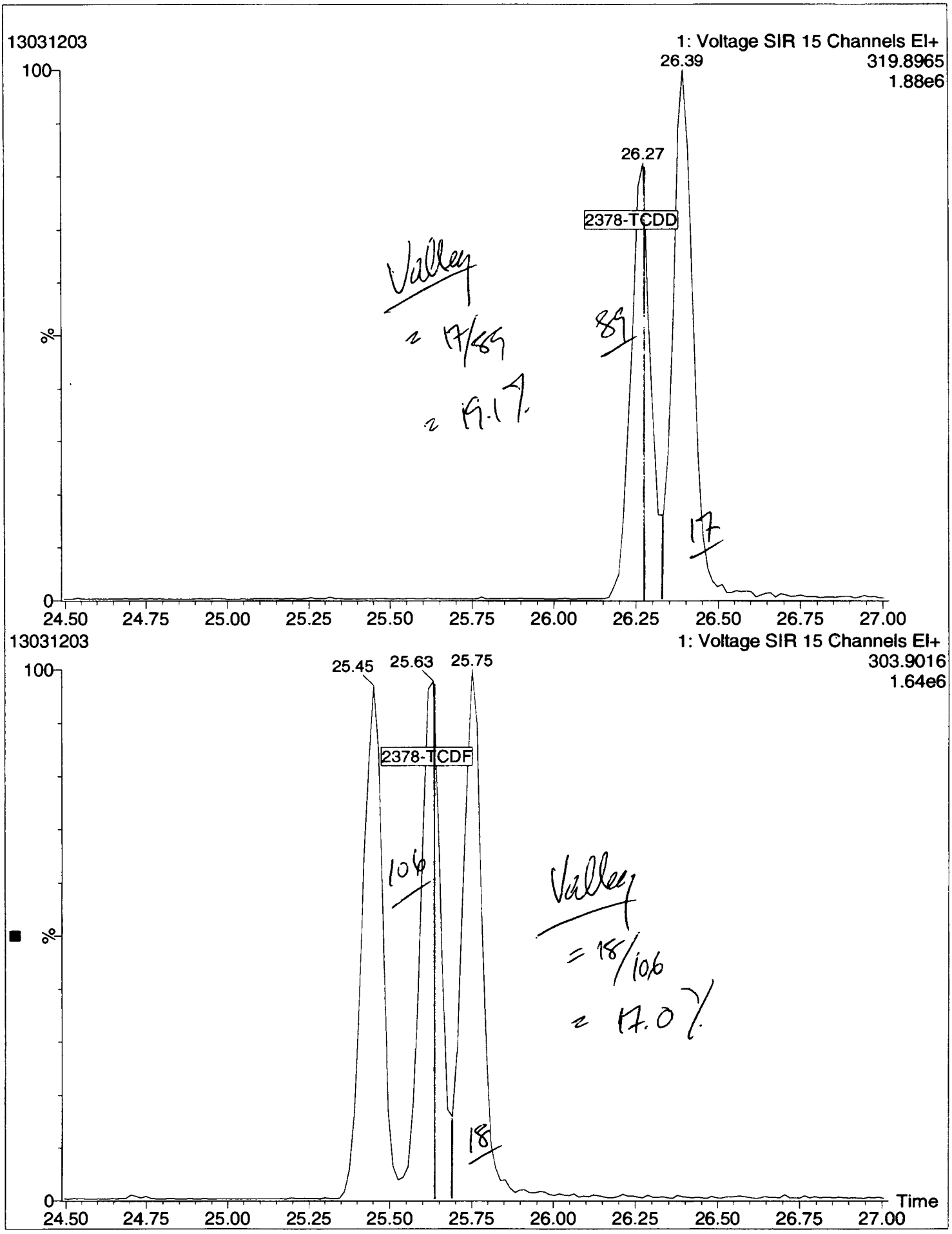
Resolution Check Files: 12:15, 22:03 Curve Date: 3/12/13

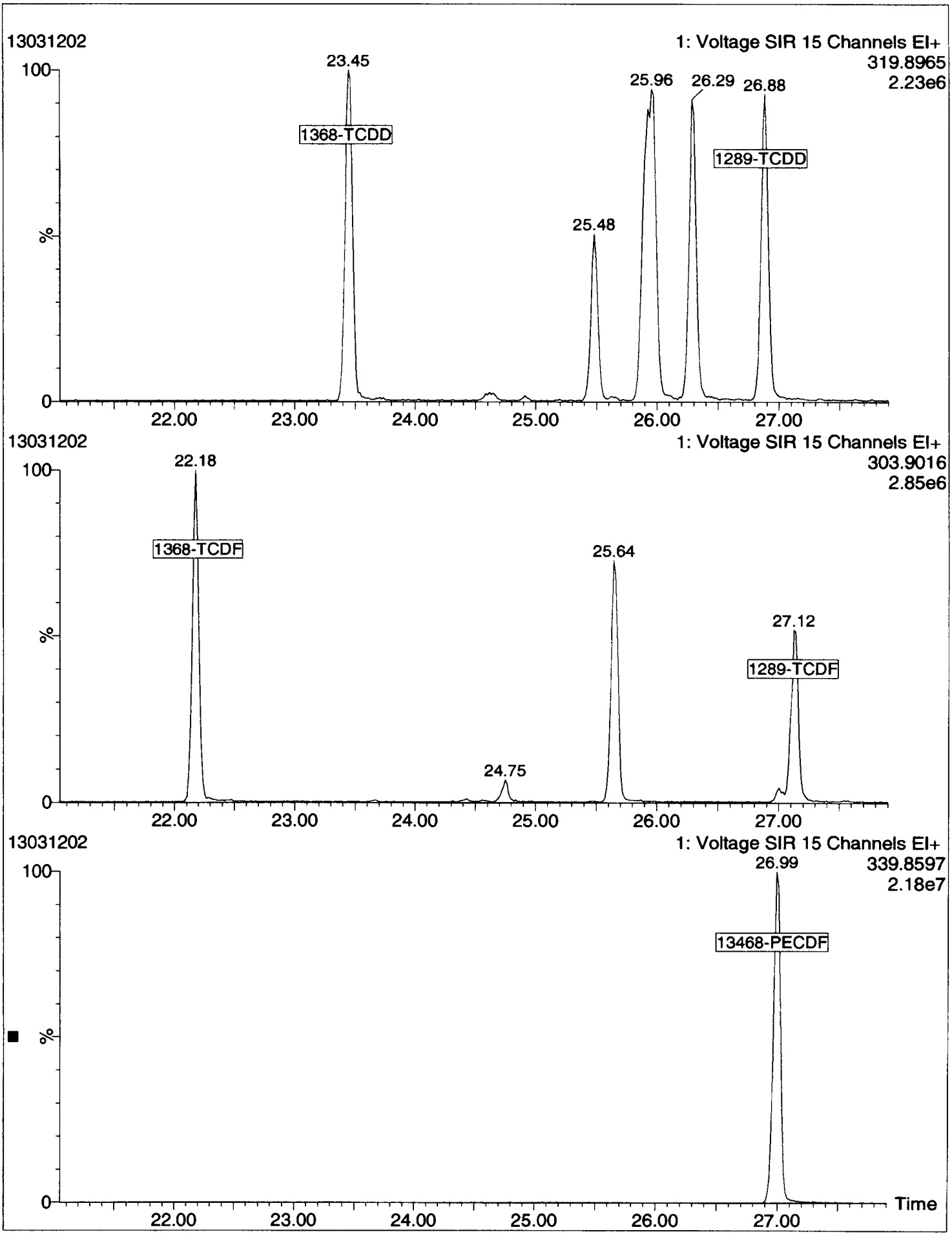
IS/SS	Ical/Ccal	LCS/ICV
I7908	I7908 C972	

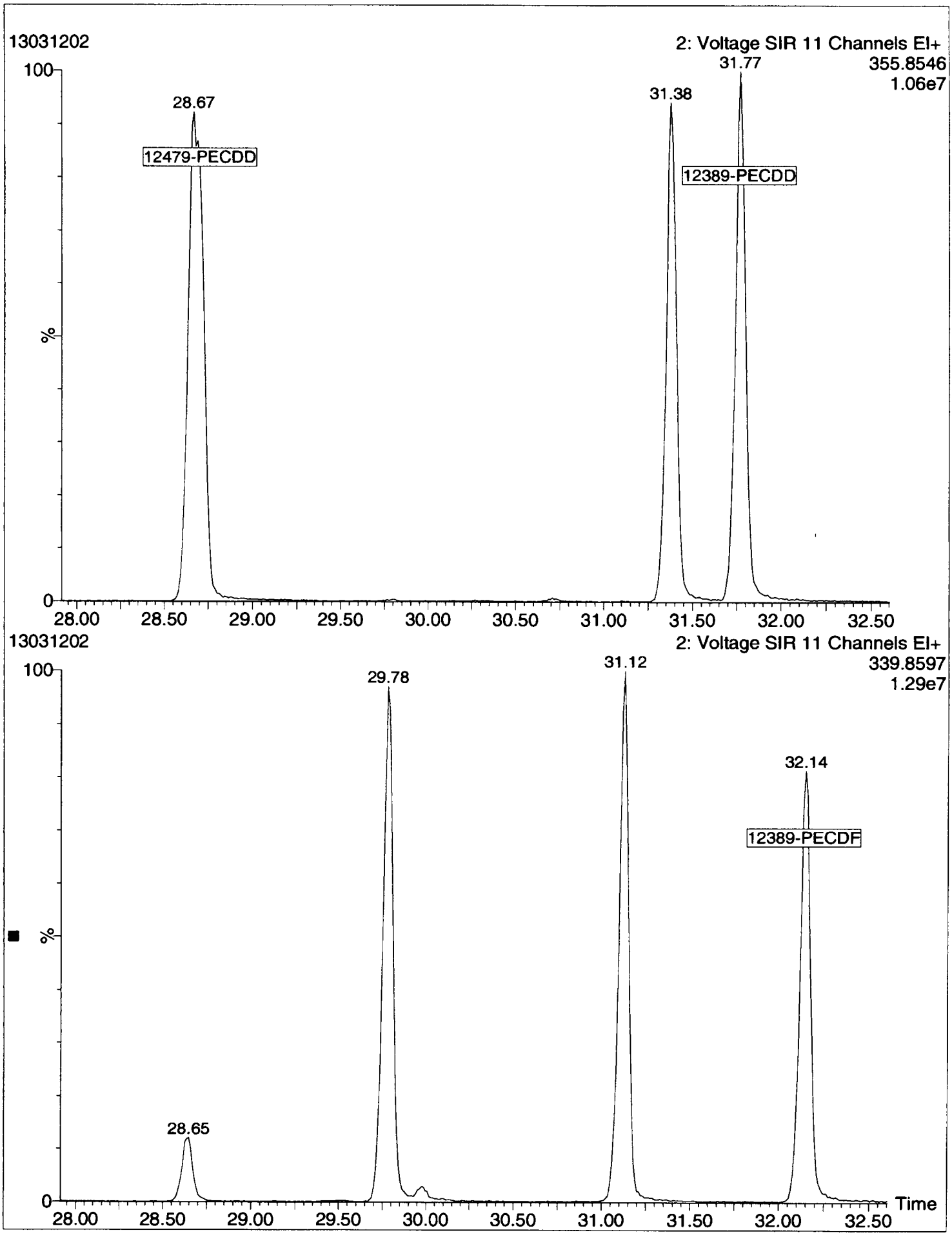
1	12-Mar-13	12:17:53	13031202	CS3
2	12-Mar-13	13:07:13	13031203	ISC01
3	12-Mar-13	15:01:10	13031204	CSL
4	12-Mar-13	15:57:32	13031205	CS1
5	12-Mar-13	16:46:52	13031206	CS2
6	12-Mar-13	17:38:09	13031207	CS3
7	12-Mar-13	18:29:32	13031208	CS4
8	12-Mar-13	19:20:50	13031209	CS5
9	12-Mar-13	20:12:13	13031210	ICV
10	12-Mar-13	21:03:32	13031211	CS3
11	12-Mar-13	22:03:05	13031212	ISC02

JK 3/13/13

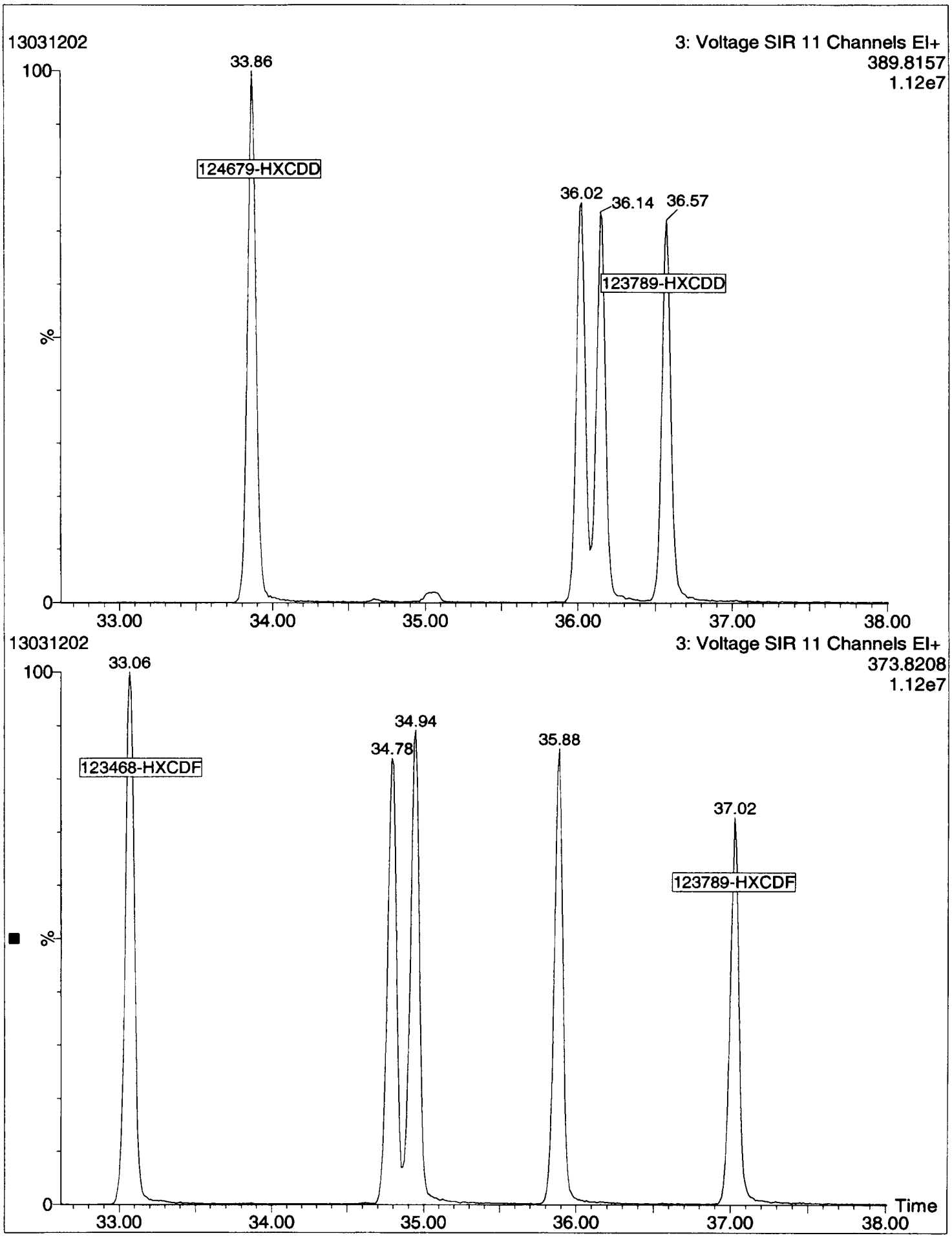
Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks in StarLIMS

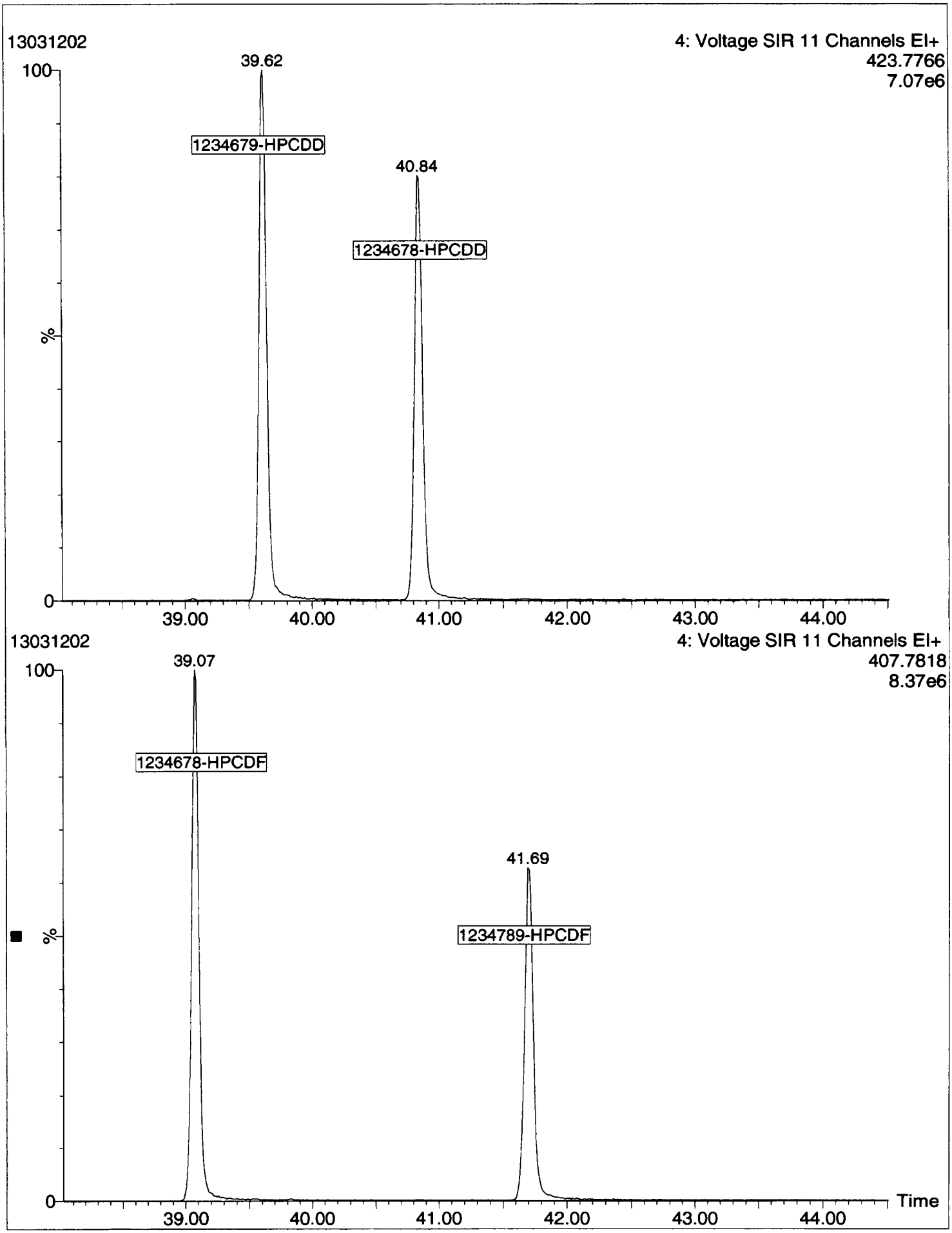

13031203
1: Voltage SIR 15 Channels EI+
319.8965
1.88e6
26.39
26.27
2378-TCDD
100
%
0
24.50
24.75
25.00
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00
Valley
= 17/89
= 19.1%
89
17
13031203
1: Voltage SIR 15 Channels EI+
303.9016
1.64e6
25.45
25.63
25.75
2378-TCDF
100
%
0
106
18
Valley
= 18/106
= 17.0%
Time
24.50
24.75
25.00
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00


13031202
1: Voltage SIR 15 Channels EI+
319.8965
2.23e6
100
%
0
23.45
1368-TCDD
25.48
25.96
26.29
26.88
1289-TCDD
22.00
23.00
24.00
25.00
26.00
27.00
13031202
1: Voltage SIR 15 Channels EI+
303.9016
2.85e6
100
%
0
22.18
1368-TCDF
24.75
25.64
27.12
1289-TCDF
22.00
23.00
24.00
25.00
26.00
27.00
13031202
1: Voltage SIR 15 Channels EI+
339.8597
2.18e7
100
%
0
26.99
13468-PECDF
Time
22.00
23.00
24.00
25.00
26.00
27.00


13031202
2: Voltage SIR 11 Channels EI+
355.8546
1.06e7
100
%
0
28.67
12479-PECDD
31.38
31.77
12389-PECDD
28.00
28.50
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50
13031202
2: Voltage SIR 11 Channels EI+
339.8597
1.29e7
100
%
0
29.78
31.12
32.14
12389-PECDF
28.65
Time
28.00
28.50
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50

WJ10:01646


13031202
3: Voltage SIR 11 Channels EI+
389.8157
1.12e7
100
%
0
33.86
124679-HXCDD
36.02
36.14
36.57
123789-HXCDD
33.00
34.00
35.00
36.00
37.00
38.00
13031202
3: Voltage SIR 11 Channels EI+
373.8208
1.12e7
100
%
0
33.06
123468-HXCDF
34.94
34.78
35.88
37.02
123789-HXCDF
Time
33.00
34.00
35.00
36.00
37.00
38.00


13031202
4: Voltage SIR 11 Channels EI+
423.7766
7.07e6
100
39.62
1234679-HPCDD
40.84
1234678-HPCDD
%
0
39.00
40.00
41.00
42.00
43.00
44.00
13031202
4: Voltage SIR 11 Channels EI+
407.7818
8.37e6
100
39.07
1234678-HPCDF
41.69
1234789-HPCDF
%
0
Time
39.00
40.00
41.00
42.00
43.00
44.00

uantify Audit Report MassLynx 4.1 SCN 714
ataset: P:\DIOXIN8290.PRO\130312IC.qld
ıst Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
inted: Wednesday, March 13, 2013 10:44:55 Pacific Daylight Time

Process Extract		
Process Integrate		
Process Calibrate		
Process Quantify		
Dataset Created		
Pre modification peak	Sample:13031204, Compound:HF, RT:34.771	1
Peak modified	Sample:13031204, Compound:HF, RT:34.771	1
Pre modification peak	Sample:13031204, Compound:HF, RT:34.771	1
Peak modified	Sample:13031204, Compound:HF, RT:34.771	1
Peak modified	Sample:13031204, Compound:HF, RT:34.771	1
Peak modified	Sample:13031204, Compound:HF, RT:34.771	1
Peak modified	Sample:13031204, Compound:HF, RT:34.771	1
Peak modified	Sample:13031204, Compound:HF, RT:34.771	1
Pre modification peak	Sample:13031204, Compound:OF, RT:46.836	1
Peak modified	Sample:13031204, Compound:OF, RT:46.836	1
Pre modification peak	Sample:13031204, Compound:OF, RT:46.818	1
Peak modified	Sample:13031204, Compound:OF, RT:46.818	1
Pre modification peak	Sample:13031204, Compound:TD, RT:26.272	1
Peak modified	Sample:13031204, Compound:TD, RT:26.272	1
Pre modification peak	Sample:13031204, Compound:TD, RT:26.287	1
Peak modified	Sample:13031204, Compound:TD, RT:26.287	1
Peak deleted	Sample:13031204, Compound:PP, RT:26.989	1
Peak deleted	Sample:13031204, Compound:PD, RT:30.048	1
Pre modification peak	Sample:13031205, Compound:OD, RT:46.553 Baseline	2
Peak modified	Sample:13031205, Compound:OD, RT:46.553 put back as original	2
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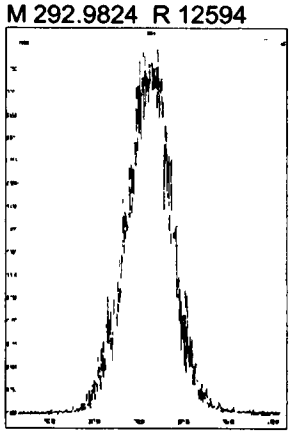
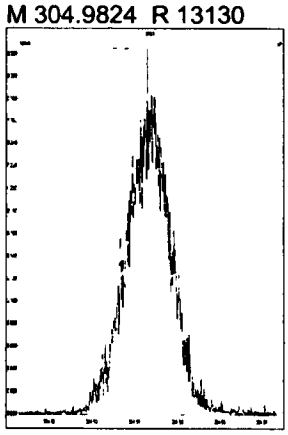
Printed: Tuesday, March 12, 2013 12:15:33 Pacific Daylight Time

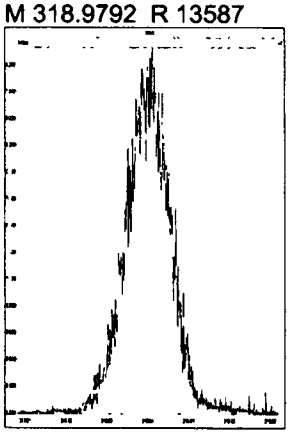
M 292.9824 R 12594



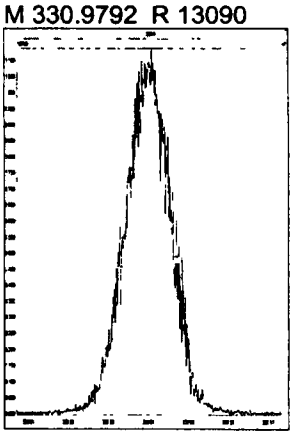
M 304.9824 R 13130



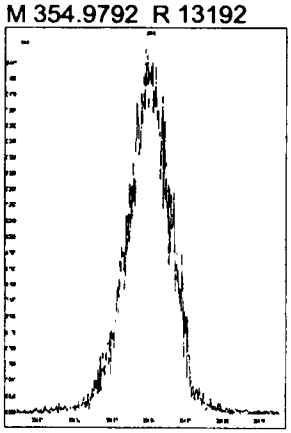
M 318.9792 R 13587



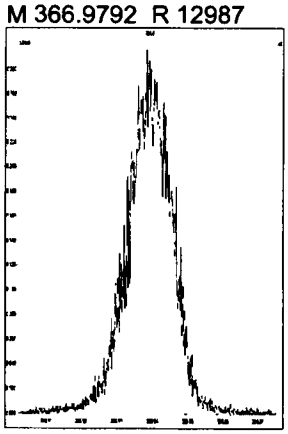
M 330.9792 R 13090



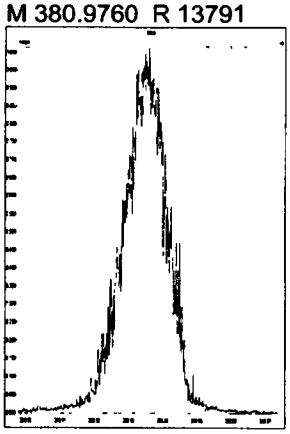
M 354.9792 R 13192



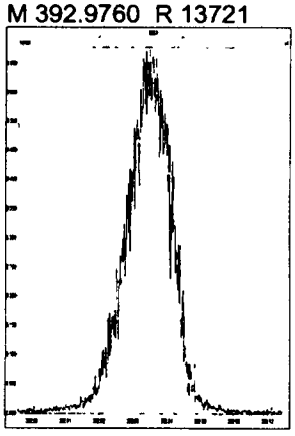
M 366.9792 R 12987



M 380.9760 R 13791



M 392.9760 R 13721



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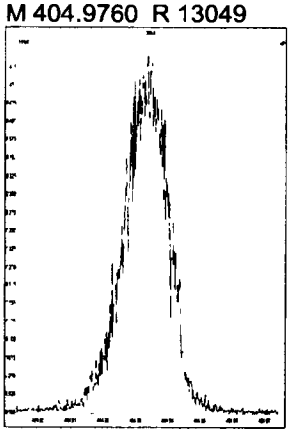

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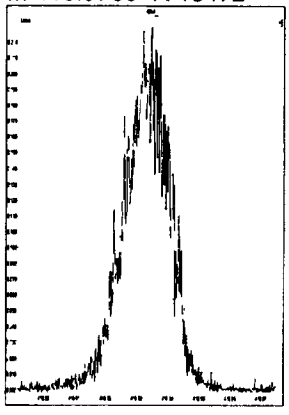

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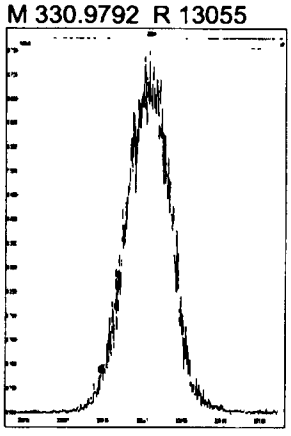

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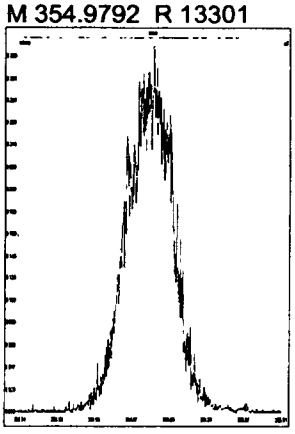

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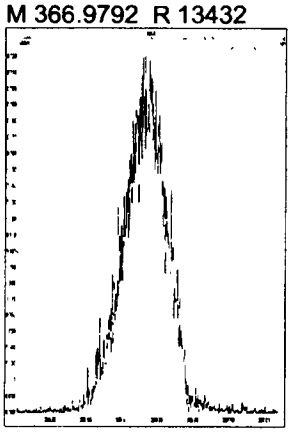

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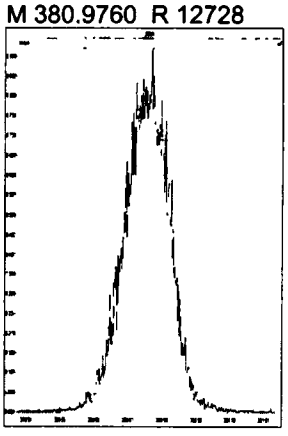

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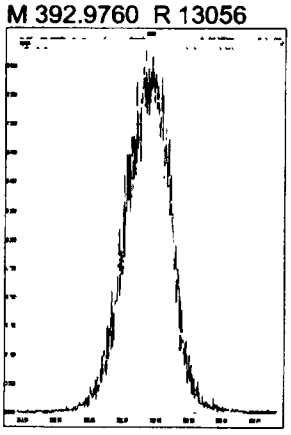

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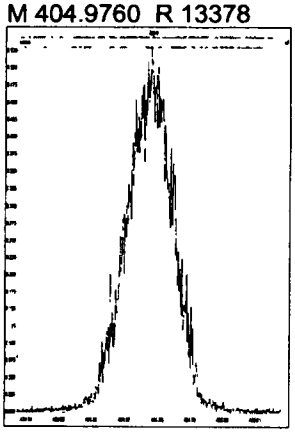

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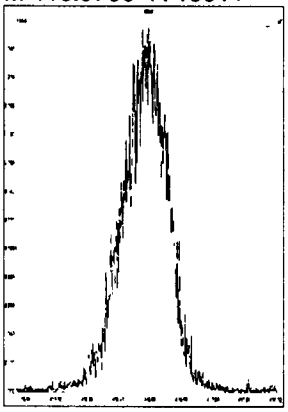

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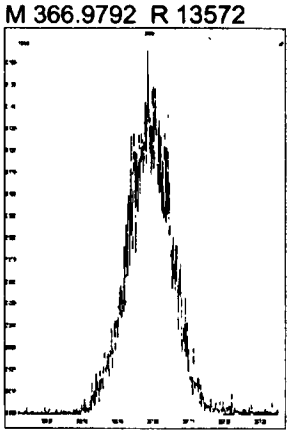

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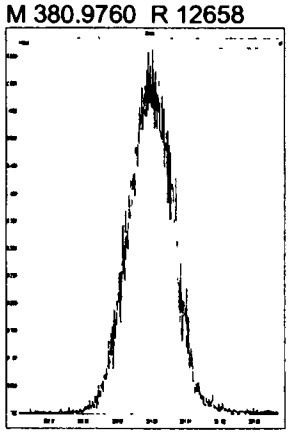

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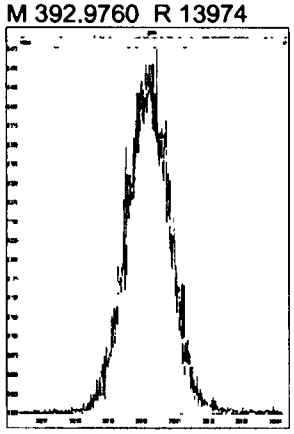

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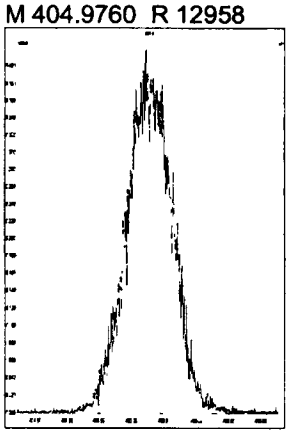

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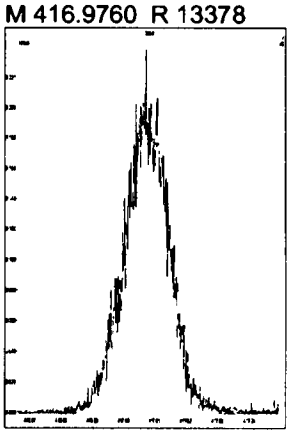

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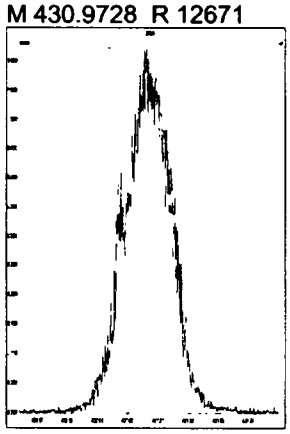

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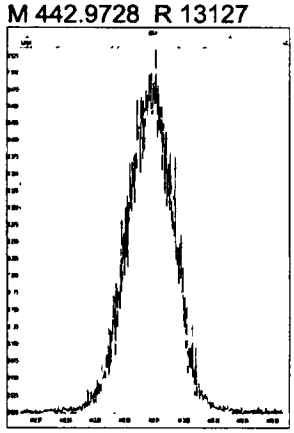

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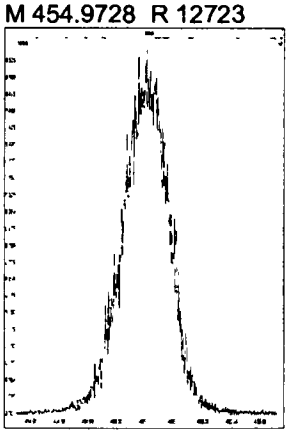

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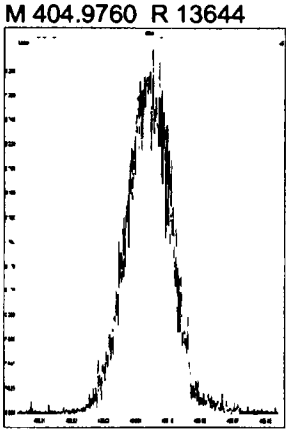

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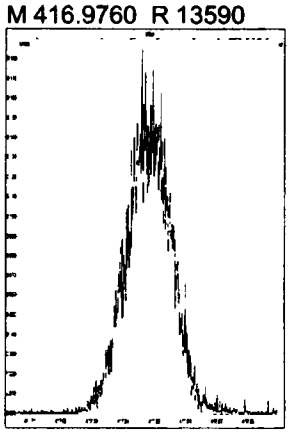

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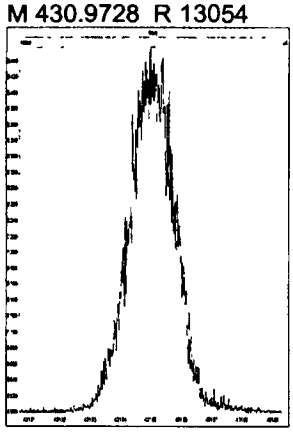

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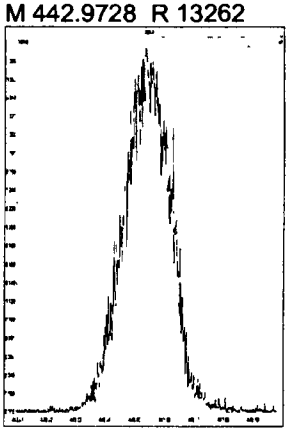

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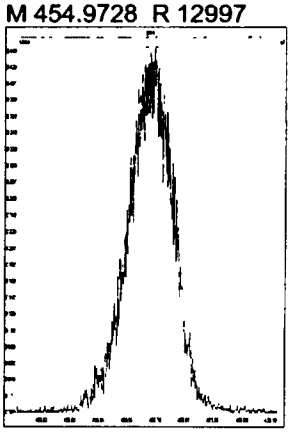

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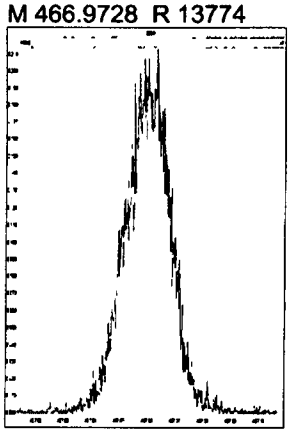

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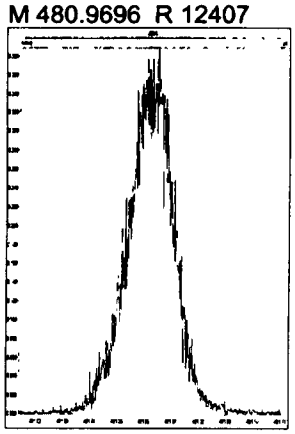

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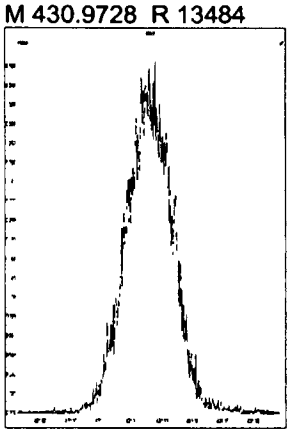

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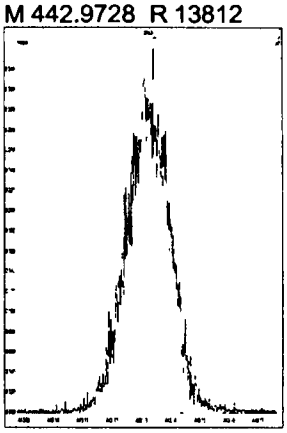

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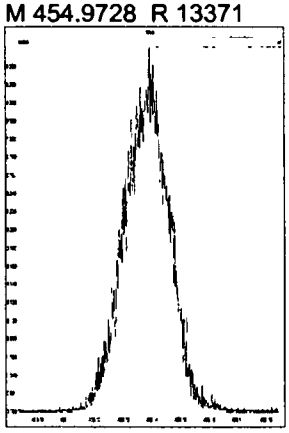

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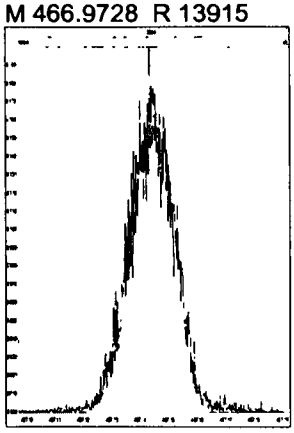

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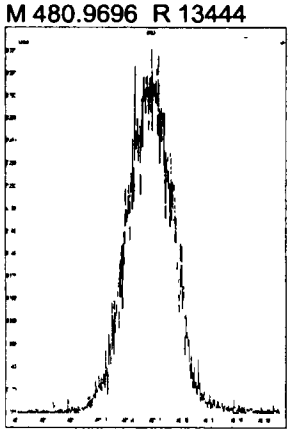

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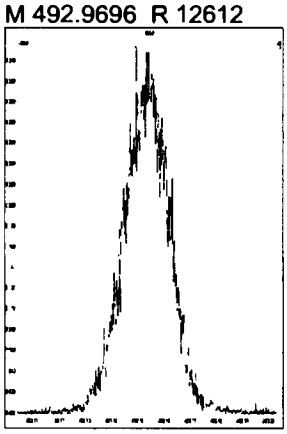

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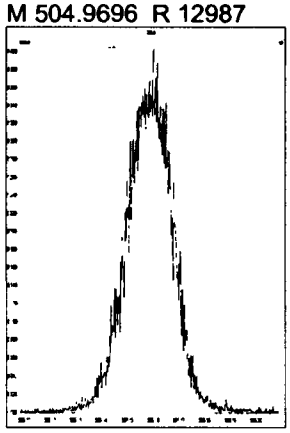

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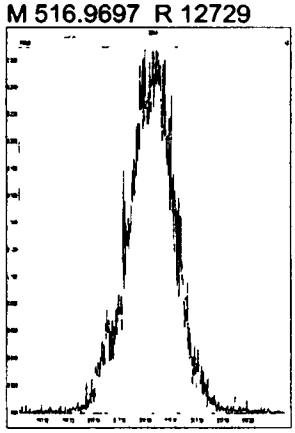

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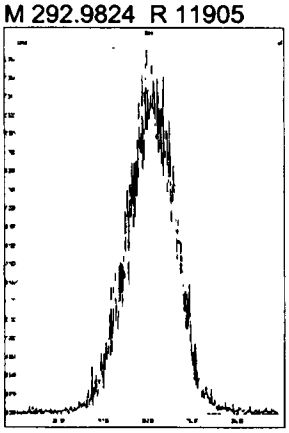

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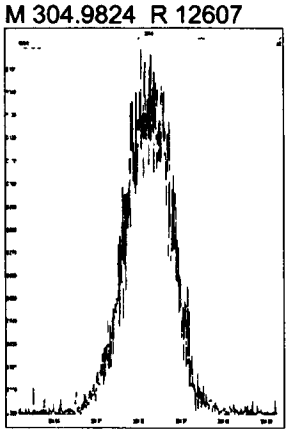

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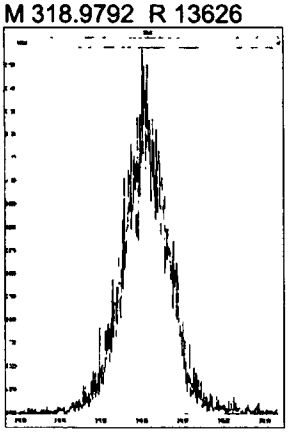

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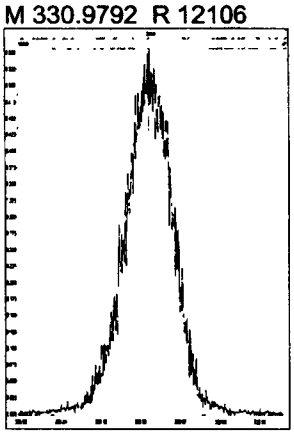

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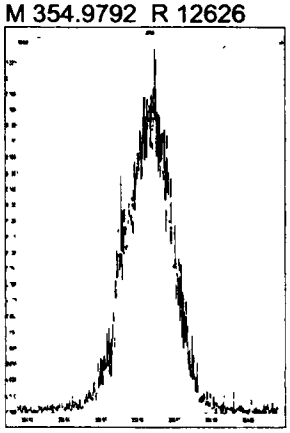

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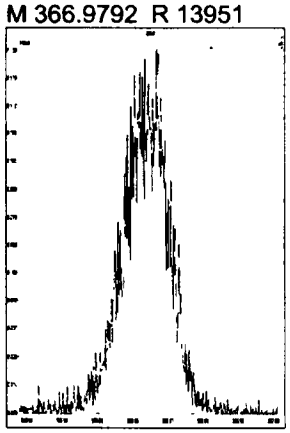

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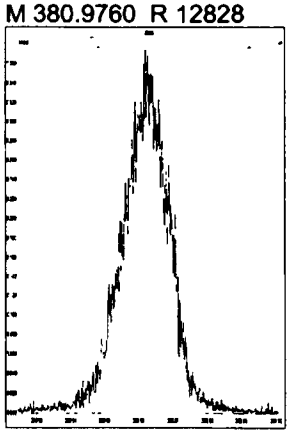

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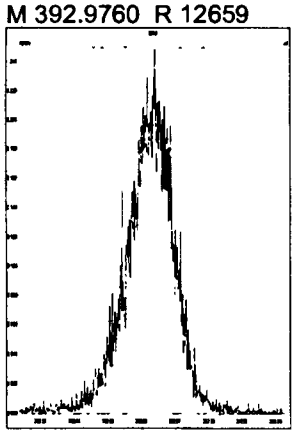

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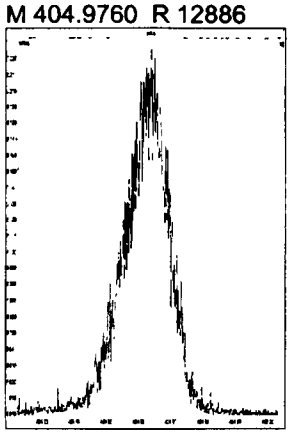

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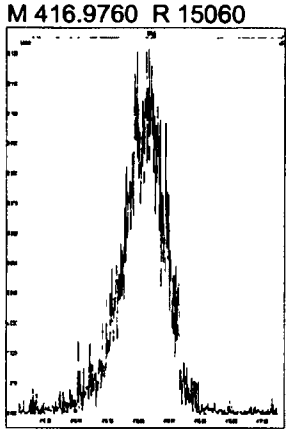

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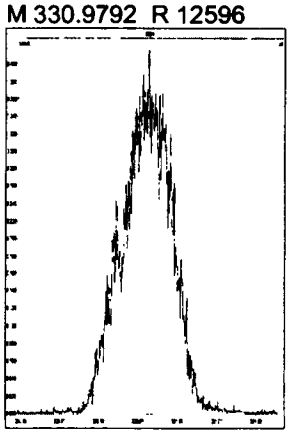

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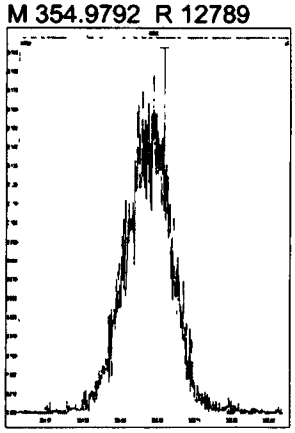

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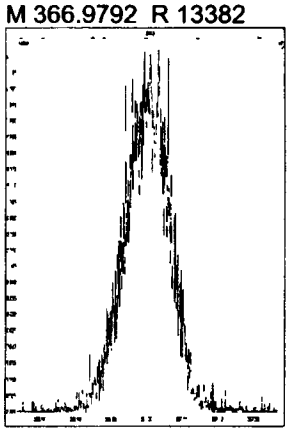

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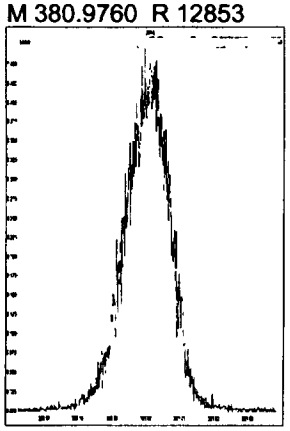

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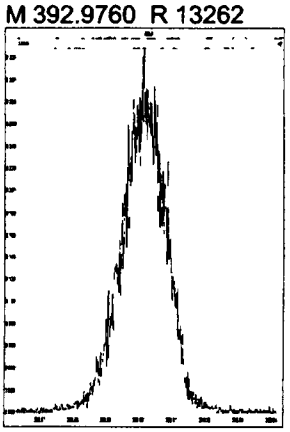
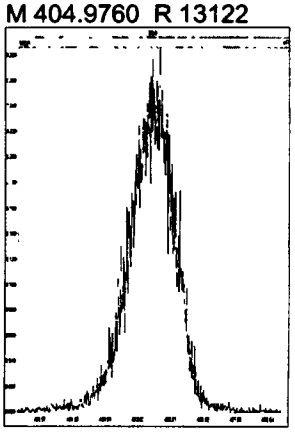
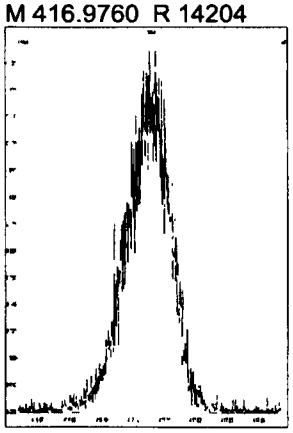


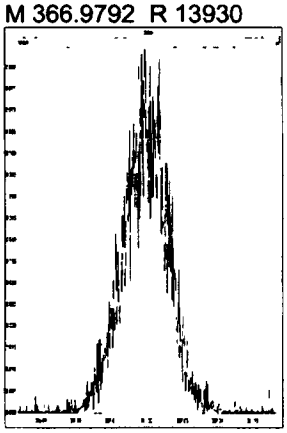
M 404.9760 R 13122



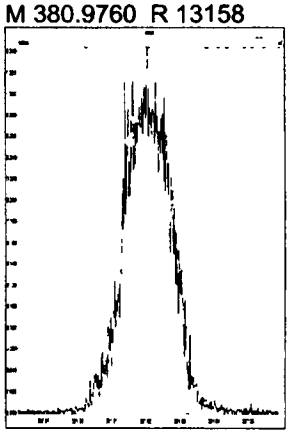
M 416.9760 R 14204



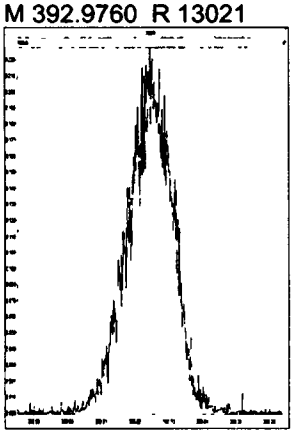
M 366.9792 R 13930



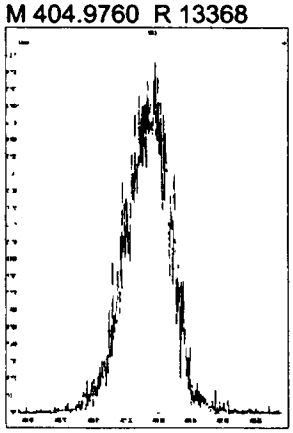
M 380.9760 R 13158



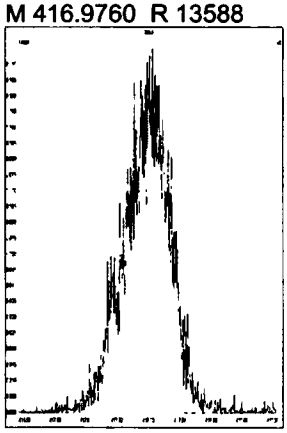
M 392.9760 R 13021



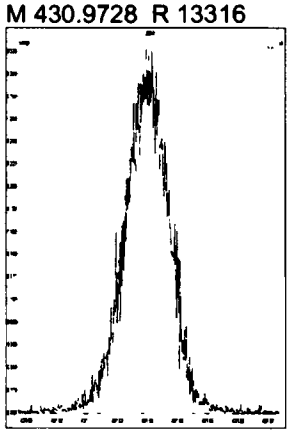
M 404.9760 R 13368



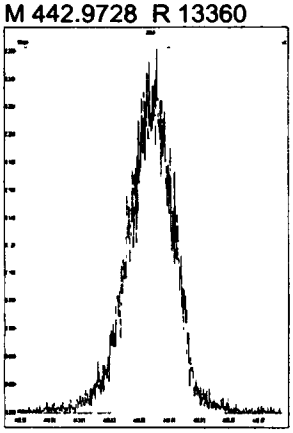
M 416.9760 R 13588



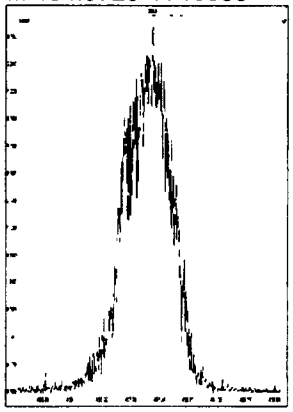
M 430.9728 R 13316



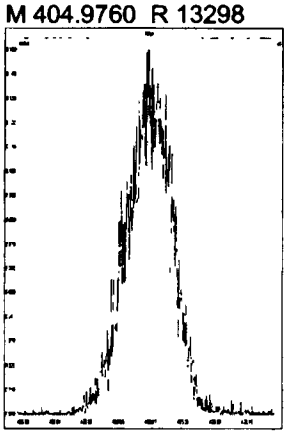
M 442.9728 R 13360



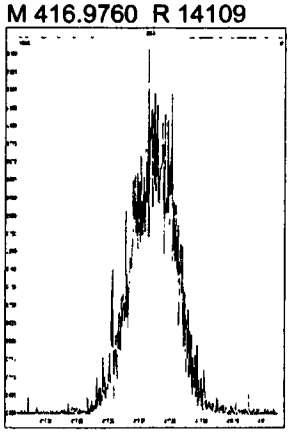
M 454.9728 R 13033



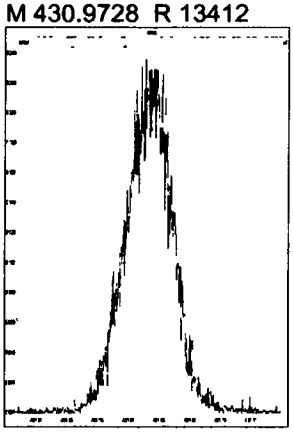
M 404.9760 R 13298



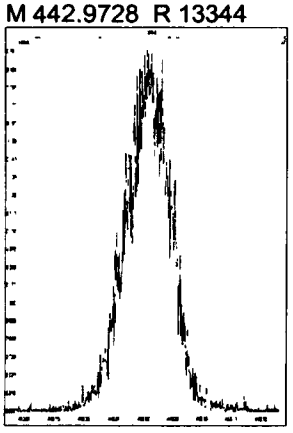
M 416.9760 R 14109



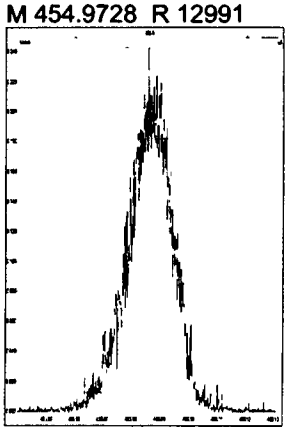
M 430.9728 R 13412



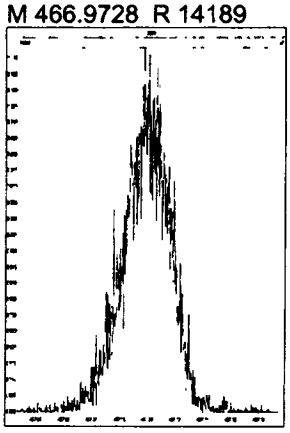
M 442.9728 R 13344



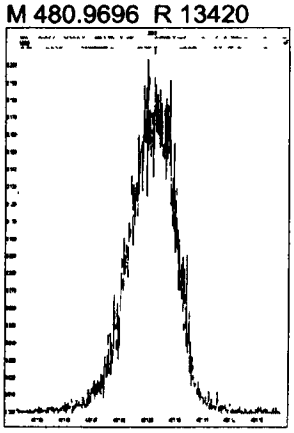
M 454.9728 R 12991



M 466.9728 R 14189



M 480.9696 R 13420



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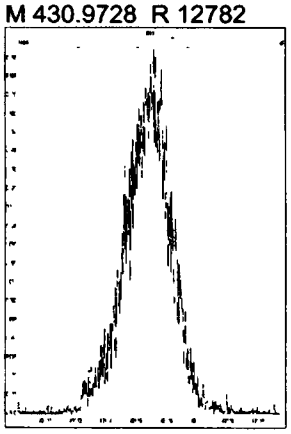
M 430.9728 R 12782



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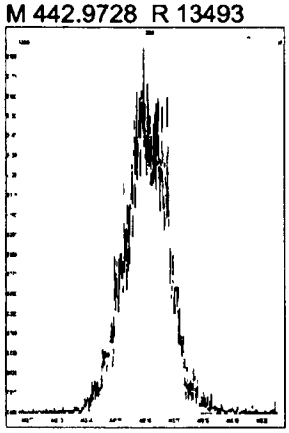
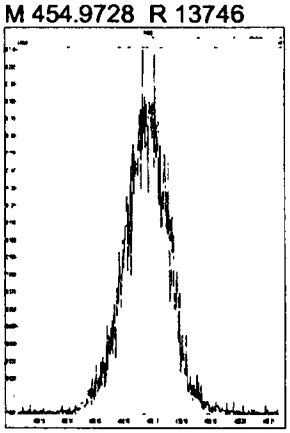
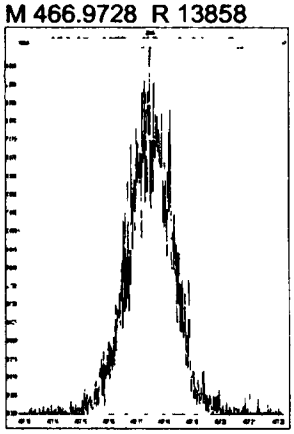


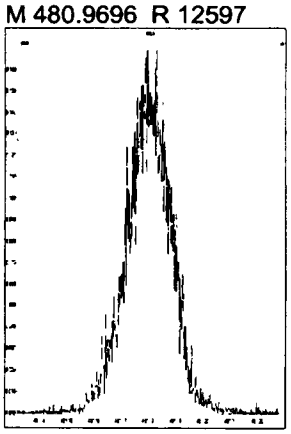
M 454.9728 R 13746



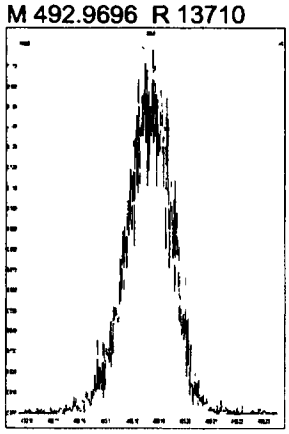
M 466.9728 R 13858



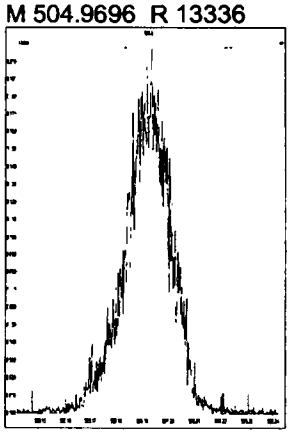
M 480.9696 R 12597



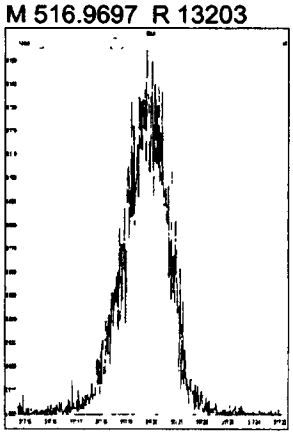
M 492.9696 R 13710



M 504.9696 R 13336



M 516.9697 R 13203



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Printed: Wednesday, March 13, 2013 10:42:20 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

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	2378-TCDF	25.659	1.002	1.01e3	1.27e3	0.763	0.797	0.770	33.1	NO	0.098	0.098
	12378-PeCDF	29.763	1.000	5.90e3	3.72e3	0.836	1.587	1.550	102.3	NO	0.502	0.502
	23478-PeCDF	31.111	1.001	5.06e3	3.50e3	0.851	1.445	1.550	90.5	NO	0.477	0.477
	123478-HxCDF	34.771	1.000	3.94e3	3.73e3	1.017	1.055	1.240	71.4	NO	0.493	0.493
	234678-HxCDF	35.868	1.000	4.42e3	3.54e3	1.027	1.249	1.240	76.0	NO	0.515	0.515
	123678-HxCDF	34.925	1.001	4.68e3	3.80e3	1.013	1.232	1.240	91.8	NO	0.494	0.494
	123789-HxCDF	37.007	1.000	2.94e3	2.66e3	0.929	1.104	1.240	48.7	NO	0.456	0.456
	1234678-HpCDF	39.057	1.000	3.47e3	3.21e3	1.151	1.081	1.050	73.7	NO	0.474	0.474
	1234789-HpCDF	41.698	1.001	2.56e3	2.71e3	1.149	0.941	1.050	49.0	NO	0.508	0.508
	OCDF	46.818	1.006	4.00e3	4.64e3	0.963	0.863	0.890	59.1	NO	0.903	0.903
	2378-TCDD	26.287	1.001	1.02e3	1.38e3	0.980	0.739	0.770	17.2	NO	0.111	0.111
	12378-PeCDD	31.374	1.001	4.47e3	3.11e3	0.948	1.437	1.550	51.8	NO	0.508	0.508
	123478-HxCDD	36.010	1.001	3.51e3	2.99e3	0.941	1.175	1.240	42.1	NO	0.499	0.499
	123678-HxCDD	36.141	1.001	3.82e3	3.15e3	0.884	1.214	1.240	57.2	NO	0.513	0.513
	123789-HxCDD	36.547	1.012	3.76e3	2.79e3	0.870	1.350	1.240	37.9	NO	0.515	0.515
	1234678-HpCDD	40.832	1.001	2.78e3	2.93e3	0.948	0.947	1.050	59.5	NO	0.550	0.550
	OCDD	46.558	1.001	4.84e3	5.95e3	0.969	0.813	0.890	128.9	NO	1.122	1.122
	13C-2378-TCDF	25.615	1.006	1.33e6	1.71e6	1.318	0.779	0.770	4105.0	NO		99.206
	13C-12378-PeCDF	29.752	1.169	1.39e6	9.01e5	1.026	1.542	1.550	2825.7	NO		95.850
	13C-23478-PeCDF	31.089	1.222	1.28e6	8.28e5	0.966	1.546	1.550	2678.9	NO		93.717
	13C-123478-HxCDF	34.761	0.951	5.14e5	1.01e6	1.123	0.507	0.510	1594.9	NO		99.085
	13C-123678-HxCDF	34.903	0.955	5.67e5	1.13e6	1.216	0.502	0.510	1701.6	NO		101.676
	13C-234678-HxCDF	35.856	0.981	5.20e5	9.84e5	1.106	0.528	0.510	1555.2	NO		98.971
	13C-123789-HxCDF	36.996	1.012	4.52e5	8.71e5	0.995	0.520	0.510	1337.1	NO		96.830
	13C-1234678-HpCDF	39.046	1.068	3.69e5	8.57e5	0.896	0.431	0.440	2170.0	NO		99.623
	13C-1234789-HpCDF	41.665	1.140	2.79e5	6.24e5	0.693	0.447	0.440	1405.3	NO		94.831
	13C-1234-TCDD	25.450	0.000	1.02e6	1.31e6	1.000	0.777	0.770	2964.7	NO		100.000
	13C-2378-TCDD	26.257	1.032	9.57e5	1.25e6	0.961	0.766	0.770	2652.8	NO		98.560
	13C-12378-PeCDD	31.352	1.232	9.64e5	6.10e5	0.703	1.581	1.550	2926.5	NO		96.057
	13C-123478-HxCDD	35.988	0.985	7.78e5	6.07e5	1.016	1.281	1.240	3534.8	NO		99.261
	13C-123678-HxCDD	36.119	0.988	8.53e5	6.85e5	1.098	1.245	1.240	3678.5	NO		101.955
	13C-1234678-HpCDD	40.810	1.117	5.44e5	5.51e5	0.828	0.986	1.050	1858.0	NO		96.231
	13C-OCDD	46.531	1.273	9.36e5	1.05e6	0.770	0.892	0.890	2244.5	NO		187.792

Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:20 Pacific Daylight Time

ID: CSL, Name: 13031204, Date: 12-Mar-2013, Time: 15:01:10, Conditions: AUTOSPEC01, User: pk

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	Total-tetrafurans			1.16e3		0.763					0.113
	Total-penta1			0.00e0							
	Total-pentafurans			1.10e4		0.844					0.989
	Total-hexafurans			1.60e4		0.997					1.958
	Total-heptafurans			6.22e3		1.150					1.005
	Total-Furans			3.84e4		0.970					4.968
	Total-tetradioxins			1.95e3		0.980					0.172
	Total-pentadioxins			5.23e3		0.948					0.573
	Total-hexadioxins			1.27e4		0.898					1.683
	Total-heptadioxins			2.85e3		0.948					0.566
	Total-Dioxins			2.76e4		0.934					4.116
	Total-TEQ			6.60e4							9.084
	37CL-2378-TCDD	26.287	1.033	2.26e3		0.999			22.2		0.097
	FUNCTION1 PFK			3.17e6							
	FUNCTION2 PFK			2.08e4							0.000
	FUNCTION3 PFK			0.00e0							
	FUNCTION4 PFK			1.47e6							
	FUNCTION5 PFK			2.01e5							
	FUNCTION1 HXCDPE			9.78e1							0.000
	FUNCTION1 HPCDPE			6.65e2							0.000
	FUNCTION2 HPCDPE			3.68e2							0.000
	FUNCTION3 OCDPE			0.00e0							
	FUNCTION4 NCDPE			1.75e2							0.000
	FUNCTION5 DCDPE			1.00e2							0.000

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
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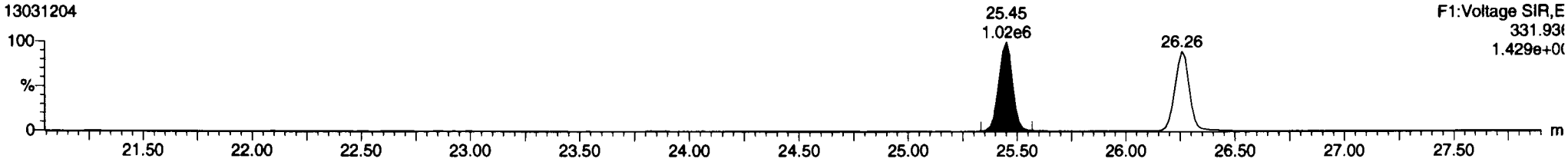

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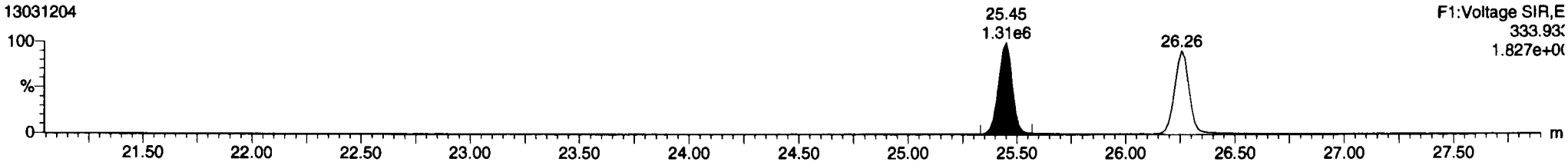

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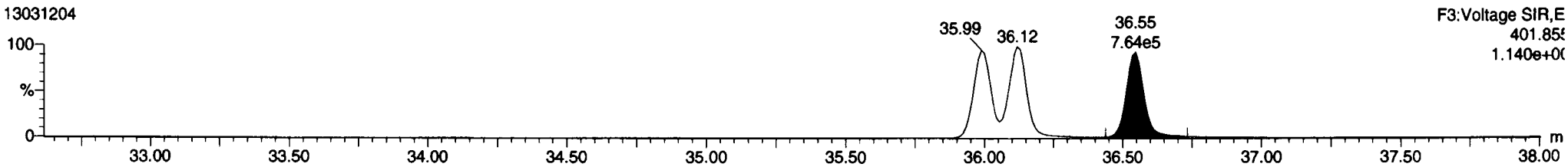

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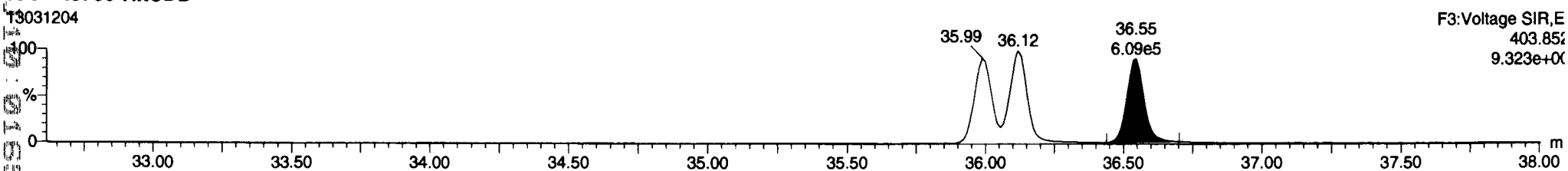

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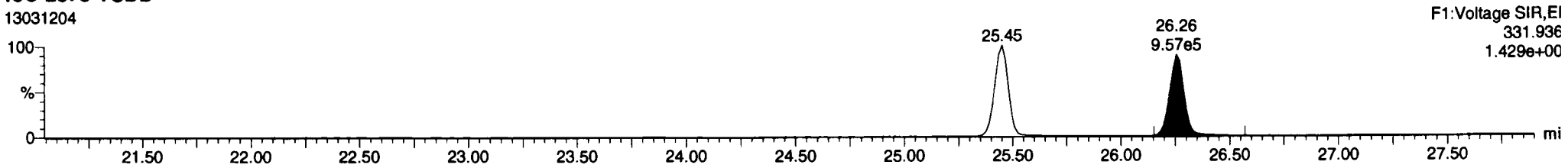
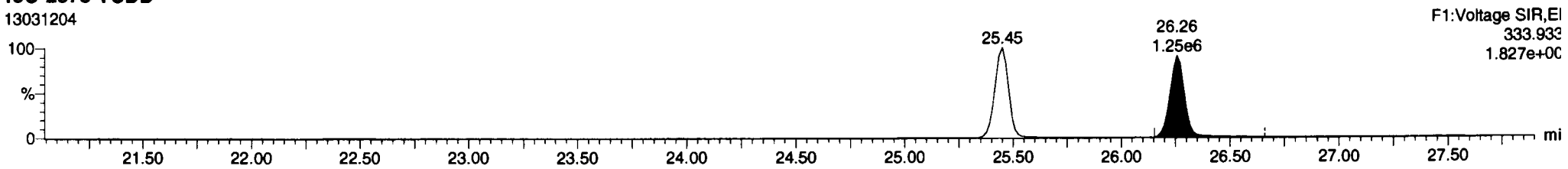
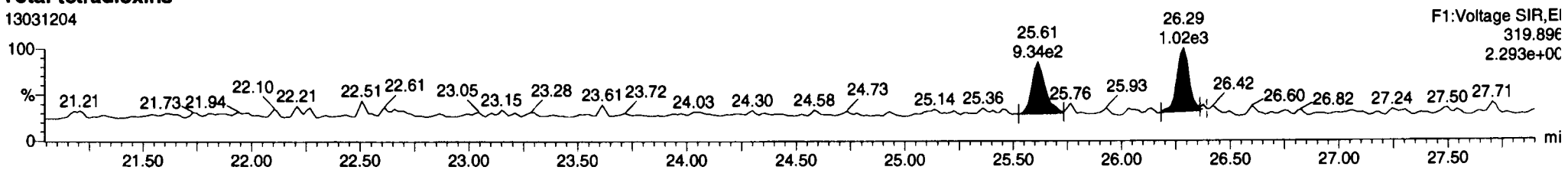
13C-2378-TCDD



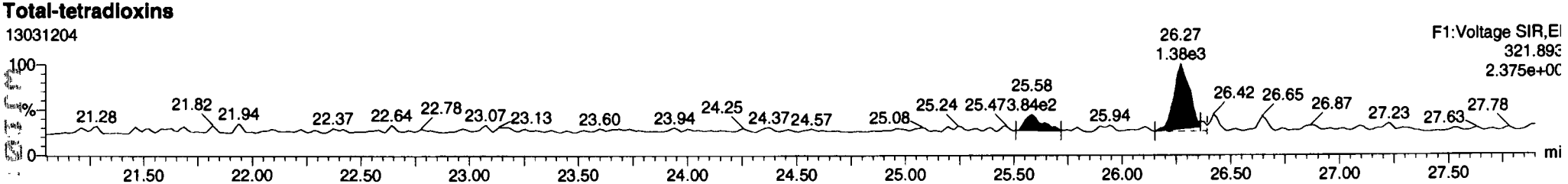
13C-2378-TCDD



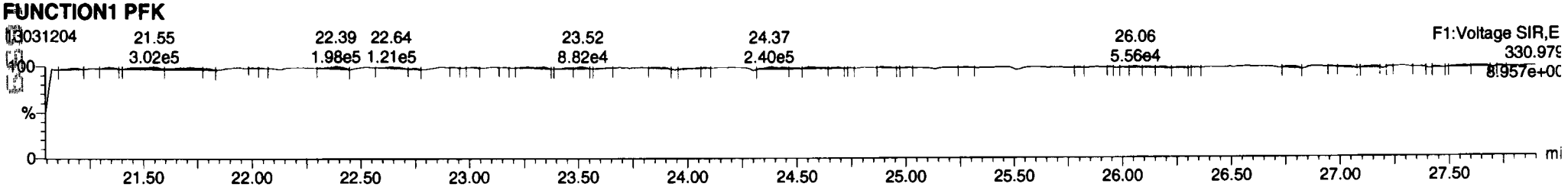
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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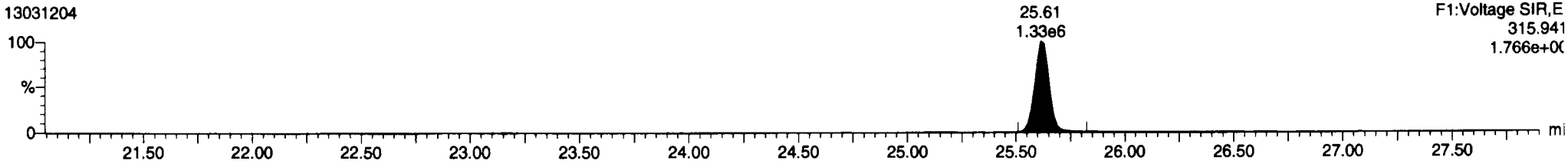
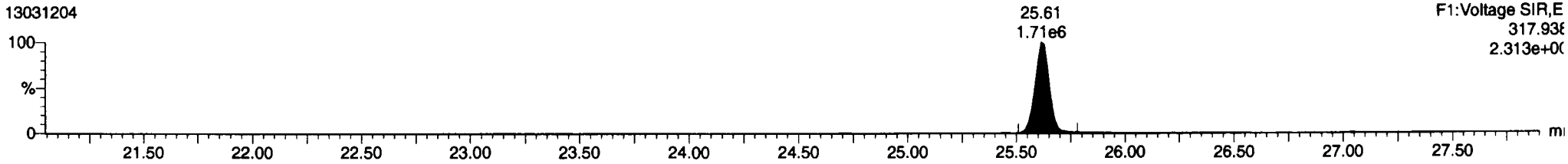
Printed: Wednesday, March 13, 2013 10:42:20 Pacific Daylight Time

ID: CSL, Name: 13031204, Date: 12-Mar-2013, Time: 15:01:10, Conditions: AUTOSPEC01, User: pk

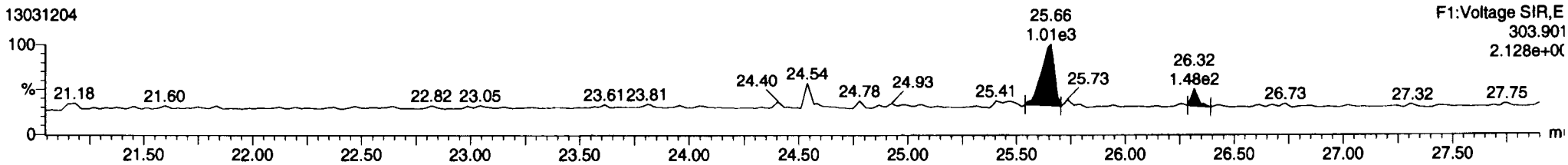
13C-2378-TCDF



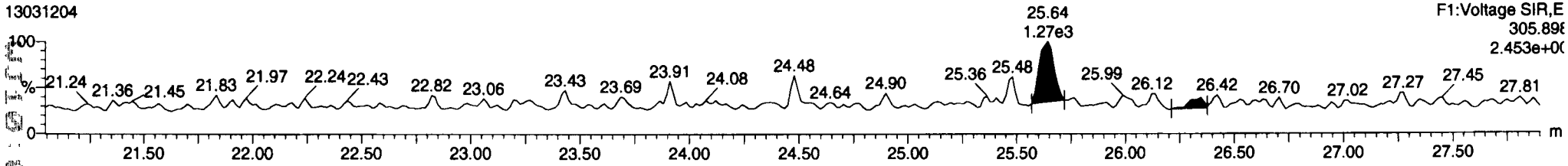
13C-2378-TCDF



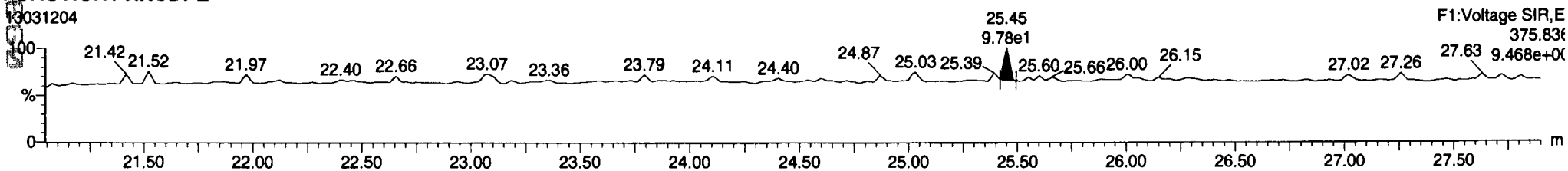
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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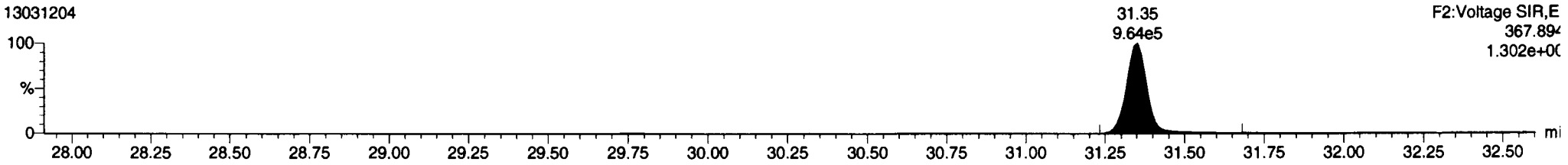
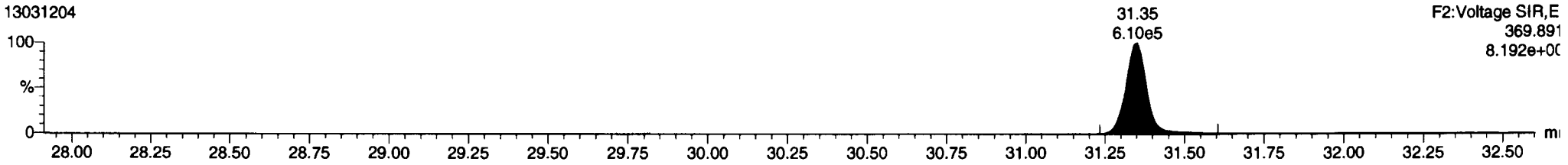
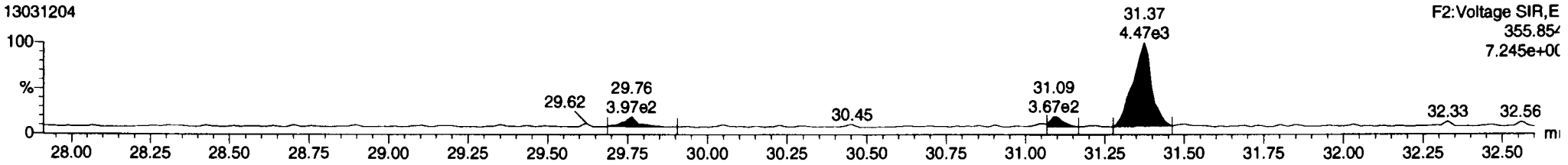
13C-12378-PeCDD



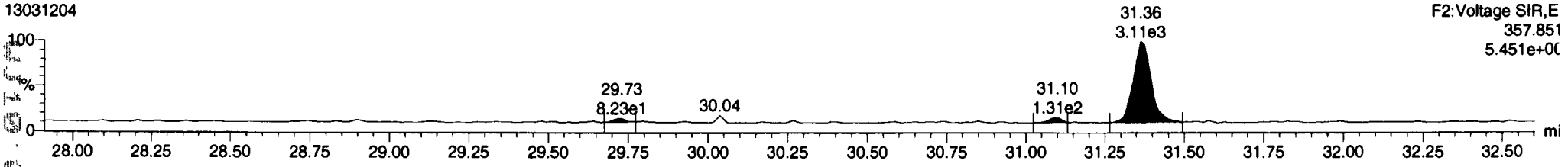
13C-12378-PeCDD



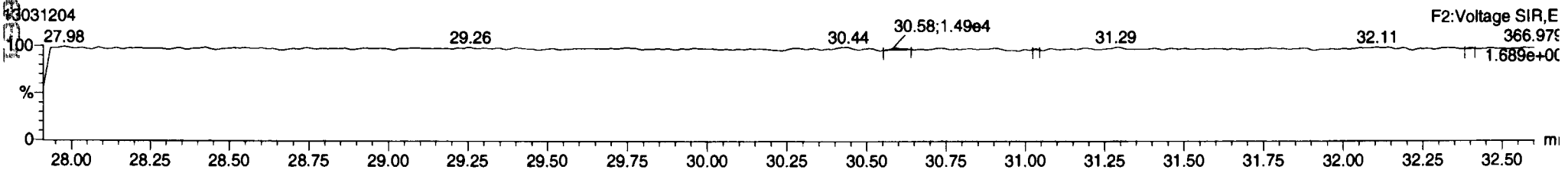
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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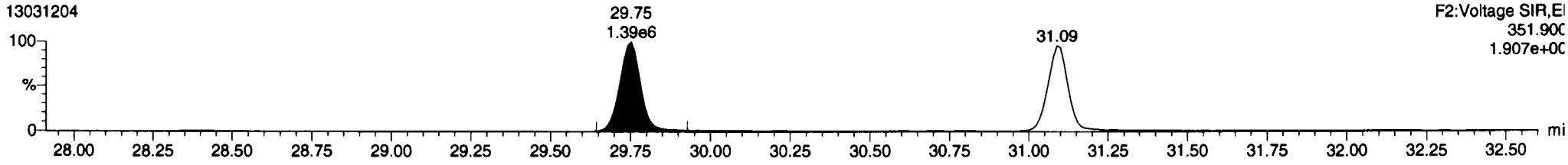
13C-12378-PeCDF



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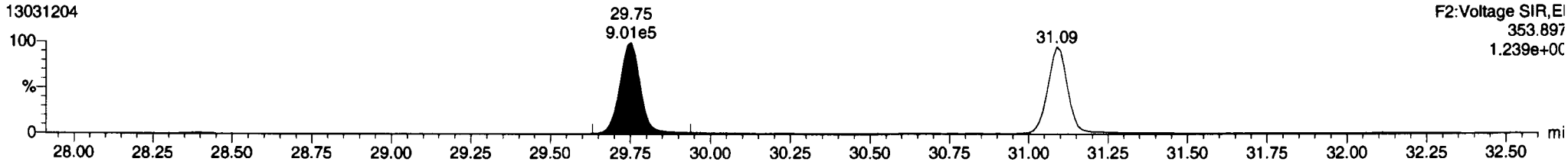
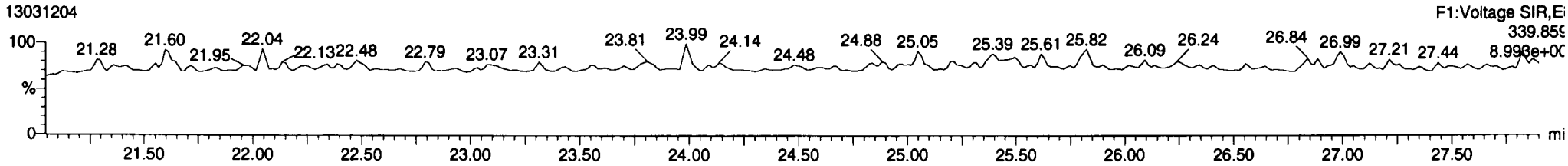
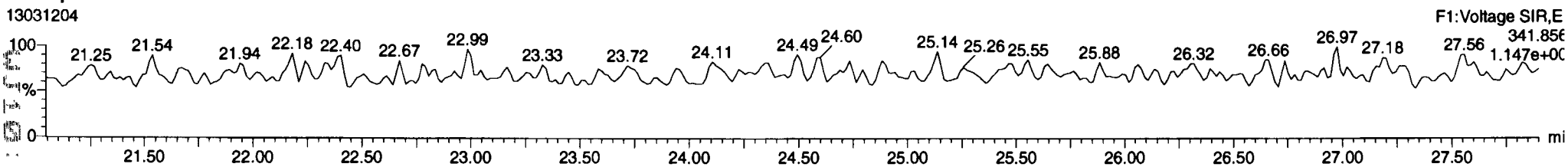


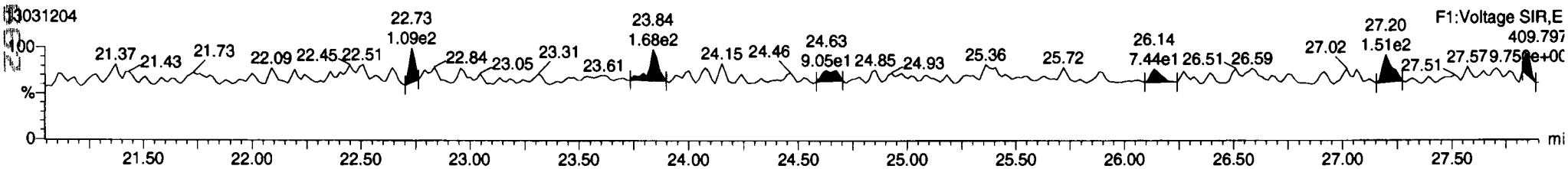
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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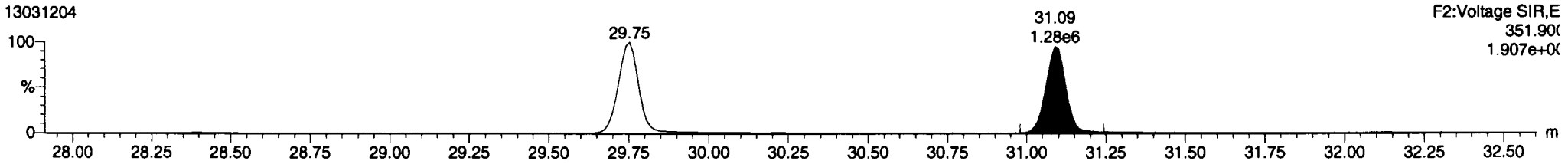
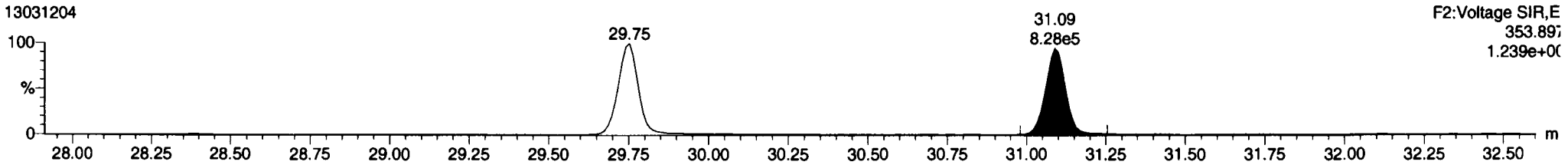
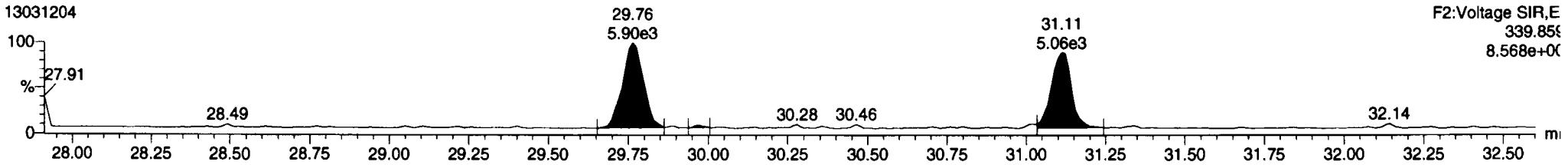
13C-23478-PeCDF



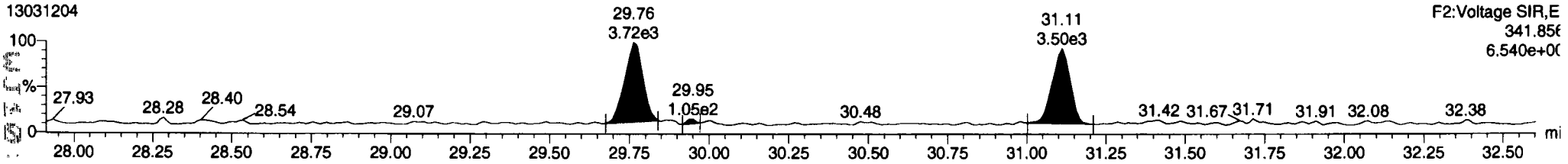
13C-23478-PeCDF



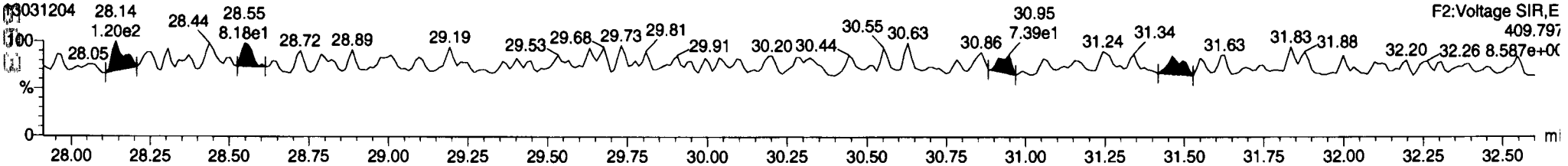
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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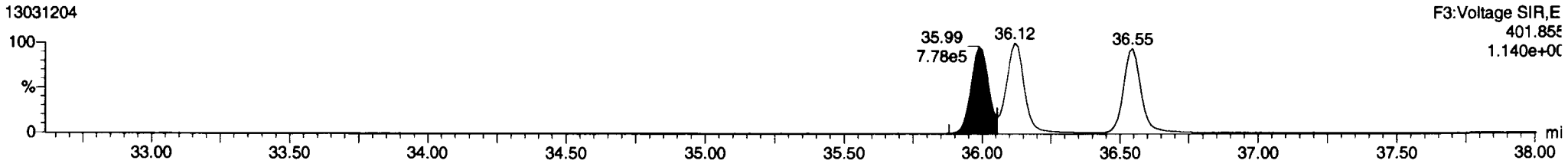
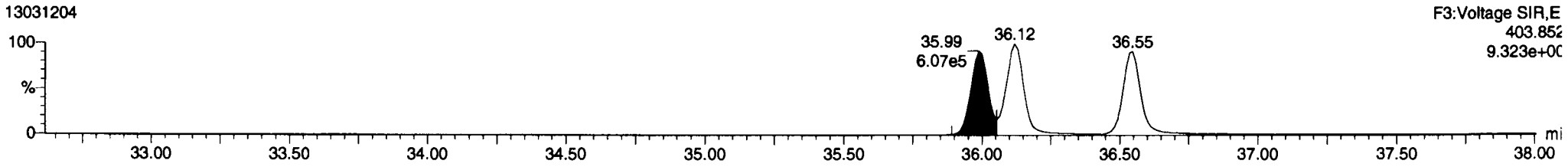
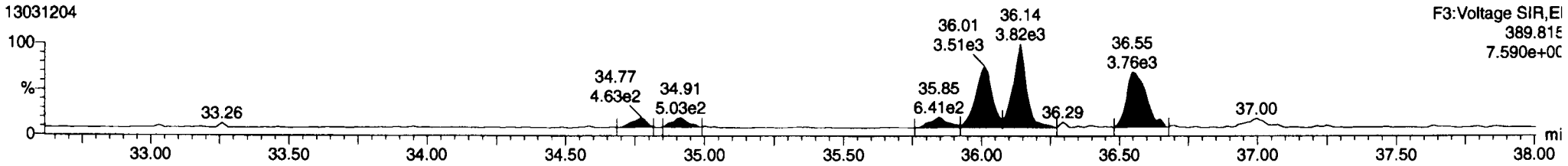
13C-123478-HxCDD



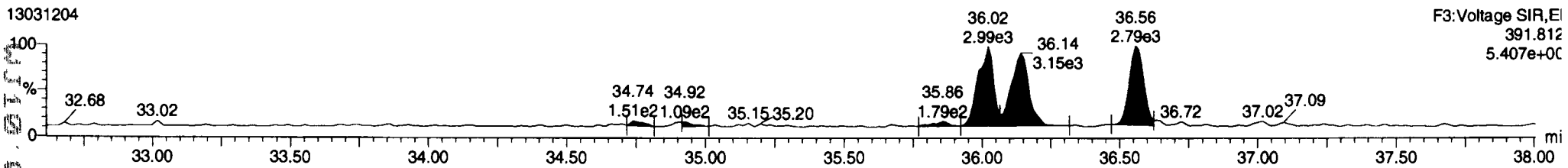
13C-123478-HxCDD



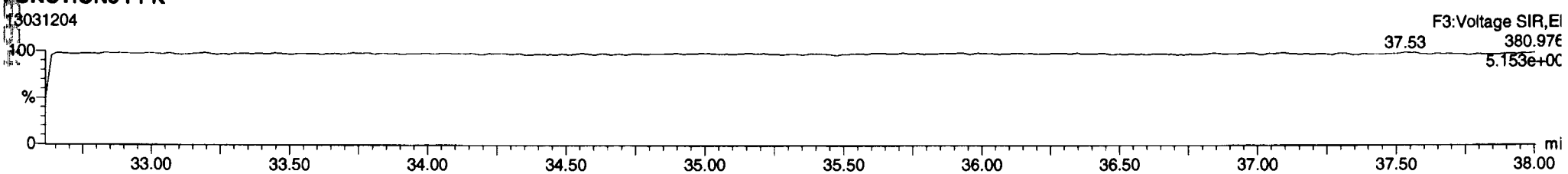
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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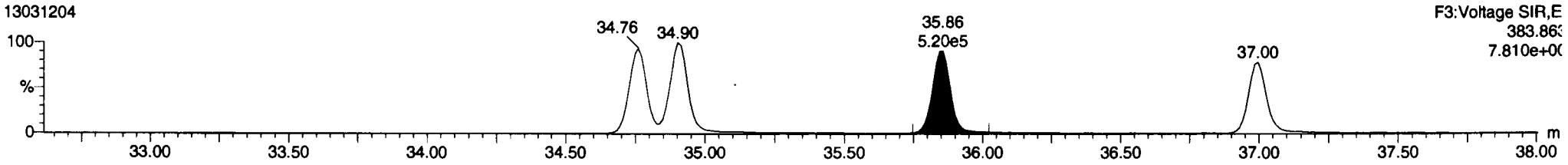
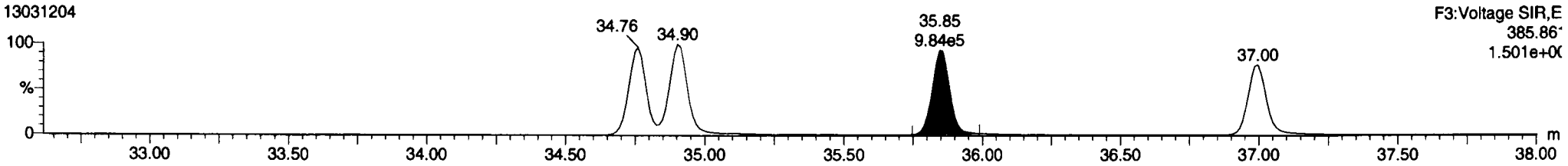
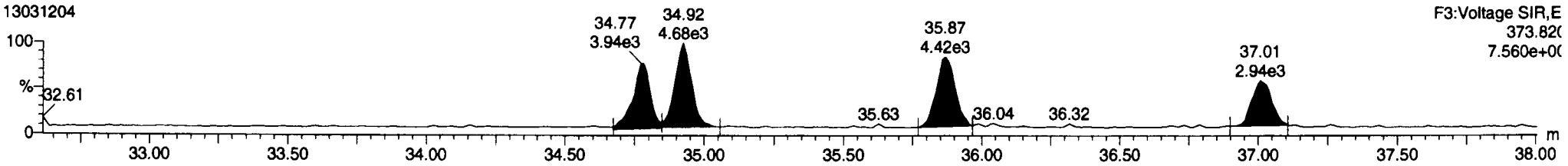
13C-234678-HxCDF



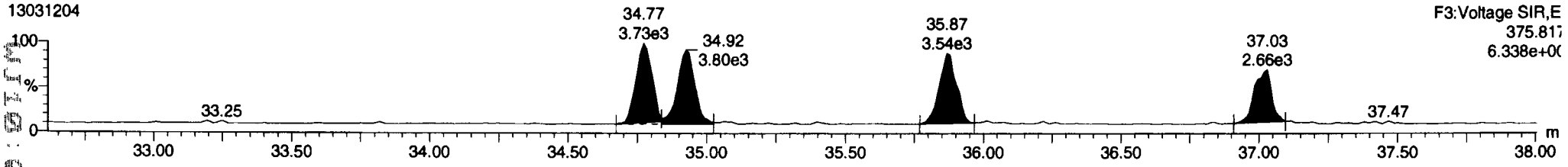
13C-234678-HxCDF



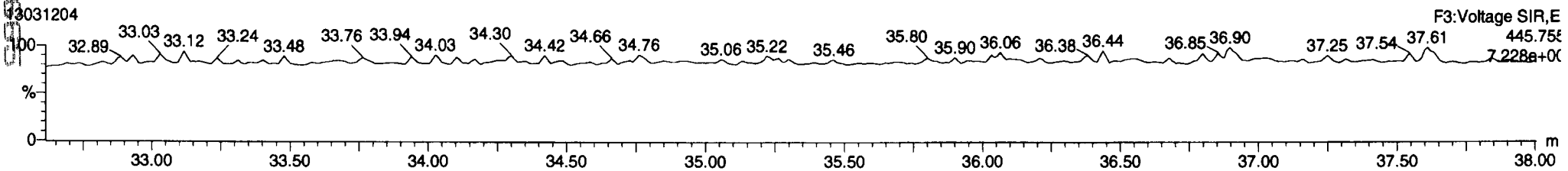
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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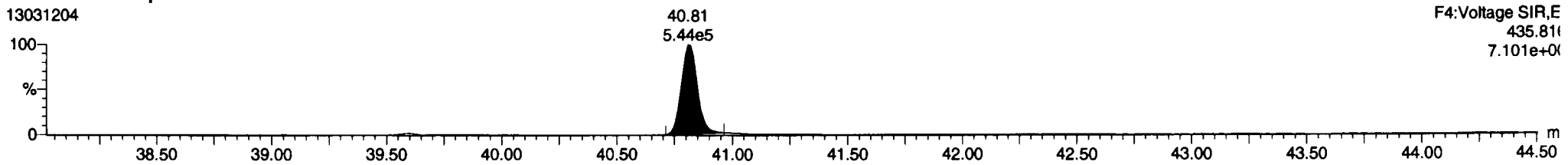
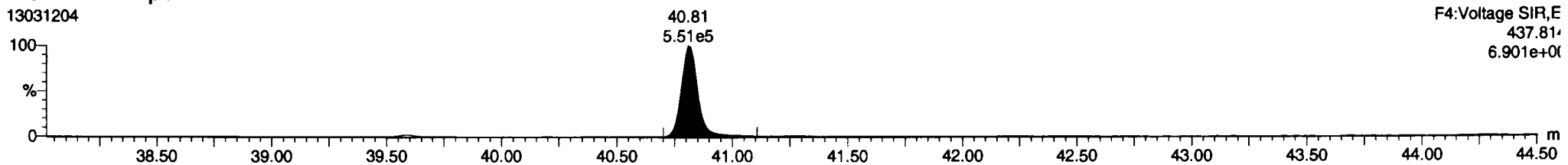
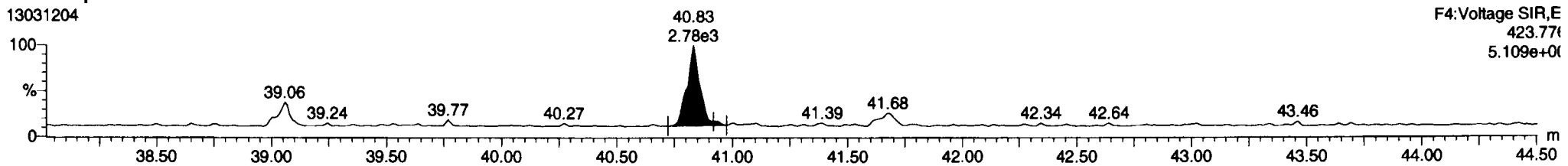
13C-1234678-HpCDD



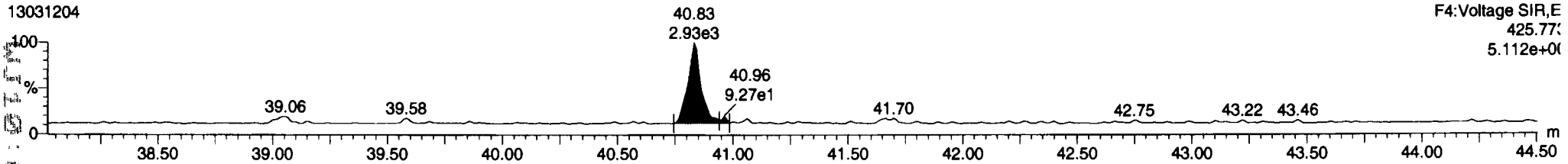
13C-1234678-HpCDD



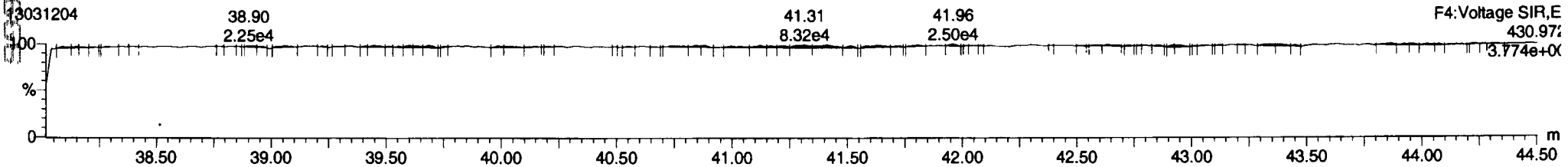
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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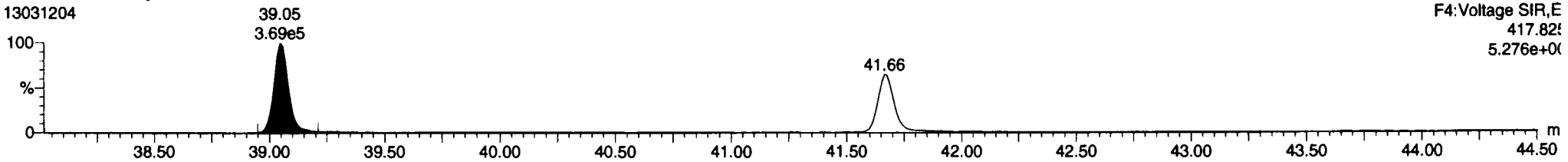
13C-1234678-HpCDF



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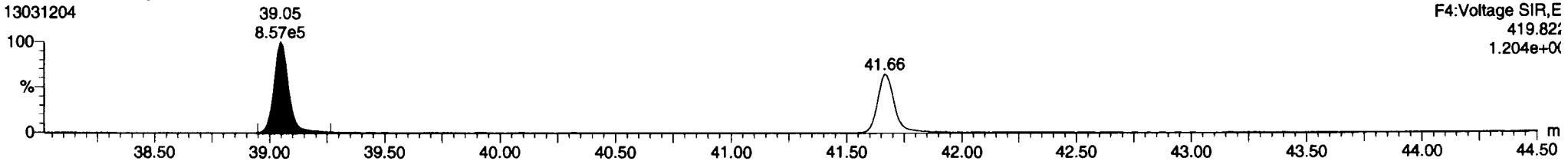
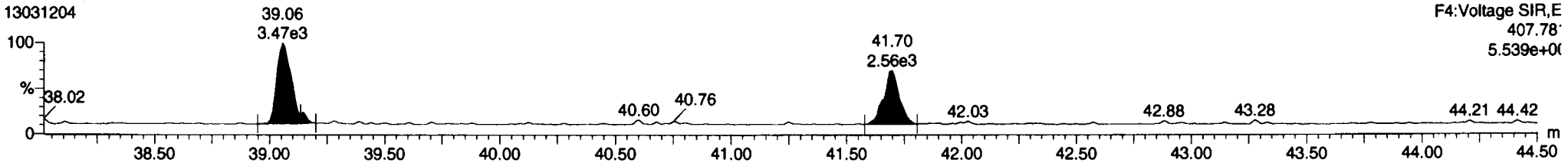
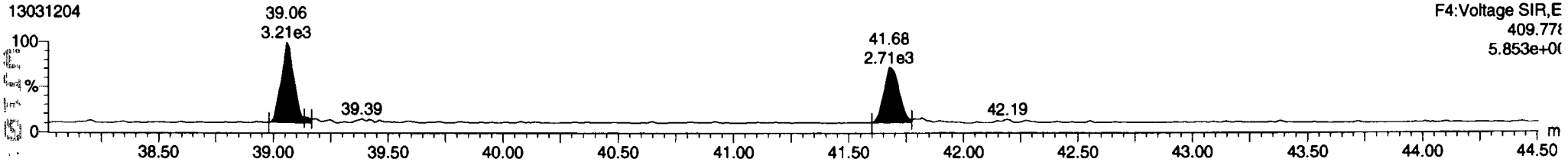


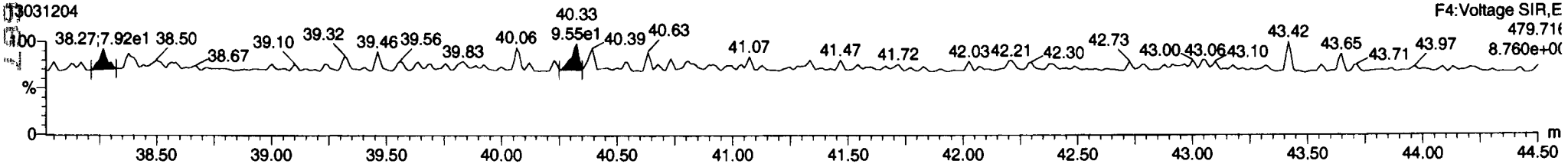
Total-heptafurans



Total-heptafurans



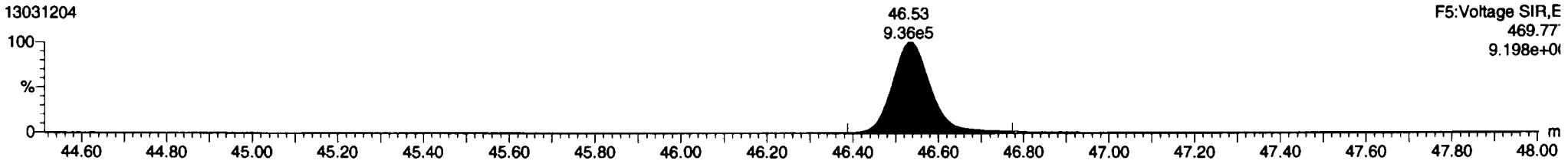
FUNCTION4 NCDPE



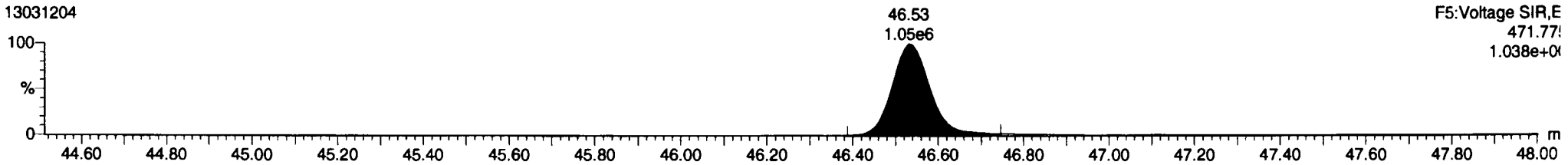
Dataset: P:\DIOXIN6290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:20 Pacific Daylight Time

ID: CSL, Name: 13031204, Date: 12-Mar-2013, Time: 15:01:10, Conditions: AUTOSPEC01, User: pk

13C-OCDD



13C-OCDD



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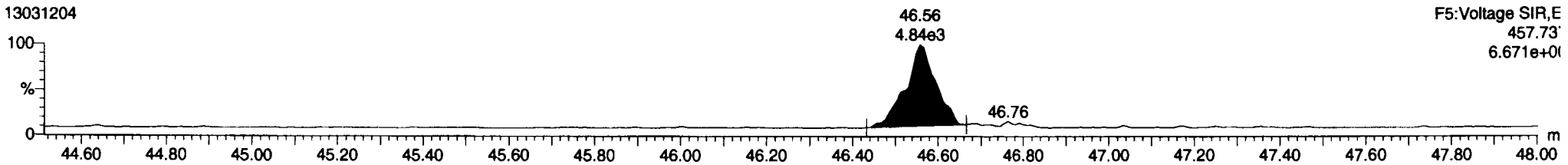

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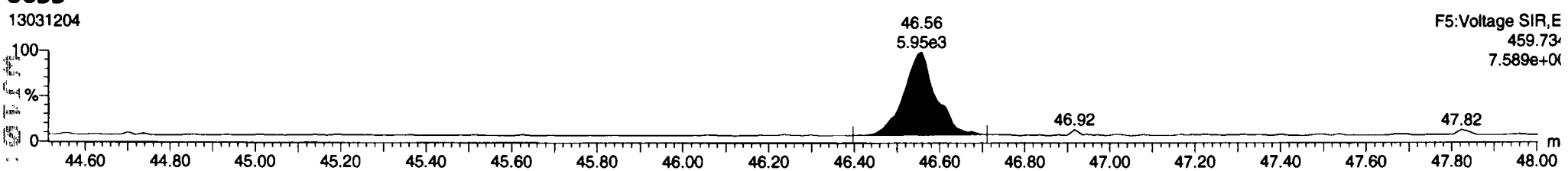
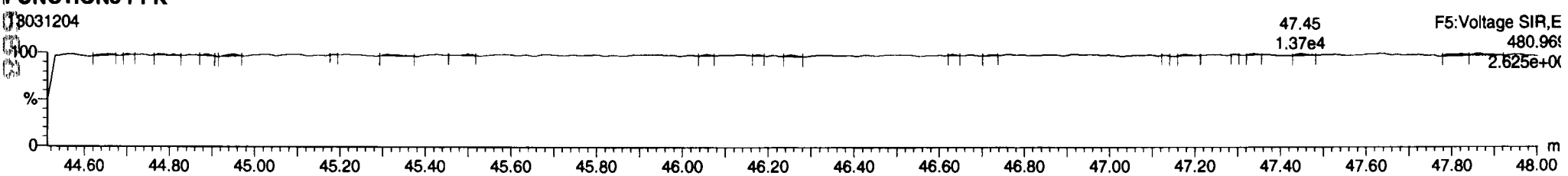


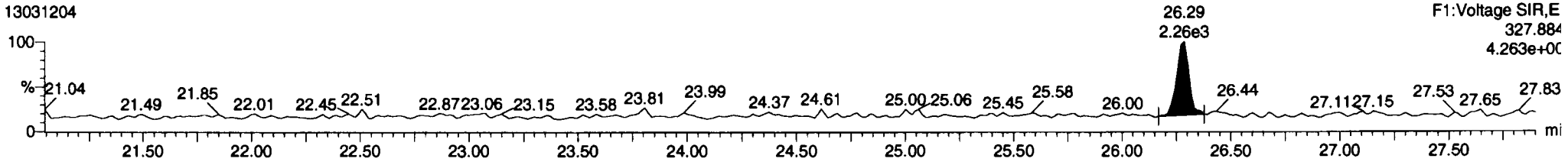
FUNCTION5 PFK



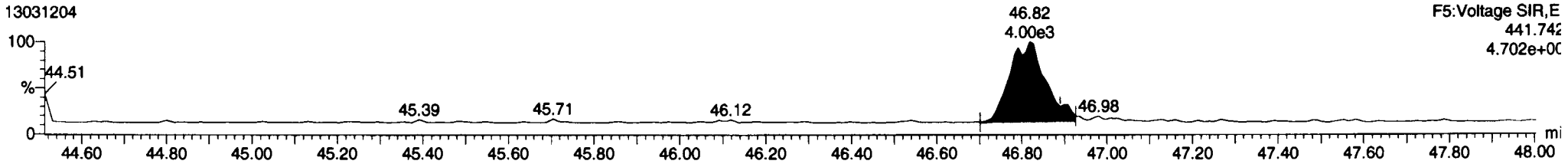
Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:20 Pacific Daylight Time

ID: CSL, Name: 13031204, Date: 12-Mar-2013, Time: 15:01:10, Conditions: AUTOSPEC01, User: pk

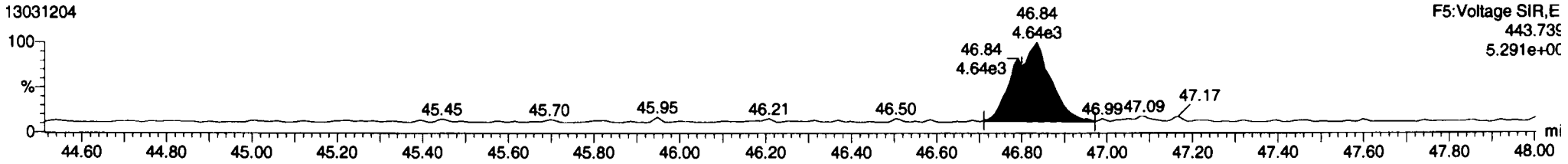
37CL-2378-TCDD



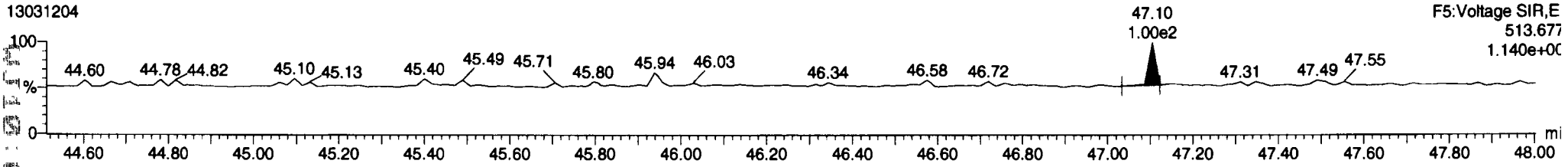
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:30 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

[redacted]	2378-TCDF	25.630	1.001	7.24e3	1.10e4	0.763	0.660	0.770	101.9	NO	0.478	0.478
[redacted]	12378-PeCDF	29.764	1.001	4.54e4	3.11e4	0.836	1.459	1.550	335.7	NO	2.480	2.480
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[redacted]	2378-TCDD	26.272	1.001	6.90e3	9.52e3	0.980	0.725	0.770	82.3	NO	0.475	0.475
[redacted]	12378-PeCDD	31.365	1.001	3.39e4	2.19e4	0.948	1.546	1.550	449.8	NO	2.386	2.386
[redacted]	123478-HxCDD	36.001	1.000	2.87e4	2.43e4	0.941	1.180	1.240	232.6	NO	2.563	2.563
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[redacted]	1234678-HpCDD	40.824	1.000	2.18e4	2.12e4	0.948	1.028	1.050	317.6	NO	2.439	2.439
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[redacted]	13C-1234678-HpCDF	39.048	1.069	6.11e5	1.39e6	0.896	0.438	0.440	2376.0	NO		99.142
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[redacted]	13C-2378-TCDD	26.257	1.032	1.53e6	1.99e6	0.961	0.770	0.770	3320.7	NO		100.469
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Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:30 Pacific Daylight Time

ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

	13C-123789-HxCDD	36.538	0.000	1.25e6	1.00e6	1.000	1.252	1.240	3803.7	NO	100.000
	Total-tetrafurans			7.24e3		0.763					0.478
	Total-penta1			0.00e0							
	Total-pentafurans			8.92e4		0.844					5.009
	Total-hexafurans			1.27e5		0.997					9.955
	Total-heptafurans			4.93e4		1.150					4.833
	Total-Furans			3.12e5		0.970					25.185
	Total-tetradioxins			8.93e3		0.980					0.540
	Total-pentadioxins			3.45e4		0.948					2.416
	Total-hexadioxins			8.69e4		0.898					7.599
	Total-heptadioxins			2.24e4		0.948					2.481
	Total-Dioxins			1.92e5		0.934					17.993
	Total-TEQ			5.04e5							43.179
	37CL-2378-TCDD	26.272	1.032	1.72e4		0.999			134.7		0.473
	FUNCTION1 PFK			3.25e7							
	FUNCTION2 PFK			1.59e5							0.000
	FUNCTION3 PFK			1.92e7							0.000
	FUNCTION4 PFK			3.35e4							
	FUNCTION5 PFK			3.80e6							
	FUNCTION1 HXCDPE			7.07e1							0.000
	FUNCTION1 HPCDPE			1.36e3							0.000
	FUNCTION2 HPCDPE			6.24e2							0.000
	FUNCTION3 OCDPE			0.00e0							
	FUNCTION4 NCDPE			1.72e2							0.000
	FUNCTION5 DCDPE			0.00e0							

Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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Printed: Wednesday, March 13, 2013 10:42:30 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\DioxIn130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

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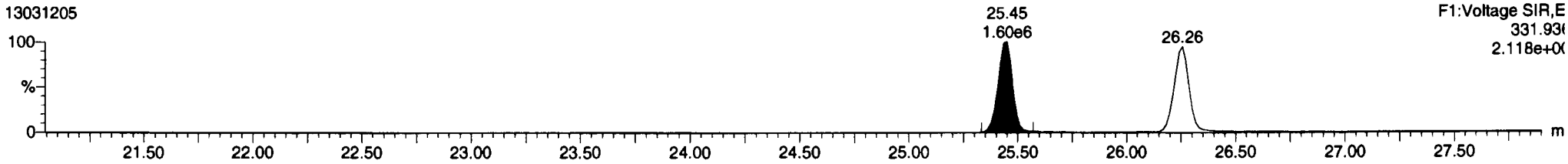
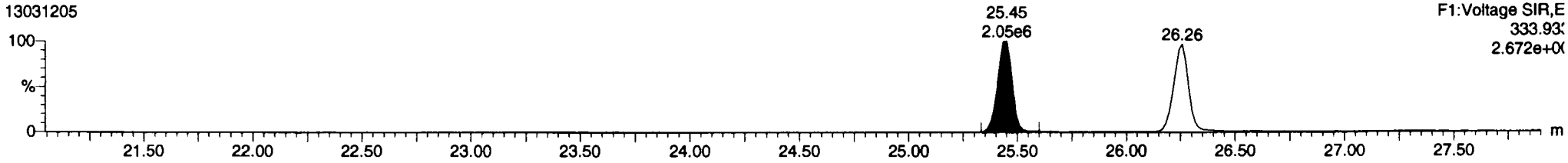
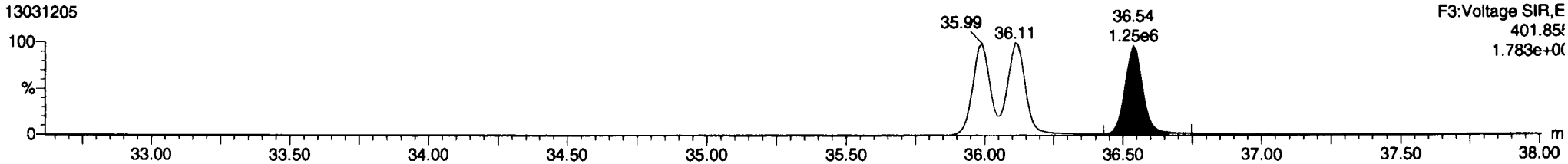
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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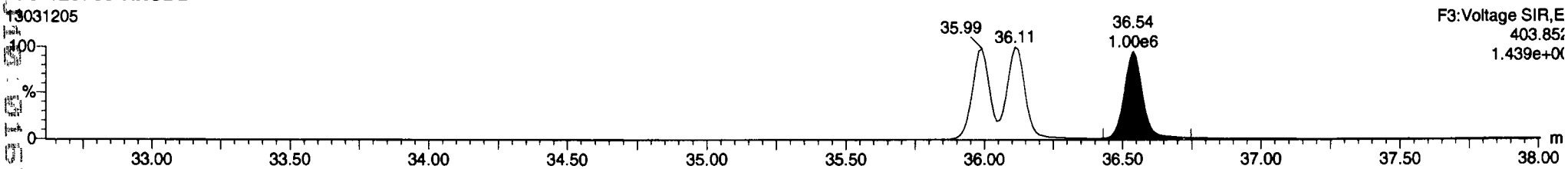

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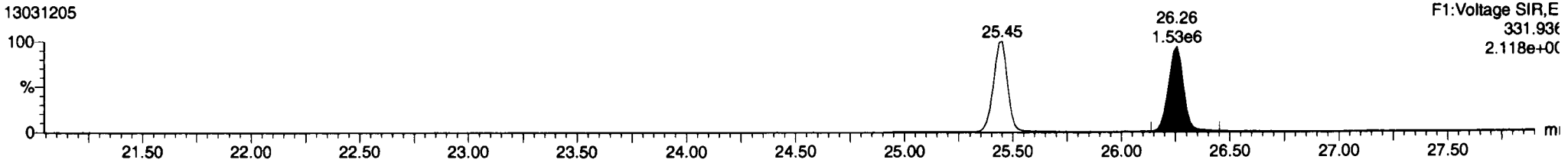
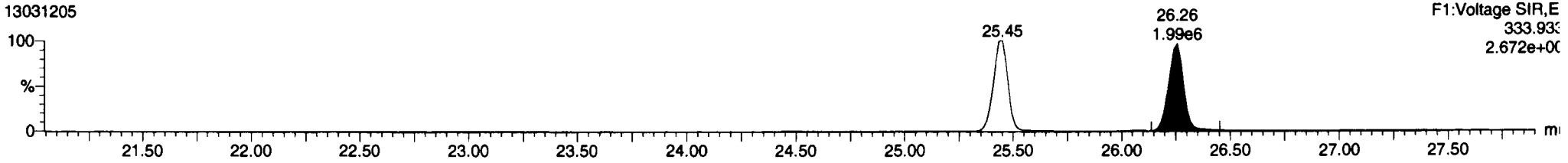
ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

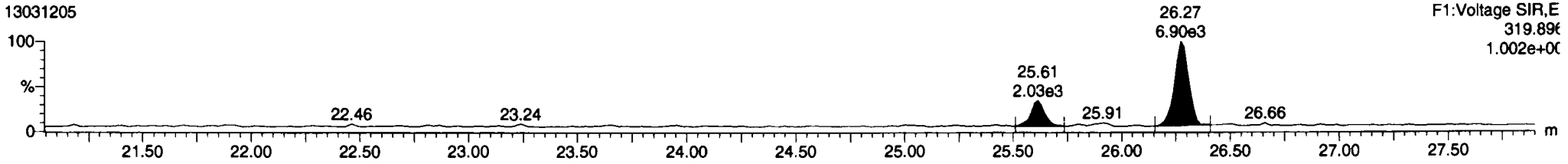
13C-2378-TCDD



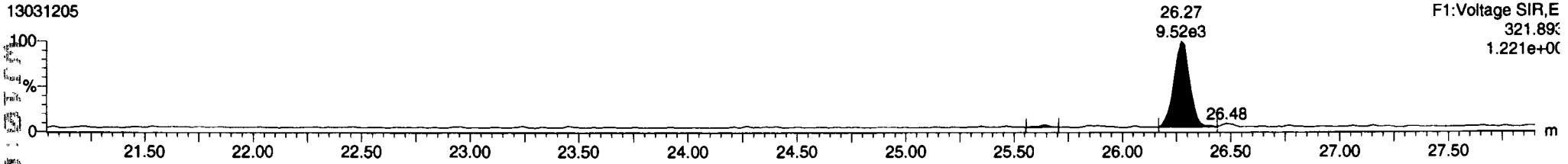
13C-2378-TCDD



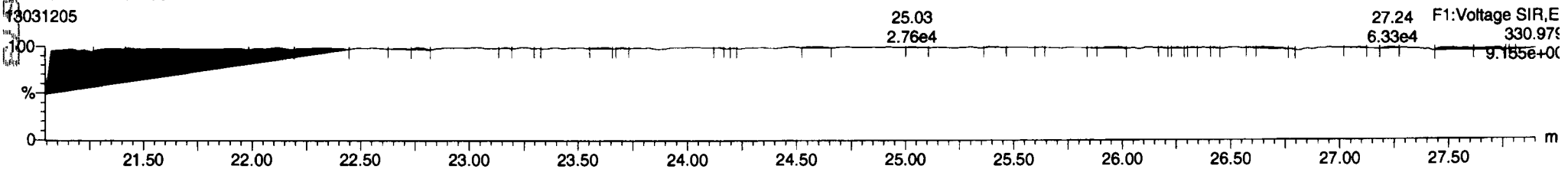
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
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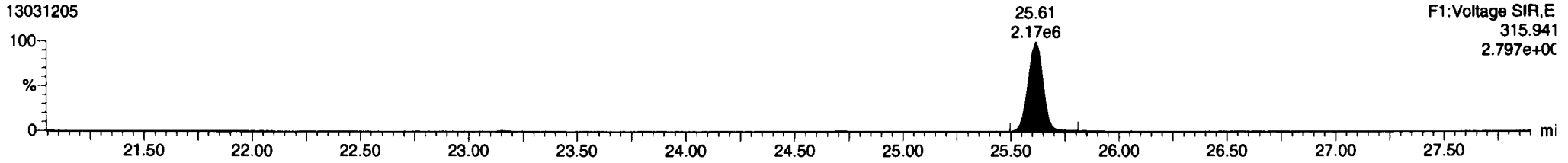
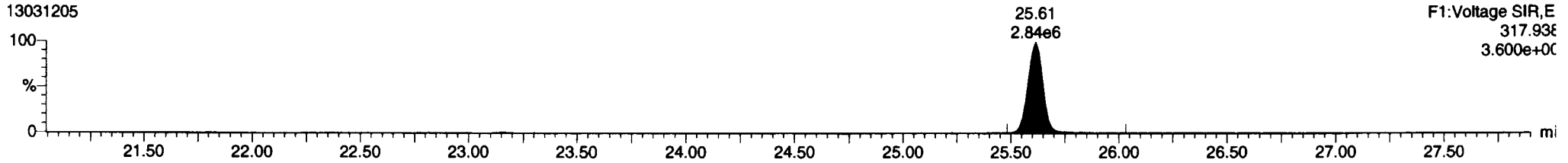
ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

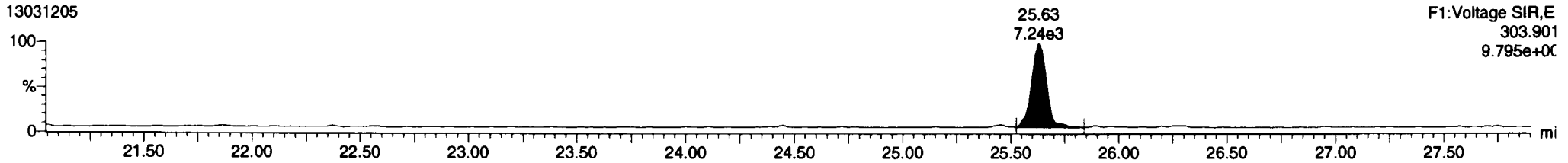
13C-2378-TCDF



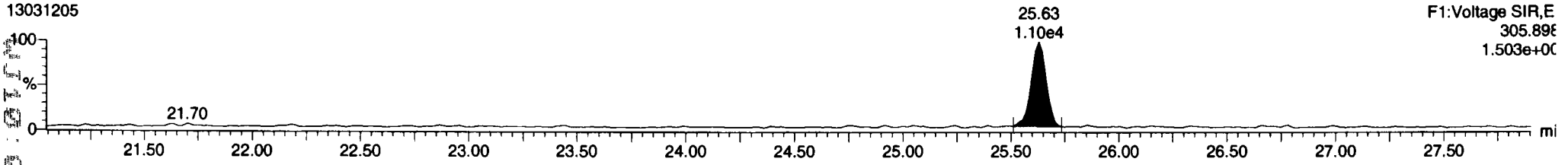
13C-2378-TCDF



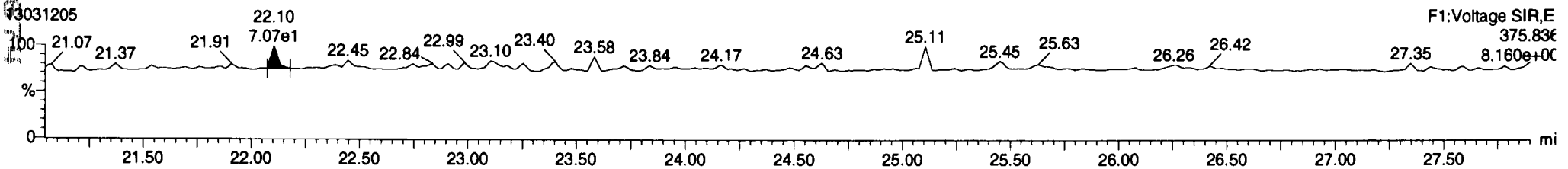
Total-tetrafurans



Total-tetrafurans



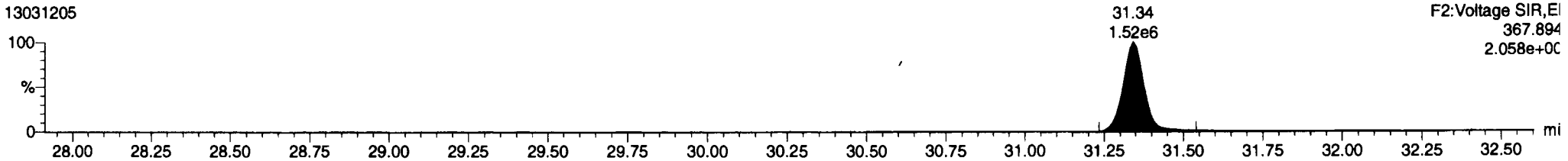
FUNCTION1 HXCDPE



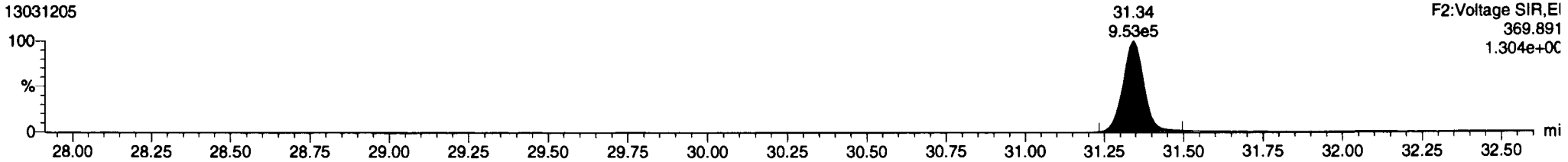
Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:30 Pacific Daylight Time

ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

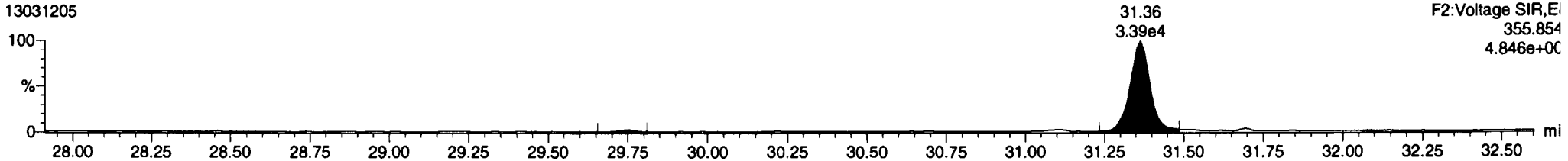
13C-12378-PeCDD



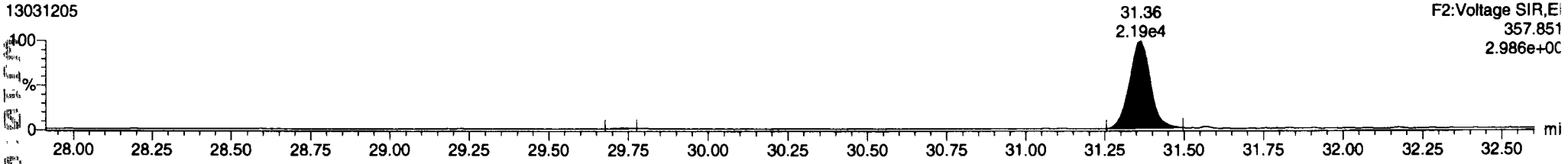
13C-12378-PeCDD



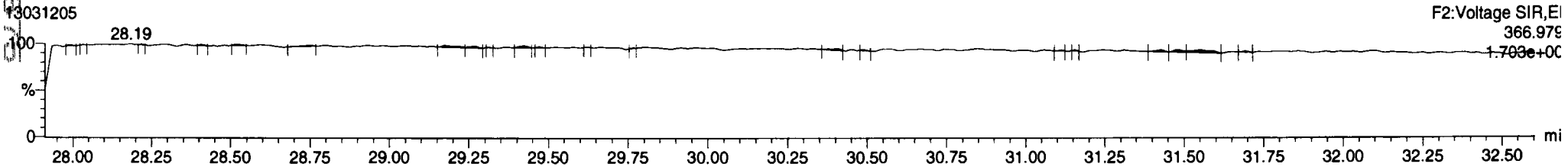
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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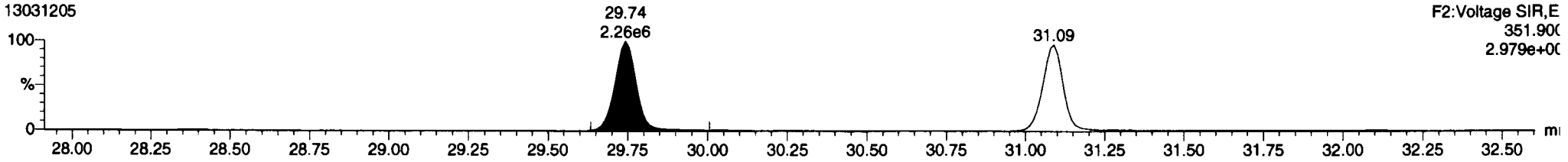
Printed: Wednesday, March 13, 2013 10:42:30 Pacific Daylight Time

ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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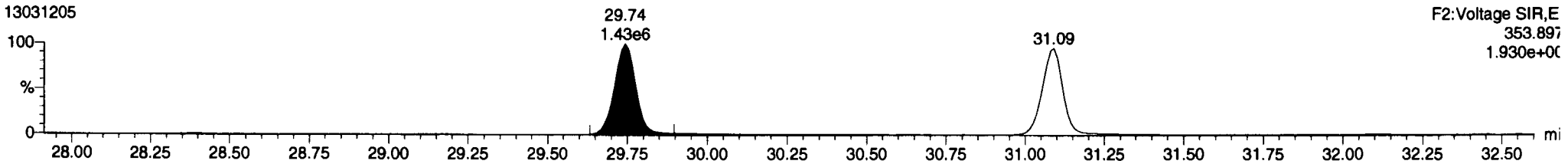
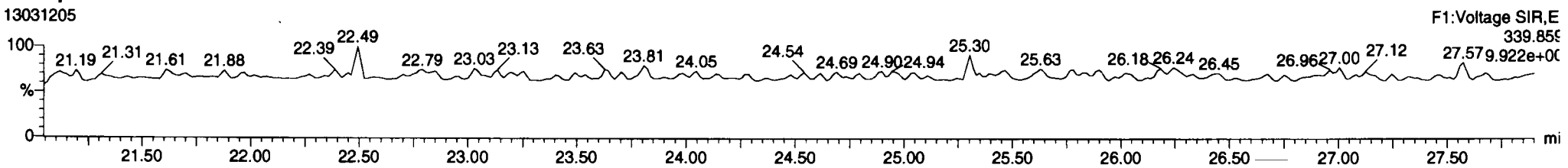


Total-penta1



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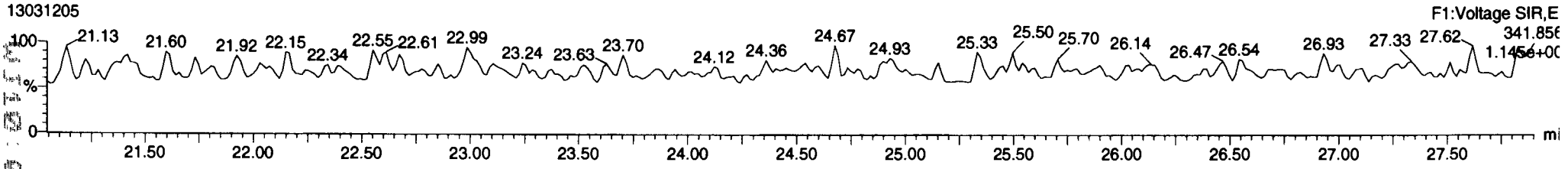
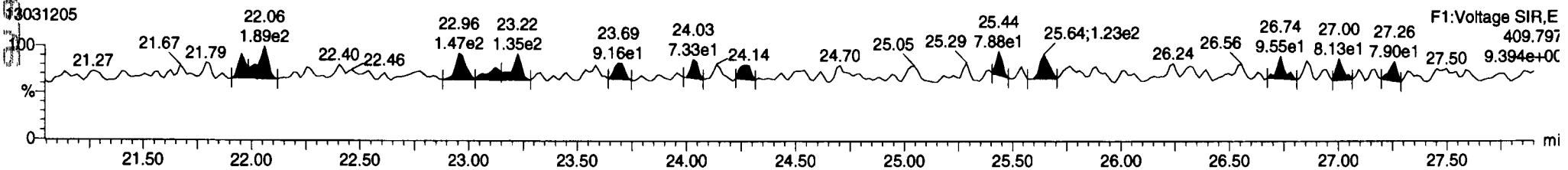


FUNCTION1 HPCDPE



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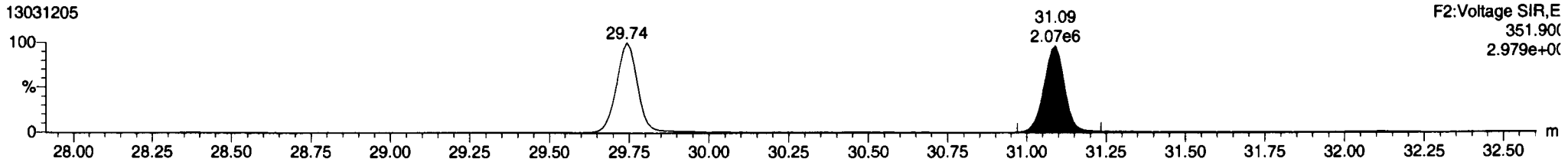
ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF



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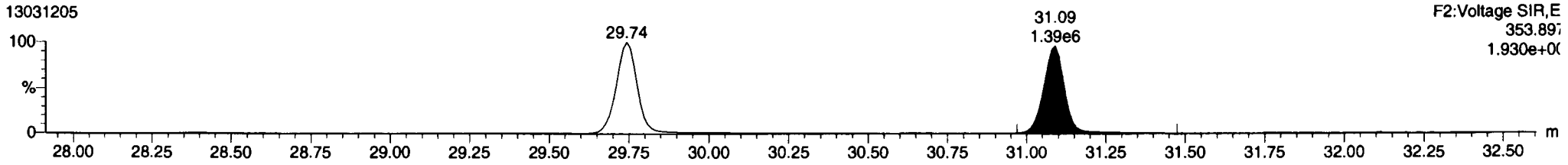
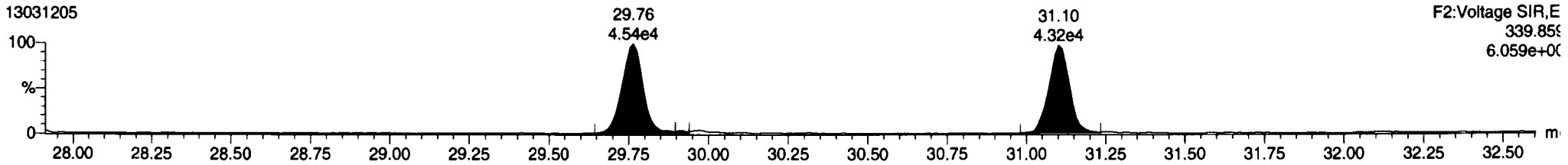
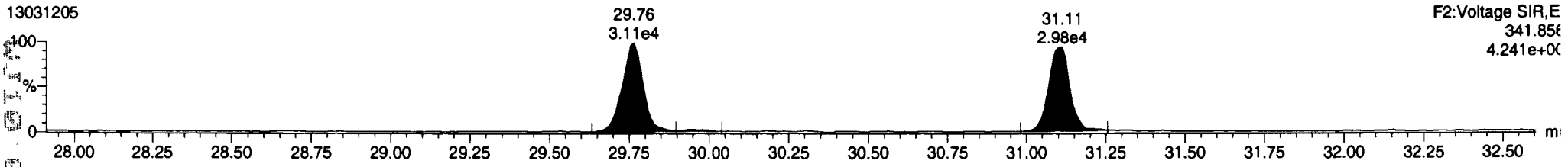


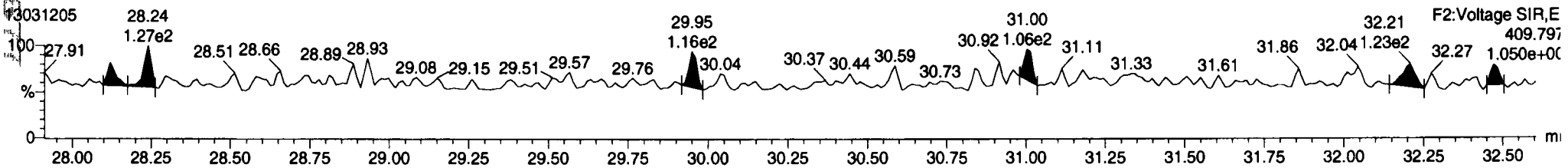
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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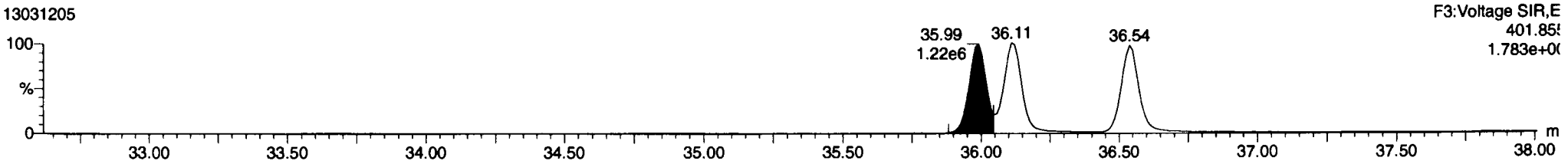
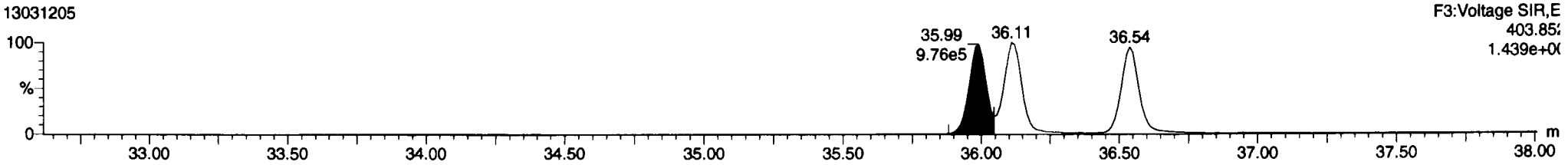
ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

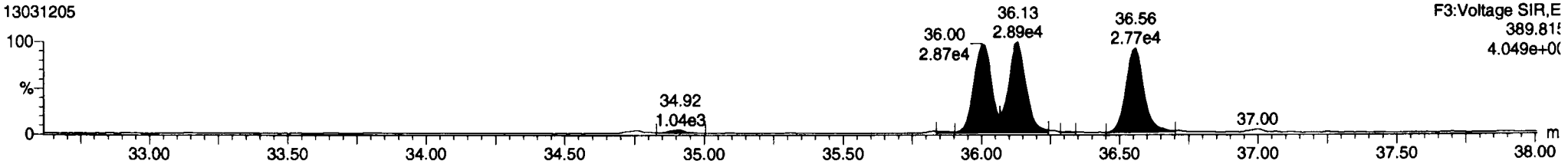
13C-123478-HxCDD



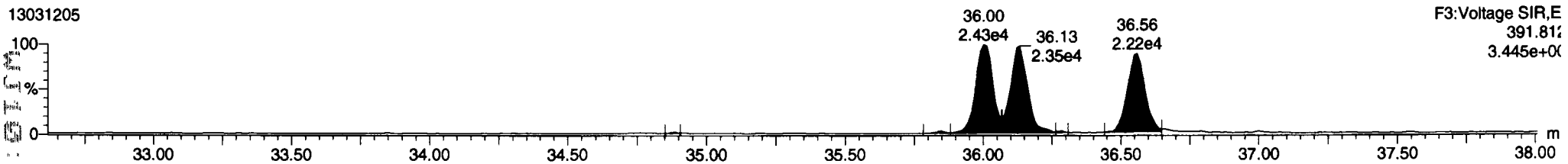
13C-123478-HxCDD



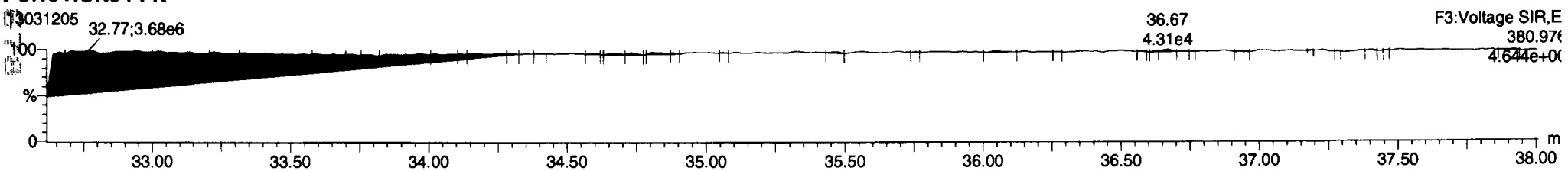
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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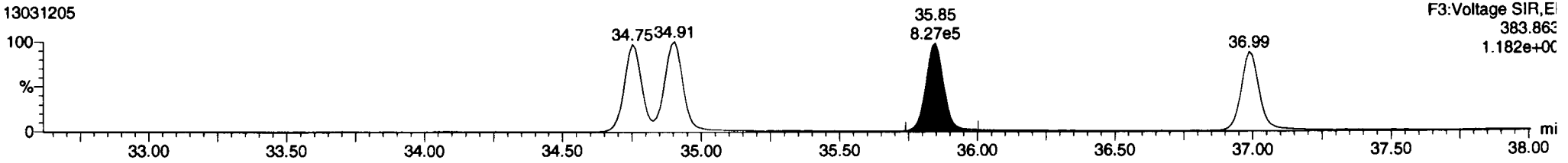
ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



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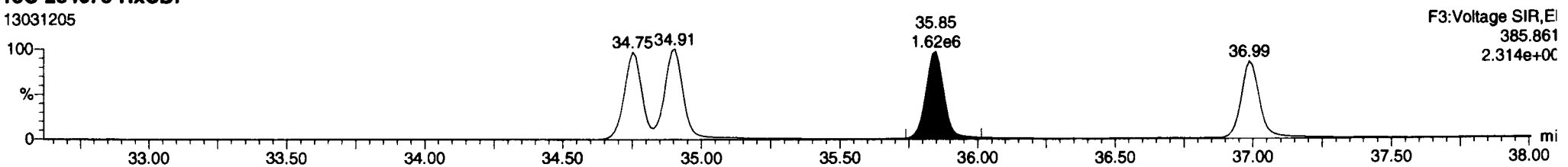
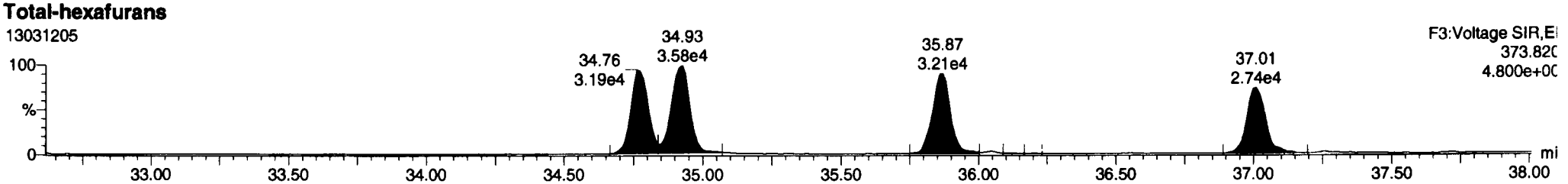
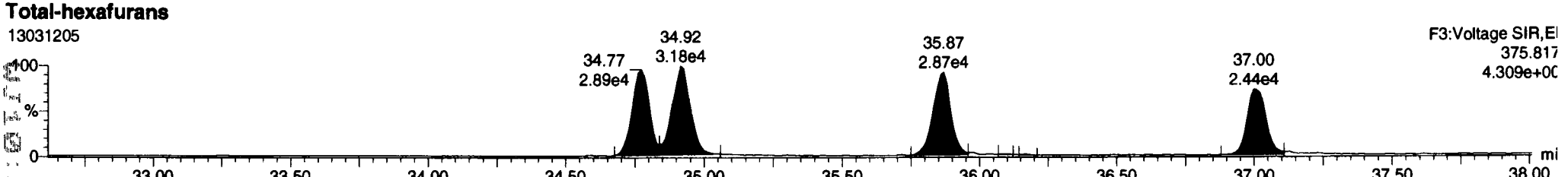


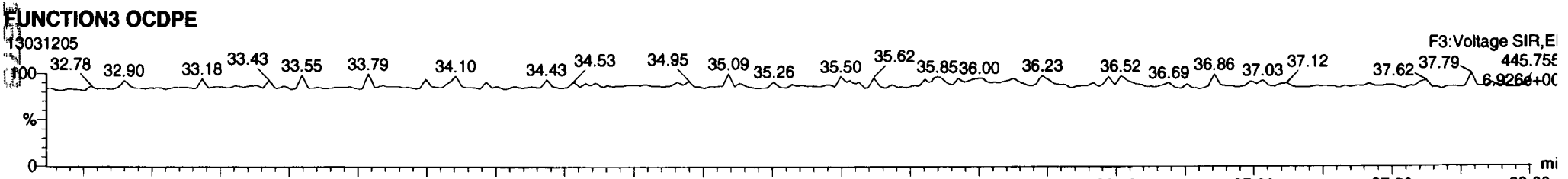
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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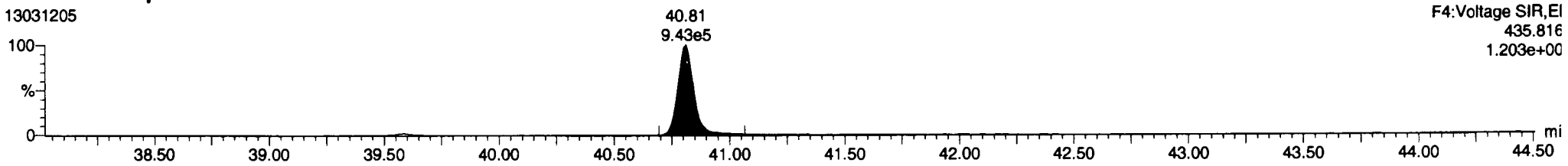
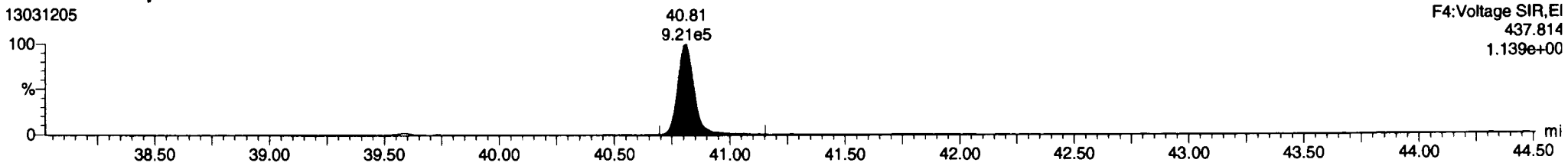
ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

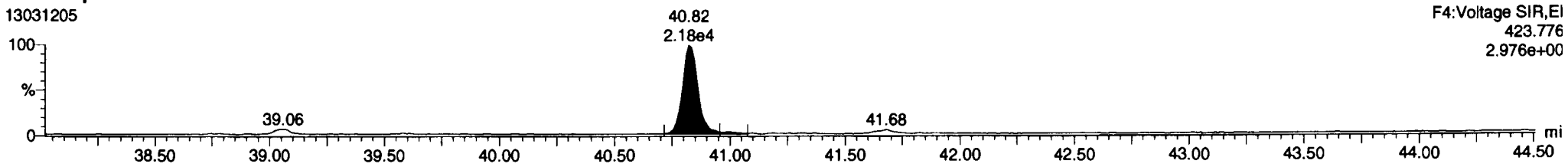
13C-1234678-HpCDD



13C-1234678-HpCDD



Total-heptadioxins



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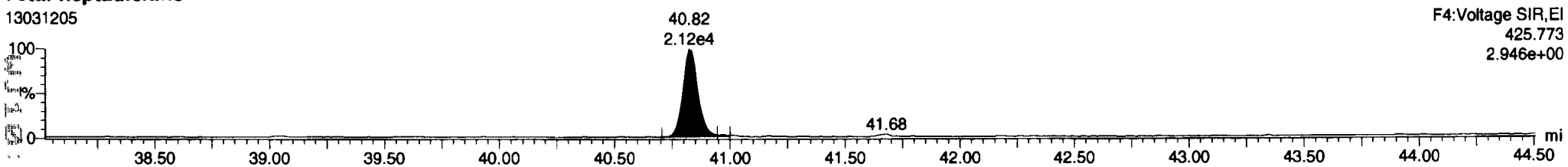
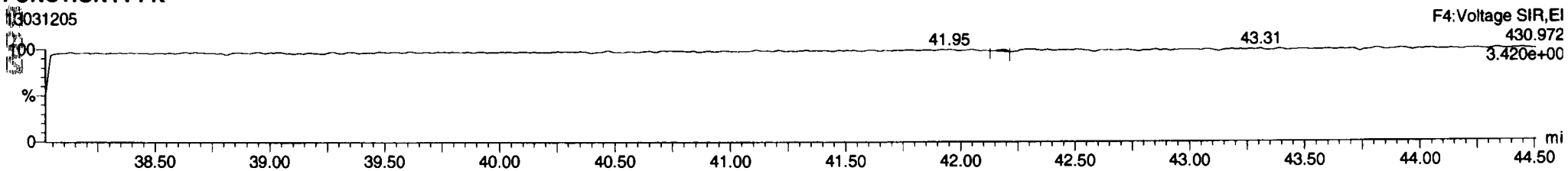


FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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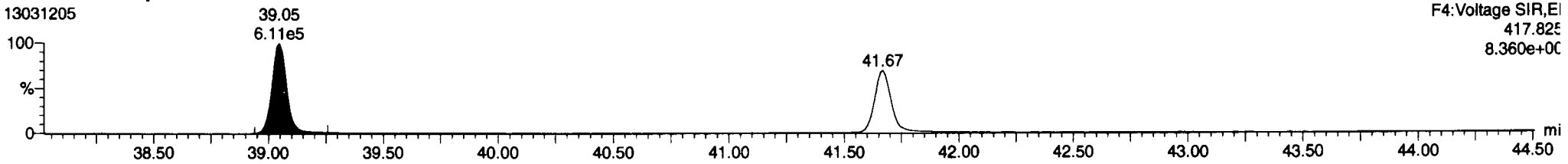
ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF



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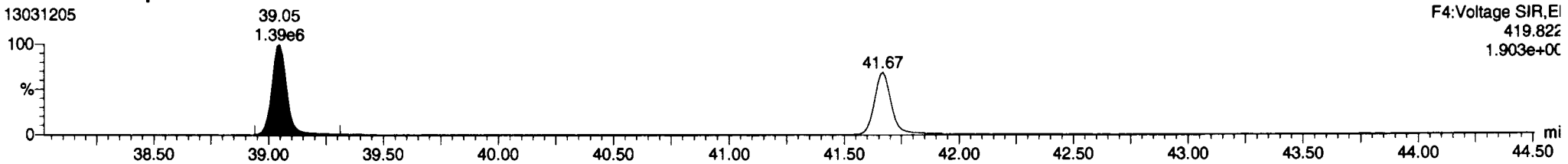
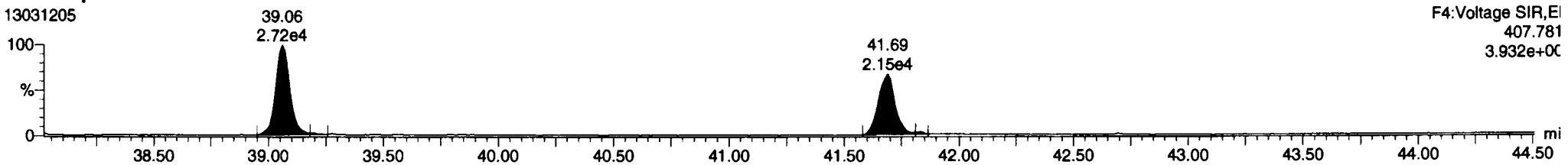


Total-heptafurans



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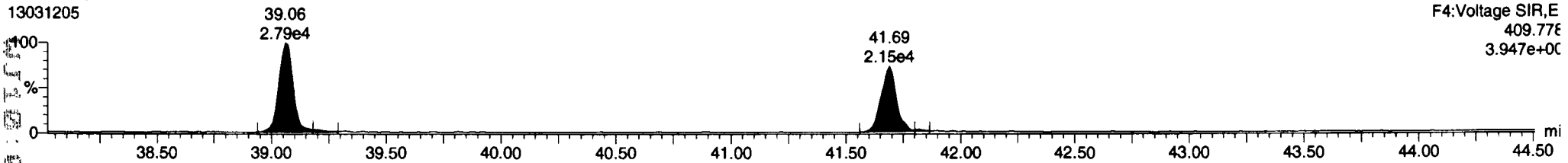
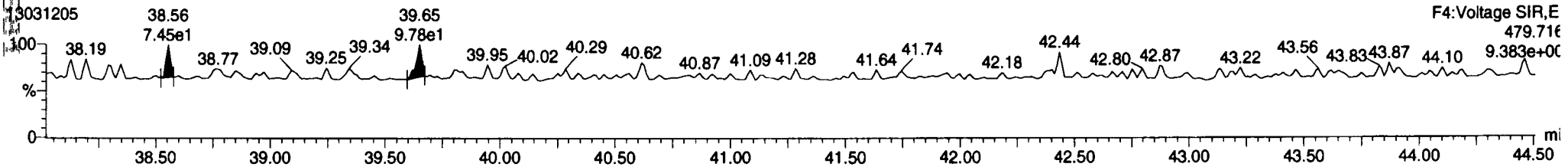


FUNCTION4 NCDPE



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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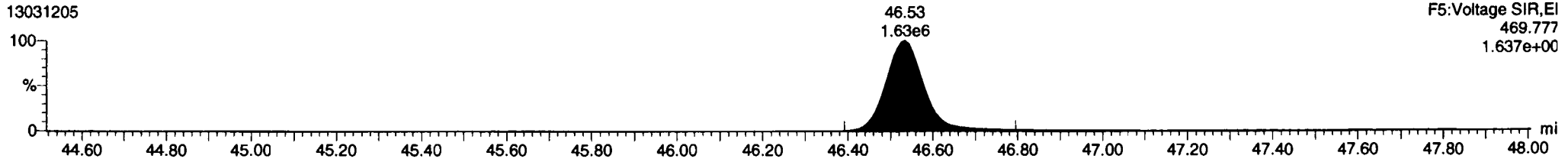
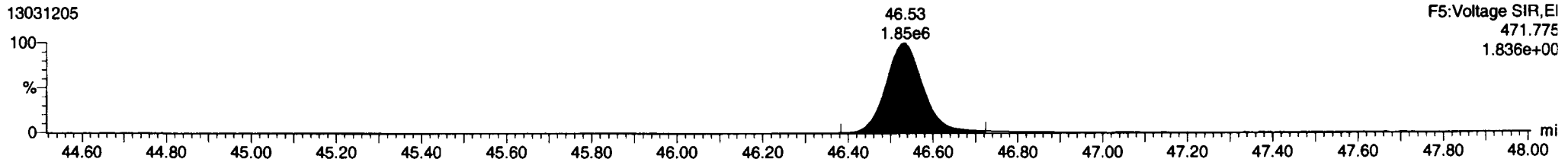
ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

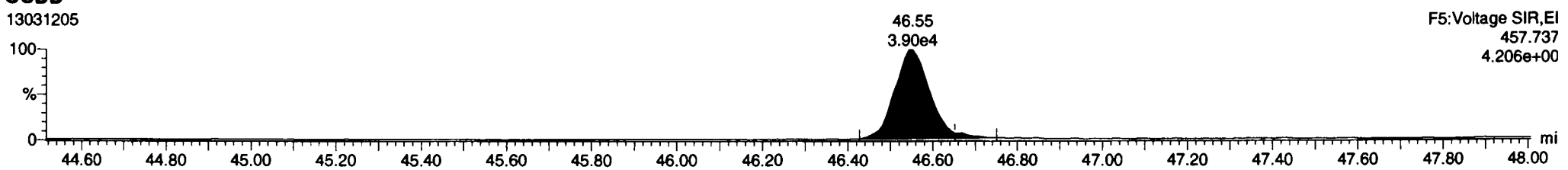
13C-OCDD



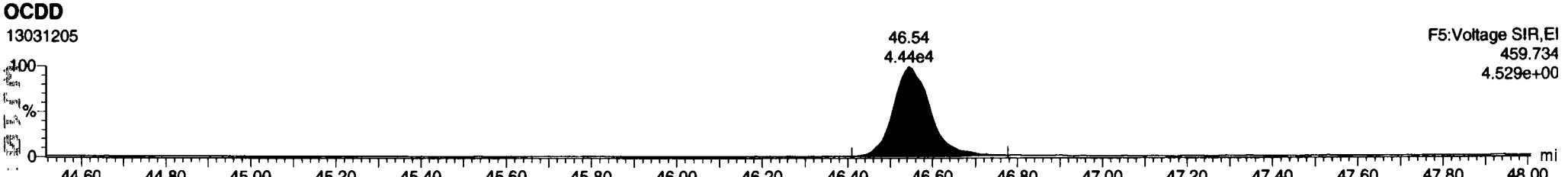
13C-OCDD



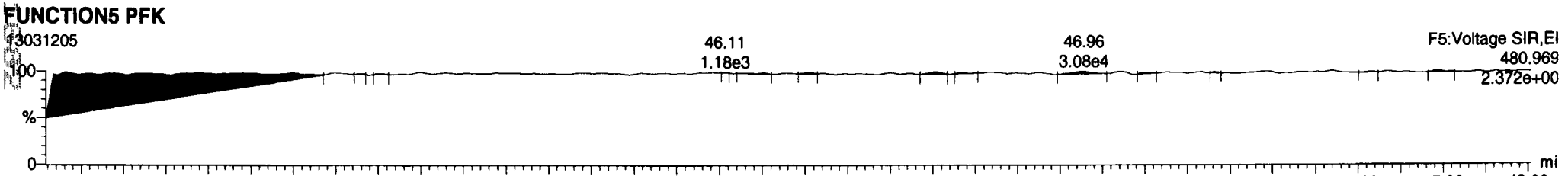
OCDD



OCDD



FUNCTION5 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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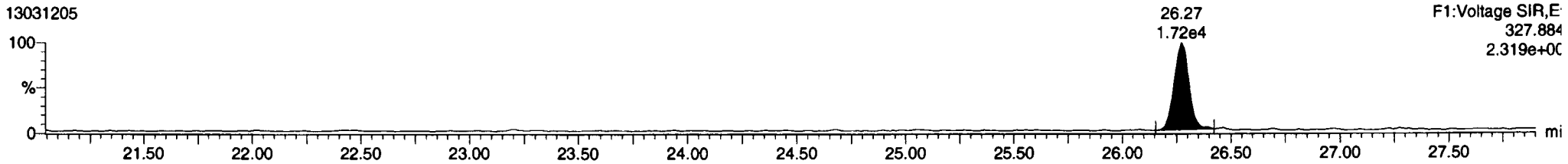
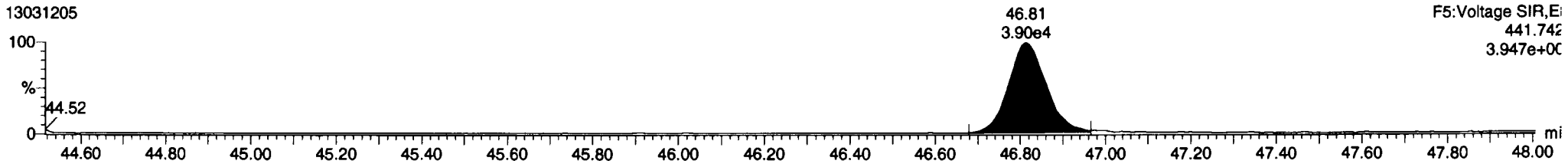
ID: CS1, Name: 13031205, Date: 12-Mar-2013, Time: 15:57:32, Conditions: AUTOSPEC01, User: pk

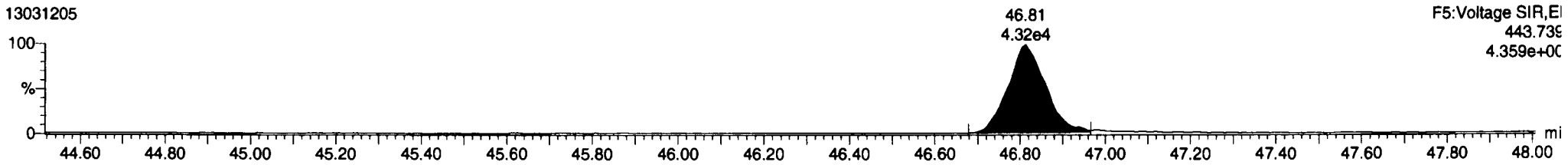
37CL-2378-TCDD



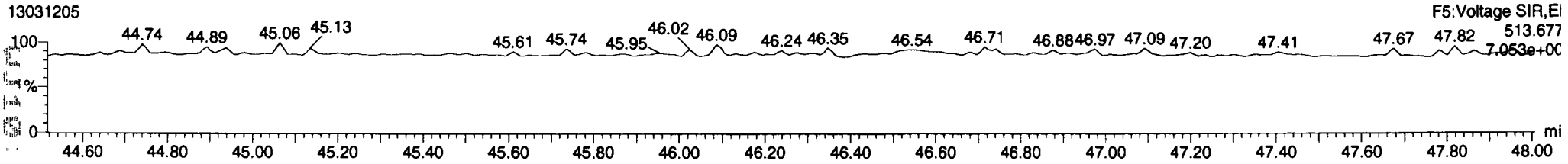
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:40 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

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	12378-PeCDF	29.764	1.001	1.36e5	9.17e4	0.836	1.484	1.550	783.7	NO	9.780	9.780
	23478-PeCDF	31.101	1.000	1.34e5	9.12e4	0.851	1.468	1.550	781.9	NO	9.946	9.946
	123478-HxCDF	34.773	1.001	1.06e5	8.92e4	1.017	1.191	1.240	656.0	NO	9.913	9.913
	234678-HxCDF	35.869	1.001	1.04e5	8.92e4	1.027	1.170	1.240	643.1	NO	9.646	9.646
	123678-HxCDF	34.916	1.000	1.15e5	9.79e4	1.013	1.170	1.240	689.9	NO	10.163	10.163
	123789-HxCDF	37.009	1.001	8.77e4	7.42e4	0.929	1.183	1.240	529.5	NO	9.874	9.874
	1234678-HpCDF	39.059	1.000	9.28e4	8.82e4	1.151	1.052	1.050	539.9	NO	9.990	9.990
	1234789-HpCDF	41.690	1.001	6.83e4	7.31e4	1.149	0.935	1.050	346.0	NO	9.843	9.843
	OCDF	46.822	1.006	1.22e5	1.44e5	0.963	0.844	0.890	583.3	NO	19.891	19.891
	2378-TCDD	26.272	1.001	2.25e4	2.87e4	0.980	0.786	0.770	285.1	NO	1.976	1.976
	12378-PeCDD	31.364	1.001	1.11e5	7.20e4	0.948	1.547	1.550	693.9	NO	9.965	9.965
	123478-HxCDD	36.001	1.000	8.71e4	7.31e4	0.941	1.191	1.240	548.5	NO	9.888	9.888
	123678-HxCDD	36.132	1.001	9.07e4	7.39e4	0.884	1.226	1.240	571.8	NO	9.991	9.991
	123789-HxCDD	36.560	1.012	8.98e4	7.20e4	0.870	1.247	1.240	548.8	NO	10.381	10.381
	1234678-HpCDD	40.824	1.000	6.92e4	6.79e4	0.948	1.019	1.050	530.6	NO	9.705	9.705
	OCDD	46.543	1.000	1.18e5	1.40e5	0.969	0.844	0.890	638.2	NO	19.203	19.203
	13C-2378-TCDF	25.615	1.007	1.58e6	2.06e6	1.318	0.769	0.770	5539.5	NO		97.693
	13C-12378-PeCDF	29.742	1.169	1.70e6	1.08e6	1.026	1.575	1.550	3914.8	NO		96.048
	13C-23478-PeCDF	31.090	1.222	1.60e6	1.06e6	0.966	1.514	1.550	3761.5	NO		97.350
	13C-123478-HxCDF	34.751	0.951	6.53e5	1.29e6	1.123	0.508	0.510	2177.5	NO		100.216
	13C-123678-HxCDF	34.905	0.955	7.01e5	1.36e6	1.216	0.515	0.510	2277.3	NO		98.470
	13C-234678-HxCDF	35.847	0.981	6.72e5	1.28e6	1.106	0.525	0.510	2205.6	NO		102.512
	13C-123789-HxCDF	36.987	1.012	5.96e5	1.17e6	0.995	0.510	0.510	1940.1	NO		102.861
	13C-1234678-HpCDF	39.048	1.069	4.86e5	1.09e6	0.896	0.446	0.440	1831.1	NO		101.939
	13C-1234789-HpCDF	41.668	1.140	3.86e5	8.64e5	0.693	0.447	0.440	1292.7	NO		104.581
	13C-1234-TCDD	25.435	0.000	1.23e6	1.60e6	1.000	0.772	0.770	2997.0	NO		100.000
	13C-2378-TCDD	26.242	1.032	1.14e6	1.50e6	0.961	0.763	0.770	2646.2	NO		97.243
	13C-12378-PeCDD	31.342	1.232	1.18e6	7.56e5	0.703	1.568	1.550	4688.5	NO		97.573
	13C-123478-HxCDD	35.990	0.985	9.61e5	7.60e5	1.016	1.264	1.240	3626.0	NO		98.277
	13C-123678-HxCDD	36.110	0.988	1.04e6	8.27e5	1.098	1.254	1.240	3791.8	NO		98.434
	13C-1234678-HpCDD	40.813	1.117	7.70e5	7.20e5	0.828	1.070	1.050	3026.5	NO		104.402
	13C-OCDD	46.535	1.274	1.32e6	1.45e6	0.770	0.912	0.890	3755.0	NO		209.376

Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:40 Pacific Daylight Time

ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

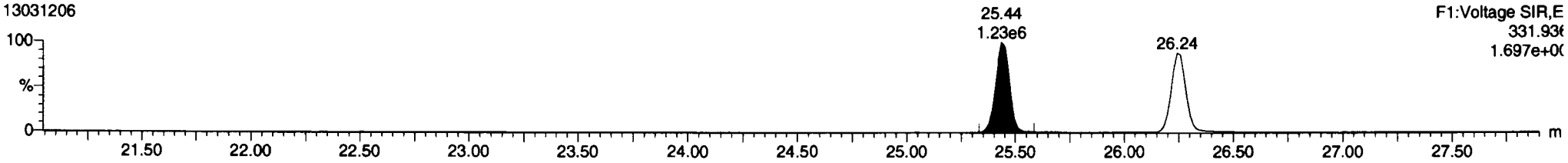
	13C-123789-HxCDD	36.538	0.000	9.57e5	7.66e5	1.000	1.250	1.240	3530.2	NO	100.000
	Total-tetrafurans			2.31e4		0.763					1.969
	Total-penta1			0.00e0							
	Total-pentafurans			2.76e5		0.844					20.136
	Total-hexafurans			4.13e5		0.997					39.605
	Total-heptafurans			1.61e5		1.150					19.833
	Total-Furans			9.95e5		0.970					101.435
	Total-tetradioxins			2.34e4		0.980					2.077
	Total-pentadioxins			1.13e5		0.948					10.169
	Total-hexadioxins			2.69e5		0.898					30.424
	Total-heptadioxins			7.05e4		0.948					9.881
	Total-Dioxins			5.95e5		0.934					71.764
	Total-TEQ			1.59e6							173.200
	37CL-2378-TCDD	26.272	1.033	5.53e4		0.999			371.6		1.957
	FUNCTION1 PFK			1.75e6							
	FUNCTION2 PFK			1.71e5							0.000
	FUNCTION3 PFK			5.68e5							0.000
	FUNCTION4 PFK			0.00e0							
	FUNCTION5 PFK			7.95e6							
	FUNCTION1 HXCDPE			0.00e0							
	FUNCTION1 HPCDPE			1.20e3							0.000
	FUNCTION2 HPCDPE			7.70e2							0.000
	FUNCTION3 OCDPE			0.00e0							
	FUNCTION4 NCDPE			0.00e0							
	FUNCTION5 DCDPE			0.00e0							

Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:40 Pacific Daylight Time

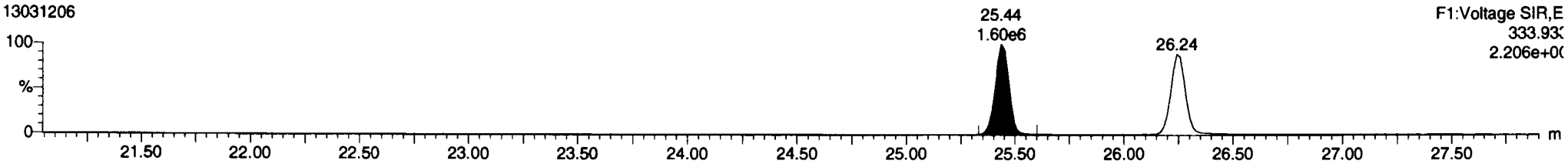
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

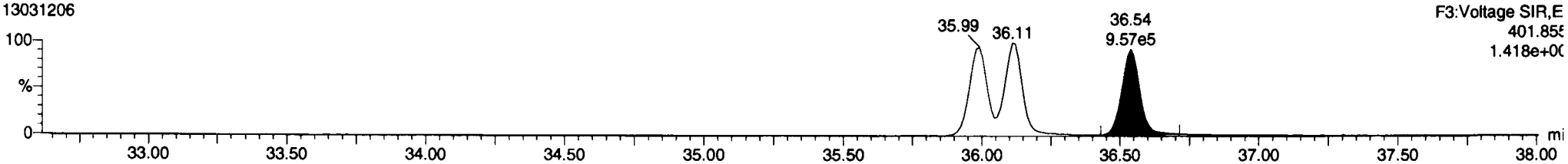
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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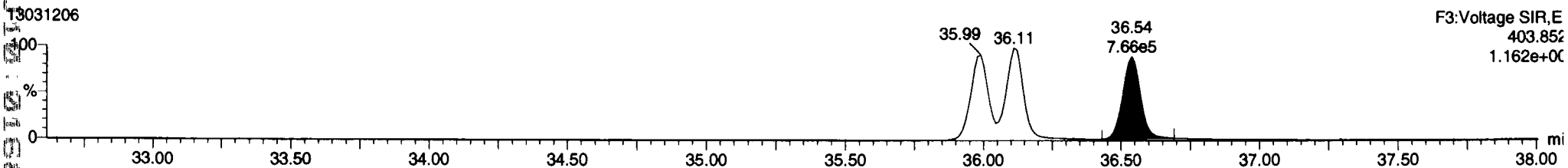

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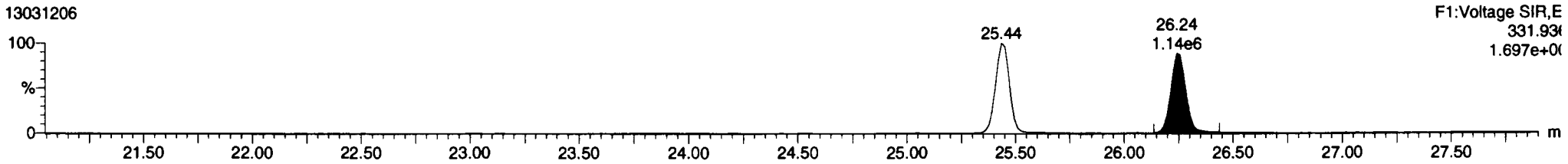
ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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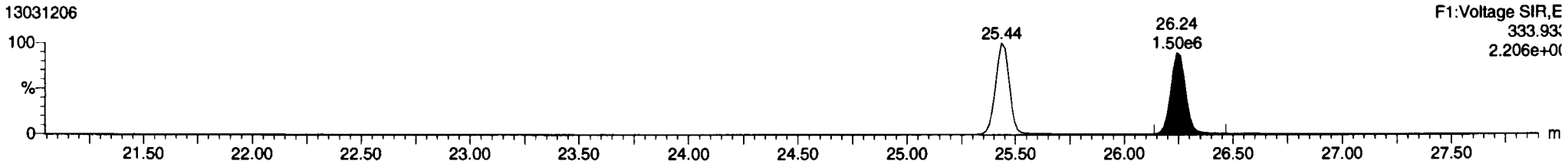
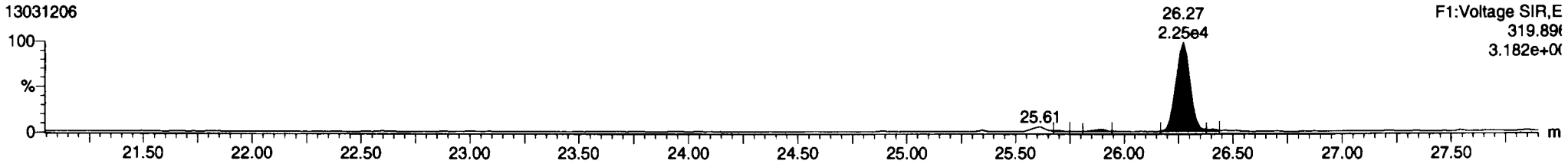
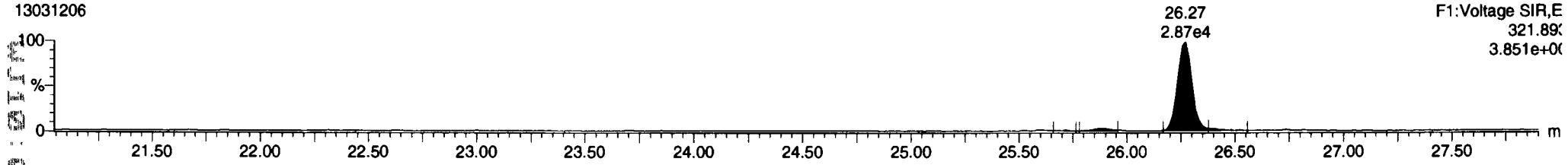


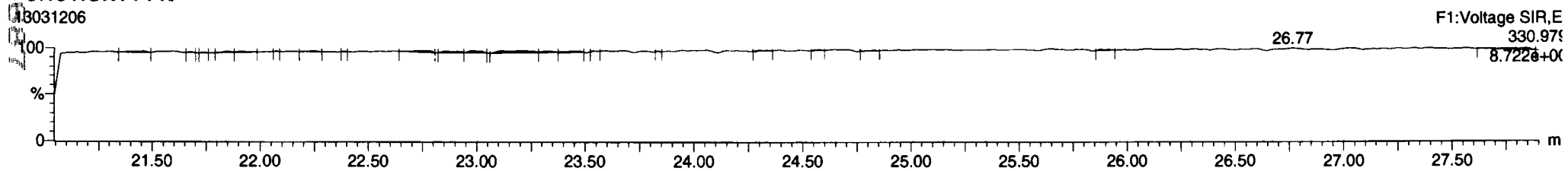
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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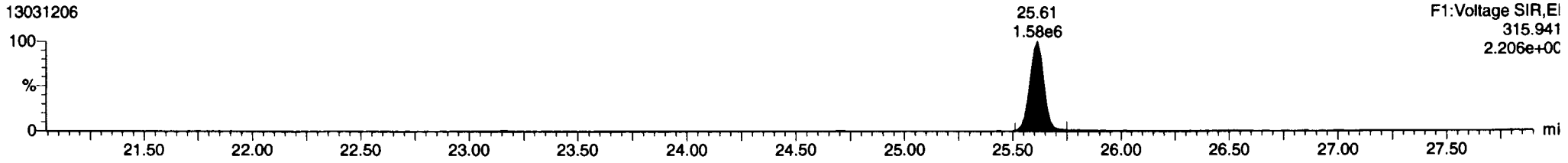
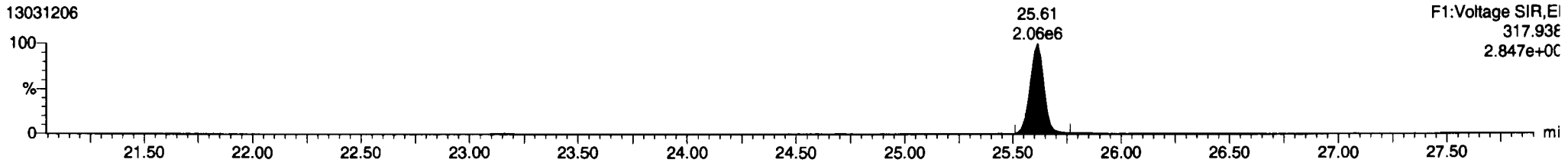
Printed: Wednesday, March 13, 2013 10:42:40 Pacific Daylight Time

ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

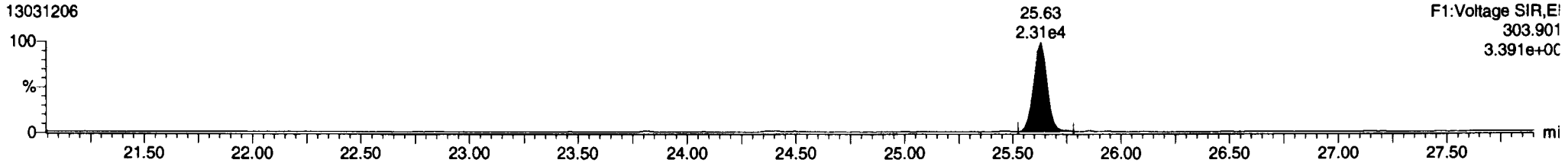
13C-2378-TCDF



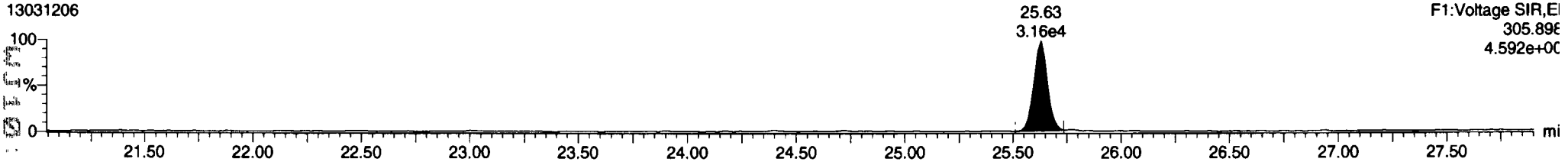
13C-2378-TCDF



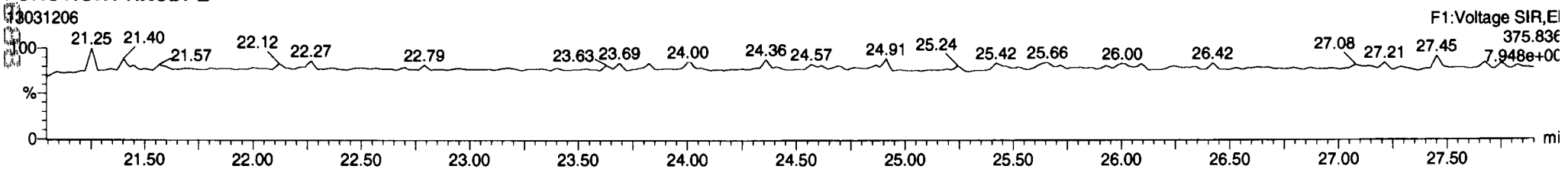
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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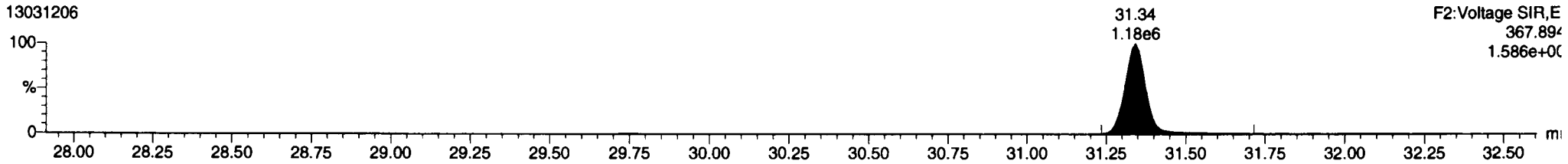
ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD



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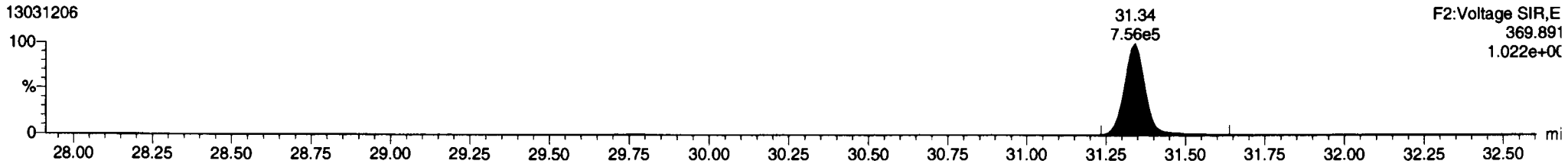
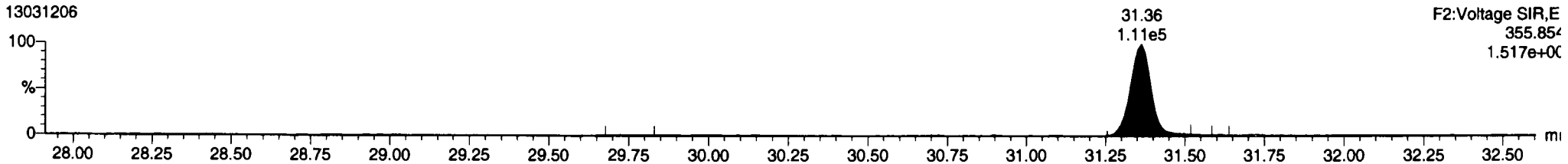
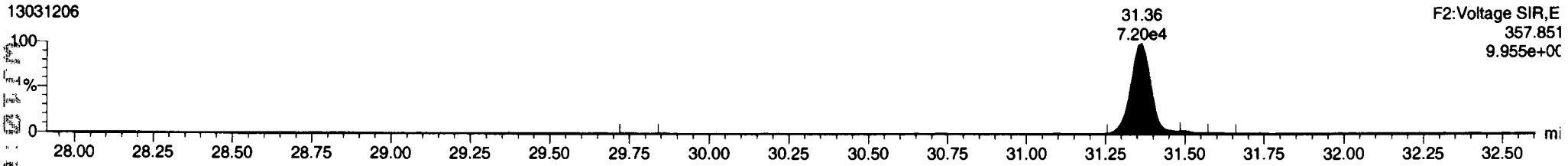


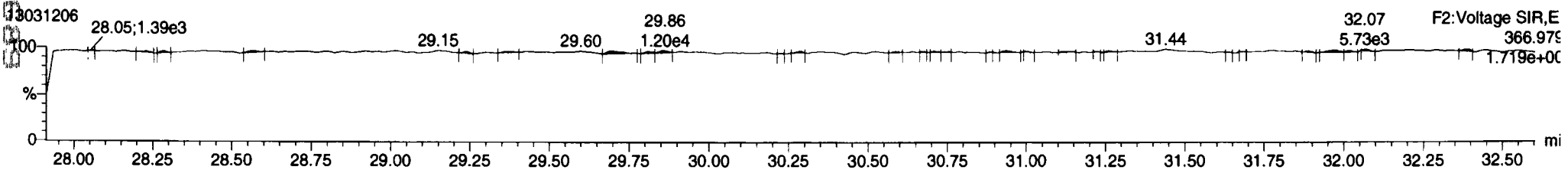
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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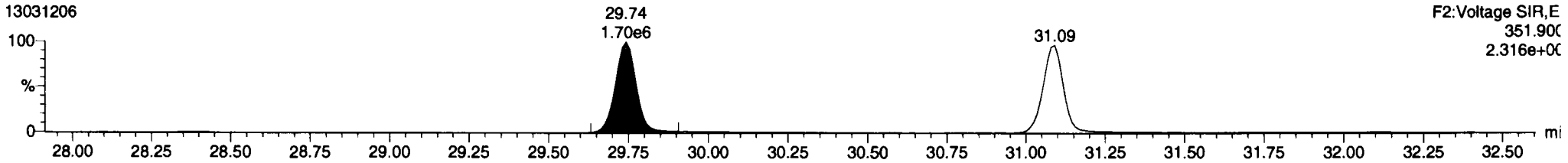
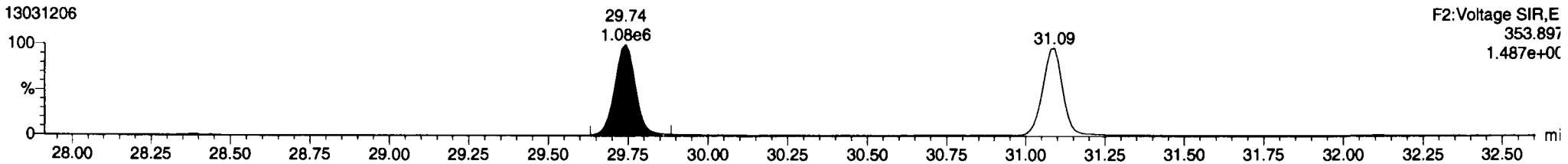
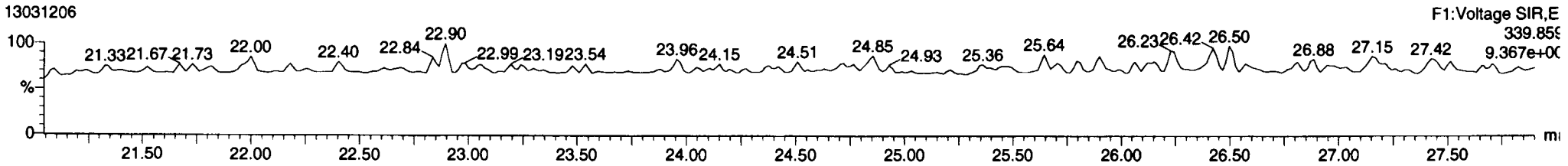
13C-12378-PeCDF



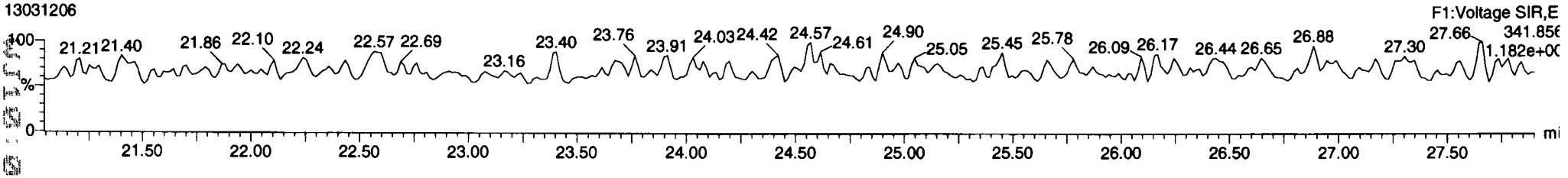
13C-12378-PeCDF



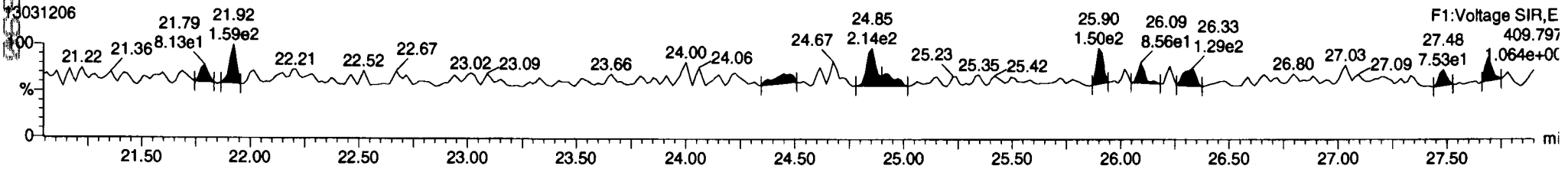
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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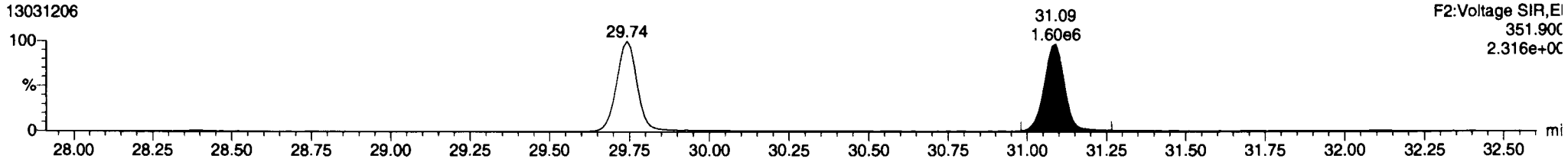
13C-23478-PeCDF



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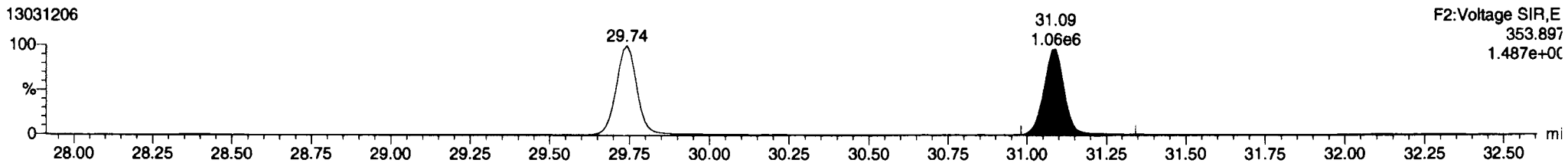
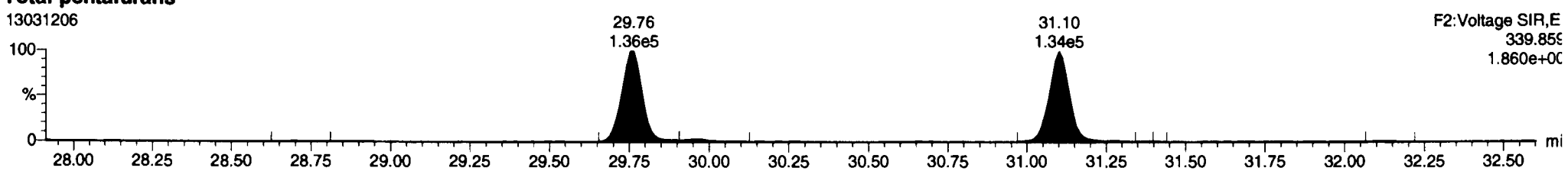
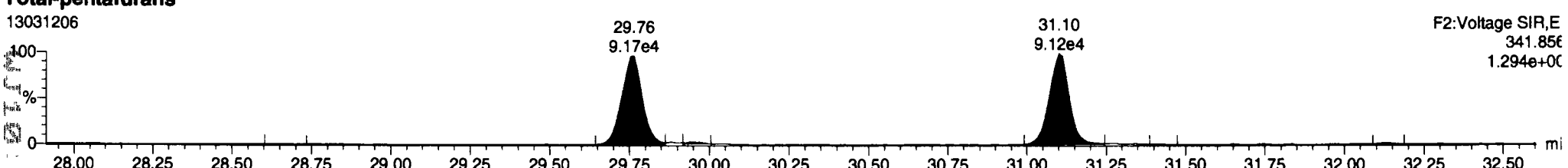


Total-pentafurans



Total-pentafurans



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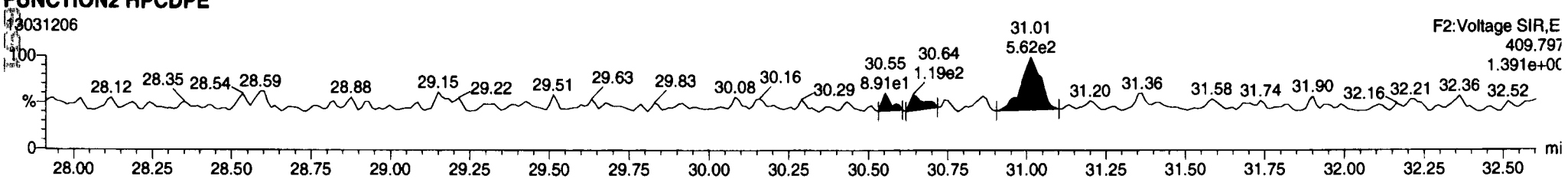

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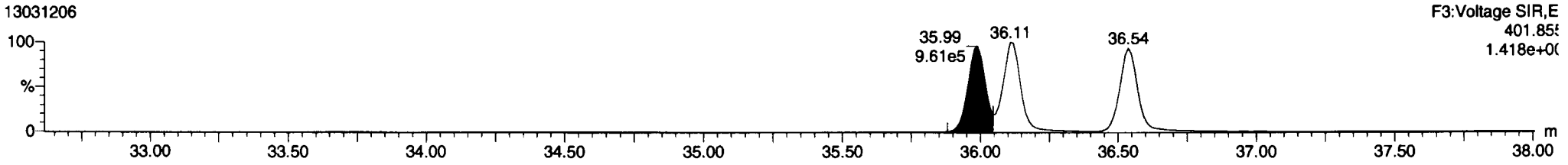
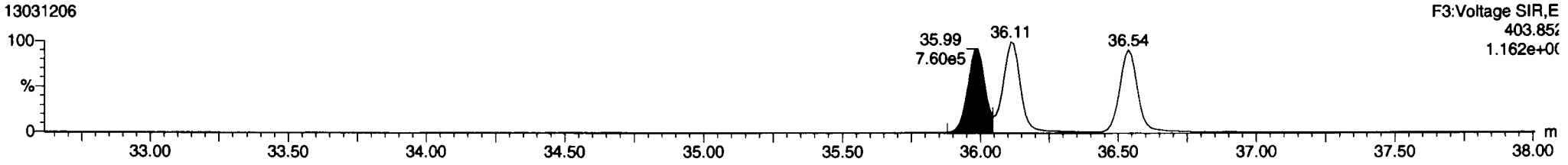
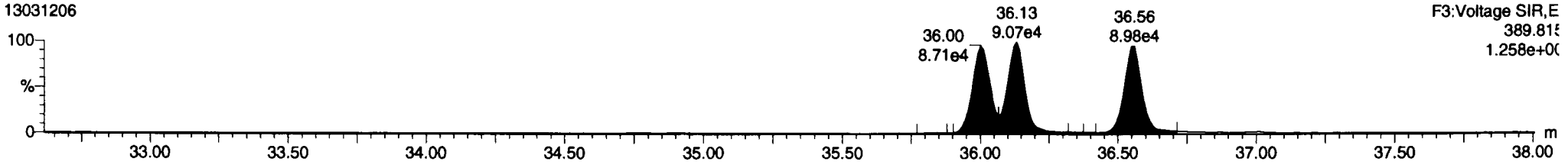
13C-123478-HxCDD



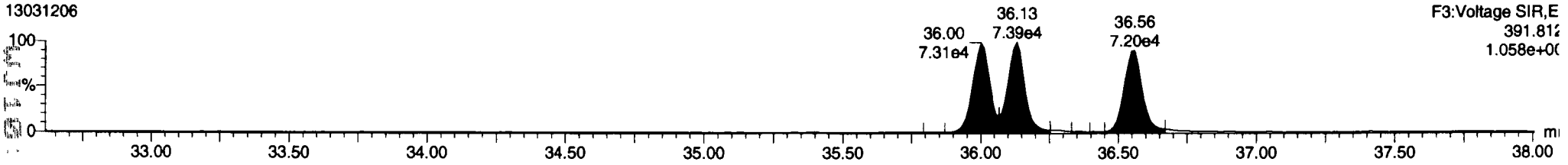
13C-123478-HxCDD



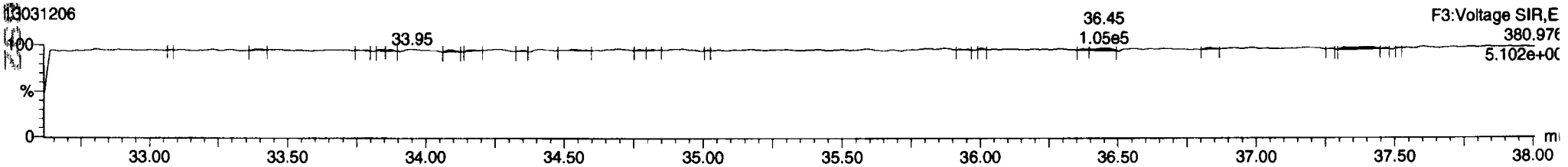
Total-hexadioxins



Total-hexadioxins



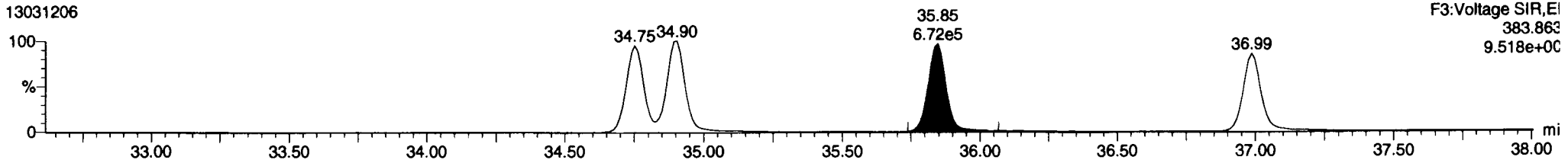
FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:40 Pacific Daylight Time

ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



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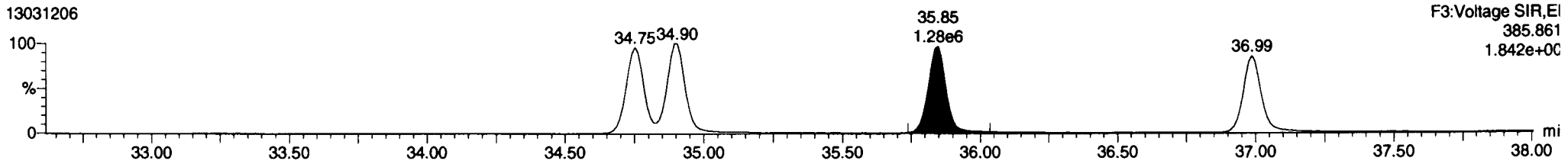
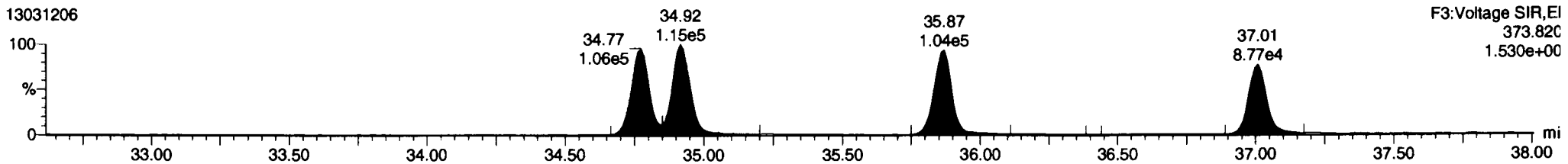
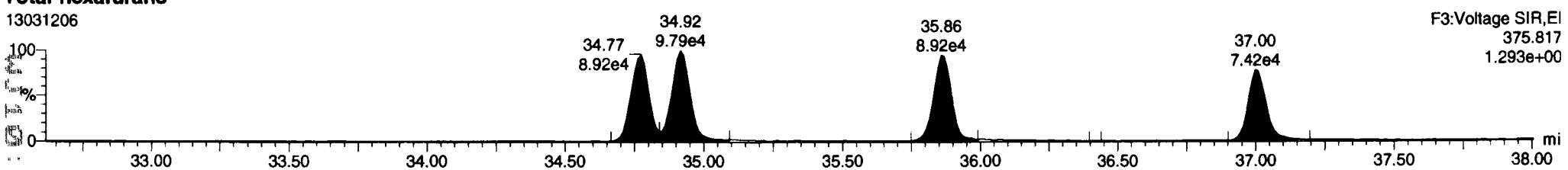


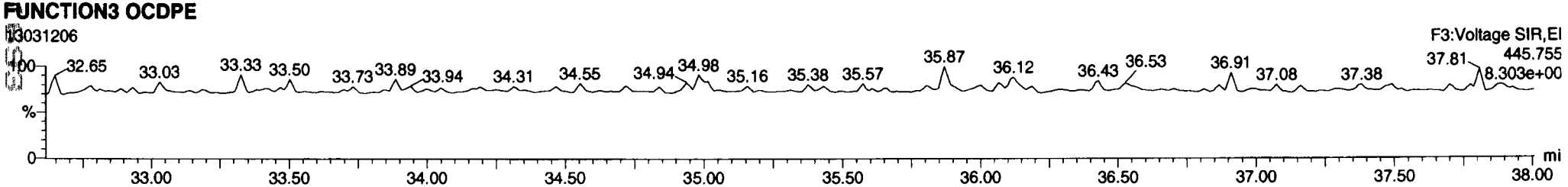
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
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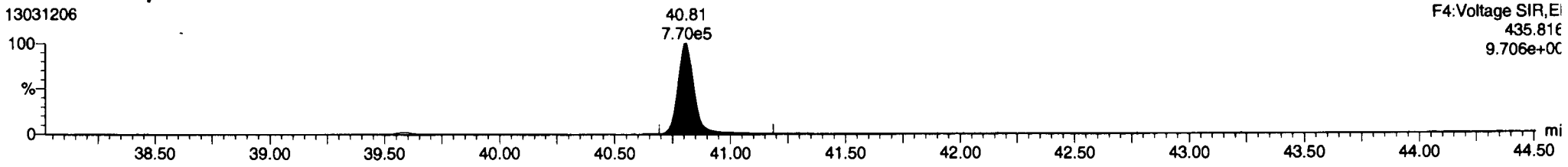
ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDD



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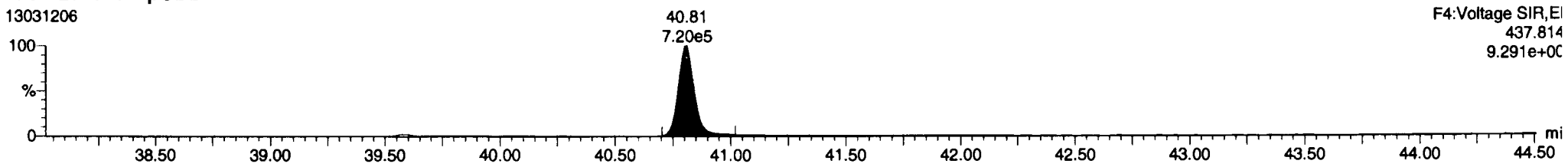
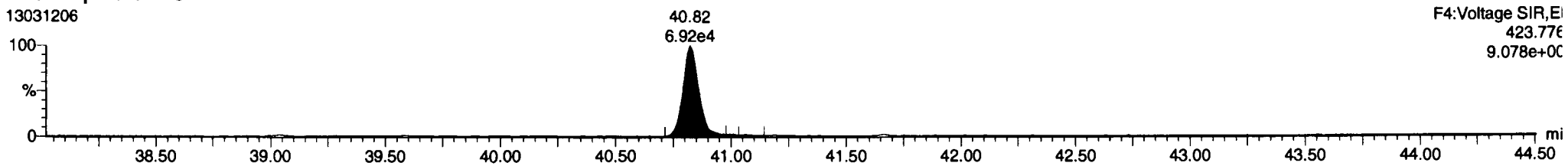


Total-heptadioxins



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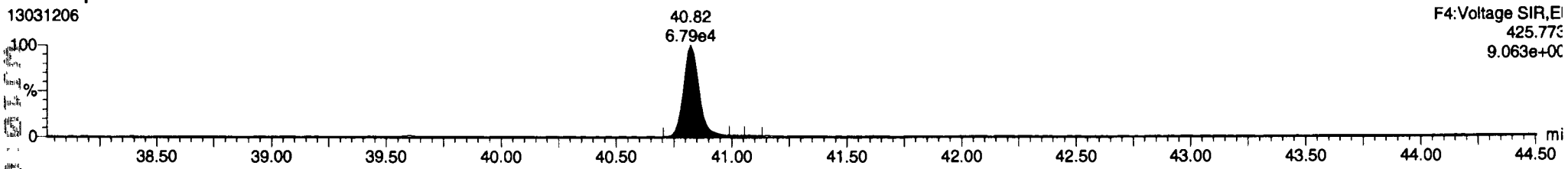
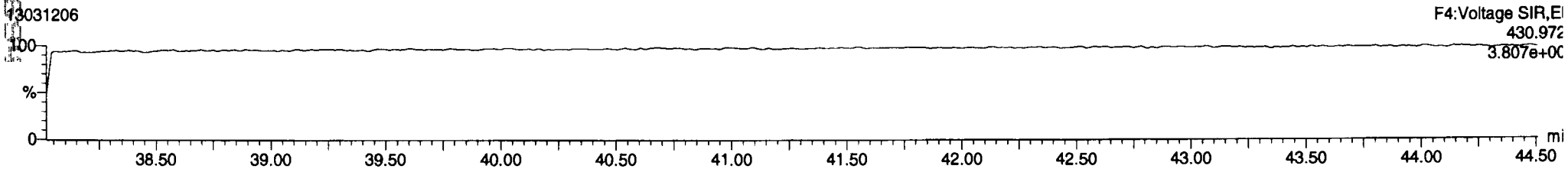


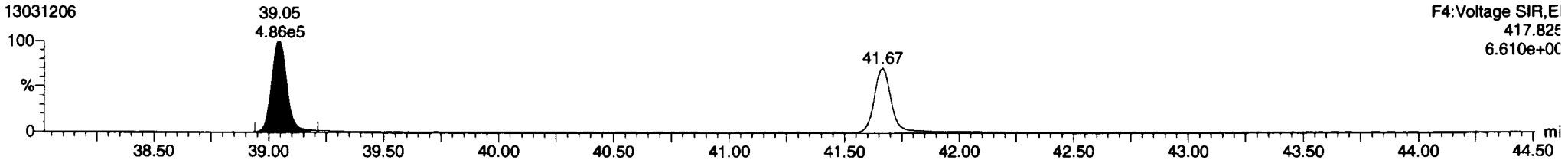
FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:40 Pacific Daylight Time

ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF



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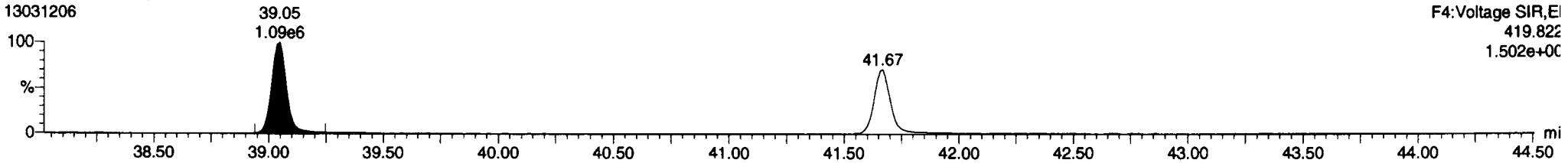
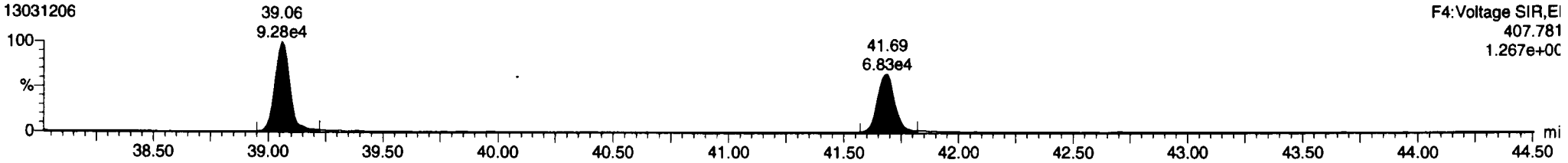
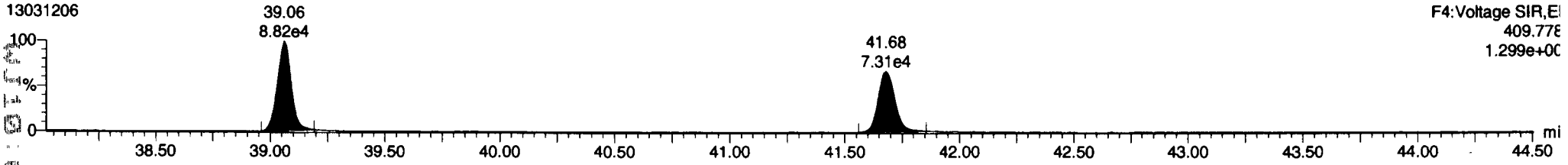


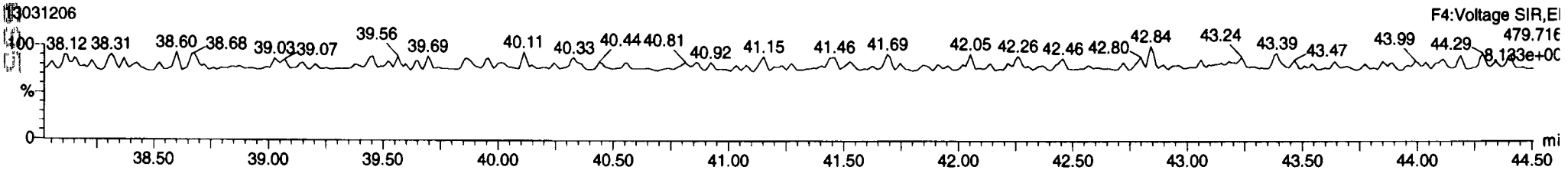
Total-heptafurans



Total-heptafurans



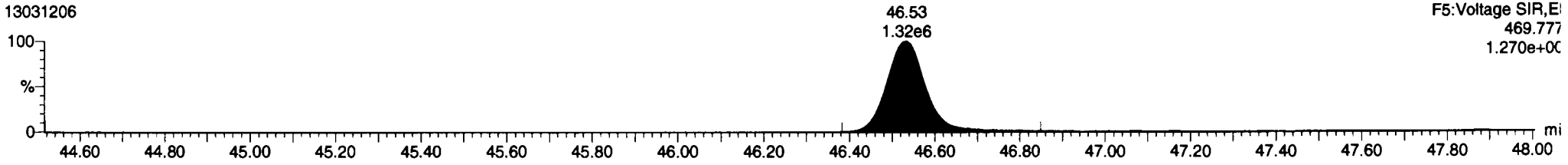
FUNCTION4 NCDPE



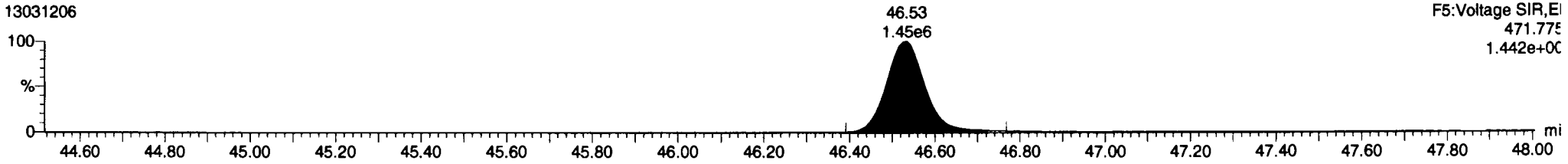
Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:40 Pacific Daylight Time

ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

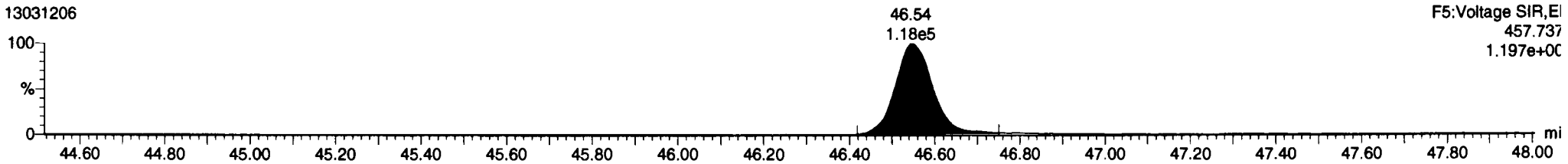
13C-OCDD



13C-OCDD



OCDD



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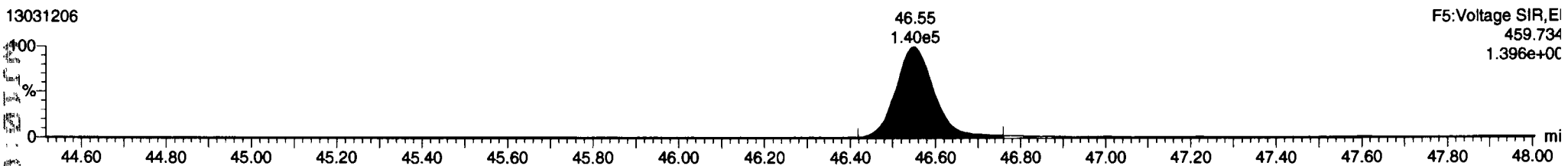
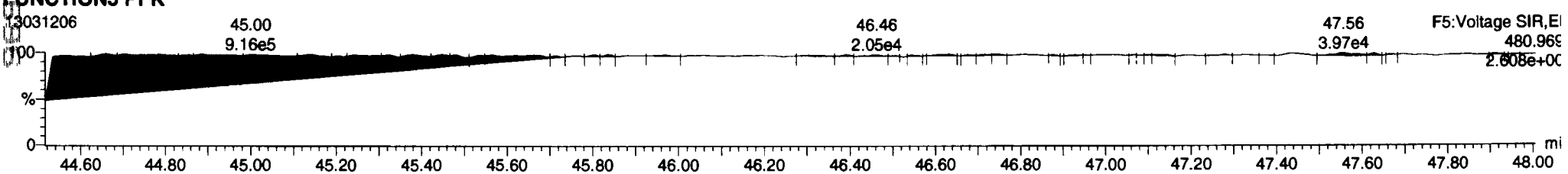


FUNCTION5 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
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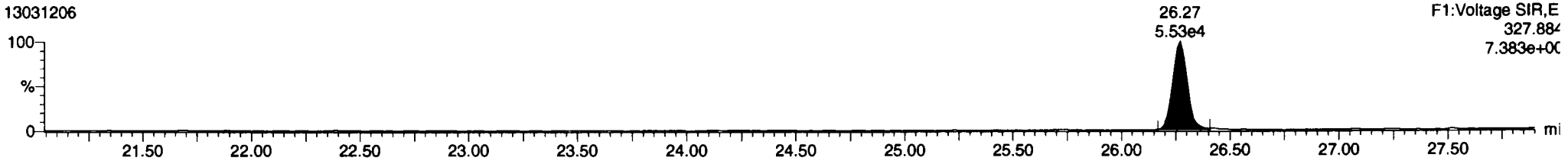
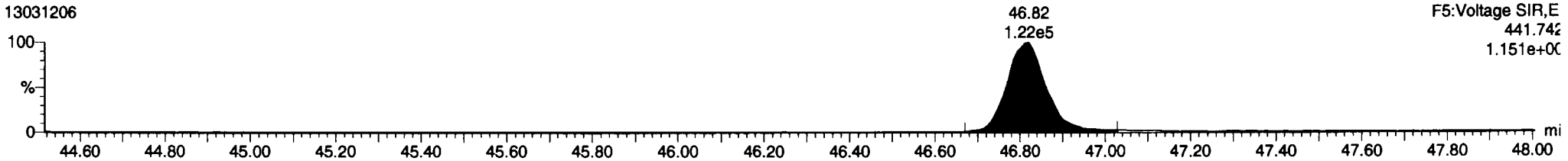
ID: CS2, Name: 13031206, Date: 12-Mar-2013, Time: 16:46:52, Conditions: AUTOSPEC01, User: pk

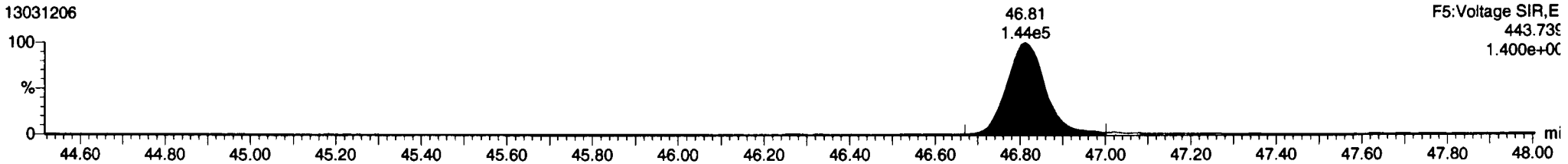
37CL-2378-TCDD



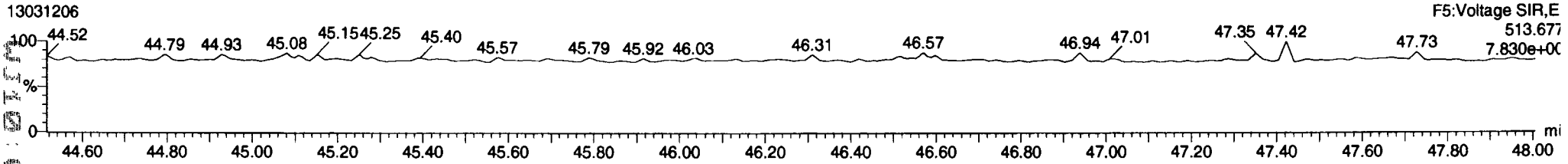
OCDF



OCDF



FUNCTION5 DCDPE



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Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:50 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

ID: CS3, Name: 13031207, Date: 12-Mar-2013, Time: 17:38:09, Conditions: AUTOSPEC01, User: pk

	2378-TCDF	25.630	1.001	9.28e4	1.34e5	0.763	0.695	0.770	641.8	NO	10.378	10.378
	12378-PeCDF	29.764	1.001	5.71e5	3.85e5	0.836	1.484	1.550	1923.4	NO	49.317	49.317
	23478-PeCDF	31.102	1.000	5.50e5	3.68e5	0.851	1.493	1.550	1891.7	NO	50.619	50.619
	123478-HxCDF	34.774	1.001	4.20e5	3.50e5	1.017	1.201	1.240	1033.0	NO	49.502	49.502
	234678-HxCDF	35.870	1.001	4.09e5	3.46e5	1.027	1.182	1.240	956.5	NO	52.502	52.502
	123678-HxCDF	34.927	1.001	4.36e5	3.86e5	1.013	1.132	1.240	1018.1	NO	49.815	49.815
	123789-HxCDF	37.010	1.001	3.29e5	2.81e5	0.929	1.172	1.240	753.1	NO	50.260	50.260
	1234678-HpCDF	39.060	1.000	3.33e5	3.47e5	1.151	0.959	1.050	1389.2	NO	50.447	50.447
	1234789-HpCDF	41.690	1.001	2.47e5	2.51e5	1.149	0.982	1.050	861.7	NO	50.050	50.050
	OCDF	46.813	1.006	4.20e5	4.93e5	0.963	0.851	0.890	1340.7	NO	98.744	98.744
	2378-TCDD	26.272	1.001	8.90e4	1.18e5	0.980	0.754	0.770	626.4	NO	9.796	9.796
	12378-PeCDD	31.365	1.001	4.50e5	2.87e5	0.948	1.565	1.550	1703.1	NO	49.688	49.688
	123478-HxCDD	36.001	1.000	3.51e5	2.79e5	0.941	1.260	1.240	1097.0	NO	49.304	49.304
	123678-HxCDD	36.133	1.000	3.59e5	2.89e5	0.884	1.245	1.240	1041.3	NO	48.525	48.525
	123789-HxCDD	36.560	1.012	3.22e5	2.76e5	0.870	1.168	1.240	932.4	NO	47.896	47.896
	1234678-HpCDD	40.835	1.001	2.52e5	2.41e5	0.948	1.048	1.050	1073.0	NO	47.908	47.908
	OCDD	46.553	1.000	4.09e5	4.66e5	0.969	0.877	0.890	1511.3	NO	94.063	94.063
	13C-2378-TCDF	25.615	1.006	1.24e6	1.62e6	1.318	0.770	0.770	3962.9	NO		95.682
	13C-12378-PeCDF	29.742	1.169	1.40e6	9.17e5	1.026	1.527	1.550	2650.3	NO		99.646
	13C-23478-PeCDF	31.091	1.222	1.29e6	8.41e5	0.966	1.535	1.550	2606.4	NO		97.352
	13C-123478-HxCDF	34.752	0.951	5.15e5	1.02e6	1.123	0.508	0.510	1063.1	NO		105.367
	13C-123678-HxCDF	34.905	0.955	5.56e5	1.07e6	1.216	0.518	0.510	1106.5	NO		103.590
	13C-234678-HxCDF	35.848	0.981	4.77e5	9.25e5	1.106	0.516	0.510	1000.5	NO		97.959
	13C-123789-HxCDF	36.988	1.012	4.37e5	8.70e5	0.995	0.502	0.510	862.1	NO		101.496
	13C-1234678-HpCDF	39.049	1.069	3.61e5	8.11e5	0.896	0.446	0.440	1571.5	NO		101.132
	13C-1234789-HpCDF	41.668	1.140	2.62e5	6.05e5	0.693	0.433	0.440	954.6	NO		96.586
	13C-1234-TCDD	25.451	0.000	9.80e5	1.29e6	1.000	0.761	0.770	2425.4	NO		100.000
	13C-2378-TCDD	26.257	1.032	9.46e5	1.21e6	0.961	0.782	0.770	2233.2	NO		98.898
	13C-12378-PeCDD	31.343	1.232	9.43e5	6.21e5	0.703	1.518	1.550	2418.8	NO		98.059
	13C-123478-HxCDD	35.991	0.985	7.68e5	5.90e5	1.016	1.303	1.240	2629.3	NO		103.295
	13C-123678-HxCDD	36.122	0.989	8.24e5	6.86e5	1.098	1.203	1.240	2617.6	NO		106.278
	13C-1234678-HpCDD	40.813	1.117	5.55e5	5.31e5	0.828	1.046	1.050	2486.5	NO		101.321
	13C-OCDD	46.535	1.274	9.01e5	1.02e6	0.770	0.884	0.890	1703.4	NO		192.749

Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:42:50 Pacific Daylight Time

ID: CS3, Name: 13031207, Date: 12-Mar-2013, Time: 17:38:09, Conditions: AUTOSPEC01, User: pk

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[redacted]	Total-tetrafurans			2.86e5		0.763					32.266
[redacted]	Total-penta1			9.92e5							80.281
[redacted]	Total-pentafurans			1.69e6		0.844					150.069
[redacted]	Total-hexafurans			2.11e6		0.997					267.363
[redacted]	Total-heptafurans			5.81e5		1.150					100.681
[redacted]	Total-Furans			6.08e6		0.970					729.404
[redacted]	Total-tetradioxins			5.06e5		0.980					54.794
[redacted]	Total-pentadioxins			1.58e6		0.948					174.842
[redacted]	Total-hexadioxins			1.52e6		0.898					214.676
[redacted]	Total-heptadioxins			5.54e5		0.948					105.468
[redacted]	Total-Dioxins			4.56e6		0.934					643.868
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[redacted]	37CL-2378-TCDD	26.272	1.032	2.26e5		0.999			1299.4		9.964
[redacted]	FUNCTION1 PFK			2.77e6							
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Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

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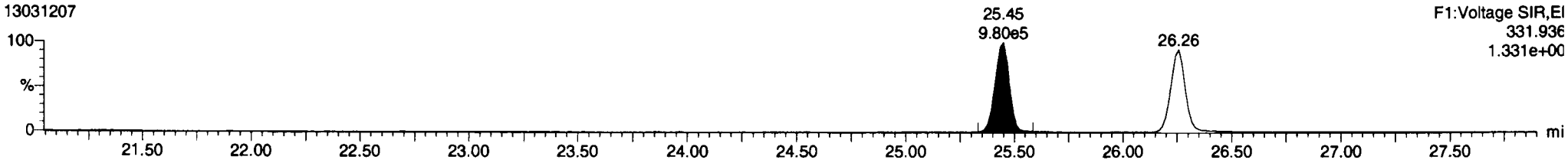
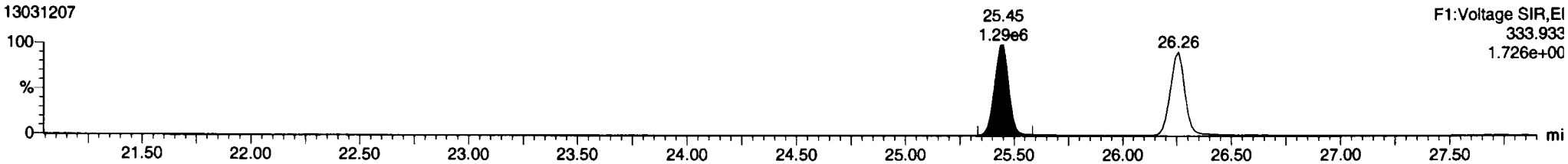
13C-1234-TCDD



13C-1234-TCDD



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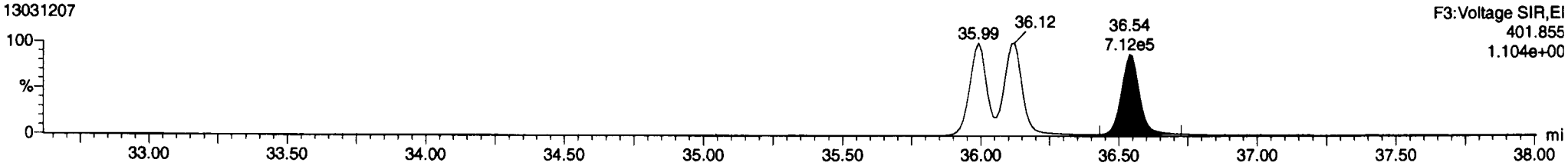

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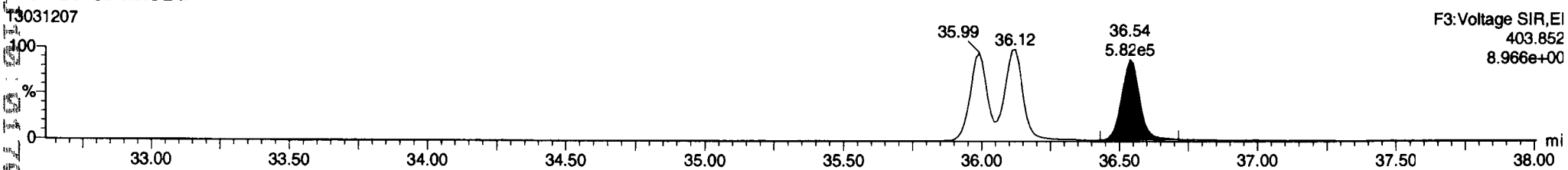

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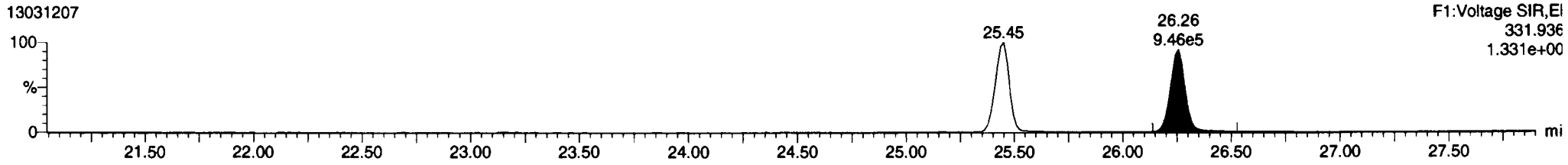
13C-2378-TCDD



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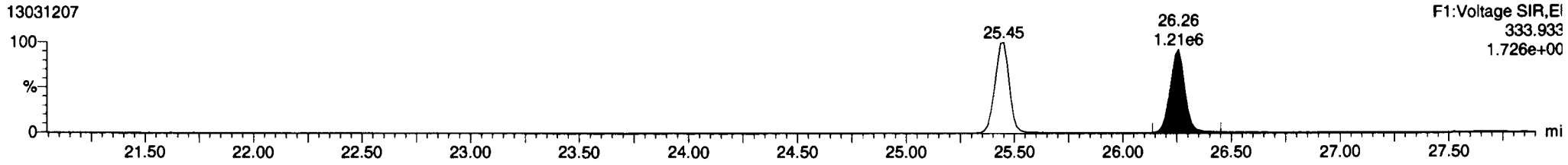
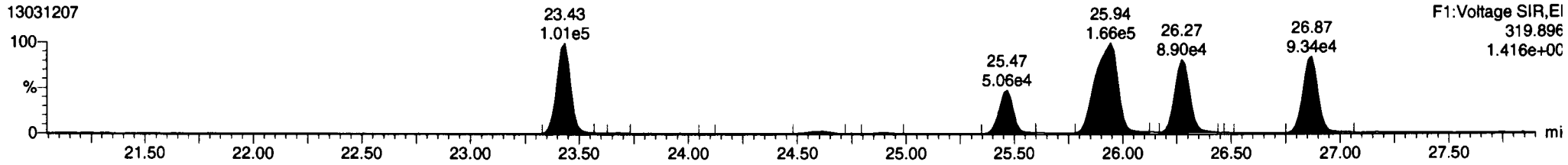
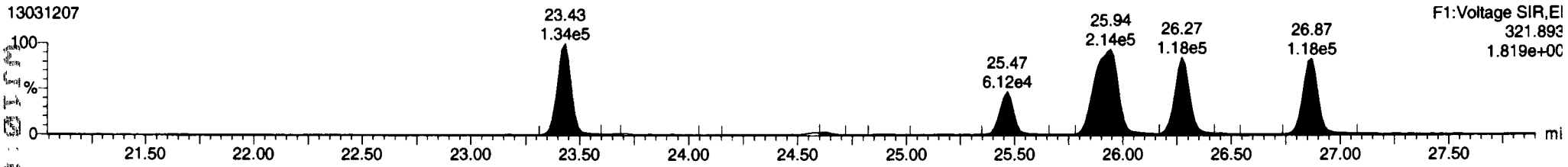


Total-tetradioxins



Total-tetradioxins



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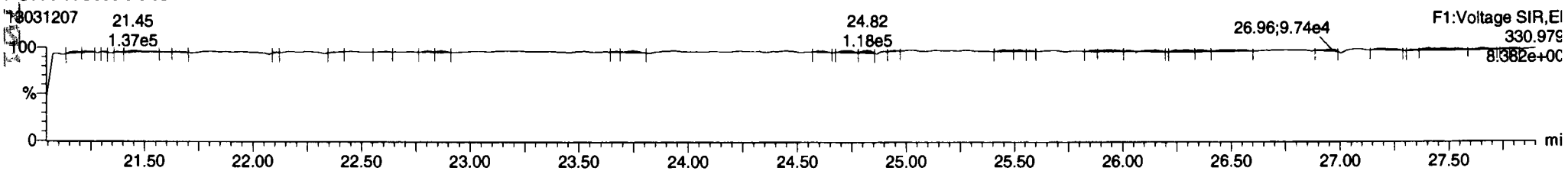

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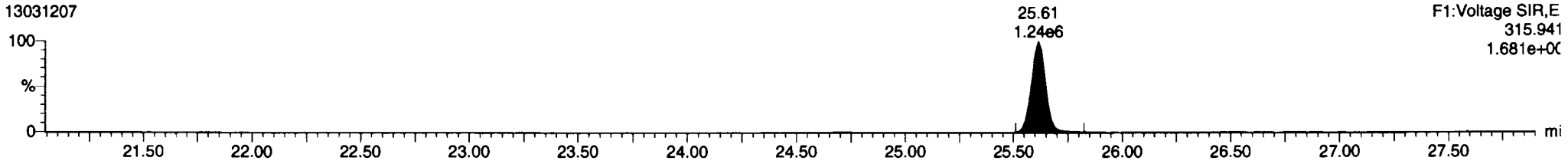
13C-2378-TCDF



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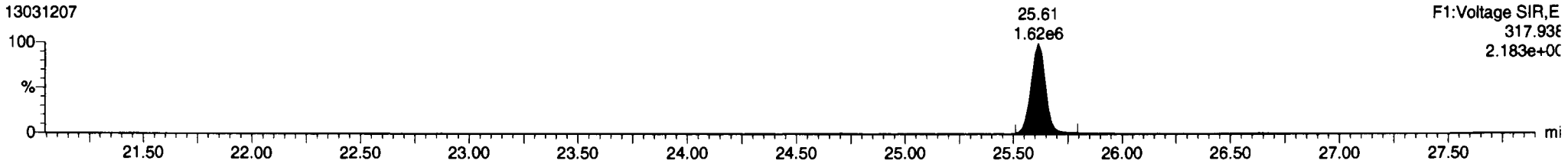
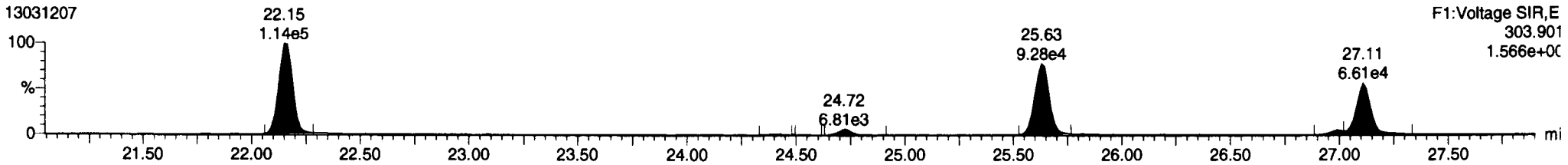
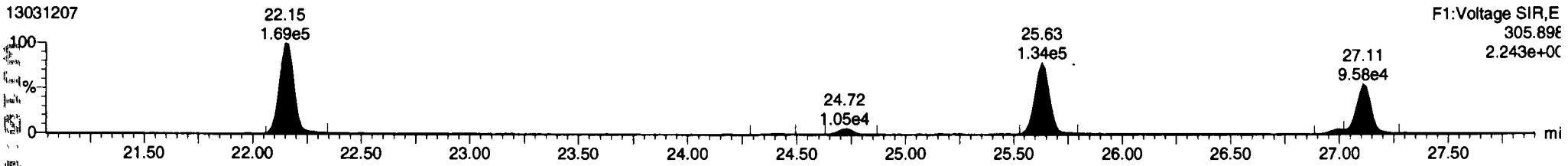


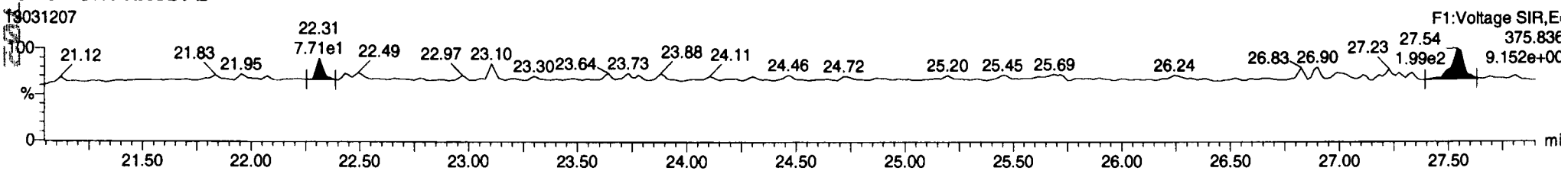
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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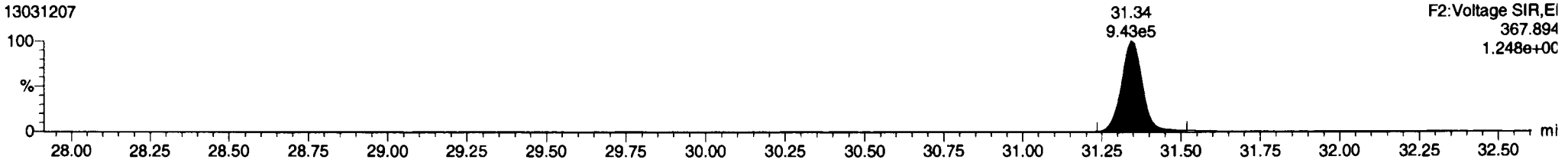
13C-12378-PeCDD



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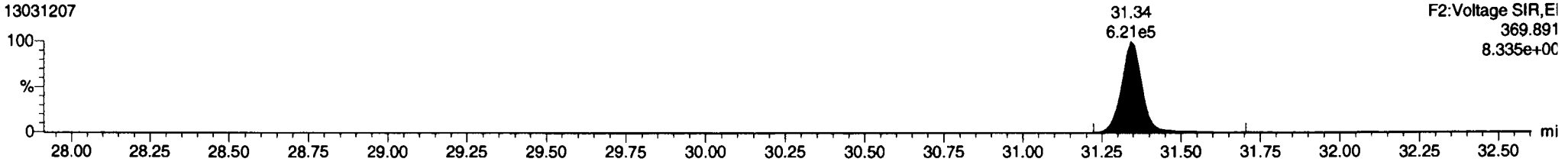
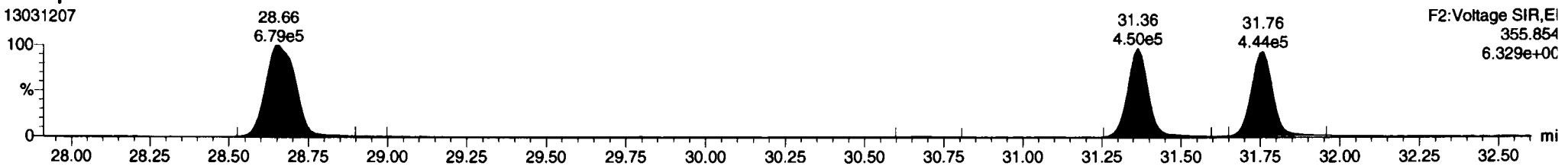
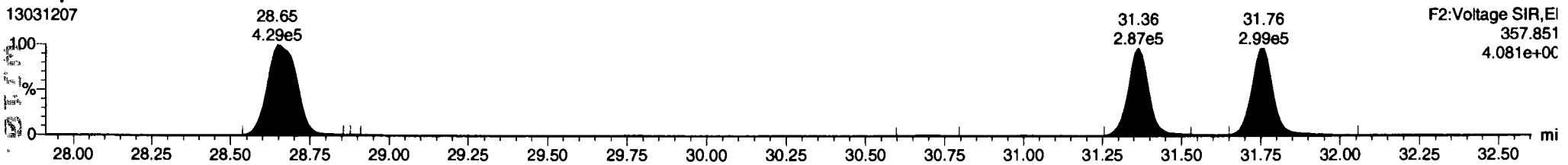


Total-pentadioxins



Total-pentadioxins



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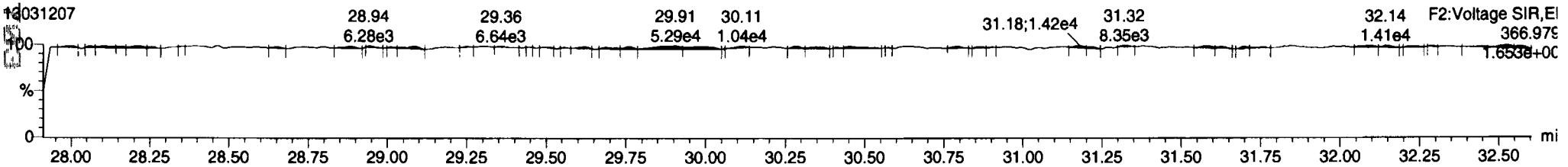

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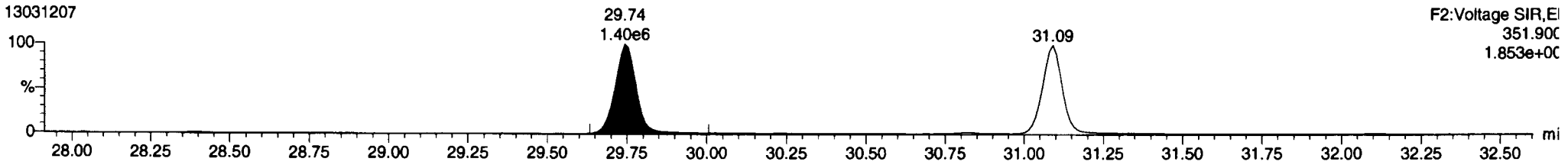
13C-12378-PeCDF



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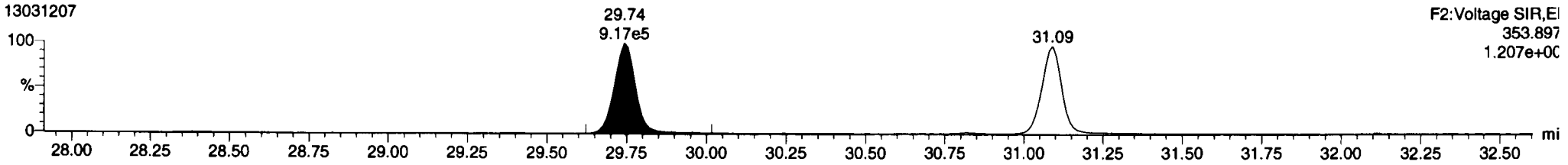

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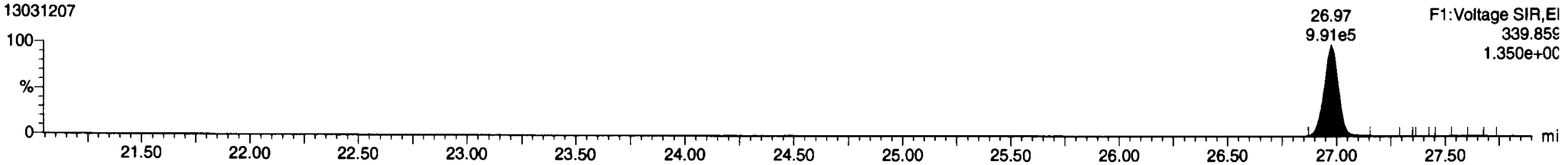
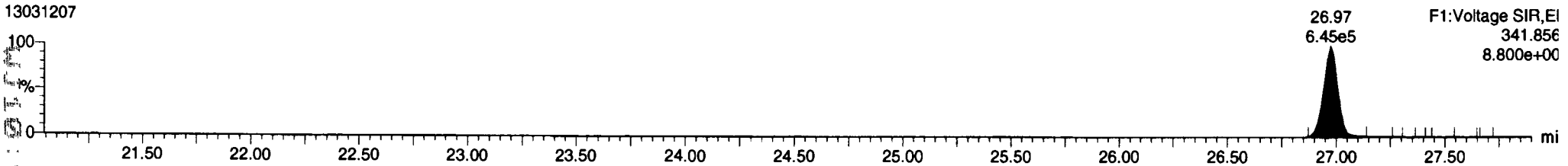
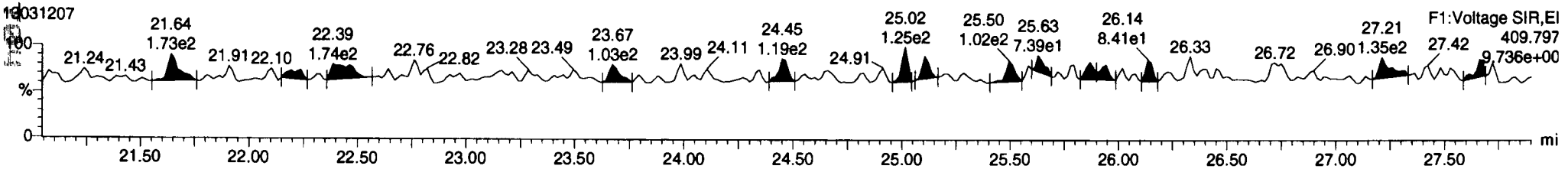


Total-penta1



FUNCTION1 HPCDPE



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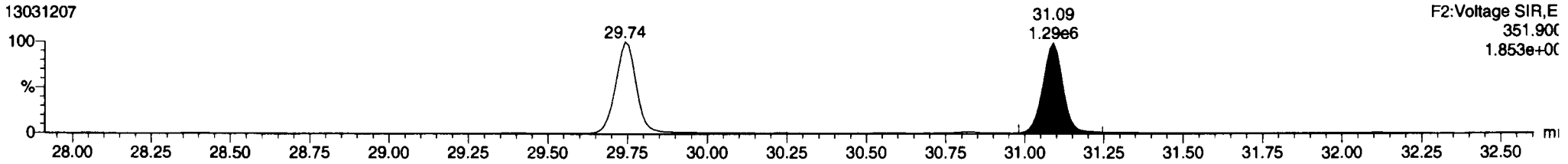
13C-23478-PeCDF



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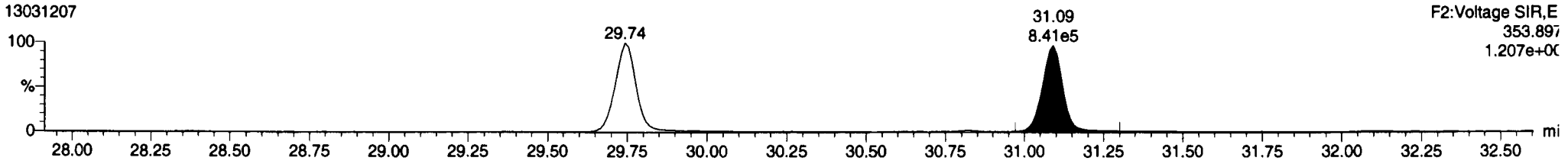
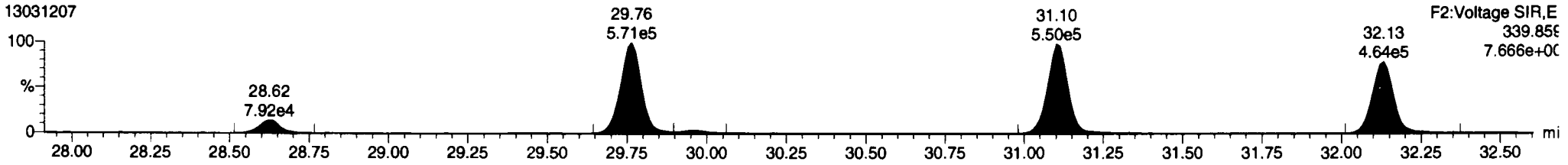
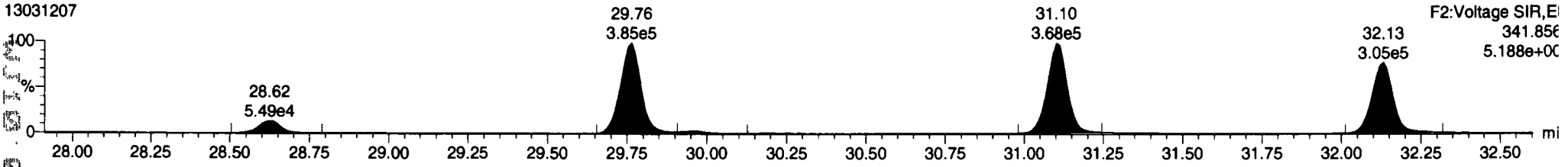


Total-pentafurans



Total-pentafurans



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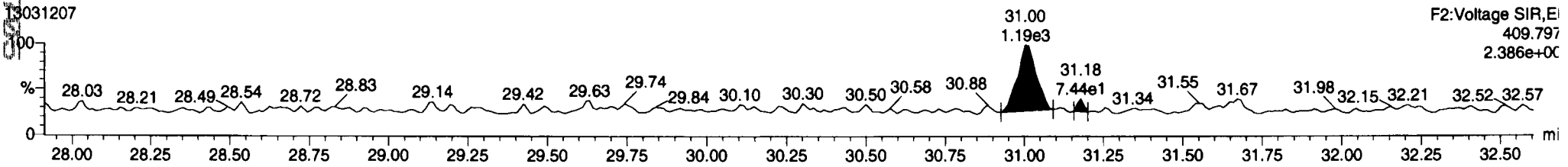

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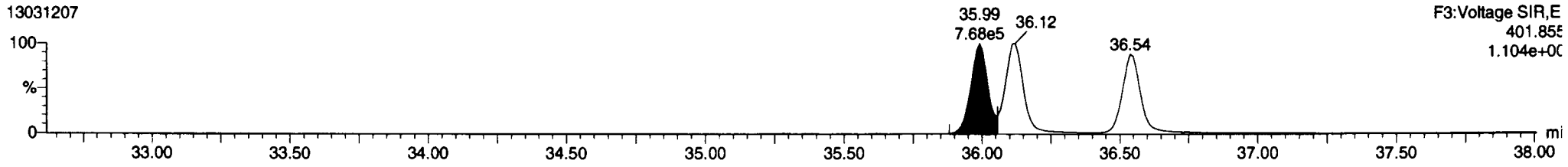
13C-123478-HxCDD



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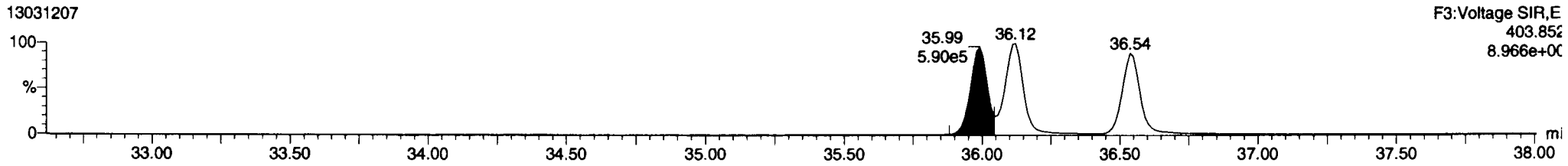
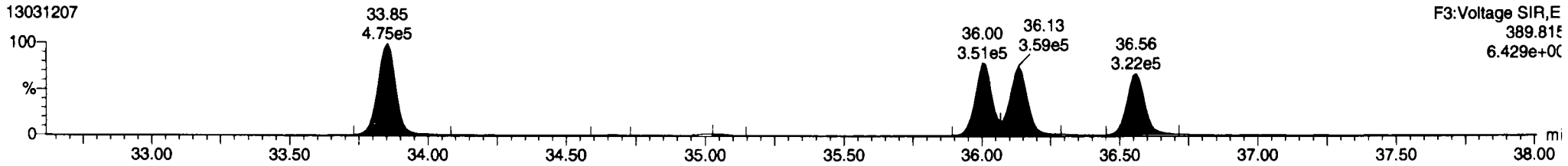
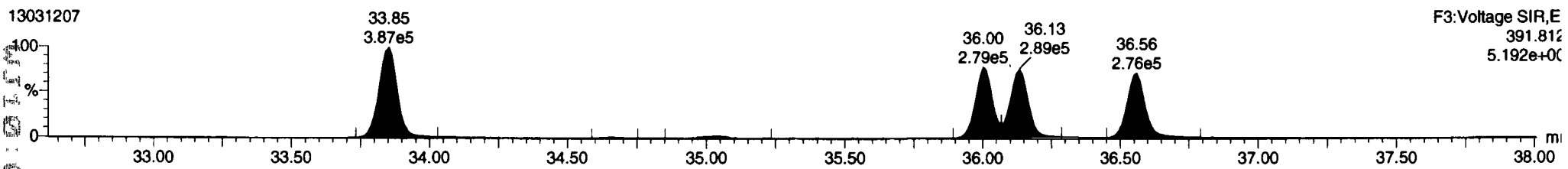


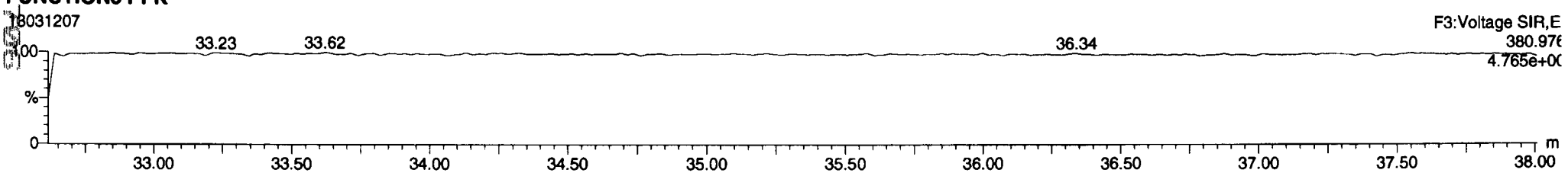
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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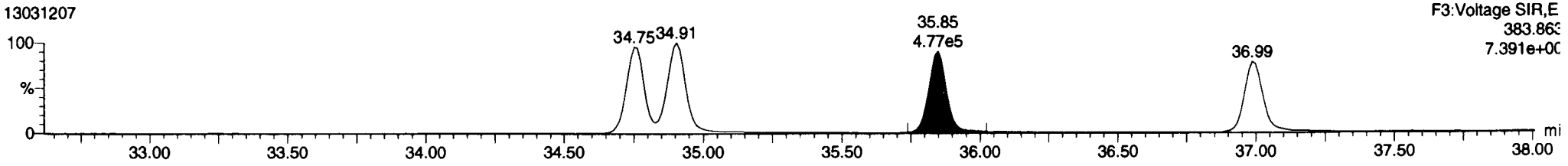
13C-234678-HxCDF



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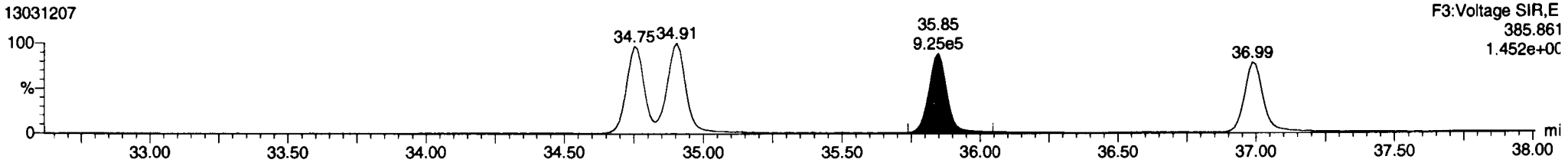
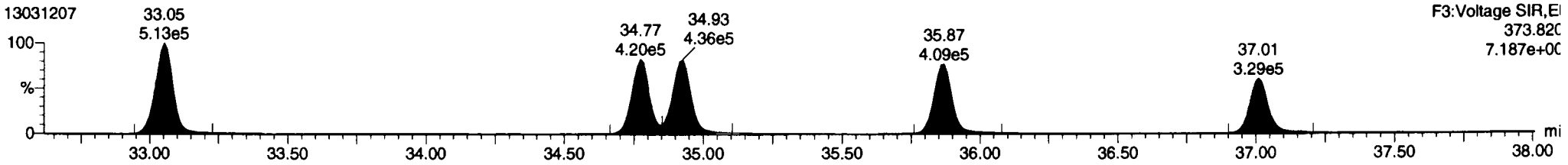
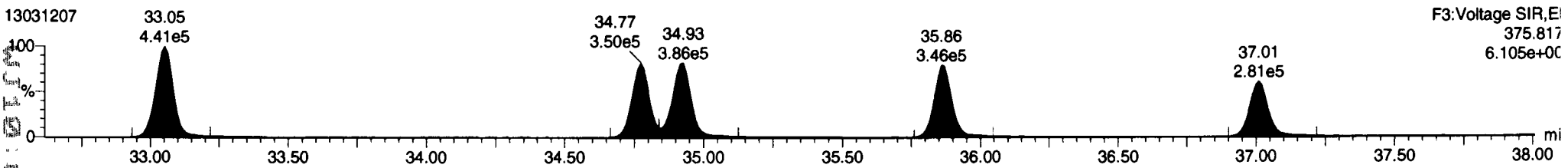


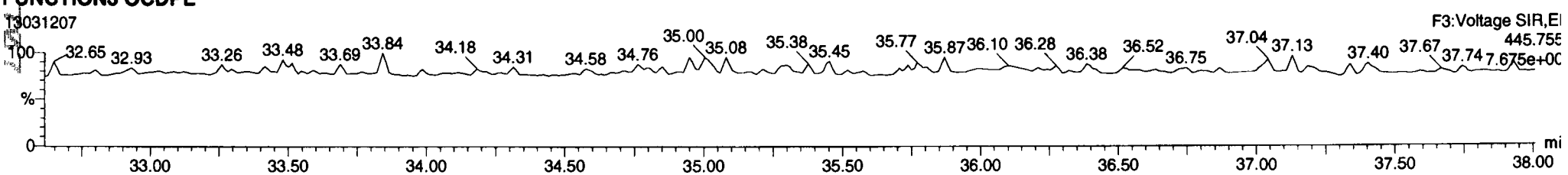
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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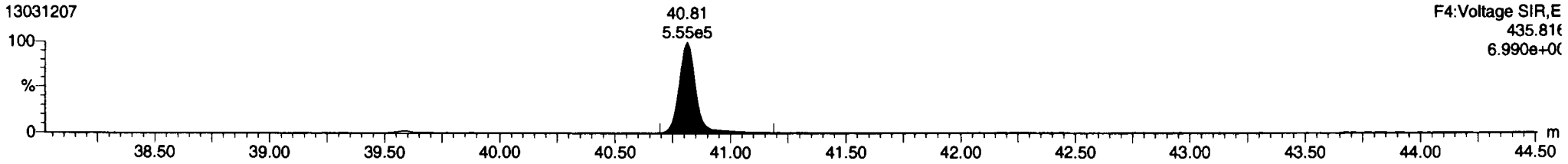
13C-1234678-HpCDD



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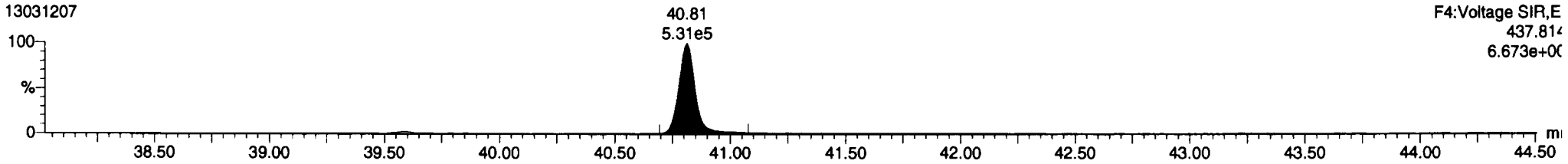
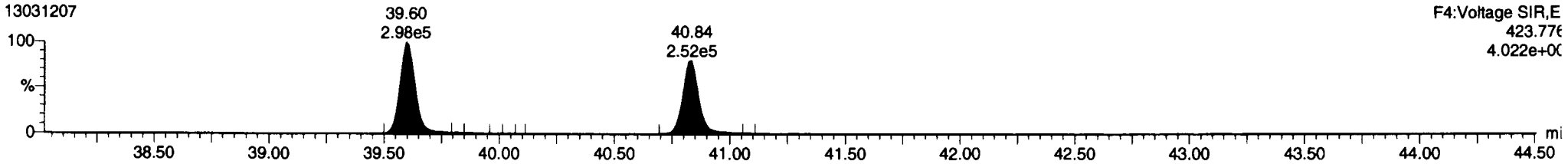
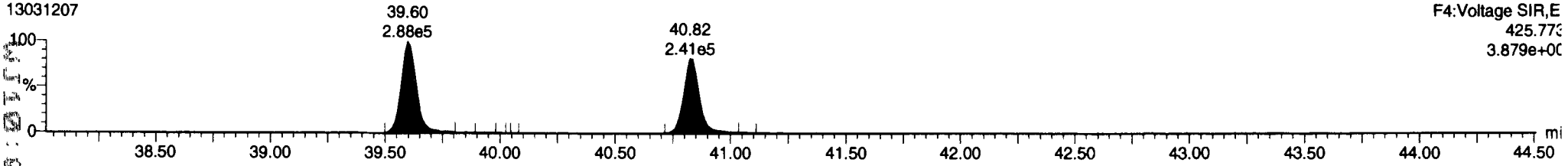


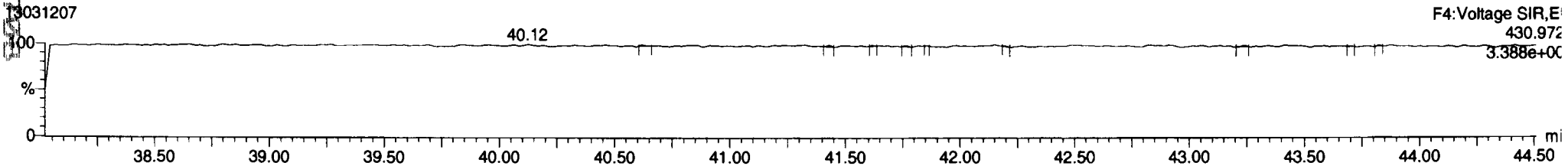
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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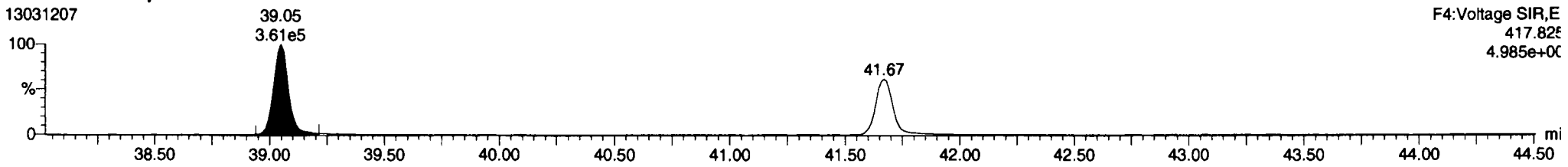
13C-1234678-HpCDF



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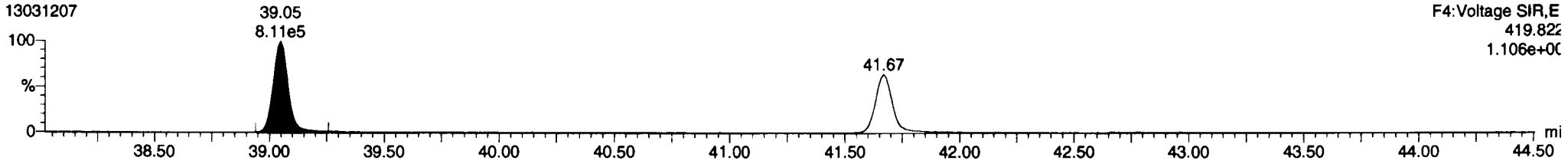

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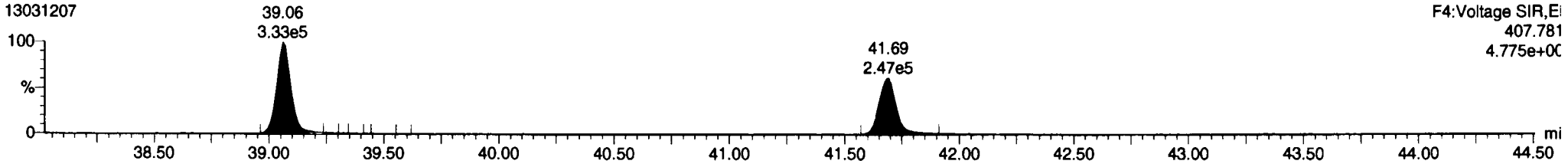

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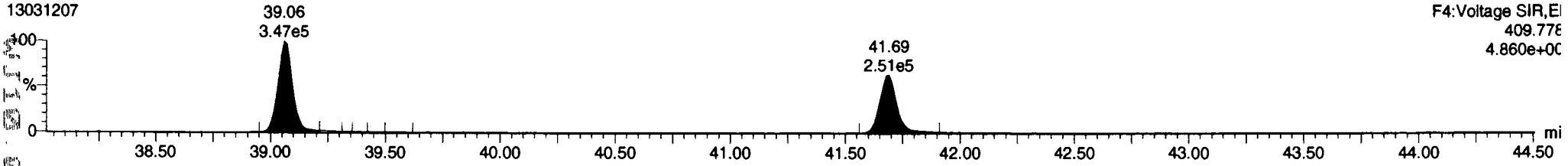

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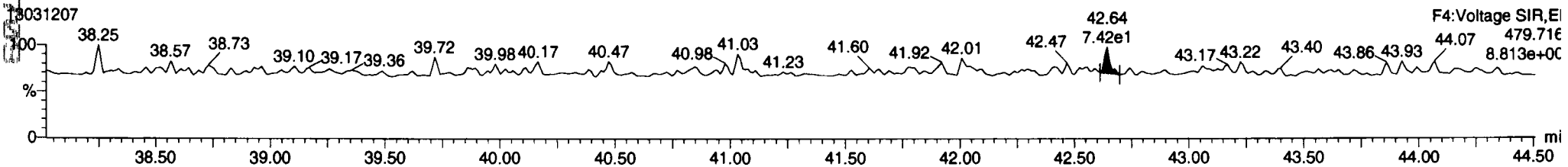

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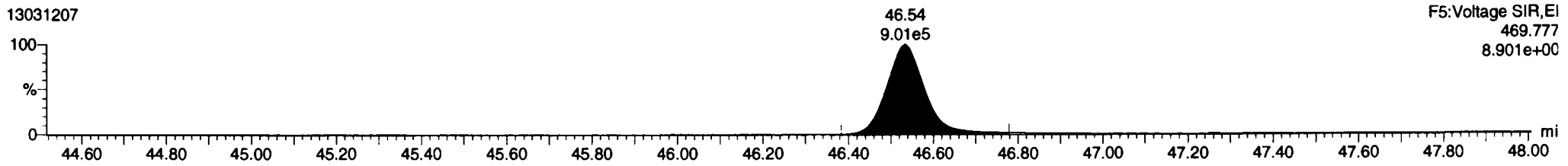
Printed: Wednesday, March 13, 2013 10:42:50 Pacific Daylight Time

ID: CS3, Name: 13031207, Date: 12-Mar-2013, Time: 17:38:09, Conditions: AUTOSPEC01, User: pk

13C-OCDD



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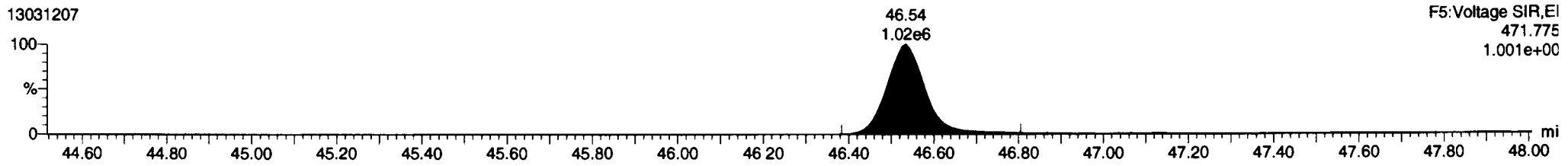

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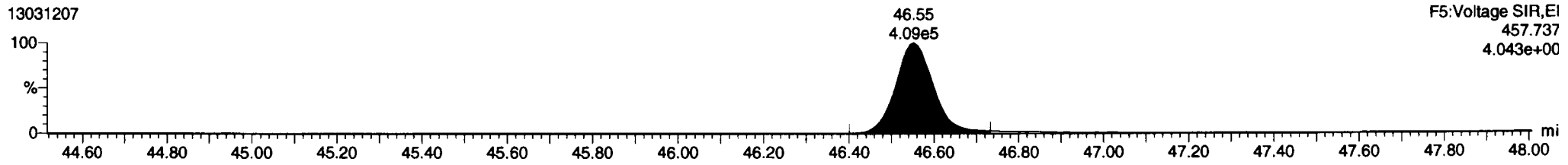

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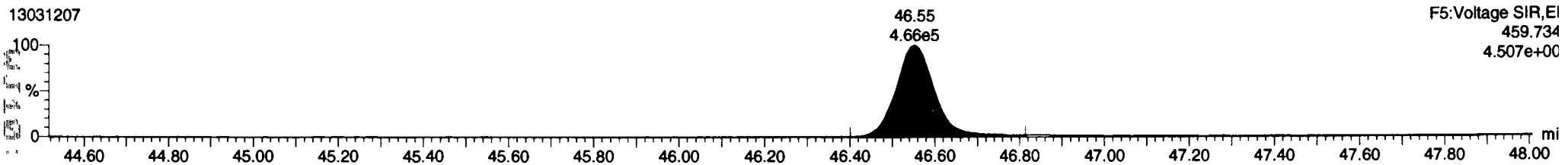

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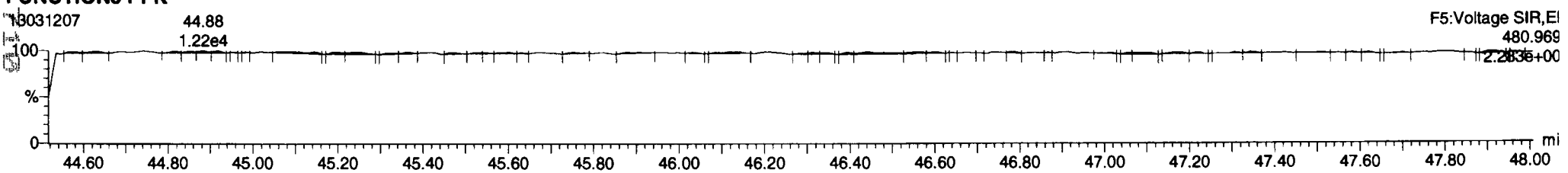

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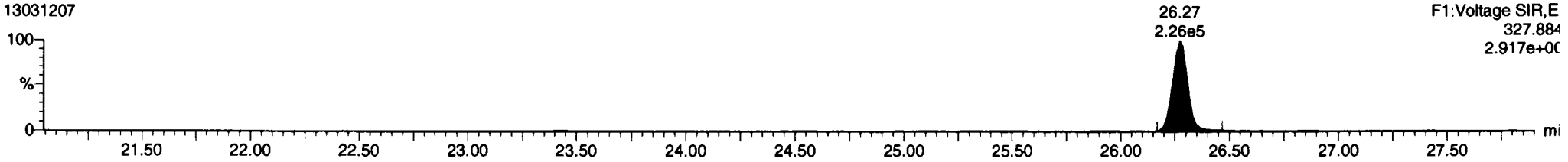
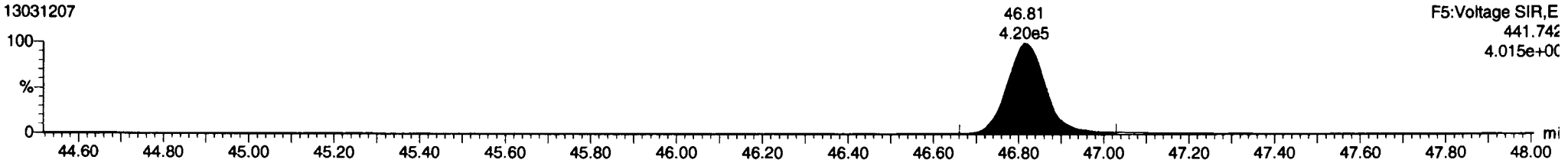
ID: CS3, Name: 13031207, Date: 12-Mar-2013, Time: 17:38:09, Conditions: AUTOSPEC01, User: pk

37CL-2378-TCDD



OCDF



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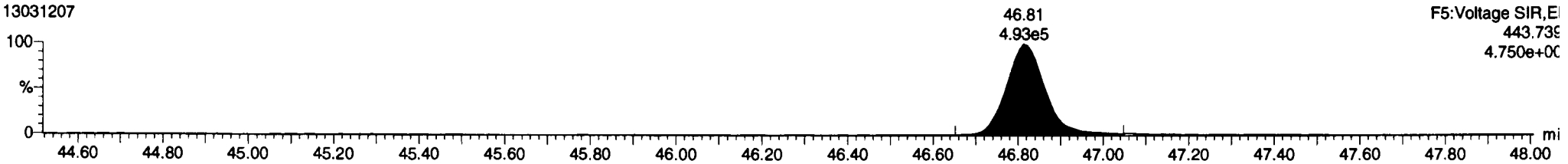
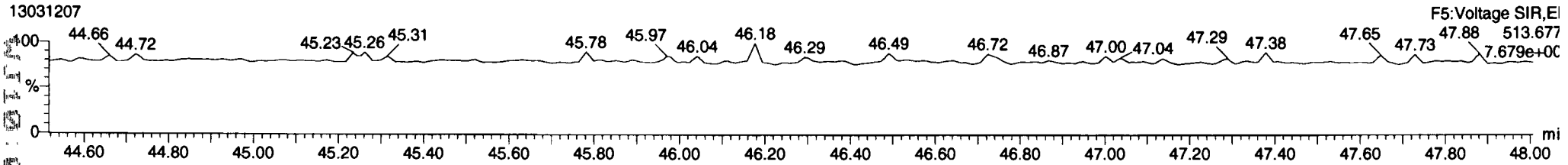


FUNCTION5 DCDPE



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Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:43:00 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

ID: CS4, Name: 13031208, Date: 12-Mar-2013, Time: 18:29:32, Conditions: AUTOSPEC01, User: pk

	2378-TCDF	25.630	1.001	6.78e5	9.47e5	0.763	0.716	0.770	3877.7	NO	40.528	40.528
	12378-PeCDF	29.753	1.000	4.08e6	2.77e6	0.836	1.471	1.550	5541.2	NO	203.619	203.619
	23478-PeCDF	31.102	1.001	4.00e6	2.74e6	0.851	1.460	1.550	5501.8	NO	203.746	203.746
	123478-HxCDF	34.763	1.000	3.27e6	2.79e6	1.017	1.169	1.240	3912.9	NO	203.402	203.402
	234678-HxCDF	35.859	1.001	3.25e6	2.72e6	1.027	1.195	1.240	3863.8	NO	199.956	199.956
	123678-HxCDF	34.916	1.001	3.45e6	3.00e6	1.013	1.152	1.240	4073.3	NO	196.407	196.407
	123789-HxCDF	36.999	1.000	2.66e6	2.32e6	0.929	1.149	1.240	3081.8	NO	210.254	210.254
	1234678-HpCDF	39.059	1.001	2.76e6	2.76e6	1.151	1.001	1.050	6713.9	NO	208.359	208.359
	1234789-HpCDF	41.679	1.001	2.02e6	2.14e6	1.149	0.945	1.050	4254.5	NO	204.030	204.030
	OCDF	46.813	1.006	3.61e6	4.31e6	0.963	0.836	0.890	5120.8	NO	424.269	424.269
	2378-TCDD	26.272	1.001	6.35e5	8.23e5	0.980	0.772	0.770	3230.8	NO	39.299	39.299
	12378-PeCDD	31.354	1.001	3.24e6	2.18e6	0.948	1.485	1.550	11017.3	NO	204.699	204.699
	123478-HxCDD	36.001	1.001	2.74e6	2.23e6	0.941	1.231	1.240	6523.4	NO	196.685	196.685
	123678-HxCDD	36.133	1.001	2.83e6	2.29e6	0.884	1.238	1.240	6106.2	NO	206.692	206.692
	123789-HxCDD	36.549	1.012	2.60e6	2.08e6	0.870	1.249	1.240	6016.6	NO	196.103	196.103
	1234678-HpCDD	40.824	1.001	2.01e6	1.95e6	0.948	1.032	1.050	3860.4	NO	196.416	196.416
	OCDD	46.553	1.001	3.44e6	3.99e6	0.969	0.862	0.890	6725.0	NO	395.487	395.487
	13C-2378-TCDF	25.615	1.007	2.31e6	2.95e6	1.318	0.783	0.770	7935.3	NO		100.421
	13C-12378-PeCDF	29.743	1.169	2.44e6	1.58e6	1.026	1.544	1.550	4254.3	NO		98.827
	13C-23478-PeCDF	31.080	1.222	2.36e6	1.53e6	0.966	1.547	1.550	4247.4	NO		101.383
	13C-123478-HxCDF	34.752	0.951	9.91e5	1.94e6	1.123	0.511	0.510	2407.3	NO		100.804
	13C-123678-HxCDF	34.894	0.955	1.08e6	2.16e6	1.216	0.499	0.510	2643.8	NO		103.089
	13C-234678-HxCDF	35.837	0.981	9.89e5	1.92e6	1.106	0.515	0.510	2480.1	NO		101.702
	13C-123789-HxCDF	36.988	1.012	8.67e5	1.68e6	0.995	0.516	0.510	2060.7	NO		99.036
	13C-1234678-HpCDF	39.037	1.068	7.04e5	1.60e6	0.896	0.441	0.440	2673.2	NO		99.331
	13C-1234789-HpCDF	41.657	1.140	5.43e5	1.23e6	0.693	0.441	0.440	1788.1	NO		98.882
	13C-1234-TCDD	25.436	0.000	1.73e6	2.24e6	1.000	0.773	0.770	3728.2	NO		100.000
	13C-2378-TCDD	26.243	1.032	1.64e6	2.15e6	0.961	0.764	0.770	3357.2	NO		99.171
	13C-12378-PeCDD	31.332	1.232	1.69e6	1.10e6	0.703	1.532	1.550	7274.1	NO		100.000
	13C-123478-HxCDD	35.979	0.985	1.50e6	1.19e6	1.016	1.265	1.240	5153.3	NO		102.117
	13C-123678-HxCDD	36.111	0.988	1.54e6	1.26e6	1.098	1.218	1.240	5175.5	NO		98.523
	13C-1234678-HpCDD	40.802	1.117	1.07e6	1.05e6	0.828	1.014	1.050	3747.3	NO		99.076
	13C-OCDD	46.526	1.273	1.84e6	2.03e6	0.770	0.907	0.890	6488.8	NO		194.599

Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 10:43:00 Pacific Daylight Time

ID: CS4, Name: 13031208, Date: 12-Mar-2013, Time: 18:29:32, Conditions: AUTOSPEC01, User: pk

	13C-123789-HxCDD	36.538	0.000	1.43e6	1.15e6	1.000	1.242	1.240	4823.6	NO	100.000
	Total-tetrafurans			6.91e5		0.763					41.295
	Total-penta1			0.00e0							
	Total-pentafurans			8.31e6		0.844					418.095
	Total-hexafurans			1.27e7		0.997					811.647
	Total-heptafurans			4.79e6		1.150					413.439
	Total-Furans			3.00e7		0.970					2108.773
	Total-tetradioxins			6.55e5		0.980					40.476
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	Total-hexadioxins			8.17e6		0.898					599.549
	Total-heptadioxins			2.02e6		0.948					197.240
	Total-Dioxins			1.75e7		0.934					1438.235
	Total-TEQ			4.76e7							3547.008
	37CL-2378-TCDD	26.272	1.033	1.62e6		0.999			2663.1		40.862
	FUNCTION1 PFK			3.31e6							
	FUNCTION2 PFK			2.71e5							0.000
	FUNCTION3 PFK			7.93e5							0.000
	FUNCTION4 PFK			2.98e5							
	FUNCTION5 PFK			4.66e4							
	FUNCTION1 HXCDPE			1.23e2							0.000
	FUNCTION1 HPCDPE			1.14e3							0.000
	FUNCTION2 HPCDPE			8.79e3							0.000
	FUNCTION3 OCDPE			0.00e0							
	FUNCTION4 NCDPE			8.35e1							0.000
	FUNCTION5 DCDPE			0.00e0							

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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

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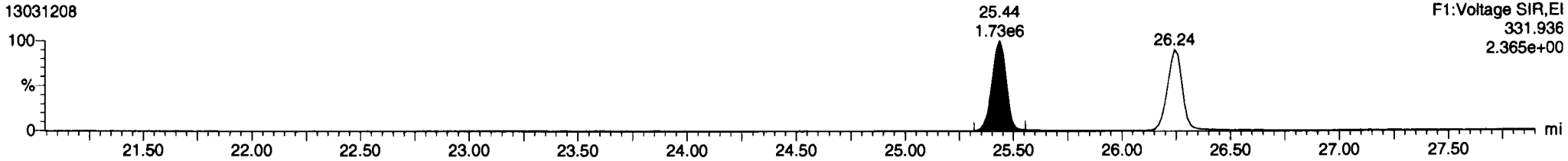
13C-1234-TCDD



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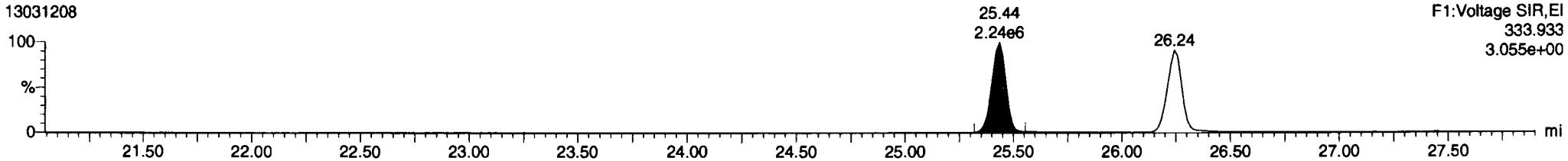

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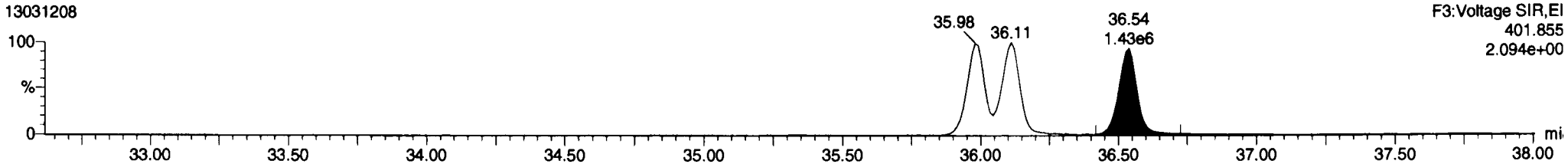

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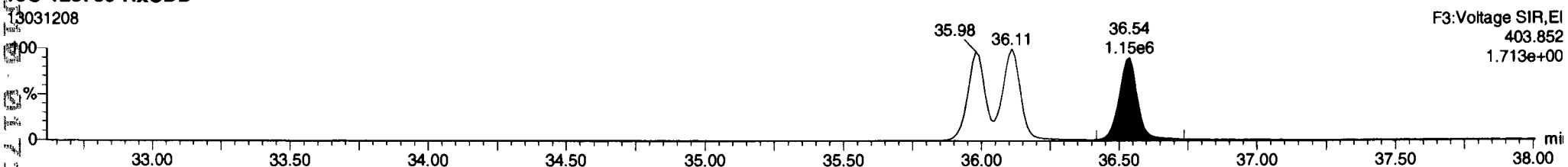

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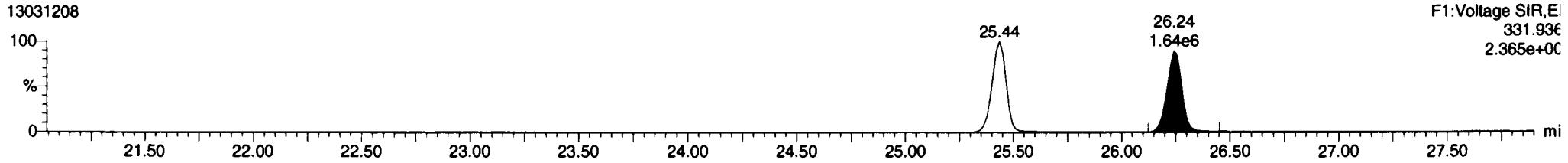
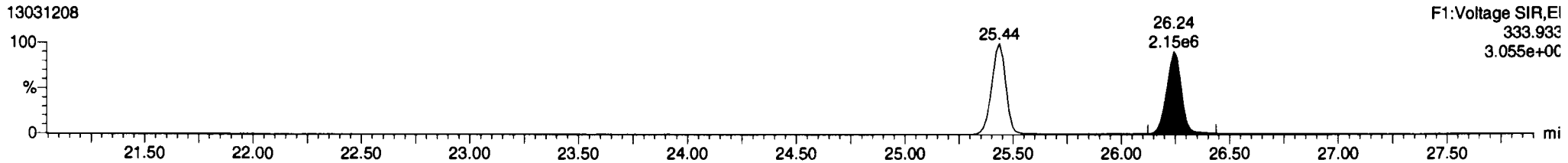
13C-2378-TCDD



13C-2378-TCDD



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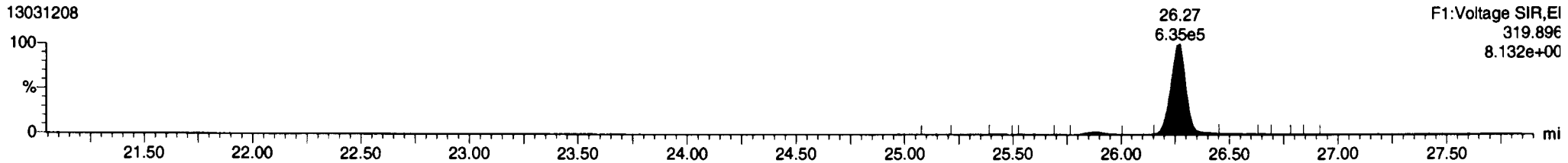
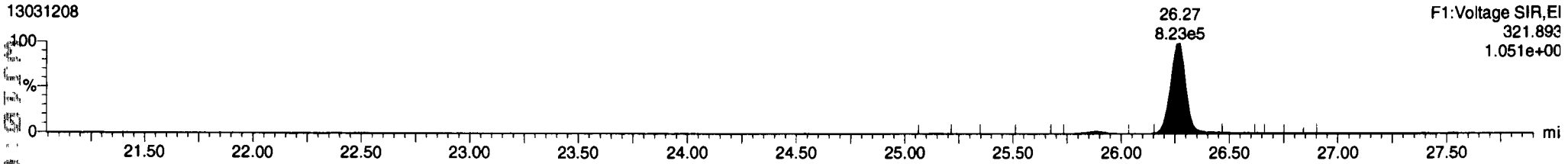
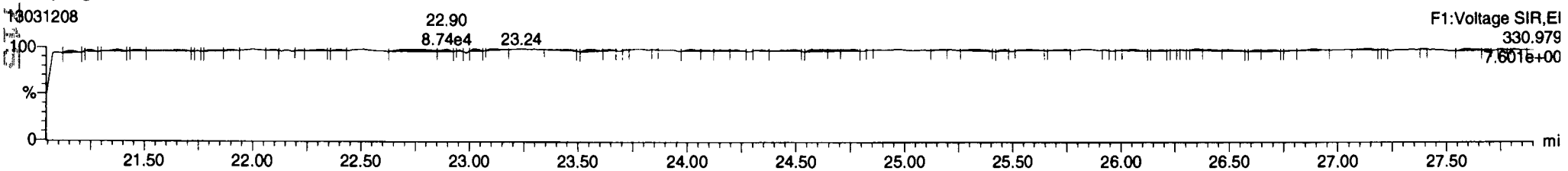


Total-tetradioxins



FUNCTION1 PFK



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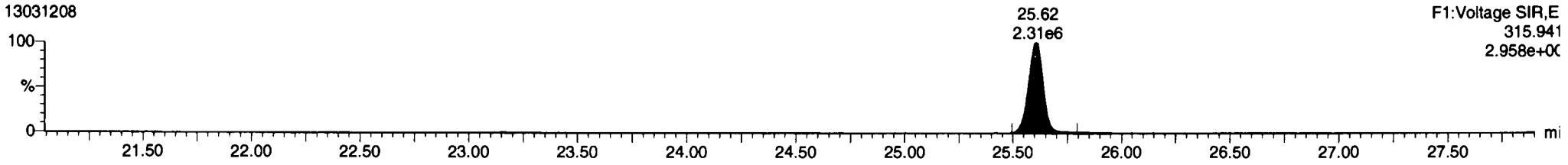
ID: CS4, Name: 13031208, Date: 12-Mar-2013, Time: 18:29:32, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF



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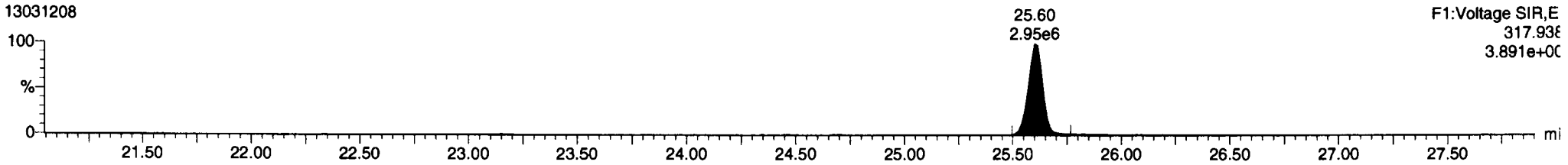
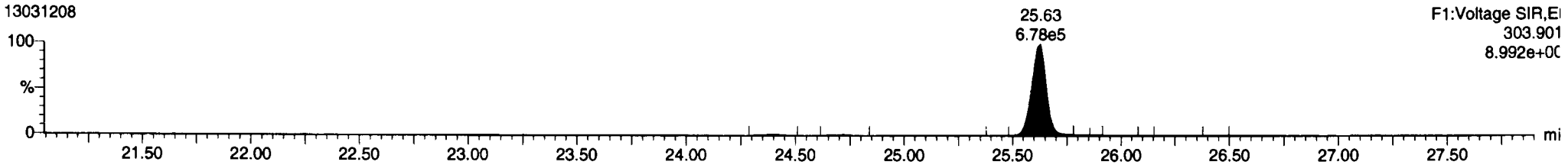
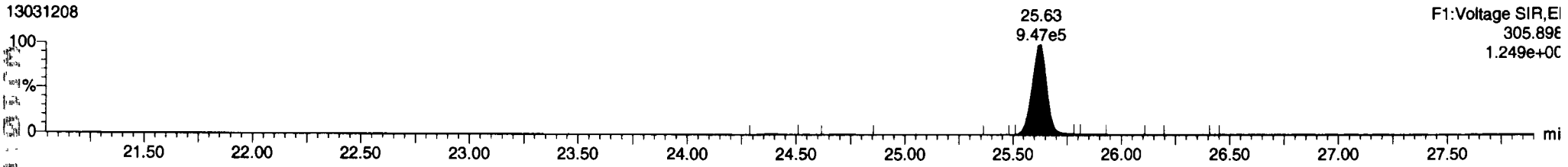


Total-tetrafurans



Total-tetrafurans



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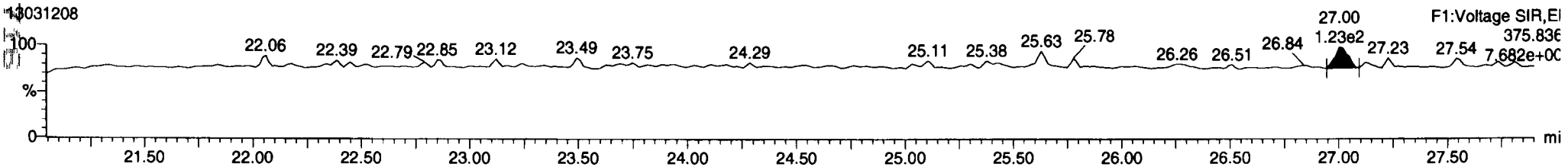

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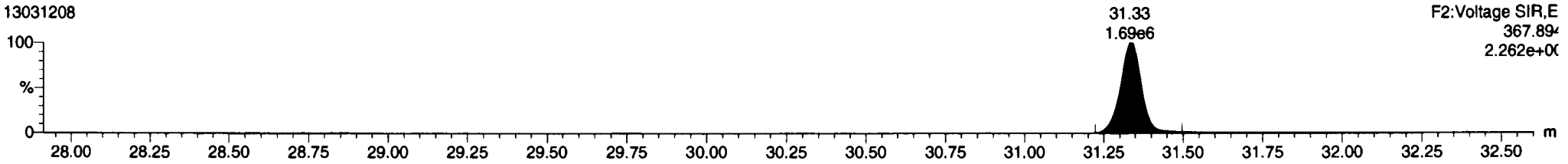
13C-12378-PeCDD



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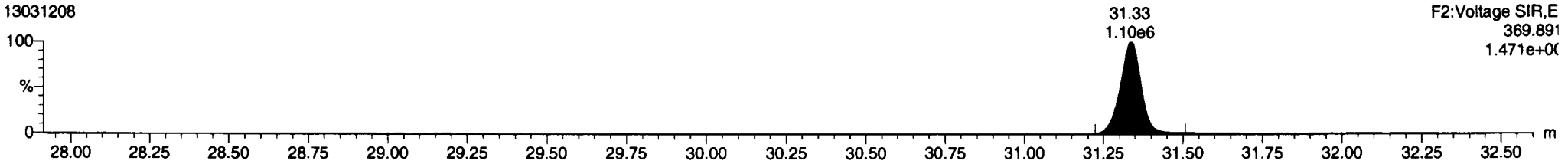
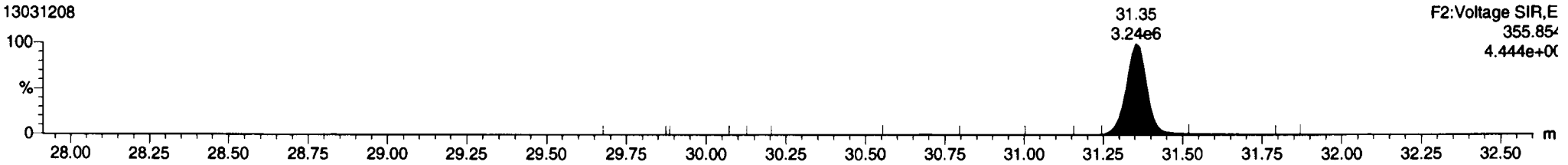
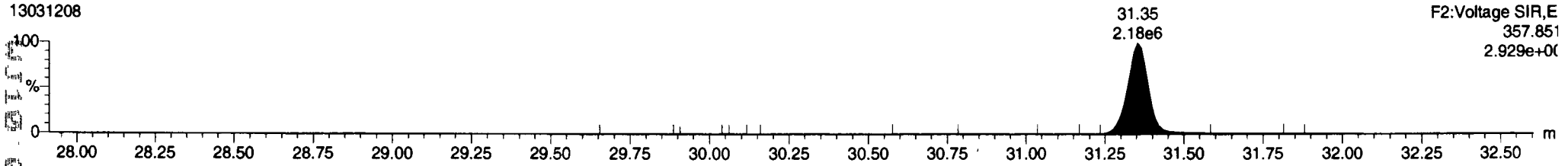


Total-pentadioxins



Total-pentadioxins



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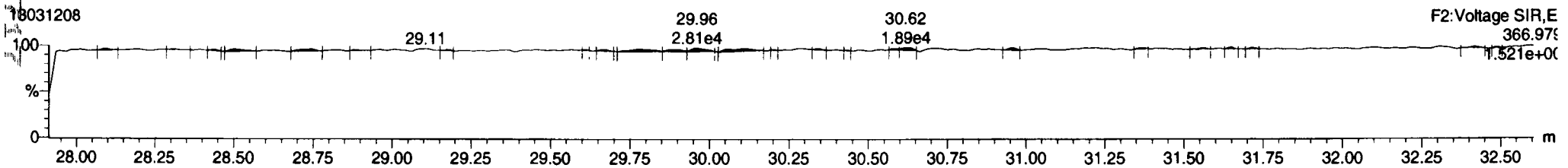

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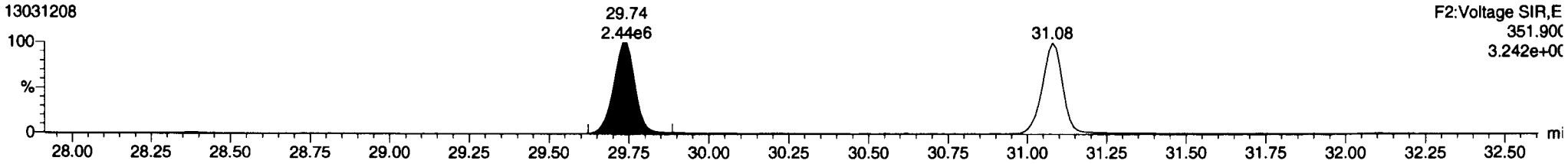
Printed: Wednesday, March 13, 2013 10:43:00 Pacific Daylight Time

ID: CS4, Name: 13031208, Date: 12-Mar-2013, Time: 18:29:32, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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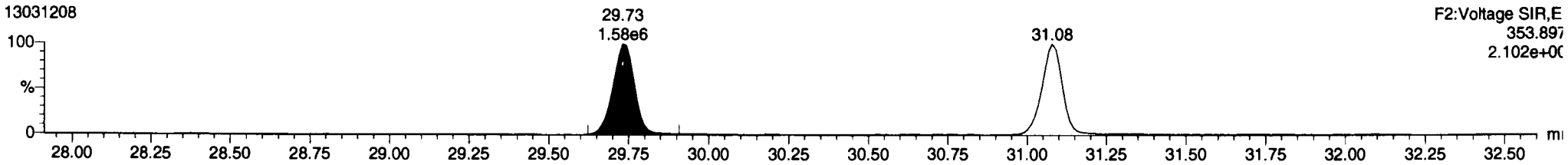

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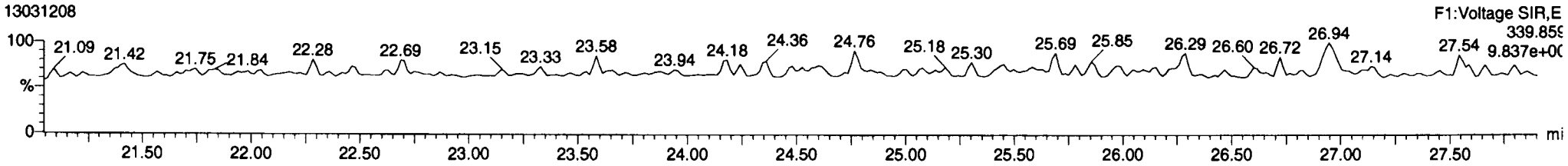

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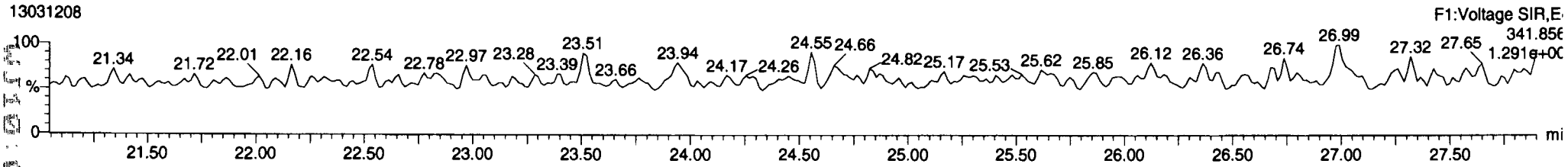

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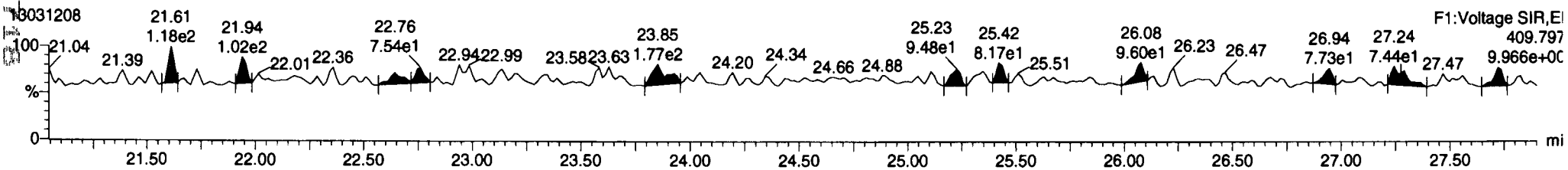

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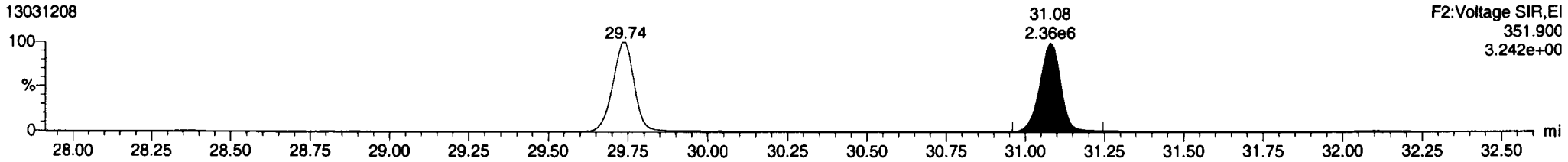
13C-23478-PeCDF



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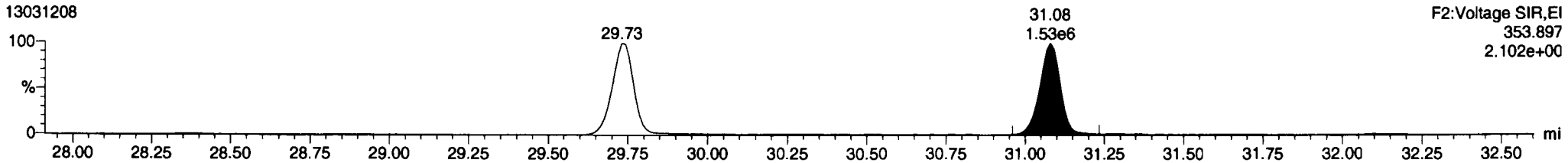
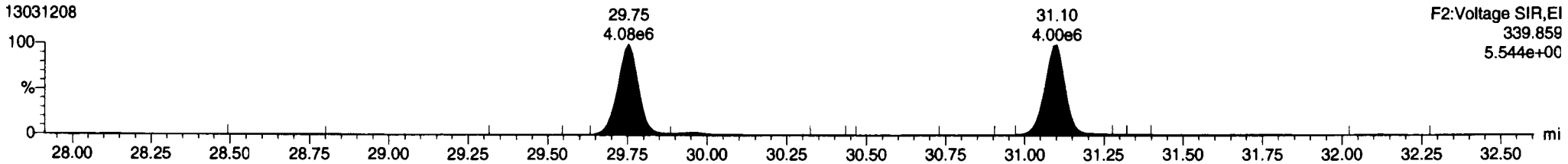
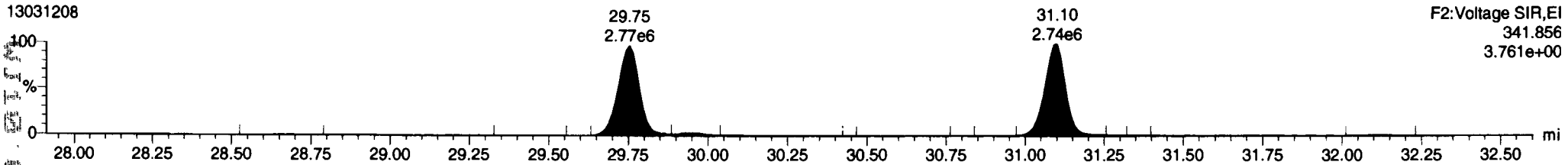


Total-pentafurans



Total-pentafurans



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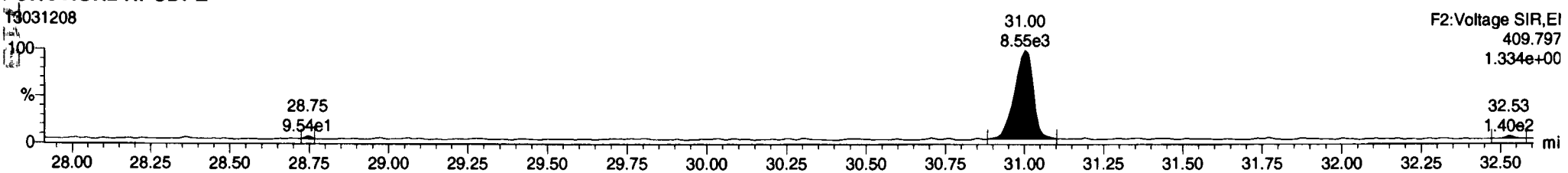

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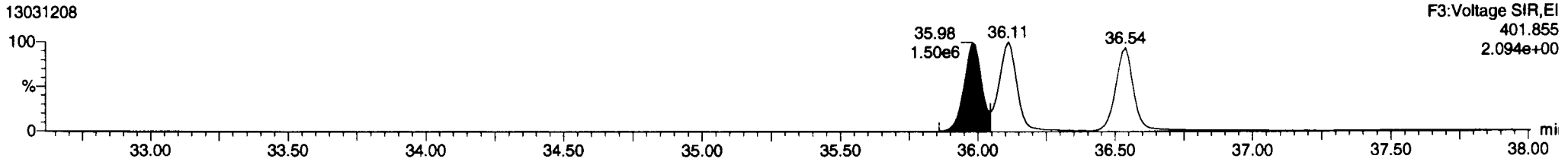
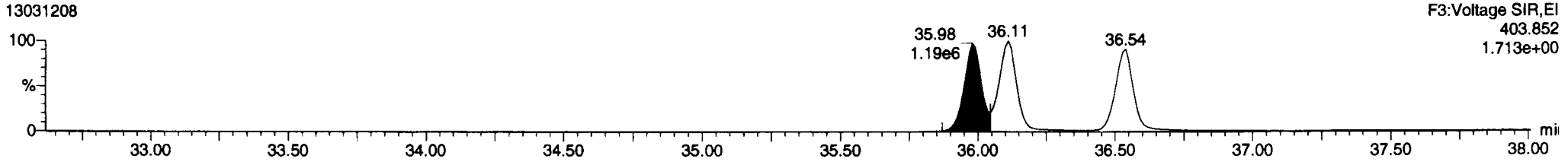
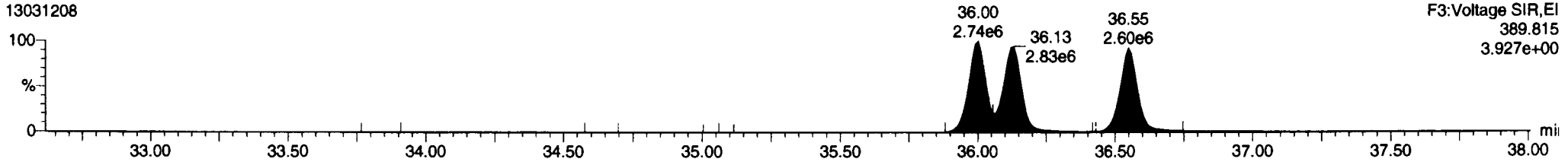
13C-123478-HxCDD



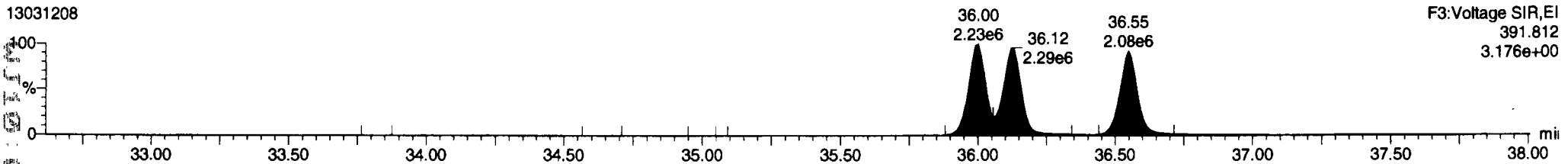
13C-123478-HxCDD



Total-hexadioxins



Total-hexadioxins



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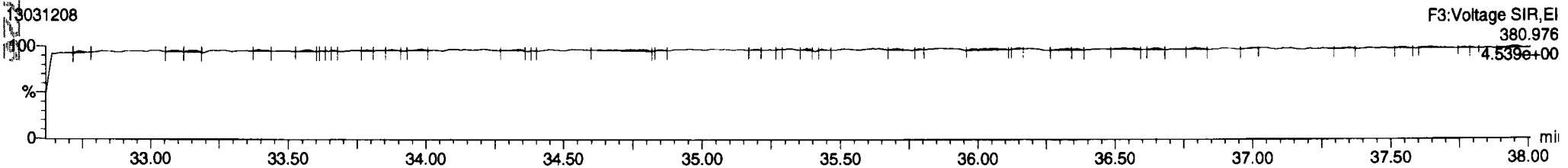

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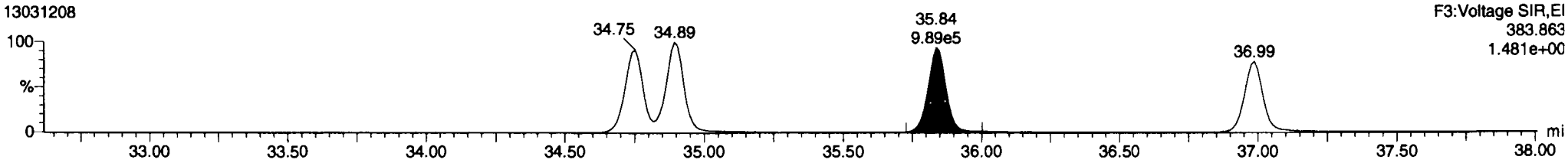
13C-234678-HxCDF



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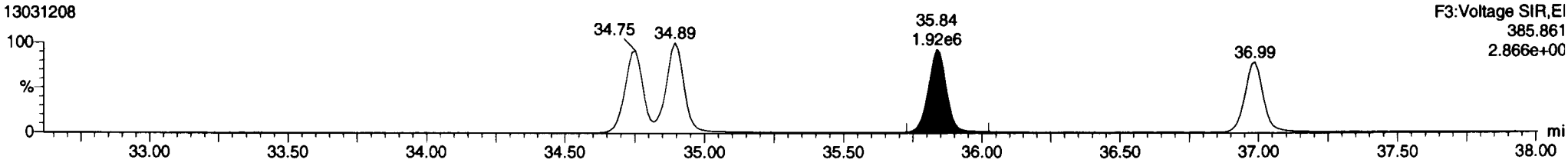
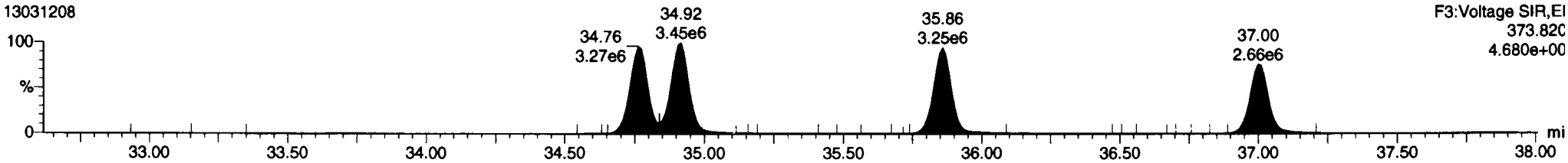
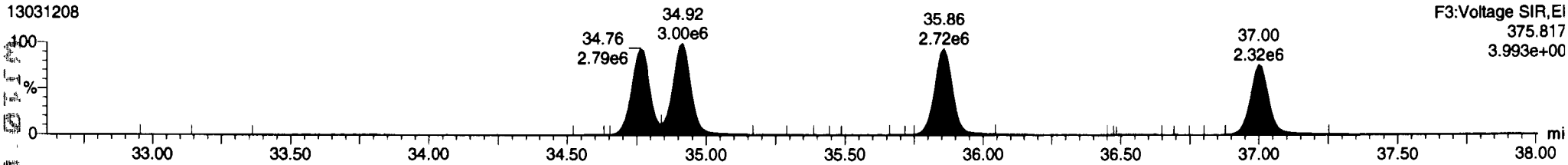


Total-hexafurans



Total-hexafurans



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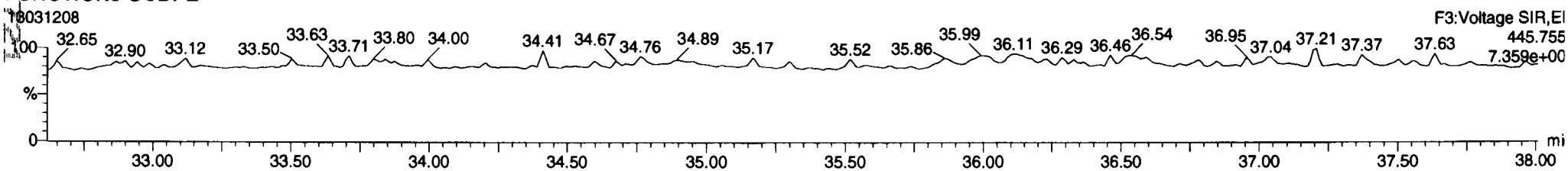

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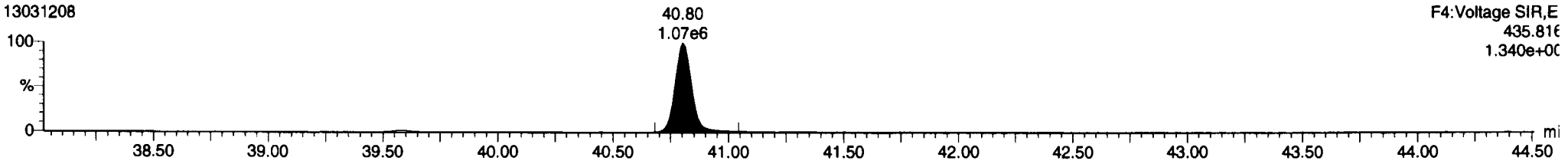
13C-1234678-HpCDD



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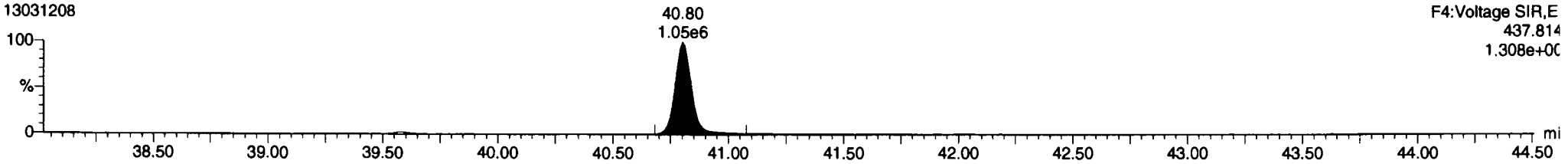
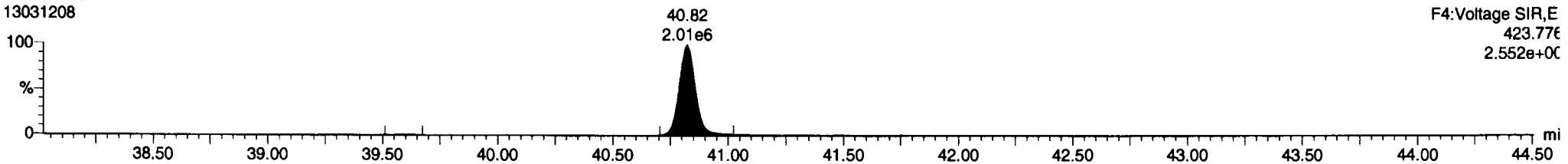
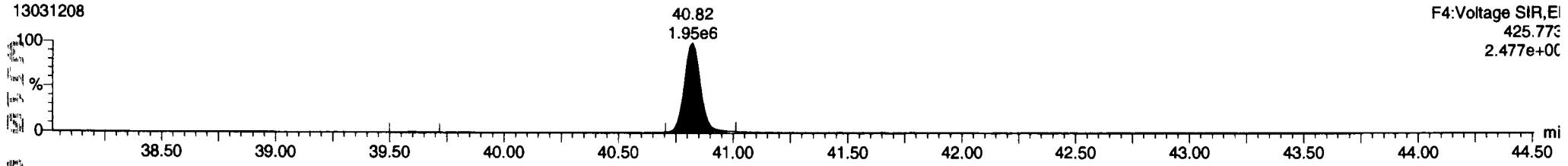


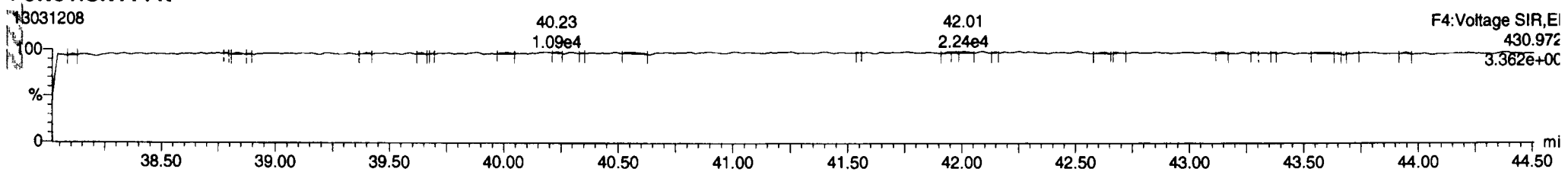
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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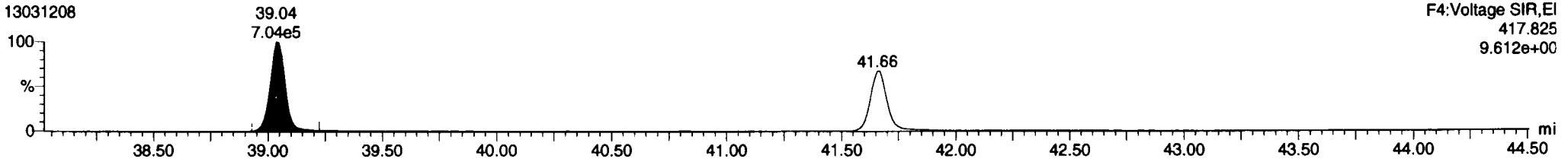
13C-1234678-HpCDF



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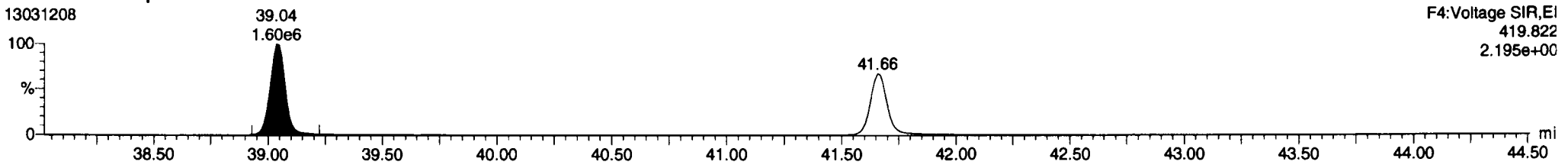
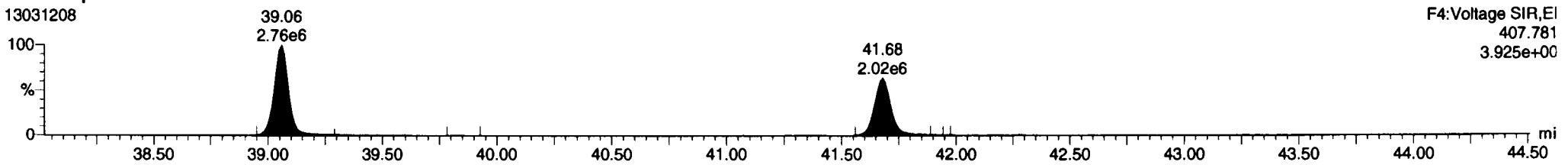
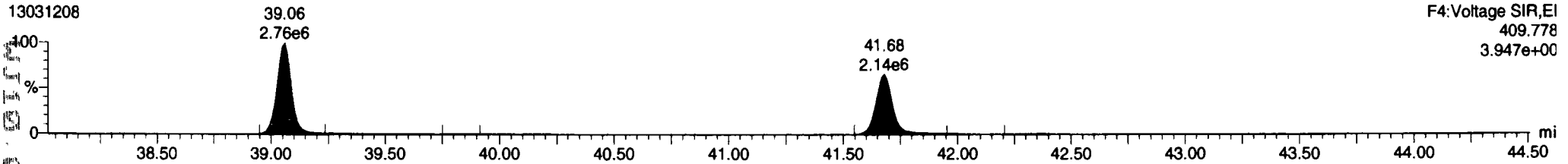


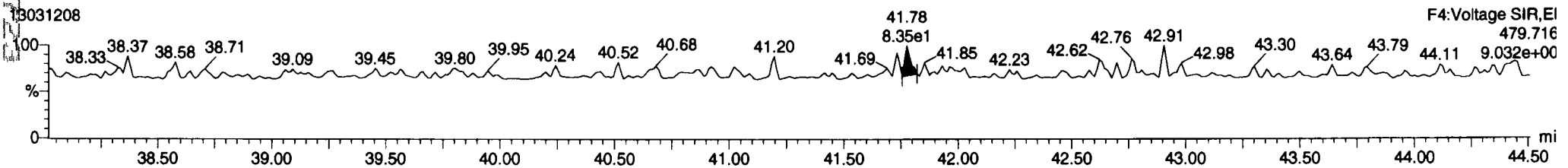
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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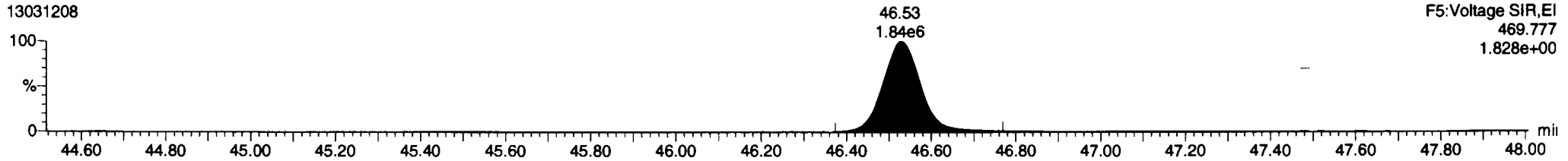
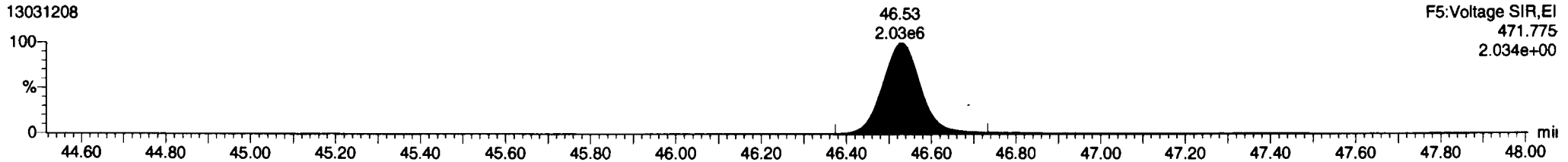
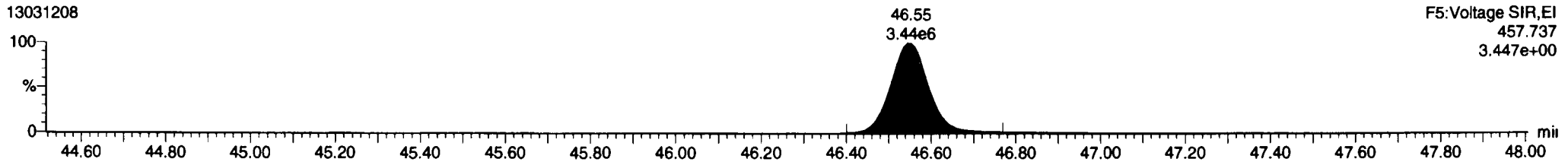
13C-OCDD



13C-OCDD



OCDD



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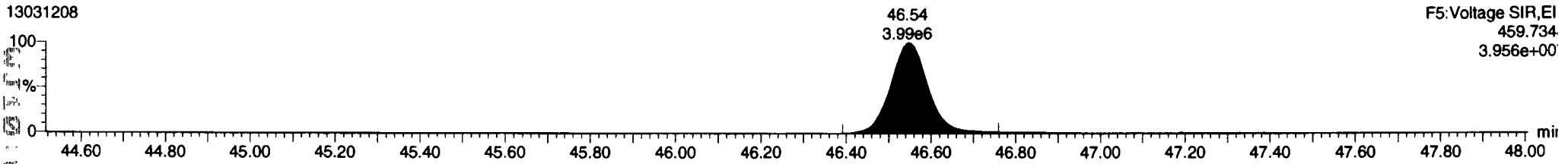
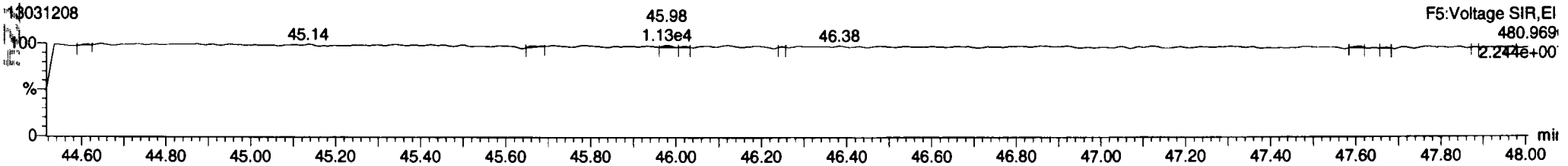


FUNCTION5 PFK



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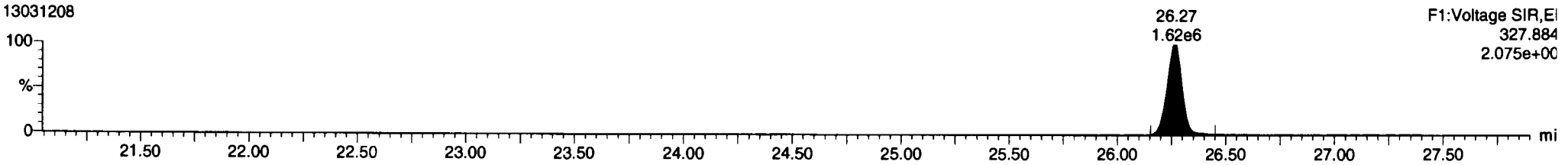
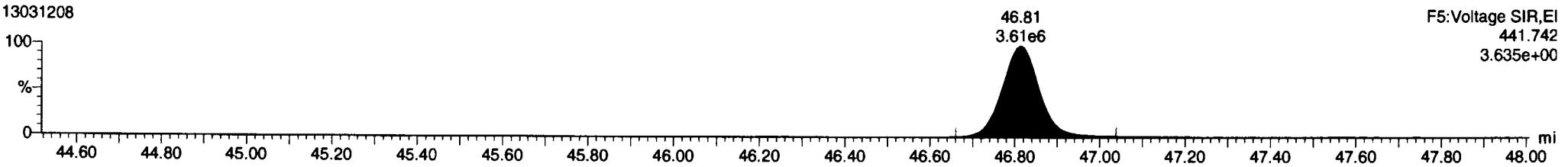
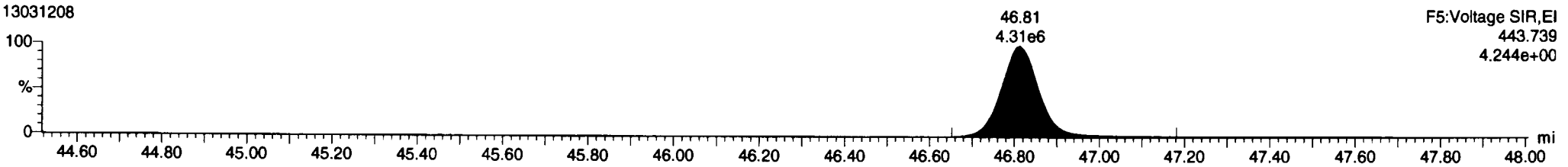
37CL-2378-TCDD



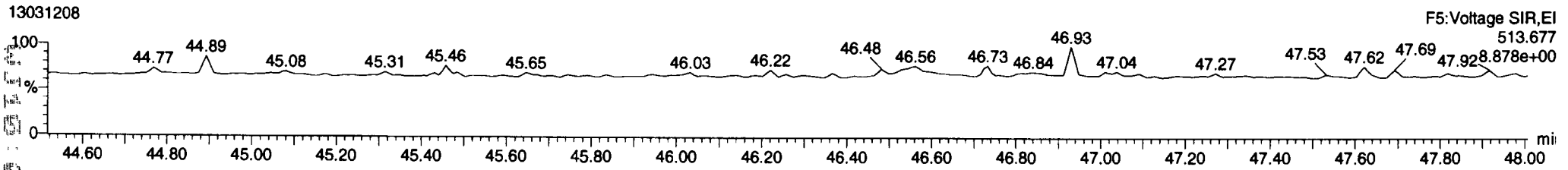
OCDF



OCDF



FUNCTION5 DCDPE



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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: 13 Mar 2013 10:38:15

ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

	2378-TCDF	25.630	1.001	4.46e6	6.28e6	0.763	0.711	0.770	12619.3	NO	206.023	206.023
	12378-PeCDF	29.753	1.000	2.93e7	1.97e7	0.836	1.485	1.550	19007.1	NO	1021.788	1021.788
	23478-PeCDF	31.102	1.001	2.84e7	1.92e7	0.851	1.478	1.550	18887.7	NO	1026.824	1026.824
	123478-HxCDF	34.763	1.000	2.28e7	1.95e7	1.017	1.170	1.240	39395.9	NO	1030.963	1030.963
	234678-HxCDF	35.859	1.001	2.23e7	1.88e7	1.027	1.183	1.240	39054.6	NO	987.020	987.020
	123678-HxCDF	34.916	1.001	2.37e7	2.01e7	1.013	1.180	1.240	41348.2	NO	995.527	995.527
	123789-HxCDF	37.010	1.001	1.92e7	1.62e7	0.929	1.185	1.240	33147.0	NO	1044.268	1044.268
	1234678-HpCDF	39.059	1.000	1.93e7	1.96e7	1.151	0.984	1.050	23020.1	NO	1047.820	1047.820
	1234789-HpCDF	41.679	1.000	1.54e7	1.57e7	1.149	0.983	1.050	16211.0	NO	1030.089	1030.089
	OCDF	46.822	1.006	2.87e7	3.36e7	0.963	0.854	0.890	56522.2	NO	2144.187	2144.187
	2378-TCDD	26.272	1.001	4.35e6	5.61e6	0.980	0.775	0.770	25775.5	NO	198.613	198.613
	12378-PeCDD	31.354	1.000	2.32e7	1.51e7	0.948	1.537	1.550	79805.4	NO	1016.325	1016.325
	123478-HxCDD	36.001	1.000	1.98e7	1.61e7	0.941	1.231	1.240	37321.6	NO	1018.718	1018.718
	123678-HxCDD	36.133	1.001	1.88e7	1.53e7	0.884	1.232	1.240	36096.7	NO	992.028	992.028
	123789-HxCDD	36.549	1.012	1.82e7	1.49e7	0.870	1.225	1.240	34211.2	NO	999.146	999.146
	1234678-HpCDD	40.824	1.000	1.46e7	1.42e7	0.948	1.027	1.050	17934.4	NO	1013.399	1013.399
	OCDD	46.562	1.000	2.69e7	3.15e7	0.969	0.853	0.890	31916.5	NO	1996.347	1996.347
	13C-2378-TCDF	25.615	1.007	2.98e6	3.85e6	1.318	0.774	0.770	8989.5	NO		102.936
	13C-12378-PeCDF	29.742	1.169	3.49e6	2.25e6	1.026	1.554	1.550	8635.3	NO		110.996
	13C-23478-PeCDF	31.080	1.222	3.31e6	2.14e6	0.966	1.544	1.550	8316.1	NO		112.127
	13C-123478-HxCDF	34.752	0.951	1.36e6	2.67e6	1.123	0.507	0.510	3468.5	NO		98.632
	13C-123678-HxCDF	34.894	0.955	1.48e6	2.86e6	1.216	0.517	0.510	3632.1	NO		98.061
	13C-234678-HxCDF	35.837	0.981	1.37e6	2.69e6	1.106	0.508	0.510	3456.7	NO		100.760
	13C-123789-HxCDF	36.988	1.012	1.24e6	2.40e6	0.995	0.515	0.510	3112.7	NO		100.585
	13C-1234678-HpCDF	39.048	1.069	9.92e5	2.23e6	0.896	0.445	0.440	4372.7	NO		98.833
	13C-1234789-HpCDF	41.668	1.140	8.05e5	1.82e6	0.693	0.442	0.440	3070.0	NO		104.206
	13C-1234-TCDD	25.436	0.000	2.20e6	2.84e6	1.000	0.773	0.770	5485.2	NO		100.000
	13C-2378-TCDD	26.243	1.032	2.23e6	2.88e6	0.961	0.773	0.770	5481.6	NO		105.658
	13C-12378-PeCDD	31.343	1.232	2.42e6	1.55e6	0.703	1.557	1.550	11285.4	NO		112.050
	13C-123478-HxCDD	35.990	0.985	2.08e6	1.65e6	1.016	1.261	1.240	6011.1	NO		101.093
	13C-123678-HxCDD	36.111	0.988	2.15e6	1.74e6	1.098	1.236	1.240	6296.2	NO		97.177
	13C-1234678-HpCDD	40.813	1.117	1.52e6	1.47e6	0.828	1.033	1.050	5516.0	NO		99.286
	13C-OCDD	46.544	1.274	2.86e6	3.17e6	0.770	0.901	0.890	7189.6	NO		215.358

Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
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ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

	13C-123789-HxCDD	36.539	0.000	2.00e6	1.63e6	1.000	1.227	1.240	6011.4	NO	100.000
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	Total-penta1			3.17e2							0.010
	Total-pentafurans			5.91e7		0.844					2096.610
	Total-hexafurans			8.80e7		0.997					4062.694
	Total-heptafurans			3.47e7		1.150					2079.515
	Total-Furans			2.15e8		0.970					10592.762
	Total-tetradioxins			4.46e6		0.980					203.859
	Total-pentadioxins			2.32e7		0.948					1018.763
	Total-hexadioxins			5.68e7		0.898					3010.241
	Total-heptadioxins			1.46e7		0.948					1017.095
	Total-Dioxins			1.26e8		0.934					7246.440
	Total-TEQ			3.41e8							17839.201
	37CL-2378-TCDD	26.272	1.033	1.09e7		0.999			41777.3		217.645
	FUNCTION1 PFK			3.29e7							
	FUNCTION2 PFK			3.08e5							0.000
	FUNCTION3 PFK			0.00e0							
	FUNCTION4 PFK			4.93e5							
	FUNCTION5 PFK			6.21e4							
	FUNCTION1 HXCDPE			3.88e2							0.000
	FUNCTION1 HPCDPE			3.89e2							0.000
	FUNCTION2 HPCDPE			5.38e4							0.000
	FUNCTION3 OCDPE			1.87e3							0.000
	FUNCTION4 NCDPE			3.38e2							0.000
	FUNCTION5 DCDPE			8.23e2							0.000

Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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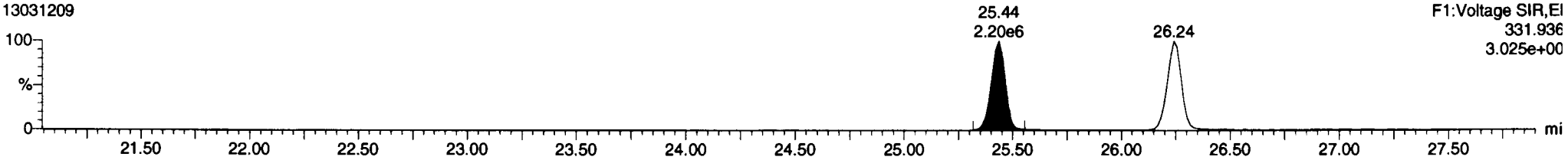
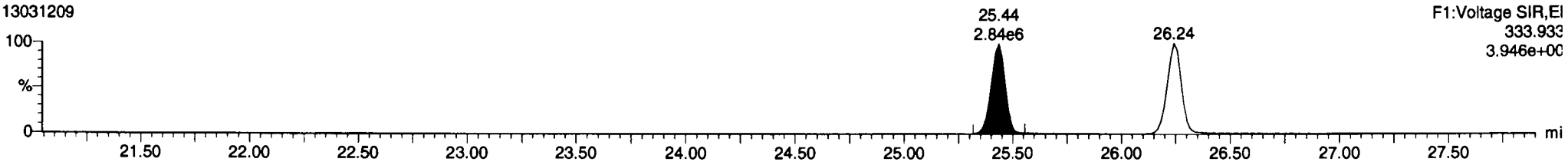
Calibration: 13 Mar 2013 10:38:15

ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



13C-1234-TCDD



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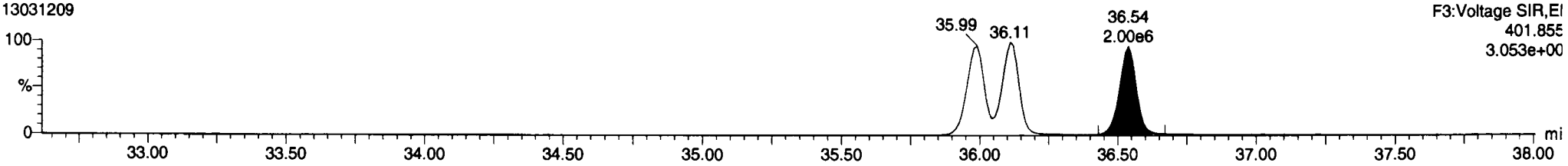

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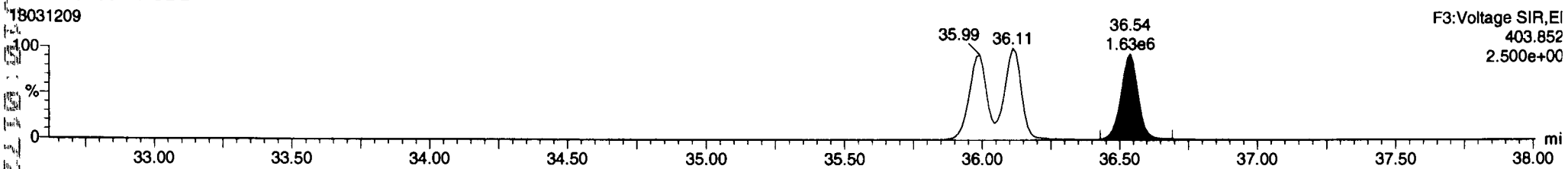

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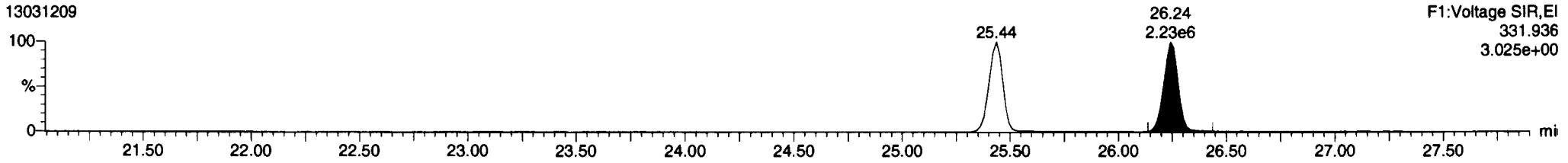
ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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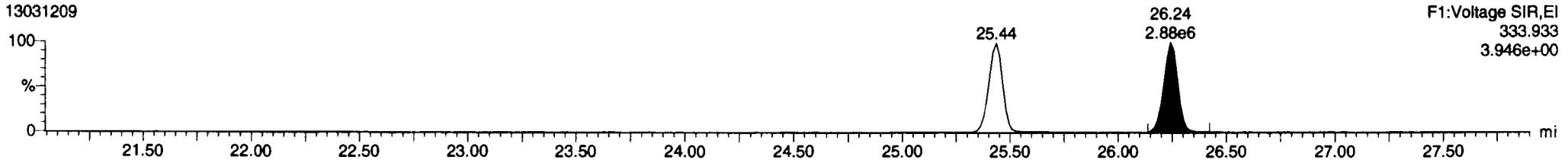
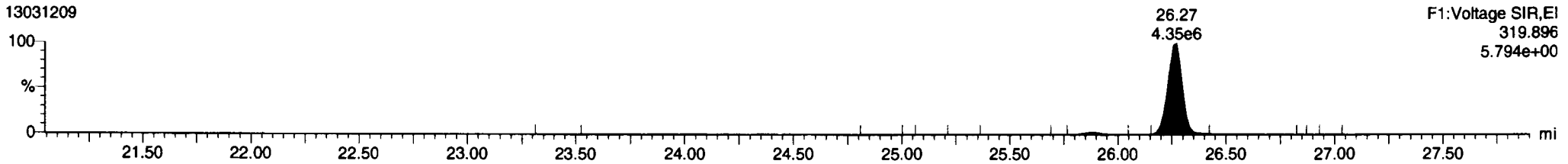
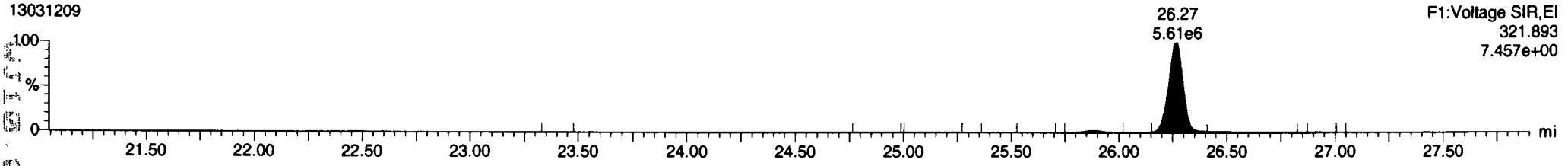


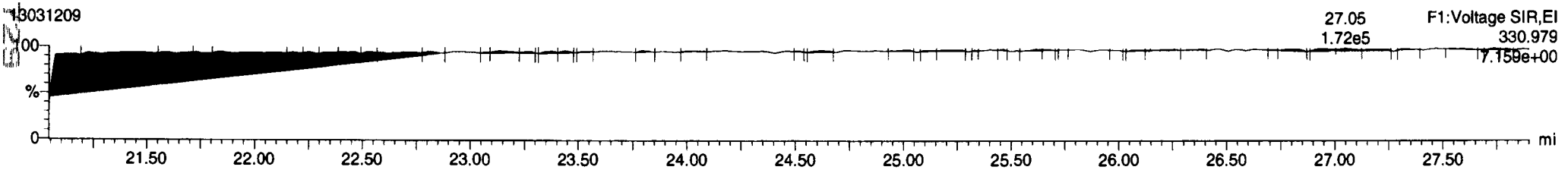
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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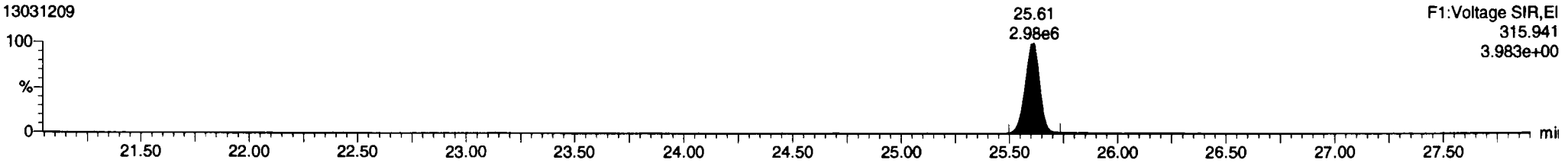
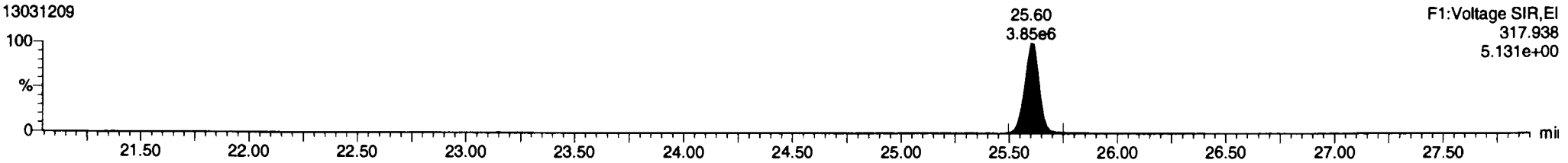
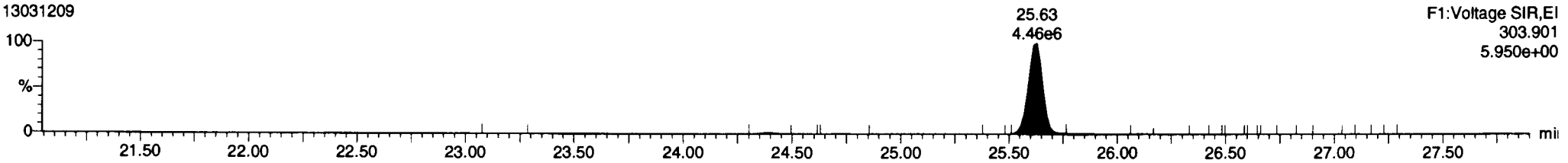
13C-2378-TCDF



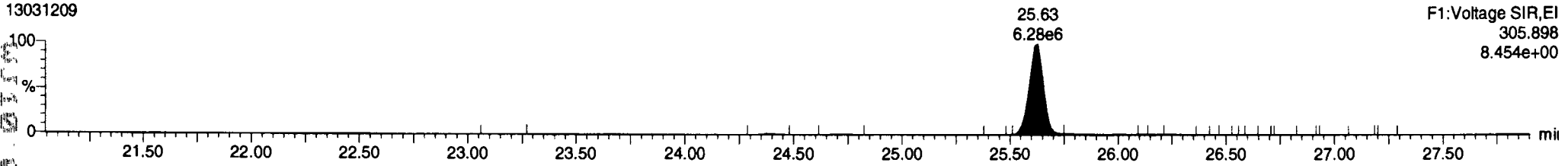
13C-2378-TCDF



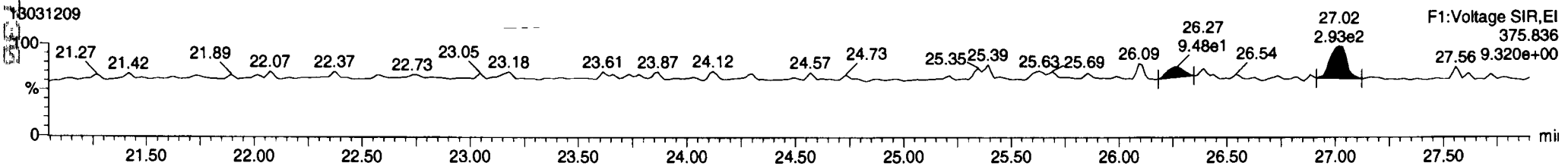
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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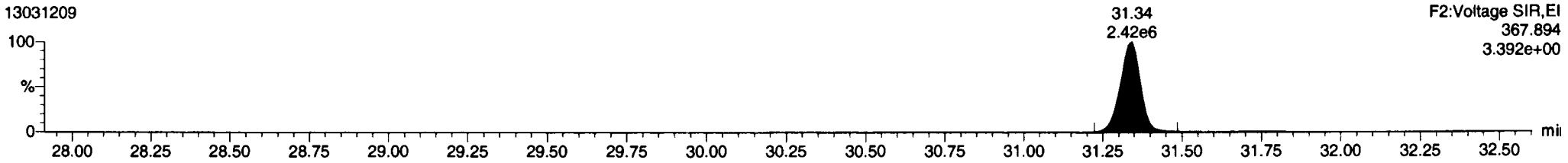
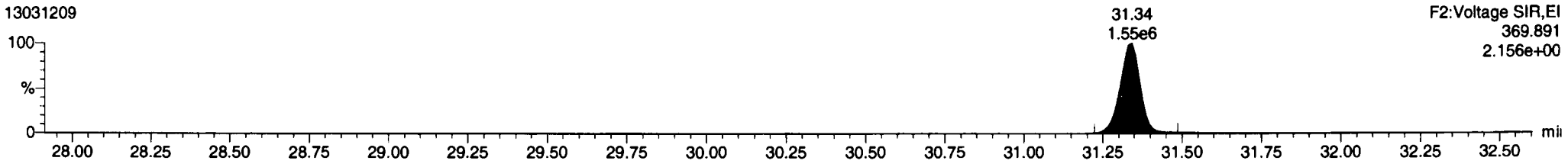
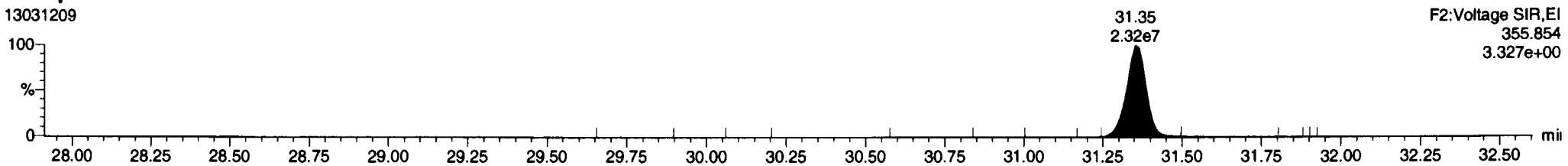
13C-12378-PeCDD



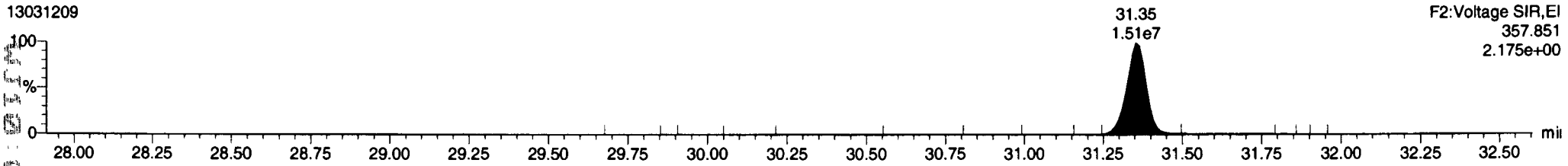
13C-12378-PeCDD



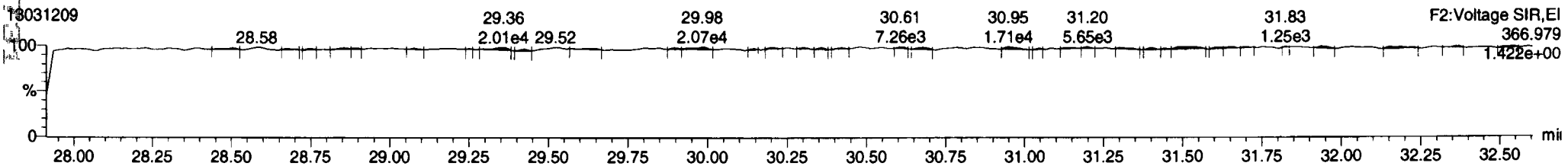
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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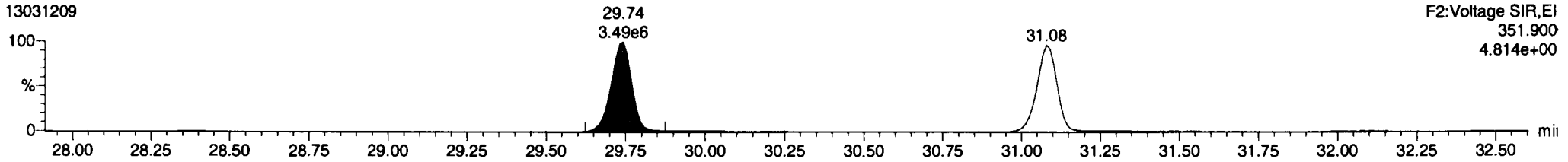
13C-12378-PeCDF



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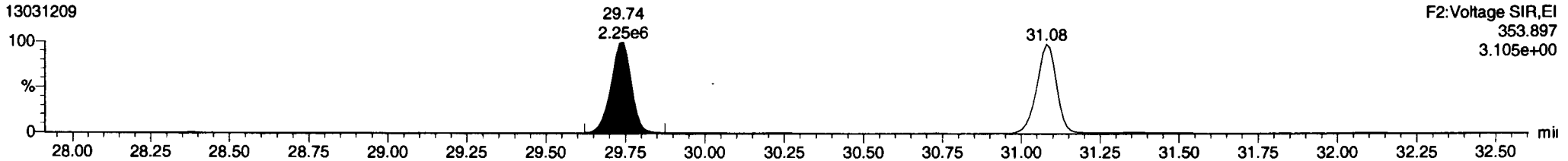
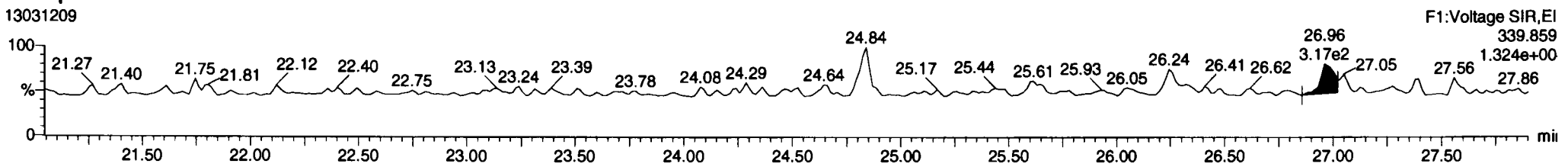
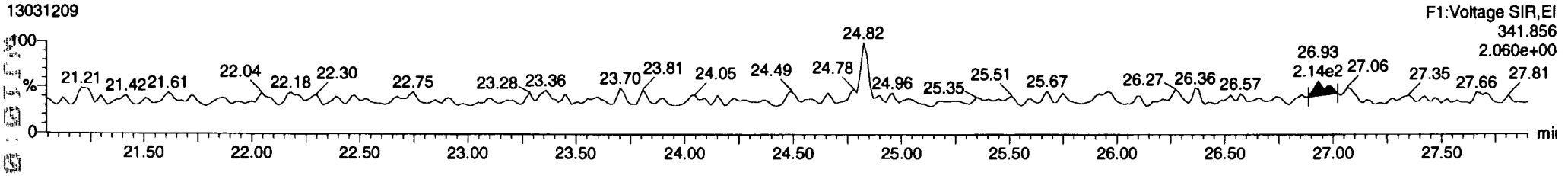


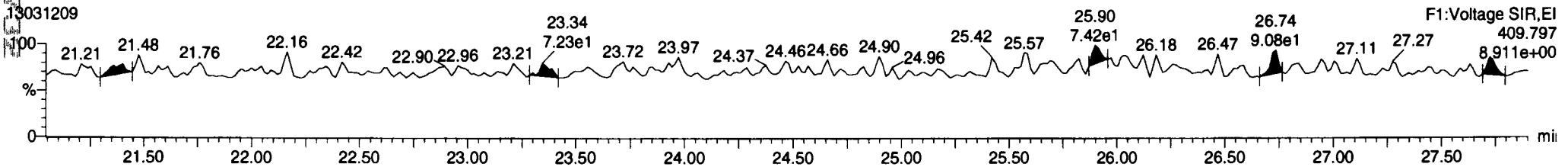
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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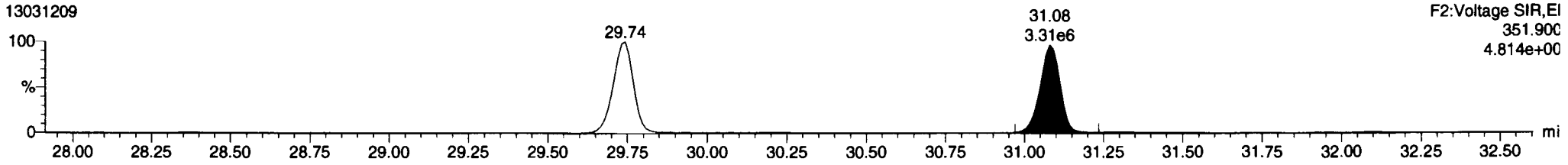
13C-23478-PeCDF



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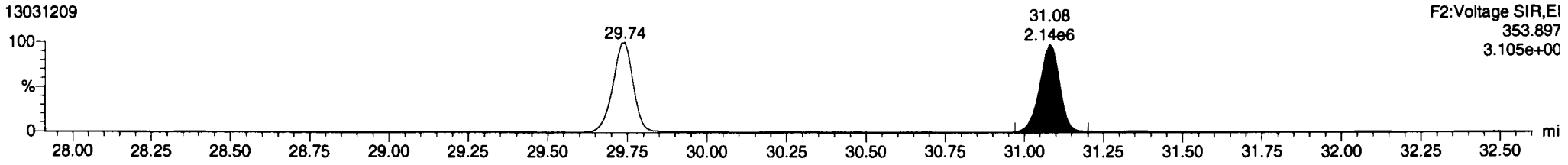
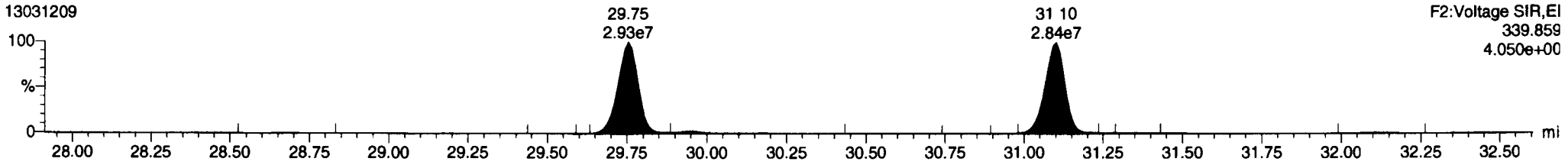
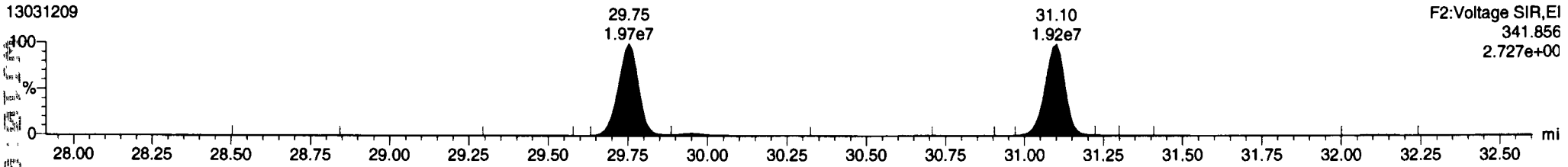


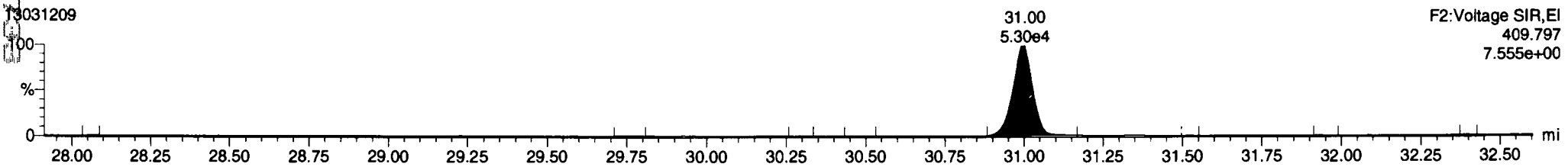
Total-pentafurans



Total-pentafurans

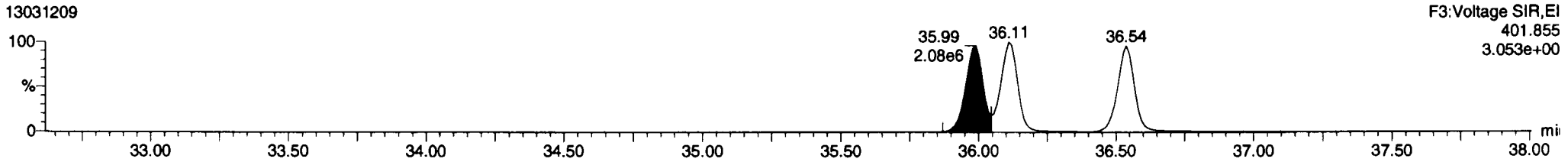


FUNCTION2 HPCDPE

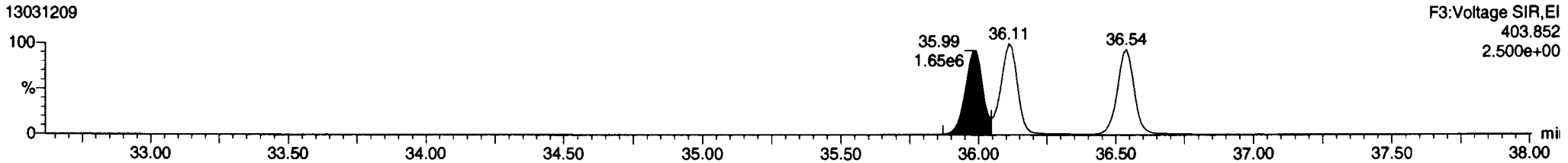


ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

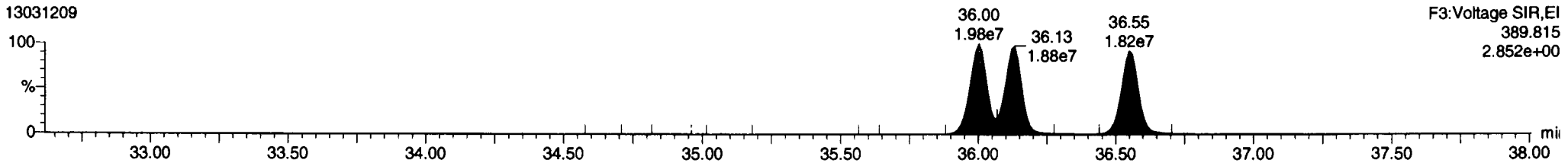
13C-123478-HxCDD



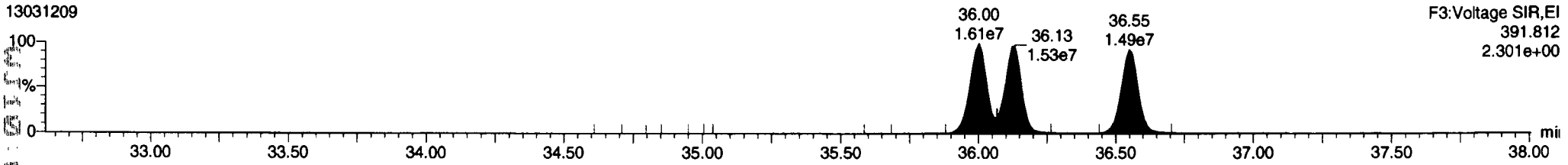
13C-123478-HxCDD



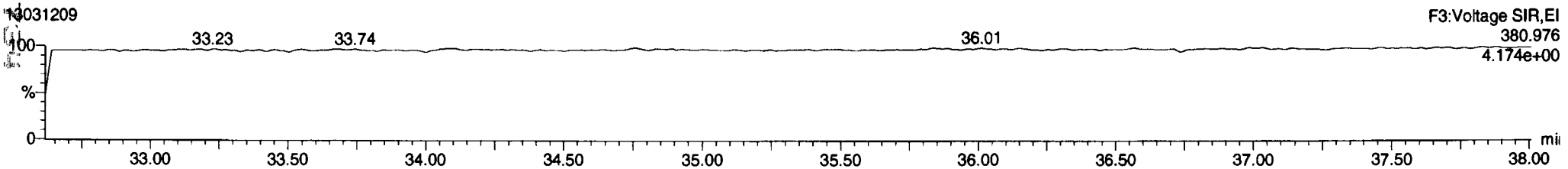
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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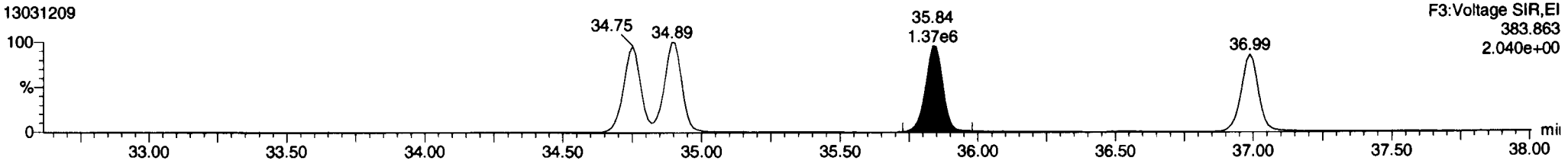
Printed: Wednesday, March 13, 2013 10:43:10 Pacific Daylight Time

ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



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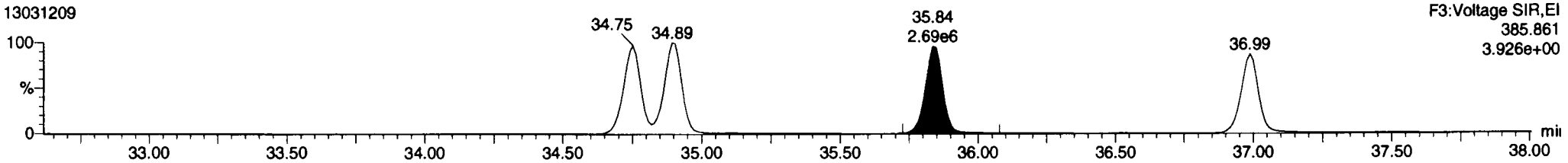
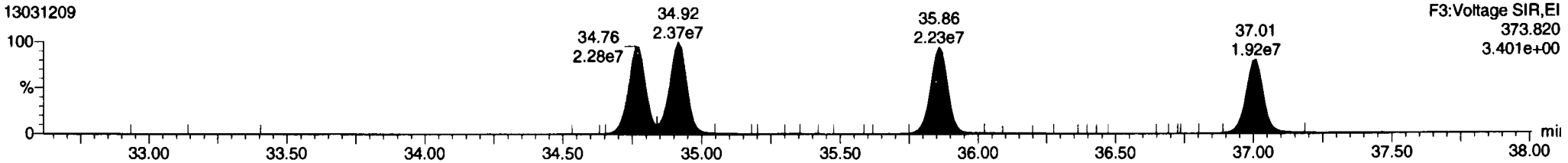
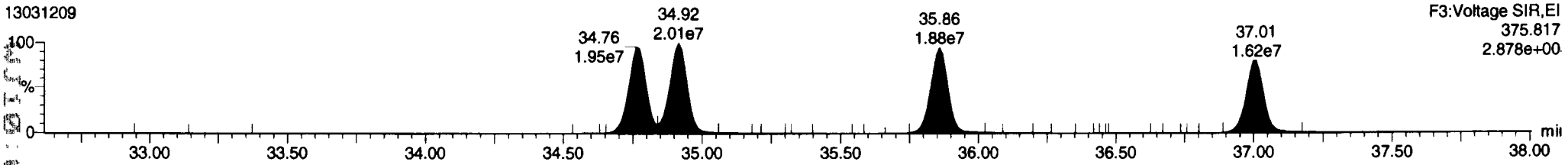


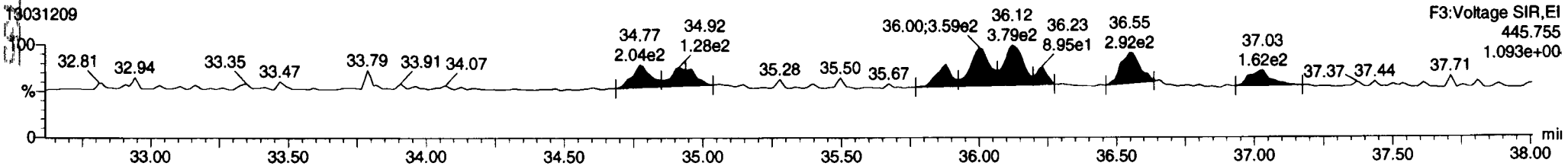
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
Last Altered: Wednesday, March 13, 2013 10:38:15 Pacific Daylight Time
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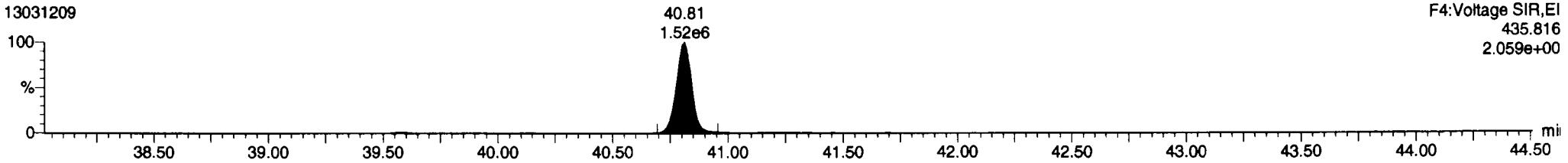
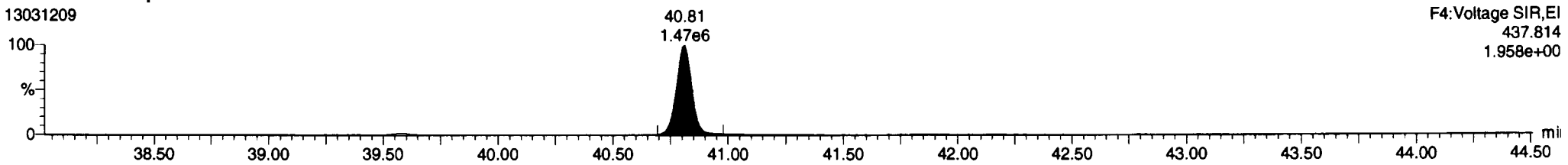
ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

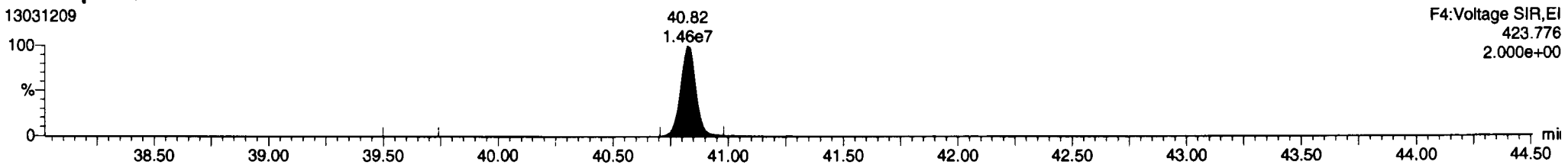
13C-1234678-HpCDD



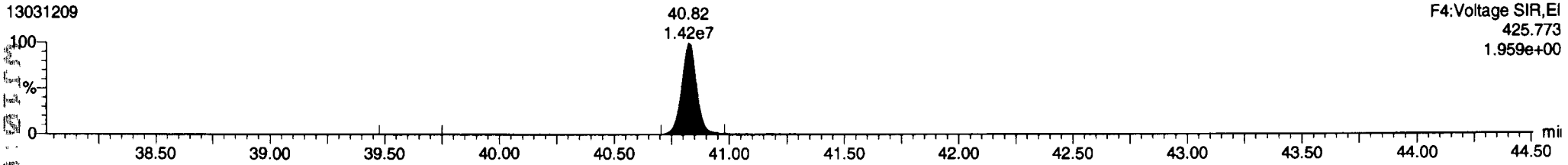
13C-1234678-HpCDD



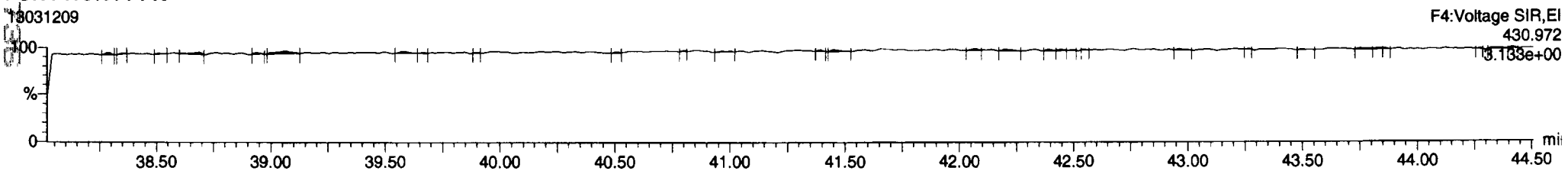
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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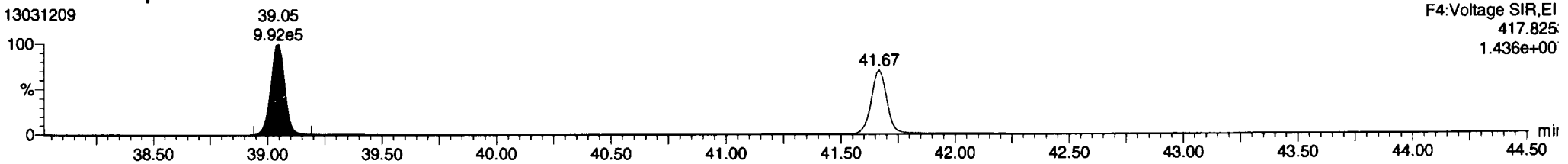
Printed: Wednesday, March 13, 2013 10:43:10 Pacific Daylight Time

ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF



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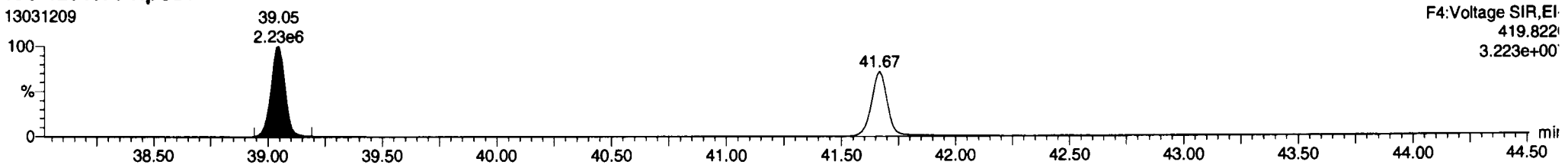
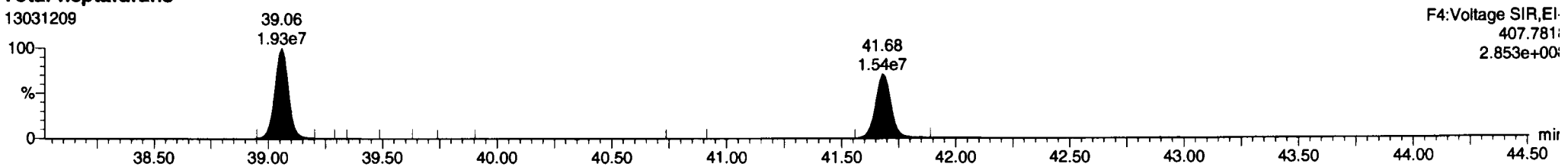


Total-heptafurans



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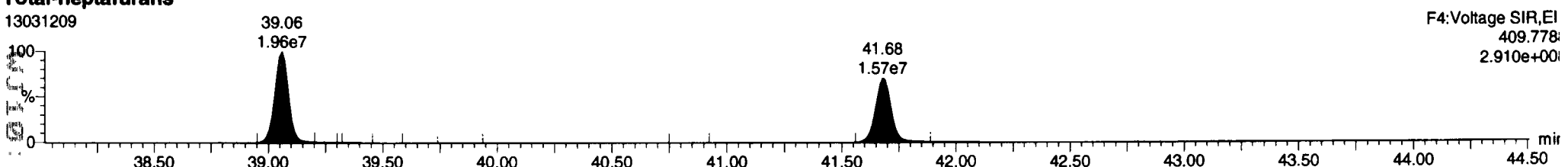
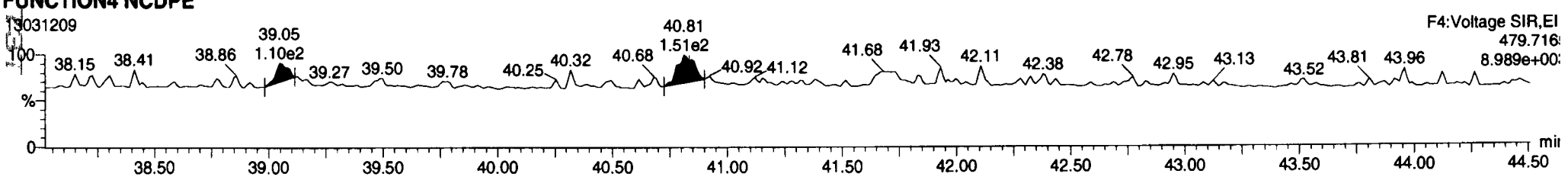


FUNCTION4 NCDPE



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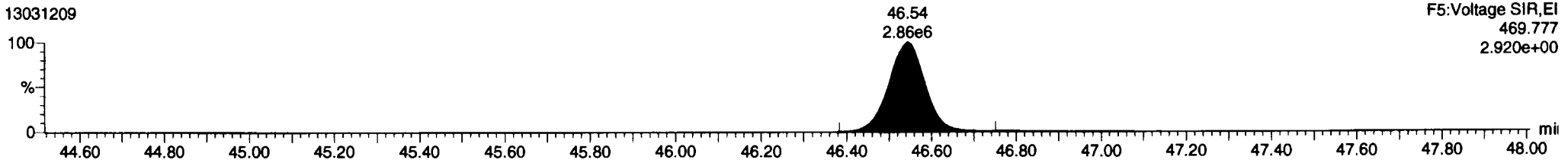
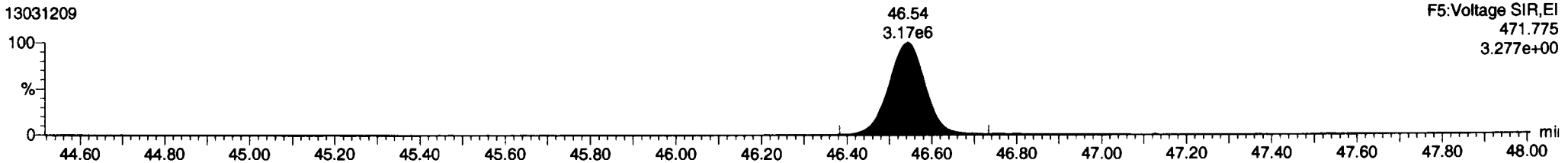
ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

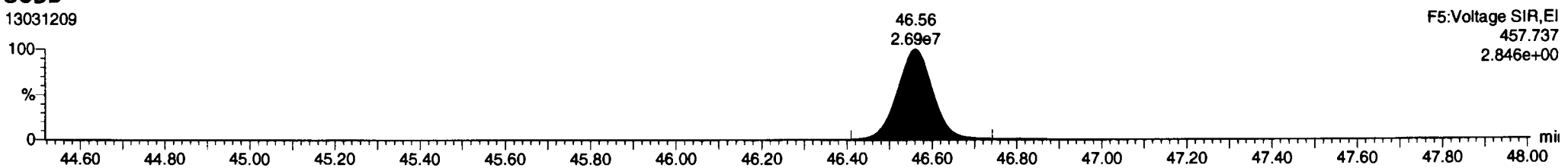
13C-OCDD



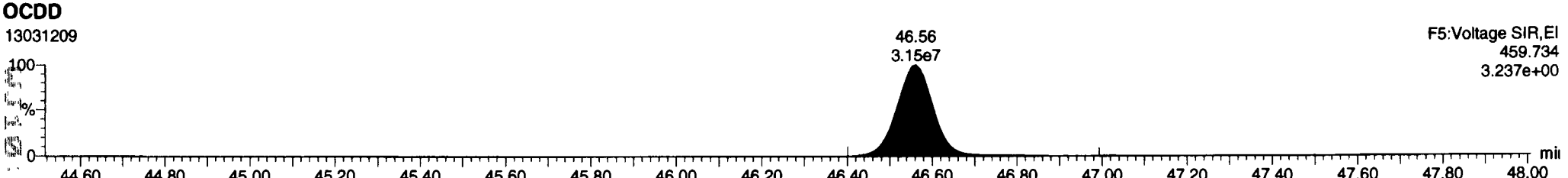
13C-OCDD



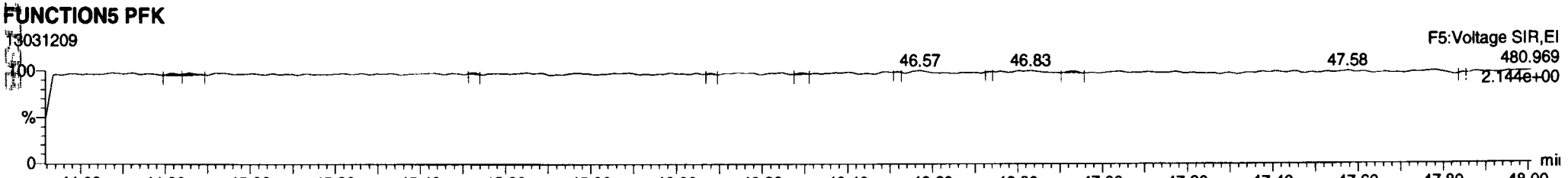
OCDD



OCDD



FUNCTION5 PFK



Dataset: P:\DIOXIN8290.PRO\130312IC.qld
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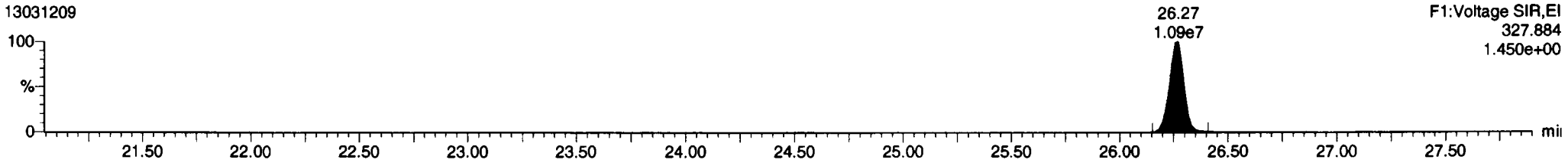
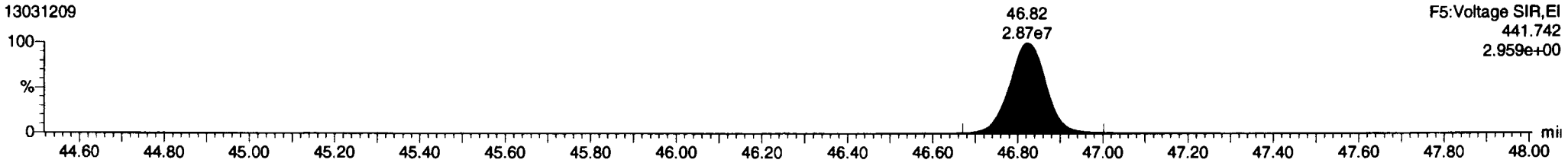
ID: CS5, Name: 13031209, Date: 12-Mar-2013, Time: 19:20:50, Conditions: AUTOSPEC01, User: pk

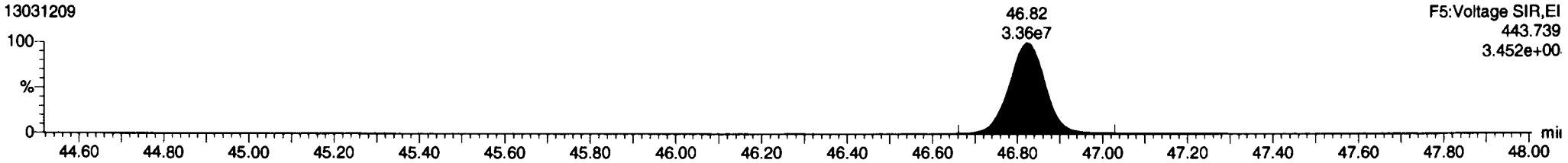
37CL-2378-TCDD



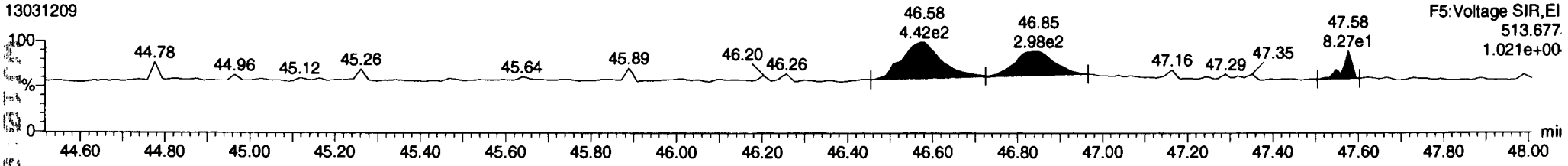
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\130312ICV.qld
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Printed: Wednesday, March 13, 2013 11:17:54 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
Calibration: P:\DIOXIN8290.PRO\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

ID: ICV, Name: 13031210, Date: 12-Mar-2013, Time: 20:12:13, Conditions: AUTOSPEC01, User: pk

	2378-TCDF	25.630	1.001	1.71e5	2.36e5	0.763	0.723	0.770	1573.2	NO	10.747	10.747
	12378-PeCDF	29.754	1.000	1.06e6	7.17e5	0.836	1.484	1.550	2493.5	NO	55.364	55.364
	23478-PeCDF	31.102	1.000	9.61e5	6.40e5	0.851	1.501	1.550	2394.0	NO	50.626	50.626
	123478-HxCDF	34.774	1.001	8.02e5	6.86e5	1.017	1.168	1.240	1223.4	NO	54.833	54.833
	234678-HxCDF	35.859	1.000	7.62e5	6.46e5	1.027	1.180	1.240	1152.1	NO	51.048	51.048
	123678-HxCDF	34.917	1.000	8.50e5	7.20e5	1.013	1.181	1.240	1300.6	NO	50.908	50.908
	123789-HxCDF	37.010	1.001	6.79e5	5.86e5	0.929	1.160	1.240	1006.9	NO	59.547	59.547
	1234678-HpCDF	39.060	1.000	6.28e5	6.36e5	1.151	0.988	1.050	2407.5	NO	54.179	54.179
	1234789-HpCDF	41.680	1.000	4.93e5	5.00e5	1.149	0.987	1.050	1567.1	NO	51.814	51.814
	OCDF	46.823	1.006	8.40e5	9.70e5	0.963	0.866	0.890	2569.5	NO	111.981	111.981
	2378-TCDD	26.272	1.001	1.68e5	2.19e5	0.980	0.768	0.770	1546.5	NO	9.894	9.894
	12378-PeCDD	31.365	1.001	8.19e5	5.32e5	0.948	1.541	1.550	4109.6	NO	47.573	47.573
	123478-HxCDD	36.001	1.000	6.52e5	5.33e5	0.941	1.224	1.240	2684.5	NO	51.793	51.793
	123678-HxCDD	36.133	1.001	6.50e5	5.40e5	0.884	1.205	1.240	2622.9	NO	55.825	55.825
	123789-HxCDD	36.561	1.012	6.65e5	5.45e5	0.870	1.220	1.240	2589.3	NO	57.452	57.452
	1234678-HpCDD	40.825	1.000	5.01e5	4.79e5	0.948	1.045	1.050	2020.5	NO	49.665	49.665
	OCDD	46.554	1.000	8.12e5	9.38e5	0.969	0.865	0.890	1491.9	NO	107.590	107.590
	13C-2378-TCDF	25.615	1.007	2.17e6	2.79e6	1.318	0.776	0.770	6012.4	NO		88.881
	13C-12378-PeCDF	29.743	1.169	2.34e6	1.51e6	1.026	1.544	1.550	4578.2	NO		88.695
	13C-23478-PeCDF	31.091	1.222	2.25e6	1.46e6	0.966	1.544	1.550	4557.1	NO		90.875
	13C-123478-HxCDF	34.752	0.951	9.15e5	1.75e6	1.123	0.522	0.510	1438.1	NO		93.749
	13C-123678-HxCDF	34.905	0.955	1.03e6	2.02e6	1.216	0.509	0.510	1593.1	NO		98.793
	13C-234678-HxCDF	35.848	0.981	9.28e5	1.76e6	1.106	0.528	0.510	1451.3	NO		95.770
	13C-123789-HxCDF	36.988	1.012	7.79e5	1.51e6	0.995	0.517	0.510	1203.4	NO		90.630
	13C-1234678-HpCDF	39.049	1.069	6.27e5	1.40e6	0.896	0.449	0.440	2687.8	NO		89.250
	13C-1234789-HpCDF	41.669	1.140	5.10e5	1.16e6	0.693	0.441	0.440	1865.4	NO		94.914
	13C-1234-TCDD	25.436	0.000	1.86e6	2.38e6	1.000	0.781	0.770	4722.2	NO		100.000
	13C-2378-TCDD	26.243	1.032	1.75e6	2.25e6	0.961	0.777	0.770	4265.7	NO		98.110
	13C-12378-PeCDD	31.343	1.232	1.82e6	1.17e6	0.703	1.549	1.550	4466.5	NO		100.618
	13C-123478-HxCDD	35.991	0.985	1.35e6	1.08e6	1.016	1.241	1.240	3180.6	NO		94.421
	13C-123678-HxCDD	36.111	0.988	1.34e6	1.07e6	1.098	1.257	1.240	3042.0	NO		86.586
	13C-1234678-HpCDD	40.814	1.117	1.06e6	1.02e6	0.828	1.048	1.050	4009.8	NO		99.117
	13C-OCDD	46.535	1.274	1.58e6	1.78e6	0.770	0.889	0.890	2407.1	NO		171.966

Dataset: P:\DIOXIN8290.PRO\130312ICV.qld
Last Altered: Wednesday, March 13, 2013 11:12:18 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 11:17:54 Pacific Daylight Time

ID: ICV, Name: 13031210, Date: 12-Mar-2013, Time: 20:12:13, Conditions: AUTOSPEC01, User: pk

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[redacted]	Total-tetrafurans			1.72e5		0.763					10.847
[redacted]	Total-penta1			2.82e2							0.016
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[redacted]	Total-hexafurans			3 10e6		0.997					216.539
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Dataset: P:\DIOXIN8290.PRO\130312ICV.qld
Last Altered: Wednesday, March 13, 2013 11:12:18 Pacific Daylight Time
Printed: Wednesday, March 13, 2013 11:17:54 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130312.mdb 13 Mar 2013 10:32:39
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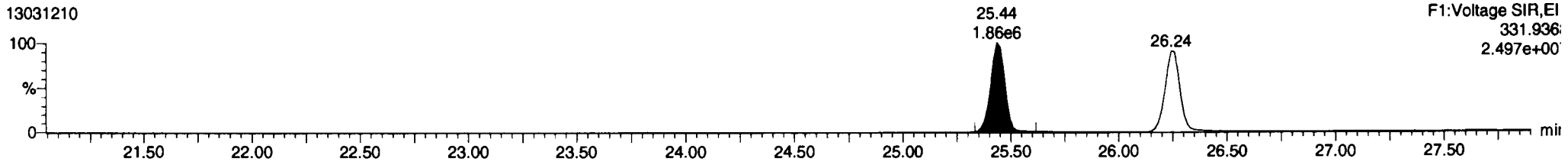
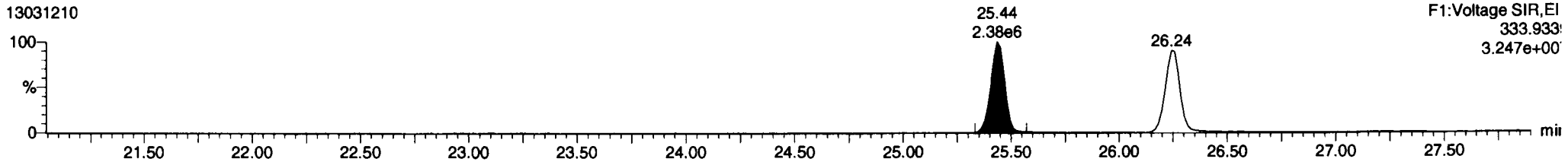
ID: ICV, Name: 13031210, Date: 12-Mar-2013, Time: 20:12:13, Conditions: AUTOSPEC01, User: pk

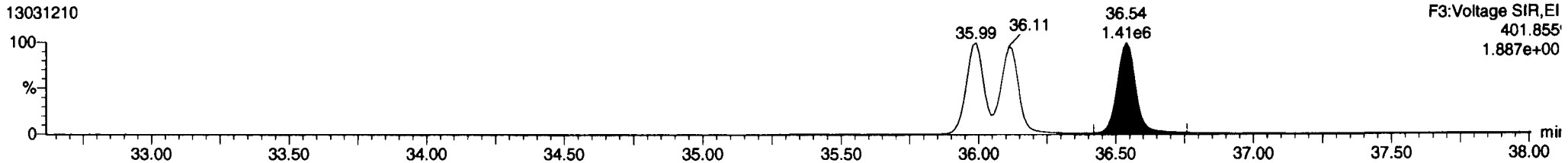
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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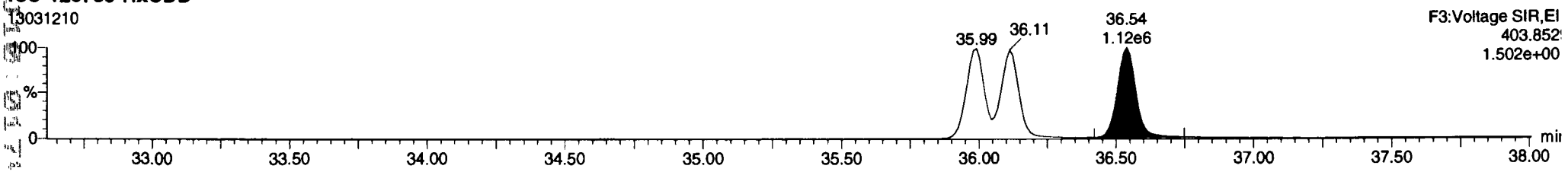

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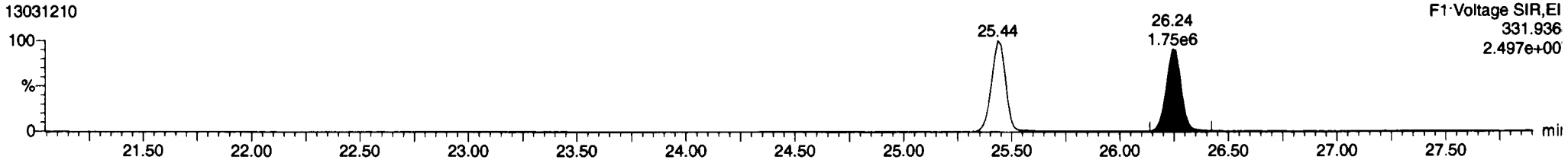
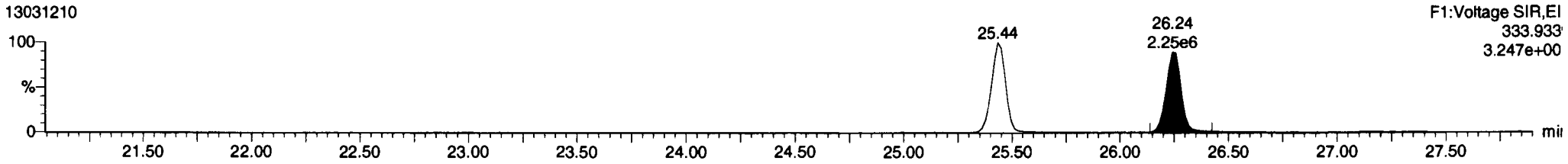
ID: ICV, Name: 13031210, Date: 12-Mar-2013, Time: 20:12:13, Conditions: AUTOSPEC01, User: pk

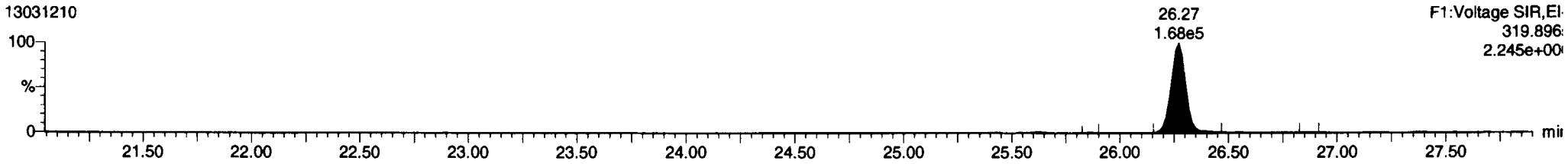
13C-2378-TCDD



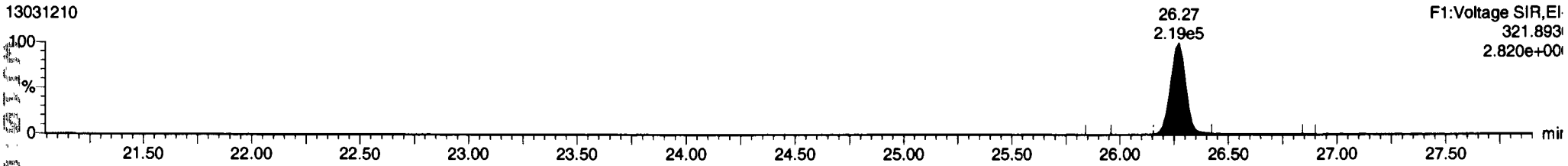
13C-2378-TCDD



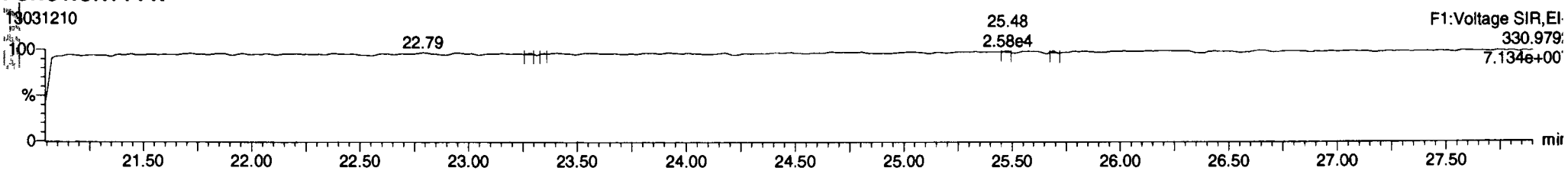
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



Dataset: P:\DIOXIN8290.PRO\130312ICV.qld
Last Altered: Wednesday, March 13, 2013 11:12:18 Pacific Daylight Time
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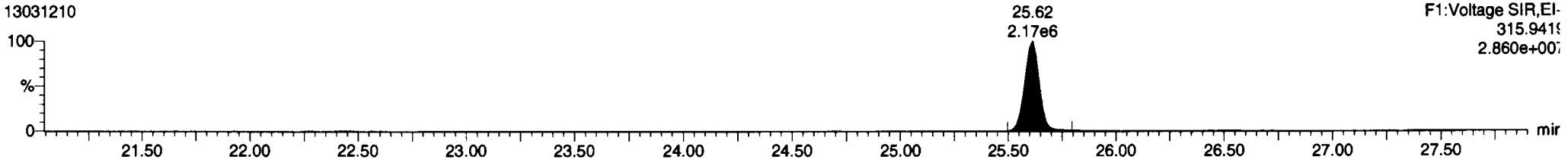
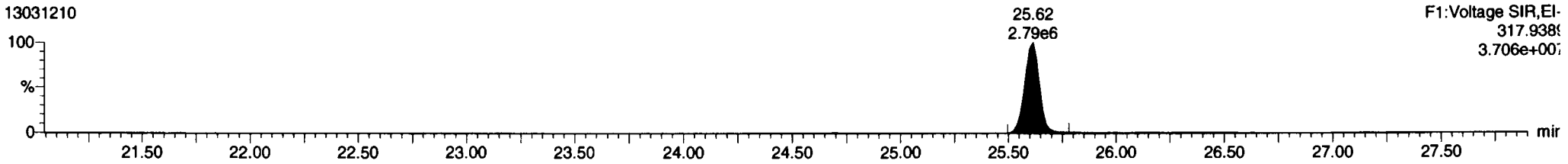
ID: ICV, Name: 13031210, Date: 12-Mar-2013, Time: 20:12:13, Conditions: AUTOSPEC01, User: pk

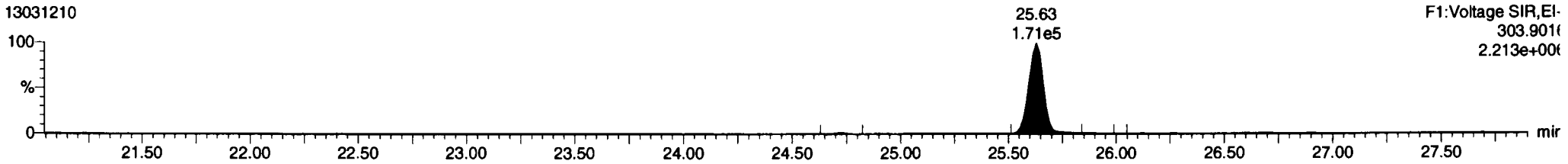
13C-2378-TCDF



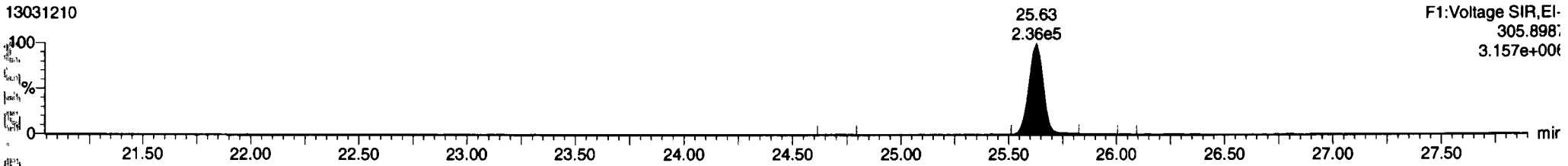
13C-2378-TCDF



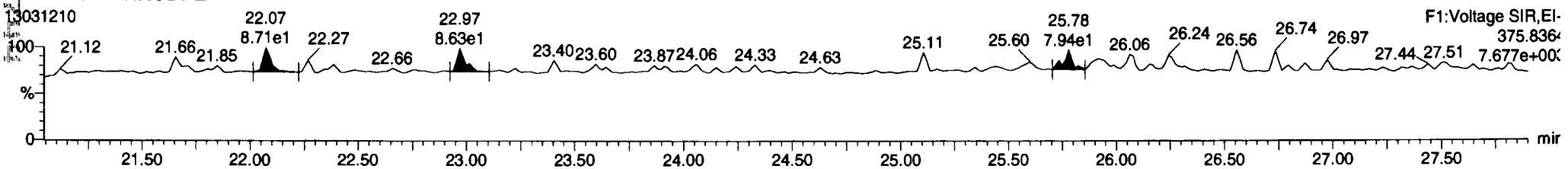
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



Dataset: P:\DIOXIN8290.PRO\130312ICV.qld
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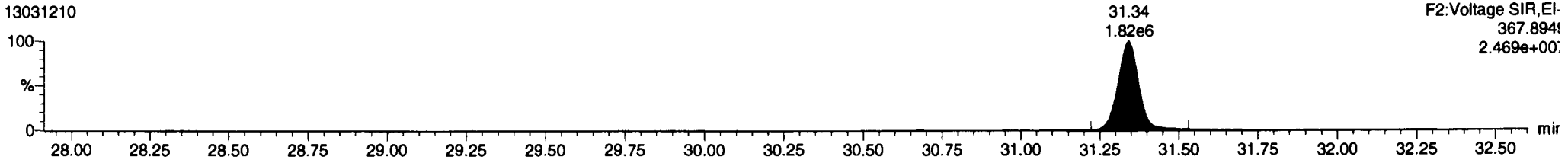
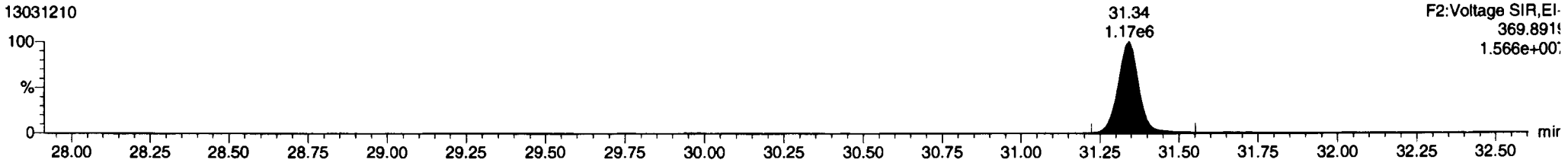
ID: ICV, Name: 13031210, Date: 12-Mar-2013, Time: 20:12:13, Conditions: AUTOSPEC01, User: pk

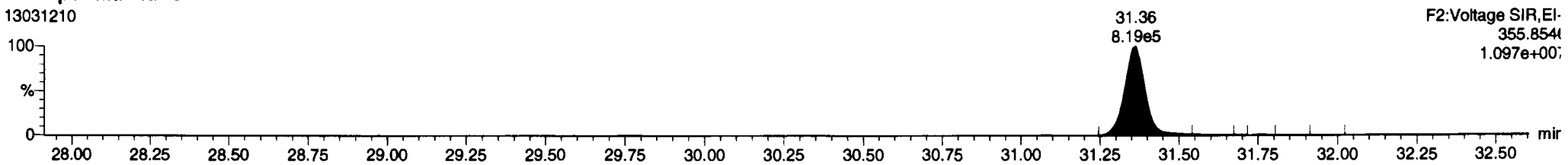
13C-12378-PeCDD



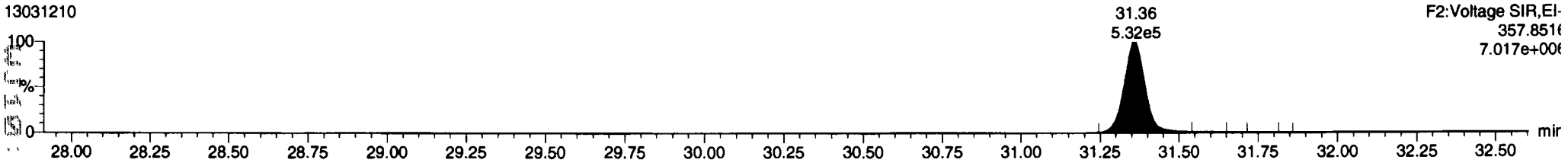
13C-12378-PeCDD



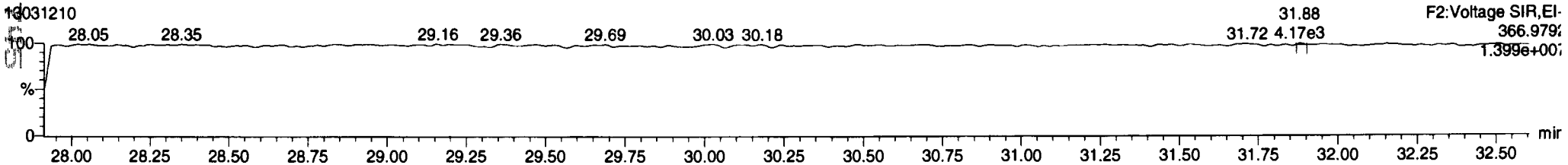
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



Dataset: P:\DIOXIN6290.PRO\130312ICV.qld
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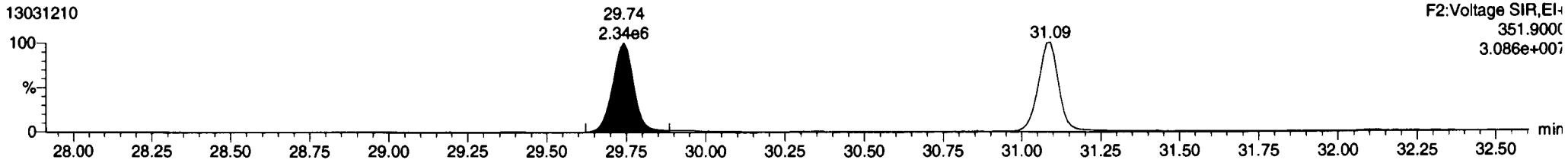
13C-12378-PeCDF



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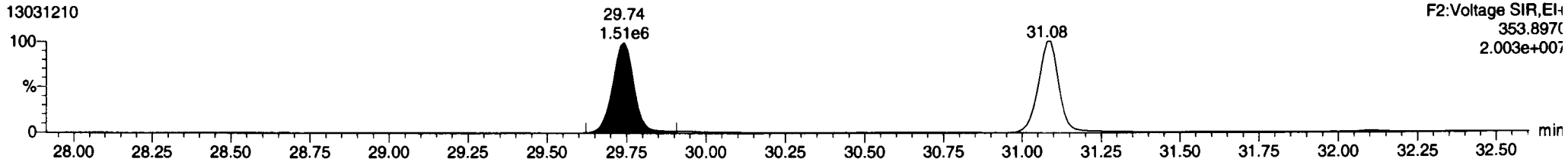
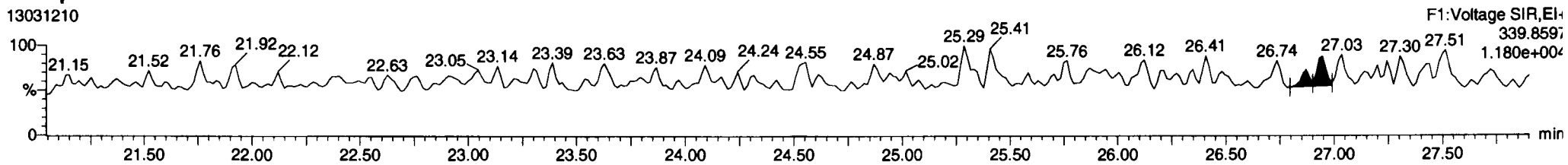
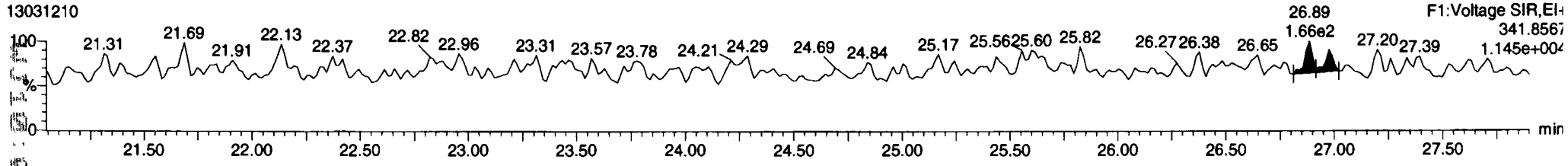


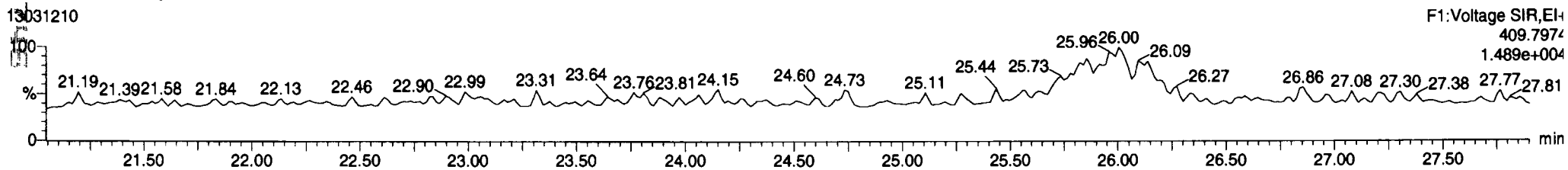
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\130312ICV.qld
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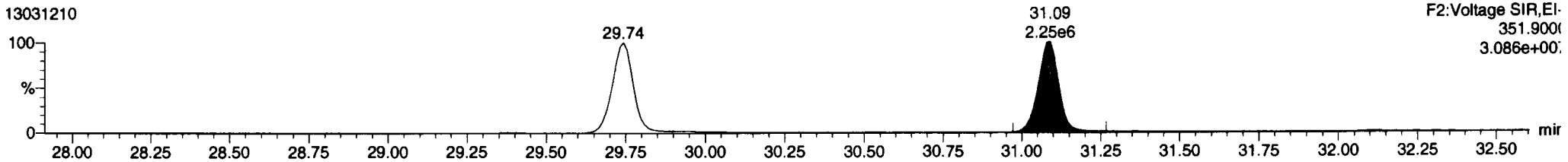
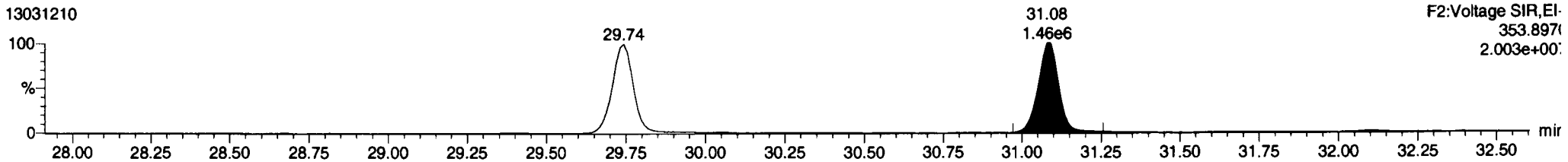
ID: ICV, Name: 13031210, Date: 12-Mar-2013, Time: 20:12:13, Conditions: AUTOSPEC01, User: pk

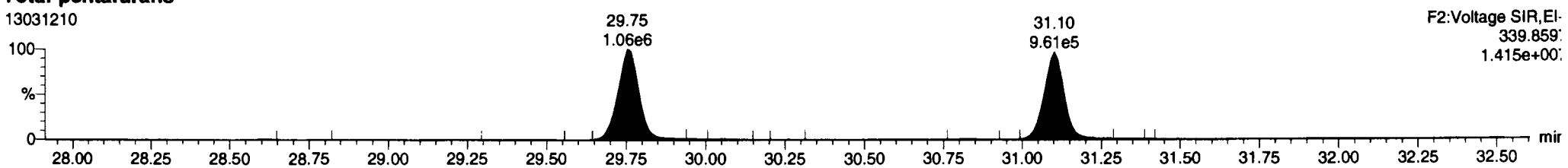
13C-23478-PeCDF



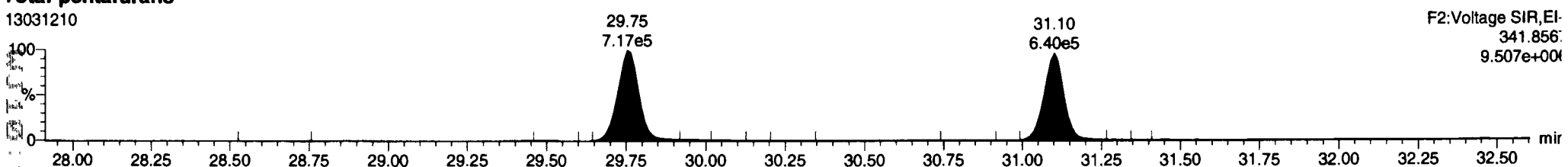
13C-23478-PeCDF



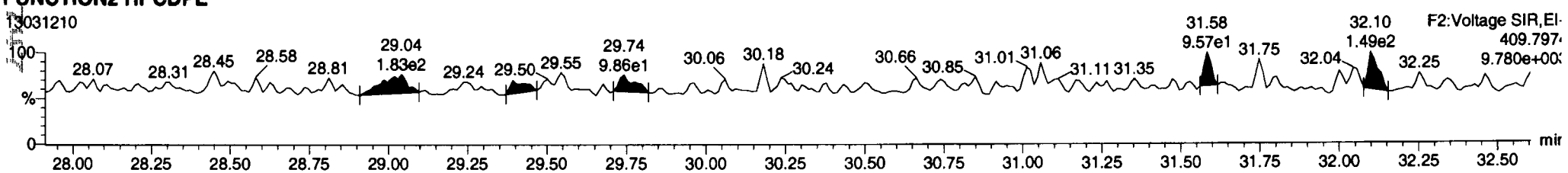
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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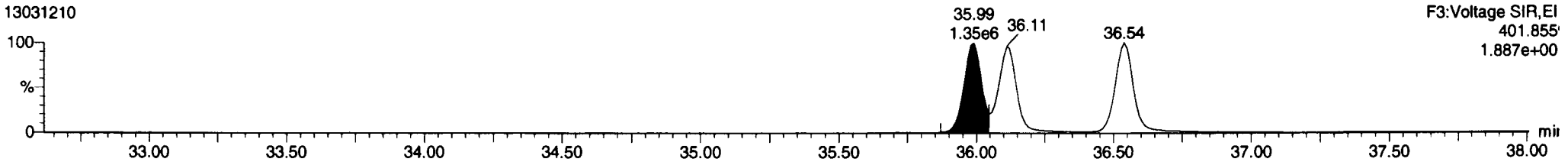
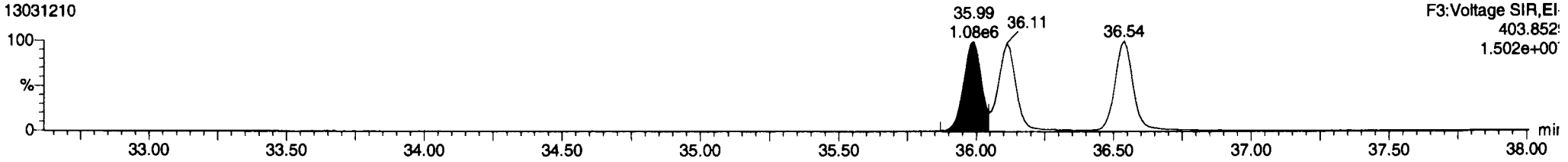
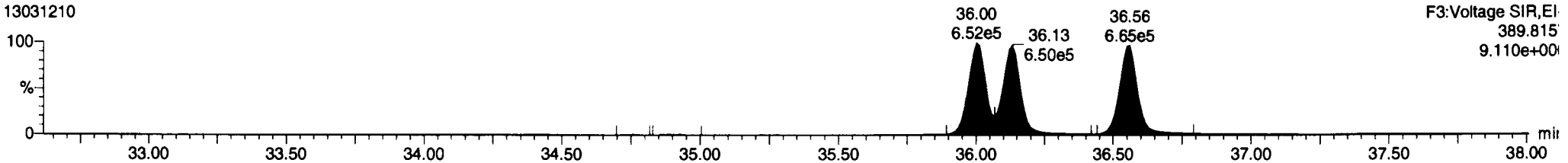
13C-123478-HxCDD



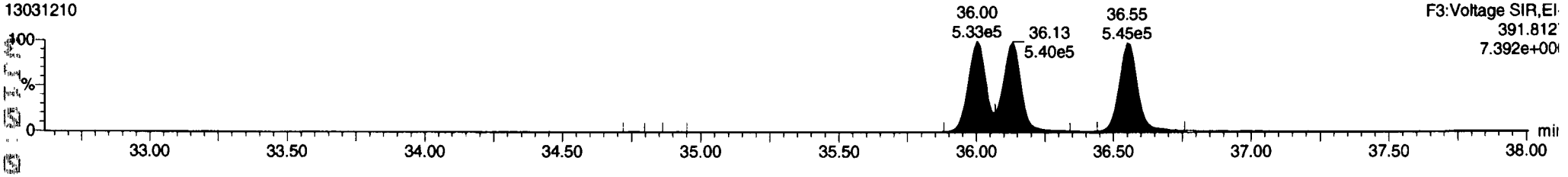
13C-123478-HxCDD



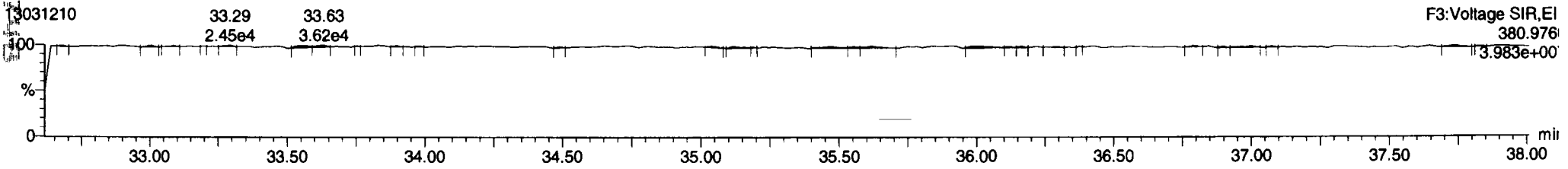
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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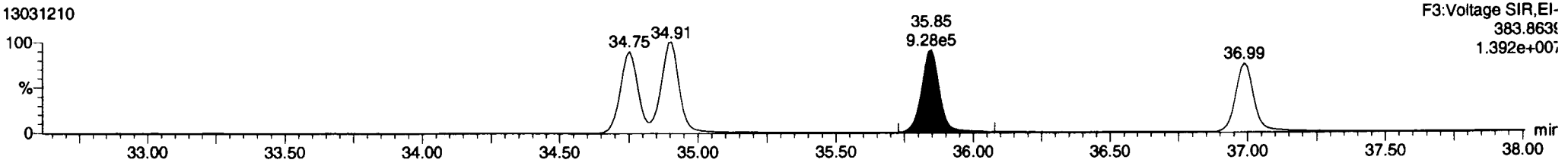
13C-234678-HxCDF



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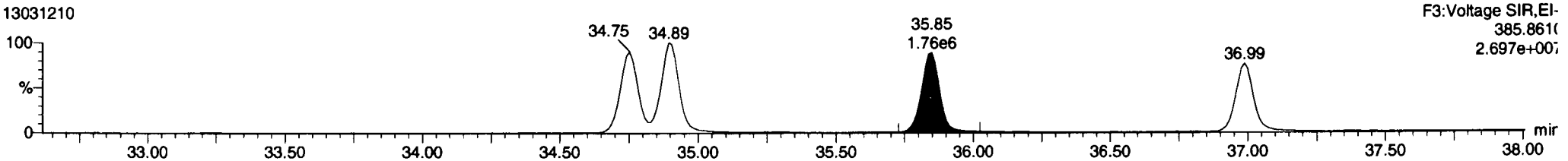
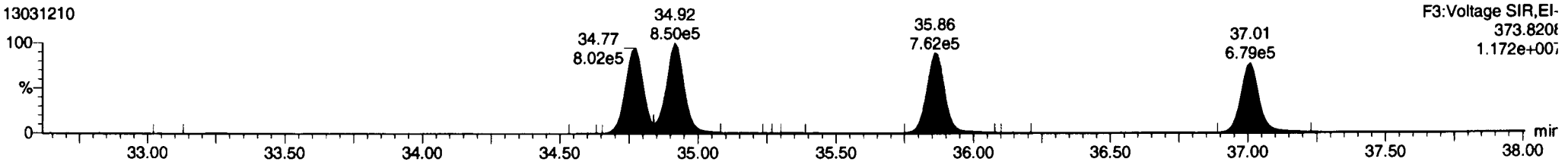
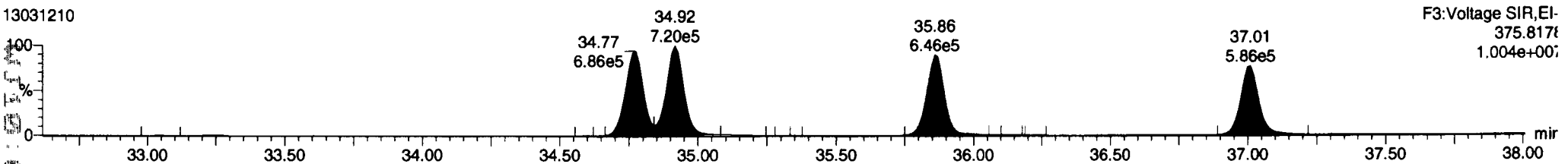


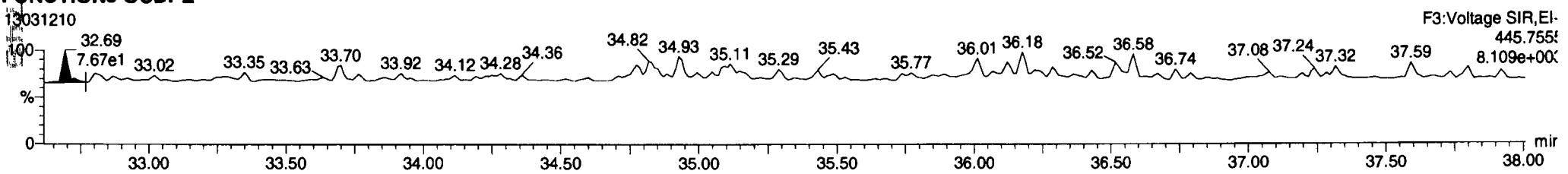
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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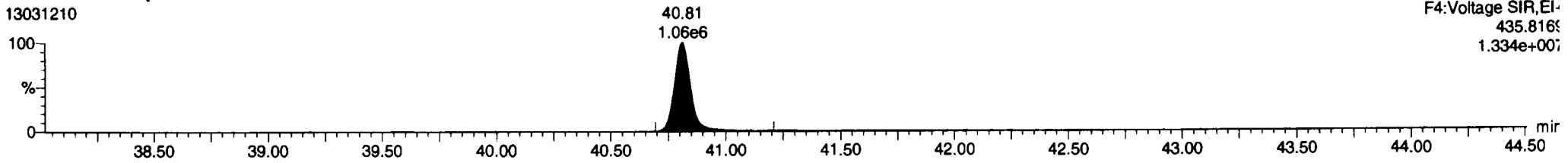
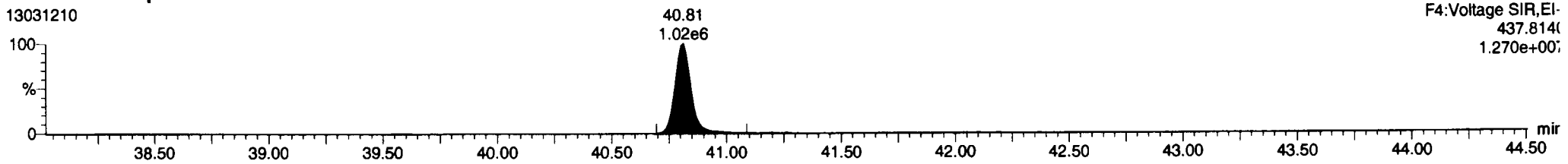
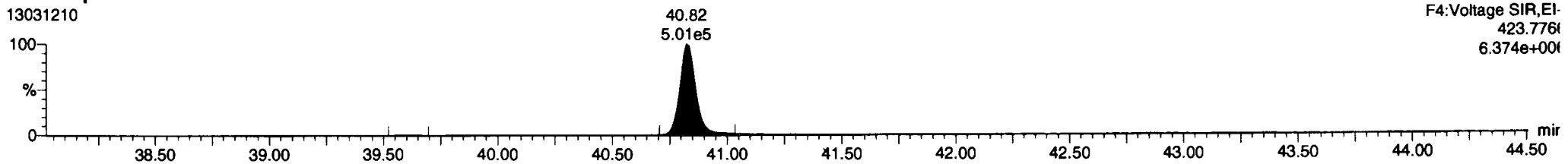
13C-1234678-HpCDD



13C-1234678-HpCDD



Total-heptadioxins



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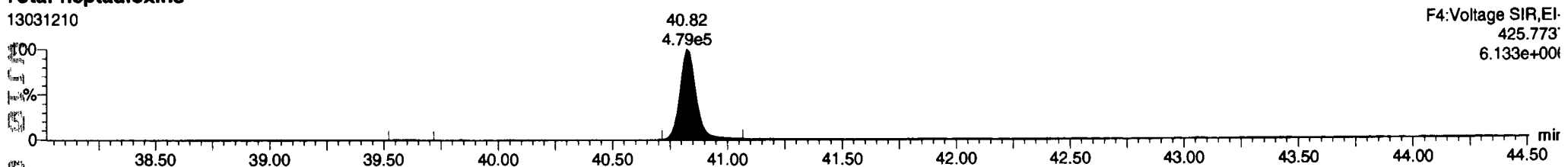

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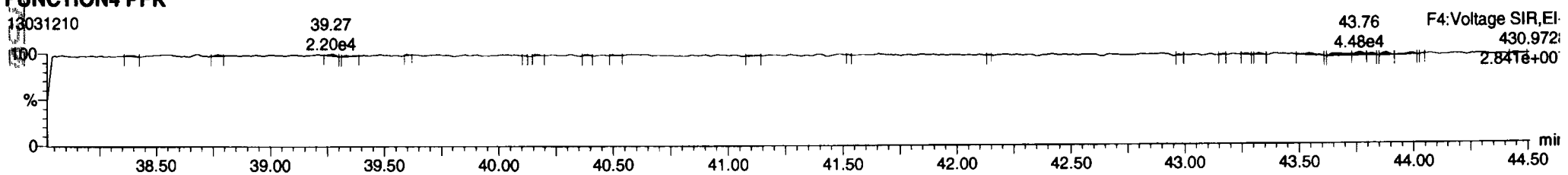

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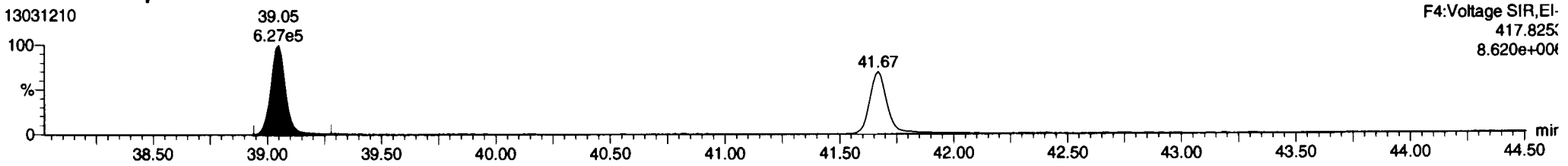
13C-1234678-HpCDF



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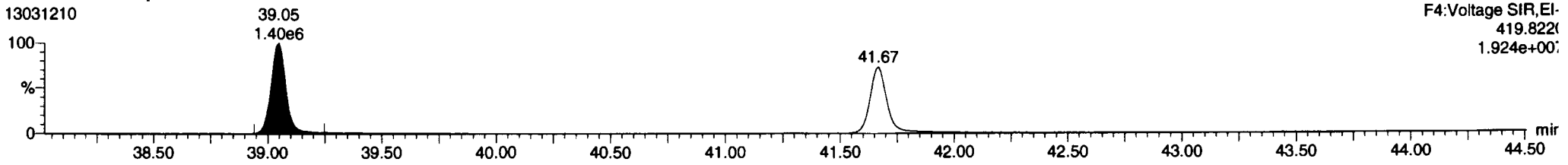

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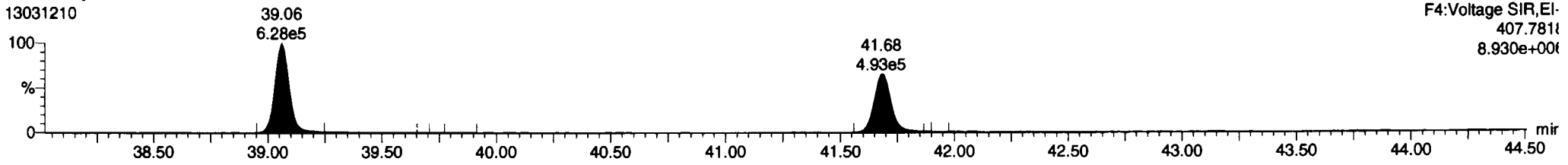

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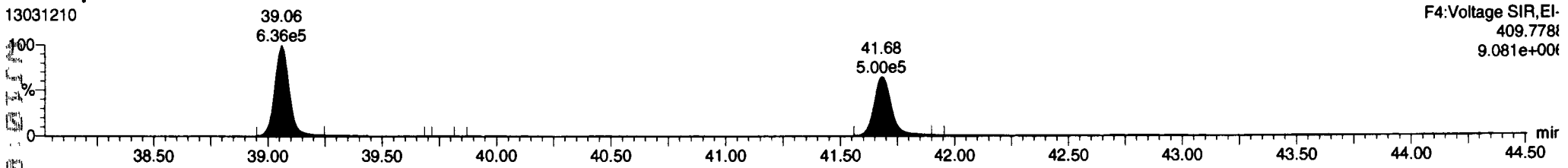

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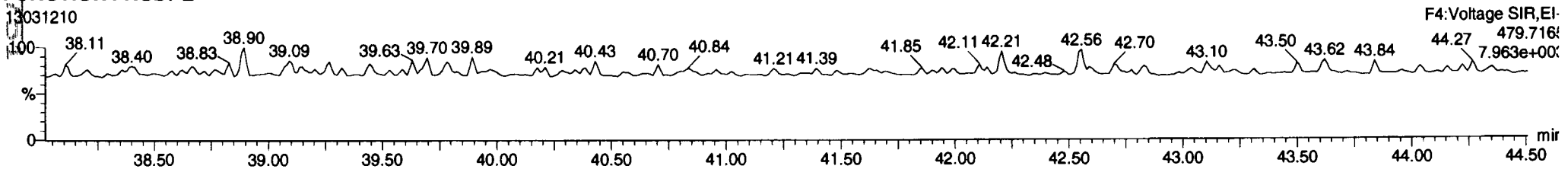

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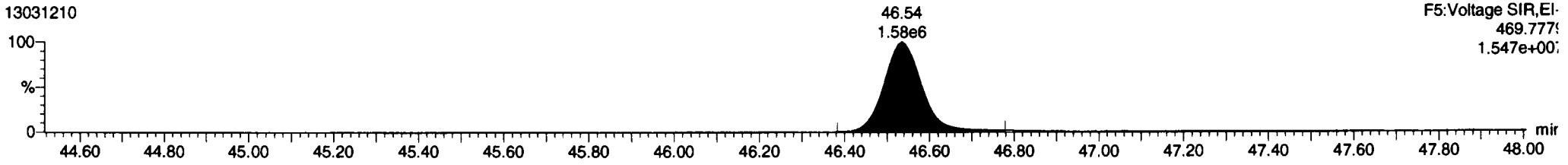

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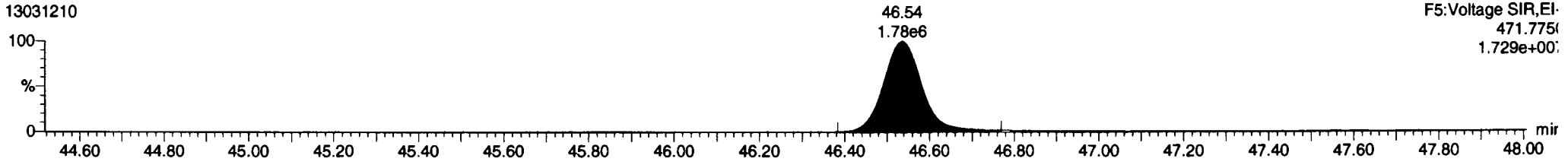

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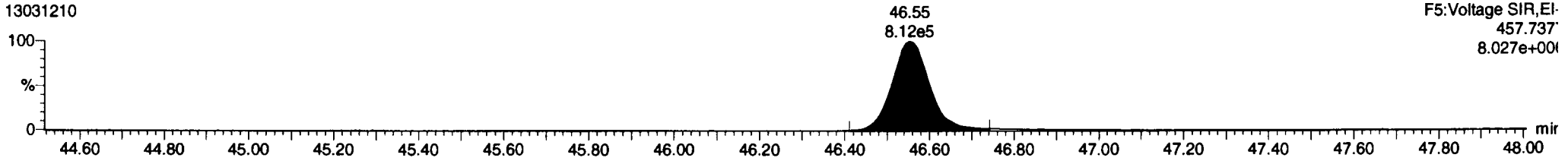

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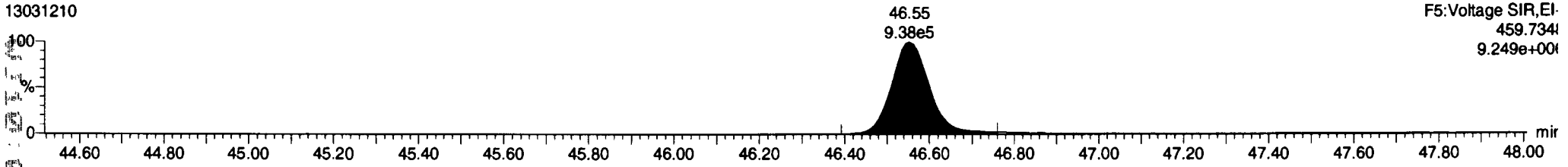

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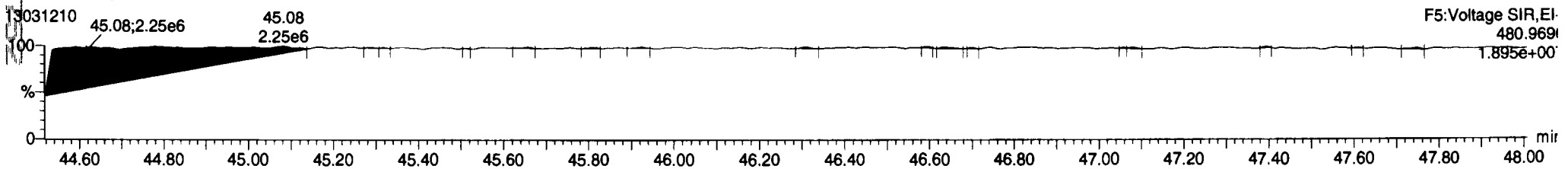

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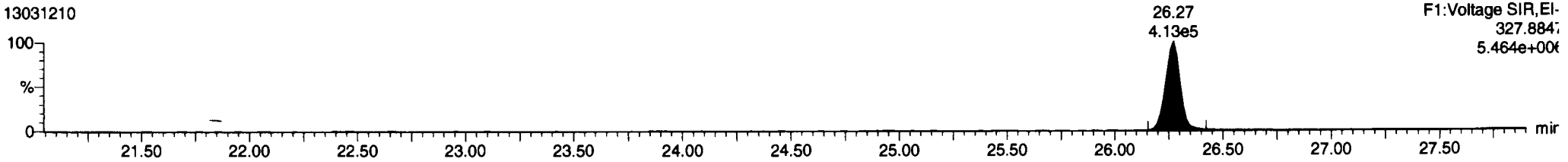
37CL-2378-TCDD



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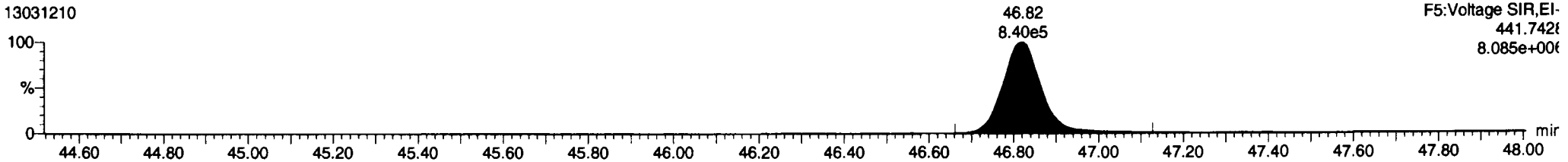

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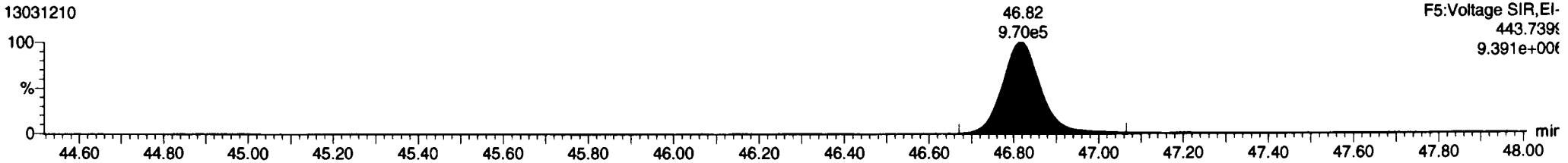

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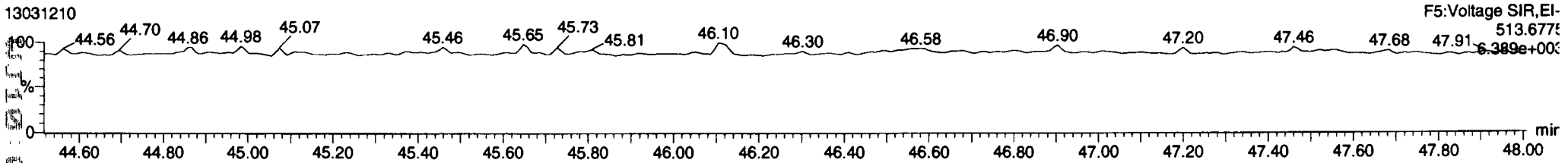

Dioxin Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

HR-GC/MS Analyst Notes / Data Review Checklist

ARI Work Order: WJ10 Client ID: SAIC

METHOD: **1613B** (Dioxins) **8290A** (Dioxins)

Instrument: **AutoSpec01**

Curve Date: 3/12/13 Analysis Start Date: 4/10/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Resolution Check > 10,000ppm	Y / N / ✓	Signal / Noise ≥ 2.5?	Y / N / ✓
TCDD / TCDF Resolution ≤ 25%	Y / N / ✓	Extraction STD Limits Met?	Y / N / ✓
PCDF Windows Verified	Y / N / ✓	Cleanup STD Limits Met?	Y / N / ✓
CCV Meets %D Limits?	Y / N / ✓	Method Blank in Control?	Y / N / ✓
CCV Ion Ratios within Limits?	Y / N / ✓	OPR Recovery Limits Met?	Y / N / ✓
CCV RRT within Limits?	Y / N / ✓	Values Exceeding Curve Range?	Y / N / 0001 ✓
Manual Integrations for Samples?	Y / N / ✓	Samples Diluted?	Y / N / ✓
Special Analysis Request?	Y / N / ✓	Duplicate Sample RPD ≤ 25%?	NA / ✓

Detail problems, corrective actions and/or other pertinent information below:

OK

(Review 1)Analyst: [signature] **Date:** 4/15/13

(Review 2)Reviewer: [signature] **Date:** 4/15

Analytical Resources Inc.: Organics Instrument Log

AutoSpec01 Serial No.:GC=CN10921030, MS=P764

Date: 4/11/13 Analysis: Dioxins Analyst: MK

GC Program: 8290C Column No: DB5MS Column Type: RTX Dioxin2

Inj Vol: 1ul Instrument Tune (IPR): dio130312.1-5 Detector Voltage: 350

Resolution Check Files: Curve Date: 3/12/13

IS/SS	Ical/Ccal	LCS/ICV
DF908	DF708 DFF-2	

1	11-Apr-13	10:00:22	13041102	CS3	
2	11-Apr-13	10:50:57	13041103	ISC01	
3	11-Apr-13	11:43:54	13041104	WK31B 50X	
4	11-Apr-13	12:35:01	13041105	CS3	
5	11-Apr-13	14:14:51	13041106	ISC01	
6	11-Apr-13	15:13:07	13041107	DFBLK08	WJ98
7	11-Apr-13	16:03:19	13041108	DLCS08	
8	11-Apr-13	16:55:39	13041109	D77K4	
9	11-Apr-13	17:47:53	13041110	D77K5	
10	11-Apr-13	18:40:15	13041111	D77K6	
11	11-Apr-13	19:32:29	13041112	D77K7	
12	11-Apr-13	20:24:48	13041113	D77K8	
13	11-Apr-13	21:17:03	13041114	D77K9	
14	11-Apr-13	22:09:22	13041115	D77L0	
15	11-Apr-13	23:01:37	13041116	CS3	
16	12-Apr-13	00:02:09	13041117	ISC01	
17	12-Apr-13	00:57:42	13041118	D77L1	
18	12-Apr-13	01:49:57	13041119	D77L2	
19	12-Apr-13	02:42:16	13041120	D77L3	
20	12-Apr-13	03:34:31	13041121	D77L1 10X	
21	12-Apr-13	04:27:06	13041122	WJ10C	
22	12-Apr-13	05:19:23	13041123	WJ10D	
23	12-Apr-13	06:11:42	13041124	WK28A	
24	12-Apr-13	07:03:58	13041125	WK28A DUP	
25	12-Apr-13	07:56:22	13041126	WK28SRM	
26	12-Apr-13	08:48:38	13041127	WK70C	
27	12-Apr-13	09:40:57	13041128	CS3	
28	12-Apr-13	10:41:26	13041129	ISC01	
29	12-Apr-13	11:43:15	13041130	D77K4 10X	
30	12-Apr-13	12:33:28	13041131	D77L0 10X	
31	12-Apr-13	13:25:56	13041132	D77L2 10X	
32	12-Apr-13	14:18:11	13041133	D77L3 10X	
33	12-Apr-13	15:10:39	13041134	WK70C 5X	
34	12-Apr-13	16:02:54	13041135	CS3	
35	12-Apr-13	17:03:58	13041136	ISC01	

MK 4/15/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Printed: Thursday, April 11, 2013 13:35:25 Pacific Daylight Time

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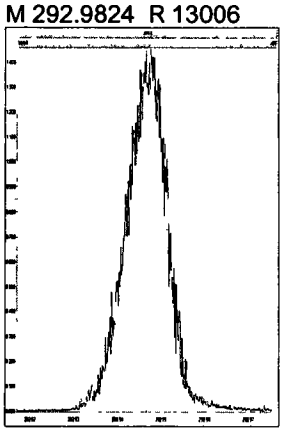

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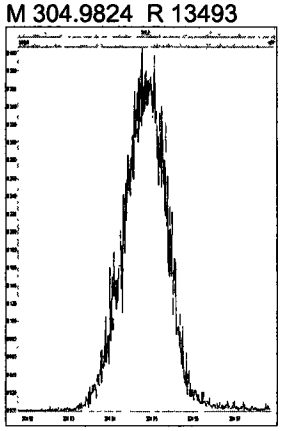

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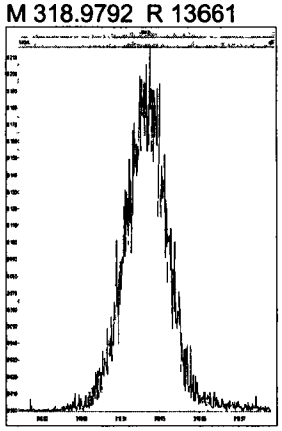

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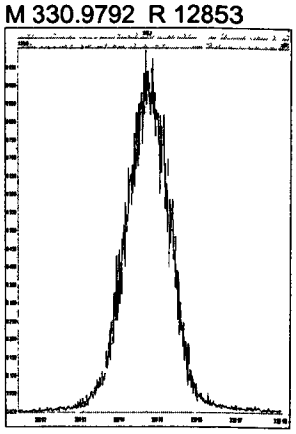

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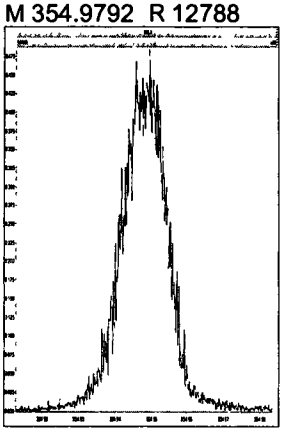

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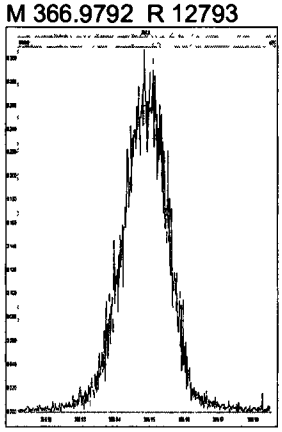

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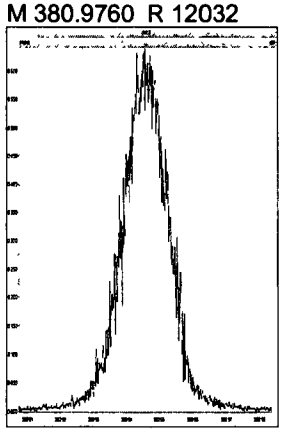

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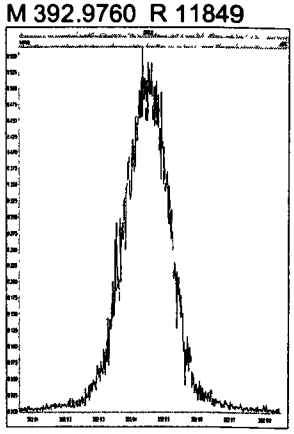

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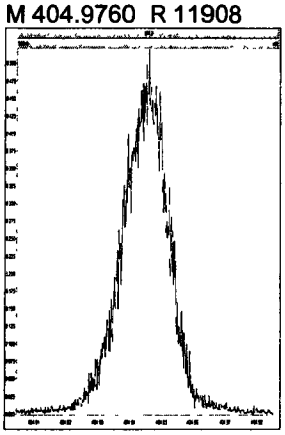

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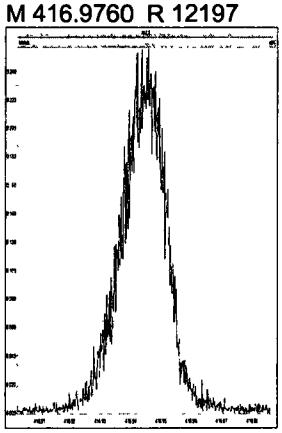

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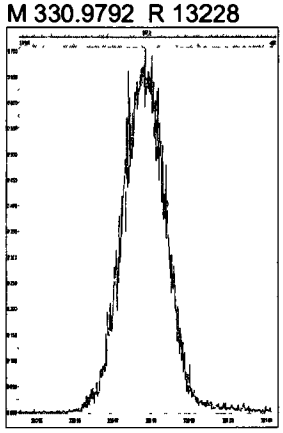

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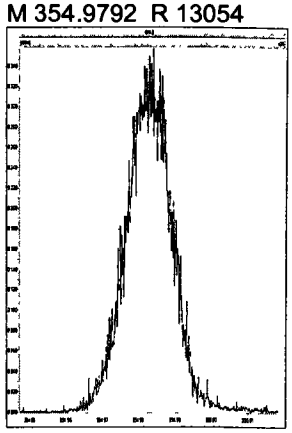

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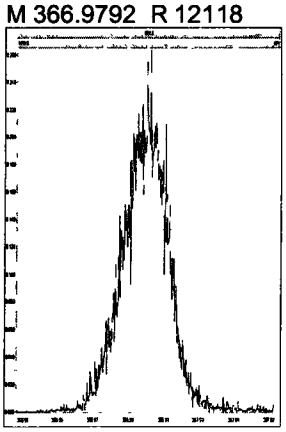

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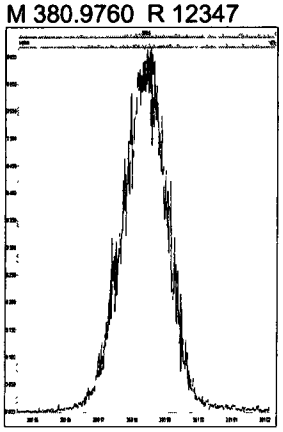

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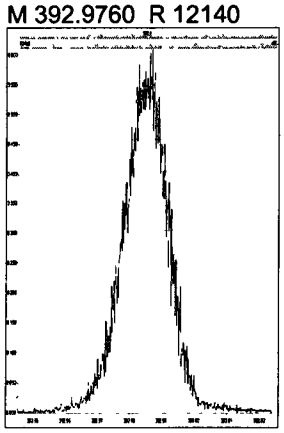

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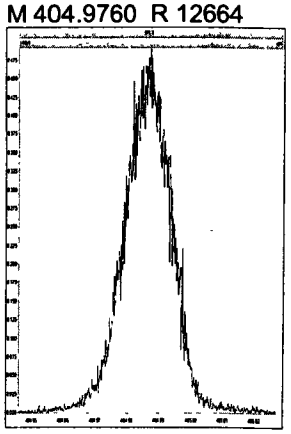

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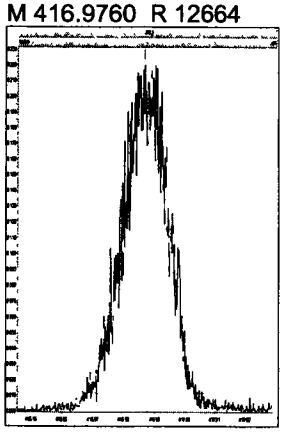

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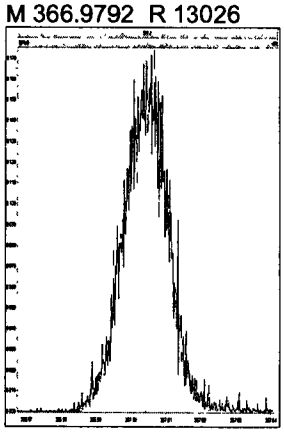

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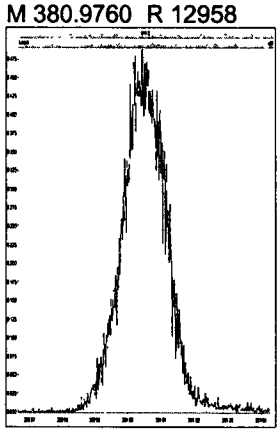

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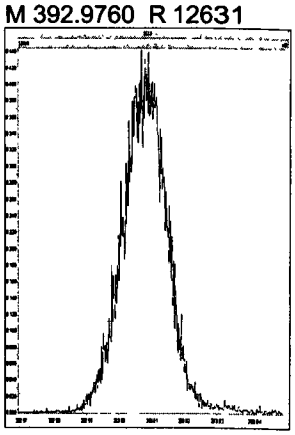
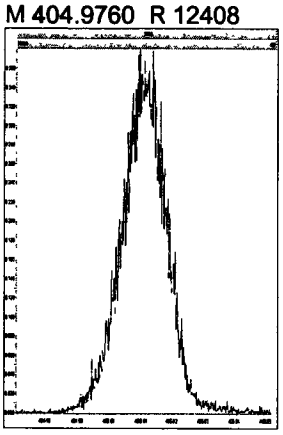
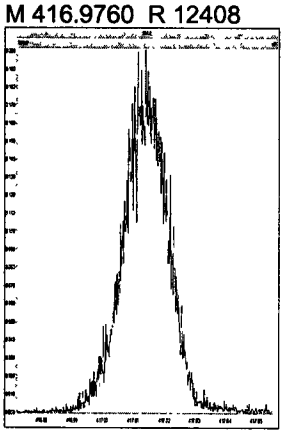


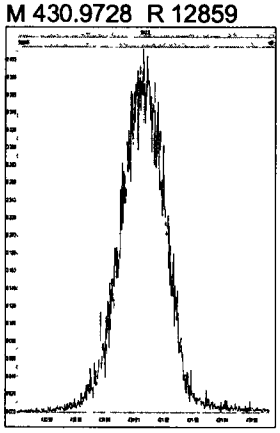
M 404.9760 R 12408



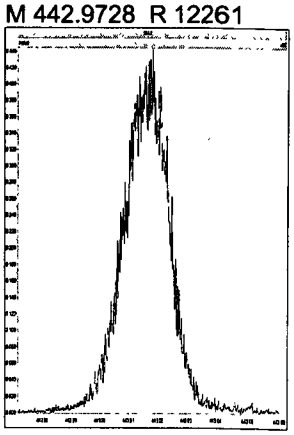
M 416.9760 R 12408



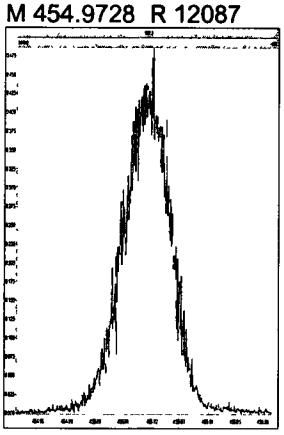
M 430.9728 R 12859



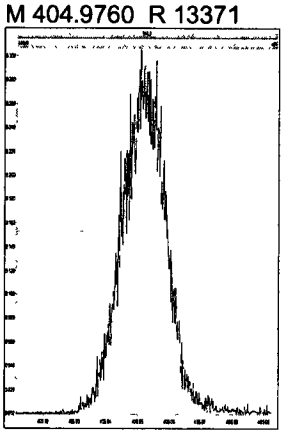
M 442.9728 R 12261



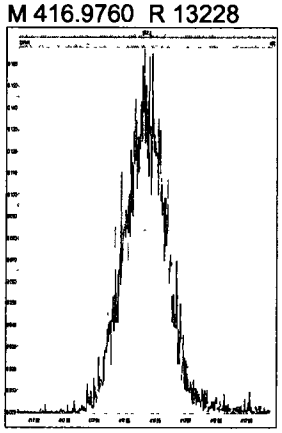
M 454.9728 R 12087



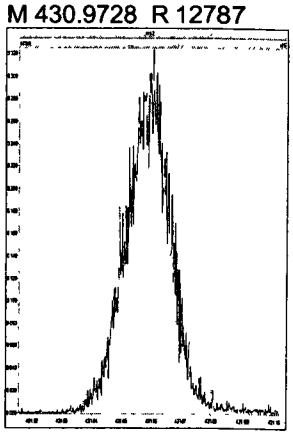
M 404.9760 R 13371



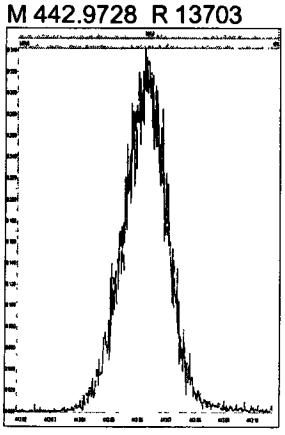
M 416.9760 R 13228



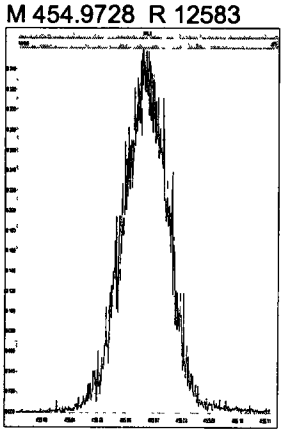
M 430.9728 R 12787



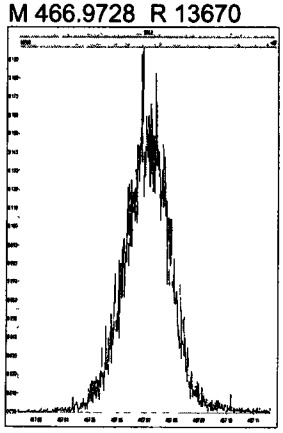
M 442.9728 R 13703



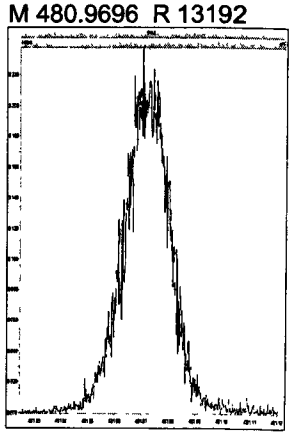
M 454.9728 R 12583



M 466.9728 R 13670



M 480.9696 R 13192



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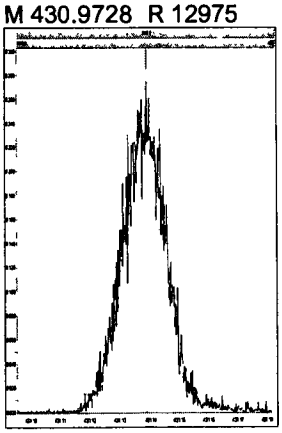
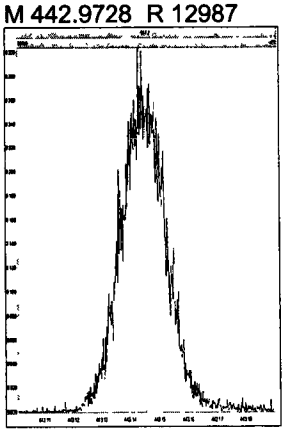
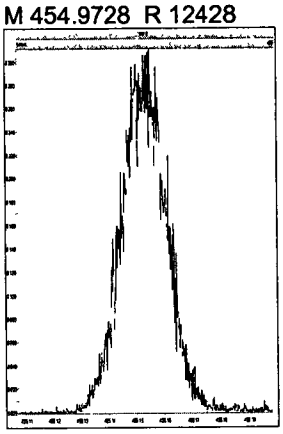
M 430.9728 R 12975



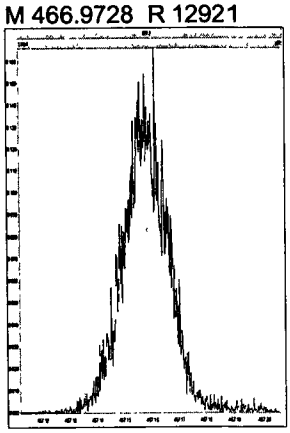
M 442.9728 R 12987



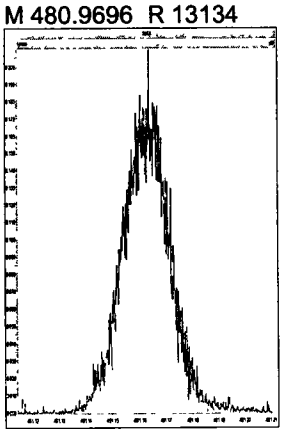
M 454.9728 R 12428



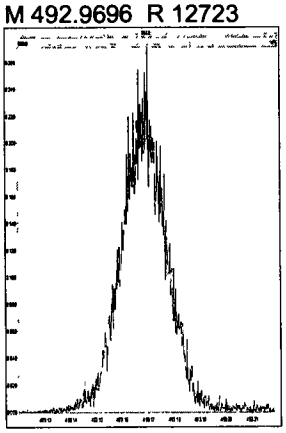
M 466.9728 R 12921



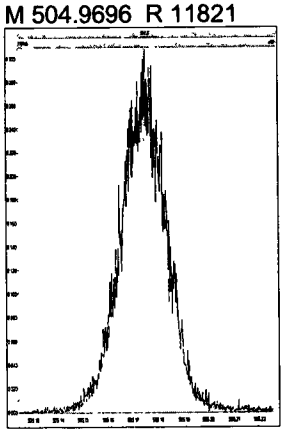
M 480.9696 R 13134



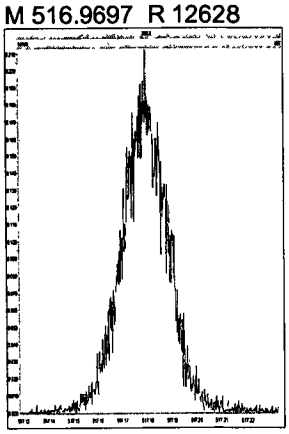
M 492.9696 R 12723

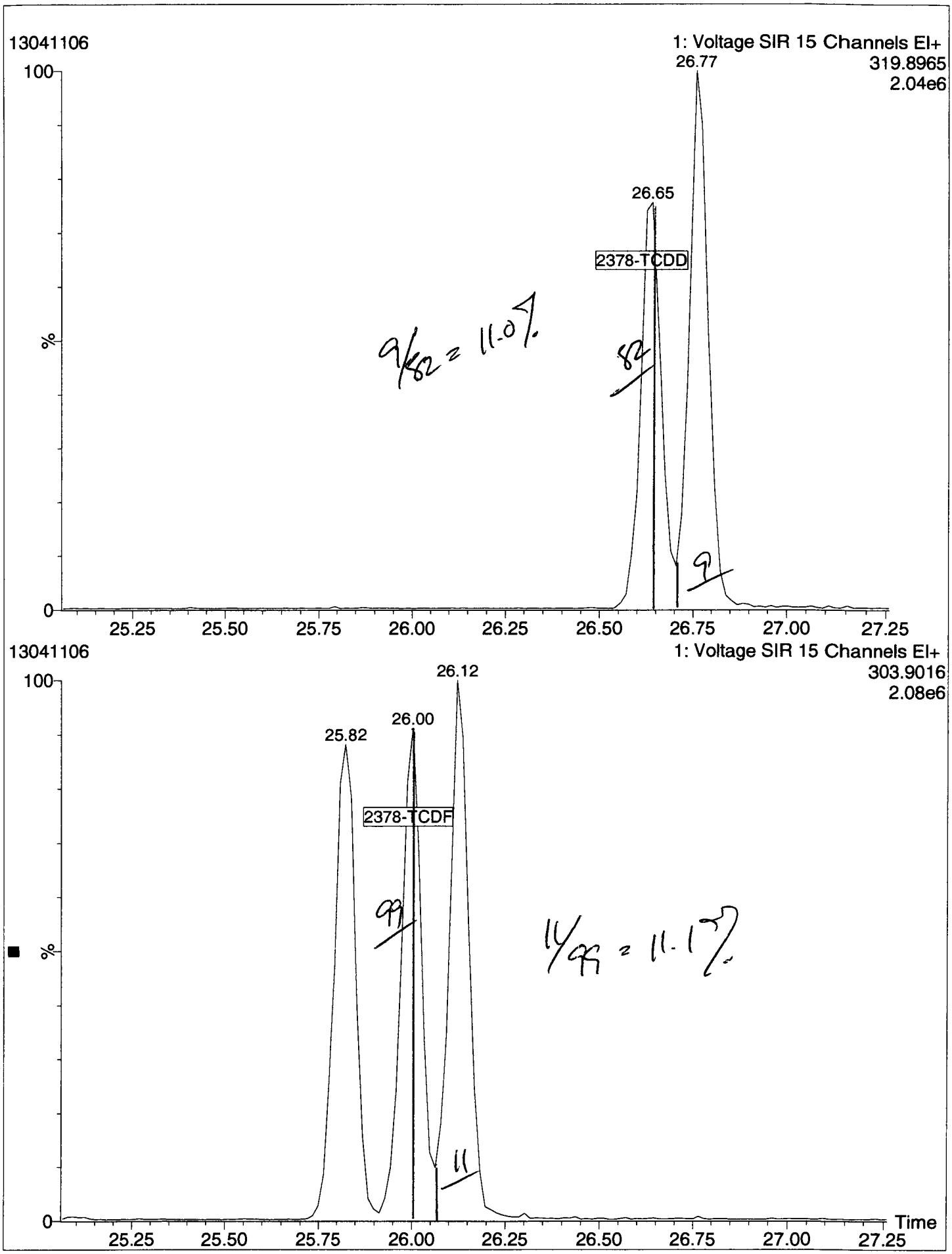


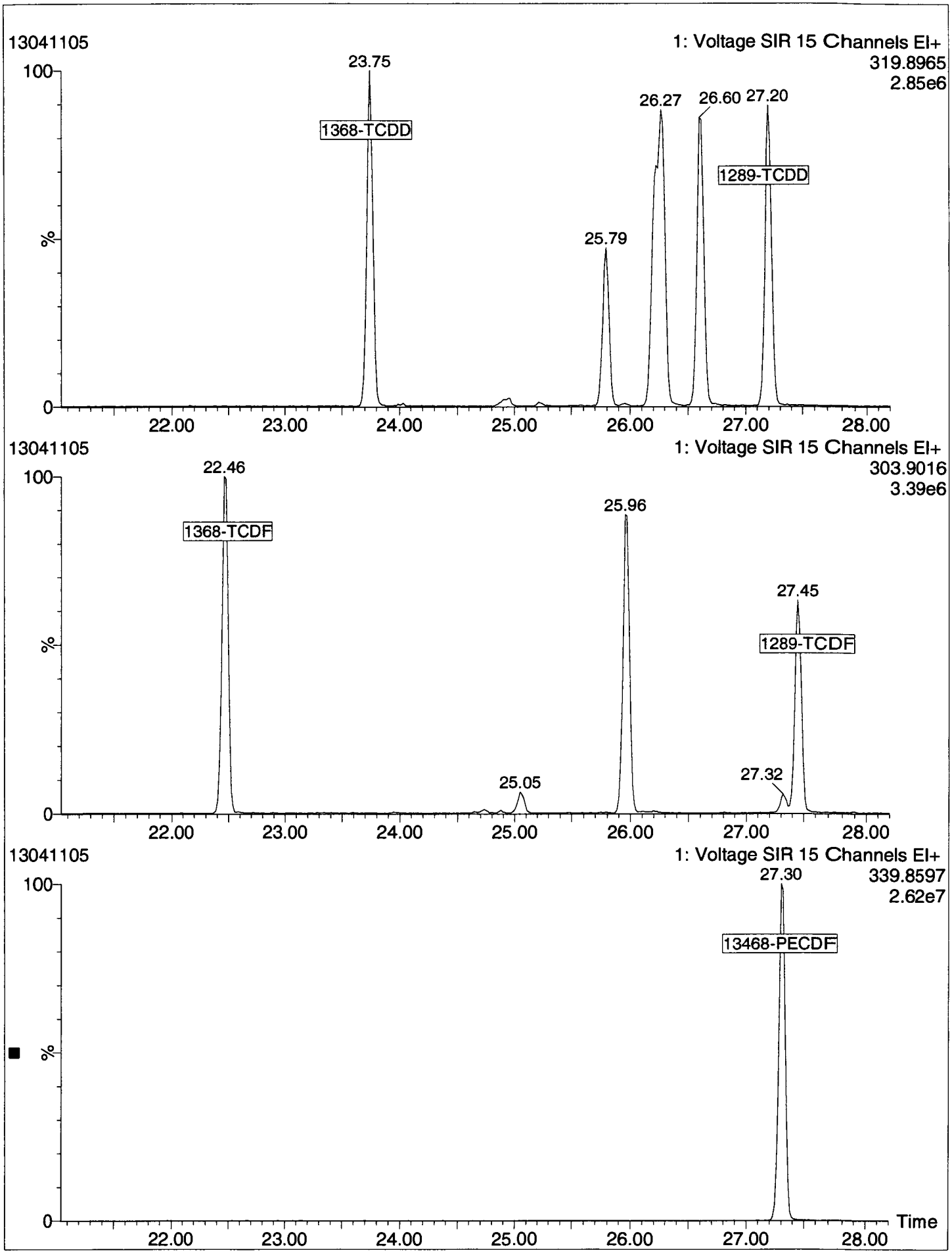
M 504.9696 R 11821

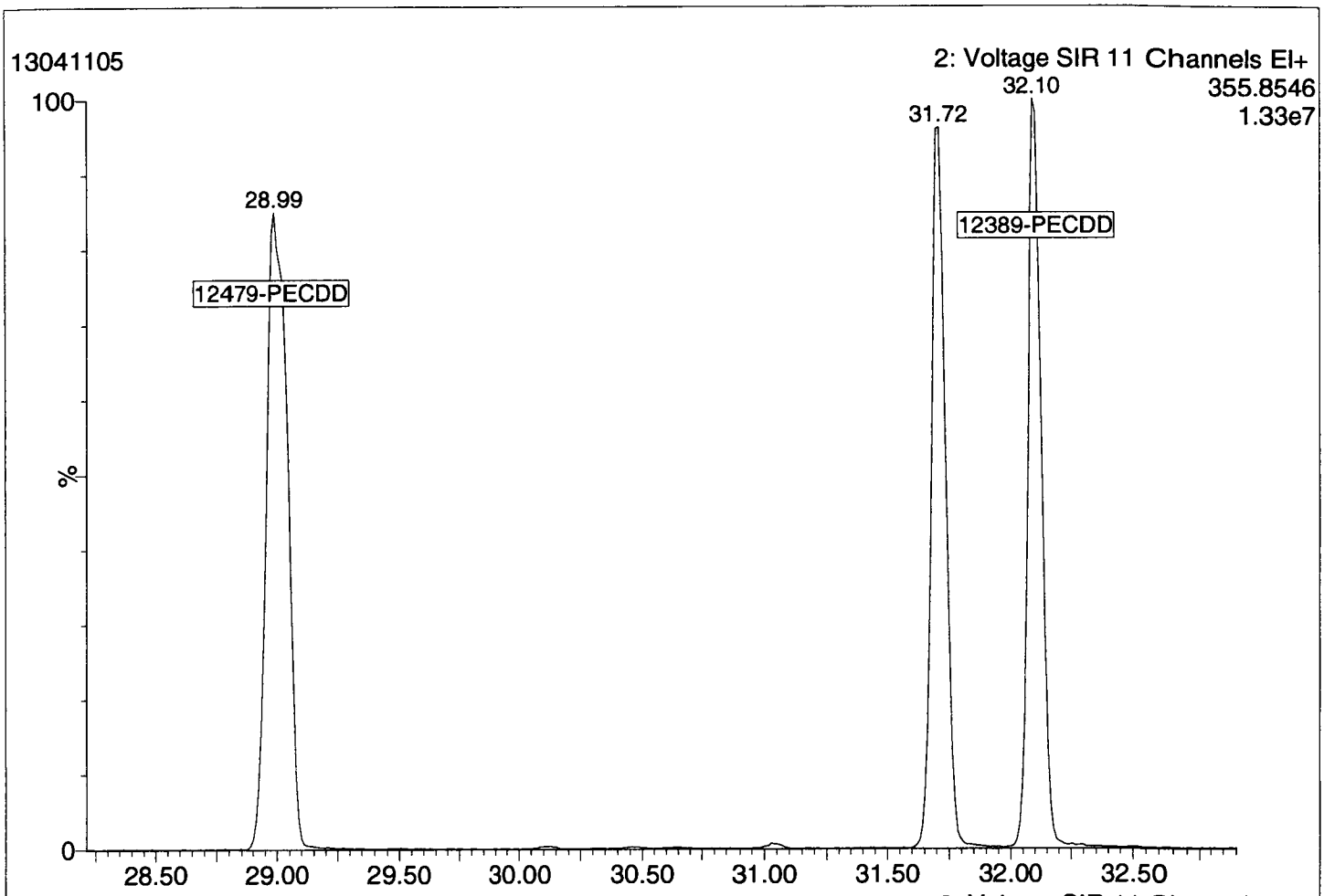


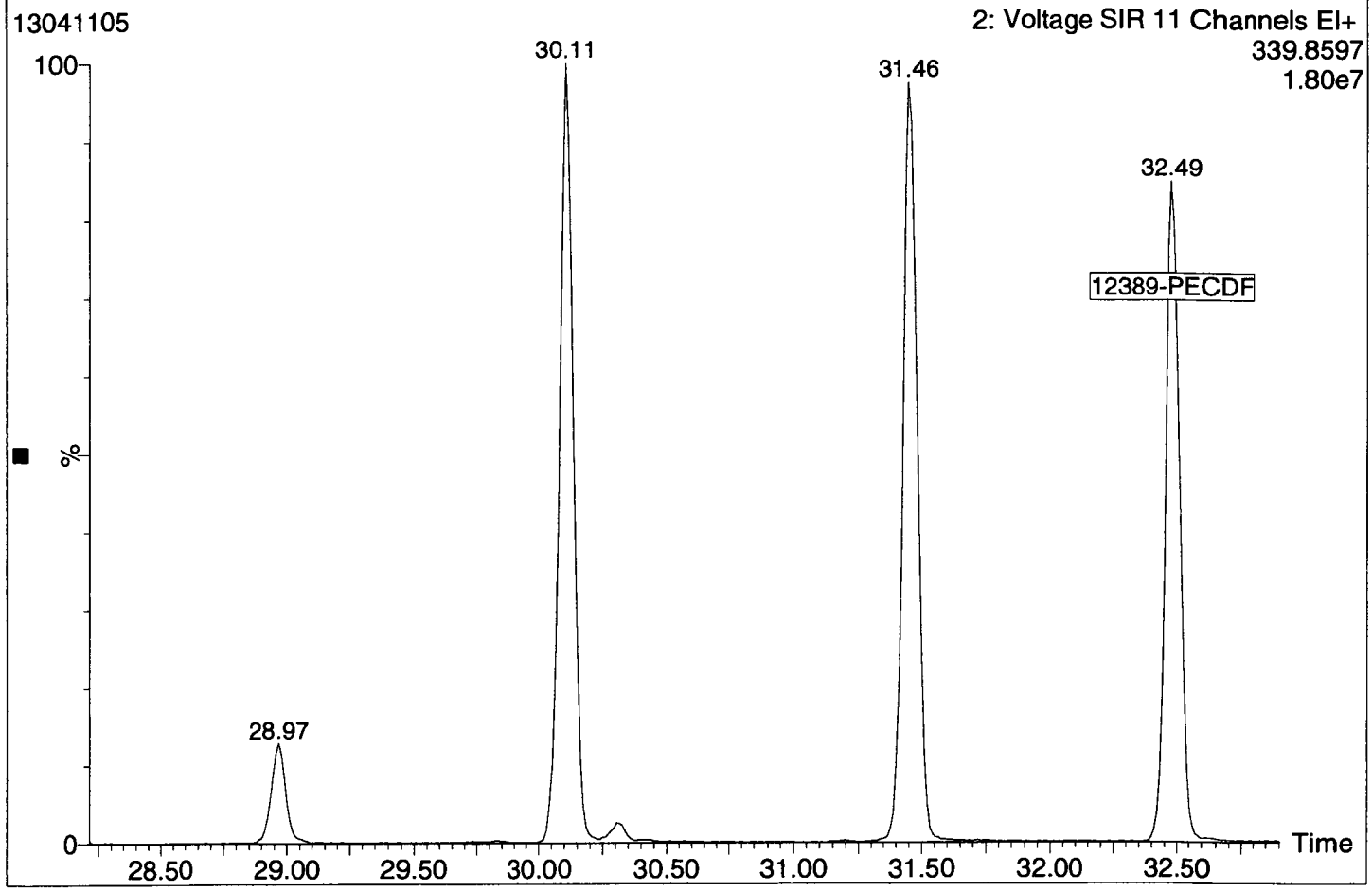
M 516.9697 R 12628

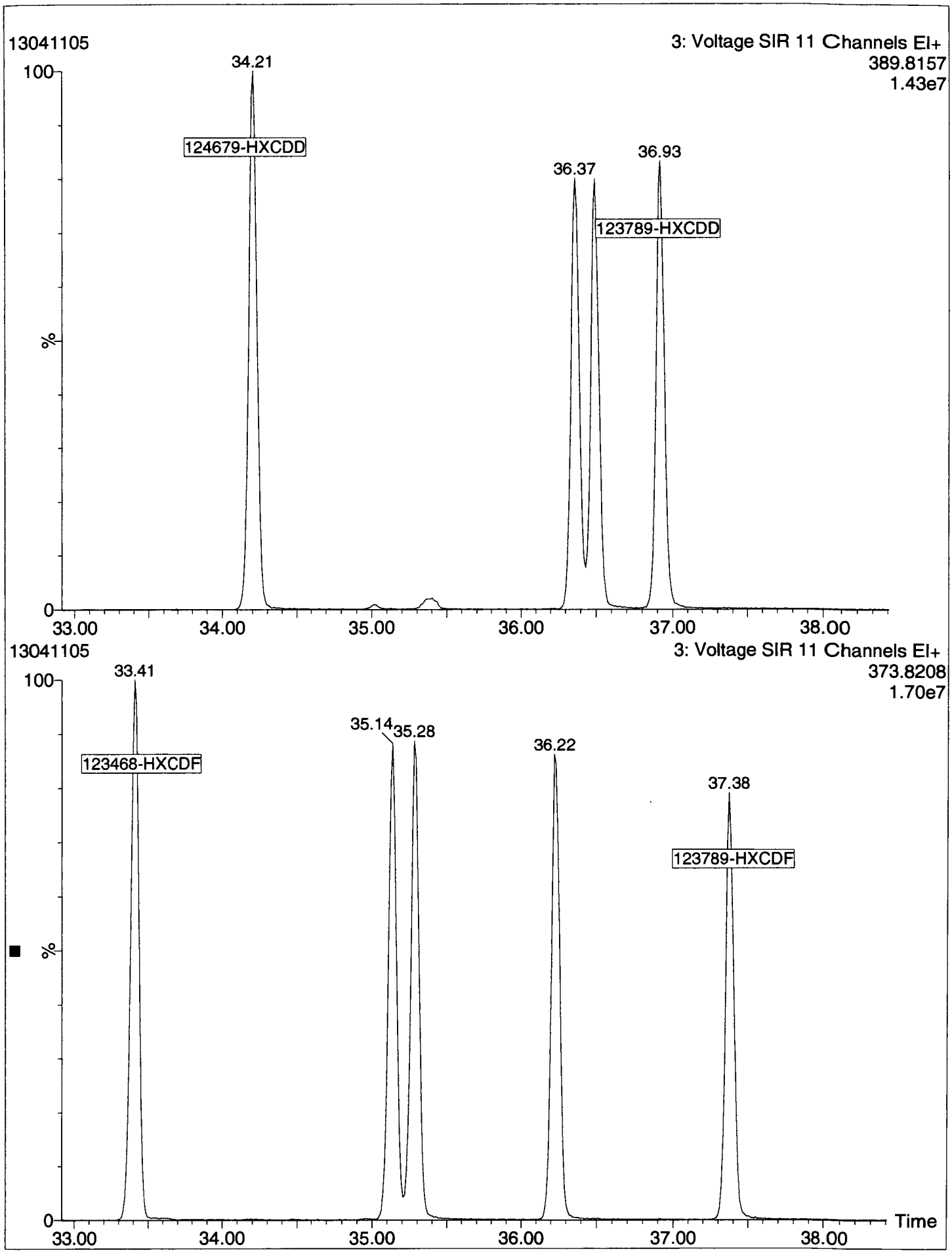


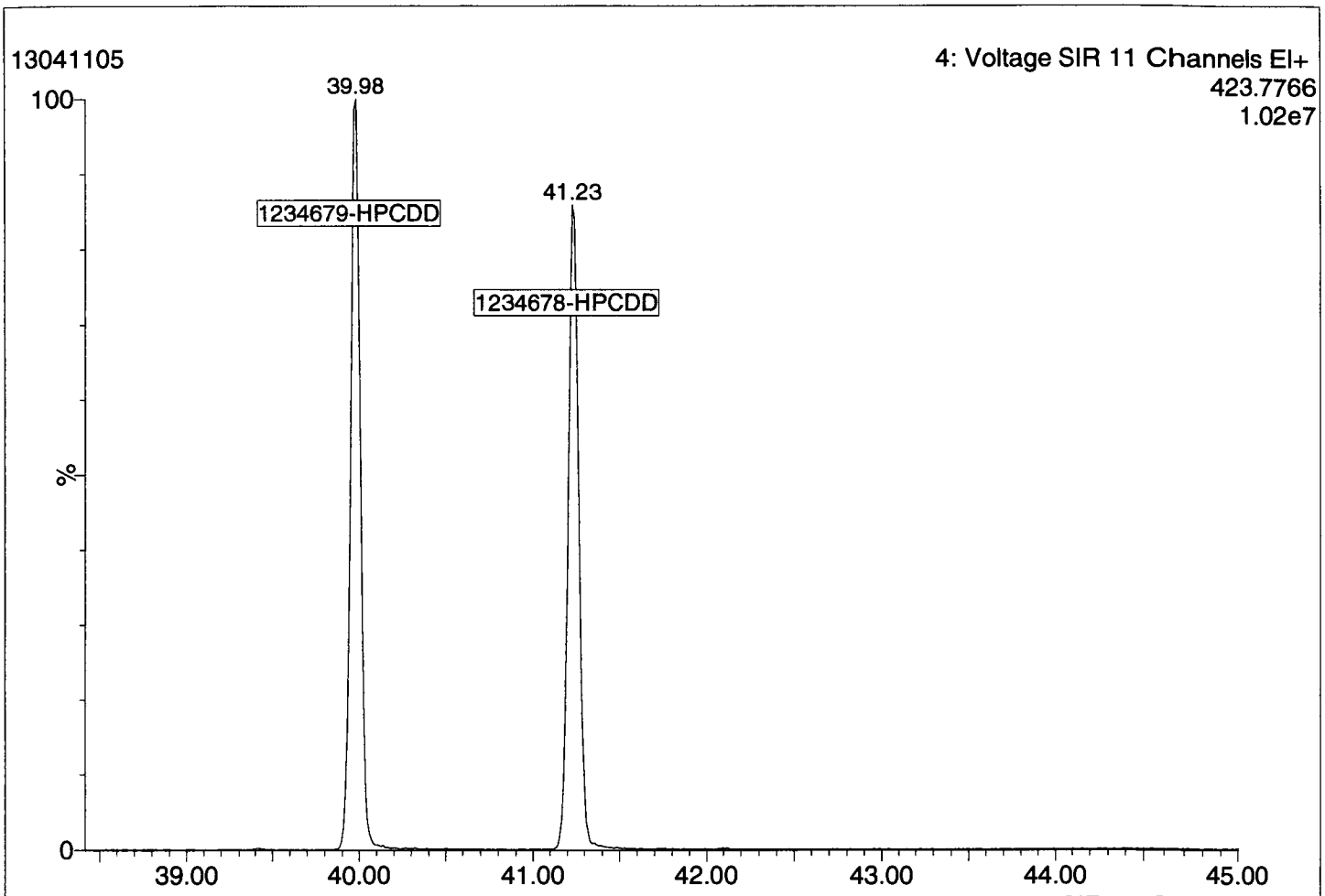

13041106
1: Voltage SIR 15 Channels EI+
26.77
319.8965
2.04e6
100
26.65
2378-TCDD
%
9/82 = 11.0%
82
9
0
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00
27.25
13041106
1: Voltage SIR 15 Channels EI+
303.9016
2.08e6
100
26.12
26.00
25.82
2378-TCDF
%
99
11/99 = 11.1%
11
0
Time
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00
27.25

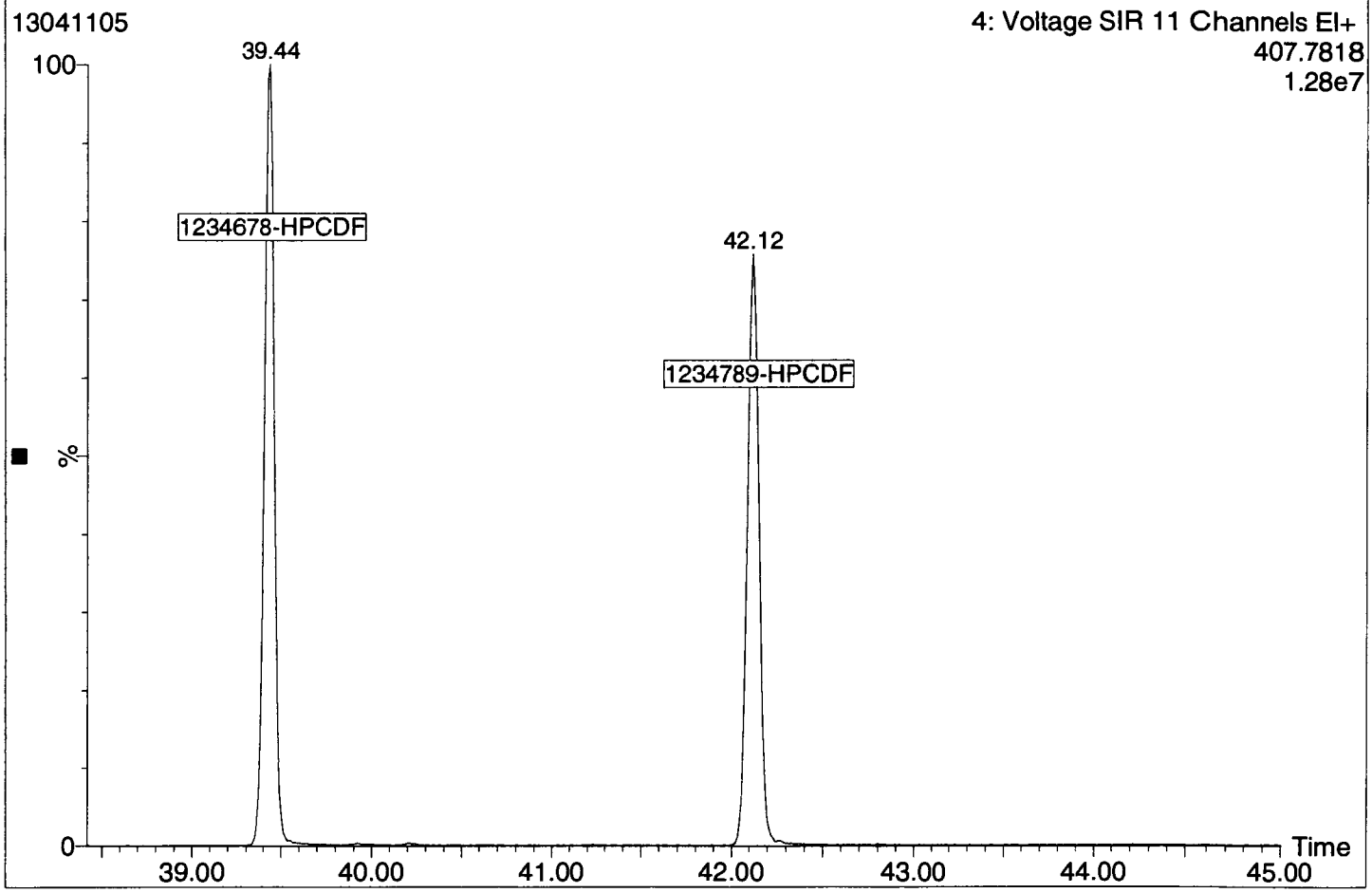

13041105
1: Voltage SIR 15 Channels EI+
319.8965
2.85e6
23.75
1368-TCDD
26.27
26.60
27.20
1289-TCDD
25.79
100
%
0
22.00
23.00
24.00
25.00
26.00
27.00
28.00
13041105
1: Voltage SIR 15 Channels EI+
303.9016
3.39e6
22.46
1368-TCDF
25.96
27.45
1289-TCDF
25.05
27.32
100
%
0
22.00
23.00
24.00
25.00
26.00
27.00
28.00
13041105
1: Voltage SIR 15 Channels EI+
339.8597
2.62e7
27.30
13468-PECDF
100
%
0
Time
22.00
23.00
24.00
25.00
26.00
27.00
28.00


13041105
2: Voltage SIR 11 Channels EI+
355.8546
1.33e7
100
%
0
28.99
12479-PECDD
31.72
32.10
12389-PECDD
28.50
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50


13041105
2: Voltage SIR 11 Channels EI+
339.8597
1.80e7
100
%
0
28.97
30.11
31.46
32.49
12389-PECDF
Time
28.50
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50


13041105
3: Voltage SIR 11 Channels EI+
389.8157
1.43e7
34.21
124679-HXCDD
36.37
36.93
123789-HXCDD
100
%
0
33.00
34.00
35.00
36.00
37.00
38.00
13041105
3: Voltage SIR 11 Channels EI+
373.8208
1.70e7
33.41
123468-HXCDF
35.14
35.28
36.22
37.38
123789-HXCDF
100
%
0
Time
33.00
34.00
35.00
36.00
37.00
38.00


13041105
4: Voltage SIR 11 Channels EI+
423.7766
1.02e7
39.98
1234679-HPCDD
41.23
1234678-HPCDD
100
%
0
39.00
40.00
41.00
42.00
43.00
44.00
45.00


13041105
4: Voltage SIR 11 Channels EI+
407.7818
1.28e7
39.44
1234678-HPCDF
42.12
1234789-HPCDF
100
%
0
Time
39.00
40.00
41.00
42.00
43.00
44.00
45.00

WJ10:01764

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Printed: Thursday, April 11, 2013 14:27:41 Pacific Daylight Time

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1	2378-TCDF	25.974	1.001	1.93e5	2.60e5	0.763	0.740	0.770	977.1	NO	11.099	11.099
2	12378-PeCDF	30.108	1.000	1.12e6	7.35e5	0.836	1.517	1.550	5155.8	NO	52.949	52.949
3	23478-PeCDF	31.456	1.000	1.11e6	7.52e5	0.851	1.481	1.550	5124.7	NO	53.158	53.158
4	123478-HxCDF	35.139	1.001	9.24e5	7.82e5	1.017	1.183	1.240	2617.4	NO	51.573	51.573
5	234678-HxCDF	36.235	1.001	9.30e5	7.81e5	1.027	1.191	1.240	2557.4	NO	54.076	54.076
6	123678-HxCDF	35.282	1.000	9.52e5	7.96e5	1.013	1.197	1.240	2633.2	NO	50.715	50.715
7	123789-HxCDF	37.375	1.001	8.26e5	6.87e5	0.929	1.203	1.240	2343.0	NO	53.068	53.068
8	1234678-HpCDF	39.436	1.001	8.29e5	8.44e5	1.151	0.983	1.050	4331.4	NO	53.059	53.059
9	1234789-HpCDF	42.121	1.001	6.97e5	6.91e5	1.149	1.008	1.050	3260.2	NO	52.877	52.877
10	OCDF	47.400	1.006	1.15e6	1.35e6	0.963	0.853	0.890	7713.0	NO	107.617	107.617
11	2378-TCDD	26.601	1.001	1.61e5	2.11e5	0.980	0.761	0.770	1517.2	NO	10.134	10.134
12	12378-PeCDD	31.719	1.001	8.27e5	5.42e5	0.948	1.526	1.550	4471.6	NO	50.819	50.819
13	123478-HxCDD	36.367	1.001	7.34e5	5.98e5	0.941	1.226	1.240	4232.6	NO	50.054	50.054
14	123678-HxCDD	36.498	1.001	7.12e5	5.75e5	0.884	1.239	1.240	4186.7	NO	48.789	48.789
15	123789-HxCDD	36.926	1.012	7.25e5	5.84e5	0.870	1.242	1.240	4316.7	NO	51.795	51.795
16	1234678-HpCDD	41.233	1.000	6.11e5	5.89e5	0.948	1.037	1.050	3892.1	NO	50.500	50.500
17	OCDD	47.121	1.000	1.06e6	1.22e6	0.969	0.869	0.890	5267.5	NO	97.310	97.310
18	13C-2378-TCDF	25.944	1.006	2.33e6	3.02e6	1.318	0.770	0.770	13809.2	NO		106.997
19	13C-12378-PeCDF	30.097	1.167	2.54e6	1.64e6	1.026	1.554	1.550	10913.4	NO		107.369
20	13C-23478-PeCDF	31.445	1.220	2.51e6	1.61e6	0.966	1.554	1.550	10811.7	NO		112.434
21	13C-123478-HxCDF	35.117	0.952	1.11e6	2.14e6	1.123	0.518	0.510	3127.5	NO		103.058
22	13C-123678-HxCDF	35.271	0.956	1.16e6	2.24e6	1.216	0.520	0.510	3261.8	NO		99.599
23	13C-234678-HxCDF	36.213	0.981	1.05e6	2.03e6	1.106	0.519	0.510	3043.9	NO		99.200
24	13C-123789-HxCDF	37.353	1.012	1.05e6	2.01e6	0.995	0.523	0.510	2951.2	NO		109.710
25	13C-1234678-HpCDF	39.414	1.068	8.44e5	1.90e6	0.896	0.445	0.440	4477.6	NO		108.835
26	13C-1234789-HpCDF	42.099	1.141	7.03e5	1.58e6	0.693	0.445	0.440	3284.0	NO		117.220
27	13C-1234-TCDD	25.780	0.000	1.66e6	2.13e6	1.000	0.781	0.770	6105.9	NO		100.000
28	13C-2378-TCDD	26.587	1.031	1.64e6	2.11e6	0.961	0.774	0.770	6210.0	NO		102.691
29	13C-12378-PeCDD	31.697	1.230	1.74e6	1.11e6	0.703	1.569	1.550	13374.7	NO		106.390
30	13C-123478-HxCDD	36.345	0.985	1.58e6	1.25e6	1.016	1.263	1.240	8103.0	NO		99.048
31	13C-123678-HxCDD	36.476	0.988	1.65e6	1.33e6	1.098	1.242	1.240	8456.3	NO		96.638
32	13C-1234678-HpCDD	41.222	1.117	1.28e6	1.23e6	0.828	1.038	1.050	5390.9	NO		107.643
33	13C-OCDD	47.104	1.276	2.27e6	2.55e6	0.770	0.889	0.890	6521.4	NO		222.695

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Printed: Thursday, April 11, 2013 14:27:41 Pacific Daylight Time

ID: CS3, Name: 13041105, Date: 11-Apr-2013, Time: 12:35:01, Conditions: AUTOSPEC01, User: pk

	Name										
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35	Total-tetrafurans			5.80e5		0.763					33.947
36	Total-penta1			1.72e6							74.587
37	Total-pentafurans			3.38e6		0.844					160.850
38	Total-hexafurans			4.71e6		0.997					270.984
39	Total-heptafurans			1.53e6		1.150					106.181
40	Total-Furans			1.31e7		0.970					754.185
41	Total-tetradioxins			8.78e5		0.980					55.069
42	Total-pentadioxins			2.80e6		0.948					172.000
43	Total-hexadioxins			3.11e6		0.898					215.335
44	Total-heptadioxins			1.28e6		0.948					106.221
45	Total-Dioxins			9.13e6		0.934					645.936
46	Total-TEQ			2.22e7							1400.122
47	37CL-2378-TCDD	26.601	1.032	4.02e5		0.999			3470.6		10.595
48	FUNCTION1 PFK			7.11e5							
49	FUNCTION2 PFK			3.78e5							0.000
50	FUNCTION3 PFK			3.58e5							0.000
51	FUNCTION4 PFK			1.19e5							
52	FUNCTION5 PFK			1.34e5							
53	FUNCTION1 HXCDPE			9.84e2							0.000
54	FUNCTION1 HPCDPE			1.10e3							0.000
55	FUNCTION2 HPCDPE			2.46e3							0.000
56	FUNCTION3 OCDPE			0.00e0							
57	FUNCTION4 NCDPE			8.19e1							0.000
58	FUNCTION5 DCDPE			7.21e1							0.000

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Printed: Thursday, April 11, 2013 14:27:41 Pacific Daylight Time

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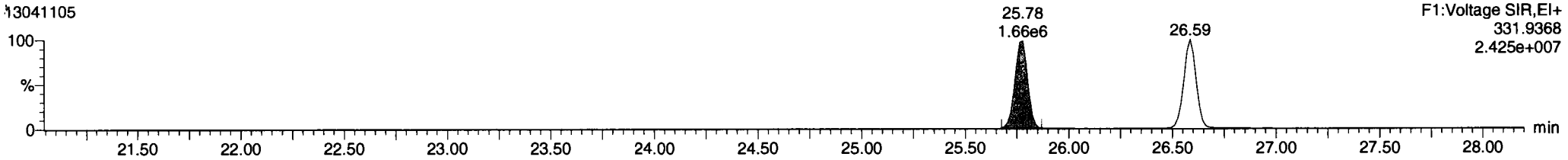
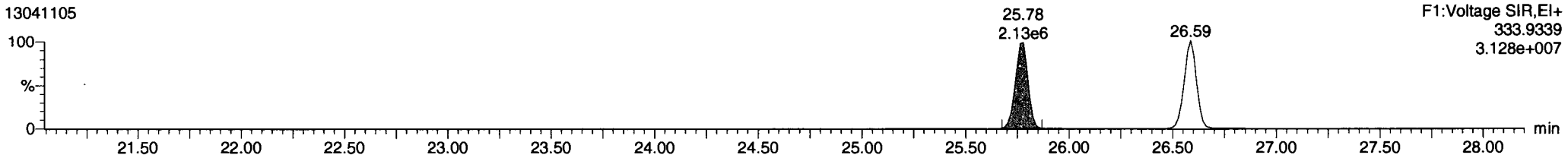
ID: CS3, Name: 13041105, Date: 11-Apr-2013, Time: 12:35:01, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



13C-1234-TCDD



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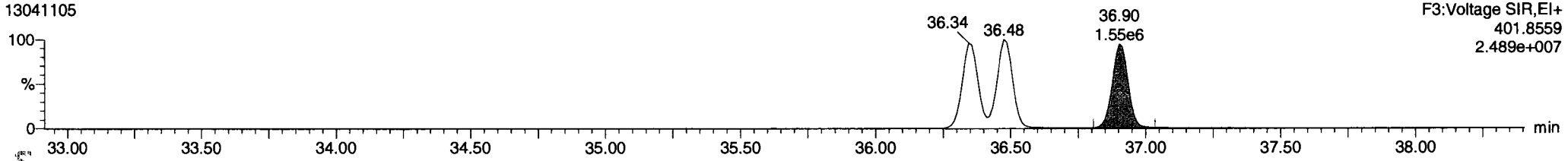

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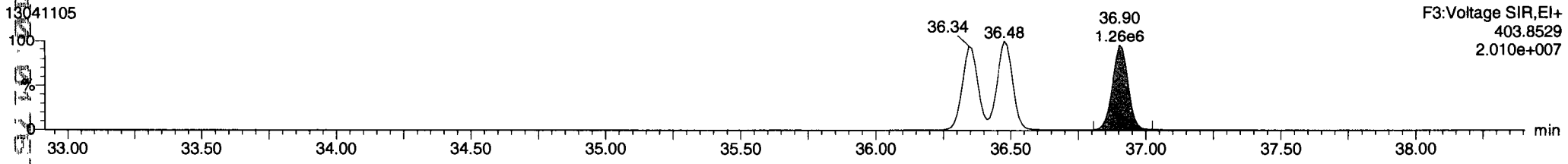

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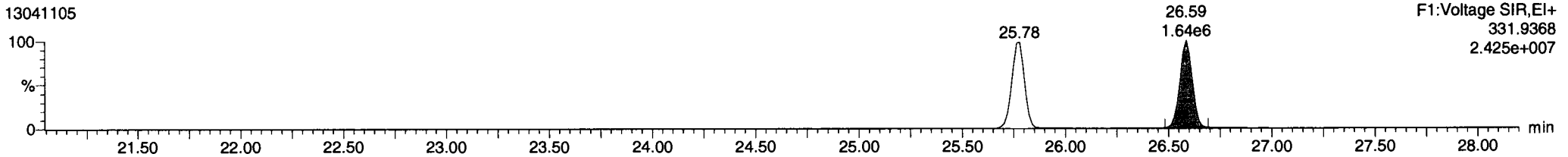
13C-2378-TCDD



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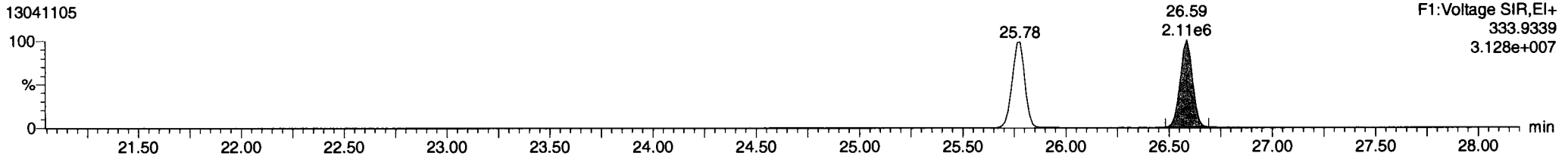
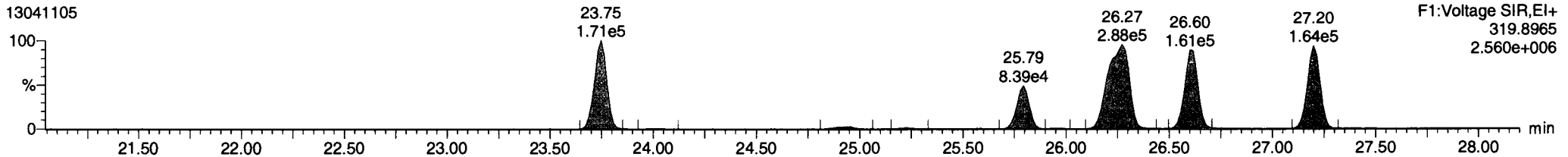
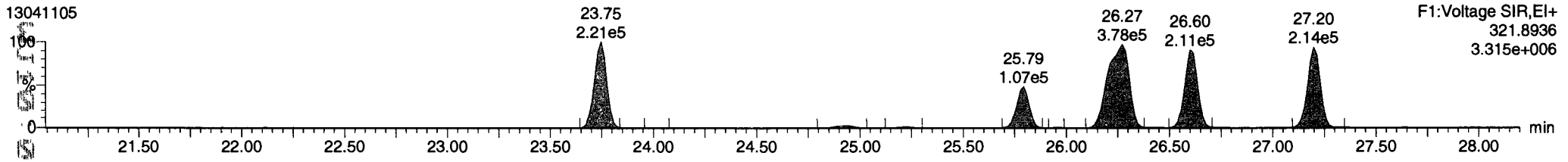


Total-tetradioxins



Total-tetradioxins



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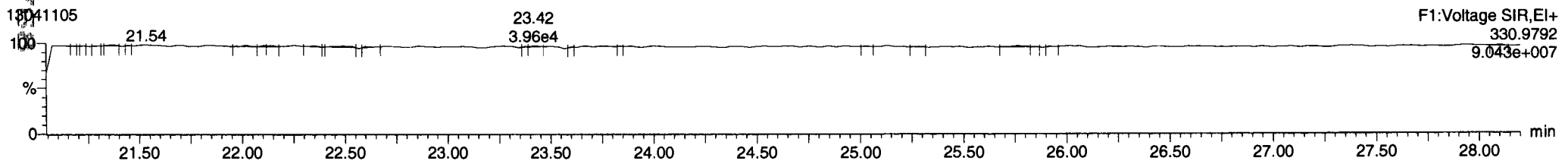

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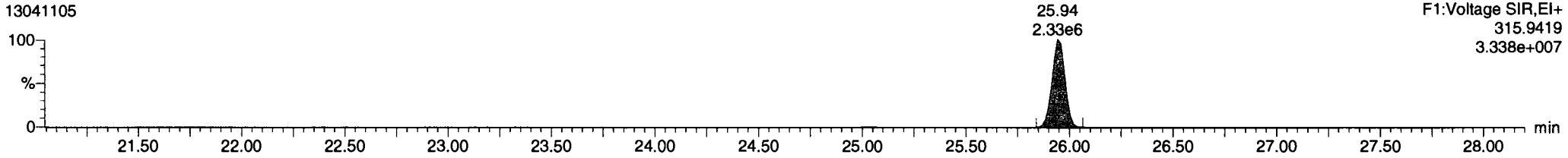

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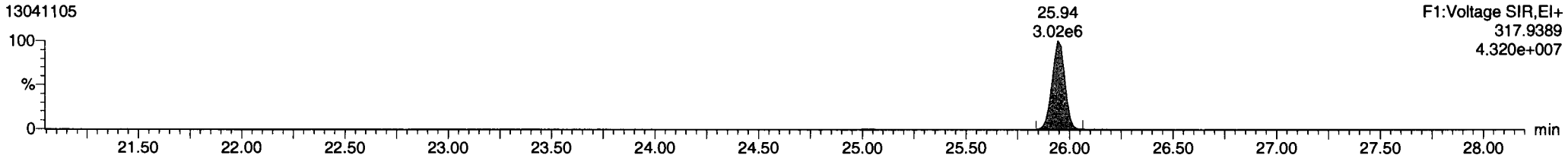
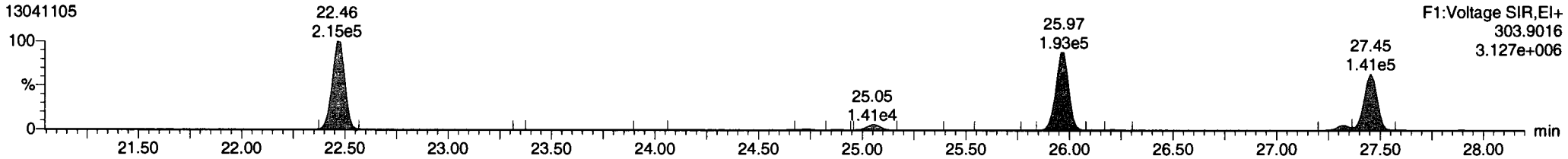
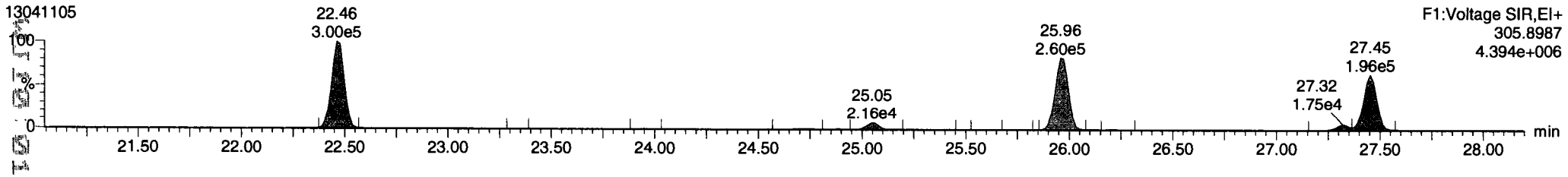


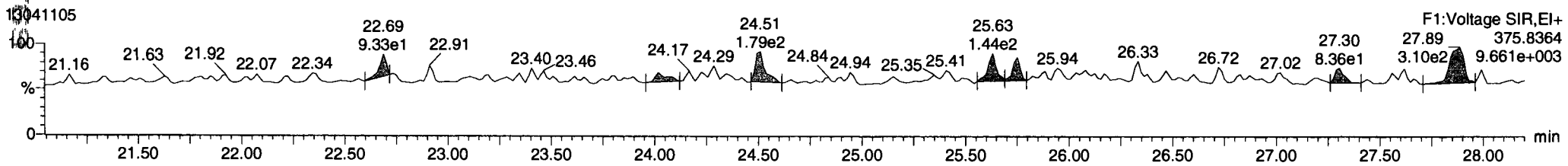
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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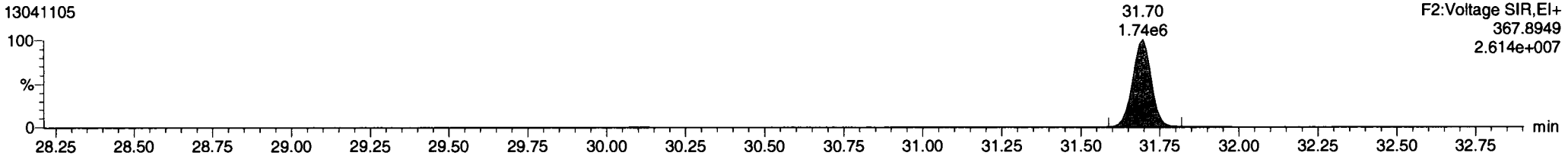
13C-12378-PeCDD



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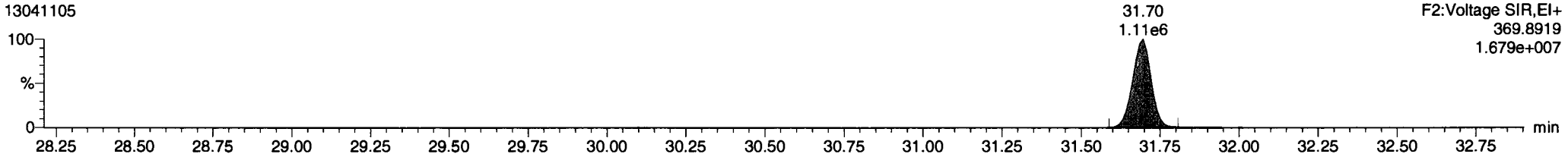
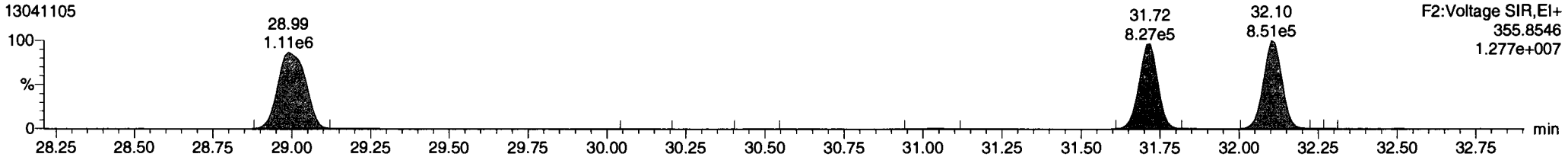
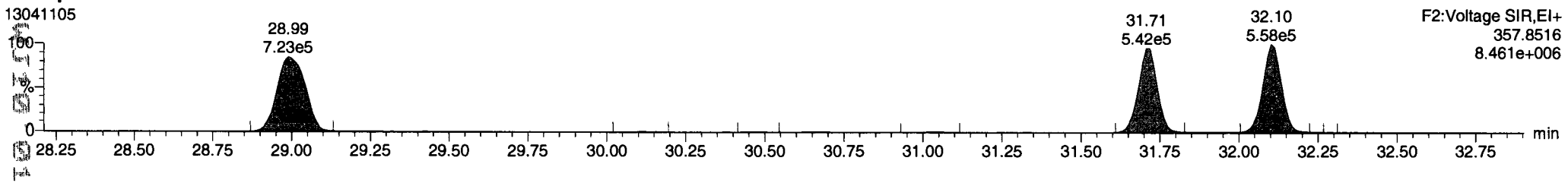


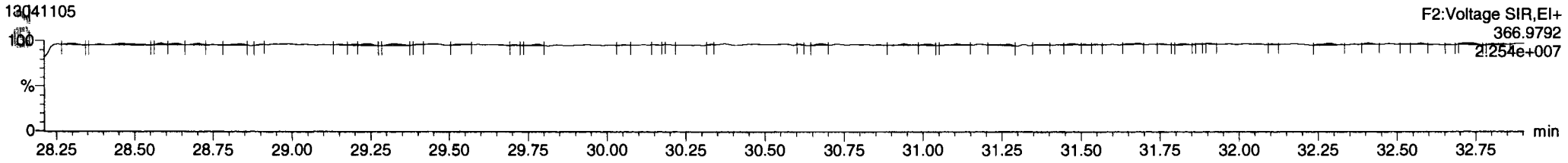
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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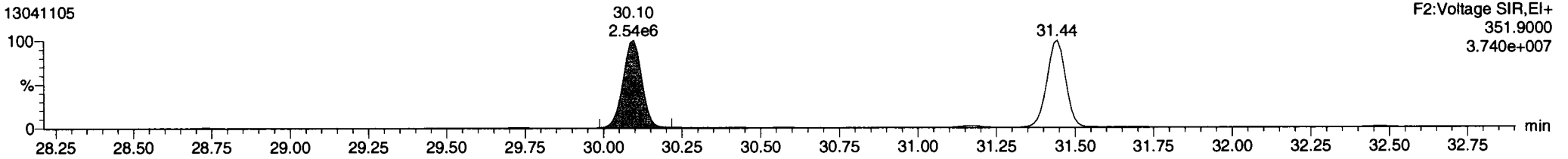
13C-12378-PeCDF



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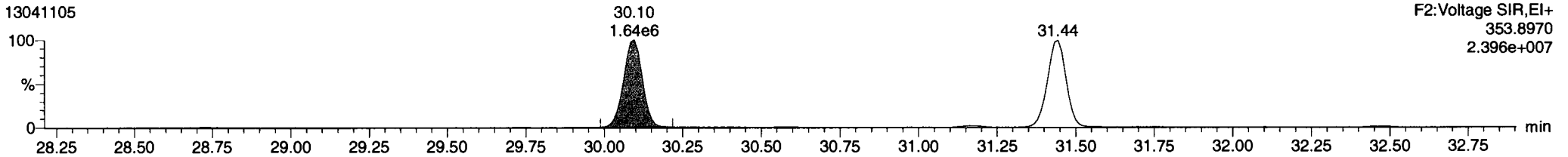

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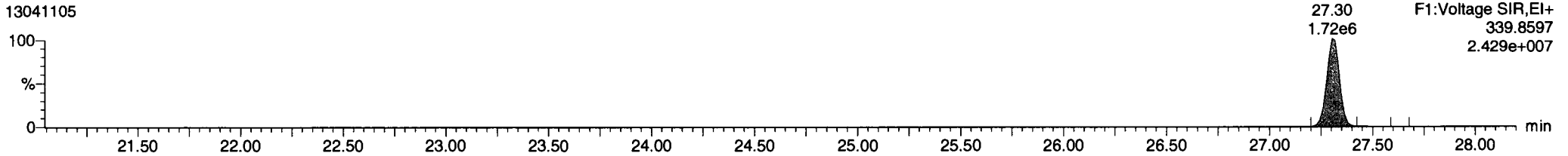
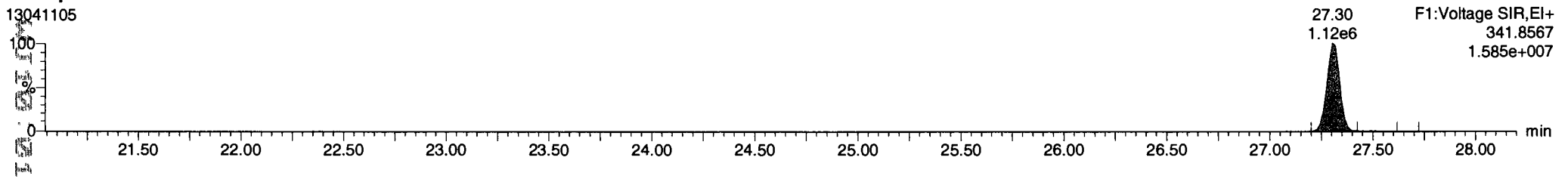
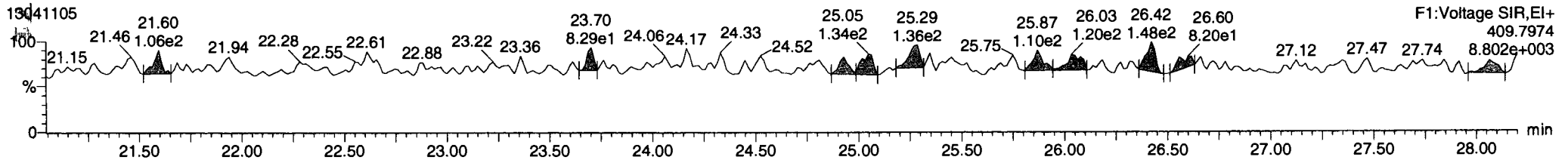


Total-penta1



FUNCTION1 HPCDPE



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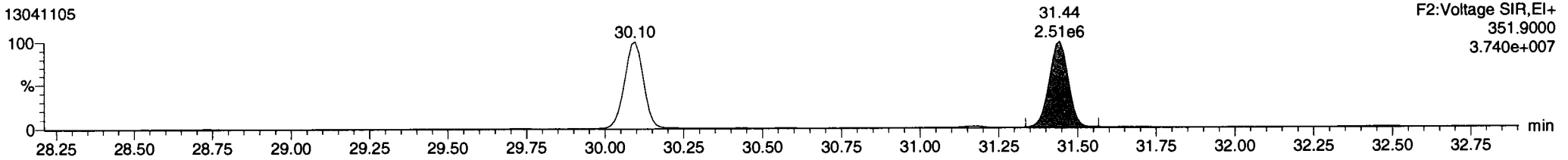

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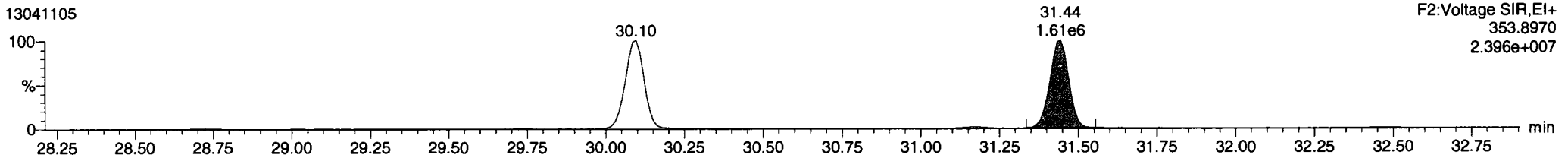
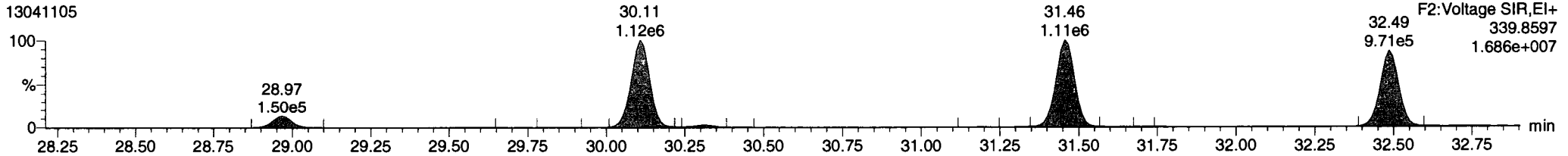
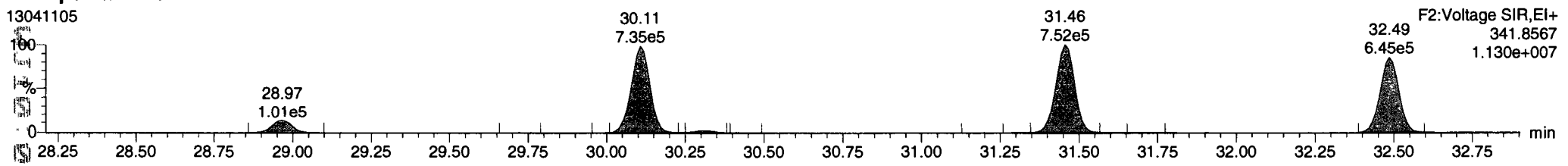


Total-pentafurans



Total-pentafurans



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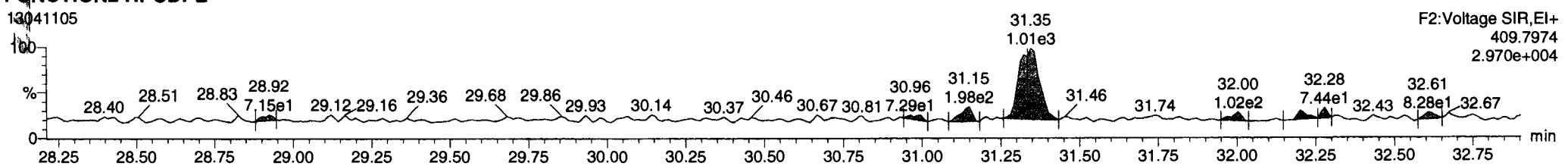

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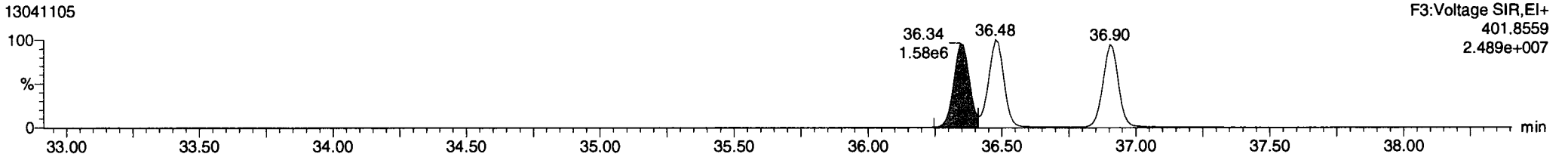
13C-123478-HxCDD



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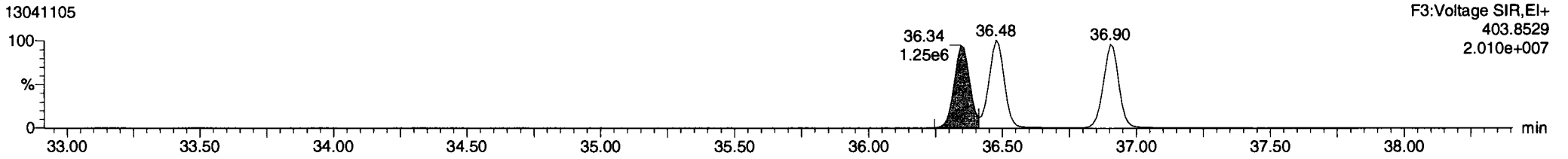
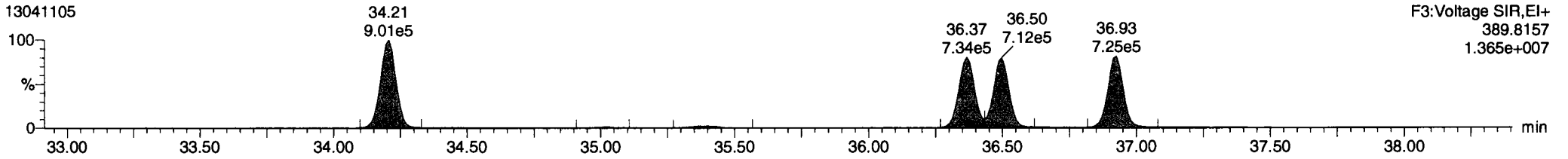
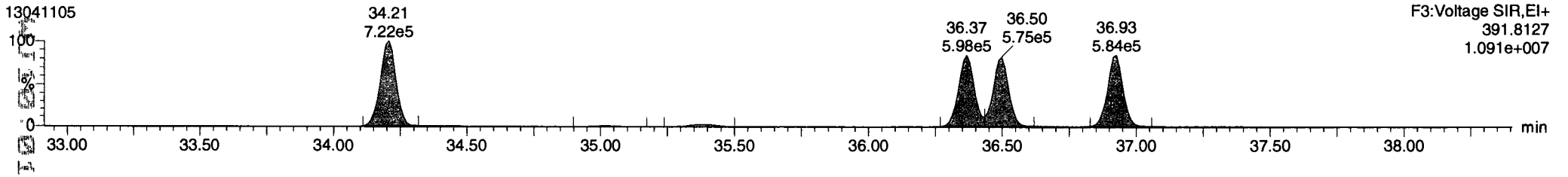


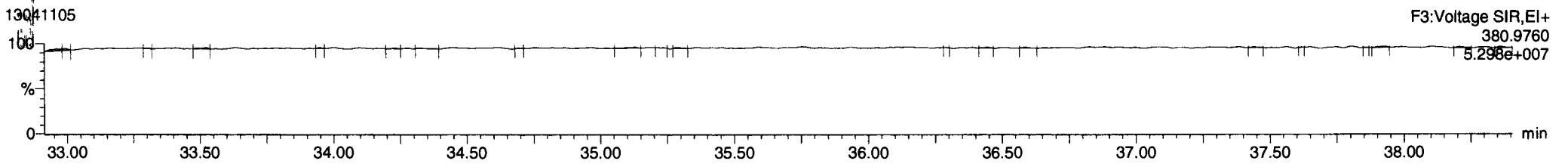
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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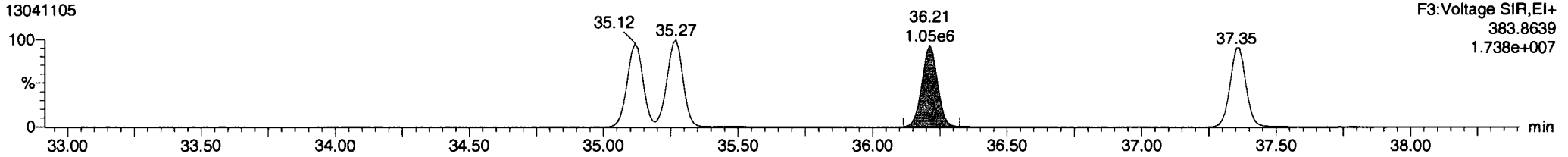
13C-234678-HxCDF



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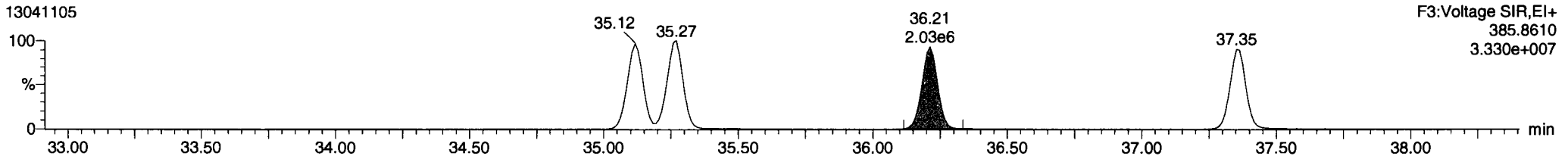
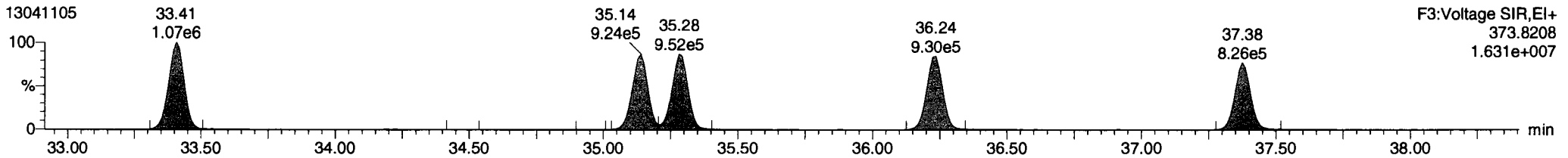
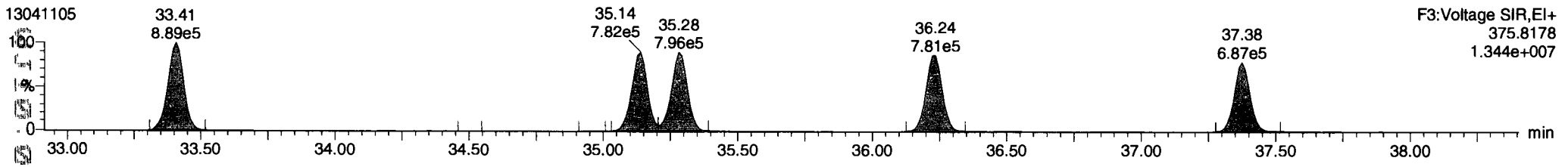


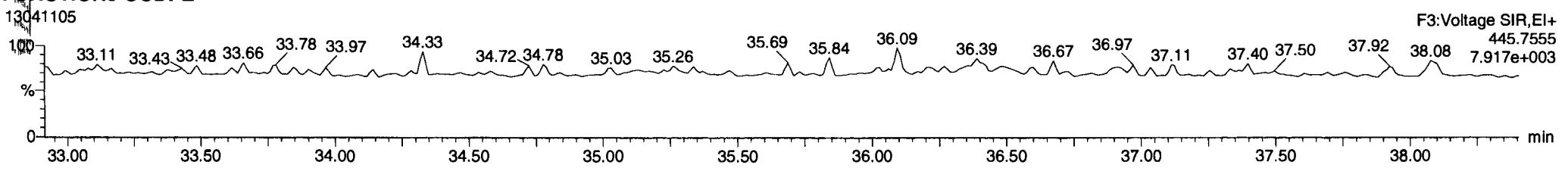
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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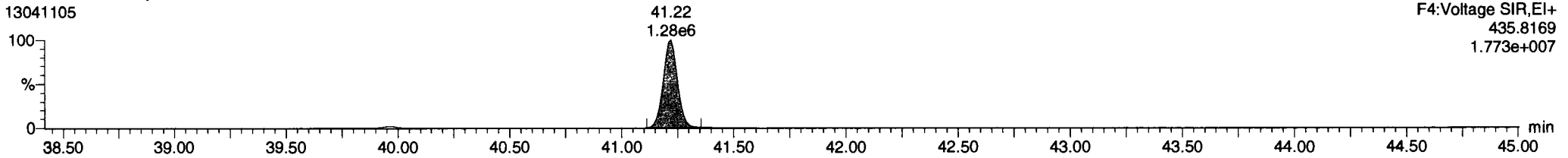
13C-1234678-HpCDD



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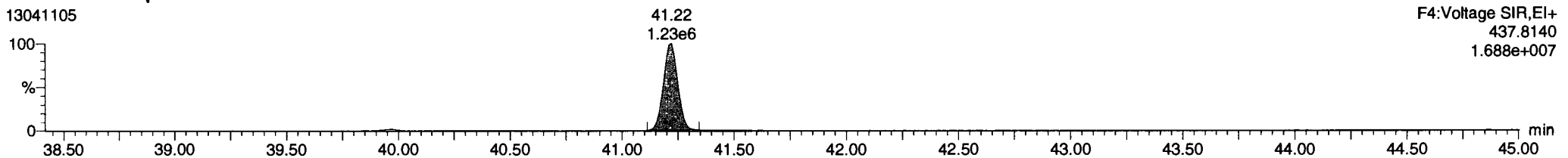
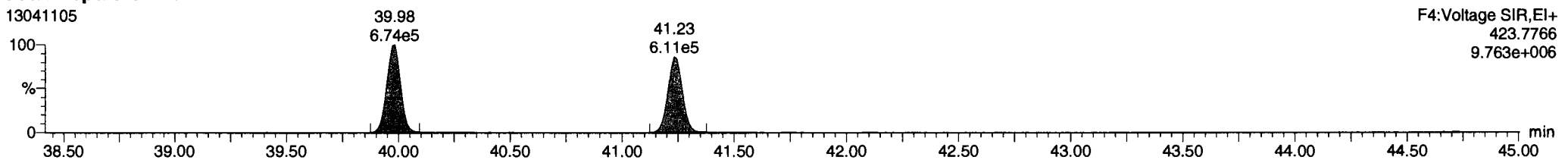
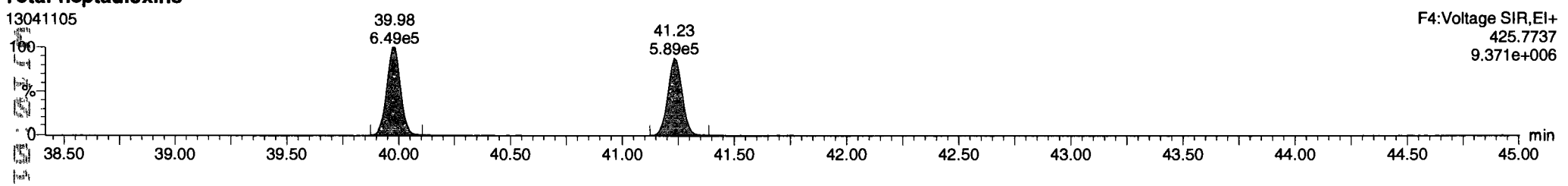


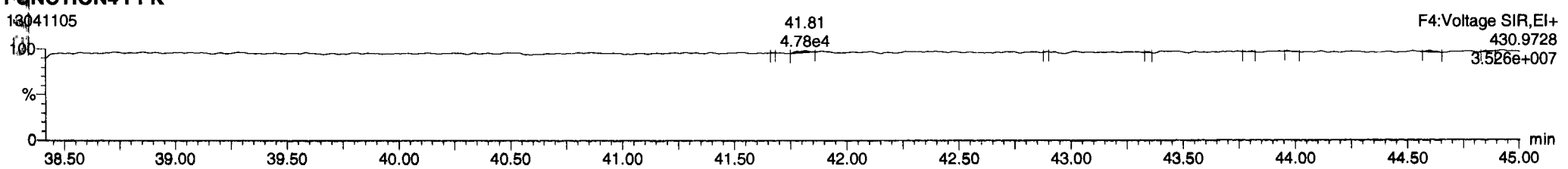
Total-heptadioxins



Total-heptadioxins

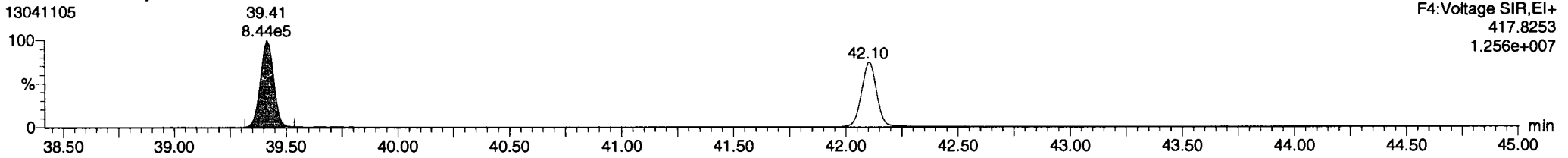


FUNCTION4 PFK

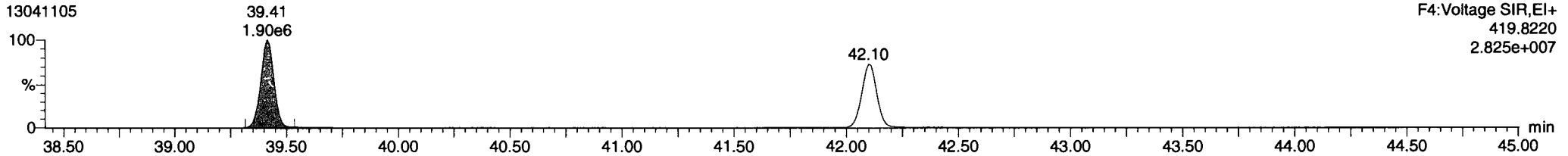


ID: CS3, Name: 13041105, Date: 11-Apr-2013, Time: 12:35:01, Conditions: AUTOSPEC01, User: pk

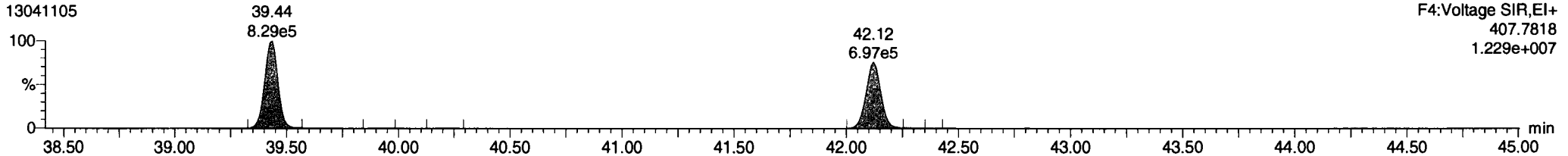
13C-1234678-HpCDF



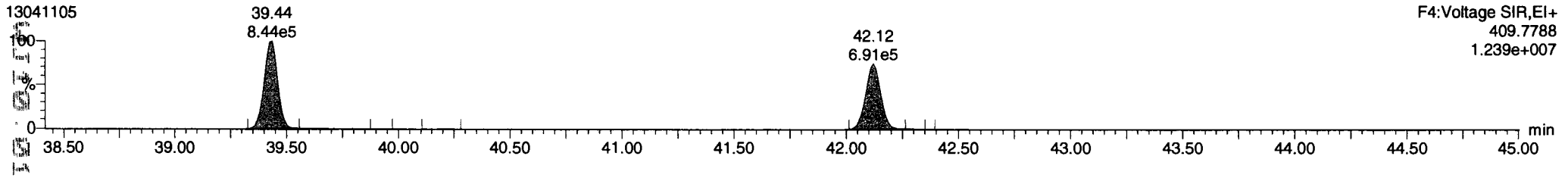
13C-1234678-HpCDF



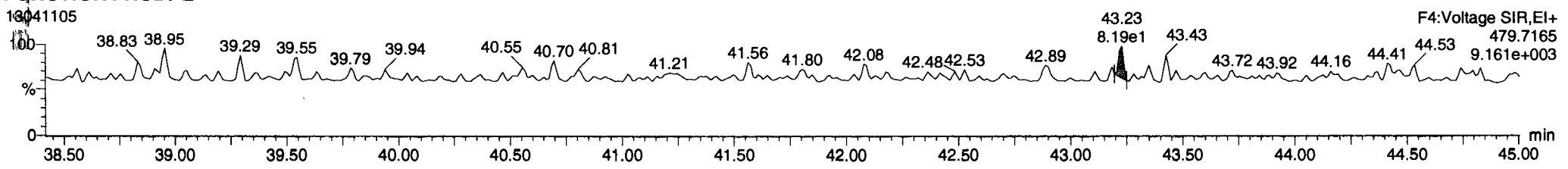
Total-heptafurans



Total-heptafurans



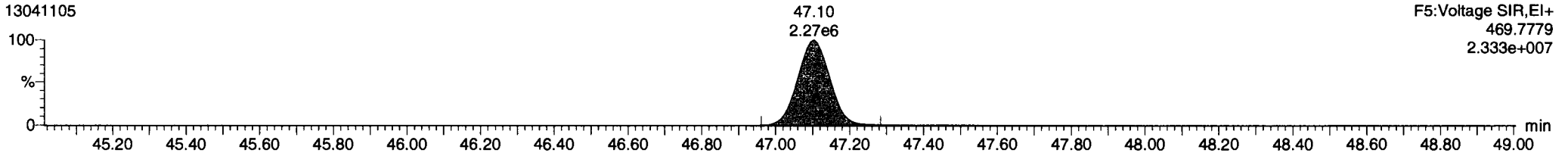
FUNCTION4 NCDPE



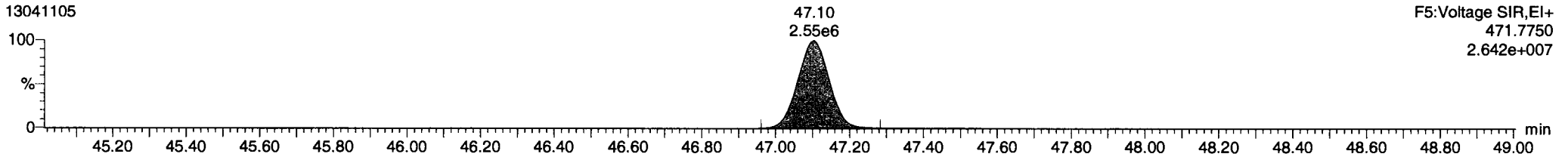
Dataset: P:\DIOXIN8290.PRO\130411DL.qld
Last Altered: Thursday, April 11, 2013 14:26:40 Pacific Daylight Time
Printed: Thursday, April 11, 2013 14:27:41 Pacific Daylight Time

ID: CS3, Name: 13041105, Date: 11-Apr-2013, Time: 12:35:01, Conditions: AUTOSPEC01, User: pk

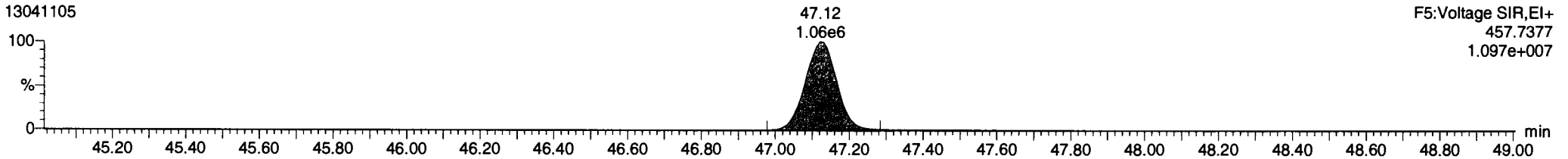
13C-OCDD



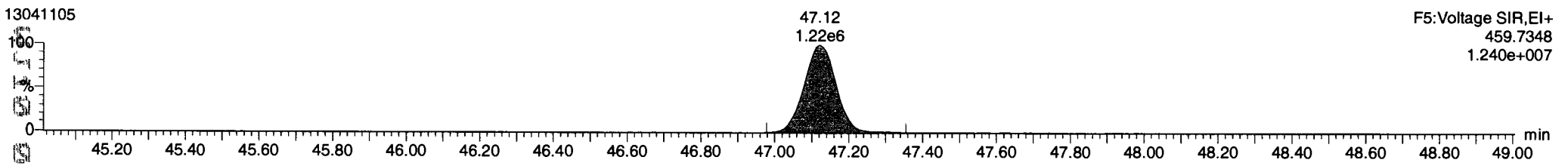
13C-OCDD



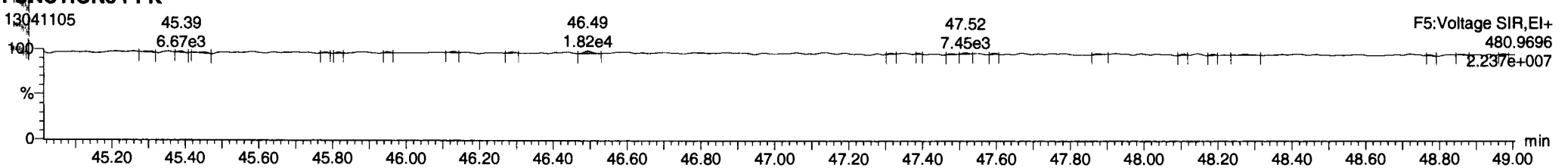
OCDD



OCDD



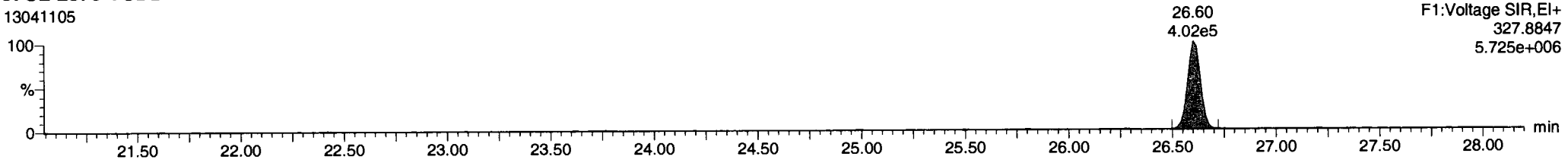
FUNCTION5 PFK



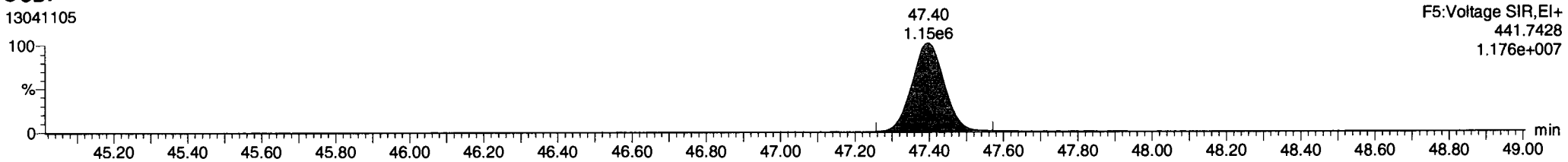
Dataset: P:\DIOXIN8290.PRO\130411DL.qld
Last Altered: Thursday, April 11, 2013 14:26:40 Pacific Daylight Time
Printed: Thursday, April 11, 2013 14:27:41 Pacific Daylight Time

ID: CS3, Name: 13041105, Date: 11-Apr-2013, Time: 12:35:01, Conditions: AUTOSPEC01, User: pk

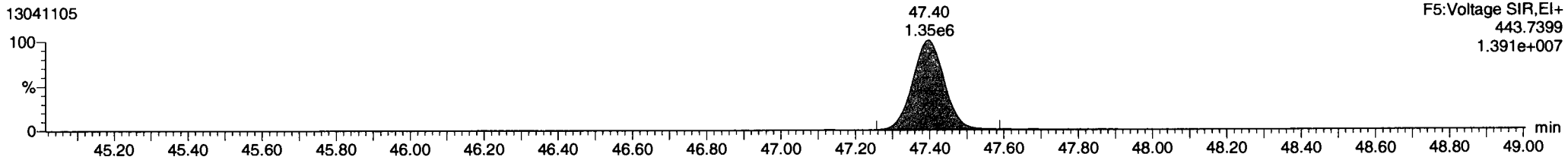
37CL-2378-TCDD



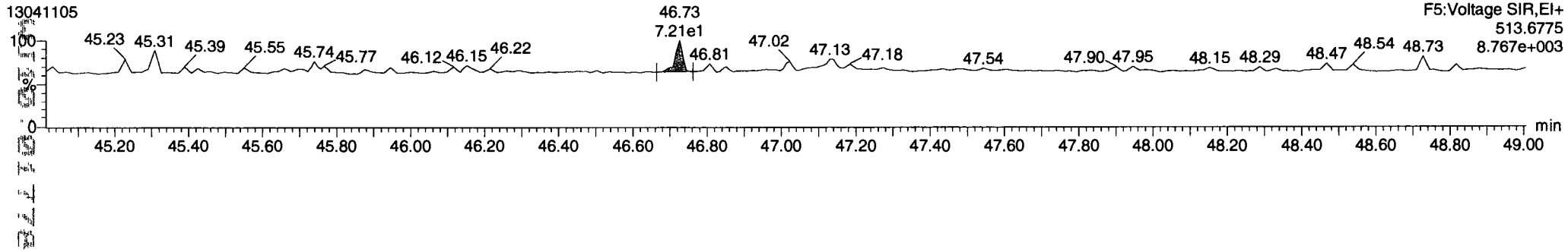
OCDF



OCDF



FUNCTION5 DCDPE



ARI
CDD/CDF EDL DATA
HIGH RESOLUTION

Lab.Sample ID: DFBLK08
Lab.File ID: 13041107
Date Analysed: 11-Apr-13

Target Analytes	Selected Ions	Peak RT	Conc	EMPC	EDL
2378-TCDD	320/322	26.63	0.0703	0.0220	
12378-PeCDD	356/358	0.00			0.028
123478-HxCDD	390/392	0.00			0.025
123678-HxCDD	390/392	36.51	0.0275		
123789-HxCDD	390/392	36.94	0.0281	0.0240	
1234678-HpCDD	424/426	41.25	0.0979		
OCDD	458/460	47.13	0.483		
2378-TCDF	304/306	0.00			0.024
12378-PeCDF	340/342	0.00			0.025
23478-PeCDF	340/342	0.00			0.026
123478-HxCDF	374/376	0.00			0.016
234678-HxCDF	374/376	0.00			0.017
123678-HxCDF	374/376	0.00			0.015
123789-HxCDF	374/376	0.00			0.019
1234678-HpCDF	408/410	0.00			0.014
1234789-HpCDF	408/410	0.00			0.020
OCDF	442/444	47.40	0.0199	0.0170	

Note: EDLs are on column values. Final EDL values are corrected for final volume of the extract (normally 20ul) and amount of sample extracted.

Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\130411MB.qld
Last Altered: Thursday, April 11, 2013 16:25:08 Pacific Daylight Time
Printed: Thursday, April 11, 2013 16:25:30 Pacific Daylight Time

4/11/13

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 11 Apr 2013 10:14:32
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15 WJ98, WJ10, WK28, WK70

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

2378-TCDF					0.763		0.770		1641	1548					
12378-PeCDF					0.836		1.550		1328	1976					
23478-PeCDF					0.851		1.550		1328	1976					
123478-HxCDF					1.017		1.240		897	1034					
234678-HxCDF					1.027		1.240		897	1034					
123678-HxCDF					1.013		1.240		897	1034					
123789-HxCDF					0.929		1.240		897	1034					
1234678-HpCDF					1.151		1.050		601	850					
1234789-HpCDF					1.149		1.050		601	850					
OCDF	47.399	1.006	9.40e1	1.37e2	0.963	0.685	0.890	4.5	542	667	2.43e3	2.96e3	YES	0.017	0.020
2378-TCDD	26.631	1.001	2.10e2	1.31e3	0.980	0.160	0.770	5.2	996	1254	5.18e3	1.99e4	YES	0.022	0.070
12378-PeCDD					0.948		1.550		1678	1087					
123478-HxCDD					0.941		1.240		1176	1254					
123678-HxCDD	36.508	1.000	2.32e2	1.93e2	0.884	1.203	1.240	3.9	1176	1254	4.60e3	3.16e3	NO	0.027	0.027
123789-HxCDD	36.936	1.012	2.64e2	1.58e2	0.870	1.674	1.240	4.8	1176	1254	5.61e3	3.62e3	YES	0.024	0.028
1234678-HpCDD	41.255	1.001	6.79e2	6.67e2	0.948	1.019	1.050	12.5	823	643	1.03e4	9.12e3	NO	0.098	0.098
OCDD	47.130	1.000	2.47e3	3.17e3	0.969	0.778	0.890	39.4	737	603	2.90e4	3.50e4	NO	0.483	0.483
13C-2378-TCDF	25.974	1.007	1.30e6	1.69e6	1.318	0.771	0.770	6495.8	2970	2144	1.93e7	2.49e7	NO		88.496
13C-12378-PeCDF	30.107	1.167	1.63e6	1.04e6	1.026	1.559	1.550	8030.7	3023	3228	2.43e7	1.58e7	NO		101.299
13C-23478-PeCDF	31.455	1.219	1.50e6	9.68e5	0.966	1.553	1.550	7383.5	3023	3228	2.23e7	1.45e7	NO		99.541
13C-123478-HxCDF	35.138	0.952	6.60e5	1.27e6	1.123	0.518	0.510	4359.8	2314	2922	1.01e7	1.92e7	NO		93.256
13C-123678-HxCDF	35.281	0.956	7.16e5	1.38e6	1.216	0.520	0.510	4619.3	2314	2922	1.07e7	2.08e7	NO		93.267
13C-234678-HxCDF	36.223	0.981	6.28e5	1.21e6	1.106	0.518	0.510	4054.9	2314	2922	9.38e6	1.84e7	NO		90.038
13C-123789-HxCDF	37.374	1.012	5.83e5	1.14e6	0.995	0.510	0.510	3928.1	2314	2922	9.09e6	1.73e7	NO		93.915
13C-1234678-HpCDF	39.424	1.068	4.62e5	1.04e6	0.896	0.445	0.440	3884.9	1765	2572	6.86e6	1.56e7	NO		90.783
13C-1234789-HpCDF	42.121	1.141	3.84e5	8.60e5	0.693	0.447	0.440	2721.3	1765	2572	4.80e6	1.08e7	NO		97.154
13C-1234-TCDD	25.794	0.000	1.13e6	1.44e6	1.000	0.789	0.770	4228.1	3948	2339	1.67e7	2.11e7	NO		100.000
13C-2378-TCDD	26.601	1.031	9.63e5	1.25e6	0.961	0.773	0.770	3441.6	3948	2339	1.36e7	1.78e7	NO		89.395
13C-12378-PeCDD	31.708	1.229	1.06e6	6.69e5	0.703	1.587	1.550	10557.3	1520	1504	1.60e7	1.03e7	NO		95.722
13C-123478-HxCDD	36.366	0.985	9.48e5	7.49e5	1.016	1.266	1.240	5132.1	2799	2102	1.44e7	1.15e7	NO		90.516
13C-123678-HxCDD	36.498	0.989	9.70e5	7.82e5	1.098	1.241	1.240	5247.1	2799	2102	1.47e7	1.19e7	NO		86.363
13C-1234678-HpCDD	41.233	1.117	7.45e5	7.06e5	0.828	1.055	1.050	4124.1	2434	2970	1.00e7	9.55e6	NO		94.848
13C-OCDD	47.121	1.277	1.14e6	1.27e6	0.770	0.900	0.890	5881.5	1956	1967	1.15e7	1.30e7	NO		169.669

Dataset: P:\DIOXIN8290.PRO\130411MB.qld
Last Altered: Thursday, April 11, 2013 16:25:08 Pacific Daylight Time
Printed: Thursday, April 11, 2013 16:25:30 Pacific Daylight Time

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

	13C-123789-HxCDD	36.914	0.000	1.02e6	8.27e5	1.000	1.232	1.240	5379.0	2799	2102	1.51e7	1.21e7	NO	100.000
	Total-tetrafurans			0.00e0		0.763				1641		0.00e0			
	Total-penta1			0.00e0						767		0.00e0			
	Total-pentafurans			0.00e0		0.844				1328		0.00e0			
	Total-hexafurans			0.00e0		0.997				897		0.00e0			
	Total-heptafurans			0.00e0		1.150				601		0.00e0			
	Total-Furans			9.40e1		0.970				1641		2.43e3			0.020
	Total-tetradioxins			9.82e2		0.980				996		1.57e4			0.129
	Total-pentadioxins			0.00e0		0.948				1678		0.00e0			
	Total-hexadioxins			7.13e2		0.898				1176		1.46e4			0.081
	Total-heptadioxins			1.30e3		0.948				823		2.08e4			0.194
	Total-Dioxins			5.46e3		0.934				996		8.02e4			0.887
	Total-TEQ			5.56e3						996		8.26e4			0.907
	37CL-2378-TCDD	26.631	1.032	1.00e6		0.999			7945.2	1835		1.46e7			38.927
	FUNCTION1 PFK			3.96e6						932394		5.55e7			
	FUNCTION2 PFK			1.89e5						309715		5.46e6			0.000
	FUNCTION3 PFK			7.48e5						418745		2.18e7			0.000
	FUNCTION4 PFK			0.00e0						342490		0.00e0			
	FUNCTION5 PFK			3.15e5						323621		1.13e7			
	FUNCTION1 HXCDPE			0.00e0						413		0.00e0			
	FUNCTION1 HPCDPE			1.20e3						940		2.23e4			0.000
	FUNCTION2 HPCDPE			7.53e2						1408		2.05e4			0.000
	FUNCTION3 OCDPE			7.11e1						601		2.50e3			0.000
	FUNCTION4 NCDPE			7.19e1						728		2.68e3			0.000
	FUNCTION5 DCDPE			0.00e0						307		0.00e0			

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\130411MB.qld
Last Altered: Thursday, April 11, 2013 16:25:08 Pacific Daylight Time
Printed: Thursday, April 11, 2013 16:25:30 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 11 Apr 2013 10:14:32
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

TF

PP

PF

HF

HPF

Furans,TF,PP,PF,HF,HPF,OF

10 OCDF	441.7428	47.40	231.231	0.963	0.020	0.017	0.69	0.89	YES	4.5

TD

41 Total-tetradioxins	319.8965	25.99	892.312	0.980	0.041		2.65	0.77	YES	8.1
41 Total-tetradioxins	319.8965	24.02	379.837	0.980	0.018		0.48	0.77	YES	2.5
11 2378-TCDD	319.8965	26.63	1521.983	0.980	0.070	0.022	0.16	0.77	YES	5.2

PD

HD

43 Total-hexadioxins	389.8157	35.28	386.053	0.898	0.025		1.28	1.24	NO	3.7
15 123789-HxCDD	389.8157	36.94	421.754	0.870	0.028	0.024	1.67	1.24	YES	4.8
14 123678-HxCDD	389.8157	36.51	425.458	0.884	0.027	0.027	1.20	1.24	NO	3.9

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

HPD

	16 1234678-HpCDD	423.7766	41.25	1345.872	0.948	0.098	0.098	1.02	1.05	NO	12.5
	44 Total-heptadioxins	423.7766	39.99	1328.237	0.948	0.097		0.87	1.05	YES	12.8

Dioxins,TD,PD,HD,HPD,OD

	41 Total-tetradioxins	319.8965	25.99	892.312	0.980	0.041		2.65	0.77	YES	8.1
	41 Total-tetradioxins	319.8965	24.02	379.837	0.980	0.018		0.48	0.77	YES	2.5
	11 2378-TCDD	319.8965	26.63	1521.983	0.980	0.070	0.022	0.16	0.77	YES	5.2
	43 Total-hexadioxins	389.8157	35.28	386.053	0.898	0.025		1.28	1.24	NO	3.7
	15 123789-HxCDD	389.8157	36.94	421.754	0.870	0.028	0.024	1.67	1.24	YES	4.8
	14 123678-HxCDD	389.8157	36.51	425.458	0.884	0.027	0.027	1.20	1.24	NO	3.9
	16 1234678-HpCDD	423.7766	41.25	1345.872	0.948	0.098	0.098	1.02	1.05	NO	12.5
	44 Total-heptadioxins	423.7766	39.99	1328.237	0.948	0.097		0.87	1.05	YES	12.8
	17 OCDD	457.7377	47.13	5642.529	0.969	0.483	0.483	0.78	0.89	NO	39.4

TotalTEQ,Furans,Dioxins

	10 OCDF	441.7428	47.40	231.231	0.963	0.020	0.017	0.69	0.89	YES	4.5
	41 Total-tetradioxins	319.8965	25.99	892.312	0.980	0.041		2.65	0.77	YES	8.1
	41 Total-tetradioxins	319.8965	24.02	379.837	0.980	0.018		0.48	0.77	YES	2.5
	11 2378-TCDD	319.8965	26.63	1521.983	0.980	0.070	0.022	0.16	0.77	YES	5.2
	43 Total-hexadioxins	389.8157	35.28	386.053	0.898	0.025		1.28	1.24	NO	3.7
	15 123789-HxCDD	389.8157	36.94	421.754	0.870	0.028	0.024	1.67	1.24	YES	4.8
	14 123678-HxCDD	389.8157	36.51	425.458	0.884	0.027	0.027	1.20	1.24	NO	3.9
	16 1234678-HpCDD	423.7766	41.25	1345.872	0.948	0.098	0.098	1.02	1.05	NO	12.5
	44 Total-heptadioxins	423.7766	39.99	1328.237	0.948	0.097		0.87	1.05	YES	12.8
	17 OCDD	457.7377	47.13	5642.529	0.969	0.483	0.483	0.78	0.89	NO	39.4

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

PFK1

	48 FUNCTION1 PFK	330.9792	25.06	0.000							2.4
	48 FUNCTION1 PFK	330.9792	24.70	0.000							0.5
	48 FUNCTION1 PFK	330.9792	24.43	0.000							0.8
	48 FUNCTION1 PFK	330.9792	24.23	0.000							2.7
	48 FUNCTION1 PFK	330.9792	23.64	0.000							0.9
	48 FUNCTION1 PFK	330.9792	23.21	0.000							0.7
	48 FUNCTION1 PFK	330.9792	23.15	0.000							0.5
	48 FUNCTION1 PFK	330.9792	22.51	0.000							0.4
	48 FUNCTION1 PFK	330.9792	22.24	0.000							0.8
	48 FUNCTION1 PFK	330.9792	21.73	0.000							0.7
	48 FUNCTION1 PFK	330.9792	21.58	0.000							8.9
	48 FUNCTION1 PFK	330.9792	21.31	0.000							1.6
	48 FUNCTION1 PFK	330.9792	21.19	0.000							1.4
	48 FUNCTION1 PFK	330.9792	21.15	0.000							1.4
	48 FUNCTION1 PFK	330.9792	27.69	0.000							1.7
	48 FUNCTION1 PFK	330.9792	27.51	0.000							1.8
	48 FUNCTION1 PFK	330.9792	27.15	0.000							2.6
	48 FUNCTION1 PFK	330.9792	27.03	0.000							3.1
	48 FUNCTION1 PFK	330.9792	26.68	0.000							0.8
	48 FUNCTION1 PFK	330.9792	26.60	0.000							2.3
	48 FUNCTION1 PFK	330.9792	26.48	0.000							1.8
	48 FUNCTION1 PFK	330.9792	26.35	0.000							0.9
	48 FUNCTION1 PFK	330.9792	26.29	0.000							2.2
	48 FUNCTION1 PFK	330.9792	26.15	0.000							0.7
	48 FUNCTION1 PFK	330.9792	25.99	0.000							3.4
	48 FUNCTION1 PFK	330.9792	25.91	0.000							3.1
	48 FUNCTION1 PFK	330.9792	25.67	0.000							1.7
	48 FUNCTION1 PFK	330.9792	25.44	0.000							2.1
	48 FUNCTION1 PFK	330.9792	25.24	0.000							2.0
	48 FUNCTION1 PFK	330.9792	25.14	0.000							2.0
	48 FUNCTION1 PFK	330.9792	27.95	0.000							2.1
	48 FUNCTION1 PFK	330.9792	27.81	0.000							1.6

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

PFK2

	49 FUNCTION2 PFK	366.9792	31.77	0.000	0.000					1.1
	49 FUNCTION2 PFK	366.9792	31.73	0.000	0.000					1.4
	49 FUNCTION2 PFK	366.9792	31.42	0.000	0.000					0.8
	49 FUNCTION2 PFK	366.9792	30.86	0.000	0.000					1.6
	49 FUNCTION2 PFK	366.9792	30.71	0.000	0.000					1.6
	49 FUNCTION2 PFK	366.9792	30.34	0.000	0.000					1.4
	49 FUNCTION2 PFK	366.9792	30.18	0.000	0.000					0.7
	49 FUNCTION2 PFK	366.9792	29.72	0.000	0.000					0.6
	49 FUNCTION2 PFK	366.9792	29.65	0.000	0.000					1.3
	49 FUNCTION2 PFK	366.9792	29.28	0.000	0.000					1.7
	49 FUNCTION2 PFK	366.9792	29.12	0.000	0.000					1.5
	49 FUNCTION2 PFK	366.9792	28.77	0.000	0.000					1.1
	49 FUNCTION2 PFK	366.9792	28.41	0.000	0.000					1.7
	49 FUNCTION2 PFK	366.9792	31.92	0.000	0.000					1.0

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

PFK3

[redacted]	50 FUNCTION3 PFK	380.9760	34.82	0.000	0.000					1.8
[redacted]	50 FUNCTION3 PFK	380.9760	34.62	0.000	0.000					1.5
[redacted]	50 FUNCTION3 PFK	380.9760	34.49	0.000	0.000					1.1
[redacted]	50 FUNCTION3 PFK	380.9760	34.37	0.000	0.000					1.4
[redacted]	50 FUNCTION3 PFK	380.9760	34.32	0.000	0.000					1.1
[redacted]	50 FUNCTION3 PFK	380.9760	33.86	0.000	0.000					1.0
[redacted]	50 FUNCTION3 PFK	380.9760	33.81	0.000	0.000					1.4
[redacted]	50 FUNCTION3 PFK	380.9760	33.64	0.000	0.000					0.9
[redacted]	50 FUNCTION3 PFK	380.9760	33.53	0.000	0.000					0.8
[redacted]	50 FUNCTION3 PFK	380.9760	33.31	0.000	0.000					2.8
[redacted]	50 FUNCTION3 PFK	380.9760	33.21	0.000	0.000					1.8
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[redacted]	50 FUNCTION3 PFK	380.9760	36.49	0.000	0.000					0.3
[redacted]	50 FUNCTION3 PFK	380.9760	36.44	0.000	0.000					1.0
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[redacted]	50 FUNCTION3 PFK	380.9760	35.94	0.000	0.000					0.8
[redacted]	50 FUNCTION3 PFK	380.9760	35.88	0.000	0.000					0.4
[redacted]	50 FUNCTION3 PFK	380.9760	35.84	0.000	0.000					0.5
[redacted]	50 FUNCTION3 PFK	380.9760	35.71	0.000	0.000					0.8
[redacted]	50 FUNCTION3 PFK	380.9760	35.63	0.000	0.000					0.8
[redacted]	50 FUNCTION3 PFK	380.9760	35.55	0.000	0.000					0.9
[redacted]	50 FUNCTION3 PFK	380.9760	35.45	0.000	0.000					1.1
[redacted]	50 FUNCTION3 PFK	380.9760	35.39	0.000	0.000					1.2
[redacted]	50 FUNCTION3 PFK	380.9760	35.04	0.000	0.000					0.9
[redacted]	50 FUNCTION3 PFK	380.9760	34.95	0.000	0.000					1.1
[redacted]	50 FUNCTION3 PFK	380.9760	34.89	0.000	0.000					1.1
[redacted]	50 FUNCTION3 PFK	380.9760	38.26	0.000	0.000					1.5
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[redacted]	50 FUNCTION3 PFK	380.9760	37.89	0.000	0.000					0.8
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[redacted]	50 FUNCTION3 PFK	380.9760	37.03	0.000	0.000					1.0
[redacted]	50 FUNCTION3 PFK	380.9760	36.92	0.000	0.000					0.5
[redacted]	50 FUNCTION3 PFK	380.9760	36.77	0.000	0.000					1.7
[redacted]	50 FUNCTION3 PFK	380.9760	36.69	0.000	0.000					0.9
[redacted]	50 FUNCTION3 PFK	380.9760	36.63	0.000	0.000					1.8
[redacted]	50 FUNCTION3 PFK	380.9760	36.56	0.000	0.000					1.4

PFK4

[redacted]	Name	Trace	RT	Abs Resp	RRF M	[redacted]	[redacted]	15 Ratio	12 Ratio	16 R	S/N
[redacted]											

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

PFK5

	52	FUNCTION5 PFK	480.9696	47.12	0.000						1.6
	52	FUNCTION5 PFK	480.9696	47.08	0.000						0.9
	52	FUNCTION5 PFK	480.9696	46.77	0.000						1.5
	52	FUNCTION5 PFK	480.9696	46.72	0.000						1.3
	52	FUNCTION5 PFK	480.9696	46.64	0.000						1.5
	52	FUNCTION5 PFK	480.9696	46.29	0.000						0.6
	52	FUNCTION5 PFK	480.9696	46.13	0.000						1.1
	52	FUNCTION5 PFK	480.9696	46.02	0.000						0.9
	52	FUNCTION5 PFK	480.9696	45.97	0.000						1.4
	52	FUNCTION5 PFK	480.9696	45.85	0.000						0.9
	52	FUNCTION5 PFK	480.9696	45.74	0.000						1.2
	52	FUNCTION5 PFK	480.9696	45.66	0.000						0.4
	52	FUNCTION5 PFK	480.9696	45.62	0.000						1.3
	52	FUNCTION5 PFK	480.9696	45.34	0.000						1.8
	52	FUNCTION5 PFK	480.9696	45.31	0.000						1.4
	52	FUNCTION5 PFK	480.9696	45.25	0.000						1.2
	52	FUNCTION5 PFK	480.9696	48.87	0.000						0.7
	52	FUNCTION5 PFK	480.9696	48.67	0.000						0.4
	52	FUNCTION5 PFK	480.9696	48.59	0.000						1.0
	52	FUNCTION5 PFK	480.9696	48.54	0.000						0.7
	52	FUNCTION5 PFK	480.9696	48.47	0.000						1.7
	52	FUNCTION5 PFK	480.9696	48.16	0.000						1.1
	52	FUNCTION5 PFK	480.9696	48.04	0.000						1.0
	52	FUNCTION5 PFK	480.9696	47.92	0.000						1.3
	52	FUNCTION5 PFK	480.9696	47.81	0.000						1.4
	52	FUNCTION5 PFK	480.9696	47.77	0.000						1.0
	52	FUNCTION5 PFK	480.9696	47.59	0.000						1.0
	52	FUNCTION5 PFK	480.9696	47.55	0.000						0.4
	52	FUNCTION5 PFK	480.9696	47.42	0.000						1.2
	52	FUNCTION5 PFK	480.9696	47.32	0.000						0.7
	52	FUNCTION5 PFK	480.9696	47.25	0.000						0.5
	52	FUNCTION5 PFK	480.9696	47.19	0.000						0.9
	52	FUNCTION5 PFK	480.9696	48.92	0.000						1.2

ETHERS1

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

ETHERS2

	54	FUNCTION1 HPCD...	409.7974	28.16	0.000	0.000				2.5
	54	FUNCTION1 HPCD...	409.7974	27.02	0.000	0.000				2.3
	54	FUNCTION1 HPCD...	409.7974	26.86	0.000	0.000				2.1
	54	FUNCTION1 HPCD...	409.7974	26.24	0.000	0.000				2.1
	54	FUNCTION1 HPCD...	409.7974	26.03	0.000	0.000				2.7
	54	FUNCTION1 HPCD...	409.7974	25.36	0.000	0.000				1.8
	54	FUNCTION1 HPCD...	409.7974	24.02	0.000	0.000				1.5
	54	FUNCTION1 HPCD...	409.7974	23.72	0.000	0.000				2.0
	54	FUNCTION1 HPCD...	409.7974	23.05	0.000	0.000				2.1
	54	FUNCTION1 HPCD...	409.7974	22.63	0.000	0.000				3.0
	54	FUNCTION1 HPCD...	409.7974	22.48	0.000	0.000				1.5

ETHERS3

	55	FUNCTION2 HPCD...	409.7974	30.00	0.000	0.000				1.9
	55	FUNCTION2 HPCD...	409.7974	32.50	0.000	0.000				2.2
	55	FUNCTION2 HPCD...	409.7974	31.71	0.000	0.000				2.0
	55	FUNCTION2 HPCD...	409.7974	31.23	0.000	0.000				1.7
	55	FUNCTION2 HPCD...	409.7974	30.59	0.000	0.000				2.2
	55	FUNCTION2 HPCD...	409.7974	30.50	0.000	0.000				2.4
	55	FUNCTION2 HPCD...	409.7974	30.29	0.000	0.000				2.2

ETHERS4

	56	FUNCTION3 OCDPE	445.7555	37.08	0.000	0.000				4.2

ETHERS5

	57	FUNCTION4 NCDPE	479.7165	44.64	0.000	0.000				3.7

ETHERS6

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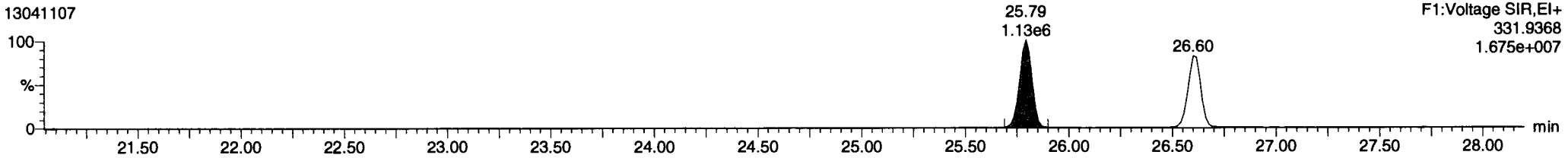
Last Altered: Thursday, April 11, 2013 16:25:08 Pacific Daylight Time
Printed: Thursday, April 11, 2013 16:25:30 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 11 Apr 2013 10:14:32
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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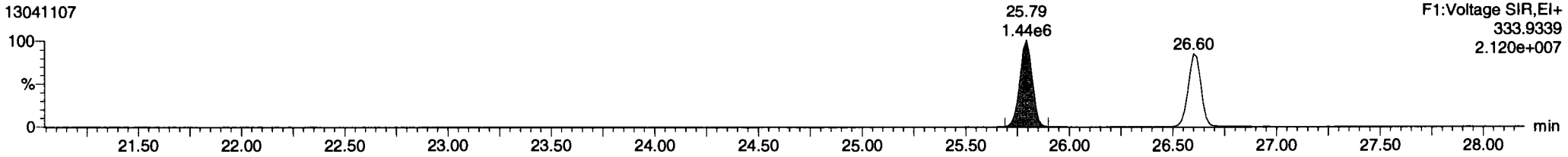
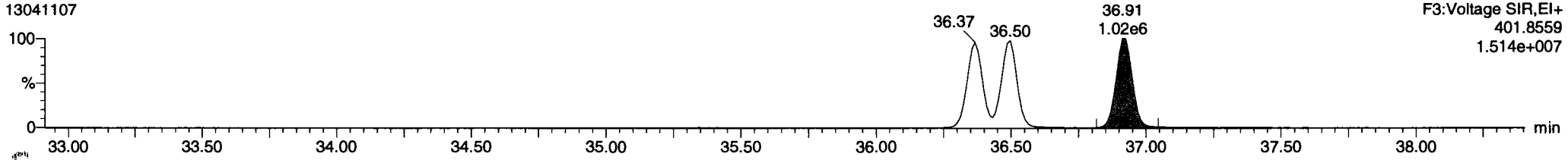


13C-123789-HxCDD



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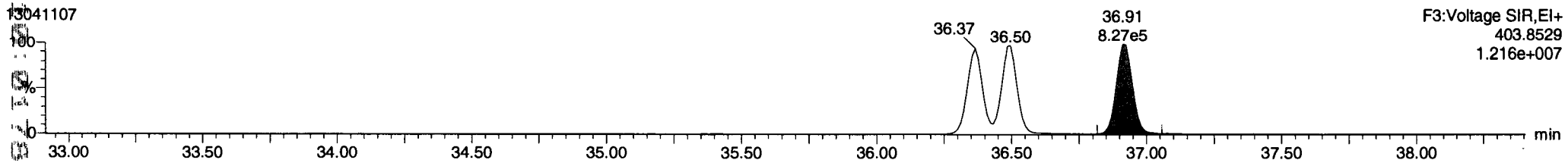
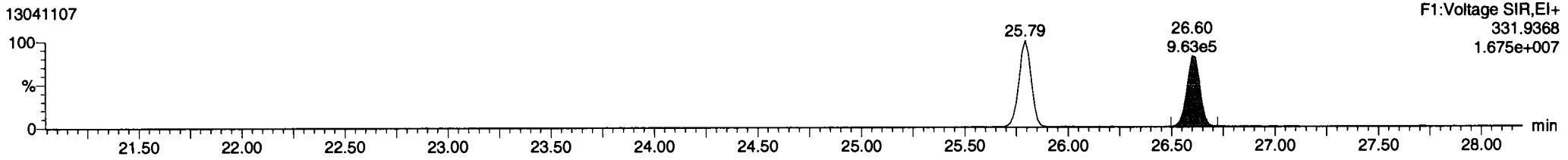


ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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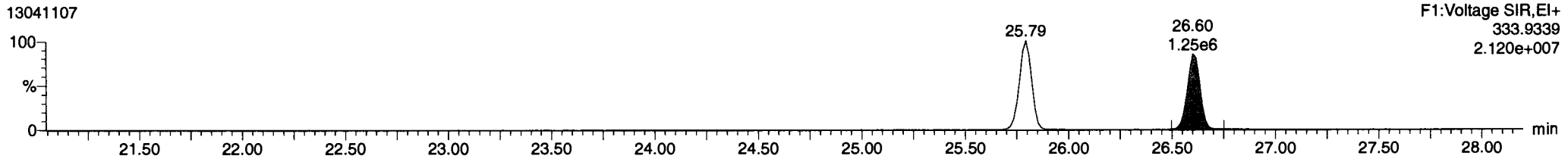
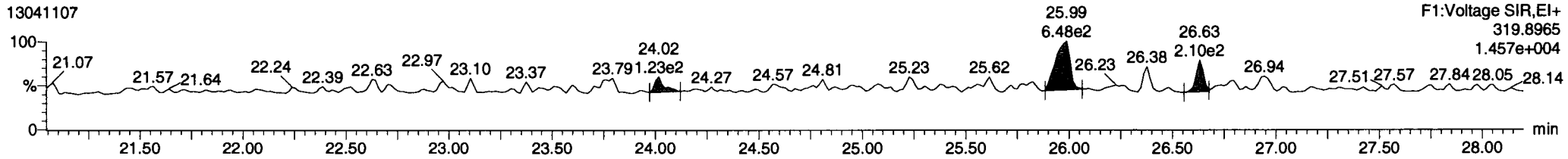
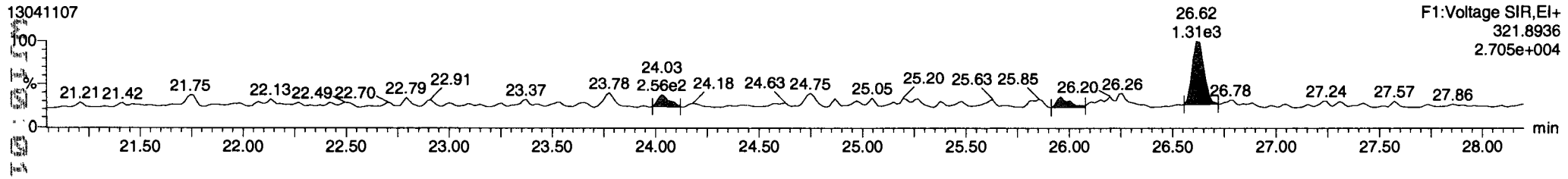


Total-tetradioxins



Total-tetradioxins



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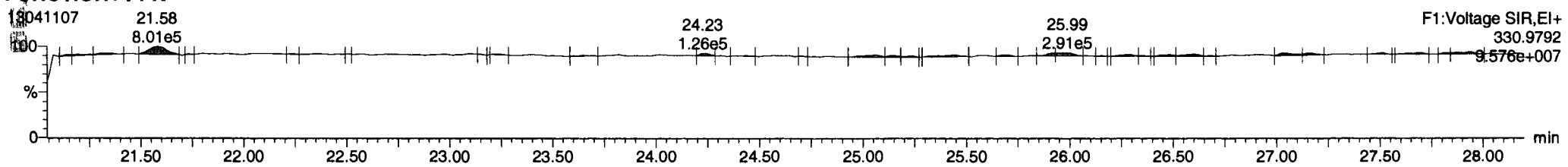

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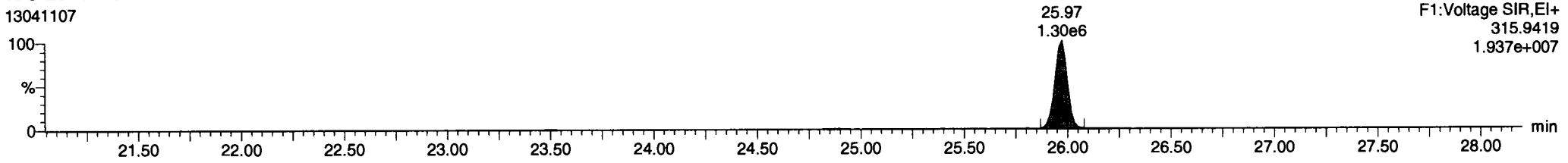
Last Altered: Thursday, April 11, 2013 16:25:08 Pacific Daylight Time
Printed: Thursday, April 11, 2013 16:25:30 Pacific Daylight Time

ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF



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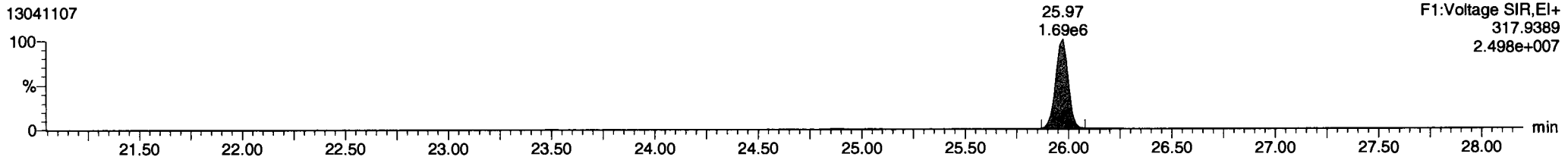
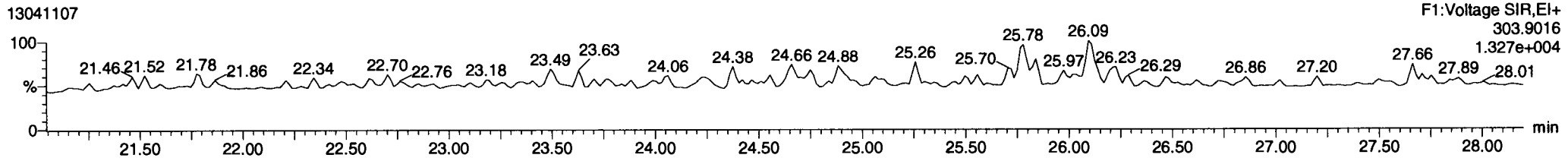
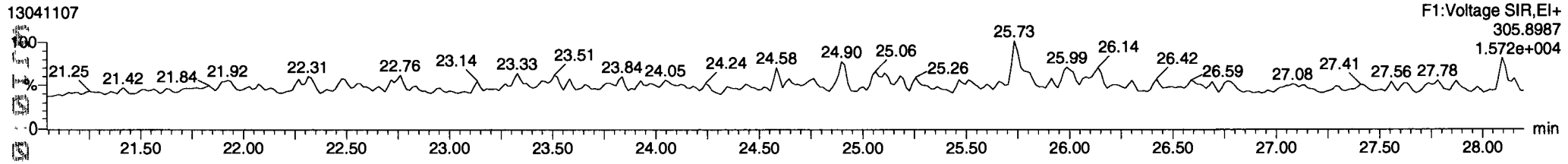


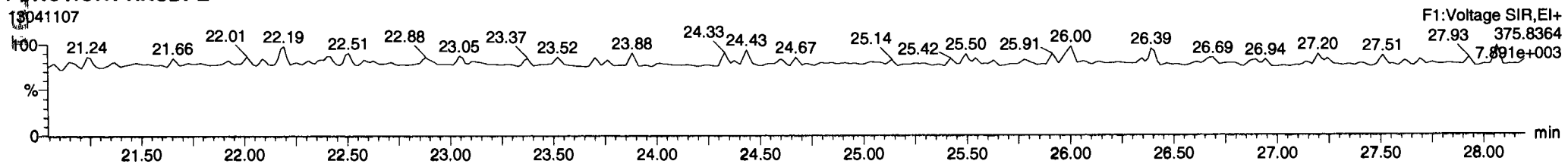
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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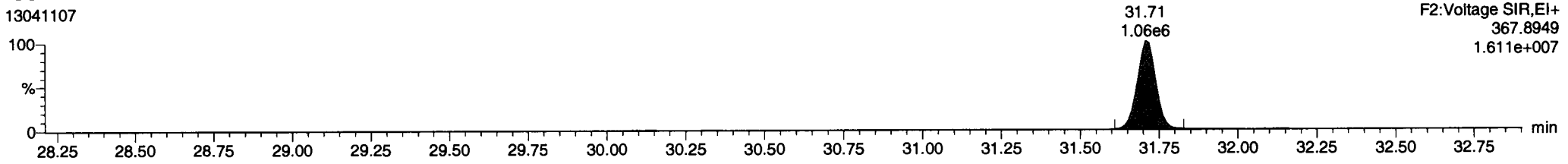
13C-12378-PeCDD



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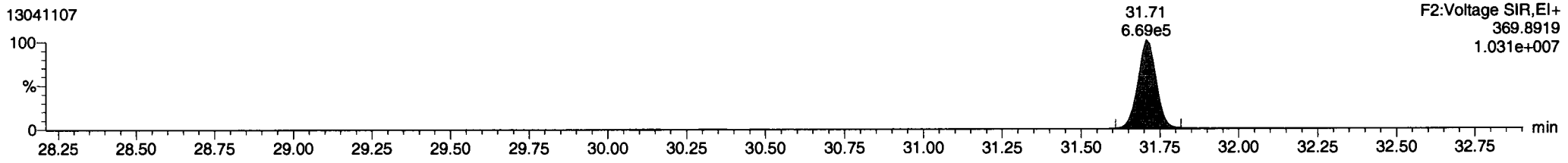
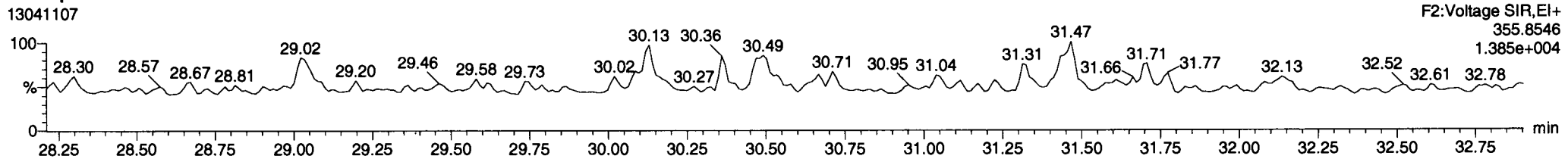
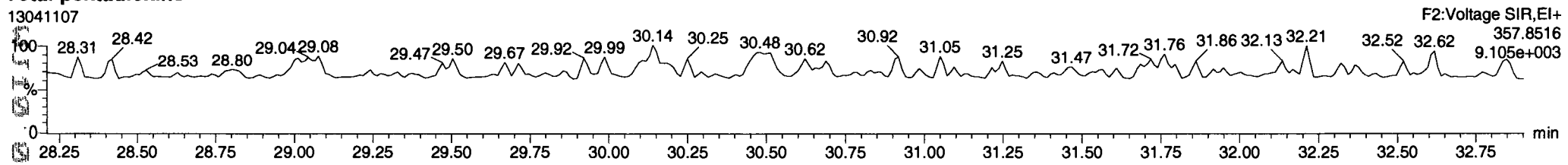


Total-pentadioxins



Total-pentadioxins



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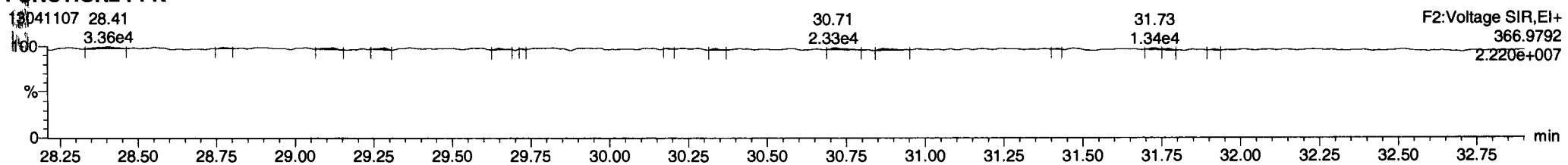

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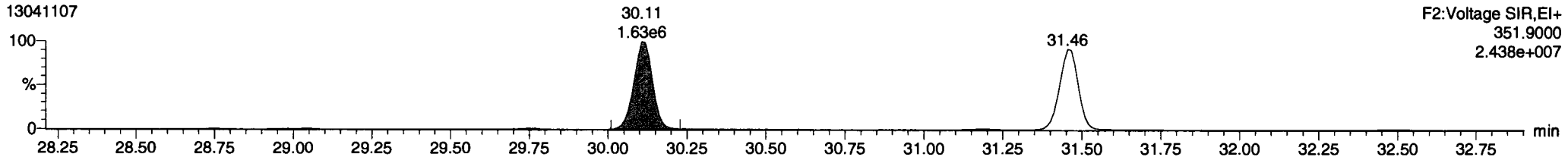
13C-12378-PeCDF



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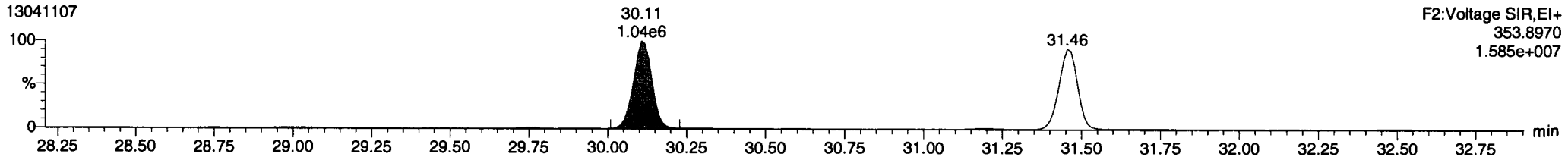

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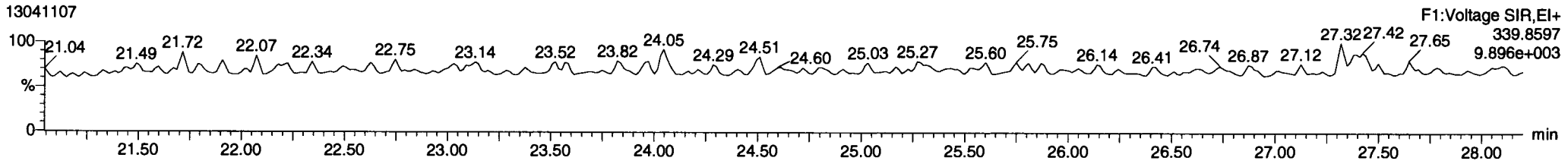

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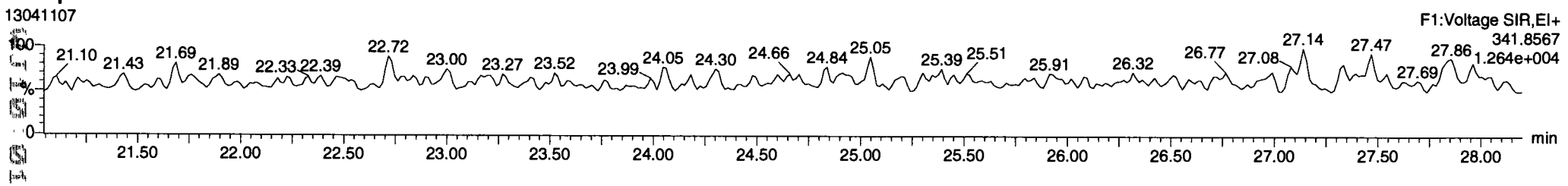

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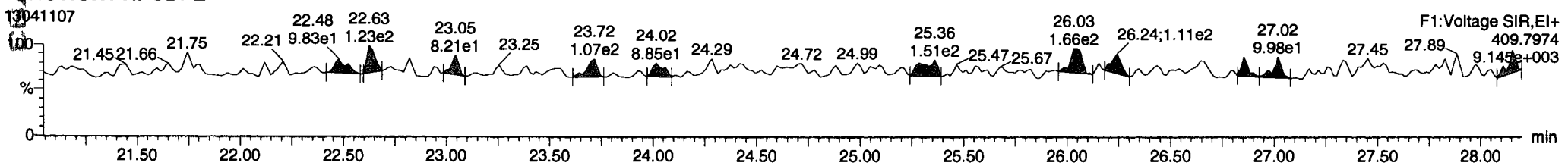

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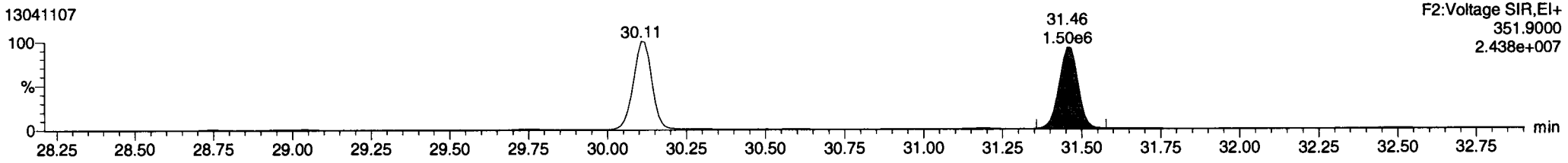

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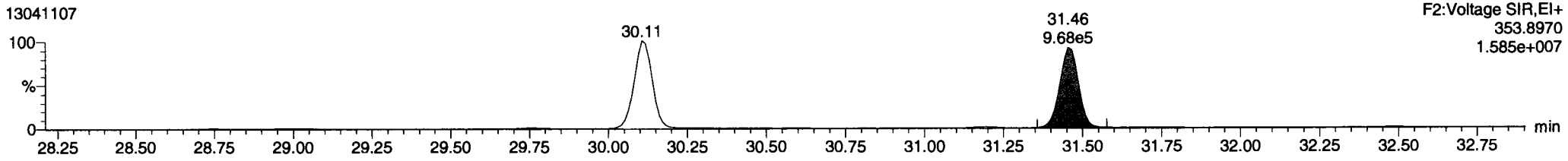

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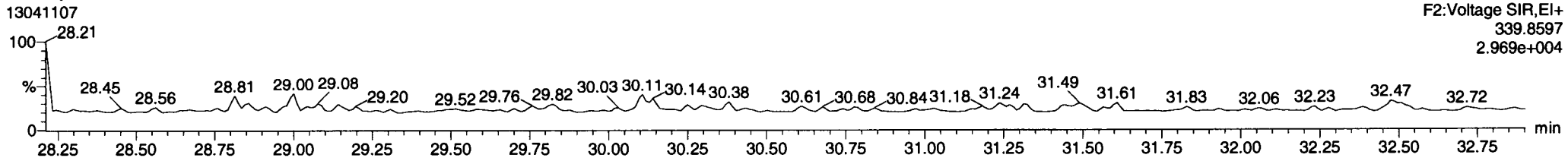
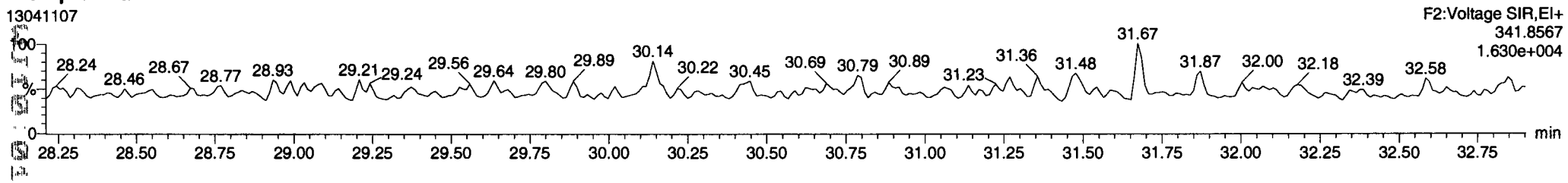


Total-pentafurans



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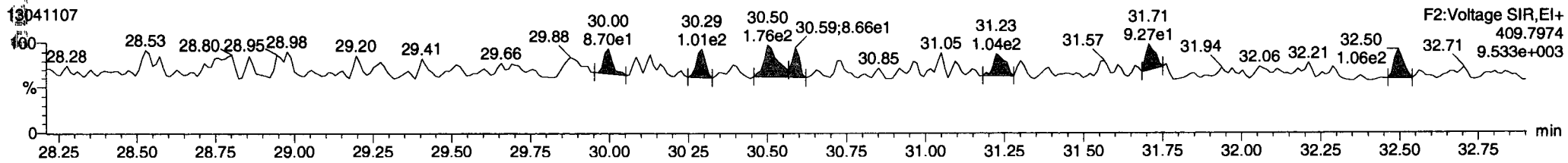

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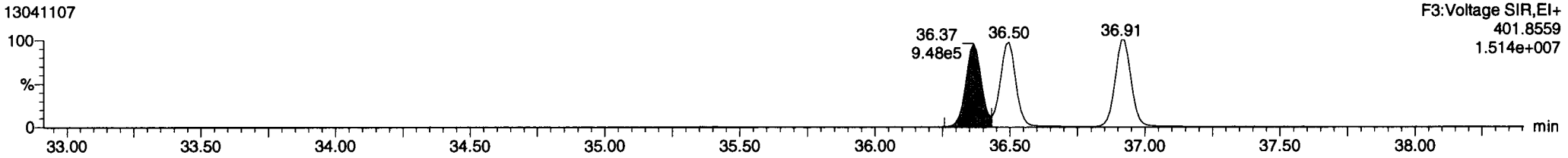

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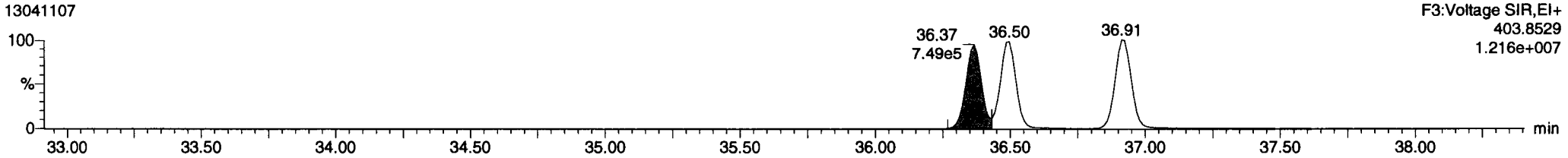
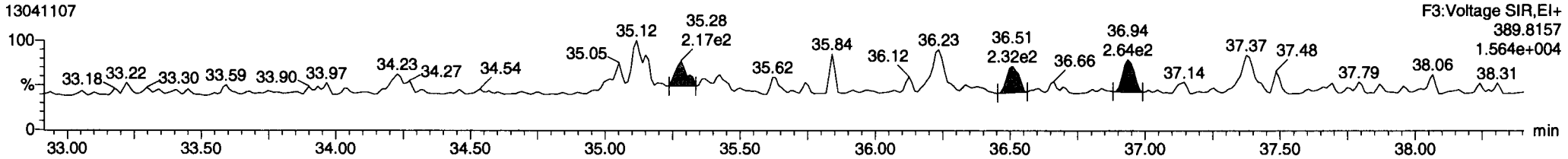
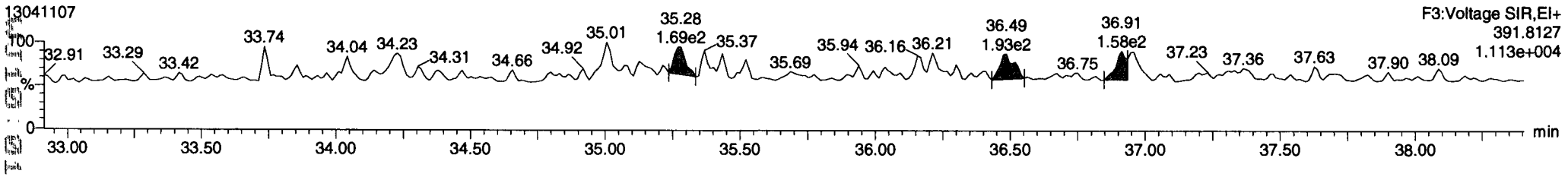


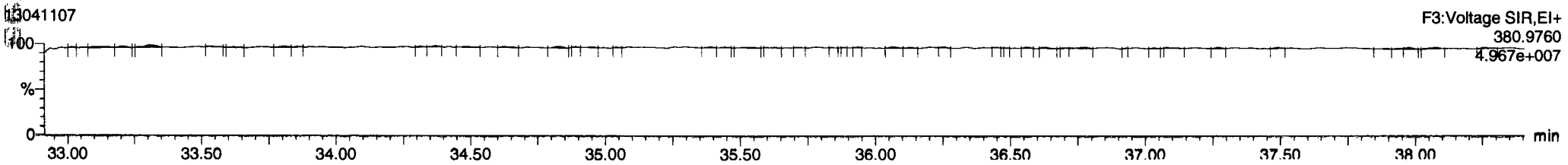
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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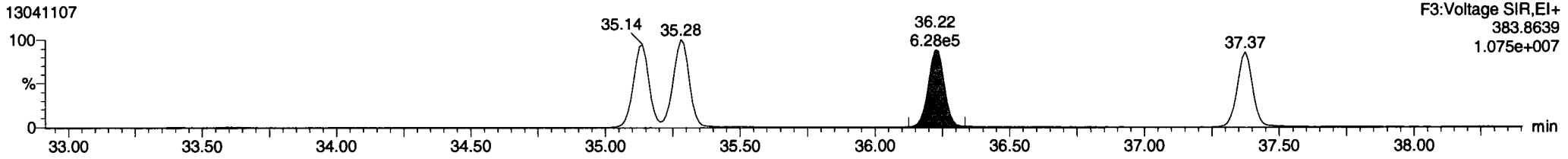
ID: DFBLK08, Name: 13041107, Date: 11-Apr-2013, Time: 15:13:07, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



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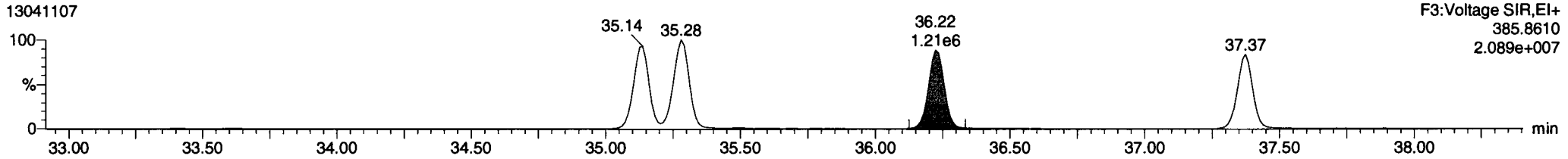
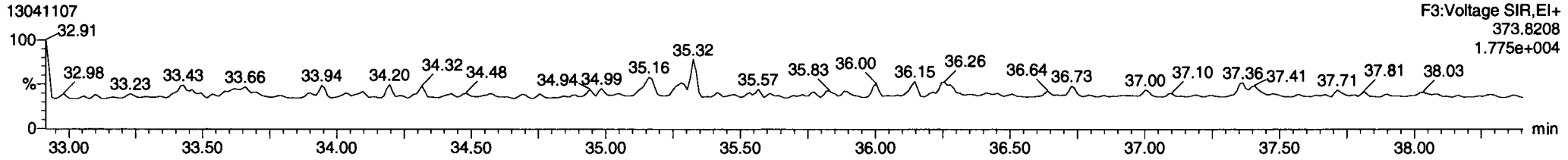


Total-hexafurans



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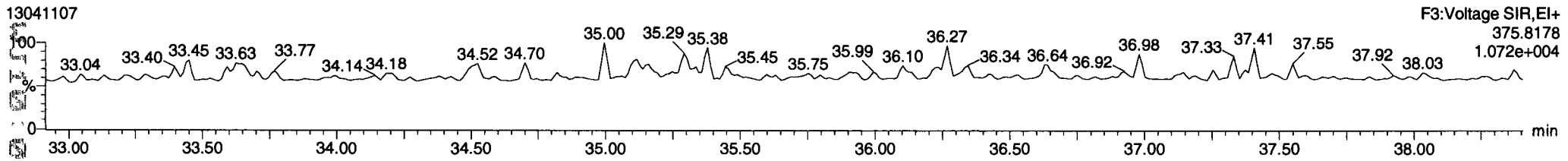
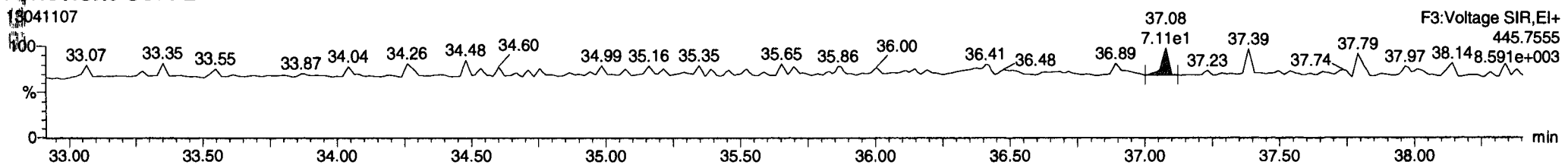


FUNCTION3 OCDPE



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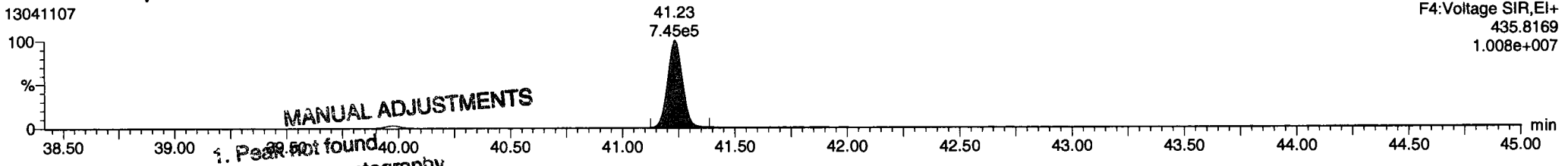
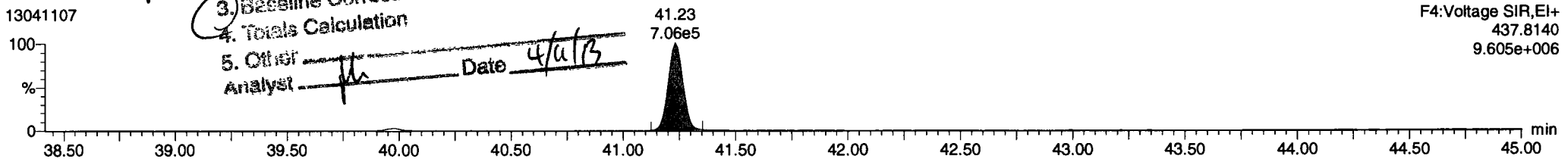
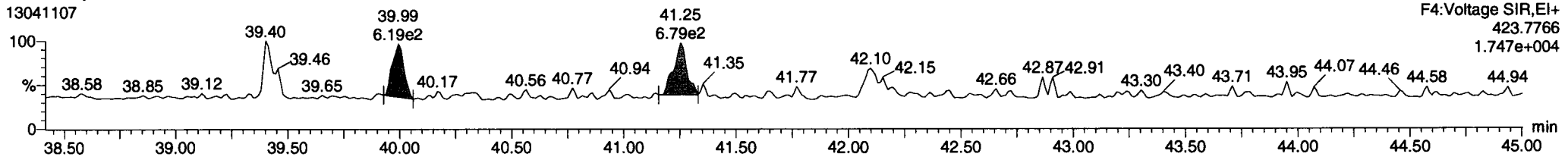
13C-1234678-HpCDD



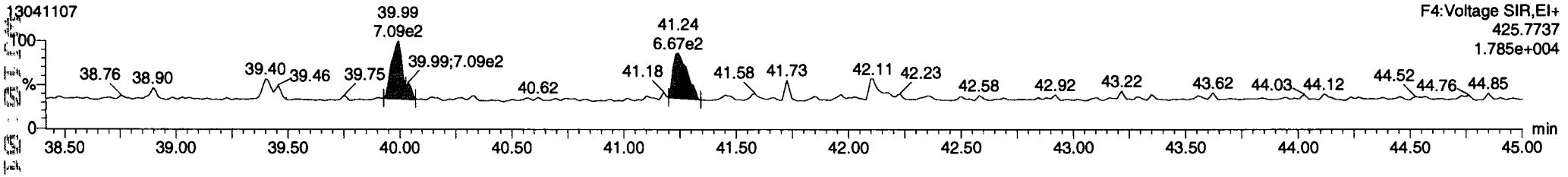
13C-1234678-HpCDD



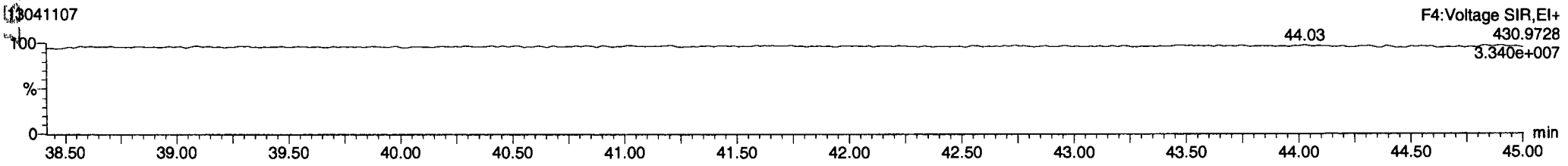
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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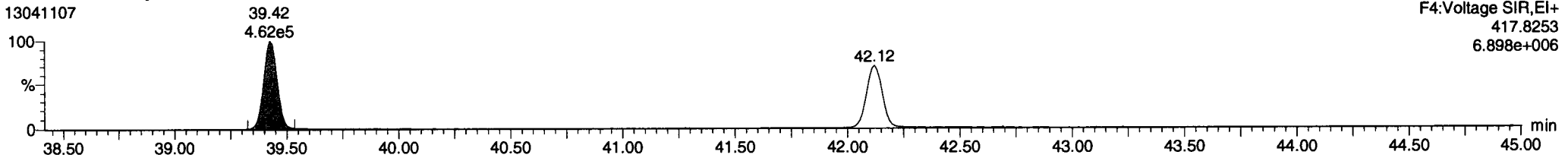

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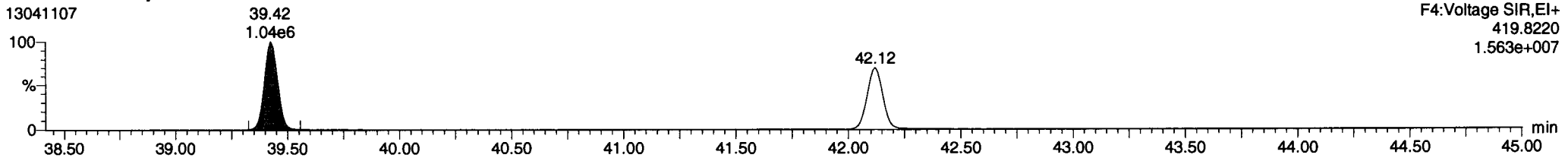
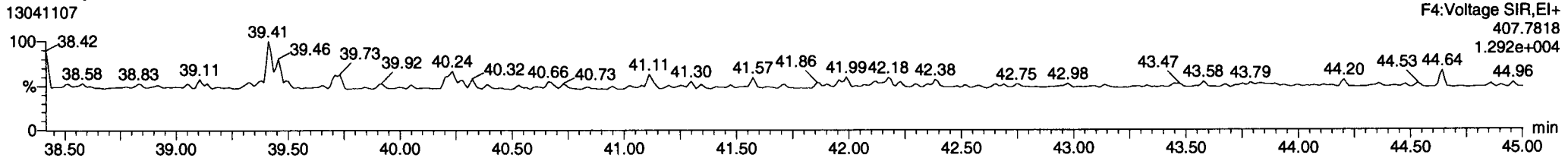


Total-heptafurans



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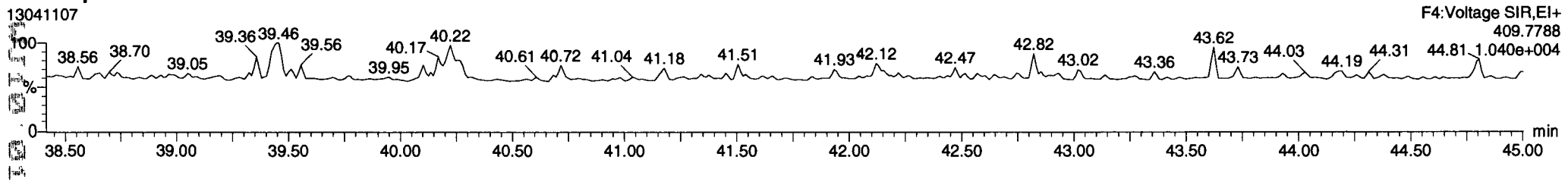
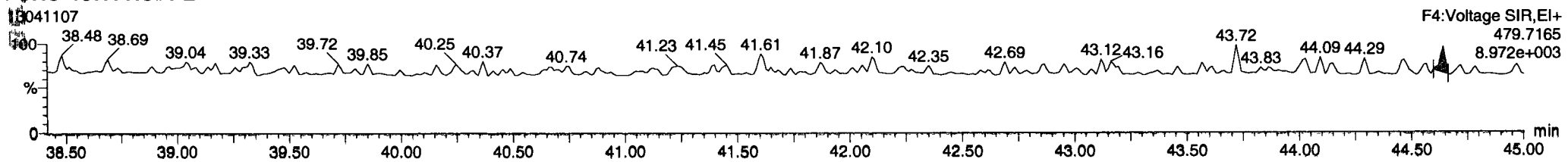


FUNCTION4 NCDPE



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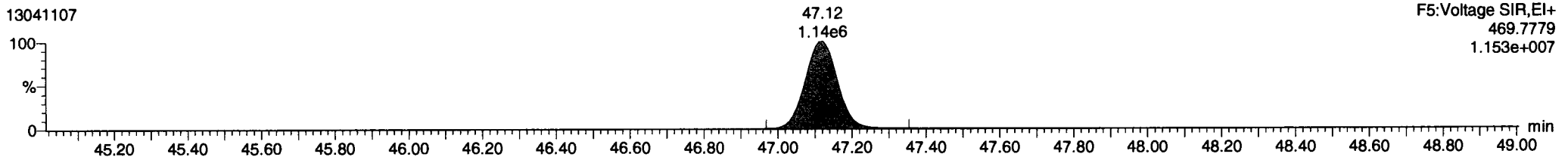
13C-OCDD



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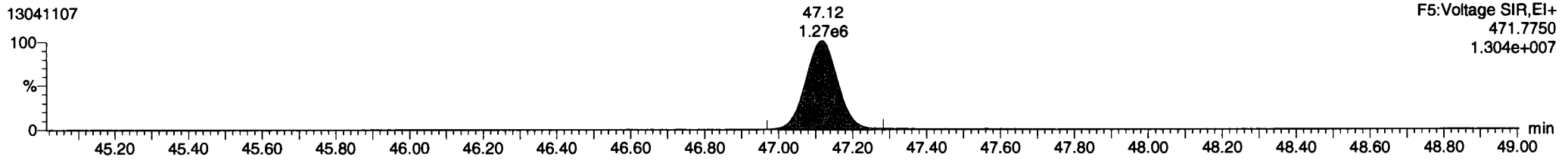
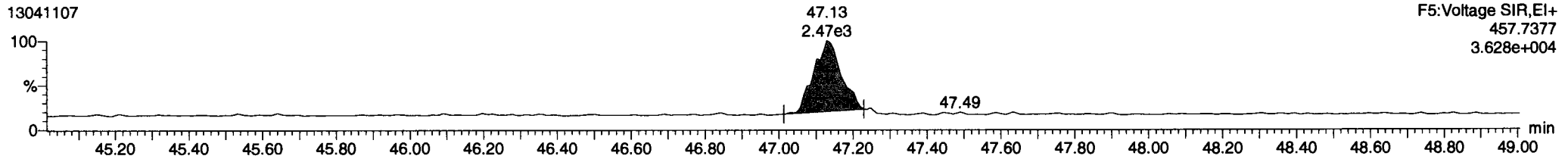


OCDD



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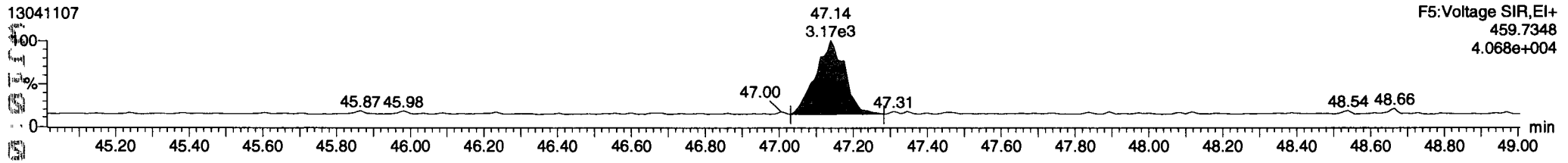
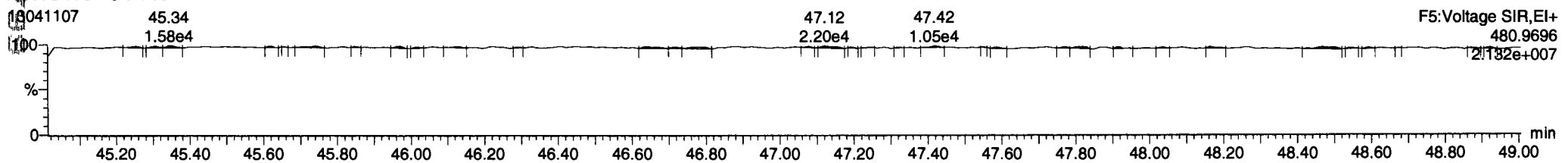


FUNCTION5 PFK



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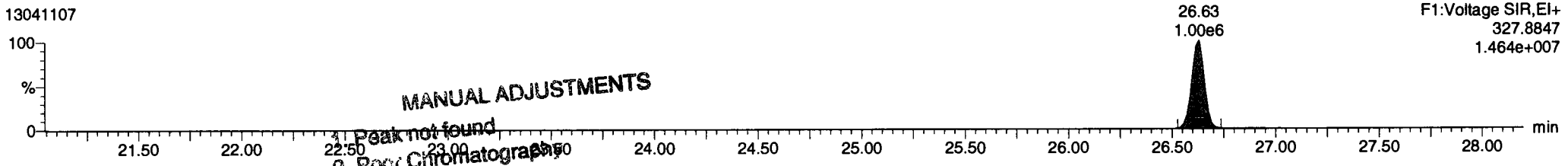
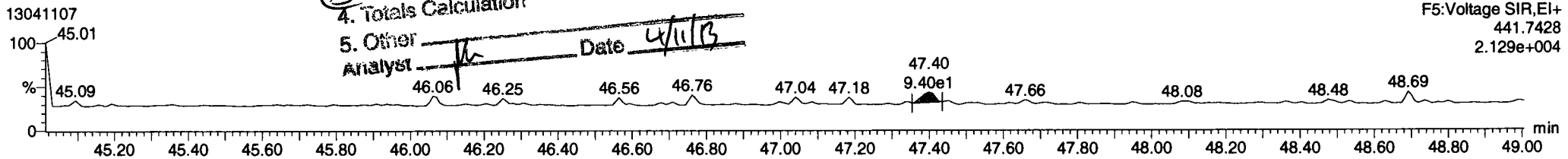
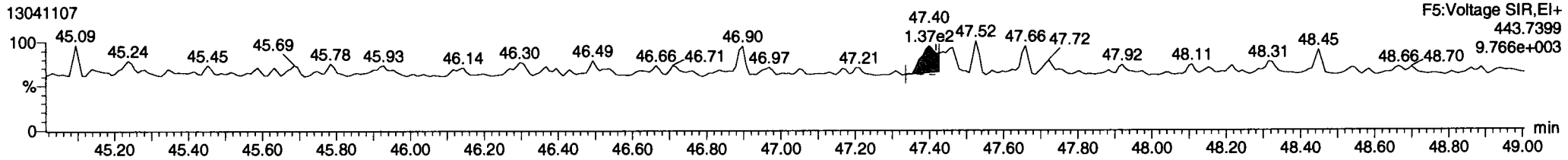
37CL-2378-TCDD



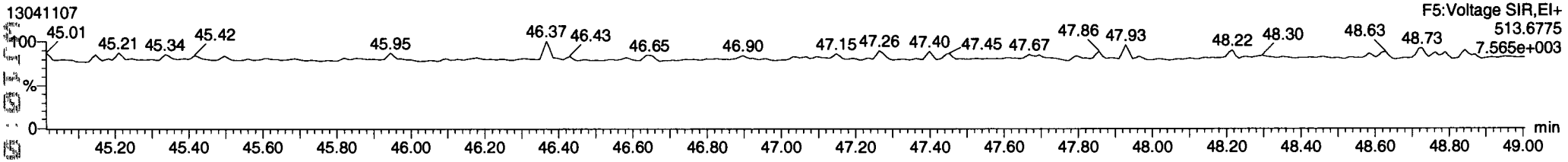
OCDF



OCDF



FUNCTION5 DCDPE



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MA 4/12/13

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[redacted]	123678-HxCDF	35.292	1.000	6.11e5	5.10e5	1.013	1.198	1.240	2372.5	3790	3355	8.99e6	7.51e6	NO	51.176	51.176
[redacted]	123789-HxCDF	37.386	1.000	4.83e5	4.09e5	0.929	1.180	1.240	1947.6	3790	3355	7.38e6	6.32e6	NO	53.163	53.163
[redacted]	1234678-HpCDF	39.446	1.001	5.18e5	5.25e5	1.151	0.986	1.050	3436.3	2242	2468	7.70e6	7.70e6	NO	57.739	57.739
[redacted]	1234789-HpCDF	42.132	1.001	3.81e5	3.87e5	1.149	0.984	1.050	2210.7	2242	2468	4.96e6	4.98e6	NO	53.208	53.208
[redacted]	OCDF	47.408	1.006	5.86e5	6.69e5	0.963	0.876	0.890	2894.8	2054	1550	5.95e6	6.96e6	NO	106.460	106.460
[redacted]	2378-TCDD	26.616	1.001	1.04e5	1.35e5	0.980	0.770	0.770	1218.0	1210	1261	1.47e6	1.93e6	NO	10.162	10.162
[redacted]	12378-PeCDD	31.730	1.001	5.38e5	3.52e5	0.948	1.529	1.550	2612.5	3122	1634	8.16e6	5.32e6	NO	51.366	51.366
[redacted]	123478-HxCDD	36.377	1.000	4.64e5	3.77e5	0.941	1.232	1.240	2802.8	2536	2100	7.11e6	5.71e6	NO	50.875	50.875
[redacted]	123678-HxCDD	36.508	1.001	4.52e5	3.70e5	0.884	1.223	1.240	2676.3	2536	2100	6.79e6	5.51e6	NO	49.456	49.456
[redacted]	123789-HxCDD	36.936	1.012	4.47e5	3.64e5	0.870	1.229	1.240	2672.7	2536	2100	6.78e6	5.50e6	NO	51.300	51.300
[redacted]	1234678-HpCDD	41.244	1.000	3.63e5	3.47e5	0.948	1.046	1.050	2576.1	1912	2011	4.92e6	4.73e6	NO	50.589	50.589
[redacted]	OCDD	47.139	1.001	5.53e5	6.14e5	0.969	0.901	0.890	1847.7	3062	2790	5.66e6	6.28e6	NO	98.318	98.318
[redacted]	13C-2378-TCDF	25.959	1.007	1.44e6	1.87e6	1.318	0.769	0.770	7696.7	2723	3401	2.10e7	2.72e7	NO		92.162
[redacted]	13C-12378-PeCDF	30.107	1.168	1.68e6	1.08e6	1.026	1.554	1.550	6015.1	4239	3897	2.55e7	1.64e7	NO		98.997
[redacted]	13C-23478-PeCDF	31.455	1.220	1.59e6	1.03e6	0.966	1.546	1.550	5718.6	4239	3897	2.42e7	1.55e7	NO		99.404
[redacted]	13C-123478-HxCDF	35.127	0.952	6.93e5	1.32e6	1.123	0.524	0.510	3125.3	3343	5261	1.04e7	1.99e7	NO		95.923
[redacted]	13C-123678-HxCDF	35.281	0.956	7.37e5	1.42e6	1.216	0.517	0.510	3295.7	3343	5261	1.10e7	2.14e7	NO		95.003
[redacted]	13C-234678-HxCDF	36.223	0.981	6.57e5	1.27e6	1.106	0.519	0.510	3025.6	3343	5261	1.01e7	1.93e7	NO		92.899
[redacted]	13C-123789-HxCDF	37.375	1.012	6.18e5	1.19e6	0.995	0.520	0.510	2806.1	3343	5261	9.38e6	1.80e7	NO		96.944
[redacted]	13C-1234678-HpCDF	39.424	1.068	4.83e5	1.09e6	0.896	0.445	0.440	3305.6	2199	3528	7.27e6	1.65e7	NO		93.585
[redacted]	13C-1234789-HpCDF	42.110	1.141	3.85e5	8.72e5	0.693	0.442	0.440	2264.4	2199	3528	4.98e6	1.13e7	NO		96.873
[redacted]	13C-1234-TCDD	25.779	0.000	1.19e6	1.53e6	1.000	0.772	0.770	4012.0	4264	2118	1.71e7	2.24e7	NO		100.000
[redacted]	13C-2378-TCDD	26.601	1.032	1.04e6	1.35e6	0.961	0.771	0.770	3583.9	4264	2118	1.53e7	1.97e7	NO		91.537
[redacted]	13C-12378-PeCDD	31.708	1.230	1.12e6	7.11e5	0.703	1.568	1.550	8403.8	2027	1351	1.70e7	1.09e7	NO		95.460
[redacted]	13C-123478-HxCDD	36.366	0.985	9.78e5	7.78e5	1.016	1.257	1.240	4073.0	3657	2218	1.49e7	1.17e7	NO		92.400
[redacted]	13C-123678-HxCDD	36.487	0.988	1.04e6	8.36e5	1.098	1.248	1.240	4228.0	3657	2218	1.55e7	1.24e7	NO		91.387
[redacted]	13C-1234678-HpCDD	41.233	1.117	7.56e5	7.26e5	0.828	1.042	1.050	3913.5	2697	2428	1.06e7	1.01e7	NO		95.607
[redacted]	13C-OCDD	47.112	1.276	1.16e6	1.29e6	0.770	0.894	0.890	5175.9	2313	2553	1.20e7	1.33e7	NO		169.929

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	13C-123789-HxCDD	36.914	0.000	1.04e6	8.29e5	1.000	1.258	1.240	4217.3	3657	2218	1.54e7	1.25e7	NO	100.000
	Total-tetrafurans			1.22e5		0.763				1015		1.78e6			11.614
	Total-penta1			0.00e0						944		0.00e0			
	Total-pentafurans			1.47e6		0.844				3377		2.21e7			107.923
	Total-hexafurans			2.26e6		0.997				3790		3.40e7			211.008
	Total-heptafurans			9.03e5		1.150				2242		1.27e7			111.501
	Total-Furans			5.34e6		0.970				1015		7.66e7			548.506
	Total-tetradioxins			1.07e5		0.980				1210		1.52e6			10.538
	Total-pentadioxins			5.42e5		0.948				3122		8.22e6			51.723
	Total-hexadioxins			1.36e6		0.898				2536		2.07e7			151.710
	Total-heptadioxins			3.70e5		0.948				1912		5.03e6			51.514
	Total-Dioxins			2.94e6		0.934				1210		4.11e7			363.804
	Total-TEQ			8.28e6						1210		1.18e8			912.310
	37CL-2378-TCDD	26.616	1.032	1.10e6		0.999			6986.8	2310		1.61e7			40.479
	FUNCTION1 PFK			1.84e6						1224909		2.33e7			
	FUNCTION2 PFK			1.69e5						265605		5.81e6			0.000
	FUNCTION3 PFK			5.85e5						499745		1.56e7			0.000
	FUNCTION4 PFK			8.89e5						378870		2.44e7			
	FUNCTION5 PFK			1.69e5						340281		6.63e6			
	FUNCTION1 HXCDPE			0.00e0						507		0.00e0			
	FUNCTION1 HPCDPE			1.21e3						1040		2.68e4			0.000
	FUNCTION2 HPCDPE			4.28e2						985		1.04e4			0.000
	FUNCTION3 OCDPE			0.00e0						346		0.00e0			
	FUNCTION4 NCDPE			2.60e2						691		7.60e3			0.000
	FUNCTION5 DCDPE			0.00e0						216		0.00e0			

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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 12 Apr 2013 10:19:10
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

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TF

	1 2378-TCDF	303.9016	25.97	280186.437	0.763	11.120	11.120	0.71	0.77	NO	1684.2
	35 Total-tetrafurans	303.9016	25.79	691.679	0.763	0.027		1.69	0.77	YES	6.5
	35 Total-tetrafurans	303.9016	25.08	2921.947	0.763	0.116		0.79	0.77	NO	18.1
	35 Total-tetrafurans	303.9016	24.88	5466.185	0.763	0.217		0.83	0.77	NO	33.7
	35 Total-tetrafurans	303.9016	24.73	3380.246	0.763	0.134		0.54	0.77	YES	16.3

PP

PF

	37 Total-pentafurans	339.8597	32.50	9698.390	0.844	0.428		1.46	1.55	NO	23.7
	3 23478-PeCDF	339.8597	31.47	1178733.188	0.851	53.035	53.035	1.51	1.55	NO	3191.5
	37 Total-pentafurans	339.8597	31.21	1902.469	0.844	0.084		1.76	1.55	NO	5.6
	37 Total-pentafurans	339.8597	30.44	811.384	0.844	0.036		1.63	1.55	NO	3.8
	37 Total-pentafurans	339.8597	30.33	23114.124	0.844	1.020		1.48	1.55	NO	68.0
	2 12378-PeCDF	339.8597	30.12	1209118.844	0.836	52.366	52.366	1.51	1.55	NO	3206.9
	37 Total-pentafurans	339.8597	29.76	8114.186	0.844	0.358		1.43	1.55	NO	19.7
	37 Total-pentafurans	339.8597	29.04	13525.512	0.844	0.597		1.98	1.55	YES	25.7

HF

	7 123789-HxCDF	373.8208	37.39	891729.375	0.929	53.163	53.163	1.18	1.24	NO	1947.6
	5 234678-HxCDF	373.8208	36.25	1053819.719	1.027	53.366	53.366	1.19	1.24	NO	2312.1
	6 123678-HxCDF	373.8208	35.29	1120609.250	1.013	51.176	51.176	1.20	1.24	NO	2372.5
	4 123478-HxCDF	373.8208	35.15	1079858.251	1.017	52.666	52.666	1.19	1.24	NO	2321.2
	38 Total-hexafurans	373.8208	35.00	1716.266	0.997	0.087		0.66	1.24	YES	5.0
	38 Total-hexafurans	373.8208	33.63	7277.212	0.997	0.369		1.23	1.24	NO	14.7
	38 Total-hexafurans	373.8208	33.42	3558.296	0.997	0.181		1.19	1.24	NO	7.7

HPF

	9 1234789-HpCDF	407.7818	42.13	768613.344	1.149	53.208	53.208	0.98	1.05	NO	2210.7
	39 Total-heptafurans	407.7818	40.24	5475.288	1.150	0.337		0.86	1.05	YES	16.4
	39 Total-heptafurans	407.7818	39.94	3524.588	1.150	0.217		0.96	1.05	NO	10.4
	8 1234678-HpCDF	407.7818	39.45	1042846.594	1.151	57.739	57.739	0.99	1.05	NO	3436.3

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Furans,TF,PP,PF,HF,HPF,OF

	1 2378-TCDF	303.9016	25.97	280186.437	0.763	11.120	11.120	0.71	0.77	NO	1684.2
	35 Total-tetrafurans	303.9016	25.79	691.679	0.763	0.027		1.69	0.77	YES	6.5
	35 Total-tetrafurans	303.9016	25.08	2921.947	0.763	0.116		0.79	0.77	NO	18.1
	35 Total-tetrafurans	303.9016	24.88	5466.185	0.763	0.217		0.83	0.77	NO	33.7
	35 Total-tetrafurans	303.9016	24.73	3380.246	0.763	0.134		0.54	0.77	YES	16.3
	37 Total-pentafurans	339.8597	32.50	9698.390	0.844	0.428		1.46	1.55	NO	23.7
	3 23478-PeCDF	339.8597	31.47	1178733.188	0.851	53.035	53.035	1.51	1.55	NO	3191.5
	37 Total-pentafurans	339.8597	31.21	1902.469	0.844	0.084		1.76	1.55	NO	5.6
	37 Total-pentafurans	339.8597	30.44	811.384	0.844	0.036		1.63	1.55	NO	3.8
	37 Total-pentafurans	339.8597	30.33	23114.124	0.844	1.020		1.48	1.55	NO	68.0
	2 12378-PeCDF	339.8597	30.12	1209118.844	0.836	52.366	52.366	1.51	1.55	NO	3206.9
	37 Total-pentafurans	339.8597	29.76	8114.186	0.844	0.358		1.43	1.55	NO	19.7
	37 Total-pentafurans	339.8597	29.04	13525.512	0.844	0.597		1.98	1.55	YES	25.7
	7 123789-HxCDF	373.8208	37.39	891729.375	0.929	53.163	53.163	1.18	1.24	NO	1947.6
	5 234678-HxCDF	373.8208	36.25	1053819.719	1.027	53.366	53.366	1.19	1.24	NO	2312.1
	6 123678-HxCDF	373.8208	35.29	1120609.250	1.013	51.176	51.176	1.20	1.24	NO	2372.5
	4 123478-HxCDF	373.8208	35.15	1079858.251	1.017	52.666	52.666	1.19	1.24	NO	2321.2
	38 Total-hexafurans	373.8208	35.00	1716.266	0.997	0.087		0.66	1.24	YES	5.0
	38 Total-hexafurans	373.8208	33.63	7277.212	0.997	0.369		1.23	1.24	NO	14.7
	38 Total-hexafurans	373.8208	33.42	3558.296	0.997	0.181		1.19	1.24	NO	7.7
	9 1234789-HpCDF	407.7818	42.13	768613.344	1.149	53.208	53.208	0.98	1.05	NO	2210.7
	39 Total-heptafurans	407.7818	40.24	5475.288	1.150	0.337		0.86	1.05	YES	16.4
	39 Total-heptafurans	407.7818	39.94	3524.588	1.150	0.217		0.96	1.05	NO	10.4
	8 1234678-HpCDF	407.7818	39.45	1042846.594	1.151	57.739	57.739	0.99	1.05	NO	3436.3
	10 OCDF	441.7428	47.41	1255335.813	0.963	106.460	106....	0.88	0.89	NO	2894.8

TD

	41 Total-tetradioxins	319.8965	26.75	1214.186	0.980	0.052		0.42	0.77	YES	4.4
	11 2378-TCDD	319.8965	26.62	238336.359	0.980	10.162	10.162	0.77	0.77	NO	1218.0
	41 Total-tetradioxins	319.8965	26.23	6598.777	0.980	0.281		0.81	0.77	NO	28.4
	41 Total-tetradioxins	319.8965	25.26	723.675	0.980	0.031		0.77	0.77	NO	2.7
	41 Total-tetradioxins	319.8965	24.26	298.865	0.980	0.013		1.16	0.77	YES	2.9

PD

	12 12378-PeCDD	355.8546	31.73	889551.469	0.948	51.366	51.366	1.53	1.55	NO	2612.5
	42 Total-pentadioxins	355.8546	31.05	1284.355	0.948	0.074		2.48	1.55	YES	4.7
	42 Total-pentadioxins	355.8546	30.49	1391.333	0.948	0.080		2.70	1.55	YES	5.1
	42 Total-pentadioxins	355.8546	30.34	1530.982	0.948	0.088		1.95	1.55	YES	5.3
	42 Total-pentadioxins	355.8546	30.14	1962.690	0.948	0.113		1.69	1.55	NO	6.1

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HD

	15	123789-HxCDD	389.8157	36.94	811130.844	0.870	51.300	51.300	1.23	1.24	NO	2672.7
	14	123678-HxCDD	389.8157	36.51	821478.094	0.884	49.456	49.456	1.22	1.24	NO	2676.3
	13	123478-HxCDD	389.8157	36.38	841109.719	0.941	50.875	50.875	1.23	1.24	NO	2802.8
	43	Total-hexadioxins	389.8157	35.02	1281.189	0.898	0.078		0.81	1.24	YES	4.1

HPD

	16	1234678-HpCDD	423.7766	41.24	710870.938	0.948	50.589	50.589	1.05	1.05	NO	2576.1
	44	Total-heptadioxins	423.7766	39.99	12997.103	0.948	0.925		1.12	1.05	NO	54.5

Dioxins,TD,PD,HD,HPD,OD

	41	Total-tetradioxins	319.8965	26.75	1214.186	0.980	0.052		0.42	0.77	YES	4.4
	11	2378-TCDD	319.8965	26.62	238336.359	0.980	10.162	10.162	0.77	0.77	NO	1218.0
	41	Total-tetradioxins	319.8965	26.23	6598.777	0.980	0.281		0.81	0.77	NO	28.4
	41	Total-tetradioxins	319.8965	25.26	723.675	0.980	0.031		0.77	0.77	NO	2.7
	41	Total-tetradioxins	319.8965	24.26	298.865	0.980	0.013		1.16	0.77	YES	2.9
	12	12378-PeCDD	355.8546	31.73	889551.469	0.948	51.366	51.366	1.53	1.55	NO	2612.5
	42	Total-pentadioxins	355.8546	31.05	1284.355	0.948	0.074		2.48	1.55	YES	4.7
	42	Total-pentadioxins	355.8546	30.49	1391.333	0.948	0.080		2.70	1.55	YES	5.1
	42	Total-pentadioxins	355.8546	30.34	1530.982	0.948	0.088		1.95	1.55	YES	5.3
	42	Total-pentadioxins	355.8546	30.14	1962.690	0.948	0.113		1.69	1.55	NO	6.1
	15	123789-HxCDD	389.8157	36.94	811130.844	0.870	51.300	51.300	1.23	1.24	NO	2672.7
	14	123678-HxCDD	389.8157	36.51	821478.094	0.884	49.456	49.456	1.22	1.24	NO	2676.3
	13	123478-HxCDD	389.8157	36.38	841109.719	0.941	50.875	50.875	1.23	1.24	NO	2802.8
	43	Total-hexadioxins	389.8157	35.02	1281.189	0.898	0.078		0.81	1.24	YES	4.1
	16	1234678-HpCDD	423.7766	41.24	710870.938	0.948	50.589	50.589	1.05	1.05	NO	2576.1
	44	Total-heptadioxins	423.7766	39.99	12997.103	0.948	0.925		1.12	1.05	NO	54.5
	17	OCDD	457.7377	47.14	1166620.063	0.969	98.318	98.318	0.90	0.89	NO	1847.7

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TotalTEQ,Furans,Dioxins

	1 2378-TCDF	303.9016	25.97	280186.437	0.763	11.120	11.120	0.71	0.77	NO	1684.2
	35 Total-tetrafurans	303.9016	25.79	691.679	0.763	0.027		1.69	0.77	YES	6.5
	35 Total-tetrafurans	303.9016	25.08	2921.947	0.763	0.116		0.79	0.77	NO	18.1
	35 Total-tetrafurans	303.9016	24.88	5466.185	0.763	0.217		0.83	0.77	NO	33.7
	35 Total-tetrafurans	303.9016	24.73	3380.246	0.763	0.134		0.54	0.77	YES	16.3
	37 Total-pentafurans	339.8597	32.50	9698.390	0.844	0.428		1.46	1.55	NO	23.7
	3 23478-PeCDF	339.8597	31.47	1178733.188	0.851	53.035	53.035	1.51	1.55	NO	3191.5
	37 Total-pentafurans	339.8597	31.21	1902.469	0.844	0.084		1.76	1.55	NO	5.6
	37 Total-pentafurans	339.8597	30.44	811.384	0.844	0.036		1.63	1.55	NO	3.8
	37 Total-pentafurans	339.8597	30.33	23114.124	0.844	1.020		1.48	1.55	NO	68.0
	2 12378-PeCDF	339.8597	30.12	1209118.844	0.836	52.366	52.366	1.51	1.55	NO	3206.9
	37 Total-pentafurans	339.8597	29.76	8114.186	0.844	0.358		1.43	1.55	NO	19.7
	37 Total-pentafurans	339.8597	29.04	13525.512	0.844	0.597		1.98	1.55	YES	25.7
	7 123789-HxCDF	373.8208	37.39	891729.375	0.929	53.163	53.163	1.18	1.24	NO	1947.6
	5 234678-HxCDF	373.8208	36.25	1053819.719	1.027	53.366	53.366	1.19	1.24	NO	2312.1
	6 123678-HxCDF	373.8208	35.29	1120609.250	1.013	51.176	51.176	1.20	1.24	NO	2372.5
	4 123478-HxCDF	373.8208	35.15	1079858.251	1.017	52.666	52.666	1.19	1.24	NO	2321.2
	38 Total-hexafurans	373.8208	35.00	1716.266	0.997	0.087		0.66	1.24	YES	5.0
	38 Total-hexafurans	373.8208	33.63	7277.212	0.997	0.369		1.23	1.24	NO	14.7
	38 Total-hexafurans	373.8208	33.42	3558.296	0.997	0.181		1.19	1.24	NO	7.7
	9 1234789-HpCDF	407.7818	42.13	768613.344	1.149	53.208	53.208	0.98	1.05	NO	2210.7
	39 Total-heptafurans	407.7818	40.24	5475.288	1.150	0.337		0.86	1.05	YES	16.4
	39 Total-heptafurans	407.7818	39.94	3524.588	1.150	0.217		0.96	1.05	NO	10.4
	8 1234678-HpCDF	407.7818	39.45	1042846.594	1.151	57.739	57.739	0.99	1.05	NO	3436.3
	10 OCDF	441.7428	47.41	1255335.813	0.963	106.460	106....	0.88	0.89	NO	2894.8
	41 Total-tetradioxins	319.8965	26.75	1214.186	0.980	0.052		0.42	0.77	YES	4.4
	11 2378-TCDD	319.8965	26.62	238336.359	0.980	10.162	10.162	0.77	0.77	NO	1218.0
	41 Total-tetradioxins	319.8965	26.23	6598.777	0.980	0.281		0.81	0.77	NO	28.4
	41 Total-tetradioxins	319.8965	25.26	723.675	0.980	0.031		0.77	0.77	NO	2.7
	41 Total-tetradioxins	319.8965	24.26	298.865	0.980	0.013		1.16	0.77	YES	2.9
	12 12378-PeCDD	355.8546	31.73	889551.469	0.948	51.366	51.366	1.53	1.55	NO	2612.5
	42 Total-pentadioxins	355.8546	31.05	1284.355	0.948	0.074		2.48	1.55	YES	4.7
	42 Total-pentadioxins	355.8546	30.49	1391.333	0.948	0.080		2.70	1.55	YES	5.1
	42 Total-pentadioxins	355.8546	30.34	1530.982	0.948	0.088		1.95	1.55	YES	5.3
	42 Total-pentadioxins	355.8546	30.14	1962.690	0.948	0.113		1.69	1.55	NO	6.1
	15 123789-HxCDD	389.8157	36.94	811130.844	0.870	51.300	51.300	1.23	1.24	NO	2672.7
	14 123678-HxCDD	389.8157	36.51	821478.094	0.884	49.456	49.456	1.22	1.24	NO	2676.3
	13 123478-HxCDD	389.8157	36.38	841109.719	0.941	50.875	50.875	1.23	1.24	NO	2802.8
	43 Total-hexadioxins	389.8157	35.02	1281.189	0.898	0.078		0.81	1.24	YES	4.1
	16 1234678-HpCDD	423.7766	41.24	710870.938	0.948	50.589	50.589	1.05	1.05	NO	2576.1
	44 Total-heptadioxins	423.7766	39.99	12997.103	0.948	0.925		1.12	1.05	NO	54.5
	17 OCDD	457.7377	47.14	1166620.063	0.969	98.318	98.318	0.90	0.89	NO	1847.7

ID: DLCS08, Name: 13041108, Date: 11-Apr-2013, Time: 16:03:19, Conditions: AUTOSPEC01, User: pk

PFK1

	48 FUNCTION1 PFK	330.9792	25.59	0.000						0.8
	48 FUNCTION1 PFK	330.9792	24.45	0.000						2.1
	48 FUNCTION1 PFK	330.9792	23.40	0.000						1.7
	48 FUNCTION1 PFK	330.9792	22.03	0.000						1.6
	48 FUNCTION1 PFK	330.9792	21.55	0.000						6.0
	48 FUNCTION1 PFK	330.9792	21.36	0.000						3.2
	48 FUNCTION1 PFK	330.9792	26.48	0.000						1.4
	48 FUNCTION1 PFK	330.9792	26.39	0.000						0.5
	48 FUNCTION1 PFK	330.9792	25.70	0.000						1.7

PFK2

	49 FUNCTION2 PFK	366.9792	30.55	0.000	0.000					1.3
	49 FUNCTION2 PFK	366.9792	30.36	0.000	0.000					1.3
	49 FUNCTION2 PFK	366.9792	29.91	0.000	0.000					1.6
	49 FUNCTION2 PFK	366.9792	29.58	0.000	0.000					1.4
	49 FUNCTION2 PFK	366.9792	29.44	0.000	0.000					1.2
	49 FUNCTION2 PFK	366.9792	29.26	0.000	0.000					1.0
	49 FUNCTION2 PFK	366.9792	29.22	0.000	0.000					0.8
	49 FUNCTION2 PFK	366.9792	28.92	0.000	0.000					0.9
	49 FUNCTION2 PFK	366.9792	28.57	0.000	0.000					0.9
	49 FUNCTION2 PFK	366.9792	28.44	0.000	0.000					1.4
	49 FUNCTION2 PFK	366.9792	28.32	0.000	0.000					0.9
	49 FUNCTION2 PFK	366.9792	28.28	0.000	0.000					0.7
	49 FUNCTION2 PFK	366.9792	31.92	0.000	0.000					1.4
	49 FUNCTION2 PFK	366.9792	31.75	0.000	0.000					1.0
	49 FUNCTION2 PFK	366.9792	31.65	0.000	0.000					0.7
	49 FUNCTION2 PFK	366.9792	31.54	0.000	0.000					1.9
	49 FUNCTION2 PFK	366.9792	31.26	0.000	0.000					1.7
	49 FUNCTION2 PFK	366.9792	31.04	0.000	0.000					1.7

ID: DLCS08, Name: 13041108, Date: 11-Apr-2013, Time: 16:03:19, Conditions: AUTOSPEC01, User: pk

PFK3

[redacted]	50 FUNCTION3 PFK	380.9760	34.43	0.000	0.000					0.8
[redacted]	50 FUNCTION3 PFK	380.9760	34.32	0.000	0.000					1.5
[redacted]	50 FUNCTION3 PFK	380.9760	34.13	0.000	0.000					1.3
[redacted]	50 FUNCTION3 PFK	380.9760	34.05	0.000	0.000					1.1
[redacted]	50 FUNCTION3 PFK	380.9760	33.88	0.000	0.000					0.4
[redacted]	50 FUNCTION3 PFK	380.9760	33.82	0.000	0.000					1.2
[redacted]	50 FUNCTION3 PFK	380.9760	33.68	0.000	0.000					0.5
[redacted]	50 FUNCTION3 PFK	380.9760	33.57	0.000	0.000					1.0
[redacted]	50 FUNCTION3 PFK	380.9760	33.01	0.000	0.000					0.9
[redacted]	50 FUNCTION3 PFK	380.9760	38.12	0.000	0.000					0.9
[redacted]	50 FUNCTION3 PFK	380.9760	38.02	0.000	0.000					1.8
[redacted]	50 FUNCTION3 PFK	380.9760	37.78	0.000	0.000					0.4
[redacted]	50 FUNCTION3 PFK	380.9760	37.58	0.000	0.000					1.2
[redacted]	50 FUNCTION3 PFK	380.9760	37.34	0.000	0.000					1.2
[redacted]	50 FUNCTION3 PFK	380.9760	37.28	0.000	0.000					2.6
[redacted]	50 FUNCTION3 PFK	380.9760	37.21	0.000	0.000					2.3
[redacted]	50 FUNCTION3 PFK	380.9760	36.87	0.000	0.000					1.5
[redacted]	50 FUNCTION3 PFK	380.9760	36.83	0.000	0.000					0.8
[redacted]	50 FUNCTION3 PFK	380.9760	36.76	0.000	0.000					0.8
[redacted]	50 FUNCTION3 PFK	380.9760	36.48	0.000	0.000					1.8
[redacted]	50 FUNCTION3 PFK	380.9760	36.43	0.000	0.000					0.7
[redacted]	50 FUNCTION3 PFK	380.9760	36.06	0.000	0.000					1.3
[redacted]	50 FUNCTION3 PFK	380.9760	35.54	0.000	0.000					1.4
[redacted]	50 FUNCTION3 PFK	380.9760	34.88	0.000	0.000					1.1
[redacted]	50 FUNCTION3 PFK	380.9760	34.73	0.000	0.000					1.2
[redacted]	50 FUNCTION3 PFK	380.9760	38.25	0.000	0.000					1.5

Dataset: P:\DIOXIN8290.PRO\130411DATA1.qld
Last Altered: Friday, April 12, 2013 11:01:08 Pacific Daylight Time
Printed: Friday, April 12, 2013 11:06:16 Pacific Daylight Time

ID: DLCS08, Name: 13041108, Date: 11-Apr-2013, Time: 16:03:19, Conditions: AUTOSPEC01, User: pk

PFK4

	51	FUNCTION4	PFK	430.9728	39.59	0.000					1.4
	51	FUNCTION4	PFK	430.9728	39.53	0.000					0.5
	51	FUNCTION4	PFK	430.9728	39.36	0.000					1.3
	51	FUNCTION4	PFK	430.9728	39.24	0.000					0.6
	51	FUNCTION4	PFK	430.9728	39.15	0.000					0.3
	51	FUNCTION4	PFK	430.9728	39.08	0.000					1.4
	51	FUNCTION4	PFK	430.9728	39.01	0.000					2.2
	51	FUNCTION4	PFK	430.9728	38.90	0.000					1.3
	51	FUNCTION4	PFK	430.9728	38.87	0.000					1.8
	51	FUNCTION4	PFK	430.9728	38.76	0.000					0.3
	51	FUNCTION4	PFK	430.9728	38.60	0.000					1.7
	51	FUNCTION4	PFK	430.9728	38.57	0.000					1.1
	51	FUNCTION4	PFK	430.9728	38.53	0.000					0.7
	51	FUNCTION4	PFK	430.9728	38.45	0.000					1.8
	51	FUNCTION4	PFK	430.9728	41.24	0.000					0.9
	51	FUNCTION4	PFK	430.9728	41.20	0.000					0.8
	51	FUNCTION4	PFK	430.9728	41.13	0.000					1.5
	51	FUNCTION4	PFK	430.9728	41.10	0.000					1.2
	51	FUNCTION4	PFK	430.9728	41.00	0.000					0.8
	51	FUNCTION4	PFK	430.9728	40.88	0.000					0.8
	51	FUNCTION4	PFK	430.9728	40.82	0.000					0.7
	51	FUNCTION4	PFK	430.9728	40.36	0.000					0.9
	51	FUNCTION4	PFK	430.9728	40.31	0.000					0.5
	51	FUNCTION4	PFK	430.9728	40.21	0.000					0.9
	51	FUNCTION4	PFK	430.9728	40.18	0.000					1.0
	51	FUNCTION4	PFK	430.9728	40.10	0.000					2.0
	51	FUNCTION4	PFK	430.9728	39.95	0.000					2.8
	51	FUNCTION4	PFK	430.9728	39.86	0.000					1.8
	51	FUNCTION4	PFK	430.9728	39.71	0.000					1.0
	51	FUNCTION4	PFK	430.9728	39.64	0.000					0.9
	51	FUNCTION4	PFK	430.9728	43.39	0.000					0.7
	51	FUNCTION4	PFK	430.9728	43.23	0.000					0.5
	51	FUNCTION4	PFK	430.9728	43.04	0.000					0.8
	51	FUNCTION4	PFK	430.9728	43.00	0.000					1.4
	51	FUNCTION4	PFK	430.9728	42.78	0.000					1.7
	51	FUNCTION4	PFK	430.9728	42.71	0.000					1.3
	51	FUNCTION4	PFK	430.9728	42.65	0.000					1.0
	51	FUNCTION4	PFK	430.9728	42.54	0.000					1.1
	51	FUNCTION4	PFK	430.9728	42.35	0.000					0.7
	51	FUNCTION4	PFK	430.9728	42.18	0.000					1.1
	51	FUNCTION4	PFK	430.9728	42.05	0.000					0.8
	51	FUNCTION4	PFK	430.9728	41.86	0.000					0.3
	51	FUNCTION4	PFK	430.9728	41.75	0.000					1.9
	51	FUNCTION4	PFK	430.9728	41.64	0.000					1.1
	51	FUNCTION4	PFK	430.9728	41.61	0.000					1.4
	51	FUNCTION4	PFK	430.9728	41.53	0.000					1.3
	51	FUNCTION4	PFK	430.9728	44.92	0.000					1.3
	51	FUNCTION4	PFK	430.9728	44.86	0.000					0.6
	51	FUNCTION4	PFK	430.9728	44.78	0.000					0.7

ID: DLCS08, Name: 13041108, Date: 11-Apr-2013, Time: 16:03:19, Conditions: AUTOSPEC01, User: pk

PFK4

[illegible]	51 FUNCTION4 PFK	430.9728	44.69	0.000						2.6
[illegible]	51 FUNCTION4 PFK	430.9728	44.44	0.000						0.8
[illegible]	51 FUNCTION4 PFK	430.9728	44.42	0.000						1.1
[illegible]	51 FUNCTION4 PFK	430.9728	44.09	0.000						0.6
[illegible]	51 FUNCTION4 PFK	430.9728	43.87	0.000						1.0
[illegible]	51 FUNCTION4 PFK	430.9728	43.73	0.000						1.4
[illegible]	51 FUNCTION4 PFK	430.9728	43.69	0.000						0.6
[illegible]	51 FUNCTION4 PFK	430.9728	43.48	0.000						1.2
[illegible]	51 FUNCTION4 PFK	430.9728	43.42	0.000						0.6

PFK5

[illegible]	52 FUNCTION5 PFK	480.9696	46.02	0.000						0.7
[illegible]	52 FUNCTION5 PFK	480.9696	45.59	0.000						1.3
[illegible]	52 FUNCTION5 PFK	480.9696	45.07	0.000						1.8
[illegible]	52 FUNCTION5 PFK	480.9696	48.72	0.000						0.9
[illegible]	52 FUNCTION5 PFK	480.9696	48.57	0.000						1.2
[illegible]	52 FUNCTION5 PFK	480.9696	48.52	0.000						0.9
[illegible]	52 FUNCTION5 PFK	480.9696	48.37	0.000						0.7
[illegible]	52 FUNCTION5 PFK	480.9696	48.24	0.000						1.3
[illegible]	52 FUNCTION5 PFK	480.9696	48.20	0.000						1.2
[illegible]	52 FUNCTION5 PFK	480.9696	47.81	0.000						1.5
[illegible]	52 FUNCTION5 PFK	480.9696	47.70	0.000						0.6
[illegible]	52 FUNCTION5 PFK	480.9696	47.58	0.000						1.3
[illegible]	52 FUNCTION5 PFK	480.9696	47.50	0.000						1.6
[illegible]	52 FUNCTION5 PFK	480.9696	47.14	0.000						1.2
[illegible]	52 FUNCTION5 PFK	480.9696	47.10	0.000						0.8
[illegible]	52 FUNCTION5 PFK	480.9696	46.59	0.000						1.4
[illegible]	52 FUNCTION5 PFK	480.9696	46.46	0.000						1.0

ETHERS1

[illegible]										

ID: DLCS08, Name: 13041108, Date: 11-Apr-2013, Time: 16:03:19, Conditions: AUTOSPEC01, User: pk

ETHERS2

	54	FUNCTION1 HPCD...	409.7974	27.95	0.000	0.000				2.9
	54	FUNCTION1 HPCD...	409.7974	26.38	0.000	0.000				1.4
	54	FUNCTION1 HPCD...	409.7974	26.32	0.000	0.000				3.6
	54	FUNCTION1 HPCD...	409.7974	26.27	0.000	0.000				3.1
	54	FUNCTION1 HPCD...	409.7974	25.29	0.000	0.000				3.8
	54	FUNCTION1 HPCD...	409.7974	25.06	0.000	0.000				1.3
	54	FUNCTION1 HPCD...	409.7974	24.32	0.000	0.000				2.0
	54	FUNCTION1 HPCD...	409.7974	24.20	0.000	0.000				1.2
	54	FUNCTION1 HPCD...	409.7974	23.42	0.000	0.000				1.9
	54	FUNCTION1 HPCD...	409.7974	22.55	0.000	0.000				1.3
	54	FUNCTION1 HPCD...	409.7974	22.24	0.000	0.000				1.6
	54	FUNCTION1 HPCD...	409.7974	21.72	0.000	0.000				1.9

ETHERS3

	55	FUNCTION2 HPCD...	409.7974	28.85	0.000	0.000				2.7
	55	FUNCTION2 HPCD...	409.7974	28.43	0.000	0.000				2.8
	55	FUNCTION2 HPCD...	409.7974	28.27	0.000	0.000				2.4
	55	FUNCTION2 HPCD...	409.7974	32.30	0.000	0.000				1.3
	55	FUNCTION2 HPCD...	409.7974	29.15	0.000	0.000				1.3

ETHERS4

ETHERS5

	57	FUNCTION4 NCDPE	479.7165	44.63	0.000	0.000				3.3
	57	FUNCTION4 NCDPE	479.7165	41.57	0.000	0.000				3.3
	57	FUNCTION4 NCDPE	479.7165	40.03	0.000	0.000				4.4

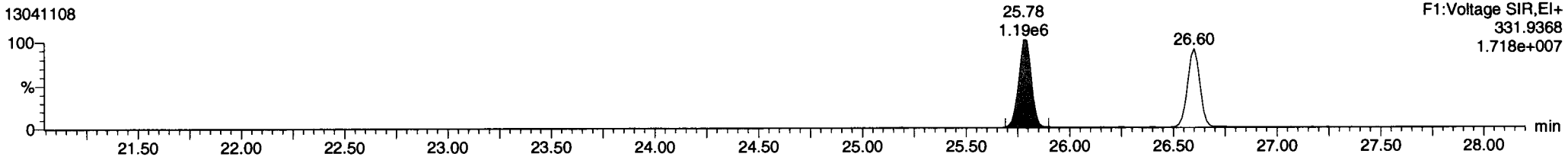
ETHERS6

Dataset: P:\DIOXIN8290.PRO\130411DATA1.qld
Last Altered: Friday, April 12, 2013 11:01:08 Pacific Daylight Time
Printed: Friday, April 12, 2013 11:06:16 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 12 Apr 2013 10:19:10
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

ID: DLCS08, Name: 13041108, Date: 11-Apr-2013, Time: 16:03:19, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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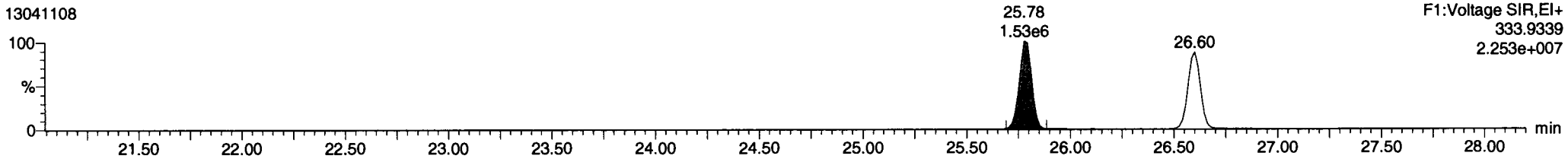

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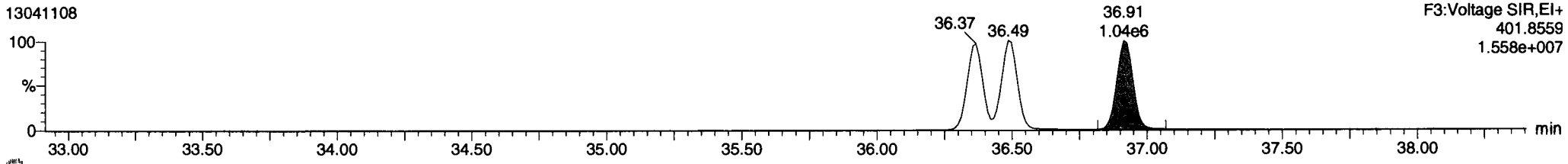

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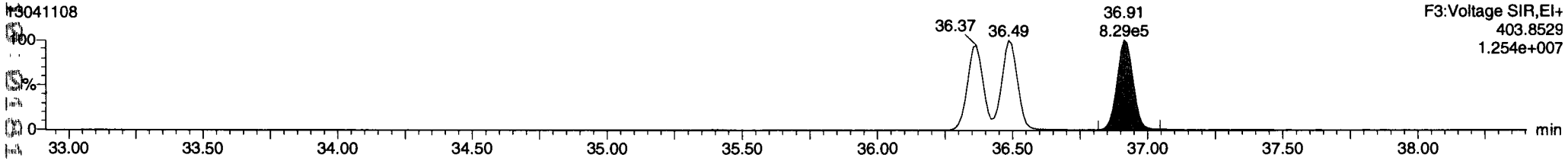
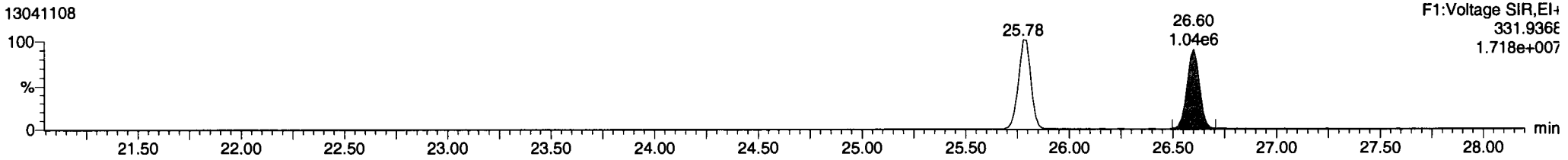


ID: DLCS08, Name: 13041108, Date: 11-Apr-2013, Time: 16:03:19, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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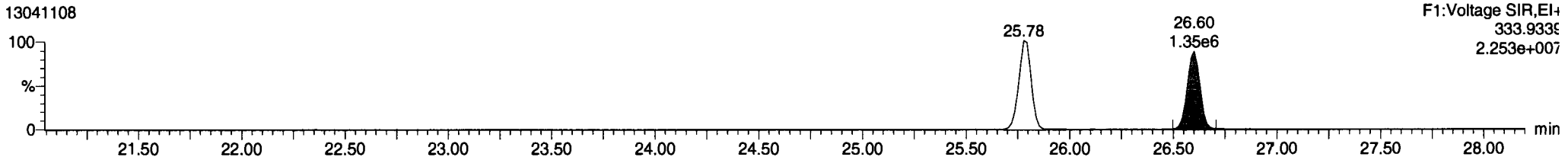
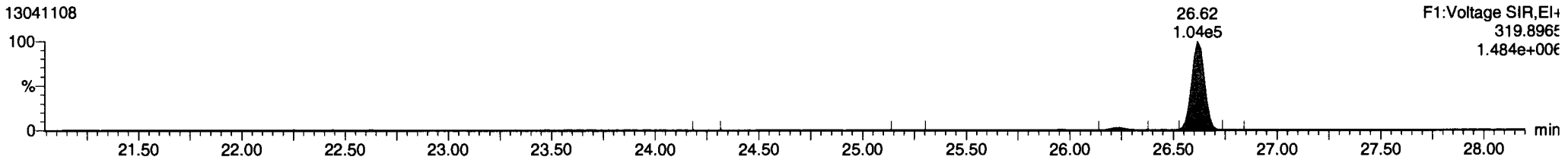
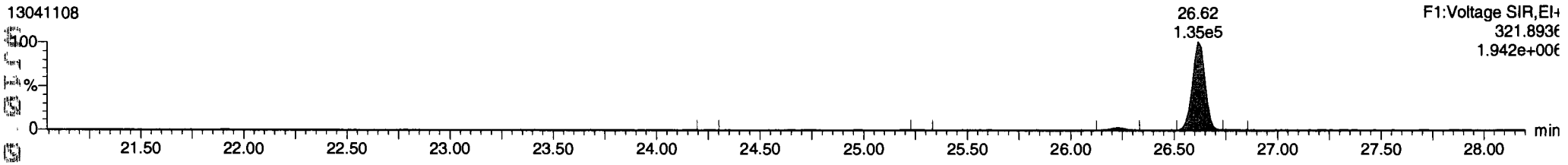


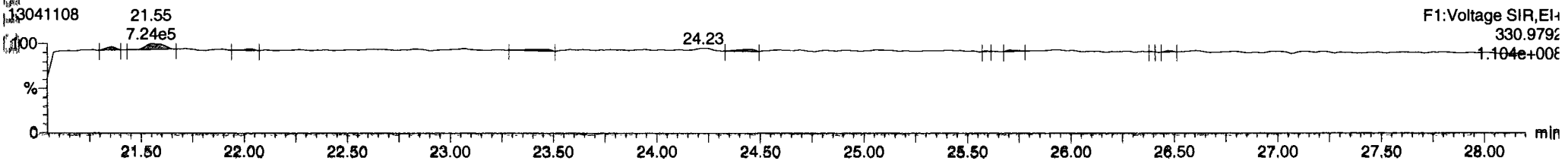
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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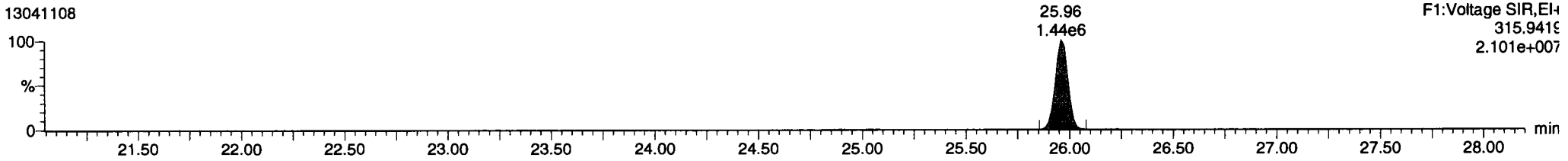

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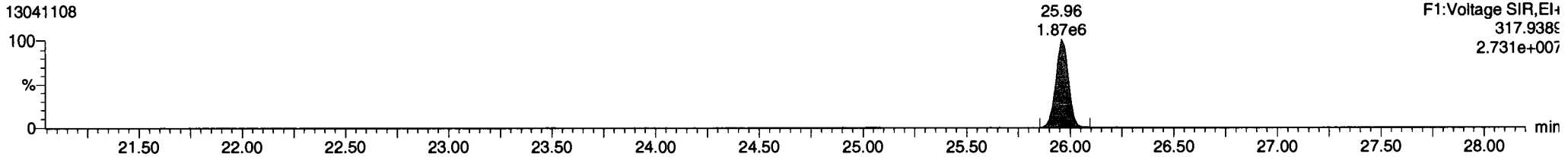
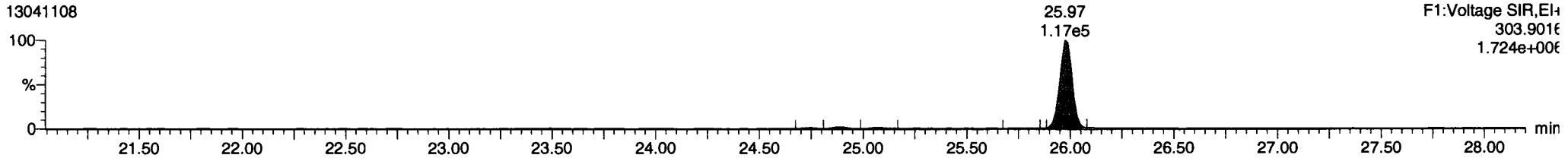
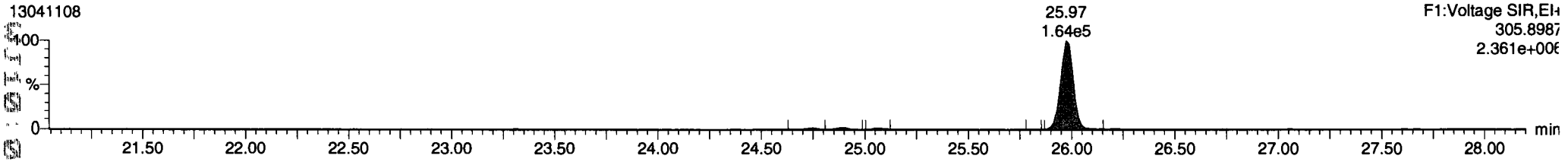


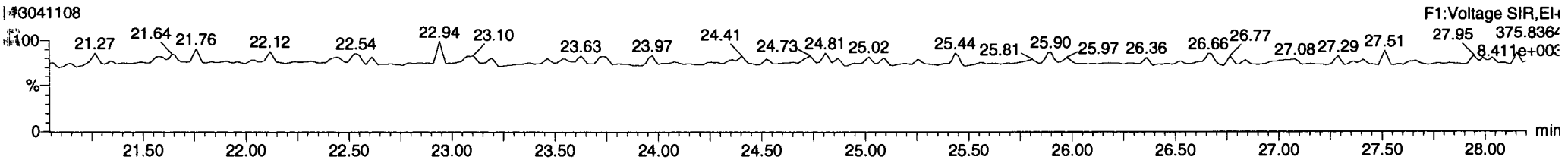
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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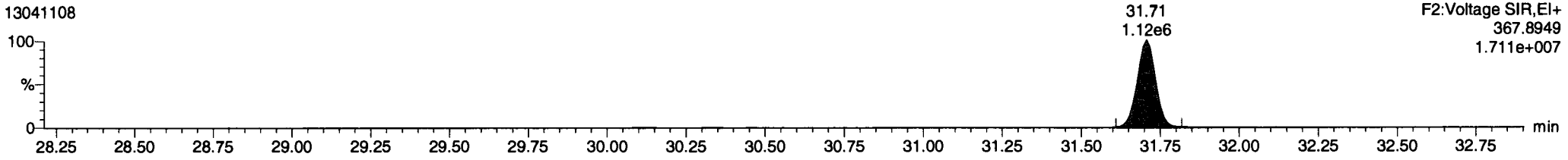
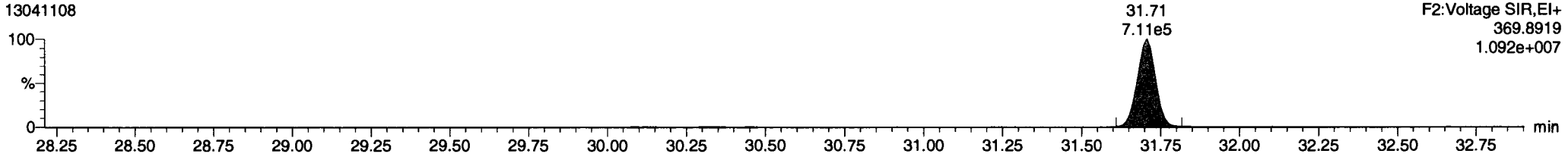
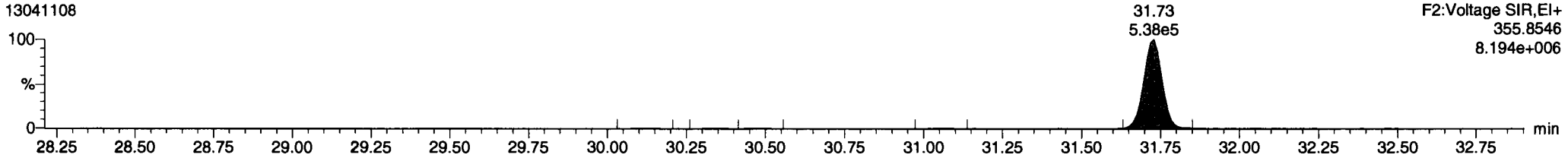
13C-12378-PeCDD



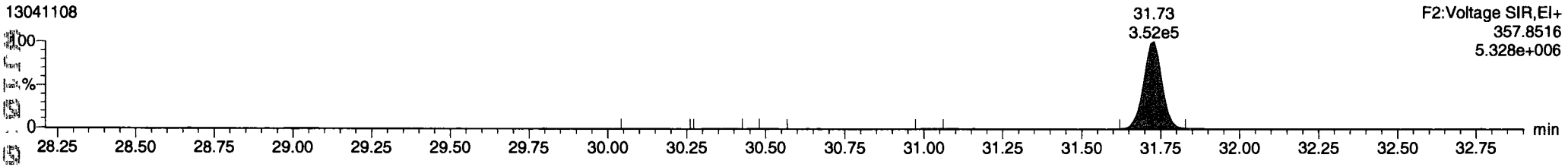
13C-12378-PeCDD



Total-pentadioxins



Total-pentadioxins



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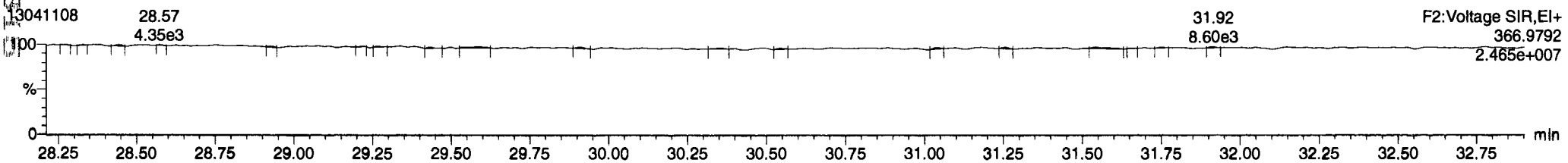

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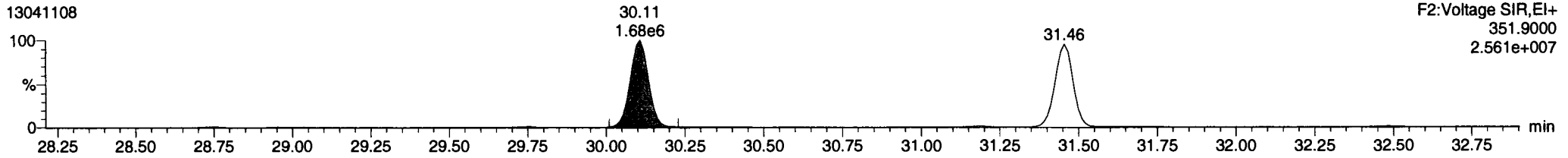
13C-12378-PeCDF



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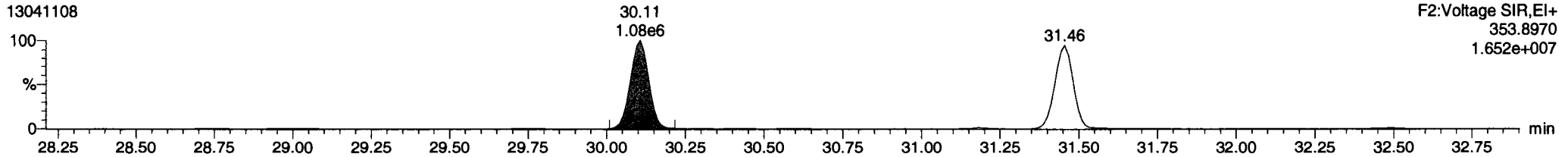

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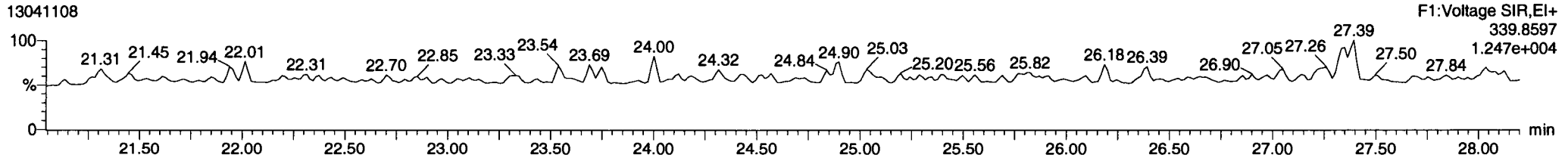

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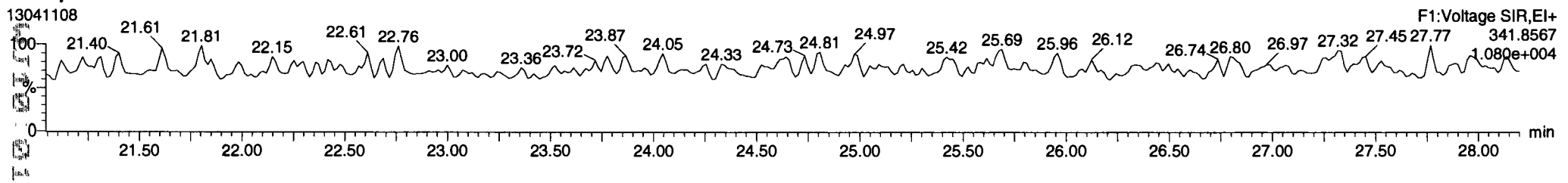
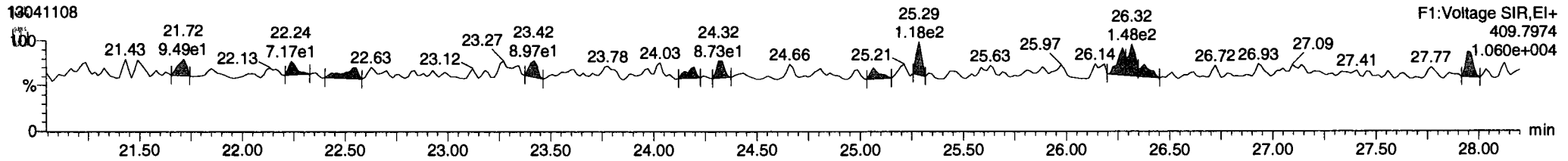


FUNCTION1 HPCDPE



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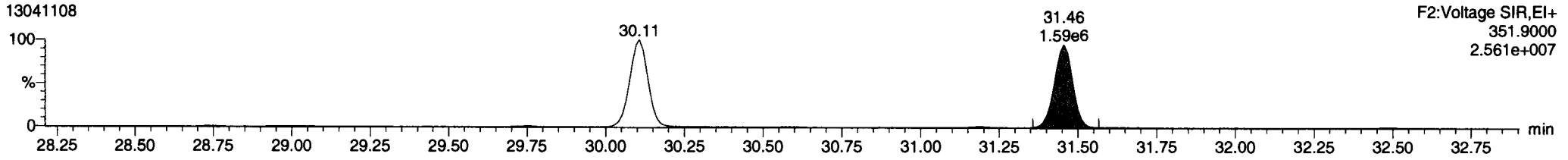

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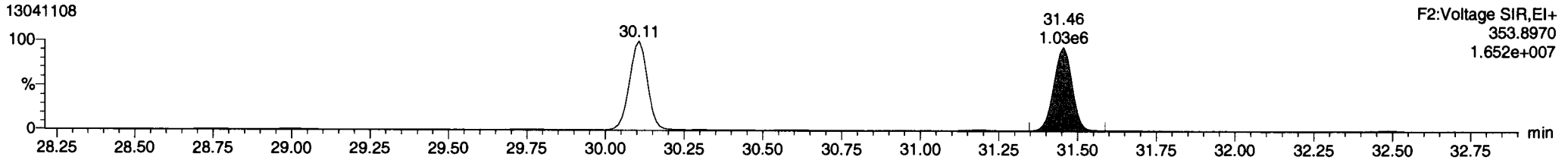
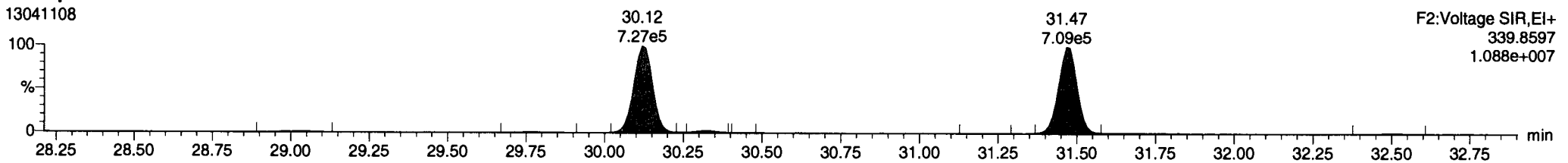
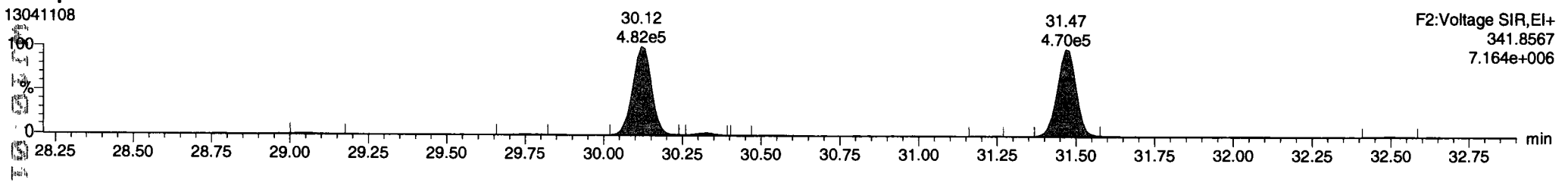


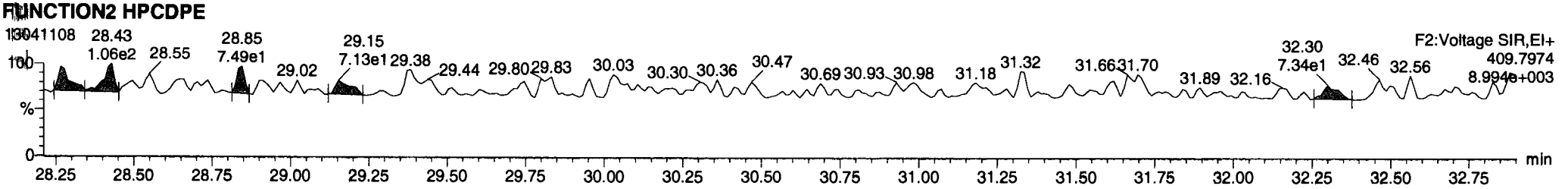
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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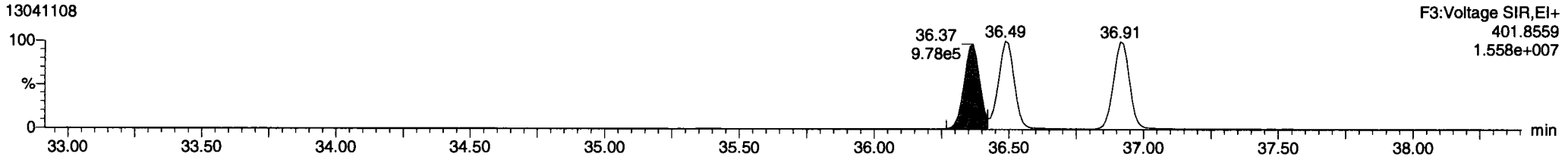
13C-123478-HxCDD



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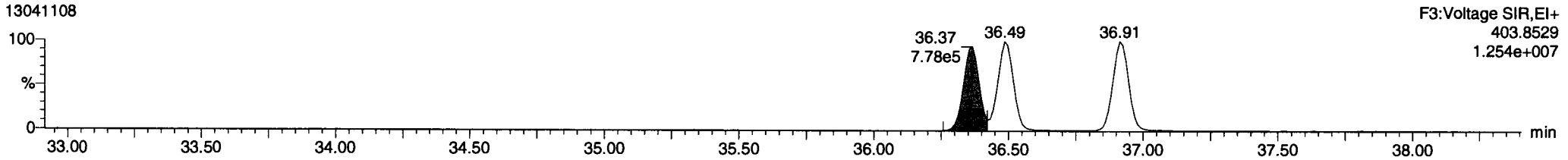
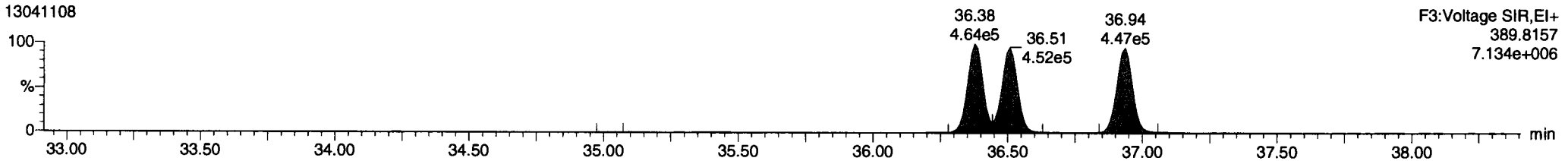
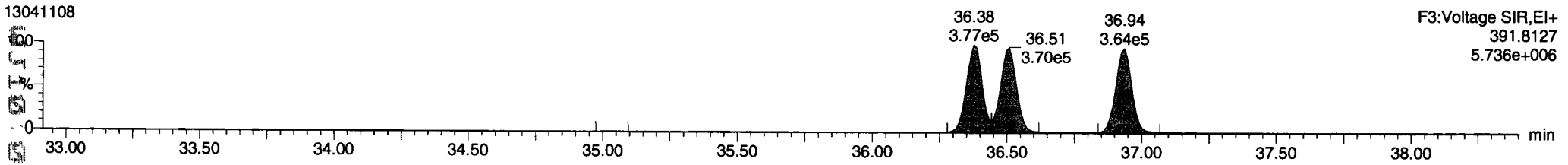


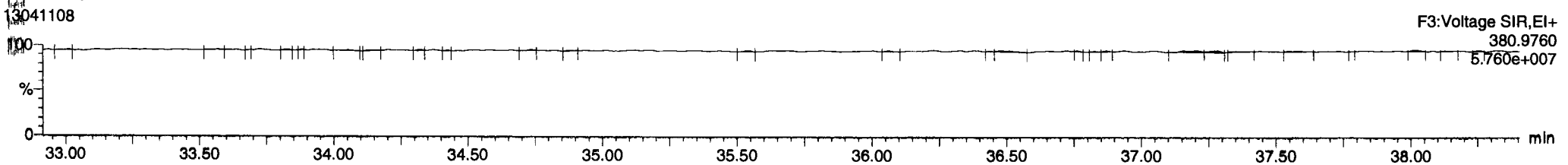
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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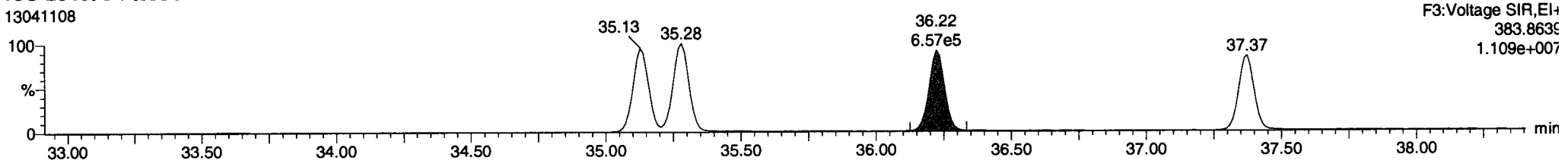
13C-234678-HxCDF



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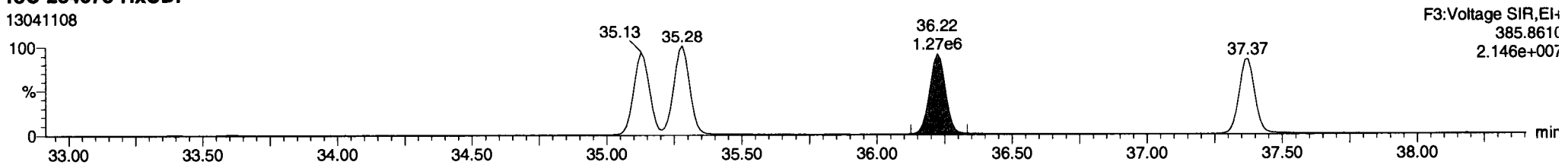
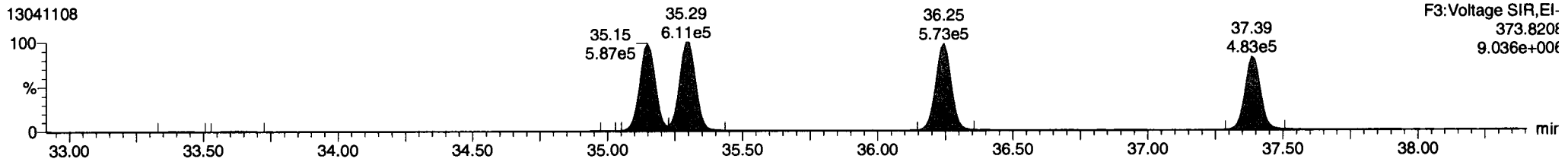
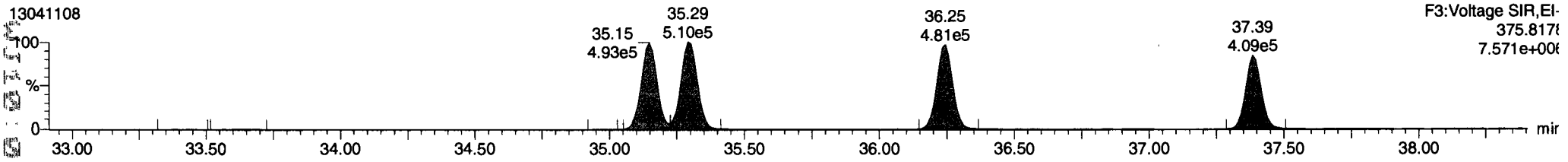


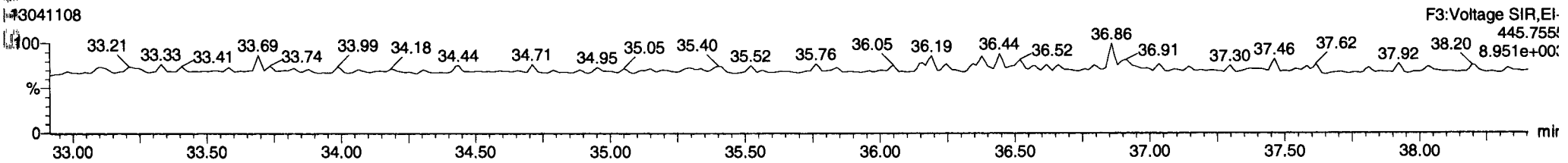
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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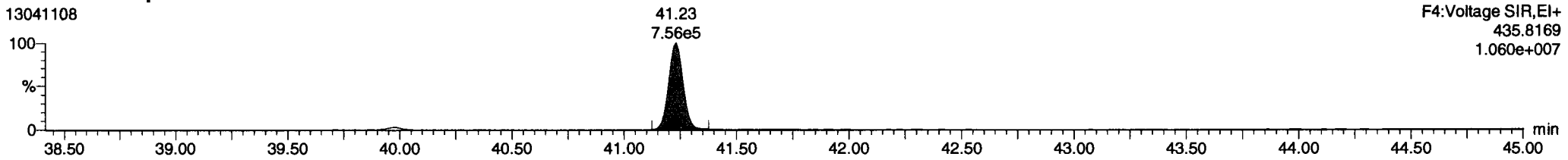
13C-1234678-HpCDD



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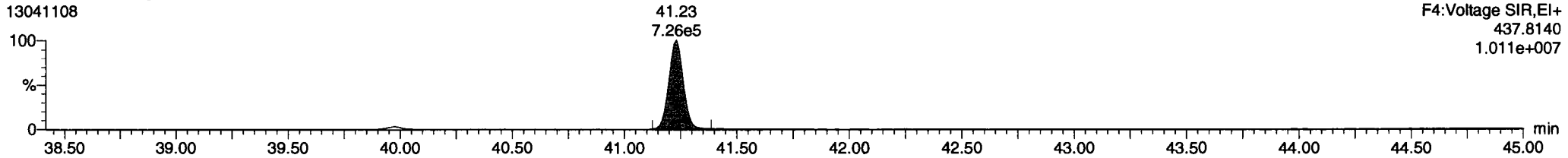
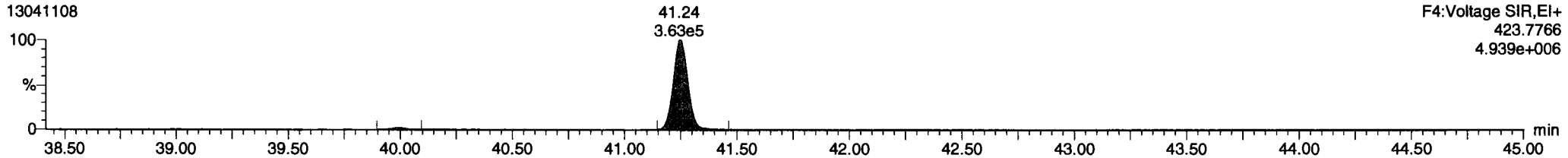
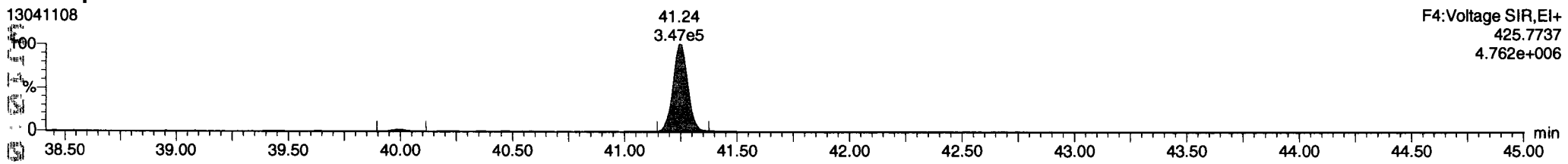


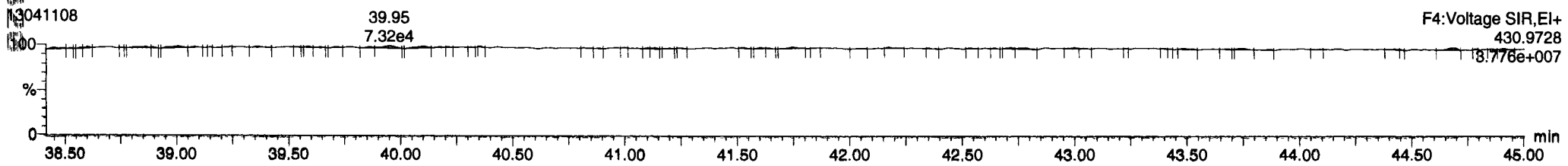
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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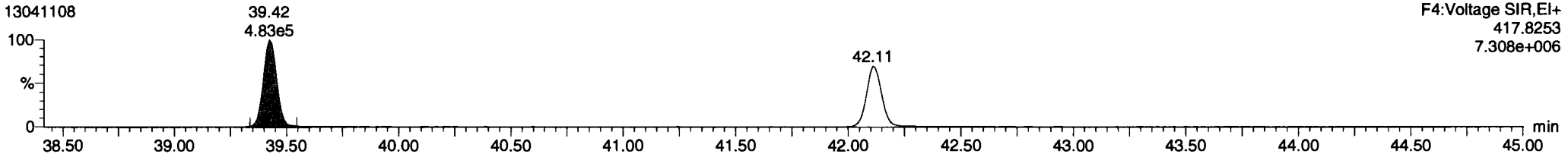

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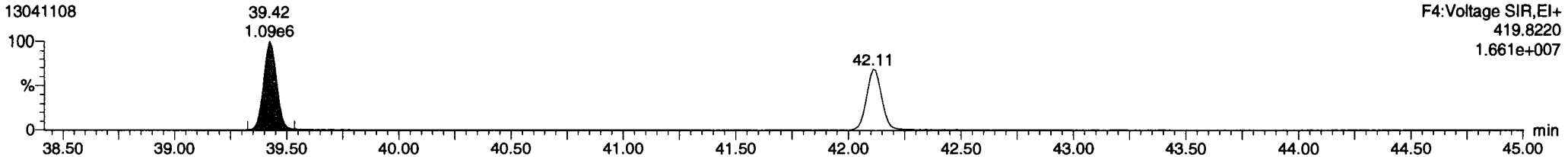
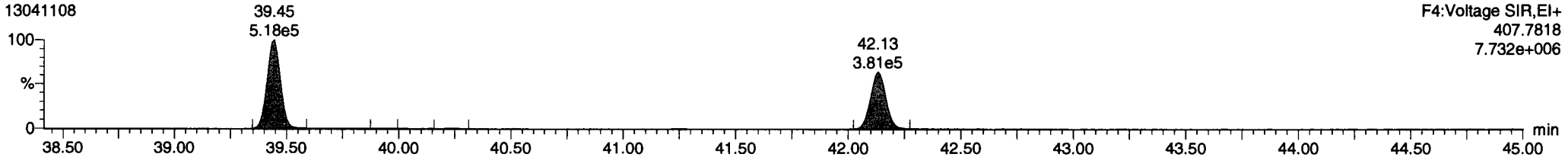
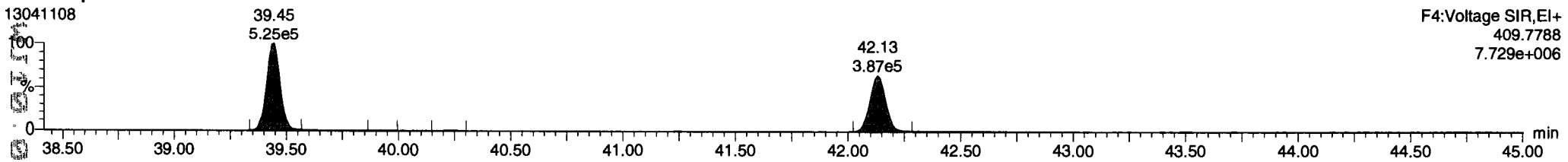


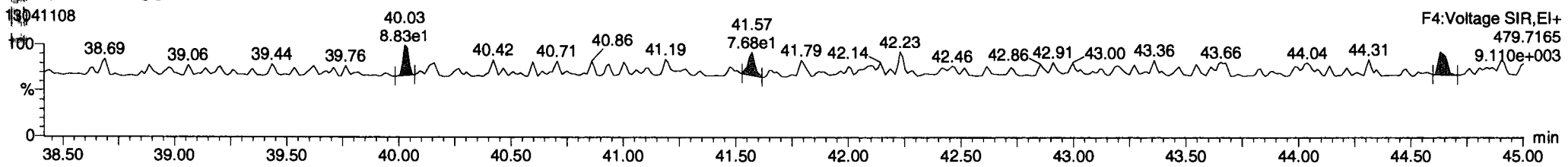
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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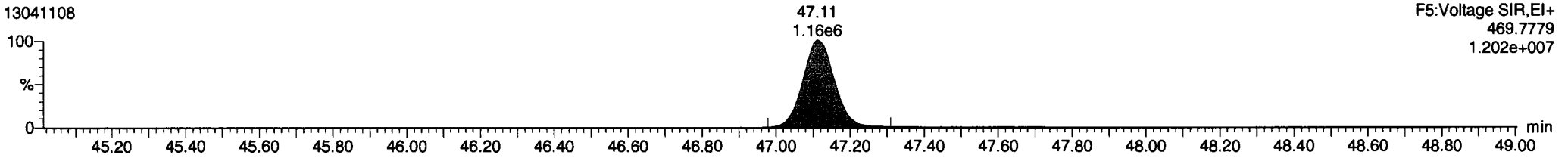
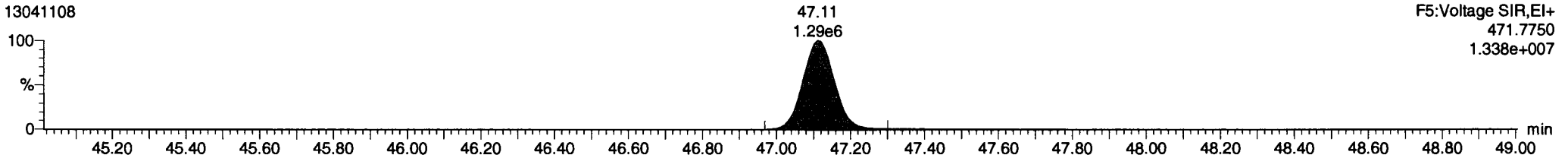
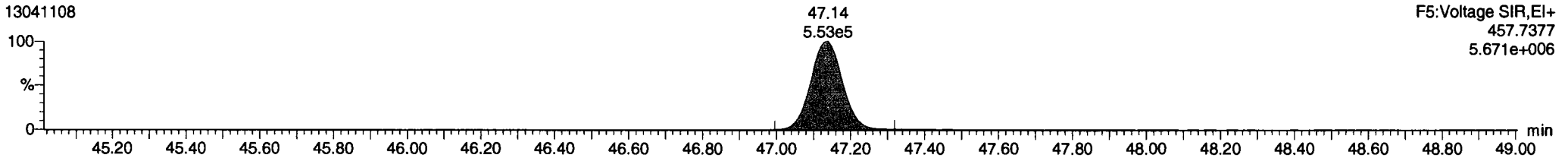
13C-OCDD



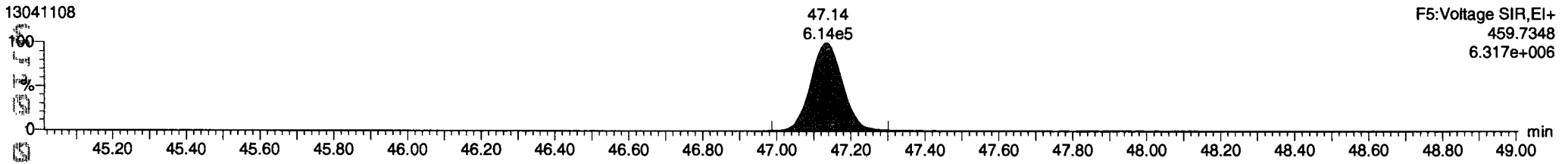
13C-OCDD



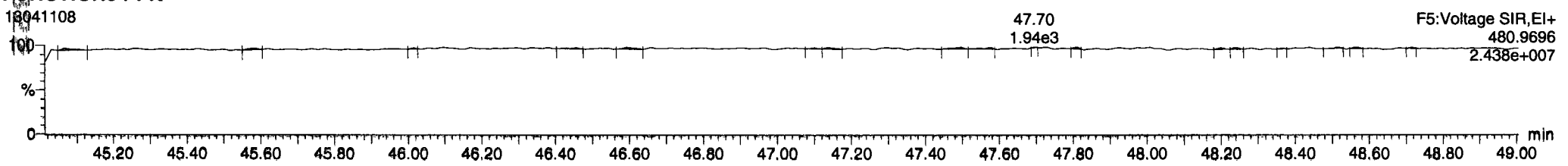
OCDD



OCDD



FUNCTION5 PFK



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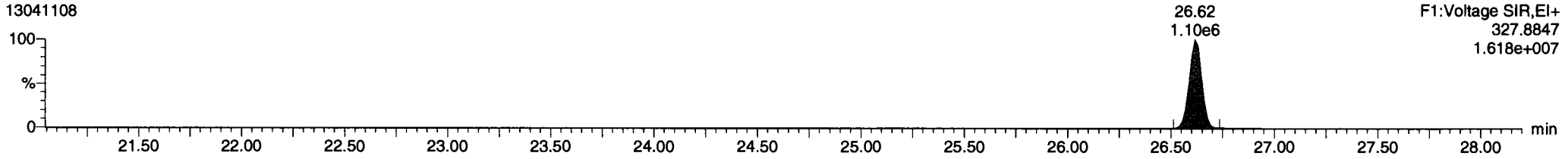

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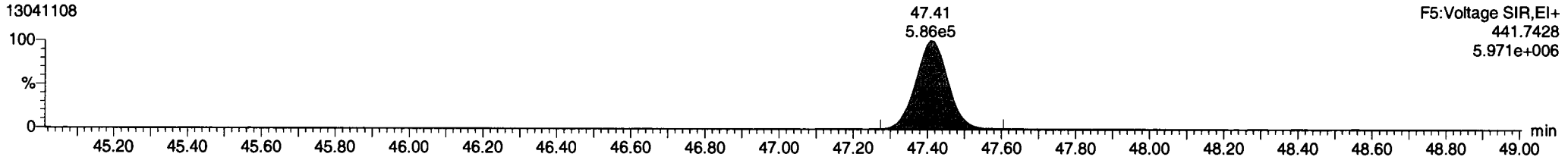

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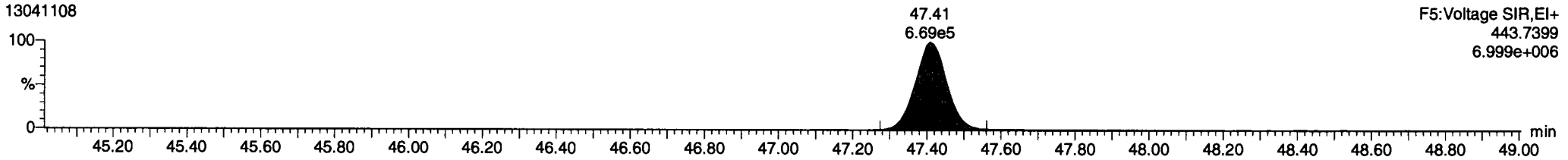

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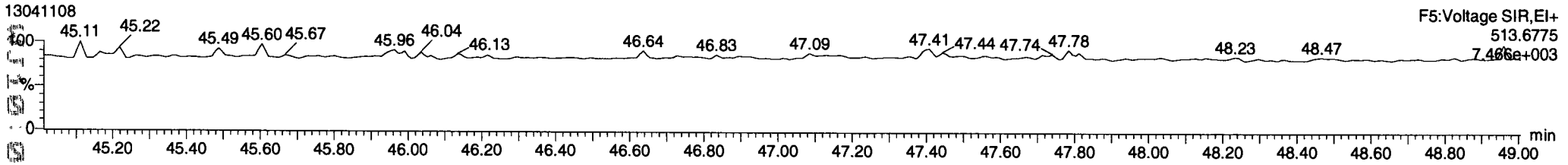

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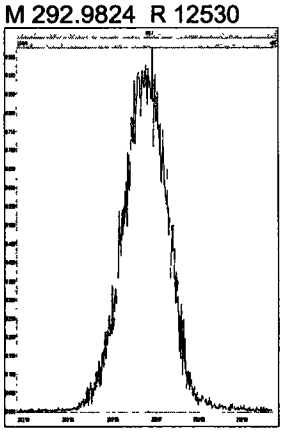

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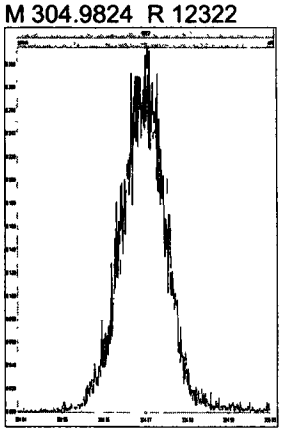

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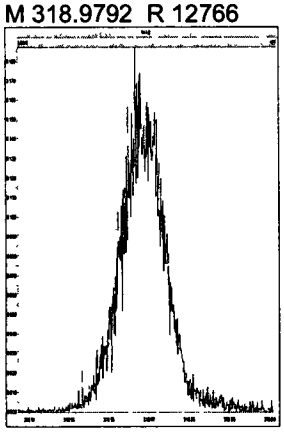

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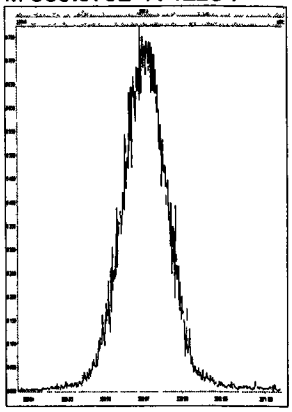

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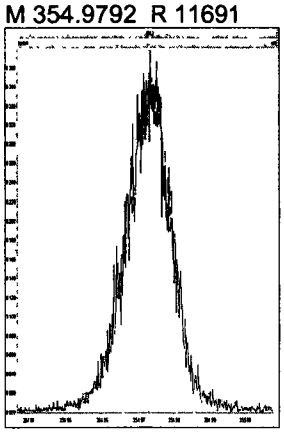

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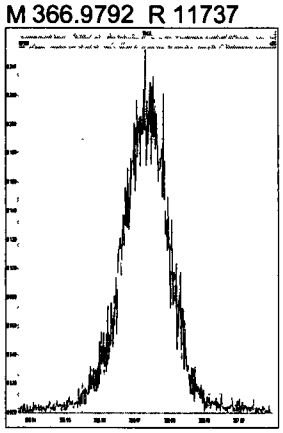

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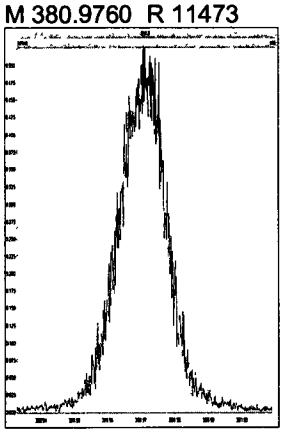

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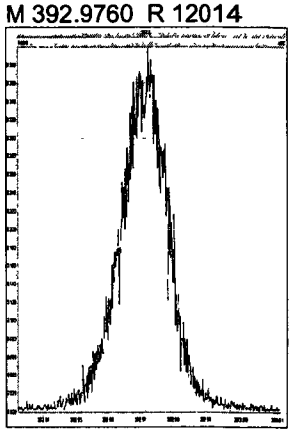

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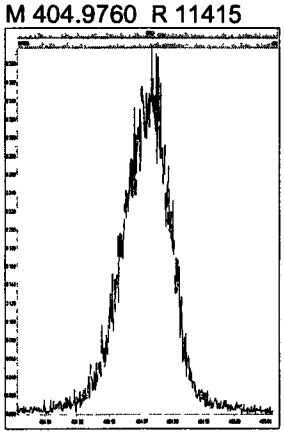

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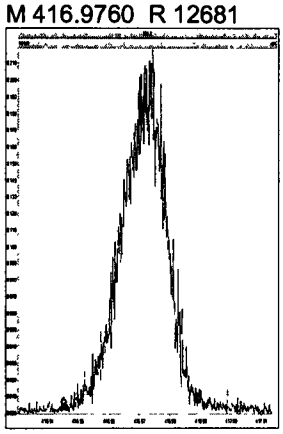

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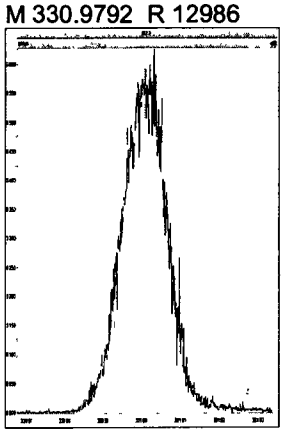

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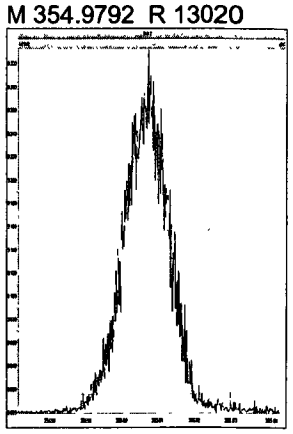

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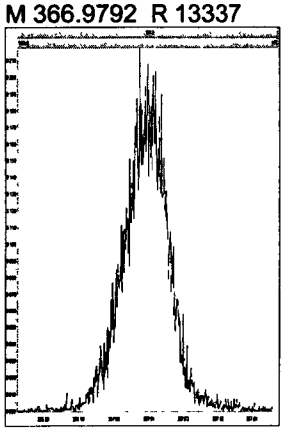

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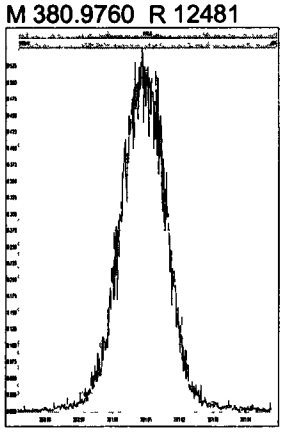

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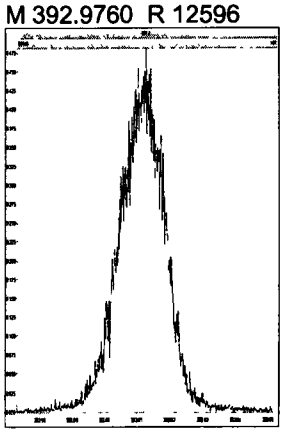

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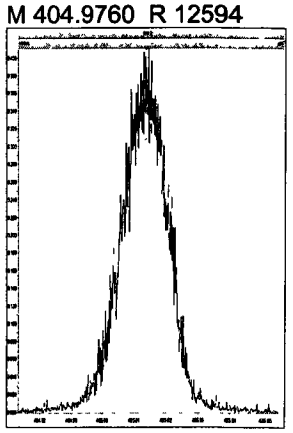

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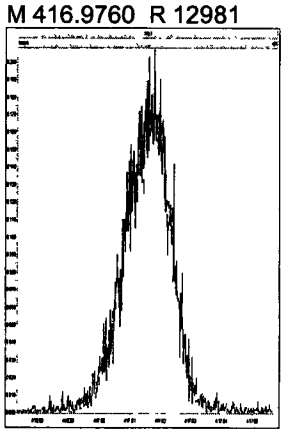

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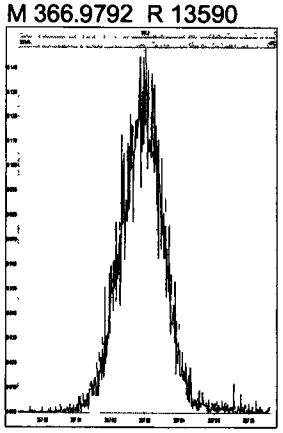

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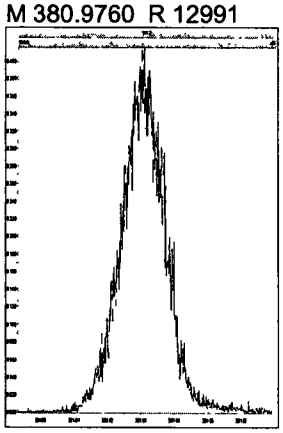

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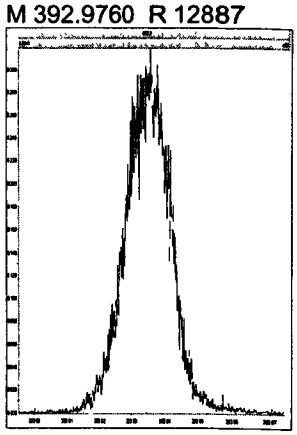

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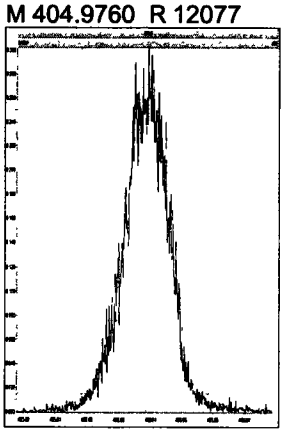

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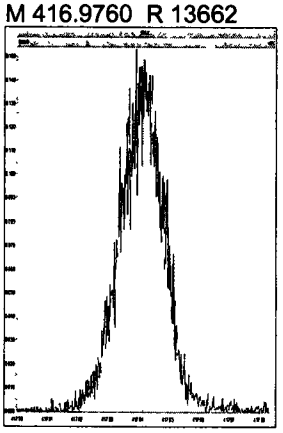

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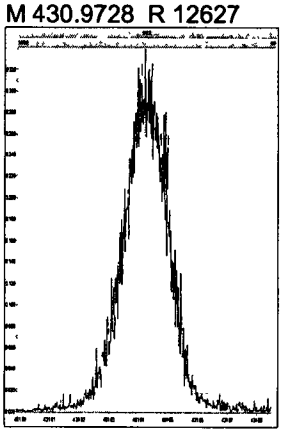
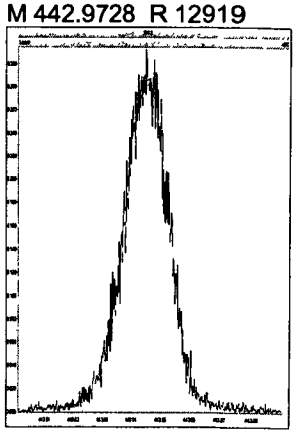


M 442.9728 R 12919



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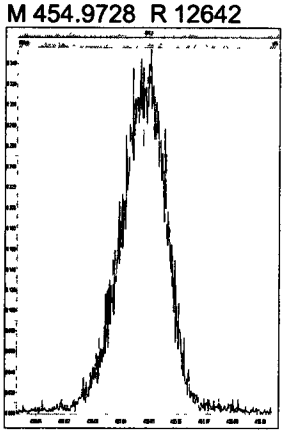

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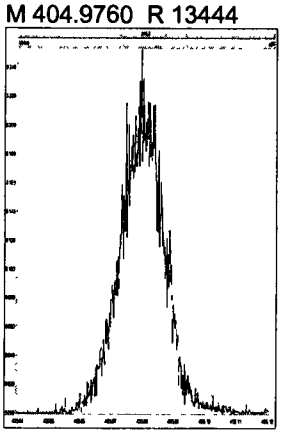

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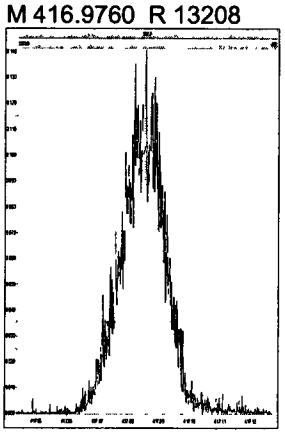

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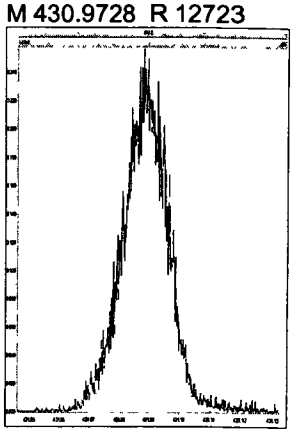

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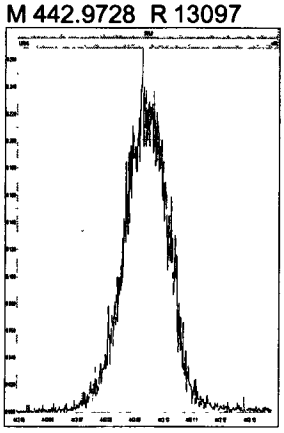

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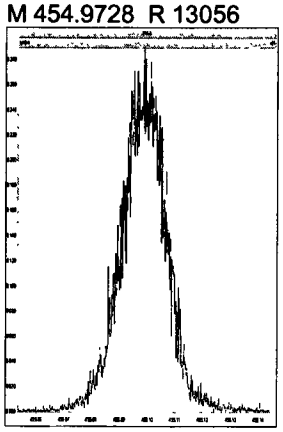

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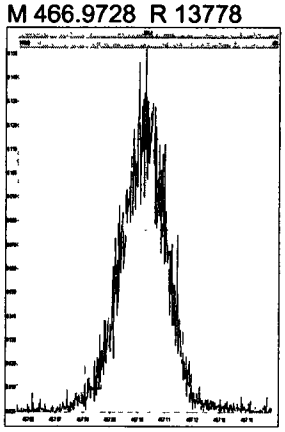

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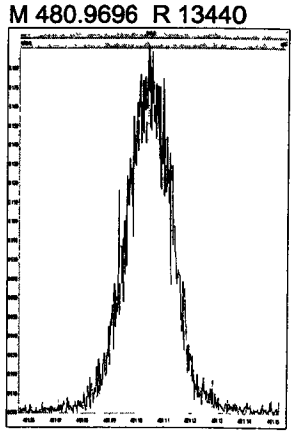

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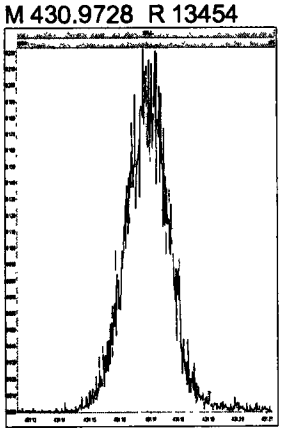

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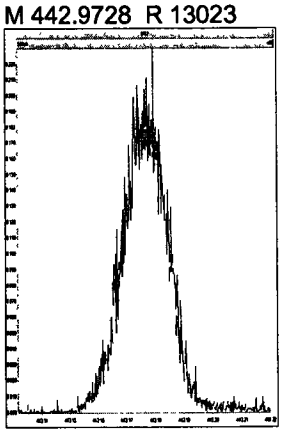

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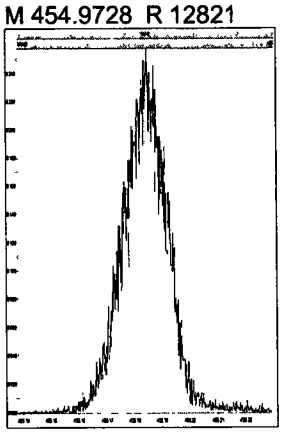

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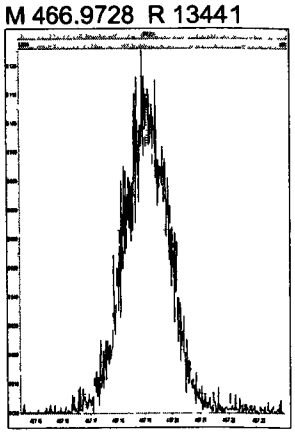

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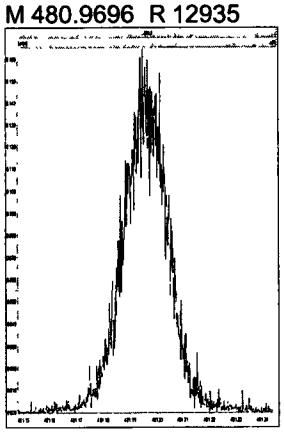

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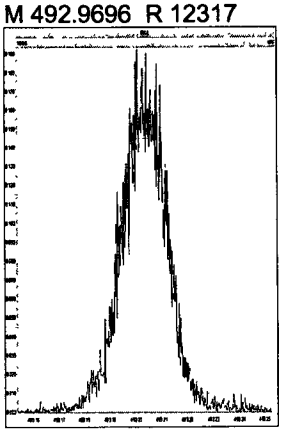
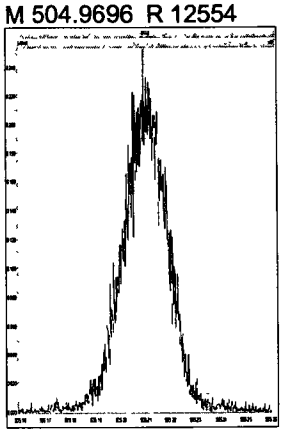
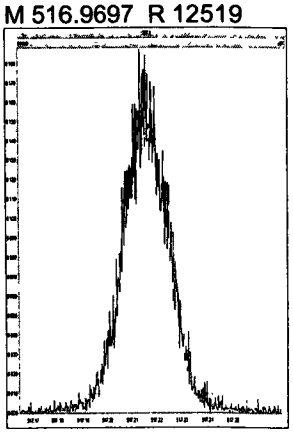


M 504.9696 R 12554



M 516.9697 R 12519



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	12378-PeCDF	30.118	1.001	1.14e6	7.56e5	0.836	1.512	1.550	6121.3	NO	52.900	52.900
	23478-PeCDF	31.466	1.001	1.20e6	7.92e5	0.851	1.516	1.550	6527.6	NO	53.177	53.177
	123478-HxCDF	35.138	1.000	9.53e5	7.98e5	1.017	1.194	1.240	3229.1	NO	52.002	52.002
	234678-HxCDF	36.235	1.000	9.73e5	8.11e5	1.027	1.199	1.240	3317.8	NO	54.059	54.059
	123678-HxCDF	35.292	1.001	9.75e5	8.20e5	1.013	1.190	1.240	3262.4	NO	51.333	51.333
	123789-HxCDF	37.385	1.001	8.82e5	7.38e5	0.929	1.195	1.240	3018.1	NO	53.339	53.339
	1234678-HpCDF	39.435	1.000	8.19e5	8.44e5	1.151	0.971	1.050	4196.3	NO	52.780	52.780
	1234789-HpCDF	42.132	1.001	6.97e5	7.01e5	1.149	0.993	1.050	3026.4	NO	53.265	53.265
	OCDF	47.408	1.006	1.20e6	1.38e6	0.963	0.871	0.890	4126.8	NO	105.582	105.582
	2378-TCDD	26.616	1.001	1.62e5	2.11e5	0.980	0.769	0.770	1381.8	NO	10.027	10.027
	12378-PeCDD	31.719	1.001	9.13e5	5.95e5	0.948	1.535	1.550	3791.2	NO	50.128	50.128
	123478-HxCDD	36.377	1.001	7.63e5	6.15e5	0.941	1.242	1.240	2530.5	NO	49.958	49.958
	123678-HxCDD	36.498	1.000	7.42e5	6.06e5	0.884	1.224	1.240	2410.4	NO	49.707	49.707
	123789-HxCDD	36.925	1.012	7.44e5	6.02e5	0.870	1.235	1.240	2439.4	NO	51.582	51.582
	1234678-HpCDD	41.244	1.001	6.16e5	6.05e5	0.948	1.019	1.050	2436.0	NO	50.053	50.053
	OCDD	47.130	1.000	1.12e6	1.27e6	0.969	0.882	0.890	5675.0	NO	97.539	97.539
	13C-2378-TCDF	25.959	1.007	2.31e6	3.01e6	1.318	0.769	0.770	12484.7	NO		108.872
	13C-12378-PeCDF	30.096	1.167	2.61e6	1.68e6	1.026	1.553	1.550	9544.2	NO		112.919
	13C-23478-PeCDF	31.444	1.220	2.68e6	1.72e6	0.966	1.563	1.550	10117.6	NO		122.937
	13C-123478-HxCDF	35.127	0.952	1.12e6	2.19e6	1.123	0.514	0.510	5458.9	NO		102.326
	13C-123678-HxCDF	35.270	0.955	1.18e6	2.27e6	1.216	0.520	0.510	5738.0	NO		98.551
	13C-234678-HxCDF	36.223	0.981	1.09e6	2.12e6	1.106	0.515	0.510	5240.8	NO		100.867
	13C-123789-HxCDF	37.363	1.012	1.12e6	2.15e6	0.995	0.517	0.510	5487.9	NO		114.071
	13C-1234678-HpCDF	39.424	1.068	8.43e5	1.89e6	0.896	0.445	0.440	4772.7	NO		106.045
	13C-1234789-HpCDF	42.110	1.141	7.07e5	1.58e6	0.693	0.449	0.440	3451.8	NO		114.320
	13C-1234-TCDD	25.779	0.000	1.63e6	2.08e6	1.000	0.781	0.770	6696.6	NO		100.000
	13C-2378-TCDD	26.586	1.031	1.65e6	2.15e6	0.961	0.767	0.770	6576.4	NO		106.479
	13C-12378-PeCDD	31.697	1.230	1.93e6	1.24e6	0.703	1.561	1.550	15983.0	NO		121.602
	13C-123478-HxCDD	36.355	0.985	1.64e6	1.29e6	1.016	1.268	1.240	7843.1	NO		100.131
	13C-123678-HxCDD	36.486	0.988	1.70e6	1.36e6	1.098	1.249	1.240	8107.7	NO		96.937
	13C-1234678-HpCDD	41.222	1.117	1.31e6	1.26e6	0.828	1.038	1.050	4538.4	NO		107.758
	13C-OCDD	47.112	1.276	2.39e6	2.68e6	0.770	0.894	0.890	11082.8	NO		228.750

Dataset: P:\DIOXIN8290.PRO\130411DATA1.qld
Last Altered: Friday, April 12, 2013 11:01:08 Pacific Daylight Time
Printed: Friday, April 12, 2013 11:02:44 Pacific Daylight Time

ID: CS3, Name: 13041116, Date: 11-Apr-2013, Time: 23:01:37, Conditions: AUTOSPEC01, User: pk

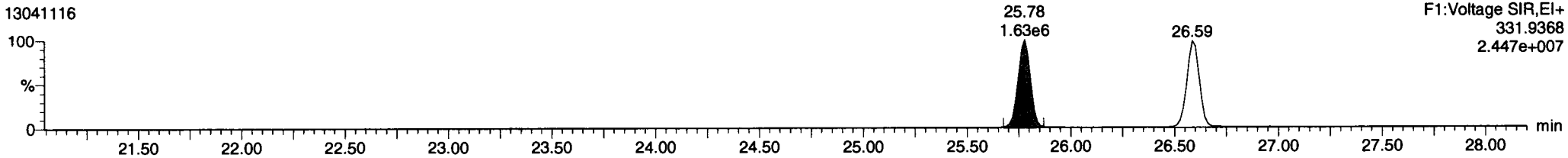
	13C-123789-HxCDD	36.914	0.000	1.60e6	1.28e6	1.000	1.242	1.240	7508.1	NO	100.000
	Total-tetrafurans			6.11e5		0.763					35.040
	Total-penta1			1.75e6							72.236
	Total-pentafurans			3.55e6		0.844					160.364
	Total-hexafurans			4.96e6		0.997					275.759
	Total-heptafurans			1.52e6		1.150					106.464
	Total-Furans			1.36e7		0.970					755.445
	Total-tetradioxins			8.73e5		0.980					53.802
	Total-pentadioxins			2.94e6		0.948					161.631
	Total-hexadioxins			3.19e6		0.898					215.136
	Total-heptadioxins			1.30e6		0.948					105.430
	Total-Dioxins			9.44e6		0.934					633.538
	Total-TEQ			2.30e7							1388.983
	37CL-2378-TCDD	26.616	1.032	4.04e5		0.999			3592.7		10.923
	FUNCTION1 PFK			4.28e7							
	FUNCTION2 PFK			4.04e5							0.000
	FUNCTION3 PFK			5.97e5							0.000
	FUNCTION4 PFK			4.26e5							
	FUNCTION5 PFK			1.69e5							
	FUNCTION1 HXCDPE			1.73e2							0.000
	FUNCTION1 HPCDPE			1.33e3							0.000
	FUNCTION2 HPCDPE			2.24e3							0.000
	FUNCTION3 OCDPE			3.67e3							0.000
	FUNCTION4 NCDPE			1.37e3							0.000
	FUNCTION5 DCDPE			0.00e0							

Dataset: P:\DIOXIN8290.PRO\130411DATA1.qld
Last Altered: Friday, April 12, 2013 11:01:08 Pacific Daylight Time
Printed: Friday, April 12, 2013 11:02:44 Pacific Daylight Time

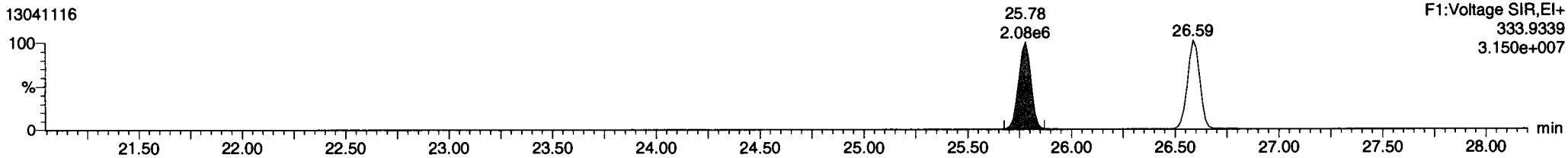
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 12 Apr 2013 10:19:10
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

ID: CS3, Name: 13041116, Date: 11-Apr-2013, Time: 23:01:37, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



13C-1234-TCDD



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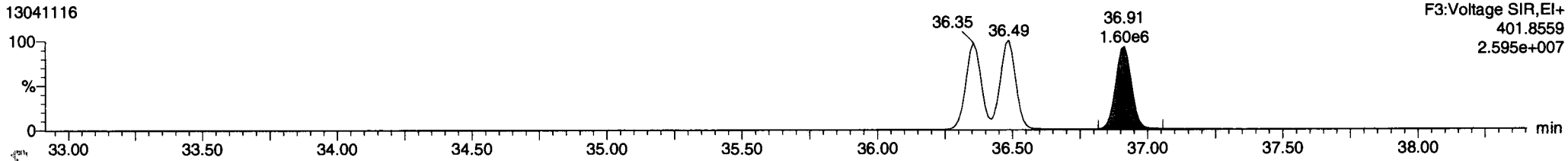

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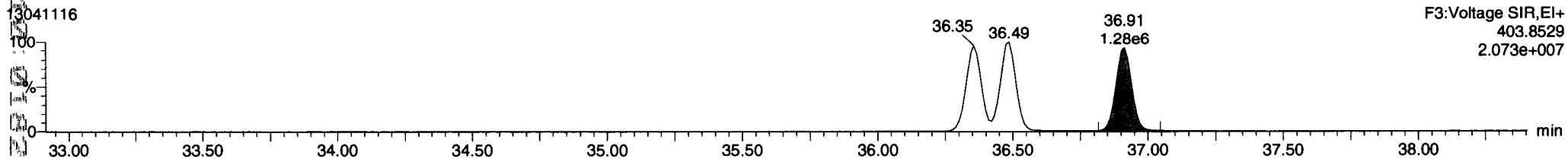

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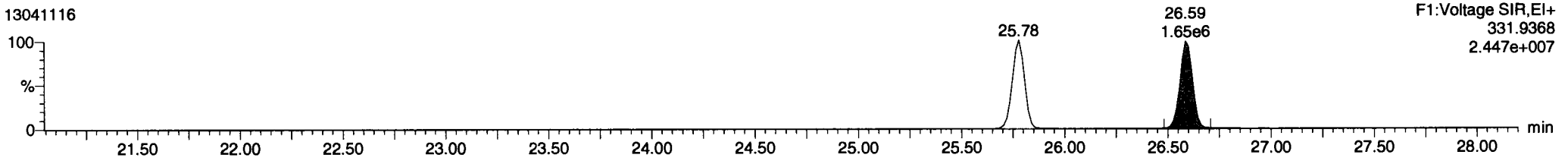
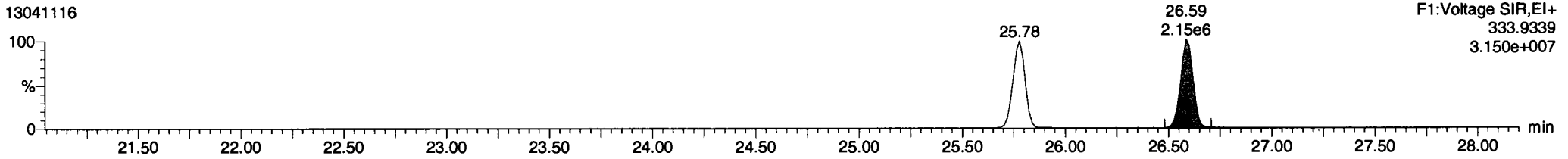
ID: CS3, Name: 13041116, Date: 11-Apr-2013, Time: 23:01:37, Conditions: AUTOSPEC01, User: pk

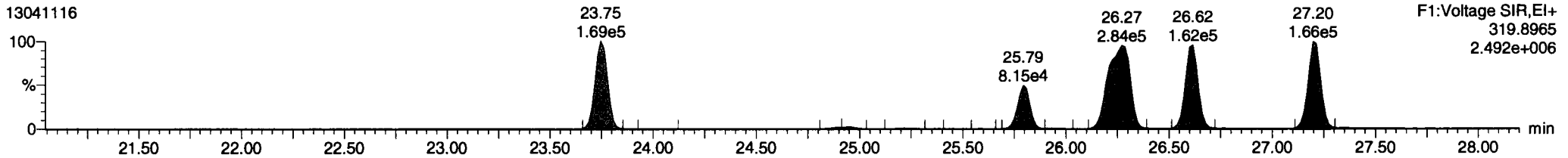
13C-2378-TCDD



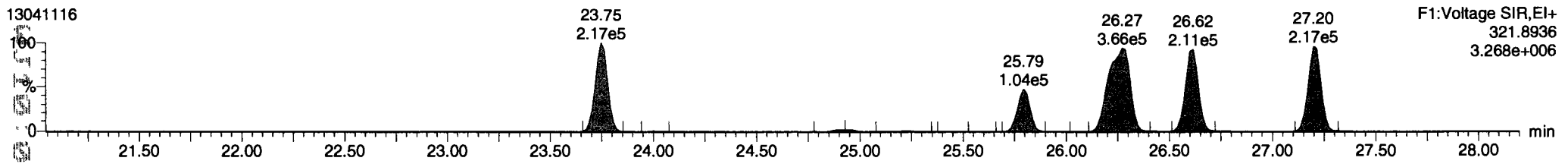
13C-2378-TCDD



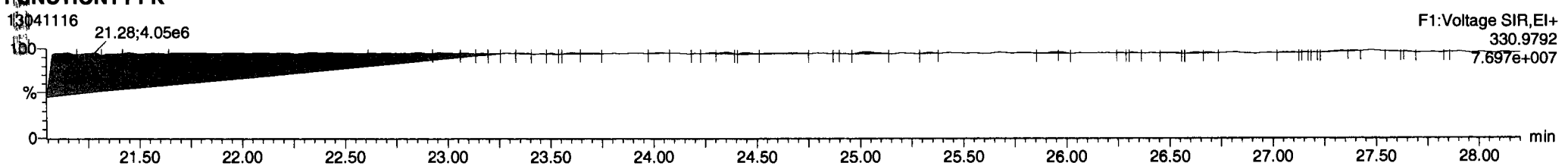
Total-tetradioxins



Total-tetradioxins

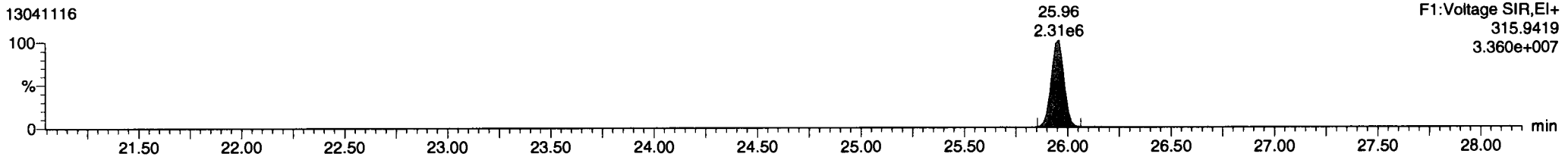


FUNCTION1 PFK

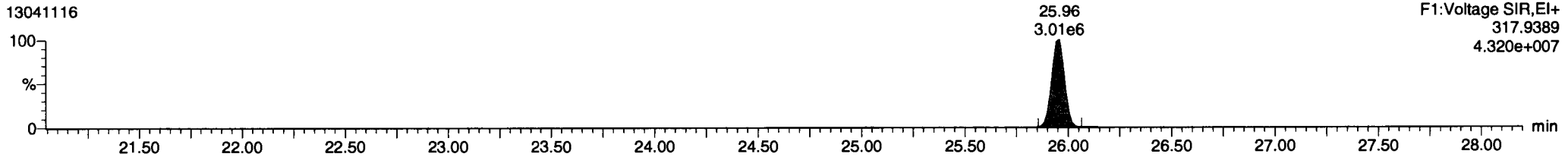


ID: CS3, Name: 13041116, Date: 11-Apr-2013, Time: 23:01:37, Conditions: AUTOSPEC01, User: pk

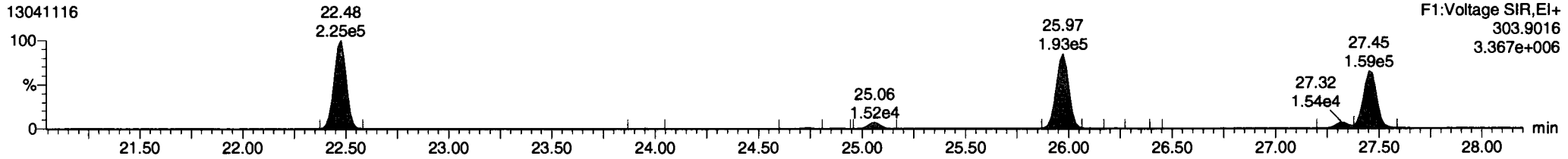
13C-2378-TCDF



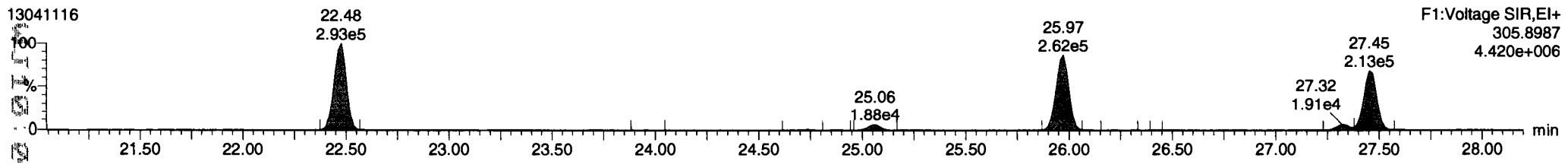
13C-2378-TCDF



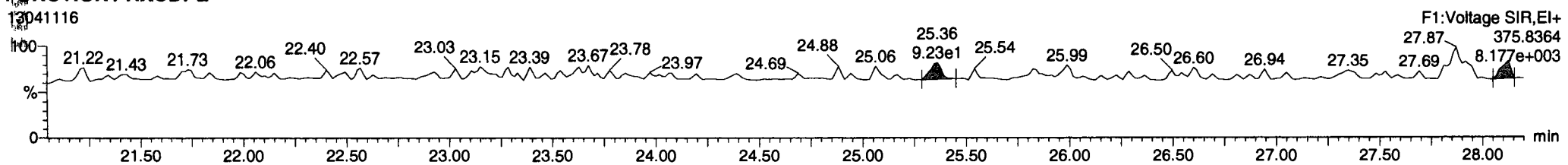
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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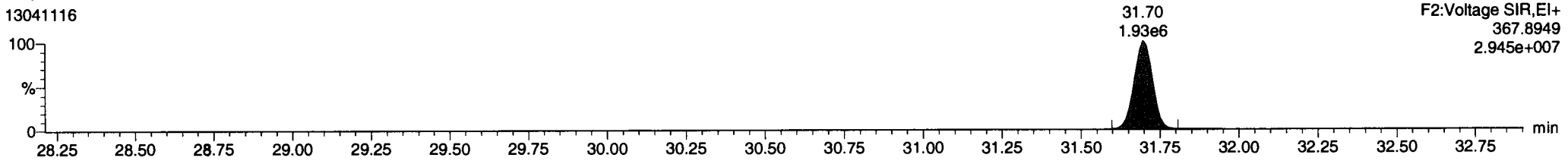
13C-12378-PeCDD



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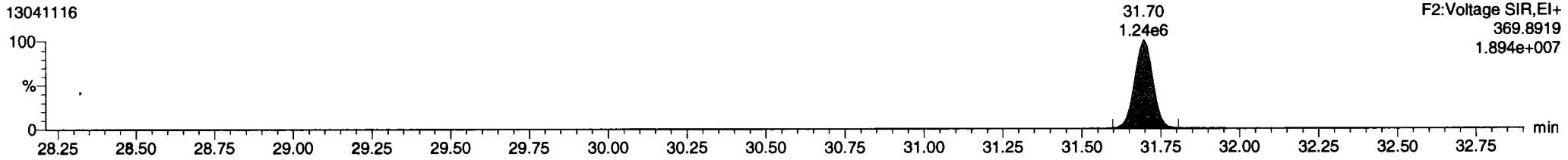
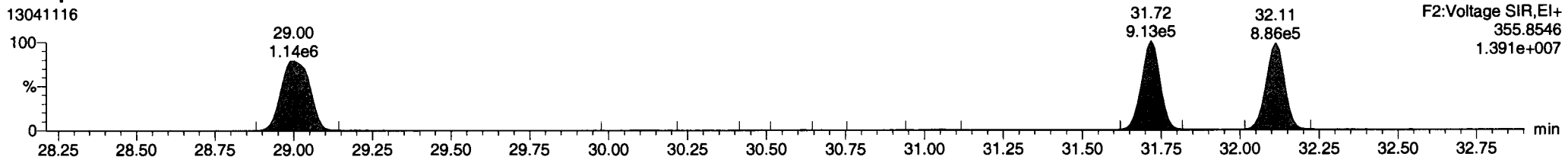
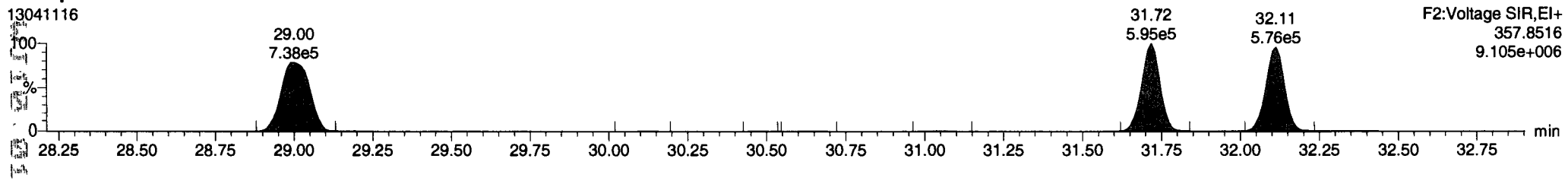


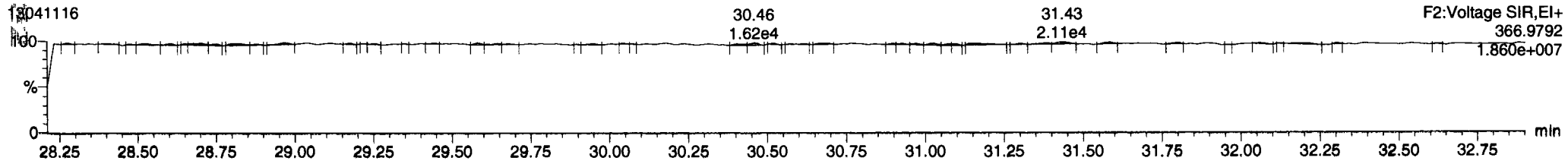
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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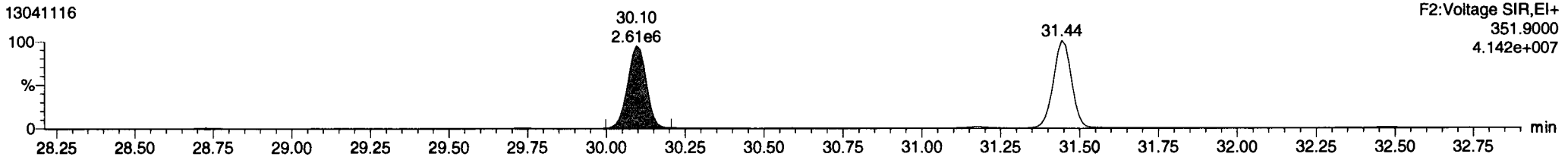
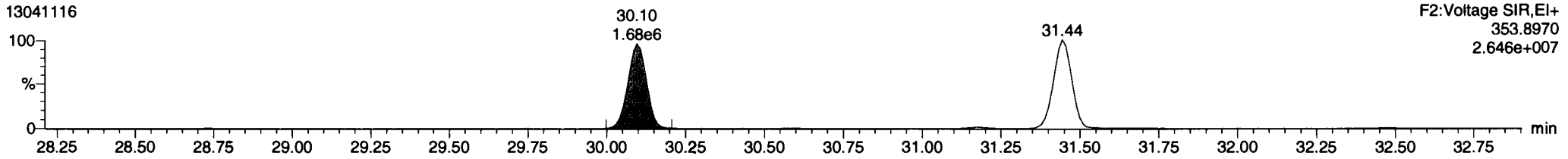
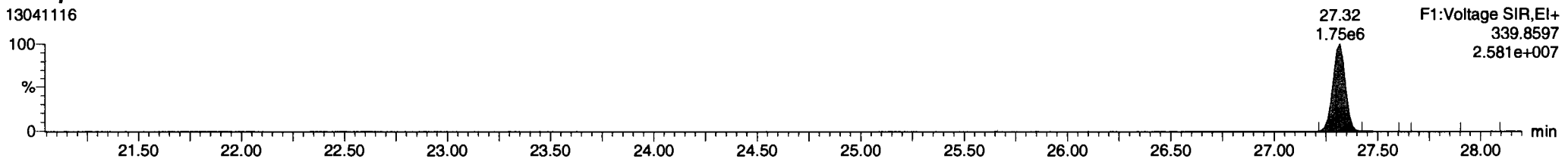
13C-12378-PeCDF



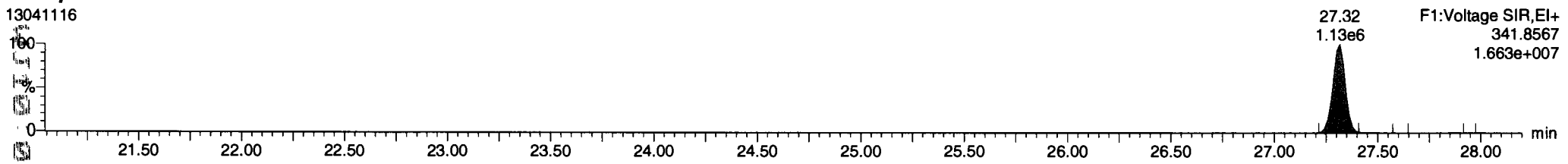
13C-12378-PeCDF



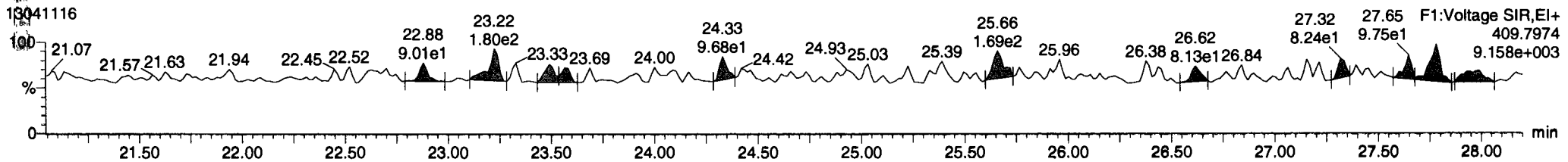
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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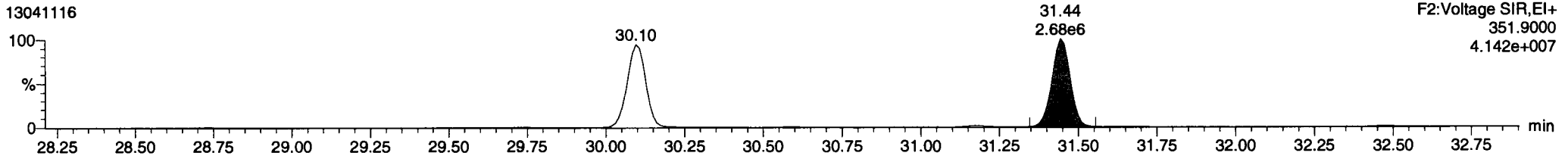
13C-23478-PeCDF



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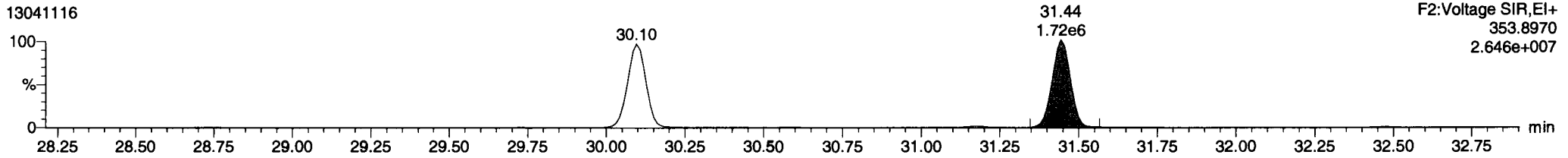
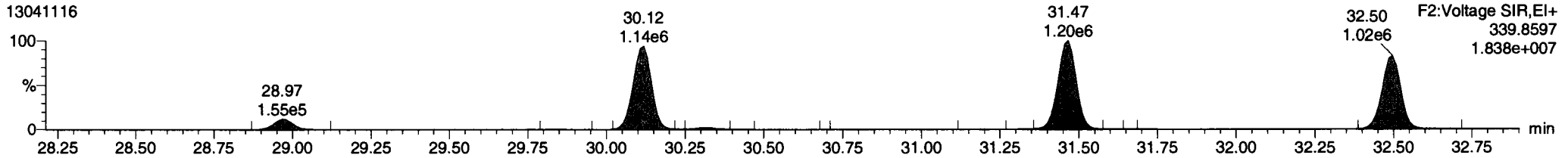
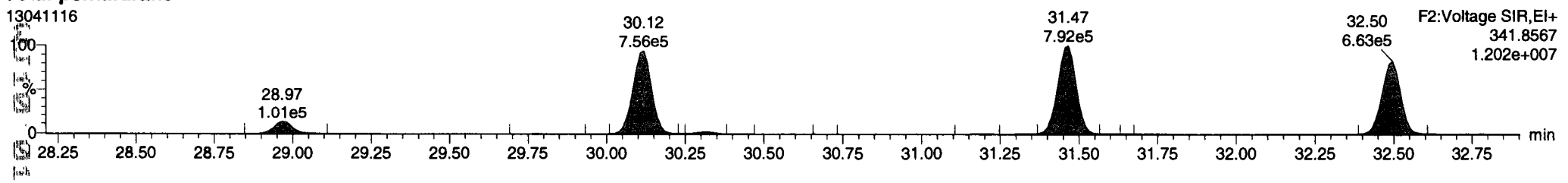


Total-pentafurans



Total-pentafurans



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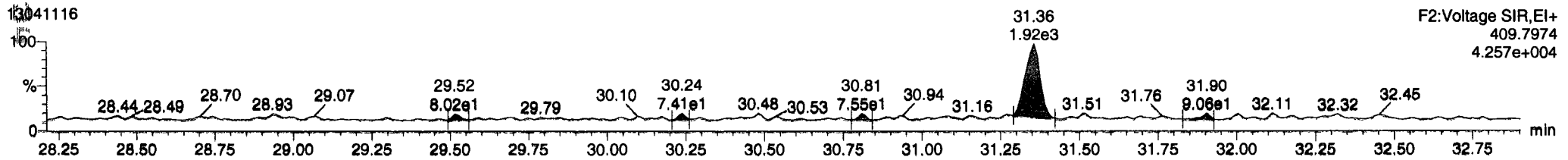

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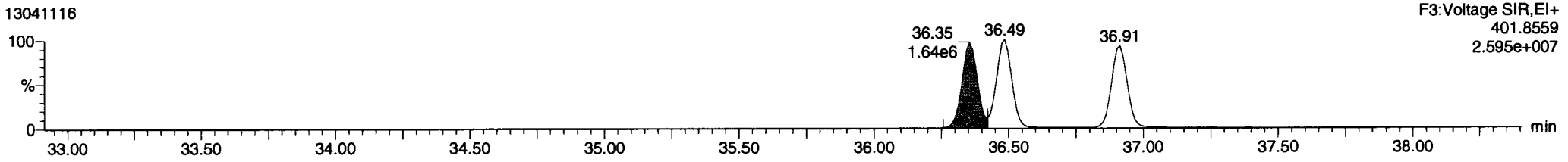
13C-123478-HxCDD



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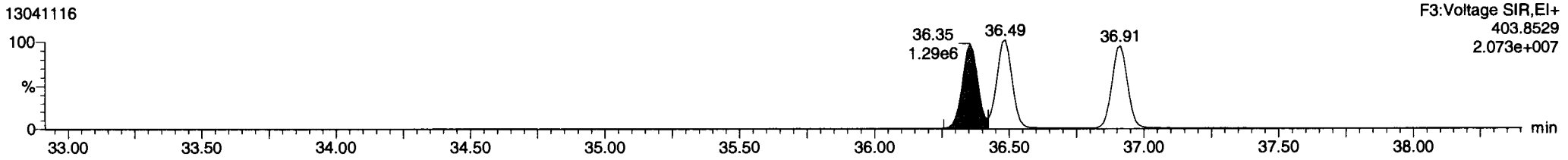
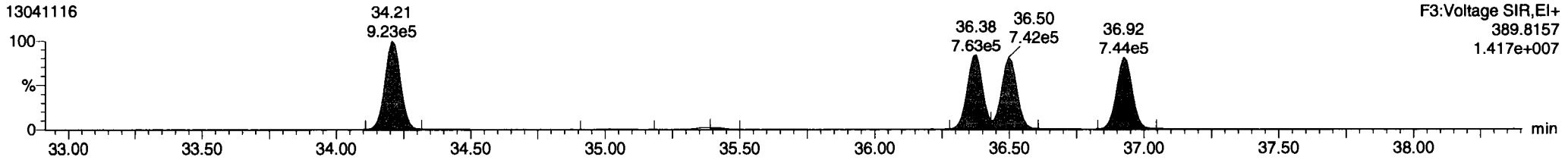
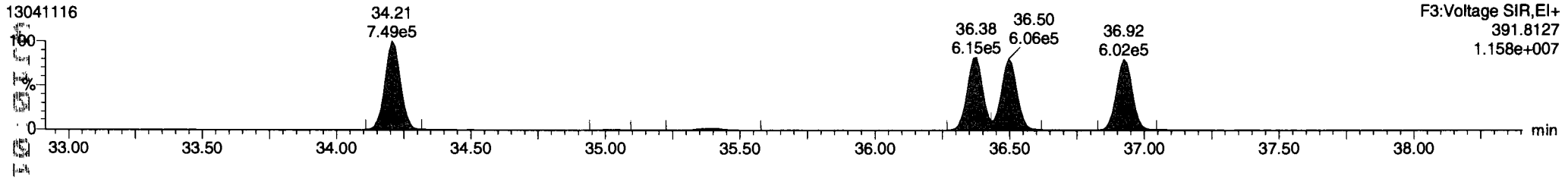


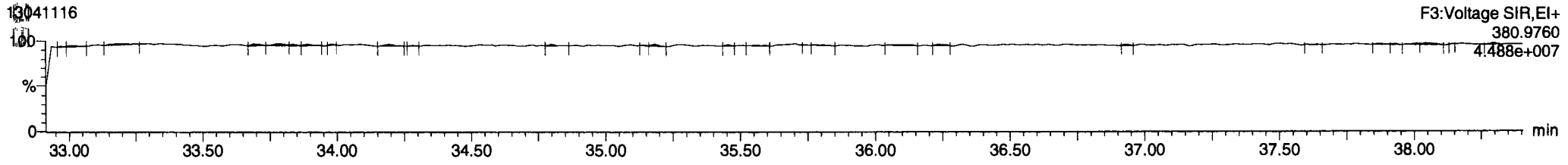
Total-hexadioxins



Total-hexadioxins

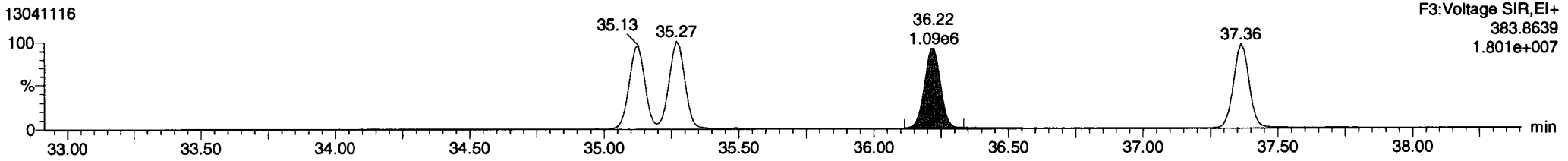


FUNCTION3 PFK



ID: CS3, Name: 13041116, Date: 11-Apr-2013, Time: 23:01:37, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



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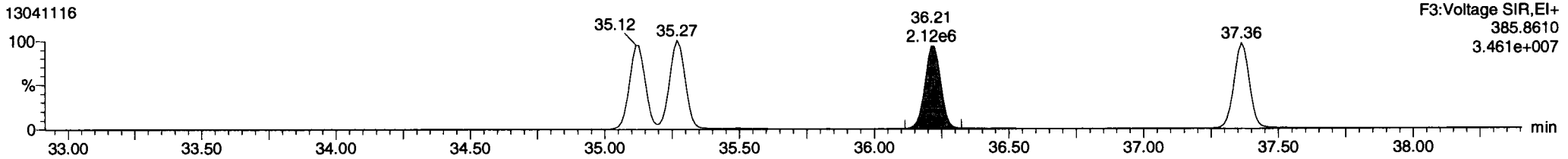
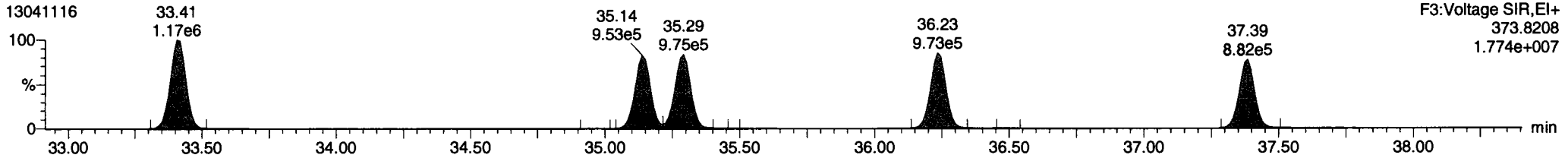
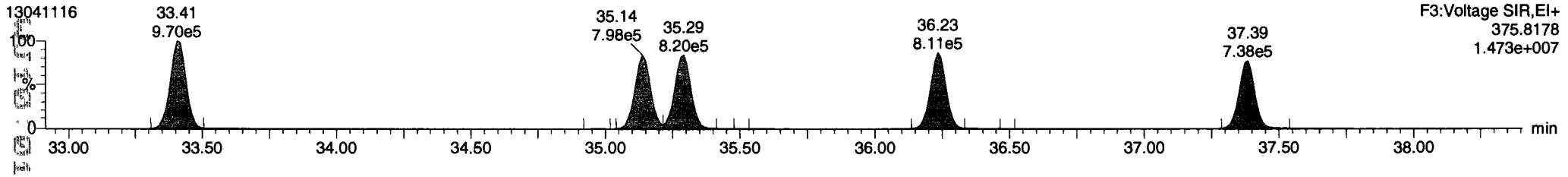


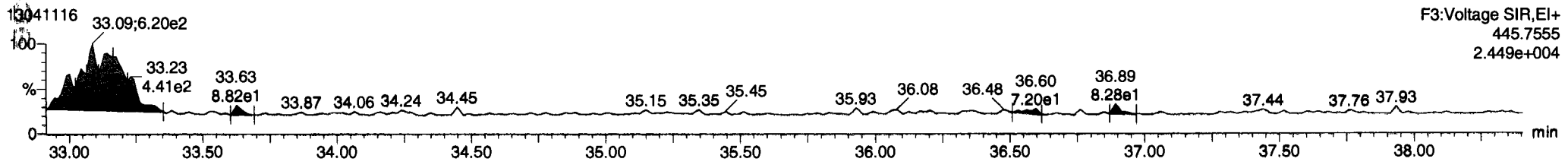
Total-hexafurans



Total-hexafurans

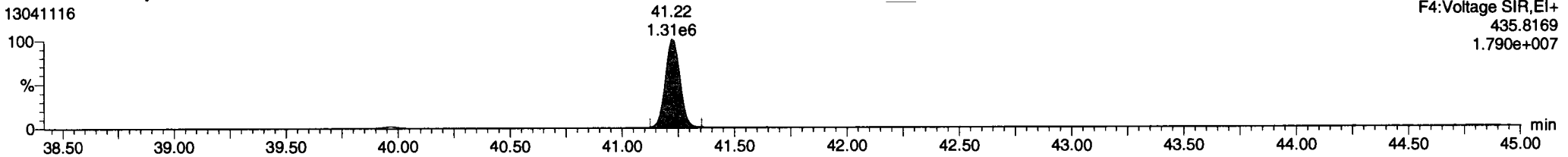


FUNCTION3 OCDPE

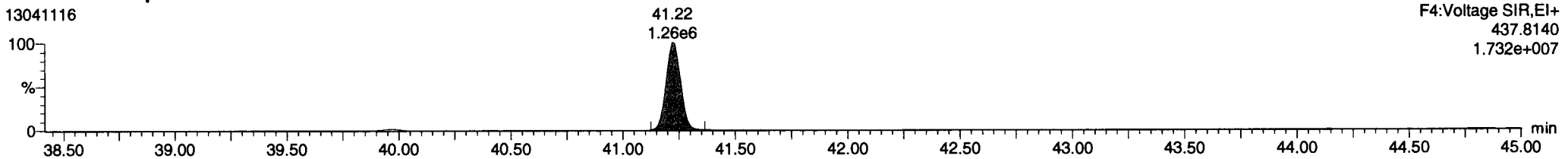


ID: CS3, Name: 13041116, Date: 11-Apr-2013, Time: 23:01:37, Conditions: AUTOSPEC01, User: pk

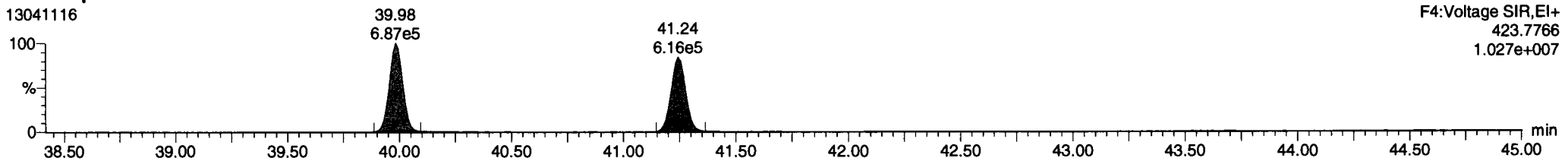
13C-1234678-HpCDD



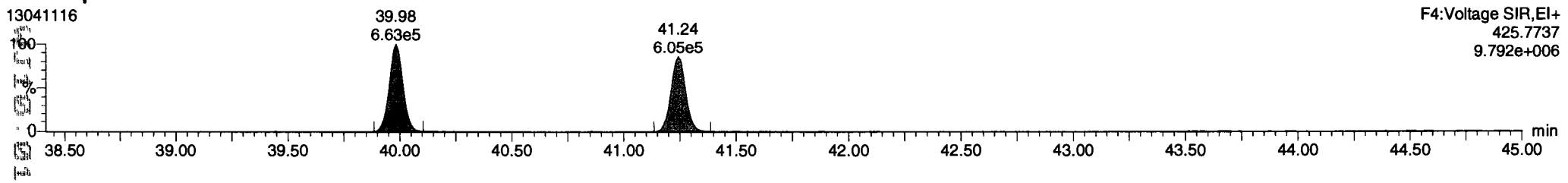
13C-1234678-HpCDD



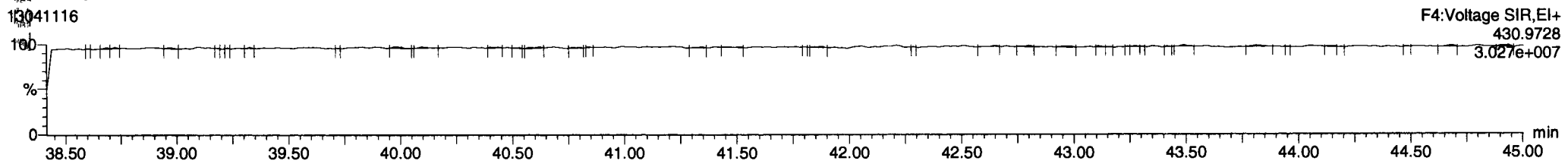
Total-heptadioxins



Total-heptadioxins

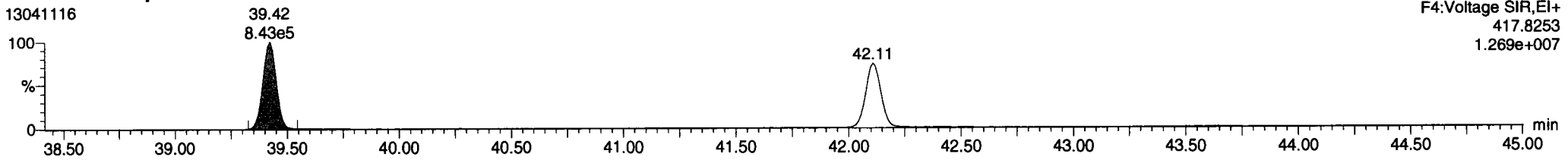


FUNCTION4 PFK



ID: CS3, Name: 13041116, Date: 11-Apr-2013, Time: 23:01:37, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF



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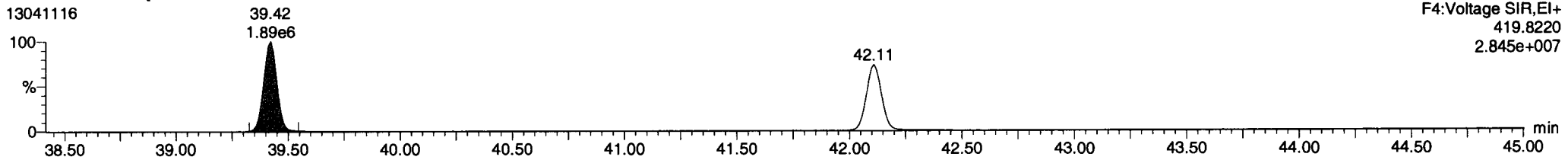
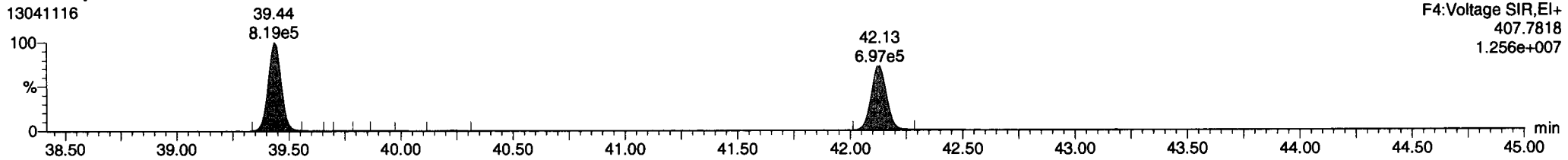


Total-heptafurans



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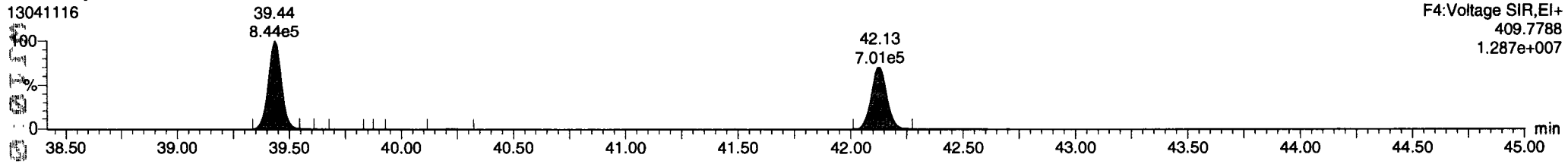
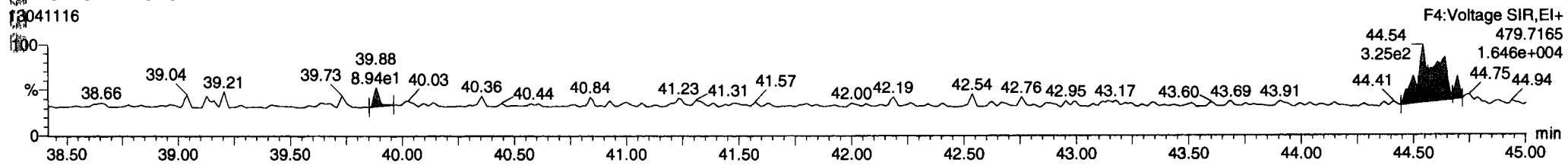


FUNCTION4 NCDPE



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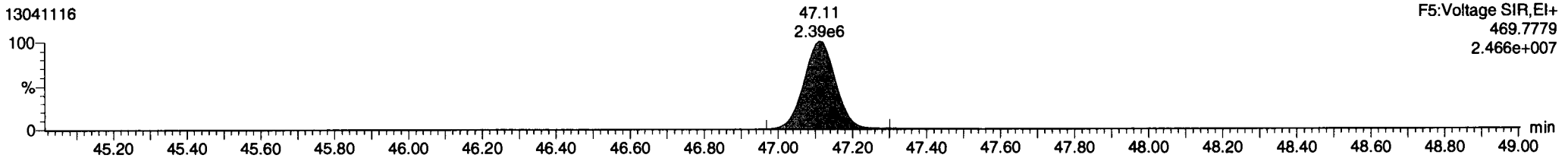
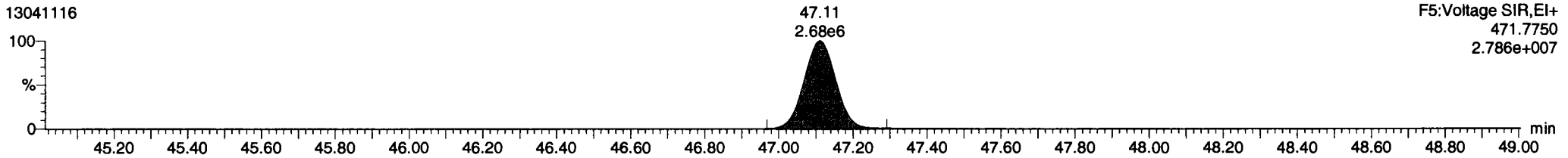
Printed: Friday, April 12, 2013 11:02:44 Pacific Daylight Time

ID: CS3, Name: 13041116, Date: 11-Apr-2013, Time: 23:01:37, Conditions: AUTOSPEC01, User: pk

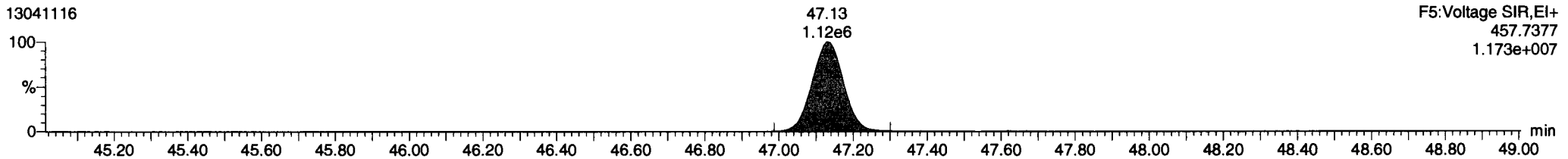
13C-OCDD



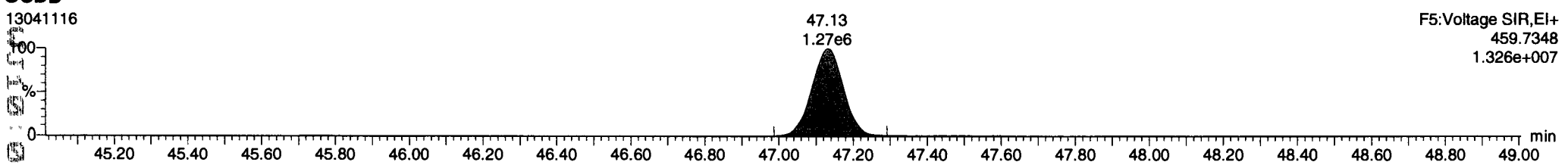
13C-OCDD



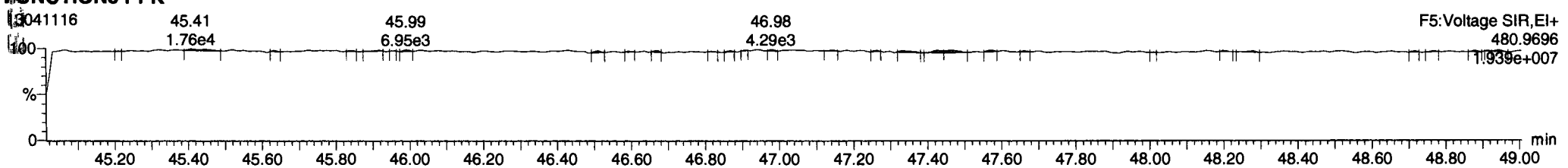
OCDD



OCDD



FUNCTION5 PFK



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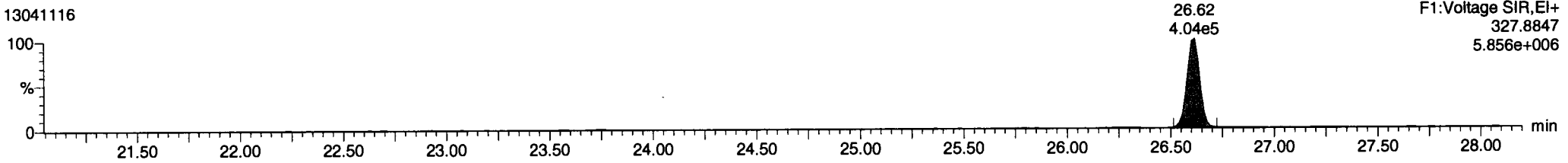
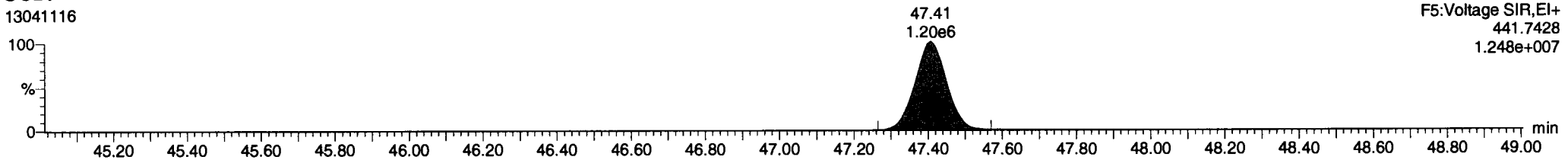
ID: CS3, Name: 13041116, Date: 11-Apr-2013, Time: 23:01:37, Conditions: AUTOSPEC01, User: pk

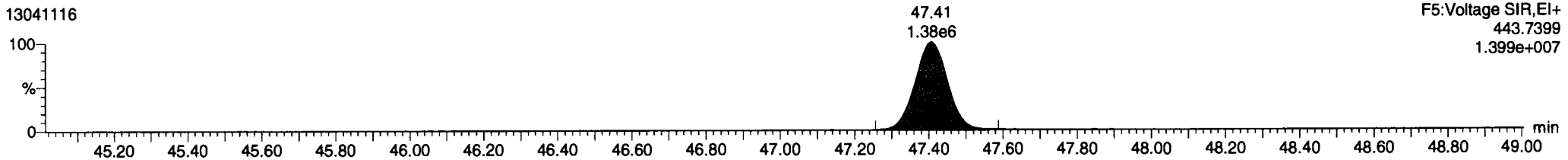
37CL-2378-TCDD



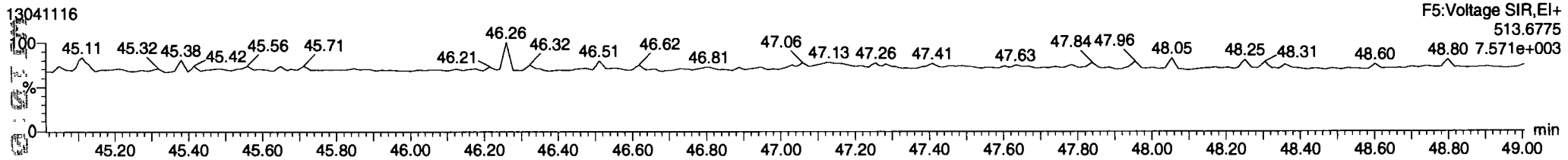
OCDF



OCDF



FUNCTION5 DCDPE



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Printed: Friday, April 12, 2013 13:03:54 Pacific Daylight Time

4/12/13

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Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

ID: WJ10C, Name: 13041122, Date: 12-Apr-2013, Time: 04:27:06, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Area1	Area2	RRF	Ratio	Ratio%	S/N	Width	Height	Response	Exclude	Amount	
1	2378-TCDF	25.989	1.001	6.74e4	9.03e4	0.763	0.747	0.770	572.9	1707	2959	9.78e5	1.36e6	NO	5.822	5.822	
2	12378-PeCDF	30.129	1.000	4.49e4	2.89e4	0.836	1.554	1.550	190.8	3506	3098	6.69e5	4.58e5	NO	3.036	3.036	X
3	23478-PeCDF	31.477	1.000	6.04e4	4.11e4	0.851	1.470	1.550	257.8	3506	3098	9.04e5	6.11e5	NO	4.419	4.419	
4	123478-HxCDF	35.160	1.001	7.15e4	5.98e4	1.017	1.195	1.240	203.4	5225	4779	1.06e6	9.08e5	NO	6.108	6.108	
5	234678-HxCDF	36.256	1.000	9.76e4	8.69e4	1.027	1.123	1.240	211.0	5225	4779	1.10e6	9.81e5	NO	9.009	9.009	
6	123678-HxCDF	35.313	1.001	7.65e4	6.48e4	1.013	1.180	1.240	218.3	5225	4779	1.14e6	9.63e5	NO	6.359	6.359	
7	123789-HxCDF	37.385	1.000	1.87e4	1.40e4	0.929	1.337	1.240	42.9	5225	4779	2.24e5	2.08e5	NO	1.710	1.710	
8	1234678-HpCDF	39.457	1.000	1.08e6	1.09e6	1.151	0.988	1.050	1729.6	9272	6346	1.60e7	1.62e7	NO	117.886	117.886	
9	1234789-HpCDF	42.153	1.000	4.93e4	4.89e4	1.149	1.009	1.050	68.0	9272	6346	6.30e5	6.35e5	NO	6.177	6.177	
10	OCDF	47.453	1.006	1.91e6	2.20e6	0.963	0.869	0.890	3240.2	5955	3248	1.93e7	2.25e7	NO	354.531	354.531	
11	2378-TCDD	26.631	1.001	7.70e3	1.07e4	0.980	0.718	0.770	77.7	1447	2217	1.12e5	1.54e5	NO	0.738	0.738	
12	12378-PeCDD	31.740	1.001	6.57e4	4.02e4	0.948	1.636	1.550	306.9	2958	1939	9.08e5	5.32e5	NO	5.723	5.723	
13	123478-HxCDD	36.398	1.001	7.44e4	6.02e4	0.941	1.236	1.240	205.5	5515	4818	1.13e6	9.19e5	NO	7.570	7.570	
14	123678-HxCDD	36.530	1.001	1.67e5	1.38e5	0.884	1.209	1.240	448.4	5515	4818	2.47e6	2.00e6	NO	17.572	17.572	
15	123789-HxCDD	36.946	1.012	1.47e5	1.20e5	0.870	1.225	1.240	412.9	5515	4818	2.28e6	1.82e6	NO	15.900	15.900	
16	1234678-HpCDD	41.265	1.000	3.32e6	3.22e6	0.948	1.031	1.050	5215.3	8776	10137	4.58e7	4.46e7	NO	424.116	424.116	
17	OCDD	47.174	1.000	1.79e7	2.02e7	0.969	0.882	0.890	25576.2	7386	7499	1.89e8	2.14e8	NO	3264.840	3264.840	
18	13C-2378-TCDF	25.973	1.007	1.54e6	2.01e6	1.318	0.770	0.770	5423.6	4142	2556	2.25e7	2.91e7	NO		65.115	
19	13C-12378-PeCDF	30.118	1.168	1.77e6	1.14e6	1.026	1.555	1.550	8266.6	3247	5093	2.68e7	1.73e7	NO		68.497	
20	13C-23478-PeCDF	31.466	1.220	1.64e6	1.06e6	0.966	1 555	1.550	7843.7	3247	5093	2.55e7	1.63e7	NO		67.539	
21	13C-123478-HxCDF	35.138	0.951	7.19e5	1.39e6	1.123	0.516	0.510	2431.9	4441	3903	1.08e7	2.11e7	NO		57.127	
22	13C-123678-HxCDF	35.292	0.955	7.48e5	1.45e6	1.216	0.517	0.510	2553.0	4441	3903	1.13e7	2.17e7	NO		54.773	
23	13C-234678-HxCDF	36.245	0.981	6.83e5	1.31e6	1.106	0.521	0.510	2293.5	4441	3903	1.02e7	1.95e7	NO		54.723	
24	13C-123789-HxCDF	37.385	1.012	7.00e5	1.36e6	0.995	0.516	0.510	2411.0	4441	3903	1.07e7	2.05e7	NO		62.704	
25	13C-1234678-HpCDF	39.446	1.068	4.92e5	1.10e6	0.896	0.445	0.440	2227.8	3363	4998	7.49e6	1.67e7	NO		54.062	
26	13C-1234789-HpCDF	42.142	1.141	4.26e5	9.56e5	0.693	0.446	0.440	1602.3	3363	4998	5.39e6	1.21e7	NO		60.526	
27	13C-1234-TCDD	25.794	0.000	1.81e6	2.33e6	1.000	0.777	0.770	7360.2	3654	3527	2.69e7	3.44e7	NO		100.000	
28	13C-2378-TCDD	26.601	1.031	1.11e6	1.44e6	0.961	0.772	0.770	4457.6	3654	3527	1.63e7	2.13e7	NO		63.977	
29	13C-12378-PeCDD	31.718	1.230	1.19e6	7.57e5	0.703	1.578	1.550	6407.4	2856	2667	1.83e7	1.16e7	NO		67.064	
30	13C-123478-HxCDD	36.376	0.985	1.06e6	8.32e5	1.016	1.270	1.240	3853.5	4220	3144	1.63e7	1.28e7	NO		56.445	
31	13C-123678-HxCDD	36.508	0.988	1.08e6	8.82e5	1.098	1.229	1.240	3854.6	4220	3144	1.63e7	1.32e7	NO		54.301	
32	13C-1234678-HpCDD	41.254	1.117	8.26e5	8.00e5	0.828	1.032	1.050	3552.1	3259	3070	1.16e7	1.10e7	NO		59.570	
33	13C-OCDD	47.157	1.277	1.14e6	1.27e6	0.770	0.894	0.890	4189.6	2834	3109	1.19e7	1.33e7	NO		94.936	

ID: WJ10C, Name: 13041122, Date: 12-Apr-2013, Time: 04:27:06, Conditions: AUTOSPEC01, User: pk

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[redacted]	Total-tetrafurans			1.34e6		0.763				1707		1.79e7			117.617
[redacted]	Total-penta1			6.83e5						2111		8.99e6			43.993
[redacted]	Total-pentafurans			1.03e6		0.844				3506		1.41e7			72.559
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[redacted]	Total-pentadioxins			4.68e5		0.948				2958		6.01e6			41.590
[redacted]	Total-hexadioxins			1.77e6		0.898				5515		2.29e7			185.239
[redacted]	Total-heptadioxins			7.80e6		0.948				8776		1.12e8			998.106
[redacted]	Total-Dioxins			2.81e7		0.934				1447		3.33e8			4507.609
[redacted]	Total-TEQ			3.76e7						1447		4.59e8			5570.248
[redacted]	37CL-2378-TCDD	26.631	1.032	1.32e6		0.999			10400.5	1852		1.93e7			32.036
[redacted]	FUNCTION1 PFK			1.40e6						818083		1.81e7			
[redacted]	FUNCTION2 PFK			5.63e4						276851		1.38e6			0.000
[redacted]	FUNCTION3 PFK			5.12e5						461250		1.05e7			0.000
[redacted]	FUNCTION4 PFK			5.37e5						332898		1.55e7			
[redacted]	FUNCTION5 PFK			3.24e6						237768		3.48e7			
[redacted]	FUNCTION1 HXCDPE			5.52e3						2021		8.97e4			0.000
[redacted]	FUNCTION1 HPCDPE			5.15e3						1538		9.07e4			0.000
[redacted]	FUNCTION2 HPCDPE			6.68e3						2409		9.72e4			0.000
[redacted]	FUNCTION3 OCDPE			4.48e3						2034		1.02e5			0.000
[redacted]	FUNCTION4 NCDPE			7.65e3						3275		1.19e5			0.000
[redacted]	FUNCTION5 DCDPE			2.77e2						1127		7.89e3			0.000

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
Printed: Friday, April 12, 2013 13:03:54 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 12 Apr 2013 10:22:22
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

ID: WJ10C, Name: 13041122, Date: 12-Apr-2013, Time: 04:27:06, Conditions: AUTOSPEC01, User: pk

TF

	35	Total-tetrafurans	303.9016	24.90	253945.828	0.763	9.377		0.71	0.77	NO	818.6
	35	Total-tetrafurans	303.9016	24.73	109946.145	0.763	4.060		0.72	0.77	NO	409.8
	35	Total-tetrafurans	303.9016	24.66	232709.781	0.763	8.593		0.72	0.77	NO	631.0
	35	Total-tetrafurans	303.9016	24.48	15847.317	0.763	0.585		0.77	0.77	NO	61.8
	35	Total-tetrafurans	303.9016	24.23	127180.684	0.763	4.696		0.73	0.77	NO	474.5
	35	Total-tetrafurans	303.9016	24.09	132081.016	0.763	4.877		0.71	0.77	NO	475.8
	35	Total-tetrafurans	303.9016	23.99	163708.453	0.763	6.045		0.72	0.77	NO	608.2
	35	Total-tetrafurans	303.9016	23.82	94924.379	0.763	3.505		0.73	0.77	NO	338.8
	35	Total-tetrafurans	303.9016	23.73	98484.113	0.763	3.637		0.74	0.77	NO	361.7
	35	Total-tetrafurans	303.9016	23.63	162905.023	0.763	6.015		0.71	0.77	NO	494.8
	35	Total-tetrafurans	303.9016	23.51	192175.242	0.763	7.096		0.73	0.77	NO	407.4
	35	Total-tetrafurans	303.9016	23.33	422820.906	0.763	15.613		0.75	0.77	NO	1418.6
	35	Total-tetrafurans	303.9016	22.75	114220.449	0.763	4.218		0.73	0.77	NO	431.3
	35	Total-tetrafurans	303.9016	22.49	89714.086	0.763	3.313		0.78	0.77	NO	344.4
	35	Total-tetrafurans	303.9016	27.42	23260.014	0.763	0.859		0.85	0.77	NO	48.9
	35	Total-tetrafurans	303.9016	26.50	7454.271	0.763	0.275		0.80	0.77	NO	30.2
	35	Total-tetrafurans	303.9016	26.21	225752.516	0.763	8.336		0.71	0.77	NO	737.0
	35	Total-tetrafurans	303.9016	26.11	79519.695	0.763	2.936		0.73	0.77	NO	301.8
	1	2378-TCDF	303.9016	25.99	157675.492	0.763	5.822	5.822	0.75	0.77	NO	572.9
	35	Total-tetrafurans	303.9016	25.76	142183.207	0.763	5.250		0.71	0.77	NO	295.1
	35	Total-tetrafurans	303.9016	25.61	20848.616	0.763	0.770		0.70	0.77	NO	73.4
	35	Total-tetrafurans	303.9016	25.48	76150.699	0.763	2.812		0.69	0.77	NO	251.6
	35	Total-tetrafurans	303.9016	25.30	97947.977	0.763	3.617		0.70	0.77	NO	358.4
	35	Total-tetrafurans	303.9016	25.08	143826.473	0.763	5.311		0.74	0.77	NO	515.8

PP

	36	Total-penta1	339.8597	27.41	1130729.438		43.993		1.53	1.55	NO	4256.4

Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
Printed: Friday, April 12, 2013 13:03:54 Pacific Daylight Time

ID: WJ10C, Name: 13041122, Date: 12-Apr-2013, Time: 04:27:06, Conditions: AUTOSPEC01, User: pk

PF

	#	Name	Trace	RT	Abs Resp	REF Mz	Conc	EMPC	1° Ratio	1° Ratio	12 R..	S/N
	37	Total-pentafurans	339.8597	29.78	255082.703	0.844	10.787		1.48	1.55	NO	518.2
	37	Total-pentafurans	339.8597	29.67	25830.242	0.844	1.092		1.34	1.55	NO	71.2
	37	Total-pentafurans	339.8597	29.55	59418.254	0.844	2.513		1.48	1.55	NO	103.4
	37	Total-pentafurans	339.8597	29.36	29059.857	0.844	1.229		1.39	1.55	NO	70.4
	37	Total-pentafurans	339.8597	29.19	23998.676	0.844	1.015		1.66	1.55	NO	64.9
	37	Total-pentafurans	339.8597	29.05	264807.227	0.844	11.199		1.55	1.55	NO	704.1
	37	Total-pentafurans	339.8597	28.99	286420.148	0.844	12.113		1.48	1.55	NO	776.9
	37	Total-pentafurans	339.8597	28.86	252640.890	0.844	10.684		1.46	1.55	NO	373.7
	37	Total-pentafurans	339.8597	32.51	8846.899	0.844	0.374		1.61	1.55	NO	24.2
	37	Total-pentafurans	339.8597	31.58	7906.831	0.844	0.334		1.12	1.55	YES	24.7
	3	23478-PeCDF	339.8597	31.48	101513.649	0.851	4.419	4.419	1.47	1.55	NO	257.8
	37	Total-pentafurans	339.8597	31.32	43614.492	0.844	1.844		1.47	1.55	NO	108.8
	37	Total-pentafurans	339.8597	31.21	112328.278	0.844	4.750		1.50	1.55	NO	277.6
	37	Total-pentafurans	339.8597	30.97	16514.311	0.844	0.698		1.70	1.55	NO	43.6
	37	Total-pentafurans	339.8597	30.61	11777.000	0.844	0.498		1.44	1.55	NO	30.2
	37	Total-pentafurans	339.8597	30.45	55335.654	0.844	2.340		1.40	1.55	NO	147.9
	37	Total-pentafurans	339.8597	30.34	85890.012	0.844	3.632		1.68	1.55	NO	230.9
	2	12378-PeCDF	339.8597	30.13	73774.278	0.836	3.036	3.036	1.55	1.55	NO	190.8

HF

	#	Name	Trace	RT	Abs Resp	REF Mz	Conc	EMPC	1° Ratio	1° Ratio	12 R..	S/N
	7	123789-HxCDF	373.8208	37.38	32660.889	0.929	1.710	1.710	1.34	1.24	NO	42.9
	5	234678-HxCDF	373.8208	36.26	184477.195	1.027	9.009	9.009	1.12	1.24	NO	211.0
	38	Total-hexafurans	373.8208	35.88	17769.242	0.997	0.853		1.16	1.24	NO	28.2
	38	Total-hexafurans	373.8208	35.67	19065.108	0.997	0.916		1.08	1.24	NO	31.7
	38	Total-hexafurans	373.8208	35.53	15469.941	0.997	0.743		1.02	1.24	YES	19.4
	6	123678-HxCDF	373.8208	35.31	141317.301	1.013	6.359	6.359	1.18	1.24	NO	218.3
	4	123478-HxCDF	373.8208	35.16	131300.106	1.017	6.108	6.108	1.19	1.24	NO	203.4
	38	Total-hexafurans	373.8208	35.00	86369.668	0.997	4.148		1.20	1.24	NO	133.0
	38	Total-hexafurans	373.8208	34.51	771964.813	0.997	37.077		1.20	1.24	NO	1228.0
	38	Total-hexafurans	373.8208	34.20	46411.742	0.997	2.229		1.26	1.24	NO	75.7
	38	Total-hexafurans	373.8208	33.92	18742.279	0.997	0.900		1.05	1.24	YES	32.2
	38	Total-hexafurans	373.8208	33.65	1177272.063	0.997	56.544		1.20	1.24	NO	1763.4
	38	Total-hexafurans	373.8208	33.43	329149.579	0.997	15.809		1.19	1.24	NO	528.0

HPF

	#	Name	Trace	RT	Abs Resp	REF Mz	Conc	EMPC	1° Ratio	1° Ratio	12 R..	S/N
	9	1234789-HpCDF	407.7818	42.15	98144.195	1.149	6.177	6.177	1.01	1.05	NO	68.0
	39	Total-heptafurans	407.7818	40.25	3476448.000	1.150	202.980		0.99	1.05	NO	2695.7
	39	Total-heptafurans	407.7818	39.95	74047.602	1.150	4.323		0.96	1.05	NO	51.7
	8	1234678-HpCDF	407.7818	39.46	2165299.125	1.151	117.886	117....	0.99	1.05	NO	1729.6

Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
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ID: WJ10C, Name: 13041122, Date: 12-Apr-2013, Time: 04:27:06, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

[redacted]	#	Name	Trace	RT	Abs Area	RRF-M	S/N	EMPC	C Ratio	IT Ratio	ID	[redacted]
[redacted]	35	Total-tetrafurans	303.9016	24.90	253945.828	0.763	9.377		0.71	0.77	NO	818.6
[redacted]	35	Total-tetrafurans	303.9016	24.73	109946.145	0.763	4.060		0.72	0.77	NO	409.8
[redacted]	35	Total-tetrafurans	303.9016	24.66	232709.781	0.763	8.593		0.72	0.77	NO	631.0
[redacted]	35	Total-tetrafurans	303.9016	24.48	15847.317	0.763	0.585		0.77	0.77	NO	61.8
[redacted]	35	Total-tetrafurans	303.9016	24.23	127180.684	0.763	4.696		0.73	0.77	NO	474.5
[redacted]	35	Total-tetrafurans	303.9016	24.09	132081.016	0.763	4.877		0.71	0.77	NO	475.8
[redacted]	35	Total-tetrafurans	303.9016	23.99	163708.453	0.763	6.045		0.72	0.77	NO	608.2
[redacted]	35	Total-tetrafurans	303.9016	23.82	94924.379	0.763	3.505		0.73	0.77	NO	338.8
[redacted]	35	Total-tetrafurans	303.9016	23.73	98484.113	0.763	3.637		0.74	0.77	NO	361.7
[redacted]	35	Total-tetrafurans	303.9016	23.63	162905.023	0.763	6.015		0.71	0.77	NO	494.8
[redacted]	35	Total-tetrafurans	303.9016	23.51	192175.242	0.763	7.096		0.73	0.77	NO	407.4
[redacted]	35	Total-tetrafurans	303.9016	23.33	422820.906	0.763	15.613		0.75	0.77	NO	1418.6
[redacted]	35	Total-tetrafurans	303.9016	22.75	114220.449	0.763	4.218		0.73	0.77	NO	431.3
[redacted]	35	Total-tetrafurans	303.9016	22.49	89714.086	0.763	3.313		0.78	0.77	NO	344.4
[redacted]	40	Total-Furans	303.9016	28.11	5780.226	0.970	0.168		0.72	0.77	NO	19.0
[redacted]	35	Total-tetrafurans	303.9016	27.42	23260.014	0.763	0.859		0.85	0.77	NO	48.9
[redacted]	35	Total-tetrafurans	303.9016	26.50	7454.271	0.763	0.275		0.80	0.77	NO	30.2
[redacted]	35	Total-tetrafurans	303.9016	26.21	225752.516	0.763	8.336		0.71	0.77	NO	737.0
[redacted]	35	Total-tetrafurans	303.9016	26.11	79519.695	0.763	2.936		0.73	0.77	NO	301.8
[redacted]	1	2378-TCDF	303.9016	25.99	157675.492	0.763	5.822	5.822	0.75	0.77	NO	572.9
[redacted]	35	Total-tetrafurans	303.9016	25.76	142183.207	0.763	5.250		0.71	0.77	NO	295.1
[redacted]	35	Total-tetrafurans	303.9016	25.61	20848.616	0.763	0.770		0.70	0.77	NO	73.4
[redacted]	35	Total-tetrafurans	303.9016	25.48	76150.699	0.763	2.812		0.69	0.77	NO	251.6
[redacted]	35	Total-tetrafurans	303.9016	25.30	97947.977	0.763	3.617		0.70	0.77	NO	358.4
[redacted]	35	Total-tetrafurans	303.9016	25.08	143826.473	0.763	5.311		0.74	0.77	NO	515.8
[redacted]	37	Total-pentafurans	339.8597	29.78	255082.703	0.844	10.787		1.48	1.55	NO	518.2
[redacted]	37	Total-pentafurans	339.8597	29.67	25830.242	0.844	1.092		1.34	1.55	NO	71.2
[redacted]	37	Total-pentafurans	339.8597	29.55	59418.254	0.844	2.513		1.48	1.55	NO	103.4
[redacted]	37	Total-pentafurans	339.8597	29.36	29059.857	0.844	1.229		1.39	1.55	NO	70.4
[redacted]	37	Total-pentafurans	339.8597	29.19	23998.676	0.844	1.015		1.66	1.55	NO	64.9
[redacted]	37	Total-pentafurans	339.8597	29.05	264807.227	0.844	11.199		1.55	1.55	NO	704.1
[redacted]	37	Total-pentafurans	339.8597	28.99	286420.148	0.844	12.113		1.48	1.55	NO	776.9
[redacted]	37	Total-pentafurans	339.8597	28.86	252640.890	0.844	10.684		1.46	1.55	NO	373.7
[redacted]	37	Total-pentafurans	339.8597	32.51	8846.899	0.844	0.374		1.61	1.55	NO	24.2
[redacted]	37	Total-pentafurans	339.8597	31.58	7906.831	0.844	0.334		1.12	1.55	YES	24.7
[redacted]	3	23478-PeCDF	339.8597	31.48	101513.649	0.851	4.419	4.419	1.47	1.55	NO	257.8
[redacted]	37	Total-pentafurans	339.8597	31.32	43614.492	0.844	1.844		1.47	1.55	NO	108.8
[redacted]	37	Total-pentafurans	339.8597	31.21	112328.278	0.844	4.750		1.50	1.55	NO	277.6
[redacted]	37	Total-pentafurans	339.8597	30.97	16514.311	0.844	0.698		1.70	1.55	NO	43.6
[redacted]	37	Total-pentafurans	339.8597	30.61	11777.000	0.844	0.498		1.44	1.55	NO	30.2
[redacted]	37	Total-pentafurans	339.8597	30.45	55335.654	0.844	2.340		1.40	1.55	NO	147.9
[redacted]	37	Total-pentafurans	339.8597	30.34	85890.012	0.844	3.632		1.68	1.55	NO	230.9
[redacted]	2	12378-PeCDF	339.8597	30.13	73774.278	0.836	3.036	3.036	1.55	1.55	NO	190.8
[redacted]	7	123789-HxCDF	373.8208	37.38	32660.889	0.929	1.710	1.710	1.34	1.24	NO	42.9
[redacted]	5	234678-HxCDF	373.8208	36.26	184477.195	1.027	9.009	9.009	1.12	1.24	NO	211.0
[redacted]	38	Total-hexafurans	373.8208	35.88	17769.242	0.997	0.853		1.16	1.24	NO	28.2
[redacted]	38	Total-hexafurans	373.8208	35.67	19065.108	0.997	0.916		1.08	1.24	NO	31.7
[redacted]	38	Total-hexafurans	373.8208	35.53	15469.941	0.997	0.743		1.02	1.24	YES	19.4
[redacted]	6	123678-HxCDF	373.8208	35.31	141317.301	1.013	6.359	6.359	1.18	1.24	NO	218.3

ID: WJ10C, Name: 13041122, Date: 12-Apr-2013, Time: 04:27:06, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Trace	RT	Abs Area	RRF M...	ng	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	4	123478-HxCDF	373.8208	35.16	131300.106	1.017	6.108	6.108	1.19	1.24	NO	203.4
	38	Total-hexafurans	373.8208	35.00	86369.668	0.997	4.148		1.20	1.24	NO	133.0
	38	Total-hexafurans	373.8208	34.51	771964.813	0.997	37.077		1.20	1.24	NO	1228.0
	38	Total-hexafurans	373.8208	34.20	46411.742	0.997	2.229		1.26	1.24	NO	75.7
	38	Total-hexafurans	373.8208	33.92	18742.279	0.997	0.900		1.05	1.24	YES	32.2
	38	Total-hexafurans	373.8208	33.65	1177272.063	0.997	56.544		1.20	1.24	NO	1763.4
	38	Total-hexafurans	373.8208	33.43	329149.579	0.997	15.809		1.19	1.24	NO	528.0
	9	1234789-HpCDF	407.7818	42.15	98144.195	1.149	6.177	6.177	1.01	1.05	NO	68.0
	39	Total-heptafurans	407.7818	40.25	3476448.000	1.150	202.980		0.99	1.05	NO	2695.7
	39	Total-heptafurans	407.7818	39.95	74047.602	1.150	4.323		0.96	1.05	NO	51.7
	8	1234678-HpCDF	407.7818	39.46	2165299.125	1.151	117.886	117....	0.99	1.05	NO	1729.6
	10	OCDF	441.7428	47.45	4111562.125	0.963	354.531	354....	0.87	0.89	NO	3240.2
	36	Total-penta1	339.8597	27.41	1130729.438		43.993		1.53	1.55	NO	4256.4

TD

	#	Name	Trace	RT	Abs Area	RRF M...	ng	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	41	Total-tetradioxins	319.8965	24.96	39360.557	0.980	1.578		0.83	0.77	NO	157.6
	41	Total-tetradioxins	319.8965	24.76	6738.067	0.980	0.270		0.90	0.77	YES	33.1
	41	Total-tetradioxins	319.8965	24.24	18961.449	0.980	0.760		0.75	0.77	NO	85.0
	41	Total-tetradioxins	319.8965	24.03	56598.205	0.980	2.270		0.78	0.77	NO	249.3
	41	Total-tetradioxins	319.8965	23.76	96952.621	0.980	3.888		0.74	0.77	NO	454.5
	41	Total-tetradioxins	319.8965	27.51	1029.965	0.980	0.041		0.43	0.77	YES	4.4
	41	Total-tetradioxins	319.8965	27.18	46019.356	0.980	1.845		0.75	0.77	NO	191.7
	41	Total-tetradioxins	319.8965	26.75	23894.027	0.980	0.958		0.71	0.77	NO	98.4
	11	2378-TCDD	319.8965	26.63	18413.776	0.980	0.738	0.738	0.72	0.77	NO	77.7
	41	Total-tetradioxins	319.8965	26.26	32723.641	0.980	1.312		0.83	0.77	NO	110.6
	41	Total-tetradioxins	319.8965	26.08	199.813	0.980	0.008		1.02	0.77	YES	2.1
	41	Total-tetradioxins	319.8965	25.94	6804.800	0.980	0.273		0.94	0.77	YES	32.7
	41	Total-tetradioxins	319.8965	25.81	19157.806	0.980	0.768		0.77	0.77	NO	86.0
	41	Total-tetradioxins	319.8965	25.60	19182.104	0.980	0.769		0.74	0.77	NO	83.0
	41	Total-tetradioxins	319.8965	25.50	7153.707	0.980	0.287		0.79	0.77	NO	32.6
	41	Total-tetradioxins	319.8965	25.24	51554.383	0.980	2.067		0.79	0.77	NO	230.9

PD

	#	Name	Trace	RT	Abs Area	RRF M...	ng	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	42	Total-pentadioxins	355.8546	32.13	25982.907	0.948	1.404		1.64	1.55	NO	81.5
	12	12378-PeCDD	355.8546	31.74	105926.090	0.948	5.723	5.723	1.64	1.55	NO	306.9
	42	Total-pentadioxins	355.8546	31.06	30658.598	0.948	1.656		1.47	1.55	NO	79.8
	42	Total-pentadioxins	355.8546	30.68	88251.957	0.948	4.768		1.57	1.55	NO	171.0
	42	Total-pentadioxins	355.8546	30.49	69393.755	0.948	3.749		1.48	1.55	NO	222.1
	42	Total-pentadioxins	355.8546	30.36	103347.809	0.948	5.584		1.51	1.55	NO	318.4
	42	Total-pentadioxins	355.8546	30.14	82073.671	0.948	4.434		1.56	1.55	NO	261.1
	42	Total-pentadioxins	355.8546	29.52	49632.428	0.948	2.682		1.48	1.55	NO	158.6
	42	Total-pentadioxins	355.8546	29.04	214484.461	0.948	11.589		1.55	1.55	NO	430.8

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HD

#	Name	Trace	RT	Area Resp	RRF M...	ng	EMPC	37 Ratio	35 Ratio	12 Pk	S/N
15	123789-HxCDD	389.8157	36.95	266537.125	0.870	15.900	15.900	1.23	1.24	NO	412.9
43	Total-hexadioxins	389.8157	36.71	81943.032	0.898	4.733		1.20	1.24	NO	122.0
14	123678-HxCDD	389.8157	36.53	305315.938	0.884	17.572	17.572	1.21	1.24	NO	448.4
13	123478-HxCDD	389.8157	36.40	134584.567	0.941	7.570	7.570	1.24	1.24	NO	205.5
43	Total-hexadioxins	389.8157	35.54	80516.363	0.898	4.651		1.30	1.24	NO	130.7
43	Total-hexadioxins	389.8157	35.43	1192386.251	0.898	68.871		1.24	1.24	NO	1122.2
43	Total-hexadioxins	389.8157	35.04	235554.867	0.898	13.605		1.21	1.24	NO	352.5
43	Total-hexadioxins	389.8157	34.23	906117.562	0.898	52.337		1.23	1.24	NO	1355.7

HPD

#	Name	Trace	RT	Area Resp	RRF M...	ng	EMPC	37 Ratio	35 Ratio	12 Pk	S/N
16	1234678-HpCDD	423.7766	41.27	6536898.750	0.948	424.116	424....	1.03	1.05	NO	5215.3
44	Total-heptadioxins	423.7766	40.02	8846907.000	0.948	573.990		1.02	1.05	NO	7584.8

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Dioxins,TD,PD,HD,HPD,OD

	#	Name	Time	RT	Area	RRF M...	S...20	EMPC	I...Ratio	IP Ratio	12 R...	S/N
	41	Total-tetradioxins	319.8965	24.96	39360.557	0.980	1.578		0.83	0.77	NO	157.6
	41	Total-tetradioxins	319.8965	24.76	6738.067	0.980	0.270		0.90	0.77	YES	33.1
	41	Total-tetradioxins	319.8965	24.24	18961.449	0.980	0.760		0.75	0.77	NO	85.0
	41	Total-tetradioxins	319.8965	24.03	56598.205	0.980	2.270		0.78	0.77	NO	249.3
	41	Total-tetradioxins	319.8965	23.76	96952.621	0.980	3.888		0.74	0.77	NO	454.5
	41	Total-tetradioxins	319.8965	27.51	1029.965	0.980	0.041		0.43	0.77	YES	4.4
	41	Total-tetradioxins	319.8965	27.18	46019.356	0.980	1.845		0.75	0.77	NO	191.7
	41	Total-tetradioxins	319.8965	26.75	23894.027	0.980	0.958		0.71	0.77	NO	98.4
	11	2378-TCDD	319.8965	26.63	18413.776	0.980	0.738	0.738	0.72	0.77	NO	77.7
	41	Total-tetradioxins	319.8965	26.26	32723.641	0.980	1.312		0.83	0.77	NO	110.6
	41	Total-tetradioxins	319.8965	26.08	199.813	0.980	0.008		1.02	0.77	YES	2.1
	41	Total-tetradioxins	319.8965	25.94	6804.800	0.980	0.273		0.94	0.77	YES	32.7
	41	Total-tetradioxins	319.8965	25.81	19157.806	0.980	0.768		0.77	0.77	NO	86.0
	41	Total-tetradioxins	319.8965	25.60	19182.104	0.980	0.769		0.74	0.77	NO	83.0
	41	Total-tetradioxins	319.8965	25.50	7153.707	0.980	0.287		0.79	0.77	NO	32.6
	41	Total-tetradioxins	319.8965	25.24	51554.383	0.980	2.067		0.79	0.77	NO	230.9
	42	Total-pentadioxins	355.8546	32.13	25982.907	0.948	1.404		1.64	1.55	NO	81.5
	12	12378-PeCDD	355.8546	31.74	105926.090	0.948	5.723	5.723	1.64	1.55	NO	306.9
	42	Total-pentadioxins	355.8546	31.06	30658.598	0.948	1.656		1.47	1.55	NO	79.8
	42	Total-pentadioxins	355.8546	30.68	88251.957	0.948	4.768		1.57	1.55	NO	171.0
	42	Total-pentadioxins	355.8546	30.49	69393.755	0.948	3.749		1.48	1.55	NO	222.1
	42	Total-pentadioxins	355.8546	30.36	103347.809	0.948	5.584		1.51	1.55	NO	318.4
	42	Total-pentadioxins	355.8546	30.14	82073.671	0.948	4.434		1.56	1.55	NO	261.1
	42	Total-pentadioxins	355.8546	29.52	49632.428	0.948	2.682		1.48	1.55	NO	158.6
	42	Total-pentadioxins	355.8546	29.04	214484.461	0.948	11.589		1.55	1.55	NO	430.8
	15	123789-HxCDD	389.8157	36.95	266537.125	0.870	15.900	15.900	1.23	1.24	NO	412.9
	43	Total-hexadioxins	389.8157	36.71	81943.032	0.898	4.733		1.20	1.24	NO	122.0
	14	123678-HxCDD	389.8157	36.53	305315.938	0.884	17.572	17.572	1.21	1.24	NO	448.4
	13	123478-HxCDD	389.8157	36.40	134584.567	0.941	7.570	7.570	1.24	1.24	NO	205.5
	43	Total-hexadioxins	389.8157	35.54	80516.363	0.898	4.651		1.30	1.24	NO	130.7
	43	Total-hexadioxins	389.8157	35.43	1192386.251	0.898	68.871		1.24	1.24	NO	1122.2
	43	Total-hexadioxins	389.8157	35.04	235554.867	0.898	13.605		1.21	1.24	NO	352.5
	43	Total-hexadioxins	389.8157	34.23	906117.562	0.898	52.337		1.23	1.24	NO	1355.7
	16	1234678-HpCDD	423.7766	41.27	6536898.750	0.948	424.116	424....	1.03	1.05	NO	5215.3
	44	Total-heptadioxins	423.7766	40.02	8846907.000	0.948	573.990		1.02	1.05	NO	7584.8
	17	OCDD	457.7377	47.17	38101072....	0.969	3264.8...	3264...	0.88	0.89	NO	25576.2

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TotalTEQ,Furans,Dioxins

	35 Total-tetrafurans	303.9016	24.90	253945.828	0.763	9.377		0.71	0.77	NO	818.6
	35 Total-tetrafurans	303.9016	24.73	109946.145	0.763	4.060		0.72	0.77	NO	409.8
	35 Total-tetrafurans	303.9016	24.66	232709.781	0.763	8.593		0.72	0.77	NO	631.0
	35 Total-tetrafurans	303.9016	24.48	15847.317	0.763	0.585		0.77	0.77	NO	61.8
	35 Total-tetrafurans	303.9016	24.23	127180.684	0.763	4.696		0.73	0.77	NO	474.5
	35 Total-tetrafurans	303.9016	24.09	132081.016	0.763	4.877		0.71	0.77	NO	475.8
	35 Total-tetrafurans	303.9016	23.99	163708.453	0.763	6.045		0.72	0.77	NO	608.2
	35 Total-tetrafurans	303.9016	23.82	94924.379	0.763	3.505		0.73	0.77	NO	338.8
	35 Total-tetrafurans	303.9016	23.73	98484.113	0.763	3.637		0.74	0.77	NO	361.7
	35 Total-tetrafurans	303.9016	23.63	162905.023	0.763	6.015		0.71	0.77	NO	494.8
	35 Total-tetrafurans	303.9016	23.51	192175.242	0.763	7.096		0.73	0.77	NO	407.4
	35 Total-tetrafurans	303.9016	23.33	422820.906	0.763	15.613		0.75	0.77	NO	1418.6
	35 Total-tetrafurans	303.9016	22.75	114220.449	0.763	4.218		0.73	0.77	NO	431.3
	35 Total-tetrafurans	303.9016	22.49	89714.086	0.763	3.313		0.78	0.77	NO	344.4
	40 Total-Furans	303.9016	28.11	5780.226	0.970	0.168		0.72	0.77	NO	19.0
	35 Total-tetrafurans	303.9016	27.42	23260.014	0.763	0.859		0.85	0.77	NO	48.9
	35 Total-tetrafurans	303.9016	26.50	7454.271	0.763	0.275		0.80	0.77	NO	30.2
	35 Total-tetrafurans	303.9016	26.21	225752.516	0.763	8.336		0.71	0.77	NO	737.0
	35 Total-tetrafurans	303.9016	26.11	79519.695	0.763	2.936		0.73	0.77	NO	301.8
	1 2378-TCDF	303.9016	25.99	157675.492	0.763	5.822	5.822	0.75	0.77	NO	572.9
	35 Total-tetrafurans	303.9016	25.76	142183.207	0.763	5.250		0.71	0.77	NO	295.1
	35 Total-tetrafurans	303.9016	25.61	20848.616	0.763	0.770		0.70	0.77	NO	73.4
	35 Total-tetrafurans	303.9016	25.48	76150.699	0.763	2.812		0.69	0.77	NO	251.6
	35 Total-tetrafurans	303.9016	25.30	97947.977	0.763	3.617		0.70	0.77	NO	358.4
	35 Total-tetrafurans	303.9016	25.08	143826.473	0.763	5.311		0.74	0.77	NO	515.8
	37 Total-pentafurans	339.8597	29.78	255082.703	0.844	10.787		1.48	1.55	NO	518.2
	37 Total-pentafurans	339.8597	29.67	25830.242	0.844	1.092		1.34	1.55	NO	71.2
	37 Total-pentafurans	339.8597	29.55	59418.254	0.844	2.513		1.48	1.55	NO	103.4
	37 Total-pentafurans	339.8597	29.36	29059.857	0.844	1.229		1.39	1.55	NO	70.4
	37 Total-pentafurans	339.8597	29.19	23998.676	0.844	1.015		1.66	1.55	NO	64.9
	37 Total-pentafurans	339.8597	29.05	264807.227	0.844	11.199		1.55	1.55	NO	704.1
	37 Total-pentafurans	339.8597	28.99	286420.148	0.844	12.113		1.48	1.55	NO	776.9
	37 Total-pentafurans	339.8597	28.86	252640.890	0.844	10.684		1.46	1.55	NO	373.7
	37 Total-pentafurans	339.8597	32.51	8846.899	0.844	0.374		1.61	1.55	NO	24.2
	37 Total-pentafurans	339.8597	31.58	7906.831	0.844	0.334		1.12	1.55	YES	24.7
	3 23478-PeCDF	339.8597	31.48	101513.649	0.851	4.419	4.419	1.47	1.55	NO	257.8
	37 Total-pentafurans	339.8597	31.32	43614.492	0.844	1.844		1.47	1.55	NO	108.8
	37 Total-pentafurans	339.8597	31.21	112328.278	0.844	4.750		1.50	1.55	NO	277.6
	37 Total-pentafurans	339.8597	30.97	16514.311	0.844	0.698		1.70	1.55	NO	43.6
	37 Total-pentafurans	339.8597	30.61	11777.000	0.844	0.498		1.44	1.55	NO	30.2
	37 Total-pentafurans	339.8597	30.45	55335.654	0.844	2.340		1.40	1.55	NO	147.9
	37 Total-pentafurans	339.8597	30.34	85890.012	0.844	3.632		1.68	1.55	NO	230.9
	2 12378-PeCDF	339.8597	30.13	73774.278	0.836	3.036	3.036	1.55	1.55	NO	190.8
	7 123789-HxCDF	373.8208	37.38	32660.889	0.929	1.710	1.710	1.34	1.24	NO	42.9
	5 234678-HxCDF	373.8208	36.26	184477.195	1.027	9.009	9.009	1.12	1.24	NO	211.0
	38 Total-hexafurans	373.8208	35.88	17769.242	0.997	0.853		1.16	1.24	NO	28.2
	38 Total-hexafurans	373.8208	35.67	19065.108	0.997	0.916		1.08	1.24	NO	31.7
	38 Total-hexafurans	373.8208	35.53	15469.941	0.997	0.743		1.02	1.24	YES	19.4
	6 123678-HxCDF	373.8208	35.31	141317.301	1.013	6.359	6.359	1.18	1.24	NO	218.3

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TotalTEQ,Furans,Dioxins

	4	123478-HxCDF	373.8208	35.16	131300.106	1.017	6.108	6.108	1.19	1.24	NO	203.4
	38	Total-hexafurans	373.8208	35.00	86369.668	0.997	4.148		1.20	1.24	NO	133.0
	38	Total-hexafurans	373.8208	34.51	771964.813	0.997	37.077		1.20	1.24	NO	1228.0
	38	Total-hexafurans	373.8208	34.20	46411.742	0.997	2.229		1.26	1.24	NO	75.7
	38	Total-hexafurans	373.8208	33.92	18742.279	0.997	0.900		1.05	1.24	YES	32.2
	38	Total-hexafurans	373.8208	33.65	1177272.063	0.997	56.544		1.20	1.24	NO	1763.4
	38	Total-hexafurans	373.8208	33.43	329149.579	0.997	15.809		1.19	1.24	NO	528.0
	9	1234789-HpCDF	407.7818	42.15	98144.195	1.149	6.177	6.177	1.01	1.05	NO	68.0
	39	Total-heptafurans	407.7818	40.25	3476448.000	1.150	202.980		0.99	1.05	NO	2695.7
	39	Total-heptafurans	407.7818	39.95	74047.602	1.150	4.323		0.96	1.05	NO	51.7
	8	1234678-HpCDF	407.7818	39.46	2165299.125	1.151	117.886	117....	0.99	1.05	NO	1729.6
	10	OCDF	441.7428	47.45	4111562.125	0.963	354.531	354....	0.87	0.89	NO	3240.2
	36	Total-penta1	339.8597	27.41	1130729.438		43.993		1.53	1.55	NO	4256.4
	41	Total-tetradioxins	319.8965	24.96	39360.557	0.980	1.578		0.83	0.77	NO	157.6
	41	Total-tetradioxins	319.8965	24.76	6738.067	0.980	0.270		0.90	0.77	YES	33.1
	41	Total-tetradioxins	319.8965	24.24	18961.449	0.980	0.760		0.75	0.77	NO	85.0
	41	Total-tetradioxins	319.8965	24.03	56598.205	0.980	2.270		0.78	0.77	NO	249.3
	41	Total-tetradioxins	319.8965	23.76	96952.621	0.980	3.888		0.74	0.77	NO	454.5
	41	Total-tetradioxins	319.8965	27.51	1029.965	0.980	0.041		0.43	0.77	YES	4.4
	41	Total-tetradioxins	319.8965	27.18	46019.356	0.980	1.845		0.75	0.77	NO	191.7
	41	Total-tetradioxins	319.8965	26.75	23894.027	0.980	0.958		0.71	0.77	NO	98.4
	11	2378-TCDD	319.8965	26.63	18413.776	0.980	0.738	0.738	0.72	0.77	NO	77.7
	41	Total-tetradioxins	319.8965	26.26	32723.641	0.980	1.312		0.83	0.77	NO	110.6
	41	Total-tetradioxins	319.8965	26.08	199.813	0.980	0.008		1.02	0.77	YES	2.1
	41	Total-tetradioxins	319.8965	25.94	6804.800	0.980	0.273		0.94	0.77	YES	32.7
	41	Total-tetradioxins	319.8965	25.81	19157.806	0.980	0.768		0.77	0.77	NO	86.0
	41	Total-tetradioxins	319.8965	25.60	19182.104	0.980	0.769		0.74	0.77	NO	83.0
	41	Total-tetradioxins	319.8965	25.50	7153.707	0.980	0.287		0.79	0.77	NO	32.6
	41	Total-tetradioxins	319.8965	25.24	51554.383	0.980	2.067		0.79	0.77	NO	230.9
	42	Total-pentadioxins	355.8546	32.13	25982.907	0.948	1.404		1.64	1.55	NO	81.5
	12	12378-PeCDD	355.8546	31.74	105926.090	0.948	5.723	5.723	1.64	1.55	NO	306.9
	42	Total-pentadioxins	355.8546	31.06	30658.598	0.948	1.656		1.47	1.55	NO	79.8
	42	Total-pentadioxins	355.8546	30.68	88251.957	0.948	4.768		1.57	1.55	NO	171.0
	42	Total-pentadioxins	355.8546	30.49	69393.755	0.948	3.749		1.48	1.55	NO	222.1
	42	Total-pentadioxins	355.8546	30.36	103347.809	0.948	5.584		1.51	1.55	NO	318.4
	42	Total-pentadioxins	355.8546	30.14	82073.671	0.948	4.434		1.56	1.55	NO	261.1
	42	Total-pentadioxins	355.8546	29.52	49632.428	0.948	2.682		1.48	1.55	NO	158.6
	42	Total-pentadioxins	355.8546	29.04	214484.461	0.948	11.589		1.55	1.55	NO	430.8
	15	123789-HxCDD	389.8157	36.95	266537.125	0.870	15.900	15.900	1.23	1.24	NO	412.9
	43	Total-hexadioxins	389.8157	36.71	81943.032	0.898	4.733		1.20	1.24	NO	122.0
	14	123678-HxCDD	389.8157	36.53	305315.938	0.884	17.572	17.572	1.21	1.24	NO	448.4
	13	123478-HxCDD	389.8157	36.40	134584.567	0.941	7.570	7.570	1.24	1.24	NO	205.5
	43	Total-hexadioxins	389.8157	35.54	80516.363	0.898	4.651		1.30	1.24	NO	130.7
	43	Total-hexadioxins	389.8157	35.43	1192386.251	0.898	68.871		1.24	1.24	NO	1122.2
	43	Total-hexadioxins	389.8157	35.04	235554.867	0.898	13.605		1.21	1.24	NO	352.5
	43	Total-hexadioxins	389.8157	34.23	906117.562	0.898	52.337		1.23	1.24	NO	1355.7
	16	1234678-HpCDD	423.7766	41.27	6536898.750	0.948	424.116	424....	1.03	1.05	NO	5215.3
	44	Total-heptadioxins	423.7766	40.02	8846907.000	0.948	573.990		1.02	1.05	NO	7584.8
	17	OCDD	457.7377	47.17	38101072....	0.969	3264.8...	3264....	0.88	0.89	NO	25576.2

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PFK1

	#	Name	Trace	RT	Abs Area	SRE M...	ppb	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	48	FUNCTION1 PFK	330.9792	26.75	0.000							0.5
	48	FUNCTION1 PFK	330.9792	24.21	0.000							1.8
	48	FUNCTION1 PFK	330.9792	24.09	0.000							4.1
	48	FUNCTION1 PFK	330.9792	23.67	0.000							1.7
	48	FUNCTION1 PFK	330.9792	22.84	0.000							4.4
	48	FUNCTION1 PFK	330.9792	22.61	0.000							3.9
	48	FUNCTION1 PFK	330.9792	21.58	0.000							5.7

PFK2

	#	Name	Trace	RT	Abs Area	SRE M...	ppb	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	49	FUNCTION2 PFK	366.9792	31.84	0.000	0.000						1.3
	49	FUNCTION2 PFK	366.9792	30.91	0.000	0.000						0.5
	49	FUNCTION2 PFK	366.9792	30.84	0.000	0.000						1.4
	49	FUNCTION2 PFK	366.9792	30.70	0.000	0.000						1.2
	49	FUNCTION2 PFK	366.9792	29.89	0.000	0.000						0.6

PFK3

	#	Name	Trace	RT	Abs Area	SRE M...	ppb	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	50	FUNCTION3 PFK	380.9760	38.10	0.000	0.000						1.0
	50	FUNCTION3 PFK	380.9760	37.30	0.000	0.000						3.6
	50	FUNCTION3 PFK	380.9760	36.33	0.000	0.000						1.2
	50	FUNCTION3 PFK	380.9760	36.11	0.000	0.000						1.7
	50	FUNCTION3 PFK	380.9760	35.70	0.000	0.000						1.1
	50	FUNCTION3 PFK	380.9760	35.63	0.000	0.000						1.3
	50	FUNCTION3 PFK	380.9760	35.47	0.000	0.000						1.0
	50	FUNCTION3 PFK	380.9760	35.07	0.000	0.000						1.2
	50	FUNCTION3 PFK	380.9760	34.80	0.000	0.000						0.7
	50	FUNCTION3 PFK	380.9760	34.03	0.000	0.000						2.6
	50	FUNCTION3 PFK	380.9760	33.94	0.000	0.000						0.6
	50	FUNCTION3 PFK	380.9760	33.88	0.000	0.000						0.5
	50	FUNCTION3 PFK	380.9760	33.35	0.000	0.000						0.8
	50	FUNCTION3 PFK	380.9760	33.11	0.000	0.000						2.0
	50	FUNCTION3 PFK	380.9760	33.04	0.000	0.000						2.1
	50	FUNCTION3 PFK	380.9760	38.14	0.000	0.000						1.5

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PFK4

		Name	Mass	RT	Area Ratio	RRT %	Rs	S/N%	15 Ratio	17 Ratio	17 Rs	S/N
[redacted]	51	FUNCTION4 PFK	430.9728	40.59	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	40.45	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.41	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	40.36	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.26	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	40.18	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.84	0.000							1.9
[redacted]	51	FUNCTION4 PFK	430.9728	39.72	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	39.17	0.000							0.8
[redacted]	51	FUNCTION4 PFK	430.9728	39.11	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.05	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	38.84	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	38.81	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	38.73	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	42.65	0.000							1.9
[redacted]	51	FUNCTION4 PFK	430.9728	42.46	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.43	0.000							0.6
[redacted]	51	FUNCTION4 PFK	430.9728	42.26	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	42.22	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.09	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	41.97	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	41.70	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	41.61	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	41.54	0.000							1.0
[redacted]	51	FUNCTION4 PFK	430.9728	41.50	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	41.43	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	41.25	0.000							2.1
[redacted]	51	FUNCTION4 PFK	430.9728	41.17	0.000							1.5
[redacted]	51	FUNCTION4 PFK	430.9728	41.13	0.000							1.8
[redacted]	51	FUNCTION4 PFK	430.9728	40.77	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	44.93	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.79	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	44.73	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	44.54	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	44.48	0.000							0.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.43	0.000							0.7
[redacted]	51	FUNCTION4 PFK	430.9728	44.35	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.15	0.000							1.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.10	0.000							1.2
[redacted]	51	FUNCTION4 PFK	430.9728	44.05	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	43.90	0.000							0.5
[redacted]	51	FUNCTION4 PFK	430.9728	43.76	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	43.59	0.000							1.3
[redacted]	51	FUNCTION4 PFK	430.9728	42.95	0.000							1.1
[redacted]	51	FUNCTION4 PFK	430.9728	42.88	0.000							0.9
[redacted]	51	FUNCTION4 PFK	430.9728	42.73	0.000							1.7
[redacted]	51	FUNCTION4 PFK	430.9728	44.97	0.000							1.2

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PFK5

#	Name	Trace	RT	Area Ratio	RT Ma...	ppt	EMPS	10 Ratio	1° Ratio	10 B/J	S/N
52	FUNCTION5 PFK	480.9696	46.83	0.000							1.0
52	FUNCTION5 PFK	480.9696	46.71	0.000							1.6
52	FUNCTION5 PFK	480.9696	46.64	0.000							0.9
52	FUNCTION5 PFK	480.9696	46.60	0.000							0.6
52	FUNCTION5 PFK	480.9696	46.47	0.000							0.8
52	FUNCTION5 PFK	480.9696	46.19	0.000							0.7
52	FUNCTION5 PFK	480.9696	46.04	0.000							1.8
52	FUNCTION5 PFK	480.9696	45.99	0.000							1.9
52	FUNCTION5 PFK	480.9696	45.72	0.000							5.0
52	FUNCTION5 PFK	480.9696	45.51	0.000							12.7
52	FUNCTION5 PFK	480.9696	45.35	0.000							19.4
52	FUNCTION5 PFK	480.9696	45.20	0.000							25.6
52	FUNCTION5 PFK	480.9696	45.16	0.000							26.9
52	FUNCTION5 PFK	480.9696	45.06	0.000							31.5
52	FUNCTION5 PFK	480.9696	48.95	0.000							0.7
52	FUNCTION5 PFK	480.9696	48.88	0.000							0.8
52	FUNCTION5 PFK	480.9696	48.60	0.000							0.9
52	FUNCTION5 PFK	480.9696	48.38	0.000							0.8
52	FUNCTION5 PFK	480.9696	48.18	0.000							1.6
52	FUNCTION5 PFK	480.9696	47.90	0.000							0.6
52	FUNCTION5 PFK	480.9696	47.74	0.000							0.9
52	FUNCTION5 PFK	480.9696	47.70	0.000							1.0
52	FUNCTION5 PFK	480.9696	47.48	0.000							1.3
52	FUNCTION5 PFK	480.9696	47.22	0.000							1.1
52	FUNCTION5 PFK	480.9696	47.15	0.000							0.5
52	FUNCTION5 PFK	480.9696	47.10	0.000							1.0
52	FUNCTION5 PFK	480.9696	46.95	0.000							1.3
52	FUNCTION5 PFK	480.9696	46.91	0.000							1.6
52	FUNCTION5 PFK	480.9696	46.89	0.000							1.8

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ETHERS1

	#	Name	Trace	RT	Abs Resp	Ref M...	ID	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	53	FUNCTION1 HXCD...	375.8364	27.45	0.000		0.000					1.5
	53	FUNCTION1 HXCD...	375.8364	27.33	0.000		0.000					4.3
	53	FUNCTION1 HXCD...	375.8364	27.23	0.000		0.000					1.2
	53	FUNCTION1 HXCD...	375.8364	27.18	0.000		0.000					1.0
	53	FUNCTION1 HXCD...	375.8364	26.06	0.000		0.000					3.7
	53	FUNCTION1 HXCD...	375.8364	25.81	0.000		0.000					4.6
	53	FUNCTION1 HXCD...	375.8364	25.17	0.000		0.000					0.7
	53	FUNCTION1 HXCD...	375.8364	25.00	0.000		0.000					5.3
	53	FUNCTION1 HXCD...	375.8364	24.21	0.000		0.000					1.5
	53	FUNCTION1 HXCD...	375.8364	24.08	0.000		0.000					0.9
	53	FUNCTION1 HXCD...	375.8364	23.85	0.000		0.000					8.0
	53	FUNCTION1 HXCD...	375.8364	23.51	0.000		0.000					0.9
	53	FUNCTION1 HXCD...	375.8364	23.39	0.000		0.000					1.0
	53	FUNCTION1 HXCD...	375.8364	23.30	0.000		0.000					1.4
	53	FUNCTION1 HXCD...	375.8364	22.45	0.000		0.000					0.9
	53	FUNCTION1 HXCD...	375.8364	21.51	0.000		0.000					0.9
	53	FUNCTION1 HXCD...	375.8364	27.98	0.000		0.000					1.9
	53	FUNCTION1 HXCD...	375.8364	27.87	0.000		0.000					1.3
	53	FUNCTION1 HXCD...	375.8364	27.72	0.000		0.000					1.6
	53	FUNCTION1 HXCD...	375.8364	27.53	0.000		0.000					2.0

ETHERS2

	#	Name	Trace	RT	Abs Resp	Ref M...	ID	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	23.91	0.000		0.000					1.5
	54	FUNCTION1 HPCD...	409.7974	23.84	0.000		0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	23.70	0.000		0.000					1.4
	54	FUNCTION1 HPCD...	409.7974	23.54	0.000		0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	23.12	0.000		0.000					1.6
	54	FUNCTION1 HPCD...	409.7974	22.63	0.000		0.000					2.1
	54	FUNCTION1 HPCD...	409.7974	22.49	0.000		0.000					1.9
	54	FUNCTION1 HPCD...	409.7974	22.40	0.000		0.000					0.9
	54	FUNCTION1 HPCD...	409.7974	22.28	0.000		0.000					2.3
	54	FUNCTION1 HPCD...	409.7974	21.85	0.000		0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	21.64	0.000		0.000					1.0
	54	FUNCTION1 HPCD...	409.7974	28.14	0.000		0.000					1.4
	54	FUNCTION1 HPCD...	409.7974	27.87	0.000		0.000					15.6
	54	FUNCTION1 HPCD...	409.7974	27.44	0.000		0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	27.35	0.000		0.000					3.5
	54	FUNCTION1 HPCD...	409.7974	27.06	0.000		0.000					1.1
	54	FUNCTION1 HPCD...	409.7974	26.78	0.000		0.000					0.6
	54	FUNCTION1 HPCD...	409.7974	26.44	0.000		0.000					1.8
	54	FUNCTION1 HPCD...	409.7974	26.18	0.000		0.000					1.8
	54	FUNCTION1 HPCD...	409.7974	25.85	0.000		0.000					1.6
	54	FUNCTION1 HPCD...	409.7974	24.99	0.000		0.000					3.6
	54	FUNCTION1 HPCD...	409.7974	24.72	0.000		0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	24.40	0.000		0.000					1.5
	54	FUNCTION1 HPCD...	409.7974	24.27	0.000		0.000					1.0
	54	FUNCTION1 HPCD...	409.7974	24.08	0.000		0.000					1.7

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ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	Δ ng	EMPC	1° Ratio	1° Ratio	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	28.62	0.000	0.000						10.4
	55	FUNCTION2 HPCD...	409.7974	32.83	0.000	0.000						1.5
	55	FUNCTION2 HPCD...	409.7974	32.08	0.000	0.000						2.5
	55	FUNCTION2 HPCD...	409.7974	31.54	0.000	0.000						1.8
	55	FUNCTION2 HPCD...	409.7974	31.02	0.000	0.000						3.1
	55	FUNCTION2 HPCD...	409.7974	30.11	0.000	0.000						8.5
	55	FUNCTION2 HPCD...	409.7974	29.77	0.000	0.000						8.7
	55	FUNCTION2 HPCD...	409.7974	29.49	0.000	0.000						3.8

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	Δ ng	EMPC	1° Ratio	1° Ratio	1° R...	S/N
	56	FUNCTION3 OCDPE	445.7555	34.85	0.000	0.000						2.9
	56	FUNCTION3 OCDPE	445.7555	34.45	0.000	0.000						1.3
	56	FUNCTION3 OCDPE	445.7555	34.02	0.000	0.000						1.8
	56	FUNCTION3 OCDPE	445.7555	33.92	0.000	0.000						1.1
	56	FUNCTION3 OCDPE	445.7555	33.23	0.000	0.000						1.2
	56	FUNCTION3 OCDPE	445.7555	33.14	0.000	0.000						3.0
	56	FUNCTION3 OCDPE	445.7555	33.09	0.000	0.000						3.5
	56	FUNCTION3 OCDPE	445.7555	33.04	0.000	0.000						2.3
	56	FUNCTION3 OCDPE	445.7555	38.08	0.000	0.000						1.1
	56	FUNCTION3 OCDPE	445.7555	37.80	0.000	0.000						1.1
	56	FUNCTION3 OCDPE	445.7555	37.76	0.000	0.000						1.0
	56	FUNCTION3 OCDPE	445.7555	37.23	0.000	0.000						1.8
	56	FUNCTION3 OCDPE	445.7555	36.98	0.000	0.000						0.9
	56	FUNCTION3 OCDPE	445.7555	36.74	0.000	0.000						1.3
	56	FUNCTION3 OCDPE	445.7555	36.67	0.000	0.000						2.0
	56	FUNCTION3 OCDPE	445.7555	36.64	0.000	0.000						2.5
	56	FUNCTION3 OCDPE	445.7555	36.42	0.000	0.000						1.3
	56	FUNCTION3 OCDPE	445.7555	36.21	0.000	0.000						3.4
	56	FUNCTION3 OCDPE	445.7555	35.20	0.000	0.000						1.6
	56	FUNCTION3 OCDPE	445.7555	35.16	0.000	0.000						3.5
	56	FUNCTION3 OCDPE	445.7555	35.12	0.000	0.000						7.2
	56	FUNCTION3 OCDPE	445.7555	34.94	0.000	0.000						1.5
	56	FUNCTION3 OCDPE	445.7555	34.89	0.000	0.000						2.8

ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M...	Δ ng	EMPC	1° Ratio	1° Ratio	1° R...	S/N
	57	FUNCTION4 NCDPE	479.7165	42.69	0.000	0.000						8.0
	57	FUNCTION4 NCDPE	479.7165	42.62	0.000	0.000						10.3
	57	FUNCTION4 NCDPE	479.7165	39.04	0.000	0.000						10.6
	57	FUNCTION4 NCDPE	479.7165	38.66	0.000	0.000						7.3

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ETHERS6

[redacted]	58	FUNCTION5 DCDPE	513.6775	48.31	0.000	0.000	[redacted]	[redacted]	[redacted]	[redacted]	2.5
[redacted]	58	FUNCTION5 DCDPE	513.6775	47.88	0.000	0.000	[redacted]	[redacted]	[redacted]	[redacted]	1.9
[redacted]	58	FUNCTION5 DCDPE	513.6775	47.50	0.000	0.000	[redacted]	[redacted]	[redacted]	[redacted]	2.6

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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 12 Apr 2013 10:22:22
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

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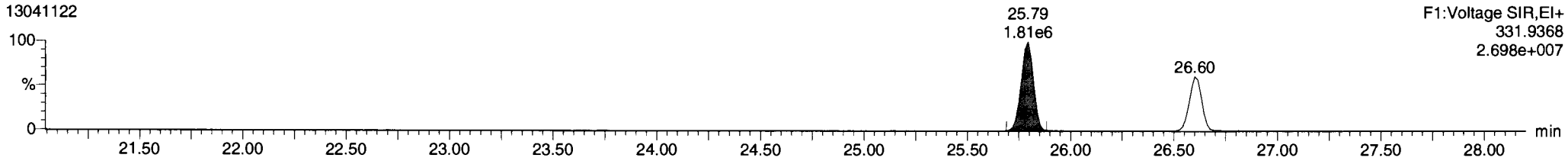
13C-1234-TCDD



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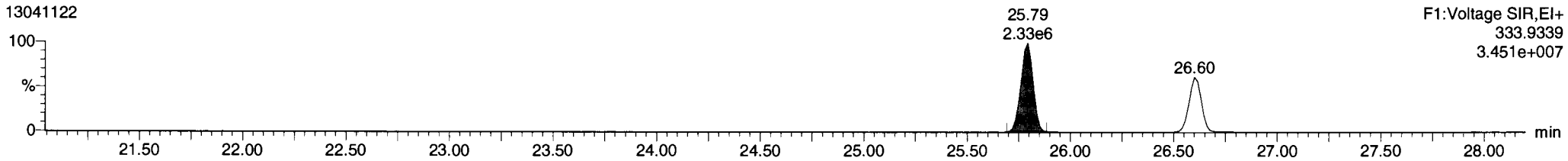

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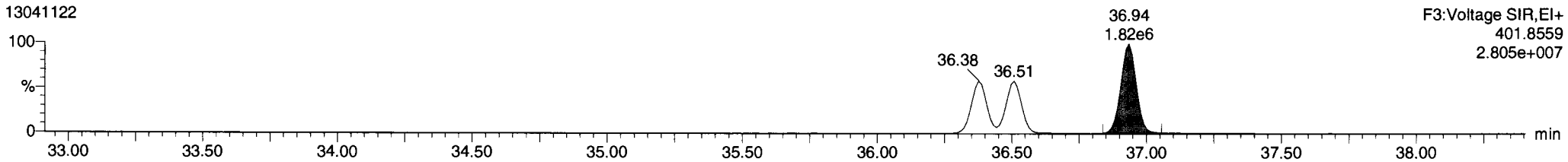

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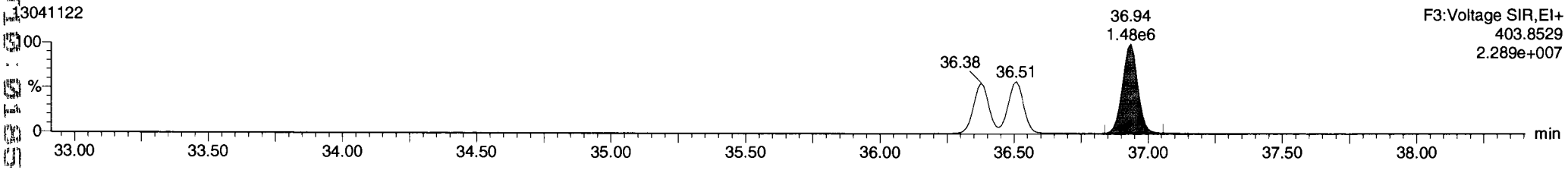

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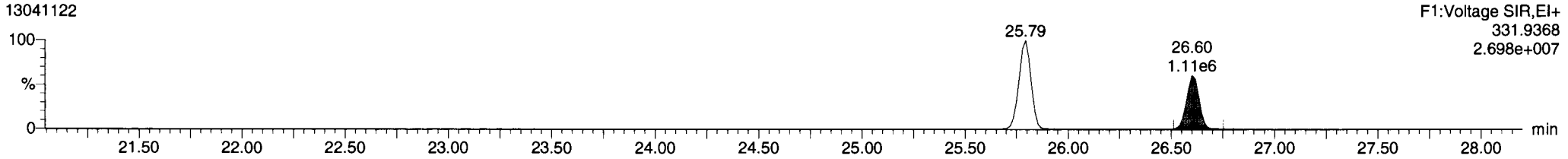
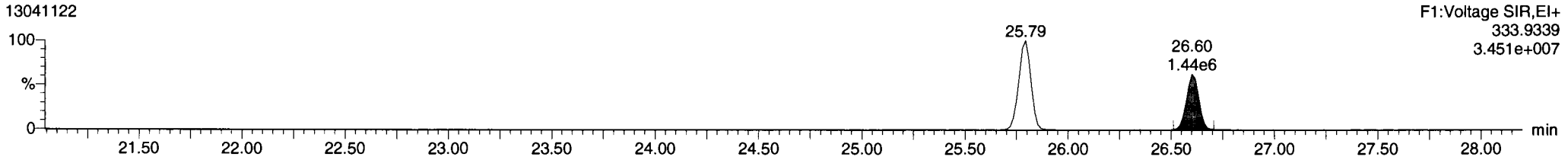
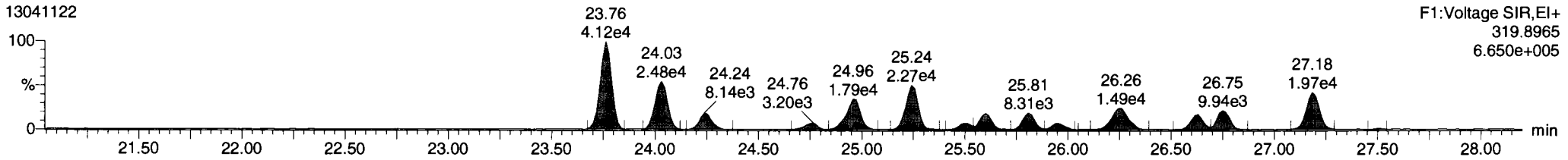
13C-2378-TCDD



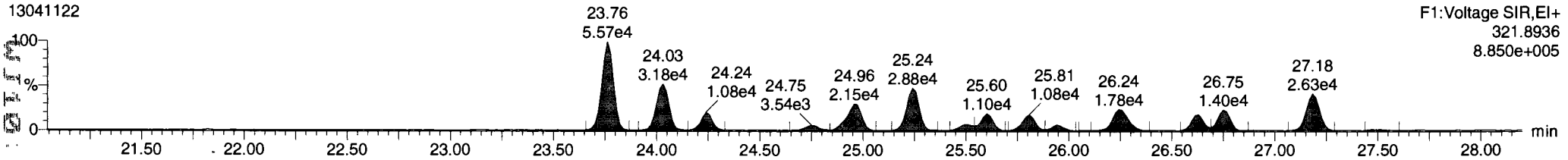
13C-2378-TCDD



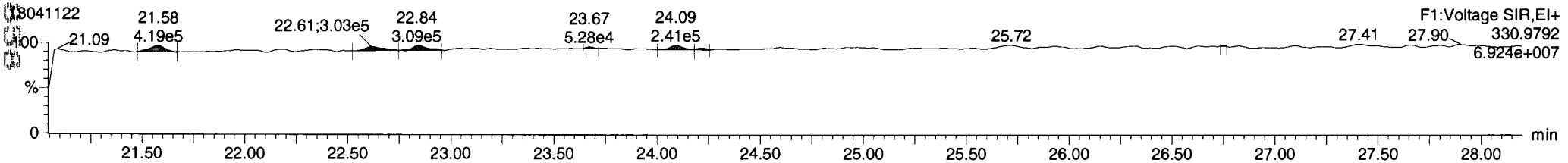
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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Printed: Friday, April 12, 2013 13:03:54 Pacific Daylight Time

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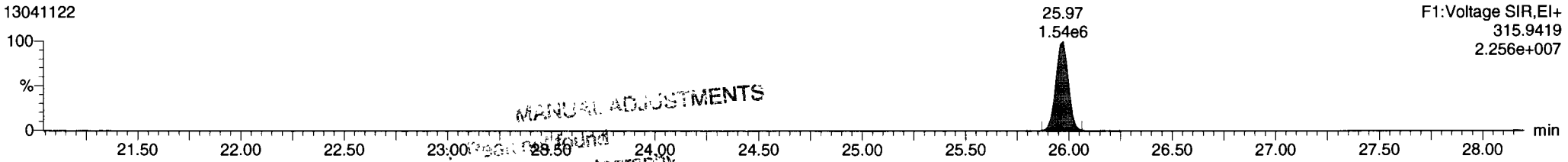
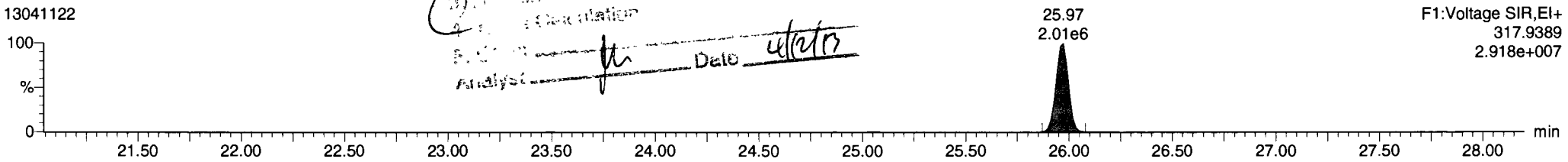
13C-2378-TCDF

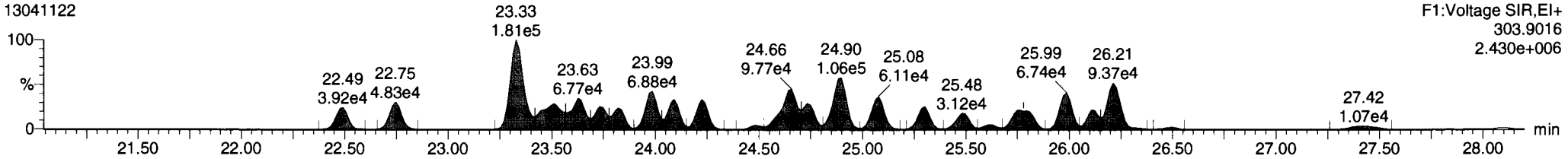


MANUAL ADJUSTMENTS
Found
Chromatography
Peak Correction
Calculation
Analyst Date 4/12/13

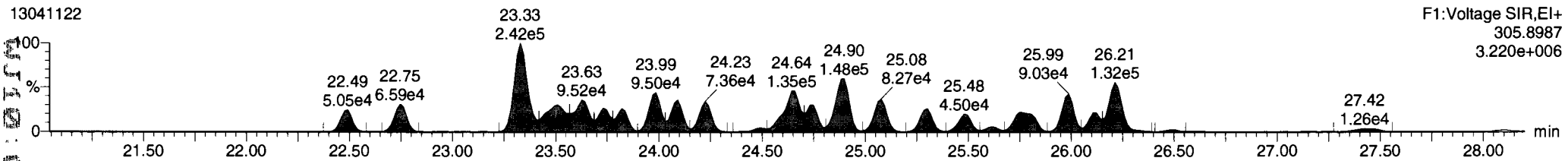
13C-2378-TCDF



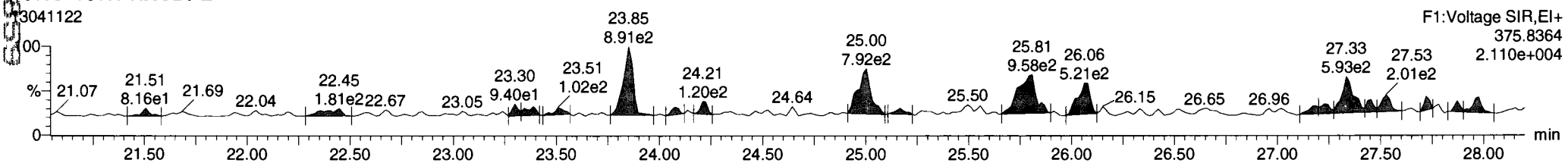
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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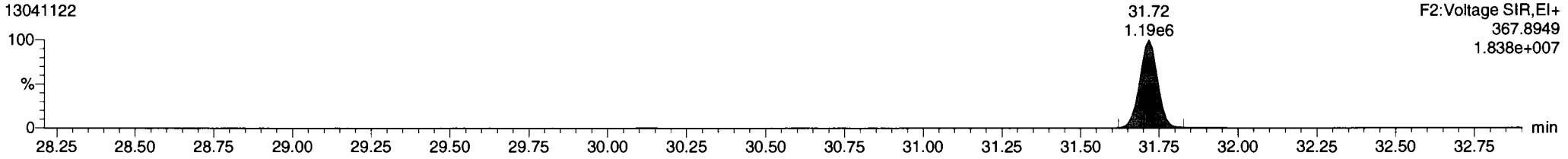
13C-12378-PeCDD



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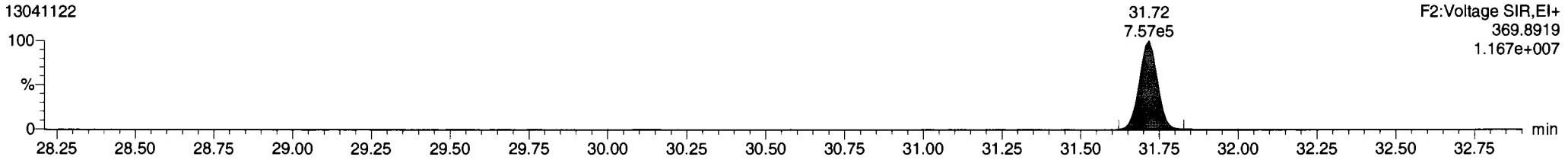
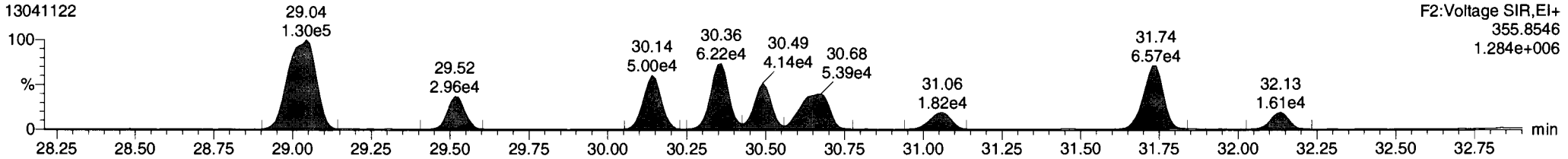
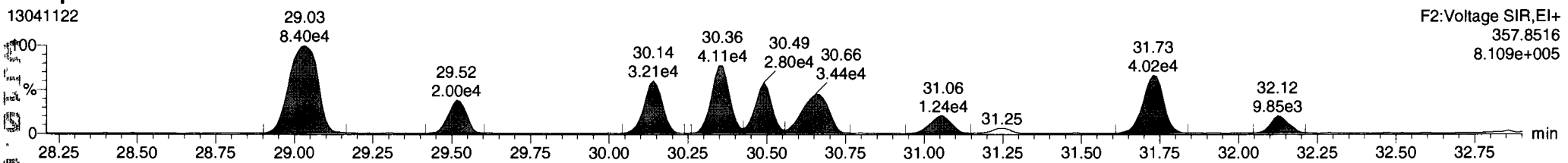


Total-pentadioxins



Total-pentadioxins



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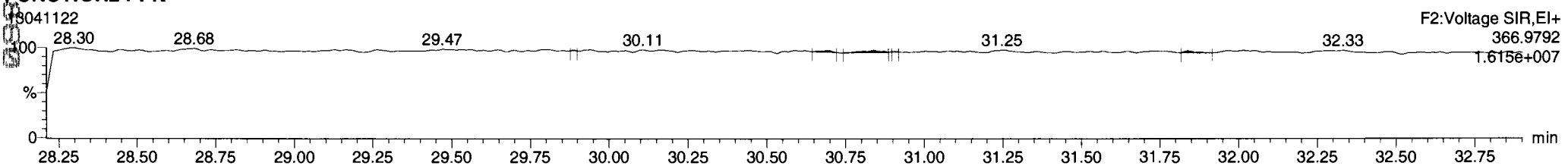

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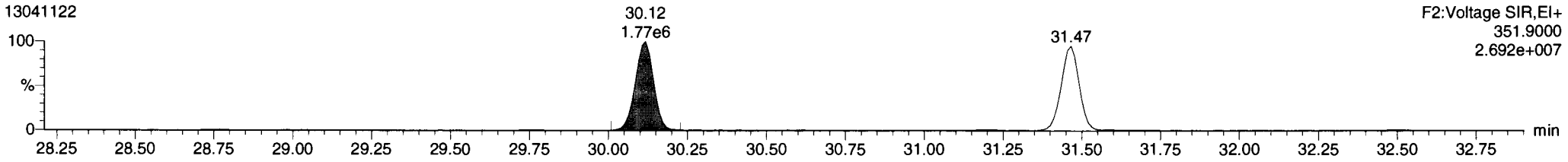
ID: WJ10C, Name: 13041122, Date: 12-Apr-2013, Time: 04:27:06, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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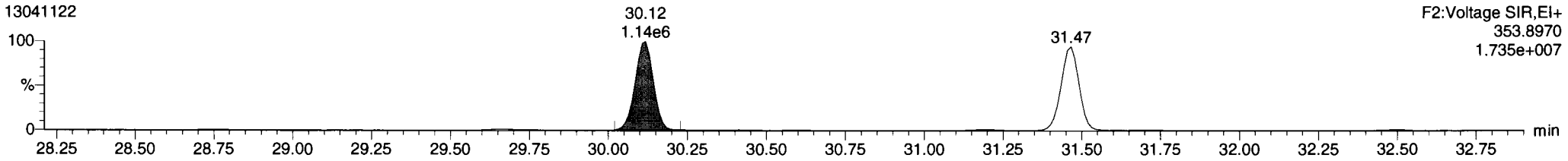

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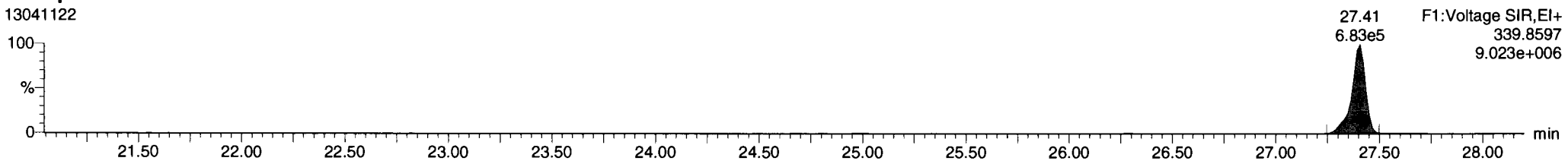

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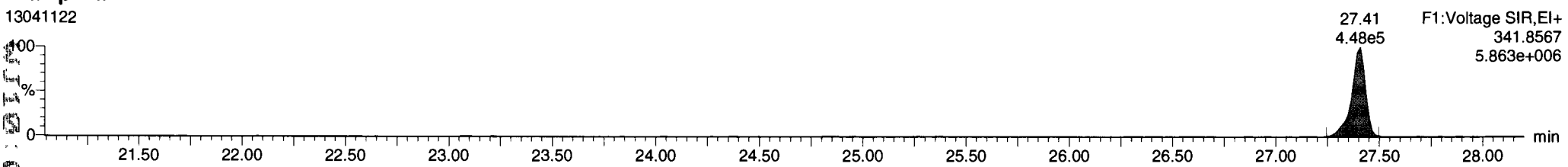
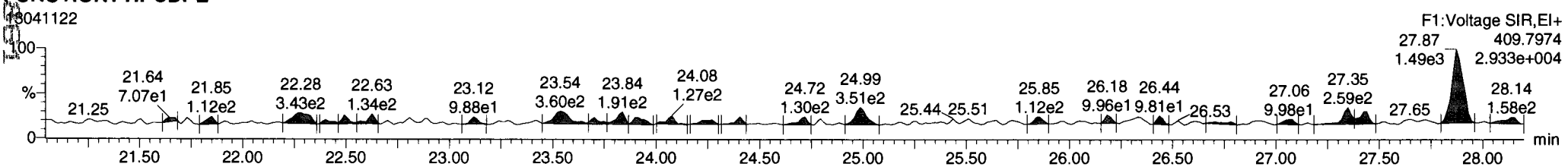


FUNCTION1 HPCDPE



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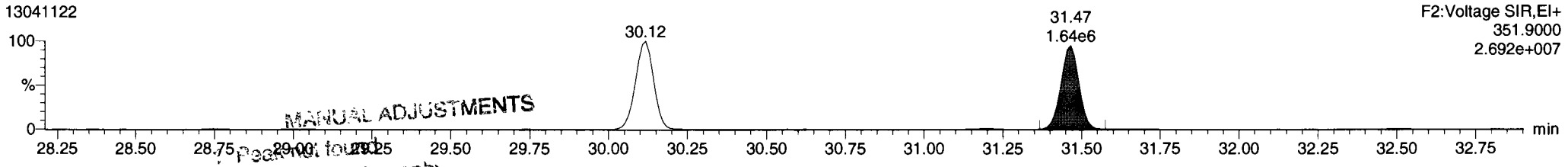
13C-23478-PeCDF



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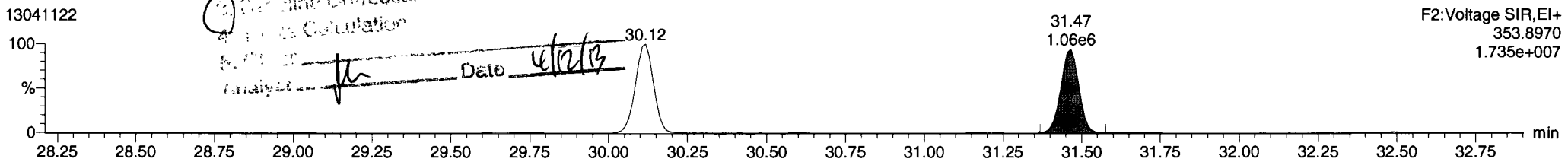
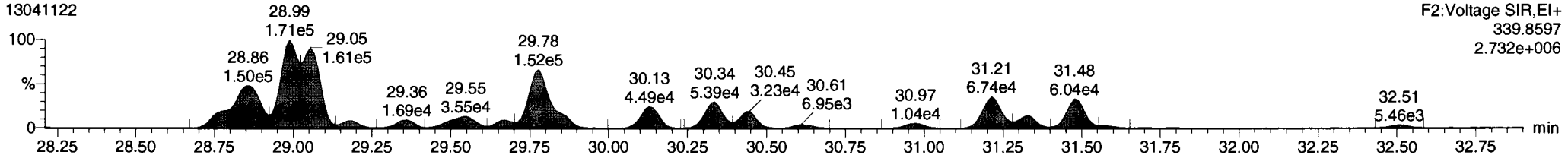
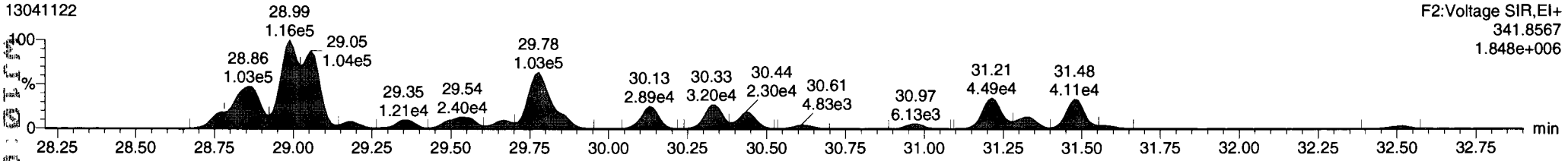


Total-pentafurans



Total-pentafurans



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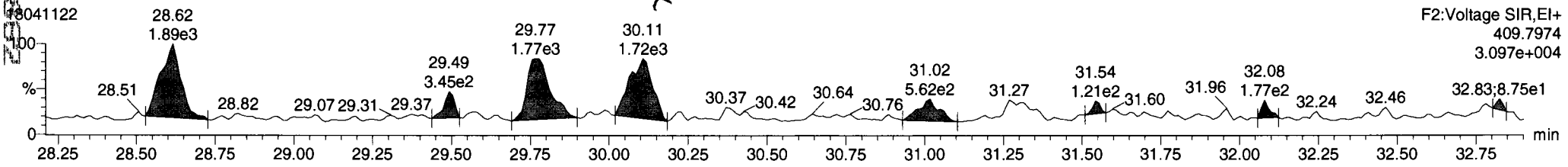

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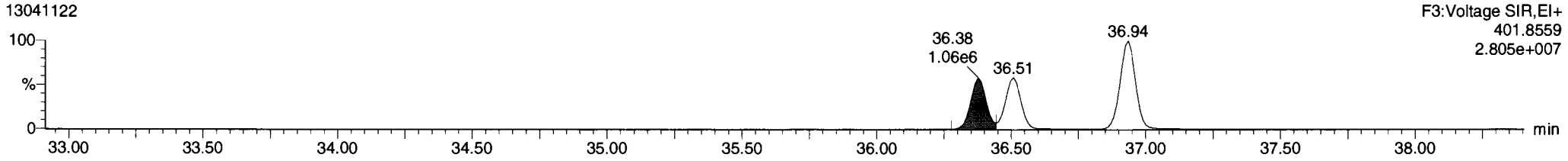
13C-123478-HxCDD



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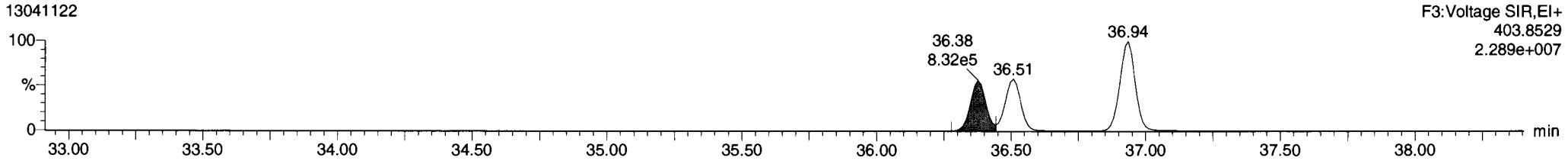
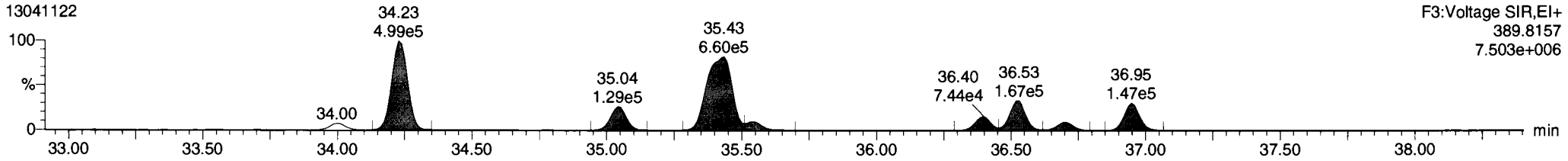
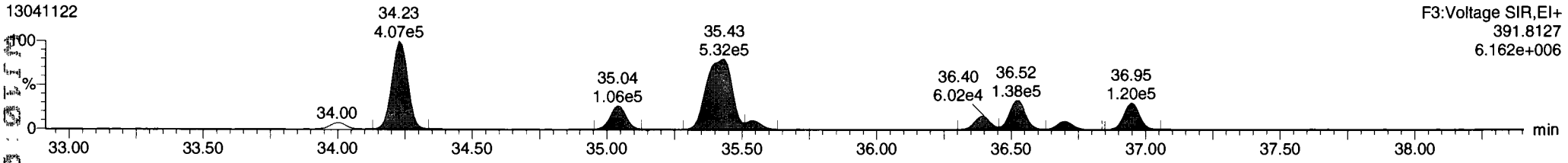


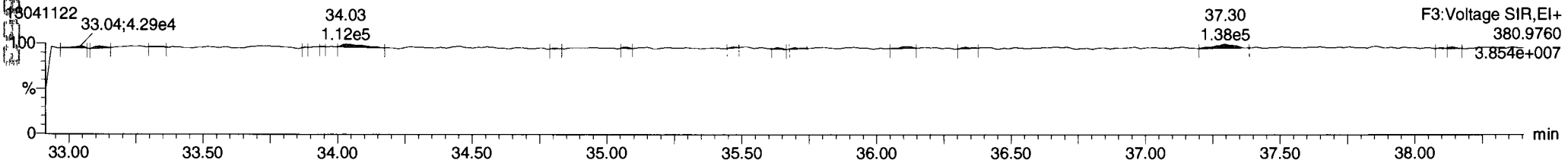
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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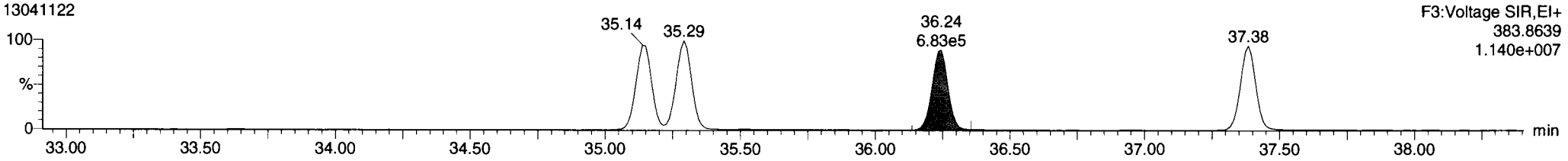
13C-234678-HxCDF



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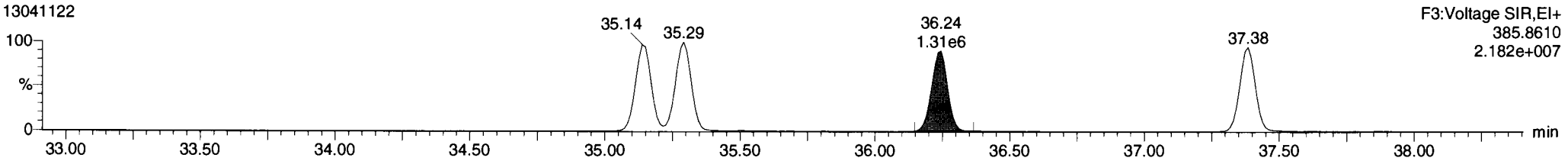
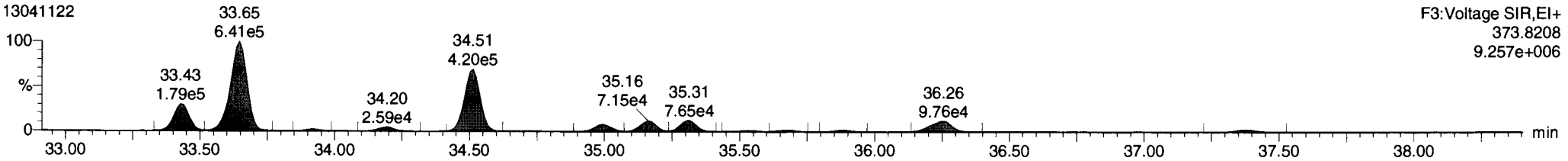
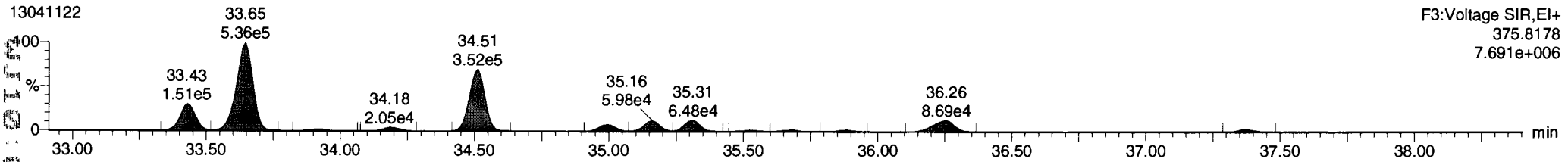


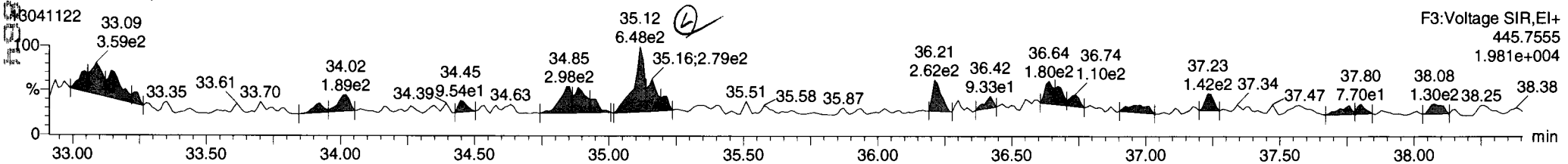
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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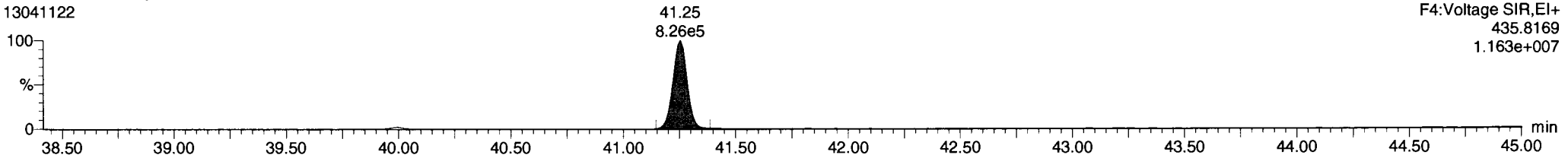
13C-1234678-HpCDD



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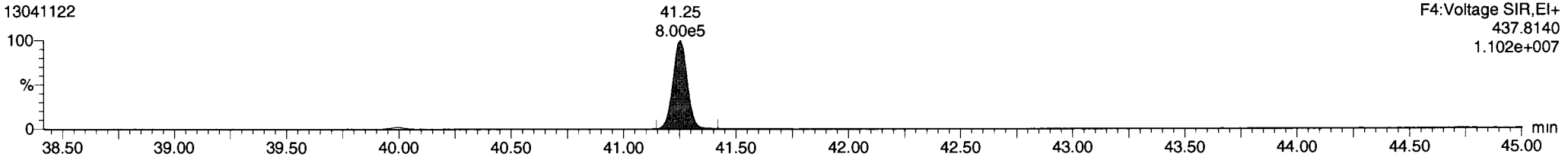
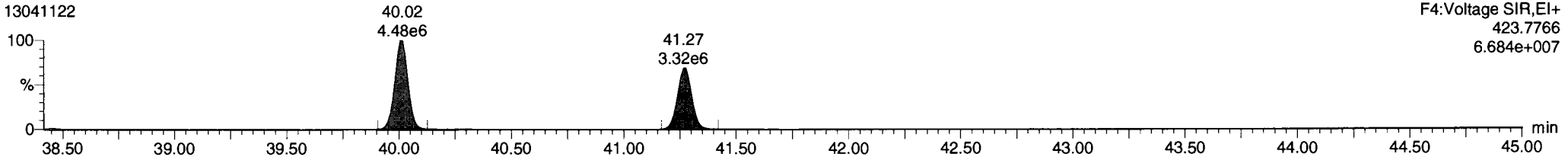
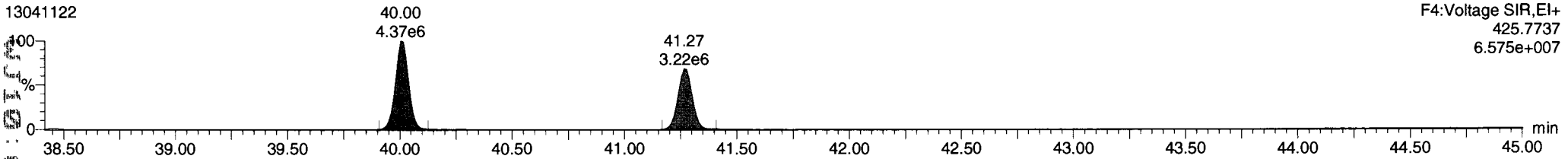


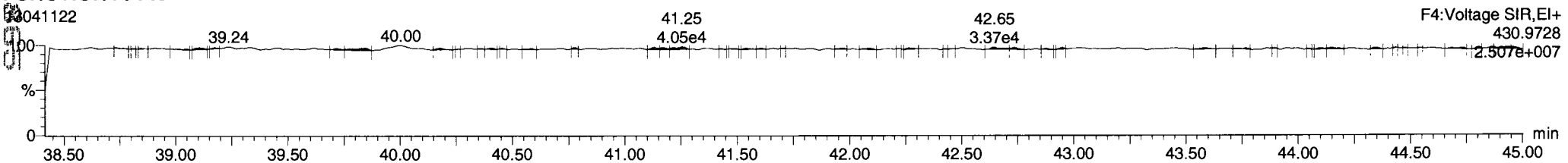
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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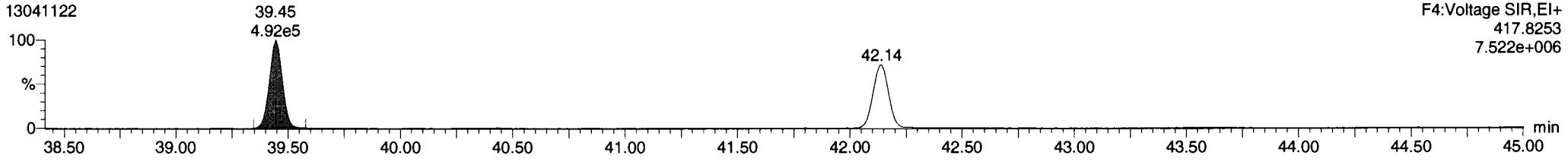

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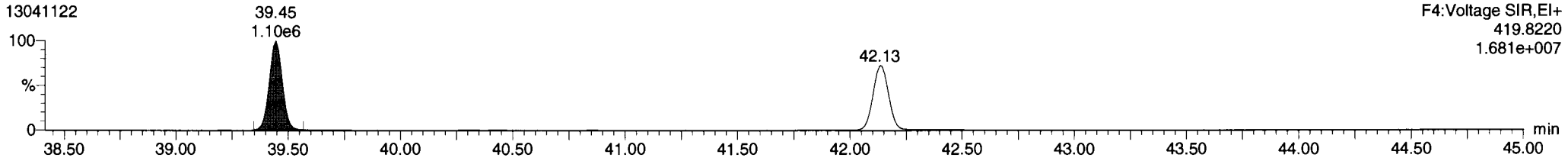
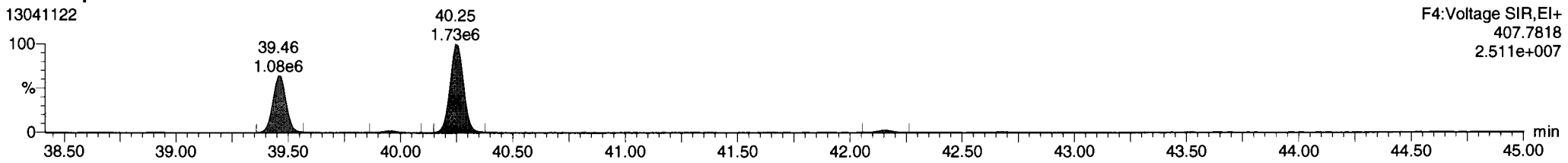
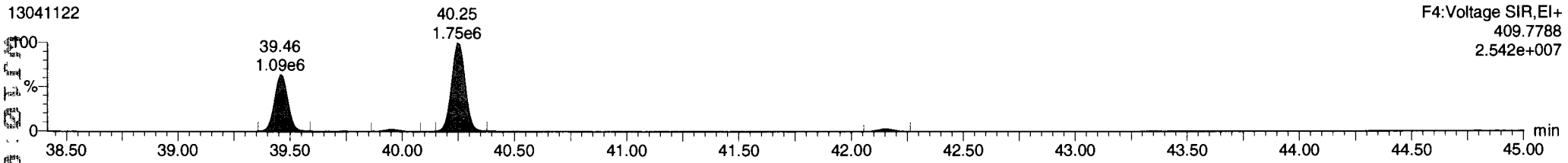


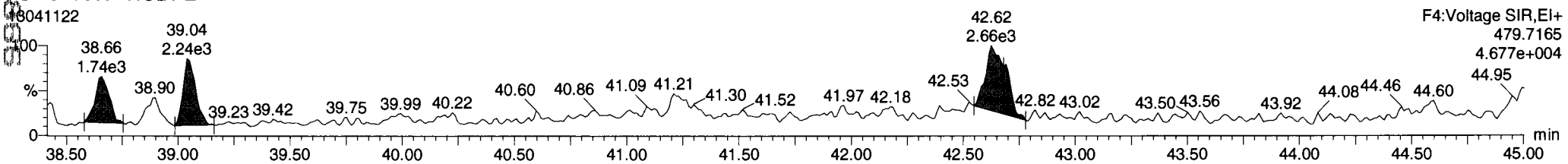
Total-heptafurans



Total-heptafurans



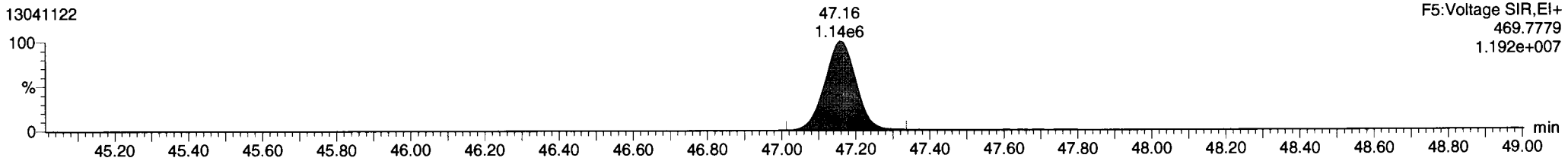
FUNCTION4 NCDPE



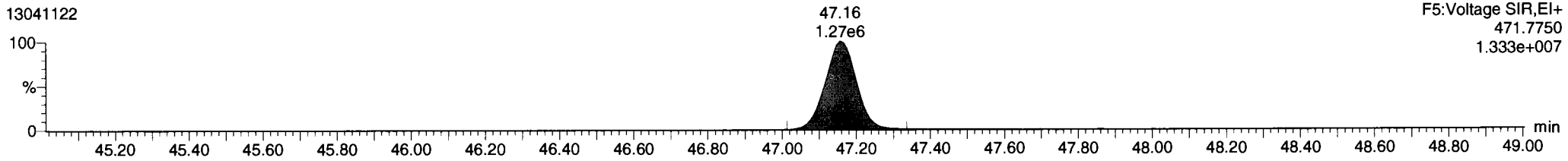
Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
Printed: Friday, April 12, 2013 13:03:54 Pacific Daylight Time

ID: WJ10C, Name: 13041122, Date: 12-Apr-2013, Time: 04:27:06, Conditions: AUTOSPEC01, User: pk

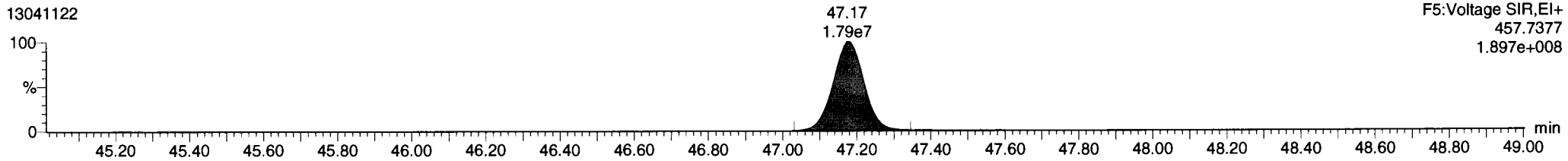
13C-OCDD



13C-OCDD



OCDD



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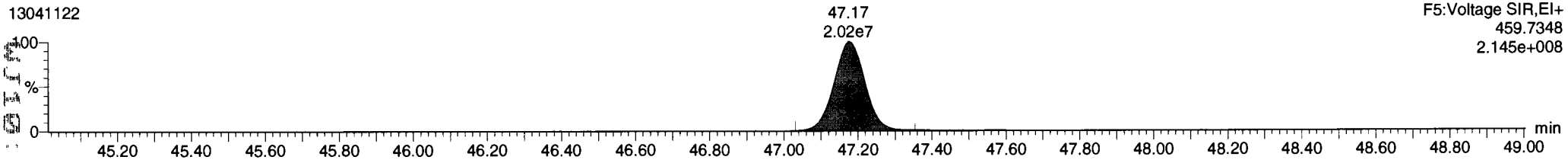
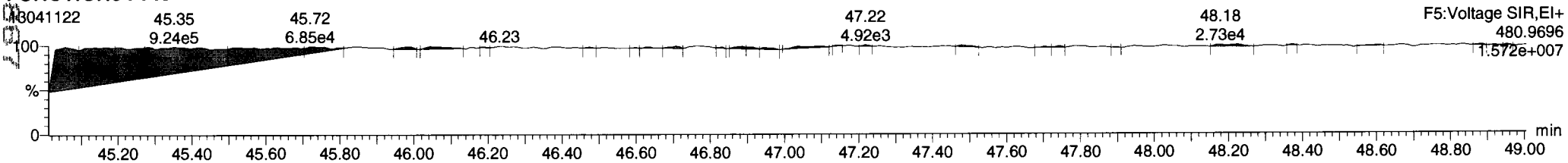


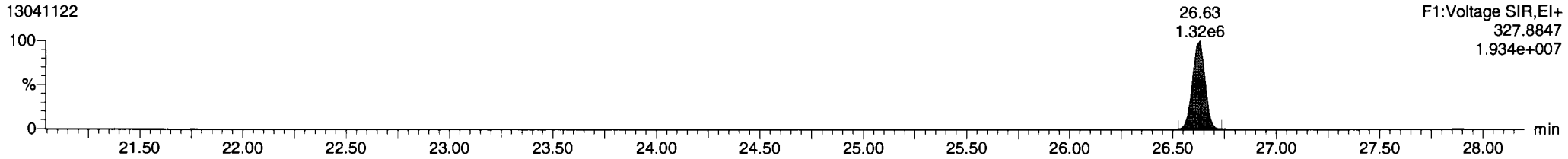
FUNCTION5 PFK



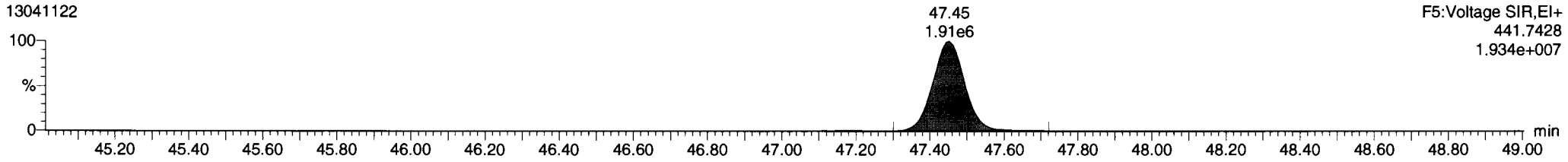
Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
Printed: Friday, April 12, 2013 13:03:54 Pacific Daylight Time

ID: WJ10C, Name: 13041122, Date: 12-Apr-2013, Time: 04:27:06, Conditions: AUTOSPEC01, User: pk

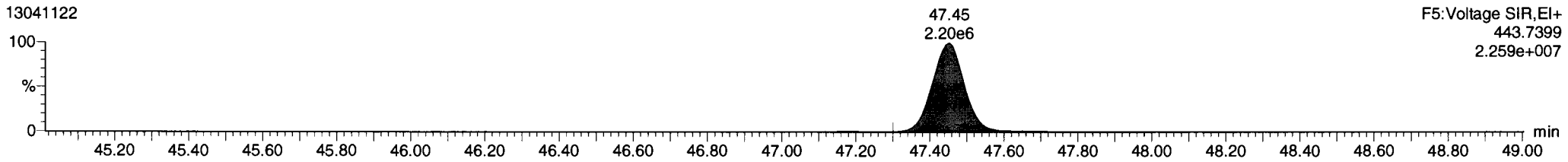
37CL-2378-TCDD



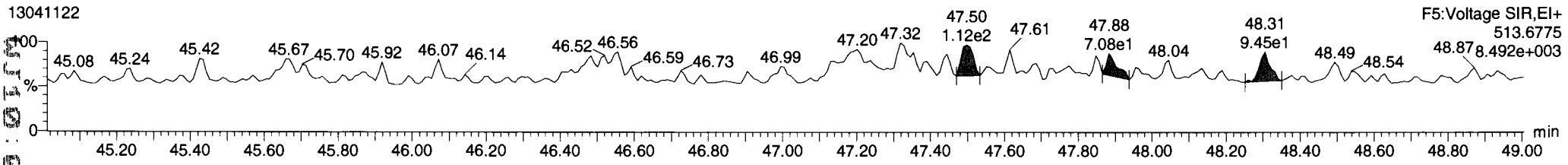
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
Printed: Friday, April 12, 2013 13:04:20 Pacific Daylight Time

MK 4/12/13

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 12 Apr 2013 10:22:22
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

	Name	RT	RRT	Ion1Area	Ion2Area	RRR	Ratio	Ratio1	S/N	Noise1	Noise2	Height1	Height2	Selected	Conc	%R
1	2378-TCDF	26.018	1.001	3.85e4	5.36e4	0.763	0.718	0.770	158.6	3383	3905	5.37e5	7.41e5	NO	2.121	2.121
2	12378-PeCDF	30.184	1.001	2.35e4	1.56e4	0.836	1.513	1.550	101.0	3393	4869	3.43e5	2.32e5	NO	1.035	1.035
3	23478-PeCDF	31.543	1.001	3.59e4	2.34e4	0.851	1.532	1.550	145.3	3393	4869	4.93e5	3.35e5	NO	1.558	1.558
4	123478-HxCDF	35.259	1.001	4.86e4	4.09e4	1.017	1.189	1.240	105.6	6296	5887	6.65e5	5.85e5	NO	2.552	2.552
5	234678-HxCDF	36.388	1.000	5.44e4	4.61e4	1.027	1.181	1.240	71.6	6296	5887	4.51e5	3.92e5	NO	3.110	3.110
6	123678-HxCDF	35.401	1.000	4.49e4	3.74e4	1.013	1.199	1.240	99.8	6296	5887	6.28e5	5.31e5	NO	2.374	2.374
7	123789-HxCDF	37.462	1.000	6.43e3	5.35e3	0.929	1.201	1.240	19.2	6296	5887	1.21e5	1.09e5	NO	0.627	0.627
8	1234678-HpCDF	39.545	1.000	5.89e5	5.97e5	1.151	0.988	1.050	1142.9	7632	5424	8.72e6	8.87e6	NO	43.493	43.493
9	1234789-HpCDF	42.241	1.001	2.66e4	2.85e4	1.149	0.933	1.050	42.5	7632	5424	3.24e5	3.21e5	NO	2.372	2.372
10	OCDF	47.551	1.006	8.15e5	9.56e5	0.963	0.852	0.890	1991.8	4106	3532	8.18e6	9.61e6	NO	128.328	128.328
11	2378-TCDD	26.661	1.001	7.09e3	1.16e4	0.980	0.613	0.770	50.4	2044	1571	1.03e5	1.59e5	YES	0.398	0.455 B
12	12378-PeCDD	31.795	1.000	4.39e4	2.98e4	0.948	1.474	1.550	217.6	2523	2248	5.49e5	3.74e5	NO	2.417	2.417
13	123478-HxCDD	36.530	1.000	5.42e4	4.20e4	0.941	1.290	1.240	125.4	6144	4330	7.71e5	6.35e5	NO	3.272	3.272
14	123678-HxCDD	36.662	1.000	1.15e5	9.57e4	0.884	1.205	1.240	270.8	6144	4330	1.66e6	1.40e6	NO	7.538	7.538
15	123789-HxCDD	37.100	1.012	9.10e4	7.56e4	0.870	1.203	1.240	225.7	6144	4330	1.39e6	1.12e6	NO	6.091	6.091
16	1234678-HpCDD	41.364	1.000	2.18e6	2.13e6	0.948	1.025	1.050	3681.8	7558	7533	2.78e7	2.72e7	NO	193.061	193.061
17	OCDD	47.282	1.000	1.00e7	1.14e7	0.969	0.885	0.890	16039.1	6505	7426	1.04e8	1.18e8	NO	1540.003	1540.003
18	13C-2378-TCDF	26.003	1.007	2.47e6	3.23e6	1.318	0.765	0.770	7544.8	4601	3711	3.47e7	4.48e7	NO		84.230
19	13C-12378-PeCDF	30.162	1.168	2.75e6	1.77e6	1.026	1.559	1.550	8564.3	4637	3539	3.97e7	2.55e7	NO		85.838
20	13C-23478-PeCDF	31.521	1.221	2.72e6	1.75e6	0.966	1.552	1.550	8603.2	4637	3539	3.99e7	2.58e7	NO		90.273
21	13C-123478-HxCDF	35.237	0.950	1.16e6	2.29e6	1.123	0.507	0.510	4414.8	3745	5220	1.65e7	3.26e7	NO		77.951
22	13C-123678-HxCDF	35.390	0.954	1.17e6	2.25e6	1.216	0.519	0.510	4538.1	3745	5220	1.70e7	3.28e7	NO		71.503
23	13C-234678-HxCDF	36.377	0.981	1.08e6	2.07e6	1.106	0.521	0.510	3939.5	3745	5220	1.48e7	2.81e7	NO		72.222
24	13C-123789-HxCDF	37.462	1.010	6.90e5	1.33e6	0.995	0.518	0.510	4348.8	3745	5220	1.63e7	3.19e7	NO		51.606
25	13C-1234678-HpCDF	39.534	1.066	7.31e5	1.64e6	0.896	0.446	0.440	3622.9	2925	4371	1.06e7	2.37e7	NO		67.174
26	13C-1234789-HpCDF	42.219	1.139	6.30e5	1.39e6	0.693	0.451	0.440	2518.5	2925	4371	7.37e6	1.64e7	NO		74.154
27	13C-1234-TCDD	25.824	0.000	2.25e6	2.88e6	1.000	0.779	0.770	8943.8	3677	3641	3.29e7	4.21e7	NO		100.000
28	13C-2378-TCDD	26.646	1.032	1.83e6	2.35e6	0.961	0.777	0.770	6901.2	3677	3641	2.54e7	3.22e7	NO		84.826
29	13C-12378-PeCDD	31.784	1.231	1.96e6	1.25e6	0.703	1.566	1.550	9349.3	2992	2663	2.80e7	1.80e7	NO		89.159
30	13C-123478-HxCDD	36.519	0.985	1.73e6	1.39e6	1.016	1.248	1.240	4766.8	5238	3698	2.50e7	2.00e7	NO		78.089
31	13C-123678-HxCDD	36.651	0.988	1.75e6	1.41e6	1.098	1.245	1.240	4856.0	5238	3698	2.54e7	2.03e7	NO		73.191
32	13C-1234678-HpCDD	41.353	1.115	1.20e6	1.16e6	0.828	1.031	1.050	3474.2	4444	3310	1.54e7	1.47e7	NO		72.188
33	13C-OCDD	47.264	1.275	1.35e6	1.51e6	0.770	0.893	0.890	3920.2	3551	4218	1.39e7	1.56e7	NO		94.574

Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
Printed: Friday, April 12, 2013 13:04:20 Pacific Daylight Time

ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

	Name	RT	Rel RT	Ion1Area	Ion2Area	Ratio	Ratio 2	Peak Pk	S/N	Ion1 A	Ion2 A	Response	Response	Exp Rel	Error	cc
34	13C-123789-HxCDD	37.078	0.000	2.18e6	1.75e6	1.000	1.244	1.240	6160.2	5238	3698	3.23e7	2.61e7	NO		100.000
35	Total-tetrafurans			6.10e5		0.763				3383		8.19e6				33.252
36	Total-penta1			4.41e5						2437		5.32e6				17.633
37	Total-pentafurans			4.94e5		0.844				3393		6.49e6				21.744
38	Total-hexafurans			1.03e6		0.997				6296		1.42e7				62.558
39	Total-heptafurans			1.56e6		1.150				7632		2.27e7				121.456
40	Total-Furans			4.96e6		0.970				3383		6.52e7				385.110
41	Total-tetradioxins			1.16e5		0.980				2044		1.58e6				6.620
42	Total-pentadioxins			2.85e5		0.948				2523		3.69e6				15.468
43	Total-hexadioxins			1.39e6		0.898				6144		1.80e7				88.925
44	Total-heptadioxins			7.19e6		0.948				7558		1.04e8				635.527
45	Total-Dioxins			1.90e7		0.934				2044		2.32e8				2286.542
46	Total-TEQ			2.40e7						2044		2.97e8				2671.652
47	37CL-2378-TCDD	26.661	1.032	2.08e6		0.999			12143.3	2378		2.89e7				40.680
48	FUNCTION1 PFK			8.31e6						759066		3.50e7				
49	FUNCTION2 PFK			1.35e7						210691		5.32e7				0.000
50	FUNCTION3 PFK			3.61e7						341837		1.57e8				0.000
51	FUNCTION4 PFK			3.24e6						286410		1.34e7				
52	FUNCTION5 PFK			9.26e5						219726		8.36e5				
53	FUNCTION1 HXCDPE			6.25e3						1693		9.89e4				0.000
54	FUNCTION1 HPCDPE			5.55e3						2066		1.02e5				0.000
55	FUNCTION2 HPCDPE			5.50e3						1938		8.55e4				0.000
56	FUNCTION3 OCDPE			1.18e3						1275		2.88e4				0.000
57	FUNCTION4 NCDPE			6.69e3						2830		9.69e4				0.000
58	FUNCTION5 DCDPE			6.28e2						1505		2.24e4				0.000

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
Printed: Friday, April 12, 2013 13:04:20 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130410.mdb 12 Apr 2013 10:22:22
Calibration: P:\DIOXIN8290.pro\CurveDB\130312ICAL.cdb 13 Mar 2013 10:38:15

ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

TF

	#	Name	Mass	RT	Area	RRF M	Conc	EMPC	T Ratio	I Ratio	ICPL	S/N
	35	Total-tetrafurans	303.9016	24.69	101419.363	0.763	2.335		0.77	0.77	NO	139.8
	35	Total-tetrafurans	303.9016	24.51	4416.558	0.763	0.102		1.21	0.77	YES	11.5
	35	Total-tetrafurans	303.9016	24.26	59453.366	0.763	1.369		0.71	0.77	NO	108.3
	35	Total-tetrafurans	303.9016	24.11	66671.756	0.763	1.535		0.70	0.77	NO	120.8
	35	Total-tetrafurans	303.9016	24.00	72067.645	0.763	1.659		0.72	0.77	NO	130.6
	35	Total-tetrafurans	303.9016	23.85	34832.254	0.763	0.802		0.72	0.77	NO	61.7
	35	Total-tetrafurans	303.9016	23.76	48836.332	0.763	1.124		0.65	0.77	YES	89.3
	35	Total-tetrafurans	303.9016	23.66	74836.049	0.763	1.723		0.66	0.77	NO	98.9
	35	Total-tetrafurans	303.9016	23.55	85476.386	0.763	1.968		0.75	0.77	NO	88.6
	35	Total-tetrafurans	303.9016	23.36	145384.430	0.763	3.347		0.77	0.77	NO	232.5
	35	Total-tetrafurans	303.9016	22.78	48264.541	0.763	1.111		0.72	0.77	NO	90.0
	35	Total-tetrafurans	303.9016	22.51	33183.347	0.763	0.764		0.74	0.77	NO	63.3
	35	Total-tetrafurans	303.9016	27.50	8234.397	0.763	0.190		0.74	0.77	NO	12.3
	35	Total-tetrafurans	303.9016	27.42	2251.484	0.763	0.052		0.82	0.77	NO	6.8
	35	Total-tetrafurans	303.9016	26.63	1412.840	0.763	0.033		0.95	0.77	YES	3.8
	35	Total-tetrafurans	303.9016	26.51	3484.609	0.763	0.080		0.81	0.77	NO	7.0
	35	Total-tetrafurans	303.9016	26.26	122273.957	0.763	2.815		0.71	0.77	NO	222.1
	35	Total-tetrafurans	303.9016	26.15	51813.779	0.763	1.193		0.72	0.77	NO	89.3
	1	2378-TCDF	303.9016	26.02	92151.113	0.763	2.121	2.121	0.72	0.77	NO	158.6
	35	Total-tetrafurans	303.9016	25.84	30741.017	0.763	0.708		0.57	0.77	YES	68.7
	35	Total-tetrafurans	303.9016	25.79	35918.073	0.763	0.827		0.91	0.77	YES	69.0
	35	Total-tetrafurans	303.9016	25.66	9671.375	0.763	0.223		0.72	0.77	NO	15.9
	35	Total-tetrafurans	303.9016	25.53	36104.113	0.763	0.831		0.77	0.77	NO	62.8
	35	Total-tetrafurans	303.9016	25.33	43487.540	0.763	1.001		0.72	0.77	NO	77.2
	35	Total-tetrafurans	303.9016	25.11	71258.332	0.763	1.640		0.74	0.77	NO	125.0
	35	Total-tetrafurans	303.9016	24 93	108311.672	0.763	2.493		0.73	0.77	NO	168.3
	35	Total-tetrafurans	303.9016	24.78	52461.908	0.763	1.208		0.75	0.77	NO	99.4

PP

	#	Name	Mass	RT	Area	RRF M	Conc	EMPC	T Ratio	I Ratio	ICPL	S/N
	36	Total-penta1	339.8597	27.47	726808.375		17.633		1.54	1.55	NO	2182.1

ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

PF

	37	Total-pentafurans	339.8597	31.03	7055.783	0.844	0.186		1.95	1.55	YES	19.7
	37	Total-pentafurans	339.8597	30.68	4616.477	0.844	0.122		1.52	1.55	NO	12.0
	37	Total-pentafurans	339.8597	30.49	24000.079	0.844	0.633		1.38	1.55	NO	61.8
	37	Total-pentafurans	339.8597	30.38	49556.008	0.844	1.307		1.45	1.55	NO	127.3
	2	12378-PeCDF	339.8597	30.18	39088.204	0.836	1.035	1.035	1.51	1.55	NO	101.0
	37	Total-pentafurans	339.8597	29.83	111249.597	0.844	2.934		1.52	1.55	NO	228.9
	37	Total-pentafurans	339.8597	29.72	8033.601	0.844	0.212		1.53	1.55	NO	31.9
	37	Total-pentafurans	339.8597	29.67	11243.066	0.844	0.296		2.01	1.55	YES	32.4
	37	Total-pentafurans	339.8597	29.50	10720.385	0.844	0.283		1.35	1.55	NO	35.5
	37	Total-pentafurans	339.8597	29.33	5893.481	0.844	0.155		1.19	1.55	YES	17.5
	37	Total-pentafurans	339.8597	29.20	142929.625	0.844	3.769		1.44	1.55	NO	357.3
	37	Total-pentafurans	339.8597	29.12	138280.184	0.844	3.647		1.55	1.55	NO	338.9
	37	Total-pentafurans	339.8597	28.98	126335.375	0.844	3.332		1.41	1.55	NO	179.0
	37	Total-pentafurans	339.8597	32.58	4442.840	0.844	0.117		1.09	1.55	YES	8.7
	3	23478-PeCDF	339.8597	31.54	59306.430	0.851	1.558	1.558	1.53	1.55	NO	145.3
	37	Total-pentafurans	339.8597	31.38	32702.211	0.844	0.862		1.66	1.55	NO	87.7
	37	Total-pentafurans	339.8597	31.27	49173.599	0.844	1.297		1.50	1.55	NO	127.7

HF

	38	Total-hexafurans	373.8208	34.05	8385.938	0.997	0.280		1.11	1.24	NO	8.7
	38	Total-hexafurans	373.8208	33.76	766501.751	0.997	25.567		1.21	1.24	NO	892.0
	38	Total-hexafurans	373.8208	33.54	218557.149	0.997	7.290		1.20	1.24	NO	265.5
	7	123789-HxCDF	373.8208	37.46	11778.432	0.929	0.627	0.627	1.20	1.24	NO	19.2
	5	234678-HxCDF	373.8208	36.39	100430.445	1.027	3.110	3.110	1.18	1.24	NO	71.6
	38	Total-hexafurans	373.8208	35.98	7108.451	0.997	0.237		1.07	1.24	NO	9.7
	38	Total-hexafurans	373.8208	35.76	9292.957	0.997	0.310		1.33	1.24	NO	11.3
	38	Total-hexafurans	373.8208	35.62	8873.985	0.997	0.296		1.28	1.24	NO	10.3
	6	123678-HxCDF	373.8208	35.40	82302.878	1.013	2.374	2.374	1.20	1.24	NO	99.8
	4	123478-HxCDF	373.8208	35.26	89424.375	1.017	2.552	2.552	1.19	1.24	NO	105.6
	38	Total-hexafurans	373.8208	35.08	43404.067	0.997	1.448		1.13	1.24	NO	58.1
	38	Total-hexafurans	373.8208	34.59	528122.109	0.997	17.616		1.17	1.24	NO	676.1
	38	Total-hexafurans	373.8208	34.27	25522.197	0.997	0.851		1.19	1.24	NO	29.9

HPF

	9	1234789-HpCDF	407.7818	42.24	55158.518	1.149	2.372	2.372	0.93	1.05	NO	42.5
	39	Total-heptafurans	407.7818	40.33	1871504.626	1.150	74.085		0.99	1.05	NO	1762.6
	39	Total-heptafurans	407.7818	40.04	38079.639	1.150	1.507		1.06	1.05	NO	31.9
	8	1234678-HpCDF	407.7818	39.54	1185997.751	1.151	43.493	43.493	0.99	1.05	NO	1142.9

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Furans,TF,PP,PF,HF,HPF,OF

	#	Name		RT	Abs Area	RRF M		EMPC	% Ratio	% Ratio		S/N
	35	Total-tetrafurans	303.9016	24.69	101419.363	0.763	2.335		0.77	0.77	NO	139.8
	35	Total-tetrafurans	303.9016	24.51	4416.558	0.763	0.102		1.21	0.77	YES	11.5
	35	Total-tetrafurans	303.9016	24.26	59453.366	0.763	1.369		0.71	0.77	NO	108.3
	35	Total-tetrafurans	303.9016	24.11	66671.756	0.763	1.535		0.70	0.77	NO	120.8
	35	Total-tetrafurans	303.9016	24.00	72067.645	0.763	1.659		0.72	0.77	NO	130.6
	35	Total-tetrafurans	303.9016	23.85	34832.254	0.763	0.802		0.72	0.77	NO	61.7
	35	Total-tetrafurans	303.9016	23.76	48836.332	0.763	1.124		0.65	0.77	YES	89.3
	35	Total-tetrafurans	303.9016	23.66	74836.049	0.763	1.723		0.66	0.77	NO	98.9
	35	Total-tetrafurans	303.9016	23.55	85476.386	0.763	1.968		0.75	0.77	NO	88.6
	35	Total-tetrafurans	303.9016	23.36	145384.430	0.763	3.347		0.77	0.77	NO	232.5
	35	Total-tetrafurans	303.9016	22.78	48264.541	0.763	1.111		0.72	0.77	NO	90.0
	35	Total-tetrafurans	303.9016	22.51	33183.347	0.763	0.764		0.74	0.77	NO	63.3
	35	Total-tetrafurans	303.9016	27.50	8234.397	0.763	0.190		0.74	0.77	NO	12.3
	35	Total-tetrafurans	303.9016	27.42	2251.484	0.763	0.052		0.82	0.77	NO	6.8
	35	Total-tetrafurans	303.9016	26.63	1412.840	0.763	0.033		0.95	0.77	YES	3.8
	35	Total-tetrafurans	303.9016	26.51	3484.609	0.763	0.080		0.81	0.77	NO	7.0
	35	Total-tetrafurans	303.9016	26.26	122273.957	0.763	2.815		0.71	0.77	NO	222.1
	35	Total-tetrafurans	303.9016	26.15	51813.779	0.763	1.193		0.72	0.77	NO	89.3
	1	2378-TCDF	303.9016	26.02	92151.113	0.763	2.121	2.121	0.72	0.77	NO	158.6
	35	Total-tetrafurans	303.9016	25.84	30741.017	0.763	0.708		0.57	0.77	YES	68.7
	35	Total-tetrafurans	303.9016	25.79	35918.073	0.763	0.827		0.91	0.77	YES	69.0
	35	Total-tetrafurans	303.9016	25.66	9671.375	0.763	0.223		0.72	0.77	NO	15.9
	35	Total-tetrafurans	303.9016	25.53	36104.113	0.763	0.831		0.77	0.77	NO	62.8
	35	Total-tetrafurans	303.9016	25.33	43487.540	0.763	1.001		0.72	0.77	NO	77.2
	35	Total-tetrafurans	303.9016	25.11	71258.332	0.763	1.640		0.74	0.77	NO	125.0
	35	Total-tetrafurans	303.9016	24.93	108311.672	0.763	2.493		0.73	0.77	NO	168.3
	35	Total-tetrafurans	303.9016	24.78	52461.908	0.763	1.208		0.75	0.77	NO	99.4
	40	Total-Furans	303.9016	28.14	7698.536	0.970	0.139		0.62	0.77	YES	16.3
	37	Total-pentafurans	339.8597	31.03	7055.783	0.844	0.186		1.95	1.55	YES	19.7
	37	Total-pentafurans	339.8597	30.68	4616.477	0.844	0.122		1.52	1.55	NO	12.0
	37	Total-pentafurans	339.8597	30.49	24000.079	0.844	0.633		1.38	1.55	NO	61.8
	37	Total-pentafurans	339.8597	30.38	49556.008	0.844	1.307		1.45	1.55	NO	127.3
	2	12378-PeCDF	339.8597	30.18	39088.204	0.836	1.035	1.035	1.51	1.55	NO	101.0
	37	Total-pentafurans	339.8597	29.83	111249.597	0.844	2.934		1.52	1.55	NO	228.9
	37	Total-pentafurans	339.8597	29.72	8033.601	0.844	0.212		1.53	1.55	NO	31.9
	37	Total-pentafurans	339.8597	29.67	11243.066	0.844	0.296		2.01	1.55	YES	32.4
	37	Total-pentafurans	339.8597	29.50	10720.385	0.844	0.283		1.35	1.55	NO	35.5
	37	Total-pentafurans	339.8597	29.33	5893.481	0.844	0.155		1.19	1.55	YES	17.5
	37	Total-pentafurans	339.8597	29.20	142929.625	0.844	3.769		1.44	1.55	NO	357.3
	37	Total-pentafurans	339.8597	29.12	138280.184	0.844	3.647		1.55	1.55	NO	338.9
	37	Total-pentafurans	339.8597	28.98	126335.375	0.844	3.332		1.41	1.55	NO	179.0
	37	Total-pentafurans	339.8597	32.58	4442.840	0.844	0.117		1.09	1.55	YES	8.7
	3	23478-PeCDF	339.8597	31.54	59306.430	0.851	1.558	1.558	1.53	1.55	NO	145.3
	37	Total-pentafurans	339.8597	31.38	32702.211	0.844	0.862		1.66	1.55	NO	87.7
	37	Total-pentafurans	339.8597	31.27	49173.599	0.844	1.297		1.50	1.55	NO	127.7
	38	Total-hexafurans	373.8208	34.05	8385.938	0.997	0.280		1.11	1.24	NO	8.7
	38	Total-hexafurans	373.8208	33.76	766501.751	0.997	25.567		1.21	1.24	NO	892.0
	38	Total-hexafurans	373.8208	33.54	218557.149	0.997	7.290		1.20	1.24	NO	265.5
	7	123789-HxCDF	373.8208	37.46	11778.432	0.929	0.627	0.627	1.20	1.24	NO	19.2

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Furans,TF,PP,PF,HF,HPF,OF

	#	Name	Theor.	RT	Abs Resp	RRF M-1	Conc pg	EMPC	R Ratio	C Ratio	T B...	S/N
	5	234678-HxCDF	373.8208	36.39	100430.445	1.027	3.110	3.110	1.18	1.24	NO	71.6
	38	Total-hexafurans	373.8208	35.98	7108.451	0.997	0.237		1.07	1.24	NO	9.7
	38	Total-hexafurans	373.8208	35.76	9292.957	0.997	0.310		1.33	1.24	NO	11.3
	38	Total-hexafurans	373.8208	35.62	8873.985	0.997	0.296		1.28	1.24	NO	10.3
	6	123678-HxCDF	373.8208	35.40	82302.878	1.013	2.374	2.374	1.20	1.24	NO	99.8
	4	123478-HxCDF	373.8208	35.26	89424.375	1.017	2.552	2.552	1.19	1.24	NO	105.6
	38	Total-hexafurans	373.8208	35.08	43404.067	0.997	1.448		1.13	1.24	NO	58.1
	38	Total-hexafurans	373.8208	34.59	528122.109	0.997	17.616		1.17	1.24	NO	676.1
	38	Total-hexafurans	373.8208	34.27	25522.197	0.997	0.851		1.19	1.24	NO	29.9
	9	1234789-HpCDF	407.7818	42.24	55158.518	1.149	2.372	2.372	0.93	1.05	NO	42.5
	39	Total-heptafurans	407.7818	40.33	1871504.626	1.150	74.085		0.99	1.05	NO	1762.6
	39	Total-heptafurans	407.7818	40.04	38079.639	1.150	1.507		1.06	1.05	NO	31.9
	8	1234678-HpCDF	407.7818	39.54	1185997.751	1.151	43.493	43.493	0.99	1.05	NO	1142.9
	10	OCDF	441.7428	47.55	1771402.376	0.963	128.328	128....	0.85	0.89	NO	1991.8
	36	Total-penta1	339.8597	27.47	726808.375		17.633		1.54	1.55	NO	2182.1

TD

	#	Name	Theor.	RT	Abs Resp	RRF M-1	Conc pg	EMPC	R Ratio	C Ratio	T B...	S/N
	41	Total-tetradioxins	319.8965	24.27	9019.955	0.980	0.220		0.82	0.77	NO	29.1
	41	Total-tetradioxins	319.8965	24.06	38256.755	0.980	0.933		0.72	0.77	NO	106.6
	41	Total-tetradioxins	319.8965	23.79	62550.011	0.980	1.526		0.76	0.77	NO	192.3
	41	Total-tetradioxins	319.8965	27.53	722.875	0.980	0.018		1.04	0.77	YES	3.9
	41	Total-tetradioxins	319.8965	27.21	11956.727	0.980	0.292		0.77	0.77	NO	26.6
	41	Total-tetradioxins	319.8965	26.78	16864.092	0.980	0.411		0.70	0.77	NO	44.8
	11	2378-TCDD	319.8965	26.66	18673.679	0.980	0.455	0.398	0.61	0.77	YES	50.4
	41	Total-tetradioxins	319.8965	26.29	19569.118	0.980	0.477		0.74	0.77	NO	43.1
	41	Total-tetradioxins	319.8965	25.99	4290.878	0.980	0.105		1.00	0.77	YES	15.6
	41	Total-tetradioxins	319.8965	25.84	11630.221	0.980	0.284		0.69	0.77	NO	33.9
	41	Total-tetradioxins	319.8965	25.63	12080.890	0.980	0.295		0.72	0.77	NO	34.3
	41	Total-tetradioxins	319.8965	25.54	4775.113	0.980	0.116		0.59	0.77	YES	14.6
	41	Total-tetradioxins	319.8965	25.27	32475.768	0.980	0.792		0.82	0.77	NO	105.3
	41	Total-tetradioxins	319.8965	24.99	23798.534	0.980	0.580		0.73	0.77	NO	57.1
	41	Total-tetradioxins	319.8965	24.78	4730.040	0.980	0.115		0.83	0.77	NO	16.3

PD

	#	Name	Theor.	RT	Abs Resp	RRF M-1	Conc pg	EMPC	R Ratio	C Ratio	T B...	S/N
	42	Total-pentadioxins	355.8546	32.21	19199.233	0.948	0.629		1.67	1.55	NO	74.4
	12	12378-PeCDD	355.8546	31.80	73749.673	0.948	2.417	2.417	1.47	1.55	NO	217.6
	42	Total-pentadioxins	355.8546	31.12	17403.312	0.948	0.570		1.54	1.55	NO	54.5
	42	Total-pentadioxins	355.8546	30.73	56907.756	0.948	1.865		1.54	1.55	NO	132.5
	42	Total-pentadioxins	355.8546	30.56	45793.549	0.948	1.501		1.51	1.55	NO	168.7
	42	Total-pentadioxins	355.8546	30.41	70802.215	0.948	2.321		1.55	1.55	NO	268.2
	42	Total-pentadioxins	355.8546	30.19	51375.369	0.948	1.684		1.42	1.55	NO	178.0
	42	Total-pentadioxins	355.8546	29.60	21057.647	0.948	0.690		1.63	1.55	NO	104.8
	42	Total-pentadioxins	355.8546	29.16	110008.789	0.948	3.606		1.55	1.55	NO	241.6
	42	Total-pentadioxins	355.8546	29.02	5628.161	0.948	0.184		1.47	1.55	NO	23.9

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HD

[redacted]	#	Name	Trace	RT	Area	RRF	%	EMPC	1° Ratio	2° Ratio	12 Pk	S/N
[redacted]	43	Total-hexadioxins	389.8157	35.14	161173.625	0.898	5.707		1.32	1.24	NO	211.4
[redacted]	43	Total-hexadioxins	389.8157	34.32	767139.782	0.898	27.162		1.23	1.24	NO	1033.3
[redacted]	43	Total-hexadioxins	389.8157	34.03	52512.696	0.898	1.859		1.19	1.24	NO	74.2
[redacted]	15	123789-HxCDD	389.8157	37.10	166579.243	0.870	6.091	6.091	1.20	1.24	NO	225.7
[redacted]	43	Total-hexadioxins	389.8157	36.85	53577.586	0.898	1.897		1.32	1.24	NO	74.9
[redacted]	14	123678-HxCDD	389.8157	36.66	210916.601	0.884	7.538	7.538	1.20	1.24	NO	270.8
[redacted]	13	123478-HxCDD	389.8157	36.53	96173.750	0.941	3.272	3.272	1.29	1.24	NO	125.4
[redacted]	43	Total-hexadioxins	389.8157	35.65	118017.125	0.898	4.179		1.19	1.24	NO	163.8
[redacted]	43	Total-hexadioxins	389.8157	35.53	881720.375	0.898	31.219		1.24	1.24	NO	743.9

HPD

[redacted]	#	Name	Trace	RT	Area	RRF	%	EMPC	1° Ratio	2° Ratio	12 Pk	S/N
[redacted]	16	1234678-HpCDD	423.7766	41.36	4308449.500	0.948	193.061	193....	1.02	1.05	NO	3681.8
[redacted]	44	Total-heptadioxins	423.7766	40.10	9874266.500	0.948	442.465		1.03	1.05	NO	10104.7

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Dioxins,TD,PD,HD,HPD,OD

	#	Name	Mass	RT	Area	RRF	Conc	EMPC	Ion Ratio	IS Ratio	Flags	S/N
	41	Total-tetradioxins	319.8965	24.27	9019.955	0.980	0.220		0.82	0.77	NO	29.1
	41	Total-tetradioxins	319.8965	24.06	38256.755	0.980	0.933		0.72	0.77	NO	106.6
	41	Total-tetradioxins	319.8965	23.79	62550.011	0.980	1.526		0.76	0.77	NO	192.3
	41	Total-tetradioxins	319.8965	27.53	722.875	0.980	0.018		1.04	0.77	YES	3.9
	41	Total-tetradioxins	319.8965	27.21	11956.727	0.980	0.292		0.77	0.77	NO	26.6
	41	Total-tetradioxins	319.8965	26.78	16864.092	0.980	0.411		0.70	0.77	NO	44.8
	11	2378-TCDD	319.8965	26.66	18673.679	0.980	0.455	0.398	0.61	0.77	YES	50.4
	41	Total-tetradioxins	319.8965	26.29	19569.118	0.980	0.477		0.74	0.77	NO	43.1
	41	Total-tetradioxins	319.8965	25.99	4290.878	0.980	0.105		1.00	0.77	YES	15.6
	41	Total-tetradioxins	319.8965	25.84	11630.221	0.980	0.284		0.69	0.77	NO	33.9
	41	Total-tetradioxins	319.8965	25.63	12080.890	0.980	0.295		0.72	0.77	NO	34.3
	41	Total-tetradioxins	319.8965	25.54	4775.113	0.980	0.116		0.59	0.77	YES	14.6
	41	Total-tetradioxins	319.8965	25.27	32475.768	0.980	0.792		0.82	0.77	NO	105.3
	41	Total-tetradioxins	319.8965	24.99	23798.534	0.980	0.580		0.73	0.77	NO	57.1
	41	Total-tetradioxins	319.8965	24.78	4730.040	0.980	0.115		0.83	0.77	NO	16.3
	42	Total-pentadioxins	355.8546	32.21	19199.233	0.948	0.629		1.67	1.55	NO	74.4
	12	12378-PeCDD	355.8546	31.80	73749.673	0.948	2.417	2.417	1.47	1.55	NO	217.6
	42	Total-pentadioxins	355.8546	31.12	17403.312	0.948	0.570		1.54	1.55	NO	54.5
	42	Total-pentadioxins	355.8546	30.73	56907.756	0.948	1.865		1.54	1.55	NO	132.5
	42	Total-pentadioxins	355.8546	30.56	45793.549	0.948	1.501		1.51	1.55	NO	168.7
	42	Total-pentadioxins	355.8546	30.41	70802.215	0.948	2.321		1.55	1.55	NO	268.2
	42	Total-pentadioxins	355.8546	30.19	51375.369	0.948	1.684		1.42	1.55	NO	178.0
	42	Total-pentadioxins	355.8546	29.60	21057.647	0.948	0.690		1.63	1.55	NO	104.8
	42	Total-pentadioxins	355.8546	29.16	110008.789	0.948	3.606		1.55	1.55	NO	241.6
	42	Total-pentadioxins	355.8546	29.02	5628.161	0.948	0.184		1.47	1.55	NO	23.9
	43	Total-hexadioxins	389.8157	35.14	161173.625	0.898	5.707		1.32	1.24	NO	211.4
	43	Total-hexadioxins	389.8157	34.32	767139.782	0.898	27.162		1.23	1.24	NO	1033.3
	43	Total-hexadioxins	389.8157	34.03	52512.696	0.898	1.859		1.19	1.24	NO	74.2
	15	123789-HxCDD	389.8157	37.10	166579.243	0.870	6.091	6.091	1.20	1.24	NO	225.7
	43	Total-hexadioxins	389.8157	36.85	53577.586	0.898	1.897		1.32	1.24	NO	74.9
	14	123678-HxCDD	389.8157	36.66	210916.601	0.884	7.538	7.538	1.20	1.24	NO	270.8
	13	123478-HxCDD	389.8157	36.53	96173.750	0.941	3.272	3.272	1.29	1.24	NO	125.4
	43	Total-hexadioxins	389.8157	35.65	118017.125	0.898	4.179		1.19	1.24	NO	163.8
	43	Total-hexadioxins	389.8157	35.53	881720.375	0.898	31.219		1.24	1.24	NO	743.9
	16	1234678-HpCDD	423.7766	41.36	4308449.500	0.948	193.061	193....	1.02	1.05	NO	3681.8
	44	Total-heptadioxins	423.7766	40.10	9874266.500	0.948	442.465		1.03	1.05	NO	10104.7
	17	OCDD	457.7377	47.28	21391474....	0.969	1540.0...	1540...	0.88	0.89	NO	16039.1

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TotalTEQ,Furans,Dioxins

[redacted]	Y	Name	Mass	RT	Area	RRF	pg	EMPC	Ion Ratio	Ion Ratio	Ref	S/N
[redacted]	35	Total-tetrafurans	303.9016	24.69	101419.363	0.763	2.335		0.77	0.77	NO	139.8
[redacted]	35	Total-tetrafurans	303.9016	24.51	4416.558	0.763	0.102		1.21	0.77	YES	11.5
[redacted]	35	Total-tetrafurans	303.9016	24.26	59453.366	0.763	1.369		0.71	0.77	NO	108.3
[redacted]	35	Total-tetrafurans	303.9016	24.11	66671.756	0.763	1.535		0.70	0.77	NO	120.8
[redacted]	35	Total-tetrafurans	303.9016	24.00	72067.645	0.763	1.659		0.72	0.77	NO	130.6
[redacted]	35	Total-tetrafurans	303.9016	23.85	34832.254	0.763	0.802		0.72	0.77	NO	61.7
[redacted]	35	Total-tetrafurans	303.9016	23.76	48836.332	0.763	1.124		0.65	0.77	YES	89.3
[redacted]	35	Total-tetrafurans	303.9016	23.66	74836.049	0.763	1.723		0.66	0.77	NO	98.9
[redacted]	35	Total-tetrafurans	303.9016	23.55	85476.386	0.763	1.968		0.75	0.77	NO	88.6
[redacted]	35	Total-tetrafurans	303.9016	23.36	145384.430	0.763	3.347		0.77	0.77	NO	232.5
[redacted]	35	Total-tetrafurans	303.9016	22.78	48264.541	0.763	1.111		0.72	0.77	NO	90.0
[redacted]	35	Total-tetrafurans	303.9016	22.51	33183.347	0.763	0.764		0.74	0.77	NO	63.3
[redacted]	35	Total-tetrafurans	303.9016	27.50	8234.397	0.763	0.190		0.74	0.77	NO	12.3
[redacted]	35	Total-tetrafurans	303.9016	27.42	2251.484	0.763	0.052		0.82	0.77	NO	6.8
[redacted]	35	Total-tetrafurans	303.9016	26.63	1412.840	0.763	0.033		0.95	0.77	YES	3.8
[redacted]	35	Total-tetrafurans	303.9016	26.51	3484.609	0.763	0.080		0.81	0.77	NO	7.0
[redacted]	35	Total-tetrafurans	303.9016	26.26	122273.957	0.763	2.815		0.71	0.77	NO	222.1
[redacted]	35	Total-tetrafurans	303.9016	26.15	51813.779	0.763	1.193		0.72	0.77	NO	89.3
[redacted]	1	2378-TCDF	303.9016	26.02	92151.113	0.763	2.121	2.121	0.72	0.77	NO	158.6
[redacted]	35	Total-tetrafurans	303.9016	25.84	30741.017	0.763	0.708		0.57	0.77	YES	68.7
[redacted]	35	Total-tetrafurans	303.9016	25.79	35918.073	0.763	0.827		0.91	0.77	YES	69.0
[redacted]	35	Total-tetrafurans	303.9016	25.66	9671.375	0.763	0.223		0.72	0.77	NO	15.9
[redacted]	35	Total-tetrafurans	303.9016	25.53	36104.113	0.763	0.831		0.77	0.77	NO	62.8
[redacted]	35	Total-tetrafurans	303.9016	25.33	43487.540	0.763	1.001		0.72	0.77	NO	77.2
[redacted]	35	Total-tetrafurans	303.9016	25.11	71258.332	0.763	1.640		0.74	0.77	NO	125.0
[redacted]	35	Total-tetrafurans	303.9016	24.93	108311.672	0.763	2.493		0.73	0.77	NO	168.3
[redacted]	35	Total-tetrafurans	303.9016	24.78	52461.908	0.763	1.208		0.75	0.77	NO	99.4
[redacted]	40	Total-Furans	303.9016	28.14	7698.536	0.970	0.139		0.62	0.77	YES	16.3
[redacted]	37	Total-pentafurans	339.8597	31.03	7055.783	0.844	0.186		1.95	1.55	YES	19.7
[redacted]	37	Total-pentafurans	339.8597	30.68	4616.477	0.844	0.122		1.52	1.55	NO	12.0
[redacted]	37	Total-pentafurans	339.8597	30.49	24000.079	0.844	0.633		1.38	1.55	NO	61.8
[redacted]	37	Total-pentafurans	339.8597	30.38	49556.008	0.844	1.307		1.45	1.55	NO	127.3
[redacted]	2	12378-PeCDF	339.8597	30.18	39088.204	0.836	1.035	1.035	1.51	1.55	NO	101.0
[redacted]	37	Total-pentafurans	339.8597	29.83	111249.597	0.844	2.934		1.52	1.55	NO	228.9
[redacted]	37	Total-pentafurans	339.8597	29.72	8033.601	0.844	0.212		1.53	1.55	NO	31.9
[redacted]	37	Total-pentafurans	339.8597	29.67	11243.066	0.844	0.296		2.01	1.55	YES	32.4
[redacted]	37	Total-pentafurans	339.8597	29.50	10720.385	0.844	0.283		1.35	1.55	NO	35.5
[redacted]	37	Total-pentafurans	339.8597	29.33	5893.481	0.844	0.155		1.19	1.55	YES	17.5
[redacted]	37	Total-pentafurans	339.8597	29.20	142929.625	0.844	3.769		1.44	1.55	NO	357.3
[redacted]	37	Total-pentafurans	339.8597	29.12	138280.184	0.844	3.647		1.55	1.55	NO	338.9
[redacted]	37	Total-pentafurans	339.8597	28.98	126335.375	0.844	3.332		1.41	1.55	NO	179.0
[redacted]	37	Total-pentafurans	339.8597	32.58	4442.840	0.844	0.117		1.09	1.55	YES	8.7
[redacted]	3	23478-PeCDF	339.8597	31.54	59306.430	0.851	1.558	1.558	1.53	1.55	NO	145.3
[redacted]	37	Total-pentafurans	339.8597	31.38	32702.211	0.844	0.862		1.66	1.55	NO	87.7
[redacted]	37	Total-pentafurans	339.8597	31.27	49173.599	0.844	1.297		1.50	1.55	NO	127.7
[redacted]	38	Total-hexafurans	373.8208	34.05	8385.938	0.997	0.280		1.11	1.24	NO	8.7
[redacted]	38	Total-hexafurans	373.8208	33.76	766501.751	0.997	25.567		1.21	1.24	NO	892.0
[redacted]	38	Total-hexafurans	373.8208	33.54	218557.149	0.997	7.290		1.20	1.24	NO	265.5
[redacted]	7	123789-HxCDF	373.8208	37.46	11778.432	0.929	0.627	0.627	1.20	1.24	NO	19.2

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TotalTEQ,Furans,Dioxins

	#	Name	Time	RT	Area	RRF	MB	EMPC	Ion Ratio	Ion Ratio	Flag	S/N
	5	234678-HxCDF	373.8208	36.39	100430.445	1.027	3.110	3.110	1.18	1.24	NO	71.6
	38	Total-hexafurans	373.8208	35.98	7108.451	0.997	0.237		1.07	1.24	NO	9.7
	38	Total-hexafurans	373.8208	35.76	9292.957	0.997	0.310		1.33	1.24	NO	11.3
	38	Total-hexafurans	373.8208	35.62	8873.985	0.997	0.296		1.28	1.24	NO	10.3
	6	123678-HxCDF	373.8208	35.40	82302.878	1.013	2.374	2.374	1.20	1.24	NO	99.8
	4	123478-HxCDF	373.8208	35.26	89424.375	1.017	2.552	2.552	1.19	1.24	NO	105.6
	38	Total-hexafurans	373.8208	35.08	43404.067	0.997	1.448		1.13	1.24	NO	58.1
	38	Total-hexafurans	373.8208	34.59	528122.109	0.997	17.616		1.17	1.24	NO	676.1
	38	Total-hexafurans	373.8208	34.27	25522.197	0.997	0.851		1.19	1.24	NO	29.9
	9	1234789-HpCDF	407.7818	42.24	55158.518	1.149	2.372	2.372	0.93	1.05	NO	42.5
	39	Total-heptafurans	407.7818	40.33	1871504.626	1.150	74.085		0.99	1.05	NO	1762.6
	39	Total-heptafurans	407.7818	40.04	38079.639	1.150	1.507		1.06	1.05	NO	31.9
	8	1234678-HpCDF	407.7818	39.54	1185997.751	1.151	43.493	43.493	0.99	1.05	NO	1142.9
	10	OCDF	441.7428	47.55	1771402.376	0.963	128.328	128....	0.85	0.89	NO	1991.8
	36	Total-penta1	339.8597	27.47	726808.375		17.633		1.54	1.55	NO	2182.1
	41	Total-tetradioxins	319.8965	24.27	9019.955	0.980	0.220		0.82	0.77	NO	29.1
	41	Total-tetradioxins	319.8965	24.06	38256.755	0.980	0.933		0.72	0.77	NO	106.6
	41	Total-tetradioxins	319.8965	23.79	62550.011	0.980	1.526		0.76	0.77	NO	192.3
	41	Total-tetradioxins	319.8965	27.53	722.875	0.980	0.018		1.04	0.77	YES	3.9
	41	Total-tetradioxins	319.8965	27.21	11956.727	0.980	0.292		0.77	0.77	NO	26.6
	41	Total-tetradioxins	319.8965	26.78	16864.092	0.980	0.411		0.70	0.77	NO	44.8
	11	2378-TCDD	319.8965	26.66	18673.679	0.980	0.455	0.398	0.61	0.77	YES	50.4
	41	Total-tetradioxins	319.8965	26.29	19569.118	0.980	0.477		0.74	0.77	NO	43.1
	41	Total-tetradioxins	319.8965	25.99	4290.878	0.980	0.105		1.00	0.77	YES	15.6
	41	Total-tetradioxins	319.8965	25.84	11630.221	0.980	0.284		0.69	0.77	NO	33.9
	41	Total-tetradioxins	319.8965	25.63	12080.890	0.980	0.295		0.72	0.77	NO	34.3
	41	Total-tetradioxins	319.8965	25.54	4775.113	0.980	0.116		0.59	0.77	YES	14.6
	41	Total-tetradioxins	319.8965	25.27	32475.768	0.980	0.792		0.82	0.77	NO	105.3
	41	Total-tetradioxins	319.8965	24.99	23798.534	0.980	0.580		0.73	0.77	NO	57.1
	41	Total-tetradioxins	319.8965	24.78	4730.040	0.980	0.115		0.83	0.77	NO	16.3
	42	Total-pentadioxins	355.8546	32.21	19199.233	0.948	0.629		1.67	1.55	NO	74.4
	12	12378-PeCDD	355.8546	31.80	73749.673	0.948	2.417	2.417	1.47	1.55	NO	217.6
	42	Total-pentadioxins	355.8546	31.12	17403.312	0.948	0.570		1.54	1.55	NO	54.5
	42	Total-pentadioxins	355.8546	30.73	56907.756	0.948	1.865		1.54	1.55	NO	132.5
	42	Total-pentadioxins	355.8546	30.56	45793.549	0.948	1.501		1.51	1.55	NO	168.7
	42	Total-pentadioxins	355.8546	30.41	70802.215	0.948	2.321		1.55	1.55	NO	268.2
	42	Total-pentadioxins	355.8546	30.19	51375.369	0.948	1.684		1.42	1.55	NO	178.0
	42	Total-pentadioxins	355.8546	29.60	21057.647	0.948	0.690		1.63	1.55	NO	104.8
	42	Total-pentadioxins	355.8546	29.16	110008.789	0.948	3.606		1.55	1.55	NO	241.6
	42	Total-pentadioxins	355.8546	29.02	5628.161	0.948	0.184		1.47	1.55	NO	23.9
	43	Total-hexadioxins	389.8157	35.14	161173.625	0.898	5.707		1.32	1.24	NO	211.4
	43	Total-hexadioxins	389.8157	34.32	767139.782	0.898	27.162		1.23	1.24	NO	1033.3
	43	Total-hexadioxins	389.8157	34.03	52512.696	0.898	1.859		1.19	1.24	NO	74.2
	15	123789-HxCDD	389.8157	37.10	166579.243	0.870	6.091	6.091	1.20	1.24	NO	225.7
	43	Total-hexadioxins	389.8157	36.85	53577.586	0.898	1.897		1.32	1.24	NO	74.9
	14	123678-HxCDD	389.8157	36.66	210916.601	0.884	7.538	7.538	1.20	1.24	NO	270.8
	13	123478-HxCDD	389.8157	36.53	96173.750	0.941	3.272	3.272	1.29	1.24	NO	125.4
	43	Total-hexadioxins	389.8157	35.65	118017.125	0.898	4.179		1.19	1.24	NO	163.8
	43	Total-hexadioxins	389.8157	35.53	881720.375	0.898	31.219		1.24	1.24	NO	743.9

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TotalTEQ,Furans,Dioxins

	#	Name	Trace	RT	Abundance	REF M...	m/z	EMPC	I Ratio	II Ratio	II R...	S/N
	16	1234678-HpCDD	423.7766	41.36	4308449.500	0.948	193.061	193....	1.02	1.05	NO	3681.8
	44	Total-heptadioxins	423.7766	40.10	9874266.500	0.948	442.465		1.03	1.05	NO	10104.7
	17	OCDD	457.7377	47.28	21391474....	0.969	1540.0...	1540...	0.88	0.89	NO	16039.1

PFK1

	#	Name	Trace	RT	Abundance	REF M...	m/z	EMPC	I Ratio	II Ratio	II R...	S/N
	48	FUNCTION1 PFK	330.9792	25.53	0.000							3.0
	48	FUNCTION1 PFK	330.9792	23.76	0.000							4.1
	48	FUNCTION1 PFK	330.9792	22.19	0.000							3.2
	48	FUNCTION1 PFK	330.9792	26.96	0.000							2.7
	48	FUNCTION1 PFK	330.9792	26.41	0.000							9.8
	48	FUNCTION1 PFK	330.9792	26.30	0.000							10.9
	48	FUNCTION1 PFK	330.9792	26.12	0.000							12.3

PFK2

	#	Name	Trace	RT	Abundance	REF M...	m/z	EMPC	I Ratio	II Ratio	II R...	S/N
	49	FUNCTION2 PFK	366.9792	31.33	0.000	0.000						22.8
	49	FUNCTION2 PFK	366.9792	31.10	0.000	0.000						17.9
	49	FUNCTION2 PFK	366.9792	30.90	0.000	0.000						12.1
	49	FUNCTION2 PFK	366.9792	30.67	0.000	0.000						6.7
	49	FUNCTION2 PFK	366.9792	29.94	0.000	0.000						15.4
	49	FUNCTION2 PFK	366.9792	29.67	0.000	0.000						3.0
	49	FUNCTION2 PFK	366.9792	29.45	0.000	0.000						34.1
	49	FUNCTION2 PFK	366.9792	29.30	0.000	0.000						28.1
	49	FUNCTION2 PFK	366.9792	29.12	0.000	0.000						20.8
	49	FUNCTION2 PFK	366.9792	28.91	0.000	0.000						6.4
	49	FUNCTION2 PFK	366.9792	28.63	0.000	0.000						5.8
	49	FUNCTION2 PFK	366.9792	32.90	0.000	0.000						0.0
	49	FUNCTION2 PFK	366.9792	32.46	0.000	0.000						23.5
	49	FUNCTION2 PFK	366.9792	31.82	0.000	0.000						28.8
	49	FUNCTION2 PFK	366.9792	31.58	0.000	0.000						27.3

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PFK3

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	Dq	EMPC	1° Rati...	2° Rati...	11 R...	S/N
[redacted]	50	FUNCTION3 PFK	380.9760	36.95	0.000		0.000					23.4
[redacted]	50	FUNCTION3 PFK	380.9760	36.46	0.000		0.000					4.8
[redacted]	50	FUNCTION3 PFK	380.9760	36.05	0.000		0.000					11.6
[redacted]	50	FUNCTION3 PFK	380.9760	34.83	0.000		0.000					13.0
[redacted]	50	FUNCTION3 PFK	380.9760	34.38	0.000		0.000					41.0
[redacted]	50	FUNCTION3 PFK	380.9760	34.00	0.000		0.000					53.5
[redacted]	50	FUNCTION3 PFK	380.9760	33.75	0.000		0.000					52.7
[redacted]	50	FUNCTION3 PFK	380.9760	33.49	0.000		0.000					53.4
[redacted]	50	FUNCTION3 PFK	380.9760	33.36	0.000		0.000					53.4
[redacted]	50	FUNCTION3 PFK	380.9760	33.18	0.000		0.000					44.9
[redacted]	50	FUNCTION3 PFK	380.9760	33.07	0.000		0.000					53.0
[redacted]	50	FUNCTION3 PFK	380.9760	37.60	0.000		0.000					26.2
[redacted]	50	FUNCTION3 PFK	380.9760	37.05	0.000		0.000					29.8

PFK4

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	Dq	EMPC	1° Rati...	2° Rati...	11 R...	S/N
[redacted]	51	FUNCTION4 PFK	430.9728	42.12	0.000							12.7
[redacted]	51	FUNCTION4 PFK	430.9728	41.77	0.000							20.0
[redacted]	51	FUNCTION4 PFK	430.9728	38.88	0.000							4.0
[redacted]	51	FUNCTION4 PFK	430.9728	38.74	0.000							10.2

PFK5

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	Dq	EMPC	1° Rati...	2° Rati...	11 R...	S/N
[redacted]	52	FUNCTION5 PFK	480.9696	47.28	0.000							3.8

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ETHERS1

	#	Name	Area	RT	Abs Resp	Ref M...	Δp	EMPR	(1 R...	(2 R...	3 R...	S/N
	53	FUNCTION1 HXCD...	375.8364	23.75	0.000		0.000					0.8
	53	FUNCTION1 HXCD...	375.8364	23.12	0.000		0.000					1.4
	53	FUNCTION1 HXCD...	375.8364	22.72	0.000		0.000					1.3
	53	FUNCTION1 HXCD...	375.8364	22.37	0.000		0.000					1.6
	53	FUNCTION1 HXCD...	375.8364	21.72	0.000		0.000					2.4
	53	FUNCTION1 HXCD...	375.8364	21.55	0.000		0.000					1.9
	53	FUNCTION1 HXCD...	375.8364	26.41	0.000		0.000					2.8
	53	FUNCTION1 HXCD...	375.8364	26.33	0.000		0.000					1.7
	53	FUNCTION1 HXCD...	375.8364	26.11	0.000		0.000					3.1
	53	FUNCTION1 HXCD...	375.8364	26.03	0.000		0.000					2.1
	53	FUNCTION1 HXCD...	375.8364	25.82	0.000		0.000					4.4
	53	FUNCTION1 HXCD...	375.8364	25.36	0.000		0.000					2.2
	53	FUNCTION1 HXCD...	375.8364	25.27	0.000		0.000					1.7
	53	FUNCTION1 HXCD...	375.8364	25.20	0.000		0.000					1.2
	53	FUNCTION1 HXCD...	375.8364	25.00	0.000		0.000					3.7
	53	FUNCTION1 HXCD...	375.8364	24.96	0.000		0.000					3.2
	53	FUNCTION1 HXCD...	375.8364	24.69	0.000		0.000					1.6
	53	FUNCTION1 HXCD...	375.8364	24.60	0.000		0.000					1.6
	53	FUNCTION1 HXCD...	375.8364	24.52	0.000		0.000					1.0
	53	FUNCTION1 HXCD...	375.8364	24.17	0.000		0.000					2.1
	53	FUNCTION1 HXCD...	375.8364	24.03	0.000		0.000					1.9
	53	FUNCTION1 HXCD...	375.8364	23.87	0.000		0.000					7.4
	53	FUNCTION1 HXCD...	375.8364	27.39	0.000		0.000					4.7
	53	FUNCTION1 HXCD...	375.8364	26.83	0.000		0.000					1.5
	53	FUNCTION1 HXCD...	375.8364	26.71	0.000		0.000					1.4

ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	24.05	0.000		0.000					1.5
	54	FUNCTION1 HPCD...	409.7974	23.82	0.000		0.000					1.0
	54	FUNCTION1 HPCD...	409.7974	23.55	0.000		0.000					13.0
	54	FUNCTION1 HPCD...	409.7974	23.34	0.000		0.000					1.2
	54	FUNCTION1 HPCD...	409.7974	22.99	0.000		0.000					1.5
	54	FUNCTION1 HPCD...	409.7974	22.94	0.000		0.000					1.1
	54	FUNCTION1 HPCD...	409.7974	22.70	0.000		0.000					1.0
	54	FUNCTION1 HPCD...	409.7974	22.48	0.000		0.000					1.5
	54	FUNCTION1 HPCD...	409.7974	22.28	0.000		0.000					6.1
	54	FUNCTION1 HPCD...	409.7974	22.00	0.000		0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	21.67	0.000		0.000					1.5
	54	FUNCTION1 HPCD...	409.7974	21.19	0.000		0.000					1.1
	54	FUNCTION1 HPCD...	409.7974	27.92	0.000		0.000					5.2
	54	FUNCTION1 HPCD...	409.7974	27.74	0.000		0.000					1.0
	54	FUNCTION1 HPCD...	409.7974	27.26	0.000		0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	26.91	0.000		0.000					1.0
	54	FUNCTION1 HPCD...	409.7974	26.74	0.000		0.000					1.5
	54	FUNCTION1 HPCD...	409.7974	26.39	0.000		0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	25.79	0.000		0.000					0.8
	54	FUNCTION1 HPCD...	409.7974	25.39	0.000		0.000					0.8
	54	FUNCTION1 HPCD...	409.7974	25.00	0.000		0.000					3.2

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	31.10	0.000		0.000					1.5
	55	FUNCTION2 HPCD...	409.7974	30.91	0.000		0.000					4.0
	55	FUNCTION2 HPCD...	409.7974	30.14	0.000		0.000					15.0
	55	FUNCTION2 HPCD...	409.7974	29.81	0.000		0.000					7.7
	55	FUNCTION2 HPCD...	409.7974	29.56	0.000		0.000					2.6
	55	FUNCTION2 HPCD...	409.7974	28.66	0.000		0.000					7.2
	55	FUNCTION2 HPCD...	409.7974	32.47	0.000		0.000					1.9
	55	FUNCTION2 HPCD...	409.7974	31.37	0.000		0.000					4.1

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	ppt	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	56	FUNCTION3 OCDPE	445.7555	37.97	0.000		0.000					2.1
	56	FUNCTION3 OCDPE	445.7555	37.33	0.000		0.000					2.8
	56	FUNCTION3 OCDPE	445.7555	36.63	0.000		0.000					2.6
	56	FUNCTION3 OCDPE	445.7555	36.52	0.000		0.000					2.6
	56	FUNCTION3 OCDPE	445.7555	35.13	0.000		0.000					2.2
	56	FUNCTION3 OCDPE	445.7555	34.94	0.000		0.000					2.2
	56	FUNCTION3 OCDPE	445.7555	34.71	0.000		0.000					2.2
	56	FUNCTION3 OCDPE	445.7555	34.52	0.000		0.000					4.1
	56	FUNCTION3 OCDPE	445.7555	34.48	0.000		0.000					1.9

Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
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ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M	[illegible]	EMPC	12 Ratio	13 Ratio	14 Ratio	S/N
[illegible]	57	FUNCTION4 NCDPE	479.7165	42.68	0.000	0.000						11.4
[illegible]	57	FUNCTION4 NCDPE	479.7165	39.12	0.000	0.000						8.8
[illegible]	57	FUNCTION4 NCDPE	479.7165	38.72	0.000	0.000						4.8
[illegible]	57	FUNCTION4 NCDPE	479.7165	42.75	0.000	0.000						9.2

ETHERS6

	#	Name	Trace	RT	Abs Resp	RRF M	[illegible]	EMPC	12 Ratio	13 Ratio	14 Ratio	S/N
[illegible]	58	FUNCTION5 DCDPE	513.6775	48.85	0.000	0.000						1.7
[illegible]	58	FUNCTION5 DCDPE	513.6775	48.77	0.000	0.000						2.1
[illegible]	58	FUNCTION5 DCDPE	513.6775	48.73	0.000	0.000						2.9
[illegible]	58	FUNCTION5 DCDPE	513.6775	48.70	0.000	0.000						2.6
[illegible]	58	FUNCTION5 DCDPE	513.6775	47.51	0.000	0.000						2.2
[illegible]	58	FUNCTION5 DCDPE	513.6775	46.32	0.000	0.000						1.9
[illegible]	58	FUNCTION5 DCDPE	513.6775	45.42	0.000	0.000						1.4

Dataset: P:\DIOXIN8290.PRO\130411DATA2.qld
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
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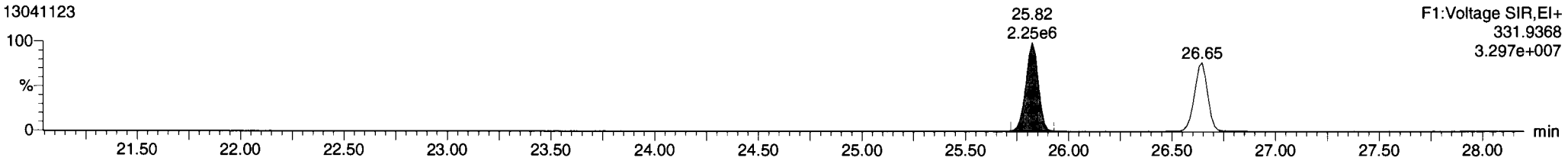
ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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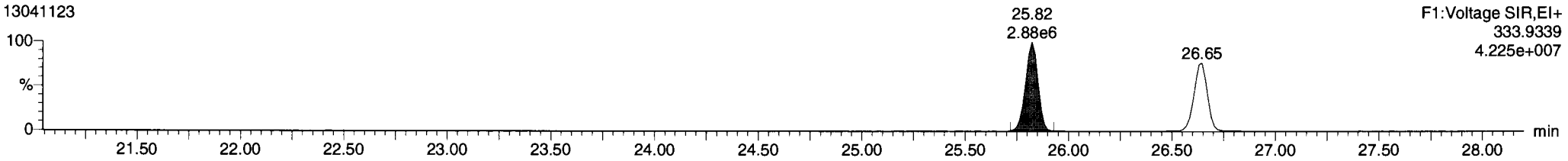

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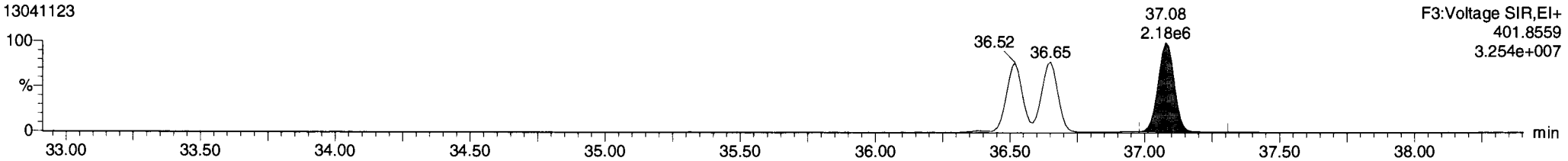

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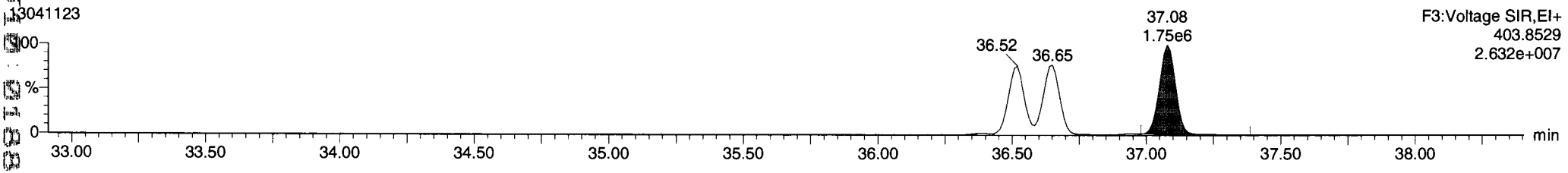

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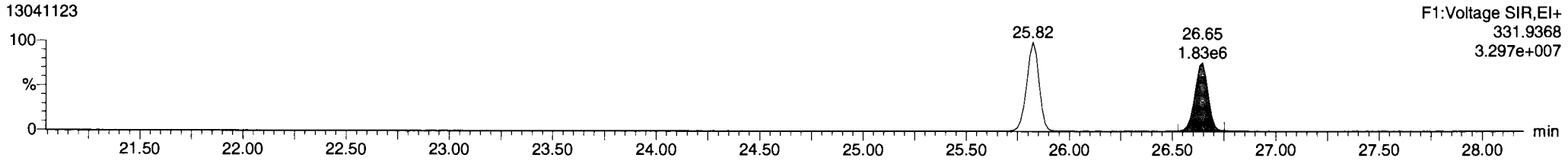
ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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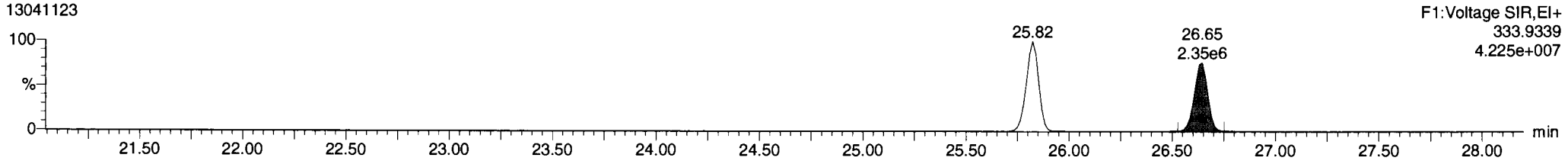

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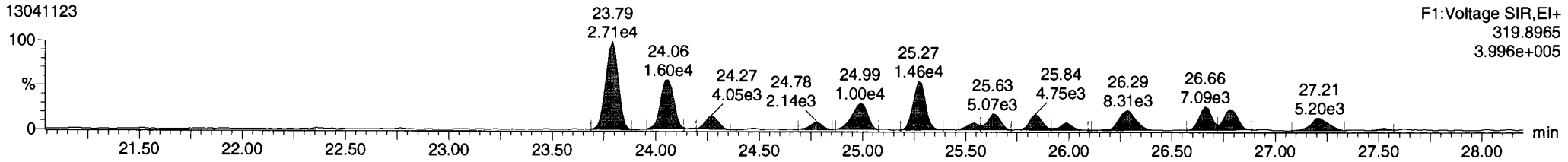
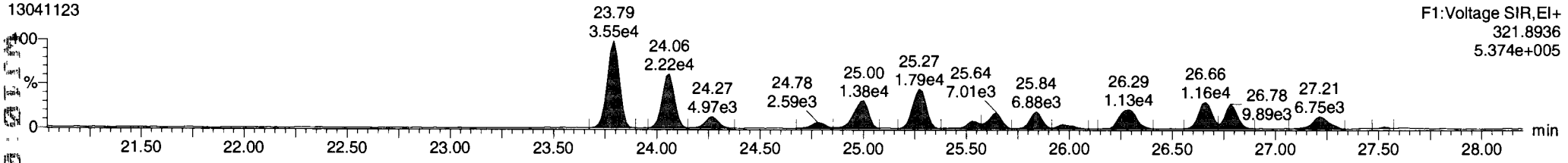
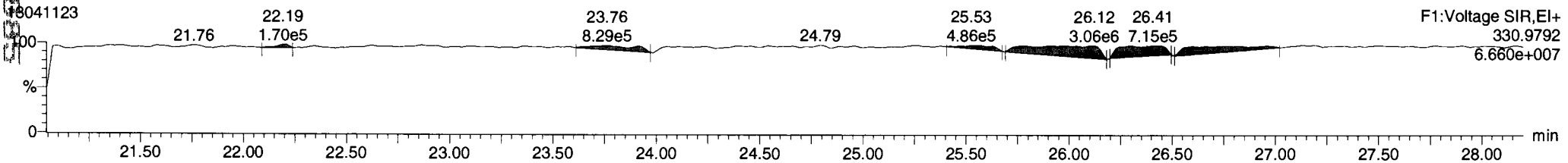


Total-tetradioxins



FUNCTION1 PFK



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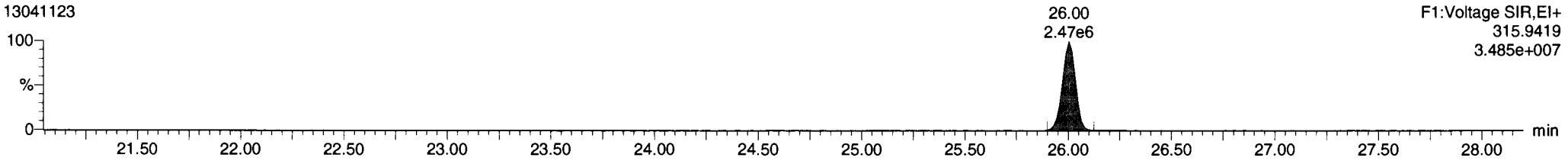
13C-2378-TCDF



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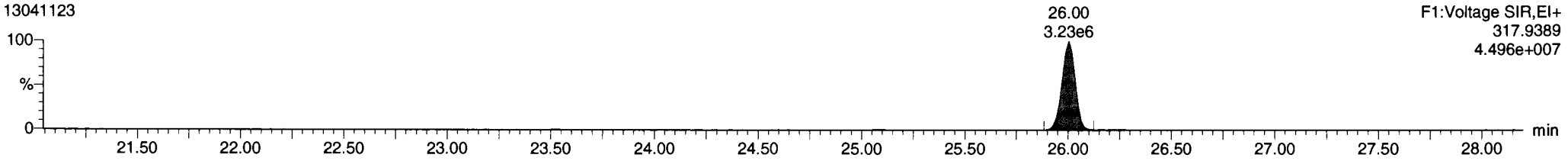
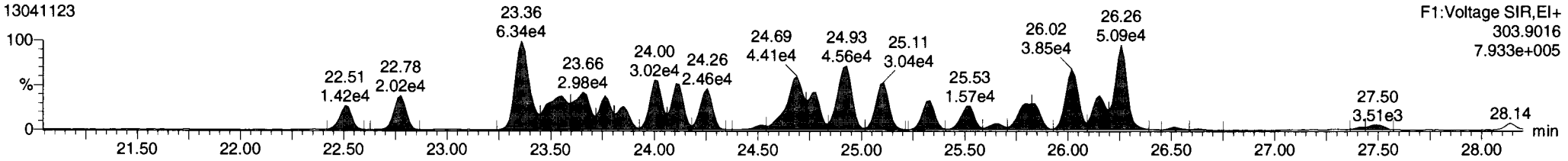


Total-tetrafurans



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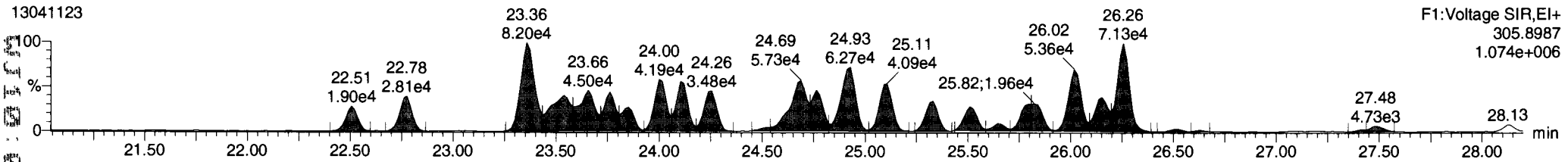
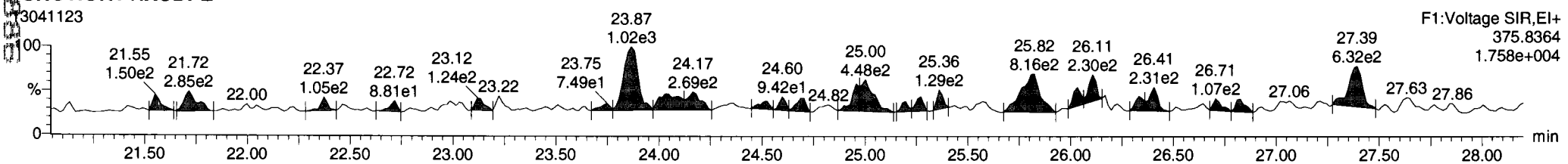


FUNCTION1 HXCDPE



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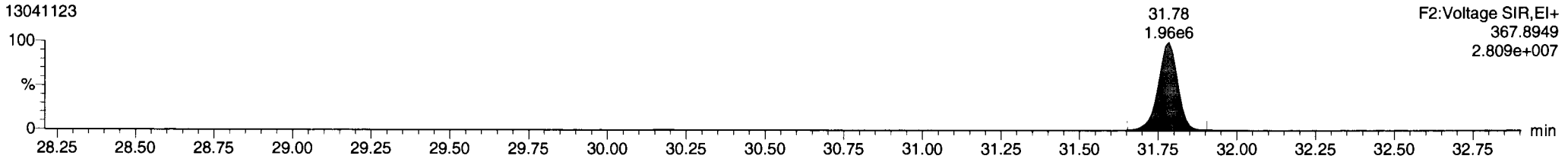
13C-12378-PeCDD



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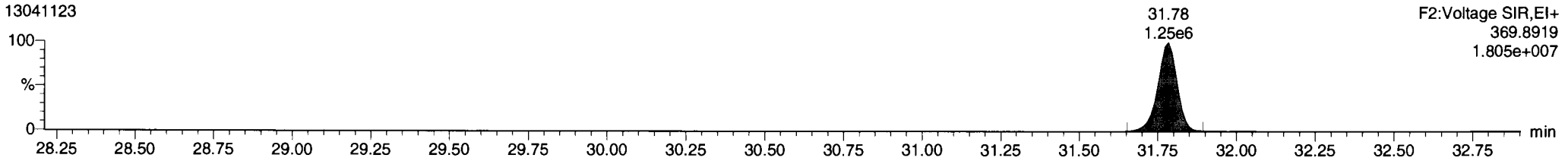
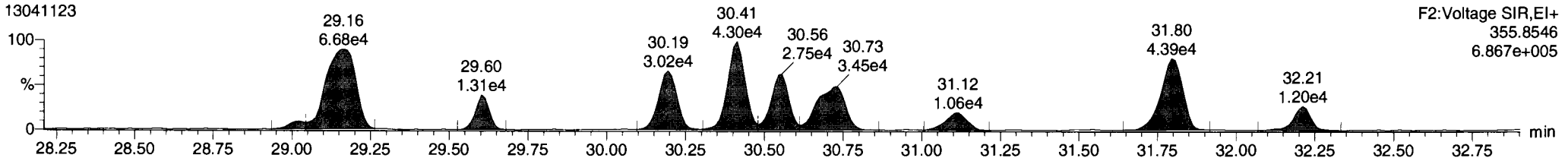
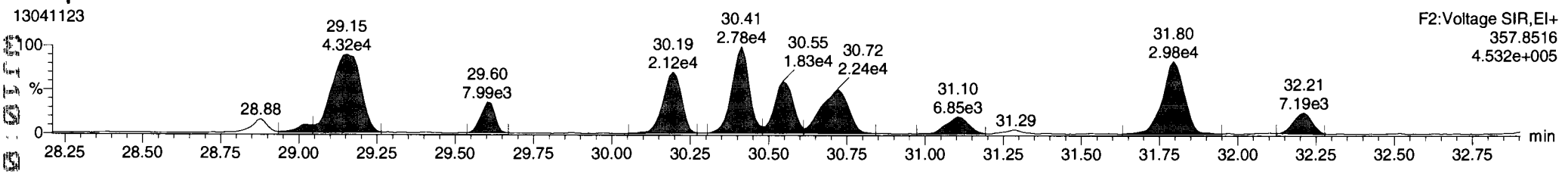


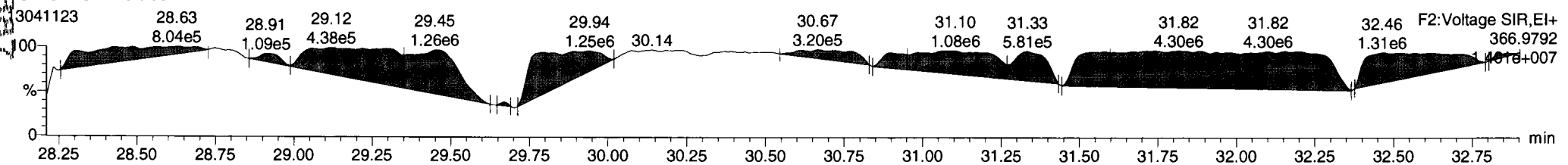
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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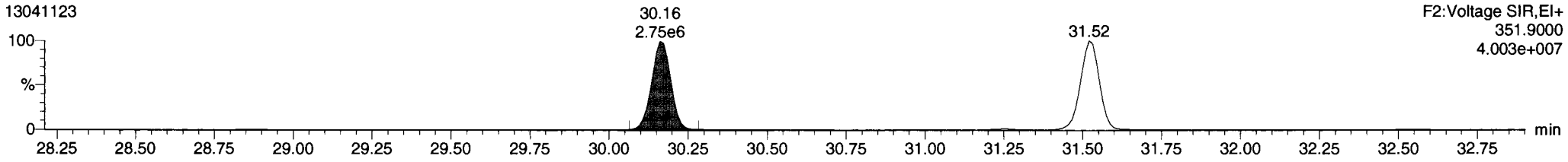
13C-12378-PeCDF



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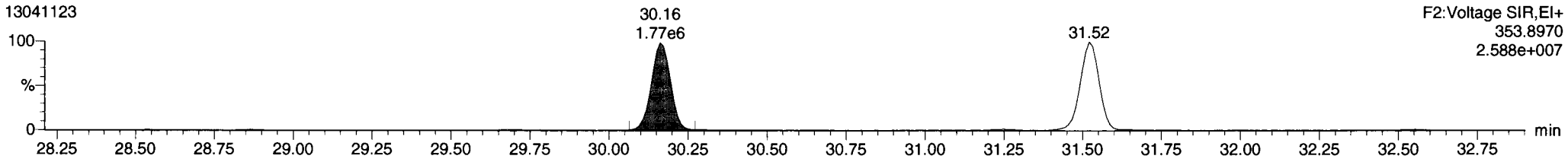

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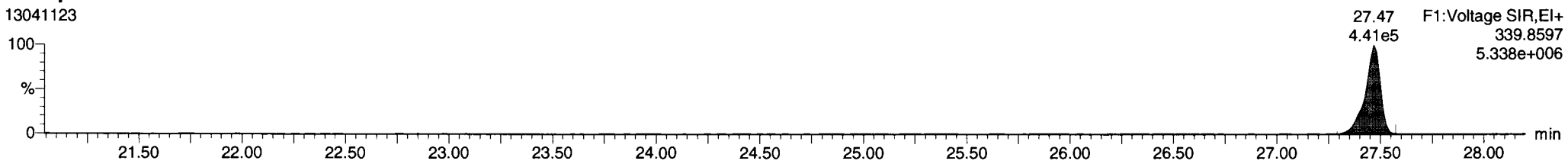
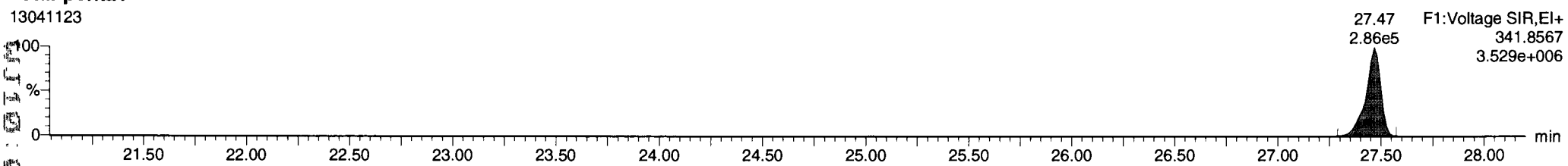
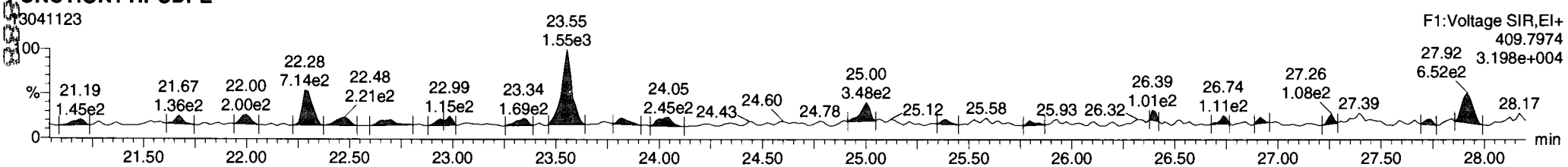


Total-penta1



FUNCTION1 HPCDPE



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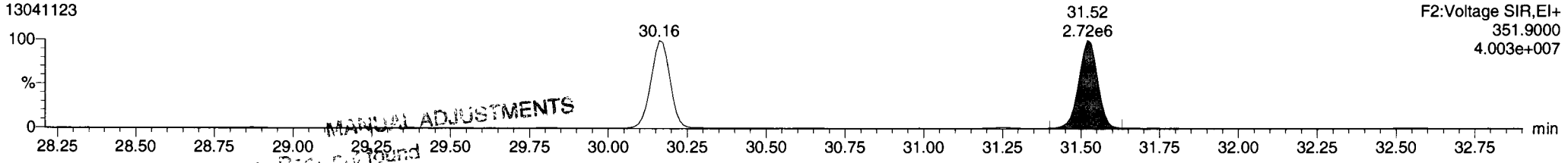
13C-23478-PeCDF



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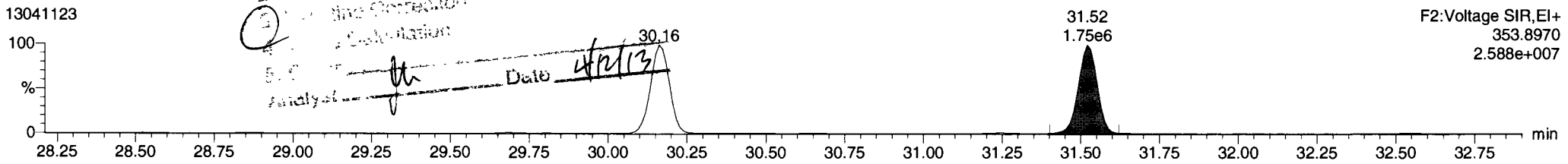
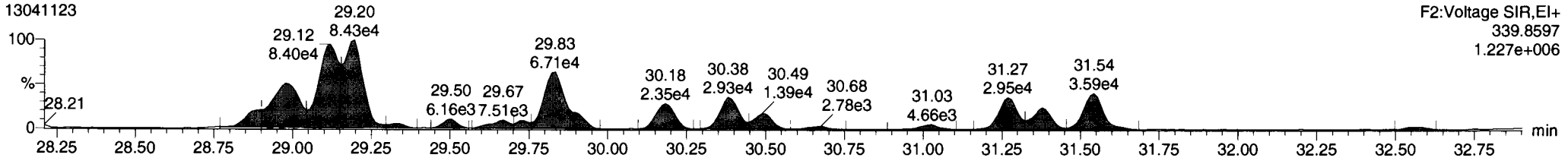


Total-pentafurans



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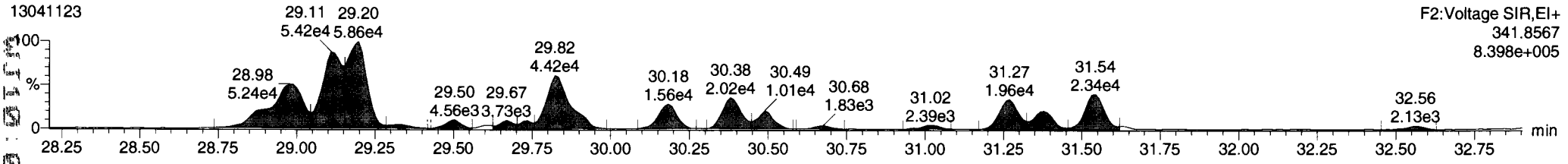
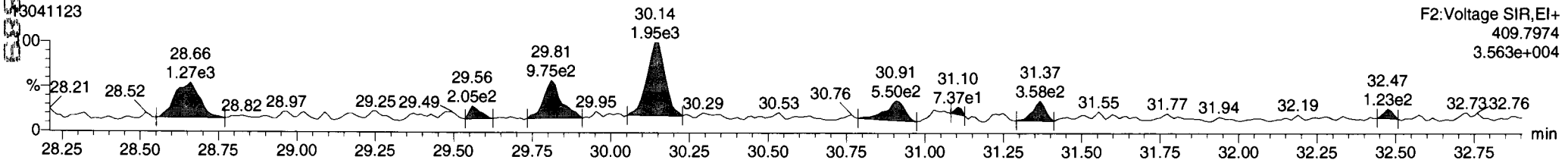


FUNCTION2 HPCDPE



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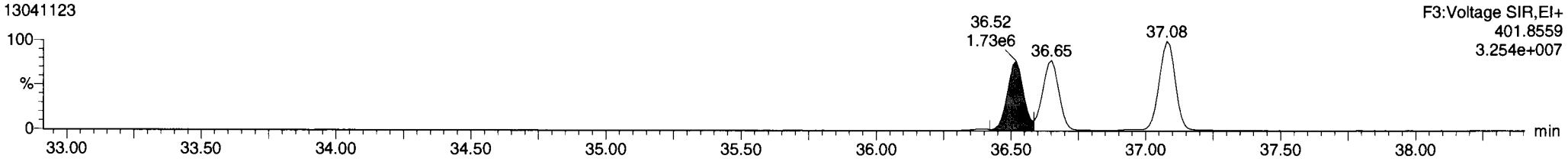
13C-123478-HxCDD



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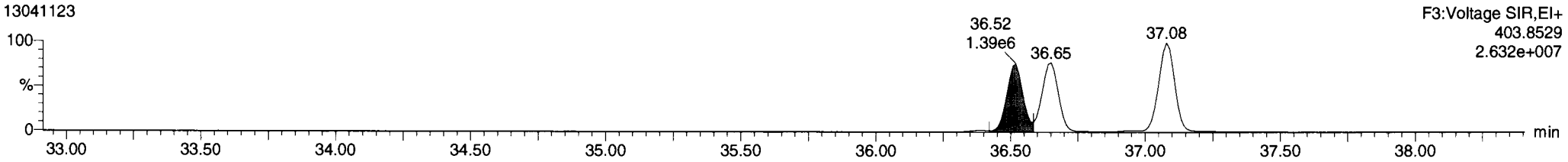

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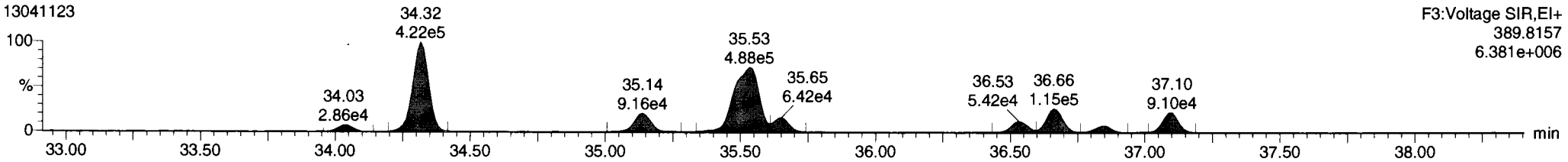
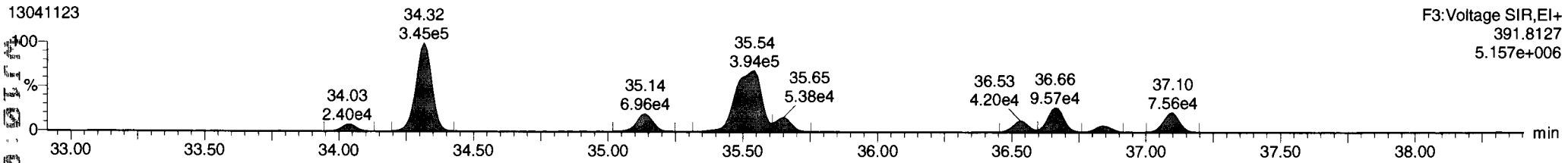
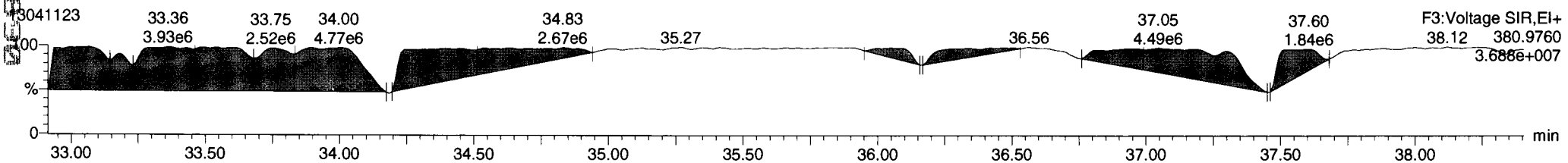


Total-hexadioxins



FUNCTION3 PFK



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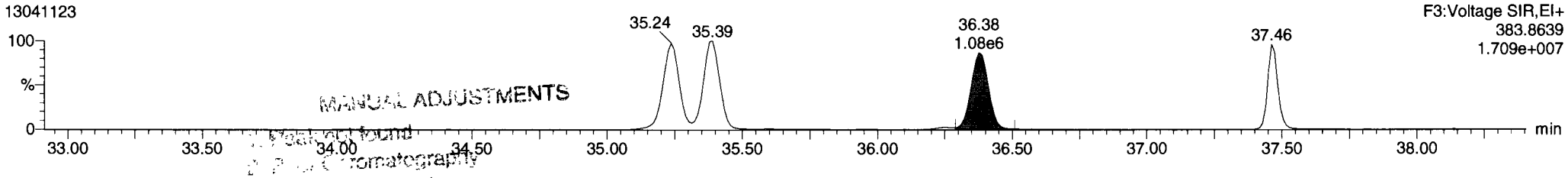
Printed: Friday, April 12, 2013 13:04:20 Pacific Daylight Time

ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



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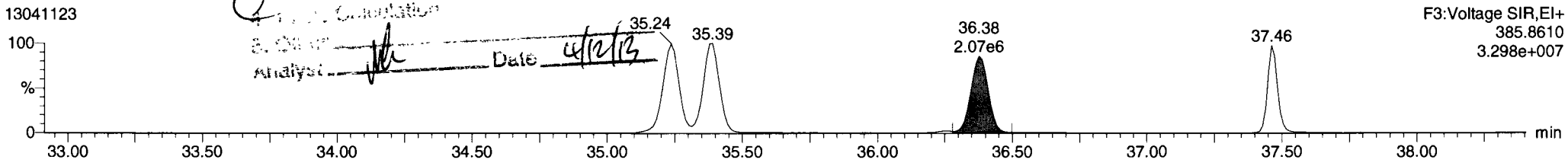
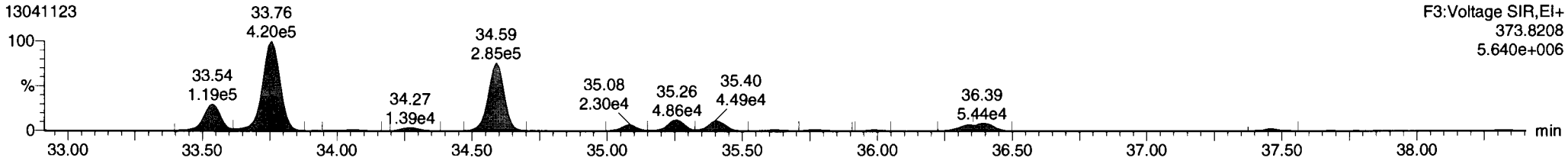
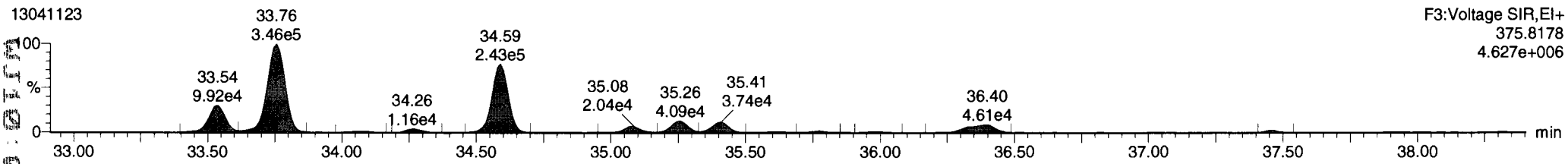


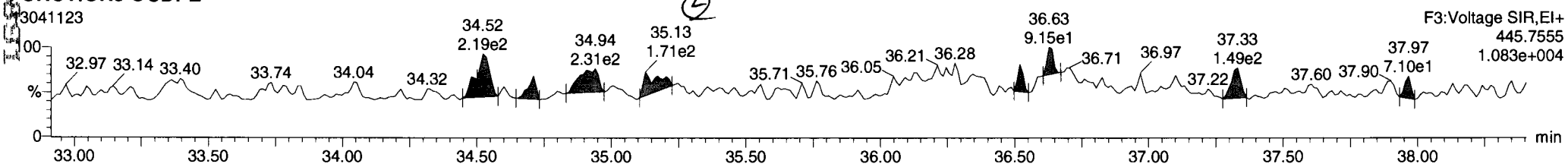
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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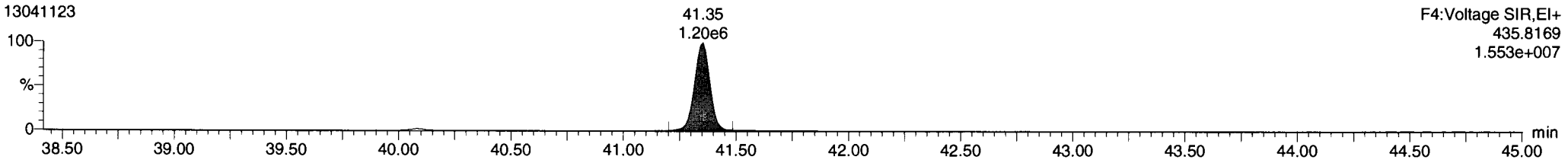
13C-1234678-HpCDD



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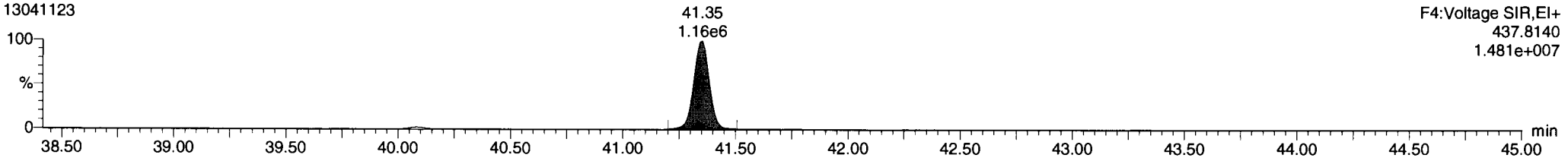
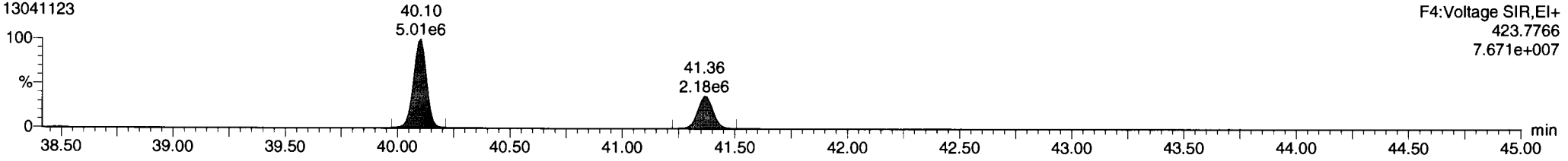
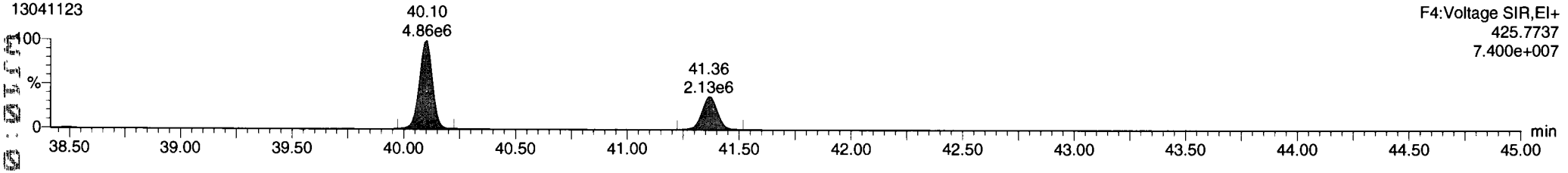


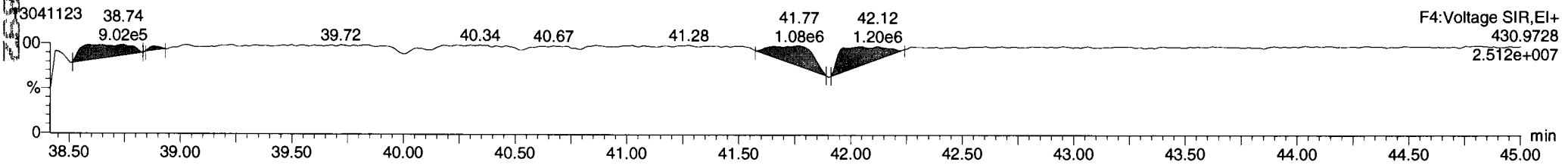
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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ID: WJ10D, Name: 13041123, Date: 12-Apr-2013, Time: 05:19:23, Conditions: AUTOSPEC01, User: pk

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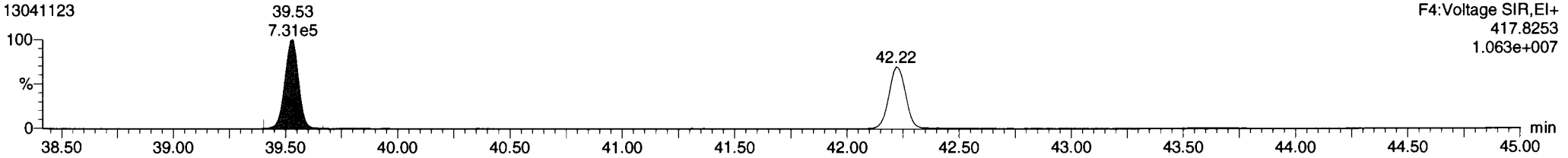

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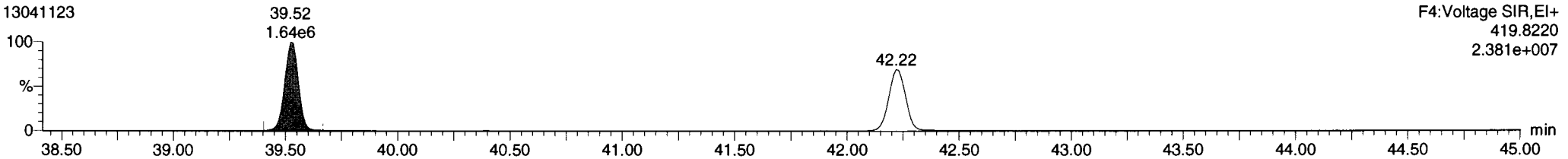
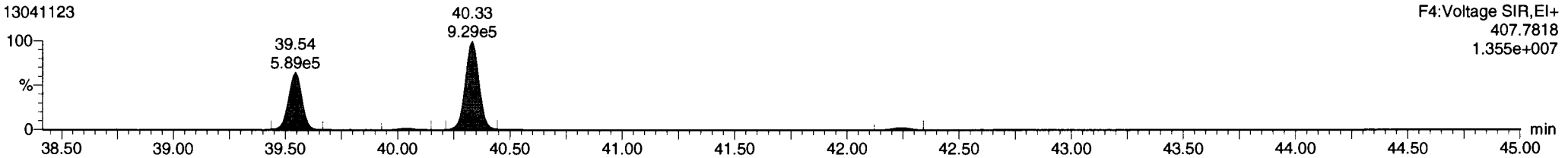


Total-heptafurans



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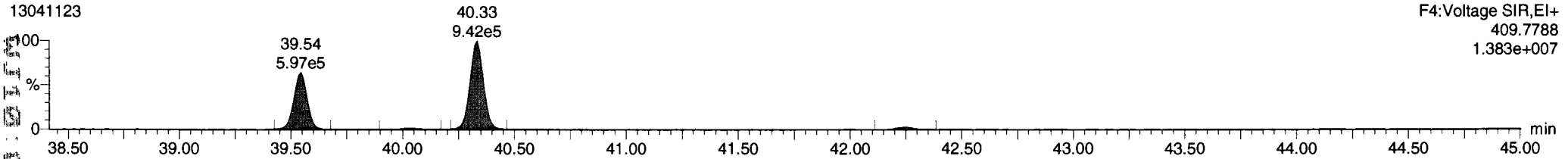
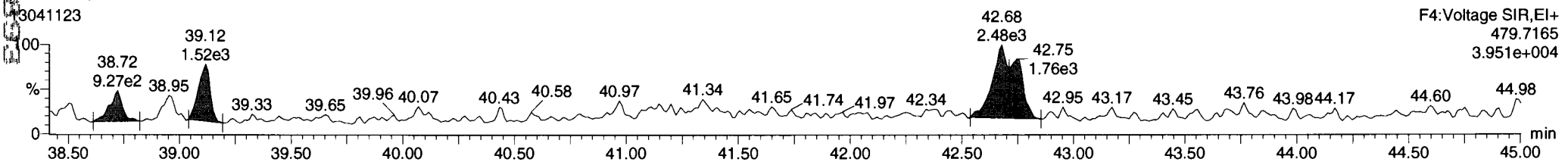


FUNCTION4 NCDPE



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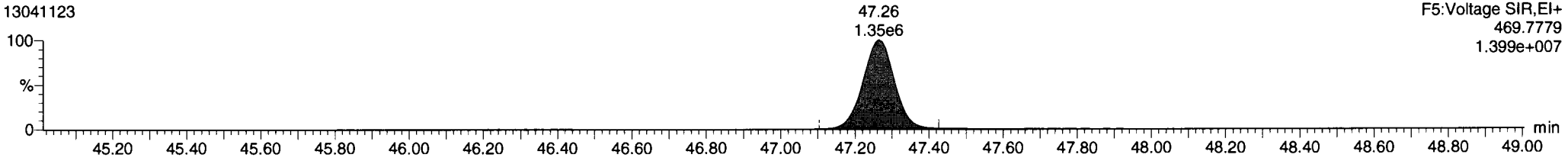
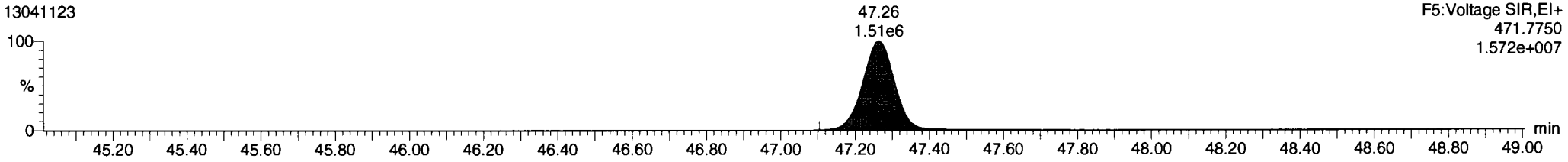
13C-OCDD



13C-OCDD



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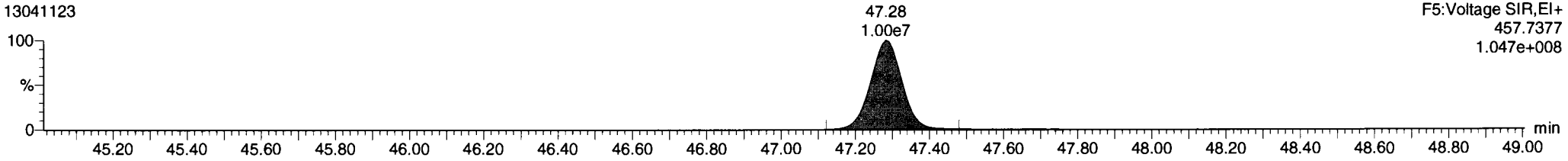

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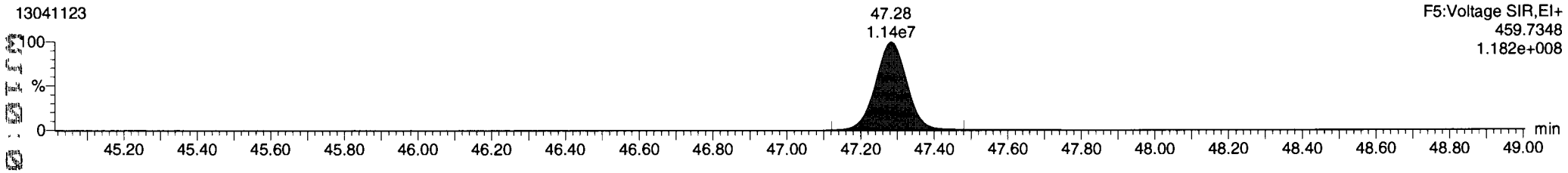
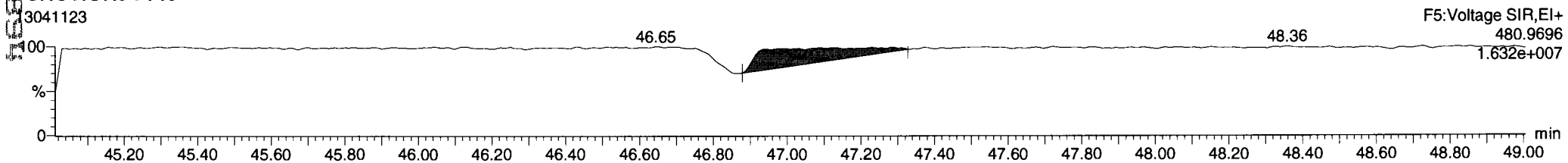


FUNCTION5 PFK



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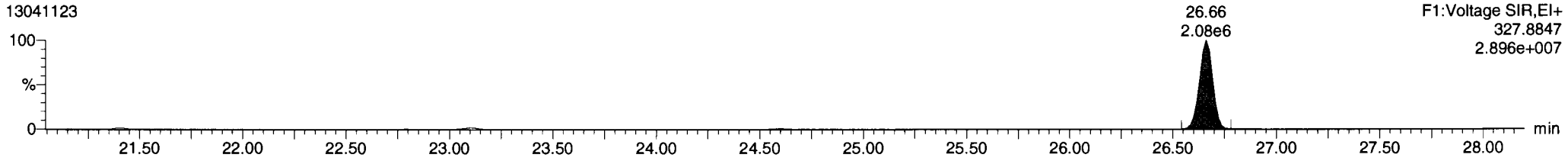
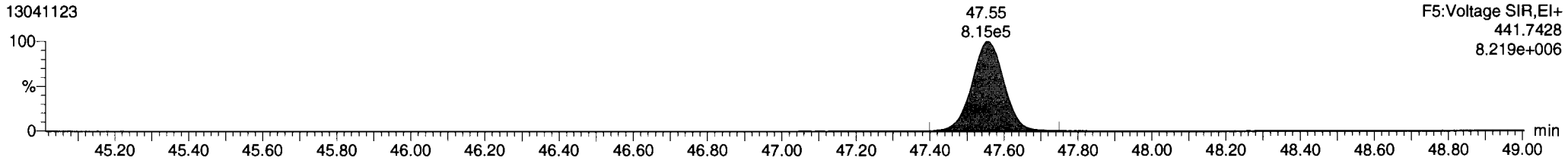
37CL-2378-TCDD



OCDF



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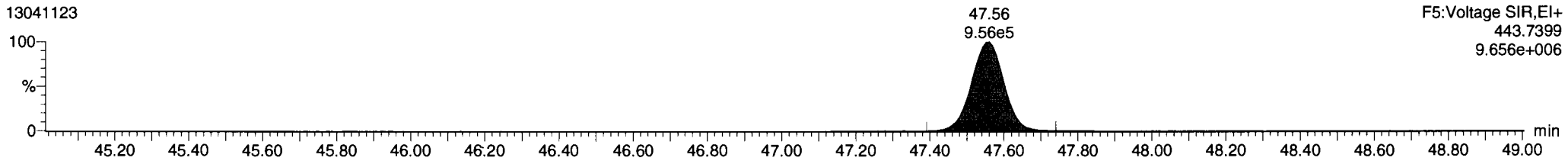
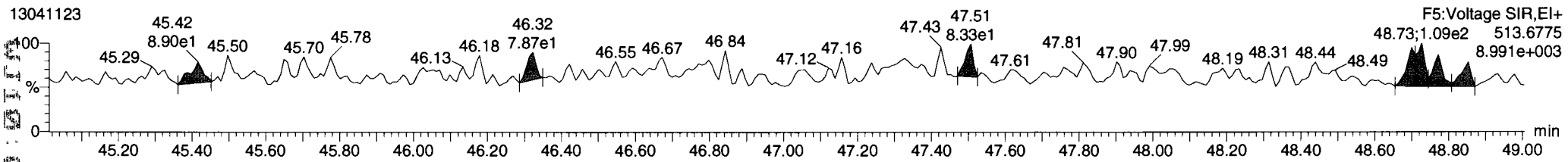


FUNCTION5 DCDPE



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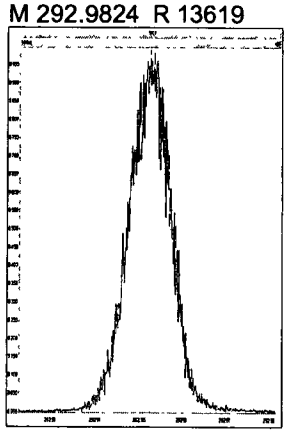
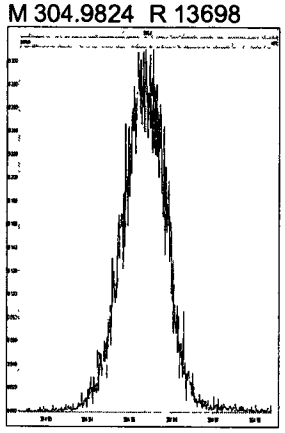
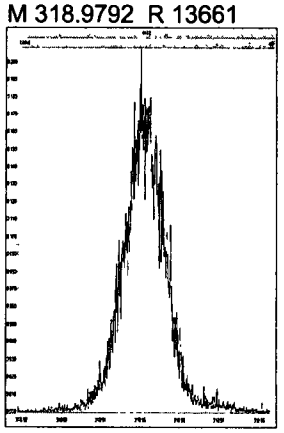


M 304.9824 R 13698



M 318.9792 R 13661



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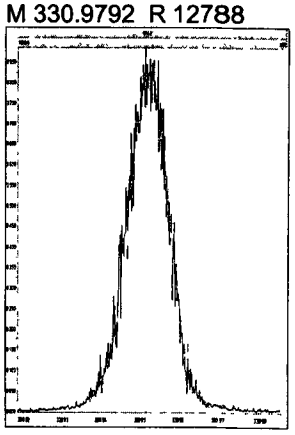
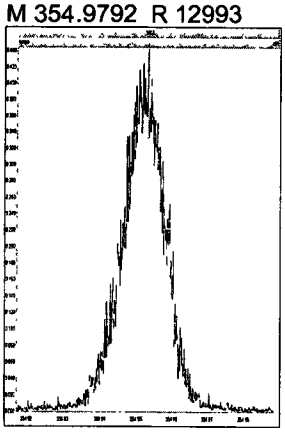
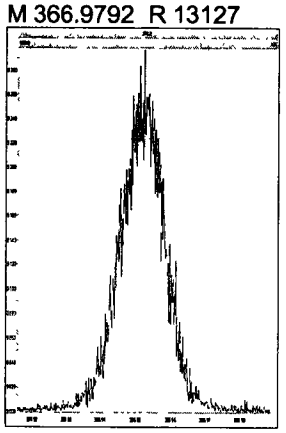


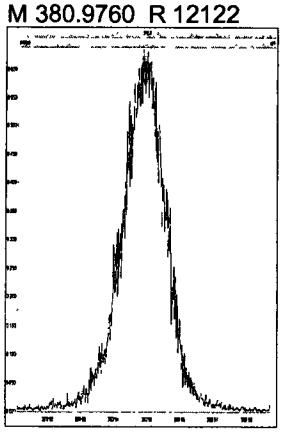
M 354.9792 R 12993



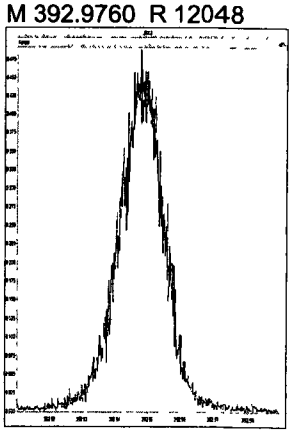
M 366.9792 R 13127



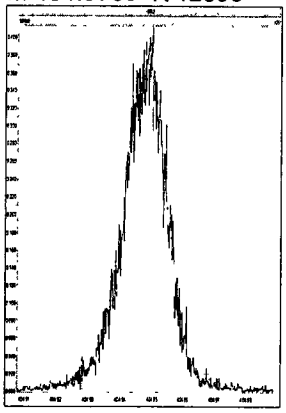
M 380.9760 R 12122



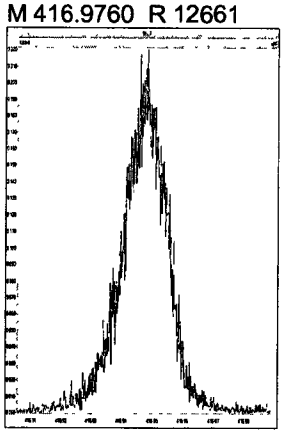
M 392.9760 R 12048



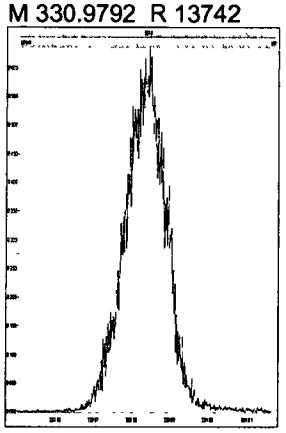
M 404.9760 R 12693



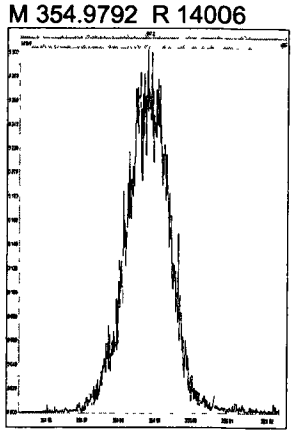
M 416.9760 R 12661



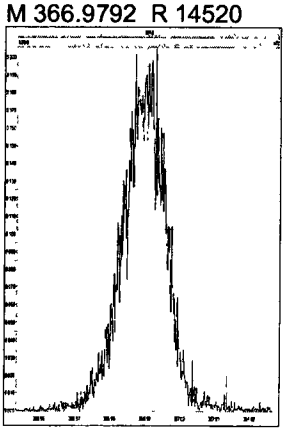
M 330.9792 R 13742



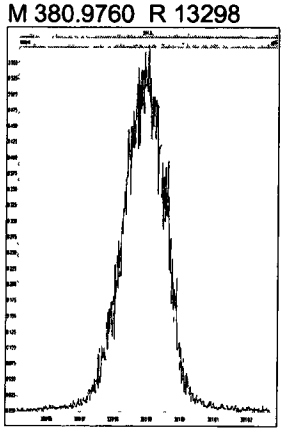
M 354.9792 R 14006



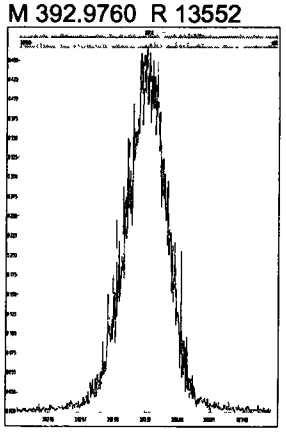
M 366.9792 R 14520



M 380.9760 R 13298



M 392.9760 R 13552



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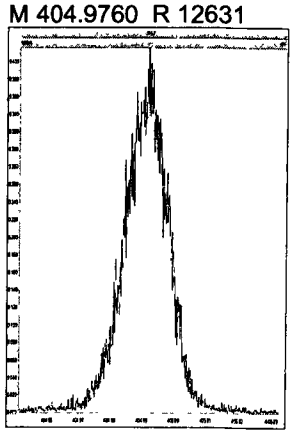
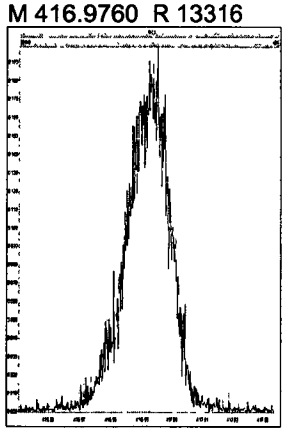
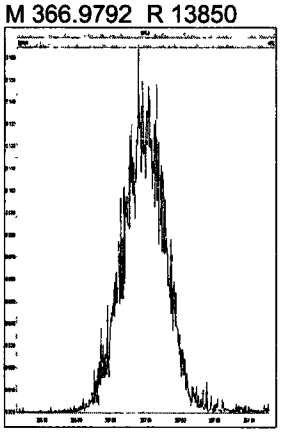


M 416.9760 R 13316



M 366.9792 R 13850



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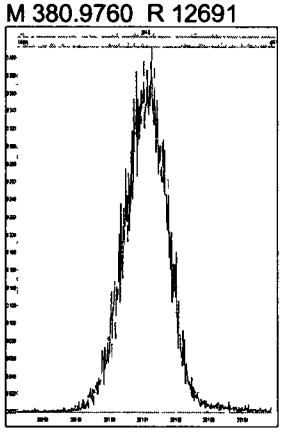

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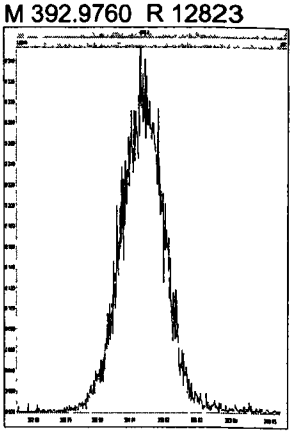

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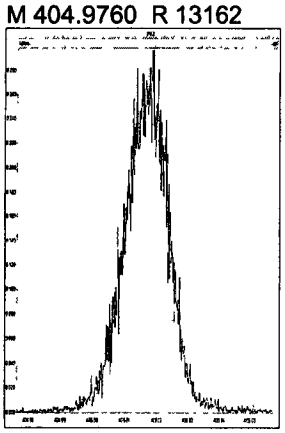

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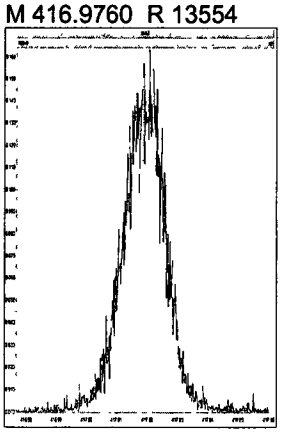
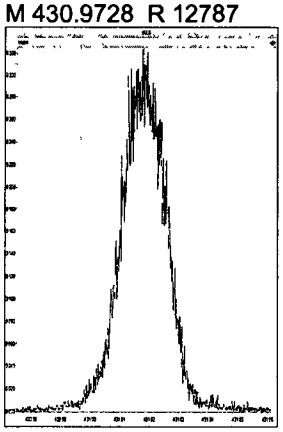


M 430.9728 R 12787



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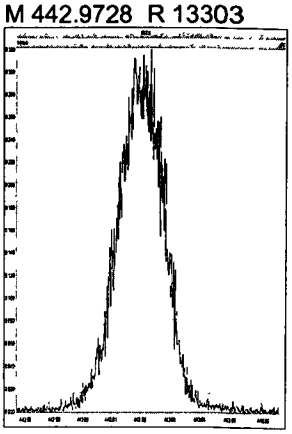

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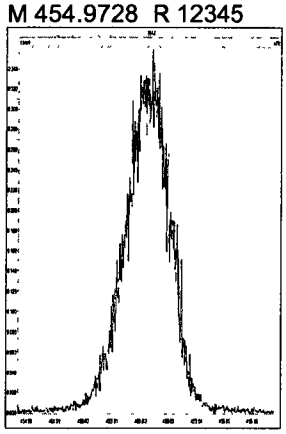

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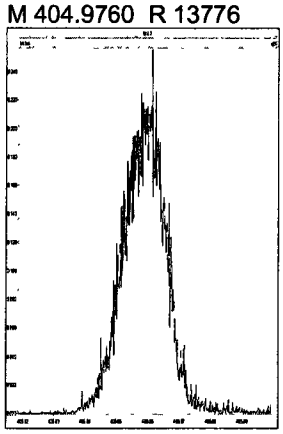

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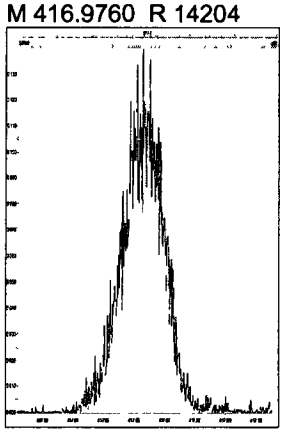

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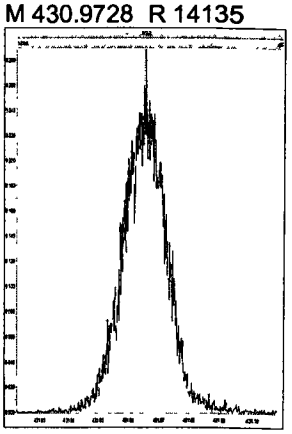
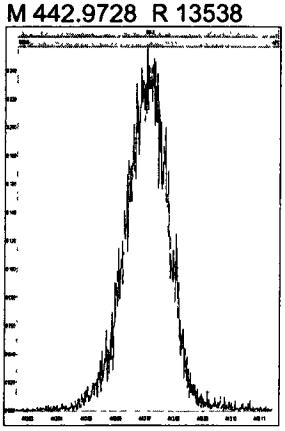


M 442.9728 R 13538



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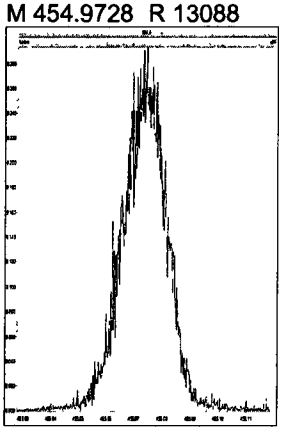

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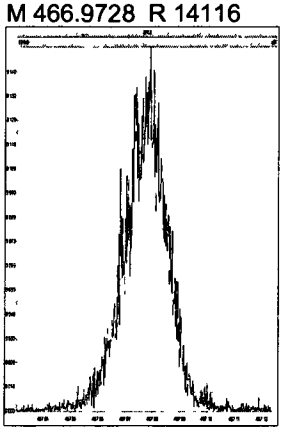

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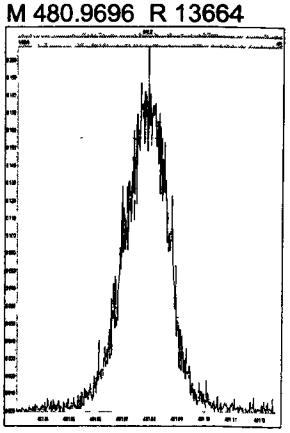

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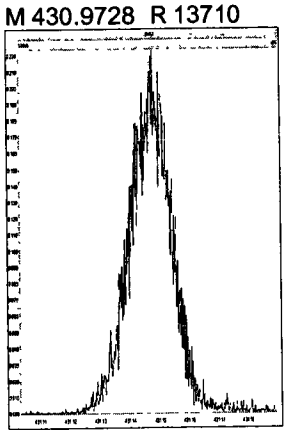

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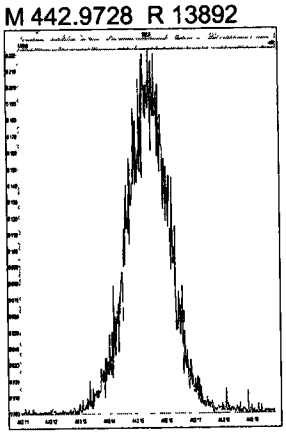

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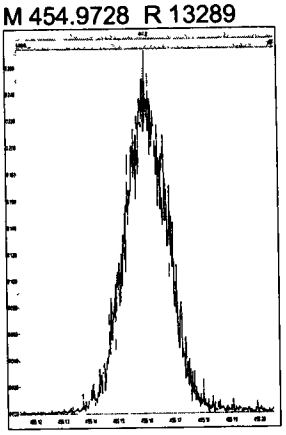

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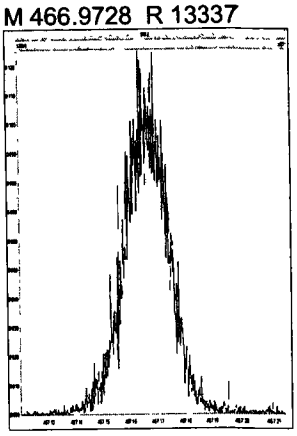
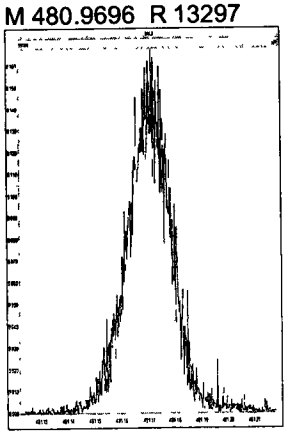
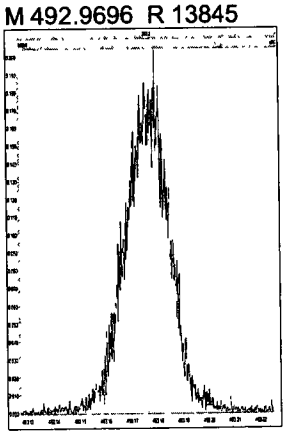


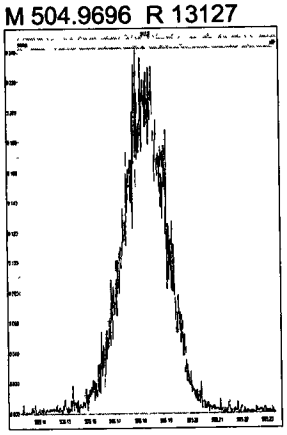
M 480.9696 R 13297



M 492.9696 R 13845



M 504.9696 R 13127



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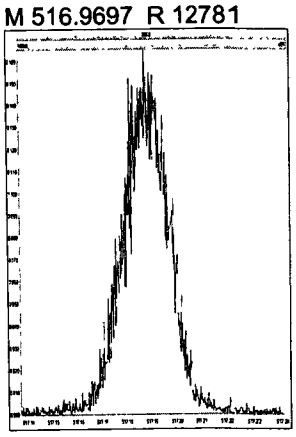

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	12378-PeCDF	30.154	1.001	1.64e6	1.08e6	0.836	1.525	1.550	5600.1	NO	52.855	52.855
	23478-PeCDF	31.503	1.001	1.66e6	1.10e6	0.851	1.519	1.550	5651.7	NO	52.717	52.717
	123478-HxCDF	35.175	1.000	1.42e6	1.18e6	1.017	1.202	1.240	4718.1	NO	51.548	51.548
	234678-HxCDF	36.271	1.001	1.41e6	1.19e6	1.027	1.185	1.240	4751.9	NO	53.739	53.739
	123678-HxCDF	35.328	1.001	1.43e6	1.20e6	1.013	1.194	1.240	4916.8	NO	50.410	50.410
	123789-HxCDF	37.422	1.001	1.28e6	1.06e6	0.929	1.199	1.240	4348.5	NO	52.663	52.663
	1234678-HpCDF	39.472	1.000	1.20e6	1.23e6	1.151	0.981	1.050	3611.8	NO	52.604	52.604
	1234789-HpCDF	42.168	1.000	9.78e5	1.00e6	1.149	0.977	1.050	2520.9	NO	52.716	52.716
	OCDF	47.465	1.006	1.50e6	1.71e6	0.963	0.875	0.890	3665.5	NO	104.644	104.644
	2378-TCDD	26.646	1.001	2.34e5	3.08e5	0.980	0.760	0.770	1335.3	NO	10.020	10.020
	12378-PeCDD	31.755	1.001	1.26e6	8.22e5	0.948	1.538	1.550	4390.0	NO	49.490	49.490
	123478-HxCDD	36.403	1.000	1.14e6	9.32e5	0.941	1.221	1.240	3174.9	NO	49.930	49.930
	123678-HxCDD	36.534	1.000	1.12e6	9.15e5	0.884	1.228	1.240	3177.6	NO	50.126	50.126
	123789-HxCDD	36.961	1.012	1.16e6	9.35e5	0.870	1.235	1.240	3241.3	NO	53.385	53.385
	1234678-HpCDD	41.280	1.000	9.06e5	8.84e5	0.948	1.025	1.050	2839.3	NO	50.141	50.141
	OCDD	47.187	1.000	1.41e6	1.58e6	0.969	0.891	0.890	4024.9	NO	96.770	96.770
	13C-2378-TCDF	25.988	1.007	3.35e6	4.35e6	1.318	0.770	0.770	11348.7	NO		105.597
	13C-12378-PeCDF	30.133	1.168	3.73e6	2.43e6	1.026	1.537	1.550	10259.9	NO		108.646
	13C-23478-PeCDF	31.481	1.220	3.72e6	2.43e6	0.966	1.533	1.550	10417.6	NO		115.195
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	13C-1234678-HpCDF	39.461	1.068	1.25e6	2.77e6	0.896	0.451	0.440	6134.5	NO		100.202
	13C-1234789-HpCDF	42.157	1.141	1.01e6	2.25e6	0.693	0.449	0.440	4247.4	NO		105.361
	13C-1234-TCDD	25.809	0.000	2.42e6	3.11e6	1.000	0.777	0.770	9496.1	NO		100.000
	13C-2378-TCDD	26.616	1.031	2.41e6	3.12e6	0.961	0.773	0.770	8937.2	NO		104.024
	13C-12378-PeCDD	31.733	1.230	2.71e6	1.73e6	0.703	1.568	1.550	17327.0	NO		114.307
	13C-123478-HxCDD	36.391	0.985	2.45e6	1.95e6	1.016	1.256	1.240	8199.5	NO		96.915
	13C-123678-HxCDD	36.523	0.988	2.54e6	2.06e6	1.098	1.234	1.240	8563.0	NO		93.595
	13C-1234678-HpCDD	41.269	1.117	1.92e6	1.84e6	0.828	1.046	1.050	6294.7	NO		101.626
	13C-OCDD	47.169	1.277	2.99e6	3.39e6	0.770	0.881	0.890	6160.0	NO		185.199

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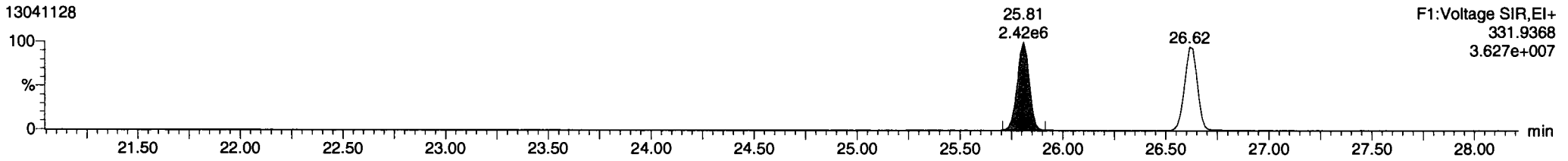
13C-1234-TCDD



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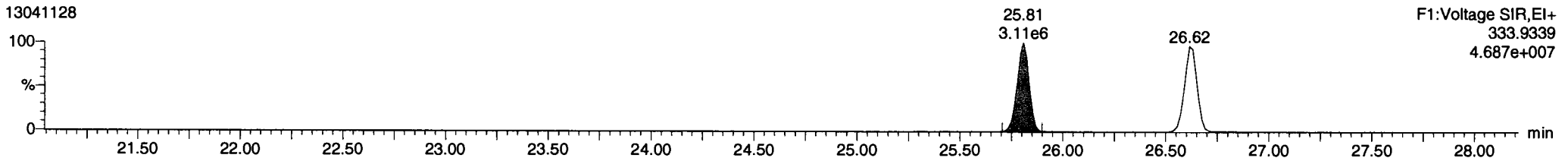

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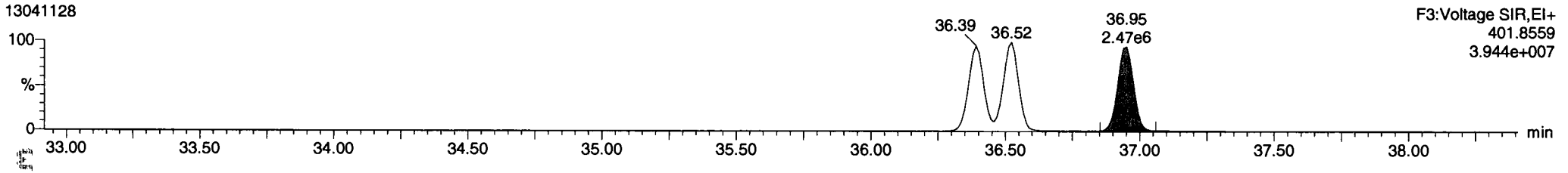

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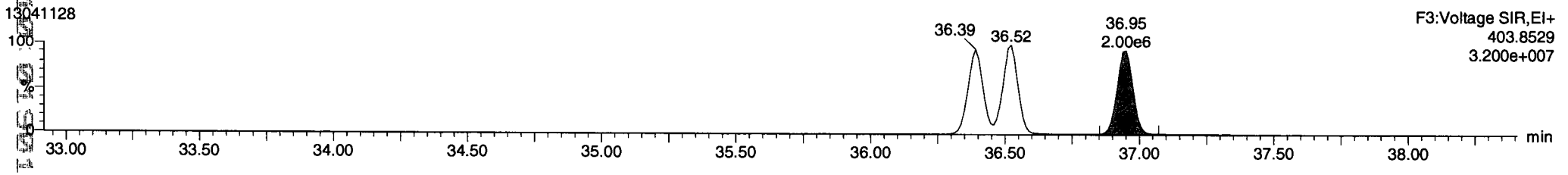

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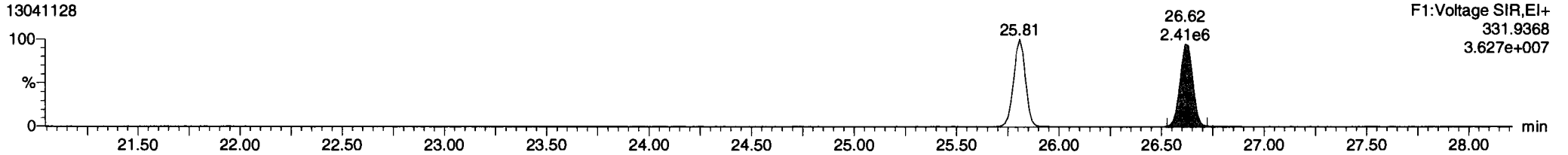

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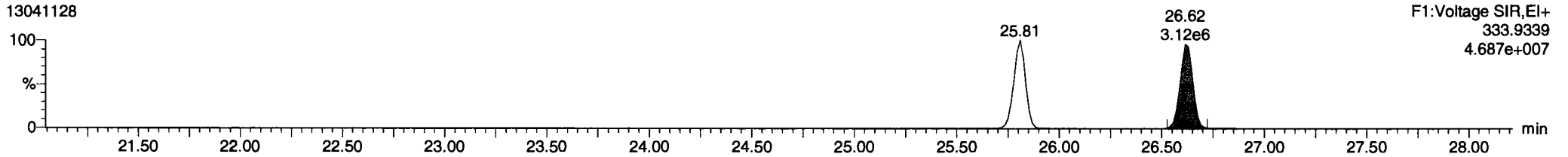
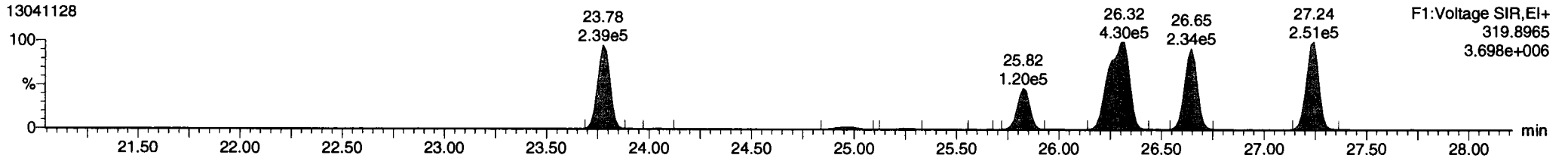
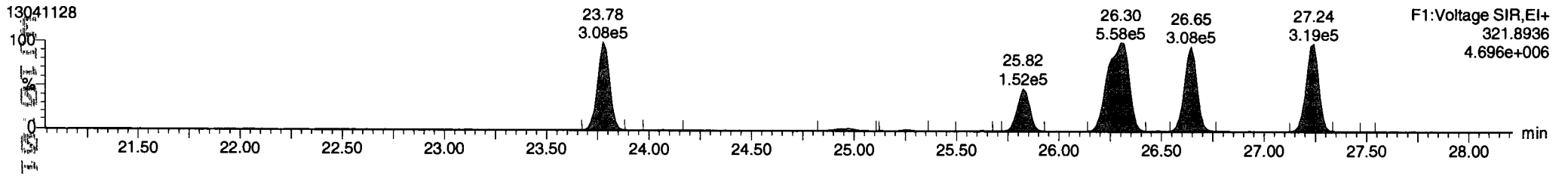


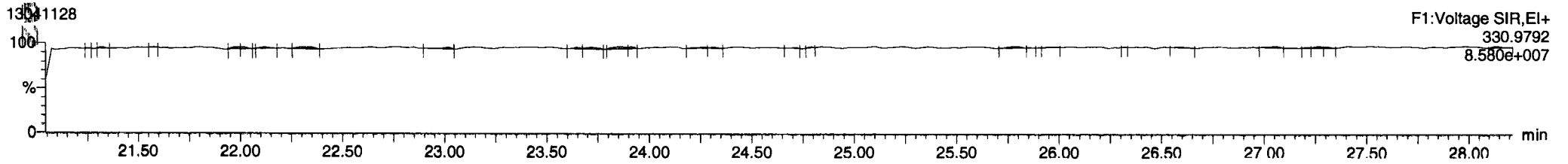
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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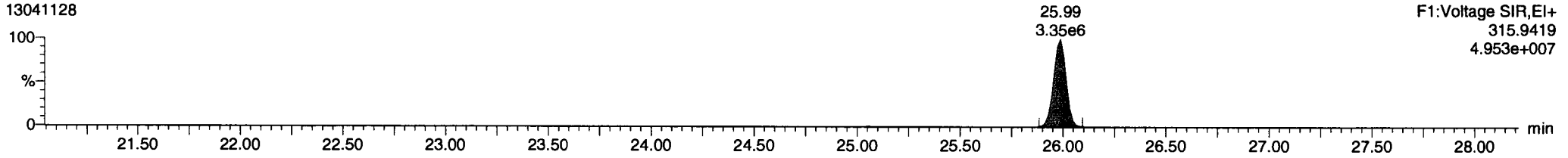
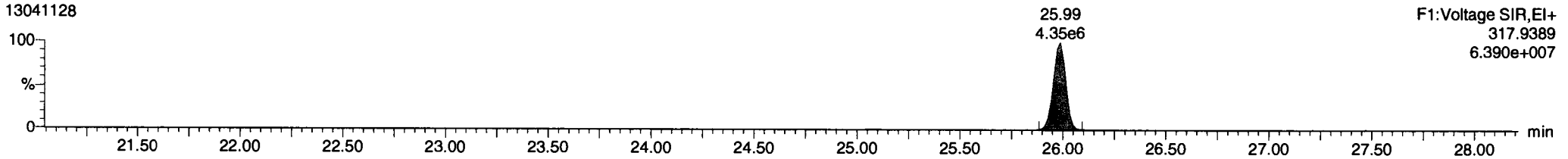
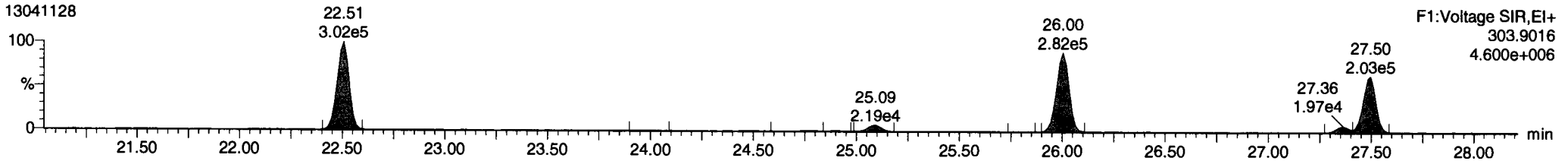
13C-2378-TCDF



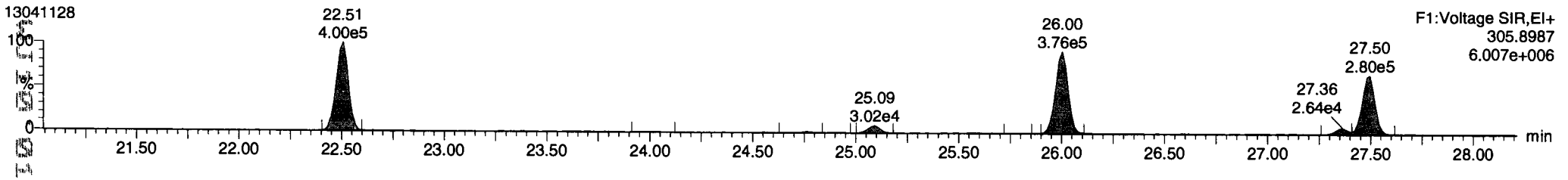
13C-2378-TCDF



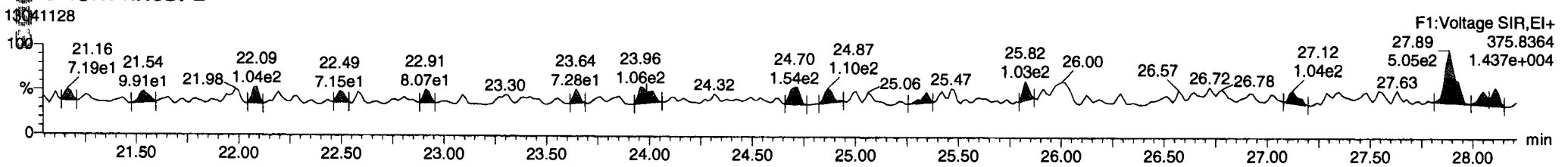
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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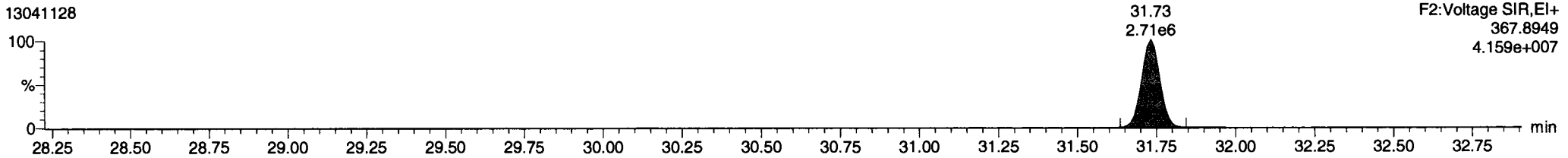
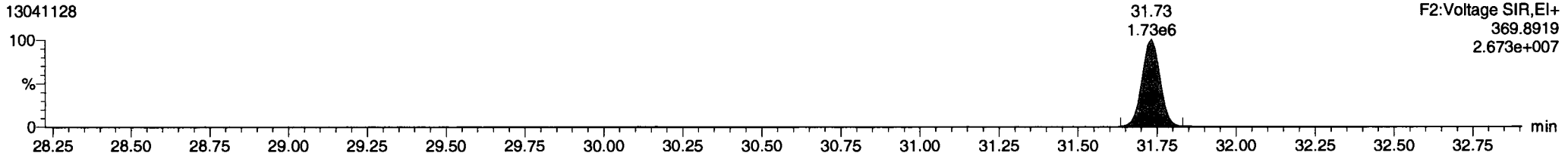
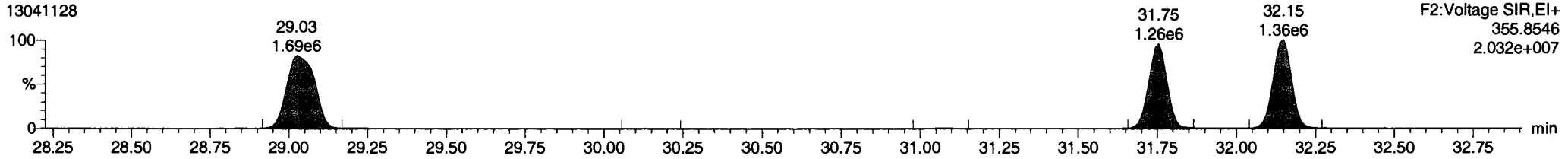
13C-12378-PeCDD



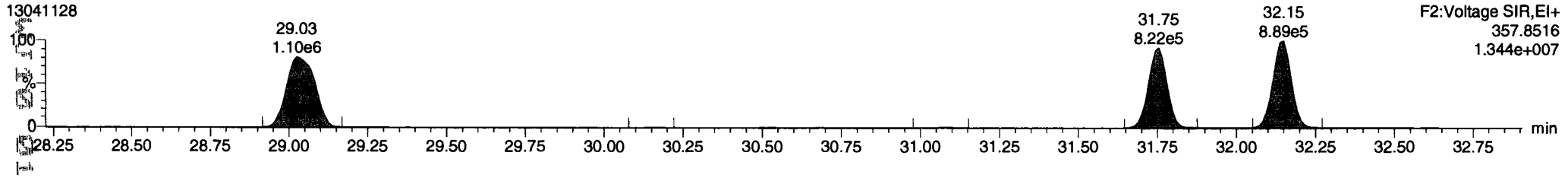
13C-12378-PeCDD



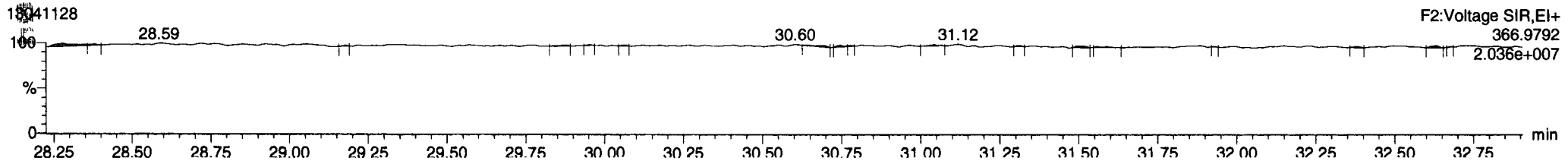
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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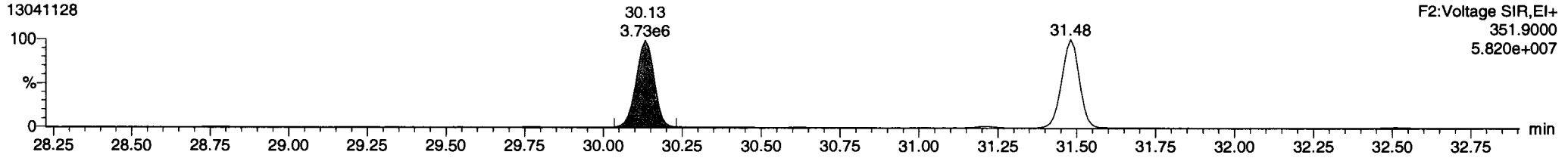
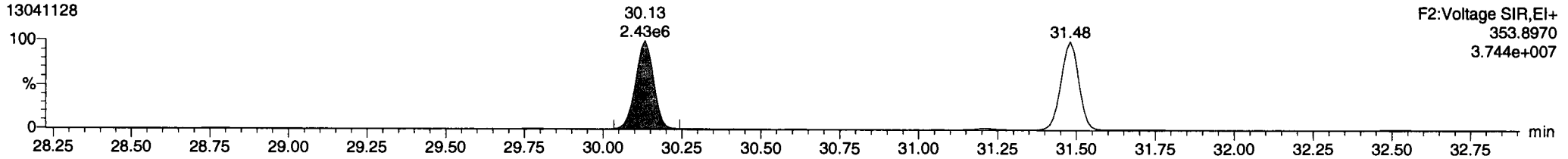
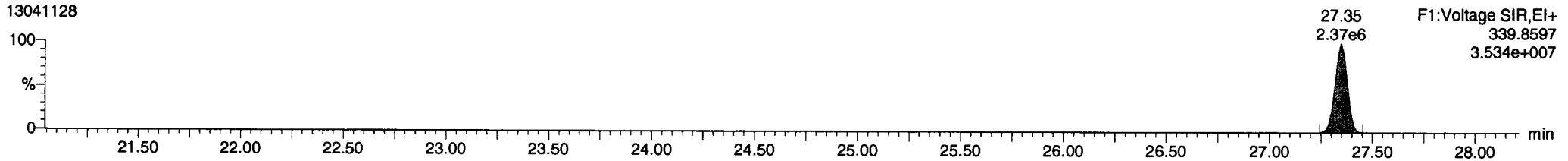
13C-12378-PeCDF



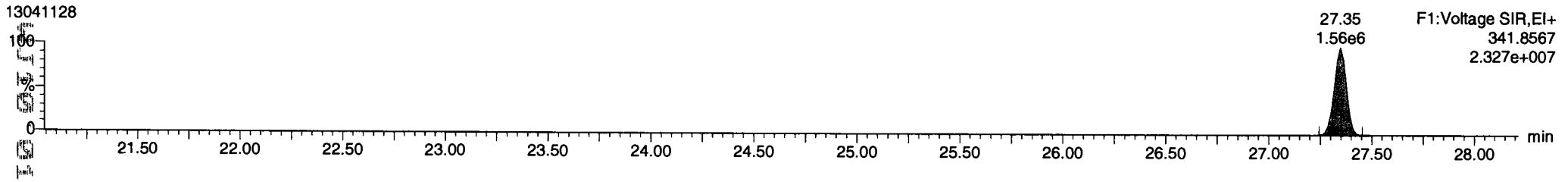
13C-12378-PeCDF



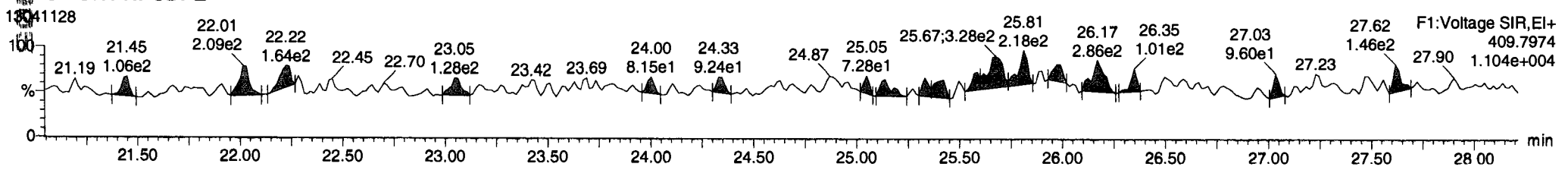
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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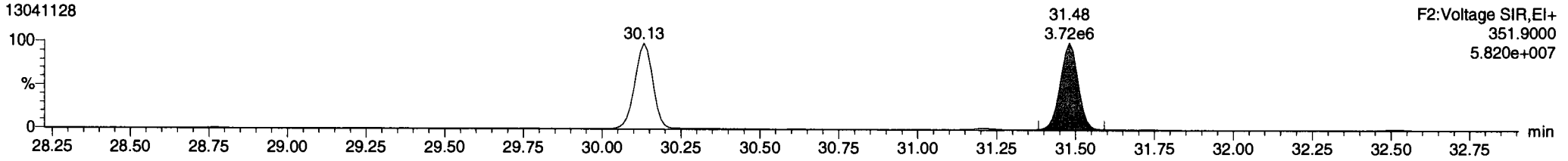
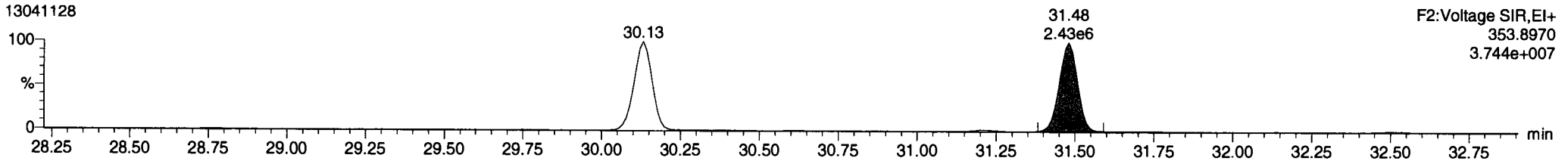
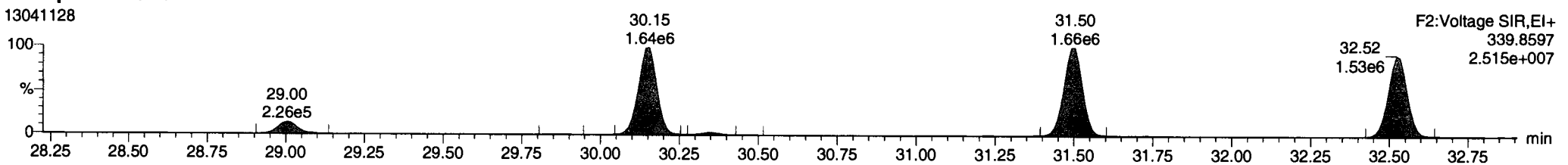
13C-23478-PeCDF



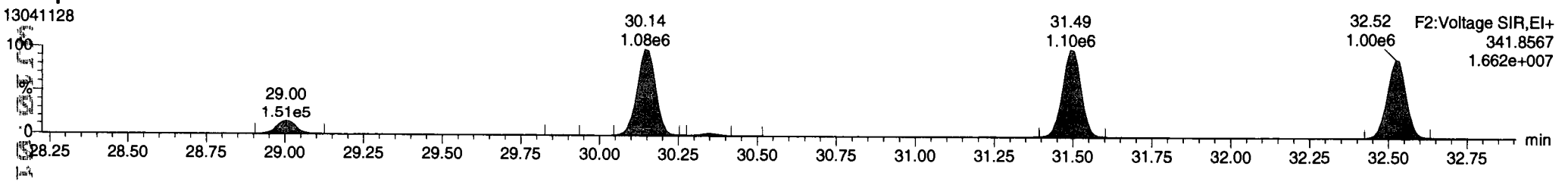
13C-23478-PeCDF



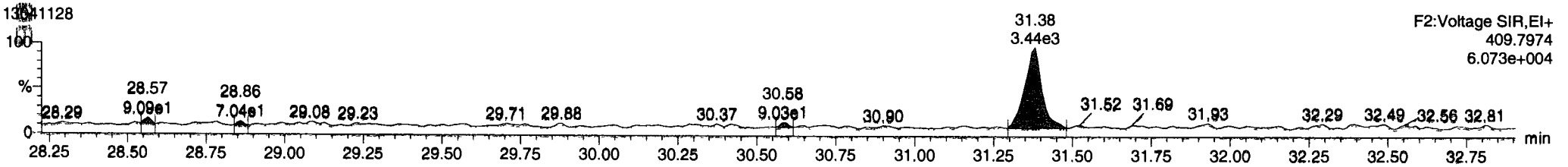
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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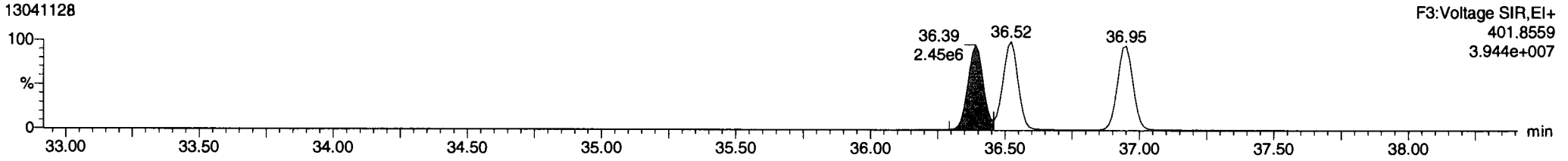
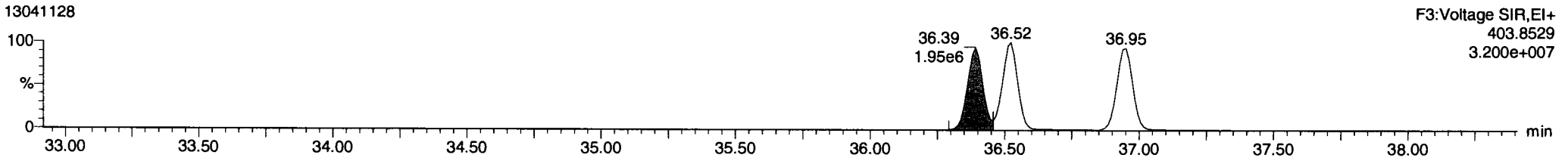
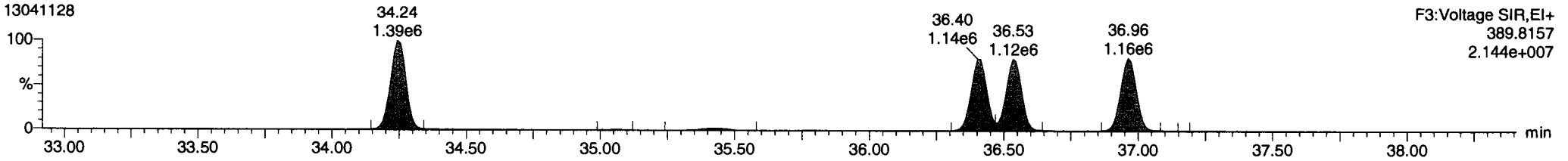
13C-123478-HxCDD



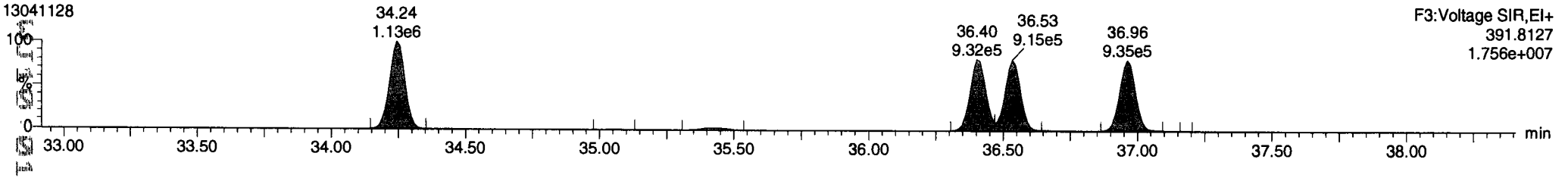
13C-123478-HxCDD



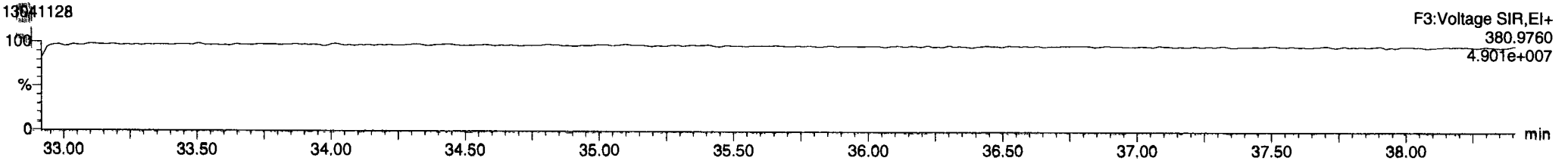
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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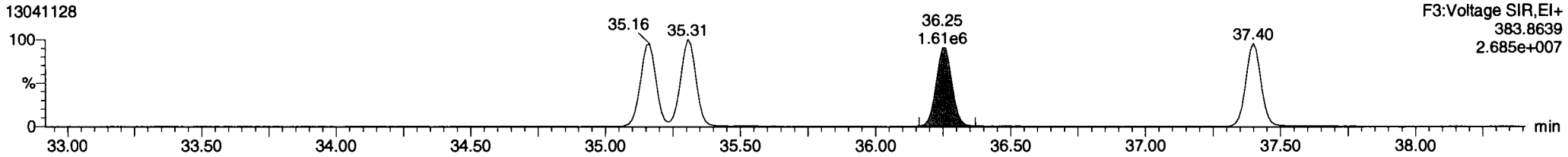
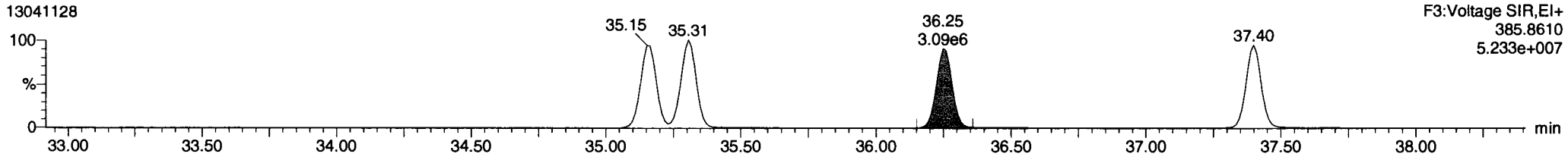
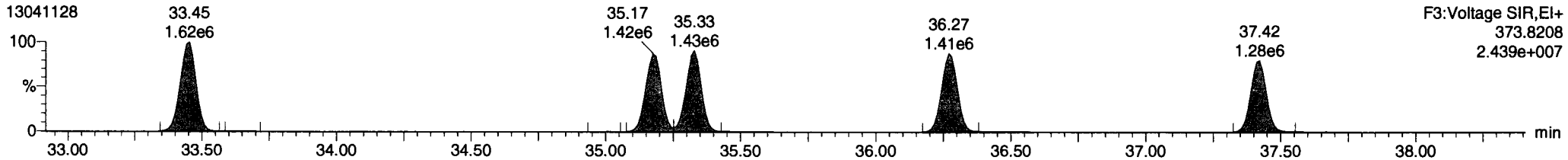
13C-234678-HxCDF



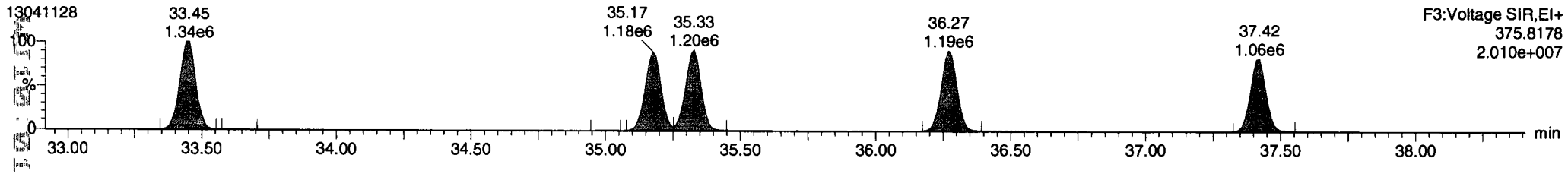
13C-234678-HxCDF



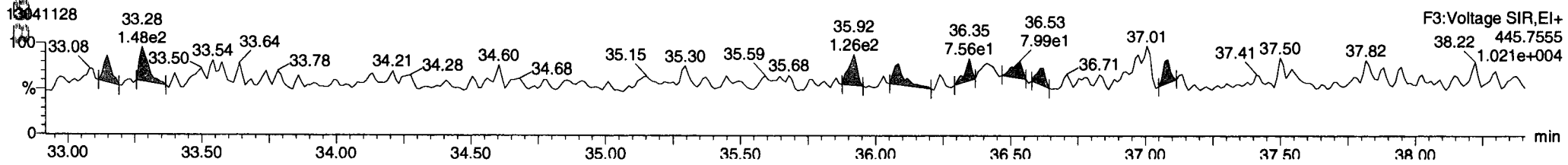
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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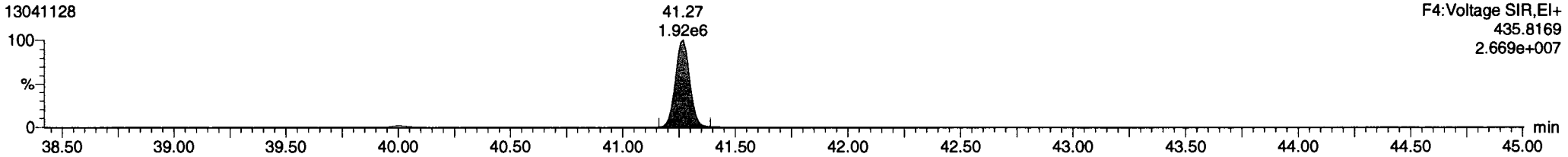
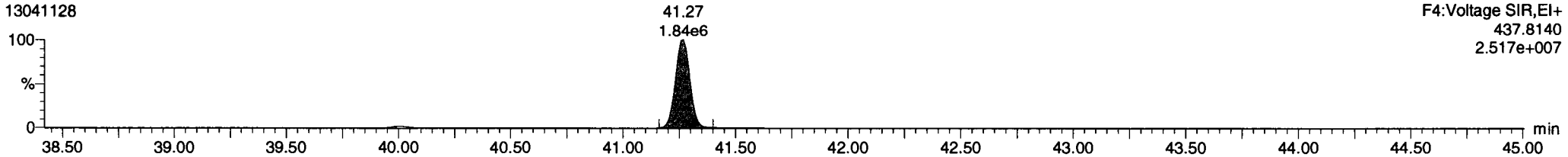
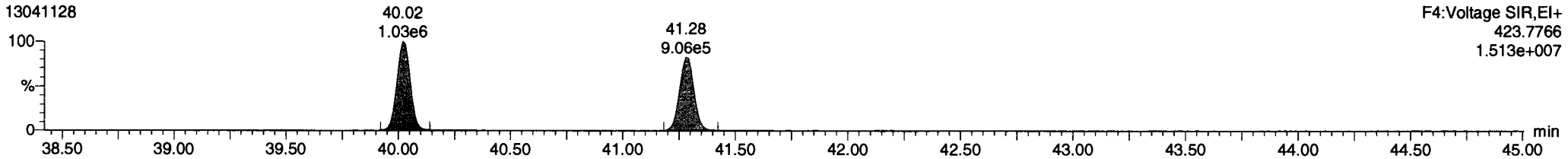
13C-1234678-HpCDD



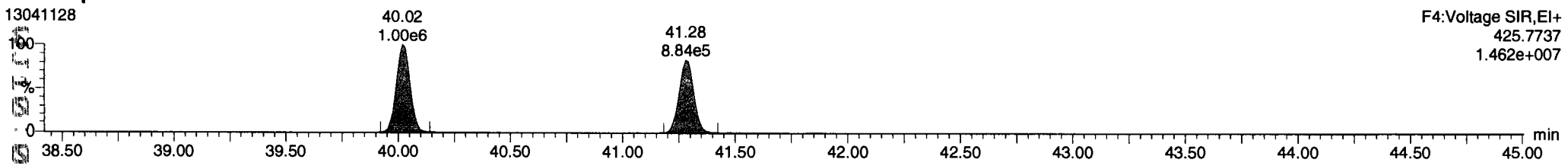
13C-1234678-HpCDD



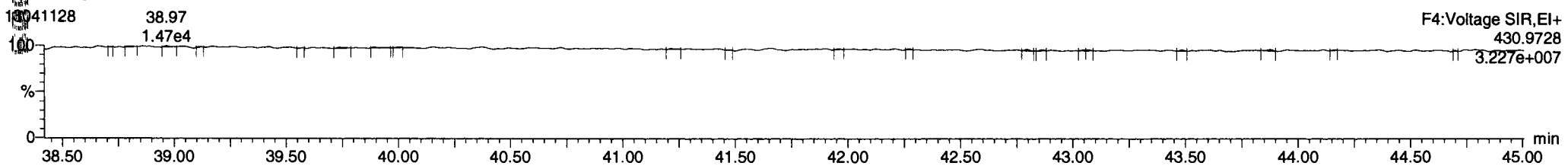
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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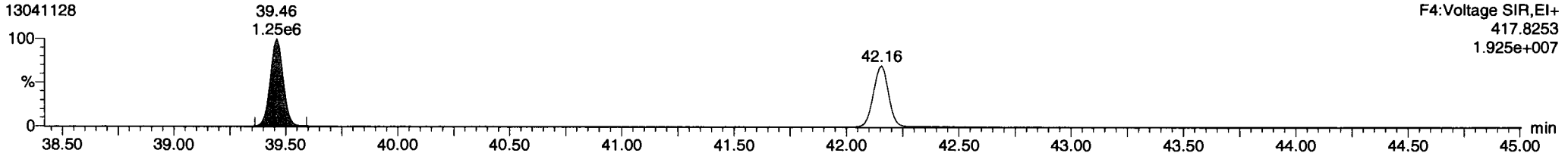
13C-1234678-HpCDF



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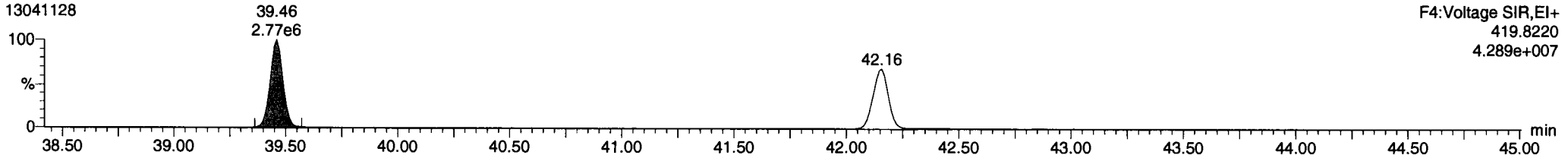
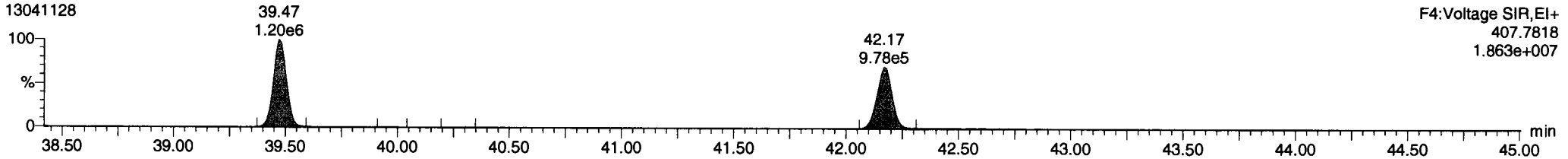
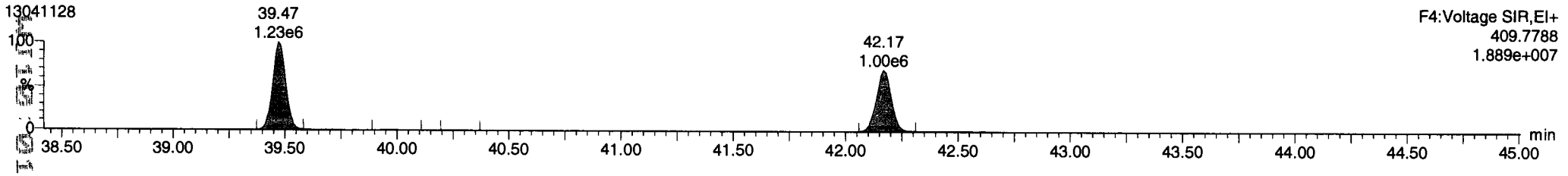


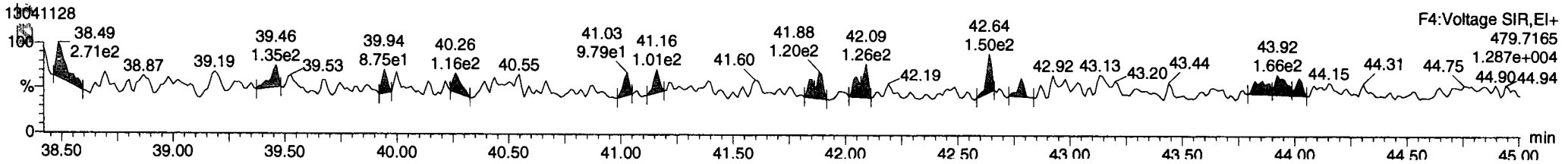
Total-heptafurans



Total-heptafurans

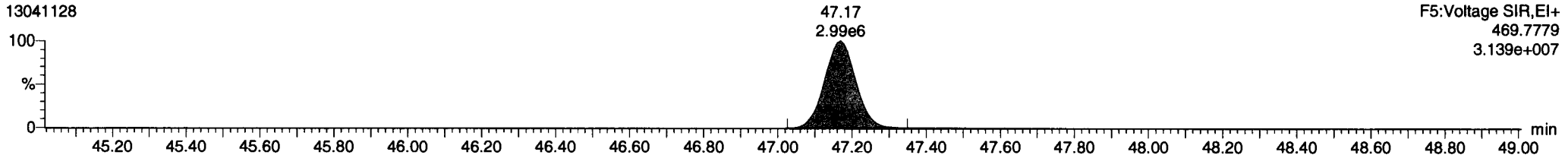


FUNCTION4 NCDPE

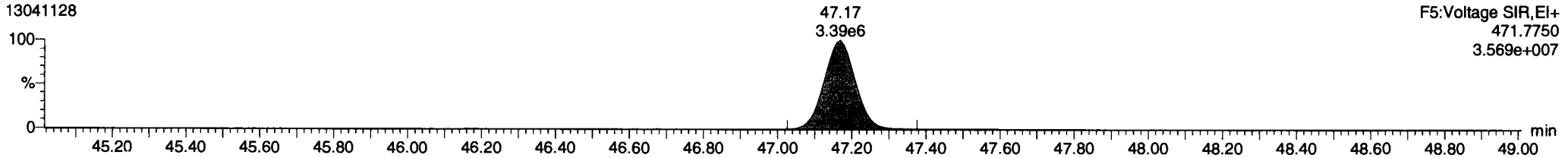


ID: CS3, Name: 13041128, Date: 12-Apr-2013, Time: 09:40:57, Conditions: AUTOSPEC01, User: pk

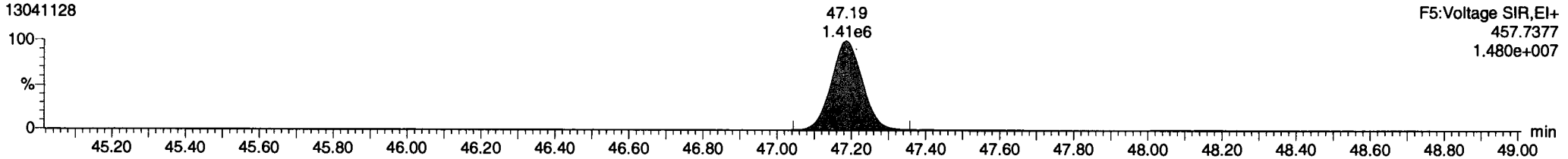
13C-OCDD



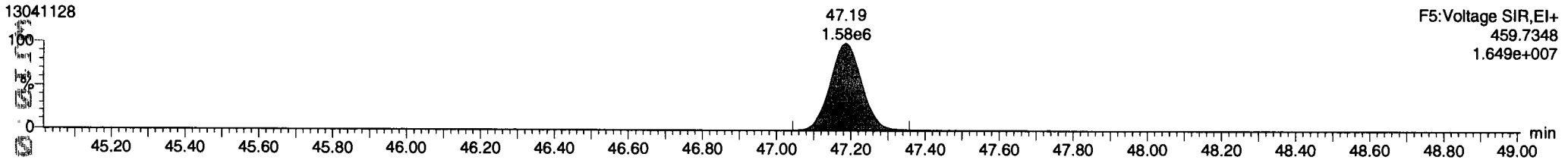
13C-OCDD



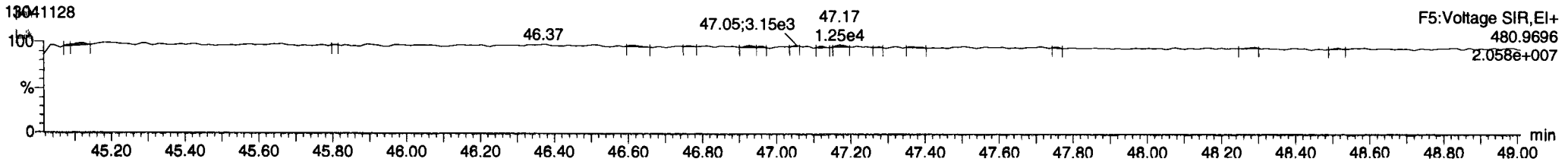
OCDD



OCDD



FUNCTION5 PFK



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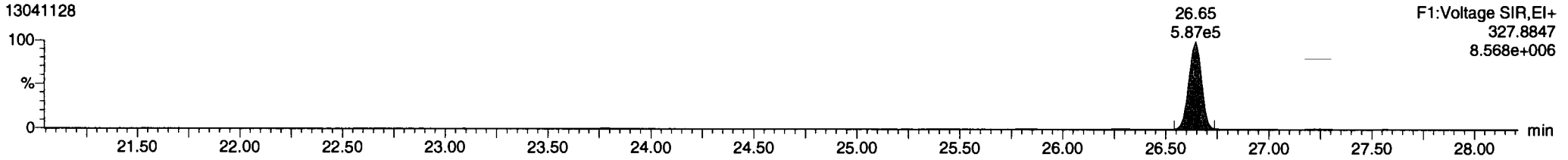
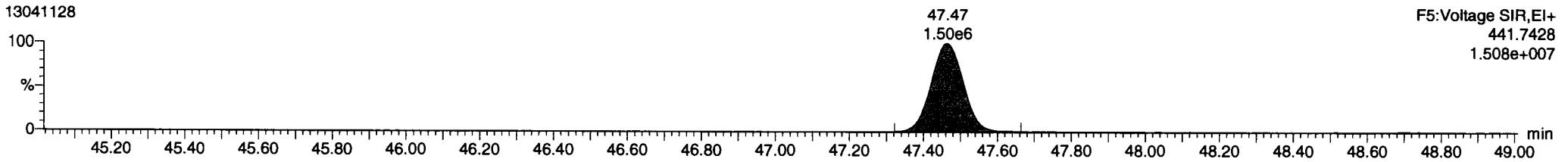
Last Altered: Friday, April 12, 2013 12:58:05 Pacific Daylight Time
Printed: Friday, April 12, 2013 13:11:20 Pacific Daylight Time

ID: CS3, Name: 13041128, Date: 12-Apr-2013, Time: 09:40:57, Conditions: AUTOSPEC01, User: pk

37CL-2378-TCDD



OCDF



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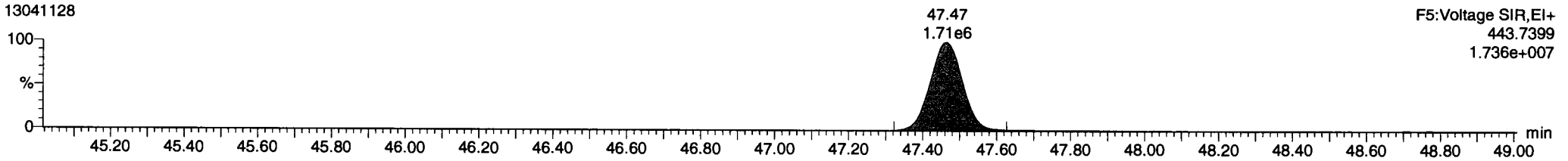
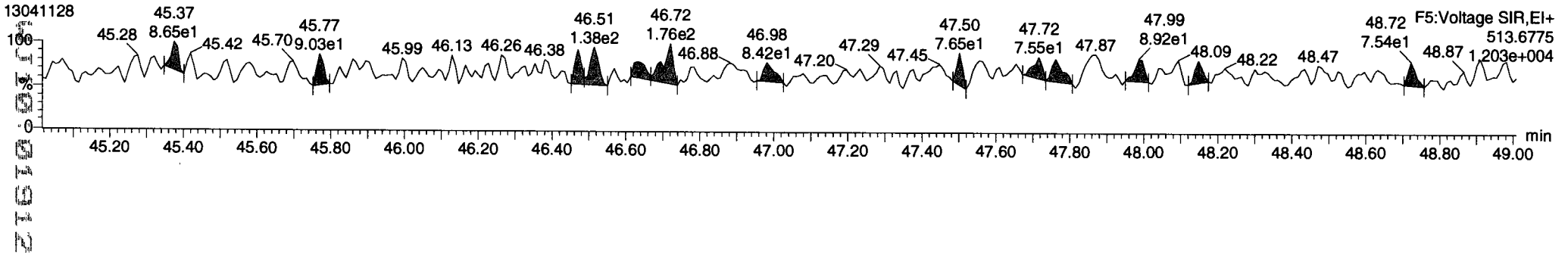


FUNCTION5 DCDPE



Pesticide Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

(8081B) Pest – Water
Separatory Funnel (3510C) (SOP # 3311S)
In-House (0.05-0.1ppb)

Preparation Test Pest # 1(PESWSI)
ARI Job No(s) WJ1Φ Page 1 of 1 Batch set up by: ~~SP~~

Bottle #	ARI Sample I.D.	Volume Extracted	(Opt) Sulfur Clean 4.5mL+0.5mL (5mL) Ethyl Acetate (1) 2 3	(Opt) Silica Gel Clean (1:5)	Final Effective Volume	Volume to Lab	Comment	Verify Client ID
	MBW	500mL	(5mL) (Y) / N	(1:5) (Y) / N	5mL	1mL		AC 4-1-13 Analyst/Date
	SBW	500mL	(5mL) (Y) / N	(1:5) (Y) / N	5mL	1mL		Verify pH is 5-9
	SBW Dup.	500mL	(5mL) (Y) / N	(1:5) (Y) / N	5mL	1mL		AC 4-1-13 Analyst/Date
	~~QLS~~	~~500mL~~	~~(5mL) Y / N~~	~~(1:5) Y / N~~	~~5mL~~	~~1mL~~		
6	WJ1Φ A	500mL	(5mL) (Y) / N	(1:5) (Y) / N	5mL	1mL		KD 80-85°C
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		Hexane Exchange (2 X 20mL) 100°C (1) 2 3 4 5 6
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		RR 04/12/13 Analyst/Date
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		TurboVap (1) 2 3 Pre-Cleanups (4mL=10mL Hexane Exchange)
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		SP 4/5/13 Analyst/Date
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		TurboVap (1) 2 3 Post Cleanups
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL		
		500mL	(5mL) Y / N	(1:5) Y / N	5mL	1mL	SP 4/5/13	SP 4/5/13 Analyst/Date
Analyst/Date		AC 4-1-13	SP 4/5/13	SP 4/5/13	SP 4/5/13	SP 4/5/13		

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N (2Φ35-2)	2µg/mL	100µL	5/16/13	AC	ww
Spike	3 (2Φ79-2)	0.5/1/5µg/mL	200µL	12/Φ/13	AC	ww
~~QLS Spike~~	~~10 ( )~~	~~0.25-2.5µg/mL~~	~~50µL~~			

Extraction Time: 17:05

SPECIAL INSTRUCTIONS: 1. Verify pH is 5-9 2. Adjust pH (if necessary=Analyst Notes). 3. Add Surr/Spike. 4. Extract 3X with 30mL DCM. 5. KD (NO Drying Column) at 80°. 6. Exchange (2 X with 20mL) Hexane at 100°. 7. TurboVap to 4mL=10mL Hexane Exchange. 8. TurboVap. 9. Clean-ups? 10. TurboVap (if Silica Clean). 11. Vial with Hexane.

Archive (Y) / N

WJ10:0131U

Reagent and Solutions Identification

(8081B) Pest – Water
Separatory Funnel (3510C) (SOP # 3311S)

ARI Job No(s) WJ10

(8081B) Pest Aqueous:	Analyst/Date
Separatory Funnel Station:	Sep. Funnel
Methylene Chloride: (I# 8154)	AC
Anhydrous Sodium Sulfate: (I# 8068 + jar date 2-4-13)	4-15-13
KD Station:	KD
Methylene Chloride: (I# 8164)	RR
Hexane: (I# 8166)	4/4/13
Vialing Station:	Vialing
Hexane: (I# 8166)	SG
Ethyl Acetate: (I# 6079)	4/5/13
Tetrabutylammonium hydrogensulfate (TBAS): (H# 148)	
Sodium Sulfite: (I# 7704)	
Silica Gel (SPE) Darts: (I# 7914)	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: Pest Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
(Centrifuge#1 used for all Centrifugations)	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

(8081B) Pest PSDDA – Soil/Sed (Solids)
Microwave (3546) (SOP # 3304S)

Preparation Test Pest # 5 (PESSDMP) PSDDA (1-2ppb)

ARI Job No(s) WJ10 Page 1 of 1 Batch set up by: AC

Bottle #	ARI Sample I.D.	Weight Extracted (eq. to 12.5 dry wt)	(REQ) Sulfur Clean 2mL+0.5mL Ethyl Acetate 1 (2) 3 High Sulfur	(REQ) Silica Gel Clean (1:2.5)	Final Effective Volume	Volume to Lab	Comment	Verify Client ID AC 4-4-13 Analyst/Date
	WJ10 MBS	12.5g	2.5mL	(1:2.5) 1mL	2.5mL	1mL	(10g Actual Wt)	Microwave 1 (2) 3 AC 4-4-13 Analyst/Date
	SBS	12.5g	2.5mL	(1:2.5) 1mL	2.5mL	1mL	(10g Actual Wt)	
	~~SBS Dup~~	~~12.5g~~	~~2.5mL~~	~~(1:2.5) 1mL~~	~~2.5mL~~	~~1mL~~	~~(10g Actual Wt)~~	
	WJ10 QLS	12.5g	2.5mL	(1:2.5) 1mL	2.5mL	1mL	(10g Actual Wt)	KD 100°C Hexane Exchange (2 X 20mL) 1 2 (3) (4) 5 6 TH 4/5/13 Analyst/Date
4	C	12.52	~~2.5mL~~ 5mL	~~(1:2.5)~~ 1:5 1mL	~~2.5mL~~ 5mL	1mL	see Analyst Notes	
4	CMS	12.52	~~2.5mL~~ 5mL	~~(1:2.5)~~ 1:5 1mL	2.5mL 5mL	1mL		
4	CMSD	12.50	~~2.5mL~~ 5mL	~~(1:2.5)~~ 1:5 1mL	2.5mL 5mL	1mL		
7	D	12.51	~~2.5mL~~ 5mL	~~(1:2.5)~~ 1:5 1mL	2.5mL 5mL	1mL		TurboVap 1 (2) 3 Pre-Cleanups WW 4/6/13 Analyst/Date
			2.5mL	(1:2.5) 1mL	2.5mL	1mL		
			2.5mL	(1:2.5) 1mL	2.5mL	1mL		
			2.5mL	(1:2.5) 1mL	2.5mL	1mL		
			2.5mL	(1:2.5) 1mL	2.5mL	1mL	CJZ 4/8/13	TurboVap 1 2 (3) Post Cleanups CJZ 4/8/13 Analyst/Date
			2.5mL	(1:2.5) 1mL	2.5mL	1mL		
			2.5mL	(1:2.5) 1mL	2.5mL	1mL		
Analyst/Date AC 4-4-13			WW 4/6/13	WW 4/6/13	WW 4/6/13	CJZ 4/8/13		

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N (2435-2)	2µg/mL	50µL	5/16/13	AC	TH
Spike	3 (2479-2)	0.5/1/5µg/mL	100µL	12/19/13	AC	TH
QLS Spike	10 (2446-2)	0.25-2.5µg/mL	25µL	12/16/13	AC	TH
Extraction Time: 14:34			Balance ID: B1w127534			

SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hex/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 15 min in cold water. Re-homogenize while cool. 7. Decant 1:1 Hex/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing neutral glasswool. 8. Rinse with Hexane 9. Microwave a 2nd time using 8:2 Hex/Ace (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (Small ~~or Large~~ drying column) to 5mL at 100°C. 12. Exchange to Hexane (2 X with 20mL). 13. TurboVap. 14. Clean-ups. 15. TurboVap. 16. Vial in Hexane.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

Reagent and Solutions Identification

(8081B) Pest PSDDA – Soil/Sed/Solids
Microwave (3546) (SOP # 3304S)

ARI Job No(s) WJ10

(8081B) Pest PSDDA Soil/Sediment/Solid/Other:	Analyst/Date
Microwave Station: Anhydrous Sodium Sulfate: (I# 8048 + jar date 2-4-13 Neutral Glasswool: (I# 7998 + jar date 12-6-12) 1:1 Hexane/Acetone: (H# 146) 80:20 Hexane/Acetone: (H# 149) Hexane: (I# 8114)	Microwave AC 4-4-13
KD Station: Hexane: (I# 5773) Anhydrous Sodium Sulfate: (I# 8040 + jar date 3/25/13) Neutral Glasswool: (I# 7998 + jar date 2/25/13)	KD TH 4/5/13
Vialing Station: Hexane: (I# D914) Ethyl Acetate: (I# E0079) Tetrabutylammonium hydrogensulfate (TBAS): (H# H148) Sodium Sulfite: (I# F7704 Silica Gel (SPE) Darts: (I# D7914)	Vialing ww 4/6/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: Pest PSDDA Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☒ Standing Water Decanted (Not shared)= C, D	YL 3/28/13
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☒ Organics (Leaves/sticks/grass)= 5% 6/2 D.	YL 3/28/13
☒ Oily, obvious fuel/sulfur odors= C, D	YL 3/28/13
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions). GC analyst,	
(Centrifuge#1 used for all Centrifugations) reduced extraction weights for	
both samples, based on sample pre-screens.	~~JA~~ 4/04/13
Extracts C, Cms, Cmsd, D were Blank and Visrus pre-Cleanup. Taken to 5mL for Sulfur Clean	
1mL split for SPE	MW 4/6/13
extracts C, Cms, Cmsd emulsed on Water Wash, centrifuged to break	MW 4/6/13

Pesticide Raw Data
Initial Calibration

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 04/05/13 Internal Standard ID 2006-1 Expiration 7/26/13

Endrin/DDT Breakdown <15%? YES / NO / NA
ICal Meets %RSD & r^2 Criteria YES / NO
Manual Integrations for ICal? YES / NO
Minimum Response S/N Met YES / NO

ICV Exceeding ±20%? YES / NO
ICV Exceeding ±30%? YES / NO
Linear Fits Used? YES / NO
Quadratic Fits Used? YES / NO
Calibration Points Dropped? YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Restek	2048-1	5/16/13	Ultra	2083-1	5/16/13
	2048-2	5/16/13		2064-1	01/17/14
	2067-1	5/16/13			
	2067-2	5/16/13			

Detail problems, corrective actions and/or other pertinent information below:

Analyst: VZ **Date:** 4/8/13

Reviewer: _____ **Date:** _____

WI10:01921

Analytical Resources Inc.: Organics Instrument Log

ECD6 Serial No.: US00007128

Date: 4/05/13 Analysis: Pest Analyst: YZ

Column 1 Serial No.: 1097966 Column Type:

Column 2 Serial No.: 1092322 Column Type:

GC Method: ICal Date:

IS	Ical/Ccal	ICV
2006-1	2048-1,2	
	2067-1,2.	

Document All Maintenance Tasks In StarLIMS

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20130405PEST.b/ical-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	05-APR-2013 11:46	0405a003.d	1	DS	
2	05-APR-2013 12:47	0405a004.d	1	INDAE	
3	05-APR-2013 13:05	0405a005.d	1	INDAA	
4	05-APR-2013 13:23	0405a006.d	1	INDAB	
5	05-APR-2013 13:41	0405a007.d	1	INDAC	
6	05-APR-2013 13:58	0405a008.d	1	INDAD	
7	05-APR-2013 14:17	0405a009.d	1	INDAF	
8	05-APR-2013 14:35	0405a010.d	1	INDAG	
9	05-APR-2013 14:53	0405a011.d	1	INDA ICV	
10	05-APR-2013 15:10	0405a012.d	1	DS	
11	05-APR-2013 15:28	0405a013.d	1	TOXAPHENE	
12	05-APR-2013 15:46	0405a014.d	1	WNDE	
13	05-APR-2013 16:04	0405a015.d	1	WNDA	
14	05-APR-2013 16:22	0405a016.d	1	WNDB	
15	05-APR-2013 16:40	0405a017.d	1	WNDC	
16	05-APR-2013 16:57	0405a018.d	1	WNDD	
17	05-APR-2013 17:15	0405a019.d	1	WNDF	
18	05-APR-2013 17:33	0405a020.d	1	WNDG	
19	05-APR-2013 17:51	0405a021.d	1	WNDICV	
20	05-APR-2013 18:09	0405a022.d	1	DS	
21	05-APR-2013 18:26	0405a023.d	1	INDAE	
22	05-APR-2013 18:44	0405a024.d	1	WNDE	
23	05-APR-2013 19:02	0405a025.d	1	TOXAPHENE	
24	05-APR-2013 19:20	0405a026.d	1	WI89F	W5
25	05-APR-2013 19:38	0405a027.d	1	WI89E	W4
26	05-APR-2013 19:55	0405a028.d	1	WI89D	W3-D
27	05-APR-2013 20:13	0405a029.d	1	WI89C	W3
28	05-APR-2013 20:31	0405a030.d	1	WI89BMSD	W2 MSD
29	05-APR-2013 20:49	0405a031.d	1	WI89BMS	W2 MS
30	05-APR-2013 21:07	0405a032.d	1	WI89B	W2
31	05-APR-2013 21:24	0405a033.d	1	WI89MBW1	WI89MBW1
32	05-APR-2013 21:42	0405a034.d	1	WI89LCSW1	WI89LCSW1
33	05-APR-2013 22:00	0405a035.d	1	WI89A	W1
34	05-APR-2013 22:18	0405a036.d	1	DS	
35	05-APR-2013 22:35	0405a037.d	1	INDAE	
36	05-APR-2013 22:53	0405a038.d	1	WNDE	
37	05-APR-2013 23:11	0405a039.d	1	TOXAPHENE	
38	05-APR-2013 23:29	0405a040.d	1	WJ10MBW1	
39	05-APR-2013 23:47	0405a041.d	1	WJ10LCSW1	
40	06-APR-2013 00:05	0405a042.d	1	WJ10LCSDW1	
41	06-APR-2013 00:22	0405a043.d	1	WJ10A	
42	06-APR-2013 00:40	0405a044.d	1	DS	
43	06-APR-2013 00:58	0405a045.d	1	INDAE	
44	06-APR-2013 01:16	0405a046.d	1	TOXAPHENE	

YZ 4/8/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Batch File: /chem2/ecd6.i/20130405PEST.b/ical-1.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0405a004	0405a005	0405a006	0405a007	0405a008	0405a009	0405a010
INJ.DATE:	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013
INJ.TIME:	12:47	13:05	13:23	13:41	13:58	14:17	14:35

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	2.340	2.339	2.340	2.340	2.340	2.341	2.341	2.341	2.291-2.391	2.340	0.001
* 54 1Bromo-2nitrobenzene	3.165	3.164	3.164	3.165	3.165	3.165	3.165	3.165	3.115-3.215	3.165	0.000
* 58 Hexabromobiphenyl	8.980	8.979	8.979	8.979	8.979	8.980	8.980	8.979	8.929-9.029	8.979	0.001
$ 2 Tetrachloro-m-xylene	3.837	3.835	3.836	3.836	3.836	3.837	3.836	3.836	3.786-3.886	3.836	0.001
3 Hexachlorobenzene	4.181	4.178	4.179	4.179	4.179	4.180	4.179	4.179	4.129-4.229	4.179	0.001
4 alpha-BHC	4.331	4.329	4.329	4.329	4.330	4.331	4.330	4.330	4.280-4.380	4.330	0.001
5 gamma-BHC (Lindane)	4.617	4.614	4.615	4.615	4.615	4.616	4.615	4.615	4.565-4.665	4.615	0.001
6 beta-BHC	4.689	4.686	4.687	4.687	4.687	4.688	4.687	4.687	4.637-4.737	4.687	0.001
7 delta-BHC	4.860	4.858	4.858	4.859	4.858	4.859	4.858	4.858	4.808-4.908	4.859	0.001
8 Heptachlor	5.067	5.064	5.065	5.065	5.065	5.066	5.065	5.065	5.015-5.115	5.065	0.001
9 Aldrin	5.362	5.359	5.360	5.360	5.360	5.361	5.360	5.360	5.310-5.410	5.361	0.001
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
11 Heptachlor epoxide b	5.939	5.936	5.936	5.936	5.937	5.938	5.936	5.936	5.886-5.986	5.937	0.001
12 gamma-Chlordane	6.057	6.054	6.055	6.055	6.055	6.056	6.055	6.055	6.005-6.105	6.055	0.001
13 alpha-Chlordane	6.182	6.179	6.180	6.180	6.179	6.181	6.180	6.180	6.130-6.230	6.180	0.001
14 Endosulfan I	6.316	6.314	6.314	6.314	6.314	6.315	6.315	6.315	6.265-6.365	6.315	0.001

Reviewer 1 YZ Date: 4/8/13
Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Batch File: /chem2/ecd6.i/20130405PEST.b/ical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	6.236	6.232	6.233	6.233	6.233	6.236	6.235	6.235	6.185-6.285	6.234	0.002
16 Dieldrin	6.539	6.537	6.537	6.537	6.537	6.538	6.537	6.537	6.487-6.587	6.537	0.001
17 Endrin	6.758	6.755	6.756	6.756	6.755	6.757	6.756	6.756	6.706-6.806	6.756	0.001
18 4,4'-DDD	6.792	6.789	6.790	6.790	6.790	6.792	6.791	6.791	6.741-6.841	6.791	0.001
19 Endosulfan II	6.962	6.961	6.961	6.961	6.960	6.962	6.961	6.961	6.911-7.011	6.961	0.001
20 4,4'-DDT	7.050	7.048	7.048	7.048	7.049	7.050	7.049	7.049	6.999-7.099	7.049	0.001
21 Endrin aldehyde	7.341	7.338	7.339	7.339	7.339	7.340	7.338	7.338	7.288-7.388	7.339	0.001
22 Methoxychlor	7.474	7.473	7.473	7.473	7.472	7.474	7.474	7.474	7.424-7.524	7.473	0.001
23 Endosulfan sulfate	7.731	7.729	7.729	7.729	7.729	7.731	7.729	7.729	7.679-7.779	7.730	0.001
24 Endrin ketone	7.986	7.985	7.985	7.985	7.985	7.986	7.985	7.985	7.935-8.035	7.985	0.001
$ 25 Decachlorobiphenyl	8.832	8.830	8.831	8.831	8.830	8.832	8.831	8.831	8.781-8.881	8.831	0.001
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.831-4.931	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.309-5.409	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.368-4.468	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.207-5.307	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	5.995-6.095	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.251-8.351	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.209-11.309	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.012	6.962-7.062	+++++	+++++
39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.911	5.861-5.961	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Batch File: /chem2/ecd6.i/20130405PEST.b/ical-2.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0405a004	0405a005	0405a006	0405a007	0405a008	0405a009	0405a010
INJ.DATE:	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013
INJ.TIME:	12:47	13:05	13:23	13:41	13:58	14:17	14:35

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	2.496	2.496	2.496	2.496	2.496	2.497	2.497	2.496	2.446-2.546	2.496	0.001
* 52 1Bromo-2nitrobenzene	3.333	3.333	3.333	3.333	3.334	3.333	3.333	3.333	3.283-3.383	3.333	0.000
* 55 Hexabromobiphenyl	10.368	10.366	10.367	10.367	10.368	10.368	10.367	10.368	10.318-10.418	10.367	0.001
$ 2 Tetrachloro-m-xylene	4.166	4.165	4.165	4.166	4.166	4.167	4.169	4.166	4.116-4.216	4.166	0.001
3 Hexachlorobenzene	4.629	4.628	4.628	4.628	4.629	4.630	4.629	4.629	4.579-4.679	4.629	0.001
4 alpha-BHC	4.756	4.754	4.755	4.755	4.755	4.756	4.756	4.756	4.706-4.806	4.755	0.001
5 gamma-BHC (Lindane)	5.116	5.114	5.114	5.115	5.115	5.116	5.116	5.116	5.066-5.166	5.115	0.001
6 beta-BHC	5.186	5.184	5.184	5.185	5.185	5.186	5.185	5.186	5.136-5.236	5.185	0.001
7 delta-BHC	5.499	5.497	5.498	5.498	5.498	5.499	5.499	5.499	5.449-5.549	5.498	0.001
8 Heptachlor	5.582	5.580	5.581	5.581	5.581	5.582	5.582	5.582	5.532-5.632	5.581	0.001
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
9 Aldrin	5.921	5.919	5.919	5.920	5.920	5.921	5.921	5.921	5.871-5.971	5.920	0.001
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
11 Heptachlor epoxide b	6.476	6.474	6.474	6.475	6.475	6.476	6.476	6.476	6.426-6.526	6.475	0.001
12 gamma-Chlordane	6.658	6.656	6.656	6.657	6.657	6.658	6.657	6.658	6.608-6.708	6.657	0.001
13 alpha-Chlordane	6.796	6.794	6.795	6.795	6.795	6.796	6.795	6.796	6.746-6.846	6.795	0.001
14 Endosulfan I	6.863	6.861	6.862	6.862	6.862	6.863	6.863	6.863	6.813-6.913	6.862	0.001

Reviewer 1 YZ Date: 4/8/13

Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Batch File: /chem2/ecd6.i/20130405PEST.b/ical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	6.921	6.918	6.919	6.919	6.920	6.921	6.920	6.921	6.871-6.971	6.920	0.001
16 Dieldrin	7.121	7.119	7.120	7.120	7.120	7.121	7.121	7.121	7.071-7.171	7.120	0.001
17 Endrin	7.411	7.409	7.409	7.410	7.409	7.411	7.410	7.411	7.361-7.461	7.410	0.001
18 4,4'-DDD	7.458	7.456	7.456	7.457	7.457	7.458	7.458	7.458	7.408-7.508	7.457	0.001
19 Endosulfan II	7.599	7.597	7.597	7.597	7.598	7.598	7.599	7.599	7.549-7.649	7.598	0.001
20 4,4'-DDT	7.746	7.744	7.745	7.745	7.745	7.746	7.745	7.746	7.696-7.796	7.745	0.001
21 Endrin aldehyde	7.896	7.895	7.895	7.896	7.895	7.896	7.895	7.896	7.846-7.946	7.895	0.001
22 Endosulfan sulfate	8.141	8.139	8.140	8.140	8.140	8.141	8.140	8.141	8.091-8.191	8.140	0.001
23 Methoxychlor	8.328	8.327	8.327	8.327	8.327	8.328	8.330	8.328	8.278-8.378	8.328	0.001
24 Endrin ketone	8.633	8.632	8.632	8.632	8.632	8.633	8.633	8.633	8.583-8.683	8.632	0.001
$ 25 Decachlorobiphenyl	9.796	9.794	9.795	9.795	9.794	9.795	9.795	9.796	9.746-9.846	9.795	0.001
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.130-4.230	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.001-5.101	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.121-5.221	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.920-5.020	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.235-5.335	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.918-6.018	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.717-6.817	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.664-9.764	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.741-11.841	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.131	7.081-7.181	+++++	+++++
38 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.432	6.382-6.482	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Batch File: /chem2/ecd6.i/20130405PEST.b/wical-1.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0405a014	0405a015	0405a016	0405a017	0405a018	0405a019	0405a020
INJ.DATE:	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013
INJ.TIME:	15:46	16:04	16:22	16:40	16:57	17:15	17:33

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.341	2.291-2.391	+++++	+++++
* 54 1Bromo-2nitrobenzene	3.165	3.165	3.165	3.165	3.165	3.165	3.164	3.165	3.115-3.215	3.165	0.000
* 58 Hexabromobiphenyl	8.979	8.979	8.979	8.979	8.979	8.979	8.978	8.979	8.929-9.029	8.979	0.000
$ 2 Tetrachloro-m-xylene	3.836	3.836	3.836	3.836	3.836	3.836	3.836	3.836	3.786-3.886	3.836	0.000
3 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.179	4.129-4.229	+++++	+++++
4 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.330	4.280-4.380	+++++	+++++
5 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.615	4.565-4.665	+++++	+++++
6 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.687	4.637-4.737	+++++	+++++
7 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.858	4.808-4.908	+++++	+++++
8 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.065	5.015-5.115	+++++	+++++
9 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.360	5.310-5.410	+++++	+++++
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
11 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.936	5.886-5.986	+++++	+++++
12 gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.055	6.005-6.105	+++++	+++++
13 alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.180	6.130-6.230	+++++	+++++
14 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.315	6.265-6.365	+++++	+++++

Reviewer 1 YZ Date: 4/8/13

Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Batch File: /chem2/ecd6.i/20130405PEST.b/wical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.235	6.185-6.285	+++++	+++++
16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.537	6.487-6.587	+++++	+++++
17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.756	6.706-6.806	+++++	+++++
18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.791	6.741-6.841	+++++	+++++
19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.961	6.911-7.011	+++++	+++++
20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.049	6.999-7.099	+++++	+++++
21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.338	7.288-7.388	+++++	+++++
22 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.474	7.424-7.524	+++++	+++++
23 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.729	7.679-7.779	+++++	+++++
24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.985	7.935-8.035	+++++	+++++
$ 25 Decachlorobiphenyl	8.831	8.831	8.830	8.830	8.830	8.830	8.830	8.831	8.781-8.881	8.830	0.000
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.831-4.931	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.309-5.409	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.368-4.468	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.207-5.307	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	5.995-6.095	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.251-8.351	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.209-11.309	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.012	6.962-7.062	+++++	+++++
39 2,4-DDE	5.911	5.911	5.911	5.911	5.910	5.911	5.911	5.911	5.861-5.961	5.911	0.000

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Batch File: /chem2/ecd6.i/20130405PEST.b/wical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	6.398	6.398	6.398	6.398	6.397	6.398	6.397	6.397	6.347-6.447	6.398	0.000
41 2,4-DDT	6.637	6.637	6.638	6.637	6.637	6.637	6.636	6.636	6.586-6.686	6.637	0.000
42 Hexachloroethane	1.736	1.732	1.726	1.757	1.756	1.756	1.754	1.754	1.704-1.804	1.745	0.013
43 Oxychlordane	5.840	5.840	5.840	5.840	5.840	5.840	5.840	5.840	5.790-5.890	5.840	0.000
44 trans-Nonachlor	6.162	6.162	6.162	6.162	6.162	6.162	6.162	6.162	6.112-6.212	6.162	0.000
45 cis-Nonachlor	6.778	6.779	6.778	6.778	6.778	6.778	6.778	6.778	6.728-6.828	6.778	0.000
46 Mirex	7.653	7.653	7.653	7.653	7.653	7.653	7.653	7.653	7.603-7.703	7.653	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.106-20.206	+++++	+++++
59 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.837	4.787-4.887	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.269-6.369	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.886-9.986	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.841-11.941	+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.777-14.877	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.700-9.800	+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.057-9.157	+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.201-10.301	+++++	+++++
60 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.581	6.531-6.631	+++++	+++++
61 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.903-7.003	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Batch File: /chem2/ecd6.i/20130405PEST.b/wical-2.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0405a014	0405a015	0405a016	0405a017	0405a018	0405a019	0405a020
INJ.DATE:	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013	05-APR-2013
INJ.TIME:	15:46	16:04	16:22	16:40	16:57	17:15	17:33

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.497	2.447-2.547	+++++	+++++
*	52 1Bromo-2nitrobenzene	3.334	3.333	3.333	3.333	3.333	3.333	3.332	3.334	3.284-3.384	3.333	0.000
*	55 Hexabromobiphenyl	10.366	10.367	10.368	10.367	10.366	10.366	10.366	10.366	10.316-10.416	10.366	0.001
$	2 Tetrachloro-m-xylene	4.166	4.165	4.166	4.165	4.166	4.166	4.167	4.169	4.119-4.219	4.166	0.000
	3 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.629	4.579-4.679	+++++	+++++
	4 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.756	4.706-4.806	+++++	+++++
	5 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.116	5.066-5.166	+++++	+++++
	6 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.185	5.135-5.235	+++++	+++++
	7 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.499	5.449-5.549	+++++	+++++
	8 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.582	5.532-5.632	+++++	+++++
	37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
	9 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.921	5.871-5.971	+++++	+++++
	10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
	11 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.476	6.426-6.526	+++++	+++++
	12 gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.657	6.607-6.707	+++++	+++++
	13 alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.795	6.745-6.845	+++++	+++++
	14 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.863	6.813-6.913	+++++	+++++

Reviewer 1 YB Date: 4/8/13
Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Batch File: /chem2/ecd6.i/20130405PEST.b/wical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.920	6.870-6.970	+++++	+++++
16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.121	7.071-7.171	+++++	+++++
17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.410	7.360-7.460	+++++	+++++
18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.458	7.408-7.508	+++++	+++++
19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.599	7.549-7.649	+++++	+++++
20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.696-7.795	+++++	+++++
21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.895	7.845-7.945	+++++	+++++
22 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.140	8.090-8.190	+++++	+++++
23 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.330	8.280-8.380	+++++	+++++
24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.633	8.583-8.683	+++++	+++++
$ 25 Decachlorobiphenyl	9.794	9.794	9.796	9.794	9.794	9.794	9.795	9.795	9.745-9.845	9.794	0.001
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.130-4.230	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.001-5.101	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.121-5.221	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.920-5.020	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.235-5.335	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.918-6.018	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.717-6.817	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.664-9.764	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.741-11.841	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.344	7.294-7.394	+++++	+++++
38 2,4-DDE	6.631	6.631	6.631	6.631	6.630	6.631	6.631	6.631	6.581-6.681	6.631	0.000

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Batch File: /chem2/ecd6.i/20130405PEST.b/wical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
39 2,4-DDD	7.115	7.115	7.115	7.115	7.115	7.115	7.115	7.115	7.065-7.165	7.115	0.000
40 2,4-DDT	7.403	7.403	7.403	7.403	7.402	7.404	7.404	7.403	7.353-7.453	7.403	0.000
41 Hexachloroethane	1.731	1.734	1.734	1.737	1.735	1.732	1.732	1.731	1.681-1.781	1.734	0.002
42 Oxychlordane	6.385	6.384	6.384	6.384	6.384	6.385	6.385	6.385	6.335-6.435	6.384	0.000
43 trans-Nonachlor	6.741	6.741	6.741	6.741	6.740	6.741	6.741	6.741	6.691-6.791	6.741	0.000
44 cis-Nonachlor	7.465	7.465	7.465	7.464	7.464	7.465	7.465	7.465	7.415-7.515	7.465	0.000
45 Mirex	8.619	8.619	8.619	8.619	8.618	8.619	8.619	8.619	8.569-8.669	8.619	0.000
46 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.449-21.549	+++++	+++++
56 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.369	5.319-5.419	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.821-4.921	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.590-6.690	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.065-8.165	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.236-11.336	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.477-6.577	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.292-6.392	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.791-6.891	+++++	+++++
57 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.286-7.386	+++++	+++++
58 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.695-7.795	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Cal Date : 08-Apr-2013 11:23 yev
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a015.d
Level 2: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a016.d
Level 3: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a017.d
Level 4: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a018.d
Level 5: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a014.d
Level 6: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a019.d
Level 7: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a020.d
Level 8: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a013.d

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
1 Hexachlorobutadiene	1.86412	1.76558	1.75954	1.71114	2.08197	1.99212		
	1.78783	+++++					1.85176	7.399
3 Hexachlorobenzene	1.38358	1.28363	1.24997	1.17654	1.38333	1.32436		
	1.17366	+++++					1.28215	6.849
4 alpha-BHC	1.58499	1.57280	1.64100	1.63674	2.03978	2.01414		
	1.82763	+++++					1.75958	11.425
5 gamma-BHC (Lindane)	1.45746	1.43950	1.49170	1.47883	1.82712	1.79783		
	1.62419	+++++					1.58809	10.372
6 beta-BHC	0.75156	0.70098	0.67868	0.64327	0.76675	0.73767		
	0.65579	+++++					0.70496	6.849
7 delta-BHC	1.41663	1.40250	1.46228	1.46046	1.82032	1.78467		
	1.61615	+++++					1.56614	11.241

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Cal Date : 08-Apr-2013 11:23 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
8 Heptachlor	1.47349	1.42706	1.45263	1.42228	1.73482	1.66896		
	1.47535	+++++					1.52208	8.275
9 Aldrin	1.40325	1.37786	1.40681	1.39200	1.72260	1.66943		
	1.48100	+++++					1.49328	9.585
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
11 Heptachlor epoxide b	1.39423	1.30165	1.30500	1.25720	1.53316	1.46726		
	1.29569	+++++					1.36488	7.545
12 gamma-Chlordane	1.36187	1.31575	1.31220	1.28261	1.58008	1.53695		
	1.37607	+++++					1.39508	8.361
13 alpha-Chlordane	1.35457	1.28201	1.27423	1.23035	1.50336	1.45331		
	1.29520	+++++					1.34186	7.541
14 Endosulfan I	1.27164	1.20775	1.19567	1.15176	1.40842	1.34368		
	1.18836	+++++					1.25247	7.468
15 4,4'-DDE	1.04917	1.00567	1.01136	0.98255	1.22472	1.19885		
	1.10321	+++++					1.08222	8.948

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Cal Date : 08-Apr-2013 11:23 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
16 Dieldrin	1.25469	1.23247	1.25397	1.22951	1.51636	1.45727		
	1.30179	+++++					1.32086	8.861
17 Endrin	1.22875	1.14838	1.17430	1.13567	1.42634	1.37547		
	1.19929	+++++					1.24117	9.212
18 4,4'-DDD	1.15755	1.09126	1.11675	1.07991	1.34305	1.32431		
	1.17095	+++++					1.18340	9.115
19 Endosulfan II	1.29578	1.20341	1.21232	1.15589	1.42367	1.39601		
	1.21493	+++++					1.27171	8.118
20 4,4'-DDT	1.17187	1.09730	1.11364	1.06913	1.33682	1.33220		
	1.18103	+++++					1.18600	9.179
21 Endrin aldehyde	1.09106	1.00151	0.99855	0.94279	1.15274	1.13516		
	0.98906	+++++					1.04441	7.767
22 Methoxychlor	0.62189	0.56482	0.55745	0.52922	0.65567	0.64731		
	0.58770	+++++					0.59487	8.074
23 Endosulfan sulfate	1.16358	1.06607	1.06515	1.00984	1.24528	1.22355		
	1.07475	+++++					1.12118	8.011
24 Endrin ketone	1.50306	1.35374	1.32941	1.25572	1.54293	1.52396		
	1.34556	+++++					1.40777	8.042

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Cal Date : 08-Apr-2013 11:23 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
35 Toxaphene(1)	+++++	+++++	+++++	+++++	0.05148	+++++		
	+++++	0.05148					0.05148	0.000
(2)	+++++	+++++	+++++	+++++	0.03504	+++++		
	+++++	+++++					0.03504	0.000
(3)	+++++	+++++	+++++	+++++	0.05882	+++++		
	+++++	+++++					0.05882	0.000
(4)	+++++	+++++	+++++	+++++	0.05933	+++++		
	+++++	+++++					0.05933	0.000
(5)	+++++	+++++	+++++	+++++	0.03915	+++++		
	+++++	+++++					0.03915	0.000
(6)	+++++	+++++	+++++	+++++	0.03361	+++++		
	+++++	+++++					0.03361	0.000
39 2,4-DDE	0.97037	0.94494	0.94800	0.97255	0.90349	1.01619		
	0.84262	+++++					0.94259	5.914
40 2,4-DDD	0.86428	0.82066	0.81941	0.83423	0.77745	0.89463		
	0.76053	+++++					0.82446	5.633
41 2,4-DDT	0.97762	0.93181	0.93450	0.95197	0.89630	1.03633		
	0.87037	+++++					0.94270	5.752

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Cal Date : 08-Apr-2013 11:23 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
43 Oxychlordane	1.29181	1.24713	1.25548	1.27408	1.19753	1.36047		
	1.13536	+++++					1.25169	5.691
44 trans-Nonachlor	1.52831	1.46845	1.47524	1.51266	1.42527	1.63694		
	1.39053	+++++					1.49105	5.361
45 cis-Nonachlor	1.60364	1.52966	1.54573	1.59353	1.51117	1.75011		
	1.49805	+++++					1.57598	5.479
46 Mirex	1.06476	0.97851	0.94279	0.93019	0.85718	0.98037		
	0.83485	+++++					0.94124	8.308
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
59 Tech-Chlordane(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Cal Date : 08-Apr-2013 11:23 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
$ 2 Tetrachloro-m-xylene	1.22093	1.17519	1.17086	1.12023	1.33214	1.27457		
	1.13000	+++++					1.20342	6.446
$ 25 Decachlorobiphenyl	1.22712	1.39221	1.18347	1.03855	1.18904	1.14719		
	0.99666	+++++					1.16775	11.110

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Cal Date : 08-Apr-2013 10:50 yev
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a015.d
Level 2: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a016.d
Level 3: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a017.d
Level 4: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a018.d
Level 5: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a014.d
Level 6: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a019.d
Level 7: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a020.d
Level 8: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a013.d

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	--- RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
1 Hexachlorobutadiene	1.68966	1.54770	1.52497	1.44719	1.51551	1.56884		
	1.43229	+++++					1.53231	5.583
3 Hexachlorobenzene	1.85432	1.77150	1.76373	1.68524	1.96131	1.87809		
	1.63888	+++++					1.79330	6.276
4 alpha-BHC	1.70138	1.75567	1.85342	1.87497	2.23583	2.20600		
	2.00018	+++++					1.94678	10.779
5 gamma-BHC (Lindane)	1.54386	1.55958	1.62894	1.63777	1.95411	1.92482		
	1.74555	+++++					1.71352	9.792
6 beta-BHC	0.75150	0.73780	0.73159	0.71129	0.83666	0.82054		
	0.72405	+++++					0.75906	6.493
7 delta-BHC	1.48508	1.50559	1.58354	1.59180	1.87744	1.86008		
	1.68038	+++++					1.65484	9.633

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Cal Date : 08-Apr-2013 10:50 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
8 Heptachlor	1.53588	1.52969	1.56029	1.54097	1.79481	1.70711		
	1.45373	+++++					1.58893	7.450
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
9 Aldrin	1.37926	1.37037	1.39862	1.38737	1.64212	1.58534		
	1.37709	+++++					1.44860	7.893
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
11 Heptachlor epoxide b	1.27602	1.21672	1.22365	1.19040	1.39603	1.33591		
	1.14610	+++++					1.25497	6.928
12 gamma-Chlordane	1.23139	1.20522	1.21707	1.19590	1.40625	1.37528		
	1.20954	+++++					1.26295	7.003
13 alpha-Chlordane	1.15386	1.12660	1.12460	1.10005	1.29194	1.25884		
	1.10159	+++++					1.16535	6.683
14 Endosulfan I	1.07598	1.05971	1.06310	1.03937	1.21798	1.18434		
	1.01792	+++++					1.09406	6.957
15 4,4'-DDE	1.07231	1.07330	1.09778	1.07854	1.24866	1.20322		
	1.05591	+++++					1.11853	6.753

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Cal Date : 08-Apr-2013 10:50 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
16 Dieldrin	1.06871	1.06342	1.07850	1.05724	1.22625	1.17015		
	1.02268	+++++					1.09813	6.590
17 Endrin	2.17870	2.04807	2.09589	2.02185	2.57180	2.33640		
	1.95604	+++++					2.17268	9.894
18 4,4'-DDD	2.26082	2.14565	2.20459	2.13439	2.69106	2.51434		
	2.14488	+++++					2.29939	9.475
19 Endosulfan II	2.43748	2.28049	2.30366	2.19551	2.75928	2.56341		
	2.16454	+++++					2.38634	8.999
20 4,4'-DDT	2.05904	1.93083	1.97799	1.92012	2.39796	2.30287		
	2.02246	+++++					2.08733	9.013
21 Endrin aldehyde	1.93356	1.79284	1.80285	1.72269	2.16235	2.03164		
	1.72866	+++++					1.88208	8.858
22 Endosulfan sulfate	1.98303	1.84581	1.87837	1.81411	2.30559	2.17756		
	1.86710	+++++					1.98165	9.522
23 Methoxychlor	0.94203	0.85843	0.85236	0.79685	0.99291	0.93147		
	0.68248	+++++					0.86522	12.018
24 Endrin ketone	2.08253	1.92427	1.93089	1.84154	2.31127	2.19456		
	1.90367	+++++					2.02696	8.577

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Cal Date : 08-Apr-2013 10:50 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
34 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
35 Toxaphene(1)	+++++	+++++	+++++	+++++	0.07348	+++++		
	+++++	+++++					0.07348	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Cal Date : 08-Apr-2013 10:50 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
(2)	+++++	+++++	+++++	+++++	0.10995	+++++		
	+++++	+++++					0.10995	0.000
(3)	+++++	+++++	+++++	+++++	0.11751	+++++		
	+++++	+++++					0.11751	0.000
(4)	+++++	+++++	+++++	+++++	0.08491	+++++		
	+++++	+++++					0.08491	0.000
(5)	+++++	+++++	+++++	+++++	0.10752	+++++		
	+++++	+++++					0.10752	0.000
38 2,4-DDE	0.81007	0.79245	0.77739	0.77920	0.72189	0.78749		
	0.64847	+++++					0.75957	7.385
39 2,4-DDD	1.72533	1.60231	1.59340	1.62587	1.55489	1.72186		
	1.43911	+++++					1.60897	6.144
40 2,4-DDT	1.78286	1.67947	1.68200	1.72632	1.65914	1.86011		
	1.56080	+++++					1.70724	5.589
41 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
42 Oxychlordane	1.05125	1.04120	1.03502	1.04960	0.98900	1.10930		
	0.95840	+++++					1.03340	4.674

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Cal Date : 08-Apr-2013 10:50 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
43 trans-Nonachlor	3.19206	3.05137	3.06372	3.12225	2.97977	3.28562		
	2.78344	+++++					3.06832	5.234
44 cis-Nonachlor	2.98886	2.83553	2.88674	2.93078	2.81218	3.13506		
	2.69727	+++++					2.89806	4.823
45 Mirex	1.50918	1.37059	1.31068	1.29630	1.22446	1.36347		
	1.17545	+++++					1.32145	8.226
46 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
56 Tech-Chlordane(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-APR-2013 12:47
End Cal Date : 05-APR-2013 17:33
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130405PEST.b/PEST0405B.m
Cal Date : 08-Apr-2013 10:50 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
57 Kepone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
58 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 2 Tetrachloro-m-xylene	1.45811	1.42532	1.42159	1.36019	1.57240	1.47902		
	1.18841	+++++					1.41501	8.423
$ 25 Decachlorobiphenyl	2.07956	1.87920	1.82822	1.70015	2.10612	1.97368		
	1.71032	+++++					1.89675	8.652

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a004.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a004.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Injection Date: 05-APR-2013 12:47
Compound Sublist: INDA
Report Date: 04/08/2013 11:23
Instrument, Inj. Vol.: ecd6.i, 1ul
Matrix: NONE
Operator: ar
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.165	0.001	5448520	3.333	0.001	21702340	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.331	0.001	2778447	4.756	0.000	12130669	23.1848	22.9695	0.9	alpha-BHC
4.689	0.002	1044408	5.186	0.001	4539393	21.7530	22.0447	1.3	beta-BHC
4.860	0.002	2479509	5.499	0.000	10186203	23.2458	22.6902	2.4	delta-BHC
4.617	0.002	2488780	5.116	0.000	10602173	23.0103	22.8081	0.9	gamma-BHC (Lindane)
5.067	0.002	2363050	5.582	0.000	9737910	22.7953	22.5915	0.9	Heptachlor
5.362	0.002	2346404	5.921	0.001	8909469	23.0714	22.5100	2.5	Aldrin
5.939	0.003	2088367	6.476	0.000	7574285	22.4658	20.8988	7.2	Heptachlor epoxide b
6.316	0.002	1918451	6.863	0.001	6608262	22.4903	20.9671	7.0	Endosulfan I
6.539	0.002	4130946	7.121	0.000	13306230	45.9201	42.4171	7.9	Dieldrin
6.236	0.001	3336461	6.921	0.000	13549372	45.2671	42.4999	6.3	4,4'-DDE
6.758	0.001	3428854	7.411	0.001	9877928	45.9676	46.5304	1.2	Endrin
6.962	0.002	3422424	7.599	0.000	10598036	44.7794	45.4490	1.5	Endosulfan II
6.792	0.002	3228623	7.458	0.000	10335979	45.3964	46.0101	1.3	4,4'-DDD
7.731	0.001	2993586	8.141	0.001	8855445	44.4276	45.7410	2.9	Endosulfan sulfate
7.050	0.001	3213661	7.746	0.001	9210229	45.0869	45.1669	0.2	4,4'-DDT
7.474	0.001	7880984	8.328	-0.002	19068155	220.4428	225.4457	2.2	Methoxychlor
7.986	0.001	3709123	8.633	0.001	8877278	43.8404	44.8222	2.2	Endrin ketone
7.341	0.002	2771127	7.896	0.001	8305275	44.1489	45.1600	2.3	Endrin aldehyde
6.057	0.002	2152268	6.658	0.001	7629720	22.6522	21.0220	7.5	gamma-Chlordane
6.182	0.002	2047773	6.796	0.001	7009508	22.4071	20.7377	7.7	alpha-Chlordane
2.340	-0.001	2835909	2.496	-0.001	8222529	22.4864	19.7808	12.8	Hexachlorobutadiene
4.181	0.001	1884279	4.629	0.000	10641250	21.5783	21.8738	1.4	Hexachlorobenzene
8.980	0.001	4807902	10.368	0.002	7681727	80.0000	80.0000	0.0	Hexabromobiphenyl
3.837	0.001	3629094	4.166	-0.002	17062390	44.2786	44.4493	0.4	Tetrachloro-m-xylen
8.832	0.001	2858402	9.796	0.000	8089313	40.7294	43.6315	6.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	110.7	111.1	110.7~	115- 0
Decachlorobiphenyl	101.8	109.1	101.8~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

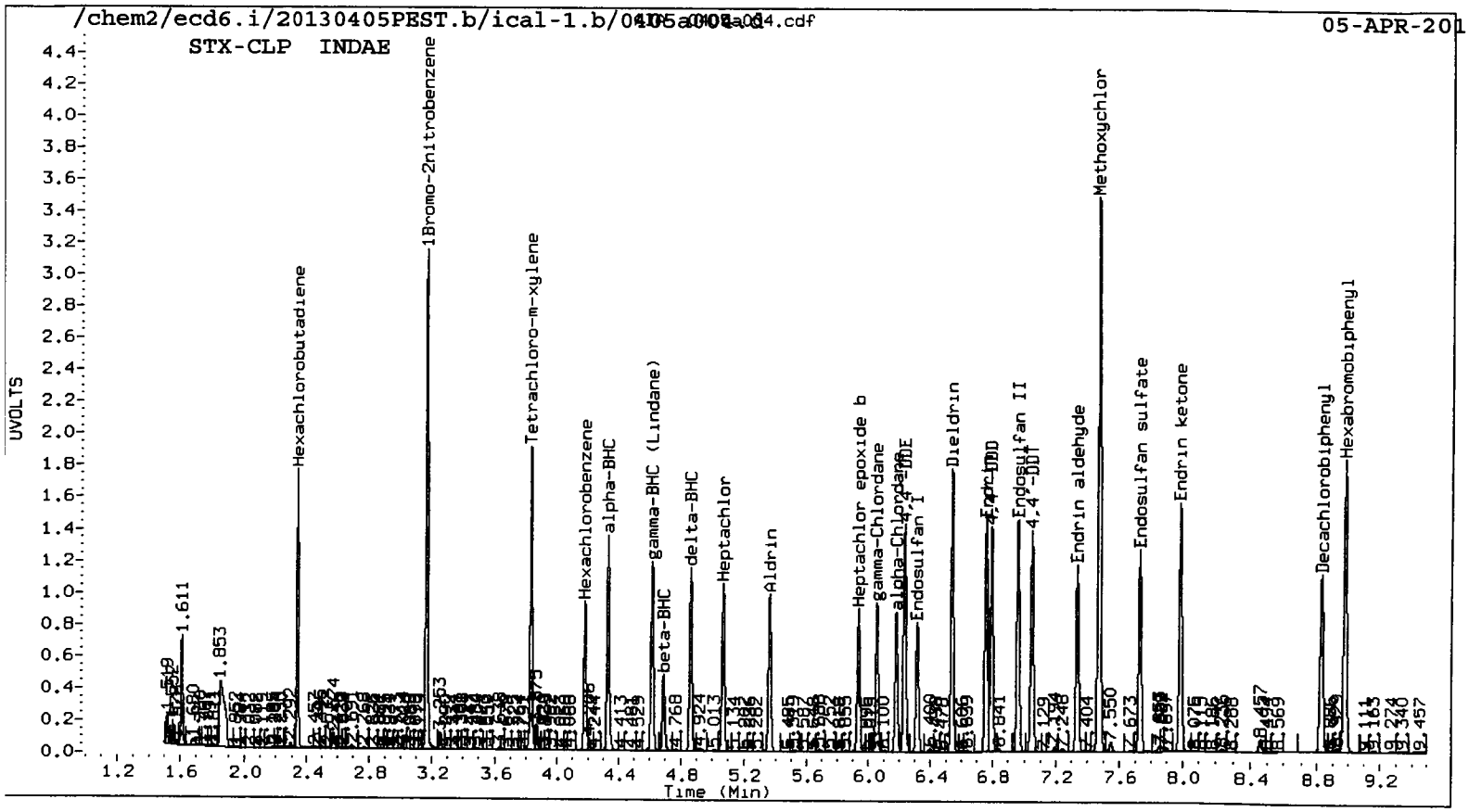
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5448520	0.0
Hexabromobiphenyl	4807902	4807902	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	21702340	0.0
Hexabromobiphenyl	7681727	7681727	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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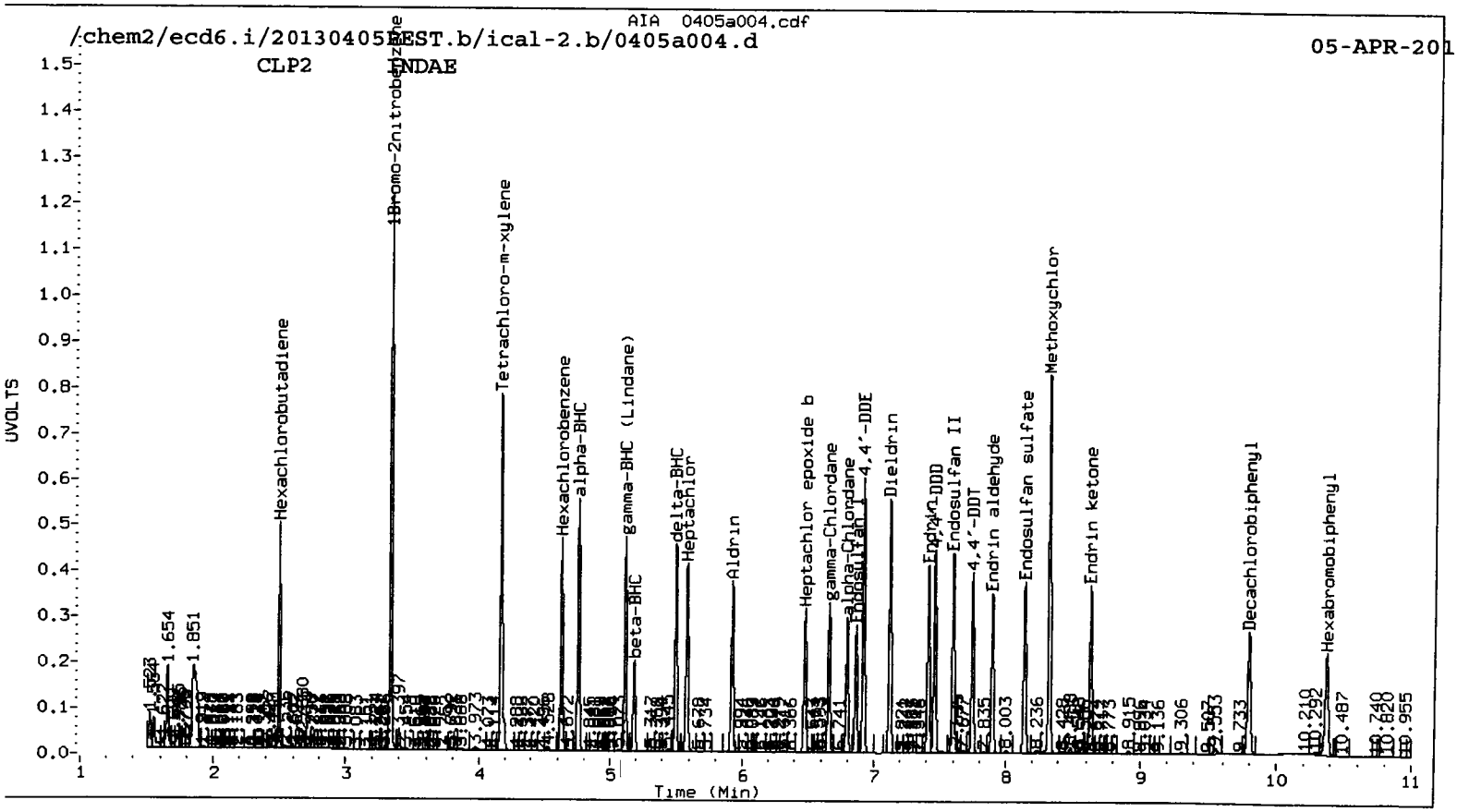
05-APR-201
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-201
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

XZ 4/8/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a005.d ARI ID: INDAA
Data file 2: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a005.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 13:05
Compound Sublist: INDA Report Date: 04/08/2013 11:23
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	0.000	6225835	3.333	0.000	24741508	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.329	-0.001	154186	4.754	-0.002	657731	1.1260	1.0924	3.0	alpha-BHC
4.686	-0.001	73111	5.184	-0.001	290520	1.3326	1.2376	7.4	beta-BHC
4.858	0.000	137808	5.497	-0.002	574112	1.1307	1.1218	0.8	delta-BHC
4.614	-0.001	141780	5.114	-0.002	596835	1.1472	1.1262	1.8	gamma-BHC (Lindane)
5.064	-0.001	143339	5.580	-0.002	593749	1.2101	1.2083	0.2	Heptachlor
5.359	-0.001	136506	5.919	-0.002	533203	1.1746	1.1854	0.9	Aldrin
5.936	-0.001	135629	6.474	-0.002	493292	1.2769	1.2253	4.1	Heptachlor epoxide b
6.314	-0.001	123703	6.861	-0.001	415960	1.2691	1.1880	6.6	Endosulfan I
6.537	-0.001	244110	7.119	-0.002	826294	2.3748	2.3655	0.4	Dieldrin
6.232	-0.003	204123	6.918	-0.002	829083	2.4236	2.3209	4.3	4,4'-DDE
6.755	-0.001	201263	7.409	-0.001	615395	2.4750	2.4740	0.0	Endrin
6.961	0.000	212243	7.597	-0.002	688490	2.5473	2.5200	1.1	Endosulfan II
6.789	-0.001	189602	7.456	-0.002	638590	2.4454	2.4259	0.8	4,4'-DDD
7.729	0.000	190589	8.139	-0.001	560125	2.5946	2.4692	5.0	Endosulfan sulfate
7.048	-0.001	191947	7.744	-0.001	581596	2.4702	2.4340	1.5	4,4'-DDT
7.473	-0.001	509312	8.327	-0.004	1330425	13.0678	13.4294	2.7	Methoxychlor
7.985	0.000	246195	8.632	-0.001	588230	2.6692	2.5350	5.2	Endrin ketone
7.338	0.000	178711	7.895	-0.001	546152	2.6117	2.5348	3.0	Endrin aldehyde
6.054	-0.001	132481	6.656	-0.001	476040	1.2202	1.1798	3.4	gamma-Chlordane
6.179	-0.001	131771	6.794	-0.001	446067	1.2618	1.1918	5.7	alpha-Chlordane
2.339	-0.001	181339	2.496	-0.002	653198	1.2583	1.3784	9.1	Hexachlorobutadiene
4.178	-0.001	134593	4.628	-0.002	716856	1.3489	1.2925	4.3	Hexachlorobenzene
8.979	-0.001	5241456	10.366	0.000	9038709	80.0000	80.0000	0.0	Hexabromobiphenyl
3.835	-0.001	237541	4.165	-0.003	1127370	2.5364	2.5762	1.6	Tetrachloro-m-xylene
8.830	-0.001	200997	9.794	-0.001	587391	2.6271	2.7050	2.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	6.3	6.4	6.3~	115- 0
Decachlorobiphenyl	6.6	6.8	6.6~	115- 0

WJ10:01949

~ Indicates recovery outside QC Limits

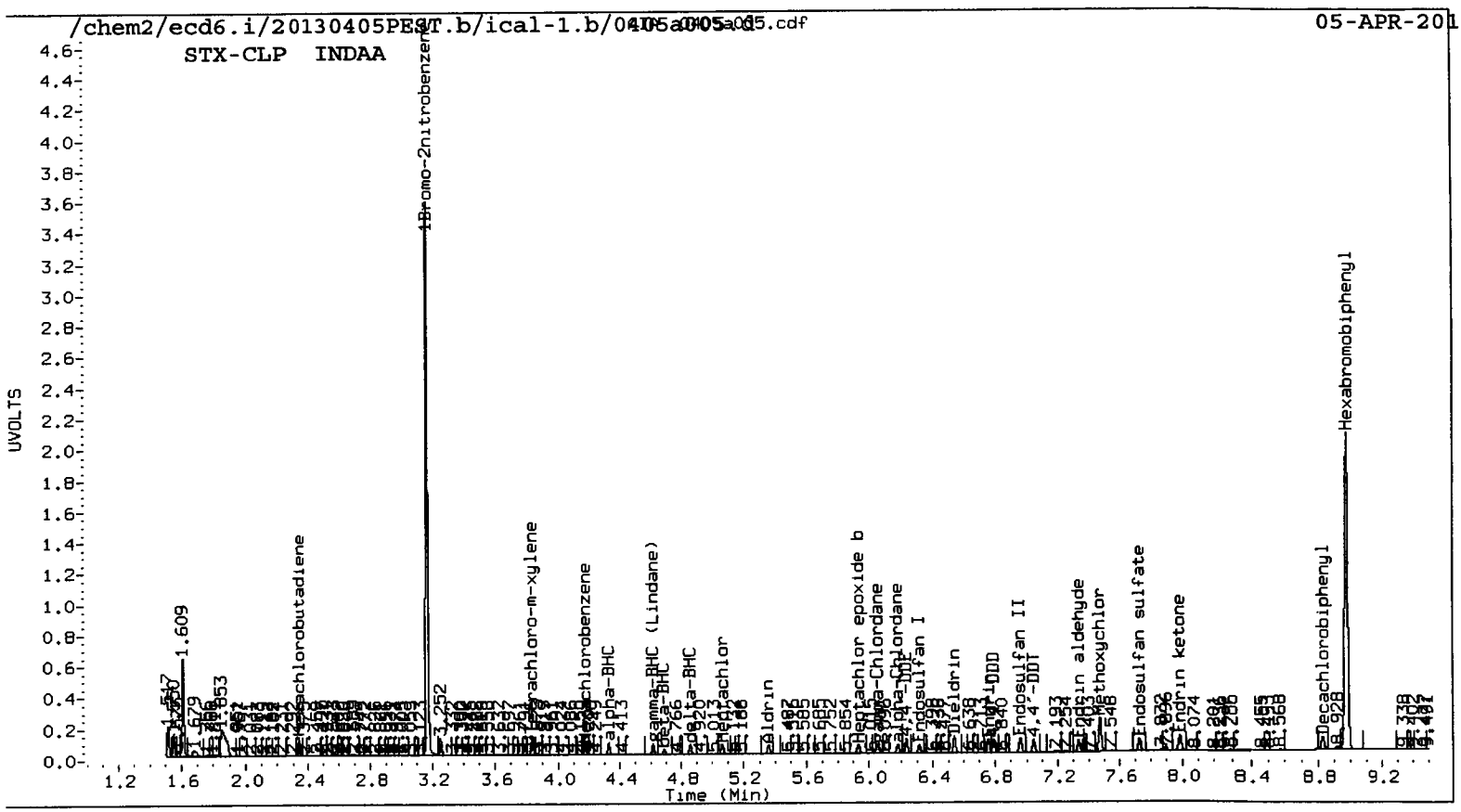
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	5448520	6225835	14.3
Hexabromobiphenyl	4807902	5241456	9.0

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	21702340	24741508	14.0
Hexabromobiphenyl	7681727	9038709	17.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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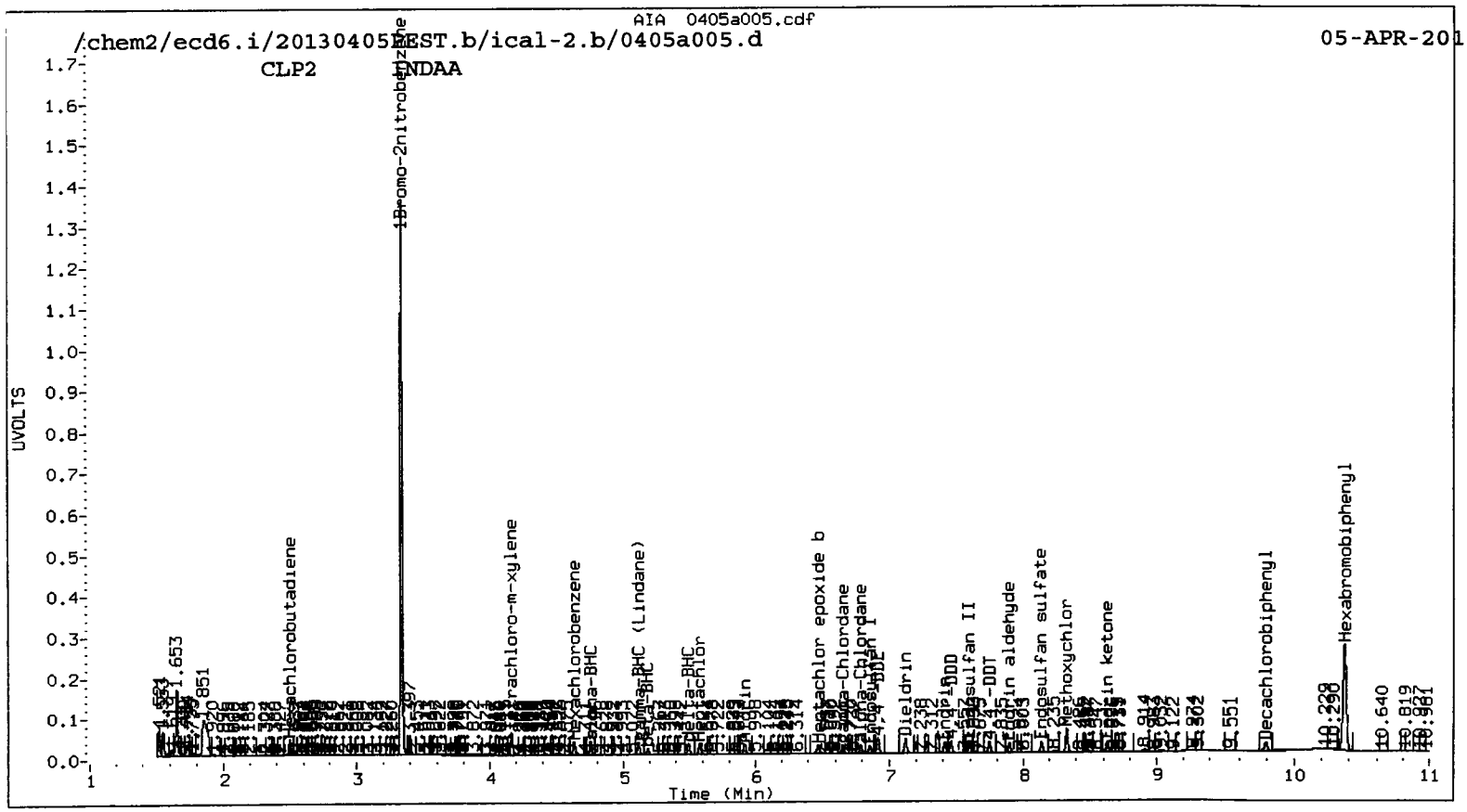
STX-CLP INDAA
UVOLTS
Time (Min)
1-Bromo-2-nitrobenzene
Hexachlorobutadiene
1,2,4,5-Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
trans-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-201
CLP2 INDAA
UVOLTS
Time (Min)
1-Bromo-2-nitrobenzene
Hexachlorobutadiene
1,2,4,5-Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
trans-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/8/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a006.d ARI ID: INDAB
Data file 2: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a006.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 13:23
Compound Sublist: INDA Report Date: 04/08/2013 11:23
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	0.000	6111022	3.333	0.000	25491655	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.329	-0.001	300357	4.755	-0.002	1398591	2.2346	2.2546	0.9	alpha-BHC
4.687	0.000	133866	5.184	-0.001	587741	2.4859	2.4300	2.3	beta-BHC
4.858	0.000	267835	5.498	-0.001	1199376	2.2388	2.2745	1.6	delta-BHC
4.615	0.000	274901	5.114	-0.002	1242383	2.2661	2.2754	0.4	gamma-BHC (Lindane)
5.065	0.000	272524	5.581	-0.001	1218574	2.3439	2.4068	2.6	Heptachlor
5.360	0.000	263130	5.919	-0.002	1091655	2.3068	2.3601	2.3	Aldrin
5.936	0.000	248575	6.474	-0.001	969258	2.3842	2.3846	0.0	Heptachlor epoxide b
6.314	-0.001	230643	6.862	-0.001	844183	2.4107	2.3789	1.3	Endosulfan I
6.537	0.000	470729	7.120	-0.001	1694276	4.6654	4.7748	2.3	Dieldrin
6.233	-0.002	384106	6.919	-0.002	1710014	4.6464	4.7027	1.2	4,4'-DDE
6.756	-0.001	384508	7.409	-0.001	1240005	4.6262	4.6716	1.0	Endrin
6.961	0.000	402934	7.597	-0.001	1380724	4.7315	4.7363	0.1	Endosulfan II
6.790	-0.001	365382	7.456	-0.001	1299090	4.6107	4.6244	0.3	4,4'-DDD
7.729	0.000	356948	8.140	-0.001	1117551	4.7543	4.6165	2.9	Endosulfan sulfate
7.048	-0.001	367403	7.745	-0.001	1169027	4.6260	4.5844	0.9	4,4'-DDT
7.473	-0.001	945576	8.327	-0.003	2598678	23.7372	24.5875	3.5	Methoxychlor
7.985	0.000	453268	8.632	0.000	1165050	4.8081	4.7053	2.2	Endrin ketone
7.339	0.000	335332	7.895	0.000	1085476	4.7946	4.7213	1.5	Endrin aldehyde
6.055	0.000	251268	6.656	-0.001	960096	2.3578	2.3448	0.6	gamma-Chlordane
6.180	0.000	244824	6.795	-0.001	897466	2.3885	2.3708	0.7	alpha-Chlordane
2.340	-0.001	337172	2.496	-0.002	1232920	2.3837	2.5251	5.8	Hexachlorobutadiene
4.179	-0.001	245134	4.628	-0.002	1411203	2.5029	2.4696	1.3	Hexachlorobenzene
8.979	-0.001	5357211	10.367	0.001	9687228	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	-0.001	448849	4.165	-0.004	2270853	4.8827	5.0364	3.1	Tetrachloro-m-xylene
8.831	0.000	466148	9.795	-0.001	1137765	5.9611	4.9111	19.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	12.2	12.6	12.2~	115- 0
Decachlorobiphenyl	14.9	12.3	12.3~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

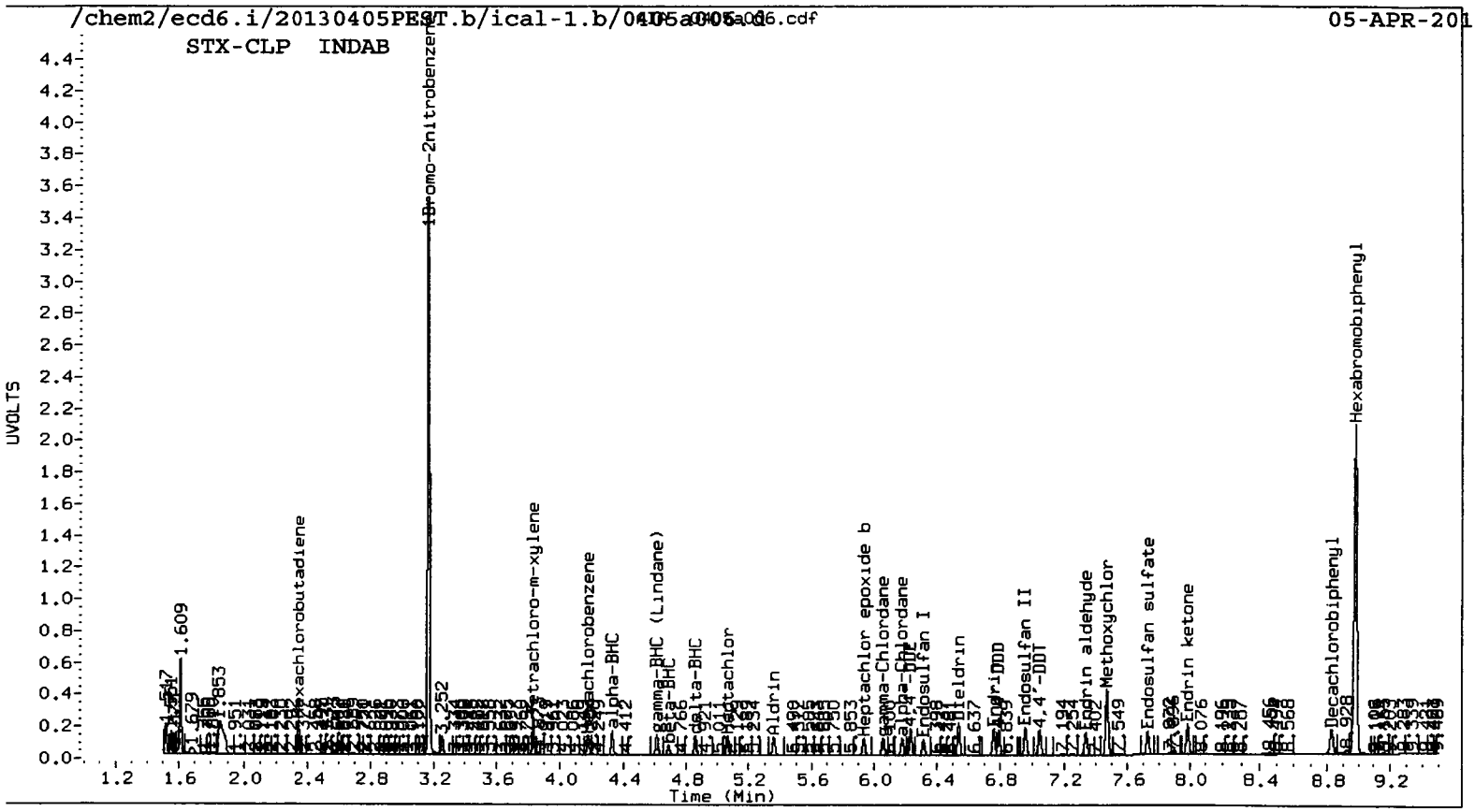
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	6111022	12.2
Hexabromobiphenyl	4807902	5357211	11.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25491655	17.5
Hexabromobiphenyl	7681727	9687228	26.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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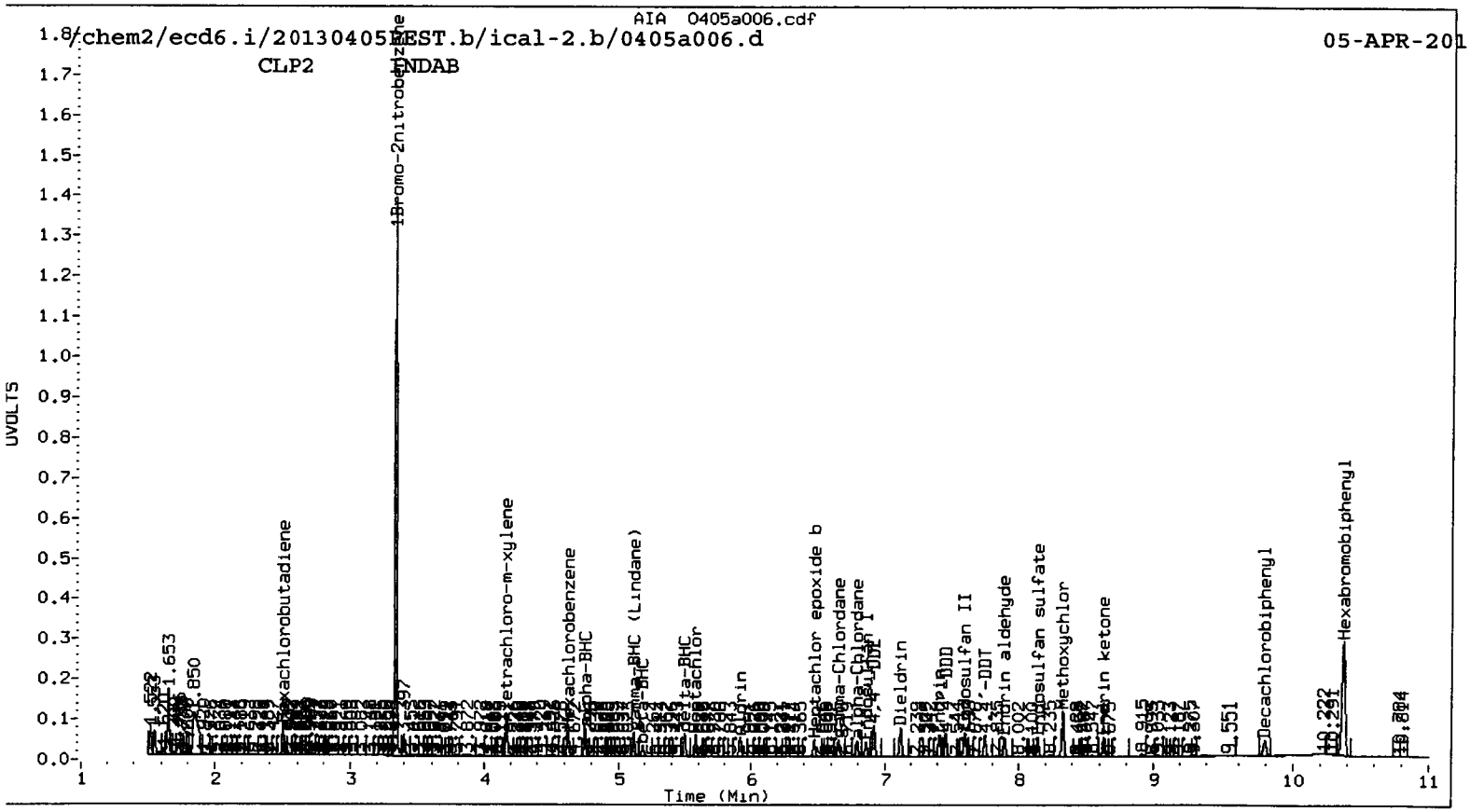
0405a006.cdf
05-APR-201
STX-CLP INDAB
UVOLTS
Time (Min)
1.609
3.252
Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-201
CLP2 INDAB
UVOLTS
Time (Min)
1.653
Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a007.d ARI ID: INDAC
Data file 2: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a007.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 05-APR-2013 13:41
Report Date: 04/08/2013 11:24
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.165	0.000	5854383	3.333	0.001	25508207	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.329	-0.001	600439	4.755	-0.001	2954834	4.6630	4.7602	2.1	alpha-BHC
4.687	0.000	248327	5.185	0.000	1166340	4.8136	4.8190	0.1	beta-BHC
4.859	0.000	535048	5.498	-0.001	2524585	4.6684	4.7846	2.5	delta-BHC
4.615	0.000	545812	5.115	-0.001	2596953	4.6965	4.7532	1.2	gamma-BHC (Lindane)
5.065	0.000	531516	5.581	-0.001	2487507	4.7718	4.9099	2.9	Heptachlor
5.360	0.000	514751	5.920	-0.001	2229774	4.7105	4.8235	2.4	Aldrin
5.936	0.000	477499	6.475	-0.001	1950819	4.7806	4.8463	1.4	Heptachlor epoxide b
6.314	0.000	437495	6.862	-0.001	1694863	4.7733	4.8203	1.0	Endosulfan I
6.537	0.000	917650	7.120	-0.001	3438814	9.4935	9.7651	2.8	Dieldrin
6.233	-0.002	740110	6.919	-0.001	3500313	9.3452	9.7318	4.1	4,4'-DDE
6.756	-0.001	753510	7.410	0.000	2508259	9.4612	9.5787	1.2	Endrin
6.961	0.000	777908	7.597	-0.001	2756905	9.5329	9.5862	0.6	Endosulfan II
6.790	0.000	716584	7.457	-0.001	2638349	9.4368	9.5201	0.9	4,4'-DDD
7.729	0.000	683477	8.140	0.000	2247948	9.5003	9.4125	0.9	Endosulfan sulfate
7.048	-0.001	714589	7.745	0.000	2367169	9.3899	9.4095	0.2	4,4'-DDT
7.473	-0.001	1788507	8.327	-0.003	5100317	46.8555	48.9178	4.3	Methoxychlor
7.985	0.000	853043	8.632	0.000	2310796	9.4434	9.4599	0.2	Endrin ketone
7.339	0.000	640738	7.896	0.000	2157565	9.5609	9.5124	0.5	Endrin aldehyde
6.055	0.000	480133	6.657	0.000	1940322	4.7030	4.7806	1.6	gamma-Chlordane
6.180	0.000	466238	6.795	0.000	1792907	4.7480	4.7849	0.8	alpha-Chlordane
2.340	-0.001	643814	2.496	-0.001	2431201	4.7510	4.9761	4.6	Hexachlorobutadiene
4.179	0.000	457361	4.628	-0.001	2811845	4.8745	4.9176	0.9	Hexachlorobenzene
8.979	0.000	5133358	10.367	0.001	9574018	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	856833	4.166	-0.003	4532780	9.7295	10.0465	3.2	Tetrachloro-m-xylene
8.831	0.000	759395	9.795	-0.001	2187923	10.1346	9.5731	5.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	24.3	25.1	24.3~	115- 0
Decachlorobiphenyl	25.3	23.9	23.9~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

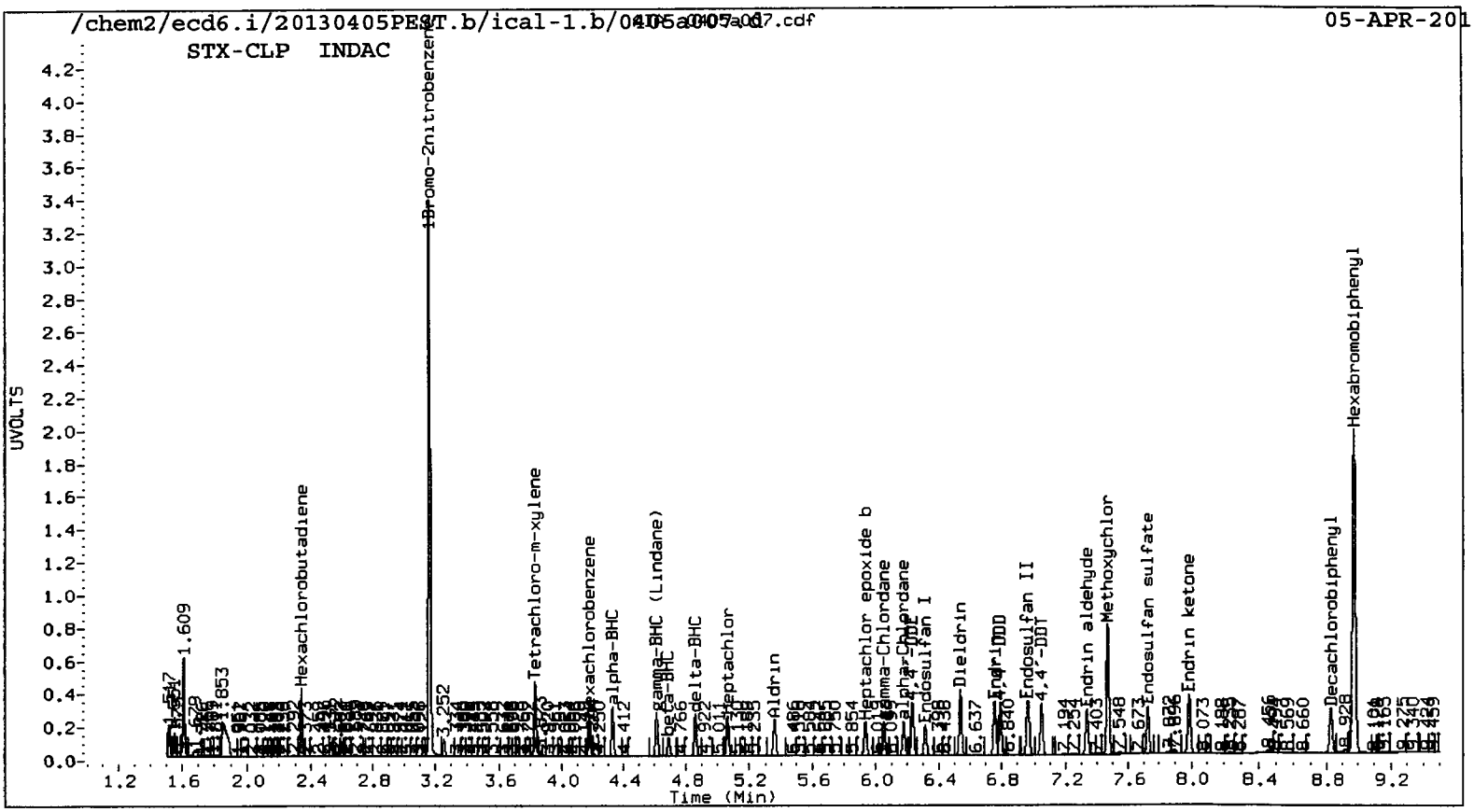
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5854383	7.4
Hexabromobiphenyl	4807902	5133358	6.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25508207	17.5
Hexabromobiphenyl	7681727	9574018	24.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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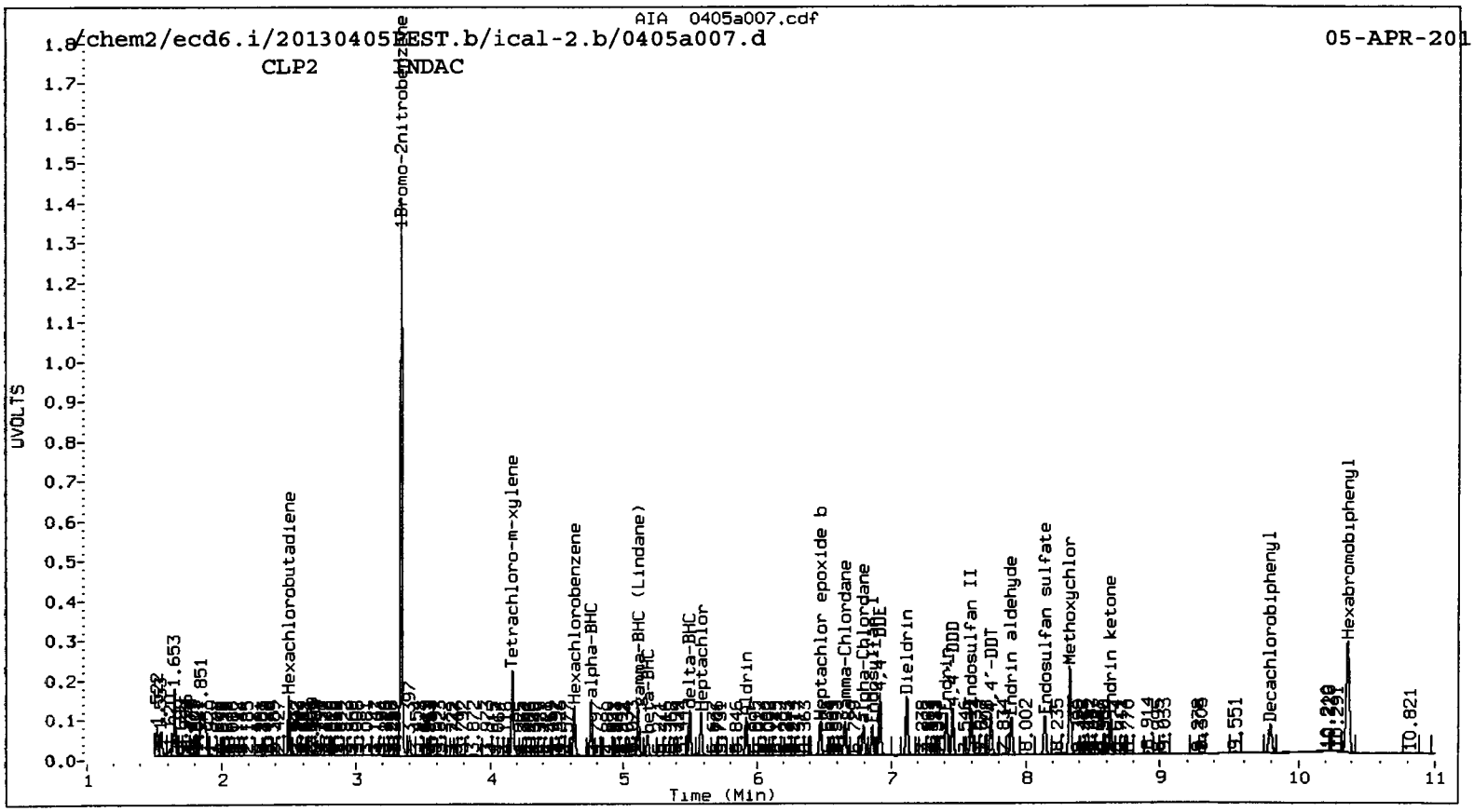
05-APR-201
STX-CLP INDAC
UVOLTS
Time (Min)
1-Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-201
CLP2 INDAC
UVOLTS
Time (Min)
1-Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/8/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a008.d ARI ID: INDAD
Data file 2: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a008.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 13:58
Compound Sublist: INDA Report Date: 04/08/2013 11:24
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.165	0.000	5880001	3.334	0.001	26036651	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.330	0.000	1203007	4.755	-0.001	6102248	9.3019	9.6311	3.5	alpha-BHC
4.687	0.000	472803	5.185	0.000	2314958	9.1250	9.3707	2.7	beta-BHC
4.858	0.000	1073436	5.498	-0.001	5180632	9.3252	9.6190	3.1	delta-BHC
4.615	0.000	1086941	5.115	-0.001	5330243	9.3120	9.5579	2.6	gamma-BHC (Lindane)
5.065	0.000	1045376	5.581	-0.001	5015211	9.3443	9.6982	3.7	Heptachlor
5.360	0.000	1023118	5.920	-0.001	4515314	9.3217	9.5756	2.7	Aldrin
5.937	0.000	924040	6.475	-0.001	3874240	9.2110	9.4673	2.7	Heptachlor epoxide b
6.314	-0.001	846542	6.862	0.000	3382705	9.1959	9.4753	3.0	Endosulfan I
6.537	-0.001	1807376	7.120	-0.001	6881739	18.6167	19.2231	3.2	Dieldrin
6.233	-0.002	1444344	6.920	-0.001	7020418	18.1580	19.2384	5.8	4,4'-DDE
6.755	-0.001	1484141	7.409	-0.001	5044378	18.2999	18.5844	1.5	Endrin
6.960	0.000	1510564	7.598	-0.001	5477668	18.1784	18.3738	1.1	Endosulfan II
6.790	-0.001	1411271	7.457	-0.001	5325162	18.2510	18.5370	1.6	4,4'-DDD
7.729	0.000	1319711	8.140	0.000	4526096	18.0140	18.2815	1.5	Endosulfan sulfate
7.049	0.000	1397194	7.745	-0.001	4790586	18.0293	18.3697	1.9	4,4'-DDT
7.472	-0.001	3458050	8.327	-0.003	9940461	88.9648	91.9723	3.3	Methoxychlor
7.985	0.000	1641030	8.632	0.000	4594528	17.8398	18.1433	1.7	Endrin ketone
7.339	0.000	1232075	7.895	0.000	4297995	18.0539	18.2792	1.2	Endrin aldehyde
6.055	0.000	942719	6.657	0.000	3892155	9.1938	9.4433	2.7	gamma-Chlordane
6.179	0.000	904304	6.795	0.000	3580213	9.1690	9.4137	2.6	alpha-Chlordane
2.340	-0.001	1257691	2.496	-0.001	4709994	9.2406	9.4445	2.2	Hexachlorobutadiene
4.179	0.000	864759	4.629	-0.001	5484749	9.1763	9.3974	2.4	Hexachlorobenzene
8.979	-0.001	5227384	10.368	0.001	9979752	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	-0.001	1646740	4.166	-0.003	8853730	18.6175	19.2253	3.2	Tetrachloro-m-xylene
8.830	-0.001	1357228	9.794	-0.001	4241762	17.7872	17.9012	0.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	46.5	48.1	46.5~	115- 0
Decachlorobiphenyl	44.5	44.8	44.5~	115- 0

~ Indicates recovery outside QC Limits

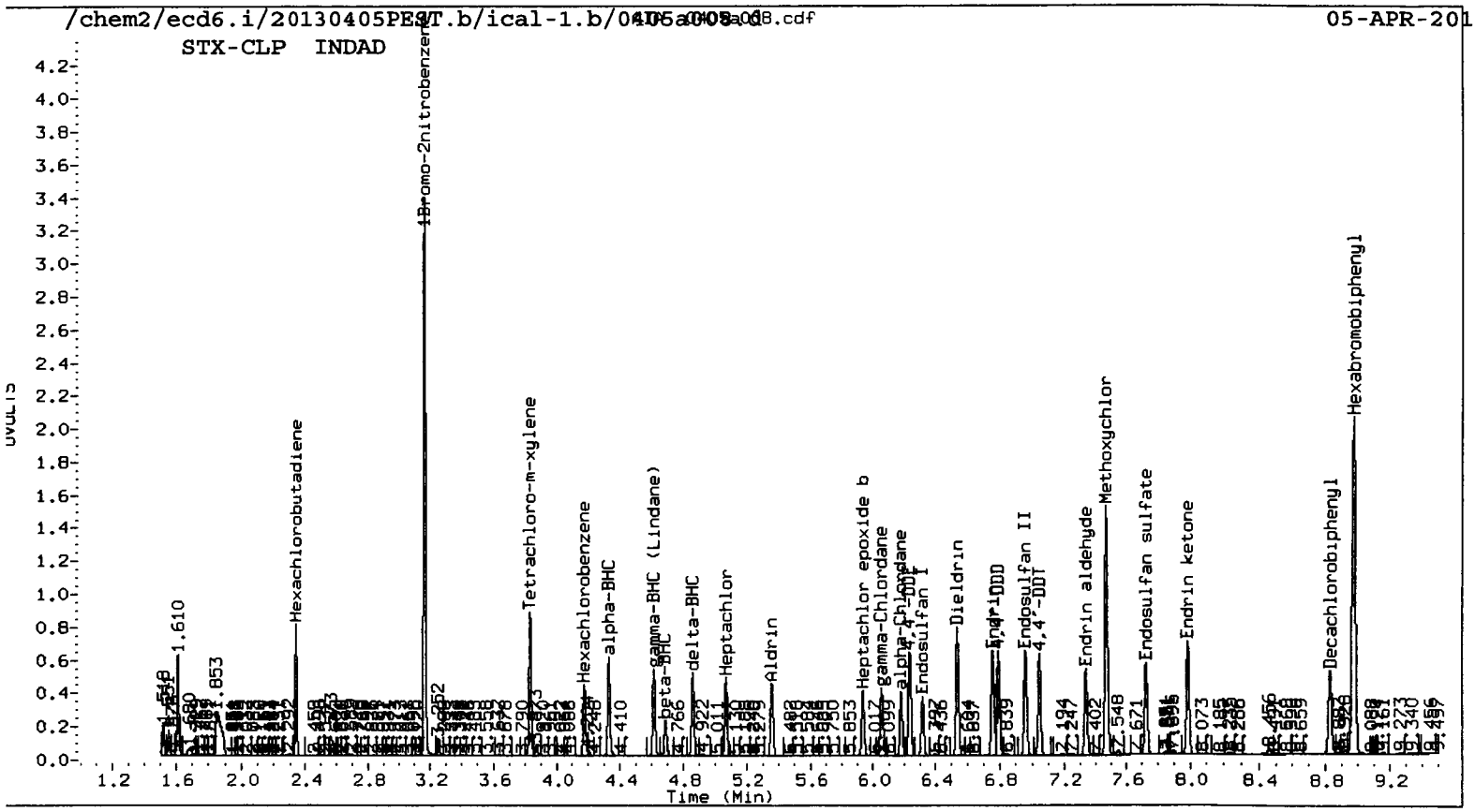
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	5448520	5880001	7.9
Hexabromobiphenyl	4807902	5227384	8.7

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	21702340	26036651	20.0
Hexabromobiphenyl	7681727	9979752	29.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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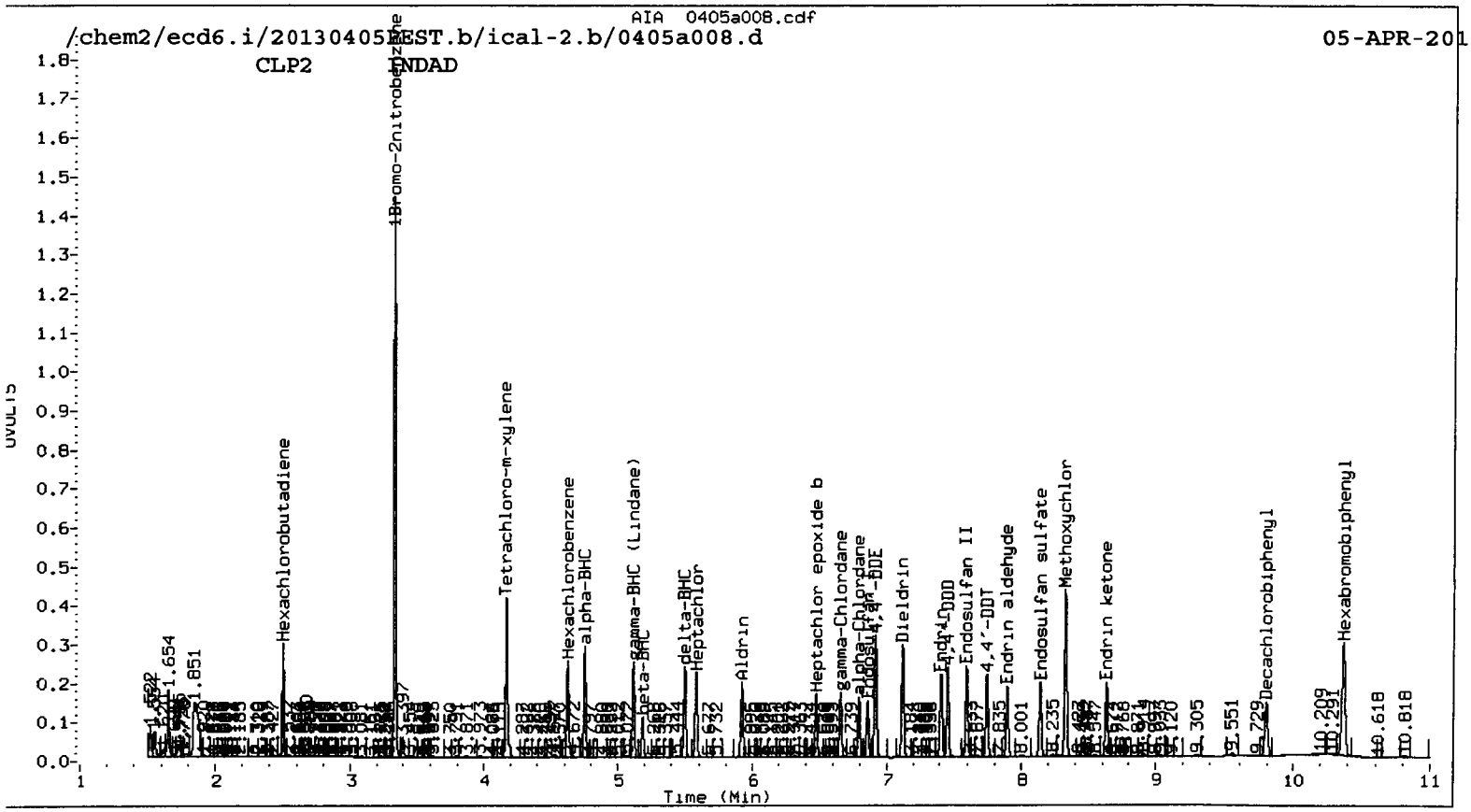
05-APR-201
STX-CLP INDAD
UV VOLTS
Time (Min)
1.610
1.853
Hexachlorobutadiene
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-201
CLP2 INDAD
UV VOLTS
Time (Min)
1.654
1.851
Hexachlorobutadiene
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/8/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a009.d ARI ID: INDAF
Data file 2: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a009.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Injection Date: 05-APR-2013 14:17
Compound Sublist: INDA
Report Date: 04/08/2013 11:24
Instrument, Inj. Vol.: ecd6.i, 1ul
Matrix: NONE
Operator: ar
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.165	0.001	4847986	3.333	0.001	21952139	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.331	0.001	4882270	4.756	0.000	24213251	45.7868	45.3262	1.0	alpha-BHC
4.688	0.001	1788098	5.186	0.001	9006341	41.8560	43.2399	3.3	beta-BHC
4.859	0.001	4326035	5.499	0.000	20416336	45.5813	44.9608	1.4	delta-BHC
4.616	0.001	4357933	5.116	0.000	21126929	45.2828	44.9326	0.8	gamma-BHC (Lindane)
5.066	0.001	4045551	5.582	0.001	18737396	43.8599	42.9753	2.0	Heptachlor
5.361	0.001	4046691	5.921	0.001	17400848	44.7185	43.7739	2.1	Aldrin
5.938	0.002	3556630	6.476	0.001	14663019	43.0003	42.5488	1.1	Heptachlor epoxide
6.315	0.001	3257082	6.863	0.000	12999406	42.9131	43.2643	0.8	Endosulfan I
6.538	0.001	7064822	7.121	0.000	25687238	88.2616	85.2031	3.5	Dieldrin
6.236	0.001	5812030	6.921	0.000	26413144	88.6220	85.9912	3.0	4,4'-DDE
6.757	0.000	5768551	7.411	0.001	18948053	88.6563	85.9650	3.1	Endrin
6.962	0.001	5854698	7.598	0.000	20789051	87.8191	85.8723	2.2	Endosulfan II
6.792	0.001	5553985	7.458	0.000	20391121	89.5259	87.4117	2.4	4,4'-DDD
7.731	0.001	5131416	8.141	0.000	17659867	87.3047	87.8410	0.6	Endosulfan sulfate
7.050	0.001	5587066	7.746	0.000	18676076	89.8615	88.1909	1.9	4,4'-DDT
7.474	0.001	13573752	8.328	-0.002	37770569	435.2666	430.3491	1.1	Methoxychlor
7.986	0.001	6391301	8.633	0.000	17797724	86.6029	86.5482	0.1	Endrin ketone
7.340	0.001	4760729	7.896	0.000	16476429	86.9514	86.2920	0.8	Endrin aldehyde
6.056	0.001	3725551	6.658	0.000	15095175	44.0678	43.5198	1.3	gamma-Chlordane
6.181	0.001	3522813	6.796	0.000	13817131	43.3222	43.1706	0.4	alpha-Chlordane
2.341	0.000	4828892	2.497	0.000	17219705	43.0320	40.9537	4.9	Hexachlorobutadiene
4.180	0.001	3210249	4.630	0.000	20614101	41.3169	41.8914	1.4	Hexachlorobenzene
8.980	0.001	4193877	10.368	0.002	8109922	80.0000	80.0000	0.0	Hexabromobiphenyl
3.837	0.001	6179076	4.167	-0.002	32467743	84.7298	83.6194	1.3	Tetrachloro-m-xylen
8.832	0.001	4811180	9.795	0.000	16006409	78.5916	83.1833	5.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	211.8	209.0	209.0~	115- 0
Decachlorobiphenyl	196.5	208.0	196.5~	115- 0

~ Indicates recovery outside QC Limits

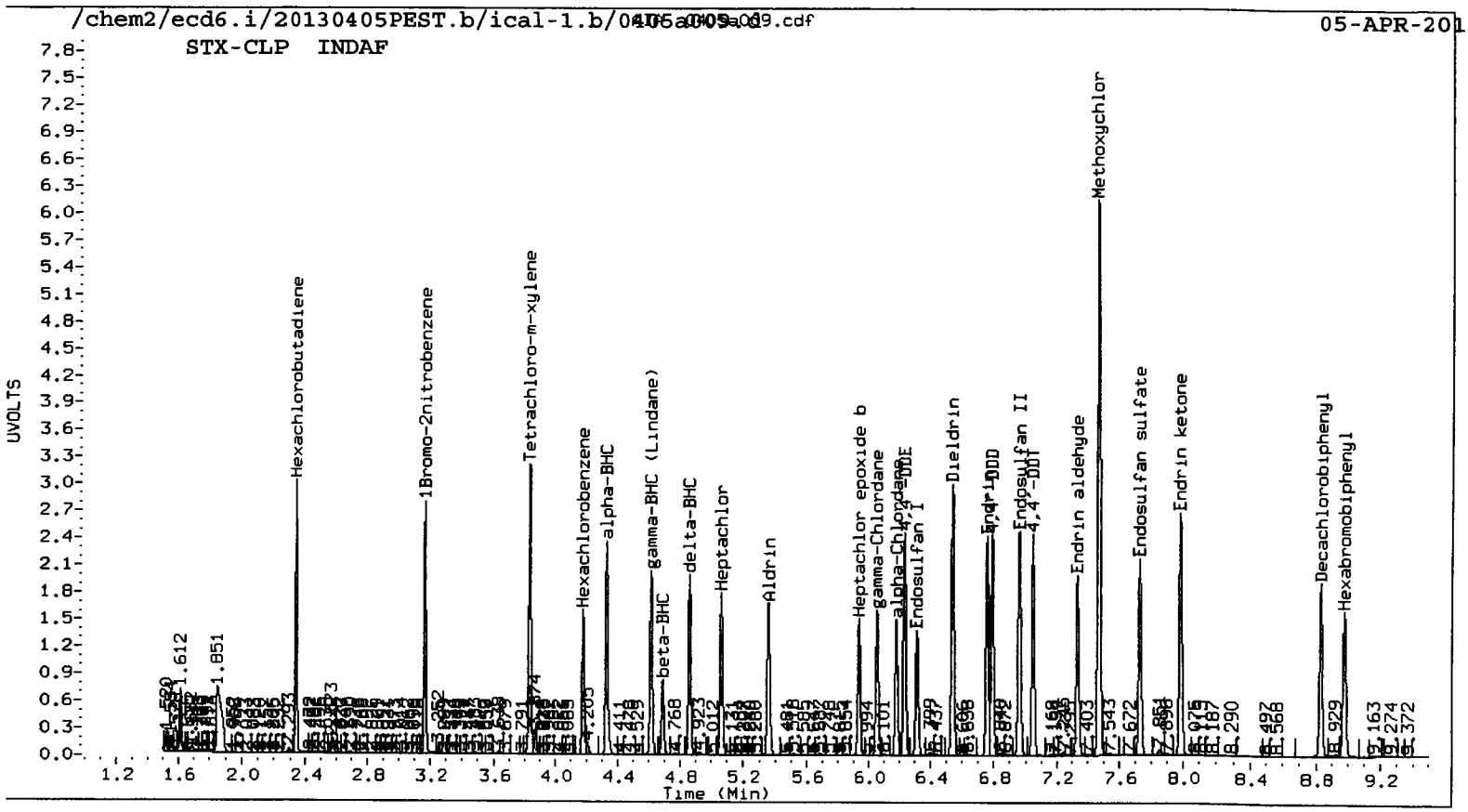
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	5448520	4847986	-11.0
Hexabromobiphenyl	4807902	4193877	-12.8

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	21702340	21952139	1.2
Hexabromobiphenyl	7681727	8109922	5.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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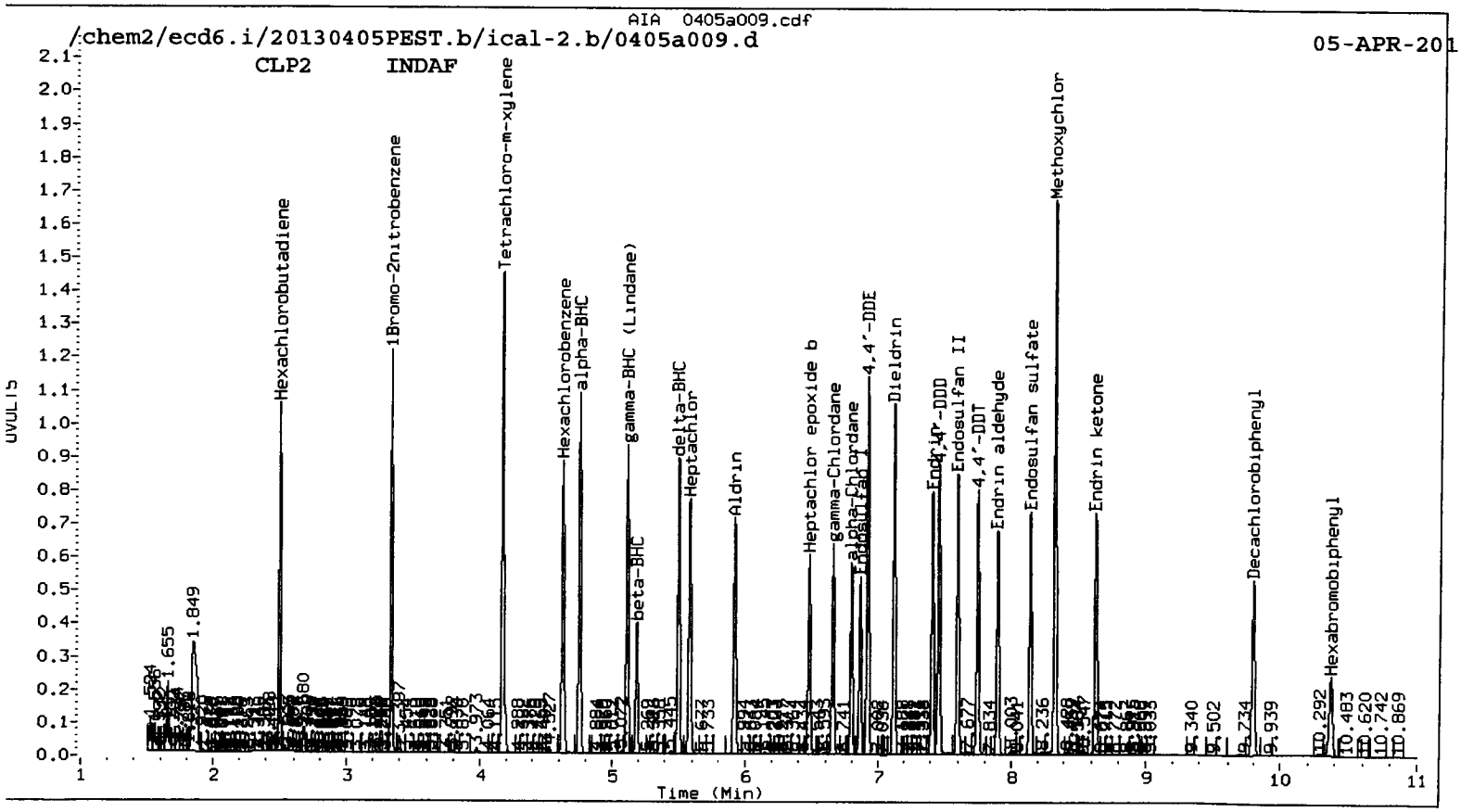
0405a009.cdf
05-APR-201
STX-CLP INDAF
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-201
CLP2 INDAF
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YE 4/8/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a010.d ARI ID: INDAG
Data file 2: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a010.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Injection Date: 05-APR-2013 14:35
Compound Sublist: INDA
Report Date: 04/08/2013 11:24
Instrument, Inj. Vol.: ecd6.i, 1ul
Matrix: NONE
Operator: ar
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.165	0.000	5342959	3.333	0.001	24214609	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.330	0.000	9764956	4.756	0.000	48433656	83.0937	82.1946	1.1	alpha-BHC
4.687	0.000	3503869	5.185	0.000	17532492	74.4207	76.3096	2.5	beta-BHC
4.858	0.000	8634999	5.499	0.000	40689737	82.5541	81.2345	1.6	delta-BHC
4.615	0.000	8677966	5.116	0.000	42267854	81.8183	81.4956	0.4	gamma-BHC (Lindane)
5.065	0.000	7882743	5.582	0.000	35201577	77.5438	73.1932	5.8	Heptachlor
5.360	0.000	7912944	5.921	0.000	33345764	79.3424	76.0511	4.2	Aldrin
5.936	0.000	6922796	6.476	0.000	27752272	75.9441	73.0594	3.9	Heptachlor epoxide
6.315	0.000	6349384	6.863	0.000	24648435	75.9054	74.4323	2.0	Endosulfan I
6.537	0.000	13910769	7.121	0.000	49527352	157.6889	149.0055	5.7	Dieldrin
6.235	0.000	11788786	6.920	0.000	51136965	163.1031	151.0424	7.7	4,4'-DDE
6.756	0.000	11417629	7.410	0.000	36534149	154.6014	144.0467	7.1	Endrin
6.961	0.000	11566476	7.599	0.000	40428271	152.8553	145.1286	5.2	Endosulfan II
6.791	0.000	11147773	7.458	0.000	40061229	158.3168	149.2489	5.9	4,4'-DDD
7.729	0.000	10231992	8.140	0.000	34872841	153.3753	150.7507	1.7	Endosulfan sulfat
7.049	0.000	11243792	7.745	0.000	37774644	159.3300	155.0279	2.7	4,4'-DDT
7.474	0.000	27975334	8.330	0.000	63735142	790.3608	631.0353	22.4	Methoxychlor
7.985	0.000	12810113	8.633	0.000	35555890	152.9293	150.2678	1.8	Endrin ketone
7.338	0.000	9416182	7.895	0.000	32287177	151.5210	146.9573	3.1	Endrin aldehyde
6.055	0.000	7352296	6.657	0.000	29288582	78.9103	76.6169	2.9	gamma-Chlordane
6.180	0.000	6920208	6.795	0.000	26674608	77.2183	75.6227	2.1	alpha-Chlordane
2.341	0.000	9552315	2.497	0.000	34682314	77.2383	74.7781	3.2	Hexachlorobutadiene
4.179	0.000	6270804	4.629	0.000	39684942	73.2304	73.1115	0.2	Hexachlorobenzene
8.980	0.000	4760154	10.367	0.001	9338784	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	12075105	4.169	0.000	57553610	150.2392	134.3776	11.1	Tetrachloro-m-xyl
8.831	0.000	9488510	9.795	0.000	31944603	136.5580	144.2738	5.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	375.6	335.9	335.9~	115- 0
Decachlorobiphenyl	341.4	360.7	341.4~	115- 0

WJ10:01964

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

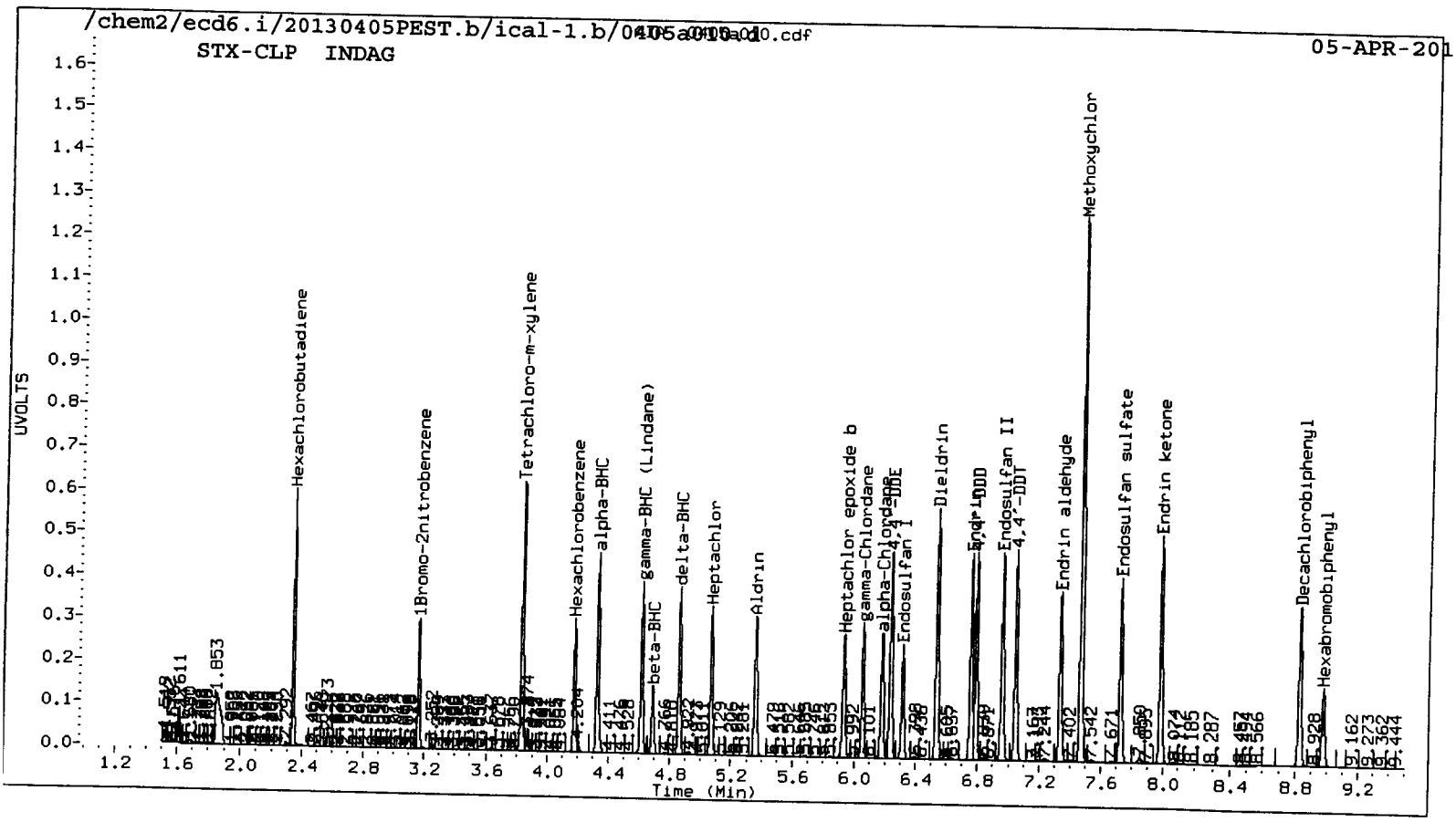
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5342959	-1.9
Hexabromobiphenyl	4807902	4760154	-1.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	24214609	11.6
Hexabromobiphenyl	7681727	9338784	21.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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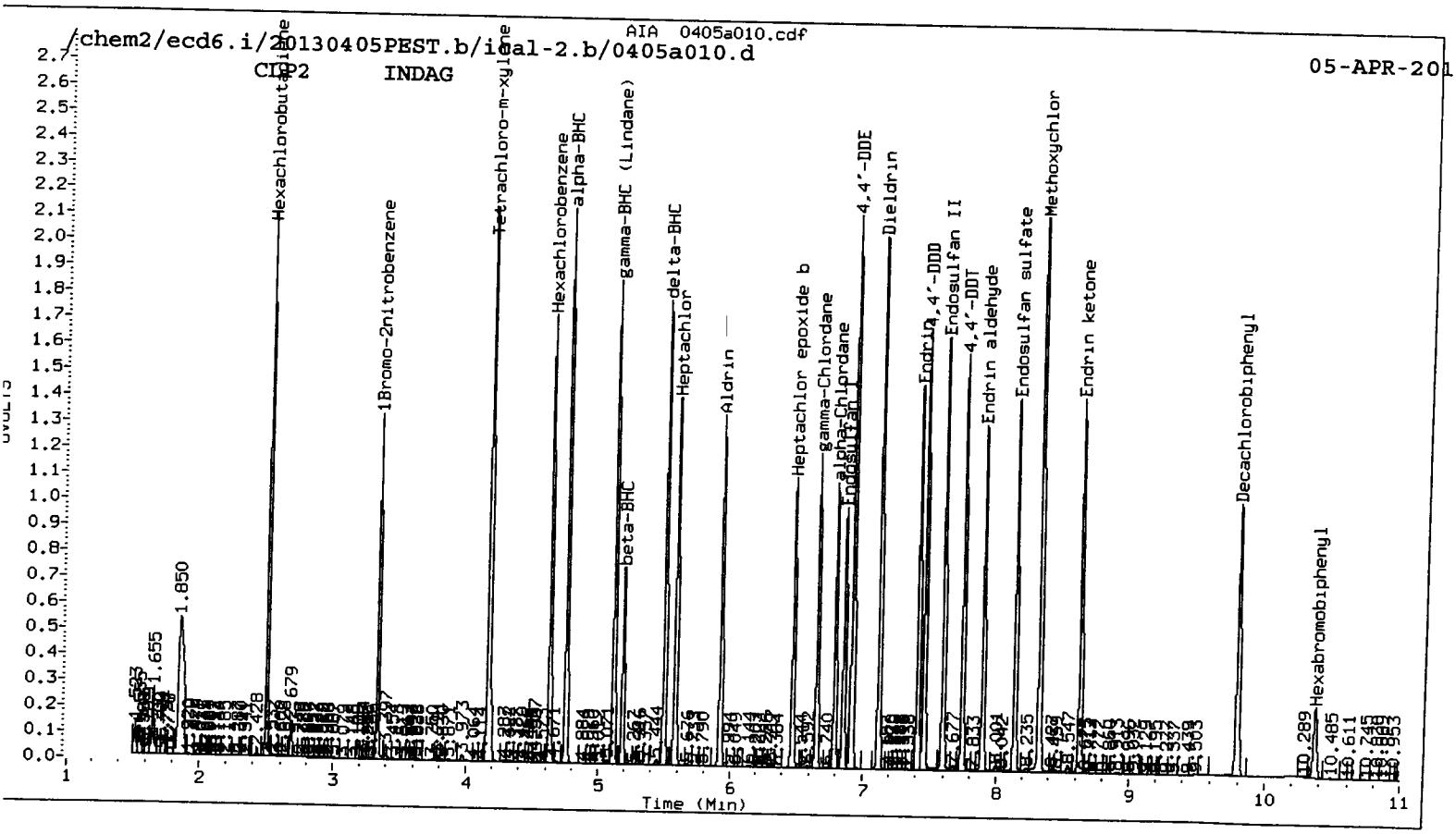
STX-CLP INDAG
05-APR-201
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 INDAG
05-APR-201
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a011.d ARI ID: INDA ICV
Data file 2: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a011.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 14:53
Compound Sublist: INDA Report Date: 04/08/2013 11:10
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

YZ 4/8/13

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.165	0.000	5329694	3.334	0.001	24310130	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.330	0.000	4957469	4.755	-0.001	24858262	42.2506	42.0201	0.5	alpha-BHC
4.687	-0.001	1835229	5.184	-0.001	9362031	39.0318	40.5878	3.9	beta-BHC
4.858	0.000	4372986	5.497	-0.001	20956726	41.9097	41.6744	0.6	delta-BHC
4.615	0.000	4418177	5.114	-0.002	21712055	41.7270	41.6980	0.1	gamma-BHC (Lindane)
5.065	0.000	4050373	5.581	-0.001	18980040	39.9454	39.3094	1.6	Heptachlor
5.360	-0.001	4169838	5.920	-0.001	18181341	41.9162	41.3029	1.5	Aldrin
5.936	-0.001	3584339	6.474	-0.001	15058099	39.4216	39.4855	0.2	Heptachlor epoxide
6.314	-0.001	3274958	6.862	-0.001	13157330	39.2532	39.5759	0.8	Endosulfan I
6.537	-0.001	3590038	7.119	-0.002	13680043	40.7991	40.9954	0.5	Dieldrin
6.233	-0.002	3472545	6.919	-0.001	13989044	48.1667	41.1569	15.7	4,4'-DDE
6.756	-0.001	2949699	7.409	-0.001	10138602	40.5754	40.2925	0.7	Endrin
6.960	-0.001	2920691	7.597	-0.002	10766476	39.2116	38.9567	0.7	Endosulfan II
6.790	-0.001	2827195	7.456	-0.002	10800406	40.7898	40.5572	0.6	4,4'-DDD
7.729	0.000	2607225	8.140	0.000	9199133	39.7044	40.0830	0.9	Endosulfan sulfate
7.048	-0.001	2795900	7.745	-0.001	9762061	40.2493	40.3824	0.3	4,4'-DDT
7.472	-0.001	1385297	8.327	-0.004	4150107	39.7608	41.4167	4.1	Methoxychlor
7.984	0.000	3106505	8.632	0.000	8944920	37.6777	38.1041	1.1	Endrin ketone
7.338	-0.001	2294051	7.895	-0.001	8273688	37.5027	37.9579	1.2	Endrin aldehyde
6.055	0.000	3731490	6.656	-0.001	15326034	40.1521	39.9343	0.5	gamma-Chlordane
6.179	-0.001	3571572	6.794	-0.001	14206594	39.9555	40.1176	0.4	alpha-Chlordane
2.326	-0.015	5417	2.503	0.006	42584	0.0439	0.0915	70.3*	Hexachlorobutadiene
4.179	0.000	41406	4.627	-0.002	2295	0.4845	0.0042	196.6*	Hexachlorobenzene
8.979	0.000	4682567	10.368	0.002	9265075	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	3201335	4.166	-0.003	17275690	39.9212	40.1772	0.6	Tetrachloro-m-xylen
8.831	0.000	2473088	9.795	-0.001	8366080	36.5166	38.0849	4.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	99.8	100.4	99.8~	115- 0
Decachlorobiphenyl	91.3	95.2	91.3~	115- 0

WJ10-01967

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

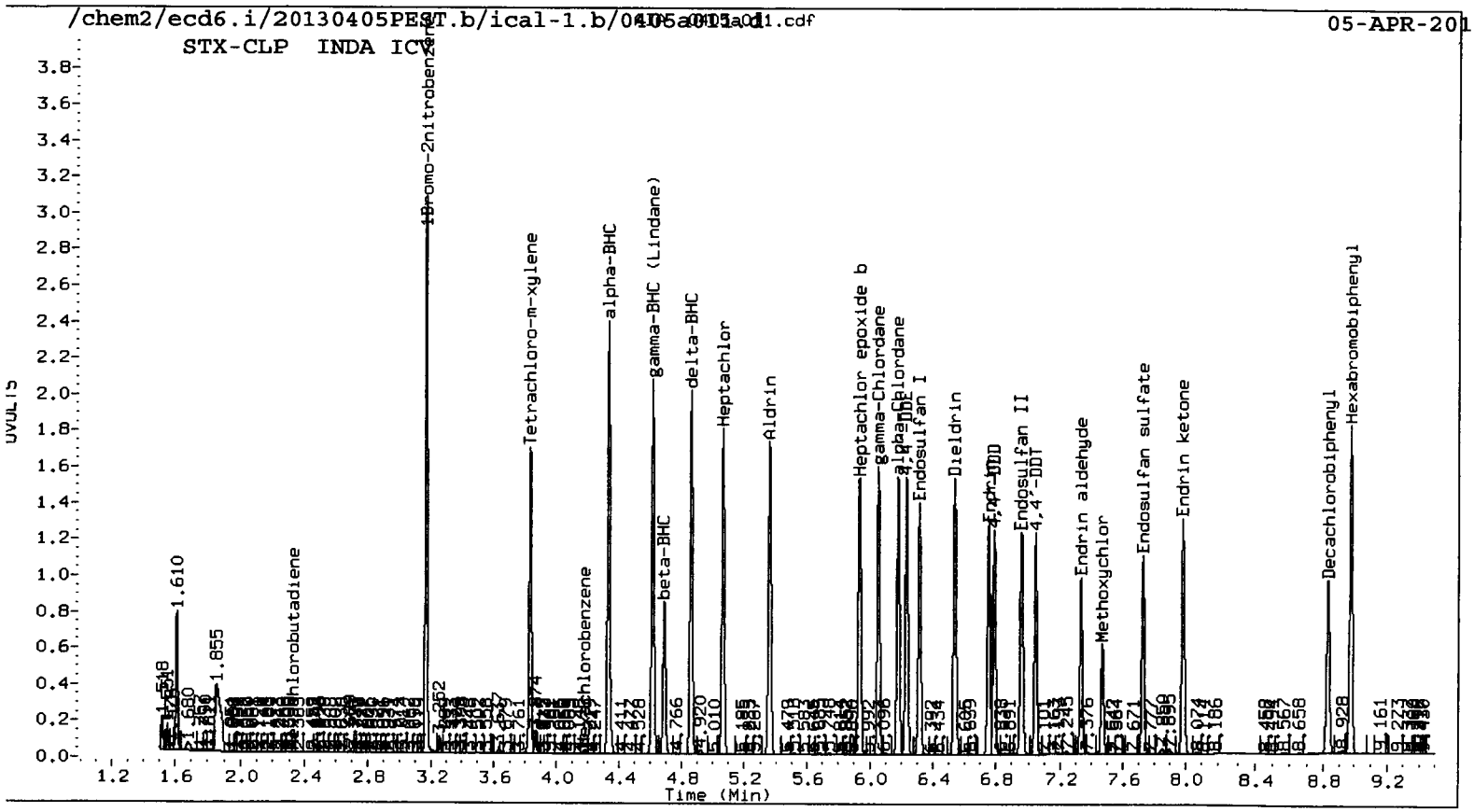
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5329694	-2.2
Hexabromobiphenyl	4807902	4682567	-2.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	24310130	12.0
Hexabromobiphenyl	7681727	9265075	20.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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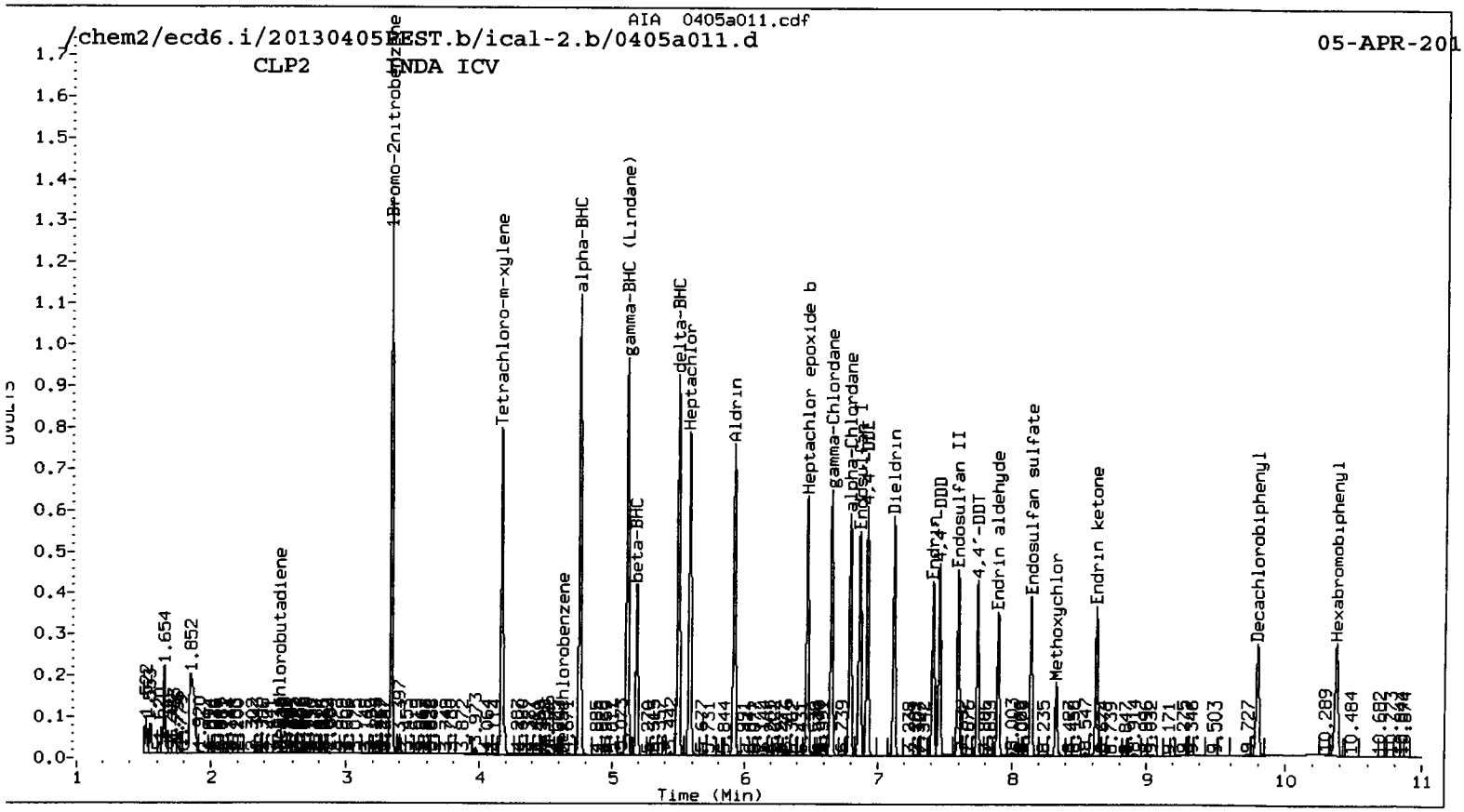
0405a011.cdf
05-APR-201
STX-CLP INDA ICV
UVUL15
Time (Min)
1.610
1.855
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-201
CLP2 INDA ICV
UVUL15
Time (Min)
1.654
1.852
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/ical-1.b/0405a013.d ARI ID: TOXAPHENE
Data file 2: /chem2/ecd6.i/20130405PEST.b/ical-2.b/0405a013.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 15:28
Compound Sublist: TOXAPH Report Date: 04/08/2013 11:10
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

YE 4/8/13

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.165	0.000	5312805	3.333	0.000	24507429	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.979	0.000	4975008	10.367	0.000	9646485	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	-0.001	2913745	4.165	-0.003	15946767	36.4504	36.7880	0.9	Tetrachloro-m-xylen
8.831	0.000	2655233	9.794	-0.002	8560283	36.9014	37.4282	1.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	91.1	92.0	91.1~	150- 0
Decachlorobiphenyl	92.3	93.6	92.3~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

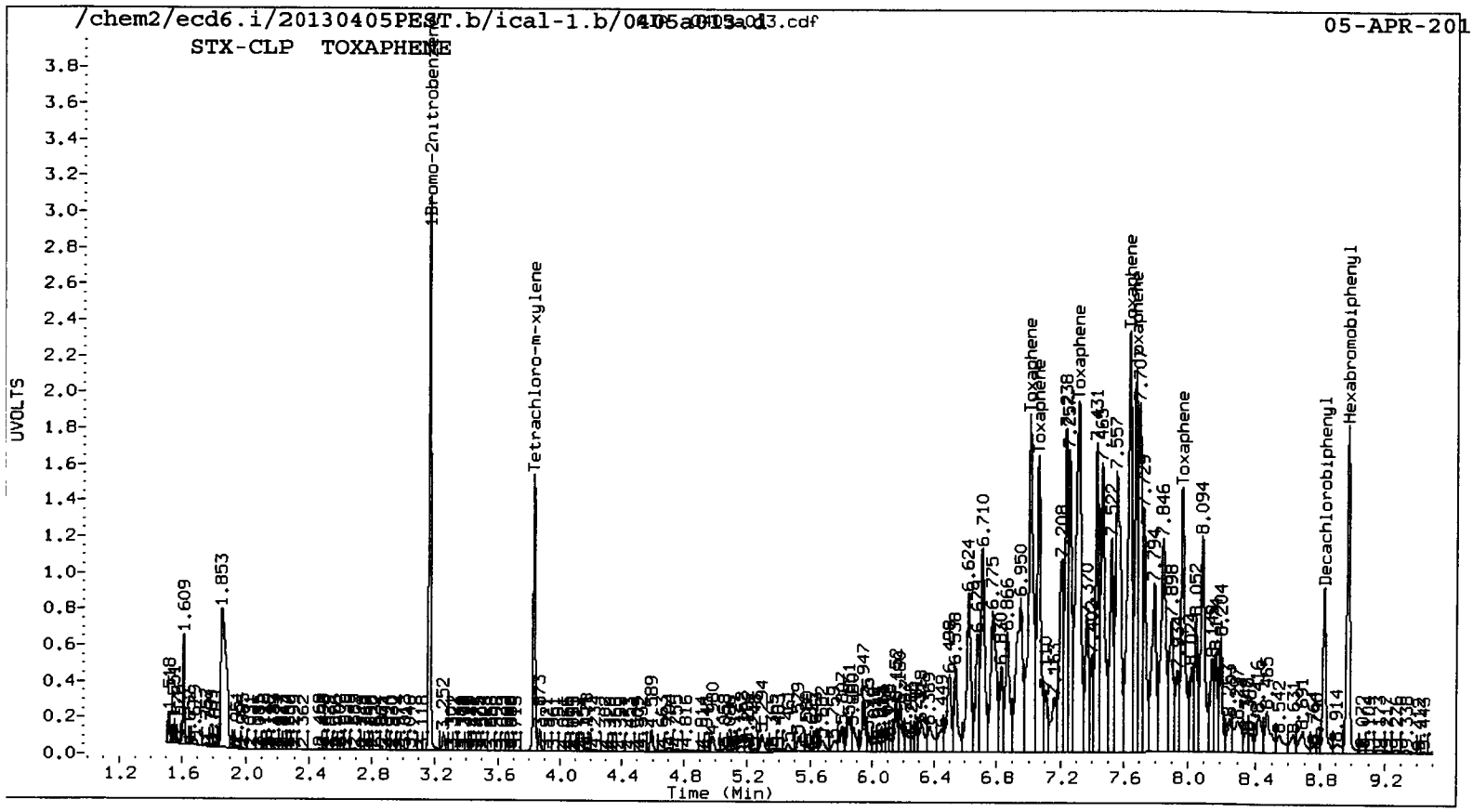
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5312805	-2.5
Hexabromobiphenyl	4807902	4975008	3.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	24507429	12.9
Hexabromobiphenyl	7681727	9646485	25.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.012	0.000	8003846	2500.0	1	7.344	0.000	22151327	2500.0
Toxaphene	2	7.063	0.000	5446974	2500.0	2	7.668	0.000	33145977	2500.0
Toxaphene	3	7.320	0.000	9145159	2500.0	3	7.898	0.000	35423964	2500.0
Toxaphene	4	7.645	0.000	9223987	2500.0	4	8.366	0.000	25596960	2500.0
Toxaphene	5	7.684	0.000	6087258	2500.0	5	8.406	0.000	32412475	2500.0
Toxaphene	6	7.966	0.000	5225747	2500.0	NS	---			----
Total STX-CLPAve (6 peaks): 2500.000						Total CLP2Ave (5 peaks): 2500.000				RPD = 0
Corrected Ave (6 peaks): 2500.000						Corrected Ave (5 peaks): 2500.000				RPD = 0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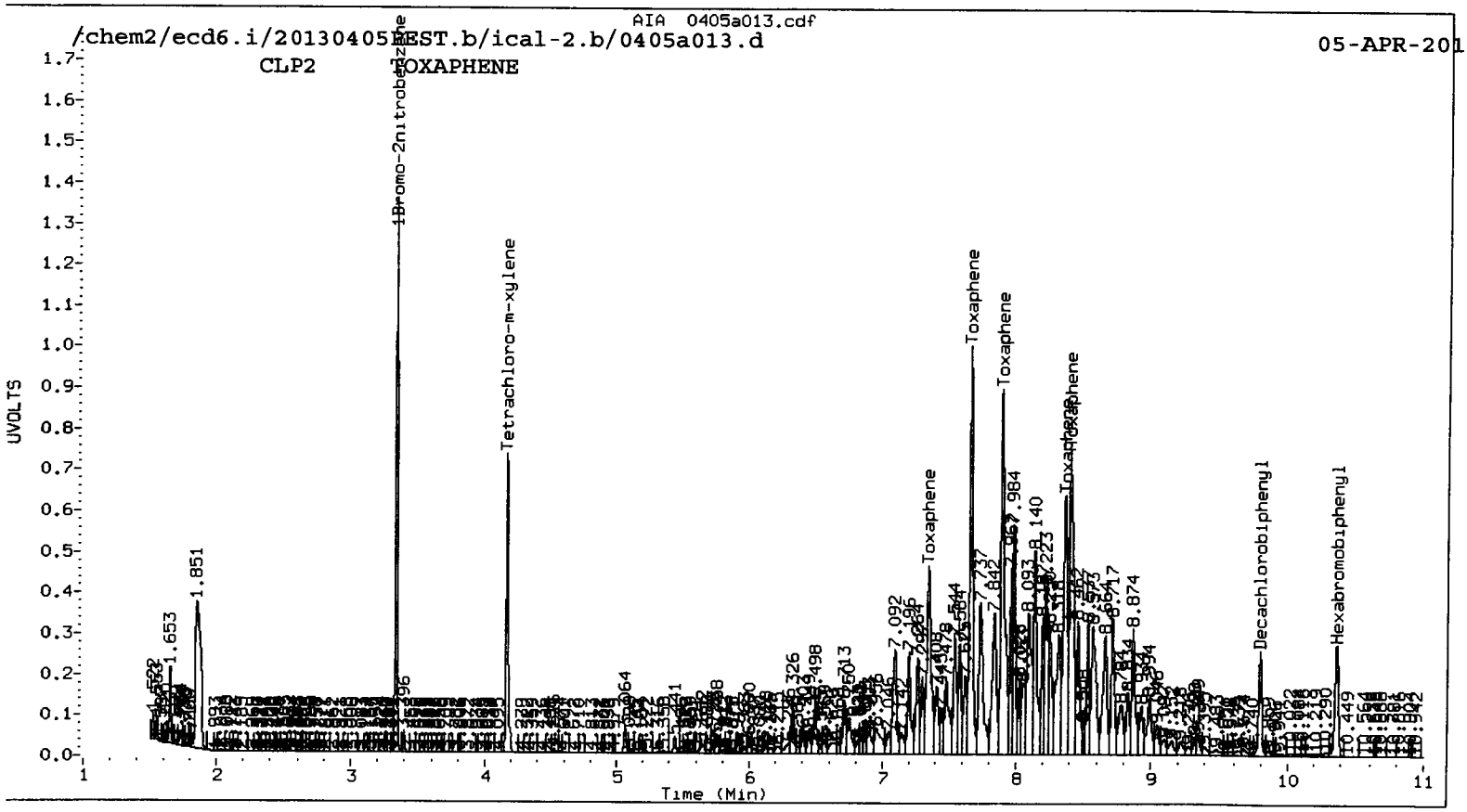
AIA 0405a013.cdf
05-APR-201
STX-CLP TOXAPHENE
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)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AIA 0405a013.cdf
05-APR-201
CLP2 TOXAPHENE
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YB 4/8/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a014.d ARI ID: WNDE
Data file 2: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a014.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 15:46
Compound Sublist: WND Report Date: 04/08/2013 11:10
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.736	-0.018	283	1.731	-0.001	943789	0.0000	0.0000	---	Hexachloroethane
3.165	0.000	5486756	3.334	0.001	25352954	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.840	0.000	2855555	6.385	0.000	12537032	38.2690	38.2815	0.0	Oxychlordane MN
5.911	0.001	2154414	6.631	0.000	9150967	38.3407	38.0157	0.9	2,4-DDE MN
6.162	0.000	3398608	6.741	0.000	14261784	38.2352	38.8457	1.6	trans-Nonachlor MN
6.398	0.000	1853860	7.115	0.000	7441995	37.7193	38.6555	2.5	2,4-DDD MN
6.637	0.001	2137262	7.403	0.000	7940976	38.0311	38.8730	2.2	2,4-DDT MN
6.778	0.000	3603446	7.465	0.000	13459648	38.3550	38.8147	1.2	cis-Nonachlor MN
7.653	0.001	2043980	8.619	0.000	5860500	36.4278	37.0642	1.7	Mirex MN
8.979	0.000	4769081	10.366	0.000	9572394	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	3067703	4.166	-0.002	16849872	37.1597	37.5751	1.1	Tetrachloro-m-xylen
8.831	-0.001	2388328	9.794	-0.001	8191515	34.6253	36.0931	4.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	92.9	93.9	92.9~	150- 0
Decachlorobiphenyl	86.6	90.2	86.6~	150- 0

~ Indicates recovery outside QC Limits

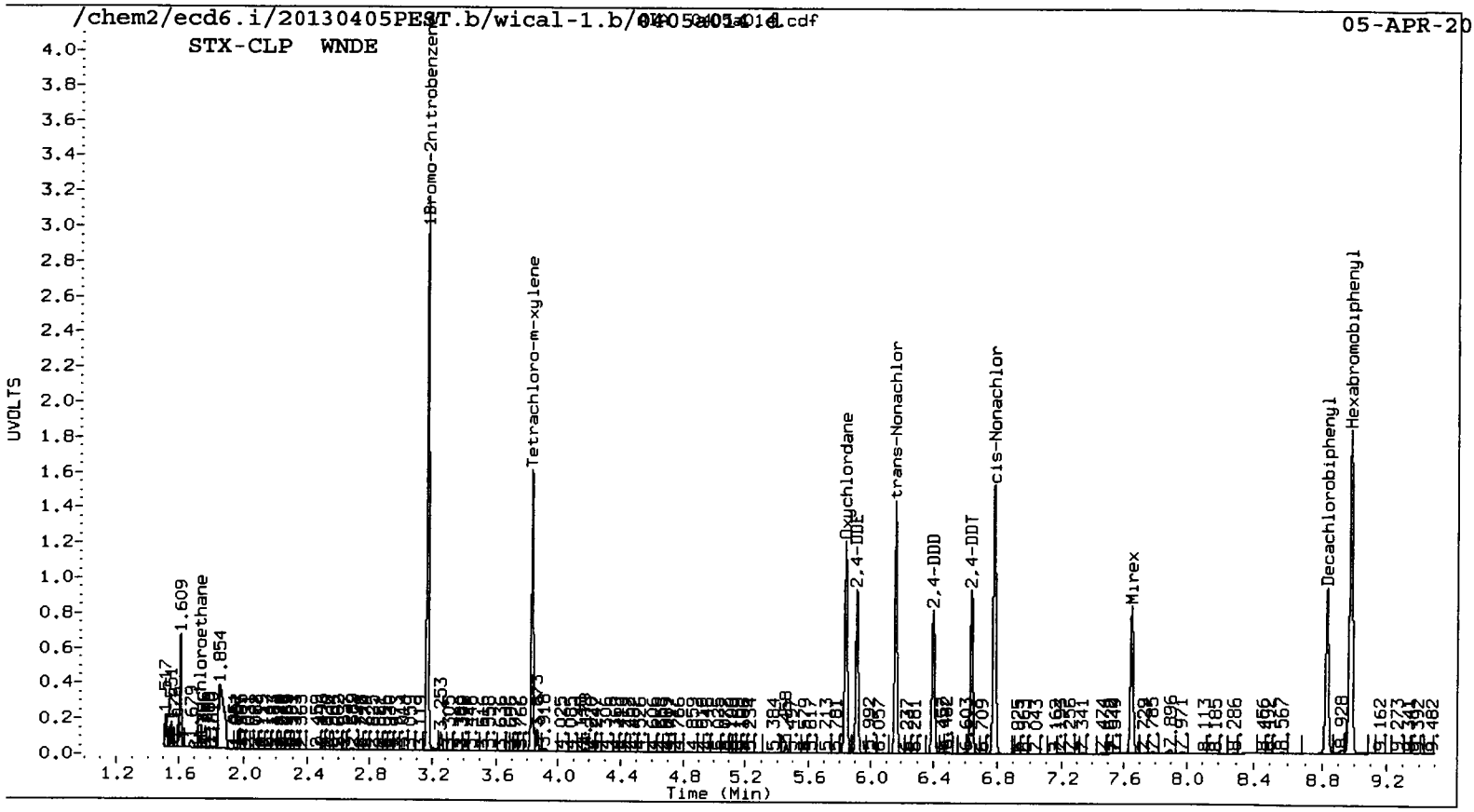
INTERNAL STANDARD SUMMARY

	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5486756	0.7
Hexabromobiphenyl	4807902	4769081	-0.8

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25352954	16.8
Hexabromobiphenyl	7681727	9572394	24.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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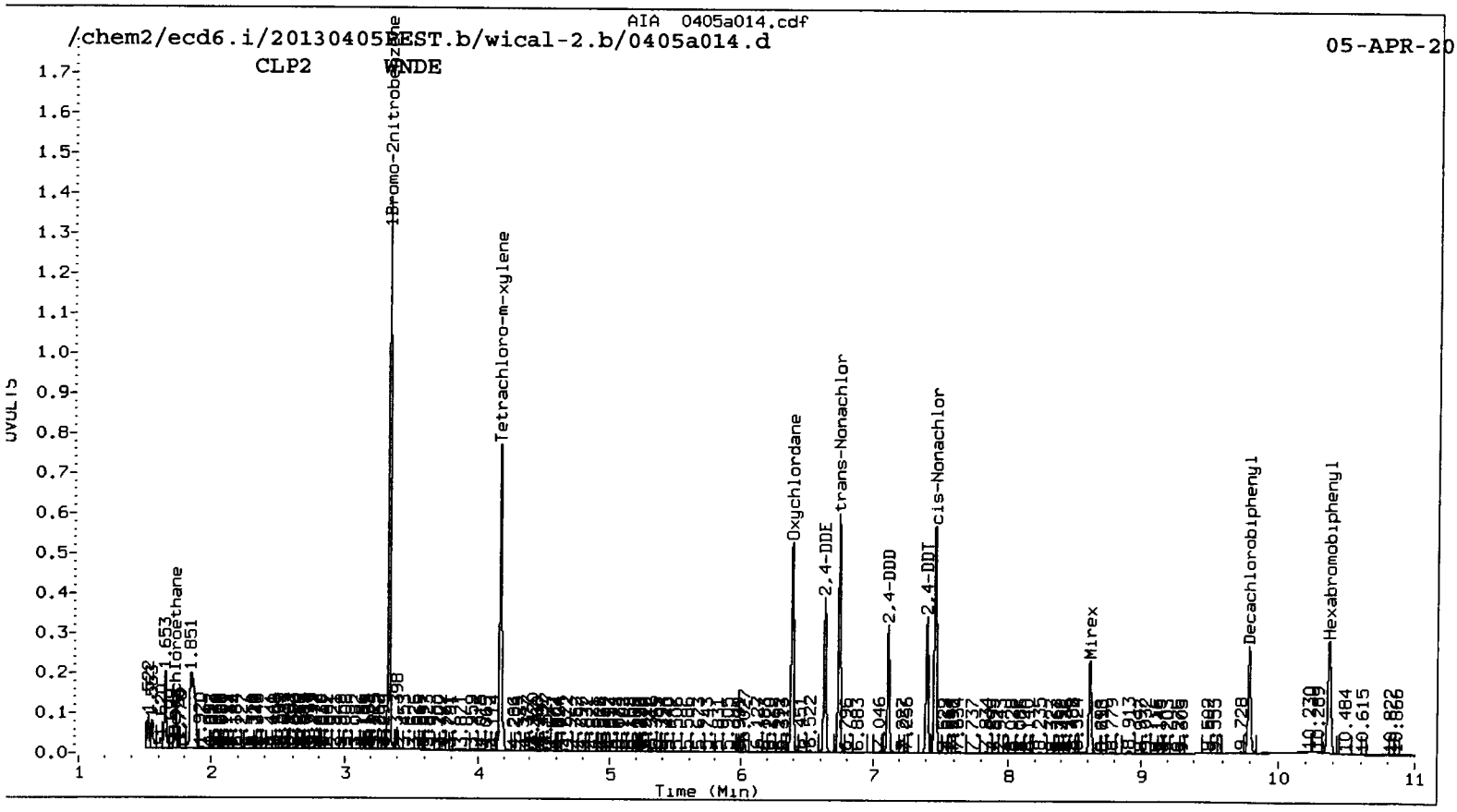
05-APR-20
STX-CLP WNDE
1.609
Hexachloroethane
1.854
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)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05-APR-20
CLP2 WNDE
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a015.d ARI ID: WNDA
Data file 2: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a015.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 16:04
Compound Sublist: WND Report Date: 04/08/2013 11:10
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

YE 4/8/13

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.732	-0.022	445	1.734	0.002	572157	0.0000	0.0000	---	Hexachloroethane
3.165	0.000	5428471	3.333	0.001	25320828	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.840	0.000	193129	6.384	0.000	831832	2.5801	2.5432	1.4	Oxychlordane
5.911	0.001	145072	6.631	0.000	640991	2.5737	2.6662	3.5	2,4-DDE
6.162	0.001	228485	6.741	0.000	966266	2.5625	2.6008	1.5	trans-Nonachlor
6.398	0.001	129212	7.115	0.000	522273	2.6208	2.6808	2.3	2,4-DDD
6.637	0.001	146156	7.403	0.000	539689	2.5926	2.6107	0.7	2,4-DDT
6.779	0.001	239747	7.465	0.000	904756	2.5439	2.5783	1.3	cis-Nonachlor
7.653	0.001	159184	8.619	0.000	456842	2.8281	2.8552	1.0	Mirex
8.979	0.000	4784071	10.367	0.001	9686694	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	-0.001	206775	4.165	-0.003	1151433	2.5316	2.5709	1.5	Tetrachloro-m-xylene
8.831	0.000	206837	9.794	-0.001	604802	2.9893	2.6334	12.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	6.3	6.4	6.3~	150- 0
Decachlorobiphenyl	7.5	6.6	6.6~	150- 0

~ Indicates recovery outside QC Limits

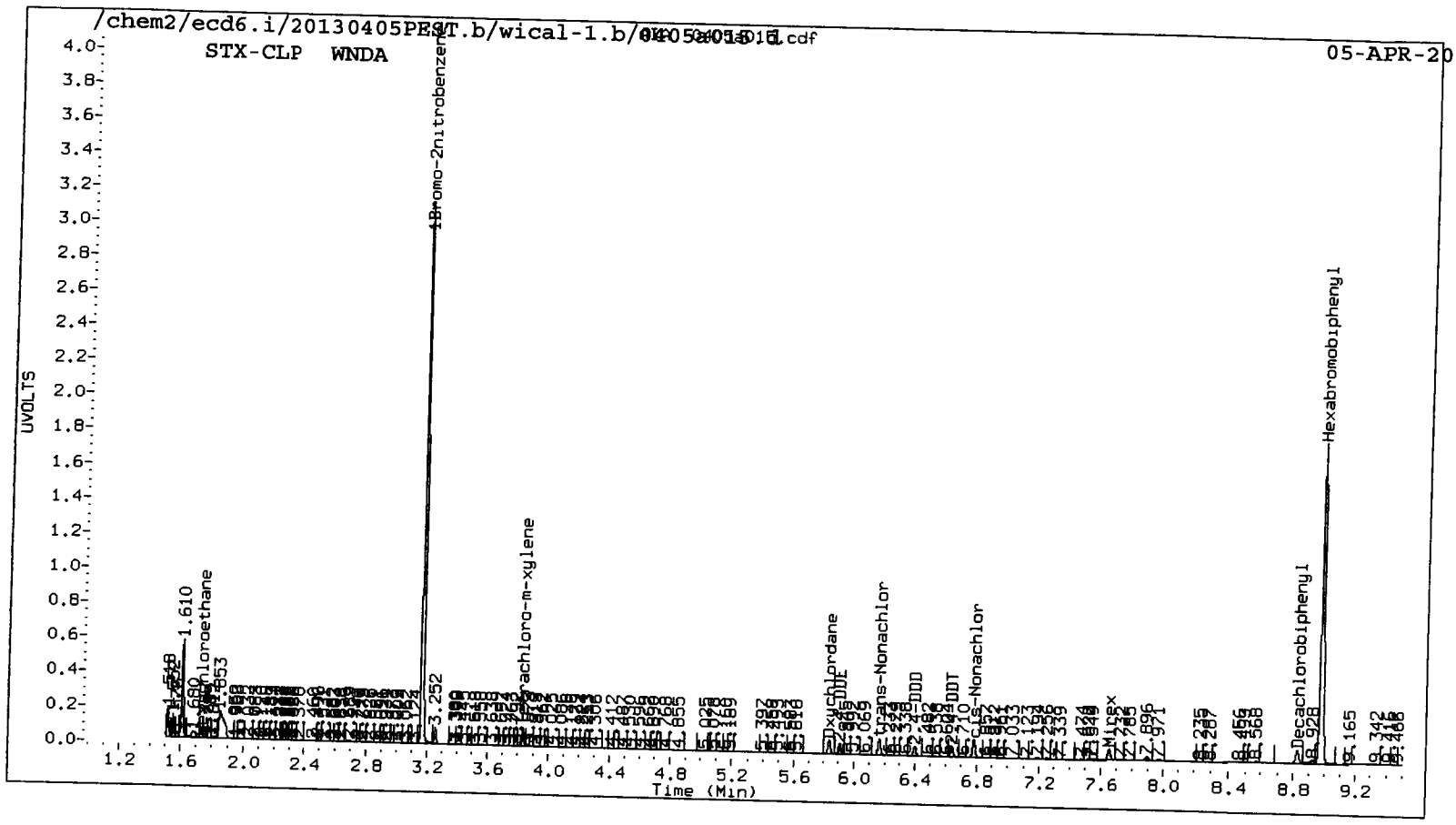
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5428471	-0.4
Hexabromobiphenyl	4807902	4784071	-0.5

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25320828	16.7
Hexabromobiphenyl	7681727	9686694	26.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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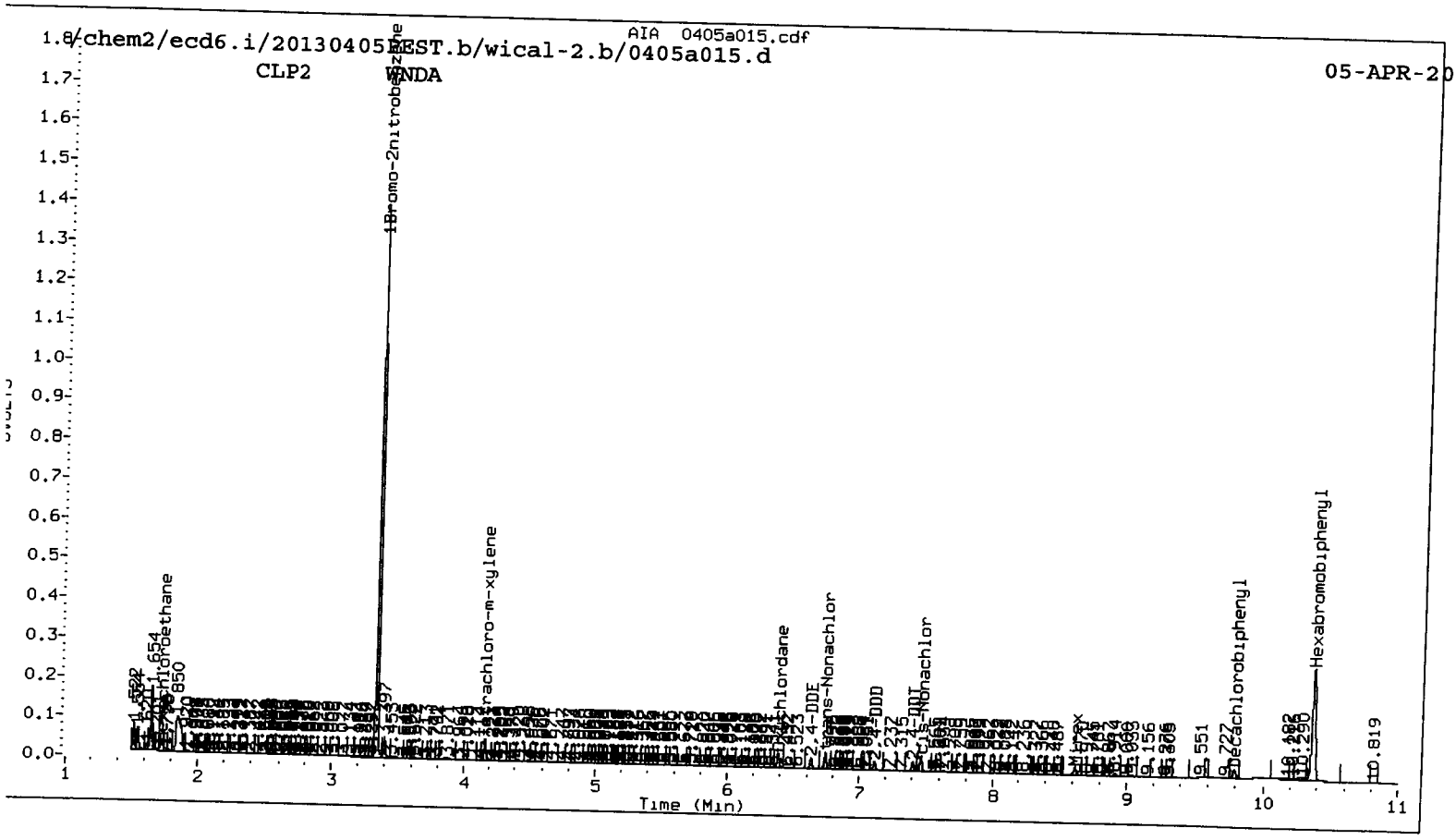
AIA 0405a015.cdf
STX-CLP WNDA
05-APR-20
UVOLTS
Time (Min)
1.610
3.252
Hexabromobiphenyl
Decachlorobiphenyl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AIA 0405a015.cdf
CLP2 WNDA
05-APR-20
Time (Min)
Hexabromobiphenyl
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a016.d ARI ID: WNDB
Data file 2: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a016.d Client ID: YE 4/9/13
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 16:22
Compound Sublist: WND Report Date: 04/08/2013 11:10
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.726	-0.028	394	1.734	0.003	613547	0.0000	0.0000	---	Hexachloroethane
3.165	0.000	5559811	3.333	0.001	25893655	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.840	0.000	385940	6.384	-0.001	1685022	4.9818	5.0377	1.1	Oxychlordane
5.911	0.001	292424	6.631	0.000	1282471	5.0125	5.2165	4.0	2,4-DDE
6.162	0.001	454428	6.741	0.000	1945403	4.9242	4.9724	1.0	trans-Nonachlor
6.398	0.001	253964	7.115	0.000	1021556	4.9770	4.9793	0.0	2,4-DDD
6.638	0.001	288360	7.403	0.000	1070745	4.9422	4.9187	0.5	2,4-DDT
6.778	0.000	473373	7.465	0.000	1807794	4.8530	4.8921	0.8	cis-Nonachlor
7.653	0.000	302811	8.619	0.001	873819	5.1980	5.1859	0.2	Mirex
8.979	0.000	4951391	10.368	0.002	10200809	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	415118	4.166	-0.003	2338146	4.9623	5.1052	2.8	Tetrachloro-m-xylene
8.830	-0.001	375057	9.796	0.000	1181360	5.2373	4.8846	7.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	12.4	12.8	12.4~	150- 0
Decachlorobiphenyl	13.1	12.2	12.2~	150- 0

~ Indicates recovery outside QC Limits

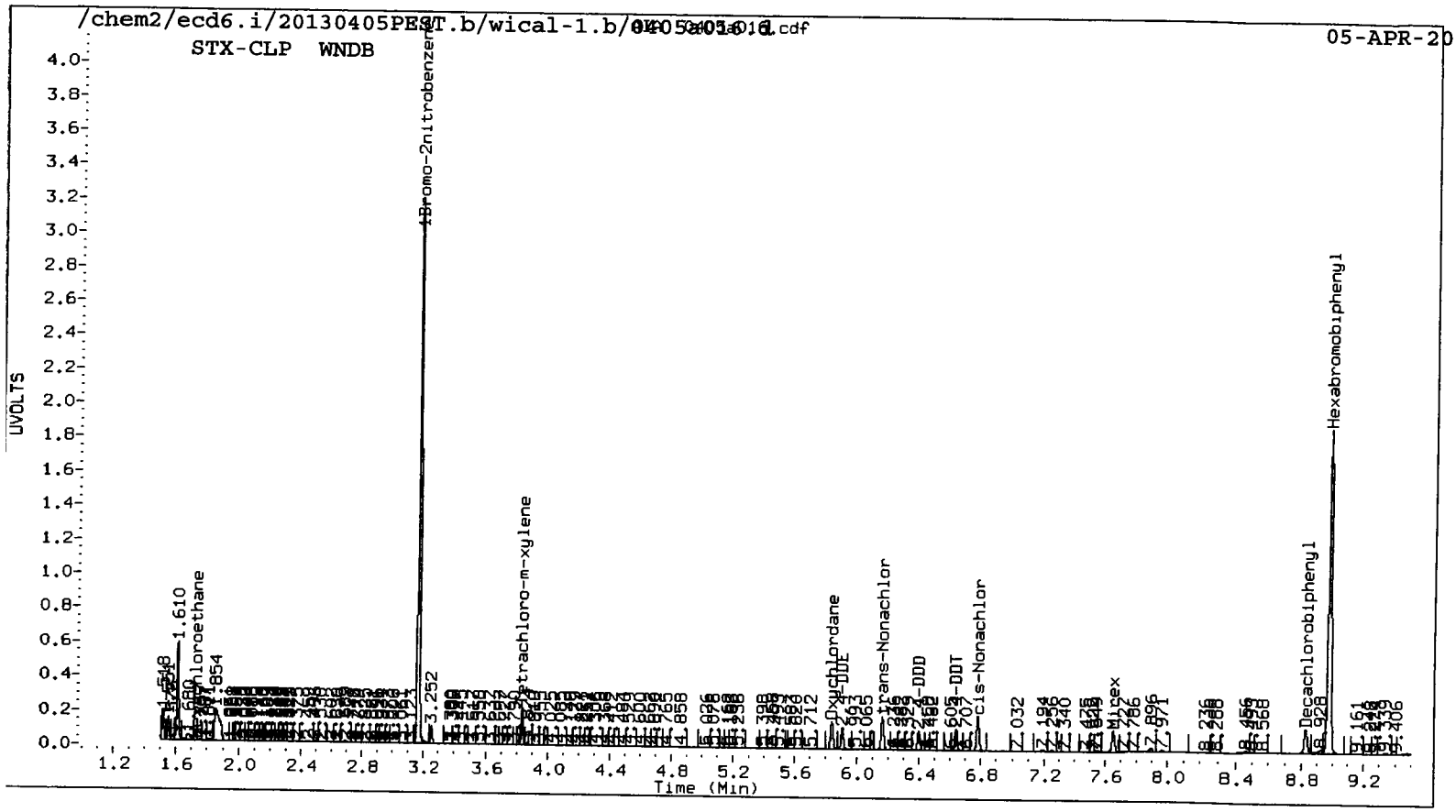
INTERNAL STANDARD SUMMARY

	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5559811	2.0
Hexabromobiphenyl	4807902	4951391	3.0

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25893655	19.3
Hexabromobiphenyl	7681727	10200809	32.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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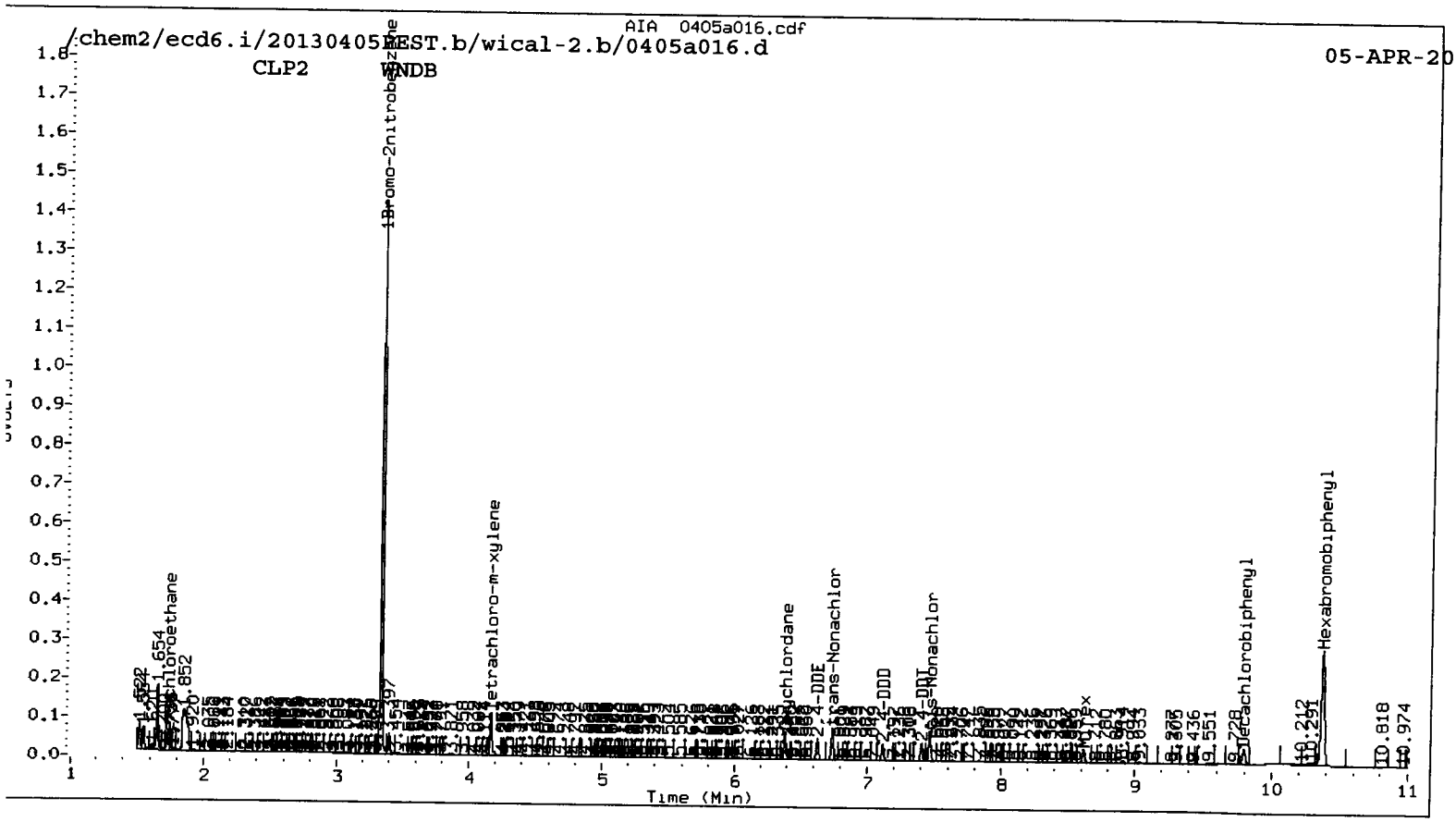
0405a016.cdf
STX-CLP WNDB
05-APR-20
UVOLTS
1.610
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
4,4'-DDE
trans-Nonachlor
2,4'-DDD
4,4'-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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AIA 0405a016.cdf
CLP2 WNDB
05-APR-20
1Bromo-2nitrobenzene
Hexachloroethane
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
2,4'-DDD
4,4'-DDT
Nonachlor
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a017.d ARI ID: WNDC
Data file 2: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a017.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Compound Sublist: WND
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 05-APR-2013 16:40
Report Date: 04/08/2013 11:10
Matrix: NONE
Dilution Factor: 1.000

YZ 4/8/13

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.757	0.003	337	1.737	0.005	641674	0.0000	0.0000	---	Hexachloroethane
3.165	0.000	5437070	3.333	0.001	25523423	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.840	0.000	744085	6.384	0.000	3302162	10.0303	10.0157	0.1	Oxychlordane
5.911	0.001	561847	6.631	0.000	2480201	10.0573	10.2346	1.7	2,4-DDE
6.162	0.001	874326	6.741	0.000	3786004	9.8939	9.9850	0.9	trans-Nonachlor
6.398	0.001	485638	7.115	0.000	1969056	9.9388	9.9033	0.4	2,4-DDD
6.637	0.001	553848	7.403	-0.001	2078537	9.9130	9.8521	0.6	2,4-DDT
6.778	0.000	916102	7.464	0.000	3567298	9.8080	9.9609	1.5	cis-Nonachlor
7.653	0.000	558764	8.619	0.000	1619675	10.0166	9.9185	1.0	Mirex
8.979	0.000	4741342	10.367	0.000	9886035	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	798694	4.165	-0.003	4570636	9.7632	10.1244	3.6	Tetrachloro-m-xylene
8.830	-0.001	675642	9.794	-0.002	2221004	9.8526	9.4756	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	24.4	25.3	24.4~	150- 0
Decachlorobiphenyl	24.6	23.7	23.7~	150- 0

~ Indicates recovery outside QC Limits

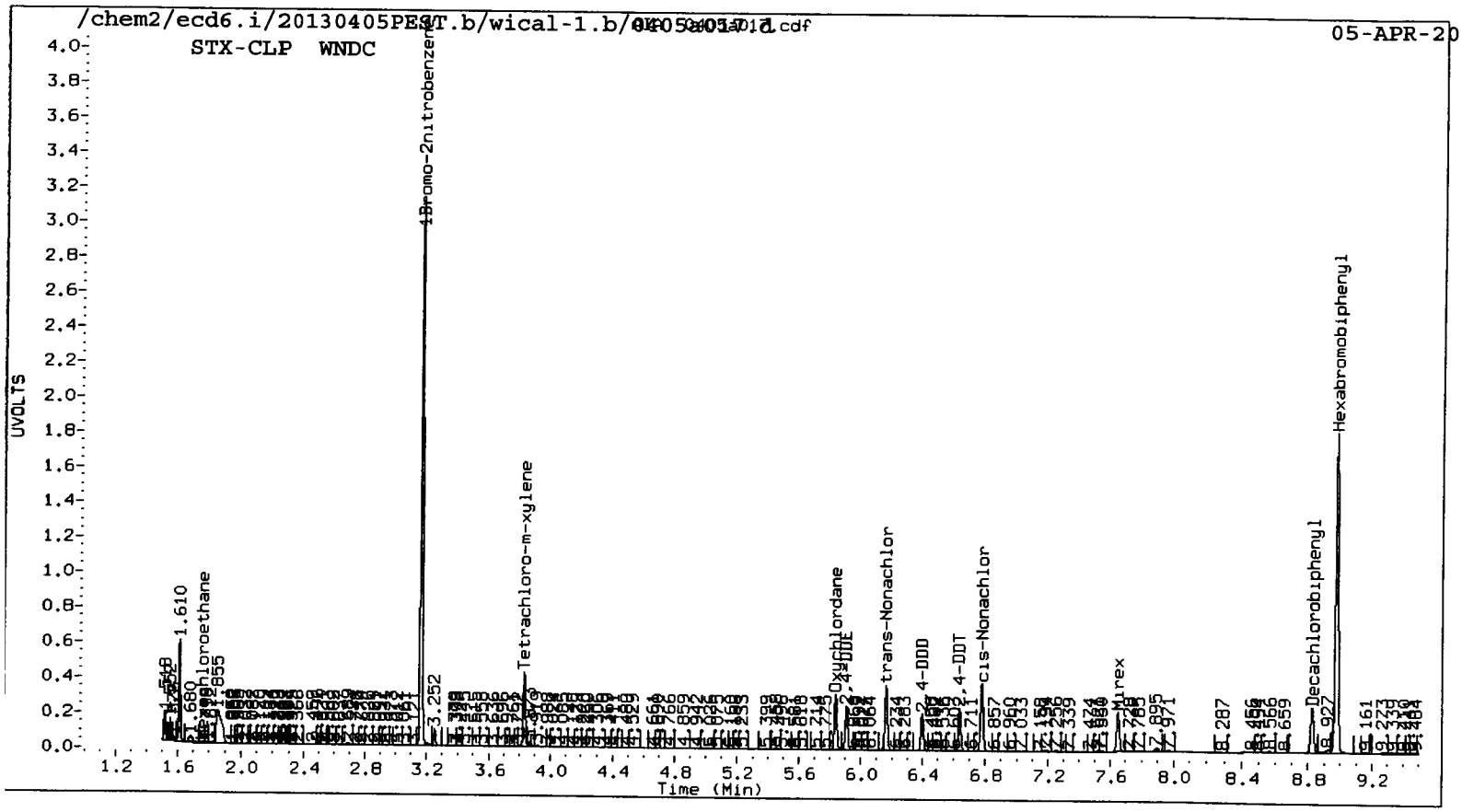
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5437070	-0.2
Hexabromobiphenyl	4807902	4741342	-1.4

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25523423	17.6
Hexabromobiphenyl	7681727	9886035	28.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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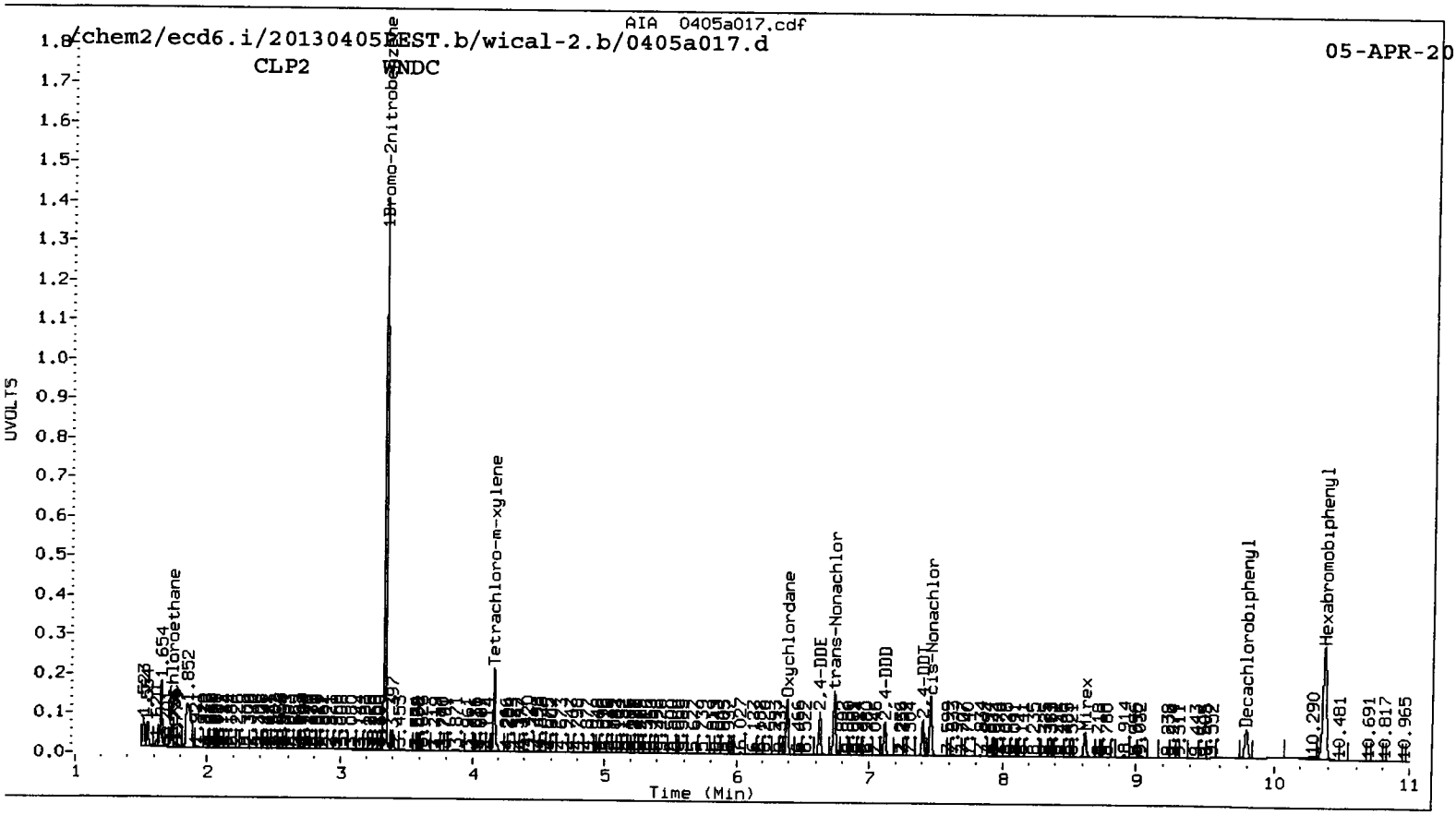
0405a017.cdf
05-APR-20
STX-CLP WNDC
UVOLTS
Time (Min)
1.610
1,2-Dichloroethane
3.252
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-20
CLP2 WNDC
UVOLTS
Time (Min)
1,2-Dichloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/5/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a018.d ARI ID: WNDD
Data file 2: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a018.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 16:57
Compound Sublist: WND Report Date: 04/08/2013 11:11
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.756	0.002	498	1.735	0.004	710093	0.0000	0.0000	---	Hexachloroethane
3.165	0.000	5198393	3.333	0.001	24486263	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.840	0.000	1424810	6.384	-0.001	6425174	20.3576	20.3135	0.2	Oxychlordane
5.910	0.000	1087614	6.630	-0.001	4769894	20.6357	20.5169	0.6	2,4-DDE
6.162	0.000	1691615	6.740	-0.001	7349858	20.2897	20.3515	0.3	trans-Nonachlor
6.397	0.000	932929	7.115	0.000	3827353	20.2371	20.2102	0.1	2,4-DDD
6.637	0.000	1064601	7.402	-0.001	4063800	20.1968	20.2235	0.1	2,4-DDT
6.778	0.000	1782055	7.464	-0.001	6899143	20.2226	20.2258	0.0	cis-Nonachlor
7.653	0.000	1040241	8.618	0.000	3051531	19.7653	19.6194	0.7	Mirex
8.979	0.000	4473234	10.366	0.000	9416112	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	-0.001	1538706	4.166	-0.003	8782737	19.6726	20.2786	3.0	Tetrachloro-m-xylene
8.830	-0.001	1223782	9.794	-0.002	4219817	18.9155	18.9018	0.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	49.2	50.7	49.2~	150- 0
Decachlorobiphenyl	47.3	47.3	47.3~	150- 0

~ Indicates recovery outside QC Limits

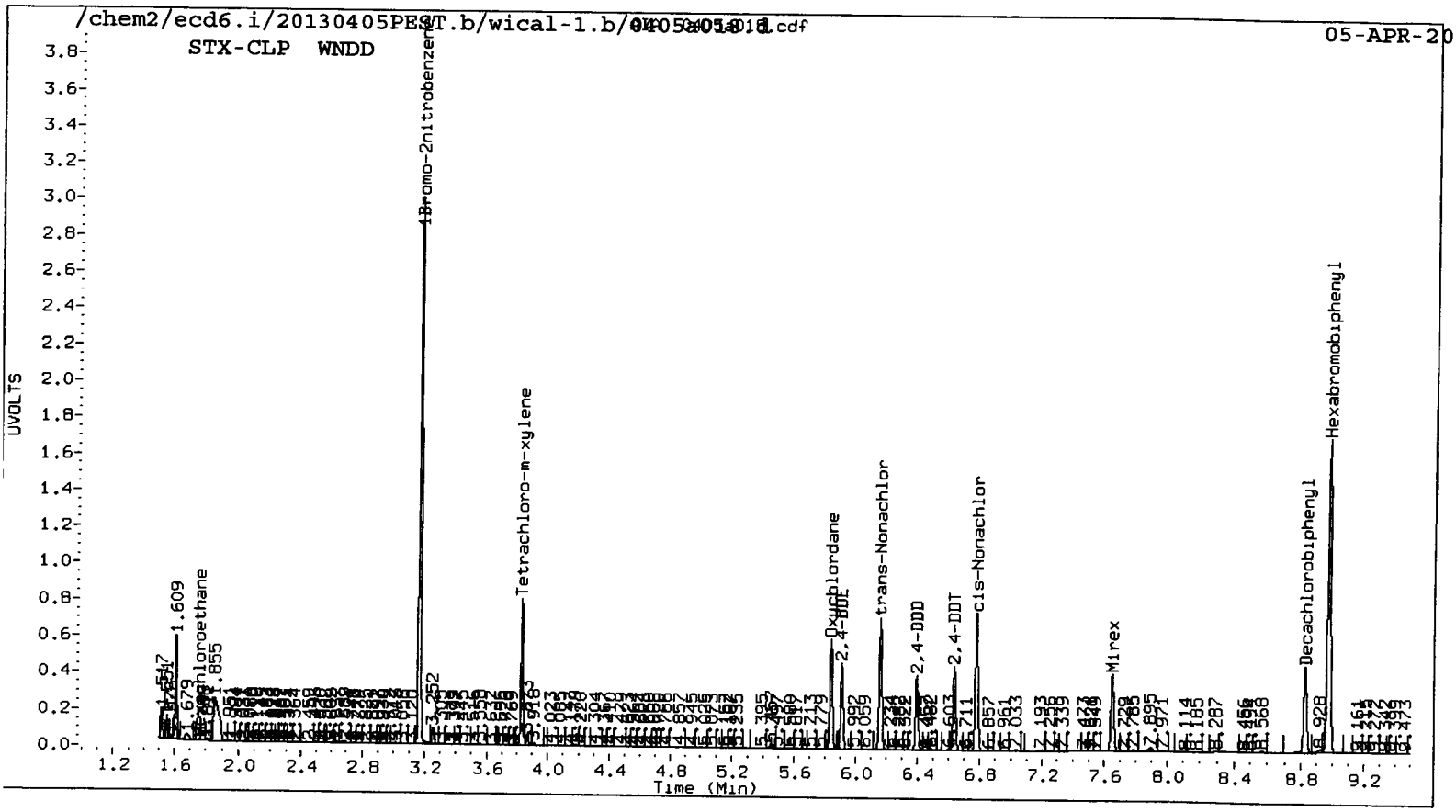
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5198393	-4.6
Hexabromobiphenyl	4807902	4473234	-7.0

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	24486263	12.8
Hexabromobiphenyl	7681727	9416112	22.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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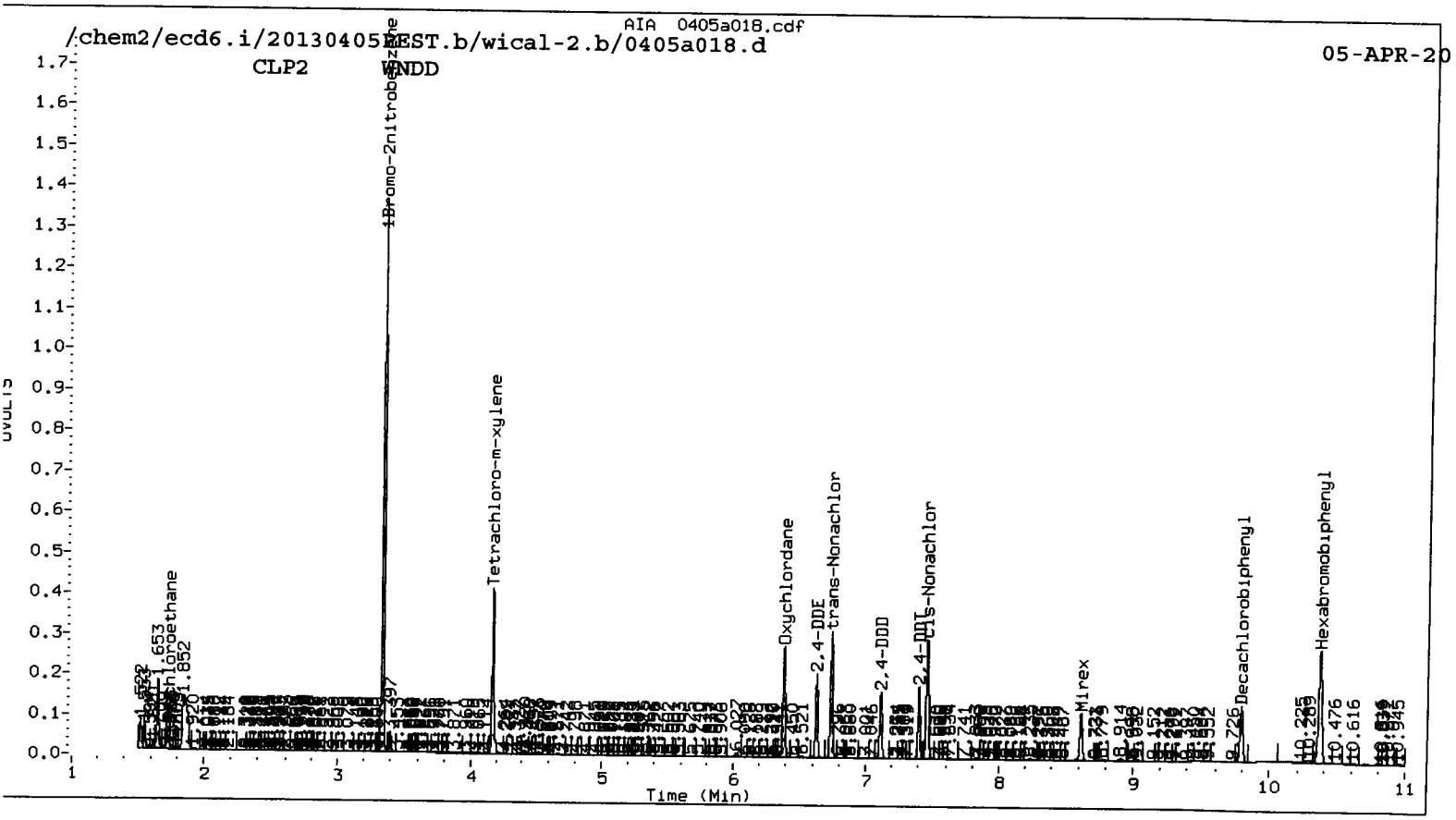
0405a018.cdf
05-APR-20
STX-CLP WNDD
UVOLTS
1.609
1.855
1.679
3.252
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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05-APR-20
CLP2 WNDD
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a019.d ARI ID: WNDF
Data file 2: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a019.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Compound Sublist: WND
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 05-APR-2013 17:15
Report Date: 04/08/2013 11:11
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.756	0.002	2124	1.732	0.000	1217269	0.0000	0.0000	---	Hexachloroethane
3.165	0.000	4612962	3.333	0.001	21937785	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.840	0.000	5434497	6.385	0.000	24335569	86.9522	85.8760	1.2	Oxychlordane
5.911	0.000	4059251	6.631	0.001	17275878	86.2463	82.9415	3.9	2,4-DDE
6.162	0.000	6538878	6.741	0.000	27536270	87.8272	85.6658	2.5	trans-Nonachlor
6.398	0.000	3573667	7.115	0.000	14430584	86.8091	85.6129	1.4	2,4-DDD
6.637	0.000	4139705	7.404	0.000	15589258	87.9458	87.1632	0.9	2,4-DDT
6.778	0.000	6990950	7.465	0.001	26274409	88.8391	86.5423	2.6	cis-Nonachlor
7.653	0.000	3916159	8.619	0.000	11427001	83.3261	82.5440	0.9	Mirex
8.979	0.000	3994575	10.366	0.000	8380834	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	5839913	4.166	-0.003	31976175	84.1398	82.4072	2.1	Tetrachloro-m-xylen
8.830	-0.001	4540430	9.794	-0.001	16079323	78.5888	80.9209	2.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	210.3	206.0	206.0~	150- 0
Decachlorobiphenyl	196.5	202.3	196.5~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4612962	-15.3
Hexabromobiphenyl	4807902	3994575	-16.9

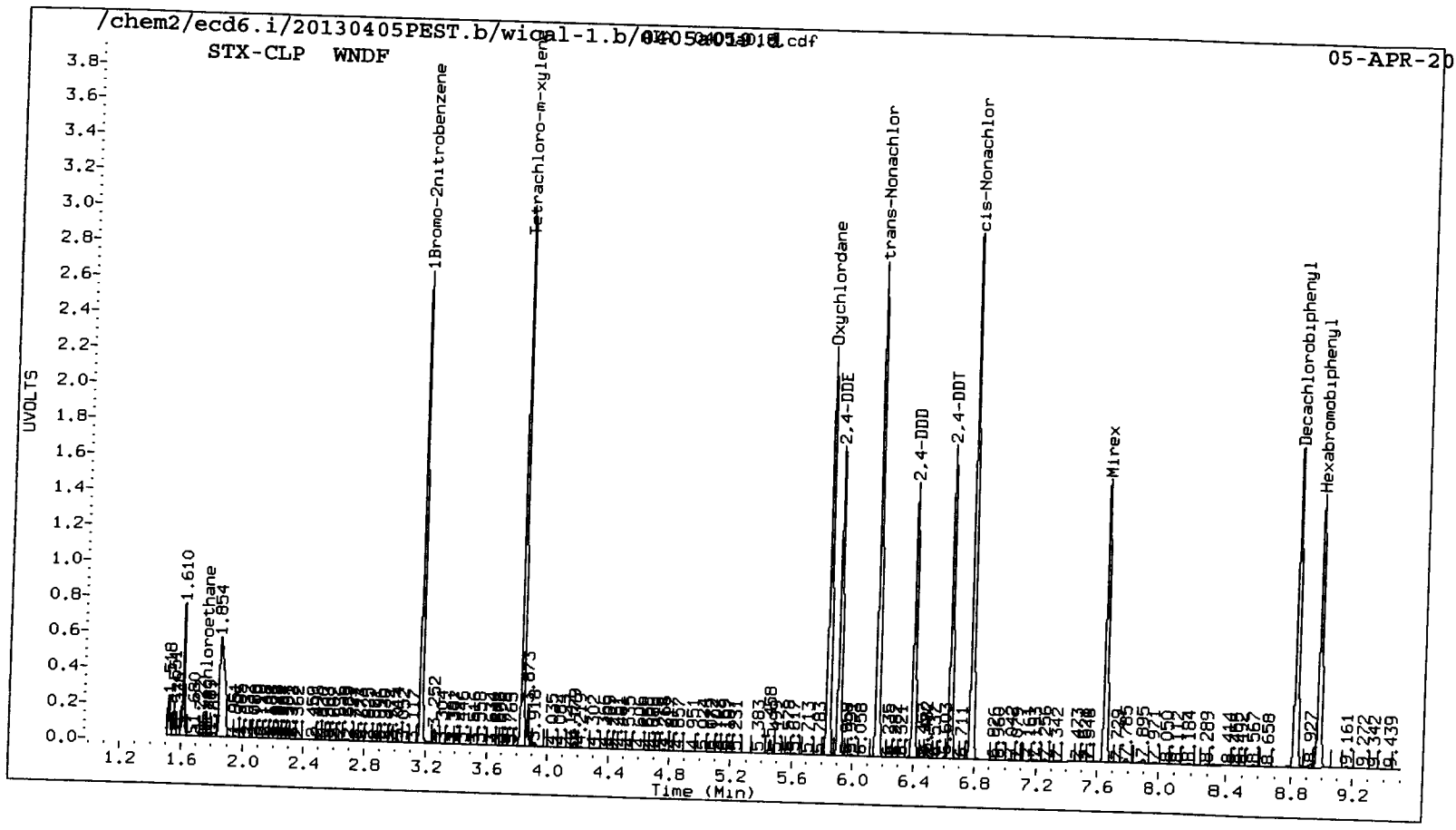
WJ10:01988

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	21937785	1.1
Hexabromobiphenyl	7681727	8380834	9.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

			STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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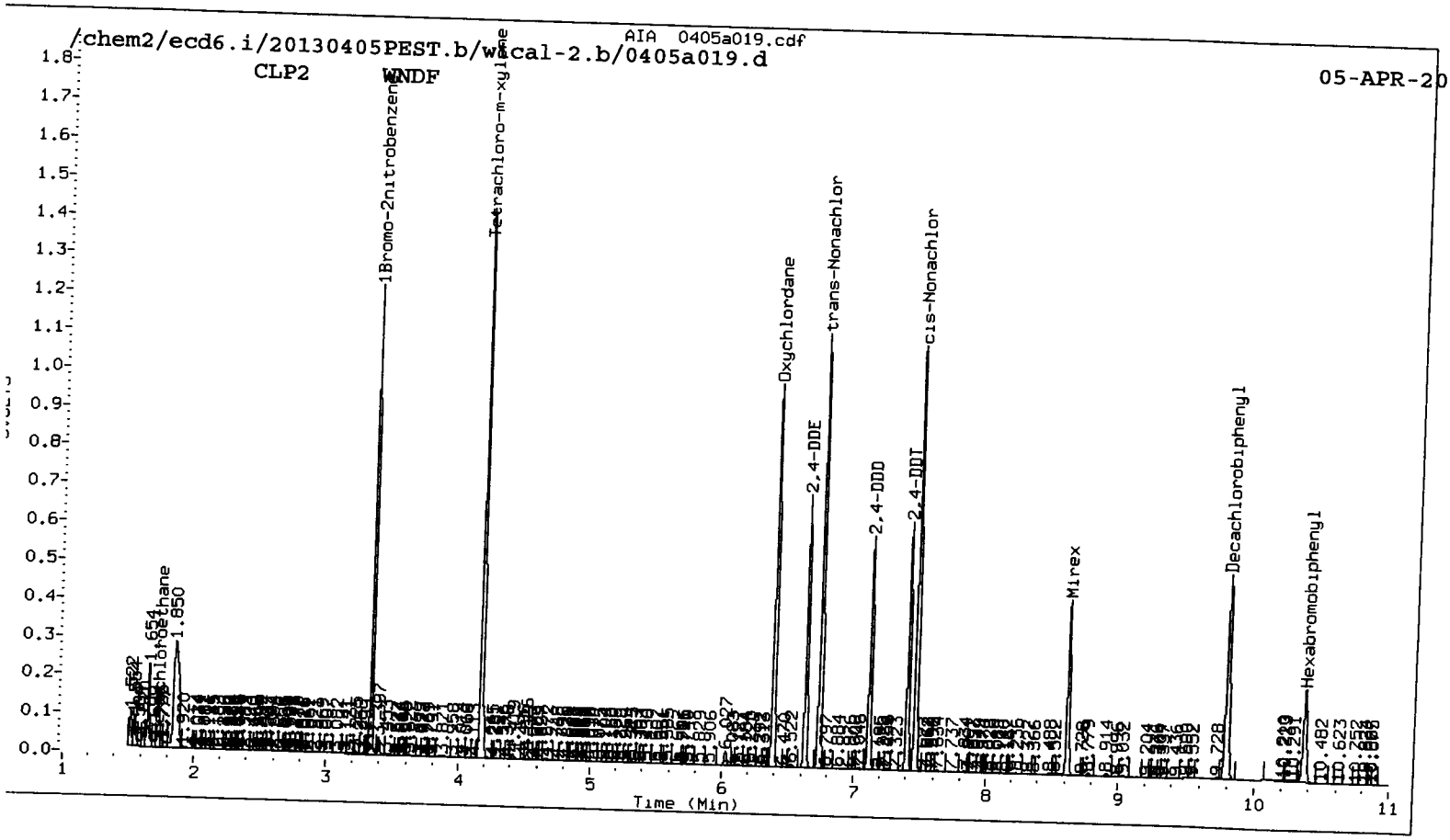
STX-CLP WNDF
05-APR-20
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
1,2-Dichloroethane
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 WNDF
05-APR-20
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
1,2-Dichloroethane
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/8/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a020.d ARI ID: WNDG
Data file 2: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a020.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 17:33
Compound Sublist: WND Report Date: 04/08/2013 11:11
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.754	0.000	3460	1.732	0.000	2685728	0.0000	0.0000	---	Hexachloroethane
3.164	-0.001	5195250	3.332	0.000	24391118	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.840	0.000	10298992	6.385	0.000	46753129	145.1289	148.3892	2.2	Oxychlordane
5.911	0.000	7643527	6.631	0.000	31633724	143.0297	136.5977	4.6	2,4-DDE
6.162	0.000	12613712	6.741	0.000	52659310	149.2130	145.1446	2.8	trans-Nonachlor
6.397	0.000	6898918	7.115	0.000	27226192	147.5945	143.1087	3.1	2,4-DDD
6.636	0.000	7895245	7.404	0.000	29528420	147.7234	146.2755	1.0	2,4-DDT
6.778	0.000	13589021	7.465	0.000	51029091	152.0877	148.9144	2.1	cis-Nonachlor
7.653	0.000	7573057	8.619	0.000	22238197	141.9155	142.3234	0.3	Mirex
8.978	-0.001	4535578	10.366	0.000	9459401	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	-0.001	11025035	4.167	-0.002	56455397	141.0420	130.8595	7.5	Tetrachloro-m-xyl
8.830	-0.001	8738751	9.795	-0.001	31424440	133.2144	140.1148	5.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	352.6	327.1	327.1~	150- 0
Decachlorobiphenyl	333.0	350.3	333.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

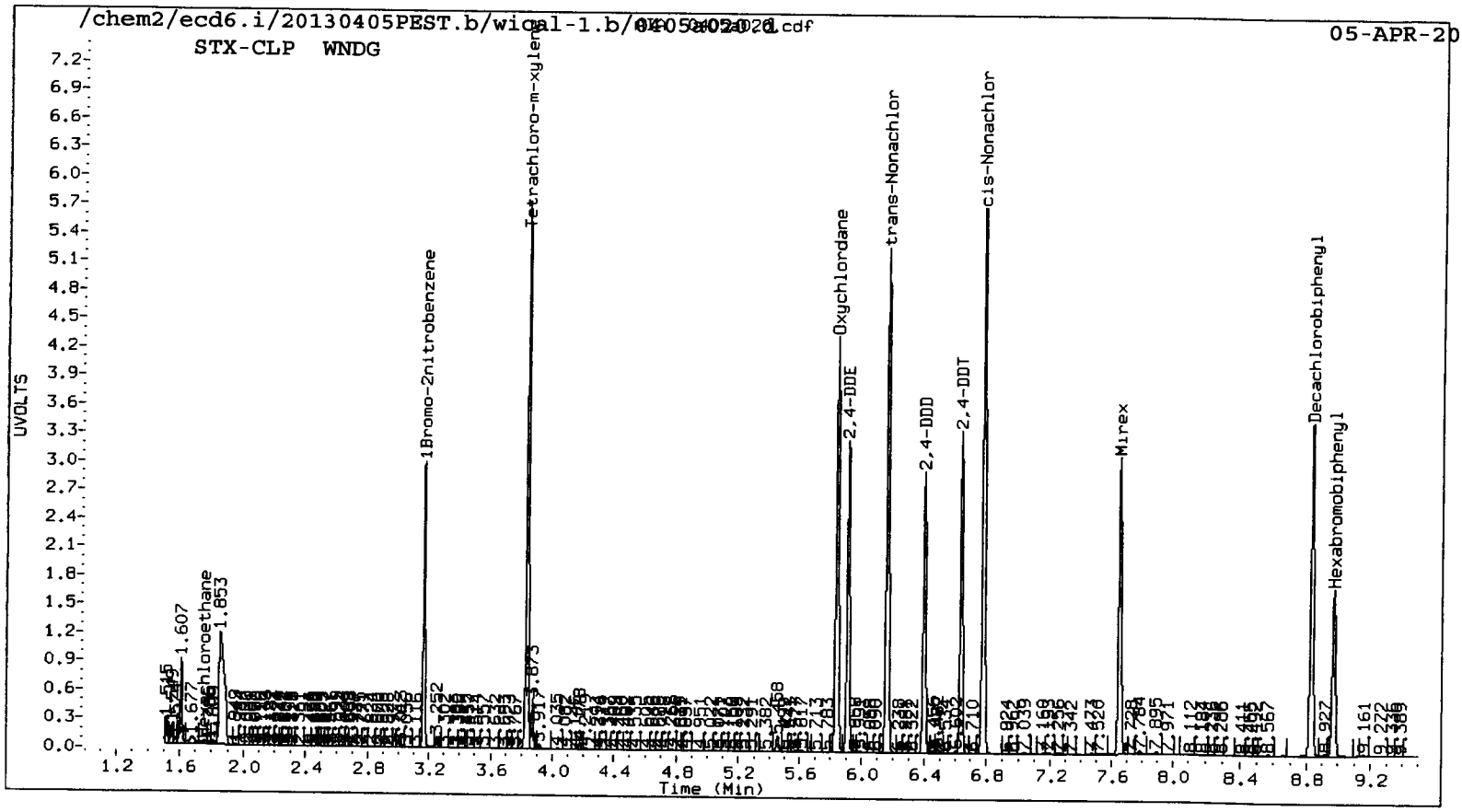
	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5195250	-4.6
Hexabromobiphenyl	4807902	4535578	-5.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	24391118	12.4
Hexabromobiphenyl	7681727	9459401	23.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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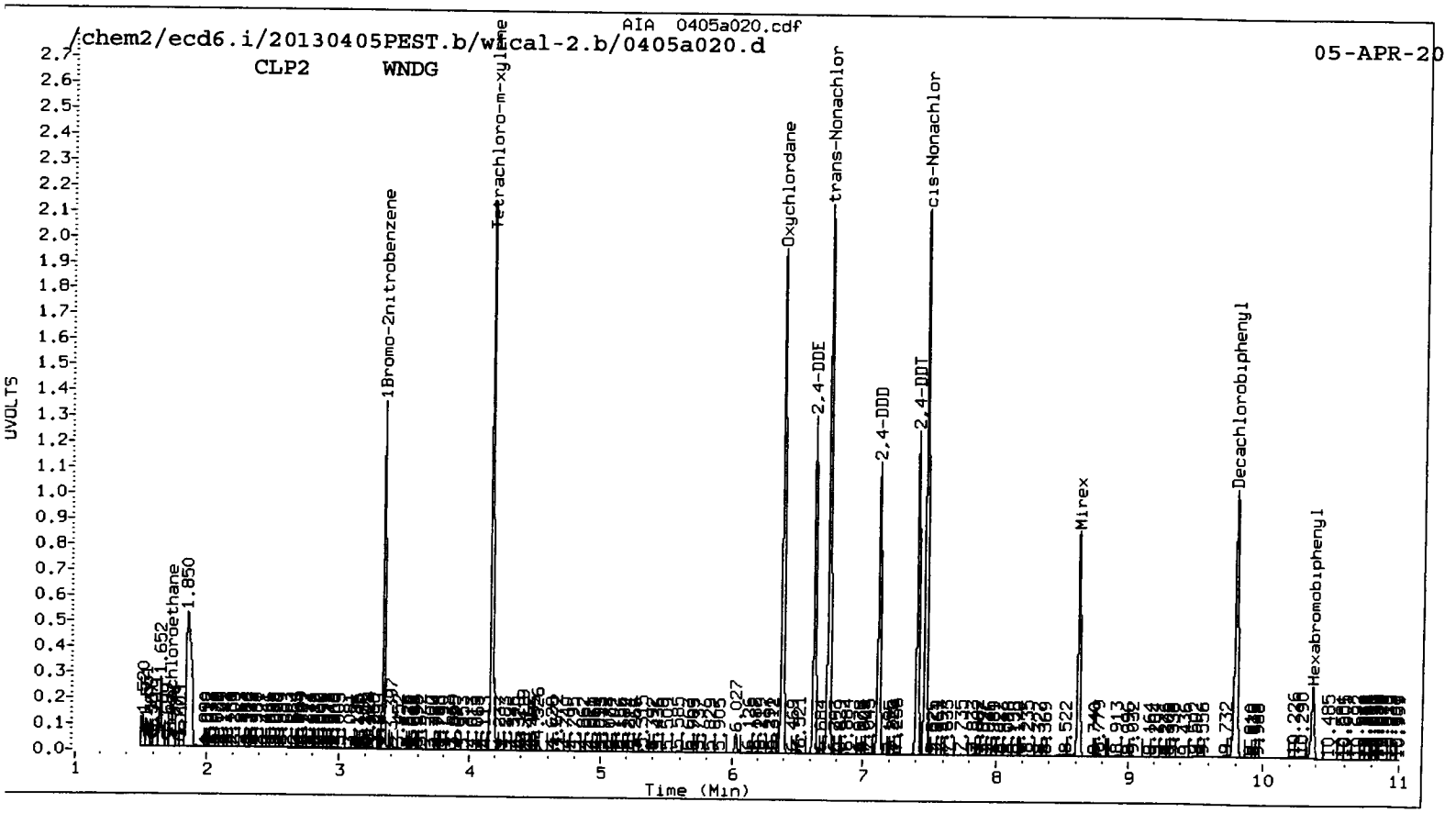
STX-CLP WNDG
05-APR-20
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 WNDG
05-APR-20
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/wical-1.b/0405a021.d ARI ID: WNDICV
Data file 2: /chem2/ecd6.i/20130405PEST.b/wical-2.b/0405a021.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 17:51
Compound Sublist: WND Report Date: 04/08/2013 11:11
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

YZ 4/9/13

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.757	0.002	1668	1.734	0.002	1184573	0.0000	0.0000	---	Hexachloroethane
3.165	0.000	5135851	3.334	0.001	24444304	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.840	0.000	3462657	6.385	0.000	15600206	48.4809	49.4056	1.9	Oxychlordane
5.911	0.001	2512702	6.631	0.000	11057985	46.7170	47.6456	2.0	2,4-DDE
6.162	0.001	3991007	6.741	0.000	17158583	46.9081	47.4254	1.1	trans-Nonachlor
6.398	0.001	2224263	7.115	0.000	9088171	47.2800	47.9026	1.3	2,4-DDD
6.637	0.001	2602714	7.404	0.000	9968741	48.3851	49.5194	2.3	2,4-DDT
6.779	0.001	4114594	7.465	0.000	15732356	45.7546	46.0380	0.6	cis-Nonachlor
7.653	0.001	2454294	8.619	0.001	7311037	45.6969	46.9201	2.6	Mirex
8.979	0.000	4564895	10.366	0.000	9433225	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	2925232	4.166	-0.003	16541632	37.8550	38.2589	1.1	Tetrachloro-m-xylen
8.831	-0.001	2439138	9.794	-0.001	8060777	36.9437	36.0410	2.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	94.6	95.6	94.6~	150- 0
Decachlorobiphenyl	92.4	90.1	90.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

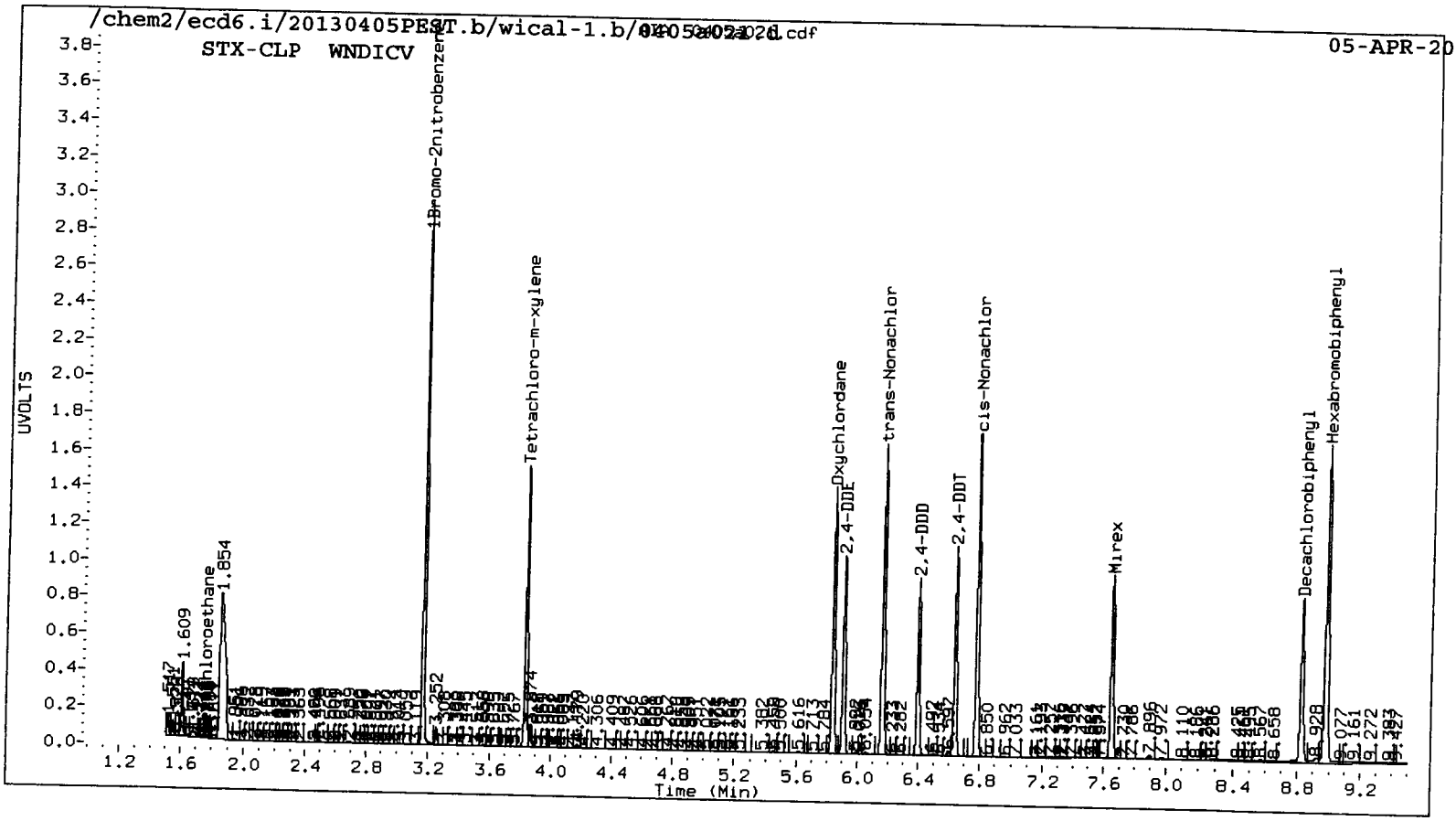
Standard Cpnd	Column 1 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5135851	-5.7
Hexabromobiphenyl	4807902	4564895	-5.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	24444304	12.6
Hexabromobiphenyl	7681727	9433225	22.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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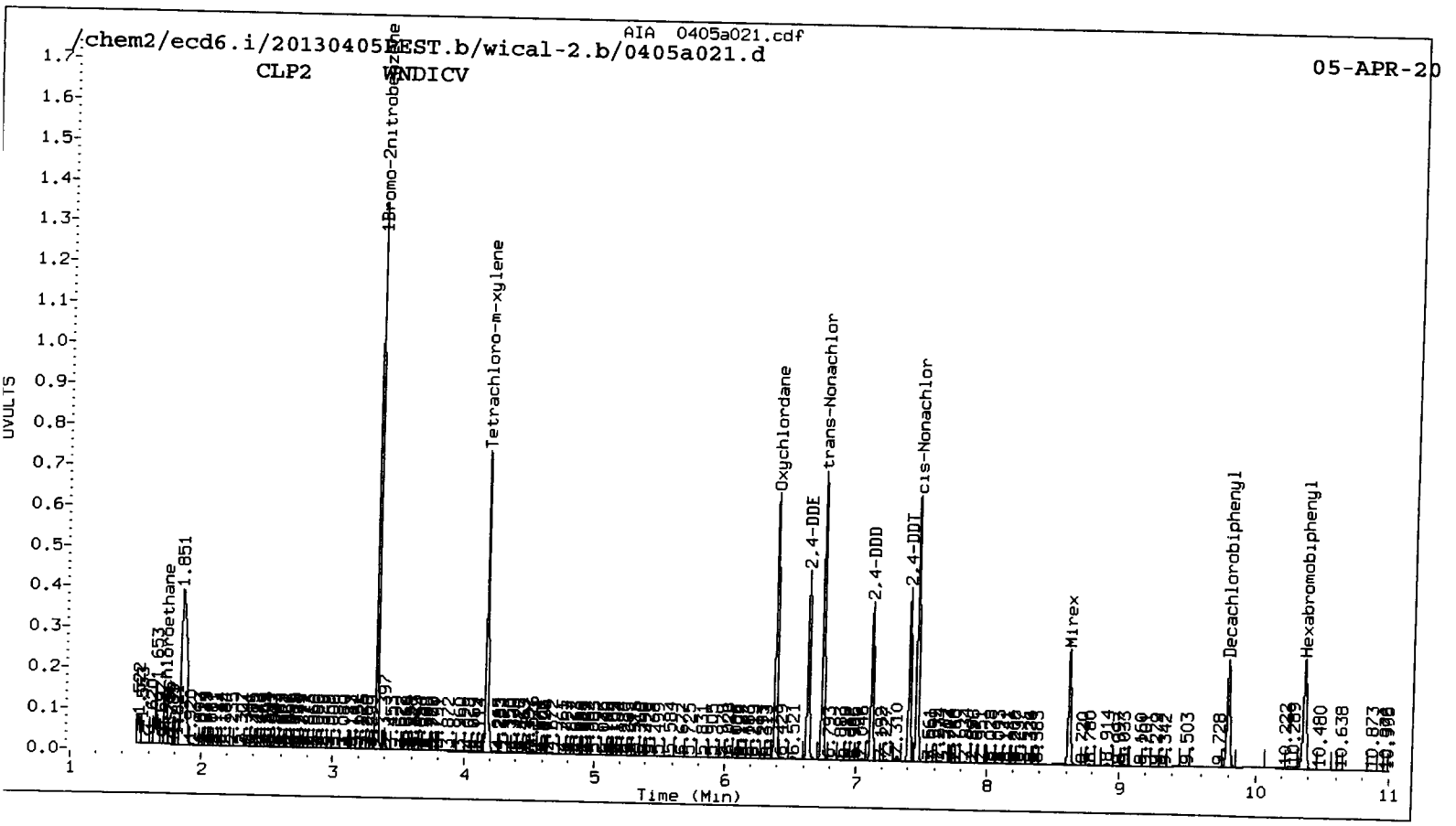
STX-CLP WNDICV
05-APR-20
UVOLTS
Time (Min)
1.609
1.854
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 WNDICV
05-APR-20
UVOLTS
Time (Min)
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1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Pesticide Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

GC Analyst Notes / Data Review Checklist

ARI WORK Order: WJ10 Client ID: SAIC

METHOD: ~~**8082A**(PCB)~~ **8151A**(Herb) **NW-TPH**(TPH-D) **NW-TPH**(HCID) **8041A**(PCP)
8081B(PEST) **8015B**(Dir Inj) **NW-EPH**(EPH) **8082A**(PBDE) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 (ECD-6) ECD-7 ECD-8

Curve Date: 04/05/13 Analysis Start Date: 04/05/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Endrin/DDT B.D. ≤15%?	NA (Y) N / ✓	Method Blank in Control?	(Y) N / ✓
Retention times within Windows?	(Y) N / ✓	LCS / LCSD Recovery in Control?	(Y) N / ✓
CCAL met %D Criteria?	(Y) N / ✓	LCS / LCSD RPD ≤30%?	NA / ✓
Surrogate Recovery in Control?	(Y) N / ✓	MS / MSD Recovery in Control?	Y / N /
Internal STD. within 50-200%?	NA (Y) N /	MS / MSD RPD ≤30%?	(NA) /
Manual Integrations?	Y / (N)	Samples Diluted?	Y (N)
Integration Summary?	Y / (N) /	Special Analysis Request?	(Y) N /

Detail problems, corrective actions and/or other pertinent information below

(Review 1) Analyst: YZ **Date:** 4/11/13

(Review 2) Reviewer: MW **Date:** 4/12

Analytical Resources Inc.: Organics Instrument Log

ECD6 Serial No.: US00007128

Date: 4/05/13 Analysis: Pest Analyst: YZ

Column 1 Serial No.: 1097966 Column Type:

Column 2 Serial No.: 1092322 Column Type:

GC Method: ICal Date:

IS	Ical/Ccal	ICV
2000-1	2048-1,2	
	2067-1,2.	

Document All Maintenance Tasks In StarLIMS

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20130405PEST.b/ical-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	05-APR-2013 11:46	0405a003.d	1	DS	
2	05-APR-2013 12:47	0405a004.d	1	INDAE	
3	05-APR-2013 13:05	0405a005.d	1	INDAA	
4	05-APR-2013 13:23	0405a006.d	1	INDAB	
5	05-APR-2013 13:41	0405a007.d	1	INDAC	
6	05-APR-2013 13:58	0405a008.d	1	INDAD	
7	05-APR-2013 14:17	0405a009.d	1	INDAF	
8	05-APR-2013 14:35	0405a010.d	1	INDAG	
9	05-APR-2013 14:53	0405a011.d	1	INDA ICV	
10	05-APR-2013 15:10	0405a012.d	1	DS	
11	05-APR-2013 15:28	0405a013.d	1	TOXAPHENE	
12	05-APR-2013 15:46	0405a014.d	1	WNDE	
13	05-APR-2013 16:04	0405a015.d	1	WNDA	
14	05-APR-2013 16:22	0405a016.d	1	WNDB	
15	05-APR-2013 16:40	0405a017.d	1	WNDC	
16	05-APR-2013 16:57	0405a018.d	1	WNDD	
17	05-APR-2013 17:15	0405a019.d	1	WNDF	
18	05-APR-2013 17:33	0405a020.d	1	WNDG	
19	05-APR-2013 17:51	0405a021.d	1	WNDICV	
20	05-APR-2013 18:09	0405a022.d	1	DS	
21	05-APR-2013 18:26	0405a023.d	1	INDAE	
22	05-APR-2013 18:44	0405a024.d	1	WNDE	
23	05-APR-2013 19:02	0405a025.d	1	TOXAPHENE	
24	05-APR-2013 19:20	0405a026.d	1	WI89F	W5
25	05-APR-2013 19:38	0405a027.d	1	WI89E	W4
26	05-APR-2013 19:55	0405a028.d	1	WI89D	W3-D
27	05-APR-2013 20:13	0405a029.d	1	WI89C	W3
28	05-APR-2013 20:31	0405a030.d	1	WI89BMSD	W2 MSD
29	05-APR-2013 20:49	0405a031.d	1	WI89BMS	W2 MS
30	05-APR-2013 21:07	0405a032.d	1	WI89B	W2
31	05-APR-2013 21:24	0405a033.d	1	WI89MBW1	WI89MBW1
32	05-APR-2013 21:42	0405a034.d	1	WI89LCSW1	WI89LCSW1
33	05-APR-2013 22:00	0405a035.d	1	WI89A	W1
34	05-APR-2013 22:18	0405a036.d	1	DS	
35	05-APR-2013 22:35	0405a037.d	1	INDAE	
36	05-APR-2013 22:53	0405a038.d	1	WNDE	
37	05-APR-2013 23:11	0405a039.d	1	TOXAPHENE	
38	05-APR-2013 23:29	0405a040.d	1	WJ10MBW1	
39	05-APR-2013 23:47	0405a041.d	1	WJ10LCSW1	
40	06-APR-2013 00:05	0405a042.d	1	WJ10LCSDW1	
41	06-APR-2013 00:22	0405a043.d	1	WJ10A	
42	06-APR-2013 00:40	0405a044.d	1	DS	
43	06-APR-2013 00:58	0405a045.d	1	INDAE	
44	06-APR-2013 01:16	0405a046.d	1	TOXAPHENE	

YZ 4/8/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/0405-1.b/0405a037.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130405PEST.b/0405-2.b/0405a037.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 22:35
Compound Sublist: INDA Report Date: 04/11/2013 10:58
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	-0.001	4470177	3.332	0.000	22753889	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.328	-0.002	2281404	4.754	-0.002	12990141	23.2037	23.4602	1.1	alpha-BHC
4.686	-0.002	861775	5.183	-0.001	4936083	21.8775	22.8633	4.4	beta-BHC
4.857	-0.001	2031962	5.497	-0.002	11066013	23.2193	23.5109	1.2	delta-BHC
4.614	-0.001	2057463	5.114	-0.002	11406883	23.1858	23.4052	0.9	gamma-BHC (Lindane)
5.064	-0.001	1936628	5.580	-0.002	10501029	22.7705	23.2361	2.0	Heptachlor
5.359	-0.001	1913679	5.918	-0.002	9662434	22.9347	23.4516	2.2	Aldrin
5.935	-0.001	1708594	6.474	-0.002	8288345	22.4031	23.2203	3.6	Heptachlor epoxide b
6.313	-0.002	1558208	6.861	-0.001	7309262	22.2651	23.4892	5.4	Endosulfan I
6.536	-0.002	3365905	7.119	-0.002	14538477	45.6046	46.5477	2.0	Dieldrin
6.232	-0.003	2686975	6.918	-0.002	14731707	44.4338	46.3062	4.1	4,4'-DDE
6.754	-0.002	2721681	7.408	-0.001	10513019	45.0149	43.0821	4.4	Endrin
6.959	-0.001	2791827	7.596	-0.003	11646984	45.0661	43.4557	3.6	Endosulfan II
6.789	-0.002	2620266	7.455	-0.003	11322242	45.4534	43.8415	3.6	4,4'-DDD
7.728	-0.001	2432835	8.139	-0.001	9685380	44.5441	43.5165	2.3	Endosulfan sulfate
7.048	-0.001	2633105	7.744	-0.002	10365845	45.5758	44.2160	3.0	4,4'-DDT
7.472	-0.002	6350592	8.326	-0.004	20396853	219.1524	209.8956	4.3	Methoxychlor
7.984	-0.001	3038857	8.631	-0.002	9737410	44.3129	42.7724	3.5	Endrin ketone
7.337	-0.001	2279611	7.894	-0.002	9201375	44.8065	43.5291	2.9	Endrin aldehyde
6.054	-0.001	1765542	6.656	-0.001	8418111	22.6488	23.4349	3.4	gamma-Chlordane
6.178	-0.001	1677546	6.794	-0.001	7722118	22.3734	23.2977	4.0	alpha-Chlordane
2.339	-0.002	2298753	2.496	-0.002	9397538	22.2164	21.5627	3.0	Hexachlorobutadiene
4.178	-0.001	1659047	4.627	-0.002	11405831	23.1571	22.3619	3.5	Hexachlorobenzene
8.978	-0.002	3897078	10.365	-0.001	8985138	80.0000	80.0000	0.0	Hexabromobiphenyl
3.835	-0.001	2975006	4.165	-0.004	17850937	44.2423	44.3544	0.3	Tetrachloro-m-xylen
8.829	-0.002	2311922	9.793	-0.002	8701967	40.6419	40.8482	0.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	110.6	110.9	110.6~	115- 0
Decachlorobiphenyl	101.6	102.1	101.6~	115- 0

WJ10-02000

~ Indicates recovery outside QC Limits

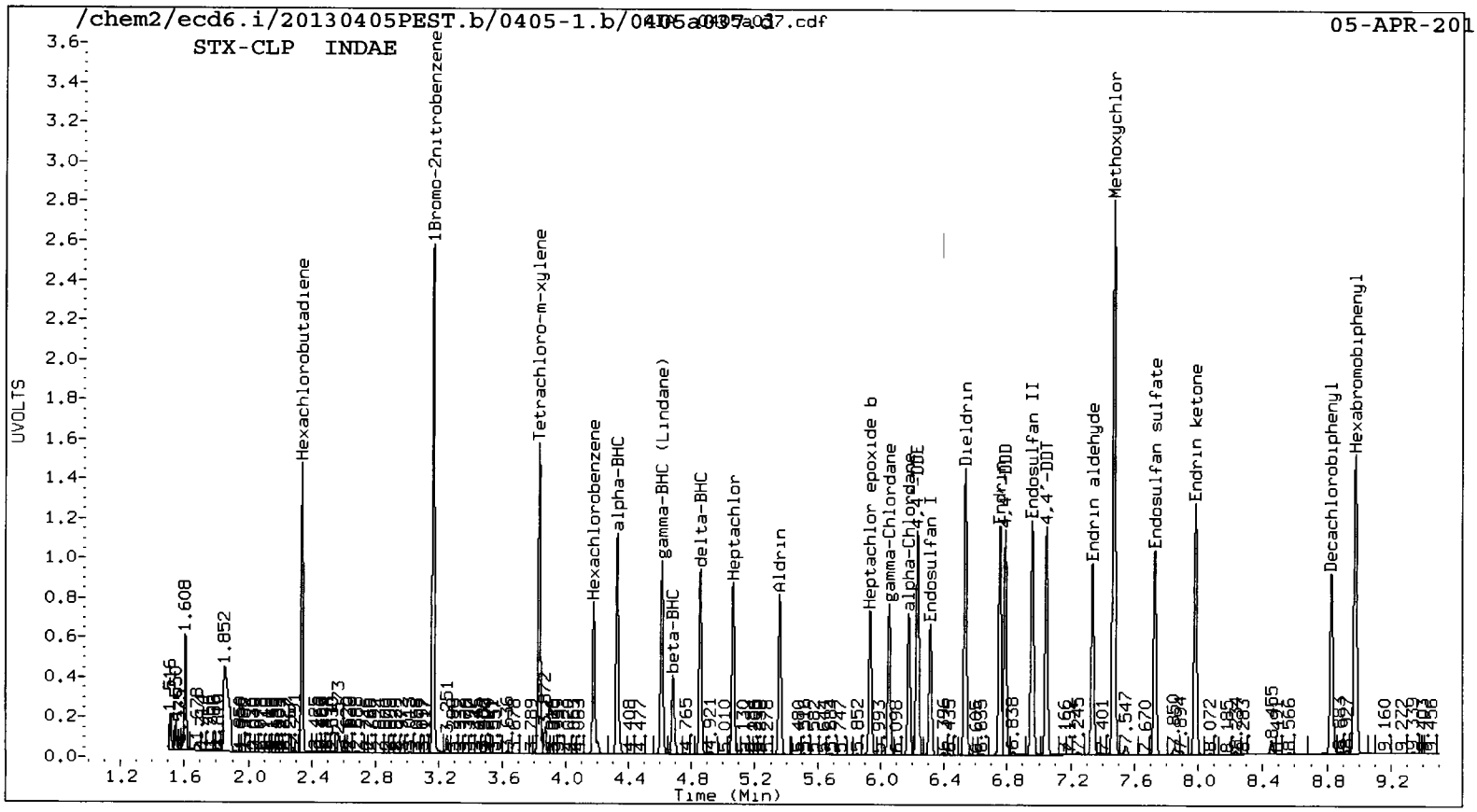
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	5448520	4470177	-18.0
Hexabromobiphenyl	4807902	3897078	-18.9

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	21702340	22753889	4.8
Hexabromobiphenyl	7681727	8985138	17.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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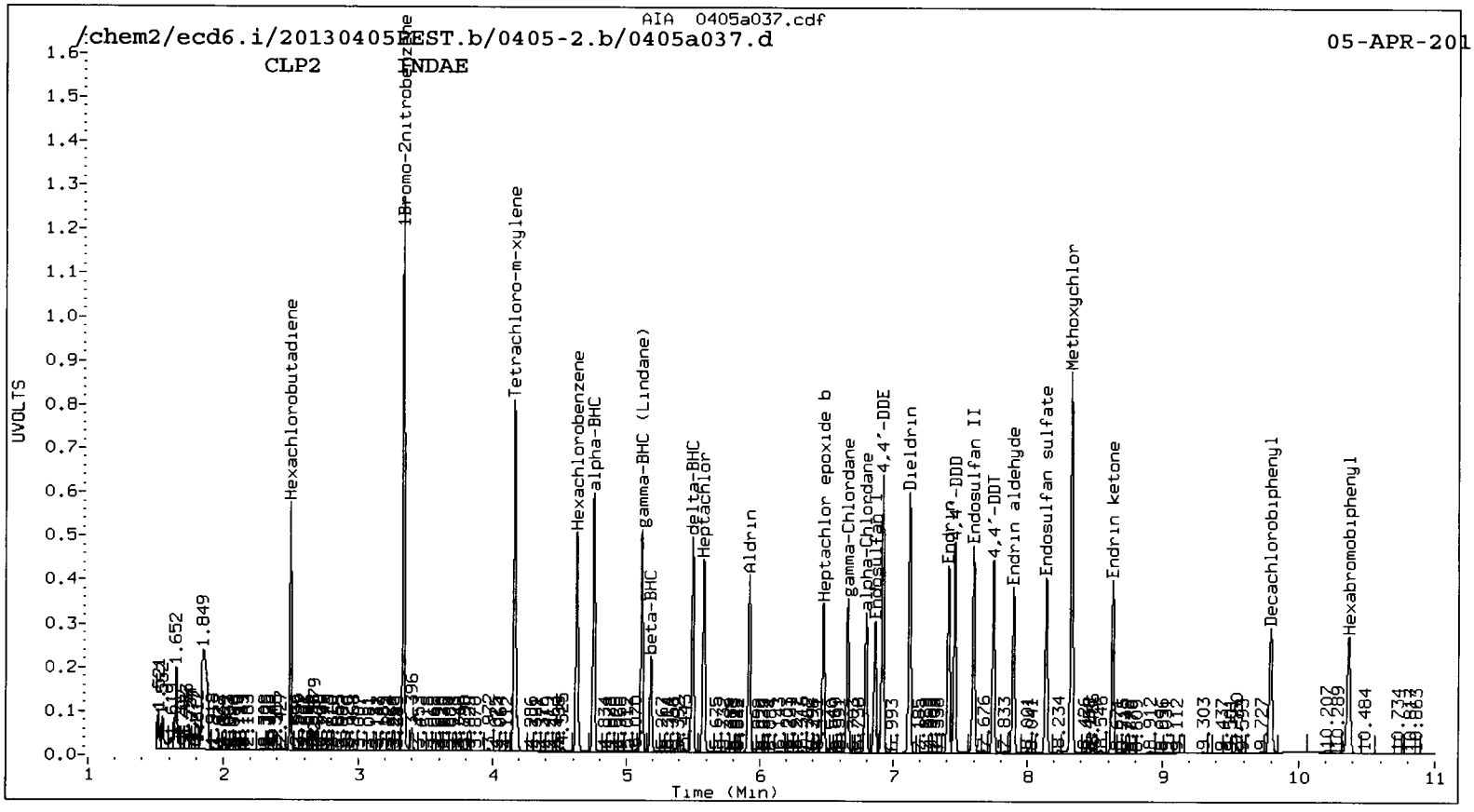
05-APR-201
STX-CLP INDAE
UVOLTS
Time (Min)
1.608
1.852
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-201
CLP2 INDAE
UVOLTS
Time (Min)
1.652
1.849
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0405-1.b/0405a039.d ARI ID: TOXAPHENE
Data file 2: /chem2/ecd6.i/20130405PEST.b/0405-2.b/0405a039.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 23:11
Compound Sublist: TOXAPH Report Date: 04/11/2013 10:59
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.164	-0.001	5003729	3.332	0.000	25462192	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.978	-0.001	4674764	10.366	0.000	10251405	80.0000	80.0000	0.0	Hexabromobiphenyl
3.835	-0.001	2742366	4.166	-0.003	16574610	36.4339	36.8027	1.0	Tetrachloro-m-xylen
8.829	-0.002	2477686	9.793	-0.002	8488317	36.3101	34.9235	3.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	91.1	92.0	91.1~	150- 0
Decachlorobiphenyl	90.8	87.3	87.3~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5003729	-8.2
Hexabromobiphenyl	4807902	4674764	-2.8

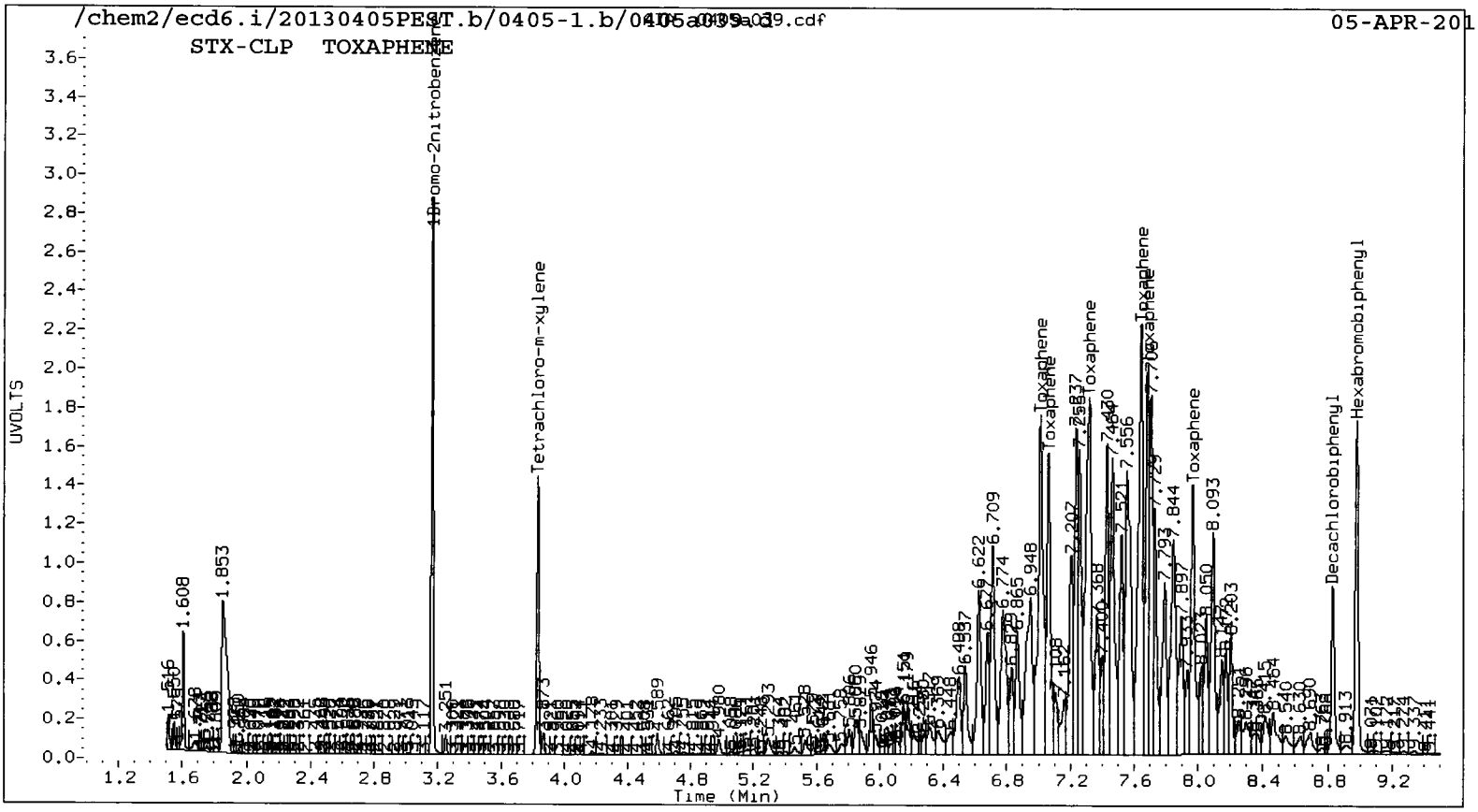
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25462192	17.3
Hexabromobiphenyl	7681727	10251405	33.5

WJ10:02003

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.010	-0.001	7617715	2532.2	1	7.343	-0.001	23218126	2465.8
Toxaphene	2	7.062	-0.002	5166991	2523.8	2	7.667	-0.001	34696579	2462.5
Toxaphene	3	7.319	-0.001	8700504	2531.2	3	7.898	0.000	37098120	2463.7
Toxaphene	4	7.643	-0.001	8734312	2519.3	4	8.366	-0.001	26832968	2466.1
Toxaphene	5	7.683	-0.001	5737038	2507.5	5	8.405	-0.001	34010882	2468.5
Toxaphene	6	7.965	-0.001	4902439	2496.0	NS	---			----
Total STX-CLPAve (6 peaks): 2518.335						Total CLP2Ave (5 peaks): 2465.305				RPD = 2
Corrected Ave (6 peaks): 2518.335						Corrected Ave (5 peaks): 2465.305				RPD = 2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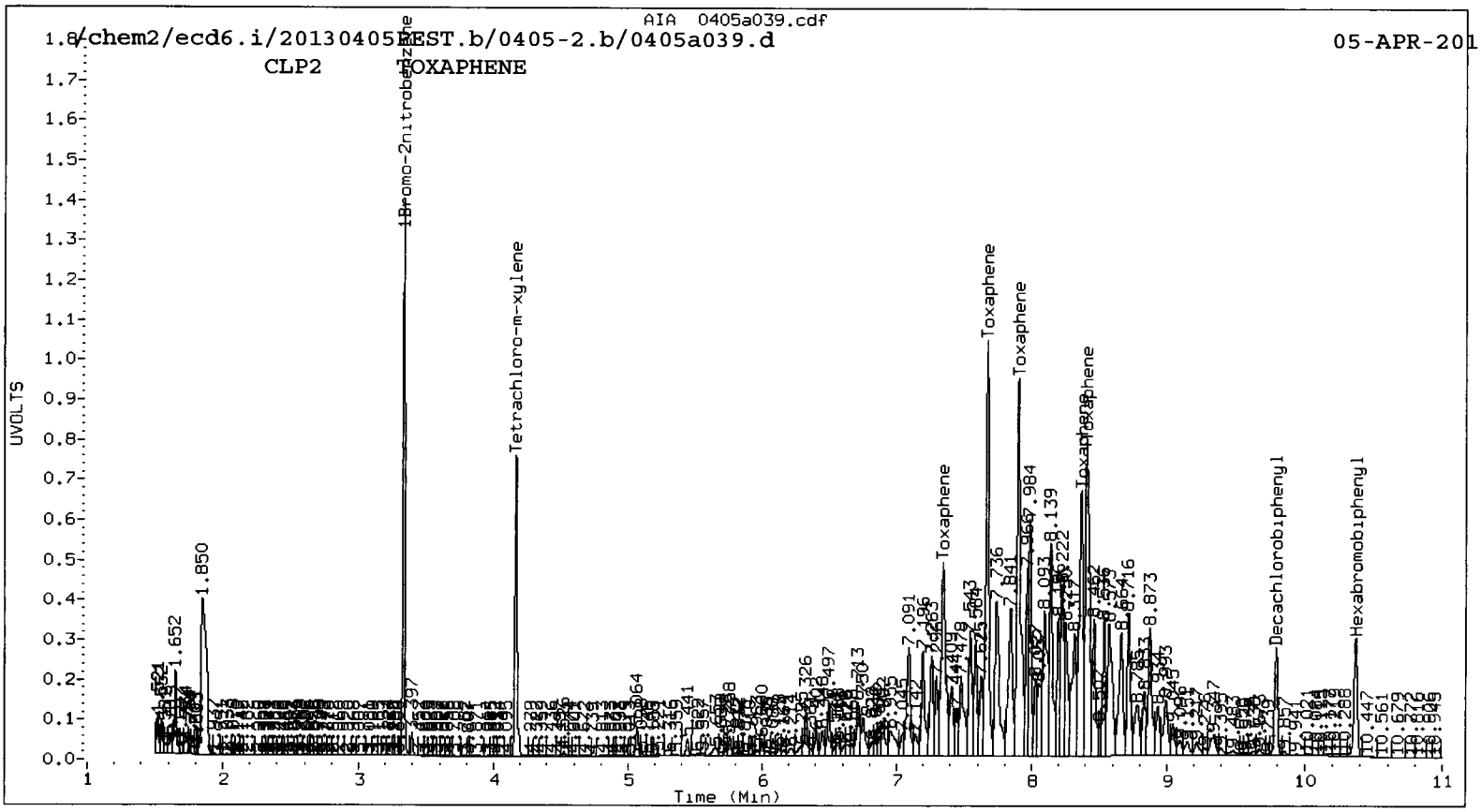
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)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05-APR-201
CLP2 TOXAPHENE
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/10/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0405-1.b/0405a040.d ARI ID: WJ10MBW1
Data file 2: /chem2/ecd6.i/20130405PEST.b/0405-2.b/0405a040.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 23:29
Compound Sublist: wpest Report Date: 04/08/2013 12:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: WATER
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.163	-0.002	5251079	3.332	-0.001	25499533	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.327	-0.003	4323	4.753	-0.003	31521	~~0.0374~~	~~0.0508~~	30.3	alpha-BHC
4.684	-0.003	20872	5.195	0.010	57854	0.4511	0.2391	61.4*	beta-BHC
4.865	0.007	29327	5.507	0.008	150660	0.2853	0.2856	0.1	delta-BHC
4.620	0.005	19026	5.092	-0.025	2749842	0.1825	0.0347	186.0*	gamma-BHC (Lindane)
5.060	-0.005	19709	5.580	-0.002	106879	0.1973	0.2110	6.7	Heptachlor
5.365	0.004	9725	5.896	-0.024	524113	0.0992	1.1351	167.8*	Aldrin
5.933	-0.003	4140	6.478	0.003	404072	0.0462	1.0101	182.5*	Heptachlor epoxide b
6.344	0.030	4886	----			0.0594	0.0000	---	Endosulfan I
6.510	-0.027	14751	7.141	0.020	56287	0.1701	0.1608	5.6	Dieldrin
6.230	-0.005	10059	6.916	-0.004	92065	0.1416	0.2582	58.3*	4,4'-DDE
6.761	0.005	6405	7.420	0.010	68713	0.0884	0.2360	91.0*	Endrin
6.974	0.013	3411	7.570	-0.028	146039	0.0459	0.4568	163.5*	Endosulfan II
6.785	-0.005	8811	7.454	-0.004	48119	0.1275	0.1562	20.2	4,4'-DDD
7.728	-0.002	2921	8.139	-0.001	52044	0.0446	0.1960	125.8*	Endosulfan sulfate
7.045	-0.004	4730	7.752	0.006	148051	0.0683	0.5294	154.3*	4,4'-DDT
7.469	-0.005	8902	8.308	-0.023	173416	0.2563	1.4959	141.5*	Methoxychlor
7.970	-0.015	32641	8.631	-0.002	317699	0.3970	1.1698	98.6*	Endrin ketone
7.334	-0.004	3727	7.880	-0.015	88496	0.0611	0.3509	140.7*	Endrin aldehyde
6.051	-0.004	4086	6.653	-0.004	278626	0.0446	0.6921	175.8*	gamma-Chlordane
6.180	0.001	9983	6.794	-0.001	157310	0.1133	0.4235	115.5*	alpha-Chlordane
2.337	-0.004	7498	2.468	-0.029	1700461	0.0617	3.4816	193.0*	Hexachlorobutadiene
4.178	-0.002	31041	4.624	-0.005	78976	0.3688	0.1382	91.0*	Hexachlorobenzene
5.836	-0.004	2933	6.366	-0.019	138984	0.0401	0.4219	165.3*	Oxychlordane
5.861	-0.050	7089	6.618	-0.012	109280	0.1288	0.4514	111.2*	2,4-DDE
----			6.710	-0.031	246300	0.0000	0.5991	---	trans-Nonachlor
6.381	-0.016	3712	7.112	-0.003	95077	0.0771	0.4410	140.5*	2,4-DDD
6.676	0.039	2123	----			0.0386	0.0000	---	2,4-DDT
6.808	0.030	9178	7.496	0.032	44906	0.0997	0.1157	14.8	cis-Nonachlor
7.671	0.018	32861	8.584	-0.035	49880	~~0.5978~~	~~0.2817~~	71.9*	Mirex
8.977	-0.002	4671912	10.364	-0.002	10718627	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.755	0.001	4998	1.735	0.003	8031807	~~0.0000~~	~~0.0000~~	---	Hexachloroethane
6.597	0.016	2083	7.365	0.029	69144	~~0.0000~~	~~0.0000~~	---	Kepone
3.834	-0.002	1543092	4.164	-0.005	8411827	19.5352	18.6505	4.6	Tetrachloro-m-xylene
8.829	-0.002	1532697	9.793	-0.002	5434343	22.4751	21.3840	5.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	48.8	46.6	46.6~	52-100
Decachlorobiphenyl	56.2	53.5	53.5~	54-100

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

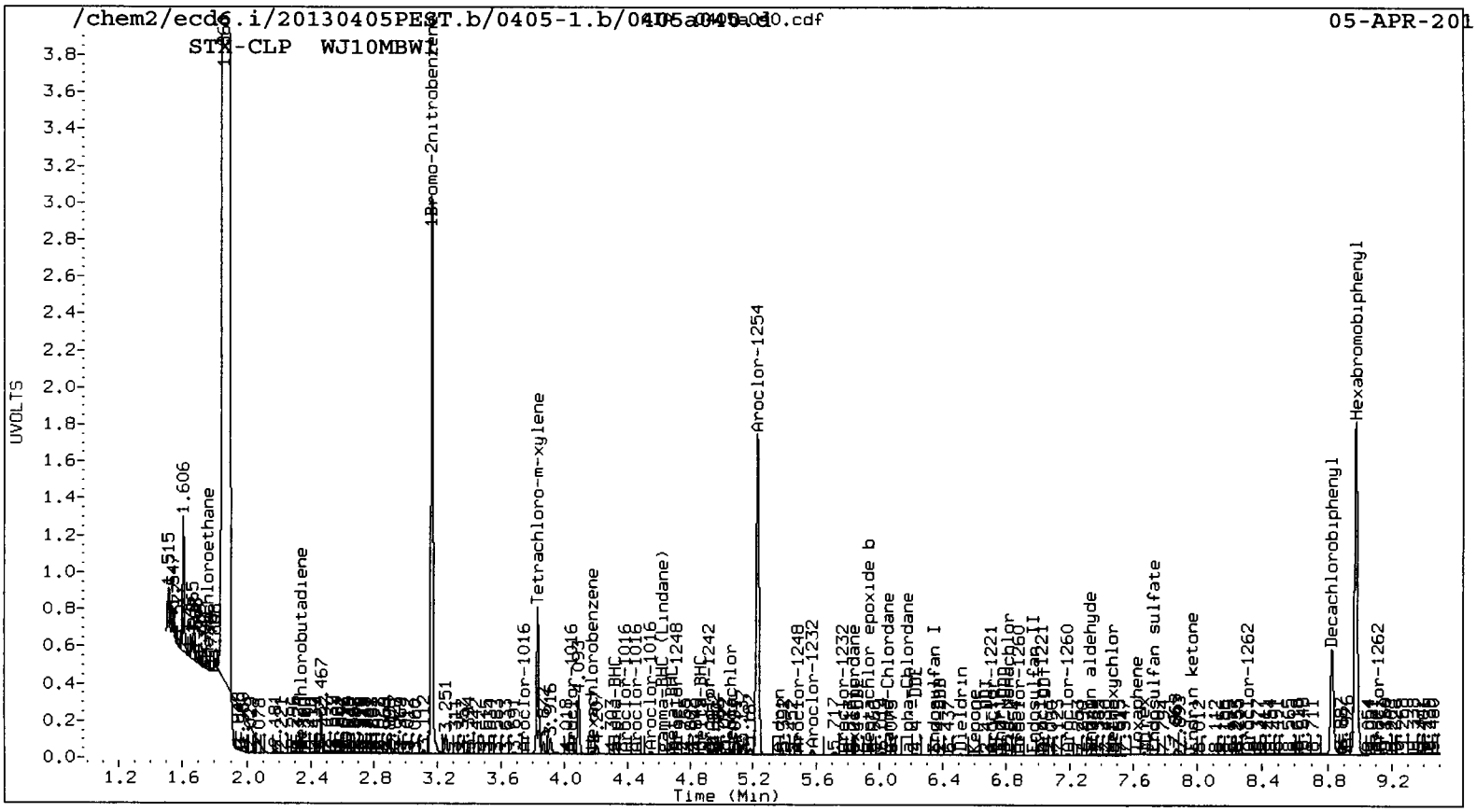
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5251079	-3.6
Hexabromobiphenyl	4807902	4671912	-2.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25499533	17.5
Hexabromobiphenyl	7681727	10718627	39.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.023	0.011	7655	2.5	1	7.365	0.021	69144	7.0
Toxaphene	2	7.045	-0.018	4730	2.3	2	7.675	0.007	53908	3.7
Toxaphene	3	7.334	0.014	3727	1.1	3	7.880	-0.018	88496	5.6
Toxaphene	4	7.621	-0.024	11576	3.3	4	8.374	0.008	297340	26.1
Toxaphene	5	7.671	-0.014	32861	14.4	5	---			0.0
Toxaphene	6	7.970	0.004	32641	16.6	NS	---			----
Total STX-CLPAve (6 peaks): 6.714						Total CLP2Ave (4 peaks): 10.610				RPD = 45*
Corrected Ave (4 peaks): 2.321						Corrected Ave (3 peaks): 5.434				RPD = 80*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05-APR-201
STX-CLP WJ10MBW1
UVOLTS
Time (Min)
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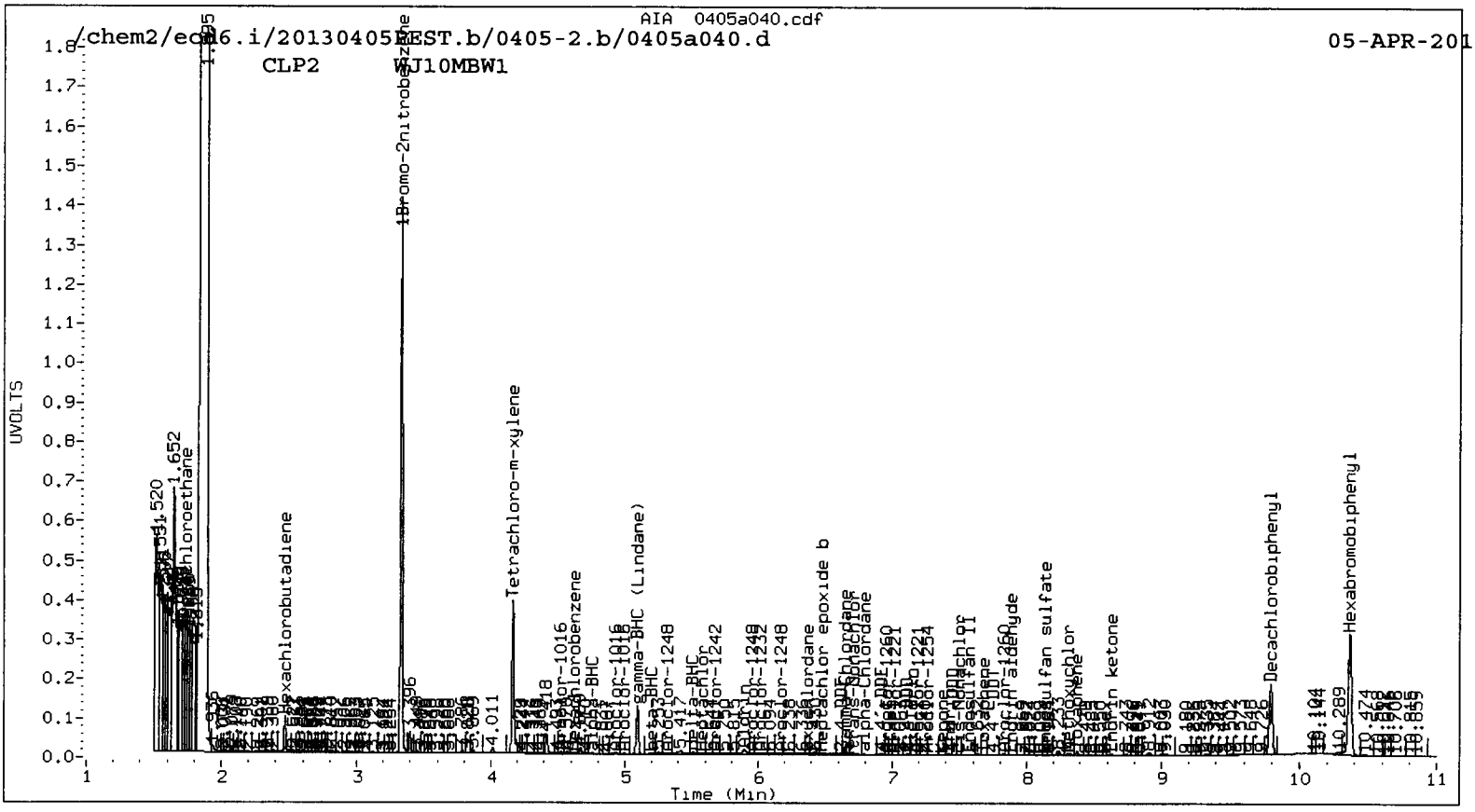
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl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05-APR-201
CLP2 WJ10MBW1
UVOLTS
Time (Min)
1.652
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/10/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0405-1.b/0405a041.d ARI ID: WJ10LCSW1
Data file 2: /chem2/ecd6.i/20130405PEST.b/0405-2.b/0405a041.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 05-APR-2013 23:47
Compound Sublist: wpest Report Date: 04/08/2013 12:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: WATER
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.163	-0.002	5150208	3.332	-0.001	25386437	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.327	-0.002	1722101	4.753	-0.003	9367199	15.2025	15.1629	0.3	alpha-BHC
4.685	-0.002	691990	5.183	-0.002	3753089	15.2476	15.5812	2.2	beta-BHC
4.856	-0.002	1685943	5.496	-0.003	8695437	16.7215	16.5586	1.0	delta-BHC
4.613	-0.002	1663044	5.113	-0.004	11582089	16.2665	21.3003	26.8	gamma-BHC (Lindane)
5.063	-0.002	1367485	5.580	-0.002	7046421	13.9556	13.9750	0.1	Heptachlor
5.358	-0.003	1126333	5.918	-0.003	5922044	11.7163	12.8829	9.5	Aldrin
5.934	-0.002	1491226	6.473	-0.003	7067594	16.9712	17.7470	4.5	Heptachlor epoxide b
6.312	-0.003	1383574	6.860	-0.002	6127756	17.1593	17.6502	2.8	Endosulfan I
6.534	-0.003	2936669	7.118	-0.003	12501731	34.5352	35.8759	3.8	Dieldrin
6.232	-0.003	2694484	6.918	-0.002	11924543	38.6746	33.5955	14.1	4,4'-DDE
6.753	-0.003	2475840	7.408	-0.002	9296982	35.8086	33.3648	7.1	Endrin
6.958	-0.002	2468127	7.596	-0.003	9716614	34.8397	31.7486	9.3	Endosulfan II
6.788	-0.003	2293107	7.455	-0.003	9389234	34.7849	31.8390	8.8	4,4'-DDD
7.727	-0.002	2089416	8.138	-0.002	8237778	33.4540	32.4134	3.2	Endosulfan sulfate
7.046	-0.003	2319441	7.743	-0.002	8799006	35.1071	32.8689	6.6	4,4'-DDT
7.471	-0.003	5582866	8.326	-0.004	17853606	168.4747	160.8951	4.6	Methoxychlor
7.982	-0.003	4313273	8.631	-0.002	8305800	55.0012	31.9505	53.0*	Endrin ketone
7.336	-0.002	1306185	7.894	-0.002	5163179	22.4507	21.3905	4.8	Endrin aldehyde
6.052	-0.003	1499067	6.655	-0.002	6895130	16.6912	17.2046	3.0	gamma-Chlordane
6.177	-0.003	1434611	6.793	-0.002	6295292	16.6070	17.0234	2.5	alpha-Chlordane
2.338	-0.002	758122	2.495	-0.002	3082717	6.3595	6.3398	0.3	Hexachlorobutadiene
4.177	-0.002	1016785	4.627	-0.003	6996487	12.3184	12.2946	0.2	Hexachlorobenzene
5.851	0.011	17003	6.398	0.014	105079	~~0.2439~~	~~0.3204~~	27.1	Oxychlordane
----			6.591	-0.040	134681	0.0000	0.5588	---	2,4-DDE
----			6.709	-0.031	234517	0.0000	0.5960	---	trans-Nonachlor
6.395	-0.002	27269	----			0.5937	0.0000	---	2,4-DDD
6.634	-0.002	13560	----			0.2582	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.669	0.016	9258	----			~~0.1766~~	0.0000	---	Mirex
8.978	-0.002	4456497	10.366	-0.001	10260018	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.755	0.001	22284	1.720	-0.012	7135758	0.~~0000~~	~~0.00~~00	---	Hexachloroethane
6.599	0.018	3387	7.338	0.002	84040	~~0.0000~~	0.0000	---	Kepone
3.835	-0.002	1859640	4.165	-0.004	10223838	24.0037	22.7690	5.3	Tetrachloro-m-xylen
8.829	-0.002	1565470	9.794	-0.002	6022183	24.0653	24.7563	2.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	60.0	56.9	56.9	52-100
Decachlorobiphenyl	60.2	61.9	60.2	54-100

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

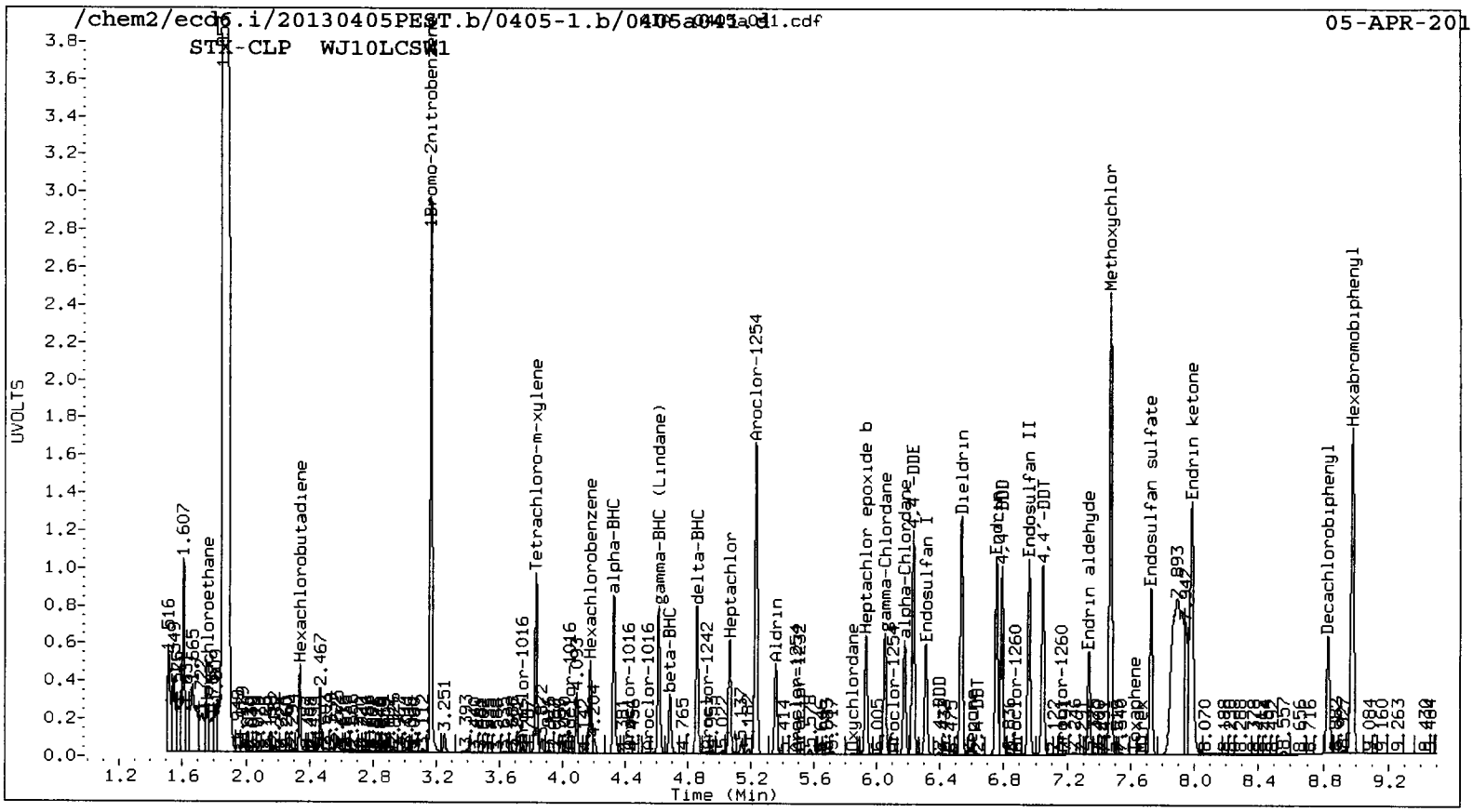
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5150208	-5.5
Hexabromobiphenyl	4807902	4456497	-7.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25386437	17.0
Hexabromobiphenyl	7681727	10260018	33.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.046	0.034	2319441	808.8	1	7.338	-0.006	84040	8.9
Toxaphene	2	---			0.000	2	7.675	0.008	205550	14.6
Toxaphene	3	7.336	0.016	1306185	398.6	3	7.894	-0.005	5163179	342.6
Toxaphene	4	7.621	-0.023	4610	1.4	4	8.326	-0.040	17853606	1639.5
Toxaphene	5	7.669	-0.016	9258	4.2	5	8.426	0.020	151831	11.0
Toxaphene	6	7.982	0.016	4313273	2303.6	NS	---			----
Total STX-CLPAve (5 peaks): 703.316						Total CLP2Ave (5 peaks): 403.310				RPD = 54*
Corrected Ave (4 peaks): 303.256						Corrected Ave (4 peaks): 94.275				RPD = 105*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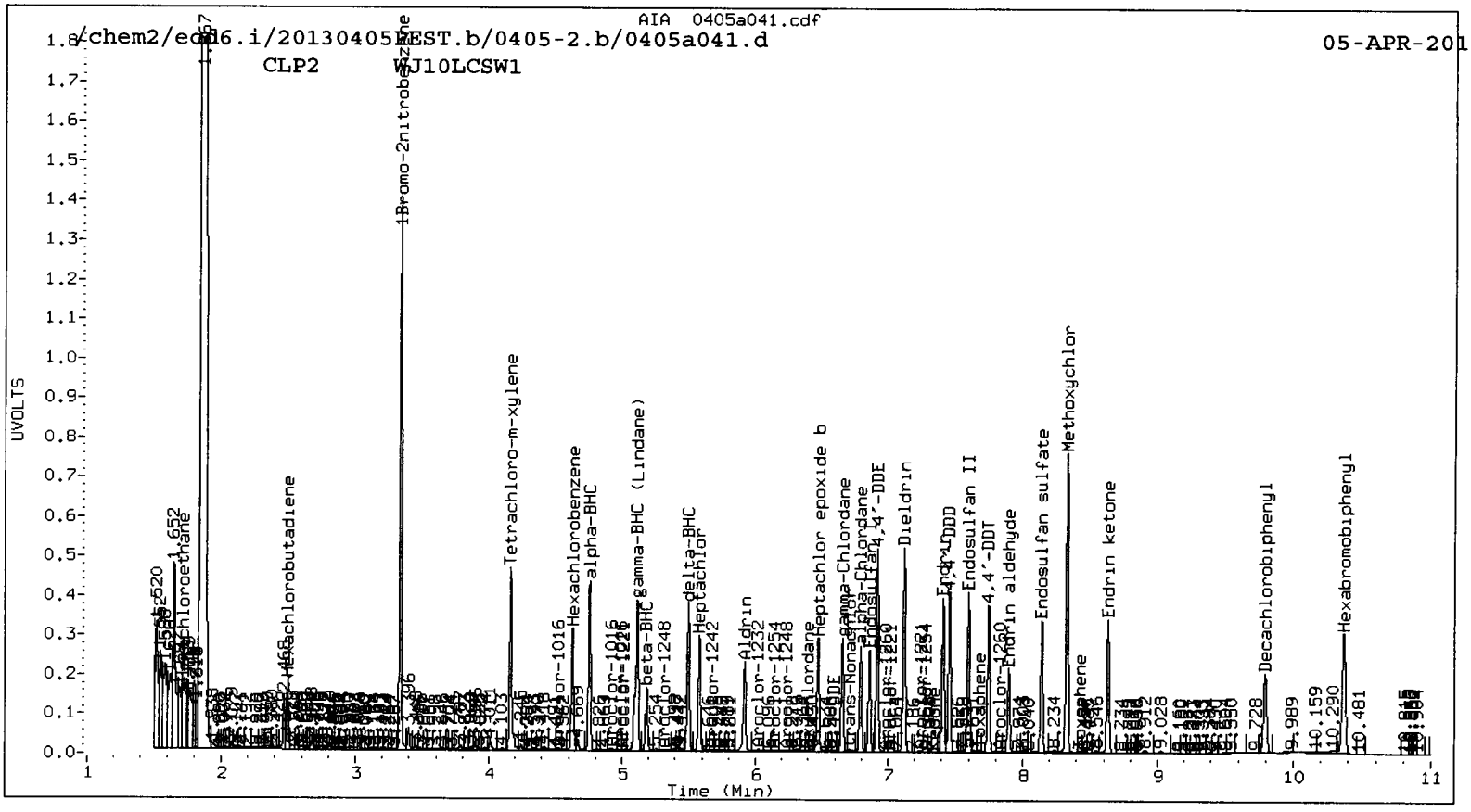
STX-CLP WJ10LCSW1
UVOLTS
Time (Min)
1.607
Hexachlorobutadiene
2.467
1Bromo-2nitrobenzene
3.251
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aroclor-1254
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0405a041.cdf
05-APR-201
CLP2 WJ10LCSW1
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
Dieldrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/10/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0405-1.b/0405a042.d ARI ID: WJ10LCSDW1
Data file 2: /chem2/ecd6.i/20130405PEST.b/0405-2.b/0405a042.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 06-APR-2013 00:05
Compound Sublist: wpest Report Date: 04/08/2013 12:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: WATER
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.163	-0.002	5484149	3.332	0.000	26977312	80.0000	80.0000	0.0	1Bromo-2nitrobenzen IS
4.328	-0.002	1641690	4.754	-0.002	8901272	13.6101	13.5590	0.4	alpha-BHC
4.685	-0.002	661697	5.184	-0.001	3483101	13.6923	13.6076	0.6	beta-BHC
4.857	-0.002	1582484	5.496	-0.002	8390020	14.7397	15.0348	2.0	delta-BHC
4.613	-0.002	1565322	5.113	-0.003	8907654	14.3783	15.4158	7.0	gamma-BHC (Lindane)
5.063	-0.002	1258027	5.580	-0.002	6487782	12.0568	12.1083	0.4	Heptachlor
5.359	-0.002	987470	5.918	-0.002	4976773	9.6464	10.1881	5.5	Aldrin
5.935	-0.002	1388135	6.473	-0.002	6429308	14.8360	15.1922	2.4	Heptachlor epoxide b
6.312	-0.003	1276454	6.861	-0.002	5644290	14.8669	15.2989	2.9	Endosulfan I
6.535	-0.002	2720763	7.118	-0.003	11646603	30.0478	31.4511	4.6	Dieldrin
6.232	-0.003	2528993	6.918	-0.003	11268250	34.0889	29.8744	13.2	4,4'-DDE
6.754	-0.003	2298773	7.408	-0.002	8706018	30.7413	29.4456	4.3	Endrin
6.958	-0.002	2291532	7.596	-0.003	8892480	29.9085	27.3834	8.8	Endosulfan II
6.788	-0.002	2122913	7.455	-0.003	8931637	29.7755	28.5440	4.2	4,4'-DDD
7.727	-0.002	1988527	8.139	-0.001	7853120	29.4385	29.1213	1.1	Endosulfan sulfate
7.047	-0.002	2132051	7.744	-0.002	8112276	29.8381	28.5594	4.4	4,4'-DDT
7.471	-0.003	5208559	8.325	-0.005	16729553	145.3304	142.0875	2.3	Methoxychlor
7.983	-0.002	2595539	8.630	-0.002	7833911	30.6023	28.4008	7.5	Endrin ketone
7.336	-0.002	1162630	7.893	-0.002	4585594	18.4769	17.9041	3.1	Endrin aldehyde
6.053	-0.002	1405215	6.655	-0.002	6393260	14.6935	15.0116	2.1	gamma-Chlordane
6.178	-0.002	1343133	6.793	-0.002	5858449	14.6013	14.9079	2.1	alpha-Chlordane
2.339	-0.002	657931	2.495	-0.002	2590772	5.1829	5.0139	3.3	Hexachlorobutadiene
4.178	-0.002	920965	4.627	-0.002	6401800	10.4781	10.5862	1.0	Hexachlorobenzene
5.851	0.011	12207	6.364	-0.020	48333	~~0.1619~~	~~0.1387~~	15.4	Oxychlordane
----			6.591	-0.040	133733	0.0000	0.5221	---	2,4-DDE
----			6.737	-0.003	67187	0.0000	0.1609	---	trans-Nonachlor
6.396	-0.002	24430	----			0.4918	0.0000	---	2,4-DDD
6.635	-0.002	12628	----			0.2223	0.0000	---	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.670	0.017	16681	8.577	-0.041	60015	~~0.2942~~	0.3337	12.6	Mirex
8.977	-0.002	4819837	10.365	-0.001	10886630	80.0000	80.0000	0.0	Hexabromobiphenyl IS
1.754	0.000	25406	1.738	0.006	5615887	~~0.0000~~	~~0.0000~~	---	Hexachloroethane
6.602	0.021	1294	7.336	0.000	89628	~~0.0000~~	~~0.0000~~	---	Kepone
3.835	-0.001	1697188	4.165	-0.004	9347403	20.5729	19.5895	4.9	Tetrachloro-m-xylene
8.829	-0.002	1330842	9.792	-0.003	5178455	18.9162	20.0626	5.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	51.4	49.0	49.0~	52-100
Decachlorobiphenyl	47.3	50.2	47.3~	54-100

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

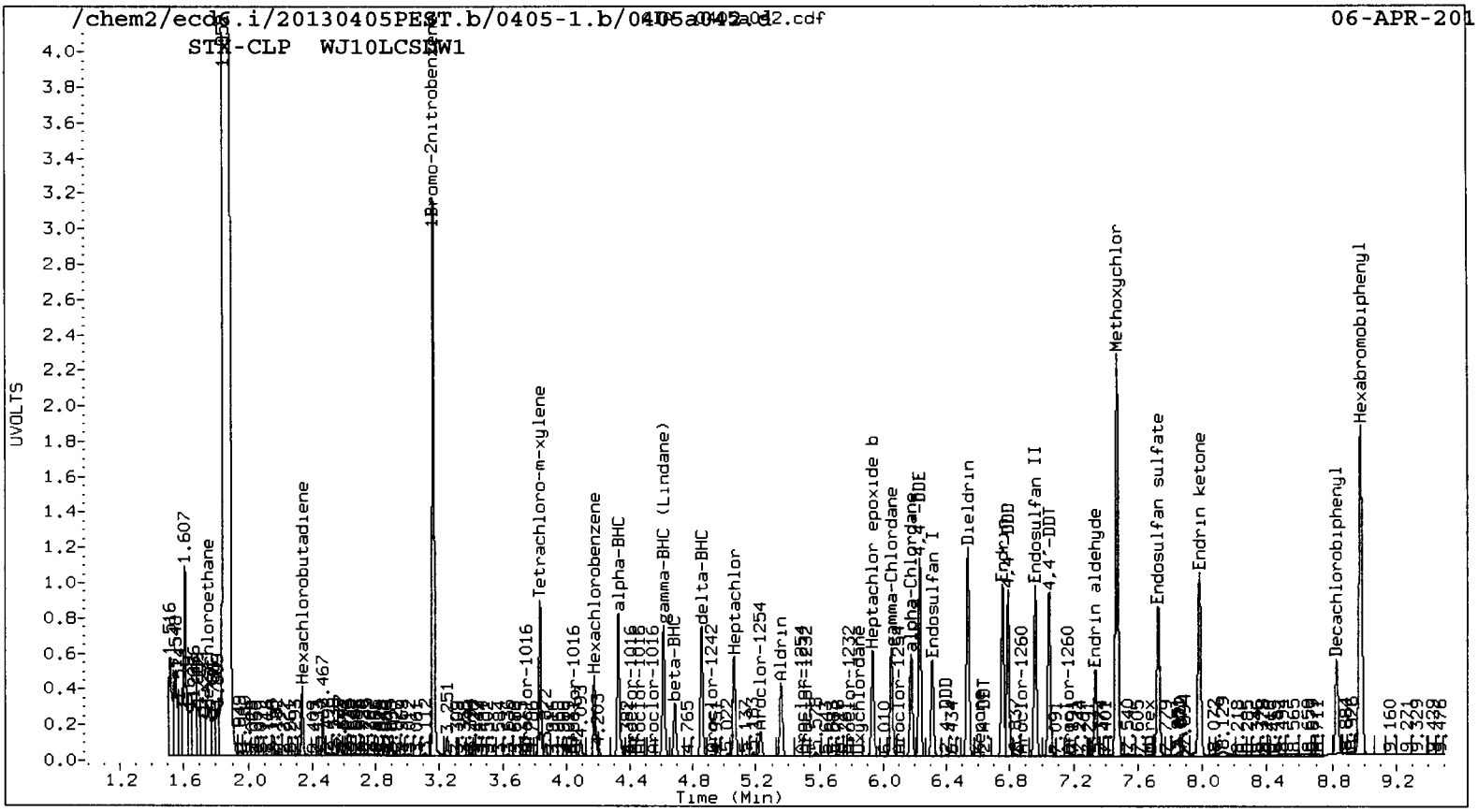
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5484149	0.7
Hexabromobiphenyl	4807902	4819837	0.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	26977312	24.3
Hexabromobiphenyl	7681727	10886630	41.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.047	0.035	2132051	687.4	1	7.336	-0.008	89628	9.0
Toxaphene	2	---			0.000	2	7.675	0.007	220752	14.8
Toxaphene	3	7.336	0.016	1162630	328.1	3	7.893	-0.005	4585594	286.8
Toxaphene	4	7.670	0.026	16681	4.7	4	8.325	-0.041	16729553	1447.8
Toxaphene	5	---			0.000	5	8.426	0.020	205907	14.1
Toxaphene	6	7.983	0.016	2595539	1281.7	NS	---			----
Total STX-CLPAve (4 peaks): 575.448						Total CLP2Ave (5 peaks): 354.471				RPD = 48*
Corrected Ave (3 peaks): 340.037						Corrected Ave (4 peaks): 81.137				RPD = 123*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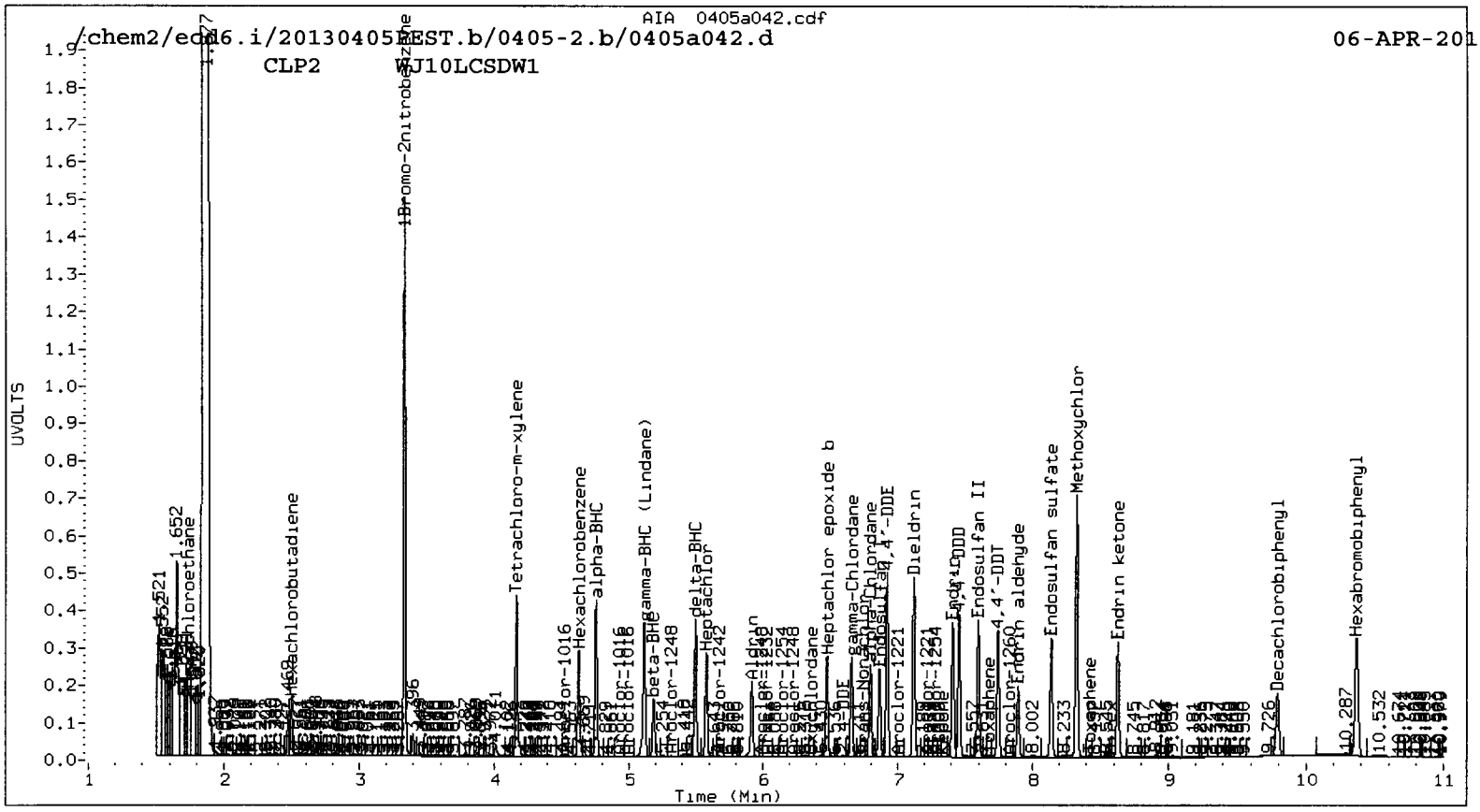
STX-CLP WJ10LCSDW1
UVOLTS
Time (Min)
1.607
Hexachlorobutadiene
Tetrachloro-m-xylene
1Bromo-2nitrobenzene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 WJ10LCSDW1
UVOLTS
Time (Min)
1.652
Hexachlorobutadiene
Tetrachloro-m-xylene
1Bromo-2nitrobenzene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/0405-1.b/0405a043.d ARI ID: WJ10A
Data file 2: /chem2/ecd6.i/20130405PEST.b/0405-2.b/0405a043.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 06-APR-2013 00:22
Compound Sublist: wpest Report Date: 04/08/2013 12:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: WATER
Operator: ar Dilution Factor: 1.000

YZ 4/10/13

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.163	-0.002	5274634	3.332	-0.001	24662050	80.0000	80.0000	IS 0.0	1Bromo-2nitrobenzen
4.313	-0.017	67440	4.750	-0.006	70728	0.5813	0.1179	132.6*	alpha-BHC
4.665	-0.022	99274	5.182	-0.003	54296	2.1359	0.2320	160.8*	beta-BHC
4.846	-0.012	26541	5.507	0.008	295939	0.2570	0.5801	77.2*	delta-BHC
4.613	-0.002	12936	5.092	-0.024	953962	0.1235	1.8059	174.4*	gamma-BHC (Lindane)
5.023	-0.042	85573	5.590	0.008	67199	0.8527	0.1372	144.6*	Heptachlor
5.372	0.012	21209	5.904	-0.017	1083684	0.2154	2.4267	167.4*	Aldrin
----			6.462	-0.013	375320	0.0000	0.9701	---	Heptachlor epoxide b
6.318	0.003	63249	6.870	0.007	429087	0.7659	1.2722	49.7*	Endosulfan I
6.547	0.010	18014	7.144	0.023	107867	0.2068	0.3186	42.5*	Dieldrin
6.243	0.008	132919	6.921	0.001	349560	1.8628	1.0138	59.0*	4,4'-DDE
6.742	-0.014	16392	7.431	0.021	177057	0.1695	0.8732	135.0*	Endrin
6.978	0.018	18166	7.599	0.000	49315	0.1834	0.2214	18.8	Endosulfan II
----			----			0.0000	0.0000	---	4,4'-DDD
7.758	0.028	45579	8.143	0.003	375140	0.5219	2.0285	118.1*	Endosulfan sulfate
7.057	0.008	54858	7.754	0.009	197476	0.5938	1.0138	52.3*	4,4'-DDT
7.500	0.027	35281	8.319	-0.012	799141	0.7614	0.8972	171.4*	Methoxychlor
8.024	0.039	146017	8.676	0.044	358596	1.3315	1.8957	35.0	Endrin ketone
7.340	0.001	34332	7.907	0.011	280010	0.4220	1.5942	116.3*	Endrin aldehyde
6.086	0.031	242746	6.663	0.006	625946	2.6391	1.6077	48.6*	gamma-Chlordane
6.177	-0.003	273466	6.773	-0.022	651302	3.0910	1.8129	52.1*	alpha-Chlordane
2.337	-0.004	5898	2.500	0.003	86997	0.0483	0.1842	116.9*	Hexachlorobutadiene
4.180	0.000	64087	4.612	-0.017	565710	0.7581	1.0233	29.8	Hexachlorobenzene
5.869	0.029	32937	6.392	0.008	926380	0.3378	2.9079	158.4*	Oxychlordane
5.898	-0.012	39520	6.625	-0.005	1160330	0.5382	4.9554	160.8*	2,4-DDE
6.133	-0.029	117728	6.736	-0.005	782091	1.0136	2.7313	91.7*	trans-Nonachlor
6.399	0.002	21609	7.126	0.012	65769	0.3365	0.4380	26.2	2,4-DDD
6.634	-0.003	66776	7.385	-0.018	98199	0.9093	0.6163	38.4	2,4-DDT
6.791	0.013	78227	7.492	0.027	94687	0.6372	0.3501	58.2*	cis-Nonachlor
7.659	0.006	74944	8.639	0.020	473625	1.0221	3.8406	115.9*	Mirex
9.007	0.027	6231824	10.382	0.016	7465814	80.0000	80.0000	IS 0.0	Hexabromobiphenyl
1.754	0.000	5205	1.721	-0.010	1085905	0.0000	0.0000	---	Hexachloroethane
----			7.326	-0.010	97880	0.0000	0.0000	---	Kepone
3.835	-0.001	2165059	4.165	-0.004	8905463	27.2867	20.4155	28.8	Tetrachloro-m-xylene
8.851	0.020	2305083	9.808	0.012	5995897	25.3403	33.8733	28.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	68.2	51.0	51.0~	52-100
Decachlorobiphenyl	63.4	84.7	63.4	54-100

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

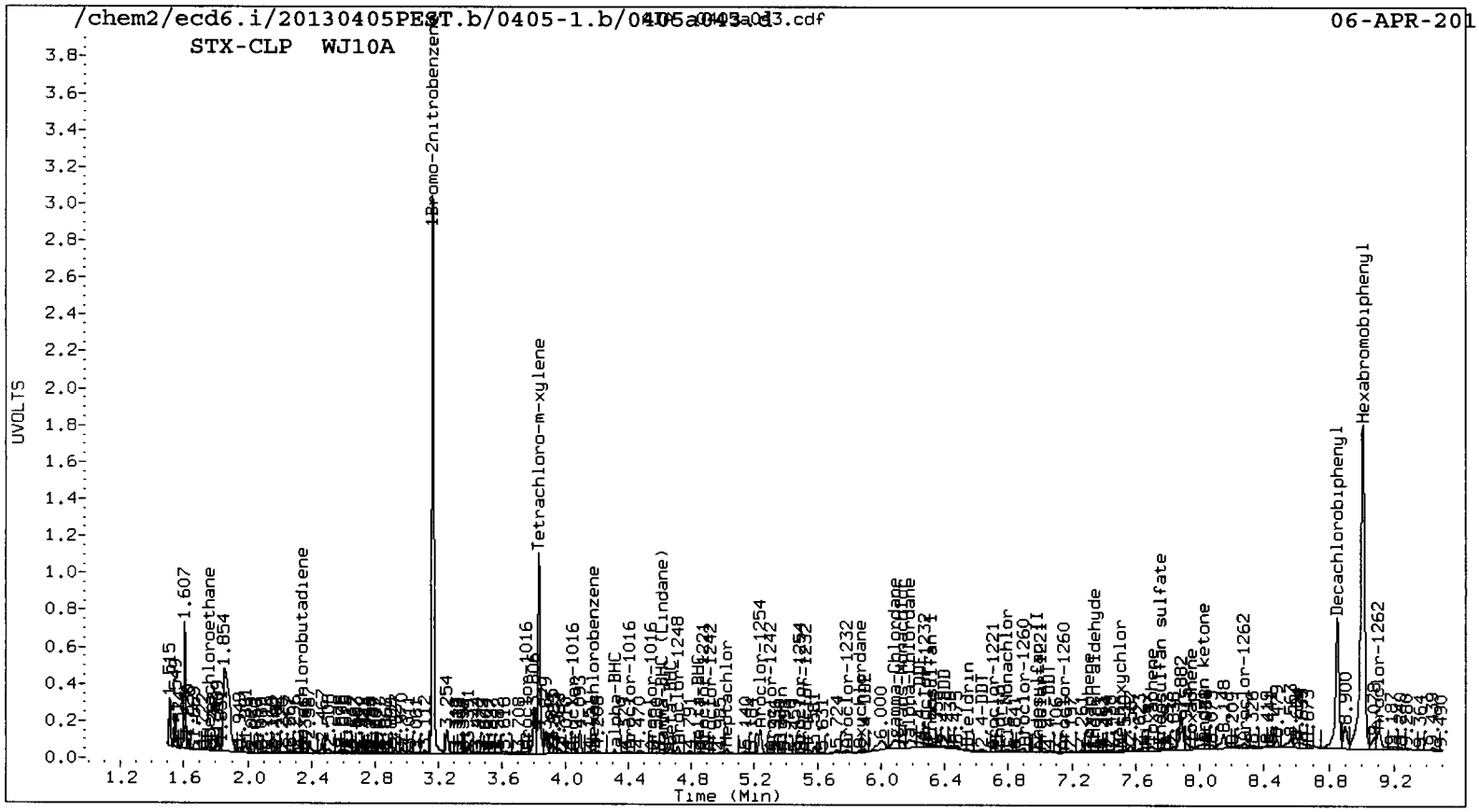
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5274634	-3.2
Hexabromobiphenyl	4807902	6231824	29.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	24662050	13.6
Hexabromobiphenyl	7681727	7465814	-2.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.006	-0.006	7862	2.0	1	7.326	-0.018	97880	14.3
Toxaphene	2	7.057	-0.007	54858	20.1	2	7.644	-0.024	52685	5.1
Toxaphene	3	7.303	-0.017	39523	8.6	3	7.907	0.008	280010	25.5
Toxaphene	4	7.659	0.014	74944	16.2	4	8.385	0.019	885008	111.7
Toxaphene	5	7.703	0.019	112863	37.0	5	8.420	0.014	485948	48.4
Toxaphene	6	7.947	-0.020	41885	16.0	NS	---			----
Total STX-CLPAve (6 peaks): 16.650						Total CLP2Ave (5 peaks): 41.011				RPD = 84*
Corrected Ave (5 peaks): 12.580						Corrected Ave (4 peaks): 23.343				RPD = 60*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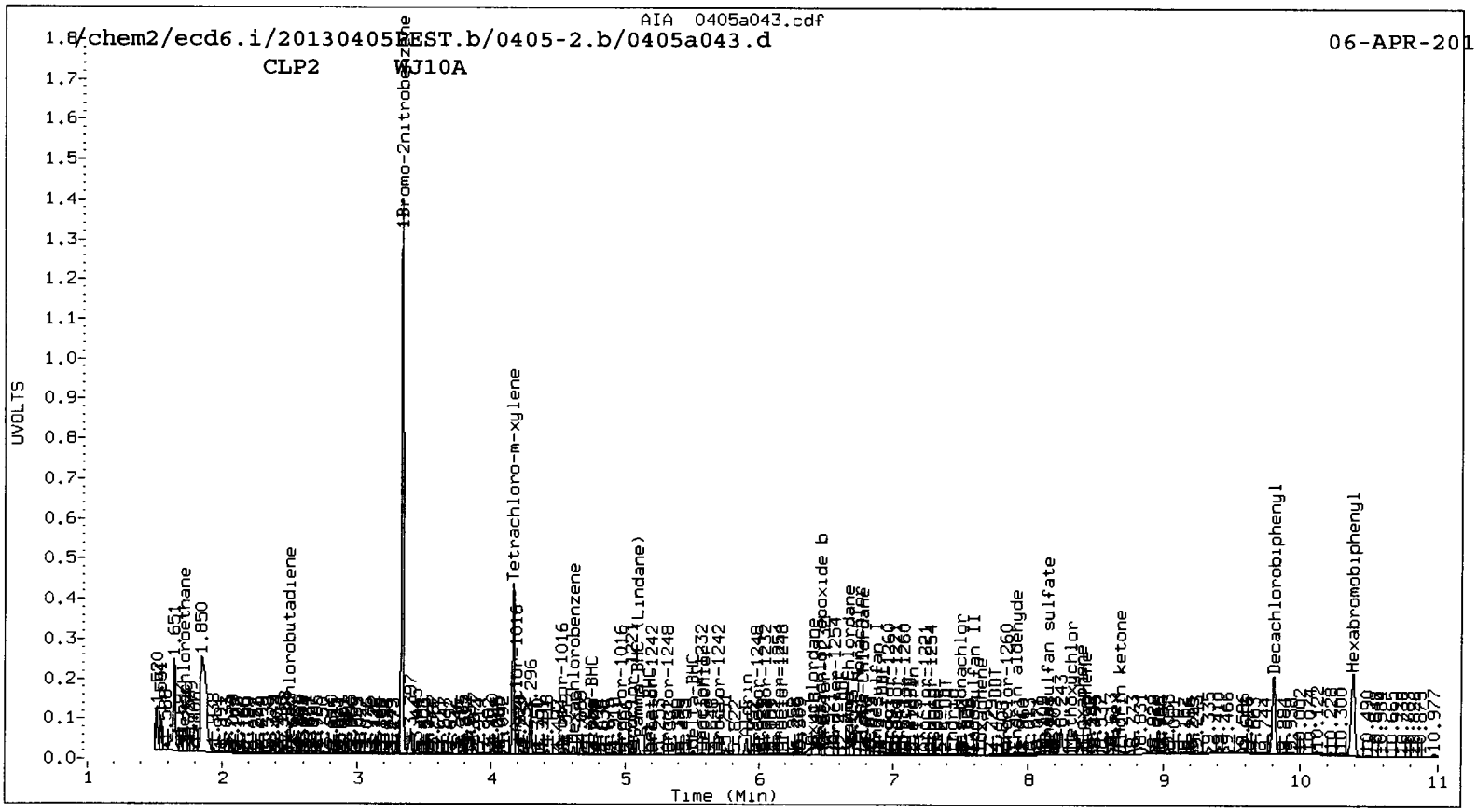
06-APR-201
STX-CLP WJ10A
UVOLTS
Time (Min)
1.607
1.854
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl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06-APR-201
CLP2 WJ10A
UVOLTS
Time (Min)
1.651
1.850
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Y.Z 4/10/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0405-1.b/0405a045.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130405PEST.b/0405-2.b/0405a045.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 06-APR-2013 00:58
Compound Sublist: INDA Report Date: 04/08/2013 12:08
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	-0.001	4572615	3.332	0.000	23061549	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.328	-0.002	2323398	4.754	-0.002	12699408	23.1014	22.6292	2.1	alpha-BHC
4.685	-0.002	863169	5.184	-0.001	4801343	21.4220	21.9426	2.4	beta-BHC
4.857	-0.002	2051356	5.496	-0.003	10896639	22.9158	22.8421	0.3	delta-BHC
4.613	-0.002	2072578	5.113	-0.003	11170169	22.8329	22.6138	1.0	gamma-BHC (Lindane)
5.064	-0.002	1958269	5.580	-0.002	10245870	22.5092	22.3690	0.6	Heptachlor
5.359	-0.002	1943051	5.919	-0.002	9249090	22.7650	22.1489	2.7	Aldrin
5.935	-0.002	1710403	6.474	-0.002	7880372	21.9244	21.7828	0.6	Heptachlor epoxide b
6.312	-0.002	1556814	6.861	-0.002	6727776	21.7468	21.3321	1.9	Endosulfan I
6.535	-0.002	3366975	7.119	-0.003	13623946	44.5971	43.0377	3.6	Dieldrin
6.232	-0.003	2716841	6.918	-0.002	13508787	43.9212	41.8957	4.7	4,4'-DDE
6.754	-0.003	2763735	7.408	-0.002	9639155	45.6303	40.9159	10.9	Endrin
6.959	-0.002	2810303	7.596	-0.003	10754271	45.2848	41.5621	8.6	Endosulfan II
6.789	-0.002	2648046	7.455	-0.003	10397282	45.8547	41.7019	9.5	4,4'-DDD
7.727	-0.002	2439755	8.139	-0.002	8870672	44.5924	41.2836	7.7	Endosulfan sulfate
7.047	-0.002	2623572	7.743	-0.002	9483744	45.3312	41.9024	7.9	4,4'-DDT
7.471	-0.003	6426792	8.326	-0.005	19462723	221.3930	207.4568	6.5	Methoxychlor
7.983	-0.002	3054750	8.631	-0.002	9109843	44.4665	41.4490	7.0	Endrin ketone
7.336	-0.002	2295247	7.894	-0.002	8481329	45.0347	41.5599	8.0	Endrin aldehyde
6.053	-0.002	1755712	6.655	-0.002	7882791	22.0182	21.6519	1.7	gamma-Chlordane
6.178	-0.002	1667033	6.793	-0.002	7134823	21.7351	21.2386	2.3	alpha-Chlordane
2.340	-0.001	2331991	2.496	-0.001	9512116	22.0327	21.5344	2.3	Hexachlorobutadiene
4.178	-0.001	1563462	4.627	-0.002	11099802	21.3340	21.4716	0.6	Hexachlorobenzene
8.978	-0.002	3903925	10.365	-0.001	8674432	80.0000	80.0000	0.0	Hexabromobiphenyl
3.835	-0.002	3034932	4.165	-0.004	17555012	44.1223	43.0372	2.5	Tetrachloro-m-xylen
8.829	-0.002	2311134	9.793	-0.002	8212254	40.5568	39.9302	1.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	110.3	107.6	107.6~	115- 0
Decachlorobiphenyl	101.4	99.8	99.8~	115- 0

WJ10:02018

~ Indicates recovery outside QC Limits

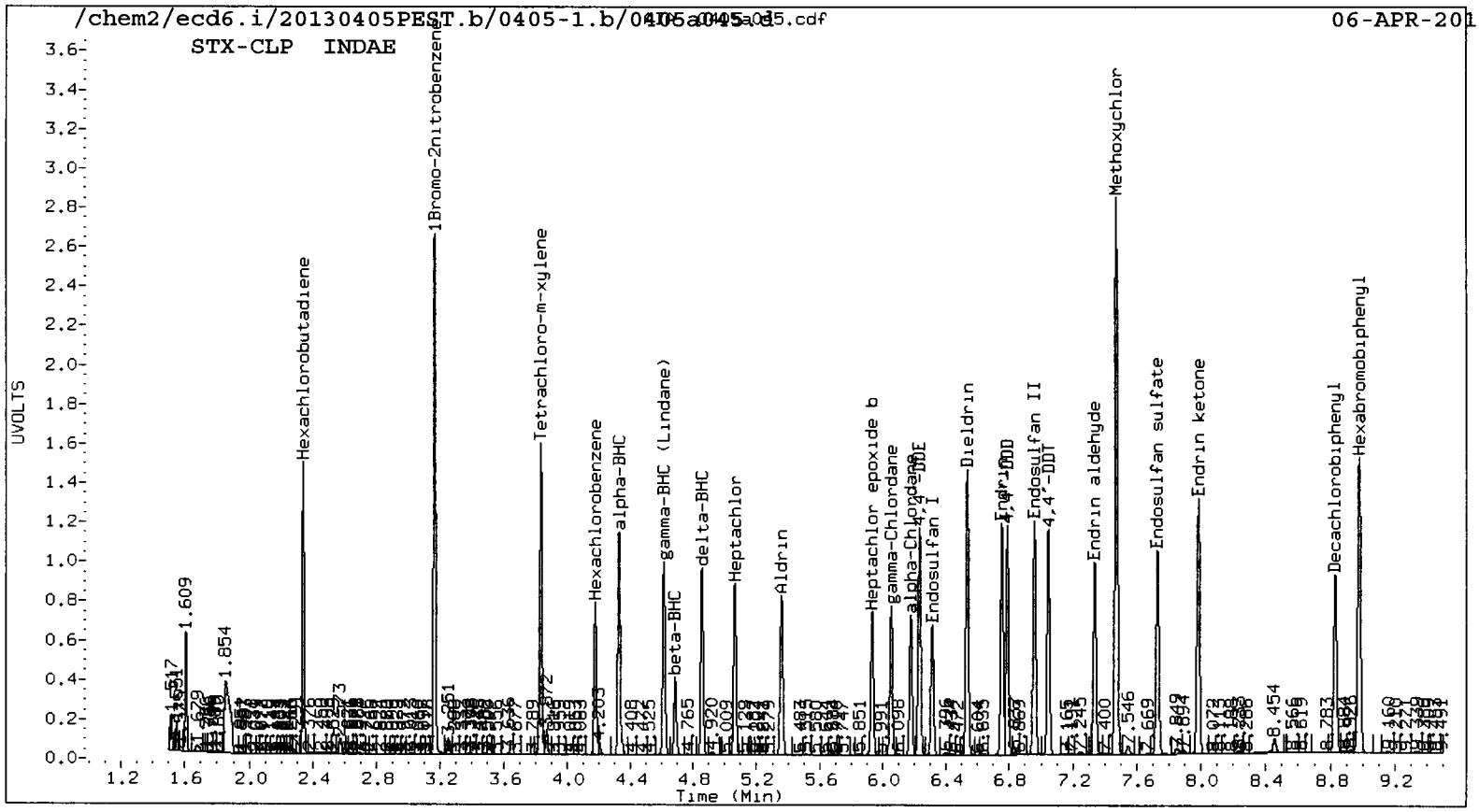
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	5448520	4572615	-16.1
Hexabromobiphenyl	4807902	3903925	-18.8

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	21702340	23061549	6.3
Hexabromobiphenyl	7681727	8674432	12.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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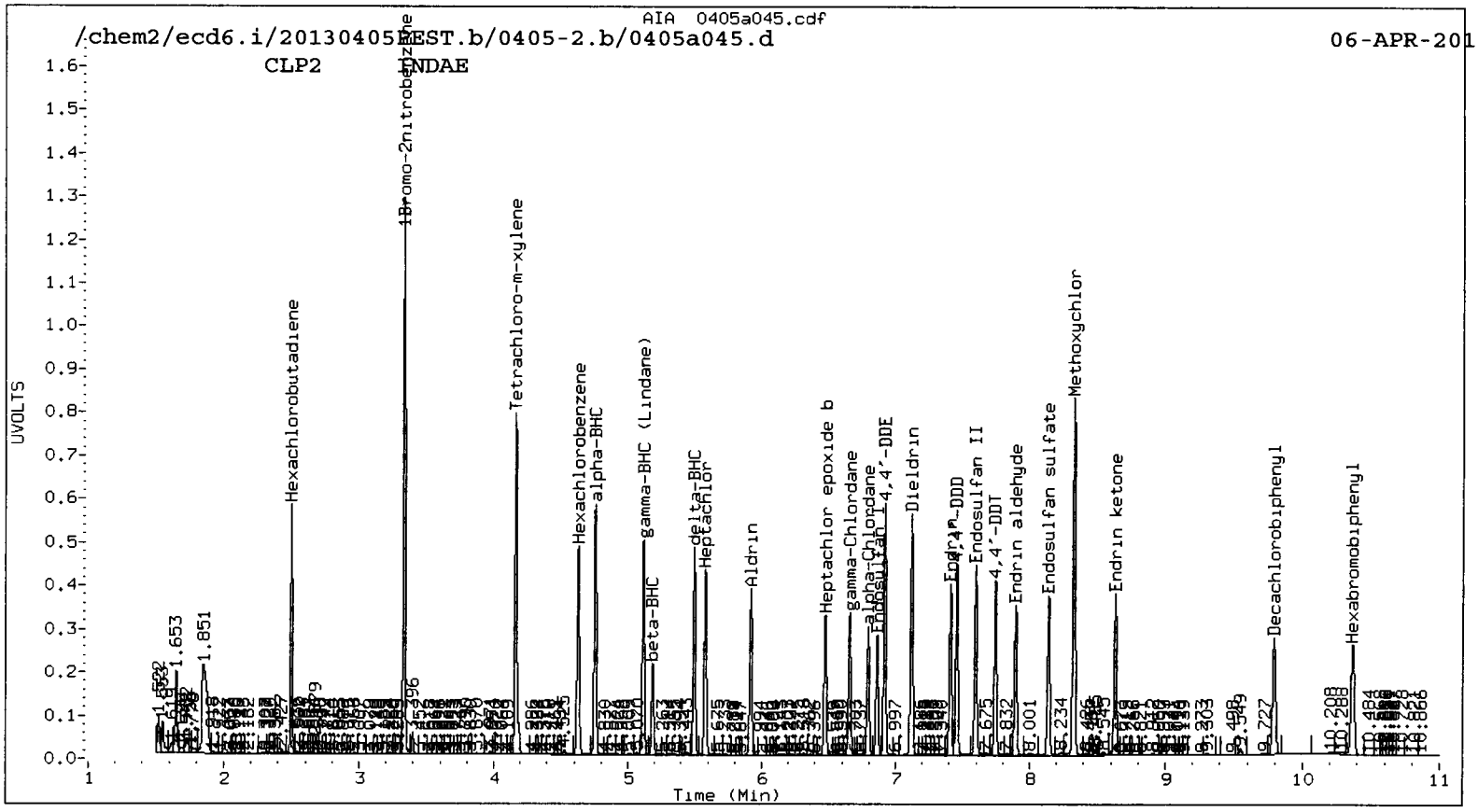
06-APR-201
STX-CLP INDAE
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0405a045.cdf
06-APR-201
CLP2 INDAE
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Y2 4/10/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0405-1.b/0405a046.d ARI ID: TOXAPHENE
Data file 2: /chem2/ecd6.i/20130405PEST.b/0405-2.b/0405a046.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 06-APR-2013 01:16
Compound Sublist: TOXAPH Report Date: 04/08/2013 12:08
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.164	-0.001	5103104	3.332	0.000	25657430	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.978	-0.002	4689885	10.365	-0.001	10079306	80.0000	80.0000	0.0	Hexabromobiphenyl
3.835	-0.001	2793496	4.165	-0.004	16599913	36.3905	36.5784	0.5	Tetrachloro-m-xylen
8.829	-0.002	2494584	9.793	-0.002	8628787	36.4398	36.1077	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	91.0	91.4	91.0~	150- 0
Decachlorobiphenyl	91.1	90.3	90.3~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5103104	-6.3
Hexabromobiphenyl	4807902	4689885	-2.5

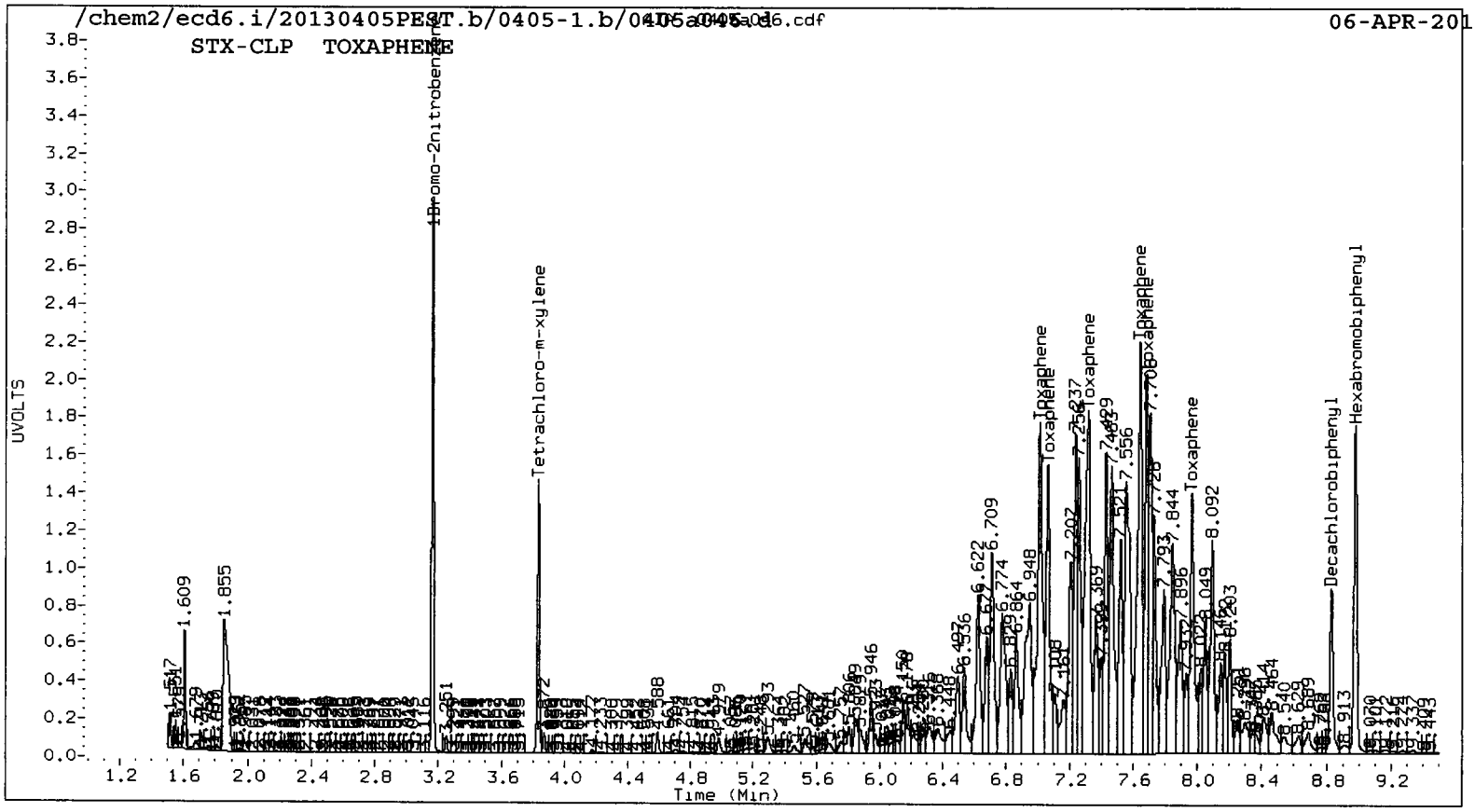
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	25657430	18.2
Hexabromobiphenyl	7681727	10079306	31.2

WJ10:02021

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.010	-0.002	7602930	2519.1	1	7.343	-0.002	22030765	2379.6
Toxaphene	2	7.062	-0.002	5155973	2510.3	2	7.666	-0.002	33379032	2409.5
Toxaphene	3	7.319	-0.001	8647705	2507.7	3	7.897	-0.001	34864506	2354.9
Toxaphene	4	7.643	-0.001	8698660	2501.0	4	8.365	-0.001	25718418	2404.0
Toxaphene	5	7.683	-0.002	5756227	2507.8	5	8.405	-0.001	32391361	2391.1
Toxaphene	6	7.965	-0.001	4871678	2472.3	NS	---			----
Total STX-CLPAve (6 peaks): 2503.036						Total CLP2Ave (5 peaks): 2387.808				RPD = 5
Corrected Ave (6 peaks): 2503.036						Corrected Ave (5 peaks): 2387.808				RPD = 5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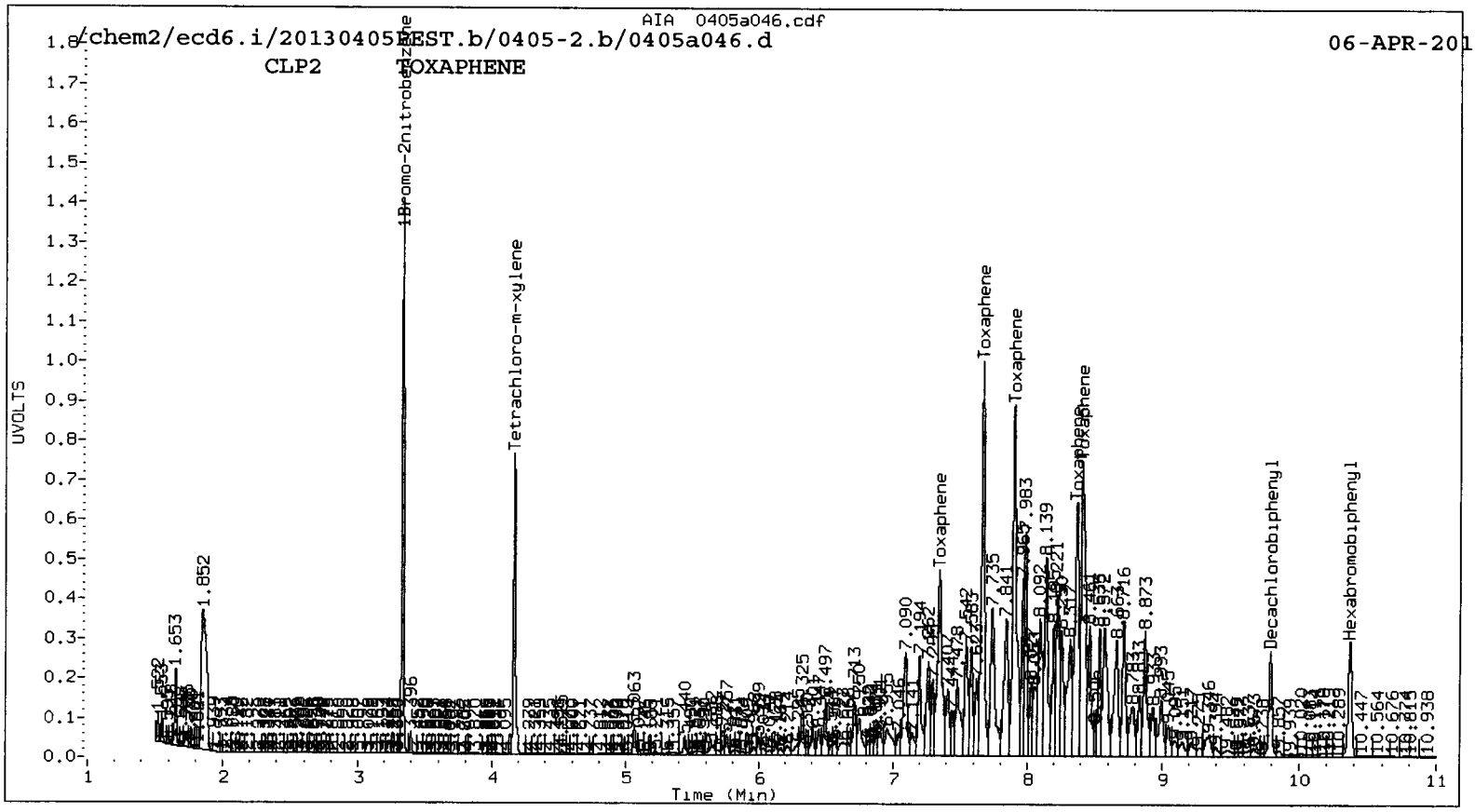
AIA 0405a046.cdf
06-APR-201
STX-CLP TOXAPHENE
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
1.609
1.855
6.709
7.844
8.092
UVOLTS
Time (Min)


/chem2/ecd6.i/20130405PEST.b/0405-2.b/0405a046.d
AIA 0405a046.cdf
06-APR-201
CLP2 TOXAPHENE
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
1.653
1.852
7.090
8.873
UVOLTS
Time (Min)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Data Review Checklist

ARI WORK Order: WJ13 Client ID: SAIS

METHOD: **8082A**(~~PCB~~) **8151A**(Herb) **NW-TPH**(TPH-D) **NW-TPH**(HCID) **8041A**(PCP)
8081B(PEST) **8015B**(Dir Inj) **NW-EPH**(EPH) **8082A**(PBDE) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 (ECD-6) ECD-7 ECD-8

Curve Date: 04/05/13 Analysis Start Date: 04/09/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Endrin/DDT B.D. ≤15%?	NA / Y / (N) / ___	Method Blank in Control?	(Y) / N / ___
Retention times within Windows?	(Y) / N / ___	LCS / LCSD Recovery in Control?	(Y) / N / ___
CCAL met %D Criteria?	Y / (N) / ___	LCS / LCSD RPD ≤30%?	(NA) / ___
Surrogate Recovery in Control?	Y / (N) / ___	MS / MSD Recovery in Control?	Y / (N) / ___
Internal STD. within 50-200%?	NA / (Y) / N / ___	MS / MSD RPD ≤30%?	NA / ___
Manual Integrations?	Y / (N) / ___	Samples Diluted?	(Y) / N / ___
Integration Summary?	Y / (N) / ___	Special Analysis Request?	(Y) / N / ___

Detail problems, corrective actions and/or other pertinent information below

- C/Cmsd/Cmsd: were run @ 5x dilution due to dark color of the extracts
- Both samples: really bad matrix. Closing ccals: DDT breakdown - 16% Endrin - 32%, ccals failed very low for most of the analytes.
- Samples were re-run on 4/12/13. C/Cmsd/Cmsd @ 50x dilution, DBHx Opening ccals high for a-BHC, β-BHC, Dieldrin, DDE, HCBD, TCLP-meta, TCLP-para, caramin. Okay to use, analytes were not found in the samples.
  Closing ccals: DDT failed on CC#2, okay on CC#. Breakdown - okay.
  Both runs reported for sample "C", 10x dilution run for sample "D"

(Review 1) Analyst: YZ **Date:** 4/11/13

(Review 2) Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Organics Instrument Log

ECD6 Serial No.: US00007128

Date: 04/09/13 Analysis: Pest Analyst: YZ

Column 1 Serial No.: 1095684 Column Type: STX CLP1

Column 2 Serial No.: 109 4709 Column Type: STX CLP2

GC Method: Pest ICal Date: 03/08/13

IS	Ical/Ccal	ICV
2006-1	2048-1,2	
	2067-1,2	

Document All Maintenance Tasks In StarLIMS

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20130405PEST.b/0409-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	09-APR-2013 11:58	0409a004.d	1	DS	
2	09-APR-2013 12:16	0409a005.d	1	INDAE	
3	09-APR-2013 12:33	0409a006.d	1	TOXAPH	
4	09-APR-2013 12:53	0409a007.d	1	WJ75MBS1	
5	09-APR-2013 13:13	0409a008.d	1	WJ75LCSS1	
6	09-APR-2013 13:31	0409a009.d	1	WJ75QLS	
7	09-APR-2013 13:49	0409a010.d	1	WJ75A	
8	09-APR-2013 14:06	0409a011.d	1	WJ75MBS1	
9	09-APR-2013 14:26	0409a012.d	1	WJ75LCSS1	
10	09-APR-2013 14:44	0409a013.d	1	WJ75QLS	
11	09-APR-2013 15:02	0409a014.d	1	DS	
12	09-APR-2013 15:20	0409a015.d	1	INDAE	
13	09-APR-2013 15:38	0409a016.d	1	TOXAPH	
14	09-APR-2013 15:55	0409a017.d	1	WJ10MBS1	WJ10MBS1
15	09-APR-2013 16:13	0409a018.d	1	WJ10LCSS1	WJ10LCSS1
16	09-APR-2013 16:31	0409a019.d	1	WJ10QLS	
17	09-APR-2013 16:49	0409a020.d	5	WJ10C	SD-SP-01-20130326-S
18	09-APR-2013 17:07	0409a021.d	5	WJ10CMS	SD-SP-01-201303 MS
19	09-APR-2013 17:25	0409a022.d	5	WJ10CMSD	SD-SP-01-201303 MSD
20	09-APR-2013 17:43	0409a023.d	1	WJ10D	SD-CB-01-20130326-S
21	09-APR-2013 18:01	0409a024.d	1	WJ75MBS1	
22	09-APR-2013 18:18	0409a025.d	1	WJ75LCSS1	
23	09-APR-2013 18:36	0409a026.d	1	WJ75QLS	
24	09-APR-2013 18:54	0409a027.d	1	DS	
25	09-APR-2013 19:12	0409a028.d	1	INDAE	
26	09-APR-2013 19:30	0409a029.d	1	TOXAPH	

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

YZ 4/9/13

Analytical Resources Inc.: Organics Instrument Log

ECD6 Serial No.: US00007128

Date: 04/10/13 Analysis: Pest Analyst: YZ

Column 1 Serial No.: 1035684 Column Type: STX CLP

Column 2 Serial No.: 1094709 Column Type: STX CLP

GC Method: Pest ICal Date:

IS	Ical/Ccal	ICV
2006-1	2008-1,2	
	2007-1,2	

Document All Maintenance Tasks In StarLIMS

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20130405PEST.b/0410-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	10-APR-2013 16:28	0410a008.d	1	DS	
2	10-APR-2013 16:46	0410a009.d	1	INDAE	
3	10-APR-2013 17:04	0410a010.d	1	TOXAPH	
4	10-APR-2013 17:21	0410a011.d	1	WJ10MBS1	
5	10-APR-2013 17:39	0410a012.d	1	WJ10LCSS1	
6	10-APR-2013 17:57	0410a013.d	50	WJ10C	SD-SP-01-20130326-S
7	10-APR-2013 18:15	0410a014.d	1	WJ10CMS	50
8	10-APR-2013 18:33	0410a015.d	1	WJCMSD	50
9	10-APR-2013 18:50	0410a016.d	10	WJ10D	SD-CB-01-20130326-S
10	10-APR-2013 19:08	0410a017.d	1	WJ10MBS1	
11	10-APR-2013 19:26	0410a018.d	1	WJ10MBS1	
12	10-APR-2013 19:44	0410a019.d	1	DS	
13	10-APR-2013 20:02	0410a020.d	1	INDAE	
14	10-APR-2013 20:19	0410a021.d	1	TOXAPH	

YZ 4/12/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0409-1.b/0409a015.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a015.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 09-APR-2013 15:20
Compound Sublist: INDA Report Date: 04/11/2013 12:30
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	0.000	5455792	3.333	0.001	26219410	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.329	0.000	2141062	4.756	-0.001	11503459	17.8423	18.0293	1.0	alpha-BHC
4.687	0.000	800614	5.185	0.000	4275150	16.6530	17.1847	3.1	beta-BHC
4.858	0.000	1882633	5.498	-0.001	9581703	17.6265	17.6666	0.2	delta-BHC
4.615	0.000	1921969	5.115	-0.001	10057933	17.7461	17.9097	0.9	gamma-BHC (Lindane)
5.065	0.000	1794043	5.582	0.000	9081528	17.2833	17.4390	0.9	Heptachlor
5.360	-0.001	1788481	5.920	-0.001	8363728	17.5621	17.6165	0.3	Aldrin
5.936	0.000	1600649	6.475	-0.001	7253308	17.1962	17.6347	2.5	Heptachlor epoxide b
6.314	-0.001	1465775	6.863	0.000	6345333	17.1606	17.6963	3.1	Endosulfan I
6.536	-0.001	3164655	7.120	-0.001	12632301	35.1318	35.0990	0.1	Dieldrin
6.233	-0.002	2503882	6.920	0.000	12697160	33.9259	34.6358	2.1	4,4'-DDE
6.755	-0.001	2505725	7.410	0.000	8921574	33.7683	32.2891	4.5	Endrin
6.960	-0.001	2619484	7.598	-0.001	9998914	34.4535	32.9482	4.5	Endosulfan II
6.790	-0.001	2447420	7.457	-0.001	9646873	34.5928	32.9901	4.7	4,4'-DDD
7.728	-0.001	2278904	8.140	0.000	8363367	33.9985	33.1867	2.4	Endosulfan sulfate
7.048	-0.001	2426357	7.745	0.000	8792438	34.2198	33.1230	3.3	4,4'-DDT
7.472	-0.002	5904605	8.327	-0.003	17571341	166.0270	159.6946	3.9	Methoxychlor
7.984	-0.001	2857644	8.632	0.000	8427908	33.9534	32.6953	3.8	Endrin ketone
7.337	-0.001	2101335	7.895	0.000	7830132	33.6536	32.7145	2.8	Endrin aldehyde
6.054	-0.001	1648011	6.657	0.000	7267315	17.3219	17.5572	1.3	gamma-Chlordane
6.179	-0.001	1567450	6.795	0.000	6710424	17.1285	17.5695	2.5	alpha-Chlordane
2.340	-0.001	2147207	2.496	-0.001	8461820	17.0029	16.8494	0.9	Hexachlorobutadiene
4.179	0.000	1436701	4.629	-0.001	10210322	16.4308	17.3722	5.6	Hexachlorobenzene
8.979	-0.001	4782811	10.367	0.001	10173716	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	2779363	4.166	-0.002	15854441	33.8658	34.1869	0.9	Tetrachloro-m-xylen
8.831	0.000	2179191	9.795	0.000	7701249	31.2142	31.9273	2.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	84.7	85.5	84.7~	115- 0
Decachlorobiphenyl	78.0	79.8	78.0~	115- 0

WJ10:02027

~ Indicates recovery outside QC Limits

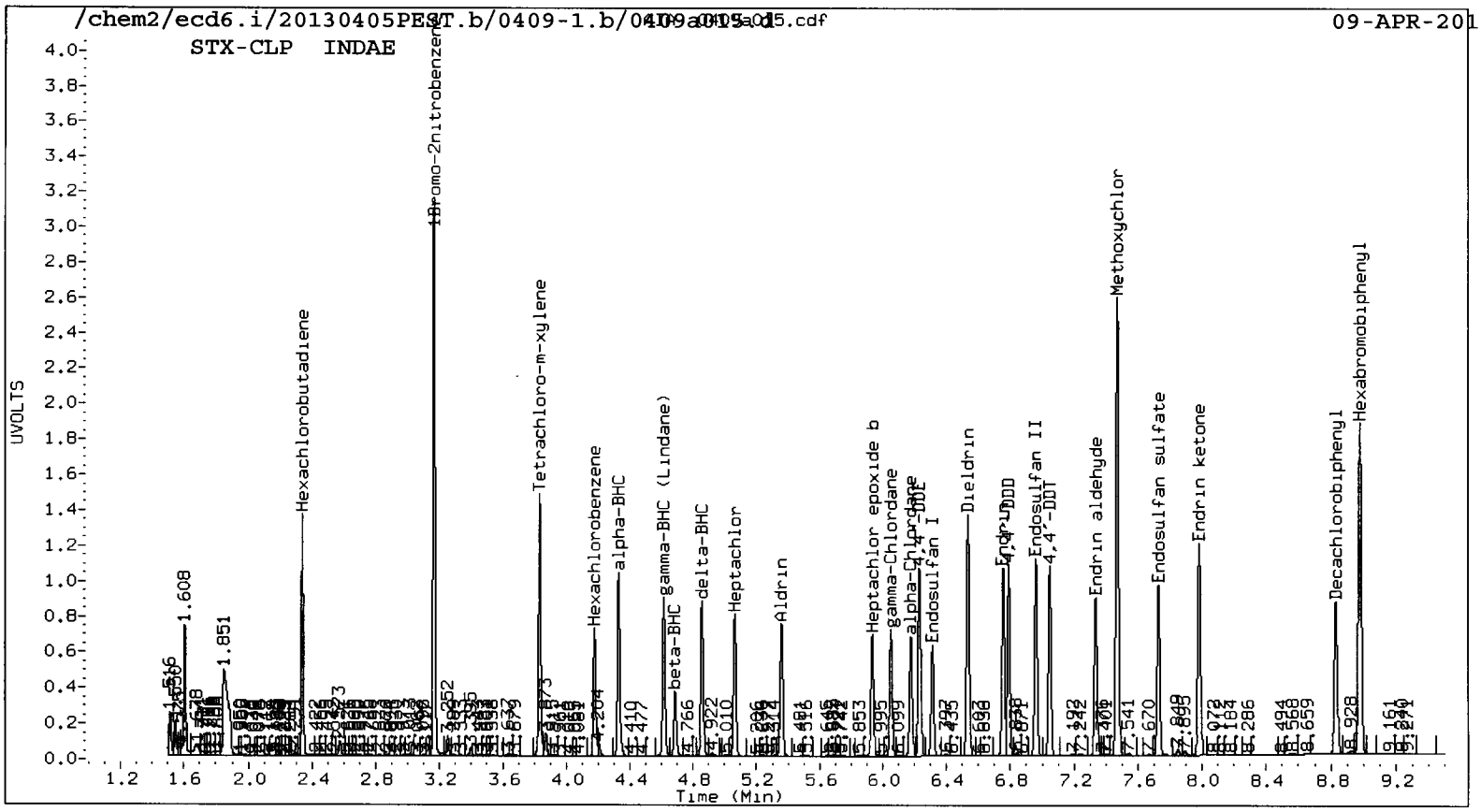
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	5448520	5455792	0.1
Hexabromobiphenyl	4807902	4782811	-0.5

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	21702340	26219410	20.8
Hexabromobiphenyl	7681727	10173716	32.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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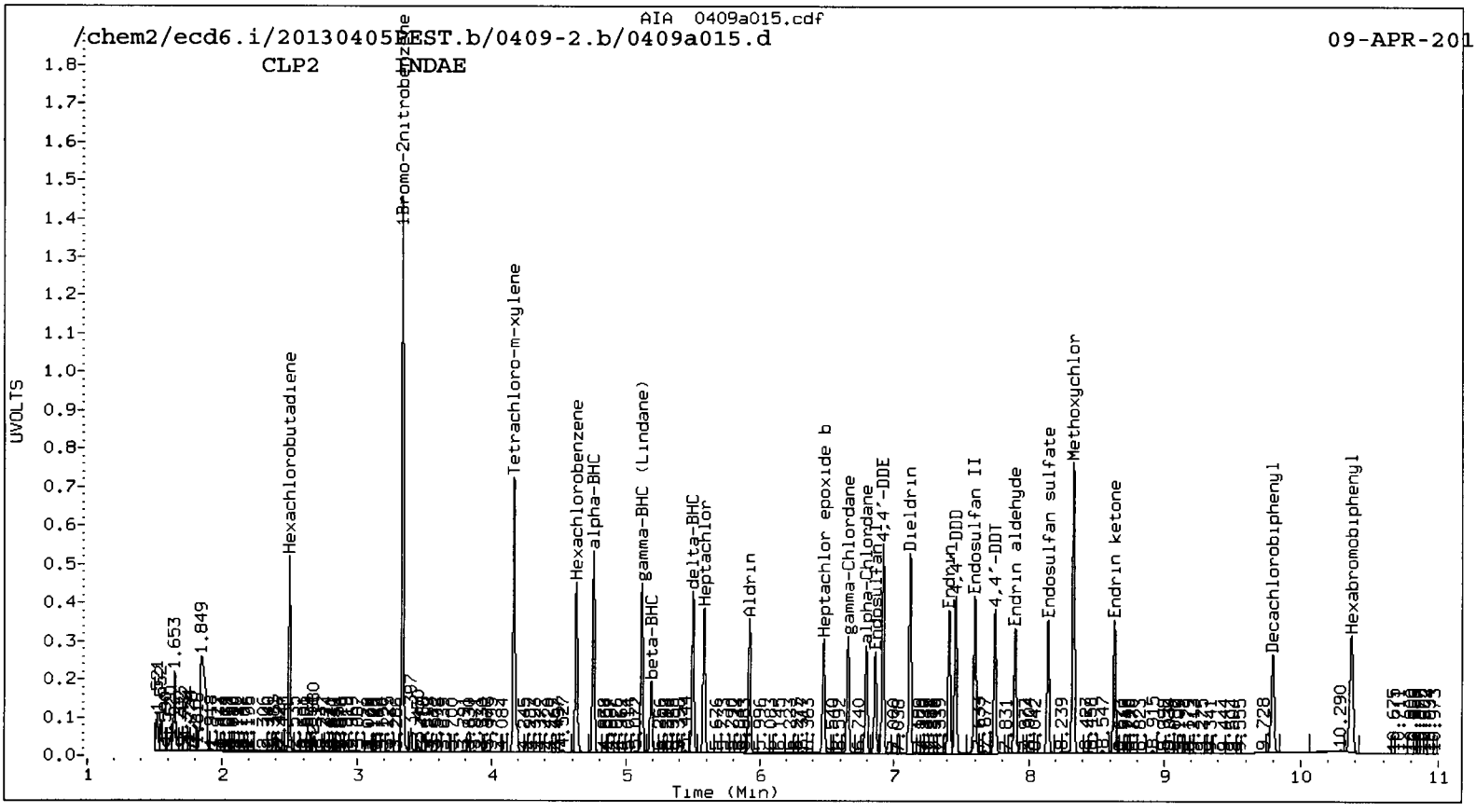
09-APR-201
STX-CLP INDAE
UVOLTS
Time (Min)
1.608
1.851
Hexachlorobutadiene
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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/chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a015.d
09-APR-201
CLP2 INDAE
UVOLTS
Time (Min)
1.653
1.849
Hexachlorobutadiene
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/0409-1.b/0409a016.d ARI ID: TOXAPH
Data file 2: /chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a016.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 09-APR-2013 15:38
Compound Sublist: TOXAPH Report Date: 04/11/2013 12:30
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.164	-0.001	5601706	3.333	0.001	26768327	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.979	-0.001	5203000	10.367	0.001	10175799	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	-0.001	2727244	4.166	-0.003	15509033	32.3652	32.7563	1.2	Tetrachloro-m-xylen
8.830	-0.001	2478805	9.795	0.000	7932696	32.6384	32.8800	0.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	80.9	81.9	80.9~	150- 0
Decachlorobiphenyl	81.6	82.2	81.6~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

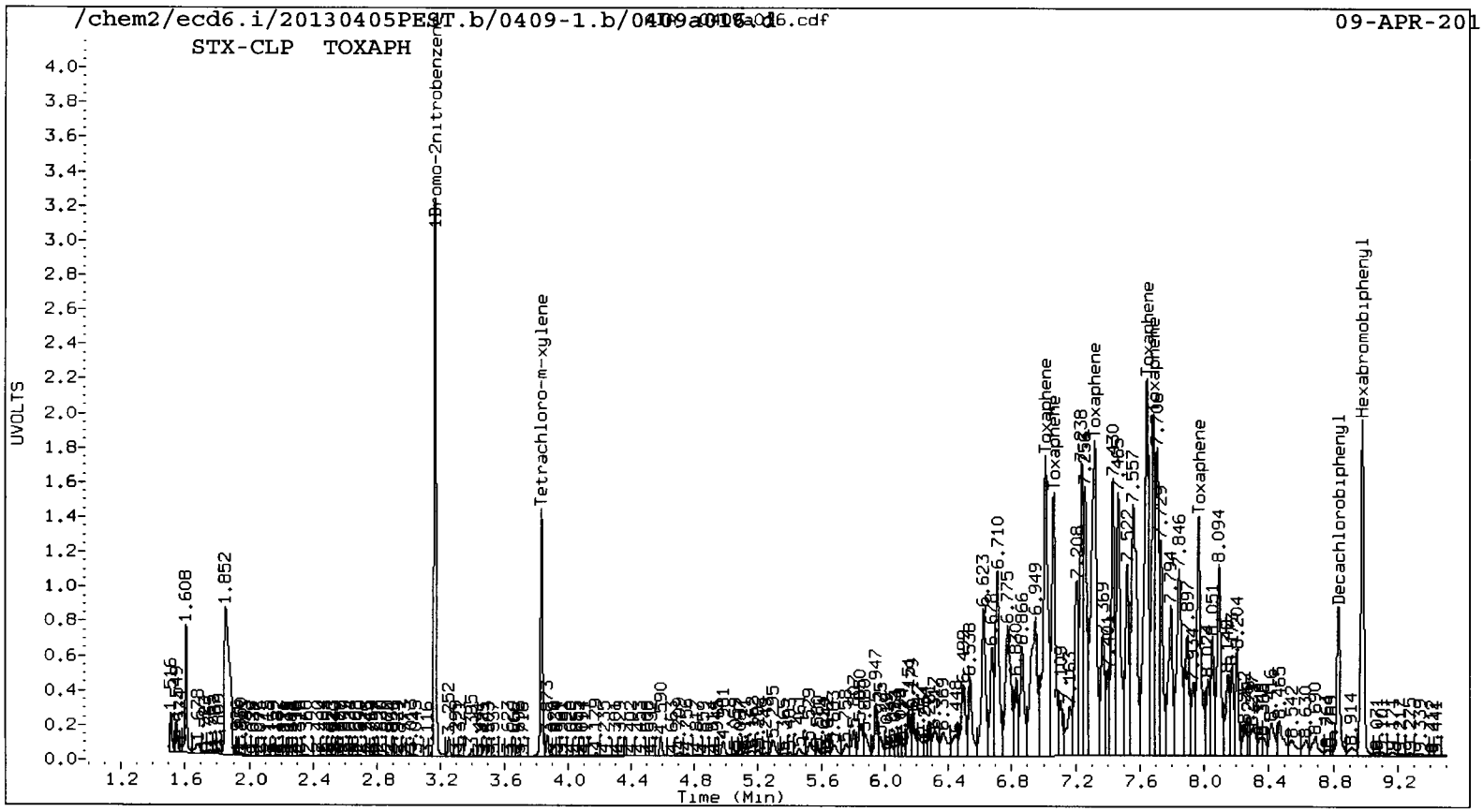
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5601706	2.8
Hexabromobiphenyl	4807902	5203000	8.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	26768327	23.3
Hexabromobiphenyl	7681727	10175799	32.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.011	0.000	7602418	2270.6	1	7.344	0.000	21267780	2275.4
Toxaphene	2	7.063	-0.001	5128042	2250.5	2	7.669	0.001	31664642	2264.0
Toxaphene	3	7.319	-0.001	8618887	2252.9	3	7.899	0.001	33736544	2257.1
Toxaphene	4	7.644	0.000	8613670	2232.3	4	8.367	0.001	24279937	2248.0
Toxaphene	5	7.683	-0.001	5684250	2232.2	5	8.406	0.001	30741947	2247.8
Toxaphene	6	7.966	0.000	4801938	2196.6	NS	---			----
Total STX-CLPAve (6 peaks): 2239.166						Total CLP2Ave (5 peaks): 2258.472				RPD = 1
Corrected Ave (6 peaks): 2239.166						Corrected Ave (5 peaks): 2258.472				RPD = 1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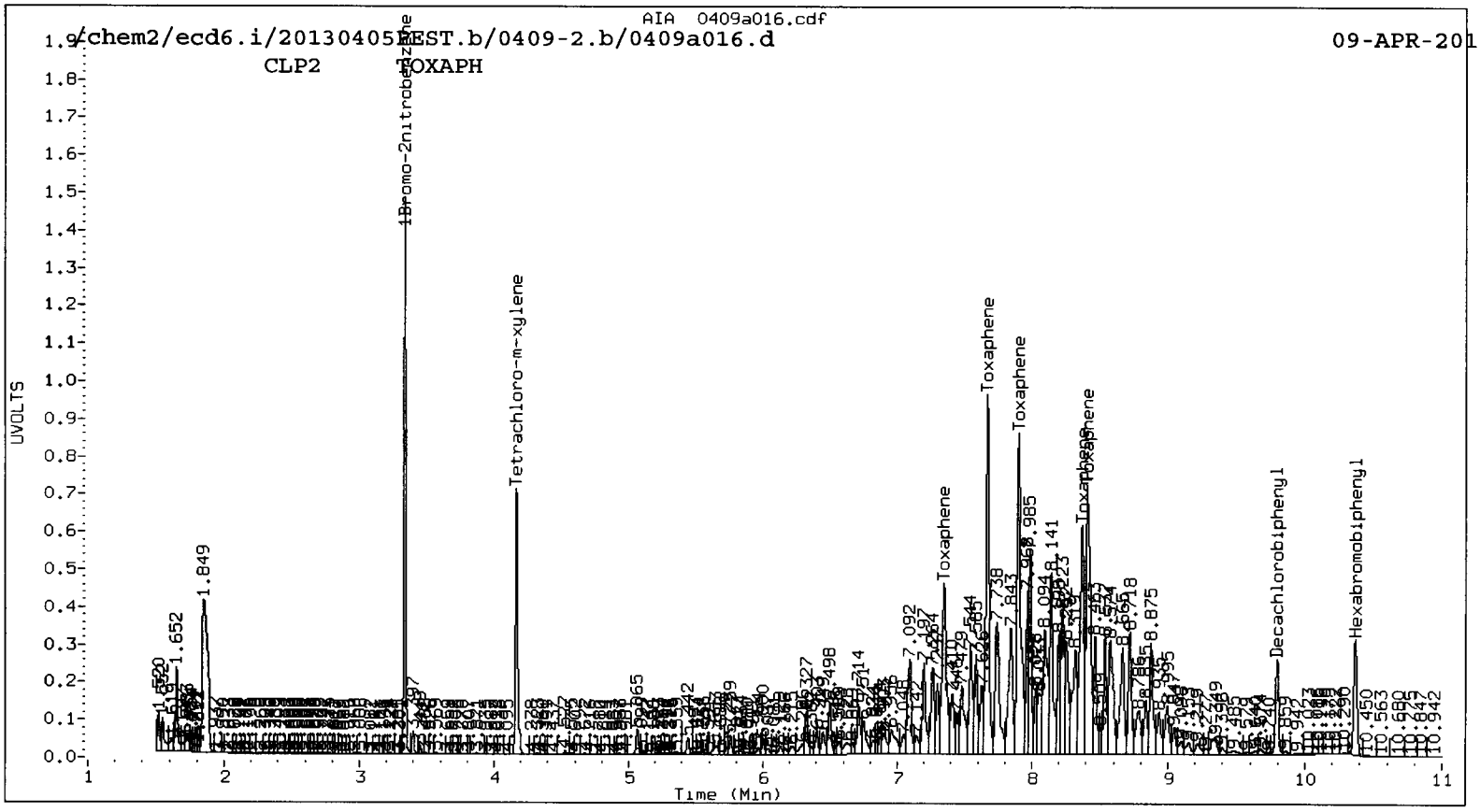
09-APR-201
STX-CLP TOXAPH
UVOLTS
Time (Min)
1.608
1.852
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0409a016.cdf
/chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a016.d
09-APR-201
CLP2 TOXAPH
UVOLTS
Time (Min)
1.652
1.849
Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl

WJ10:02032

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0409-1.b/0409a017.d ARI ID: WJ10MBS1
Data file 2: /chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a017.d Client ID: WJ10MBS1
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 09-APR-2013 15:55
Compound Sublist: wpest Report Date: 04/11/2013 11:40
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.163	-0.001	5256694	3.333	0.000	23706549	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.327	-0.003	20142	4.755	-0.002	64348	0.1742	0.1115	43.9*	alpha-BHC
4.667	-0.020	16166	5.205	0.020	46457	0.3490	0.2065	51.3*	beta-BHC
4.861	0.002	12406	5.508	0.009	131133	0.1206	0.2674	75.7*	delta-BHC
4.614	-0.001	11939	5.093	-0.023	62425	0.1144	0.1229	7.2	gamma-BHC (Lindane)
5.066	0.001	9634	5.580	-0.002	23863	0.0963	0.0507	62.1*	Heptachlor
----			5.894	-0.027	559436	0.0000	1.3032	---	Aldrin
5.941	0.005	3727	6.472	-0.003	40484	0.0416	0.1089	89.5*	Heptachlor epoxide b
6.311	-0.003	3385	6.859	-0.003	34047	0.0411	0.1050	87.4*	Endosulfan I
6.533	-0.004	3766	----			0.0434	0.0000	---	Dieldrin
6.231	-0.004	4776	6.918	-0.002	49955	0.0672	0.1507	76.7*	4,4'-DDE
6.758	0.002	2033	7.421	0.012	53067	0.0292	0.2117	151.5*	Endrin
6.960	-0.001	2266	7.633	0.034	157353	0.0318	0.5716	178.9*	Endosulfan II
6.786	-0.005	1692	7.454	-0.004	35987	0.0255	0.1357	136.7*	4,4'-DDD
7.730	0.000	2130	8.141	0.001	101876	0.0339	0.4456	171.7*	Endosulfan sulfate
7.048	-0.001	1519	7.756	0.011	136254	0.0229	0.5658	184.5*	4,4'-DDT
7.469	-0.005	4796	8.323	-0.007	130446	0.1439	1.3068	160.3*	Methoxychlor
7.970	-0.014	33525	----			0.4250	0.0000	---	Endrin ketone
7.333	-0.006	4895	7.888	-0.008	89672	0.0836	0.4130	132.6*	Endrin aldehyde
6.053	-0.002	5415	6.653	-0.004	97021	0.0591	0.2592	125.8*	gamma-Chlordane
6.180	0.000	4238	6.799	0.003	45291	0.0481	0.1312	92.7*	alpha-Chlordane
2.343	0.002	13774	2.503	0.006	116078	0.1132	0.2556	77.2*	Hexachlorobutadiene
4.179	0.000	62681	4.621	-0.009	116744	0.7440	0.2197	108.8*	Hexachlorobenzene
5.837	-0.003	7277	6.395	0.010	128200	0.1038	0.4186	120.6*	Oxychlordane
----			----			0.0000	0.0000	---	2,4-DDE
6.148	-0.014	27087	6.717	-0.024	60436	0.3242	0.1707	62.0*	trans-Nonachlor
6.382	-0.016	2578	7.114	-0.001	91609	0.0558	0.4935	159.4*	2,4-DDD
----			7.383	-0.021	59320	0.0000	0.3012	---	2,4-DDT
6.807	0.029	4210	----			0.0477	0.0000	---	cis-Nonachlor
7.651	-0.001	2147	8.614	-0.005	234544	0.0407	1.5385	189.7*	Mirex
8.978	-0.001	4482819	10.366	0.000	9229348	80.0000	80.0000	0.0	Hexabromobiphenyl
1.753	-0.001	49256	1.724	-0.008	22792337	0.0000	0.0000	---	Hexachloroethane
6.597	0.016	2234	7.321	-0.015	26912	0.0000	0.0000	---	Kepone
3.835	-0.001	2520456	4.166	-0.003	13349332	31.8743	31.8363	0.1	Tetrachloro-m-xylen
8.830	-0.001	2554313	9.794	-0.001	8903559	39.0358	40.6886	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	79.7	79.6	79.6	42-112
Decachlorobiphenyl	97.6	101.7	97.6	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

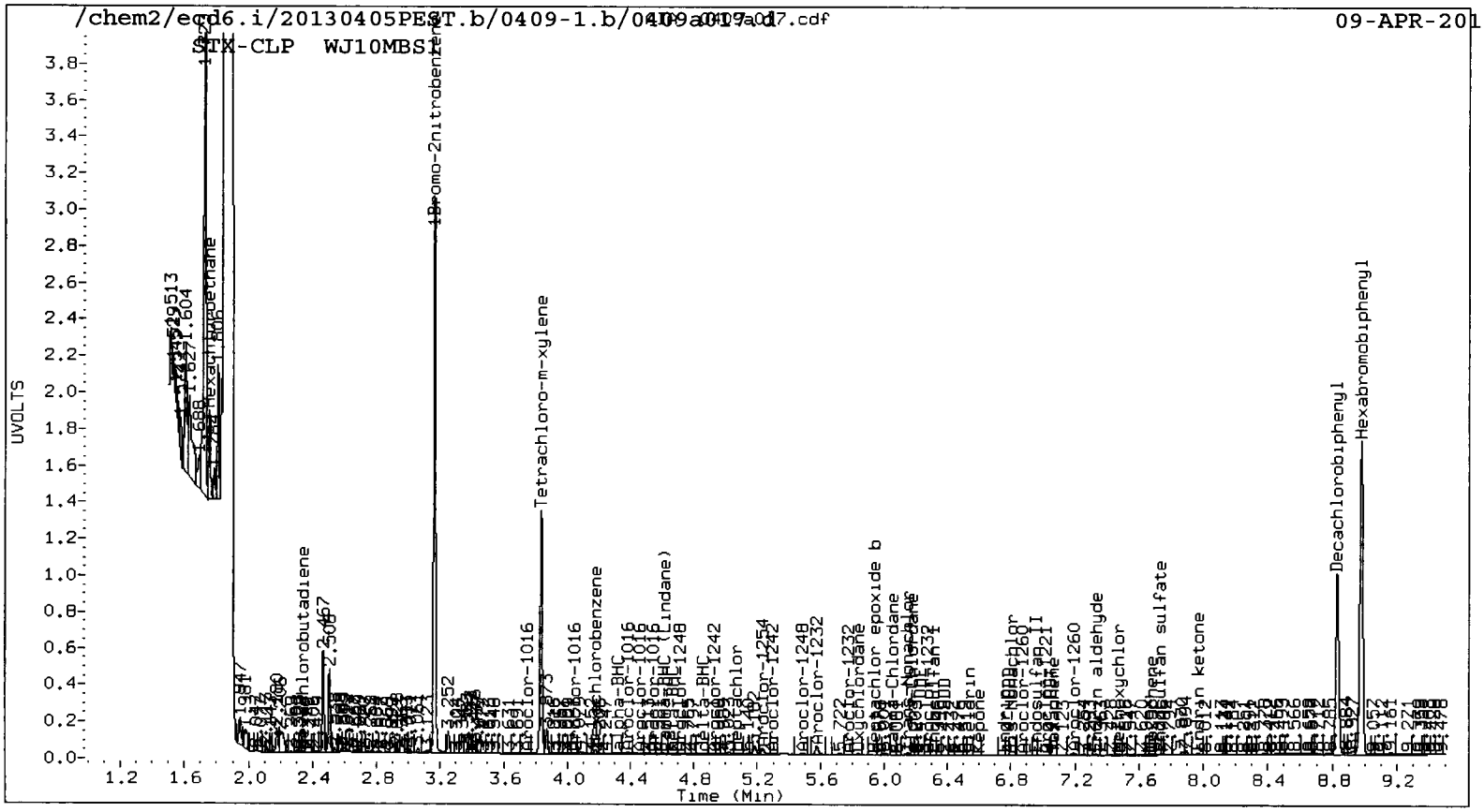
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5256694	-3.5
Hexabromobiphenyl	4807902	4482819	-6.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	23706549	9.2
Hexabromobiphenyl	7681727	9229348	20.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.021	0.010	9450	3.3	1	7.321	-0.023	26912	3.2
Toxaphene	2	7.062	-0.001	2705	1.4	2	7.676	0.008	53504	4.2
Toxaphene	3	7.333	0.013	4895	1.5	3	7.888	-0.010	89672	6.6
Toxaphene	4	7.651	0.007	2147	0.6	4	8.375	0.009	158345	16.2
Toxaphene	5	7.676	-0.008	3683	1.7	5	---			0.0
Toxaphene	6	7.970	0.004	33525	17.8	NS	---			----
Total STX-CLPAve (6 peaks): 4.377						Total CLP2Ave (4 peaks): 7.543				RPD = 53*
Corrected Ave (5 peaks): 1.693						Corrected Ave (3 peaks): 4.669				RPD = 94*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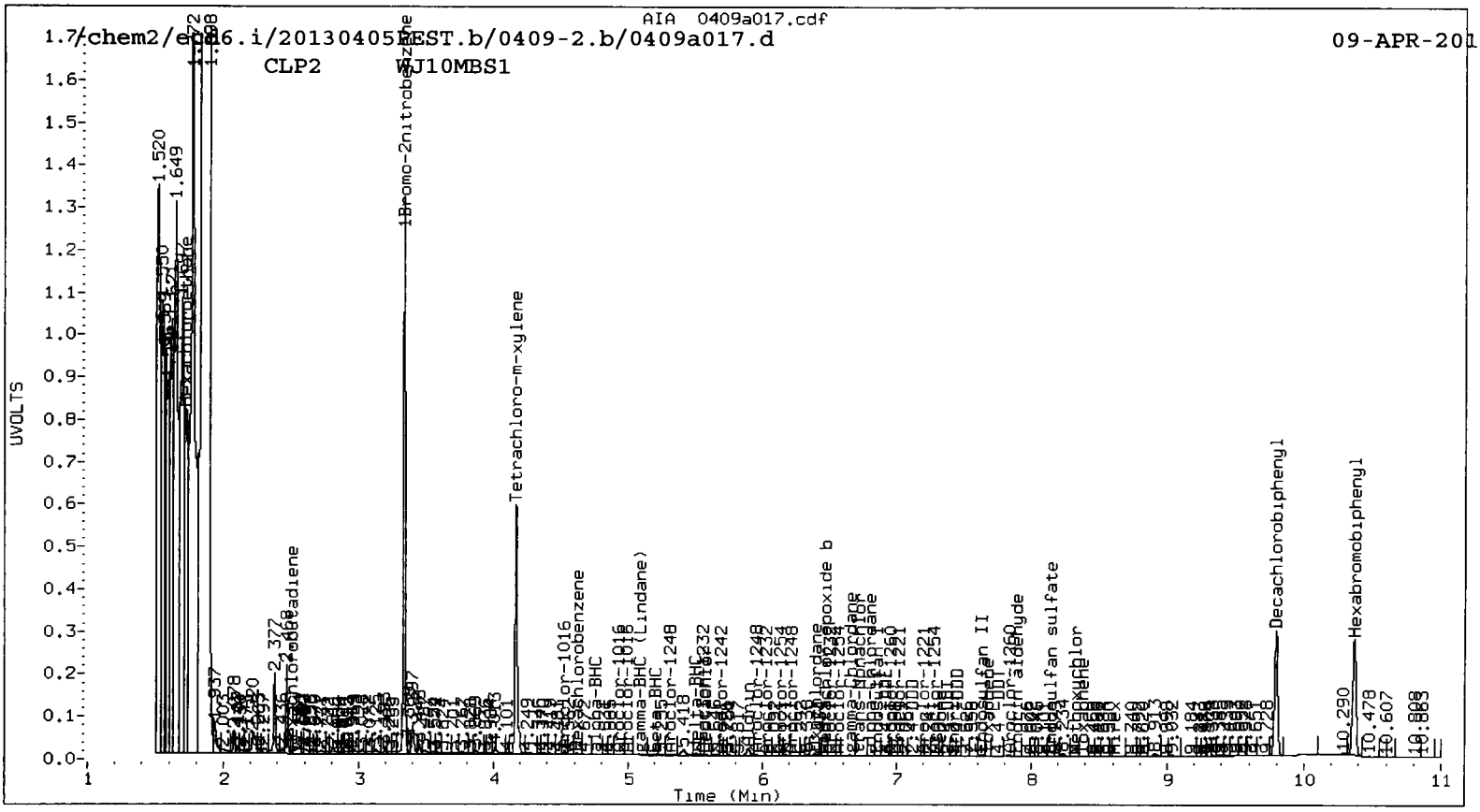
09-APR-201
STX-CLP WJ10MBS1
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 WJ10MBS1
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

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Data file 2: /chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a018.d Client ID: WJ10LCSS1
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 09-APR-2013 16:13
Compound Sublist: wpest Report Date: 04/11/2013 11:40
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	-0.001	5047935	3.333	0.001	23376494	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.330	0.000	2144263	4.756	0.000	10100148	19.3128	17.7550	8.4	alpha-BHC
4.687	-0.001	932840	5.185	0.000	4107772	20.9711	18.5200	12.4	beta-BHC
4.858	0.000	2123162	5.498	-0.001	8806141	21.4846	18.2112	16.5	delta-BHC
4.615	0.000	2028160	5.115	-0.001	8825089	20.2396	17.6255	13.8	gamma-BHC (Lindane)
5.065	0.000	1875796	5.581	-0.001	8418324	19.5309	18.1314	7.4	Heptachlor
5.360	0.000	1742523	5.920	-0.001	7745505	18.4933	18.2984	1.1	Aldrin
5.936	-0.001	1775200	6.475	0.000	7451194	20.6124	20.3190	1.4	Heptachlor epoxide b
6.313	-0.001	1612782	6.863	0.000	6554249	20.4073	20.5019	0.5	Endosulfan I
6.536	-0.001	3510630	7.120	-0.001	13682942	42.1214	42.6417	1.2	Dieldrin
6.233	-0.002	3250679	6.920	0.000	13438801	47.6031	41.1171	14.6	4,4'-DDE
6.755	-0.001	2960617	7.409	0.000	10331879	43.1944	41.9969	2.8	Endrin
6.960	-0.001	2998098	7.597	-0.002	10496800	42.6907	38.8471	9.4	Endosulfan II
6.790	-0.001	2774626	7.457	-0.001	10637134	42.4572	40.8550	3.8	4,4'-DDD
7.728	-0.001	2595745	8.140	0.000	9511949	41.9243	42.3912	1.1	Endosulfan sulfate
7.048	-0.001	2780498	7.745	0.000	9857510	42.4537	41.7072	1.8	4,4'-DDT
7.472	-0.002	6772624	8.328	-0.003	19995090	206.1651	204.0948	1.0	Methoxychlor
7.984	-0.001	3394959	8.632	0.000	9464361	43.6697	41.2363	5.7	Endrin ketone
7.338	-0.001	1226712	7.895	0.000	4598456	21.2691	21.5778	1.4	Endrin aldehyde
6.055	-0.001	1830240	6.657	-0.001	7549658	20.7915	20.4575	1.6	gamma-Chlordane
6.179	-0.001	1737890	6.795	0.000	6895125	20.5254	20.2486	1.4	alpha-Chlordane
2.339	-0.002	1749406	2.496	-0.001	6725831	14.9721	15.0214	0.3	Hexachlorobutadiene
4.179	0.000	1423020	4.629	-0.001	8948252	17.5892	17.0764	3.0	Hexachlorobenzene
5.851	0.011	34191	6.396	0.012	38549	~~0.4946~~	~~0.1277~~	117.9*	Oxychlordane
----			6.592	-0.038	107898	0.0000	0.4861	---	2,4-DDE
----			6.740	-0.001	49382	0.0000	0.1421	---	trans-Nonachlor
6.397	0.000	30611	7.068	-0.047	38030	~~0.6723~~	~~0.2087~~	105.2*	2,4-DDD
6.636	0.000	16492	----			0.3168	0.0000	---	2,4-DDT
----			----			~~0.0000~~	0.0000	---	cis-Nonachlor
7.671	0.018	16320	----			~~0.3140~~	~~0.0000~~	---	Mirex
8.979	-0.001	4417870	10.367	0.001	9058502	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.754	0.000	94965	1.720	-0.012	6611867	~~0.0000~~	~~0.0000~~	---	Hexachloroethane
6.599	0.018	3174	7.338	0.002	76003	~~0.0000~~	0.0000	---	Kepone
3.836	0.000	2632248	4.166	-0.003	13973861	34.6647	33.7963	2.5	Tetrachloro-m-xylen
8.830	-0.001	2676651	9.795	0.000	9450386	41.5068	44.0021	5.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	86.7	84.5	84.5	42-112
Decachlorobiphenyl	103.8	110.0	103.8	59-123
4,4'-DDE	0.0	0.0	0.0~	0- 0
Endrin	1727777.7	0.0	0.0~	10-200
4,4'-DDD	0.0	0.0	0.0~	0- 0
4,4'-DDT	1698147.0	0.0	0.0~	0- 0
Endrin ketone	0.0	0.0	0.0~	0- 0
Endrin aldehyde	0.0	0.0	0.0~	0- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

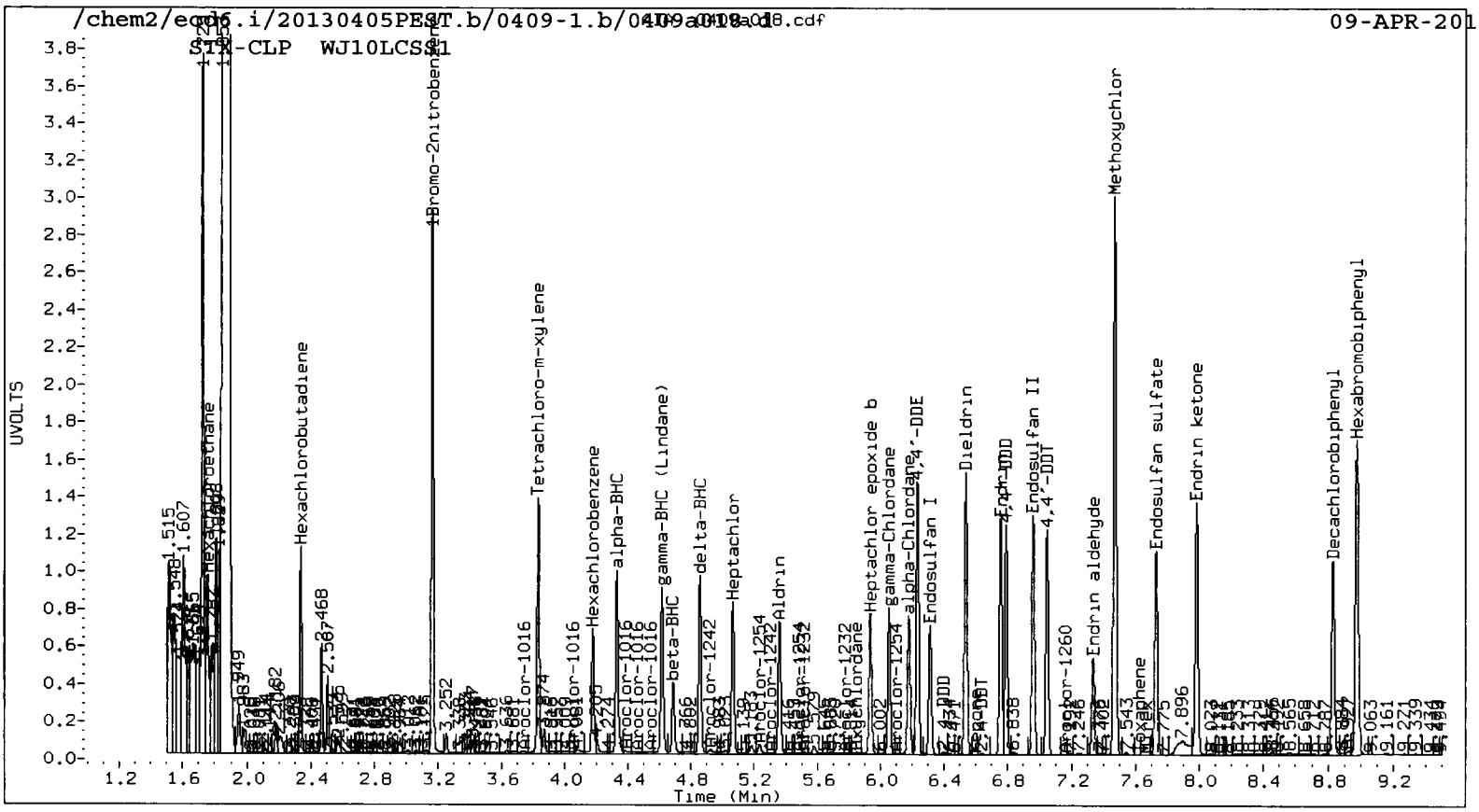
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5047935	-7.4
Hexabromobiphenyl	4807902	4417870	-8.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	23376494	7.7
Hexabromobiphenyl	7681727	9058502	17.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.048	0.036	2780498	978.0	1	7.338	-0.006	76003	9.1
Toxaphene	2	---			0.000	2	7.677	0.009	247493	19.9
Toxaphene	3	7.338	0.017	1226712	377.6	3	7.895	-0.003	4598456	345.6
Toxaphene	4	7.621	-0.023	3542	1.1	4	8.328	-0.039	19995090	2079.6
Toxaphene	5	7.671	-0.013	16320	7.5	5	8.427	0.022	216308	17.8
Toxaphene	6	7.984	0.018	3394959	1829.0	NS	---			----
Total STX-CLPAve (5 peaks): 638.650						Total CLP2Ave (5 peaks): 494.403				RPD = 25
Corrected Ave (4 peaks): 341.069						Corrected Ave (4 peaks): 98.094				RPD = 111*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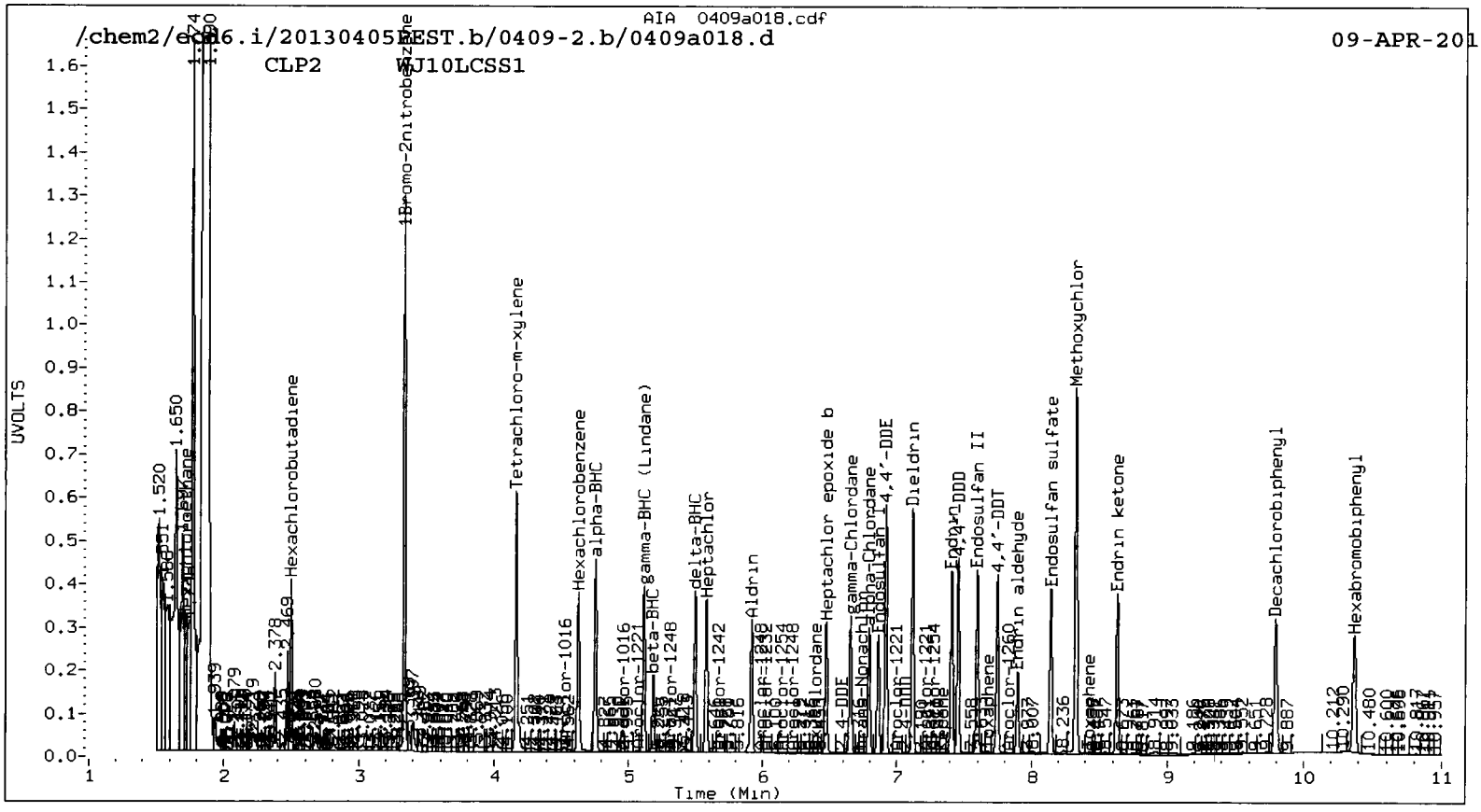
UVOLTS
Time (Min)
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Methoxychlor
Decachlorobiphenyl
Hexabromobiphenyl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09-APR-201
CLP2 WJ10LCSS1
UVOLTS
Time (Min)
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Methoxychlor
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

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Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 09-APR-2013 16:49
Compound Sublist: wpest Report Date: 04/11/2013 11:40
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.163	-0.001	4978204	3.333	0.000	18690919	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.317	-0.013	223176	4.754	-0.003	130232	2.0382	0.2863	150.7*	alpha-BHC
4.667	-0.020	43047	5.208	0.024	304804	0.9813	1.7187	54.6*	beta-BHC
4.854	-0.004	202496	5.511	0.012	1205684	2.0778	3.1184	40.1*	delta-BHC
4.622	0.007	51725	5.155	0.039	162155	0.5234	0.4050	25.5	gamma-BHC (Lindane)
5.065	0.000	94804	5.582	0.000	637684	1.0009	1.7178	52.7*	Heptachlor
5.380	0.020	151511	5.908	-0.013	2859607	1.6305	8.4492	135.3*	Aldrin
5.919	-0.017	245513	6.464	-0.012	851970	2.8907	2.9057	0.5	Heptachlor epoxide b
6.344	0.029	716856	6.850	-0.013	214956	9.1978	0.8409	166.5*	Endosulfan I
6.527	-0.010	79456	7.165	0.044	112582	0.9667	0.4388	75.1*	Dieldrin
6.220	-0.015	724301	6.904	-0.016	370463	10.7553	1.4176	153.4*	4,4'-DDE
6.714	-0.043	10227	7.396	-0.014	383110	0.0993	2.3027	183.5*	Endrin
6.917	-0.044	429315	7.576	-0.023	834207	4.0696	4.5651	11.5	Endosulfan II
6.767	-0.024	33925	----			0.3456	0.0000	---	4,4'-DDD
7.698	-0.031	1650532	8.128	-0.012	1787250	17.7466	11.7778 Y	40.4*	Endosulfan sulfate
7.015	-0.034	114981	7.729	-0.017	168651	1.1687	1.0551	10.2	4,4'-DDT
7.466	-0.007	579169	8.354	0.023	2723768	11.7368	41.1105	111.2*	Methoxychlor
----			8.618	-0.015	294904	0.0000	1.9000	---	Endrin ketone
7.336	-0.003	117477	7.851	-0.044	1946755	1.3560	13.5077	163.5*	Endrin aldehyde
6.037	-0.018	734287	6.674	0.017	446452	8.4583	1.5130	139.3*	gamma-Chlordane
6.201	0.021	919792	6.789	-0.006	712305	11.0154	2.6162 Y	123.2*	alpha-Chlordane
2.335	-0.006	82732	2.500	0.003	134871	0.7180	0.3767	62.3*	Hexachlorobutadiene
4.181	0.002	128404	4.615	-0.014	784716	1.6094	1.8729	15.1	Hexachlorobenzene
5.793	-0.047	373069	6.381	-0.004	672574	3.5930	2.7857	25.3	Oxychlordane
----			6.640	0.010	434301	0.0000	2.4473	---	2,4-DDE
6.137	-0.025	2453708	6.701	-0.039	1234493	19.8378	5.2541	116.2*	trans-Nonachlor
6.373	-0.024	754356	7.085	-0.030	502942	11.0299	4.0821	92.0*	2,4-DDD
6.647	0.010	283199	7.355	-0.049	98234	3.6214	0.7514	131.3*	2,4-DDT
6.813	0.035	346971	7.456	-0.009	562667	2.6540	2.5354	4.6	cis-Nonachlor
7.667	0.015	1012951	8.593	-0.026	216285	12.9734	2.1374	143.4*	Mirex
9.065	0.085	6636302	10.421	0.055	6126073	80.0000	80.0000 IS	0.0	Hexabromobiphenyl M
1.754	0.000	66815	1.740	0.009	1551368	0.0000	0.0000	---	Hexachloroethane
6.547	-0.034	187563	7.293	-0.043	335714	0.0000	0.0000	---	Kepone
3.838	0.001	289828	4.169	0.000	922290	3.8703	2.7898	32.4	Tetrachloro-m-xylene
8.889	0.058	871473	9.754	-0.041	1667204	8.9964	11.4785	24.2	Decachlorobiphenyl

NR

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	9.7	7.0	7.0~	42-112
Decachlorobiphenyl	22.5	28.7	22.5~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

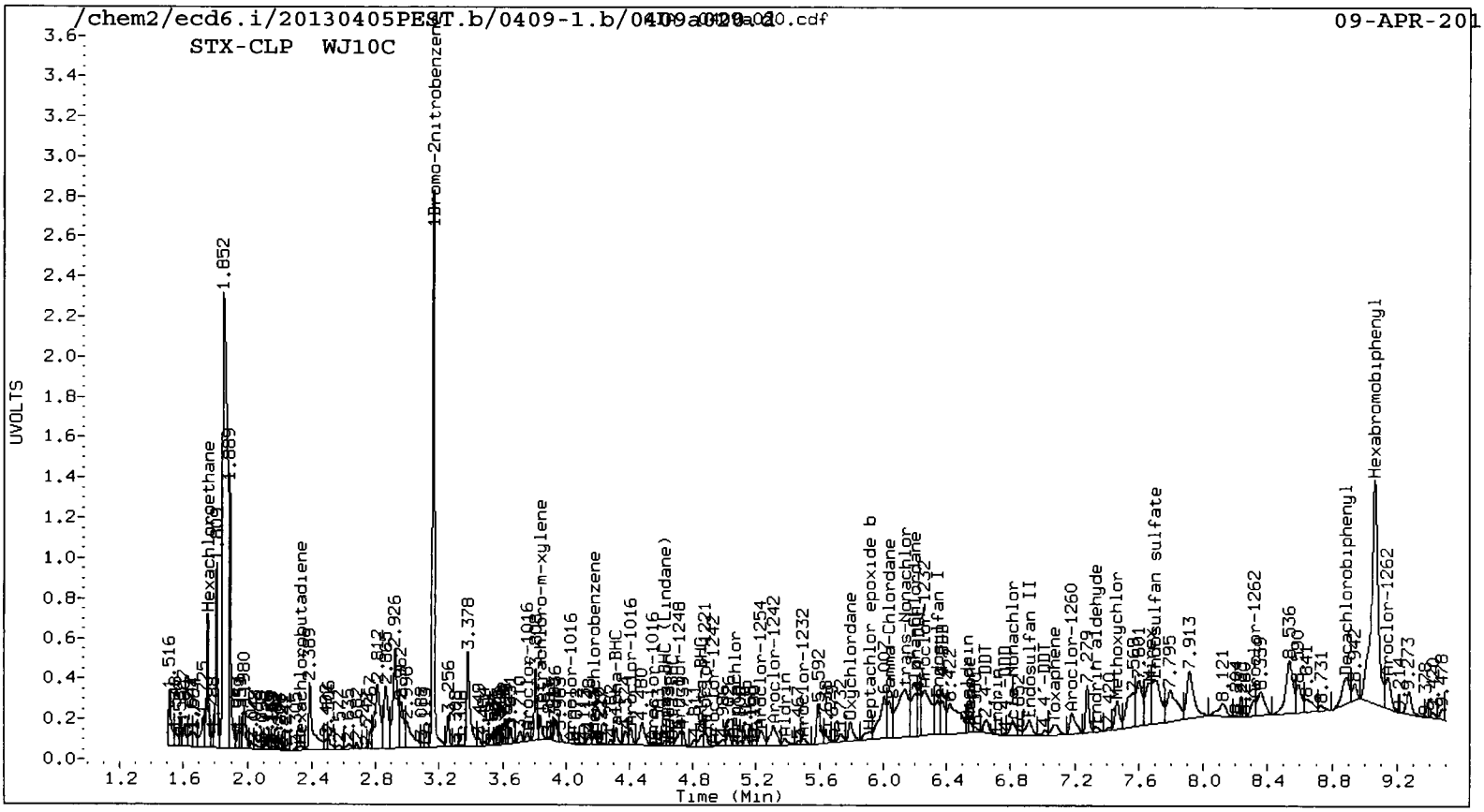
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4978204	-8.6
Hexabromobiphenyl	4807902	6636302	38.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	18690919	-13.9
Hexabromobiphenyl	7681727	6126073	-20.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.015	0.003	114981	26.9	1	7.355	0.010	98234	17.5
Toxaphene	2	7.075	0.012	347674	119.6	2	7.683	0.015	14626	1.7
Toxaphene	3	7.336	0.015	117477	24.1	3	7.922	0.024	126560	14.1
Toxaphene	4	7.667	0.023	1012951	205.8	4	8.354	-0.012	2723768	418.9
Toxaphene	5	7.698	0.014	1650532	508.2	5	8.389	-0.016	2931316	356.0
Toxaphene	6	---			0.000	NS	---			----
Total STX-CLPAve (5 peaks): 176.922						Total CLP2Ave (5 peaks): 161.636				RPD = 9
Corrected Ave (4 peaks): 94.110						Corrected Ave (3 peaks): 11.086				RPD = 158*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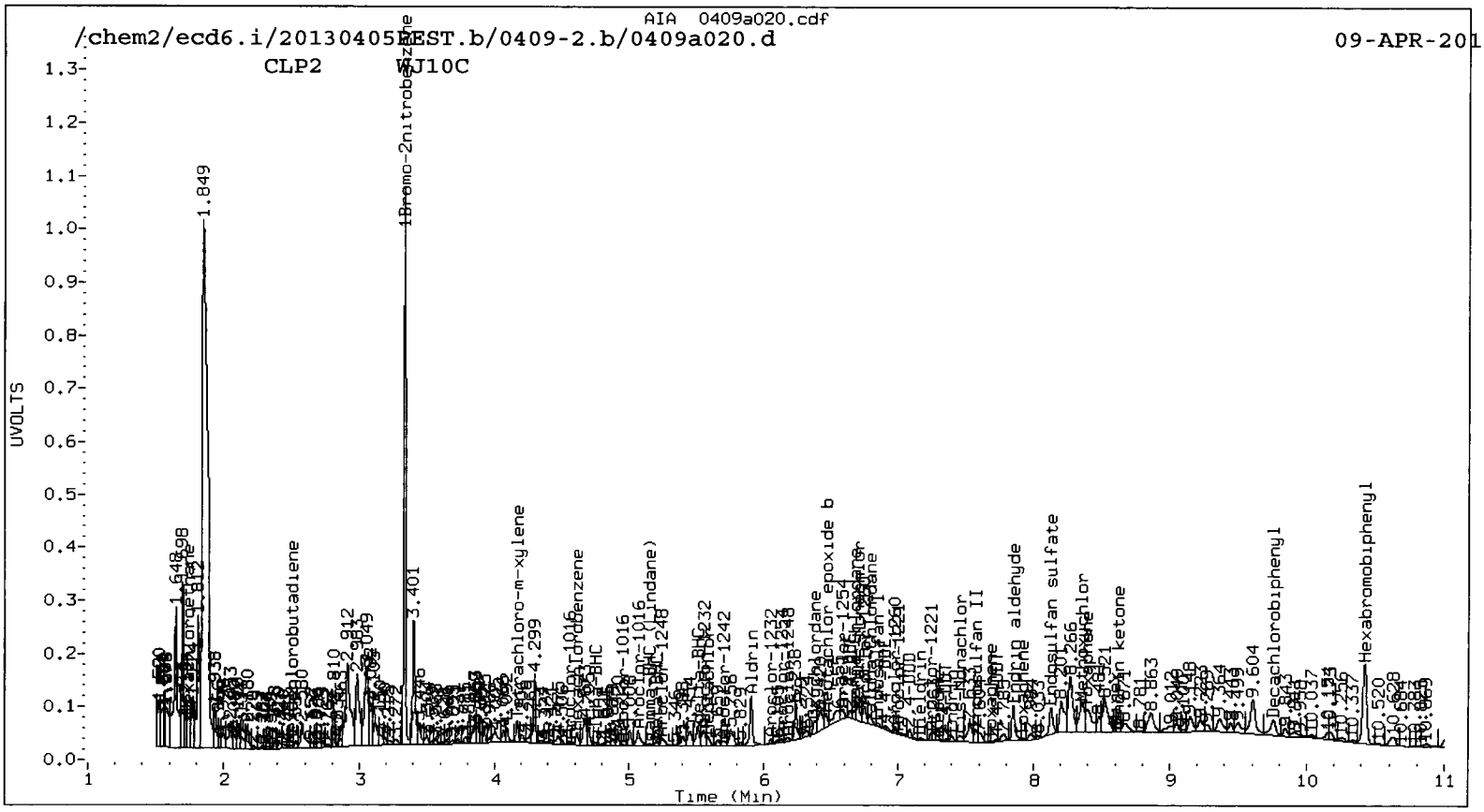
STX-CLP WJ10C
UVOLTS
Time (Min)
1.852
1.889
Hexachloroethane
Hexachlorobutadiene
4-Bromo-2nitrobenzene
3.378
Pentachloro-m-xylene
Hexachlorobenzene
Heptachlor epoxide b
Oxychlordane
Endosulfan sulfate
Methoxychlor
Endrin aldehyde
Endosulfan II
Toxaphene
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
Hexabromobiphenyl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09-APR-201
CLP2 WJ10C
UVOLTS
Time (Min)
1.849
4-Bromo-2nitrobenzene
3.401
Pentachloro-m-xylene
4.299
Hexachlorobenzene
Heptachlor epoxide b
Oxychlordane
Endosulfan sulfate
Methoxychlor
Endrin aldehyde
Endosulfan II
Toxaphene
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0409-1.b/0409a021.d ARI ID: WJ10CMS
Data file 2: /chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a021.d Client ID: SD-SP-01-201303 MS
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 09-APR-2013 17:07
Compound Sublist: wpest Report Date: 04/11/2013 11:40
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.163	-0.001	4762665	3.332	0.000	14750908	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.320	-0.010	481989	4.756	-0.001	615901	4.6012	1.7158	91.4*	alpha-BHC
4.695	0.008	177896	5.189	0.004	562647	4.2388	4.0200	5.3	beta-BHC
4.859	0.001	349175	5.509	0.010	1966798	3.7450	6.4458	53.0*	delta-BHC
4.618	0.003	192786	5.116	0.000	1361480	2.0391	4.3092	71.5*	gamma-BHC (Lindane)
5.068	0.003	192722	5.586	0.004	1799839	2.1268	6.1433	97.1*	Heptachlor
5.371	0.011	378576	5.909	-0.012	3638776	4.2585	13.6232	104.7*	Aldrin
5.915	-0.021	117429	6.478	0.002	5497447	1.4452	23.7573	177.1*	Heptachlor epoxide b
6.341	0.026	3085488	----			41.3806	0.0000	---	Endosulfan I
----			7.138	0.017	1035129	0.0000	5.1122	---	Dieldrin
6.214	-0.021	805649	6.904	-0.016	999867	12.5046	4.8480	88.2*	4,4'-DDE
----			7.431	0.021	800511	0.0000	5.0548	---	Endrin
6.918	-0.042	416888	7.582	-0.017	1475640	3.2024	8.4837	90.4*	Endosulfan II
6.825	0.035	746291	----			6.1606	0.0000	---	4,4'-DDD
7.720	-0.010	1033828	8.149	0.009	2681568	9.0078	18.5650	69.3*	Endosulfan sulfate
7.093	0.044	350049	7.735	-0.011	152451	2.8833	1.0020	96.8*	4,4'-DDT
----			8.366	0.036	8117220	0.0000	128.7114	---	Methoxychlor
8.017	0.032	668759	8.656	0.023	3181043	4.6407	21.5307	129.1*	Endrin ketone
----			7.859	-0.036	2644429	0.0000	19.2765	---	Endrin aldehyde
6.038	-0.017	523708	6.679	0.021	3427359	6.3057	14.7179	80.0*	gamma-Chlordane
6.199	0.019	1298767	6.796	0.000	8205645	16.2579	38.1879	80.6*	alpha-Chlordane
2.339	-0.002	217002	2.496	-0.001	516865	1.9684	1.8294	7.3	Hexachlorobutadiene
4.182	0.003	298652	4.632	0.003	722895	3.9126	2.1862	56.6*	Hexachlorobenzene
5.794	-0.046	331451	6.383	-0.001	1744240	2.5868	9.1540	111.9*	Oxychlordane
5.884	-0.026	90900	6.643	0.012	1681937	0.9421	12.0092	170.9*	2,4-DDE
6.143	-0.019	2734381	6.749	0.009	3419336	17.9147	15.2889	15.8	trans-Nonachlor
6.417	0.020	2965669	7.088	-0.027	975720	35.1398	8.3198	123.4*	2,4-DDD
6.652	0.016	662757	----			6.8679	0.0000	---	2,4-DDT
----			7.487	0.023	859935	0.0000	4.0709	---	cis-Nonachlor
7.609	-0.043	673847	----			6.9937	0.0000	---	Mirex
9.088	0.108	8189269	10.436	0.070	5831166	80.0000	80.0000 IC	0.0	Hexabromobiphenyl M
1.755	0.000	77786	1.740	0.009	388127	0.0000	0.0000	---	Hexachloroethane
6.554	-0.027	966278	7.354	0.018	67181	0.0000	0.0000	---	Kepone
3.838	0.002	359993	4.169	0.001	864967	5.0248	3.3152	41.0*	Tetrachloro-m-xylene
8.900	0.069	1770357	9.766	-0.030	1723167	14.8100	12.4638	17.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	12.6	8.3	8.3~	42-112
Decachlorobiphenyl	37.0	31.2	31.2~	59-123
4,4'-DDE	0.0	0.0	0.0~	0- 0
Endrin	0.0	0.0	0.0~	10-200
4,4'-DDD	0.0	0.0	0.0~	0- 0
4,4'-DDT	576659.4	0.0	0.0~	0- 0
Endrin ketone	0.0	0.0	0.0~	0- 0
Endrin aldehyde	0.0	0.0	0.0~	0- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4762665	-12.6
Hexabromobiphenyl	4807902	8189269	70.3

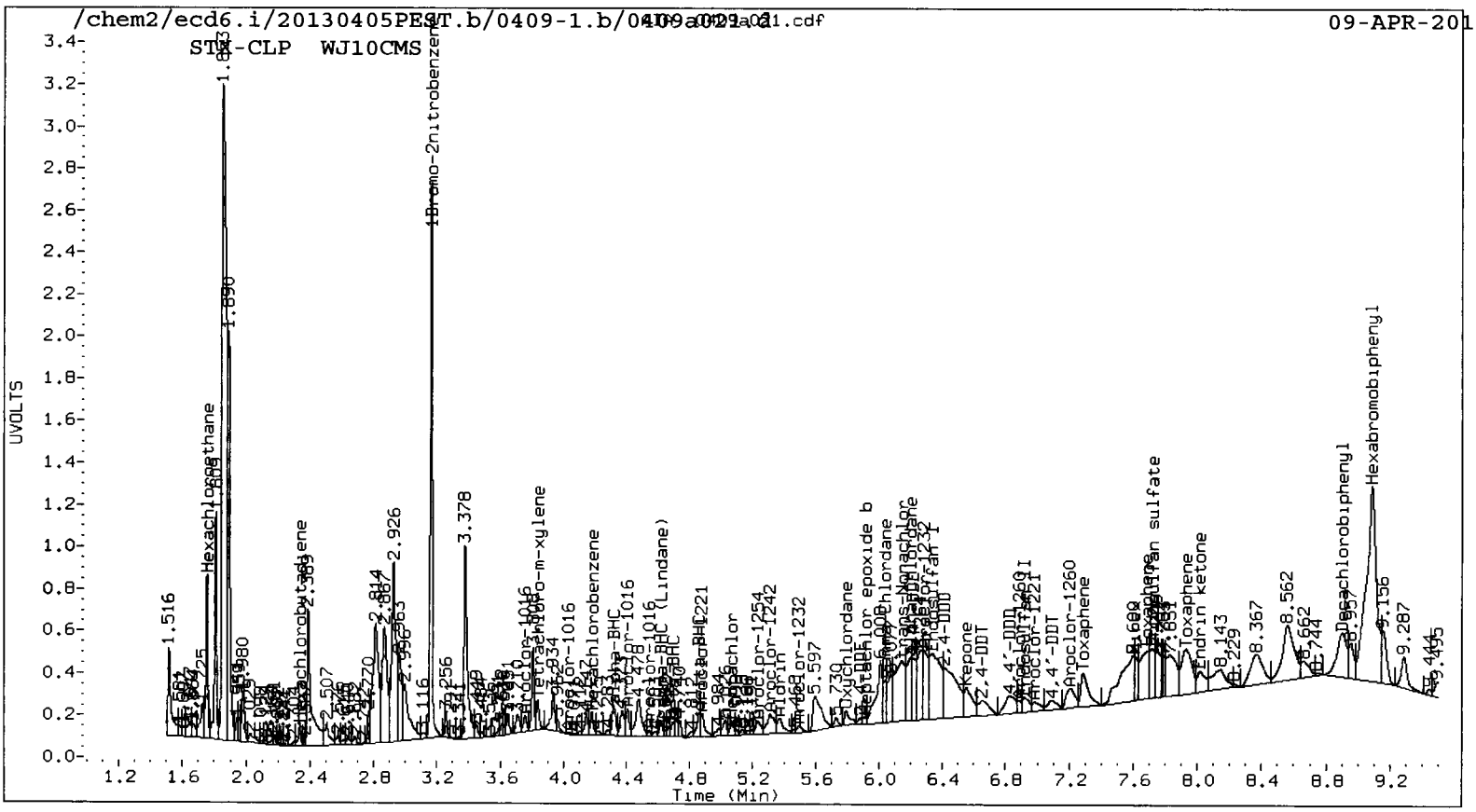
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	14750908	-32.0
Hexabromobiphenyl	7681727	5831166	-24.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.983	-0.029	281391	53.4	1	7.354	0.010	67181	12.5
Toxaphene	2	7.093	0.030	350049	97.6	2	---			0.0
Toxaphene	3	7.286	-0.034	1024024	170.1	3	7.859	-0.039	2644429	308.7
Toxaphene	4	7.609	-0.035	673847	111.0	4	8.366	0.000	8117220	1311.5
Toxaphene	5	7.688	0.004	1629647	406.6	5	---			0.0
Toxaphene	6	7.930	-0.036	1994404	579.6	NS	---			----

Total STX-CLPAve (6 peaks): 236.373 Total CLP2Ave (3 peaks): 544.264 RPD = 79*
Corrected Ave (4 peaks): 108.003 Corrected Ave: < 3 Peaks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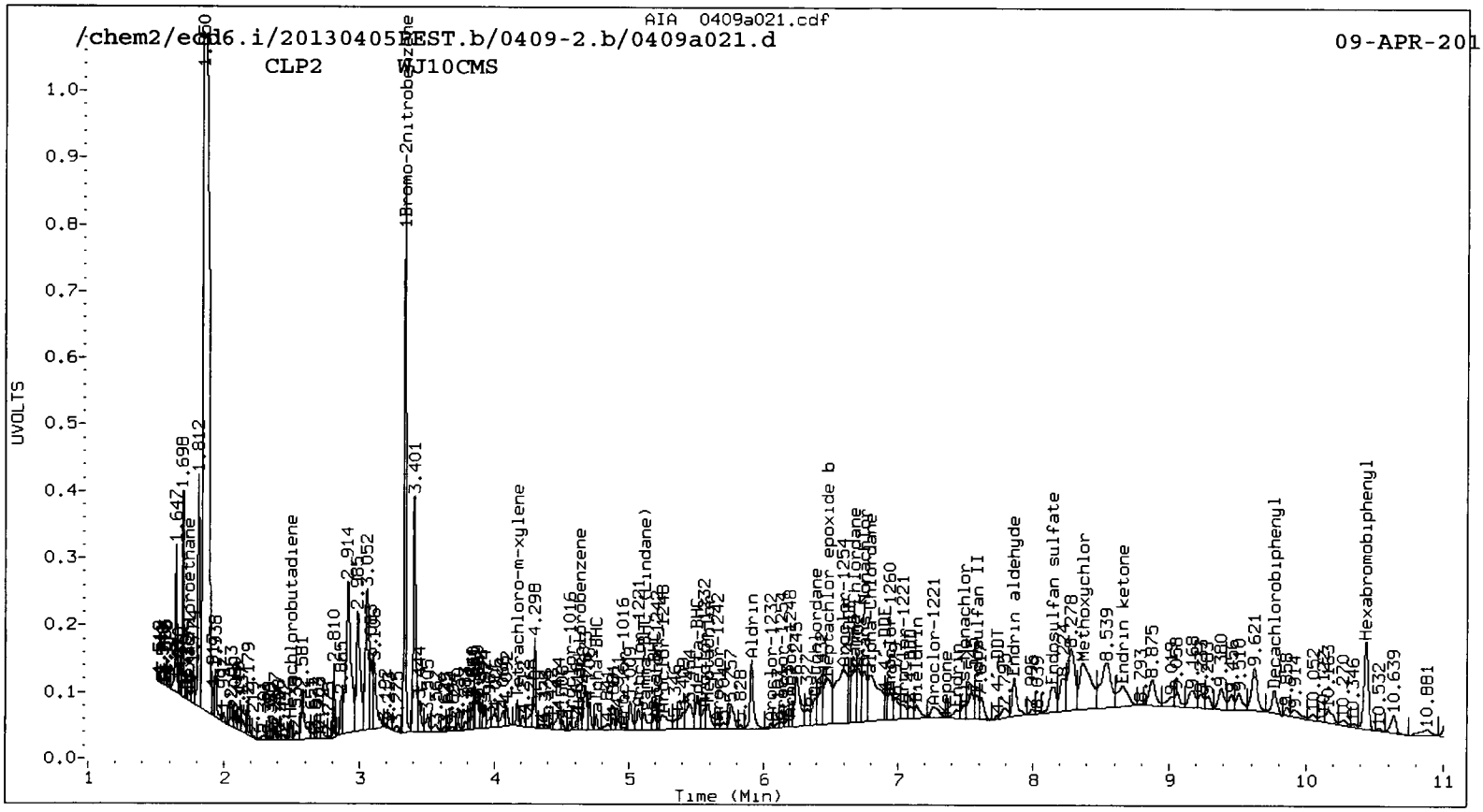
09-APR-201
ST4-CLP WJ10CMS
UVOLTS
Time (Min)
1.516
Hexachloroethane
1.890
Hexachlorobutadiene
2.926
3.378
tBromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
Heptachlor
Aldrin
Heptachlor epoxide b
Chlordane
Nonachlor
Dieldrin
4,4'-DDE
2,4'-DDT
4,4'-DDD
Endosulfan sulfate
Endrin ketone
Toxaphene
Hexabromobiphenyl
Decachlorobiphenyl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09-APR-201
CLP2 WJ10CMS
UVOLTS
Time (Min)
1.812
3.401
tBromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
Heptachlor
Aldrin
Heptachlor epoxide b
Chlordane
Nonachlor
Dieldrin
4,4'-DDE
2,4'-DDT
4,4'-DDD
Endosulfan sulfate
Endrin aldehyde
Methoxychlor
Endrin ketone
Hexabromobiphenyl
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0409-1.b/0409a022.d ARI ID: WJ10CMSD
Data file 2: /chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a022.d Client ID: SD-SP-01-201303 MSD
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 09-APR-2013 17:25
Compound Sublist: wpest Report Date: 04/11/2013 11:56
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	-0.001	4932431	3.332	-0.001	13581015	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.321	-0.009	585277	4.756	0.000	606605	5.3949	1.8355	98.5*	alpha-BHC
4.698	0.011	185934	5.191	0.006	453620	4.2779	3.5203	19.4	beta-BHC
4.862	0.004	344022	5.511	0.012	2073161	3.5627	7.3796	69.8*	delta-BHC
4.620	0.005	251139	5.116	-0.001	608715	2.5649	2.0926	20.3	gamma-BHC (Lindane)
5.070	0.005	188454	5.590	0.008	1994363	2.0081	7.3936	114.6*	Heptachlor
5.371	0.010	372855	5.911	-0.009	4305860	4.0497	17.5093	124.9*	Aldrin
----			6.476	0.000	1650245	0.0000	7.7459	---	Heptachlor epoxide b
6.324	0.009	411490	6.878	0.016	61482	5.3287	0.3310	176.6*	Endosulfan I
----			7.142	0.021	431464	0.0000	2.3145	---	Dieldrin
6.210	-0.025	1714837	6.944	0.024	175706	25.7002	0.9253	186.1*	4,4'-DDE
----			----			0.0000	0.0000	---	Endrin
6.931	-0.030	642481	7.586	-0.013	2311730	5.3960	15.0486	94.4*	Endosulfan II
6.835	0.045	932500	7.433	-0.025	1051596	8.4162	7.1044	16.9	4,4'-DDD
7.727	-0.002	712848	8.153	0.012	2662581	6.7908	20.8721	101.8*	Endosulfan sulfate
7.012	-0.037	171329	7.736	-0.009	144869	1.5429	1.0781	35.5	4,4'-DDT
----			8.292	-0.038	6810163	0.0000	122.2711	---	Methoxychlor
7.944	-0.041	645181	8.659	0.026	3539195	4.8950	27.1238	138.8*	Endrin ketone
7.291	-0.047	1107248	7.864	-0.032	2725546	11.3233	22.4961	66.1*	Endrin aldehyde
6.089	0.034	1013820	6.681	0.024	868200	11.7867	4.0494	97.7*	gamma-Chlordane
----			6.804	0.009	1056832	0.0000	5.3420	---	alpha-Chlordane
2.340	-0.001	175825	2.496	-0.001	381202	1.5400	1.4654	5.0	Hexachlorobutadiene
4.183	0.004	482659	4.635	0.005	839080	6.1056	2.7562	75.6*	Hexachlorobenzene
5.804	-0.036	327839	----			2.7974	0.0000	---	Oxychlordane
----			6.639	0.008	419383	0.0000	3.2524	---	2,4-DDE
6.148	-0.014	2616223	6.755	0.015	447993	18.7405	2.2681	156.8*	trans-Nonachlor
6.375	-0.022	899418	7.105	-0.010	346718	11.6518	3.3475	110.7*	2,4-DDD
6.662	0.025	360966	7.365	-0.038	47124	4.0897	0.4288	162.0*	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.616	-0.036	2614519	----			29.6683	0.0000	---	Mirex
9.098	0.118	7490152	10.442	0.076	5149897	80.0000	80.0000	0.0	Hexabromobiphenyl M
1.756	0.002	51836	1.743	0.011	1277076	0.0000	0.0000	---	Hexachloroethane
6.559	-0.022	181062	----			0.0000	0.0000	---	Kepone
3.839	0.003	335444	4.171	0.002	755869	4.5210	3.1466	35.8	Tetrachloro-m-xylene
8.913	0.082	1630612	9.771	-0.024	2662773	14.9142	21.8080	37.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

WJ10:02045

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	11.3	7.9	7.9~	42-112
Decachlorobiphenyl	37.3	54.5	37.3~	59-123
4,4'-DDE	0.0	0.0	0.0~	0- 0
Endrin	0.0	0.0	0.0~	10-200
4,4'-DDD	0.0	0.0	0.0~	0- 0
4,4'-DDT	308585.8	43.1	43.1~	0- 0
Endrin ketone	0.0	0.0	0.0~	0- 0
Endrin aldehyde	0.0	0.0	0.0~	0- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4932431	-9.5
Hexabromobiphenyl	4807902	7490152	55.8

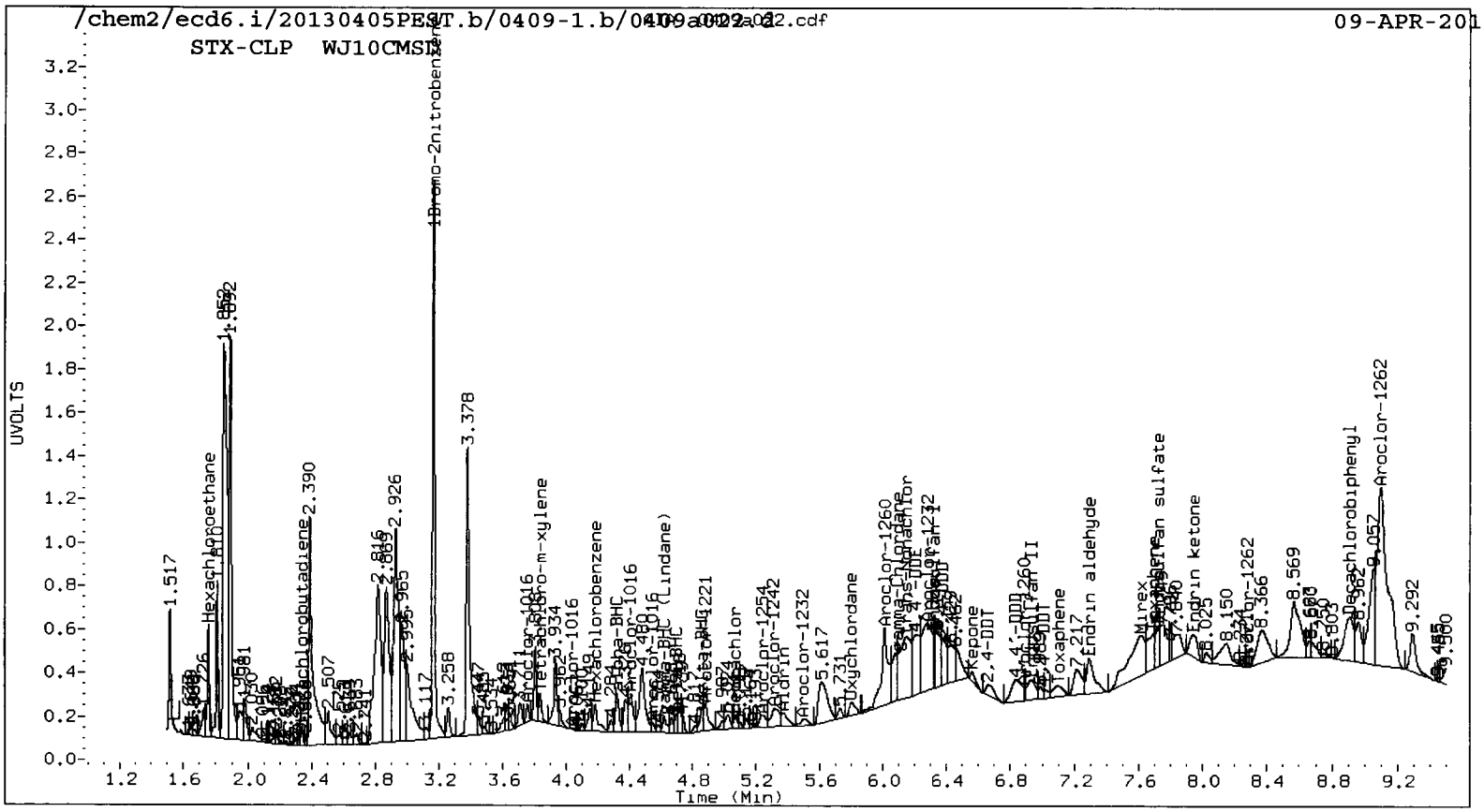
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	13581015	-37.4
Hexabromobiphenyl	7681727	5149897	-33.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.012	0.001	171329	35.5	1	7.365	0.021	47124	10.0
Toxaphene	2	7.100	0.036	481962	146.9	2	---			0.0
Toxaphene	3	7.291	-0.029	1107248	201.0	3	7.864	-0.034	2725546	360.3
Toxaphene	4	7.616	-0.028	2614519	470.7	4	8.386	0.019	8123005	1486.1
Toxaphene	5	7.692	0.008	973398	265.5	5	---			0.0
Toxaphene	6	7.944	-0.023	645181	205.0	NS	---			----

Total STX-CLPAve (6 peaks): 220.788 Total CLP2Ave (3 peaks): 618.778 RPD = 95*
Corrected Ave (5 peaks): 170.812 Corrected Ave: < 3 Peaks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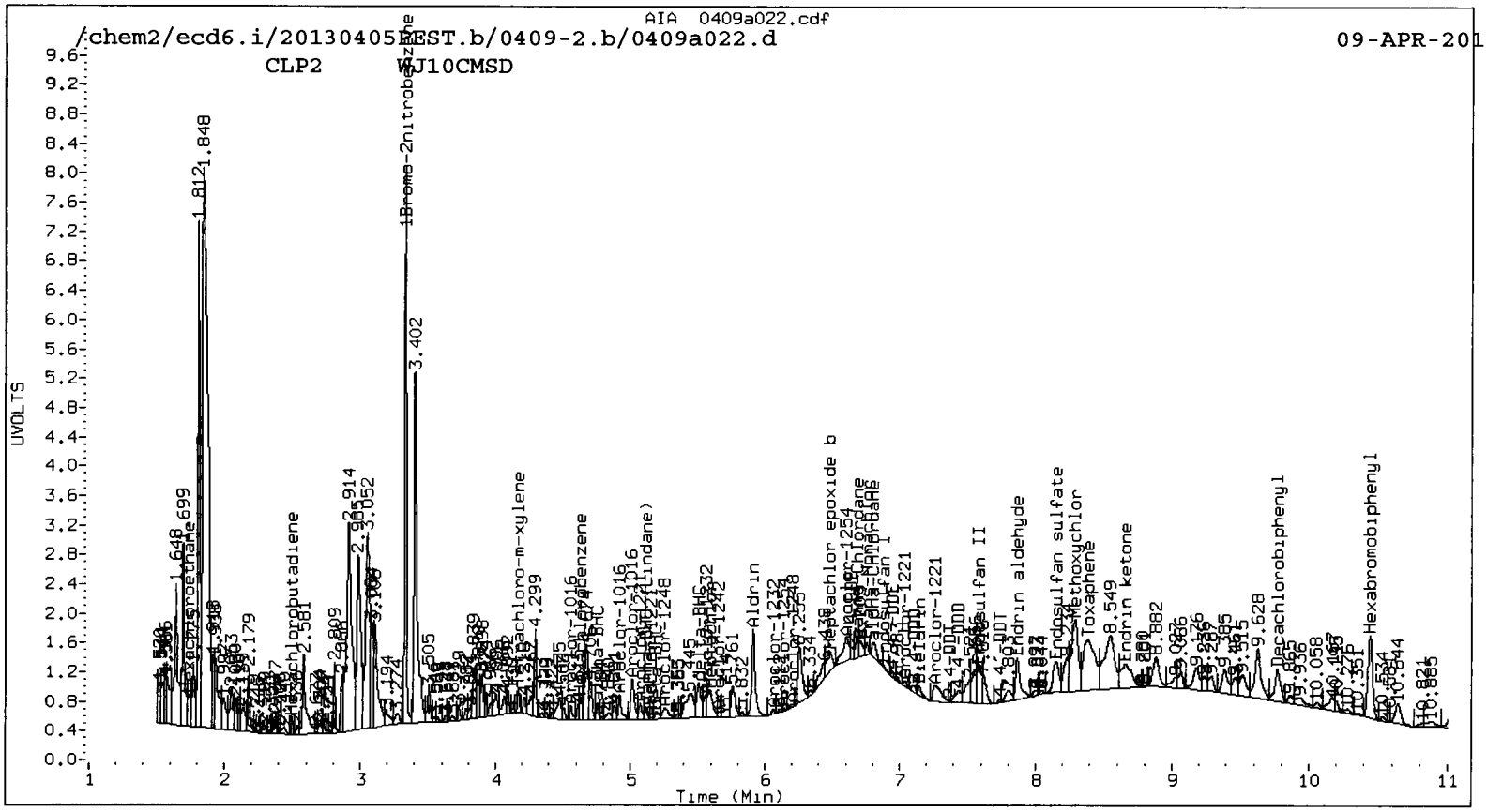
STX-CLP WJ10CMSD
UVOLTS
Time (Min)
1.517
Hexachloroethane
2.390
Hexachlorobutadiene
2.926
1Brome-2nitrobenzene
3.378
Tetrachloro-m-xylene
Hexachlorobenzene
Aroclor-1260
Aroclor-1232
5.617
Oxychlordane
Kepone
2,4'-DDT
Toxaphene
7.217
Endrin aldehyde
Endrin ketone
8.569
Aroclor-1262
9.057
Decachlorobiphenyl
Aroclor-1262
9.292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09-APR-201
CLP2 WJ10CMSD
UVOLTS
Time (Min)
1.812
1.848
1Brome-2nitrobenzene
3.402
Hexachloro-m-xylene
4.299
Hexachlorobenzene
Aroclor-1260
Aroclor-1232
Aroclor-1221
Aroclor-1254
Aroclor-1248
Aroclor-1242
Aldrin
Heptachlor epoxide b
Oxychlordane
Kepone
2,4'-DDT
Endosulfan II
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Toxaphene
8.549
Endrin ketone
9.628
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/0409-1.b/0409a028.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a028.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 09-APR-2013 19:12
Report Date: 04/11/2013 12:30
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	0.000	4733048	3.333	0.001	22266524	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.329	-0.001	1911210	4.755	-0.001	9431810	18.3589	17.4067	5.3	alpha-BHC
4.688	0.000	642860	5.186	0.001	3053779	15.4136	14.4543	6.4	beta-BHC
4.859	0.000	1640882	5.499	0.000	7215537	17.7090	15.6657	12.2	delta-BHC
4.614	-0.001	1418646	5.115	-0.001	6494829	15.0990	13.6181	10.3	gamma-BHC (Lindane)
5.064	-0.001	826430	5.581	-0.001	3614954	9.1773	8.1740	11.6	Heptachlor
5.360	0.000	1657090	5.920	-0.001	6673338	18.7566	16.5513	12.5	Aldrin
5.936	-0.001	1432757	6.475	0.000	5306710	17.7430	15.1925	15.5	Heptachlor epoxide b
6.314	-0.001	1359513	6.863	0.000	4872814	18.3470	16.0021	13.7	Endosulfan I
6.536	-0.001	3002059	7.120	-0.001	10166839	38.4158	33.2635	14.4	Dieldrin
6.234	-0.001	2520690	6.919	-0.001	9991543	39.3689	32.0938	20.4	4,4'-DDE
6.755	-0.002	1575770	7.409	-0.001	4625402	19.6594	18.1807	7.8	Endrin
6.959	-0.001	2371794	7.598	-0.001	9668962	28.8799	34.6022	18.0	Endosulfan II
6.790	-0.001	3000721	7.457	-0.001	9494241	39.2648	35.2617	10.7	4,4'-DDD
7.728	-0.001	2011179	8.140	0.000	6178886	27.7770	26.6280	4.2	Endosulfan sulfate
7.039	-0.010	997708	7.745	0.000	1135974	13.0265	4.6477	94.8*	4,4'-DDT
7.472	-0.001	1198104	8.327	-0.003	3575584	31.1877	35.2921	12.3	Methoxychlor
7.984	-0.001	1946077	8.632	0.000	4796452	21.4061	20.2083	5.8	Endrin ketone
7.337	-0.001	1765523	7.895	0.000	5775773	26.1764	26.2076	0.1	Endrin aldehyde
6.055	0.000	1439264	6.657	-0.001	5440814	17.4378	15.4780	11.9	gamma-Chlordane
6.179	-0.001	1380589	6.795	0.000	5010139	17.3903	15.4465	11.8	alpha-Chlordane
2.340	-0.001	2054387	2.496	-0.001	7918691	18.7520	18.5671	1.0	Hexachlorobutadiene
4.179	0.000	1301679	4.629	0.000	8929359	17.1598	17.8898	4.2	Hexachlorobenzene
8.980	0.001	5166326	10.369	0.003	9367729	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	2549822	4.166	-0.003	12570922	35.8132	31.9188	11.5	Tetrachloro-m-xylen
8.831	0.000	2681005	9.796	0.001	6748475	35.5513	30.3845	15.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	89.5	79.8	79.8~	115- 0
Decachlorobiphenyl	88.9	76.0	76.0~	115- 0

WJ10:02048

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

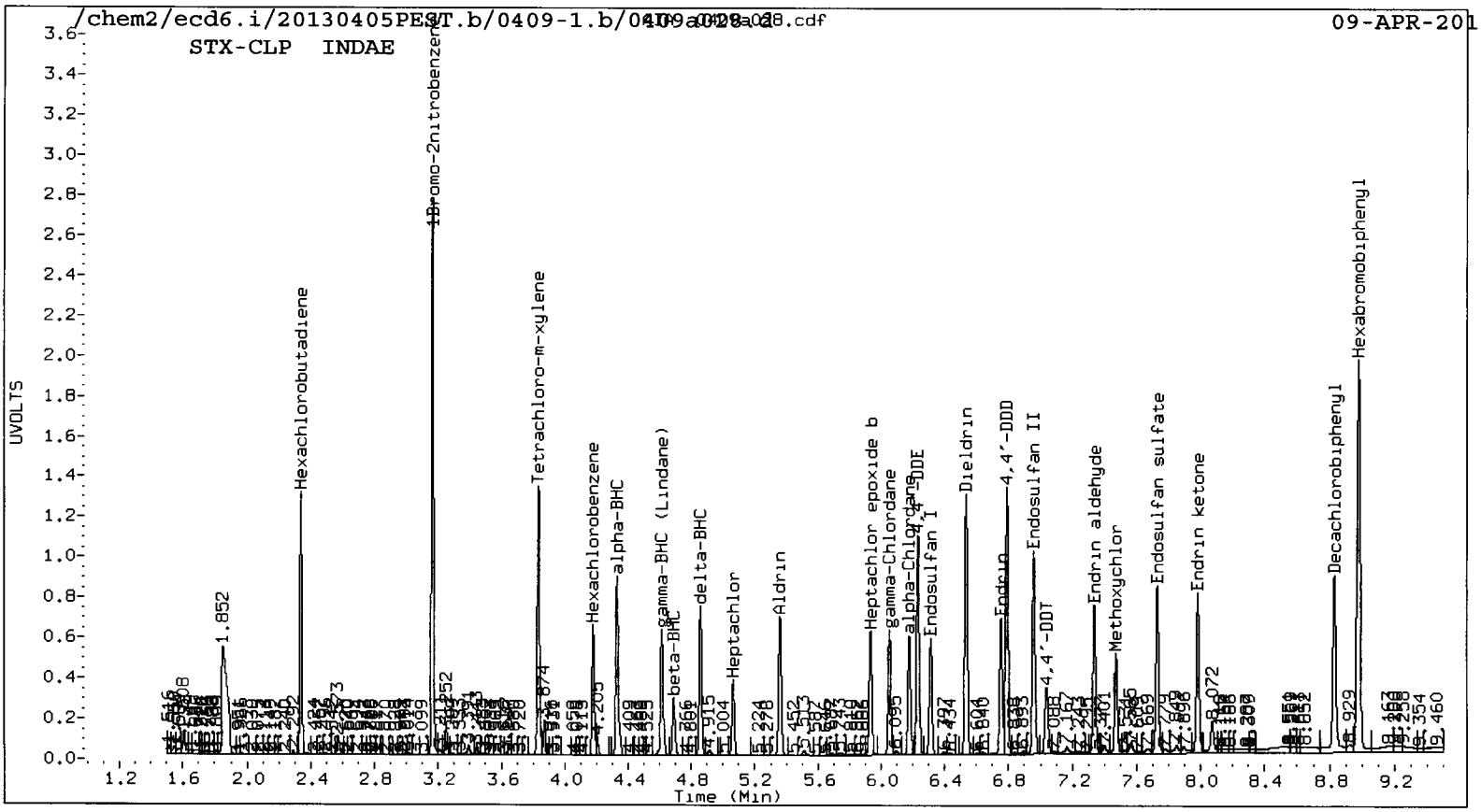
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4733048	-13.1
Hexabromobiphenyl	4807902	5166326	7.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	22266524	2.6
Hexabromobiphenyl	7681727	9367729	21.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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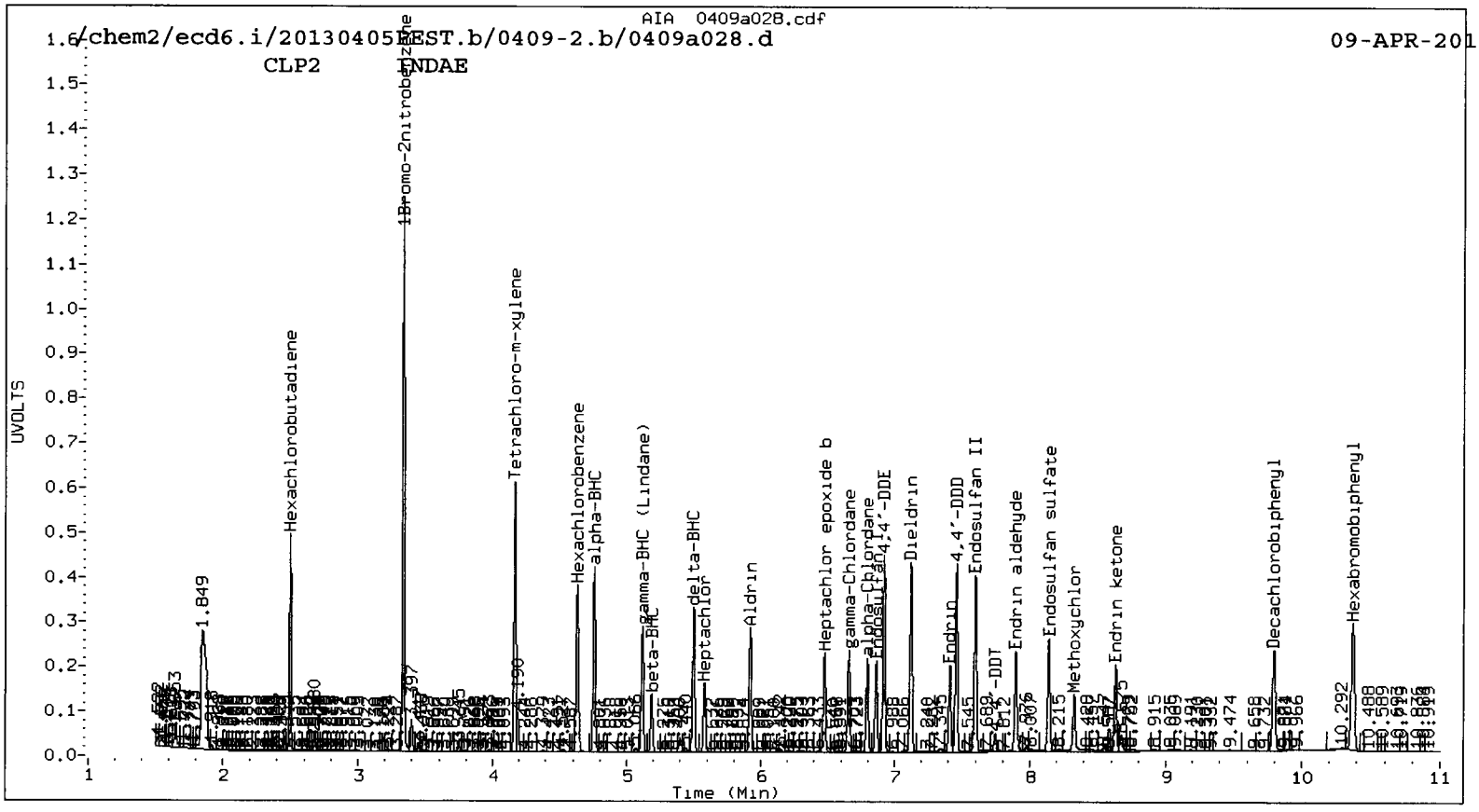
09-APR-201
STX-CLP INDAE
UVOLTS
Time (Min)
1.852
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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09-APR-201
CLP2 INDAE
UVOLTS
Time (Min)
1.849
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0409-1.b/0409a029.d ARI ID: TOXAPH
Data file 2: /chem2/ecd6.i/20130405PEST.b/0409-2.b/0409a029.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 09-APR-2013 19:30
Compound Sublist: TOXAPH Report Date: 04/11/2013 12:30
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	-0.001	4865993	3.333	0.001	22690681	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.981	0.001	5419349	10.370	0.004	9846928	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	2571875	4.167	-0.002	14712372	35.1360	36.6578	4.2	Tetrachloro-m-xylen
8.831	0.000	2648007	9.796	0.001	6770056	33.4744	28.9982	14.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	87.8	91.6	87.8~	150- 0
Decachlorobiphenyl	83.7	72.5	72.5~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

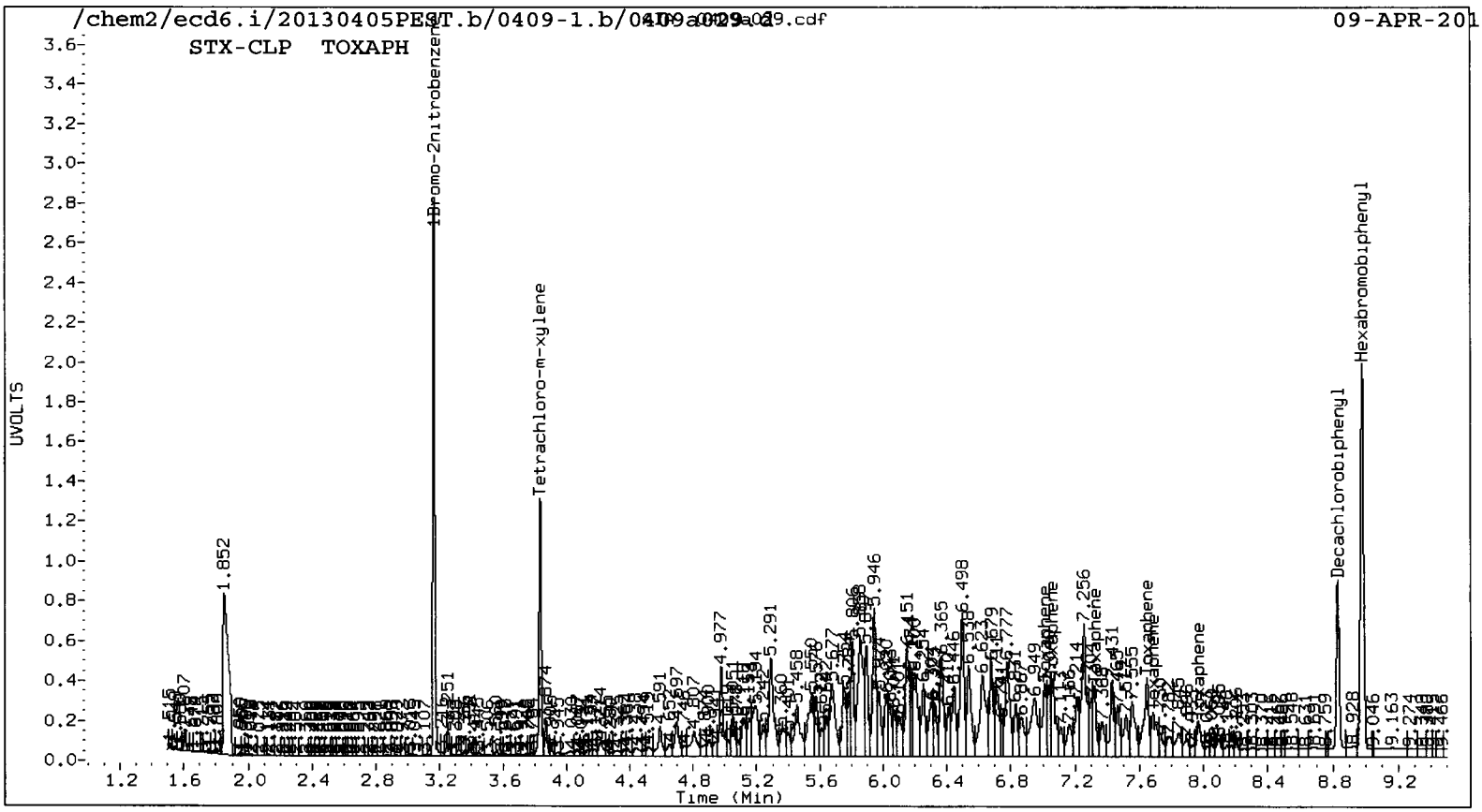
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4865993	-10.7
Hexabromobiphenyl	4807902	5419349	12.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	22690681	4.6
Hexabromobiphenyl	7681727	9846928	28.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.012	0.000	1377083	394.9	1	7.344	0.000	8340276	922.1
Toxaphene	2	7.060	-0.003	1472088	620.2	2	7.670	0.002	8500828	628.1
Toxaphene	3	7.322	0.001	1081678	271.5	3	7.897	-0.002	7033387	486.3
Toxaphene	4	7.647	0.002	1672128	416.0	4	8.368	0.002	2804723	268.4
Toxaphene	5	7.685	0.001	1033998	389.8	5	8.407	0.001	2579267	194.9
Toxaphene	6	7.967	0.001	737345	323.8	NS	---			----
Total STX-CLPAve (6 peaks): 402.712						Total CLP2Ave (5 peaks): 499.950				RPD = 22
Corrected Ave (6 peaks): 402.712						Corrected Ave (4 peaks): 394.407				RPD = 2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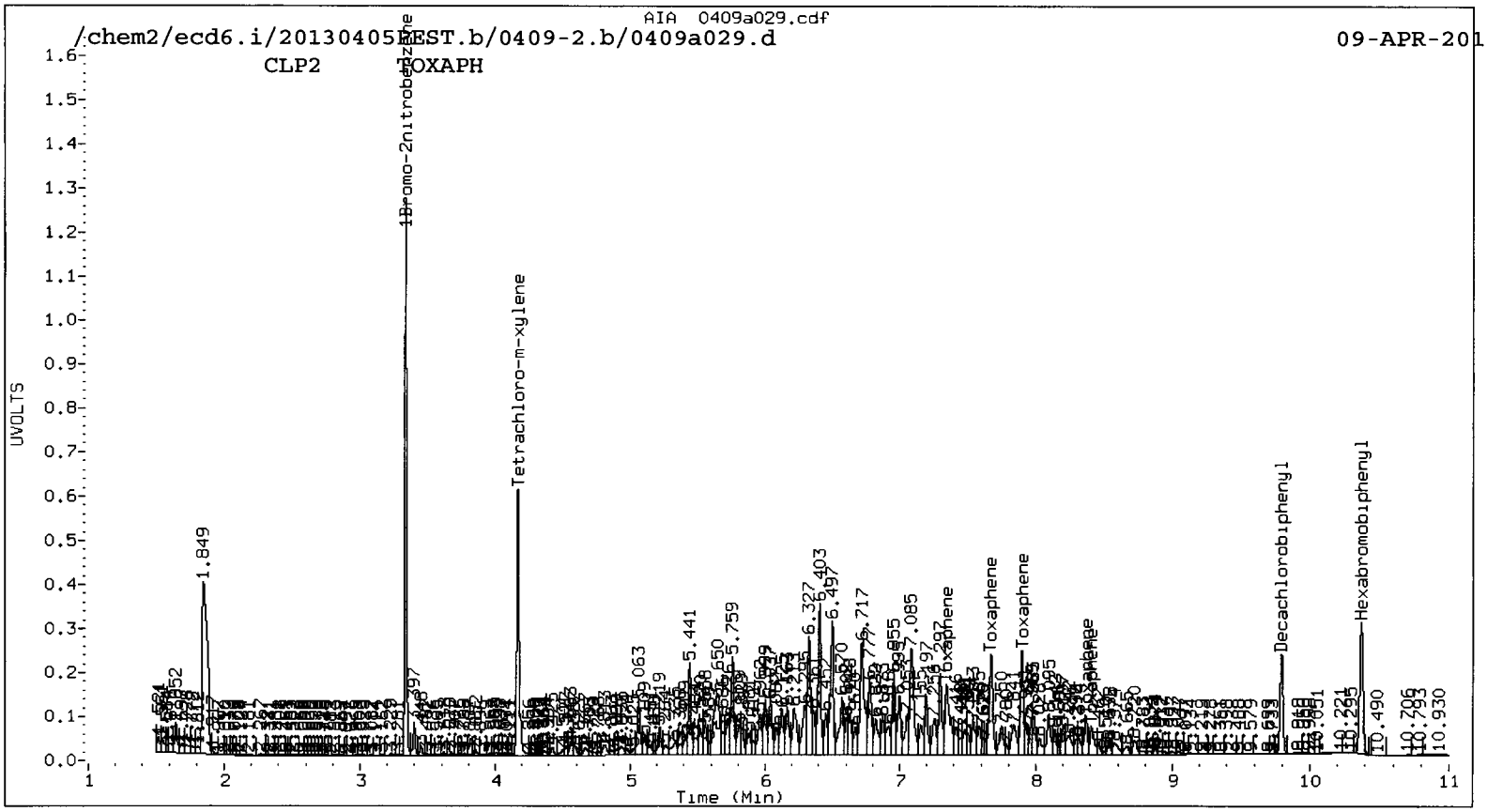
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl
1.852
Toxaphene
UVOLTS
Time (Min)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CLP2 TOXAPH
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl
1.849
Toxaphene
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/0410-1.b/0410a009.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130405PEST.b/0410-2.b/0410a009.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 10-APR-2013 16:46
Compound Sublist: INDA Report Date: 04/11/2013 12:34
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.165	0.000	4485056	3.334	0.002	22308017	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.329	0.000	2437110	4.756	0.000	13173853	24.7051	24.2675	1.8	alpha-BHC
4.688	0.000	897559	5.186	0.001	4806036	22.7103	22.7059	0.0	beta-BHC
4.859	0.000	2079268	5.499	0.000	10786975	23.6810	23.3761	1.3	delta-BHC
4.615	0.000	2179547	5.115	-0.001	11495732	24.4801	24.0590	1.7	gamma-BHC (Lindane)
5.065	0.000	2031222	5.582	0.000	10264712	23.8035	23.1671	2.7	Heptachlor
5.360	-0.001	2006049	5.920	-0.001	9437895	23.9620	23.3645	2.5	Aldrin
5.936	-0.001	1807890	6.474	-0.001	8162529	23.6264	23.3248	1.3	Heptachlor epoxide b
6.312	-0.002	1654626	6.862	-0.001	7201469	23.5643	23.6053	0.2	Endosulfan I
6.535	-0.002	3599177	7.119	-0.002	14519694	48.6035	47.4167	2.5	Dieldrin
6.233	-0.002	3393694	6.919	-0.001	14466819	55.9345	46.3824	18.7	4,4'-DDE
6.754	-0.002	3084850	7.409	-0.001	11018938	49.6633	45.1241	9.6	Endrin
6.959	-0.002	2914052	7.597	-0.002	11112319	45.7869	41.4321	10.0	Endosulfan II
6.789	-0.001	2843197	7.456	-0.002	11129740	48.0076	43.0662	10.9	4,4'-DDD
7.727	-0.002	2603610	8.140	-0.001	9228846	46.4019	41.4366	11.3	Endosulfan sulfate
7.048	-0.001	2828905	7.745	-0.001	9749472	47.6614	41.5580	13.7	4,4'-DDT
7.471	-0.002	6976961	8.326	-0.004	20259763	234.3584	208.3404	11.8	Methoxychlor
7.983	-0.002	3193298	8.632	-0.001	9205969	45.3254	40.4100	11.5	Endrin ketone
7.337	-0.002	2391327	7.894	-0.001	8577869	45.7510	40.5513	12.1	Endrin aldehyde
6.054	-0.001	1832587	6.656	-0.001	8130201	23.4309	23.0858	1.5	gamma-Chlordane
6.179	-0.001	1720974	6.794	-0.001	7492174	22.8765	23.0557	0.8	alpha-Chlordane
2.341	0.001	2545106	2.498	0.000	10732563	24.5157	25.1181	2.4	Hexachlorobutadiene
4.180	0.000	1801286	4.630	0.000	12111110	25.0591	24.2193	3.4	Hexachlorobenzene
8.979	-0.001	4003657	10.366	0.000	8991371	80.0000	80.0000	0.0	Hexabromobiphenyl
3.837	0.000	3447402	4.168	-0.001	19171213	51.0973	48.5870	5.0	Tetrachloro-m-xylen
8.830	-0.001	2743045	9.793	-0.002	9322621	46.9371	43.7313	7.1	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	127.7	121.5	121.5~	115- 0
Decachlorobiphenyl	117.3	109.3	109.3~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

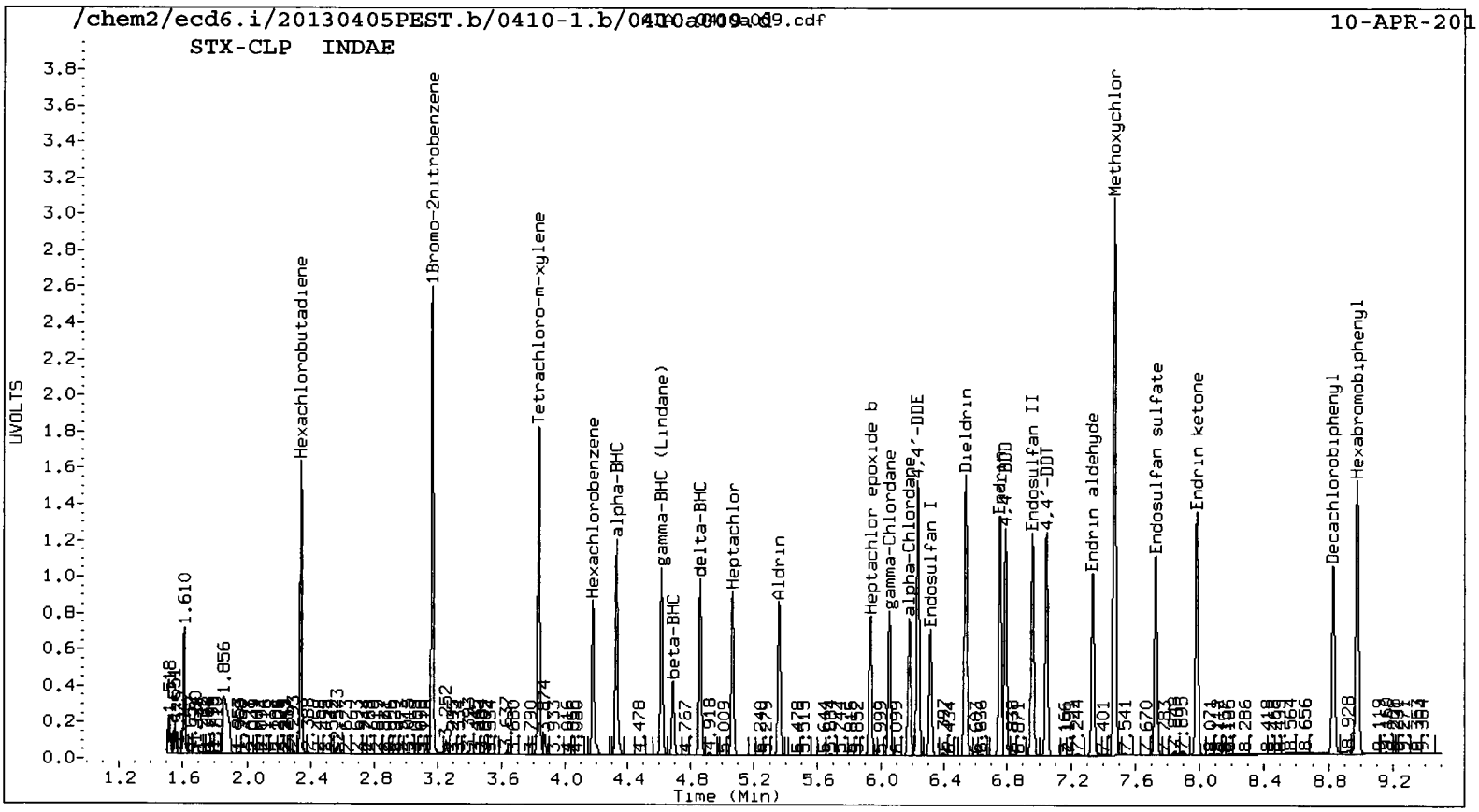
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4485056	-17.7
Hexabromobiphenyl	4807902	4003657	-16.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	22308017	2.8
Hexabromobiphenyl	7681727	8991371	17.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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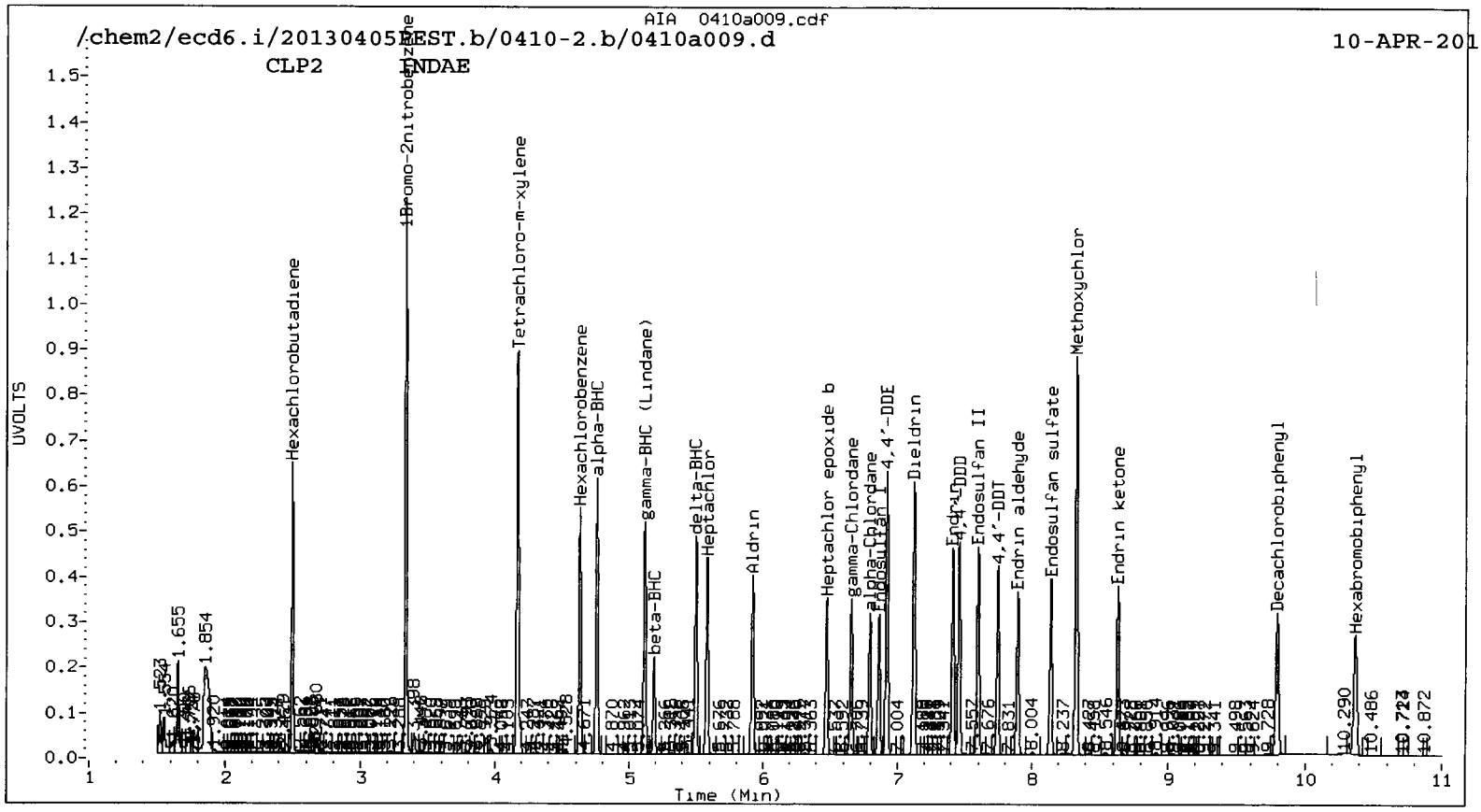
10-APR-201
STX-CLP INDAE
UVOLTS
Time (Min)
1.610
1.856
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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10-APR-201
CLP2 INDAE
UVOLTS
Time (Min)
1.655
1.854
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/0410-1.b/0410a010.d ARI ID: TOXAPH
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Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 10-APR-2013 17:04
Compound Sublist: TOXAPH Report Date: 04/11/2013 12:34
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.165	0.000	4769884	3.334	0.001	23664959	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.979	-0.001	4477527	10.367	0.001	9515182	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	3261633	4.167	-0.002	18225273	45.4571	43.5412	4.3	Tetrachloro-m-xylen
8.830	-0.001	2857699	9.794	-0.001	9310760	43.7239	41.2713	5.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	113.6	108.9	108.9~	150- 0
Decachlorobiphenyl	109.3	103.2	103.2~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4769884	-12.5
Hexabromobiphenyl	4807902	4477527	-6.9

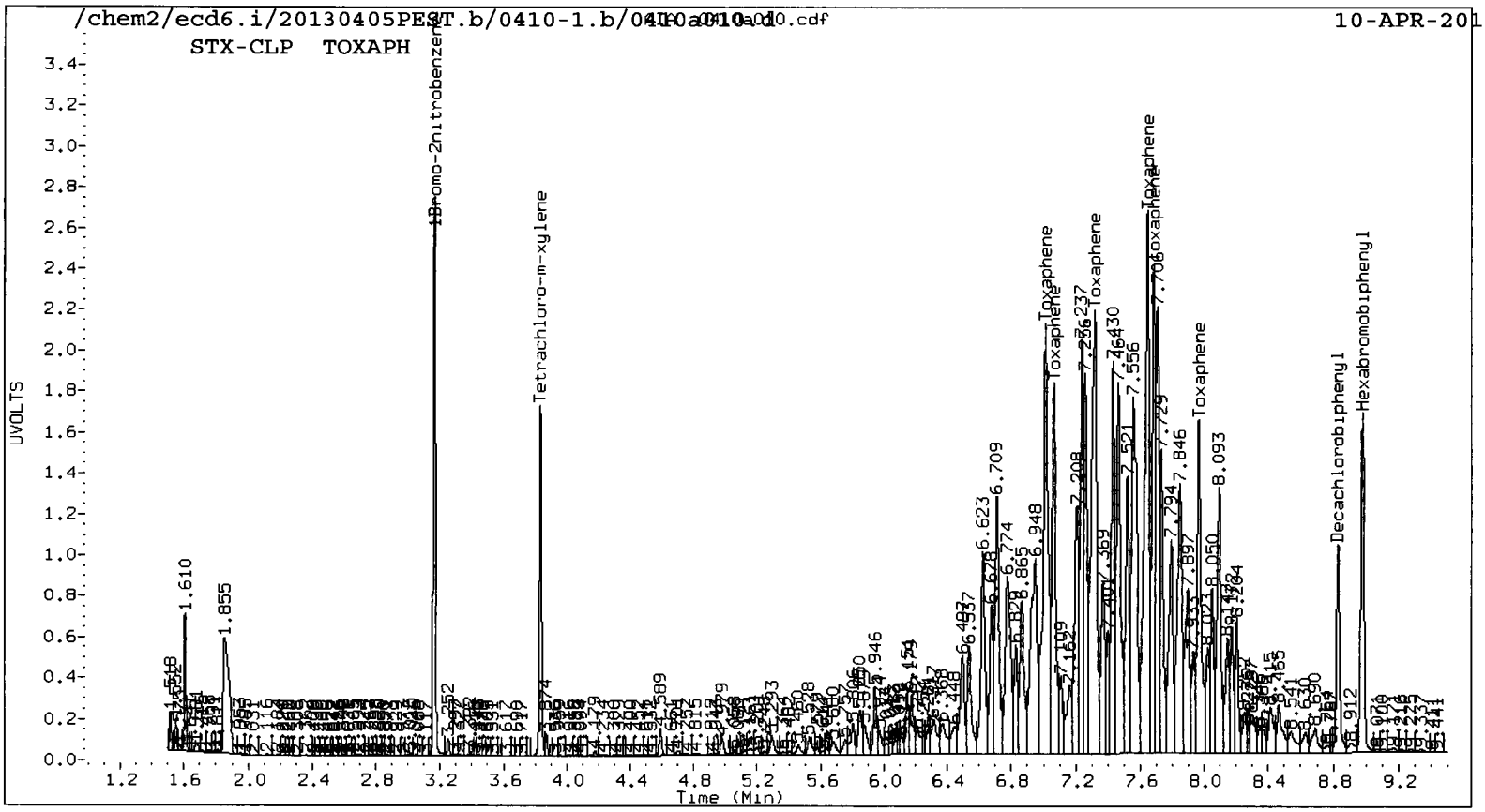
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	23664959	9.0
Hexabromobiphenyl	7681727	9515182	23.9

WJ10:02057

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.011	-0.001	9063054	3145.4	1	7.345	0.001	25681090	2938.4
Toxaphene	2	7.063	-0.001	6128177	3125.2	2	7.668	0.000	37431610	2862.2
Toxaphene	3	7.319	-0.001	10285938	3124.3	3	7.898	0.000	39723673	2842.1
Toxaphene	4	7.644	0.000	10400912	3132.2	4	8.367	0.000	28345827	2806.7
Toxaphene	5	7.684	-0.001	6860645	3130.7	5	8.406	0.000	36040760	2818.2
Toxaphene	6	7.965	-0.001	5708580	3034.4	NS	---			----
Total STX-CLPAve (6 peaks): 3115.347						Total CLP2Ave (5 peaks): 2853.517				RPD = 9
Corrected Ave (6 peaks): 3115.347						Corrected Ave (5 peaks): 2853.517				RPD = 9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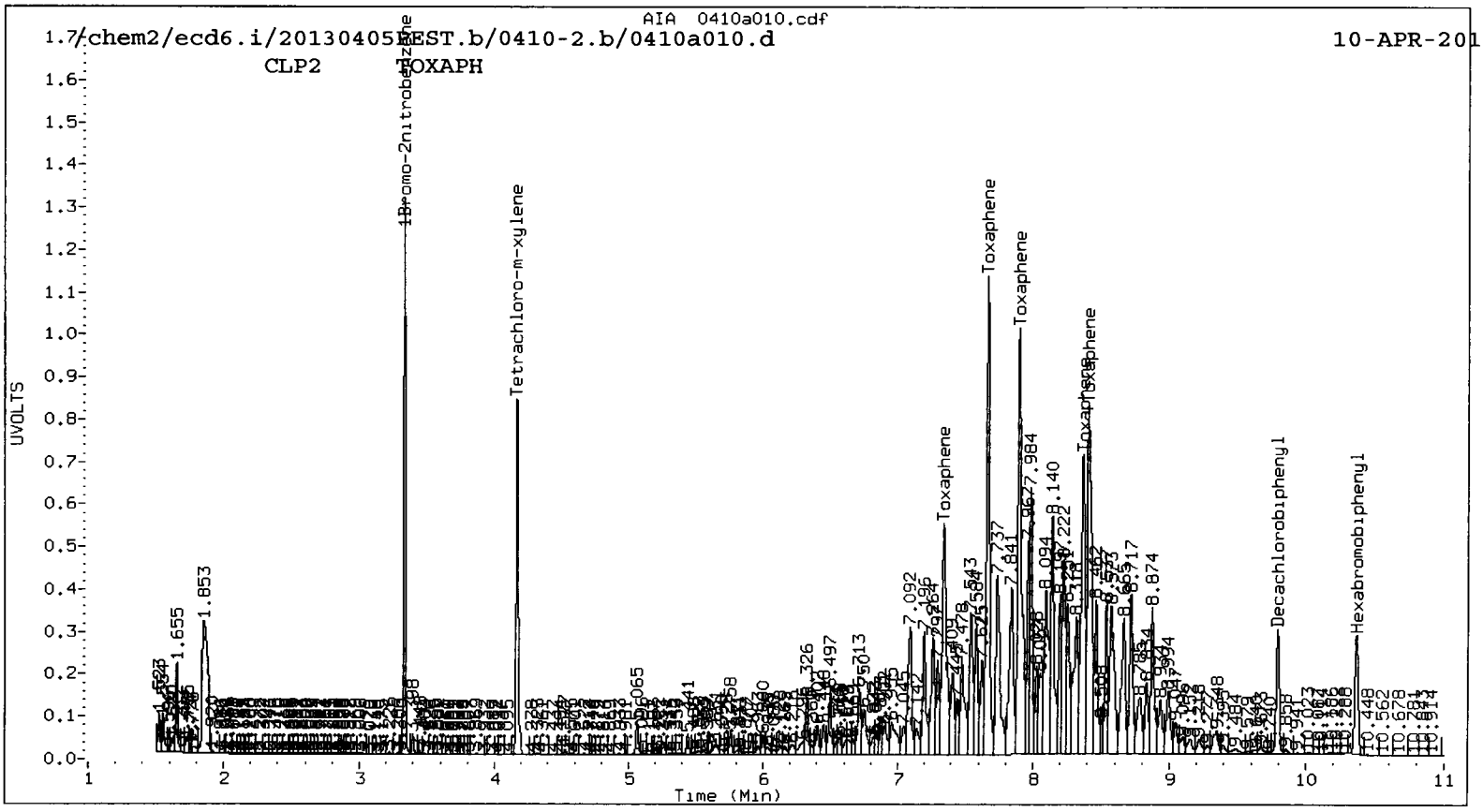
10-APR-201
STX-CLP TOXAPH
UVOLTS
Time (Min)
1.610
1.855
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl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10-APR-201
CLP2 TOXAPH
UVOLTS
Time (Min)
1.655
1.853
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0410-1.b/0410a013.d ARI ID: WJ10C
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Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 10-APR-2013 17:57
Compound Sublist: wpest Report Date: 04/11/2013 11:42
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 50.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.165	0.000	5152373	3.334	0.001	23945112	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.314	-0.016	43189	4.753	-0.004	36921	0.3811	0.0634	143.0*	alpha-BHC
4.666	-0.021	15119	5.206	0.021	52110	0.3330	0.2294	36.9	beta-BHC
4.852	-0.007	18641	5.507	0.008	181998	0.1848	0.3674	66.1*	delta-BHC
4.619	0.004	14001	5.149	0.033	17328	0.1369	0.0338	120.8*	gamma-BHC (Lindane)
5.064	-0.001	15786	5.588	0.007	54471	0.1610	0.1145	33.7	Heptachlor
5.371	0.010	19116	5.904	-0.016	680087	0.1988	1.5685	155.0*	Aldrin
----			6.486	0.010	220004	0.0000	0.5857	---	Heptachlor epoxide b
6.311	-0.003	106865	6.864	0.001	79783	1.3248	0.2436	137.9*	Endosulfan I
6.537	-0.001	19893	7.145	0.024	123985	0.2338	0.3772	46.9*	Dieldrin
6.239	0.004	149620	6.913	-0.008	282128	2.1466	0.8427	87.2*	4,4'-DDE
6.736	-0.020	16997	7.426	0.016	93441	0.2346	0.4621	65.3*	Endrin
6.979	0.018	26765	7.579	-0.020	135507	0.3606	0.6102	51.4*	Endosulfan II
6.838	0.047	14396	7.459	0.001	56330	0.2084	0.2633	23.2	4,4'-DDD
7.748	0.018	134199	8.138	-0.002	292834	2.0509	1.5879	25.4	Endosulfan sulfate
7.053	0.004	17313	7.758	0.012	248244	0.2501	1.2780	134.5*	4,4'-DDT
7.491	0.018	117217	8.317	-0.013	698574	3.3764	8.6761	87.9*	Methoxychlor
7.969	-0.016	116262	8.640	0.008	318503	1.4151	1.6885	17.6	Endrin ketone
7.332	-0.007	10122	7.901	0.006	237669	0.1661	1.3570	156.4*	Endrin aldehyde
6.078	0.023	147218	6.658	0.001	260480	1.6385	0.6891	81.6*	gamma-Chlordane
6.190	0.010	96024	6.810	0.015	216864	1.1111	0.6217	56.5*	alpha-Chlordane
2.334	-0.007	12924	2.501	0.003	85990	0.1084	0.1875	53.5*	Hexachlorobutadiene
4.180	0.001	28969	4.614	-0.016	313683	0.3508	0.5844	50.0*	Hexachlorobenzene
5.863	0.023	39840	6.384	-0.001	129990	0.5454	0.4203	25.9	Oxychlordane
5.892	-0.019	34596	6.621	-0.010	544220	0.6289	2.3938	116.8*	2,4-DDE
6.171	0.009	130743	6.737	-0.004	415402	1.5025	1.4548	3.2	trans-Nonachlor
6.395	-0.003	93714	7.068	-0.047	201998	1.9477	1.3491	36.3	2,4-DDD
----			7.370	-0.033	107734	0.0000	0.6781	---	2,4-DDT
6.784	0.006	65364	7.499	0.034	155439	0.7107	0.5764	20.9	cis-Nonachlor
7.652	0.000	145665	8.608	-0.011	228558	2.6517	1.8586	35.2	Mirex
8.992	0.013	4668894	10.374	0.008	7444776	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.757	0.003	9063	1.735	0.003	521782	0.0000	0.0000	---	Hexachloroethane
6.610	0.029	87278	7.332	-0.004	37105	0.0000	0.0000	---	Kepone
3.836	-0.001	60211	4.168	-0.001	347854	0.7769	0.8213	5.6	Tetrachloro-m-xylene
8.832	0.001	136897	9.802	0.007	172410	2.0087	0.9768	69.1*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	1.9	2.1	1.9~	42-112
Decachlorobiphenyl	5.0	2.4	2.4~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

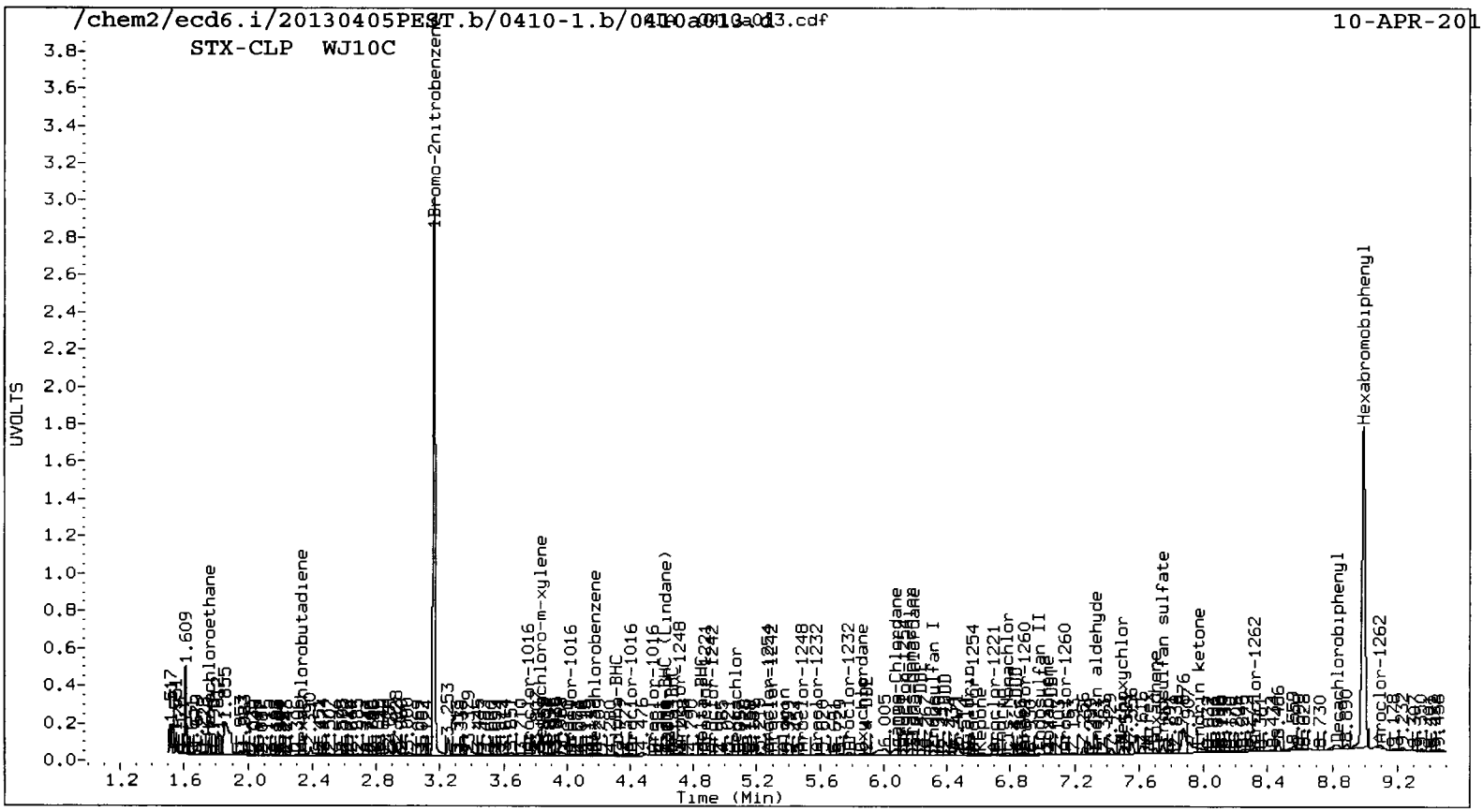
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	5152373	-5.4
Hexabromobiphenyl	4807902	4668894	-2.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	23945112	10.3
Hexabromobiphenyl	7681727	7444776	-3.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.032	0.020	30161	10.0	1	7.332	-0.012	37105	5.4
Toxaphene	2	7.053	-0.010	17313	8.5	2	7.696	0.028	23113	2.3
Toxaphene	3	7.332	0.012	10122	2.9	3	7.901	0.003	237669	21.7
Toxaphene	4	7.652	0.008	145665	42.1	4	8.358	-0.008	501814	63.5
Toxaphene	5	7.699	0.014	91699	40.1	5	8.416	0.011	234124	23.4
Toxaphene	6	7.969	0.003	116262	59.3	NS	---			----
Total STX-CLPAve (6 peaks): 27.153						Total CLP2Ave (5 peaks): 23.265				RPD = 15
Corrected Ave (5 peaks): 20.730						Corrected Ave (4 peaks): 13.204				RPD = 44*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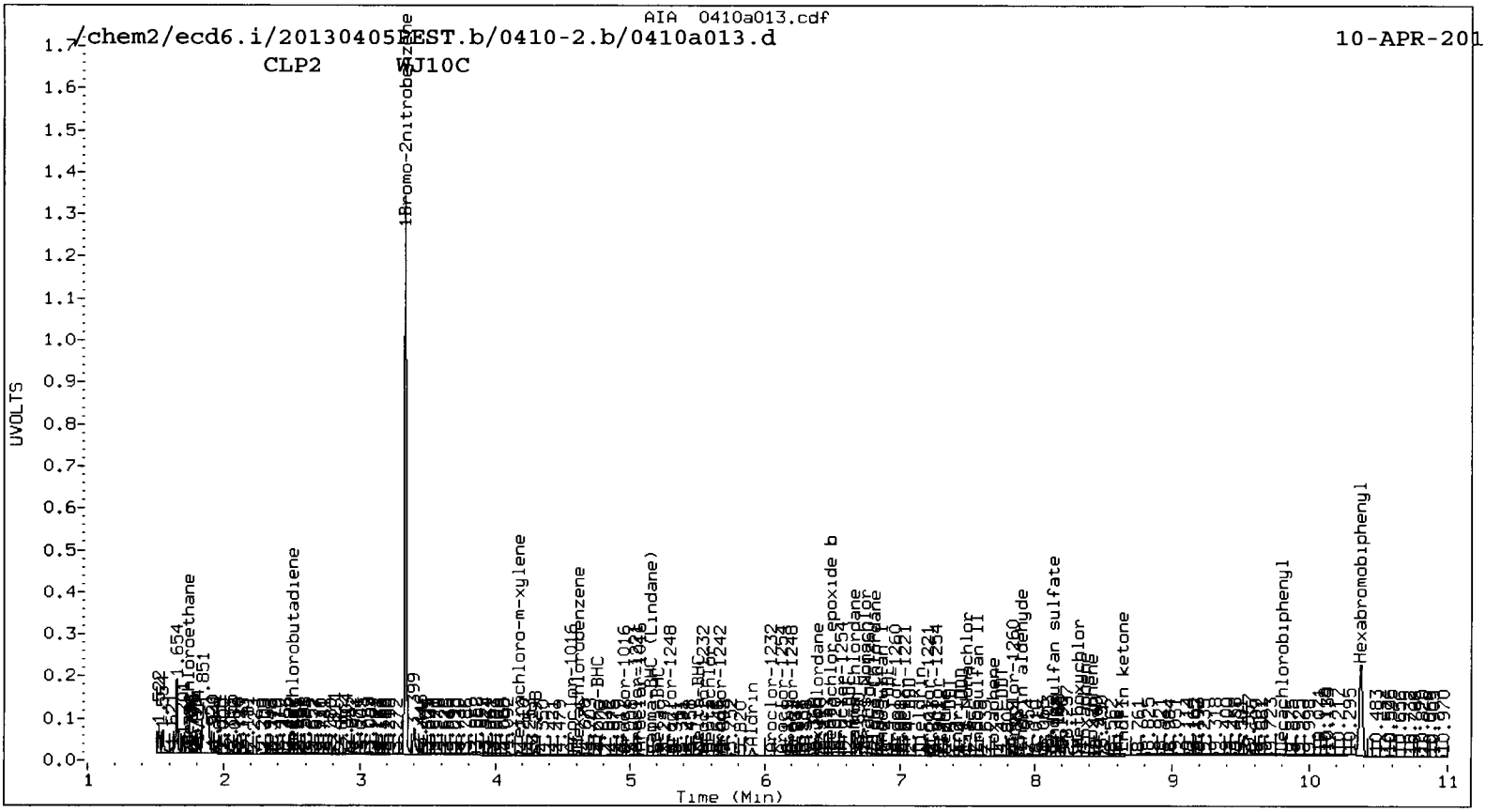
10-APR-201
STX-CLP WJ10C
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl
Aroclor-1262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10-APR-201
CLP2 WJ10C
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0410-1.b/0410a016.d ARI ID: WJ10D
Data file 2: /chem2/ecd6.i/20130405PEST.b/0410-2.b/0410a016.d Client ID: SD-CB-01-20130326-S
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 10-APR-2013 18:50
Compound Sublist: wpest Report Date: 04/11/2013 11:42
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 10.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.165	0.000	4942333	3.333	0.001	19772302	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.315	-0.014	47094	4.750	-0.006	574723	0.4332	1.1945	93.5*	alpha-BHC
4.690	0.003	26679	5.184	-0.001	94253	0.6126	0.5024	19.8	beta-BHC
4.849	-0.010	54011	5.506	0.008	447093	0.5582	1.0931	64.8*	delta-BHC
4.618	0.003	24473	5.105	-0.011	667893	0.2494	1.5771	145.4*	gamma-BHC (Lindane)
5.046	-0.020	102457	5.586	0.004	588371	1.0896	1.4982	31.6	Heptachlor
5.372	0.011	67097	5.933	0.012	119169	0.7273	0.3328	74.4*	Aldrin
5.971	0.034	178103	6.454	-0.021	418911	2.1122	1.3506	44.0*	Heptachlor epoxide b
6.315	0.001	22836	6.864	0.001	281435	0.2951	1.0408	111.6*	Endosulfan I
6.514	-0.023	53696	7.154	0.033	53666	0.6580	0.1977	107.6*	Dieldrin
6.239	0.004	141846	6.902	-0.018	129261	2.1216	0.4676	127.8*	4,4'-DDE
6.764	0.007	137353	7.422	0.013	340584	1.7778	1.3671	26.1	Endrin
6.976	0.015	19811	7.583	-0.016	1212759	0.2503	4.4323	178.6*	Endosulfan II
----			----			0.0000	0.0000	---	4,4'-DDD
7.730	0.001	180611	8.159	0.019	1109284	2.5879	4.8820	61.4*	Endosulfan sulfate
7.061	0.012	341829	7.756	0.011	434957	4.6302	1.8174	87.3*	4,4'-DDT
7.486	0.012	83650	8.336	0.006	309088	2.2590	3.1156	31.9	Methoxychlor
8.002	0.017	71740	8.634	0.002	1032680	0.8187	4.4433	137.8*	Endrin ketone
7.350	0.011	81005	7.905	0.010	83655	1.2460	0.3876	105.1*	Endrin aldehyde
6.040	-0.015	137448	6.668	0.011	600563	1.5948	1.9240	18.7	gamma-Chlordane
6.194	0.014	76889	6.796	0.001	21935	0.9275	0.0762	169.6*	alpha-Chlordane
2.345	0.004	6845	2.492	-0.005	215672	0.0598	0.5695	162.0*	Hexachlorobutadiene
4.180	0.001	40390	4.629	0.000	283317	0.5099	0.6392	22.5	Hexachlorobenzene
5.872	0.032	12281	6.405	0.020	274400	0.1576	1.0744	148.8*	Oxychlordane
5.909	-0.001	53651	6.622	-0.009	170567	0.9144	0.9086	0.6	2,4-DDE
6.124	-0.037	1495626	6.738	-0.002	3992233	16.1141	11.3475	34.7	trans-Nonachlor
6.387	-0.011	34930	7.101	-0.014	222325	0.6806	1.2051	55.6*	2,4-DDD
6.655	0.019	21026	7.400	-0.003	633116	0.3583	3.2342	160.1*	2,4-DDT
6.741	-0.037	124258	7.500	0.035	118048	1.2666	0.3553	112.4*	cis-Nonachlor
7.669	0.017	254187	8.592	-0.026	407932	4.3384	2.6923	46.8*	Mirex
8.984	0.004	4979830	10.370	0.004	9172872	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.757	0.003	20768	1.741	0.009	1395659	0.0000	0.0000	---	Hexachloroethane
6.601	0.020	140713	7.338	0.001	805804	0.0000	0.0000	---	Kepone
3.837	0.001	181262	4.166	-0.003	1391892	2.4381	3.9800	48.0*	Tetrachloro-m-xylene
8.848	0.017	356722	9.811	0.015	933732	4.9074	4.2934	13.3	Decachlorobiphenyl

MR

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	6.1	9.9	6.1~	42-112
Decachlorobiphenyl	12.3	10.7	10.7~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

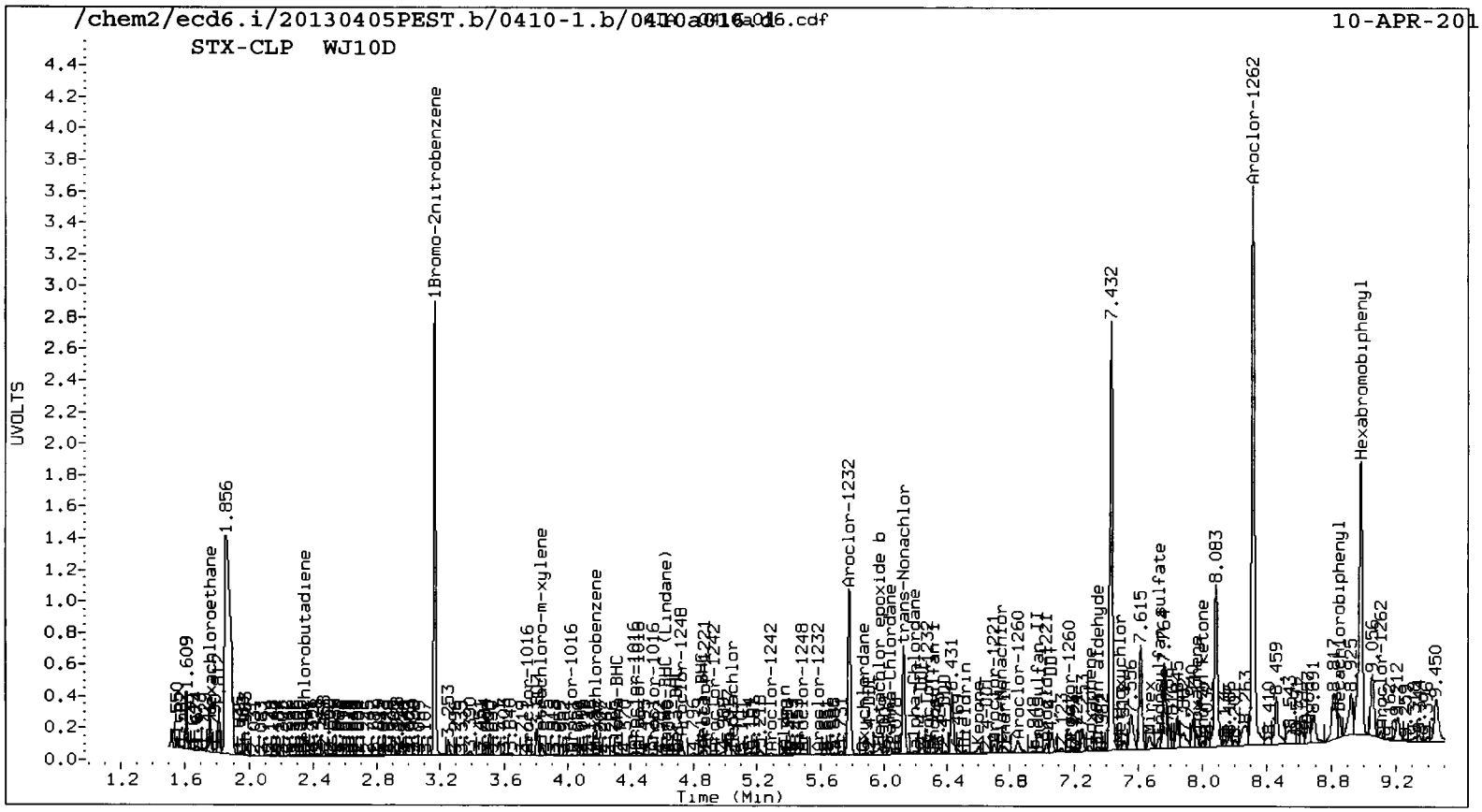
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4942333	-9.3
Hexabromobiphenyl	4807902	4979830	3.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	19772302	-8.9
Hexabromobiphenyl	7681727	9172872	19.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.027	0.015	127703	39.8	1	7.338	-0.007	805804	95.6
Toxaphene	2	7.061	-0.002	341829	156.7	2	7.665	-0.003	89929	7.1
Toxaphene	3	7.299	-0.022	115773	31.6	3	7.905	0.007	83655	6.2
Toxaphene	4	7.669	0.025	254187	68.8	4	8.389	0.023	4746220	487.5
Toxaphene	5	---			0.000	5	8.420	0.015	513140	41.6
Toxaphene	6	7.963	-0.003	171244	81.8	NS	---			----
Total STX-CLPAve (5 peaks): 75.775						Total CLP2Ave (5 peaks): 127.618				RPD = 51*
Corrected Ave (4 peaks): 55.534						Corrected Ave (4 peaks): 37.651				RPD = 38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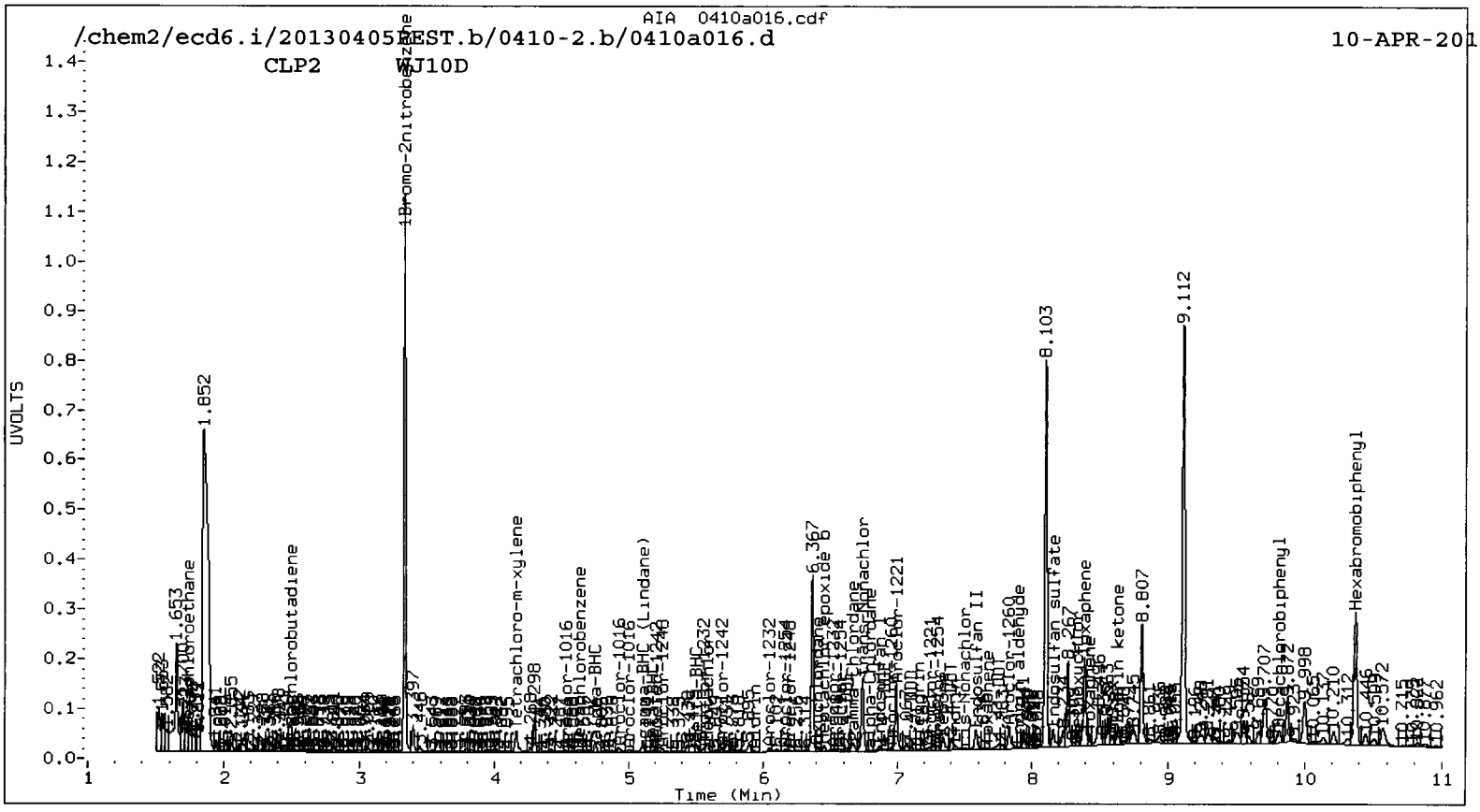
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
1.856
1.609
Hexachloroethane
Hexachlorobutadiene
Tetrachloro-m-xylene
Chlorobenzene
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1242
Aroclor-1254
Aroclor-1260
Aroclor-1262
7.432
8.083
7.615
Hexabromobiphenyl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CLP2 WJ10D
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
1.852
1.653
Hexachloroethane
Hexachlorobutadiene
Tetrachloro-m-xylene
Chlorobenzene
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1242
Aroclor-1254
Aroclor-1260
Aroclor-1221
8.103
9.112
8.807
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130405PEST.b/0410-1.b/0410a020.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130405PEST.b/0410-2.b/0410a020.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 10-APR-2013 20:02
Compound Sublist: INDA Report Date: 04/11/2013 12:34
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.164	0.000	4416422	3.333	0.001	21852908	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.329	-0.001	2425894	4.755	-0.002	12920418	24.9736	24.2963	2.7	alpha-BHC
4.687	-0.001	884288	5.185	0.000	4585108	22.7222	22.1133	2.7	beta-BHC
4.858	-0.001	2008471	5.498	-0.001	9938975	23.2302	21.9870	5.5	delta-BHC
4.614	-0.001	2150622	5.114	-0.002	10996893	24.5306	23.4943	4.3	gamma-BHC (Lindane)
5.064	-0.001	1918283	5.581	-0.001	9294662	22.8293	21.4146	6.4	Heptachlor
5.359	-0.001	2001897	5.919	-0.002	8963874	24.2840	22.6532	6.9	Aldrin
5.934	-0.002	1780288	6.474	-0.002	7521933	23.6273	21.9419	7.4	Heptachlor epoxide b
6.312	-0.003	1632410	6.862	-0.001	6574058	23.6092	21.9975	7.1	Endosulfan I
6.534	-0.003	3533602	7.119	-0.002	13116488	48.4595	43.7263	10.3	Dieldrin
6.233	-0.002	3335977	6.919	-0.002	13012640	55.8377	42.5890	26.9	4,4'-DDE
6.753	-0.003	2851641	7.408	-0.002	9475619	45.9402	40.3855	12.9	Endrin
6.958	-0.003	2798224	7.597	-0.002	10246292	43.9969	39.7601	10.1	Endosulfan II
6.789	-0.002	2965726	7.457	-0.001	10697569	50.1107	43.0809	15.1	4,4'-DDD
7.727	-0.003	2463580	8.139	-0.001	8229718	43.9362	38.4565	13.3	Endosulfan sulfate
7.047	-0.002	2079826	7.744	-0.001	6546179	35.0648	29.0409	18.8	4,4'-DDT
7.471	-0.002	5450226	8.326	-0.004	15121187	183.1997	161.8355	12.4	Methoxychlor
7.982	-0.003	3044745	8.631	-0.002	8294264	43.2463	37.8918	13.2	Endrin ketone
7.336	-0.003	2058372	7.894	-0.002	7071132	39.4078	34.7907	12.4	Endrin aldehyde
6.053	-0.002	1789486	6.656	-0.001	7415474	23.2354	21.4948	7.8	gamma-Chlordane
6.178	-0.002	1702299	6.794	-0.001	6797981	22.9799	21.3551	7.3	alpha-Chlordane
2.341	0.000	2564143	2.497	0.000	10579370	25.0829	25.2752	0.8	Hexachlorobutadiene
4.179	0.000	1682311	4.629	-0.001	12048358	23.7676	24.5955	3.4	Hexachlorobenzene
8.978	-0.001	4000929	10.367	0.001	8639272	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	3424613	4.166	-0.002	19077827	51.5484	49.3573	4.3	Tetrachloro-m-xylen
8.829	-0.002	2642904	9.794	-0.001	8708631	45.2544	42.5160	6.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	128.9	123.4	123.4~	115- 0
Decachlorobiphenyl	113.1	106.3	106.3~	115- 0

WJ10:02065

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

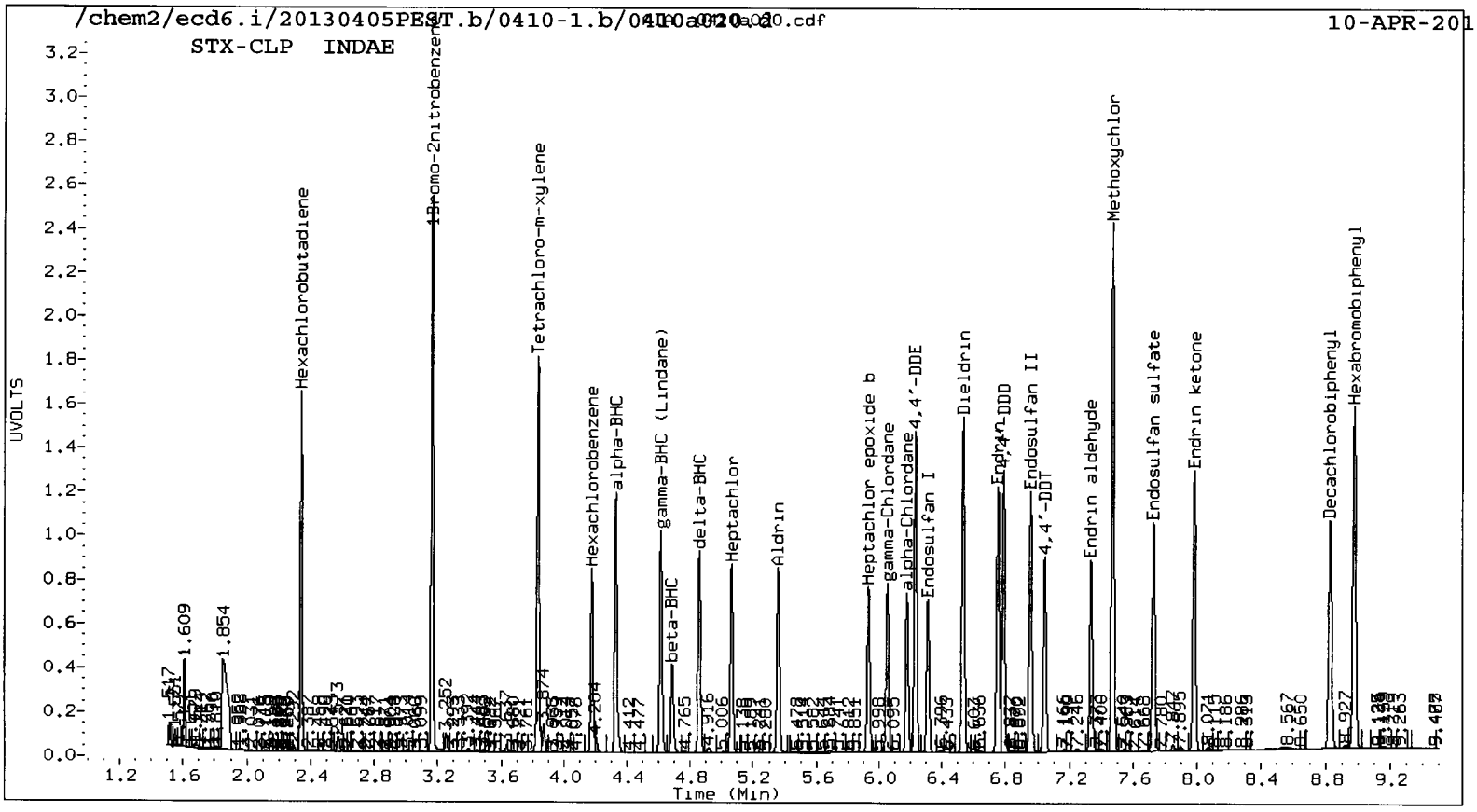
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4416422	-18.9
Hexabromobiphenyl	4807902	4000929	-16.8

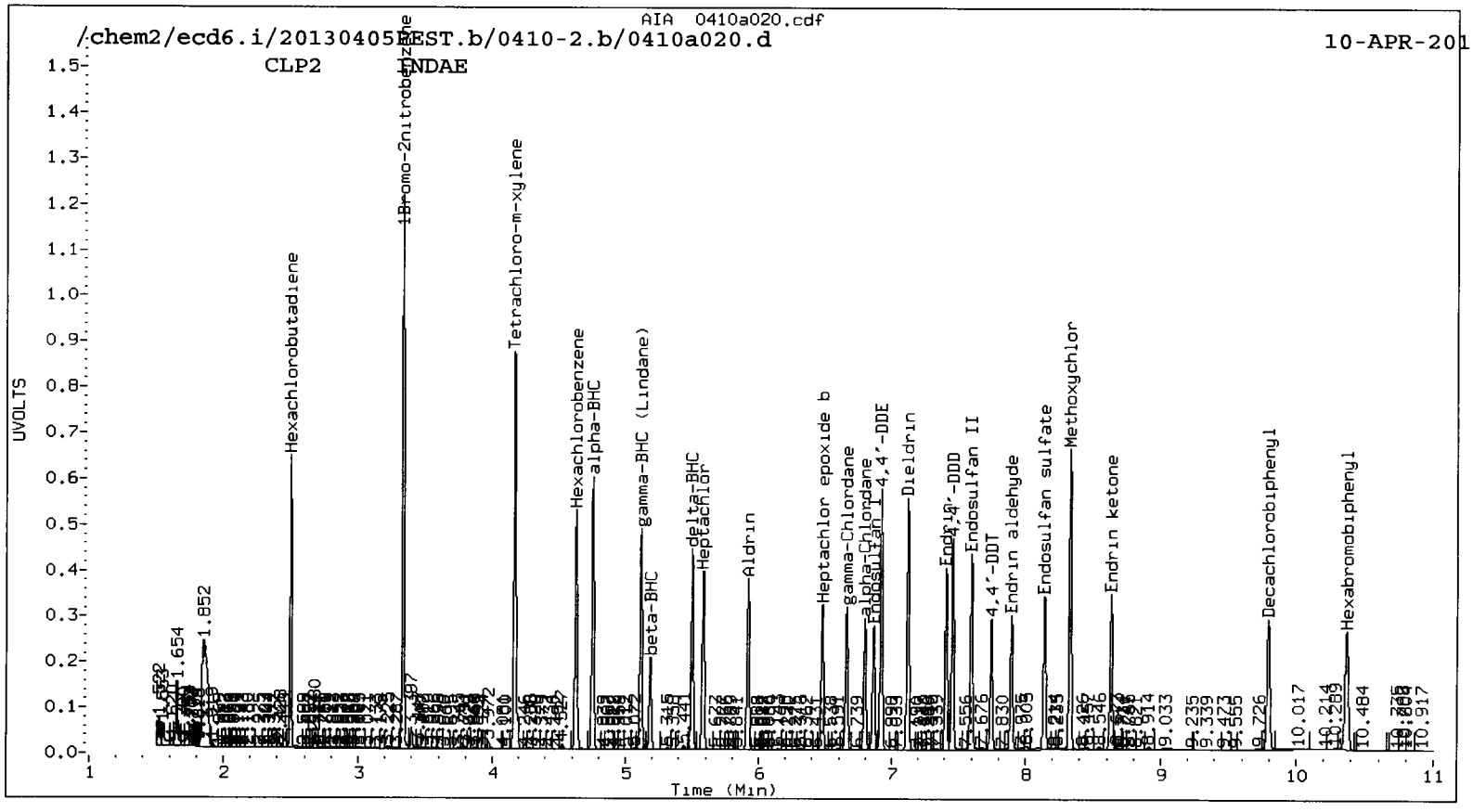
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	21852908	0.7
Hexabromobiphenyl	7681727	8639272	12.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount


/chem2/ecd6.i/20130405PEST.b/0410-1.b/0410a020.d
10-APR-201
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0410a020.cdf
/chem2/ecd6.i/20130405PEST.b/0410-2.b/0410a020.d
10-APR-201
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 4/11/13

Data file 1: /chem2/ecd6.i/20130405PEST.b/0410-1.b/0410a021.d ARI ID: TOXAPH
Data file 2: /chem2/ecd6.i/20130405PEST.b/0410-2.b/0410a021.d Client ID:
Method: /chem2/ecd6.i/20130405PEST.b/PEST0405.m Injection Date: 10-APR-2013 20:19
Compound Sublist: TOXAPH Report Date: 04/11/2013 12:34
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.165	0.000	4752264	3.334	0.001	23463840	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.979	-0.001	4523695	10.366	0.000	9388039	80.0000	80.0000	0.0	Hexabromobiphenyl
3.836	0.000	3272737	4.166	-0.002	18165274	45.7809	43.7698	4.5	Tetrachloro-m-xylen
8.830	-0.001	2770406	9.794	-0.002	8838955	41.9556	39.7106	5.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	114.5	109.4	109.4~	150- 0
Decachlorobiphenyl	104.9	99.3	99.3~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5448520	4752264	-12.8
Hexabromobiphenyl	4807902	4523695	-5.9

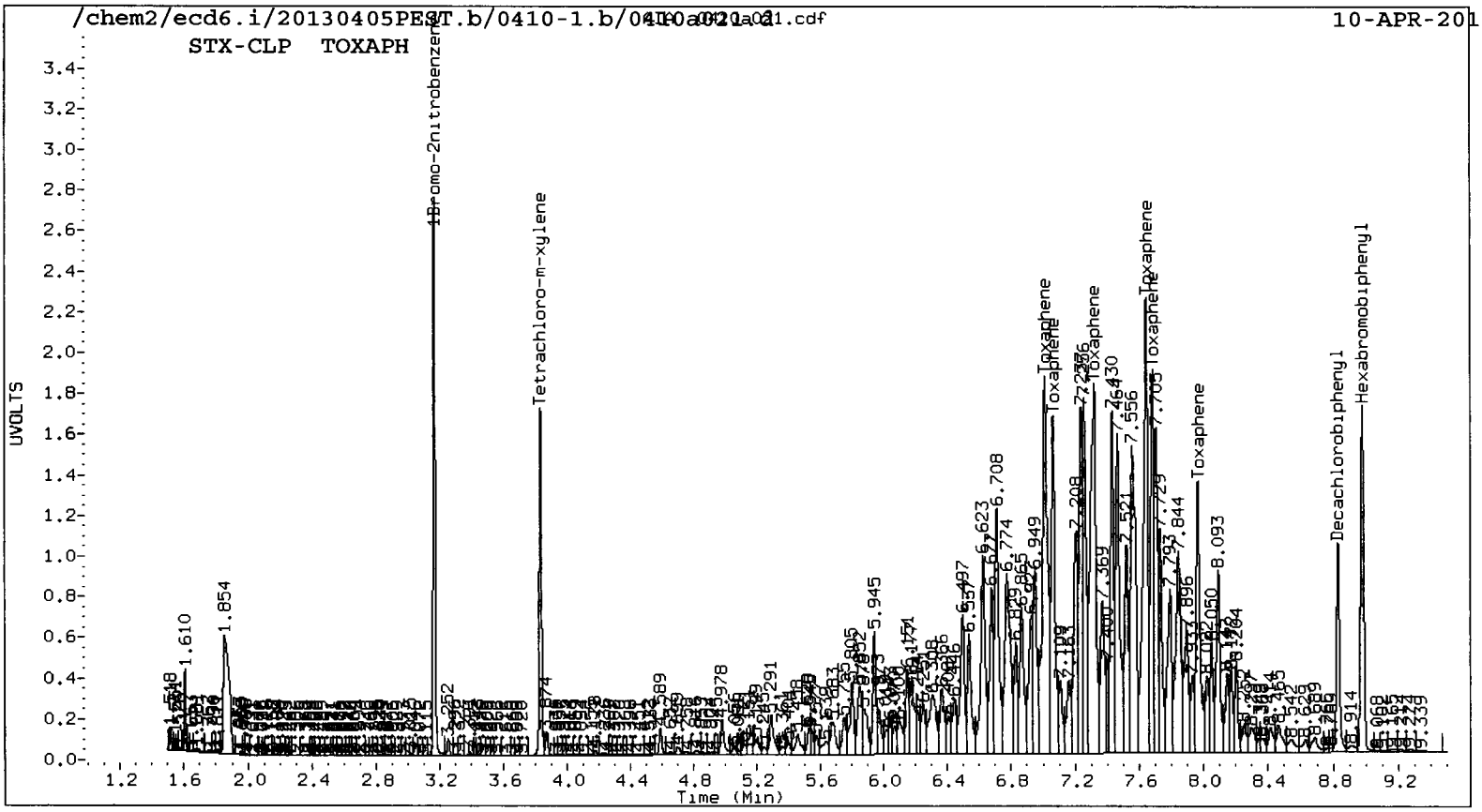
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	21702340	23463840	8.1
Hexabromobiphenyl	7681727	9388039	22.2

WJ10:02069

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 05-APR-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	7.010	-0.001	8222876	2824.7	1	7.343	-0.001	23937597	2776.0
Toxaphene	2	7.061	-0.002	5646065	2849.9	2	7.668	0.000	33672909	2609.7
Toxaphene	3	7.319	-0.001	8878481	2669.2	3	7.898	0.000	27528102	1996.2
Toxaphene	4	7.644	-0.001	8735410	2603.8	4	8.366	-0.001	22380613	2246.0
Toxaphene	5	7.683	-0.002	5379379	2429.7	5	8.405	0.000	25887908	2051.7
Toxaphene	6	7.965	-0.002	4591212	2415.6	NS	---			----
Total STX-CLPAve (6 peaks): 2632.142						Total CLP2Ave (5 peaks): 2335.928				RPD = 12
Corrected Ave (6 peaks): 2632.142						Corrected Ave (5 peaks): 2335.928				RPD = 12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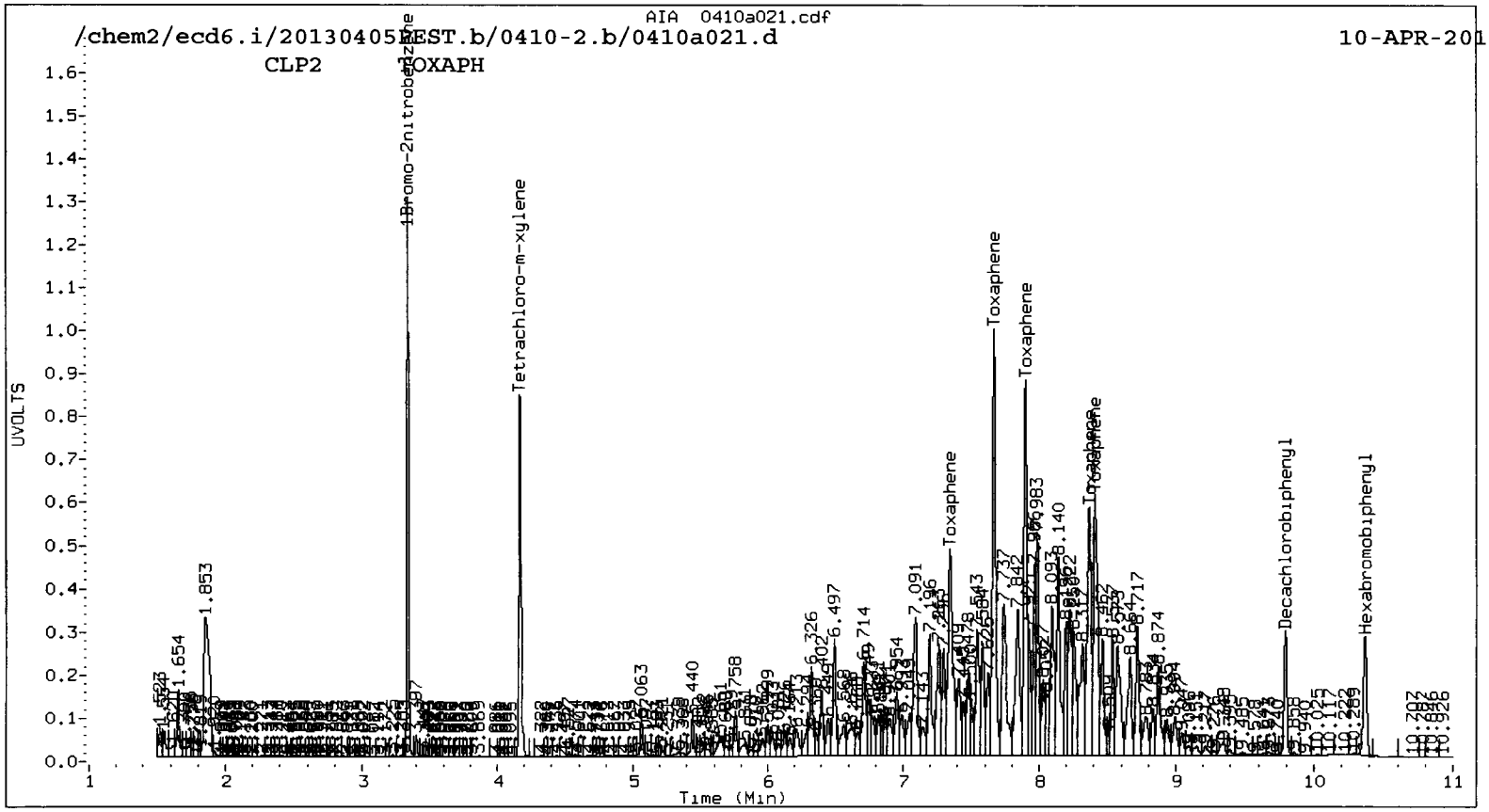
AIA 0410a021.cdf
10-APR-201
STX-CLP TOXAPH
UVOLTS
Time (Min)
1.610
1.854
4-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0410a021.cdf
/chem2/ecd6.i/20130405PEST.b/0410-2.b/0410a021.d
10-APR-201
CLP2 TOXAPH
UVOLTS
Time (Min)
1.853
4-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl

PCB Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WJ10, WJ32

Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

(8082A) PCB – Soil / Sediment / Solids
Microwave (3546) (SOP # 3304S)

Preparation Test PCB PSDDA # 19 (PCBSDMP4)

ARI Job No(s) WJ1Φ, WJ75 Page 1 of 1 PSDDA (4ppb)
Batch set up by: JH

Bottle #	ARI Sample I.D.	Weight Extracted (eq. to 12.5g dry wt)	(REQ) Acid Clean (2.5mL)	(REQ) Sulfur Clean (2.5mL) Very high 1 2 (3) sulfur	(REQ) Silica Gel Clean (1:2.5)	Extraction Final Volume	Volume to Lab	Comments	Verify Client ID
	MBS WJ1Φ	12.50g	2.5mL	2.5mL	1mL	2.5mL	1mL	(10g Actual W)	TH 4/4/13 Analyst/Date
	SBS	12.50g	2.5mL	2.5mL	1mL	2.5mL	1mL	(10g Actual Wt)	Microwave (1) 2 3 4/5/13 Analyst/Date
	~~SBSDup~~	~~12.50g~~	~~2.5mL~~	~~2.5mL~~	~~1mL~~	~~2.5mL~~	~~1mL~~	~~(10g Actual Wt)~~	
	WJ1Φ QLS	12.50g	2.5mL	2.5mL	1mL	2.5mL	1mL	(10g Actual Wt)	KD 100°C Hexane Exchange (2 X 20mL) 1 2 (3) (4) 5 6 VL/CT Φ4/Φ6/13 Analyst/Date
4	C	12.57	2.5mL	2.5mL	1mL	2.5mL	1mL	See Analyst Notes	
4	CMS	12.58	2.5mL	2.5mL	1mL	2.5mL	1mL		
4	CMSD	12.59	2.5mL	2.5mL	1mL	2.5mL	1mL		
7	D	12.56	2.5mL	2.5mL	1mL	2.5mL	1mL		
2	WJ75 A	25.1Φ	2.5mL	2.5mL	1mL	2.5mL	1mL		TurboVap 1 (2) 3 Pre-Cleanups ww 4/6/13 Analyst/Date
			2.5mL	2.5mL	1mL	2.5mL	1mL		
			2.5mL	2.5mL	1mL	2.5mL	1mL		
			2.5mL	2.5mL	1mL	2.5mL	1mL	ww 4/6/13	
			2.5mL	2.5mL	1mL	2.5mL	1mL		
			2.5mL	2.5mL	1mL	2.5mL	1mL		TurboVap 1 2 (6) Post Cleanups ww 4/6/13 Analyst/Date
			~~2.5mL~~	~~2.5mL~~	~~1mL~~	~~2.5mL~~	1mL		
Analyst/Date	TH 4/4/13		ww 4/6/13	ww 4/6/13	ww 4/6/13	ww 4/6/13	ww 4/6/13		

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N(2Φ35-2)	2µg/mL	50µL	5/16/13	TH	ww
Spike	1(2Φ74-4)	20µg/mL	63µL	1Φ/31/13	TH	ww
QLS Spike	5(2Φ88-3)	2µg/mL	25µL	1Φ/31/13	TH	ww

Extraction Time: 9:25 Balance ID: 3139298002

SPECIAL INSTRUCTIONS: 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3" inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in cold water 15 minutes. Re-homogenize while cool. 7. Decant 1:1 Hex/Ace into E. flask with sodium sulfate in bottom+ funnel with neutral glasswool plug. 8. Rinse with Hexane. 9. Add 8:2 Hexane/Acetone to the vessel 3"inches above the soil layer after homogenization. Microwave a 2nd time. 10. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (~~Small or~~ Large Drying Column) on 100° bath. (Blanks=only 5g Sodium Sulfate). 12. Exchange (2 X with 20mL) Hexane. 13. TurboVap. 14. Clean-ups. 15. TurboVap. 16. Vial with Hexane.

A. Need Total Solids Y /(N) B. Archive/~~Freeze~~ (Y) / N
WJ1Φ only

WJ10:02073

Reagent and Solutions Identification

(8082A) PCB – Soil / Sediment / Solids
Microwave (3546) (SOP # 3304S)

ARI Job No(s) WJ10, WJ75

(8082A) PCB PSDDA (4ppb) Soil/Sediment/Solid/Other:	Analyst/Date
Microwave Station: Anhydrous Sodium Sulfate: (I# 5068 + jar date 3/14/13) Neutral Glasswool: (I# 7998 + jar date 12/6/12) 1:1 Hexane/Acetone: (H# 146) 80:20 Hexane/Acetone: (H# 149) Hexane: (I# 8114)	Microwave M 4/5/13
KD Station: Hexane: (I# 8114) Anhydrous Sodium Sulfate: (I# 3696 jar date 3/25/13 Neutral Glasswool: (I# ~~8110~~ #6114 ~~7998~~ + jar date 3/15/13)	KD YC/CT 04/06/13
Vialing Station: Hexane: (I# I8114) Concentrated Sulfuric Acid: (I# I8012) Tetrabutylammonium hydrogensulfate (TBAS): (H# H145) Sodium Sulfite: (I# I7704) Silica Gel (SPE) Darts: (I# I7914)	Vialing 4/6/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: PCB PSDDA (4ppb) Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☒ Standing Water Decanted (Not shared)= C. D	YL 3/28/13
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☒ Organics (Leaves/sticks/grass)= S: 6/a C. D.	YL 3/28/13
☒ Oily, obvious fuel/sulfur odors= C, D	YL 3/28/13
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions). GC analyst,	
(Centrifuge#1 used for all Centrifugations) reduced extraction weights for	
both samples, based on sample pre-screens.	JH 4/04/13
extracts C, Cms, Cmsd, D were viewed by [illegible]	[illegible]
extracts C, Cms, Cmsd, D were viewed and C'ave of for final vial	[illegible]

3056F

Revision 009
08/14/12

WJ10 02075

PCB Raw Data
Initial Calibration

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 02/26/13 Internal Standard ID 2006-1 Expiration 02/26/13

Endrin/DDT Breakdown <15%? YES / NO / NA
ICal Meets %RSD & r^2 Criteria YES / NO
Manual Integrations for ICal? YES / NO
Minimum Response S/N Met YES / NO

ICV Exceeding ±20%? YES / NO
ICV Exceeding ±30%? YES / NO
Linear Fits Used? YES / NO
Quadratic Fits Used? YES / NO
Calibration Points Dropped? YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
AR1660	1980-1	05/16/13	AR1660	2009-2	05/16/13
AR1242	1980-6		AR1242	2009-5	
AR1248	1980-3		AR1248	2009-6	
AR1254	1980-5 (2nd 03/04/13)		AR1254	2009-7	
AR2162	1980-2		AR3268	2009-4	
AR3268	1980-4		AR2162	2009-3	
DDT	1991-1	01/21/13			
BD	1982-2	01/14/13			
IB	1				

Detail problems, corrective actions and/or other pertinent information below:

Analyst: JR **Date:** 03/01/13

Reviewer: B **Date:** 3/1/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd7.i/20130226.B/PCB1.m
Batch File: /chem2/ecd7.i/20130226.B/ical-1.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0226A014	0226A015	0226A016	0226A017	0226A018	0226A019
INJ.DATE:	26-FEB-2013	26-FEB-2013	26-FEB-2013	26-FEB-2013	26-FEB-2013	26-FEB-2013
INJ.TIME:	12:53	13:13	13:33	13:54	14:14	14:34

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	3.289	3.289	3.290	3.290	3.289	3.289	3.287	3.187-3.387	3.289	0.001
$ 1 Tetrachloro-m-xylene	6.265	6.266	6.266	6.266	6.266	6.265	6.264	6.164-6.364	6.266	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	6.719	6.619-6.819	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	8.278	8.178-8.378	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	8.278	8.178-8.378	+++++	+++++
7 Aroclor-1016	8.278	8.279	8.279	8.278	8.279	8.278	8.278	8.178-8.378	8.279	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	9.341	9.241-9.441	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	10.323	10.223-10.423	+++++	+++++
9 Aroclor-1260	11.829	11.830	11.830	11.828	11.829	11.828	11.828	11.727-11.928	11.829	0.001
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	12.432	12.332-12.532	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	13.582	13.482-13.682	+++++	+++++
$ 13 Decachlorobiphenyl	14.864	14.865	14.864	14.864	14.865	14.864	14.864	14.764-14.964	14.864	0.000
* 12 IS-HBBP	15.121	15.121	15.121	15.120	15.120	15.120	15.120	15.020-15.220	15.120	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	10.609	10.559-10.659	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	11.172	11.122-11.222	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	11.682	11.632-11.732	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	11.047	10.947-11.147	+++++	+++++

Reviewer 1 _____ Date: 03/01/13
Reviewer 2 _____ Date: 03/01/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd7.i/20130226.B/PCB1.m
Batch File: /chem2/ecd7.i/20130226.B/ical-1.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	11.628	11.528-11.728	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	12.140	12.040-12.240	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd7.i/20130226.B/PCB2.m
Batch File: /chem2/ecd7.i/20130226.B/ical-2.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0226A014	0226A015	0226A016	0226A017	0226A018	0226A019
INJ.DATE:	26-FEB-2013	26-FEB-2013	26-FEB-2013	26-FEB-2013	26-FEB-2013	26-FEB-2013
INJ.TIME:	12:53	13:13	13:33	13:54	14:14	14:34

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB	4.123	4.123	4.124	4.125	4.125	4.123	4.122	4.022-4.222	4.124	0.001
$ 2 Tetrachloro-m-xylene	6.373	6.372	6.373	6.374	6.374	6.372	6.372	6.272-6.472	6.373	0.001
1 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	7.197	7.097-7.297	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	8.506	8.406-8.606	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	8.507	8.407-8.607	+++++	+++++
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	9.779	9.679-9.879	+++++	+++++
7 Aroclor-1016	8.506	8.507	8.508	8.508	8.508	8.507	8.507	8.407-8.607	8.507	0.001
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	10.841	10.741-10.941	+++++	+++++
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	12.801	12.701-12.901	+++++	+++++
9 Aroclor-1260	12.713	12.713	12.712	12.711	12.712	12.711	12.711	12.611-12.811	12.712	0.001
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	13.931	13.831-14.031	+++++	+++++
$ 13 Decachlorobiphenyl	15.178	15.178	15.178	15.178	15.178	15.178	15.177	15.077-15.277	15.178	0.000
* 12 IS-HBBP	15.761	15.762	15.762	15.762	15.762	15.762	15.762	15.662-15.862	15.762	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	11.104	11.054-11.154	+++++	+++++
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	11.794	11.744-11.844	+++++	+++++
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	11.488	11.388-11.588	+++++	+++++
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	12.248	12.148-12.348	+++++	+++++

Reviewer 1 _____ Date: 03/01/13

Reviewer 2 _____ Date: 03/04/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd7.i/20130226.B/PCB2.m
Batch File: /chem2/ecd7.i/20130226.B/ical-2.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	12.688	12.588-12.788	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.117	7.017-7.217	+++++	+++++

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd7.i/20130226.B/ical-1.b

ARI Job No.: IB Method: PCB1.m Instrument: ecd7.i Date: 26-FEB-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1233	0226A013.d	IB		1	NO MANUAL INTEGRATION
1253	0226A014.d	0.25PPMAR1660		1	NO MANUAL INTEGRATION
1313	0226A015.d	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1333	0226A016.d	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1354	0226A017.d	1PPMAR1660		1	NO MANUAL INTEGRATION
1414	0226A018.d	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1434	0226A019.d	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1454	0226A020.d	AR1242		1	NO MANUAL INTEGRATION
1515	0226A021.d	AR1248		1	NO MANUAL INTEGRATION
1535	0226A022.d	AR1254		1	NO MANUAL INTEGRATION
1555	0226A023.d	AR2162		1	NO MANUAL INTEGRATION
1615	0226A024.d	AR3268		1	NO MANUAL INTEGRATION
1636	0226A025.d	AR1660ICV		1	NO MANUAL INTEGRATION
1656	0226A026.d	AR1242ICV		1	NO MANUAL INTEGRATION
1716	0226A027.d	AR1248ICV		1	NO MANUAL INTEGRATION
1736	0226A028.d	AR1254ICV		1	NO MANUAL INTEGRATION
1757	0226A029.d	AR2162ICV		1	NO MANUAL INTEGRATION
1817	0226A030.d	AR3268ICV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd7.i/20130226.B/ical-2.b

ARI Job No.: IB Method: PCB2.m Instrument: ecd7.i Date: 26-FEB-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1233	0226A013.d	IB		1	NO MANUAL INTEGRATION
1253	0226A014.d	0.25PPMAR1660		1	NO MANUAL INTEGRATION
1313	0226A015.d	0.02PPMAR1660		1	NO MANUAL INTEGRATION
1333	0226A016.d	0.05PPMAR1660		1	NO MANUAL INTEGRATION
1354	0226A017.d	1PPMAR1660		1	NO MANUAL INTEGRATION
1414	0226A018.d	0.1PPMAR1660		1	NO MANUAL INTEGRATION
1434	0226A019.d	0.5PPMAR1660		1	NO MANUAL INTEGRATION
1454	0226A020.d	AR1242		1	NO MANUAL INTEGRATION
1515	0226A021.d	AR1248		1	NO MANUAL INTEGRATION
1535	0226A022.d	AR1254		1	NO MANUAL INTEGRATION
1555	0226A023.d	AR2162		1	NO MANUAL INTEGRATION
1615	0226A024.d	AR3268		1	NO MANUAL INTEGRATION
1636	0226A025.d	AR1660ICV		1	NO MANUAL INTEGRATION
1656	0226A026.d	AR1242ICV		1	NO MANUAL INTEGRATION
1716	0226A027.d	AR1248ICV		1	NO MANUAL INTEGRATION
1736	0226A028.d	AR1254ICV		1	NO MANUAL INTEGRATION
1757	0226A029.d	AR2162ICV		1	NO MANUAL INTEGRATION
1817	0226A030.d	AR3268ICV		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB2.m
Cal Date : 27-Feb-2013 14:33 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd7.i/20130226.B/ical-2.b/0226A015.d
Level 2: /chem2/ecd7.i/20130226.B/ical-2.b/0226A016.d
Level 3: /chem2/ecd7.i/20130226.B/ical-2.b/0226A018.d
Level 4: /chem2/ecd7.i/20130226.B/ical-2.b/0226A014.d
Level 5: /chem2/ecd7.i/20130226.B/ical-2.b/0226A019.d
Level 6: /chem2/ecd7.i/20130226.B/ical-2.b/0226A017.d
Level 7: /chem2/ecd7.i/20130226.B/ical-2.b/0226A024.d
Level 8: /chem2/ecd7.i/20130226.B/ddts-2.b/0226A031.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
1 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01257	+++++					0.01257	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00772	+++++					0.00772	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02310	+++++					0.02310	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00836	+++++					0.00836	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01961	+++++					0.01961	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03713	+++++					0.03713	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB2.m
Cal Date : 27-Feb-2013 14:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.00977	+++++	0.00977	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01326	+++++	0.01326	0.000
3 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03340	+++++	0.03340	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06911	+++++	0.06911	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01820	+++++	0.01820	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02809	+++++	0.02809	0.000
6 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03201	+++++	0.03201	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03434	+++++	0.03434	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03492	+++++	0.03492	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB2.m
Cal Date : 27-Feb-2013 14:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04657	+++++					0.04657	0.000
7 Aroclor-1016(1)	0.05341	0.04863	0.04629	0.04253	0.03872	0.03719		
	+++++	+++++					0.04446	13.875
(2)	0.10591	0.09825	0.09325	0.08797	0.08119	0.07982		
	+++++	+++++					0.09107	11.096
(3)	0.02253	0.02490	0.02384	0.02261	0.02095	0.02043		
	+++++	+++++					0.02254	7.502
(4)	0.02906	0.03059	0.02866	0.02607	0.02370	0.02273		
	+++++	+++++					0.02680	11.761
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03131	+++++					0.03131	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03904	+++++					0.03904	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02954	+++++					0.02954	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06539	+++++					0.06539	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB2.m
Cal Date : 27-Feb-2013 14:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03651	+++++					0.03651	0.000
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.09042	+++++					0.09042	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.07778	+++++					0.07778	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.17213	+++++					0.17213	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06669	+++++					0.06669	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.10960	+++++					0.10960	0.000
9 Aroclor-1260(1)	0.11308	0.10051	0.09577	0.08711	0.07989	0.08065		
	+++++	+++++					0.09284	13.846
(2)	0.17285	0.15545	0.15157	0.14063	0.13120	0.13549		
	+++++	+++++					0.14787	10.384
(3)	0.12146	0.10862	0.10500	0.09526	0.08808	0.08961		
	+++++	+++++					0.10134	12.648

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB2.m
Cal Date : 27-Feb-2013 14:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(4)	0.04201	0.03954	0.03901	0.03658	0.03325	0.03249		
	+++++	+++++					0.03715	10.073
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.17977	+++++					0.17977	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.17605	+++++					0.17605	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.14281	+++++					0.14281	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.43968	+++++					0.43968	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	692					692	0.000
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	642					642	0.000
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1104					1104	0.000
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	835					835	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB2.m
Cal Date : 27-Feb-2013 14:33 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	935					935	0.000
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 2 Tetrachloro-m-xylene	1.15860	1.11113	1.11018	1.11167	1.04632	1.07736		
	+++++	+++++					1.10254	3.430
$ 13 Decachlorobiphenyl	1.56403	1.42109	1.36221	1.27637	1.19730	1.22804		
	+++++	+++++					1.34151	10.231

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB1.m
Cal Date : 01-Mar-2013 07:25 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd7.i/20130226.B/ical-1.b/0226A015.d/0226A015.cdf
Level 2: /chem2/ecd7.i/20130226.B/ical-1.b/0226A016.d/0226A016.cdf
Level 3: /chem2/ecd7.i/20130226.B/ical-1.b/0226A018.d/0226A018.cdf
Level 4: /chem2/ecd7.i/20130226.B/ical-1.b/0226A014.d/0226A014.cdf
Level 5: /chem2/ecd7.i/20130226.B/ical-1.b/0226A019.d/0226A019.cdf
Level 6: /chem2/ecd7.i/20130226.B/ical-1.b/0226A017.d/0226A017.cdf
Level 7: /chem2/ecd7.i/20130226.B/ical-1.b/0226A024.d/0226A024.cdf
Level 8: /chem2/ecd7.i/20130226.B/ddts-1.b/0226A031.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01036	+++++					0.01036	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00770	+++++					0.00770	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02626	+++++					0.02626	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01977	+++++					0.01977	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06584	+++++					0.06584	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02633	+++++					0.02633	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB1.m
Cal Date : 01-Mar-2013 07:25 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02248	+++++	0.02248	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01030	+++++	0.01030	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03377	+++++	0.03377	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01374	+++++	0.01374	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01603	+++++	0.01603	0.000
7 Aroclor-1016(1)	0.02615	0.02567	0.02590	0.02550	0.02445	0.02457	+++++	+++++	0.02537	2.767
(2)	0.08459	0.08461	0.08598	0.08594	0.08298	0.08364	+++++	+++++	0.08462	1.423
(3)	0.03506	0.03481	0.03503	0.03411	0.03249	0.03254	+++++	+++++	0.03401	3.547
(4)	0.02326	0.02395	0.02381	0.02332	0.02240	0.02274	+++++	+++++	0.02325	2.580

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB1.m
Cal Date : 01-Mar-2013 07:25 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02680	+++++	0.02680	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03260	+++++	0.03260	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.05133	+++++	0.05133	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.03623	+++++	0.03623	0.000
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.03689	+++++	0.03689	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05160	+++++	0.05160	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03106	+++++	0.03106	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.06353	+++++	0.06353	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.03903	+++++	0.03903	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB1.m
Cal Date : 01-Mar-2013 07:25 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
9 Aroclor-1260(1)	0.08552	0.08522	0.08516	0.08403	0.08090	0.08053		
	+++++	+++++					0.08356	2.710
(2)	0.05609	0.05612	0.05646	0.05549	0.05428	0.05407		
	+++++	+++++					0.05542	1.831
(3)	0.05522	0.05581	0.05659	0.05626	0.05551	0.05563		
	+++++	+++++					0.05584	0.906
(4)	0.06745	0.06969	0.07138	0.07274	0.07226	0.07365		
	+++++	+++++					0.07120	3.193
(5)	0.02898	0.02843	0.02878	0.02829	0.02799	0.02851		
	+++++	+++++					0.02850	1.235
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.09120	+++++					0.09120	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06611	+++++					0.06611	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.18040	+++++					0.18040	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06113	+++++					0.06113	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB1.m
Cal Date : 01-Mar-2013 07:25 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06577	+++++					0.06577	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.19706	+++++					0.19706	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.18291	+++++					0.18291	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.15506	+++++					0.15506	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.47380	+++++					0.47380	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	766					766	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	724					724	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	884					884	0.000
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1236					1236	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2013 12:53
End Cal Date : 26-FEB-2013 18:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130226.B/PCB1.m
Cal Date : 01-Mar-2013 07:25 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1003	1003	0.000
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1023	1023	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 Tetrachloro-m-xylene	0.94899	0.99289	1.04065	1.09564	1.08228	1.11955	+++++	+++++	1.04667	6.258
$ 13 Decachlorobiphenyl	1.40388	1.36527	1.36352	1.32023	1.28200	1.30095	+++++	+++++	1.33931	3.430

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A013.d
Data file 2: 20130226.B/ical-2.b/0226A013.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 26-FEB-2013 12:33
Report Date: 03/01/2013 10:29
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.266	0.002	2563527	6.374	0.002	4391891	41.3	39.7	3.7	Tetrachloro-m-xylene
14.864	0.000	2360829	15.178	0.001	3278426	39.0	37.3	4.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	103.1	99.4
Decachlorobiphenyl	97.5	93.2

JK 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4748886	-8.4
Hexabromobiphenyl	4555826	3617024	-20.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8017444	-3.9
Hexabromobiphenyl	6489385	5243833	-19.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

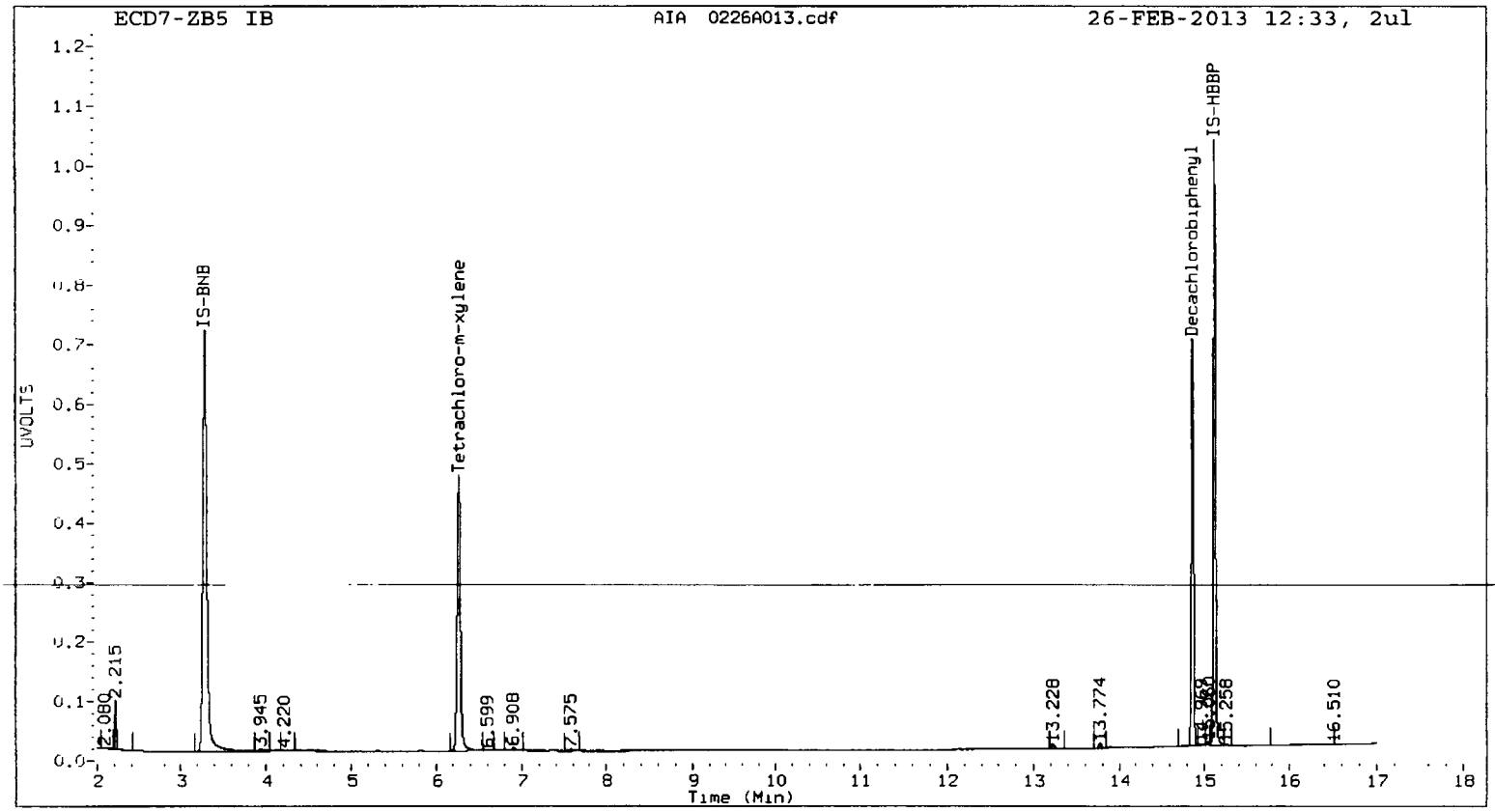
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	7.217	0.020	53804	42.7
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	7.644	0.008	10024	4.3
Aroclor-1221	NS	---			----	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	13.913	-0.071	16363	2.5
Aroclor-1260	4	---			0.0	4	14.596	0.053	23352	9.6
Aroclor-1260	5	---			0.0	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	13.218	-0.028	38680	7.6
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	13.913	-0.020	16363	3.7
Aroclor-1262	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (6.364 - 14.764) = 128760 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 325713 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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AIA 0226A013.cdf
26-FEB-2013 12:33, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
2.080
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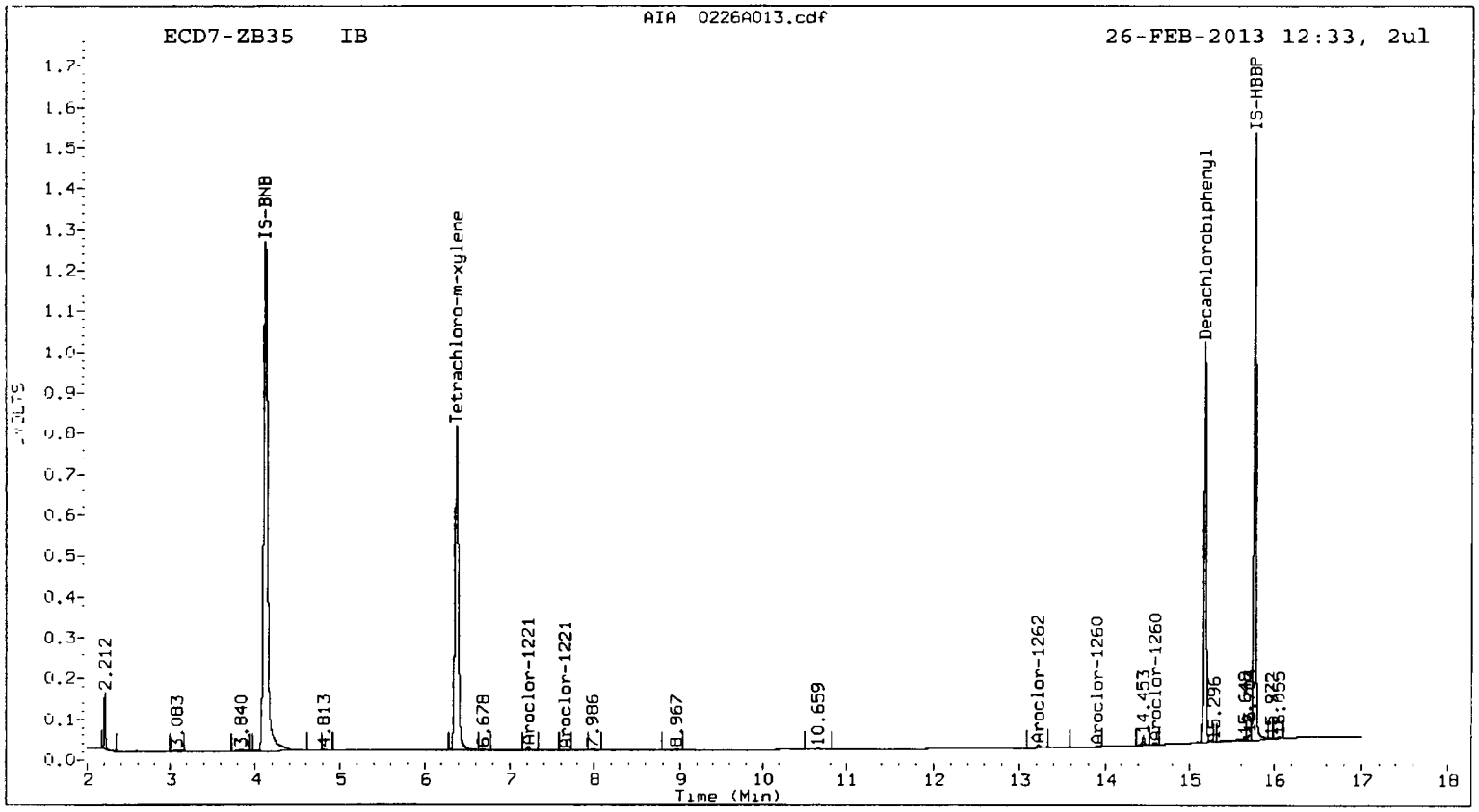
3.945
4.220
6.599
6.908
7.575
13.228
13.774
16.510
Time (Min)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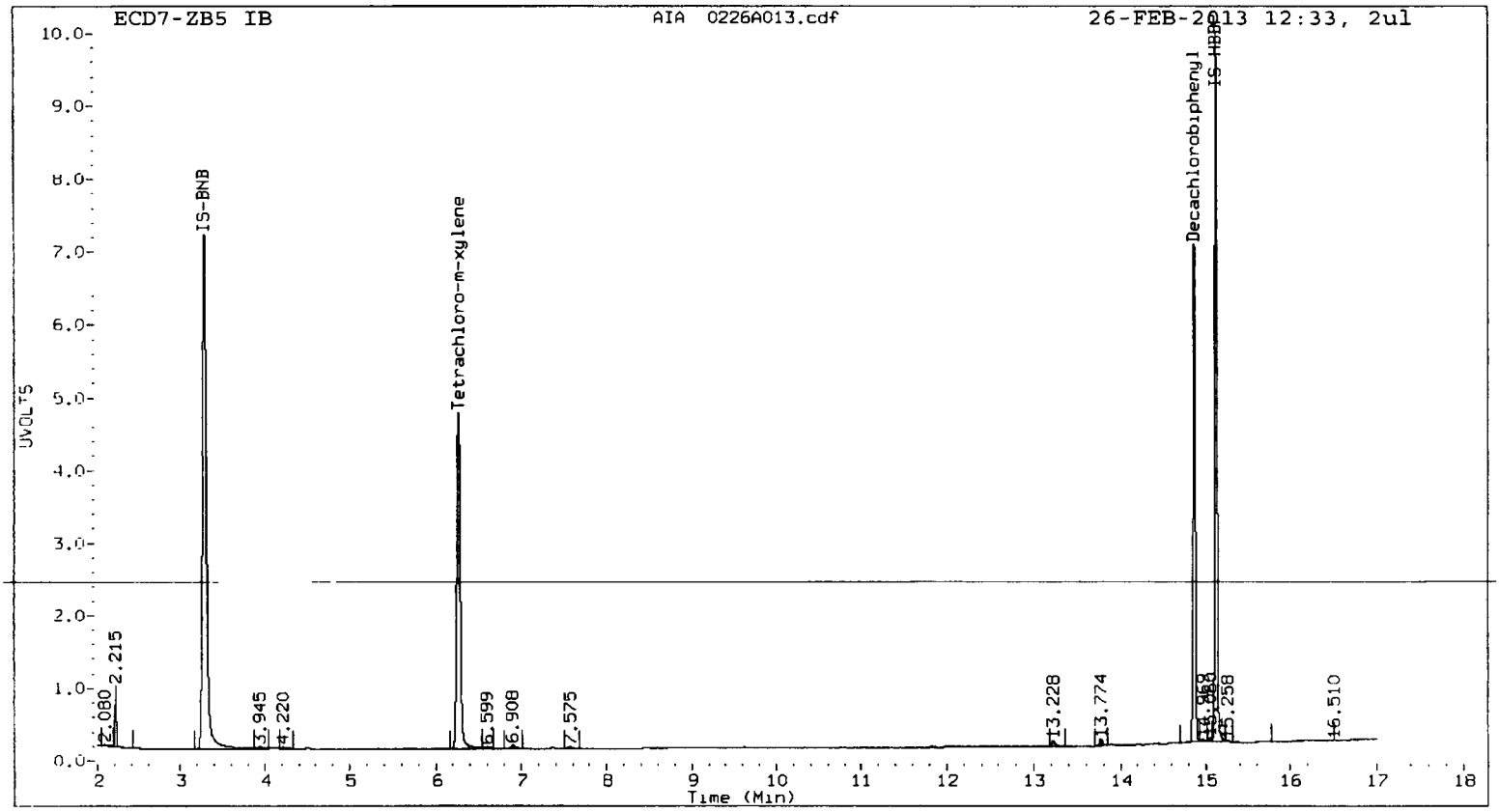
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1262
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
2.212
3.083
3.840
4.813
6.678
7.986
8.967
10.659
14.453
15.296
Time (Min)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AIA 0226A013.cdf
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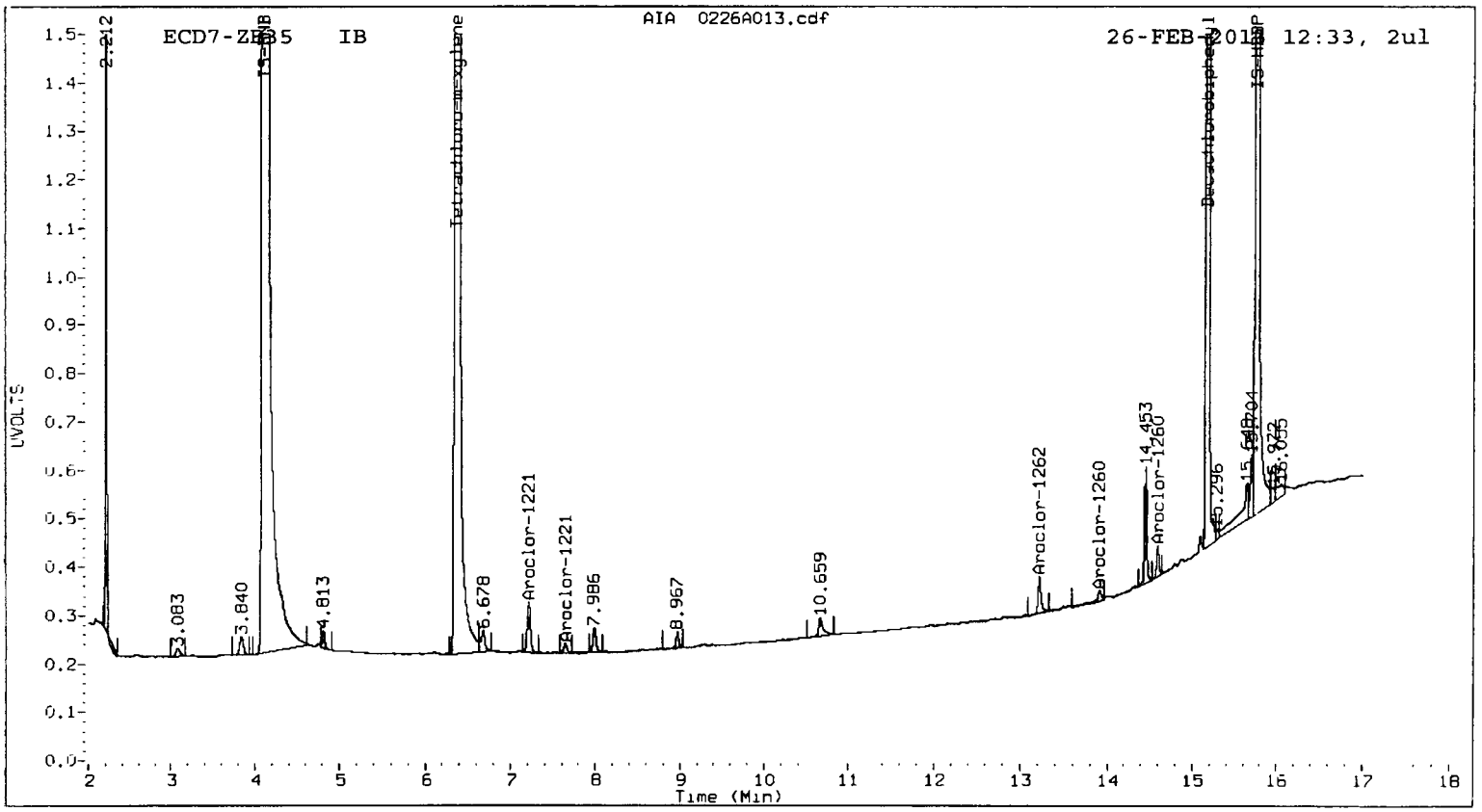
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
2.080
2.215
3.945
4.220
6.599
6.908
7.575
13.228
13.774
15.258
16.510
UVOLTS
Time (Min)


ECD7-ZB5 IB
AIA 0226A013.cdf
26-FEB-2013 12:33, 2ul
2.212
3.083
3.840
4.813
6.678
Aroclor-1221
Aroclor-1221
7.986
8.967
10.659
Aroclor-1262
Aroclor-1260
14.453
Aroclor-1260
15.296
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A014.d
Data file 2: 20130226.B/ical-2.b/0226A014.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
Client ID:
Injection Date: 26-FEB-2013 12:53
Report Date: 03/01/2013 10:29
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.265	0.001	1292813	6.373	0.002	2232611	20.9	20.2	3.7	Tetrachloro-m-xylene
14.864	0.000	1229750	15.178	0.001	1731064	19.7	19.0	3.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	52.3	50.4
Decachlorobiphenyl	49.3	47.6

JL 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4719825	-9.0
Hexabromobiphenyl	4555826	3725865	-18.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8033370	-3.7
Hexabromobiphenyl	6489385	5424940	-16.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

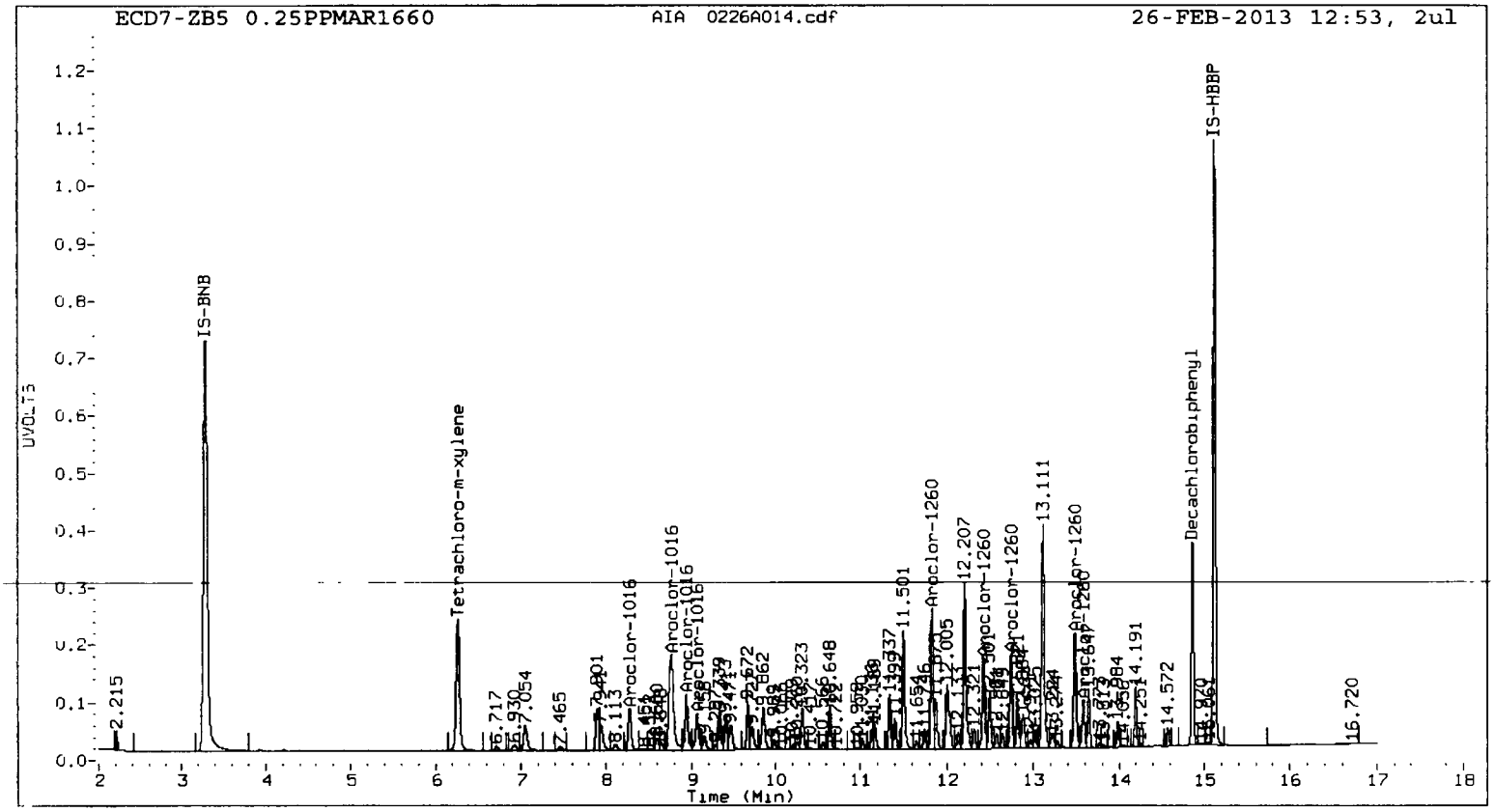
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	8.278	-0.001	376125	251.3	1	8.506	-0.001	1067609	239.1
Aroclor-1016	2	8.770	0.000	1267587	253.9	2	9.244	0.001	2208339	241.5
Aroclor-1016	3	8.944	0.000	503124	250.8	3	9.672	0.001	567720	250.8
Aroclor-1016	4	9.072	0.000	344026	250.8	4	9.779	0.000	654380	243.1
Total Col1Ave (4 peaks):					251.7	Total Col2Ave (4 peaks):				243.6 RPD = 3
Corrected Ave (3 peaks):					251.0	Corrected Ave (3 peaks):				241.2 RPD = 4
Aroclor-1260	1	11.829	0.001	978333	251.4	1	12.713	0.002	1476708	234.6
Aroclor-1260	2	12.433	0.001	646093	250.3	2	13.489	0.001	2384059	237.8
Aroclor-1260	3	12.748	0.001	654996	251.9	3	13.984	0.000	1614948	235.0
Aroclor-1260	4	13.483	0.000	846925	255.4	4	14.543	0.001	620215	246.2
Aroclor-1260	5	13.583	0.000	329420	248.2	NS	---			----
Total Col1Ave (5 peaks):					251.4	Total Col2Ave (4 peaks):				238.4 RPD = 5
Corrected Ave (4 peaks):					250.5	Corrected Ave (3 peaks):				235.8 RPD = 6

Total PCB Area Col1 (6.364 - 14.764) = 19047851 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 31624343 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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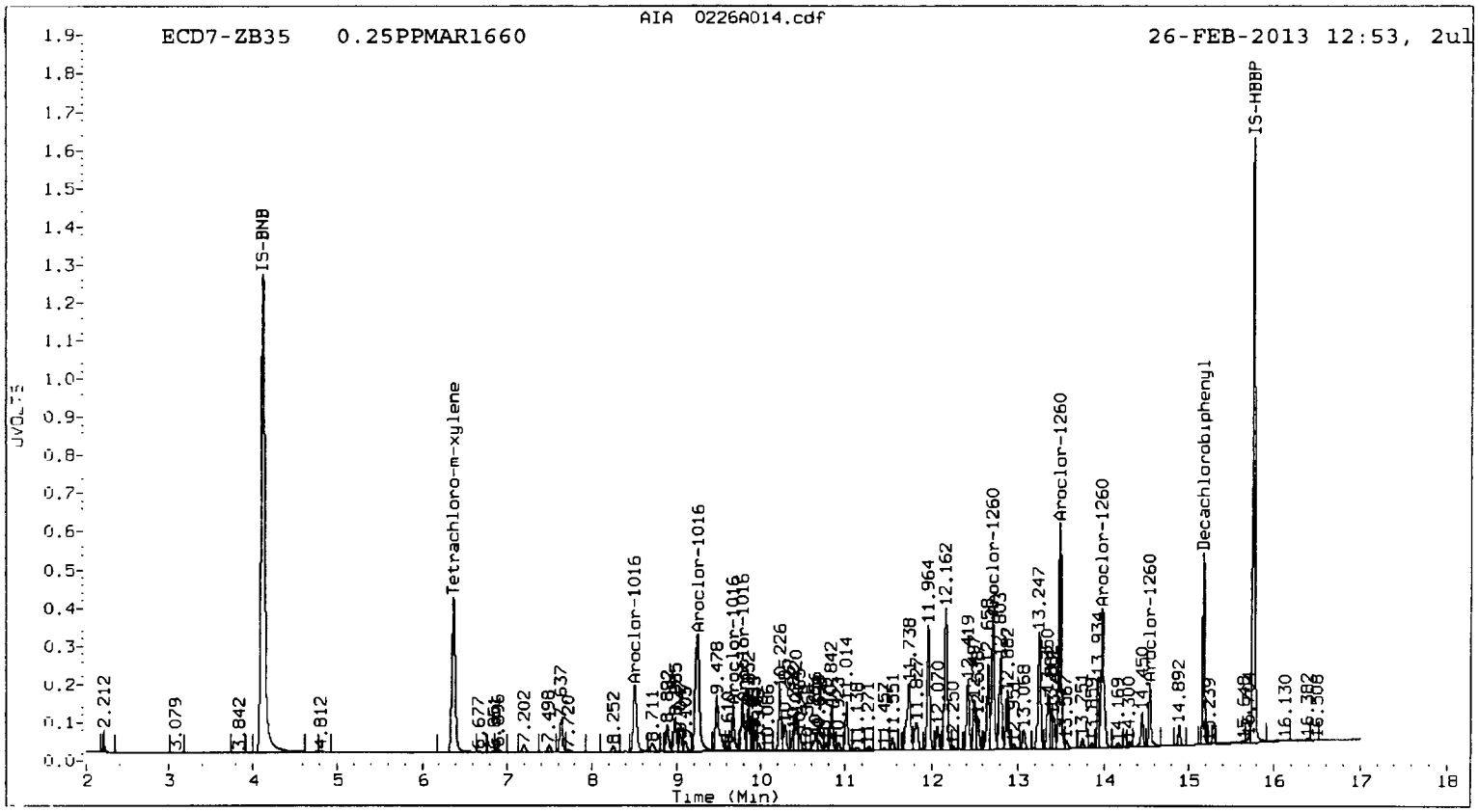
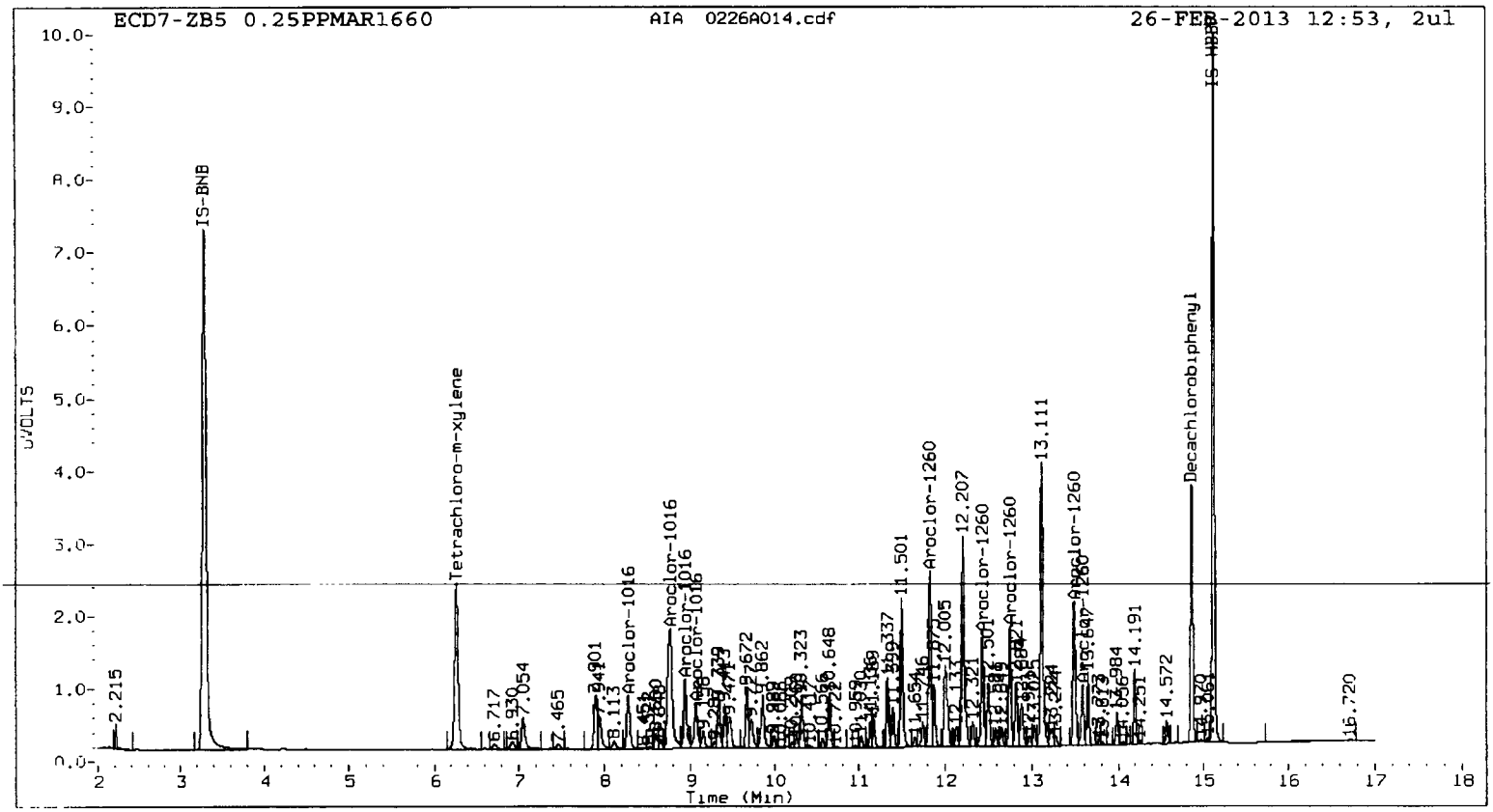
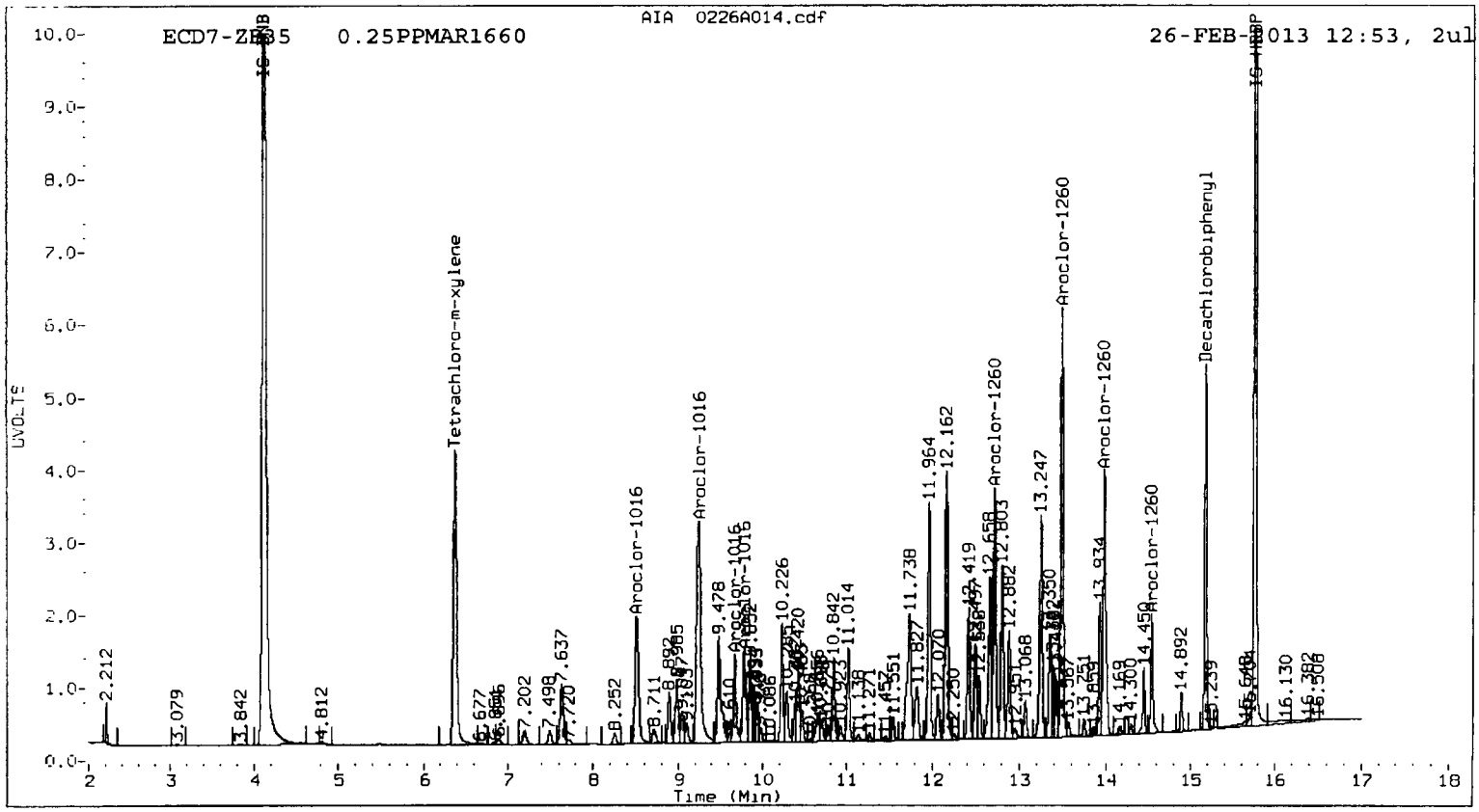
26-FEB-2013 12:53, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)


AIA 0226A014.cdf
ECD7-ZB35 0.25PPMAR1660
26-FEB-2013 12:53, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD7-ZB5 0.25PPMAR1660
AIA 0226A014.cdf
26-FEB-2013 12:53, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)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ECD7-ZB5 0.25PPMAR1660
26-FEB-2013 12:53, 2ul
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A015.d
Data file 2: 20130226.B/ical-2.b/0226A015.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
Client ID:
Injection Date: 26-FEB-2013 13:13
Report Date: 03/01/2013 10:29
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.266	0.002	90503	6.372	0.001	187399	1.5	1.7	14.7	Tetrachloro-m-xylene
14.865	0.000	104243	15.178	0.001	170882	1.7	1.9	10.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	3.6	4.2
Decachlorobiphenyl	4.2	4.7

JK 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4768370	-8.0
Hexabromobiphenyl	4555826	3712663	-18.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8087331	-3.1
Hexabromobiphenyl	6489385	5462888	-15.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

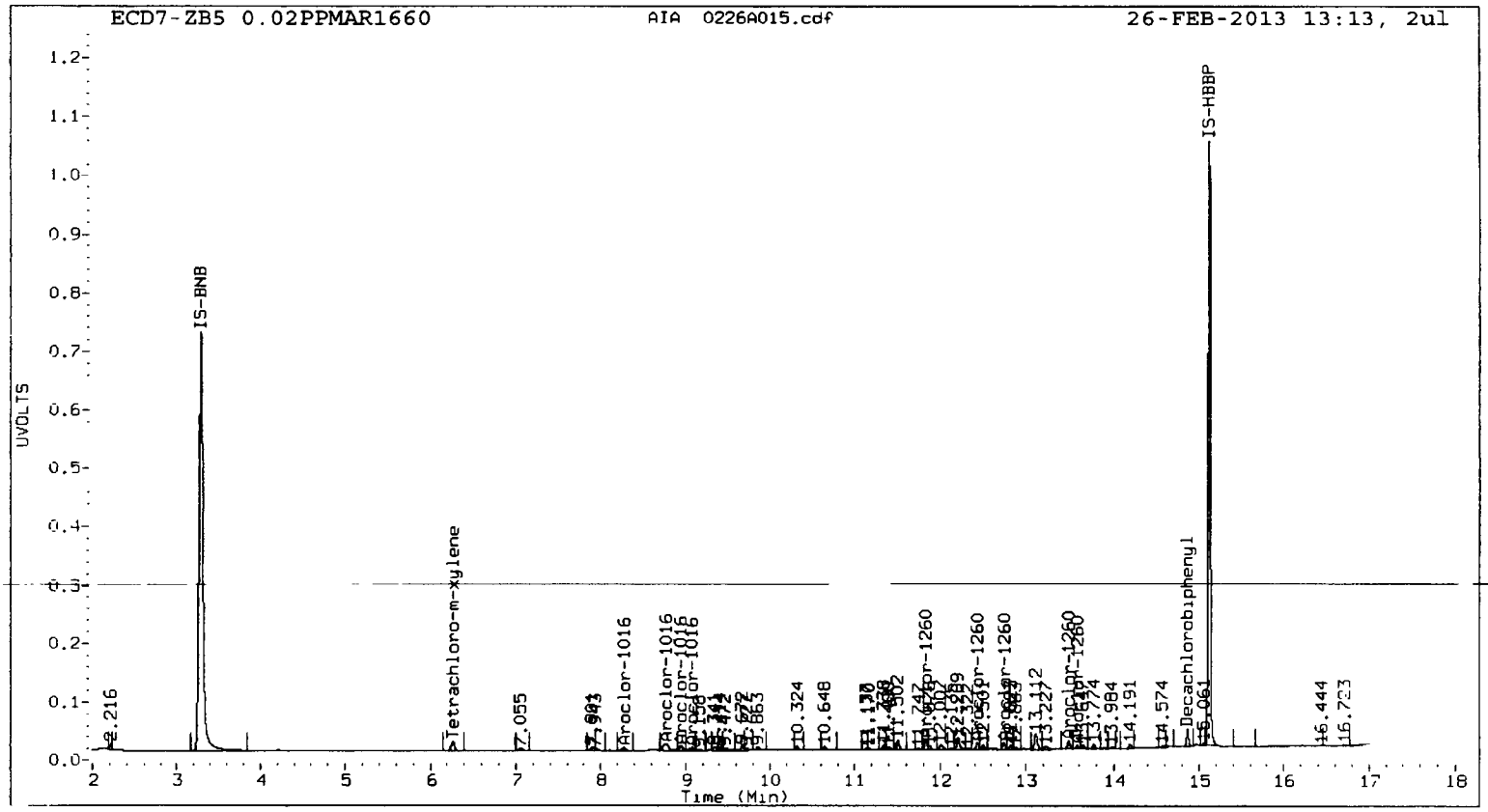
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	8.279	0.001	31170	20.6	1	8.507	0.001	107984	24.0
Aroclor-1016	2	8.772	0.002	100841	20.0	2	9.246	0.003	214140	23.3
Aroclor-1016	3	8.946	0.003	41799	20.6	3	9.674	0.003	45554	20.0
Aroclor-1016	4	9.075	0.003	27729	20.0	4	9.780	0.001	58759	21.7
Total Col1Ave (4 peaks):					20.3	Total Col2Ave (4 peaks):				22.2 RPD = 9
Corrected Ave (3 peaks):					20.2	Corrected Ave (3 peaks):				21.6 RPD = 7
Aroclor-1260	1	11.830	0.003	79381	20.5	1	12.713	0.002	154439	24.4
Aroclor-1260	2	12.433	0.001	52063	20.2	2	13.489	0.002	236070	23.4
Aroclor-1260	3	12.748	0.001	51252	19.8	3	13.985	0.002	165879	24.0
Aroclor-1260	4	13.484	0.002	62605	18.9	4	14.544	0.002	57378	22.6
Aroclor-1260	5	13.583	0.000	26899	20.3	NS	---			----
Total Col1Ave (5 peaks):					20.0	Total Col2Ave (4 peaks):				23.6 RPD = 17
Corrected Ave (4 peaks):					19.8	Corrected Ave (3 peaks):				23.3 RPD = 16

Total PCB Area Col1 (6.364 - 14.764) = 1488061 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 3138901 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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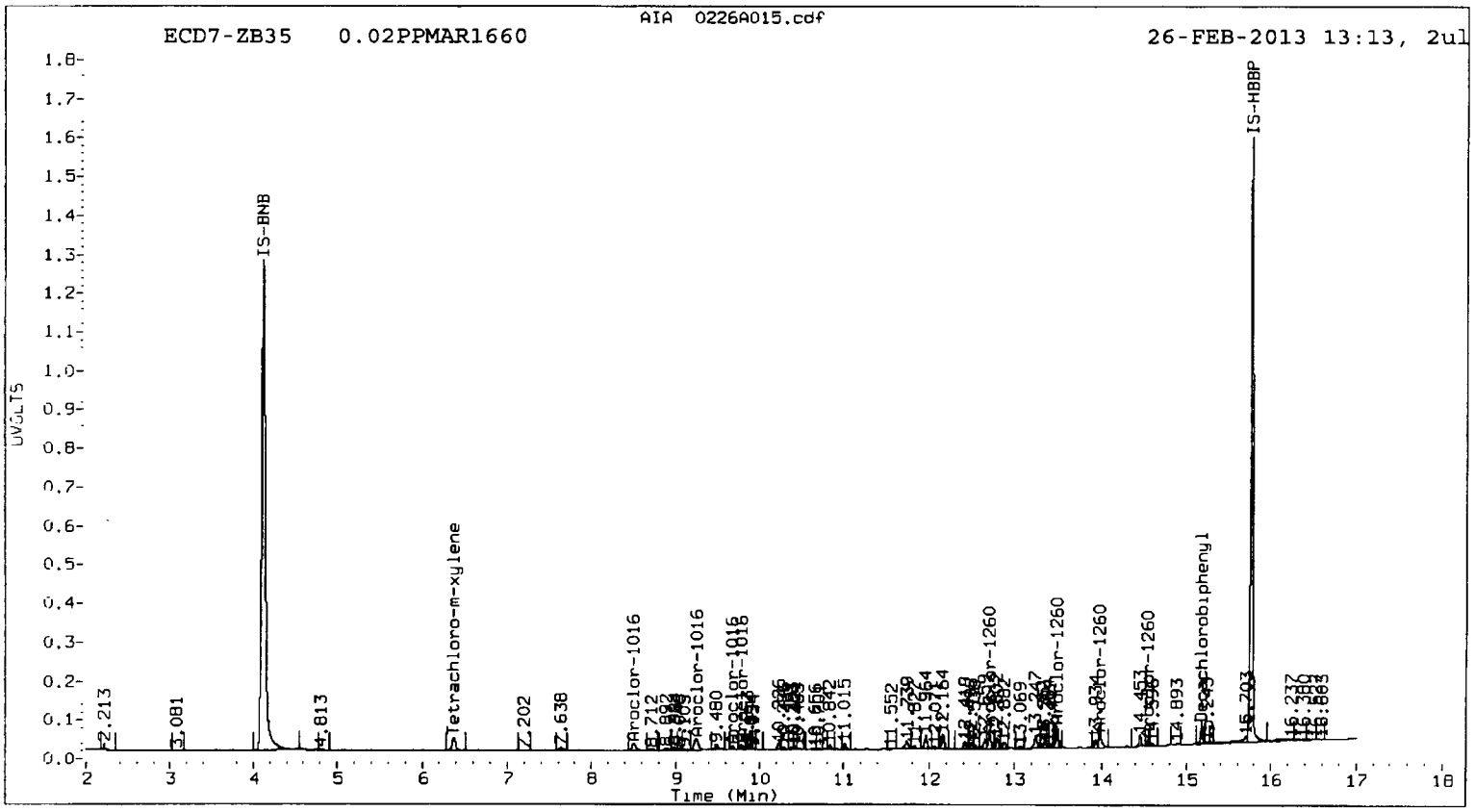
26-FEB-2013 13:13, 2ul
UVOLTS
Time (Min)
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260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26-FEB-2013 13:13, 2ul
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Time (Min)
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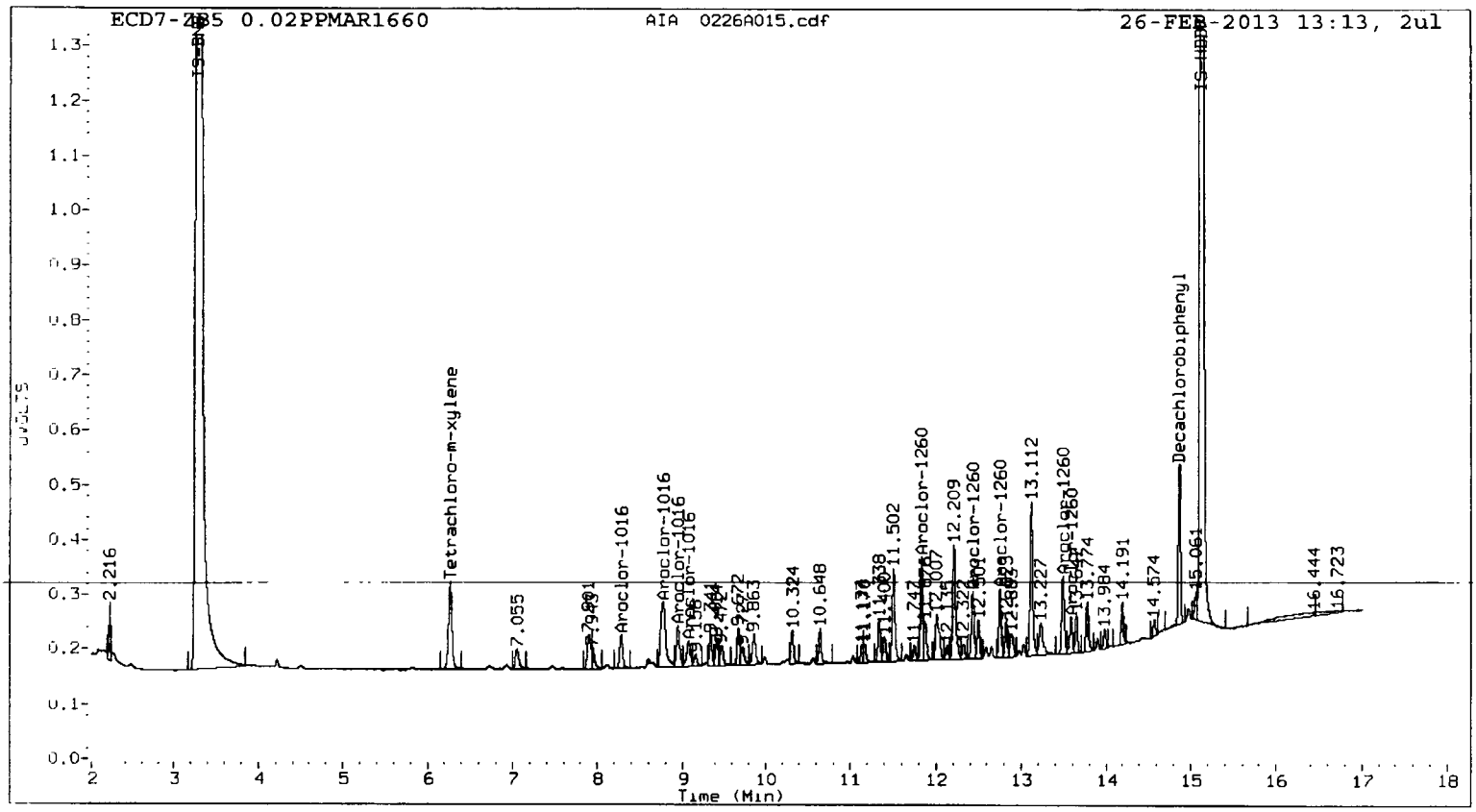
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260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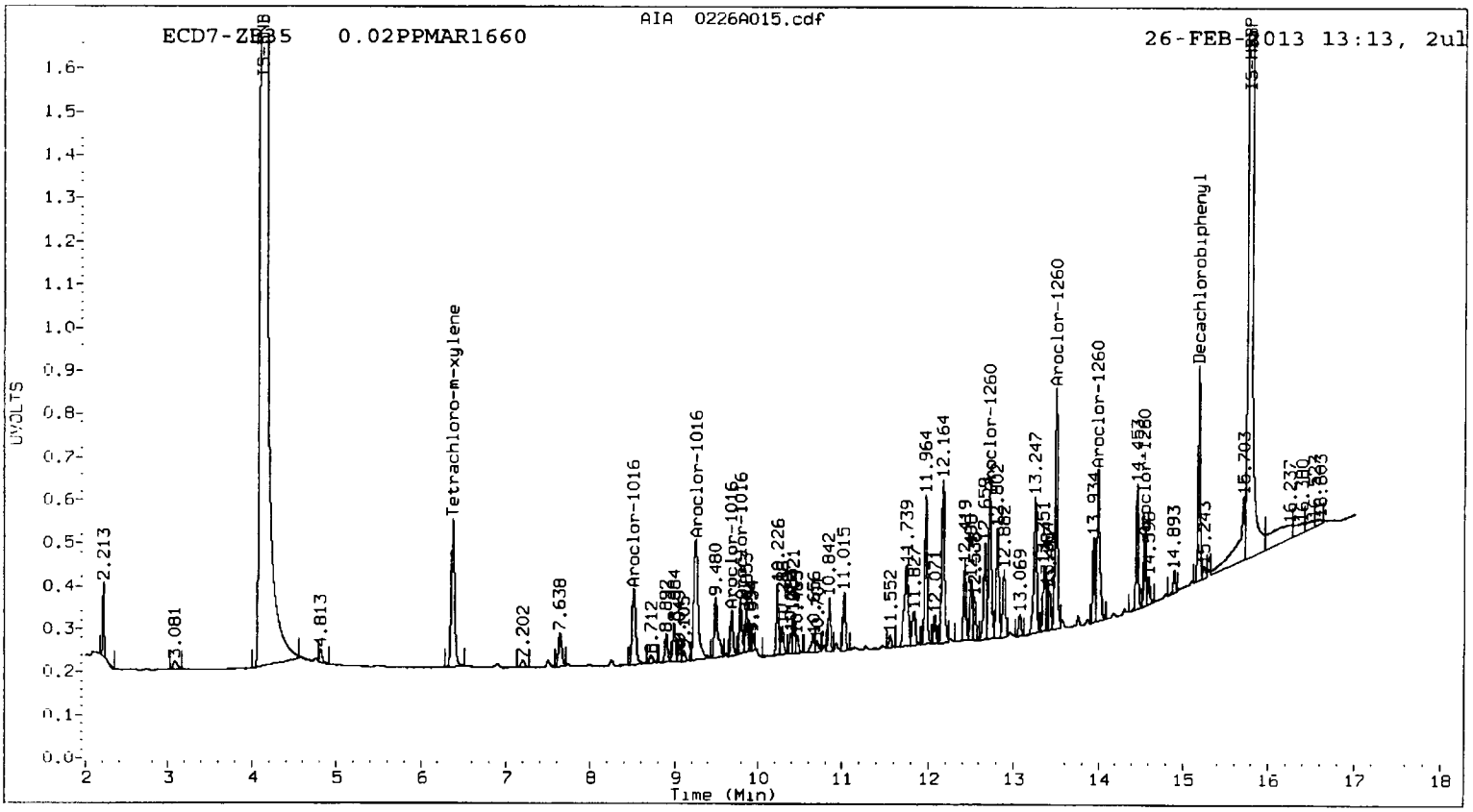
AIA 0226A015.cdf
26-FEB-2013 13:13, 2ul
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)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AIA 0226A015.cdf
26-FEB-2013 13:13, 2ul
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A016.d
Data file 2: 20130226.B/ical-2.b/0226A016.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
Client ID:
Injection Date: 26-FEB-2013 13:33
Report Date: 03/01/2013 10:29
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.266	0.002	239781	6.373	0.001	461172	3.8	4.0	6.0	Tetrachloro-m-xylene
14.864	0.000	253866	15.178	0.001	395669	4.1	4.2	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	9.5	10.1
Decachlorobiphenyl	10.2	10.6

JK 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4829985	-6.8
Hexabromobiphenyl	4555826	3718913	-18.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8300943	-0.5
Hexabromobiphenyl	6489385	5568518	-14.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

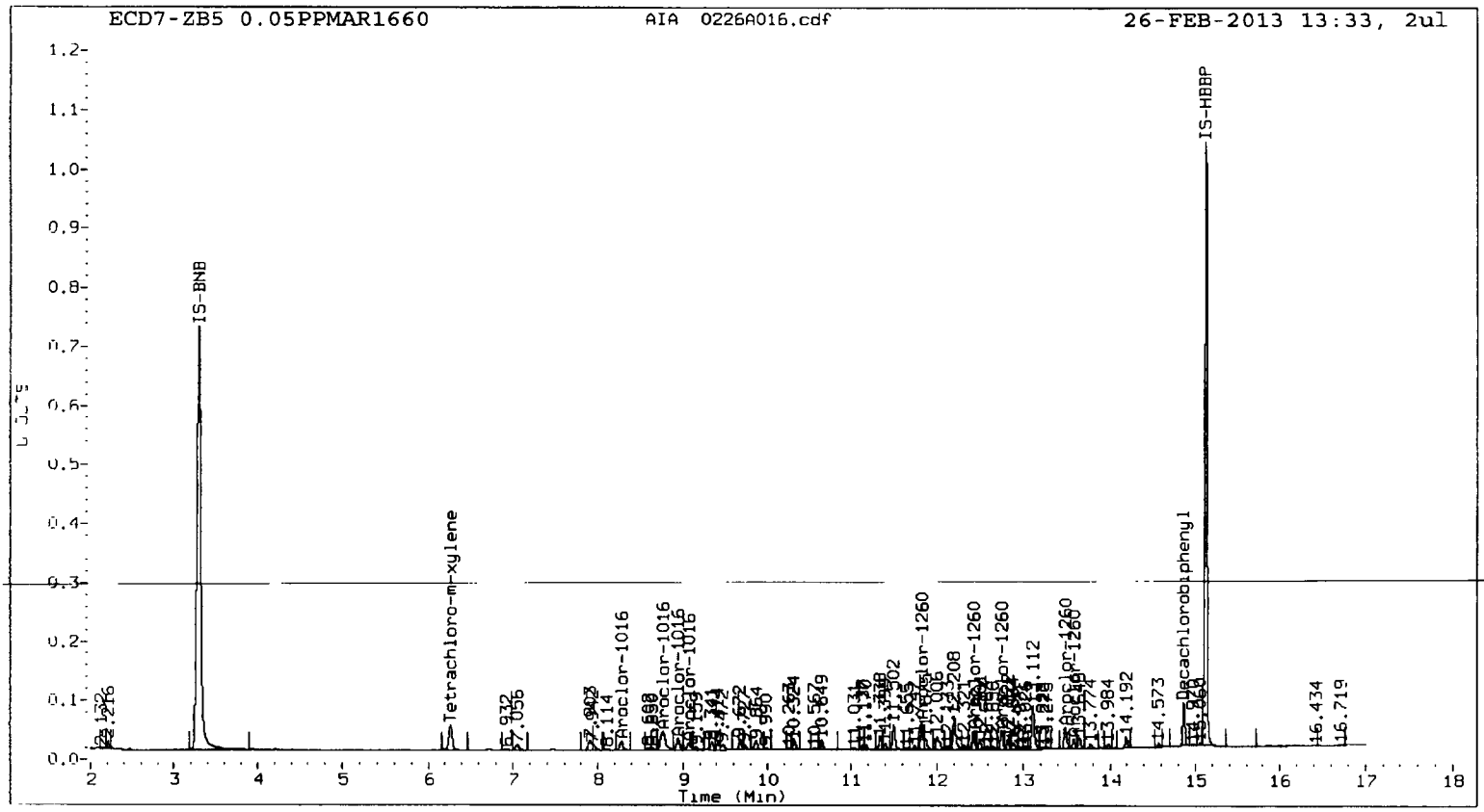
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	8.279	0.001	77494	50.6	1	8.508	0.001	252310	54.7
Aroclor-1016	2	8.771	0.001	255414	50.0	2	9.246	0.003	509742	53.9
Aroclor-1016	3	8.946	0.003	105082	51.2	3	9.674	0.003	129196	55.2
Aroclor-1016	4	9.075	0.003	72310	51.5	4	9.781	0.001	158725	57.1
Total Col1Ave (4 peaks):					50.8	Total Col2Ave (4 peaks):				55.2 RPD = 8
Corrected Ave (3 peaks):					50.6	Corrected Ave (3 peaks):				54.6 RPD = 8
Aroclor-1260	1	11.830	0.003	198070	51.0	1	12.712	0.001	349812	54.1
Aroclor-1260	2	12.433	0.001	130440	50.6	2	13.489	0.001	541026	52.6
Aroclor-1260	3	12.748	0.001	129721	50.0	3	13.985	0.001	378020	53.6
Aroclor-1260	4	13.484	0.001	161993	48.9	4	14.543	0.001	137619	53.2
Aroclor-1260	5	13.583	0.001	66079	49.9	NS	---			----
Total Col1Ave (5 peaks):					50.1	Total Col2Ave (4 peaks):				53.4 RPD = 6
Corrected Ave (4 peaks):					49.9	Corrected Ave (3 peaks):				53.1 RPD = 6

Total PCB Area Col1 (6.364 - 14.764) = 3838940 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 7461733 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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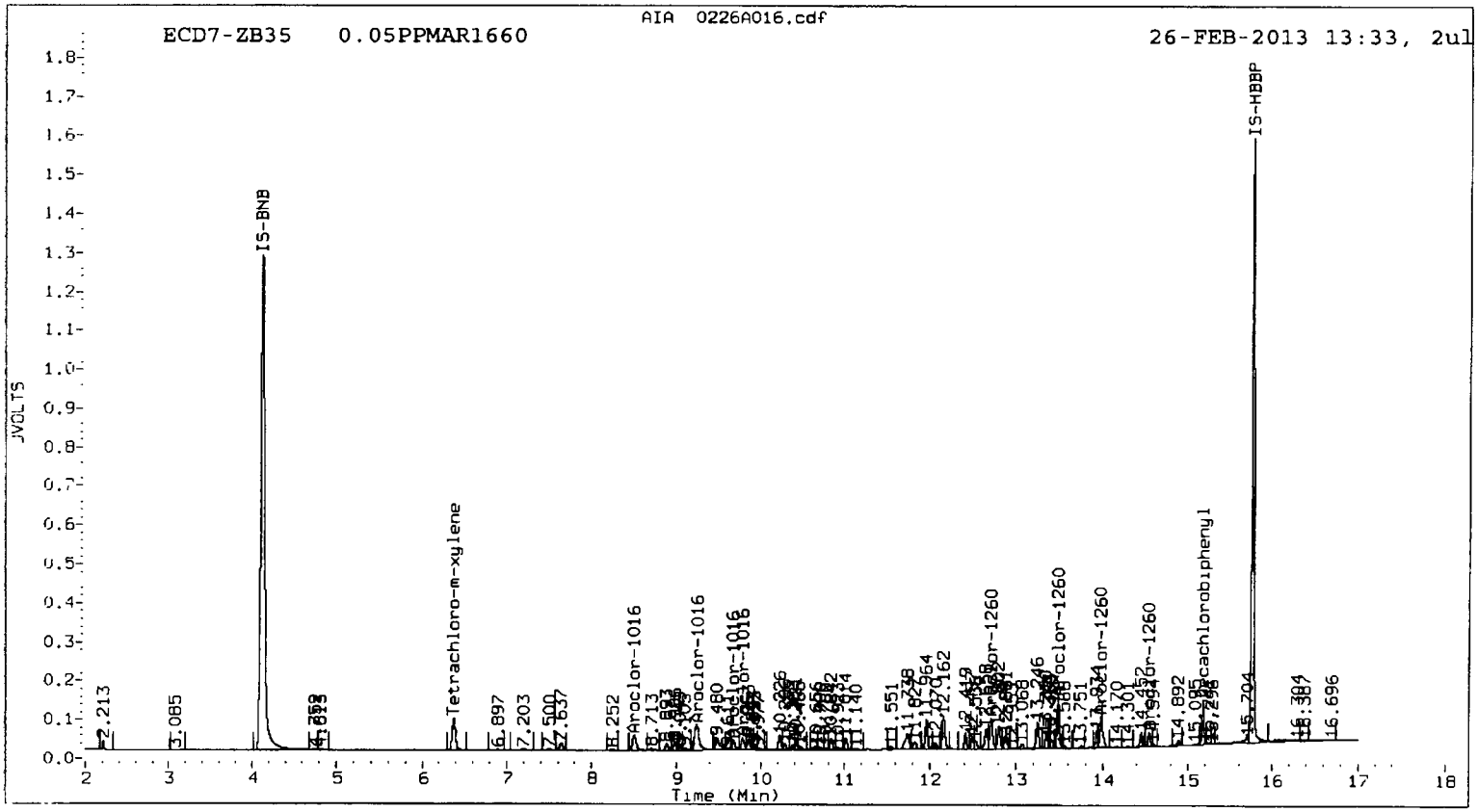
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)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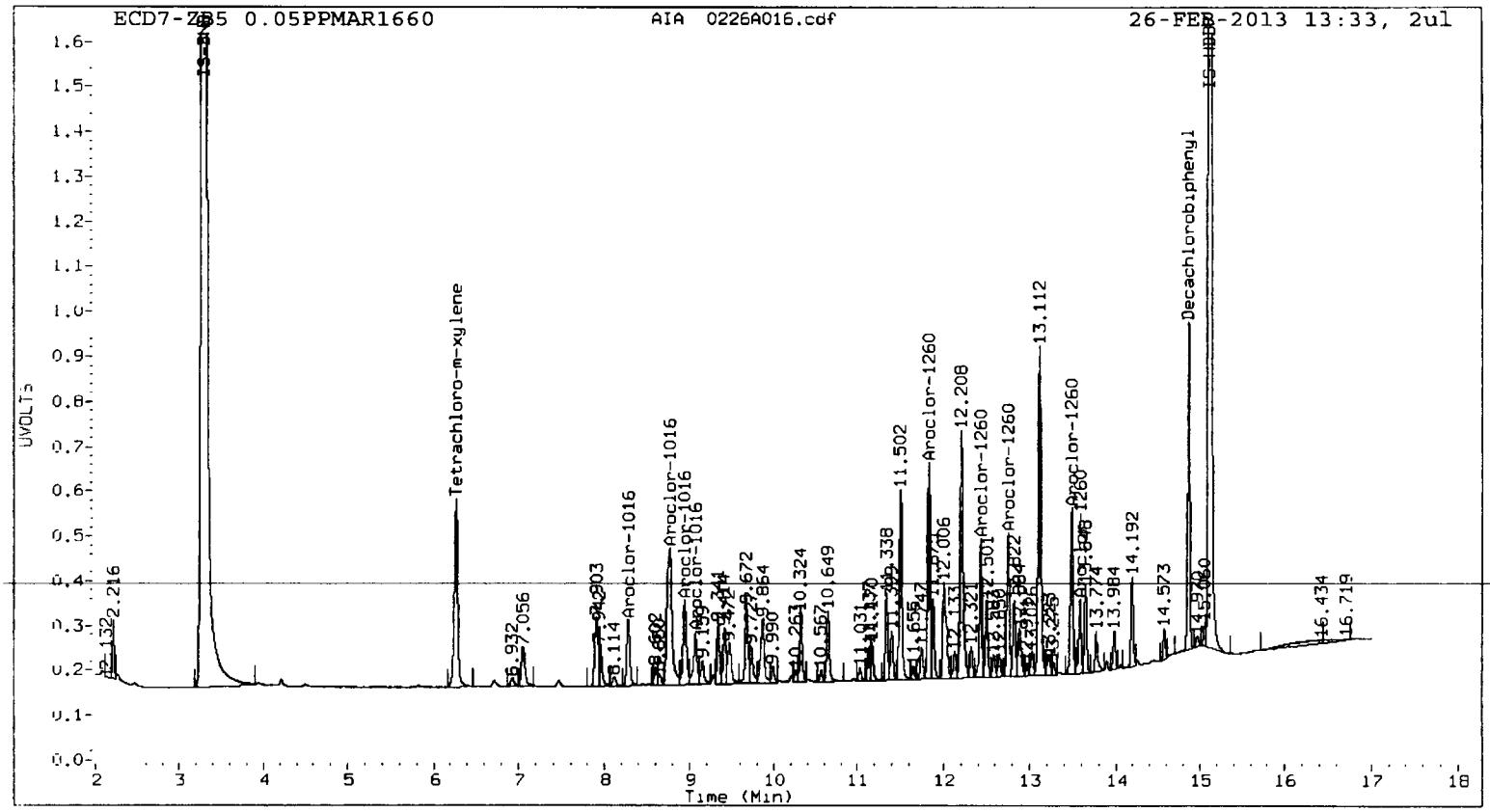
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)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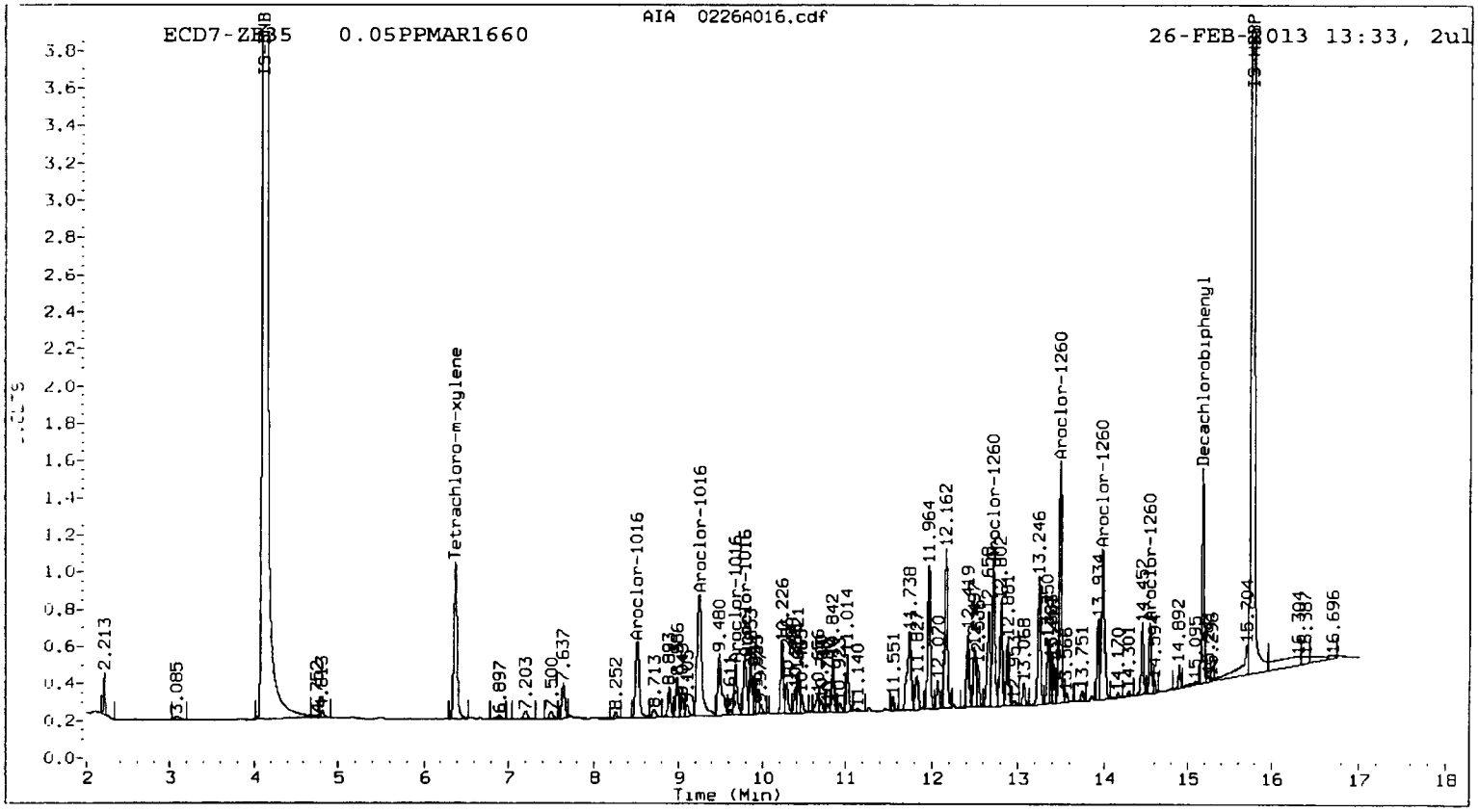
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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ECD7-ZB35 0.05PPMAR1660
26-FEB-2013 13:33, 2ul
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A017.d
Data file 2: 20130226.B/ical-2.b/0226A017.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1PPMAR1660
Client ID:
Injection Date: 26-FEB-2013 13:54
Report Date: 03/01/2013 10:29
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.266	0.003	5232593	6.374	0.002	8589086	85.6	78.2	9.0	Tetrachloro-m-xylene
14.864	0.000	4822004	15.178	0.001	6622237	77.7	73.2	5.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	213.9	195.4
Decachlorobiphenyl	194.3	183.1

JR 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4673818	-9.9
Hexabromobiphenyl	4555826	3706522	-18.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	7972351	-4.4
Hexabromobiphenyl	6489385	5392534	-16.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

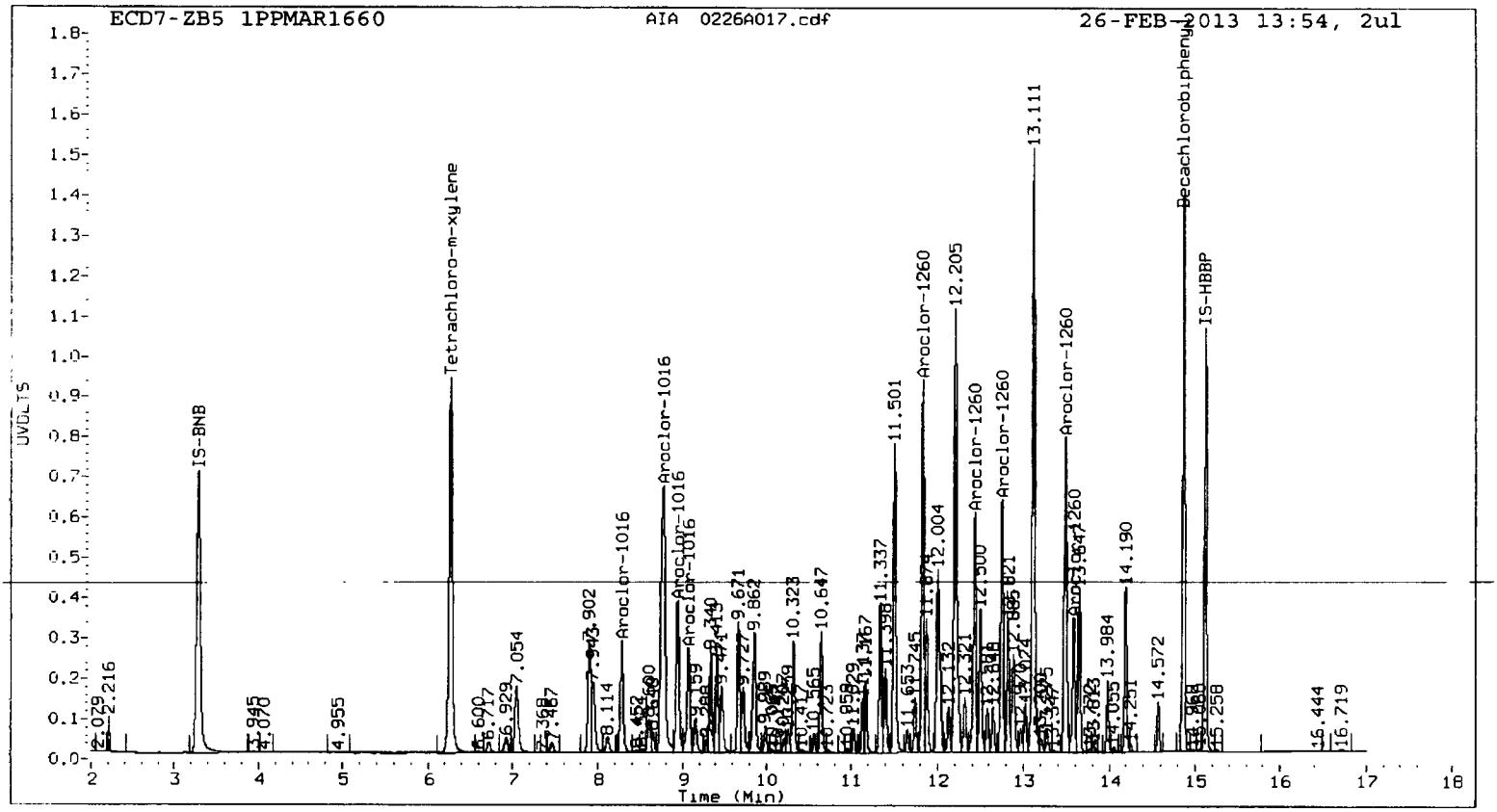
	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	8.278	0.000	1435647	968.5	1	8.508	0.001	3706639	836.5
Aroclor-1016	2	8.769	-0.001	4886225	988.3	2	9.243	0.000	7954168	876.5
Aroclor-1016	3	8.943	-0.001	1901222	956.9	3	9.671	0.000	2035445	906.0
Aroclor-1016	4	9.071	-0.001	1328657	978.3	4	9.780	0.001	2265240	848.1
Total Col1Ave (4 peaks):					973.0	Total Col2Ave (4 peaks):			866.8	RPD = 12
Corrected Ave (3 peaks):					967.9	Corrected Ave (3 peaks):			853.7	RPD = 13
Aroclor-1260	1	11.828	0.000	3730983	963.7	1	12.711	0.000	5436672	868.8
Aroclor-1260	2	12.432	0.000	2505174	975.7	2	13.488	0.000	9132837	916.3
Aroclor-1260	3	12.747	0.000	2577386	996.3	3	13.984	0.000	6040179	884.3
Aroclor-1260	4	13.482	0.000	3412097	1034.4	4	14.542	0.000	2190345	874.7
Aroclor-1260	5	13.582	0.000	1321014	1000.6	NS	---			----
Total Col1Ave (5 peaks):					994.1	Total Col2Ave (4 peaks):			886.0	RPD = 12
Corrected Ave (4 peaks):					984.1	Corrected Ave (3 peaks):			875.9	RPD = 12

Total PCB Area Col1 (6.364 - 14.764) = 73642701 Col1 Total PCB = 2.0 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 112670328 Col2 Total PCB = 1.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
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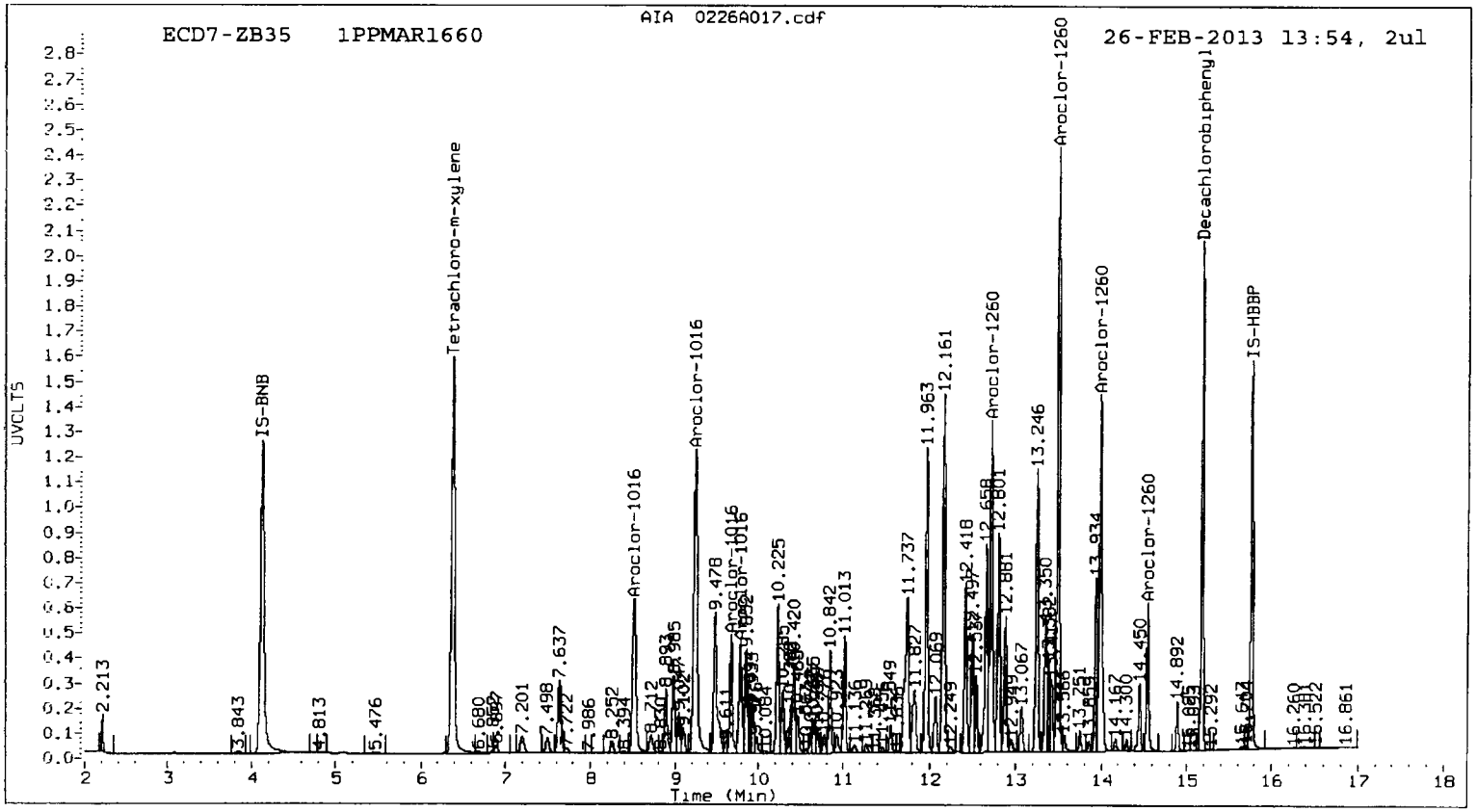
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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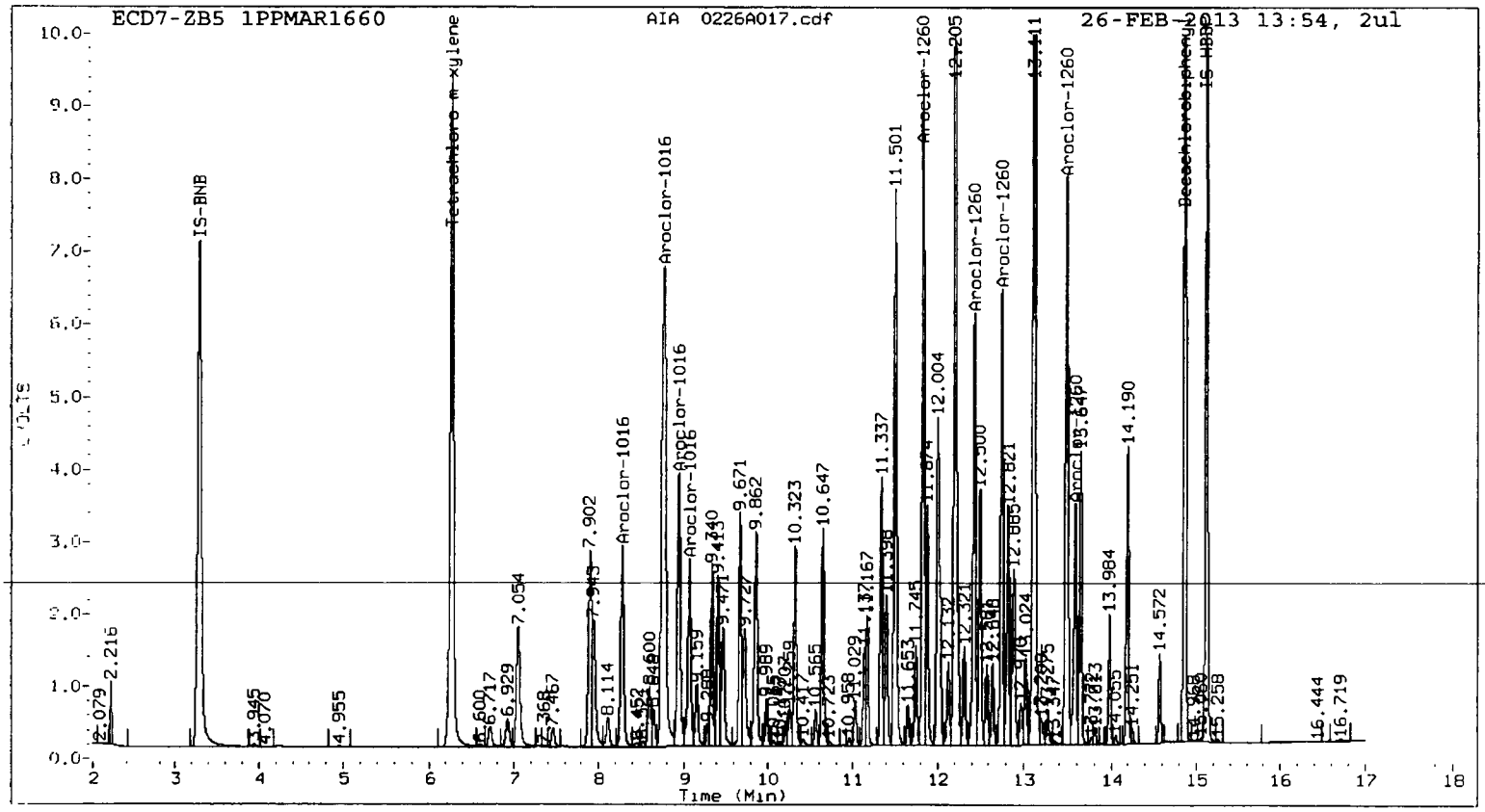
26-FEB-2013 13:54, 2ul
UVCLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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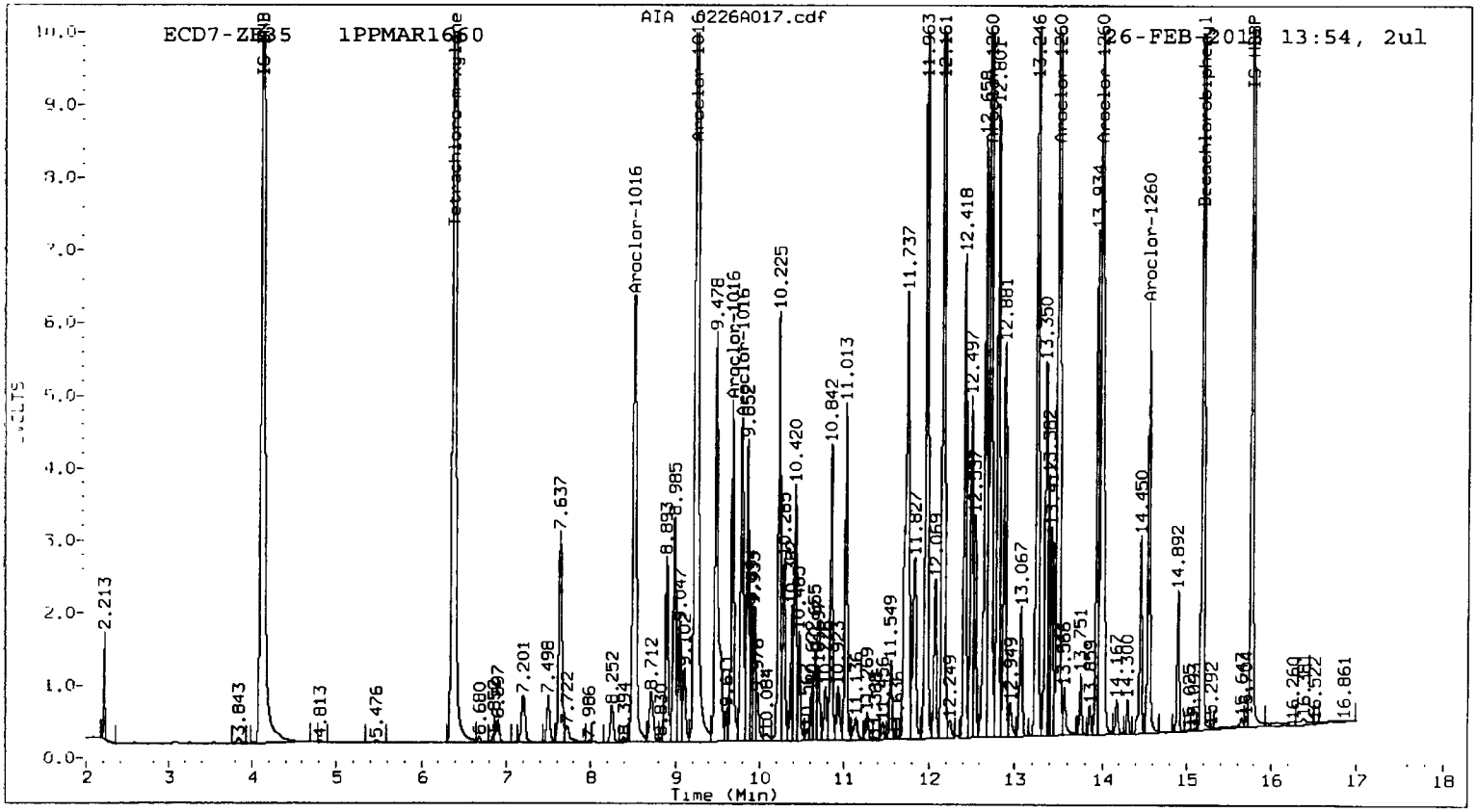
26-FEB-2013 13:54, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)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AIA 0226A017.cdf
26-FEB-2013 13:54, 2ul
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A018.d
Data file 2: 20130226.B/ical-2.b/0226A018.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 26-FEB-2013 14:14
Report Date: 03/01/2013 10:29
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.266	0.003	499075	6.374	0.002	914614	8.0	8.1	1.3	Tetrachloro-m-xylene
14.865	0.000	512121	15.178	0.001	750658	8.1	8.1	0.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	19.9	20.1
Decachlorobiphenyl	20.4	20.3

JR 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4795812	-7.5
Hexabromobiphenyl	4555826	3755869	-17.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8238401	-1.3
Hexabromobiphenyl	6489385	5510607	-15.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

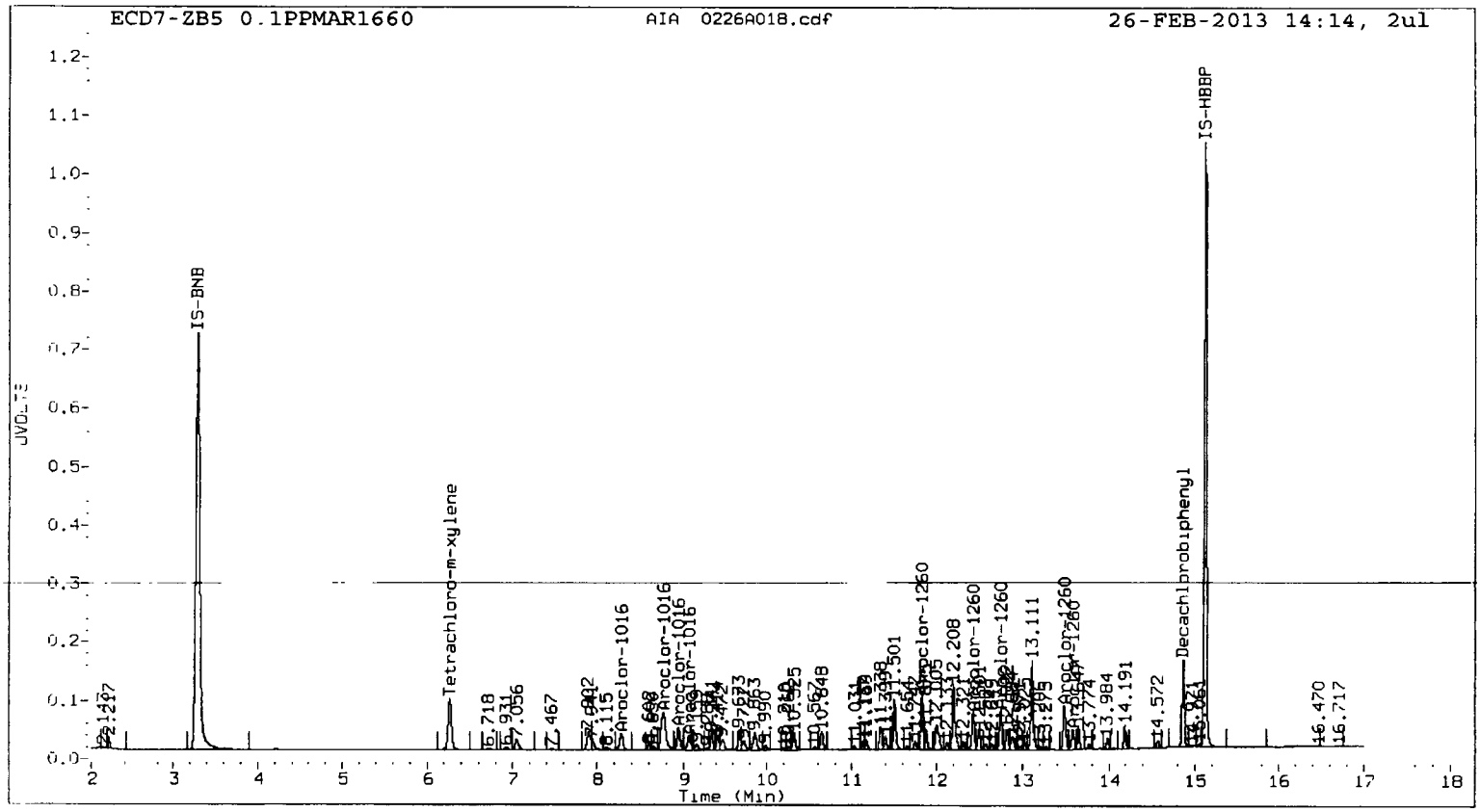
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	8.279	0.001	155236	102.1	1	8.508	0.001	476710	104.1
Aroclor-1016	2	8.772	0.001	515415	101.6	2	9.246	0.003	960324	102.4
Aroclor-1016	3	8.946	0.003	209988	103.0	3	9.673	0.002	245542	105.8
Aroclor-1016	4	9.074	0.002	142719	102.4	4	9.780	0.001	295176	106.9
	Total Col1Ave (4 peaks):				102.3	Total Col2Ave (4 peaks):				104.8 RPD = 2
	Corrected Ave (3 peaks):				102.0	Corrected Ave (3 peaks):				104.1 RPD = 2
Aroclor-1260	1	11.829	0.002	399832	101.9	1	12.712	0.001	659666	103.2
Aroclor-1260	2	12.432	0.000	265066	101.9	2	13.488	0.000	1044064	102.5
Aroclor-1260	3	12.748	0.000	265696	101.4	3	13.984	0.001	723249	103.6
Aroclor-1260	4	13.484	0.001	335135	100.3	4	14.543	0.000	268684	105.0
Aroclor-1260	5	13.582	0.000	135097	101.0	NS	---			----
	Total Col1Ave (5 peaks):				101.3	Total Col2Ave (4 peaks):				103.6 RPD = 2
	Corrected Ave (4 peaks):				101.1	Corrected Ave (3 peaks):				103.1 RPD = 2

Total PCB Area Col1 (6.364 - 14.764) = 7744468 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 14156674 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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26-FEB-2013 14:14, 2ul
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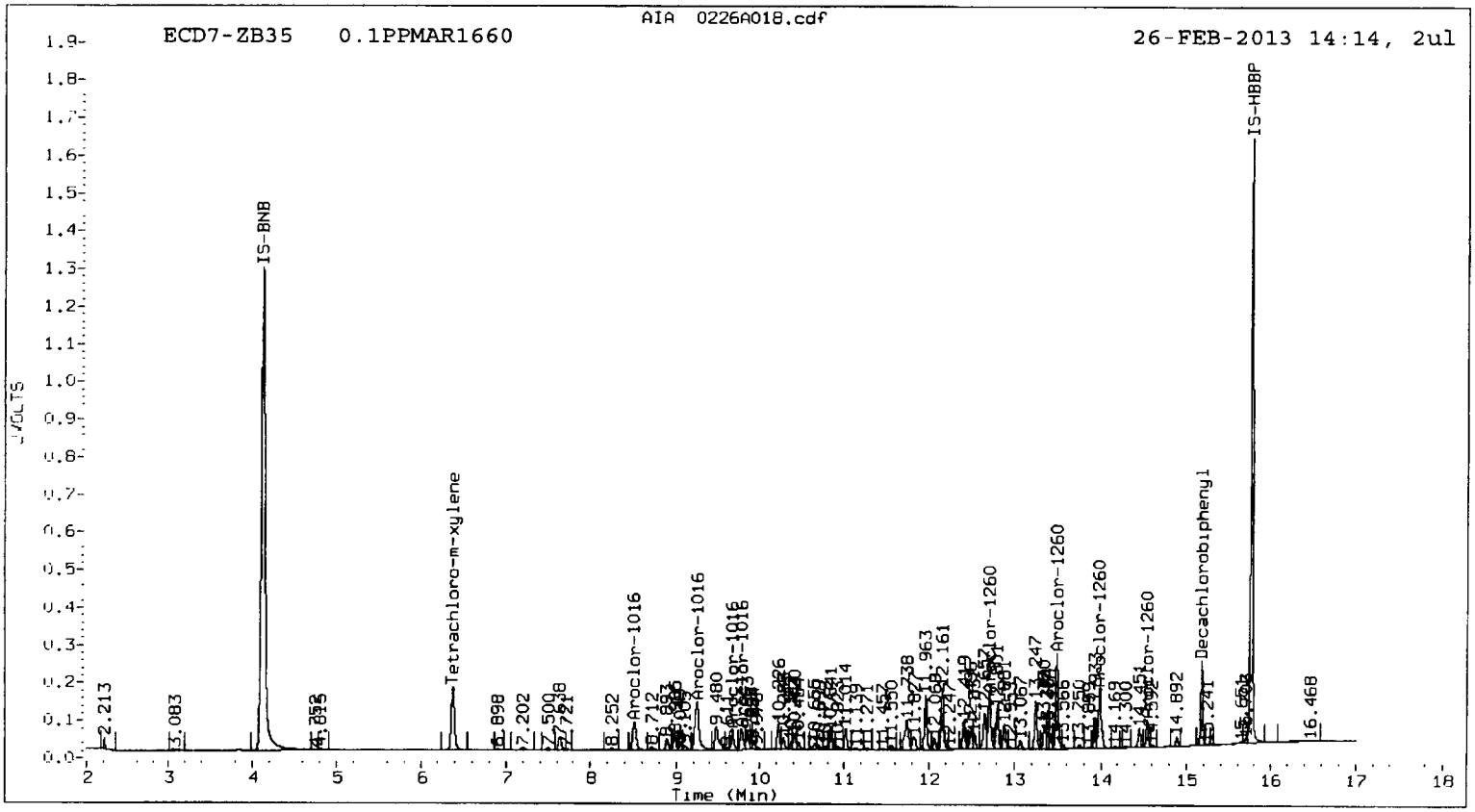
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
Time (Min)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Tetrachloro-m-xylene
Aroclor-1016
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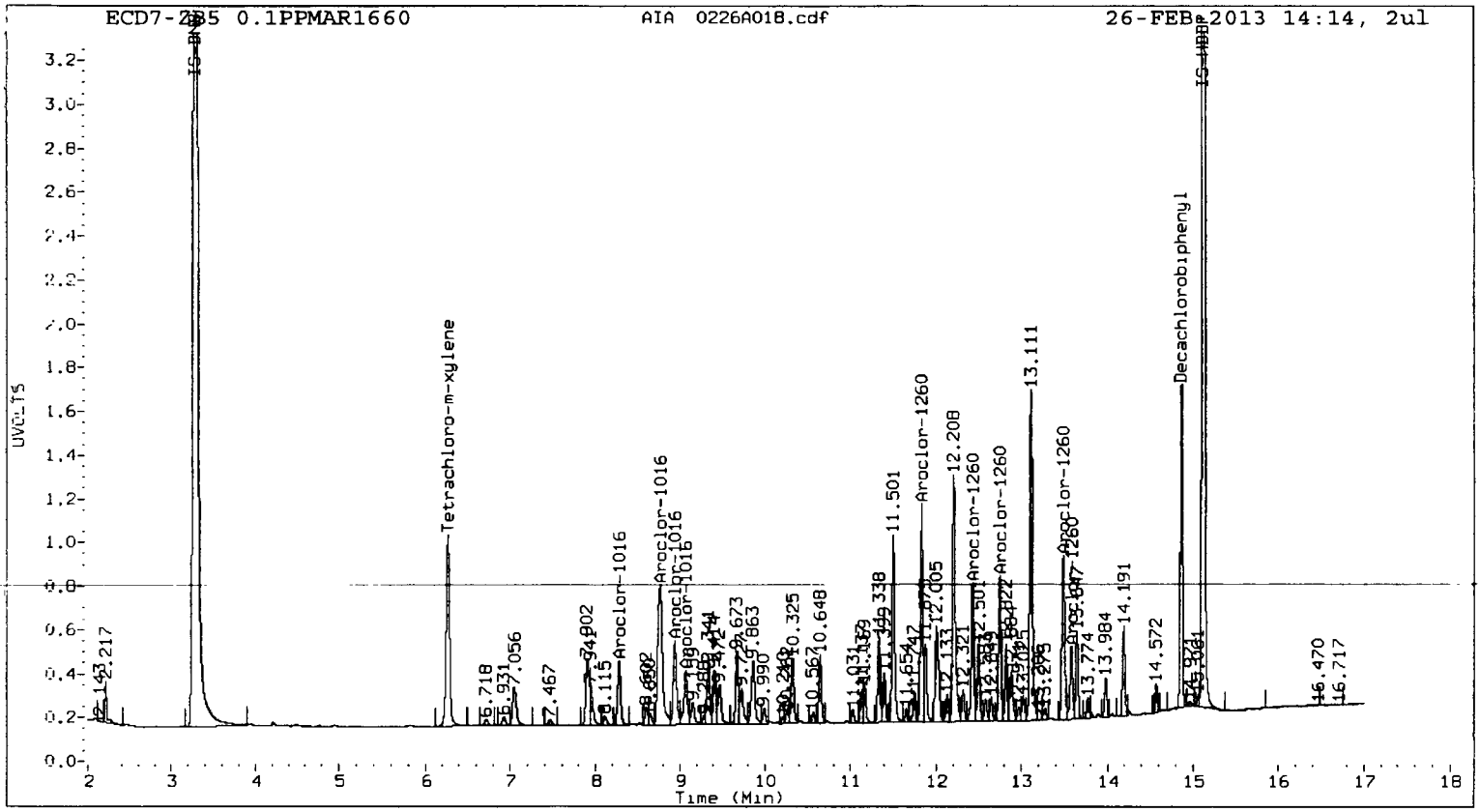
Decachlorobiphenyl
IS-HBBP
Time (Min)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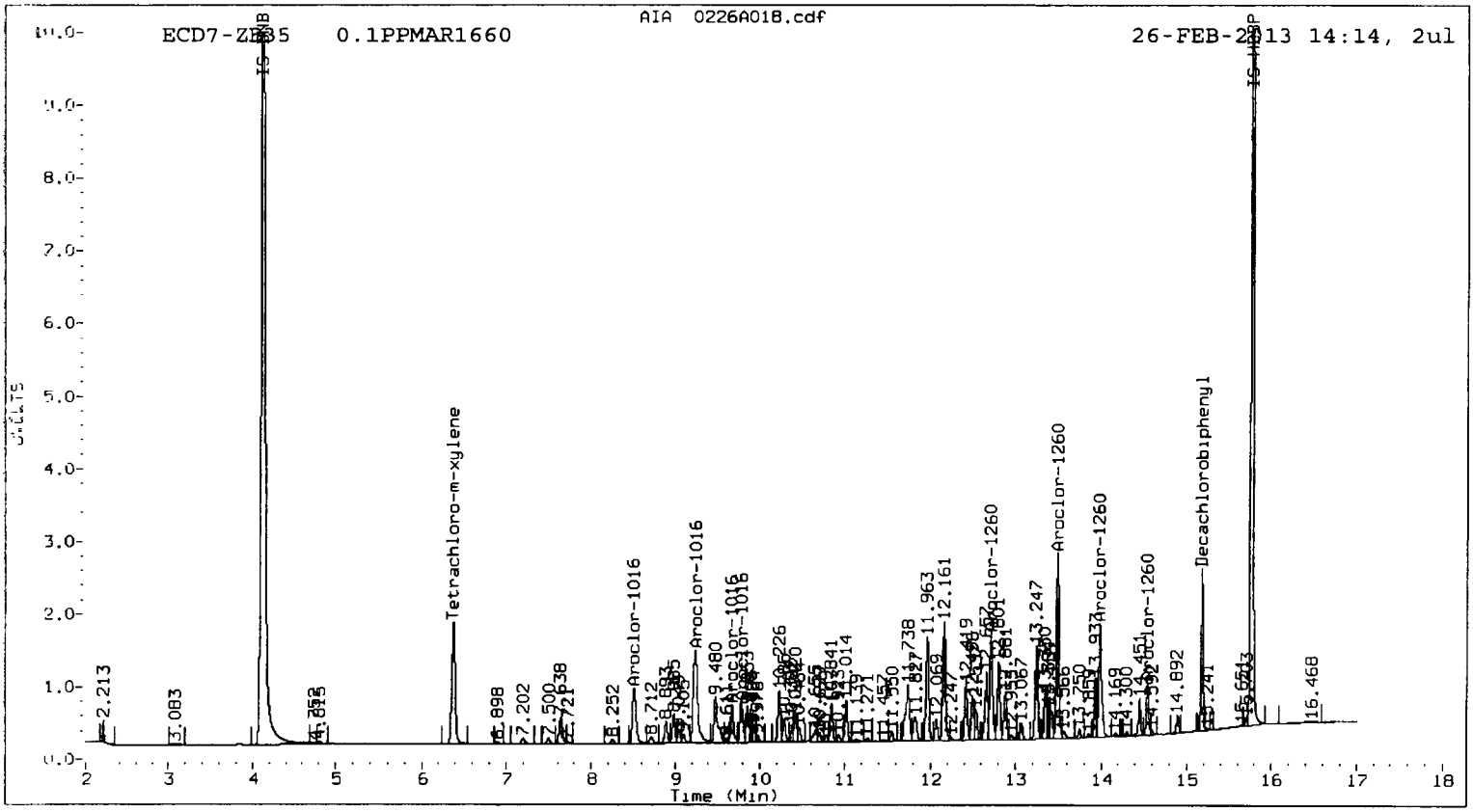
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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ECD7-ZB35 0.1PPMAR1660
26-FEB-2013 14:14, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A019.d
Data file 2: 20130226.B/ical-2.b/0226A019.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
Client ID:
Injection Date: 26-FEB-2013 14:34
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.265	0.001	2614490	6.372	0.001	4325594	41.4	38.0	8.6	Tetrachloro-m-xylene
14.864	0.000	2423467	15.178	0.001	3403983	38.3	35.7	7.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	103.4	94.9
Decachlorobiphenyl	95.7	89.3

JL 03/04/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4831436	-6.8
Hexabromobiphenyl	4555826	3780764	-17.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8268176	-0.9
Hexabromobiphenyl	6489385	5686107	-12.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

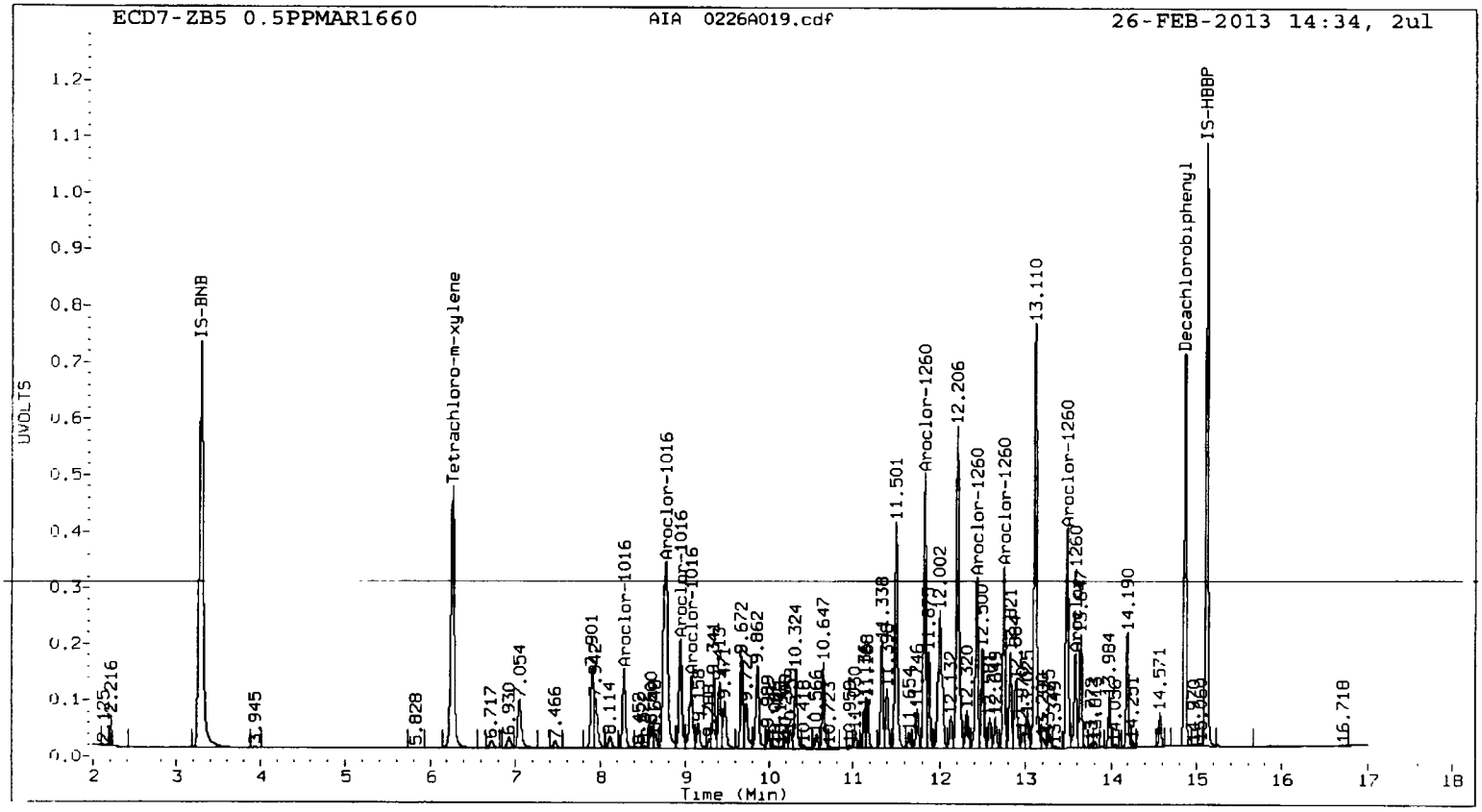
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	8.278	0.000	738378	481.9	1	8.507	0.000	2001034	435.4
Aroclor-1016	2	8.770	0.000	2505714	490.3	2	9.243	0.000	4195715	445.8
Aroclor-1016	3	8.943	0.000	980968	477.6	3	9.671	0.000	1082404	464.6
Aroclor-1016	4	9.072	0.000	676270	481.7	4	9.779	0.000	1224795	442.1
Total Col1Ave (4 peaks):					482.9	Total Col2Ave (4 peaks):			447.0	RPD = 8
Corrected Ave (3 peaks):					480.4	Corrected Ave (3 peaks):			441.1	RPD = 9
Aroclor-1260	1	11.828	0.000	1911750	484.1	1	12.711	0.000	2839321	430.3
Aroclor-1260	2	12.432	0.000	1282618	489.7	2	13.487	0.000	4662727	443.7
Aroclor-1260	3	12.747	0.000	1311708	497.1	3	13.983	0.000	3130366	434.6
Aroclor-1260	4	13.483	0.000	1707564	507.5	4	14.543	0.000	1181675	447.5
Aroclor-1260	5	13.583	0.000	661305	491.1	NS	---			----
Total Col1Ave (5 peaks):					493.9	Total Col2Ave (4 peaks):			439.0	RPD = 12
Corrected Ave (4 peaks):					490.5	Corrected Ave (3 peaks):			436.2	RPD = 12

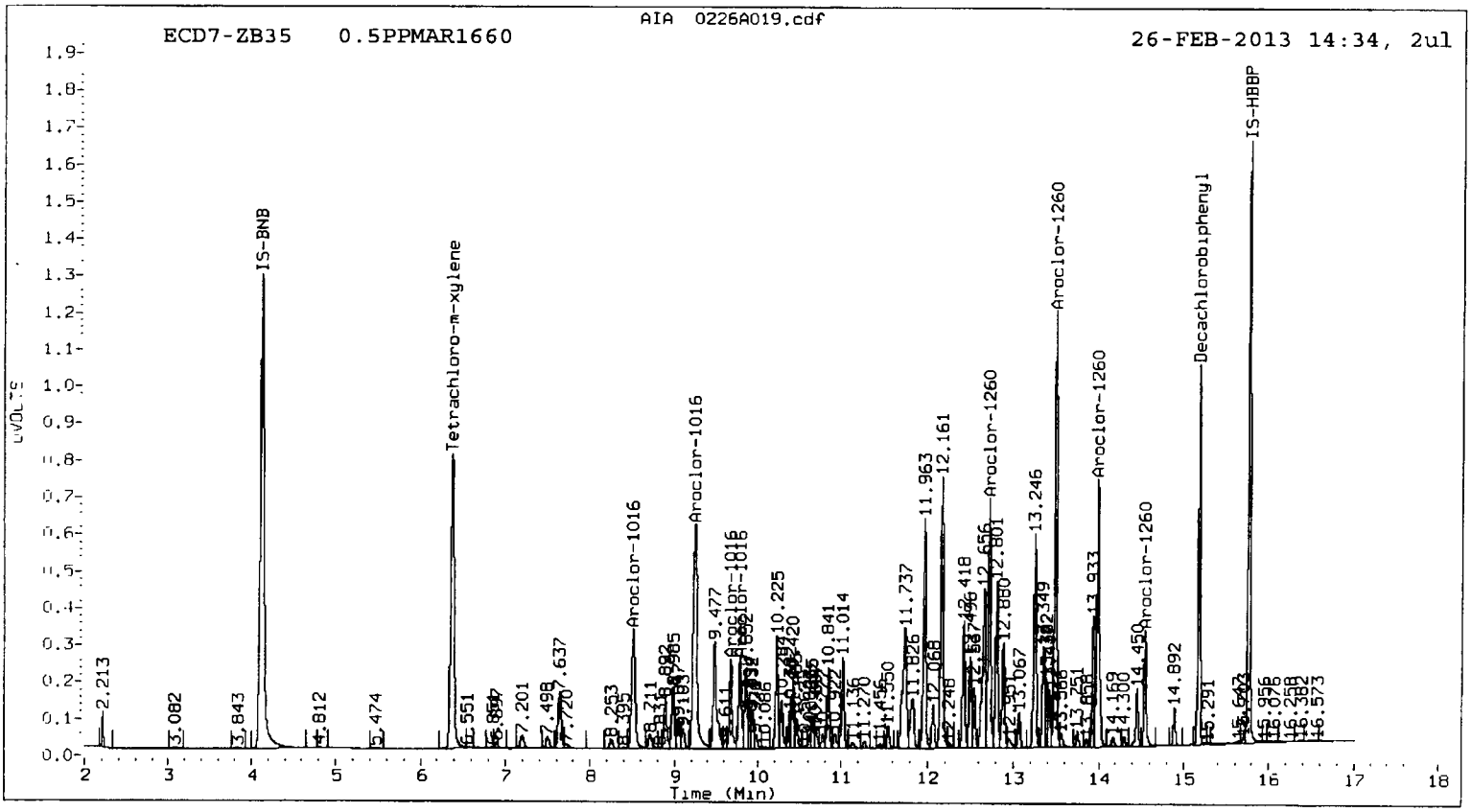
Total PCB Area Col1 (6.364 - 14.764) = 37765683 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 60258462 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD7-ZB5 0.5PPMAR1660
AIA 0226A019.cdf
26-FEB-2013 14:34, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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Time (Min)
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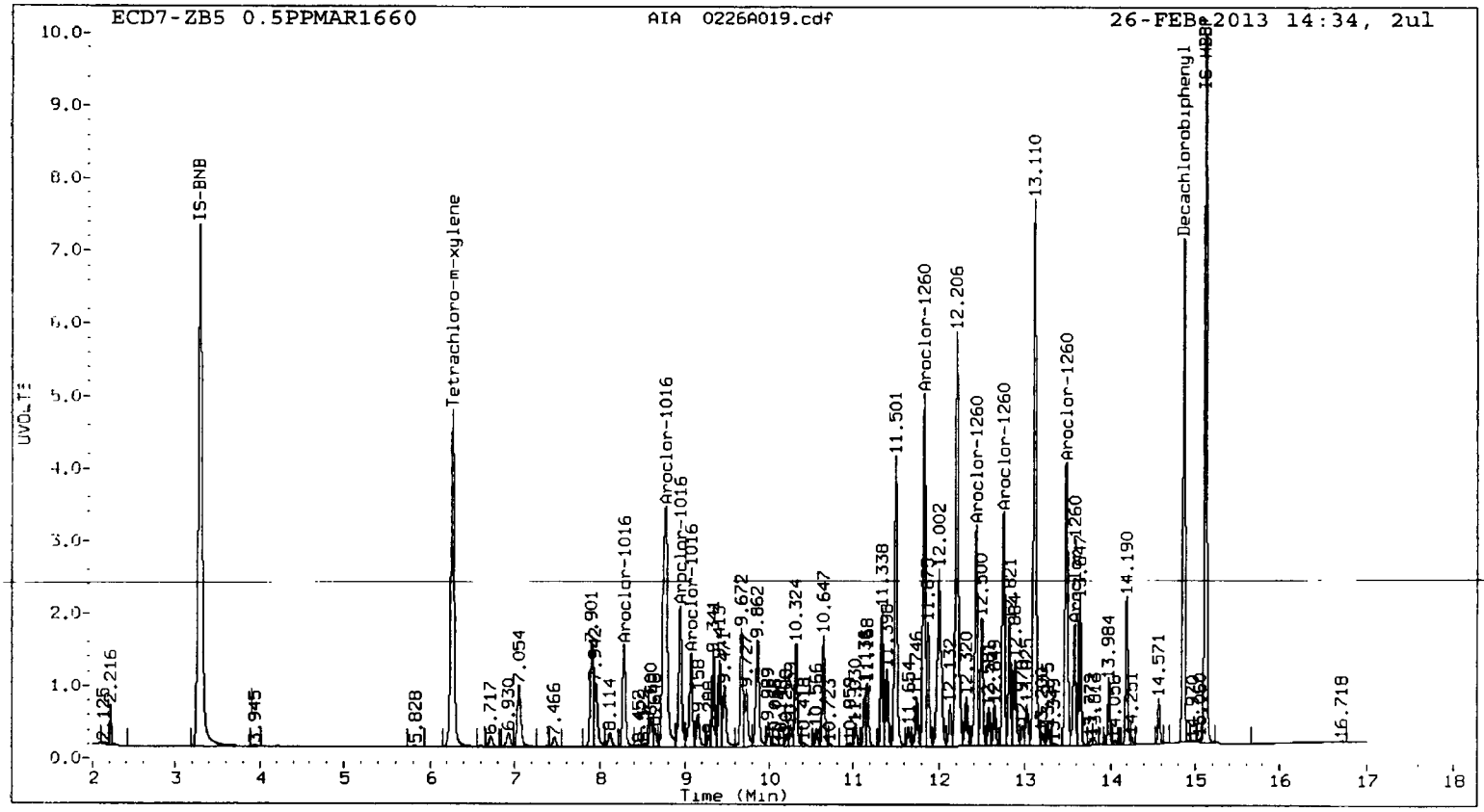
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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AIA 0226A019.cdf
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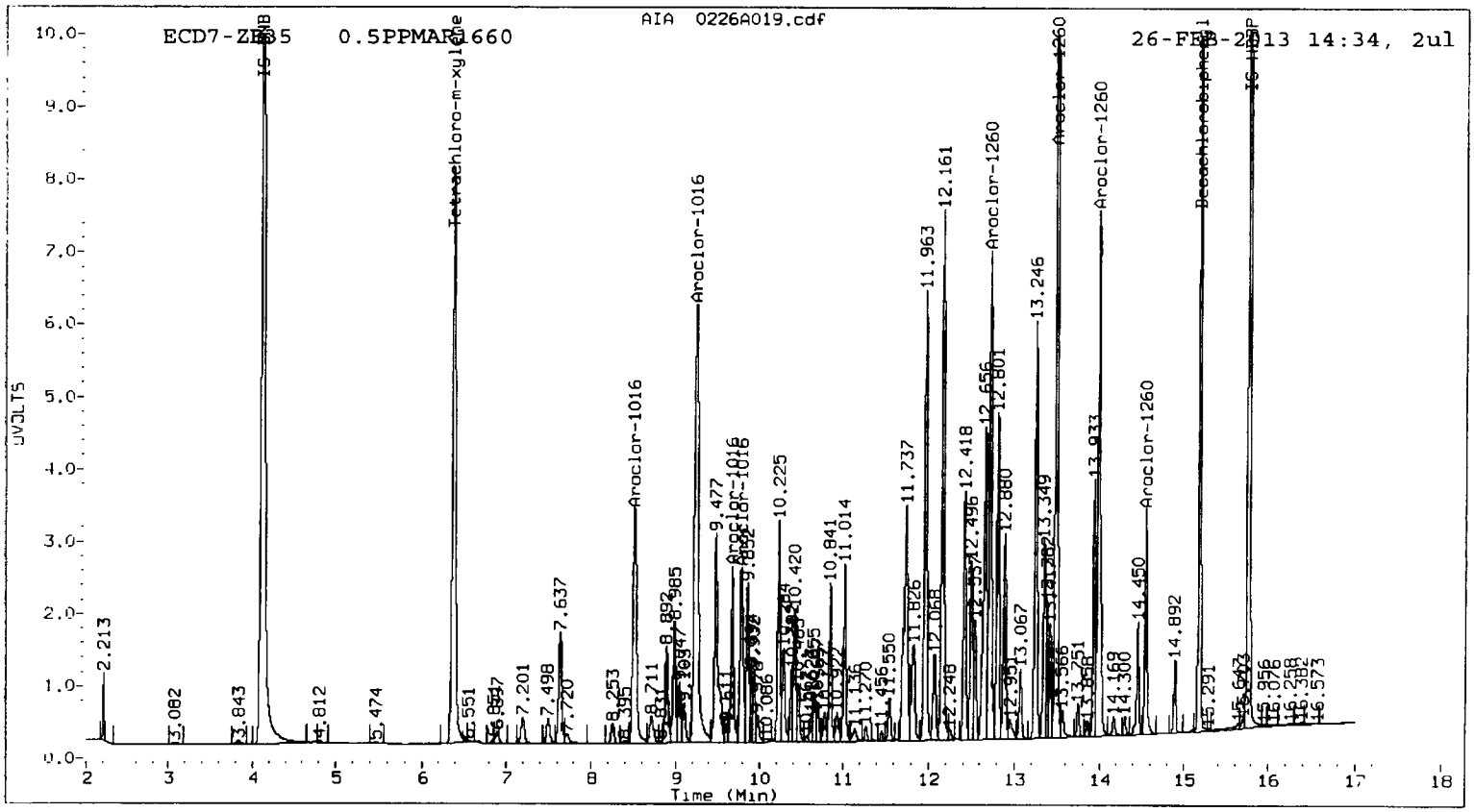
UV3LTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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26-FEB-2013 14:34, 2ul
UV3LTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A020.d
Data file 2: 20130226.B/ical-2.b/0226A020.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 26-FEB-2013 14:54
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.266	0.002	1284372	6.373	0.002	2244505	20.4	19.8	2.7	Tetrachloro-m-xylene
14.864	0.000	1239978	15.177	0.000	1740865	19.3	18.3	5.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.9	49.6
Decachlorobiphenyl	48.2	45.7

JR 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4817550	-7.1
Hexabromobiphenyl	4555826	3842719	-15.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8211282	-1.6
Hexabromobiphenyl	6489385	5675467	-12.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	8.278	0.000	297661	250.0	1	8.507	0.000	857070	250.0
Aroclor-1242	2	8.771	0.000	991215	250.0	2	9.245	0.000	1773438	250.0
Aroclor-1242	3	8.945	0.000	396439	250.0	3	9.673	0.000	466964	250.0
Aroclor-1242	4	10.567	0.000	338396	250.0	4	11.140	0.000	720684	250.0

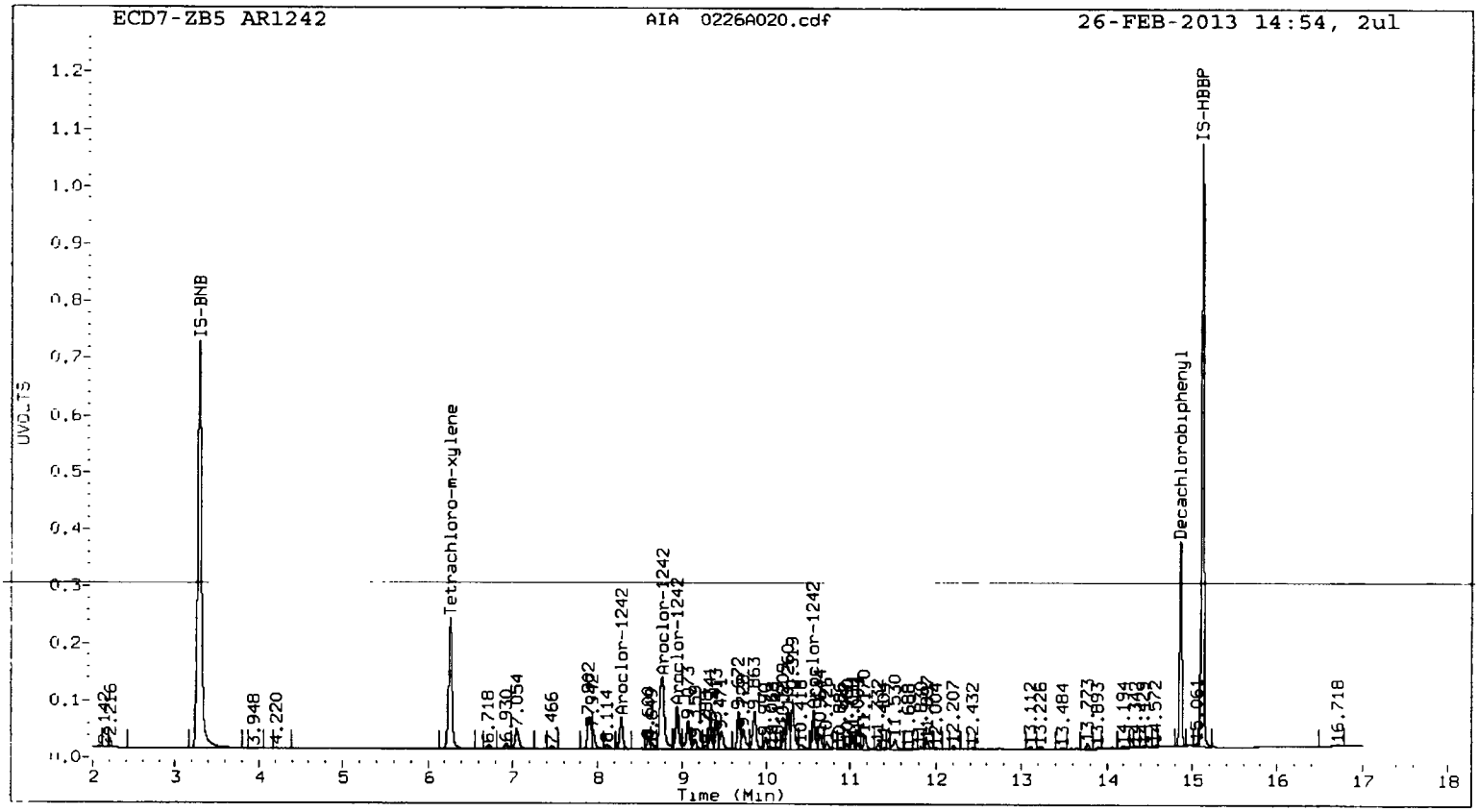
Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (6.364 - 14.764) = 7110059 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 13419826 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD7-ZB5 AR1242
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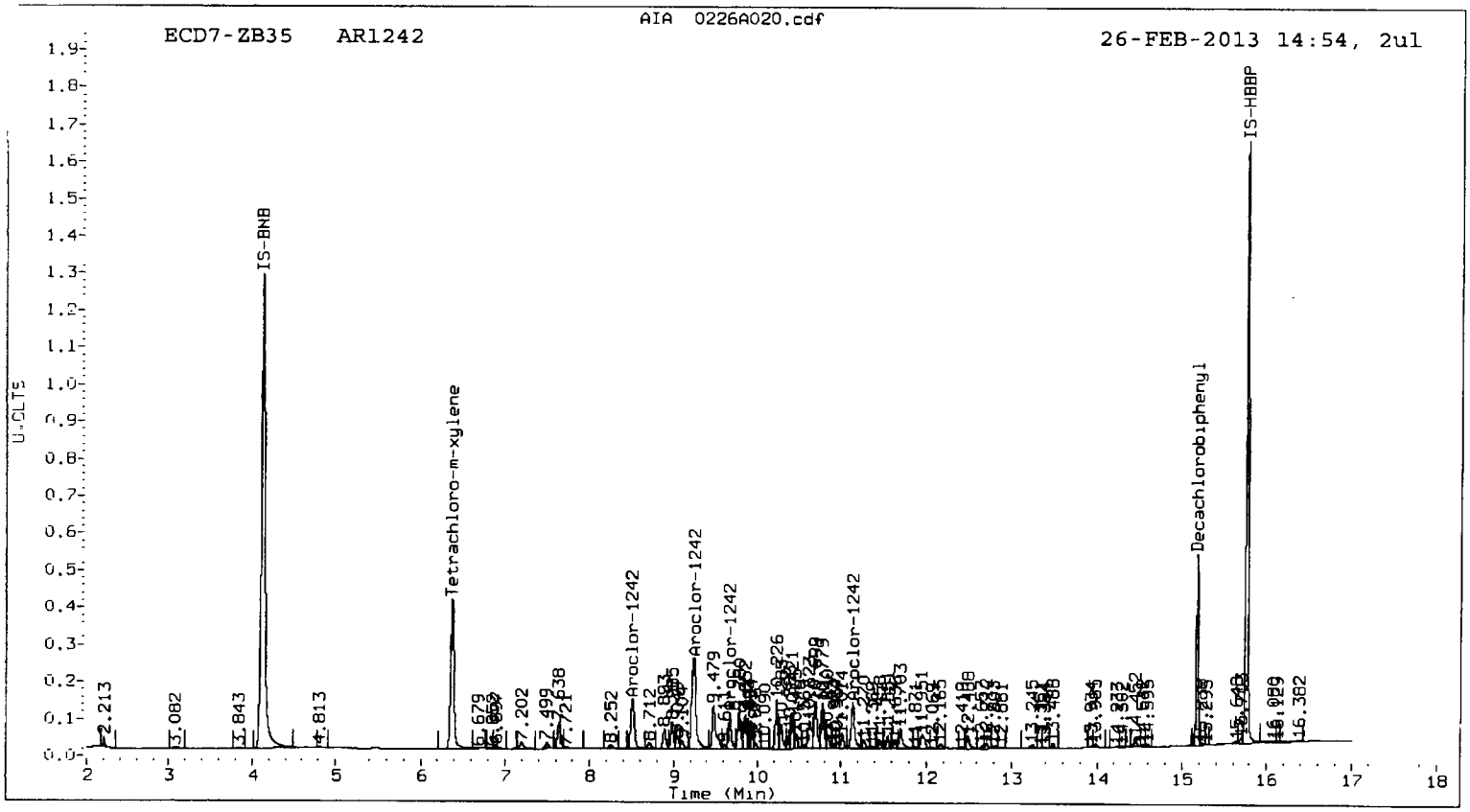
26-FEB-2013 14:54, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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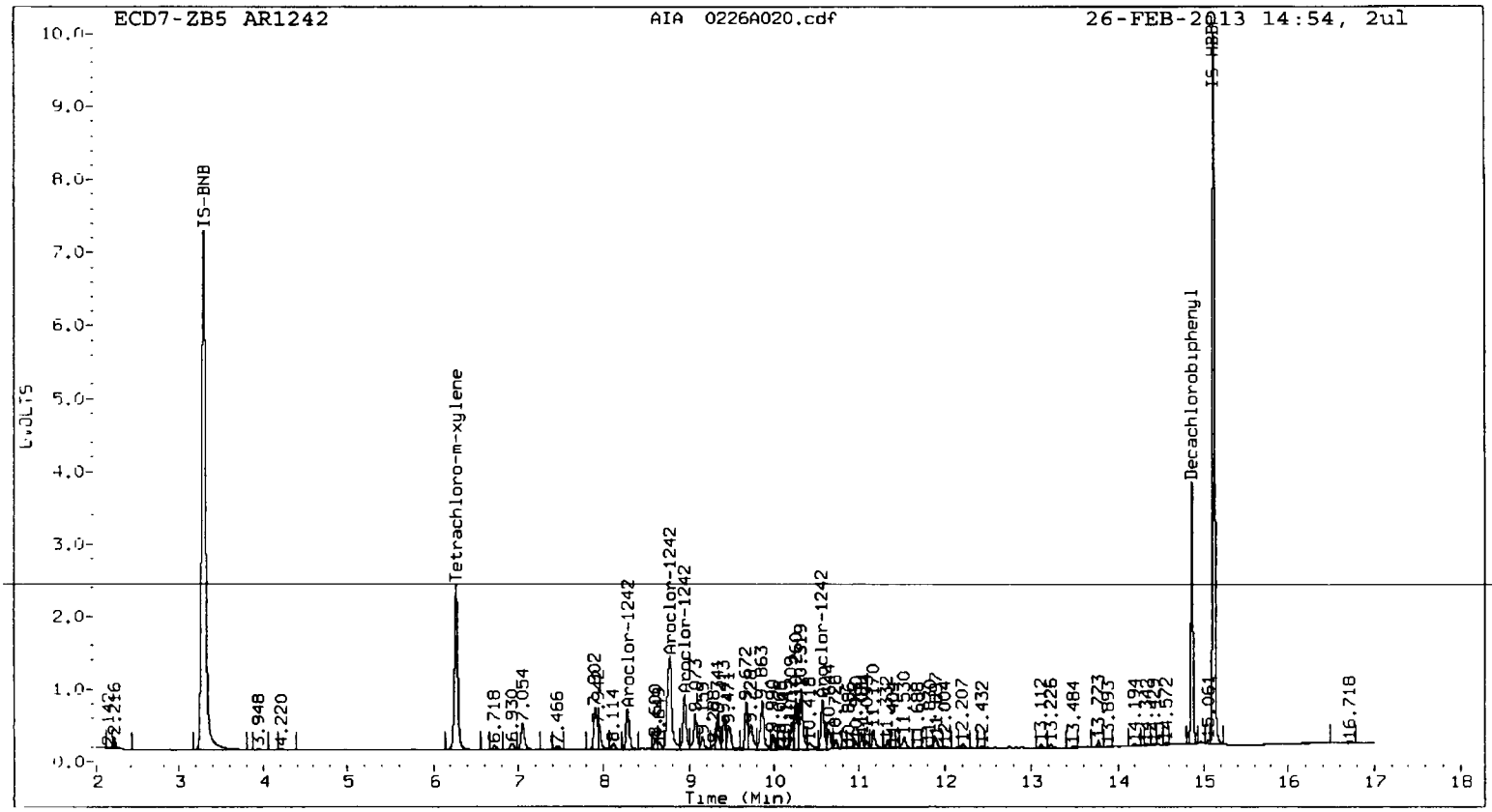
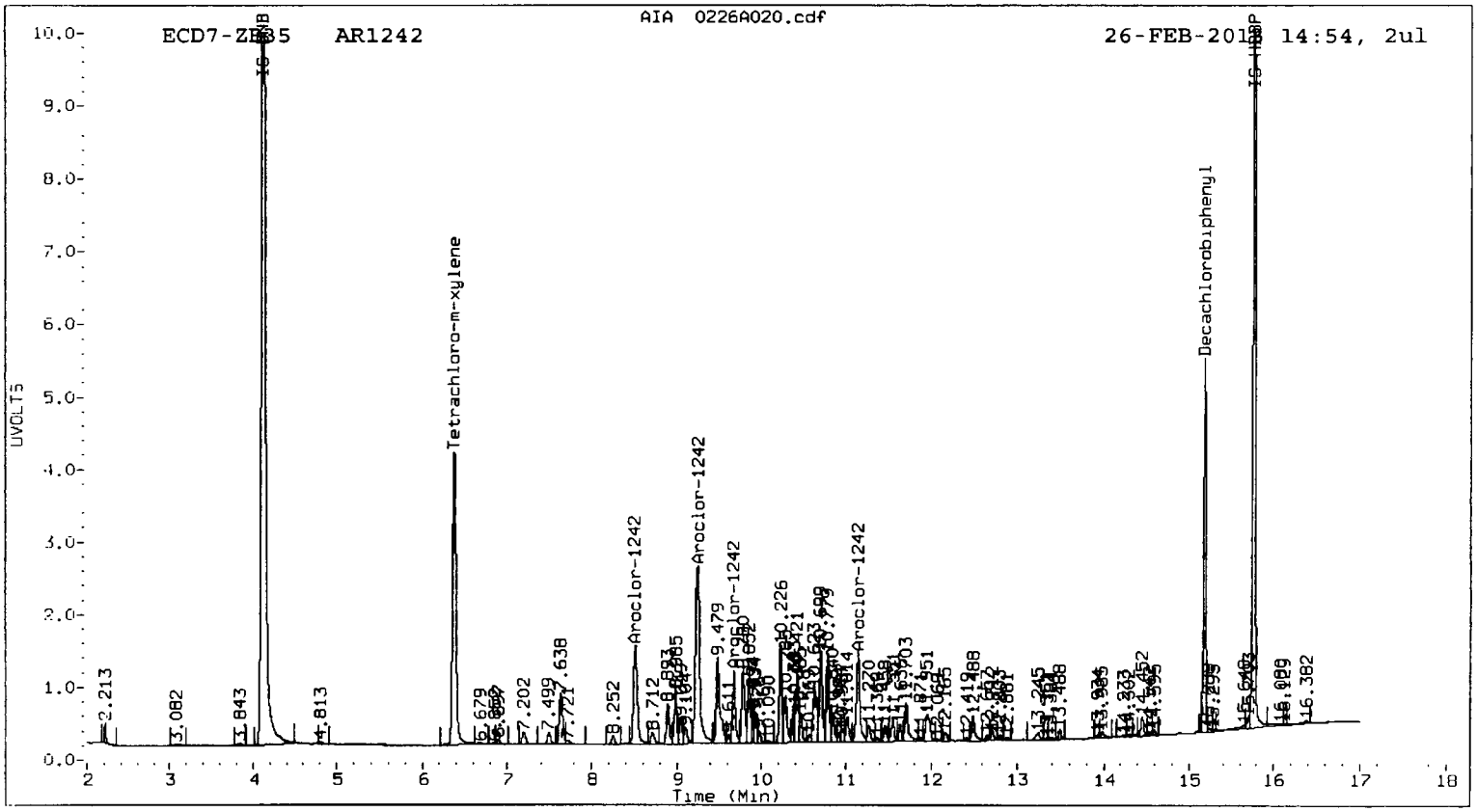
AIA 0226A020.cdf
26-FEB-2013 14:54, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
U.OLTS
Time (Min)


ECD7-ZB5 AR1242
AIA 0226A020.cdf
26-FEB-2013 14:54, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
16.718
UVOLTS
Time (Min)


AIA 0226A020.cdf
ECD7-ZB5 AR1242
26-FEB-2013 14:54, 2ul
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
16.382
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A021.d
Data file 2: 20130226.B/ical-2.b/0226A021.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 26-FEB-2013 15:15
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.266	0.002	1280043	6.373	0.001	2276153	20.0	19.7	1.9	Tetrachloro-m-xylene
14.865	0.000	1255388	15.178	0.001	1769734	19.3	18.1	6.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	50.1	49.1
Decachlorobiphenyl	48.4	45.2

JH 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4881797	-5.8
Hexabromobiphenyl	4555826	3876159	-14.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8401253	0.7
Hexabromobiphenyl	6489385	5835065	-10.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	9.341	0.000	408818	250.0	1	9.779	0.000	840437	250.0
Aroclor-1248	2	9.672	0.000	497280	250.0	2	10.225	0.000	901487	250.0
Aroclor-1248	3	10.319	0.000	783023	250.0	3	10.778	0.000	916867	250.0
Aroclor-1248	4	10.566	0.000	552689	250.0	4	11.138	0.000	1222545	250.0

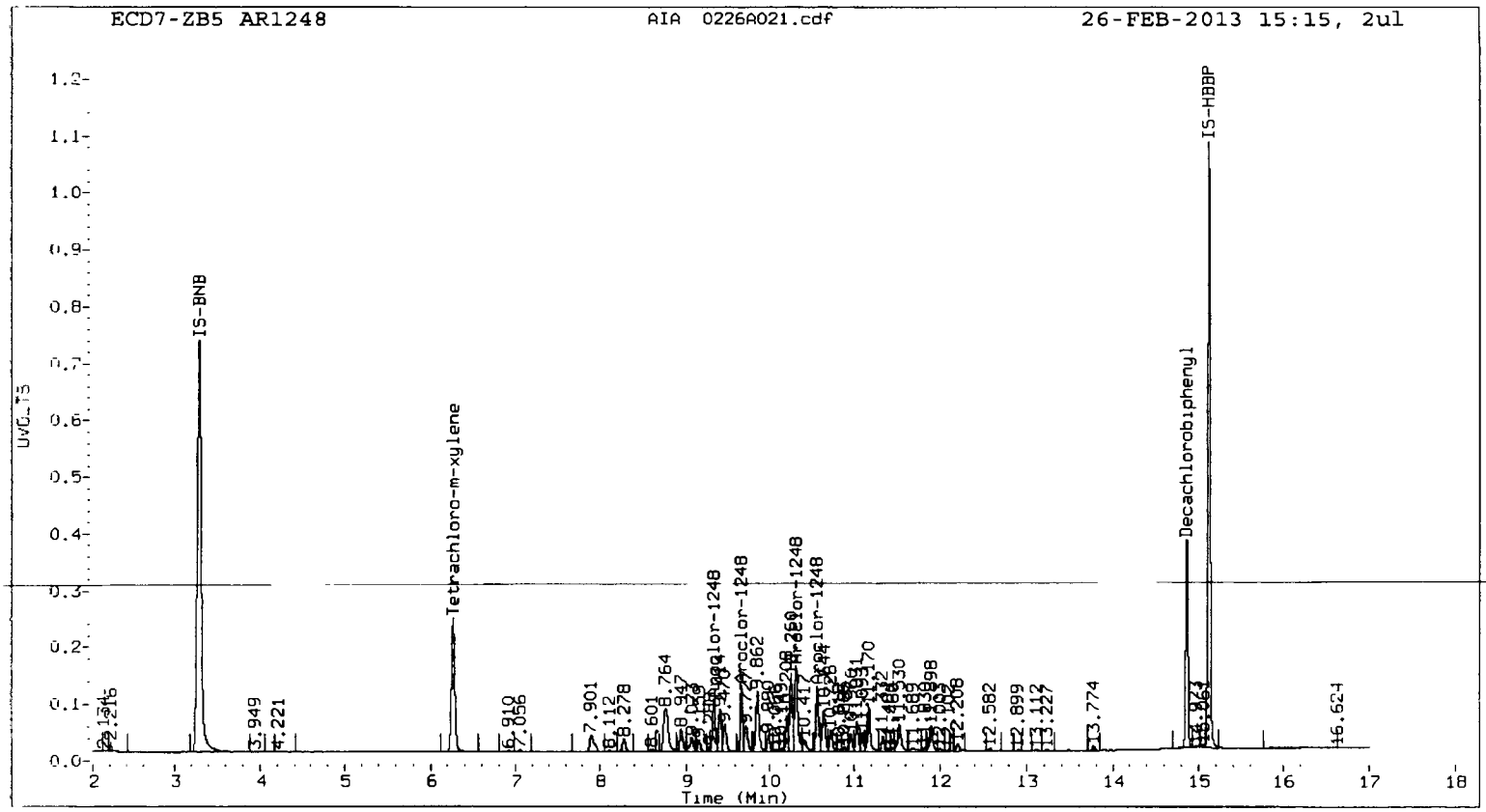
Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

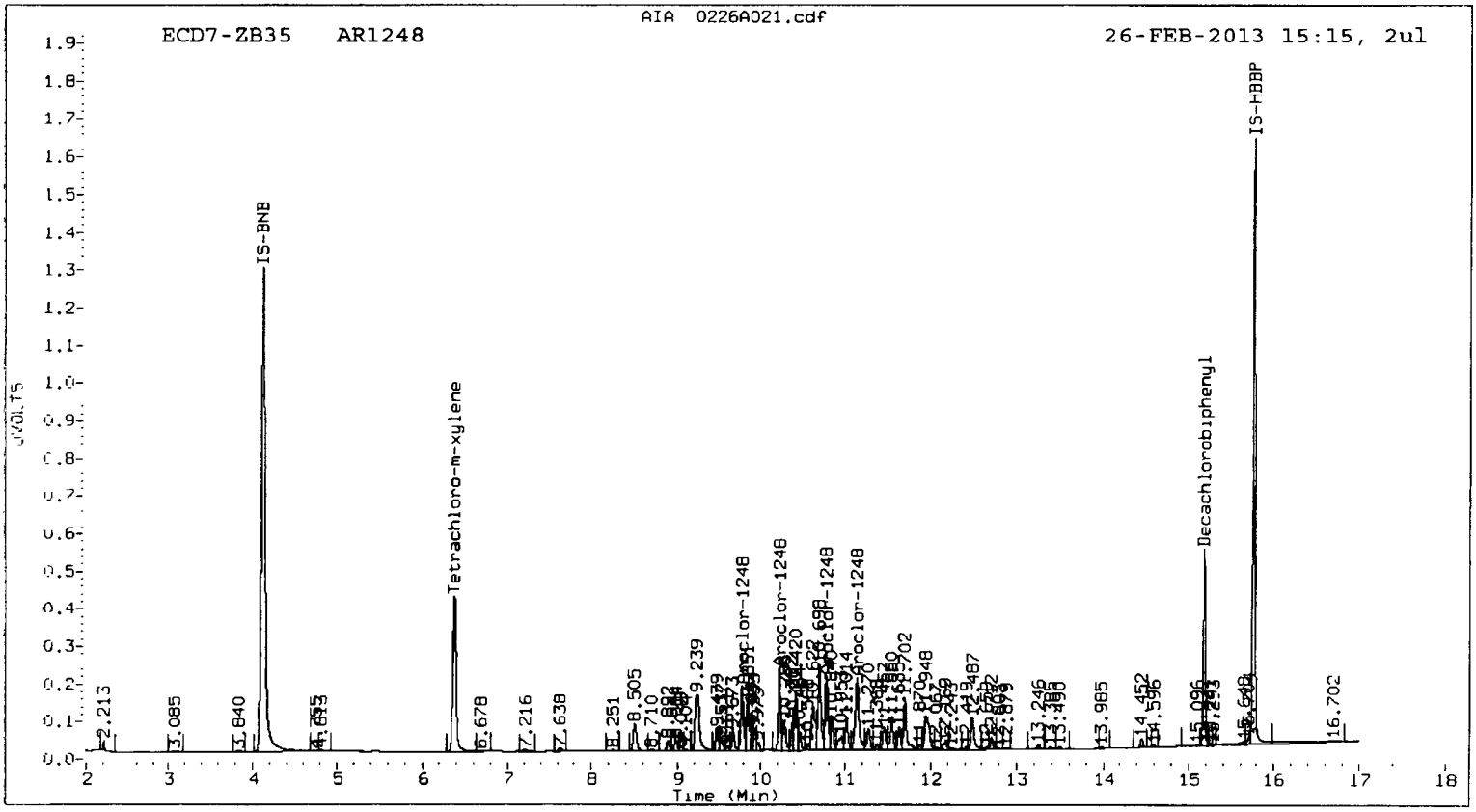
Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

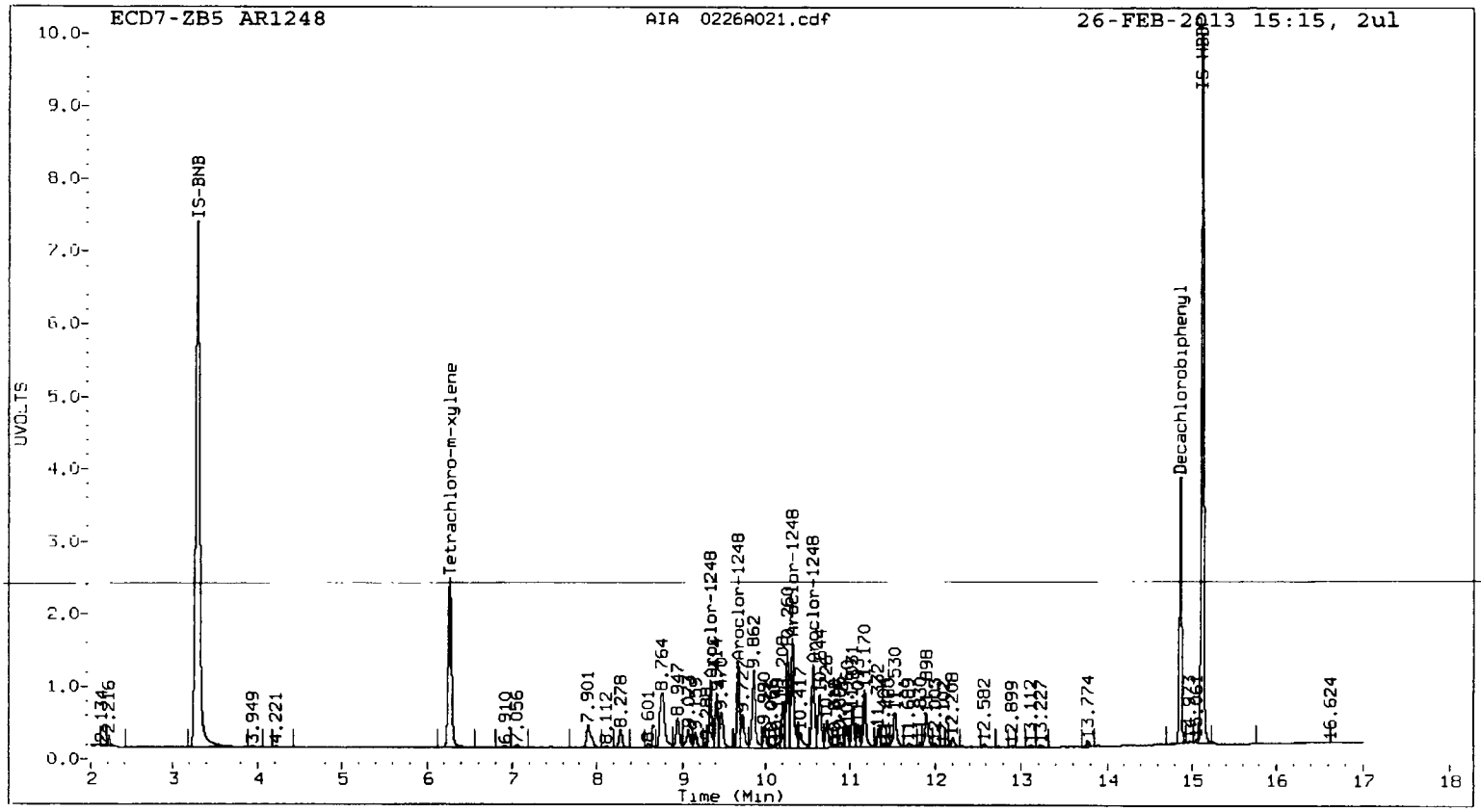
Total PCB Area Col1 (6.364 - 14.764) = 8882372 Col1 Total PCB = 0.2 ppm*

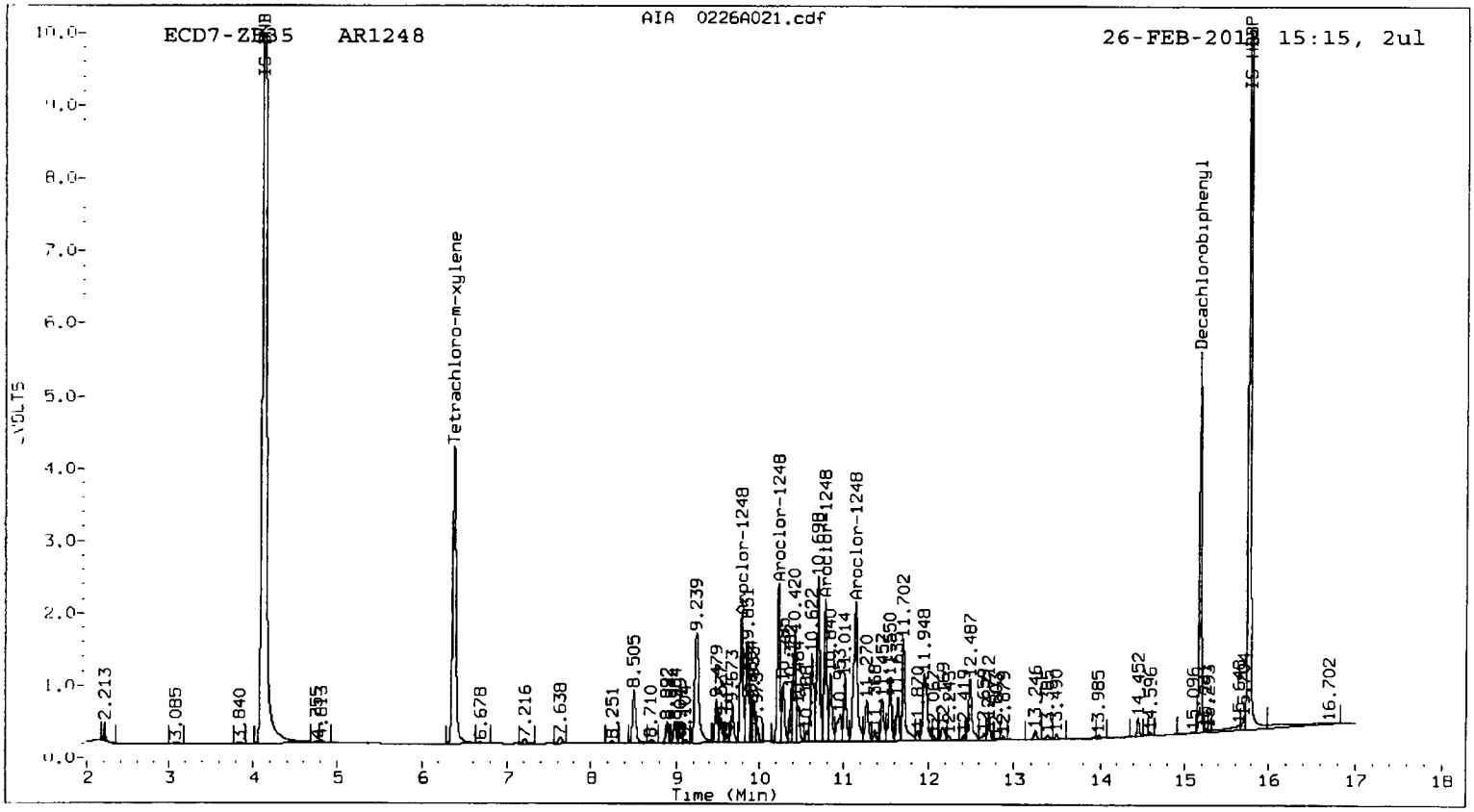
Total PCB Area Col2 (6.472 - 15.077) = 16248647 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD7-ZB5 AR1248
AIA 0226A021.cdf
26-FEB-2013 15:15, 2ul
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Time (Min)


ECD7-ZB35 AR1248
AIA 0226A021.cdf
26-FEB-2013 15:15, 2ul
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Time (Min)


ECD7-ZB5 AR1248
AIA 0226A021.cdf
26-FEB-2013 15:15, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)


ECD7-ZB5 AR1248
AIA 0226A021.cdf
26-FEB-2013 15:15, 2ul
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A022.d
Data file 2: 20130226.B/ical-2.b/0226A022.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 26-FEB-2013 15:35
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.265	0.002	1249912	6.373	0.001	2237801	19.7	19.4	1.9	Tetrachloro-m-xylene
14.864	0.000	1241225	15.177	0.000	1750520	19.1	17.8	7.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.4	48.4
Decachlorobiphenyl	47.9	44.6

JC 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4838130	-6.7
Hexabromobiphenyl	4555826	3872955	-15.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8379221	0.4
Hexabromobiphenyl	6489385	5853419	-9.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	10.323	0.000	557797	250.0	1	10.841	0.000	819954	250.0
Aroclor-1254	2	10.646	0.000	780112	250.0	2	11.013	0.000	1022287	250.0
Aroclor-1254	3	11.029	0.000	469672	250.0	3	11.549	0.000	773406	250.0
Aroclor-1254	4	11.169	0.000	960576	250.0	4	11.701	0.000	1712250	250.0
Aroclor-1254	5	11.884	0.000	590163	250.0	5	12.491	0.000	955934	250.0

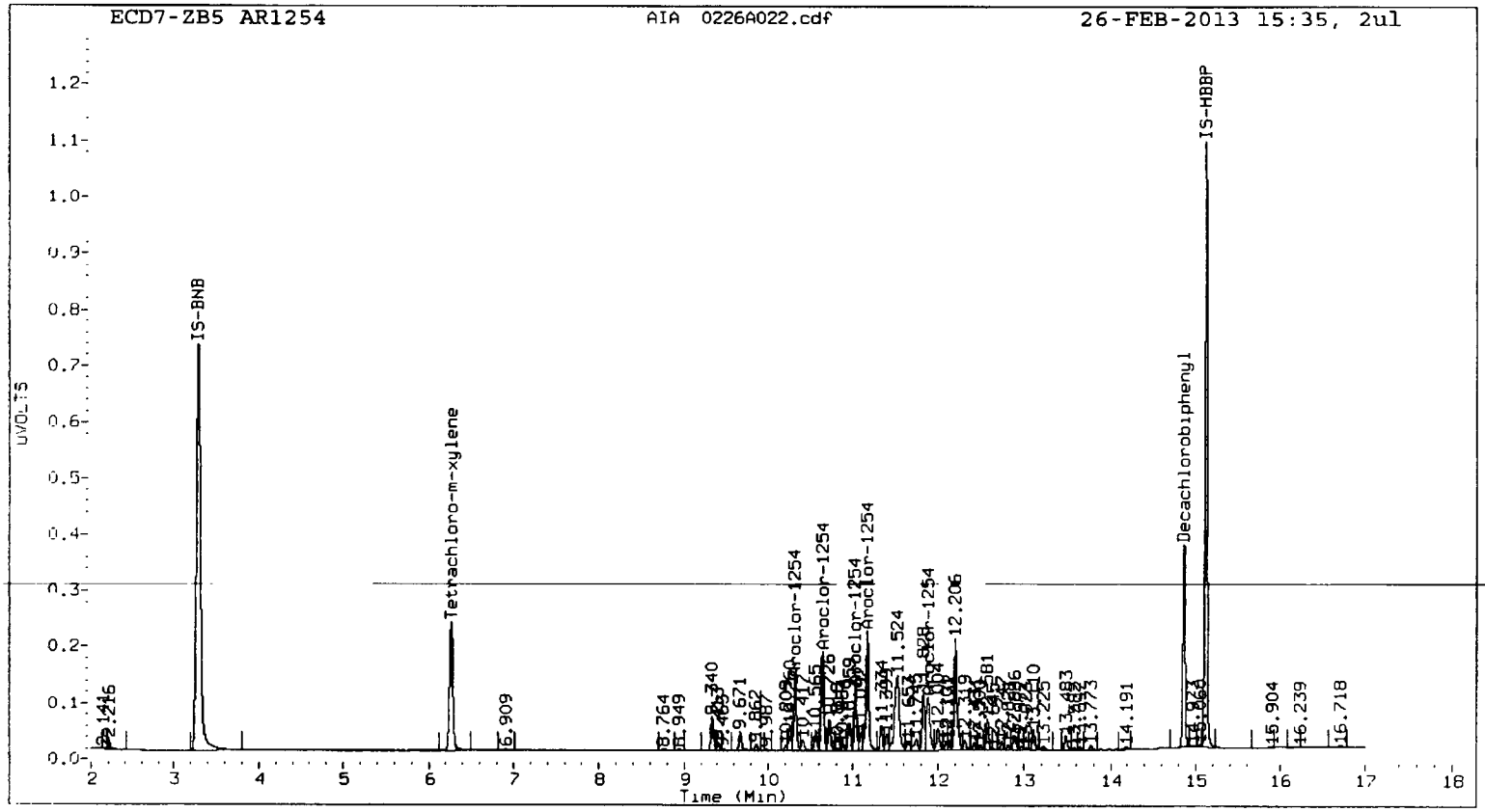
Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (6.364 - 14.764) = 9458516 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 16739126 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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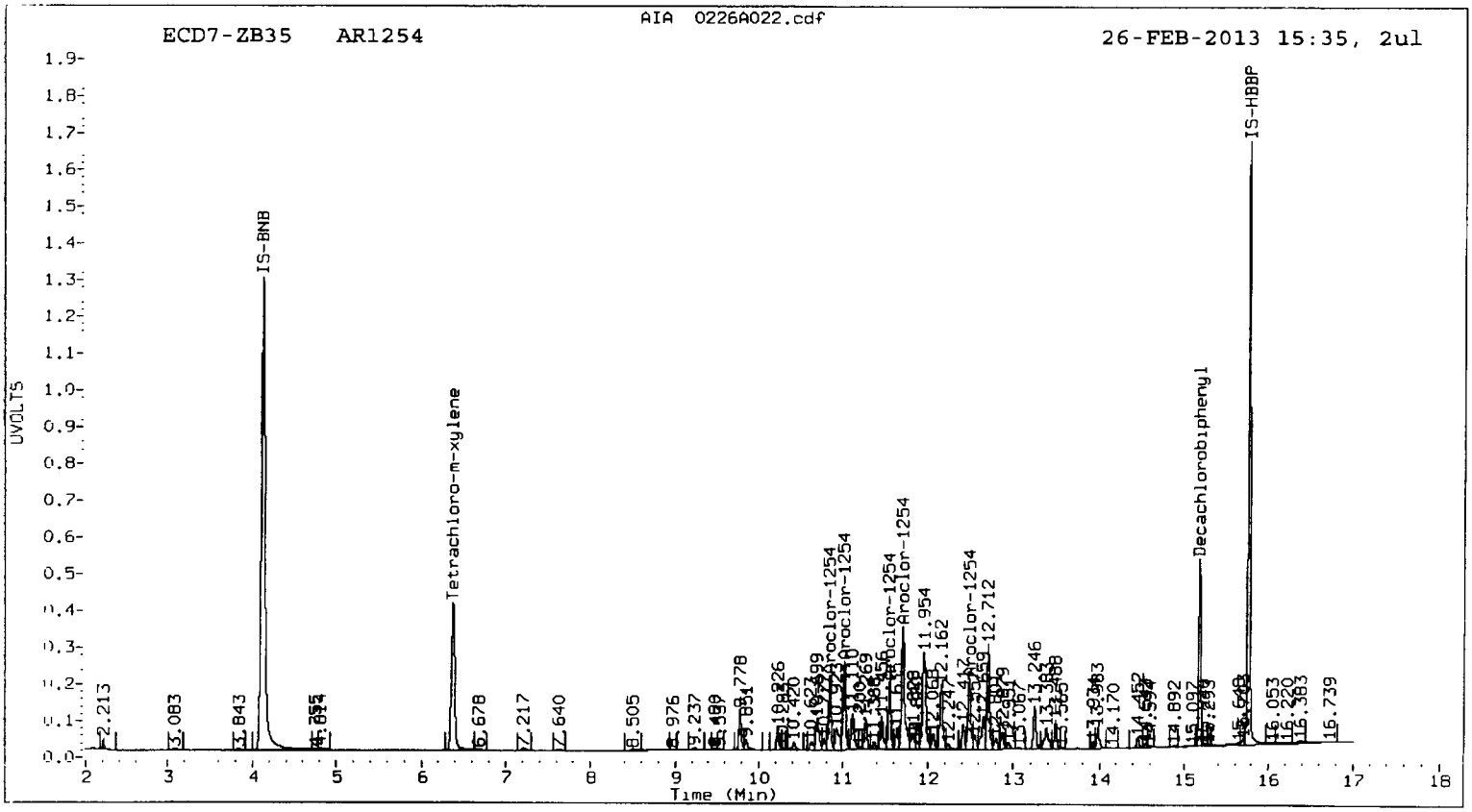
AIA 0226A022.cdf
26-FEB-2013 15:35, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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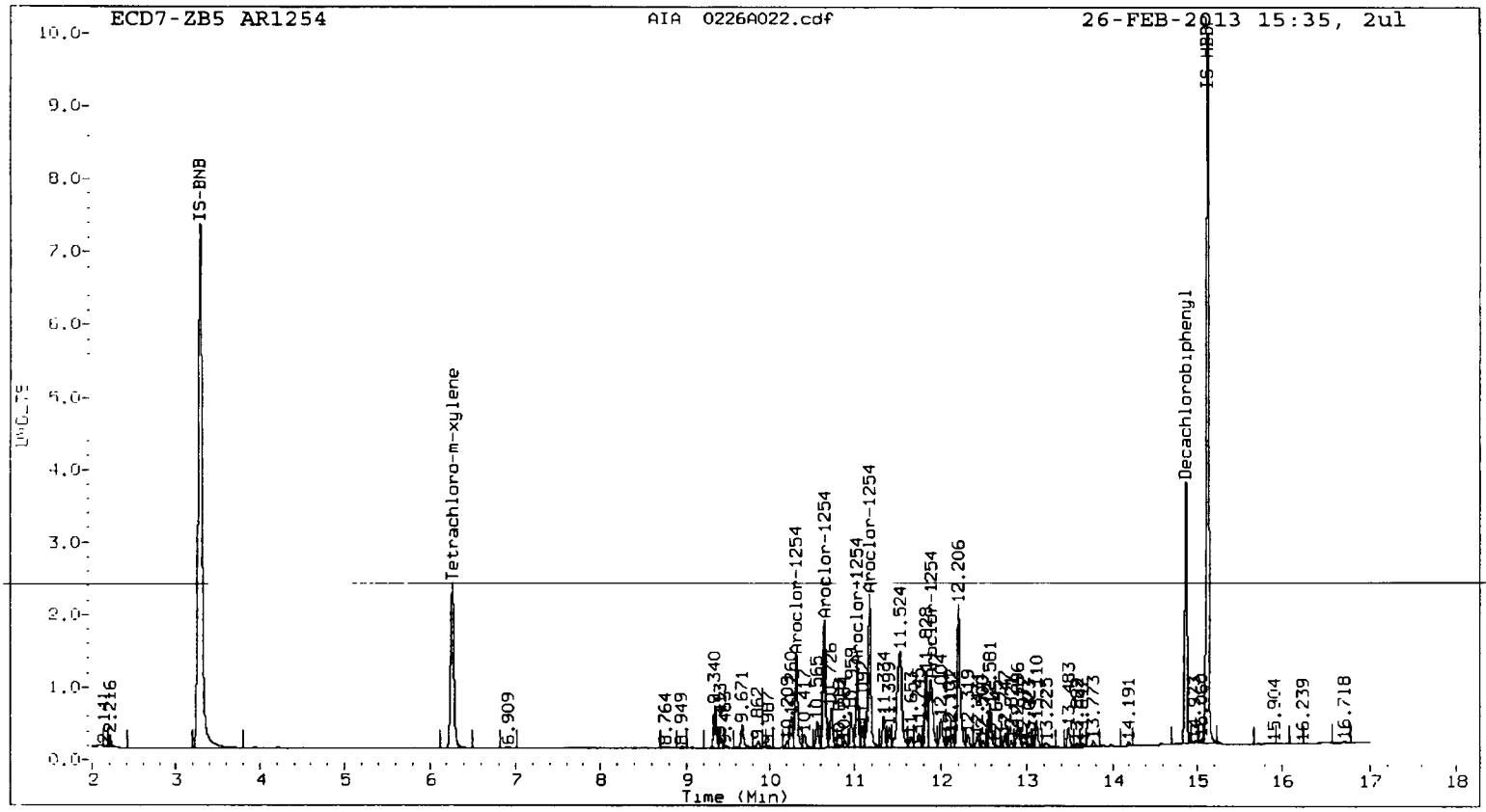
AIA 0226A022.cdf
26-FEB-2013 15:35, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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AIA 0226A022.cdf
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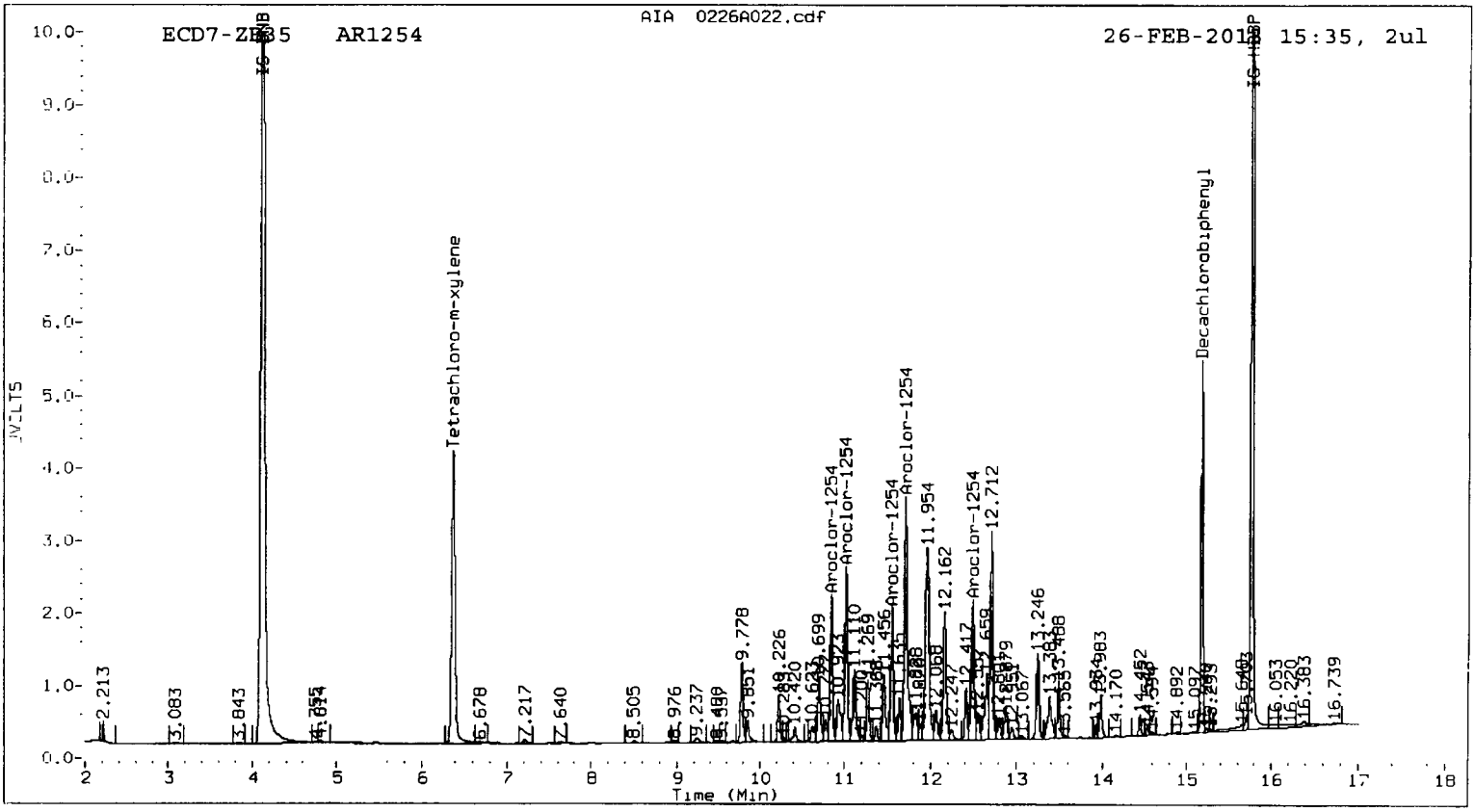
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
Time (Min)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AIA 0226A022.cdf
26-FEB-2013 15:35, 2ul
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A023.d
Data file 2: 20130226.B/ical-2.b/0226A023.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 26-FEB-2013 15:55
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.265	0.001	1329598	6.372	0.000	2274654	21.0	20.0	4.7	Tetrachloro-m-xylene
14.864	0.000	1263359	15.177	0.000	1773196	19.4	18.0	7.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	52.5	50.1
Decachlorobiphenyl	48.5	45.1

JL 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4842108	-6.6
Hexabromobiphenyl	4555826	3890747	-14.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8239474	-1.2
Hexabromobiphenyl	6489385	5861226	-9.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

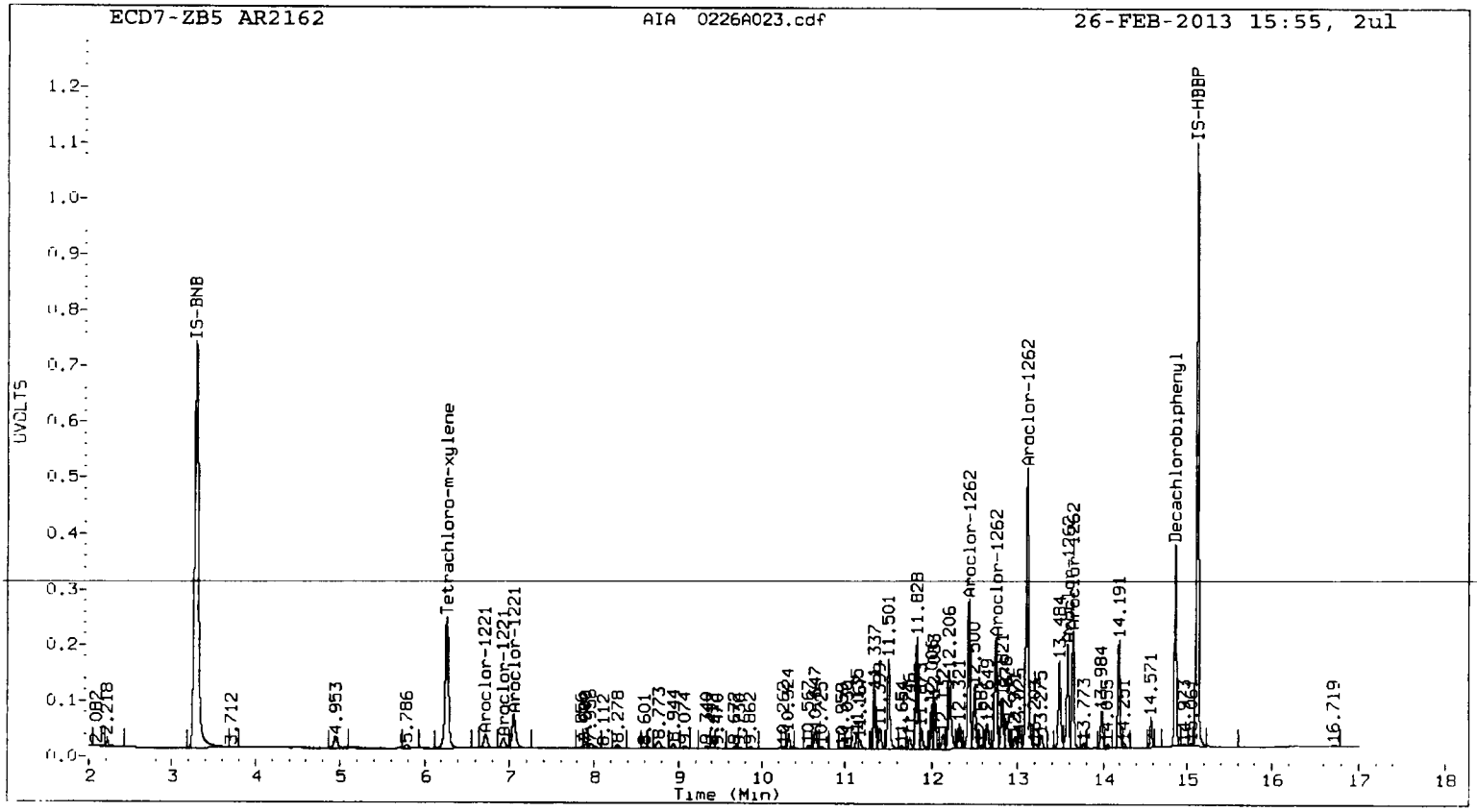
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1221	1	6.719	0.000	156782	250.0	1	7.197	0.000	323621	250.0
Aroclor-1221	2	6.931	0.000	116540	250.0	2	7.498	0.000	198821	250.0
Aroclor-1221	3	7.055	0.000	397386	250.0	3	7.636	0.000	594895	250.0
Aroclor-1221	NS	---			----	4	8.523	0.000	215364	250.0
	Total Col1Ave (3 peaks):				250.0	Total Col2Ave (4 peaks):			250.0	RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			250.0	
Aroclor-1262	1	12.432	0.000	1108858	250.0	1	12.801	0.000	1656097	250.0
Aroclor-1262	2	12.748	0.000	803808	250.0	2	13.246	0.000	1424683	250.0
Aroclor-1262	3	13.111	0.000	2193433	250.0	3	13.488	0.000	3152829	250.0
Aroclor-1262	4	13.582	0.000	743271	250.0	4	13.933	0.000	1221462	250.0
Aroclor-1262	5	13.647	0.000	799660	250.0	5	13.985	0.000	2007530	250.0
	Total Col1Ave (5 peaks):				250.0	Total Col2Ave (5 peaks):			250.0	RPD = 0
	Corrected Ave (4 peaks):				250.0	Corrected Ave (4 peaks):			250.0	RPD = 0

Total PCB Area Col1 (6.364 - 14.764) = 14864655 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 24324269 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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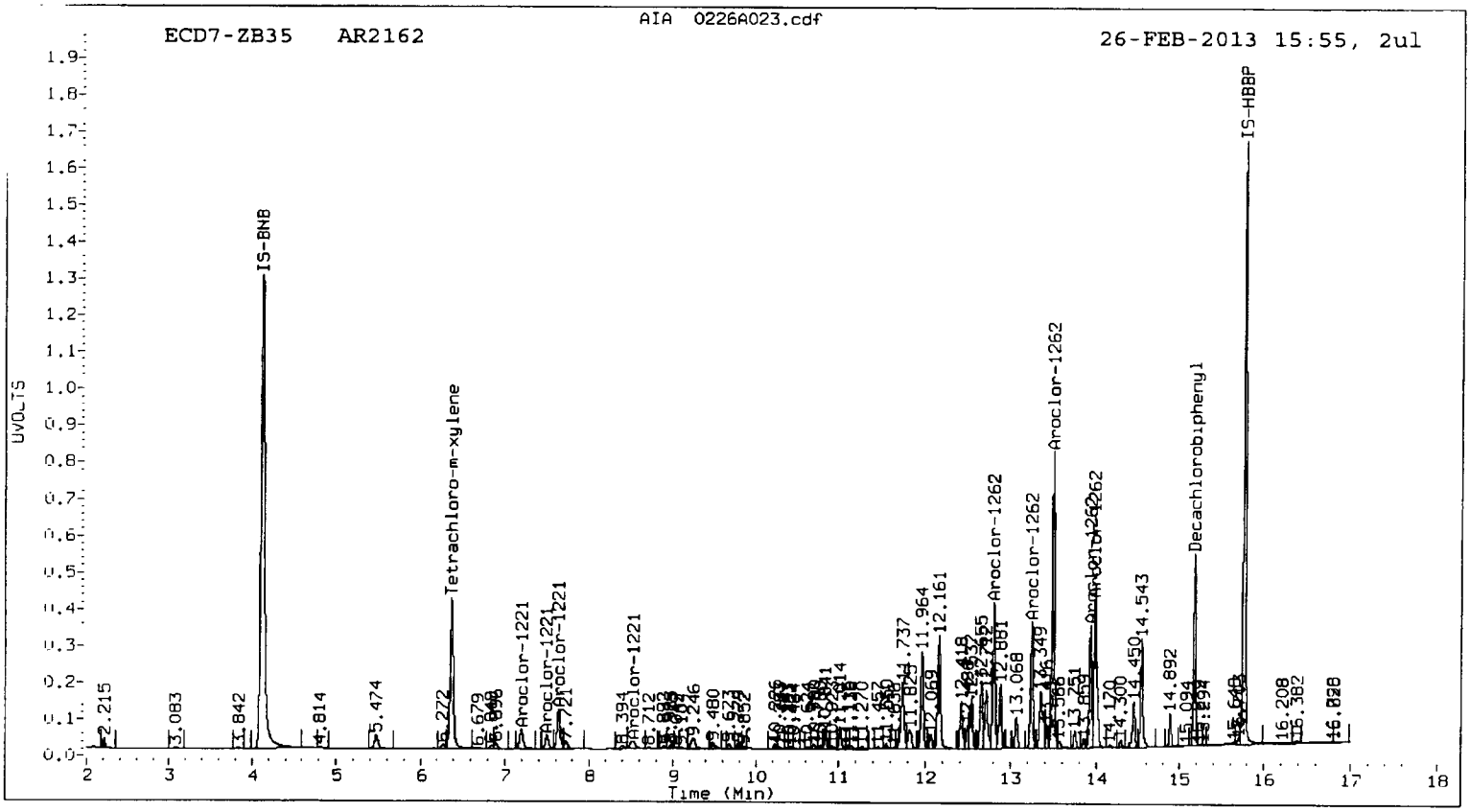
26-FEB-2013 15:55, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP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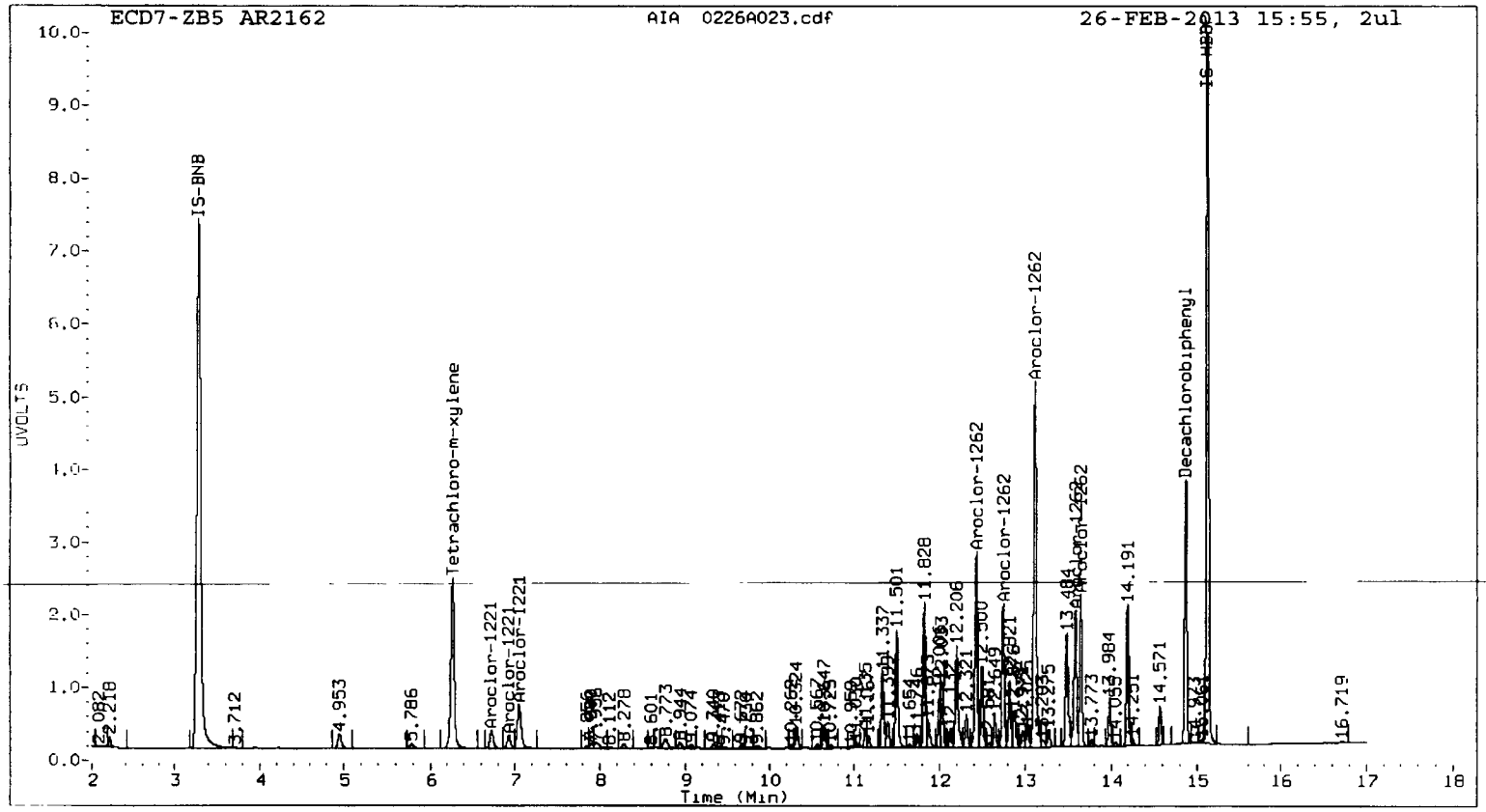
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP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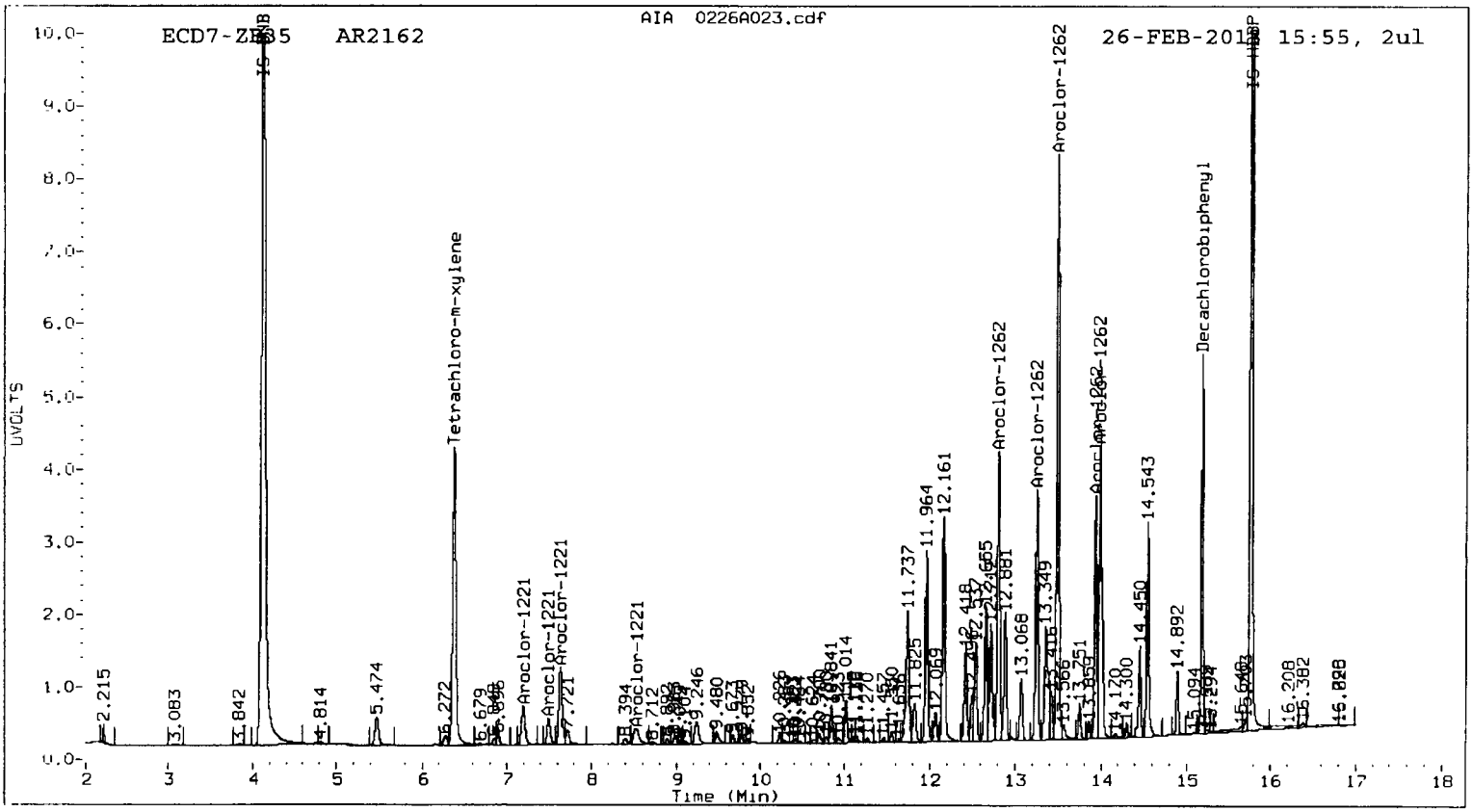
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
UVOLTS
Time (Min)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ECD7-ZB5 AR2162
26-FEB-2013 15:55, 2ul
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A024.d
Data file 2: 20130226.B/ical-2.b/0226A024.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 26-FEB-2013 16:15
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.264	0.000	1333946	6.372	0.000	2323970	21.0	20.2	3.7	Tetrachloro-m-xylene
14.864	0.000	2374145	15.177	0.000	3289324	36.2	33.3	8.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	52.5	50.6
Decachlorobiphenyl	90.6	83.3

03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4856396	-6.3
Hexabromobiphenyl	4555826	3912890	-14.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8333424	-0.1
Hexabromobiphenyl	6489385	5883565	-9.3

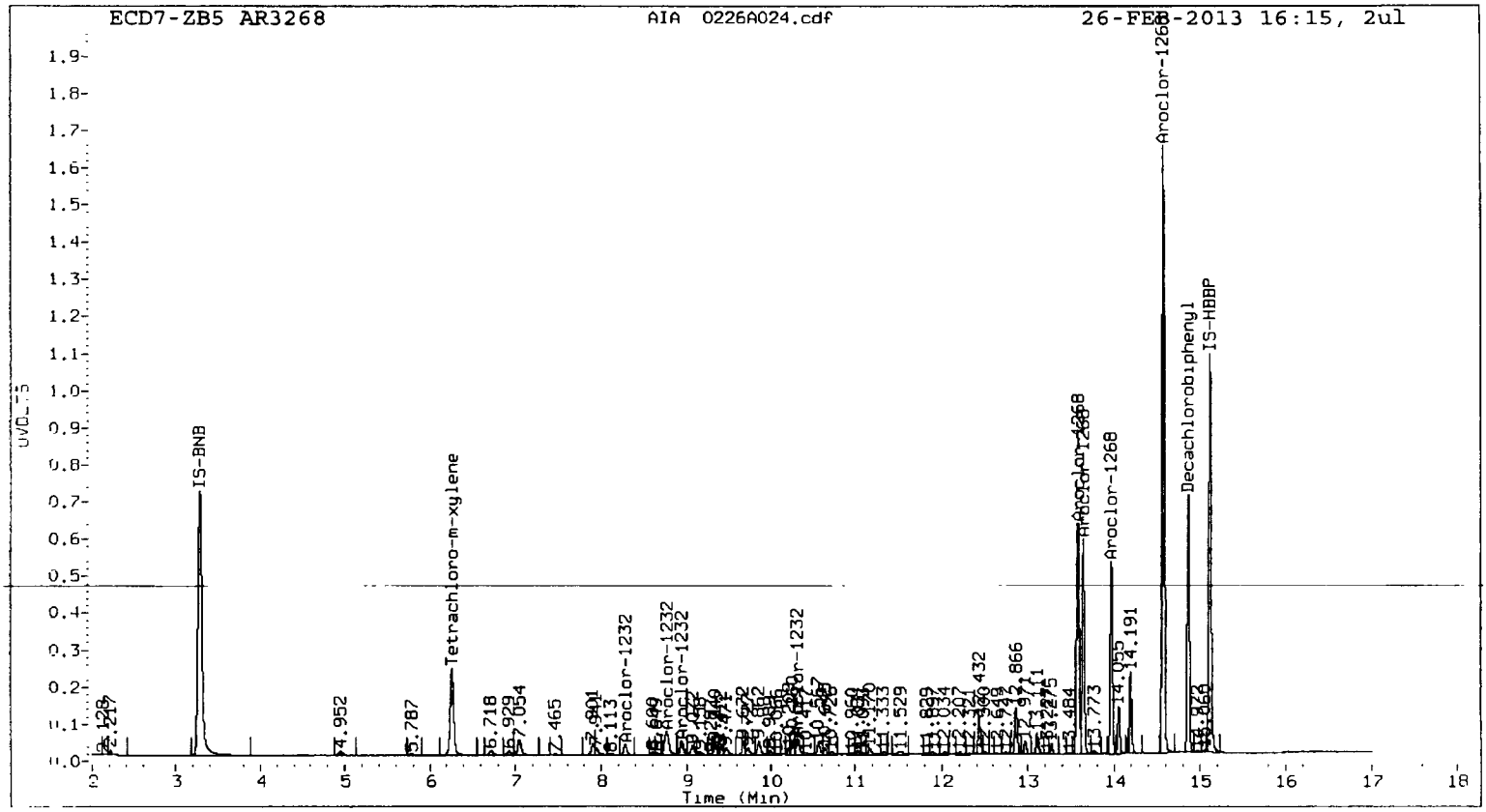
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	8.278	0.000	156303	250.0	1	8.506	0.000	510556	250.0
Aroclor-1232	2	8.770	0.000	512495	250.0	2	9.244	0.000	967006	250.0
Aroclor-1232	3	8.944	0.000	208584	250.0	3	9.673	0.000	254424	250.0
Aroclor-1232	4	10.319	0.000	243221	250.0	4	10.225	0.000	345325	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	13.582	0.000	2409654	250.0	1	13.931	0.000	3305215	250.0
Aroclor-1268	2	13.645	0.000	2236628	250.0	2	13.987	0.000	3236903	250.0
Aroclor-1268	3	13.969	0.000	1896090	250.0	3	14.300	0.000	2625780	250.0
Aroclor-1268	4	14.572	0.000	5793579	250.0	4	14.892	0.000	8084011	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (6.364 - 14.764) = 19347473 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 30360716 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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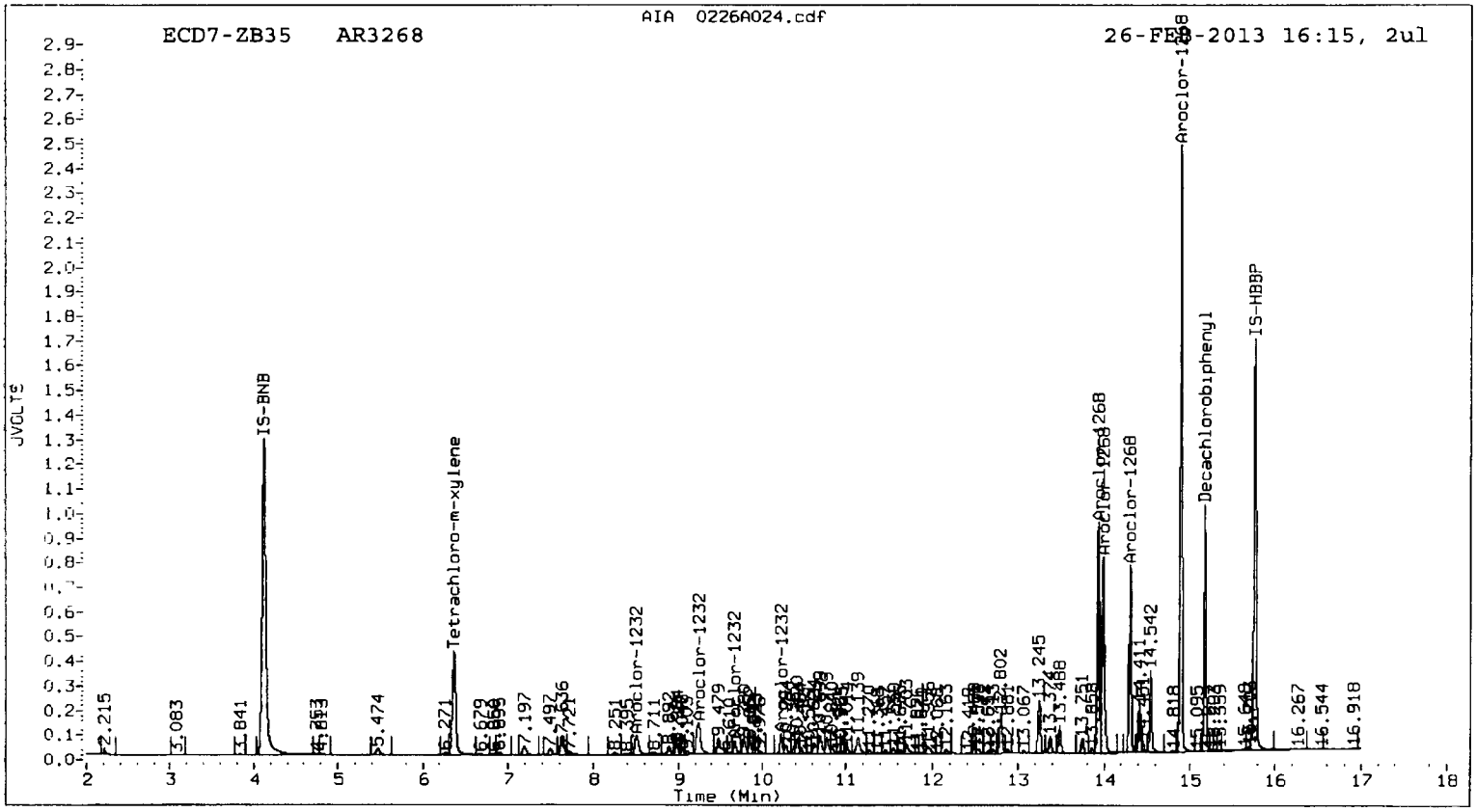
AIA 0226A024.cdf
26-FEB-2013 16:15, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
Time (Min)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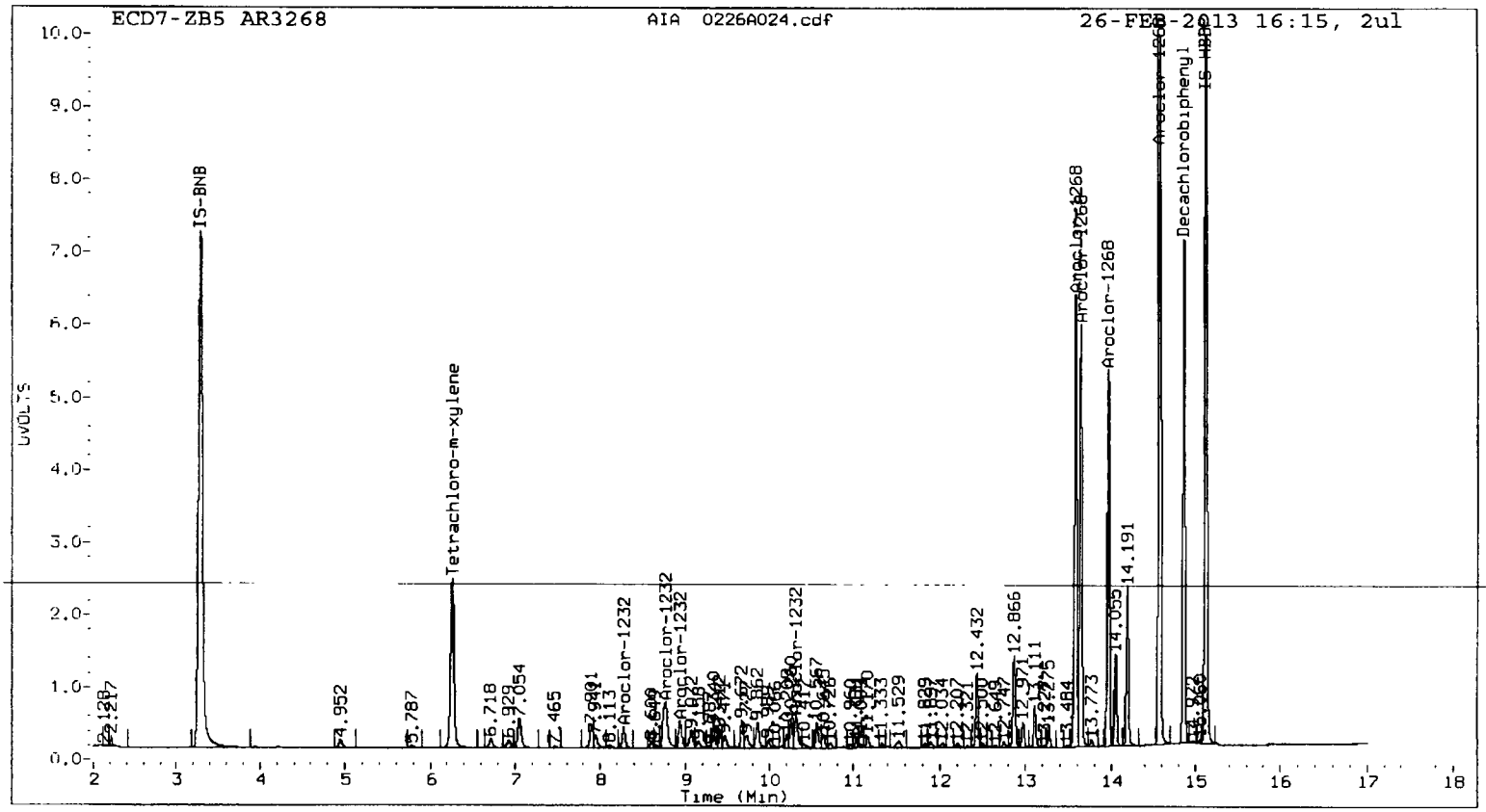
ECD7-ZB35 AR3268
26-FEB-2013 16:15, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD7-ZB5 AR3268
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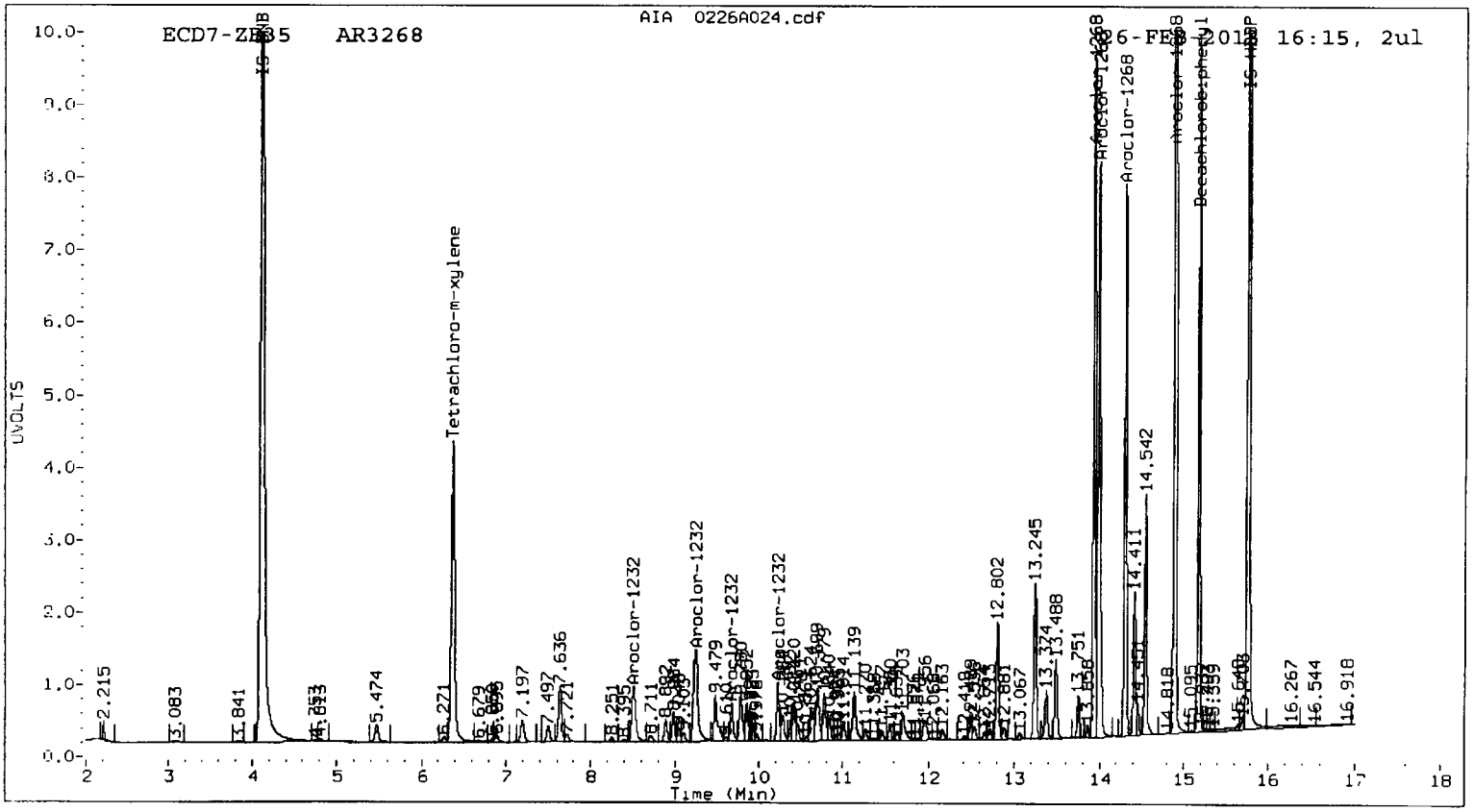
26-FEB-2013 16:15, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-TBB
14.191
uVOLTS
Time (Min)


ECD7-ZB5 AR3268
AIA 0226A024.cdf
16:15, 2ul
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
14.542
14.411
13.245
12.802
uVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A025.d
Data file 2: 20130226.B/ical-2.b/0226A025.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV
Client ID:
Injection Date: 26-FEB-2013 16:36
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.266	0.002	1340990	6.372	0.001	2356243	21.3	20.5	4.1	Tetrachloro-m-xylene
14.864	-0.001	1307797	15.177	0.000	1842110	20.7	19.2	7.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	53.4	51.2
Decachlorobiphenyl	51.8	48.0

JR 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4802440	-7.4
Hexabromobiphenyl	4555826	3766785	-17.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8345183	0.0
Hexabromobiphenyl	6489385	5725428	-11.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	8.278	-0.001	379849	249.4	1	8.507	0.000	1088086	234.6
Aroclor-1016	2	8.771	0.001	1257624	247.6	2	9.245	0.002	2230621	234.8
Aroclor-1016	3	8.944	0.000	504365	247.1	3	9.672	0.001	579287	246.3
Aroclor-1016	4	9.073	0.001	346766	248.5	4	9.780	0.000	655811	234.6
Total Col1Ave (4 peaks):					248.1	Total Col2Ave (4 peaks):				237.6 RPD = 4
Corrected Ave (3 peaks):					247.7	Corrected Ave (3 peaks):				234.7 RPD = 5
Aroclor-1221	1	6.716	-0.002	49231	79.2	1	7.201	0.004	130197	99.3
Aroclor-1221	2	6.931	0.000	68052	147.2	2	7.498	0.001	110300	136.9
Aroclor-1221	3	7.054	-0.001	289187	183.4	3	7.638	0.001	480906	199.5
Aroclor-1221	NS	---			----	4	8.507	-0.016	1088086	1247.1
Total Col1Ave (3 peaks):					136.6	Total Col2Ave (4 peaks):				420.7 RPD = 102*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				145.3
Aroclor-1232	1	8.278	-0.001	379849	614.4	1	8.507	0.001	1088086	532.0
Aroclor-1232	2	8.771	0.001	1257624	620.4	2	9.245	0.000	2230621	575.9
Aroclor-1232	3	8.944	-0.001	504365	611.3	3	9.672	0.000	579287	568.4
Aroclor-1232	4	10.324	0.005	288321	299.7	4	10.225	0.000	705933	510.3
Total Col1Ave (4 peaks):					536.4	Total Col2Ave (4 peaks):				546.7 RPD = 2
Corrected Ave (3 peaks):					508.5	Corrected Ave (3 peaks):				536.9 RPD = 5
Aroclor-1242	1	8.278	-0.001	379849	320.0	1	8.507	0.000	1088086	312.3
Aroclor-1242	2	8.771	0.000	1257624	318.2	2	9.245	0.000	2230621	309.4
Aroclor-1242	3	8.944	-0.001	504365	319.1	3	9.672	-0.001	579287	305.2
Aroclor-1242	4	10.566	-0.001	38810	28.8	4	11.139	0.000	48271	16.5
Total Col1Ave (4 peaks):					246.5	Total Col2Ave (4 peaks):				235.8 RPD = 4
Corrected Ave (3 peaks):					222.0	Corrected Ave (3 peaks):				210.3 RPD = 5
Aroclor-1248	1	9.340	-0.001	284145	176.6	1	9.780	0.000	655811	196.4
Aroclor-1248	2	9.672	0.000	366351	187.2	2	10.225	0.000	705933	197.1
Aroclor-1248	3	10.324	0.005	288321	93.6	3	10.778	0.000	107240	29.4
Aroclor-1248	4	10.566	0.000	38810	17.8	4	11.139	0.001	48271	9.9
Total Col1Ave (4 peaks):					118.8	Total Col2Ave (4 peaks):				108.2 RPD = 9
Corrected Ave (3 peaks):					96.0	Corrected Ave (3 peaks):				78.6 RPD = 20
Aroclor-1254	1	10.324	0.000	288321	130.2	1	10.841	0.000	432282	132.3
Aroclor-1254	2	10.647	0.002	266796	86.1	2	11.013	0.000	443905	109.0
Aroclor-1254	3	11.030	0.001	33131	17.8	3	11.550	0.001	73626	23.9
Aroclor-1254	4	11.168	-0.001	109344	28.7	4	11.737	0.036	1090202	159.8
Aroclor-1254	5	11.874	-0.010	295074	125.9	5	12.496	0.005	478901	125.8
Total Col1Ave (5 peaks):					77.7	Total Col2Ave (5 peaks):				110.2 RPD = 35
Corrected Ave (4 peaks):					64.6	Corrected Ave (4 peaks):				97.7 RPD = 41*
Aroclor-1260	1	11.828	0.000	1001939	254.7	1	12.711	0.000	1361894	205.0
Aroclor-1260	2	12.431	-0.001	794975	304.7	2	13.487	0.000	2843700	268.7
Aroclor-1260	3	12.747	-0.001	784453	298.4	3	13.984	0.000	1899978	262.0
Aroclor-1260	4	13.483	0.001	931300	277.8	4	14.543	0.000	788038	296.4
Aroclor-1260	5	13.583	0.000	416332	310.3	NS	---			----
Total Col1Ave (5 peaks):					289.2	Total Col2Ave (4 peaks):				258.0 RPD = 11
Corrected Ave (4 peaks):					283.9	Corrected Ave (3 peaks):				245.2 RPD = 15
Aroclor-1262	1	12.431	-0.001	794975	185.1	1	12.801	0.000	1212578	187.4
Aroclor-1262	2	12.747	-0.001	784453	252.0	2	13.246	0.000	1378989	247.7
Aroclor-1262	3	13.111	0.000	1949940	229.6	3	13.487	-0.001	2843700	230.8
Aroclor-1262	4	13.583	0.000	416332	144.6	4	13.933	0.000	826863	173.3
Aroclor-1262	5	13.647	0.000	496996	160.5	5	13.984	-0.001	1899978	242.2
Total Col1Ave (5 peaks):					194.4	Total Col2Ave (5 peaks):				216.3 RPD = 11
Corrected Ave (4 peaks):					180.0	Corrected Ave (4 peaks):				208.4 RPD = 15
Aroclor-1268	1	13.583	0.000	416332	44.9	1	13.933	0.002	826863	64.3
Aroclor-1268	2	13.647	0.002	496996	57.7	2	13.984	-0.003	1899978	150.8

Aroclor-1268	3	13.984	0.015	207604	28.4	3	14.300	-0.001	32219	3.2
Aroclor-1268	4	14.572	0.000	91255	4.1	4	14.891	-0.001	156546	5.0

Total Col1Ave (4 peaks): 33.8 Total Col2Ave (4 peaks): 55.8 RPD = 49*

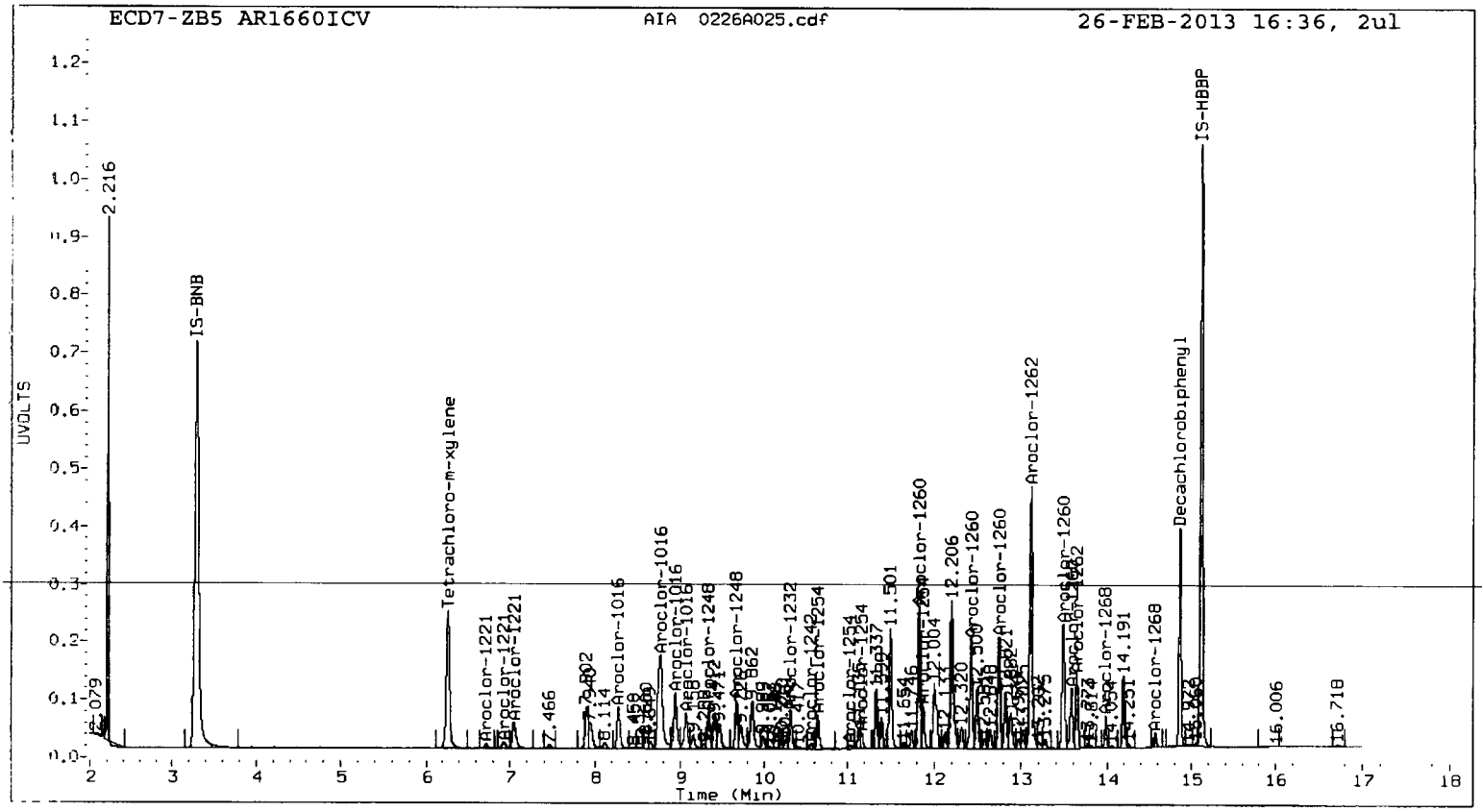
Corrected Ave (3 peaks): 25.8 Corrected Ave (3 peaks): 24.1 RPD = 7

Total PCB Area Col1 (6.364 - 14.764) = 20038091 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 33648504 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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26-FEB-2013 16:36, 2ul
UVOLTS
Time (Min)
2.216
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
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Aroclor-1262
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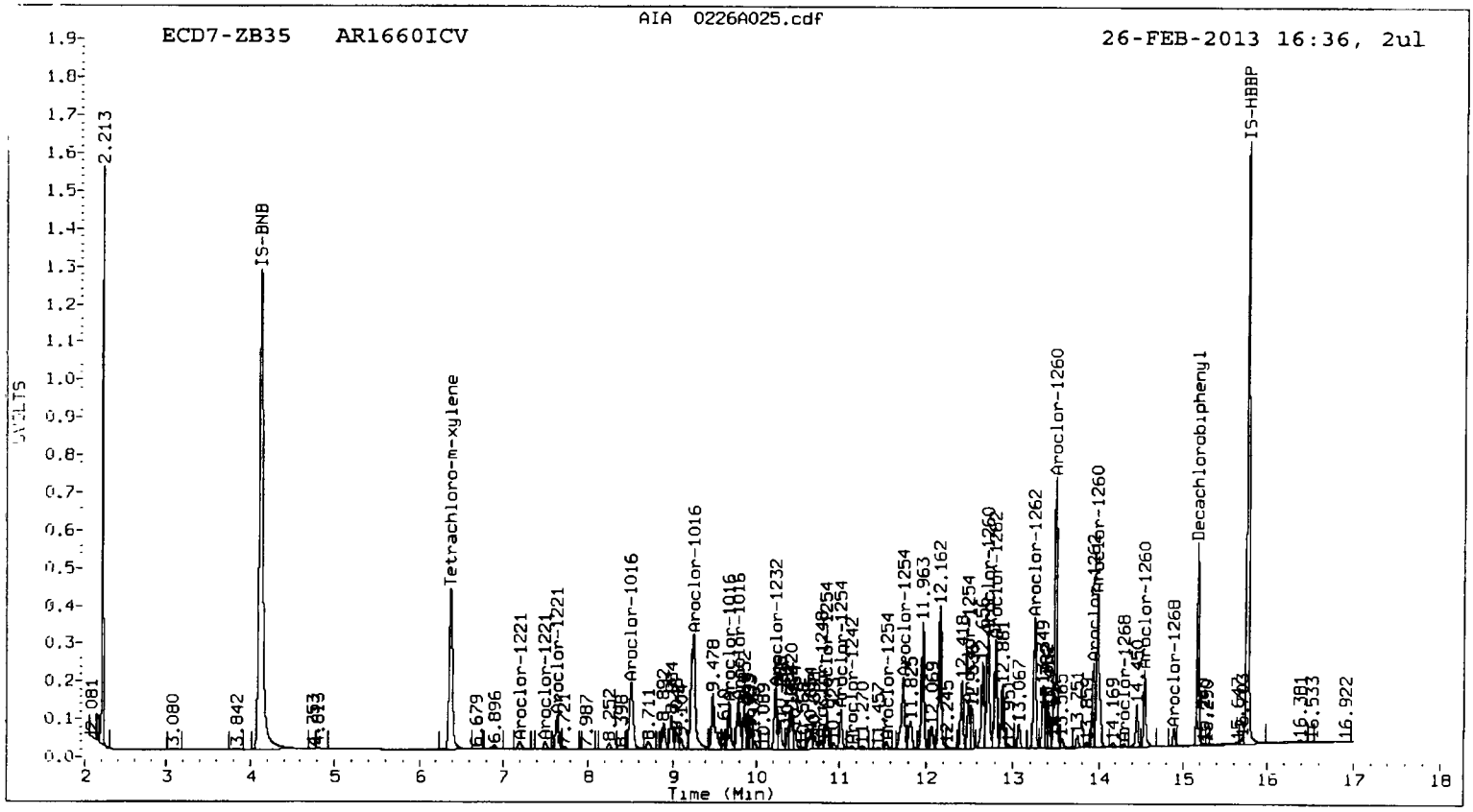
16.718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26-FEB-2013 16:36, 2ul
Time (Min)
2.213
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
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Aroclor-1268
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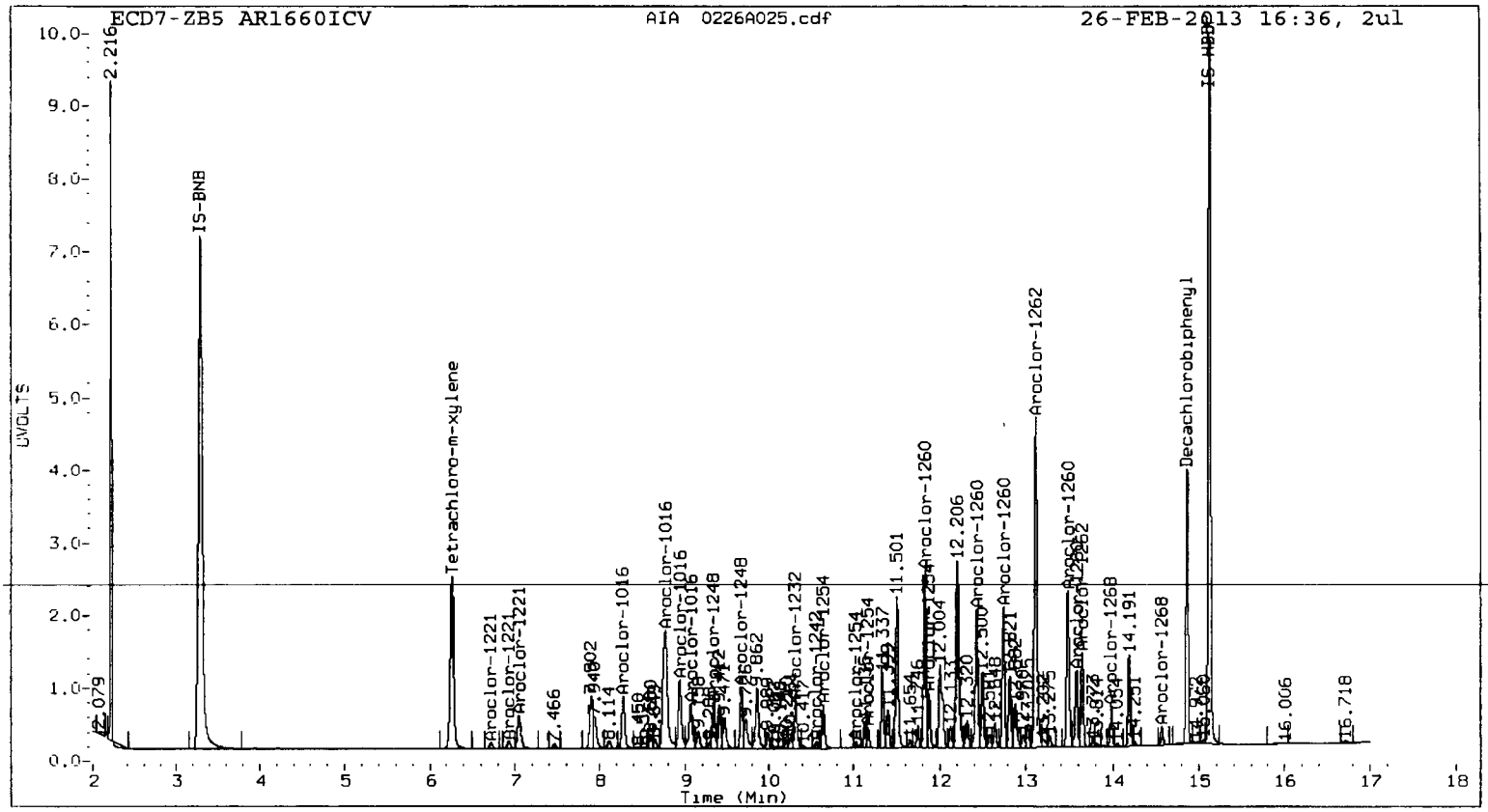
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AIA 0226A025.cdf
26-FEB-2013 16:36, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
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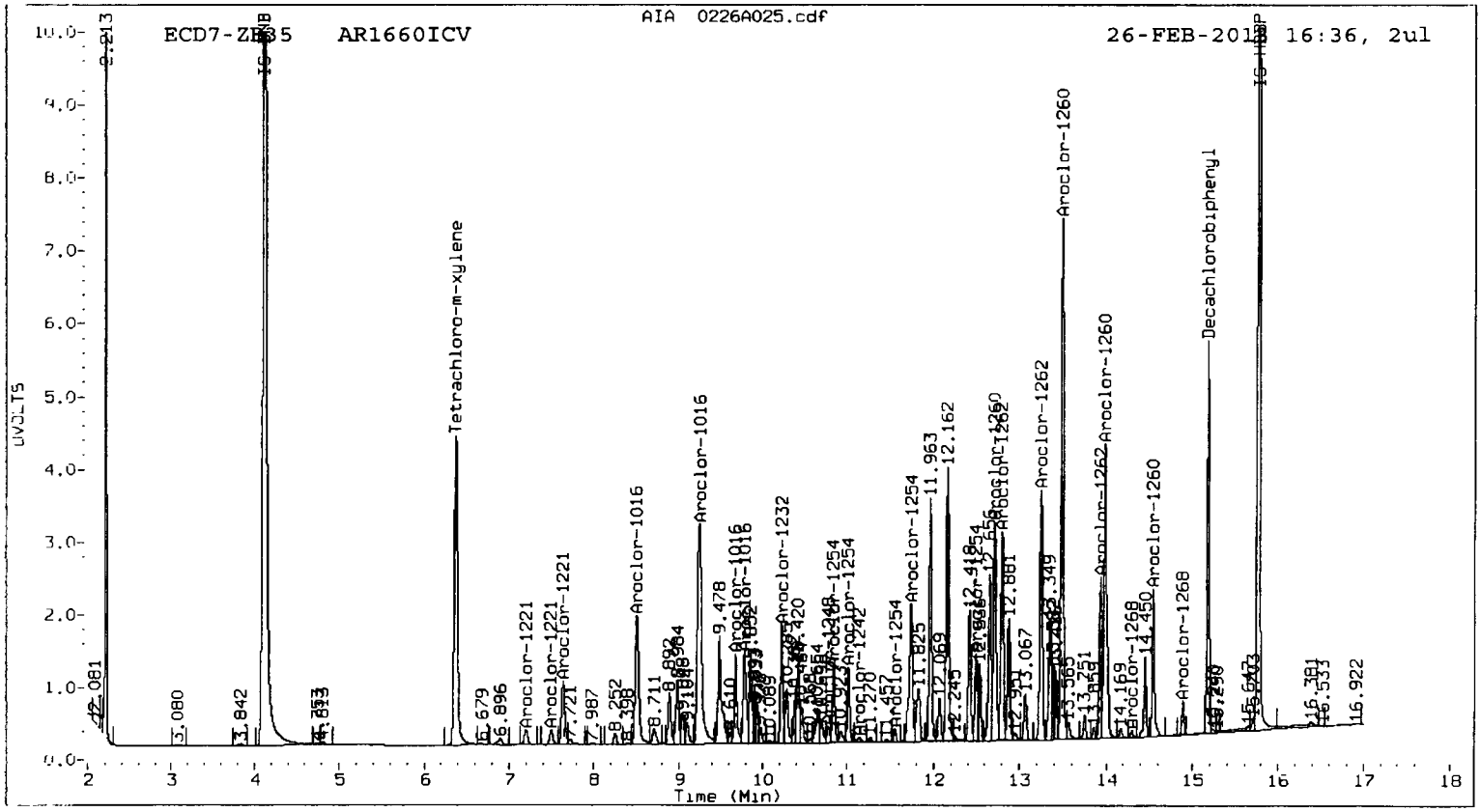
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB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26-FEB-2013 16:36, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1242
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A026.d
Data file 2: 20130226.B/ical-2.b/0226A026.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242ICV
Client ID:
Injection Date: 26-FEB-2013 16:56
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.264	0.001	1353027	6.372	0.001	2375126	21.4	20.8	2.8	Tetrachloro-m-xylene
14.864	0.000	1308356	15.177	0.000	1834486	20.6	19.1	7.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	53.5	52.0
Decachlorobiphenyl	51.6	47.8

JK 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4835869	-6.7
Hexabromobiphenyl	4555826	3789832	-16.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8291193	-0.6
Hexabromobiphenyl	6489385	5718199	-11.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	8.278	-0.001	293744	191.5	1	8.507	0.001	859771	186.6	
Aroclor-1016	2	8.769	-0.001	967500	189.1	2	9.245	0.002	1746586	185.1	
Aroclor-1016	3	8.944	0.001	391304	190.4	3	9.672	0.000	453449	194.1	
Aroclor-1016	4	9.074	0.002	267821	190.6	4	9.779	0.000	538375	193.8	
	Total Col1Ave (4 peaks):				190.4	Total Col2Ave (4 peaks):				189.9	RPD = 0
	Corrected Ave (3 peaks):				190.0	Corrected Ave (3 peaks):				188.5	RPD = 1
Aroclor-1221	1	6.717	-0.002	40568	64.8	1	7.201	0.004	108371	83.2	
Aroclor-1221	2	6.929	-0.002	58058	124.7	2	7.497	-0.001	87441	109.3	
Aroclor-1221	3	7.054	-0.001	224591	141.5	3	7.637	0.001	380105	158.7	
Aroclor-1221	NS	---			----	4	8.507	-0.016	859771	991.8	
	Total Col1Ave (3 peaks):				110.3	Total Col2Ave (4 peaks):				335.8	RPD = 101*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				117.1	
Aroclor-1232	1	8.278	0.000	293744	471.8	1	8.507	0.001	859771	423.1	
Aroclor-1232	2	8.769	-0.001	967500	474.0	2	9.245	0.000	1746586	453.8	
Aroclor-1232	3	8.944	0.000	391304	471.0	3	9.672	-0.001	453449	447.8	
Aroclor-1232	4	10.319	0.000	429058	442.9	4	10.225	0.000	576807	419.7	
	Total Col1Ave (4 peaks):				464.9	Total Col2Ave (4 peaks):				436.1	RPD = 6
	Corrected Ave (3 peaks):				461.9	Corrected Ave (3 peaks):				430.2	RPD = 7
Aroclor-1242	1	8.278	0.000	293744	245.8	1	8.507	0.000	859771	248.4	
Aroclor-1242	2	8.769	-0.002	967500	243.1	2	9.245	0.000	1746586	243.8	
Aroclor-1242	3	8.944	0.000	391304	245.8	3	9.672	-0.001	453449	240.4	
Aroclor-1242	4	10.566	0.000	312521	230.0	4	11.139	-0.001	703673	241.7	
	Total Col1Ave (4 peaks):				241.2	Total Col2Ave (4 peaks):				243.6	RPD = 1
	Corrected Ave (3 peaks):				239.6	Corrected Ave (3 peaks):				242.0	RPD = 1
Aroclor-1248	1	9.340	0.000	232823	143.7	1	9.779	0.000	538375	162.3	
Aroclor-1248	2	9.672	0.001	295748	150.1	2	10.225	0.000	576807	162.1	
Aroclor-1248	3	10.319	0.000	429058	138.3	3	10.779	0.001	541404	149.6	
Aroclor-1248	4	10.566	0.000	312521	142.7	4	11.139	0.001	703673	145.8	
	Total Col1Ave (4 peaks):				143.7	Total Col2Ave (4 peaks):				154.9	RPD = 8
	Corrected Ave (3 peaks):				141.6	Corrected Ave (3 peaks):				152.5	RPD = 7
Aroclor-1254	1	10.319	-0.004	429058	192.4	1	10.840	-0.001	247744	76.3	
Aroclor-1254	2	10.645	-0.001	188820	60.5	2	11.014	0.000	225017	55.6	
Aroclor-1254	3	11.031	0.002	103553	55.1	3	11.550	0.001	201289	65.8	
Aroclor-1254	4	11.170	0.001	177262	46.2	4	11.703	0.001	358143	52.8	
Aroclor-1254	5	11.897	0.013	105473	44.7	5	12.490	-0.002	210098	55.5	
	Total Col1Ave (5 peaks):				79.8	Total Col2Ave (5 peaks):				61.2	RPD = 26
	Corrected Ave (4 peaks):				51.6	Corrected Ave (4 peaks):				57.4	RPD = 11
Aroclor-1260	1	---			0.0	1	12.713	0.002	126913	19.1	
Aroclor-1260	2	---			0.0	2	13.491	0.004	23326	2.2	
Aroclor-1260	3	---			0.0	3	13.985	0.001	18434	2.5	
Aroclor-1260	4	---			0.0	4	14.596	0.053	24341	9.2	
Aroclor-1260	5	---			0.0	NS	---			----	
	Col1Ave: <3 Quant Peaks					Col2Ave:			8.3		
Aroclor-1262	1	---			0.0	1	12.878	0.077	19404	3.0	
Aroclor-1262	2	---			0.0	2	13.246	0.000	57349	10.3	
Aroclor-1262	3	---			0.0	3	13.491	0.004	23326	1.9	
Aroclor-1262	4	---			0.0	4	13.985	0.052	18434	3.9	
Aroclor-1262	5	---			0.0	5	---			0.0	
	Col1Ave: <3 Quant Peaks					Col2Ave:			4.8		
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	

Col1Ave: <3 Quant Peaks

Col2Ave: <3 Quant Peaks

Total PCB Area Col1 (6.364 - 14.764) = 7244117

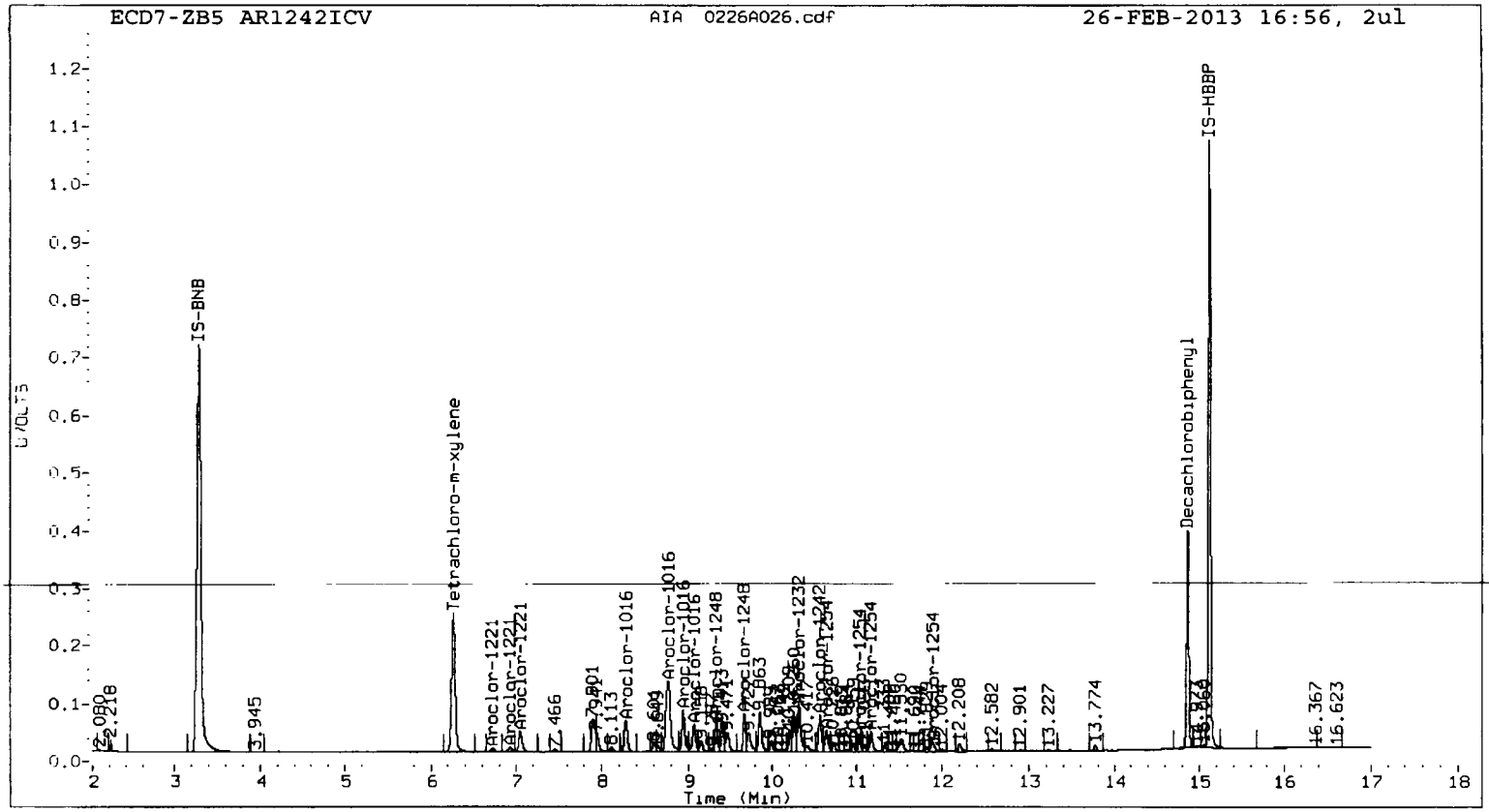
Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 13736105

Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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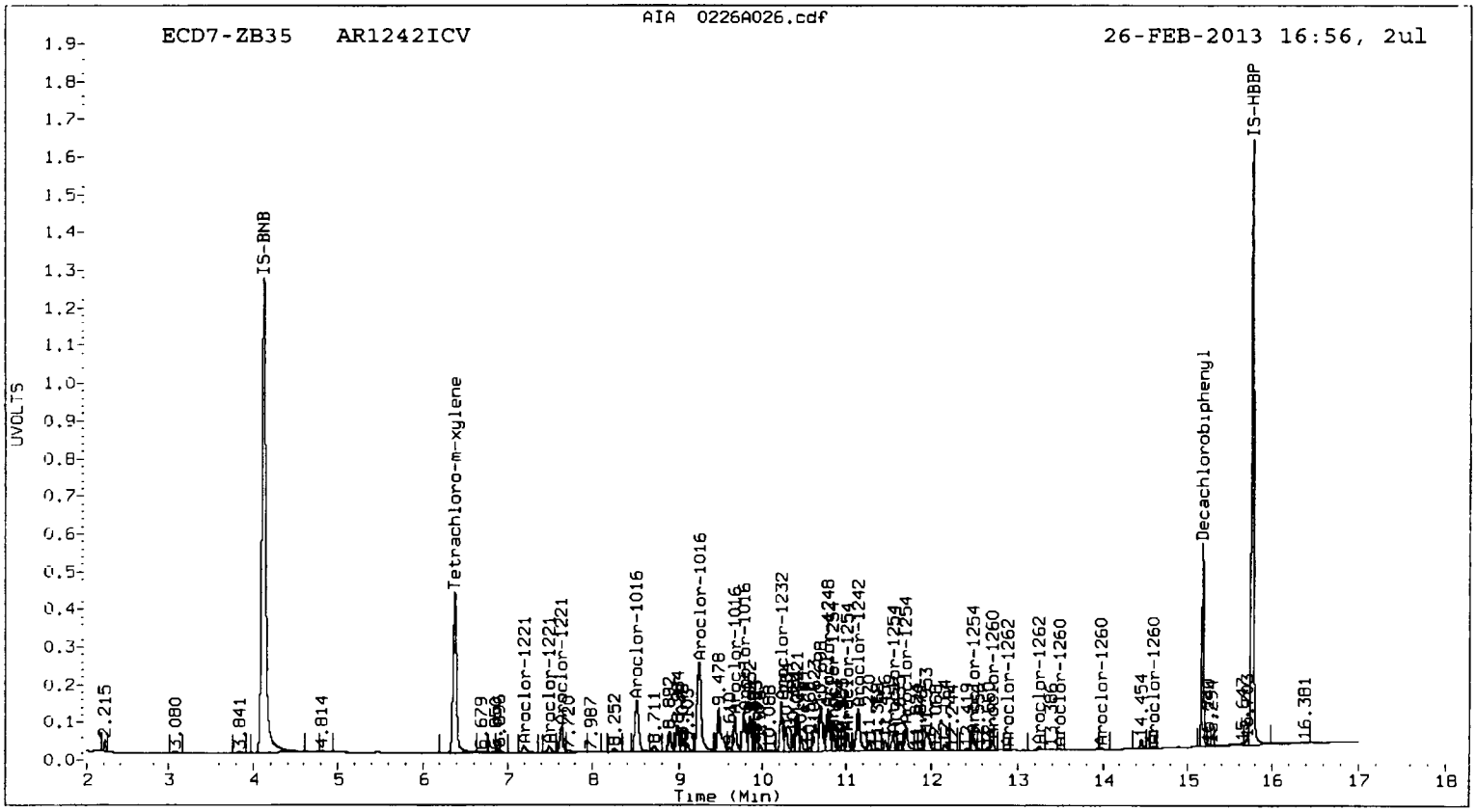
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
UVOLTS
Time (Min)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IS-HBBP
Decachlorobiphenyl
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Aroclor-1221
Aroclor-1232
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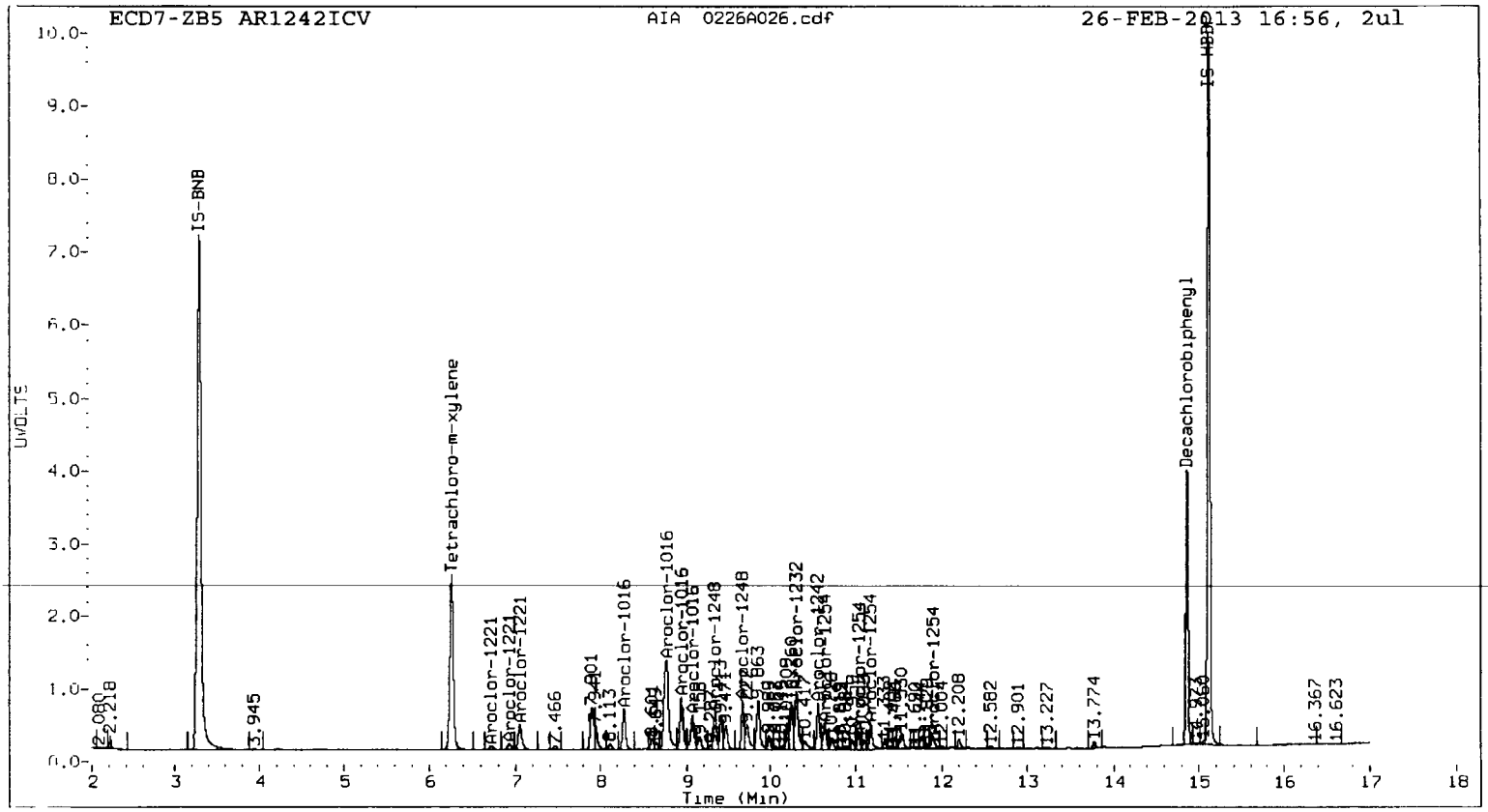
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
UVOLTS
Time (Min)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Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1016
Aroclor-1221
Aroclor-1232
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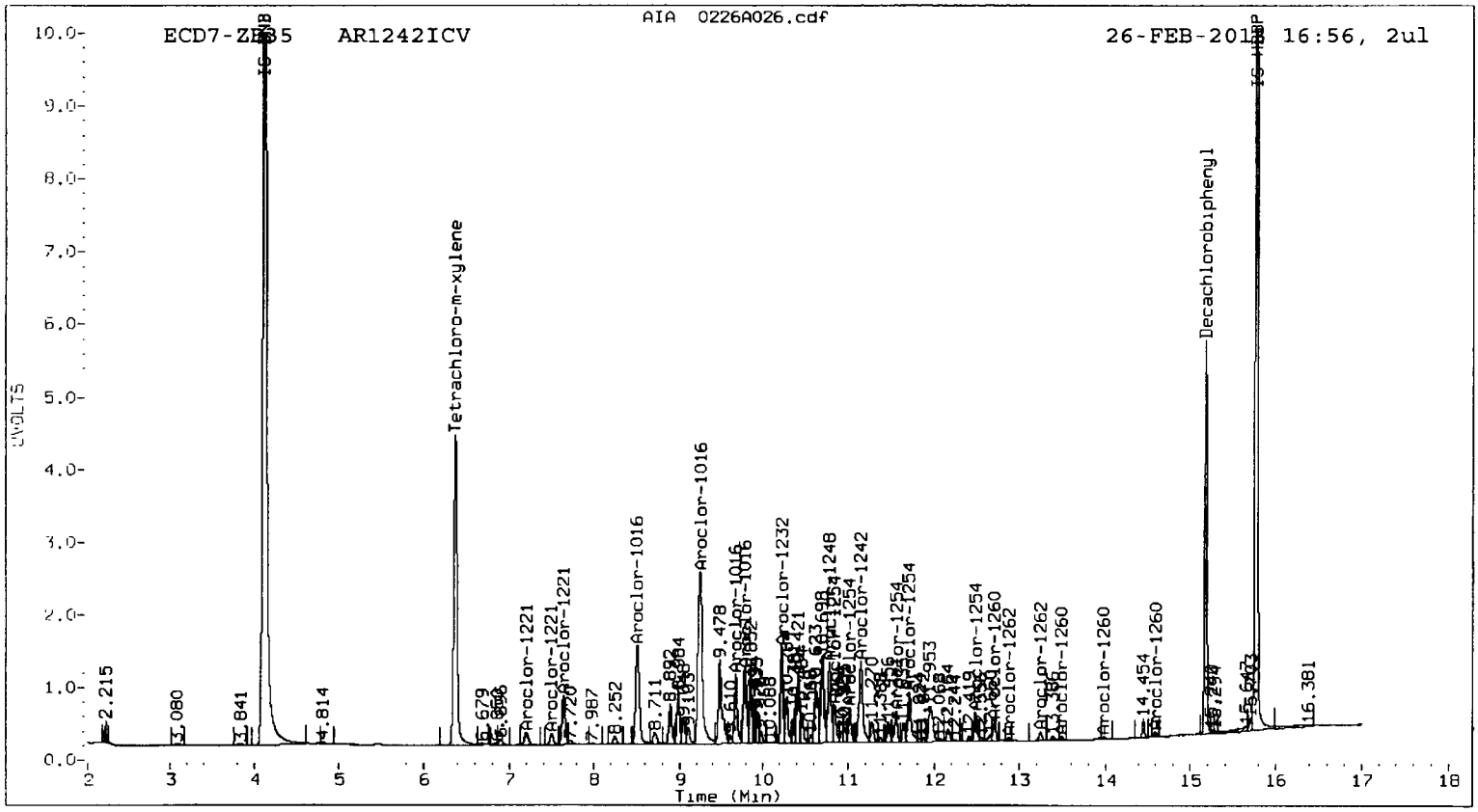
Aroclor-1254
Aroclor-1260
Aroclor-1262
UVOLTS
Time (Min)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Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A027.d
Data file 2: 20130226.B/ical-2.b/0226A027.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248ICV
Client ID:
Injection Date: 26-FEB-2013 17:16
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.264	0.000	1344650	6.371	-0.001	2383485	20.7	20.3	1.6	Tetrachloro-m-xylene
14.864	0.000	1312073	15.177	0.000	1836652	20.2	18.7	7.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.7	50.8
Decachlorobiphenyl	50.6	46.9

03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4973458	-4.1
Hexabromobiphenyl	4555826	3871094	-15.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8505480	1.9
Hexabromobiphenyl	6489385	5843956	-9.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

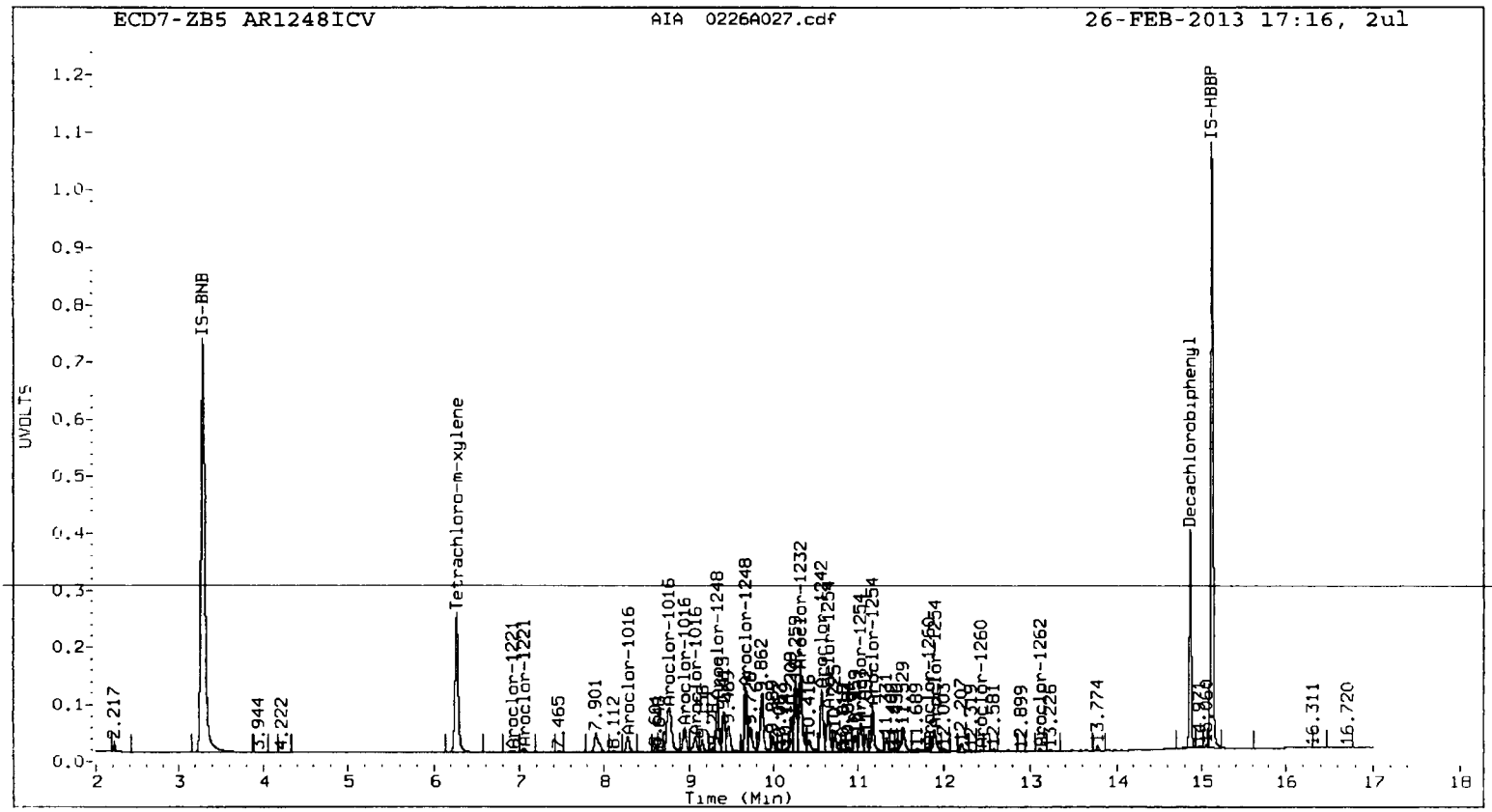
Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount	
Aroclor-1016	1	8.278	-0.001	142941	90.6	1	8.504	-0.002	470812	99.6	
Aroclor-1016	2	8.766	-0.004	643745	122.4	2	9.240	-0.003	1194535	123.4	
Aroclor-1016	3	8.946	0.003	236382	111.8	3	9.672	0.001	263360	109.9	
Aroclor-1016	4	9.073	0.001	162447	112.4	4	9.778	-0.001	826902	290.2	
Total Col1Ave (4 peaks):					109.3	Total Col2Ave (4 peaks):				155.8	RPD = 35
Corrected Ave (3 peaks):					104.9	Corrected Ave (3 peaks):				111.0	RPD = 6
Aroclor-1221	1	---			0.0	1	7.213	0.016	44836	33.6	
Aroclor-1221	2	6.911	-0.020	20292	42.4	2	7.497	0.000	15944	19.4	
Aroclor-1221	3	7.056	0.001	42878	26.3	3	7.637	0.001	89862	36.6	
Aroclor-1221	NS	---			----	4	8.504	-0.019	470812	529.4	
Col1Ave: <3 Quant Peaks						Col2Ave: 154.7					
Aroclor-1232	1	8.278	-0.001	142941	223.2	1	8.504	-0.002	470812	225.9	
Aroclor-1232	2	8.766	-0.005	643745	306.6	2	9.240	-0.004	1194535	302.6	
Aroclor-1232	3	8.946	0.002	236382	276.6	3	9.672	0.000	263360	253.5	
Aroclor-1232	4	10.318	-0.001	749211	752.0	4	10.225	0.000	879183	623.6	
Total Col1Ave (4 peaks):					389.6	Total Col2Ave (4 peaks):				351.4	RPD = 10
Corrected Ave (3 peaks):					268.8	Corrected Ave (3 peaks):				260.7	RPD = 3
Aroclor-1242	1	8.278	-0.001	142941	116.3	1	8.504	-0.003	470812	132.6	
Aroclor-1242	2	8.766	-0.005	643745	157.3	2	9.240	-0.005	1194535	162.6	
Aroclor-1242	3	8.946	0.002	236382	144.4	3	9.672	-0.001	263360	136.1	
Aroclor-1242	4	10.565	-0.001	517936	370.6	4	11.138	-0.002	1158022	387.8	
Total Col1Ave (4 peaks):					197.2	Total Col2Ave (4 peaks):				204.8	RPD = 4
Corrected Ave (3 peaks):					139.3	Corrected Ave (3 peaks):				143.8	RPD = 3
Aroclor-1248	1	9.340	-0.001	402100	241.4	1	9.778	-0.001	826902	243.0	
Aroclor-1248	2	9.671	0.000	486795	240.2	2	10.225	0.000	879183	240.8	
Aroclor-1248	3	10.318	-0.001	749211	234.8	3	10.777	-0.001	865172	233.0	
Aroclor-1248	4	10.565	-0.001	517936	230.0	4	11.138	0.000	1158022	233.9	
Total Col1Ave (4 peaks):					236.6	Total Col2Ave (4 peaks):				237.7	RPD = 0
Corrected Ave (3 peaks):					235.0	Corrected Ave (3 peaks):				235.9	RPD = 0
Aroclor-1254	1	10.318	-0.005	749211	326.7	1	10.840	-0.001	443135	133.1	
Aroclor-1254	2	10.644	-0.002	370467	115.5	2	11.013	0.000	400485	96.5	
Aroclor-1254	3	11.029	0.000	216630	112.2	3	11.549	0.000	392604	125.0	
Aroclor-1254	4	11.170	0.001	366275	92.7	4	11.702	0.000	701522	100.9	
Aroclor-1254	5	11.897	0.012	225133	92.8	5	12.487	-0.005	453348	116.8	
Total Col1Ave (5 peaks):					148.0	Total Col2Ave (5 peaks):				114.5	RPD = 26
Corrected Ave (4 peaks):					103.3	Corrected Ave (4 peaks):				109.8	RPD = 6
Aroclor-1260	1	11.828	0.001	33388	8.3	1	12.711	0.000	125145	18.5	
Aroclor-1260	2	12.432	0.000	12143	4.5	2	13.489	0.002	50905	4.7	
Aroclor-1260	3	---			0.0	3	13.986	0.003	33845	4.6	
Aroclor-1260	4	---			0.0	4	14.543	0.001	13742	5.1	
Aroclor-1260	5	---			0.0	NS	---			----	
Col1Ave: <3 Quant Peaks						Col2Ave: 8.2					
Aroclor-1262	1	12.432	0.000	12143	2.8	1	12.801	0.000	29410	4.5	
Aroclor-1262	2	---			0.0	2	13.246	-0.001	76535	13.5	
Aroclor-1262	3	13.112	0.001	19098	2.2	3	13.489	0.001	50905	4.0	
Aroclor-1262	4	---			0.0	4	13.932	-0.001	21042	4.3	
Aroclor-1262	5	---			0.0	5	13.986	0.001	33845	4.2	
Col1Ave: <3 Quant Peaks						Col2Ave: 6.1					
Aroclor-1268	1	---			0.0	1	13.932	0.001	21042	1.6	
Aroclor-1268	2	---			0.0	2	13.986	-0.001	33845	2.6	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
Col1Ave: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (6.364 - 14.764) = 8782554 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 16123908 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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UVOLTS
Time (Min)
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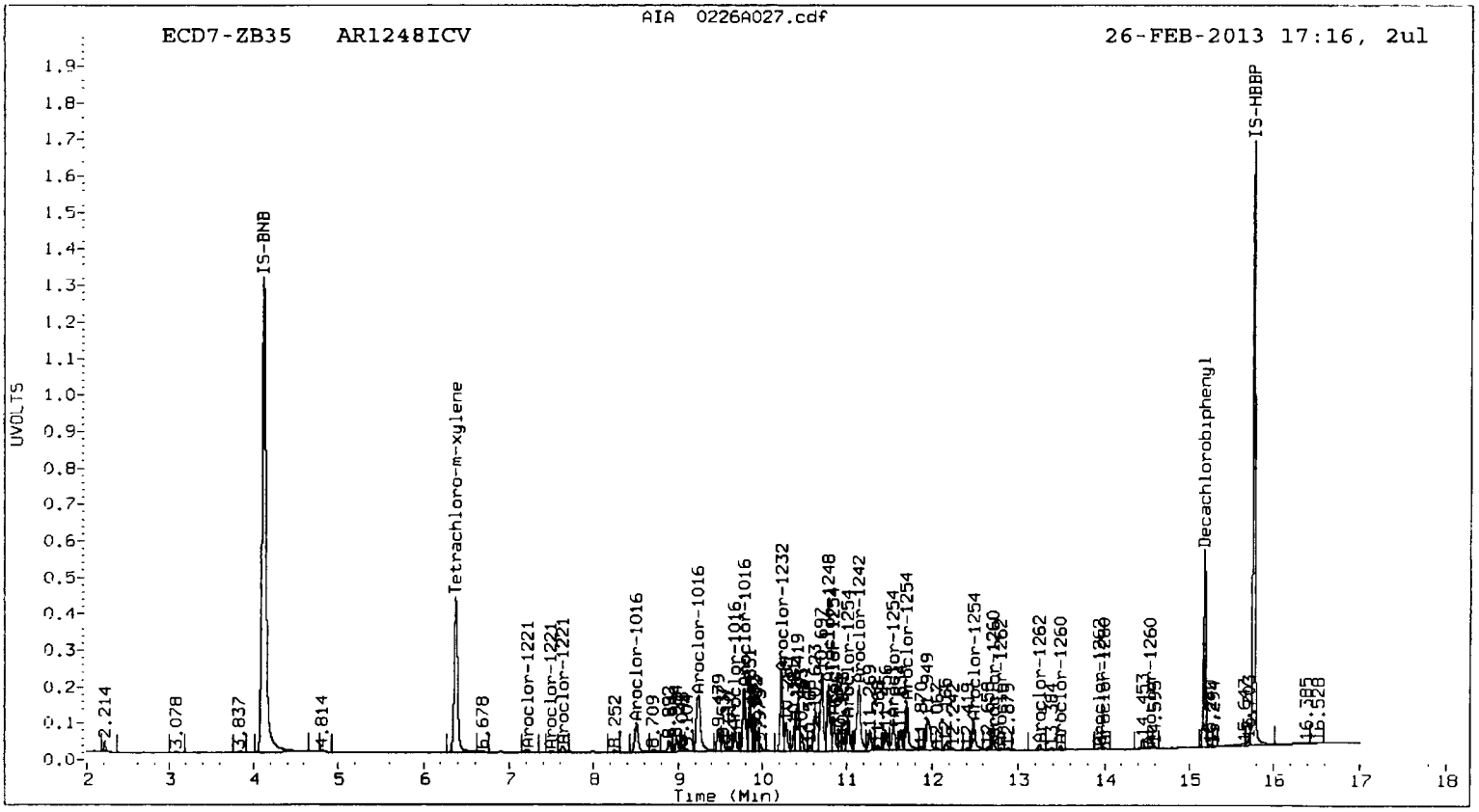
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262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Time (Min)
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Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
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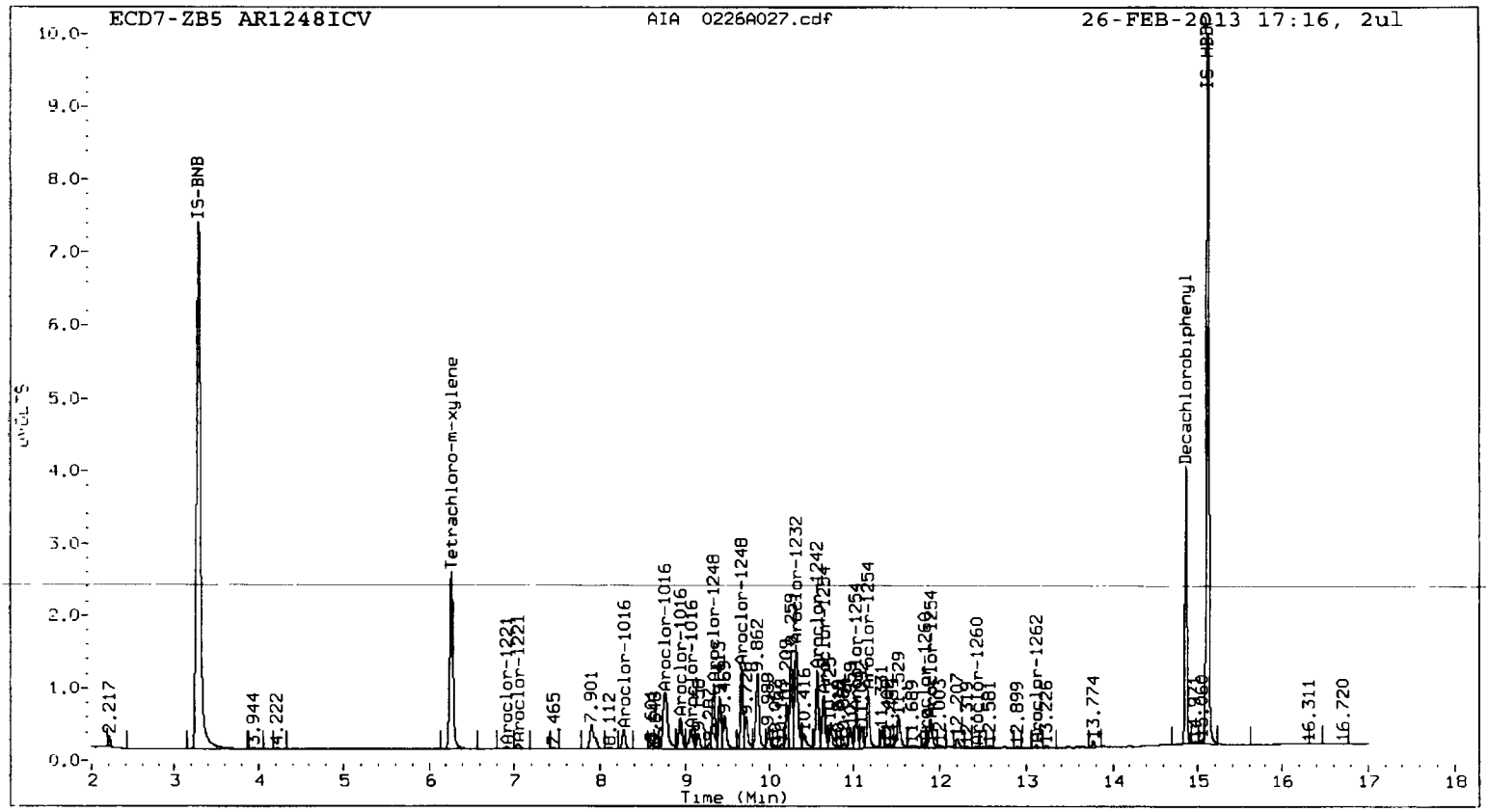
Aroclor-1262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Tetrachloro-m-xylene
Decachlorobiphenyl
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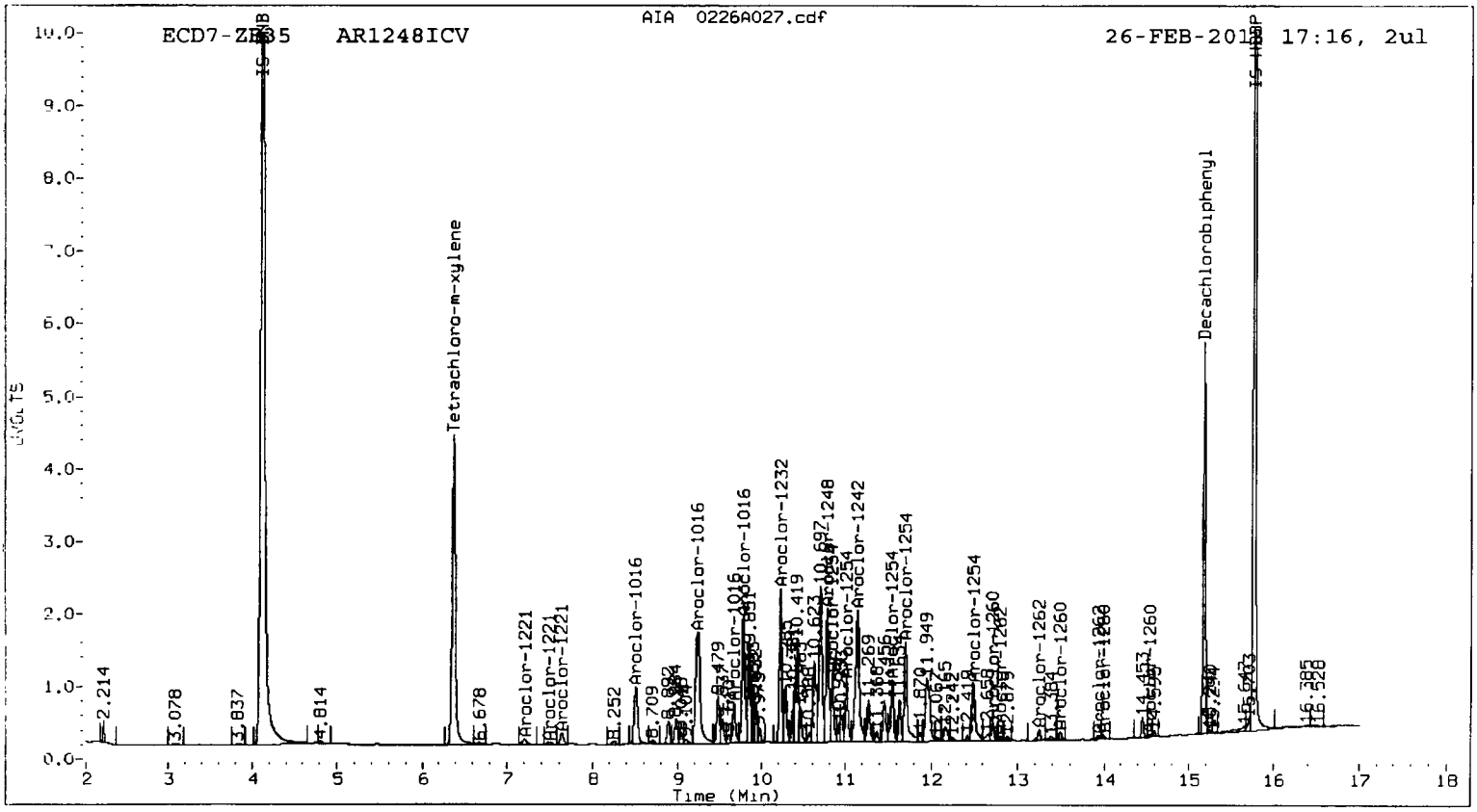
Time (Min)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Decachlorobiphenyl
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Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A028.d
Data file 2: 20130226.B/ical-2.b/0226A028.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV
Client ID:
Injection Date: 26-FEB-2013 17:36
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.265	0.001	1289844	6.371	0.000	2314665	20.6	20.2	1.9	Tetrachloro-m-xylene
14.864	-0.001	1296660	15.178	0.001	1824194	20.6	19.4	6.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.6	50.6
Decachlorobiphenyl	51.6	48.4

JR 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4778265	-7.8
Hexabromobiphenyl	4555826	3751047	-17.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8299746	-0.5
Hexabromobiphenyl	6489385	5613481	-13.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	8.505	-0.002	16162	3.5	
Aroclor-1016	2	8.757	-0.014	21404	4.2	2	9.234	-0.009	47567	5.0	
Aroclor-1016	3	8.951	0.008	12033	5.9	3	---			0.0	
Aroclor-1016	4	---			0.0	4	9.778	-0.001	541550	194.8	
		Col1Ave: <3 Quant Peaks					Col2Ave:	67.8			
Aroclor-1221	1	---			0.0	1	7.216	0.019	30555	23.4	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	7.638	0.002	10377	4.3	
Aroclor-1221	NS	---			----	4	8.505	-0.018	16162	18.6	
		Col1Ave: <3 Quant Peaks					Col2Ave:	15.5			
Aroclor-1232	1	---			0.0	1	8.505	-0.001	16162	7.9	
Aroclor-1232	2	8.757	-0.014	21404	10.6	2	9.234	-0.010	47567	12.3	
Aroclor-1232	3	8.951	0.007	12033	14.7	3	---			0.0	
Aroclor-1232	4	10.323	0.003	671647	701.7	4	10.226	0.000	325332	236.5	
		Total Col1Ave (3 peaks):			242.3		Total Col2Ave (3 peaks):			85.6	RPD = 96*
		Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1242	1	---			0.0	1	8.505	-0.002	16162	4.7	
Aroclor-1242	2	8.757	-0.015	21404	5.4	2	9.234	-0.011	47567	6.6	
Aroclor-1242	3	8.951	0.007	12033	7.7	3	---			0.0	
Aroclor-1242	4	10.565	-0.001	191952	143.0	4	11.110	-0.029	643156	220.7	
		Total Col1Ave (3 peaks):			52.0		Total Col2Ave (3 peaks):			77.3	RPD = 39
		Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1248	1	9.340	-0.001	302459	189.0	1	9.778	-0.001	541550	163.1	
Aroclor-1248	2	9.671	-0.001	173597	89.2	2	10.226	0.000	325332	91.3	
Aroclor-1248	3	10.323	0.003	671647	219.1	3	10.778	0.000	188311	52.0	
Aroclor-1248	4	10.565	-0.001	191952	88.7	4	11.110	-0.028	643156	133.1	
		Total Col1Ave (4 peaks):			146.5		Total Col2Ave (4 peaks):			109.9	RPD = 29
		Corrected Ave (3 peaks):			122.3		Corrected Ave (3 peaks):			92.1	RPD = 28
Aroclor-1254	1	10.323	-0.001	671647	304.8	1	10.840	-0.001	955962	294.3	
Aroclor-1254	2	10.645	-0.001	930771	302.0	2	11.013	0.000	1201811	296.7	
Aroclor-1254	3	11.029	0.000	584200	314.9	3	11.549	0.000	949407	309.8	
Aroclor-1254	4	11.168	0.000	1129532	297.7	4	11.701	0.000	1979878	291.8	
Aroclor-1254	5	11.885	0.001	729111	312.7	5	12.490	-0.001	1149614	303.5	
		Total Col1Ave (5 peaks):			306.4		Total Col2Ave (5 peaks):			299.2	RPD = 2
		Corrected Ave (4 peaks):			304.3		Corrected Ave (4 peaks):			296.6	RPD = 3
Aroclor-1260	1	11.828	0.000	454514	116.0	1	12.711	-0.001	1453347	223.1	
Aroclor-1260	2	12.430	-0.002	62785	24.2	2	13.489	0.002	331882	32.0	
Aroclor-1260	3	12.747	0.000	62528	23.9	3	13.983	0.000	237891	33.5	
Aroclor-1260	4	13.483	0.000	122300	36.6	4	14.542	0.000	23164	8.9	
Aroclor-1260	5	13.582	-0.001	17493	13.1	NS	---			----	
		Total Col1Ave (5 peaks):			42.8		Total Col2Ave (4 peaks):			74.4	RPD = 54*
		Corrected Ave (4 peaks):			24.4		Corrected Ave (3 peaks):			24.8	RPD = 1
Aroclor-1262	1	12.430	-0.002	62785	14.7	1	12.800	-0.001	124609	19.6	
Aroclor-1262	2	12.747	-0.001	62528	20.2	2	13.246	-0.001	561953	103.0	
Aroclor-1262	3	13.111	0.000	135657	16.0	3	13.489	0.001	331882	27.5	
Aroclor-1262	4	13.582	-0.001	17493	6.1	4	13.935	0.002	68318	14.6	
Aroclor-1262	5	13.646	-0.001	17724	5.7	5	13.983	-0.002	237891	30.9	
		Total Col1Ave (5 peaks):			12.5		Total Col2Ave (5 peaks):			39.1	RPD = 103*
		Corrected Ave (4 peaks):			10.6		Corrected Ave (4 peaks):			23.2	RPD = 74*
Aroclor-1268	1	13.582	-0.001	17493	1.9	1	13.935	0.004	68318	5.4	
Aroclor-1268	2	13.646	0.001	17724	2.1	2	13.983	-0.004	237891	19.3	
Aroclor-1268	3	13.971	0.003	10818	1.5	3	14.300	0.000	15982	1.6	
Aroclor-1268	4	14.573	0.001	20457	0.9	4	14.892	0.000	39290	1.3	

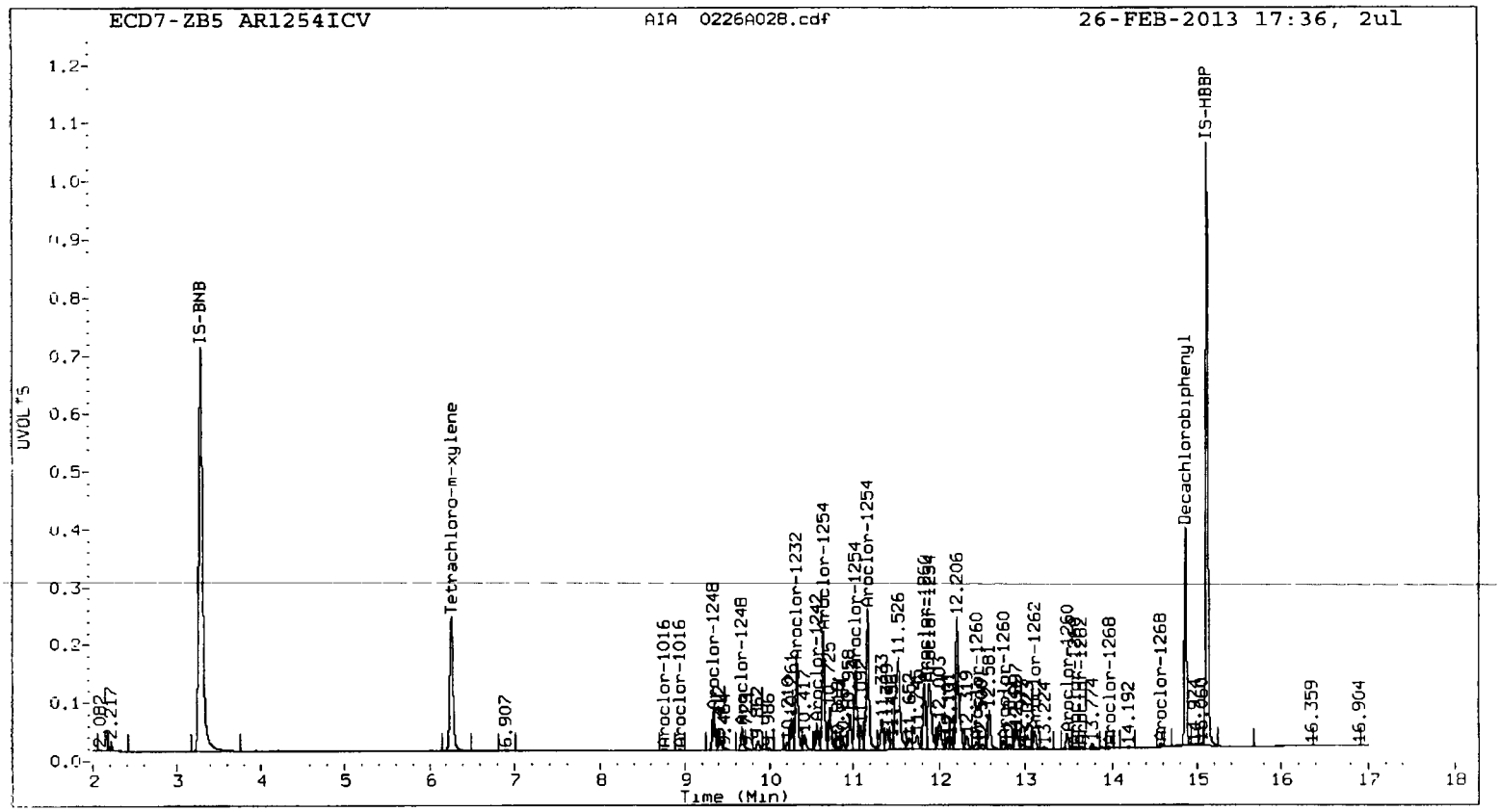
Total Col1Ave (4 peaks):	1.6	Total Col2Ave (4 peaks):	6.9	RPD = 125*
Corrected Ave (3 peaks):	1.4	Corrected Ave (3 peaks):	2.8	RPD = 63*

Total PCB Area Col1 (6.364 - 14.764) = 11409082 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 19788790 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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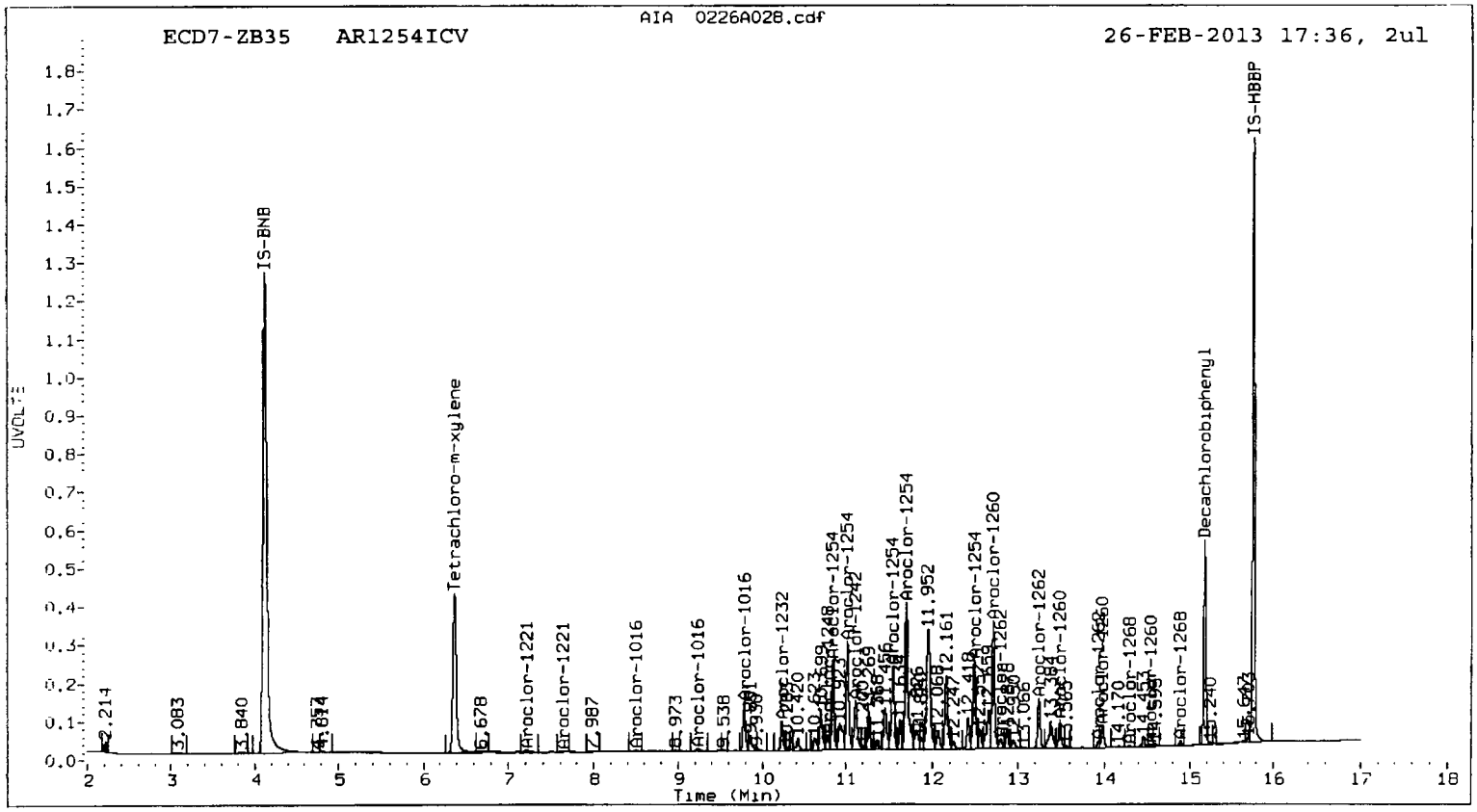
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1254
Aroclor-1260
Aroclor-1268
Time (Min)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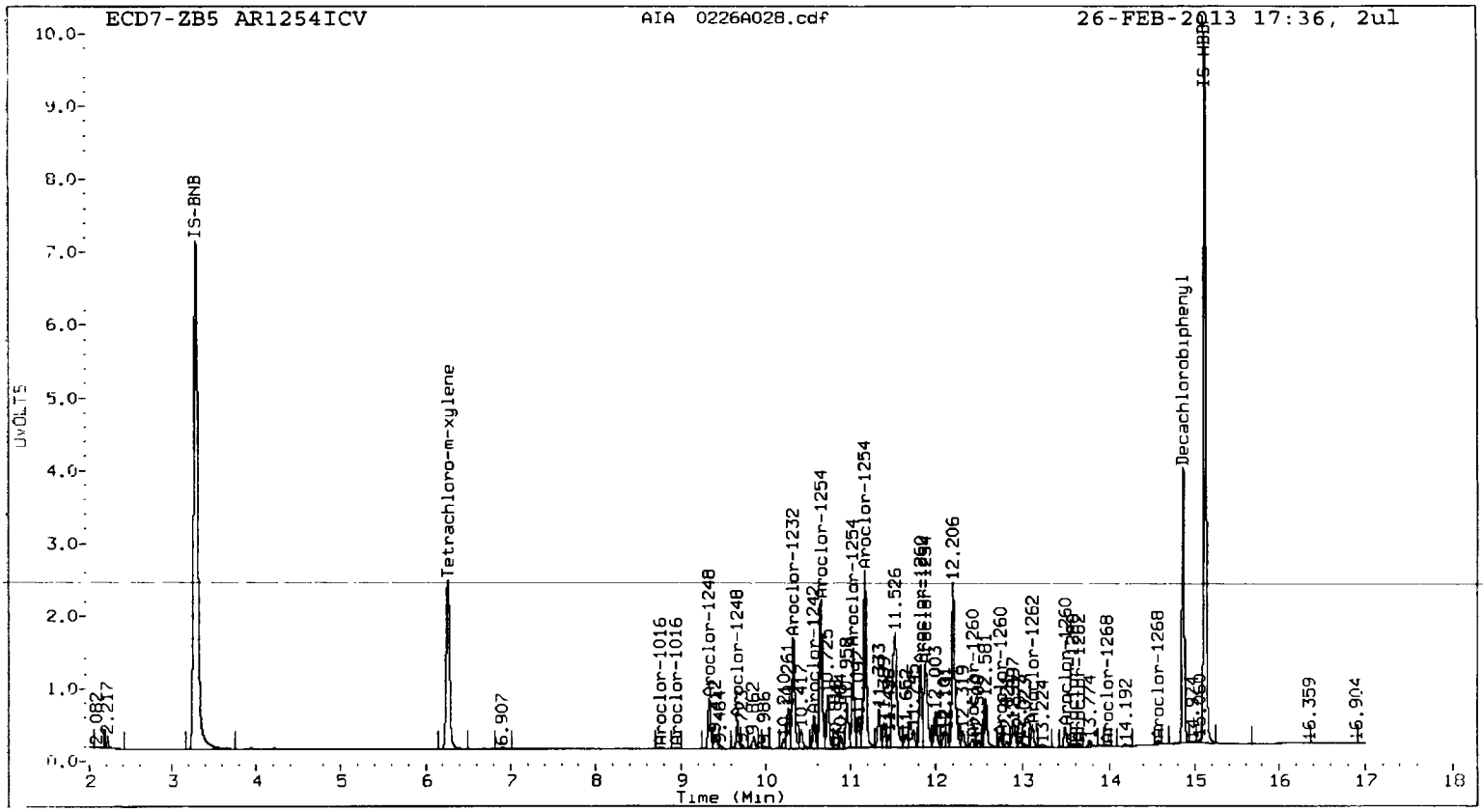
IS-HBBP
Decachlorobiphenyl
Aroclor-1254
Aroclor-1260
Aroclor-1268
Time (Min)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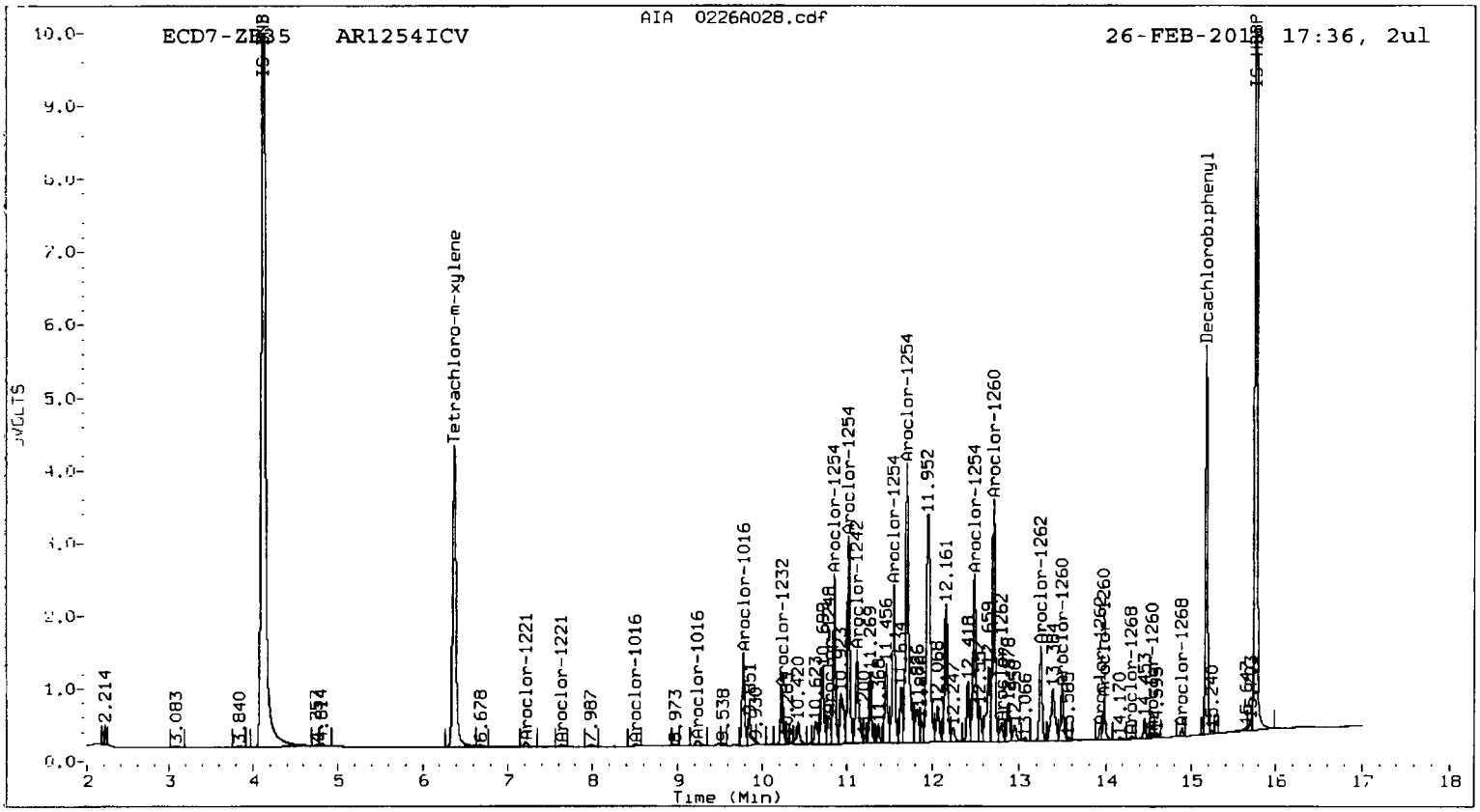
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
UVOLTS
Time (Min)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Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A029.d
Data file 2: 20130226.B/ical-2.b/0226A029.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162ICV
Client ID:
Injection Date: 26-FEB-2013 17:57
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.265	0.001	1384220	6.372	0.001	2369147	21.7	20.6	5.5	Tetrachloro-m-xylene
14.863	-0.001	1304923	15.177	0.000	1821379	20.5	19.0	7.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	54.4	51.5
Decachlorobiphenyl	51.3	47.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4866470	-6.1
Hexabromobiphenyl	4555826	3796441	-16.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8352197	0.1
Hexabromobiphenyl	6489385	5712227	-12.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	8.277	-0.001	33846	21.9	1	8.521	0.015	210025	45.2
Aroclor-1016	2	8.774	0.003	85057	16.5	2	9.247	0.004	181294	19.1
Aroclor-1016	3	8.944	0.001	39296	19.0	3	9.673	0.002	45358	19.3
Aroclor-1016	4	9.072	0.000	24528	17.3	4	9.779	0.000	44638	16.0
Total Col1Ave (4 peaks):				18.7		Total Col2Ave (4 peaks):			24.9	RPD = 28
Corrected Ave (3 peaks):				17.6		Corrected Ave (3 peaks):			18.1	RPD = 3
Aroclor-1221	1	6.718	0.000	168962	268.1	1	7.197	0.000	349936	266.7
Aroclor-1221	2	6.930	-0.001	124598	265.9	2	7.497	0.000	213501	264.8
Aroclor-1221	3	7.054	-0.001	423697	265.2	3	7.636	0.000	631291	261.7
Aroclor-1221	NS	---			----	4	8.521	-0.002	210025	240.5
Total Col1Ave (3 peaks):				266.4		Total Col2Ave (4 peaks):			258.4	RPD = 3
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			256.7	
Aroclor-1232	1	8.277	-0.001	33846	54.0	1	8.521	0.015	210025	102.6
Aroclor-1232	2	8.774	0.003	85057	41.4	2	9.247	0.002	181294	46.8
Aroclor-1232	3	8.944	0.000	39296	47.0	3	9.673	0.000	45358	44.5
Aroclor-1232	4	10.324	0.005	116198	119.2	4	10.225	0.000	38234	27.6
Total Col1Ave (4 peaks):				65.4		Total Col2Ave (4 peaks):			55.4	RPD = 17
Corrected Ave (3 peaks):				47.5		Corrected Ave (3 peaks):			39.6	RPD = 18
Aroclor-1242	1	8.277	-0.001	33846	28.1	1	8.521	0.014	210025	60.2
Aroclor-1242	2	8.774	0.002	85057	21.2	2	9.247	0.002	181294	25.1
Aroclor-1242	3	8.944	0.001	39296	24.5	3	9.673	0.000	45358	23.9
Aroclor-1242	4	10.567	0.000	21157	15.5	4	11.137	-0.002	57262	19.5
Total Col1Ave (4 peaks):				22.3		Total Col2Ave (4 peaks):			32.2	RPD = 36
Corrected Ave (3 peaks):				20.4		Corrected Ave (3 peaks):			22.8	RPD = 11
Aroclor-1248	1	9.340	0.000	19960	12.2	1	9.779	0.000	44638	13.4
Aroclor-1248	2	9.671	0.000	16727	8.4	2	10.225	0.000	38234	10.7
Aroclor-1248	3	10.324	0.005	116198	37.2	3	10.780	0.002	29691	8.1
Aroclor-1248	4	10.567	0.001	21157	9.6	4	11.137	-0.001	57262	11.8
Total Col1Ave (4 peaks):				16.9		Total Col2Ave (4 peaks):			11.0	RPD = 42*
Corrected Ave (3 peaks):				10.1		Corrected Ave (3 peaks):			10.2	RPD = 1
Aroclor-1254	1	10.324	0.000	116198	51.8	1	10.841	0.000	201361	61.6
Aroclor-1254	2	10.647	0.002	127384	40.6	2	11.013	0.000	232215	57.0
Aroclor-1254	3	11.030	0.000	21613	11.4	3	11.550	0.001	46364	15.0
Aroclor-1254	4	11.134	-0.034	166922	43.2	4	11.737	0.035	946191	138.6
Aroclor-1254	5	11.874	-0.011	154951	65.3	5	12.496	0.005	236890	62.2
Total Col1Ave (5 peaks):				42.4		Total Col2Ave (5 peaks):			66.9	RPD = 45*
Corrected Ave (4 peaks):				36.7		Corrected Ave (4 peaks):			48.9	RPD = 28
Aroclor-1260	1	11.827	0.000	760155	191.7	1	12.711	0.000	714769	107.8
Aroclor-1260	2	12.432	-0.001	1127440	428.7	2	13.487	0.000	3047980	288.7
Aroclor-1260	3	12.746	-0.001	923126	348.4	3	13.985	0.002	2124609	293.6
Aroclor-1260	4	13.483	0.000	671086	198.6	4	14.542	0.000	1148588	433.0
Aroclor-1260	5	13.582	-0.001	881361	651.8	NS	---			----
Total Col1Ave (5 peaks):				363.8		Total Col2Ave (4 peaks):			280.8	RPD = 26
Corrected Ave (4 peaks):				291.9		Corrected Ave (3 peaks):			230.0	RPD = 24
Aroclor-1262	1	12.432	-0.001	1127440	260.5	1	12.801	0.000	1673863	259.3
Aroclor-1262	2	12.746	-0.002	923126	294.2	2	13.246	0.000	1705759	307.1
Aroclor-1262	3	13.111	0.000	2109649	246.4	3	13.487	-0.001	3047980	248.0
Aroclor-1262	4	13.582	-0.001	881361	303.8	4	13.932	-0.001	1392949	292.5
Aroclor-1262	5	13.646	-0.001	893936	286.4	5	13.985	0.000	2124609	271.5
Total Col1Ave (5 peaks):				278.3		Total Col2Ave (5 peaks):			275.7	RPD = 1
Corrected Ave (4 peaks):				271.9		Corrected Ave (4 peaks):			267.8	RPD = 2
Aroclor-1268	1	13.582	-0.001	881361	94.2	1	13.932	0.000	1392949	108.5
Aroclor-1268	2	13.646	0.001	893936	103.0	2	13.985	-0.002	2124609	169.0

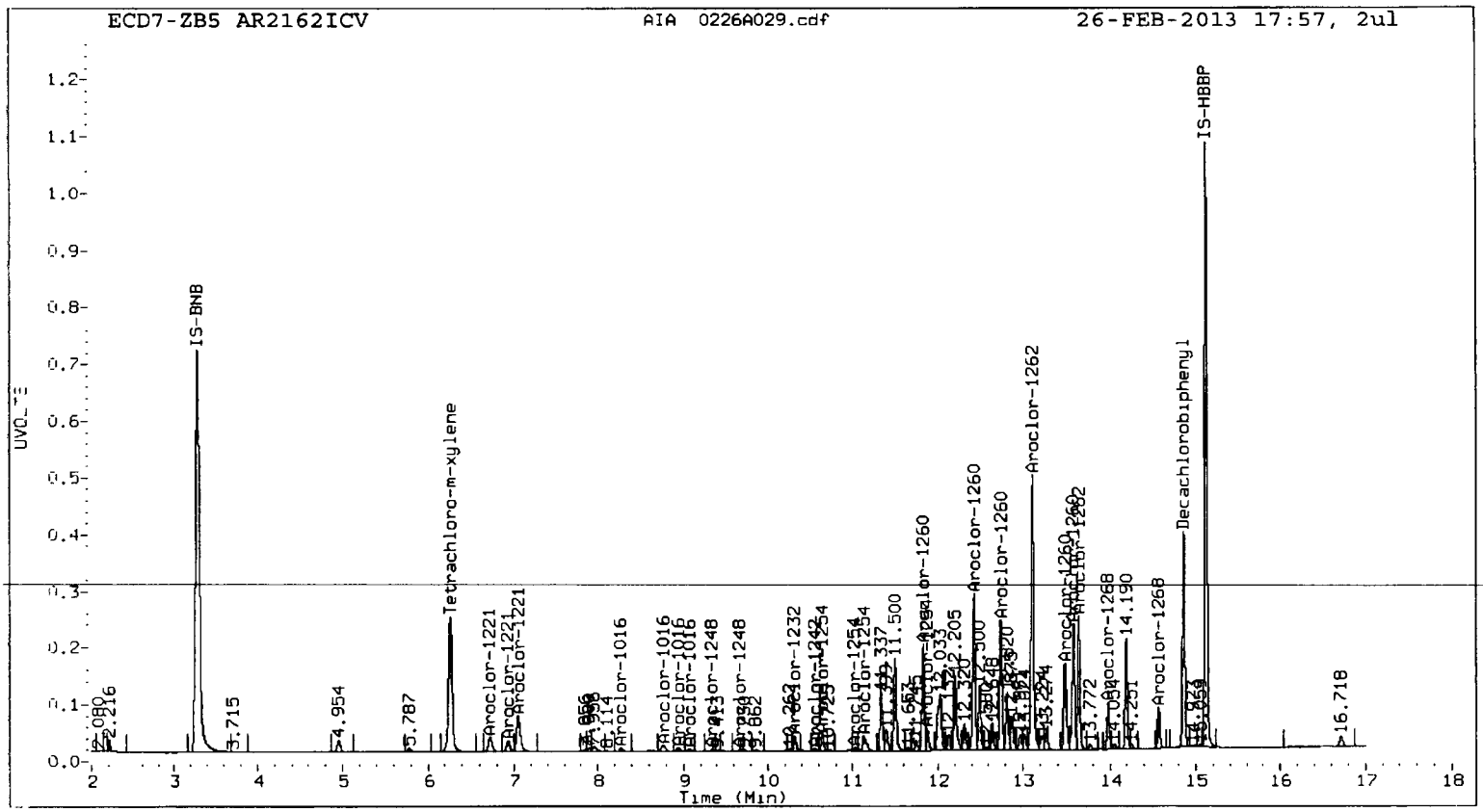
Aroclor-1268 3	13.983	0.014	327769	44.5	3	14.300	-0.001	104675	10.3
Aroclor-1268 4	14.571	-0.001	248741	11.1	4	14.891	-0.001	399984	12.7
Total Col1Ave (4 peaks):			63.2		Total Col2Ave (4 peaks):			75.1	RPD = 17
Corrected Ave (3 peaks):			50.0		Corrected Ave (3 peaks):			43.8	RPD = 13

Total PCB Area Col1 (6.364 - 14.764) = 15347562 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 24967004 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
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Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1232
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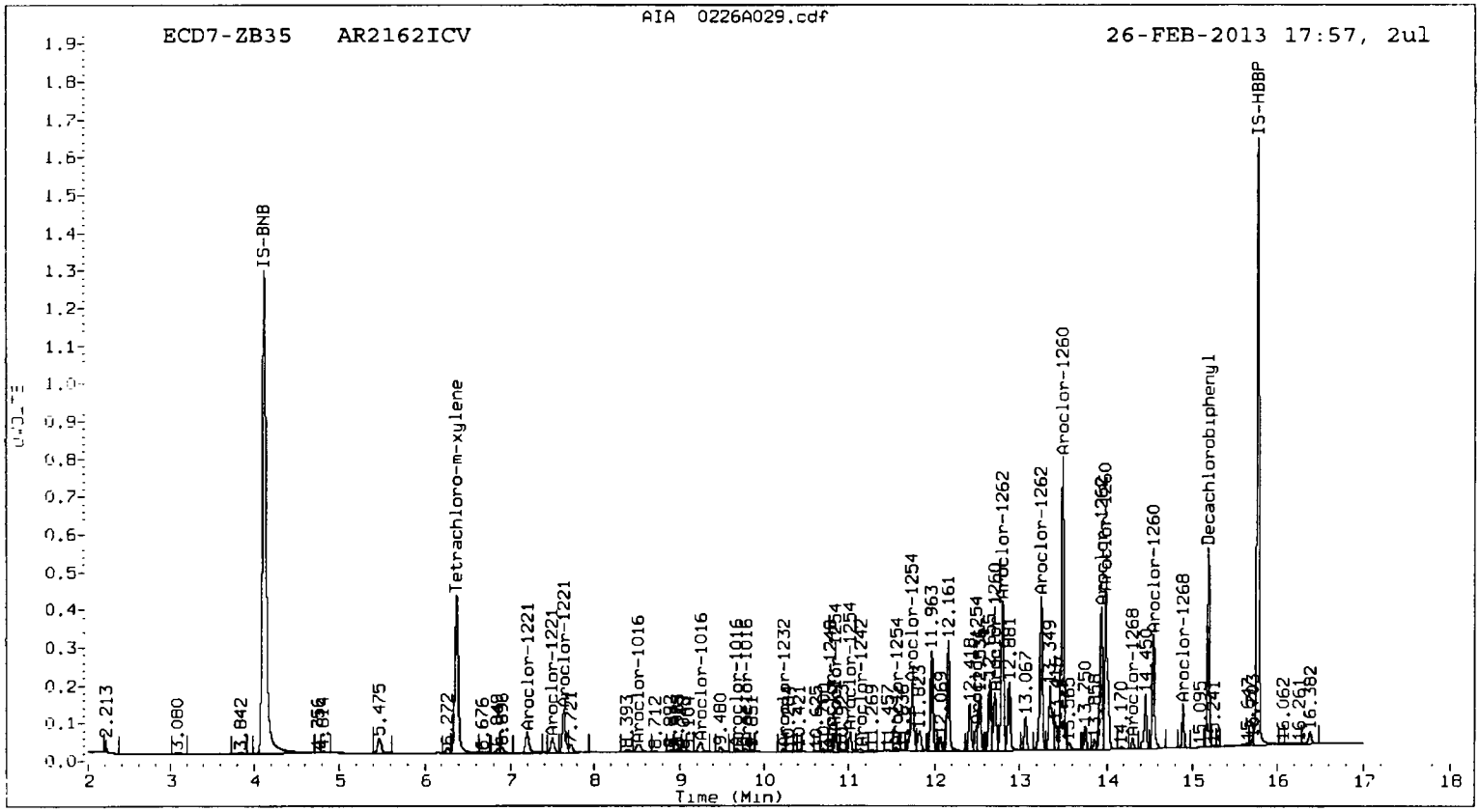
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
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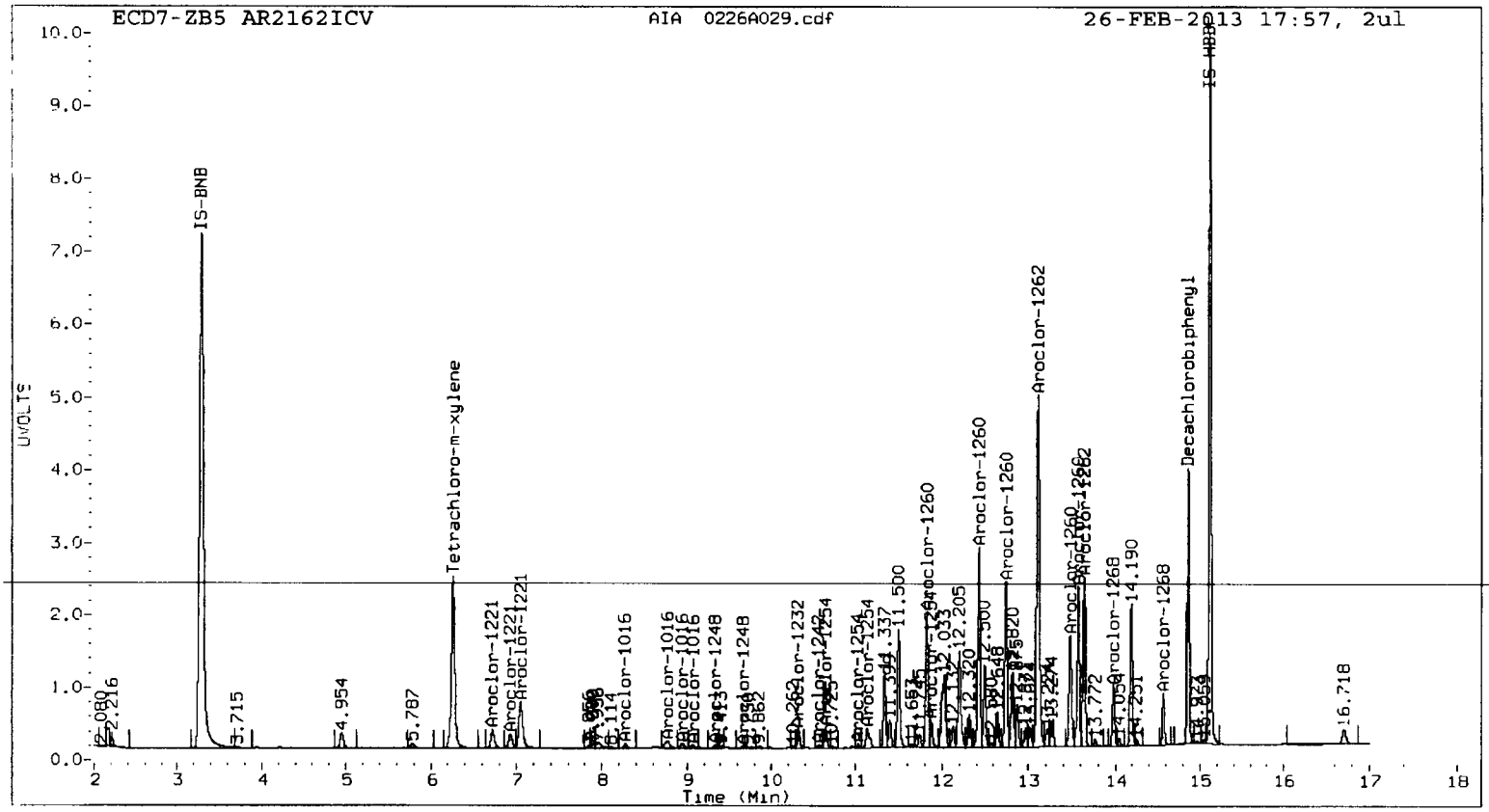
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Decachlorobiphenyl
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Aroclor-1260
Aroclor-1262
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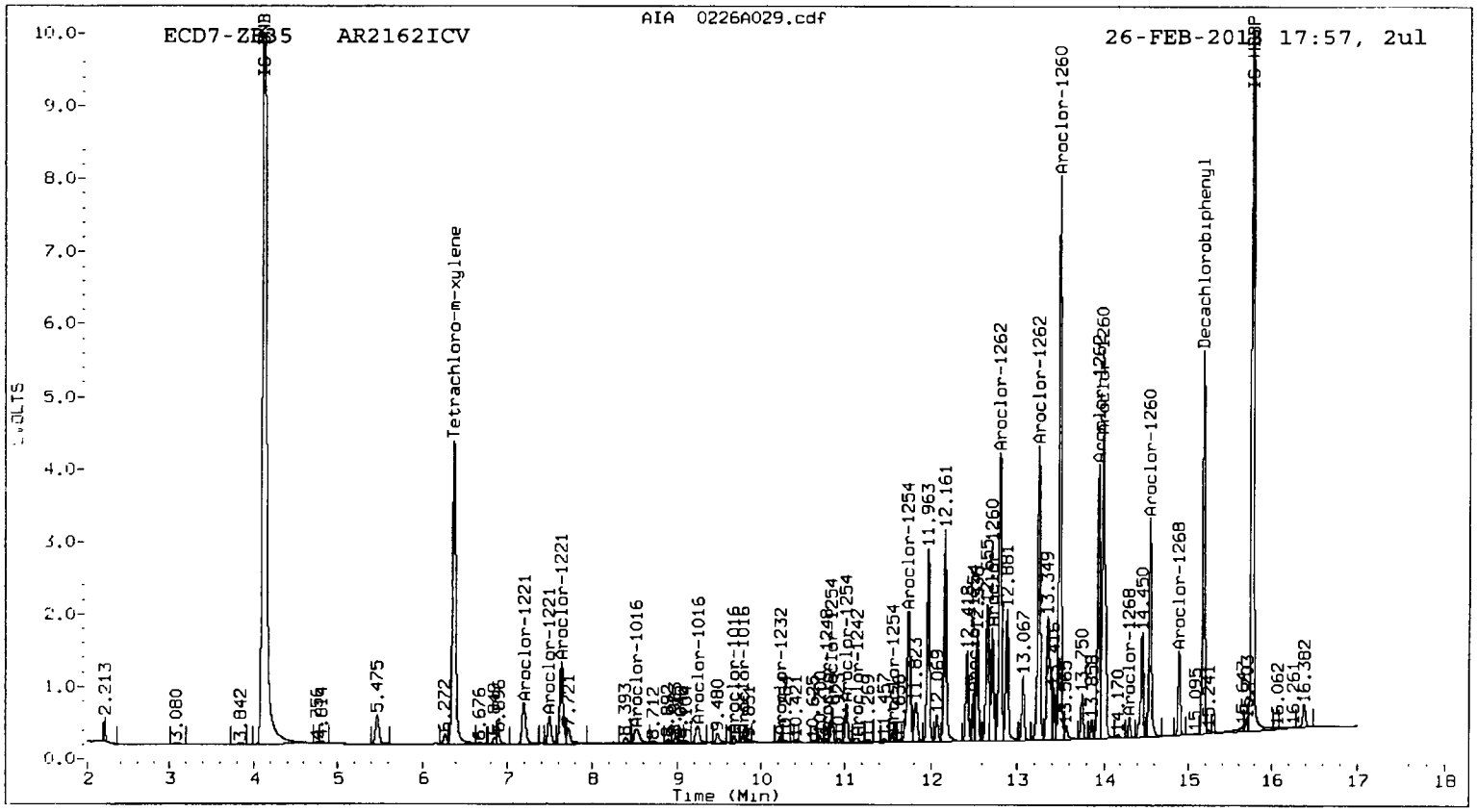
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Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/ical-1.b/0226A030.d
Data file 2: 20130226.B/ical-2.b/0226A030.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268ICV
Client ID:
Injection Date: 26-FEB-2013 18:17
Report Date: 03/01/2013 10:30
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.265	0.001	1376731	6.372	0.000	2383118	21.1	20.4	3.6	Tetrachloro-m-xylene
14.864	0.000	2158722	15.177	0.000	2974975	33.3	30.4	9.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	52.8	50.9
Decachlorobiphenyl	83.4	76.0

JL 03/01/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4983533	-3.9
Hexabromobiphenyl	4555826	3866731	-15.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8485781	1.7
Hexabromobiphenyl	6489385	5837356	-10.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	8.278	0.000	175555	111.1	1	8.506	-0.001	566066	120.0
Aroclor-1016	2	8.771	0.000	562823	106.8	2	9.245	0.002	1051802	108.9
Aroclor-1016	3	8.944	0.001	231135	109.1	3	9.672	0.000	281601	117.8
Aroclor-1016	4	9.073	0.001	158809	109.7	4	9.779	0.000	292122	102.7
	Total Col1Ave (4 peaks):				109.2		Total Col2Ave (4 peaks):			112.4 RPD = 3
	Corrected Ave (3 peaks):				108.5		Corrected Ave (3 peaks):			109.8 RPD = 1
Aroclor-1221	1	6.720	0.001	96808	150.0	1	7.196	-0.001	215150	161.4
Aroclor-1221	2	6.931	0.000	85051	177.3	2	7.497	-0.001	139412	170.2
Aroclor-1221	3	7.054	0.000	317444	194.0	3	7.636	0.000	499180	203.7
Aroclor-1221	NS	---			----	4	8.506	-0.017	566066	638.0
	Total Col1Ave (3 peaks):				173.8		Total Col2Ave (4 peaks):			293.3 RPD = 51*
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			178.4
Aroclor-1232	1	8.278	0.000	175555	273.6	1	8.506	0.000	566066	272.2
Aroclor-1232	2	8.771	0.000	562823	267.5	2	9.245	0.001	1051802	267.0
Aroclor-1232	3	8.944	0.000	231135	270.0	3	9.672	-0.001	281601	271.7
Aroclor-1232	4	10.320	0.000	219361	219.7	4	10.225	0.000	325447	231.4
	Total Col1Ave (4 peaks):				257.7		Total Col2Ave (4 peaks):			260.6 RPD = 1
	Corrected Ave (3 peaks):				252.4		Corrected Ave (3 peaks):			256.7 RPD = 2
Aroclor-1242	1	8.278	0.000	175555	142.5	1	8.506	-0.001	566066	159.8
Aroclor-1242	2	8.771	-0.001	562823	137.2	2	9.245	0.001	1051802	143.5
Aroclor-1242	3	8.944	0.000	231135	140.9	3	9.672	-0.001	281601	145.9
Aroclor-1242	4	10.567	0.000	162335	115.9	4	11.139	0.000	378898	127.2
	Total Col1Ave (4 peaks):				134.1		Total Col2Ave (4 peaks):			144.1 RPD = 7
	Corrected Ave (3 peaks):				131.4		Corrected Ave (3 peaks):			138.8 RPD = 6
Aroclor-1248	1	9.340	0.000	119577	71.6	1	9.779	0.000	292122	86.0
Aroclor-1248	2	9.671	0.000	157832	77.7	2	10.225	-0.001	325447	89.4
Aroclor-1248	3	10.320	0.000	219361	68.6	3	10.779	0.001	314304	84.8
Aroclor-1248	4	10.567	0.001	162335	71.9	4	11.139	0.001	378898	76.7
	Total Col1Ave (4 peaks):				72.5		Total Col2Ave (4 peaks):			84.2 RPD = 15
	Corrected Ave (3 peaks):				70.7		Corrected Ave (3 peaks):			82.5 RPD = 15
Aroclor-1254	1	10.320	-0.004	219361	95.4	1	10.838	-0.003	113045	34.0
Aroclor-1254	2	10.643	-0.002	74870	23.3	2	11.013	0.000	86735	20.9
Aroclor-1254	3	11.030	0.001	34880	18.0	3	11.550	0.001	71099	22.7
Aroclor-1254	4	11.169	0.001	60732	15.3	4	11.703	0.002	147603	21.3
Aroclor-1254	5	11.896	0.012	31492	13.0	5	12.490	-0.001	57619	14.9
	Total Col1Ave (5 peaks):				33.0		Total Col2Ave (5 peaks):			22.8 RPD = 37
	Corrected Ave (4 peaks):				17.4		Corrected Ave (4 peaks):			19.9 RPD = 14
Aroclor-1260	1	11.828	0.001	24718	6.1	1	12.712	0.001	35351	5.2
Aroclor-1260	2	12.431	-0.001	563558	210.4	2	13.487	-0.001	600772	55.7
Aroclor-1260	3	12.747	0.000	45307	16.8	3	13.986	0.003	3764228	509.1
Aroclor-1260	4	13.582	0.100	2567971	746.2	4	14.542	0.000	1263229	466.0
Aroclor-1260	5	---			0.0	NS	---			----
	Total Col1Ave (4 peaks):				244.9		Total Col2Ave (4 peaks):			259.0 RPD = 6
	Corrected Ave (3 peaks):				77.8		Corrected Ave (3 peaks):			175.6 RPD = 77*
Aroclor-1262	1	12.431	-0.001	563558	127.8	1	12.801	0.000	901675	136.7
Aroclor-1262	2	12.747	-0.001	45307	14.2	2	13.245	-0.002	1043628	183.9
Aroclor-1262	3	13.111	0.000	347656	39.9	3	13.487	-0.001	600772	47.8
Aroclor-1262	4	13.582	0.000	2567971	869.1	4	13.931	-0.002	3501803	719.7
Aroclor-1262	5	13.645	-0.002	2624350	825.6	5	13.986	0.002	3764228	470.7
	Total Col1Ave (5 peaks):				375.3		Total Col2Ave (5 peaks):			311.7 RPD = 19
	Corrected Ave (4 peaks):				251.9		Corrected Ave (4 peaks):			209.8 RPD = 18
Aroclor-1268	1	13.582	0.000	2567971	269.6	1	13.931	0.000	3501803	267.0
Aroclor-1268	2	13.645	0.000	2624350	296.8	2	13.986	0.000	3764228	293.0

Aroclor-1268 3	13.968	0.000	1809287	241.4	3	14.299	-0.001	2474966	237.5
Aroclor-1268 4	14.572	0.000	5138416	224.4	4	14.892	0.000	7110560	221.6

Total Col1Ave (4 peaks): 258.1 Total Col2Ave (4 peaks): 254.8 RPD = 1

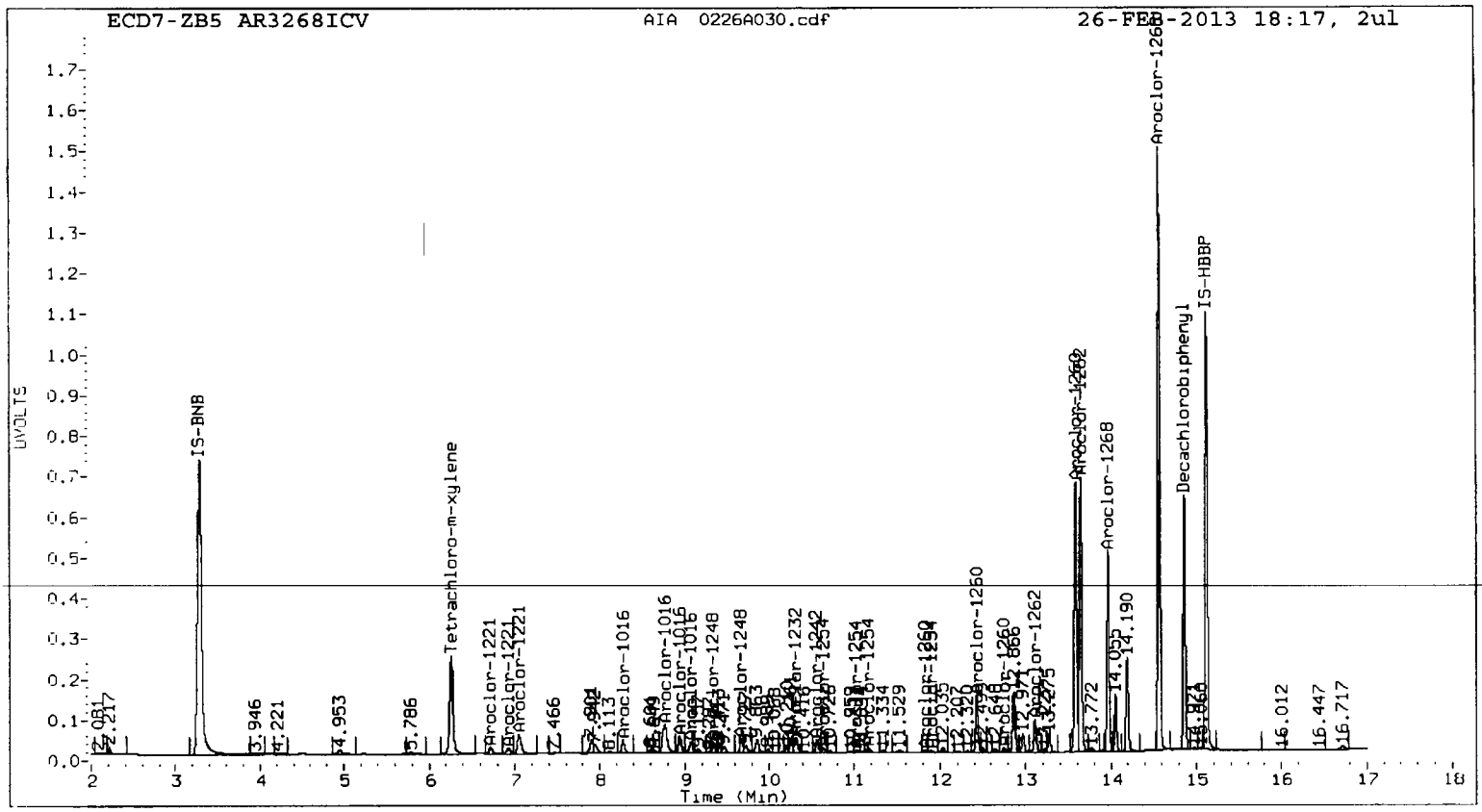
Corrected Ave (3 peaks): 243.1 Corrected Ave (3 peaks): 242.0 RPD = 1

Total PCB Area Col1 (6.364 - 14.764) = 19715281 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (6.472 - 15.077) = 30701888 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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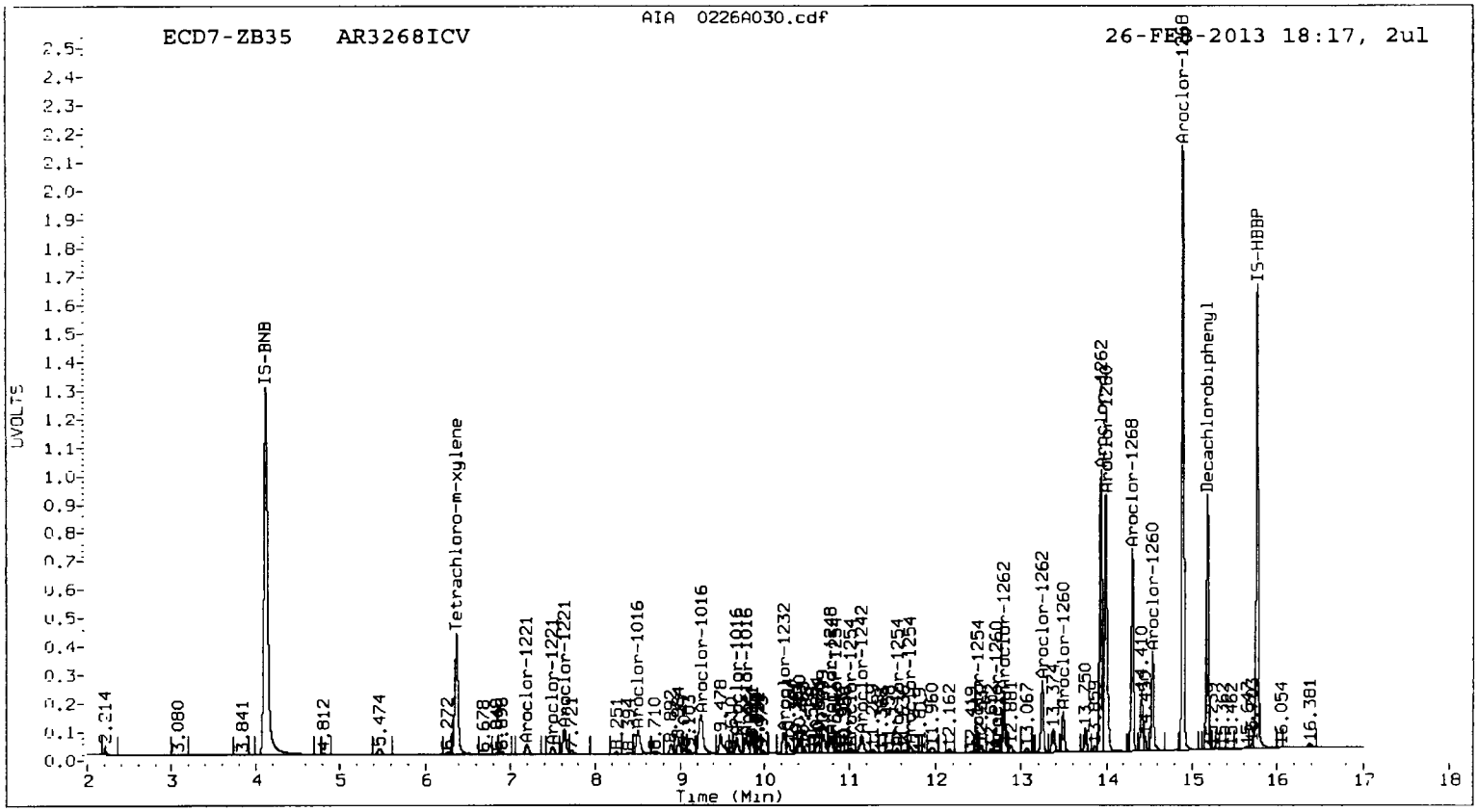
26-FEB-2013 18:17, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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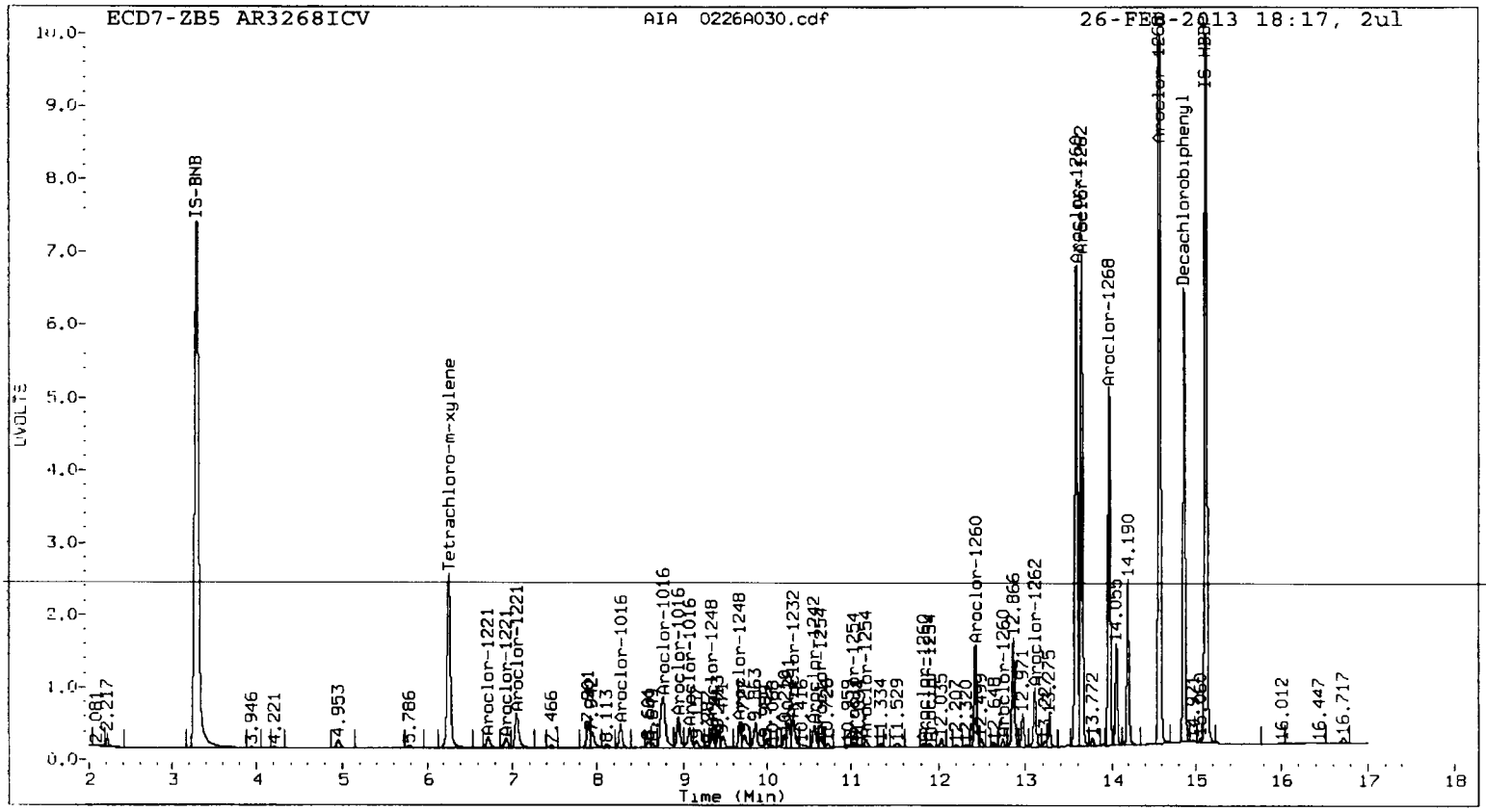
26-FEB-2013 18:17, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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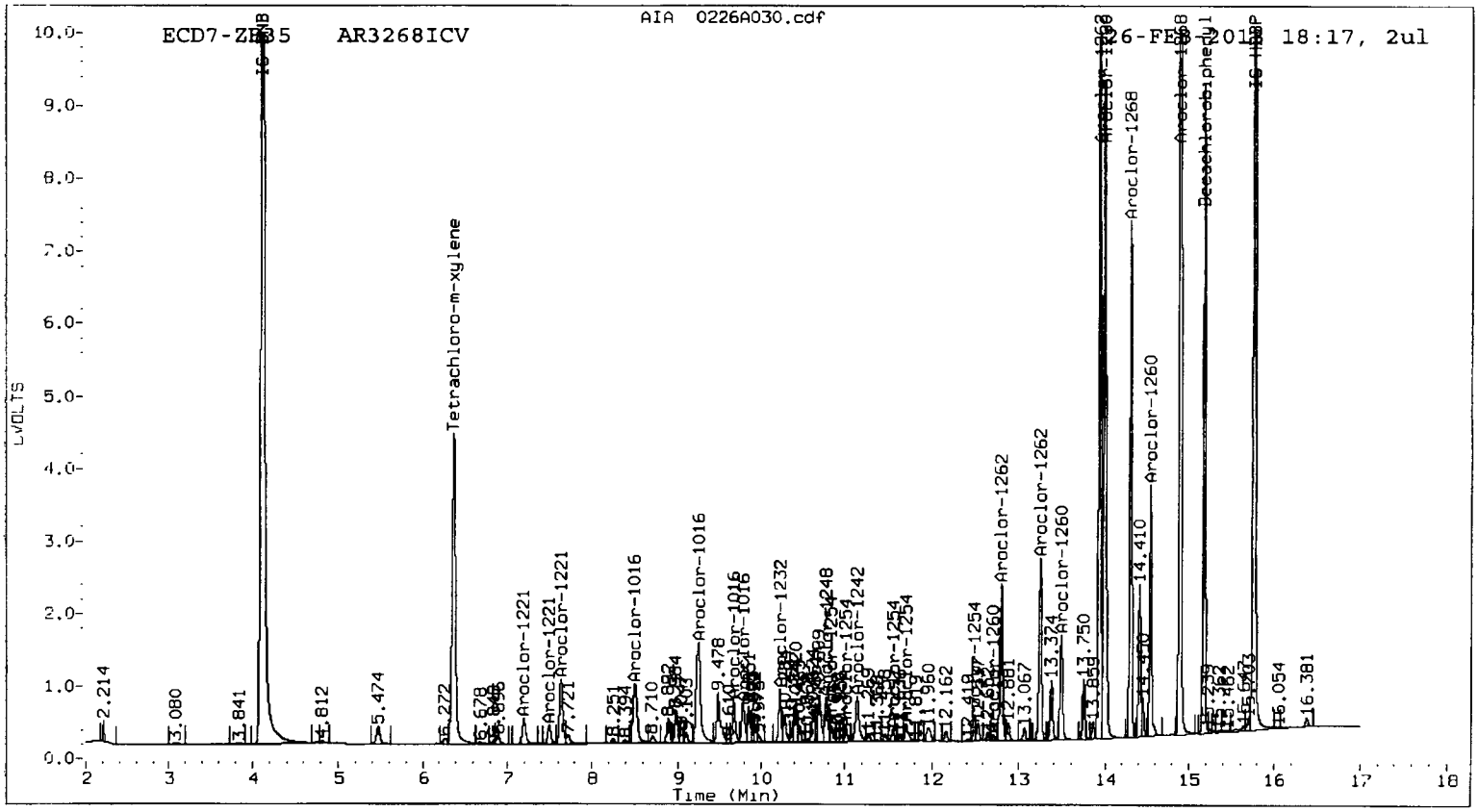
AIA 0226A030.cdf
26-FEB-2013 18:17, 2ul
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1268
Aroclor-1260
Aroclor-1262
Aroclor-1016
Aroclor-1221
Aroclor-1248
Aroclor-1232
Aroclor-1242
Aroclor-1254
IS-HBBP
LVOLTS
Time (Min)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ECD7-ZB5 AR3268ICV
26-FEB-2013 18:17, 2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1268
Aroclor-1260
Aroclor-1262
Aroclor-1016
Aroclor-1221
Aroclor-1248
Aroclor-1232
Aroclor-1242
Aroclor-1254
IS-HBBP
LVOLTS
Time (Min)

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20130226.B/ddts-1.b/0226A031.d ARI ID: 0.1PPM DDT

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
10.609	0.000	4652728	11.104	0.000	7280650	0.100	0.100	0.0	2,4-DDE
11.172	0.000	4394945	11.794	0.000	6754001	0.100	0.100	0.0	2,4-DDD
11.682	0.000	5368226	12.248	0.000	17584725	0.100	0.200#	66.7*	2,4-DDT
11.047	0.000	7504999	11.488	0.000	11617547	0.100	0.100	0.0	4,4-DDE
11.628	0.000	6089155	12.248	0.000	17584725	0.100	0.200#	66.7*	4,4-DDD
12.140	0.000	6213596	12.688	0.000	9838498	0.100	0.100	0.0	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

03/01/13

7E

8082 DDT BREAKDOWN VERIFICATION SUMMARY

Lab ID: DDT BD

Analysis Date: 26-FEB-2013 18:57 Init. Calib. Date: 26-FEB-2013

GC Column: ZB5 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	11.049	45074
4,4-DDD	11.631	235704
4,4-DDT	12.140	6163228

Col 1: 4,4-DDT Percent Breakdown = 4.4 %

GC Column: ZB35 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	11.491	129914
4,4-DDD/2,4-DDT	12.256	588420
4,4-DDT	12.688	10261981

Col 2: 4,4-DDT Percent Breakdown = 6.5 %

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

03/01/13

PCB Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Data Review Checklist

ARI WORK Order: WJ10 Client ID: NPDES Sampling

METHOD: **8082A**(PCB) **8151A**(Herb) **NW-TPH**(TPH-D) **NW-TPH**(HCID) **8041A**(PCP)
8081B(PEST) **8015B**(Dir Inj) **NW-EPH**(EPH) **8082A**(PBDE) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date: 02/26/13 Analysis Start Date: 04/05/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Endrin/DDT B.D. ≤15%?	NA / Y / N / ✓	Method Blank in Control?	Y / N / ✓
Retention times within Windows?	Y / N / ✓	LCS / LCSD Recovery in Control?	Y / N / ✓ LCS only
CCAL met %D Criteria?	Y / N / ✓	LCS / LCSD RPD ≤30%?	NA / ✓
Surrogate Recovery in Control? (matrix effect)	Y / N / ✓ TCMC High 108 & 113 %	MS / MSD Recovery in Control?	Y / N / ✓
Internal STD. within 50-200%?	NA / Y / N / ✓ Sample	MS / MSD RPD ≤30%?	NA / ✓ 22%
Manual Integrations?	Y / N / ✓	Samples Diluted?	Y / N / ✓
Integration Summary?	Y / N / ✓	Special Analysis Request?	Y / N / ✓

Detail problems, corrective actions and/or other pertinent information below

Sample C, Cms, Cmsd oily matrix neg. affects HBBP. HBBP fails low on column 1 for samples C, Cms, Cmsd reporting AR1260 from column 2. oily matrix causes samples C, Cms, Cmsd to shift >±0.05 min. went w/ best fit, sample D could be a 60/62 mix, assigned peaks for samples C, Cms, Cmsd. closing AR1260 ccal fails high w 0.8% on column 1, column 2 is ok.

(Review 1) Analyst: _____ **Date:** 04/09/13

(Review 2) Reviewer: _____ **Date:** 4/9/13

Analytical Resources Inc.: Organics Instrument Log

ECD-7 Serial No.: US00003975

Date: 04/08/13 Analysis: PCBs Analyst:

Column 1 Serial No.: 196396 Column Type: XB5

Column 2 Serial No.: 175388 Column Type: 225

GC Method: PCB ICal Date: 02/26/13 Injection Volume: 2µL

IS	Ical/Ccal	ICV
1006-1	1980-1,2,3,4,5,6	2009-2,3,4,5,6,7

Document All Maintenance Tasks In StarLIMS

	Inject Date/Time	Filename	DF	LabID
1	08-APR-2013 12:34	0408a001.d	1	DDT
2	08-APR-2013 12:55	0408a002.d	1	DDT BD
3	08-APR-2013 13:15	0408a003.d	1	AR1242
4	08-APR-2013 13:35	0408a004.d	1	AR1660
5	08-APR-2013 13:55	0408a005.d	1	WJ21MBS1
6	08-APR-2013 14:16	0408a006.d	1	WJ21LCSS1
7	08-APR-2013 14:36	0408a007.d	1	WJ21LCSDS1
8	08-APR-2013 14:56	0408a008.d	1	WJ21A
9	08-APR-2013 15:16	0408a009.d	1	WJ21AMS
10	08-APR-2013 15:37	0408a010.d	1	WJ21AMSD
11	08-APR-2013 15:57	0408a011.d	1	WJ21B
12	08-APR-2013 16:17	0408a012.d	1	WJ21C
13	08-APR-2013 16:38	0408a013.d	1	WJ10MBS1
14	08-APR-2013 16:58	0408a014.d	1	WJ10LCSS1
15	08-APR-2013 17:18	0408a015.d	1	AR1248
16	08-APR-2013 17:38	0408a016.d	1	AR1660
17	08-APR-2013 17:59	0408a017.d	1	WJ10QLS
18	08-APR-2013 18:19	0408a018.d	1	WJ10C
19	08-APR-2013 18:39	0408a019.d	1	WJ10CMS
20	08-APR-2013 19:00	0408a020.d	1	WJ10CMSD
21	08-APR-2013 19:20	0408a021.d	1	WJ10D
22	08-APR-2013 19:40	0408a022.d	1	WJ75A
23	08-APR-2013 20:00	0408a023.d	1	WJ40MBS1
24	08-APR-2013 20:21	0408a024.d	1	WJ40LCSS1
25	08-APR-2013 20:41	0408a025.d	1	WJ40QLS
26	08-APR-2013 21:01	0408a026.d	1	WJ40A
27	08-APR-2013 21:21	0408a027.d	1	WJ40B
28	08-APR-2013 21:42	0408a028.d	1	WJ40C
29	08-APR-2013 22:02	0408a029.d	1	AR1254
30	08-APR-2013 22:22	0408a030.d	1	AR1660

4/10/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd7.i/20130226.B/0408-1.b

ARI Job No.: DDT Method: PCB1.m Instrument: ecd7.i Date: 08-APR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1234	0408a001.d	DDT		1	NO MANUAL INTEGRATION
1255	0408a002.d	DDT BD		1	NO MANUAL INTEGRATION
1315	0408a003.d	AR1242		1	NO MANUAL INTEGRATION
1335	0408a004.d	AR1660		1	NO MANUAL INTEGRATION
1355	0408a005.d	WJ21MBS1	WJ21MBS1	1	NO MANUAL INTEGRATION
1416	0408a006.d	WJ21LCSS1	WJ21LCSS1	1	NO MANUAL INTEGRATION
1436	0408a007.d	WJ21LCSDS1	WJ21LCSDS1	1	NO MANUAL INTEGRATION
1456	0408a008.d	WJ21A	SD-PER501-	1	NO MANUAL INTEGRATION
1516	0408a009.d	WJ21AMS	SD-PER501-	1	NO MANUAL INTEGRATION
1537	0408a010.d	WJ21AMSD	SD-PER501-	1	NO MANUAL INTEGRATION
1557	0408a011.d	WJ21B	SD-PER502-	1	NO MANUAL INTEGRATION
1617	0408a012.d	WJ21C	SD-PER503-	1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1638	0408a013.d	WJ10MBS1	WJ10MBS1	1	NO MANUAL INTEGRATION
1658	0408a014.d	WJ10LCSS1	WJ10LCSS1	1	NO MANUAL INTEGRATION
1718	0408a015.d	AR1248		1	NO MANUAL INTEGRATION
1738	0408a016.d	AR1660		1	NO MANUAL INTEGRATION
1759	0408a017.d	WJ10QLS		1	NO MANUAL INTEGRATION
1819	0408a018.d	WJ10C	SD-SP-01-2	1	Aroclor-1248, Aroclor-1254, Aroclor-1260,
1839	0408a019.d	WJ10CMS	SD-SP-01-2	1	Aroclor-1248, Aroclor-1254, Aroclor-1260,
1900	0408a020.d	WJ10CMSD	SD-SP-01-2	1	Aroclor-1254, Aroclor-1260,

1920	0408a021.d WJ10D	SD-CB-01-2	1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd7.i/20130226.B/0408-1.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1940	0408a022.d	WJ75A		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Tetrachloro-m-xylene,
2000	0408a023.d	WJ40MBS1		1	NO MANUAL INTEGRATION
2021	0408a024.d	WJ40LCSS1		1	NO MANUAL INTEGRATION
2041	0408a025.d	WJ40QLS		1	NO MANUAL INTEGRATION
2101	0408a026.d	WJ40A		1	NO MANUAL INTEGRATION
2121	0408a027.d	WJ40B		1	NO MANUAL INTEGRATION
2142	0408a028.d	WJ40C		1	NO MANUAL INTEGRATION
2202	0408a029.d	AR1254		1	NO MANUAL INTEGRATION
2222	0408a030.d	AR1660		1	NO MANUAL INTEGRATION

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a003.d
Data file 2: 20130226.B/0408-2.b/0408a003.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 08-APR-2013 13:15
Report Date: 04/09/2013 11:48
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.263	-0.004	1312571	6.366	-0.004	2363794	20.5	20.3	0.9	Tetrachloro-m-xylene
14.864	0.000	1015440	15.175	0.000	1501339	19.2	18.5	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	51.2	50.7
Decachlorobiphenyl	48.0	46.2

JK 04/09/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4896848	-5.6
Hexabromobiphenyl	4555826	3159580	-30.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8449860	1.3
Hexabromobiphenyl	6489385	4846005	-25.3

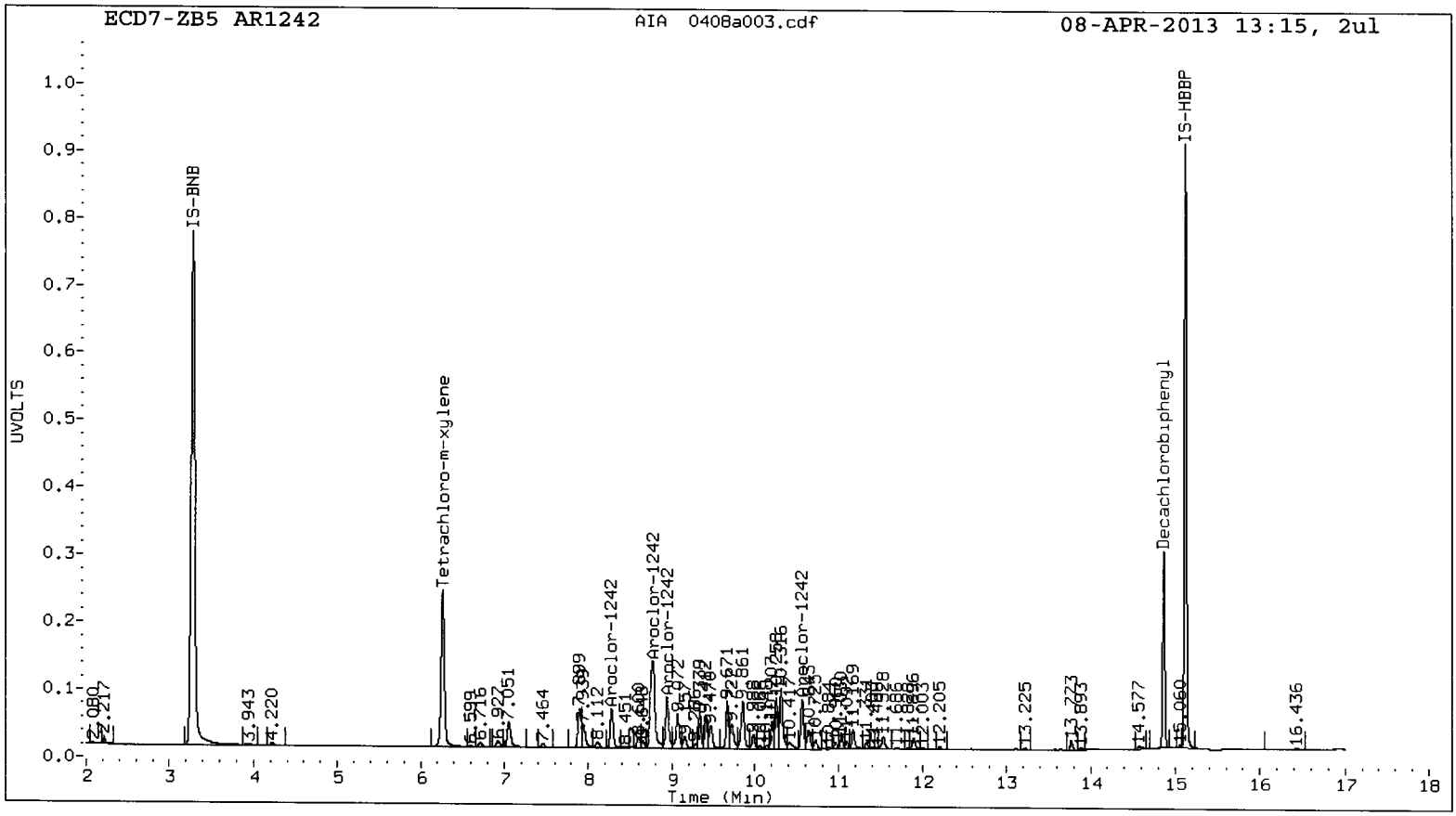
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	8.277	0.000	304217	251.4	1	8.501	0.000	903902	256.2
Aroclor-1242	2	8.768	0.000	1016941	252.3	2	9.241	0.000	1898679	260.1
Aroclor-1242	3	8.943	0.000	405882	251.8	3	9.668	0.000	499576	259.9
Aroclor-1242	4	10.565	0.000	357331	259.7	4	11.134	0.000	765317	258.0
Total Col1Ave (4 peaks):					253.8	Total Col2Ave (4 peaks):				258.6 RPD = 2
Corrected Ave (3 peaks):					251.8	Corrected Ave (3 peaks):				258.0 RPD = 2

Total PCB Area Col1 (6.367 - 14.763) = 7284602 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 13852000 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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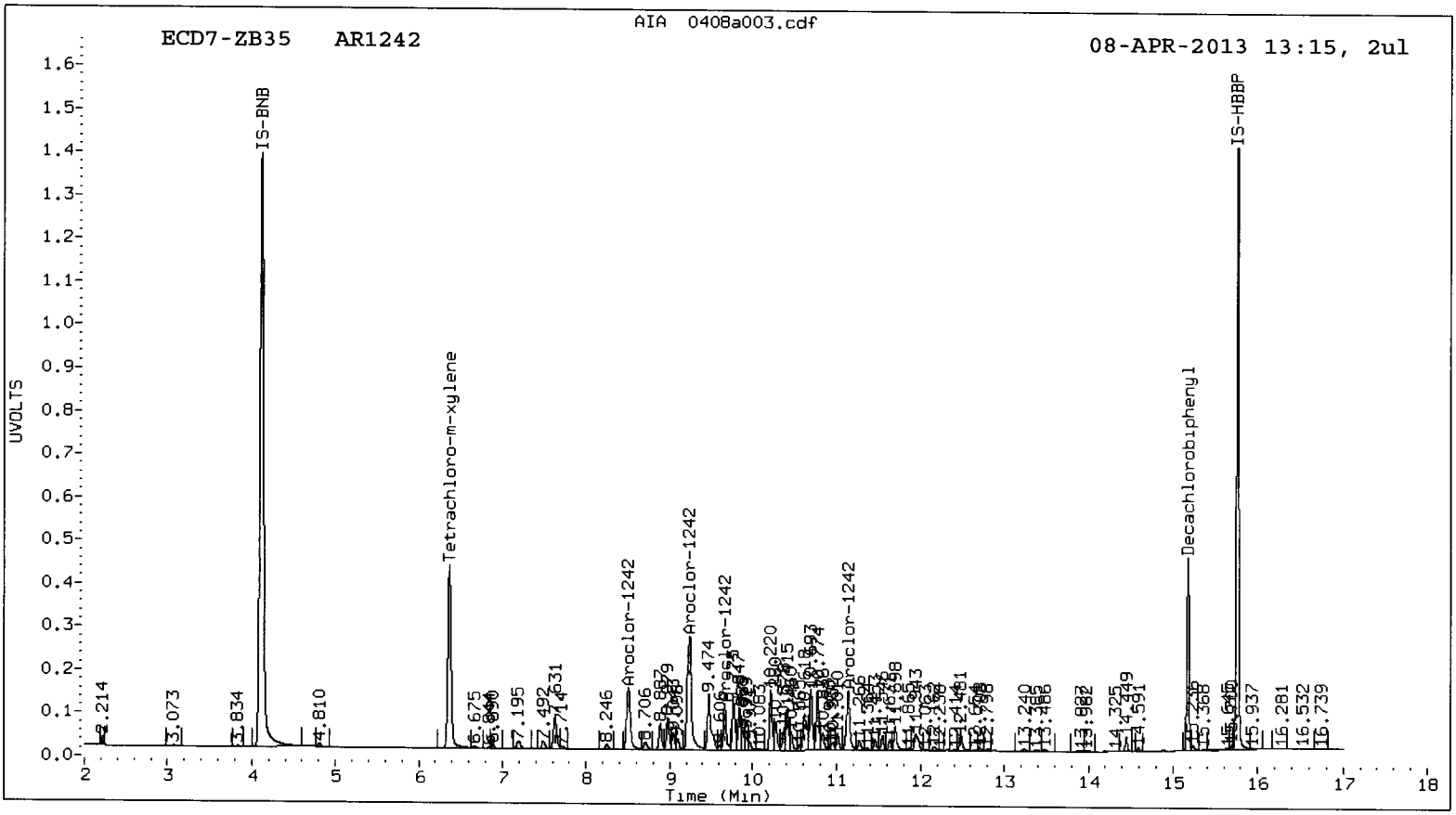
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP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08-APR-2013 13:15, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a004.d
Data file 2: 20130226.B/0408-2.b/0408a004.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 08-APR-2013 13:35
Report Date: 04/09/2013 11:48
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.263	-0.004	1210778	6.367	-0.003	2213625	19.1	18.9	1.0	Tetrachloro-m-xylene
14.864	0.000	983852	15.174	-0.001	1461467	18.4	17.7	4.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	47.8	47.3
Decachlorobiphenyl	46.0	44.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4838228	-6.7
Hexabromobiphenyl	4555826	3193839	-29.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8482611	1.7
Hexabromobiphenyl	6489385	4930322	-24.0

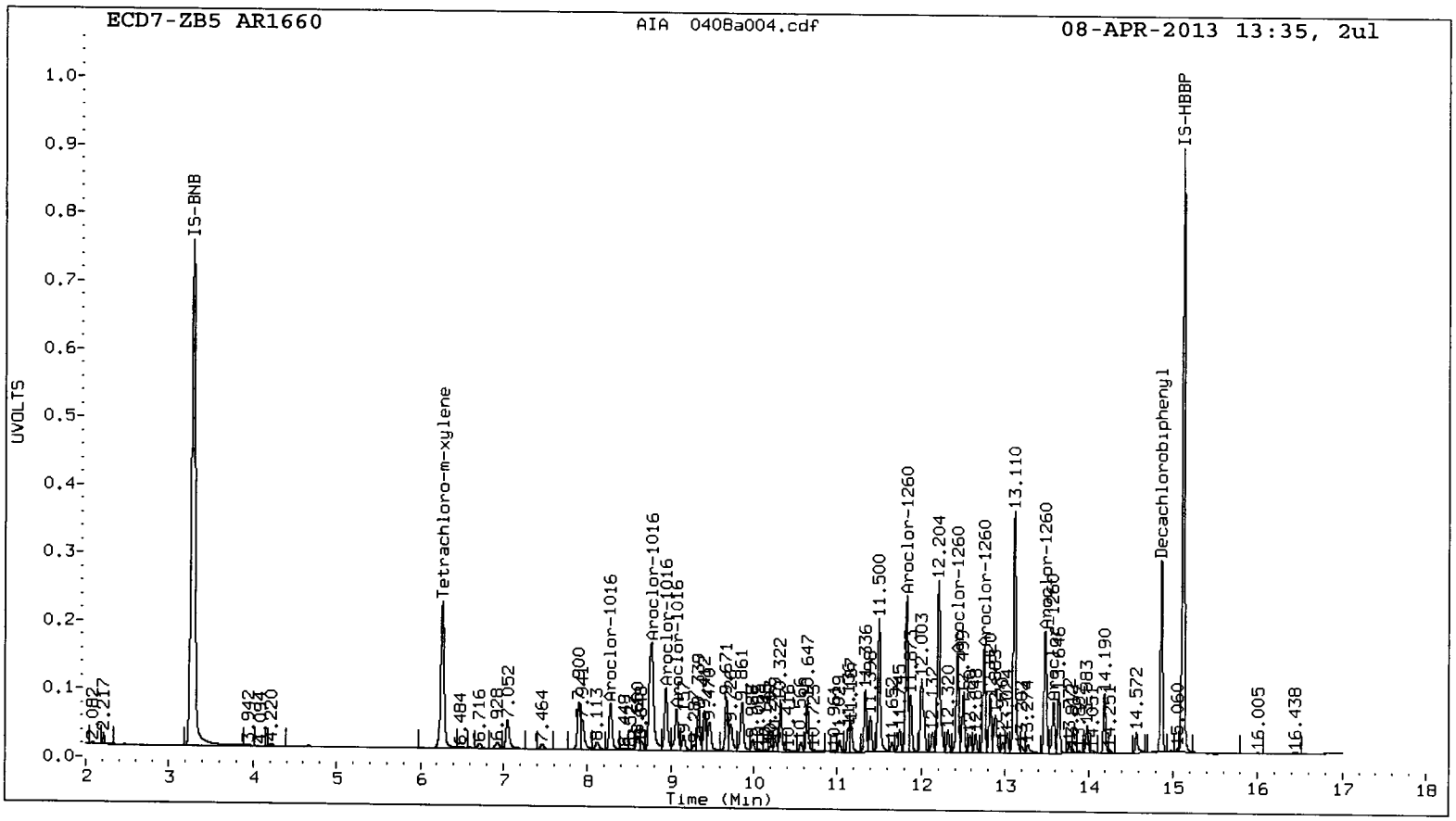
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	8.277	-0.002	362973	236.5	1	8.502	-0.002	1079086	228.9
Aroclor-1016	2	8.770	-0.001	1221057	238.6	2	9.241	-0.001	2262294	234.3
Aroclor-1016	3	8.943	-0.002	485725	236.2	3	9.667	-0.001	587398	245.7
Aroclor-1016	4	9.071	-0.002	337567	240.1	4	9.776	-0.001	671038	236.1
	Total Col1Ave (4 peaks):				237.8		Total Col2Ave (4 peaks):			236.3 RPD = 1
	Corrected Ave (3 peaks):				237.1		Corrected Ave (3 peaks):			233.1 RPD = 2
Aroclor-1260	1	11.827	-0.001	934697	280.2	1	12.707	0.000	1497764	261.8
Aroclor-1260	2	12.431	-0.001	620058	280.3	2	13.484	0.000	2339233	256.7
Aroclor-1260	3	12.746	-0.001	627259	281.4	3	13.980	0.000	1545375	247.4
Aroclor-1260	4	13.483	0.000	784144	275.9	4	14.539	0.000	574090	250.8
Aroclor-1260	5	13.582	0.000	307200	270.0	NS	---			----
	Total Col1Ave (5 peaks):				277.5		Total Col2Ave (4 peaks):			254.2 RPD = 9
	Corrected Ave (4 peaks):				276.6		Corrected Ave (3 peaks):			251.6 RPD = 9

Total PCB Area Col1 (6.367 - 14.763) = 18444108 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 31673971 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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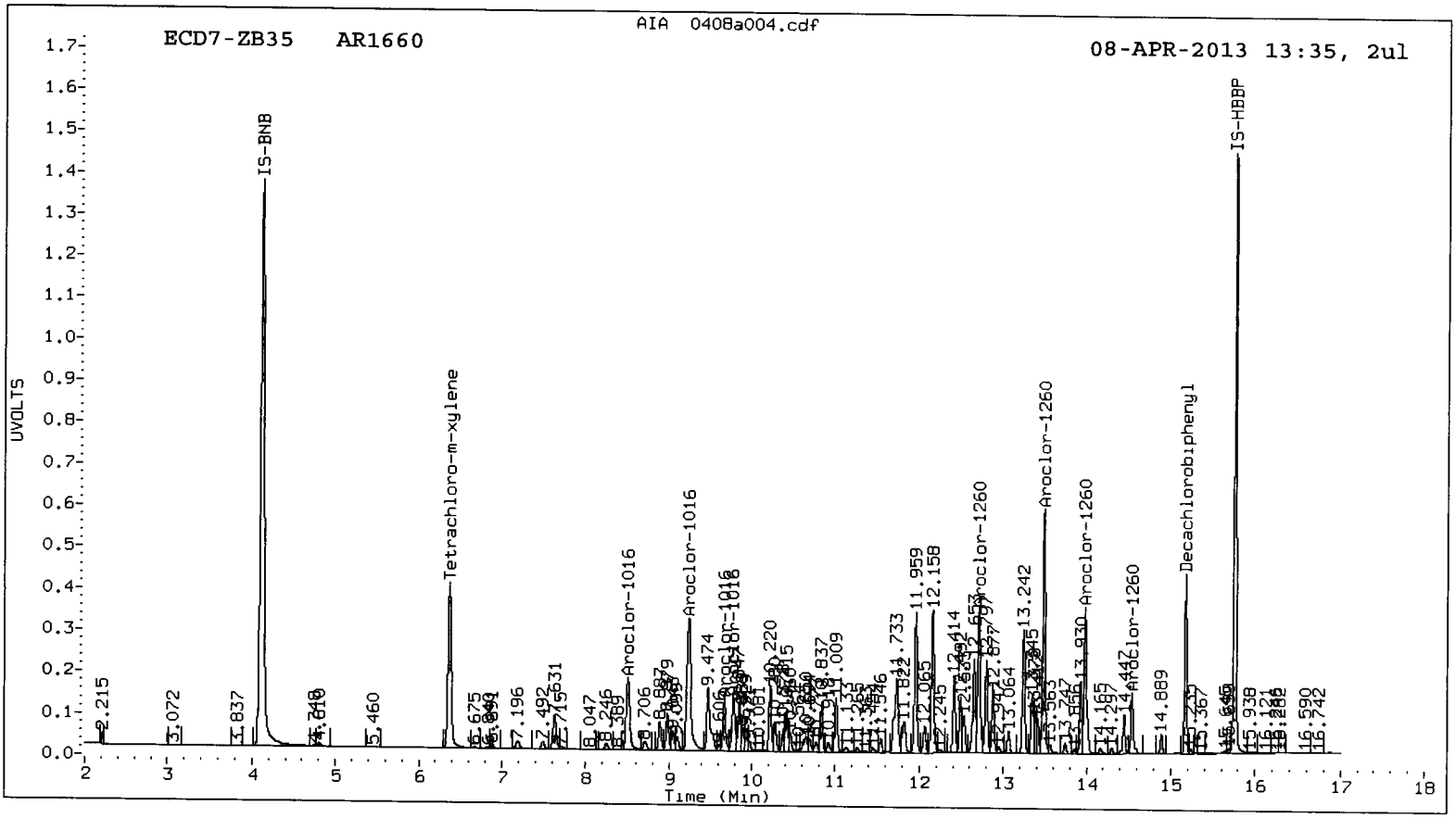
AIA 0408a004.cdf
08-APR-2013 13:35, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a013.d
Data file 2: 20130226.B/0408-2.b/0408a013.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WJ10MBS1
Client ID:
Injection Date: 08-APR-2013 16:38
Report Date: 04/09/2013 11:48
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.265	-0.002	2140780	6.369	-0.002	3809466	31.7	30.0	5.6	Tetrachloro-m-xylene
14.863	0.000	2200818	15.175	0.000	3271592	34.7	35.1	1.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	79.2	74.9
Decachlorobiphenyl	86.7	87.7

JR 04/09/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	5164021	-0.4
Hexabromobiphenyl	4555826	3791090	-16.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	9225201	10.6
Hexabromobiphenyl	6489385	5562667	-14.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

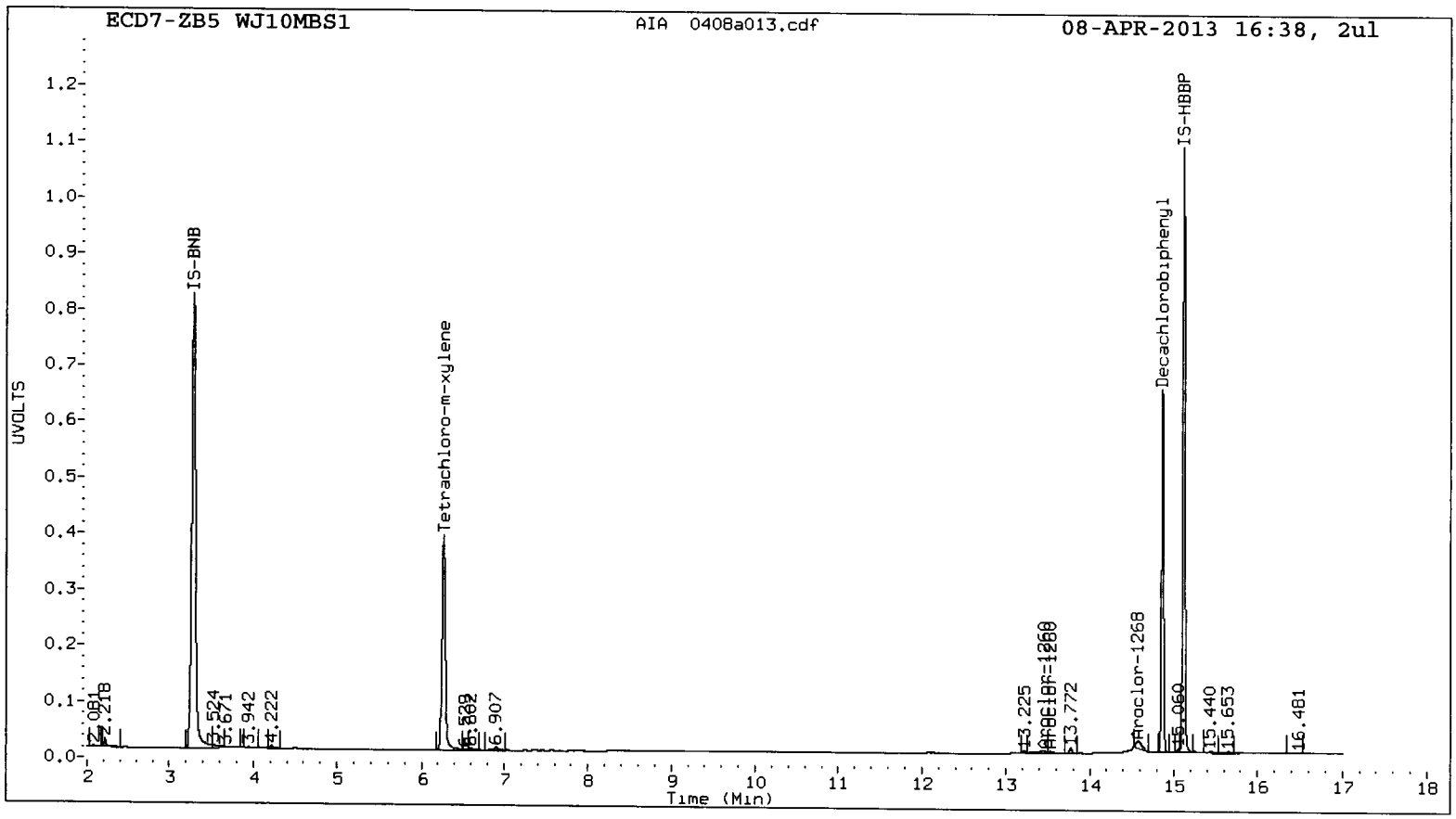
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	7.214	0.029	50014	34.5
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	7.640	0.018	11974	4.5
Aroclor-1221	NS	---			----	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	11.481	-0.066	13203	3.9
Aroclor-1254	4	---			0.0	4	11.635	-0.062	262234	34.8
Aroclor-1254	5	---			0.0	5	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	12.685	-0.022	41486	6.4
Aroclor-1260	2	---			0.0	2	13.525	0.041	29055	2.8
Aroclor-1260	3	---			0.0	3	13.975	-0.006	16048	2.3
Aroclor-1260	4	13.457	-0.026	94670	28.1	4	14.591	0.051	61832	23.9
Aroclor-1260	5	13.532	-0.050	32225	23.9	NS	---			----
	Col1Ave: <3 Quant Peaks					Col2Ave: 8.9				
Aroclor-1262	1	---			0.0	1	12.809	0.013	19269	3.1
Aroclor-1262	2	---			0.0	2	13.212	-0.028	57930	10.7
Aroclor-1262	3	---			0.0	3	13.525	0.043	29055	2.4
Aroclor-1262	4	---			0.0	4	13.905	-0.024	40957	8.8
Aroclor-1262	5	---			0.0	5	13.975	-0.004	16048	2.1
	Col1Ave: <3 Quant Peaks					Col2Ave: 5.4				
Aroclor-1268	1	13.532	-0.050	32225	3.5	1	13.905	-0.024	40957	3.3
Aroclor-1268	2	---			0.0	2	13.975	-0.004	16048	1.3
Aroclor-1268	3	---			0.0	3	14.295	-0.028	148150	14.9
Aroclor-1268	4	14.572	0.000	120438	5.4	4	14.950	0.061	253348	8.3
	Col1Ave: <3 Quant Peaks					Col2Ave: 6.9				

Total PCB Area Col1 (6.367 - 14.763) = 373660 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 1561221 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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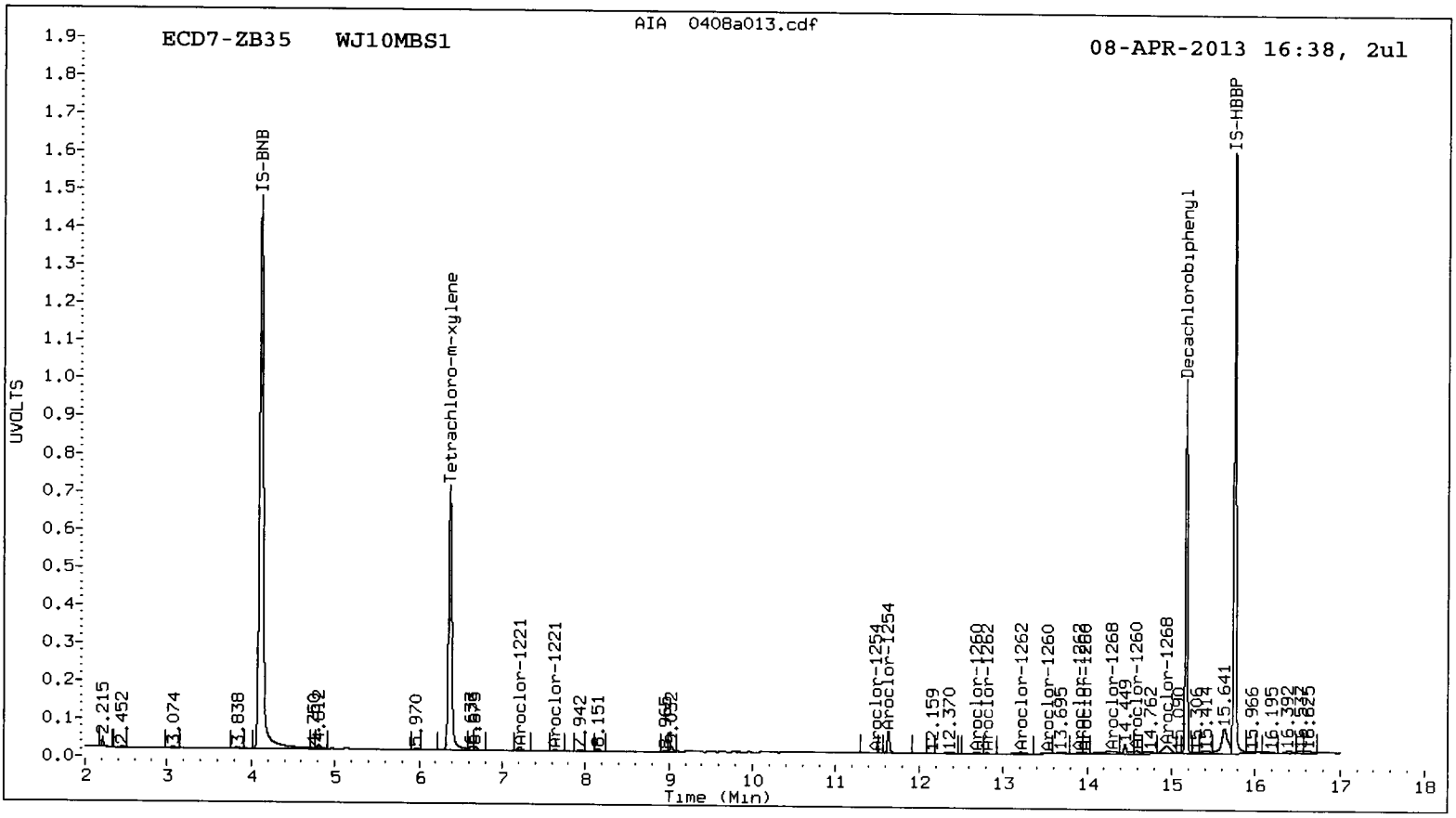
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1268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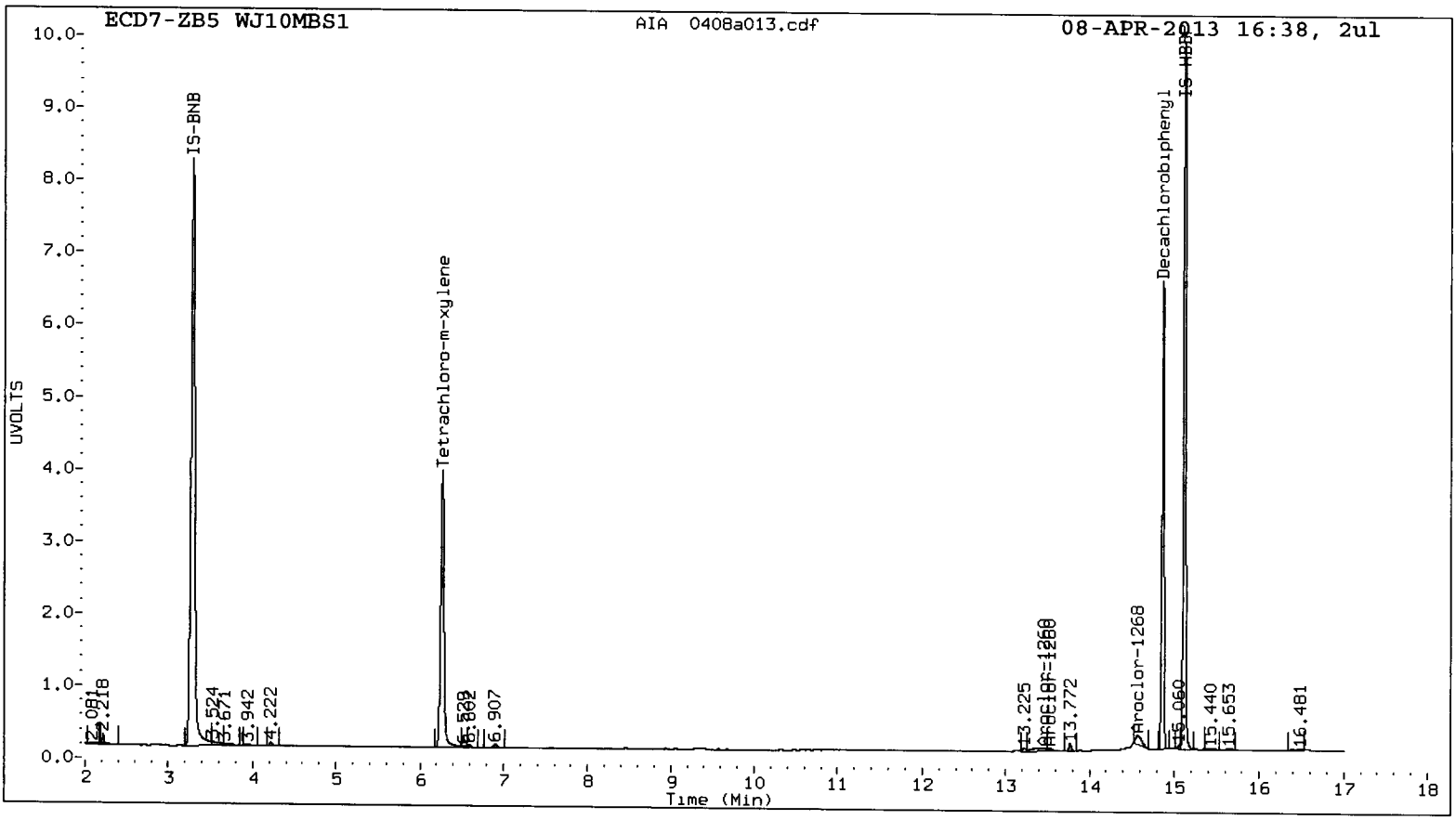
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1262
Aroclor-1260
Aroclor-1268
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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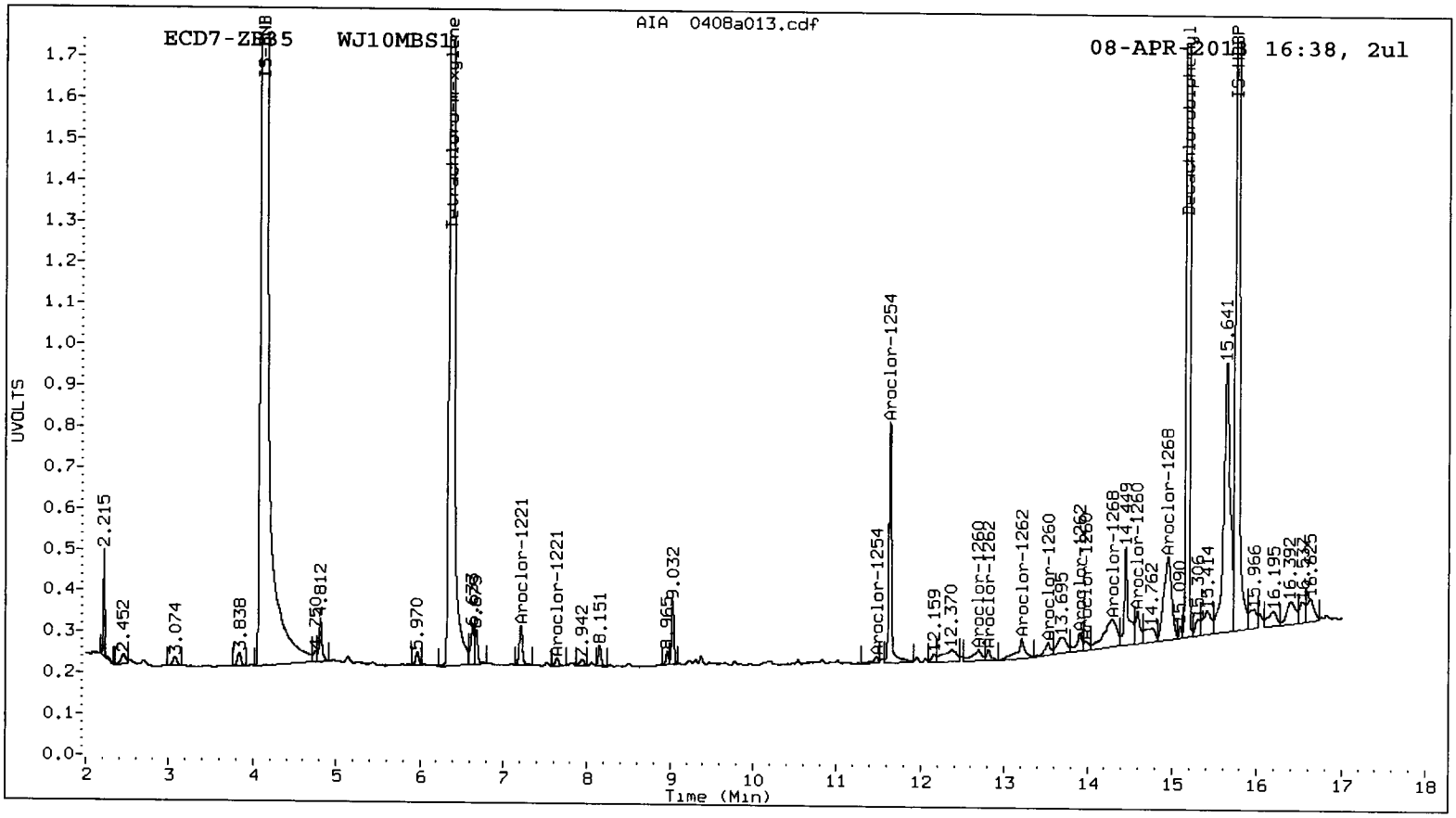
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1268
UVOLTS
Time (Min)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AIA 0408a013.cdf
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Aroclor-1254
Aroclor-1221
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
15.641
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a014.d
Data file 2: 20130226.B/0408-2.b/0408a014.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WJ10LCSS1
Client ID:
Injection Date: 08-APR-2013 16:58
Report Date: 04/09/2013 11:48
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.264	-0.003	2244471	6.368	-0.002	3927779	34.0	31.9	6.5	Tetrachloro-m-xylene
14.863	0.000	2323444	15.175	0.000	3421237	36.5	37.5	2.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	85.1	79.7
Decachlorobiphenyl	91.2	93.8

JC 04/09/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	5039844	-2.8
Hexabromobiphenyl	4555826	3806368	-16.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8939576	7.1
Hexabromobiphenyl	6489385	5437066	-16.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1016	1	8.277	-0.001	650525	407.0	1	8.503	-0.001	1826038	367.5
Aroclor-1016	2	8.769	-0.002	2280141	427.7	2	9.240	-0.002	4048718	397.9
Aroclor-1016	3	8.943	-0.002	896626	418.5	3	9.668	-0.001	1050662	417.1
Aroclor-1016	4	9.072	-0.002	629142	429.6	4	9.776	0.000	1178145	393.4
Total Col1Ave (4 peaks):					420.7	Total Col2Ave (4 peaks):				394.0 RPD = 7
Corrected Ave (3 peaks):					417.7	Corrected Ave (3 peaks):				386.2 RPD = 8
Aroclor-1221	1	6.716	-0.003	77740	119.1	1	7.197	0.012	195064	138.9
Aroclor-1221	2	6.929	-0.002	117750	242.7	2	7.494	0.011	169716	196.7
Aroclor-1221	3	7.053	-0.002	444817	268.9	3	7.632	0.011	737630	285.7
Aroclor-1221	NS	---			----	4	8.503	0.009	1826038	1953.7
Total Col1Ave (3 peaks):					210.2	Total Col2Ave (4 peaks):				643.7 RPD = 102*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				207.1
Aroclor-1232	1	8.277	-0.001	650525	1002.6	1	8.503	0.009	1826038	833.5
Aroclor-1232	2	8.769	-0.001	2280141	1071.8	2	9.240	0.008	4048718	975.7
Aroclor-1232	3	8.943	-0.002	896626	1035.5	3	9.668	0.008	1050662	962.4
Aroclor-1232	4	10.323	0.004	580400	574.9	4	10.221	0.005	1302737	879.2
Total Col1Ave (4 peaks):					921.2	Total Col2Ave (4 peaks):				912.7 RPD = 1
Corrected Ave (3 peaks):					871.0	Corrected Ave (3 peaks):				891.7 RPD = 2
Aroclor-1242	1	8.277	0.000	650525	522.3	1	8.503	0.002	1826038	489.2
Aroclor-1242	2	8.769	0.001	2280141	549.7	2	9.240	-0.001	4048718	524.2
Aroclor-1242	3	8.943	0.000	896626	540.5	3	9.668	0.000	1050662	516.7
Aroclor-1242	4	10.566	0.001	105971	74.8	4	11.133	0.000	108108	34.4
Total Col1Ave (4 peaks):					421.8	Total Col2Ave (4 peaks):				391.2 RPD = 8
Corrected Ave (3 peaks):					379.2	Corrected Ave (3 peaks):				346.8 RPD = 9
Aroclor-1248	1	9.339	-0.001	522929	309.8	1	9.776	0.000	1178145	329.4
Aroclor-1248	2	9.671	-0.001	663573	323.1	2	10.221	0.000	1302737	339.5
Aroclor-1248	3	10.323	0.005	580400	179.5	3	10.773	-0.002	180861	46.3
Aroclor-1248	4	10.566	0.001	105971	46.4	4	11.133	-0.001	108108	20.8
Total Col1Ave (4 peaks):					214.7	Total Col2Ave (4 peaks):				184.0 RPD = 15
Corrected Ave (3 peaks):					178.6	Corrected Ave (3 peaks):				132.2 RPD = 30
Aroclor-1254	1	10.323	-0.001	580400	249.7	1	10.837	-0.001	878160	251.0
Aroclor-1254	2	10.647	0.001	607584	186.9	2	11.009	0.000	1011104	231.8
Aroclor-1254	3	11.028	-0.002	125404	64.1	3	11.546	0.000	240241	72.8
Aroclor-1254	4	11.167	-0.002	365240	91.3	4	11.734	0.037	2199408	301.0
Aroclor-1254	5	11.874	-0.012	630787	256.5	5	12.492	0.007	1053179	258.2
Total Col1Ave (5 peaks):					169.7	Total Col2Ave (5 peaks):				222.9 RPD = 27
Corrected Ave (4 peaks):					148.0	Corrected Ave (4 peaks):				203.4 RPD = 32
Aroclor-1260	1	11.827	-0.001	1886769	474.6	1	12.707	0.000	2949900	467.5
Aroclor-1260	2	12.431	0.000	1257419	476.9	2	13.484	0.000	4816211	479.2
Aroclor-1260	3	12.746	-0.001	1286967	484.4	3	13.980	0.000	3149428	457.3
Aroclor-1260	4	13.482	-0.001	1662190	490.7	4	14.540	0.001	1151391	456.0
Aroclor-1260	5	13.581	-0.001	638793	471.1	NS	---			----
Total Col1Ave (5 peaks):					479.5	Total Col2Ave (4 peaks):				465.0 RPD = 3
Corrected Ave (4 peaks):					476.8	Corrected Ave (3 peaks):				460.3 RPD = 4
Aroclor-1262	1	12.431	-0.001	1257419	289.8	1	12.797	0.002	1931054	314.2
Aroclor-1262	2	12.746	-0.002	1286967	409.1	2	13.243	0.002	2358149	446.1
Aroclor-1262	3	13.110	-0.001	3179212	370.4	3	13.484	0.002	4816211	411.7
Aroclor-1262	4	13.581	-0.001	638793	219.6	4	13.931	0.002	1312906	289.7
Aroclor-1262	5	13.646	-0.001	734625	234.8	5	13.980	0.002	3149428	422.8
Total Col1Ave (5 peaks):					304.7	Total Col2Ave (5 peaks):				376.9 RPD = 21
Corrected Ave (4 peaks):					278.6	Corrected Ave (4 peaks):				359.6 RPD = 25
Aroclor-1268	1	13.581	-0.001	638793	68.1	1	13.931	0.002	1312906	107.5

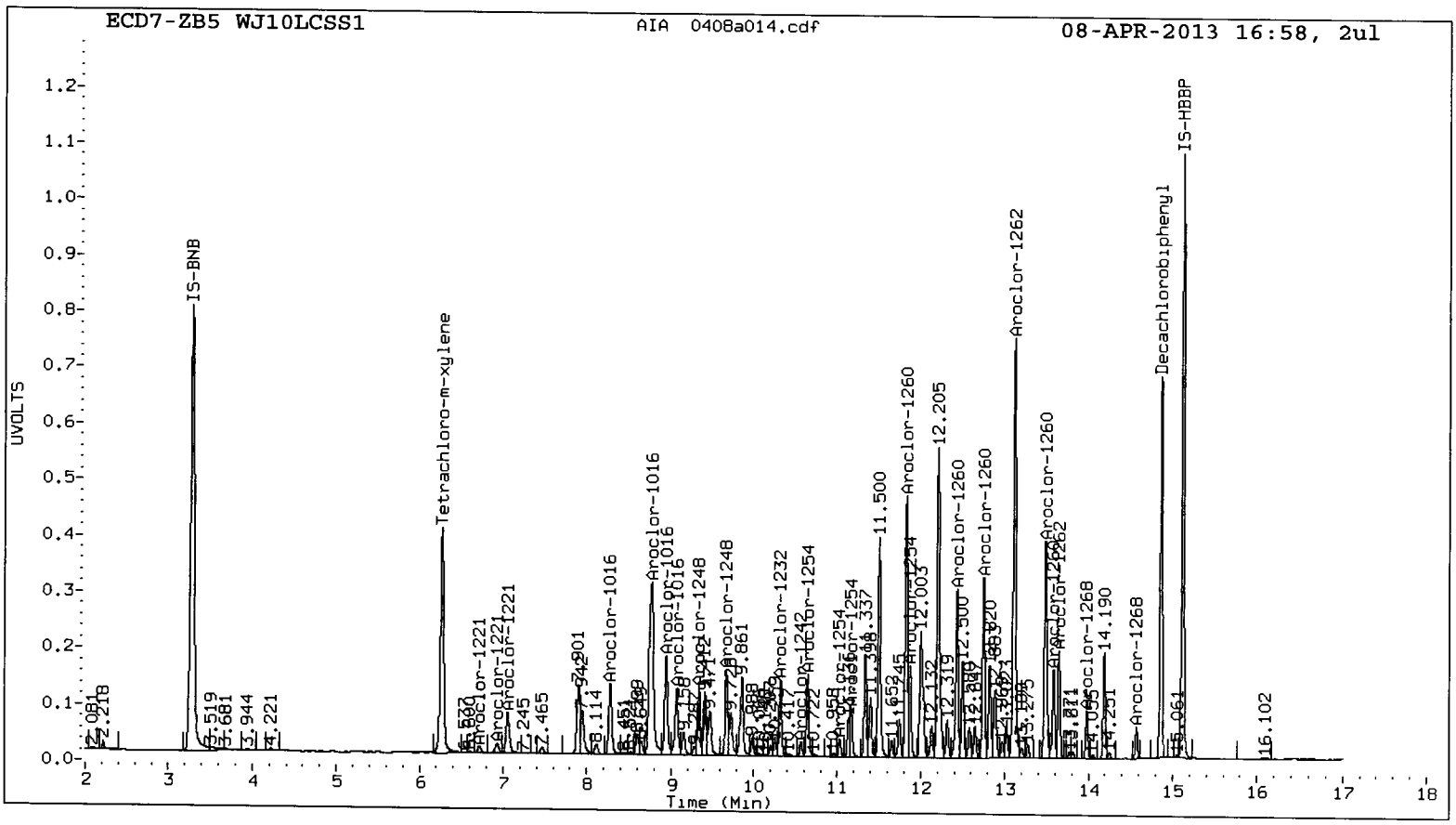
Aroclor-1268 2	13.646	0.001	734625	84.4	2	13.980	0.002	3149428	263.2
Aroclor-1268 3	13.983	0.015	334999	45.4	3	14.297	-0.027	90076	9.3
Aroclor-1268 4	14.570	-0.001	194657	8.6	4	14.889	0.001	324518	10.9
Total Col1Ave (4 peaks):				51.6	Total Col2Ave (4 peaks):			97.7	RPD = 62*
Corrected Ave (3 peaks):				40.7	Corrected Ave (3 peaks):			42.5	RPD = 4

Total PCB Area Col1 (6.367 - 14.763) = 35908651 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 60346296 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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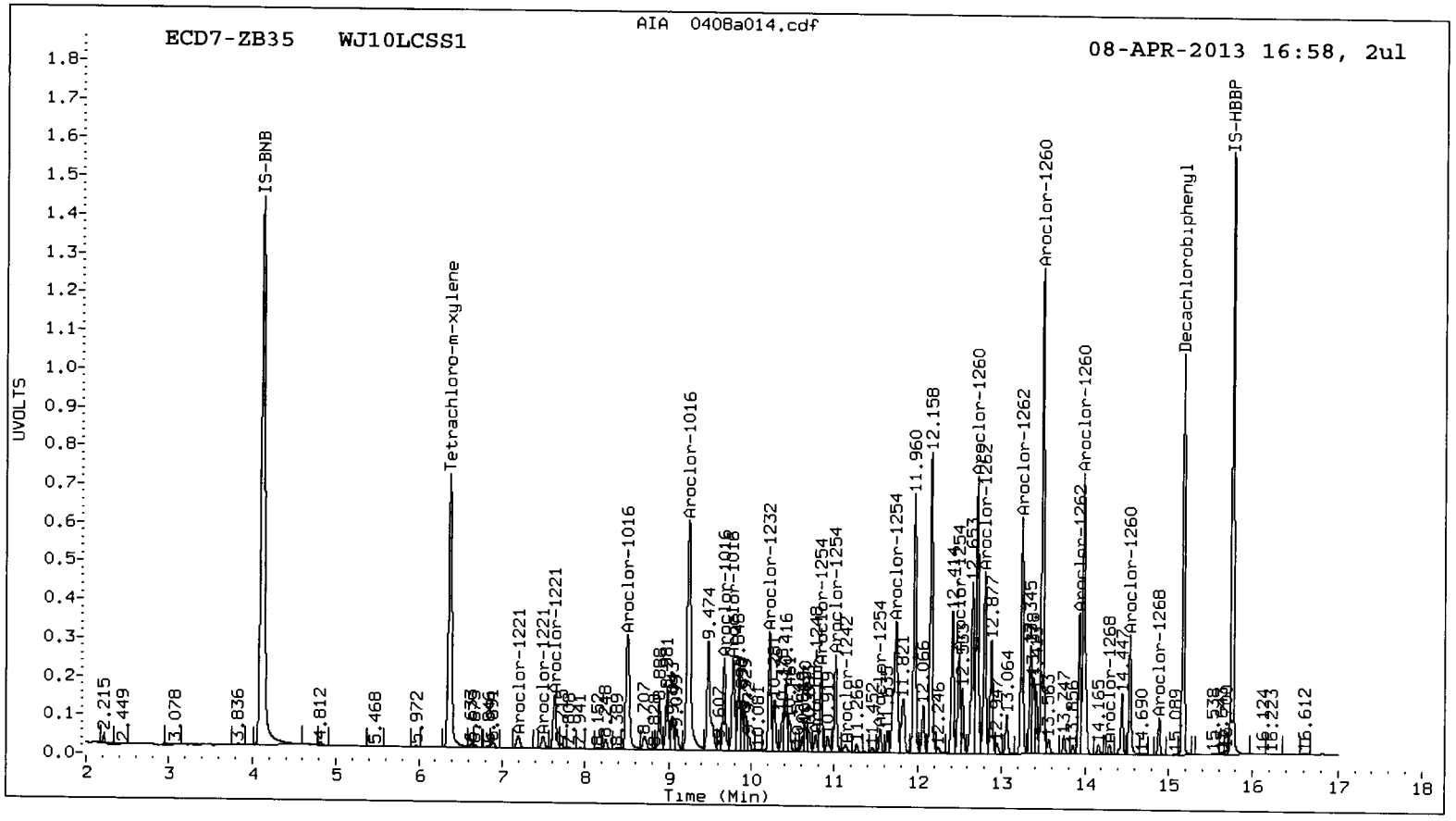
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Aroclor-1221
Aroclor-1232
Aroclor-1242
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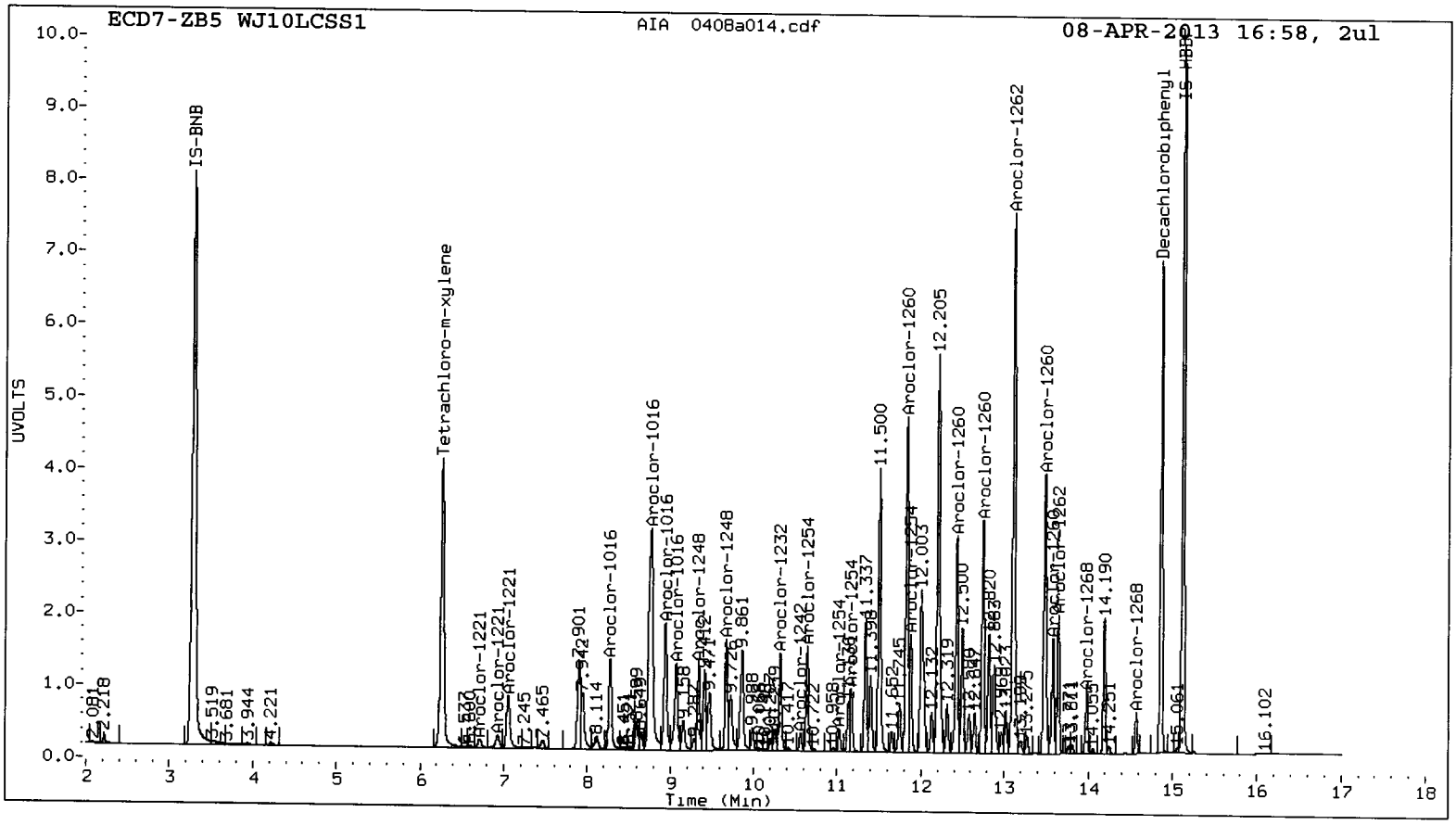
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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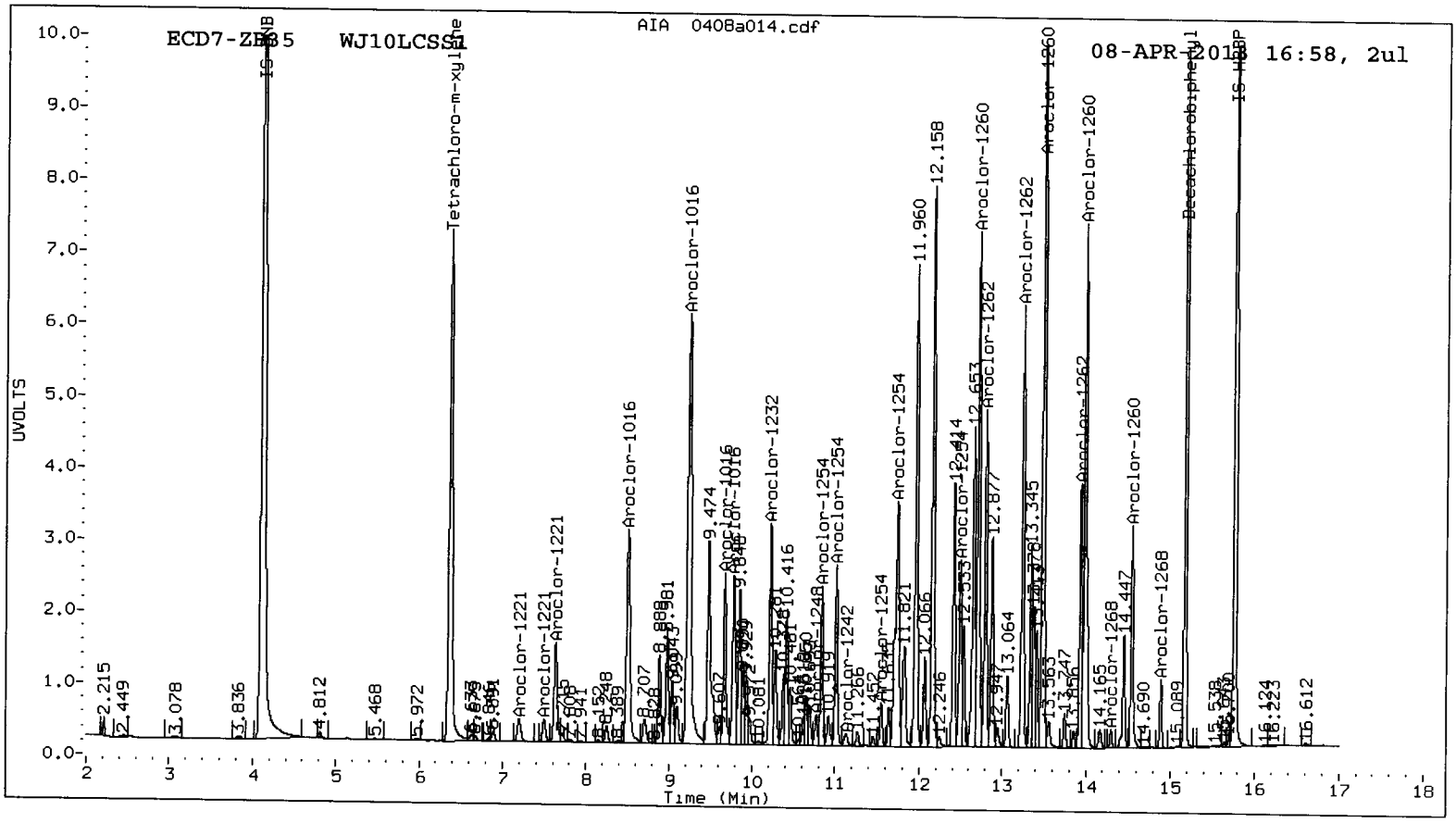
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a015.d
Data file 2: 20130226.B/0408-2.b/0408a015.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 08-APR-2013 17:18
Report Date: 04/09/2013 11:48
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.265	-0.002	1293865	6.370	-0.001	2421746	19.8	19.9	0.3	Tetrachloro-m-xylene
14.863	0.000	1092185	15.174	-0.001	1646830	18.4	18.6	1.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.6	49.7
Decachlorobiphenyl	46.0	46.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4988003	-3.8
Hexabromobiphenyl	4555826	3543189	-22.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8840051	6.0
Hexabromobiphenyl	6489385	5273015	-18.7

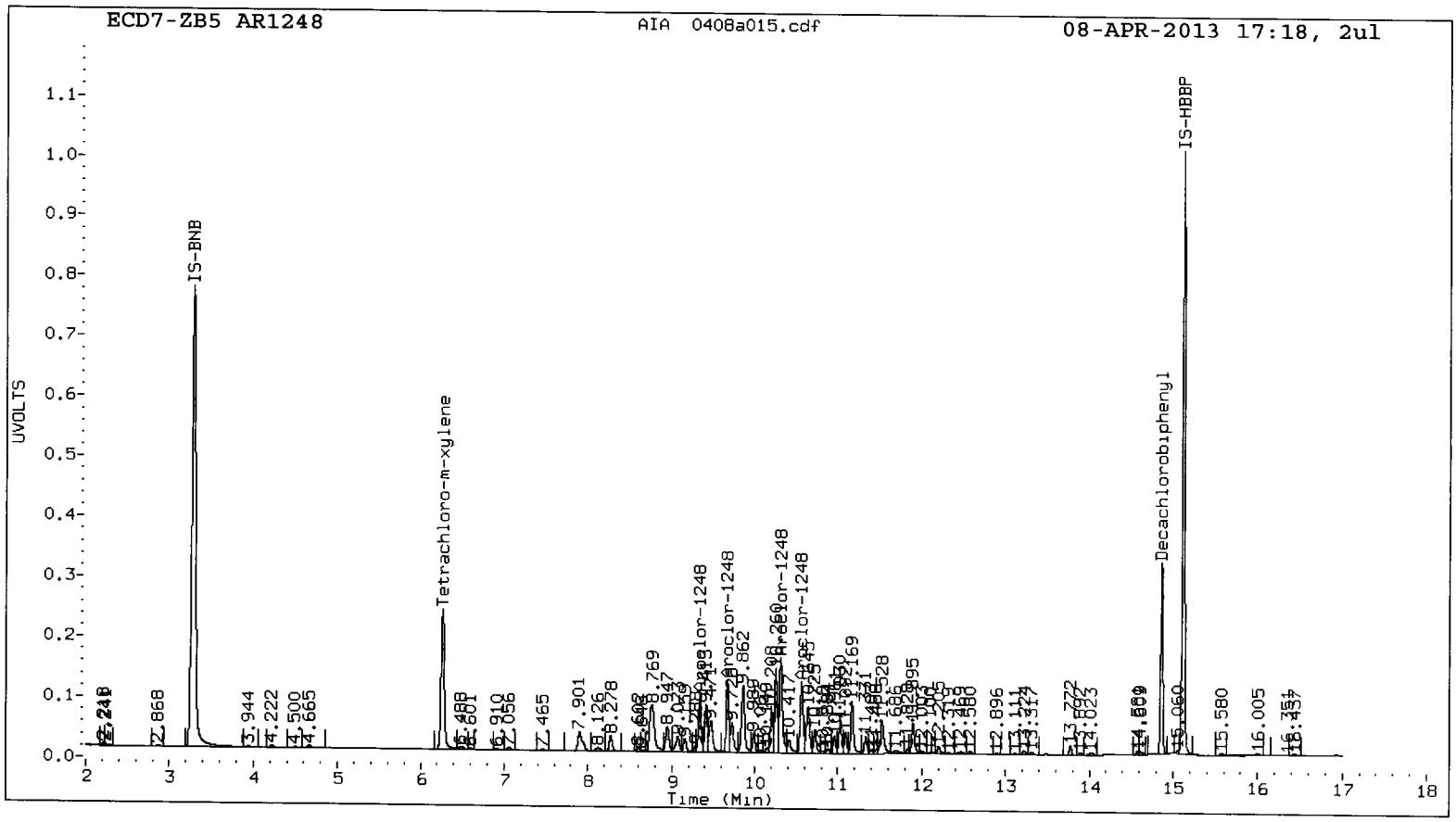
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1248	1	9.340	0.000	422584	252.9	1	9.776	0.000	915388	258.8
Aroclor-1248	2	9.672	0.000	510334	251.1	2	10.220	0.000	863808	227.7
Aroclor-1248	3	10.318	0.000	799654	249.9	3	10.776	0.000	962446	249.4
Aroclor-1248	4	10.565	0.000	573203	253.8	4	11.134	0.000	1339218	260.3
Total Col1Ave (4 peaks):					251.9	Total Col2Ave (4 peaks):				249.0 RPD = 1
Corrected Ave (3 peaks):					251.3	Corrected Ave (3 peaks):				245.3 RPD = 2

Total PCB Area Col1 (6.367 - 14.763) = 9527567 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 17609042 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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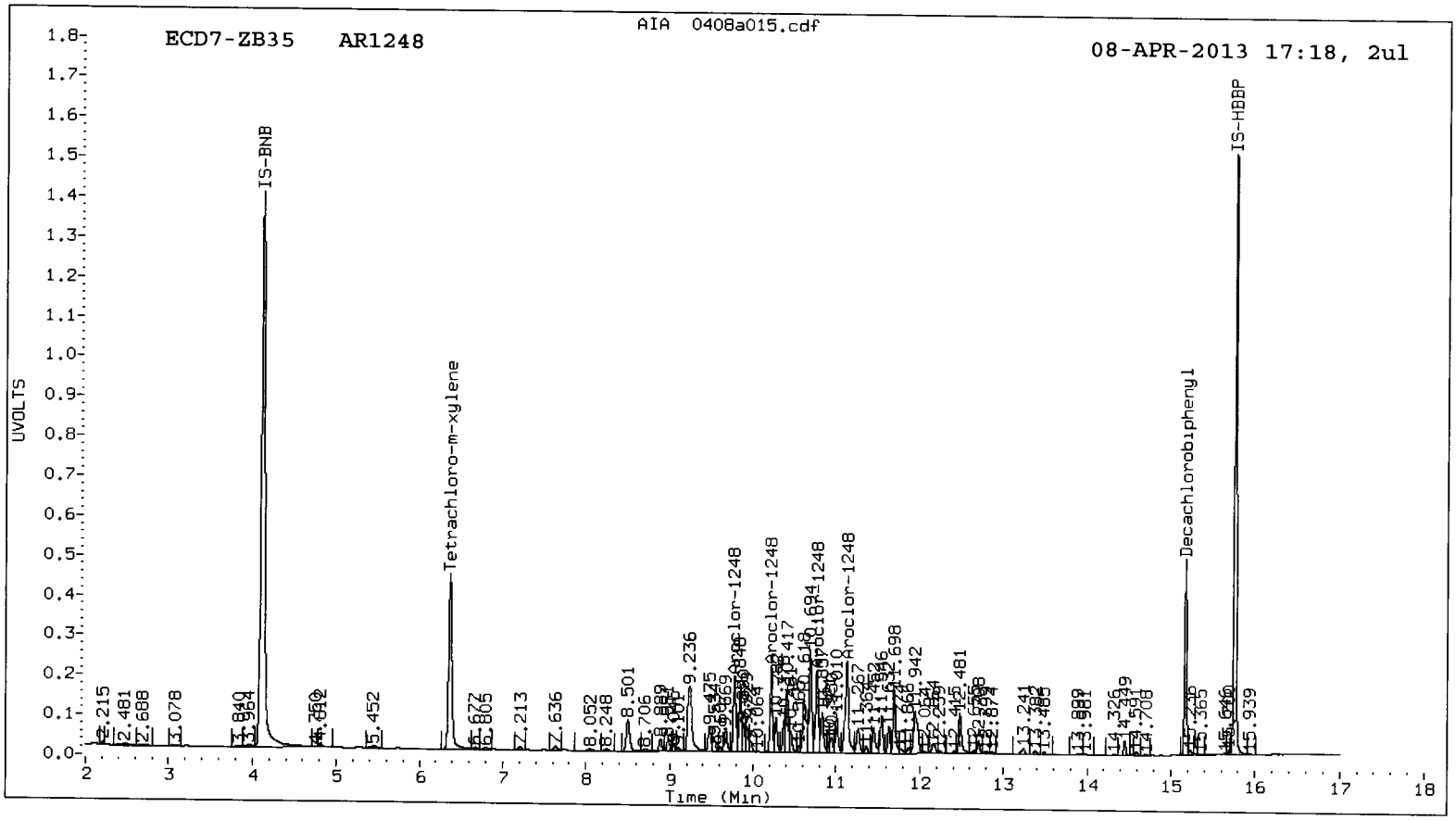
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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08-APR-2013 17:18, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a016.d
Data file 2: 20130226.B/0408-2.b/0408a016.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 08-APR-2013 17:38
Report Date: 04/09/2013 11:48
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.266	-0.001	1207479	6.369	-0.001	2241133	19.2	18.9	1.6	Tetrachloro-m-xylene
14.864	0.000	1025777	15.174	-0.001	1558690	17.8	18.3	2.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.0	47.3
Decachlorobiphenyl	44.4	45.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4802567	-7.4
Hexabromobiphenyl	4555826	3451231	-24.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8595728	3.0
Hexabromobiphenyl	6489385	5087731	-21.6

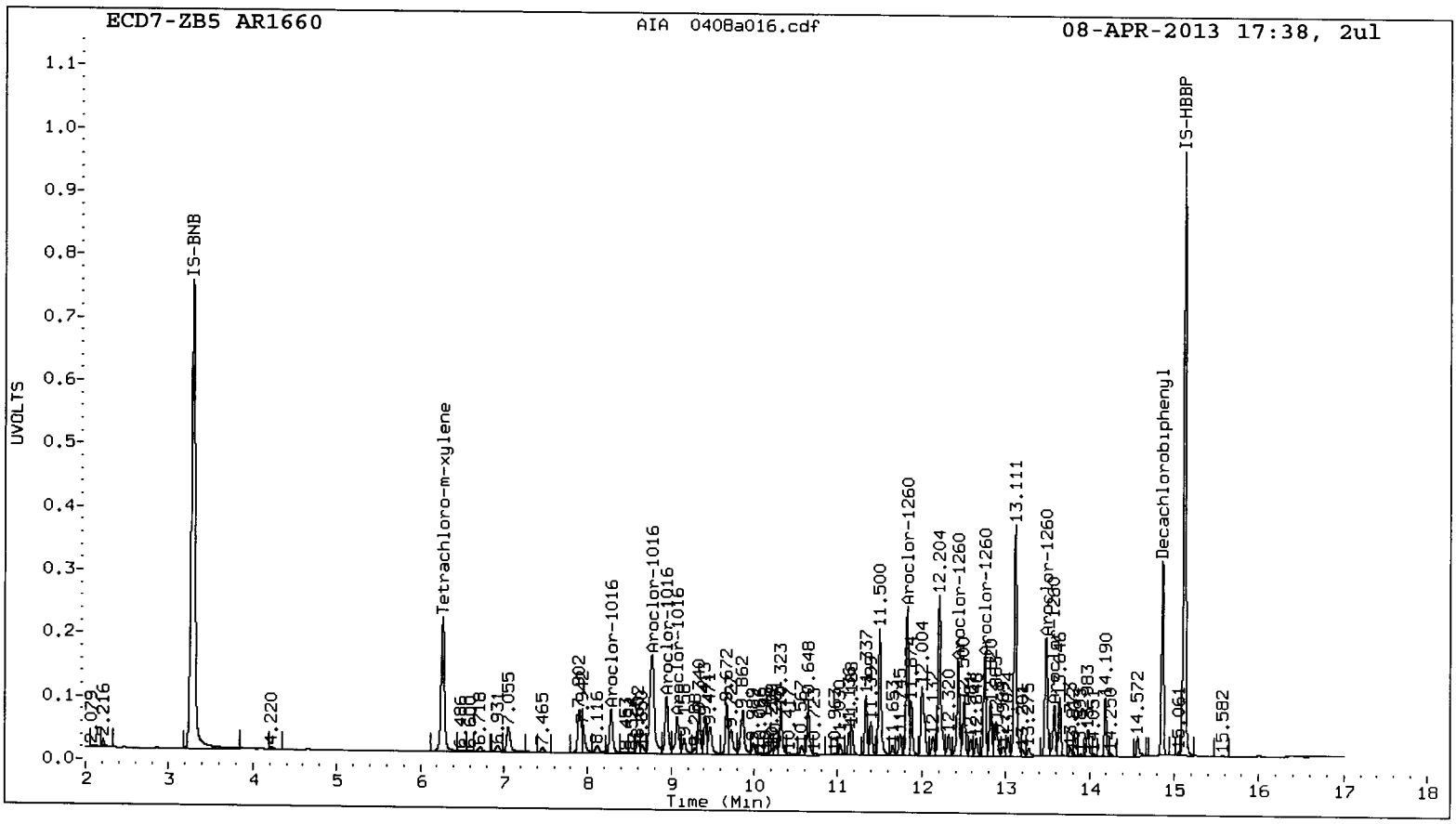
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1016	1	8.278	0.000	363288	238.5	1	8.504	0.000	1090995	228.4
Aroclor-1016	2	8.771	0.000	1217886	239.7	2	9.242	0.000	2289614	234.0
Aroclor-1016	3	8.945	0.000	487062	238.6	3	9.669	0.001	596526	246.3
Aroclor-1016	4	9.073	0.000	337810	242.1	4	9.776	0.000	680014	236.1
Total Col1Ave (4 peaks):					239.7	Total Col2Ave (4 peaks):				236.2 RPD = 1
Corrected Ave (3 peaks):					238.9	Corrected Ave (3 peaks):				232.8 RPD = 3
Aroclor-1260	1	11.828	-0.001	952724	264.3	1	12.708	0.000	1583705	268.2
Aroclor-1260	2	12.431	-0.001	631265	264.0	2	13.484	0.000	2494909	265.3
Aroclor-1260	3	12.746	-0.001	641301	266.2	3	13.980	-0.001	1653566	256.6
Aroclor-1260	4	13.482	-0.001	813996	265.0	4	14.540	0.000	627893	265.8
Aroclor-1260	5	13.582	0.000	318832	259.4	NS	---			----
Total Col1Ave (5 peaks):					263.8	Total Col2Ave (4 peaks):				264.0 RPD = 0
Corrected Ave (4 peaks):					263.2	Corrected Ave (3 peaks):				262.6 RPD = 0

Total PCB Area Col1 (6.367 - 14.763) = 18726500 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 33090527 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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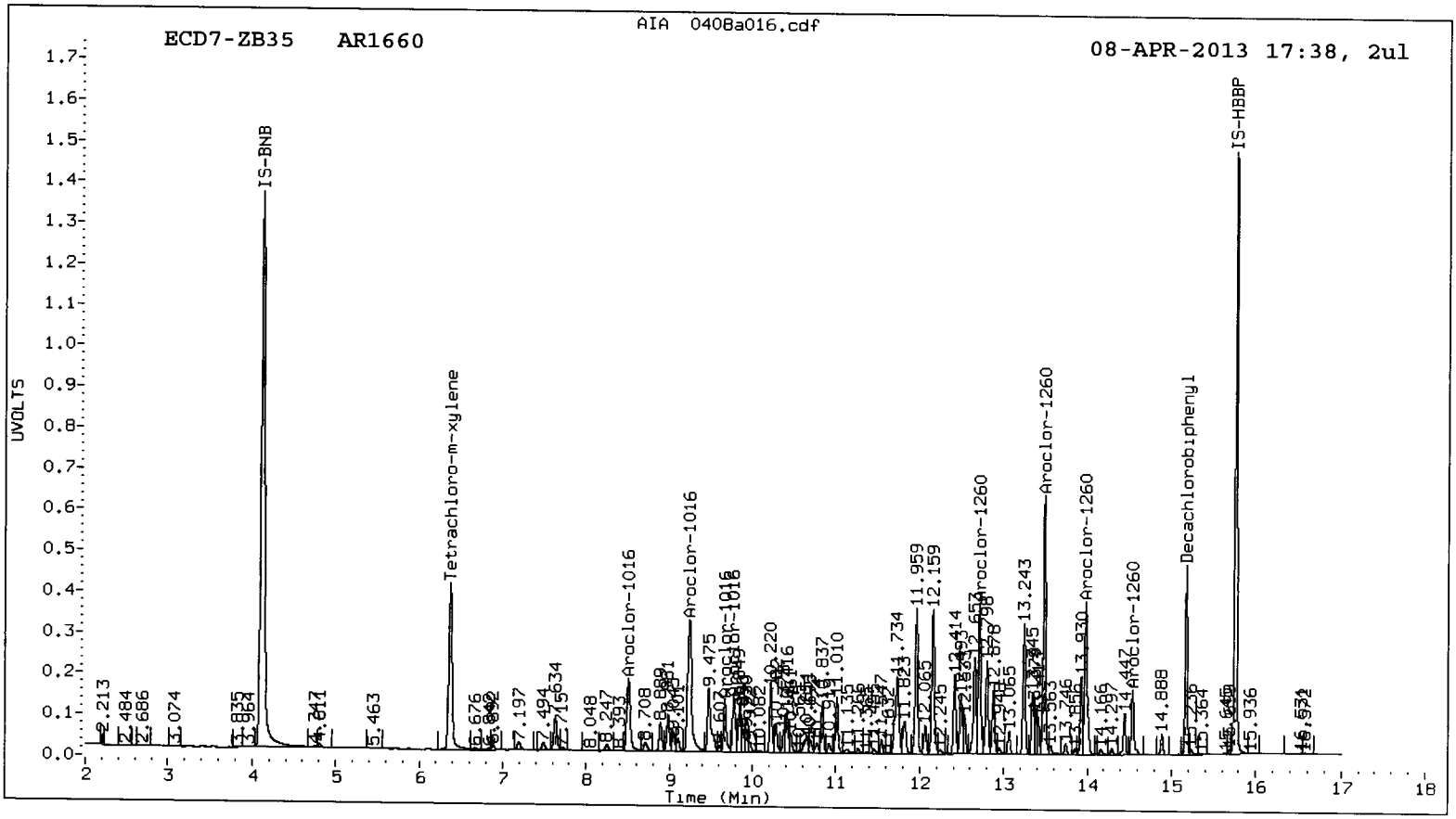
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a018.d
Data file 2: 20130226.B/0408-2.b/0408a018.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WJ10C
Client ID: SD-SP-01-20130326-S
Injection Date: 08-APR-2013 18:19
Report Date: 04/09/2013 12:50
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.280	0.017	2779273	6.388	0.017	3722975	43.7	36.0	19.2	Tetrachloro-m-xylen
14.910	0.046	975380	15.204	0.029	1252061	27.2	23.0	17.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	109.1	90.0
Decachlorobiphenyl	68.1	57.4

JR 04/09/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4866320	-6.1
Hexabromobiphenyl	4555826	2138373	-53.1 <-

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	7501197	-10.1
Hexabromobiphenyl	6489385	3252234	-49.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	8.298	0.019	623823	404.2	1	8.534	0.031	1454174	348.8
Aroclor-1016	2	8.789	0.018	1986017	385.8	2	9.267	0.025	2850055	333.8
Aroclor-1016	3	8.964	0.019	687072	332.1	3	9.695	0.026	802024	379.4
Aroclor-1016	4	9.089	0.015	612820	433.4	4	9.811	0.035	1248114	496.6
Total Col1Ave (4 peaks):		388.9				Total Col2Ave (4 peaks):			389.7	RPD = 0
Corrected Ave (3 peaks):		374.0				Corrected Ave (3 peaks):			354.0	RPD = 6
Aroclor-1221	1	6.722	0.003	50687	80.4	1	7.223	0.038	230066	195.2
Aroclor-1221	2	6.941	0.010	67562	144.2	2	7.545	0.063	552008	762.4
Aroclor-1221	3	7.069	0.014	213519	133.7	3	7.680	0.059	3447949	1591.6
Aroclor-1221	NS	---			----	4	8.534	0.040	1454174	1854.2
Total Col1Ave (3 peaks):		119.4				Total Col2Ave (4 peaks):			1100.9	RPD = 161*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			849.7	
Aroclor-1232	1	8.298	0.019	623823	995.7	1	8.534	0.040	1454174	791.1
Aroclor-1232	2	8.789	0.019	1986017	966.8	2	9.267	0.036	2850055	818.6
Aroclor-1232	3	8.964	0.019	687072	821.8	3	9.637	-0.023	83573	91.2
Aroclor-1232	4	10.294	-0.026	905504	928.8	4	10.258	0.042	1524491	1226.1
Total Col1Ave (4 peaks):		928.3				Total Col2Ave (4 peaks):			731.7	RPD = 24
Corrected Ave (3 peaks):		905.8				Corrected Ave (3 peaks):			567.0	RPD = 46*
Aroclor-1242	1	8.298	0.021	623823	518.7	1	8.534	0.033	1454174	464.3
Aroclor-1242	2	8.789	0.021	1986017	495.9	2	9.267	0.027	2850055	439.8
Aroclor-1242	3	8.964	0.021	687072	428.9	3	9.695	0.027	802024	470.0
Aroclor-1242	4	10.602	0.038	889775	650.8	4	11.176	0.042	1874082	711.6
Total Col1Ave (4 peaks):		523.6				Total Col2Ave (4 peaks):			521.5	RPD = 0
Corrected Ave (3 peaks):		481.2				Corrected Ave (3 peaks):			458.1	RPD = 5
Aroclor-1248	1	9.365	0.025	675849	414.6	1	9.811	0.035	1248114	415.8
Aroclor-1248	2	9.698	0.026	742098	374.3	2	10.258	0.037	1524491	473.5
Aroclor-1248	3	10.355	0.036	1666273	533.7	3	10.818	0.042	1000948	305.7
Aroclor-1248	4	10.602	0.037	889775	403.8	4	11.176	0.042	1874082	429.2
Total Col1Ave (4 peaks):		431.6				Total Col2Ave (4 peaks):			406.1	RPD = 6
Corrected Ave (3 peaks):		397.8				Corrected Ave (3 peaks):			383.6	RPD = 4
Aroclor-1254	1	10.355	0.030	1666273	742.5	1	10.879	0.041	1394121	474.8
Aroclor-1254	2	10.691	0.045	1454728	463.5	2	11.067	0.057	1816620	496.3
Aroclor-1254	3	11.088	0.058	1649537	872.9	3	11.595	0.049	1226347	442.8
Aroclor-1254	4	11.221	0.052	2292143	593.1	4	11.748	0.051	3380195	551.3
Aroclor-1254	5	11.938	0.052	2258254	951.1	5	12.767	0.282	2586565	755.6
Total Col1Ave (5 peaks):		724.6				Total Col2Ave (5 peaks):			544.2	RPD = 28
Corrected Ave (4 peaks):		668.0				Corrected Ave (4 peaks):			491.3	RPD = 30
Aroclor-1260	1	11.938	0.111	2258254	1011.1	1	12.767	0.059	2586565	685.4
Aroclor-1260	2	12.515	0.085	410433	277.1	2	13.541	0.057	1215901	202.3
Aroclor-1260	3	12.821	0.075	372768	249.8	3	14.023	0.043	889743	216.0
Aroclor-1260	4	13.557	0.074	477365	250.8	4	14.577	0.038	364053	241.1
Aroclor-1260	5	13.656	0.075	269345	353.6	NS	---			----
Total Col1Ave (5 peaks):		428.5				Total Col2Ave (4 peaks):			336.2	RPD = 24
Corrected Ave (4 peaks):		282.8				Corrected Ave (3 peaks):			219.8	RPD = 25
Aroclor-1262	1	12.399	-0.033	265822	109.0	1	12.767	-0.029	2586565	703.7
Aroclor-1262	2	12.821	0.073	372768	210.9	2	13.291	0.050	1190078	376.4
Aroclor-1262	3	13.109	-0.002	69540	14.4	3	13.434	-0.048	1003305	143.4
Aroclor-1262	4	13.557	-0.025	477365	292.1	4	13.940	0.012	7619685	2810.6
Aroclor-1262	5	13.656	0.009	269345	153.2	5	---			0.0
Total Col1Ave (5 peaks):		156.0				Total Col2Ave (4 peaks):			1008.5	RPD = 146*
Corrected Ave (4 peaks):		121.9				Corrected Ave (3 peaks):			407.8	RPD = 108*
Aroclor-1268	1	13.557	-0.025	477365	90.6	1	13.940	0.012	7619685	1042.6

Aroclor-1268	2	13.656	0.012	269345	55.1	2	---			0.0
Aroclor-1268	3	13.962	-0.006	19684	4.7	3	14.337	0.014	93578	16.1
Aroclor-1268	4	14.497	-0.075	4362520	344.5	4	14.886	-0.003	2088805	116.9

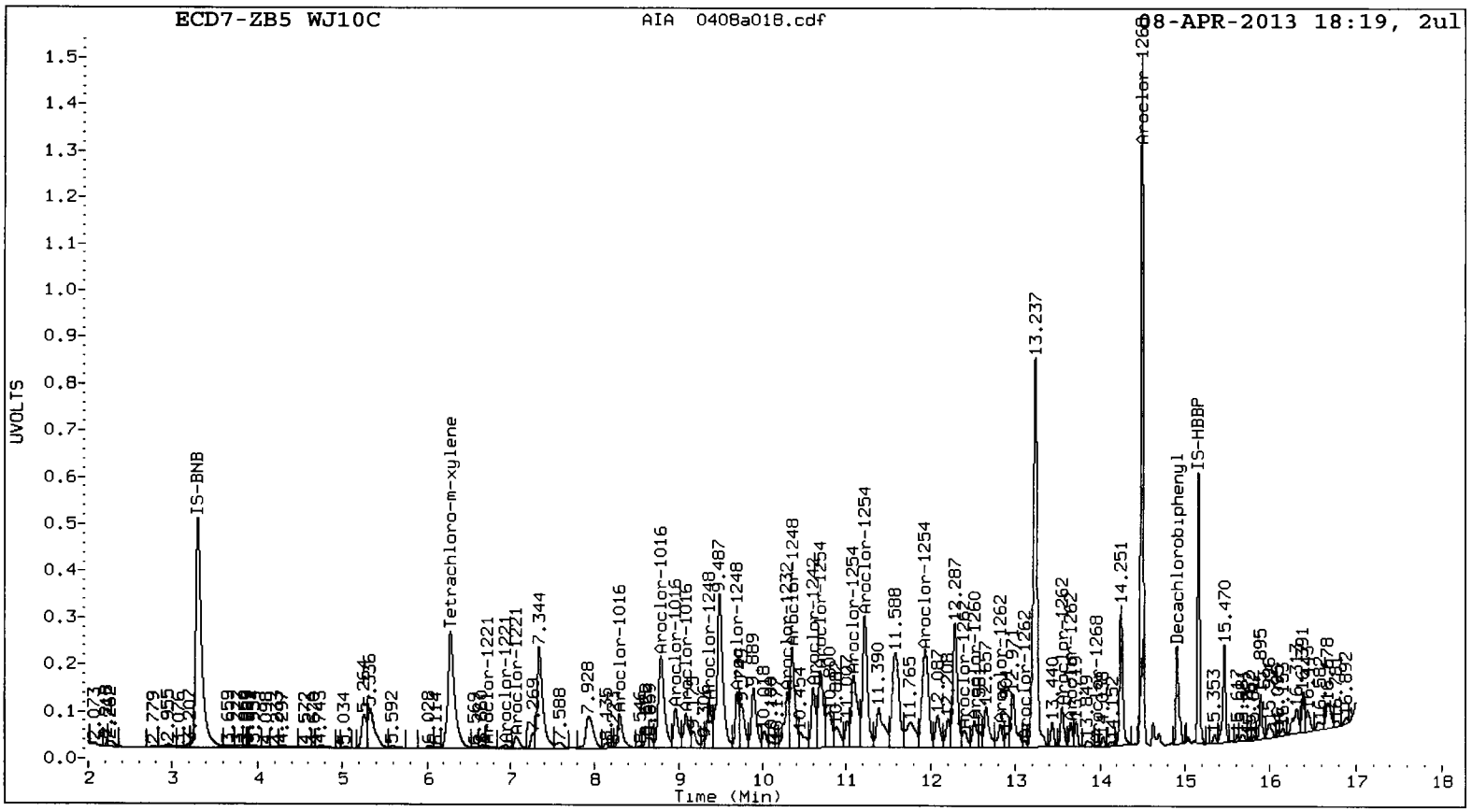
Total Col1Ave (4 peaks): 123.7 Total Col2Ave (3 peaks): 391.9 RPD = 104*

Corrected Ave (3 peaks): 50.2 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (6.363 - 14.764) = 51345783 Col1 Total PCB = 1.3 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 72514495 Col2 Total PCB = 1.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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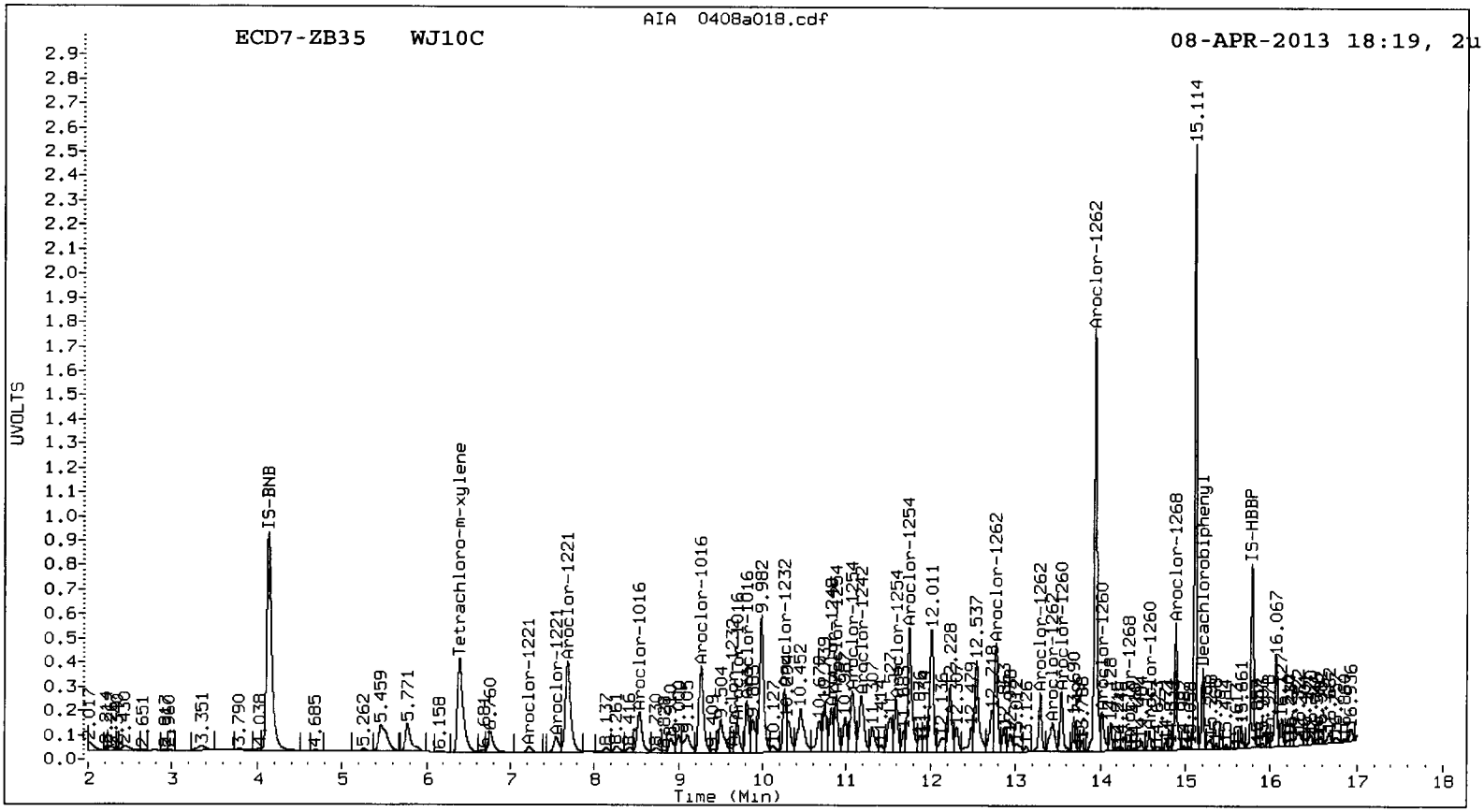
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
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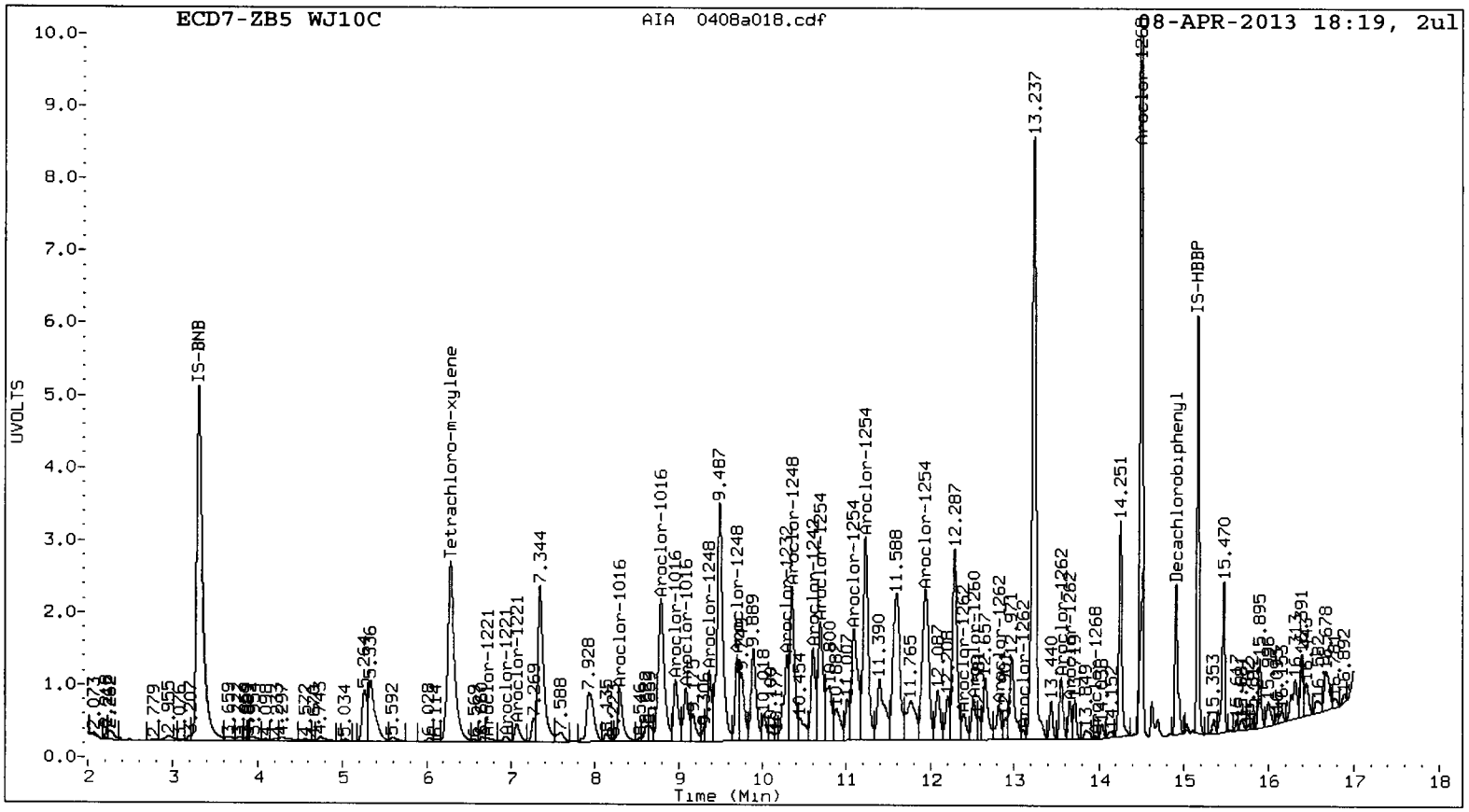
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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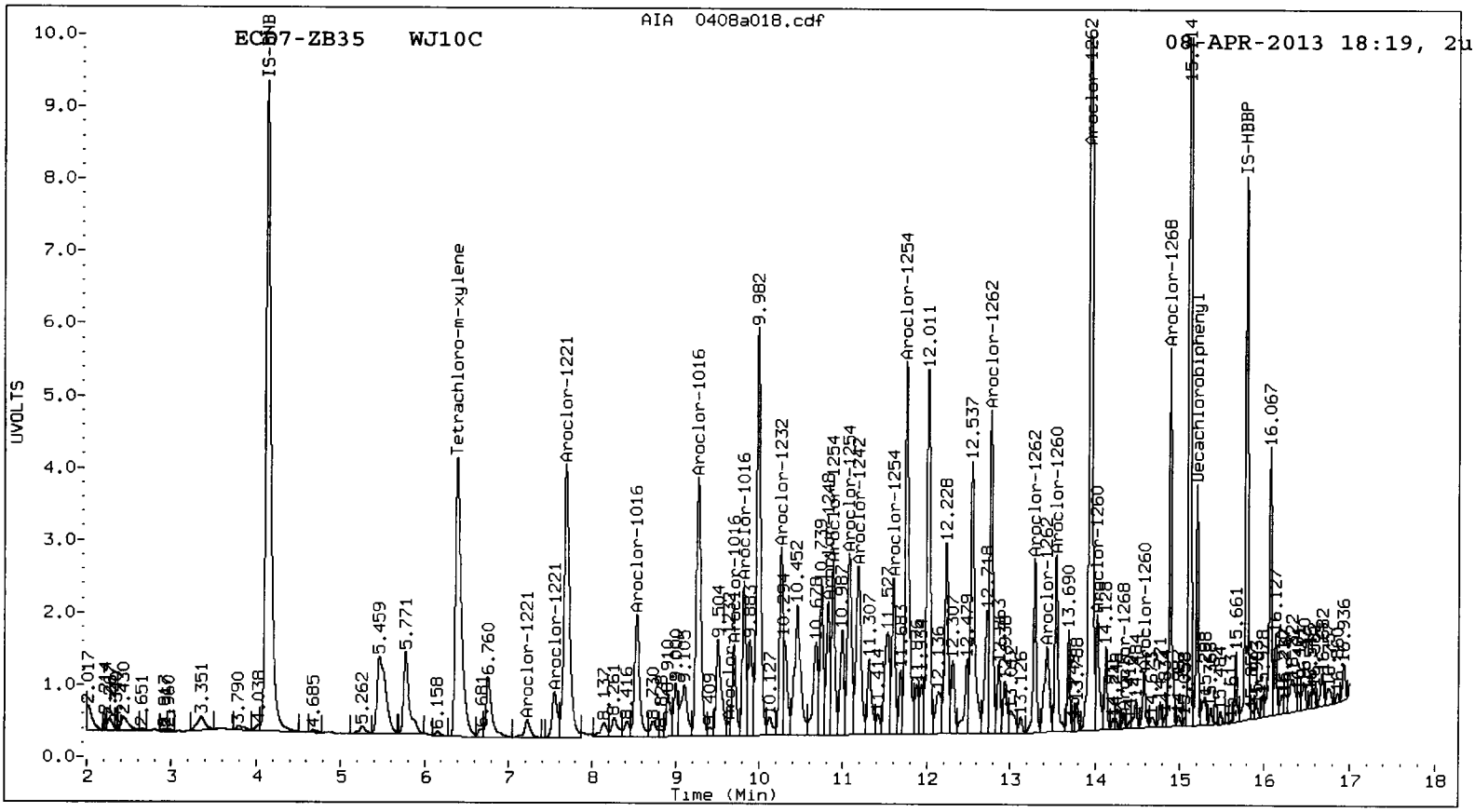
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a019.d
Data file 2: 20130226.B/0408-2.b/0408a019.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WJ10CMS
Client ID: SD-SP-01-201303 MS
Injection Date: 08-APR-2013 18:39
Report Date: 04/09/2013 13:30
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.283	0.020	2847886	6.387	0.017	3750375	43.2	35.9	18.2	Tetrachloro-m-xylene
14.905	0.041	1025043	15.201	0.026	1236363	27.1	20.3	28.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	107.9	89.9
Decachlorobiphenyl	67.6	50.7

JR 04/09/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	5044197	-2.7
Hexabromobiphenyl	4555826	2263327	-50.3 <-

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	7569564	-9.3
Hexabromobiphenyl	6489385	3635193	-44.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	8.297	0.019	1196700	748.0	1	8.529	0.025	2734498	650.0	
Aroclor-1016	2	8.787	0.016	3991512	748.1	2	9.265	0.023	5766284	669.2	
Aroclor-1016	3	8.962	0.018	1406030	655.7	3	9.693	0.025	1386332	649.9	
Aroclor-1016	4	9.089	0.016	1041475	710.5	4	9.809	0.033	2075637	818.4	
Total Col1Ave (4 peaks):					715.6	Total Col2Ave (4 peaks):				696.9	RPD = 3
Corrected Ave (3 peaks):					704.7	Corrected Ave (3 peaks):				656.4	RPD = 7
Aroclor-1221	1	6.732	0.013	145084	222.1	1	7.218	0.032	296856	249.6	
Aroclor-1221	2	6.945	0.014	135827	279.7	2	7.542	0.059	684231	936.5	
Aroclor-1221	3	7.068	0.014	627164	378.7	3	7.678	0.056	3663694	1675.9	
Aroclor-1221	NS	---			----	4	8.529	0.035	2734498	3455.2	
Total Col1Ave (3 peaks):					293.5	Total Col2Ave (4 peaks):				1579.3	RPD = 137*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				954.0	
Aroclor-1232	1	8.297	0.019	1196700	1842.8	1	8.529	0.035	2734498	1474.1	
Aroclor-1232	2	8.787	0.017	3991512	1874.6	2	9.265	0.034	5766284	1641.2	
Aroclor-1232	3	8.962	0.018	1406030	1622.5	3	9.633	-0.026	105184	113.8	
Aroclor-1232	4	10.291	-0.028	1078294	1067.1	4	10.254	0.038	2447680	1950.8	
Total Col1Ave (4 peaks):					1601.7	Total Col2Ave (4 peaks):				1295.0	RPD = 21
Corrected Ave (3 peaks):					1510.8	Corrected Ave (3 peaks):				1076.4	RPD = 34
Aroclor-1242	1	8.297	0.020	1196700	959.9	1	8.529	0.027	2734498	865.2	
Aroclor-1242	2	8.787	0.019	3991512	961.5	2	9.265	0.024	5766284	881.8	
Aroclor-1242	3	8.962	0.019	1406030	846.8	3	9.693	0.026	1386332	805.1	
Aroclor-1242	4	10.601	0.037	1006485	710.2	4	11.170	0.036	1942396	730.9	
Total Col1Ave (4 peaks):					869.6	Total Col2Ave (4 peaks):				820.8	RPD = 6
Corrected Ave (3 peaks):					839.0	Corrected Ave (3 peaks):				800.4	RPD = 5
Aroclor-1248	1	9.363	0.023	1200350	710.4	1	9.809	0.034	2075637	685.3	
Aroclor-1248	2	9.698	0.026	1270160	618.0	2	10.254	0.033	2447680	753.4	
Aroclor-1248	3	10.353	0.034	2225586	687.7	3	10.814	0.039	1095546	331.5	
Aroclor-1248	4	10.601	0.036	1006485	440.6	4	11.170	0.036	1942396	440.8	
Total Col1Ave (4 peaks):					614.2	Total Col2Ave (4 peaks):				552.8	RPD = 11
Corrected Ave (3 peaks):					582.1	Corrected Ave (3 peaks):				485.9	RPD = 18
Aroclor-1254	1	10.353	0.028	2225586	956.7	1	10.875	0.037	1994991	673.3	
Aroclor-1254	2	10.689	0.043	2099603	645.4	2	11.062	0.052	2535573	686.4	
Aroclor-1254	3	11.085	0.054	1778161	907.8	3	11.591	0.045	1514564	541.9	
Aroclor-1254	4	11.218	0.049	3069443	766.2	4	11.745	0.047	4934520	797.5	
Aroclor-1254	5	11.916	0.030	3795797	1542.3	5	12.531	0.046	3331469	964.5	
Total Col1Ave (5 peaks):					963.7	Total Col2Ave (5 peaks):				732.7	RPD = 27
Corrected Ave (4 peaks):					819.0	Corrected Ave (4 peaks):				674.8	RPD = 19
Aroclor-1260	1	11.916	0.089	3795797	1605.6	1	12.708	0.000	1817638	430.9	
Aroclor-1260	2	12.509	0.078	901601	575.0	2	13.535	0.051	2912661	433.5	
Aroclor-1260	3	12.816	0.069	825596	522.6	3	14.018	0.037	1983908	430.8	
Aroclor-1260	4	13.548	0.065	1351187	670.8	4	14.574	0.034	847135	501.9	
Aroclor-1260	5	13.647	0.065	632112	784.1	NS	---			----	
Total Col1Ave (5 peaks):					831.6	Total Col2Ave (4 peaks):				449.3	RPD = 60*
Corrected Ave (4 peaks):					636.1	Corrected Ave (3 peaks):				431.7	RPD = 39
Aroclor-1262	1	12.390	-0.042	357208	138.4	1	12.760	-0.035	4235715	1031.0	
Aroclor-1262	2	12.716	-0.032	179845	96.2	2	13.286	0.045	2448342	692.7	
Aroclor-1262	3	13.103	-0.008	149475	29.3	3	13.535	0.053	2912661	372.4	
Aroclor-1262	4	13.548	-0.035	1351187	781.3	4	13.935	0.007	8630662	2848.2	
Aroclor-1262	5	13.647	0.000	632112	339.7	5	14.018	0.040	1983908	398.3	
Total Col1Ave (5 peaks):					277.0	Total Col2Ave (5 peaks):				1068.5	RPD = 118*
Corrected Ave (4 peaks):					150.9	Corrected Ave (4 peaks):				623.6	RPD = 122*
Aroclor-1268	1	13.548	-0.035	1351187	242.4	1	13.935	0.007	8630662	1056.6	

449.3

Aroclor-1268	2	13.647	0.002	632112	122.1	2	14.018	0.040	1983908	248.0
Aroclor-1268	3	13.955	-0.014	24773	5.6	3	14.333	0.009	292731	45.1
Aroclor-1268	4	14.490	-0.082	6149431	458.8	4	14.883	-0.006	2548887	127.6

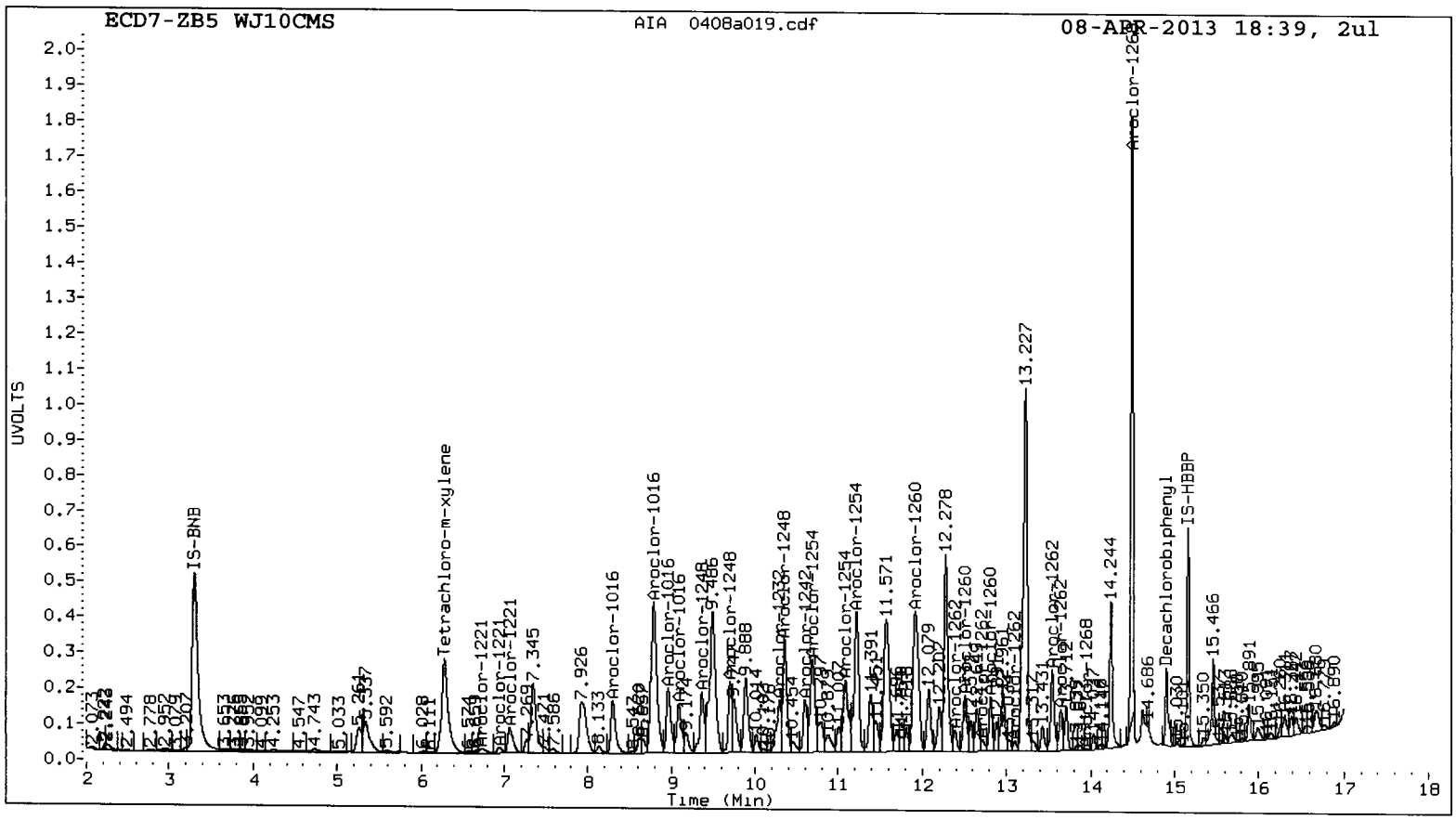
Total Col1Ave (4 peaks): 207.2 Total Col2Ave (4 peaks): 369.3 RPD = 56*

Corrected Ave (3 peaks): 123.4 Corrected Ave (3 peaks): 140.2 RPD = 13

Total PCB Area Col1 (6.363 - 14.764) = 75790524 Col1 Total PCB = 1.9 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 105373359 Col2 Total PCB = 1.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical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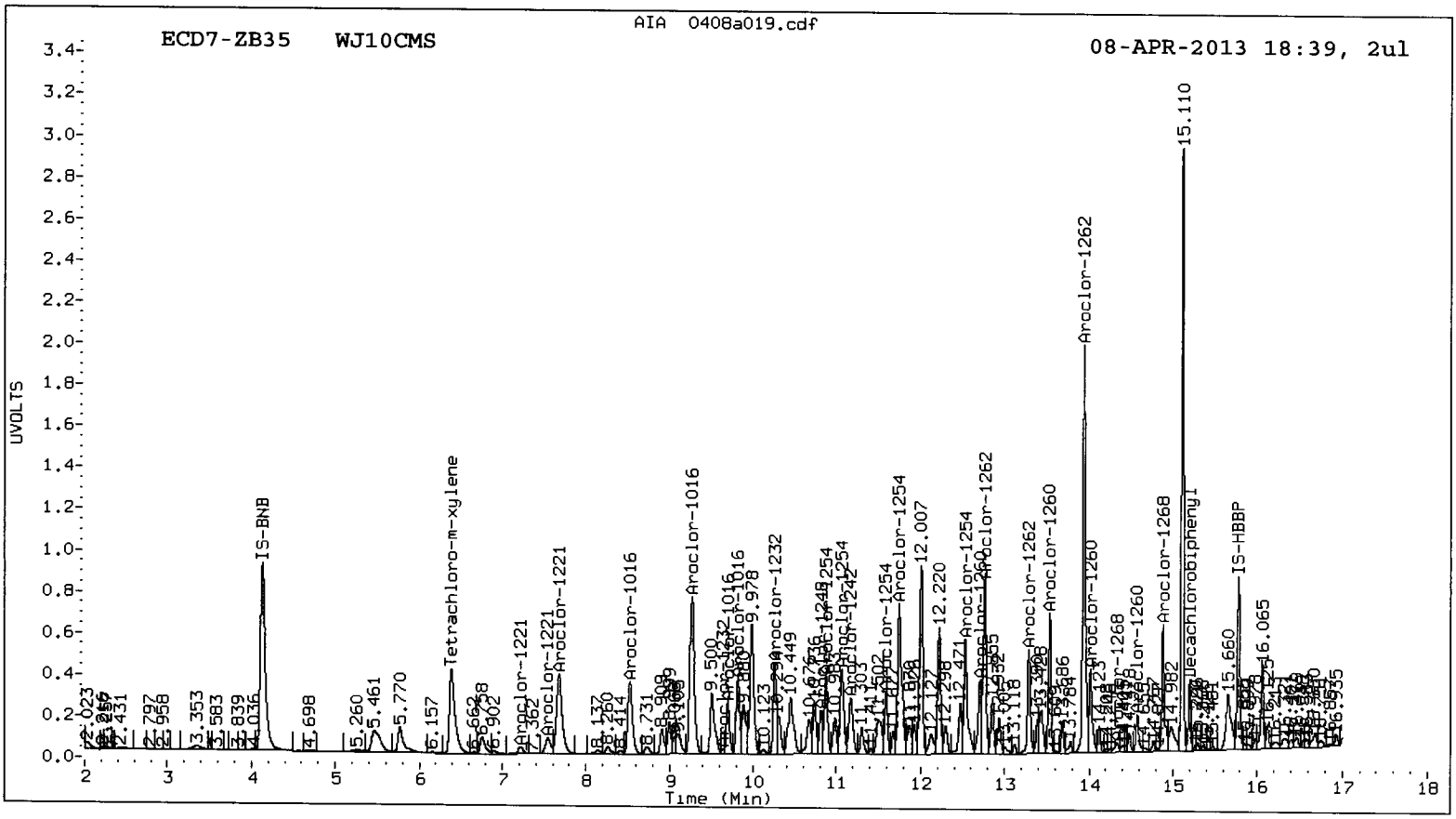
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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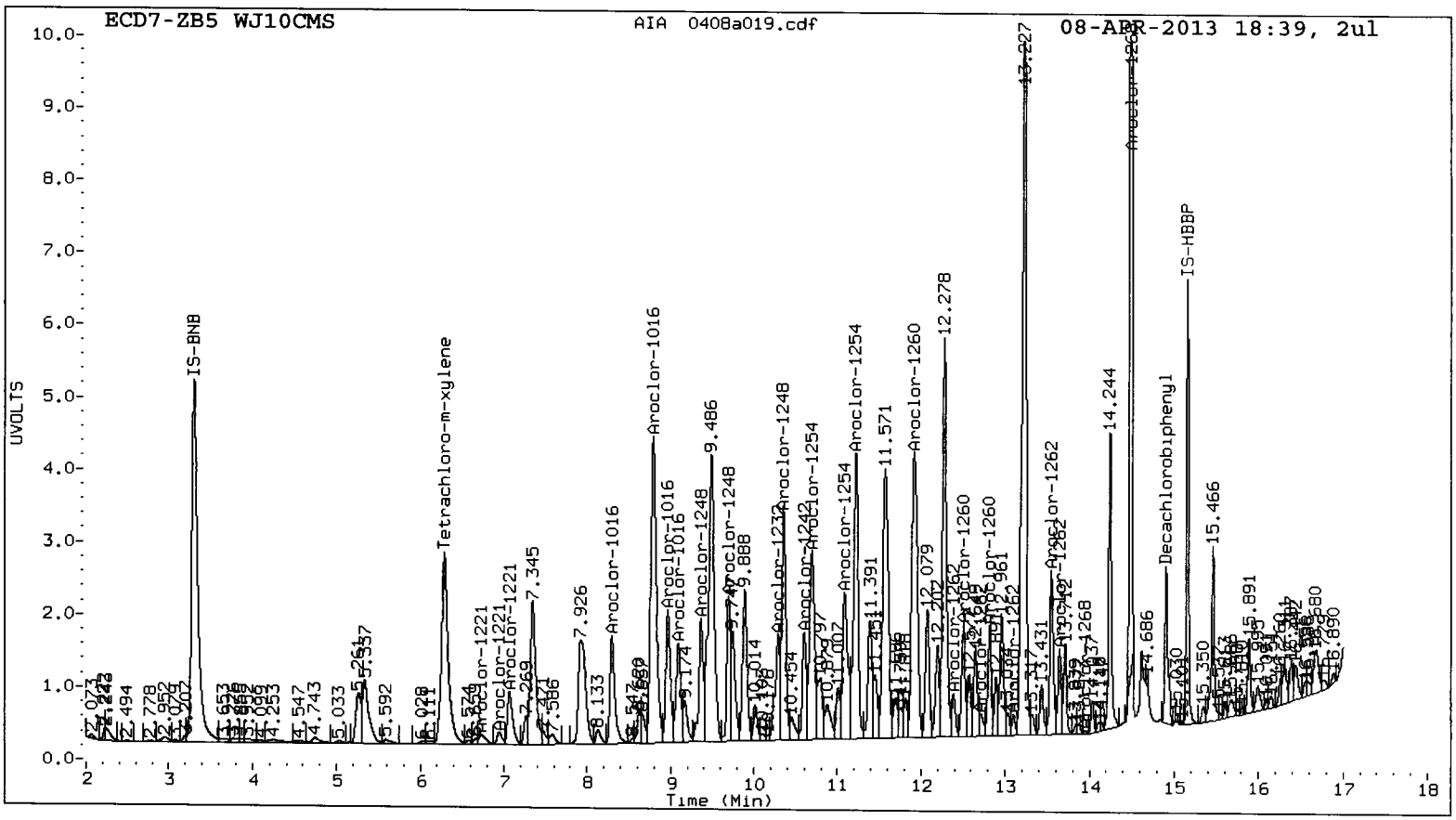
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Time (Min)
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Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1232
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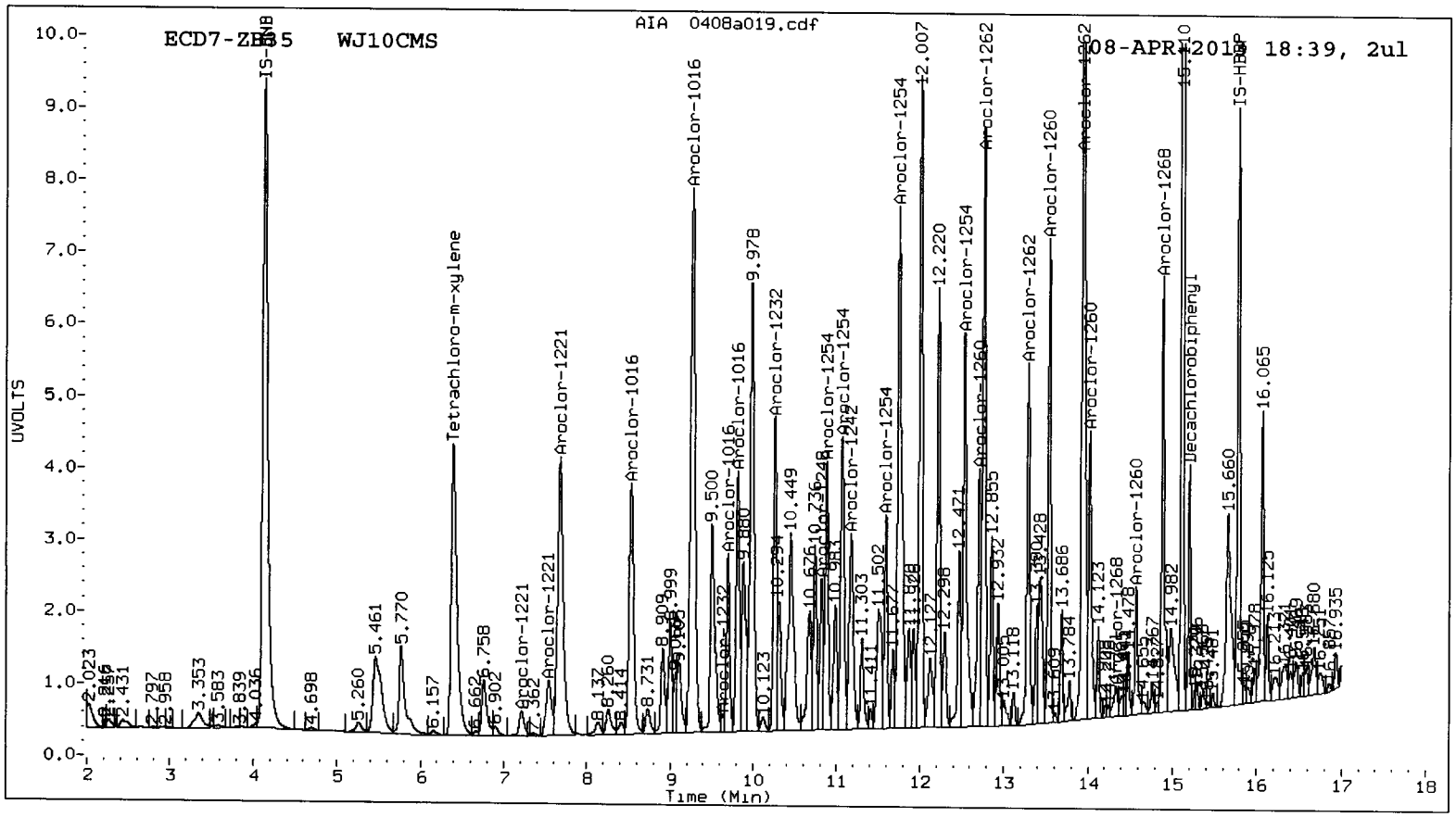
Decachlorobiphenyl
IS-HBBP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Time (Min)
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Tetrachloro-m-xylene
Aroclor-1221
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Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a020.d
Data file 2: 20130226.B/0408-2.b/0408a020.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WJ10CMSD
Client ID: SD-SP-01-201303 MSD
Injection Date: 08-APR-2013 19:00
Report Date: 04/09/2013 13:30
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
6.282	0.019	2737003	6.388	0.017	3627912	40.8	33.4	19.8	Tetrachloro-m-xylene
14.900	0.037	981031	15.198	0.023	1268834	26.6	20.9	24.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	102.0	83.6
Decachlorobiphenyl	66.6	52.3

04/09/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	5129021	-1.1
Hexabromobiphenyl	4555826	2200299	-51.7 <-

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	7875101	-5.6
Hexabromobiphenyl	6489385	3619628	-44.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	8.296	0.018	1075287	661.0	1	8.525	0.022	2493888	569.8
Aroclor-1016	2	8.789	0.018	3836000	707.0	2	9.263	0.021	5657952	631.2
Aroclor-1016	3	8.962	0.017	1361720	624.6	3	9.691	0.023	1380171	621.9
Aroclor-1016	4	9.089	0.015	1011321	678.5	4	9.807	0.030	2165235	820.6
	Total Col1Ave (4 peaks):				667.8		Total Col2Ave (4 peaks):			660.9 RPD = 1
	Corrected Ave (3 peaks):				654.7		Corrected Ave (3 peaks):			607.6 RPD = 7
Aroclor-1221	1	6.732	0.013	154352	232.4	1	7.216	0.030	275588	222.7
Aroclor-1221	2	6.945	0.014	144178	292.0	2	7.539	0.056	576577	758.5
Aroclor-1221	3	7.069	0.015	619446	367.9	3	7.676	0.054	3260551	1433.6
Aroclor-1221	NS	---			----	4	8.525	0.031	2493888	3028.9
	Total Col1Ave (3 peaks):				297.4		Total Col2Ave (4 peaks):			1361.0 RPD = 128*
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			805.0
Aroclor-1232	1	8.296	0.018	1075287	1628.5	1	8.525	0.031	2493888	1292.2
Aroclor-1232	2	8.789	0.018	3836000	1771.8	2	9.263	0.032	5657952	1547.9
Aroclor-1232	3	8.962	0.017	1361720	1545.3	3	9.632	-0.027	120185	125.0
Aroclor-1232	4	10.289	-0.030	1102491	1073.0	4	10.252	0.036	2688566	2059.7
	Total Col1Ave (4 peaks):				1504.6		Total Col2Ave (4 peaks):			1256.2 RPD = 18
	Corrected Ave (3 peaks):				1415.6		Corrected Ave (3 peaks):			988.4 RPD = 36
Aroclor-1242	1	8.296	0.019	1075287	848.3	1	8.525	0.024	2493888	758.5
Aroclor-1242	2	8.789	0.020	3836000	908.7	2	9.263	0.023	5657952	831.6
Aroclor-1242	3	8.962	0.019	1361720	806.6	3	9.691	0.023	1380171	770.4
Aroclor-1242	4	10.597	0.033	1083953	752.2	4	11.165	0.032	2126065	769.0
	Total Col1Ave (4 peaks):				828.9		Total Col2Ave (4 peaks):			782.4 RPD = 6
	Corrected Ave (3 peaks):				802.3		Corrected Ave (3 peaks):			766.0 RPD = 5
Aroclor-1248	1	9.362	0.022	1139442	663.2	1	9.807	0.031	2165235	687.1
Aroclor-1248	2	9.695	0.023	1271756	608.5	2	10.252	0.032	2688566	795.4
Aroclor-1248	3	10.289	-0.029	1102491	335.0	3	10.811	0.036	1178042	342.7
Aroclor-1248	4	10.597	0.032	1083953	466.7	4	11.165	0.031	2126065	463.8
	Total Col1Ave (4 peaks):				518.4		Total Col2Ave (4 peaks):			572.3 RPD = 10
	Corrected Ave (3 peaks):				470.1		Corrected Ave (3 peaks):			497.9 RPD = 6
Aroclor-1254	1	10.351	0.027	2285716	966.3	1	10.872	0.034	2275380	738.2
Aroclor-1254	2	10.686	0.040	2267827	685.5	2	11.058	0.048	2864344	745.3
Aroclor-1254	3	11.079	0.049	2132425	1070.7	3	11.587	0.041	1863307	640.9
Aroclor-1254	4	11.214	0.045	3311783	813.0	4	11.740	0.043	5464070	848.9
Aroclor-1254	5	11.909	0.023	3964074	1584.0	5	12.526	0.041	3620016	1007.3
	Total Col1Ave (5 peaks):				1023.9		Total Col2Ave (5 peaks):			796.1 RPD = 25
	Corrected Ave (4 peaks):				883.9		Corrected Ave (4 peaks):			743.3 RPD = 17
Aroclor-1260	1	11.909	0.082	3964074	1724.8	1	12.703	-0.004	2002984	476.9
Aroclor-1260	2	12.502	0.071	904746	593.6	2	13.529	0.045	3053776	456.5
Aroclor-1260	3	12.809	0.063	816667	531.8	3	14.014	0.033	2200734	480.0
Aroclor-1260	4	13.541	0.059	1379005	704.2	4	14.570	0.031	1360533	809.5
Aroclor-1260	5	13.642	0.060	671276	856.5	NS	---			----
	Total Col1Ave (5 peaks):				882.2		Total Col2Ave (4 peaks):			555.7 RPD = 45*
	Corrected Ave (4 peaks):				671.5		Corrected Ave (3 peaks):			471.1 RPD = 35
Aroclor-1262	1	12.388	-0.044	428676	170.9	1	12.755	-0.041	4403169	1076.3
Aroclor-1262	2	12.716	-0.032	155982	85.8	2	13.282	0.041	2482733	705.5
Aroclor-1262	3	13.098	-0.013	119036	24.0	3	13.529	0.047	3053776	392.1
Aroclor-1262	4	13.541	-0.041	1379005	820.2	4	13.931	0.002	8239977	2730.9
Aroclor-1262	5	13.642	-0.005	671276	371.1	5	14.014	0.036	2200734	443.8
	Total Col1Ave (5 peaks):				294.4		Total Col2Ave (5 peaks):			1069.7 RPD = 114*
	Corrected Ave (4 peaks):				162.9		Corrected Ave (4 peaks):			654.4 RPD = 120*
Aroclor-1268	1	13.541	-0.041	1379005	254.4	1	13.931	0.002	8239977	1013.1

Aroclor-1268 2	13.642	-0.003	671276	133.4	2	14.014	0.036	2200734	276.3
Aroclor-1268 3	13.941	-0.027	36037	8.4	3	14.328	0.004	305765	47.3
Aroclor-1268 4	14.616	0.044	324344	24.9	4	14.879	-0.010	2328004	117.0

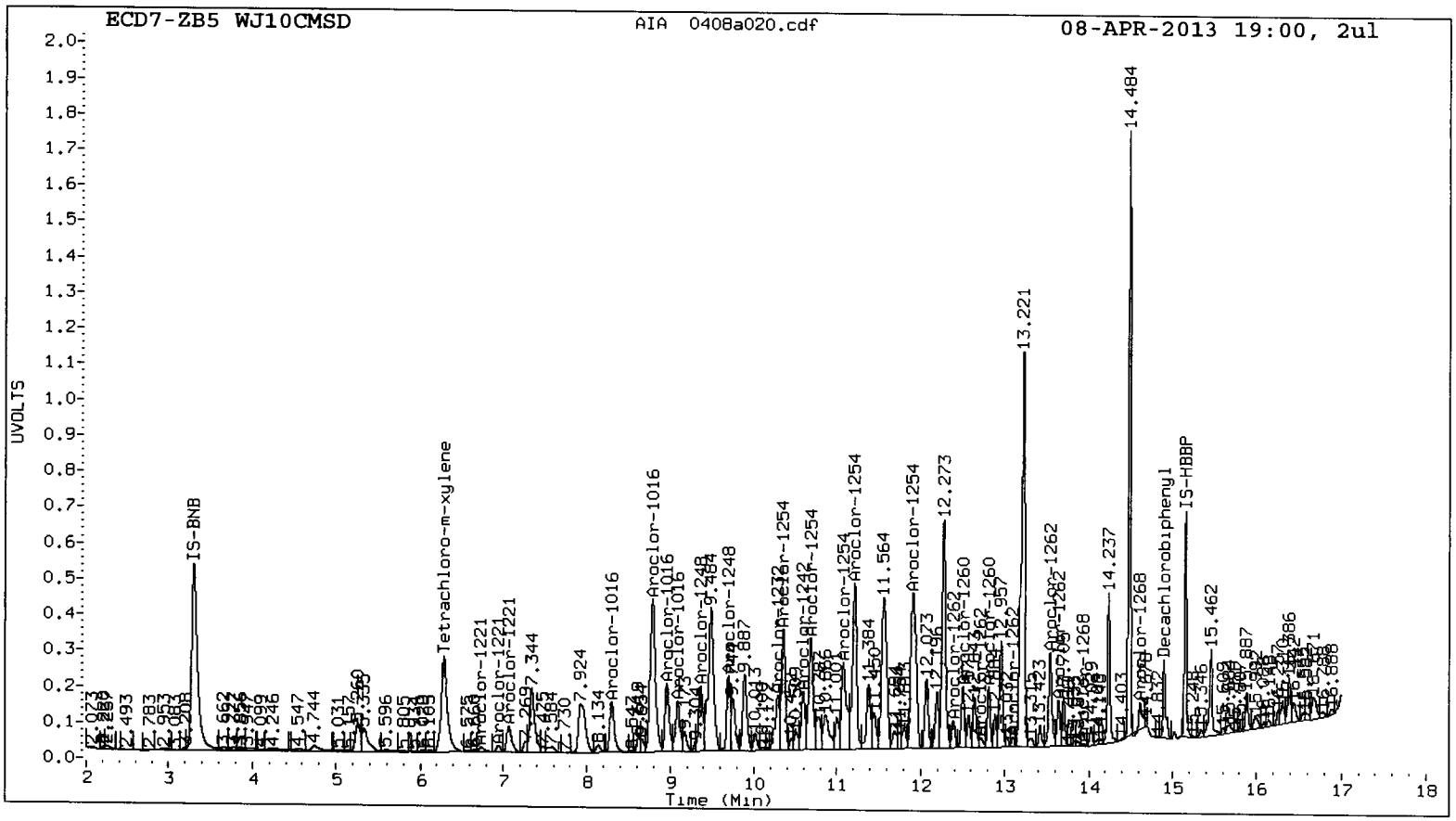
Total Col1Ave (4 peaks): 105.3 Total Col2Ave (4 peaks): 363.4 RPD = 110*

Corrected Ave (3 peaks): 55.6 Corrected Ave (3 peaks): 146.9 RPD = 90*

Total PCB Area Col1 (6.363 - 14.764) = 77513145 Col1 Total PCB = 1.9 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 111986585 Col2 Total PCB = 1.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical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Aroclor-1248
Aroclor-1254
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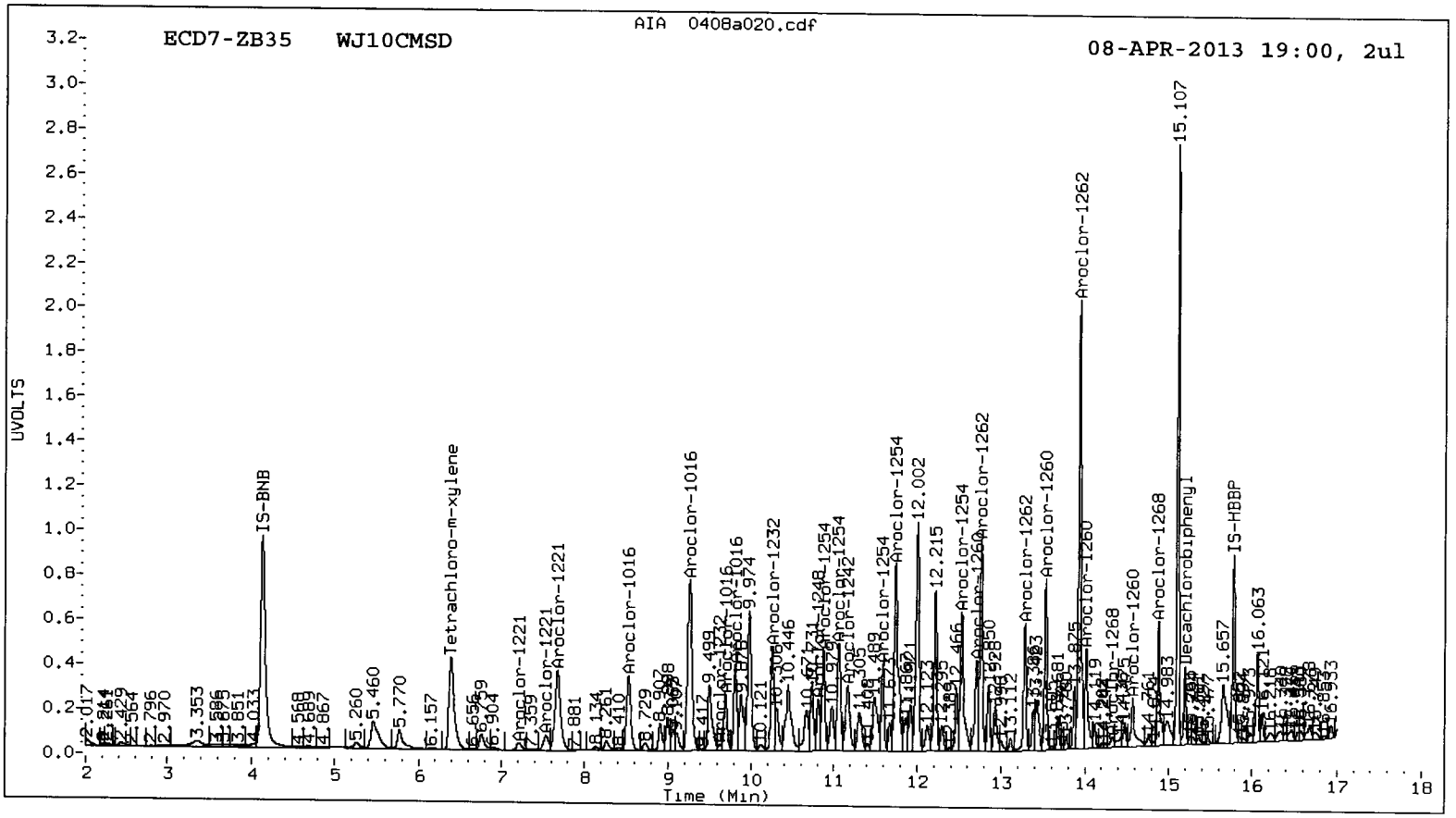
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Aroclor-1248
Aroclor-1254
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Decachlorobiphenyl
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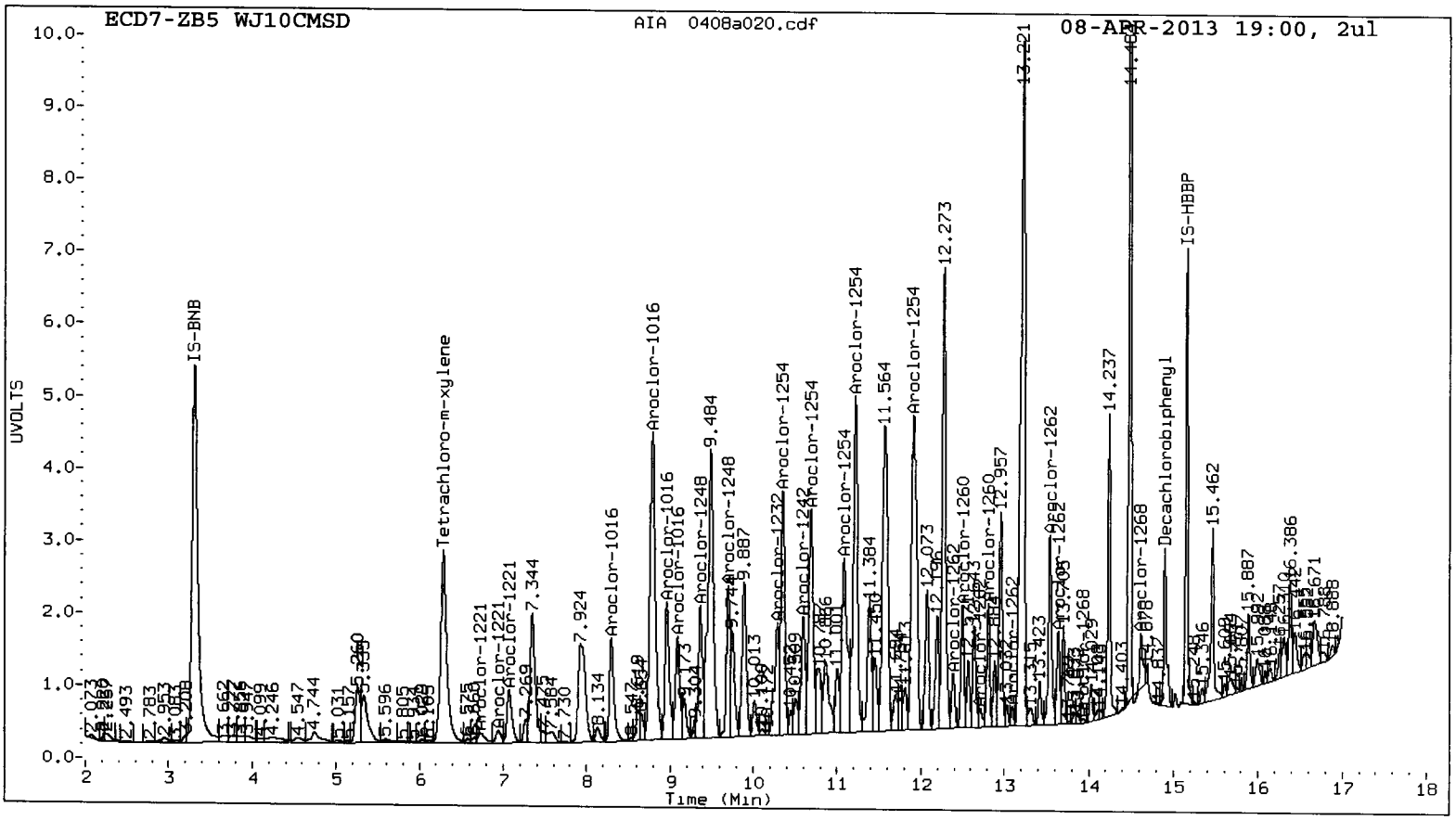
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Time (Min)
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Tetrachloro-m-xylene
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Aroclor-1221
Aroclor-1232
Aroclor-1242
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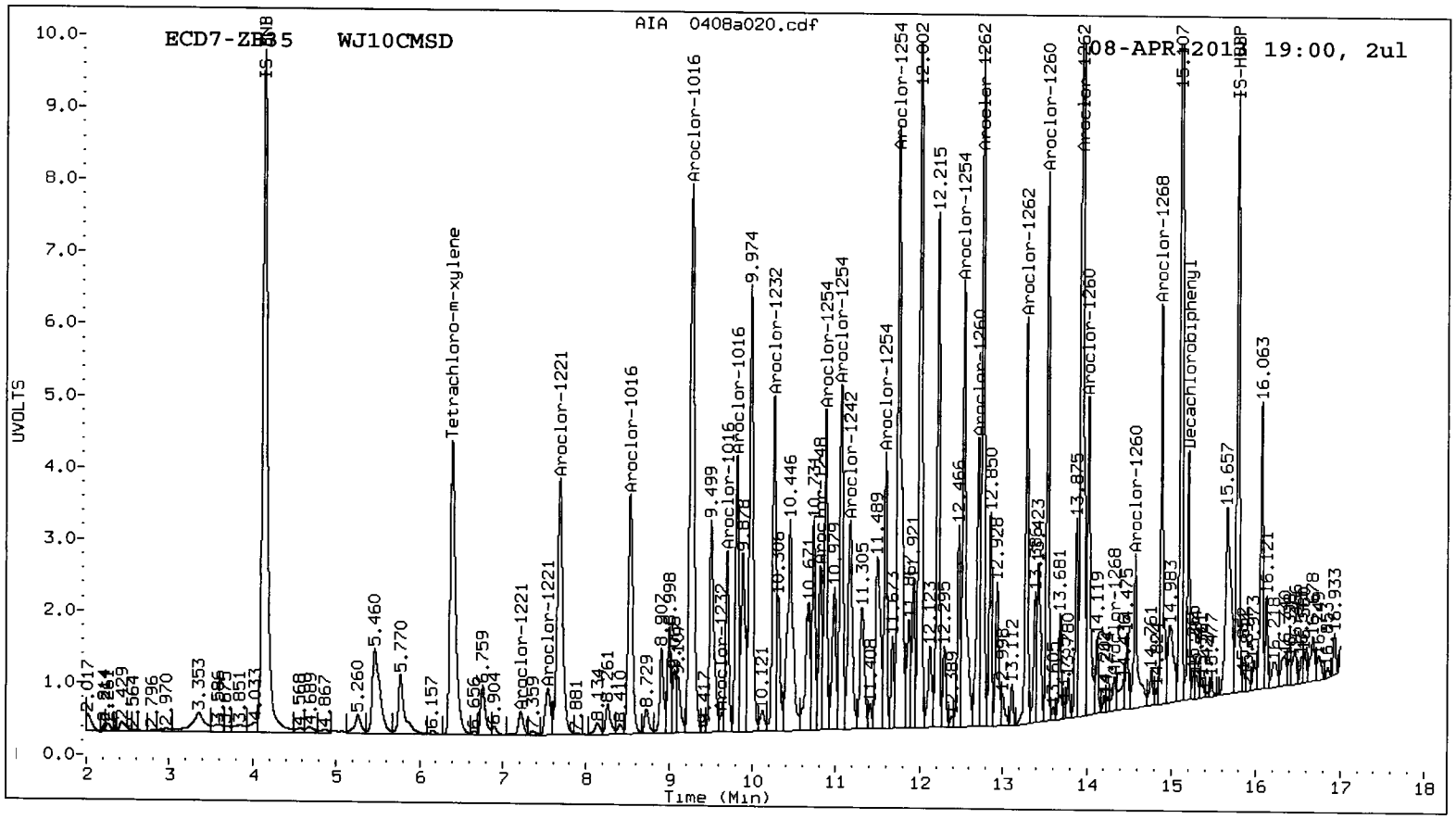
Decachlorobiphenyl
IS-HBBP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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a021.d
Data file 2: 20130226.B/0408-2.b/0408a021.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WJ10D
Client ID:
Injection Date: 08-APR-2013 19:20
Report Date: 04/09/2013 11:48
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.272	0.005	2310767	6.375	0.005	3775606	36.7	36.6	0.4	Tetrachloro-m-xylene
14.868	0.004	1429190	15.177	0.002	1959452	31.6	26.2	18.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	91.9	91.5
Decachlorobiphenyl	79.0	65.5

04/09/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4806219	-7.3
Hexabromobiphenyl	4555826	2701536	-40.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	7481567	-10.3
Hexabromobiphenyl	6489385	4462157	-31.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1016	1	8.282	0.004	514786	337.7	1	8.507	0.004	1162723	279.6
Aroclor-1016	2	8.771	0.000	2109159	414.9	2	9.240	-0.002	3174783	372.8
Aroclor-1016	3	8.944	-0.001	796931	390.1	3	9.667	-0.001	883076	418.9
Aroclor-1016	4	9.072	-0.002	649899	465.3	4	9.778	0.002	1168794	466.3
Total Col1Ave (4 peaks):					402.0	Total Col2Ave (4 peaks):				384.4 RPD = 4
Corrected Ave (3 peaks):					380.9	Corrected Ave (3 peaks):				357.1 RPD = 6
Aroclor-1221	1	6.723	0.004	70535	113.3	1	7.206	0.021	162112	137.9
Aroclor-1221	2	6.930	-0.001	82317	177.9	2	7.528	0.045	647246	896.3
Aroclor-1221	3	7.057	0.002	265796	168.5	3	7.649	0.028	843822	390.5
Aroclor-1221	NS	---			----	4	8.507	0.013	1162723	1486.4
Total Col1Ave (3 peaks):					153.2	Total Col2Ave (4 peaks):				727.8 RPD = 130*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				474.9
Aroclor-1232	1	8.282	0.004	514786	832.0	1	8.507	0.013	1162723	634.2
Aroclor-1232	2	8.771	0.000	2109159	1039.6	2	9.240	0.009	3174783	914.2
Aroclor-1232	3	8.944	-0.001	796931	965.1	3	9.667	0.008	883076	966.5
Aroclor-1232	4	10.319	0.000	1404426	1458.6	4	10.224	0.008	1730595	1395.5
Total Col1Ave (4 peaks):					1073.8	Total Col2Ave (4 peaks):				977.6 RPD = 9
Corrected Ave (3 peaks):					945.6	Corrected Ave (3 peaks):				838.3 RPD = 12
Aroclor-1242	1	8.282	0.005	514786	433.4	1	8.507	0.006	1162723	372.2
Aroclor-1242	2	8.771	0.003	2109159	533.2	2	9.240	-0.001	3174783	491.2
Aroclor-1242	3	8.944	0.001	796931	503.7	3	9.667	-0.001	883076	518.9
Aroclor-1242	4	10.564	-0.001	971877	719.7	4	11.129	-0.005	2034301	774.5
Total Col1Ave (4 peaks):					547.5	Total Col2Ave (4 peaks):				539.2 RPD = 2
Corrected Ave (3 peaks):					490.1	Corrected Ave (3 peaks):				460.8 RPD = 6
Aroclor-1248	1	9.343	0.002	650786	404.2	1	9.778	0.002	1168794	390.4
Aroclor-1248	2	9.673	0.001	818002	417.7	2	10.224	0.004	1730595	538.9
Aroclor-1248	3	10.319	0.001	1404426	455.4	3	10.773	-0.002	1602418	490.6
Aroclor-1248	4	10.564	-0.001	971877	446.5	4	11.129	-0.005	2034301	467.1
Total Col1Ave (4 peaks):					431.0	Total Col2Ave (4 peaks):				471.8 RPD = 9
Corrected Ave (3 peaks):					422.8	Corrected Ave (3 peaks):				449.4 RPD = 6
Aroclor-1254	1	10.319	-0.005	1404426	633.6	1	10.840	0.002	1345392	459.4
Aroclor-1254	2	10.648	0.002	1229968	396.8	2	11.013	0.003	1525791	417.9
Aroclor-1254	3	11.034	0.004	1115505	597.7	3	11.547	0.001	1278497	462.9
Aroclor-1254	4	11.170	0.001	1899142	497.6	4	11.699	0.002	3146406	514.5
Aroclor-1254	5	11.889	0.003	1535464	654.8	5	12.482	-0.004	2494108	730.5
Total Col1Ave (5 peaks):					556.1	Total Col2Ave (5 peaks):				517.0 RPD = 7
Corrected Ave (4 peaks):					531.4	Corrected Ave (4 peaks):				463.7 RPD = 14
Aroclor-1260	1	11.832	0.004	1070031	379.2	1	12.709	0.002	3014014	582.1
Aroclor-1260	2	12.437	0.005	688273	367.8	2	13.487	0.003	1832511	222.2
Aroclor-1260	3	12.752	0.005	471555	250.1	3	13.984	0.003	1530324	270.7
Aroclor-1260	4	13.487	0.004	799174	332.4	4	14.541	0.002	1439928	694.9
Aroclor-1260	5	13.587	0.005	936921	973.6	NS	---			----
Total Col1Ave (5 peaks):					460.6	Total Col2Ave (4 peaks):				442.5 RPD = 4
Corrected Ave (4 peaks):					332.4	Corrected Ave (3 peaks):				358.3 RPD = 8
Aroclor-1262	1	12.437	0.005	688273	223.5	1	12.801	0.006	921915	182.8
Aroclor-1262	2	12.752	0.004	471555	211.2	2	13.245	0.004	1771229	408.3
Aroclor-1262	3	13.158	0.047	7690087	1262.3	3	13.487	0.005	1832511	190.9
Aroclor-1262	4	13.587	0.005	936921	453.9	4	13.900	-0.028	10563928	2840.1
Aroclor-1262	5	13.650	0.003	778587	350.6	5	13.984	0.005	1530324	250.3
Total Col1Ave (5 peaks):					500.3	Total Col2Ave (5 peaks):				774.5 RPD = 43*
Corrected Ave (4 peaks):					309.8	Corrected Ave (4 peaks):				258.1 RPD = 18
Aroclor-1268	1	13.587	0.005	936921	140.8	1	13.900	-0.028	10563928	1053.6

337.4 2603 04/09/13

WJ10:02229

Aroclor-1268	2	13.650	0.006	778587	126.0	2	13.984	0.005	1530324	155.8
Aroclor-1268	3	13.982	0.013	177898	34.0	3	14.300	-0.024	363775	45.7
Aroclor-1268	4	14.577	0.005	349643	21.9	4	14.857	-0.032	2855935	116.5

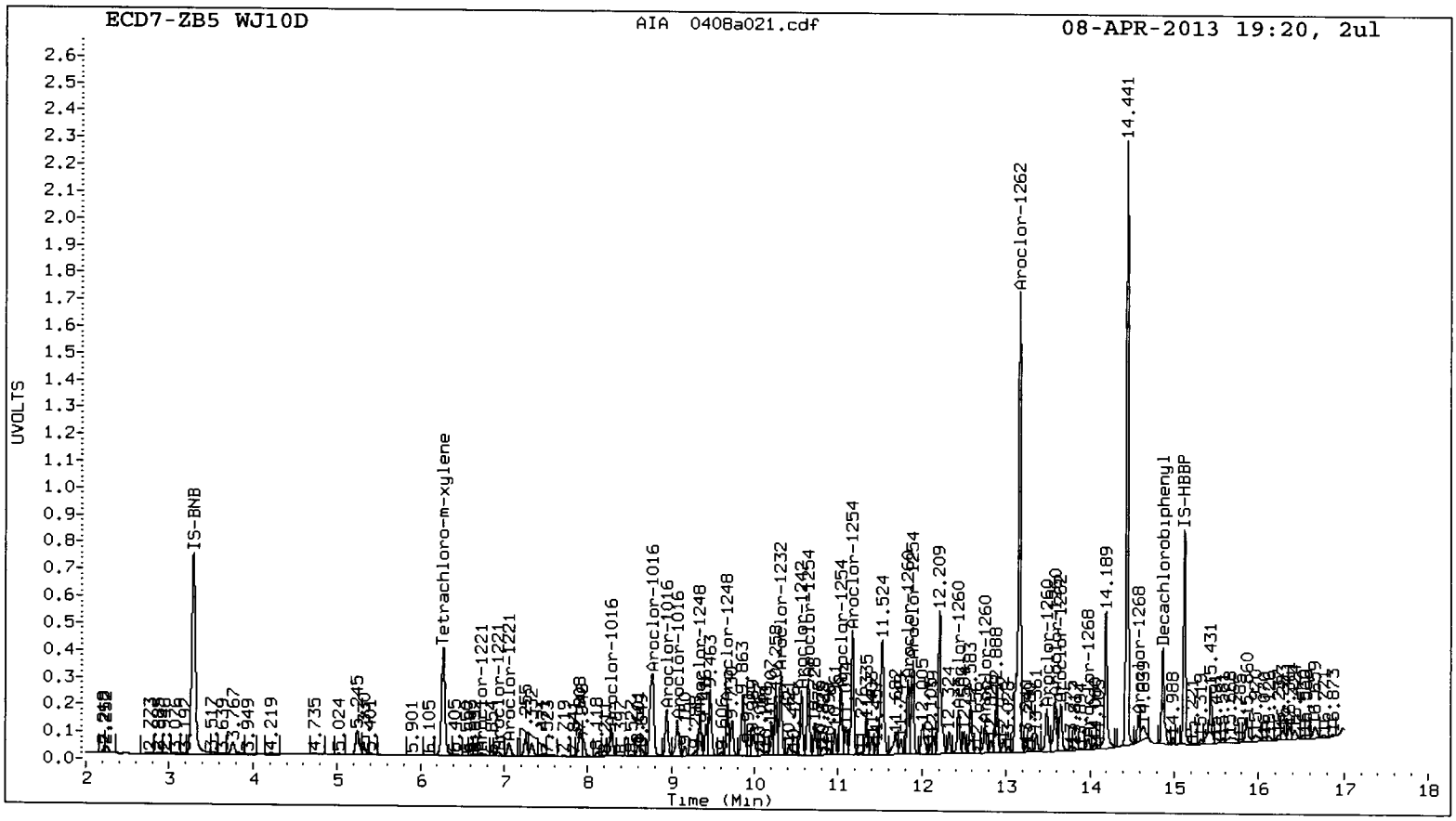
Total Col1Ave (4 peaks): 80.7 Total Col2Ave (4 peaks): 342.9 RPD = 124*

Corrected Ave (3 peaks): 60.6 Corrected Ave (3 peaks): 106.0 RPD = 54*

Total PCB Area Col1 (6.367 - 14.763) = 58372708 Col1 Total PCB = 1.5 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 78204671 Col2 Total PCB = 1.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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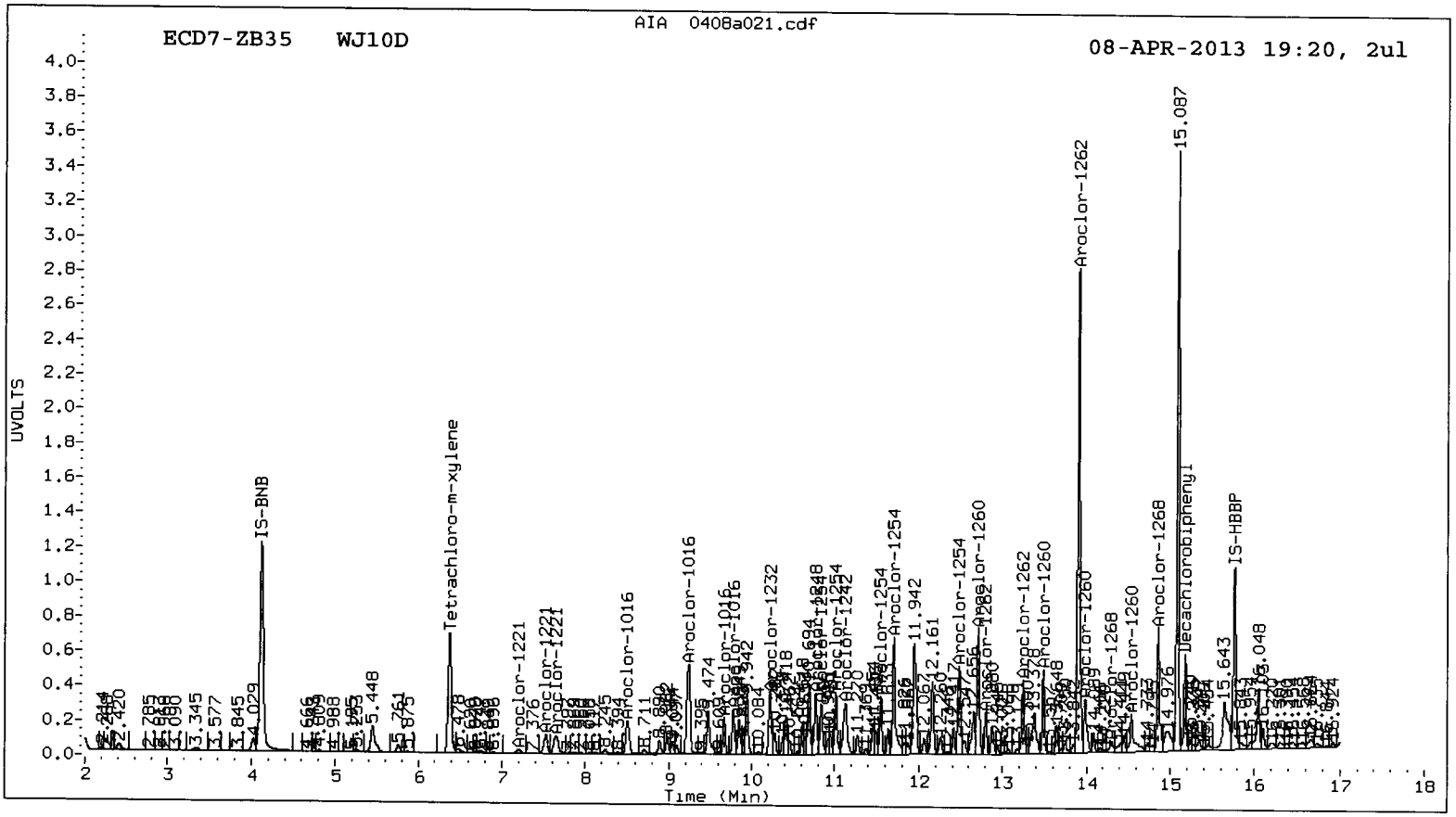
Decachlorobiphenyl
IS-HBBP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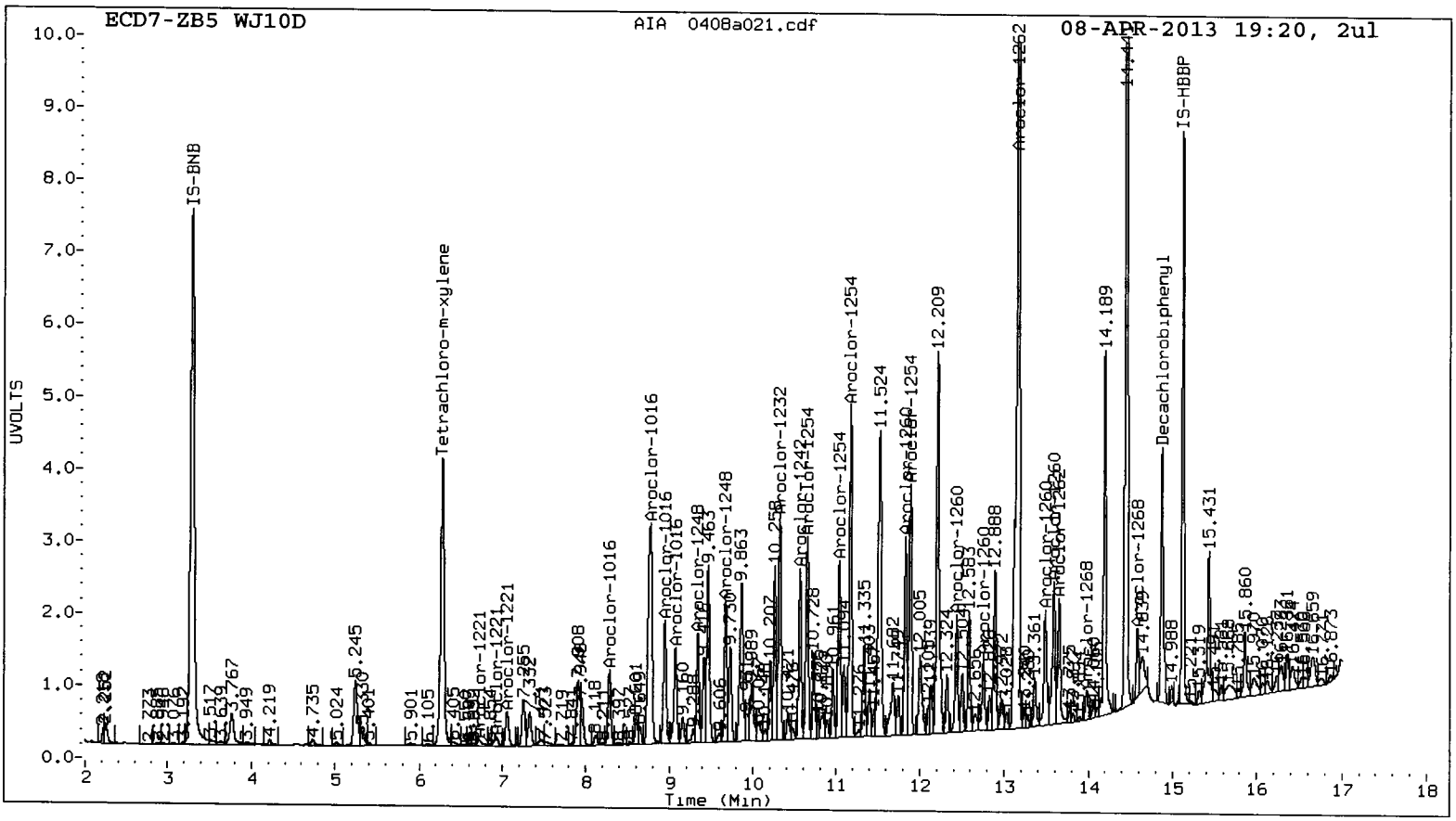
Decachlorobiphenyl
IS-HBBP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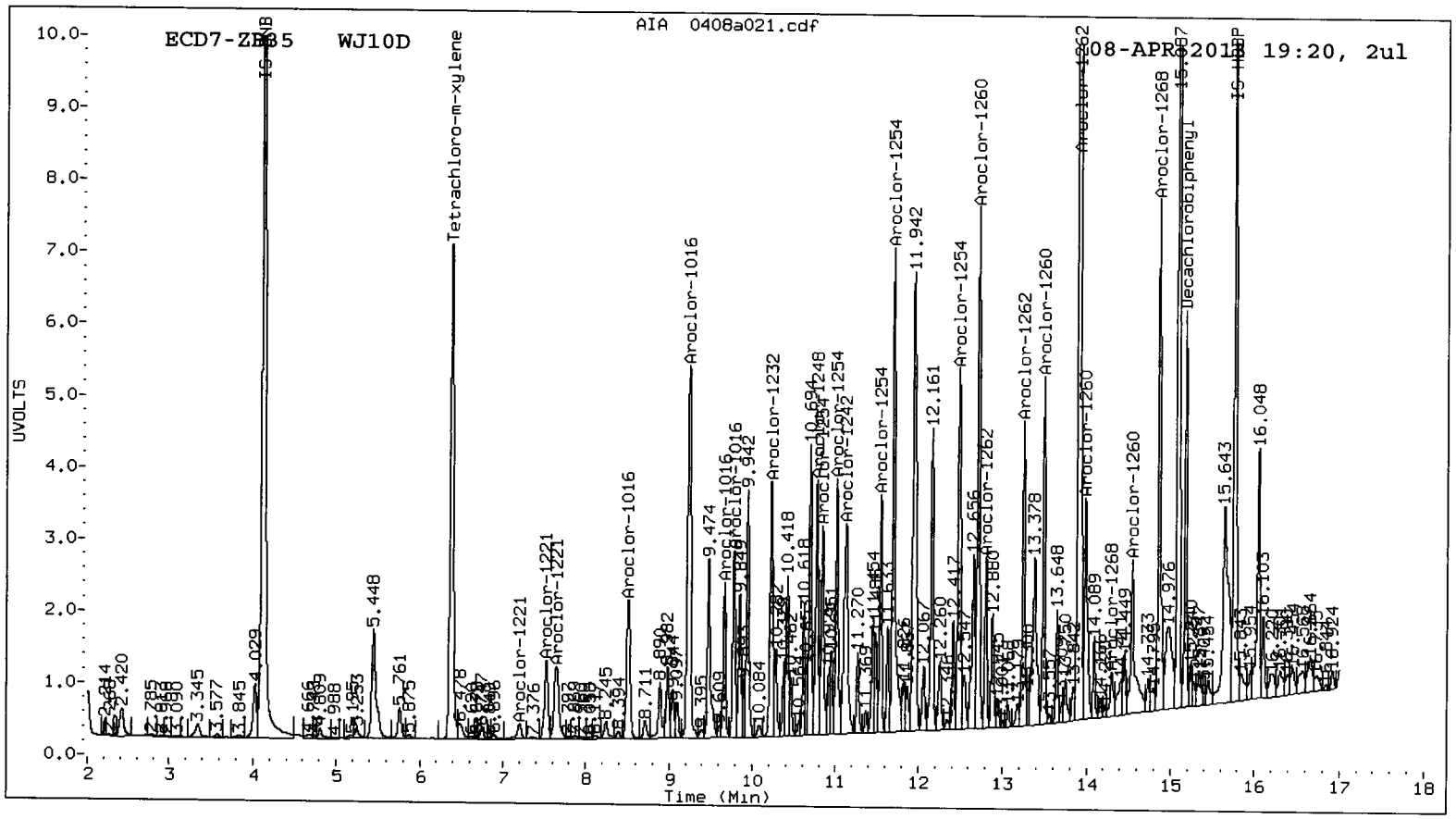
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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a029.d
Data file 2: 20130226.B/0408-2.b/0408a029.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 08-APR-2013 22:02
Report Date: 04/09/2013 11:48
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.267	0.000	1248151	6.372	0.001	2264094	19.5	19.7	0.7	Tetrachloro-m-xylene
14.864	0.001	811087	15.174	-0.001	1190708	18.8	19.0	1.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.8	49.2
Decachlorobiphenyl	47.0	47.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4882640	-5.8
Hexabromobiphenyl	4555826	2576337	-43.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8352024	0.1
Hexabromobiphenyl	6489385	3728274	-42.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1254	1	10.324	0.000	527060	234.1	1	10.838	0.000	723875	221.4
Aroclor-1254	2	10.646	0.000	736569	233.9	2	11.010	0.000	906703	222.5
Aroclor-1254	3	11.030	0.000	442334	233.3	3	11.546	0.000	654394	212.2
Aroclor-1254	4	11.169	0.000	879954	226.9	4	11.697	0.000	1493739	218.8
Aroclor-1254	5	11.886	0.000	541472	227.3	5	12.485	0.000	813749	213.5

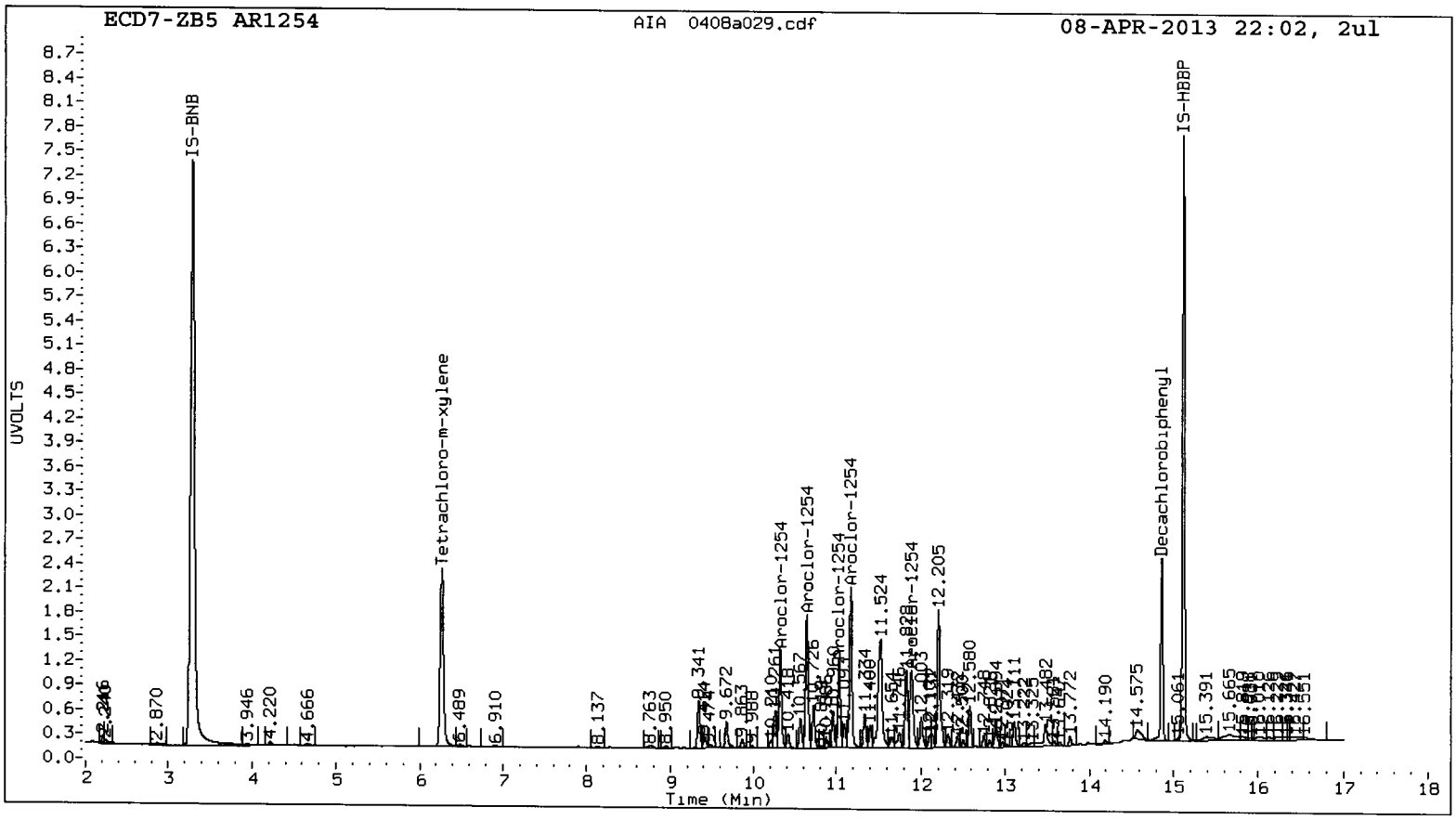
Total Col1Ave (5 peaks): 231.1 Total Col2Ave (5 peaks): 217.7 RPD = 6

Corrected Ave (4 peaks): 230.4 Corrected Ave (4 peaks): 216.5 RPD = 6

Total PCB Area Col1 (6.367 - 14.763) = 8988610 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 15086779 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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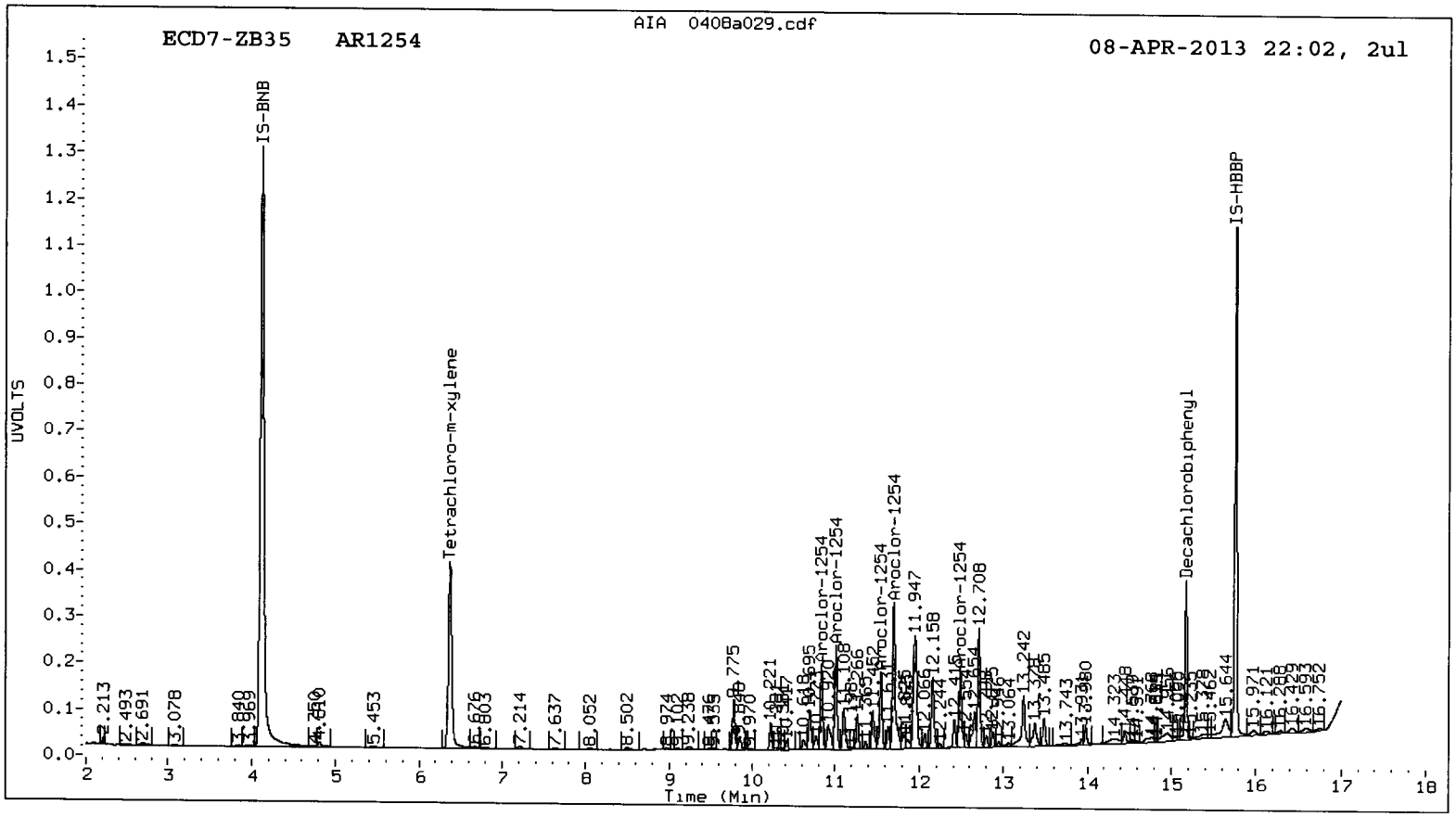
IS-HBBP
Decachlorobiphenyl
UVOLTS
Time (Min)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IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
IS-HBBP
Decachlorobiphenyl
UVOLTS
Time (Min)

WHS-9228

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130226.B/0408-1.b/0408a030.d
Data file 2: 20130226.B/0408-2.b/0408a030.d
Method: /chem2/ecd7.i/20130226.B/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 08-APR-2013 22:22
Report Date: 04/09/2013 11:48
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
6.267	0.000	1207654	6.370	0.000	2163379	19.2	19.1	1.0	Tetrachloro-m-xylene
14.863	0.000	758415	15.175	0.000	1178961	17.5	18.9	7.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	48.1	47.6
Decachlorobiphenyl	43.8	47.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5184838	4797833	-7.5
Hexabromobiphenyl	4555826	2588294	-43.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	8343053	8237129	-1.3
Hexabromobiphenyl	6489385	3713194	-42.8

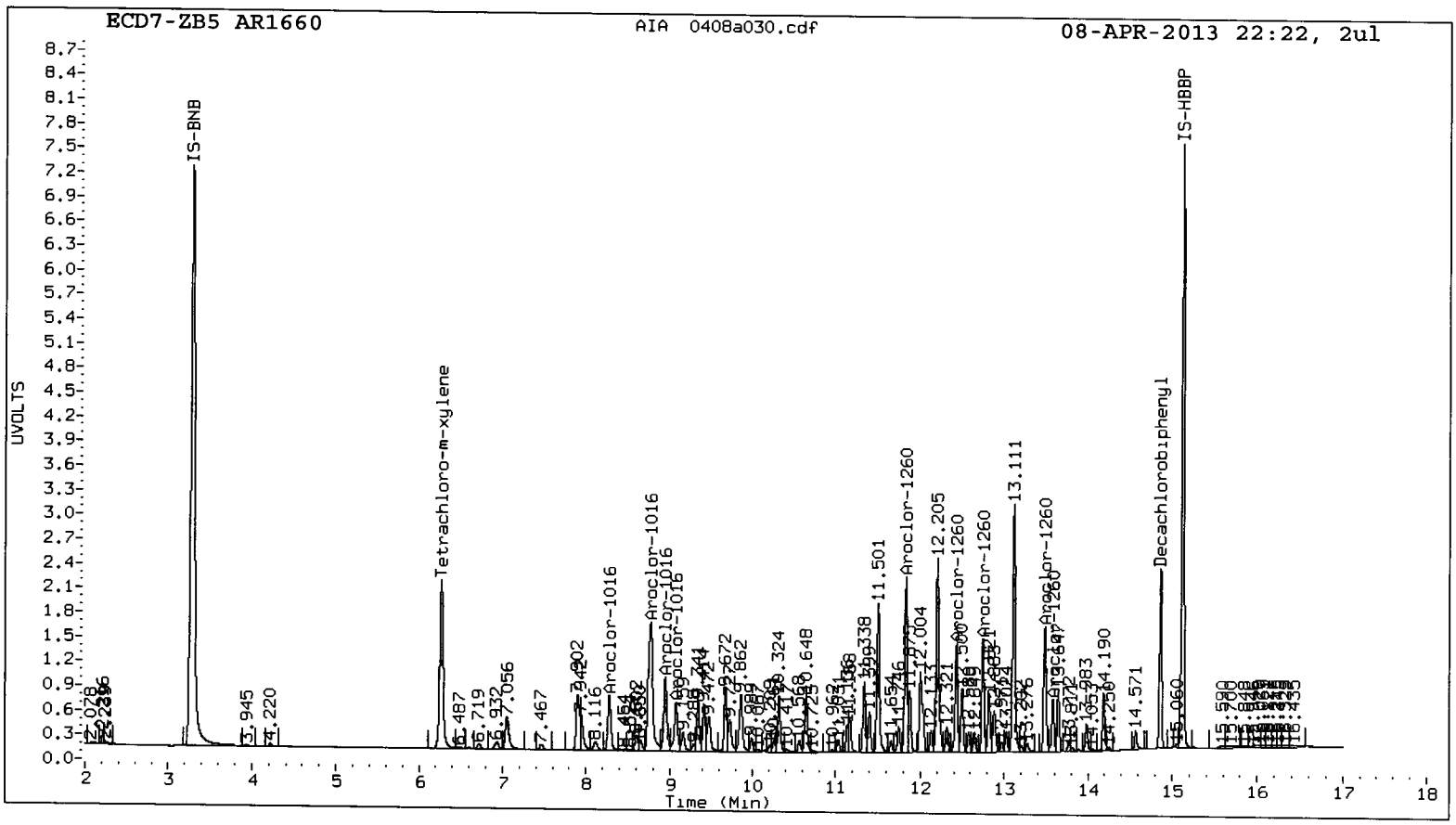
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 26-FEB-2013
<- Indicates standard response outside Limits (-50 to +100%)

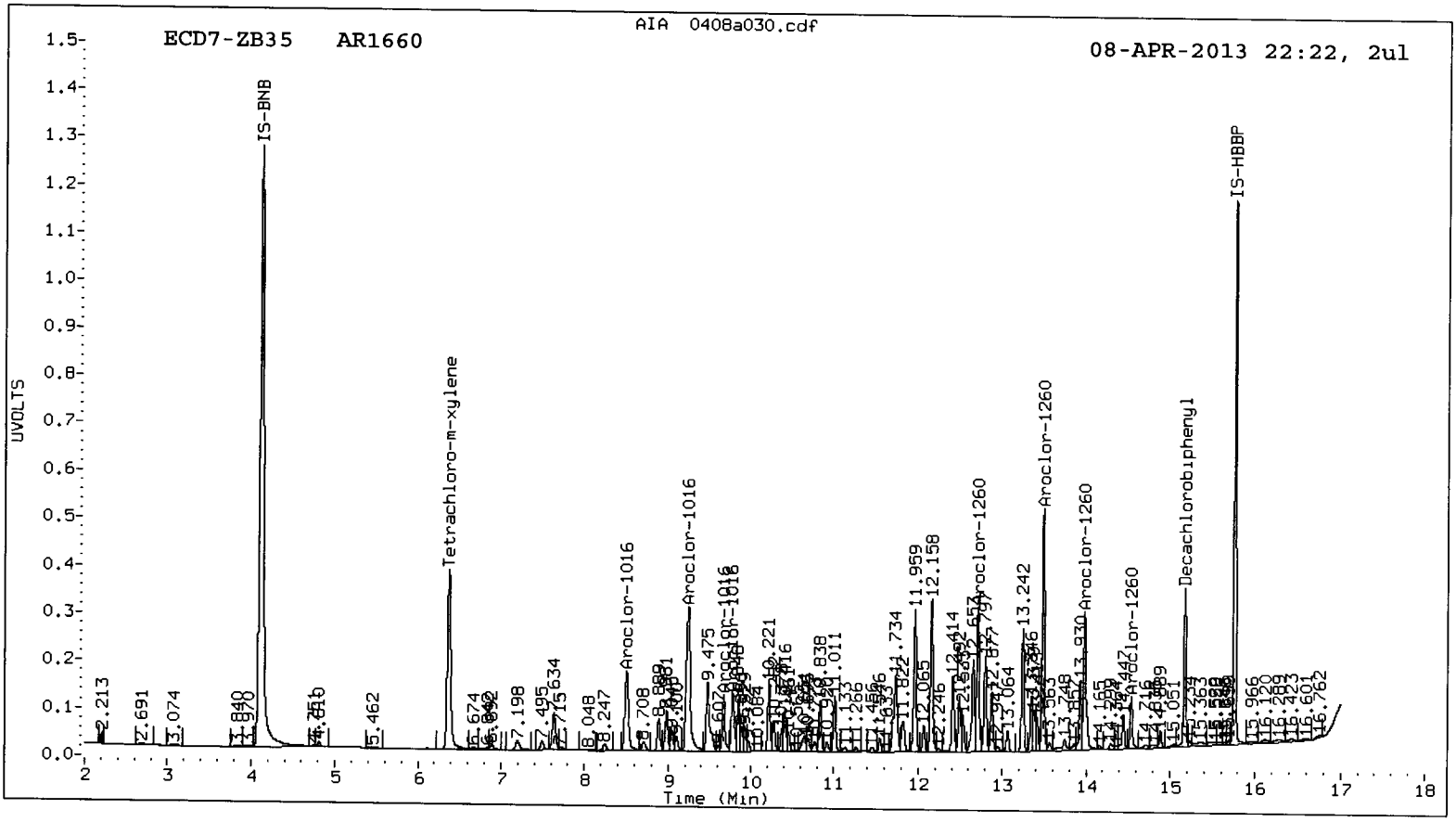
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	8.278	0.000	361000	237.2	1	8.504	0.000	1033895	225.8
Aroclor-1016	2	8.771	0.000	1217041	239.8	2	9.242	0.000	2145280	228.8
Aroclor-1016	3	8.944	0.000	483245	236.9	3	9.668	0.000	541554	233.3
Aroclor-1016	4	9.073	0.000	334094	239.6	4	9.776	0.000	618939	224.3
Total Col1Ave (4 peaks):					238.4	Total Col2Ave (4 peaks):				228.1 RPD = 4
Corrected Ave (3 peaks):					237.9	Corrected Ave (3 peaks):				226.3 RPD = 5
Aroclor-1260	1	11.828	0.000	859610	318.0	1	12.707	0.000	1277949	296.6
Aroclor-1260	2	12.432	0.000	562358	313.6	2	13.484	0.000	1947037	283.7
Aroclor-1260	3	12.747	0.000	558344	309.1	3	13.981	0.000	1308569	278.2
Aroclor-1260	4	13.483	0.000	664048	288.3	4	14.540	0.000	415801	241.2
Aroclor-1260	5	13.582	0.000	259505	281.5	NS	---			----
Total Col1Ave (5 peaks):					302.1	Total Col2Ave (4 peaks):				274.9 RPD = 9
Corrected Ave (4 peaks):					298.1	Corrected Ave (3 peaks):				267.7 RPD = 11

Total PCB Area Col1 (6.367 - 14.763) = 17013896 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (6.470 - 15.075) = 28286799 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD7-ZB5 AR1660
AIA 0408a030.cdf
08-APR-2013 22:22, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


ECD7-ZB35 AR1660
AIA 0408a030.cdf
08-APR-2013 22:22, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

TPHD Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

Miscellaneous
Water/Soil/Sed/Tissue/Other Solids
Separatory Funnel (3510C)/Liq-Liq (3520C)
Sonication (3550C)/Microwave (3546)
TissueMize (Modified 3550C)

Parameter TPHD

Preparation Test Misc # 1
ARI Job No(s) WJ10

Batch set up by: SP

Bottle #	ARI Sample I.D.	Verify Client ID	Weight ~~Or Volume~~ Extracted	Sonic Horn ID + Chk	KD	Turbo Vap 1 2 3	Clean-Up Y / N	Clean-Up Y / N	Clean-Up Y / N	KD	Turbo Vap 1 2 3	Final Effective Volume	Volume to Lab	Comments
	WJ10 MB	YL Date 04/01/13	10.00g								1	10mL	1mL	
	SB		10.00g								↓	↓	↓	
	~~SB Dup.~~													
	~~QLS~~													
3	WJ10C		10.04											
6	D		10.04											
6	DMS		10.05											
6	DMSD	✓	10.03								↓	↓	↓	
														SP 4/2/13
											SP 4/2/13	SP 4/2/13	SP 4/2/13	

Analyst/Date: YL 04/01/13

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
HC 10 Surrogate	P(2031-4)	200 µL	10/20/13	YL	WW
Spike		µL			
TPHD Spike	11(2028-3)	1,000 µL	10/16/13	YL	WW
Spike		µL			
QLS Spike		µL			

Extraction Time: 12:05 **Balance ID:** 3M42614 **Liq/Liq Start:** **Liq/Liq Stop:**

SPECIAL INSTRUCTIONS:

3057F

Revision 06
12/23/10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: TPHD A/S Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☒ Standing Water Decanted (Not shared)= C, D	YL 3/28/13
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☒ Organics (Leaves/sticks/grass)= S: 6/0 D.	YL 3/28/13
☒ Oily, obvious fuel/sulfur odors= C, D	YL 3/28/13
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions). Extracted	
(Centrifuge#1 used for all Centrifugations) Samples to a 1ML Final Volume,	
based on Sample pre-screens	JH 4/01/13

3056F

Revision 009
08/14/12

WJ10:02241

TPHD Raw Data
Initial Calibration

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 01/24/13 Internal Standard ID N/A Expiration N/A

Endrin/DDT Breakdown <15%? YES / NO / NA		ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
RT	2043-4	10/20/13	Diesel/AK102	2043-1	10/20/13
IB	2043-3	10/20/13	mai	2043-2	11/19/13
Diesel/AK102	2021-3	04/09/13			
mai	2041-4	11/27/13			

Detail problems, corrective actions and/or other pertinent information below:
high points for o-terph/n-triac have RT's >0.05 min allowance. shifts could be due to saturation (o-terph shift +0.057 min n-triac. shif + 0.085 min) samples/qc not spike at that level. ok to report as is. sklmmed surr 01/25/13

Analyst: _____ **Date:** 01/25/13

Reviewer: BMB **Date:** 1/25/13

Analytical Resources Inc.: Organics Instrument Log

FID-9 Agilent 6850 - Serial No.: US10404004

Date: 01/24/13 Analysis: NWTPHd Analyst: JL

GC Program: TPH Column No: 0774464 Column Type: RTX-1

Instrument Tune (.U or .CT.): N/A EM Voltage: N/A

Calibration File: N/A Curve Date: 01/24/13

IS/SS	Ical/Ccal	LCS/ICV
	2043-3,4	2043-1,2
	2021-3	
	2011-4	

	Inject Date/Time	Filename	DF	LabID
1	24-JAN-2013 09:21	0124A001.D	1	RINSE1
2	24-JAN-2013 09:39	0124A002.D	1	RINSE2
3	24-JAN-2013 09:58	0124A003.D	1	RT
4	24-JAN-2013 12:35	0124A004.D	1	RINSE1
5	24-JAN-2013 13:01	0124A005.D	1	RINSE2
6	24-JAN-2013 13:26	0124A006.D	1	RT
7	24-JAN-2013 14:43	0124A007.D	1	RINSE1
8	24-JAN-2013 15:05	0124A008.D	1	RINSE2
9	24-JAN-2013 15:28	0124A009.D	1	RT
10	24-JAN-2013 16:20	0124A010.D	1	RINSE
11	24-JAN-2013 16:43	0124A011.D	1	RINSE
12	24-JAN-2013 17:05	0124A012.D	1	RT
13	24-JAN-2013 17:27	0124A013.D	1	IB
14	24-JAN-2013 17:50	0124A014.D	1	50PPMDIESEL
15	24-JAN-2013 18:12	0124A015.D	1	100PPMDIESEL
16	24-JAN-2013 18:34	0124A016.D	1	250PPMDIESEL
17	24-JAN-2013 18:56	0124A017.D	1	500PPMDIESEL
18	24-JAN-2013 19:18	0124A018.D	1	1000PPMDIESEL
19	24-JAN-2013 19:40	0124A019.D	1	2500PPMDIESEL
20	24-JAN-2013 20:02	0124A020.D	1	DIESELICV
21	24-JAN-2013 20:24	0124A021.D	1	100PPMOIL
22	24-JAN-2013 20:46	0124A022.D	1	250PPMOIL
23	24-JAN-2013 21:07	0124A023.D	1	500PPMOIL
24	24-JAN-2013 21:29	0124A024.D	1	1000PPMOIL
25	24-JAN-2013 21:51	0124A025.D	1	2500PPMOIL
26	24-JAN-2013 22:13	0124A026.D	1	5000PPMOIL
27	24-JAN-2013 22:35	0124A027.D	1	MOILICV
28	24-JAN-2013 22:56	0124A028.D	1	GDHCIDW
29	24-JAN-2013 23:18	0124A029.D	1	MHCIDW
30	24-JAN-2013 23:40	0124A030.D	1	WA74MBW1
31	25-JAN-2013 00:02	0124A031.D	1	WA74B
32	25-JAN-2013 00:24	0124A032.D	10	WA74B
33	25-JAN-2013 00:46	0124A033.D	1	GDHCIDS
34	25-JAN-2013 01:07	0124A034.D	1	MHCIDS
35	25-JAN-2013 01:29	0124A035.D	1	WA74MB1
36	25-JAN-2013 01:51	0124A036.D	1	WA74A

Maintenance / Comments JL JL 01/29/13

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

WJ10:02244

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client:

SDG No.: 20130124 Project:

Instrument ID: FID9 GC Column: RTX-1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 5.79 TRIAC: 8.59

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01		RT	01/24/13	1705	5.79	8.59
02		IB	01/24/13	1727	5.78	8.59
03		50PPMDIESEL	01/24/13	1750	5.77	8.60
04		100PPMDIESEL	01/24/13	1812	5.78	8.60
05		250PPMDIESEL	01/24/13	1834	5.79	8.60
06		500PPMDIESEL	01/24/13	1856	5.80	8.59
07		1000PPMDIESE	01/24/13	1918	5.81	8.59
08		2500PPMDIESE	01/24/13	1940	5.84*	8.60
09		DIESELICV	01/24/13	2002	5.79	8.59
10		100PPMMOIL	01/24/13	2024	5.79	8.58
11		250PPMMOIL	01/24/13	2046	5.79	8.59
12		500PPMMOIL	01/24/13	2107	5.79	8.59
13		1000PPMMOIL	01/24/13	2129	5.79	8.61
14		2500PPMMOIL	01/24/13	2151	5.79	8.63
15		5000PPMMOIL	01/24/13	2213	5.79	8.68*
16		MOILICV	01/24/13	2235	5.79	8.59

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid9.i/20130124.b/ftphfid9a.m
Batch File: /chem2/fid9.i/20130124.b
Inst ID: fid9.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0124A014	0124A015	0124A016	0124A017	0124A018	0124A019
INJ.DATE:	24-JAN-2013	24-JAN-2013	24-JAN-2013	24-JAN-2013	24-JAN-2013	24-JAN-2013
INJ.TIME:	17:50	18:12	18:34	18:56	19:18	19:40

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	Toluene	1.026	1.037	1.035	1.055	1.074	1.038	1.036	0.936-1.136	1.044	0.018
37	JET-A	1.341	1.339	1.337	1.318	1.324	1.347	1.343	1.293-1.393	1.334	0.011
2	C8	1.250	1.260	1.255	1.266	1.240	1.235	1.260	1.160-1.360	1.251	0.012
3	C10	2.938	2.938	2.936	2.940	2.941	2.950	2.943	2.893-2.993	2.940	0.005
4	C12	3.849	3.849	3.848	3.850	3.851	3.856	3.853	3.803-3.903	3.850	0.003
5	C14	4.516	4.517	4.517	4.520	4.523	4.530	4.521	4.471-4.571	4.520	0.005
6	C16	5.089	5.090	5.091	5.094	5.098	5.088	5.095	5.045-5.145	5.091	0.004
7	C18	5.635	5.635	5.638	5.642	5.647	5.635	5.643	5.593-5.693	5.639	0.005
$ 8	o-terph	5.774	5.778	5.786	5.796	5.810	5.842	5.785	5.735-5.835	5.798	0.025
9	C20	6.187	6.189	6.189	6.188	6.194	6.208	6.193	6.143-6.243	6.192	0.008
10	C22	6.728	6.729	6.747	6.728	6.733	6.736	6.738	6.688-6.788	6.733	0.007
11	C24	7.244	7.242	7.241	7.241	7.243	7.245	7.249	7.199-7.299	7.243	0.002
12	C25	7.502	7.487	7.485	7.486	7.487	7.490	7.496	7.446-7.546	7.489	0.006
13	C26	7.749	7.742	7.747	7.757	7.724	7.727	7.744	7.694-7.794	7.741	0.013
14	C28	8.175	8.173	8.192	8.190	8.173	8.176	8.182	8.132-8.232	8.180	0.009
$ 15	Triacon Surr	8.596	8.599	8.600	8.595	8.593	8.597	8.594	8.544-8.644	8.596	0.002
16	C32	8.958	8.958	8.963	8.964	8.959	8.963	8.948	8.898-8.998	8.961	0.003

Reviewer 1 _____ Date: 11/25/13
Reviewer 2 _____ Date: 11/25/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid9.i/20130124.b/ftphfid9a.m
Batch File: /chem2/fid9.i/20130124.b
Inst ID: fid9.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
17 C34	9.281	9.281	9.284	9.283	9.282	9.292	9.282	9.232-9.332	9.284	0.004
18 Filter Peak	11.431	11.433	11.427	11.430	11.427	11.429	11.429	11.329-11.529	11.430	0.002
19 C36	9.580	9.605	9.578	9.602	9.606	9.577	9.593	9.543-9.643	9.591	0.014
20 C38	9.886	9.883	9.885	9.882	9.885	9.887	9.885	9.835-9.935	9.885	0.002
21 C40	10.166	10.162	10.162	10.161	10.159	10.164	10.162	10.112-10.212	10.162	0.002
31 NW Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.513	0.463-0.563	+++++	+++++
32 OR Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.690	0.640-0.740	+++++	+++++
33 AK Dies 102	+++++	+++++	+++++	+++++	+++++	+++++	0.660	0.610-0.710	+++++	+++++
30 NW MOil	+++++	+++++	+++++	1.011	+++++	1.021	1.011	0.961-1.061	1.016	0.007
34 OR MOil	1.072	1.060	1.076	1.044	1.064	1.073	1.049	0.999-1.099	1.065	0.012
35 AK MOil 103	+++++	+++++	+++++	+++++	+++++	+++++	0.658	0.608-0.708	+++++	+++++
38 Bunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.705	0.655-0.755	+++++	+++++
39 Creosote	+++++	+++++	+++++	+++++	+++++	+++++	0.550	0.500-0.600	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid9.i/20130124.b/ftphfid9a.m
Batch File: /chem2/fid9.i/20130124.b
Inst ID: fid9.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0124A021	0124A022	0124A023	0124A024	0124A025	0124A026
INJ.DATE:	24-JAN-2013	24-JAN-2013	24-JAN-2013	24-JAN-2013	24-JAN-2013	24-JAN-2013
INJ.TIME:	20:24	20:46	21:07	21:29	21:51	22:13

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	Toluene	1.102	+++++	+++++	1.002	+++++	1.024	1.036	0.936-1.136	1.043	0.052
37	JET-A	1.342	1.337	1.344	1.337	1.342	1.345	1.343	1.293-1.393	1.341	0.003
2	C8	1.247	1.260	1.248	1.263	1.267	1.256	1.260	1.160-1.360	1.257	0.008
3	C10	2.938	2.950	2.939	2.934	2.936	2.938	2.943	2.893-2.993	2.939	0.006
4	C12	3.848	3.848	3.858	3.864	3.849	3.850	3.853	3.803-3.903	3.853	0.007
5	C14	4.514	4.526	4.517	4.518	4.518	4.518	4.521	4.471-4.571	4.519	0.004
6	C16	5.092	5.091	5.089	5.092	5.092	5.092	5.095	5.045-5.145	5.091	0.001
7	C18	5.653	5.652	5.652	5.635	5.636	5.637	5.643	5.593-5.693	5.644	0.009
$ 8	o-terph	5.791	5.792	5.788	5.789	5.793	5.793	5.785	5.735-5.835	5.791	0.002
9	C20	6.189	6.192	6.186	6.189	6.193	6.190	6.193	6.143-6.243	6.190	0.002
10	C22	6.738	6.743	6.743	6.739	6.739	6.736	6.738	6.688-6.788	6.740	0.003
11	C24	7.255	7.247	7.248	7.250	7.250	7.253	7.249	7.199-7.299	7.251	0.003
12	C25	7.499	7.498	7.495	7.496	7.496	7.492	7.496	7.446-7.546	7.496	0.002
13	C26	7.748	7.743	7.744	7.747	7.740	7.742	7.744	7.694-7.794	7.744	0.003
14	C28	8.183	8.180	8.186	8.181	8.182	8.180	8.182	8.132-8.232	8.182	0.002
$ 15	Triacon Surr	8.579	8.587	8.591	8.609	8.635	8.582	8.594	8.544-8.644	8.597	0.021
16	C32	8.939	8.941	8.952	8.953	8.948	8.948	8.948	8.898-8.998	8.947	0.006

Reviewer 1 _____ Date: 01/25/13
Reviewer 2 _____ Date: 1/25/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid9.i/20130124.b/ftphfid9a.m
Batch File: /chem2/fid9.i/20130124.b
Inst ID: fid9.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
17 C34	9.275	9.289	9.286	9.282	9.283	9.282	9.282	9.232-9.332	9.283	0.005
18 Filter Peak	11.431	11.429	11.428	11.430	11.427	11.429	11.429	11.329-11.529	11.429	0.002
19 C36	9.597	9.586	9.595	9.588	9.601	9.591	9.593	9.543-9.643	9.593	0.006
20 C38	9.884	9.886	9.881	9.884	9.889	9.882	9.885	9.835-9.935	9.884	0.003
21 C40	10.151	10.162	10.162	10.162	10.165	10.157	10.162	10.112-10.212	10.160	0.005
31 NW Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.513	0.463-0.563	+++++	+++++
32 OR Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.690	0.640-0.740	+++++	+++++
33 AK Dies 102	+++++	+++++	+++++	+++++	+++++	+++++	0.660	0.610-0.710	+++++	+++++
30 NW MOil	+++++	1.021	1.019	1.006	1.015	+++++	1.011	0.961-1.061	1.015	0.007
34 OR MOil	1.070	1.066	1.071	1.067	1.072	1.076	1.049	0.999-1.099	1.071	0.004
35 AK MOil 103	+++++	+++++	+++++	+++++	+++++	+++++	0.658	0.608-0.708	+++++	+++++
38 Bunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.705	0.655-0.755	+++++	+++++
39 Creosote	+++++	+++++	+++++	+++++	+++++	+++++	0.550	0.500-0.600	+++++	+++++

6a

NW MOTOR OIL RANGE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20130124

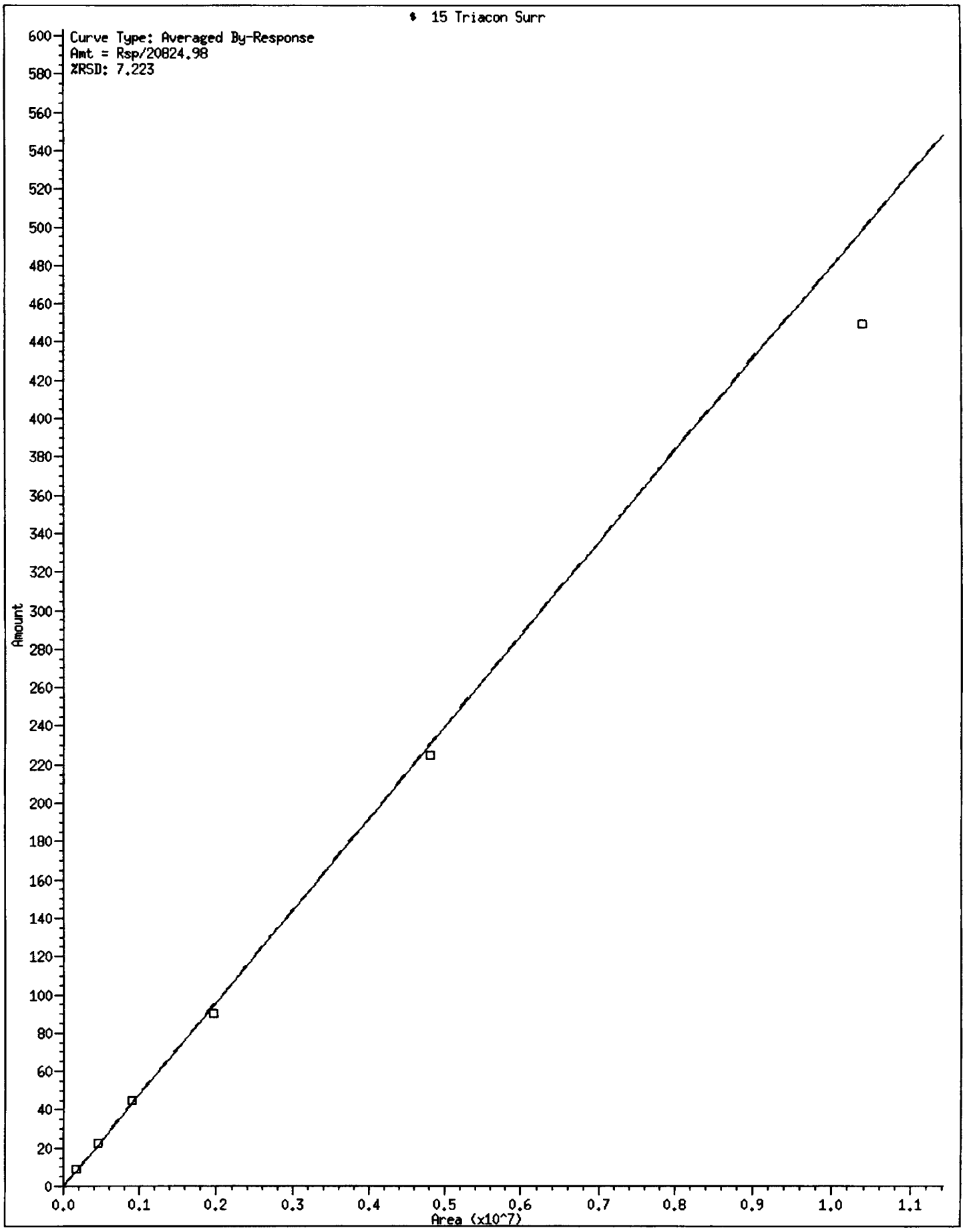
Instrument: FID9.I Project:

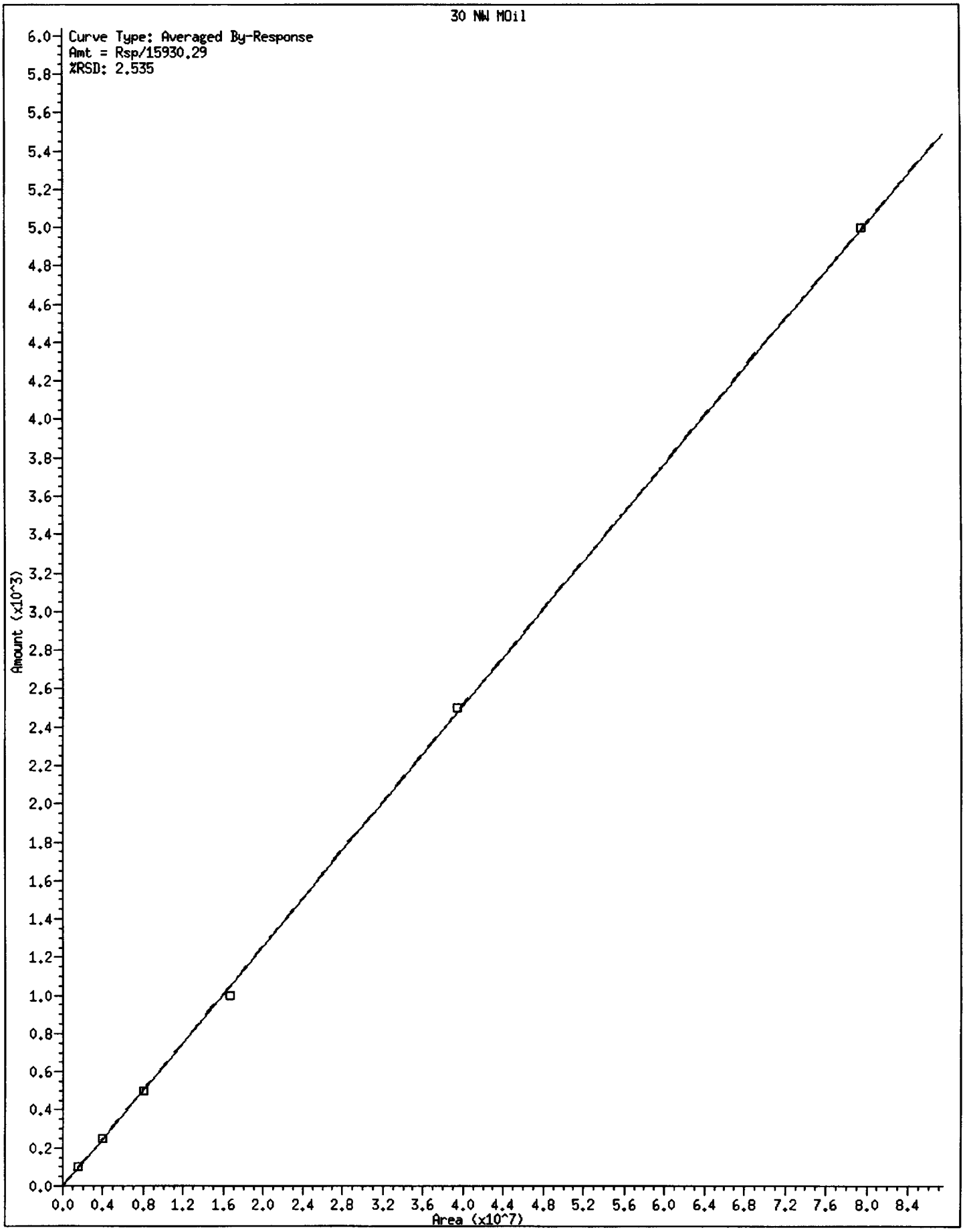
Calibration Date: 24-JAN-2013 SDG No.: 20130124

Product Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil C24-C38	15475	15868	15883	16689	15771	15895	15930	2.5
Triac Surr	19048	19715	19998	21798	21319	23072	20825	7.2

<- Indicates %RSD outside limits
Surrogate areas are not included in Motor Oil RF calculation.

Calibration Files	Analysis Time
0124A021.D	24-JAN-2013 20:24
0124A022.D	24-JAN-2013 20:46
0124A023.D	24-JAN-2013 21:07
0124A024.D	24-JAN-2013 21:29
0124A025.D	24-JAN-2013 21:51
0124A026.D	24-JAN-2013 22:13


$ 15 Triacon Surr
Curve Type: Averaged By-Response
Amt = Rsp/20824.98
%RSD: 7.223
Amount
Area (x10^7)
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
460
480
500
520
540
560
580
600
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1


30 NW MOil
Curve Type: Averaged By-Response
Amt = Rsp/15930.29
%RSD: 2.535
Amount (x10^3)
Area (x10^7)
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 5.0 5.2 5.4 5.6 6.0
0.0 0.4 0.8 1.2 1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4

6a
DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20130124

Instrument: FID9.I Project:

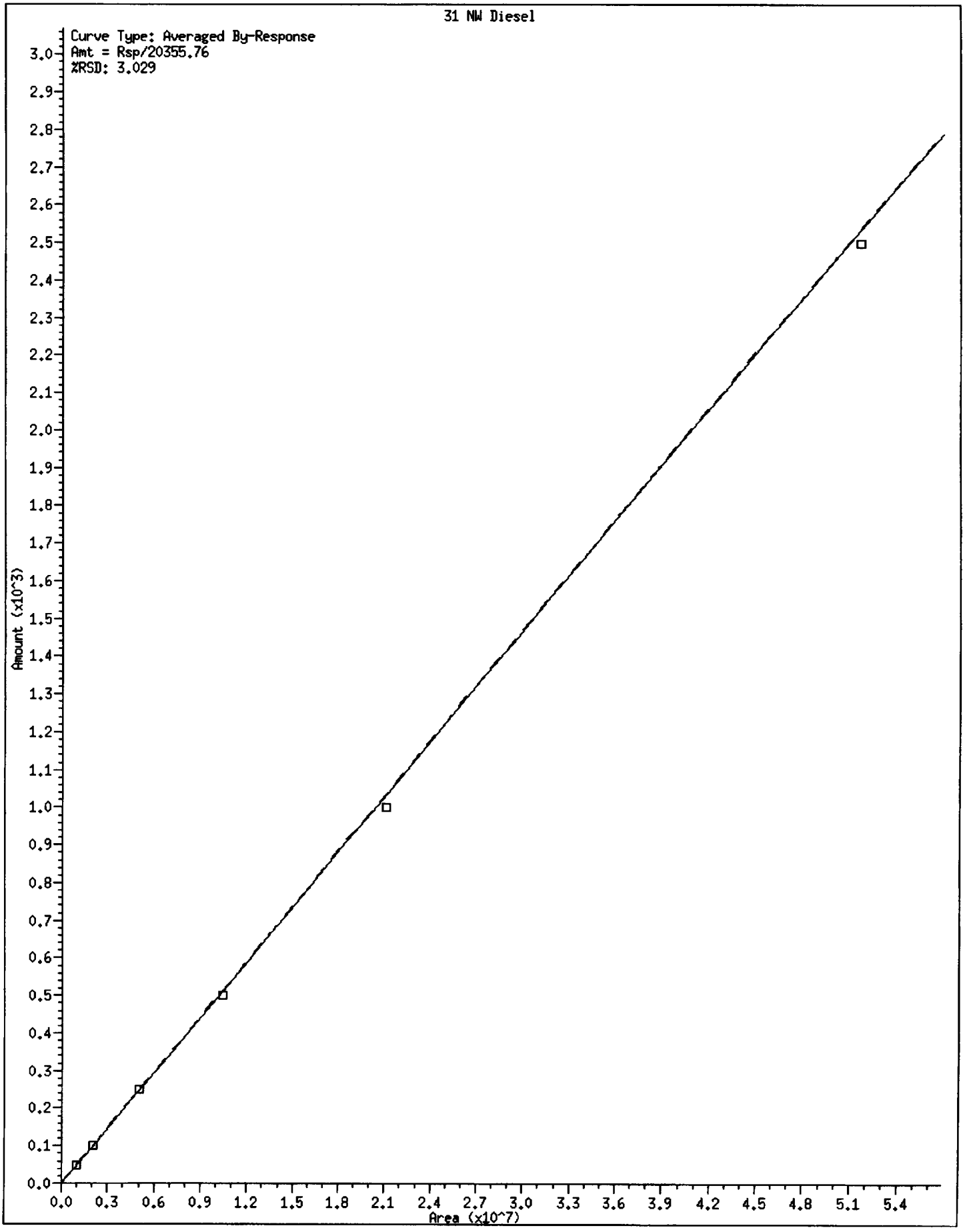
Calibration Date: 24-JAN-2013 SDG No.: 20130124

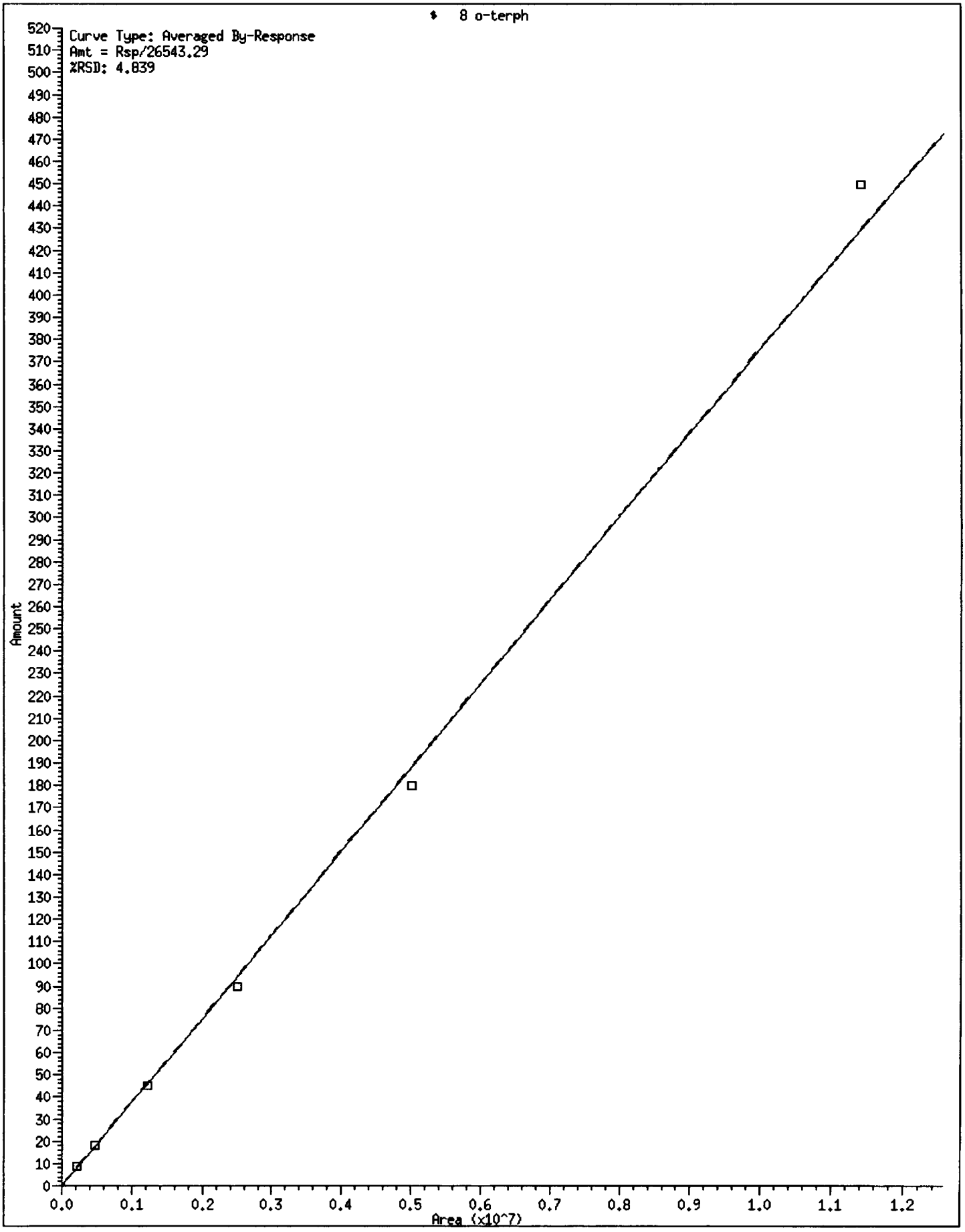
Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	19285	20316	20102	20764	21013	20655	20356	3.0
AK Diesel	23158	24066	23642	24376	24729	24101	24012	2.3
OR Diesel	23250	24156	23739	24477	24832	24216	24112	2.3
Cal Diesel	23098	24004	23585	24311	24660	24037	23949	2.3
o-Terph	24647	26731	27001	27788	27741	25351	26543	4.8

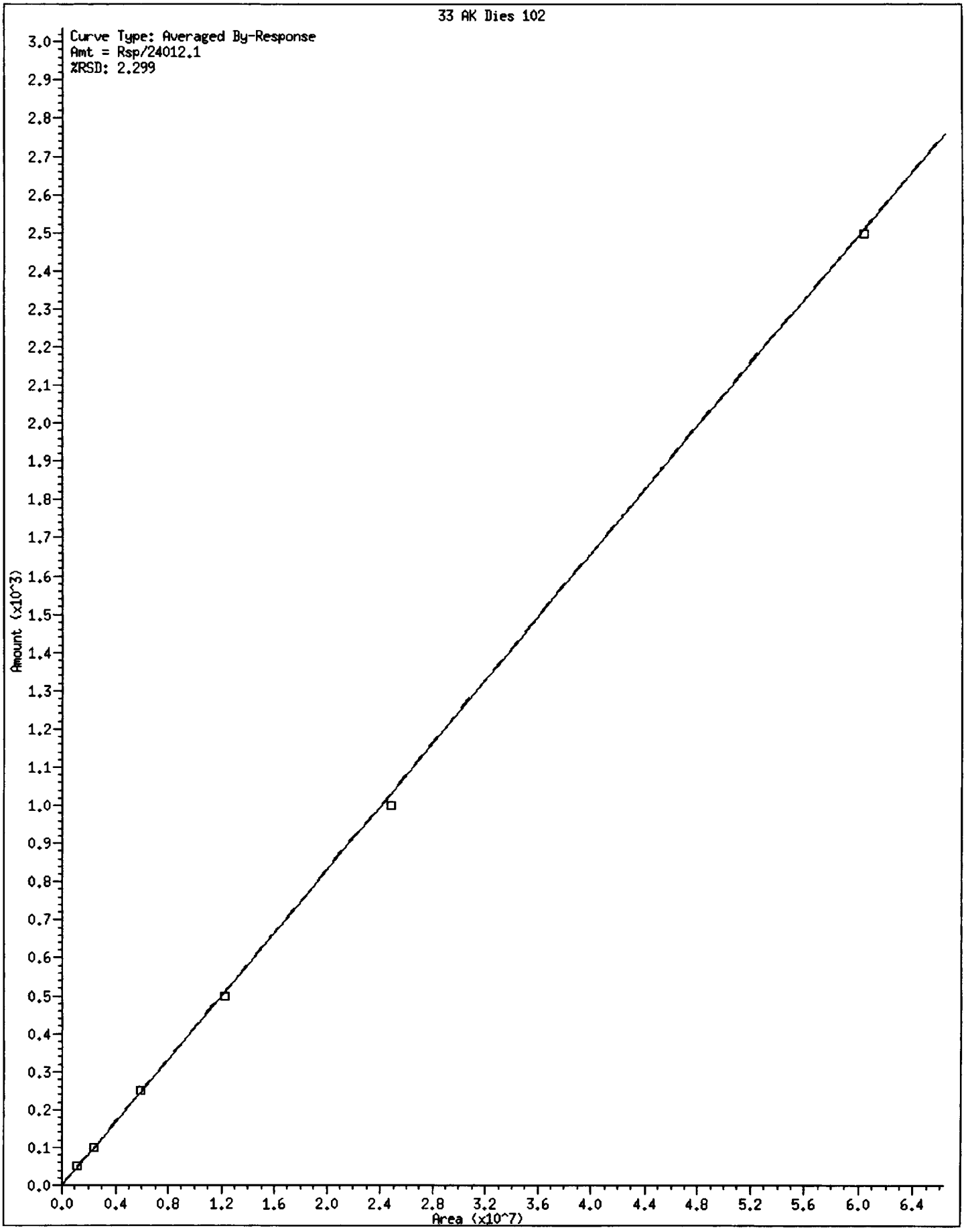
<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (3.853-7.249)
AK Diesel C10-C25 (2.943-7.496)
OR Diesel C10-C28 (2.943-8.182)
Cal Diesel C10-C24 (2.943-7.249)

Calibration Files	Analysis Time
0124A014.D	24-JAN-2013 17:50
0124A015.D	24-JAN-2013 18:12
0124A016.D	24-JAN-2013 18:34
0124A017.D	24-JAN-2013 18:56
0124A018.D	24-JAN-2013 19:18
0124A019.D	24-JAN-2013 19:40


31 NW Diesel
Curve Type: Averaged By-Response
Amt = Rsp/20355.76
%RSD: 3.029
Amount (x10^3)
Area (x10^7)
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0


8 o-terph
Curve Type: Averaged By-Response
Amt = Rsp/26543.29
%RSD: 4.839
Amount
Area (x10^7)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2

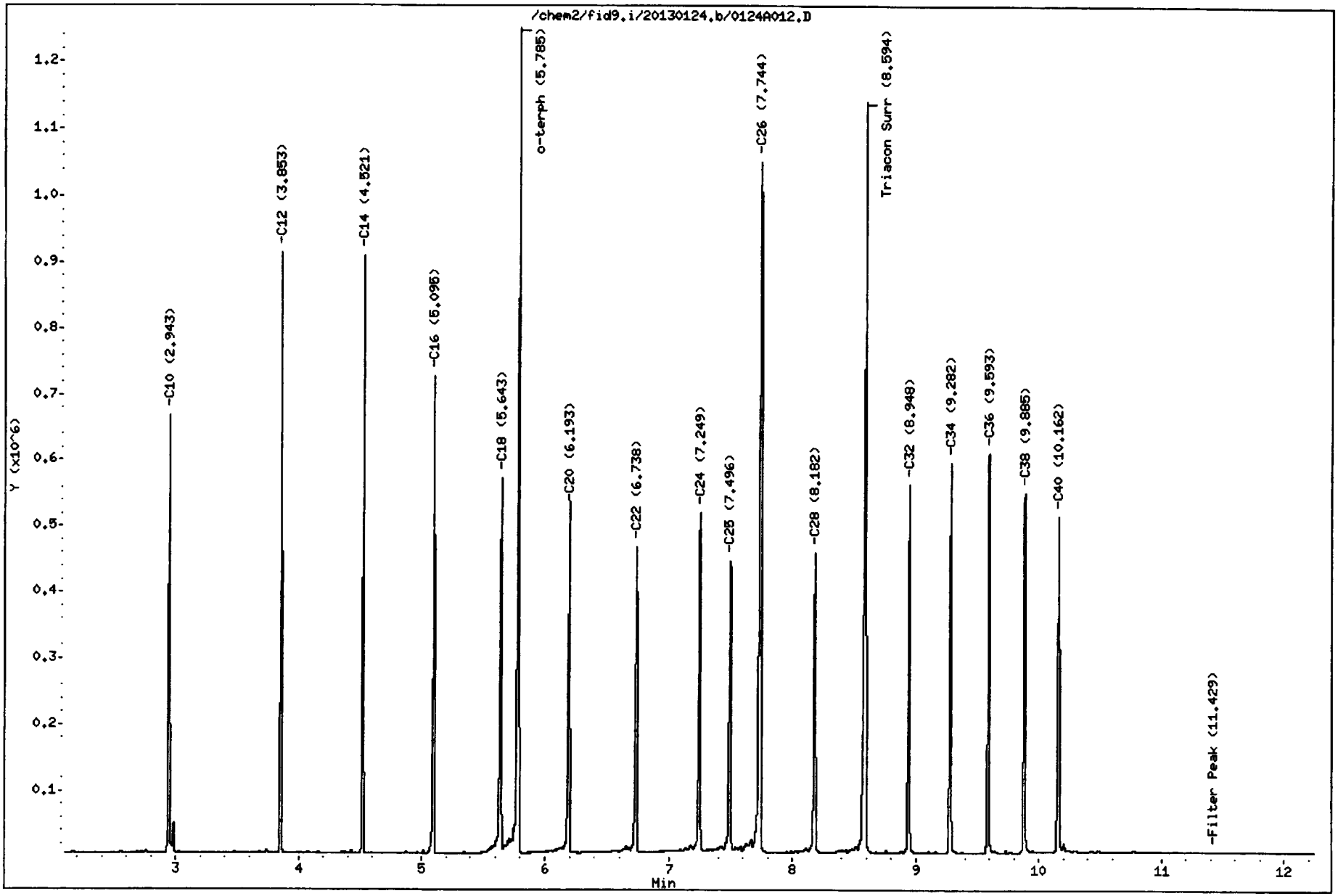

33 AK Dies 102
Curve Type: Averaged By-Response
Amt = Rsp/24012.1
%RSD: 2.299
Amount (x10^3)
Area (x10^7)
0.0
0.4
0.8
1.2
1.6
2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
0.1
0.2
0.3
0.5
0.6
0.7
0.9
1.0
1.1
1.3
1.4
1.5
1.7
1.8
1.9
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0

Data File: /chem2/fid9.i/20130124.b/0124A012.D
Date : 24-JAN-2013 17:05
Client ID:
Sample Info: RT

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS
Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A012.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: RT
Client ID:
Injection: 24-JAN-2013 17:05
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.036	0.000	460886	334252	GAS (Tol-C12)	2981045	116.60
C8	1.260	0.000	376447	534008	DIESEL (C12-C24)	3264736	160.38
C10	2.943	0.000	662763	465392	M.OIL (C24-C38)	4369834	274.31
C12	3.853	0.000	908227	499018	AK-102 (C10-C25)	4342145	180.83
C14	4.521	0.000	905323	508393	AK-103 (C25-C36)	3812857	448.67
C16	5.095	0.000	722929	512367			
C18	5.643	0.000	567954	484343			
C20	6.193	0.000	520492	439135			
C22	6.738	0.000	464439	437711			
C24	7.249	0.000	515485	416484			
C25	7.496	0.000	442424	403341			
C26	7.744	0.000	1048041	1198249			
C28	8.182	0.000	455174	415985			
C32	8.948	0.000	559901	469278	JP-4 (Tol-C14)	3505358	213.79
C34	9.282	0.000	593873	482224	BUNKERC (C10-C38)	8652739	1162.32
Filter Peak	11.429	0.000	4058	970			
C36	9.593	0.000	608657	479981			
C38	9.885	0.000	547424	466733			
C40	10.162	0.000	511475	447925			
o-terph	5.785	0.000	1245684	1070780	JET-A (C10-C18)	2625941	190.02
Triacon Surr	8.594	0.000	1135984	1174645			

M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1070780	40.3	89.6
Triacontane	1174645	56.4	125.3

1/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

Data File: /chem2/fid9.i/20130124.b/0124A013.D

Date : 24-JAN-2013 17:27

Client ID:

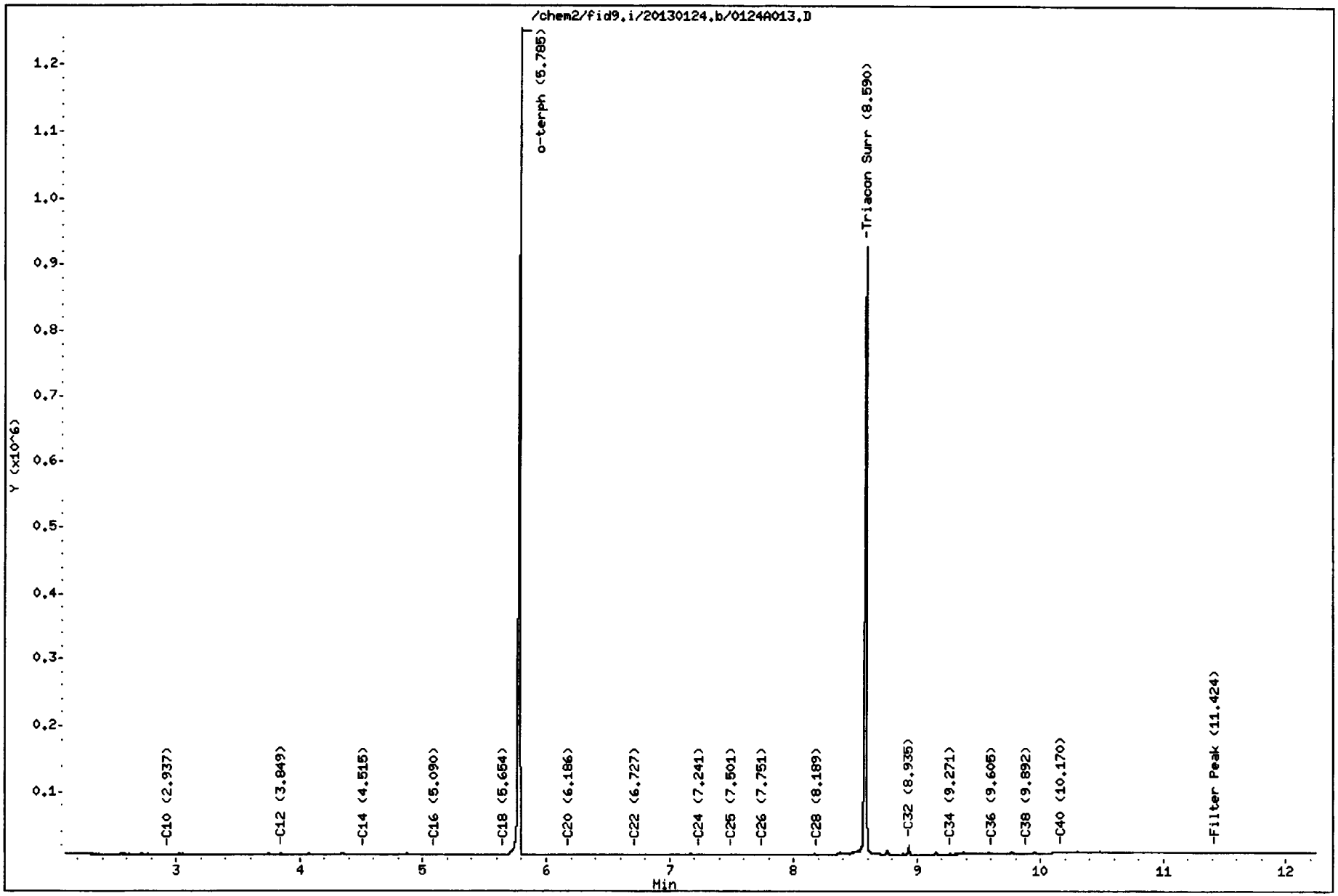
Sample Info: IB

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A013.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: IB
Client ID:
Injection: 24-JAN-2013 17:27
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	1243009	49
C8	1.274	0.014	5248	17797	DIESEL (C12-C24)	75628	3.72
C10	2.937	-0.006	891	1202	M.OIL (C24-C38)	172573	10.83
C12	3.849	-0.004	2320	2725	AK-102 (C10-C25)	116771	4.86
C14	4.515	-0.006	615	968	AK-103 (C25-C36)	133981	15.77
C16	5.090	-0.005	518	504			
C18	5.654	0.011	174	80			
C20	6.186	-0.007	424	397			
C22	6.727	-0.011	284	246			
C24	7.241	-0.008	250	243			
C25	7.501	0.005	124	117			
C26	7.751	0.007	95	29			
C28	8.189	0.008	622	471			
C32	8.935	-0.012	13799	13868	JP-4 (Tol-C14)	1263202	77.04
C34	9.271	-0.011	1222	1909	BUNKERC (C10-C38)	288603	38.77
Filter Peak	11.424	-0.004	3917	1561			
C36	9.605	0.012	1618	546			
C38	9.892	0.007	2340	883			
C40	10.170	0.008	3602	1004			
o-terph	5.785	0.000	1250325	1152635	JET-A (C10-C18)	81817	5.92
Triacon Surr	8.590	-0.004	922725	949253			

M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1152635	43.4	96.5
Triacontane	949253	45.6	101.3

01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

Data File: /chem2/fid9.i/20130124.b/0124A014.D

Date : 24-JAN-2013 17:50

Client ID:

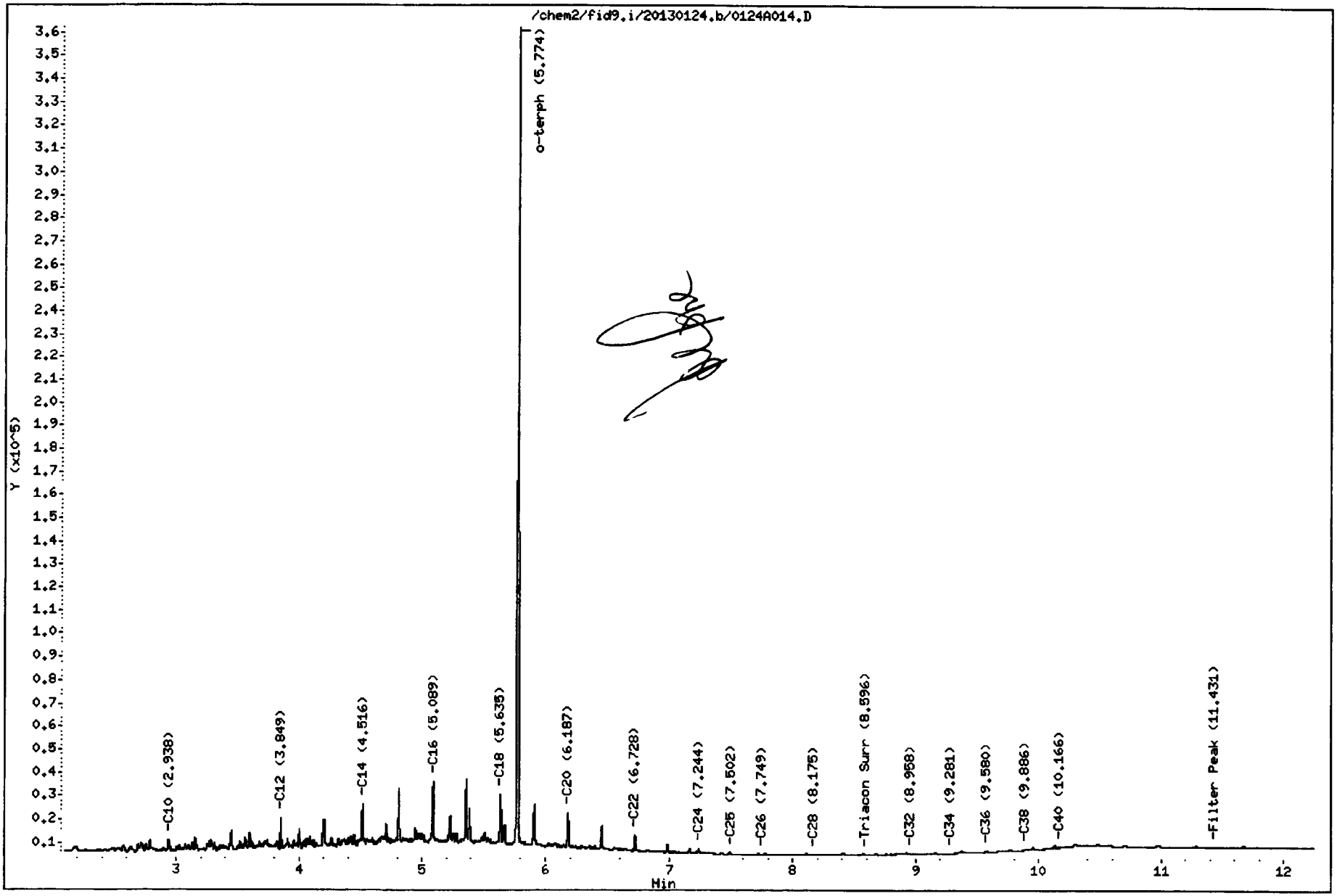
Sample Info: 50PPMDIESEL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



pc
1/29/13
now shows IT dies

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A014.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/29/2013

ARI ID: 50PPMDIESEL
Client ID:
Injection: 24-JAN-2013 17:50
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.026	-0.010	8877	14921	GAS (Tol-C12)	509557	19.93	
C8	1.250	-0.011	5292	8882	DIESEL (C12-C24)	964236	47.37	
C10	2.938	-0.005	6002	6924	M.OIL (C24-C38)	85964	5.40	
C12	3.849	-0.004	15487	12140	AK-102 (C10-C25)	1157903	48.22	M
C14	4.516	-0.005	21759	16226	AK-103 (C25-C36)	51449	6.05	
C16	5.089	-0.007	31434	24572				
C18	5.635	-0.008	25974	23327				
C20	6.187	-0.006	18132	15424				
C22	6.728	-0.011	8343	7816				
C24	7.244	-0.005	2258	1833				
C25	7.502	0.006	300	359				
C26	7.749	0.006	67	19				
C28	8.175	-0.006	117	58	IT.DIES (C10-C24)	1154916	48.22	M
C32	8.958	0.011	449	192	JP-4 (Tol-C14)	720687	43.95	
C34	9.281	-0.001	831	605	BUNKERC (C10-C38)	1240881	166.69	M
Filter Peak	11.431	0.002	3709	2144				
C36	9.580	-0.012	2061	4881				
C38	9.886	0.001	2148	512				
C40	10.166	0.004	3314	2105				
o-terph	5.774	-0.011	350697	221825	JET-A (C10-C18)	888384	64.29	
Triacon Surr	8.596	0.002	199	144				

M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	221825	8.4	18.6
Triacontane	144	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
IT Diesel	23949.0	
Bunker C	7444.4	15-FEB-2011

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A014.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 50PPMDIESEL
Client ID:
Injection: 24-JAN-2013 17:50
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.026	-0.010	8877	14921	GAS (Tol-C12)	509557	19.93	
C8	1.250	-0.011	5292	8882	DIESEL (C12-C24)	964236	47.37	
C10	2.938	-0.005	6002	6924	M.OIL (C24-C38)	85964	5.40	
C12	3.849	-0.004	15487	12140	AK-102 (C10-C25)	1157903	48.22	M
C14	4.516	-0.005	21759	16226	AK-103 (C25-C36)	51449	6.05	
C16	5.089	-0.007	31434	24572				
C18	5.635	-0.008	25974	23327				
C20	6.187	-0.006	18132	15424				
C22	6.728	-0.011	8343	7816				
C24	7.244	-0.005	2258	1833				
C25	7.502	0.006	300	359				
C26	7.749	0.006	67	19				
C28	8.175	-0.006	117	58				
C32	8.958	0.011	449	192	JP-4 (Tol-C14)	720687	43.95	
C34	9.281	-0.001	831	605	BUNKERC (C10-C38)	1240881	166.69	M
Filter Peak	11.431	0.002	3709	2144				
C36	9.580	-0.012	2061	4881				
C38	9.886	0.001	2148	512				
C40	10.166	0.004	3314	2105				
o-terph	5.774	-0.011	350697	221825	JET-A (C10-C18)	888384	64.29	
Triacon Surr	8.596	0.002	199	144				

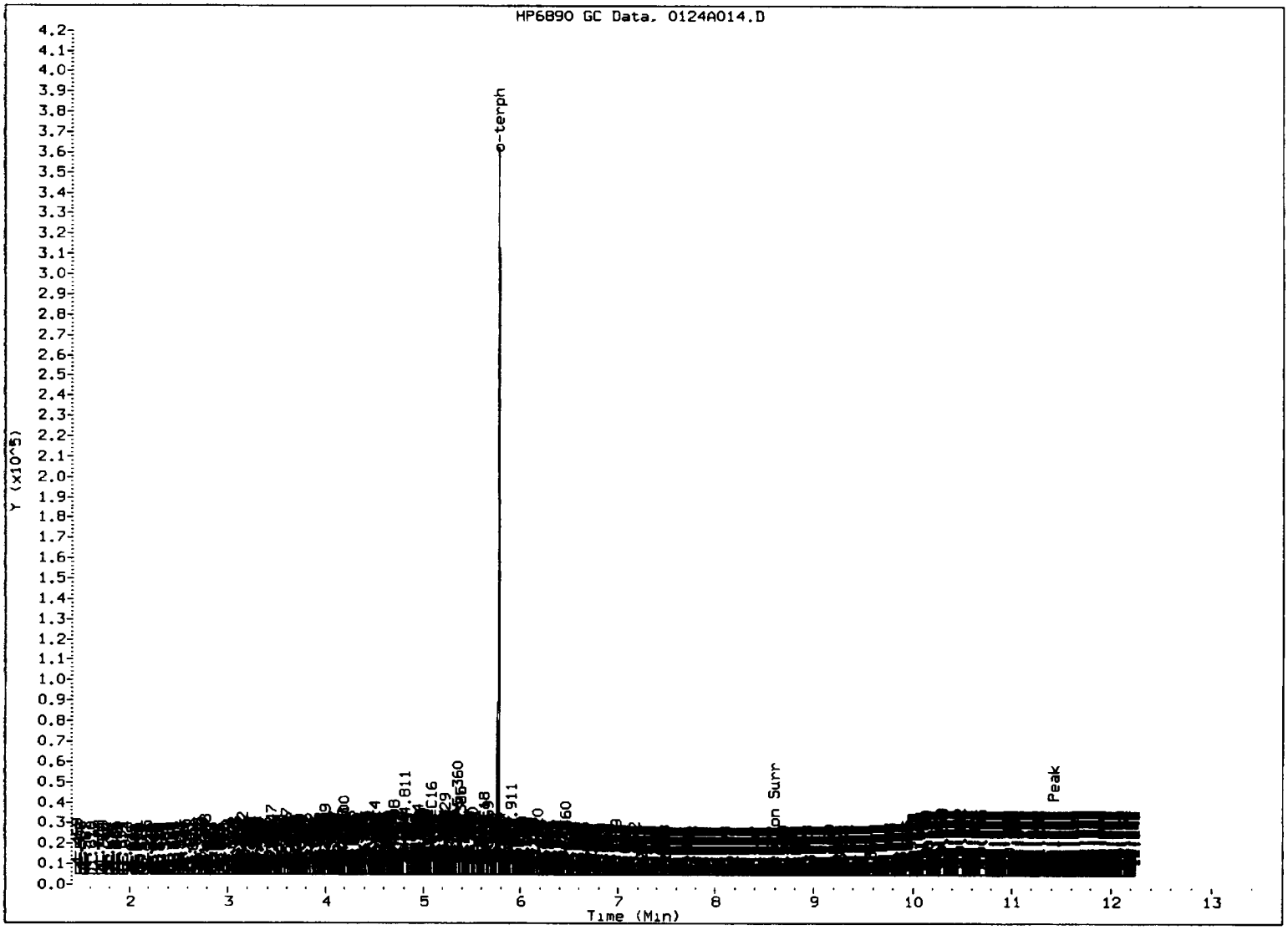
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	221825	8.4	18.6
Triacontane	144	0.0	0.0

1/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 50PPMDIESEL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other skimmed surr

Analyst: [signature] Date: 01/25/13

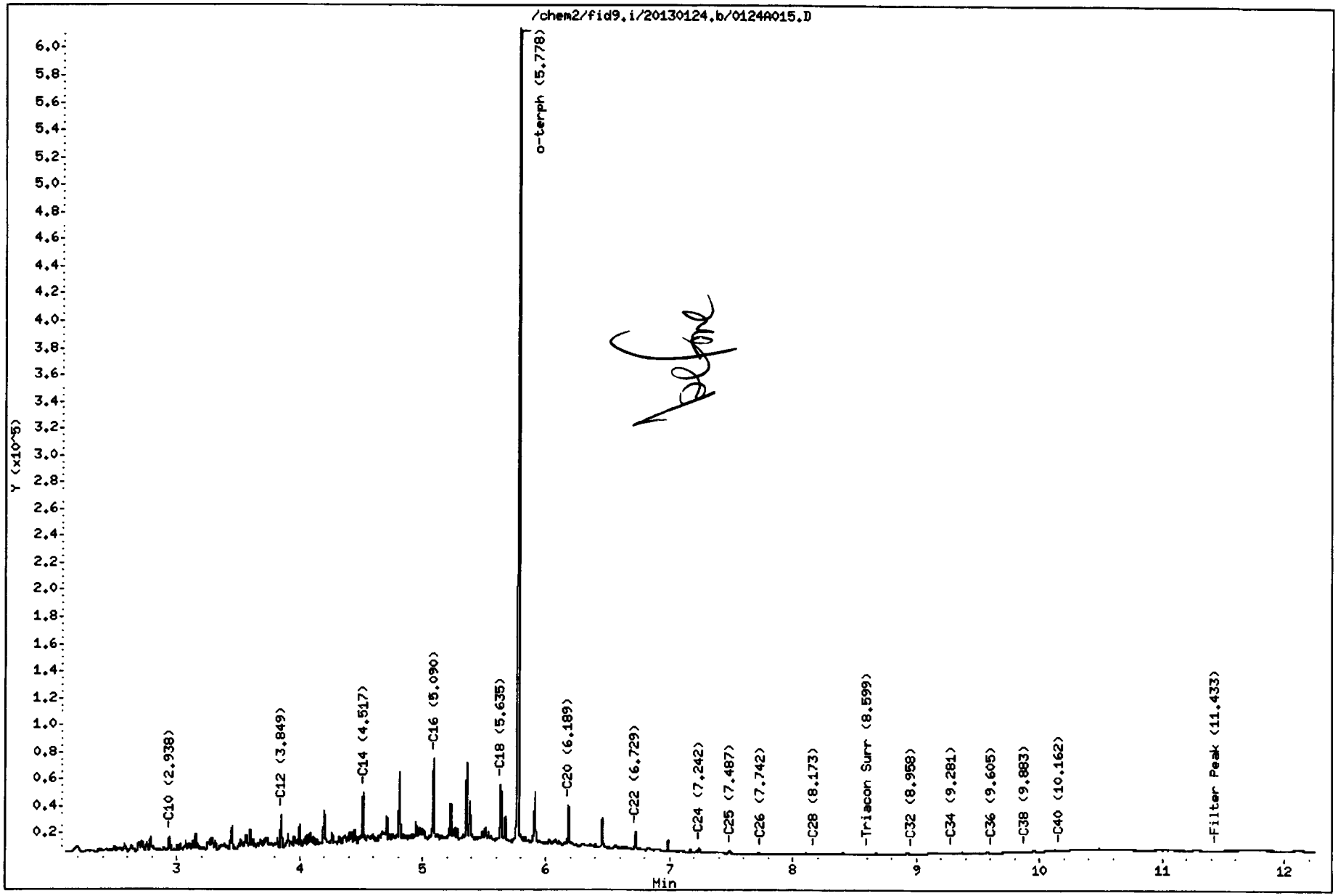
WJ10:02254

Data File: /chem2/fid9.i/20130124.b/0124A015.D
Date : 24-JAN-2013 18:12
Client ID:
Sample Info: 100PPMDIESEL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS
Column diameter: 0.25



PC
1/29/13
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IT 105

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A015.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/29/2013

ARI ID: 100PPMDIESEL
Client ID:
Injection: 24-JAN-2013 18:12
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.037	0.001	8407	10748	GAS (Tol-C12)	817269	31.97	
C8	1.260	-0.001	5366	5030	DIESEL (C12-C24)	2031631	99.81	
C10	2.938	-0.005	12029	13213	M.OIL (C24-C38)	90849	5.70	
C12	3.849	-0.004	29109	21629	AK-102 (C10-C25)	2406635	100.23	M
C14	4.517	-0.004	45509	33405	AK-103 (C25-C36)	53508	6.30	
C16	5.090	-0.006	70862	52207				
C18	5.635	-0.008	50679	51638				
C20	6.189	-0.004	35593	34191				
C22	6.729	-0.009	16009	16151				
C24	7.242	-0.007	4288	4152				
C25	7.487	-0.009	1917	2052				
C26	7.742	-0.001	171	65				
C28	8.173	-0.009	135	96	IT.DIES (C10-C24)	2400366	100.23	M
C32	8.958	0.010	391	61	JP-4 (Tol-C14)	1250203	76.25	
C34	9.281	-0.001	773	212	BUNKERC (C10-C38)	2491215	334.64	M
Filter Peak	11.433	0.004	3571	2415				
C36	9.605	0.012	1364	297				
C38	9.883	-0.002	2017	562				
C40	10.162	0.001	3171	1578				
o-terph	5.778	-0.007	597031	481160	JET-A (C10-C18)	1832953	132.64	
Triacon Surr	8.599	0.005	177	110				

M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	481160	18.1	40.3
Triacontane	110	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
IT Diesel	23949.0	
Bunker C	7444.4	15-FEB-2011

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A015.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 100PPMDIESEL
Client ID:
Injection: 24-JAN-2013 18:12
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.037	0.001	8407	10748	GAS (Tol-C12)	817269	31.97	
C8	1.260	-0.001	5366	5030	DIESEL (C12-C24)	2031631	99.81	
C10	2.938	-0.005	12029	13213	M.OIL (C24-C38)	90849	5.70	
C12	3.849	-0.004	29109	21629	AK-102 (C10-C25)	2406635	100.23	M
C14	4.517	-0.004	45509	33405	AK-103 (C25-C36)	53508	6.30	
C16	5.090	-0.006	70862	52207				
C18	5.635	-0.008	50679	51638				
C20	6.189	-0.004	35593	34191				
C22	6.729	-0.009	16009	16151				
C24	7.242	-0.007	4288	4152				
C25	7.487	-0.009	1917	2052				
C26	7.742	-0.001	171	65				
C28	8.173	-0.009	135	96				
C32	8.958	0.010	391	61	JP-4 (Tol-C14)	1250203	76.25	
C34	9.281	-0.001	773	212	BUNKERC (C10-C38)	2491215	334.64	M
Filter Peak	11.433	0.004	3571	2415				
C36	9.605	0.012	1364	297				
C38	9.883	-0.002	2017	562				
C40	10.162	0.001	3171	1578				
o-terph	5.778	-0.007	597031	481160	JET-A (C10-C18)	1832953	132.64	
Triacon Surr	8.599	0.005	177	110				

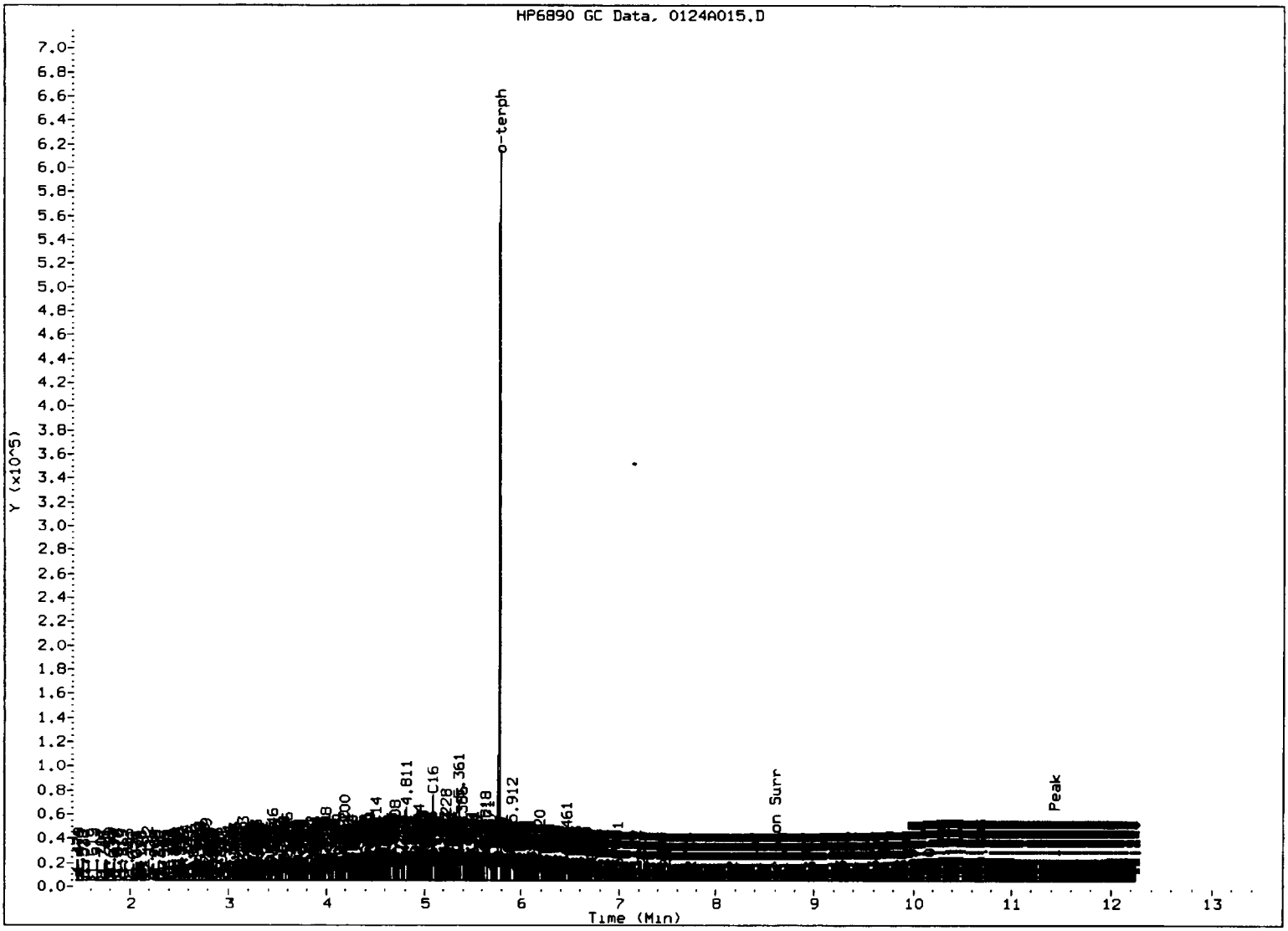
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	481160	18.1	40.3
Triacontane	110	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

01/25/13

FID:9A-2C/RTX-1 100PPMDIESEL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other ge skimmed surr

Analyst: _____ Date: 01/25/13

WJ10:02258

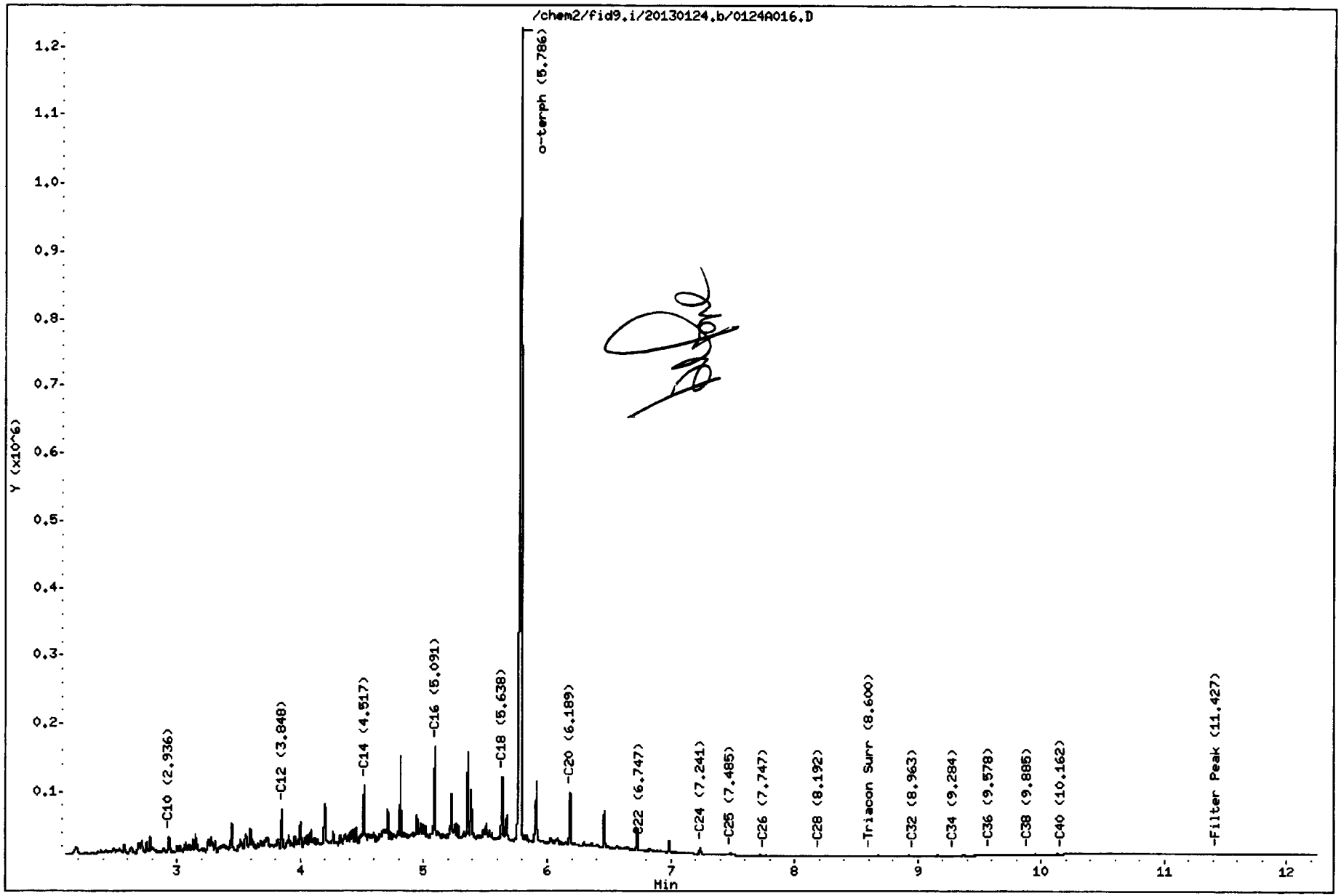
Data File: /chem2/fid9.i/20130124.b/0124A016.D
Date : 24-JAN-2013 18:34
Client ID:
Sample Info: 250PPMDIESEL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS
Column diameter: 0.25

WJ10-02259



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Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A016.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/29/2013

ARI ID: 250PPMDIESEL
Client ID:
Injection: 24-JAN-2013 18:34
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.035	-0.001	9412	15548	GAS (Tol-C12)	1688902	66.06	
C8	1.255	-0.006	7780	19139	DIESEL (C12-C24)	5025521	246.88	
C10	2.936	-0.007	28833	31463	M.OIL (C24-C38)	111408	6.99	
C12	3.848	-0.005	69078	57564	AK-102 (C10-C25)	5910507	246.15	M
C14	4.517	-0.004	104969	84855	AK-103 (C25-C36)	65742	7.74	
C16	5.091	-0.004	161237	121646				
C18	5.638	-0.005	117415	124431				
C20	6.189	-0.004	93508	80211				
C22	6.747	0.008	9160	5604				
C24	7.241	-0.008	11721	11306				
C25	7.485	-0.011	4831	6418				
C26	7.747	0.003	459	290				
C28	8.192	0.010	399	344	IT.DIES (C10-C24)	5896137	246.20	M
C32	8.963	0.016	329	71	JP-4 (Tol-C14)	2749731	167.70	
C34	9.284	0.002	725	229	BUNKERC (C10-C38)	6007545	806.99	M
Filter Peak	11.427	-0.001	3348	1468				
C36	9.578	-0.015	2441	4622				
C38	9.885	0.000	1956	545				
C40	10.162	0.001	2990	1544				
o-terph	5.786	0.001	1196398	1215061	JET-A (C10-C18)	4451882	322.15	
Triacon Surr	8.600	0.006	130	71				

M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1215061	45.8	101.7
Triacontane	71	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
IT Diesel	23949.0	
Bunker C	7444.4	15-FEB-2011

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A016.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 250PPMDIESEL
Client ID:
Injection: 24-JAN-2013 18:34
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.035	-0.001	9412	15548	GAS (Tol-C12)	1688902	66.06	
C8	1.255	-0.006	7780	19139	DIESEL (C12-C24)	5025521	246.88	
C10	2.936	-0.007	28833	31463	M.OIL (C24-C38)	111408	6.99	
C12	3.848	-0.005	69078	57564	AK-102 (C10-C25)	5910507	246.15	M
C14	4.517	-0.004	104969	84855	AK-103 (C25-C36)	65742	7.74	
C16	5.091	-0.004	161237	121646				
C18	5.638	-0.005	117415	124431				
C20	6.189	-0.004	93508	80211				
C22	6.747	0.008	9160	5604				
C24	7.241	-0.008	11721	11306				
C25	7.485	-0.011	4831	6418				
C26	7.747	0.003	459	290				
C28	8.192	0.010	399	344				
C32	8.963	0.016	329	71	JP-4 (Tol-C14)	2749731	167.70	
C34	9.284	0.002	725	229	BUNKERC (C10-C38)	6007545	806.99	M
Filter Peak	11.427	-0.001	3348	1468				
C36	9.578	-0.015	2441	4622				
C38	9.885	0.000	1956	545				
C40	10.162	0.001	2990	1544				
o-terph	5.786	0.001	1196398	1215061	JET-A (C10-C18)	4451882	322.15	
Triacon Surr	8.600	0.006	130	71				

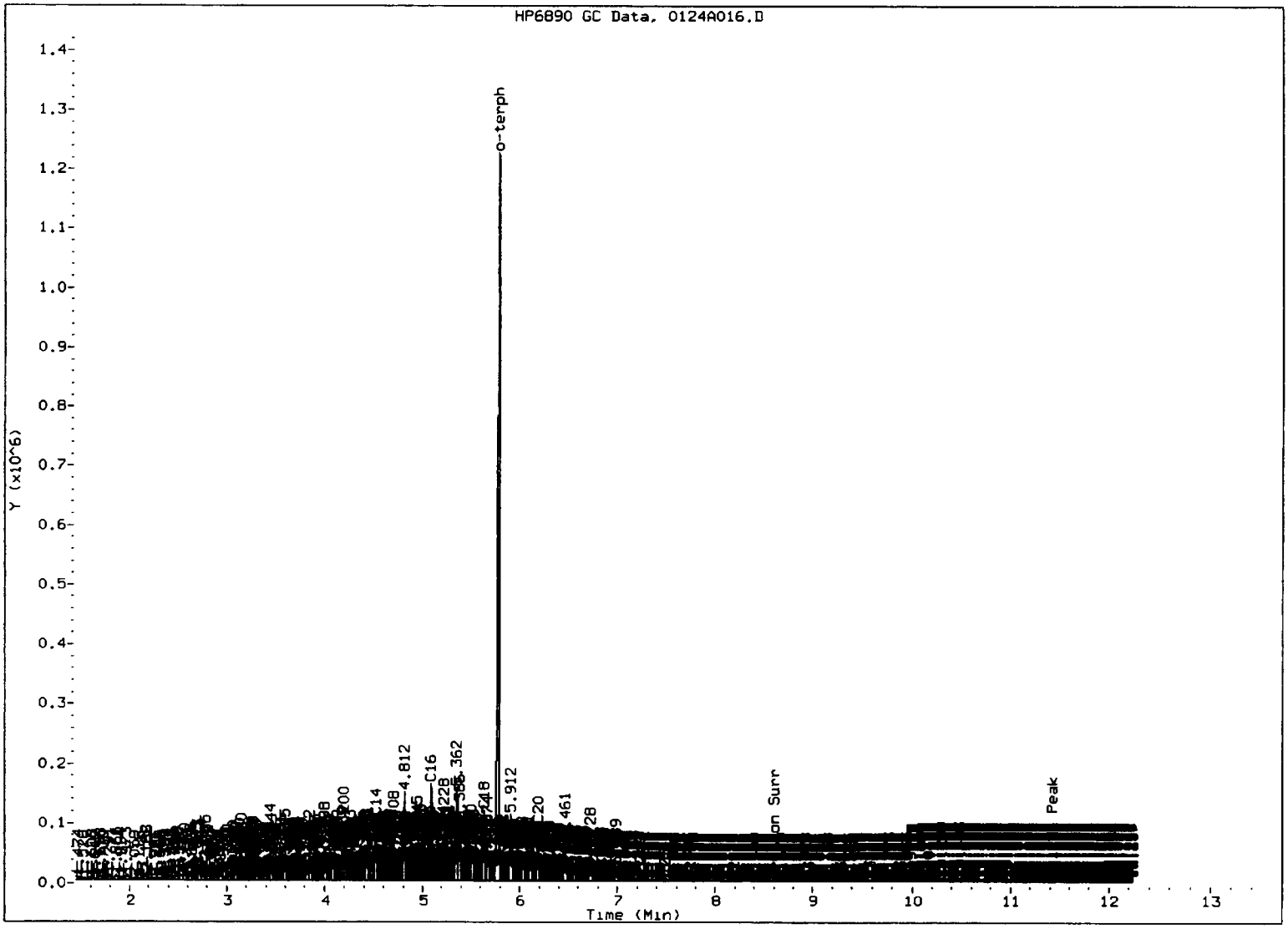
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1215061	45.8	101.7
Triacontane	71	0.0	0.0

JR 01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 250PPMDIESEL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other Skimmed error

Analyst: _____ Date: 5/24/13

Data File: /chem2/fid9.i/20130124.b/0124A017.D

Date : 24-JAN-2013 18:56

Client ID:

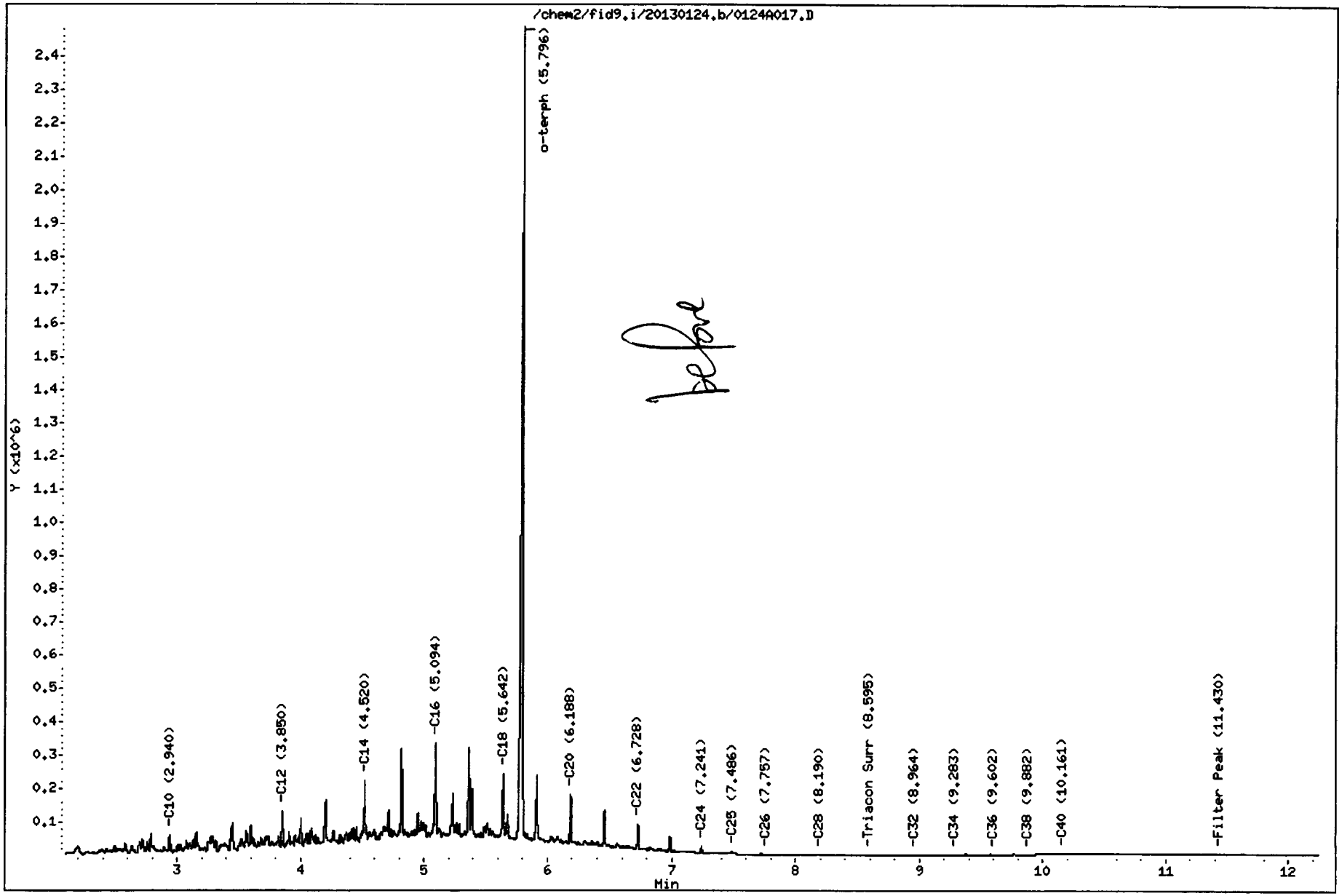
Sample Info: 500PPMDIESEL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



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JTDiesel

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A017.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/29/2013

ARI ID: 500PPMDIESEL
Client ID:
Injection: 24-JAN-2013 18:56
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.055	0.019	10234	9977	GAS (Tol-C12)	3249578	127.11	
C8	1.266	0.006	12051	23694	DIESEL (C12-C24)	10381907	510.02	
C10	2.940	-0.003	59372	63541	M.OIL (C24-C38)	150772	9.46	
C12	3.850	-0.003	129105	113577	AK-102 (C10-C25)	12188050	507.58	M
C14	4.520	-0.001	220016	177785	AK-103 (C25-C36)	89730	10.56	
C16	5.094	-0.002	332797	257937				
C18	5.642	-0.001	242190	259897				
C20	6.188	-0.006	179768	162449				
C22	6.728	-0.010	91554	84215				
C24	7.241	-0.008	23859	24070				
C25	7.486	-0.010	9663	12153				
C26	7.757	0.013	941	286				
C28	8.190	0.008	907	764	IT.DIES (C10-C24)	12155608	507.56	M
C32	8.964	0.016	270	63	JP-4 (Tol-C14)	5481417	334.30	
C34	9.283	0.001	622	419	BUNKERC (C10-C38)	12306380	1653.11	M
Filter Peak	11.430	0.002	3186	2222				
C36	9.602	0.009	1193	424				
C38	9.882	-0.002	1859	886				
C40	10.161	-0.001	2917	2540				
o-terph	5.796	0.011	2426169	2500953	JET-A (C10-C18)	9182642	664.49	
Triacon Surr	8.595	0.001	95	37				

M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2500953	94.2	209.4
Triacontane	37	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
IT Diesel	23949.0	
Bunker C	7444.4	15-FEB-2011

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A017.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 500PPMDIESEL
Client ID:
Injection: 24-JAN-2013 18:56
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.055	0.019	10234	9977	GAS (Tol-C12)	3249578	127.11	
C8	1.266	0.006	12051	23694	DIESEL (C12-C24)	10381907	510.02	
C10	2.940	-0.003	59372	63541	M.OIL (C24-C38)	150772	9.46	
C12	3.850	-0.003	129105	113577	AK-102 (C10-C25)	12188050	507.58	M
C14	4.520	-0.001	220016	177785	AK-103 (C25-C36)	89730	10.56	
C16	5.094	-0.002	332797	257937				
C18	5.642	-0.001	242190	259897				
C20	6.188	-0.006	179768	162449				
C22	6.728	-0.010	91554	84215				
C24	7.241	-0.008	23859	24070				
C25	7.486	-0.010	9663	12153				
C26	7.757	0.013	941	286				
C28	8.190	0.008	907	764				
C32	8.964	0.016	270	63	JP-4 (Tol-C14)	5481417	334.30	
C34	9.283	0.001	622	419	BUNKERC (C10-C38)	12306380	1653.11	M
Filter Peak	11.430	0.002	3186	2222				
C36	9.602	0.009	1193	424				
C38	9.882	-0.002	1859	886				
C40	10.161	-0.001	2917	2540				
o-terph	5.796	0.011	2426169	2500953	JET-A (C10-C18)	9182642	664.49	
Triacon Surr	8.595	0.001	95	37				

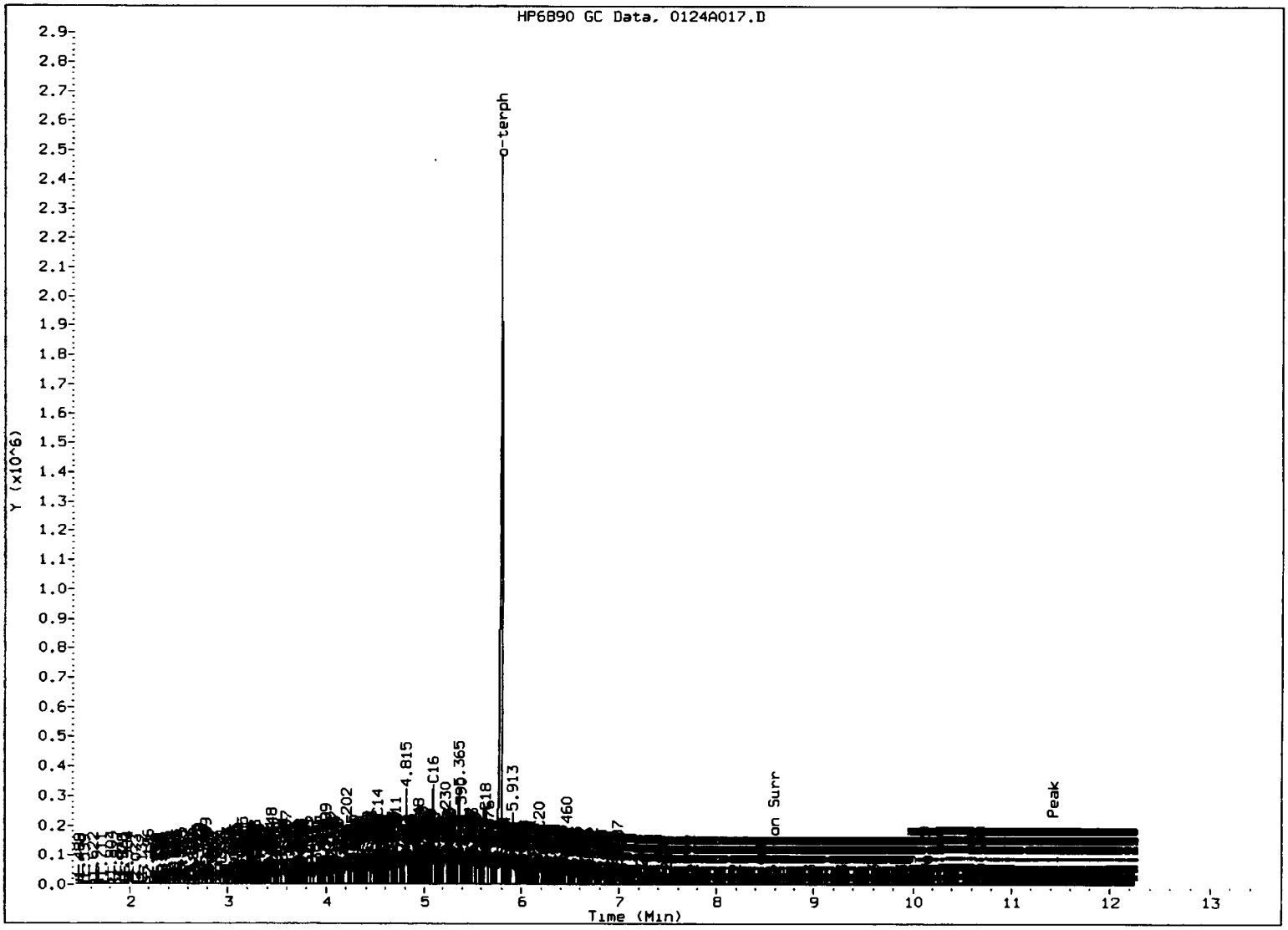
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2500953	94.2	209.4
Triacontane	37	0.0	0.0

A 01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 500PPMDIESEL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other SKIMMED GRN

Analyst: [signature] Date: 01/25/13

WJ10:02276

Data File: /chem2/fid9.i/20130124.b/0124A018.D

Date : 24-JAN-2013 19:18

Client ID:

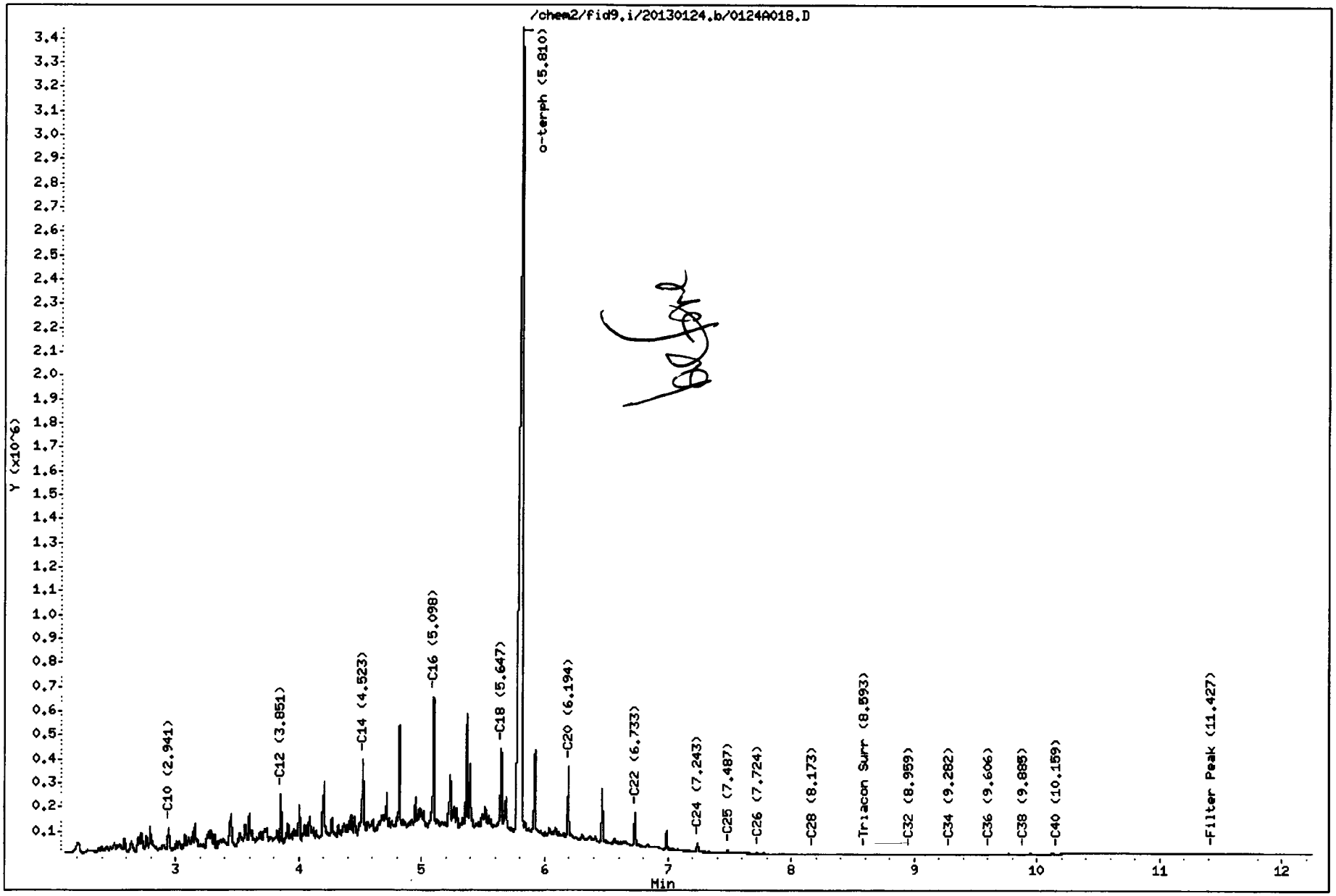
Sample Info: 1000PPMDIESEL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



VR
1/29/13
now shows IT die

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A018.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/29/2013

ARI ID: 1000PPMDIESEL
Client ID:
Injection: 24-JAN-2013 19:18
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.074	0.038	13996	13955	GAS (Tol-C12)	6226158	243.53	
C8	1.240	-0.020	12656	19614	DIESEL (C12-C24)	21012996	1032.29	
C10	2.941	-0.002	111555	126473	M.OIL (C24-C38)	239510	15.03	
C12	3.851	-0.002	249004	232183	AK-102 (C10-C25)	24729005	1029.86	M
C14	4.523	0.002	392769	352647	AK-103 (C25-C36)	143023	16.83	
C16	5.098	0.003	650081	721548				
C18	5.647	0.004	438855	575787				
C20	6.194	0.001	365309	347208				
C22	6.733	-0.005	174045	164603				
C24	7.243	-0.005	45314	47753				
C25	7.487	-0.009	17961	25249				
C26	7.724	-0.019	7927	9574				
C28	8.173	-0.008	999	846	IT.DIES (C10-C24)	24660365	1029.70	M
C32	8.959	0.012	235	129	JP-4 (Tol-C14)	10627743	648.17	
C34	9.282	0.001	581	388	BUNKERC (C10-C38)	24899875	3344.78	M
Filter Peak	11.427	-0.001	2994	2681				
C36	9.606	0.013	1139	338				
C38	9.885	0.001	1803	1644				
C40	10.159	-0.003	2738	868				
o-terph	5.810	0.025	3328236	4993379	JET-A (C10-C18)	18718600	1354.55	
Triacon Surr	8.593	0.000	105	72				

M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	4993379	188.1	418.0
Triacontane	72	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
IT Diesel	23949.0	
Bunker C	7444.4	15-FEB-2011

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A018.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 1000PPMDIESEL
Client ID:
Injection: 24-JAN-2013 19:18
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.074	0.038	13996	13955	GAS (Tol-C12)	6226158	243.53	
C8	1.240	-0.020	12656	19614	DIESEL (C12-C24)	21012996	1032.29	
C10	2.941	-0.002	111555	126473	M.OIL (C24-C38)	239510	15.03	
C12	3.851	-0.002	249004	232183	AK-102 (C10-C25)	24729005	1029.86	M
C14	4.523	0.002	392769	352647	AK-103 (C25-C36)	143023	16.83	
C16	5.098	0.003	650081	721548				
C18	5.647	0.004	438855	575787				
C20	6.194	0.001	365309	347208				
C22	6.733	-0.005	174045	164603				
C24	7.243	-0.005	45314	47753				
C25	7.487	-0.009	17961	25249				
C26	7.724	-0.019	7927	9574				
C28	8.173	-0.008	999	846				
C32	8.959	0.012	235	129	JP-4 (Tol-C14)	10627743	648.17	
C34	9.282	0.001	581	388	BUNKERC (C10-C38)	24899875	3344.78	M
Filter Peak	11.427	-0.001	2994	2681				
C36	9.606	0.013	1139	338				
C38	9.885	0.001	1803	1644				
C40	10.159	-0.003	2738	868				
o-terph	5.810	0.025	3328236	4993379	JET-A (C10-C18)	18718600	1354.55	
Triacon Surr	8.593	0.000	105	72				

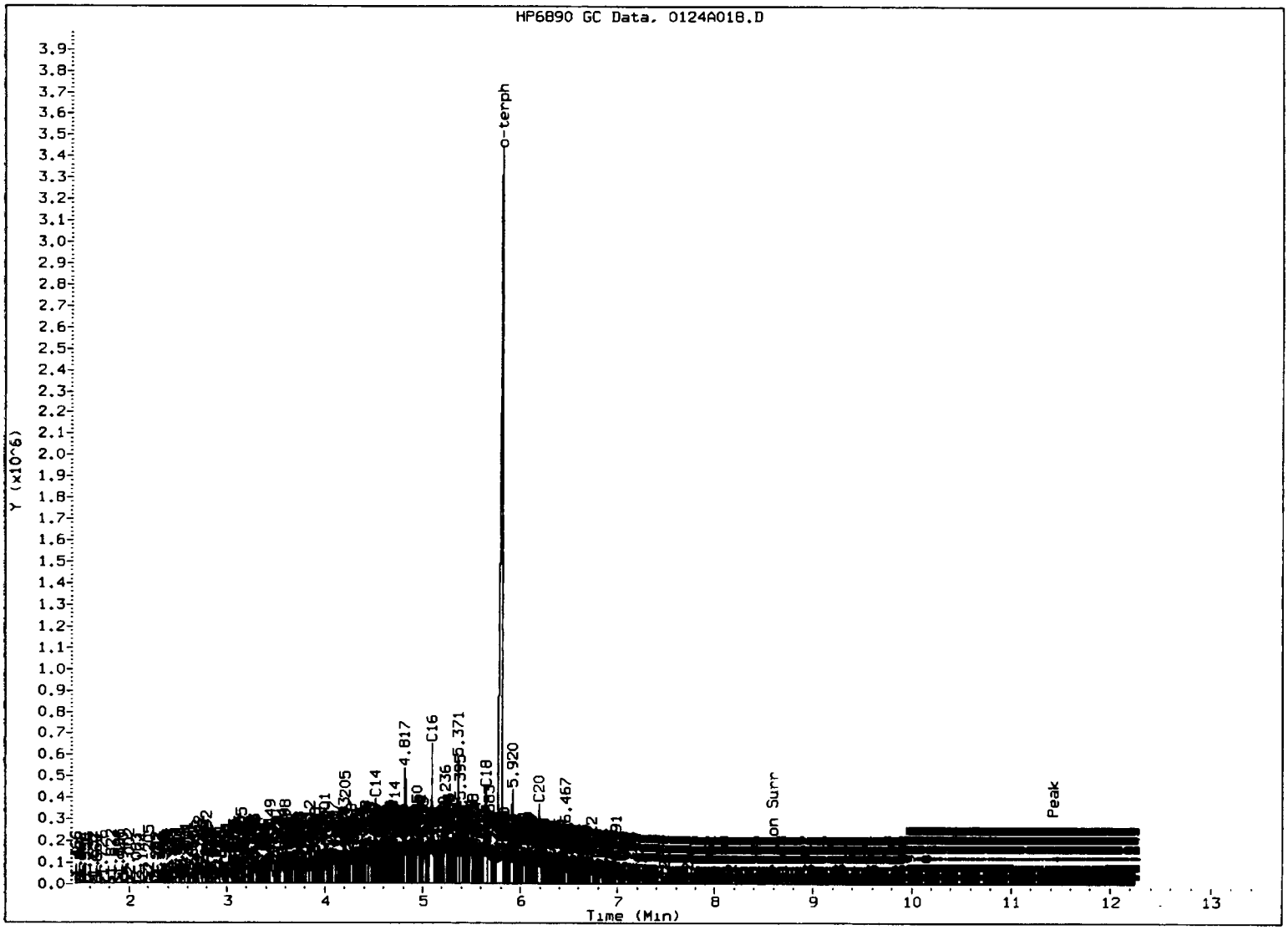
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	4993379	188.1	418.0
Triacontane	72	0.0	0.0

01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 1000PPMDIESEL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other Skimmed Surr

Analyst: _____ Date: 01/25/13

Data File: /chem2/fid9.i/20130124.b/0124A019.D

Date : 24-JAN-2013 19:40

Client ID:

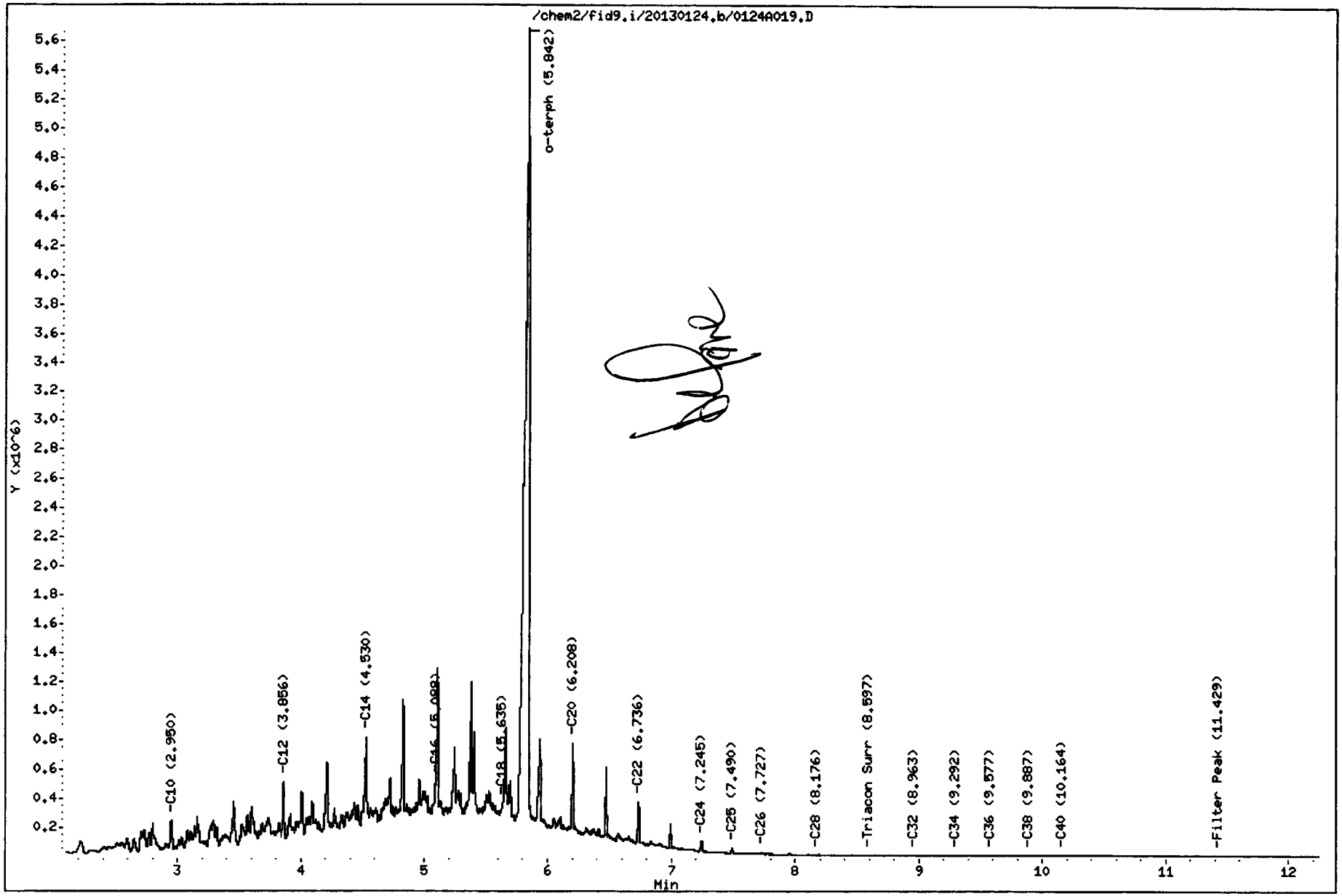
Sample Info: 2500PPMDIESEL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



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now shows ITdies

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A019.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/29/2013

ARI ID: 2500PPMDIESEL
Client ID:
Injection: 24-JAN-2013 19:40
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.038	0.002	15188	26384	GAS (Tol-C12)	14694338	574.76	
C8	1.235	-0.025	1000805	1079075	DIESEL (C12-C24)	51636550	2536.70	
C10	2.950	0.007	238899	314105	M.OIL (C24-C38)	527988	33.14	
C12	3.856	0.004	501485	577328	AK-102 (C10-C25)	60252685	2509.26	M
C14	4.530	0.009	811512	1232966	AK-103 (C25-C36)	341193	40.15	
C16	5.088	-0.008	512694	395650				
C18	5.635	-0.008	366439	254286				
C20	6.208	0.015	773958	850542				
C22	6.736	-0.002	368227	405393				
C24	7.245	-0.004	98698	115712				
C25	7.490	-0.006	46141	44873				
C26	7.727	-0.016	18278	29302				
C28	8.176	-0.006	2884	2504	IT.DIES (C10-C24)	60092383	2509.18	M
C32	8.963	0.015	161	125	JP-4 (Tol-C14)	25524325	1556.69	
C34	9.292	0.010	498	505	BUNKERC (C10-C38)	60620371	8143.09	M
Filter Peak	11.429	0.000	2577	822				
C36	9.577	-0.016	3738	5285				
C38	9.887	0.002	1719	1157				
C40	10.164	0.002	2593	2317				
o-terph	5.842	0.057	5348839	11407822	JET-A (C10-C18)	44558471	3224.42	
Triacon Surr	8.597	0.003	169	70				

M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	11407822	429.8	955.1
Triacontane	70	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
IT Diesel	23949.0	
Bunker C	7444.4	15-FEB-2011

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A019.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 2500PPMDIESEL
Client ID:
Injection: 24-JAN-2013 19:40
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.038	0.002	15188	26384	GAS (Tol-C12)	14694338	574.76	
C8	1.235	-0.025	1000805	1079075	DIESEL (C12-C24)	51636550	2536.70	
C10	2.950	0.007	238899	314105	M.OIL (C24-C38)	527988	33.14	
C12	3.856	0.004	501485	577328	AK-102 (C10-C25)	60252685	2509.26	M
C14	4.530	0.009	811512	1232966	AK-103 (C25-C36)	341193	40.15	
C16	5.088	-0.008	512694	395650				
C18	5.635	-0.008	366439	254286				
C20	6.208	0.015	773958	850542				
C22	6.736	-0.002	368227	405393				
C24	7.245	-0.004	98698	115712				
C25	7.490	-0.006	46141	44873				
C26	7.727	-0.016	18278	29302				
C28	8.176	-0.006	2884	2504				
C32	8.963	0.015	161	125	JP-4 (Tol-C14)	25524325	1556.69	
C34	9.292	0.010	498	505	BUNKERC (C10-C38)	60620371	8143.09	M
Filter Peak	11.429	0.000	2577	822				
C36	9.577	-0.016	3738	5285				
C38	9.887	0.002	1719	1157				
C40	10.164	0.002	2593	2317				
o-terph	5.842	0.057	5348839	11407822	JET-A (C10-C18)	44558471	3224.42	
Triacon Surr	8.597	0.003	169	70				

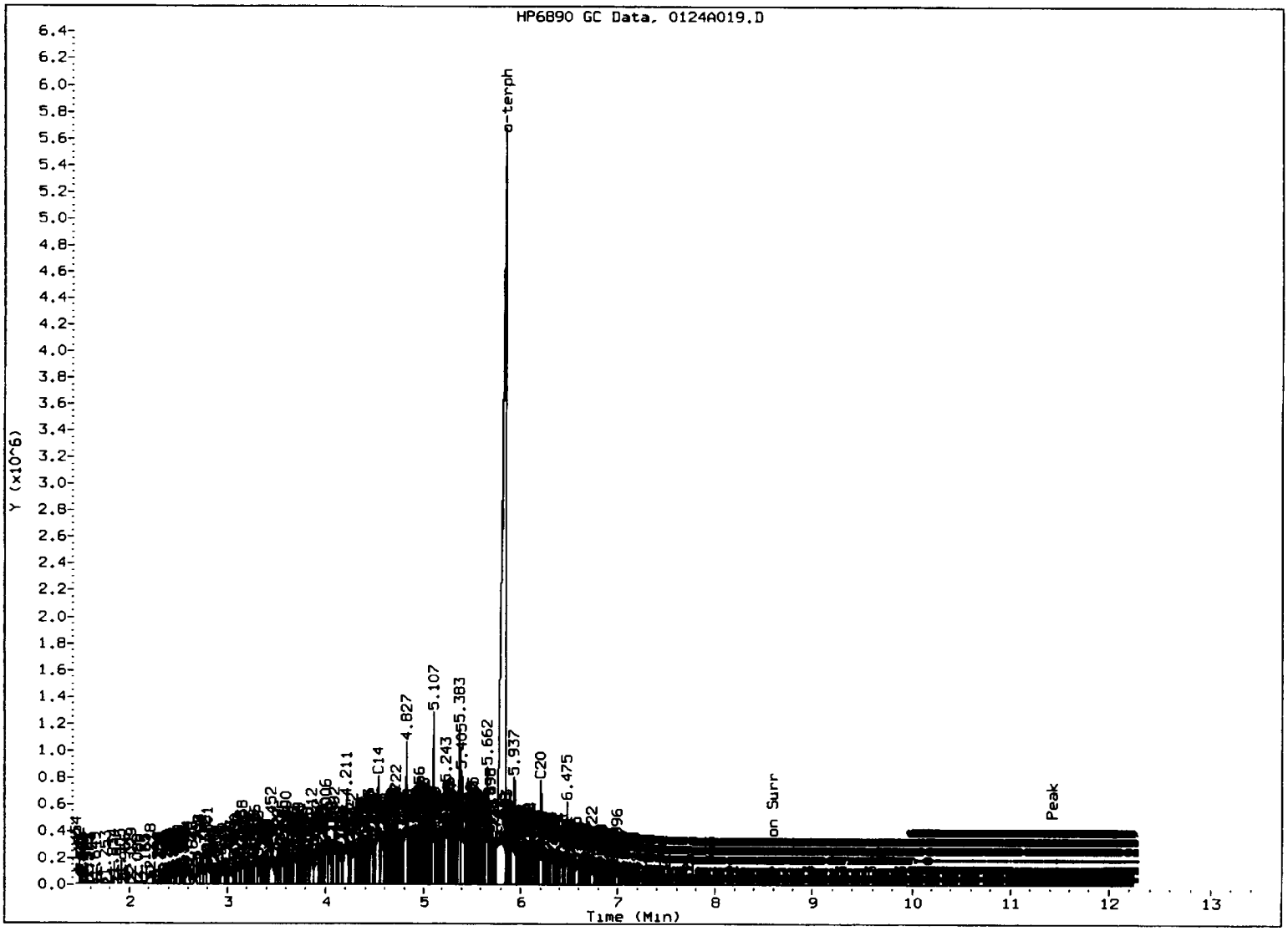
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	11407822	429.8	955.1
Triacontane	70	0.0	0.0

JR 01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 2500PPMDIESEL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other M 01/25/13 Skimmed Surr

Analyst: _____ Date: 01/25/13

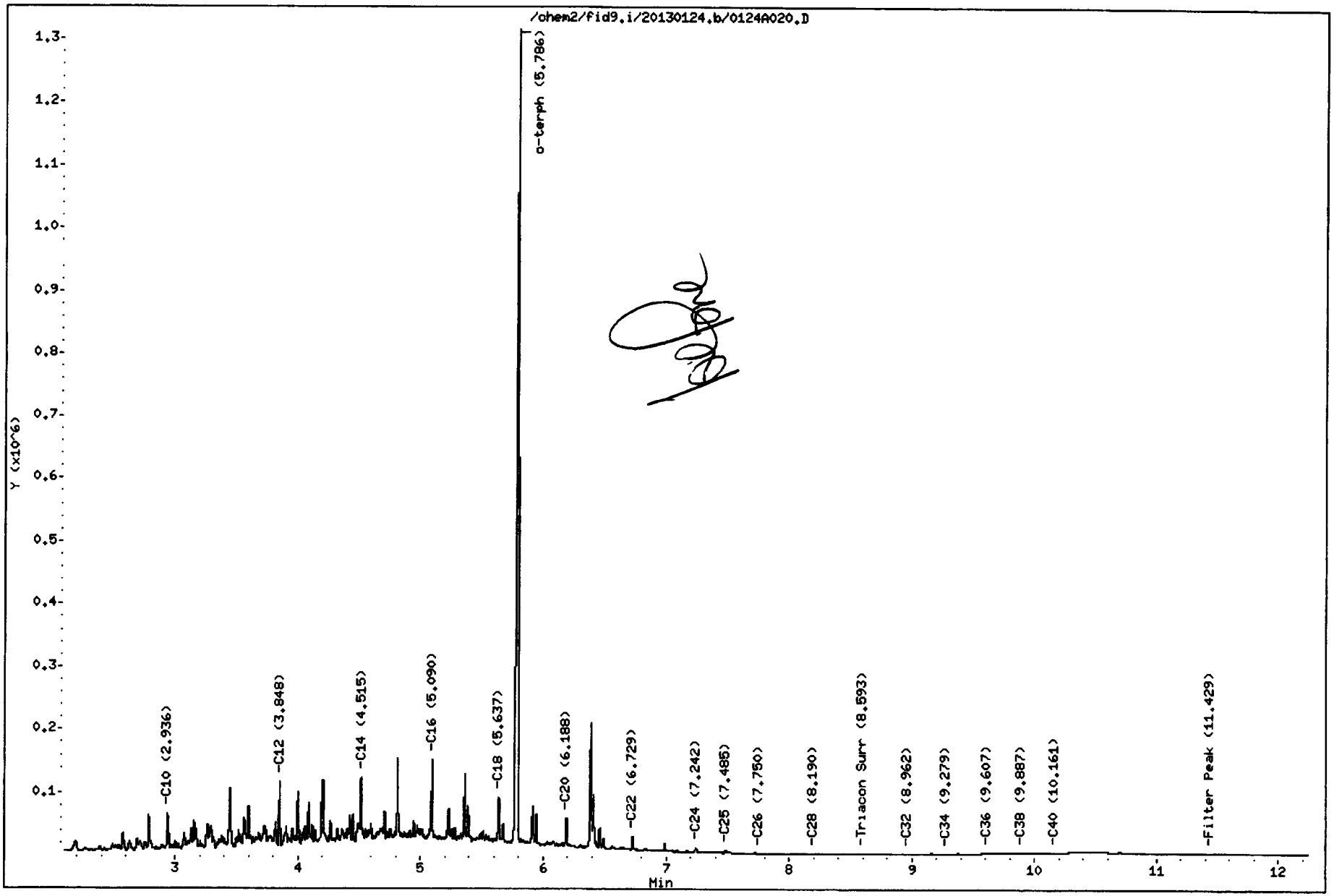
WJ10:02284

Data File: /chem2/fid9.i/20130124.b/0124A020.D
Date : 24-JAN-2013 20:02
Client ID:
Sample Info: DIESELICV

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS
Column diameter: 0.25



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Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A020.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/29/2013

ARI ID: DIESELICV
Client ID:
Injection: 24-JAN-2013 20:02
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.031	-0.005	14198	25339	GAS (Tol-C12)	2025762	79.24	
C8	1.252	-0.008	11328	27221	DIESEL (C12-C24)	4634220	227.66	
C10	2.936	-0.007	60667	66167	M.OIL (C24-C38)	102142	6.41	
C12	3.848	-0.004	111212	82348	AK-102 (C10-C25)	5983708	249.20	M
C14	4.515	-0.006	119399	113709	AK-103 (C25-C36)	60404	7.11	
C16	5.090	-0.005	147993	107274				
C18	5.637	-0.006	87033	91332				
C20	6.188	-0.005	55637	54884				
C22	6.729	-0.010	26299	26501				
C24	7.242	-0.007	9027	8523				
C25	7.485	-0.011	4615	5217				
C26	7.750	0.006	528	204				
C28	8.190	0.008	204	161	IT.DIES (C10-C24)	5969041	249.24	M
C32	8.962	0.014	339	338	JP-4 (Tol-C14)	3335727	203.44	
C34	9.279	-0.003	599	401	BUNKERC (C10-C38)	6071183	815.54	M
Filter Peak	11.429	0.000	2974	1245				
C36	9.607	0.015	1137	1060				
C38	9.887	0.002	1766	490				
C40	10.161	-0.001	2710	972				
o-terph	5.786	0.001	1290360	1264118	JET-A (C10-C18)	4763758	344.72	
Triacon Surr	8.593	-0.001	98	42				

M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1264118	47.6	105.8
Triacontane	42	0.0	0.0

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
IT Diesel	23949.0	
Bunker C	7444.4	15-FEB-2011

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A020.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: DIESELICV
Client ID:
Injection: 24-JAN-2013 20:02
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.031	-0.005	14198	25339	GAS (Tol-C12)	2025762	79.24	
C8	1.252	-0.008	11328	27221	DIESEL (C12-C24)	4634220	227.66	
C10	2.936	-0.007	60667	66167	M.OIL (C24-C38)	102142	6.41	
C12	3.848	-0.004	111212	82348	AK-102 (C10-C25)	5983708	249.20	M
C14	4.515	-0.006	119399	113709	AK-103 (C25-C36)	60404	7.11	
C16	5.090	-0.005	147993	107274				
C18	5.637	-0.006	87033	91332				
C20	6.188	-0.005	55637	54884				
C22	6.729	-0.010	26299	26501				
C24	7.242	-0.007	9027	8523				
C25	7.485	-0.011	4615	5217				
C26	7.750	0.006	528	204				
C28	8.190	0.008	204	161				
C32	8.962	0.014	339	338	JP-4 (Tol-C14)	3335727	203.44	
C34	9.279	-0.003	599	401	BUNKERC (C10-C38)	6071183	815.54	M
Filter Peak	11.429	0.000	2974	1245				
C36	9.607	0.015	1137	1060				
C38	9.887	0.002	1766	490				
C40	10.161	-0.001	2710	972				
o-terph	5.786	0.001	1290360	1264118	JET-A (C10-C18)	4763758	344.72	
Triacon Surr	8.593	-0.001	98	42				

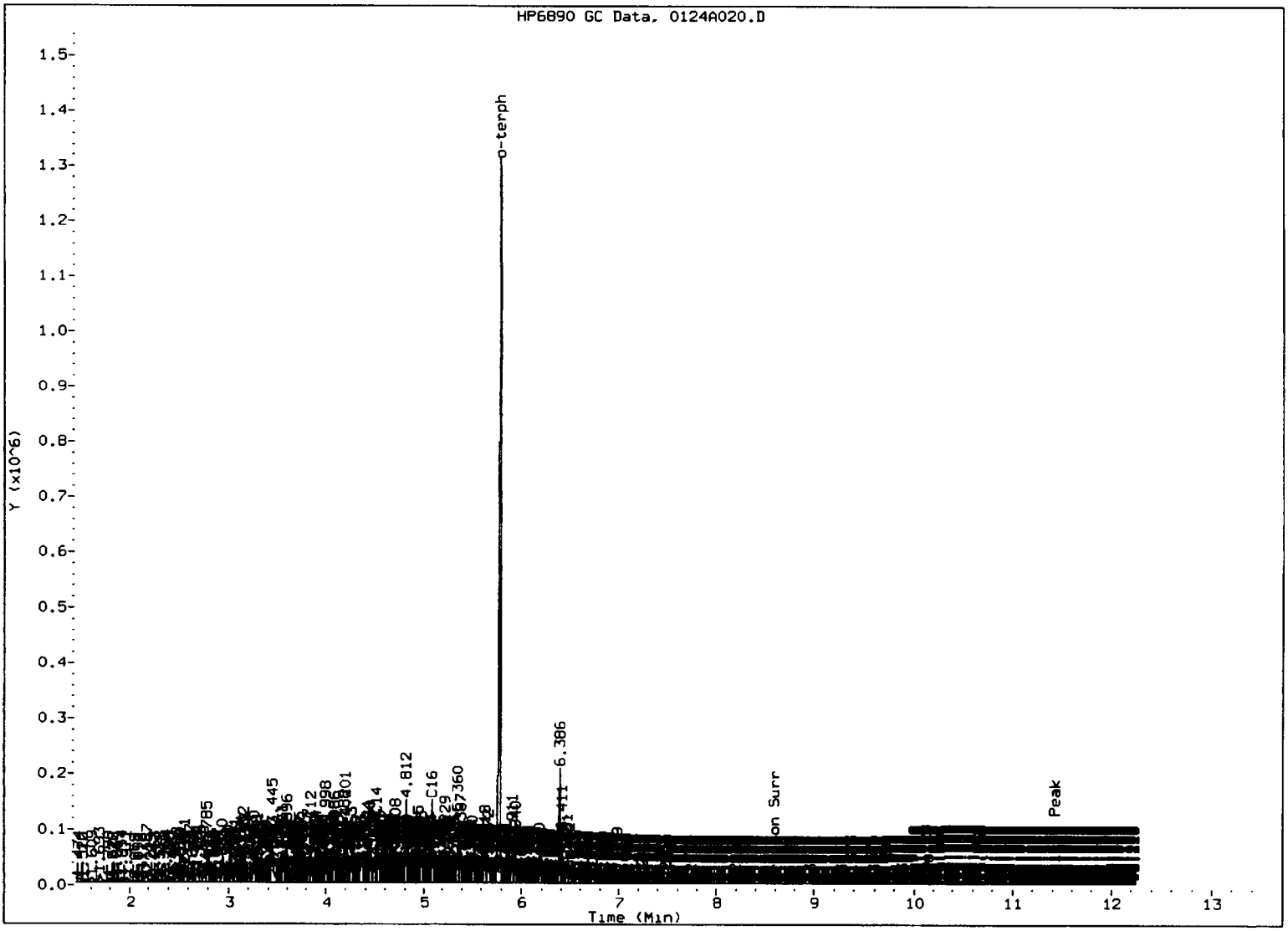
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1264118	47.6	105.8
Triacontane	42	0.0	0.0

JR 01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 DIESELICV FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other skimmed smvr

Analyst: [signature] Date: 01/25/13

Data File: /chem2/fid9.i/20130124.b/0124A021.D

Date : 24-JAN-2013 20:24

Client ID:

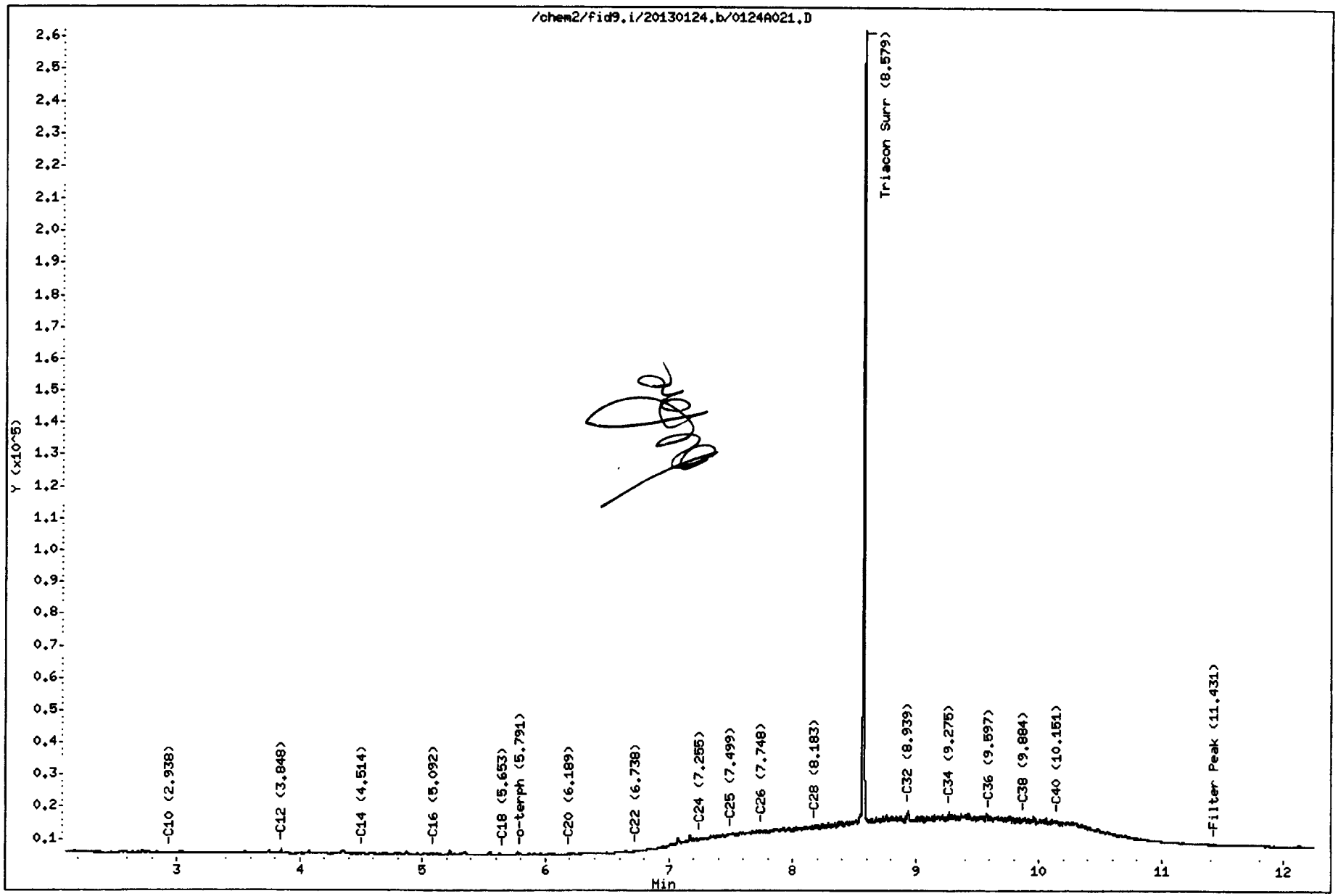
Sample Info: 100PPMMOIL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A021.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 100PPMMOIL
Client ID:
Injection: 24-JAN-2013 20:24
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.102	0.066	6459	4631	GAS (Tol-C12)	376281	14.72	
C8	1.247	-0.013	5214	7664	DIESEL (C12-C24)	148154	7.28	
C10	2.938	-0.005	534	491	M.OIL (C24-C38)	1547529	97.14	
C12	3.848	-0.005	1644	1457	AK-102 (C10-C25)	225720	9.40	
C14	4.514	-0.007	373	574	AK-103 (C25-C36)	1291843	152.01	M
C16	5.092	-0.004	287	263				
C18	5.653	0.010	85	52				
C20	6.189	-0.004	401	466				
C22	6.738	0.000	1243	381				
C24	7.255	0.006	5040	5575				
C25	7.499	0.003	6538	2054				
C26	7.748	0.004	7825	7793				
C28	8.183	0.001	9130	8508				
C32	8.939	-0.009	14435	20214	JP-4 (Tol-C14)	389060	23.73	
C34	9.275	-0.007	13716	12885	BUNKERC (C10-C38)	1718619	230.86	M
Filter Peak	11.431	0.003	3666	1167				
C36	9.597	0.004	12588	9965				
C38	9.884	-0.001	11565	3212				
C40	10.151	-0.010	11096	10452				
o-terph	5.791	0.006	406	393	JET-A (C10-C18)	49260	3.56	
Triacon Surr	8.579	-0.015	243756	171430				

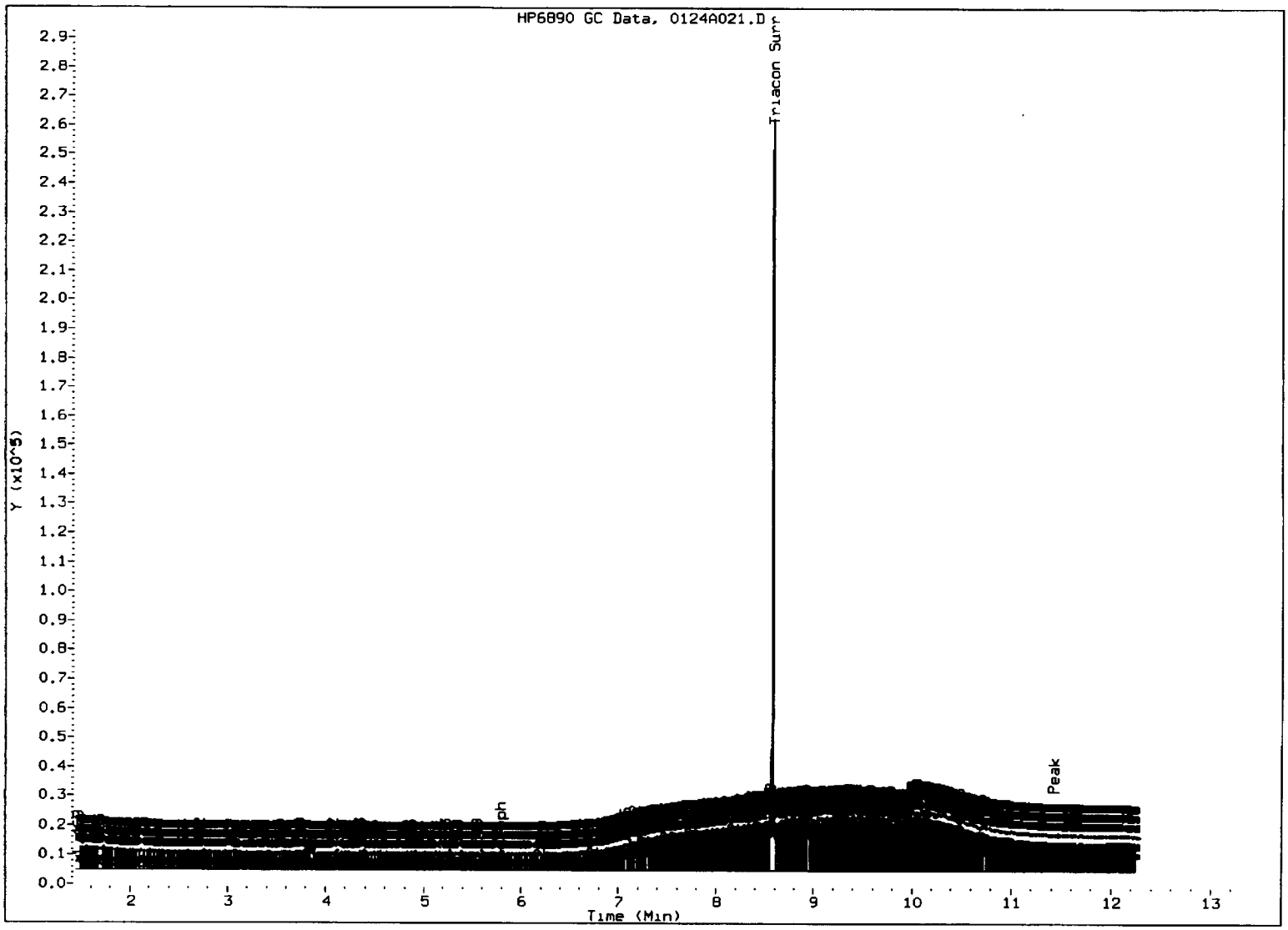
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	393	0.0	0.0
Triacontane	171430	8.2	18.3

01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 100PPMMOIL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other [signature] surr

Analyst: [signature] Date: 04/26/13

Data File: /chem2/fid9.i/20130124.b/0124A022.D

Page 1

Date : 24-JAN-2013 20:46

Client ID:

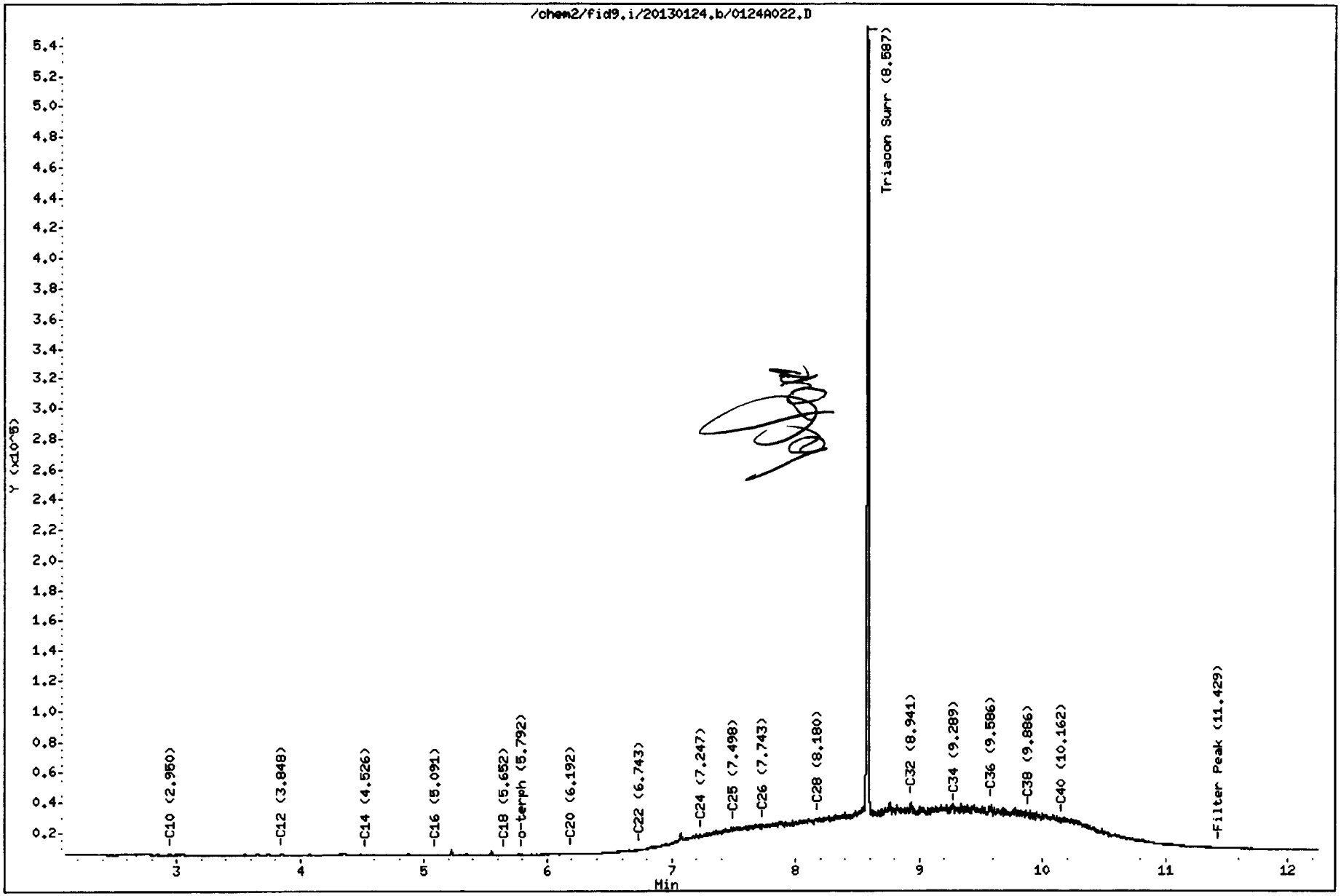
Instrument: fid9.i

Sample Info: 250PPMMOIL

Operator: JR/VTS

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A022.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 250PPMMOIL
Client ID:
Injection: 24-JAN-2013 20:46
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	----				GAS (Tol-C12)	676576	26	
C8	1.260	0.000	4368	955	DIESEL (C12-C24)	367285	18.04	
C10	2.950	0.007	462	439	M.OIL (C24-C38)	3967070	249.03	
C12	3.848	-0.005	1369	1362	AK-102 (C10-C25)	519640	21.64	
C14	4.526	0.006	234	164	AK-103 (C25-C36)	3356474	394.97	M
C16	5.091	-0.004	228	212				
C18	5.652	0.010	108	75				
C20	6.192	-0.001	857	780				
C22	6.743	0.005	3508	1892				
C24	7.247	-0.001	13211	13557				
C25	7.498	0.002	18327	10579				
C26	7.743	0.000	19741	8496				
C28	8.180	-0.001	24046	15239				
C32	8.941	-0.007	35357	35156	JP-4 (Tol-C14)	687706	41.94	
C34	9.289	0.007	30351	11565	BUNKERC (C10-C38)	4355276	585.04	M
Filter Peak	11.429	0.001	4781	1809				
C36	9.586	-0.006	33193	36989				
C38	9.886	0.002	27663	21380				
C40	10.162	0.001	22896	4537				
o-terph	5.792	0.007	438	187	JET-A (C10-C18)	45699	3.31	
Triacon Surr	8.587	-0.006	517276	443598				

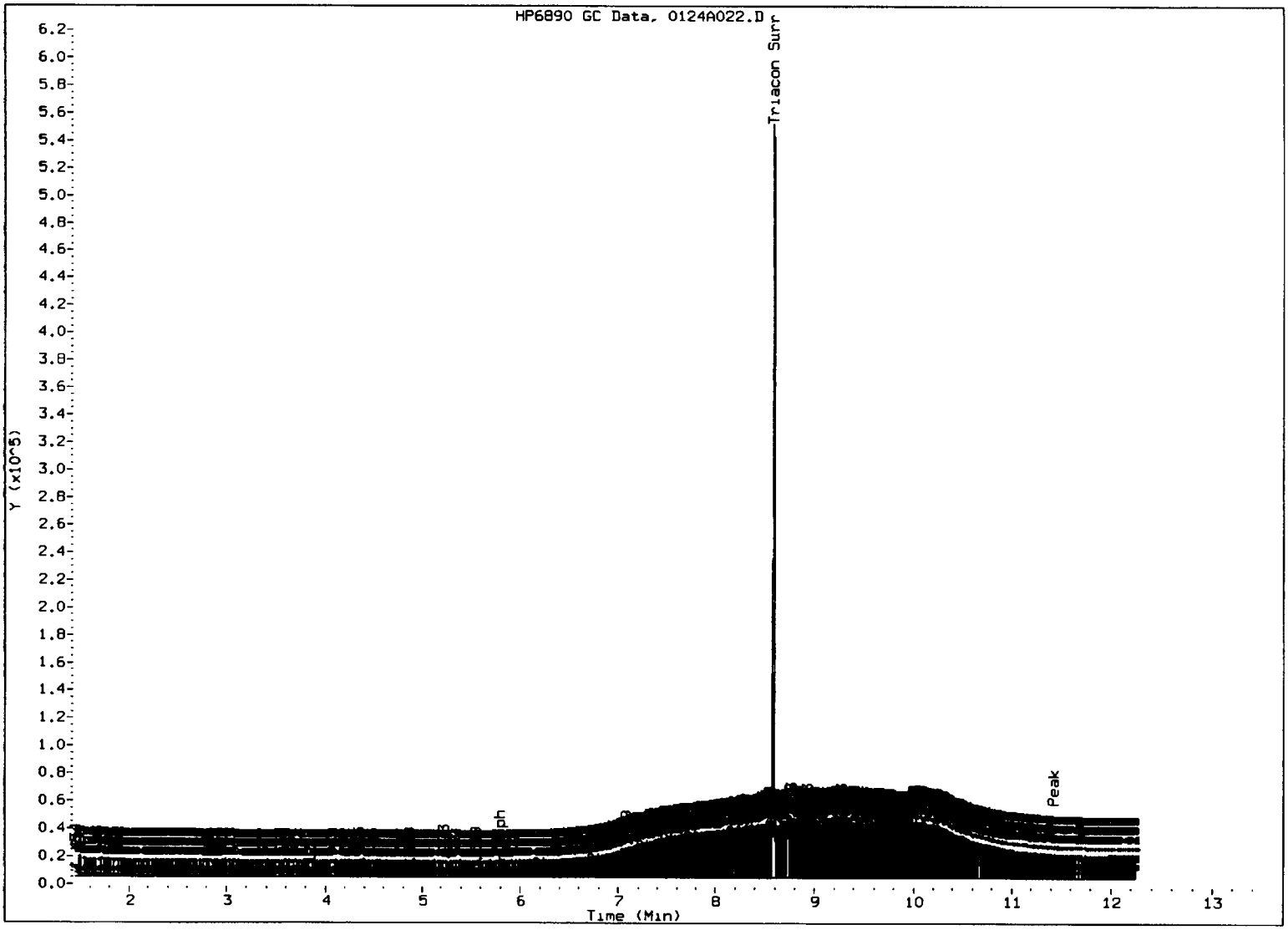
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	187	0.0	0.0
Triacontane	443598	21.3	47.3

JR 01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 250PPMMOIL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other skimmed saw

Analyst: [signature] Date: 9/25/13

Data File: /chem2/fid9.i/20130124.b/0124A023.D

Date : 24-JAN-2013 21:07

Client ID:

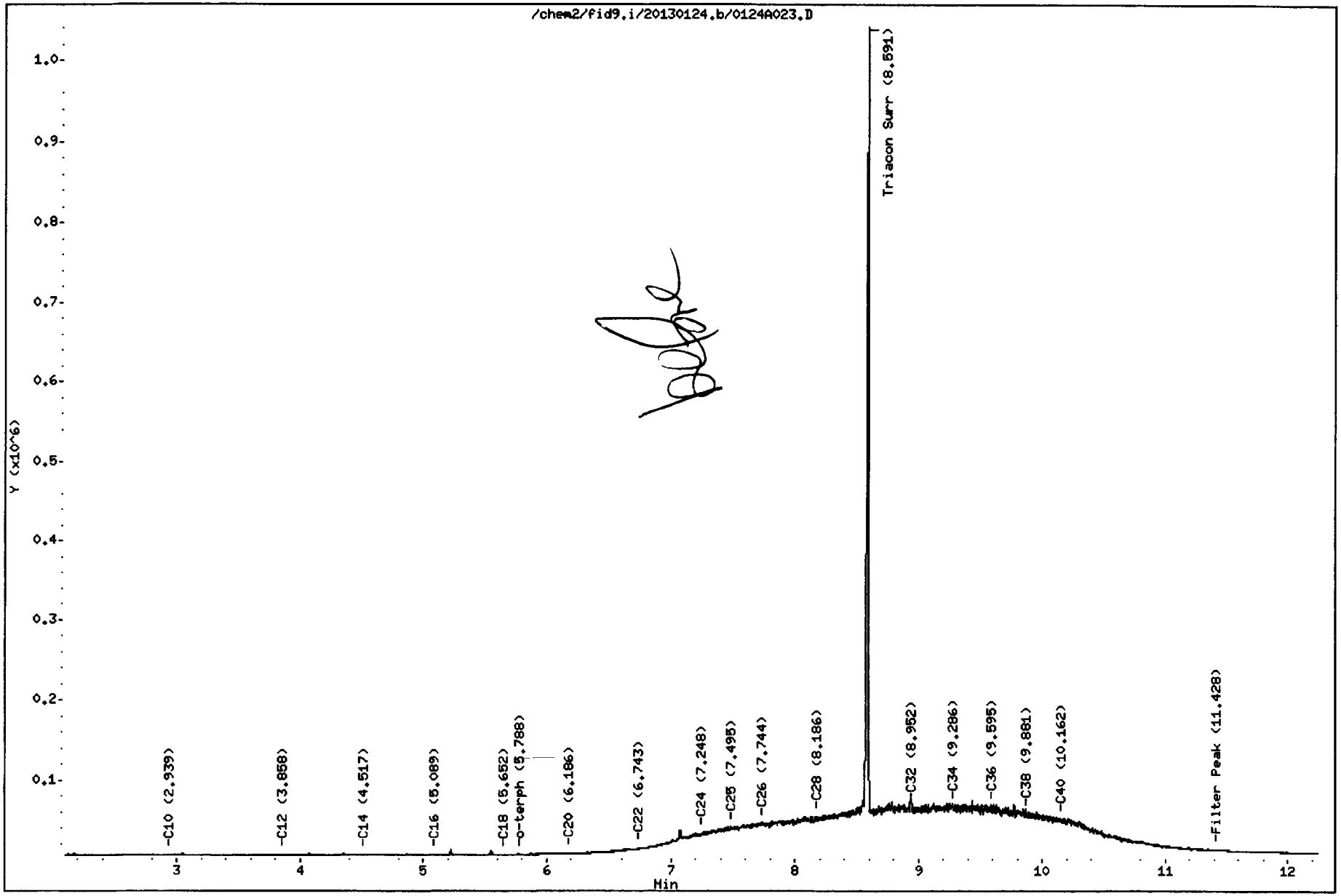
Sample Info: 500PPMMOIL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A023.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 500PPMMOIL
Client ID:
Injection: 24-JAN-2013 21:07
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	----				GAS (Tol-C12)	1147778	45	
C8	1.248	-0.012	5019	7397	DIESEL (C12-C24)	783288	38.48	
C10	2.939	-0.004	511	540	M.OIL (C24-C38)	7941741	498.53	
C12	3.858	0.006	506	585	AK-102 (C10-C25)	1067669	44.46	
C14	4.517	-0.003	259	169	AK-103 (C25-C36)	6749543	794.24	M
C16	5.089	-0.006	254	215				
C18	5.652	0.009	307	223				
C20	6.186	-0.007	2104	2330				
C22	6.743	0.005	8164	5837				
C24	7.248	0.000	27048	13267				
C25	7.495	-0.001	35543	12992				
C26	7.744	0.001	40718	14396				
C28	8.186	0.004	49251	43238				
C32	8.952	0.005	58880	29500	JP-4 (Tol-C14)	1156409	70.53	
C34	9.286	0.005	60865	34302	BUNKERC (C10-C38)	8739681	1174.00	M
Filter Peak	11.428	-0.001	6615	3354				
C36	9.595	0.003	61119	36550				
C38	9.881	-0.003	52296	27220				
C40	10.162	0.000	46016	17783				
o-terph	5.788	0.003	754	341	JET-A (C10-C18)	42041	3.04	
Triacon Surr	8.591	-0.002	979502	899900				

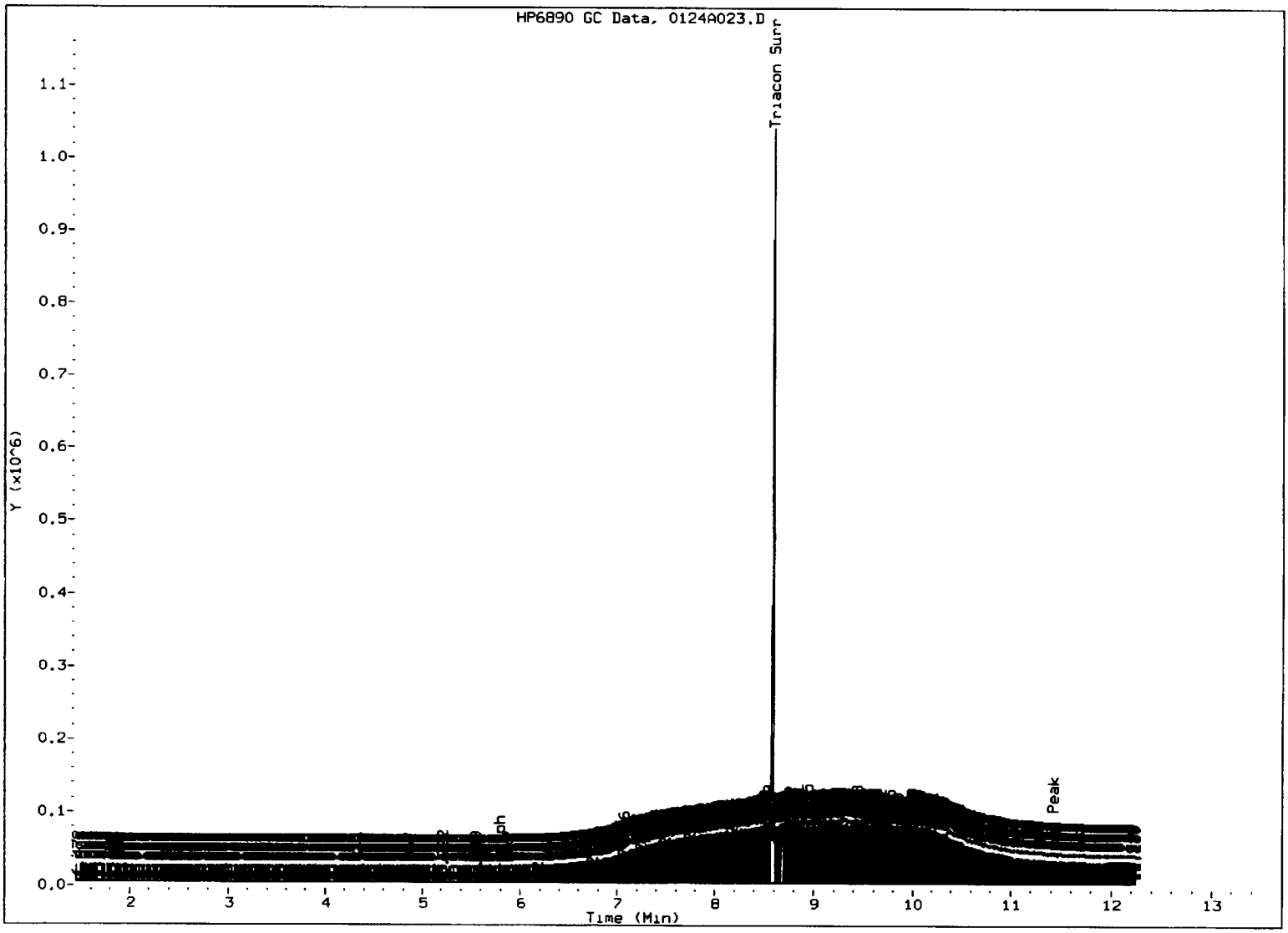
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	341	0.0	0.0
Triacontane	899900	43.2	96.0

JR 01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 500PPMMOIL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other Unknown Surr

Analyst: [signature] Date: 01/26/17

Data File: /chem2/fid9.i/20130124.b/0124A024.D

Date : 24-JAN-2013 21:29

Client ID:

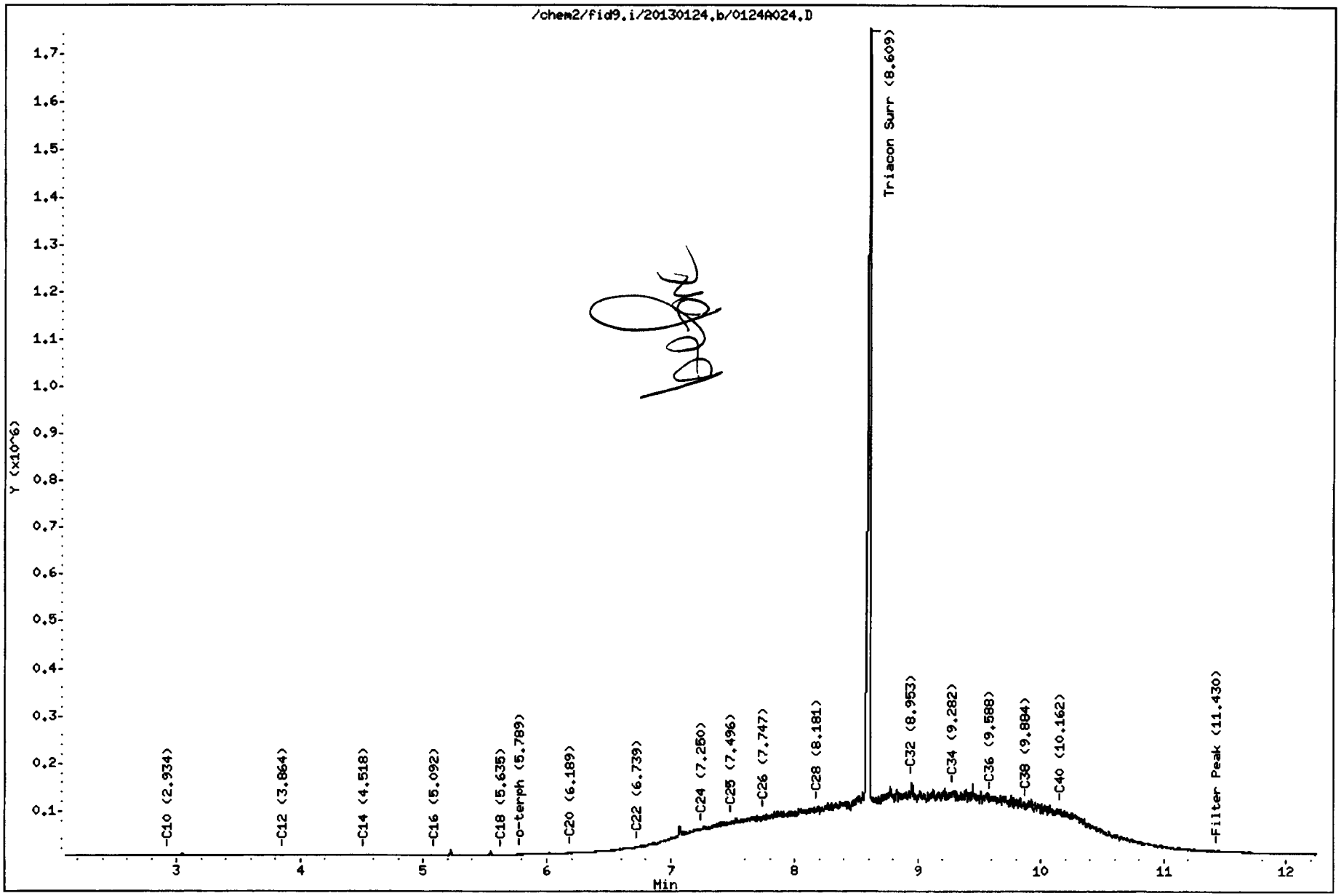
Sample Info: 1000PPMMOIL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A024.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 1000PPMMOIL
Client ID:
Injection: 24-JAN-2013 21:29
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.002	-0.034	63584	10163	GAS (Tol-C12)	2233633	87.37	
C8	1.263	0.003	5341	1596	DIESEL (C12-C24)	1701948	83.61	
C10	2.934	-0.009	979	1026	M.OIL (C24-C38)	16689028	1047.63	
C12	3.864	0.012	89	34	AK-102 (C10-C25)	2271041	94.58	
C14	4.518	-0.003	336	182	AK-103 (C25-C36)	14129331	1662.64	M
C16	5.092	-0.004	438	413				
C18	5.635	-0.008	1328	1971				
C20	6.189	-0.004	4948	4123				
C22	6.739	0.000	17877	10483				
C24	7.250	0.001	56746	37457				
C25	7.496	0.000	72774	22671				
C26	7.747	0.003	86239	50609				
C28	8.181	0.000	102191	49297				
C32	8.953	0.006	155755	187720	JP-4 (Tol-C14)	2246889	137.03	
C34	9.282	0.000	136734	45534	BUNKERC (C10-C38)	18410182	2473.03	M
Filter Peak	11.430	0.001	9366	3300				
C36	9.588	-0.004	122906	28998				
C38	9.884	-0.001	109093	42663				
C40	10.162	0.000	99636	66840				
o-terph	5.789	0.004	1581	602	JET-A (C10-C18)	70725	5.12	
Triacon Surr	8.609	0.015	1630573	1961808				

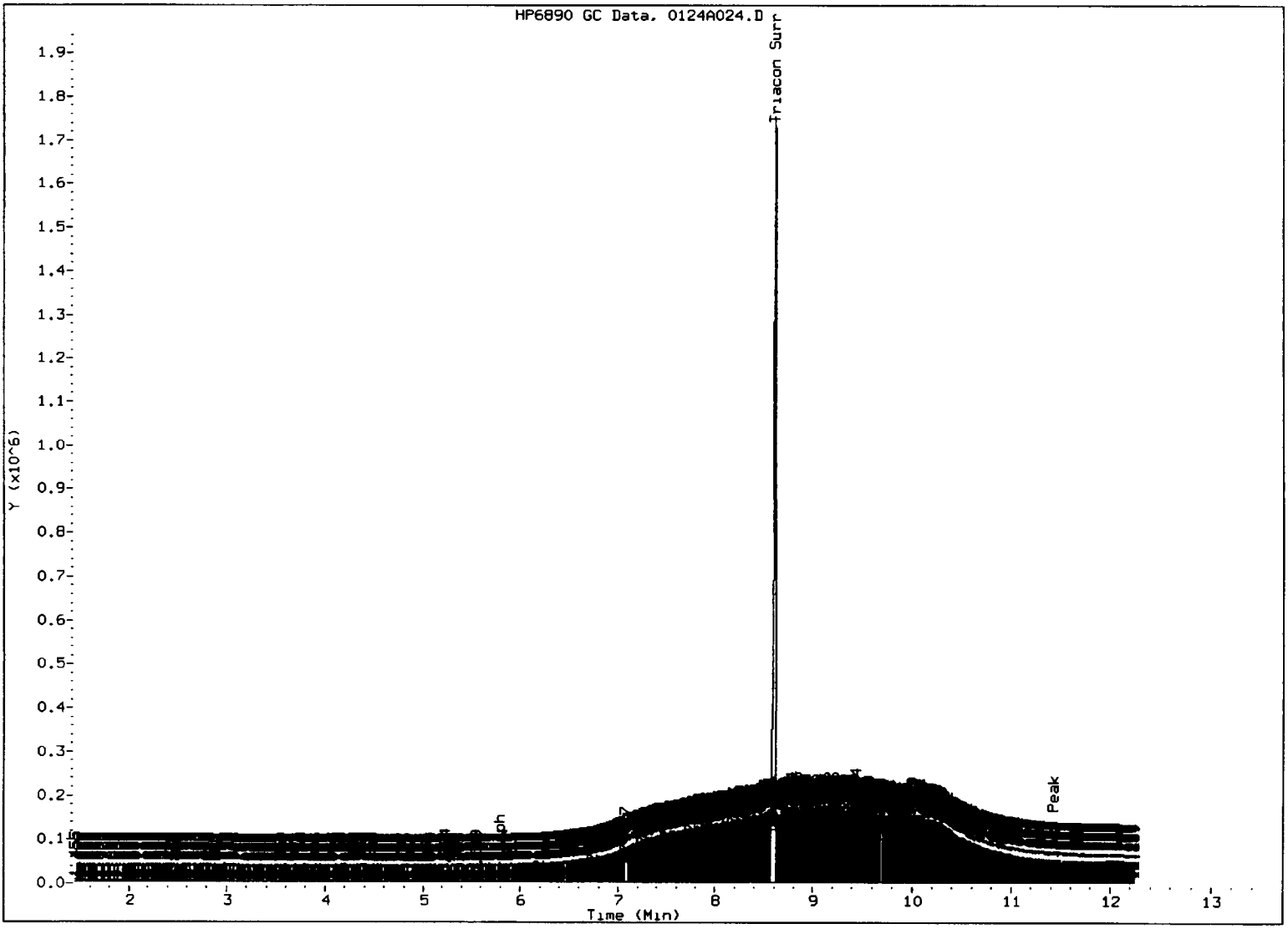
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	602	0.0	0.1
Triacontane	1961808	94.2	209.3

1/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 1000PPMMOIL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other skimmed solvent

Analyst: [signature] Date: 01/25/13

Data File: /chem2/fid9.i/20130124.b/0124A025.D

Date : 24-JAN-2013 21:51

Client ID:

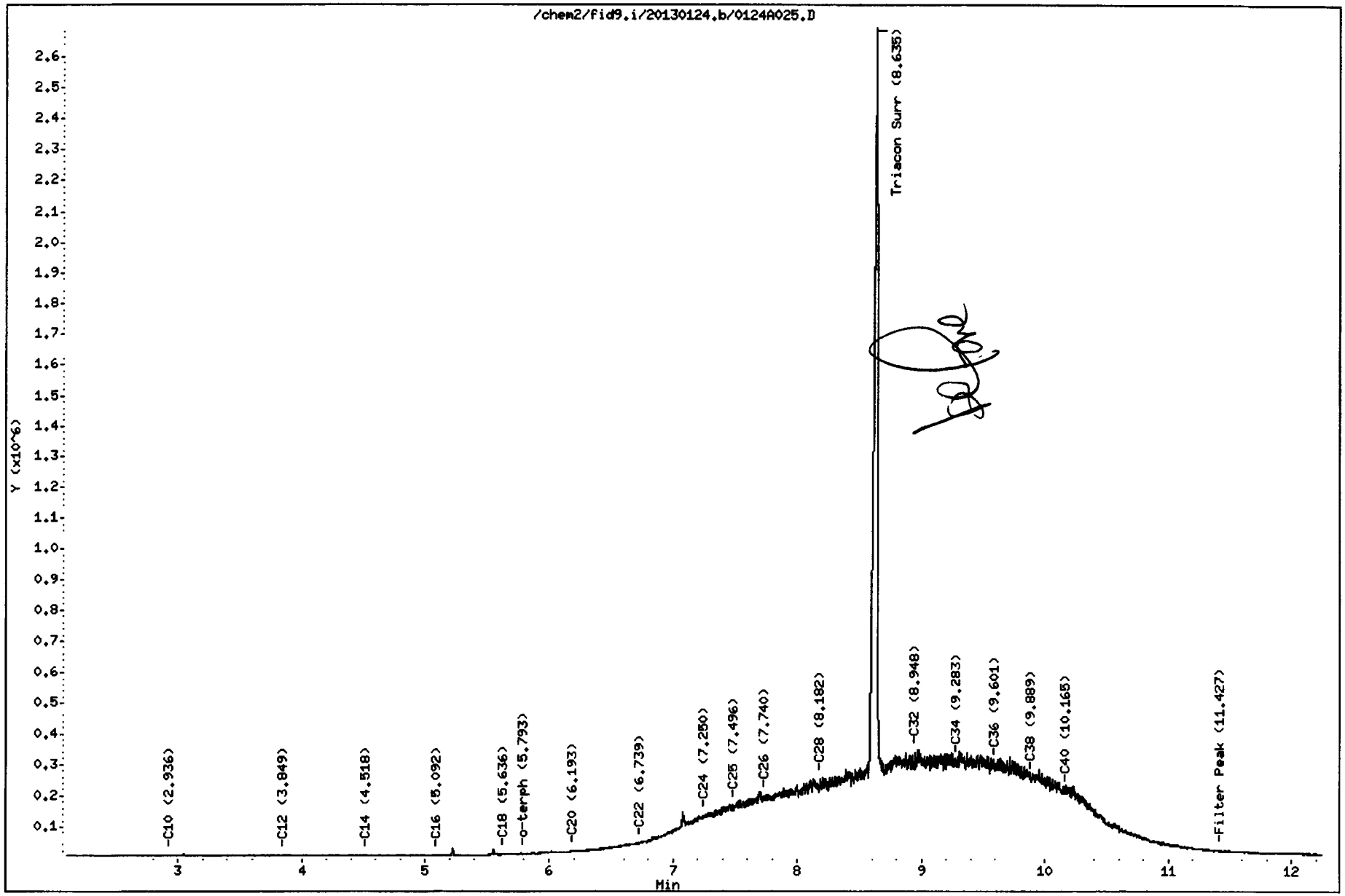
Sample Info: 2500PPMMOIL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A025.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 2500PPMMOIL
Client ID:
Injection: 24-JAN-2013 21:51
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	----				GAS (Tol-C12)	5226025	204	
C8	1.267	0.006	4404	1400	DIESEL (C12-C24)	3997873	196.40	
C10	2.936	-0.007	1357	1205	M.OIL (C24-C38)	39427744	2475.02	
C12	3.849	-0.003	447	467	AK-102 (C10-C25)	5318817	221.51	
C14	4.518	-0.003	712	497	AK-103 (C25-C36)	33528758	3945.42	M
C16	5.092	-0.004	1295	1673				
C18	5.636	-0.007	3890	5401				
C20	6.193	0.000	12687	9784				
C22	6.739	0.000	40642	7263				
C24	7.250	0.001	129384	53609				
C25	7.496	0.000	161182	47714				
C26	7.740	-0.004	193062	161770				
C28	8.182	0.001	247148	230957				
C32	8.948	0.001	334455	184141	JP-4 (Tol-C14)	5247804	320.06	
C34	9.283	0.001	305721	149729	BUNKERC (C10-C38)	43443025	5835.67	M
Filter Peak	11.427	-0.002	17602	10979				
C36	9.601	0.008	299419	166612				
C38	9.889	0.004	250530	108202				
C40	10.165	0.003	213730	79369				
o-terph	5.793	0.007	4654	2255	JET-A (C10-C18)	142179	10.29	
Triacon Surr	8.635	0.041	2397278	4796802				

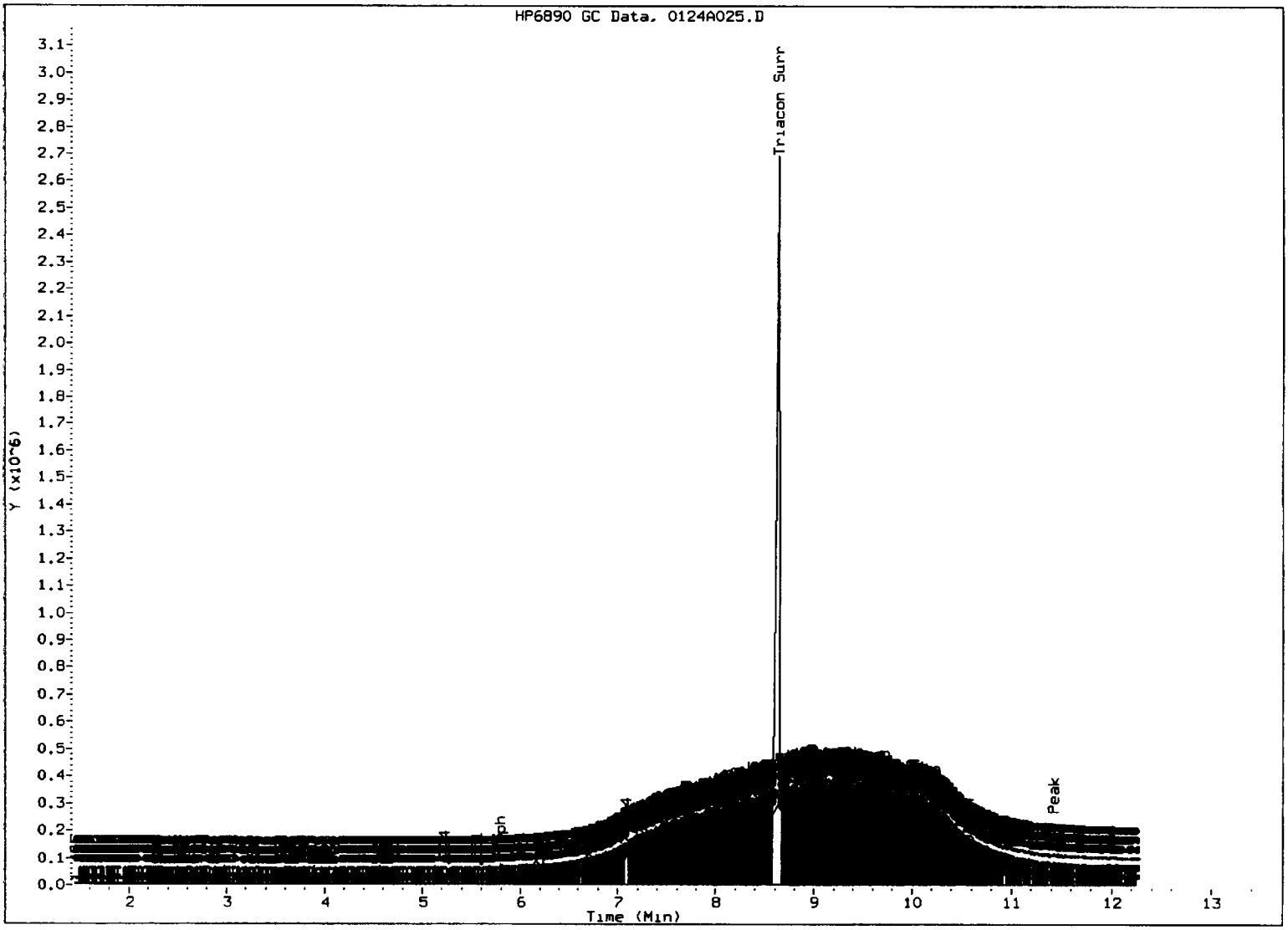
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2255	0.1	0.2
Triacontane	4796802	230.3	511.9

JR 01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 2500PPMMOIL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other skimmed surr

Analyst: _____ Date: 01/25/13

Data File: /chem2/fid9.i/20130124.b/0124A026.D

Date : 24-JAN-2013 22:13

Client ID:

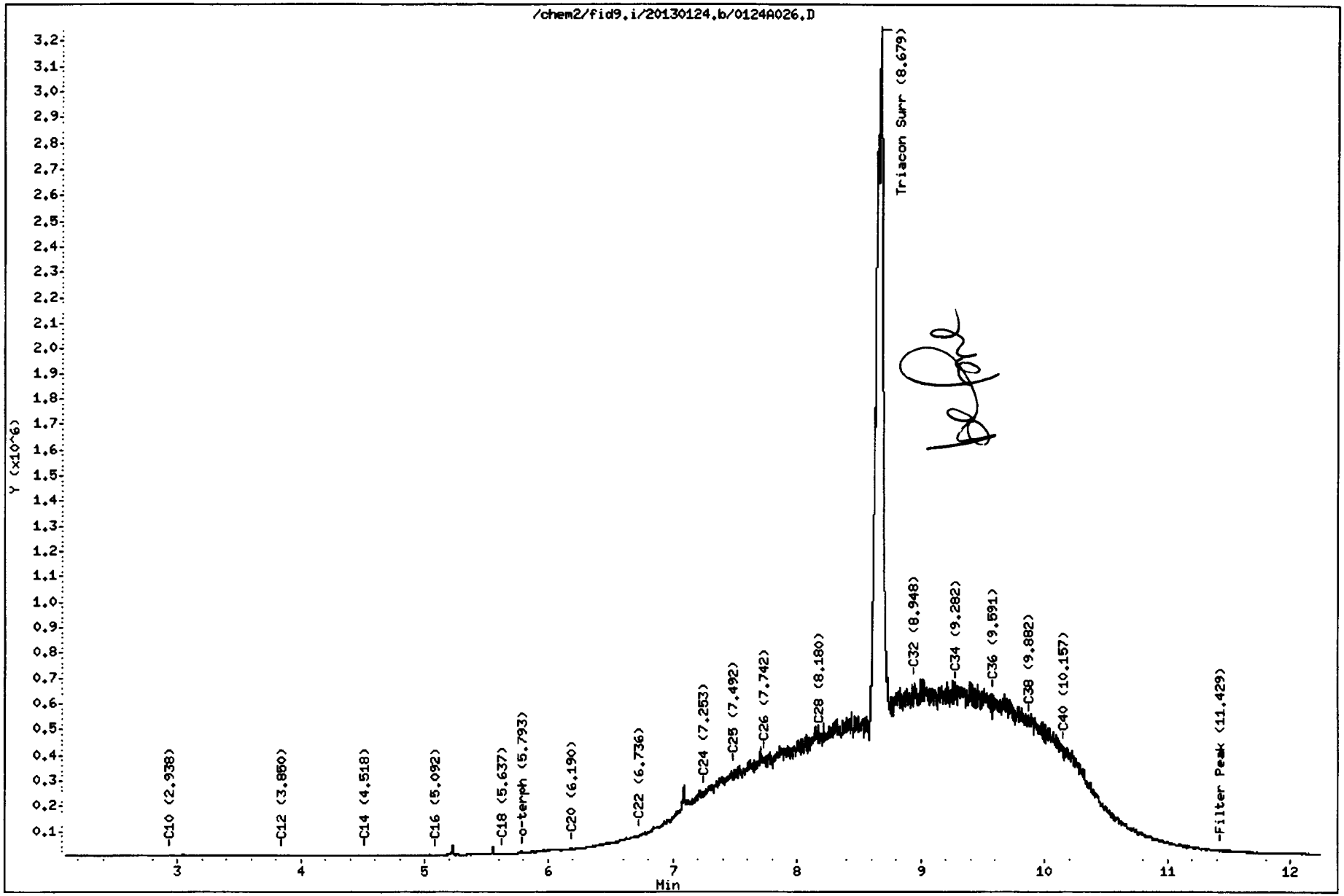
Sample Info: 5000PPMMOIL

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A026.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: 5000PPMMOIL
Client ID:
Injection: 24-JAN-2013 22:13
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.024	-0.012	254958	247525	GAS (Tol-C12)	10163354	397.54	
C8	1.256	-0.004	5327	19858	DIESEL (C12-C24)	7845522	385.42	
C10	2.938	-0.005	2610	1948	M.OIL (C24-C38)	79472789	4988.78	
C12	3.850	-0.003	562	681	AK-102 (C10-C25)	10346640	430.89	
C14	4.518	-0.003	1088	682	AK-103 (C25-C36)	67488337	7941.54	M
C16	5.092	-0.003	2422	2995				
C18	5.637	-0.006	7951	11422				
C20	6.190	-0.003	26509	28507				
C22	6.736	-0.002	79158	45040				
C24	7.253	0.004	248895	77433				
C25	7.492	-0.004	338605	244171				
C26	7.742	-0.002	389520	120593				
C28	8.180	-0.001	455192	179595				
C32	8.948	0.000	677130	672271	JP-4 (Tol-C14)	10198455	621.99	
C34	9.282	0.000	658058	118009	BUNKERC (C10-C38)	87341975	11732.59	M
Filter Peak	11.429	0.000	20093	11752				
C36	9.591	-0.002	625414	330004				
C38	9.882	-0.003	531566	158135				
C40	10.157	-0.004	426073	277901				
o-terph	5.793	0.008	9584	3202	JET-A (C10-C18)	271619	19.66	
Triacon Surr	8.679	0.085	2709066	10382334				

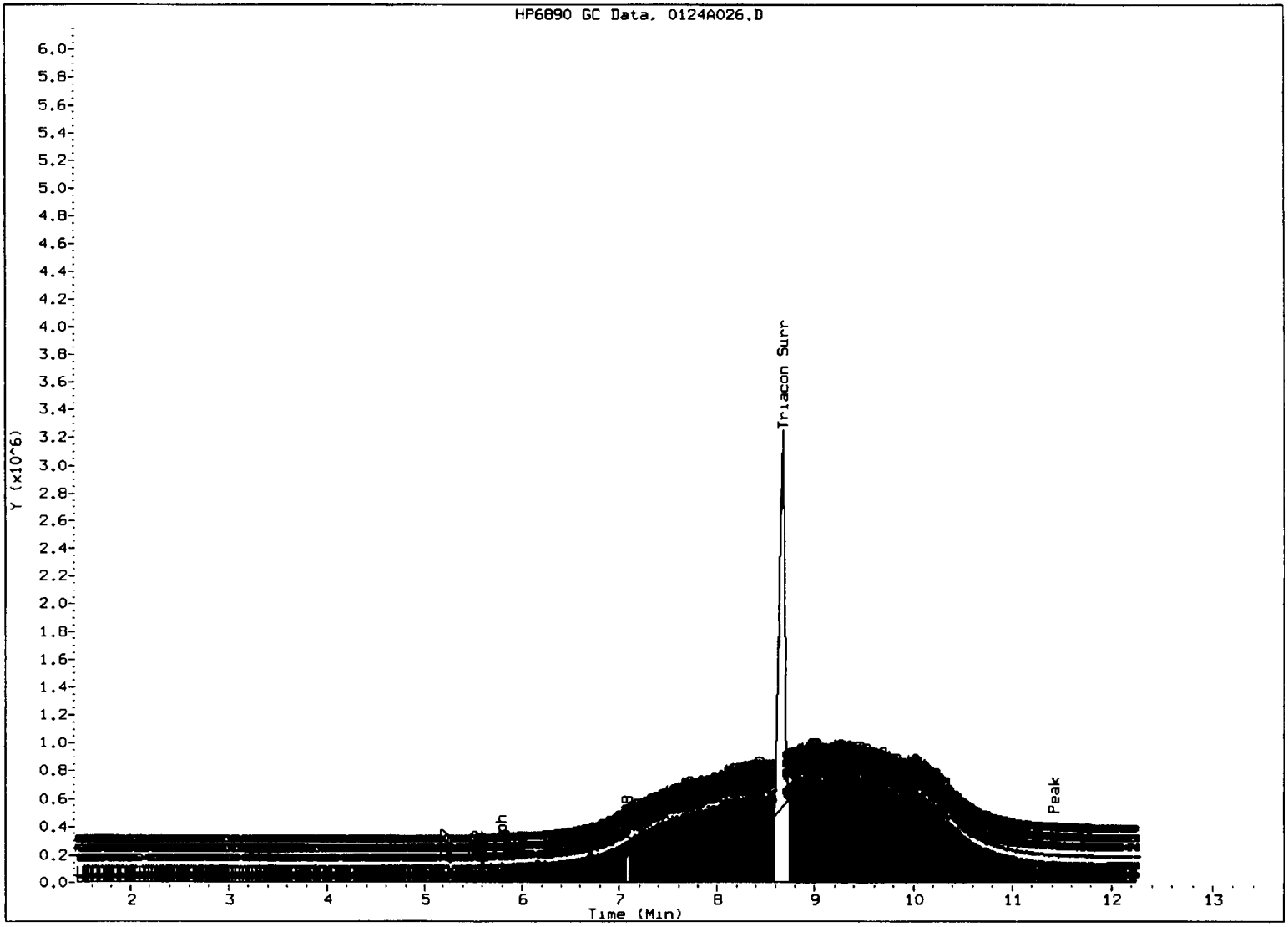
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3202	0.1	0.3
Triacontane	10382334	498.6	1107.9

01/25/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

FID:9A-2C/RTX-1 5000PPMMOIL FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other Skimmed Surr

Analyst: _____ Date: 01/25/13

Data File: /chem2/fid9.i/20130124.b/0124A027.D

Date : 24-JAN-2013 22:35

Client ID:

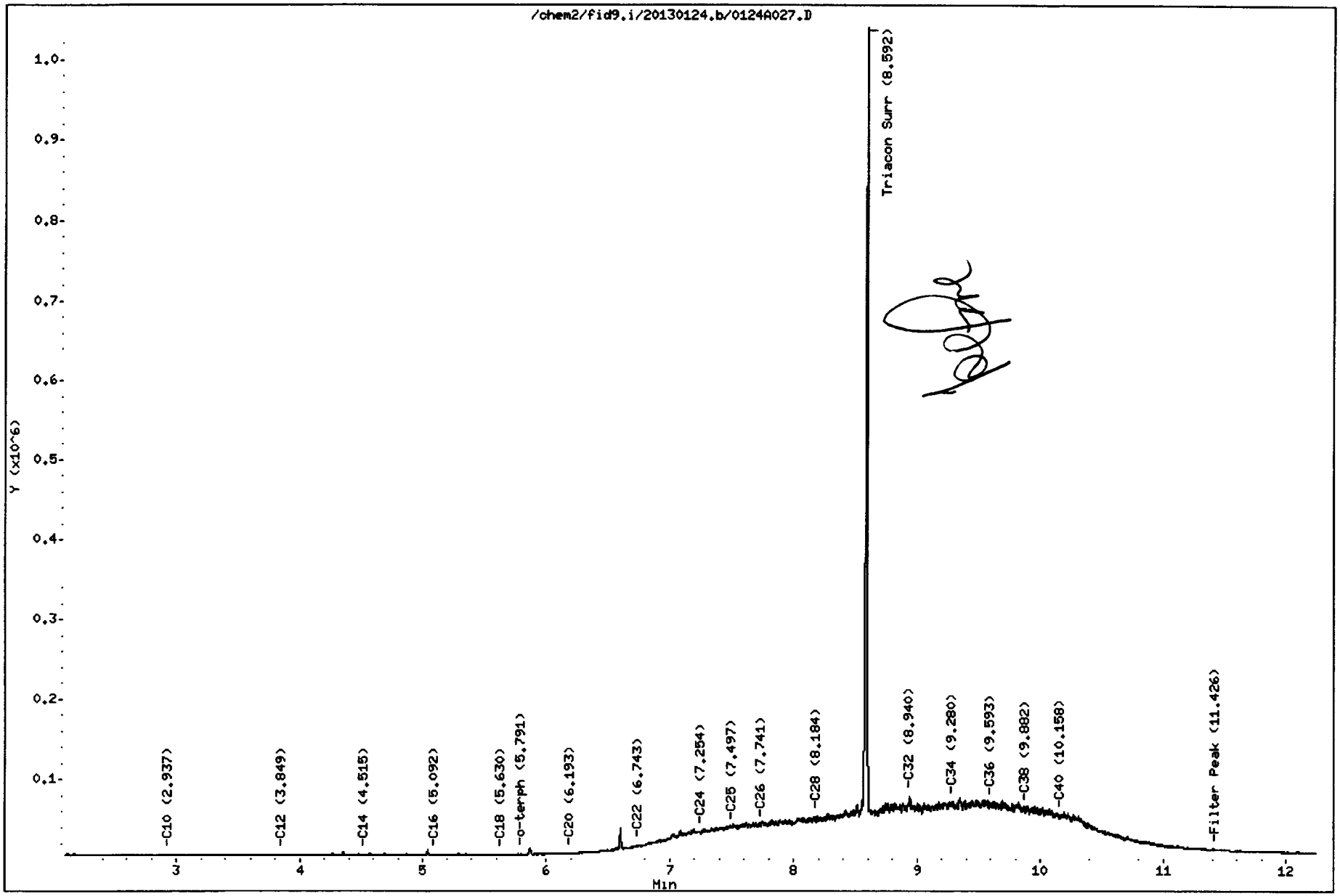
Sample Info: HOILICV

Column phase: RTX-1

Instrument: fid9.i

Operator: JR/VTS

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130124.b/0124A027.D
Method: /chem2/fid9.i/20130124.b/ftphfid9a.m
Instrument: fid9.i
Operator: JR/VTS
Report Date: 01/25/2013

ARI ID: MOILICV
Client ID:
Injection: 24-JAN-2013 22:35
Dilution Factor: 1
Macro: 24-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.036	0.000	33316	5990	GAS (Tol-C12)	1229799	48.10	
C8	1.247	-0.013	5274	14672	DIESEL (C12-C24)	953317	46.83	
C10	2.937	-0.006	458	465	M.OIL (C24-C38)	8240150	517.26	
C12	3.849	-0.004	154	131	AK-102 (C10-C25)	1251532	52.12	
C14	4.515	-0.005	232	222	AK-103 (C25-C36)	6903508	812.35	M
C16	5.092	-0.003	385	339				
C18	5.630	-0.013	761	967				
C20	6.193	0.000	2452	1840				
C22	6.743	0.005	11414	5156				
C24	7.254	0.005	29429	8449				
C25	7.497	0.002	35494	14045				
C26	7.741	-0.003	39012	9154				
C28	8.184	0.003	48168	24723				
C32	8.940	-0.007	74790	86787	JP-4 (Tol-C14)	1240450	75.65	
C34	9.280	-0.002	67600	40197	BUNKERC (C10-C38)	9205433	1236.56	M
Filter Peak	11.426	-0.002	6964	5839				
C36	9.593	0.001	66369	26398				
C38	9.882	-0.003	58397	26982				
C40	10.158	-0.004	50597	17582				
o-terph	5.791	0.006	880	501	JET-A (C10-C18)	42534	3.08	
Triacon Surr	8.592	-0.001	974509	933343				

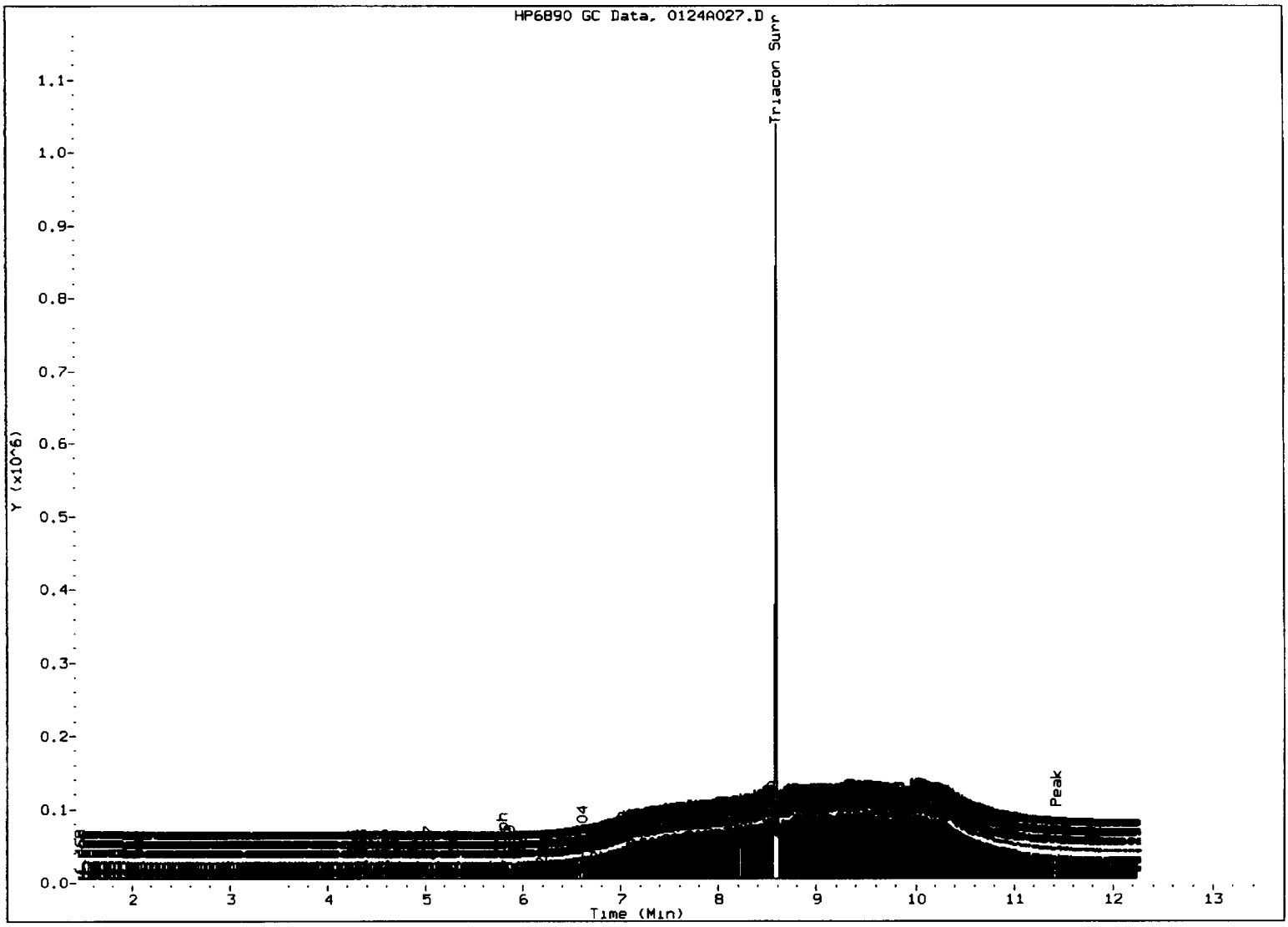
M Indicates manual integration within range.
Range Times: NW Diesel(3.853 - 7.249) AK102(2.94 - 7.50) Jet A(2.94 - 5.64)
NW M.Oil(7.25 - 9.88) AK103(7.50 - 9.59) OR Diesel(2.94 - 8.18)

Surrogate	Area	Amount	%Rec
o-Terphenyl	501	0.0	0.0
Triacontane	933343	44.8	99.6

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	25565.9	24-JAN-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	8498.1	07-SEP-2010
JP4	16396.5	09-JUN-2010
JetA	13819.1	11-JUN-2010
Bunker C	7444.4	15-FEB-2011

JR 01/25/13

FID:9A-2C/RTX-1 MOILICV FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Other skimmed surr

Analyst: [signature] Date: 01/25/13

TPHD Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

GC Analyst Notes / Data Review Checklist

ARI WORK Order: WJ10 Client ID: SAIC

METHOD: **8082A**(PCB) **8151A**(Herb) **NW-TPH**(TPH-D) **NW-TPH**(HCID) **8041A**(PCP)
8081B(PEST) **8015B**(Dir Inj) **NW-EPH**(EPH) **8082A**(PBDE) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date: 1/24/13 Analysis Start Date: 4/2/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Endrin/DDT B.D. ≤15%?	NA / Y / N / ___	Method Blank in Control?	Y / N / ✓
Retention times within Windows?	Y / N / ✓	LCS / LCSD Recovery in Control?	Y / N / ✓
CCAL met %D Criteria?	Y / N / ✓	LCS / LCSD RPD ≤30%?	NA / ___
Surrogate Recovery in Control?	Y / N / ✓	MS / MSD Recovery in Control?	Y / N / ✓
Internal STD. within 50-200%?	NA / Y / N / ___	MS / MSD RPD ≤30%?	NA / ___
Manual Integrations?	Y / N / ✓	Samples Diluted?	Y / N / ✓
Integration Summary?	Y / N / ✓	Special Analysis Request?	Y / N / ___

Detail problems, corrective actions and/or other pertinent information below

Sample D appears to be weathered diesel, and contains motor oil. Note that there are misc peaks in both ranges as well, A/s cleanup may remove possible interferences.

C contains motor oil & DRO, if diesel is present it is masked by the motor oil, the early range pattern is not good match though for diesel.

n-Triacontane out low by 0.5% in mail # ccal, surr not requested & ccal meets, no corrective action needed.

(Review 1) Analyst: JW **Date:** 4/4/13

(Review 2) Reviewer: [signature] **Date:** 4/4

Analytical Resources Inc.: Organics Instrument Log

FID-9 Agilent 6850 - Serial No.: US10404004

Date: 4/2/13 Analysis: TPHD Analyst: JW

GC Program: TPH Column No: 977444 Column Type: RTX-1

Instrument Tune (.U or .CT.): ——— EM Voltage: ———

Calibration File: ——— Curve Date: 1/24/13

IS/SS	Ical/Ccal	LCS/ICV
	2043-3,4	
	7021-3	
	2041-4	

GC LOG SUMMARY FOR DATABATCH - /chem2/fid9.i/20130402.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	02-APR-2013 12:41	0402a001.d	1	RINSE	
2	02-APR-2013 13:03	0402a002.d	1	RT0402	
3	02-APR-2013 13:25	0402a003.d	1	IB0402	
4	02-APR-2013 13:47	0402a004.d	1	DIESEL#1	
5	02-APR-2013 14:09	0402a005.d	1	MOIL#1	
6	02-APR-2013 15:03	0402a006.d	5	WJ10D	
7	02-APR-2013 15:25	0402a007.d	5	WJ10C	
8	02-APR-2013 15:47	0402a008.d	5	WJ10DMS	
9	02-APR-2013 16:10	0402a009.d	5	WJ10DMSD	
10	02-APR-2013 16:32	0402a010.d	1	WJ10MBS1	
11	02-APR-2013 16:54	0402a011.d	1	WJ10LCSS1	
12	02-APR-2013 17:17	0402a012.d	1	DIESEL#2	
13	02-APR-2013 17:39	0402a013.d	1	MOIL#2	
14	02-APR-2013 18:01	0402a014.d	1	WJ78MBS1	WJ78MBS1
15	02-APR-2013 18:23	0402a015.d	1	WJ78LCSS1	WJ78LCSS1
16	02-APR-2013 18:46	0402a016.d	1	WJ78A	EEW-110SS-130130
17	02-APR-2013 19:08	0402a017.d	1	WJ78B	EEW-111SS-130201
18	02-APR-2013 19:30	0402a018.d	1	WJ78C	EEW-113SS-130129
19	02-APR-2013 19:52	0402a019.d	1	WJ78D	EEW-115SS-130205
20	02-APR-2013 20:14	0402a020.d	1	WJ78E	EEW-116SS-130130
21	02-APR-2013 20:36	0402a021.d	1	WJ78F	EEW-118SS-130129
22	02-APR-2013 20:58	0402a022.d	1	WJ78G	EEW-127SS-130130
23	02-APR-2013 21:20	0402a023.d	1	WJ78H	EEW-129SS-130130
24	02-APR-2013 21:42	0402a024.d	1	WJ78HMS	EEW-129SS-13013 MS
25	02-APR-2013 22:04	0402a025.d	1	WJ78HMSD	EEW-129SS-13013 MSD
26	02-APR-2013 22:26	0402a026.d	1	WJ78I	EEW-139SS-130130
27	02-APR-2013 22:48	0402a027.d	1	DIESEL#3	
28	02-APR-2013 23:09	0402a028.d	1	MOIL#3	

JW 4/3/13

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/fid9.i/20130402.b

ARI Job No.: RT04 Method: ftphfid9a.m Instrument: fid9.i Date: 02-APR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1303	0402a002.d	RT0402		1	Toluene,
1325	0402a003.d	IB0402		1	NO MANUAL INTEGRATION
1347	0402a004.d	DIESEL#1	NPDES Samp	1	o-terph,
1409	0402a005.d	MOIL#1	NPDES Samp	1	Triacon Surr,
1503	0402a006.d	WJ10D	SD-CB-01-2	5	o-terph, Triacon Surr,
1525	0402a007.d	WJ10C	SD-SP-01-2	5	o-terph, Triacon Surr,
1547	0402a008.d	WJ10DMS	SD-CB-01-2	5	o-terph, Triacon Surr,
1610	0402a009.d	WJ10DMSD	SD-CB-01-2	5	o-terph, Triacon Surr,
1632	0402a010.d	WJ10MBS1	WJ10MBS1	1	NO MANUAL INTEGRATION
1654	0402a011.d	WJ10LCSS1	WJ10LCSS1	1	o-terph,
1717	0402a012.d	DIESEL#2	NPDES Samp	1	o-terph,
1739	0402a013.d	MOIL#2	WJ10	1	Triacon Surr,

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a002.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/04/2013

ARI ID: RT0402
Client ID:
Injection: 02-APR-2013 13:03
Dilution Factor: 1
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	0.902	0.000	448937	521725	GAS (Tol-C12)	3207511	93.52 M
C8	1.105	0.000	353152	454139	DIESEL (C12-C24)	2748584	135.03
C10	2.874	0.000	520173	411195	M.OIL (C24-C38)	3771804	236.77
C12	3.863	0.000	618729	418960	AK-102 (C10-C25)	3678937	153.21
C14	4.552	0.000	727439	452624	AK-103 (C25-C36)	3369837	282.97
C16	5.138	0.000	629338	436675			
C18	5.696	0.000	464092	400415			
C20	6.255	0.000	358033	342731			
C22	6.803	0.000	329136	331826			
C24	7.325	0.000	333055	327184			
C25	7.575	0.000	348653	322980			
C26	7.828	0.000	815281	1046737			
C28	8.274	0.000	372530	386557			
C32	9.055	0.000	409304	435705			
C34	9.399	0.000	396325	398349	BUNKERC (C10-C38)	7393573	797.86
Filter Peak	11.483	0.000	3297	2821			
C36	9.720	0.000	393251	400000			
C38	10.018	0.000	310700	302790			
C40	10.301	0.000	234720	226439			
o-terph	5.837	0.000	1113643	1003481			
Triacon Surr	8.695	0.000	1006893	1046916			

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1003481	37.8	84.0
Triacontane	1046916	50.3	111.7

JW 4/4/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

WJ10:02314

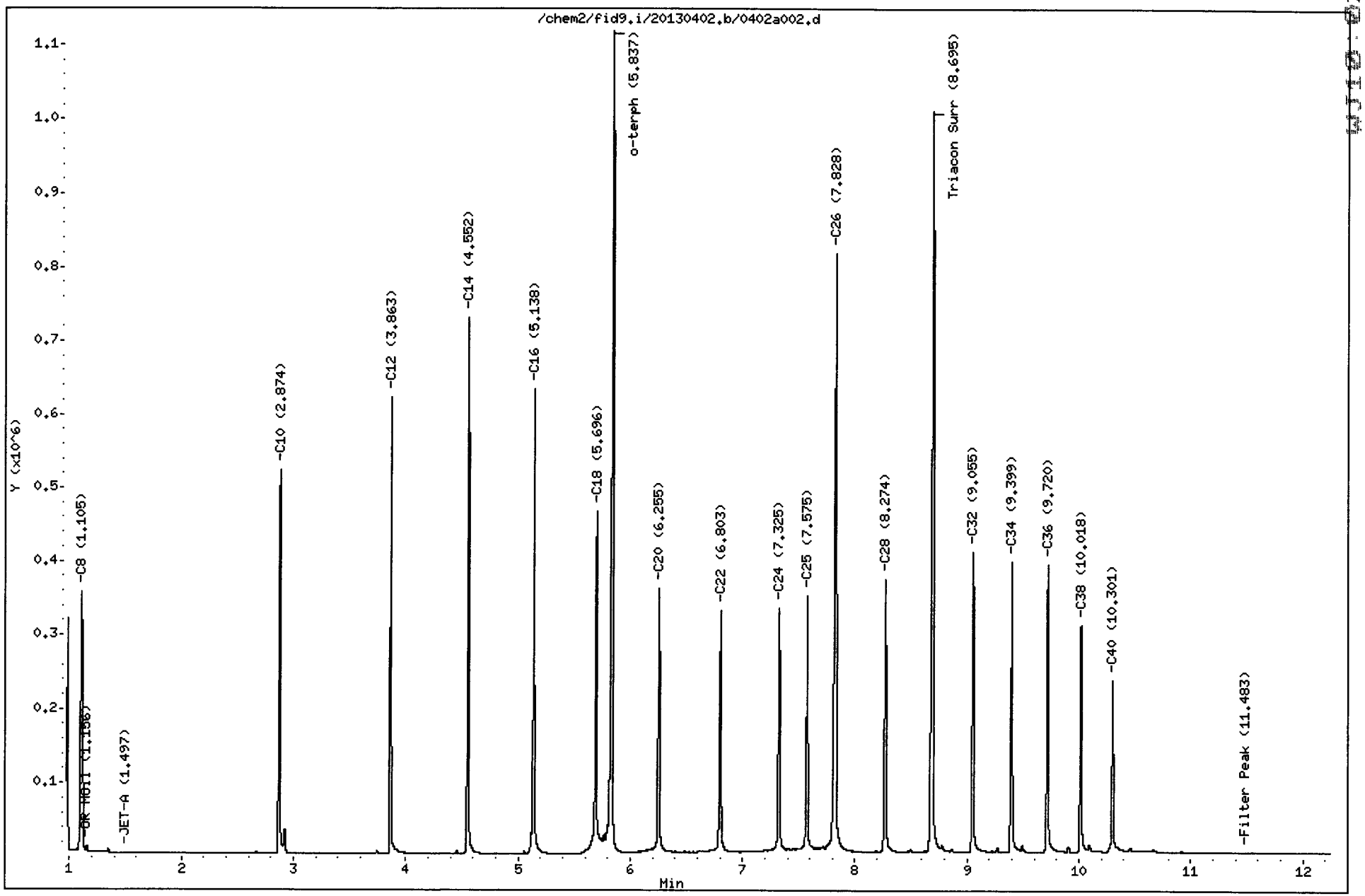
Data File: /chem2/fid9.i/20130402.b/0402a002.d
Date : 02-APR-2013 13:03
Client ID:
Sample Info: RT0402

Instrument: fid9.i

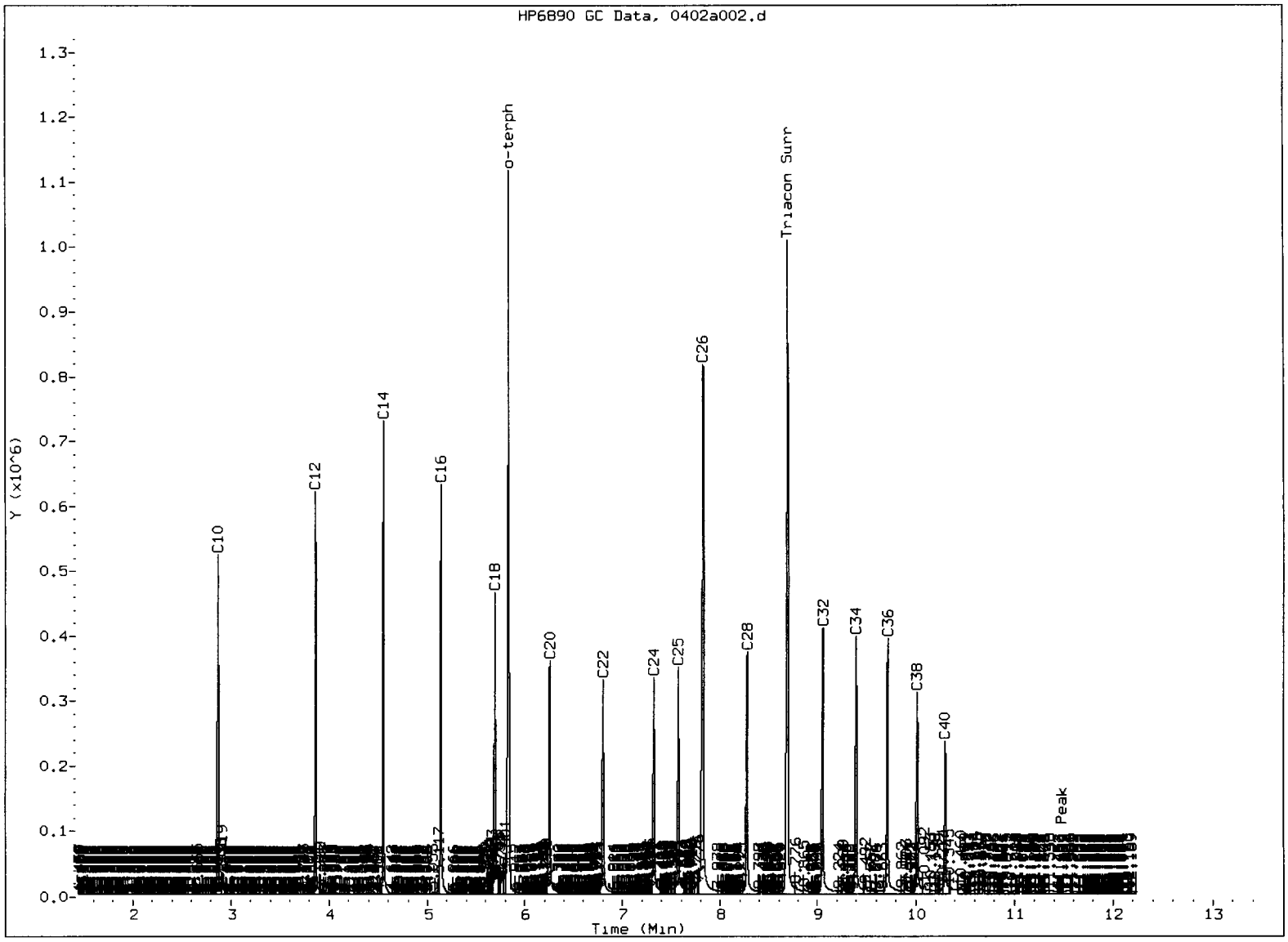
Operator: JW
Column diameter: 0.25

Column phase: RTX-1

JW 4/4/13



FID:9A-2C/RTX-1 RT0402 FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Surrogate Skimmed

Analyst: JW Date: 4/4/13

WJ10:02316

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a003.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/04/2013

ARI ID: IB0402
Client ID:
Injection: 02-APR-2013 13:25
Dilution Factor: 1
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	58273	2
C8	1.106	0.001	1726	2183	DIESEL (C12-C24)	74939	3.68
C10	2.869	-0.005	386	624	M.OIL (C24-C38)	179305	11.26
C12	3.861	-0.003	90	26	AK-102 (C10-C25)	84622	3.52
C14	4.554	0.002	126	43	AK-103 (C25-C36)	142736	11.99
C16	5.134	-0.004	164	112			
C18	5.690	-0.006	248	205			
C20	6.260	0.005	178	117			
C22	6.805	0.002	39	17			
C24	7.326	0.001	93	63			
C25	7.574	-0.001	101	34			
C26	7.815	-0.013	226	362			
C28	8.267	-0.007	571	1056			
C32	9.052	-0.003	4465	4505			
C34	9.399	0.000	1120	1008	BUNKERC (C10-C38)	262785	28.36
Filter Peak	11.480	-0.003	2573	923			
C36	9.703	-0.017	8811	12106			
C38	10.018	0.000	1824	1576			
C40	10.303	0.001	3000	4301			
o-terph	5.838	0.001	1235006	1087000			
Triacon Surr	8.691	-0.004	745320	810754			

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1087000	41.0	91.0
Triacontane	810754	38.9	86.5

JW 4/4/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

Data File: /chem2/fid9.i/20130402.b/0402a003.d

Page 1

Date : 02-APR-2013 13:25

Client ID:

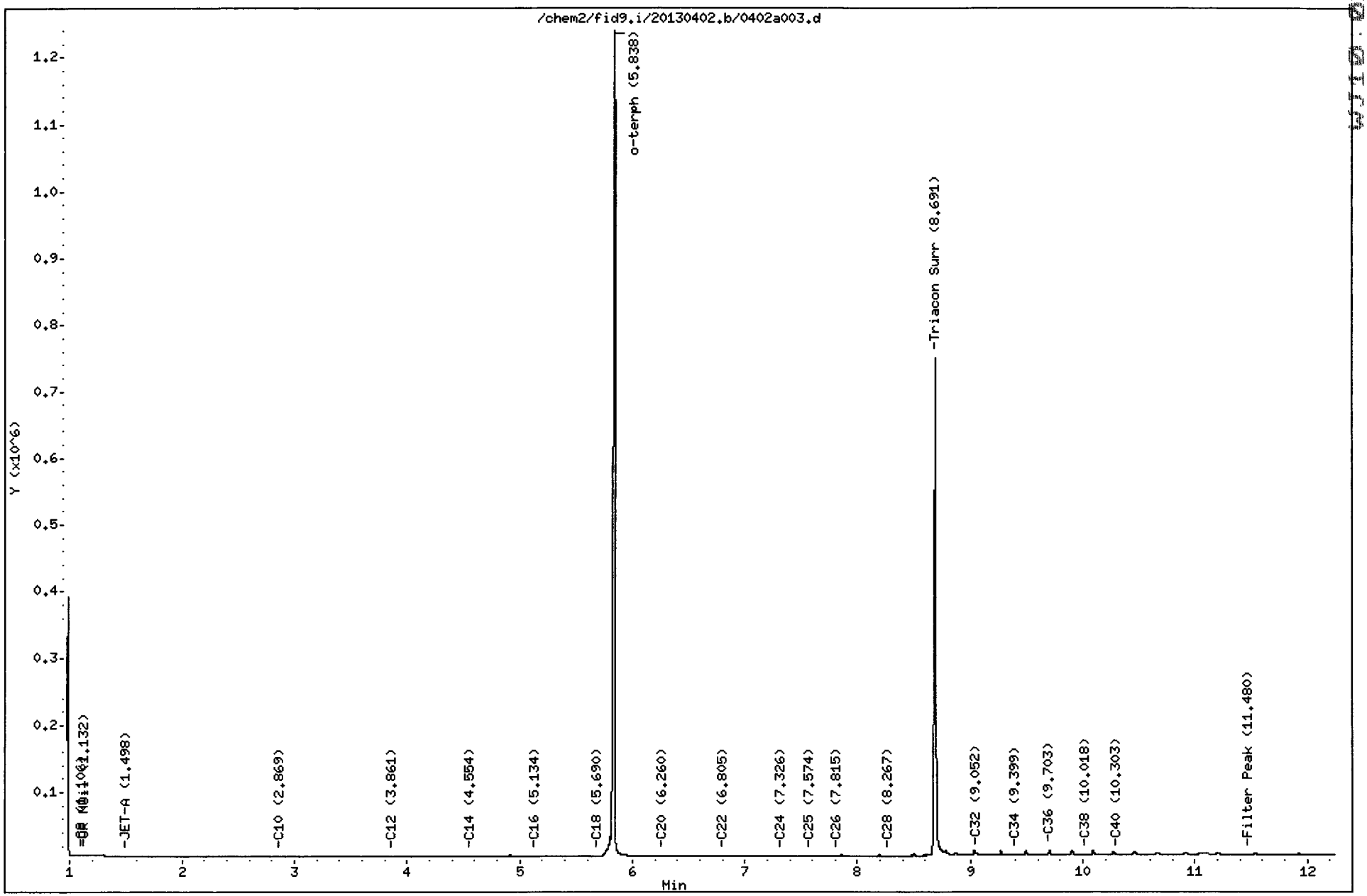
Instrument: fid9.i

Sample Info: IB0402

Operator: JW

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a004.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/04/2013

ARI ID: DIESEL#1
Client ID: NPDES Sampling Supp
Injection: 02-APR-2013 13:47
Dilution Factor: 1
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	1400565	41
C8	1.113	0.008	4493	11532	DIESEL (C12-C24)	4690215	230.41
C10	2.872	-0.003	23377	24175	M.OIL (C24-C38)	104557	6.56
C12	3.860	-0.003	49045	47689	AK-102 (C10-C25)	5460837	227.42 M
C14	4.549	-0.003	92823	77719	AK-103 (C25-C36)	66559	5.59
C16	5.134	-0.003	141161	118849			
C18	5.693	-0.003	103163	119975			
C20	6.253	-0.002	63257	72725			
C22	6.800	-0.003	25742	33795			
C24	7.323	-0.002	5455	11563			
C25	7.575	0.000	2313	5896			
C26	7.840	0.012	644	139			
C28	8.272	-0.002	116	56			
C32	9.064	0.009	174	145			
C34	9.399	0.000	372	239	BUNKERC (C10-C38)	5549930	598.91 M
Filter Peak	11.480	-0.002	2131	1521			
C36	9.703	-0.017	4534	6877			
C38	10.024	0.006	1194	1395			
C40	10.300	-0.001	2040	960			
o-terph	5.840	0.002	1275235	1109905			
Triacon Surr	8.686	-0.009	192	232			

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1109905	41.8	92.9
Triacontane	232	0.0	0.0

JW 4/4/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

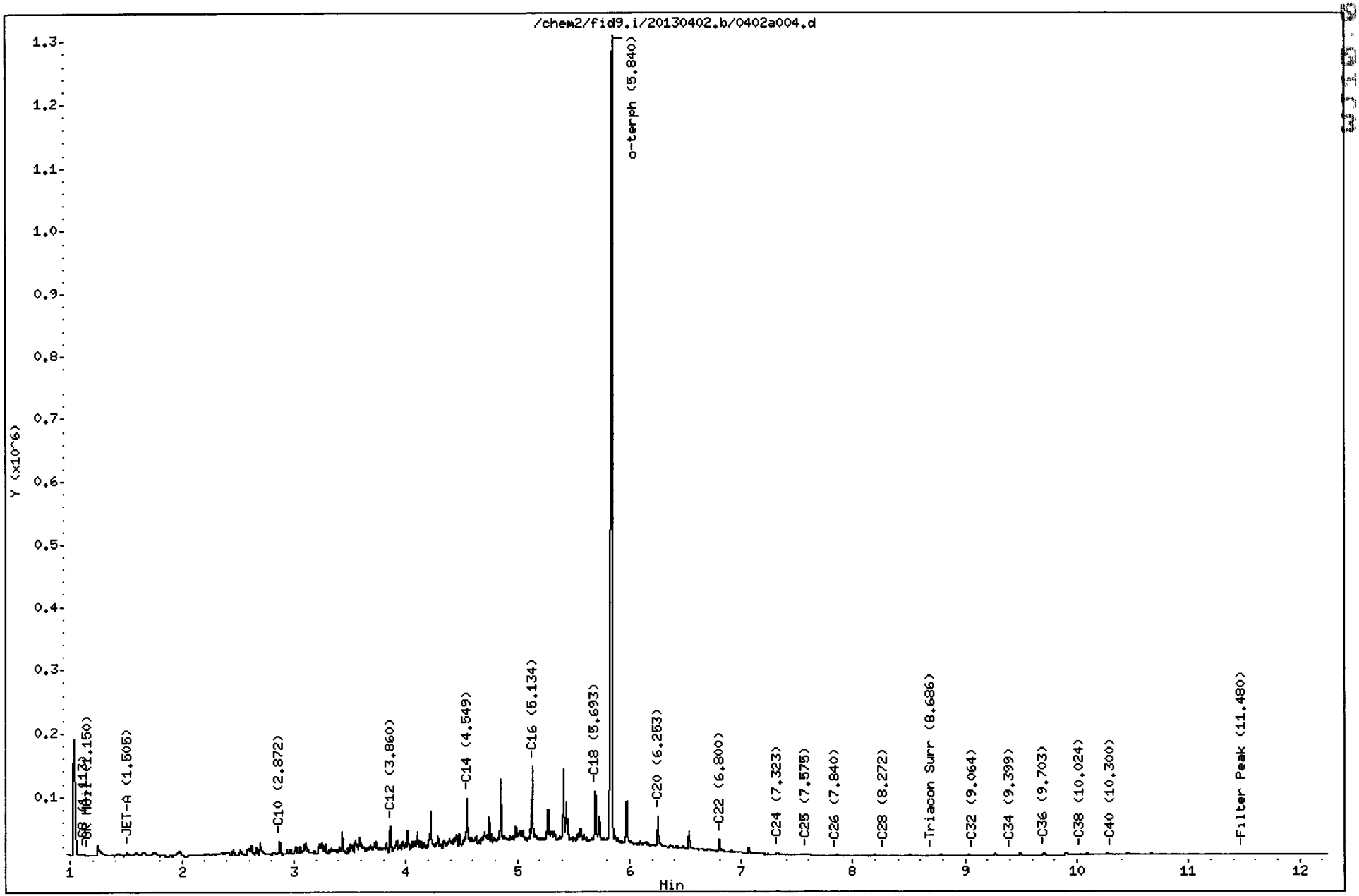
Data File: /chem2/fid9.i/20130402.b/0402a004.d
Date : 02-APR-2013 13:47
Client ID: NPDES Sampling Supp
Sample Info: DIESEL#1

Column phase: RTX-1

Instrument: fid9.i

Operator: JW
Column diameter: 0.25

JW 4/4/13



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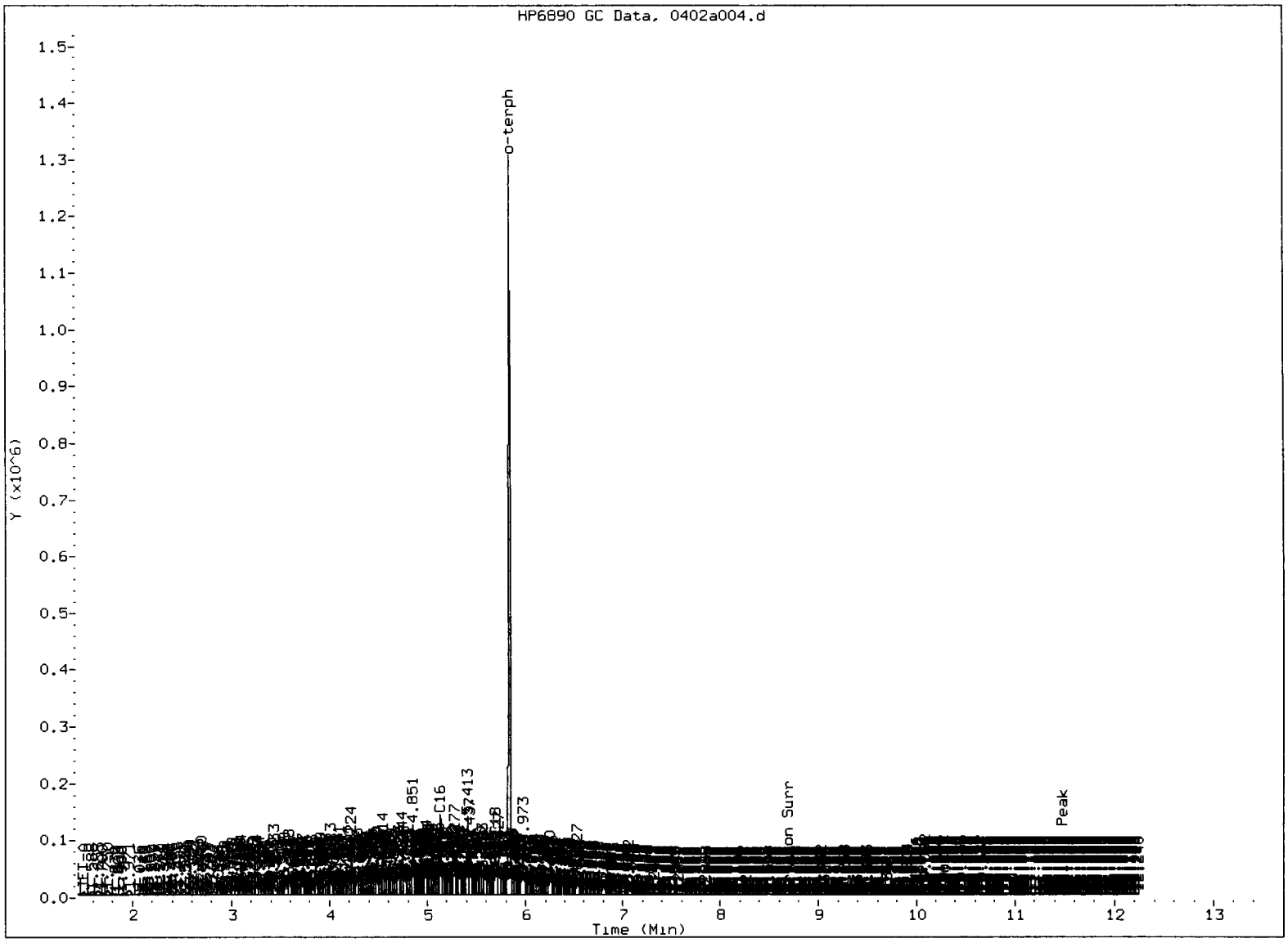


MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Surrogate Skimmed

Analyst: JW Date: 4/4/12

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a005.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/04/2013

ARI ID: MOIL#1
Client ID: NPDES Sampling Supp
Injection: 02-APR-2013 14:09
Dilution Factor: 1
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	48452	1
C8	1.116	0.011	1535	1730	DIESEL (C12-C24)	718281	35.29
C10	2.870	-0.004	283	373	M.OIL (C24-C38)	7516470	471.84
C12	3.862	-0.001	27	2	AK-102 (C10-C25)	938370	39.08
C14	4.547	-0.005	116	71	AK-103 (C25-C36)	6458315	542.31 M
C16	5.138	0.000	213	73			
C18	5.694	-0.002	454	267			
C20	6.248	-0.007	1593	1278			
C22	6.803	0.000	6721	4768			
C24	7.323	-0.002	23887	8835			
C25	7.568	-0.007	32249	20381			
C26	7.825	-0.003	37193	33094			
C28	8.276	0.002	46369	21222			
C32	9.059	0.004	56405	33854			
C34	9.401	0.001	58575	25498	BUNKERC (C10-C38)	8240123	889.22 M
Filter Peak	11.484	0.002	6243	2233			
C36	9.718	-0.002	53596	20141			
C38	10.018	0.001	46241	17148			
C40	10.306	0.005	34957	12091			
o-terph	5.842	0.005	668	178			
Triacon Surr	8.691	-0.004	804449	791613			

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	178	0.0	0.0
Triacontane	791613	38.0	84.5

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

JW 4/4/13

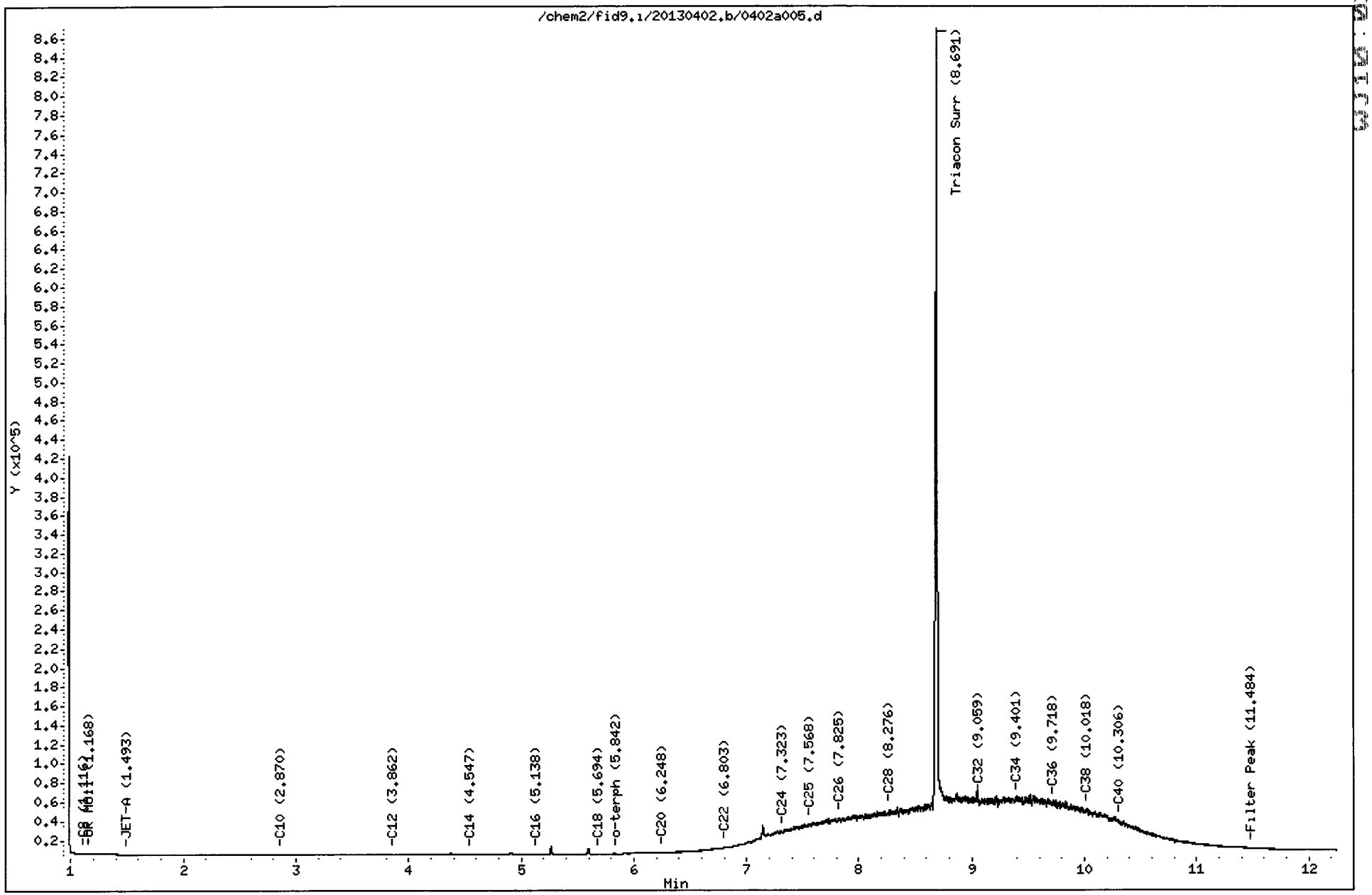
Data File: /chem2/fid9.i/20130402.b/0402a005.d
Date : 02-APR-2013 14:09
Client ID: NPDES Sampling Supp
Sample Info: MOIL#1

Instrument: fid9.i

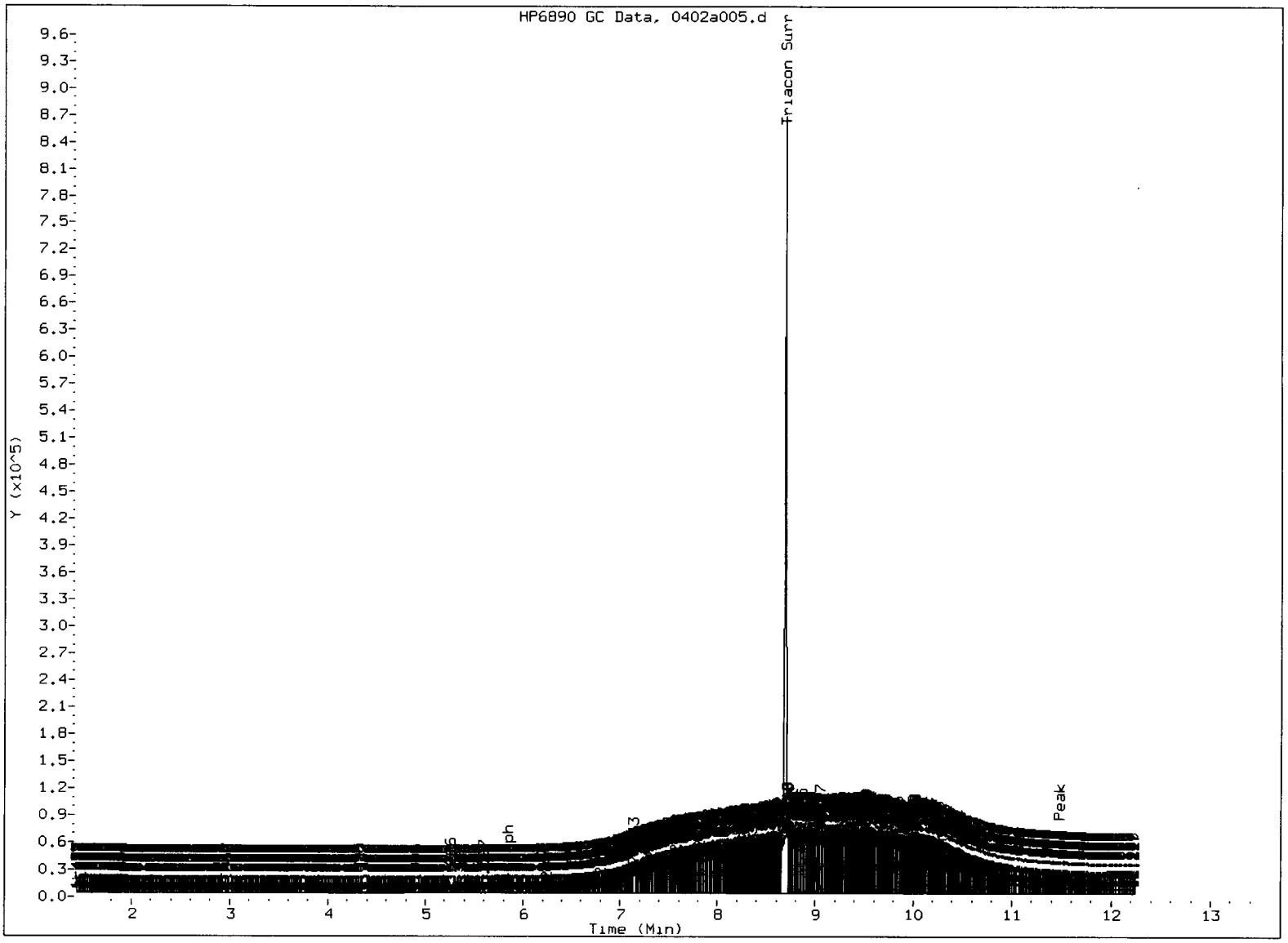
Operator: JW
Column diameter: 0.25

Column phase: RTX-1

JW 4/4/13



FID:9A-2C/RTX-1 MOIL#1 FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Surrogate Skimmed

Analyst: BW Date: 4/4/13

WJ10:02324

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a006.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/03/2013

ARI ID: WJ10D
Client ID:
Injection: 02-APR-2013 15:03
Dilution Factor: 5
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	----				GAS (Tol-C12)	131431	4	
C8	1.026	-0.079	3558	2464	DIESEL (C12-C24)	3505599	172.22	-
C10	2.870	-0.004	415	544	M.OIL (C24-C38)	7497683	470.66	-
C12	3.861	-0.002	734	645	AK-102 (C10-C25)	3821334	159.14	M
C14	4.548	-0.004	2477	1998	AK-103 (C25-C36)	6537649	548.97	M
C16	5.138	0.001	6727	7782				
C18	5.691	-0.005	12633	14625				
C20	6.239	-0.015	20650	18136				
C22	6.800	-0.003	38780	62619				
C24	7.318	-0.006	61909	73258				
C25	7.569	-0.006	79283	168668				
C26	7.811	-0.016	68423	83618				
C28	8.266	-0.007	74102	125103				
C32	9.052	-0.003	63703	105418				
C34	9.405	0.006	50903	22359	BUNKERC (C10-C38)	11032965	1190.60	M
Filter Peak	11.475	-0.007	8378	2645				
C36	9.712	-0.008	49780	72231				
C38	10.019	0.002	36994	31744				
C40	10.309	0.008	32136	14139				
o-terph	5.828	-0.009	254549	162952				
Triacon Surr	8.682	-0.013	203861	165684				

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	162952	6.1	68.2
Triacontane	165684	8.0	88.4

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

JW
4/3/13

Data File: /chem2/fid9.i/20130402.b/0402a006.d
Date : 02-APR-2013 15:03
Client ID:
Sample Info: WJ10D,5

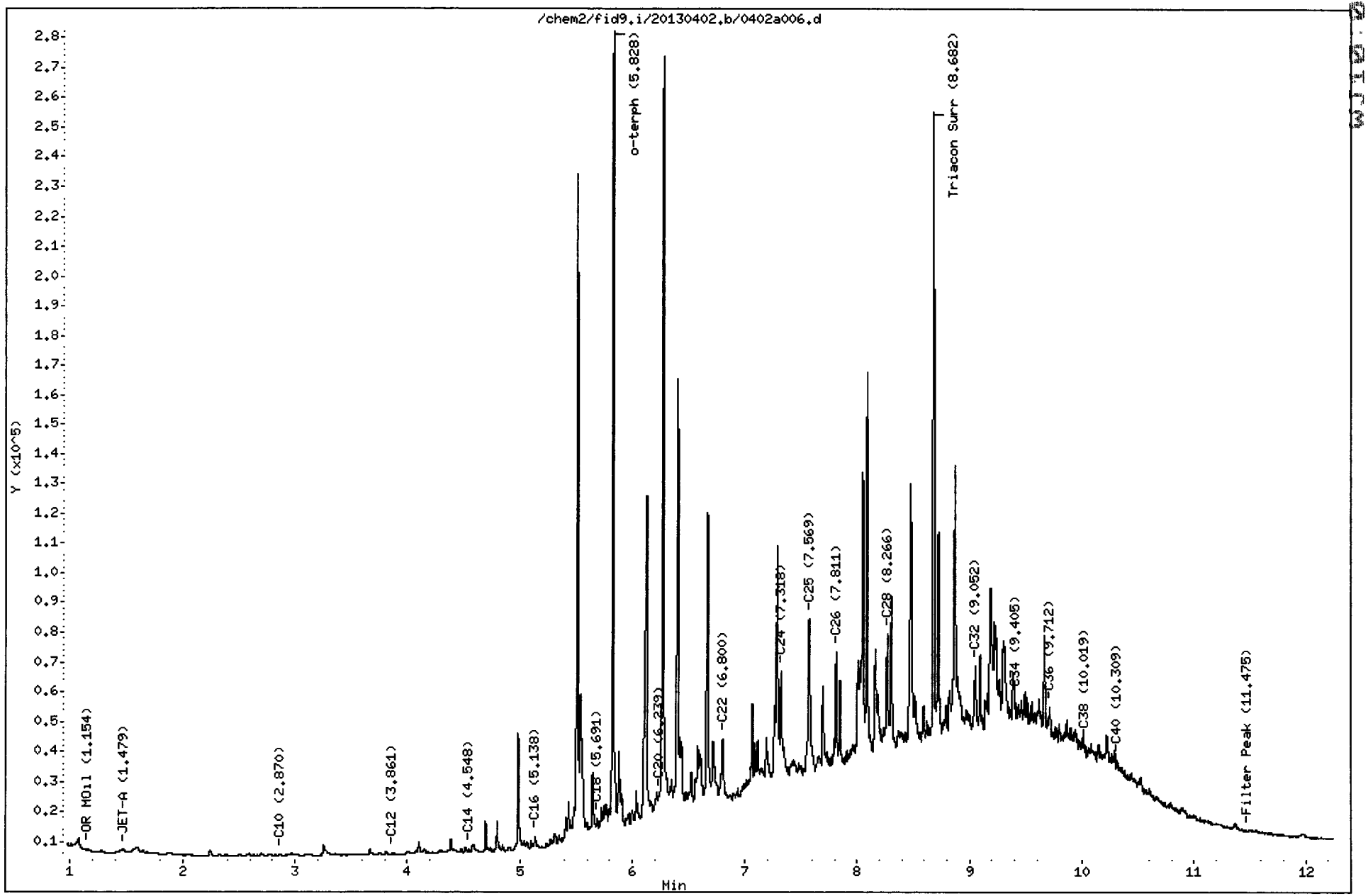
Instrument: fid9.i

Operator: JW
Column diameter: 0.25

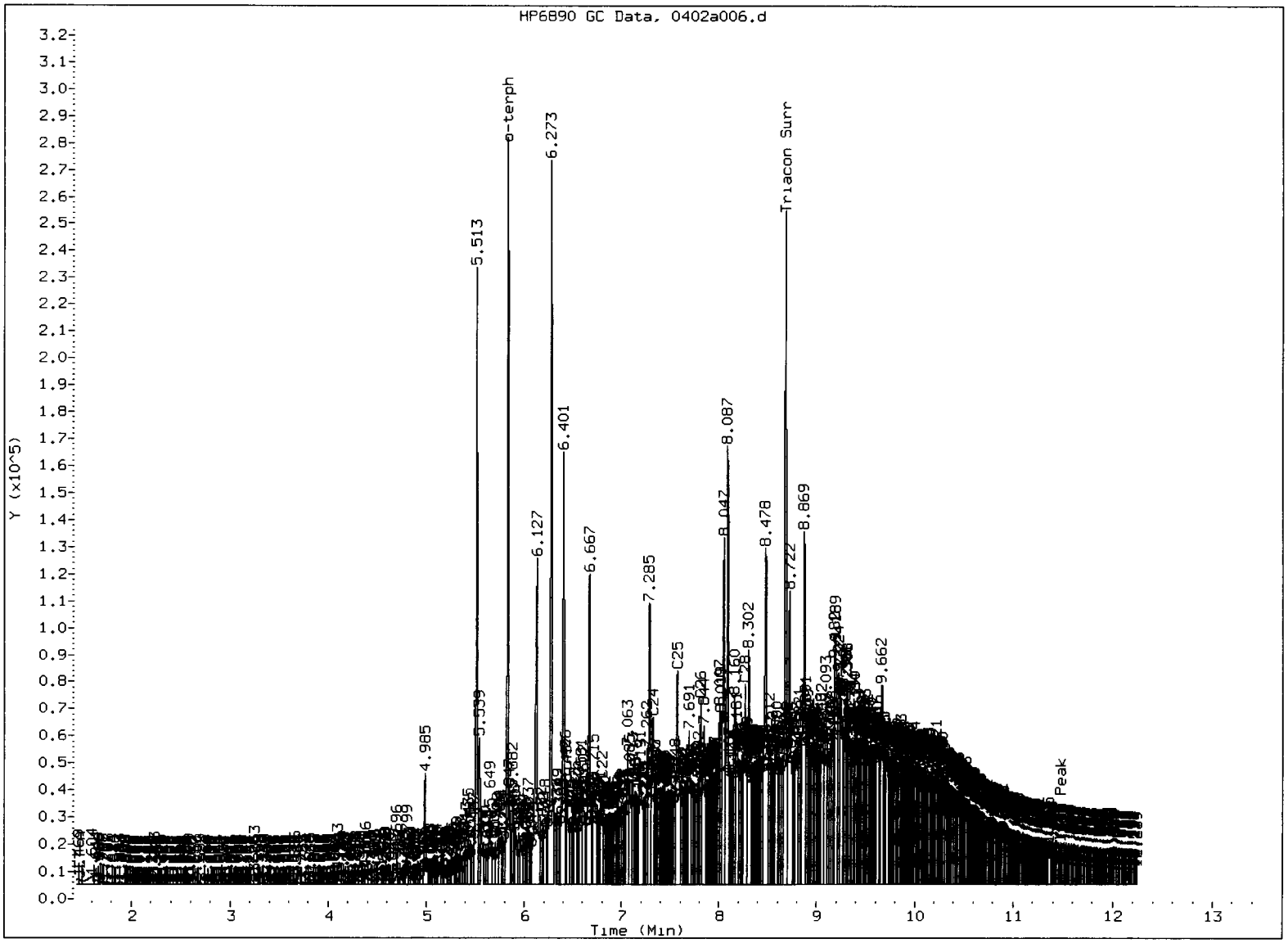
Column phase: RTX-1

JW 4/3/13

WJ10D-022325



FID:9A-2C/RTX-1 WJ10D FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Surrogate Skimmed

Analyst: JU Date: 4/3/13

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a007.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/03/2013

ARI ID: WJ10C
Client ID:
Injection: 02-APR-2013 15:25
Dilution Factor: 5
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	----				GAS (Tol-C12)	171740	5	
C8	1.111	0.006	4372	2758	DIESEL (C12-C24)	37401258	1837.38	
C10	2.868	-0.006	269	302	M.OIL (C24-C38)	70501011	4425.59	
C12	3.861	-0.002	775	936	AK-102 (C10-C25)	43293401	1802.98	M
C14	4.551	-0.001	5764	8982	AK-103 (C25-C36)	61931534	5200.40	M
C16	5.136	-0.002	20942	16977				
C18	5.696	0.000	86115	93052				
C20	6.259	0.004	239992	129924				
C22	6.803	0.000	482272	241967				
C24	7.324	-0.001	683359	740781				
C25	7.580	0.006	707771	311168				
C26	7.832	0.005	694690	229816				
C28	8.271	-0.003	629768	788385				
C32	9.057	0.002	358994	356471				
C34	9.395	-0.005	257906	95622	BUNKERC (C10-C38)	107930435	11647.13	M
Filter Peak	11.481	-0.001	10410	3495				
C36	9.718	-0.003	191862	63098				
C38	10.024	0.006	127093	37261				
C40	10.298	-0.003	84365	34494				
o-terph	5.829	-0.008	214717	144493				
Triacon Surr	8.703	0.008	184956	159734				

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	144493	5.4	60.5
Triacontane	159734	7.7	85.2

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

JCJ 4/3/13

Data File: /chem2/fid9.i/20130402.b/0402a007.d
Date : 02-APR-2013 15:25
Client ID:
Sample Info: WJ10C,5

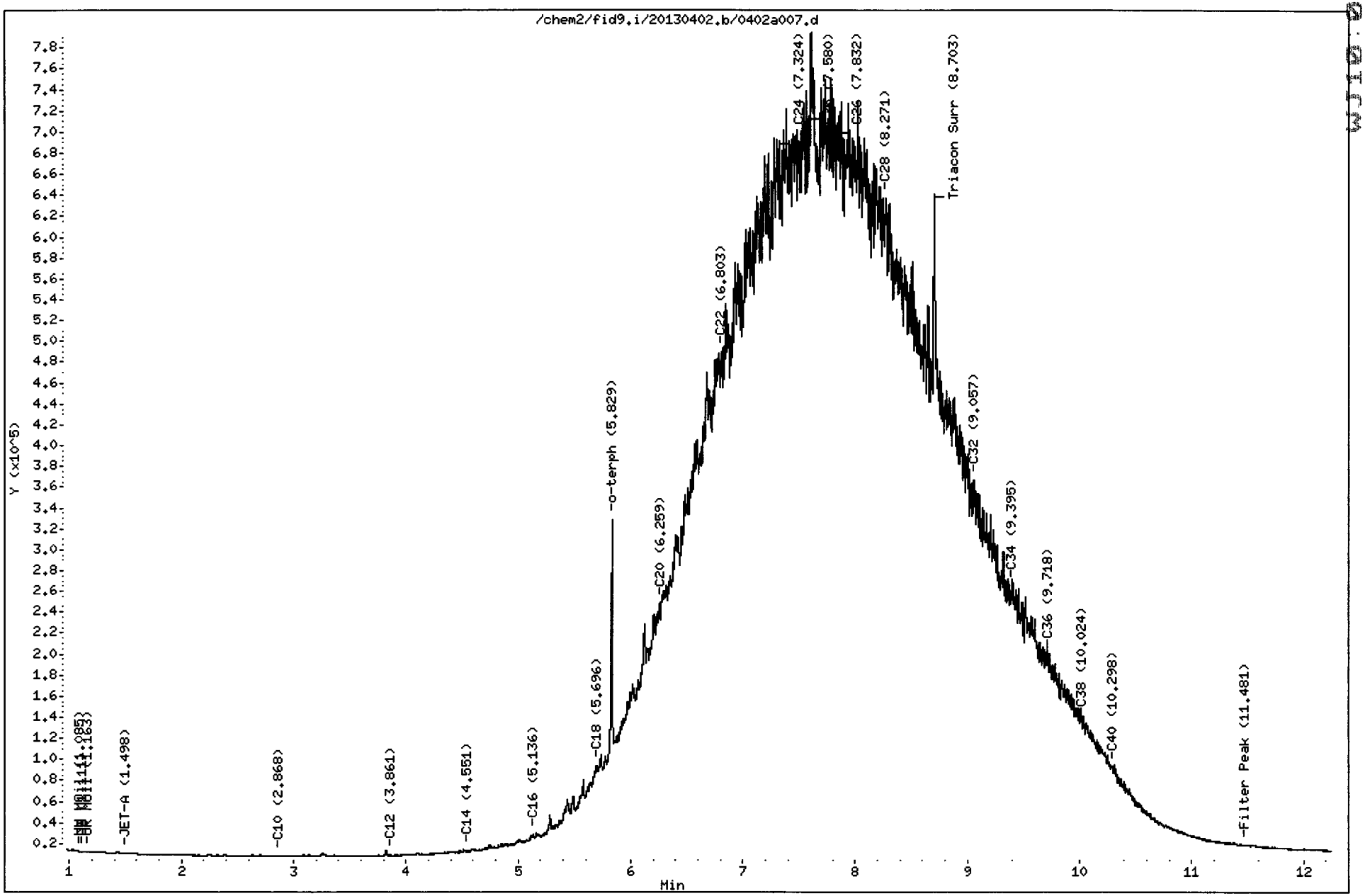
Instrument: fid9.i

Operator: JW
Column diameter: 0.25

Column phase: RTX-1

JW 4/3/13

WJ10-023225



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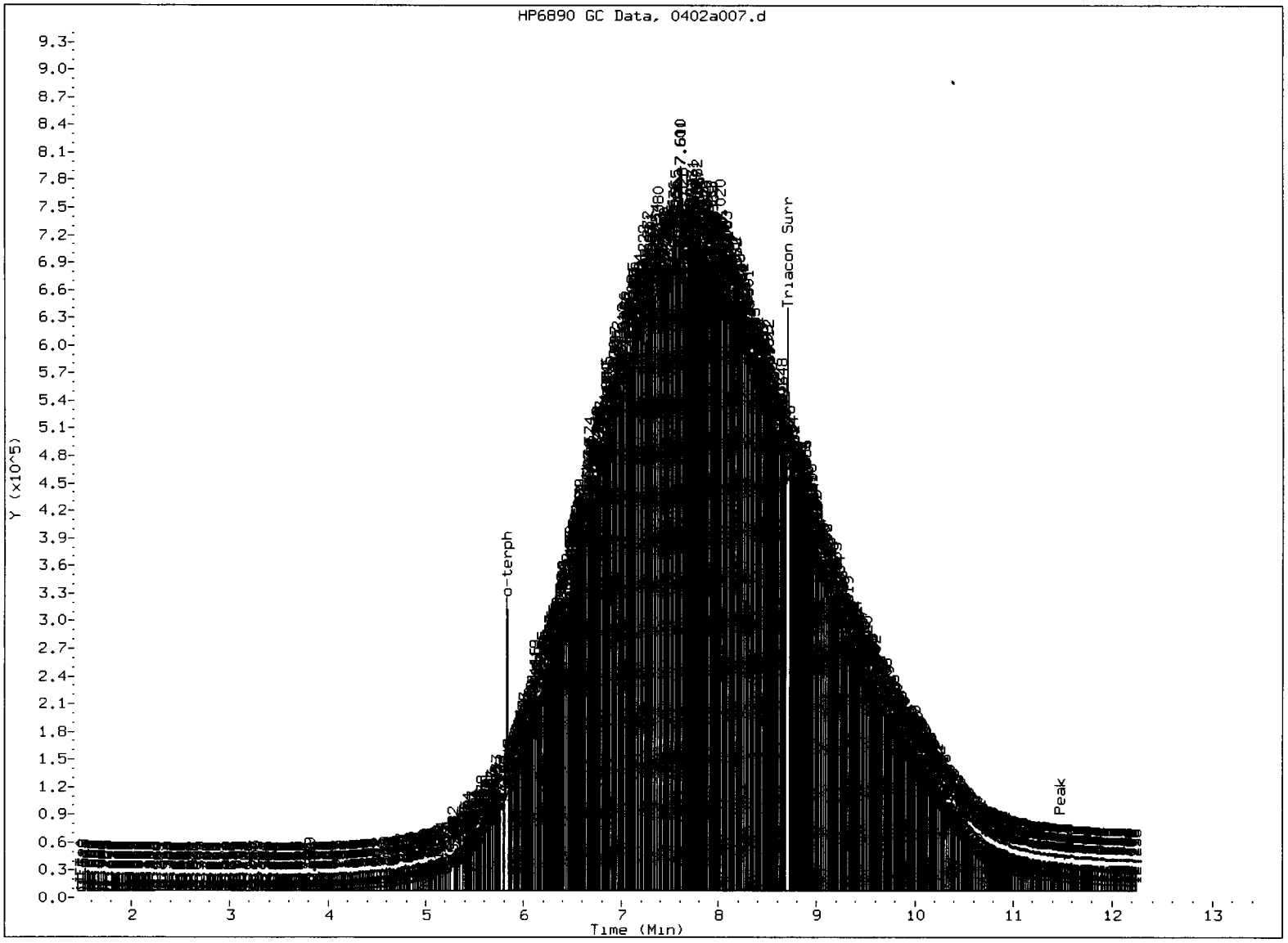


MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Surrogate Skimmed

Analyst: JW Date: 4/3/13

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a008.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/03/2013

ARI ID: WJ10DMS
Client ID:
Injection: 02-APR-2013 15:47
Dilution Factor: 5
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	----				GAS (Tol-C12)	1079402	31	
C8	1.103	-0.002	9665	37026	DIESEL (C12-C24)	8456769	415.45	
C10	2.870	-0.004	20349	20206	M.OIL (C24-C38)	7680409	482.13	
C12	3.862	-0.002	44404	46716	AK-102 (C10-C25)	9400786	391.50	M
C14	4.549	-0.003	96550	96554	AK-103 (C25-C36)	6760795	567.70	M
C16	5.134	-0.003	146523	123891				
C18	5.692	-0.004	118775	136470				
C20	6.252	-0.003	103445	105824				
C22	6.798	-0.005	82152	135106				
C24	7.318	-0.007	85156	86831				
C25	7.568	-0.006	96659	158681				
C26	7.840	0.012	67034	74297				
C28	8.266	-0.007	95316	117314				
C32	9.048	-0.007	79054	135447				
C34	9.389	-0.010	69361	78463	BUNKERC (C10-C38)	16825386	1815.68	M
Filter Peak	11.483	0.000	8095	3954				
C36	9.724	0.003	42162	13364				
C38	10.009	-0.009	40262	55278				
C40	10.301	0.000	31752	31261				
o-terph	5.828	-0.009	245378	166121				
Triacon Surr	8.680	-0.015	213051	183890				

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	166121	6.3	69.5
Triacontane	183890	8.8	98.1

JW 4/3/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

Data File: /chem2/fid9.i/20130402.b/0402a008.d

Date : 02-APR-2013 15:47

Client ID:

Sample Info: WJ10DMS,5

Column phase: RTX-1

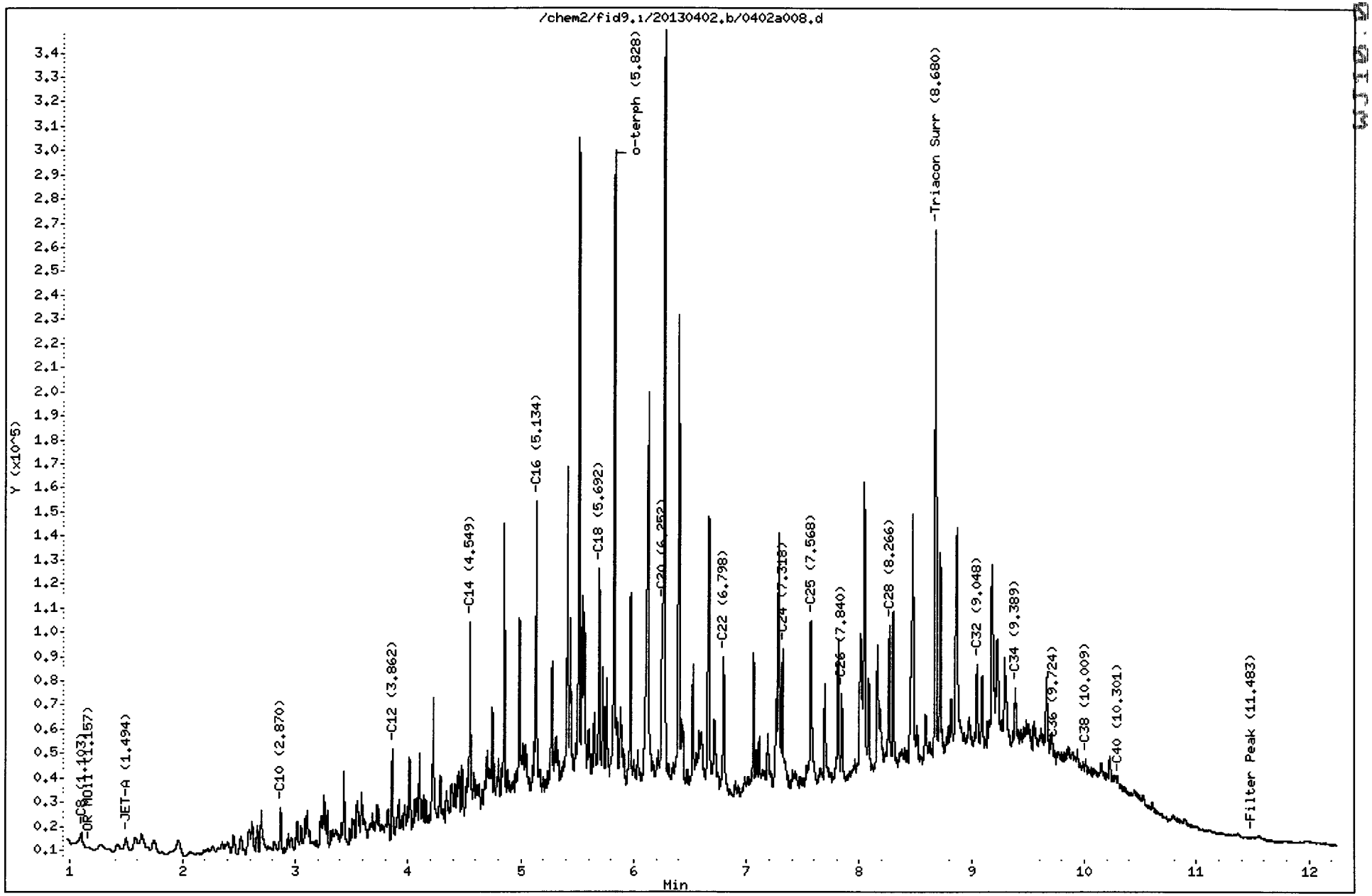
Instrument: fid9.i

Operator: JW

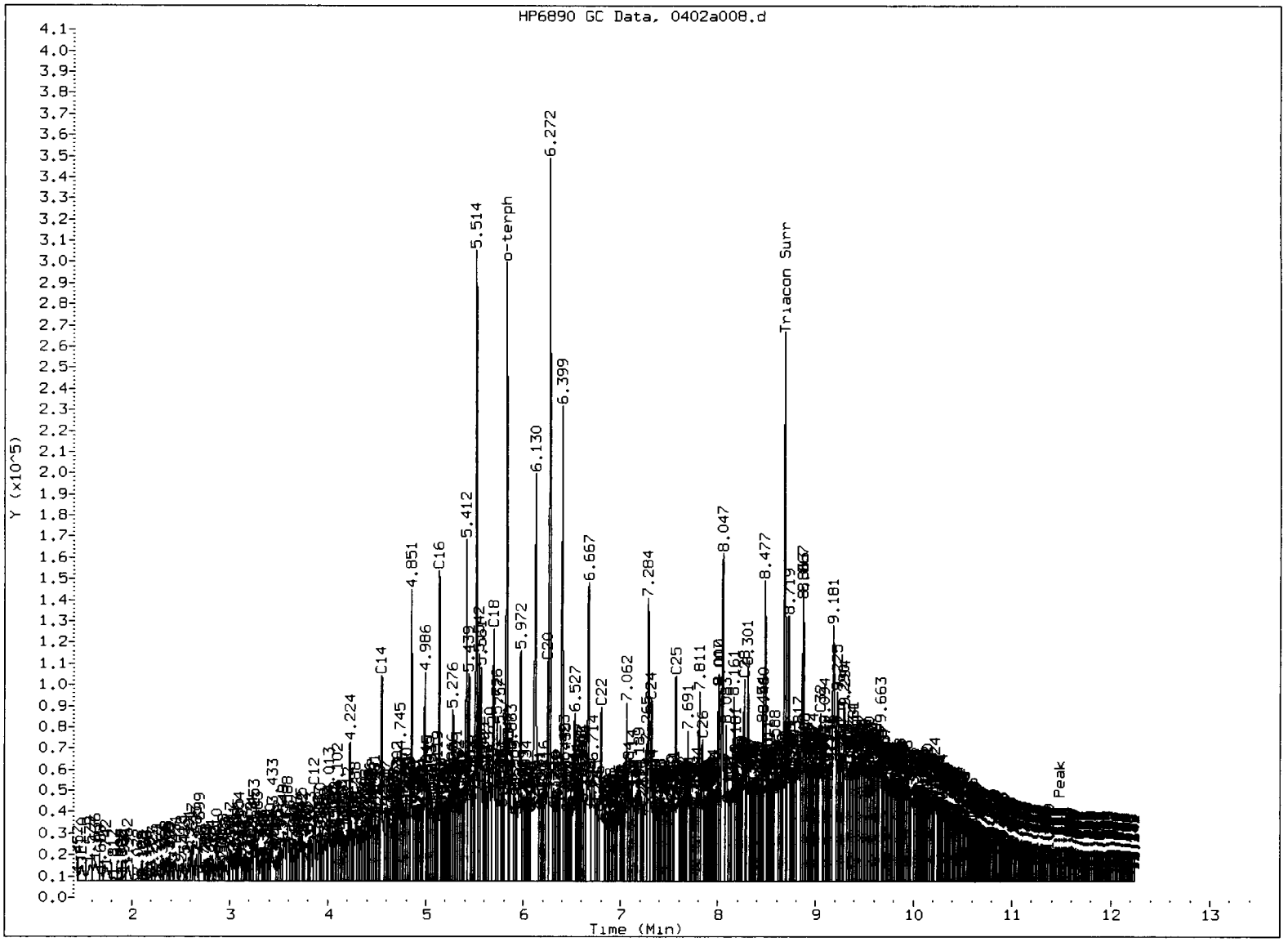
Column diameter: 0.25

TJ 4/3/13

WJ10-02332



FID:9A-2C/RTX-1 WJ10DMS FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Surrogate Skimmed

Analyst: BW Date: 4/3/13

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a009.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/03/2013

ARI ID: WJ10DMSD
Client ID:
Injection: 02-APR-2013 16:10
Dilution Factor: 5
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	955839	28
C8	1.103	-0.002	9429	36217	DIESEL (C12-C24)	7628647	374.77
C10	2.870	-0.005	18985	17752	M.OIL (C24-C38)	7099180	445.64
C12	3.860	-0.004	38903	40188	AK-102 (C10-C25)	8483749	353.31 M
C14	4.549	-0.003	81304	70779	AK-103 (C25-C36)	6218893	522.20 M
C16	5.136	-0.002	136654	103466			
C18	5.692	-0.004	122178	126316			
C20	6.256	0.001	87641	20860			
C22	6.798	-0.005	72355	137566			
C24	7.321	-0.004	76914	90272			
C25	7.571	-0.004	95941	157230			
C26	7.844	0.016	66290	83998			
C28	8.280	0.006	42804	32065			
C32	9.046	-0.009	71687	126215			
C34	9.389	-0.010	63158	124711	BUNKERC (C10-C38)	15332524	1654.58 M
Filter Peak	11.476	-0.006	8379	7334			
C36	9.710	-0.010	48818	93889			
C38	10.011	-0.007	37590	44228			
C40	10.296	-0.006	30382	40091			
o-terph	5.827	-0.011	219795	149456			
Triacon Surr	8.680	-0.015	227698	175106			

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	149456	5.6	62.6
Triacontane	175106	8.4	93.4

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

JW 4/3/13

Data File: /chem2/fid9.i/20130402.b/0402a009.d
Date : 02-APR-2013 16:10
Client ID:
Sample Info: WJ10DMSD,5

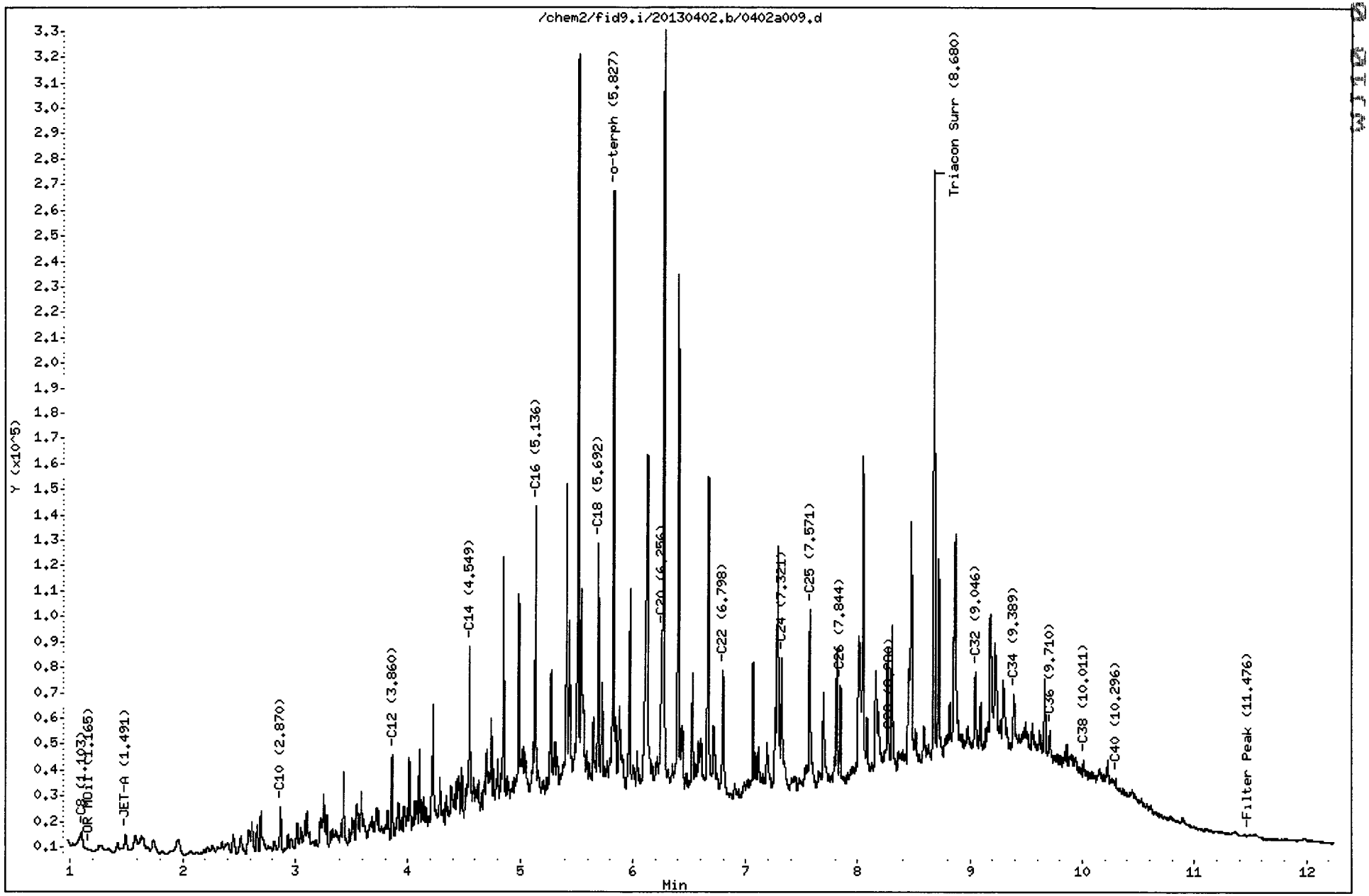
Instrument: fid9.i

Operator: JW
Column diameter: 0.25

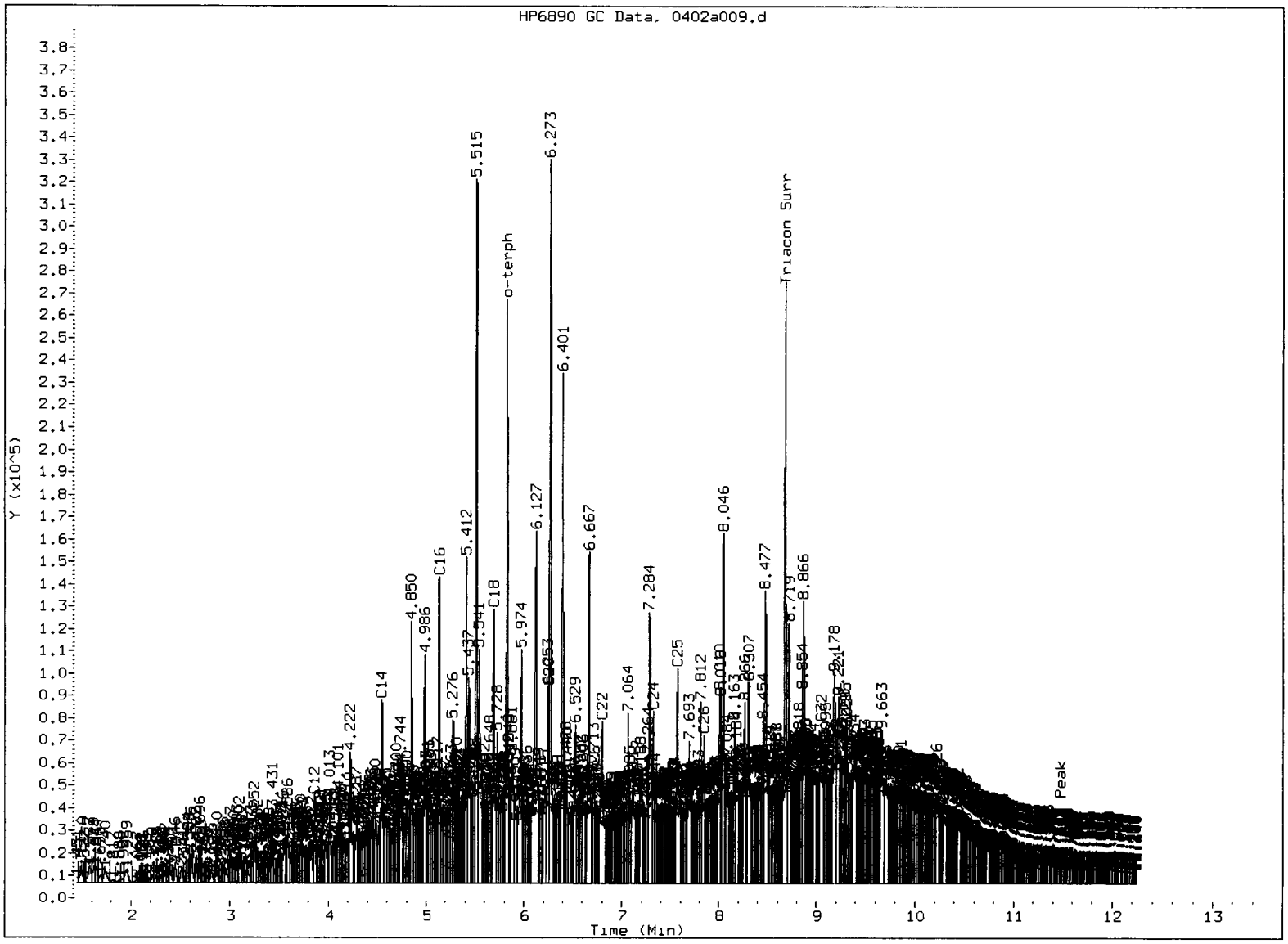
Column phase: RTX-1

4/3/13

WJ10-0235



FID:9A-2C/RTX-1 WJ10DMSD FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Surrogate Skimmed

Analyst: JW Date: 4/3/13

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a010.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/03/2013

ARI ID: WJ10MBS1
Client ID:
Injection: 02-APR-2013 16:32
Dilution Factor: 1
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	78624	2
C8	1.122	0.017	2501	747	DIESEL (C12-C24)	65866	3.24 -
C10	2.865	-0.009	418	508	M.OIL (C24-C38)	200112	12.56 -
C12	3.863	0.000	103	43	AK-102 (C10-C25)	73952	3.08
C14	4.554	0.002	86	53	AK-103 (C25-C36)	146195	12.28
C16	5.130	-0.008	61	42			
C18	5.692	-0.005	98	89			
C20	6.255	0.000	172	134			
C22	6.797	-0.006	111	67			
C24	7.328	0.003	128	83			
C25	7.578	0.004	202	210			
C26	7.829	0.002	167	22			
C28	8.265	-0.009	726	1402			
C32	9.050	-0.005	2742	7440			
C34	9.401	0.002	2013	1524	BUNKERC (C10-C38)	273212	29.48
Filter Peak	11.478	-0.005	5211	8521			
C36	9.726	0.006	2493	2976			
C38	10.019	0.002	3266	2795			
C40	10.303	0.001	4528	2792			
o-terph	5.838	0.000	1267335	1015405			
Triacon Surr	8.687	-0.008	762386	766622			

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1015405	38.3	85.0
Triacontane	766622	36.8	81.8

JW 4/3/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

Data File: /chem2/fid9.i/20130402.b/0402a010.d

Date : 02-APR-2013 16:32

Client ID:

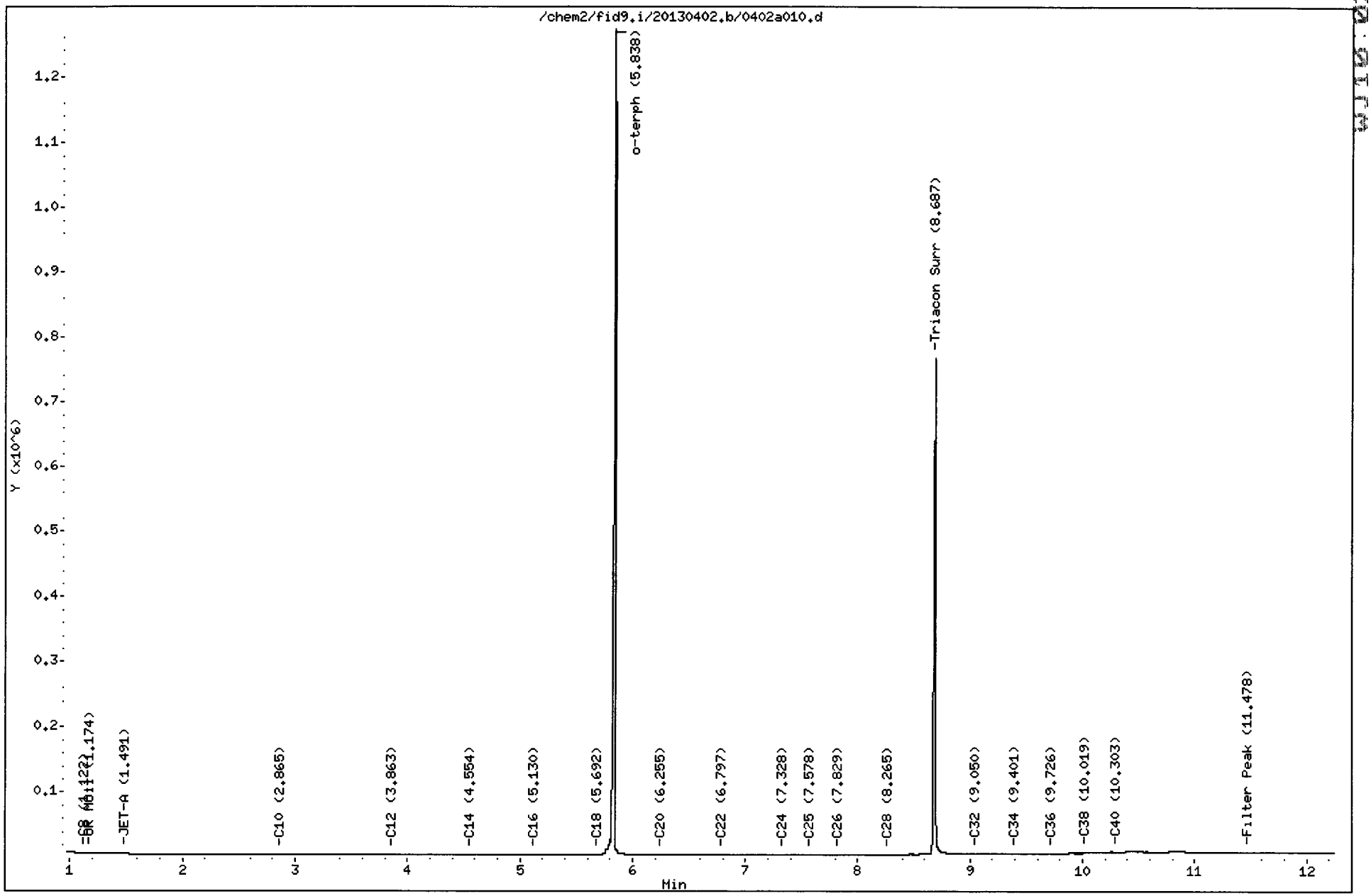
Sample Info: WJ10MBS1

Column phase: RTX-1

Instrument: fid9.i

Operator: JW

Column diameter: 0.25



Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a011.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/03/2013

ARI ID: WJ10LCSS1
Client ID:
Injection: 02-APR-2013 16:54
Dilution Factor: 1
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	----				GAS (Tol-C12)	5635272	164	
C8	1.127	0.022	9650	22147	DIESEL (C12-C24)	25102521	1233.19	
C10	2.873	-0.001	121263	126827	M.OIL (C24-C38)	264823	16.62	
C12	3.862	-0.002	238569	257739	AK-102 (C10-C25)	29093169	1211.60	M
C14	4.553	0.001	478517	426218	AK-103 (C25-C36)	168660	14.16	
C16	5.141	0.004	772110	629294				
C18	5.701	0.005	546567	633854				
C20	6.257	0.003	383343	518887				
C22	6.800	-0.003	190095	246681				
C24	7.319	-0.005	48599	62741				
C25	7.566	-0.008	19481	28248				
C26	7.842	0.014	2239	442				
C28	8.265	-0.009	1157	1650				
C32	9.049	-0.006	1199	2281				
C34	9.399	0.000	530	122	BUNKERC (C10-C38)	29286272	3160.38	M
Filter Peak	11.482	-0.001	2913	3180				
C36	9.721	0.001	886	332				
C38	10.021	0.003	1464	406				
C40	10.307	0.005	2456	635				
o-terph	5.838	0.001	1135065	929870				
Triacon Surr	8.686	-0.009	732272	718101				

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	929870	35.0	77.8
Triacontane	718101	34.5	76.6

JW 4/3/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

Data File: /chem2/fid9.i/20130402.b/0402a011.d
Date : 02-APR-2013 16:54
Client ID:
Sample Info: WJ10LCSS1

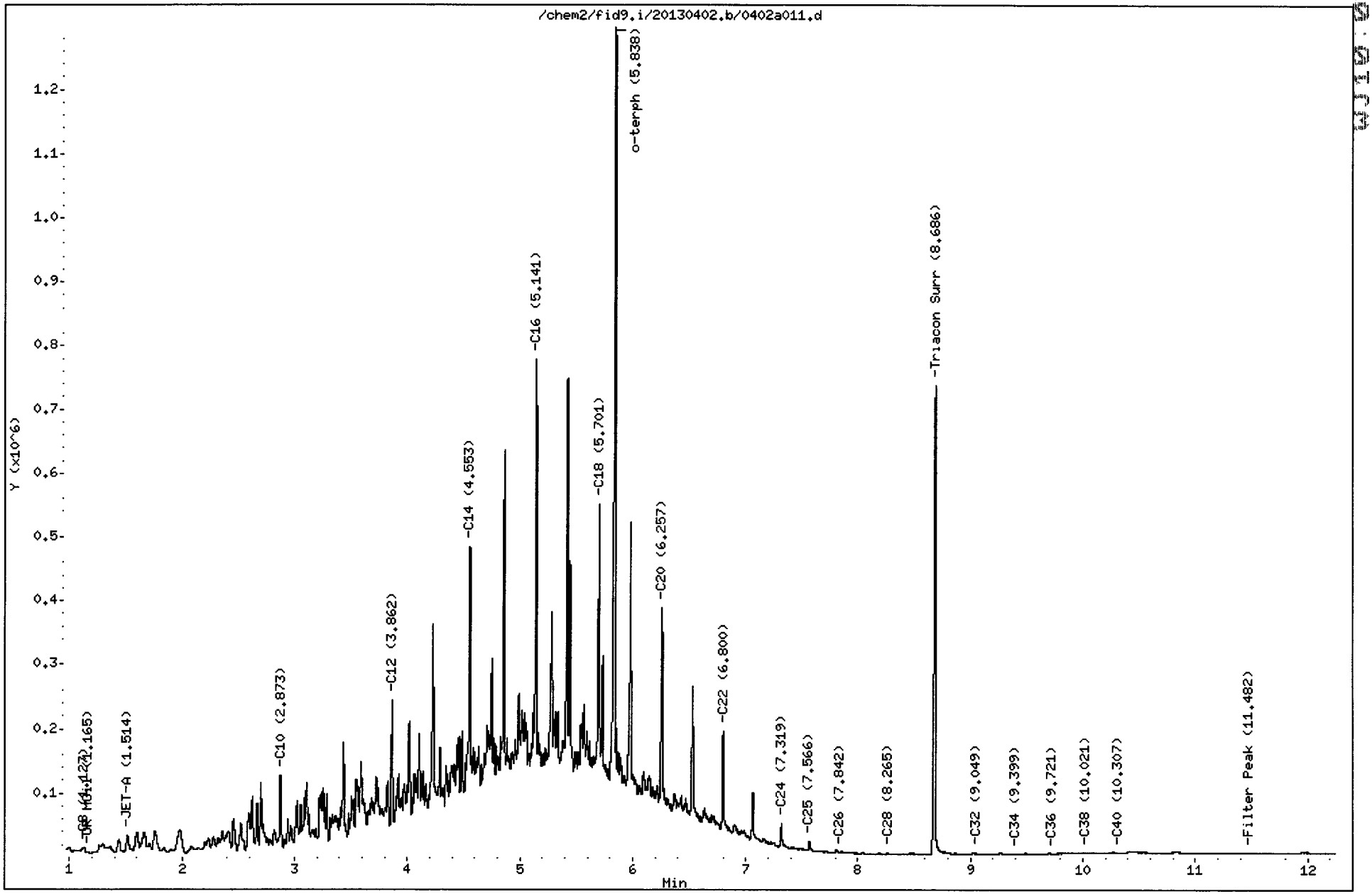
Column phase: RTX-1

Instrument: fid9.i

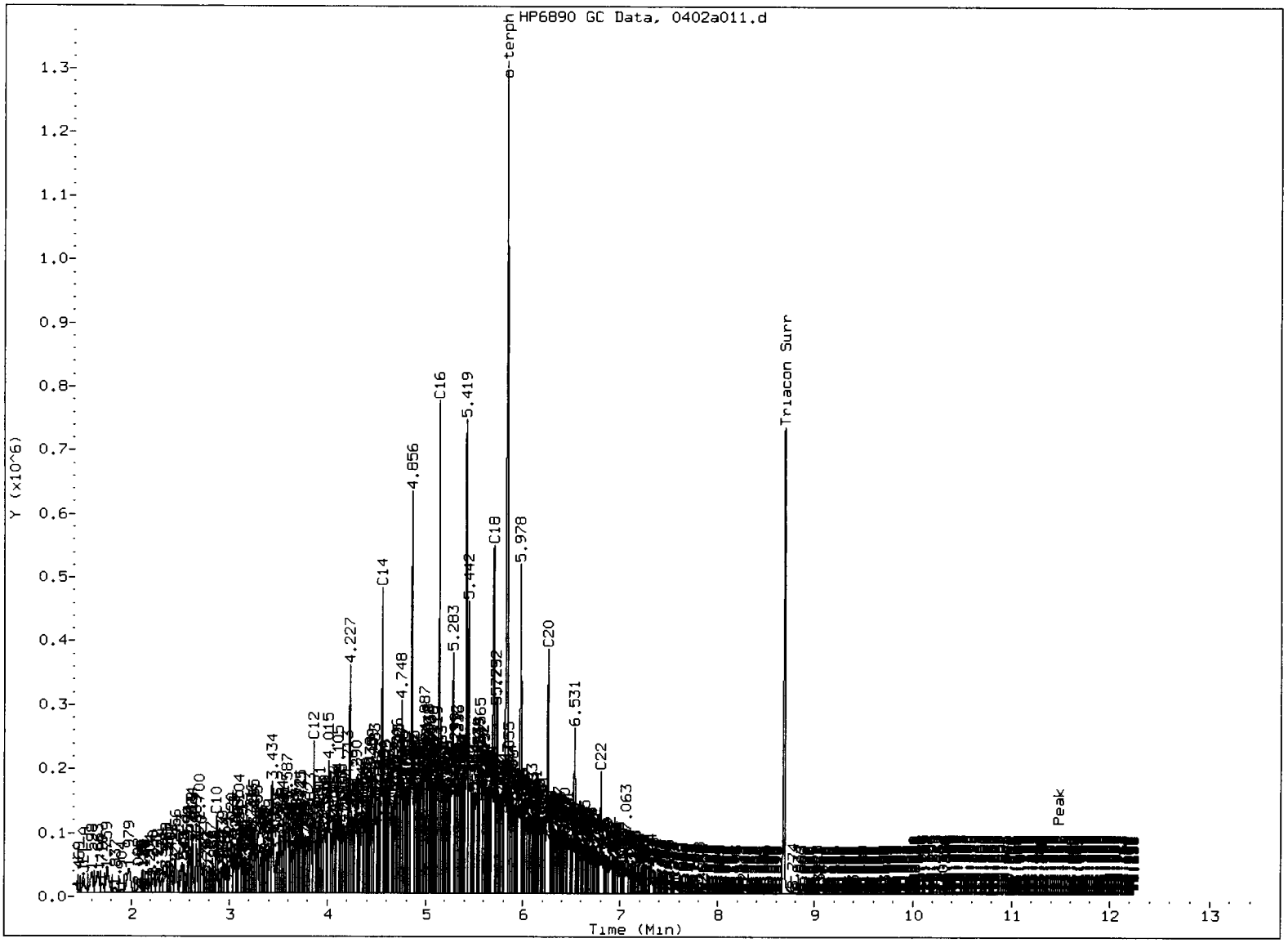
Operator: JW
Column diameter: 0.25

JW 4/3/13

WJ10-523416



FID:9A-2C/RTX-1 WJ10LCSS1 FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Surrogate Skimmed

Analyst: JW Date: 4/3/13

WJ10:02341

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a012.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/04/2013

ARI ID: DIESEL#2
Client ID: NPDES Sampling Supp
Injection: 02-APR-2013 17:17
Dilution Factor: 1
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	----				GAS (Tol-C12)	1438048	42	
C8	1.109	0.004	5028	13642	DIESEL (C12-C24)	4945662	242.96	
C10	2.870	-0.004	24300	24200	M.OIL (C24-C38)	110330	6.93	
C12	3.860	-0.004	50188	48993	AK-102 (C10-C25)	5734260	238.81	M
C14	4.548	-0.004	100105	82622	AK-103 (C25-C36)	63969	5.37	
C16	5.135	-0.003	153879	117240				
C18	5.692	-0.004	135685	130198				
C20	6.250	-0.005	82572	80853				
C22	6.798	-0.005	35742	44245				
C24	7.321	-0.004	7858	11878				
C25	7.572	-0.003	3031	4968				
C26	7.812	-0.015	1202	2008				
C28	8.276	0.002	146	179				
C32	9.056	0.001	340	160				
C34	9.396	-0.004	715	208	BUNKERC (C10-C38)	5827279	628.84	M
Filter Peak	11.483	0.000	3254	2332				
C36	9.728	0.007	1280	430				
C38	10.022	0.005	1884	1712				
C40	10.300	-0.001	2902	2196				
o-terph	5.838	0.000	1386582	1145716				
Triacon Surr	8.692	-0.003	214	75				

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1145716	43.2	95.9
Triacontane	75	0.0	0.0

JW 4/4/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

WJ10:02342

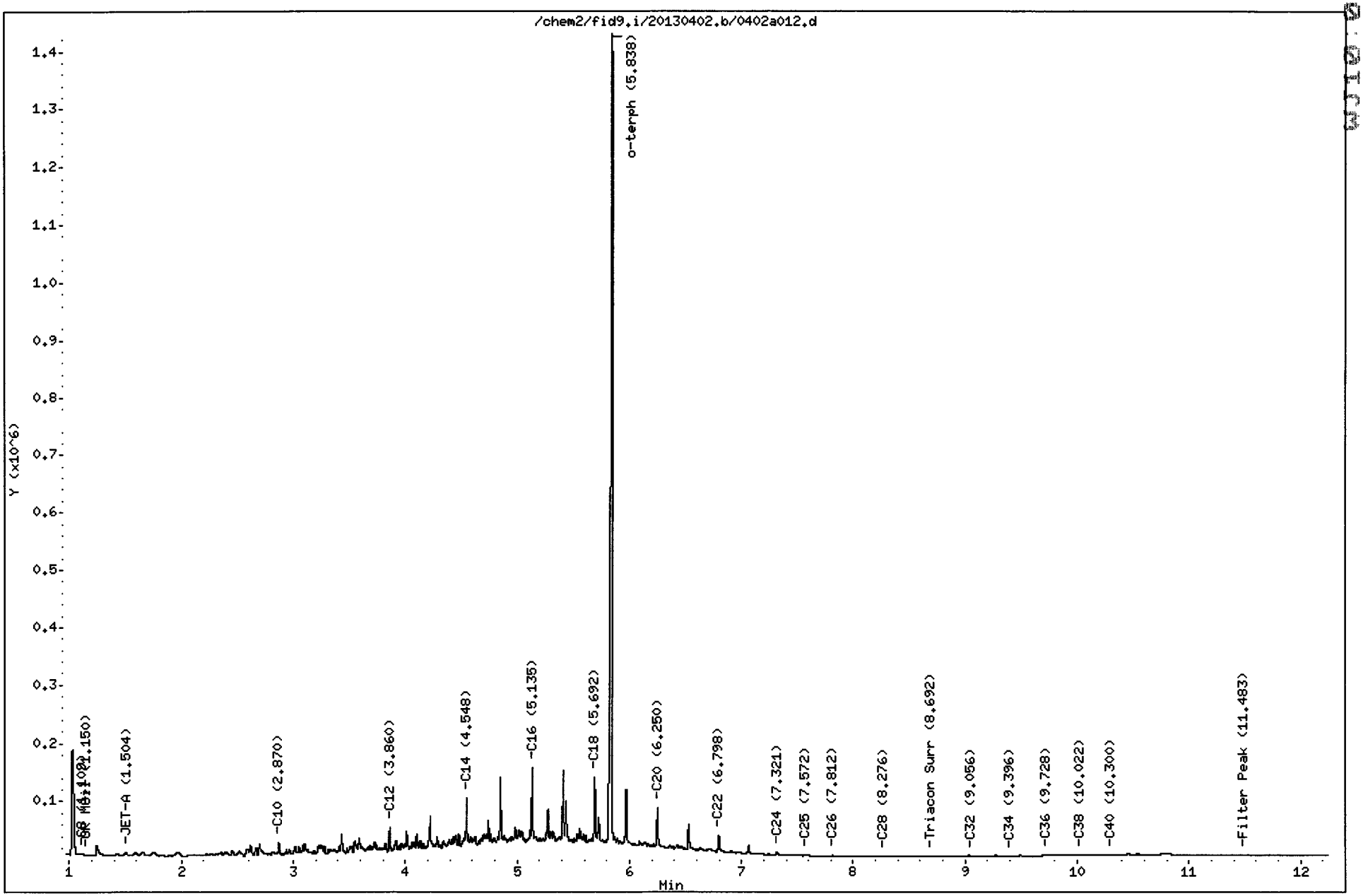
Data File: /chem2/fid9.i/20130402.b/0402a012.d
Date : 02-APR-2013 17:17
Client ID: NPDES Sampling Supp
Sample Info: DIESEL#2

Instrument: fid9.i

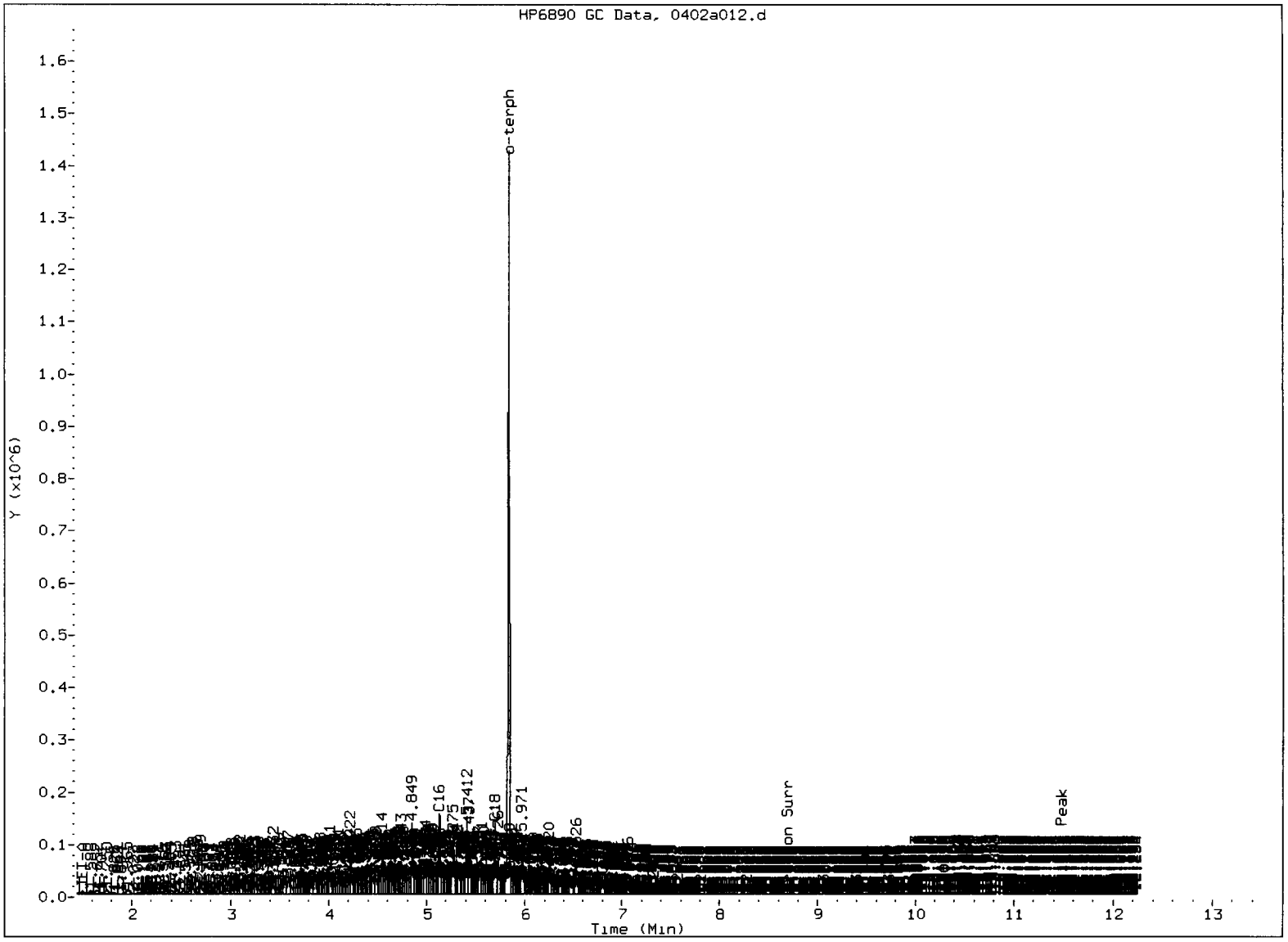
Operator: JW
Column diameter: 0.25

Column phase: RTX-1

JW 4/4/13



FID:9A-2C/RTX-1 DIESEL#2 FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
5. Surrogate Skimmed

Analyst: EW Date: 4/4/13

WJ10:02344

Analytical Resources Inc.
NWTPH Quantitation Report

Data file: /chem2/fid9.i/20130402.b/0402a013.d
Method: /chem2/fid9.i/20130402.b/ftphfid9a.m
Instrument: fid9.i
Operator: JW
Report Date: 04/04/2013

ARI ID: MOIL#2
Client ID: WJ10
Injection: 02-APR-2013 17:39
Dilution Factor: 1
Macro: 30-JAN-2013

FID:9 RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	57241	2
C8	1.049	-0.056	2636	1751	DIESEL (C12-C24)	792941	38.95
C10	2.870	-0.004	246	338	M.OIL (C24-C38)	7979565	500.91
C12	3.863	0.000	32	4	AK-102 (C10-C25)	1059973	44.14
C14	4.547	-0.005	147	84	AK-103 (C25-C36)	6843163	574.62 M
C16	5.141	0.004	210	160			
C18	5.691	-0.006	513	639			
C20	6.261	0.006	1725	942			
C22	6.800	-0.003	7366	2025			
C24	7.324	-0.001	26025	9177			
C25	7.567	-0.007	35877	29070			
C26	7.826	-0.001	40857	26651			
C28	8.277	0.003	48804	36613			
C32	9.062	0.007	58133	38478			
C34	9.400	0.001	61156	26144	BUNKERC (C10-C38)	8776398	947.09 M
Filter Peak	11.477	-0.006	6183	7616			
C36	9.718	-0.002	58496	32815			
C38	10.018	0.001	45033	14878			
C40	10.296	-0.005	35660	21524			
o-terph	5.845	0.008	643	139			
Triacon Surr	8.693	-0.002	904972	917139			

M Indicates manual integration within range.
Range Times: NW Diesel(3.863 - 7.325) AK102(2.87 - 7.57) Jet A(2.87 - 5.70)
NW M.Oil(7.32 - 10.02) AK103(7.57 - 9.72) OR Diesel(2.87 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	139	0.0	0.0
Triacontane	917139	44.0	97.9

SW 4/4/13

Analyte	RF	Curve Date
o-Terph Surr	26543.3	24-JAN-2013
Triacon Surr	20825.0	24-JAN-2013
Gas	34297.9	11-FEB-2013
Diesel	20355.8	24-JAN-2013
Motor Oil	15930.3	24-JAN-2013
AK102	24012.1	24-JAN-2013
AK103	11909.0	30-JAN-2013
Bunker C	9266.7	25-MAR-2013

Data File: /chem2/fid9.i/20130402.b/0402a013.d
Date : 02-APR-2013 17:39
Client ID: WJ10
Sample Info: MOIL#2

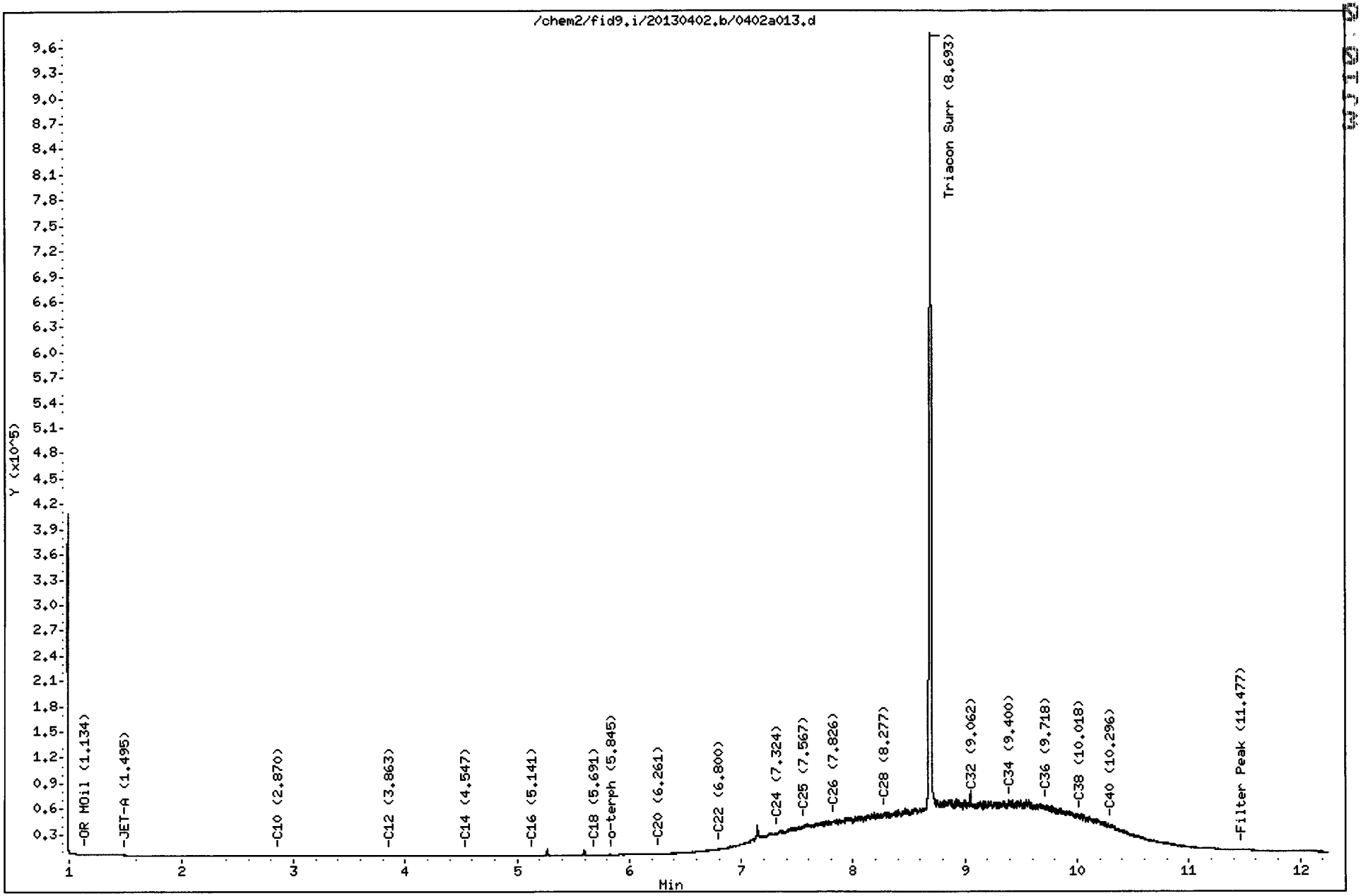
Column phase: RTX-1

Instrument: fid9.i

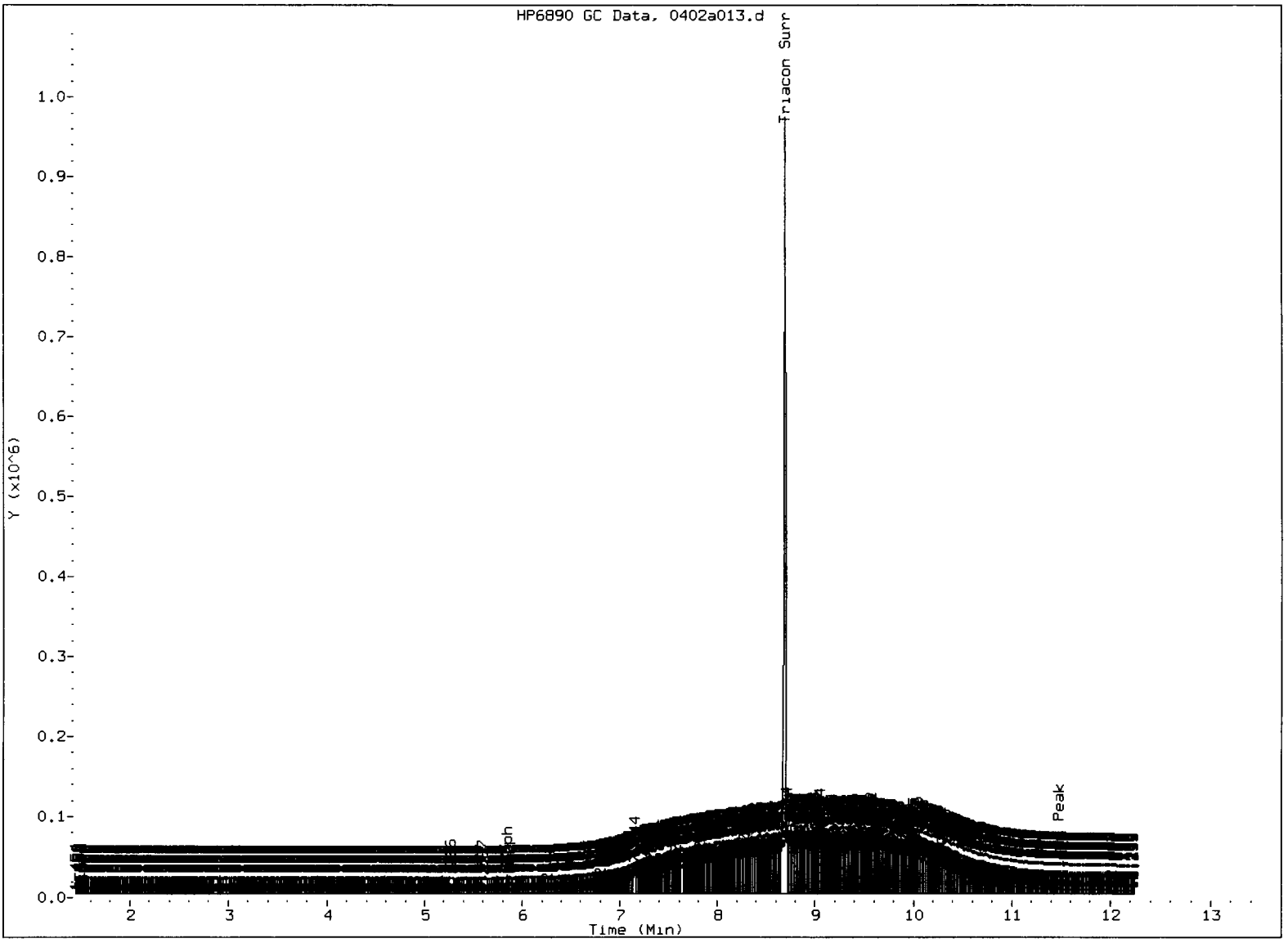
Operator: JW
Column diameter: 0.25

4/4/13

WJ10 023415



FID:9A-2C/RTX-1 MOIL#2 FID:9A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation
(5.) Surrogate Skimmed

Analyst: JW Date: 4/4/13

WJ10.02347

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WJ10, WJ32

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 4-01-13

Final Volume 50.0

Final Volume (Hg): 50.0

Sample ID WJ10 CSpK, mBSpK

	Prepcode:	SWC		
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:	3001-10		
	Vol Added (mL):	1.0		
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50 ↓	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50 ↓	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	SWN	SWN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	3012-15	~~3001-4~~ 3001-1	CB 4/01/13
	2.0	1.0	
Ag	25 ↓		
Al			500
As	25 ↓		
Ba	25		
Be	25		
Ca			500
Cd	25 ↓		
Co	25		
Cr	25 ↓		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25 ↓		
Pb	25 ↓		
Sb		25 ↓	
Se	80 ↓		
Tl	25 ↓		
U	25		
V	25		
Zn	80 ↓		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SmM	CVA	1.0	0.05	3007-13
Hg MBSPK	↓	CVA	1.0	0.10	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Tl		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 4-01-13

Final Volume 25

Final Volume (Hg):

Sample ID WJ10 APSPK, MB1SPK
ESPK, MB3SPK

Prepcode:				
Spike Solution:		ICP Routine	ICP No GFA	GFA
Standard No.:				
Vol Added (mL):				
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN	REN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	3012-15	3001-1	
	0.1	0.05	
Ag	25 ✓		
Al			500
As	25 ✓		
Ba	25		
Be	25 ✓		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25 ✓		
Cu	25 ✓		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25 ✓		
Pb	25 ✓		
Sb		25 ✓	
Se	80 ✓		
Tl	25 ✓		
U	25		
V	25		
Zn	80 ✓		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 4-01-13 Time: 1350

Matrix: Water Block ID: #12 Block Temp: 90°C Thermometer: MP26

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
WJ50 A	4	√	50.0	25.0			
" ADUP	4	√					
" ASPK	4	√					
" B	4	√					
" C	17	√					
" D	4	√					
" E	4	√					
" F	4	√					
" G	4	√					
" H	4	√					
" I	4	√					
" J	4	√					
" MB	—	√					
" MBSPK	—	√					
WJ64 A	1	√					
" MB1	—	√					
" MB1SPK	—	√					
" B	1	—					
" MB2	—	—					- Filtered in Lab
" MB2SPK	—	—					
WJ10 A	4	√					
" ADUP	4	√					
" ASPK	4	√					
" MB1	—	√					
" MB1SPK	—	√	50.0	25.0			

Chemical/Reagent ID: HNO_3: MP2456 MP2452 H_2O_2: I7645 Tube LOT # ML17KK03

ALL CORRECTIONS
BY DM 4-1-13

Digestion Log

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analyst: DM Date: 4-01-13 Time: 1350

Matrix: WATER Block ID: #2 Block Temp: 90°C Thermometer: MP26

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
WJ10 E	1	—	50.0	25.0			
" EDUP	1	—					
" ESPK	1	—					- Filtered
" MB3 MBD	—	—					in Lab
" ~~MB3SPK~~ MBDSPK	—	—					
WJ57 A	9	✓					
" ADUP	9	✓					
" ASPK	9	✓					
" B	9	✓					
" C	9	✓					
" D	9	✓					
" MB1	—	✓					
" MBSPK	—	✓					
WJ41 A	1	✓					
" ADUP	1	✓					
" ASPK	1	✓					
" MB1	—	✓					
" MB1SPK	—	✓					
" B	1	✓					
" BDUP	1	✓					
" BSPK	1	✓					
" MB2	—	✓	↓	↓			
" MBSPK	—	✓	50.0	25.0			
				4-01-13 DM			

Chemical/Reagent ID: HNO3 MP2458 MP2452 H2O2: I7845 Tube LOT # ML27KK03

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: CB Date: 04-01-13 Time: 0930

Matrix: Soil Block ID: #2 Block Temp: 95°C Thermometer: MA46

ARI Sample ID	Btl #	pH<2	Prep Code: SWE Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWE Final Vol (mL)	Prep Code: SWA Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWA Final Vol (mL)	Comments
WJ62 A	7	-	1.023	50.0			
" Adup	7	-	1.026				
" Aspk	7	-	1.023				
" mB	-	-	-				
" mBspk	-	-	-				
WJ61 A	2	-	1.006		CB		
" B	2	-	1.016		4/01/13		
" mB1	-	-	-				
" mB1spk	-	-	-				
WJ10 C	2	-	1.060		1.009	50.0	
" Cdup	2	-	1.064		1.010		
" Cspk	2	-	1.061		1.011		
" D	8	-	1.045		1.037		
" mB2	-	-	-		-		
" mB2spk	-	-	-		-	50.0	
WJ08 A	6	-	1.037				
" Adup	6	-	1.036				
" Aspk	6	-	1.039				
" B	6	-	1.045		CB		
" C	6	-	1.005		4/01/13		
" D	6	-	1.008				
" mB1	-	-	-				
" mB1spk	-	-	-	50.0			
				CB			
			CB 4/01/13	4-01-13			

Chemical/Reagent ID: HNO3: MA2455 / ~~MA022~~ 28169 CB 4/01/13 H2O2: 27845 HCL: 27971 Tube lot #: ML27KK03

WJ10.0235

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMm Matrix: Soil
Analyst: CB Date: 4-01-13
Bath Temp: 90°C Start Time: 0955 End Time: 1025

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WJ62 A	7	~	0.213	50.0	4/09 1	N	
" Adup	7	~	0.214		1		
" ASpk	7	~	0.209		1		
" mB	~	~	~		1	N	
" mBSpk	~	~	~		4/10 1	Y	
WJ10 C	2	~	0.232		1		
" Cdup	2	~	0.236		1		
" CSpk	2	~	0.233		1		
" D	8	~	0.212		1		
" mB2	~	~	~		1	Y	
" mB2Spk	~	~	~		4/07 1	N	
WJ08 A	6	~	0.253		1		
" Adup	6	~	0.255		1		
" ASpk	6	~	0.250		1		
" B	6	~	0.263		1		
" C	6	~	0.251		1		
" D	6	~	0.244		1		
" mB1	~	~	~	50.0	1	N	
" mB1Spk	~	~	~				
			CB 4-01-13				

Chemical/Reagent ID:
HNO_3: I8022 H_2SO_4: I8044 HCl: ~
5% $K_2S_2O_8$: MA2439 5% $KMnO_4$: MA2445 Digest Tube Lot: MF06LKK01

Revision 007
6/18/09

5037F

WJ10:02354

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	WJ10
Unacceptable Blank:	☐	Date of Event:	4-2-13
Unacceptable Duplicate:	☐	Client ID:	SAIC
Unacceptable Spike:	☑	Method/Element:	ICP
Unacceptable Reference:	☐	Prep Code:	SWC

Details of Problem/Recommended Corrective Action:

~~Fe~~ CSPK/C : Cu↓ (Numbers attached)

CPOST/C in control
(1.550 mg/L) (1.004 mg/L) (109.2%)

Samples Affected:

Corrective Action Taken:

Analyst Initials: BA

Date: 4-2-13

Supervisor: Send

Date: 4-3-13

5049F

Revision 007
6/11/10

WJ10:02355

WJ10

MATRIX DUPLICATE AND MATRIX SPIKE WORKSHEET (FOR SAMPLES >5 IDL)								
DUPLICATION:				SPIKE RECOVERY:				
	DUP	BKGD			SPIKE	BKGD		
VOLUME	100	100		VOLUME	100	100		
SAMP WT	1.064	1.06		SAMP WT	1.061	1.0600		
ELEMENT	DUP	BKGD	% RPD	ELEMENT	SPIKE	BKGD	SPK'D CONC	% RECOV
	mg/L				mg/L	mg/L	mg/L	
Ag			#DIV/0!	Ag			0.5	0.0
Al			#DIV/0!	Al			2	0.0
As			#DIV/0!	As			2	0.0
B			#DIV/0!	B			0.5	0.0
Ba			#DIV/0!	Ba			2	0.0
Be	0.00069	0.00082	17.59	Be	0.4873	0.00082	0.5	97.3
Ca			#DIV/0!	Ca			10	0.0
Cd			#DIV/0!	Cd			0.5	0.0
Co			#DIV/0!	Co			0.5	0.0
Cr			#DIV/0!	Cr			0.5	0.0
Cu	0.8491	1.004	17.09	Cu	1.124	1.004	0.50	23.8
Fe			#DIV/0!	Fe			2	0.0
K			#DIV/0!	K			10	0.0
Mg			#DIV/0!	Mg			10	0.0
Mn			#DIV/0!	Mn			0.5	0.0
Mo			#DIV/0!	Mo			0.5	0.0
Na			#DIV/0!	Na			10	0.0
Ni			#DIV/0!	Ni			0.5	0.0
Pb			#DIV/0!	Pb			2	0.0
Sb			#DIV/0!	Sb			2	0.0
Se			#DIV/0!	Se			2	0.0
Si			#DIV/0!	Si			10	0.0
Sn			#DIV/0!	Sn			0.5	0.0
Sr			#DIV/0!	Sr			0.5	0.0
Ti			#DIV/0!	Ti			2	0.0
Tl			#DIV/0!	Tl			2	0.0
V			#DIV/0!	V			0.5	0.0
Zn			#DIV/0!	Zn			0.5	0.0

TABLE 6

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:

ARI Job No.: WJ10

Unacceptable Blank: ☐

Date of Event: 4-4-13

Unacceptable Duplicate: ☑

Client ID: SAIC

Unacceptable Spike: ☑

Method/Element: ICPMS

Unacceptable Reference: ☐

Prep Code: SW1/REN

Details of Problem/Recommended Corrective Action:

See attached

A, ADup ASpk Sb 7 IRL Diff / Zn Low %R
APost pass

Csplk Cr, Ni Sb Pb low %R
CPost pass

Samples Affected:

Corrective Action Taken:

Analyst Initials: AA

Date: 4-4-13

Supervisor: SGM

Date: 4513

5049F

Revision 007
6/11/10

WJ10:02357

MATRIX DUPLICATE AND MATRIX SPIKE WORKSHEET (FOR SAMPLES >5 IDL)								WJ10 C Sw
		icpms						
DUPLICATION:				SPIKE RECOVERY				
	DUP	BKGD			SPIKE	BKGD		
VOLUME	100	100		VOLUME	100	100		
SAMP WT	1.01	1.009		SAMP WT	1.011	1.0090		
ELEMENT	DUP	BKGD	% RPD	ELEMENT	SPIKE	BKGD	SPK'D CONC	% RECOV
	ug/l	ug/l			ug/l	ug/l	mg/L	#VALUE!
Be			#VALUE!	Be			25	#VALUE!
Na			#DIV/0!	Na			5000	0
Mg			#VALUE!	Mg			5000	#VALUE!
Al			#VALUE!	Al			5000	#VALUE!
K			#DIV/0!	K			5000	0
Ca			#DIV/0!	Ca			5000	0
V			#DIV/0!	V			25	0
Cr	31.026	32.44	4.55	Cr	49.303	32.44	25	67.194795
Fe			#VALUE!	Fe			5000	#VALUE!
Mn			#VALUE!	Mn			25	#VALUE!
Co			#VALUE!	Co			25	#VALUE!
Ni	31.595	31.537	0.08	Ni	50.208	31.537	25	74.433954
Cu			#VALUE!	Cu			25	#VALUE!
Zn			#VALUE!	Zn			80	#VALUE!
As	4.329	3.887	10.66	As	28.873	3.887	25	99.913181
Se	0	0	#DIV/0!	Se	81.949	0	80	102.43625
Mo			#DIV/0!	Mo			25	0
Ag			#DIV/0!	Ag			25	0
Cd	1.596	1.849	14.79	Cd	26.169	1.849	25	97.26534
Sb	0	0	#DIV/0!	Sb	3.079	0	25	12.316
Ba			#DIV/0!	Ba			25	0
Tl	0.269	0.26	3.30	Tl	25.079	0.26	25	99.273939
Pb	86.23	95.593	10.40	Pb	100.636	95.593	25	19.414077

TABLE 6

MATRIX DUPLICATE AND MATRIX SPIKE WORKSHEET (FOR SAMPLES >5 IDL) **WJ10 A** Rev 2

icpms

DUPLICATION:

	DUP	BKGD
VOLUME	100	100
SAMP WT	1	1

ELEMENT	DUP	BKGD	% RPD
	ug/l	ug/l	
Be	0	0	#DIV/0!
Na			#DIV/0!
Mg			#VALUE!
Al			#VALUE!
K			#DIV/0!
Ca			#DIV/0!
V			#DIV/0!
Cr	2.714	2.287	17.08
Fe			#VALUE!
Mn			#VALUE!
Co			#VALUE!
Ni	3.376	3.234	4.30
Cu	14.9260	13.953	6.74
Zn	101.053	99.764	1.28
As	1.065	1.039	2.47
Se	0	0	#DIV/0!
Mo			#DIV/0!
Ag			#DIV/0!
Cd	0.539	0.528	2.06
Sb	0.709	0.557	24.01
Ba			#DIV/0!
Tl	0	0	#DIV/0!
Pb	9.333	8.629	7.84

SPIKE RECOVERY:

	SPIKE	BKGD
VOLUME	100	100
SAMP WT	1	1.0000

ELEMENT	SPIKE	BKGD	SPK'D CONC	% RECOV
	ug/l	ug/l	mg/L	#VALUE!
Be	21.815	0	25	87.26
Na			5000	0
Mg			5000	#VALUE!
Al			5000	#VALUE!
K			5000	0
Ca			5000	0
V			25	0
Cr	24.896	2.287	25	90.436
Fe			5000	#VALUE!
Mn			25	#VALUE!
Co			25	#VALUE!
Ni	26.299	3.234	25	92.26
Cu	37.169	13.953	25	92.864
Zn	158.04	99.764	80	72.845
As	25.274	1.039	25	96.94
Se	74.788	0	80	93.485
Mo			25	0
Ag			25	0
Cd	23.448	0.528	25	91.68
Sb	24.287	0.557	25	94.92
Ba			25	0
Tl	24.136	0	25	96.544
Pb	32.544	8.629	25	95.66

TABLE 6

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA

Analysis Date: 4-2-13 2BA

ICP2	Analyst BA 4-3-13	Peer 4-3-13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WJ10
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	✓	✓	CAF-WJ10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 1-22-13 Analysis Date: 4-2-13 Analyst: BA

LR Date: 1-22-13 Page: 1 of 5

All corrections made by analyst unless otherwise noted. BA 4-2-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			3024-11
		2			3025-3
		3			-4
		4			-5
		5			-6
		ICV			3024-9
		ICB			
		CRI			
		ICSA			
		ICSAB			
		CCV#1			
		CCB#1			
		WJ51 MB2	WMN		
		G-L		5	✓
		G			
		GDUP		✓	
		GSPK		✓	0.08 mL ICP Spk 3001-10 0.016 mL 1000ppm Sb 2938-7 CaF2 TL
		H			
		I			
		J			
		K			
	✓	MB2SPK			0.08mL ICP Spike 3001-10 0.016mL 1000ppm Sb 2938-7 Sb
		CCV#2			
		CCB#2			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 4-2-13 Analyst: BA

LR Date: — Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WJ51 MB2SPK	WMN		0.08mL ICP Spk 3001-10 0.016mL 1000ppm Sb 29338-7
		CCV3			
		CCB3			
		CRI			
		ICSA			
		ICSAB			
		CCV4			
		CCB4			End WJ51
		WJ08 MB1	SWC	2	
		WJ10 MB2			
		CDUP			
		C			
		CSPK			Cu (CAF)
		CPOST			0.08mL ICP Spk 3001-10 Cu OK
		D			
	✓	WJ08 B			Ca > LR
		MB1SPK			
		WJ10 MB2SPK			
		CCV5			
		CCB5			End Pkg (WJ10)
		WJ62 MB	SWC	2	
		ADUP BA	4/2/13		
		A			
		ASPK			

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

4/2/2013 8:00:58 AM Hg ReAlign... Actual peak offset (nm): 0.003
Drift (nm): -0.000 Slit adjustment: 0

Analysis Begun

Start Time: 4/2/2013 8:04:02 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 4/2/2013 7:13:34 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\BLKS.sif
Batch ID:
Results Data Set: I2130402
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Method Loaded
Method Name: 7300bcESI2FAST
IEC File: IEC012213.iec
Method Description: 12Axial Elements
Method Last Saved: 8/13/2012 7:13:22 AM
MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

Sequence No.: 1
Sample ID: B1
Autosampler Location: 1
Date Collected: 4/2/2013 8:04:08 AM
Data Type: Original

Dilution: 1.000000X

BA

Nebulizer Parameters: B1

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

4/2/13

Analysis Begun

Start Time: 4/2/2013 8:27:47 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 4/2/2013 7:13:34 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETb.sif
Batch ID:
Results Data Set: I2130402
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 4/2/2013 8:27:48 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2796509.3	4320.62	0.15%	100.0	%
ScR 361.383	405166.3	6388.18	1.58%	100.0	%
Ag 328.068†	0.7	9.46	>999.9%	[0.00]	mg/L
Al 308.215†	181.4	8.70	4.79%	[0.00]	mg/L
As 188.979†	-3.7	2.07	55.76%	[0.00]	mg/L
B 249.677†	-70.5	3.24	4.59%	[0.00]	mg/L
Ba 233.527†	22.1	0.80	3.61%	[0.00]	mg/L
Be 313.042†	717.8	3.76	0.52%	[0.00]	mg/L
Ca 317.933†	48.6	10.86	22.36%	[0.00]	mg/L
Cd 228.802†	223.7	3.11	1.39%	[0.00]	mg/L
Co 228.616†	-111.9	2.39	2.13%	[0.00]	mg/L
Cr 267.716†	-161.6	8.53	5.28%	[0.00]	mg/L
Cu 324.752†	2109.3	14.67	0.70%	[0.00]	mg/L
Fe 273.955†	-25.5	0.66	2.57%	[0.00]	mg/L
K 766.490†	301.0	25.32	8.41%	[0.00]	mg/L
Mg 279.077†	130.3	3.22	2.47%	[0.00]	mg/L
Mn 257.610†	166.8	1.93	1.16%	[0.00]	mg/L
Mo 202.031†	56.7	6.13	10.83%	[0.00]	mg/L
Na 589.592†	-305.5	9.78	3.20%	[0.00]	mg/L
Na 330.237†	1.0	0.36	37.94%	[0.00]	mg/L
Ni 231.604†	18.6	1.67	8.99%	[0.00]	mg/L
Pb 220.353†	-55.1	2.52	4.58%	[0.00]	mg/L
Sb 206.836†	9.3	1.40	15.04%	[0.00]	mg/L
Se 196.026†	-44.6	2.39	5.36%	[0.00]	mg/L
Si 288.158†	50.5	5.05	9.99%	[0.00]	mg/L
Sn 189.927†	-16.7	0.05	0.32%	[0.00]	mg/L
Sr 421.552†	363.6	19.29	5.31%	[0.00]	mg/L
Ti 334.903†	-21.0	17.35	82.65%	[0.00]	mg/L
Tl 190.801†	-26.4	4.55	17.23%	[0.00]	mg/L
V 292.402†	68.2	15.27	22.37%	[0.00]	mg/L
Zn 206.200†	-14.9	1.68	11.29%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2
Autosampler Location: 2
Date Collected: 4/2/2013 8:32:04 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD2

Mean Corrected	Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2742673.8	3074.14	0.11%	98.07	%
ScR 361.383	404804.2	1250.82	0.31%	99.91	%
Ba 233.527†	71130.4	137.72	0.19%	[10]	mg/L
Cd 228.802†	237897.7	585.26	0.25%	[10]	mg/L
Co 228.616†	366122.3	1757.78	0.48%	[10]	mg/L
Cr 267.716†	99673.0	502.37	0.50%	[10]	mg/L
Cu 324.752†	2842098.3	7384.13	0.26%	[10]	mg/L
Mn 257.610†	613409.3	3434.15	0.56%	[10]	mg/L
V 292.402†	1453606.4	3489.51	0.24%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3
Autosampler Location: 3
Date Collected: 4/2/2013 8:34:07 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2742028.4	824.53	0.03%	98.05	%
ScR 361.383	406678.1	592.72	0.15%	100.4	%
Ag 328.068†	243160.6	1007.27	0.41%	[1.0]	mg/L
As 188.979†	14062.5	26.85	0.19%	[10]	mg/L
B 249.677†	81993.6	254.03	0.31%	[10]	mg/L
Be 313.042†	3422585.9	7833.01	0.23%	[5.0]	mg/L
Na 589.592†	648780.3	2314.04	0.36%	[50]	mg/L
Ni 231.604†	46422.1	59.96	0.13%	[10]	mg/L
Pb 220.353†	83464.6	241.86	0.29%	[10]	mg/L
Se 196.026†	15660.6	41.32	0.26%	[10]	mg/L
Sr 421.552†	5042870.1	23400.02	0.46%	[5]	mg/L
Tl 190.801†	18676.7	28.98	0.16%	[10]	mg/L
Zn 206.200†	49041.4	93.04	0.19%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4
Autosampler Location: 4
Date Collected: 4/2/2013 8:36:42 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2765839.8	8342.18	0.30%	98.90	%
ScR 361.383	407959.1	718.97	0.18%	100.7	%
Mo 202.031†	189997.1	1468.76	0.77%	[10]	mg/L
Sb 206.836†	28235.9	186.25	0.66%	[10]	mg/L
Si 288.158†	17602.9	99.07	0.56%	[10]	mg/L
Sn 189.927†	48815.7	335.66	0.69%	[10]	mg/L
Ti 334.903†	291550.2	1049.03	0.36%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5
Autosampler Location: 5
Date Collected: 4/2/2013 8:38:58 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2567125.9	3720.42	0.14%	91.80	%
ScR 361.383	401356.6	3463.80	0.86%	99.06	%
Al 308.215†	42103.7	400.20	0.95%	[30]	mg/L
Ca 317.933†	401789.0	1348.04	0.34%	[30]	mg/L
Fe 273.955†	158707.6	703.95	0.44%	[100]	mg/L
K 766.490†	240445.5	1089.50	0.45%	[100]	mg/L
Mg 279.077†	35498.7	269.95	0.76%	[30]	mg/L
Na 330.237†	3660.2	34.82	0.95%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	243200	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1403	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1406	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	8199	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	7113	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	684500	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	13390	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	23790	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	36610	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	9967	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	284200	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1587	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2404	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1183	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	61340	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	19000	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	12980	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	36.60	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	4642	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	8346	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2824	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1566	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1760	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	4882	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	1009000	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	29160	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	1868	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	145400	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	4904	0.00000	1.000000	

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Analysis Begun

Start Time: 4/2/2013 8:41:52 AM **Plasma On Time: 4/2/2013 7:13:34 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\CRISETb.sif
Batch ID:
Results Data Set: I2130402
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: ICV **Date Collected: 4/2/2013 8:41:54 AM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2711358.6	96.96	%	0.421				0.43%
ScR 361.383	396117.4	97.77	%	0.100				0.10%
Ag 328.068†	255951.8	1.053	mg/L	0.0082	1.053	mg/L	0.0082	0.78%
Al 308.215†	2954.9	2.071	mg/L	0.0064	2.071	mg/L	0.0064	0.31%
As 188.979†	2810.3	2.030	mg/L	0.0129	2.030	mg/L	0.0129	0.64%
B 249.677†	8562.5	1.043	mg/L	0.0023	1.043	mg/L	0.0023	0.22%
Ba 233.527†	7339.1	1.031	mg/L	0.0038	1.031	mg/L	0.0038	0.37%
Be 313.042†	712908.7	1.041	mg/L	0.0040	1.041	mg/L	0.0040	0.38%
Ca 317.933†	26603.6	1.986	mg/L	0.0075	1.986	mg/L	0.0075	0.38%
Cd 228.802†	24493.8	1.019	mg/L	0.0085	1.019	mg/L	0.0085	0.83%
Co 228.616†	36598.2	0.9977	mg/L	0.00597	0.9977	mg/L	0.00597	0.60%
Cr 267.716†	10502.6	1.053	mg/L	0.0017	1.053	mg/L	0.0017	0.16%
Cu 324.752†	295545.9	1.040	mg/L	0.0051	1.040	mg/L	0.0051	0.49%
Fe 273.955†	3337.8	2.098	mg/L	0.0071	2.098	mg/L	0.0071	0.34%
K 766.490†	48275.8	20.08	mg/L	0.077	20.08	mg/L	0.077	0.38%
Mg 279.077†	2387.6	2.024	mg/L	0.0025	2.024	mg/L	0.0025	0.12%
Mn 257.610†	60757.8	0.9909	mg/L	0.00366	0.9909	mg/L	0.00366	0.37%
Mo 202.031†	19322.9	1.017	mg/L	0.0055	1.017	mg/L	0.0055	0.54%
Na 589.592†	670578.9	51.68	mg/L	0.362	51.68	mg/L	0.362	0.70%
Na 330.237†	1920.7	52.45	mg/L	0.169	52.45	mg/L	0.169	0.32%
Ni 231.604†	4843.4	1.043	mg/L	0.0016	1.043	mg/L	0.0016	0.15%
Pb 220.353†	17253.4	2.068	mg/L	0.0106	2.068	mg/L	0.0106	0.51%
Sb 206.836†	5831.7	2.063	mg/L	0.0122	2.063	mg/L	0.0122	0.59%
Se 196.026†	3145.3	2.007	mg/L	0.0126	2.007	mg/L	0.0126	0.63%
Si 288.158†	3620.0	2.052	mg/L	0.0021	2.052	mg/L	0.0021	0.10%
Sn 189.927†	4824.4	0.9897	mg/L	0.00592	0.9897	mg/L	0.00592	0.60%
Sr 421.552†	1033718.8	1.025	mg/L	0.0022	1.025	mg/L	0.0022	0.22%
Ti 334.903†	29579.6	1.013	mg/L	0.0020	1.013	mg/L	0.0020	0.19%
Tl 190.801†	3919.6	2.091	mg/L	0.0139	2.091	mg/L	0.0139	0.67%
V 292.402†	145606.6	1.006	mg/L	0.0071	1.006	mg/L	0.0071	0.70%
Zn 206.200†	5065.4	1.033	mg/L	0.0012	1.033	mg/L	0.0012	0.11%

User canceled analysis.

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Analysis Begun

Start Time: 4/2/2013 8:45:46 AM **Plasma On Time: 4/2/2013 7:13:34 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

BA 4/2/13

Sample Information File: C:\pe\metals\Sample Information\CRISETb.sif
Batch ID:
Results Data Set: I2130402
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

WJ10 : 02368

Sequence No.: 2
Sample ID: ICB

Autosampler Location: 1
Date Collected: 4/2/2013 8:45:47 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2737563.1	97.89	%	0.415				0.42%
ScR 361.383	404888.8	99.93	%	0.177				0.18%
Ag 328.068†	1.6	0.00001	mg/L	0.000110	0.00001	mg/L	0.000110	>999.9%
Al 308.215†	6.9	0.00489	mg/L	0.003755	0.00489	mg/L	0.003755	76.84%
As 188.979†	-0.3	-0.00020	mg/L	0.001805	-0.00020	mg/L	0.001805	902.32%
B 249.677†	36.6	0.00447	mg/L	0.000179	0.00447	mg/L	0.000179	4.01%
Ba 233.527†	4.5	0.00064	mg/L	0.000673	0.00064	mg/L	0.000673	105.89%
Be 313.042†	61.6	0.00009	mg/L	0.000023	0.00009	mg/L	0.000023	25.84%
Ca 317.933†	21.6	0.00161	mg/L	0.001026	0.00161	mg/L	0.001026	63.57%
Cd 228.802†	6.0	0.00026	mg/L	0.000019	0.00026	mg/L	0.000019	7.29%
Co 228.616†	1.1	0.00003	mg/L	0.000136	0.00003	mg/L	0.000136	454.76%
Cr 267.716†	1.9	0.00019	mg/L	0.000247	0.00019	mg/L	0.000247	128.59%
Cu 324.752†	47.8	0.00017	mg/L	0.000042	0.00017	mg/L	0.000042	24.77%
Fe 273.955†	1.4	0.00088	mg/L	0.002152	0.00088	mg/L	0.002152	243.72%
K 766.490†	6.5	0.00271	mg/L	0.008633	0.00271	mg/L	0.008633	318.27%
Mg 279.077†	2.3	0.00197	mg/L	0.003562	0.00197	mg/L	0.003562	180.93%
Mn 257.610†	10.4	0.00017	mg/L	0.000077	0.00017	mg/L	0.000077	45.19%
Mo 202.031†	30.8	0.00162	mg/L	0.000211	0.00162	mg/L	0.000211	13.04%
Na 589.592†	133.9	0.01032	mg/L	0.000673	0.01032	mg/L	0.000673	6.52%
Na 330.237†	7.2	0.1958	mg/L	0.18839	0.1958	mg/L	0.18839	96.20%
Ni 231.604†	6.4	0.00139	mg/L	0.001246	0.00139	mg/L	0.001246	89.94%
Pb 220.353†	6.7	0.00080	mg/L	0.000339	0.00080	mg/L	0.000339	42.36%
Sb 206.836†	9.8	0.00348	mg/L	0.002634	0.00348	mg/L	0.002634	75.60%
Se 196.026†	-0.2	-0.00011	mg/L	0.004288	-0.00011	mg/L	0.004288	>999.9%
Si 288.158†	-2.7	-0.00152	mg/L	0.001571	-0.00152	mg/L	0.001571	103.60%
Sn 189.927†	4.3	0.00088	mg/L	0.000626	0.00088	mg/L	0.000626	70.86%
Sr 421.552†	139.4	0.00014	mg/L	0.000019	0.00014	mg/L	0.000019	13.73%
Ti 334.903†	16.9	0.00058	mg/L	0.000252	0.00058	mg/L	0.000252	43.61%
Tl 190.801†	-0.2	-0.00013	mg/L	0.001485	-0.00013	mg/L	0.001485	>999.9%
V 292.402†	21.2	0.00015	mg/L	0.000021	0.00015	mg/L	0.000021	14.57%
Zn 206.200†	-1.0	-0.00021	mg/L	0.000610	-0.00021	mg/L	0.000610	296.04%

Sequence No.: 3
Sample ID: CRI

Autosampler Location: 301
Date Collected: 4/2/2013 8:50:03 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2752026.7	98.41	%	1.134				1.15%
ScR 361.383	406274.1	100.3	%	0.32				0.32%
Ag 328.068†	747.8	0.00308	mg/L	0.000032	0.00308	mg/L	0.000032	1.03%
Al 308.215†	78.8	0.05598	mg/L	0.002677	0.05598	mg/L	0.002677	4.78%
As 188.979†	69.3	0.04946	mg/L	0.000397	0.04946	mg/L	0.000397	0.80%
B 249.677†	189.9	0.02316	mg/L	0.000651	0.02316	mg/L	0.000651	2.81%
Ba 233.527†	23.5	0.00330	mg/L	0.000638	0.00330	mg/L	0.000638	19.33%
Be 313.042†	684.1	0.00100	mg/L	0.000011	0.00100	mg/L	0.000011	1.09%
Ca 317.933†	671.9	0.05017	mg/L	0.001340	0.05017	mg/L	0.001340	2.67%
Cd 228.802†	61.9	0.00234	mg/L	0.000074	0.00234	mg/L	0.000074	3.15%
Co 228.616†	124.7	0.00340	mg/L	0.000117	0.00340	mg/L	0.000117	3.43%
Cr 267.716†	49.3	0.00495	mg/L	0.000346	0.00495	mg/L	0.000346	7.00%
Cu 324.752†	638.9	0.00225	mg/L	0.000075	0.00225	mg/L	0.000075	3.32%
Fe 273.955†	82.2	0.05181	mg/L	0.001256	0.05181	mg/L	0.001256	2.42%
K 766.490†	1187.2	0.4937	mg/L	0.01792	0.4937	mg/L	0.01792	3.63%
Mg 279.077†	64.1	0.05418	mg/L	0.004511	0.05418	mg/L	0.004511	8.33%
Mn 257.610†	72.0	0.00118	mg/L	0.000048	0.00118	mg/L	0.000048	4.08%
Mo 202.031†	108.9	0.00573	mg/L	0.000212	0.00573	mg/L	0.000212	3.70%
Na 589.592†	6569.0	0.5063	mg/L	0.00216	0.5063	mg/L	0.00216	0.43%
Na 330.237†	16.5	0.4480	mg/L	0.52810	0.4480	mg/L	0.52810	117.87%
Ni 231.604†	51.4	0.01107	mg/L	0.000532	0.01107	mg/L	0.000532	4.81%
Pb 220.353†	174.0	0.02087	mg/L	0.000634	0.02087	mg/L	0.000634	3.04%
Sb 206.836†	152.3	0.05396	mg/L	0.001060	0.05396	mg/L	0.001060	1.97%
Se 196.026†	78.9	0.05039	mg/L	0.000904	0.05039	mg/L	0.000904	1.79%
Si 288.158†	111.5	0.06324	mg/L	0.002760	0.06324	mg/L	0.002760	4.36%
Sn 189.927†	53.7	0.01104	mg/L	0.000893	0.01104	mg/L	0.000893	8.10%
Sr 421.552†	1056.7	0.00105	mg/L	0.000009	0.00105	mg/L	0.000009	0.81%
Ti 334.903†	149.5	0.00512	mg/L	0.000226	0.00512	mg/L	0.000226	4.41%
Tl 190.801†	98.3	0.05260	mg/L	0.001626	0.05260	mg/L	0.001626	3.09%
V 292.402†	436.9	0.00303	mg/L	0.000038	0.00303	mg/L	0.000038	1.24%
Zn 206.200†	49.4	0.01009	mg/L	0.000466	0.01009	mg/L	0.000466	4.62%

Sequence No.: 4
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 4/2/2013 8:54:20 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2650241.3	94.77	%	0.224				0.24%
ScR 361.383	388047.5	95.77	%	0.263				0.27%
Ag 328.068†	-306.7	-0.00060	mg/L	0.000192	-0.00060	mg/L	0.000192	32.16%
Al 308.215†	287008.0	204.5	mg/L	0.63	204.5	mg/L	0.63	0.31%
As 188.979†	56.0	0.03077	mg/L	0.001554	0.03077	mg/L	0.001554	5.05%
B 249.677†	131.9	0.01609	mg/L	0.001499	0.01609	mg/L	0.001499	9.32%
Ba 233.527†	177.3	-0.00296	mg/L	0.000397	-0.00296	mg/L	0.000397	13.42%
Be 313.042†	62.0	0.00009	mg/L	0.000017	0.00009	mg/L	0.000017	19.12%
Ca 317.933†	1375286.1	102.7	mg/L	0.28	102.7	mg/L	0.28	0.27%
Cd 228.802†	70.7	0.00275	mg/L	0.000339	0.00275	mg/L	0.000339	12.34%
Co 228.616†	63.1	0.00171	mg/L	0.000045	0.00171	mg/L	0.000045	2.63%
Cr 267.716†	4.8	-0.00489	mg/L	0.000207	-0.00489	mg/L	0.000207	4.23%
Cu 324.752†	-2066.0	0.00149	mg/L	0.000117	0.00149	mg/L	0.000117	7.81%
Fe 273.955†	301233.8	189.8	mg/L	1.17	189.8	mg/L	1.17	0.61%
K 766.490†	24.9	0.01034	mg/L	0.008959	0.01034	mg/L	0.008959	86.67%
Mg 279.077†	125468.1	105.9	mg/L	0.60	105.9	mg/L	0.60	0.56%
Mn 257.610†	128.1	0.00066	mg/L	0.000171	0.00066	mg/L	0.000171	25.75%
Mo 202.031†	114.1	0.00480	mg/L	0.000127	0.00480	mg/L	0.000127	2.66%
Na 589.592†	257.1	0.01982	mg/L	0.004737	0.01982	mg/L	0.004737	23.91%
Na 330.237†	0.1	0.00575	mg/L	0.249979	0.00575	mg/L	0.249979	>999.9%
Ni 231.604†	-4.1	-0.00088	mg/L	0.000812	-0.00088	mg/L	0.000812	92.32%
Pb 220.353†	-490.7	-0.01360	mg/L	0.001387	-0.01360	mg/L	0.001387	10.20%
Sb 206.836†	-0.2	-0.00019	mg/L	0.003656	-0.00019	mg/L	0.003656	>999.9%
Se 196.026†	0.6	-0.02313	mg/L	0.002703	-0.02313	mg/L	0.002703	11.69%
Si 288.158†	-29.8	-0.00484	mg/L	0.003963	-0.00484	mg/L	0.003963	81.80%
Sn 189.927†	-89.7	-0.00977	mg/L	0.000958	-0.00977	mg/L	0.000958	9.81%
Sr 421.552†	4267.3	0.00423	mg/L Cont.	0.000005	0.00423	mg/L	0.000005	0.13%
Ti 334.903†	263.5	0.00293	mg/L	0.000468	0.00293	mg/L	0.000468	15.98%
Tl 190.801†	-26.9	0.01076	mg/L	0.001811	0.01076	mg/L	0.001811	16.83%
V 292.402†	1224.1	-0.00110	mg/L	0.000274	-0.00110	mg/L	0.000274	24.82%
Zn 206.200†	-9.0	-0.00184	mg/L	0.000420	-0.00184	mg/L	0.000420	22.77%

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 4/2/2013 8:58:36 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2642616.8	94.50	%	0.575				0.61%
ScR 361.383	393846.7	97.21	%	0.402				0.41%
Ag 328.068†	266309.9	1.096	mg/L	0.0073	1.096	mg/L	0.0073	0.67%
Al 308.215†	283975.2	202.3	mg/L	0.84	202.3	mg/L	0.84	0.41%
As 188.979†	1502.3	1.059	mg/L	0.0026	1.059	mg/L	0.0026	0.24%
B 249.677†	48.0	0.00356	mg/L	0.000167	0.00356	mg/L	0.000167	4.68%
Ba 233.527†	7483.6	1.024	mg/L	0.0073	1.024	mg/L	0.0073	0.71%
Be 313.042†	702400.7	1.026	mg/L	0.0034	1.026	mg/L	0.0034	0.33%
Ca 317.933†	1364977.3	101.9	mg/L	0.32	101.9	mg/L	0.32	0.31%
Cd 228.802†	24843.3	1.039	mg/L	0.0071	1.039	mg/L	0.0071	0.68%
Co 228.616†	36077.5	0.9851	mg/L	0.00195	0.9851	mg/L	0.00195	0.20%
Cr 267.716†	10315.3	1.030	mg/L	0.0048	1.030	mg/L	0.0048	0.46%
Cu 324.752†	301313.3	1.069	mg/L	0.0068	1.069	mg/L	0.0068	0.63%
Fe 273.955†	302146.3	190.4	mg/L	1.62	190.4	mg/L	1.62	0.85%
K 766.490†	-37.0	-0.01540	mg/L	0.007840	-0.01540	mg/L	0.007840	50.90%
Mg 279.077†	119601.6	101.0	mg/L	0.56	101.0	mg/L	0.56	0.55%
Mn 257.610†	60122.2	0.9789	mg/L	0.00606	0.9789	mg/L	0.00606	0.62%
Mo 202.031†	117.2	0.00491	mg/L	0.000321	0.00491	mg/L	0.000321	6.53%
Na 589.592†	198.1	0.01527	mg/L	0.001975	0.01527	mg/L	0.001975	12.93%
Na 330.237†	13.9	0.08891	mg/L	0.330752	0.08891	mg/L	0.330752	372.00%
Ni 231.604†	4704.8	1.014	mg/L	0.0056	1.014	mg/L	0.0056	0.55%
Pb 220.353†	7955.6	0.9983	mg/L	0.00289	0.9983	mg/L	0.00289	0.29%
Sb 206.836†	2885.5	1.011	mg/L	0.0061	1.011	mg/L	0.0061	0.61%
Se 196.026†	1606.6	1.002	mg/L	0.0101	1.002	mg/L	0.0101	1.01%
Si 288.158†	-39.1	-0.00729	mg/L	0.003434	-0.00729	mg/L	0.003434	47.13%
Sn 189.927†	-97.1	-0.01082	mg/L	0.001723	-0.01082	mg/L	0.001723	15.92%
Sr 421.552†	4209.3	0.00417	mg/L Cont	0.000067	0.00417	mg/L	0.000067	1.61%
Ti 334.903†	266.6	0.00288	mg/L	0.000343	0.00288	mg/L	0.000343	11.88%
Tl 190.801†	1782.5	0.9697	mg/L	0.00227	0.9697	mg/L	0.00227	0.23%
V 292.402†	146878.8	1.006	mg/L	0.0068	1.006	mg/L	0.0068	0.68%
Zn 206.200†	4853.5	0.9899	mg/L	0.00313	0.9899	mg/L	0.00313	0.32%

Sequence No.: 6
Sample ID: CV (

Autosampler Location: 7
Date Collected: 4/2/2013 9:02:39 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2706088.0	96.77	%	0.133				0.14%
ScR 361.383	395969.3	97.73	%	0.219				0.22%
Ag 328.068†	258613.2	1.064	mg/L	0.0078	1.064	mg/L	0.0078	0.73%
Al 308.215†	2962.0	2.076	mg/L	0.0119	2.076	mg/L	0.0119	0.57%
As 188.979†	2825.6	2.041	mg/L	0.0065	2.041	mg/L	0.0065	0.32%
B 249.677†	8451.1	1.030	mg/L	0.0028	1.030	mg/L	0.0028	0.27%
Ba 233.527†	7355.2	1.034	mg/L	0.0047	1.034	mg/L	0.0047	0.46%
Be 313.042†	714377.1	1.043	mg/L	0.0055	1.043	mg/L	0.0055	0.53%
Ca 317.933†	27931.1	2.086	mg/L	0.0092	2.086	mg/L	0.0092	0.44%
Cd 228.802†	25306.4	1.053	mg/L	0.0014	1.053	mg/L	0.0014	0.14%
Co 228.616†	36774.0	1.003	mg/L	0.0056	1.003	mg/L	0.0056	0.56%
Cr 267.716†	10418.0	1.045	mg/L	0.0022	1.045	mg/L	0.0022	0.21%
Cu 324.752†	297284.1	1.046	mg/L	0.0059	1.046	mg/L	0.0059	0.56%
Fe 273.955†	3342.5	2.100	mg/L	0.0043	2.100	mg/L	0.0043	0.20%
K 766.490†	48617.3	20.22	mg/L	0.086	20.22	mg/L	0.086	0.42%
Mg 279.077†	2395.3	2.031	mg/L	0.0080	2.031	mg/L	0.0080	0.39%
Mn 257.610†	61008.3	0.9949	mg/L	0.00408	0.9949	mg/L	0.00408	0.41%
Mo 202.031†	19400.4	1.021	mg/L	0.0028	1.021	mg/L	0.0028	0.28%
Na 589.592†	673052.1	51.87	mg/L	0.218	51.87	mg/L	0.218	0.42%
Na 330.237†	1891.6	51.66	mg/L	0.208	51.66	mg/L	0.208	0.40%
Ni 231.604†	4846.0	1.044	mg/L	0.0049	1.044	mg/L	0.0049	0.47%
Pb 220.353†	17400.5	2.086	mg/L	0.0026	2.086	mg/L	0.0026	0.12%
Sb 206.836†	5867.3	2.076	mg/L	0.0026	2.076	mg/L	0.0026	0.13%
Se 196.026†	3164.5	2.019	mg/L	0.0038	2.019	mg/L	0.0038	0.19%
Si 288.158†	3598.5	2.039	mg/L	0.0113	2.039	mg/L	0.0113	0.55%
Sn 189.927†	4850.8	0.9951	mg/L	0.00261	0.9951	mg/L	0.00261	0.26%
Sr 421.552†	1037392.8	1.029	mg/L	0.0009	1.029	mg/L	0.0009	0.09%
Ti 334.903†	29725.5	1.018	mg/L	0.0009	1.018	mg/L	0.0009	0.09%
Tl 190.801†	3941.2	2.102	mg/L	0.0041	2.102	mg/L	0.0041	0.19%
V 292.402†	146891.7	1.015	mg/L	0.0070	1.015	mg/L	0.0070	0.69%
Zn 206.200†	5056.7	1.031	mg/L	0.0042	1.031	mg/L	0.0042	0.41%

Sequence No.: 7
Sample ID: CB

Autosampler Location: 1
Date Collected: 4/2/2013 9:05:58 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2723953.0	97.41	%	0.109				0.11%
ScR 361.383	402297.1	99.29	%	0.814				0.82%
Ag 328.068†	27.7	0.00011	mg/L	0.000145	0.00011	mg/L	0.000145	127.29%
Al 308.215†	18.1	0.01289	mg/L	0.001674	0.01289	mg/L	0.001674	12.98%
As 188.979†	-1.9	-0.00131	mg/L	0.000635	-0.00131	mg/L	0.000635	48.59%
B 249.677†	24.5	0.00298	mg/L	0.000427	0.00298	mg/L	0.000427	14.32%
Ba 233.527†	2.4	0.00033	mg/L	0.000060	0.00033	mg/L	0.000060	17.98%
Be 313.042†	86.6	0.00013	mg/L	0.000048	0.00013	mg/L	0.000048	38.25%
Ca 317.933†	46.1	0.00344	mg/L	0.000892	0.00344	mg/L	0.000892	25.95%
Cd 228.802†	8.5	0.00036	mg/L	0.000099	0.00036	mg/L	0.000099	27.15%
Co 228.616†	1.0	0.00003	mg/L	0.000127	0.00003	mg/L	0.000127	485.40%
Cr 267.716†	-3.2	-0.00032	mg/L	0.001402	-0.00032	mg/L	0.001402	438.41%
Cu 324.752†	70.7	0.00025	mg/L	0.000045	0.00025	mg/L	0.000045	18.11%
Fe 273.955†	11.3	0.00712	mg/L	0.001556	0.00712	mg/L	0.001556	21.84%
K 766.490†	45.5	0.01894	mg/L	0.021286	0.01894	mg/L	0.021286	112.38%
Mg 279.077†	10.6	0.00894	mg/L	0.007479	0.00894	mg/L	0.007479	83.66%
Mn 257.610†	14.7	0.00024	mg/L	0.000043	0.00024	mg/L	0.000043	17.92%
Mo 202.031†	16.7	0.00088	mg/L	0.000474	0.00088	mg/L	0.000474	53.87%
Na 589.592†	98.0	0.00756	mg/L	0.001970	0.00756	mg/L	0.001970	26.07%
Na 330.237†	5.0	0.1358	mg/L	0.20996	0.1358	mg/L	0.20996	154.65%
Ni 231.604†	-0.3	-0.00006	mg/L	0.000692	-0.00006	mg/L	0.000692	>999.9%
Pb 220.353†	3.4	0.00041	mg/L	0.000324	0.00041	mg/L	0.000324	79.11%
Sb 206.836†	14.5	0.00514	mg/L	0.001259	0.00514	mg/L	0.001259	24.50%
Se 196.026†	-0.3	-0.00018	mg/L	0.001553	-0.00018	mg/L	0.001553	882.84%
Si 288.158†	-0.4	-0.00021	mg/L	0.002373	-0.00021	mg/L	0.002373	>999.9%
Sn 189.927†	4.4	0.00090	mg/L	0.000611	0.00090	mg/L	0.000611	67.82%
Sr 421.552†	96.8	0.00010	mg/L	0.000051	0.00010	mg/L	0.000051	53.17%
Ti 334.903†	15.2	0.00052	mg/L	0.000373	0.00052	mg/L	0.000373	71.68%
Tl 190.801†	6.9	0.00370	mg/L	0.001280	0.00370	mg/L	0.001280	34.62%
V 292.402†	-2.3	-0.00002	mg/L	0.000128	-0.00002	mg/L	0.000128	729.28%
Zn 206.200†	-0.9	-0.00019	mg/L	0.000551	-0.00019	mg/L	0.000551	285.59%

Sequence No.: 8
Sample ID: WJ51 MB2 WMN

Autosampler Location: 304
Date Collected: 4/2/2013 9:10:14 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 MB2 WMN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ51 MB2 WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2798216.4	100.1	%	0.10				0.10%
ScR 361.383	408681.9	100.9	%	0.32				0.32%
Ag 328.068†	-28.7	-0.00012	mg/L	0.000101	-0.00012	mg/L	0.000101	85.93%
Al 308.215†	7.1	0.00505	mg/L	0.002930	0.00505	mg/L	0.002930	58.08%
As 188.979†	-1.4	-0.00101	mg/L	0.001610	-0.00101	mg/L	0.001610	159.13%
B 249.677†	5.0	0.00061	mg/L	0.000168	0.00061	mg/L	0.000168	27.43%
Ba 233.527†	1.6	0.00023	mg/L	0.000341	0.00023	mg/L	0.000341	150.68%
Be 313.042†	31.9	0.00005	mg/L	0.000027	0.00005	mg/L	0.000027	58.90%
Ca 317.933†	57.6	0.00430	mg/L	0.000474	0.00430	mg/L	0.000474	11.04%
Cd 228.802†	1.7	0.00008	mg/L	0.000115	0.00008	mg/L	0.000115	148.52%
Co 228.616†	0.9	0.00002	mg/L	0.000106	0.00002	mg/L	0.000106	435.12%
Cr 267.716†	-2.8	-0.00028	mg/L	0.000708	-0.00028	mg/L	0.000708	249.30%
Cu 324.752†	-0.5	-0.00000	mg/L	0.000021	-0.00000	mg/L	0.000021	>999.9%
Fe 273.955†	3.2	0.00201	mg/L	0.001898	0.00201	mg/L	0.001898	94.28%
K 766.490†	29.6	0.01229	mg/L	0.006676	0.01229	mg/L	0.006676	54.30%
Mg 279.077†	5.3	0.00445	mg/L	0.003311	0.00445	mg/L	0.003311	74.41%
Mn 257.610†	9.1	0.00015	mg/L	0.000120	0.00015	mg/L	0.000120	80.82%
Mo 202.031†	1.3	0.00007	mg/L	0.000249	0.00007	mg/L	0.000249	362.62%
Na 589.592†	52.7	0.00406	mg/L	0.003131	0.00406	mg/L	0.003131	77.13%
Na 330.237†	-20.3	-0.5542	mg/L	0.23308	-0.5542	mg/L	0.23308	42.06%
Ni 231.604†	2.7	0.00059	mg/L	0.000108	0.00059	mg/L	0.000108	18.29%
Pb 220.353†	9.1	0.00109	mg/L	0.000276	0.00109	mg/L	0.000276	25.34%
Sb 206.836†	-3.9	-0.00137	mg/L	0.000541	-0.00137	mg/L	0.000541	39.47%
Se 196.026†	3.1	0.00201	mg/L	0.001319	0.00201	mg/L	0.001319	65.77%
Si 288.158†	-9.9	-0.00563	mg/L	0.003996	-0.00563	mg/L	0.003996	71.00%
Sn 189.927†	4.7	0.00097	mg/L	0.000283	0.00097	mg/L	0.000283	29.31%
Sr 421.552†	3.3	0.00000	mg/L	0.000005	0.00000	mg/L	0.000005	145.85%
Ti 334.903†	-3.1	-0.00011	mg/L	0.000398	-0.00011	mg/L	0.000398	371.27%
Tl 190.801†	-0.2	-0.00010	mg/L	0.001254	-0.00010	mg/L	0.001254	>999.9%
V 292.402†	-5.3	-0.00004	mg/L	0.000127	-0.00004	mg/L	0.000127	336.04%
Zn 206.200†	4.5	0.00091	mg/L	0.000526	0.00091	mg/L	0.000526	57.86%

Sequence No.: 9
Sample ID: WJ51 G-L WMN

Autosampler Location: 305
Date Collected: 4/2/2013 9:14:31 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: WJ51 G-L WMN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ51 G-L WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2764751.2	98.86	%	0.396				0.40%
ScR 361.383	407879.2	100.7	%	0.41				0.40%
Ag 328.068†	-43.3	-0.00009	mg/L	0.000196	-0.00043	mg/L	0.000979	225.25%
Al 308.215†	4.0	0.00279	mg/L	0.002750	0.01395	mg/L	0.013748	98.55%
As 188.979†	11.9	0.00723	mg/L	0.001801	0.03613	mg/L	0.009006	24.93%
B 249.677†	419.5	0.05117	mg/L	0.001320	0.2558	mg/L	0.00660	2.58%
Ba 233.527†	357.8	0.04963	mg/L	0.001427	0.2481	mg/L	0.00713	2.88%
Be 313.042†	9.9	0.00001	mg/L	0.000027	0.00007	mg/L	0.000136	188.27%
Ca 317.933†	188521.9	14.08	mg/L	0.332	70.38	mg/L	1.662	2.36%
Cd 228.802†	5.6	0.00019	mg/L	0.000065	0.00095	mg/L	0.000325	34.06%
Co 228.616†	9.1	0.00024	mg/L	0.000062	0.00120	mg/L	0.000311	25.94%
Cr 267.716†	4.3	-0.00019	mg/L	0.000582	-0.00094	mg/L	0.002908	309.44%
Cu 324.752†	-25.6	0.00010	mg/L	0.000171	0.00051	mg/L	0.000854	166.71%
Fe 273.955†	7297.6	4.598	mg/L	0.0989	22.99	mg/L	0.495	2.15%
K 766.490†	6032.8	2.509	mg/L	0.0682	12.55	mg/L	0.341	2.72%
Mg 279.077†	7242.9	6.117	mg/L	0.1344	30.58	mg/L	0.672	2.20%
Mn 257.610†	6519.5	0.1062	mg/L	0.00220	0.5311	mg/L	0.01099	2.07%
Mo 202.031†	41.3	0.00201	mg/L	0.000206	0.01003	mg/L	0.001032	10.29%
Na 589.592†	88232.2	6.800	mg/L	0.2087	34.00	mg/L	1.043	3.07%
Na 330.237†	242.4	6.623	mg/L	0.2570	33.11	mg/L	1.285	3.88%
Ni 231.604†	7.5	0.00162	mg/L	0.000493	0.00811	mg/L	0.002464	30.37%
Pb 220.353†	1.5	-0.00006	mg/L	0.000418	-0.00031	mg/L	0.002090	681.87%
Sb 206.836†	4.9	0.00171	mg/L	0.000708	0.00857	mg/L	0.003540	41.31%
Se 196.026†	-2.6	-0.00165	mg/L	0.002270	-0.00826	mg/L	0.011352	137.37%
Si 288.158†	3233.6	1.838	mg/L	0.0385	9.188	mg/L	0.1924	2.09%
Sn 189.927†	-21.1	-0.00314	mg/L	0.000850	-0.01571	mg/L	0.004252	27.07%
Sr 421.552†	91827.8	0.09105	mg/L	0.002596	0.4552	mg/L	0.01298	2.85%
Ti 334.903†	57.3	0.00112	mg/L	0.000622	0.00562	mg/L	0.003108	55.28%
Tl 190.801†	9.2	0.00555	mg/L	0.005763	0.02775	mg/L	0.028813	103.84%
V 292.402†	44.7	0.00009	mg/L	0.000107	0.00047	mg/L	0.000536	113.02%
Zn 206.200†	1.7	0.00066	mg/L	0.000388	0.00328	mg/L	0.001942	59.22%

Sequence No.: 10
Sample ID: WJ51 G WMN

Autosampler Location: 306
Date Collected: 4/2/2013 9:18:46 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 G WMN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: WJ51 G WMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2737903.3	97.90	%	0.387				0.40%
ScR 361.383	416631.8	102.8	%	0.06				0.05%
Ag 328.068†	-176.8	-0.00027	mg/L	0.000072	-0.00027	mg/L	0.000072	27.27%
Al 308.215†	14.0	0.00976	mg/L	0.004797	0.00976	mg/L	0.004797	49.14%
As 188.979†	55.6	0.03325	mg/L	0.002243	0.03325	mg/L	0.002243	6.75%
B 249.677†	2108.9	0.2572	mg/L	0.00070	0.2572	mg/L	0.00070	0.27%
Ba 233.527†	1798.8	0.2495	mg/L	0.00133	0.2495	mg/L	0.00133	0.53%
Be 313.042†	32.6	0.00005	mg/L	0.000018	0.00005	mg/L	0.000018	38.19%
Ca 317.933†	956163.1	71.39	mg/L	0.315	71.39	mg/L	0.315	0.44%
Cd 228.802†	12.8	0.00032	mg/L	0.000101	0.00032	mg/L	0.000101	31.63%
Co 228.616†	42.0	0.00111	mg/L	0.000189	0.00111	mg/L	0.000189	17.04%
Cr 267.716†	31.0	-0.00004	mg/L	0.000851	-0.00004	mg/L	0.000851	>999.9%
Cu 324.752†	-118.6	0.00054	mg/L	0.000107	0.00054	mg/L	0.000107	19.92%
Fe 273.955†	36296.6	22.87	mg/L	0.170	22.87	mg/L	0.170	0.74%
K 766.490†	30503.6	12.69	mg/L	0.056	12.69	mg/L	0.056	0.44%
Mg 279.077†	36792.1	31.07	mg/L	0.053	31.07	mg/L	0.053	0.17%
Mn 257.610†	32564.1	0.5306	mg/L	0.00337	0.5306	mg/L	0.00337	0.63%
Mo 202.031†	152.6	0.00719	mg/L	0.000216	0.00719	mg/L	0.000216	3.00%
Na 589.592†	448161.7	34.54	mg/L	0.320	34.54	mg/L	0.320	0.93%
Na 330.237†	1292.8	35.32	mg/L	0.128	35.32	mg/L	0.128	0.36%
Ni 231.604†	4.7	0.00101	mg/L	0.000505	0.00101	mg/L	0.000505	50.15%
Pb 220.353†	-0.3	-0.00125	mg/L	0.000223	-0.00125	mg/L	0.000223	17.82%
Sb 206.836†	4.4	0.00144	mg/L	0.000461	0.00144	mg/L	0.000461	32.02%
Se 196.026†	-7.1	-0.00453	mg/L	0.004530	-0.00453	mg/L	0.004530	100.00%
Si 288.158†	16466.0	9.358	mg/L	0.0295	9.358	mg/L	0.0295	0.32%
Sn 189.927†	-56.0	-0.00549	mg/L	0.001458	-0.00549	mg/L	0.001458	26.58%
Sr 421.552†	460519.6	0.4566	mg/L	0.00343	0.4566	mg/L	0.00343	0.75%
Ti 334.903†	240.9	0.00401	mg/L	0.000025	0.00401	mg/L	0.000025	0.63%
Tl 190.801†	17.3	0.01231	mg/L	0.001522	0.01231	mg/L	0.001522	12.37%
V 292.402†	391.3	0.00164	mg/L	0.000050	0.00164	mg/L	0.000050	3.07%
Zn 206.200†	-11.5	-0.00076	mg/L	0.000847	-0.00076	mg/L	0.000847	111.43%

Sequence No.: 11
Sample ID: WJ51 GDUP WMN

Autosampler Location: 307
Date Collected: 4/2/2013 9:23:02 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 GDUP WMN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ51 GDUP WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2755455.2	98.53	%	0.458				0.46%
ScR 361.383	408535.1	100.8	%	0.34				0.34%
Ag 328.068†	-161.0	-0.00019	mg/L	0.000074	-0.00019	mg/L	0.000074	38.67%
Al 308.215†	12.9	0.00902	mg/L	0.000978	0.00902	mg/L	0.000978	10.85%
As 188.979†	54.2	0.03218	mg/L	0.003172	0.03218	mg/L	0.003172	9.86%
B 249.677†	2140.8	0.2611	mg/L	0.00071	0.2611	mg/L	0.00071	0.27%
Ba 233.527†	1834.5	0.2545	mg/L	0.00212	0.2545	mg/L	0.00212	0.83%
Be 313.042†	41.3	0.00006	mg/L	0.000004	0.00006	mg/L	0.000004	6.96%
Ca 317.933†	972420.3	72.61	mg/L	0.133	72.61	mg/L	0.133	0.18%
Cd 228.802†	7.3	0.00009	mg/L	0.000033	0.00009	mg/L	0.000033	36.72%
Co 228.616†	41.3	0.00108	mg/L	0.000128	0.00108	mg/L	0.000128	11.79%
Cr 267.716†	28.3	-0.00036	mg/L	0.000602	-0.00036	mg/L	0.000602	166.70%
Cu 324.752†	-104.7	0.00060	mg/L	0.000080	0.00060	mg/L	0.000080	13.35%
Fe 273.955†	36743.9	23.15	mg/L	0.109	23.15	mg/L	0.109	0.47%
K 766.490†	31068.1	12.92	mg/L	0.043	12.92	mg/L	0.043	0.33%
Mg 279.077†	37337.4	31.53	mg/L	0.063	31.53	mg/L	0.063	0.20%
Mn 257.610†	33051.8	0.5385	mg/L	0.00345	0.5385	mg/L	0.00345	0.64%
Mo 202.031†	148.1	0.00694	mg/L	0.000336	0.00694	mg/L	0.000336	4.83%
Na 589.592†	454282.3	35.01	mg/L	0.183	35.01	mg/L	0.183	0.52%
Na 330.237†	1302.9	35.60	mg/L	0.298	35.60	mg/L	0.298	0.84%
Ni 231.604†	-0.9	-0.00020	mg/L	0.000864	-0.00020	mg/L	0.000864	435.75%
Pb 220.353†	-1.2	-0.00137	mg/L	0.000587	-0.00137	mg/L	0.000587	42.72%
Sb 206.836†	-2.2	-0.00089	mg/L	0.000391	-0.00089	mg/L	0.000391	43.88%
Se 196.026†	-0.1	-0.00006	mg/L	0.001375	-0.00006	mg/L	0.001375	>999.9%
Si 288.158†	16717.9	9.501	mg/L	0.0229	9.501	mg/L	0.0229	0.24%
Sn 189.927†	-58.8	-0.00596	mg/L	0.001418	-0.00596	mg/L	0.001418	23.81%
Sr 421.552†	467679.8	0.4637	mg/L	0.00244	0.4637	mg/L	0.00244	0.53%
Ti 334.903†	237.2	0.00381	mg/L	0.000056	0.00381	mg/L	0.000056	1.48%
Tl 190.801†	15.7	0.01146	mg/L	0.000997	0.01146	mg/L	0.000997	8.70%
V 292.402†	381.1	0.00155	mg/L	0.000062	0.00155	mg/L	0.000062	3.99%
Zn 206.200†	-13.8	-0.00121	mg/L	0.000742	-0.00121	mg/L	0.000742	61.20%

Sequence No.: 12
Sample ID: WJ51 GSPK WMN

Autosampler Location: 308
Date Collected: 4/2/2013 9:27:18 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 GSPK WMN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: WJ51 GSPK WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2793041.6	99.88	%	0.540				0.54%
ScR 361.383	411447.2	101.6	%	0.93				0.92%
Ag 328.068†	126081.3	0.5192	mg/L	0.00024	0.5192	mg/L	0.00024	0.05%
Al 308.215†	2976.9	2.114	mg/L	0.0297	2.114	mg/L	0.0297	1.41%
As 188.979†	3127.3	2.217	mg/L	0.0035	2.217	mg/L	0.0035	0.16%
B 249.677†	2048.5	0.2487	mg/L	0.00152	0.2487	mg/L	0.00152	0.61%
Ba 233.527†	16854.5	2.366	mg/L	0.0263	2.366	mg/L	0.0263	1.11%
Be 313.042†	351381.3	0.5132	mg/L	0.00893	0.5132	mg/L	0.00893	1.74%
Ca 317.933†	1082344.7	80.81	mg/L	1.514	80.81	mg/L	1.514	1.87%
Cd 228.802†	12947.6	0.5322	mg/L	0.00231	0.5322	mg/L	0.00231	0.43%
Co 228.616†	18212.4	0.4971	mg/L	0.00066	0.4971	mg/L	0.00066	0.13%
Cr 267.716†	5281.2	0.5256	mg/L	0.00658	0.5256	mg/L	0.00658	1.25%
Cu 324.752†	145275.3	0.5122	mg/L	0.00111	0.5122	mg/L	0.00111	0.22%
Fe 273.955†	38372.9	24.18	mg/L	0.165	24.18	mg/L	0.165	0.68%
K 766.490†	55134.4	22.93	mg/L	0.458	22.93	mg/L	0.458	2.00%
Mg 279.077†	47652.9	40.25	mg/L	0.649	40.25	mg/L	0.649	1.61%
Mn 257.610†	62097.9	1.012	mg/L	0.0121	1.012	mg/L	0.0121	1.19%
Mo 202.031†	156.9	0.00728	mg/L	0.000406	0.00728	mg/L	0.000406	5.58%
Na 589.592†	582837.6	44.92	mg/L	1.002	44.92	mg/L	1.002	2.23%
Na 330.237†	1653.7	45.03	mg/L	0.679	45.03	mg/L	0.679	1.51%
Ni 231.604†	2428.9	0.5233	mg/L	0.00606	0.5233	mg/L	0.00606	1.16%
Pb 220.353†	17138.7	2.053	mg/L	0.0023	2.053	mg/L	0.0023	0.11%
Sb 206.836†	6243.2	2.206	mg/L	0.0307	2.206	mg/L	0.0307	1.39%
Se 196.026†	3791.6	2.420	mg/L	0.0087	2.420	mg/L	0.0087	0.36%
Si 288.158†	16595.7	9.434	mg/L	0.1242	9.434	mg/L	0.1242	1.32%
Sn 189.927†	-66.3	-0.00567	mg/L	0.000369	-0.00567	mg/L	0.000369	6.51%
Sr 421.552†	977650.9	0.9693	mg/L	0.01734	0.9693	mg/L	0.01734	1.79%
Ti 334.903†	255.1	0.00384	mg/L	0.000092	0.00384	mg/L	0.000092	2.41%
Tl 190.801†	3886.3	2.079	mg/L	0.0103	2.079	mg/L	0.0103	0.50%
V 292.402†	74287.7	0.5123	mg/L	0.00088	0.5123	mg/L	0.00088	0.17%
Zn 206.200†	2551.0	0.5220	mg/L	0.00453	0.5220	mg/L	0.00453	0.87%

Sequence No.: 13
Sample ID: WJ51 H WMN

Autosampler Location: 309
Date Collected: 4/2/2013 9:31:21 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 H WMN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ51 H WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2810235.3	100.5	%	0.19				0.18%
ScR 361.383	416400.3	102.8	%	0.50				0.49%
Ag 328.068†	-107.3	0.00002	mg/L	0.000079	0.00002	mg/L	0.000079	457.03%
Al 308.215†	9.0	0.00622	mg/L	0.001557	0.00622	mg/L	0.001557	25.01%
As 188.979†	51.8	0.03065	mg/L	0.000562	0.03065	mg/L	0.000562	1.83%
B 249.677†	2096.0	0.2556	mg/L	0.00130	0.2556	mg/L	0.00130	0.51%
Ba 233.527†	1793.9	0.2489	mg/L	0.00246	0.2489	mg/L	0.00246	0.99%
Be 313.042†	59.9	0.00009	mg/L	0.000003	0.00009	mg/L	0.000003	3.75%
Ca 317.933†	949167.8	70.87	mg/L	0.336	70.87	mg/L	0.336	0.47%
Cd 228.802†	12.3	0.00031	mg/L	0.000131	0.00031	mg/L	0.000131	42.28%
Co 228.616†	39.5	0.00104	mg/L	0.000044	0.00104	mg/L	0.000044	4.27%
Cr 267.716†	30.0	-0.00012	mg/L	0.000419	-0.00012	mg/L	0.000419	350.03%
Cu 324.752†	-131.6	0.00049	mg/L	0.000034	0.00049	mg/L	0.000034	6.96%
Fe 273.955†	36091.5	22.74	mg/L	0.056	22.74	mg/L	0.056	0.25%
K 766.490†	30309.0	12.61	mg/L	0.096	12.61	mg/L	0.096	0.76%
Mg 279.077†	36568.0	30.88	mg/L	0.058	30.88	mg/L	0.058	0.19%
Mn 257.610†	32440.0	0.5286	mg/L	0.00182	0.5286	mg/L	0.00182	0.34%
Mo 202.031†	151.9	0.00716	mg/L	0.000243	0.00716	mg/L	0.000243	3.39%
Na 589.592†	442613.7	34.11	mg/L	0.294	34.11	mg/L	0.294	0.86%
Na 330.237†	1276.8	34.89	mg/L	0.398	34.89	mg/L	0.398	1.14%
Ni 231.604†	7.2	0.00155	mg/L	0.001380	0.00155	mg/L	0.001380	88.91%
Pb 220.353†	3.4	-0.00080	mg/L	0.000200	-0.00080	mg/L	0.000200	24.90%
Sb 206.836†	82.6	0.02913	mg/L	0.007265	0.02913	mg/L	0.007265	24.94%
Se 196.026†	-6.8	-0.00437	mg/L	0.005311	-0.00437	mg/L	0.005311	121.64%
Si 288.158†	16335.7	9.284	mg/L	0.0341	9.284	mg/L	0.0341	0.37%
Sn 189.927†	-60.0	-0.00635	mg/L	0.000058	-0.00635	mg/L	0.000058	0.92%
Sr 421.552†	456799.6	0.4529	mg/L	0.00231	0.4529	mg/L	0.00231	0.51%
Ti 334.903†	226.5	0.00355	mg/L	0.000523	0.00355	mg/L	0.000523	14.74%
Tl 190.801†	22.0	0.01477	mg/L	0.001143	0.01477	mg/L	0.001143	7.74%
V 292.402†	380.7	0.00157	mg/L	0.000003	0.00157	mg/L	0.000003	0.22%
Zn 206.200†	-10.3	-0.00053	mg/L	0.000130	-0.00053	mg/L	0.000130	24.59%

Sequence No.: 14
Sample ID: WJ51 I WMN

Autosampler Location: 310
Date Collected: 4/2/2013 9:35:37 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 I WMN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ51 I WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2617323.0	93.59	%	0.453				0.48%
ScR 361.383	397151.7	98.02	%	0.289				0.29%
Ag 328.068†	-273.5	-0.00032	mg/L	0.000096	-0.00032	mg/L	0.000096	29.65%
Al 308.215†	10.4	0.00717	mg/L	0.001170	0.00717	mg/L	0.001170	16.31%
As 188.979†	69.8	0.03893	mg/L	0.000474	0.03893	mg/L	0.000474	1.22%
B 249.677†	4991.8	0.6088	mg/L	0.00664	0.6088	mg/L	0.00664	1.09%
Ba 233.527†	938.0	0.1310	mg/L	0.00126	0.1310	mg/L	0.00126	0.96%
Be 313.042†	65.1	0.00009	mg/L	0.000013	0.00009	mg/L	0.000013	13.69%
Ca 317.933†	1661393.1	124.0	mg/L	0.72	124.0	mg/L	0.72	0.58%
Cd 228.802†	19.3	0.00053	mg/L	0.000043	0.00053	mg/L	0.000043	7.99%
Co 228.616†	47.9	0.00126	mg/L	0.000086	0.00126	mg/L	0.000086	6.83%
Cr 267.716†	131.5	-0.00043	mg/L	0.000590	-0.00043	mg/L	0.000590	137.01%
Cu 324.752†	382.3	0.00093	mg/L	0.000126	0.00093	mg/L	0.000126	13.54%
Fe 273.955†	9241.8	5.823	mg/L	0.0593	5.823	mg/L	0.0593	1.02%
K 766.490†	115221.8	47.92	mg/L	0.366	47.92	mg/L	0.366	0.76%
Mg 279.077†	153757.4	129.9	mg/L	0.91	129.9	mg/L	0.91	0.70%
Mn 257.610†	41340.2	0.6735	mg/L	0.00789	0.6735	mg/L	0.00789	1.17%
Mo 202.031†	176.1	0.00781	mg/L	0.000117	0.00781	mg/L	0.000117	1.50%
Na 589.592†	10427559.0	803.6	mg/L	9.08	803.6	mg/L	9.08	1.13%
Na 330.237†	29533.4	806.9	mg/L	8.74	806.9	mg/L	8.74	1.08%
Ni 231.604†	6.7	0.00143	mg/L	0.000619	0.00143	mg/L	0.000619	43.33%
Pb 220.353†	-14.5	-0.00203	mg/L	0.000729	-0.00203	mg/L	0.000729	35.93%
Sb 206.836†	11.2	0.00369	mg/L	0.000770	0.00369	mg/L	0.000770	20.87%
Se 196.026†	15.5	0.00991	mg/L	0.002622	0.00991	mg/L	0.002622	26.46%
Si 288.158†	30649.7	17.43	mg/L	0.179	17.43	mg/L	0.179	1.03%
Sn 189.927†	-74.1	-0.00478	mg/L	0.001194	-0.00478	mg/L	0.001194	24.99%
Sr 421.552†	869394.1	0.8620	mg/L	0.00613	0.8620	mg/L	0.00613	0.71%
Ti 334.903†	541.5	0.01119	mg/L	0.000440	0.01119	mg/L	0.000440	3.94%
Tl 190.801†	23.6	0.01337	mg/L	0.003228	0.01337	mg/L	0.003228	24.14%
V 292.402†	587.4	0.00390	mg/L	0.000094	0.00390	mg/L	0.000094	2.41%
Zn 206.200†	-24.9	-0.00214	mg/L	0.000495	-0.00214	mg/L	0.000495	23.12%

Sequence No.: 15
Sample ID: WJ51 J WMN

Autosampler Location: 311
Date Collected: 4/2/2013 9:40:15 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 J WMN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: WJ51 J WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2743888.3	98.12	%	0.015				0.02%
ScR 361.383	406739.1	100.4	%	0.28				0.27%
Ag 328.068†	-217.5	-0.00022	mg/L	0.000070	-0.00022	mg/L	0.000070	32.31%
Al 308.215†	8.4	0.00570	mg/L	0.003189	0.00570	mg/L	0.003189	56.00%
As 188.979†	67.4	0.03881	mg/L	0.000851	0.03881	mg/L	0.000851	2.19%
B 249.677†	6580.5	0.8026	mg/L	0.00503	0.8026	mg/L	0.00503	0.63%
Ba 233.527†	924.8	0.1271	mg/L	0.00067	0.1271	mg/L	0.00067	0.53%
Be 313.042†	40.8	0.00006	mg/L	0.000009	0.00006	mg/L	0.000009	15.41%
Ca 317.933†	1401473.6	104.6	mg/L	0.88	104.6	mg/L	0.88	0.84%
Cd 228.802†	13.6	0.00030	mg/L	0.000140	0.00030	mg/L	0.000140	46.05%
Co 228.616†	109.1	0.00295	mg/L	0.000019	0.00295	mg/L	0.000019	0.63%
Cr 267.716†	105.4	-0.00007	mg/L	0.000273	-0.00007	mg/L	0.000273	400.58%
Cu 324.752†	87.1	0.00073	mg/L	0.000085	0.00073	mg/L	0.000085	11.66%
Fe 273.955†	31804.6	20.04	mg/L	0.108	20.04	mg/L	0.108	0.54%
K 766.490†	149409.9	62.14	mg/L	0.404	62.14	mg/L	0.404	0.65%
Mg 279.077†	124775.4	105.4	mg/L	0.60	105.4	mg/L	0.60	0.56%
Mn 257.610†	40733.9	0.6637	mg/L	0.00321	0.6637	mg/L	0.00321	0.48%
Mo 202.031†	207.3	0.00968	mg/L	0.000242	0.00968	mg/L	0.000242	2.50%
Na 589.592†	1361233.3	104.9	mg/L	1.30	104.9	mg/L	1.30	1.24%
Na 330.237†	3710.6	101.4	mg/L	0.16	101.4	mg/L	0.16	0.16%
Ni 231.604†	11.1	0.00239	mg/L	0.000521	0.00239	mg/L	0.000521	21.84%
Pb 220.353†	-5.4	-0.00170	mg/L	0.000916	-0.00170	mg/L	0.000916	53.79%
Sb 206.836†	2.9	0.00081	mg/L	0.000569	0.00081	mg/L	0.000569	69.88%
Se 196.026†	2.6	0.00167	mg/L	0.003144	0.00167	mg/L	0.003144	188.04%
Si 288.158†	52589.2	29.89	mg/L	0.134	29.89	mg/L	0.134	0.45%
Sn 189.927†	-54.0	-0.00230	mg/L	0.001378	-0.00230	mg/L	0.001378	59.83%
Sr 421.552†	1161877.9	1.152	mg/L	0.0110	1.152	mg/L	0.0110	0.95%
Ti 334.903†	369.8	0.00645	mg/L	0.000790	0.00645	mg/L	0.000790	12.25%
Tl 190.801†	19.2	0.01291	mg/L	0.003754	0.01291	mg/L	0.003754	29.09%
V 292.402†	520.0	0.00272	mg/L	0.000153	0.00272	mg/L	0.000153	5.63%
Zn 206.200†	-36.6	-0.00242	mg/L	0.000351	-0.00242	mg/L	0.000351	14.49%

Sequence No.: 16
Sample ID: WJ51 K WMN

Autosampler Location: 312
Date Collected: 4/2/2013 9:44:33 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 K WMN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: WJ51 K WMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2757076.7	98.59	%	0.375				0.38%
ScR 361.383	408889.6	100.9	%	0.54				0.53%
Ag 328.068†	-253.2	-0.00021	mg/L	0.000170	-0.00021	mg/L	0.000170	82.62%
Al 308.215†	115.6	0.08197	mg/L	0.001717	0.08197	mg/L	0.001717	2.09%
As 188.979†	70.0	0.03869	mg/L	0.001386	0.03869	mg/L	0.001386	3.58%
B 249.677†	1732.6	0.2113	mg/L	0.00358	0.2113	mg/L	0.00358	1.69%
Ba 233.527†	1224.2	0.1607	mg/L	0.00033	0.1607	mg/L	0.00033	0.20%
Be 313.042†	36.9	0.00005	mg/L	0.000017	0.00005	mg/L	0.000017	32.99%
Ca 317.933†	1723461.5	128.7	mg/L	0.45	128.7	mg/L	0.45	0.35%
Cd 228.802†	28.2	0.00091	mg/L	0.000143	0.00091	mg/L	0.000143	15.74%
Co 228.616†	98.2	0.00263	mg/L	0.000143	0.00263	mg/L	0.000143	5.45%
Cr 267.716†	56.3	0.00250	mg/L	0.000438	0.00250	mg/L	0.000438	17.51%
Cu 324.752†	-685.9	0.00120	mg/L	0.000049	0.00120	mg/L	0.000049	4.07%
Fe 273.955†	123583.1	77.87	mg/L	0.346	77.87	mg/L	0.346	0.44%
K 766.490†	54186.4	22.54	mg/L	0.245	22.54	mg/L	0.245	1.09%
Mg 279.077†	47316.3	39.93	mg/L	0.281	39.93	mg/L	0.281	0.70%
Mn 257.610†	141452.1	2.306	mg/L	0.0132	2.306	mg/L	0.0132	0.57%
Mo 202.031†	183.4	0.00814	mg/L	0.000356	0.00814	mg/L	0.000356	4.38%
Na 589.592†	210901.4	16.25	mg/L	0.139	16.25	mg/L	0.139	0.86%
Na 330.237†	606.6	16.58	mg/L	0.270	16.58	mg/L	0.270	1.63%
Ni 231.604†	12.2	0.00263	mg/L	0.000656	0.00263	mg/L	0.000656	24.94%
Pb 220.353†	22.5	-0.00145	mg/L	0.000883	-0.00145	mg/L	0.000883	60.82%
Sb 206.836†	7.9	0.00272	mg/L	0.003591	0.00272	mg/L	0.003591	132.14%
Se 196.026†	15.1	0.00963	mg/L	0.002686	0.00963	mg/L	0.002686	27.89%
Si 288.158†	34377.3	19.53	mg/L	0.125	19.53	mg/L	0.125	0.64%
Sn 189.927†	-50.7	0.00039	mg/L	0.002111	0.00039	mg/L	0.002111	543.35%
Sr 421.552†	605412.0	0.6003	mg/L	0.00439	0.6003	mg/L	0.00439	0.73%
Ti 334.903†	602.3	0.01300	mg/L	0.000111	0.01300	mg/L	0.000111	0.85%
Tl 190.801†	10.4	0.01585	mg/L	0.003663	0.01585	mg/L	0.003663	23.11%
V 292.402†	1829.9	0.00905	mg/L	0.000193	0.00905	mg/L	0.000193	2.13%
Zn 206.200†	-16.0	0.00003	mg/L	0.000966	0.00003	mg/L	0.000966	>999.9%

Sequence No.: 17
Sample ID: WJ51 MB2SPK WMN

Del

Autosampler Location: 313
Date Collected: 4/2/2013 9:48:50 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 MB2SPK WMN

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: WJ51 MB2SPK WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2791969.4	99.84	%	0.574				0.58%
ScR 361.383	414516.1	102.3	%	0.18				0.17%
Ag 328.068†	133597.9	0.5497	mg/L	0.00534	0.5497	mg/L	0.00534	0.97%
Al 308.215†	2936.1	2.085	mg/L	0.0100	2.085	mg/L	0.0100	0.48%
As 188.979†	3083.0	2.191	mg/L	0.0154	2.191	mg/L	0.0154	0.70%
B 249.677†	21.0	0.00135	mg/L	0.000385	0.00135	mg/L	0.000385	28.47%
Ba 233.527†	15123.2	2.126	mg/L	0.0037	2.126	mg/L	0.0037	0.18%
Be 313.042†	354094.1	0.5172	mg/L	0.00576	0.5172	mg/L	0.00576	1.11%
Ca 317.933†	136327.6	10.18	mg/L	0.098	10.18	mg/L	0.098	0.96%
Cd 228.802†	13160.5	0.5413	mg/L	0.00566	0.5413	mg/L	0.00566	1.05%
Co 228.616†	18920.7	0.5165	mg/L	0.00390	0.5165	mg/L	0.00390	0.76%
Cr 267.716†	5271.8	0.5276	mg/L	0.00148	0.5276	mg/L	0.00148	0.28%
Cu 324.752†	144960.8	0.5102	mg/L	0.00393	0.5102	mg/L	0.00393	0.77%
Fe 273.955†	3303.6	2.079	mg/L	0.0052	2.079	mg/L	0.0052	0.25%
K 766.490†	24540.2	10.21	mg/L	0.056	10.21	mg/L	0.056	0.55%
Mg 279.077†	12482.1	10.55	mg/L	0.030	10.55	mg/L	0.030	0.29%
Mn 257.610†	30626.4	0.4996	mg/L	0.00364	0.4996	mg/L	0.00364	0.73%
Mo 202.031†	33.8	0.00163	mg/L	0.000027	0.00163	mg/L	0.000027	1.67%
Na 589.592†	135883.0	10.47	mg/L	0.099	10.47	mg/L	0.099	0.95%
Na 330.237†	381.1	10.25	mg/L	0.094	10.25	mg/L	0.094	0.92%
Ni 231.604†	2471.5	0.5325	mg/L	0.00282	0.5325	mg/L	0.00282	0.53%
Pb 220.353†	17820.1	2.136	mg/L	0.0185	2.136	mg/L	0.0185	0.87%
Sb 206.836†	6804.0	2.404	mg/L	0.0336	2.404	mg/L	0.0336	1.40%
Se 196.026†	3684.4	2.352	mg/L	0.0122	2.352	mg/L	0.0122	0.52%
Si 288.158†	-7.0	-0.00093	mg/L	0.002393	-0.00093	mg/L	0.002393	258.11%
Sn 189.927†	-25.1	-0.00305	mg/L	0.000357	-0.00305	mg/L	0.000357	11.69%
Sr 421.552†	517239.8	0.5128	mg/L	0.00246	0.5128	mg/L	0.00246	0.48%
Ti 334.903†	18.0	-0.00009	mg/L	0.000017	-0.00009	mg/L	0.000017	18.82%
Tl 190.801†	4062.0	2.170	mg/L	0.0059	2.170	mg/L	0.0059	0.27%
V 292.402†	74885.9	0.5174	mg/L	0.00583	0.5174	mg/L	0.00583	1.13%
Zn 206.200†	2622.9	0.5350	mg/L	0.00080	0.5350	mg/L	0.00080	0.15%

Sequence No.: 18
Sample ID: CV2

Autosampler Location: 7
Date Collected: 4/2/2013 9:52:51 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2754302.5	98.49	%	0.258				0.26%
ScR 361.383	405612.3	100.1	%	0.73				0.73%
Ag 328.068†	258057.1	1.062	mg/L	0.0069	1.062	mg/L	0.0069	0.65%
Al 308.215†	2904.0	2.035	mg/L	0.0142	2.035	mg/L	0.0142	0.70%
As 188.979†	2787.9	2.013	mg/L	0.0106	2.013	mg/L	0.0106	0.53%
B 249.677†	8446.5	1.029	mg/L	0.0073	1.029	mg/L	0.0073	0.71%
Ba 233.527†	7334.1	1.031	mg/L	0.0106	1.031	mg/L	0.0106	1.03%
Be 313.042†	700580.0	1.023	mg/L	0.0129	1.023	mg/L	0.0129	1.26%
Ca 317.933†	26199.3	1.956	mg/L	0.0217	1.956	mg/L	0.0217	1.11%
Cd 228.802†	24755.7	1.030	mg/L	0.0049	1.030	mg/L	0.0049	0.47%
Co 228.616†	36302.3	0.9897	mg/L	0.00510	0.9897	mg/L	0.00510	0.52%
Cr 267.716†	10425.7	1.045	mg/L	0.0071	1.045	mg/L	0.0071	0.68%
Cu 324.752†	292375.2	1.029	mg/L	0.0057	1.029	mg/L	0.0057	0.55%
Fe 273.955†	3261.3	2.049	mg/L	0.0141	2.049	mg/L	0.0141	0.69%
K 766.490†	47741.2	19.86	mg/L	0.055	19.86	mg/L	0.055	0.28%
Mg 279.077†	2357.6	1.999	mg/L	0.0197	1.999	mg/L	0.0197	0.99%
Mn 257.610†	59192.5	0.9653	mg/L	0.00946	0.9653	mg/L	0.00946	0.98%
Mo 202.031†	19026.1	1.001	mg/L	0.0036	1.001	mg/L	0.0036	0.36%
Na 589.592†	664988.5	51.25	mg/L	0.392	51.25	mg/L	0.392	0.76%
Na 330.237†	1886.3	51.51	mg/L	0.378	51.51	mg/L	0.378	0.73%
Ni 231.604†	4826.0	1.040	mg/L	0.0053	1.040	mg/L	0.0053	0.51%
Pb 220.353†	17099.3	2.050	mg/L	0.0085	2.050	mg/L	0.0085	0.41%
Sb 206.836†	5800.5	2.052	mg/L	0.0139	2.052	mg/L	0.0139	0.68%
Se 196.026†	3133.3	1.999	mg/L	0.0076	1.999	mg/L	0.0076	0.38%
Si 288.158†	3596.6	2.038	mg/L	0.0132	2.038	mg/L	0.0132	0.65%
Sn 189.927†	4741.7	0.9727	mg/L	0.00194	0.9727	mg/L	0.00194	0.20%
Sr 421.552†	1017652.1	1.009	mg/L	0.0066	1.009	mg/L	0.0066	0.65%
Ti 334.903†	29073.0	0.9958	mg/L	0.00841	0.9958	mg/L	0.00841	0.84%
Tl 190.801†	3889.1	2.074	mg/L	0.0156	2.074	mg/L	0.0156	0.75%
V 292.402†	145230.7	1.004	mg/L	0.0060	1.004	mg/L	0.0060	0.60%
Zn 206.200†	5015.3	1.023	mg/L	0.0075	1.023	mg/L	0.0075	0.73%

Sequence No.: 19
Sample ID: CB2

Autosampler Location: 1
Date Collected: 4/2/2013 9:56:55 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2777580.6	99.32	%	0.568				0.57%
ScR 361.383	410929.0	101.4	%	0.34				0.34%
Ag 328.068†	143.9	0.00059	mg/L	0.000117	0.00059	mg/L	0.000117	19.69%
Al 308.215†	5.1	0.00361	mg/L	0.004615	0.00361	mg/L	0.004615	128.01%
As 188.979†	-1.3	-0.00093	mg/L	0.003106	-0.00093	mg/L	0.003106	334.75%
B 249.677†	27.3	0.00333	mg/L	0.001317	0.00333	mg/L	0.001317	39.52%
Ba 233.527†	1.9	0.00026	mg/L	0.000288	0.00026	mg/L	0.000288	110.80%
Be 313.042†	18.6	0.00003	mg/L	0.000040	0.00003	mg/L	0.000040	147.81%
Ca 317.933†	27.0	0.00202	mg/L	0.001269	0.00202	mg/L	0.001269	62.92%
Cd 228.802†	3.2	0.00014	mg/L	0.000198	0.00014	mg/L	0.000198	141.87%
Co 228.616†	5.0	0.00014	mg/L	0.000095	0.00014	mg/L	0.000095	69.67%
Cr 267.716†	2.6	0.00026	mg/L	0.000354	0.00026	mg/L	0.000354	137.16%
Cu 324.752†	95.4	0.00034	mg/L	0.000120	0.00034	mg/L	0.000120	35.74%
Fe 273.955†	5.4	0.00340	mg/L	0.001581	0.00340	mg/L	0.001581	46.47%
K 766.490†	46.6	0.01936	mg/L	0.011708	0.01936	mg/L	0.011708	60.46%
Mg 279.077†	3.4	0.00288	mg/L	0.002011	0.00288	mg/L	0.002011	69.80%
Mn 257.610†	11.5	0.00019	mg/L	0.000038	0.00019	mg/L	0.000038	20.04%
Mo 202.031†	19.2	0.00101	mg/L	0.000529	0.00101	mg/L	0.000529	52.48%
Na 589.592†	216.7	0.01670	mg/L	0.004910	0.01670	mg/L	0.004910	29.41%
Na 330.237†	13.0	0.3558	mg/L	0.55423	0.3558	mg/L	0.55423	155.77%
Ni 231.604†	1.4	0.00031	mg/L	0.000467	0.00031	mg/L	0.000467	151.42%
Pb 220.353†	8.0	0.00096	mg/L	0.000213	0.00096	mg/L	0.000213	22.17%
Sb 206.836†	17.6	0.00625	mg/L	0.001136	0.00625	mg/L	0.001136	18.16%
Se 196.026†	-0.3	-0.00022	mg/L	0.002172	-0.00022	mg/L	0.002172	992.09%
Si 288.158†	-0.3	-0.00015	mg/L	0.001466	-0.00015	mg/L	0.001466	953.13%
Sn 189.927†	6.1	0.00126	mg/L	0.000169	0.00126	mg/L	0.000169	13.40%
Sr 421.552†	40.2	0.00004	mg/L	0.000034	0.00004	mg/L	0.000034	85.48%
Ti 334.903†	13.9	0.00048	mg/L	0.000608	0.00048	mg/L	0.000608	127.91%
Tl 190.801†	2.3	0.00126	mg/L	0.001722	0.00126	mg/L	0.001722	136.76%
V 292.402†	-8.7	-0.00006	mg/L	0.000159	-0.00006	mg/L	0.000159	270.85%
Zn 206.200†	-0.5	-0.00011	mg/L	0.000173	-0.00011	mg/L	0.000173	156.63%

User canceled analysis.

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Analysis Begun

Start Time: 4/2/2013 10:05:32 AM **Plasma On Time: 4/2/2013 7:13:34 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\0402.sif
Batch ID:
Results Data Set: I2130402
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 17 **Autosampler Location: 313**
Sample ID: WJ51 MB2SPK WMN **Date Collected: 4/2/2013 10:05:33 AM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: WJ51 MB2SPK WMN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ51 MB2SPK WMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2804925.1	100.3	%	0.18				0.18%
ScR 361.383	409486.7	101.1	%	0.16				0.16%
Ag 328.068†	122602.9	0.5044	mg/L	0.00295	0.5044	mg/L	0.00295	0.58%
Al 308.215†	2862.4	2.032	mg/L	0.0079	2.032	mg/L	0.0079	0.39%
As 188.979†	2910.6	2.069	mg/L	0.0225	2.069	mg/L	0.0225	1.09%
B 249.677†	14.6	0.00061	mg/L	0.000864	0.00061	mg/L	0.000864	142.71%
Ba 233.527†	14751.8	2.074	mg/L	0.0040	2.074	mg/L	0.0040	0.19%
Be 313.042†	344625.8	0.5033	mg/L	0.00229	0.5033	mg/L	0.00229	0.46%
Ca 317.933†	131548.5	9.822	mg/L	0.0581	9.822	mg/L	0.0581	0.59%
Cd 228.802†	12522.7	0.5152	mg/L	0.00588	0.5152	mg/L	0.00588	1.14%
Co 228.616†	18554.9	0.5065	mg/L	0.00606	0.5065	mg/L	0.00606	1.20%
Cr 267.716†	5145.3	0.5150	mg/L	0.00275	0.5150	mg/L	0.00275	0.53%
Cu 324.752†	139844.1	0.4922	mg/L	0.00220	0.4922	mg/L	0.00220	0.45%
Fe 273.955†	3228.5	2.031	mg/L	0.0128	2.031	mg/L	0.0128	0.63%
K 766.490†	23848.5	9.918	mg/L	0.0583	9.918	mg/L	0.0583	0.59%
Mg 279.077†	12039.1	10.17	mg/L	0.035	10.17	mg/L	0.035	0.35%
Mn 257.610†	29651.8	0.4837	mg/L	0.00075	0.4837	mg/L	0.00075	0.15%
Mo 202.031†	30.6	0.00147	mg/L	0.000221	0.00147	mg/L	0.000221	15.08%
Na 589.592†	131850.3	10.16	mg/L	0.080	10.16	mg/L	0.080	0.79%
Na 330.237†	378.2	10.18	mg/L	0.109	10.18	mg/L	0.109	1.07%
Ni 231.604†	2381.8	0.5132	mg/L	0.00206	0.5132	mg/L	0.00206	0.40%
Pb 220.353†	17296.4	2.073	mg/L	0.0232	2.073	mg/L	0.0232	1.12%
Sb 206.836†	6174.9	2.182	mg/L	0.0200	2.182	mg/L	0.0200	0.92%
Se 196.026†	3224.1	2.058	mg/L	0.0216	2.058	mg/L	0.0216	1.05%
Si 288.158†	-9.7	-0.00258	mg/L	0.001586	-0.00258	mg/L	0.001586	61.45%
Sn 189.927†	-27.3	-0.00364	mg/L	0.000762	-0.00364	mg/L	0.000762	20.95%
Sr 421.552†	506692.0	0.5024	mg/L	0.00310	0.5024	mg/L	0.00310	0.62%
Ti 334.903†	35.6	0.00054	mg/L	0.000197	0.00054	mg/L	0.000197	36.50%
Tl 190.801†	3890.2	2.078	mg/L	0.0202	2.078	mg/L	0.0202	0.97%
V 292.402†	74941.4	0.5178	mg/L	0.00568	0.5178	mg/L	0.00568	1.10%
Zn 206.200†	2471.0	0.5041	mg/L	0.00087	0.5041	mg/L	0.00087	0.17%

Sequence No.: 18
Sample ID: CV 3

Autosampler Location: 7
Date Collected: 4/2/2013 10:09:36 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2760483.2	98.71	%	0.510				0.52%
ScR 361.383	405267.7	100.0	%	0.47				0.47%
Ag 328.068†	255556.8	1.051	mg/L	0.0019	1.051	mg/L	0.0019	0.18%
Al 308.215†	2920.5	2.047	mg/L	0.0108	2.047	mg/L	0.0108	0.53%
As 188.979†	2778.3	2.006	mg/L	0.0178	2.006	mg/L	0.0178	0.89%
B 249.677†	8482.2	1.033	mg/L	0.0061	1.033	mg/L	0.0061	0.59%
Ba 233.527†	7444.8	1.046	mg/L	0.0046	1.046	mg/L	0.0046	0.44%
Be 313.042†	703376.9	1.027	mg/L	0.0069	1.027	mg/L	0.0069	0.68%
Ca 317.933†	26391.2	1.971	mg/L	0.0061	1.971	mg/L	0.0061	0.31%
Cd 228.802†	24736.5	1.029	mg/L	0.0091	1.029	mg/L	0.0091	0.88%
Co 228.616†	37238.3	1.015	mg/L	0.0073	1.015	mg/L	0.0073	0.72%
Cr 267.716†	10496.5	1.052	mg/L	0.0073	1.052	mg/L	0.0073	0.69%
Cu 324.752†	292107.0	1.028	mg/L	0.0033	1.028	mg/L	0.0033	0.32%
Fe 273.955†	3269.8	2.055	mg/L	0.0213	2.055	mg/L	0.0213	1.04%
K 766.490†	48038.7	19.98	mg/L	0.068	19.98	mg/L	0.068	0.34%
Mg 279.077†	2395.8	2.031	mg/L	0.0099	2.031	mg/L	0.0099	0.49%
Mn 257.610†	59759.1	0.9746	mg/L	0.00192	0.9746	mg/L	0.00192	0.20%
Mo 202.031†	19008.2	1.000	mg/L	0.0084	1.000	mg/L	0.0084	0.84%
Na 589.592†	664413.6	51.20	mg/L	0.097	51.20	mg/L	0.097	0.19%
Na 330.237†	1900.1	51.89	mg/L	0.218	51.89	mg/L	0.218	0.42%
Ni 231.604†	4852.0	1.045	mg/L	0.0058	1.045	mg/L	0.0058	0.55%
Pb 220.353†	17073.9	2.047	mg/L	0.0171	2.047	mg/L	0.0171	0.84%
Sb 206.836†	5757.5	2.037	mg/L	0.0186	2.037	mg/L	0.0186	0.91%
Se 196.026†	3108.2	1.983	mg/L	0.0172	1.983	mg/L	0.0172	0.87%
Si 288.158†	3588.3	2.034	mg/L	0.0122	2.034	mg/L	0.0122	0.60%
Sn 189.927†	4730.8	0.9705	mg/L	0.00835	0.9705	mg/L	0.00835	0.86%
Sr 421.552†	1021316.4	1.013	mg/L	0.0020	1.013	mg/L	0.0020	0.19%
Ti 334.903†	29236.5	1.001	mg/L	0.0025	1.001	mg/L	0.0025	0.25%
Tl 190.801†	3889.1	2.074	mg/L	0.0125	2.074	mg/L	0.0125	0.60%
V 292.402†	145363.4	1.005	mg/L	0.0017	1.005	mg/L	0.0017	0.17%
Zn 206.200†	5060.6	1.032	mg/L	0.0068	1.032	mg/L	0.0068	0.65%

Sequence No.: 19
Sample ID: CB 3

Autosampler Location: 1
Date Collected: 4/2/2013 10:13:40 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2795294.1	99.96	%	0.232				0.23%
ScR 361.383	414154.2	102.2	%	0.36				0.35%
Ag 328.068†	46.4	0.00019	mg/L	0.000074	0.00019	mg/L	0.000074	38.95%
Al 308.215†	4.9	0.00344	mg/L	0.003138	0.00344	mg/L	0.003138	91.23%
As 188.979†	-2.3	-0.00166	mg/L	0.001947	-0.00166	mg/L	0.001947	117.62%
B 249.677†	24.1	0.00294	mg/L	0.000236	0.00294	mg/L	0.000236	8.02%
Ba 233.527†	1.6	0.00022	mg/L	0.000183	0.00022	mg/L	0.000183	81.56%
Be 313.042†	44.4	0.00006	mg/L	0.000027	0.00006	mg/L	0.000027	41.83%
Ca 317.933†	1.2	0.00009	mg/L	0.000479	0.00009	mg/L	0.000479	533.11%
Cd 228.802†	5.9	0.00026	mg/L	0.000142	0.00026	mg/L	0.000142	54.83%
Co 228.616†	5.2	0.00014	mg/L	0.000070	0.00014	mg/L	0.000070	49.57%
Cr 267.716†	8.1	0.00081	mg/L	0.000320	0.00081	mg/L	0.000320	39.43%
Cu 324.752†	139.5	0.00049	mg/L	0.000162	0.00049	mg/L	0.000162	33.09%
Fe 273.955†	3.0	0.00190	mg/L	0.001554	0.00190	mg/L	0.001554	81.85%
K 766.490†	29.6	0.01230	mg/L	0.002833	0.01230	mg/L	0.002833	23.04%
Mg 279.077†	5.1	0.00432	mg/L	0.003690	0.00432	mg/L	0.003690	85.37%
Mn 257.610†	4.2	0.00007	mg/L	0.000063	0.00007	mg/L	0.000063	91.07%
Mo 202.031†	18.0	0.00095	mg/L	0.000129	0.00095	mg/L	0.000129	13.59%
Na 589.592†	148.0	0.01140	mg/L	0.001637	0.01140	mg/L	0.001637	14.36%
Na 330.237†	-2.2	-0.06072	mg/L	0.168035	-0.06072	mg/L	0.168035	276.72%
Ni 231.604†	0.8	0.00018	mg/L	0.001255	0.00018	mg/L	0.001255	693.15%
Pb 220.353†	9.1	0.00109	mg/L	0.000390	0.00109	mg/L	0.000390	35.94%
Sb 206.836†	16.0	0.00566	mg/L	0.001637	0.00566	mg/L	0.001637	28.93%
Se 196.026†	-4.1	-0.00264	mg/L	0.005567	-0.00264	mg/L	0.005567	210.53%
Si 288.158†	-2.7	-0.00154	mg/L	0.001854	-0.00154	mg/L	0.001854	120.27%
Sn 189.927†	8.6	0.00177	mg/L	0.000748	0.00177	mg/L	0.000748	42.19%
Sr 421.552†	57.2	0.00006	mg/L	0.000034	0.00006	mg/L	0.000034	59.65%
Ti 334.903†	3.2	0.00011	mg/L	0.000180	0.00011	mg/L	0.000180	166.12%
Tl 190.801†	1.9	0.00101	mg/L	0.001032	0.00101	mg/L	0.001032	101.98%
V 292.402†	9.0	0.00007	mg/L	0.000102	0.00007	mg/L	0.000102	155.64%
Zn 206.200†	-1.0	-0.00020	mg/L	0.000300	-0.00020	mg/L	0.000300	148.94%

Sequence No.: 20
Sample ID: CRI

Autosampler Location: 301
Date Collected: 4/2/2013 10:17:56 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2806325.7	100.4	%	0.71				0.71%
ScR 361.383	413697.8	102.1	%	0.52				0.51%
Ag 328.068†	788.9	0.00325	mg/L	0.000048	0.00325	mg/L	0.000048	1.48%
Al 308.215†	73.5	0.05226	mg/L	0.003235	0.05226	mg/L	0.003235	6.19%
As 188.979†	67.6	0.04822	mg/L	0.002119	0.04822	mg/L	0.002119	4.39%
B 249.677†	172.1	0.02099	mg/L	0.000623	0.02099	mg/L	0.000623	2.97%
Ba 233.527†	19.3	0.00270	mg/L	0.000463	0.00270	mg/L	0.000463	17.15%
Be 313.042†	672.8	0.00098	mg/L	0.000045	0.00098	mg/L	0.000045	4.55%
Ca 317.933†	657.9	0.04913	mg/L	0.000863	0.04913	mg/L	0.000863	1.76%
Cd 228.802†	58.5	0.00220	mg/L	0.000226	0.00220	mg/L	0.000226	10.27%
Co 228.616†	127.2	0.00346	mg/L	0.000090	0.00346	mg/L	0.000090	2.59%
Cr 267.716†	56.5	0.00566	mg/L	0.000664	0.00566	mg/L	0.000664	11.72%
Cu 324.752†	633.2	0.00223	mg/L	0.000139	0.00223	mg/L	0.000139	6.25%
Fe 273.955†	80.8	0.05088	mg/L	0.000455	0.05088	mg/L	0.000455	0.90%
K 766.490†	1207.2	0.5021	mg/L	0.01040	0.5021	mg/L	0.01040	2.07%
Mg 279.077†	63.0	0.05325	mg/L	0.006262	0.05325	mg/L	0.006262	11.76%
Mn 257.610†	66.2	0.00108	mg/L	0.000062	0.00108	mg/L	0.000062	5.70%
Mo 202.031†	100.4	0.00528	mg/L	0.000119	0.00528	mg/L	0.000119	2.25%
Na 589.592†	6571.2	0.5064	mg/L	0.00182	0.5064	mg/L	0.00182	0.36%
Na 330.237†	11.0	0.3003	mg/L	0.15285	0.3003	mg/L	0.15285	50.90%
Ni 231.604†	53.9	0.01162	mg/L	0.001449	0.01162	mg/L	0.001449	12.47%
Pb 220.353†	177.7	0.02131	mg/L	0.000540	0.02131	mg/L	0.000540	2.54%
Sb 206.836†	147.5	0.05225	mg/L	0.000622	0.05225	mg/L	0.000622	1.19%
Se 196.026†	80.6	0.05143	mg/L	0.002230	0.05143	mg/L	0.002230	4.34%
Si 288.158†	111.0	0.06299	mg/L	0.005989	0.06299	mg/L	0.005989	9.51%
Sn 189.927†	53.3	0.01095	mg/L	0.000657	0.01095	mg/L	0.000657	6.00%
Sr 421.552†	1045.1	0.00104	mg/L	0.000038	0.00104	mg/L	0.000038	3.66%
Ti 334.903†	160.4	0.00549	mg/L	0.000228	0.00549	mg/L	0.000228	4.15%
Tl 190.801†	94.5	0.05059	mg/L	0.002796	0.05059	mg/L	0.002796	5.53%
V 292.402†	424.8	0.00294	mg/L	0.000113	0.00294	mg/L	0.000113	3.85%
Zn 206.200†	48.3	0.00987	mg/L	0.000525	0.00987	mg/L	0.000525	5.32%

Sequence No.: 21
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 4/2/2013 10:22:13 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2712834.4	97.01	%	0.298				0.31%
ScR 361.383	408232.3	100.8	%	0.70				0.70%
Ag 328.068†	-232.2	-0.00031	mg/L	0.000192	-0.00031	mg/L	0.000192	61.47%
Al 308.215†	276211.3	196.8	mg/L	0.72	196.8	mg/L	0.72	0.37%
As 188.979†	53.6	0.02932	mg/L	0.001971	0.02932	mg/L	0.001971	6.72%
B 249.677†	106.4	0.01298	mg/L	0.001174	0.01298	mg/L	0.001174	9.04%
Ba 233.527†	172.3	-0.00247	mg/L	0.000284	-0.00247	mg/L	0.000284	11.50%
Be 313.042†	36.6	0.00005	mg/L	0.000026	0.00005	mg/L	0.000026	50.23%
Ca 317.933†	1329040.6	99.23	mg/L	0.479	99.23	mg/L	0.479	0.48%
Cd 228.802†	70.2	0.00274	mg/L	0.000061	0.00274	mg/L	0.000061	2.24%
Co 228.616†	63.7	0.00172	mg/L	0.000157	0.00172	mg/L	0.000157	9.11%
Cr 267.716†	8.0	-0.00442	mg/L	0.000862	-0.00442	mg/L	0.000862	19.49%
Cu 324.752†	-1987.8	0.00139	mg/L	0.000187	0.00139	mg/L	0.000187	13.51%
Fe 273.955†	288282.3	181.6	mg/L	1.51	181.6	mg/L	1.51	0.83%
K 766.490†	52.6	0.02188	mg/L	0.010316	0.02188	mg/L	0.010316	47.15%
Mg 279.077†	121005.9	102.2	mg/L	0.71	102.2	mg/L	0.71	0.69%
Mn 257.610†	119.8	0.00058	mg/L	0.000101	0.00058	mg/L	0.000101	17.42%
Mo 202.031†	109.4	0.00459	mg/L	0.000067	0.00459	mg/L	0.000067	1.45%
Na 589.592†	374.2	0.02884	mg/L	0.002010	0.02884	mg/L	0.002010	6.97%
Na 330.237†	3.6	0.1011	mg/L	0.08656	0.1011	mg/L	0.08656	85.64%
Ni 231.604†	3.4	0.00073	mg/L	0.000740	0.00073	mg/L	0.000740	101.82%
Pb 220.353†	-481.9	-0.01419	mg/L	0.000271	-0.01419	mg/L	0.000271	1.91%
Sb 206.836†	-11.1	-0.00407	mg/L	0.002490	-0.00407	mg/L	0.002490	61.14%
Se 196.026†	12.2	-0.01484	mg/L	0.006022	-0.01484	mg/L	0.006022	40.57%
Si 288.158†	-25.1	-0.00258	mg/L	0.003829	-0.00258	mg/L	0.003829	148.47%
Sn 189.927†	-97.4	-0.01165	mg/L	0.001186	-0.01165	mg/L	0.001186	10.18%
Sr 421.552†	4115.3	0.00408	mg/L Cont.	0.000049	0.00408	mg/L	0.000049	1.20%
Ti 334.903†	254.9	0.00284	mg/L	0.000203	0.00284	mg/L	0.000203	7.16%
Tl 190.801†	-20.9	0.01289	mg/L	0.003220	0.01289	mg/L	0.003220	24.99%
V 292.402†	1137.4	-0.00129	mg/L	0.000159	-0.00129	mg/L	0.000159	12.30%
Zn 206.200†	-6.7	-0.00138	mg/L	0.000369	-0.00138	mg/L	0.000369	26.69%

Sequence No.: 22
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 4/2/2013 10:26:30 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2717821.9	97.19	%	0.243				0.25%
ScR 361.383	403206.2	99.52	%	1.061				1.07%
Ag 328.068†	260019.4	1.070	mg/L	0.0053	1.070	mg/L	0.0053	0.49%
Al 308.215†	277682.5	197.8	mg/L	0.68	197.8	mg/L	0.68	0.34%
As 188.979†	1462.8	1.031	mg/L	0.0103	1.031	mg/L	0.0103	1.00%
B 249.677†	42.0	0.00288	mg/L	0.001501	0.00288	mg/L	0.001501	52.17%
Ba 233.527†	7462.4	1.022	mg/L	0.0154	1.022	mg/L	0.0154	1.50%
Be 313.042†	684779.8	1.000	mg/L	0.0069	1.000	mg/L	0.0069	0.69%
Ca 317.933†	1332223.9	99.47	mg/L	0.627	99.47	mg/L	0.627	0.63%
Cd 228.802†	24655.8	1.031	mg/L	0.0022	1.031	mg/L	0.0022	0.21%
Co 228.616†	35281.7	0.9634	mg/L	0.00189	0.9634	mg/L	0.00189	0.20%
Cr 267.716†	10142.3	1.012	mg/L	0.0119	1.012	mg/L	0.0119	1.17%
Cu 324.752†	293987.0	1.043	mg/L	0.0060	1.043	mg/L	0.0060	0.57%
Fe 273.955†	290673.6	183.1	mg/L	1.71	183.1	mg/L	1.71	0.93%
K 766.490†	-31.1	-0.01292	mg/L	0.006864	-0.01292	mg/L	0.006864	53.12%
Mg 279.077†	116953.7	98.73	mg/L	0.485	98.73	mg/L	0.485	0.49%
Mn 257.610†	58040.9	0.9450	mg/L	0.00748	0.9450	mg/L	0.00748	0.79%
Mo 202.031†	104.9	0.00430	mg/L	0.000359	0.00430	mg/L	0.000359	8.35%
Na 589.592†	255.7	0.01971	mg/L	0.000858	0.01971	mg/L	0.000858	4.35%
Na 330.237†	20.4	0.2719	mg/L	0.07501	0.2719	mg/L	0.07501	27.59%
Ni 231.604†	4625.5	0.9964	mg/L	0.00991	0.9964	mg/L	0.00991	0.99%
Pb 220.353†	7773.4	0.9756	mg/L	0.00241	0.9756	mg/L	0.00241	0.25%
Sb 206.836†	2814.5	0.9865	mg/L	0.00437	0.9865	mg/L	0.00437	0.44%
Se 196.026†	1570.3	0.9789	mg/L	0.00987	0.9789	mg/L	0.00987	1.01%
Si 288.158†	-35.3	-0.00541	mg/L	0.001974	-0.00541	mg/L	0.001974	36.46%
Sn 189.927†	-85.6	-0.00869	mg/L	0.001183	-0.00869	mg/L	0.001183	13.60%
Sr 421.552†	4112.2	0.00408	mg/L	Cont. 0.000080	0.00408	mg/L	0.000080	1.96%
Ti 334.903†	263.3	0.00292	mg/L	0.000295	0.00292	mg/L	0.000295	10.11%
Tl 190.801†	1742.9	0.9478	mg/L	0.00085	0.9478	mg/L	0.00085	0.09%
V 292.402†	142869.7	0.9782	mg/L	0.00504	0.9782	mg/L	0.00504	0.52%
Zn 206.200†	4754.6	0.9697	mg/L	0.00921	0.9697	mg/L	0.00921	0.95%

Sequence No.: 23
Sample ID: CV 4

Autosampler Location: 7
Date Collected: 4/2/2013 10:30:33 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2778573.2	99.36	%	0.253				0.25%
ScR 361.383	410627.1	101.3	%	0.09				0.09%
Ag 328.068†	254168.9	1.046	mg/L	0.0053	1.046	mg/L	0.0053	0.50%
Al 308.215†	2904.6	2.035	mg/L	0.0079	2.035	mg/L	0.0079	0.39%
As 188.979†	2780.2	2.007	mg/L	0.0103	2.007	mg/L	0.0103	0.51%
B 249.677†	8373.0	1.020	mg/L	0.0042	1.020	mg/L	0.0042	0.41%
Ba 233.527†	7348.1	1.033	mg/L	0.0042	1.033	mg/L	0.0042	0.41%
Be 313.042†	698093.3	1.020	mg/L	0.0018	1.020	mg/L	0.0018	0.18%
Ca 317.933†	26359.6	1.968	mg/L	0.0010	1.968	mg/L	0.0010	0.05%
Cd 228.802†	24636.9	1.025	mg/L	0.0044	1.025	mg/L	0.0044	0.43%
Co 228.616†	36308.6	0.9899	mg/L	0.00330	0.9899	mg/L	0.00330	0.33%
Cr 267.716†	10392.4	1.042	mg/L	0.0034	1.042	mg/L	0.0034	0.32%
Cu 324.752†	291439.2	1.025	mg/L	0.0045	1.025	mg/L	0.0045	0.44%
Fe 273.955†	3256.0	2.046	mg/L	0.0086	2.046	mg/L	0.0086	0.42%
K 766.490†	47827.4	19.89	mg/L	0.051	19.89	mg/L	0.051	0.25%
Mg 279.077†	2362.7	2.003	mg/L	0.0075	2.003	mg/L	0.0075	0.37%
Mn 257.610†	59106.5	0.9639	mg/L	0.00468	0.9639	mg/L	0.00468	0.49%
Mo 202.031†	19015.0	1.001	mg/L	0.0038	1.001	mg/L	0.0038	0.38%
Na 589.592†	663090.8	51.10	mg/L	0.292	51.10	mg/L	0.292	0.57%
Na 330.237†	1874.0	51.17	mg/L	0.065	51.17	mg/L	0.065	0.13%
Ni 231.604†	4805.3	1.035	mg/L	0.0032	1.035	mg/L	0.0032	0.31%
Pb 220.353†	17065.9	2.046	mg/L	0.0027	2.046	mg/L	0.0027	0.13%
Sb 206.836†	5757.9	2.037	mg/L	0.0028	2.037	mg/L	0.0028	0.14%
Se 196.026†	3112.1	1.986	mg/L	0.0039	1.986	mg/L	0.0039	0.19%
Si 288.158†	3533.4	2.003	mg/L	0.0053	2.003	mg/L	0.0053	0.26%
Sn 189.927†	4749.9	0.9744	mg/L	0.00276	0.9744	mg/L	0.00276	0.28%
Sr 421.552†	1014232.4	1.006	mg/L	0.0027	1.006	mg/L	0.0027	0.26%
Ti 334.903†	28990.0	0.9930	mg/L	0.00156	0.9930	mg/L	0.00156	0.16%
Tl 190.801†	3895.1	2.077	mg/L	0.0022	2.077	mg/L	0.0022	0.11%
V 292.402†	144460.2	0.9984	mg/L	0.00413	0.9984	mg/L	0.00413	0.41%
Zn 206.200†	5014.0	1.023	mg/L	0.0043	1.023	mg/L	0.0043	0.42%

Sequence No.: 24
Sample ID: CB 4

Autosampler Location: 1
Date Collected: 4/2/2013 10:34:38 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2820277.2	100.8	%	0.17				0.16%
ScR 361.383	415536.5	102.6	%	0.71				0.70%
Ag 328.068†	25.4	0.00010	mg/L	0.000177	0.00010	mg/L	0.000177	168.92%
Al 308.215†	8.1	0.00573	mg/L	0.004052	0.00573	mg/L	0.004052	70.69%
As 188.979†	-2.4	-0.00172	mg/L	0.002582	-0.00172	mg/L	0.002582	150.06%
B 249.677†	20.6	0.00252	mg/L	0.000725	0.00252	mg/L	0.000725	28.80%
Ba 233.527†	0.5	0.00007	mg/L	0.000535	0.00007	mg/L	0.000535	812.95%
Be 313.042†	36.6	0.00005	mg/L	0.000016	0.00005	mg/L	0.000016	29.43%
Ca 317.933†	27.5	0.00205	mg/L	0.000668	0.00205	mg/L	0.000668	32.60%
Cd 228.802†	6.3	0.00028	mg/L	0.000106	0.00028	mg/L	0.000106	38.35%
Co 228.616†	6.7	0.00018	mg/L	0.000174	0.00018	mg/L	0.000174	95.34%
Cr 267.716†	8.0	0.00080	mg/L	0.000226	0.00080	mg/L	0.000226	28.27%
Cu 324.752†	106.8	0.00038	mg/L	0.000142	0.00038	mg/L	0.000142	37.78%
Fe 273.955†	7.4	0.00467	mg/L	0.001349	0.00467	mg/L	0.001349	28.89%
K 766.490†	13.7	0.00570	mg/L	0.010929	0.00570	mg/L	0.010929	191.67%
Mg 279.077†	0.4	0.00036	mg/L	0.002009	0.00036	mg/L	0.002009	558.16%
Mn 257.610†	8.5	0.00014	mg/L	0.000096	0.00014	mg/L	0.000096	68.74%
Mo 202.031†	19.1	0.00100	mg/L	0.000039	0.00100	mg/L	0.000039	3.88%
Na 589.592†	150.4	0.01159	mg/L	0.003066	0.01159	mg/L	0.003066	26.46%
Na 330.237†	8.1	0.2216	mg/L	0.30450	0.2216	mg/L	0.30450	137.43%
Ni 231.604†	2.7	0.00058	mg/L	0.000512	0.00058	mg/L	0.000512	87.73%
Pb 220.353†	12.4	0.00149	mg/L	0.000401	0.00149	mg/L	0.000401	26.93%
Sb 206.836†	14.7	0.00521	mg/L	0.000918	0.00521	mg/L	0.000918	17.64%
Se 196.026†	2.7	0.00173	mg/L	0.000578	0.00173	mg/L	0.000578	33.48%
Si 288.158†	-3.3	-0.00187	mg/L	0.004679	-0.00187	mg/L	0.004679	250.17%
Sn 189.927†	7.1	0.00146	mg/L	0.000102	0.00146	mg/L	0.000102	7.04%
Sr 421.552†	22.0	0.00002	mg/L	0.000017	0.00002	mg/L	0.000017	78.08%
Ti 334.903†	8.6	0.00029	mg/L	0.000411	0.00029	mg/L	0.000411	139.86%
Tl 190.801†	2.4	0.00127	mg/L	0.001211	0.00127	mg/L	0.001211	95.25%
V 292.402†	13.5	0.00010	mg/L	0.000201	0.00010	mg/L	0.000201	208.47%
Zn 206.200†	0.1	0.00001	mg/L	0.000358	0.00001	mg/L	0.000358	>999.9%

Sequence No.: 25
Sample ID: WJ08 MB1 SWC

Autosampler Location: 314
Date Collected: 4/2/2013 10:38:54 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WJ08 MB1 SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: WJ08 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2837164.4	101.5	%	0.55				0.54%
ScR 361.383	423070.0	104.4	%	0.84				0.81%
Ag 328.068†	0.5	0.00000	mg/L	0.000110	0.00000	mg/L	0.000220	>999.9%
Al 308.215†	21.7	0.01542	mg/L	0.006311	0.03084	mg/L	0.012622	40.93%
As 188.979†	-1.9	-0.00133	mg/L	0.002324	-0.00266	mg/L	0.004648	175.02%
B 249.677†	12.6	0.00154	mg/L	0.000369	0.00309	mg/L	0.000737	23.88%
Ba 233.527†	-0.7	-0.00010	mg/L	0.000366	-0.00020	mg/L	0.000731	363.17%
Be 313.042†	-24.5	-0.00004	mg/L	0.000046	-0.00007	mg/L	0.000092	129.09%
Ca 317.933†	459.2	0.03429	mg/L	0.000504	0.06858	mg/L	0.001007	1.47%
Cd 228.802†	3.3	0.00015	mg/L	0.000205	0.00030	mg/L	0.000409	138.76%
Co 228.616†	-1.3	-0.00004	mg/L	0.000274	-0.00007	mg/L	0.000547	767.28%
Cr 267.716†	11.7	0.00117	mg/L	0.000650	0.00234	mg/L	0.001300	55.57%
Cu 324.752†	81.3	0.00029	mg/L	0.000092	0.00057	mg/L	0.000183	32.04%
Fe 273.955†	3.3	0.00210	mg/L	0.001591	0.00420	mg/L	0.003183	75.70%
K 766.490†	27.1	0.01125	mg/L	0.000628	0.02251	mg/L	0.001255	5.58%
Mg 279.077†	4.8	0.00407	mg/L	0.001281	0.00813	mg/L	0.002561	31.50%
Mn 257.610†	4.2	0.00007	mg/L	0.000024	0.00014	mg/L	0.000048	35.13%
Mo 202.031†	9.0	0.00047	mg/L	0.000235	0.00095	mg/L	0.000471	49.73%
Na 589.592†	110.2	0.00849	mg/L	0.002716	0.01699	mg/L	0.005433	31.98%
Na 330.237†	-8.9	-0.2434	mg/L	0.06371	-0.4868	mg/L	0.12743	26.18%
Ni 231.604†	5.4	0.00115	mg/L	0.000264	0.00231	mg/L	0.000528	22.86%
Pb 220.353†	10.7	0.00129	mg/L	0.000014	0.00258	mg/L	0.000029	1.11%
Sb 206.836†	7.1	0.00249	mg/L	0.000737	0.00498	mg/L	0.001473	29.58%
Se 196.026†	1.2	0.00076	mg/L	0.001341	0.00152	mg/L	0.002683	176.41%
Si 288.158†	35.8	0.02034	mg/L	0.002820	0.04067	mg/L	0.005640	13.87%
Sn 189.927†	4.8	0.00098	mg/L	0.000825	0.00196	mg/L	0.001650	84.28%
Sr 421.552†	22.9	0.00002	mg/L	0.000020	0.00005	mg/L	0.000040	88.32%
Ti 334.903†	21.4	0.00073	mg/L	0.001352	0.00146	mg/L	0.002705	185.05%
Tl 190.801†	2.8	0.00148	mg/L	0.000996	0.00295	mg/L	0.001992	67.42%
V 292.402†	-5.4	-0.00003	mg/L	0.000132	-0.00006	mg/L	0.000263	409.81%
Zn 206.200†	10.3	0.00210	mg/L	0.000190	0.00421	mg/L	0.000379	9.00%

Sequence No.: 26
Sample ID: WJ10 MB2 SWC

Autosampler Location: 315
Date Collected: 4/2/2013 10:43:11 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WJ10 MB2 SWC

Analyte	Back Pressure	Flow
A11	220.0 kPa	0.75 L/min

Mean Data: WJ10 MB2 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2849997.0	101.9	%	0.11				0.10%
ScR 361.383	420694.9	103.8	%	0.48				0.46%
Ag 328.068†	-13.5	-0.00006	mg/L	0.000092	-0.00011	mg/L	0.000183	166.13%
Al 308.215†	35.5	0.02531	mg/L	0.002652	0.05063	mg/L	0.005305	10.48%
As 188.979†	-1.7	-0.00116	mg/L	0.003609	-0.00233	mg/L	0.007218	309.88%
B 249.677†	12.7	0.00154	mg/L	0.000866	0.00309	mg/L	0.001732	56.07%
Ba 233.527†	-0.3	-0.00004	mg/L	0.000092	-0.00008	mg/L	0.000184	232.42%
Be 313.042†	-36.4	-0.00005	mg/L	0.000024	-0.00011	mg/L	0.000048	45.38%
Ca 317.933†	676.5	0.05051	mg/L	0.000885	0.1010	mg/L	0.00177	1.75%
Cd 228.802†	-2.3	-0.00009	mg/L	0.000034	-0.00018	mg/L	0.000067	37.42%
Co 228.616†	-2.9	-0.00008	mg/L	0.000083	-0.00016	mg/L	0.000167	103.72%
Cr 267.716†	5.0	0.00050	mg/L	0.000333	0.00099	mg/L	0.000666	67.15%
Cu 324.752†	50.2	0.00018	mg/L	0.000108	0.00035	mg/L	0.000216	61.04%
Fe 273.955†	1.7	0.00108	mg/L	0.001008	0.00217	mg/L	0.002017	92.96%
K 766.490†	-43.7	-0.01819	mg/L	0.012283	-0.03638	mg/L	0.024567	67.53%
Mg 279.077†	18.6	0.01570	mg/L	0.004211	0.03140	mg/L	0.008421	26.82%
Mn 257.610†	3.4	0.00005	mg/L	0.000061	0.00011	mg/L	0.000121	110.97%
Mo 202.031†	-0.4	-0.00002	mg/L	0.000158	-0.00005	mg/L	0.000317	699.57%
Na 589.592†	62.4	0.00481	mg/L	0.001842	0.00962	mg/L	0.003684	38.28%
Na 330.237†	5.2	0.1412	mg/L	0.31058	0.2825	mg/L	0.62115	219.89%
Ni 231.604†	2.1	0.00044	mg/L	0.000767	0.00089	mg/L	0.001533	172.70%
Pb 220.353†	2.9	0.00036	mg/L	0.000299	0.00072	mg/L	0.000599	83.08%
Sb 206.836†	6.5	0.00229	mg/L	0.002157	0.00458	mg/L	0.004314	94.13%
Se 196.026†	1.0	0.00067	mg/L	0.003524	0.00133	mg/L	0.007049	528.17%
Si 288.158†	38.8	0.02204	mg/L	0.002778	0.04408	mg/L	0.005556	12.61%
Sn 189.927†	4.7	0.00097	mg/L	0.000209	0.00193	mg/L	0.000418	21.61%
Sr 421.552†	-0.2	-0.00000	mg/L	0.000023	-0.00000	mg/L	0.000046	>999.9%
Ti 334.903†	12.9	0.00044	mg/L	0.000649	0.00088	mg/L	0.001297	148.14%
Tl 190.801†	4.9	0.00262	mg/L	0.001469	0.00524	mg/L	0.002938	56.08%
V 292.402†	1.4	0.00001	mg/L	0.000099	0.00002	mg/L	0.000198	839.85%
Zn 206.200†	2.6	0.00053	mg/L	0.000316	0.00105	mg/L	0.000632	59.90%

Sequence No.: 27
Sample ID: WJ10 CDUP SWC

Autosampler Location: 316
Date Collected: 4/2/2013 10:47:26 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WJ10 CDUP SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ10 CDUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2813575.8	100.6	%	0.15				0.15%
ScR 361.383	419965.6	103.7	%	0.15				0.15%
Ag 328.068†	1149.4	0.00509	mg/L	0.000202	0.01018	mg/L	0.000404	3.97%
Al 308.215†	80873.5	57.61	mg/L	0.304	115.2	mg/L	0.61	0.53%
As 188.979†	-178.9	0.02201	mg/L	0.001202	0.04403	mg/L	0.002404	5.46%
B 249.677†	1311.9	0.1598	mg/L	0.00189	0.3197	mg/L	0.00377	1.18%
Ba 233.527†	5049.0	0.6867	mg/L	0.00505	1.373	mg/L	0.0101	0.74%
Be 313.042†	542.2	0.00069	mg/L	0.000005	0.00139	mg/L	0.000010	0.69%
Ca 317.933†	600787.6	44.86	mg/L	0.160	89.72	mg/L	0.320	0.36%
Cd 228.802†	461.5	0.02042	mg/L	0.000088	0.04084	mg/L	0.000176	0.43%
Co 228.616†	2519.6	0.06089	mg/L	0.000111	0.1218	mg/L	0.00022	0.18%
Cr 267.716†	4137.5	0.4173	mg/L	0.00152	0.8347	mg/L	0.00305	0.37%
Cu 324.752†	239400.7	0.8491	mg/L	0.00123	1.698	mg/L	0.0025	0.14%
Fe 273.955†	248474.5	156.6	mg/L	0.31	313.1	mg/L	0.62	0.20%
K 766.490†	7513.7	3.125	mg/L	0.0011	6.250	mg/L	0.0023	0.04%
Mg 279.077†	22829.5	19.20	mg/L	0.029	38.40	mg/L	0.058	0.15%
Mn 257.610†	115973.6	1.890	mg/L	0.0030	3.781	mg/L	0.0061	0.16%
Mo 202.031†	922.1	0.04798	mg/L	0.000241	0.09597	mg/L	0.000481	0.50%
Na 589.592†	50809.4	3.916	mg/L	0.0112	7.832	mg/L	0.0223	0.29%
Na 330.237†	173.5	4.012	mg/L	0.1359	8.024	mg/L	0.2718	3.39%
Ni 231.604†	1688.8	0.3638	mg/L	0.00065	0.7276	mg/L	0.00129	0.18%
Pb 220.353†	7022.9	0.8483	mg/L	0.00076	1.697	mg/L	0.0015	0.09%
Sb 206.836†	30.8	0.00994	mg/L	0.001562	0.01987	mg/L	0.003123	15.72%
Se 196.026†	1.3	-0.00594	mg/L	0.000153	-0.01188	mg/L	0.000306	2.58%
Si 288.158†	2004.7	1.141	mg/L	0.0097	2.281	mg/L	0.0194	0.85%
Sn 189.927†	286.7	0.06333	mg/L	0.000907	0.1267	mg/L	0.00181	1.43%
Sr 421.552†	277735.4	0.2754	mg/L	0.00122	0.5507	mg/L	0.00244	0.44%
Ti 334.903†	129682.9	4.445	mg/L	0.0188	8.891	mg/L	0.0377	0.42%
Tl 190.801†	-11.2	0.01347	mg/L	0.002891	0.02695	mg/L	0.005782	21.46%
V 292.402†	33204.2	0.2201	mg/L	0.00103	0.4403	mg/L	0.00206	0.47%
Zn 206.200†	32491.1	6.626	mg/L	0.0177	13.25	mg/L	0.035	0.27%

Sequence No.: 28
Sample ID: WJ10 C SWC

Autosampler Location: 317
Date Collected: 4/2/2013 10:51:28 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WJ10 C SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: WJ10 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2809744.3	100.5	%	0.55				0.55%
ScR 361.383	419512.9	103.5	%	0.72				0.70%
Ag 328.068†	1710.1	0.00745	mg/L	0.000051	0.01490	mg/L	0.000102	0.68%
Al 308.215†	93491.1	66.60	mg/L	0.265	133.2	mg/L	0.53	0.40%
As 188.979†	-212.6	0.02403	mg/L	0.002809	0.04807	mg/L	0.005618	11.69%
B 249.677†	1409.3	0.1717	mg/L	0.00035	0.3434	mg/L	0.00070	0.20%
Ba 233.527†	5801.9	0.7880	mg/L	0.00196	1.576	mg/L	0.0039	0.25%
Be 313.042†	645.2	0.00082	mg/L	0.000018	0.00165	mg/L	0.000035	2.13%
Ca 317.933†	682281.2	50.94	mg/L	0.189	101.9	mg/L	0.38	0.37%
Cd 228.802†	516.5	0.02297	mg/L	0.000405	0.04594	mg/L	0.000810	1.76%
Co 228.616†	3030.8	0.07347	mg/L	0.000318	0.1469	mg/L	0.00064	0.43%
Cr 267.716†	4989.4	0.5033	mg/L	0.00227	1.007	mg/L	0.0045	0.45%
Cu 324.752†	283137.4	1.004	mg/L	0.0099	2.009	mg/L	0.0199	0.99%
Fe 273.955†	298352.6	188.0	mg/L	1.02	376.0	mg/L	2.05	0.54%
K 766.490†	8285.6	3.446	mg/L	0.0077	6.892	mg/L	0.0155	0.22%
Mg 279.077†	27461.4	23.10	mg/L	0.092	46.20	mg/L	0.184	0.40%
Mn 257.610†	133731.8	2.180	mg/L	0.0115	4.360	mg/L	0.0230	0.53%
Mo 202.031†	1106.3	0.05760	mg/L	0.000315	0.1152	mg/L	0.00063	0.55%
Na 589.592†	57748.7	4.451	mg/L	0.0250	8.901	mg/L	0.0499	0.56%
Na 330.237†	196.0	4.539	mg/L	0.2597	9.077	mg/L	0.5193	5.72%
Ni 231.604†	2220.0	0.4782	mg/L	0.00222	0.9565	mg/L	0.00443	0.46%
Pb 220.353†	8081.9	0.9759	mg/L	0.00578	1.952	mg/L	0.0116	0.59%
Sb 206.836†	45.8	0.01496	mg/L	0.000855	0.02992	mg/L	0.001709	5.71%
Se 196.026†	8.7	-0.00233	mg/L	0.006606	-0.00465	mg/L	0.013212	283.87%
Si 288.158†	1929.7	1.098	mg/L	0.0133	2.197	mg/L	0.0266	1.21%
Sn 189.927†	354.2	0.07782	mg/L	0.001442	0.1556	mg/L	0.00288	1.85%
Sr 421.552†	307239.6	0.3046	mg/L	0.00123	0.6093	mg/L	0.00246	0.40%
Ti 334.903†	152179.1	5.216	mg/L	0.0199	10.43	mg/L	0.040	0.38%
Tl 190.801†	-17.7	0.01384	mg/L	0.001874	0.02768	mg/L	0.003747	13.54%
V 292.402†	40122.5	0.2661	mg/L	0.00286	0.5323	mg/L	0.00572	1.07%
Zn 206.200†	37463.7	7.640	mg/L	0.0230	15.28	mg/L	0.046	0.30%

Sequence No.: 29
Sample ID: WJ10 CSPK SWC

Autosampler Location: 318
Date Collected: 4/2/2013 10:55:30 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WJ10 CSPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WJ10 CSPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2794729.7	99.94	%	0.172				0.17%
ScR 361.383	412653.5	101.8	%	0.32				0.32%
Ag 328.068†	125375.1	0.5161	mg/L	0.00134	1.032	mg/L	0.0027	0.26%
Al 308.215†	67796.0	48.29	mg/L	0.073	96.58	mg/L	0.146	0.15%
As 188.979†	2662.0	2.005	mg/L	0.0024	4.010	mg/L	0.0049	0.12%
B 249.677†	1282.1	0.1551	mg/L	0.00170	0.3102	mg/L	0.00339	1.09%
Ba 233.527†	19137.8	2.674	mg/L	0.0155	5.348	mg/L	0.0310	0.58%
Be 313.042†	333724.3	0.4873	mg/L	0.00147	0.9747	mg/L	0.00295	0.30%
Ca 317.933†	619967.9	46.29	mg/L	0.135	92.58	mg/L	0.270	0.29%
Cd 228.802†	12726.6	0.5249	mg/L	0.00091	1.050	mg/L	0.0018	0.17%
Co 228.616†	19842.4	0.5356	mg/L	0.00091	1.071	mg/L	0.0018	0.17%
Cr 267.716†	7972.2	0.8000	mg/L	0.00375	1.600	mg/L	0.0075	0.47%
Cu 324.752†	318082.0	1.124	mg/L	0.0012	2.248	mg/L	0.0024	0.11%
Fe 273.955†	178749.7	112.6	mg/L	0.22	225.2	mg/L	0.43	0.19%
K 766.490†	29397.4	12.23	mg/L	0.069	24.45	mg/L	0.139	0.57%
Mg 279.077†	30266.4	25.51	mg/L	0.150	51.03	mg/L	0.300	0.59%
Mn 257.610†	108625.1	1.771	mg/L	0.0043	3.542	mg/L	0.0086	0.24%
Mo 202.031†	659.7	0.03413	mg/L	0.000316	0.06827	mg/L	0.000633	0.93%
Na 589.592†	173396.0	13.36	mg/L	0.085	26.73	mg/L	0.169	0.63%
Na 330.237†	528.6	13.54	mg/L	0.263	27.08	mg/L	0.526	1.94%
Ni 231.604†	3475.4	0.7478	mg/L	0.00215	1.496	mg/L	0.0043	0.29%
Pb 220.353†	22200.5	2.667	mg/L	0.0034	5.334	mg/L	0.0068	0.13%
Sb 206.836†	46.5	0.01084	mg/L	0.002565	0.02168	mg/L	0.005130	23.67%
Se 196.026†	3092.0	1.968	mg/L	0.0160	3.936	mg/L	0.0319	0.81%
Si 288.158†	2237.0	1.275	mg/L	0.0021	2.550	mg/L	0.0042	0.17%
Sn 189.927†	183.2	0.04204	mg/L	0.000865	0.08409	mg/L	0.001731	2.06%
Sr 421.552†	726886.1	0.7207	mg/L	0.00242	1.441	mg/L	0.0048	0.34%
Ti 334.903†	98314.9	3.369	mg/L	0.0086	6.738	mg/L	0.0171	0.25%
Tl 190.801†	3599.5	1.936	mg/L	0.0073	3.873	mg/L	0.0147	0.38%
V 292.402†	93243.3	0.6376	mg/L	0.00250	1.275	mg/L	0.0050	0.39%
Zn 206.200†	30414.8	6.202	mg/L	0.0258	12.40	mg/L	0.052	0.42%

Sequence No.: 30
Sample ID: WJ10 CPOST SWC

Autosampler Location: 319
Date Collected: 4/2/2013 10:59:34 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WJ10 CPOST SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: WJ10 CPOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2781720.1	99.47	%	0.391				0.39%
ScR 361.383	415699.2	102.6	%	0.56				0.55%
Ag 328.068†	131007.6	0.5394	mg/L	0.00348	1.079	mg/L	0.0070	0.64%
Al 308.215†	98111.7	69.88	mg/L	0.084	139.8	mg/L	0.17	0.12%
As 188.979†	2711.3	2.105	mg/L	0.0022	4.209	mg/L	0.0044	0.10%
B 249.677†	1451.8	0.1757	mg/L	0.00101	0.3513	mg/L	0.00202	0.58%
Ba 233.527†	20902.3	2.910	mg/L	0.0157	5.821	mg/L	0.0313	0.54%
Be 313.042†	348097.1	0.5083	mg/L	0.00327	1.017	mg/L	0.0065	0.64%
Ca 317.933†	828161.9	61.84	mg/L	0.184	123.7	mg/L	0.37	0.30%
Cd 228.802†	13407.8	0.5536	mg/L	0.00144	1.107	mg/L	0.0029	0.26%
Co 228.616†	21594.6	0.5801	mg/L	0.00119	1.160	mg/L	0.0024	0.20%
Cr 267.716†	10386.2	1.044	mg/L	0.0035	2.087	mg/L	0.0069	0.33%
Cu 324.752†	438095.0	1.550	mg/L	0.0113	3.100	mg/L	0.0226	0.73%
Fe 273.955†	303890.3	191.5	mg/L	1.15	382.9	mg/L	2.30	0.60%
K 766.490†	33055.6	13.75	mg/L	0.051	27.50	mg/L	0.102	0.37%
Mg 279.077†	38451.2	32.38	mg/L	0.067	64.77	mg/L	0.134	0.21%
Mn 257.610†	165687.2	2.701	mg/L	0.0142	5.402	mg/L	0.0285	0.53%
Mo 202.031†	1126.6	0.05851	mg/L	0.000291	0.1170	mg/L	0.00058	0.50%
Na 589.592†	195935.8	15.10	mg/L	0.027	30.20	mg/L	0.054	0.18%
Na 330.237†	594.6	15.24	mg/L	0.033	30.49	mg/L	0.066	0.22%
Ni 231.604†	4710.2	1.014	mg/L	0.0061	2.028	mg/L	0.0123	0.61%
Pb 220.353†	25400.2	3.052	mg/L	0.0044	6.104	mg/L	0.0088	0.14%
Sb 206.836†	59.6	0.01443	mg/L	0.003398	0.02886	mg/L	0.006796	23.55%
Se 196.026†	3273.3	2.081	mg/L	0.0064	4.163	mg/L	0.0128	0.31%
Si 288.158†	1972.2	1.125	mg/L	0.0057	2.251	mg/L	0.0114	0.51%
Sn 189.927†	350.7	0.07802	mg/L	0.001265	0.1560	mg/L	0.00253	1.62%
Sr 421.552†	831237.8	0.8242	mg/L	0.00169	1.648	mg/L	0.0034	0.21%
Ti 334.903†	154406.8	5.292	mg/L	0.0165	10.58	mg/L	0.033	0.31%
Tl 190.801†	3721.3	2.011	mg/L	0.0018	4.022	mg/L	0.0035	0.09%
V 292.402†	113817.7	0.7753	mg/L	0.00630	1.551	mg/L	0.0126	0.81%
Zn 206.200†	40890.7	8.339	mg/L	0.0292	16.68	mg/L	0.058	0.35%

Sequence No.: 31
Sample ID: WJ10 D SWC

Autosampler Location: 320
Date Collected: 4/2/2013 11:03:38 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WJ10 D SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ10 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2832552.1	101.3	%	0.10				0.10%
ScR 361.383	421196.7	104.0	%	0.39				0.37%
Ag 328.068†	51.7	0.00044	mg/L	0.000189	0.00087	mg/L	0.000379	43.30%
Al 308.215†	55080.6	39.24	mg/L	0.088	78.48	mg/L	0.177	0.23%
As 188.979†	-117.5	0.00738	mg/L	0.003323	0.01475	mg/L	0.006645	45.05%
B 249.677†	649.6	0.07915	mg/L	0.000057	0.1583	mg/L	0.00011	0.07%
Ba 233.527†	3572.9	0.4885	mg/L	0.00201	0.9771	mg/L	0.00402	0.41%
Be 313.042†	362.9	0.00046	mg/L	0.000005	0.00093	mg/L	0.000010	1.05%
Ca 317.933†	356785.4	26.64	mg/L	0.086	53.28	mg/L	0.172	0.32%
Cd 228.802†	152.4	0.00697	mg/L	0.000102	0.01394	mg/L	0.000204	1.47%
Co 228.616†	1260.8	0.02962	mg/L	0.000057	0.05924	mg/L	0.000114	0.19%
Cr 267.716†	1583.5	0.1599	mg/L	0.00078	0.3197	mg/L	0.00156	0.49%
Cu 324.752†	93907.7	0.3344	mg/L	0.00128	0.6688	mg/L	0.00257	0.38%
Fe 273.955†	148300.2	93.44	mg/L	0.571	186.9	mg/L	1.14	0.61%
K 766.490†	7883.0	3.278	mg/L	0.0233	6.557	mg/L	0.0466	0.71%
Mg 279.077†	17643.5	14.86	mg/L	0.069	29.71	mg/L	0.138	0.46%
Mn 257.610†	76513.5	1.247	mg/L	0.0036	2.494	mg/L	0.0071	0.29%
Mo 202.031†	386.4	0.02001	mg/L	0.000048	0.04003	mg/L	0.000096	0.24%
Na 589.592†	32542.7	2.508	mg/L	0.0131	5.016	mg/L	0.0262	0.52%
Na 330.237†	100.4	2.672	mg/L	0.0174	5.345	mg/L	0.0348	0.65%
Ni 231.604†	578.5	0.1246	mg/L	0.00069	0.2493	mg/L	0.00138	0.55%
Pb 220.353†	2351.4	0.2872	mg/L	0.00022	0.5744	mg/L	0.00044	0.08%
Sb 206.836†	17.8	0.00694	mg/L	0.000892	0.01389	mg/L	0.001784	12.85%
Se 196.026†	8.7	0.00092	mg/L	0.004386	0.00184	mg/L	0.008773	477.90%
Si 288.158†	1369.8	0.7797	mg/L	0.00658	1.559	mg/L	0.0132	0.84%
Sn 189.927†	87.9	0.02075	mg/L	0.000963	0.04151	mg/L	0.001925	4.64%
Sr 421.552†	277943.9	0.2756	mg/L	0.00064	0.5512	mg/L	0.00128	0.23%
Ti 334.903†	78815.5	2.702	mg/L	0.0031	5.403	mg/L	0.0063	0.12%
Tl 190.801†	-1.6	0.01072	mg/L	0.002379	0.02144	mg/L	0.004758	22.19%
V 292.402†	23890.1	0.1590	mg/L	0.00102	0.3180	mg/L	0.00205	0.64%
Zn 206.200†	13622.7	2.778	mg/L	0.0120	5.556	mg/L	0.0241	0.43%

Sequence No.: 32
Sample ID: WJ08 B SWC

Del

Dilution: 2.000000X

Autosampler Location: 321
Date Collected: 4/2/2013 11:07:39 AM
Data Type: Original

Nebulizer Parameters: WJ08 B SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ08 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2676149.5	95.70	%	0.096				0.10%
ScR 361.383	407251.4	100.5	%	0.34				0.34%
Ag 328.068†	-1063.7	-0.00065	mg/L	0.000178	-0.00130	mg/L	0.000357	27.35%
Al 308.215†	148093.8	105.5	mg/L	0.21	211.0	mg/L	0.41	0.19%
As 188.979†	-278.2	0.01730	mg/L	0.005690	0.03460	mg/L	0.011381	32.89%
B 249.677†	187.2	0.02263	mg/L	0.000343	0.04526	mg/L	0.000686	1.52%
Ba 233.527†	4621.0	0.6286	mg/L	0.00125	1.257	mg/L	0.0025	0.20%
Be 313.042†	920.1	0.00119	mg/L	0.000020	0.00238	mg/L	0.000040	1.69%
Ca 317.933†	7506617.3	560.5	mg/L	5.83	1121	mg/L	11.67	1.04%
Cd 228.802†	75.6	0.00449	mg/L	0.000098	0.00898	mg/L	0.000196	2.18%
Co 228.616†	2747.0	0.06140	mg/L	0.000297	0.1228	mg/L	0.00059	0.48%
Cr 267.716†	3102.5	0.3027	mg/L	0.00158	0.6054	mg/L	0.00317	0.52%
Cu 324.752†	60765.1	0.2190	mg/L	0.00110	0.4381	mg/L	0.00221	0.50%
Fe 273.955†	226486.5	142.7	mg/L	1.31	285.4	mg/L	2.61	0.91%
K 766.490†	19123.5	7.953	mg/L	0.0255	15.91	mg/L	0.051	0.32%
Mg 279.077†	71382.8	60.19	mg/L	0.205	120.4	mg/L	0.41	0.34%
Mn 257.610†	148696.6	2.421	mg/L	0.0162	4.843	mg/L	0.0324	0.67%
Mo 202.031†	268.9	0.00753	mg/L	0.000064	0.01506	mg/L	0.000128	0.85%
Na 589.592†	97137.1	7.486	mg/L	0.0161	14.97	mg/L	0.032	0.22%
Na 330.237†	223.2	8.147	mg/L	0.2999	16.29	mg/L	0.600	3.68%
Ni 231.604†	1191.7	0.2567	mg/L	0.00222	0.5134	mg/L	0.00443	0.86%
Pb 220.353†	6.3	0.02196	mg/L	0.000823	0.04392	mg/L	0.001646	3.75%
Sb 206.836†	-0.9	0.00234	mg/L	0.002163	0.00468	mg/L	0.004325	92.46%
Se 196.026†	-11.8	-0.01988	mg/L	0.003193	-0.03976	mg/L	0.006385	16.06%
Si 288.158†	1205.7	0.6919	mg/L	0.00509	1.384	mg/L	0.0102	0.74%
Sn 189.927†	-118.6	0.02408	mg/L	0.002085	0.04817	mg/L	0.004170	8.66%
Sr 421.552†	1655744.3	1.642	mg/L	0.0029	3.283	mg/L	0.0059	0.18%
Ti 334.903†	224529.0	7.668	mg/L	0.0191	15.34	mg/L	0.038	0.25%
Tl 190.801†	6.1	0.02050	mg/L	0.005422	0.04101	mg/L	0.010844	26.44%
V 292.402†	46813.4	0.3122	mg/L	0.00062	0.6244	mg/L	0.00123	0.20%
Zn 206.200†	1623.2	0.3311	mg/L	0.00144	0.6623	mg/L	0.00289	0.44%

Sequence No.: 33
Sample ID: WJ08 MB1SPK SWC

Autosampler Location: 322
Date Collected: 4/2/2013 11:12:00 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WJ08 MB1SPK SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: WJ08 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2836795.0	101.4	%	0.31				0.30%
ScR 361.383	420481.5	103.8	%	0.37				0.35%
Ag 328.068†	130360.5	0.5363	mg/L	0.00140	1.073	mg/L	0.0028	0.26%
Al 308.215†	2896.7	2.057	mg/L	0.0157	4.113	mg/L	0.0315	0.77%
As 188.979†	2939.1	2.089	mg/L	0.0116	4.178	mg/L	0.0233	0.56%
B 249.677†	16.6	0.00085	mg/L	0.000573	0.00171	mg/L	0.001146	67.19%
Ba 233.527†	14910.6	2.096	mg/L	0.0154	4.192	mg/L	0.0307	0.73%
Be 313.042†	346569.6	0.5062	mg/L	0.00647	1.012	mg/L	0.0129	1.28%
Ca 317.933†	133258.0	9.950	mg/L	0.0646	19.90	mg/L	0.129	0.65%
Cd 228.802†	12471.8	0.5129	mg/L	0.00091	1.026	mg/L	0.0018	0.18%
Co 228.616†	18437.0	0.5033	mg/L	0.00329	1.007	mg/L	0.0066	0.65%
Cr 267.716†	5189.7	0.5194	mg/L	0.00267	1.039	mg/L	0.0053	0.51%
Cu 324.752†	144544.4	0.5087	mg/L	0.00206	1.017	mg/L	0.0041	0.40%
Fe 273.955†	3254.7	2.048	mg/L	0.0114	4.096	mg/L	0.0228	0.56%
K 766.490†	23995.4	9.980	mg/L	0.0206	19.96	mg/L	0.041	0.21%
Mg 279.077†	12149.1	10.27	mg/L	0.072	20.53	mg/L	0.143	0.70%
Mn 257.610†	29768.9	0.4856	mg/L	0.00463	0.9713	mg/L	0.00927	0.95%
Mo 202.031†	30.5	0.00146	mg/L	0.000139	0.00292	mg/L	0.000278	9.53%
Na 589.592†	133083.3	10.26	mg/L	0.035	20.51	mg/L	0.069	0.34%
Na 330.237†	381.1	10.26	mg/L	0.220	20.52	mg/L	0.439	2.14%
Ni 231.604†	2418.7	0.5201	mg/L	0.00502	1.040	mg/L	0.0100	0.96%
Pb 220.353†	17228.5	2.065	mg/L	0.0037	4.130	mg/L	0.0075	0.18%
Sb 206.836†	16.8	0.00074	mg/L	0.001360	0.00149	mg/L	0.002719	183.09%
Se 196.026†	3251.1	2.075	mg/L	0.0031	4.150	mg/L	0.0061	0.15%
Si 288.158†	32.7	0.02150	mg/L	0.001219	0.04300	mg/L	0.002438	5.67%
Sn 189.927†	-18.0	-0.00286	mg/L	0.000300	-0.00571	mg/L	0.000600	10.51%
Sr 421.552†	509967.1	0.5056	mg/L	0.00143	1.011	mg/L	0.0029	0.28%
Ti 334.903†	112.7	0.00318	mg/L	0.000368	0.00635	mg/L	0.000735	11.58%
Tl 190.801†	3906.1	2.087	mg/L	0.0014	4.173	mg/L	0.0029	0.07%
V 292.402†	73568.2	0.5083	mg/L	0.00106	1.017	mg/L	0.0021	0.21%
Zn 206.200†	2500.5	0.5101	mg/L	0.00412	1.020	mg/L	0.0082	0.81%

Sequence No.: 34
Sample ID: WJ10 MB2SPK SWC

Autosampler Location: 323
Date Collected: 4/2/2013 11:16:01 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WJ10 MB2SPK SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WJ10 MB2SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2814563.2	100.6	%	0.11				0.11%
ScR 361.383	417403.5	103.0	%	0.34				0.33%
Ag 328.068†	129682.7	0.5335	mg/L	0.00140	1.067	mg/L	0.0028	0.26%
Al 308.215†	2857.8	2.029	mg/L	0.0134	4.058	mg/L	0.0267	0.66%
As 188.979†	2918.0	2.074	mg/L	0.0080	4.148	mg/L	0.0160	0.38%
B 249.677†	12.0	0.00030	mg/L	0.000660	0.00059	mg/L	0.001321	223.69%
Ba 233.527†	14714.5	2.068	mg/L	0.0126	4.137	mg/L	0.0252	0.61%
Be 313.042†	344308.4	0.5029	mg/L	0.00123	1.006	mg/L	0.0025	0.25%
Ca 317.933†	132238.3	9.874	mg/L	0.0192	19.75	mg/L	0.038	0.19%
Cd 228.802†	12362.8	0.5084	mg/L	0.00091	1.017	mg/L	0.0018	0.18%
Co 228.616†	18331.6	0.5004	mg/L	0.00029	1.001	mg/L	0.0006	0.06%
Cr 267.716†	5137.4	0.5142	mg/L	0.00061	1.028	mg/L	0.0012	0.12%
Cu 324.752†	144031.5	0.5069	mg/L	0.00150	1.014	mg/L	0.0030	0.30%
Fe 273.955†	3204.6	2.016	mg/L	0.0142	4.033	mg/L	0.0285	0.71%
K 766.490†	23906.0	9.942	mg/L	0.0483	19.88	mg/L	0.097	0.49%
Mg 279.077†	12020.2	10.16	mg/L	0.038	20.31	mg/L	0.076	0.37%
Mn 257.610†	29561.3	0.4822	mg/L	0.00163	0.9645	mg/L	0.00326	0.34%
Mo 202.031†	28.5	0.00136	mg/L	0.000308	0.00271	mg/L	0.000616	22.69%
Na 589.592†	132438.4	10.21	mg/L	0.026	20.41	mg/L	0.052	0.25%
Na 330.237†	377.0	10.15	mg/L	0.078	20.30	mg/L	0.156	0.77%
Ni 231.604†	2391.1	0.5142	mg/L	0.00073	1.028	mg/L	0.0015	0.14%
Pb 220.353†	17087.3	2.048	mg/L	0.0047	4.096	mg/L	0.0095	0.23%
Sb 206.836†	14.9	0.00012	mg/L	0.001629	0.00024	mg/L	0.003259	>999.9%
Se 196.026†	3221.5	2.056	mg/L	0.0084	4.113	mg/L	0.0168	0.41%
Si 288.158†	27.7	0.01863	mg/L	0.002560	0.03726	mg/L	0.005119	13.74%
Sn 189.927†	-21.8	-0.00365	mg/L	0.000218	-0.00729	mg/L	0.000436	5.98%
Sr 421.552†	506560.9	0.5023	mg/L	0.00063	1.005	mg/L	0.0013	0.12%
Ti 334.903†	46.8	0.00092	mg/L	0.000401	0.00184	mg/L	0.000802	43.63%
Ti 190.801†	3876.1	2.071	mg/L	0.0091	4.141	mg/L	0.0181	0.44%
V 292.402†	73150.9	0.5054	mg/L	0.00139	1.011	mg/L	0.0028	0.27%
Zn 206.200†	2471.5	0.5042	mg/L	0.00180	1.008	mg/L	0.0036	0.36%

Sequence No.: 35
Sample ID: CV 5

Autosampler Location: 7
Date Collected: 4/2/2013 11:20:02 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2790414.1	99.78	%	0.526				0.53%
ScR 361.383	412514.4	101.8	%	0.30				0.30%
Ag 328.068†	254532.6	1.047	mg/L	0.0056	1.047	mg/L	0.0056	0.53%
Al 308.215†	2880.8	2.019	mg/L	0.0097	2.019	mg/L	0.0097	0.48%
As 188.979†	2787.5	2.013	mg/L	0.0135	2.013	mg/L	0.0135	0.67%
B 249.677†	8379.6	1.021	mg/L	0.0045	1.021	mg/L	0.0045	0.44%
Ba 233.527†	7367.8	1.035	mg/L	0.0082	1.035	mg/L	0.0082	0.80%
Be 313.042†	697936.3	1.019	mg/L	0.0044	1.019	mg/L	0.0044	0.44%
Ca 317.933†	26304.8	1.964	mg/L	0.0075	1.964	mg/L	0.0075	0.38%
Cd 228.802†	24633.7	1.025	mg/L	0.0038	1.025	mg/L	0.0038	0.37%
Co 228.616†	36481.4	0.9946	mg/L	0.00699	0.9946	mg/L	0.00699	0.70%
Cr 267.716†	10404.3	1.043	mg/L	0.0039	1.043	mg/L	0.0039	0.37%
Cu 324.752†	290380.8	1.021	mg/L	0.0071	1.021	mg/L	0.0071	0.70%
Fe 273.955†	3241.8	2.037	mg/L	0.0071	2.037	mg/L	0.0071	0.35%
K 766.490†	47783.4	19.87	mg/L	0.048	19.87	mg/L	0.048	0.24%
Mg 279.077†	2364.8	2.005	mg/L	0.0119	2.005	mg/L	0.0119	0.59%
Mn 257.610†	59179.8	0.9651	mg/L	0.00311	0.9651	mg/L	0.00311	0.32%
Mo 202.031†	18979.5	0.9989	mg/L	0.00407	0.9989	mg/L	0.00407	0.41%
Na 589.592†	662510.1	51.06	mg/L	0.072	51.06	mg/L	0.072	0.14%
Na 330.237†	1873.4	51.16	mg/L	0.326	51.16	mg/L	0.326	0.64%
Ni 231.604†	4833.4	1.041	mg/L	0.0054	1.041	mg/L	0.0054	0.52%
Pb 220.353†	17085.2	2.048	mg/L	0.0131	2.048	mg/L	0.0131	0.64%
Sb 206.836†	5751.2	2.034	mg/L	0.0142	2.034	mg/L	0.0142	0.70%
Se 196.026†	3121.1	1.992	mg/L	0.0152	1.992	mg/L	0.0152	0.77%
Si 288.158†	3541.3	2.007	mg/L	0.0069	2.007	mg/L	0.0069	0.35%
Sn 189.927†	4741.9	0.9728	mg/L	0.00288	0.9728	mg/L	0.00288	0.30%
Sr 421.552†	1012963.3	1.004	mg/L	0.0014	1.004	mg/L	0.0014	0.13%
Ti 334.903†	29012.1	0.9937	mg/L	0.00217	0.9937	mg/L	0.00217	0.22%
Tl 190.801†	3893.0	2.076	mg/L	0.0099	2.076	mg/L	0.0099	0.48%
V 292.402†	144751.5	1.000	mg/L	0.0048	1.000	mg/L	0.0048	0.48%
Zn 206.200†	5036.1	1.027	mg/L	0.0064	1.027	mg/L	0.0064	0.62%

Sequence No.: 36
Sample ID: CB 5

Autosampler Location: 1
Date Collected: 4/2/2013 11:24:06 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2822236.2	100.9	%	0.16				0.15%
ScR 361.383	415664.0	102.6	%	0.17				0.16%
Ag 328.068†	2.2	0.00001	mg/L	0.000070	0.00001	mg/L	0.000070	778.00%
Al 308.215†	3.8	0.00269	mg/L	0.007642	0.00269	mg/L	0.007642	284.45%
As 188.979†	-3.3	-0.00237	mg/L	0.000037	-0.00237	mg/L	0.000037	1.56%
B 249.677†	17.8	0.00217	mg/L	0.000167	0.00217	mg/L	0.000167	7.71%
Ba 233.527†	-0.8	-0.00011	mg/L	0.000452	-0.00011	mg/L	0.000452	398.37%
Be 313.042†	62.3	0.00009	mg/L	0.000009	0.00009	mg/L	0.000009	10.26%
Ca 317.933†	42.9	0.00320	mg/L	0.001538	0.00320	mg/L	0.001538	48.05%
Cd 228.802†	5.9	0.00026	mg/L	0.000023	0.00026	mg/L	0.000023	8.77%
Co 228.616†	4.9	0.00013	mg/L	0.000113	0.00013	mg/L	0.000113	84.03%
Cr 267.716†	3.9	0.00039	mg/L	0.000201	0.00039	mg/L	0.000201	51.97%
Cu 324.752†	116.0	0.00041	mg/L	0.000156	0.00041	mg/L	0.000156	38.26%
Fe 273.955†	3.5	0.00223	mg/L	0.000689	0.00223	mg/L	0.000689	30.97%
K 766.490†	30.3	0.01262	mg/L	0.009088	0.01262	mg/L	0.009088	72.03%
Mg 279.077†	2.9	0.00247	mg/L	0.005675	0.00247	mg/L	0.005675	229.31%
Mn 257.610†	9.8	0.00016	mg/L	0.000060	0.00016	mg/L	0.000060	37.40%
Mo 202.031†	19.8	0.00104	mg/L	0.000158	0.00104	mg/L	0.000158	15.14%
Na 589.592†	140.3	0.01081	mg/L	0.002919	0.01081	mg/L	0.002919	26.99%
Na 330.237†	7.6	0.2063	mg/L	0.23640	0.2063	mg/L	0.23640	114.57%
Ni 231.604†	1.6	0.00036	mg/L	0.000651	0.00036	mg/L	0.000651	182.73%
Pb 220.353†	5.3	0.00063	mg/L	0.000468	0.00063	mg/L	0.000468	73.70%
Sb 206.836†	12.5	0.00444	mg/L	0.001508	0.00444	mg/L	0.001508	33.94%
Se 196.026†	5.0	0.00318	mg/L	0.000584	0.00318	mg/L	0.000584	18.37%
Si 288.158†	-1.1	-0.00061	mg/L	0.002905	-0.00061	mg/L	0.002905	477.82%
Sn 189.927†	5.0	0.00103	mg/L	0.000064	0.00103	mg/L	0.000064	6.20%
Sr 421.552†	98.1	0.00010	mg/L	0.000021	0.00010	mg/L	0.000021	21.64%
Ti 334.903†	4.7	0.00016	mg/L	0.000028	0.00016	mg/L	0.000028	17.47%
Tl 190.801†	2.7	0.00142	mg/L	0.000973	0.00142	mg/L	0.000973	68.51%
V 292.402†	9.8	0.00007	mg/L	0.000150	0.00007	mg/L	0.000150	215.25%
Zn 206.200†	2.2	0.00045	mg/L	0.000656	0.00045	mg/L	0.000656	144.67%

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 4-4-13

M2 Dex Std	Analyst AH-5	Peer LA 4-5-13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	See Log
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WJ53 WJ74 WJ10
Matrix Duplicates	✓	✓	WJ53 WJ10
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	✓	✓	CAF WJ10 WJ53 WJ74

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4-4-13 **Analyst:** MM **Page:** 1 of 4

All corrections made by analyst unless otherwise noted. MM 4-4-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3009-9
		1			3025-12
		2			3026-1
		3			-2
		4			-3
		5			-4
		RinseSolde			V1 R=0.9989
		ICV			
		ICB			
		CCV1			Ag high
		CCB1			
		Low Check			
		ICSA			
		ICSAB			^{62}Ni high
		~~BT~~LRZW			Mo, Ag Sb high
		B1		✓	
		DI Check		✓	
		ERA497		10	Ag high (CV's high)
		CCV2			Ag high
		CCB2			
	✓	WJ10 MB2	SW	20	BRAg Pb0.16
		ADup	REN	2	· cd high RPD
		A			CAF
		ASpk			In 73%R

WJ10:02408

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4-4-13 **Analyst:** M **Page:** 2 **of** 4

All corrections made by analyst unless otherwise noted. M 4-4-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WJ10 D	SWN	20	RR Ag
		CDup		✓	
		C			CAF
		Cspk			Cr Ni Sb Pb low & R
		CPost			0.06mL Spk#2 1/10 0.06mL Spk#1 1/10 Cr Ni Sb Pb
		MB2spk			
		CCV3			Ag high
		CCB3			
		WJ10 MB2	SWN	20	RR Ag
		MB1	REN	2	
		MB3			
		EDup			~~Cr, Zn high RPD~~
	✓	E			CAF RR E
		Espk			~~Zn low %R~~
		APost			0.06mL Spk#2 1/10 0.06mL Spk#1 1/10 Zn
ZZZ		ZZZZZZ ~~E Post~~ MB1spk			0.06 Spk#2 1/10 0.06mS Spk#1 1/10 Zn low
		MB2spk		✓	RR Ag
		MB2spk		✓	
		CCV4			Ag high
		CCB4			
		WJ10 E	REN	2	
		CCV5			Ag high
		CCB5			end pkg
		WJ59 MB1			RR Ag 4-5-13

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, April 04, 2013 08:12:13
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1925
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	2278.5	2278.512	31.204	1.4	Standard
	Mg	24.0	28188.9	28188.932	218.557	0.8	Standard
	In	114.9	69605.8	69605.847	712.192	1.0	Standard
	Pb	208.0	35546.1	35546.054	304.432	0.9	Standard
	U	238.1	55723.9	55723.894	343.221	0.6	Standard
⌈	CeO	155.9	1171.8	0.015	0.000	3.1	Standard
|>	Ce	139.9	78416.7	78416.712	689.486	0.9	Standard
⌊	Ce++	70.0	462.3	0.006	0.000	3.3	Standard
	Bkgd	220.0	0.1	0.100	0.091	91.3	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1918.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

SmartTune Wizard - Summary

ɔtimization Summary

ıartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 4/4/2013 8:12:12 AM
ıd Time: 4/4/2013 8:14:48 AM

ıily Performance Check - [Failed]
Obtained Intensity (Be 9.0122): 2278.51 - <Target not achieved>
Obtained Intensity (Mg 23.985): 28188.93
Obtained Intensity (In 114.904): 69605.85
Obtained Intensity (Pb 207.977): 35546.05
Obtained Intensity (U 238.05): 55723.89
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (CeO 155.9 / Ce 139.905): 0.015 (=1171.82 / 78416.71)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.006 (=462.35 / 78416.71)

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 4/4/2013 8:23:43 AM
nd Time: 4/4/2013 8:24:32 AM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
-1.28 mm	1.62 mm	134601.34

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 4/4/2013 8:24:44 AM
nd Time: 4/4/2013 8:26:55 AM

ass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.690)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.717)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.706)

SmartTune Wizard - Summary

ɔtimization Summary

ıartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ɛart Time: 4/4/2013 8:27:14 AM
ıd Time: 4/4/2013 8:31:25 AM

ɹtoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.998; Intercept = -12.31

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 4/4/2013 8:35:13 AM
d Time: 4/4/2013 8:37:48 AM

ily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 3898.71
Obtained Intensity (Mg 23.985): 52395.24
Obtained Intensity (In 114.904): 112485.46
Obtained Intensity (Pb 207.977): 54174.86
Obtained Intensity (U 238.05): 87053.48
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.021 (=2652.29 / 124090.85)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.009 (=1149.75 / 124090.85)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:07:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				973124	5
	Be	9		ug/L				13	31
	C	13		ug/L				77283	4
	Cl	37		ug/L				4414359	3
>	Sc	45		ug/L				1165173	3
	V	51		ug/L				8375	2
	V-1	51		ug/L				94	12
	Cr	52		ug/L				24782	2
	Cr	53		ug/L				152	4
	Mn	55		ug/L				649	2
	Co	59		ug/L				95	8
>	Ge	72		ug/L				638204	2
	Ni	60		ug/L				38	6
	Ni	62		ug/L				255	6
	Cu	63		ug/L				202	8
	Cu	65		ug/L				47	16
	Zn	66		ug/L				197	6
	Zn	67		ug/L				30	8
	Zn	68		ug/L				269	9
	As	75		ug/L				97	20
	As-1	75		ug/L				9948	0
	Se	82		ug/L				-2	437
	Se	78		ug/L				10159	0
	Mo	98		ug/L				11	37
	Y	89		ug/L				409609	3
	Kr	83		ug/L				442	6
>	In	115		ug/L				1367698	1
	Ag	107		ug/L				23	13
	Cd	111		ug/L				110	11
	Cd	114		ug/L				41	5
	Sb	121		ug/L				55	15
	Sb	123		ug/L				42	10
	Ba	135		ug/L				31	26
	Ba	137		ug/L				49	6
>	Tb	159		ug/L				1763579	1
	Tl	205		ug/L				66	6
	Pb	208		ug/L				478	3
	Bi	209		ug/L				4004626	0
	Th	232		ug/L				50	14
	U	238		ug/L				5	87

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:11:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	957993	2
[	Be	9	0.200	ug/L	0.021	10	13	587	9
	C	13		ug/L			77283	75734	3
	Cl	37		ug/L			4414359	4482322	2
[>	Sc	45		ug/L			1165173	1133633	1
[	V	51	0.200	ug/L	0.023	11	8375	12576	2
[	V-1	51	0.200	ug/L	0.008	3	94	4592	1
[	Cr	52	0.500	ug/L	0.065	12	24782	33409	1
[	Cr	53	0.500	ug/L	0.015	2	152	1222	1
[	Mn	55	0.500	ug/L	0.027	5	649	12773	3
[	Co	59	0.200	ug/L	0.000	0	95	3928	2
[>	Ge	72		ug/L			638204	647387	3
[	Ni	60	0.500	ug/L	0.010	2	38	2020	1
[	Ni	62	0.500	ug/L	0.052	10	255	535	3
[	Cu	63	0.500	ug/L	0.017	3	202	5050	3
[	Cu	65	0.500	ug/L	0.019	3	47	2063	0
[	Zn	66	4.000	ug/L	0.118	2	197	9419	1
[	Zn	67	4.000	ug/L	0.478	11	30	1401	8
[	Zn	68	4.000	ug/L	0.124	3	269	6512	0
[	As	75	0.200	ug/L	0 028	13	97	473	10
[	As-1	75	0.200	ug/L	0.257	128	9948	10405	0
[	Se	82	0.500	ug/L	0.077	15	-2	116	15
[	Se	78	0.500	ug/L	0.911	182	10159	10534	0
[	Mo	98	0.200	ug/L	0.009	4	11	984	1
	Y	89		ug/L			409609	405716	2
	Kr	83		ug/L			442	430	2
[>	In	115		ug/L			1367698	1343884	2
[	Ag	107	0.200	ug/L	0.006	3	23	2398	1
[	Cd	111	0.100	ug/L	0.002	2	110	794	1
[	Cd	114	0.100	ug/L	0.006	5	41	1716	4
[	Sb	121	0.200	ug/L	0.013	6	55	3520	4
[	Sb	123	0.200	ug/L	0.006	3	42	2691	0
[	Ba	135	0.500	ug/L	0.016	3	31	3119	0
[	Ba	137	0.500	ug/L	0.013	2	49	5532	0
[>	Tb	159		ug/L			1763579	1730767	2
[	Tl	205	0.200	ug/L	0.005	2	66	11244	0
[	Pb	208	0.100	ug/L	0.003	3	478	7631	0
[	Bi	209		ug/L			4004626	3971614	1
[	Th	232	0.200	ug/L	0.007	3	50	10981	1
[	U	238	0.200	ug/L	0.004	1	5	12428	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:15:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	958070	2
[	Be	9	10.000	ug/L	0.372	3	13	26641	1
	C	13		ug/L			77283	74410	1
	Cl	37		ug/L			4414359	4619359	2
[>	Sc	45		ug/L			1165173	1142614	4
|	V	51	10.000	ug/L	0.303	3	8375	227815	1
|	V-1	51	10.000	ug/L	0.385	3	94	218762	0
|	Cr	52	9.999	ug/L	0.185	1	24782	207588	3
|	Cr	53	9.999	ug/L	0.430	4	152	20562	0
|	Mn	55	10.001	ug/L	0.389	3	649	255994	2
[	Co	59	10.000	ug/L	0.589	5	95	188350	2
[>	Ge	72		ug/L			638204	631486	1
|	Ni	60	10.002	ug/L	0.135	1	38	41570	1
|	Ni	62	10.002	ug/L	0.595	5	255	6032	4
|	Cu	63	9.998	ug/L	0.065	0	202	89390	0
|	Cu	65	10.000	ug/L	0.296	2	47	39575	1
|	Zn	66	10.014	ug/L	0.381	3	197	22924	2
|	Zn	67	10.170	ug/L	0.114	1	30	3840	2
|	Zn	68	10.069	ug/L	0.366	3	269	16285	2
|	As	75	10.000	ug/L	0 177	1	97	20397	0
|	As-1	75	10.001	ug/L	0.204	2	9948	30401	0
|	Se	82	9.999	ug/L	0.077	0	-2	2216	0
|	Se	78	10.005	ug/L	0.251	2	10159	15960	0
[	Mo	98	10.000	ug/L	0.131	1	11	48874	2
	Y	89		ug/L			409609	406609	2
	Kr	83		ug/L			442	458	4
[>	In	115		ug/L			1367698	1359836	0
|	Ag	107	10.000	ug/L	0.059	0	23	118769	1
|	Cd	111	10.000	ug/L	0.172	1	110	63591	1
|	Cd	114	10.000	ug/L	0.215	2	41	158796	1
|	Sb	121	10.000	ug/L	0.168	1	55	171418	0
|	Sb	123	10.000	ug/L	0.075	0	42	133981	0
|	Ba	135	10.000	ug/L	0.162	1	31	63497	1
[	Ba	137	10.000	ug/L	0.172	1	49	109485	0
[>	Tb	159		ug/L			1763579	1769857	0
|	Tl	205	10.000	ug/L	0.120	1	66	545849	0
|	Pb	208	10.000	ug/L	0.077	0	478	710017	0
|	Bi	209		ug/L			4004626	4008553	0
|	Th	232	10.000	ug/L	0.074	0	50	602850	0
[	U	238	10.000	ug/L	0.054	0	5	624853	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:20:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	956114	0
[	Be	9	19.966	ug/L	0.772	3	13	52735	3
	C	13		ug/L			77283	72882	1
	Cl	37		ug/L			4414359	4671012	3
[>	Sc	45		ug/L			1165173	1120961	1
[	V	51	19.972	ug/L	0.356	1	8375	436167	0
[	V-1	51	19.966	ug/L	0.540	2	94	425865	1
[	Cr	52	20.058	ug/L	0.280	1	24782	388839	1
[	Cr	53	20.041	ug/L	0.866	4	152	40644	2
[	Mn	55	19.912	ug/L	0.315	1	649	491280	3
[	Co	59	20.065	ug/L	0.676	3	95	376027	2
[>	Ge	72		ug/L			638204	637391	1
[	Ni	60	19.805	ug/L	0.317	1	38	79930	1
[	Ni	62	19.915	ug/L	0.625	3	255	11680	2
[	Cu	63	20.001	ug/L	0.636	3	202	180271	2
[	Cu	65	20.026	ug/L	0.469	2	47	80368	1
[	Zn	66	19.866	ug/L	0.354	1	197	44694	2
[	Zn	67	20.012	ug/L	1.012	5	30	7609	3
[	Zn	68	19.960	ug/L	0.677	3	269	32096	2
[	As	75	19.929	ug/L	0.133	0	97	40366	1
[	As-1	75	19.872	ug/L	0.124	0	9948	50142	1
[	Se	82	19.951	ug/L	0.385	1	-2	4423	1
[	Se	78	19.744	ug/L	0.633	3	10159	21339	0
[	Mo	98	19.844	ug/L	0.235	1	11	94893	0
	Y	89		ug/L			409609	400623	2
	Kr	83		ug/L			442	458	1
[>	In	115		ug/L			1367698	1342022	1
[	Ag	107	20.094	ug/L	0 643	3	23	239931	2
[	Cd	111	20.014	ug/L	0.288	1	110	125826	0
[	Cd	114	20.053	ug/L	0.562	2	41	317547	2
[	Sb	121	20.090	ug/L	0.352	1	55	346009	1
[	Sb	123	19.996	ug/L	0.452	2	42	264076	0
[	Ba	135	20.019	ug/L	0.673	3	31	125844	1
[	Ba	137	20.101	ug/L	0.394	1	49	221599	0
[>	Tb	159		ug/L			1763579	1726945	0
[	Tl	205	20.115	ug/L	0.110	0	66	1096652	1
[	Pb	208	20.102	ug/L	0.187	0	478	1421358	0
[	Bi	209		ug/L			4004626	3945455	0
[	Th	232	20.162	ug/L	0.178	0	50	1225728	1
[	U	238	20.096	ug/L	0.171	0	5	1249143	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:24:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			973124	933102	2
Be	9	50.291	ug/L	2.120	4	13	133452	2
C	13		ug/L			77283	77783	6
Cl	37		ug/L			4414359	4690931	2
Sc	45		ug/L			1165173	1117518	1
V	51	49.897	ug/L	2.222	4	8375	1063232	3
V-1	51	49.990	ug/L	2.420	4	94	1061643	3
Cr	52	49.853	ug/L	0.587	1	24782	915072	0
Cr	53	50.162	ug/L	1.250	2	152	102895	1
Mn	55	50.285	ug/L	0.918	1	649	1271992	2
Co	59	49.828	ug/L	0 528	1	95	915319	1
Ge	72		ug/L			638204	634404	0
Ni	60	49.904	ug/L	0.151	0	38	198518	0
Ni	62	49.956	ug/L	0.917	1	255	28660	1
Cu	63	49.620	ug/L	0.404	0	202	428641	0
Cu	65	49.736	ug/L	1.591	3	47	193552	3
Zn	66	49.628	ug/L	0.945	1	197	106986	2
Zn	67	49.864	ug/L	1.002	2	30	18592	2
Zn	68	49.874	ug/L	0.414	0	269	78495	1
As	75	49.936	ug/L	0.633	1	97	99889	1
As-1	75	49.935	ug/L	0.689	1	9948	109799	1
Se	82	49.862	ug/L	0.090	0	-2	10860	0
Se	78	49.856	ug/L	0.466	0	10159	37839	0
Mo	98	50.154	ug/L	1.048	2	11	242451	1
Y	89		ug/L			409609	401403	0
Kr	83		ug/L			442	482	4
In	115		ug/L			1367698	1322724	1
Ag	107	49.941	ug/L	0.827	1	23	584363	0
Cd	111	49.886	ug/L	0 281	0	110	305536	0
Cd	114	49.970	ug/L	0.838	1	41	777598	0
Sb	121	50.215	ug/L	0.536	1	55	871158	0
Sb	123	50.046	ug/L	0.812	1	42	654494	1
Ba	135	50.120	ug/L	0.948	1	31	314357	1
Ba	137	49.994	ug/L	0.585	1	49	542979	2
Tb	159		ug/L			1763579	1731020	0
Tl	205	50.168	ug/L	0.519	1	66	2788291	0
Pb	208	49.903	ug/L	0.120	0	478	3502083	0
Bi	209		ug/L			4004626	3845110	0
Th	232	50.359	ug/L	0.421	0	50	3182654	0
U	238	50.221	ug/L	0.201	0	5	3199840	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:30:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			973124	888295	2
[	Be	9	100.445	ug/L	4.008	3	13	257629	3
	C	13		ug/L			77283	75753	3
	Cl	37		ug/L			4414359	4586084	1
[>	Sc	45		ug/L			1165173	1089728	1
[	V	51	102.581	ug/L	1.812	1	8375	2323514	3
[	V-1	51	102.459	ug/L	2.139	2	94	2312320	3
[	Cr	52	100.437	ug/L	3.122	3	24782	1800031	3
[	Cr	53	99.992	ug/L	1.957	1	152	199823	1
[	Mn	55	101.015	ug/L	1.969	1	649	2578378	3
[	Co	59	100.615	ug/L	3.828	3	95	1839089	1
[>	Ge	72		ug/L			638204	611089	4
[	Ni	60	100.481	ug/L	3.702	3	38	390872	2
[	Ni	62	100.286	ug/L	4.627	4	255	55631	1
[	Cu	63	99.770	ug/L	4.670	4	202	823003	4
[	Cu	65	100.583	ug/L	3.449	3	47	384021	1
[	Zn	66	100.301	ug/L	5.502	5	197	209823	0
[	Zn	67	100.417	ug/L	1.456	1	30	36524	3
[	Zn	68	100.202	ug/L	4.052	4	269	152527	3
[	As	75	100.238	ug/L	5.698	5	97	194251	1
[	As-1	75	100.465	ug/L	5.649	5	9948	205866	0
[	Se	82	99.689	ug/L	4.708	4	-2	20673	0
[	Se	78	100.539	ug/L	4.566	4	10159	64525	1
[	Mo	98	101.045	ug/L	4.786	4	11	486830	1
	Y	89		ug/L			409609	403516	2
	Kr	83		ug/L			442	564	3
[>	In	115		ug/L			1367698	1293380	1
[	Ag	107	99.356	ug/L	3.111	3	23	1112672	1
[	Cd	111	99.969	ug/L	0.453	0	110	598010	2
[	Cd	114	99.822	ug/L	1.730	1	41	1509759	0
[	Sb	121	99.950	ug/L	2.088	2	55	1692361	0
[	Sb	123	99.970	ug/L	1.569	1	42	1276943	0
[	Ba	135	99.842	ug/L	1.354	1	31	609051	0
[	Ba	137	100.190	ug/L	3.751	3	49	1070181	2
[>	Tb	159		ug/L			1763579	1703412	1
[	Tl	205	99.742	ug/L	2 319	2	66	5407091	0
[	Pb	208	99.871	ug/L	1.530	1	478	6865862	0
[	Bi	209		ug/L			4004626	3717214	1
[	Th	232	100.357	ug/L	2.317	2	50	6315073	0
[	U	238	99.704	ug/L	2.649	2	5	6188325	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:37:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	815879	2
	Be	9	-0.000	ug/L	0.000	522	13	11	9
	C	13		ug/L			77283	65738	1
	Cl	37		ug/L			4414359	4156665	3
>	Sc	45		ug/L			1165173	993544	4
	V	51	0.025	ug/L	0.009	33	8375	7659	1
	V-1	51	0.001	ug/L	0.001	133	94	94	21
	Cr	52	0.092	ug/L	0.038	41	24782	22598	1
	Cr	53	0.003	ug/L	0.004	152	152	134	1
	Mn	55	0.004	ug/L	0.002	48	649	636	2
	Co	59	0.001	ug/L	0.000	51	95	97	4
>	Ge	72		ug/L			638204	598573	1
	Ni	60	-0.001	ug/L	0.001	86	38	32	10
	Ni	62	0.105	ug/L	0.041	38	255	296	7
	Cu	63	0.008	ug/L	0.004	45	202	254	12
	Cu	65	-0.000	ug/L	0.001	247	47	43	10
	Zn	66	-0.001	ug/L	0.004	751	197	183	3
	Zn	67	-0.000	ug/L	0.019	9904	30	28	22
	Zn	68	0.003	ug/L	0.015	487	269	257	9
	As	75	0.001	ug/L	0.025	2474	97	93	51
	As-1	75	-0.056	ug/L	0.072	130	9948	9223	0
	Se	82	-0.003	ug/L	0.019	543	-2	-3	111
	Se	78	-0.174	ug/L	0.253	145	10159	9434	0
	Mo	98	0.017	ug/L	0.002	8	11	92	7
	Y	89		ug/L			409609	379267	1
	Kr	83		ug/L			442	435	5
>	In	115		ug/L			1367698	1298630	1
	Ag	107	0.002	ug/L	0.001	29	23	45	13
	Cd	111	0.003	ug/L	0.001	18	110	123	4
	Cd	114	0.001	ug/L	0.000	39	41	56	13
	Sb	121	0.124	ug/L	0.019	14	55	2153	12
	Sb	123	0.123	ug/L	0.017	13	42	1620	11
	Ba	135	0.001	ug/L	0.001	62	31	35	9
	Ba	137	0.001	ug/L	0.001	89	49	57	15
>	Tb	159		ug/L			1763579	1600577	1
	Tl	205	0.005	ug/L	0.001	14	66	303	11
	Pb	208	0.001	ug/L	0.000	22	478	489	1
	Bi	209		ug/L			4004626	3807386	0
	Th	232	0.154	ug/L	0.002	1	50	9155	0
	U	238	0.007	ug/L	0.002	21	5	432	21

Sample Information

Sample Date/Time: Thursday, April 04, 2013 09:30:55
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**0.9999**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9989**	0.021	0.20	10	20	50	100
V-1	51	**0.9990**	0.021	0.20	10	20	50	100
Cr	52	**1.0000**	0.016	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9998**	0.023	0.50	10	20	50	100
Co	59	**0.9999**	0.017	0.20	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.014	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**1.0000**	0.003	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**1.0000**	0.002	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**0.9999**	0.001	0.50	10	20	50	100
Mo	98	**0.9998**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**0.9999**	0.009	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.013	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Ba	135	**1.0000**	0.005	0.50	10	20	50	100
Ba	137	**1.0000**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.032	0.20	10	20	50	100
Pb	208	**1.0000**	0.040	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.037	0.20	10	20	50	100
U	238	**1.0000**	0.036	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:45:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	826035	1
[	Be	9	48.180	ug/L	1.447	3	13	114918	1
	C	13		ug/L			77283	65310	3
	Cl	37		ug/L			4414359	4282716	1
[>	Sc	45		ug/L			1165173	999588	0
[	V	51	47.370	ug/L	1.376	2	8375	987808	1
[	V-1	51	47.752	ug/L	1.388	2	94	988335	2
[	Cr	52	49.386	ug/L	0.360	0	24782	822742	0
[	Cr	53	50.769	ug/L	0.651	1	152	93138	1
[	Mn	55	48.707	ug/L	1.544	3	649	1140389	2
[	Co	59	50.368	ug/L	1.111	2	95	844860	1
[>	Ge	72		ug/L			638204	587936	1
[	Ni	60	49.045	ug/L	0.682	1	38	183740	0
[	Ni	62	49.628	ug/L	0.661	1	255	26639	1
[	Cu	63	53.752	ug/L	0.590	1	202	427069	1
[	Cu	65	50.545	ug/L	0.272	0	47	185873	0
[	Zn	66	50.539	ug/L	0.905	1	197	101964	1
[	Zn	67	49.195	ug/L	1.285	2	30	17235	2
[	Zn	68	48.942	ug/L	1.420	2	269	71853	1
[	As	75	50.691	ug/L	0.512	1	97	94712	0
[	As-1	75	50.270	ug/L	0.499	0	9948	103841	0
[	Se	82	77.984	ug/L	1.126	1	-2	15353	1
[	Se	78	74.497 ✓	ug/L	0.285	0	10159	48470	0
[	Mo	98	48.803	ug/L	0.467	0	11	226523	0
	Y	89		ug/L			409609	376287	1
	Kr	83		ug/L			442	477	3
[>	In	115		ug/L			1367698	1271915	0
[	Ag	107	55.203 ✓	ug/L	0.577	1	23	608182	1
[	Cd	111	49.117	ug/L	0.650	1	110	288960	0
[	Cd	114	48.588	ug/L	0.768	1	41	722838	1
[	Sb	121	51.623	ug/L	0.630	1	55	859763	0
[	Sb	123	51.347	ug/L	0.711	1	42	645076	0
[	Ba	135	47.853	ug/L	0.221	0	31	287121	0
[	Ba	137	48.467	ug/L	0.681	1	49	509312	0
[>	Tb	159		ug/L			1763579	1616528	1
[	Tl	205	51.124	ug/L	1.292	2	66	2630346	1
[	Pb	208	50.901	ug/L	0.831	1	478	3321086	0
[	Bi	209		ug/L			4004626	3611119	0
[	Th	232	52.058	ug/L	1.308	2	50	3108774	1
[	U	238	51.704	ug/L	0.420	0	5	3046130	0

110.4 ✓

WJ10.02424

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:52:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			973124	839015	1
	Be	9	-0.000	ug/L	0.001	497	13	11	24
	C	13		ug/L			77283	66565	3
	Cl	37		ug/L			4414359	4195562	3
>	Sc	45		ug/L			1165173	997934	1
	V	51	0.009	ug/L	0.010	120	8375	7347	1
	V-1	51	-0.001	ug/L	0.000	41	94	67	8
	Cr	52	0.032	ug/L	0.036	111	24782	21739	1
	Cr	53	-0.001	ug/L	0.003	334	152	128	5
	Mn	55	0.002	ug/L	0.001	32	649	603	2
	Co	59	0.001	ug/L	0.000	72	95	91	6
>	Ge	72		ug/L			638204	609070	1
	Ni	60	-0.002	ug/L	0.000	14	38	31	3
	Ni	62	0.000	ug/L	0.041	17474	255	243	8
	Cu	63	0.004	ug/L	0.001	34	202	226	4
	Cu	65	0.002	ug/L	0.005	245	47	53	36
	Zn	66	-0.001	ug/L	0.004	448	197	186	4
	Zn	67	0.001	ug/L	0.012	1260	30	29	16
	Zn	68	-0.007	ug/L	0.008	114	269	246	3
	As	75	0.020	ug/L	0.006	31	97	131	8
	As-1	75	-0.168	ug/L	0.104	61	9948	9163	0
	Se	82	0.027	ug/L	0.009	31	-2	2	65
	Se	78	-0.624	ug/L	0.333	53	10159	9354	0
	Mo	98	0.011	ug/L	0.000	2	11	62	2
	Y	89		ug/L			409609	373853	1
	Kr	83		ug/L			442	437	5
>	In	115		ug/L			1367698	1300163	0
	Ag	107	0.001	ug/L	0.001	98	23	33	33
	Cd	111	0.002	ug/L	0.002	95	110	116	9
	Cd	114	0.001	ug/L	0.001	51	41	58	17
	Sb	121	0.033	ug/L	0.006	17	55	614	15
	Sb	123	0.033	ug/L	0.008	24	42	462	21
	Ba	135	0.000	ug/L	0.001	873	31	30	16
	Ba	137	0.001	ug/L	0.001	139	49	55	20
>	Tb	159		ug/L			1763579	1574966	1
	Tl	205	0.005	ug/L	0.001	21	66	311	15
	Pb	208	0.001	ug/L	0.001	99	478	460	6
	Bi	209		ug/L			4004626	3791208	0
	Th	232	0.081	ug/L	0.002	2	50	4745	2
	U	238	0.004	ug/L	0.001	16	5	262	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 09:56:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	779502	3
	Be	9	49.687	ug/L	2.410	4	13	111745	1
	C	13		ug/L			77283	62938	1
	Cl	37		ug/L			4414359	4113331	2
>	Sc	45		ug/L			1165173	992028	1
	V	51	46.763	ug/L	1.162	2	8375	967814	1
	V-1	51	46.834	ug/L	0.947	2	94	962013	1
	Cr	52	49.736	ug/L	2.626	5	24782	821698	3
	Cr	53	49.992	ug/L	1.333	2	152	90996	1
	Mn	55	48.308	ug/L	0.801	1	649	1122583	1
	Co	59	50.513	ug/L	1.232	2	95	840911	2
>	Ge	72		ug/L			638204	590252	0
	Ni	60	48.580	ug/L	0.735	1	38	182723	1
	Ni	62	49.580	ug/L	0.853	1	255	26717	0
	Cu	63	50.973	ug/L	2.077	4	202	406604	4
	Cu	65	49.625	ug/L	0.883	1	47	183226	2
	Zn	66	49.285	ug/L	2.356	4	197	99814	3
	Zn	67	49.386	ug/L	0.788	1	30	17372	2
	Zn	68	49.230	ug/L	1.232	2	269	72567	2
	As	75	49.393	ug/L	0.831	1	97	92649	0
	As-1	75	49.098	ug/L	0.911	1	9948	102027	0
	Se	82	50.292	ug/L	0.613	1	-2	9939	0
	Se	78	48.534	ug/L	0.878	1	10159	34974	0
	Mo	98	48.694	ug/L	0.809	1	11	226907	1
	Y	89		ug/L			409609	373671	1
	Kr	83		ug/L			442	485	0
>	In	115		ug/L			1367698	1237531	2
	Ag	107	55.929	ug/L	1.281	2	23	599213	0
	Cd	111	50.420	ug/L	1.578	3	110	288453	0
	Cd	114	50.514	ug/L	1.164	2	41	730872	1
	Sb	121	51.499	ug/L	1 738	3	55	833997	0
	Sb	123	52.509	ug/L	1.643	3	42	641493	0
	Ba	135	49.248	ug/L	1.068	2	31	287406	1
	Ba	137	49.145	ug/L	1.858	3	49	502152	1
>	Tb	159		ug/L			1763579	1565896	1
	Tl	205	53.142	ug/L	1.460	2	66	2648248	1
	Pb	208	51.217	ug/L	0.698	1	478	3237111	0
	Bi	209		ug/L			4004626	3592245	0
	Th	232	52.320	ug/L	1.312	2	50	3026474	0
	U	238	53.681	ug/L	1.425	2	5	3062864	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:02:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			973124	801272	0
	Be	**9**	**0.001**	ug/L	0.002	150	13	14	35
	C	**13**		ug/L			77283	66459	1
	Cl	**37**		ug/L			4414359	4084123	3
>	**Sc**	**45**		ug/L			1165173	1007262	1
	V	**51**	**-0.003**	ug/L	0.011	418	8375	7182	1
	V-1	**51**	**-0.000**	ug/L	0.000	437	94	80	11
	Cr	**52**	**0.006**	ug/L	0.042	757	24782	21508	1
	Cr	**53**	**0.015**	ug/L	0.002	13	152	159	2
	Mn	**55**	**0.004**	ug/L	0.003	79	649	649	12
	Co	**59**	**0.002**	ug/L	0.001	57	95	117	18
>	**Ge**	**72**		ug/L			638204	599528	1
	Ni	**60**	**-0.001**	ug/L	0.001	125	38	32	12
	Ni	**62**	**0.054**	ug/L	0.008	15	255	269	3
	Cu	**63**	**0.006**	ug/L	0.001	15	202	237	4
	Cu	**65**	**0.000**	ug/L	0.003	1177	47	45	23
	Zn	**66**	**0.001**	ug/L	0.002	254	197	186	2
	Zn	**67**	**0.005**	ug/L	0.008	162	30	30	10
	Zn	**68**	**0.006**	ug/L	0.012	218	269	261	5
	As	**75**	**0.010**	ug/L	0.005	47	97	111	7
	As-1	**75**	**-0.095**	ug/L	0.059	61	9948	9162	0
	Se	**82**	**-0.018**	ug/L	0.053	299	-2	-6	165
	Se	**78**	**-0.333**	ug/L	0.239	71	10159	9363	0
	Mo	**98**	**0.013**	ug/L	0.003	19	11	71	16
	Y	**89**		ug/L			409609	369945	0
	Kr	**83**		ug/L			442	455	2
>	**In**	**115**		ug/L			1367698	1275315	0
	Ag	**107**	**0.003**	ug/L	0.001	39	23	49	21
	Cd	**111**	**0.004**	ug/L	0.001	40	110	124	6
	Cd	**114**	**0.002**	ug/L	0.001	36	41	68	15
	Sb	**121**	**0.071**	ug/L	0.010	13	55	1233	12
	Sb	**123**	**0.069**	ug/L	0.007	9	42	913	8
	Ba	**135**	**0.001**	ug/L	0.002	167	31	37	33
	Ba	**137**	**0.001**	ug/L	0.001	58	49	59	11
>	**Tb**	**159**		ug/L			1763579	1581893	1
	Tl	**205**	**0.005**	ug/L	0.002	38	66	300	30
	Pb	**208**	**0.001**	ug/L	0.002	105	478	524	19
	Bi	**209**		ug/L			4004626	3807283	0
	Th	**232**	**0.116**	ug/L	0.002	1	50	6807	3
	U	**238**	**0.005**	ug/L	0.001	29	5	295	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:06:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			973124	810072	2
	Be	9	0.188	ug/L	0.012	6	13	450	4
	C	13		ug/L			77283	64377	3
	Cl	37		ug/L			4414359	3986510	0
>	Sc	45		ug/L			1165173	984980	1
	V	51	0.214	ug/L	0.006	3	8375	11455	2
	V-1	51	0.193	ug/L	0.005	2	94	4014	1
	Cr	52	0.597	ug/L	0.037	6	24782	30495	2
	Cr	53	0.519	ug/L	0.012	2	152	1066	1
	Mn	55	0.497	ug/L	0.008	1	649	12019	2
	Co	59	0.215	ug/L	0.003	1	95	3637	0
>	Ge	72		ug/L			638204	614966	1
	Ni	60	0.515	ug/L	0.005	1	38	2054	0
	Ni	62	0.526	ug/L	0.041	7	255	538	4
	Cu	63	0.521	ug/L	0.005	0	202	4525	1
	Cu	65	0.499	ug/L	0.014	2	47	1965	3
	Zn	66	3.972	ug/L	0.117	2	197	8558	3
	Zn	67	3.378	ug/L	0.020	0	30	1265	1
	Zn	68	3.759	ug/L	0.035	0	269	6013	1
	As	75	0.232	ug/L	0.011	4	97	546	4
	As-1	75	0.025	ug/L	0.087	355	9948	9633	0
	Se	82	0.533	ug/L	0.042	7	-2	106	9
	Se	78	-0.186	ug/L	0.302	162	10159	9686	0
	Mo	98	0.193	ug/L	0.002	1	11	947	1
	Y	89		ug/L			409609	372161	0
	Kr	83		ug/L			442	454	3
>	In	115		ug/L			1367698	1263574	1
	Ag	107	0.224	ug/L	0.006	2	23	2469	1
	Cd	111	0.110	ug/L	0.005	4	110	746	4
	Cd	114	0.105	ug/L	0.007	7	41	1594	5
	Sb	121	0.224	ug/L	0.014	6	55	3749	5
	Sb	123	0.223	ug/L	0.005	2	42	2828	1
	Ba	135	0.478	ug/L	0.014	2	31	2878	3
	Ba	137	0.476	ug/L	0.010	2	49	5019	1
>	Tb	159		ug/L			1763579	1560742	0
	Tl	205	0.207	ug/L	0.002	0	66	10365	0
	Pb	208	0.109	ug/L	0.001	1	478	7291	0
	Bi	209		ug/L			4004626	3788937	0
	Th	232	0.224	ug/L	0.003	1	50	12989	1
	U	238	0.209	ug/L	0.001	0	5	11893	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:10:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	796995	1
	Be	9	0.001	ug/L	0.002	191	13	13	35
	C	13		ug/L			77283	119150	1
	Cl	37		ug/L			4414359	11184152	2
>	Sc	45		ug/L			1165173	995297	1
	V	51	0.166	ug/L	0.032	19	8375	10587	7
	V-1	51	1.083	ug/L	0.016	1	94	22395	1
	Cr	52	0.726	ug/L	0.044	6	24782	32912	3
	Cr	53	4.038	ug/L	0.102	2	152	7495	1
	Mn	55	0.086	ug/L	0.003	3	649	2565	1
	Co	59	0.029	ug/L	0.002	7	95	560	7
>	Ge	72		ug/L			638204	573863	1
	Ni	60	0.388	ug/L	0.013	3	38	1453	2
	Ni	62	4.486	ug/L	0.704	15	255	2559	14
	Cu	63	1.194	ug/L	0 049	4	202	9442	4
	Cu	65	0.388	ug/L	0.005	1	47	1436	1
	Zn	66	0.952	ug/L	0.028	2	197	2047	2
	Zn	67	7.570	ug/L	0.132	1	30	2611	0
	Zn	68	0.369	ug/L	0.016	4	269	769	2
	As	75	0.113	ug/L	0.047	42	97	293	29
	As-1	75	0.349	ug/L	0.041	11	9948	9586	0
	Se	82	-0.157	ug/L	0.058	36	-2	-32	33
	Se	78	1.101	ug/L	0.196	17	10159	9698	0
	Mo	98	416.803	ug/L	9.267	2	11	1888270	2
	Y	89		ug/L			409609	368975	1
	Kr	83		ug/L			442	657	2
>	In	115		ug/L			1367698	1241315	0
	Ag	107	0.019	ug/L	0 001	3	23	221	3
	Cd	111	0.192	ug/L	0.003	1	110	1202	1
	Cd	114	0.311	ug/L	0.004	1	41	4550	1
	Sb	121	0.075	ug/L	0.005	6	55	1272	5
	Sb	123	0.076	ug/L	0.006	8	42	965	7
	Ba	135	0.050	ug/L	0.004	7	31	319	7
	Ba	137	0.039	ug/L	0.005	13	49	447	12
>	Tb	159		ug/L			1763579	1599099	0
	Tl	205	0.040	ug/L	0.001	2	66	2111	2
	Pb	208	0.037	ug/L	0.002	4	478	2827	3
	Bi	209		ug/L			4004626	3454070	0
	Th	232	0.138	ug/L	0.050	36	50	8221	35
	U	238	0.002	ug/L	0.001	53	5	106	50

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:17:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	816634	1
[	Be	9	-0.000	ug/L	0.001	1075	13	11	15
	C	13		ug/L			77283	120203	4
	Cl	37		ug/L			4414359	11562132	4
[>	Sc	45		ug/L			1165173	988480	1
[	V	51	0.126	ug/L	0.172	136	8375	9717	37
[	V-1	51	1.078	ug/L	0.025	2	94	22145	2
[	Cr	52	19.975	ug/L	0.158	0	24782	341590	0
[	Cr	53	23.434	ug/L	0.750	3	152	42574	2
[	Mn	55	19.050	ug/L	0.338	1	649	441443	1
[	Co	59	19.302	ug/L	0 311	1	95	320203	0
[>	Ge	72		ug/L			638204	550324	0
[	Ni	60	19.988	ug/L	0.122	0	38	70117	0
[	Ni	62	24.325	ug/L	0.328	1	255	12334	1
[	Cu	63	20.943	ug/L	0.727	3	202	155859	3
[	Cu	65	19.556	ug/L	0.630	3	47	67344	3
[	Zn	66	19.918	ug/L	0.273	1	197	37721	1
[	Zn	67	23.502	ug/L	0.949	4	30	7720	3
[	Zn	68	18.559	ug/L	0.591	3	269	25652	2
[	As	75	19.769	ug/L	0.372	1	97	34626	1
[	As-1	75	19.931	ug/L	0.411	2	9948	43713	1
[	Se	82	-0.165	ug/L	0.044	26	-2	-32	24
[	Se	78	1.565	ug/L	0.213	13	10159	9529	0
[	Mo	98	461.286	ug/L	27.651	5	11	2004281	6
	Y	89		ug/L			409609	361830	2
	Kr	83		ug/L			442	704	3
[>	In	115		ug/L			1367698	1276853	2
[	Ag	107	22.437	ug/L	0.339	1	23	248147	3
[	Cd	111	19.774	ug/L	0 508	2	110	116796	1
[	Cd	114	19.844	ug/L	0 366	1	41	296288	1
[	Sb	121	0.073	ug/L	0.003	4	55	1281	6
[	Sb	123	0.074	ug/L	0.002	2	42	967	3
[	Ba	135	0.046	ug/L	0.003	5	31	304	2
[	Ba	137	0.037	ug/L	0.002	4	49	441	2
[>	Tb	159		ug/L			1763579	1617785	1
[	Tl	205	0.037	ug/L	0.001	3	66	1986	4
[	Pb	208	0.033	ug/L	0.001	3	478	2603	1
[	Bi	209		ug/L			4004626	3426166	0
[	Th	232	0.048	ug/L	0.007	14	50	2901	13
[	U	238	0.001	ug/L	0.000	22	5	47	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:24:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	819169	2
	Be	9	180.579	ug/L	6.369	3	13	427119	2
	C	13		ug/L			77283	66560	4
	Cl	37		ug/L			4414359	4366359	2
>	Sc	45		ug/L			1165173	957184	0
	V	51	202.683	ug/L	1.875	0	8375	4025543	1
	V-1	51	199.285	ug/L	1.342	0	94	3950182	1
	Cr	52	208.100	ug/L	2.169	1	24782	3254452	1
	Cr	53	195.824	ug/L	1.232	0	152	343653	0
	Mn	55	193.789	ug/L	5.163	2	649	4343740	2
	Co	59	203.811	ug/L	5.075	2	95	3273451	2
>	Ge	72		ug/L			638204	538584	2
	Ni	60	190.824	ug/L	3.277	1	38	654698	0
	Ni	62	197.372	ug/L	1.876	0	255	96414	2
	Cu	63	197.356	ug/L	4.129	2	202	1435587	1
	Cu	65	193.193	ug/L	1.745	0	47	650640	1
	Zn	66	190.879	ug/L	1.709	0	197	352312	1
	Zn	67	190.065	ug/L	0.866	0	30	60935	2
	Zn	68	185.383	ug/L	5.786	3	269	248642	1
	As	75	201.494	ug/L	3.089	1	97	344583	0
	As-1	75	195.913	ug/L	2.666	1	9948	346360	1
	Se	82	211.427	ug/L	4.270	2	-2	38128	0
	Se	78	188.337	ug/L	2.257	1	10159	99141	1
	Mo	98	225.921	ug/L	7.472	3	11	960226	1
	Y	89		ug/L			409609	353543	1
	Kr	83		ug/L			442	674	2
>	In	115		ug/L			1367698	1217169	1
	Ag	107	250.525	ug/L	2.659	1	23	2640767	0
	Cd	111	198.908	ug/L	4.001	2	110	1119421	1
	Cd	114	209.793	ug/L	4.283	2	41	2986072	0
	Sb	121	220.411	ug/L	3.315	1	55	3512415	0
	Sb	123	223.329	ug/L	1.950	0	42	2684782	0
	Ba	135	193.402	ug/L	1.652	0	31	1110329	0
	Ba	137	195.629	ug/L	5.199	2	49	1966827	1
>	Tb	159		ug/L			1763579	1560229	2
	Tl	205	202.223	ug/L	6.432	3	66	10038236	0
	Pb	208	204.603	ug/L	6.928	3	478	12877352	0
	Bi	209		ug/L			4004626	3332715	0
	Th	232	205.429	ug/L	6.556	3	50	11836236	0
	U	238	205.307	ug/L	8.517	4	5	11666394	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:31:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			973124	851998	2
	Be	**9**	**0.004**	ug/L	0.002	53	13	22	26
	C	**13**		ug/L			77283	71840	5
	Cl	**37**		ug/L			4414359	4260100	2
>	**Sc**	**45**		ug/L			1165173	992039	0
	V	**51**	**0.013**	ug/L	0.005	40	8375	7391	2
	V-1	**51**	**0.019**	ug/L	0.003	13	94	471	12
	Cr	**52**	**0.062**	ug/L	0.020	32	24782	22102	1
	Cr	**53**	**0.085**	ug/L	0.010	12	152	284	6
	Mn	**55**	**0.020**	ug/L	0.003	13	649	1028	7
	Co	**59**	**0.002**	ug/L	0.001	65	95	113	19
>	**Ge**	**72**		ug/L			638204	586761	1
	Ni	**60**	**0.017**	ug/L	0.001	7	38	100	4
	Ni	**62**	**0.320**	ug/L	0.085	26	255	404	9
	Cu	**63**	**0.033**	ug/L	0.002	5	202	445	1
	Cu	**65**	**0.017**	ug/L	0.002	9	47	105	6
	Zn	**66**	**0.547**	ug/L	0.043	7	197	1280	5
	Zn	**67**	**0.482**	ug/L	0.057	11	30	196	9
	Zn	**68**	**0.527**	ug/L	0.041	7	269	1016	4
	As	**75**	**0.065**	ug/L	0.024	36	97	209	20
	As-1	**75**	**-0.036**	ug/L	0.079	216	9948	9076	0
	Se	**82**	**0.005**	ug/L	0 070	1352	-2	-1	768
	Se	**78**	**-0.214**	ug/L	0.284	132	10159	9226	0
	Mo	**98**	**0.052**	ug/L	0.018	33	11	251	31
	Y	**89**		ug/L			409609	368928	0
	Kr	**83**		ug/L			442	499	0
>	**In**	**115**		ug/L			1367698	1331409	1
	Ag	**107**	**0.012**	ug/L	0.013	113	23	157	98
	Cd	**111**	**0.009**	ug/L	0.011	123	110	161	42
	Cd	**114**	**0.007**	ug/L	0.008	116	41	152	86
	Sb	**121**	**0.153**	ug/L	0.019	12	55	2718	11
	Sb	**123**	**0.155**	ug/L	0.019	12	42	2079	11
	Ba	**135**	**0.039**	ug/L	0.007	18	31	278	17
	Ba	**137**	**0.039**	ug/L	0.003	8	49	478	9
>	**Tb**	**159**		ug/L			1763579	1636577	0
	Tl	**205**	**0.016**	ug/L	0.002	13	66	881	13
	Pb	**208**	**0.015**	ug/L	0.003	19	478	1431	14
	Bi	**209**		ug/L			4004626	3852418	1
	Th	**232**	**0.156**	ug/L	0.008	5	50	9460	5
	U	**238**	**0.011**	ug/L	0.001	11	5	675	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:37:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	835581	1
	Be	9	0.002	ug/L	0.001	34	13	17	13
	C	13		ug/L			77283	66044	1
	Cl	37		ug/L			4414359	4198758	0
>	Sc	45		ug/L			1165173	997311	0
	V	51	0.004	ug/L	0.004	81	8375	7259	0
	V-1	51	0.016	ug/L	0.001	6	94	402	5
	Cr	52	0.011	ug/L	0.020	185	24782	21389	1
	Cr	53	0.051	ug/L	0.004	8	152	224	2
	Mn	55	0.027	ug/L	0.002	7	649	1181	4
	Co	59	0.002	ug/L	0.001	44	95	118	13
>	Ge	72		ug/L			638204	581413	1
	Ni	60	0.030	ug/L	0.004	13	38	148	11
	Ni	62	0.346	ug/L	0.025	7	255	414	2
	Cu	63	0.059	ug/L	0.001	2	202	648	2
	Cu	65	0.044	ug/L	0.006	14	47	205	10
	Zn	66	1.343	ug/L	0.049	3	197	2853	2
	Zn	67	1.203	ug/L	0.034	2	30	444	3
	Zn	68	1.305	ug/L	0.073	5	269	2133	3
	As	75	0.050	ug/L	0.027	53	97	181	28
	As-1	75	0.014	ug/L	0.059	434	9948	9088	1
	Se	82	0.013	ug/L	0.087	671	-2	0	27107
	Se	78	0.007	ug/L	0.237	3522	10159	9258	1
	Mo	98	0.011	ug/L	0.002	22	11	61	19
	Y	89		ug/L			409609	367572	0
	Kr	83		ug/L			442	483	5
>	In	115		ug/L			1367698	1324973	2
	Ag	107	0.003	ug/L	0.001	30	23	53	20
	Cd	111	0.005	ug/L	0.002	51	110	134	9
	Cd	114	0.003	ug/L	0.001	31	41	87	19
	Sb	121	0.030	ug/L	0.007	23	55	564	18
	Sb	123	0.030	ug/L	0.005	17	42	434	12
	Ba	135	0.021	ug/L	0.001	3	31	162	3
	Ba	137	0.021	ug/L	0.001	5	49	279	1
>	Tb	159		ug/L			1763579	1610271	0
	Tl	205	0.006	ug/L	0.000	2	66	383	1
	Pb	208	0.020	ug/L	0.001	6	478	1712	5
	Bi	209		ug/L			4004626	3800787	1
	Th	232	0.036	ug/L	0.002	6	50	2194	6
	U	238	0.002	ug/L	0.000	11	5	126	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ERAP197
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:42:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	860190	2
[	Be	9	5.973	ug/L	0.113	1	13	14848	1
	C	13		ug/L			77283	67579	2
	Cl	37		ug/L			4414359	4251310	1
[>	Sc	45		ug/L			1165173	1003802	4
[	V	51	49.008	ug/L	3.785	7	8375	1023675	2
[	V-1	51	48.817	ug/L	2.712	5	94	1012999	0
[	Cr	52	57.172	ug/L	5.850	10	24782	950067	5
[	Cr	53	56.491	ug/L	1.978	3	152	103943	1
[	Mn	55	45.524	ug/L	2.664	5	649	1068713	2
[	Co	59	91.547	ug/L	4.326	4	95	1539884	1
[>	Ge	72		ug/L			638204	587837	2
[	Ni	60	70.651	ug/L	3.166	4	38	264468	2
[	Ni	62	70.584	ug/L	1.337	1	255	37777	2
[	Cu	63	31.666	ug/L	1.381	4	202	251453	2
[	Cu	65	30.677	ug/L	0.750	2	47	112812	3
[	Zn	66	49.657	ug/L	0.676	1	197	100158	1
[	Zn	67	47.272	ug/L	2.191	4	30	16548	2
[	Zn	68	50.045	ug/L	1.629	3	269	73446	2
[	As	75	22.573	ug/L	0.501	2	97	42204	0
[	As-1	75	21.984	ug/L	0 617	2	9948	50540	0
[	Se	82	33.866	ug/L	0.721	2	-2	6662	0
[	Se	78	31.027	ug/L	1.085	3	10159	25634	0
[	Mo	98	58.640	ug/L	1.350	2	11	272041	0
	Y	89		ug/L			409609	374710	1
	Kr	83		ug/L			442	511	6
[>	In	115		ug/L			1367698	1323480	1
[	Ag	107	48.633	ug/L	0.207	0	23	557510	1
[	Cd	111	15.308	ug/L	0.256	1	110	93781	1
[	Cd	114	15.207	ug/L	0 282	1	41	235398	0
[	Sb	121	32.323	ug/L	0.352	1	55	560165	0
[	Sb	123	32.845	ug/L	0.547	1	42	429340	0
[	Ba	135	42.901	ug/L	0.858	2	31	267806	0
[	Ba	137	42.633	ug/L	0.692	1	49	466150	0
[>	Tb	159		ug/L			1763579	1638510	0
[	Tl	205	18.305	ug/L	0.119	0	66	954829	1
[	Pb	208	223.100	ug/L	1 744	0	478	14754491	0
[	Bi	209		ug/L			4004626	3842335	1
[	Th	232	0.028	ug/L	0.001	2	50	1738	3
[	U	238	0.001	ug/L	0.000	2	5	82	3

WJ18.02434

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:47:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			973124	837178	1
	Be	9	48.659	ug/L	1.034	2	13	117634	0
	C	13		ug/L			77283	68660	2
	Cl	37		ug/L			4414359	4306901	1
>	Sc	45		ug/L			1165173	952772	2
	V	51	47.994	ug/L	1.668	3	8375	953604	1
	V-1	51	48.688	ug/L	1.726	3	94	960211	1
	Cr	52	50.886	ug/L	1.277	2	24782	807235	1
	Cr	53	53.399	ug/L	1.684	3	152	93330	1
	Mn	55	48.714	ug/L	2.047	4	649	1086707	2
	Co	59	52.275	ug/L	1.675	3	95	835585	2
>	Ge	72		ug/L			638204	585523	0
	Ni	60	48.011	ug/L	0.548	1	38	179136	0
	Ni	62	49.238	ug/L	0 703	1	255	26323	1
	Cu	63	49.429	ug/L	0.370	0	202	391119	1
	Cu	65	49.136	ug/L	0.680	1	47	179946	0
	Zn	66	50.147	ug/L	0.635	1	197	100762	0
	Zn	67	50.465	ug/L	1.158	2	30	17608	2
	Zn	68	49.331	ug/L	0.719	1	269	72144	2
	As	75	49.038	ug/L	0.366	0	97	91254	0
	As-1	75	48.010	ug/L	0 359	0	9948	99175	0
	Se	82	52.020	ug/L	0.341	0	-2	10199	0
	Se	78	47.629	ug/L	1.140	2	10159	34221	1
	Mo	98	50.874	ug/L	0.268	0	11	235186	1
	Y	89		ug/L			409609	362936	2
	Kr	83		ug/L			442	535	3
>	In	115		ug/L			1367698	1278096	1
	Ag	107	58.490	ug/L	1.963	3	23	647249	1
	Cd	111	50.810	ug/L	1.313	2	110	300311	1
	Cd	114	50.211	ug/L	1.694	3	41	750372	2
	Sb	121	51.565	ug/L	0.802	1	55	862875	0
	Sb	123	52.180	ug/L	1.127	2	42	658607	0
	Ba	135	47.983	ug/L	0.793	1	31	289252	0
	Ba	137	48.137	ug/L	0.807	1	49	508242	0
>	Tb	159		ug/L			1763579	1591338	1
	Tl	205	52.692	ug/L	0.843	1	66	2669018	0
	Pb	208	51.298	ug/L	0.331	0	478	3295211	0
	Bi	209		ug/L			4004626	3663669	1
	Th	232	53.371	ug/L	0.662	1	50	3138064	0
	U	238	54.247	ug/L	0.542	0	5	3146166	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 10:54:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			973124	865030	5
[	Be	9	-0.000	ug/L	0.001	1067	13	11	32
	C	13		ug/L			77283	66868	1
	Cl	37		ug/L			4414359	4185331	1
[>	Sc	45		ug/L			1165173	993485	3
[	V	51	-0.005	ug/L	0.012	257	8375	7040	3
[	V-1	51	0.006	ug/L	0.001	22	94	200	11
[	Cr	52	-0.009	ug/L	0.043	486	24782	20983	3
[	Cr	53	0.030	ug/L	0.007	23	152	183	3
[	Mn	55	0.004	ug/L	0.001	13	649	641	2
[	Co	59	0.001	ug/L	0.000	20	95	102	7
[>	Ge	72		ug/L			638204	582150	3
[	Ni	60	0.001	ug/L	0.002	288	38	37	17
[	Ni	62	0.229	ug/L	0.020	8	255	353	0
[	Cu	63	0.013	ug/L	0.003	21	202	285	5
[	Cu	65	0.001	ug/L	0.003	180	47	48	16
[	Zn	66	-0.002	ug/L	0.016	717	197	175	15
[	Zn	67	0.005	ug/L	0.010	226	30	29	15
[	Zn	68	-0.014	ug/L	0.013	90	269	225	5
[	As	75	0.035	ug/L	0 011	31	97	153	10
[	As-1	75	-0.045	ug/L	0 173	385	9948	8984	0
[	Se	82	-0.068	ug/L	0.073	107	-2	-16	89
[	Se	78	-0.196	ug/L	0.567	289	10159	9158	0
[	Mo	98	0.016	ug/L	0.003	17	11	84	12
	Y	89		ug/L			409609	367778	1
	Kr	83		ug/L			442	504	5
[>	In	115		ug/L			1367698	1285984	1
[	Ag	107	0.003	ug/L	0.002	69	23	60	44
[	Cd	111	0.006	ug/L	0.002	26	110	137	7
[	Cd	114	0.002	ug/L	0.001	53	41	71	24
[	Sb	121	0.078	ug/L	0.010	12	55	1363	11
[	Sb	123	0.079	ug/L	0.010	12	42	1042	11
[	Ba	135	0.001	ug/L	0.001	64	31	35	11
[	Ba	137	0.001	ug/L	0.001	161	49	52	18
[>	Tb	159		ug/L			1763579	1574328	1
[	Tl	205	0.005	ug/L	0.001	28	66	317	22
[	Pb	208	0.002	ug/L	0.001	34	478	534	6
[	Bi	209		ug/L			4004626	3812843	0
[	Th	232	0.121	ug/L	0.006	5	50	7104	5
[	U	238	0.005	ug/L	0.001	29	5	277	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB2 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:00:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			973124	890447	3
[	Be	9	0.001	ug/L	0.001	89	13	15	19
	C	13		ug/L			77283	81240	2
	Cl	37		ug/L			4414359	4272942	5
[>	Sc	45		ug/L			1165173	1022035	1
[	V	51	0.088	ug/L	0.005	6	8375	9203	0
[	V-1	51	0.080	ug/L	0.003	4	94	1769	2
[	Cr	52	0.130	ug/L	0.020	15	24782	23887	1
[	Cr	53	0.101	ug/L	0.004	3	152	322	3
[	Mn	55	0.595	ug/L	0.004	0	649	14802	1
[	Co	59	0.015	ug/L	0.000	3	95	335	2
[>	Ge	72		ug/L			638204	595614	1
[	Ni	60	0.065	ug/L	0.002	3	38	284	3
[	Ni	62	0.289	ug/L	0.058	20	255	393	6
[	Cu	63	0.204	ug/L	0.003	1	202	1833	0
[	Cu	65	0.185	ug/L	0.016	8	47	734	7
[	Zn	66	2.725	ug/L	0.149	5	197	5740	3
[	Zn	67	2.395	ug/L	0.064	2	30	877	4
[	Zn	68	2.703	ug/L	0.098	3	269	4256	1
[	As	75	0.059	ug/L	0.007	11	97	202	5
[	As-1	75	-0.070	ug/L	0.091	130	9948	9148	0
[	Se	82	-0.014	ug/L	0.022	158	-2	-5	79
[	Se	78	-0.330	ug/L	0.337	102	10159	9303	0
[	Mo	98	0.016	ug/L	0.003	18	11	87	14
	Y	89		ug/L			409609	379287	1
	Kr	83		ug/L			442	508	2
[>	In	115		ug/L			1367698	1325602	0
[	Ag	107	0.002	ug/L	0 000	13	23	50	7
[	Cd	111	0.005	ug/L	0.000	7	110	137	2
[	Cd	114	0.004	ug/L	0.001	18	41	100	11
[	Sb	121	0.026	ug/L	0.004	13	55	506	12
[	Sb	123	0.027	ug/L	0.003	11	42	395	10
[	Ba	135	0.209	ug/L	0.006	2	31	1339	2
[	Ba	137	0.209	ug/L	0.002	1	49	2340	0
[>	Tb	159		ug/L			1763579	1639965	1
[	Tl	205	0.004	ug/L	0.000	1	66	265	1
[	Pb	208	0.159	ug/L	0.004	2	478	10942	2
[	Bi	209		ug/L			4004626	3866852	1
[	Th	232	0.084	ug/L	0.015	17	50	5121	16
[	U	238	0.002	ug/L	0.000	16	5	108	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:04:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			973124	854647	4
	Be	9	0.012	ug/L	0 001	11	13	41	12
	C	13		ug/L			77283	76930	3
	Cl	37		ug/L			4414359	4280747	1
>	Sc	45		ug/L			1165173	1012100	1
	V	51	2.046	ug/L	0.024	1	8375	50170	1
	V-1	51	2.054	ug/L	0.011	0	94	43128	1
	Cr	52	2.714	ug/L	0.059	2	24782	66108	0
	Cr	53	2.742	ug/L	0.075	2	152	5218	2
	Mn	55	82.021	ug/L	2.064	2	649	1943905	1
	Co	59	1.072	ug/L	0.039	3	95	18285	2
>	Ge	72		ug/L			638204	591285	2
	Ni	60	3.376	ug/L	0.181	5	38	12747	4
	Ni	62	3.672	ug/L	0 266	7	255	2198	4
	Cu	63	15.241	ug/L	0.304	1	202	121887	2
	Cu	65	14.926	ug/L	0.646	4	47	55190	1
	Zn	66	114.063	ug/L	4.048	3	197	231086	1
	Zn	67	101.053	ug/L	6.196	6	30	35538	3
	Zn	68	111.893	ug/L	3.019	2	269	164846	0
	As	75	1.065	ug/L	0.052	4	97	2088	1
	As-1	75	0.960	ug/L	0.181	18	9948	11029	0
	Se	82	0.167	ug/L	0.074	44	-2	30	46
	Se	78	-0.013	ug/L	0.543	4188	10159	9400	0
	Mo	98	1.620	ug/L	0.048	2	11	7567	1
	Y	89		ug/L			409609	387357	1
	Kr	83		ug/L			442	522	4
>	In	115		ug/L			1367698	1329964	1
	Ag	107	0.040	ug/L	0 001	2	23	477	1
	Cd	111	0.565	ug/L	0.015	2	110	3580	1
	Cd	114	0.539	ug/L	0.011	2	41	8419	2
	Sb	121	0.711	ug/L	0.013	1	55	12434	0
	Sb	123	0.709	ug/L	0.002	0	42	9361	1
	Ba	135	30.319	ug/L	0.915	3	31	190197	2
	Ba	137	29.972	ug/L	0.642	2	49	329328	1
>	Tb	159		ug/L			1763579	1642182	0
	Tl	205	0.063	ug/L	0.003	4	66	3355	3
	Pb	208	9.333	ug/L	0.050	0	478	619049	0
	Bi	209		ug/L			4004626	3699858	0
	Th	232	0.124	ug/L	0 016	13	50	7583	13
	U	238	0.065	ug/L	0.001	1	5	3892	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:08:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

RRB

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	851677	0
	Be	9	0.013	ug/L	0.002	17	13	44	13
	C	13		ug/L			77283	72366	4
	Cl	37		ug/L			4414359	4321170	0
>	Sc	45		ug/L			1165173	1017993	2
	V	51	1.788	ug/L	0.057	3	8375	45009	0
	V-1	51	1.784	ug/L	0.049	2	94	37670	1
	Cr	52	2.287	ug/L	0.102	4	24782	59431	2
	Cr	53	2.271	ug/L	0.060	2	152	4368	2
	Mn	55	80.303	ug/L	2.828	3	649	1913783	2
	Co	59	1.017	ug/L	0.047	4	95	17436	2
>	Ge	72		ug/L			638204	567030	0
	Ni	60	3.234	ug/L	0.068	2	38	11716	1
	Ni	62	3.487	ug/L	0 116	3	255	2016	2
	Cu	63	14.549	ug/L	0 352	2	202	111606	2
	Cu	65	13.953	ug/L	0.159	1	47	49518	0
	Zn	66	117.469	ug/L	1.256	1	197	228363	1
	Zn	67	99.764	ug/L	1.254	1	30	33684	1
	Zn	68	114.304	ug/L	1.904	1	269	161569	2
	As	75	1.039	ug/L	0.034	3	97	1957	2
	As-1	75	1.128	ug/L	0.086	7	9948	10888	1
	Se	82	0.147	ug/L	0.021	14	-2	25	15
	Se	78	0.718	ug/L	0.222	30	10159	9389	0
	Mo	98	1.558	ug/L	0.018	1	11	6984	1
	Y	89		ug/L			409609	373411	1
	Kr	83		ug/L			442	537	1
>	In	115		ug/L			1367698	1321801	0
	Ag	107	0.037	ug/L	0.004	10	23	447	9
	Cd	111	0.552	ug/L	0.008	1	110	3479	0
	Cd	114	0.528	ug/L	0.007	1	41	8209	1
	Sb	121	0.557	ug/L	0.013	2	55	9699	2
	Sb	123	0.570	ug/L	0.005	0	42	7480	0
	Ba	135	29.945	ug/L	0.132	0	31	186731	0
	Ba	137	30.049	ug/L	0.424	1	49	328183	1
>	Tb	159		ug/L			1763579	1625947	0
	Tl	205	0.061	ug/L	0.001	2	66	3204	1
	Pb	208	8.629	ug/L	0.029	0	478	566721	0
	Bi	209		ug/L			4004626	3727021	1
	Th	232	0.078	ug/L	0.002	2	50	4736	2
	U	238	0.064	ug/L	0.002	2	5	3768	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:12:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	**Li**	**6**		ug/L			973124	872019	1
	Be	**9**	**21.815**	ug/L	1.005	4	13	54929	3
	C	**13**		ug/L			77283	73405	2
	Cl	**37**		ug/L			4414359	4339334	1
>	**Sc**	**45**		ug/L			1165173	1029672	0
	V	**51**	**23.375**	ug/L	0.732	3	8375	505885	2
	V-1	**51**	**23.447**	ug/L	0.729	3	94	499960	2
	Cr	**52**	**24.896**	ug/L	0.314	1	24782	438083	0
	Cr	**53**	**25.158**	ug/L	0.348	1	152	47608	0
	Mn	**55**	**102.564**	ug/L	1.257	1	649	2473379	0
	Co	**59**	**24.526**	ug/L	0.794	3	95	423806	2
>	**Ge**	**72**		ug/L			638204	579995	1
	Ni	**60**	**26.299**	ug/L	0.629	2	38	97205	1
	Ni	**62**	**26.792**	ug/L	0.757	2	255	14297	3
	Cu	**63**	**37.812**	ug/L	0.776	2	202	296363	1
	Cu	**65**	**37.169**	ug/L	0.633	1	47	134836	0
	Zn	**66**	**179.018**	ug/L	4.386	2	197	355805	1
	Zn	**67**	**158.040**	ug/L	2.051	1	30	54558	0
	Zn	**68**	**174.784**	ug/L	4.093	2	269	252524	1
	As	**75**	**25.274**	ug/L	0.892	3	97	46617	2
	As-1	**75**	**24.527**	ug/L	0.864	3	9948	54597	1
	Se	**82**	**74.788**	ug/L	1.065	1	-2	14524	0
	Se	**78**	**69.553**	ug/L	1.642	2	10159	45251	1
	Mo	**98**	**26.795**	ug/L	0.816	3	11	122671	1
	Y	**89**		ug/L			409609	379838	2
	Kr	**83**		ug/L			442	518	4
>	**In**	**115**		ug/L			1367698	1305998	1
	Ag	**107**	**27.621**	ug/L	1.208	4	23	312335	3
	Cd	**111**	**24.214**	ug/L	0.485	2	110	146308	0
	Cd	**114**	**23.448**	ug/L	0.073	0	41	358206	1
	Sb	**121**	**24.287**	ug/L	0.163	0	55	415353	0
	Sb	**123**	**24.694**	ug/L	0.463	1	42	318536	0
	Ba	**135**	**52.464**	ug/L	0.892	1	31	323178	0
	Ba	**137**	**51.522**	ug/L	1.032	2	49	555891	1
>	**Tb**	**159**		ug/L			1763579	1626105	0
	Tl	**205**	**24.136**	ug/L	0.111	0	66	1249433	0
	Pb	**208**	**32.544**	ug/L	0.208	0	478	2136393	0
	Bi	**209**		ug/L			4004626	3746510	1
	Th	**232**	**19.685**	ug/L	0.201	1	50	1182832	0
	U	**238**	**24.742**	ug/L	0.489	1	5	1466338	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:16:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	873644	1
	Be	9	0.047	ug/L	0.005	10	13	130	8
	C	13		ug/L			77283	90717	5
	Cl	37		ug/L			4414359	4375648	2
>	Sc	45		ug/L			1165173	1038072	2
	V	51	12.353	ug/L	0.523	4	8375	272901	1
	V-1	51	12.432	ug/L	0.469	3	94	267163	1
	Cr	52	11.495	ug/L	0.549	4	24782	215681	2
	Cr	53	11.780	ug/L	0.388	3	152	22537	1
	Mn	55	105.537	ug/L	2.646	2	649	2564940	0
	Co	59	2.357	ug/L	0.084	3	95	41122	1
>	Ge	72		ug/L			638204	583238	1
	Ni	60	10.451	ug/L	0.246	2	38	38868	1
	Ni	62	11.288	ug/L	0.406	3	255	6189	2
	Cu	63	31.098	ug/L	1.566	5	202	245076	3
	Cu	65	29.690	ug/L	0.638	2	47	108329	2
	Zn	66	262.309	ug/L	9.621	3	197	524249	3
	Zn	67	220.366	ug/L	2.345	1	30	76497	1
	Zn	68	249.672	ug/L	4.643	1	269	362639	0
	As	75	1.642	ug/L	0.015	0	97	3128	0
	As-1	75	1.615	ug/L	0.090	5	9948	12108	0
	Se	82	0.073	ug/L	0.062	85	-2	11	105
	Se	78	0.243	ug/L	0.256	105	10159	9409	0
	Mo	98	1.281	ug/L	0.017	1	11	5905	1
	Y	89		ug/L			409609	415993	2
	Kr	83		ug/L			442	545	4
>	In	115		ug/L			1367698	1333030	1
	Ag	107	0.111	ug/L	0 003	2	23	1305	2
	Cd	111	0.489	ug/L	0.013	2	110	3120	1
	Cd	114	0.465	ug/L	0.013	2	41	7287	2
	Sb	121	0.127	ug/L	0.005	4	55	2276	2
	Sb	123	0.131	ug/L	0 010	7	42	1767	6
	Ba	135	34.860	ug/L	0.727	2	31	219181	0
	Ba	137	34.842	ug/L	0.209	0	49	383752	0
>	Tb	159		ug/L			1763579	1643374	1
	Tl	205	0.185	ug/L	0.003	1	66	9747	0
	Pb	208	25.993	ug/L	0.404	1	478	1724430	0
	Bi	209		ug/L			4004626	3841585	1
	Th	232	0.374	ug/L	0.022	5	50	22763	6
	U	238	0.086	ug/L	0.003	3	5	5165	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 CDUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:20:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	895475	2
[	Be	9	0.100	ug/L	0.007	6	13	270	4
	C	13		ug/L			77283	101465	6
	Cl	37		ug/L			4414359	4409879	2
[>	Sc	45		ug/L			1165173	1063793	0
|	V	51	17.645	ug/L	0.644	3	8375	396450	3
|	V-1	51	17.787	ug/L	0.926	5	94	391907	5
|	Cr	52	31.026	ug/L	0.808	2	24782	558497	2
|	Cr	53	31.553	ug/L	0.572	1	152	61657	1
|	Mn	55	176.405	ug/L	2.353	1	649	4394816	1
[	Co	59	5.799	ug/L	0.106	1	95	103608	1
[>	Ge	72		ug/L			638204	593013	1
|	Ni	60	31.595	ug/L	0.758	2	38	119417	2
|	Ni	62	33.113	ug/L	1.166	3	255	18003	2
|	Cu	63	80.210	ug/L	0.639	0	202	642636	0
|	Cu	65	78.021	ug/L	0.728	0	47	289385	1
|	Zn	66	655.291	ug/L	11.431	1	197	1331532	2
|	Zn	67	558.960	ug/L	18.296	3	30	197210	2
|	Zn	68	608.616	ug/L	4.387	0	269	898634	1
|	As	75	4.329	ug/L	0.088	2	97	8240	0
|	As-1	75	4.134	ug/L	0.150	3	9948	17094	0
|	Se	82	0.269	ug/L	0 097	36	-2	50	38
|	Se	78	-0.050	ug/L	0.191	379	10159	9412	0
[	Mo	98	3.837	ug/L	0.135	3	11	17971	2
	Y	89		ug/L			409609	445877	2
	Kr	83		ug/L			442	582	5
[>	In	115		ug/L			1367698	1323520	1
|	Ag	107	0.475	ug/L	0.016	3	23	5471	2
|	Cd	111	1.743	ug/L	0.016	0	110	10772	0
|	Cd	114	1.596	ug/L	0.044	2	41	24745	1
|	Sb	121	0.124	ug/L	0.001	0	55	2208	1
|	Sb	123	0.130	ug/L	0.005	3	42	1741	4
|	Ba	135	61.867	ug/L	1.218	1	31	386214	1
[	Ba	137	61.585	ug/L	1.109	1	49	673359	0
[>	Tb	159		ug/L			1763579	1648459	1
|	Tl	205	0.269	ug/L	0.005	1	66	14192	0
|	Pb	208	86.230	ug/L	1.291	1	478	5736877	0
|	Bi	209		ug/L			4004626	3983995	0
|	Th	232	0.586	ug/L	0 009	1	50	35733	1
[	U	238	0.271	ug/L	0.007	2	5	16287	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:25:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

RL RJ

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	**Li**	**6**		ug/L			973124	883476	2
[	**Be**	**9**	**0.103**	ug/L	0.017	16	13	273	14
	C	**13**		ug/L			77283	95445	0
	Cl	**37**		ug/L			4414359	4424176	1
[>	**Sc**	**45**		ug/L			1165173	1035997	2
[	**V**	**51**	**19.335**	ug/L	0.183	0	8375	422318	1
[	**V-1**	**51**	**19.651**	ug/L	0.004	0	94	421660	2
[	**Cr**	**52**	**32.440**	ug/L	1.367	4	24782	567379	2
[	**Cr**	**53**	**33.595**	ug/L	0.885	2	152	63903	1
[	**Mn**	**55**	**169.346**	ug/L	5.446	3	649	4106986	1
[	**Co**	**59**	**5.924**	ug/L	0.188	3	95	103029	1
[>	**Ge**	**72**		ug/L			638204	588027	2
[	**Ni**	**60**	**31.537**	ug/L	1.055	3	38	118175	3
[	**Ni**	**62**	**33.731**	ug/L	1.071	3	255	18176	1
[	**Cu**	**63**	**86.635**	ug/L	3.238	3	202	687892	1
[	**Cu**	**65**	**84.574**	ug/L	1.219	1	47	310972	0
[	**Zn**	**66**	**743.367**	ug/L	23.550	3	197	1496959	1
[	**Zn**	**67**	**655.962**	ug/L	10.174	1	30	229477	1
[	**Zn**	**68**	**722.477**	ug/L	25.555	3	269	1057150	1
[	**As**	**75**	**3.887**	ug/L	0.129	3	97	7342	0
[	**As-1**	**75**	**3.731**	ug/L	0.247	6	9948	16187	0
[	**Se**	**82**	**0.195**	ug/L	0.026	13	-2	35	14
[	**Se**	**78**	**0.027**	ug/L	0.453	1697	10159	9370	0
[	**Mo**	**98**	**3.830**	ug/L	0.139	3	11	17779	1
	Y	**89**		ug/L			409609	443603	1
	Kr	**83**		ug/L			442	588	2
[>	**In**	**115**		ug/L			1367698	1306281	1
[	**Ag**	**107**	**0.665**	ug/L	0.012	1	23	7541	0
[	**Cd**	**111**	**1.980**	ug/L	0.030	1	110	12060	0
[	**Cd**	**114**	**1.849**	ug/L	0.050	2	41	28281	1
[	**Sb**	**121**	**0.164**	ug/L	0.003	1	55	2864	0
[	**Sb**	**123**	**0.163**	ug/L	0.005	2	42	2148	1
[	**Ba**	**135**	**70.026**	ug/L	0.517	0	31	431470	1
[	**Ba**	**137**	**70.099**	ug/L	2.562	3	49	756244	1
[>	**Tb**	**159**		ug/L			1763579	1649982	1
[	**Tl**	**205**	**0.260**	ug/L	0.005	1	66	13697	1
[	**Pb**	**208**	**95.593**	ug/L	0.728	0	478	6366398	0
[	**Bi**	**209**		ug/L			4004626	3926238	1
[	**Th**	**232**	**0.603**	ug/L	0.005	0	50	36837	0
[	**U**	**238**	**0.291**	ug/L	0.004	1	5	17494	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 CSPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:29:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			973124	857391	2
[	Be	9	23.583	ug/L	0.444	1	13	58400	2
	C	13		ug/L			77283	85715	0
	Cl	37		ug/L			4414359	4442826	2
[>	Sc	45		ug/L			1165173	1042494	1
[	V	51	37.460	ug/L	0.580	1	8375	816339	1
[	V-1	51	37.688	ug/L	0.647	1	94	813577	1
[	Cr	52	49.303	ug/L	0.330	0	24782	856627	1
[	Cr	53	50.137	ug/L	0.666	1	152	95915	1
[	Mn	55	164.768	ug/L	4.919	2	649	4021440	1
[	Co	59	29.264	ug/L	0.146	0	95	511987	1
[>	Ge	72		ug/L			638204	582122	1
[	Ni	60	50.208	ug/L	1.203	2	38	186212	1
[	Ni	62	49.928	ug/L	0.273	0	255	26533	1
[	Cu	63	96.214	ug/L	1.805	1	202	756643	1
[	Cu	65	93.430	ug/L	1.642	1	47	340099	0
[	Zn	66	658.709	ug/L	12.347	1	197	1313681	1
[	Zn	67	564.384	ug/L	8.602	1	30	195521	2
[	Zn	68	639.825	ug/L	16.146	2	269	927073	1
[	As	75	28.873	ug/L	1.192	4	97	53433	2
[	As-1	75	27.939	ug/L	0.904	3	9948	61158	1
[	Se	82	81.949	ug/L	2.991	3	-2	15970	2
[	Se	78	75.917	ug/L	1.800	2	10159	48720	0
[	Mo	98	27.775	ug/L	0.292	1	11	127643	0
	Y	89		ug/L			409609	431362	1
	Kr	83		ug/L			442	581	1
[>	In	115		ug/L			1367698	1314475	1
[	Ag	107	30.122	ug/L	0.567	1	23	342959	2
[	Cd	111	26.596	ug/L	0.521	1	110	161739	0
[	Cd	114	26.169	ug/L	0.348	1	41	402346	1
[	Sb	121	3.079	ug/L	0.048	1	55	53039	0
[	Sb	123	3.125	ug/L	0.029	0	42	40608	0
[	Ba	135	82.574	ug/L	1.465	1	31	511939	0
[	Ba	137	83.218	ug/L	1.558	1	49	903689	1
[>	Tb	159		ug/L			1763579	1622486	1
[	Tl	205	25.079	ug/L	0.321	1	66	1295279	1
[	Pb	208	100.636	ug/L	1.940	1	478	6590004	0
[	Bi	209		ug/L			4004626	3889808	1
[	Th	232	25.217	ug/L	0.432	1	50	1511711	0
[	U	238	25.768	ug/L	0.537	2	5	1523689	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 CPOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:33:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	872613	1
[	Be	9	23.743	ug/L	0.723	3	13	59841	2
	C	13		ug/L			77283	94787	1
	Cl	37		ug/L			4414359	4619059	0
[>	Sc	45		ug/L			1165173	1041854	2
[	V	51	41.469	ug/L	1.934	4	8375	901789	2
[	V-1	51	41.043	ug/L	2.099	5	94	884803	2
[	Cr	52	57.620	ug/L	2.054	3	24782	996820	4
[	Cr	53	56.097	ug/L	1.526	2	152	107208	1
[	Mn	55	188.664	ug/L	3.624	1	649	4602328	2
[	Co	59	30.409	ug/L	1.165	3	95	531378	1
[>	Ge	72		ug/L			638204	596491	0
[	Ni	60	55.265	ug/L	0.485	0	38	210080	1
[	Ni	62	55.718	ug/L	1.549	2	255	30319	3
[	Cu	63	109.819	ug/L	0.518	0	202	884976	0
[	Cu	65	106.356	ug/L	1.814	1	47	396766	1
[	Zn	66	805.810	ug/L	13.825	1	197	1646758	1
[	Zn	67	702.069	ug/L	4.515	0	30	249198	1
[	Zn	68	767.946	ug/L	19.437	2	269	1140267	1
[	As	75	29.236	ug/L	0.315	1	97	55460	0
[	As-1	75	28.419	ug/L	0.382	1	9948	63601	1
[	Se	82	82.752	ug/L	0.947	1	-2	16530	0
[	Se	78	77.099	ug/L	1.069	1	10159	50559	0
[	Mo	98	28.974	ug/L	0.231	0	11	136451	0
	Y	89		ug/L			409609	442934	2
	Kr	83		ug/L			442	587	6
[>	In	115		ug/L			1367698	1321740	1
[	Ag	107	30.292	ug/L	0.722	2	23	346737	2
[	Cd	111	27.320	ug/L	0.657	2	110	167031	0
[	Cd	114	26.715	ug/L	0.317	1	41	412968	1
[	Sb	121	25.831	ug/L	0.680	2	55	446957	0
[	Sb	123	25.574	ug/L	0.569	2	42	333821	0
[	Ba	135	89.849	ug/L	1.881	2	31	560056	0
[	Ba	137	90.428	ug/L	1.444	1	49	987320	0
[>	Tb	159		ug/L			1763579	1641355	1
[	Tl	205	25.187	ug/L	0.350	1	66	1315997	0
[	Pb	208	119.193	ug/L	0.616	0	478	7896731	0
[	Bi	209		ug/L			4004626	3903639	0
[	Th	232	26.131	ug/L	0.478	1	50	1584666	0
[	U	238	26.212	ug/L	0.345	1	5	1567985	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB2SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:37:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	**Li**	**6**		ug/L			973124	835203	3
[	**Be**	**9**	**24.554**	ug/L	1.341	5	13	59162	1
	C	**13**		ug/L			77283	73407	3
	Cl	**37**		ug/L			4414359	4238368	1
[>	**Sc**	**45**		ug/L			1165173	977115	0
[	**V**	**51**	**23.979**	ug/L	0.333	1	8375	492310	0
[	**V-1**	**51**	**24.290**	ug/L	0.471	1	94	491507	1
[	**Cr**	**52**	**25.569**	ug/L	0.349	1	24782	426436	1
[	**Cr**	**53**	**26.696**	ug/L	0.765	2	152	47930	2
[	**Mn**	**55**	**25.298**	ug/L	0 398	1	649	579322	0
[	**Co**	**59**	**27.451**	ug/L	1.017	3	95	450102	2
[>	**Ge**	**72**		ug/L			638204	580452	2
[	**Ni**	**60**	**25.417**	ug/L	0.639	2	38	93992	0
[	**Ni**	**62**	**26.590**	ug/L	1.312	4	255	14187	2
[	**Cu**	**63**	**26.868**	ug/L	1.108	4	202	210704	2
[	**Cu**	**65**	**26.869**	ug/L	0.587	2	47	97537	0
[	**Zn**	**66**	**83.718**	ug/L	2.435	2	197	166568	0
[	**Zn**	**67**	**73.501**	ug/L	2.276	3	30	25403	2
[	**Zn**	**68**	**80.963**	ug/L	2.011	2	269	117180	2
[	**As**	**75**	**26.194**	ug/L	0.664	2	97	48341	0
[	**As-1**	75	**25.400**	ug/L	0.835	3	9948	56250	0
[	**Se**	**82**	**83.344**	ug/L	1.691	2	-2	16195	0
[	**Se**	**78**	**77.620**	ug/L	2.227	2	10159	49451	0
[	**Mo**	**98**	**26.742**	ug/L	0.545	2	11	122516	1
	Y	**89**		ug/L			409609	370040	0
	Kr	**83**		ug/L			442	553	6
[>	**In**	**115**		ug/L			1367698	1312312	1
[	**Ag**	**107**	**30.778**	ug/L	0.954	3	23	349782	2
[	**Cd**	**111**	**25.641**	ug/L	0.127	0	110	155696	0
[	**Cd**	**114**	**25.824**	ug/L	0.305	1	41	396380	0
[	**Sb**	**121**	**25.716**	ug/L	0.477	1	55	441872	0
[	**Sb**	**123**	**26.597**	ug/L	0.245	0	42	344775	0
[	**Ba**	**135**	**24.517**	ug/L	0.201	0	31	151785	0
[	**Ba**	**137**	**23.909**	ug/L	0.124	0	49	259264	1
[>	**Tb**	**159**		ug/L			1763579	1588536	0
[	**Tl**	**205**	**26.280**	ug/L	0.116	0	66	1329037	0
[	**Pb**	**208**	**26.707**	ug/L	0.094	0	478	1712839	0
[	**Bi**	**209**		ug/L			4004626	3817175	1
[	**Th**	**232**	**25.959**	ug/L	0.248	0	50	1523745	0
[	**U**	**238**	**26.632**	ug/L	0.312	1	5	1542065	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:42:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			973124	823029	0
[	Be	9	49.555	ug/L	0.694	1	13	117804	1
	C	13		ug/L			77283	66378	0
	Cl	37		ug/L			4414359	4170848	2
[>	Sc	45		ug/L			1165173	978145	0
[	V	51	46.056	ug/L	0.824	1	8375	940104	1
[	V-1	51	46.370	ug/L	0.559	1	94	939266	0
[	Cr	52	49.602	ug/L	0.685	1	24782	808528	1
[	Cr	53	50.742	ug/L	1.279	2	152	91095	2
[	Mn	55	47.657	ug/L	0.577	1	649	1092031	0
[	Co	59	50.815	ug/L	1.441	2	95	834148	2
[>	Ge	72		ug/L			638204	567001	0
[	Ni	60	49.493	ug/L	0.566	1	38	178825	0
[	Ni	62	49.185	ug/L	0.645	1	255	25465	2
[	Cu	63	51.444	ug/L	0.723	1	202	394141	0
[	Cu	65	49.695	ug/L	1.310	2	47	176252	2
[	Zn	66	51.213	ug/L	0.632	1	197	99648	0
[	Zn	67	49.560	ug/L	1.490	3	30	16743	2
[	Zn	68	51.665	ug/L	1.734	3	269	73148	3
[	As	75	50.704	ug/L	1.013	1	97	91360	1
[	As-1	75	49.746	ug/L	0.898	1	9948	99187	0
[	Se	82	53.345	ug/L	0.777	1	-2	10128	0
[	Se	78	49.218	ug/L	0.538	1	10159	33945	0
[	Mo	98	52.611	ug/L	0.540	1	11	235510	0
	Y	89		ug/L			409609	366912	1
	Kr	83		ug/L			442	534	3
[>	In	115		ug/L			1367698	1269875	1
[	Ag	107	58.735	ug/L	0.899	1	23	646076	2
[	Cd	111	50.365	ug/L	0 626	1	110	295811	0
[	Cd	114	49.740	ug/L	1.204	2	41	738624	0
[	Sb	121	51.686	ug/L	0.840	1	55	859342	0
[	Sb	123	51.390	ug/L	1.479	2	42	644481	1
[	Ba	135	47.890	ug/L	1.098	2	31	286825	0
[	Ba	137	47.235	ug/L	0.247	0	49	495589	1
[>	Tb	159		ug/L			1763579	1583622	0
[	Tl	205	53.281	ug/L	0.592	1	66	2685976	0
[	Pb	208	50.558	ug/L	0.938	1	478	3231817	1
[	Bi	209		ug/L			4004626	3641226	0
[	Th	232	53.776	ug/L	0.274	0	50	3146869	1
[	U	238	54.682	ug/L	1.134	2	5	3156184	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:49:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			973124	822975	1
[	Be	9	0.001	ug/L	0.001	70	13	14	14
	C	13		ug/L			77283	67146	2
	Cl	37		ug/L			4414359	4197617	2
[>	Sc	45		ug/L			1165173	986951	2
[	V	51	0.011	ug/L	0.005	45	8375	7324	2
[	V-1	51	0.002	ug/L	0.001	31	94	127	13
[	Cr	52	0.040	ug/L	0.032	78	24782	21632	2
[	Cr	53	0.008	ug/L	0.010	132	152	143	11
[	Mn	55	0.004	ug/L	0.003	87	649	636	14
[	Co	59	0.002	ug/L	0.001	29	95	117	9
[>	Ge	72		ug/L			638204	579445	1
[	Ni	60	-0.000	ug/L	0.003	1422	38	34	26
[	Ni	62	0.164	ug/L	0.019	11	255	318	3
[	Cu	63	0.009	ug/L	0.000	3	202	258	2
[	Cu	65	0.002	ug/L	0.003	164	47	50	23
[	Zn	66	0.013	ug/L	0.003	26	197	205	4
[	Zn	67	0.030	ug/L	0.010	34	30	38	9
[	Zn	68	0.008	ug/L	0.015	198	269	255	10
[	As	75	0.052	ug/L	0.012	22	97	183	13
[	As-1	75	0.011	ug/L	0.132	1208	9948	9050	1
[	Se	82	0.039	ug/L	0.033	83	-2	4	131
[	Se	78	0.017	ug/L	0.498	2867	10159	9230	1
[	Mo	98	0.014	ug/L	0.004	28	11	73	24
	Y	89		ug/L			409609	362503	1
	Kr	83		ug/L			442	482	2
[>	In	115		ug/L			1367698	1276622	0
[	Ag	107	0.002	ug/L	0.001	24	23	45	12
[	Cd	111	0.005	ug/L	0.001	27	110	134	6
[	Cd	114	0.002	ug/L	0.000	12	41	66	5
[	Sb	121	0.068	ug/L	0.010	13	55	1193	13
[	Sb	123	0.070	ug/L	0.007	10	42	920	9
[	Ba	135	0.001	ug/L	0.001	80	31	37	17
[	Ba	137	0.002	ug/L	0.001	39	49	68	12
[>	Tb	159		ug/L			1763579	1563078	1
[	Tl	205	0.004	ug/L	0.001	22	66	275	18
[	Pb	208	0.002	ug/L	0.000	13	478	569	4
[	Bi	209		ug/L			4004626	3815877	0
[	Th	232	0.117	ug/L	0.002	1	50	6802	0
[	U	238	0.005	ug/L	0.001	14	5	275	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB2 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:55:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	844124	0
[	Be	9	0.002	ug/L	0.000	17	13	15	3
	C	13		ug/L			77283	80433	2
	Cl	37		ug/L			4414359	4196176	3
[>	Sc	45		ug/L			1165173	977892	0
[	V	51	0.042	ug/L	0.016	38	8375	7870	4
[	V-1	51	0.006	ug/L	0 001	15	94	193	8
[	Cr	52	0.149	ug/L	0.061	40	24782	23166	4
[	Cr	53	0.019	ug/L	0.004	22	152	162	5
[	Mn	55	0.047	ug/L	0.001	2	649	1625	2
[	Co	59	0.002	ug/L	0 000	21	95	113	6
[>	Ge	72		ug/L			638204	589008	1
[	Ni	60	0.010	ug/L	0.001	7	38	74	5
[	Ni	62	0.161	ug/L	0.062	38	255	321	9
[	Cu	63	0.040	ug/L	0.004	9	202	506	4
[	Cu	65	0.035	ug/L	0.002	5	47	172	2
[	Zn	66	0.499	ug/L	0.001	0	197	1188	1
[	Zn	67	0.427	ug/L	0.011	2	30	177	0
[	Zn	68	0.465	ug/L	0.015	3	269	929	1
[	As	75	0.047	ug/L	0.005	10	97	177	6
[	As-1	75	-0.036	ug/L	0.068	187	9948	9112	0
[	Se	82	-0.021	ug/L	0.034	160	-2	-7	96
[	Se	78	-0.161	ug/L	0.290	179	10159	9289	0
[	Mo	98	0.008	ug/L	0.001	11	11	48	9
	Y	89		ug/L			409609	370186	2
	Kr	83		ug/L			442	509	2
[>	In	115		ug/L			1367698	1319466	1
[	Ag	107	0.002	ug/L	0.001	39	23	41	18
[	Cd	111	0.003	ug/L	0.001	20	110	124	4
[	Cd	114	0.002	ug/L	0.001	44	41	73	21
[	Sb	121	0.020	ug/L	0.002	11	55	393	11
[	Sb	123	0.022	ug/L	0.003	13	42	326	13
[	Ba	135	0.015	ug/L	0.002	11	31	121	9
[	Ba	137	0.016	ug/L	0.000	0	49	225	0
[>	Tb	159		ug/L			1763579	1589457	0
[	Tl	205	0.002	ug/L	0.000	15	66	178	10
[	Pb	208	0.030	ug/L	0 000	0	478	2325	0
[	Bi	209		ug/L			4004626	3841889	2
[	Th	232	0.076	ug/L	0.012	16	50	4501	16
[	U	238	0.001	ug/L	0.000	18	5	79	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 11:59:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

RR AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			973124	840943	2
	Be	9	0.002	ug/L	0.001	55	13	15	13
	C	13		ug/L			77283	75552	0
	Cl	37		ug/L			4414359	4165683	2
>	Sc	45		ug/L			1165173	995266	3
	V	51	0.027	ug/L	0.021	75	8375	7707	2
	V-1	51	0.006	ug/L	0.001	11	94	206	6
	Cr	52	0.095	ug/L	0.078	81	24782	22681	2
	Cr	53	0.019	ug/L	0.007	39	152	164	7
	Mn	55	0.052	ug/L	0.002	3	649	1768	0
	Co	59	0.002	ug/L	0.000	25	95	113	9
>	Ge	72		ug/L			638204	584751	0
	Ni	60	0.026	ug/L	0.003	10	38	132	8
	Ni	62	0.185	ug/L	0.030	16	255	332	4
	Cu	63	0.051	ug/L	0.003	5	202	586	3
	Cu	65	0.040	ug/L	0.004	9	47	191	7
	Zn	66	0.870	ug/L	0 021	2	197	1922	3
	Zn	67	0.698	ug/L	0.008	1	30	270	1
	Zn	68	0.839	ug/L	0.033	3	269	1466	2
	As	75	0.053	ug/L	0.020	37	97	187	19
	As-1	75	-0.016	ug/L	0.035	219	9948	9084	0
	Se	82	-0.041	ug/L	0.026	63	-2	-10	47
	Se	78	-0.085	ug/L	0.097	113	10159	9263	0
	Mo	98	0.011	ug/L	0.002	21	11	61	17
	Y	89		ug/L			409609	371896	3
	Kr	83		ug/L			442	536	4
>	In	115		ug/L			1367698	1301506	0
	Ag	107	0.003	ug/L	0.001	35	23	54	21
	Cd	111	0.005	ug/L	0.001	22	110	132	5
	Cd	114	0.003	ug/L	0.001	17	41	86	9
	Sb	121	0.012	ug/L	0.003	27	55	260	21
	Sb	123	0.013	ug/L	0.001	9	42	205	7
	Ba	135	0.015	ug/L	0.004	23	31	122	17
	Ba	137	0.016	ug/L	0.001	7	49	219	5
>	Tb	159		ug/L			1763579	1587339	2
	Tl	205	0.004	ug/L	0.001	13	66	262	11
	Pb	208	0.017	ug/L	0.001	5	478	1492	2
	Bi	209		ug/L			4004626	3838940	1
	Th	232	0.030	ug/L	0.002	7	50	1795	5
	U	238	0.002	ug/L	0.000	10	5	132	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB3 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:03:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			973124	866387	1
	Be	9	0.000	ug/L	0.002	409	13	13	35
	C	13		ug/L			77283	74933	3
	Cl	37		ug/L			4414359	4336951	1
>	Sc	45		ug/L			1165173	998093	1
	V	51	0.018	ug/L	0.009	51	8375	7552	1
	V-1	51	0.007	ug/L	0.002	21	94	233	12
	Cr	52	0.072	ug/L	0.033	45	24782	22386	0
	Cr	53	0.032	ug/L	0.007	21	152	189	6
	Mn	55	0.035	ug/L	0.001	3	649	1375	3
	Co	59	0.001	ug/L	0.000	41	95	95	7
>	Ge	72		ug/L			638204	588101	1
	Ni	60	0.004	ug/L	0.001	35	38	49	11
	Ni	62	0.114	ug/L	0.052	45	255	296	10
	Cu	63	0.067	ug/L	0.003	5	202	716	3
	Cu	65	0.059	ug/L	0.007	11	47	260	8
	Zn	66	0.379	ug/L	0.020	5	197	945	5
	Zn	67	0.353	ug/L	0.026	7	30	151	6
	Zn	68	0.363	ug/L	0.018	5	269	780	4
	As	75	0.043	ug/L	0.022	51	97	170	24
	As-1	75	-0.009	ug/L	0.118	1316	9948	9148	1
	Se	82	0.008	ug/L	0.062	825	-2	-1	1051
	Se	78	-0.029	ug/L	0.374	1282	10159	9344	0
	Mo	98	0.006	ug/L	0.002	34	11	39	26
	Y	89		ug/L			409609	375562	1
	Kr	83		ug/L			442	506	4
>	In	115		ug/L			1367698	1311174	0
	Ag	107	0.001	ug/L	0.001	38	23	37	15
	Cd	111	0.001	ug/L	0.002	292	110	109	11
	Cd	114	0.001	ug/L	0.001	64	41	56	19
	Sb	121	0.007	ug/L	0.001	16	55	176	11
	Sb	123	0.008	ug/L	0.002	25	42	145	18
	Ba	135	0.032	ug/L	0.003	8	31	230	6
	Ba	137	0.036	ug/L	0.002	4	49	433	3
>	Tb	159		ug/L			1763579	1607274	1
	Tl	205	0.002	ug/L	0.000	15	66	156	8
	Pb	208	0.009	ug/L	0.001	10	478	1039	5
	Bi	209		ug/L			4004626	3841657	0
	Th	232	0.030	ug/L	0.001	3	50	1810	4
	U	238	0.001	ug/L	0.000	26	5	66	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 EDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:07:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

RR Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	868471	2
[	Be	9	U 0.001	ug/L	0.001	91	13	13	11
	C	13		ug/L			77283	75769	3
	Cl	37		ug/L			4414359	4318973	4
[>	Sc	45		ug/L			1165173	1022330	1
[	V	51	0.085	ug/L	0.023	27	8375	9153	5
[	V-1	51	0.077	ug/L	0.002	2	94	1720	3
[	Cr	52	J 0.177	ug/L	0.078	44	24782	24671	4
[	Cr	53	0.148	ug/L	0.012	8	152	410	5
[	Mn	55	53.296	ug/L	1.477	2	649	1275985	1
[	Co	59	0.444	ug/L	0.004	0	95	7693	1
[>	Ge	72		ug/L			638204	578034	1
[	Ni	60	1.233	ug/L	0.044	3	38	4574	2
[	Ni	62	1.236	ug/L	0.064	5	255	877	2
[	Cu	63	2.725	ug/L	0.081	2	202	21457	1
[	Cu	65	2.508	ug/L	0.018	0	47	9109	2
[	Zn	66	42.018	ug/L	0.274	0	197	83381	0
[	Zn	67	37.525	ug/L	0.401	1	30	12932	1
[	Zn	68	41.929	ug/L	0.835	1	269	60557	0
[	As	75	0.552	ug/L	0.032	5	97	1100	3
[	As-1	75	0.539	ug/L	0.130	24	9948	10006	1
[	Se	82	0.061	ug/L	0.042	69	-2	9	90
[	Se	78	U 0.218	ug/L	0 363	166	10159	9312	0
[	Mo	98	1.143	ug/L	0.018	1	11	5225	0
	Y	89		ug/L			409609	368905	0
	Kr	83		ug/L			442	523	4
[>	In	115		ug/L			1367698	1309202	1
[	Ag	107	0.003	ug/L	0.000	5	23	52	3
[	Cd	111	J 0.050	ug/L	0.003	6	110	408	4
[	Cd	114	J 0.044	ug/L	0.001	3	41	718	2
[	Sb	121	0.214	ug/L	0.007	3	55	3724	2
[	Sb	123	0.219	ug/L	0.006	2	42	2870	1
[	Ba	135	20.535	ug/L	0.120	0	31	126846	1
[	Ba	137	20.173	ug/L	0.104	0	49	218249	1
[>	Tb	159		ug/L			1763579	1600222	0
[	Tl	205	U 0.036	ug/L	0.000	1	66	1918	1
[	Pb	208	J 0.083	ug/L	0.001	1	478	5801	1
[	Bi	209		ug/L			4004626	3754492	1
[	Th	232	0.024	ug/L	0.001	5	50	1460	5
[	U	238	0.010	ug/L	0.000	4	5	614	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:11:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

Dd

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			973124	881774	2
[	**Be**	**9**	**0.001**	ug/L	0.000	75	13	13	11
	C	**13**		ug/L			77283	75699	3
	Cl	**37**		ug/L			4414359	4428985	0
[>	**Sc**	**45**		ug/L			1165173	1014814	2
[	**V**	**51**	**0.076**	ug/L	0.008	10	8375	8884	0
[	**V-1**	**51**	**0.084**	ug/L	0.002	2	94	1840	1
[	**Cr**	**52**	**0.129**	ug/L	0.028	21	24782	23706	0
[	**Cr**	**53**	**0.158**	ug/L	0.006	3	152	426	2
[	**Mn**	**55**	**53.530**	ug/L	1.007	1	649	1272324	1
[	**Co**	**59**	**0.464**	ug/L	0.013	2	95	7985	1
[>	**Ge**	**72**		ug/L			638204	579582	2
[	**Ni**	**60**	**1.225**	ug/L	0.025	2	38	4556	1
[	**Ni**	**62**	**1.216**	ug/L	0.038	3	255	869	4
[	**Cu**	**63**	**2.728**	ug/L	0.062	2	202	21533	0
[	**Cu**	**65**	**2.582**	ug/L	0.041	1	47	9399	2
[	**Zn**	**66**	**67.693**	ug/L	2.461	3	197	134500	0
[	**Zn**	**67**	**60.147**	ug/L	1.750	2	30	20758	0
[	**Zn**	**68**	**66.598**	ug/L	0.866	1	269	96312	2
[	**As**	**75**	**0.582**	ug/L	0 002	0	97	1158	2
[	**As-1**	**75**	**0.512**	ug/L	0.107	20	9948	9982	0
[	**Se**	**82**	**0.127**	ug/L	0.081	63	-2	22	72
[	**Se**	**78**	**0.034**	ug/L	0.373	1107	10159	9240	0
[	**Mo**	**98**	**1.160**	ug/L	0.013	1	11	5317	1
	Y	**89**		ug/L			409609	367505	1
	Kr	**83**		ug/L			442	493	7
[>	**In**	**115**		ug/L			1367698	1270303	1
[	**Ag**	**107**	**0.003**	ug/L	0.001	34	23	53	19
[	**Cd**	**111**	**0.048**	ug/L	0.004	7	110	385	4
[	**Cd**	**114**	**0.047**	ug/L	0 001	1	41	740	2
[	**Sb**	**121**	**0.222**	ug/L	0.004	1	55	3741	0
[	**Sb**	**123**	**0.227**	ug/L	0.007	2	42	2883	2
[	**Ba**	**135**	**21.333**	ug/L	0.413	1	31	127841	0
[	**Ba**	**137**	**21.303**	ug/L	0.382	1	49	223598	1
[>	**Tb**	**159**		ug/L			1763579	1602812	0
[	**Tl**	**205**	**0.036**	ug/L	0.001	3	66	1892	3
[	**Pb**	**208**	**0.689**	ug/L	0.045	6	478	44988	6
[	**Bi**	**209**		ug/L			4004626	3747264	0
[	**Th**	**232**	**0.018**	ug/L	0.001	6	50	1126	6
[	**U**	**238**	**0.011**	ug/L	0.000	3	5	622	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 ESPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:15:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	871163	1
	Be	9	23.078	ug/L	0.407	1	13	58081	2
	C	13		ug/L			77283	87692	0
	Cl	37		ug/L			4414359	4490840	2
>	Sc	45		ug/L			1165173	968058	1
	V	51	23.371	ug/L	0.299	1	8375	475599	2
	V-1	51	23.378	ug/L	0.102	0	94	468716	1
	Cr	52	25.612	ug/L	0.532	2	24782	423109	1
	Cr	53	25.640	ug/L	0.667	2	152	45610	1
	Mn	55	79.952	ug/L	0.657	0	649	1812855	1
	Co	59	25.786	ug/L	1.145	4	95	418832	3
>	Ge	72		ug/L			638204	570309	2
	Ni	60	25.670	ug/L	0.630	2	38	93282	1
	Ni	62	25.783	ug/L	0.271	1	255	13532	1
	Cu	63	28.469	ug/L	0.985	3	202	219383	1
	Cu	65	28.098	ug/L	1.249	4	47	100208	3
	Zn	66	123.158	ug/L	4.366	3	197	240701	2
	Zn	67	108.796	ug/L	5.477	5	30	36919	3
	Zn	68	120.466	ug/L	2.691	2	269	171206	1
	As	75	25.848	ug/L	0.598	2	97	46878	0
	As-1	75	25.520	ug/L	0.499	1	9948	55501	0
	Se	82	79.738	ug/L	1.180	1	-2	15227	1
	Se	78	75.754	ug/L	0.599	0	10159	47654	1
	Mo	98	27.450	ug/L	0.830	3	11	123558	1
	Y	89		ug/L			409609	360187	0
	Kr	83		ug/L			442	490	6
>	In	115		ug/L			1367698	1279332	1
	Ag	107	29.255	ug/L	0.851	2	23	324071	1
	Cd	111	25.022	ug/L	0.518	2	110	148094	0
	Cd	114	24.297	ug/L	0.263	1	41	363554	0
	Sb	121	22.989	ug/L	0.340	1	55	385163	2
	Sb	123	23.103	ug/L	0.405	1	42	291986	2
	Ba	135	44.944	ug/L	0.561	1	31	271239	2
	Ba	137	43.838	ug/L	1.393	3	49	463227	1
>	Tb	159		ug/L			1763579	1597055	0
	Tl	205	24.953	ug/L	0.315	1	66	1268561	0
	Pb	208	25.756	ug/L	0.363	1	478	1660602	0
	Bi	209		ug/L			4004626	3721609	1
	Th	232	23.606	ug/L	0.493	2	50	1392912	1
	U	238	26.112	ug/L	0.347	1	5	1519901	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 APOST REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:22:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	794407	0
	Be	9	24.930	ug/L	0.437	1	13	57210	1
	C	13		ug/L			77283	75867	1
	Cl	37		ug/L			4414359	4427315	0
>	Sc	45		ug/L			1165173	991994	1
	V	51	25.119	ug/L	0.928	3	8375	523128	2
	V-1	51	25.211	ug/L	0.927	3	94	517796	2
	Cr	52	27.830	ug/L	0.219	0	24782	469358	1
	Cr	53	28.166	ug/L	0.458	1	152	51332	1
	Mn	55	109.349	ug/L	4.108	3	649	2540302	3
	Co	59	26.752	ug/L	0.309	1	95	445457	2
>	Ge	72		ug/L			638204	567862	1
	Ni	60	29.060	ug/L	0.528	1	38	105164	0
	Ni	62	28.695	ug/L	0.480	1	255	14972	1
	Cu	63	40.564	ug/L	0.507	1	202	311290	0
	Cu	65	39.567	ug/L	0.252	0	47	140544	0
	Zn	66	187.128	ug/L	2.426	1	197	364209	1
	Zn	67	168.055	ug/L	1.683	1	30	56804	1
	Zn	68	184.908	ug/L	5.994	3	269	261543	2
	As	75	26.762	ug/L	0.836	3	97	48331	2
	As-1	75	25.982	ug/L	0.556	2	9948	56108	0
	Se	82	79.860	ug/L	1.484	1	-2	15185	1
	Se	78	74.369	ug/L	1.642	2	10159	46746	1
	Mo	98	27.887	ug/L	0.695	2	11	125014	1
	Y	89		ug/L			409609	368259	2
	Kr	83		ug/L			442	540	0
>	In	115		ug/L			1367698	1256835	1
	Ag	107	30.240	ug/L	0 172	0	23	329196	0
	Cd	111	25.885	ug/L	0.266	1	110	150528	0
	Cd	114	25.608	ug/L	0.502	1	41	376422	1
	Sb	121	26.826	ug/L	0.288	1	55	441517	1
	Sb	123	27.467	ug/L	0.106	0	42	341008	0
	Ba	135	55.517	ug/L	0.981	1	31	329117	0
	Ba	137	55.304	ug/L	0.505	0	49	574289	0
>	Tb	159		ug/L			1763579	1595246	0
	Tl	205	25.367	ug/L	0.363	1	66	1288231	1
	Pb	208	34.590	ug/L	0.297	0	478	2227649	0
	Bi	209		ug/L			4004626	3707229	1
	Th	232	25.916	ug/L	0.336	1	50	1527719	1
	U	238	26.717	ug/L	0.158	0	5	1553435	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WJ10-EPOST-REN~~ ZZZZZZ
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:26:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			973124	828940	0
[	**Be**	**9**	**24.356**	ug/L	0.382	1	13	58326	2
	C	**13**		ug/L			77283	77245	4
	Cl	**37**		ug/L			4414359	4442783	1
[>	**Sc**	**45**		ug/L			1165173	987033	3
[	**V**	**51**	**24.023**	ug/L	0.599	2	8375	497927	1
[	**V-1**	**51**	**24.025**	ug/L	0.651	2	94	490790	1
[	**Cr**	**52**	**25.577**	ug/L	1.024	4	24782	430479	1
[	**Cr**	**53**	**25.586**	ug/L	1.154	4	152	46361	0
[	**Mn**	**55**	**80.150**	ug/L	1.910	2	649	1851894	1
[	**Co**	**59**	**26.198**	ug/L	1.226	4	95	433490	1
[>	**Ge**	**72**		ug/L			638204	571421	1
[	**Ni**	**60**	**27.253**	ug/L	0.948	3	38	99236	2
[	**Ni**	**62**	**26.593**	ug/L	0.220	0	255	13980	1
[	**Cu**	**63**	**29.093**	ug/L	1.444	4	202	224672	4
[	**Cu**	**65**	**28.123**	ug/L	0.300	1	47	100532	1
[	**Zn**	**66**	**121.540**	ug/L	1.768	1	197	238079	0
[	**Zn**	**67**	**108.115**	ug/L	0.754	0	30	36784	1
[	**Zn**	**68**	**116.184**	ug/L	3.691	3	269	165449	2
[	**As**	**75**	**26.145**	ug/L	0.293	1	97	47528	2
[	**As-1**	**75**	**25.168**	ug/L	0.051	0	9948	54977	1
[	**Se**	**82**	**79.435**	ug/L	0.852	1	-2	15201	1
[	**Se**	**78**	**73.198**	ug/L	1.203	1	10159	46441	0
[	**Mo**	**98**	**27.624**	ug/L	0.624	2	11	124625	2
	Y	**89**		ug/L			409609	368816	1
	Kr	**83**		ug/L			442	518	7
[>	**In**	**115**		ug/L			1367698	1280862	3
[	**Ag**	**107**	**29.902**	ug/L	0.599	2	23	331599	1
[	**Cd**	**111**	**25.276**	ug/L	0.771	3	110	149709	0
[	**Cd**	**114**	**24.544**	ug/L	0.601	2	41	367534	1
[	**Sb**	**121**	**25.779**	ug/L	1.027	3	55	432052	1
[	**Sb**	**123**	**26.149**	ug/L	0.934	3	42	330602	0
[	**Ba**	**135**	**44.984**	ug/L	1.442	3	31	271615	0
[	**Ba**	**137**	**44.762**	ug/L	1.024	2	49	473542	2
[>	**Tb**	**159**		ug/L			1763579	1599939	2
[	**Tl**	**205**	**25.745**	ug/L	0.615	2	66	1310854	0
[	**Pb**	**208**	**26.551**	ug/L	0.836	3	478	1714279	1
[	**Bi**	**209**		ug/L			4004626	3707180	2
[	**Th**	**232**	**25.885**	ug/L	0.890	3	50	1529563	1
[	**U**	**238**	**26.326**	ug/L	0.321	1	5	1535015	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:31:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	858136	2
[	Be	9	22.826	ug/L	0.577	2	13	56564	0
	C	13		ug/L			77283	71927	2
	Cl	37		ug/L			4414359	4399163	1
[>	Sc	45		ug/L			1165173	996293	1
[	V	51	23.334	ug/L	0.360	1	8375	488687	2
[	V-1	51	23.365	ug/L	0.112	0	94	482096	1
[	Cr	52	25.377	ug/L	0 353	1	24782	431659	1
[	Cr	53	25.493	ug/L	1.189	4	152	46669	4
[	Mn	55	24.491	ug/L	1.273	5	649	571588	3
[	Co	59	25.495	ug/L	0 559	2	95	426221	1
[>	Ge	72		ug/L			638204	561199	1
[	Ni	60	26.385	ug/L	0.686	2	38	94369	2
[	Ni	62	25.921	ug/L	0.671	2	255	13385	1
[	Cu	63	27.500	ug/L	0.855	3	202	208658	3
[	Cu	65	26.706	ug/L	0.989	3	47	93738	2
[	Zn	66	83.068	ug/L	1.360	1	197	159876	2
[	Zn	67	71.961	ug/L	1.472	2	30	24049	0
[	Zn	68	80.630	ug/L	1.026	1	269	112862	1
[	As	75	25.837	ug/L	0.518	2	97	46121	2
[	As-1	75	25.201	ug/L	0.435	1	9948	54047	1
[	Se	82	80.970	ug/L	0.681	0	-2	15216	0
[	Se	78	75.883	ug/L	1.353	1	10159	46955	0
[	Mo	98	26.763	ug/L	0.378	1	11	118589	2
	Y	89		ug/L			409609	366864	0
	Kr	83		ug/L			442	518	5
[>	In	115		ug/L			1367698	1296164	0
[	Ag	107	30.177	ug/L	0.604	2	23	338798	2
[	Cd	111	25.264	ug/L	0.218	0	110	151525	0
[	Cd	114	24.949	ug/L	0.292	1	41	378258	0
[	Sb	121	26.174	ug/L	0.702	2	55	444266	2
[	Sb	123	26.490	ug/L	0.113	0	42	339185	0
[	Ba	135	24.424	ug/L	0.231	0	31	149357	0
[	Ba	137	24.225	ug/L	0.102	0	49	259462	0
[>	Tb	159		ug/L			1763579	1599720	1
[	Tl	205	25.997	ug/L	0.345	1	66	1323762	0
[	Pb	208	26.664	ug/L	0.439	1	478	1721825	0
[	Bi	209		ug/L			4004626	3846016	0
[	Th	232	23.522	ug/L	0.203	0	50	1390377	0
[	U	238	26.502	ug/L	0.619	2	5	1544940	0

4-5-13

3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:35:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			973124	841036	2
[	Be	9	24.179	ug/L	0.850	3	13	58715	1
	C	13		ug/L			77283	72242	4
	Cl	37		ug/L			4414359	4282687	1
[>	Sc	45		ug/L			1165173	992938	1
[	V	51	24.405	ug/L	0.597	2	8375	509068	2
[	V-1	51	24.544	ug/L	0.529	2	94	504687	2
[	Cr	52	26.183	ug/L	0.274	1	24782	443187	0
[	Cr	53	26.687	ug/L	0.901	3	152	48679	1
[	Mn	55	25.366	ug/L	1.310	5	649	590013	3
[	Co	59	26.566	ug/L	0.702	2	95	442652	1
[>	Ge	72		ug/L			638204	566900	1
[	Ni	60	26.885	ug/L	0.491	1	38	97125	1
[	Ni	62	27.029	ug/L	0.624	2	255	14089	0
[	Cu	63	28.332	ug/L	0.850	2	202	217074	2
[	Cu	65	27.174	ug/L	0.849	3	47	96347	1
[	Zn	66	83.504	ug/L	3.244	3	197	162284	2
[	Zn	67	71.598	ug/L	2.850	3	30	24167	2
[	Zn	68	79.342	ug/L	1.885	2	269	112166	1
[	As	75	26.228	ug/L	0.477	1	97	47285	0
[	As-1	75	25.277	ug/L	0.709	2	9948	54725	0
[	Se	82	79.976	ug/L	0.940	1	-2	15181	0
[	Se	78	73.820	ug/L	1.775	2	10159	46383	0
[	Mo	98	27.484	ug/L	0.296	1	11	123003	0
	Y	89		ug/L			409609	372027	2
	Kr	83		ug/L			442	520	0
[>	In	115		ug/L			1367698	1299035	0
[	Ag	107	31.673	ug/L	0.299	0	23	356383	1
[	Cd	111	25.615	ug/L	0.281	1	110	153961	0
[	Cd	114	25.217	ug/L	0.165	0	41	383186	1
[	Sb	121	26.391	ug/L	0.444	1	55	448929	1
[	Sb	123	26.900	ug/L	0.700	2	42	345144	1
[	Ba	135	25.230	ug/L	0.166	0	31	154619	0
[	Ba	137	25.133	ug/L	0.499	1	49	269757	1
[>	Tb	159		ug/L			1763579	1623016	1
[	Tl	205	26.364	ug/L	0.380	1	66	1362055	0
[	Pb	208	26.984	ug/L	0.444	1	478	1767952	0
[	Bi	209		ug/L			4004626	3848095	0
[	Th	232	25.236	ug/L	0.438	1	50	1513267	0
[	U	238	27.186	ug/L	0.487	1	5	1607979	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:40:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			973124	810060	0
[	Be	9	48.291	ug/L	0.657	1	13	113000	2
	C	13		ug/L			77283	66326	4
	Cl	37		ug/L			4414359	4362778	0
[>	Sc	45		ug/L			1165173	949301	0
[	V	51	46.328	ug/L	1.025	2	8375	917892	2
[	V-1	51	46.414	ug/L	1.124	2	94	912581	3
[	Cr	52	49.517	ug/L	1.513	3	24782	783267	2
[	Cr	53	49.830	ug/L	1.350	2	152	86810	2
[	Mn	55	47.258	ug/L	0.826	1	649	1050976	1
[	Co	59	50.740	ug/L	0.925	1	95	808362	1
[>	Ge	72		ug/L			638204	559043	0
[	Ni	60	47.772	ug/L	0.696	1	38	170193	1
[	Ni	62	48.829	ug/L	0.292	0	255	24926	0
[	Cu	63	50.060	ug/L	1.310	2	202	378189	2
[	Cu	65	50.068	ug/L	1.071	2	47	175078	2
[	Zn	66	50.848	ug/L	2.454	4	197	97556	4
[	Zn	67	49.133	ug/L	1.836	3	30	16369	3
[	Zn	68	51.209	ug/L	0.857	1	269	71492	1
[	As	75	50.020	ug/L	0.868	1	97	88873	1
[	As-1	75	49.143	ug/L	0.705	1	9948	96722	1
[	Se	82	52.539	ug/L	1.017	1	-2	9835	1
[	Se	78	48.716	ug/L	0.517	1	10159	33218	0
[	Mo	98	51.393	ug/L	0.313	0	11	226835	0
	Y	89		ug/L			409609	353011	3
	Kr	83		ug/L			442	525	3
[>	In	115		ug/L			1367698	1241600	1
[	Ag	107	58.433	ug/L	0.451	0	23	628343	0
[	Cd	111	50.867	ug/L	0.686	1	110	292112	0
[	Cd	114	50.467	ug/L	0.725	1	41	732794	0
[	Sb	121	51.705	ug/L	0.552	1	55	840586	0
[	Sb	123	52.468	ug/L	0.805	1	42	643400	0
[	Ba	135	47.874	ug/L	1.054	2	31	280357	1
[	Ba	137	47.671	ug/L	0.586	1	49	489030	1
[>	Tb	159		ug/L			1763579	1565585	1
[	Tl	205	52.822	ug/L	1.032	1	66	2632233	0
[	Pb	208	51.040	ug/L	0.605	1	478	3225438	0
[	Bi	209		ug/L			4004626	3630416	0
[	Th	232	54.911	ug/L	1.306	2	50	3176059	1
[	U	238	54.528	ug/L	1.209	2	5	3111060	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:47:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			973124	824305	2
[	Be	9	0.002	ug/L	0.001	27	13	16	9
	C	13		ug/L			77283	69446	1
	Cl	37		ug/L			4414359	4313422	2
[>	Sc	45		ug/L			1165173	959532	1
[	V	51	0.008	ug/L	0.018	233	8375	7045	3
[	V-1	51	0.002	ug/L	0 001	40	94	122	16
[	Cr	52	0.025	ug/L	0.071	277	24782	20792	3
[	Cr	53	0.006	ug/L	0.004	65	152	135	3
[	Mn	55	0.006	ug/L	0.001	14	649	672	1
[	Co	59	0.002	ug/L	0.001	44	95	115	13
[>	Ge	72		ug/L			638204	562616	1
[	Ni	60	-0.000	ug/L	0.002	635	38	32	24
[	Ni	62	0.182	ug/L	0.026	14	255	317	2
[	Cu	63	0.011	ug/L	0.002	20	202	258	4
[	Cu	65	0.001	ug/L	0.001	57	47	46	4
[	Zn	66	0.009	ug/L	0.015	171	197	190	14
[	Zn	67	0.019	ug/L	0.028	152	30	33	29
[	Zn	68	0.023	ug/L	0.009	40	269	268	4
[	As	75	0.064	ug/L	0.006	9	97	200	6
[	As-1	75	0.076	ug/L	0.125	164	9948	8904	0
[	Se	82	0.040	ug/L	0.048	120	-2	5	183
[	Se	78	0.232	ug/L	0.441	190	10159	9069	0
[	Mo	98	0.015	ug/L	0.004	27	11	76	23
	Y	89		ug/L			409609	360694	0
	Kr	83		ug/L			442	484	2
[>	In	115		ug/L			1367698	1273178	1
[	Ag	107	0.003	ug/L	0.003	79	23	57	50
[	Cd	111	0.006	ug/L	0.002	27	110	139	6
[	Cd	114	0.003	ug/L	0.001	48	41	81	26
[	Sb	121	0.075	ug/L	0 010	13	55	1297	12
[	Sb	123	0.078	ug/L	0.008	10	42	1015	9
[	Ba	135	0.001	ug/L	0.001	45	31	36	8
[	Ba	137	0.001	ug/L	0.002	112	49	61	27
[>	Tb	159		ug/L			1763579	1561296	1
[	Tl	205	0.004	ug/L	0.002	44	66	262	34
[	Pb	208	0.003	ug/L	0 002	63	478	601	18
[	Bi	209		ug/L			4004626	3815770	0
[	Th	232	0.151	ug/L	0.006	3	50	8780	2
[	U	238	0.006	ug/L	0.000	8	5	324	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:51:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	861912	1
	Be	9	0.003	ug/L	0.003	97	13	20	39
	C	13		ug/L			77283	73417	2
	Cl	37		ug/L			4414359	4516510	1
>	Sc	45		ug/L			1165173	1014804	0
	V	51	0.083	ug/L	0.004	5	8375	9030	1
	V-1	51	0.077	ug/L	0.004	5	94	1707	5
	Cr	52	0.175	ug/L	0.009	5	24782	24471	0
	Cr	53	0.156	ug/L	0.009	5	152	423	3
	Mn	55	53.376	ug/L	1.084	2	649	1268847	1
	Co	59	0.462	ug/L	0.014	3	95	7943	2
>	Ge	72		ug/L			638204	580860	0
	Ni	60	1.212	ug/L	0.040	3	38	4518	2
	Ni	62	1.283	ug/L	0.052	4	255	907	3
	Cu	63	2.635	ug/L	0.037	1	202	20858	0
	Cu	65	2.616	ug/L	0.023	0	47	9546	0
	Zn	66	41.290	ug/L	1.221	2	197	82333	2
	Zn	67	37.799	ug/L	0.505	1	30	13090	1
	Zn	68	40.869	ug/L	0.544	1	269	59329	0
	As	75	0.571	ug/L	0.026	4	97	1140	3
	As-1	75	0.486	ug/L	0.020	4	9948	9958	0
	Se	82	0.094	ug/L	0.032	34	-2	15	40
	Se	78	-0.033	ug/L	0 072	222	10159	9229	0
	Mo	98	1.121	ug/L	0.016	1	11	5152	1
	Y	89		ug/L			409609	365957	1
	Kr	83		ug/L			442	509	5
>	In	115		ug/L			1367698	1302243	1
	Ag	107	0.004	ug/L	0.001	29	23	68	19
	Cd	111	0.054	ug/L	0.006	10	110	430	7
	Cd	114	0.046	ug/L	0.002	4	41	741	4
	Sb	121	0.237	ug/L	0.008	3	55	4092	2
	Sb	123	0.241	ug/L	0.009	3	42	3136	2
	Ba	135	20.500	ug/L	0.262	1	31	125954	1
	Ba	137	20.500	ug/L	0.203	0	49	220602	1
>	Tb	159		ug/L			1763579	1612663	1
	Tl	205	0.039	ug/L	0.001	2	66	2039	0
	Pb	208	0.078	ug/L	0.002	1	478	5487	0
	Bi	209		ug/L			4004626	3747759	0
	Th	232	0.138	ug/L	0.037	26	50	8258	26
	U	238	0.012	ug/L	0.001	4	5	719	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 12:59:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
[>	Li	6		ug/L			973124	797848	2
[	Be	9	48.719	ug/L	0.989	2	13	112236	0
	C	13		ug/L			77283	66537	0
	Cl	37		ug/L			4414359	4370683	1
[>	Sc	45		ug/L			1165173	946180	0
[	V	51	46.056	ug/L	1.453	3	8375	909300	2
[	V-1	51	46.189	ug/L	1.597	3	94	904907	2
[	Cr	52	49.869	ug/L	0.712	1	24782	786273	2
[	Cr	53	50.352	ug/L	0.451	0	152	87443	1
[	Mn	55	48.702	ug/L	1.259	2	649	1079534	2
[	Co	59	50.672	ug/L	1.542	3	95	804516	2
[>	Ge	72		ug/L			638204	556151	2
[	Ni	60	49.006	ug/L	1.914	3	38	173560	1
[	Ni	62	49.421	ug/L	1.238	2	255	25087	2
[	Cu	63	51.878	ug/L	2.113	4	202	389594	1
[	Cu	65	49.215	ug/L	1.506	3	47	171108	0
[	Zn	66	51.776	ug/L	1.839	3	197	98753	0
[	Zn	67	49.761	ug/L	3.114	6	30	16482	5
[	Zn	68	51.876	ug/L	1.524	2	269	72014	1
[	As	75	50.804	ug/L	1.942	3	97	89733	0
[	As-1	75	50.122	ug/L	1.915	3	9948	97903	0
[	Se	82	53.186	ug/L	2.690	5	-2	9896	2
[	Se	78	50.036	ug/L	2.583	5	10159	33678	1
[	Mo	98	52.025	ug/L	0.522	1	11	228395	1
	Y	89		ug/L			409609	360090	1
	Kr	83		ug/L			442	509	3
[>	In	115		ug/L			1367698	1229972	1
[	Ag	107	58.122	ug/L	1.367	2	23	619067	1
[	Cd	111	51.041	ug/L	0.749	1	110	290351	0
[	Cd	114	50.656	ug/L	1.100	2	41	728611	1
[	Sb	121	51.646	ug/L	0.575	1	55	831752	0
[	Sb	123	52.404	ug/L	0.543	1	42	636620	0
[	Ba	135	48.657	ug/L	0.633	1	31	282282	0
[	Ba	137	48.124	ug/L	0.879	1	49	488998	1
[>	Tb	159		ug/L			1763579	1570685	0
[	Tl	205	52.995	ug/L	0.910	1	66	2649697	1
[	Pb	208	50.340	ug/L	0.214	0	478	3191838	0
[	Bi	209		ug/L			4004626	3652207	1
[	Th	232	54.381	ug/L	0.508	0	50	3156132	0
[	U	238	54.411	ug/L	0 332	0	5	3115015	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, April 04, 2013 13:06:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			973124	797374	0
	Be	9	0.001	ug/L	0.001	117	13	12	16
	C	13		ug/L			77283	68001	4
	Cl	37		ug/L			4414359	4163172	1
>	Sc	45		ug/L			1165173	968134	2
	V	51	0.009	ug/L	0.006	66	8375	7141	2
	V-1	51	0.001	ug/L	0.001	94	94	101	20
	Cr	52	0.036	ug/L	0.016	45	24782	21163	2
	Cr	53	0.008	ug/L	0.002	31	152	140	2
	Mn	55	0.008	ug/L	0.001	17	649	725	4
	Co	59	0.002	ug/L	0 000	23	95	107	8
>	Ge	72		ug/L			638204	564269	1
	Ni	60	-0.001	ug/L	0.002	229	38	31	25
	Ni	62	0.175	ug/L	0.022	12	255	315	2
	Cu	63	0.006	ug/L	0.003	48	202	227	8
	Cu	65	-0.001	ug/L	0.002	214	47	39	15
	Zn	66	-0.012	ug/L	0.009	80	197	151	10
	Zn	67	-0.021	ug/L	0.010	45	30	19	15
	Zn	68	-0.018	ug/L	0.008	45	269	213	6
	As	75	0.056	ug/L	0.008	14	97	186	8
	As-1	75	0.100	ug/L	0.104	103	9948	8975	0
	Se	82	0.019	ug/L	0.034	177	-2	1	628
	Se	78	0.359	ug/L	0.362	100	10159	9161	0
	Mo	98	0.012	ug/L	0.002	17	11	62	16
	Y	89		ug/L			409609	351965	1
	Kr	83		ug/L			442	506	1
>	In	115		ug/L			1367698	1270695	0
	Ag	107	0.003	ug/L	0.002	59	23	55	36
	Cd	111	0.005	ug/L	0.000	6	110	130	1
	Cd	114	0.002	ug/L	0.002	122	41	67	52
	Sb	121	0.070	ug/L	0.010	13	55	1223	12
	Sb	123	0.072	ug/L	0.011	14	42	948	13
	Ba	135	-0.000	ug/L	0.001	473	31	28	19
	Ba	137	0.001	ug/L	0.001	81	49	53	12
>	Tb	159		ug/L			1763579	1556536	0
	Tl	205	0.004	ug/L	0.001	14	66	245	11
	Pb	208	0.000	ug/L	0.001	1252	478	426	10
	Bi	209		ug/L			4004626	3803656	0
	Th	232	0.134	ug/L	0.002	1	50	7733	1
	U	238	0.004	ug/L	0.001	20	5	258	21

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 4-5-13

MZ Next STD	Analyst 4-5-13	Peer 4-8-13	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	See Log
Curve fit	✓	✓	
Calibration Verification			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Sample Data			
RSD's & SD's	✓	✓	See Log
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method Performance			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Method Accuracy			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Reporting			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	—	—	

W10.0245H

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4-513 **Analyst:** M **Page:** 1 **of** 3

All corrections made by analyst unless otherwise noted. M4-513

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3009-9
		1			3025-12
		2			3026-1
		3			-2
		4			-3
		5			Zn, Ass wassy -4
		Rinse Sample			
		ICV			3023-5
		ICB			
		OCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			
		LR200			
		B1			
		B2			
		CCV2			
		CCB2			
		WJ10 MB1	REW	2	Ag
		MB3			
		ADup			
		A			
		ASpk			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 4-5-13 **Analyst:** JK **Page:** 2 **of** 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WJ10 EDup	REN	2	Ag
		E			
		ESpk			
		MB1Spk			
		MB3Spk			
		CCV3			
		CCB3			
		WJ10 MB2	SWN	20	
		WJ75 ADup			
		A			
		ASpk			
		WJ10 D			
		CDup			
		C			
		CSpk			
		MB2Spk			
		WJ75 MBSpk			
		CCV4			
		CCB4			end pkg
		WJ75 MB	SWN	20	Ag
		WJ59 MB1			
		MB2	SPN		
		Da			
		CaDup			

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Friday, April 05, 2013 08:33:21
Sample Description:
Method File: C:\NexIONData\Method\Daily Performancenew.mth
Dataset File. C:\NexIONData\Dataset\Default\Daily Performance Check 1934
MassCal File: C.\NexIONData\MassCal\Default.tun
Conditions File: C:\NexIONData\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5718.6	5718.628	50.376	0.9	Standard
	Mg	24.0	83009.1	83009.128	8242.920	9.9	Standard
	In	114.9	90069.6	90069.626	704.524	0.8	Standard
	Pb	208.0	46572.4	46572.384	395.717	0.8	Standard
	U	238.1	78591.3	78591.271	555.921	0.7	Standard
⌈	CeO	155.9	1121.4	0.013	0.000	3.4	Standard
| >	Ce	139.9	88423.9	88423.858	394.837	0.4	Standard
⌊	Ce++	70.0	1724.7	0.020	0.002	8.2	Standard
	Bkgd	220.0	0.1	0.067	0.149	223.6	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1918.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 4/5/2013 8:33:21 AM
nd Time: 4/5/2013 8:35:55 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5718.63
Obtained Intensity (Mg 23.985): 83009.13
Obtained Intensity (In 114.904): 90069.63
Obtained Intensity (Pb 207.977): 46572.38
Obtained Intensity (U 238.05): 78591.27
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.013 (=1121.41 / 88423.86)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.020 (=1724.71 / 88423.86)

SmartTune Wizard - Summary

ɔtimization Summary

ıartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ɪart Time: 4/5/2013 8:36:49 AM
ıd Time: 4/5/2013 8:37:59 AM

ɔrch Alignment - [Passed]

Vertical	Horizontal	Intensity
-1.23 mm	1.77 mm	103833.88

SmartTune Wizard - Summary

ɔtimization Summary

ıartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

:art Time: 4/5/2013 8:38:45 AM
ıd Time: 4/5/2013 8:40:56 AM

ıss Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.683)
Target/Obtained mass (114.904/114.975), Target/Obtained resolution (0.7/0.695)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.692)

SmartTune Wizard - Summary

)timization Summary

iartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

:art Time: 4/5/2013 8:41:02 AM
id Time: 4/5/2013 8:45:13 AM

itoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.998; Intercept = -12.25

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time Friday, April 05, 2013 09:22:39
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1948
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns). 60

Torch Z position (mm). 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5111.3	5111.301	100.523	2.0	Standard
	Mg	24.0	68672.7	68672.694	816.626	1.2	Standard
	In	114.9	96562.3	96562.325	710.838	0.7	Standard
	U	238.1	73869.9	73869.901	384.592	0.5	Standard
⌈	CeO	155.9	988.5	0.011	0.000	3.3	Standard
| >	Ce	139.9	91798.6	91798.620	883.934	1.0	Standard
⌊	Ce++	70.0	1027.1	0.011	0.000	4.2	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.02	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1862.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B
0.00	KED RPa

WJ10:02472

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 4/5/2013 9:22:39 AM
d Time: 4/5/2013 9:24:58 AM

ily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5111.30
Obtained Intensity (Mg 23.985): 68672.69
Obtained Intensity (In 114.904): 96562.32
Obtained Intensity (U 238.05): 73869.90
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (CeO 155.9 / Ce 139.905): 0.011 (=988.53 / 91798.62)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=1027.06 / 91798.62)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 09:48:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L				125994	7
	Cl	37		ug/L				3856256	3
>	Ge	72		ug/L				519789	4
	Ni	60		ug/L				115	6
	Ni	62		ug/L				59	11
	Cu	63		ug/L				128	12
	Cu	65		ug/L				52	23
	Zn	66		ug/L				91	5
	Zn	67		ug/L				15	16
	Zn	68		ug/L				245	3
	As	75		ug/L				275	7
	As-1	75		ug/L				6533	1
	Se	82		ug/L				1	632
	Se	78		ug/L				6624	1
	Y	89		ug/L				348110	3
	Kr	83		ug/L				484	3
>	In	115		ug/L				1090833	1
	Ag	107		ug/L				56	5
	Cd	111		ug/L				102	10
	Cd	114		ug/L				46	20
	Sb	121		ug/L				443	8
	Sb	123		ug/L				322	10
>	Tb	159		ug/L				1240902	1
	Tl	205		ug/L				149	20
	Pb	208		ug/L				248	10
	Bi	209		ug/L				2863864	0
	Th	232		ug/L				521	10
	U	238		ug/L				52	59

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 09:52:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	117910	4
	Cl	37		ug/L			3856256	3802909	2
>	Ge	72		ug/L			519789	518954	0
	Ni	60	0.500	ug/L	0.017	3	115	1733	4
	Ni	62	0.500	ug/L	0.052	10	59	268	7
	Cu	63	0.500	ug/L	0.010	2	128	3748	2
	Cu	65	0.500	ug/L	0.004	0	52	1703	1
	Zn	66	4.000	ug/L	0.151	3	91	7745	2
	Zn	67	4.000	ug/L	0.166	4	15	1172	3
	Zn	68	4.000	ug/L	0.050	1	245	5536	2
	As	75	0.200	ug/L	0.021	10	275	693	6
	As-1	75	0.200	ug/L	0.060	29	6533	6941	1
	Se	82	0.500	ug/L	0.038	7	1	109	8
	Se	78	0.500	ug/L	0.214	42	6624	6882	1
	Y	89		ug/L			348110	345145	3
	Kr	83		ug/L			484	476	4
>	In	115		ug/L			1090833	1098907	0
	Ag	107	0.200	ug/L	0.004	2	56	2579	1
	Cd	111	0.100	ug/L	0.005	5	102	652	3
	Cd	114	0.100	ug/L	0.003	2	46	1458	2
	Sb	121	0.200	ug/L	0.004	2	443	3695	1
	Sb	123	0.200	ug/L	0.011	5	322	2810	4
>	Tb	159		ug/L			1240902	1237043	2
	Tl	205	0.200	ug/L	0.002	1	149	8578	1
	Pb	208	0.100	ug/L	0.002	2	248	6081	0
	Bi	209		ug/L			2863864	2876314	0
	Th	232	0.200	ug/L	0.003	1	521	9764	1
	U	238	0.200	ug/L	0.004	1	52	10605	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 09:55:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	120995	2
	Cl	37		ug/L			3856256	3827627	2
>	Ge	72		ug/L			519789	522095	3
	Ni	60	10.000	ug/L	0.646	6	115	32743	7
	Ni	62	10.002	ug/L	0.142	1	59	4679	1
	Cu	63	9.999	ug/L	0.117	1	128	70710	2
	Cu	65	9.999	ug/L	0.515	5	52	31847	3
	Zn	66	10.000	ug/L	0.263	2	91	19339	0
	Zn	67	10.093	ug/L	0.406	4	15	3135	4
	Zn	68	10.060	ug/L	0.604	6	245	14153	5
	As	75	9.999	ug/L	0.463	4	275	18885	1
	As-1	75	9.999	ug/L	0.525	5	6533	25009	1
	Se	82	9.998	ug/L	0.311	3	1	2019	0
	Se	78	9.998	ug/L	0.553	5	6624	11615	1
	Y	89		ug/L			348110	349209	5
	Kr	83		ug/L			484	484	4
>	In	115		ug/L			1090833	1083941	1
	Ag	107	10.000	ug/L	0.196	1	56	125707	0
	Cd	111	10.000	ug/L	0.238	2	102	52973	1
	Cd	114	10.000	ug/L	0.067	0	46	136319	1
	Sb	121	10.000	ug/L	0.198	1	443	167718	0
	Sb	123	10.000	ug/L	0.228	2	322	127900	1
>	Tb	159		ug/L			1240902	1245599	2
	Tl	205	10.000	ug/L	0.161	1	149	422236	1
	Pb	208	10.000	ug/L	0.321	3	248	555842	0
	Bi	209		ug/L			2863864	2844591	1
	Th	232	10.000	ug/L	0.239	2	521	510512	0
	U	238	10.000	ug/L	0.327	3	52	521710	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 09:59:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	116150	1
	Cl	37		ug/L			3856256	3733962	2
>	Ge	72		ug/L			519789	530523	2
	Ni	60	19.890	ug/L	1.112	5	115	64611	5
	Ni	62	19.906	ug/L	0.756	3	59	9230	2
	Cu	63	19.884	ug/L	0.724	3	128	139501	3
	Cu	65	19.975	ug/L	0.140	0	52	64326	2
	Zn	66	19.857	ug/L	0.989	4	91	37984	2
	Zn	67	20.091	ug/L	0.974	4	15	6427	5
	Zn	68	19.913	ug/L	0.799	4	245	27803	2
	As	75	19.898	ug/L	0.764	3	275	37165	0
	As-1	75	19.898	ug/L	0.738	3	6533	43242	1
	Se	82	19.824	ug/L	0.856	4	1	3930	3
	Se	78	19.823	ug/L	0.193	0	6624	16423	2
	Y	89		ug/L			348110	350424	3
	Kr	83		ug/L			484	488	0
>	In	115		ug/L			1090833	1073711	1
	Ag	107	20.074	ug/L	0.770	3	56	253576	1
	Cd	111	20.078	ug/L	0.498	2	102	106900	1
	Cd	114	19.983	ug/L	0.235	1	46	268873	0
	Sb	121	20.055	ug/L	0.791	3	443	336338	2
	Sb	123	20.033	ug/L	0.530	2	322	255109	1
>	Tb	159		ug/L			1240902	1235220	1
	Tl	205	20.005	ug/L	0.229	1	149	838437	0
	Pb	208	20.010	ug/L	0.364	1	248	1105439	0
	Bi	209		ug/L			2863864	2849286	1
	Th	232	20.040	ug/L	0.286	1	521	1022442	1
	U	238	20.054	ug/L	0.504	2	52	1049284	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:03:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	111618	4
	Cl	37		ug/L			3856256	3817555	3
>	Ge	72		ug/L			519789	519853	3
	Ni	60	50.021	ug/L	1.660	3	115	159363	2
	Ni	62	49.992	ug/L	0.963	1	59	22607	1
	Cu	63	50.028	ug/L	1.803	3	128	344561	1
	Cu	65	49.838	ug/L	2.281	4	52	154528	1
	Zn	66	49.718	ug/L	3.080	6	91	90541	3
	Zn	67	49.912	ug/L	1.576	3	15	15482	0
	Zn	68	49.950	ug/L	1.294	2	245	67682	3
	As	75	50.011	ug/L	2.676	5	275	91174	1
	As-1	75	49.975	ug/L	3.122	6	6533	96253	2
	Se	82	49.979	ug/L	1.835	3	1	9682	1
	Se	78	49.846	ug/L	3.073	6	6624	30046	1
	Y	89		ug/L			348110	344138	1
	Kr	83		ug/L			484	496	5
>	In	115		ug/L			1090833	1043238	1
	Ag	107	50.074	ug/L	0.278	0	56	619430	1
	Cd	111	50.138	ug/L	2.085	4	102	262820	2
	Cd	114	50.073	ug/L	1.184	2	46	659274	1
	Sb	121	50.128	ug/L	0.827	1	443	827014	0
	Sb	123	50.220	ug/L	1.522	3	322	634917	1
>	Tb	159		ug/L			1240902	1236260	0
	Tl	205	50.062	ug/L	0.580	1	149	2112987	1
	Pb	208	49.888	ug/L	0.454	0	248	2727672	0
	Bi	209		ug/L			2863864	2780354	1
	Th	232	50.226	ug/L	0.248	0	521	2623399	0
	U	238	50.059	ug/L	0.226	0	52	2637497	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:08:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	116371	5
	Cl	37		ug/L			3856256	3791313	2
>	Ge	72		ug/L			519789	511060	2
	Ni	60	100.387	ug/L	0.269	0	115	318585	2
	Ni	62	100.312	ug/L	3.577	3	59	45046	5
	Cu	63	100.003	ug/L	2.133	2	128	677375	1
	Cu	65	99.835	ug/L	2.726	2	52	302858	2
	Zn	66	100.173	ug/L	7.063	7	91	180449	6
	Zn	67	99.753	ug/L	4.055	4	15	30188	5
	Zn	68	99.976	ug/L	3.671	3	245	132926	6
	As	75	100.000	ug/L	6.044	6	275	179020	4
	As-1	75	100.182	ug/L	5.314	5	6533	184429	3
	Se	82	99.690	ug/L	4.369	4	1	18793	2
	Se	78	100.388	ug/L	1.587	1	6624	53545	1
	Y	89		ug/L			348110	346483	1
	Kr	83		ug/L			484	536	4
>	In	115		ug/L			1090833	999408	2
	Ag	107	98.955	ug/L	3.278	3	56	1132432	1
	Cd	111	99.968	ug/L	4.527	4	102	501163	1
	Cd	114	99.497	ug/L	3.311	3	46	1233793	1
	Sb	121	100.300	ug/L	3 055	3	443	1600233	1
	Sb	123	100.349	ug/L	3.351	3	322	1228968	0
>	Tb	159		ug/L			1240902	1262321	0
	Tl	205	98.682	ug/L	1.586	1	149	4073884	1
	Pb	208	99.235	ug/L	0.735	0	248	5402215	0
	Bi	209		ug/L			2863864	2701535	0
	Th	232	99.184	ug/L	0 570	0	521	5149338	0
	U	238	98.726	ug/L	1.587	1	52	5094969	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:15:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	114412	2
	Cl	37		ug/L			3856256	3667047	2
>	Ge	72		ug/L			519789	537516	1
	Ni	60	0.011	ug/L	0.006	52	115	154	12
	Ni	62	0.005	ug/L	0.014	288	59	64	9
	Cu	63	0.002	ug/L	0.002	116	128	146	11
	Cu	65	-0.002	ug/L	0.002	117	52	48	15
	Zn	66	0.005	ug/L	0.005	96	91	104	8
	Zn	67	0.014	ug/L	0.013	95	15	20	20
	Zn	68	0.030	ug/L	0.019	62	245	295	9
	As	75	0.004	ug/L	0.018	481	275	291	10
	As-1	75	0.118	ug/L	0.046	38	6533	6976	0
	Se	82	-0.000	ug/L	0.021	4702	1	1	222
	Se	78	0.424	ug/L	0.136	32	6624	7058	0
	Y	89		ug/L			348110	355439	4
	Kr	83		ug/L			484	495	3
>	In	115		ug/L			1090833	1055897	2
	Ag	107	0.000	ug/L	0.001	369	56	58	25
	Cd	111	0.001	ug/L	0.004	287	102	106	21
	Cd	114	0.001	ug/L	0.001	116	46	56	22
	Sb	121	0.109	ug/L	0.016	15	443	2262	13
	Sb	123	0.113	ug/L	0.015	13	322	1778	11
>	Tb	159		ug/L			1240902	1205522	0
	Tl	205	0.003	ug/L	0.001	22	149	265	10
	Pb	208	0.001	ug/L	0 001	64	248	284	9
	Bi	209		ug/L			2863864	2842901	0
	Th	232	0.132	ug/L	0.009	6	521	7049	5
	U	238	0.003	ug/L	0.000	7	52	199	6

Sample Information

Sample Date/Time: Friday, April 05, 2013 10:08:52
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.013	0.50	10	20	50	100
Cu	65	**1.0000**	0.006	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**1.0000**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**0.9998**	0.011	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.016	0.20	10	20	50	100
Sb	123	**1.0000**	0.012	0.20	10	20	50	100
Tb	159							
Tl	205	**0.9997**	0.033	0.20	10	20	50	100
Pb	208	**0.9999**	0.043	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.041	0.20	10	20	50	100
U	238	**0.9997**	0.041	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:21:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	116990	2
	Cl	37		ug/L			3856256	3757216	2
>	Ge	72		ug/L			519789	523023	4
	Ni	60	51.271	ug/L	3.165	6	115	166253	1
	Ni	62	49.843	ug/L	1.489	2	59	22906	2
	Cu	63	50.855	ug/L	0.179	0	128	352725	5
	Cu	65	51.900	ug/L	1.759	3	52	161014	1
	Zn	66	51.078	ug/L	4.795	9	91	93978	5
	Zn	67	50.850	ug/L	4.029	7	15	15713	3
	Zn	68	49.747	ug/L	3.877	7	245	67610	3
	As	75	51.960	ug/L	2.151	4	275	95291	1
	As-1	75	51.328	ug/L	2.856	5	6533	99823	1
	Se	82	79.819	ug/L	1.832	2	1	15165	2
	Se	78	76.819	ug/L	4.361	5	6624	43434	0
	Y	89		ug/L			348110	352909	2
	Kr	83		ug/L			484	509	3
>	In	115		ug/L			1090833	1038433	2
	Ag	107	48.243	ug/L	2.267	4	56	573635	2
	Cd	111	48.185	ug/L	1.237	2	102	251193	1
	Cd	114	48.054	ug/L	0.446	0	46	619492	1
	Sb	121	49.470	ug/L	1.749	3	443	820330	1
	Sb	123	49.123	ug/L	1.154	2	322	625445	0
>	Tb	159		ug/L			1240902	1231635	2
	Tl	205	51.752	ug/L	1.295	2	149	2083830	0
	Pb	208	51.060	ug/L	1.329	2	248	2711148	0
	Bi	209		ug/L			2863864	2745344	2
	Th	232	51.595	ug/L	1.108	2	521	2612968	0
	U	238	51.805	ug/L	1.352	2	52	2607421	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:27:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	120083	6
	Cl	37		ug/L			3856256	3647180	2
>	Ge	72		ug/L			519789	548914	3
	Ni	60	0.009	ug/L	0 002	23	115	153	7
	Ni	62	-0.007	ug/L	0.007	104	59	59	2
	Cu	63	-0.002	ug/L	0.001	23	128	117	0
	Cu	65	-0.003	ug/L	0.002	61	52	46	13
	Zn	66	-0.004	ug/L	0 008	200	91	88	14
	Zn	67	0.017	ug/L	0.022	125	15	22	29
	Zn	68	0.008	ug/L	0 007	79	245	271	4
	As	75	-0.006	ug/L	0.020	329	275	278	11
	As-1	75	0.068	ug/L	0.172	251	6533	7022	1
	Se	82	-0.005	ug/L	0.018	342	1	0	403
	Se	78	0.280	ug/L	0.619	220	6624	7129	1
	Y	89		ug/L			348110	356881	1
	Kr	83		ug/L			484	513	2
>	In	115		ug/L			1090833	1046388	0
	Ag	107	-0.000	ug/L	0.000	112	56	51	7
	Cd	111	-0.002	ug/L	0.002	157	102	89	14
	Cd	114	0.001	ug/L	0.001	136	46	52	20
	Sb	121	0.027	ug/L	0.010	38	443	879	19
	Sb	123	0.028	ug/L	0.008	29	322	674	15
>	Tb	159		ug/L			1240902	1190142	1
	Tl	205	0.001	ug/L	0.000	32	149	195	9
	Pb	208	0.000	ug/L	0.000	41	248	262	3
	Bi	209		ug/L			2863864	2788945	0
	Th	232	0.067	ug/L	0.001	1	521	3798	1
	U	238	0.002	ug/L	0.000	22	52	125	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:31:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	115219	2
	Cl	37		ug/L			3856256	3731605	0
>	Ge	72		ug/L			519789	540029	1
	Ni	60	49.629	ug/L	0.767	1	115	166476	1
	Ni	62	49.937	ug/L	0.467	0	59	23715	2
	Cu	63	51.612	ug/L	0 827	1	128	369547	1
	Cu	65	50.822	ug/L	2.045	4	52	162897	2
	Zn	66	51.687	ug/L	2.058	3	91	98433	2
	Zn	67	51.596	ug/L	1.759	3	15	16496	2
	Zn	68	49.527	ug/L	0.735	1	245	69668	2
	As	75	50.767	ug/L	1.970	3	275	96219	2
	As-1	75	50.680	ug/L	1.805	3	6533	101977	1
	Se	82	51.905	ug/L	0.853	1	1	10188	0
	Se	78	50.770	ug/L	0.557	1	6624	32016	1
	Y	89		ug/L			348110	365623	1
	Kr	83		ug/L			484	508	1
>	In	115		ug/L			1090833	1028328	2
	Ag	107	47.250	ug/L	0.738	1	56	556568	1
	Cd	111	49.686	ug/L	2.333	4	102	256320	1
	Cd	114	49.707	ug/L	1.108	2	46	634340	1
	Sb	121	49.158	ug/L	1 658	3	443	807120	0
	Sb	123	48.884	ug/L	2.248	4	322	615987	1
>	Tb	159		ug/L			1240902	1218231	0
	Tl	205	52.299	ug/L	0.117	0	149	2083729	1
	Pb	208	51.301	ug/L	1 042	2	248	2695028	1
	Bi	209		ug/L			2863864	2750690	0
	Th	232	51.576	ug/L	0.211	0	521	2584264	0
	U	238	52.204	ug/L	0.825	1	52	2599941	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:37:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			125994	114985	4
	Cl	37		ug/L			3856256	3581174	2
>	Ge	72		ug/L			519789	551546	2
	Ni	60	0.001	ug/L	0.003	275	115	125	4
	Ni	62	-0.006	ug/L	0.006	89	59	60	6
	Cu	63	-0.001	ug/L	0.000	25	128	125	4
	Cu	65	-0.002	ug/L	0.003	121	52	48	18
	Zn	66	0.005	ug/L	0.010	177	91	107	16
	Zn	67	0.018	ug/L	0.013	74	15	22	16
	Zn	68	0.016	ug/L	0.017	106	245	283	6
	As	75	0.002	ug/L	0.005	268	275	295	3
	As-1	75	0.004	ug/L	0.048	1252	6533	6937	1
	Se	82	0.018	ug/L	0.034	194	1	5	125
	Se	78	-0.005	ug/L	0.187	3793	6624	7024	1
	Y	89		ug/L			348110	361428	1
	Kr	83		ug/L			484	495	7
>	In	115		ug/L			1090833	1023501	2
	Ag	107	0.000	ug/L	0 001	131	56	58	14
	Cd	111	-0.001	ug/L	0.000	34	102	88	0
	Cd	114	0.001	ug/L	0.001	155	46	51	23
	Sb	121	0.053	ug/L	0.010	18	443	1287	13
	Sb	123	0.059	ug/L	0.010	17	322	1043	12
>	Tb	159		ug/L			1240902	1180272	0
	Tl	205	0.003	ug/L	0.001	45	149	267	21
	Pb	208	0.002	ug/L	0.001	57	248	348	18
	Bi	209		ug/L			2863864	2803224	1
	Th	232	0.096	ug/L	0.004	3	521	5173	3
	U	238	0.003	ug/L	0.001	40	52	175	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:40:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	116157	5
	Cl	37		ug/L			3856256	3635461	1
>	Ge	72		ug/L			519789	540041	3
	Ni	60	0.504	ug/L	0.027	5	115	1808	3
	Ni	62	0.470	ug/L	0.055	11	59	284	10
	Cu	63	0.517	ug/L	0.008	1	128	3836	4
	Cu	65	0.510	ug/L	0.005	1	52	1688	2
	Zn	66	4.241	ug/L	0.126	2	91	8163	2
	Zn	67	3.782	ug/L	0.321	8	15	1224	8
	Zn	68	3.989	ug/L	0.093	2	245	5844	3
	As	75	0.206	ug/L	0.016	7	275	675	4
	As-1	75	0.365	ug/L	0.163	44	6533	7466	1
	Se	82	0.496	ug/L	0.061	12	1	99	13
	Se	78	1.170	ug/L	0.636	54	6624	7455	1
	Y	89		ug/L			348110	364342	2
	Kr	83		ug/L			484	550	5
>	In	115		ug/L			1090833	1036973	1
	Ag	107	0.187	ug/L	0.006	3	56	2269	2
	Cd	111	0.100	ug/L	0.005	5	102	616	5
	Cd	114	0.107	ug/L	0.007	6	46	1421	6
	Sb	121	0.197	ug/L	0.003	1	443	3684	1
	Sb	123	0.195	ug/L	0.006	3	322	2788	2
>	Tb	159		ug/L			1240902	1183017	2
	Tl	205	0.213	ug/L	0.010	4	149	8377	2
	Pb	208	0.111	ug/L	0.005	4	248	5903	2
	Bi	209		ug/L			2863864	2768112	0
	Th	232	0.211	ug/L	0.008	3	521	10739	1
	U	238	0.206	ug/L	0.009	4	52	9996	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:44:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	204464	2
	Cl	37		ug/L			3856256	10459094	4
>	Ge	72		ug/L			519789	523099	0
	Ni	60	0.337	ug/L	0.016	4	115	1211	3
	Ni	62	1.053	ug/L	0.037	3	59	543	2
	Cu	63	0.676	ug/L	0.048	7	128	4813	6
	Cu	65	0.309	ug/L	0.022	7	52	1012	7
	Zn	66	0.942	ug/L	0.020	2	91	1829	2
	Zn	67	4.666	ug/L	0.353	7	15	1459	7
	Zn	68	0.465	ug/L	0.021	4	245	877	2
	As	75	0.131	ug/L	0.028	21	275	517	10
	As-1	75	0.215	ug/L	0.064	30	6533	6964	1
	Se	82	-0.155	ug/L	0.011	7	1	-27	7
	Se	78	0.490	ug/L	0.296	60	6624	6900	1
	Y	89		ug/L			348110	350868	2
	Kr	83		ug/L			484	690	1
>	In	115		ug/L			1090833	1007424	2
	Ag	107	0.015	ug/L	0.001	8	56	229	7
	Cd	111	0.146	ug/L	0 010	6	102	834	7
	Cd	114	0.253	ug/L	0 005	2	46	3208	1
	Sb	121	0.057	ug/L	0.006	11	443	1318	7
	Sb	123	0.061	ug/L	0.004	5	322	1047	6
>	Tb	159		ug/L			1240902	1254281	1
	Tl	205	0.037	ug/L	0.001	3	149	1685	3
	Pb	208	0.035	ug/L	0.001	3	248	2144	4
	Bi	209		ug/L			2863864	2617868	2
	Th	232	0.121	ug/L	0.049	40	521	6741	35
	U	238	0.000	ug/L	0.000	282	52	62	40

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:50:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	214889	3
	Cl	37		ug/L			3856256	10653494	1
>	Ge	72		ug/L			519789	502497	5
	Ni	60	19.863	ug/L	1.148	5	115	61981	4
	Ni	62	20.382	ug/L	0.259	1	59	9036	4
	Cu	63	19.740	ug/L	0.831	4	128	131485	4
	Cu	65	19.465	ug/L	0.758	3	52	58032	1
	Zn	66	19.367	ug/L	1.561	8	91	34295	3
	Zn	67	22.000	ug/L	1.090	4	15	6547	4
	Zn	68	18.375	ug/L	1.040	5	245	24165	4
	As	75	19.393	ug/L	1.026	5	275	34317	0
	As-1	75	19.608	ug/L	1.233	6	6533	40523	0
	Se	82	-0.127	ug/L	0.087	68	1	-21	75
	Se	78	0.546	ug/L	0.896	164	6624	6642	2
	Y	89		ug/L			348110	342446	3
	Kr	83		ug/L			484	648	7
>	In	115		ug/L			1090833	1046670	1
	Ag	107	19.952	ug/L	0.437	2	56	239320	2
	Cd	111	19.567	ug/L	0.252	1	102	102889	1
	Cd	114	19.433	ug/L	0.099	0	46	252544	1
	Sb	121	0.058	ug/L	0.004	7	443	1387	6
	Sb	123	0.059	ug/L	0 005	9	322	1072	7
>	Tb	159		ug/L			1240902	1283170	1
	Tl	205	0.037	ug/L	0.001	2	149	1714	0
	Pb	208	0.034	ug/L	0.001	2	248	2162	2
	Bi	209		ug/L			2863864	2675674	1
	Th	232	0.037	ug/L	0.009	24	521	2466	17
	U	238	-0.000	ug/L	0.000	6	52	34	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 10:56:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	117306	2
	Cl	37		ug/L			3856256	3854269	1
>	Ge	72		ug/L			519789	507021	2
	Ni	60	194.619	ug/L	3.444	1	115	612495	1
	Ni	62	192.203	ug/L	5 580	2	59	85495	0
	Cu	63	187.721	ug/L	2.875	1	128	1261782	2
	Cu	65	191.938	ug/L	11.294	5	52	577348	4
	Zn	66	184.861	ug/L	12.453	6	91	330149	4
	Zn	67	191.250	ug/L	4.086	2	15	57373	1
	Zn	68	188.406	ug/L	4.797	2	245	248069	0
	As	75	196.630	ug/L	10.754	5	275	348994	3
	As-1	75	195.750	ug/L	10.780	5	6533	351432	3
	Se	82	196.413	ug/L	8.986	4	1	36176	2
	Se	78	190.177	ug/L	8.918	4	6624	94805	2
	Y	89		ug/L			348110	341972	2
	Kr	83		ug/L			484	630	4
>	In	115		ug/L			1090833	1008558	2
	Ag	107	192.853	ug/L	1.035	0	56	2228567	2
	Cd	111	194.899	ug/L	5.784	2	102	986374	1
	Cd	114	203.038	ug/L	5.565	2	46	2541291	1
	Sb	121	202.876	ug/L	4.713	2	443	3266537	0
	Sb	123	203.534	ug/L	5.644	2	322	2515622	0
>	Tb	159		ug/L			1240902	1274998	0
	Tl	205	196.881	ug/L	0.791	0	149	8209212	0
	Pb	208	198.363	ug/L	3.140	1	248	10906592	1
	Bi	209		ug/L			2863864	2655099	0
	Th	232	199.203	ug/L	0.326	0	521	10445227	0
	U	238	195.477	ug/L	4.406	2	52	10189364	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 11:02:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	129510	5
	Cl	37		ug/L			3856256	3757570	0
>	Ge	72		ug/L			519789	543033	1
	Ni	60	0.027	ug/L	0.006	20	115	210	10
	Ni	62	0.019	ug/L	0.020	104	59	71	11
	Cu	63	0.031	ug/L	0.004	12	128	356	9
	Cu	65	0.024	ug/L	0.006	25	52	132	13
	Zn	66	0.679	ug/L	0.027	3	91	1395	3
	Zn	67	0.620	ug/L	0.024	3	15	215	4
	Zn	68	0.658	ug/L	0.007	1	245	1184	1
	As	75	0.015	ug/L	0.004	29	275	316	1
	As-1	75	0.119	ug/L	0.068	56	6533	7049	0
	Se	82	0.001	ug/L	0.089	12388	1	2	788
	Se	78	0.426	ug/L	0.220	51	6624	7131	0
	Y	89		ug/L			348110	365061	3
	Kr	83		ug/L			484	526	6
>	In	115		ug/L			1090833	1080026	1
	Ag	107	0.002	ug/L	0.001	32	56	75	9
	Cd	111	-0.002	ug/L	0.001	67	102	90	6
	Cd	114	0.002	ug/L	0.001	61	46	67	17
	Sb	121	0.148	ug/L	0.021	14	443	2991	13
	Sb	123	0.144	ug/L	0.020	13	322	2232	13
>	Tb	159		ug/L			1240902	1224173	1
	Tl	205	0.009	ug/L	0.000	4	149	517	2
	Pb	208	0.021	ug/L	0.000	1	248	1349	1
	Bi	209		ug/L			2863864	2899484	0
	Th	232	0.157	ug/L	0.010	6	521	8433	6
	U	238	0.005	ug/L	0.001	15	52	303	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 11:07:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	126831	4
	Cl	37		ug/L			3856256	3701251	2
>	Ge	72		ug/L			519789	514165	1
	Ni	60	0.036	ug/L	0.003	8	115	228	5
	Ni	62	0.019	ug/L	0.008	40	59	67	3
	Cu	63	0.058	ug/L	0.005	9	128	522	8
	Cu	65	0.049	ug/L	0.010	20	52	202	15
	Zn	66	0.978	ug/L	0.035	3	91	1863	3
	Zn	67	0.827	ug/L	0.106	12	15	267	13
	Zn	68	0.942	ug/L	0.045	4	245	1499	3
	As	75	0.038	ug/L	0.007	17	275	340	3
	As-1	75	0.294	ug/L	0.066	22	6533	6988	1
	Se	82	0.051	ug/L	0.023	44	1	11	36
	Se	78	1.058	ug/L	0.235	22	6624	7050	1
	Y	89		ug/L			348110	366100	2
	Kr	83		ug/L			484	501	3
>	In	115		ug/L			1090833	1074637	1
	Ag	107	0.001	ug/L	0.001	127	56	63	14
	Cd	111	-0.001	ug/L	0.000	48	102	95	3
	Cd	114	0.001	ug/L	0.001	109	46	61	26
	Sb	121	0.026	ug/L	0.007	28	443	873	13
	Sb	123	0.025	ug/L	0.007	27	322	651	13
>	Tb	159		ug/L			1240902	1218398	1
	Tl	205	0.004	ug/L	0.001	25	149	290	11
	Pb	208	0.025	ug/L	0.001	4	248	1549	2
	Bi	209		ug/L			2863864	2868919	0
	Th	232	0.039	ug/L	0.004	10	521	2458	9
	U	238	0.001	ug/L	0.000	36	52	98	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 11:11:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	121495	0
	Cl	37		ug/L			3856256	3771046	3
>	Ge	72		ug/L			519789	541248	2
	Ni	60	49.275	ug/L	1.902	3	115	165658	4
	Ni	62	48.395	ug/L	0.932	1	59	23035	3
	Cu	63	49.541	ug/L	0.143	0	128	355534	2
	Cu	65	50.632	ug/L	1.302	2	52	162723	3
	Zn	66	49.401	ug/L	2.379	4	91	94255	2
	Zn	67	49.683	ug/L	2.325	4	15	15914	2
	Zn	68	50.338	ug/L	1.308	2	245	70936	1
	As	75	50.213	ug/L	0.689	1	275	95401	1
	As-1	75	49.622	ug/L	0.926	1	6533	100221	1
	Se	82	52.632	ug/L	0.809	1	1	10353	1
	Se	78	49.686	ug/L	2.361	4	6624	31539	2
	Y	89		ug/L			348110	367825	1
	Kr	83		ug/L			484	556	6
>	In	115		ug/L			1090833	1067988	1
	Ag	107	45.330	ug/L	1 493	3	56	554561	2
	Cd	111	49.029	ug/L	1.530	3	102	262857	1
	Cd	114	49.480	ug/L	0.870	1	46	656012	1
	Sb	121	48.440	ug/L	0.448	0	443	826481	0
	Sb	123	48.117	ug/L	1.142	2	322	630162	1
>	Tb	159		ug/L			1240902	1257597	1
	Tl	205	52.328	ug/L	0.237	0	149	2152121	1
	Pb	208	50.657	ug/L	0.774	1	248	2747091	0
	Bi	209		ug/L			2863864	2833895	2
	Th	232	51.113	ug/L	0.154	0	521	2643897	1
	U	238	51.292	ug/L	0.730	1	52	2636681	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 11:18:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	119121	4
	Cl	37		ug/L			3856256	3587473	1
>	Ge	72		ug/L			519789	539409	1
	Ni	60	-0.016	ug/L	0.001	5	115	66	5
	Ni	62	-0.022	ug/L	0.017	77	59	51	14
	Cu	63	-0.004	ug/L	0.001	20	128	105	6
	Cu	65	-0.004	ug/L	0.003	81	52	41	24
	Zn	66	0.009	ug/L	0.004	45	91	113	6
	Zn	67	0.033	ug/L	0.016	50	15	26	20
	Zn	68	0.008	ug/L	0.008	98	245	265	2
	As	75	0.002	ug/L	0.019	776	275	290	11
	As-1	75	0.159	ug/L	0.124	78	6533	7076	1
	Se	82	-0.049	ug/L	0 034	68	1	-7	87
	Se	78	0.589	ug/L	0.469	79	6624	7163	1
	Y	89		ug/L			348110	362312	2
	Kr	83		ug/L			484	531	1
>	In	115		ug/L			1090833	1081089	0
	Ag	107	-0.001	ug/L	0.001	77	56	46	16
	Cd	111	-0.004	ug/L	0.002	50	102	81	12
	Cd	114	-0.000	ug/L	0.000	47	46	41	5
	Sb	121	0.050	ug/L	0.010	20	443	1300	13
	Sb	123	0.053	ug/L	0.009	17	322	1016	12
>	Tb	159		ug/L			1240902	1204083	0
	Tl	205	0.002	ug/L	0.001	53	149	229	19
	Pb	208	0.001	ug/L	0.000	27	248	272	3
	Bi	209		ug/L			2863864	2882043	1
	Th	232	0.106	ug/L	0.004	3	521	5748	3
	U	238	0.002	ug/L	0.001	46	52	147	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:27:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	134943	1
	Cl	37		ug/L			3856256	3574752	2
>	Ge	72		ug/L			519789	542478	4
	Ni	60	0.023	ug/L	0.004	16	115	198	7
	Ni	62	-0.002	ug/L	0.009	451	59	61	8
	Cu	63	0.022	ug/L	0.002	11	128	294	7
	Cu	65	0.016	ug/L	0.003	18	52	105	10
	Zn	66	0.707	ug/L	0.078	11	91	1442	6
	Zn	67	0.663	ug/L	0.065	9	15	228	5
	Zn	68	0.677	ug/L	0.030	4	245	1208	0
	As	75	0.041	ug/L	0.047	116	275	363	22
	As-1	75	0.207	ug/L	0.213	103	6533	7198	3
	Se	82	-0.009	ug/L	0.051	591	1	0	9608
	Se	78	0.667	ug/L	0.705	105	6624	7236	2
	Y	89		ug/L			348110	370797	2
	Kr	83		ug/L			484	536	3
>	In	115		ug/L			1090833	1090791	0
	Ag	107	0.006	ug/L	0.011	177	56	134	102
	Cd	111	0.002	ug/L	0.011	567	102	112	52
	Cd	114	0.006	ug/L	0.010	155	46	133	100
	Sb	121	0.014	ug/L	0.004	25	443	685	8
	Sb	123	0.016	ug/L	0.003	20	322	535	7
>	Tb	159		ug/L			1240902	1233185	1
	Tl	205	0.006	ug/L	0.006	94	149	395	58
	Pb	208	0.009	ug/L	0.005	53	248	712	34
	Bi	209		ug/L			2863864	2865840	1
	Th	232	0.048	ug/L	0.012	24	521	2962	19
	U	238	0.003	ug/L	0.004	140	52	189	101

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB3 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:30:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	131567	2
	Cl	37		ug/L			3856256	3705456	3
>	Ge	72		ug/L			519789	537291	3
	Ni	60	0.004	ug/L	0.003	60	115	133	4
	Ni	62	-0.019	ug/L	0.021	112	59	53	21
	Cu	63	0.052	ug/L	0.002	4	128	504	0
	Cu	65	0.050	ug/L	0.005	10	52	214	9
	Zn	66	0.491	ug/L	0.017	3	91	1023	2
	Zn	67	0.414	ug/L	0.045	10	15	147	7
	Zn	68	0.463	ug/L	0.024	5	245	899	4
	As	75	0.019	ug/L	0.022	115	275	320	12
	As-1	75	0.234	ug/L	0.176	75	6533	7182	2
	Se	82	0.033	ug/L	0.021	63	1	8	51
	Se	78	0.863	ug/L	0.689	79	6624	7264	2
	Y	89		ug/L			348110	379194	2
	Kr	83		ug/L			484	510	0
>	In	115		ug/L			1090833	1089619	2
	Ag	107	-0.001	ug/L	0.001	64	56	45	14
	Cd	111	-0.005	ug/L	0.002	31	102	75	9
	Cd	114	-0.001	ug/L	0.000	56	46	38	14
	Sb	121	-0.007	ug/L	0.003	44	443	323	15
	Sb	123	-0.006	ug/L	0.002	29	322	248	10
>	Tb	159		ug/L			1240902	1231630	2
	Tl	205	-0.000	ug/L	0.000	94	149	142	5
	Pb	208	0.011	ug/L	0 000	2	248	841	3
	Bi	209		ug/L			2863864	2871582	0
	Th	232	0.034	ug/L	0.007	21	521	2237	15
	U	238	-0.000	ug/L	0.000	35	52	45	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:34:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	131536	1
	Cl	37		ug/L			3856256	3817663	1
>	Ge	72		ug/L			519789	546576	1
	Ni	60	3.384	ug/L	0.056	1	115	11602	2
	Ni	62	3.431	ug/L	0.163	4	59	1707	4
	Cu	63	14.961	ug/L	0.501	3	128	108519	3
	Cu	65	15.079	ug/L	0.536	3	52	48970	3
	Zn	66	115.661	ug/L	4.968	4	91	222854	3
	Zn	67	106.391	ug/L	2.010	1	15	34428	3
	Zn	68	114.251	ug/L	2.000	1	245	162351	3
	As	75	1.031	ug/L	0.031	2	275	2261	2
	As-1	75	1.151	ug/L	0.046	4	6533	9057	0
	Se	82	0.162	ug/L	0.028	17	1	34	15
	Se	78	0.645	ug/L	0.132	20	6624	7288	0
	Y	89		ug/L			348110	370060	3
	Kr	83		ug/L			484	542	2
>	In	115		ug/L			1090833	1062437	2
	Ag	107	0.032	ug/L	0 001	2	56	444	3
	Cd	111	0.552	ug/L	0.026	4	102	3039	1
	Cd	114	0.549	ug/L	0.017	3	46	7282	1
	Sb	121	0.679	ug/L	0.029	4	443	11945	1
	Sb	123	0.674	ug/L	0.032	4	322	9082	2
>	Tb	159		ug/L			1240902	1244375	2
	Tl	205	0.062	ug/L	0.003	4	149	2675	5
	Pb	208	9.679	ug/L	0.289	2	248	519398	0
	Bi	209		ug/L			2863864	2829274	0
	Th	232	0.083	ug/L	0.004	5	521	4784	3
	U	238	0.065	ug/L	0 001	2	52	3359	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:37:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			125994	129786	1
	Cl	37		ug/L			3856256	3816816	1
>	Ge	72		ug/L			519789	561864	3
	Ni	60	2.993	ug/L	0.225	7	115	10541	3
	Ni	62	3.032	ug/L	0.071	2	59	1557	1
	Cu	63	13.598	ug/L	0.292	2	128	101408	4
	Cu	65	13.518	ug/L	0.447	3	52	45103	0
	Zn	66	108.772	ug/L	12.158	11	91	215010	8
	Zn	67	99.597	ug/L	5.261	5	15	33080	1
	Zn	68	105.930	ug/L	4.258	4	245	154590	2
	As	75	0.934	ug/L	0.070	7	275	2131	3
	As-1	75	0.937	ug/L	0.295	31	6533	8877	2
	Se	82	0.185	ug/L	0.015	8	1	39	8
	Se	78	0.190	ug/L	0 880	464	6624	7246	2
	Y	89		ug/L			348110	377219	3
	Kr	83		ug/L			484	533	2
>	In	115		ug/L			1090833	1080019	0
	Ag	107	0.026	ug/L	0.002	9	56	378	7
	Cd	111	0.534	ug/L	0.028	5	102	2996	5
	Cd	114	0.541	ug/L	0.016	2	46	7305	3
	Sb	121	0.516	ug/L	0.016	3	443	9342	2
	Sb	123	0.524	ug/L	0.010	1	322	7261	2
>	Tb	159		ug/L			1240902	1243283	1
	Tl	205	0.061	ug/L	0.002	3	149	2645	2
	Pb	208	8.831	ug/L	0.158	1	248	473662	0
	Bi	209		ug/L			2863864	2861048	1
	Th	232	0.058	ug/L	0.001	1	521	3503	2
	U	238	0.061	ug/L	0.000	0	52	3141	1

WJ10 : 02457

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:41:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			125994	125671	3
	Cl	37		ug/L			3856256	3845984	0
>	Ge	72		ug/L			519789	543081	1
	Ni	60	26.844	ug/L	1.907	7	115	90552	5
	Ni	62	26.110	ug/L	1.166	4	59	12498	4
	Cu	63	36.452	ug/L	0.490	1	128	262537	2
	Cu	65	37.810	ug/L	1.230	3	52	121912	2
	Zn	66	176.018	ug/L	8.356	4	91	336823	2
	Zn	67	163.689	ug/L	8.485	5	15	52580	3
	Zn	68	172.635	ug/L	6.645	3	245	243472	2
	As	75	25.468	ug/L	0.996	3	275	48687	2
	As-1	75	24.967	ug/L	1.274	5	6533	53973	2
	Se	82	73.874	ug/L	2.012	2	1	14581	2
	Se	78	72.016	ug/L	3.246	4	6624	42757	2
	Y	89		ug/L			348110	373421	2
	Kr	83		ug/L			484	576	7
>	In	115		ug/L			1090833	1085752	1
	Ag	107	21.573	ug/L	0.624	2	56	268331	1
	Cd	111	23.112	ug/L	0.360	1	102	126039	0
	Cd	114	23.619	ug/L	0.322	1	46	318448	2
	Sb	121	23.133	ug/L	0.880	3	443	401356	2
	Sb	123	22.789	ug/L	0.594	2	322	303563	1
>	Tb	159		ug/L			1240902	1239494	3
	Tl	205	25.410	ug/L	0.650	2	149	1029581	0
	Pb	208	33.280	ug/L	1.182	3	248	1777901	1
	Bi	209		ug/L			2863864	2834638	1
	Th	232	20.161	ug/L	0.658	3	521	1027424	0
	U	238	24.849	ug/L	0.635	2	52	1258514	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 EDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:44:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	133083	3
	Cl	37		ug/L			3856256	3868330	2
>	Ge	72		ug/L			519789	541596	4
	Ni	60	1.169	ug/L	0.103	8	115	4042	6
	Ni	62	1.061	ug/L	0.059	5	59	565	2
	Cu	63	2.502	ug/L	0.136	5	128	18093	6
	Cu	65	2.492	ug/L	0.122	4	52	8061	5
	Zn	66	41.580	ug/L	2.110	5	91	79344	0
	Zn	67	39.605	ug/L	1.753	4	15	12690	1
	Zn	68	41.190	ug/L	1.028	2	245	58114	2
	As	75	0.537	ug/L	0.033	6	275	1302	2
	As-1	75	0.723	ug/L	0.169	23	6533	8159	1
	Se	82	0.037	ug/L	0.068	186	1	9	147
	Se	78	0.820	ug/L	0.523	63	6624	7301	1
	Y	89		ug/L			348110	369228	2
	Kr	83		ug/L			484	563	6
>	In	115		ug/L			1090833	1072561	1
	Ag	107	0.000	ug/L	0.000	104	56	61	8
	Cd	111	0.043	ug/L	0.008	19	102	328	13
	Cd	114	0.046	ug/L	0.004	8	46	660	8
	Sb	121	0.209	ug/L	0.006	3	443	4014	1
	Sb	123	0.204	ug/L	0.010	5	322	3003	4
>	Tb	159		ug/L			1240902	1226664	1
	Tl	205	0.039	ug/L	0.002	3	149	1699	4
	Pb	208	0.082	ug/L	0.002	2	248	4576	1
	Bi	209		ug/L			2863864	2834938	2
	Th	232	0.114	ug/L	0.021	18	521	6281	16
	U	238	0.021	ug/L	0.006	30	52	1092	30

WJ10 . 82499

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:48:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	139385	3
	Cl	37		ug/L			3856256	3820527	1
>	Ge	72		ug/L			519789	532299	3
	Ni	60	1.180	ug/L	0.059	4	115	4013	4
	Ni	62	1.026	ug/L	0.042	4	59	540	2
	Cu	63	2.643	ug/L	0.044	1	128	18780	4
	Cu	65	2.614	ug/L	0.095	3	52	8307	0
	Zn	66	42.274	ug/L	1.532	3	91	79341	0
	Zn	67	40.004	ug/L	2.115	5	15	12601	2
	Zn	68	41.987	ug/L	0.229	0	245	58260	3
	As	75	0.556	ug/L	0.044	7	275	1316	3
	As-1	75	0.780	ug/L	0.183	23	6533	8129	2
	Se	82	0.093	ug/L	0.063	67	1	19	58
	Se	78	1.019	ug/L	0.568	55	6624	7276	2
	Y	89		ug/L			348110	371317	2
	Kr	83		ug/L			484	552	3
>	In	115		ug/L			1090833	1065352	1
	Ag	107	0.000	ug/L	0.001	380	56	57	16
	Cd	111	0.045	ug/L	0.003	5	102	338	4
	Cd	114	0.045	ug/L	0.003	6	46	640	6
	Sb	121	0.195	ug/L	0.008	3	443	3752	3
	Sb	123	0.199	ug/L	0.005	2	322	2913	1
>	Tb	159		ug/L			1240902	1227407	1
	Tl	205	0.037	ug/L	0.002	6	149	1642	4
	Pb	208	0.080	ug/L	0.003	3	248	4504	1
	Bi	209		ug/L			2863864	2835086	0
	Th	232	0.026	ug/L	0.005	20	521	1852	15
	U	238	0.011	ug/L	0 001	5	52	620	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 ESPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:51:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	151516	1
	Cl	37		ug/L			3856256	3720902	2
>	Ge	72		ug/L			519789	536967	2
	Ni	60	25.599	ug/L	0.592	2	115	85469	4
	Ni	62	25.634	ug/L	0.603	2	59	12131	2
	Cu	63	27.865	ug/L	0.731	2	128	198391	1
	Cu	65	28.644	ug/L	1.124	3	52	91290	1
	Zn	66	122.587	ug/L	5.456	4	91	231935	2
	Zn	67	113.087	ug/L	3.958	3	15	35935	3
	Zn	68	117.525	ug/L	1.854	1	245	164043	3
	As	75	26.834	ug/L	1.578	5	275	50673	3
	As-1	75	26.028	ug/L	1.428	5	6533	55330	2
	Se	82	80.542	ug/L	2.556	3	1	15713	1
	Se	78	77.523	ug/L	2.215	2	6624	44990	1
	Y	89		ug/L			348110	374698	2
	Kr	83		ug/L			484	557	5
>	In	115		ug/L			1090833	1058599	1
	Ag	107	23.301	ug/L	0.631	2	56	282658	3
	Cd	111	24.786	ug/L	0.354	1	102	131781	0
	Cd	114	24.752	ug/L	0.568	2	46	325306	2
	Sb	121	22.810	ug/L	0.519	2	443	385958	1
	Sb	123	22.632	ug/L	0.725	3	322	293962	2
>	Tb	159		ug/L			1240902	1233925	2
	Tl	205	26.302	ug/L	0.138	0	149	1061492	2
	Pb	208	26.458	ug/L	0.801	3	248	1407505	0
	Bi	209		ug/L			2863864	2864953	1
	Th	232	24.070	ug/L	0.601	2	521	1221480	0
	U	238	25.817	ug/L	0.208	0	52	1302205	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:55:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	128055	6
	Cl	37		ug/L			3856256	3755584	4
>	Ge	72		ug/L			519789	533488	3
	Ni	60	26.278	ug/L	1.212	4	115	87099	4
	Ni	62	25.516	ug/L	0.624	2	59	11996	2
	Cu	63	26.871	ug/L	0.428	1	128	190090	1
	Cu	65	26.905	ug/L	0.873	3	52	85198	0
	Zn	66	80.365	ug/L	4.829	6	91	151017	2
	Zn	67	75.335	ug/L	5.090	6	15	23763	3
	Zn	68	77.985	ug/L	3.387	4	245	108135	1
	As	75	25.998	ug/L	1.129	4	275	48797	2
	As-1	75	25.133	ug/L	1.326	5	6533	53306	1
	Se	82	78.994	ug/L	2.477	3	1	15312	2
	Se	78	75.740	ug/L	3.322	4	6624	43810	0
	Y	89		ug/L			348110	364950	1
	Kr	83		ug/L			484	540	2
>	In	115		ug/L			1090833	1061900	0
	Ag	107	23.422	ug/L	1.004	4	56	284944	3
	Cd	111	24.535	ug/L	0.304	1	102	130871	1
	Cd	114	25.243	ug/L	0.303	1	46	332816	1
	Sb	121	24.950	ug/L	0.691	2	443	423432	1
	Sb	123	24.741	ug/L	0.623	2	322	322337	1
>	Tb	159		ug/L			1240902	1217529	1
	Tl	205	26.948	ug/L	0.600	2	149	1072836	0
	Pb	208	27.174	ug/L	0.263	0	248	1426849	0
	Bi	209		ug/L			2863864	2893469	0
	Th	232	24.003	ug/L	0.490	2	521	1202045	0
	U	238	26.629	ug/L	0.487	1	52	1325241	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB3SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, April 05, 2013 11:58:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	125300	0
	Cl	37		ug/L			3856256	3646087	2
>	Ge	72		ug/L			519789	533252	1
	Ni	60	26.881	ug/L	1.708	6	115	89095	6
	Ni	62	25.762	ug/L	0.627	2	59	12111	3
	Cu	63	27.247	ug/L	0.654	2	128	192690	1
	Cu	65	27.036	ug/L	1.698	6	52	85581	4
	Zn	66	80.166	ug/L	5 381	6	91	150672	5
	Zn	67	74.083	ug/L	2.188	2	15	23385	2
	Zn	68	77.578	ug/L	2.625	3	245	107616	3
	As	75	25.873	ug/L	1.845	7	275	48548	5
	As-1	75	25.265	ug/L	1.972	7	6533	53546	5
	Se	82	77.732	ug/L	2.817	3	1	15063	2
	Se	78	75.454	ug/L	3.869	5	6624	43669	3
	Y	89		ug/L			348110	364899	2
	Kr	83		ug/L			484	545	7
>	In	115		ug/L			1090833	1064064	1
	Ag	107	24.563	ug/L	0.322	1	56	299515	2
	Cd	111	25.159	ug/L	0.783	3	102	134440	2
	Cd	114	25.722	ug/L	0.488	1	46	339778	0
	Sb	121	25.592	ug/L	0.536	2	443	435241	1
	Sb	123	25.530	ug/L	0.538	2	322	333286	1
>	Tb	159		ug/L			1240902	1211802	1
	Tl	205	27.878	ug/L	0.780	2	149	1104640	1
	Pb	208	27.948	ug/L	0.705	2	248	1460428	1
	Bi	209		ug/L			2863864	2868217	0
	Th	232	25.911	ug/L	0.588	2	521	1291452	0
	U	238	27.331	ug/L	0 965	3	52	1353609	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 12:03:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	117942	2
	Cl	37		ug/L			3856256	3731790	0
>	Ge	72		ug/L			519789	519137	2
	Ni	60	48.685	ug/L	0.884	1	115	157041	4
	Ni	62	48.542	ug/L	1.686	3	59	22160	3
	Cu	63	49.592	ug/L	1.989	4	128	341168	1
	Cu	65	49.640	ug/L	2.057	4	52	152952	3
	Zn	66	49.882	ug/L	1.301	2	91	91324	0
	Zn	67	50.371	ug/L	1.042	2	15	15491	4
	Zn	68	49.698	ug/L	1.322	2	245	67199	3
	As	75	51.136	ug/L	1.914	3	275	93164	2
	As-1	75	50.612	ug/L	1.608	3	6533	97909	2
	Se	82	52.676	ug/L	1.861	3	1	9938	2
	Se	78	49.984	ug/L	0.632	1	6624	30402	1
	Y	89		ug/L			348110	355521	1
	Kr	83		ug/L			484	548	4
>	In	115		ug/L			1090833	1033911	1
	Ag	107	46.590	ug/L	0.884	1	56	551871	1
	Cd	111	49.451	ug/L	1.780	3	102	256654	2
	Cd	114	50.378	ug/L	0.303	0	46	646622	0
	Sb	121	48.649	ug/L	1.146	2	443	803433	1
	Sb	123	49.100	ug/L	1 769	3	322	622454	2
>	Tb	159		ug/L			1240902	1223671	1
	Tl	205	52.532	ug/L	0.304	0	149	2102248	1
	Pb	208	50.968	ug/L	1.612	3	248	2689096	1
	Bi	209		ug/L			2863864	2763297	1
	Th	232	52.984	ug/L	0.859	1	521	2666602	1
	U	238	52.055	ug/L	0.466	0	52	2603927	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 12:09:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	115418	4
	Cl	37		ug/L			3856256	3706888	1
>	Ge	72		ug/L			519789	525073	3
	Ni	60	-0.020	ug/L	0.002	8	115	51	11
	Ni	62	-0.027	ug/L	0 007	27	59	48	5
	Cu	63	-0.006	ug/L	0.000	6	128	88	3
	Cu	65	-0.007	ug/L	0.001	12	52	31	5
	Zn	66	0.004	ug/L	0.007	177	91	99	9
	Zn	67	0.042	ug/L	0.035	83	15	28	34
	Zn	68	0.013	ug/L	0.007	57	245	265	2
	As	75	0.032	ug/L	0.007	22	275	337	6
	As-1	75	0.216	ug/L	0.161	74	6533	6986	0
	Se	82	-0.018	ug/L	0.023	129	1	-1	317
	Se	78	0.763	ug/L	0.606	79	6624	7051	0
	Y	89		ug/L			348110	356596	7
	Kr	83		ug/L			484	542	3
>	In	115		ug/L			1090833	1039548	0
	Ag	107	-0.001	ug/L	0.001	138	56	46	21
	Cd	111	-0.002	ug/L	0.001	43	102	88	3
	Cd	114	-0.001	ug/L	0.001	113	46	37	20
	Sb	121	0.052	ug/L	0.013	23	443	1293	16
	Sb	123	0.051	ug/L	0.008	15	322	961	10
>	Tb	159		ug/L			1240902	1151901	0
	Tl	205	0.001	ug/L	0.000	30	149	176	6
	Pb	208	0.000	ug/L	0.000	74	248	249	6
	Bi	209		ug/L			2863864	2826352	2
	Th	232	0.158	ug/L	0 011	6	521	7976	6
	U	238	0.002	ug/L	0.000	22	52	134	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB2 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:13:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	139698	1
	Cl	37		ug/L			3856256	3614408	2
>	Ge	72		ug/L			519789	549672	1
	Ni	60	0.007	ug/L	0.003	49	115	143	5
	Ni	62	-0.017	ug/L	0.006	36	59	54	3
	Cu	63	0.003	ug/L	0.002	55	128	156	8
	Cu	65	0.003	ug/L	0.002	76	52	64	8
	Zn	66	0.212	ug/L	0.031	14	91	506	10
	Zn	67	0.221	ug/L	0 043	19	15	88	16
	Zn	68	0.218	ug/L	0.044	20	245	569	9
	As	75	0.009	ug/L	0.020	212	275	309	11
	As-1	75	0.066	ug/L	0.121	181	6533	7032	1
	Se	82	0.000	ug/L	0.072	65929	1	1	757
	Se	78	0.236	ug/L	0.445	188	6624	7121	1
	Y	89		ug/L			348110	366764	4
	Kr	83		ug/L			484	526	2
>	In	115		ug/L			1090833	1069068	1
	Ag	107	0.000	ug/L	0.001	1845	56	55	16
	Cd	111	-0.003	ug/L	0.004	131	102	82	25
	Cd	114	-0.001	ug/L	0.001	148	46	38	28
	Sb	121	0.001	ug/L	0.005	917	443	443	19
	Sb	123	0.003	ug/L	0.005	197	322	351	18
>	Tb	159		ug/L			1240902	1202793	1
	Tl	205	0.000	ug/L	0.000	84	149	151	2
	Pb	208	0.004	ug/L	0.001	17	248	448	7
	Bi	209		ug/L			2863864	2901418	1
	Th	232	0.095	ug/L	0.021	22	521	5232	20
	U	238	0.000	ug/L	0.000	23	52	59	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ75 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:16:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			125994	145184	1
	Cl	37		ug/L			3856256	3719886	2
>	Ge	72		ug/L			519789	528357	3
	Ni	60	**10.665**	ug/L	0.737	6	115	35041	4
	Ni	62	**11.804**	ug/L	0.501	4	59	5524	0
	Cu	63	**12.226**	ug/L	0.388	3	128	85690	1
	Cu	65	**12.207**	ug/L	0.657	5	52	38313	5
	Zn	66	**32.866**	ug/L	1.513	4	91	61231	1
	Zn	67	**35.636**	ug/L	0 923	2	15	11149	1
	Zn	68	**34.052**	ug/L	1.742	5	245	46886	2
	As	75	**3.527**	ug/L	0.119	3	275	6798	0
	As-1	75	**3.672**	ug/L	0.215	5	6533	13380	1
	Se	82	**0.141**	ug/L	0.044	30	1	29	31
	Se	78	**0.853**	ug/L	0.395	46	6624	7141	1
	Y	89		ug/L			348110	469476	4
	Kr	83		ug/L			484	642	2
>	In	115		ug/L			1090833	1036201	1
	Ag	107	**0.041**	ug/L	0.004	8	56	534	6
	Cd	111	**0.105**	ug/L	0.008	7	102	643	6
	Cd	114	**0.065**	ug/L	0 003	5	46	877	3
	Sb	121	**-0.002**	ug/L	0.003	135	443	381	13
	Sb	123	**-0.001**	ug/L	0.005	674	322	297	19
>	Tb	159		ug/L			1240902	1245606	3
	Tl	205	**0.041**	ug/L	0.001	1	149	1809	4
	Pb	208	**3.315**	ug/L	0.132	3	248	178155	0
	Bi	209		ug/L			2863864	2792135	1
	Th	232	**0.901**	ug/L	0.025	2	521	46635	1
	U	238	**0.232**	ug/L	0 007	3	52	11834	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ75 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:20:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125994	144063	5
	Cl	37		ug/L			3856256	3674008	0
>	Ge	72		ug/L			519789	536593	3
	Ni	60	10.358	ug/L	0.309	2	115	34621	4
	Ni	62	11.298	ug/L	0.483	4	59	5375	3
	Cu	63	11.554	ug/L	0.156	1	128	82310	3
	Cu	65	12.034	ug/L	0.440	3	52	38367	3
	Zn	66	32.456	ug/L	0.910	2	91	61442	0
	Zn	67	34.395	ug/L	0.441	1	15	10935	3
	Zn	68	32.690	ug/L	0.824	2	245	45772	3
	As	75	3.407	ug/L	0.122	3	275	6680	2
	As-1	75	3.479	ug/L	0.206	5	6533	13231	0
	Se	82	0.021	ug/L	0.090	431	1	6	293
	Se	78	0.472	ug/L	0.417	88	6624	7066	0
	Y	89		ug/L			348110	478837	2
	Kr	83		ug/L			484	660	3
>	In	115		ug/L			1090833	1042945	2
	Ag	107	0.034	ug/L	0.000	0	56	462	2
	Cd	111	0.105	ug/L	0.010	9	102	645	8
	Cd	114	0.061	ug/L	0.003	4	46	838	3
	Sb	121	-0.008	ug/L	0.004	45	443	292	20
	Sb	123	-0.007	ug/L	0.003	41	322	222	15
>	Tb	159		ug/L			1240902	1252677	0
	Tl	205	0.037	ug/L	0.001	3	149	1686	3
	Pb	208	3.325	ug/L	0.026	0	248	179879	0
	Bi	209		ug/L			2863864	2797799	0
	Th	232	0.838	ug/L	0.005	0	521	43702	1
	U	238	0.222	ug/L	0.005	2	52	11436	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ75 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:24:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	131382	1
	Cl	37		ug/L			3856256	3572165	3
>	Ge	72		ug/L			519789	528652	3
	Ni	60	36.978	ug/L	0 452	1	115	121497	5
	Ni	62	37.780	ug/L	2.199	5	59	17551	1
	Cu	63	38.183	ug/L	1.234	3	128	267469	0
	Cu	65	38.723	ug/L	3.853	9	52	121287	6
	Zn	66	112.440	ug/L	5.890	5	91	209398	3
	Zn	67	112.075	ug/L	5.089	4	15	35040	3
	Zn	68	111.870	ug/L	3.490	3	245	153847	6
	As	75	29.375	ug/L	1.371	4	275	54587	2
	As-1	75	28.745	ug/L	1 445	5	6533	59471	3
	Se	82	81.460	ug/L	2.888	3	1	15641	1
	Se	78	79.196	ug/L	3.033	3	6624	45094	2
	Y	89		ug/L			348110	464989	1
	Kr	83		ug/L			484	633	4
>	In	115		ug/L			1090833	1045796	1
	Ag	107	22.856	ug/L	0.287	1	56	273902	1
	Cd	111	25.864	ug/L	0.624	2	102	135838	1
	Cd	114	25.853	ug/L	0.380	1	46	335715	2
	Sb	121	1.150	ug/L	0.034	2	443	19618	1
	Sb	123	1.146	ug/L	0.028	2	322	15004	1
>	Tb	159		ug/L			1240902	1241373	2
	Tl	205	25.847	ug/L	0.428	1	149	1049215	1
	Pb	208	30.725	ug/L	0 932	3	248	1644278	0
	Bi	209		ug/L			2863864	2777898	0
	Th	232	27.114	ug/L	0.683	2	521	1384170	0
	U	238	26.658	ug/L	0 467	1	52	1352658	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:27:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	162044	2
	Cl	37		ug/L			3856256	3743325	2
>	Ge	72		ug/L			519789	532195	3
	Ni	60	11.187	ug/L	0.388	3	115	37044	1
	Ni	62	11.249	ug/L	0.283	2	59	5308	1
	Cu	63	32.335	ug/L	0.981	3	128	228069	1
	Cu	65	32.532	ug/L	1.653	5	52	102797	5
	Zn	66	274.886	ug/L	13.541	4	91	515239	3
	Zn	67	249.957	ug/L	10.226	4	15	78667	3
	Zn	68	254.646	ug/L	8.691	3	245	351685	1
	As	75	1.737	ug/L	0.109	6	275	3517	6
	As-1	75	1.811	ug/L	0.219	12	6533	10035	2
	Se	82	0.096	ug/L	0.103	107	1	20	99
	Se	78	0.475	ug/L	0.590	124	6624	7007	1
	Y	89		ug/L			348110	403823	2
	Kr	83		ug/L			484	581	3
>	In	115		ug/L			1090833	1062481	2
	Ag	107	0.099	ug/L	0 003	2	56	1257	1
	Cd	111	0.519	ug/L	0.005	1	102	2867	1
	Cd	114	0.504	ug/L	0.017	3	46	6686	2
	Sb	121	0.109	ug/L	0.001	1	443	2279	2
	Sb	123	0.105	ug/L	0.001	1	322	1686	1
>	Tb	159		ug/L			1240902	1238112	0
	Tl	205	0.211	ug/L	0.005	2	149	8708	1
	Pb	208	28.637	ug/L	0 318	1	248	1529251	1
	Bi	209		ug/L			2863864	2894050	1
	Th	232	0.439	ug/L	0.017	3	521	22848	3
	U	238	0.095	ug/L	0.002	2	52	4873	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 CDUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:31:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	178046	3
	Cl	37		ug/L			3856256	3736210	2
>	Ge	72		ug/L			519789	533094	1
	Ni	60	33.529	ug/L	1.837	5	115	110988	3
	Ni	62	34.048	ug/L	1.247	3	59	15973	1
	Cu	63	79.601	ug/L	0.819	1	128	562657	2
	Cu	65	80.811	ug/L	2.257	2	52	255741	2
	Zn	66	654.930	ug/L	15.933	2	91	1230286	0
	Zn	67	603.502	ug/L	45.490	7	15	190181	5
	Zn	68	635.295	ug/L	32.684	5	245	878642	3
	As	75	4.451	ug/L	0.146	3	275	8585	1
	As-1	75	4.498	ug/L	0.281	6	6533	15037	1
	Se	82	0.232	ug/L	0.108	46	1	47	46
	Se	78	0.491	ug/L	0.574	116	6624	7030	2
	Y	89		ug/L			348110	444116	3
	Kr	83		ug/L			484	607	5
>	In	115		ug/L			1090833	1063754	2
	Ag	107	0.406	ug/L	0.016	3	56	4999	1
	Cd	111	1.745	ug/L	0.070	4	102	9408	2
	Cd	114	1.702	ug/L	0.016	0	46	22514	2
	Sb	121	0.113	ug/L	0 008	6	443	2355	2
	Sb	123	0.111	ug/L	0.007	6	322	1756	2
>	Tb	159		ug/L			1240902	1260378	1
	Tl	205	0.296	ug/L	0.007	2	149	12344	0
	Pb	208	89.894	ug/L	2.219	2	248	4884888	0
	Bi	209		ug/L			2863864	2968978	0
	Th	232	0.627	ug/L	0.006	1	521	33021	1
	U	238	0.283	ug/L	0.007	2	52	14634	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:34:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			125994	164317	5
	Cl	37		ug/L			3856256	3661657	0
>	Ge	72		ug/L			519789	516782	2
	Ni	60	33.034	ug/L	1.234	3	115	106068	3
	Ni	62	34.042	ug/L	1.191	3	59	15486	3
	Cu	63	89.228	ug/L	3.701	4	128	611317	4
	Cu	65	91.167	ug/L	4.609	5	52	279534	3
	Zn	66	777.325	ug/L	21.655	2	91	1415389	0
	Zn	67	697.425	ug/L	5.198	0	15	213257	2
	Zn	68	751.939	ug/L	13.212	1	245	1008762	2
	As	75	4.202	ug/L	0.159	3	275	7871	1
	As-1	75	4.304	ug/L	0.230	5	6533	14229	0
	Se	82	0.210	ug/L	0.078	37	1	41	36
	Se	78	0.696	ug/L	0.318	45	6624	6913	0
	Y	89		ug/L			348110	437372	2
	Kr	83		ug/L			484	597	8
>	In	115		ug/L			1090833	1081571	1
	Ag	107	0.534	ug/L	0 011	1	56	6677	0
	Cd	111	1.958	ug/L	0.035	1	102	10726	0
	Cd	114	1.911	ug/L	0.057	3	46	25699	2
	Sb	121	0.144	ug/L	0.006	4	443	2922	2
	Sb	123	0.139	ug/L	0.006	4	322	2166	1
>	Tb	159		ug/L			1240902	1262705	2
	Tl	205	0.283	ug/L	0.003	0	149	11845	1
	Pb	208	98.055	ug/L	3.695	3	248	5336219	1
	Bi	209		ug/L			2863864	2921231	1
	Th	232	0.637	ug/L	0.013	2	521	33608	1
	U	238	0.302	ug/L	0.006	1	52	15628	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 CSPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:38:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	148534	2
	Cl	37		ug/L			3856256	3726862	3
>	Ge	72		ug/L			519789	527077	1
	Ni	60	48.682	ug/L	2.464	5	115	159341	4
	Ni	62	50.070	ug/L	2.014	4	59	23206	4
	Cu	63	88.809	ug/L	1.076	1	128	620665	2
	Cu	65	91.187	ug/L	1.989	2	52	285348	2
	Zn	66	624.539	ug/L	6.678	1	91	1160229	1
	Zn	67	567.991	ug/L	28.213	4	15	177062	3
	Zn	68	604.875	ug/L	32.278	5	245	827485	4
	As	75	28.377	ug/L	0.833	2	275	52636	3
	As-1	75	27.800	ug/L	0.929	3	6533	57590	1
	Se	82	79.146	ug/L	1.172	1	1	15166	2
	Se	78	76.946	ug/L	2.080	2	6624	43888	0
	Y	89		ug/L			348110	402869	2
	Kr	83		ug/L			484	546	3
>	In	115		ug/L			1090833	1054288	2
	Ag	107	24.709	ug/L	0.072	0	56	298507	2
	Cd	111	26.334	ug/L	0.822	3	102	139391	1
	Cd	114	26.369	ug/L	0.364	1	46	345120	1
	Sb	121	3.232	ug/L	0.110	3	443	54818	1
	Sb	123	3.218	ug/L	0.122	3	322	41875	1
>	Tb	159		ug/L			1240902	1242663	1
	Tl	205	25.923	ug/L	0.150	0	149	1053638	1
	Pb	208	99.669	ug/L	2.367	2	248	5340371	1
	Bi	209		ug/L			2863864	2921965	1
	Th	232	25.299	ug/L	0.559	2	521	1293225	1
	U	238	25.622	ug/L	0.227	0	52	1301614	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ10 MB2SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:41:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			125994	125696	5
	Cl	37		ug/L			3856256	3536436	2
>	Ge	72		ug/L			519789	515520	4
	Ni	60	25.325	ug/L	0.802	3	115	81098	3
	Ni	62	25.134	ug/L	0.727	2	59	11414	2
	Cu	63	26.523	ug/L	1.319	4	128	181067	0
	Cu	65	26.438	ug/L	1.700	6	52	80786	2
	Zn	66	82.321	ug/L	7.227	8	91	149234	4
	Zn	67	75.828	ug/L	3.483	4	15	23111	1
	Zn	68	80.312	ug/L	2.848	3	245	107571	1
	As	75	27.374	ug/L	2.424	8	275	49530	4
	As-1	75	26.607	ug/L	2.579	9	6533	54056	4
	Se	82	84.221	ug/L	4.731	5	1	15755	1
	Se	78	81.391	ug/L	5.206	6	6624	44960	1
	Y	89		ug/L			348110	343462	0
	Kr	83		ug/L			484	550	4
>	In	115		ug/L			1090833	1070573	0
	Ag	107	25.166	ug/L	0.149	0	56	308727	1
	Cd	111	25.333	ug/L	0.702	2	102	136216	2
	Cd	114	25.258	ug/L	0.294	1	46	335725	0
	Sb	121	25.153	ug/L	0 628	2	443	430433	2
	Sb	123	24.797	ug/L	0.566	2	322	325731	1
>	Tb	159		ug/L			1240902	1190513	1
	Tl	205	27.869	ug/L	0.775	2	149	1084807	1
	Pb	208	27.764	ug/L	0.585	2	248	1425299	0
	Bi	209		ug/L			2863864	2835580	1
	Th	232	26.156	ug/L	0.514	1	521	1280762	0
	U	238	27.101	ug/L	0.733	2	52	1318634	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WJ75 MBSPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, April 05, 2013 12:45:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	**13**		ug/L			125994	120767	2
	Cl	**37**		ug/L			3856256	3573628	2
>	**Ge**	**72**		ug/L			519789	518835	2
	Ni	**60**	**25.379**	ug/L	1.129	4	115	81805	3
	Ni	**62**	**25.558**	ug/L	0.121	0	59	11689	2
	Cu	**63**	**26.101**	ug/L	0.571	2	128	179624	3
	Cu	**65**	**26.754**	ug/L	0.775	2	52	82463	4
	Zn	**66**	**79.586**	ug/L	1.332	1	91	145586	1
	Zn	**67**	**75.318**	ug/L	2.719	3	15	23131	3
	Zn	**68**	**77.874**	ug/L	3.097	3	245	105037	1
	As	**75**	**27.036**	ug/L	0.375	1	275	49367	1
	As-1	**75**	**25.875**	ug/L	0.953	3	6533	53211	2
	Se	**82**	**83.873**	ug/L	1.080	1	1	15815	1
	Se	**78**	**79.525**	ug/L	2.973	3	6624	44421	2
	Y	**89**		ug/L			348110	352166	3
	Kr	**83**		ug/L			484	534	1
>	**In**	**115**		ug/L			1090833	1050880	0
	Ag	**107**	**25.527**	ug/L	0.714	2	56	307339	1
	Cd	**111**	**25.507**	ug/L	0.295	1	102	134631	0
	Cd	**114**	**25.857**	ug/L	0.643	2	46	337375	2
	Sb	**121**	**25.233**	ug/L	0.736	2	443	423802	2
	Sb	**123**	**25.024**	ug/L	0.229	0	322	322674	0
>	**Tb**	**159**		ug/L			1240902	1177329	0
	Tl	**205**	**27.830**	ug/L	0.206	0	149	1071635	1
	Pb	**208**	**28.165**	ug/L	0.644	2	248	1430012	1
	Bi	**209**		ug/L			2863864	2857087	1
	Th	**232**	**27.484**	ug/L	0.193	0	521	1331099	0
	U	**238**	**27.603**	ug/L	0.117	0	52	1328541	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 12:49:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	118987	2
	Cl	37		ug/L			3856256	3644763	2
>	Ge	72		ug/L			519789	508623	3
	Ni	60	48.409	ug/L	2.944	6	115	152707	2
	Ni	62	48.648	ug/L	0.411	0	59	21755	3
	Cu	63	49.359	ug/L	0 501	1	128	332925	4
	Cu	65	49.663	ug/L	0.332	0	52	149963	3
	Zn	66	48.754	ug/L	3.189	6	91	87381	4
	Zn	67	49.332	ug/L	2.044	4	15	14845	1
	Zn	68	49.941	ug/L	2.242	4	245	66103	2
	As	75	50.339	ug/L	2.275	4	275	89800	2
	As-1	75	50.006	ug/L	2.356	4	6533	94782	1
	Se	82	52.224	ug/L	1.751	3	1	9648	1
	Se	78	50.316	ug/L	2.532	5	6624	29914	1
	Y	89		ug/L			348110	345106	3
	Kr	83		ug/L			484	562	3
>	In	115		ug/L			1090833	1020165	1
	Ag	107	47.293	ug/L	2.129	4	56	552918	5
	Cd	111	49.689	ug/L	1.202	2	102	254490	1
	Cd	114	50.407	ug/L	1.217	2	46	638397	2
	Sb	121	49.148	ug/L	0.691	1	443	800975	1
	Sb	123	49.320	ug/L	0.771	1	322	617010	0
>	Tb	159		ug/L			1240902	1195986	2
	Tl	205	52.988	ug/L	1.424	2	149	2071489	0
	Pb	208	51.399	ug/L	1.368	2	248	2649821	0
	Bi	209		ug/L			2863864	2764940	1
	Th	232	53.603	ug/L	1.705	3	521	2635372	1
	U	238	52.924	ug/L	1.928	3	52	2586138	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, April 05, 2013 12:56:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\040513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125994	118906	3
	Cl	37		ug/L			3856256	3558305	4
>	Ge	72		ug/L			519789	508779	2
	Ni	60	-0.020	ug/L	0.005	23	115	50	27
	Ni	62	-0.035	ug/L	0.013	37	59	43	16
	Cu	63	-0.000	ug/L	0.002	448	128	122	10
	Cu	65	-0.003	ug/L	0.004	125	52	42	26
	Zn	66	0.024	ug/L	0.006	25	91	132	6
	Zn	67	0.021	ug/L	0.015	73	15	21	22
	Zn	68	0.037	ug/L	0.017	47	245	289	7
	As	75	0.041	ug/L	0.030	72	275	342	13
	As-1	75	0.217	ug/L	0.147	67	6533	6774	1
	Se	82	-0.018	ug/L	0.084	471	1	-1	928
	Se	78	0.777	ug/L	0.538	69	6624	6842	1
	Y	89		ug/L			348110	347334	1
	Kr	83		ug/L			484	551	3
>	In	115		ug/L			1090833	1035345	1
	Ag	107	0.001	ug/L	0.002	271	56	60	29
	Cd	111	-0.003	ug/L	0.002	60	102	80	12
	Cd	114	0.001	ug/L	0.002	288	46	51	38
	Sb	121	0.048	ug/L	0.008	15	443	1215	11
	Sb	123	0.050	ug/L	0.008	16	322	938	12
>	Tb	159		ug/L			1240902	1151038	1
	Tl	205	0.009	ug/L	0.011	124	149	455	85
	Pb	208	0.007	ug/L	0.010	142	248	571	84
	Bi	209		ug/L			2863864	2802674	0
	Th	232	0.173	ug/L	0.003	1	521	8651	2
	U	238	0.006	ug/L	0.007	102	52	351	86

wd pkg

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 4-05-13

	Analyst CB 4-05-13	Peer 4-5-13	Comment
Sequence			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Sample Data			
RSD's & SD's	✓	✓	
Internal Standards	-	—	
Carry-over	-	—	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	-	—	
Post Spikes/Serial Dilutions	-	—	
Analytic Spikes	-	—	
QC Samples			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Notes	-	—	

WJ10:02514

Mercury Analysis Log

Analyst: CB

Instrument: CETAC

Date: 4-05-13

Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	5cm	1x		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				%R= High X
" 10.0				%R= low X
STD 0.0				
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			8.20	Begin CLP %R= 103 ✓
ICB			-0.02	✓
CCV1			4.00	%R= 100 ✓
CCB1			-0.00	✓
CRA			0.09	✓
WJ349 mB1			0.01	✓
" mB1SPK			2.06	%R= 103 ✓
" A				
" B			0.19	
" Bdup			0.19	✓
" BSPK			1.24	%R= 105 ✓
" C				
" D				
" E				
CCV2			4.01	%R= 100 ✓
CCB2	↓	↓	0.00	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2465

14% NH_2OH/NaCl: MP2436

Standard ID:

Standard: 3025-7

ICV/CCV: 59-6

Mercury Analysis Log

Analyst: LB

Instrument: LETAC

Date: 04-05-13

Page: 2 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments
WJ49	F	5mm	1X		
"	G				
"	H				
"	I				
"	J				
"	K				
"	L				
"	M				
"	N				
"	P				
CCV3				4.00	%R=100 ✓
CCB3				0.00	✓
WJ91	mBl			-0.00	✓
"	mBlspk			1.96	%R=98 ✓
"	A				
"	B			0.27	
"	BDup			0.27	✓
"	Aspk			1.38	%R=111 ✓
"	C				
"	D				
"	E				
"	F				
CCV4				4.01	%R=100 ✓
CCB4				-0.00	✓
WJ91	G				
"	H				
"	I				
"	K				
"	L				
"	M				

Chemical/Reagent ID:

10% $SnCl_2$: MP2465

14% NH_2OH/NaCl: MP2436

Standard ID:

Standard: 3025-7

ICV/CCV: 59-6

Mercury Analysis Log

Analyst: CB **Date:** 04-05-13

Instrument: CETAC **Page:** 3 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WJ91 N	5mm	1x		
" O				
" P				
" Q				
CCV5			4.06	%R = 102 ✓
CCB5			0.00	✓
WJ91 R				
" S				
WJ90 MB1			-0.05	✓
" MB1SPK			1.92	%R = 96 ✓
" A				
" B				
" C				
" D				
" E				
" F			0.28	
CCV6			4.01	%R = 100 ✓
CCB6			0.00	✓
WJ90 FDUP			0.28	✓
" FSPK			1.29	%R = 101 ✓
WJ10 MB2			0.01	✓
" MB2SPK			2.02	%R = 101 ✓
" C			0.70	
" CDUP			0.61	RPD = 13.7 ✓
" CSPK			1.89	%R = 119 ✓
" D				
CCV7			4.05	%R = 101 ✓
CCB7			0.01	✓
WJ48 MB1			0.00	CB 4/05/13 ✓
" MB1SPK			1.95	%R = 98 ✓

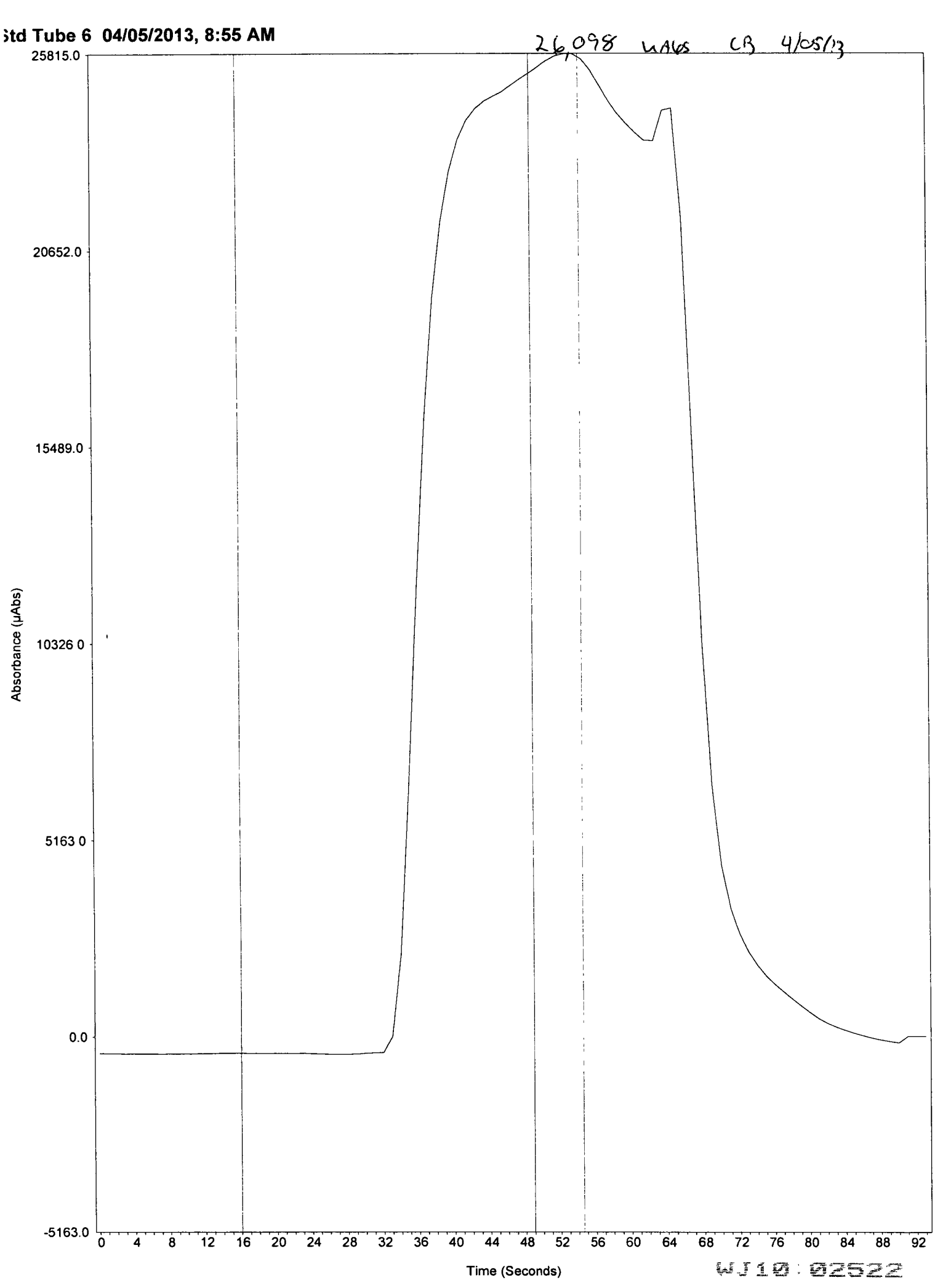
4-5-13

Chemical/Reagent ID:

10% $SnCl_2$: MP2405 **14% NH_2OH/NaCl:** MP2436

Standard ID:

Standard: 3025-7 **ICV/CCV:** 5Q-6

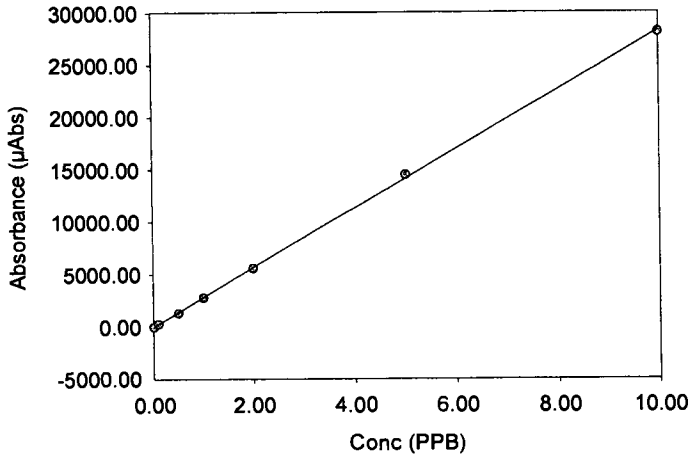

Std Tube 6 04/05/2013, 8:55 AM
26,098 uAbs CB 4/05/13
25815.0
20652.0
15489.0
10326 0
5163 0
0.0
-5163.0
Absorbance (µAbs)
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92
Time (Seconds)
WJ10: 02522

CETAC Hg Analysis Report - 13040500.DB - Friday, April 05, 2013, 12:46:30 PM

Analyst
Date Started Friday, April 05, 2013, 09:12:04
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	05-Apr-2013, 09:12	0.00	24.10	-14.30	1.00	
Standard #1	05-Apr-2013, 09:13	0.10	0.05	282.00	1.00	
Standard #2	05-Apr-2013, 09:15	0.50	0.17	1320.00	1.00	
Standard #3	05-Apr-2013, 09:16	1.00	0.37	2790.00	1.00	
Standard #4	05-Apr-2013, 09:18	2.00	0.08	5580.00	1.00	
Standard #5	05-Apr-2013, 09:20	5.00	0.33	14500.00	1.00	
Standard #6	05-Apr-2013, 09:21	10.00	0.26	28100.00	1.00	

Calibration Data



Int.	0.000
Slope	2829.653
Correlation	0.99986

SMM

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	05-Apr-2013, 09:25	8.20	0.82	23200.00	1.00	
ICB	05-Apr-2013, 09:26	-0.02	1.20	-64.00	1.00	Begin CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	05-Apr-2013, 09:28	4.00	0.10	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	05-Apr-2013, 09:30	-0.00	152.00	-5.81	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	05-Apr-2013, 09:31	0.09	4.79	265.00	1.00	
WJ49 MB1 SMM	05-Apr-2013, 09:33	0.01	5.25	32.30	1.00	
WJ49 MB1SPK SMM	05-Apr-2013, 09:34	2.06	0.52	5830.00	1.00	
WJ49 A SMM	05-Apr-2013, 09:36	0.31	0.55	864.00	1.00	
WJ49 B SMM	05-Apr-2013, 09:38	0.19	0.42	529.00	1.00	
WJ49 BDUP SMM	05-Apr-2013, 09:39	0.19	0.72	536.00	1.00	
WJ49 BSPK SMM	05-Apr-2013, 09:41	1.24	0.59	3510.00	1.00	
WJ49 C SMM	05-Apr-2013, 09:42	0.04	5.90	114.00	1.00	
WJ49 D SMM	05-Apr-2013, 09:44	0.03	3.27	83.20	1.00	
WJ49 E SMM	05-Apr-2013, 09:46	0.09	2.43	250.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	05-Apr-2013, 09:47	4.01	0.35	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	05-Apr-2013, 09:49	0.00	96.90	10.20	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WJ49 F SMM	05-Apr-2013, 09:51	0.27	1.12	765.00	1.00	
WJ49 G SMM	05-Apr-2013, 09:52	0.17	0.30	489.00	1.00	
WJ49 H SMM	05-Apr-2013, 09:54	0.14	0.58	390.00	1.00	
WJ49 I SMM	05-Apr-2013, 09:55	0.16	1.50	442.00	1.00	

WJ10 02523

Analyst
Date Started Friday, April 05, 2013, 09:57:30
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WJ49 J SMM	05-Apr-2013, 09:57	0.46	0.63	1310.00	1.00	
WJ49 K SMM	05-Apr-2013, 09:59	0.03	2.54	97.50	1.00	
WJ49 L SMM	05-Apr-2013, 10:00	0.11	0.69	319.00	1.00	
WJ49 M SMM	05-Apr-2013, 10:02	0.03	2.46	80.40	1.00	
WJ49 N SMM	05-Apr-2013, 10:03	0.04	0.94	110.00	1.00	
WJ49 P SMM	05-Apr-2013, 10:05	0.05	2.02	138.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	05-Apr-2013, 10:07	4.00	0.18	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	05-Apr-2013, 10:08	0.00	255.00	3.61	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WJ91 MB1 SMM	05-Apr-2013, 10:10	-0.00	121.00	-6.45	1.00	
WJ91 MB1SPK SMM	05-Apr-2013, 10:12	1.96	0.88	5550.00	1.00	
WJ91 A SMM	05-Apr-2013, 10:13	0.31	0.43	867.00	1.00	
WJ91 B SMM	05-Apr-2013, 10:15	0.27	0.47	760.00	1.00	
WJ91 BDUP SMM	05-Apr-2013, 10:17	0.27	0.11	766.00	1.00	
WJ91 BSPK SMM	05-Apr-2013, 10:18	1.38	0.24	3890.00	1.00	
WJ91 C SMM	05-Apr-2013, 10:20	0.31	0.41	884.00	1.00	
WJ91 D SMM	05-Apr-2013, 10:21	0.28	0.34	804.00	1.00	
WJ91 E SMM	05-Apr-2013, 10:23	0.30	1.02	839.00	1.00	
WJ91 F SMM	05-Apr-2013, 10:25	0.32	2.16	912.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	05-Apr-2013, 10:26	4.01	0.35	11400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	05-Apr-2013, 10:28	-0.00	97.20	-10.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WJ91 G SMM	05-Apr-2013, 10:30	0.15	0.48	429.00	1.00	
WJ91 H SMM	05-Apr-2013, 10:31	0.14	2.22	409.00	1.00	
WJ91 I SMM	05-Apr-2013, 10:33	0.18	1.73	522.00	1.00	
WJ91 K SMM	05-Apr-2013, 10:34	0.04	1.07	108.00	1.00	
WJ91 L SMM	05-Apr-2013, 10:36	0.05	1.59	145.00	1.00	
WJ91 M SMM	05-Apr-2013, 10:38	0.08	6.67	234.00	1.00	
WJ91 N SMM	05-Apr-2013, 10:39	0.08	2.07	224.00	1.00	
WJ91 O SMM	05-Apr-2013, 10:41	0.08	5.67	215.00	1.00	
WJ91 P SMM	05-Apr-2013, 10:43	0.06	2.84	159.00	1.00	
WJ91 Q SMM	05-Apr-2013, 10:44	0.07	4.17	207.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	05-Apr-2013, 10:46	4.06	0.11	11500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	05-Apr-2013, 10:47	0.00	75.10	5.17	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WJ91 R SMM	05-Apr-2013, 10:49	0.12	0.14	343.00	1.00	
WJ91 S SMM	05-Apr-2013, 10:51	0.06	4.19	164.00	1.00	
WJ90 MB1 SMM	05-Apr-2013, 10:52	-0.00	132.00	-11.70	1.00	
WJ90 MB1SPK SMM	05-Apr-2013, 10:54	1.92	1.00	5420.00	1.00	
WJ90 A SMM	05-Apr-2013, 10:56	0.26	2.22	744.00	1.00	
WJ90 B SMM	05-Apr-2013, 10:57	0.26	1.46	748.00	1.00	
WJ90 C SMM	05-Apr-2013, 10:59	0.24	0.83	673.00	1.00	
WJ90 D SMM	05-Apr-2013, 11:01	0.26	0.80	740.00	1.00	
WJ90 E SMM	05-Apr-2013, 11:02	0.26	0.38	736.00	1.00	
WJ90 F SMM	05-Apr-2013, 11:04	0.28	0.31	796.00	1.00	

CETAC Hg Analysis Report - 13040500.DB - Friday, April 05, 2013, 12:46:31 PM

Analyst
Date Started Friday, April 05, 2013, 11:05:54
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	05-Apr-2013, 11:05	4.01	0.16	11400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	05-Apr-2013, 11:07	0.00	67.90	4.37	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WJ90 FDUP SMM	05-Apr-2013, 11:09	0.28	0.49	805.00	1.00	
WJ90 FSPK SMM	05-Apr-2013, 11:10	1.29	0.22	3640.00	1.00	
WJ10 MB2 SMM	05-Apr-2013, 11:12	0.01	20.10	16.90	1.00	
WJ10 MB2SPK SMM	05-Apr-2013, 11:14	2.02	0.35	5730.00	1.00	
WJ10 C SMM	05-Apr-2013, 11:15	0.70	0.71	1970.00	1.00	
WJ10 CDUP SMM	05-Apr-2013, 11:17	0.61	1.09	1710.00	1.00	
WJ10 CSPK SMM	05-Apr-2013, 11:19	1.89	0.46	5360.00	1.00	
WJ10 D SMM	05-Apr-2013, 11:20	0.25	0.70	715.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	05-Apr-2013, 11:22	4.05	0.45	11500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	05-Apr-2013, 11:24	0.01	7.06	23.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WJ48 MB1 SMM	05-Apr-2013, 11:26	-0.00	96.00	-5.88	1.00	
WJ48 MB1SPK SMM	05-Apr-2013, 11:27	1.95	0.49	5530.00	1.00	
WJ48 A SMM	05-Apr-2013, 11:29	0.26	0.75	738.00	1.00	
WJ48 ADUP SMM	05-Apr-2013, 11:30	0.30	0.77	850.00	1.00	
WJ48 ASPK SMM	05-Apr-2013, 11:32	1.29	0.26	3650.00	1.00	
WJ48 B SMM	05-Apr-2013, 11:34	0.25	0.50	697.00	1.00	
WJ48 C SMM	05-Apr-2013, 11:35	0.20	0.60	570.00	1.00	
WJ48 D SMM	05-Apr-2013, 11:37	0.28	0.72	790.00	1.00	
WJ48 E SMM	05-Apr-2013, 11:38	0.28	0.23	792.00	1.00	
WJ48 F SMM	05-Apr-2013, 11:40	0.23	0.49	664.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	05-Apr-2013, 11:42	4.01	0.39	11300.00	1.00	

4-5-13

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	05-Apr-2013, 11:43	-0.02	6.47	-42.70	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WJ48 G SMM	05-Apr-2013, 11:45	0.29	0.64	829.00	1.00	
WJ48 H SMM	05-Apr-2013, 11:47	0.29	0.33	808.00	1.00	
WJ48 I SMM	05-Apr-2013, 11:48	0.27	1.79	765.00	1.00	
WJ48 J SMM	05-Apr-2013, 11:50	0.28	1.16	785.00	1.00	
WJ48 K SMM	05-Apr-2013, 11:51	0.18	0.63	523.00	1.00	
WJ48 L SMM	05-Apr-2013, 11:53	0.24	1.98	691.00	1.00	
WJ48 M SMM	05-Apr-2013, 11:55	0.21	0.36	588.00	1.00	
WJ48 N SMM	05-Apr-2013, 11:56	0.22	0.87	636.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	05-Apr-2013, 11:58	4.01	0.60	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	05-Apr-2013, 12:00	-0.01	27.20	-27.40	1.00	

End CLP

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 .. 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Prep Code: TWM D-95x3d 20.0mL Instrument: CETAC
Analyst: [illegible] Date: 3-26-13
Bath Temp: 95°C Start Time: 1310 End Time: 1510

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3024-10	0.01		0.1	1
STD2		0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA	↓	0.01		0.1	1
ICB/CCB	—	0.00		0.0	1
ICV/LCS	59-6	0.16	↓	8.0	1
CCV	↓	0.06	100.0	4.0	1

Chemical/Reagent ID:
HNO_3: I8022 H_2SO_4: I8044 HCl: —
5% $K_2S_2O_8$: MP2439 5% $KMnO_4$: MP2445

Prep Code: SMM Instrument: CETAC
Analyst: NB Date: 04-01-13
Bath Temp: 93°C Start Time: 1806 End Time: 1836

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	50.0	0.0	3
STD1	3025-7	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA	↓	0.01		0.1	1
ICB/CCB	—	0.00		0.0	3
ICV/LCS	59-6	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:
HNO_3: I8022 H_2SO_4: I8044 HCl: —
5% $K_2S_2O_8$: MP2439 5% $KMnO_4$: MP2445

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Matrix: Soil

Prep Code: 5mm

Date: 4-01-13

Analyst: CB

End Time: 1025

Bath Temp: 90°C

Start Time: 0955

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WJ62 A	7	~	0.213	50.0	4/09 1	N	
" Adup	7	~	0.214		1		
" Aspk	7	~	0.209		1		
" mB	~	~	~		1	N	
" mBspk	~	~	~		4/10 1	Y	
WJ10 C	2	~	0.232		1		
" Cdup	2	~	0.236		1		
" Cspk	2	~	0.233		1		
" D	8	~	0.212		1		
" mB2	~	~	~		1	Y	
" mB2spk	~	~	~		4/07 1	N	
WJ08 A	6	~	0.253		1		
" Adup	6	~	0.255		1		
" Aspk	6	~	0.250		1		
" B	6	~	0.263		1		
" C	6	~	0.251		1		
" D	6	~	0.244		1		
" mB1	~	~	~		1	N	
" mB1spk	~	~	~	50.0			
			CB 4-01-13				

Chemical/Reagent ID:

HNO_3: I8022

H_2SO_4: I8044

HCl: ~

5% $K_2S_2O_8$: MP2439

5% $KMnO_4$: MP2445

Digest Tube Lot: MF06LKK01

Revision 007
6/18/09

5037F

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WJ10, WJ32

Analytical Resources,Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: TDM

Date: 4-01-13

Final Volume _____

Final Volume (Hg): 20

Sample ID WJ32 ASPK, MBISPK
WJ32 ASPK, MBISPK
FSPK, MB2SPK

		Prepcode:		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No..			
		Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TLM	CVA	1.0	0.02	3007-14
Hg MBSPK	↓	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

5033F

Revision 14, 11/21/05

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 4-01-13

Final Volume _____

Final Volume (Hg): 20

Sample ID WJ32 BSPK, MB25PK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	DLM	CVA	1.0	0.22	3307-14
Hg MBSPK	↓	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM/DLM DA 4-1-13 Matrix: Water

Analyst: DM Date: 4-01-13

Bath Temp: 95°C Start Time: 0900 End Time: DM 4-1-13 1100

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WJ52 A	1	✓	20.0	20.0	4/3 1	Y	
" ADUP	1	✓			1		
" ASPK	1	✓			1		
" B	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" MB1	1	✓			1		
" MB1SPK	—	✓			1		
" F	1	✓			1		
" FDUP	1	✓			1		
" FSPK	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" MB2	—	✓			1		
" MB2SPK	—	✓			1		
WJ52 A	1	✓			4/10 1		
" ADUP	1	✓			1		
" ASPK	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓	20.0	20.0	1	Y	
			4-1-13 DM				

Chemical/Reagent ID:

HNO_3: IB022 H_2SO_4: J6044 HCl: —

5% $K_2S_2O_8$: MP2439 5% $KMnO_4$: MP2445 Digest Tube Lot: ML27KK03

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: DLM
Analyst: DM
Bath Temp: 95°c
Start Time: 0900
Matrix: Water
Date: 4-01-13
End Time: 1100

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WJ32 B	1	–	20.0	20.0	4|0 1	Y	
" BDUP	1	–	↓	↓	1	↓	
" BSPK	1	–	↓	↓	1	↓	
" MB	–	–	↓	↓	1	↓	
" MBSPK	–	–	20.0	20.0	1	Y	

4-01-13 DM

Chemical/Reagent ID:

HNO_3: I80222 H_2SO_4: I80144 HCl: –

5% $K_2S_2O_8$: MP2439 5% $KMnO_4$: MP2445 Digest Tube Lot: ML27KKP3

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WJ10, WJ32

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 4-05-13

Low Level	Analyst (B 4-05-13	Peer BA 4-8-13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	-	—	
Carry-over	-	—	
CRI/CRA	✓	✓	
ICSA/ICSAB	-	—	
Post Spikes/Serial Dilutions	-	—	
Analytic Spikes	-	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	✓	—	

WJ10 : 02535

Mercury Analysis Log

Analyst: CB **Date:** 4-05-13

Instrument: CETAC **Page:** 1 of 2

ARI Sample ID	Prep Code	Dilution	QC Data (ppb) ppt	Comments
STD 0.0	TLM	1x		
" 20.0				
" 50.0				
" 100.0				
" 200.0				
" 400.0				
" 1000.0				
ICV			522.16	Begin CCB %R = 104 ✓
ICB CCB 4/05/13			1.50	✓
CCV1			501.43	%R = 100 ✓
CCB1			2.38	✓
CRA			20.59	✓
LOD mB			-1.13	
" 1			13.43	
" 2			13.41	
" 3	TLM		12.58	
WB32 mB2	DLM		-1.20	✓
" mB2SPK			204.50	%R = 102 ✓
" B			1.64	
" BDUP			4.84	No RPD: undetected ✓
" BSPK	DLM		102.09	%R = 102 ✓
CCV2	TLM		502.74	%R = 101 ✓
CCB2			0.63	✓
WB52 mB1			1.85	✓
" mB1SPK			201.25	%R = 101 ✓
" A			-3.72	
" ADUP			0.42	No RPD: undetected ✓
" ASPK			98.24	%R = 98 ✓
" B				
" C				

Chemical/Reagent ID:

10% $SnCl_2$: MP2465 **14% NH_2OH/NaCl:** MP2436

Standard ID:

Standard: 3026-5 **ICV/CCV:** 3026-6

Mercury Analysis Log

Analyst: CB

Date: 4/05/13 4-05-13

Instrument: CETAC

Page: 2 of 2

ARI Sample ID	Prep Code	Dilution	QC Data (ppb) Hg	Comments
WJ352 D	TLM	1x		
" E				
" MB2			1.35	✓
CCV3			503.53	%R=101 ✓
CCB3			2.86	✓
WJ352 MB2SPK			206.68	%R=103 ✓
" F			0.05	
" FDUP			-1.65	No RPD: undetected ✓
" FSPK			93.18	%R=93 ✓
" G				
" H				
" I				
" J				
WJ332 MB1			3.105	✓
" MB1SPK			191.85	%R=96 ✓
CCV4			462.17	%R=92 ✓
CCB4			-0.64	✓
WJ332 A			15.96	
" ADUP			10.63	No RPD: undetected ✓
" ASPK			97.85	%R=98 ✓
CCV5			465.50	%R=93 ✓
CCB5	↓	↓	0.72	End CLP
			CB 4-05-13	

Chemical/Reagent ID:

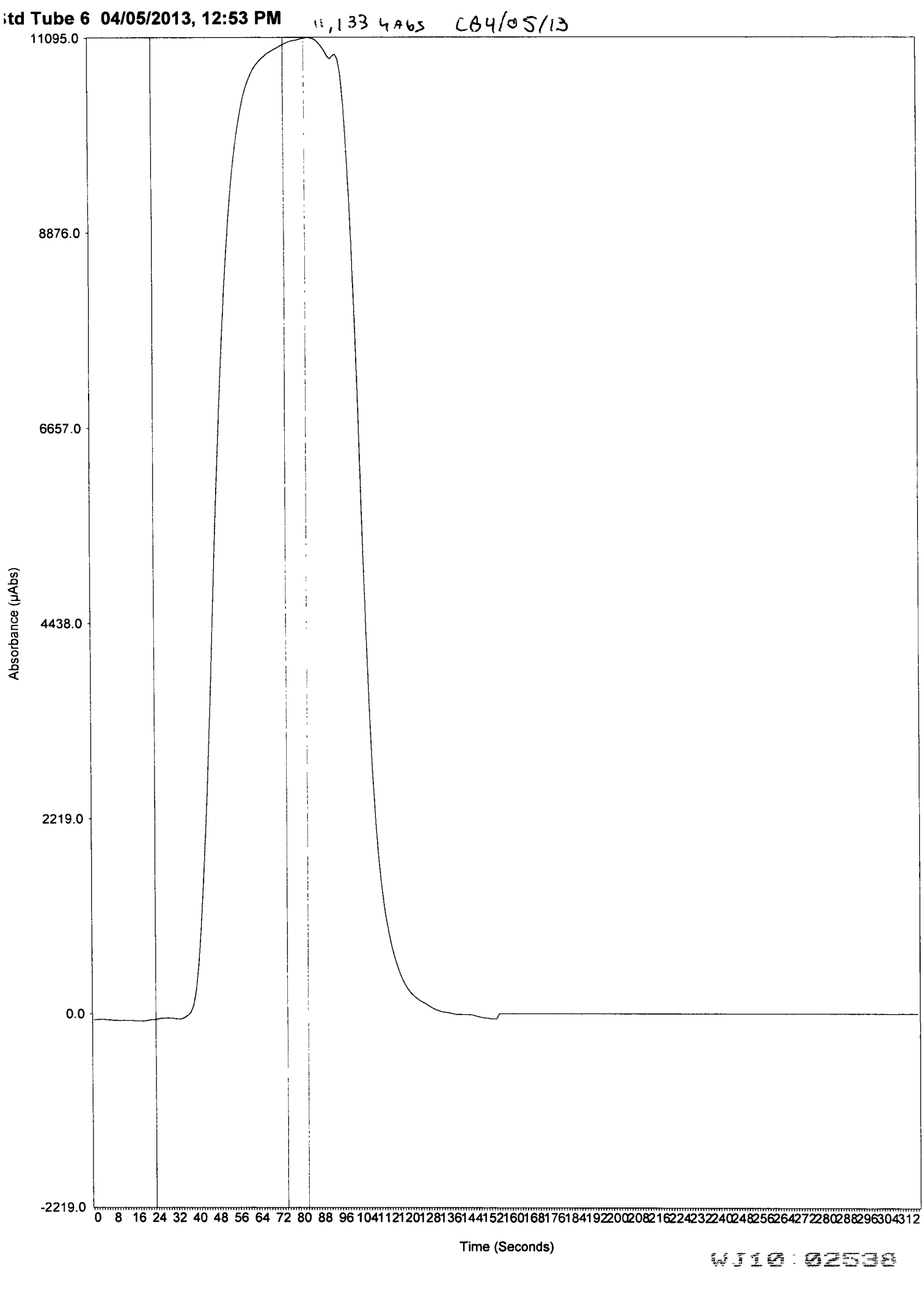
10% $SnCl_2$: MP2465

14% NH_2OH/NaCl: MP2436

Standard ID:

Standard: 3026-5

ICV/CCV: 3026-6


td Tube 6 04/05/2013, 12:53 PM
11,133 4A65 CB4/05/13
11095.0
8876.0
6657.0
4438.0
2219.0
0.0
-2219.0
Absorbance (µAbs)
0 8 16 24 32 40 48 56 64 72 80 88 96 104 112 120 128 136 144 152 160 168 176 184 192 200 208 216 224 232 240 248 256 264 272 280 288 296 304 312
Time (Seconds)
VJ10:02538

CETAC Hg Analysis Report - 13040501.DB - Friday, April 05, 2013, 3:16:43 PM

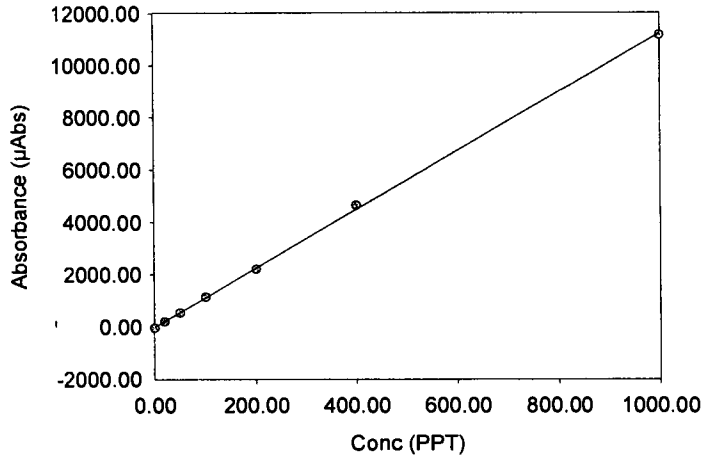
Analyst
Date Started Friday, April 05, 2013, 12:53:16
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Std Tube 6	05-Apr-2013, 12:53	1000.00	0.20	11100.00	11106	11128	11141	11157	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	05-Apr-2013, 12:55	0.00	10.60	-30.10	-32	-29	-26	-33	
Standard #1	05-Apr-2013, 12:58	20.00	1.73	213.00	216	216	212	208	
Standard #2	05-Apr-2013, 13:00	50.00	2.72	558.00	540	552	564	576	
Standard #3	05-Apr-2013, 13:03	100.00	0.56	1150.00	1157	1152	1146	1142	
Standard #4	05-Apr-2013, 13:06	200.00	0.37	2200.00	2215	2202	2197	2198	
Standard #5	05-Apr-2013, 13:09	400.00	0.11	4650.00	4647	4654	4659	4654	
Standard #6	05-Apr-2013, 13:11	1000.00	0.12	11200.00	11150	11166	11177	11180	

Calibration Data



Int.	0.000
Slope	11.227
Correlation	0.99983

TLM

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	05-Apr-2013, 13:16	522.00	0.12	5860.00	5858	5856	5865	5871	
ICB	05-Apr-2013, 13:18	1.50	28.90	16.80	13	20	22	13	Begin LLP

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	05-Apr-2013, 13:21	501.00	0.21	5630.00	5613	5628	5637	5640	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	05-Apr-2013, 13:24	2.38	16.90	26.80	21	26	31	29	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	05-Apr-2013, 13:26	20.60	4.25	231.00	223	224	234	244	
LOD MB TLM	05-Apr-2013, 13:29	-1.13	18.80	-12.60	-10	-14	-15	-11	
LOD 1 TLM	05-Apr-2013, 13:32	13.40	5.07	151.00	162	149	144	149	
LOD 2 TLM	05-Apr-2013, 13:34	13.40	3.94	151.00	159	150	146	147	
LOD 3 TLM	05-Apr-2013, 13:37	12.60	3.69	141.00	149	140	138	138	
WJ32 MB2 DLM	05-Apr-2013, 13:40	-1.20	56.30	-13.50	-9	-7	-14	-24	
WJ32 MB2SPK DLM	05-Apr-2013, 13:43	205.00	0.11	2300.00	2293	2297	2296	2298	
WJ32 B DLM	05-Apr-2013, 13:45	1.64	12.30	18.40	16	20	21	17	
WJ32 BDUP DLM	05-Apr-2013, 13:48	4.84	9.66	54.30	60	58	52	48	
WJ32 BSPK DLM	05-Apr-2013, 13:51	102.00	0.19	1150.00	1146	1149	1146	1144	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	05-Apr-2013, 13:53	503.00	0.20	5640.00	5628	5647	5653	5649	

CETAC Hg Analysis Report - 13040501.DB - Friday, April 05, 2013, 3:16:44 PM

Analyst
Date Started Friday, April 05, 2013, 13:56:38
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	05-Apr-2013, 13:56	0.63	41.00	7.04	3	9	9	6	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WJ52 MB1 TLM	05-Apr-2013, 13:59	1.85	35.00	20.80	15	16	21	31	
WJ52 MB1SPK TLM	05-Apr-2013, 14:02	201.00	0.22	2260.00	2256	2255	2263	2265	
WJ52 A TLM	05-Apr-2013, 14:04	-3.72	10.90	-41.80	-36	-41	-45	-45	
WJ52 ADUP TLM	05-Apr-2013, 14:07	0.42	184.00	4.77	-6	2	9	14	
WJ52 ASPK TLM	05-Apr-2013, 14:10	98.20	0.30	1100.00	1105	1100	1101	1106	
WJ52 B TLM	05-Apr-2013, 14:12	0.85	105.00	9.57	23	11	4	0	
WJ52 C TLM	05-Apr-2013, 14:15	0.50	199.00	5.59	16	13	2	-9	
WJ52 D TLM	05-Apr-2013, 14:18	0.10	661.00	1.11	11	2	-4	-5	
WJ52 E TLM	05-Apr-2013, 14:20	3.43	17.80	38.50	42	46	37	30	
WJ52 MB2 TLM	05-Apr-2013, 14:23	1.35	69.20	15.10	1	14	22	23	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	05-Apr-2013, 14:26	504.00	0.45	5650.00	5620	5648	5669	5676	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	05-Apr-2013, 14:29	2.86	28.10	32.10	20	33	35	41	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WJ52 MB2SPK TLM	05-Apr-2013, 14:31	207.00	0.12	2320.00	2324	2319	2320	2318	
WJ52 F TLM	05-Apr-2013, 14:34	0.05	1490.00	0.58	11	3	-4	-8	
WJ52 FDUP TLM	05-Apr-2013, 14:37	-1.65	65.90	-18.50	-34	-22	-12	-6	
WJ52 FSPK TLM	05-Apr-2013, 14:39	93.20	0.49	1050.00	1046	1051	1049	1039	
WJ52 G TLM	05-Apr-2013, 14:42	-2.96	48.40	-33.30	-50	-40	-31	-12	
WJ52 H TLM	05-Apr-2013, 14:45	-0.42	59.50	-4.77	-4	-9	-4	-2	
WJ52 I TLM	05-Apr-2013, 14:47	2.63	15.40	29.50	23	29	33	32	
WJ52 J TLM	05-Apr-2013, 14:50	-0.46	103.00	-5.16	2	-9	-9	-4	
WJ32 MB1 TLM	05-Apr-2013, 14:53	3.65	19.00	41.00	45	49	39	31	
WJ32 MB1SPK TLM	05-Apr-2013, 14:56	192.00	0.28	2150.00	2151	2147	2156	2161	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	05-Apr-2013, 14:58	462.00	0.31	5190.00	5167	5186	5201	5202	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	05-Apr-2013, 15:01	-0.64	69.60	-7.19	-11	-11	-6	-1	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WJ32 A TLM	05-Apr-2013, 15:04	16.00	7.40	179.00	167	171	183	196	
WJ32 ADUP TLM	05-Apr-2013, 15:06	10.60	1.83	119.00	122	121	118	117	
WJ32 ASPK TLM	05-Apr-2013, 15:09	97.90	0.84	1100.00	1090	1094	1100	1111	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	05-Apr-2013, 15:12	466.00	0.21	5230.00	5211	5226	5235	5234	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	05-Apr-2013, 15:15	0.72	80.10	8.06	10	16	6	1	

End CLP

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20.00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100.00 PPT
Calibration Standard #4 Conc.:	200.00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000.00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% .. 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 .. 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TLM Instrument: CETAC

Analyst: CB Date: 04-04-13

Bath Temp: 90°C Start Time: 1345 End Time: 1545

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3026-5	0.02	↓	0.02	1
STD2	↓	0.05	↓	0.05	1
STD3	↓	0.10	↓	0.1	1
STD4	↓	0.20	↓	0.2	1
STD5	↓	~~0.50~~ 0.4	↓	0.4	1
STD6	↓	1.00	↓	1.00	1
CRA	↓	0.02	↓	0.02	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	3026-6	1.0	↓	0.5	1
CCV	↓	1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I8022 H_2SO_4: I8044 HCl: —

5% $K_2S_2O_8$: MP2439 5% $KMnO_4$: MP2445

Prep Code: _____ Instrument: _____

Analyst: _____ Date: _____

Bath Temp: _____ Start Time: _____ End Time: _____

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3: _____ H_2SO_4: _____ HCl: _____

5% $K_2S_2O_8$: _____ 5% $KMnO_4$: _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: DLM
Analyst: DM
Bath Temp: 95°c
Start Time: 0900
Matrix: Water
Date: 4-01-13
End Time: 1100

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WJ32 B	1	–	20.0	20.0	4|0 1	①	
" BOD	1	–	↓	↓	1	↓	
" BSPK	1	–	↓	↓	1	↓	
" MB	–	–	↓	↓	1	↓	
" MBSPK	–	–	20.0	20.0	1	①	

4-01-13 DM

Chemical/Reagent ID:

HNO_3: IB022 H_2SO_4: IB044 HCl: –

5% $K_2S_2O_8$: MP2439 5% $KMnO_4$: MP2445 Digest Tube Lot: ML27KK03

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM/DKM (04/05/13 | Matrix: Water

Analyst: DM | Date: 04-01-13

Bath Temp: 95°C | Start Time: 0900 | End Time: 1100 (PM 4-1-13)

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WJ52 A	1	✓	20.0	20.0	4/5 1	(Y)	
" AOUP	1	✓			1		
" ASPK	1	✓			1		
" B	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" MB1	1	✓			1		
" MB1SPK	—	✓			1		
" F	1	✓			1		
" FDUP	1	✓			1		
" FSPK	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" MB2	—	✓			1		
" MB2SPK	—	✓			1		
WJ52 A	1	✓			4/5 1		
" AOUP	1	✓			1		
" ASPK	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓	20.0	20.0	1	(Y)	
			4-1-13 DM				

Chemical/Reagent ID:

HNO_3: IB022 | H_2SO_4: IB044 | HCl: —

5% $K_2S_2O_8$: MP2439 | 5% $KMnO_4$: MP2445 | Digest Tube Lot: ML27KK03

WJ10 0254

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: WJ10, WJ32

WJ
1-29-13

Original Run Filename: OM_3-28-2013_01-16-08PM.OMN Created: 3/28/2013 1:16:08 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 032813SO4B.omn Last Modified: 3/28/2013 2:41:27 PM
Current Run Author's Signature: [Carol Hawkins]
Description: LACHAT 1
ARI In-House Standards: 00125-11

Sample	Cup No.	Channel 2 Sulfate Conc. (mg SO4/L)	Channel 2 Sulfate Area (V.s)	Detection Time	MANUAL DILUTION FACTOR	
STD A	S1	30	18.2541	3/28/2013@1:17:04 PM		
STD B	S2	20	13.0097	3/28/2013@1:18:14 PM		
STD C	S3	10	6.0153	3/28/2013@1:19:24 PM		
STD D	S4	5	3.0733	3/28/2013@1:20:34 PM		
STD E	S5	2	1.0698	3/28/2013@1:21:44 PM		
Blank	S6	0	-0.3666	3/28/2013@1:22:55 PM		
ICV ERA 240312	7	15.5089	9.9057	3/28/2013@1:24:05 PM		%R= 103.39
Known Conc:		15				
ICB	8	1.1887	0.4101	3/28/2013@1:29:17 PM		
Known Conc:		0				
LOW	9	2.4369	1.2936	3/28/2013@1:30:27 PM		%R= 121.85
Known Conc:		2				
FILTER BLK	10	0.4527	-0.1167	3/28/2013@1:35:38 PM		
WI62A1	11	1.806	0.8485	3/28/2013@1:36:49 PM		
WI62A1 DUP	12	1.7316	0.7958	3/28/2013@1:38:00 PM		%RPD= NA
WI62A1 MS	13	15.6594	9.9989	3/28/2013@1:39:10 PM		%R= 104.40
Spiking Conc:		15				SPK=0.15ML@1000PPM/10ML=15PPM
WI62B1	14	8.8476	5.6523	3/28/2013@1:40:21 PM		
WI62C1	15	8.0104	5.0989	3/28/2013@1:41:32 PM		
WI62D1	16	1.987	0.9765	3/28/2013@1:42:42 PM		
WI62E1	19	2.0757	1.0392	3/28/2013@1:43:53 PM		

WI62F1	20	1.8512	0.8805	3/28/2013@1:45:03 PM		
CCV	17	14.9276	9.5445	3/28/2013@1:46:14 PM		%R= 99.52
Known Conc:		15				
CCB	18	0.5301	-0.0611	3/28/2013@1:51:26 PM		
Known Conc:		0				
WI63A2	21	2.4269	1.2866	3/28/2013@1:56:38 PM		
WI63B2	22	4.0034	2.3855	3/28/2013@1:57:49 PM		
WI63C2	23	4.8977	3.0008	3/28/2013@1:59:00 PM		
WI63D2	24	4.4567	2.6981	3/28/2013@2:00:11 PM		
WI63E2	25	2.1523	1.0932	3/28/2013@2:01:22 PM		
WI63F2	26	2.2171	1.1389	3/28/2013@2:02:34 PM		
WI63G2	27	2.0258	1.0039	3/28/2013@2:03:45 PM		
~~WI80U5~~	~~28~~	~~73.1432~~	~~39.5865~~	~~3/28/2013@2:04:56 PM~~		
PREP BLANK	29	-1.1459	-1.2765	3/28/2013@2:06:07 PM		
PREP CHECK	30	9.8632	6.3176	3/28/2013@2:07:18 PM		%R= 98.63
Spiking Conc:		10				
CCV	17	14.5611	9.3157	3/28/2013@2:08:29 PM		%R= 97.07
Known Conc:		15				
CCB	18	-0.1812	-0.5741	3/28/2013@2:13:40 PM		
Known Conc:		0				
~~WJ07C1~~	~~31~~	~~519.9732~~	~~1.408~~	~~3/28/2013@2:18:53 PM~~	~~200~~	
~~WJ07C1 DUP~~	~~32~~	~~744.746~~	~~2.1919~~	~~3/28/2013@2:20:05 PM~~	~~200~~	

~~WJ07C1 MS~~	~~33~~	~~710.7917~~	~~2.0741~~	~~3/28/2013@2:21:16 PM~~	~~200~~
WJ07D1	34	1070.8232	3.3126	3/28/2013@2:22:27 PM	200
~~WJ10A1~~	~~35~~	~~3.8417~~	~~0.1097~~	~~3/28/2013@2:23:38 PM~~	~~5~~
WI80U5	36	246.8465	3.0276	3/28/2013@2:24:50 PM	50
WJ07C1	37	446.8411	2.7062	3/28/2013@2:26:02 PM	100
WJ07C1 DUP	38	706.7196	4.4701	3/28/2013@2:27:14 PM	100
WJ07C1 MS	39	645.0303	4.0555	3/28/2013@2:28:25 PM	100
WJ10A1	40	1.9376	0.9416	3/28/2013@2:29:36 PM	SPK=0.04ML@10000PPM/40ML=10PPM
CCV	17	14.5194	9.2897	3/28/2013@2:30:47 PM	
Known Conc:		15			
CCB	18	0.126	-0.352	3/28/2013@2:35:59 PM	
Known Conc:		0			

%RPD= 45.06

%R= 1981.89

%R= 96.80

WJ10:025448

Author: Carol Hawkins

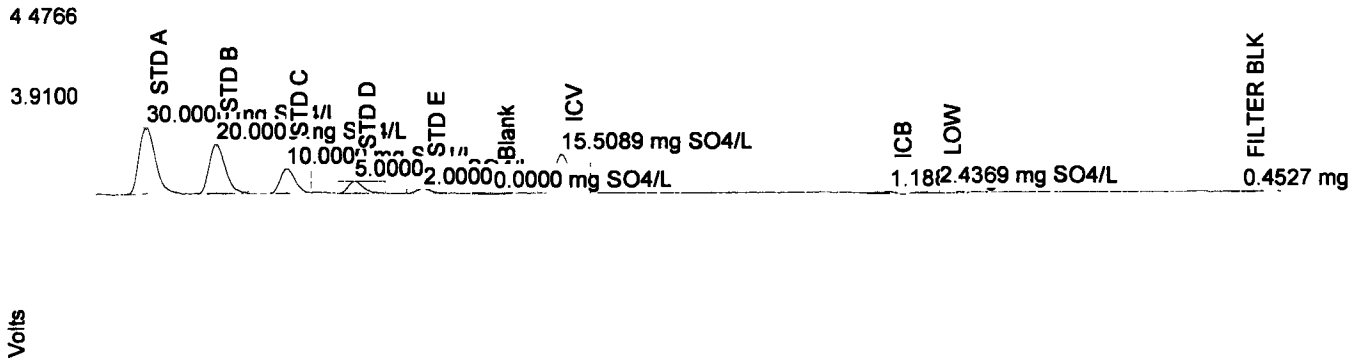
Date : 3/28/2013

Original Run Filename: OM_3-28-2013_01-16-08PM.OMN Created: 3/28/2013 1:16:08 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 032813SO4B.omn Last Modified: 3/28/2013 2:41:27 PM
Current Run Author's Signature: [Carol Hawkins]
Description: Default New Run

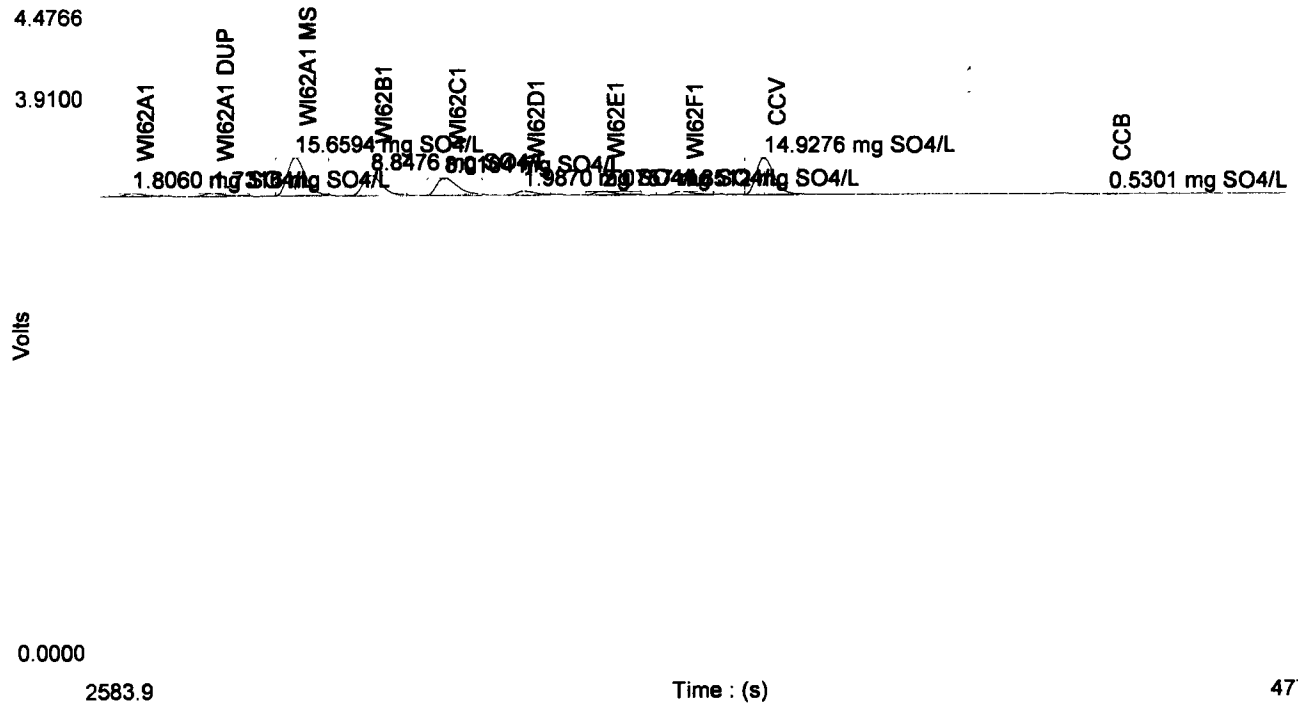
Sample	Cup No.	Channel 2 Sulfate Conc. (mg SO4/L)	Channel 2 Sulfate Area (V.s)	Detection Time	MDF
STD A	S1	30.0000	18.2541	3/28/2013@1:17:04 PM	
STD B	S2	20.0000	13.0097	3/28/2013@1:18:14 PM	
STD C	S3	10.0000	6.0153	3/28/2013@1:19:24 PM	
STD D	S4	5.0000	3.0733	3/28/2013@1:20:34 PM	
STD E	S5	2.0000	1.0698	3/28/2013@1:21:44 PM	
Blank	S6	0.0000	-0.3666	3/28/2013@1:22:55 PM	
ICV	7	15.5089	9.9057	3/28/2013@1:24:05 PM	
Known Conc:		15.0000			
Calibration:		Table/Fig. : 1			
ICB	8	1.1887	0.4101	3/28/2013@1:29:17 PM	
Known Conc:		0.0000			
LOW	9	2.4369	1.2936	3/28/2013@1:30:27 PM	
Known Conc:		2.0000			
FILTER BLK	10	0.4527	-0.1167	3/28/2013@1:35:38 PM	
WI62A1	11	1.8060	0.8485	3/28/2013@1:36:49 PM	
WI62A1 DUP	12	1.7316	0.7958	3/28/2013@1:38:00 PM	
WI62A1 MS	13	15.6594	9.9989	3/28/2013@1:39:10 PM	
Spiking Conc:		15.0000			
WI62B1	14	8.8476	5.6523	3/28/2013@1:40:21 PM	
WI62C1	15	8.0104	5.0989	3/28/2013@1:41:32 PM	
WI62D1	16	1.9870	0.9765	3/28/2013@1:42:42 PM	
WI62E1	19	2.0757	1.0392	3/28/2013@1:43:53 PM	
WI62F1	20	1.8512	0.8805	3/28/2013@1:45:03 PM	
CCV	17	14.9276	9.5445	3/28/2013@1:46:14 PM	
Known Conc:		15.0000			
CCB	18	0.5301	-0.0611	3/28/2013@1:51:26 PM	
Known Conc:		0.0000			
WI63A2	21	2.4269	1.2866	3/28/2013@1:56:38 PM	
WI63B2	22	4.0034	2.3855	3/28/2013@1:57:49 PM	
WI63C2	23	4.8977	3.0008	3/28/2013@1:59:00 PM	
WI63D2	24	4.4567	2.6981	3/28/2013@2:00:11 PM	
WI63E2	25	2.1523	1.0932	3/28/2013@2:01:22 PM	
WI63F2	26	2.2171	1.1389	3/28/2013@2:02:34 PM	
WI63G2	27	2.0258	1.0039	3/28/2013@2:03:45 PM	
WI80U5	28	73.1432	39.5865	3/28/2013@2:04:56 PM	
PREP BLANK	29	-1.1459	-1.2765	3/28/2013@2:06:07 PM	
PREP CHECK	30	9.8632	6.3176	3/28/2013@2:07:18 PM	
Spiking Conc:		4.0000			
CCV	17	14.5611	9.3157	3/28/2013@2:08:29 PM	
Known Conc:		15.0000			
CCB	18	-0.1812	-0.5741	3/28/2013@2:13:40 PM	
Known Conc:		0.0000			
WJ07C1	31	519.9732	1.4080	3/28/2013@2:18:53 PM	200.00
WJ07C1 DUP	32	744.7460	2.1919	3/28/2013@2:20:05 PM	200.00
WJ07C1 MS	33	710.7917	2.0741	3/28/2013@2:21:16 PM	200.00
WJ07D1	34	1070.8232	3.3126	3/28/2013@2:22:27 PM	200.00
WJ10A1	35	3.8417	0.1097	3/28/2013@2:23:38 PM	5.00
WI80U5	36	246.8465	3.0276	3/28/2013@2:24:50 PM	50.00
WJ07C1	37	446.8411	2.7062	3/28/2013@2:26:02 PM	100.00
WJ07C1 DUP	38	706.7196	4.4701	3/28/2013@2:27:14 PM	100.00
WJ07C1 MS	39	645.0303	4.0555	3/28/2013@2:28:25 PM	100.00
WJ10A1	40	1.9376	0.9416	3/28/2013@2:29:36 PM	
CCV	17	14.5194	9.2897	3/28/2013@2:30:47 PM	
Known Conc:		15.0000			
CCB	18	0.1260	-0.3520	3/28/2013@2:35:59 PM	
Known Conc:		0.0000			

CH 3-28-13

Channel 2 - Set: 1 / 5



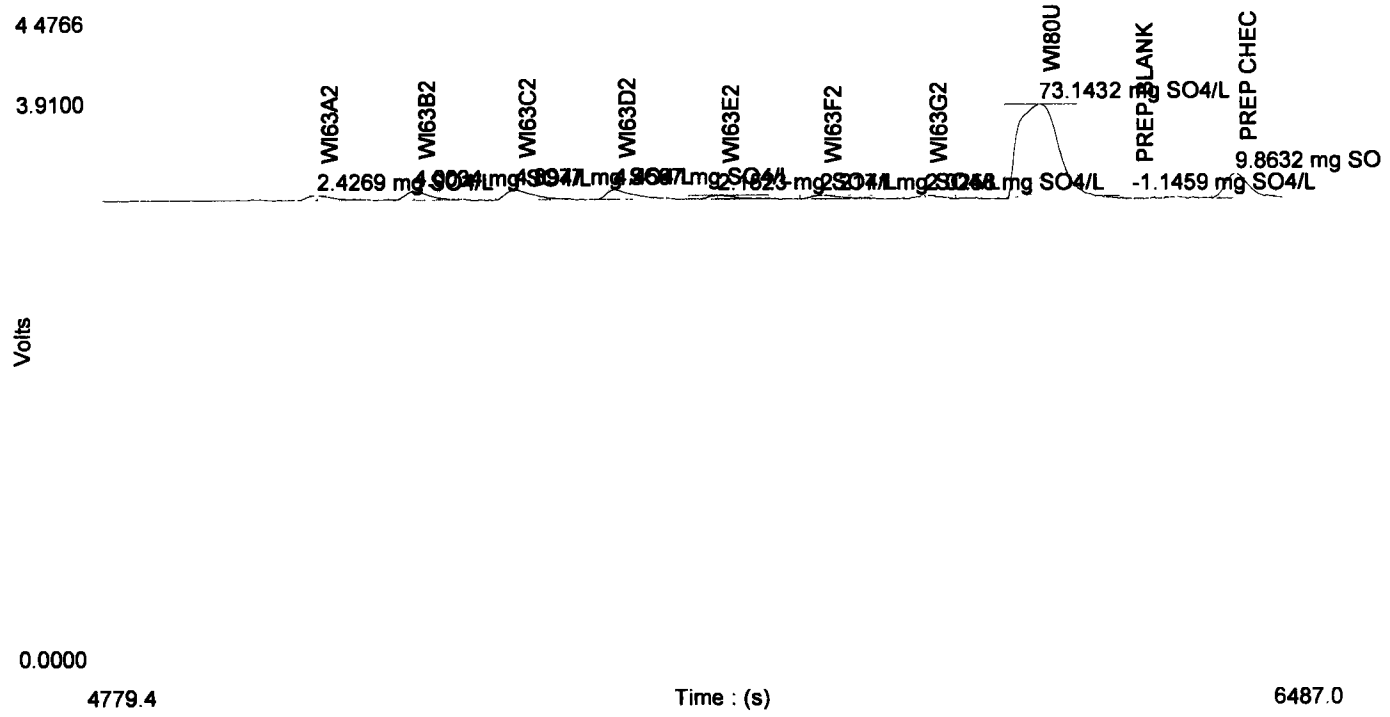
Channel 2 - Set: 2 / 5



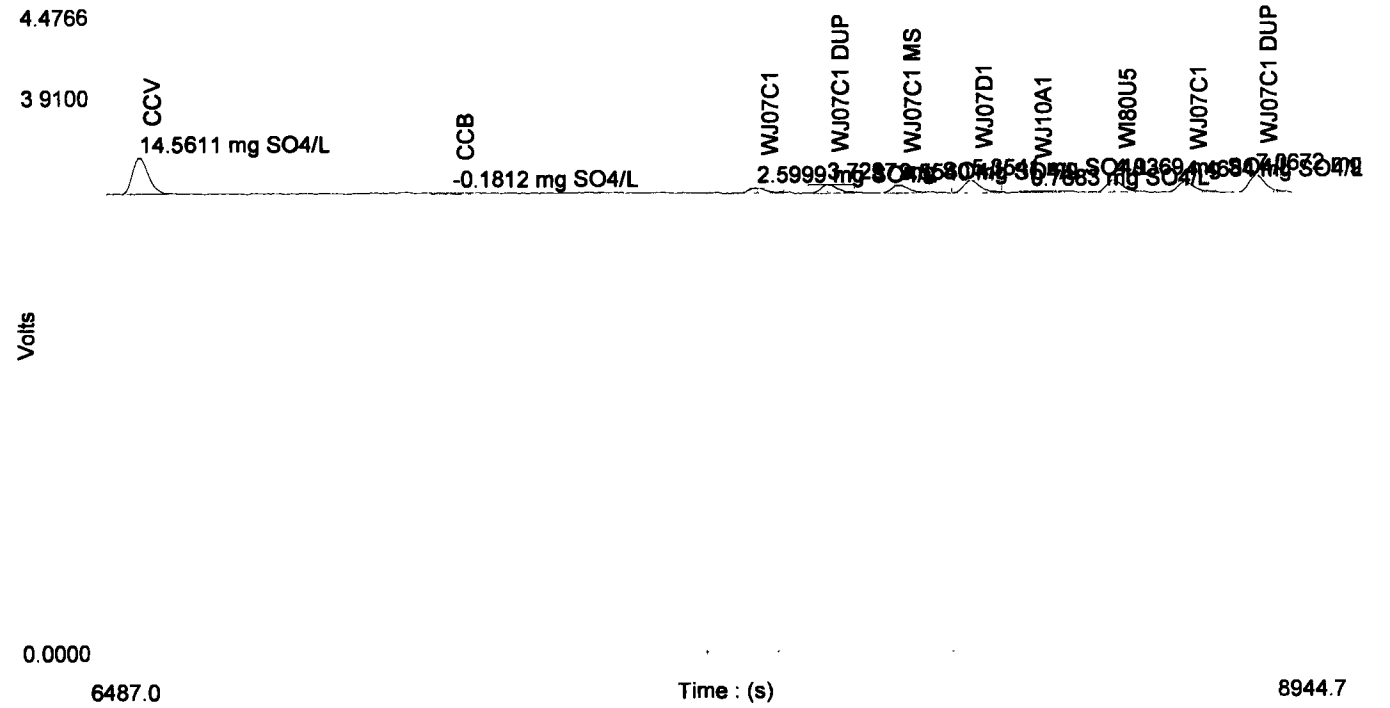
Author: Carol Hawkins

Date : 3/28/2013

Channel 2 - Set: 3 / 5



Channel 2 - Set: 4 / 5



Author: Carol Hawkins

Date : 3/28/2013

Channel 2 - Set: 5 / 5

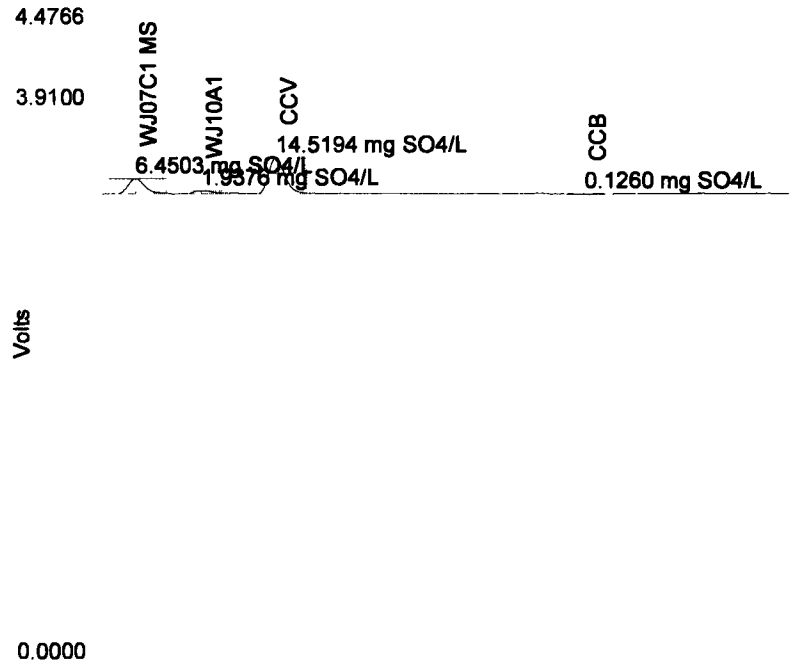
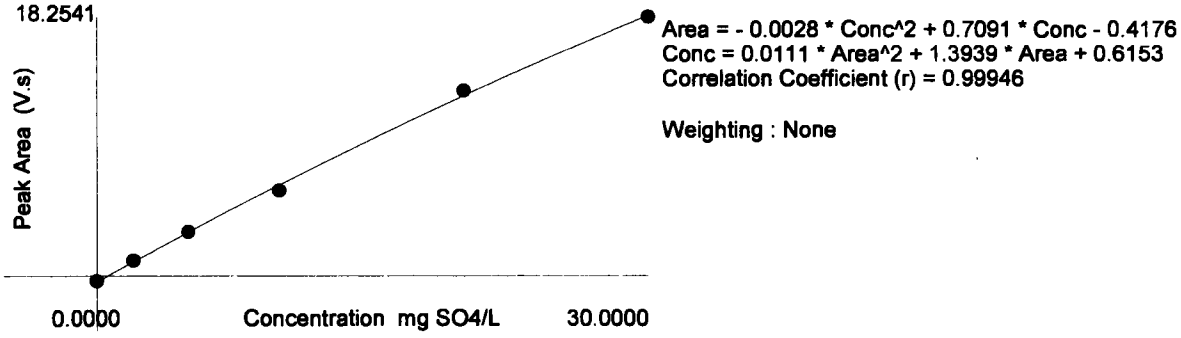


Table : 1 (Sulfate)

	Known Conc. (mg SO4/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg SO4/L)	Detection Date	Detection Time
1	30.0000	1	18.2541	0.4651	0.0	0.6	29.7481	3/28/2013	1:17:04 PM
2	20.0000	1	13.0097	0.3444	0.0	-2.8	20.6229	3/28/2013	1:18:14 PM
3	10.0000	1	6.0153	0.1697	0.0	6.0	9.4005	3/28/2013	1:19:24 PM
4	5.0000	1	3.0733	0.0835	0.0	-0.5	5.0036	3/28/2013	1:20:34 PM
5	2.0000	1	1.0698	0.0290	0.0	-8.1	2.1191	3/28/2013	1:21:44 PM
6	0.0000	1	-0.3666	-0.0073			0.1057	3/28/2013	1:22:55 PM

Figure : 1 (Sulfate)



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Lachat-1 Quikchem 8000 Run Log
Serial Number: A83000-2154

Instrument: Lachat 1	Test: SO4
File Name: 032813SO4B	

Sample No.	Sample ID	Dilution	RPD & Recovery	Notes
1	A			
2	B			
3	C			
4	D			
5	E			
6	Blw			
7	ICV			
8	ICB			
9	LCW			
10	FB			
11	WI62A1			
12	dp			
13	MS			
14	B1			
15	C1			
16	D1			
19	E1			
20	F1			
17	CCV			
18	CCB			

Instrument:	Test:
File Name:	

Sample No.	Sample ID	Dilution	RPD & Recovery	Notes
21	WI62A2			
22	B2			
23	C2			
24	D2			
25	E2			
26	F2			
27	G2			
28	WI80US			
29	P.Blw			
30	P.Chk			
17	CCV			
18	CCB			
31	WJ07C1			
32	dp			
33	MS			
34	D'			
35	WJ10A1	5		
36	WI80US	50		
37	WJ07C1	100		
38	dp	100		

Comments:

MTB 9907C
Cannin 9904C
NaOH 9912C

Lachat-1 Quikchem 8000 Run Log
Serial Number: A83000-2154

Instrument:			Test:	
File Name:				
Sample No.	Sample ID	Dilution	RPD & Recovery	Notes
39	WJ074A5	100		
40	~~DI~~ WJ10A1			
17	QW			
18	CCB			

Instrument:			Test:	
File Name:				
Sample No.	Sample ID	Dilution	RPD & Recovery	Notes

3-28-13

Comments:

Soil Extraction Log

Parameter:

Date: 3-28-13 10:36

Analyst:

Extraction Procedure: N45 Soil / 40ml DI Shake 1h. Centrifuge - filter analyze

Time	Sample ID	Sample Wt (grams)	Extract Vol (mL)	Spikes and Standards: Vol added (mL)	Spikes and Standards: Conc of Std (mg/L)	Spikes and Standards: Conc in Extract (mg/L)	Notes & Comments
	Blank		40 ml				
	Check			0.04	10000	10	
	WJ07C1	3.92					
	dup	3.91					
	MS	4.04		0.04	10,000	10	
	DI	4.02					

pH EPA 150.1 No: 9040
Data Analyst: Ursula Walter Analyzed by: UW
Comments: Date Analyzed: 3/27/13
Print Date: 3/27/13 18:24 Time Analyzed: 10:40

3/28/13

	ARI ID	Result	Q	RL	SPK	UAD
1.	ICVL	7.03		0.01	7.00	0.03
2.	WJ10A	6.47		0.01		
3.	WJ10A DUP	6.51		0.01		0.04
4.	CCVL	7.04		0.01	7.00	0.04

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	7-27-17		Buffer	Source	Lot #	pH	Temp.
Time:	10:20		2.00	Ricca	1207705	2.00	20.3
Analyst:	LW		4.00	Fisher	185547	4.00	20.4
			7.00	Ricca	1207552	7.02	20.3
			10.00	Fisher	126248	10.05	20.4
			12.00	Ricca	1207132	11.99	20.4
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
LW	10:40	ICV	7.03	7.03			20.5
		WJ10A1	6.47	6.47			19.8
		I Al dup	6.51	6.52			19.9
		CCV	7.04	7.03			20.6
		CCV					
		CCV					

ALKALINITY BENCHSHEET methods: **SM 2320 B-97** Date/Time: 3/28/13 11:00

pH meter verification **pH meter ID: ACCUMET AR60** **Buret ID: 01G30627** Analyst: UW

Buffer pH **7.00** **pH Probe ID : AR60**

Measured pH 7.03 *Calibration OK* **Acid ARI ID:**

Standardization of acid titrant ***(titration to pH 4.5)***

ARI ID: *00137-1*

grams Na2CO3 =	**0.6262**	*to*	**250**	*ml DI*
Normality Na2CO3 =	0.0473			
Assumed Acid Normality =	**0.02**			
Standardized Acid Normality=	0.0207	***OK!***		

BLANK		STANDARD TITRATION		
BLANK	ml ACID	ml Na2CO3	ml ACID	N H2SO4
1	0.00	**5**	11.42	0.021
2	0.00	**5**	11.40	0.021
3	0.00	**5**	11.39	0.021
AVERAGE	0.00			0.021

Partitioning Calculations T=Total, P=Phenolphthalein			
Obs	*HCO3*	*CO3*	*OH*
P =0	T	0	0
P< 0.5T	T - 2P	2P	0
P= 0.5T	0	2P	0
P> 0.5T	0	2(T - P)	2P - T
P =T	0	0	T

Calibration Verification Standard (second source sodium carbonate solution)

ARI ID: *.00137-2* *mg/L CaCO3*

grams Na2CO3 = **0.6262** *grams in* **250** *mL =* *2363*

dilution: **5.0** *mL to* **95** *CVS =* **124.4**

DQL Std (2ppm) *dilute* **0.085** *mL stock to 100 mL DI =* **2.0**

Laboratory Control Standard (LCS)

Source: *ERA P206-506* *mg/L CaCO3* **41.90**

SAMPLE DATA *Alk (mg/L CaCO3 = [{mL acid X Nacid) X 50,000] / mL sample* *(shaded cells are calculated, make no entries)*

low level = {{{(2 X mL4.5)-mL4.2] X Nacid) X 50,000} / mL sample

Sample Number	Sample ID	Initial pH	Volume (ml)	TEMP (C)	ml H2SO4 pH=8.3	ml H2SO4 pH =4.5	ml H2SO4 pH=4.2	ALK (mg CaCO3/l) Phenolph	ALK (mg CaCO3/l) TOT HIGH	ALK (mg CaCO3/l) TOT LOW	Partitioning (mg/l CaCO3) HCO3	Partitioning (mg/l CaCO3) CO3	Partitioning (mg/l CaCO3) OH	(mg/l) FREE CO2
ICV		10.24	100	20.8	5.50	11.45	0.00	57.0	118.6		*95.4% OK!*			
ICB		4.23	100	21.1	0.00	0.00	0.00	0.0		0.0	0.0	0.0	0.0	0.0
DQL Std (2ppm)		7.31	100	21.3	0.00	0.19	0.20	0.0		1.9				
LCS		8.67	50	20.5	0.70	1.99	2.05	14.5	41.2		*98.4% OK!*			
WJ10 A2		6.52	100	20.1	0.00	3.97	0.00	0.0	41.1		41.1	0.0	0.0	24.8
WI97 A2		8.46	100	19.1	0.30	13.40	0.00	3.1	138.9		132.6	6.2	0.0	0.9
WI97 A2 dup		8.47	100	19.3	0.30	13.52	0.00	3.1	140.1		133.9	6.2	0.0	0.9
RPD =								*0.0%*	*0.9%*		*0.9%*	*0.0%*		*1.4%*
WJ16 A3		6.42	100	19.5		**HIGH**		0.0	#######	#VALUE!	#######	0.0	0.0	#VALUE!
WJ16 B3		6.58	100	19.2		**HIGH**		0.0	#######	#VALUE!	#######	0.0	0.0	#VALUE!
WJ16 C2		6.48	100	19.5	0.00	21.88	0.00	0.0	226.7		226.7	0.0	0.0	150.2
WJ16 D3		6.38	100	19.4	0.00	30.75	0.00	0.0	318.6		318.6	0.0	0.0	265.7
WJ16 E4		6.86	100	19.6	0.00	9.30	0.00	0.0	96.4		96.4	0.0	0.0	26.6
CCV		10.34	100	21.5	5.52	11.52	0.00	57.2	119.4		*96.0% OK!*		0.0	0.0

Original Run Filename: OM_3-28-2013_12-27-13PM.OMN Created: 3/28/2013 12:27:13 PM
Original Run Author's Signature: [Ursula Walter]
Current Run Filename: 032813NO2NO3A.omn Last Modified: 3/28/2013 1:04:22 PM
Current Run Author's Signature: [Ursula Walter]
Description: LACHAT2
ARI In-House Standards: 00133-8

Sample	Cup No.	Channel 1		Detection Time	MANUAL DILUTION FACTOR	
NO3 STD 1.00	S1	1	13.0455	3/28/2013@12:28:15 PM		
NO3 STD 0.8	S2	0.8	10.4181	3/28/2013@12:29:26 PM		
NO3 STD 0.5	S3	0.5	6.4404	3/28/2013@12:30:37 PM		
NO3 STD 0.2	S4	0.2	2.5665	3/28/2013@12:31:48 PM		
NO3 STD 0.05	S5	0.05	0.6321	3/28/2013@12:32:59 PM		
NO3 STD 0.02	S6	0.02	0.2527	3/28/2013@12:34:11 PM		
NO3 STD 0.01	S7	0.01	0.1688	3/28/2013@12:35:22 PM		
Blank	S8	0	-0.0049	3/28/2013@12:36:33 PM		
NO3 ICV ERA 230511	9	0.4911	6.3866	3/28/2013@12:37:44 PM		% R = 98.22
Known Conc:		0.5				
Calibration:		Table/Fig. : 1				
NO2 ICV ERA 490412	10	0.4966	6.4585	3/28/2013@12:40:52 PM		% R = 99.32
Known Conc:		0.5				
ICB	11	0.0007	-0.0029	3/28/2013@12:42:03 PM		
Known Conc:		0				
NO3 LOW	12	0.0138	0.1686	3/28/2013@12:45:11 PM		% R = 138.00
Known Conc:		0.01				
FILTER BLK	13	0.0018	0.0118	3/28/2013@12:49:16 PM		
WJ10 A1	14	0.0192	0.2388	3/28/2013@12:50:27 PM		
WJ10 A1 DUP	15	0.0095	0.1118	3/28/2013@12:51:38 PM		% RPD = NA
WJ10 A1 MS	16	0.5595	7.278	3/28/2013@12:52:49 PM		% R = 111.90

Spiking Conc:		0.5				0.25 ml * 20 ppm / 10 ml
~~DI WATER~~	~~8~~	~~0.0015~~	~~0.0075~~	3/28/2013@12:54:30 PM		
N03 CCV	20	0.4946	6.4318	3/28/2013@12:55:41 PM		% R = 98.92
Known Conc:		0.5				
CCB	21	0.0015	0.0082	3/28/2013@12:58:50 PM		
Known Conc:		0				

Original Run Filename: OM_4-1-2013_12-29-11PM.OMN Created: 4/1/2013 12:29:11 PM
Original Run Author's Signature: [Ursula Walter]
Current Run Filename: 040113NO2A.omn Last Modified: 4/1/2013 1:02:31 PM
Current Run Author's Signature: [Ursula Walter]
Description: lachat2
ARI In-House Standards: 00133-9

Sample	Cup No.	Channel 2		Detection Time	MANUAL DILUTION FACTOR	
NO2 STD 1.00	S1	1	13.4276	4/1/2013@12:30:12 PM		
NO2 STD 0.8	S2	0.8	10.8736	4/1/2013@12:31:24 PM		
NO2 STD 0.5	S3	0.5	6.7988	4/1/2013@12:32:35 PM		
NO2 STD 0.2	S4	0.2	2.4018	4/1/2013@12:33:46 PM		
NO2 STD 0.05	S5	0.05	0.6893	4/1/2013@12:34:57 PM		
NO2 STD 0.02	S6	0.02	0.2823	4/1/2013@12:36:09 PM		
NO2 STD 0.01	S7	0.01	0.1439	4/1/2013@12:37:19 PM		
Blank	S8	0	0.0035	4/1/2013@12:38:31 PM		
NO2 ICV ERA 490412	9	0.5003	6.7329	4/1/2013@12:41:11 PM		% R = 100.06
Known Conc:		0.5				
Calibration:		Table/Fig. : 1				
ICB	10	0.0031	0.0085	4/1/2013@12:43:51 PM		
Known Conc:		0				
NO2 LOW	11	0.0143	0.16	4/1/2013@12:46:31 PM		% R = 143
Known Conc:		0.01				
FILBLK	12	-0.0004	-0.0395	4/1/2013@12:50:30 PM		
WJ10 A1	13	0.0052	0.0364	4/1/2013@12:51:41 PM		
WJ10 A1 DUP	14	0.0048	0.0307	4/1/2013@12:52:52 PM		% RPD = NA
WJ10 A1 MS	15	0.5145	6.9243	4/1/2013@12:54:03 PM		% R = 102.9
Spiking Conc:		0.5				0.25 ml * 20 ppm / 10 ml
~~DI WATER~~	~~8~~	~~0.0028~~	~~0.0036~~	4/1/2013@12:55:14 PM		

NO2 CCV	18	0.5018	6.7527	4/1/2013@12:56:25 PM	
Known Conc:		0.5			
CCB	19	0.0041	0.0211	4/1/2013@12:59:06 PM	
Known Conc:		0			

% R = 100.36

TOC, Aqueous Data Summary (Apollo 9000) DATE: 3/29/2013
EPA 9060 A, SM 5310 B-00 ANALYST: UW
Analysis Mode: **NPOC** *Instrument:* ***Apollo 9000***

Detection Limits (mgC/L)
MRL = 1.5 **upper blank =** 1.5 **lower blank =** -1.5

Calibration Data
Stock ID: ARI 00136-10 | factor (m): 1.877E+05 | r^2: 0.99949
Curve Date: 3/26/2013 | intercept (b_{cal}): 32575 | sys blk (b_{sys}) 21111
Curve ID: 032613X 0-50ppm

LCS, Verification Standard and Inorganic Sparge Check

	Organic Carbon			Inorganic carbon		
Source:	**ERA 0409-12-01**			**ARI # 00128-6**		
Conc:	5,000	*mg/L*		1,000	*mg/L*	
dilution:	1.00	*mL to*	mg C/ L	5.00	*mL to*	mg C/ L
Volume:	250	*mL =*	**20.0**	250	*mL =*	**20**

Sample Data

SAMPLE ID	Dilution Factor	Carbon (mg C/L) *enter Form as TC, TIC, NPOC* Form	# reps	mean	stdev	Measured	Report as	Notes: *will flag if RSD >5%*
ICV	1	NPOC	3	20.7480	0.46	20.75 ✓	20.7	*103.50%*
ICB	1	NPOC	3	1.0364	0.38	1.04 ✓	<1.5	*OK !*
~~1.5 ppm~~	~~1~~	~~NPOC~~	~~3~~	~~2.3210~~	~~0.13~~	~~2.32~~	~~2.32~~	~~154.73%~~
IC Sparge Check	1	NPOC	3	19.6008	0.20	19.60	19.6	*98.00%*
1.5 ppm	1	NPOC	3	2.2142	0.13	2.21 ✓	2.21	147.61%
WI69 I1 DOC	1	NPOC	3	3.9428	0.32	3.94	3.94	
FILTER BLK	1	NPOC	3	1.1814	0.10	1.18	<1.5	
WJ10 A2 DOC	1	NPOC	3	9.0740	0.10	9.07	9.07	
WJ10 A2 TOC	1	NPOC	3	9.0576	0.74	9.06 ✓	9.06	
WI37 A3	1	NPOC	3	4.8696	0.83	4.87 ✓	4.87	RSD > 5% chk value
WI37 A3 dup	1	NPOC	3	4.2098	0.18	4.21 ✓	4.21	*RPD =14.5%*
WI37 A3 ms	1	NPOC	3	26.0617	0.55	26.06	26.1	*105.96%*
Spike at	0.200	*mL of*	2,000	*ppm Std to*	20.00	*mL =*	20.0	*mg/L*
WI37 B3	1	NPOC	3	4.5000	0.19	4.50	4.5	
CCV	1	NPOC	3	21.7096	0.25	21.71	21.7	*108.50%*
CCB	1	NPOC	3	0.9988	0.25	1.00	<1.5	*OK !*
WI80 U4	1	NPOC	3	8.4009	0.13	8.40	8.4	
WI27 A7	1	NPOC	3	3.4016	0.44	3.40	3.4	RSD > 5% chk value
WI27 A7 dup	1	NPOC	3	3.4962	0.29	3.50	3.5	*RPD =2.9%*
WI27 A7 ms	1	NPOC	3	25.5869	0.52	25.59	25.6	*110.93%*
Spike at	0.200	*mL of*	2,000	*ppm Std to*	20.00	*mL =*	20.0	*mg/L*
WI27 B7	1	NPOC	3	3.4441	0.34	3.44	3.44	
WI27 C7	1	NPOC	3	3.8003	0.21	3.80	3.8	
WI27 D7	1	NPOC	3	3.4604	0.34	3.46	3.46	
WI27 E7	1	NPOC	3	2.4922	0.47	2.49	2.49	RSD > 5% chk value
WI62 A2	1	NPOC	3	2.7525	0.16	2.75	2.75	RSD > 5% chk value
WI62 A2 dup	1	NPOC	3	2.6670	0.11	2.67	2.67	*RPD =3%*
CCV	1	NPOC	3	22.1216	0.51	22.12	22.1	***CVS Err @ 110.5%***
CCB	1	NPOC	3	1.0584	0.26	1.06	<1.5	*OK !*
WI62 A2 ms	1	NPOC	3	24.6033	0.59	24.60	24.6	*109.25%*
Spike at	0.200	*mL of*	2,000	*ppm Std to*	20.00	*mL =*	20.0	*mg/L*

Sample Data

SAMPLE ID	Dilution Factor	Carbon (mg C/L) enter Form as TC, TIC, NPOC Form	# reps	mean	stdev	Measured	Report as	Notes: will flag if RSD >5%
WI62 B2	1	NPOC	3	3.0609	0.23	3.06	3.06	
WI62 C2	1	NPOC	3	7.8669	0.18	7.87	7.87	
WI62 D2	1	NPOC	3	2.6398	0.44	2.64	2.64	
WI62 E2	1	NPOC	3	3.1554	0.48	3.16	3.16	
WI62 F2	1	NPOC	3	3.1748	0.57	3.17	3.17	
WI63 A1	1	NPOC	3	3.0334	0.13	3.03	3.03	
WI63 B1	1	NPOC	3	3.4034	0.29	3.40	3.4	RSD > 5% chk value
WI63 C1	1	NPOC	3	3.6958	0.29	3.70	3.7	
WI63 D1	1	NPOC	3	4.2229	0.32	4.22	4.22	
CCV	1	NPOC	3	21.6411	0.18	21.64	21.6	*108.00%*
CCB	1	NPOC	3	1.1613	0.26	1.16	<1.5	*OK !*
~~WI63 E1~~	~~1~~	~~NPOC~~	~~3~~	~~2.4815~~	~~0.21~~	~~2.48~~	~~2.48~~	
~~WI63 F1~~	~~1~~	~~NPOC~~	~~3~~	~~2.9988~~	~~0.34~~	~~3.00~~	~~3~~	
~~WI63 G1~~	~~1~~	~~NPOC~~	~~3~~	~~2.8381~~	~~0.44~~	~~2.84~~	~~2.84~~	
~~WJ16 A1~~	~~1~~	~~NPOC~~	~~3~~	~~20.6721~~	~~0.35~~	~~20.67~~	~~20.7~~	
~~WJ16 B1~~	~~1~~	~~NPOC~~	~~3~~	~~5.6976~~	~~0.23~~	~~5.70~~	~~5.7~~	
~~WJ16 C1~~	~~1~~	~~NPOC~~	~~3~~	~~5.0550~~	~~0.42~~	~~5.06~~	~~5.06~~	
~~WJ16 D1~~	~~1~~	~~NPOC~~	~~3~~	~~5.5750~~	~~0.15~~	~~5.58~~	~~5.58~~	-
~~WJ16 E1~~	~~1~~	~~NPOC~~	~~3~~	~~4.2997~~	~~0.09~~	~~4.30~~	~~4.3~~	
~~CCV~~	~~1~~	~~NPOC~~	~~3~~	~~22.1955~~	~~0.45~~	~~22.20~~	~~22.2~~	~~*CVS Err @ 111%*~~
~~CCB~~	~~1~~	~~NPOC~~	~~3~~	~~1.4037~~	~~0.18~~	~~1.40~~	~~<1.5~~	~~*OK !*~~
~~WI97 A5~~	~~1~~	~~NPOC~~	~~3~~	~~13.0335~~	~~0.77~~	~~13.03~~	~~13~~	~~RSD > 5% chk value~~
~~WI97 A5dup~~	~~1~~	~~NPOC~~	~~3~~	~~13.9206~~	~~0.72~~	~~13.92~~	~~13.9~~	~~*RPD =6.7%*~~
~~WI97 A5ms~~	~~1~~	~~NPOC~~	~~3~~	~~36.0220~~	~~0.85~~	~~36.02~~	~~36~~	~~*114.94%*~~
~~*Spike at*~~	~~0.200~~	~~*mL of*~~	~~2,000~~	~~*ppm Std to*~~	~~20.00~~	~~*mL =*~~	~~20.0~~	~~*mg/L*~~
~~CCV~~	~~1~~	~~NPOC~~	~~3~~	~~23.8024~~	~~0.51~~	~~23.80~~	~~23.8~~	~~***CVS Err @ 119%***~~
~~CCB~~	~~1~~	~~NPOC~~	~~3~~	~~1.6593~~	~~0.27~~	~~1.66~~	~~1.6593~~	~~***Blank > UBL***~~

* = Sample is < 5x the MRL (7.5) and RSD >5% is expected due to low concentration in sample.

4-2-13

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 4/1/13 (C)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: KE 13:30

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time

record times as mm/dd/yy hh:mm

4/1/2013 13:30 date/time in oven KE

4/2/2013 5:48 date/time out KE

elapsed hrs = 16.3

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	4/1/13 12:16 KE	4/1/13 12:08 KE	4/2/13 6:14 KE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank			1.0932	1.0931			0.00							
WJ10 C2		6.6016	1.0802	3.5880			2.51	45.42%						
WJ10 C2 dup		6.1235	1.0758	3.2793			2.20	43.65%						
							RPD =	3.97%				RPD =	NA	
WJ10 C2 trp		6.1602	1.0849	3.3371			2.25	44.38%						
							RSD =	2.00%				RSD =	NA	
WJ10 D5		6.3122	1.0968	3.7473			2.65	50.82%						
WJ75 A2		6.1605	1.1398	3.8646			2.72	54.27%						
WJ75 A2 dup		6.4455	1.1273	4.0337			2.91	54.65%						
							RPD =	0.70%				RPD =	NA	
WJ75 A2 trp		6.7631	1.0961	4.1760			3.08	54.35%						
							RSD =	0.37%				RSD =	NA	
WJ59 C1		6.5085	1.1216	6.4498			5.33	98.91%						
WJ59 C1 dup		6.5538	1.0774	6.4946			5.42	98.92%						
							RPD =	0.01%				RPD =	NA	
WJ59 C1 trp		6.5304	1.0752	6.4714			5.40	98.92%						
							RSD =	0.00%				RSD =	NA	
WJ59 D1		6.3212	1.0831	6.2654			5.18	98.93%						

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TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

(C)

Analyst (V)	Date: 4-1-13	Oven ID: 02	Balance ID: 1123230597
Time in Oven: 13:30	Time Out of Oven: 5:48	Elapsed Time (> 12 Hrs):	

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:		4-1-13 1244	4-1-13 1228	4-1-13 604						
Cal Weight (10.0000):		10.0000 (M)	10.0000 (M)	10.0000 (V)						
Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	2	3	Dry Weight grams	Ash Weight 550°C 1	2	3
BLANK	29	0	1.0932	1.0931						
WJ10 C2	30	6.6016	1.0802	3.5880						
C2	31	6.1235	1.0758	3.2793						
C2	23	6.1602	1.0849	3.3371						
D5	33	6.3122	1.0968	3.7473						
WJ75 A2	34	6.1605	1.1398	3.8646						
A2	35	6.4455	1.1273	4.0337						
A2	36	6.7631	1.0961	4.1760						
WJ59 C1	37	6.5085	1.1216	6.4498						
C1	38	6.5538	1.0774	6.4946						
C1	34	6.5304	1.0752	6.4714						
D1	40	6.3212	1.0831	6.2654						

W
4-1-13

TOTAL SUSPENDED SOLIDS / VOLATILE SUSPENDED SOLIDS (TSS / TVSS) DATE: 4/1/2013

Methods : SM 2540 D-97, 2540 E-97 ANALYST: KE 6:38

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

make no entries to shaded cells
they are calculated !!

TSS (mg/l) calculated as:
Final dry wt (mg) = (minimum Dry Wt - Tare Wt)*1000
TSS = [(Final Dry Wt)/ ml Sample] * 1000
if dy wt < 1mg, TSS = <1mg / mL sample * 1000
with "<" flag

Loss on ignition (LOI) = TVSS (mg/L) calculated as:
LOI (mg) = Dry wt(mg) -((min ash wt - tare wt) * 1000)
TVSS (mg/L) = LOI / mL sample * 1000
if LOI <1mg, TVSS = <1mg / mL sample * 1000
with "<" flag

LCS source: *Cellulose, MP Biomedicals Lot# **6399J*** 0.05 grams to 1000 mL = **50** ***mg/L TSS***

SAMPLE ID	DISH #	filtered (mL)	TARE WT (grams)	DRY WT 104C (grams) 1	2	3	4	DryWT (mg)	TSS (mg/L)	ASH WT 550C (grams) 1	2	3	4	LOI (mg)	TVSS (mg/l)
Cal Weight ID			CV-02	CV-02	CV-02	CV-02	CV-02			CV-02	CV-02	CV-02	CV-02		
Date & Time				4/1/13 8:22 KE	4/8/13 9:52 KE										
Cal Wt (g) 10.0000				10.0000	10.0000										
record weights to 4 places				*Cal OK!*	*Cal OK!*										
BLANK		1000	0.1121	0.1121	0.1121	STOP		0.0	<1						
LCS # 00613-09		1000	0.1127	0.1628	0.1626	STOP		49.9	49.9	99.8%	% Recovery				
WJ10 A3		480	0.1105	0.1231	0.1230	STOP		12.5	26.0						
WJ10 A3 dup		480	0.1102	0.1241	0.1239	STOP		13.7	28.5						
								RPD =	*9.2%*					*RPD =*	*NA*
WJ18 A1		930	0.1119	0.1150	0.1149	STOP		3.0	3.2						
WJ33 A3		300	0.1121	0.1257	0.1257	STOP		13.6	45.3						
WJ33 A3 dup		300	0.1118	0.1248	0.1247	STOP		12.9	43.0						
								RPD =	*5.2%*					*RPD =*	*NA*
WJ64 A3-4		460	0.1113	0.1124	0.1122	STOP		0.9	<2.2						
WJ64 A3-4 dup		460	0.1116	0.1127	0.1126	STOP		1.0	2.2						
								RPD =	*NA*					*RPD =*	*NA*

1332.5 E5

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TOTAL SUSPENDED (TSS) / TOTAL VOLATILE SUSPENDED SOLID(TVSS) BENCHSHEET

(1) 4-1-13 (2)

Analyst: (2)	Date/Time: 4-1-13 6:38	Oven #: 012	Muffle Furnace: 62790918520	Balance: 1123230597

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TSS (mg/L) calculated as:
Final Dry Weight (mg) = (Min Dry Weight – Tare Weight) * 1000
TSS = (Final Dry Weight) / (mL Sample) * 1000
If dry wt < 1 mg / mL sample * 1000 use "<" flag

Loss on Ignition (LOI) = TVSS (mg / L) is calculated as:
LOI (mg / L) = Dry Weight (mg) – [(Minimum Ash Weight – Tare Weight) * 1000]
TVSS (mg / L) = LOI / mL sample * 1,000
If LOI < 1 mg, TVSS = < 1 mg / mL sample * 1000 use "<" flag

LCS (Cellulose from MP Biochemicals) Lot #		6399J	0.0500 Gram to 1000 mL = **50 mg / L TSS**							
Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02			CV-02	CV-02	
Date & Time:			4/1/13 8:22	4/1/13 9:52						
Cal Weight (10.0000g):			10.0000 (A2)	10.0000 (A2)						

Sample ID	Dish #	Filtered mL	Tare	Dry Weight 104°C (grams)			Dry Wt mg	TSS	Ash Weight 550°C		LOI - mg	TVSS mg/L
				1	2	3			1	2		
BLANK	P0951	1000	0.1121	0.1121	0.1121							
LCS # 00613-09	P0952	1000	0.1127	0.1628	0.1626							
WJ10 A3	P0953	480	0.1105	0.1231	0.1230							
↓ DUP A3	P0954	480	0.1102	0.1241	~~0.1240~~	0.1239						
WJ18 A1	P0934	930	0.1119	0.1150	0.1149							
WJ33 A3	P0935	300	0.1121	0.1257	~~0.1256~~	0.1257						
↓ DUP A3	P0936	300	0.1118	0.1248	0.1247							
WJ64 A3-4	P0937	460	0.1113	0.1124	0.1122							
↓ DUP A3-4	P0950	460	0.1116	0.1127	0.1126							

(1) 4-1-13 (2)

4-2-13

CONDUCTIVITY BENCHSHEET (EPA 120.1) Date / Time : 4/2/13 10:24

EPA 120.1, SM 2510 B-97, EPA 9050A Analyst : KE

Temperature compensated to 25 °C

INSTRUMENT: Orion Model 115 SN:002482 ELECTRODE: Orion 011510 SN:KU9020 K= 1 cm-1

Direct Calibration		Cell Constant Adjustment	
1413 Calibration Standard	0.01 N KCl	*1413 Calibration Standard*	0.01N KCl
ARI #	00613-06	ARI #	
µS/cm =	1,413	*Current value*	*Cal Temp (°C)*
Cal Temp (°C) =	19.8		*Expected*
input µS =	1277	Adjust to	*Displayed*
Cell constant =	0.9886		*%*

Calibration Verification Standard *Record Certified Values*

Source: RICCA CHEMICAL COMPANY *µS / cm =* 1000

Lot Number: # 4110724 *TDS (mg/l) =*

Sample Data

(NOTE: if requested, switch MODE to read TDS) Enter dilution as mL final / mL sample

ARI Number	Sample Dilution	Temp (C)	CONDUCTIVITY @ 25C (mS/cm)	(µS/cm)	TDS (mg/L)	Notes & Flags
ICB		21.9		0.4		*OK!*
ICV		20.2		1012		*101.20%*
WI27 A12		19.7		1397		
WI27 A12 dup		19.6		1391		*RPD =0.43 %*
WI27 B12		19.5		1252		
WI27 C12		19.4		678		
WI27 D1		19.6		1442		
WI27 E12		19.5		914		
WJ10 A1		19.4		92.8		
WJ10 A1 dup		19.4		93.0		*RPD =0.22 %*
CCB		21.8		0.5		*OK!*
CCV		20.3		1008		*100.80%*

WJ10.02569

(1) 4-2-13 (W)

CONDUCTIVITY BENCHSHEET (EPA 120.1) Date / Time : 4-2 13

EPA 120.1, SM 2510 B-97, EPA 9050A Analyst : (W) 10:24

Temperature compensated to 25 °C

INSTRUMENT: Orion Model 115 SN:002482 ELECTRODE: Orion 011510 SN:KU9020 K= 1 cm-1

Direct Calibration		Cell Constant Adjustment	
1413 Calibration Standard	0.01 N KCl	1413 Calibration Standard	0.01N KCl
ARI #	00613-06	ARI #	
µS/cm =	1,413	Current value / Cal Temp (°C)	
Cal Temp (°C) =	19.8	Expected	
input µS =	12.77	Adjust to / Displayed	
Cell constant =	.9886	%	

Calibration Verification Standard *Record Certified Values*

Source: RICCA CHEMICAL COMPANY — µS / cm = 1000

Lot Number: # 4110724 — TDS (mg/l) =

Sample Data

(NOTE: if requested, switch MODE to read TDS) Enter dilution as mL final / mL sample

ARI Number	Sample Dilution	Temp (C)	CONDUCTIVITY @ 25C (mS/cm)	CONDUCTIVITY @ 25C (µS/cm)	TDS (mg/L)	Notes & Flags
ICB		21.9		0.4		
ICV		20.2		1012		
WJ127 A12		19.7		1397		
mA12		19.6		1391		
B12		19.5		1252		
C12		19.4		678		
D12		19.6		1442		
E12		(D) ~~19.5~~ 19.5		914		
WJ10 A1		19.4		92.8		
mA1		19.4		93.0		
CCB		21.8		0.5		
CCV		20.3		1008		
~~CCB~~						
CCV						
CCB						

4-2-13 (W)

WJ10:02570

W
4-1-13

Original Run Filename: OM_3-29-2013_10-34-27AM.OMN Created: 3/29/2013 10:34:27 AM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 032913CLA.omn Last Modified: 3/29/2013 11:12:09 AM
Current Run Author's Signature: [Carol Hawkins]
Description: LACHAT 1
ARI In-House Standards: 00133-10

Sample	Cup No.	Channel 1 Chloride Conc. (mg Cl/L)	Channel 1 Chloride Area (V.s)	Detection Time	MANUAL DILUTION FACTOR	
STD A	S1	10	41.4239	3/29/2013@10:35:19 AM		
STD B	S2	8	33.4513	3/29/2013@10:36:29 AM		
STD C	S3	4	16.2363	3/29/2013@10:37:39 AM		
STD D	S4	2	8.0459	3/29/2013@10:38:50 AM		
STD E	S5	1	4.1256	3/29/2013@10:39:59 AM		
Blank	S6	0	1.1016	3/29/2013@10:41:10 AM		
ICV ERA 210312	7	5.1532	21.4542	3/29/2013@10:42:21 AM		%R= 103.06
Known Conc:		5				
ICB	8	0.0693	0.5492	3/29/2013@10:48:22 AM		
Known Conc:		0				
LOW	9	1.033	4.5118	3/29/2013@10:49:32 AM		%R= 103.30
Known Conc:		1				
FILTER BLK	10	-0.1969	-0.5457	3/29/2013@10:55:33 AM		
WJ10A1	11	1.9064	8.1031	3/29/2013@10:56:44 AM		
~~WJ10A1~~	~~12~~	~~2.1824~~	~~2.059~~	~~3/29/2013@10:57:55 AM~~	~~5~~	
~~WJ10A1~~	~~13~~	~~1.9613~~	~~0.6674~~	~~3/29/2013@10:59:05 AM~~	~~20~~	
CCV	17	4.9535	20.633	3/29/2013@11:00:16 AM		%R= 99.07
Known Conc:		5				
CCB	18	-0.0071	0.235	3/29/2013@11:06:17 AM		
Known Conc:		0				

Amount Summary

Sequence Details

Name:	**MARCH2713CLH**	*Calibration:*	**MAR2313RR**	**ARI # 613-02**
Directory:	**Instrument Data\2013 DATA\MAR 2013**	*Calibration exp:*	**5/23/2013**	
Data Vault:	**ChromeleonLocal**	*Queue Start:*	**13:18**	
No. of Injections:	**24.000**	*User:*	**CLH**	

By Component

		ERA 130312	ERA 210312	ERA 490412	ERA 370911	ERA 240312	ERA 230511	ERA 030112
Name	Dilution	Amount n.a. Fluoride	Amount n.a. Chloride	Amount n.a. Nitrite	Amount n.a. Bromide	Amount n.a. Sulfate	Amount n.a. Nitrate	Amount n.a. Phosphate
RINSE	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ICV	1.0	3.055	3.025	3.046	3.036	3.133	2.982	2.932
%R=		101.83%	100.84%	101.55%	101.18%	104.45%	99.40%	97.73%
ICB	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
LOW	1.0	0.090	0.097	0.089	0.079	0.093	0.080	0.077
%R=		90.44%	96.71%	88.63%	79.45%	93.00%	80.22%	76.88%
WJ10 A1 50X	50.0	n.a.		n.a.	n.a.			n.a.
WJ16 A2 5X	5.0	0.103		n.a.	0.215		n.a.	n.a.
WI62 A2 DUP 5X	5.0	0.103		n.a.	0.216		n.a.	n.a.
%RPD=			1.22%			2.33%		
WJ16 A2 MS 5X	5.0	7.924		7.705	6.815		7.325	6.990
%R=			89.36%			86.86%		
WJ16 B2 50X	50.0	n.a.	4.848	n.a.	n.a.	n.a.		1.093
WJ16 C3 5X	5.0	n.a.		n.a.	n.a.	0.268	0.135	n.a.
WJ16 D2 5X	5.0	n.a.		n.a.	n.a.	3.400	n.a.	n.a.
WJ16 E3 5X	5.0	0.111	2.378	n.a.	n.a.		n.a.	0.127
CCV	1.0	3.051	3.025	3.045	3.020	3.122	2.979	2.925
%R=		101.70%	100.83%	101.49%	100.67%	104.08%	99.29%	97.51%
CCB	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
WJ10 A1 200X	200.0	n.a.	4.511	n.a.	n.a.	n.a.	n.a.	n.a.
WJ16 A2	1.0		12.007	n.a.	0.266	11.587		n.a.
WJ16 A2 DUP	1.0		11.913	n.a.	0.263	10.839		n.a.
%RPD=		1.46%					NA	
WJ16 A2 MS	1.0		13.881	1.977	2.014	12.845		1.799
%R=		80.67%					95.09%	
WJ16 C3	1.0		6.003	0.022	0.060			n.a.
WJ16 D2	1.0		7.328	n.a.	0.087			n.a.
WJ16 E3	1.0			n.a.	n.a.	6.920		n.a.
CCV	1.0	3.054	3.023	3.040	3.010	3.118	2.979	2.898
%R=		101.80%	100.77%	101.32%	100.33%	103.94%	99.30%	96.60%
CCB	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
STOP	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Name:	**MARCH2713CLH**	*Queue Start:*	**2013-03-27T13:18:35-**
Directory:	**Instrument Data\2013 DATA\MAR 2013**	*Created By:*	**pat**
Data Vault:	**ChromeleonLocal**		
No. of Injections:	**24**		

No.	Injection Name	Position	Type	Level	Dilution	Inject Time
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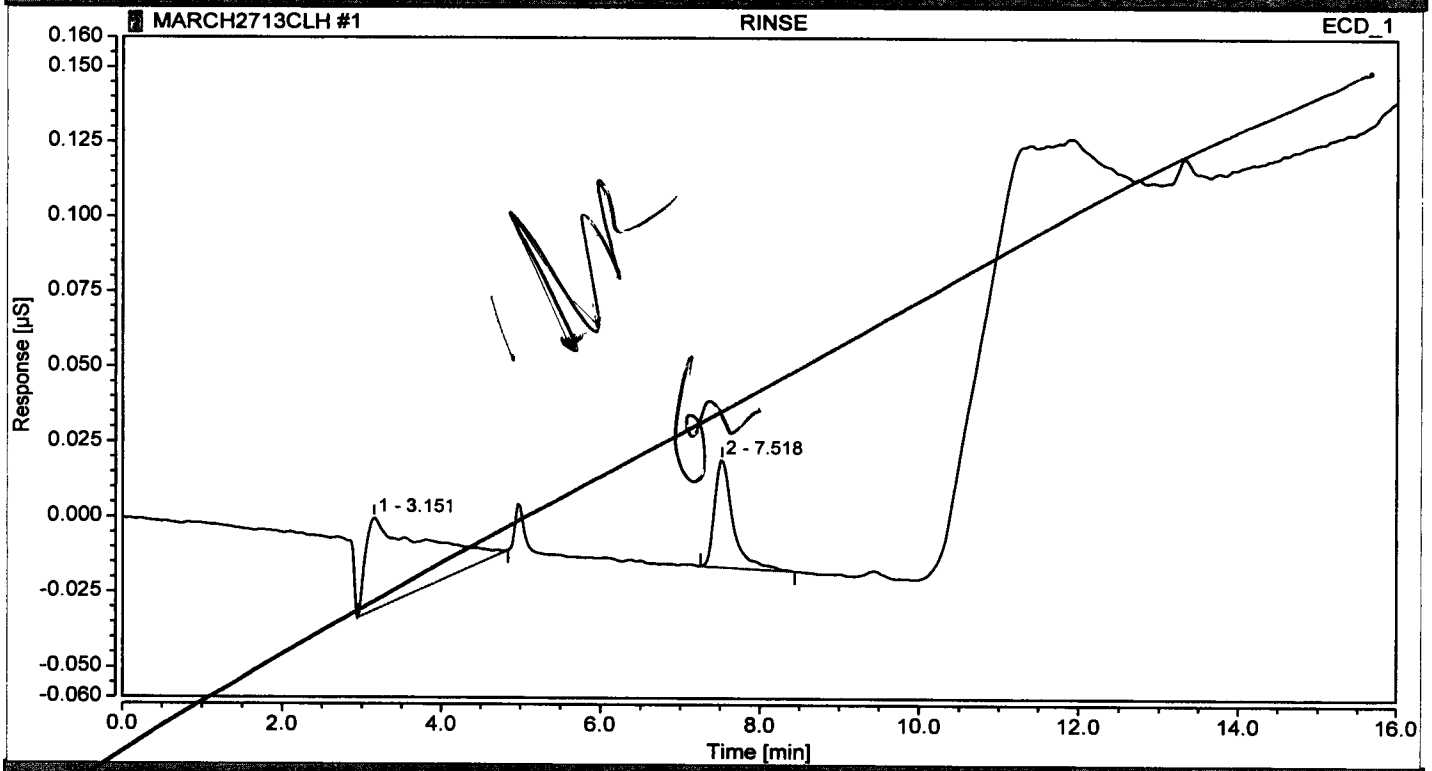
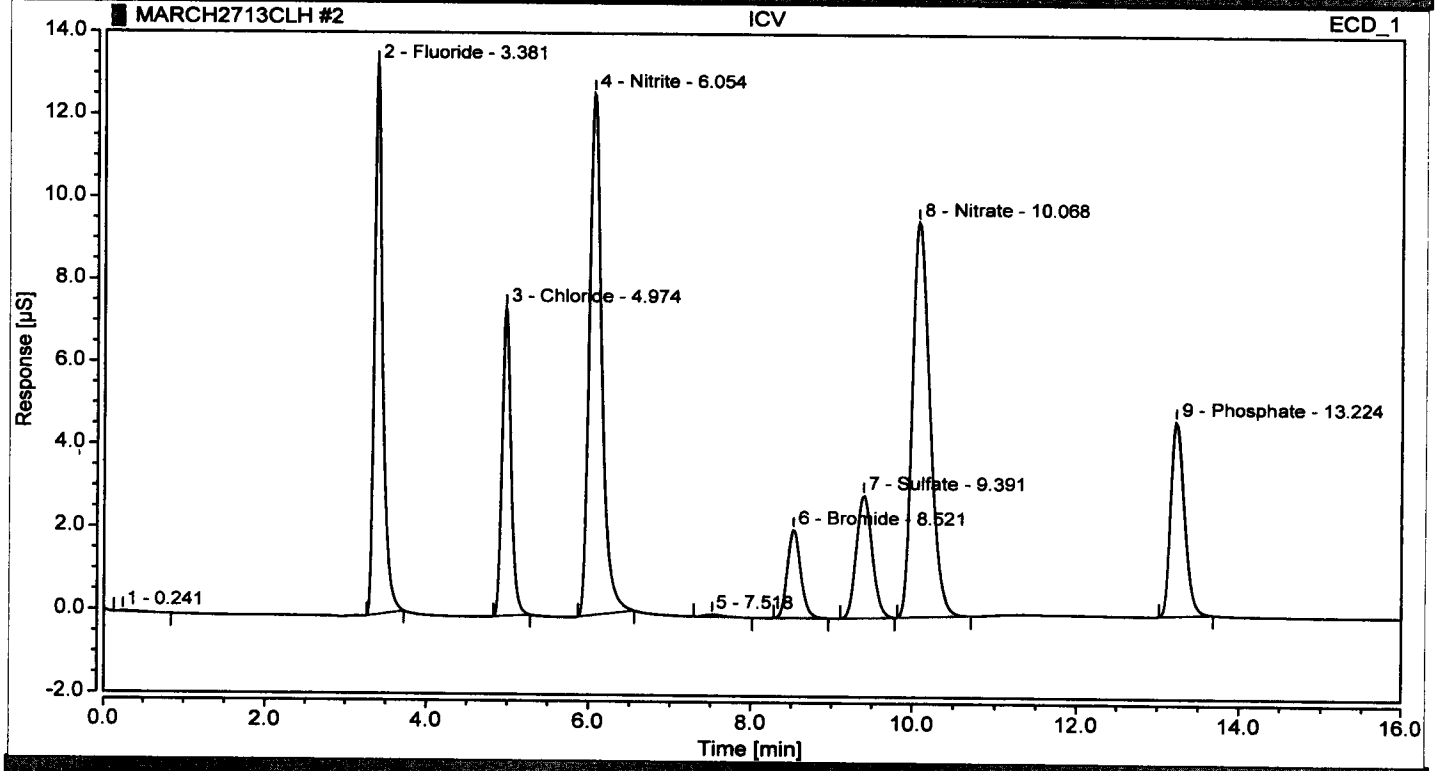
2	[illegible]					
3	[illegible]					
4	[illegible]					
5	[illegible]					
6	[illegible]					
7	[illegible]					
8	[illegible]					
9	[illegible]					
10	[illegible]					
11	[illegible]					
12	[illegible]					
13	[illegible]					
14	[illegible]					
15	[illegible]					
16	[illegible]					
17	[illegible]					
18	[illegible]					
19	[illegible]					
20	[illegible]					
21	[illegible]					
22	[illegible]					
23	[illegible]					
24	STOP		Unknown		1.0	2013-03-27T20:57:41

Injection Name:	*RINSE*	Inject Number:	1
Vial Number:	*1*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 13:18*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1								n.a.
n.a.	Fluoride							n.a.
n.a.	Chloride							n.a.
n.a.	Nitrite							n.a.
2								n.a.
n.a.	Bromide							n.a.
n.a.	Sulfate							n.a.
n.a.	Nitrate							n.a.
n.a.	Phosphate							n.a.

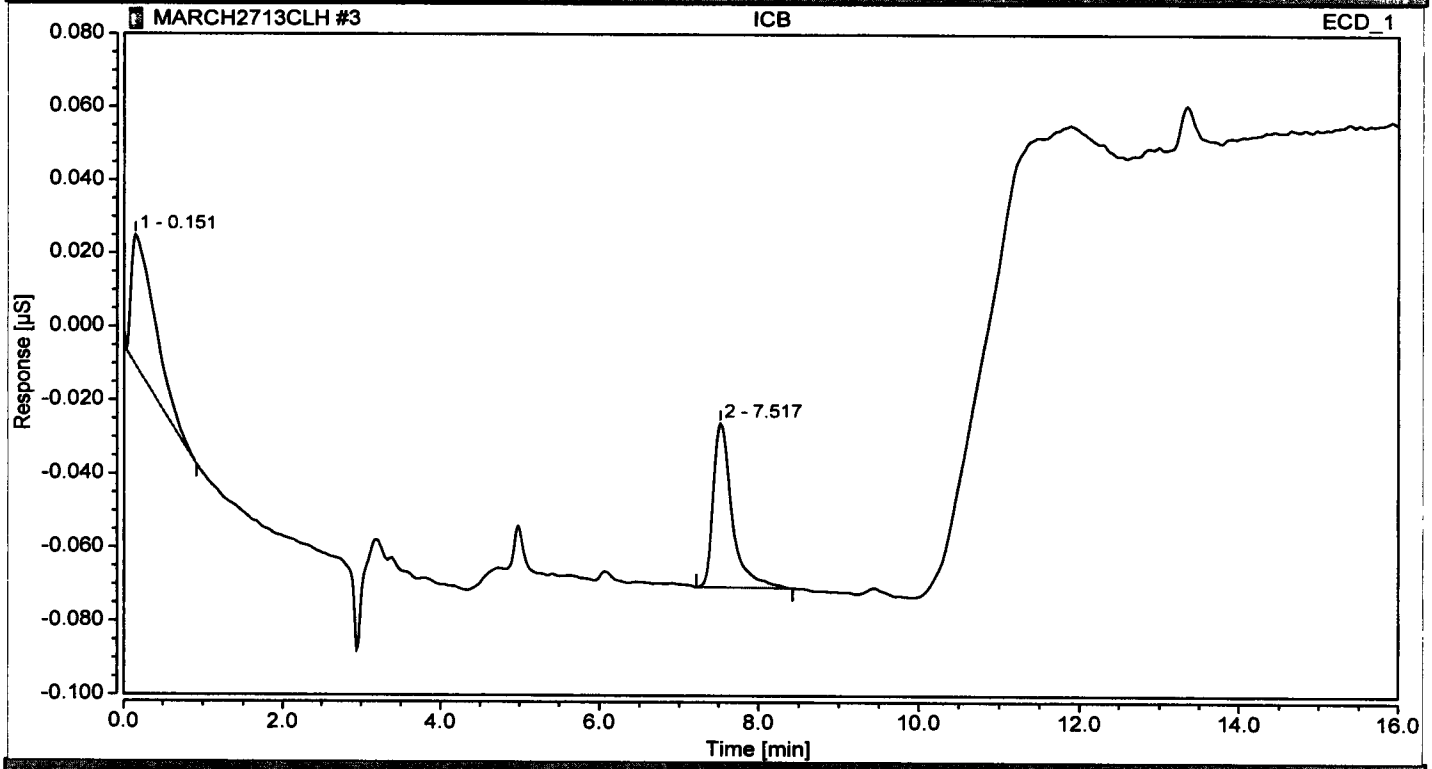
Injection Name:	*ICV*	Inject Number:	2
Vial Number:	*2*	User:	pat
Injection Type:	*Check Standard*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodat*		
Injection Date/Time:	*27/03/13 13:37*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1								
2	Fluoride							
3	Chloride							
4	Nitrite							
5								
6	Bromide							
7	Sulfate							
8	Nitrate							
9	Phosphate							

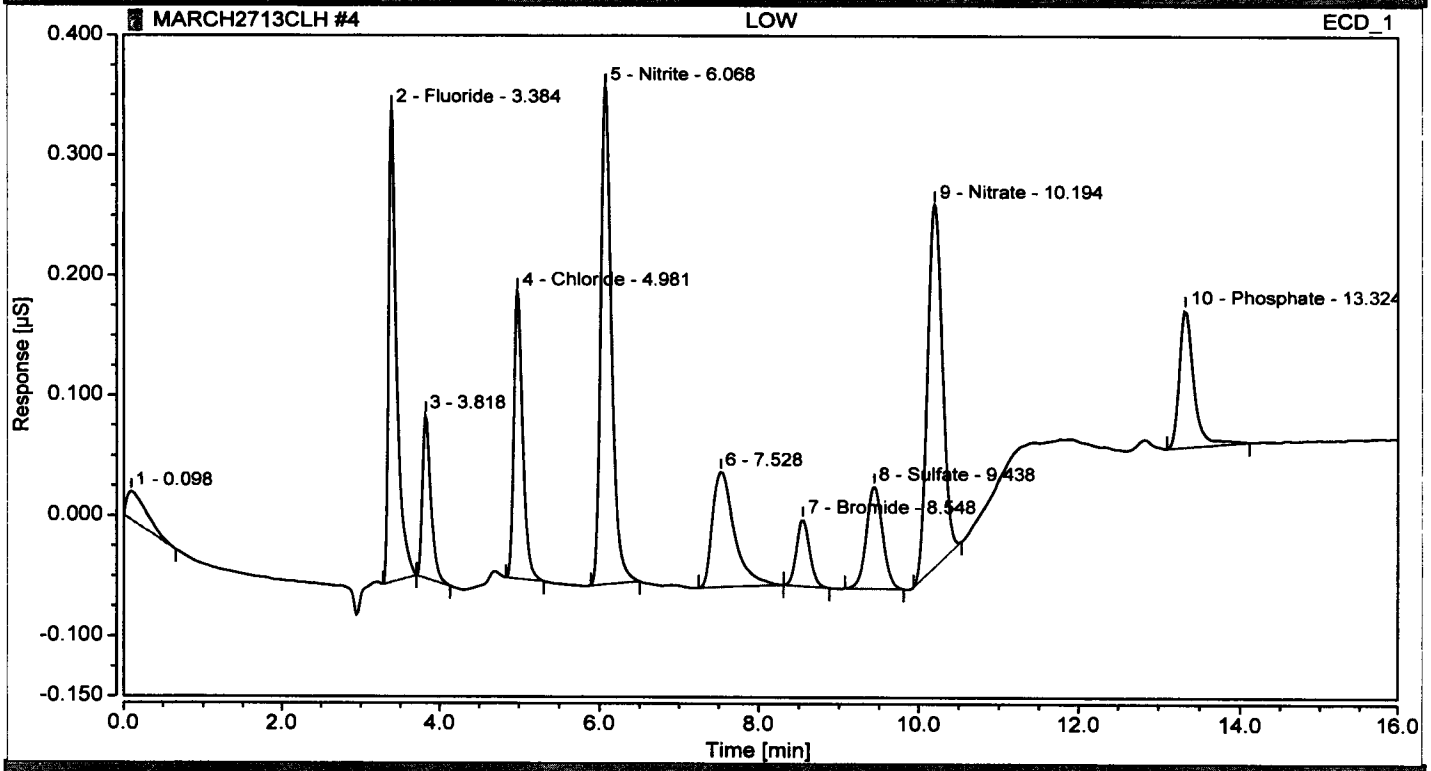
WJ10:02575

Injection Name:	*ICB*	Inject Number:	3
Vial Number:	*3*	User:	pat
Injection Type:	*Blank*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodat*		
Injection Date/Time:	*27/03/13 13:56*		



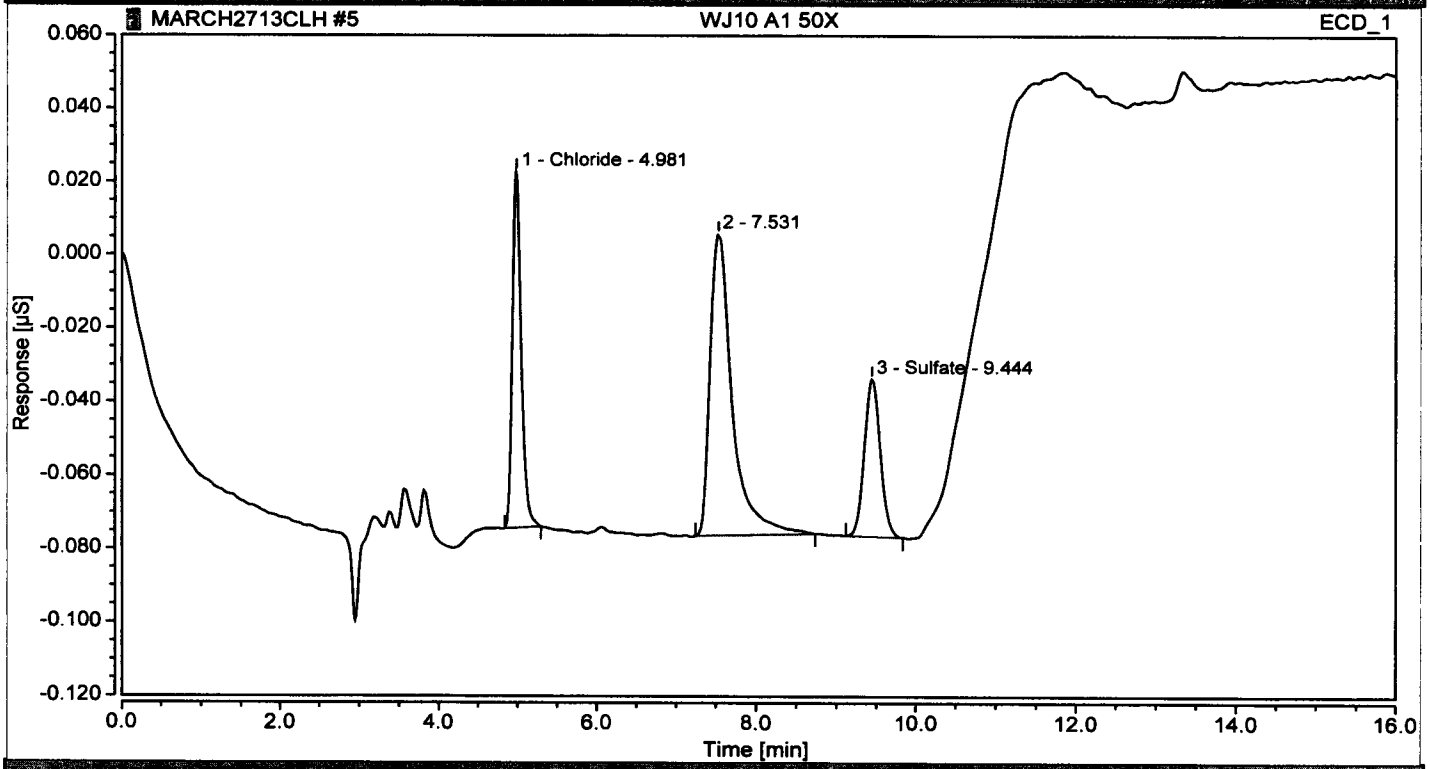
No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1		1.0	n.a.			0.035	FALSE	n.a.
n.a.	Fluoride	1.0				n.a.	n.a.	n.a.
n.a.	Chloride	1.0				n.a.	n.a.	n.a.
n.a.	Nitrite	1.0				n.a.	n.a.	n.a.
2		1.0						n.a.
n.a.	Bromide	1.0						n.a.
n.a.	Sulfate	1.0						n.a.
n.a.	Nitrate	1.0						n.a.
n.a.	Phosphate	1.0						n.a.

Injection Name:	*LOW*	Inject Number:	4
Vial Number:	*4*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodat*		
Injection Date/Time:	*27/03/13 14:15*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1								n.a.
2	Fluoride							n.a.
3								n.a.
4	Chloride							n.a.
5	Nitrite							n.a.
6								n.a.
7	Bromide							n.a.
8	Sulfate							n.a.
9	Nitrate							n.a.
10	Phosphate							n.a.

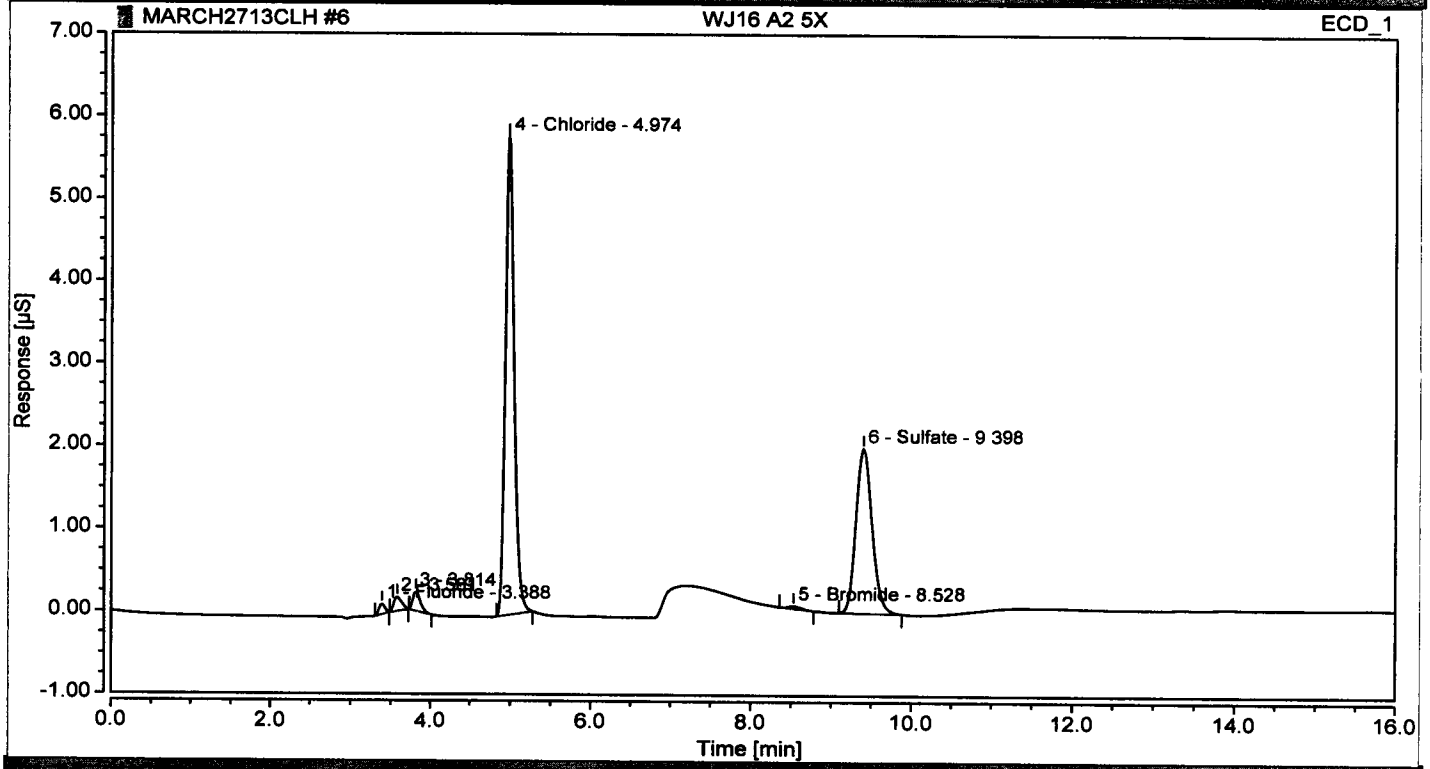
Injection Name:	*WJ10 A1 50X*	Inject Number:	5
Vial Number:	*5*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*50.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 14:35*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
n.a.	Fluoride							n.a.
1	Chloride							n.a.
n.a.	Nitrite							n.a.
2								n.a.
n.a.	Bromide							n.a.
3	Sulfate							n.a.
n.a.	Nitrate							n.a.
n.a.	Phosphate							n.a.

WJ10 : 02578

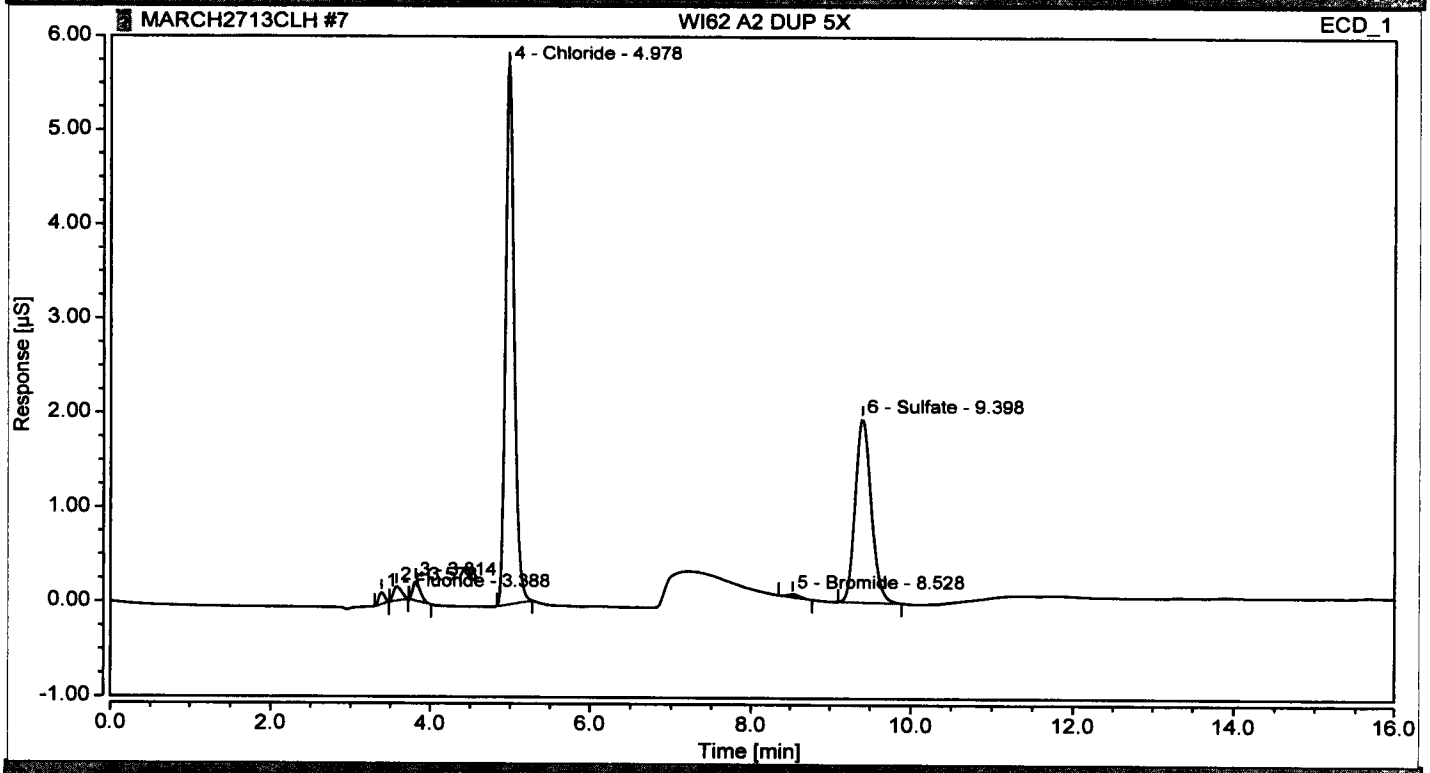
Injection Name:	*WJ16 A2 5X*	Inject Number:	6
Vial Number:	*6*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*5.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodat*		
Injection Date/Time:	*27/03/13 14:54*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	5.0	0.0	3.888	0.0	0.0	BB	n.a.
2		5.0	0.0	4.814	0.0	0.0	BB	n.a.
3		5.0	0.0	5.140	0.0	0.0	BB	n.a.
4	Chloride	5.0	0.0	4.974	0.0	0.0	BB	n.a.
n.a.	Nitrite	5.0	0.0	6.116	0.0	0.0	n.a.	n.a.
5	Bromide	5.0	0.0	8.528	0.0	0.0	BB	n.a.
6	Sulfate	5.0	0.0	9.398	0.0	0.0	BB	n.a.
n.a.	Nitrate	5.0	0.0	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	5.0	0.0	n.a.	n.a.	n.a.	n.a.	n.a.

WJ16 . 02579

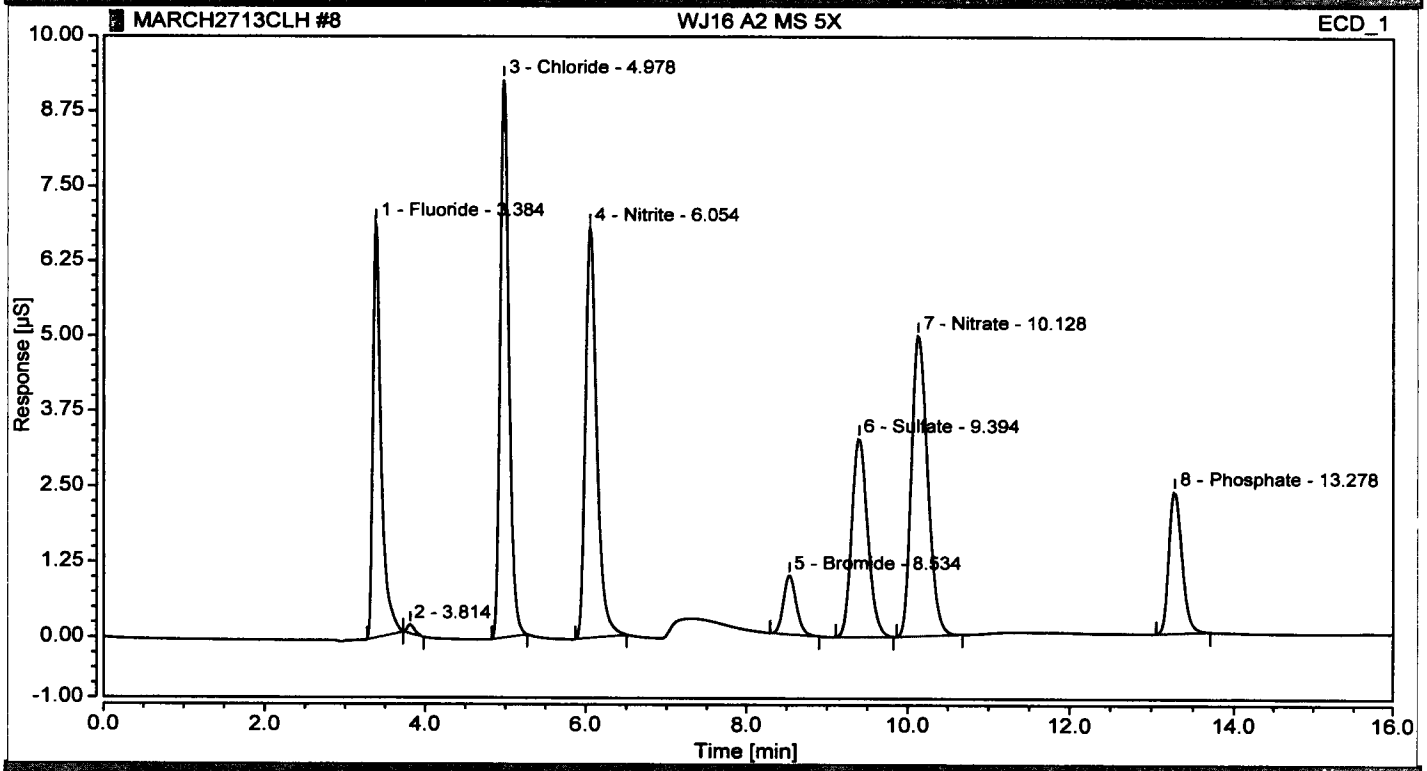
Injection Name:	*WI62 A2 DUP 5X*	Inject Number:	7
Vial Number:	*7*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*5.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 15:14*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride						FALSE	n.a.
2							FALSE	n.a.
3							FALSE	n.a.
4	Chloride						FALSE	n.a.
n.a.	Nitrite						n.a.	n.a.
5	Bromide						FALSE	n.a.
6	Sulfate						FALSE	n.a.
n.a.	Nitrate						n.a.	n.a.
n.a.	Phosphate						n.a.	n.a.

WJ10: 02586

Injection Name:	*WJ16 A2 MS 5X*	Inject Number:	8
Vial Number:	*8*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*5.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 15:33*		



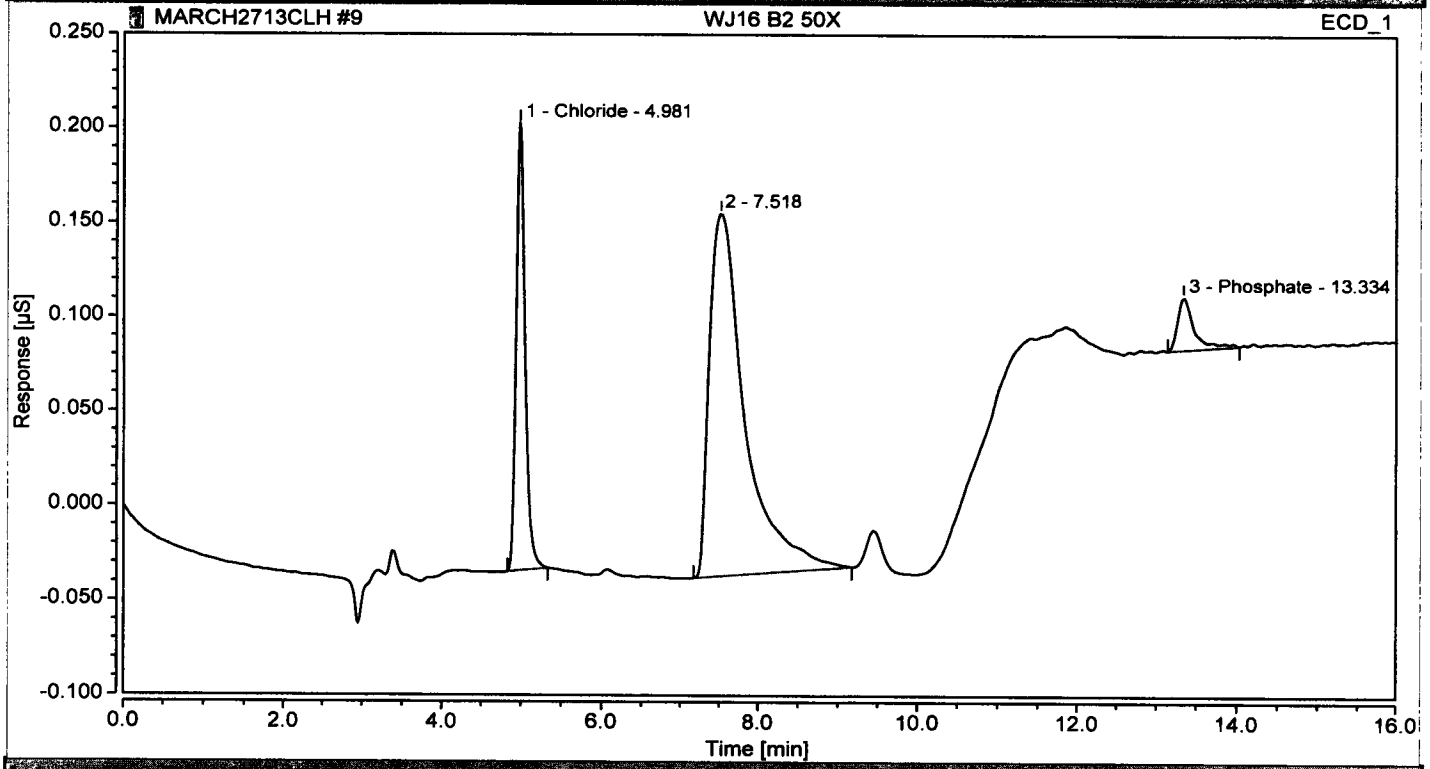
No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride							n.a.
2								n.a.
3	Chloride							n.a.
4	Nitrite							n.a.
5	Bromide							n.a.
6	Sulfate							n.a.
7	Nitrate							n.a.
8	Phosphate							n.a.

Chromeleon Report

Injection Details

Injection Name:	*WJ16 B2 50X*	Inject Number:	9
Vial Number:	*9*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*50.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 15:53*		

Chromatogram

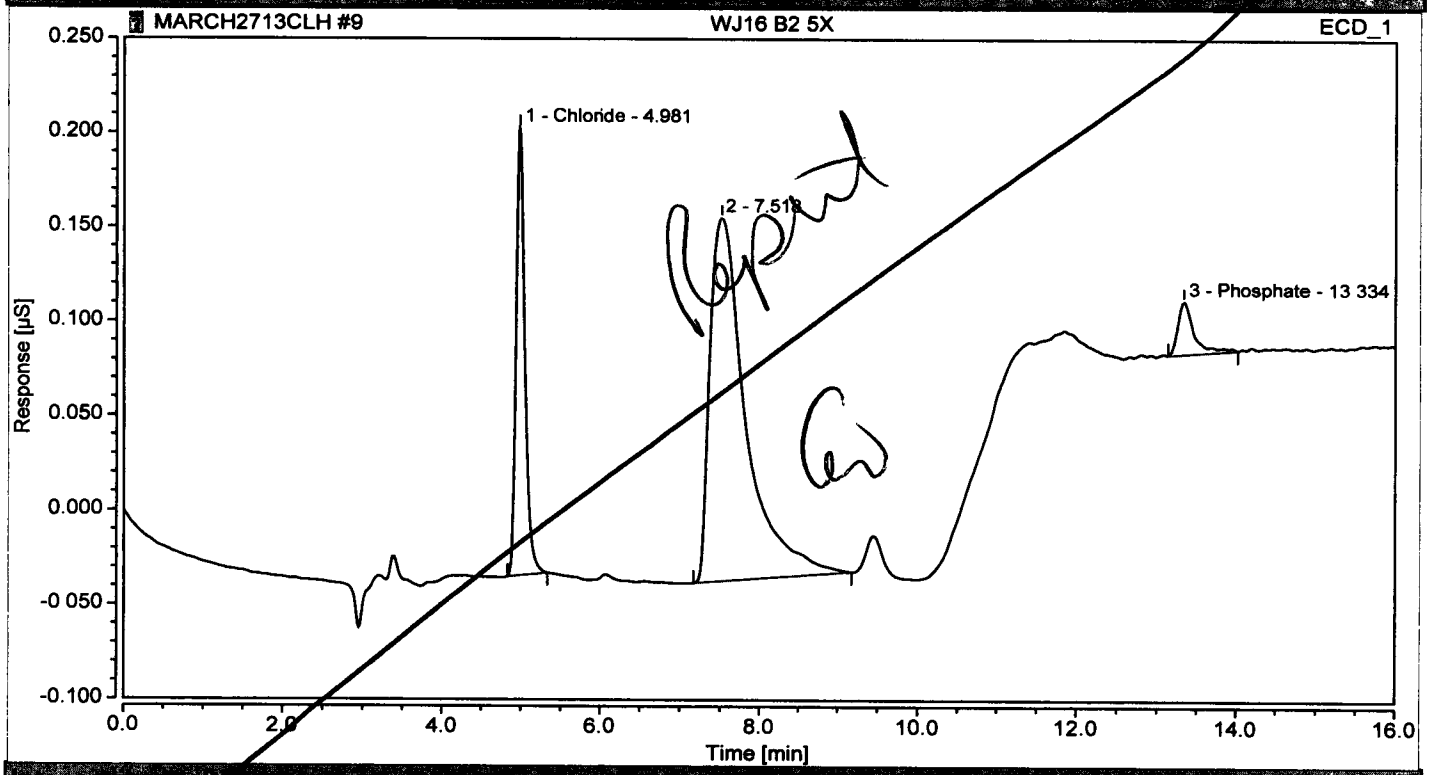


Integration Results

No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
n.a.	Fluoride	50.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	50.0	0.640	4.98	0.031	0.257	FALSE	n.a.
n.a.	Nitrite	50.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2		50.0	n.a.	7.52	0.102	0.192	FALSE	n.a.
n.a.	Bromide	50.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	50.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	50.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Phosphate	50.0	1.093	13.33	0.007	0.028	FALSE	n.a.

WJ16 · 02582

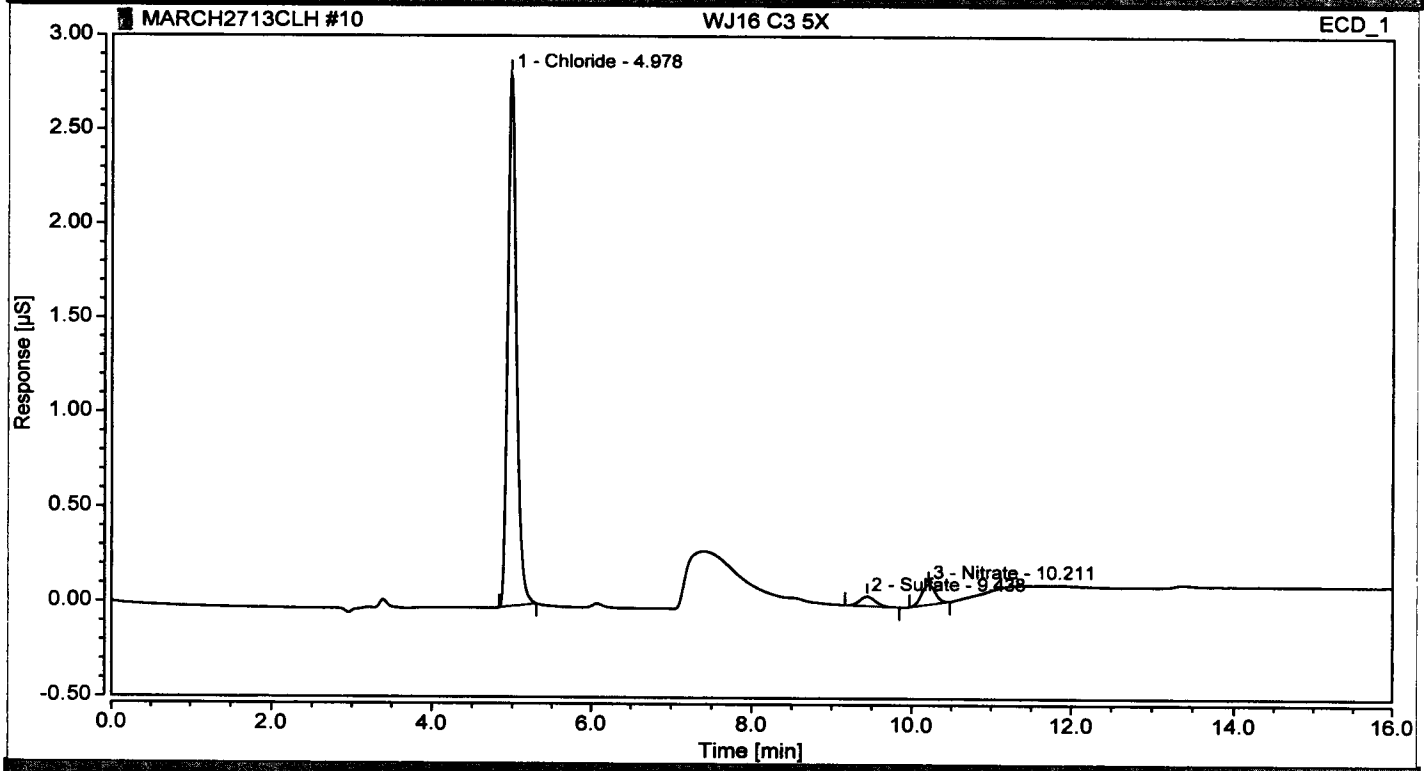
Injection Name:	*WJ16 B2 5X*	Inject Number:	9
Vial Number:	*9*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*50.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 15:53*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
n.a.	Fluoride							n.a.
1	Chloride							n.a.
n.a.	Nitrite							n.a.
2								n.a.
n.a.	Bromide							n.a.
n.a.	Sulfate							n.a.
n.a.	Nitrate							n.a.
3	Phosphate						FALSE	n.a.

WJ16 : 02589

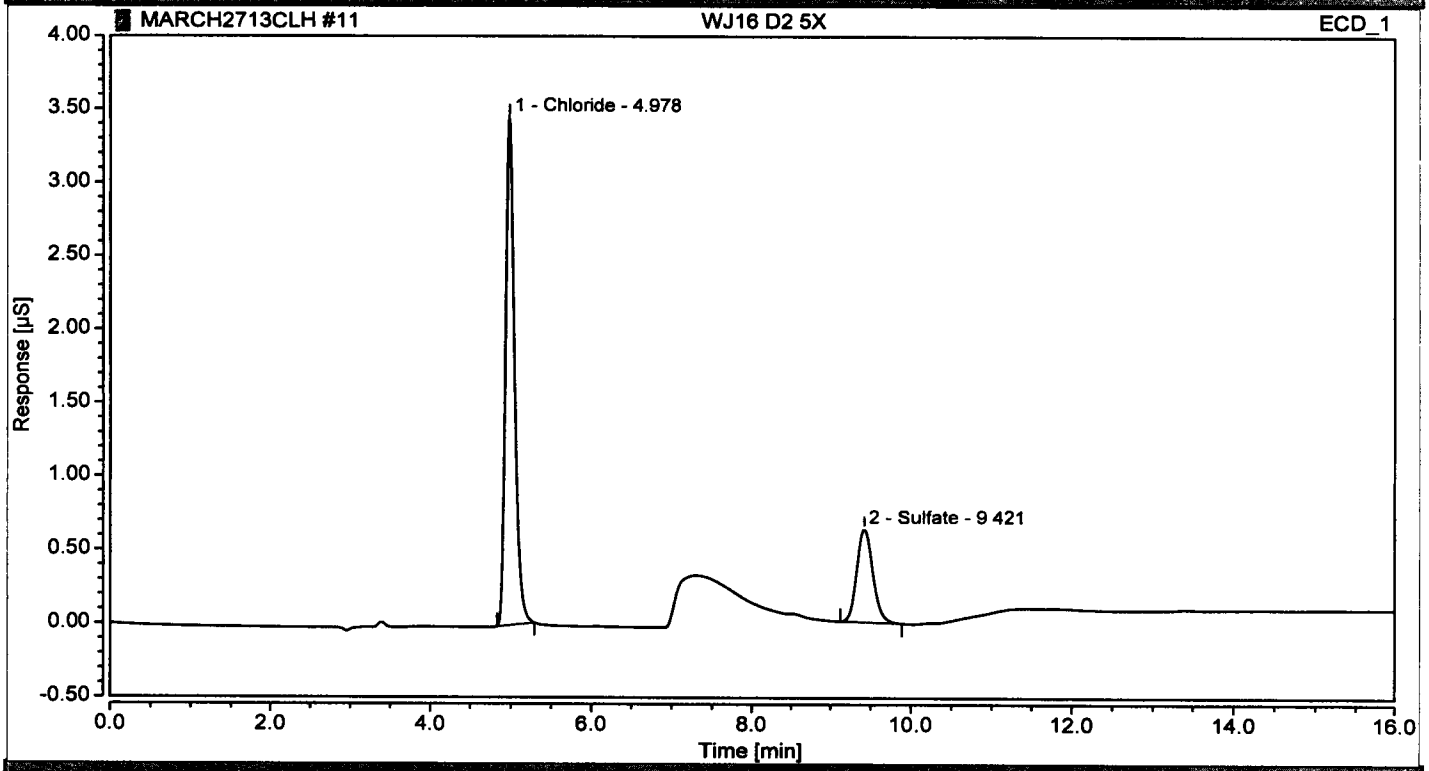
Injection Name:	*WJ16 C3 5X*	Inject Number:	10
Vial Number:	*10*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*5.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 16:13*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
n.a.	Fluoride	5.0					n.a.	n.a.
1	Chloride	5.0					FALSE	n.a.
n.a.	Nitrite	5.0					n.a.	n.a.
n.a.	Bromide	5.0					n.a.	n.a.
2	Sulfate	5.0					FALSE	n.a.
3	Nitrate	5.0					FALSE	n.a.
n.a.	Phosphate	5.0					n.a.	n.a.

WJ16 : 02564

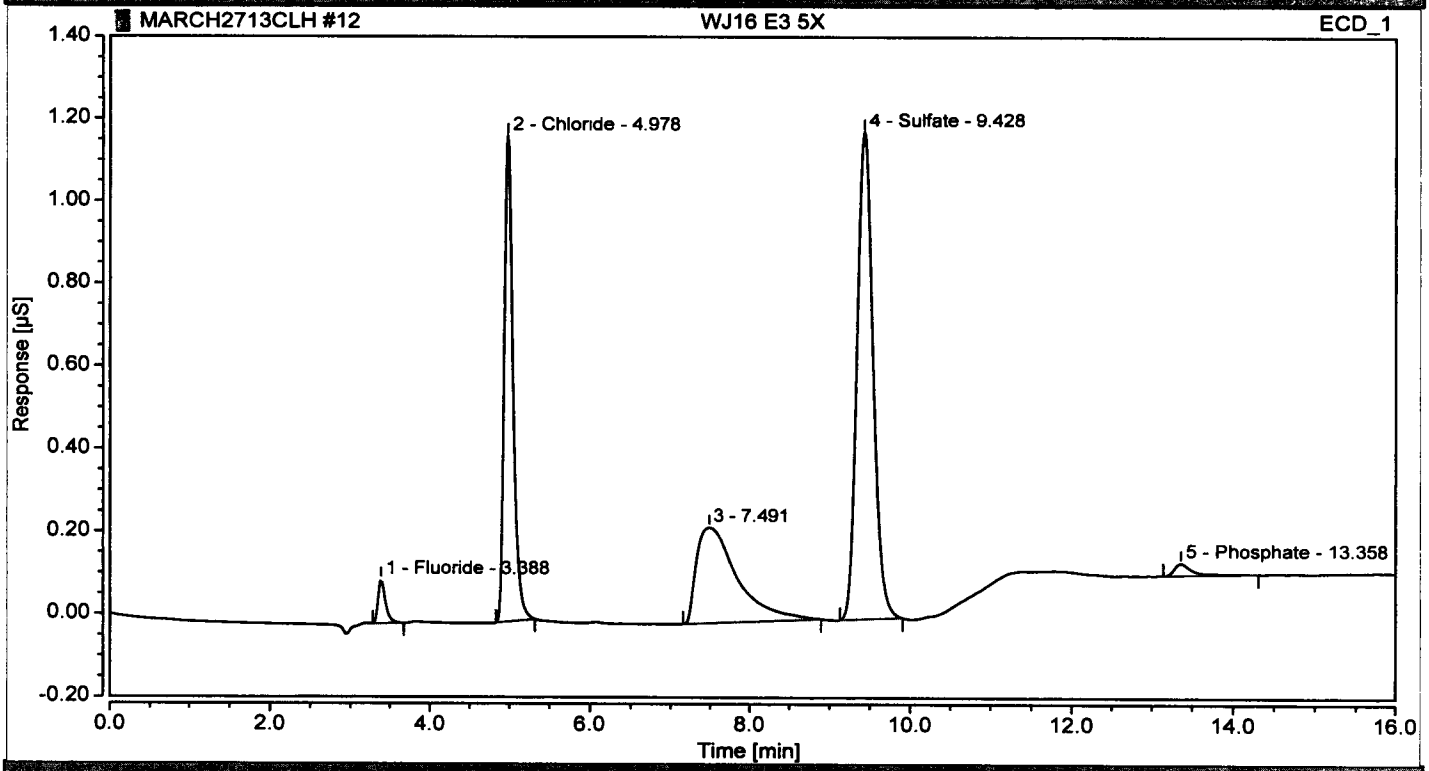
Injection Name:	*WJ16 D2 5X*	Inject Number:	11
Vial Number:	*11*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*5.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodat*		
Injection Date/Time:	*27/03/13 16:33*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
n.a.	Fluoride						n.a.	n.a.
1	Chloride							n.a.
n.a.	Nitrite							n.a.
n.a.	Bromide						n.a.	n.a.
2	Sulfate							n.a.
n.a.	Nitrate						n.a.	n.a.
n.a.	Phosphate		n.a.				n.a.	n.a.

WJ16 : 02585

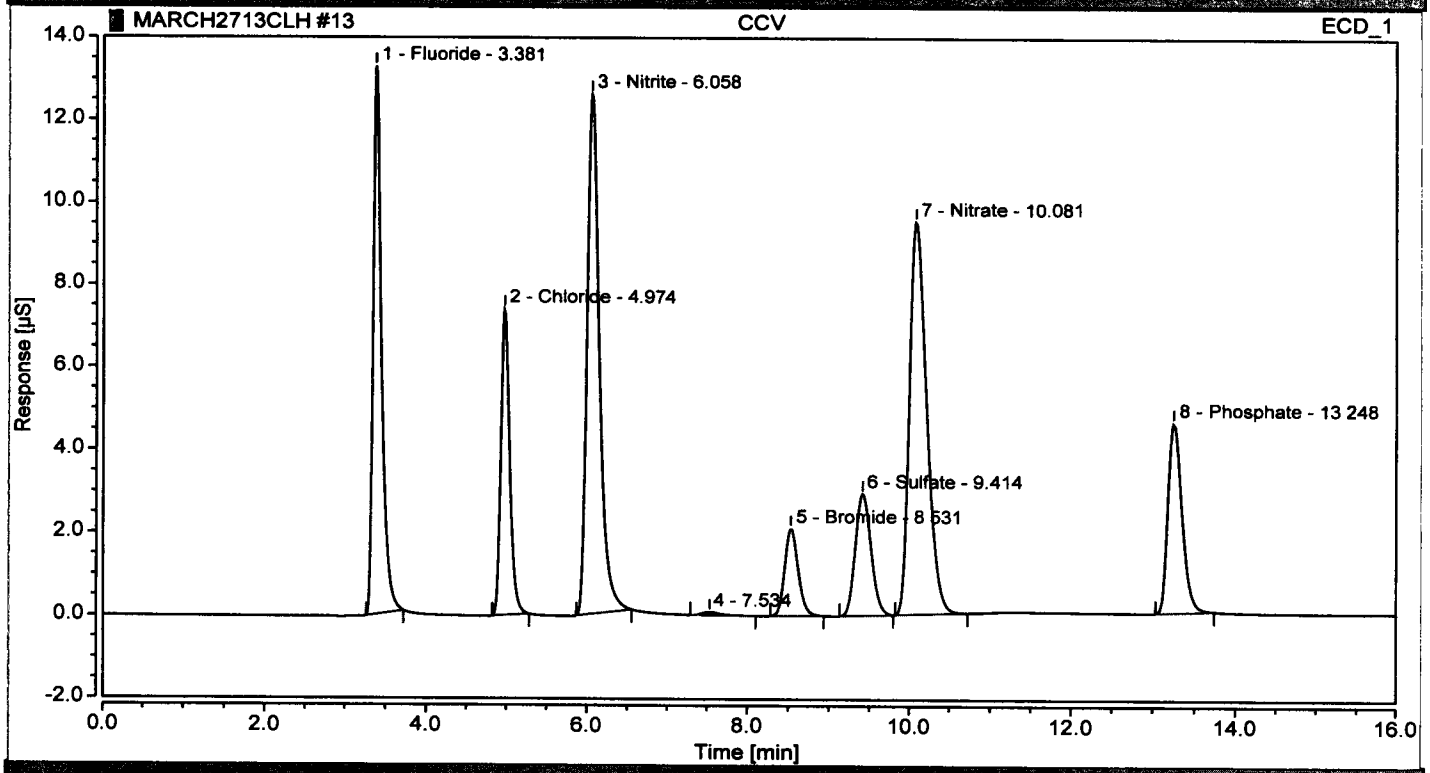
Injection Name:	*WJ16 E3 5X*	Inject Number:	12
Vial Number:	*12*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*5.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 16:53*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	5.0	0.0000	3.388	0.0000	0.000	FALSE	n.a.
2	Chloride	5.0	0.0000	4.978	0.0000	0.000	FALSE	n.a.
n.a.	Nitrite	5.0	0.0000	6.475	0.0000	0.000	FALSE	n.a.
3		5.0	0.0000	7.491	0.0000	0.000	FALSE	n.a.
n.a.	Bromide	5.0	0.0000	8.000	0.0000	0.000	FALSE	n.a.
4	Sulfate	5.0	0.0000	9.428	0.0000	0.000	FALSE	n.a.
n.a.	Nitrate	5.0	0.0000	10.000	0.0000	0.000	FALSE	n.a.
5	Phosphate	5.0	0.0000	13.358	0.0000	0.000	FALSE	n.a.

WJ16 02586

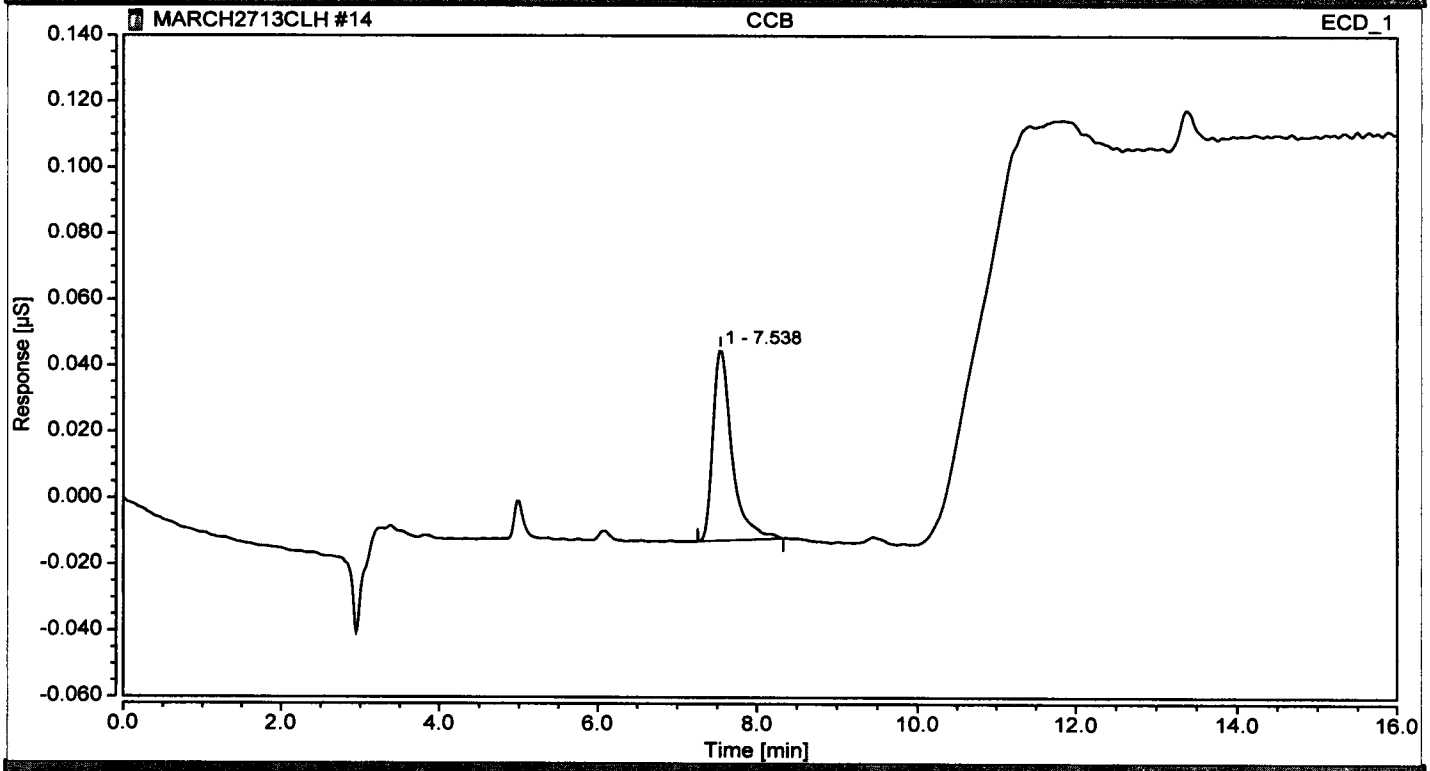
Injection Name:	*CCV* ✓	Inject Number:	13
Vial Number:	*2*	User:	pat
Injection Type:	*Check Standard*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 17:13*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	1.0	1.70	3.381	0.671	13.271	FALSE	1.70
2	Chloride	1.0	0.83	4.974	0.671	7.184	FALSE	0.83
3	Nitrite	1.0	1.49	6.058	0.671	12.564	FALSE	1.49
4		1.0		7.534	0.671	0.000	FALSE	0.0
5	Bromide	1.0	0.67	8.531	0.671	2.772	FALSE	0.67
6	Sulfate	1.0	2.08	9.414	0.671	4.870	FALSE	2.08
7	Nitrate	1.0	-0.71	10.08	2.360	8.048	FALSE	-0.71
8	Phosphate	1.0	-2.49	13.25	0.669	4.564	FALSE	-2.49

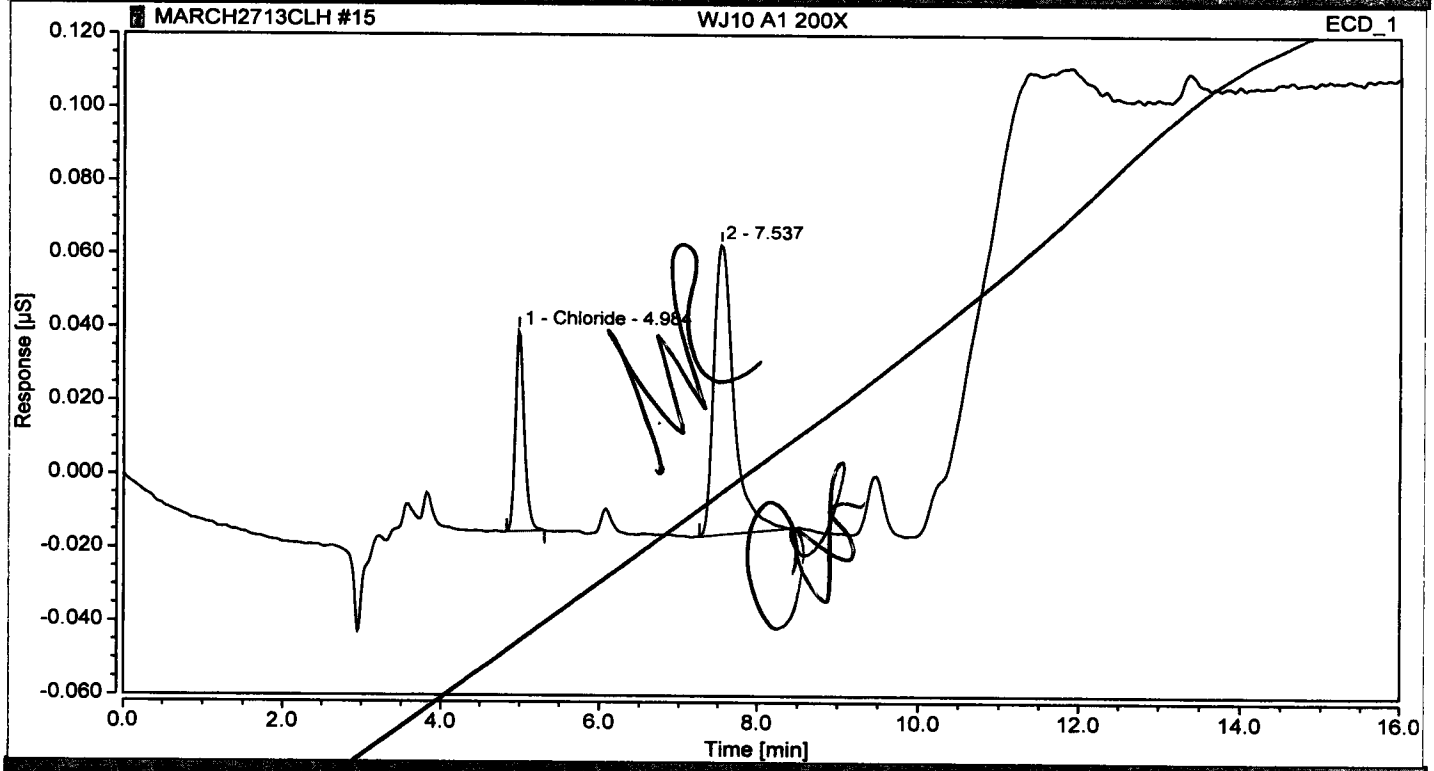
WJ10:02587

Injection Name:	*CCB*	Inject Number:	14
Vial Number:	*3*	User:	pat
Injection Type:	*Blank*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodat*		
Injection Date/Time:	*27/03/13 17:33*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
n.a.	Fluoride	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrite	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1		1.0					FALSE	n.a.
n.a.	Bromide	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

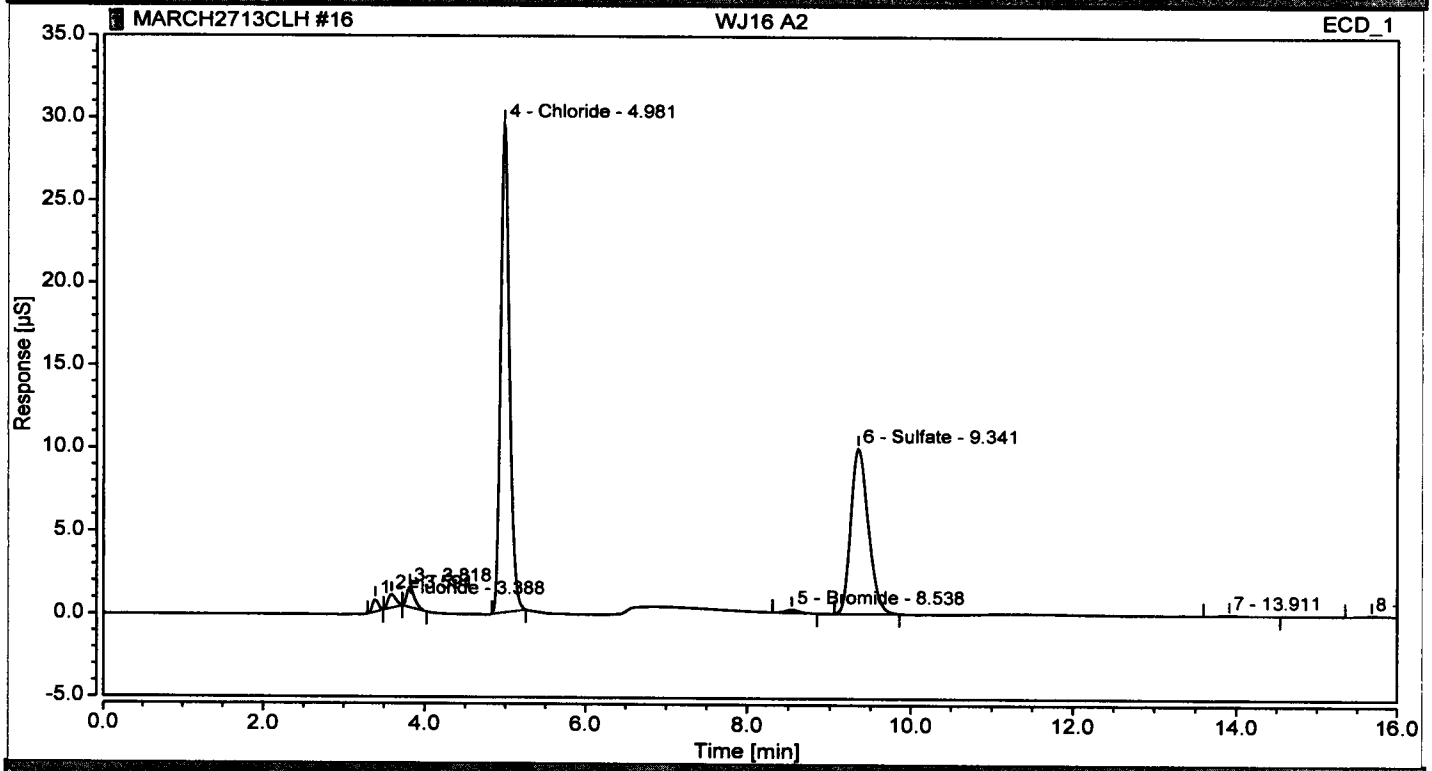
Injection Name:	*WJ10 A1 200X*	Inject Number:	15
Vial Number:	*13*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*200.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 17:54*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
n.a.	Fluoride	200.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	200.0	4.501	4.980	0.0074	0.055	FALSE	n.a.
n.a.	Nitrite	200.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	?	200.0	5.774	7.537	0.0274	0.070	FALSE	n.a.
n.a.	Bromide	200.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	200.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	200.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	200.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

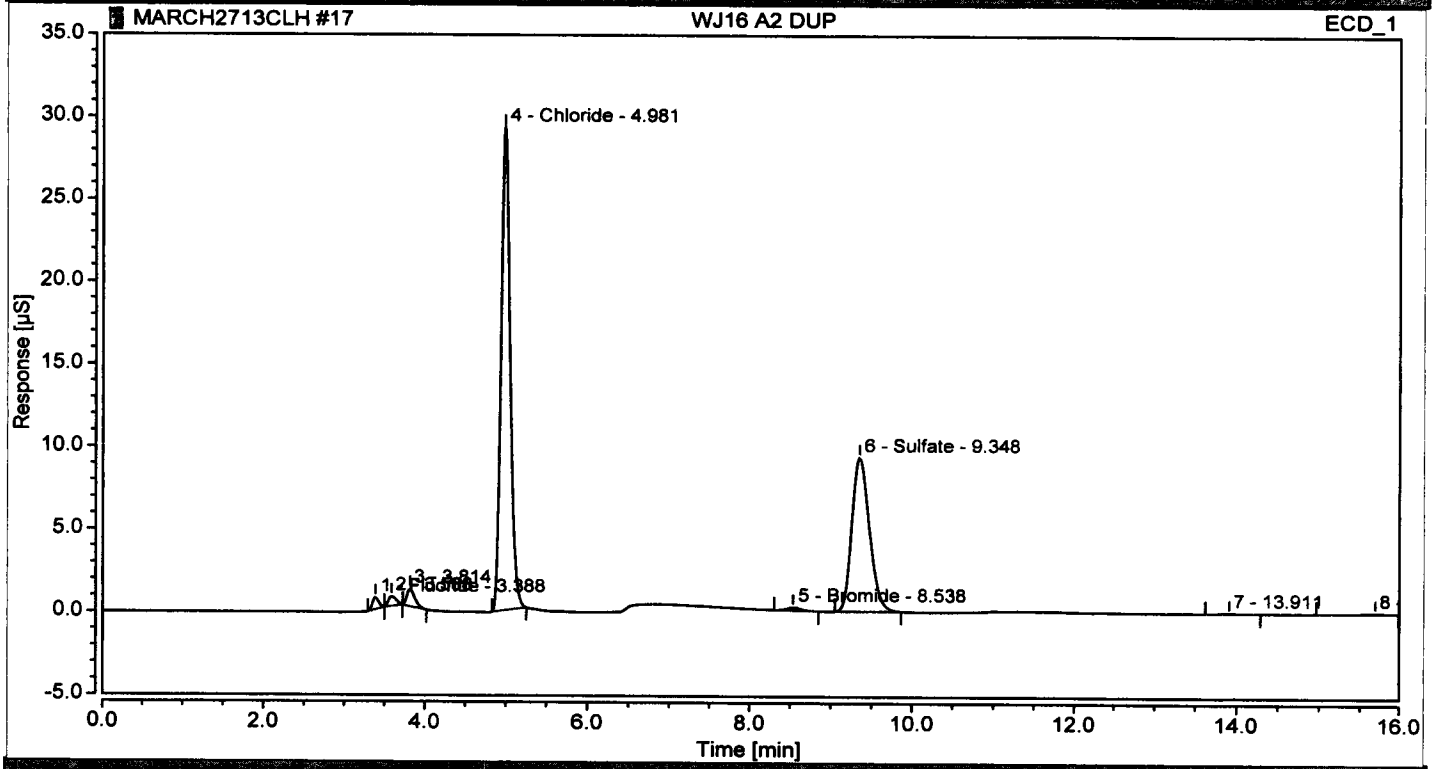
WJ10 · 02585

Injection Name:	*WJ16 A2*	Inject Number:	16
Vial Number:	*14*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 18:14*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	1.0	0.000	3.388	0.0728	0.2628	FALSE	n.a.
2		1.0	0.000	3.818	0.0000	0.0000	FALSE	n.a.
3		1.0	0.000	3.818	0.0000	0.0000	FALSE	n.a.
4	Chloride	1.0	2.000	4.981	0.0000	0.0000	FALSE	n.a.
n.a.	Nitrite	1.0	0.000	0.000	0.0000	0.0000	FALSE	n.a.
5	Bromide	1.0	0.000	8.538	0.0000	0.0000	FALSE	n.a.
6	Sulfate	1.0	0.000	9.341	0.0000	0.0000	FALSE	n.a.
n.a.	Nitrate	1.0	0.000	0.000	0.0000	0.0000	FALSE	n.a.
n.a.	Phosphate	1.0	0.000	0.000	0.0000	0.0000	FALSE	n.a.
7		1.0	0.000	13.911	0.0000	0.0000	FALSE	n.a.
8		1.0	0.000	n.a.	0.0000	0.0000	FALSE	n.a.

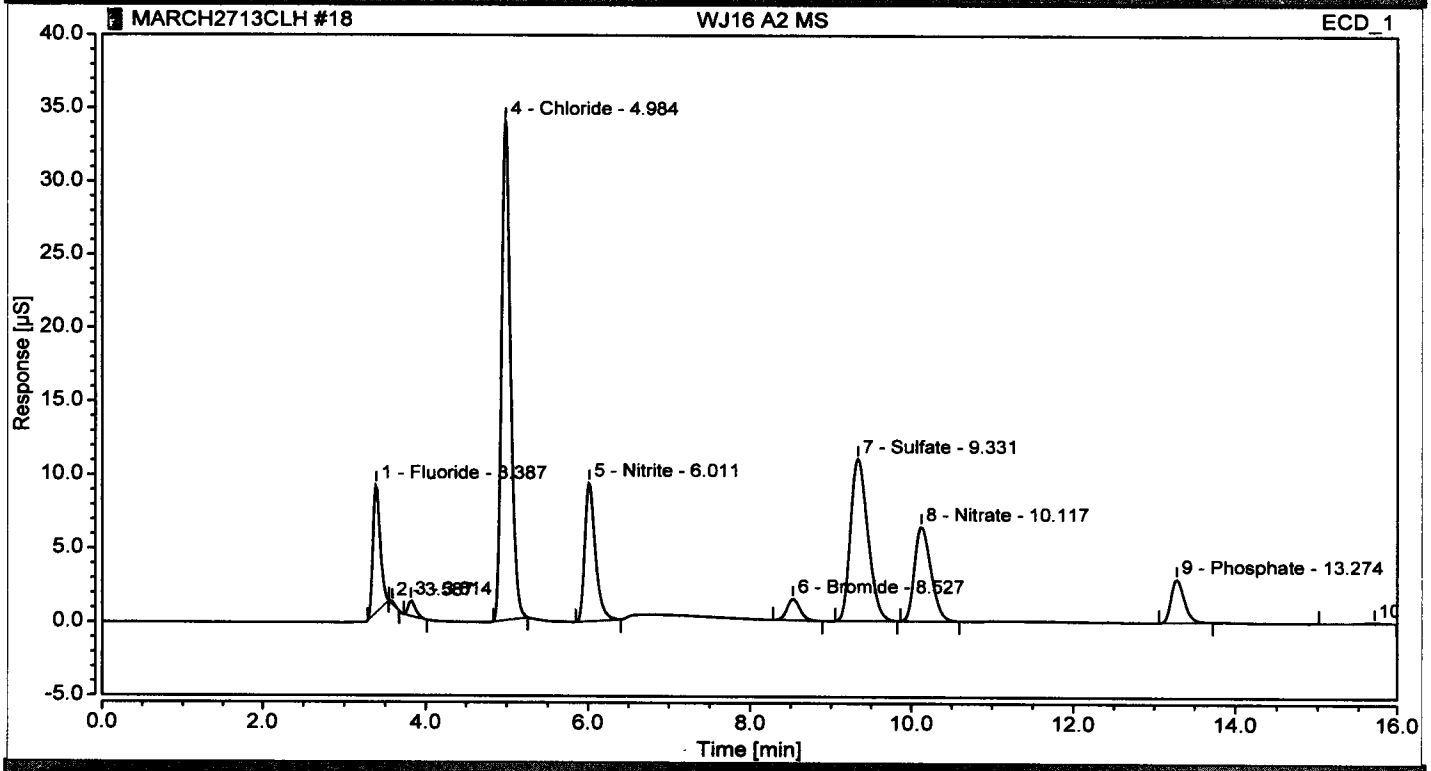
Injection Name:	*WJ16 A2 DUP*	Inject Number:	17
Vial Number:	*15*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodat*		
Injection Date/Time:	*27/03/13 18:35*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	uS*min	uS		mg/l
1	Fluoride						FALSE	n.a.
2								n.a.
3								n.a.
4	Chloride							n.a.
n.a.	Nitrite							n.a.
5	Bromide							n.a.
6	Sulfate							n.a.
n.a.	Nitrate							n.a.
n.a.	Phosphate							n.a.
7								n.a.
8								n.a.

WJ16 : 02591

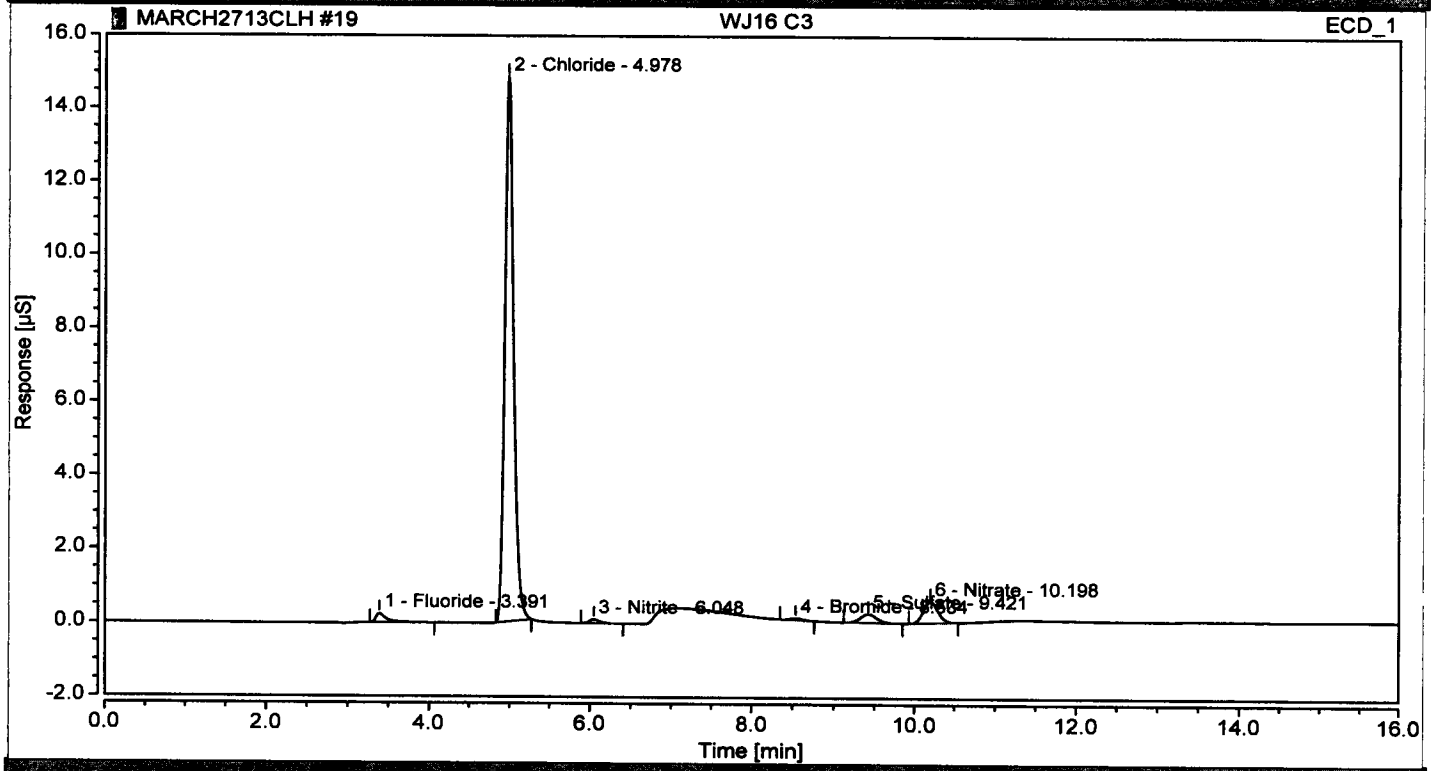
Injection Name:	*WJ16 A2 MS* ✓	Inject Number:	18
Vial Number:	*16*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 18:55*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	1.0	1.178	3.387	0.710	0.710	FALSE	n.a.
2		1.0	0.2	3.968	0.126	0.126	FALSE	n.a.
3		1.0	2.166	4.984	0.000	0.000	FALSE	n.a.
4	Chloride	1.0	0.000	6.011	0.000	0.000	FALSE	n.a.
5	Nitrite	1.0	0.000	8.527	0.000	0.000	FALSE	n.a.
6	Bromide	1.0	0.000	9.331	0.000	0.000	FALSE	n.a.
7	Sulfate	1.0	0.000	10.117	0.000	0.000	FALSE	n.a.
8	Nitrate	1.0	0.000	13.274	0.000	0.000	FALSE	n.a.
9	Phosphate	1.0	0.000	15.070	0.000	0.000	FALSE	n.a.
10		1.0	0.000	15.070	0.000	0.000	FALSE	n.a.

WJ16 : 02552

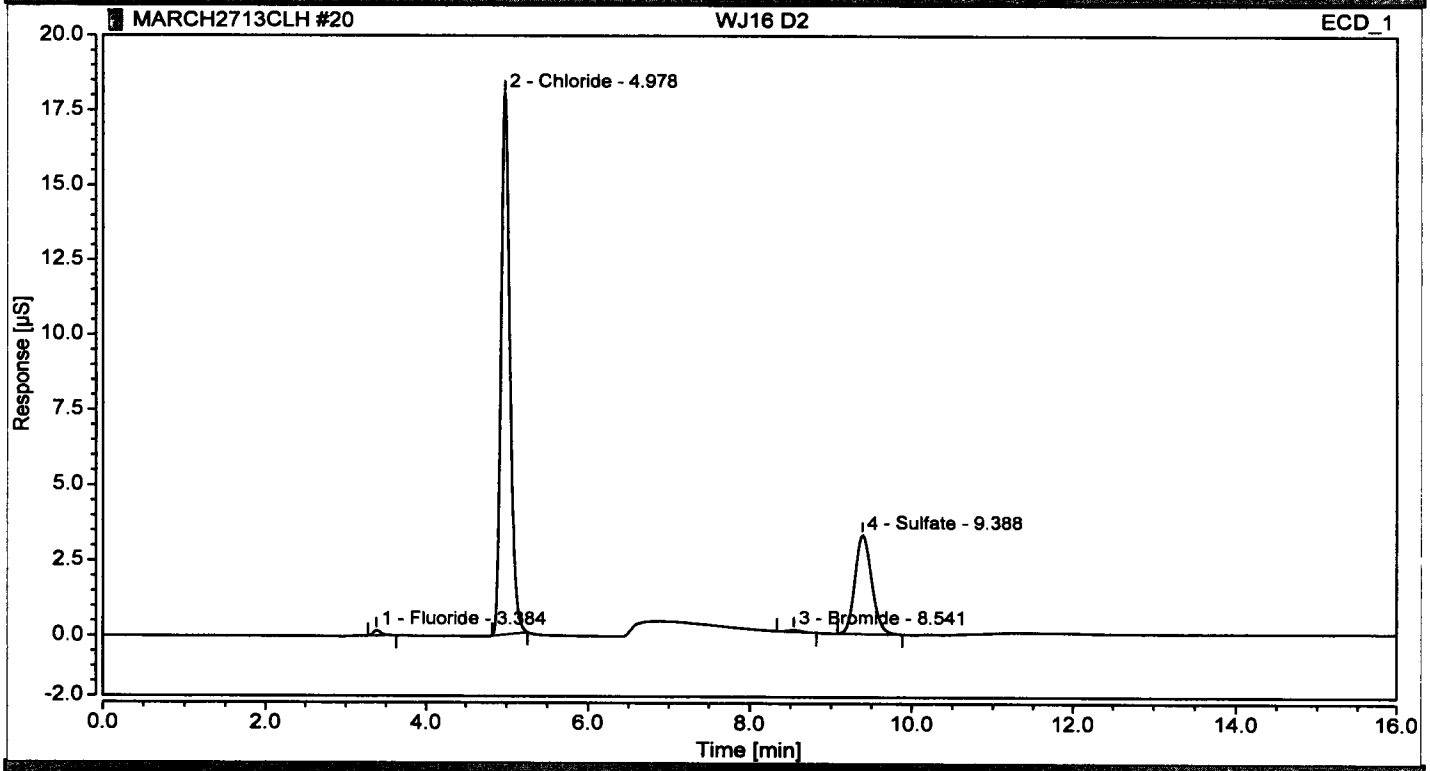
Injection Name:	*WJ16 C3*	Inject Number:	19
Vial Number:	*17*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 19:16*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride			3.39				n.a.
2	Chloride							n.a.
3	Nitrite							n.a.
4	Bromide							n.a.
5	Sulfate							n.a.
6	Nitrate			10.20				n.a.
n.a.	Phosphate		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

WJ16 . 0259

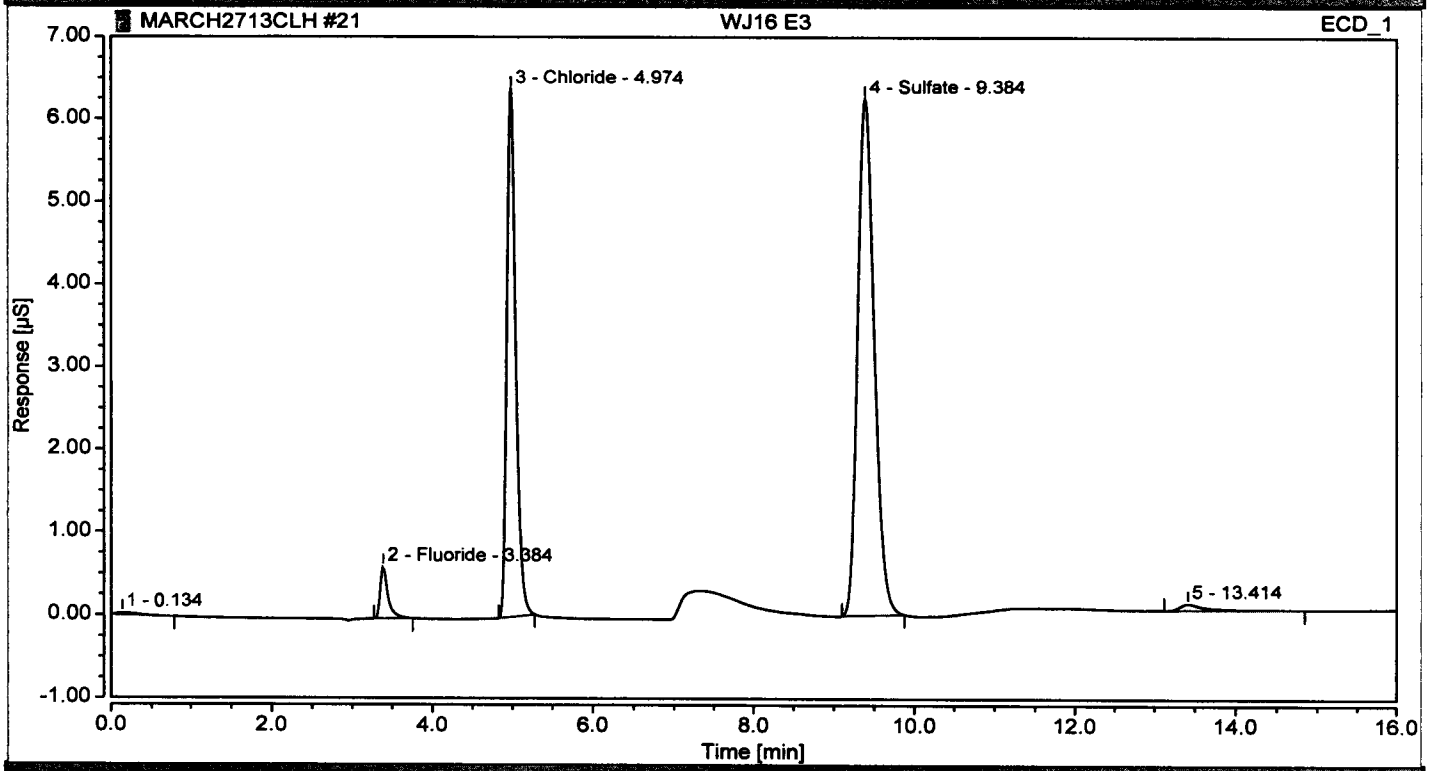
Injection Name:	*WJ16 D2*	Inject Number:	20
Vial Number:	*18*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 19:37*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	1.0	0.022	3.384	0.0016	0.150	FALSE	n.a.
2	Chloride	1.0	7.656	4.978	0.2009	18.626	FALSE	n.a.
n.a.	Nitrite	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Bromide	1.0	0.000	8.541	0.0012	0.000	FALSE	n.a.
4	Sulfate	1.0	0.000	9.388	0.0000	0.000	FALSE	n.a.
n.a.	Nitrate	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

WJ16 : 02534

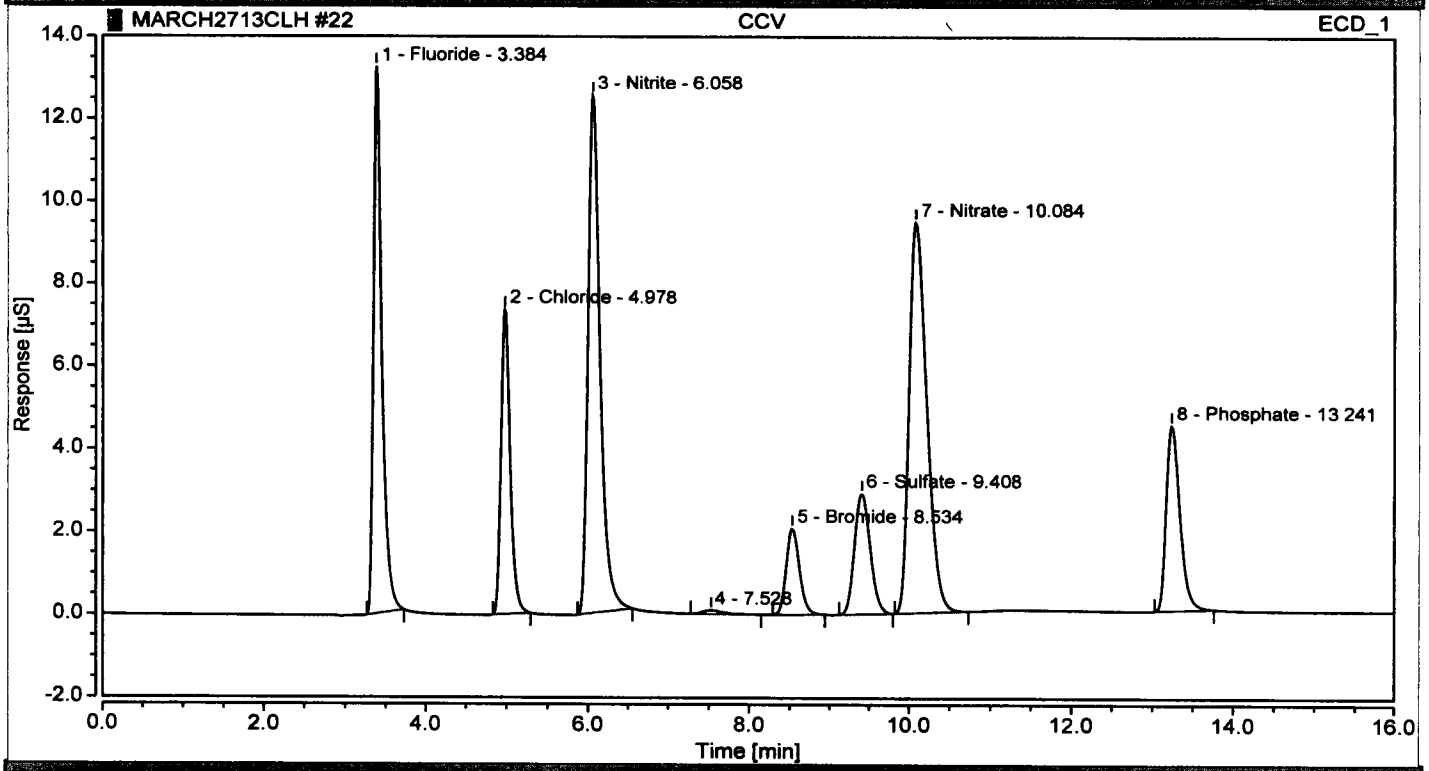
Injection Name:	*WJ16 E3*	Inject Number:	21
Vial Number:	*19*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 19:58*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1		1.0	n.a.	0.134	0.000	0.000	FALSE	n.a.
2	Fluoride	1.0	0.117	3.384	0.000	0.001	FALSE	n.a.
3	Chloride	1.0	2.095	4.974	0.000	0.000	FALSE	n.a.
n.a.	Nitrite	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Sulfate	1.0	2.240	9.384	0.000	0.000	FALSE	n.a.
n.a.	Nitrate	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5		1.0	n.a.	13.414	0.000	0.000	FALSE	n.a.

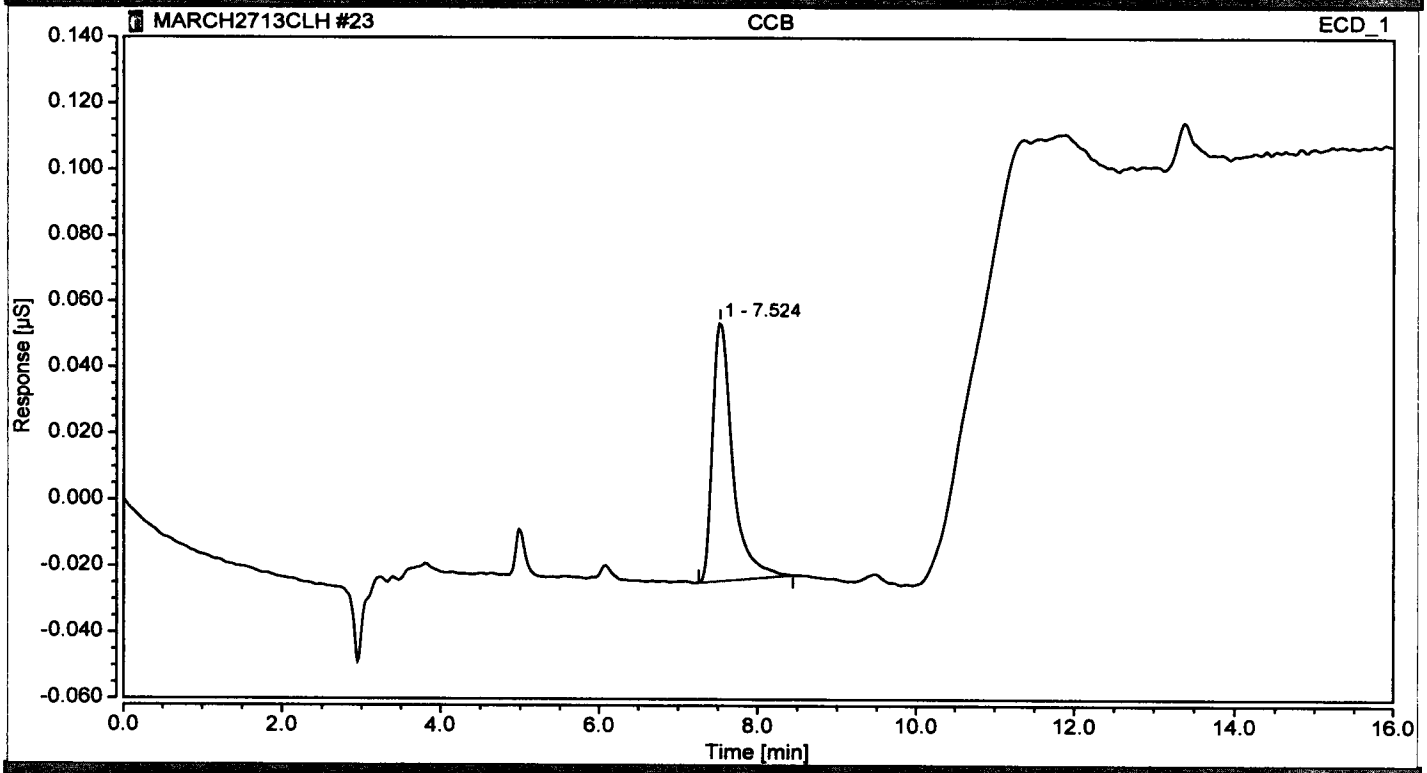
WJ16 : 02559

Injection Name:	*CCV*	Inject Number:	22
Vial Number:	*2*	User:	pat
Injection Type:	*Check Standard*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 20:17*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	1.0	3.00	3.384	2.250	12.250	FALSE	1.20
2	Chloride	1.0	6.00	4.978	4.691	7.993	FALSE	0.77
3	Nitrite	1.0	10.00	6.058	7.881	12.881	FALSE	1.32
4	?			7.528	0.078	0.500		n.a.
5	Bromide	1.0	10.00	8.534	5.809	2.000	FALSE	0.33
6	Sulfate	1.0	20.00	9.408	10.670	3.000	FALSE	3.04
7	Nitrate	1.0	10.00	10.084	7.351	9.000	FALSE	0.76
8	Phosphate	1.0	30.00	13.241	0.891	4.000	FALSE	3.40

Injection Name:	*CCB*	Inject Number:	23
Vial Number:	*3*	User:	pat
Injection Type:	*Blank*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 20:37*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
n.a.	Fluoride						n.a.	n.a.
n.a.	Chloride						n.a.	n.a.
n.a.	Nitrite						n.a.	n.a.
1							FALSE	n.a.
n.a.	Bromide						n.a.	n.a.
n.a.	Sulfate						n.a.	n.a.
n.a.	Nitrate						n.a.	n.a.
n.a.	Phosphate						n.a.	n.a.

Injection Name:	*STOP*	Inject Number:	24
Vial Number:	*1*	User:	pat
Injection Type:	*Unknown*	Sequence:	MARCH2713CLH
Dilution Factor:	*1.0*		
Instrument Method:	*SHUTDOWN*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*27/03/13 20:57*		

Can't read channel ECD_1 from injection #24 - STOP
Channel is not available

No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			n.a.	min	matogram in con	matogram in		n.a.

Calibration Type	Lin	*Offset (C0)*	0.0000
Evaluation Type	Area	*Slope (C1)*	0.5162
Number of Calibration Points	5	*Curve (C2)*	0.0000
Number of disabled Calibration Points	0	*R-Square*	0.9997

No.	Injection Name	Calibration Level	X Value Fluoride	Y Value Fluoride	Amount mg/l Fluoride	Area µS*min Fluoride	Height µS Fluoride
1	STD1	01	0.1000	0.0424	0.0842	0.043	0.355
2	STD2	02	0.5000	0.2249	0.4508	0.274	2.165
3	STD3	03	1.0000	0.4583	0.9231	0.536	4.461
4	STD4	04	2.5000	1.1976	2.3140	1.308	10.975
5	STD5	05	5.0000	2.5681	4.9746	2.556	20.944

Calibration Type	Lin	*Offset (C0)*	0.0000
Evaluation Type	n.a.	*Slope (C1)*	0.3146
Number of Calibration Points	5	*Curve (C2)*	0.0000
Number of disabled Calibration Points	0	*R-Square*	0.9994

No.	Injection Name	Calibration Level	X Value Chloride	Y Value Chloride	Amount mg/l Chloride	Area µS*min Chloride	Height µS Chloride
1	STD1	01	0.1000	0.0276	0.0879	0.028	0.212
2	STD2	02	0.5000	0.1397	0.4439	0.140	1.102
3	STD3	03	1.0000	0.2663	0.8416	0.296	2.341
4	STD4	04	2.5000	0.7726	2.4508	0.773	6.045
5	STD5	05	5.0000	1.5853	5.0391	1.585	12.312

Calibration Type	Lin	*Offset (C0)*	0.0000
Evaluation Type	Area	*Slope (C1)*	0.7215
Number of Calibration Points	5	*Curve (C2)*	0.0000
Number of disabled Calibration Points	0	*R-Square*	0.9998

No.	Injection Name	Calibration Level	X Value Nitrite	Y Value Nitrite	Amount mg/l Nitrite	Area µS*min Nitrite	Height µS Nitrite
1	STD1	01	0.1000	0.0618	0.0854	0.062	0.395
2	STD2	02	0.5000	0.3541	0.4905	0.354	2.244
3	STD3	03	1.0000	0.7315	1.0136	0.731	4.478
4	STD4	04	2.5000	1.8368	2.5459	1.837	10.595
5	STD5	05	5.0000	3.5899	4.9765	3.590	19.635

Calibration Type	Lin	*Offset (C0)*	0.0000
Evaluation Type	Area	*Slope (C1)*	0.1327
Number of Calibration Points	5	*Curve (C2)*	0.0000
Number of disabled Calibration Points	0	*R-Square*	0.9979

No.	Injection Name	Calibration Level	X Value Bromide	Y Value Bromide	Amount mg/l Bromide	Area µS*min Bromide	Height µS Bromide
1	STD1	01	0.1000	0.0097	0.0734	0.010	0.051
2	STD2	02	0.5000	0.0549	0.4135	0.055	0.285
3	STD3	03	1.0000	0.1169	0.8811	0.117	0.612
4	STD4	04	2.5000	0.3203	2.4131	0.320	1.680
5	STD5	05	5.0000	0.6737	5.0764	0.674	3.519

WJ10 : 02599

Calibration Details			
Calibration Type	Lin	*Offset (C0)*	0.0000
Evaluation Type	Area	*Slope (C1)*	0.2150
Number of Calibration Points	5	*Curve (C2)*	0.0000
Number of disabled Calibration Points	0	*R-Square*	0.9985

No.	Injection Name	Calibration Level	X Value Sulfate	Y Value Sulfate	Amount mg/l Sulfate	Area µS*min Sulfate	Height µS Sulfate
1	STD1	01	0.1000	0.0176	0.0821	0.018	0.077
2	STD2	02	0.5000	0.0904	0.4204	0.090	0.399
3	STD3	03	1.0000	0.1938	0.9015	0.194	0.853
4	STD4	04	2.5000	0.5234	2.4355	0.523	2.305
5	STD5	05	5.0000	1.0886	5.0619	1.088	4.756

Calibration Details			
Calibration Type	Lin	*Offset (C0)*	0.0000
Evaluation Type	Area	*Slope (C1)*	0.7991
Number of Calibration Points	5	*Curve (C2)*	0.0000
Number of disabled Calibration Points	0	*R-Square*	0.9994

No.	Injection Name	Calibration Level	X Value Nitrate	Y Value Nitrate	Amount mg/l Nitrate	Area µS*min Nitrate	Height µS Nitrate
1	STD1	01	0.1000	0.0257	0.0321	0.026	0.264
2	STD2	02	0.5000	0.1461	0.1827	0.149	1.574
3	STD3	03	1.0000	0.2903	0.3632	0.296	3.266
4	STD4	04	2.5000	0.7405	0.9264	0.757	8.007
5	STD5	05	5.0000	1.8118	2.2669	1.852	14.885

Calibration Details			
Calibration Type	Lin	*Offset (C0)*	0.0000
Evaluation Type	Area	*Slope (C1)*	0.3073
Number of Calibration Points	5	*Curve (C2)*	0.0000
Number of disabled Calibration Points	0	*R-Square*	0.9980

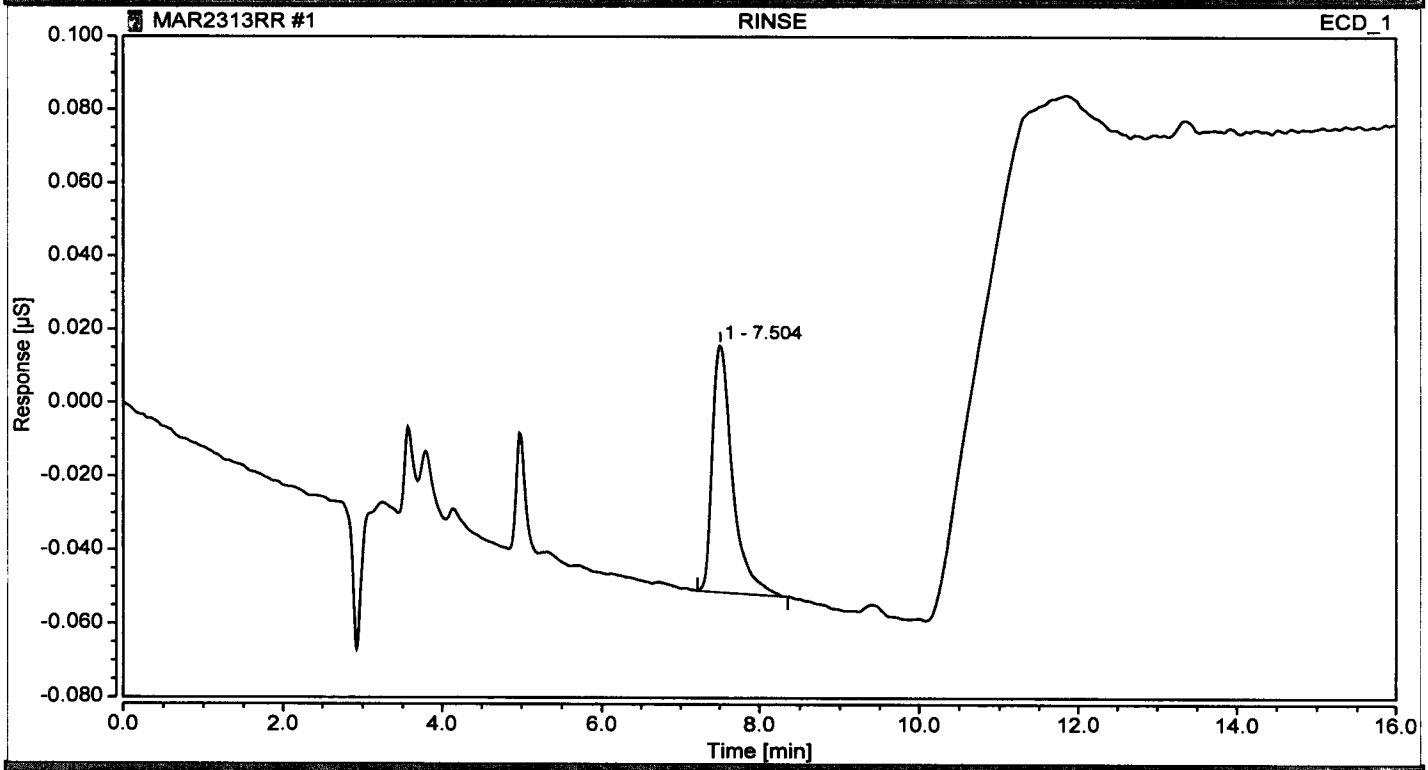
No.	Injection Name	Calibration Level	X Value Phosphate	Y Value Phosphate	Amount mg/l Phosphate	Area µS*min Phosphate	Height µS Phosphate
1	STD1	01	0.1000	0.0218	0.0709	0.021	0.103
2	STD2	02	0.5000	0.1228	0.3996	0.123	0.660
3	STD3	03	1.0000	0.2709	0.8815	0.271	1.494
4	STD4	04	2.5000	0.7485	2.4358	0.749	3.943
5	STD5	05	5.0000	1.5569	5.0665	1.557	7.499

WJ19 : 02500

Name:	**MAR2313RR**	*Queue Start:*	**2013-03-23T16:49:04-**
Directory:	**Instrument Data\2013 DATA\MAR 2013**	*Created By:*	**pat**
Data Vault:	**ChromeleonLocal**		
No. of Injections:	**9**		

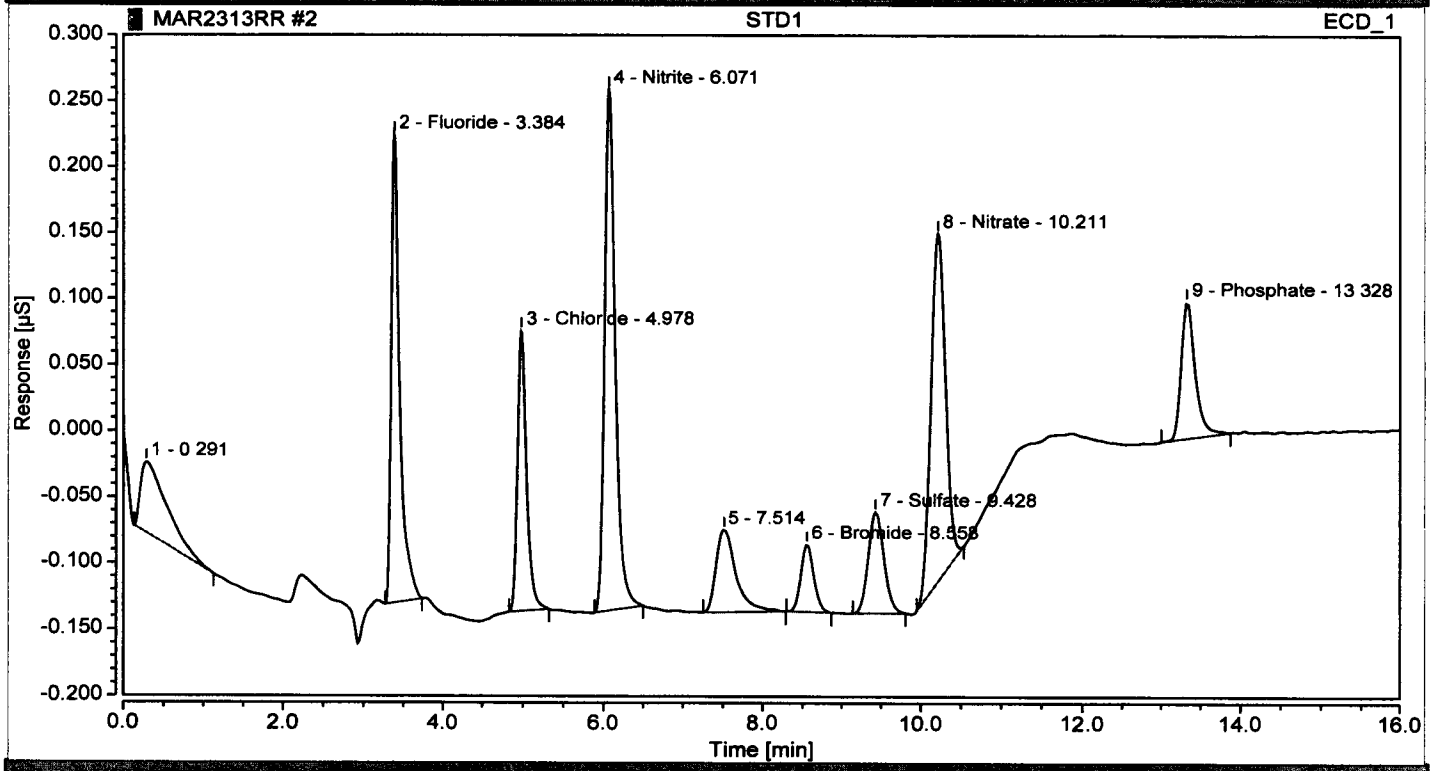
No.	Injection Name	Position	Type	Level	Dilution	Inject Time
1	RINSE		Unknown			23/Mar/13 16:49:04
2	STD1					
3	STD2					
4	STD3					
5	STD4					
6	STD5					
7						
8						
9	STOP		Unknown			

Injection Name:	*RINSE*	Inject Number:	1
Vial Number:	*1*	User:	pat
Injection Type:	*Unknown*	Sequence:	MAR2313RR
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*23/03/13 16:49*		



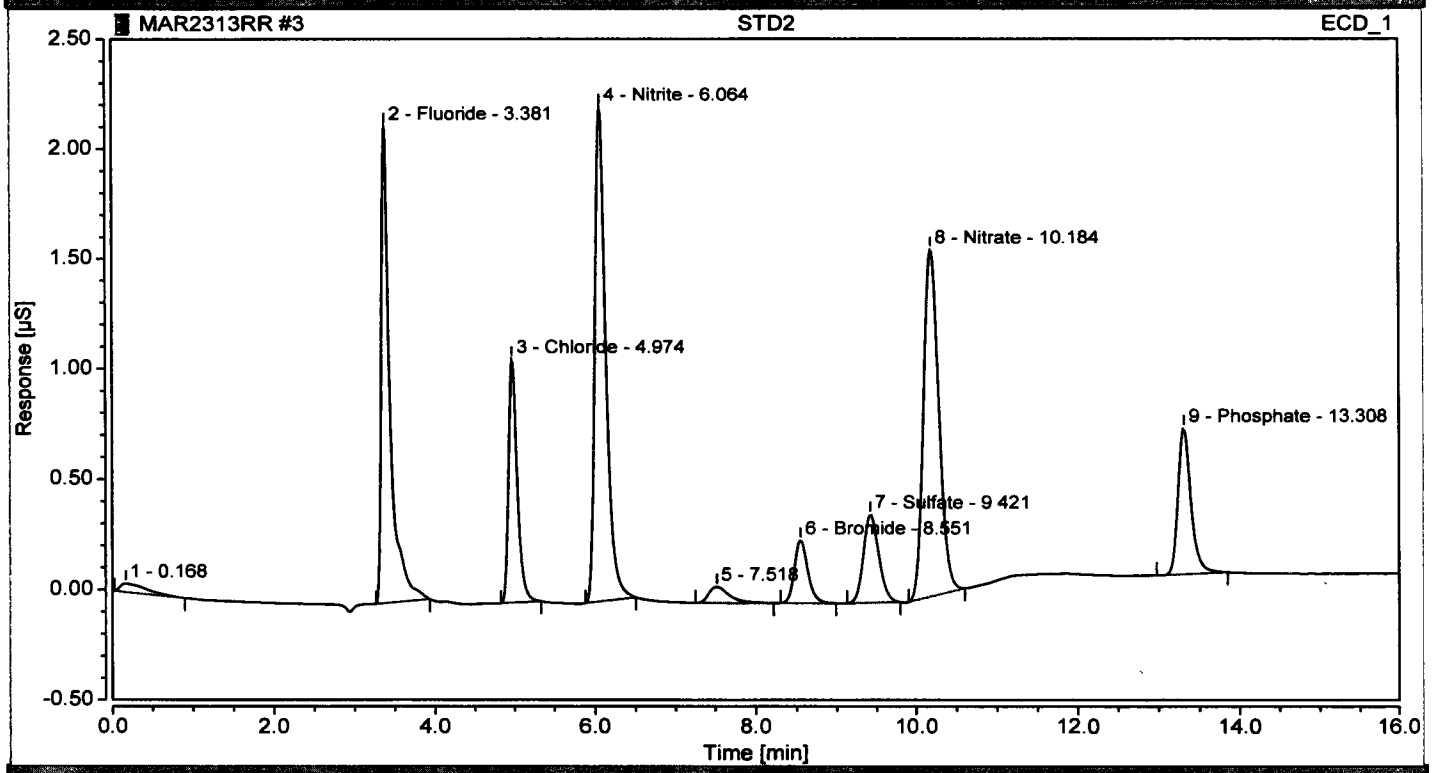
No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
n.a.	Fluoride							n.a.
n.a.	Chloride	10						n.a.
n.a.	Nitrite							n.a.
1		10						n.a.
n.a.	Bromide							n.a.
n.a.	Sulfate							n.a.
n.a.	Nitrate	10						n.a.
n.a.	Phosphate	10						n.a.

Injection Name:	*STD1*	Inject Number:	2
Vial Number:	*2*	User:	pat
Injection Type:	*Calibration Standard*	Sequence:	MAR2313RR
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodat*		
Injection Date/Time:	*23/03/13 17:07*		



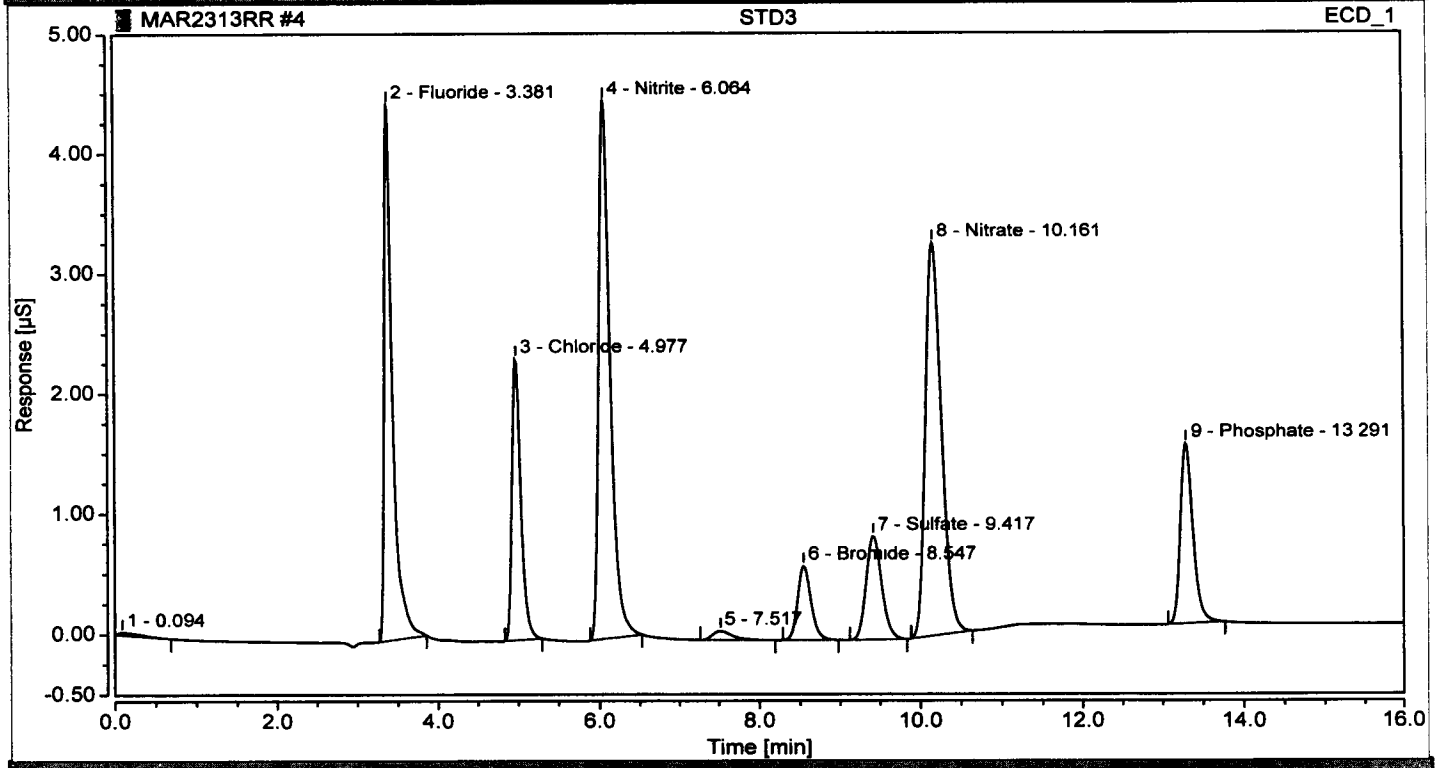
No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1								
2	Fluoride							
3	Chloride							
4	Nitrite							
5								
6	Bromide							
7	Sulfate							
8	Nitrate							
9	Phosphate							

Injection Name:	*STD2*	Inject Number:	3
Vial Number:	*3*	User:	pat
Injection Type:	*Calibration Standard*	Sequence:	MAR2313RR
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*23/03/13 17:27*		



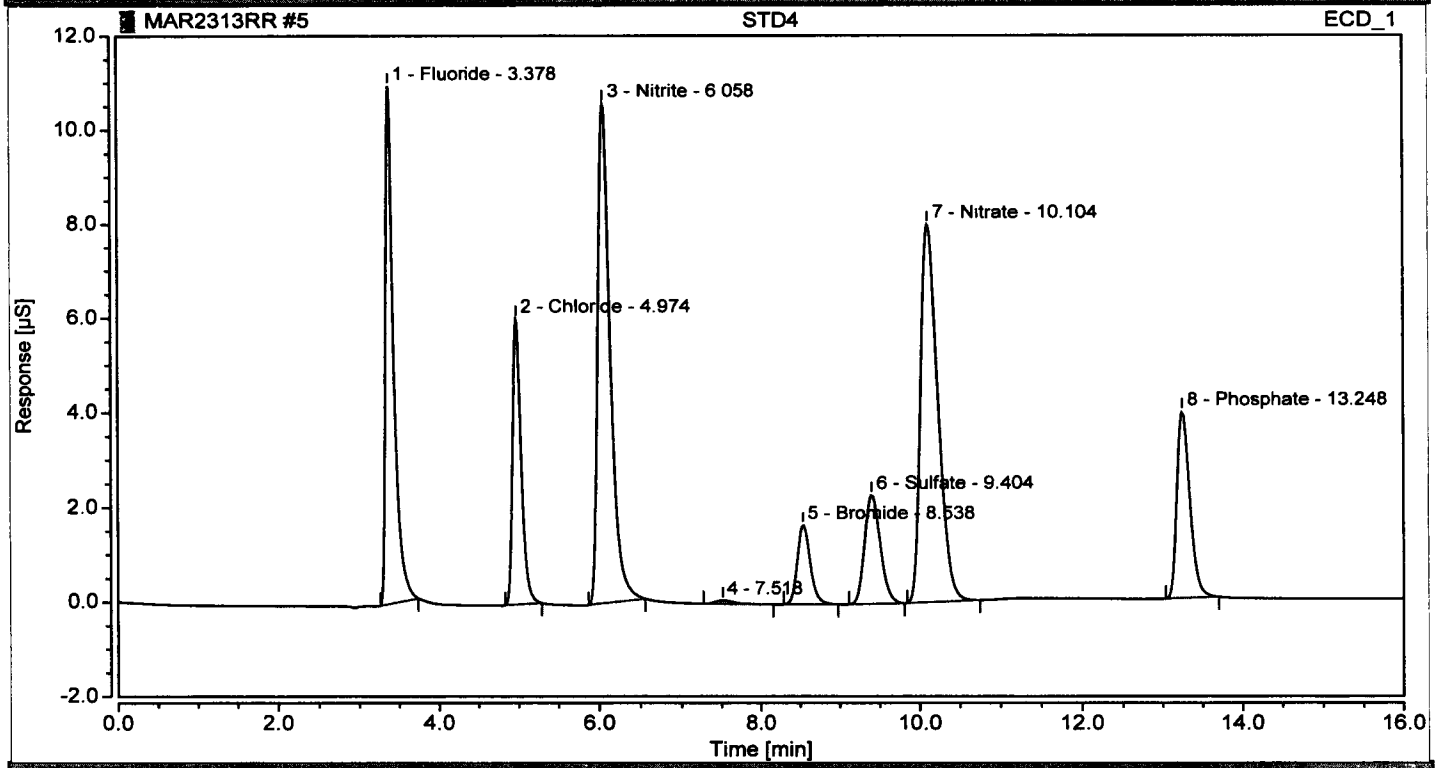
No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1								
2	Fluoride							
3	Chloride							
4	Nitrite							
5								
6	Bromide							
7	Sulfate							
8	Nitrate							
9	Phosphate			13.31				

Injection Name:	*STD3*	Inject Number:	4
Vial Number:	*4*	User:	pat
Injection Type:	*Calibration Standard*	Sequence:	MAR2313RR
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*23/03/13 17:46*		



No.	Peak Name	Dilution	Amount mg/l	Retention min	Area µS*min	Height µS	anipulated	Amnt.Dev. mg/l
1								
2	Fluoride							
3	Chloride							
4	Nitrite							
5								
6	Bromide							
7	Sulfate							
8	Nitrate							
9	Phosphate							

Injection Name:	*STD4*	Inject Number:	5
Vial Number:	*5*	User:	pat
Injection Type:	*Calibration Standard*	Sequence:	MAR2313RR
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*23/03/13 18:05*		

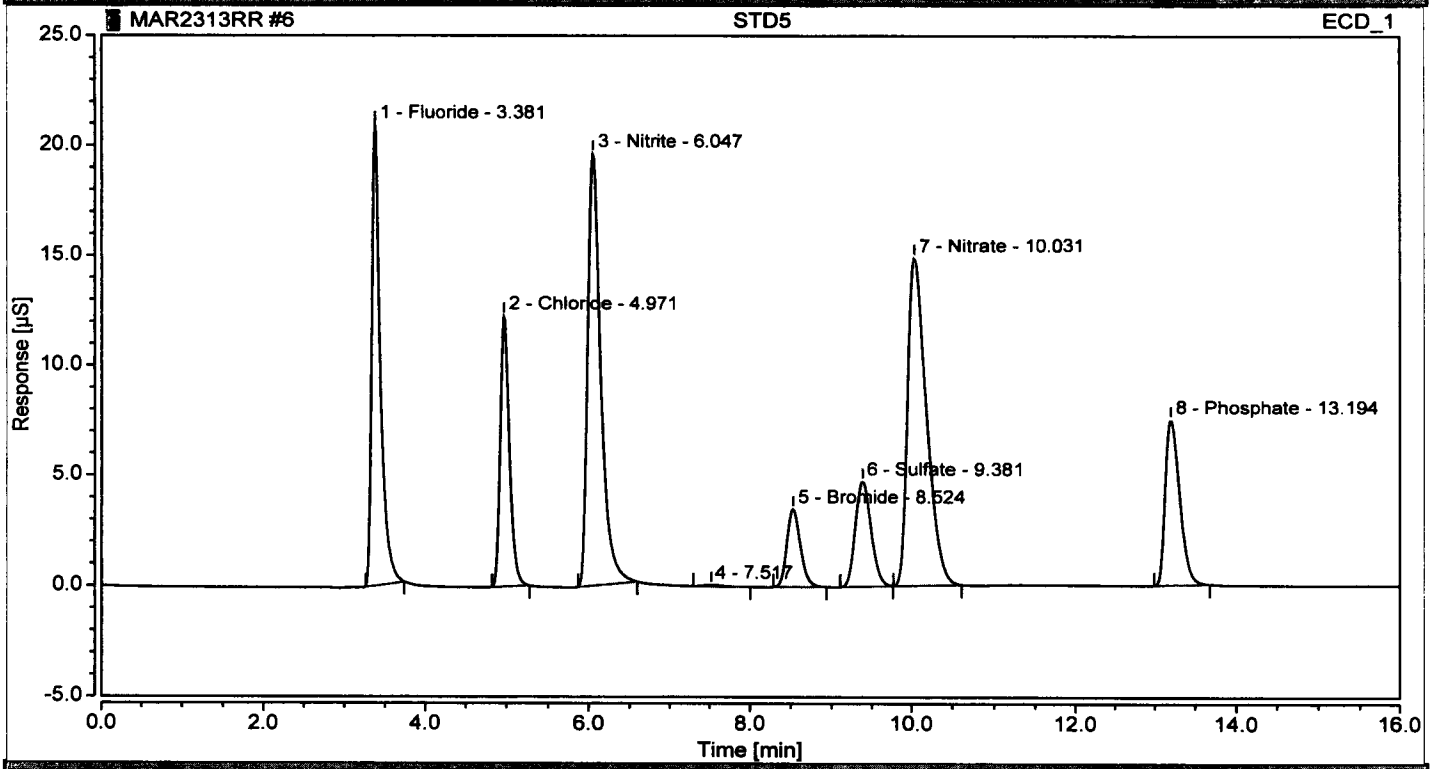


No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	1.0	2.502	3.378	2.3082	1.0675	FALSE	1.36
2	Chloride	1.0	2.[illegible]	4.974	4.4773	1.[illegible]	FALSE	1.76
3	Nitrite	1.0	2.[illegible]	6.058	3.8872	1.[illegible]	FALSE	1.84
4	[illegible]	1.0	0.[illegible]	7.518	0.[illegible]	0.[illegible]	FALSE	0.0
5	Bromide	1.0	2.[illegible]	8.538	2.0[illegible]	1.[illegible]	FALSE	1.48
6	Sulfate	1.0	2.[illegible]	9.404	3.[illegible]23	1.[illegible]	FALSE	2.34
7	Nitrate	1.0	2.47[illegible]	10.104	3.[illegible]27	1.[illegible]	FALSE	1.95
8	Phosphate	1.0	2.4358	13.248	4.[illegible]49	1.[illegible]	FALSE	2.57

Injection Details

Injection Name:	*STD5*	Inject Number:	6
Vial Number:	*6*	User:	pat
Injection Type:	*Calibration Standard*	Sequence:	MAR2313RR
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*23/03/13 18:25*		

Chromatogram

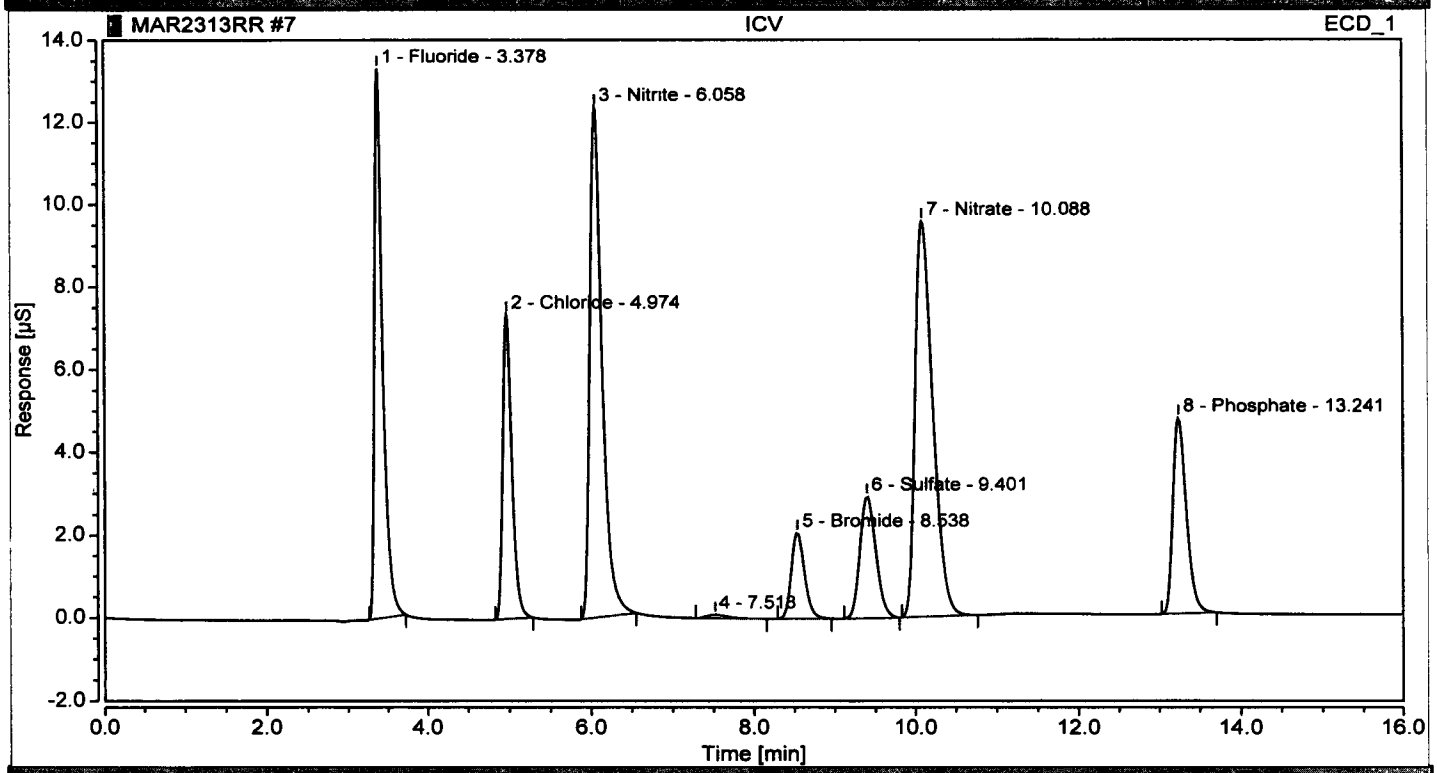


Results

No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	1.0	2.000	3.381	0.4[illegible]	[illegible]	FALSE	0.57
2	Chloride	1.0	10.000	4.971	2.[illegible]	[illegible]	FALSE	0.78
3	Nitrite	1.0	20.000	6.047	3.[illegible]	[illegible]	FALSE	-0.49
4	[illegible]	1.0	[illegible]	7.517	0.[illegible]	[illegible]	FALSE	n.a.
5	Bromide	1.0	[illegible]	8.524	2.[illegible]	[illegible]	FALSE	1.59
6	Sulfate	1.0	[illegible]	[illegible]	[illegible]	[illegible]	FALSE	1.23
7	Nitrate	1.0	30.000	10.031	4.[illegible]	[illegible]	FALSE	0.65
8	Phosphate	1.0	5.000	13.19[illegible]	1.[illegible]	[illegible]	FALSE	1.33

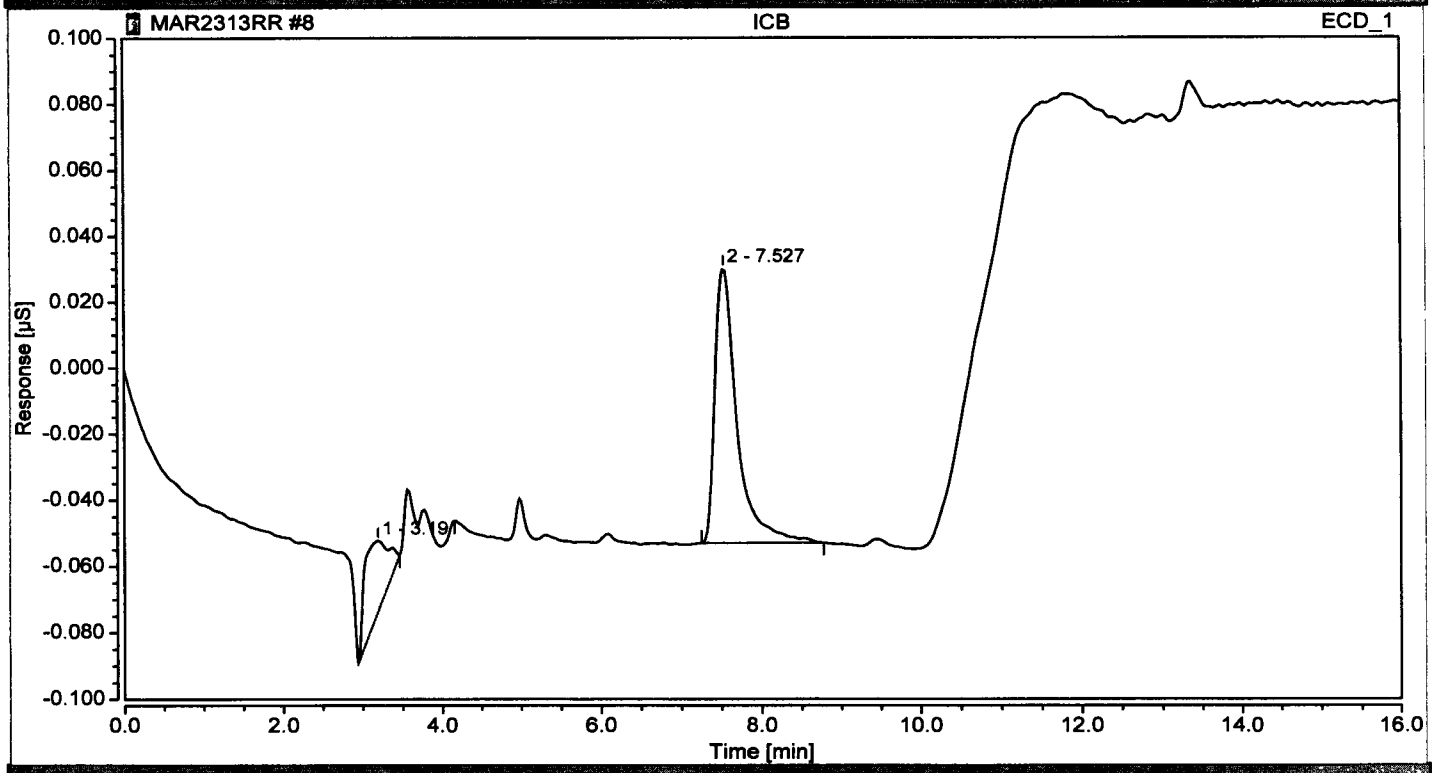
WJ10 : 02687

Injection Name:	*ICV*	Inject Number:	7
Vial Number:	*7*	User:	pat
Injection Type:	*Check Standard*	Sequence:	MAR2313RR
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodat*		
Injection Date/Time:	*23/03/13 18:44*		



No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			mg/l	min	µS*min	µS		mg/l
1	Fluoride	1.0	2.00	3.378	0.1580	1.3339	FAL SE	0.17
2	Chloride	1.0	3.00	4.974	0.3516	2.4600	FAL SE	0.13
3	Nitrite	1.0	3.00	6.058	0.4108	2.8109	FAL SE	0.04
4		1.0	0	7.513	0.0000	0.0000	FAL SE	0.0
5	Bromide	1.0	2.00	8.538	0.0000	0.0000	FAL SE	0.33
6	Sulfate	1.0	10.00	9.401	0.0000	0.0000	FAL SE	4.06
7	Nitrate	1.0	3.00	10.088	0.2418	0.7000	FAL SE	0.02
8	Phosphate	1.0	2.00	13.241	0.1716	1.4000	FAL SE	0.43

Injection Name:	*ICB*	Inject Number:	8
Vial Number:	*8*	User:	pat
Injection Type:	*Blank*	Sequence:	MAR2313RR
Dilution Factor:	*1.0*		
Instrument Method:	*INSTRMETH*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*23/03/13 19:04*		



No.	Peak Name	Dilution	Amount mg/l	Retention min	Area µS*min	Height µS	anipulated	Amnt.Dev. mg/l
1		1.0	n.a.	3.191	0.0000	0.0021	FALSE	n.a.
n.a.	Fluoride	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrite	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2		1.0	n.a.	7.527	0.0026	0.0083	FALSE	n.a.
n.a.	Bromide	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate-N	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Injection Name:	*STOP*	Inject Number:	9
Vial Number:	*1*	User:	pat
Injection Type:	*Unknown*	Sequence:	MAR2313RR
Dilution Factor:	*1.0*		
Instrument Method:	*SHUTDOWN*		
Processing Method:	*processmethodal*		
Injection Date/Time:	*23/03/13 19:24*		

Can't read channel ECD_1 from injection #9 - STOP
Channel is not available

No.	Peak Name	Dilution	Amount	Retention	Area	Height	anipulated	Amnt.Dev.
			n.a.	min	matogram in con	matogram in		n.a.

4-4-13

TOC Solids Prep Log

DATE: 4/1/13 (B)

ANALYST: KE 14:10

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

HCL 10% ID:

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

HCL ID:

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.2056		13.2054	-0.2 mg	
WJ10 C2		-	13.4780	18.4299	15.9105	49.12%	
WJ10 C2 dup		-	13.1794	18.7818	15.9150	48.83%	RPD = 0.60%
WJ10 C2 trip		-	13.1649	18.5909	15.9694	51.69%	RSD = 3.15%
WJ10 D5		-	13.3132	19.3853	16.6965	55.72%	
WJ75 A2		-	13.2889	19.8287	17.0649	57.74%	
WJ75 A2 dup		-	13.2408	19.1570	16.6437	57.52%	RPD = 0.38%
WJ75 A2 trip		-	13.3180	20.2783	17.2768	56.88%	RSD = 0.78%
WJ13 A2		++-	13.4111	18.7660	18.1881	89.21%	
WJ13 B2		++-	13.1413	19.1660	17.9116	79.18%	
WJ59 C1		X	13.1991	18.1768	18.1195	98.85%	
WJ59 C1 dup		X	13.1913	18.0234	17.9693	98.88%	RPD = 0.03%
WJ59 C1 trip		X	13.2081	18.3580	18.2983	98.84%	RSD = 0.02%
WJ59 D1		X	13.3296	18.5600	18.4992	98.84%	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used (2) 4-1-13 (C)

Analyst (W) (B) Date 4-1-13 14:10

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.2056	Ø	~~13.2054~~ (2)	13.2054	
WJ10 C2		—	13.4780	18.4299	15.9105		Only Wet Sand
" C2		—	13.1794	18.2818	15.9150		"
" C2		—	13.1649	18.5909	15.9694		"
D5		—	13.3132	19.3853	16.6965		" then
WJ15 A2		—	13.2889	19.8287	17.0649		Dry wet fm Sand
" A2		—	13.2408	19.1570	16.6437		"
" A2		—	13.3180	20.2783	17.2768		"
WJ13 A2		H-	13.4111	18.7660	~~18.6874~~ (2)	18.1881	Sand then
B2		H-	13.1413	19.1640	~~18.1768~~ (2) 17.9116		
WJ59 C1	Aspin Boat	X	13.1991	~~18.1768~~ (1) 13.3296	18.1768	~~18.1768~~ (3)	Too Dusty when Acidified It floats
" C1		X	13.1913	~~18.1768~~ (1) 18.1823	17.9693		on top of Acid
" C1		X	13.2081	18.3580	18.2983		Will Run Aspin Boat
D1	↓	X	13.3296	18.5600	18.4992		

4-1-13 (W)

(3) 18.1195 4-2-13 (W)

TOC, Solids Data Analysis

DATE: 4/11/2013

Instrument: Apollo 1 — ANALYST: KE 5:34

Mode: NPOC *Inlet:* Boat

Spike Std = 2,500 *ppm C* — Balance ID:

Calibration Data

Cal Curve ID: **3/19/2013** *Conc:* 5,000 *ppm*

Calibration Curve Standard: **00136-09** *Curve Date:* **03/19/13**

CalFact: ***1.246E+08*** *intercept:* **340795** *r2 :* **0.99732**

Curve Range (ppm) 200 *to* 2,500

Curve Range (µgC): **8** *to* **100** *40 µL injections of designated standard*

Verification Standard

Source: ***ERA# 0409-12-01*** *Conc:* **5,000** *ppm*

dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material

Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Source: ***NIST 1941B*** *Conc:* **29,900** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
20.3	21.8	18.2				20.1	8.9%	*OK*

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	*comments*
~~ICV~~			-	~~1.00~~		~~40.0~~	~~898~~	~~898~~	~~*89.80%*~~
ICV				1.00		40.0	915	915	*91.50%*
Blank				1.00		40.0	-61.39	-61	*Blank OK*
NIST 1941B				1.00		1.3	27156	27,156	*90.82%*
Silica Blanks 1				1.00		60.9	20.31	20	*Low Scale*
Silica Blanks 2				1.00		59.8	21.76	22	*Low Scale*
Silica Blanks 3				1.00		60.2	18.20	18	*Low Scale*
WI51 A1	14.9	144.1	89.66%	9.67		1.2	15316	147,949	*Range OK!*
WI51 A1 dup	14.2	141.2	89.94%	9.94		1.1	15227	151,232	*RPD=2.2%*
WI51 A1 trp	14.2	140.7	89.91%	9.91		1.1	10909	107,912	*RSD=17.8%*
WI51 A1 ms	14.9	144.1	89.66%	9.67	10	1.2	30925	298,906	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.1*	*mg samp=*	*201,482*	*ppm*		*75%*	
WJ10 D5	16.6	165.7	89.98%	9.98		1.3	10088	100,517	*Range OK!*
CCV				1.00		40.0	903	903	*90.30%*
Blank				1.00		40.0	-54.34	-54	*Blank OK*
WJ10 C2	18.3	179.5	89.81%	9.81		1.0	9517	93,173	*Range OK!*
WJ10 C2 dup	18.9	182.5	89.64%	9.66		0.9	9187	88,537	*RPD=5.1%*
WJ10 C2 trp	18.8	185.3	89.85%	9.86		1.1	7294	71,715	*RSD=13.4%*
WJ10 C2 ms	18.3	179.5	89.81%	9.81	10	1.4	26871	263,394	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.1*	*mg samp=*	*175,156*	*ppm*		*97%*	
WJ21 A1				1.00		3.1	7863	7,863	*Range OK!*
WJ21 A1 dup				1.00		2.9	7976	7,976	*RPD=1.4%*
WJ21 A1 trp				1.00		2.9	8540	8,540	*RSD=4.5%*
WJ21 A1 ms				1.00	10	2.9	15941	15,941	*Range OK!*
Spike =	*0.025*	*mg C to*	*2.9*	*mg samp=*	*8,621*	*ppm*		*94%*	
WJ21 B1				1.00		3.5	11866	11,866	*Range OK!*

WJ10:02513

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
WJ21 C1				1.00		1.2	32534	32,534	*Range OK!*
CCV				1.00		40.0	947	947	*94.70%*
Blank				1.00		40.0	-54.11	-54	*Blank OK*
WJ41 C1	16.6	136.6	87.85%	8.23		1.3	7468	61,308	*Range OK!*
~~WJ41 C1 dup~~	~~16.4~~	~~163.1~~	~~89.94%~~	~~9.95~~		~~1.3~~	~~10207~~	~~101,330~~	~~*RPD=49.2%*~~
WJ41 C1 dup	16.4	163.1	89.94%	9.95		1.3	7093	70,361	*RPD=13.8%*
WJ41 C1 trp	16.5	163.1	89.88%	9.88		1.4	7174	70,735	*RSD=7.9%*
WJ41 C1 ms	16.6	136.6	87.85%	8.23	10	1.2	30386	249,899	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.1*	*mg samp=*	*171,436*	*ppm*		*110%*	
WK49 E5	20.9	204.2	89.76%	9.77		1.1	13208	128,870	*Range OK!*
WK49 E5 dup	20.5	202.9	89.90%	9.90		1.0	12751	126,025	*RPD=2.2%*
WK49 E5 trp	20.9	203.2	89.71%	9.72		1.2	10126	98,275	*RSD=14.4%*
WK49 E5 ms	20.9	204.2	89.76%	9.77	10	1.2	32223	314,653	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.1*	*mg samp=*	*203,549*	*ppm*		*91%*	
WJ91 C3				1.00		1.2	18396	18,396	*Range OK!*
CCV				1.00		40.0	913	913	*91.30%*
Blank				1.00		40.0	-57.99	-58	*Blank OK*
WJ91 B3				1.00		1.4	16878	16,878	*Range OK!*
WJ91 B3 dup				1.00		1.5	16003	16,003	*RPD=5.3%*
WJ91 B3 trp				1.00		1.3	21308	21,308	*RSD=15.7%*
WJ91 B3 ms				1.00	10	1.3	33698	33,698	*Range OK!*
Spike =	*0.025*	*mg C to*	*1.3*	*mg samp=*	*19,231*	*ppm*		*87%*	
WJ91 G3				1.00		1.5	7100	7,100	*Range OK!*
WJ91 H3				1.00		1.5	5042	5,042	*Low Scale*
WJ91 I 2				1.00		1.7	5580	5,580	*Range OK!*
WJ91 J 2				1.00		1.9	6890	6,890	*Range OK!*
WJ91 M3				1.00		3.4	5007	5,007	*Range OK!*
WJ91 P3				1.00		2.5	5144	5,144	*Range OK!*
~~CCV~~				~~1.00~~		~~40.0~~	~~900~~	~~900~~	~~*90.00%*~~
Blank				1.00		40.0	-54.50	-55	*Blank OK*
CCV				1.00		40.0	922	922	*92.20%*
WJ91 Q3				1.00		3.9	4569	4,569	*Range OK!*
~~WI76 E1~~				~~1.00~~		~~1.7~~	~~3429~~	~~3,429~~	~~*Low Scale*~~
WI76 E1				1.00		3.5	3279	3,279	*Range OK!*
WI76 E1 dup				1.00		3.6	3081	3,081	*RPD=6.2%*
WI76 E1 trp				1.00		3.4	2906	2,906	*RSD=6%*
WI76 E1 ms				1.00	10	3.6	11230	11,230	*Range OK!*
Spike =	*0.025*	*mg C to*	*3.6*	*mg samp=*	*6,944*	*ppm*		*114%*	
NIST 1941B				1.00		1.3	31332	31,332	*104.79%*
CCV				1.00		40.0	915	915	*91.50%*
Blank				1.00		40.0	-56.36	-56	*Blank OK*

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(1) 4-11-13 (W)

TOC Solids Sample Run Log
Apollo 9000

(1) Page 1 of 2

Set-Up Parameters MODE: NPOC				INLET: Boat Sampler	
Standards:	Source		Conc (ppm)	Analyst:	(W)
Calibration:	ARI -00136-09		5000	Date:	4-11-13
Verification:	ERA -0409-12-01		5000 to 1000 for CVS	Time:	5:34
SRM:	NBS (1941b) or 8704		Method: PSEP 1986-MOD	Balance ID	B1464541451
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICV			40			
ICB			40			
NBS 1941 B			1.3			
SB 1			60.9			
2			39.8			
3			60.2			
WJ51 A1	14.9	144.1	1.2			
dup A1	14.2	141.2	1.1			
dup A1	14.2	140.7	1.1			
ms A1	14.9	144.1	1.2	2500	10	
(1) WJ10 D5	16.6	165.7	1.3			
CCV			40			
CCB			40			
WJ10 C2	~~18.0~~ 18.3	179.5	1.0			
dup C2	18.9	182.5	0.9			
dup C2	18.8	185.3	1.1			
ms C2	18.3	179.5	1.4	2500	10	
WJ21 A1			3.1			
dup A1			2.9			
dup A1			2.9			
ms A1			2.9	2500	10	
B1			3.5			
C1			1.2			
CCV			40			
CCB			40			
WK41 C1	16.6	136.6	1.3			
dup C1	16.4	163.1	1.3			
dup C1	16.5	163.1	1.3			
dup C1	16.5	~~136.6~~ 163.1	1.4			
ms C1	16.6	136.6	1.2	2500	10	
WK49 ES	20.9	204.2	1.1			

WJ10:02515

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① 4-11-13 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(W)
Calibration:	ARI – 00136-09	5000	Date:	4-11-13
Verification:	ERA – 0409-12-01	5000 to 1000 for CVS	Time:	5:34
SRM:	NBS (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	13146454145
Sample Sequence:				

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
WJ91 dup ES	20.5	202.9	1.0			
dup ES	20.9	203.2	1.2			
↓ ms ES	20.9	204.2	1.2	2500	10	
WJ91 C3			1.2			
CCV			40			
CCB			40			
WJ91 B3			1.4			
dup B3			1.5			
dup B3			1.3			
ms B3			1.3	2500	10	
G3			1.5			
H3			1.5			
I2			1.7			
J2			1.9			
M3			3.4			
↓ P3			2.5			
CCV			40			Using Low PCBS Run
CCB / CCV			40/40			
WJ91 Q3			3.9			
WJ76 E1			+1.7/35			Slow Run with more Sample
dup E1			①~~1.5~~3.6			
dup E1			3.4			
↓ ms E1			3.6	2500	10	
NBS 1941 B			1.3			
CCV			40			
CCB			40			
			4-11-13 (W)			

4-11-13

Detailed Analysis Report Print Date/Time: 2013/04/11 14:10:43

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110533
Timestamp: 2013/04/11 05:37
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	898.2171	35.9287	4817612	22.605	23.603	164

Last Message: Out of Calibration

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110542
Timestamp: 2013/04/11 05:48
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	915.0241	36.6010	4901380	22.563	23.560	175

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110550
Timestamp: 2013/04/11 05:53
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-61.3876	-2.4555	34832	22.645	22.771	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110556
Timestamp: 2013/04/11 06:01
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	27156.1914	35.3030	4739655	22.659	23.657	218

Sample ID: Silica Blank 1
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110611
Timestamp: 2013/04/11 06:16
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20.3129	1.2371	154141	22.672	23.668	61

Sample ID: Silica Blank 2
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110624
Timestamp: 2013/04/11 06:28
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21.7577	1.3011	162122	22.633	23.632	64

Sample ID: Silica Blank 3
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110643
Timestamp: 2013/04/11 06:47
Sample Type: Sample

WJ10:02617

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18.2028	1.0958	136541	22.662	23.661	61

Sample ID: WI51 A1
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110701
Timestamp: 2013/04/11 07:04
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15316.0488	18.3793	2290108	22.622	23.619	105

Sample ID: WI51 A1 DUP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110709
Timestamp: 2013/04/11 07:14
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15226.9932	16.7497	2087059	22.685	23.685	99

Sample ID: WI51 A1 DUP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110718
Timestamp: 2013/04/11 07:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10908.7773	11.9997	1495191	22.729	23.727	92

Sample ID: WI51 A1 DUP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110726
Timestamp: 2013/04/11 07:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30925.0723	37.1101	4624022	22.738	23.738	125

Sample ID: WJ10 C2
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110744
Timestamp: 2013/04/11 07:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10088.2812	13.1148	1634137	24.371	25.369	102

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110748
Timestamp: 2013/04/11 07:52
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	903.1387	36.1255	4842141	24.670	25.669	154

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110753
Timestamp: 2013/04/11 07:57
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

				Baseline	Baseline	Time
1	-54.3375	-2.1735	69971	25.264	25.653	120

Last Message: Low Sample Detected

Sample ID: WJ10 C2
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110800
Timestamp: 2013/04/11 08:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9516.8984	9.5169	1185833	26.160	27.159	92

Sample ID: WJ10 C2 DP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110818
Timestamp: 2013/04/11 08:20
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9186.6484	8.2680	1030214	29.610	30.606	88

Sample ID: WJ10 C2 TRIP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110823
Timestamp: 2013/04/11 08:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7293.8384	8.0232	999716	30.190	31.185	88

Sample ID: WJ10 C2 MS
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110833
Timestamp: 2013/04/11 08:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26871.2324	37.6197	4687525	30.666	31.665	133

Sample ID: WJ21 A1
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110840
Timestamp: 2013/04/11 08:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7862.7729	24.3746	3037144	30.769	31.767	118

Sample ID: WJ21 A1 DP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110845
Timestamp: 2013/04/11 08:48
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7975.8120	23.1299	2882046	30.857	31.855	113

Sample ID: WJ21 A1 TRIP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04110851
Timestamp: 2013/04/11 08:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8540.4189	24.7672	3086066	30.521	31.516	116

Sample ID: WJ21 A1 MS
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110856
Timestamp: 2013/04/11 08:59
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15941.2705	46.2297	5760351	30.538	31.537	136

Sample ID: WJ21 B1
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110904
Timestamp: 2013/04/11 09:08
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11866.2178	41.5318	5174976	30.456	31.454	148

Sample ID: WJ21 C1
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110910
Timestamp: 2013/04/11 09:13
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32533.8301	39.0406	4864570	30.519	31.516	150

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110920
Timestamp: 2013/04/11 09:35
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	946.6406	37.8656	5058959	31.400	32.395	166

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110939
Timestamp: 2013/04/11 09:43
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-54.1094	-2.1644	71107	32.385	32.597	120

Last Message: Low Sample Detected

Sample ID: WJ41 C1
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110946
Timestamp: 2013/04/11 09:48
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7467.7651	9.7081	1209656	32.969	33.960	89

Sample ID: WJ41 C1 DUP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04110951
Timestamp: 2013/04/11 09:54
Sample Type: Sample

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Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10206.7324	13.2688	1653324	33.261	34.260	98

Sample ID: WJ41 C1 DUP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111000
Timestamp: 2013/04/11 10:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7092.5952	9.2204	1148885	33.540	34.535	93

Sample ID: WJ41 C1 TRIP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111013
Timestamp: 2013/04/11 10:15
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7174.2886	10.0440	1251512	33.331	34.328	91

Sample ID: WJ41 C1 MS
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111039
Timestamp: 2013/04/11 10:42
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30385.9043	36.4631	4543404	32.784	33.784	117

Sample ID: WK49 E5
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111050
Timestamp: 2013/04/11 10:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13207.6777	14.5284	1810286	32.796	33.793	98

Sample ID: WK49 E5
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111121
Timestamp: 2013/04/11 11:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12751.5791	12.7516	1588883	34.097	35.097	109

Sample ID: WK49 E5 TRIP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111126
Timestamp: 2013/04/11 11:28
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10125.6318	12.1508	1514019	34.585	35.582	96

Sample ID: WK49 E5
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111132
Timestamp: 2013/04/11 11:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32223.3789	38.6681	4818150	34.985	35.984	148

Sample ID: WJ91 C3
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111139
Timestamp: 2013/04/11 11:42
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18395.7266	22.0749	2750592	35.496	36.495	112

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111143
Timestamp: 2013/04/11 11:47
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	913.0815	36.5233	4891697	35.587	36.581	138

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111147
Timestamp: 2013/04/11 11:50
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-57.9921	-2.3197	51756	35.853	35.839	120

Last Message: Low Sample Detected

Sample ID: WJ91 B3
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111153
Timestamp: 2013/04/11 11:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16877.8262	23.6290	2944235	35.783	36.780	116

Sample ID: WJ91 B3 DP
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111157
Timestamp: 2013/04/11 12:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16002.8057	24.0042	2990993	35.715	36.714	117

Sample ID: WJ91 B3 W
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111203
Timestamp: 2013/04/11 12:06
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21308.4883	27.7010	3451628	35.533	36.527	121

Sample ID: WJ91 B3 MS
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111209
Timestamp: 2013/04/11 12:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	33697.9883	43.8074	5458525	35.461	36.460	125

Sample ID: WJ91 G3 Mode: TOC
Method: Boat Sampler Filename: 04111216
Cal. Curve: 031913 BOAT CAL Timestamp: 2013/04/11 12:18
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7100.3408	10.6505	1327084	34.801	35.799	100

Sample ID: WJ91 G3 Mode: TOC
Method: Boat Sampler Filename: 04111220
Cal. Curve: 031913 BOAT CAL Timestamp: 2013/04/11 12:23
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5041.6025	7.5624	942297	34.654	35.649	89

Sample ID: WJ91 I 2 Mode: TOC
Method: Boat Sampler Filename: 04111225
Cal. Curve: 031913 BOAT CAL Timestamp: 2013/04/11 12:28
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5579.7021	9.4855	1181920	34.165	35.164	92

Sample ID: WJ91 J2 Mode: TOC
Method: Boat Sampler Filename: 04111230
Cal. Curve: 031913 BOAT CAL Timestamp: 2013/04/11 12:32
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6889.8267	13.0907	1631135	33.896	34.894	100

Sample ID: WJ91 M3 Mode: TOC
Method: Boat Sampler Filename: 04111234
Cal. Curve: 031913 BOAT CAL Timestamp: 2013/04/11 12:37
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5007.2451	17.0246	2121318	33.646	34.645	113

Sample ID: WJ91 P3 Mode: TOC
Method: Boat Sampler Filename: 04111239
Cal. Curve: 031913 BOAT CAL Timestamp: 2013/04/11 12:42
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5143.7778	12.8594	1602323	33.353	34.346	97

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 04111243
Cal. Curve: 031913 BOAT CAL Timestamp: 2013/04/11 12:46
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	899.6035	35.9841	4924522	33.019	34.019	123

Last Message: Out of Calibration

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111249
Timestamp: 2013/04/11 12:52
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-54.5005	-2.1800	69158	32.524	32.549	120

Last Message: Low Sample Detected

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111253
Timestamp: 2013/04/11 12:57
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	921.7396	36.8696	4934850	32.427	33.424	121

Sample ID: WJ91 Q3
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111307
Timestamp: 2013/04/11 13:10
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4568.9370	17.8189	2220280	32.172	33.171	122

Sample ID: WI76 E1
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111313
Timestamp: 2013/04/11 13:15
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3429.4084	5.8300	726434	32.172	33.172	94

Sample ID: WI76 E1
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111319
Timestamp: 2013/04/11 13:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3278.5381	11.4749	1429803	32.321	33.316	148

Sample ID: WI76 E1
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111327
Timestamp: 2013/04/11 13:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3080.5605	11.0900	1381848	33.052	34.049	111

Sample ID: WI76 E1
Method: Boat Sampler
Mode: TOC
Filename: 04111338

Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Timestamp: 2013/04/11 13:41
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2905.5879	9.8790	1230951	33.873	34.872	115

Sample ID: WI76 E1 MS
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111343
Timestamp: 2013/04/11 13:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10229.7939	36.8273	4588781	34.265	35.263	171

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111349
Timestamp: 2013/04/11 13:54
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31331.9336	40.7315	5416058	34.999	35.998	249

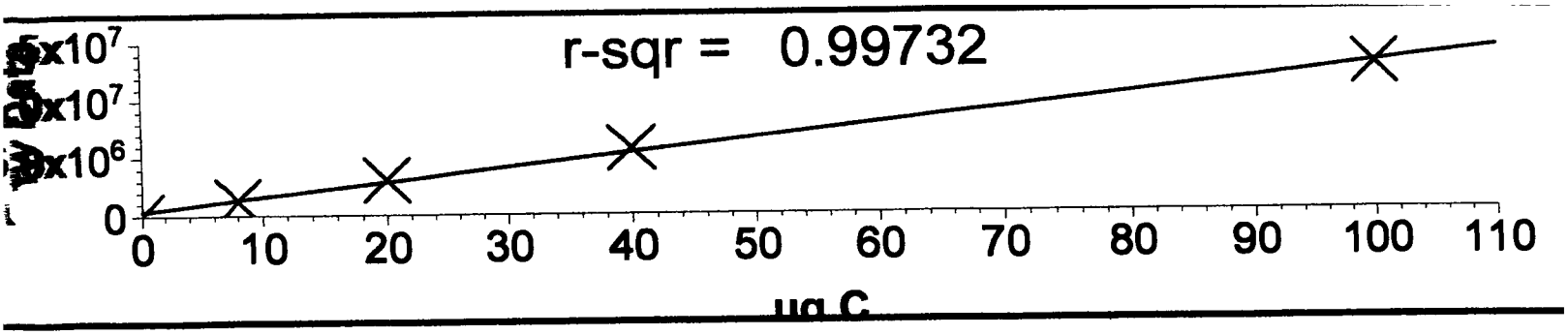
Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111356
Timestamp: 2013/04/11 14:00
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	914.6012	36.5840	4899272	35.430	36.429	169

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04111402
Timestamp: 2013/04/11 14:05
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-56.3643	-2.2546	59869	35.939	36.297	120

Last Message: Low Sample Detected


r-sqr = 0.99732
5x10^7
3x10^7
0x10^6
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Calibration Report Print Date/Time: 2013/03/19 10:37:40

Cal. Curve ID: 031913 BOAT CAL
Created: 2013/03/19 09:48
Calibration Factor (m): 1.246e+05
Y Intercept (b): 340795
r-squared: 0.99732

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	46855	0.000	-2.359		2013/03/19 06:04
200 ppm	1266570	8.000	7.430		2013/03/19 06:39
500 ppm	3035568	20.000	21.627		2013/03/19 07:26
1000 ppm	5653460	40.000	42.637	Max Integrati	2013/03/19 08:11
2500 ppm	12634800	100.000	98.666	Max Integrati	2013/03/19 09:38

Detailed Analysis Report Print Date/Time: 2013/03/19 10:37:15

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03190530
Timestamp: 2013/03/19 06:04
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			67121	36.286	37.285	51
2			1641	35.804	35.719	120
3			71803	35.448	36.440	58

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 46855 Std Dev: 39226 RSD: 83.72

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03190612
Timestamp: 2013/03/19 06:39
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1237992	35.369	36.364	100
2			1246359	35.465	36.463	107
3			1315358	35.588	36.588	95

<<<Statistics>>> Mean: 1266570 Std Dev: 42459 RSD: 3.35

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03190644
Timestamp: 2013/03/19 06:52
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			66775	35.690	35.889	120

Last Message: Low Sample Detected

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03190655
Timestamp: 2013/03/19 07:02
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5448164	35.737	36.737	186

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03190703
Timestamp: 2013/03/19 07:26
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			3097562	35.846	36.846	153
2			3031761	36.226	37.224	173
3			2977382	36.814	37.811	144

<<<Statistics>>> Mean: 3035568 Std Dev: 60180 RSD: 1.98

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03190730
Timestamp: 2013/03/19 08:11
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5605959	37.366	38.365	257
2			5676868	38.214	39.208	232
3			5677555	39.148	40.306	300

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 5653460 Std Dev: 41139 RSD: 0.73

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03190821
Timestamp: 2013/03/19 08:40
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			12671320	40.709	42.241	300
2			-1997952	302.673	49.781	8

Last Message: Canceled
<<<Statistics>>> Mean: 5336684 Std Dev: 10372742 RSD: 194.37

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03190840
Timestamp: 2013/03/19 09:38
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			12926719	41.315	42.725	300
2			12831383	41.686	43.438	301
3			12146300	42.671	43.975	301

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 12634800 Std Dev: 425731 RSD: 3.37

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03190950
Timestamp: 2013/03/19 09:55
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1132.5857	45.3034	5985731	43.631	44.629	250

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03191005
Timestamp: 2013/03/19 10:10
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1023.4014	40.9361	5441544	44.382	45.382	219

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 031913 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 03191021
Timestamp: 2013/03/19 10:27
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1042.1616	41.6865	5535047	45.193	46.192	229

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Conventionals Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: Alkalinity / DOC / TOC Client Project: _____

List problems, concerns, corrective actions and any other pertinent information
Client sent one unpreserved 250ml amber glass bottle for Alkalinity, DOC and TOC.
Ran Alkalinity asap next morning and filtered and preserved some volume for DOC and preserved some for TOC afterwards.

Analyst Initials:	W	Date:	3-28-11

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Conventionals Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: NO_2+NO_3 Client Project:

List problems, concerns, corrective actions and any other pertinent information
Sample was run on IC but needed dilution due to interference with NO_3 peak.
Sample was re-run on Lachat asap after PM asked for it.
Sample was sampled 1-26-10 @ 12:17 and injected in the Lachat 1-28-10 @ 12:50.

Analyst Initials:	WJ	Date:	1-28-10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Conventionals Laboratory Analyst Notes

ARI Job No.: WJ10 Client ID: SAIC

Parameter: NO2 Client Project:

List problems, concerns, corrective actions and any other pertinent information
Sample was run as NO2 + NO3 on 3-28 on the Lachat after the IC needed dilution.
Sample was non-detect, dup at 0.0192 ppm.
Analyst misunderstood PM and thought that NO2+NO3 was requested but PM wanted NO2 run out of hold to be able to calculate NO3 only.

Analyst Initials:	W	Date:	4-1-10

TOC, Aqueous Data Summary (Apollo 9000) DATE: 3/29/2013

EPA 9060 A, SM 5310 B-00 ANALYST: UW

Analysis Mode: **NPOC** *Instrument:* ***Apollo 9000***

Detection Limits (mgC/L)

MRL = 1.5 **upper blank =** 1.5 **lower blank =** -1.5

Calibration Data

Stock ID: ARI 00136-10 | factor (m): 1.877E+05 | r²: 0.99949

Curve Date: 3/26/2013 | intercept (b_{cal}): 32575 | sys blk (b_{sys}) 21111

Curve ID: 032613X 0-50ppm

LCS, Verification Standard and Inorganic Sparge Check

	Organic Carbon			Inorganic carbon		
Source:	**ERA 0409-12-01**			**ARI # 00128-6**		
Conc:	5,000	*mg/L*		1,000	*mg/L*	
dilution:	1.00	*mL to*	mg C/ L	5.00	*mL to*	mg C/ L
Volume:	250	*mL =*	**20.0**	250	*mL =*	**20**

Sample Data

SAMPLE ID	Dilution Factor	Carbon (mg C/L) *enter Form as TC, TIC, NPOC* Form	# reps	mean	stdev	Measured	Report as	Notes: *will flag if RSD >5%*
ICV	1	NPOC	3	20.7480	0.46	20.75 ✓	20.7	*103.50%*
ICB	1	NPOC	3	1.0364	0.38	1.04 ✓	<1.5	*OK !*
~~1.5 ppm~~	~~1~~	~~NPOC~~	~~3~~	~~2.3210~~	~~0.13~~	~~2.32~~	~~2.32~~	~~154.73%~~
IC Sparge Check	1	NPOC	3	19.6008	0.20	19.60	19.6	*98.00%*
1.5 ppm	1	NPOC	3	2.2142	0.13	2.21 ✓	2.21	147.61%
WI69 I1 DOC	1	NPOC	3	3.9428	0.32	3.94	3.94	
FILTER BLK	1	NPOC	3	1.1814	0.10	1.18	<1.5	
WJ10 A2 DOC	1	NPOC	3	9.0740	0.10	9.07	9.07	
WJ10 A2 TOC	1	NPOC	3	9.0576	0.74	9.06 ✓	9.06	
WI37 A3	1	NPOC	3	4.8696	0.83	4.87 ✓	4.87	RSD > 5% chk value
WI37 A3 dup	1	NPOC	3	4.2098	0.18	4.21 ✓	4.21	*RPD =14.5%*
WI37 A3 ms	1	NPOC	3	26.0617	0.55	26.06	26.1	*105.96%*
Spike at	0.200	*mL of*	2,000	*ppm Std to*	20.00	*mL =*	20.0	*mg/L*
WI37 B3	1	NPOC	3	4.5000	0.19	4.50	4.5	
CCV	1	NPOC	3	21.7096	0.25	21.71	21.7	*108.50%*
CCB	1	NPOC	3	0.9988	0.25	1.00	<1.5	*OK !*
WI80 U4	1	NPOC	3	8.4009	0.13	8.40	8.4	
WI27 A7	1	NPOC	3	3.4016	0.44	3.40	3.4	RSD > 5% chk value
WI27 A7 dup	1	NPOC	3	3.4962	0.29	3.50	3.5	*RPD =2.9%*
WI27 A7 ms	1	NPOC	3	25.5869	0.52	25.59	25.6	*110.93%*
Spike at	0.200	*mL of*	2,000	*ppm Std to*	20.00	*mL =*	20.0	*mg/L*
WI27 B7	1	NPOC	3	3.4441	0.34	3.44	3.44	
WI27 C7	1	NPOC	3	3.8003	0.21	3.80	3.8	
WI27 D7	1	NPOC	3	3.4604	0.34	3.46	3.46	
WI27 E7	1	NPOC	3	2.4922	0.47	2.49	2.49	RSD > 5% chk value
WI62 A2	1	NPOC	3	2.7525	0.16	2.75	2.75	RSD > 5% chk value
WI62 A2 dup	1	NPOC	3	2.6670	0.11	2.67	2.67	*RPD =3%*
CCV	1	NPOC	3	22.1216	0.51	22.12	22.1	***CVS Err @ 110.5%***
CCB	1	NPOC	3	1.0584	0.26	1.06	<1.5	*OK !*
WI62 A2 ms	1	NPOC	3	24.6033	0.59	24.60	24.6	*109.25%*
Spike at	0.200	*mL of*	2,000	*ppm Std to*	20.00	*mL =*	20.0	*mg/L*

WJ10 2632: 1-14 6/21/13 BL

WJ10 2632-1

Sample Data

SAMPLE ID	Dilution Factor	Carbon (mg C/L) enter Form as TC, TIC, NPOC Form	# reps	mean	stdev	Measured	Report as	Notes: will flag if RSD >5%
WI62 B2	1	NPOC	3	3.0609	0.23	3.06	3.06	
WI62 C2	1	NPOC	3	7.8669	0.18	7.87	7.87	
WI62 D2	1	NPOC	3	2.6398	0.44	2.64	2.64	
WI62 E2	1	NPOC	3	3.1554	0.48	3.16	3.16	
WI62 F2	1	NPOC	3	3.1748	0.57	3.17	3.17	
WI63 A1	1	NPOC	3	3.0334	0.13	3.03	3.03	
WI63 B1	1	NPOC	3	3.4034	0.29	3.40	3.4	RSD > 5% chk value
WI63 C1	1	NPOC	3	3.6958	0.29	3.70	3.7	
WI63 D1	1	NPOC	3	4.2229	0.32	4.22	4.22	
CCV	1	NPOC	3	21.6411	0.18	21.64	21.6	*108.00%*
CCB	1	NPOC	3	1.1613	0.26	1.16	<1.5	*OK !*
~~WI63 E1~~	~~1~~	~~NPOC~~	~~3~~	~~2.4815~~	~~0.21~~	~~2.48~~	~~2.48~~	
~~WI63 F1~~	~~1~~	~~NPOC~~	~~3~~	~~2.9988~~	~~0.34~~	~~3.00~~	~~3~~	
~~WI63 G1~~	~~1~~	~~NPOC~~	~~3~~	~~2.8381~~	~~0.44~~	~~2.84~~	~~2.84~~	
~~WJ16 A1~~	~~1~~	~~NPOC~~	~~3~~	~~20.6721~~	~~0.35~~	~~20.67~~	~~20.7~~	
~~WJ16 B1~~	~~1~~	~~NPOC~~	~~3~~	~~5.6976~~	~~0.23~~	~~5.70~~	~~5.7~~	
~~WJ16 C1~~	~~1~~	~~NPOC~~	~~3~~	~~5.0550~~	~~0.42~~	~~5.06~~	~~5.06~~	
~~WJ16 D1~~	~~1~~	~~NPOC~~	~~3~~	~~5.5750~~	~~0.15~~	~~5.58~~	~~5.58~~	-
~~WJ16 E1~~	~~1~~	~~NPOC~~	~~3~~	~~4.2997~~	~~0.09~~	~~4.30~~	~~4.3~~	
~~CCV~~	~~1~~	~~NPOC~~	~~3~~	~~22.1955~~	~~0.45~~	~~22.20~~	~~22.2~~	~~*CVS Err @ 111%*~~
~~CCB~~	~~1~~	~~NPOC~~	~~3~~	~~1.4037~~	~~0.18~~	~~1.40~~	~~<1.5~~	~~*OK !*~~
~~WI97 A5~~	~~1~~	~~NPOC~~	~~3~~	~~13.0335~~	~~0.77~~	~~13.03~~	~~13~~	~~RSD > 5% chk value~~
~~WI97 A5dup~~	~~1~~	~~NPOC~~	~~3~~	~~13.9206~~	~~0.72~~	~~13.92~~	~~13.9~~	~~*RPD =6.7%*~~
~~WI97 A5ms~~	~~1~~	~~NPOC~~	~~3~~	~~36.0220~~	~~0.85~~	~~36.02~~	~~36~~	~~*114.94%*~~
~~*Spike at*~~	~~0.200~~	~~*mL of*~~	~~2,000~~	~~*ppm Std to*~~	~~20.00~~	~~*mL =*~~	~~20.0~~	~~*mg/L*~~
~~CCV~~	~~1~~	~~NPOC~~	~~3~~	~~23.8024~~	~~0.51~~	~~23.80~~	~~23.8~~	~~***CVS Err @ 119%***~~
~~CCB~~	~~1~~	~~NPOC~~	~~3~~	~~1.6593~~	~~0.27~~	~~1.66~~	~~1.6593~~	~~***Blank > UBL***~~

* = Sample is < 5x the MRL (7.5) and RSD >5% is expected due to low concentration in sample.

WJ10; 2632-2

Calibration Report Print Date/Time: 2013/03/27 9:19:08

Cal. Curve ID: 032613Cal
Created: 2013/03/26 11:34
Calibration Factor (m): 1.877e+05
Y Intercept (b): 32575
r-squared: 0.99949

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	72533	0.000	0.213		2013/03/26 10:06
1.5 ppm	195228	0.750	0.867		2013/03/26 10:20
5.0 ppm	474623	2.500	2.355		2013/03/26 10:35
10 ppm	965734	5.000	4.972		2013/03/26 10:49
25 ppm	2313382	12.500	12.153		2013/03/26 11:16
50 ppm	4760196	25.000	25.190		2013/03/26 11:31

WJW: 2632-3

Detailed Analysis Report Print Date/Time: 2013/04/01 9:32:31

Sample ID: ICV CCV
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 09:43
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21.2690	10.6345	2028435	50.722	50.919	192
2	20.4290	10.2145	1949603	50.507	50.704	194
3	20.5459	10.2729	1960574	50.377	50.575	194

<<<Statistics>>> Mean: 20.7480 Std Dev: 0.4550 RSD: 2.19

Sample ID: ICB CCB
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 10:06
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.4523	0.7261	168856	50.701	50.896	150
2	0.7070	0.3535	98923	50.653	50.852	118
3	0.9500	0.4750	121718	50.156	50.355	144

<<<Statistics>>> Mean: 1.0364 Std Dev: 0.3801 RSD: 36.67

Sample ID: 1.5 PPM
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 10:29
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.3014	1.1507	248540	50.794	50.993	143
2	2.2039	1.1020	239388	50.472	50.668	142
3	2.4577	1.2289	263206	50.103	50.301	134

Last Message: Out of Calibration
<<<Statistics>>> Mean: 2.3210 Std Dev: 0.1280 RSD: 5.52

Sample ID: CHECK
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 10:53
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19.8294	9.9147	1893339	50.488	50.687	157
2	19.5213	9.7607	1864431	50.144	50.339	159
3	19.4516	9.7258	1857890	49.837	50.029	147

<<<Statistics>>> Mean: 19.6008 Std Dev: 0.2010 RSD: 1.03

Sample ID: 1.5 PPM
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 11:16
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.2742	1.1371	245980	49.478	49.674	143
2	2.0605	1.0303	225933	49.317	49.516	142
3	2.3080	1.1540	249154	48.968	49.168	152

Last Message: Out of Calibration
<<<Statistics>>> Mean: 2.2142 Std Dev: 0.1342 RSD: 6.06

WJ00; 2632-4

Sample ID: WI69 I1 DOC
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 11:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.1779	2.0889	392045	49.343	49.543	175
2	3.5778	1.7889	335735	49.207	49.406	150
3	4.0728	2.0364	382185	49.064	49.261	174

<<<Statistics>>> Mean: 3.9428 Std Dev: 0.3205 RSD: 8.13

Sample ID: FILTER BLK WJ10
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 12:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.2920	0.6460	121241	49.512	49.711	132
2	1.1128	0.5564	104420	49.123	49.322	144
3	1.1393	0.5697	106914	48.991	49.186	148

<<<Statistics>>> Mean: 1.1814 Std Dev: 0.0967 RSD: 8.19

Sample ID: WJ10 A2 DOC
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 12:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9.1425	4.5712	857920	50.127	50.326	229
2	8.9571	4.4786	840525	50.115	50.308	237
3	9.1224	4.5612	856036	50.165	50.362	252

<<<Statistics>>> Mean: 9.0740 Std Dev: 0.1017 RSD: 1.12

Sample ID: WJ10 A2 TOC
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 12:57
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9.6850	4.8425	908831	51.739	51.939	204
2	8.2416	4.1208	773382	52.210	52.406	162
3	9.2461	4.6230	867642	51.807	52.000	207

<<<Statistics>>> Mean: 9.0576 Std Dev: 0.7399 RSD: 8.17

Sample ID: WI37 A3
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 13:22
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.7249	2.8624	537213	52.568	52.766	209
2	4.8261	2.4130	452874	52.591	52.790	162
3	4.0579	2.0290	380791	52.642	52.836	181

<<<Statistics>>> Mean: 4.8696 Std Dev: 0.8344 RSD: 17.13

Sample ID: WI37 A3 DUP

Mode: TOC

WO: 263255

Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Filename: 03290918
Timestamp: 2013/03/29 13:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.2494	2.1247	398761	53.722	53.918	178
2	4.0172	2.0086	376972	53.586	53.785	164
3	4.3628	2.1814	409397	53.281	53.478	213
<<<Statistics>>>	Mean:	4.2098	Std Dev:	0.1762	RSD: 4.18	

Sample ID: WI37 A3 MS
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 14:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26.6595	13.3298	2501698	54.356	54.548	185
2	25.5743	12.7872	2399863	54.416	54.610	166
3	25.9514	12.9757	2435246	54.117	54.310	171
<<<Statistics>>>	Mean:	26.0617	Std Dev:	0.5509	RSD: 2.11	

Sample ID: WI37 B3
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 14:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.5527	2.2764	427222	53.740	53.938	172
2	4.2905	2.1453	402616	53.454	53.650	172
3	4.6567	2.3284	436981	53.176	53.370	200
<<<Statistics>>>	Mean:	4.5000	Std Dev:	0.1887	RSD: 4.19	

Sample ID: ICV CCV
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 15:02
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21.9975	10.9987	2096792	52.805	53.003	181
2	21.5691	10.7846	2056595	52.365	52.562	169
3	21.5621	10.7810	2055935	51.814	52.013	177
<<<Statistics>>>	Mean:	21.7096	Std Dev:	0.2494	RSD: 1.15	

Sample ID: ICB CCB
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 15:25
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.2746	0.6373	152179	51.128	51.327	163
2	0.7958	0.3979	107253	51.034	51.234	132
3	0.9260	0.4630	119473	50.694	50.888	136
<<<Statistics>>>	Mean:	0.9988	Std Dev:	0.2476	RSD: 24.79	

Sample ID: WI80 U4
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 15:53
Sample Type: Sample

WO: 26326

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8.4601	4.2300	793882	51.225	51.422	234
2	8.4944	4.2472	797100	51.102	51.298	253
3	8.2483	4.1241	774010	51.223	51.420	216

<<<Statistics>>> Mean: 8.4009 Std Dev: 0.1333 RSD: 1.59

Sample ID: WI27 A7
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 16:17
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.8963	1.9481	365620	52.422	52.622	143
2	3.0588	1.5294	287038	51.985	52.179	153
3	3.2497	1.6249	304952	51.797	51.996	167

<<<Statistics>>> Mean: 3.4016 Std Dev: 0.4389 RSD: 12.90

Sample ID: WI27 A7 DUP
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 16:41
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.7665	1.8832	353441	52.630	52.829	146
2	3.1839	1.5919	298770	52.241	52.438	157
3	3.5381	1.7690	332006	52.039	52.238	202

<<<Statistics>>> Mean: 3.4962 Std Dev: 0.2936 RSD: 8.40

Sample ID: WI27 A7 MS
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 17:06
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26.1386	13.0693	2452810	52.808	53.002	199
2	25.5232	12.7616	2395066	52.979	53.177	173
3	25.0988	12.5494	2355244	53.130	53.327	171

<<<Statistics>>> Mean: 25.5869 Std Dev: 0.5228 RSD: 2.04

Sample ID: WI27 B7
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 17:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.8326	1.9163	359645	53.311	53.509	141
2	3.2753	1.6377	307354	52.959	53.159	149
3	3.2243	1.6121	302563	52.858	53.057	158

<<<Statistics>>> Mean: 3.4441 Std Dev: 0.3374 RSD: 9.80

Sample ID: WI27 C7
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 17:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

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1	3.9567	1.9784	371293	53.368	53.560	165
2	3.5672	1.7836	334738	53.194	53.392	169
3	3.8771	1.9385	363819	52.999	53.199	193

<<<Statistics>>> Mean: 3.8003 Std Dev: 0.2058 RSD: 5.41

Sample ID: WI27 D7
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 18:19
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.8489	1.9245	361178	53.978	54.175	147
2	3.3310	1.6655	312579	53.630	53.828	165
3	3.2014	1.6007	300416	53.455	53.653	177

<<<Statistics>>> Mean: 3.4604 Std Dev: 0.3426 RSD: 9.90

Sample ID: WI27 E7
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 18:42
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.0345	1.5173	284755	53.932	54.127	153
2	2.2657	1.1328	212608	53.823	54.017	138
3	2.1765	1.0883	204245	53.517	53.713	149

<<<Statistics>>> Mean: 2.4922 Std Dev: 0.4717 RSD: 18.93

Sample ID: WI62 A2
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 19:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.9030	1.4515	272417	53.406	53.605	190
2	2.5893	1.2946	242973	53.163	53.362	169
3	2.7651	1.3826	259477	53.037	53.235	189

<<<Statistics>>> Mean: 2.7525 Std Dev: 0.1572 RSD: 5.71

Sample ID: WI62 A2 DUO
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 19:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.6450	1.3225	248205	53.320	53.518	177
2	2.5731	1.2865	241455	53.150	53.343	189
3	2.7830	1.3915	261156	53.203	53.402	203

<<<Statistics>>> Mean: 2.6670 Std Dev: 0.1067 RSD: 4.00

Sample ID: ICV CCV
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 20:01
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	22.6510	11.3255	2158113	53.544	53.743	285
2	21.6404	10.8202	2063288	53.645	53.845	187
3	22.0734	11.0367	2103912	53.565	53.762	243

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Last Message: Out of Calibration
<<<Statistics>>> Mean: 22.1216 Std Dev: 0.5070 RSD: 2.29

Sample ID: ICB CCB
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 20:24
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.3432	0.6716	158615	53.301	53.500	148
2	0.8497	0.4248	112309	53.147	53.346	133
3	0.9824	0.4912	124766	52.575	52.764	146

<<<Statistics>>> Mean: 1.0584 Std Dev: 0.2554 RSD: 24.13

Sample ID: WI62 A2 MS
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 20:49
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25.2824	12.6412	2372468	52.625	52.824	202
2	24.2594	12.1297	2276468	52.743	52.936	173
3	24.2681	12.1340	2277288	52.808	53.002	171

<<<Statistics>>> Mean: 24.6033 Std Dev: 0.5881 RSD: 2.39

Sample ID: WI62 B2
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 21:14
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.2149	1.6075	301687	52.522	52.720	176
2	2.7997	1.3998	262719	52.375	52.574	161
3	3.1682	1.5841	297300	52.186	52.385	212

<<<Statistics>>> Mean: 3.0609 Std Dev: 0.2274 RSD: 7.43

Sample ID: WI62 C2
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 21:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8.0532	4.0266	755698	52.478	52.677	197
2	7.6957	3.8478	722151	52.416	52.614	184
3	7.8519	3.9260	736815	52.290	52.486	199

<<<Statistics>>> Mean: 7.8669 Std Dev: 0.1792 RSD: 2.28

Sample ID: WI62 D2
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 22:06
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.1426	1.5713	294898	52.427	52.620	247
2	2.2998	1.1499	215810	52.557	52.752	159
3	2.4771	1.2386	232451	52.462	52.662	185

<<<Statistics>>> Mean: 2.6398 Std Dev: 0.4443 RSD: 16.83

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Sample ID: WI62 E2
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 22:34
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.6299	1.8150	340627	52.920	53.311	296
2	2.6535	1.3268	249002	53.047	53.243	184
3	3.1828	1.5914	298670	53.169	53.368	284

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 3.1554 Std Dev: 0.4888 RSD: 15.49

Sample ID: WI62 F2
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 23:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.7193	1.8597	349016	53.914	54.323	296
2	2.5770	1.2885	241825	54.132	54.331	183
3	3.2280	1.6140	302910	54.057	54.448	296

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 3.1748 Std Dev: 0.5730 RSD: 18.05

Sample ID: WI63 A1
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 23:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.1375	1.5687	294416	55.166	55.365	217
2	2.8844	1.4422	270672	55.131	55.329	231
3	3.0784	1.5392	288870	55.290	55.488	221

<<<Statistics>>> Mean: 3.0334 Std Dev: 0.1324 RSD: 4.36

Sample ID: WI63 B1
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/29 23:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.6035	1.8017	338144	56.460	56.660	172
2	3.0676	1.5338	287855	56.223	56.423	178
3	3.5390	1.7695	332092	56.320	56.514	211

<<<Statistics>>> Mean: 3.4034 Std Dev: 0.2926 RSD: 8.60

Sample ID: WI63 C1
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 00:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.9904	1.9952	374456	56.859	57.051	181
2	3.4113	1.7056	320110	56.835	57.031	161
3	3.6857	1.8429	345863	56.622	56.822	177

<<<Statistics>>> Mean: 3.6958 Std Dev: 0.2897 RSD: 7.84

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Sample ID: WI63 D1 Mode: TOC
Method: TOC 0_50 ppm Filename: 03290918
Cal. Curve: 032613Cal Timestamp: 2013/03/30 00:48
Operator ID: URSULA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.3486	2.1743	408067	56.997	57.191	215
2	3.8588	1.9294	362100	57.002	57.195	186
3	4.4614	2.2307	418649	57.037	57.236	263

<<<Statistics>>> Mean: 4.2229 Std Dev: 0.3204 RSD: 7.59

Sample ID: ICV CCV Mode: TOC
Method: TOC 0_50 ppm Filename: 03290918
Cal. Curve: 032613Cal Timestamp: 2013/03/30 01:13
Operator ID: URSULA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21.7886	10.8943	2077190	57.873	58.069	205
2	21.6995	10.8497	2068826	57.800	57.993	191
3	21.4352	10.7176	2044032	57.526	57.722	184

<<<Statistics>>> Mean: 21.6411 Std Dev: 0.1838 RSD: 0.85

Sample ID: ICB CCB Mode: TOC
Method: TOC 0_50 ppm Filename: 03290918
Cal. Curve: 032613Cal Timestamp: 2013/03/30 01:37
Operator ID: URSULA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.4539	0.7269	169007	57.973	58.166	171
2	1.0511	0.5256	131213	57.955	58.154	146
3	0.9789	0.4894	124433	57.723	57.923	145

<<<Statistics>>> Mean: 1.1613 Std Dev: 0.2560 RSD: 22.04

Sample ID: WI63 E1 Mode: TOC
Method: TOC 0_50 ppm Filename: 03290918
Cal. Curve: 032613Cal Timestamp: 2013/03/30 02:02
Operator ID: URSULA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.3862	1.1931	223919	58.360	58.560	156
2	2.7268	1.3634	255878	58.067	58.263	227
3	2.3314	1.1657	218777	58.028	58.227	172

<<<Statistics>>> Mean: 2.4815 Std Dev: 0.2142 RSD: 8.63

Sample ID: WI63 F1 Mode: TOC
Method: TOC 0_50 ppm Filename: 03290918
Cal. Curve: 032613Cal Timestamp: 2013/03/30 02:29
Operator ID: URSULA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.1458	1.5729	295197	58.635	58.832	228
2	2.6128	1.3064	245182	58.518	58.710	163
3	3.2378	1.6189	303833	58.460	58.658	263

<<<Statistics>>> Mean: 2.9988 Std Dev: 0.3374 RSD: 11.25

Sample ID: WI63 G1 Mode: TOC

WDW: 2632-11

Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Filename: 03290918
Timestamp: 2013/03/30 02:56
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3.2167	1.6084	301852	58.993	59.191	225
2	2.3577	1.1789	221247	58.930	59.127	180
3	2.9399	1.4700	275880	58.806	59.006	267

<<<Statistics>>> Mean: 2.8381 Std Dev: 0.4385 RSD: 15.45

Sample ID: WJ16 A1
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 03:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20.2880	10.1440	1903802	60.246	60.445	183
2	20.7642	10.3821	1948486	59.958	60.157	205
3	20.9640	10.4820	1967232	59.758	59.957	241

<<<Statistics>>> Mean: 20.6721 Std Dev: 0.3473 RSD: 1.68

Sample ID: WJ16 B1
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 03:49
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.9165	2.9582	555193	60.755	60.953	200
2	5.4564	2.7282	512023	60.598	60.796	225
3	5.7198	2.8599	536734	60.666	60.865	215

<<<Statistics>>> Mean: 5.6976 Std Dev: 0.2309 RSD: 4.05

Sample ID: WJ16 C1
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 04:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.4910	2.7455	515266	61.010	61.208	285
2	4.6421	2.3211	435609	61.033	61.228	195
3	5.0320	2.5160	472195	61.089	61.287	269

<<<Statistics>>> Mean: 5.0550 Std Dev: 0.4249 RSD: 8.41

Sample ID: WJ16 D1
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 04:45
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.4613	2.7307	512483	61.665	61.864	187
2	5.7402	2.8701	538651	61.483	61.681	277
3	5.5236	2.7618	518324	61.713	61.906	204

<<<Statistics>>> Mean: 5.5750 Std Dev: 0.1464 RSD: 2.63

Sample ID: WJ16 E1
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA

Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 05:11
Sample Type: Sample

WJ10.2632-12

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4.3902	2.1951	411971	62.224	62.421	206
2	4.2905	2.1452	402613	62.160	62.360	203
3	4.2184	2.1092	395851	62.275	62.473	195

<<<Statistics>>> Mean: 4.2997 Std Dev: 0.0863 RSD: 2.01

Sample ID: ICV CCV
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 05:38
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	22.6870	11.3435	2161495	62.469	62.668	257
2	21.7897	10.8948	2077292	62.516	62.713	184
3	22.1097	11.0549	2107324	62.438	62.637	217

Last Message: Out of Calibration
<<<Statistics>>> Mean: 22.1955 Std Dev: 0.4548 RSD: 2.05

Sample ID: ICB CCB
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 06:03
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.3978	0.6989	163746	63.110	63.309	147
2	1.2276	0.6138	147774	62.700	62.894	154
3	1.5856	0.7928	181370	62.567	62.764	217

<<<Statistics>>> Mean: 1.4037 Std Dev: 0.1791 RSD: 12.76

Sample ID: WI97 A5
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 06:32
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13.4495	6.7247	1262080	63.033	63.288	296
2	13.5103	6.7551	1267787	63.032	63.339	296
3	12.1406	6.0703	1139263	63.584	63.777	219

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 13.0335 Std Dev: 0.7738 RSD: 5.94

Sample ID: WI97 A5 DUP
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 07:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	14.3550	7.1775	1347053	63.465	63.671	296
2	13.0864	6.5432	1228012	63.760	63.959	236
3	14.3203	7.1601	1343799	63.746	64.053	296

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 13.9206 Std Dev: 0.7226 RSD: 5.19

Sample ID: WI97 A5 MS
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 07:30
Sample Type: Sample

WJO: 26326-13

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36.5937	18.2969	3433910	65.255	65.451	256
2	35.0426	17.5213	3288355	65.957	66.152	194
3	36.4298	18.2149	3418526	65.921	66.121	232

<<<Statistics>>> Mean: 36.0220 Std Dev: 0.8522 RSD: 2.37

Sample ID: ICV CCV
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 07:57
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24.1928	12.0964	2302792	66.177	66.375	249
2	23.2311	11.6156	2212554	66.158	66.358	195
3	23.9834	11.9917	2283149	65.928	66.127	240

Last Message: Out of Calibration
<<<Statistics>>> Mean: 23.8024 Std Dev: 0.5057 RSD: 2.12

Sample ID: ICB CCB
Method: TOC 0_50 ppm
Cal. Curve: 032613Cal
Operator ID: URSULA
Mode: TOC
Filename: 03290918
Timestamp: 2013/03/30 08:21
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.9681	0.9841	217264	66.709	66.909	176
2	1.4910	0.7455	172486	66.632	66.830	153
3	1.5189	0.7594	175105	66.218	66.415	161

Last Message: Out of Calibration
<<<Statistics>>> Mean: 1.6593 Std Dev: 0.2678 RSD: 16.14

WSO: 2632-14

Geotechnical Raw Data
Analyst Notes and Raw Data

ARI Job ID: WJ10, WJ32

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Analytical Resources, Inc.

Sample: SD-SP-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:03:53PM
Reported: 4/16/2013 1:22:48PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
971.6	0.042	92.9	0.6	117.77820
917.3	0.125	92.4	0.6	104.96993
866.0	0.208	91.8	0.6	93.55455
817.5	0.291	91.2	0.6	83.38058
771.8	0.374	90.7	0.6	74.31302
728.6	0.457	90.0	0.6	66.23155
687.9	0.540	89.4	0.6	59.02893
649.4	0.623	88.8	0.7	52.60959
613.1	0.706	88.1	0.7	46.88834
578.8	0.789	87.3	0.7	41.78928
546.4	0.872	86.6	0.8	37.24474
515.8	0.955	85.8	0.8	33.19441
487.0	1.038	84.9	0.9	29.58455
459.7	1.121	84.0	0.9	26.36725
434.0	1.204	83.1	0.9	23.49984
409.7	1.287	82.2	0.9	20.94425
386.8	1.370	81.2	1.0	18.66659
365.2	1.453	80.2	1.0	16.63661
344.7	1.536	79.3	1.0	14.82740
325.5	1.619	78.3	1.0	13.21493
307.3	1.702	77.2	1.0	11.77782
290.1	1.786	76.2	1.0	10.49699
273.8	1.869	75.2	1.0	9.35545
258.5	1.952	74.1	1.1	8.33806
244.1	2.035	73.1	1.1	7.43130
230.4	2.118	72.0	1.1	6.62315
217.5	2.201	70.9	1.1	5.90289
205.4	2.284	69.8	1.1	5.26096
193.9	2.367	68.7	1.1	4.68883
183.0	2.450	67.6	1.1	4.17893
172.8	2.533	66.5	1.1	3.72447
163.1	2.616	65.4	1.1	3.31944
154.0	2.699	64.3	1.1	2.95845
145.4	2.782	63.2	1.1	2.63673
137.2	2.865	62.1	1.1	2.34998
129.6	2.948	61.0	1.1	2.09443
122.3	3.031	59.9	1.1	1.86666
115.5	3.114	58.8	1.1	1.66366

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Sample: SD-SP-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:03:53PM
Reported: 4/16/2013 1:22:48PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
109.0	3.197	57.6	1.1	1.48274
102.9	3.280	56.5	1.1	1.32149
97.16	3.363	55.3	1.1	1.17778
91.73	3.447	54.2	1.1	1.04970
86.60	3.530	53.2	1.1	0.93555
81.75	3.613	52.2	1.0	0.83381
77.18	3.696	51.2	0.9	0.74313
72.86	3.779	50.4	0.8	0.66232
68.79	3.862	49.7	0.7	0.59029
64.94	3.945	49.1	0.6	0.52610
61.31	4.028	48.8	0.4	0.46888
57.88	4.111	48.8	0.0	0.41789
54.64	4.194	48.6	0.2	0.37245
51.58	4.277	48.3	0.3	0.33194
48.70	4.360	47.9	0.4	0.29585
45.97	4.443	47.4	0.5	0.26367
43.40	4.526	46.8	0.6	0.23500
40.97	4.609	46.0	0.8	0.20944
38.68	4.692	45.1	0.9	0.18667
36.52	4.775	44.0	1.1	0.16637
34.47	4.858	42.8	1.2	0.14827
32.55	4.941	41.6	1.2	0.13215
30.73	5.024	40.3	1.3	0.11778
29.01	5.107	39.0	1.3	0.10497
27.38	5.191	37.8	1.2	0.09355
25.85	5.274	36.6	1.2	0.08338
24.41	5.357	35.4	1.2	0.07431
23.04	5.440	34.2	1.2	0.06623
21.75	5.523	32.9	1.3	0.05903
20.54	5.606	31.6	1.3	0.05261
19.39	5.689	30.2	1.4	0.04689
18.30	5.772	28.8	1.4	0.04179
17.28	5.855	27.5	1.4	0.03724
16.31	5.938	26.2	1.3	0.03319
15.40	6.021	25.0	1.2	0.02958
14.54	6.104	24.0	1.1	0.02637
13.72	6.187	23.0	0.9	0.02350
12.96	6.270	22.2	0.8	0.02094

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Analytical Resources, Inc.

Sample: SD-SP-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:03:53PM
Reported: 4/16/2013 1:22:48PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
12.23	6.353	21.4	0.8	0.01867
11.55	6.436	20.7	0.7	0.01664
10.90	6.519	20.0	0.7	0.01483
10.29	6.602	19.2	0.7	0.01321
9.716	6.685	18.5	0.7	0.01178
9.173	6.768	17.8	0.7	0.01050
8.660	6.851	17.2	0.7	0.00936
8.175	6.935	16.6	0.6	0.00834
7.718	7.018	16.1	0.5	0.00743
7.286	7.101	15.7	0.4	0.00662
6.879	7.184	15.3	0.4	0.00590
6.494	7.267	15.0	0.3	0.00526
6.131	7.350	14.7	0.3	0.00469
5.788	7.433	14.4	0.3	0.00418
5.464	7.516	14.0	0.3	0.00372
5.158	7.599	13.7	0.3	0.00332
4.870	7.682	13.4	0.3	0.00296
4.597	7.765	13.0	0.4	0.00264
4.340	7.848	12.7	0.3	0.00235
4.097	7.931	12.3	0.3	0.00209
3.868	8.014	12.0	0.3	0.00187
3.652	8.097	11.8	0.3	0.00166
3.447	8.180	11.5	0.3	0.00148
3.255	8.263	11.2	0.3	0.00132
3.073	8.346	10.9	0.3	0.00118
2.901	8.429	10.6	0.3	0.00105
2.738	8.512	10.4	0.3	0.00094
2.585	8.595	10.1	0.3	0.00083
2.441	8.679	9.9	0.2	0.00074
2.304	8.762	9.7	0.2	0.00066
2.175	8.845	9.6	0.1	0.00059
2.054	8.928	9.5	0.1	0.00053
1.939	9.011	9.3	0.1	0.00047
1.830	9.094	9.3	0.1	0.00042
1.728	9.177	9.2	0.0	0.00037
1.631	9.260	9.2	0.0	0.00033
1.540	9.343	9.2	0.0	0.00030
1.454	9.426	9.1	0.1	0.00026

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Analytical Resources, Inc.

Sample: SD-SP-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:03:53PM
Reported: 4/16/2013 1:22:48PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
1.372	9.509	9.0	0.1	0.00023
1.296	9.592	8.9	0.1	0.00021
1.223	9.675	8.8	0.1	0.00019
1.155	9.758	8.7	0.1	0.00017
1.090	9.841	8.7	0.0	0.00015
1.029	9.924	8.7	0.0	0.00013

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Analytical Resources, Inc.

Sample: SD-SP-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:03:53PM
Reported: 4/16/2013 1:22:48PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Report by Size Table

Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)
9500	100.0	0.0	63.00	48.9	11.4
4750	100.0	0.0	31.00	40.5	8.4
2000	98.5	1.5	15.60	25.3	15.2
1000	93.2	5.3	7.800	16.2	9.1
500.0	85.3	7.9	3.900	12.1	4.1
250.0	73.5	11.8	2.000	9.4	2.7
125.0	60.3	13.2	1.000	8.7	0.7

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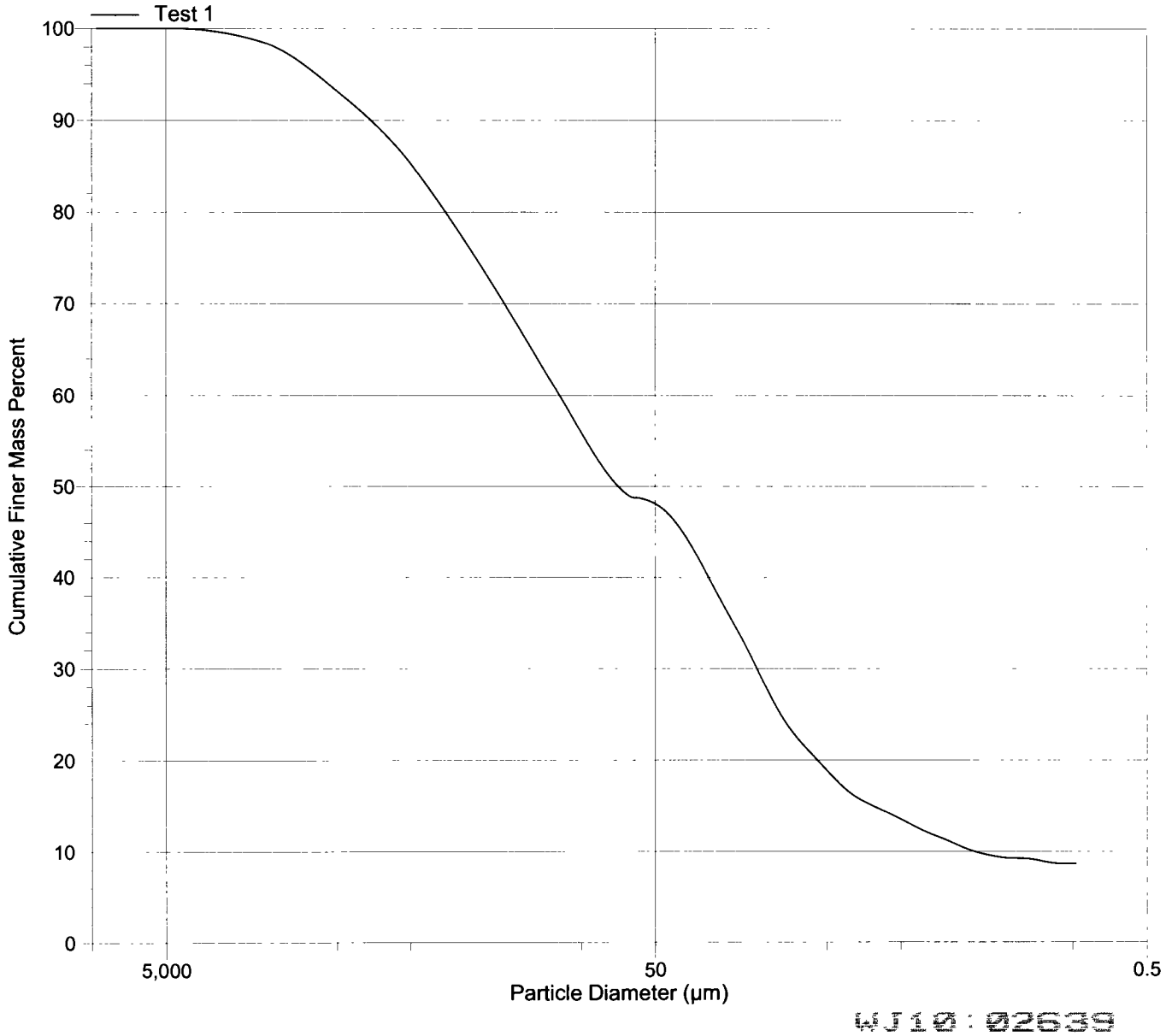
Analytical Resources, Inc.

Sample: SD-SP-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:03:53PM
Reported: 4/16/2013 1:40:43PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Cumulative Finer Mass Percent vs. Diameter



WJ10:02639

Sample: SD-CB-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10D.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:33:53PM
Reported: 4/16/2013 1:37:51PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
971.6	0.042	83.5	1.2	117.77676
917.3	0.125	82.3	1.2	104.96865
866.0	0.208	81.0	1.3	93.55341
817.5	0.291	79.7	1.3	83.37956
771.8	0.374	78.3	1.3	74.31211
728.6	0.457	77.0	1.4	66.23074
687.9	0.540	75.5	1.4	59.02821
649.4	0.623	74.1	1.5	52.60895
613.1	0.706	72.6	1.5	46.88777
578.8	0.789	71.1	1.5	41.78877
546.4	0.872	69.5	1.6	37.24428
515.8	0.955	67.9	1.6	33.19400
487.0	1.038	66.2	1.6	29.58418
459.7	1.121	64.5	1.7	26.36693
434.0	1.204	62.7	1.8	23.49955
409.7	1.287	60.9	1.8	20.94400
386.8	1.370	59.1	1.9	18.66636
365.2	1.453	57.2	1.9	16.63641
344.7	1.536	55.3	1.9	14.82722
325.5	1.619	53.5	1.9	13.21477
307.3	1.702	51.6	1.9	11.77768
290.1	1.786	49.8	1.8	10.49686
273.8	1.869	48.0	1.8	9.35534
258.5	1.952	46.3	1.7	8.33796
244.1	2.035	44.6	1.7	7.43121
230.4	2.118	43.0	1.6	6.62307
217.5	2.201	41.4	1.6	5.90282
205.4	2.284	39.9	1.5	5.26089
193.9	2.367	38.4	1.5	4.68878
183.0	2.450	37.0	1.5	4.17888
172.8	2.533	35.5	1.4	3.72443
163.1	2.616	34.1	1.4	3.31940
154.0	2.699	32.8	1.4	2.95842
145.4	2.782	31.4	1.3	2.63669
137.2	2.865	30.1	1.3	2.34996
129.6	2.948	28.8	1.3	2.09440
122.3	3.031	27.5	1.3	1.86664
115.5	3.114	26.2	1.3	1.66364
109.0	3.197	25.0	1.3	1.48272
102.9	3.280	23.7	1.2	1.32148

Sample: SD-CB-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10D.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:33:53PM
Reported: 4/16/2013 1:37:51PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
97.16	3.363	22.5	1.2	1.17777
91.73	3.447	21.4	1.1	1.04969
86.60	3.530	20.4	1.0	0.93553
81.75	3.613	19.4	0.9	0.83380
77.18	3.696	18.6	0.8	0.74312
72.86	3.779	18.0	0.7	0.66231
68.79	3.862	17.5	0.5	0.59028
64.94	3.945	17.2	0.3	0.52609
61.31	4.028	17.1	0.1	0.46888
57.88	4.111	17.0	0.0	0.41789
54.64	4.194	16.9	0.1	0.37244
51.58	4.277	16.8	0.1	0.33194
48.70	4.360	16.7	0.1	0.29584
45.97	4.443	16.5	0.2	0.26367
43.40	4.526	16.3	0.2	0.23500
40.97	4.609	16.1	0.2	0.20944
38.68	4.692	15.9	0.2	0.18666
36.52	4.775	15.6	0.3	0.16636
34.47	4.858	15.3	0.3	0.14827
32.55	4.941	15.0	0.3	0.13215
30.73	5.024	14.7	0.4	0.11778
29.01	5.107	14.3	0.4	0.10497
27.38	5.191	13.9	0.4	0.09355
25.85	5.274	13.5	0.4	0.08338
24.41	5.357	13.2	0.4	0.07431
23.04	5.440	12.8	0.4	0.06623
21.75	5.523	12.4	0.4	0.05903
20.54	5.606	12.1	0.4	0.05261
19.39	5.689	11.7	0.4	0.04689
18.30	5.772	11.4	0.3	0.04179
17.28	5.855	11.1	0.3	0.03724
16.31	5.938	10.7	0.3	0.03319
15.40	6.021	10.4	0.3	0.02958
14.54	6.104	10.1	0.3	0.02637
13.72	6.187	9.9	0.3	0.02350
12.96	6.270	9.6	0.3	0.02094
12.23	6.353	9.4	0.2	0.01867
11.55	6.436	9.1	0.2	0.01664
10.90	6.519	8.9	0.2	0.01483
10.29	6.602	8.7	0.2	0.01321

Sample: SD-CB-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10D.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:33:53PM
Reported: 4/16/2013 1:37:51PM
Liquid Visc: 0.7226 mPa·s
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Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
9.716	6.685	8.5	0.2	0.01178
9.173	6.768	8.3	0.2	0.01050
8.660	6.851	8.1	0.2	0.00936
8.175	6.935	7.9	0.2	0.00834
7.718	7.018	7.7	0.2	0.00743
7.286	7.101	7.6	0.1	0.00662
6.879	7.184	7.5	0.1	0.00590
6.494	7.267	7.4	0.1	0.00526
6.131	7.350	7.3	0.1	0.00469
5.788	7.433	7.1	0.1	0.00418
5.464	7.516	7.0	0.1	0.00372
5.158	7.599	6.9	0.1	0.00332
4.870	7.682	6.8	0.1	0.00296
4.597	7.765	6.6	0.1	0.00264
4.340	7.848	6.5	0.1	0.00235
4.097	7.931	6.4	0.1	0.00209
3.868	8.014	6.2	0.1	0.00187
3.652	8.097	6.1	0.1	0.00166
3.447	8.180	6.0	0.1	0.00148
3.255	8.263	5.8	0.1	0.00132
3.073	8.346	5.7	0.1	0.00118
2.901	8.429	5.6	0.1	0.00105
2.738	8.512	5.5	0.1	0.00094
2.585	8.595	5.4	0.1	0.00083
2.441	8.679	5.3	0.1	0.00074
2.304	8.762	5.2	0.1	0.00066
2.175	8.845	5.1	0.1	0.00059
2.054	8.928	5.0	0.1	0.00053
1.939	9.011	4.9	0.1	0.00047
1.830	9.094	4.8	0.1	0.00042
1.728	9.177	4.8	0.1	0.00037
1.631	9.260	4.7	0.1	0.00033
1.540	9.343	4.7	0.0	0.00030
1.454	9.426	4.6	0.0	0.00026
1.372	9.509	4.6	0.0	0.00023
1.296	9.592	4.6	0.0	0.00021
1.223	9.675	4.5	0.0	0.00019
1.155	9.758	4.5	0.0	0.00017
1.090	9.841	4.5	0.0	0.00015
1.029	9.924	4.6	0.0	0.00013

Sample: SD-CB-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10D.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 4/16/2013 12:33:53PM
Reported: 4/16/2013 1:37:51PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Report by Size Table

Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)
9500	100.0	0.0	63.00	17.1	10.9
4750	99.9	0.1	31.00	14.7	2.4
2000	94.8	5.1	15.60	10.5	4.2
1000	84.1	10.7	7.800	7.8	2.8
500.0	67.0	17.1	3.900	6.3	1.5
250.0	45.3	21.7	2.000	5.0	1.3
125.0	28.0	17.3	1.000	4.6	0.4

Sample: SD-CB-01-20130326-S
Operator: GBC
Submitter: SAIC
File: C:\5120\DATA\WJ10\WJ10D.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

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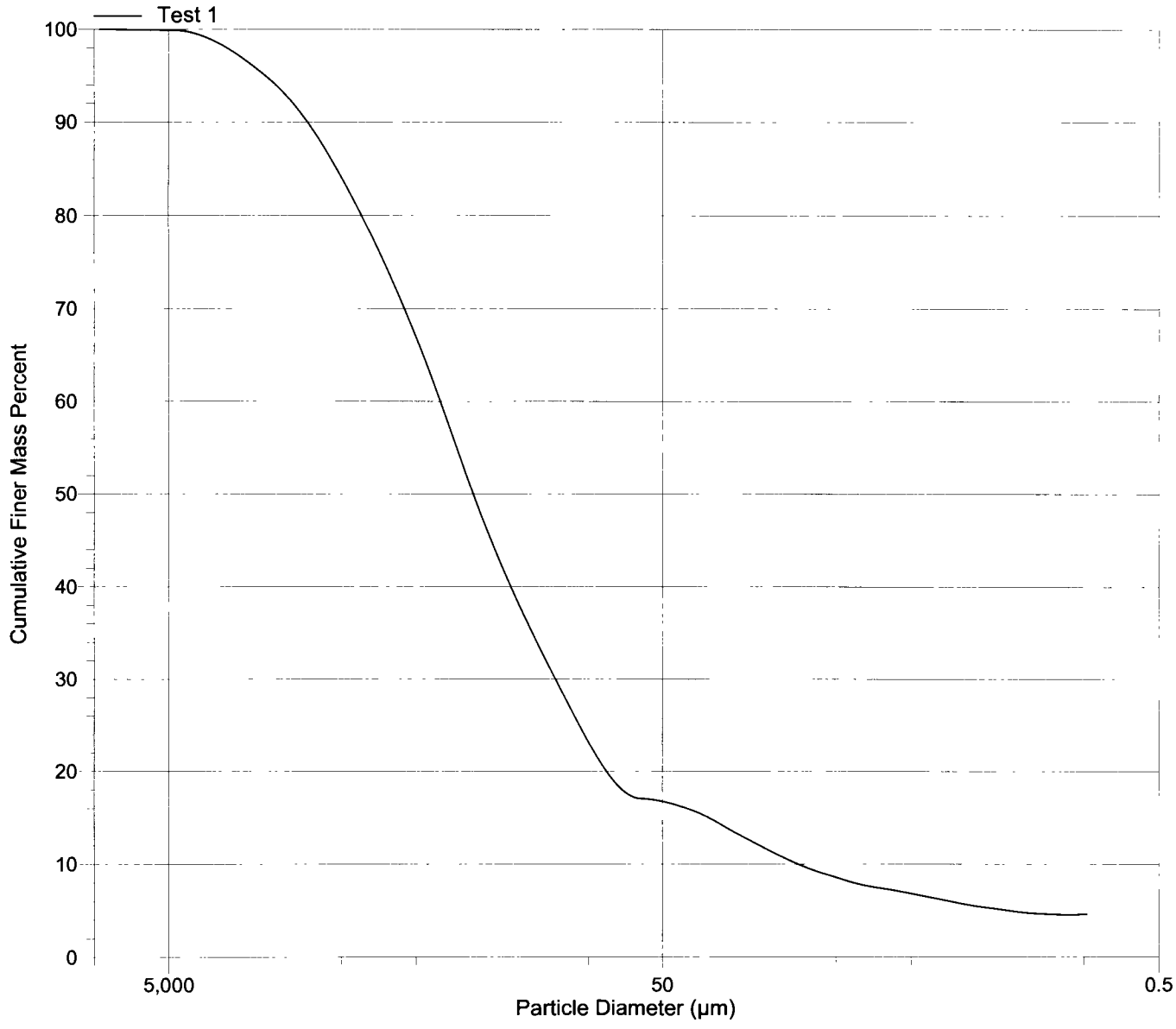
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 110 / 88 kCnts/s
Reynolds Number: 0.42

Cumulative Finer Mass Percent vs. Diameter



SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WJ10 ARI Sample No. C Client Sample No. SD-SP-01-20130326-S

Set-up Date: 4.11.2013 Sample Description: SILT, ORGANIC FINES & DEBRIS

Sieve Set # 1 Date Sieved: 4/12/13 gc

SOLIDS CONTENT

Moisture Content	Initials eg
Container No.	129
Tare Weight	1.4637
Wet Weight + Tare	9.9584
Dry Weight + Tare	5.3229

Test Sample	Initials eg
Container No.	129
Tare Weight	50.3976
Wet Weight + Tare	71.1810
Dry Weight + Tare	55.7604

SIEVE ANALYSIS
Initials gc

Sieve Size	Weight Retained
Tare	50.4124
4	50.4124
10	50.5497
18	51.0548
35	51.7977
60	52.9185
120	54.1574
230	55.2381
PAN	0.4092

SEDIGRAPH ANALYSIS
Initials gc
Date Sedigraphed 4/16/13
Centrifuged ☐ Oven Dried ☐
Suspension Liquid DI Water

Beaker ID	18

SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WJ10 ARI Sample No. D Client Sample No. SD-SB-01-20130326-S

Set-up Date: 4.11.2013 Sample Description: SILT, ORGANIC FINES, DEBRIS, SAND

Sieve Set # 2 Date Sieved: 4/12/13

SOLIDS CONTENT

Moisture Content	Initials eg
Container No.	142
Tare Weight	1.4563
Wet Weight + Tare	52.6267
Dry Weight + Tare	25.8806

Test Sample	Initials eg
Container No.	142
Tare Weight	50.6600
Wet Weight + Tare	104.3382
Dry Weight + Tare	73.1225

SIEVE ANALYSIS
Initials gc

Sieve Size	Weight Retained
Tare	50.6850
4	50.7171
10	52.0185
18	54.7546
35	59.1448
60	64.7024
120	69.1405
230	71.9269
PAN	1.1685

SEDIGRAPH ANALYSIS
Initials gc
Date Sedigraphed 4/16/13
Centrifuged ☐ Oven Dried ☐
Suspension Liquid DI water

Beaker ID	33

Sample ID: SD-SP-01-20130326-W

Method 1668C

Client Data		Sample Data		Laboratory Data			
Name:	SAIC	Matrix:	Aqueous	Project No.:	A5781	Date Received:	31-Jul-2013
Project ID:	209977	Weight/Volume:	0.97 L	Sample ID:	A5781_11228_PCB_001-D5	Date Extracted:	13-Aug-2013
Date Collected:	26-Mar-2013	pH	6	QC Batch No.:	11228	Date Analyzed:	15-Aug-2013

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	244				ES PCB-1	80
PCB-81 344'5-TeCB	ND	28.5			ES PCB-3	84.5
PCB-105 233'44'-PeCB	1,210				ES PCB-4	87.4
PCB-114 2344'5-PeCB	62.2				ES PCB-15	89
PCB-118 23'44'5-PeCB	2,320				ES PCB-19	90.5
PCB-123 23'44'5'-PeCB	35.4				ES PCB-37	70.9
PCB-126 33'44'5-PeCB	ND	50.2			ES PCB-54	104
PCB-156/157 233'44'5/233'44'5'-HxCB	374			C	ES PCB-77	41.7
PCB-167 23'44'55'-HxCB	113				ES PCB-81	41.1
PCB-169 33'44'55'-HxCB	ND	31.2			ES PCB-104	130
PCB-189 233'44'55'-HpCB	20.2				ES PCB-105	45.9
					ES PCB-114	46.2
TEQs (WHO M/H)					ES PCB-118	50.9
					ES PCB-123	52.7
ND = 0	0.149		0.149		ES PCB-126	43
ND = 0.5 x DL	3.13		3.13		ES PCB-153	64
ND = DL	6.11		6.11		ES PCB-155	103
					ES PCB-156/157	60.4
Totals					ES PCB-167	58.7
Mono-CBs	59.7		69.3		ES PCB-169	66
Di-CBs	3,120				ES PCB-170	38.8
Tri-CBs	15,700				ES PCB-180	38.5
Tetra-CBs	26,800		26,800		ES PCB-188	81.1
Penta-CBs	20,500		20,700		ES PCB-189	36.6
Hexa-CBs	11,700		11,800		ES PCB-202	69.1
Hepta-CBs	3,190		3,230		ES PCB-205	31.7
Octa-CBs	1,270				ES PCB-206	29.1
Nona-CBs	228				ES PCB-208	45.3
Deca-CB	37.9				ES PCB-209	24.4
					CS PCB-28	93.5
Total PCB (Mono-Deca)	82,600		83,000		CS PCB-111	79.6
					CS PCB-178	102

Checkcode: 941-198-LLD

SGS AP PCB 2013 Rev. 2.0

Report Created: 19-Aug-2013 12:26 Analyst: LB

SGS ANALYTICAL PERSPECTIVES

2714 Exchange Drive
Wilmington
North Carolina 28405
USA

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Sample ID: SD-SP-01-20130326-W — Method 1668C

Client Data		**Sample Data**		**Laboratory Data**			
Name:	SAIC	Matrix:	Aqueous	Project No.:	A5781	Date Received:	31-Jul-2013
Project ID:	209977	Weight/Volume:	0.97 L	Sample ID:	A5781_11228_PCB_001-D5	Date Extracted:	13-Aug-2013
Date Collected:	26-Mar-2013	pH	6	QC Batch No.:	11228	Date Analyzed:	15-Aug-2013
		Units	pg/L	Checkcode:	941-198-LLD	Time Analyzed:	15:30:31

Mono	Conc.	Qualifiers	Tri	Conc.	Qualifiers	Tetra	Conc.	Qualifiers	Tetra	Conc.	Qualifiers
PCB-1	34.8		PCB-19	232		PCB-54	4.86	J	PCB-72	(25.9)	
PCB-2	[9.59]	J EMPC	PCB-30/18	2,000	C	PCB-50/53	629	C	PCB-68	(24.4)	
PCB-3	24.9		PCB-17	915		PCB-45	745		PCB-57	(26.9)	
			PCB-27	140		PCB-51	205		PCB-58	(26.6)	
Conc.	59.7		PCB-24	23.3		PCB-46	332		PCB-67	95.8	
EMPC	69.3		PCB-16	1,090		PCB-52	4,450		PCB-63	81.3	
			PCB-32	572		PCB-73	(8.89)		PCB-61/70/74/76	4,070	C
Di	**Conc.**	**Qualifiers**	PCB-34	(10.9)		PCB-43	204		PCB-66	1,880	
PCB-4	642		PCB-23	(10.6)		PCB-69/49	2,090	C	PCB-55	[38.1]	EMPC
PCB-10	30.1		PCB-26/29	533	C	PCB-48	1,020		PCB-56	822	
PCB-9	74.3		PCB-25	230		PCB-44/47/65	3,970	C	PCB-60	544	
PCB-7	37.2		PCB-31	2,780		PCB-59/62/75	384	C	PCB-80	(24.1)	
PCB-6	219		PCB-28/20	3,250	C	PCB-42	1,090		PCB-79	(24.1)	
PCB-5	20.2		PCB-21/33	1,800	C	PCB-41	579		PCB-78	(29.7)	
PCB-8	1,200		PCB-22	1,240		PCB-71/40	1,800	C	PCB-81	(28.5)	
PCB-14	(6.34)		PCB-36	(10.4)		PCB-64	1,540		PCB-77	244	
PCB-11	241		PCB-39	13.8							
PCB-13/12	73.5	C	PCB-38	(11.2)							
PCB-15	582		PCB-35	55.8							
			PCB-37	829							
Conc.	3,120		**Conc.**	15,700					**Conc.**	26,800	
EMPC	3,120		**EMPC**	15,700					**EMPC**	26,800	

SGS Analytical Perspectives

2714 Exchange Drive
Wilmington, NC 28405, USA

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Fax: +1 910 794-3919
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Totals	Conc.	EMPC
Mono-Tri	18,900	18,900
Tetra-Hexa	59,000	59,300
Hepta-Deca	4,730	4,770
Mono-Deca	82,600	83,000

Sample ID: SD-SP-01-20130326-W

Method 1668C

Penta	Conc.	Qualifiers	Penta	Conc.	Qualifiers	Hexa	Conc.	Qualifiers	Hexa	Conc.	Qualifiers
PCB-104	(3.37)		PCB-109/119/86/97/125/87	2,300	C	PCB-155	(3.94)		PCB-165	(8.87)	
PCB-96	22.4		PCB-117	83.3		PCB-152	(4.26)		PCB-146	353	
PCB-103	(16.1)		PCB-116/85	472	C	PCB-150	(4.25)		PCB-161	(8.38)	
PCB-94	28.5		PCB-110	3,740		PCB-136	229		PCB-153/168	1,820	C
PCB-95	2,740		PCB-115	(12.6)		PCB-145	(4.56)		PCB-141	492	
PCB-100/93	30.8	C	PCB-82	439		PCB-148	(10.6)		PCB-130	210	
PCB-102	120		PCB-111	(12.8)		PCB-151/135	754	C	PCB-137	158	
PCB-98	(20)		PCB-120	(12.9)		PCB-154	[37.1]	EMPC	PCB-164	191	
PCB-88	639		PCB-108/124	[108]	EMPC C	PCB-144	106		PCB-163/138/129	2,840	C
PCB-91	(14.5)		PCB-107	195		PCB-147/149	1,970	C	PCB-160	(9.22)	
PCB-84	1,060		PCB-123	35.4		PCB-134	179		PCB-158	296	
PCB-89	[42.3]	EMPC	PCB-106	(14.5)		PCB-143	[12.3]	EMPC	PCB-128/166	538	C
PCB-121	(12.9)		PCB-118	2,320		PCB-139/140	[56.1]	EMPC C	PCB-159	(35.5)	
PCB-92	533		PCB-122	[39]	EMPC	PCB-131	47.5		PCB-162	(35.4)	
PCB-113/90/101	2,960	C	PCB-114	62.2		PCB-142	(12.4)		PCB-167	113	
PCB-83	172		PCB-105	1,210		PCB-132	1,060		PCB-156/157	374	C
PCB-99	1,330		PCB-127	(18)		PCB-133	(11.5)		PCB-169	(31.2)	
PCB-112	(13.3)		PCB-126	(50.2)							
			Conc.	20,500					**Conc.**	11,700	
			EMPC	20,700					**EMPC**	11,800	

Hepta	Conc.	Qualifiers	Hepta	Conc.	Qualifiers	Octa	Conc.	Qualifiers	Nona	Conc.	Qualifiers
PCB-188	(9.36)		PCB-174	409		PCB-202	92.7		PCB-208	55.2	
PCB-179	167		PCB-177	220		PCB-201	46.3		PCB-207	(16.7)	
PCB-184	(10.4)		PCB-181	(19)		PCB-204	(8.97)		PCB-206	172	
PCB-176	[34.6]	EMPC	PCB-171/173	126	C	PCB-197	16.1				
PCB-186	(10.1)		PCB-172	90.6		PCB-200	20.7		**Conc.**	228	
PCB-178	69.3		PCB-192	(16.2)		PCB-198/199	415	C	**EMPC**	228	
PCB-175	(18.1)		PCB-180/193	862	C	PCB-196	153				
PCB-187	472		PCB-191	(15.5)		PCB-203	214		**Deca**	**Conc.**	**Qualifiers**
PCB-182	(17.3)		PCB-170	443		PCB-195	83.1		PCB-209	37.9	
PCB-183	242		PCB-190	71.3		PCB-194	232				
PCB-185	(19)		PCB-189	20.2		PCB-205	(16.1)				
			Conc.	3,190		**Conc.**	1,270				
			EMPC	3,230		**EMPC**	1,270				