

## **Construction Completion (As-Built) Report**

Former Shell Oil Tank Farm Site  
Anacortes, Washington  
Ecology Consent Decree No. 14-2-01249-0

*for*

**Washington State Department of Ecology  
on Behalf of Port of Anacortes**

June 26, 2015



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**File No. 5147-012-07**

**June 26, 2015**

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**TABLE OF CONTENTS**

**ABBREVIATIONS AND ACRONYMS ..... III**

**1.0 INTRODUCTION ..... 1**

1.1. Purpose and Report Organization..... 1

**2.0 BACKGROUND INFORMATION ..... 1**

2.1. Historical Operations and Site Use ..... 1

2.2. Nature and Extent of Contamination..... 2

    2.2.1. Soil Conditions..... 2

    2.2.2. Groundwater Conditions ..... 3

2.3. Regulatory Framework..... 3

**3.0 CLEANUP ACTION REQUIRMENTS..... 3**

3.1. Cleanup Action Objectives..... 3

3.2. Cleanup Standards ..... 4

    3.2.1. Cleanup Levels ..... 4

    3.2.2. Points of Compliance ..... 4

    3.2.3. Applicable Regulatory Requirements ..... 4

**4.0 CLEANUP ACTION APPROACH AND ORGANIZATION..... 6**

4.1. Cleanup Action Design Approach..... 6

4.2. Project Organization and Management..... 7

**5.0 CLEANUP ACTION SUMMARY ..... 7**

5.1. Temporary Site Controls ..... 7

    5.1.1. Site Access Control..... 7

    5.1.2. Erosion Control and Stormwater Pollution Prevention..... 8

    5.1.3. Dust and Noise Control ..... 8

    5.1.4. Spill Prevention..... 8

5.2. Construction Site Layout ..... 8

    5.2.1. Construction Staging Area ..... 8

    5.2.2. Wastewater Treatment Area ..... 9

5.3. Site Preparation ..... 9

    5.3.1. Utility Locate ..... 9

    5.3.2. Monitoring Well Decommissioning..... 9

5.4. Remedial Excavation and Site Restoration ..... 9

    5.4.1. Soil Excavation and Disposal..... 10

    5.4.2. Excavation Dewatering and Treatment..... 11

    5.4.3. Site Restoration..... 12

**6.0 POST-CONSTRUCTION CLEANUP ACTIONS ..... 13**

6.1. Engineering and Institutional Controls ..... 14

6.2. Confirmational (Post-Construction) Groundwater Monitoring..... 14

**7.0 LIMITATIONS ..... 14**

**8.0 REFERENCES ..... 15**

## **LIST OF TABLES**

Table 1. Site-Specific Cleanup Levels for Hazardous Substances

Table 2. Summary of Verification Soil Sample Field Screening and Chemical Analytical Data

Table 3. Summary of Treated Wastewater Chemical Analytical Data

## **LIST OF FIGURES**

Figure 1. Vicinity Map

Figure 2. Site Plan

Figure 3. Remedial Excavation and Verification Samples

Figure 4. Site Restoration

## **APPENDICES**

Appendix A. Project Permits

Appendix B. Monitoring Well Decommissioning Records

Appendix C. Laboratory Data Reports – Verification Soil Samples

Appendix D. Data Validation Reports – Verification Soil Samples

Appendix E. Disposal Weight Tickets

Appendix F. Wastewater Disposal Summary and Laboratory Data Reports

Appendix G. Post-Construction As-Built Survey

Appendix H. Laboratory Data Reports – Import Source Material

Appendix I. Import Weight Tickets

## ABBREVIATIONS AND ACRONYMS

ALS	ALS Environmental
AST	above ground storage tank
BETX	Benzene, ethylbenzene, toluene and xylenes
bgs	below ground surface
BMPs	Best Management Practices
CAP	Cleanup Action Plan
Clearcreek	Clearcreek Contractors
COC	Contaminant of Concern
cPAHs	Carcinogenic Polycyclic Aromatic Hydrocarbons
CSTC	crushed surfacing top course
Ecology	Washington State Department of Ecology
EDR	Engineering Design Report
EPA	United States Environmental Protection Agency
Floyd Snider	Floyd Snider, Inc.
GAC	Granular Activated Carbon
GeoEngineers	GeoEngineers, Inc.
Hart Crowser	Hart Crowser & Associates, Inc.
MTC	Materials Testing & Consulting, Inc.
MTCA	Model Toxics Control Act
NWTPH-Dx	Extended Diesel-Range Total Petroleum Hydrocarbons
OnSite	OnSite Environmental Inc.
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
Port	Port of Anacortes
PSE	Pacific Surveying & Engineering, Inc.
PVC	Polyvinyl Chloride
RCW	Revised Code of Washington
RI/FS	Remedial Investigation/Feasibility Study
ROW	Right-Of-Way
SEPA	State Environmental Policy Act
Site	Former Shell Oil Tank Farm Site
TEE	Terrestrial Ecological Evaluation

TPHs	Total Petroleum Hydrocarbons
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds
WAC	Washington Administrative Code

## 1.0 INTRODUCTION

This Construction Completion (As-Built) Report has been prepared to document the cleanup actions completed by the Port of Anacortes (Port) at the Former Shell Oil Tank Farm Site (Site). Cleanup activities were completed by the Port pursuant to a Washington State Department of Ecology (Ecology) Consent Decree (Consent Decree No. 14-2-01249-0 filed on 7/14/2014), the Model Toxics Control Act (MTCA) and associated implementing regulations (i.e., Chapter 173-340 of the Washington Administrative Code [WAC]). The Site is formally referenced in the Ecology databases as the Former Shell Oil Tank Farm Site (Ecology Facility Site Identification No. 4781157) and is generally located between 13<sup>th</sup> and 14<sup>th</sup> Streets west of Q Avenue in Anacortes, Washington (Figure 1). The Site is being managed by Ecology as part of the Fidalgo and Padilla Bay component of the Puget Sound Initiative program.

In accordance with the Cleanup Action Plan (CAP; Ecology, 2014) and Ecology-approved Engineering Design Report (EDR; GeoEngineers, 2014a), cleanup activities were completed to address petroleum hydrocarbon, carcinogenic polycyclic aromatic hydrocarbon (cPAH), volatile organic compound (VOC; benzene) and metal (cadmium) contaminated soil resulting from historical property use. The cleanup action involved the remedial excavation and off-site disposal of overburden and contaminated materials, backfilling and regrading of the remedial excavation area and restoration of surfaces. Throughout the duration of the cleanup action Best Management Practices (BMPs) were implemented to protect the community, workers and the environment.

### 1.1. Purpose and Report Organization

The purpose of this report is to document as-built conditions for cleanup and restoration activities completed by the Port to address Site contamination. This report is organized into the following sections:

- Section 1.0 introduces the document with a brief description of the Site, and the purpose and organization of the report.
- Section 2.0 describes the Site location, current and historical land use, nature and extent of contamination prior to cleanup and regulatory framework.
- Section 3.0 presents the objectives and requirements for the cleanup action.
- Section 4.0 describes the general cleanup action approach and organization.
- Section 5.0 describes the cleanup action that was completed by the Port to address Site contamination.
- Section 6.0 describes post-construction clean actions including engineering and institutional controls, and future tasks that will be completed to monitor post-construction groundwater conditions.
- Section 7.0 describes the limitations for use of this report.
- Section 8.0 lists the references used in preparing this report.

## 2.0 BACKGROUND INFORMATION

### 2.1. Historical Operations and Site Use

The property occupied by the Former Shell Oil Tank Farm facility was originally a portion of the Fidalgo Bay tide flats, which were filled to the current grade (up to a former bulkhead located just east of Q Avenue;

Figure 2) between 1925 and 1929. The property was acquired by the Port in 1929 and leased to Shell Oil Company (Shell) in 1930 for use as a bulk fuel storage and distribution facility that primarily handled gasoline and diesel fuels. Site facilities included three 25,000-gallon aboveground storage tanks (ASTs), a 2,000-gallon underground storage tank (UST) and product lines connecting the ASTs to a pump house and historical pier located east of the Site across Q Avenue (Figure 2). Historically, gasoline and diesel products were pumped from the pier to the bulk fuel facility for storage and distribution. In the 1950s, two additional 12,500-gallon ASTs were installed at the Site and the 2,000-gallon UST was reportedly replaced with a 4,000-gallon UST. Gasoline, diesel and stove oil were reportedly to also have been stored in the ASTs and dry cleaning solvent was reportedly stored in the UST.

Shell and various bulk product distributors operated at the fuel storage facility until 1987 at which time operations ceased and the facility was decommissioned, including removal of all tanks, associated piping, and structures. At this time, an unknown volume of soil was excavated from one or more of the areas in which surface staining was reportedly observed (Figure 2). Currently, the property occupied by the Former Shell Oil Tank Farm facility is used by the Port as a vehicle and boat trailer parking lot supporting the trailer boat launch facility located along the western shoreline of the Cap Sante Marina.

The approximate locations of the historical facilities, including USTs, ASTs, fuel supply lines, and areas of observed surface staining are shown on Figure 2.

## **2.2. Nature and Extent of Contamination**

Several environmental investigations have been completed at the Site, beginning in 1987 with an initial soil investigation performed by Hart Crowser (Hart Crowser, 1987), and culminating in the recent 2012/2013 remedial investigation (RI) study performed by GeoEngineers (GeoEngineers, 2013). Environmental investigations conducted prior to May 2007 are detailed in the Remedial Investigation/Feasibility Work Plan (RI/FS Work Plan; GeoEngineers, 2009). RI activities performed pursuant to the RI/FS Work Plan are detailed in the Remedial Investigation/Feasibility Study (RI/FS; GeoEngineers, 2014b). Pre-cleanup action soil and groundwater conditions based on the results of these studies are summarized in the following sections (Sections 2.2.1 and 2.2.2).

### **2.2.1. Soil Conditions**

Prior to the cleanup action, the area previously occupied by the Former Shell Oil Tank Farm facility consisted of dredged fill comprised of interbedded with layers of gravel, silt and clay with variable thicknesses to approximately 7 feet below ground surface (bgs) beneath a gravel-size crushed rock surface. Native deposits consisting of approximately 9 feet of loose to medium dense silty gravelly sand with scattered interbeds of soft silt over at least 16 feet of hard silt interpreted as a glacial deposit (Hart Crowser, 1987; GeoEngineers, 2008) were identified as present beneath the dredged fill deposits.

Findings from the previous environmental studies identified contaminants of concern (COCs) including petroleum hydrocarbons, benzene, cPAHs and cadmium in soil at concentrations exceeding site-specific cleanup levels (discussed further in Section 3.2). In general, petroleum hydrocarbon and benzene contamination was identified in the central and eastern portions of the Former Shell Oil Tank Farm area and in the southwestern corner of the Former Shell Oil Tank Farm area at depths ranging between approximately 2.5 feet and 17 feet bgs. Carcinogenic PAHs were identified in the southern portion of the Former Shell Oil Tank Farm area at depths ranging between approximately 9 feet and 14 feet bgs. Cadmium was identified in soil in the southwestern portion of the Former Shell Oil Tank Farm area at depths ranging

between approximately 5 feet and 8 feet bgs. In the eastern portion of the property, petroleum and benzene contamination was estimated to potentially extend partially beneath Q Avenue and in the southern portion of the property, cPAH contamination was estimated to potentially extend partially beneath 14<sup>th</sup> Street.

### **2.2.2. Groundwater Conditions**

Three hydrogeologic units were identified in the vicinity of the Site, including: 1) a shallow, unconfined aquifer occurring in the dredged fill; 2) a native silt confining unit; and 3) a deeper, confined aquifer. Findings from the previous environmental studies identified groundwater ranging from approximately 3 feet to 6 feet bgs (approximately elevation 6.5 to 9.5 feet mean lower low water [MLLW]) with a general flow gradient east toward Fidalgo Bay. Tidal Study results completed in the vicinity of the Site (Landau, 2007) indicated that groundwater adjacent to the shoreline is being influenced by tidal fluctuations in Fidalgo Bay while at approximately 100 to 200 feet away from the shoreline, tidal fluctuations were not observed.

Water samples obtained as “grab samples” from temporary wells utilized during the 1987 and 2005 investigations (Hart Crowser, 1987 and Floyd|Snider, 2005) identified elevated concentrations of lead and diesel-range petroleum hydrocarbons in the central portion of the Former Shell Oil Tank Farm area. However, subsequent water samples collected from permanent groundwater monitoring wells installed as part of the RI (GeoEngineers, 2013) indicated that lead and diesel-range petroleum hydrocarbons, as well as the other COCs were not present in groundwater located within or downgradient of the Site at concentrations exceeding site-specific cleanup levels (Section 3.2).

### **2.3. Regulatory Framework**

In 2008, the Port entered into Agreed Order No. DE-08TCPHQ-5474 with Ecology. Work to be performed under the Agreed Order included completing the scope of remedial investigation activities outlined in the Ecology-approved RI/FS Work Plan. In addition, under the agreed order the Port completed an RI/FS to evaluate cleanup alternatives for addressing identified contamination at the Site. The RI/FS utilized the results of the RI and the earlier investigations to characterize the nature and extent of contamination, and to evaluate and select a cleanup alternative for addressing Site contamination. Based on the comparative analysis presented in the RI/FS, a cleanup alternative consisting of a combination of contaminant source removal, in-situ soil treatment and post-construction groundwater monitoring was selected by Ecology as the preferred cleanup action alternative for the Site. Pursuant to Consent Decree No. 14-2-01249-0, the cleanup action alternative selected by Ecology was implemented by the Port for addressing Site contamination.

A detailed description of the cleanup action alternatives evaluated is presented in the RI/FS. The CAP further describes the Ecology-selected cleanup action alternative. Cleanup action objectives and cleanup standards for addressing Site contamination are presented in the following section (Section 3.0). The cleanup action approach, organization and activities are discussed in Sections 4.0 and 5.0.

## **3.0 CLEANUP ACTION REQUIREMENTS**

### **3.1. Cleanup Action Objectives**

The objective of the cleanup action is to eliminate, reduce, or otherwise control to the extent feasible and practicable, unacceptable risks to human health and the environment posed by hazardous substances in soil in accordance with the MTCA Cleanup Regulation (WAC 173-340) and other applicable requirements.

Specifically, the objective of the cleanup action was to mitigate risks associated with the following potential receptors and exposure routes:

- Direct contact (dermal, incidental ingestion or inhalation) with contaminated soil by site visitors, workers, future residents and/or other site users, and
- Leaching/migration of contamination from soil into groundwater.

The cleanup goal is to mitigate these risks by meeting the soil and groundwater cleanup standards for indicator hazardous substances including gasoline-, diesel- and heavy oil-range petroleum hydrocarbons, benzene, cPAHs and cadmium. Cleanup standards for the Site are summarized in the following section (Section 3.2).

### **3.2. Cleanup Standards**

In accordance with MTCA, cleanup standards consist of: 1) cleanup levels that are protective of human health and the environment, 2) the point of compliance at which the cleanup levels must be met, and 3) regulatory requirements established in applicable State and Federal laws. Cleanup levels, points of compliance and applicable regulatory requirements are described in the following sections (Sections 3.3.1 through 3.3.3).

#### **3.2.1. Cleanup Levels**

Cleanup levels for soil and groundwater established by the CAP are presented in Table 1 and are considered to be protective of human health and ecological receptors. When developing site-specific cleanup levels, both future land use considerations and ecological risk considerations were evaluated. Because the results of a terrestrial ecological evaluation (TEE) did not identify a potential for posing a threat of significant adverse effects to terrestrial ecological receptors and the Site is not zoned for industrial use, soil cleanup levels were developed based on unrestricted land use, including the more stringent MTCA Method B cleanup levels that assume ground floor residential land use (WAC 173 340 740[3]). In addition, because groundwater at and within the vicinity of the Site is not a current or reasonably likely future source of drinking water, groundwater cleanup levels were developed for the protection of non-potable groundwater and the protection of marine surface water receptors.

#### **3.2.2. Points of Compliance**

For soil, the standard point of compliance is throughout the soil column from the surface to 15 feet bgs, as required by WAC 173-340-740(6)(d) and WAC 173-340-7490(4)(b). Because the groundwater cleanup levels presented in Table 1 are based on protection of marine surface water and not protection of groundwater as drinking water, a conditional point of compliance for groundwater has been established by Ecology as the groundwater/surface water interface along the western shoreline of the Cap Sante Marina.

#### **3.2.3. Applicable Regulatory Requirements**

Because the Site cleanup action was performed pursuant to the MTCA under the terms of Consent Decree No. 14-2-01249-0, the cleanup action meets the permit exemption provisions of MTCA (WAC 173-340-710[9]), obviating the need to follow the procedural requirements of most State and local laws that would otherwise apply to the action. The cleanup action did however require the following permits:

- Right-Of-Way Permit – A portion of 14<sup>th</sup> Street was closed to vehicular and pedestrian traffic for contractor staging and soil transport activities to facilitate the cleanup action. In addition, the sidewalk between 13<sup>th</sup> and 14<sup>th</sup> Streets west of Q Avenue was also closed to pedestrian access to facilitate the cleanup action. Subsequently, a Right-Of-Way Permit was obtained from the City of Anacortes (City) on October 31, 2014 for the closure of 14<sup>th</sup> Street and sidewalks adjacent to the Site for implementing the cleanup action. A copy of the Right-Of-Way Permit is presented in Appendix A.
- Wastewater Discharge Agreement (Wastewater Discharge Permit) – Wastewater generated during the cleanup action was temporarily stored on Site, treated and discharged to the City of Anacortes sanitary sewer. Authorization for the discharge of treated wastewater was obtained from the City of Anacortes Public Works Department for the duration of the cleanup action. A copy of the Wastewater Discharge Agreement is presented in Appendix A.

In addition to the permits listed above, the substantive requirements of applicable State and local laws and other applicable regulatory requirements were also followed during implementation of the cleanup action, including:

- Substantive requirements of City of Anacortes building and construction permits;
- Noise ordinance requirements under City's Municipal Code and State environmental noise standards (WAC 173-60);
- Requirements of the State Environmental Policy Act (SEPA) (Revised Code of Washington [RCW] 43.21C; WAC 197-11) and the SEPA procedures (WAC 173-802);
- Northwest Clean Air Agency substantive restrictions for off-site transport of airborne particulates;
- Requirements of the Washington Industrial Safety and Health Act (RCW 49.17) and the Federal Occupational Safety and Health Act (29 CFR 1910, 1926) for health and safety during construction activities; and
- Requirements of WAC 173-160 (minimum standards for construction and maintenance of wells) for groundwater monitoring well decommissioning and construction.

Prior to the start of construction, Columbia Geotechnical Associates (CGA) conducted an archaeological, ethnographic and historical literature review to evaluate the potential for encountering significant cultural artifacts/resources during construction at the Site (Attachment 2 to the EDR). The review of available information concluded that potentially significant archaeological materials were not likely to be present within the vicinity of the Site due to the development and filling of the historical shoreline and that infilling of the shoreline area with dredged material that would likely have destroyed or disturbed any cultural deposits in the vicinity of the Site. However, procedures for the inadvertent discovery of archeological materials or human remains were established for the cleanup action including the immediate stoppage of work followed by notification of the potential discovery and evaluation by an archaeologist to comply with provisions of the National Historic Preservation Act (Section 106) and the Federal Archaeological and Historical Preservation Act (16 USCA 496a-1).

## 4.0 CLEANUP ACTION APPROACH AND ORGANIZATION

Cleanup actions were performed by the Port from late October 2014 through early March 2015 to eliminate, reduce, or otherwise control to the extent feasible and practicable, unacceptable risks to human health and the environment posed by Site contaminants identified in soil in accordance with MTCA (WAC 173-340) and other applicable regulatory requirements. The design approach and key project team members for the cleanup action are summarized in the following sections (Section 4.1 and 4.2).

### 4.1. Cleanup Action Design Approach

In general, the Ecology-selected cleanup action required the excavation of soil containing COCs exceeding the site-specific cleanup levels presented in Table 1 within the readily accessible portions of the Site (i.e., gravel paved area) followed by the placement of an oxygen releasing agent during backfilling activities to enhance the biological degradation of residual soil contamination potentially present beneath the inaccessible portions of the Site (i.e., Q Avenue and 14<sup>th</sup> Street). The objectives of the selected cleanup action were to:

- Implement security, traffic, soil erosion and sediment control measures;
- Demolish existing aboveground features (i.e., sidewalks and landscaped areas) and decommission existing groundwater monitoring wells located within the excavation area, as necessary, to complete the cleanup action;
- Temporarily reroute and restore, and/or protect existing underground utilities in-place;
- Excavate overburden and underlying contaminated material within gravel paved portion of the Site;
- Collect, store, treat and dispose of wastewater generated during construction to the City of Anacortes sanitary sewer;
- Dispose waste streams generated by the cleanup action to appropriate off-site disposal facilities permitted to receive such materials;
- Collect verification soil samples from the limits of excavation to confirm that the cleanup objectives have been achieved and/or to document the nature and extent of residual soil contamination that may be left in-place beneath portions of Q Avenue and 14<sup>th</sup> Street;
- Restore portions of the Site affected by the cleanup action including, backfilling the excavation with clean imported material to meet design grades;
- Placement of oxygen releasing material within the saturated/smear zone during backfill to enhance the biological degradation of organic contaminants remaining in-place beneath the sidewalk/asphalt surfaces of 14<sup>th</sup> Street and/or Q Avenue; and
- Reconstruct sidewalks, curbs, roadways and landscaped areas disturbed by the cleanup action.

Consistent with RCW Chapter 70.105D, as implemented by Chapter 173-340 WAC (MTCA Cleanup Regulation), Ecology determined that the selected cleanup action for the Site is protective of human health and the environment, will attain Federal and State requirements that are applicable or relevant and appropriate, complies with cleanup standards, and provides for compliance monitoring. In addition, the cleanup action satisfies the preference expressed in WAC 173-340-360 for the use of permanent solutions to the maximum extent practicable, and provides for a reasonable restoration timeframe.

## 4.2. Project Organization and Management

The removal action was performed by the Port and their contractors under oversight by Ecology. Key members of the project team are listed in the following table.

### KEY PROJECT TEAM MEMBERS

Company	Contact and Project Role
Washington State Department of Ecology	Arienne Fernandez, Site Manager
Port of Anacortes (Owner)	Jenkins Dossen, Project Manager
Clearcreek Contractors (Earthwork Contractor)	Dan Hawk, Project Manager
GeoEngineers (Environmental Engineer)	John Herzog, Principal in Charge Abhijit Joshi, Field Coordinator
WH Pacific (Civil Engineer)	Travis Neu, Engineer Sam Richard, Engineer

## 5.0 CLEANUP ACTION SUMMARY

The following sections (Sections 5.1 through 5.4) provide a summary of the cleanup actions performed including installation of temporary site controls, excavation to remove overburden and contaminated soil, waste stream disposal and site restoration. Throughout the cleanup action, daily records documenting Site personnel, equipment and materials, as well as the actions completed, were maintained in accordance with the EDR.

### 5.1. Temporary Site Controls

Temporary controls were utilized in accordance with the EDR to control Site access, traffic, erosion/stormwater pollution, dust, noise and spills (Figure 3). These temporary controls were maintained throughout the cleanup action for the protection of workers, the community, and the environment from short-term construction impacts such as erosion, sedimentation, and fugitive dust.

#### 5.1.1. Site Access Control

Temporary fencing (chain link fence and barricades) and signage were used to control access to the Site during both working and non-working hours in accordance with the City of Anacortes codes/requirements. Site access controls were installed prior to the start of soil excavation activities to restrict general public access to work areas (i.e., construction staging, soil excavation and water treatment areas) at the Site.

Vehicle access (entry/exit points) to the Site was from the driveway off 13<sup>th</sup> Street and at the intersection of Q Avenue and 14<sup>th</sup> Street (Figure 3). Signage was positioned along Q Avenue, 13<sup>th</sup> and 14<sup>th</sup> Streets, and Commercial Avenue to notify oncoming vehicle and pedestrian traffic of construction vehicles entering the roadway. Q Avenue was used as the main truck route into and out of Anacortes. Pedestrian access was rerouted from the Site during construction, including closure of the sidewalk along Q Avenue. During soil export activities, dump trucks leaving the Site were offset to minimize disruptions to traffic on Q Avenue. These Site access controls were maintained throughout the duration of the project.

### **5.1.2. Erosion Control and Stormwater Pollution Prevention**

BMPs consistent with Ecology *Stormwater Management Manual for Western Washington* were used to control erosion and stormwater pollution during construction. The BMPs implemented during the cleanup action included:

- Use of filter socks within catch basins adjacent to the Site to prevent sediment from entering the stormwater system;
- Stabilizing Site access points using quarry spalls or rumble mats and steel sheets to minimize the tracking of sediment onto surface streets;
- Sweeping of surface streets to remove tracked out soil; and
- Securing and covering of stockpiled soil with plastic sheeting to protect from wind, rain, and other disturbances, as conditions warranted.

Erosion control measures were maintained throughout the duration of the project and inspected by Clearcreek Contractors (Clearcreek) and GeoEngineers on a regular basis to ensure their effectiveness.

### **5.1.3. Dust and Noise Control**

Engineering controls including wetting ground surfaces and covering exposed soil stockpiles, as necessary were used during construction to meet Northwest Clean Air Agency substantive restrictions for the off-site transport of airborne particulates/ fugitive dust. In addition, street sweeping was performed, as necessary, in areas where construction traffic mixed with general vehicular traffic.

Construction noise generated by a variety of construction equipment, including truck engines, generators and other small engines, and earthmoving equipment was generally limited to daylight hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. No exceptions or request for variances to the allowable work hours were made during the cleanup action.

### **5.1.4. Spill Prevention**

Contingency measures were utilized to reduce the risk of spills, including the release of fuel, hydraulic fluid, and contaminated wastewater. The refueling or machinery maintenance operations were conducted in a manner to prevent releases to Site soils. Additionally, fuel hoses, fuel containers, oil or transfer valves and fittings, and any motorized equipment used during the project were inspected regularly for drips or leaks.

## **5.2. Construction Site Layout**

Construction staging areas, wastewater treatment areas, and temporary facilities were constructed to support the cleanup action (Figure 3). These facilities are summarized in the following sections (Sections 5.2.1 through 5.2.3).

### **5.2.1. Construction Staging Area**

Portions of the Site not occupied by the remedial excavation were made available to the contractor for placement of construction trailers, contractor vehicle parking, supply storage and/or material management during construction. In addition, a closed section of 14<sup>th</sup> Street located immediately south of the excavation area was used for construction staging.

### **5.2.2. Wastewater Treatment Area**

A wastewater treatment area was established east of the excavation area for the temporarily storage and treatment of water generated during the cleanup action. The wastewater treatment area was surrounded by an approximately 1-foot-tall earthen dike with 1:1 slopes lined with a minimum of 20-mil thick, reinforced polyethylene liner. To prevent damage to the liner, a working surface consisting of a non-woven geotextile fabric was placed within the water treatment area. Wastewater treatment is further discussed in Section 5.4.2.

## **5.3. Site Preparation**

Site preparation activities included the identification of all buried utilities, temporary reroute of an existing 36-inch stormwater pipe and decommissioning of existing monitoring wells located within the remedial excavation area. Monitoring well decommissioning activities are summarized in the following sections (Section 5.3.1 and 5.3.2).

### **5.3.1. Utility Locate**

Prior to the start of construction, local utility companies were contacted to identify the underground utilities in the vicinity of the work area (Figure 3). Underground utilities at the Site included underground power, telephone, stormwater, water and gas. During construction, these utilities were protected in place with the exception of a 36-inch stormwater pipe located along the southern portion of the Site. In order to access contaminated soil at this location, the 36-inch stormwater pipe was temporarily rerouted and a section removed to expose the underlying soils during excavation activities.

Rerouting of the stormwater pipe involved installing bladders at the upgradient and downgradient ends of the pipe within stormwater manholes located at the southeast and southwest corners of the Site. Water was pumped from the upgradient manhole to the downgradient manhole through temporary above ground piping using up to three portable diesel powered pumps. Within the excavation area, an approximate 40-foot section of the 36-inch stormwater pipe was removed and set aside to be reused for reconstructing the system. Following confirmation that the final excavation limit in this area was achieved, Clearcreek returned the sections of pipe and restored stormwater flow through the system. Prior to burying the pipe, Clearcreek coordinated with the City of Anacortes for the inspection and obtained approval from the City for the restored stormwater system.

### **5.3.2. Monitoring Well Decommissioning**

Existing monitoring wells GEI-MW-1 and GEI-MW-3 located within the remedial excavation area (Figure 3) were decommissioned by a Washington-licensed driller in accordance with Ecology requirements (WAC 173-160-460) prior to construction. Other monitoring wells located on Site were protected in-place during construction activities for potential future use during post-construction groundwater monitoring activities. Monitoring well decommission records are presented in Appendix B.

## **5.4. Remedial Excavation and Site Restoration**

The cleanup action to address Site contamination including soil excavation and disposal activities; wastewater collection, treatment and disposal; and Site restoration are summarized in the following sections (Sections 5.4.1 through 5.4.3).

#### 5.4.1. Soil Excavation and Disposal

Remedial excavation activities were completed between November 13, 2014 and February 10, 2015 to remove soil containing contaminants at concentrations exceeding site-specific cleanup standards (Section 3.2) in accordance with the CAP and the EDR. During the cleanup action, a GeoEngineers field representative was on-site to observe the remedial excavation activities, assist Clearcreek in segregating the overburden soil layer from the underlying contaminated soil layer, perform field screening and obtain verification soil samples to confirm the limits of excavation. In general, the overburden soil layer ranged in thickness between approximately 2 and 6 feet. The underlying contaminated soil layer was encountered up to a depth of 15 feet bgs. Soil excavation activities continued until verification soil samples obtained from the excavation limit (base and sidewall) confirmed the removal of soil containing COCs exceeding site-specific soil cleanup levels with one exception. The final limit of remedial excavation along the eastern portion of the Site did not extend beyond the Ecology-approved 10-foot gas line offset established by the utility company. Along the eastern limit, soil samples were obtained to characterize soil conditions to define the nature and extent of soil contamination remaining in place as was identified in the Ecology-approved EDR.

Verification soil samples were collected at the frequency specified by the EDR and submitted to OnSite Environmental, Inc. of Redmond, Washington (OnSite), for chemical analysis for the following parameters:

- Gasoline-range petroleum hydrocarbons by Northwest Method NWTPH-G;
- Diesel-and heavy oil-range petroleum hydrocarbons by Northwest Method NWTPH-Dx;
- Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by U.S. Environmental Protection Agency (EPA) method 8270D/SIM;
- Benzene by EPA method 8021B; and
- Cadmium by EPA method 6010C.

A total of 55 verification soil samples (including duplicate samples) were submitted for chemical analysis to verify compliance with the cleanup standards. Contaminants either were not detected or were detected at concentrations less than site-specific cleanup levels, with the following exceptions. Concentrations of gasoline, diesel, heavy oil, benzene, cPAHs and/or cadmium exceeded site-specific cleanup levels in soil samples EX-8-7.5, EX-12-11.0, EX-12-12.0, EX-14-4.0 and EX-18-6.0 obtained from the remedial excavation. Soil represented by samples EX-12-11.0 and EX-12-12.0 was subsequently excavated and removed from the Site for permitted landfill disposal. Samples EX-8-7.5, EX-14-4.0 and EX-18-6.0 were obtained from the eastern most excavation limit to characterize soil conditions beneath gas line utility offset and east adjacent right-of-way (Q Avenue). Field screening and chemical analytical results for verification soil samples obtained from the remedial excavation are summarized in Table 2 and shown relative to the Site on Figure 3. Field screening and soil sampling procedures for the cleanup action are described in the Compliance Monitoring Plan (GeoEngineers, 2013; Attachment 1 to the EDR). Copies of the chemical analytical reports for verification soil samples are presented in Appendix C. Laboratory validation reports are presented in Appendix D.

Based on verification chemical analytical data, chemical analytical data from previous environmental studies, field screening results and visual observations, approximately 1,285 in-place cubic yards (2,468.41 tons) of overburden material, and approximately 4,308 in-place cubic yards (8,411.18 tons) of

contaminated material was transferred from the Site for disposal. An additional 632 in-place cubic yards (1,227.16 tons) of overburden material was excavated and transported from the property for placement of an approximate 8-inch layer of permeable ballast during site restoration.

Overburden material excavated to access the underlying contaminated soil layer or for site restoration was transferred from the Site for disposal at Concrete Nor'West's Hoffman Road Facility (reclamation pit) located in Oak Harbor, Washington under a use permit from the facility. Excavated contaminated material was transferred from the Site for permitted disposal either at CEMEX's Glenwood Avenue facility located in Everett, Washington (a Subtitle D facility) or Republic Services' Roosevelt Regional Landfill located in Klickitat County, Washington (a Subtitle D facility) under use permits from the facilities. Tipping receipts for overburden and contaminated materials are presented in Appendix E.

#### **5.4.2. Excavation Dewatering and Treatment**

Excavation wastewater generated during cleanup activities resulting from groundwater infiltration and the accumulation of precipitation was managed by Clearcreek to maintain a dry excavation, facilitate soil sampling activities and to minimize the potential for cross-contamination. The wastewater treatment system was designed to meet the City of Anacortes wastewater discharge criteria and included a 20,000-gallon weir tank, two 20,000-gallon settling/flow equalization tanks, two 100 micron bag particulate filters and two 1,000 pound granular activated carbon (GAC) tanks. Stormwater falling to the Site was directed to the open excavation. Wastewater within the open excavation was directed to one or more temporary sumps connected to the wastewater treatment unit through a series of pipes and hoses. The wastewater treatment system was operated on a full time basis (24 hours per day) during the main excavation activities to control groundwater infiltration and precipitation/stormwater entering the open excavation.

During treatment system operation, water quality samples representative of the treated water were obtained from the treatment system by Clearcreek to document compliance with the City's dewatering discharge authorization. Water samples were obtained from the treatment system were analyzed for the following parameters:

- Benzene, ethylbenzene, toluene and xylenes (BETX) by EPA method 8021;
- Gasoline-range hydrocarbons by Northwest Method NWTPH-G;
- Diesel-and heavy oil-range hydrocarbons by Northwest Method NWTPH-Dx;
- Total lead by EPA method 200.8;
- Total suspended solids by EPA method SM 2540 D; and
- Acidity (pH) by EPA Method SM4500H.

To document baseline conditions, water sample Shell-20141107 was submitted to ALS Environmental of Everett, Washington (ALS), prior to discharge to confirm compliance with the City of Anacortes wastewater discharge requirements. During wastewater treatment system operation, two additional water samples (Shell-1201 and Shell-1208) were obtained to document compliance with the City's wastewater discharge requirements. Baseline and operational water sample results are summarized in Table 3. Based on a review of these results, the City of Anacortes authorized the continued discharge of treated wastewater generated during construction to the sanitary sewer.

During construction, a total of 2,301,715 gallons of treated wastewater generated from the Site was discharged to the sanitary sewer. A disposal summary for treated wastewater discharged from the Site and chemical analytical reports for treated water samples are presented in Appendix F.

### **5.4.3. Site Restoration**

Restoration activities were completed to restore temporarily relocated utilities, fill the remedial excavation, repair concrete curbs and asphalt surface streets damaged by the cleanup action, and install new concrete sidewalks along portions of 13<sup>th</sup> and 14<sup>th</sup> Streets. To document as-built conditions, Pacific Surveying & Engineering, Inc. (PSE) surveyed the Site on March 23, 2015. A copy of PSE's as-built survey is presented in Appendix G. The final backfill grade as well as surface and landscape restoration elements are shown on Figure 4.

#### **5.4.3.1. Utilities**

Existing utilities were protected in place during remedial excavation and other cleanup activities with one exception. A section of the 36-inch stormwater pipe located in the southern portion of the Site was temporarily removed to facilitate contaminated soil removal at this location. Following the completion of remedial excavation activities, the utilities were reconstructed under the supervision of the City of Anacortes to restore flow through the stormwater system.

#### **5.4.3.2. Backfill and Compaction**

Backfilling activities were completed to restore surface grades to the design elevations following completion of the remedial excavation and utility restoration activities using imported material which met the chemical and geotechnical requirements specified for the project. Approved sources for import material included the following:

- Granite Construction Company Conway Pit located in Skagit County, Washington;
- Concrete Nor'West Boulder Pit located in Burlington, Washington; and
- Lakeside Industries M131 Pit located in Anacortes, Washington.

Upon confirmation of the final excavation limit, approximately 7,480 cubic yards (11,220.06 tons) of fill material meeting the geotechnical and chemical analytical use criteria was imported from the approved material sources to backfill the remedial excavation. Geotechnical and chemical analytical data for the approved fill sources are presented in Appendix H. Tipping receipts for imported fill material (quarry spalls, gravel borrow, crushed surface top course [CSTC] and utility bedding sand) are presented in Appendix I.

Backfill was placed in approximate 18-inch lifts or less and compacted with a vibratory roller or plate compactor. Representatives from Materials Testing & Consulting, Inc. (MTC) were on Site during backfilling activities to verify that project specified compaction densities were met. During backfill placement within the eastern portion of the Site (along Q Avenue), approximately 3-inches of PermeOx Ultra was placed between lifts from the base of the excavation to the seasonal high groundwater level (approximately 4 feet bgs). Additionally, an environmental marker (non-woven geotextile) was positioned along the eastern sidewall of the remedial excavation to serve as a visual marker between the imported fill and residual soil contamination remaining in-place.

#### **5.4.3.3. Surface Restoration and Landscaping**

Ground surfaces were restored in accordance with the project specifications and included:

- Import and placement of approximately 1,050 cubic yards (1,575.21 tons) of permeable ballast (1- to 2-inch crushed rock) to the final design grade to allow for surface drainage;
- Reconstruction of concrete curbs and surface streets damaged during construction and installation of sidewalk sections along 13<sup>th</sup> and 14<sup>th</sup> Streets to meet compliance with City of Anacortes Street Standards STR-09 through STR-11 (City, 2011); and
- Existing landscaping along Q Avenue remained intact during construction. With approval from the City, this area was left undisturbed.

Tipping receipts for imported permeable ballast are presented in Appendix I.

## **6.0 POST-CONSTRUCTION CLEANUP ACTIONS**

The cleanup action completed for the Former Shell Oil Tank Farm Site located in Anacortes, Washington (Facility ID No. 4781157), was successfully implemented to meet the cleanup action objectives established by the CAP and EDR. The cleanup action implemented for the Site has resulted in the following:

- Protection of human health from incidental ingestion, dermal contact, and inhalation of fugitive dusts from subsurface soil with concentrations of petroleum hydrocarbons, benzene, cPAHs, and metals exceeding site-specific cleanup levels during construction;
- Protection of human health from possible future consumption or contact with soil and/or groundwater containing contaminants exceeding site-specific cleanup levels through the utilization of existing engineering controls (i.e., asphalt and/or concrete paved surfaces) and implantation of institutional controls (i.e., environmental covenant); and
- Enhancing the biological degradation of organic contaminants remaining in-place beneath portions of the sidewalk/asphalt surfaces of Q Avenue.

As described in Section 5.4, residual contamination remains in-place within the eastern portion of the Site at depths ranging between 3 and 13 feet bgs. The location of samples representing soil conditions at the eastern remedial excavation limit in which residual contamination remains in place are shown on Figure 4 and summarized in Table 2.

In accordance with the CAP and EDR, contamination at this location was not accessible for removal without significant disturbance to existing infrastructure including the temporary closure and rerouting of traffic within Q Avenue which serves as a major arterial street and truck route and well as the disconnection and rerouting of buried utilities beneath Q Avenue and adjacent rights-of-way (i.e., sanitary sewer, stormwater, power, phone, gas and water utilities). Additionally, empirical evidence has shown that concentrations of Site contaminants are not adversely effecting groundwater downgradient of the Site.

Post-construction (performance) groundwater monitoring will be performed to confirm that contaminant concentrations in groundwater remain below site-specific cleanup levels and verify the effectiveness of the cleanup action.

## 6.1. Engineering and Institutional Controls

Engineering and institutional controls will be established in accordance with the CAP and EDR to address the residual contamination remaining in place in the eastern portion of the Site. Engineering controls in the form of existing asphalt/concrete paved surfaces and landscaped areas will be used to isolate the remaining volume of residual soil contamination and prevent human exposure. Institutional controls in the form of an environmental covenant will identify the location of residual Site contamination, restrict the use of groundwater as drinking water and prevent damage to the protective barriers without prior notification to Ecology.

## 6.2. Confirmational (Post-Construction) Groundwater Monitoring

In accordance with the CAP and EDR, post-construction confirmational groundwater monitoring will be performed at the Site to monitor groundwater conditions for COCs to evaluate the long-term effectiveness of the cleanup action. Groundwater will be sampled on a quarterly basis for a minimum of four consecutive quarters. Groundwater samples will be analyzed for COCs listed in Table 1, including total and dissolved metals, gasoline-, diesel- and heavy oil-range hydrocarbons, VOCs (benzene) and cPAHs to ensure that groundwater within and/or downgradient of areas in which contaminated soils remains in place meet the cleanup standards for the Site (Table 1). The exact number and location of the monitoring wells will be determined by Ecology following review of this report.

Following the completion of the four quarterly monitoring events, a single report will be prepared summarizing the groundwater monitoring results. Any additional groundwater monitoring beyond the initial four quarterly events will be determined by Ecology.

## 7.0 LIMITATIONS

This report has been prepared for the exclusive use of the Port of Anacortes and the Washington State Department of Ecology. No other party may rely on the product of our services unless we agree in advance and in writing to such reliance. Any use of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and written authorization by GeoEngineers, Inc., shall be at the user's sole risk. Any unauthorized use of (or reliance on) this report shall release GeoEngineers from any liability resulting from such use (or reliance). Within the limitations of scope, schedule, and budget, GeoEngineers, Inc.'s respective services have been provided in a manner consistent with that level of care and skill exercised by members of the profession currently practicing in the same locality under similar conditions as this project. GeoEngineers, Inc. assumes no responsibility for any consequence arising from any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available.

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## 8.0 REFERENCES

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**Table 1**  
**Site-Specific Cleanup Levels for Hazardous Substances<sup>1</sup>**  
 Former Shell Oil Tank Farm Site  
 Anacortes, Washington

Hazardous Substance	Soil Cleanup Level (mg/kg)	Groundwater Cleanup Level (µg/L)
<b>Petroleum Hydrocarbons</b>		
Gasoline-Range	30/100 <sup>2</sup>	800/1,000 <sup>3</sup>
Diesel-Range	2,000	500
Heavy Oil-Range	2,000	500
<b>Volatile Organic Compound (VOC)</b>		
Benzene	0.13	23
<b>Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)</b>		
Benzo(a)anthracene	0.13	0.018
Chrysene	0.14	0.018
Benzo(b)fluoranthene	0.43	0.018
Benzo(k)fluoranthene	0.43	0.018
Benzo(a)pyrene	0.137	0.018
Indeno(1,2,3-cd)pyrene	1.3	0.018
Dibenz(a,h)anthracene	0.65	0.018
Total cPAHs (TEQ)	0.137	0.10
<b>Metals</b>		
Cadmium	1.2	8.8

**Notes:**

<sup>1</sup>Site-specific cleanup levels established by the Cleanup Action Plan (Ecology, 2014).

<sup>2</sup>Cleanup level is 30 mg/kg when benzene is present.

<sup>3</sup>Cleanup level is 800 µg/L when benzene is present.

mg/kg = milligrams per kilogram

µg/L = microgram per liter

TEQ = toxicity equivalency

**Table 2**  
**Summary of Verification Soil Sample Field Screening and Chemical Analytical Data**  
Former Shell Oil Tank Farm Site  
Anacortes, Washington

Sample Identification <sup>1</sup>	Sample Date	Sample Type	Sample Depth (feet bgs)	Sample Elevation <sup>2</sup> (feet)	Field Screening		Petroleum Hydrocarbons (mg/kg)			VOCs (mg/kg)	Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) (mg/kg)							Metals (mg/kg)	
					Sheen	Headspace Vapors (ppm)	Gasoline-Range	Diesel-Range	Heavy Oil-Range	Benzene	Benzo(a)-anthracene	Chrysene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Benzo(a)-pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)-anthracene	Total cPAHs (TEQ)	Cadmium
<b>Verification Soil Samples</b>																			
EX-2-8.0	10/23/14	Base	8	5	NS	<1	7.1 J	30 U	59 U	0.02 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0060 UT	0.59 U
EX-5-11.0	10/23/14	Base	11	2	NS	<1	6.8 U	31 U	62 U	0.02 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0063 UT	0.62 U
EX-7-7.0	10/23/14	Base	7	6	NS	<1	5.9 U	30 U	60 U	0.02 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0060 UT	0.6 U
EX-8-9.0	10/23/14	Sidewall	9	4	NS	<1	10 U	5,400	420	0.02 U	0.023	0.049	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0085 T	0.61 U
EX-10-13.5	12/03/14	Base	13.5	-0.5	NS	<1	5 U	31 U	61 U	0.02 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0062 UT	0.61 U
EX-11-13.0	12/03/14	Base	13	0	NS	<1	5 U	92	60 U	0.02 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.006 UT	0.60 U
EX-12-11.0 <sup>3</sup>	12/04/14	Base	11	2	NS	<1	9.8 U	41 U	82 U	0.02 U	0.1	0.11	0.12	0.057	0.1	0.049	0.015	0.135 T	1.4
EX-12-12.0 <sup>3</sup>	12/11/14	Base	12	1	NS	<1	8.8 U	64 U <sup>1</sup>	230	0.02 U	0.52	0.52	0.33	0.29	0.5	0.26	0.081	0.653 T	0.91 U
EX-12-13.0	12/16/14	Base	13	0	NS	<1	5.0 U	30 U	60 U	0.02 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0060 UT	0.60 U
EX-13-10.0	12/04/14	Base	10	2.5	NS	<1	6.1 U	37 U	74 U	0.02 U	0.0099 U	0.0099 U	0.0099 U	0.0099 U	0.0099 U	0.0099 U	0.0099 U	0.0075 UT	0.94
EX-14-4.0	12/04/14	Sidewall	4	9	HS	>100	1,100 J	29,000	1,400 U <sup>1</sup>	0.16	0.021	0.055	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	0.0080 T	0.57 U
EX-15-8.5	12/05/14	Base	8.5	4.5	NS	<1	5 U	31 U	62 U	0.02 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0063 UT	0.62 U
EX-16-6.5	12/05/14	Sidewall	6.5	6.5	NS	<1	5 U	31 U	62 U	0.02 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0082 U	0.0062 UT	0.62 U
EX-17-6.0	12/11/14	Sidewall	6	7	NS	<1	5 U	35 U	69 U	0.02 U	0.0092 U	0.0092 U	0.0092 U	0.0092 U	0.0092 U	0.0092 U	0.0092 U	0.0069 UT	0.69 U
EX-18-6.0	12/22/14	Sidewall	6	7	NS	<1	5 U	6,900	2,700 J	0.02 U	0.0390 U	0.0390 U	0.008	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0081 T	1.5
EX-19-6.0	12/22/14	Base	6	7	NS	<1	5 U	28 U	56 U	0.02 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0056 UT	0.56 U
EX-20-6.0	12/22/14	Base	6	7.5	NS	<1	5 U	27 U	54 U	0.02 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0054 UT	0.54 U
EX-21-3.5	12/22/14	Sidewall	3.5	9.5	NS	<1	5 U	33 U	65 U	0.02 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0066 UT	0.65 U
EX-22-3.5	12/22/14	Sidewall	3.5	10	NS	<1	5 U	32 U	64 U	0.02 U	0.0086 U	0.0086 U	0.0086 U	0.0086 U	0.0086 U	0.0086 U	0.0086 U	0.0065 UT	0.64 U
EX-23-6.0	12/22/14	Base	6	7	NS	<1	5 U	29 U	58 U	0.02 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0058 UT	0.58 U
EX-24-7.0	12/22/14	Base	7	6.5	NS	<1	5 U	30 U	60 U	0.02 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0060 UT	0.60 U
EX-25-7.0	12/29/14	Base	7	6	NS	<1	3.2 U	30 U	60 U	0.02 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0060 UT	0.60 U
EX-26-7.0	12/29/14	Base	7	6.5	NS	<1	4.1 U	32 U	64 U	0.02 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0064 UT	0.64 U
EX-27-9.0	12/29/14	Base	9	4	NS	<1	3.3 U	30 U	60 U	0.02 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0060 UT	0.60 U
EX-28-7.5	12/29/14	Base	7.5	6	NS	<1	4.5 U	31 U	63 U	0.02 U	0.0084 U	0.0084 U	0.0084 U	0.0084 U	0.0084 U	0.0084 U	0.0084 U	0.0063 UT	0.63 U
EX-29-9.0	12/29/14	Base	9	4	NS	<1	11 U	35 U	71 U	0.021 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0071 UT	0.70 U
EX-30-8.0	01/07/15	Base	8	5.5	NS	<1	5.0 U	32 U	65 U	0.02 U	0.0086 U	0.0086 U	0.0086 U	0.0086 U	0.0086 U	0.0086 U	0.0086 U	0.0065 UT	0.65 U
EX-31-8.0	01/07/15	Base	8	5	NS	<1	5.0 U	32 U	64 U	0.02 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0064 UT	0.64 U
EX-32-8.5	01/07/15	Base	8.5	4.5	NS	<1	5.0 U	33 U	65 U	0.02 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0066 UT	0.65 U
EX-33-5.5	01/07/15	Sidewall	5.5	7	NS	<1	5.0 U	27 U	54 U	0.02 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0054 UT	0.54 U
EX-34-8.0	01/13/15	Base	8	5.5	NS	<1	5.0 U	33 U	66 U	0.02 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0066 UT	0.65 U
EX-35-8.0	01/13/15	Base	8	5.5	NS	<1	5.0 U	32 U	64 U	0.02 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0085 U	0.0064 UT	0.64 U
EX-36-10.0	01/15/15	Sidewall	10	3.5	NS	<1	5.0 U	33 U	65 U	0.02 U	0.029	0.032	0.014	0.021	0.027	0.012	0.0087 U	0.0354 T	0.65 U
EX-37-13.0	01/15/15	Base	13	0.5	NS	<1	5.0 U	27 U	54 U	0.02 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0054 UT	0.54 U
EX-38-10.0	01/15/15	Sidewall	10	3.5	NS	<1	5.5 U	36 U	71 U	0.02 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0072 UT	0.71 U
EX-39-10.0	01/20/15	Sidewall	10	3.5	NS	<1	5.0 U	31 U	62 U	0.02 U	0.02	0.024	0.014	0.011	0.027	0.0098	0.0082 U	0.0331 T	0.62 U
EX-40-10.0	01/20/15	Sidewall	10	3.5	NS	<1	5.0 U	33 U	65 U	0.02 U	0.064	0.071	0.047	0.04	0.089	0.034	0.0087 U	0.1086 T	0.65 U
EX-41-9.0	01/23/15	Base	9	4.5	NS	<1	5.0 U	31 U	63 U	0.02 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0063 UT	0.63 U
EX-42-13.0	01/29/15	Base	13	1	NS	<1	5.0 U	30 U	60 U	0.02 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0060 UT	0.60 U

Sample Identification <sup>1</sup>	Sample Date	Sample Type	Sample Depth (feet bgs)	Sample Elevation <sup>2</sup> (feet)	Field Screening		Petroleum Hydrocarbons (mg/kg)			VOCs (mg/kg)	Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) (mg/kg)							Metals (mg/kg)	
					Sheen	Headspace Vapors (ppm)	Gasoline-Range	Diesel-Range	Heavy Oil-Range	Benzene	Benzo(a)-anthracene	Chrysene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Benzo(a)-pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)-anthracene	Total cPAHs (TEQ)	Cadmium
EX-44-6.5	01/29/15	Sidewall	6.5	8	NS	<1	5.0 U	27 U	55 U	0.02 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	0.0055 UT	0.55 U
EX-45-6.5	01/29/15	Sidewall	6.5	8.5	NS	<1	5.0 U	30 U	61 U	0.02 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0061 UT	0.61 U
EX-46-8.0	01/30/15	Base	8	5.5	NS	<1	5.0 U	33 U	65 U	0.02 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.0066 UT	0.65 U
EX-47-8.0	01/30/15	Base	8	6	NS	<1	5.0 U	29 U	59 U	0.02 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0059 UT	0.59 U
EX-48-8.5	01/30/15	Base	8.5	5.5	NS	<1	5.0 U	27 U	54 U	0.02 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	0.0055 UT	0.54 U
EX-49-8.5	01/30/15	Base	8.5	5.5	NS	<1	5.0 U	28 U	56 U	0.02 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0074 U	0.0056 UT	0.55 U
EX-50-8.0	02/03/15	Base	8	6	NS	<1	5.2 U	35 U	70 U	0.02 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0071 UT	0.70 U
EX-51-8.0	02/03/15	Base	8	6	NS	<1	5.0 U	29 U	59 U	0.02 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0078 U	0.0059 UT	0.59 U
EX-52-8.0	02/03/15	Base	8	6	NS	<1	5.0 U	34 U	69 U	0.02 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0091 U	0.0069 UT	0.69 U
EX-53-4.0	02/03/15	Sidewall	4	10	NS	<1	5.0 U	26 U	53 U	0.02 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0053 UT	0.53 U
EX-54-4.0	02/03/15	Sidewall	4	10	NS	<1	5.0 U	26 U	52 U	0.02 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0053 UT	0.52 U
EX-55-4.0	02/03/15	Sidewall	4	10	NS	<1	5.0 U	26 U	52 U	0.02 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0070 U	0.0053 UT	0.52 U
EX-56-6.5	02/10/15	Sidewall	6.5	8	NS	<1	5.0 U	32 U	64 U	0.02 U	<b>0.012</b>	<b>0.01</b>	<b>0.014</b>	<b>0.012</b>	<b>0.01</b>	<b>0.014</b>	<b>0.012</b>	<b>0.0165 T</b>	0.64 U
<b>Duplicate Soil Samples</b>																			
DUP-1	12/04/14	Base	10	3.5	NS	<1	6.2 U	37 U	74 U	0.02 U	0.0099 U	0.0099 U	0.0099 U	0.0099 U	0.0099 U	0.0099 U	0.0099 U	0.0075 UT	<b>0.85</b>
DUP-2	12/22/14	Base	6	7	NS	<1	5 U	27 U	53 U	0.02 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0054 UT	0.53 U
DUP-3	01/23/15	Base	9	3.5	NS	<1	5.0 U	31 U	62 U	0.02 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0083 U	0.0063 UT	0.62 U
Site-Specific Soil Cleanup Level					NE	NE	30/100 <sup>4</sup>	2,000	2,000	0.13	0.13	0.14	0.43	0.43	0.137	1.3	0.65	0.137	1.2

**Notes:**

<sup>1</sup>Sample locations are shown on Figure 3.

<sup>2</sup>Sample estimated from surveyed surface contours (North American Vertical Datum 1988).

<sup>3</sup>Soil represented by this sample was subsequently excavated and transferred from the Site for permitted landfill disposal.

<sup>4</sup>Cleanup level is 30 mg/kg when benzene is present.

bgs = below ground surface

J = estimated result

mg/kg = milligrams per kilogram

NE = not established

ppm = parts per million

T = total

TEQ = toxicity equivalency

U = not detected above reported sample quantitation limit

VOCs = volatile organic compounds

**Bold** indicates analytes was detected.

Shading indicates analyte was detected at a concentration greater than the site-specific cleanup level.

**Table 3**  
**Summary of Treated Wastewater Chemical Analytical Data**  
Former Shell Oil Tank Farm Site  
Anacortes, Washington

Sample Identification	Sample Date	Petroleum Hydrocarbons (µg/L)			Volatile Organic Compounds (VOCs) (µg/L)					Lead (µg/L)	pH	Settleable Solids	Total Suspended Solids (mg/L)	Salinity (psu)
		Gasoline-Range	Diesel-Range	Heavy Oil-Range	Benzene	Toluene	Ethylbenzene	Xylenes	BETX (total)					
Shell-20141107	11/13/14	50 U	<b>520</b>	<b>600</b>	1 U	1 U	1 U	3 U	3 U	1 U	<b>8.19</b>	--	<b>12</b>	--
Shell -1201	12/01/14	50 U	130 U	250 U	1 U	1 U	1 U	3 U	3 U	1 U	<b>7.74</b>	--	<b>13</b>	<b>0.8</b>
Shell -1208	12/08/14	50 U	130 U	250 U	1 U	1 U	1 U	3 U	3 U	1 U	<b>7.71</b>	--	5 U	<b>0.98</b>
City of Anacortes Discharge Quality Maximum Concentration Levels		1,000	1,000	--	5	see BETX (total)	see BETX (total)	see BETX (total)	100	2,000	6 to 9	0	50.0	NE <sup>2</sup>
Site-Specific Groundwater Cleanup Level		800/1000 <sup>1</sup>	500	500	23	--	--	--	--	--	--	--	--	--

**Notes:**

<sup>1</sup>Cleanup level is 800 µg/L when benzene is present.

<sup>2</sup>Daily discharge rate determined by the City of Anacortes not to exceed 3,400 pounds per day.

BETX = benzene, ethylbenzene, toluene and xylenes

mg/L = milligrams per liter

psu = practical salinity units

U = not detected above reported sample quantitation limit

µg/L = micrograms per liter

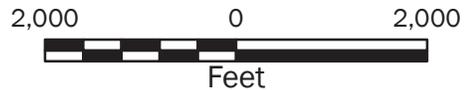
**Bold** indicated analyte was detected.

Shading indicates analyte detected at a concentration greater than the City of Anacortes wastewater discharge criteria.





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**Vicinity Map**

Former Shell Oil Tank Farm  
Anacortes, Washington



**Figure 1**

**Notes:**

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: ESRI Data & Maps

Projection: NAD 1983 UTM Zone 10N

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**Notes:**

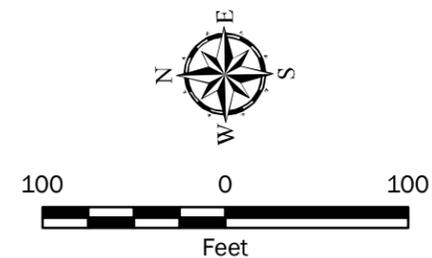
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Site features referenced to Floyd Snider September 2005 Limited Environmental Due Diligence Report.. Aerial imagery provided by the Port of Anacortes. Imagery date: 2014.

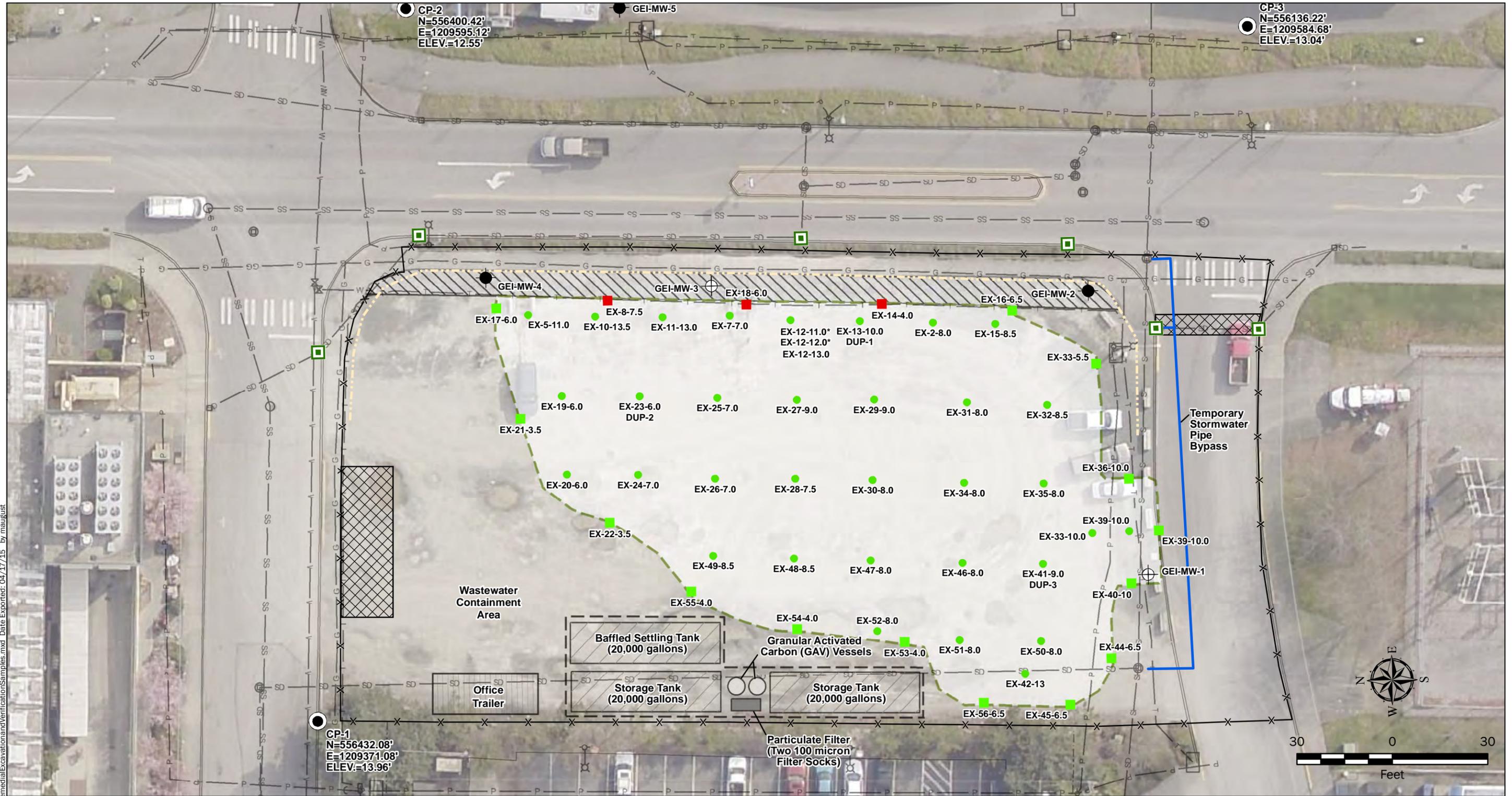
Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

**Legend**

- Former Shell Oil Tank Farm Area (Approximate)
- Historical Features
- Surface Oil (1987 Observation)
- White Powder (1987 Observation)
- Historical Fuel Supply Line
- Historical Product Line
- AST = Above Ground Storage Tank
- UST = Underground Storage Tank



<b>Site Plan</b>	
Former Shell Oil Tank Farm Anacortes, Washington	
	<b>Figure 2</b>



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**Notes:**

- The locations of all features shown are approximate.
- This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Site features referenced from Sound Development Corp. April 2014 baseline survey and Pacific Surveying & Engineering March 2015 as-built survey. Aerial imagery provided by the Port of Anacortes. Imagery date: 2014.

Projection: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet

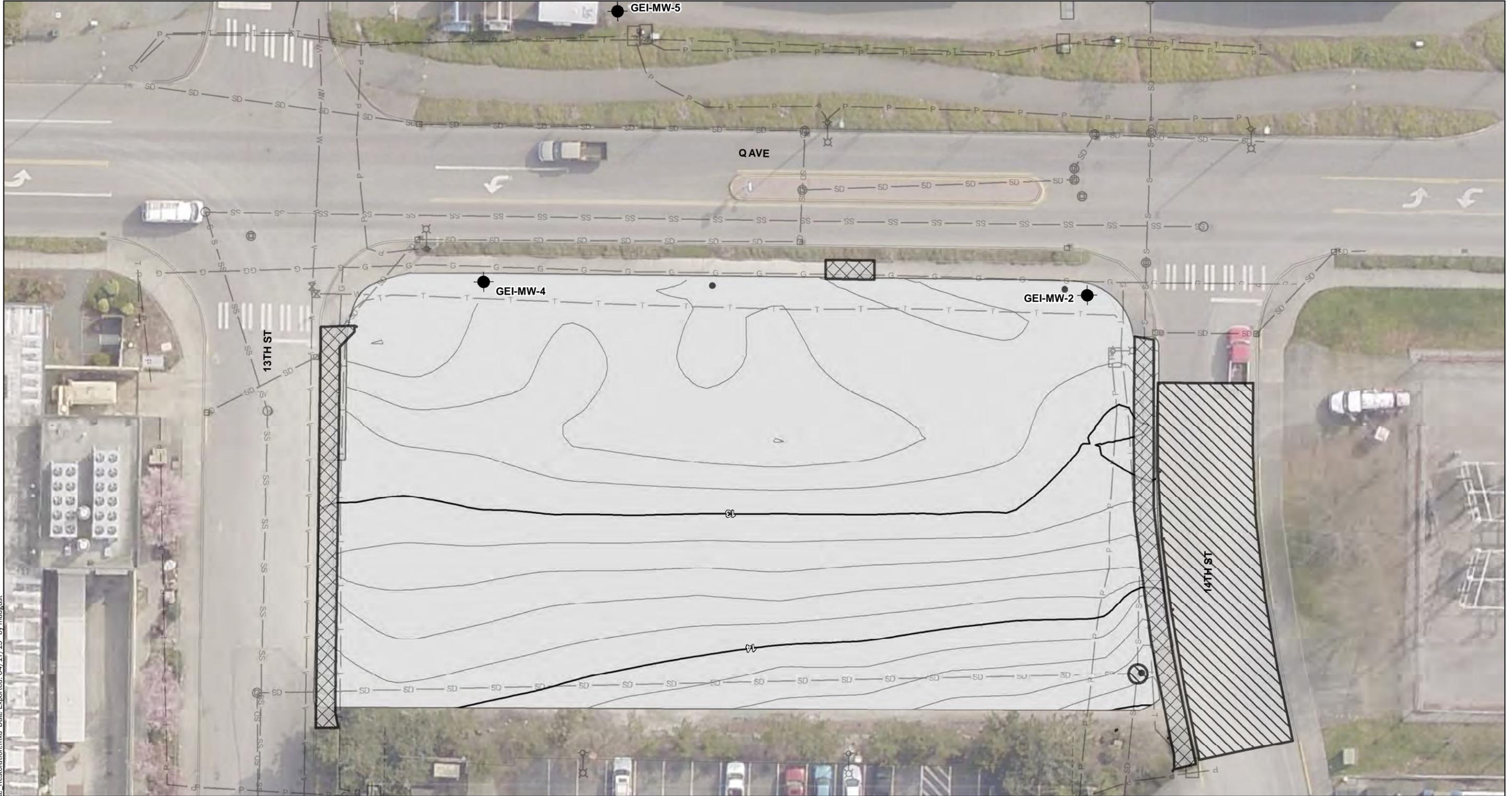
<b>Legend</b>		
	Existing Monitoring Well (Protected)	
	Existing Monitoring Well (Decommissioned)	
	Remedial Excavation	
	Approximate Utility Offset	
	Fence and Signage	
	Construction Entrance/Exit	
	Wastewater Treatment Containment Area	

Base Verification Sample - COC not detected or detected at a concentration less than soil cleanup level (See Table 2).  
 Sidewall Verification Sample - COC not detected or detected at a concentration less than soil cleanup level (See Table 2).  
 Sidewall Verification Sample - COC detected at a concentration above cleanup level (See Table 2).  
 \*Soil represented by this sample was subsequently excavated and transported from the property for permitted landfill disposal.

**Remedial Excavation and Verification Samples**

Former Shell Oil Tank Farm  
Anacortes, Washington

**Figure 3**



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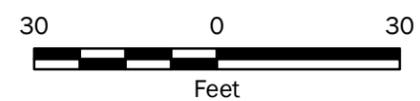
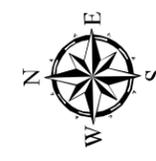
**Notes:**

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Site features referenced from Sound Development Corp. April 2014 baseline survey and Pacific Surveying & Engineering March 2015 as-built survey. Aerial imagery provided by the Port of Anacortes. Imagery date: 2014.  
 Projection: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet

**Legend**

- |   |                       |   |  |
|---|-----------------------|---|--|
|  | New Concrete Sidewalk |  | Restoration Elevation Index Contour (1ft)      |
|  | New Asphalt           |  | Restoration Elevation Contour (0.2ft)          |
|  | Monitoring Well       |  | Permeable Ballast Surfacing (Minimum 8 inches) |
| GEI-MW-4  |                       |   |  |



<b>Site Restoration</b>	
Former Shell Oil Tank Farm Anacortes, Washington	
	<b>Figure 4</b>



**APPENDIX A**  
**Project Permits**



Engineering and Development Services  
 PO Box 547, Anacortes, WA 98221  
 TN: 360.293.1920 FAX 360.293.1938  
 EMAIL: engineering@cityofanacortes.org

**RIGHT-OF-WAY PERMIT APPLICATION**  
**RCW 19.122 Underground Utilities**  
**CALL BEFORE YOU DIG - (800) 424-5555**



**Applicant shall submit application 5 days prior to start of work and application shall include:**

- (1) Payment of assessed fee
- (2) Drawing illustrating proposed work and its location. See checklist on Page 2 of 2.
- (3) Liability insurance CG 2026 or similar. City named as additional insured. Minimum \$1,000,000 each occurrence, \$2,000,000 general aggregate and \$2,000,000 products-completed operations aggregate limit.
- (4) Proof of both state and city business licenses
- (5) ~~Performance Bond - Construction cost x 150% before work begins~~ *JMB*
- (6) Encroachment Agreement Required To be completed by City:  Yes  No

Site Address: 14th Street & Q Avenue <i>1301 - COMMERCIAL</i>	City Approved Exemption <input type="checkbox"/> Yes <input type="checkbox"/> No <b>EDEN ASSIGNED PERMIT NUMBER:</b> _____
Parcel No. P32956	_____

**Owner Information (Required)**

**Contractor Information (Required)**

Name	Port of Anacortes	Name	Clearcreek Contractors, Inc.
Address	100 Commercial Ave	Address	3919 88th St NE
City	Anacortes, WA 98221	City	Marysville, WA 98270
Phone	360-293-3134	Phone	360-659-2459
Email Address	jenkins@portofanacortes.com	Email Address	markm@clearcreekcon.com

**Work Includes (check all that apply)**

- Curb Cut  
  Water  
  Sewer  
  Storm  
  Street Cut  
  Sidewalk  
  Phone  
  Other

<b>Describe Work to be Performed: (Notification of Utility Companies is Required)</b>
Remedial excavation, backfill, and restoration. Work requires closure of 14th Street between west property boundary and Q Avenue.
_____
_____

*James M. Baldwin*  
 City Approval Signature

*10/31/14*  
 Date

By signature below Applicant concurs that the Applicant shall defend, indemnify and hold the City, its officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or in connection with activities or operations performed by the Applicant or on the Applicant's behalf out of issuance of this Permit, except for injuries and damages caused by the sole negligence of the City.

\_\_\_\_\_  
 Applicant Signature

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Final Inspection Approval Signature

\_\_\_\_\_  
 Date

**NON- REFUNDABLE PERMIT FEE: (To Be Completed by City)**

<input type="checkbox"/>	Curb Cut	\$50.00
<input type="checkbox"/>	Street Cut	\$50.00
<input checked="" type="checkbox"/>	Inside Travel Way	\$50.00
<input type="checkbox"/>	Outside Travel Way	\$20.00
<input type="checkbox"/>	Sewer Inspection Fee	\$50.00
<input type="checkbox"/>	Sewer Re-Inspection Fee	\$25.00
<b>TOTAL FEE ASSESSMENT</b>		<b>\$ 50.00</b>

**A Site Plan (to scale) must be attached that include all of the following:**

This checklist will aid the applicant in preparing a site plan. Permits that require installation of substantial improvements may require plans drawn and designed by a licensed engineer. Please check with City staff prior to submitting your application.

- Draw the plan to a standard Engineering Scale [1"=10', 1"=20" etc.] on a minimum size sheet of 8 ½ x 11 and a maximum size of 11x17.
- Include the owners name, the parcel ID number, site address, north arrow, drawing scale and date.
- Include the contractor's name, address and phone number.
- Existing Right-of-Way lines, property lines, edge of pavement, curb/gutter, sidewalks, driveways and planting strips with dimensions between each.
- Adjoining street name(s) to the reference property.
- All existing public and private utilities in the area of the proposed project (Water, Sewer, Storm, Phone, TV, Gas and Power), dimensioned to the edge of pavement, curb/gutter, sidewalk, driveways, planting strips.
- If applicable show easements, critical areas such as streams, wetlands and steep slopes.
- Proposed new construction. The proposed improvements shall be shown in heavier line type than the existing information
- Dimension the proposed new construction to the edge of pavement, curb/gutter, sidewalks, driveways, planting strips, or another identifiable site feature that will help identify the proposed improvements in the field.
- Erosion Control Plan.
- Traffic Control Plan per current MUTCD (See standard drawings at <http://mutcd/fhwa.dot.gov>). If the work requires any lane or street closures, the City of Anacortes Public Works Inspector must be notified a minimum of 48-hours prior to scheduled work for proper public notification by the City of Anacortes.

Work within the City Right-of-Way is permitted by approval of the City Engineer. All work in the right-of-way must be bonded. The applicant and owner must use warning signs, traffic control, and barricades as necessary to ensure public safety in the work area. The applicant and owner must restore the right-of-way to previous condition. Permanent restoration may include overlays of portions of the right-of-way and restoration of landscaping which have been disrupted by excavation work. The applicant and owner are liable for damage to public and private property.



Proposed Traffic Control Plan:

-  Sidewalk Closed Ahead (provide pedestrian direction arrows)
-  Trucks Entering Leaving Roadway
-  14th Street Closed - No Through Traffic
-  No Left Turn Ahead
-  No Right Turn Ahead
-  Class A Barricades - Road Closed
-  Cones/Channelizing Delineators

Prepared by: Clearcreek Contractors - Jake Shalan - TCS# 008508

Signs and barricades compliant with MUTCD standards.

**This Traffic Control Plan is applicable when trucking and road closure activities on 14th street are on-going.**

**Traffic and pedestrian signs NOT to be placed on sidewalks.**

## Wastewater Discharge Agreement.

The City of Anacortes WWTP will allow Clearcreek Construction to discharge contaminated ground water from the Port of Anacortes cleanup site at the northwest corner of Q and 14<sup>th</sup> from Nov 19, 2014 to Dec 31, 2014 per the submitted site dewater plan.

The submitted plan may be changed at Clearcreek's discretion, with prior written approval from the Wastewater Treatment Plant Manager or his designee.

No water may be discharged that has visible petroleum oil sheen on the surface. The Wastewater Treatment Plant Manager may require that all discharge to the sanitary sewer to cease during periods of heavy or prolonged rainfall. Access to the site and all treatment unit processes must be granted at all times to the City of Anacortes personnel.

In addition to the discharge limitations in the discharge application the Anacortes wastewater treatment plant has a limited capacity to accept salt water. The limit of salt discharged to the sewer shall be less than 3,400 pounds per day. This is equivalent to approximately 20,000 gallons per day of water at a concentration of 20 ppt (parts per thousand). The Puget Sound is approximately 30 ppt.

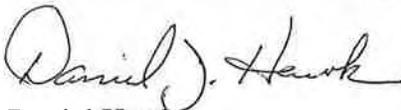
Failure to follow the approved plan may be considered cause for immediate termination of all discharge to the sanitary sewer.

### City Waste Water Plant Contact

Primary contact name: Bob Hendrix  
Primary contact Phone #: 360-299-0953  
Secondary contact name: Steve Doebler  
Secondary contact phone #: 360-299-0953

### Project Manager Information

Primary contact name: Daniel J. Hawk  
Primary contact Phone #: 206-354-9515  
Secondary contact name: Stephen Daily  
Secondary contact phone #: 206-595-9588

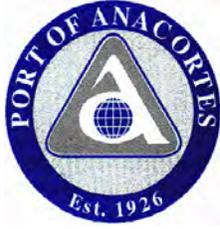


Daniel Hawk  
Clearcreek Contractors



Robert Hendrix  
Anacortes WWTP

**APPENDIX B**  
**Monitoring Well Decommissioning Records**



# Submittal Review Form

Port of Anacortes  
 100 Commercial Avenue  
 Anacortes, WA 98221  
 www.portofanacortes.com

Date: 12/9/14  
 Clearcreek Job # 214107  
 Submittal #: 025

Title: Well Decommissioning Reports

Project: **FORMER SHELL OIL TANK FARM SITE CLEANUP ACTION  
 PROJECT #ENV-02**

# Copies	Items Submitted	# Copies	Items Submitted
	<input type="checkbox"/> Shop Drawings		<input type="checkbox"/>
	<input checked="" type="checkbox"/> Prints		<input type="checkbox"/>
	<input type="checkbox"/> Samples		<input type="checkbox"/>
	<input type="checkbox"/> Material Cut Sheets		<input type="checkbox"/>
<i>Electronic</i>	<input type="checkbox"/> Specifications 02110 3.04B4		<input checked="" type="checkbox"/>

**Submitted By:**  
 Signed by: Stephen Dailey  
 Title: Project Engineer  
 Company: Clearcreek Contractors, Inc.  
 Date: 12/9/14

## PORT OF ANACORTES REVIEW

Project #: **ENV-02**      Submittal #: **025**      Date:

This submittal/drawings are:

- NO EXCEPTIONS TAKEN     ACKNOWLEDGED AS RECEIVED  
 FURNISH AS CORRECTED  
 REVISE AND RESUBMIT  
 REJECTED

Checking is only for general conformance with the design concept of the project and compliance with the information given in the contract documents. This checking and/or approval does not relieve the contractor/supplier from responsibility for errors, accuracy of details, dimensions, quantities, or conformance with the contract documents.

<b>ENGINEER</b>	BY: <u>GeoEngineers, Inc.</u>	DATE: <u>12/10/2014</u>
<b>OWNER</b>	BY:	DATE:

# SUBMITTAL TRANSMITTAL



3919 88<sup>th</sup> St NE  
Marysville, WA 98270  
Tel: [425] 252-5800  
Fax: [425] 252-1093  
www.clearcreekcon.com

TO: Port of Anacortes DATE: 12/9/2014  
First & Commercial Avenue PROJECT: Former Shell Tank Farm  
PO Box 297 JOB NO: 214107  
Anacortes, WA 98221 SUBMITTAL #: 025  
ATTENTION: Jenkins Dossen RE: Monitoring Well Decommissioning

## WE ARE SENDING YOU THE FOLLOWING SUBMITTALS:

COPIES	SPEC NO.	DESCRIPTION
1	02110 - 3.04B4	Well Decommissioning Report

## REMARKS:

See attached monitoring well decommissioning reports.

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RECEIVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_



# MONITORING WELL REPORT

2 of 2

Well ID# BHM-143

Start Card # AE 29504

(1) OWNER/PROJECT  
 Name Part of Anacortes WELL NO. A-2  
 Address 13th St + Q Ave  
 City Anacortes State WA Zip 98221

(6) LOCATION OF WELL By legal description:  
 County Skagit Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Township 35 (N or S) Range 2 (E or W) Section 19  
NW 1/4 of NW 1/4 of above section.

(2) TYPE OF WORK  
 New construction     Alteration (Repair/Recondition)  
 Conversion         Deepening         Abandonment

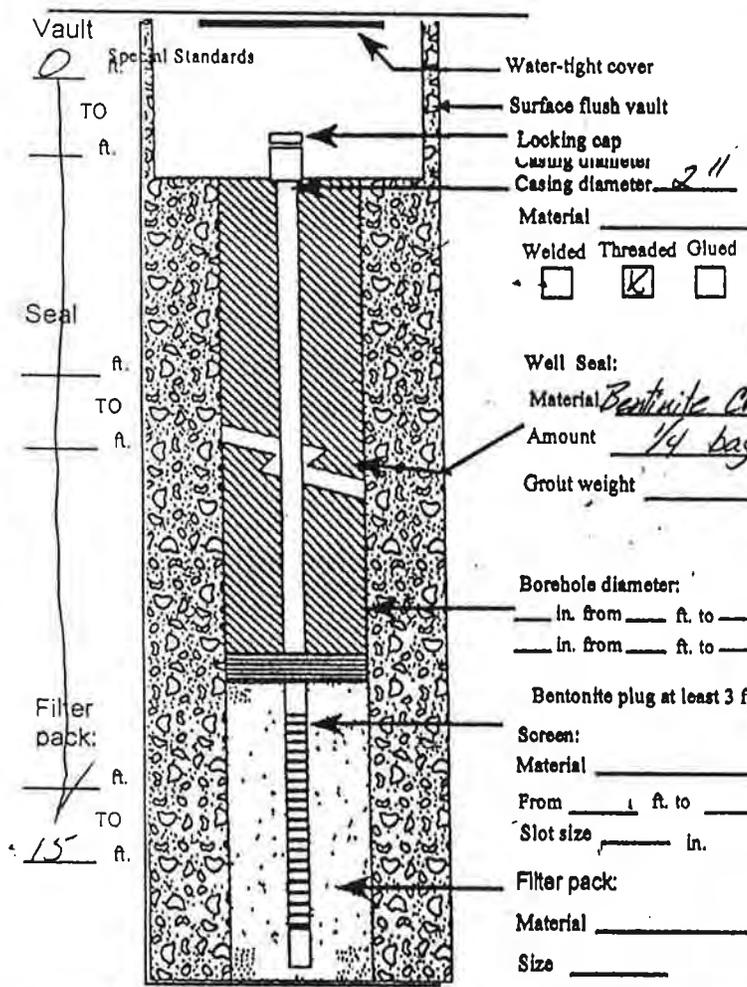
Street address of well location Same  
 Tax lot number of well location \_\_\_\_\_

(3) DRILLING METHOD  
 Rotary Air         Rotary Mud         Cable  
 Hollow Stein Auger     Other \_\_\_\_\_

(7) STATIC WATER LEVEL:  
 \_\_\_\_\_ Ft. below land surface.        Date \_\_\_\_\_  
 Artesian Pressure \_\_\_\_\_ lb/sq. in.        Date \_\_\_\_\_

(4) BORE HOLE CONSTRUCTION:  
 Special Standards  Yes  No  
 Depth of Completed Well 15 ft.

(8) WATER BEARING ZONES:  
 Depth at which water was first found 5 ft.



From	To	Est. Flow Rate	SWL

(9) WELL LOG:  
 Ground Elevation \_\_\_\_\_

Material	From	To	SWL
<u>Abandon</u>	<u>0</u>	<u>15'</u>	
<u>Chip</u>	<u>0</u>	<u>15'</u>	

Date started 11-3-14 Completed 11-3-14

(5) WELL TESTS:  
 Pump     Baller     Air     Flowing Artesian  
 Permeability \_\_\_\_\_ Yield \_\_\_\_\_ GPM  
 Conductivity \_\_\_\_\_ PH \_\_\_\_\_  
 Temperature of water \_\_\_\_\_ OF/C Depth artesian flow found \_\_\_\_\_ ft.  
 Was water analysis done?  Yes  No  
 By whom? \_\_\_\_\_  
 Depth of strata to be analyzed, From \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
 Remarks: \_\_\_\_\_  
 Name Of Supervising Geologist/Engineer \_\_\_\_\_

WELL CONSTRUCTION CERTIFICATION:  
 I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.  
 Type or Print Name THOMAS J. ADAMS License No. 2684  
 Trainee Name \_\_\_\_\_ License No. \_\_\_\_\_  
 Drilling Company ENVIRONMENTAL DRILLING INC.  
 (Signed) Thomas J Adams License No. 2684  
 Address 10918 159th AVE SE Sno. WA.  
 Registration No. ENVIR01093M6 Date 11-24-14

**APPENDIX C**  
**Laboratory Data Reports -**  
**Verification Soil Samples**



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 28, 2014

Abhijit Joshi  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-012-06  
Laboratory Reference No. 1410-281

Dear Abhijit:

Enclosed are the analytical results and associated quality control data for samples submitted on October 24, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Manager

Enclosures

Date of Report: October 28, 2014  
Samples Submitted: October 24, 2014  
Laboratory Reference: 1410-281  
Project: 5147-012-06

### Case Narrative

Samples were collected on October 23, 2014 and received by the laboratory on October 24, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx/BENZENE Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: October 28, 2014  
Samples Submitted: October 24, 2014  
Laboratory Reference: 1410-281  
Project: 5147-012-06

**ANALYTICAL REPORT FOR SAMPLES**

<b>Client ID</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>	<b>Notes</b>
EX-2-8.0	10-281-02	Soil	10-23-14	10-24-14	
EX-5-11.0	10-281-05	Soil	10-23-14	10-24-14	
EX-7-7.0	10-281-07	Soil	10-23-14	10-24-14	

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-2-8.0</b>					
Laboratory ID:	10-281-02					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	10-27-14	10-27-14	X1
Lube Oil Range Organics	<b>ND</b>	59	NWTPH-Dx	10-27-14	10-27-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	100	50-150				

<b>Client ID:</b>	<b>EX-5-11.0</b>					
Laboratory ID:	10-281-05					
Diesel Range Organics	<b>ND</b>	31	NWTPH-Dx	10-27-14	10-27-14	X1
Lube Oil Range Organics	<b>ND</b>	62	NWTPH-Dx	10-27-14	10-27-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

<b>Client ID:</b>	<b>EX-7-7.0</b>					
Laboratory ID:	10-281-07					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	10-27-14	10-27-14	X1
Lube Oil Range Organics	<b>ND</b>	60	NWTPH-Dx	10-27-14	10-27-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

### NWTPH-Gx/BENZENE

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-2-8.0</b>					
Laboratory ID:	10-281-02					
Benzene	<b>ND</b>	0.020	EPA 8021B	10-24-14	10-27-14	
Gasoline	<b>7.1</b>	5.3	NWTPH-Gx	10-24-14	10-27-14	O
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>104</i>	<i>68-123</i>				
<b>Client ID:</b>	<b>EX-5-11.0</b>					
Laboratory ID:	10-281-05					
Benzene	<b>ND</b>	0.020	EPA 8021B	10-24-14	10-27-14	
Gasoline	<b>ND</b>	6.8	NWTPH-Gx	10-24-14	10-27-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>106</i>	<i>68-123</i>				
<b>Client ID:</b>	<b>EX-7-7.0</b>					
Laboratory ID:	10-281-07					
Benzene	<b>ND</b>	0.020	EPA 8021B	10-24-14	10-27-14	
Gasoline	<b>ND</b>	5.9	NWTPH-Gx	10-24-14	10-27-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>108</i>	<i>68-123</i>				

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-2-8.0</b>					
Laboratory ID:	10-281-02					
Benzo[a]anthracene	ND	0.0079	EPA 8270D/SIM	10-24-14	10-24-14	
Chrysene	ND	0.0079	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo[a]pyrene	ND	0.0079	EPA 8270D/SIM	10-24-14	10-24-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270D/SIM	10-24-14	10-24-14	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270D/SIM	10-24-14	10-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>78</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>78</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>80</i>	<i>31 - 116</i>				

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-5-11.0</b>					
Laboratory ID:	10-281-05					
Benzo[a]anthracene	ND	0.0083	EPA 8270D/SIM	10-24-14	10-24-14	
Chrysene	ND	0.0083	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo[b]fluoranthene	ND	0.0083	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo(j,k)fluoranthene	ND	0.0083	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo[a]pyrene	ND	0.0083	EPA 8270D/SIM	10-24-14	10-24-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0083	EPA 8270D/SIM	10-24-14	10-24-14	
Dibenz[a,h]anthracene	ND	0.0083	EPA 8270D/SIM	10-24-14	10-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>76</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>78</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>82</i>	<i>31 - 116</i>				

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-7-7.0</b>					
Laboratory ID:	10-281-07					
Benzo[a]anthracene	<b>ND</b>	0.0080	EPA 8270D/SIM	10-24-14	10-24-14	
Chrysene	<b>ND</b>	0.0080	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0080	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0080	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo[a]pyrene	<b>ND</b>	0.0080	EPA 8270D/SIM	10-24-14	10-24-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0080	EPA 8270D/SIM	10-24-14	10-24-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0080	EPA 8270D/SIM	10-24-14	10-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>70</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>73</i>	<i>31 - 116</i>				

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	10-281-02					
<b>Client ID:</b>	<b>EX-2-8.0</b>					
Cadmium	<b>ND</b>	0.59	6010C	10-24-14	10-24-14	
Lab ID:	10-281-05					
<b>Client ID:</b>	<b>EX-5-11.0</b>					
Cadmium	<b>ND</b>	0.62	6010C	10-24-14	10-24-14	
Lab ID:	10-281-07					
<b>Client ID:</b>	<b>EX-7-7.0</b>					
Cadmium	<b>ND</b>	0.6	6010C	10-24-14	10-24-14	

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1027S2					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	10-27-14	10-27-14	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	10-27-14	10-27-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags	
<b>DUPLICATE</b>									
Laboratory ID:	10-240-05								
	ORIG	DUP							
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1	
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1	
<i>Surrogate:</i>									
<i>o-Terphenyl</i>				114	98	50-150			

Date of Report: October 28, 2014  
Samples Submitted: October 24, 2014  
Laboratory Reference: 1410-281  
Project: 5147-012-06

**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCV1027F-T2	100	93.3	6.7	+/-15%
CCV1027F-T3	100	93.4	6.6	+/-15%
CCV1027R-T1	100	107	-7.0	+/-15%
CCV1027R-T2	100	105	-5.0	+/-15%
CCV1027R-T3	100	103	-3.0	+/-15%
CCV1027R-V2	100	90.8	9.2	+/-15%
CCV1027R-V3	100	98.0	2.0	+/-15%

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1024S2					
Benzene	<b>ND</b>	0.020	EPA 8021B	10-24-14	10-24-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	10-24-14	10-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
<i>Fluorobenzene</i>	105	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	10-281-05							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				106	105	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB	SBD	SB	SBD	SB	SBD			
SB1024S2									
Benzene	<b>1.12</b>	<b>1.15</b>	1.00	1.00	<b>112</b>	<b>115</b>	75-117	3	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					106	107	68-123		

Date of Report: October 28, 2014  
Samples Submitted: October 24, 2014  
Laboratory Reference: 1410-281  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1024G-1	5.00	5.36	-7	+/- 20%
CCVD1024G-2	5.00	4.38	12	+/- 20%
CCVD1027G-1	5.00	5.09	-2	+/- 20%
CCVD1027G-2	5.00	5.20	-4	+/- 20%

Date of Report: October 28, 2014  
Samples Submitted: October 24, 2014  
Laboratory Reference: 1410-281  
Project: 5147-012-06

**BENZENE EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1024B-1	50.0	50.9	-2	+/- 15%
Benzene	CCVD1024B-2	50.0	51.7	-3	+/- 15%
Benzene	CCVD1027B-1	50.0	51.2	-2	+/- 15%
Benzene	CCVD1027B-2	50.0	57.2	-14	+/- 15%

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1024S1					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	10-24-14	10-24-14	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	10-24-14	10-24-14	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	10-24-14	10-24-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	10-24-14	10-24-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	10-24-14	10-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>78</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>88</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>93</i>	<i>31 - 116</i>				

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD	RPD	Flags
					Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	10-281-05										
	MS	MSD	MS	MSD		MS	MSD				
Benzo[a]anthracene	<b>0.0574</b>	<b>0.0623</b>	0.0833	0.0833	ND	69	75	42 - 134	8	27	
Chrysene	<b>0.0646</b>	<b>0.0680</b>	0.0833	0.0833	ND	78	82	45 - 114	5	27	
Benzo[b]fluoranthene	<b>0.0686</b>	<b>0.0679</b>	0.0833	0.0833	ND	82	82	38 - 131	1	33	
Benzo(j,k)fluoranthene	<b>0.0609</b>	<b>0.0685</b>	0.0833	0.0833	ND	73	82	44 - 114	12	34	
Benzo[a]pyrene	<b>0.0677</b>	<b>0.0714</b>	0.0833	0.0833	ND	81	86	40 - 136	5	29	
Indeno(1,2,3-c,d)pyrene	<b>0.0627</b>	<b>0.0657</b>	0.0833	0.0833	ND	75	79	45 - 126	5	30	
Dibenz[a,h]anthracene	<b>0.0626</b>	<b>0.0660</b>	0.0833	0.0833	ND	75	79	46 - 121	5	28	
<i>Surrogate:</i>											
2-Fluorobiphenyl						76	83	32 - 114			
Pyrene-d10						77	82	33 - 121			
Terphenyl-d14						80	85	31 - 116			

Date of Report: October 28, 2014  
Samples Submitted: October 24, 2014  
Laboratory Reference: 1410-281  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-24-14  
Date Analyzed: 10-24-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB0824SM2

Analyte	Method	Result	PQL
Cadmium	6010C	<b>ND</b>	0.50

Date of Report: October 28, 2014  
Samples Submitted: October 24, 2014  
Laboratory Reference: 1410-281  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
DUPLICATE QUALITY CONTROL**

Date Extracted: 10-24-14  
Date Analyzed: 10-24-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: 10-271-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	<b>ND</b>	<b>ND</b>	NA	0.50	

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 MS/MSD QUALITY CONTROL**

Date Extracted: 10-24-14

Date Analyzed: 10-24-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 10-271-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50.0	<b>47.3</b>	95	<b>46.6</b>	93	2	

Date of Report: October 28, 2014  
 Samples Submitted: October 24, 2014  
 Laboratory Reference: 1410-281  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	ICV102414P	1.00	1.03	-3.0	+/- 10%
Cadmium	LLICV102414P	0.0100	0.0116	-16	+/- 30%
Cadmium	CCV1102414P	1.00	1.03	-3.0	+/- 10%
Cadmium	CCV2102414P	1.00	1.05	-5.0	+/- 10%
Cadmium	LLCCV2102414P	0.0100	0.0107	-7.0	+/- 30%
Cadmium	CCV3102414P	1.00	1.04	-4.0	+/- 10%
Cadmium	LLCCV3102414P	0.0100	0.0101	-1.0	+/- 30%
Cadmium	CCV4102414P	1.00	1.03	-3.0	+/- 10%
Cadmium	LLCCV4102414P	0.0100	0.0118	-18	+/- 30%
Cadmium	CCV5102414P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV5102414P	0.0100	0.0102	-2.0	+/- 30%
Cadmium	CCV6102414P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV6102414P	0.0100	0.00948	5.2	+/- 30%
Cadmium	CCV7102414P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV102414P	0.0100	0.0107	-7.0	+/- 30%

Date of Report: October 28, 2014  
Samples Submitted: October 24, 2014  
Laboratory Reference: 1410-281  
Project: 5147-012-06

### % MOISTURE

Date Analyzed: 10-24-14

Client ID	Lab ID	% Moisture
COS-SW3-10-11	10-281-02	15
COS-SW4-3-4	10-281-05	19
COS-SW5-10-11	10-281-07	17



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



# Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 5147-012-06

OnSite Project Number: 10-281

Initiated by: MM

Date Initiated: 10/24/14

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	No	Temperature: <u>2</u>	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<input checked="" type="radio"/> N/A		
1.7 How were the samples delivered?	Client	<input checked="" type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup
			<input type="radio"/> Other	

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No		1 2 3 4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.8 Was method 5035A used?	<input checked="" type="radio"/> Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	<u>1</u>	N/A	1 2 3 4

### Explain any discrepancies:


1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

- NWTPH-Dx Data
- NWTPH-Gx/Benzene EPA 8021B Data
- cPAHs EPA 8270D/SIM Data
- Total Cadmium EPA 6010CData

## NWTPH-Diesel Data

Data File : 1027-T58.D  
 Sample : 10-281-02

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 27 Oct 2014 15:37  
 Operator : ZT  
 Misc :  
 ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 16:12:21 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.699	154455523	49.934 PPM
Spiked Amount 50.000		Recovery =	99.87%
Target Compounds			
2) H Gasoline	4.000	13184612	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	24976333	4.453 PPM
4) H Diesel Fuel #2 (01-1...	14.000	24914205	7.351 PPM
5) H Oil (02-24-14)	22.000	70935604	12.521 PPM
6) H Oil Acid Clean (02-...	22.000	70935604	13.492 PPM
7) H Diesel Fuel #2 Combo ...	14.000	23048767	6.875 PPM
8) H Oil Combo (02-24-14)	22.000	68689616	12.039 PPM
9) H Oil Acid Clean Combo ...	22.000	68689616	13.024 PPM
10) H Oil MO Combo (02-24-14)	22.000	67063590	11.890 PPM
11) H Oil Acid Clean MO Com...	22.000	67063590	12.837 PPM
12) H Alaska 102 DF2 (05-29...	13.025	26540787	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	25621426	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	19306696	4.352 PPM
15) H Mineral Oil Combo (0...	16.000	14716969	3.978 PPM
-----			

(f)=RT Delta > 1/2 Window

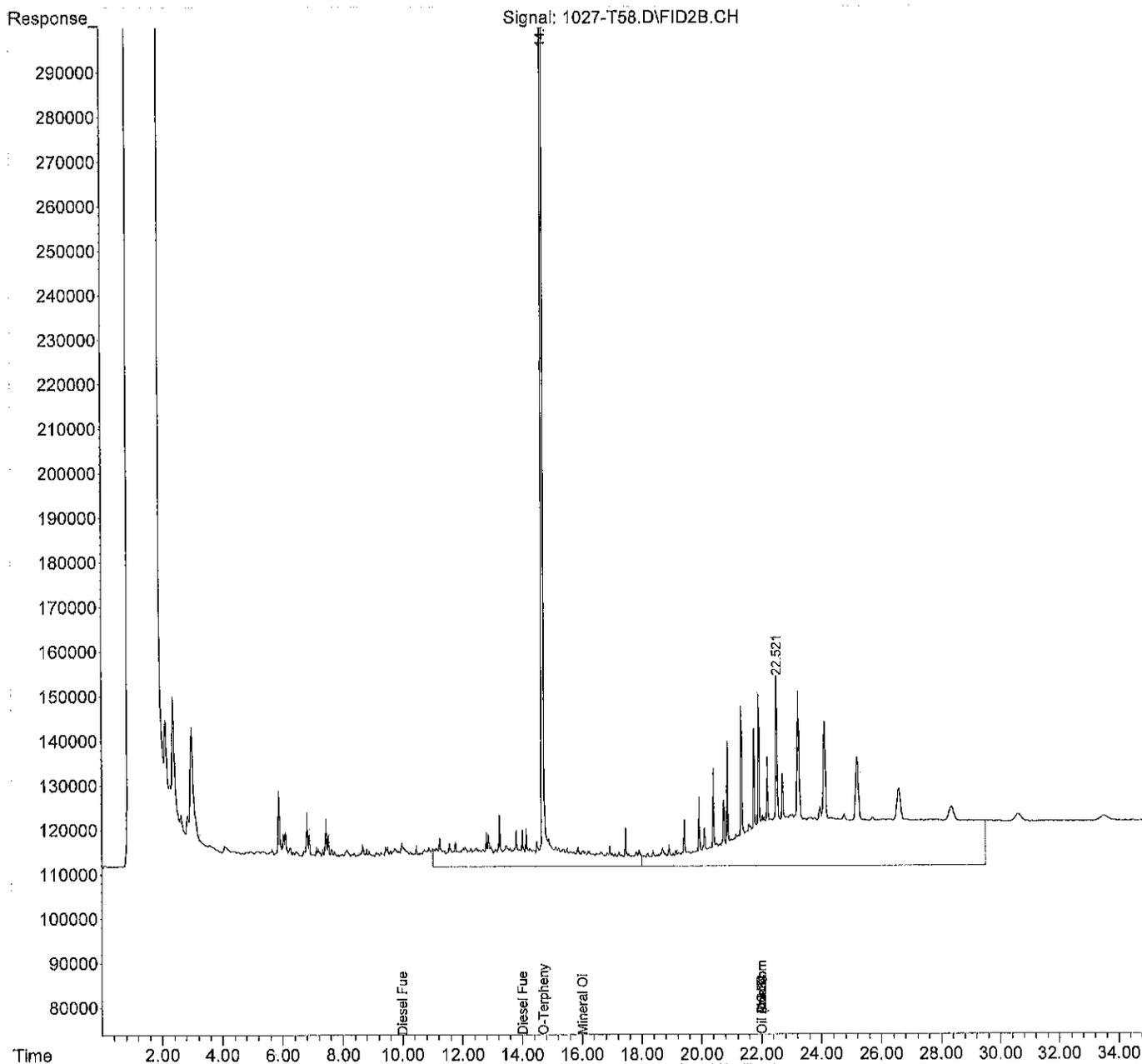
(m)=manual int.

Data File : 1027-T58.D  
Sample : 10-281-02

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
Signal(s) : FID2B.CH  
Acq On : 27 Oct 2014 15:37  
Operator : ZT  
Misc :  
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 16:12:21 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-T67.D  
 Sample : 10-281-05

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 27 Oct 2014 21:59  
 Operator : ZT  
 Misc :  
 ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 22:35:06 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.698	144605951	46.740	PPM
Spiked Amount 50.000		Recovery =	93.48%	
Target Compounds				
2) H Gasoline	4.000	9775564	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	11289059	N.D.	PPM
4) H Diesel Fuel #2 (01-1...	14.000	10877807	1.305	PPM
5) H Oil (02-24-14)	22.000	62371979	8.129	PPM
6) H Oil Acid Clean (02-...	22.000	62371979	9.061	PPM
7) H Diesel Fuel #2 Combo ...	14.000	9619938	0.944	PPM
8) H Oil Combo (02-24-14)	22.000	61140702	8.086	PPM
9) H Oil Acid Clean Combo ...	22.000	61140702	9.034	PPM
10) H Oil MO Combo (02-24-14)	22.000	60056712	8.090	PPM
11) H Oil Acid Clean MO Com...	22.000	60056712	9.000	PPM
12) H Alaska 102 DF2 (05-29...	13.025	11976344	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	20824836	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	9794748	0.732	PPM
15) H Mineral Oil Combo (0...	16.000	6101515	0.557	PPM

(f)=RT Delta > 1/2 Window

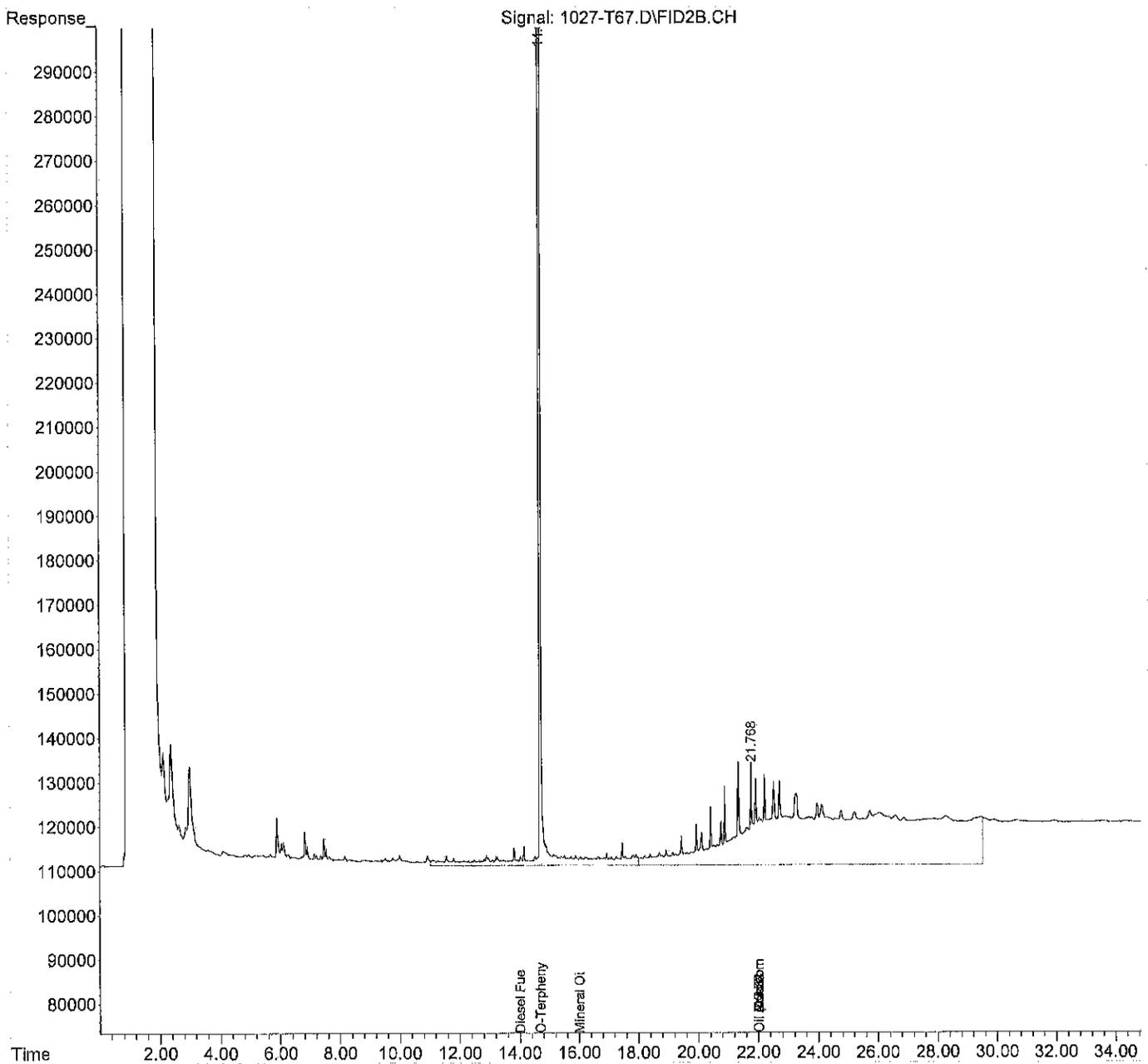
(m)=manual int.

Data File : 1027-T67.D  
Sample : 10-281-05

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
Signal(s) : FID2B.CH  
Acq On : 27 Oct 2014 21:59  
Operator : ZT  
Misc :  
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 22:35:06 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-T68.D  
 Sample : 10-281-07

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 27 Oct 2014 22:42  
 Operator : ZT  
 Misc :  
 ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 23:17:27 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.697	148374127	47.962 PPM
Spiked Amount 50.000		Recovery =	95.92%
Target Compounds			
2) H Gasoline	4.000	11717320	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	18323937	1.585 PPM
4) H Diesel Fuel #2 (01-1...	14.000	17648446	4.221 PPM
5) H Oil (02-24-14)	22.000	59567384	6.690 PPM
6) H Oil Acid Clean (02-...	22.000	59567384	7.610 PPM
7) H Diesel Fuel #2 Combo ...	14.000	16239397	3.868 PPM
8) H Oil Combo (02-24-14)	22.000	57999845	6.442 PPM
9) H Oil Acid Clean Combo ...	22.000	57999845	7.373 PPM
10) H Oil MO Combo (02-24-14)	22.000	56782670	6.314 PPM
11) H Oil Acid Clean MO Com...	22.000	56782670	7.207 PPM
12) H Alaska 102 DF2 (05-29...	13.025	19094300	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	20381094	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	13651924	2.200 PPM
15) H Mineral Oil Combo (0...	16.000	9858188	2.049 PPM

(f)=RT Delta > 1/2 Window

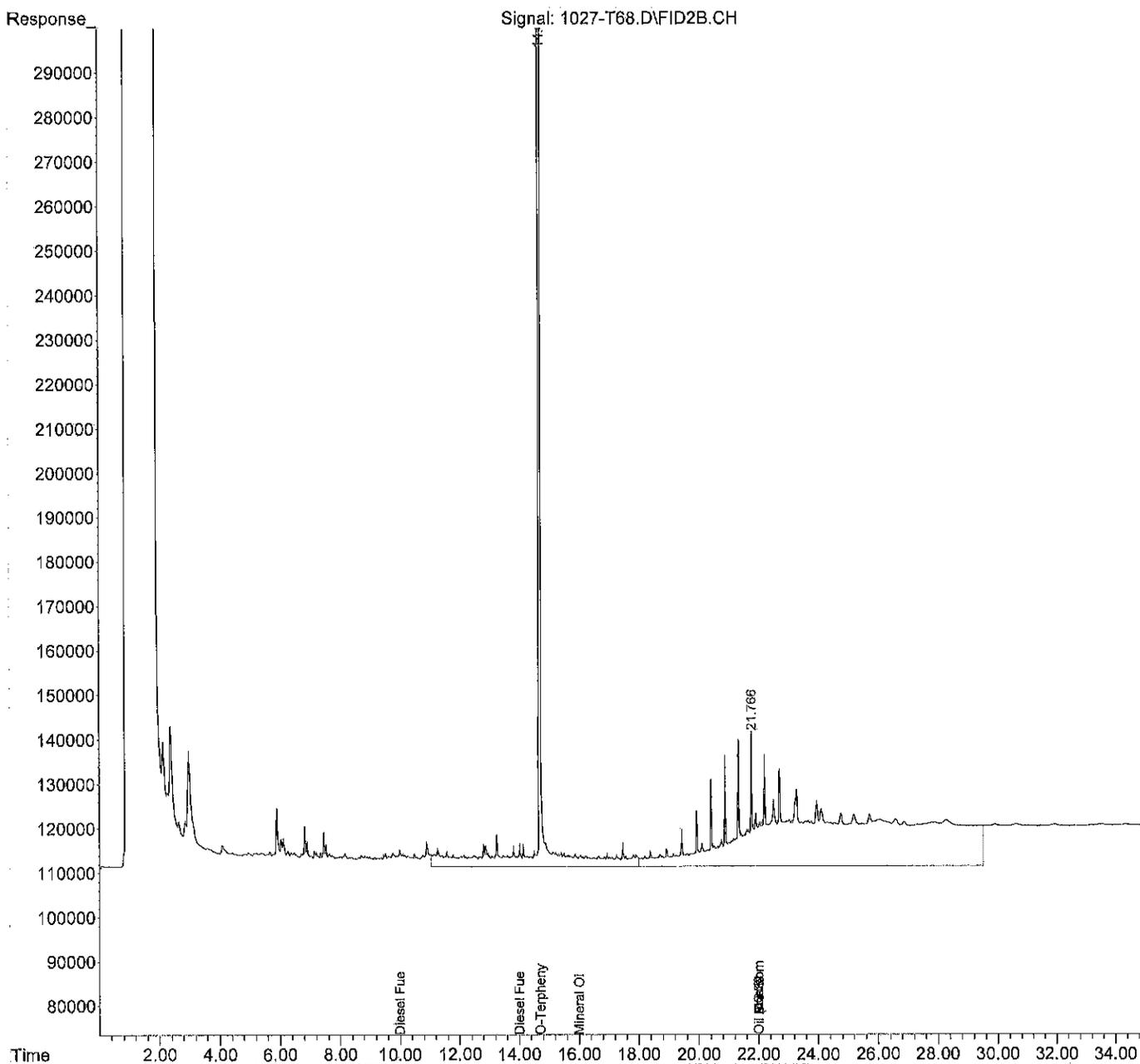
(m)=manual int.

Data File : 1027-T68.D  
 Sample : 10-281-07

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 27 Oct 2014 22:42  
 Operator : ZT  
 Misc :  
 ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 23:17:27 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :



Data File : 1027-T17.D  
 Sample : MB1027S2 ACU

Data Path : X:\DIESELS\TERI\DATA\T141027\  
 Signal(s) : FID1A.CH  
 Acq On : 27 Oct 2014 21:59  
 Operator : ZT  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 22:34:46 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140401F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	14.705	155581672	54.027	PPM
Spiked Amount	50.000	Recovery =	108.05%	
Target Compounds				
2) H Gasoline	3.500	14318967	NoCal	PPM
3) H Diesel Fuel #1 (04-0...	10.000	12990583	N.D.	PPM
4) H Diesel Fuel #2 (04-0...	14.000	11142084	N.D.	PPM
5) H Oil (04-01-14)	22.000	80528060	8.818	PPM
6) H Oil Acid Clean (04-...	22.000	80528060	8.401	PPM
7) H Diesel Fuel #2 Combo ...	14.000	9789878	N.D.	PPM
8) H Oil Combo (04-01-14)	22.000	79152164	9.189	PPM
9) H Oil Acid Clean Combo ...	22.000	79152164	8.607	PPM
10) H Alaska 102 DF2	13.025	11501797	NoCal	PPM
11) H Alaska 103 Oil	20.000	35355390	NoCal	PPM
12) H Mineral Oil (04-01-14)	16.000	9981396	N.D.	PPM
13) H Mineral Oil Combo (0...	16.000	6022469	N.D.	PPM
14) H Oil MO Combo (04-01-14)	22.000	78011456	9.459	PPM
15) H Oil Acid Clean MO Com...	22.000	78011456	8.772	PPM

(f)=RT Delta > 1/2 Window

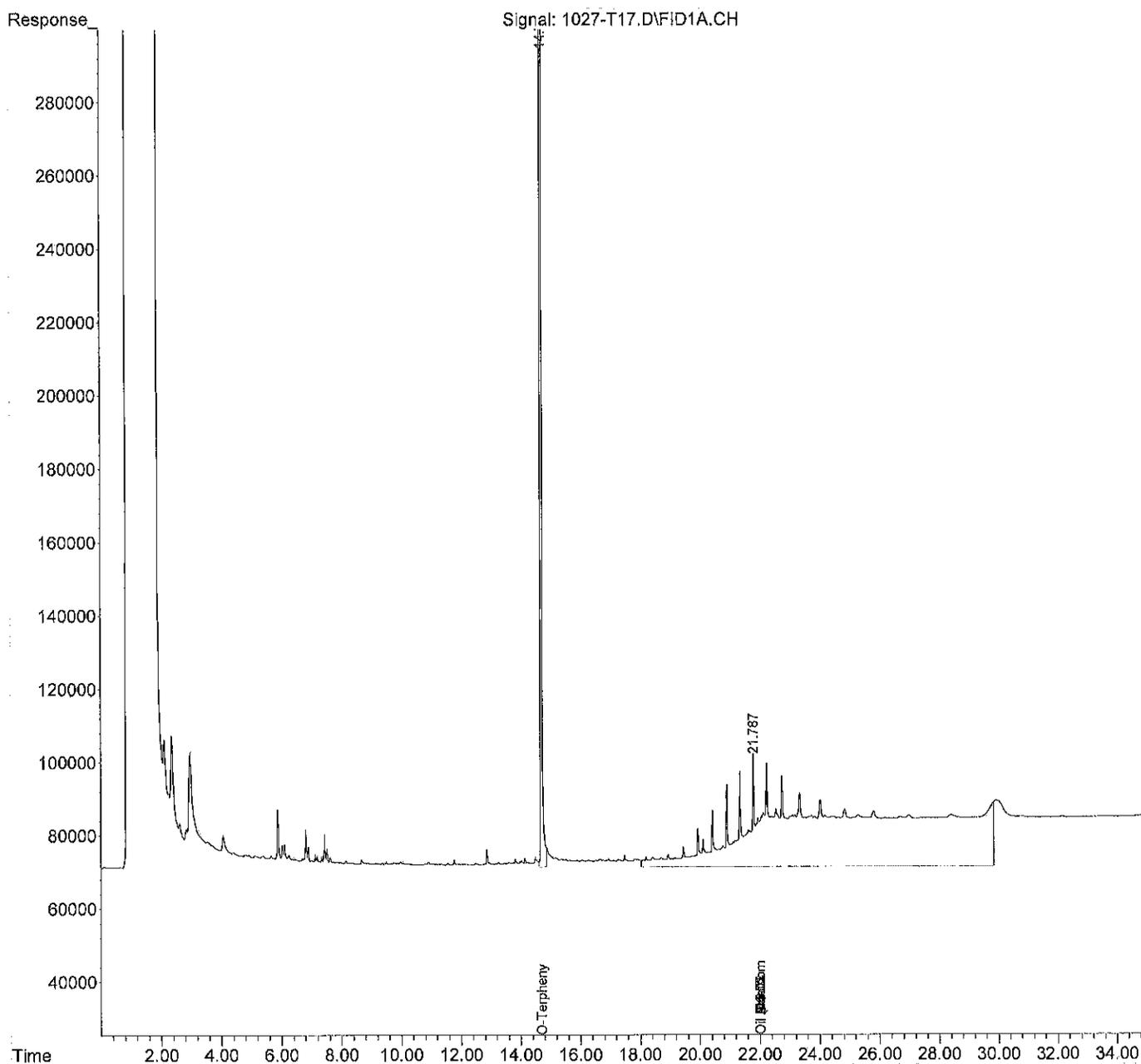
(m)=manual int.

Data File : 1027-T17.D  
Sample : MB1027S2 ACU

Data Path : X:\DIESELS\TERI\DATA\T141027\  
Signal(s) : FID1A.CH  
Acq On : 27 Oct 2014 21:59  
Operator : ZT  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 22:34:46 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140401F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-T62.D  
 Sample : 10-240-05 RR

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 27 Oct 2014 18:27  
 Operator : ZT  
 Misc :  
 ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 19:02:54 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.702	175561637	56.780 PPM
Spiked Amount 50.000		Recovery =	113.56%
Target Compounds			
2) H Gasoline	4.000	11698542	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	12223767	N.D. PPM
4) H Diesel Fuel #2 (01-1...	14.000	11609500	1.620 PPM
5) H Oil (02-24-14)	22.000	68850268	11.452 PPM
6) H Oil Acid Clean (02-...	22.000	68850268	12.413 PPM
7) H Diesel Fuel #2 Combo ...	14.000	10192402	1.197 PPM
8) H Oil Combo (02-24-14)	22.000	67437774	11.383 PPM
9) H Oil Acid Clean Combo ...	22.000	67437774	12.362 PPM
10) H Oil MO Combo (02-24-14)	22.000	66187372	11.415 PPM
11) H Oil Acid Clean MO Com...	22.000	66187372	12.357 PPM
12) H Alaska 102 DF2 (05-29...	13.025	13023969	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	27798290	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	10835595	1.128 PPM
15) H Mineral Oil Combo (0...	16.000	6416890	0.683 PPM
-----			

(f)=RT Delta > 1/2 Window

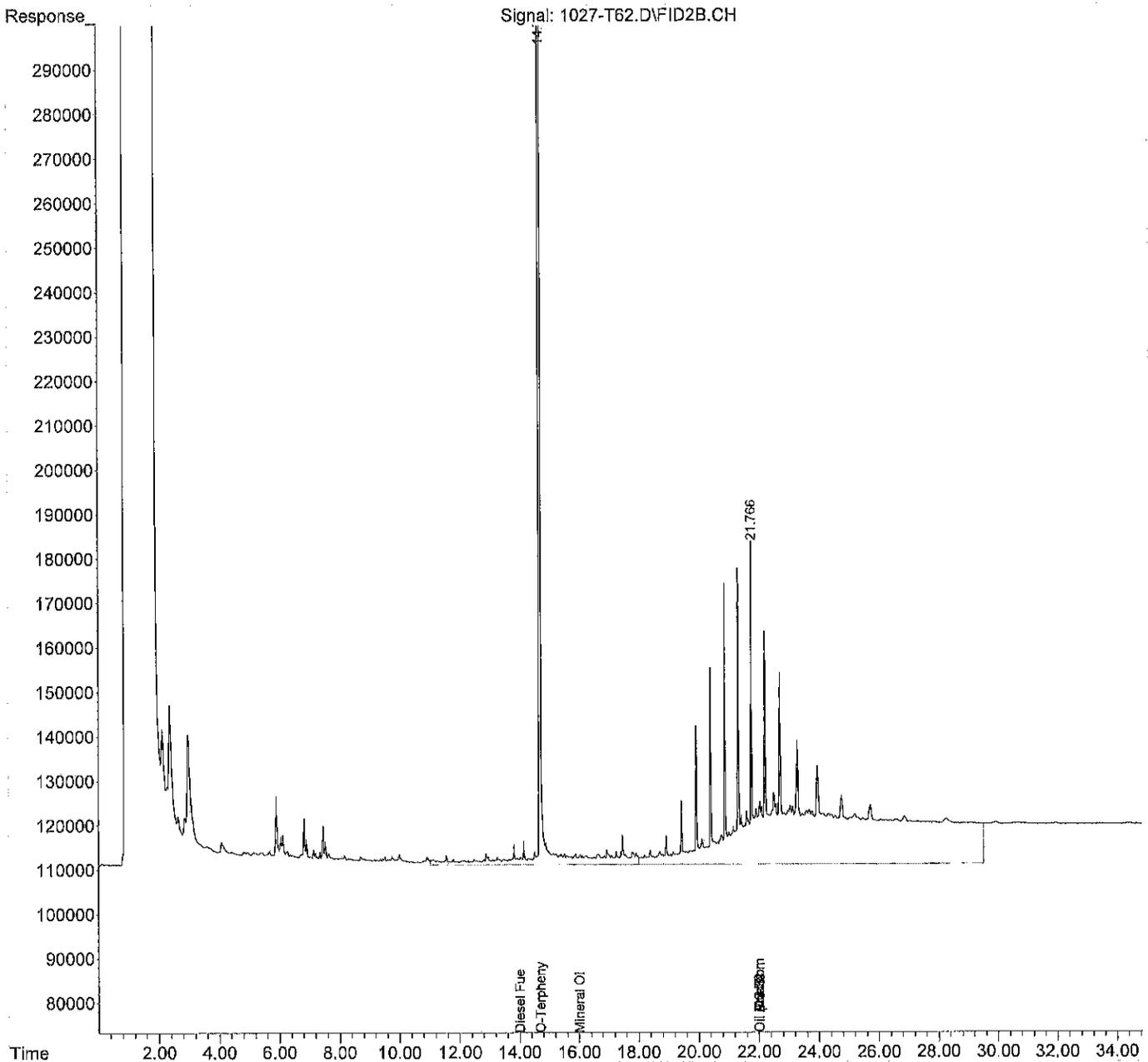
(m)=manual int.

Data File : 1027-T62.D  
Sample : 10-240-05 RR

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
Signal(s) : FID2B.CH  
Acq On : 27 Oct 2014 18:27  
Operator : ZT  
Misc :  
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 19:02:54 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-V59.D  
 Sample : 10-240-05 DUP

Data Path : X:\DIESELS\VIGO\DATA\V141027.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 27 Oct 2014 15:36  
 Operator :  
 Misc :  
 ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 16:13:20 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (09-28-14)	14.946	138890168	49.187 PPM
Spiked Amount 50.000		Recovery =	98.37%
Target Compounds			
2) 1-Chlorooctadecane (...)	0.000	0	N.D. PPM
3) H Gasoline	3.500	17613354	NoCal PPM
4) H Diesel Fuel #1 (10-0...	10.000	13417067	4.140 PPM
5) H Diesel Fuel #2 (10-0...	14.000	10833551	2.550 PPM
6) H Oil (09-28-14)	22.000	109002199	30.188 PPM
7) H Oil Acid Clean (09-2...	22.000	109002199	36.848 PPM
8) H Diesel Fuel #2 Combo ...	14.000	9755941	2.128 PPM
9) H Oil Combo (09-28-14)	22.000	108007915	30.528 PPM
10) H Oil Acid Clean Combo ...	22.000	108007915	36.974 PPM
11) H Alaska 102 DF2 (06-2...	13.025	11749111	N.D. PPM
12) H Alaska 103 Oil (06-2...	22.000	40938182	25.482 PPM
13) H Mineral Oil (10-06-14)	16.000	9699505	2.768 PPM
14) H Bunker C ACU (Fuel O...	15.000	108513602	36.883 PPM
15) H Bunker C (Fuel Oil #...	15.000	108513602	68.020 PPM
16) H ALKANE C9-C40	12.666	113327565	NoCal PPM
17) H Mineral Oil Combo (10...	16.000	5214098	1.616 PPM
18) H Oil Acid Clean MO Com...	22.000	107113138	37.600 PPM
19) H Oil MO Combo (09-28-14)	22.000	107113138	31.207 PPM
-----			

(f)=RT Delta > 1/2 Window

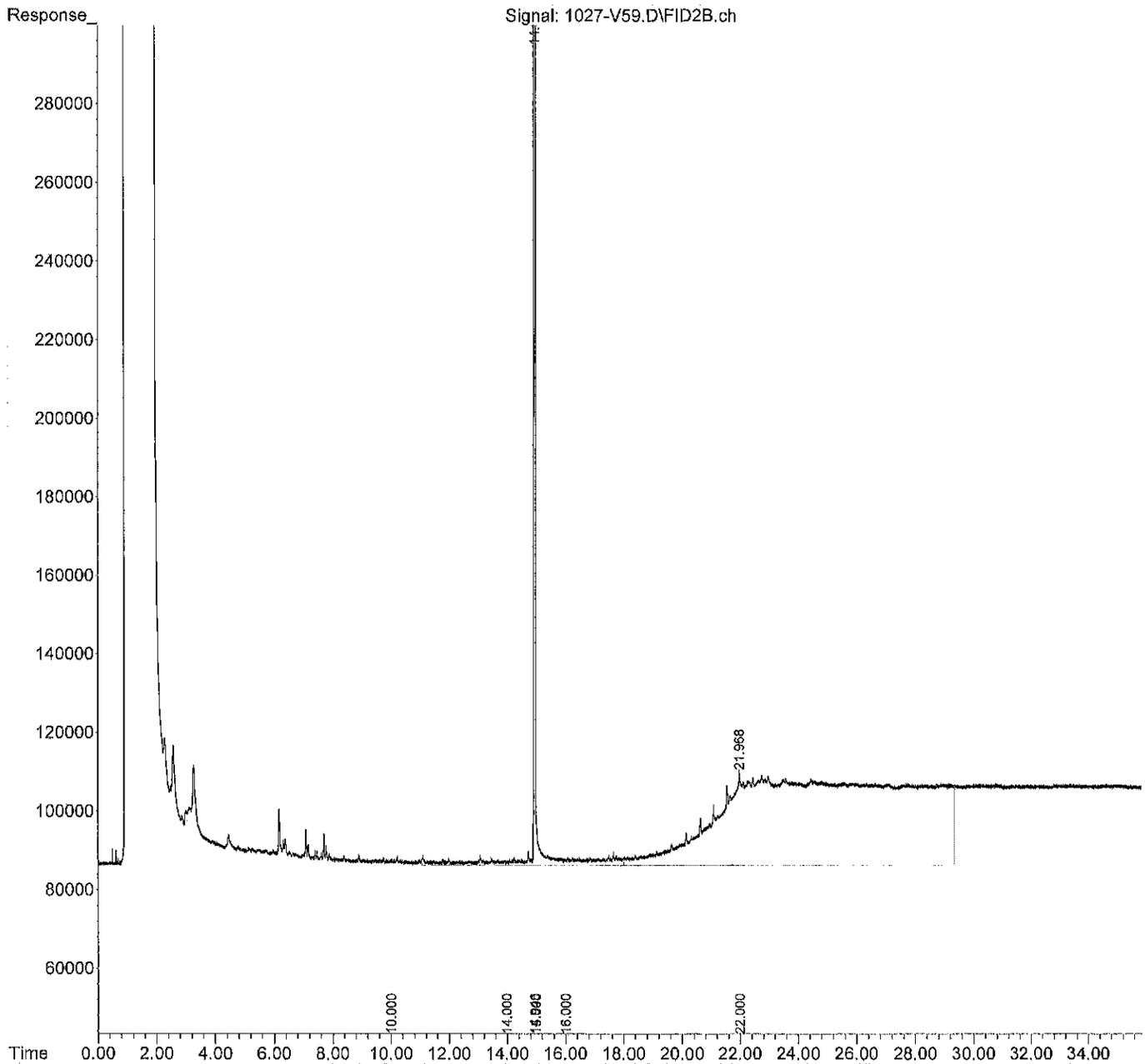
(m)=manual int.

Data File : 1027-V59.D  
Sample : 10-240-05 DUP

Data Path : X:\DIESELS\VIGO\DATA\V141027.SEC\  
Signal(s) : FID2B.ch  
Acq On : 27 Oct 2014 15:36  
Operator :  
Misc :  
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 16:13:20 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-T09.D  
 Sample : CCV1027F-T2

Data Path : X:\DIESELS\TERI\DATA\T141027\  
 Signal(s) : FID1A.CH  
 Acq On : 27 Oct 2014 16:19  
 Operator : ZT  
 Misc : SV3-11-18  
 ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 16:54:48 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140401F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (04-01-14)	14.753	1990505	0.932 PPM
Spiked Amount 50.000		Recovery =	1.86%
Target Compounds			
2) H Gasoline	3.500	33357992	NoCal PPM
3) H Diesel Fuel #1 (04-0...	10.000	226909951	85.168 PPM
4) H Diesel Fuel #2 (04-0...	14.000	228250227	93.329 PPM
5) H Oil (04-01-14)	22.000	120307277	28.984 PPM
6) H Oil Acid Clean (04-...	22.000	120307277	29.586 PPM
7) H Diesel Fuel #2 Combo ...	14.000	223063492	93.926 PPM
8) H Oil Combo (04-01-14)	22.000	108048267	24.127 PPM
9) H Oil Acid Clean Combo ...	22.000	108048267	24.307 PPM
10) H Alaska 102 DF2	13.025	229087625	NoCal PPM
11) H Alaska 103 Oil	20.000	45367476	NoCal PPM
12) H Mineral Oil (04-01-14)	16.000	151303241	53.904 PPM
13) H Mineral Oil Combo (0...	16.000	145038367	55.543 PPM
14) H Oil MO Combo (04-01-14)	22.000	103394341	23.042 PPM
15) H Oil Acid Clean MO Com...	22.000	103394341	23.044 PPM
-----			

(f)=RT Delta > 1/2 Window

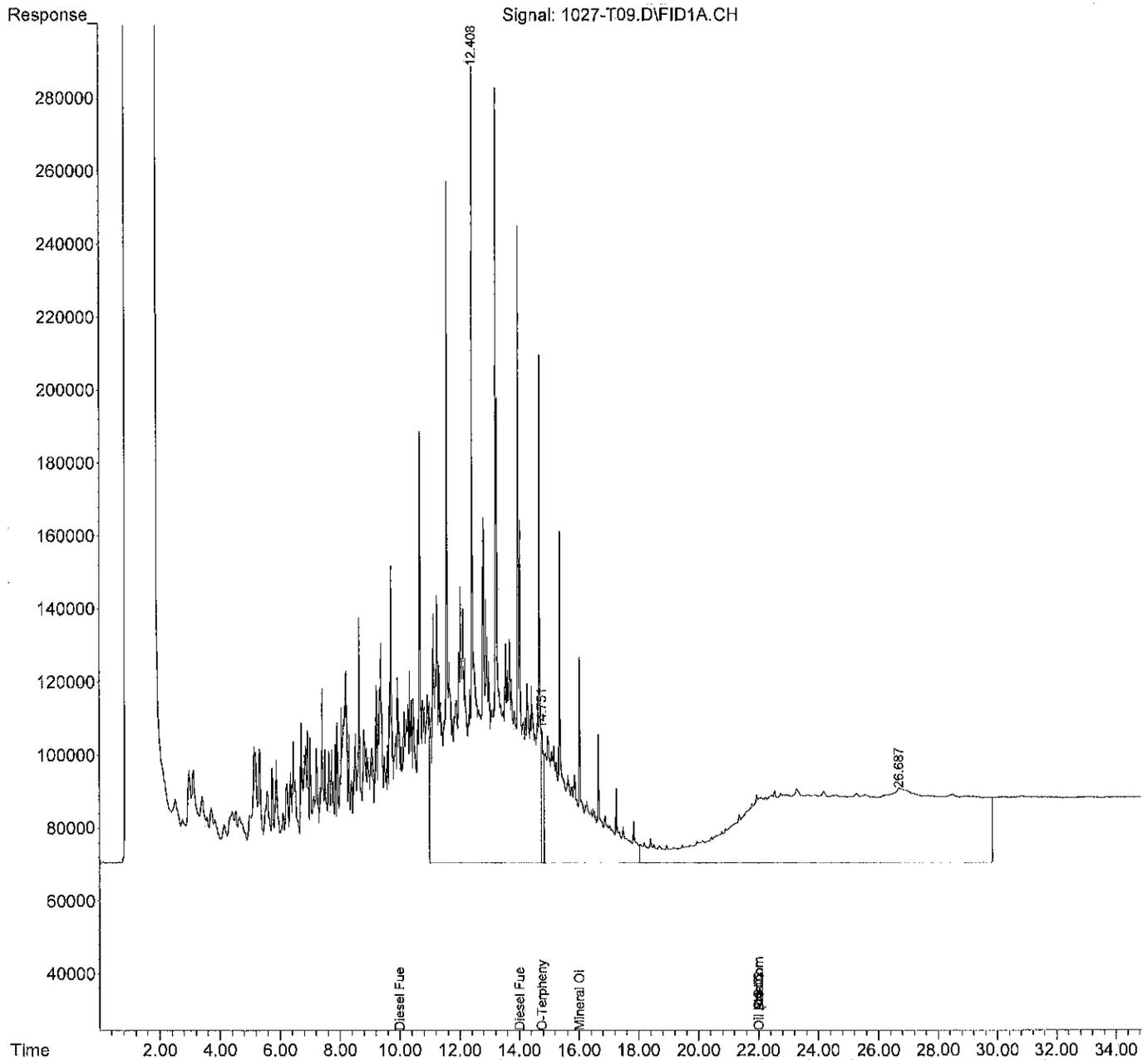
(m)=manual int.

Data File : 1027-T09.D  
Sample : CCV1027F-T2

Data Path : X:\DIESELS\TERI\DATA\T141027\  
Signal(s) : FID1A.CH  
Acq On : 27 Oct 2014 16:19  
Operator : ZT  
Misc : SV3-11-18  
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 16:54:48 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140401F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-T22.D  
 Sample : CCV1027F-T3

Data Path : X:\DIESELS\TERI\DATA\T141027\  
 Signal(s) : FID1A.CH  
 Acq On : 28 Oct 2014 1:31  
 Operator : ZT  
 Misc : SV3-11-18  
 ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 28 02:06:37 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140401F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (04-01-14)	14.753	2065726	0.958 PPM
Spiked Amount 50.000		Recovery =	1.92%
Target Compounds			
2) H Gasoline	3.500	32614366	NoCal PPM
3) H Diesel Fuel #1 (04-0...	10.000	226872776	85.152 PPM
4) H Diesel Fuel #2 (04-0...	14.000	228388068	93.390 PPM
5) H Oil (04-01-14)	22.000	103704647	20.567 PPM
6) H Oil Acid Clean (04-...	22.000	103704647	20.744 PPM
7) H Diesel Fuel #2 Combo ...	14.000	223298870	94.033 PPM
8) H Oil Combo (04-01-14)	22.000	91396163	15.518 PPM
9) H Oil Acid Clean Combo ...	22.000	91396163	15.260 PPM
10) H Alaska 102 DF2	13.025	229155766	NoCal PPM
11) H Alaska 103 Oil	20.000	38586832	NoCal PPM
12) H Mineral Oil (04-01-14)	16.000	150908717	53.749 PPM
13) H Mineral Oil Combo (0...	16.000	145354012	55.672 PPM
14) H Oil MO Combo (04-01-14)	22.000	86816868	14.171 PPM
15) H Oil Acid Clean MO Com...	22.000	86816868	13.723 PPM

(f)=RT Delta > 1/2 Window

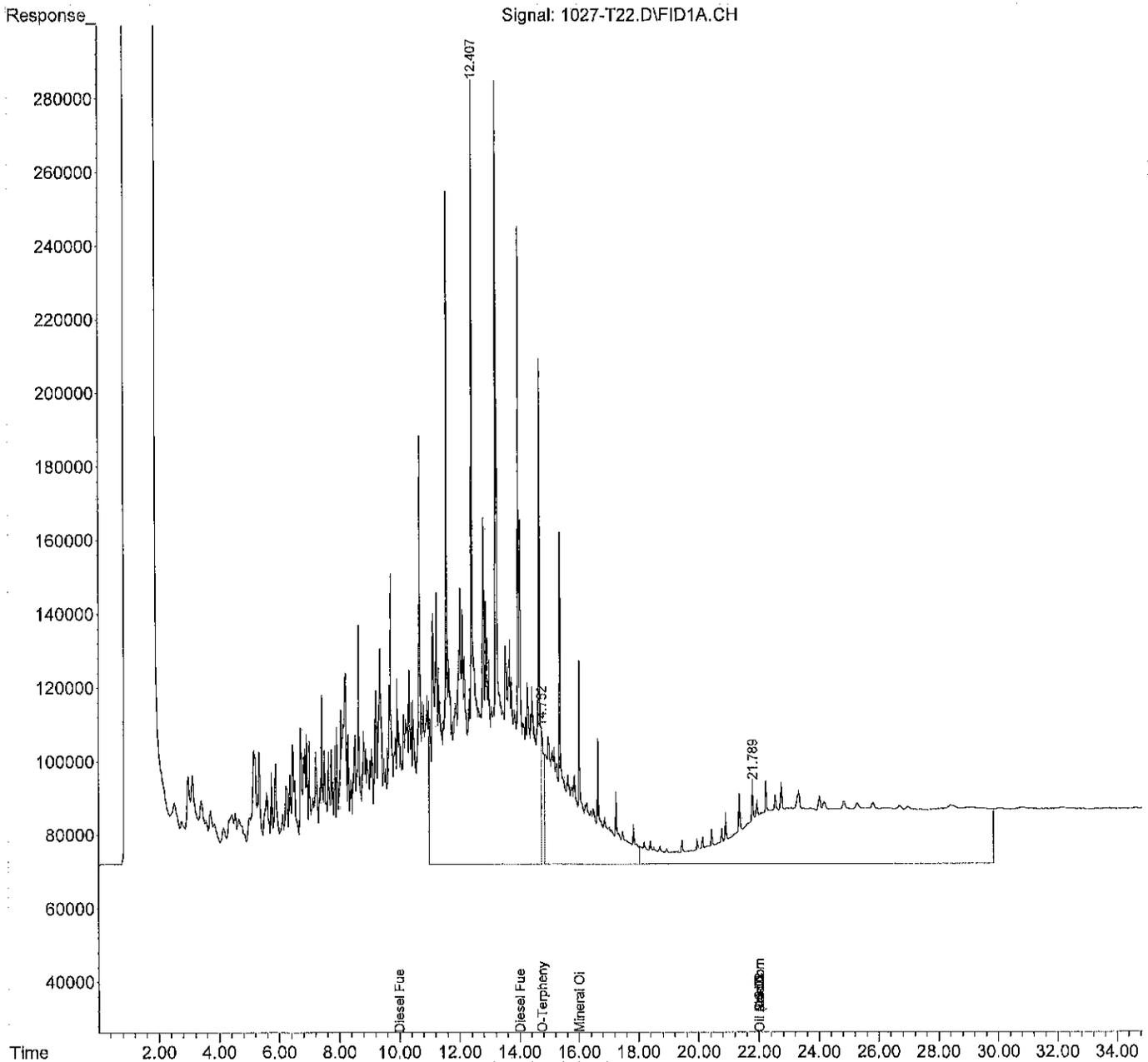
(m)=manual int.

Data File : 1027-T22.D  
 Sample : CCV1027F-T3

Data Path : X:\DIESELS\TERI\DATA\T141027\  
 Signal(s) : FID1A.CH  
 Acq On : 28 Oct 2014 1:31  
 Operator : ZT  
 Misc : SV3-11-18  
 ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 28 02:06:37 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140401F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :



Data File : 1027-T51.D  
 Sample : CCV1027R-T1

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 27 Oct 2014 10:08  
 Operator : ZT  
 Misc : SV3-11-18  
 ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 10:44:17 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.656f	3735460	1.050	PPM
Spiked Amount 50.000		Recovery =	2.10%	
Target Compounds				
2) H Gasoline	4.000	34320573	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	249715428	101.328	PPM
4) H Diesel Fuel #2 (01-1...	14.000	256261306	106.996	PPM
5) H Oil (02-24-14)	22.000	151788019	53.994	PPM
6) H Oil Acid Clean (02-...	22.000	151788019	55.326	PPM
7) H Diesel Fuel #2 Combo ...	14.000	248310775	106.376	PPM
8) H Oil Combo (02-24-14)	22.000	136556601	47.574	PPM
9) H Oil Acid Clean Combo ...	22.000	136556601	48.900	PPM
10) H Oil MO Combo (02-24-14)	22.000	129488015	45.746	PPM
11) H Oil Acid Clean MO Com...	22.000	129488015	47.019	PPM
12) H Alaska 102 DF2 (05-29...	13.025	261866653	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	44328994	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	173491429	63.031	PPM
15) H Mineral Oil Combo (0...	16.000	161942399	62.437	PPM

(f)=RT Delta > 1/2 Window

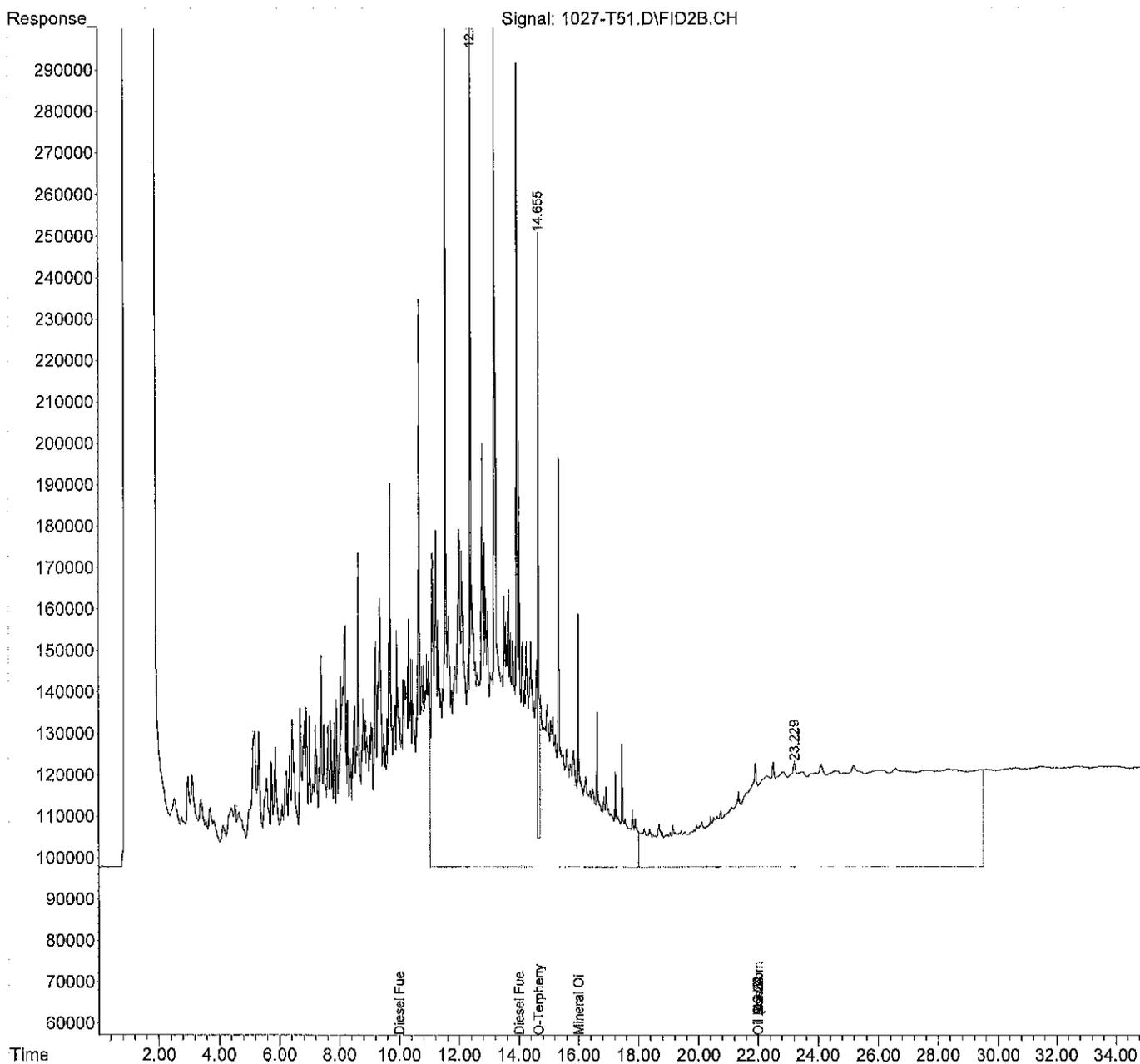
(m)=manual int.

Data File : 1027-T51.D  
Sample : CCV1027R-T1

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
Signal(s) : FID2B.CH  
Acq On : 27 Oct 2014 10:08  
Operator : ZT  
Misc : SV3-11-18  
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 10:44:17 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-T59.D  
 Sample : CCV1027R-T2

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 27 Oct 2014 16:19  
 Operator : ZT  
 Misc : SV3-11-18  
 ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 16:55:08 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.668f	4060198	1.155	PPM
Spiked Amount 50.000		Recovery =	2.31%	
Target Compounds				
2) H Gasoline	4.000	34669495	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	249598136	101.277	PPM
4) H Diesel Fuel #2 (01-1...	14.000	251901927	105.118	PPM
5) H Oil (02-24-14)	22.000	80293329	17.321	PPM
6) H Oil Acid Clean (02-...	22.000	80293329	18.334	PPM
7) H Diesel Fuel #2 Combo ...	14.000	246360530	105.514	PPM
8) H Oil Combo (02-24-14)	22.000	66686067	10.990	PPM
9) H Oil Acid Clean Combo ...	22.000	66686067	11.965	PPM
10) H Oil MO Combo (02-24-14)	22.000	61655610	8.957	PPM
11) H Oil Acid Clean MO Com...	22.000	61655610	9.875	PPM
12) H Alaska 102 DF2 (05-29...	13.025	258407637	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	21929866	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	162908037	59.004	PPM
15) H Mineral Oil Combo (0...	16.000	157954750	60.854	PPM
-----				

(f)=RT Delta > 1/2 Window

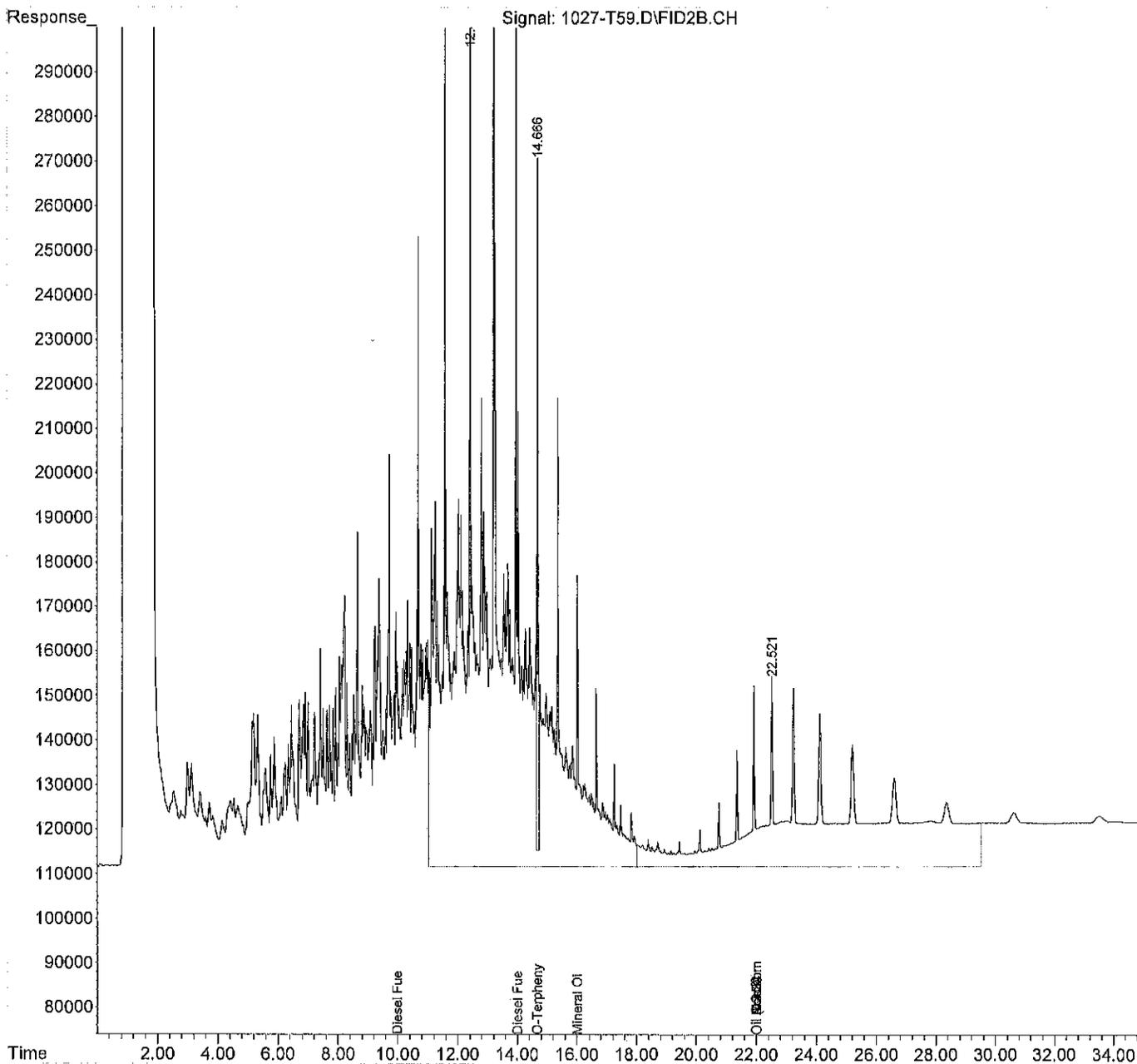
(m)=manual int.

Data File : 1027-T59.D  
Sample : CCV1027R-T2

Data Path : X:\DIESELS\TERI\DATA\T141027\_SEC\  
Signal(s) : FID2B.CH  
Acq On : 27 Oct 2014 16:19  
Operator : ZT  
Misc : SV3-11-18  
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 16:55:08 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-T72.D  
 Sample : CCV1027R-T3

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 28 Oct 2014 1:31  
 Operator : ZT  
 Misc : SV3-11-18  
 ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 28 02:06:57 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.669f	4024963	1.143	PPM
Spiked Amount 50.000		Recovery =	2.29%	
Target Compounds				
2) H Gasoline	4.000	32289318	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	244085247	98.901	PPM
4) H Diesel Fuel #2 (01-1...	14.000	246810642	102.925	PPM
5) H Oil (02-24-14)	22.000	74720878	14.463	PPM
6) H Oil Acid Clean (02-...	22.000	74720878	15.451	PPM
7) H Diesel Fuel #2 Combo ...	14.000	241577790	103.402	PPM
8) H Oil Combo (02-24-14)	22.000	61397771	8.221	PPM
9) H Oil Acid Clean Combo ...	22.000	61397771	9.169	PPM
10) H Oil MO Combo (02-24-14)	22.000	56629462	6.231	PPM
11) H Oil Acid Clean MO Com...	22.000	56629462	7.123	PPM
12) H Alaska 102 DF2 (05-29...	13.025	253019081	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	18980024	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	160379544	58.041	PPM
15) H Mineral Oil Combo (0...	16.000	155838173	60.013	PPM
-----				

(f)=RT Delta > 1/2 Window

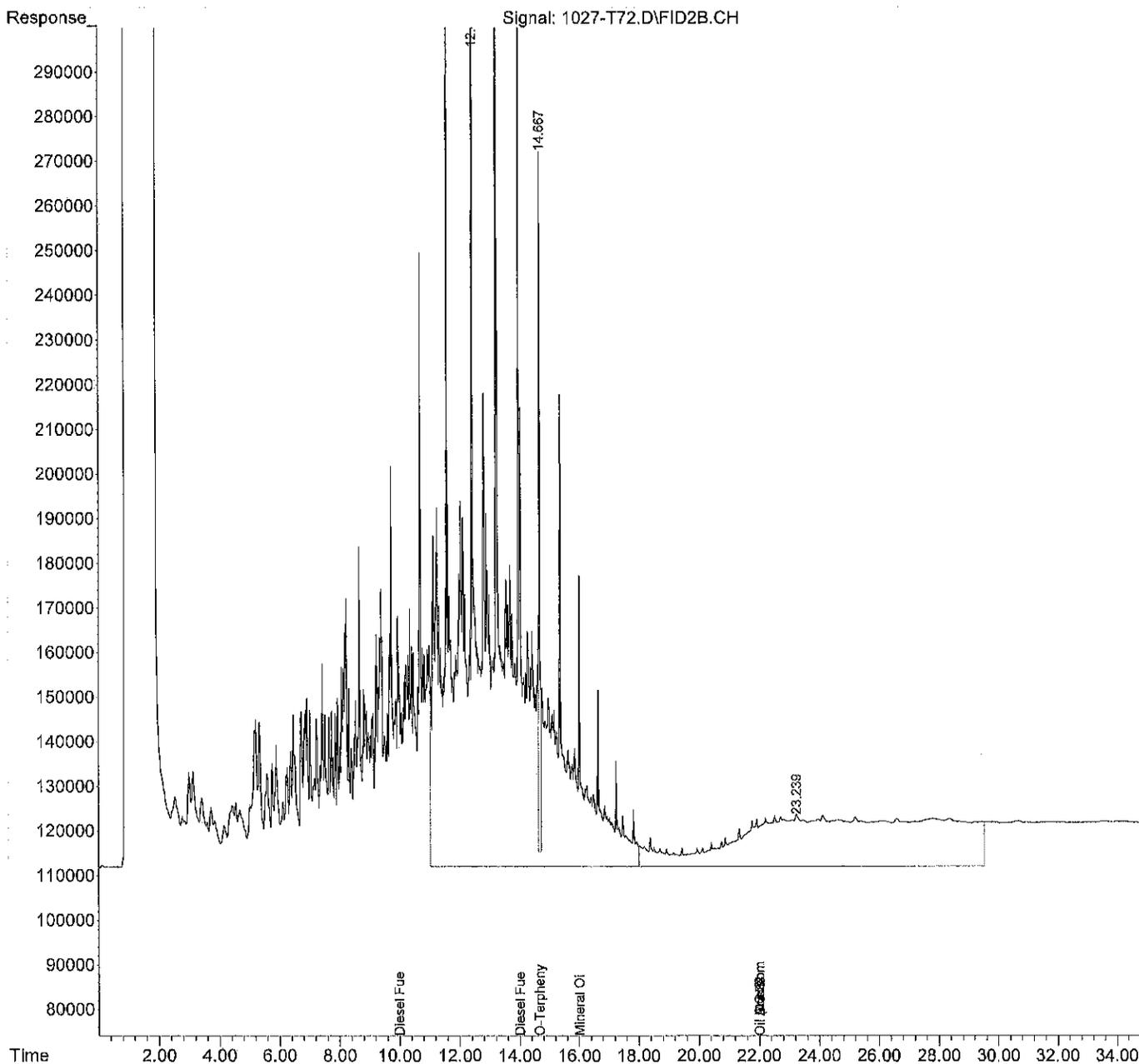
(m)=manual int.

Data File : 1027-T72.D  
Sample : CCV1027R-T3

Data Path : X:\DIESELS\TERI\DATA\T141027.SEC\  
Signal(s) : FID2B.CH  
Acq On : 28 Oct 2014 1:31  
Operator : ZT  
Misc : SV3-11-18  
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 28 02:06:57 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-V53.D  
 Sample : CCV1027R-V2

Data Path : X:\DIESELS\VIGO\DATA\V141027.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 27 Oct 2014 11:03  
 Operator :  
 Misc : SV3-11-18  
 ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 11:39:57 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (09-28-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	33777104	NoCal	PPM
4) H Diesel Fuel #1 (10-0...	10.000	195296442	86.236	PPM
5) H Diesel Fuel #2 (10-0...	14.000	193028643	90.794	PPM
6) H Oil (09-28-14)	22.000	122919353	37.619	PPM
7) H Oil Acid Clean (09-2...	22.000	122919353	45.068	PPM
8) H Diesel Fuel #2 Combo ...	14.000	189084721	90.613	PPM
9) H Oil Combo (09-28-14)	22.000	113457951	33.489	PPM
10) H Oil Acid Clean Combo ...	22.000	113457951	40.243	PPM
11) H Alaska 102 DF2 (06-2...	13.025	196973171	70.737	PPM
12) H Alaska 103 Oil (06-2...	22.000	41121491	25.643	PPM
13) H Mineral Oil (10-06-14)	16.000	124107222	50.830	PPM
14) H Bunker C ACU (Fuel O...	15.000	294746147	178.282	PPM
15) H Bunker C (Fuel Oil #...	15.000	294746147	210.546	PPM
16) H ALKANE C9-C40	12.666	309576768	NoCal	PPM
17) H Mineral Oil Combo (10...	16.000	118580221	51.215	PPM
18) H Oil Acid Clean MO Com...	22.000	109958439	39.355	PPM
19) H Oil MO Combo (09-28-14)	22.000	109958439	32.802	PPM

(f)=RT Delta > 1/2 Window

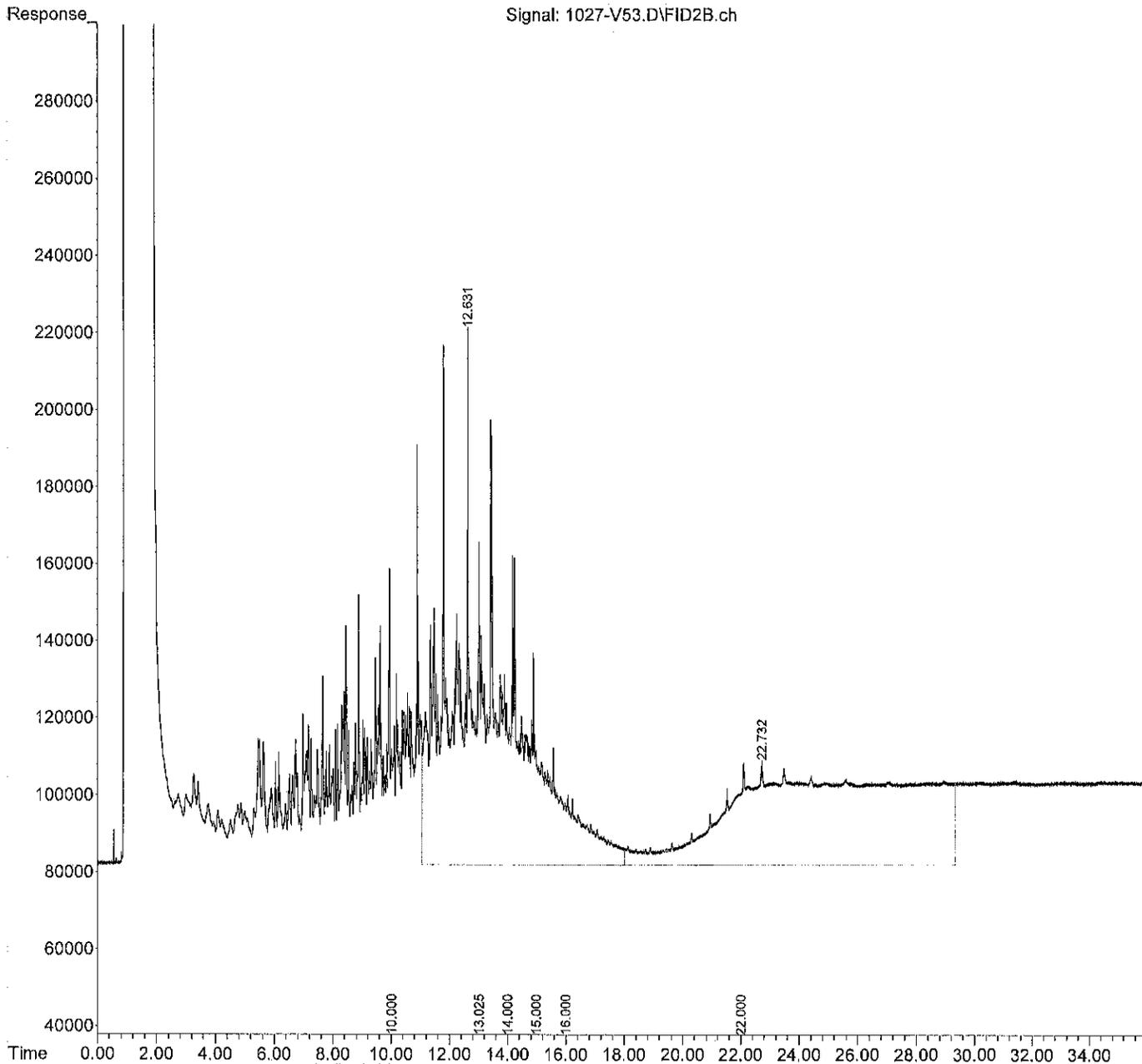
(m)=manual int.

Data File : 1027-V53.D  
Sample : CCV1027R-V2

Data Path : X:\DIESELS\VIGO\DATA\V141027.SEC\  
Signal(s) : FID2B.ch  
Acq On : 27 Oct 2014 11:03  
Operator :  
Misc : SV3-11-18  
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 11:39:57 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1027-V60.D  
 Sample : CCV1027R-V3

Data Path : X:\DIESELS\VIGO\DATA\V141027.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 27 Oct 2014 16:17  
 Operator :  
 Misc : SV3-11-18  
 ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Oct 27 16:54:13 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (09-28-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	33544370	NoCal	PPM
4) H Diesel Fuel #1 (10-0...	10.000	207423593	91.710	PPM
5) H Diesel Fuel #2 (10-0...	14.000	207985476	98.039	PPM
6) H Oil (09-28-14)	22.000	112018769	31.799	PPM
7) H Oil Acid Clean (09-2...	22.000	112018769	38.630	PPM
8) H Diesel Fuel #2 Combo ...	14.000	203263724	97.610	PPM
9) H Oil Combo (09-28-14)	22.000	100649277	26.531	PPM
10) H Oil Acid Clean Combo ...	22.000	100649277	32.561	PPM
11) H Alaska 102 DF2 (06-2...	13.025	211899913	76.489	PPM
12) H Alaska 103 Oil (06-2...	22.000	35681390	20.871	PPM
13) H Mineral Oil (10-06-14)	16.000	137510596	56.460	PPM
14) H Bunker C ACU (Fuel O...	15.000	297358918	180.266	PPM
15) H Bunker C (Fuel Oil #...	15.000	297358918	212.545	PPM
16) H ALKANE C9-C40	12.666	312111757	NoCal	PPM
17) H Mineral Oil Combo (10...	16.000	132208380	57.177	PPM
18) H Oil Acid Clean MO Com...	22.000	96459520	31.031	PPM
19) H Oil MO Combo (09-28-14)	22.000	96459520	25.237	PPM

(f)=RT Delta > 1/2 Window

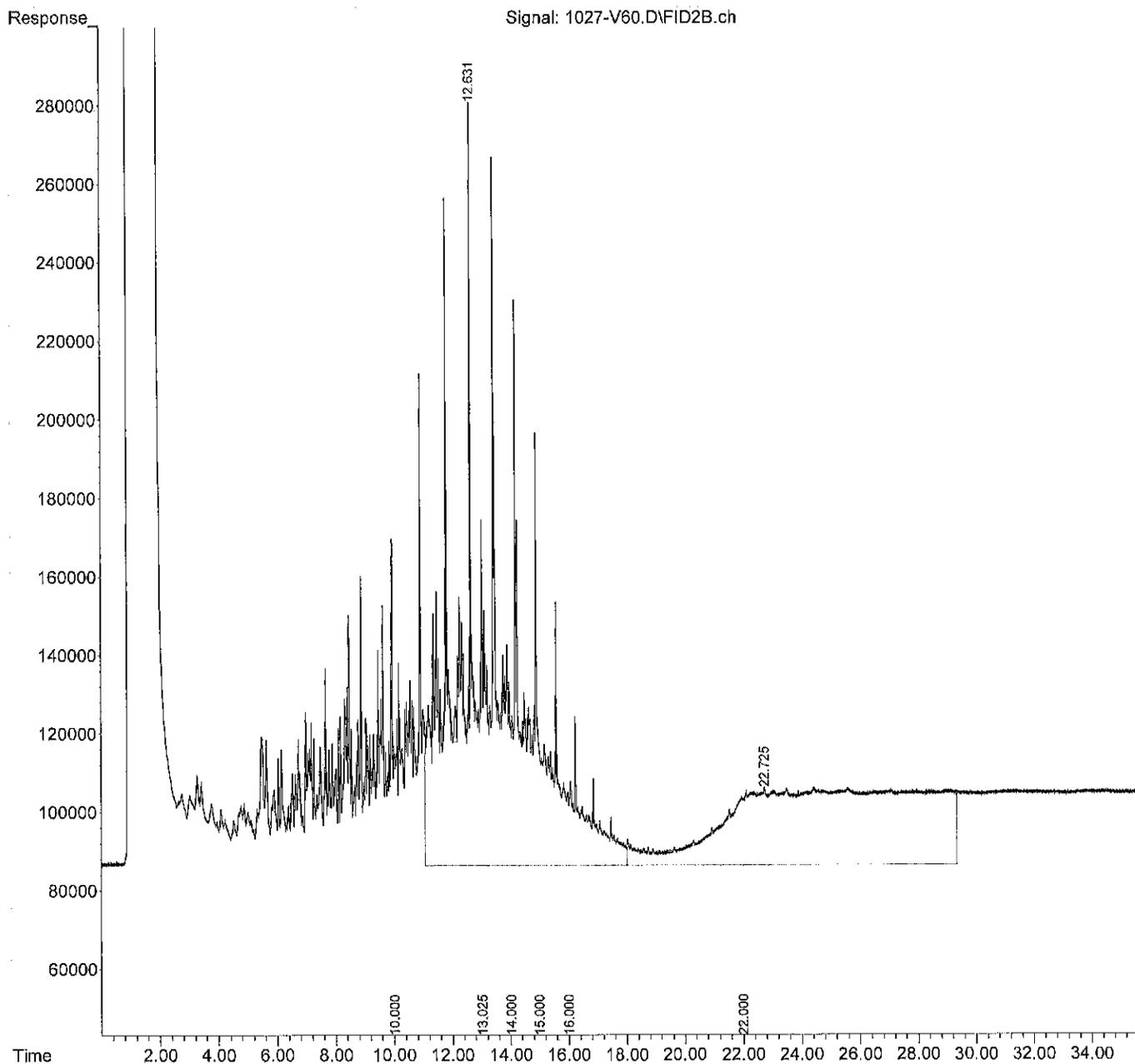
(m)=manual int.

Data File : 1027-V60.D  
Sample : CCV1027R-V3

Data Path : X:\DIESELS\VIGO\DATA\V141027.SEC\  
Signal(s) : FID2B.ch  
Acq On : 27 Oct 2014 16:17  
Operator :  
Misc : SV3-11-18  
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Oct 27 16:54:13 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



## NWTPH-Gx/Benzene Data

Signal #1 : d:\btex\DATA\D141027\1027011.D\FID1A.CH Vial: 11  
 Signal #2 : d:\btex\DATA\D141027\1027011.D\FID2B.CH  
 Acq On : 27 Oct 2014 16:32 Operator:  
 Sample : 10-281-02s Inst : Daryl  
 Misc : V2-36-06 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 27 17:00 2014 Quant Results File: 141012B.RES

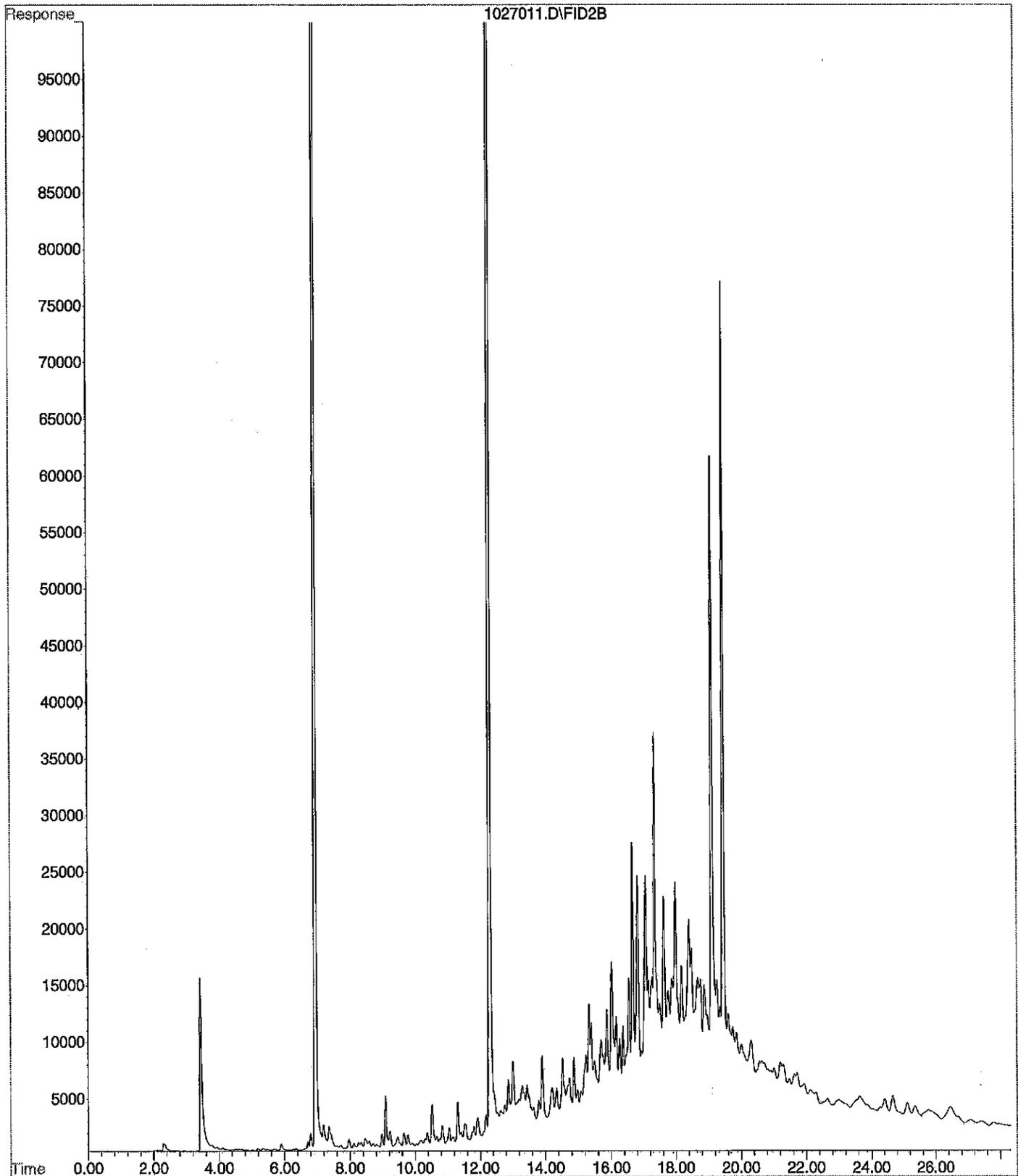
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.94	2508118	36.107 PPB
5) S BROMOFLUOROBENZENE	12.30	1641467	40.434 PPB
11) S FLUOROBENZENE #2	6.94	7659477	34.494 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11191857	37.345 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	2479172	0.044 PPM
2) H Entire GAS Envelope (9-24-	12.21	16219285	0.237 PPM
3) H GASOLINE (9-24-14)	13.51	8720943	0.199 PPM
7) H entire GAS envelope #2 (9-	12.26	43326574	0.253 PPM
8) H GASOLINE #2 (9-24-14)	13.56	21043192	0.133 PPM
9) MTBE #2	4.67	8378	0.067 PPB
10) BENZENE #2	6.71	23590	0.036 PPB
12) TOLUENE #2	9.09	157950	0.391 PPB
13) ETHYLBENZENE #2	11.05	74445	0.185 PPB
14) m,p-XYLENE #2	11.32	151302	N.D. PPB
15) o-XYLENE #2	11.81	105557	0.155 PPB

*10/28/14*

File : X:\BTEX\DARYL\DATA\D141027\1027011.D  
Operator :  
Acquired : 27 Oct 2014 16:32 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: 10-281-02s  
Misc Info : V2-36-06  
Vial Number: 11



Signal #1 : d:\btex\DATA\D141027\1027007.D\FID1A.CH vial: 7  
 Signal #2 : d:\btex\DATA\D141027\1027007.D\FID2B.CH  
 Acq On : 27 Oct 2014 14:17 Operator:  
 Sample : 10-281-05s Inst : Daryl  
 Misc : V2-36-06 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 27 14:46 2014 Quant Results File: 141012B.RES

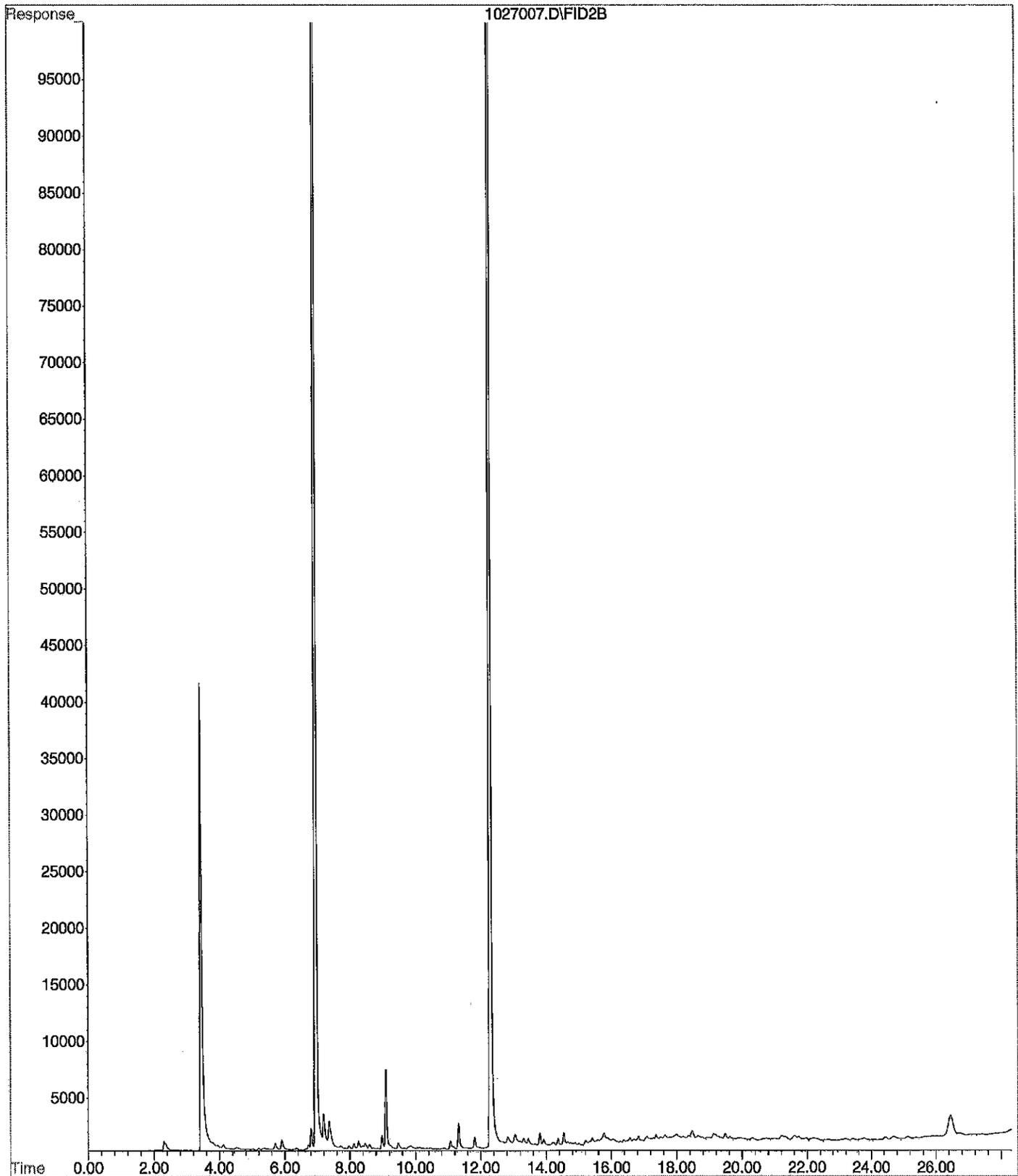
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.96	2575402	37.085 PPB
5) S BROMOFLUOROBENZENE	12.31	1519717	37.393 PPB
11) S FLUOROBENZENE #2	6.96	7732549	34.827 PPB
16) S BROMOFLUOROBENZENE #2	12.31	10851396	36.195 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	762219	0.009 PPM
2) H Entire GAS Envelope (9-24-	12.21	3020686	0.035 PPM
3) H GASOLINE (9-24-14)	13.51	738297	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	6219086	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1988288	N.D. PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.72	14951	0.007 PPB
12) TOLUENE #2	9.10	262091	0.766 PPB
13) ETHYLBENZENE #2	11.07	25509	N.D. PPB
14) m,p-XYLENE #2	11.32	92606	N.D. PPB
15) o-XYLENE #2	11.82	47222	N.D. PPB

10/28  
 [Signature]

File : X:\BTEX\DARYL\DATA\D141027\1027007.D  
Operator :  
Acquired : 27 Oct 2014 14:17 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: 10-281-05s  
Misc Info : V2-36-06  
Vial Number: 7



Signal #1 : d:\btex\DATA\D141027\1027010.D\FID1A.CH      vial: 10  
 Signal #2 : d:\btex\DATA\D141027\1027010.D\FID2B.CH  
 Acq On : 27 Oct 2014 15:58      Operator:  
 Sample : 10-281-07s      Inst : Daryl  
 Misc : V2-36-06      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Oct 27 16:27 2014      Quant Results File: 141012B.RES

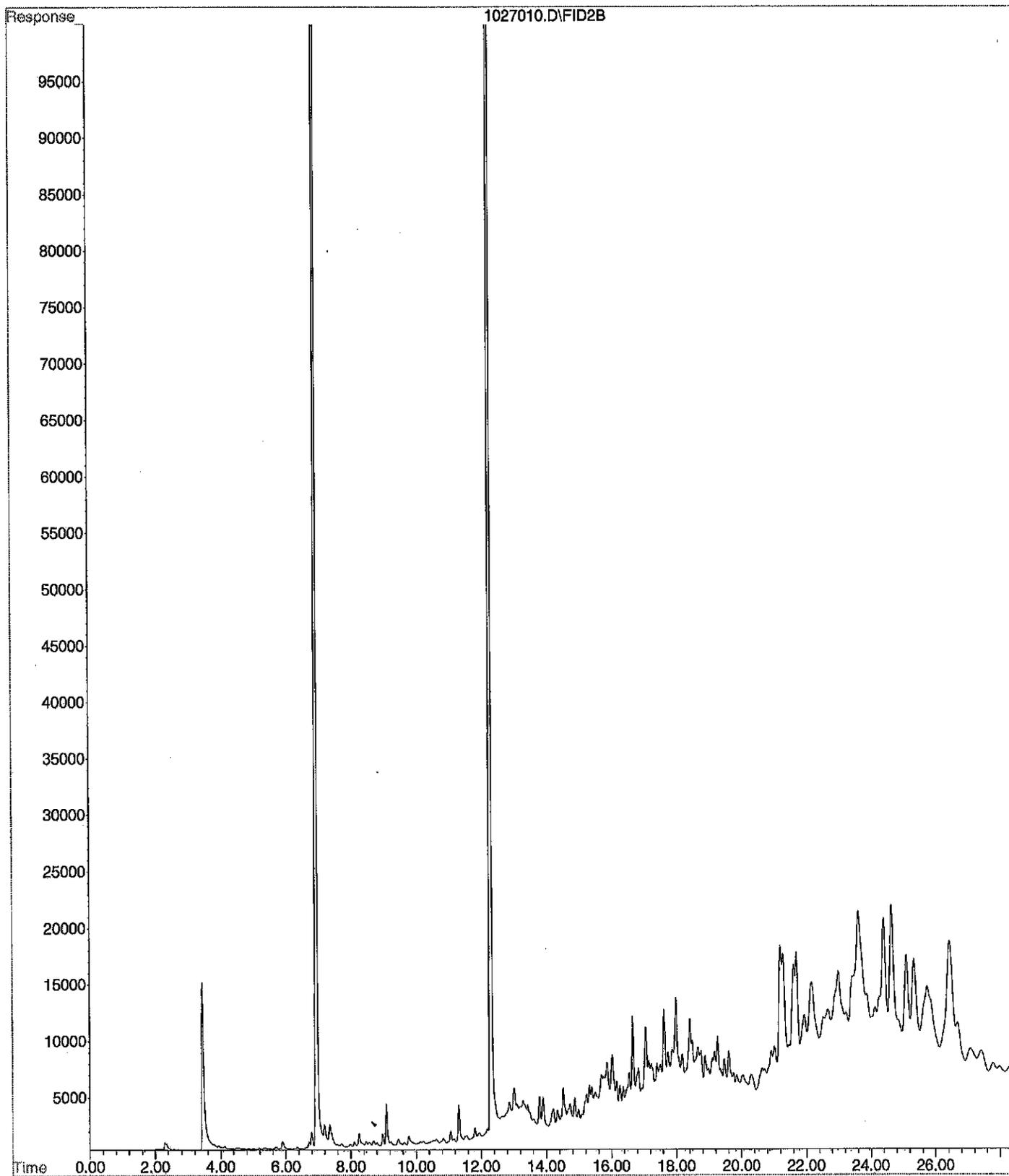
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.95	2641230	38.041 PPB
5) S BROMOFLUOROBENZENE	12.30	1602618	39.464 PPB
11) S FLUOROBENZENE #2	6.95	7937037	35.756 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11443307	38.194 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	1626011	0.026 PPM
2) H Entire GAS Envelope (9-24-	12.21	9400064	0.133 PPM
3) H GASOLINE (9-24-14)	13.51	4230708	0.086 PPM
7) H entire GAS envelope #2 (9-	12.26	24401862	0.121 PPM
8) H GASOLINE #2 (9-24-14)	13.56	11253514	0.043 PPM
9) MTBE #2	4.70	162	N.D. PPB
10) BENZENE #2	6.72	21208	0.028 PPB
12) TOLUENE #2	9.09	133687	0.304 PPB
13) ETHYLBENZENE #2	11.06	37884	0.036 PPB
14) m,p-XYLENE #2	11.32	129065	N.D. PPB
15) o-XYLENE #2	11.81	46858	N.D. PPB

10/28  


File : X:\BTEX\DARYL\DATA\D141027\1027010.D  
Operator :  
Acquired : 27 Oct 2014 15:58 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: 10-281-07s  
Misc Info : V2-36-06  
Vial Number: 10



Signal #1 : d:\btex\DATA\D141024\1024005.D\FID1A.CH Vial: 5  
 Signal #2 : d:\btex\DATA\D141024\1024005.D\FID2B.CH  
 Acq On : 24 Oct 2014 14:53 Operator:  
 Sample : MB1024S2 Inst : Daryl  
 Misc : V2-36-06 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Oct 24 15:22 2014 Quant Results File: 141012B.RES

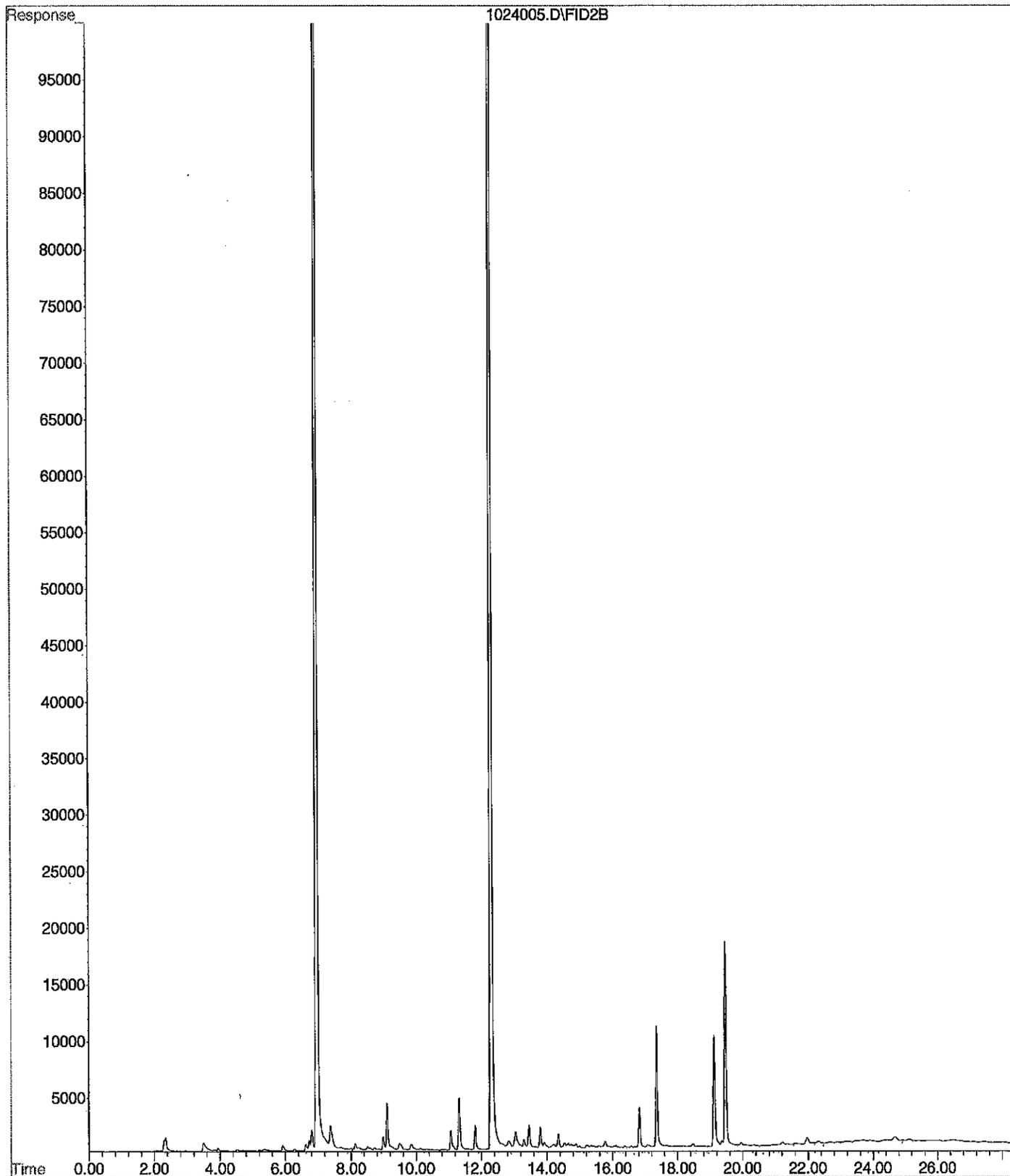
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.96	3141825	45.314 PPB
5) S BROMOFLUOROBENZENE	12.31	1854447	45.755 PPB
11) S FLUOROBENZENE #2	6.96	9267600	41.806 PPB
16) S BROMOFLUOROBENZENE #2	12.31	12897280	43.106 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	783788	0.009 PPM
2) H Entire GAS Envelope (9-24-	12.21	2858440	0.032 PPM
3) H GASOLINE (9-24-14)	13.51	918941	0.002 PPM
7) H entire GAS envelope #2 (9-	12.26	4184871	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1964128	N.D. PPM
9) MTBE #2	4.70	6346	0.039 PPB
10) BENZENE #2	6.73	32259	0.066 PPB
12) TOLUENE #2	9.11	159237	0.396 PPB
13) ETHYLBENZENE #2	11.07	71329	0.172 PPB
14) m,p-XYLENE #2	11.33	177778	0.065 PPB
15) o-XYLENE #2	11.82	79217	0.050 PPB

*10/27/14*

File : X:\BTEX\DARYL\DATA\D141024\1024005.D  
Operator :  
Acquired : 24 Oct 2014 14:53 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: MB1024s2  
Misc Info : V2-36-06  
Vial Number: 5



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141027\1027007.D\FID1A.CH  
 Signal #2 : d:\btex\DATA\D141027\1027007.D\FID2B.CH  
 Acq On : 27 Oct 2014 14:17  
 Sample : 10-281-05s  
 Misc : V2-36-06

vial: 7

Operator:  
 Inst : Daryl  
 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 27 14:46 2014 Quant Results File: 141012B.RES

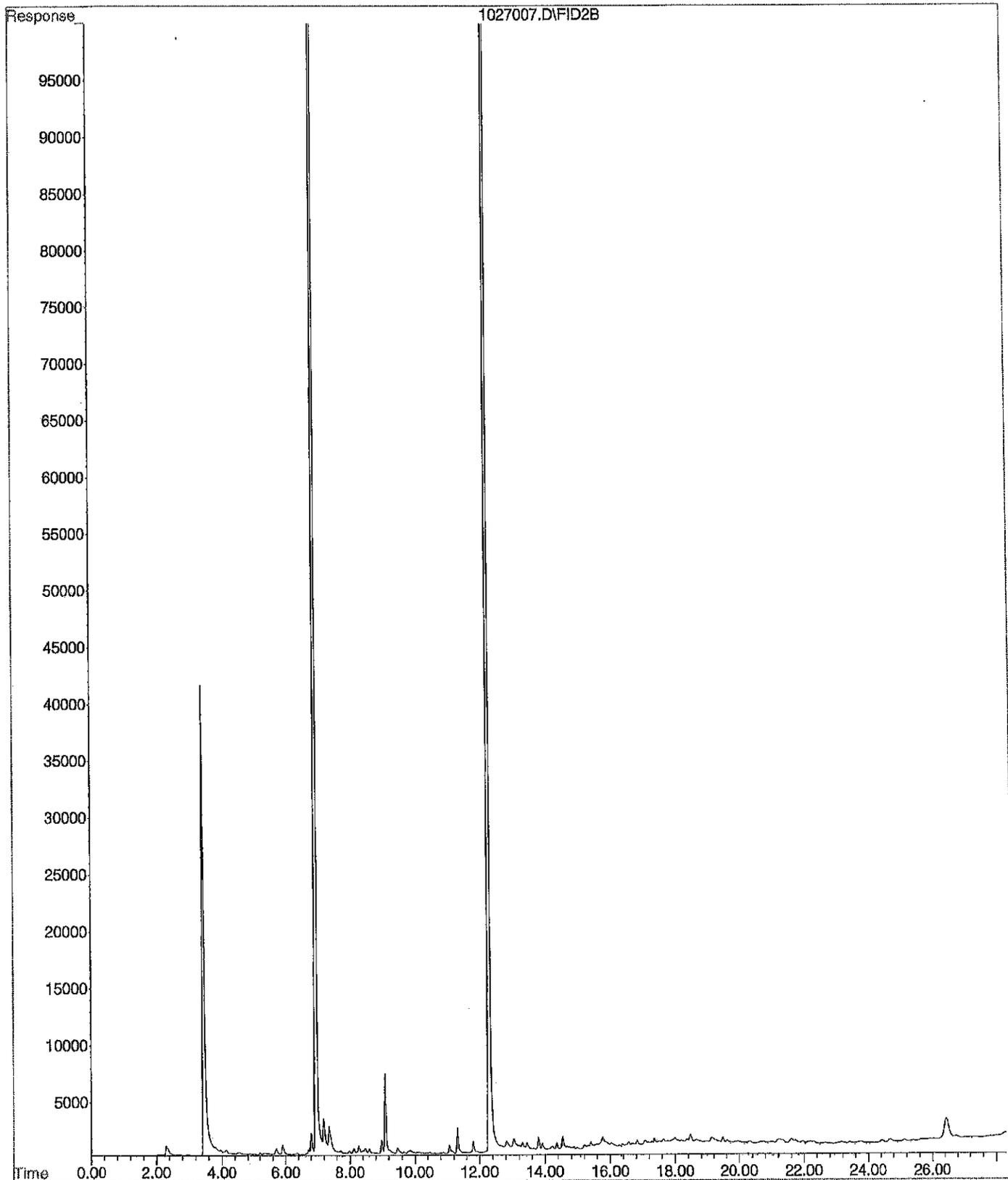
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase :  
 Signal #1 Info :  
 Signal #2 Phase :  
 Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.96	2575402	37.085	PPB
5) S BROMOFLUOROBENZENE	12.31	1519717	37.393	PPB
11) S FLUOROBENZENE #2	6.96	7732549	34.827	PPB
16) S BROMOFLUOROBENZENE #2	12.31	10851396	36.195	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	762219	0.009	PPM
2) H Entire GAS Envelope (9-24-	12.21	3020686	0.035	PPM
3) H GASOLINE (9-24-14)	13.51	738297	N.D.	PPM
7) H entire GAS envelope #2 (9-	12.26	6219086	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	1988288	N.D.	PPM
9) MTBE #2	0.00	0	N.D.	PPB
10) BENZENE #2	6.72	14951	0.007	PPB
12) TOLUENE #2	9.10	262091	0.766	PPB
13) ETHYLBENZENE #2	11.07	25509	N.D.	PPB
14) m,p-XYLENE #2	11.32	92606	N.D.	PPB
15) o-XYLENE #2	11.82	47222	N.D.	PPB

10/28  
 [Signature]

File : X:\BTEX\DARYL\DATA\D141027\1027007.D  
Operator :  
Acquired : 27 Oct 2014 14:17 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: 10-281-05s  
Misc Info : V2-36-06  
Vial Number: 7



Signal #1 : d:\btex\DATA\D141027\1027008.D\FID1A.CH Vial: 8  
 Signal #2 : d:\btex\DATA\D141027\1027008.D\FID2B.CH  
 Acq On : 27 Oct 2014 14:51 Operator:  
 Sample : 10-281-05s DUP Inst : Daryl  
 Misc : V2-36-06 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 27 15:20 2014 Quant Results File: 141012B.RES

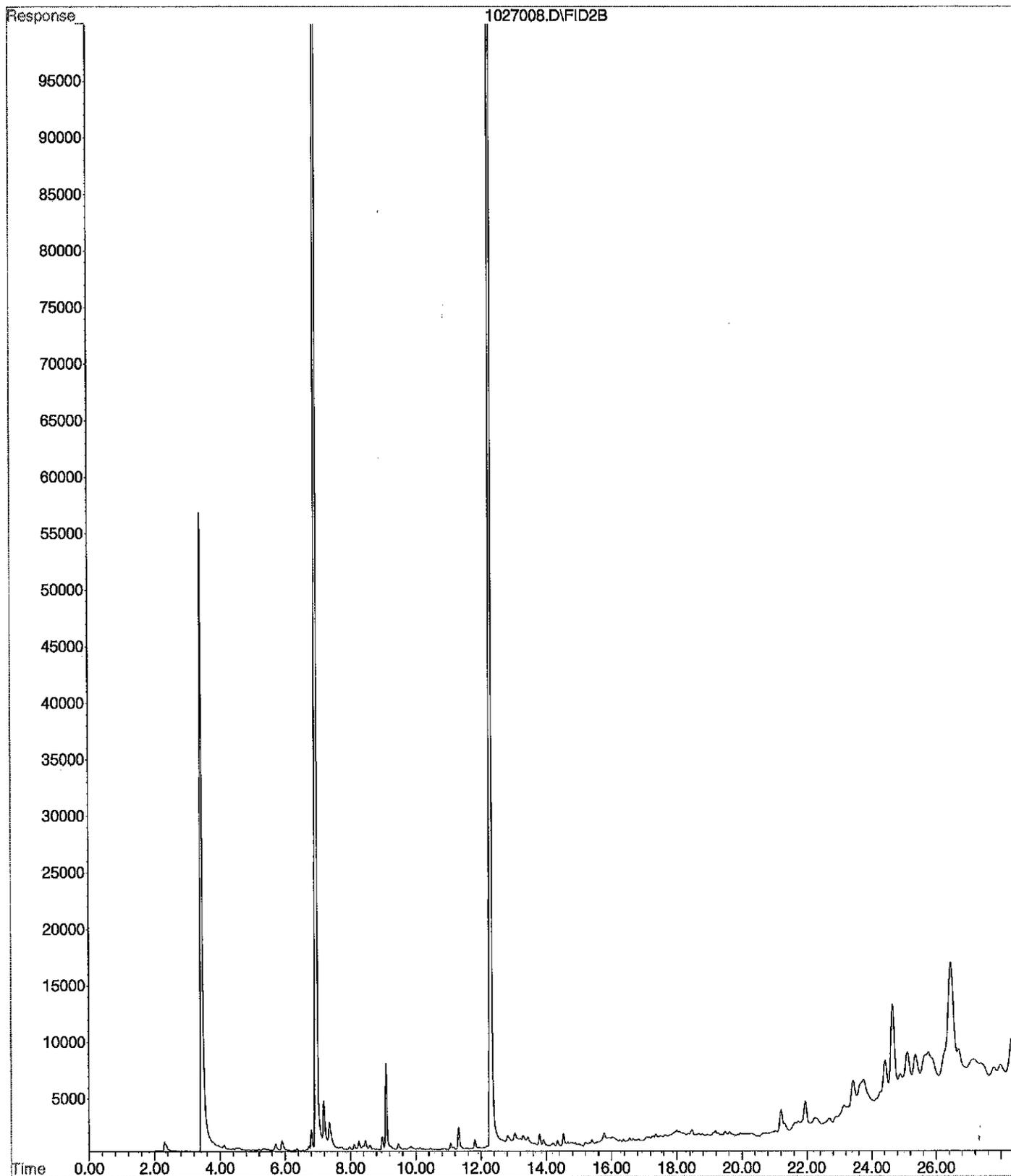
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	2579563	37.145 PPB
5) S BROMOFLUOROBENZENE	12.30	1532745	37.718 PPB
11) S FLUOROBENZENE #2	6.95	7693996	34.651 PPB
16) S BROMOFLUOROBENZENE #2	12.30	10850488	36.191 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	853319	0.011 PPM
2) H Entire GAS Envelope (9-24-	12.21	3557859	0.043 PPM
3) H GASOLINE (9-24-14)	13.51	952517	0.003 PPM
7) H entire GAS envelope #2 (9-	12.26	8010286	0.007 PPM
8) H GASOLINE #2 (9-24-14)	13.56	2240445	N.D. PPM
9) MTBE #2	4.73	1926	N.D. PPB
10) BENZENE #2	6.72	14026	0.003 PPB
12) TOLUENE #2	9.10	286253	0.853 PPB
13) ETHYLBENZENE #2	11.07	19818	N.D. PPB
14) m,p-XYLENE #2	11.32	76333	N.D. PPB
15) o-XYLENE #2	11.81	34385	N.D. PPB

*10/28*

File : X:\BTEX\DARYL\DATA\D141027\1027008.D  
Operator :  
Acquired : 27 Oct 2014 14:51 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: 10-281-05s DUP  
Misc Info : V2-36-06  
Vial Number: 8



Signal #1 : d:\btex\DATA\D141024\1024008.D\FID1A.CH Vial: 8  
 Signal #2 : d:\btex\DATA\D141024\1024008.D\FID2B.CH  
 Acq On : 24 Oct 2014 16:33 Operator:  
 Sample : SB1024S2 Inst : Daryl  
 Misc : V2-36-06,V2-36-07 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 24 17:02 2014 Quant Results File: 141012B.RES

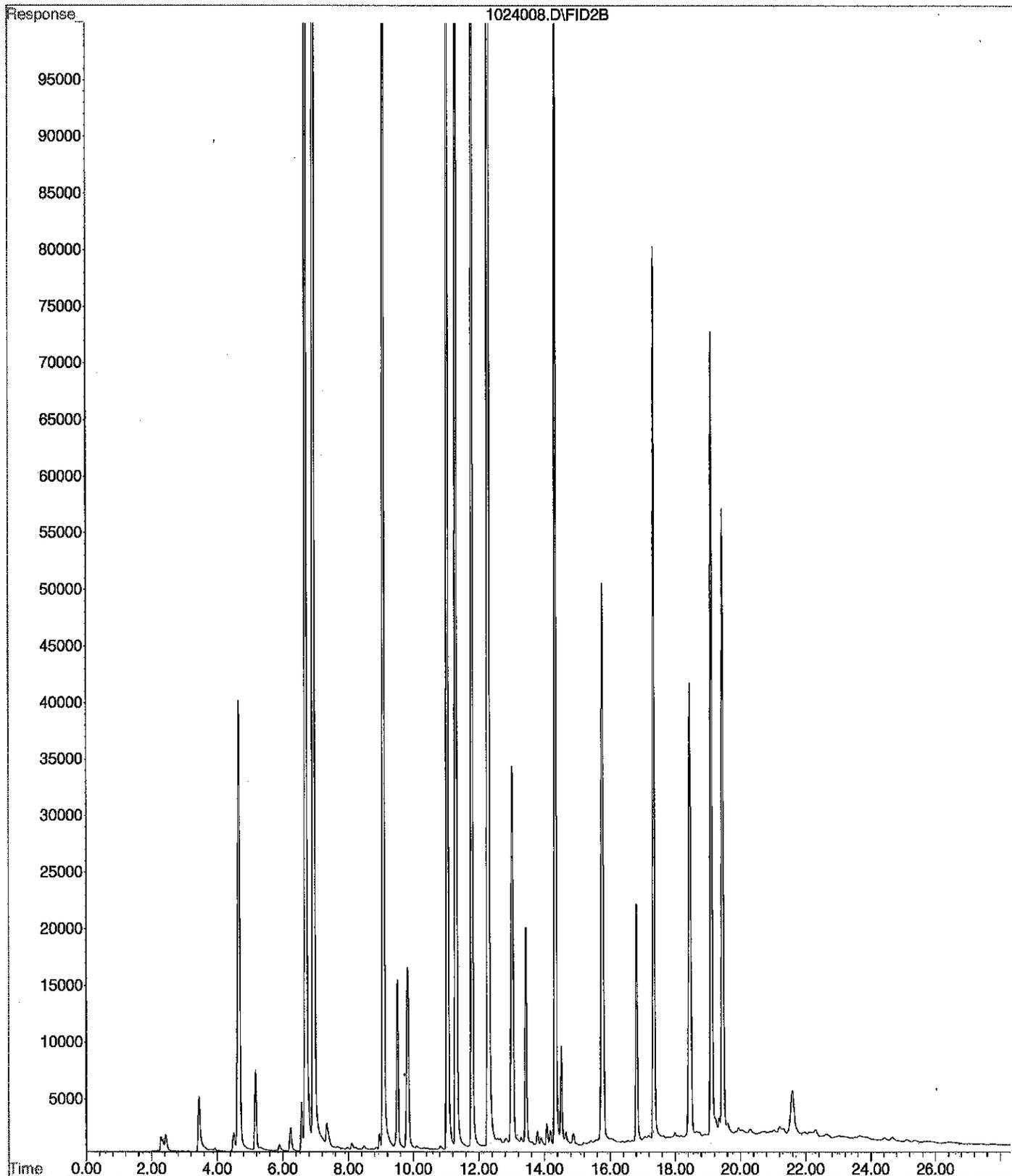
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.94	3086065	44.504 PPB
5) S BROMOFLUOROBENZENE	12.29	1660315	40.905 PPB
11) S FLUOROBENZENE #2	6.94	9380428	42.319 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11836698	39.523 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	11457708	0.226 PPM
2) H Entire GAS Envelope (9-24-	12.21	20516798	0.303 PPM
3) H GASOLINE (9-24-14)	13.51	12270836	0.289 PPM
7) H entire GAS envelope #2 (9-	12.26	55874613	0.340 PPM
8) H GASOLINE #2 (9-24-14)	13.56	37044364	0.278 PPM
9) MTBE #2	4.66	1957004	26.753 PPB
10) BENZENE #2	6.70	6563283	22.320 PPB
12) TOLUENE #2	9.08	6106319	21.795 PPB
13) ETHYLBENZENE #2	11.04	5164070	20.911 PPB
14) m,p-XYLENE #2	11.31	6221909	20.903 PPB
15) o-XYLENE #2	11.80	5198346	20.509 PPB

*10/27*  
*aw*

File : X:\BTEX\DARYL\DATA\D141024\1024008.D  
Operator :  
Acquired : 24 Oct 2014 16:33 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: SB1024S2  
Misc Info : V2-36-06,v2-36-07  
Vial Number: 8



Signal #1 : d:\btex\DATA\D141024\1024009.D\FID1A.CH vial: 9  
 Signal #2 : d:\btex\DATA\D141024\1024009.D\FID2B.CH  
 Acq On : 24 Oct 2014 17:07 Operator:  
 Sample : SBD1024S2 Inst : Daryl  
 Misc : V2-36-06,V2-36-07 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 24 17:35 2014 Quant Results File: 141012B.RES

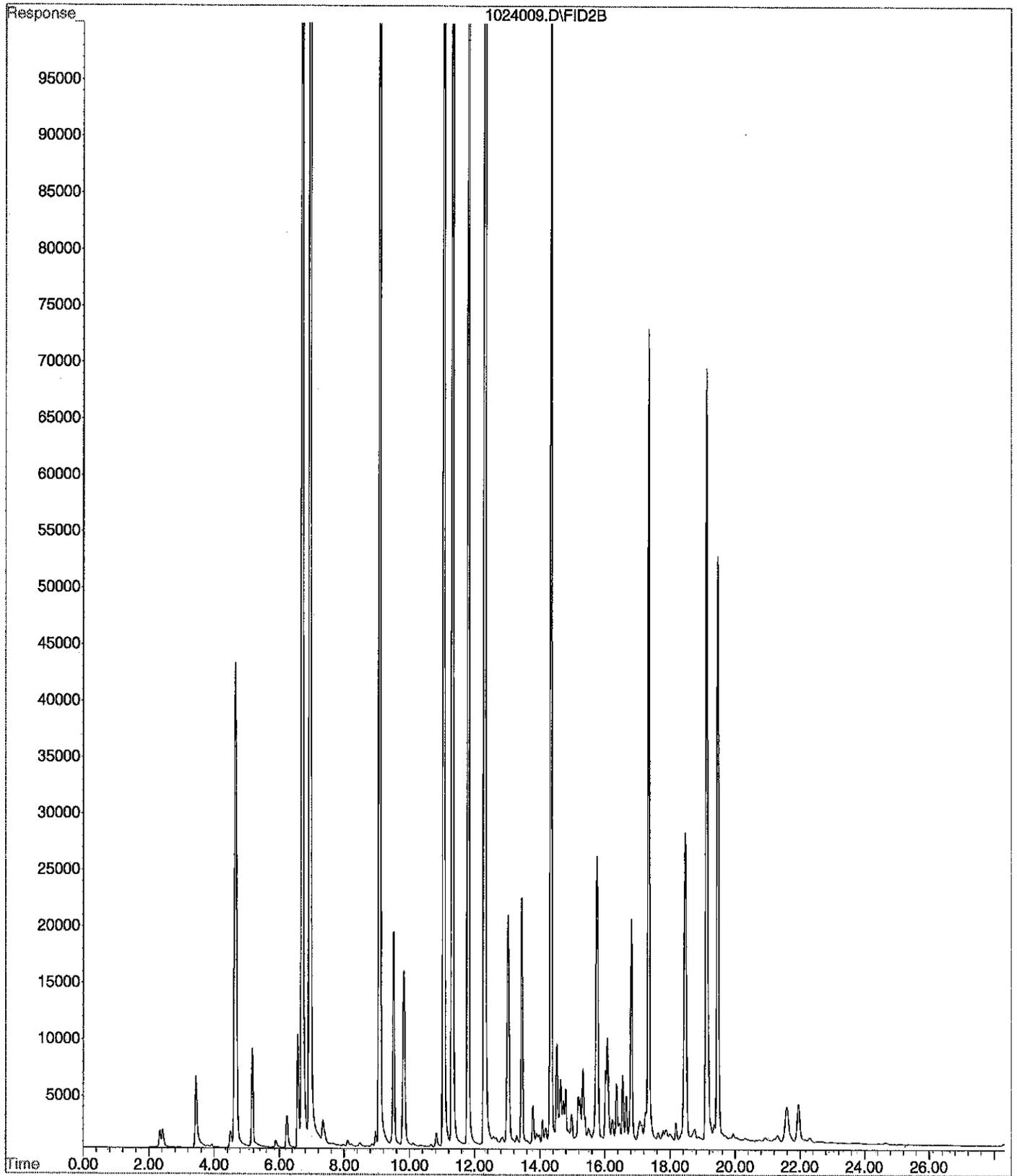
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3066680	44.222 PPB
5) S BROMOFLUOROBENZENE	12.30	1654747	40.766 PPB
11) S FLUOROBENZENE #2	6.94	9525796	42.980 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11787563	39.357 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	12366518	0.244 PPM
2) H Entire GAS Envelope (9-24-	12.21	22117063	0.327 PPM
3) H GASOLINE (9-24-14)	13.51	13579410	0.322 PPM
7) H entire GAS envelope #2 (9-	12.26	56278713	0.343 PPM
8) H GASOLINE #2 (9-24-14)	13.56	38572681	0.292 PPM
9) MTBE #2	4.66	2105395	28.785 PPB
10) BENZENE #2	6.70	6742457	22.931 PPB
12) TOLUENE #2	9.08	6269580	22.383 PPB
13) ETHYLBENZENE #2	11.05	5378926	21.786 PPB
14) m,p-XYLENE #2	11.31	6463956	21.737 PPB
15) o-XYLENE #2	11.80	5344512	21.094 PPB

10/27  
 MW

File : X:\BTEX\DARYL\DATA\D141024\1024009.D  
Operator :  
Acquired : 24 Oct 2014 17:07 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: SBD1024s2  
Misc Info : V2-36-06,V2-36-07  
Vial Number: 9



Signal #1 : d:\btex\DATA\D141024\1024001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141024\1024001.D\FID2B.CH  
 Acq On : 24 Oct 2014 10:54 Operator:  
 Sample : CCVD1024G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 24 11:22 2014 Quant Results File: 141012B.RES

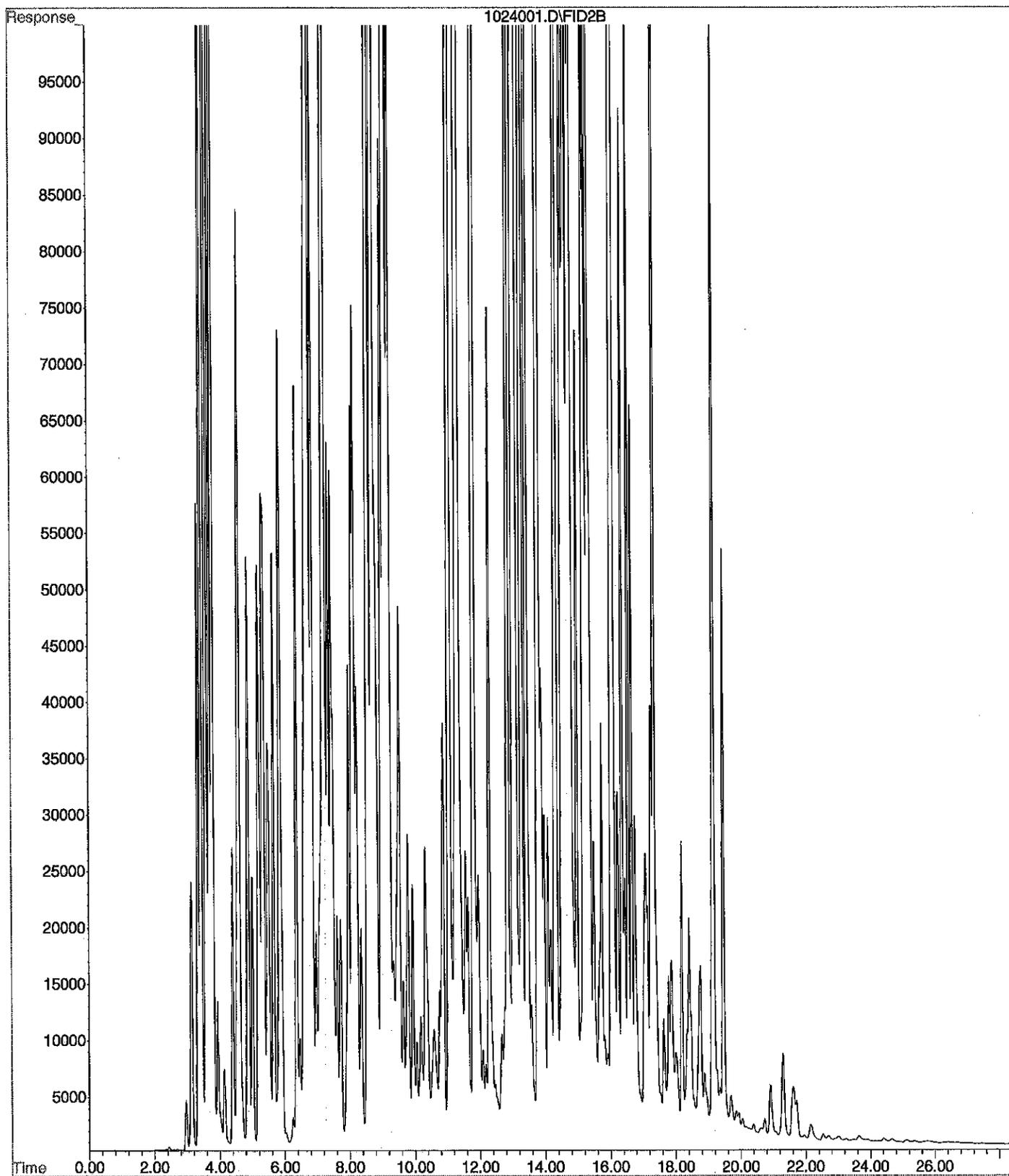
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.97	267960	3.561 PPB
5) S BROMOFLUOROBENZENE	12.29	1369957	33.651 PPB
11) S FLUOROBENZENE #2	6.97	844514	3.509 PPB
16) S BROMOFLUOROBENZENE #2	12.29	3308955	10.716 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	289862670	5.881 PPM
2) H Entire GAS Envelope (9-24-	12.21	396525731	6.063 PPM
3) H GASOLINE (9-24-14)	13.51	216955639	5.467 PPM
7) H entire GAS envelope #2 (9-	12.26	805549760	5.562 PPM
8) H GASOLINE #2 (9-24-14)	13.56	594530496	5.360 PPM ✓
9) MTBE #2	4.59	4695009	64.249 PPB
10) BENZENE #2	6.72	53234094	181.354 PPB
12) TOLUENE #2	9.10	138036988	496.529 PPB
13) ETHYLBENZENE #2	11.06	33720441	137.197 PPB
14) m,p-XYLENE #2	11.31	123851399	426.433 PPB
15) o-XYLENE #2	11.81	46653477	186.194 PPB

10/24  


File : X:\BTEX\DARYL\DATA\D141024\1024001.D  
Operator :  
Acquired : 24 Oct 2014 10:54 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: CCVD1024G-1  
Misc Info : V2-36-08  
Vial Number: 1



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141024\1024042.D\FID1A.CH Vial: 42  
 Signal #2 : d:\btex\DATA\D141024\1024042.D\FID2B.CH  
 Acq On : 25 Oct 2014 11:20 Operator:  
 Sample : CCVD1024G-2 Inst : Daryl  
 Misc : V2-34-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 25 11:48 2014 Quant Results File: 141012B.RES

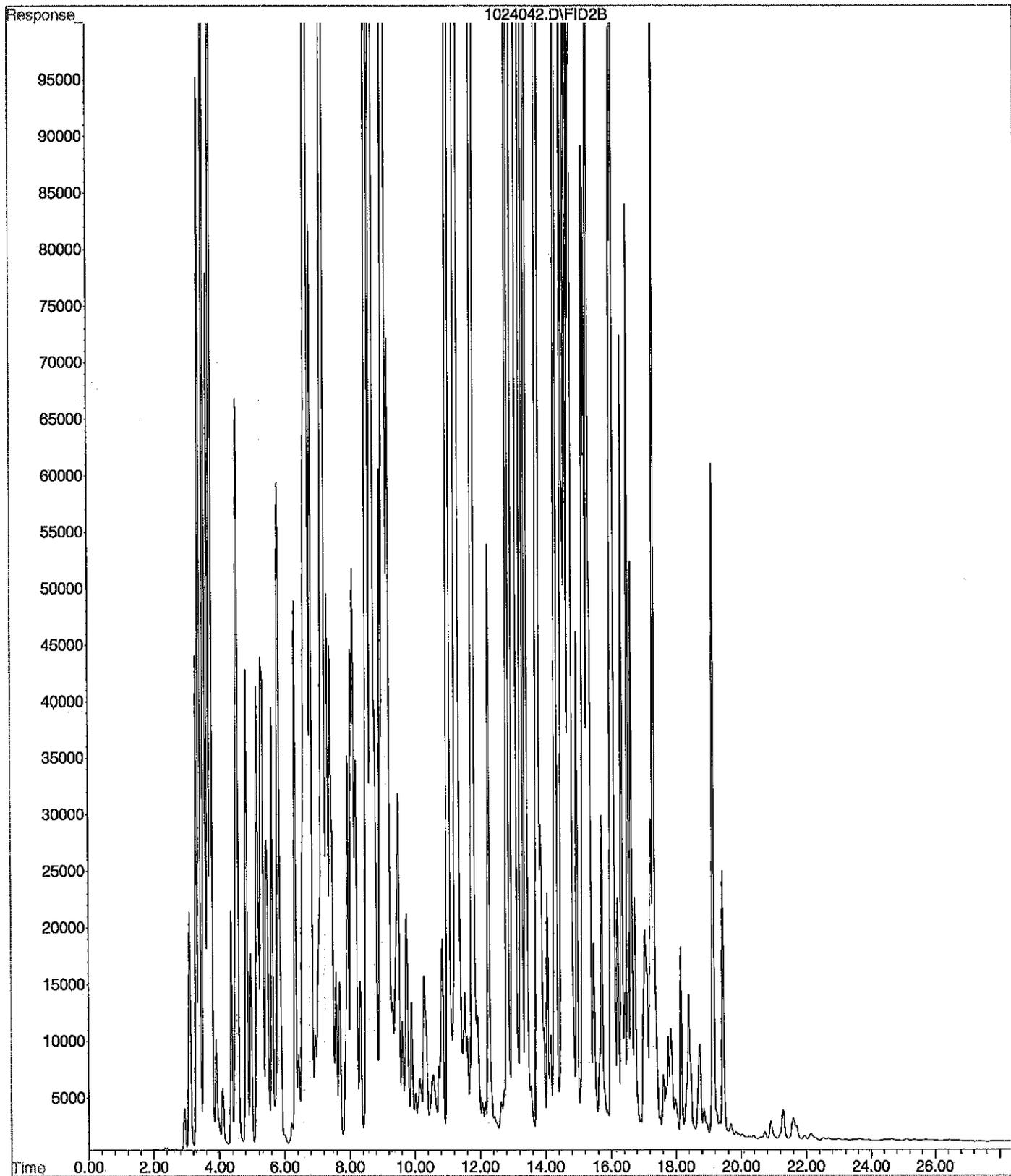
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.27	878234	21.367	PPB
11) S FLUOROBENZENE #2	6.95	441424	1.676	PPB
16) S BROMOFLUOROBENZENE #2	12.27	2187336	6.927	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	230093722	4.667	PPM
2) H Entire GAS Envelope (9-24-	12.21	307358727	4.697	PPM
3) H GASOLINE (9-24-14)	13.51	168076334	4.230	PPM
7) H entire GAS envelope #2 (9-	12.26	647317190	4.460	PPM
8) H GASOLINE #2 (9-24-14)	13.56	487040443	4.380	PPM
9) MTBE #2	4.56	3684170	50.406	PPB
10) BENZENE #2	6.69	44396322	151.239	PPB
12) TOLUENE #2	9.07	123630927	444.691	PPB
13) ETHYLBENZENE #2	11.03	26972669	109.719	PPB
14) m,p-XYLENE #2	11.29	107432248	369.828	PPB
15) o-XYLENE #2	11.78	39361167	157.048	PPB

10/27  


File : X:\BTEX\DARYL\DATA\D141024\1024042.D  
Operator :  
Acquired : 25 Oct 2014 11:20 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: CCVD1024G-2  
Misc Info : V2-34-17  
Vial Number: 42



Signal #1 : d:\btex\DATA\D141027\1027001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141027\1027001.D\FID2B.CH  
 Acq On : 27 Oct 2014 10:39 Operator:  
 Sample : CCVD1027G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 27 11:08 2014 Quant Results File: 141012B.RES

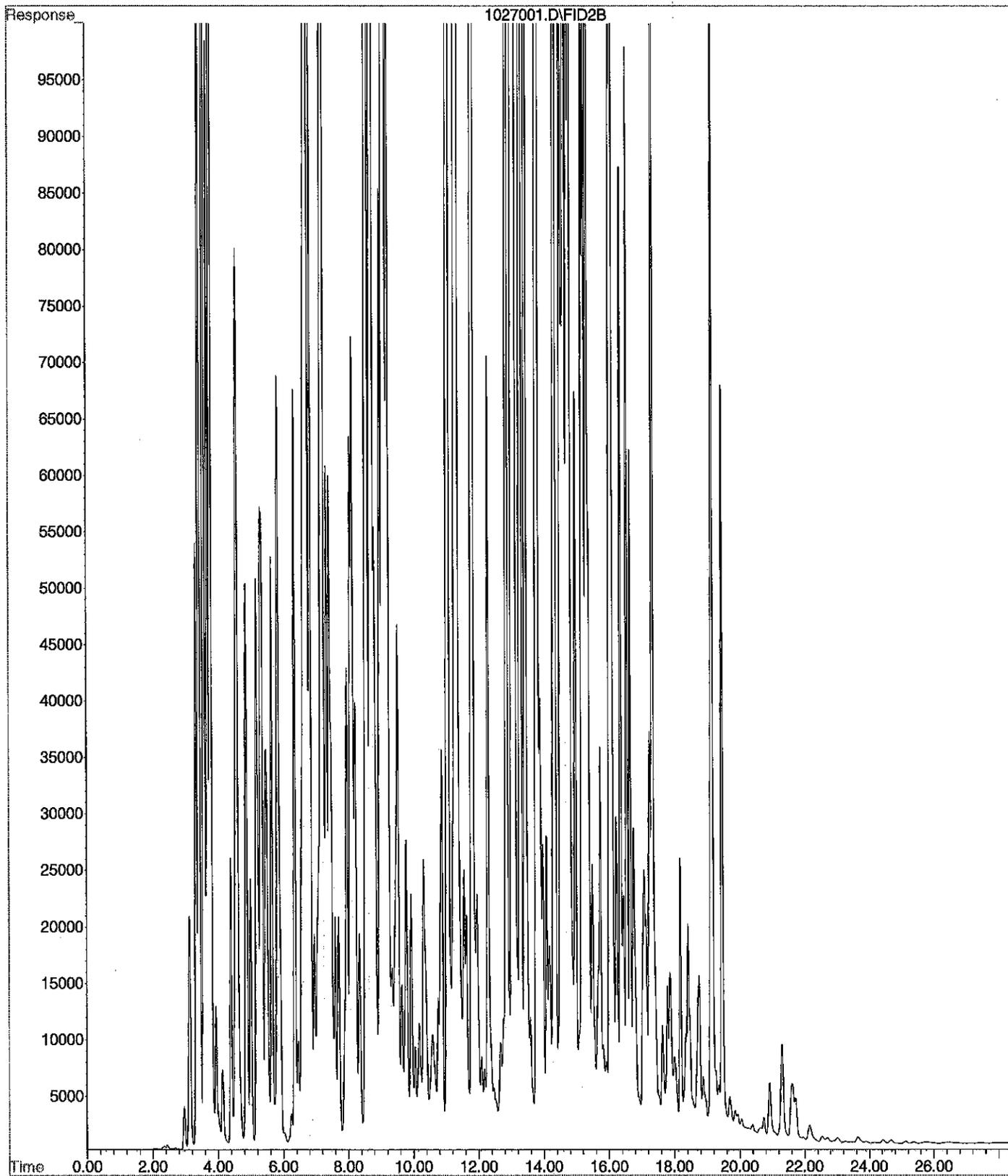
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.96	292085	3.912 PPB
5) S BROMOFLUOROBENZENE	12.29	1468585	36.115 PPB
11) S FLUOROBENZENE #2	6.96	827804	3.433 PPB
16) S BROMOFLUOROBENZENE #2	12.29	3108801	10.040 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	279370809	5.668 PPM
2) H Entire GAS Envelope (9-24-	12.21	382967869	5.855 PPM
3) H GASOLINE (9-24-14)	13.51	207553155	5.229 PPM
7) H entire GAS envelope #2 (9-	12.26	767949257	5.300 PPM
8) H GASOLINE #2 (9-24-14)	13.56	564501837	5.086 PPM ✓
9) MTBE #2	4.59	4487737	61.410 PPB
10) BENZENE #2	6.71	50948795	173.567 PPB
12) TOLUENE #2	9.10	132449502	476.423 PPB
13) ETHYLBENZENE #2	11.05	32120226	130.681 PPB
14) m,p-XYLENE #2	11.31	118649097	408.498 PPB
15) o-XYLENE #2	11.81	44250412	176.589 PPB

10/27

File : X:\BTEX\DARYL\DATA\D141027\1027001.D  
Operator :  
Acquired : 27 Oct 2014 10:39 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: CCVD1027G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141027\1027013.D\FID1A.CH      vial: 13  
 Signal #2 : d:\btex\DATA\D141027\1027013.D\FID2B.CH  
 Acq On : 27 Oct 2014 17:38      Operator:  
 Sample : CCVD1027G-2      Inst : Daryl  
 Misc : V2-36-08      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile signal #1: events.e      IntFile signal #2: EVENTS2.E

Quant Time: Oct 27 18:07 2014      Quant Results File: 141012B.RES

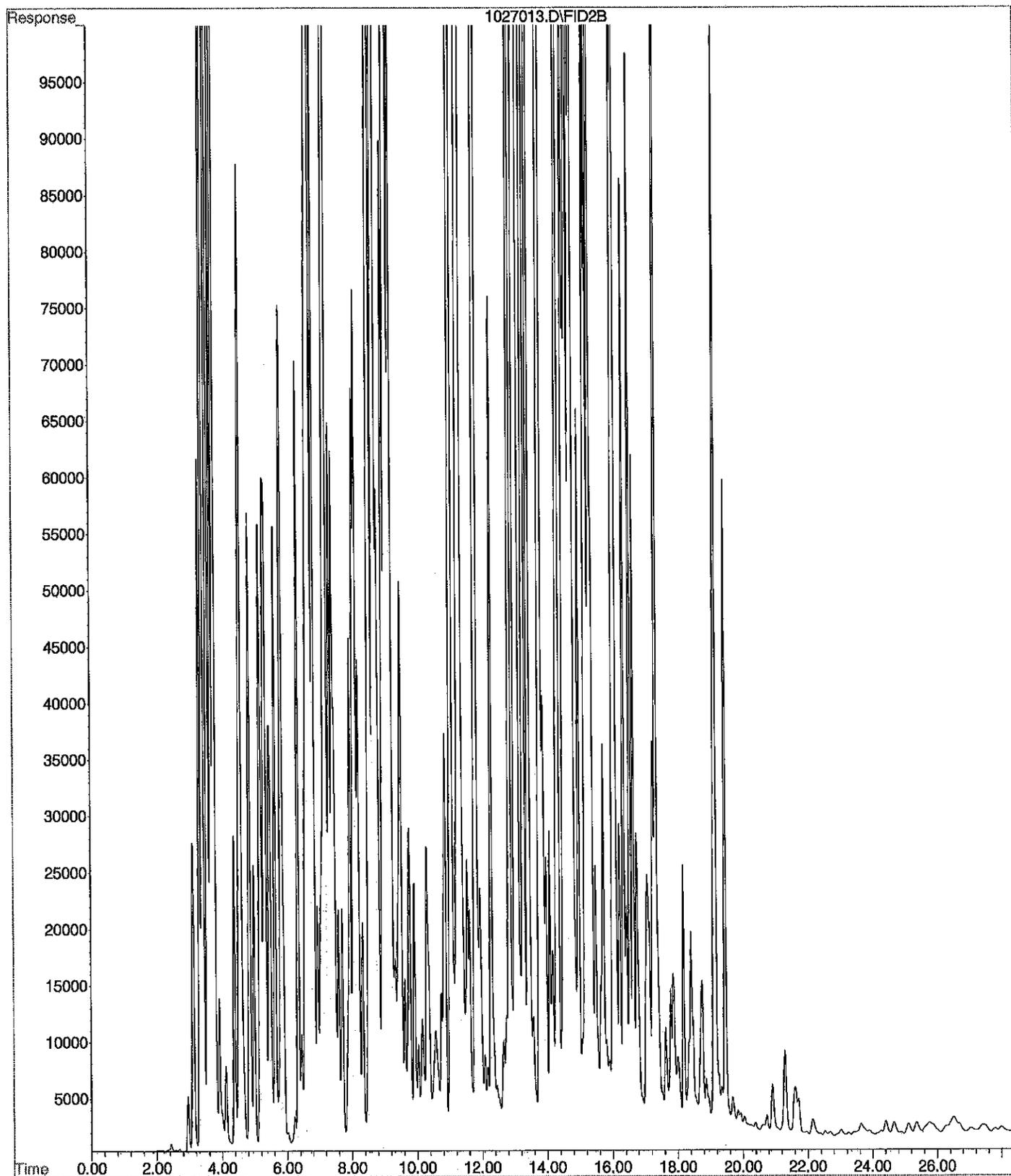
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.95	312514	4.209 PPB
5) S BROMOFLUOROBENZENE	12.28	1344652	33.019 PPB
11) S FLUOROBENZENE #2	6.95	910386	3.809 PPB
16) S BROMOFLUOROBENZENE #2	12.28	3292404	10.660 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	282829013	5.739 PPM
2) H Entire GAS Envelope (9-24-	12.21	385057146	5.887 PPM
3) H GASOLINE (9-24-14)	13.51	208383617	5.250 PPM
7) H entire GAS envelope #2 (9-	12.26	790072698	5.454 PPM
8) H GASOLINE #2 (9-24-14)	13.56	576936931	5.200 PPM ✓
9) MTBE #2	4.58	5063787	69.299 PPB
10) BENZENE #2	6.70	53150909	181.070 PPB
12) TOLUENE #2	9.08	136971186	492.694 PPB
13) ETHYLBENZENE #2	11.04	33156576	134.901 PPB
14) m,p-XYLENE #2	11.30	122131517	420.504 PPB
15) o-XYLENE #2	11.80	45554280	181.800 PPB

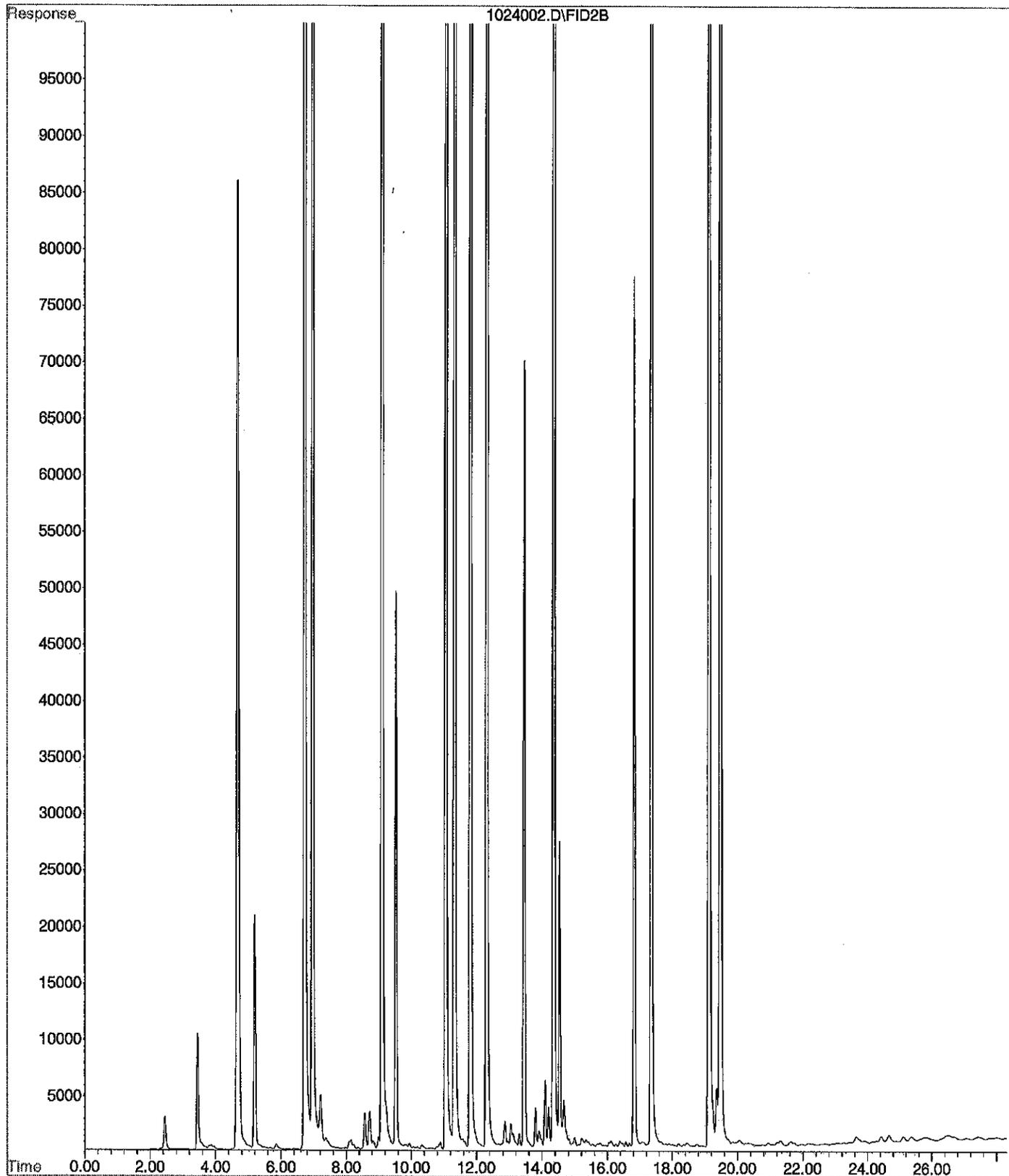
*10/28*

File : X:\BTEX\DARYL\DATA\D141027\1027013.D  
Operator :  
Acquired : 27 Oct 2014 17:38 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: CCVD1027G-2  
Misc Info : V2-36-08  
Vial Number: 13





File : X:\BTEX\DARYL\DATA\D141024\1024002.D  
Operator :  
Acquired : 24 Oct 2014 11:57 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: CCVD1024B-1  
Misc Info : V2-34-18,V2-36-07  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141024\1024019.D\FID1A.CH Vial: 19  
 Signal #2 : d:\btex\DATA\D141024\1024019.D\FID2B.CH  
 Acq On : 24 Oct 2014 22:39 Operator:  
 Sample : CCVD1024B-2 Inst : Daryl  
 Misc : V2-34-18,V2-36-07 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 24 23:08 2014 Quant Results File: 141012B.RES

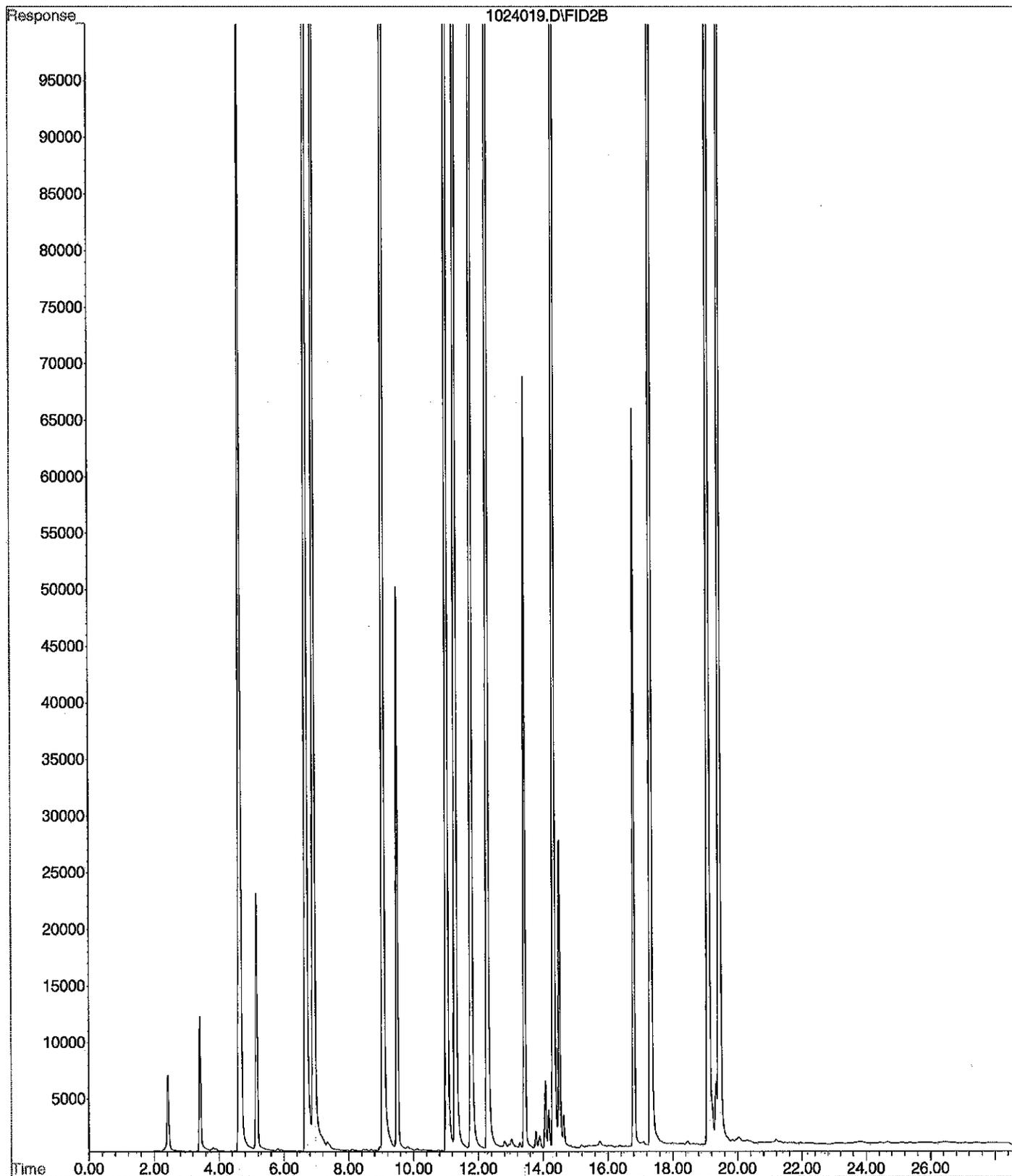
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2964434	42.737 PPB
5) S BROMOFLUOROBENZENE	12.29	1766249	43.552 PPB
11) S FLUOROBENZENE #2	6.93	9302028	41.963 PPB
16) S BROMOFLUOROBENZENE #2	12.28	12639403	42.235 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	26995430	0.542 PPM
2) H Entire GAS Envelope (9-24-	12.21	48360297	0.729 PPM
3) H GASOLINE (9-24-14)	13.51	31537741	0.776 PPM
7) H entire GAS envelope #2 (9-	12.26	127711503	0.841 PPM
8) H GASOLINE #2 (9-24-14)	13.56	85044900	0.716 PPM
9) MTBE #2	4.65	4888851	66.903 PPB
10) BENZENE #2	6.69	15176254	51.670 PPB
12) TOLUENE #2	9.07	14034741	50.325 PPB
13) ETHYLBENZENE #2	11.03	12333204	50.105 PPB
14) m,p-XYLENE #2	11.30	14714833	50.182 PPB
15) o-XYLENE #2	11.79	12432007	49.420 PPB

10/27  
 ar

File : X:\BTEX\DARYL\DATA\D141024\1024019.D  
Operator :  
Acquired : 24 Oct 2014 22:39 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: CCVD1024B-2  
Misc Info : V2-34-18,V2-36-07  
Vial Number: 19



Signal #1 : d:\btex\DATA\D141027\1027002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141027\1027002.D\FID2B.CH  
 Acq On : 27 Oct 2014 11:13 Operator:  
 Sample : CCVD1027B-1 Inst : Daryl  
 Misc : V2-34-18,V2-36-07 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Oct 27 11:41 2014 Quant Results File: 141012B.RES

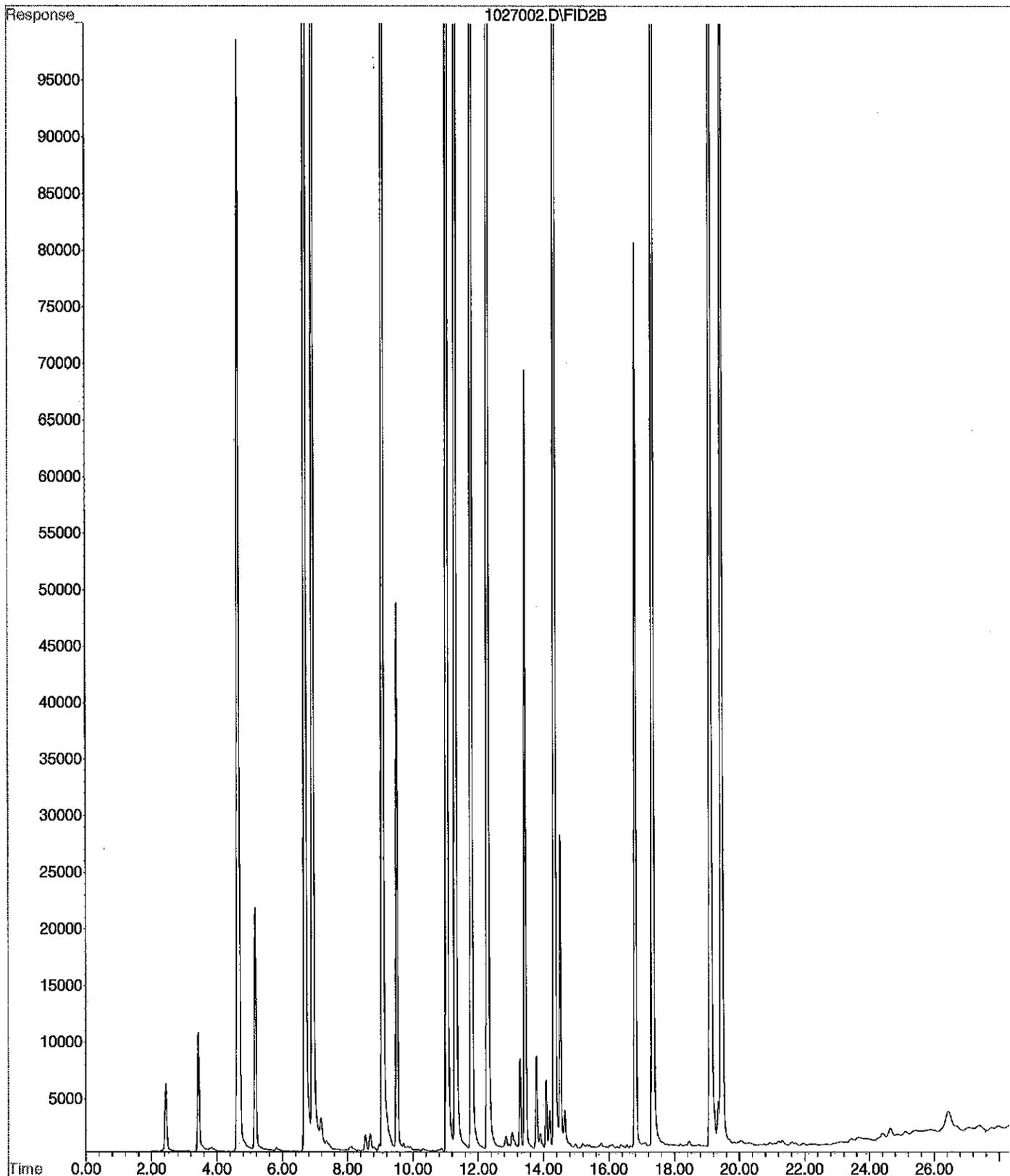
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3055465	44.059 PPB
5) S BROMOFLUOROBENZENE	12.30	1847870	45.591 PPB
11) S FLUOROBENZENE #2	6.94	9292857	41.921 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12950437	43.285 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	27799113	0.558 PPM
2) H Entire GAS Envelope (9-24-	12.21	49072443	0.740 PPM
3) H GASOLINE (9-24-14)	13.51	33028199	0.814 PPM
7) H entire GAS envelope #2 (9-	12.26	125695193	0.827 PPM
8) H GASOLINE #2 (9-24-14)	13.56	87156147	0.735 PPM
9) MTBE #2	4.66	4613921	63.138 PPB
10) BENZENE #2	6.70	15046261	51.227 PPB
12) TOLUENE #2	9.08	14342158	51.431 PPB
13) ETHYLBENZENE #2	11.05	12469392	50.659 PPB
14) m,p-XYLENE #2	11.31	15260542	52.064 PPB
15) o-XYLENE #2	11.80	12635197	50.232 PPB

10/27  


File : X:\BTEX\DARYL\DATA\D141027\1027002.D  
Operator :  
Acquired : 27 Oct 2014 11:13 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: CCVD1027B-1  
Misc Info : V2-34-18,V2-36-07  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141027\1027012.D\FID1A.CH      vial: 12  
 Signal #2 : d:\btex\DATA\D141027\1027012.D\FID2B.CH  
 Acq On : 27 Oct 2014 17:05      Operator:  
 Sample : CCVD1027B-2      Inst : Daryl  
 Misc : V2-34-18,V2-36-07      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Oct 27 17:34 2014      Quant Results File: 141012B.RES

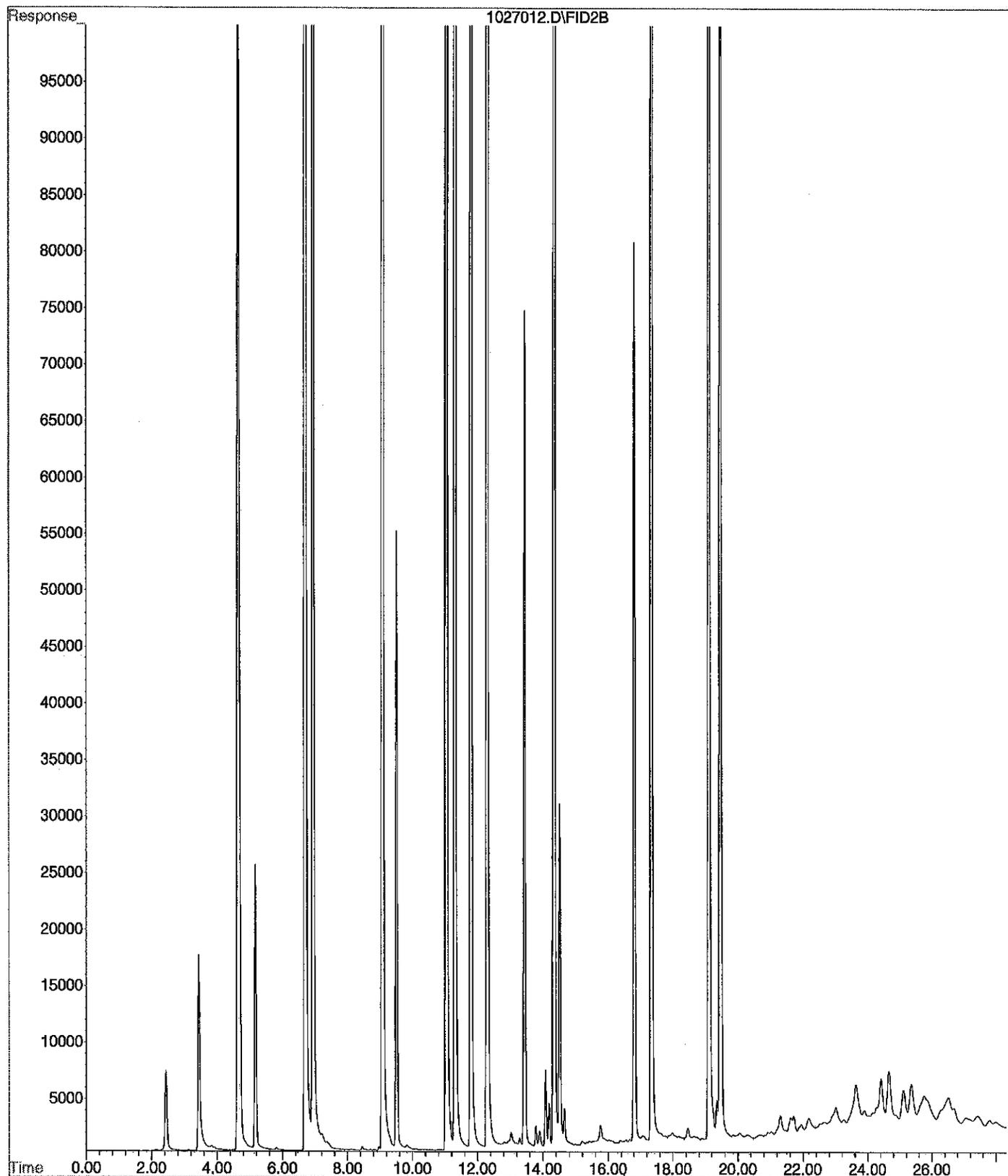
Quant Method : D:\BTEX\methods\141012B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012B.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	2994578	43.175 PPB
5) S BROMOFLUOROBENZENE	12.30	1794882	44.267 PPB
11) S FLUOROBENZENE #2	6.94	9349385	42.178 PPB
16) S BROMOFLUOROBENZENE #2	12.30	12844859	42.929 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30098898	0.605 PPM
2) H Entire GAS Envelope (9-24-	12.21	52497126	0.793 PPM
3) H GASOLINE (9-24-14)	13.51	35308107	0.872 PPM
7) H entire GAS envelope #2 (9-	12.26	135106421	0.892 PPM
8) H GASOLINE #2 (9-24-14)	13.56	94006102	0.798 PPM
9) MTBE #2	4.66	5204170	71.222 PPB
10) BENZENE #2	6.70	16790073	57.169 PPB
12) TOLUENE #2	9.08	15633495	56.078 PPB
13) ETHYLBENZENE #2	11.05	13814563	56.137 PPB
14) m,p-XYLENE #2	11.31	16474898	56.250 PPB
15) o-XYLENE #2	11.80	13860889	55.131 PPB

10/28  


File : X:\BTEX\DARYL\DATA\D141027\1027012.D  
Operator :  
Acquired : 27 Oct 2014 17:05 using AcqMethod 141012B.M  
Instrument : Daryl  
Sample Name: CCVD1027B-2  
Misc Info : V2-34-18,V2-36-07  
Vial Number: 12



## cPAHs Data

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024007.D  
 Acq On : 24 Oct 2014 5:05 pm  
 Operator :  
 Sample : 10-281-02  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 24 17:20:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration

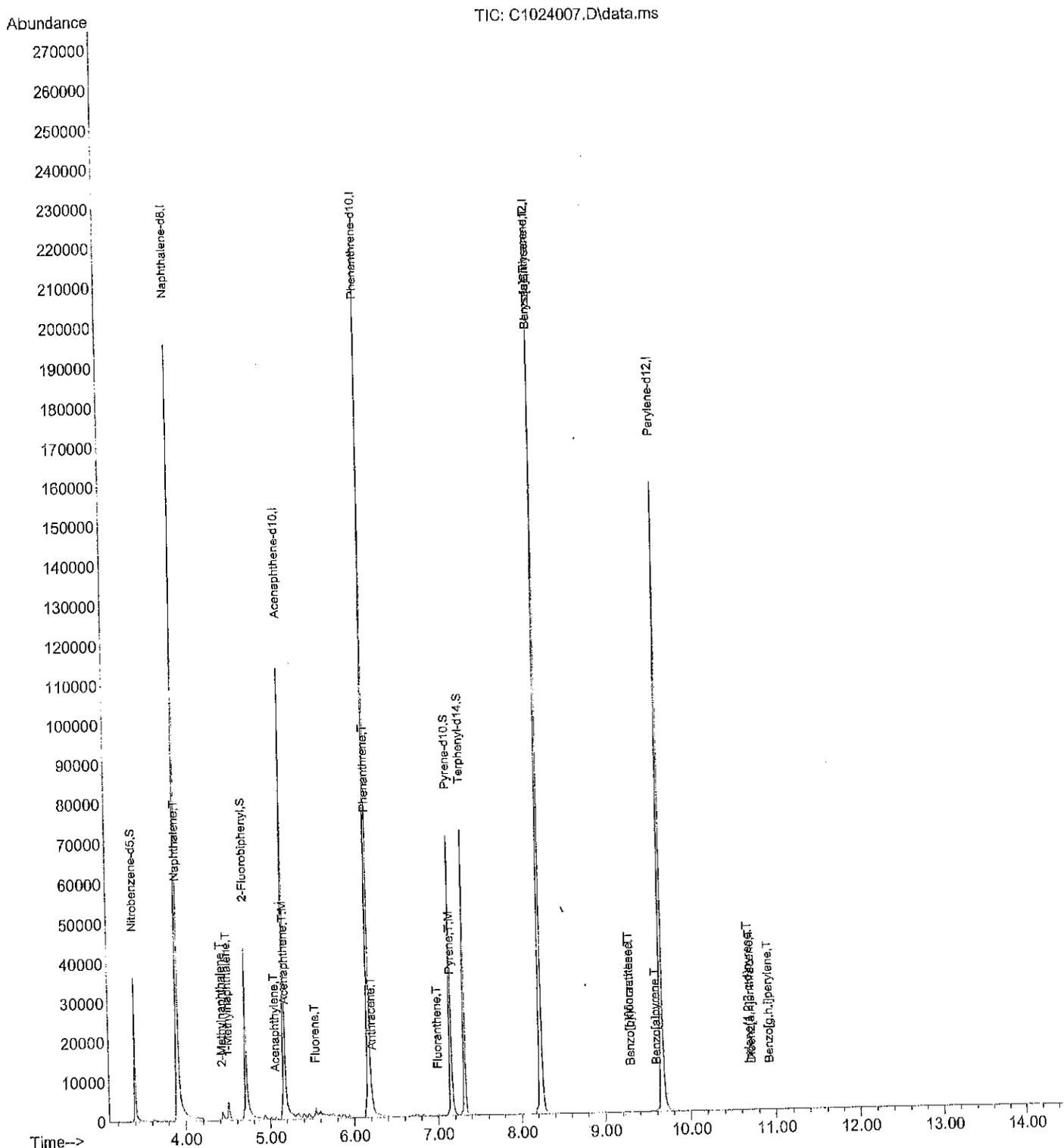
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	3.907	136	216476	2000.00	ppb	-0.02	
6) Acenaphthene-d10	5.167	164	128890	2000.00	ppb	-0.02	
10) Phenanthrene-d10	6.168	188	251352	2000.00	ppb	-0.02	
17) Chrysene-d12	8.225	240	257590	2000.00	ppb	-0.03	
21) Perylene-d12	9.658	264	234291	2000.00	ppb	-0.03	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.397	82	22464	675.35	ppb	-0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	67.53%			
7) 2-Fluorobiphenyl	4.709	172	66395	780.29	ppb	-0.02	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	78.03%			
11) Pyrene-d10	7.152	212	81746	782.26	ppb	-0.02	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	78.23%			
18) Terphenyl-d14	7.315	244	72049	804.33	ppb	-0.03	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	80.43%			
<b>Target Compounds</b>							
							Qvalue
3) Naphthalene	3.919	128	2575	23.75	ppb		100
4) 2-Methylnaphthalene	4.428	142	3818	58.99	ppb		100
5) 1-Methylnaphthalene	4.503	142	6606	90.80	ppb		100
8) Acenaphthylene	5.067	152	433	3.99	ppb		100
9) Acenaphthene	5.182	153	827	11.39	ppb		100
12) Fluorene	5.544	166	2070	24.87	ppb		100
13) Phenanthrene	6.179	178	1744	15.80	ppb		100
14) Anthracene	6.214	178	336	3.33	ppb		100
15) Fluoranthene	7.001	202	401	3.14	ppb		100
16) Pyrene	7.164	202	788	5.95	ppb		100
19) Benzo[a]anthracene	8.222	228	963	<del>7.62</del> <sup>5.95</sup> ppb			100
20) Chrysene	8.222	228	963	<del>7.85</del> <sup>1.90</sup> ppb			100
22) Benzo[b]fluoranthene	9.292	252	479	<del>4.18</del> <sup>2.32</sup> ppb			100
23) Benzo[j,k]fluoranthene	9.292	252	479	<del>3.87</del> <sup>1.79</sup> ppb			100
24) Benzo[a]pyrene	9.596	252	262	2.37	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.692	276	269	2.07	ppb		100
26) Dibenz[a,h]anthracene	10.712	278	140	1.26	ppb		100
27) Benzo[g,h,i]perylene	10.926	276	302	2.84	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

10/27/14  
 SM

Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024007.D  
 Acq On : 24 Oct 2014 5:05 pm  
 Operator :  
 Sample : 10-281-02  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 24 17:20:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024008.D  
 Acq On : 24 Oct 2014 5:26 pm  
 Operator :  
 Sample : 10-281-05  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 24 17:41:58 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration

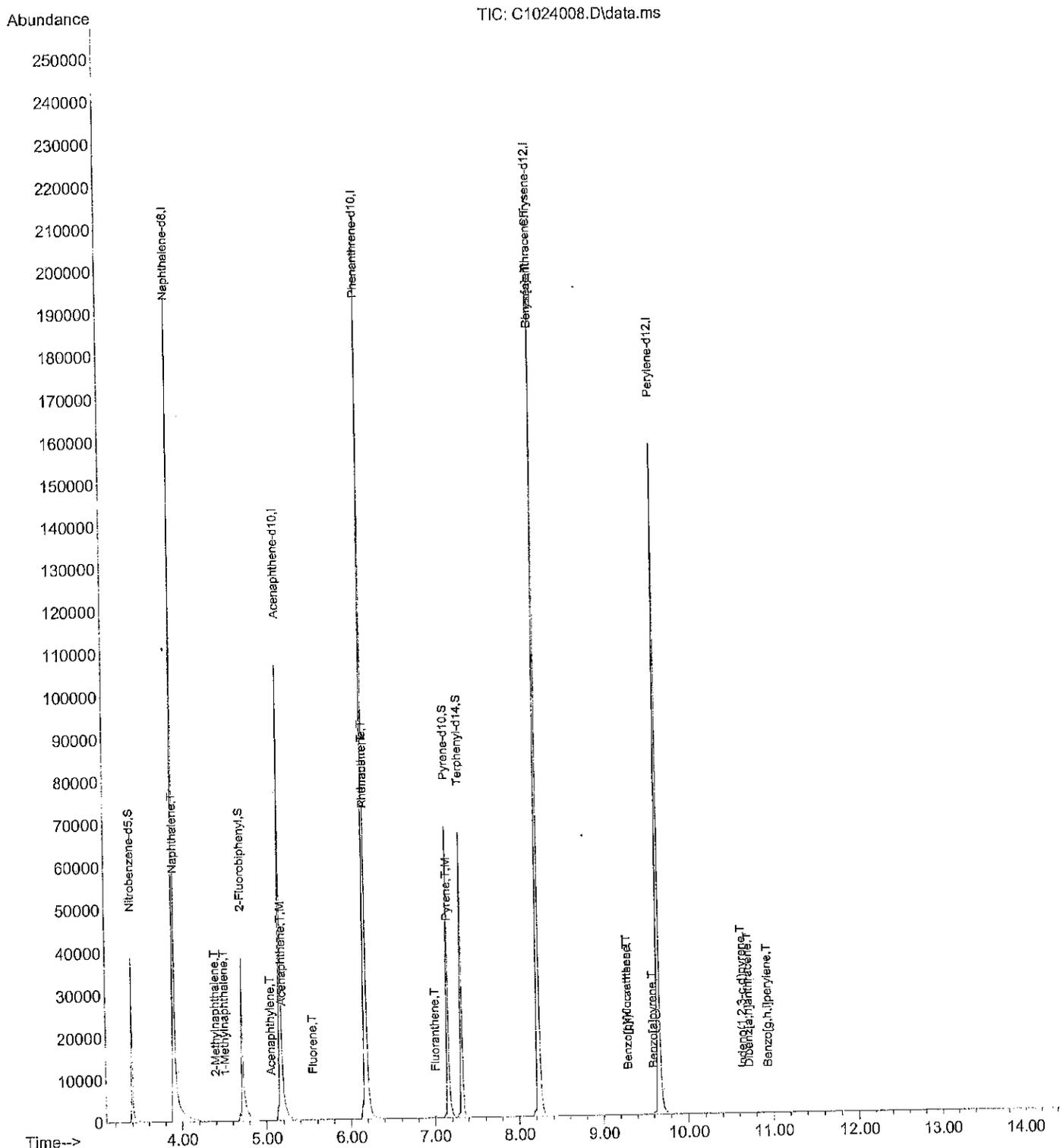
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	3.908	136	229463	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.166	164	138036	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.167	188	270945	2000.00	ppb	-0.02
17) Chrysene-d12	8.225	240	272012	2000.00	ppb	-0.03
21) Perylene-d12	9.657	264	242214	2000.00	ppb	-0.03
<b>System Monitoring Compounds</b>						
2) Nitrobenzene-d5	3.397	82	24131	684.41	ppb	-0.02
Spiked Amount	1000.000	Range 24 - 92	Recovery =	68.44%		
7) 2-Fluorobiphenyl	4.713	172	69337	760.88	ppb	-0.02
Spiked Amount	1000.000	Range 25 - 89	Recovery =	76.09%		
11) Pyrene-d10	7.152	212	87646	778.07	ppb	-0.02
Spiked Amount	1000.000	Range 40 - 110	Recovery =	77.81%		
18) Terphenyl-d14	7.314	244	77231	816.47	ppb	-0.03
Spiked Amount	1000.000	Range 39 - 92	Recovery =	81.65%		
<b>Target Compounds</b>						
3) Naphthalene	3.920	128	350	3.05	ppb	100
4) 2-Methylnaphthalene	4.401	142	25	0.36	ppb	100
5) 1-Methylnaphthalene	4.510	142	132	1.71	ppb	100
8) Acenaphthylene	5.058	152	55	0.47	ppb	100
9) Acenaphthene	5.189	153	209	2.69	ppb	100
12) Fluorene	5.551	166	177	1.97	ppb	100
13) Phenanthrene	6.183	178	773	6.49	ppb	100
14) Anthracene	6.183	178	773	<del>7.11</del>	ppb	100
15) Fluoranthene	7.007	202	404	2.93	ppb	100
16) Pyrene	7.163	202	475	3.33	ppb	100
19) Benzo[a]anthracene	8.221	228	835	6.25	ppb	100
20) Chrysene	8.221	228	835	<del>6.45</del>	ppb	100
22) Benzo[b]fluoranthene	9.291	252	83	0.70	ppb	100
23) Benzo[j,k]fluoranthene	9.291	252	83	<del>0.65</del>	ppb	100
24) Benzo[a]pyrene	9.595	252	78	0.68	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.640	276	4	0.03	ppb	100
26) Dibenz[a,h]anthracene	10.714	278	60	0.52	ppb	100
27) Benzo[g,h,i]perylene	10.937	276	101	0.92	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

10/27/14  
 JMM

Data Path : C:\MSDCHEM\1\DATA\C141024\  
Data File : C1024008.D  
Acq On : 24 Oct 2014 5:26 pm  
Operator :  
Sample : 10-281-05  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 24 17:41:58 2014  
Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Fri Oct 17 14:47:37 2014  
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024011.D  
 Acq On : 24 Oct 2014 6:32 pm  
 Operator :  
 Sample : 10-281-07  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 18:47:12 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration

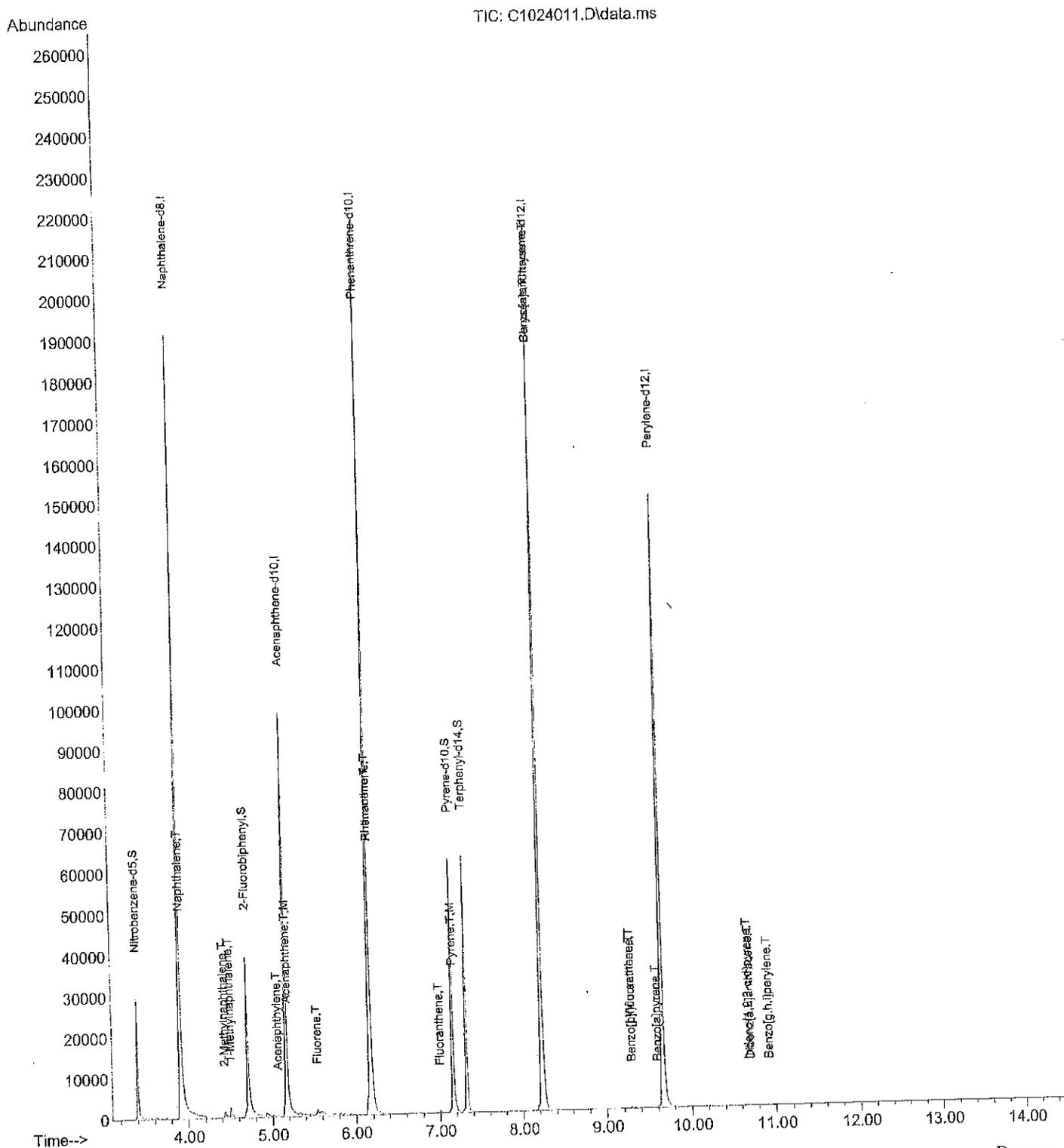
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	3.909	136	218445	2000.00	ppb	-0.02	
6) Acenaphthene-d10	5.167	164	130263	2000.00	ppb	-0.02	
10) Phenanthrene-d10	6.164	188	257543	2000.00	ppb	-0.02	
17) Chrysene-d12	8.222	240	263390	2000.00	ppb	-0.03	
21) Perylene-d12	9.655	264	238855	2000.00	ppb	-0.03	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.398	82	19964	594.78	ppb	-0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery	=	59.48%		
7) 2-Fluorobiphenyl	4.708	172	60894	708.10	ppb	-0.02	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	70.81%		
11) Pyrene-d10	7.151	212	75343	703.66	ppb	-0.02	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	70.37%		
18) Terphenyl-d14	7.313	244	66521	726.27	ppb	-0.03	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	72.63%		
Target Compounds							
3) Naphthalene	3.920	128	1923	17.58	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.431	142	2711	41.51	ppb	100	
5) 1-Methylnaphthalene	4.502	142	3642	49.61	ppb	100	
8) Acenaphthylene	5.067	152	363	3.31	ppb	100	
9) Acenaphthene	5.183	153	1074	14.64	ppb	100	
12) Fluorene	5.545	166	1565	18.35	ppb	100	
13) Phenanthrene	6.180	178	2379	21.03	ppb	100	7.84
14) Anthracene	6.180	178	2379	23.03	ppb	100	
15) Fluoranthene	7.000	202	606	4.63	ppb	100	
16) Pyrene	7.162	202	1164	8.58	ppb	100	
19) Benzo[a]anthracene	8.218	228	812	6.28	ppb	100	
20) Chrysene	8.218	228	812	6.48	ppb	100	
22) Benzo[b]fluoranthene	9.284	252	559	4.79	ppb	100	
23) Benzo(j,k)fluoranthene	9.284	252	559	4.43	ppb	100	
24) Benzo[a]pyrene	9.593	252	194	1.72	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.684	276	269	2.03	ppb	100	
26) Dibenz[a,h]anthracene	10.700	278	190	1.68	ppb	100	
27) Benzo[g,h,i]perylene	10.919	276	430	3.96	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*10/27/14  
 em*

Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024011.D  
 Acq On : 24 Oct 2014 6:32 pm  
 Operator :  
 Sample : 10-281-07  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 24 18:47:12 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024004.D  
 Acq On : 24 Oct 2014 4:00 pm  
 Operator :  
 Sample : MB1024S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 24 16:15:08 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration

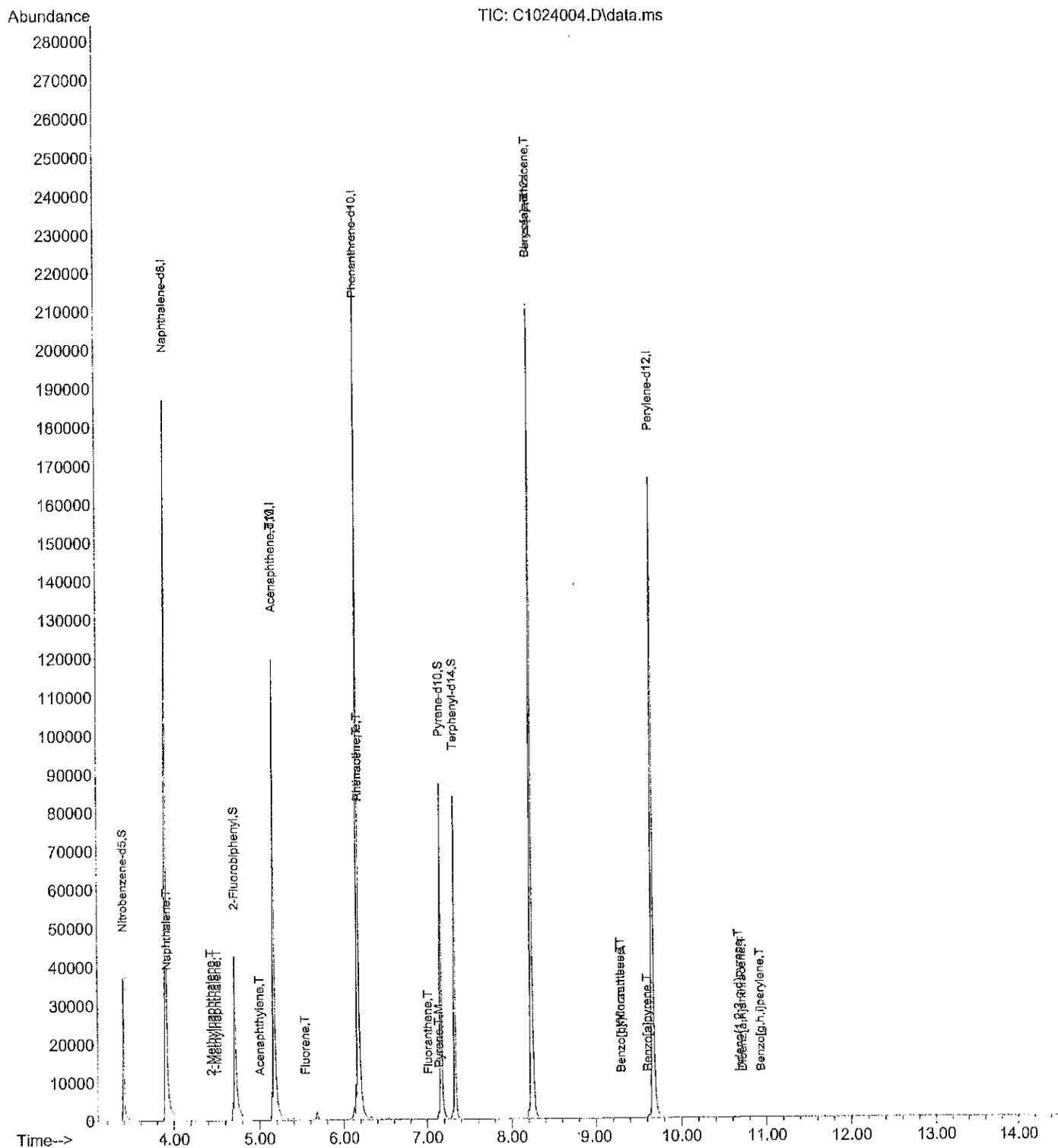
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	3.913	136	233419	2000.00	ppb	-0.02	
6) Acenaphthene-d10	5.167	164	144389	2000.00	ppb	-0.02	
10) Phenanthrene-d10	6.172	188	268720	2000.00	ppb	-0.01	
17) Chrysene-d12	8.234	240	274408	2000.00	ppb	-0.02	
21) Perylene-d12	9.667	264	241526	2000.00	ppb	-0.02	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.396	82	26219	731.02	ppb	-0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	73.10%			
7) 2-Fluorobiphenyl	4.713	172	74625	782.87	ppb	-0.02	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	78.29%			
11) Pyrene-d10	7.162	212	98240	879.34	ppb	-0.01	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	87.93%			
18) Terphenyl-d14	7.325	244	88282	925.15	ppb	-0.02	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	92.52%#			
<b>Target Compounds</b>							
							Qvalue
3) Naphthalene	3.925	128	108	0.92	ppb		100
4) 2-Methylnaphthalene	4.436	142	44	0.63	ppb		100
5) 1-Methylnaphthalene	4.510	142	54	0.69	ppb		100
8) Acenaphthylene	5.005	152	43	0.35	ppb		100
9) Acenaphthene	5.167	153	55	0.68	ppb		100
12) Fluorene	5.537	166	80	0.90	ppb		100
13) Phenanthrene	6.183	178	1065	9.02	ppb		100
14) Anthracene	6.183	178	1065	<del>9.88</del>	ppb		100
15) Fluoranthene	7.011	202	46	0.34	ppb		100
16) Pyrene	7.139	202	420	2.97	ppb		100
19) Benzo[a]anthracene	8.234	228	763	5.66	ppb		100
20) Chrysene	8.234	228	763	<del>5.84</del>	ppb		100
22) Benzo[b]fluoranthene	9.296	252	29	0.25	ppb		100
23) Benzo[j,k]fluoranthene	9.296	252	29	<del>0.23</del>	ppb		100
24) Benzo[a]pyrene	9.608	252	58	0.51	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.680	276	8	0.06	ppb		100
26) Dibenz[a,h]anthracene	10.719	278	28	0.25	ppb		100
27) Benzo[g,h,i]perylene	10.930	276	38	0.35	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*10/27/14  
 zmm*

Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024004.D  
 Acq On : 24 Oct 2014 4:00 pm  
 Operator :  
 Sample : MB1024S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 24 16:15:08 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024009.D  
 Acq On : 24 Oct 2014 5:48 pm  
 Operator :  
 Sample : 10-281-05 MS  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 18:03:43 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration

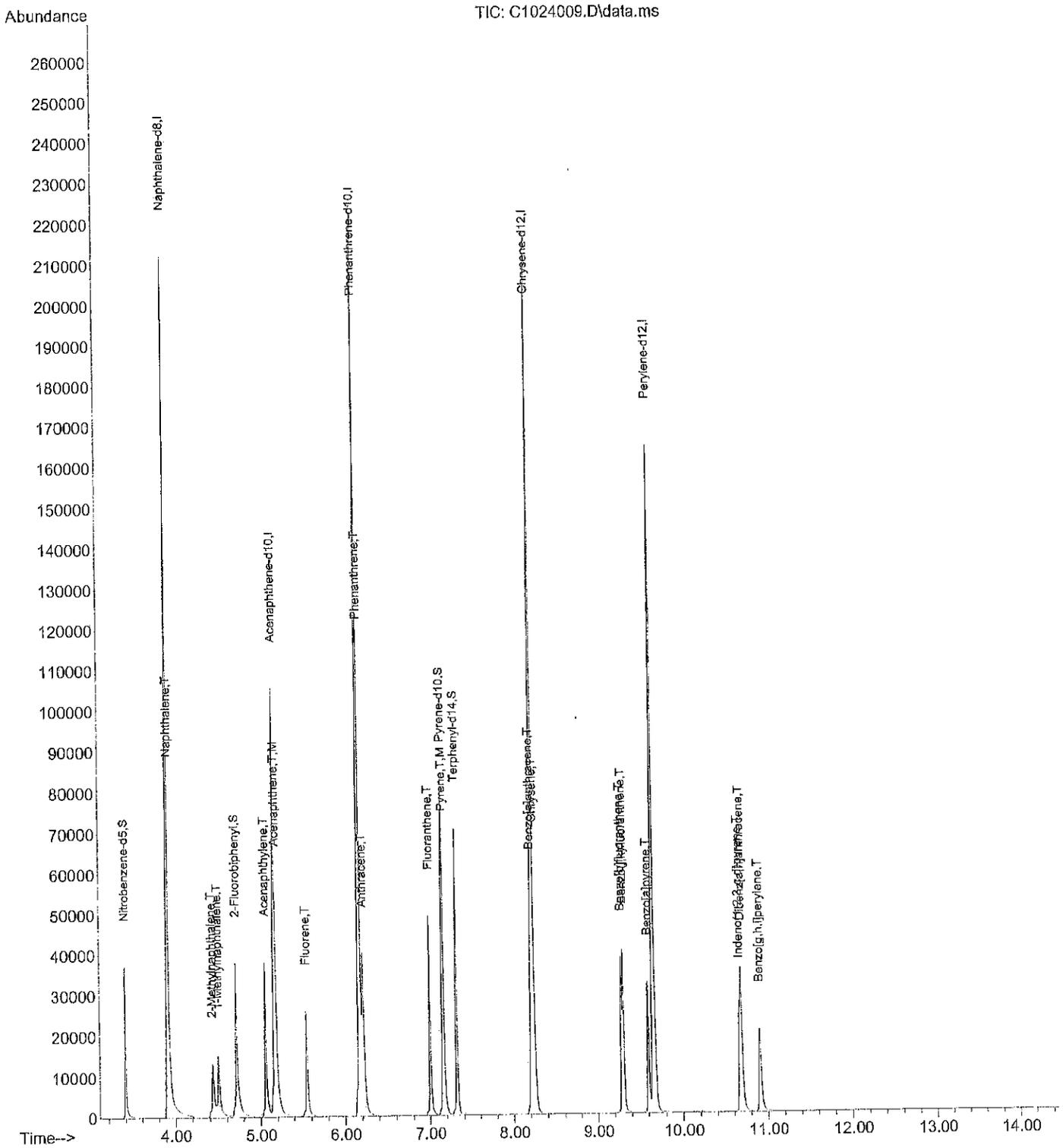
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	3.908	136	228648	2000.00	ppb	-0.02	
6) Acenaphthene-d10	5.166	164	137407	2000.00	ppb	-0.02	
10) Phenanthrene-d10	6.167	188	268300	2000.00	ppb	-0.02	
17) Chrysene-d12	8.221	240	272701	2000.00	ppb	-0.03	
21) Perylene-d12	9.653	264	244447	2000.00	ppb	-0.04	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.397	82	23710	674.86	ppb	-0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery	=	67.49%		
7) 2-Fluorobiphenyl	4.713	172	68765	758.05	ppb	-0.02	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	75.81%		
11) Pyrene-d10	7.151	212	85466	766.20	ppb	-0.02	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	76.62%		
18) Terphenyl-d14	7.314	244	75734	798.62	ppb	-0.03	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	79.86%		
<b>Target Compounds</b>							
3) Naphthalene	3.920	128	41809	365.07	ppb		Qvalue 100
4) 2-Methylnaphthalene	4.432	142	23734	347.17	ppb		100
5) 1-Methylnaphthalene	4.502	142	30202	393.04	ppb		100
8) Acenaphthylene	5.059	152	43065	371.80	ppb		100
9) Acenaphthene	5.182	153	28682	370.70	ppb		100
12) Fluorene	5.544	166	33753	379.83	ppb		100
13) Phenanthrene	6.179	178	43280	367.22	ppb		100
14) Anthracene	6.214	178	51142	475.33	ppb		100
15) Fluoranthene	7.000	202	53435	391.47	ppb		100
16) Pyrene	7.163	202	55120	390.12	ppb		100
19) Benzo[a]anthracene	8.206	228	46133	344.61	ppb		100
20) Chrysene	8.245	228	50286	387.38	ppb		100
22) Benzo[b]fluoranthene	9.283	252	49193	411.74	ppb		100
23) Benzo(j,k)fluoranthene	9.306	252	47152	365.19	ppb		100
24) Benzo[a]pyrene	9.595	252	46925	406.09	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.664	276	50950	376.48	ppb		100
26) Dibenz[a,h]anthracene	10.687	278	43397	375.69	ppb		100
27) Benzo[g,h,i]perylene	10.902	276	41981	378.00	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

10/27/14  
 sm

Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024009.D  
 Acq On : 24 Oct 2014 5:48 pm  
 Operator :  
 Sample : 10-281-05 MS  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 24 18:03:43 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024010.D  
 Acq On : 24 Oct 2014 6:10 pm  
 Operator :  
 Sample : 10-281-05 MSD  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 18:25:30 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration

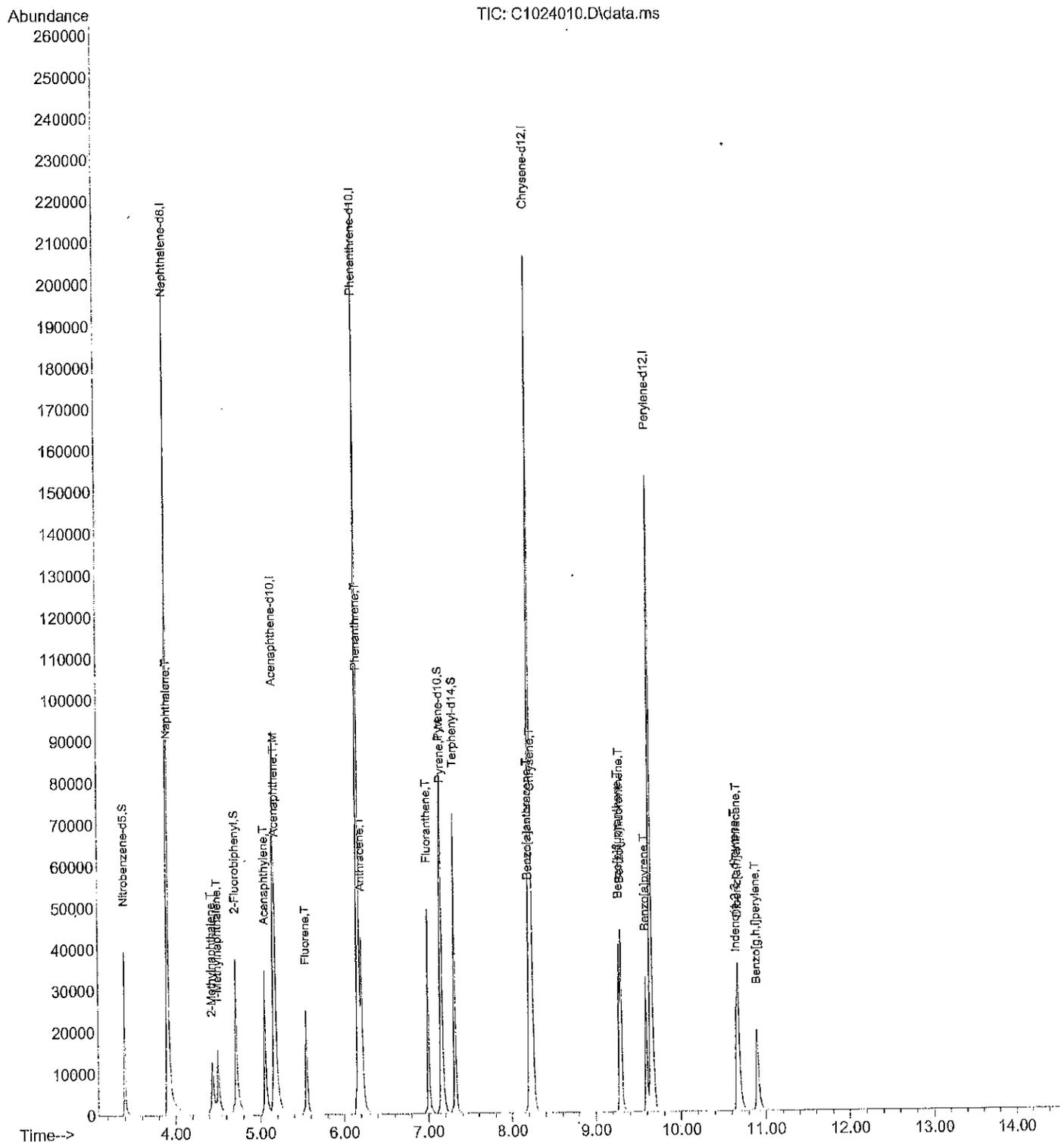
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	3.908	136	220491	2000.00	ppb	-0.02	
6) Acenaphthene-d10	5.167	164	131935	2000.00	ppb	-0.02	
10) Phenanthrene-d10	6.165	188	259352	2000.00	ppb	-0.02	
17) Chrysene-d12	8.223	240	263317	2000.00	ppb	-0.03	
21) Perylene-d12	9.651	264	238125	2000.00	ppb	-0.04	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.397	82	24615	726.54	ppb	-0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	72.65%			
7) 2-Fluorobiphenyl	4.712	172	72078	827.53	ppb	-0.02	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	82.75%			
11) Pyrene-d10	7.151	212	88034	816.45	ppb	-0.02	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	81.64%			
18) Terphenyl-d14	7.314	244	78212	854.14	ppb	-0.03	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	85.41%			
Target Compounds							
3) Naphthalene	3.919	128	43618	394.96	ppb		Qvalue 100
4) 2-Methylnaphthalene	4.431	142	25231	382.72	ppb		100
5) 1-Methylnaphthalene	4.502	142	31838	429.66	ppb		100
8) Acenaphthylene	5.060	152	45843	412.20	ppb		100
9) Acenaphthene	5.183	153	30036	404.30	ppb		100
12) Fluorene	5.545	166	35489	413.15	ppb		100
13) Phenanthrene	6.180	178	45555	399.86	ppb		100
14) Anthracene	6.211	178	52877	508.41	ppb		100
15) Fluoranthene	7.001	202	54993	416.79	ppb		100
16) Pyrene	7.163	202	57093	418.03	ppb		100
19) Benzo[a]anthracene	8.204	228	48354	374.07	ppb		100
20) Chrysene	8.243	228	51122	407.86	ppb		100
22) Benzo[b]fluoranthene	9.284	252	47383	407.12	ppb		100
23) Benzo[j,k]fluoranthene	9.304	252	51662	410.74	ppb		100
24) Benzo[a]pyrene	9.593	252	48214	428.32	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.665	276	51966	394.19	ppb		100
26) Dibenz[a,h]anthracene	10.689	278	44563	396.02	ppb		100
27) Benzo[g,h,i]perylene	10.903	276	43322	400.43	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

10/27/14  
 ZM

Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024010.D  
 Acq On : 24 Oct 2014 6:10 pm  
 Operator :  
 Sample : 10-281-05 MSD  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 24 18:25:30 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141024\  
 Data File : C1024003.D  
 Acq On : 24 Oct 2014 11:24 am  
 Operator :  
 Sample : PAHCCV1024  
 Misc : SV4-40-05  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 24 12:47:48 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound		Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	95	-0.02
2 S	Nitrobenzene-d5	500.000	409.893	18.0	81	-0.02
3 T	Naphthalene	500.000	460.670	7.9	88	-0.02
4 T	2-Methylnaphthalene	500.000	421.948	15.6	82	-0.01
5 T	1-Methylnaphthalene	500.000	527.032	-5.4	100	-0.02
6 I	Acenaphthene-d10	2000.000	2000.000	0.0	96	-0.02
7 S	2-Fluorobiphenyl	500.000	451.239	9.8	88	-0.01
8 T	Acenaphthylene	500.000	466.461	6.7	94	-0.02
9 T,M	Acenaphthene	500.000	456.398	8.7	91	-0.02
10 I	Phenanthrene-d10	2000.000	2000.000	0.0	94	-0.02
11 S	Pyrene-d10	500.000	483.558	3.3	96	-0.02
12 T	Fluorene	500.000	467.093	6.6	93	-0.01
13 T	Phenanthrene	500.000	440.375	11.9	88	-0.02
14 T	Anthracene	500.000	514.280	-2.9	97	-0.02
15 T	Fluoranthene	500.000	486.974	2.6	98	-0.02
16 T,M	Pyrene	500.000	484.379	3.1	96	-0.02
17 I	Chrysene-d12	2000.000	2000.000	0.0	100	-0.03
18 S	Terphenyl-d14	500.000	509.656	-1.9	96	-0.02
19 T	Benzo[a]anthracene	500.000	425.617	14.9	99	-0.03
20 T	Chrysene	500.000	447.456	10.5	95	-0.03
21 I	Perylene-d12	2000.000	2000.000	0.0	97	-0.03
22 T	Benzo[b]fluoranthene	500.000	527.847	-5.6	109	-0.03
23 T	Benzo(j,k)fluoranthene	500.000	425.585	14.9	87	-0.03
24 T	Benzo[a]pyrene	500.000	475.897	4.8	93	-0.03
25 T	Indeno(1,2,3-c,d)pyrene	500.000	455.611	8.9	94	-0.03
26 T	Dibenz[a,h]anthracene	500.000	452.241	9.6	93	-0.03
27 T	Benzo[g,h,i]perylene	500.000	477.228	4.6	95	-0.03

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024003.D  
 Acq On : 24 Oct 2014 11:24 am  
 Operator :  
 Sample : PAHCCV1024  
 Misc : SV4-40-05  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 24 11:39:12 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration

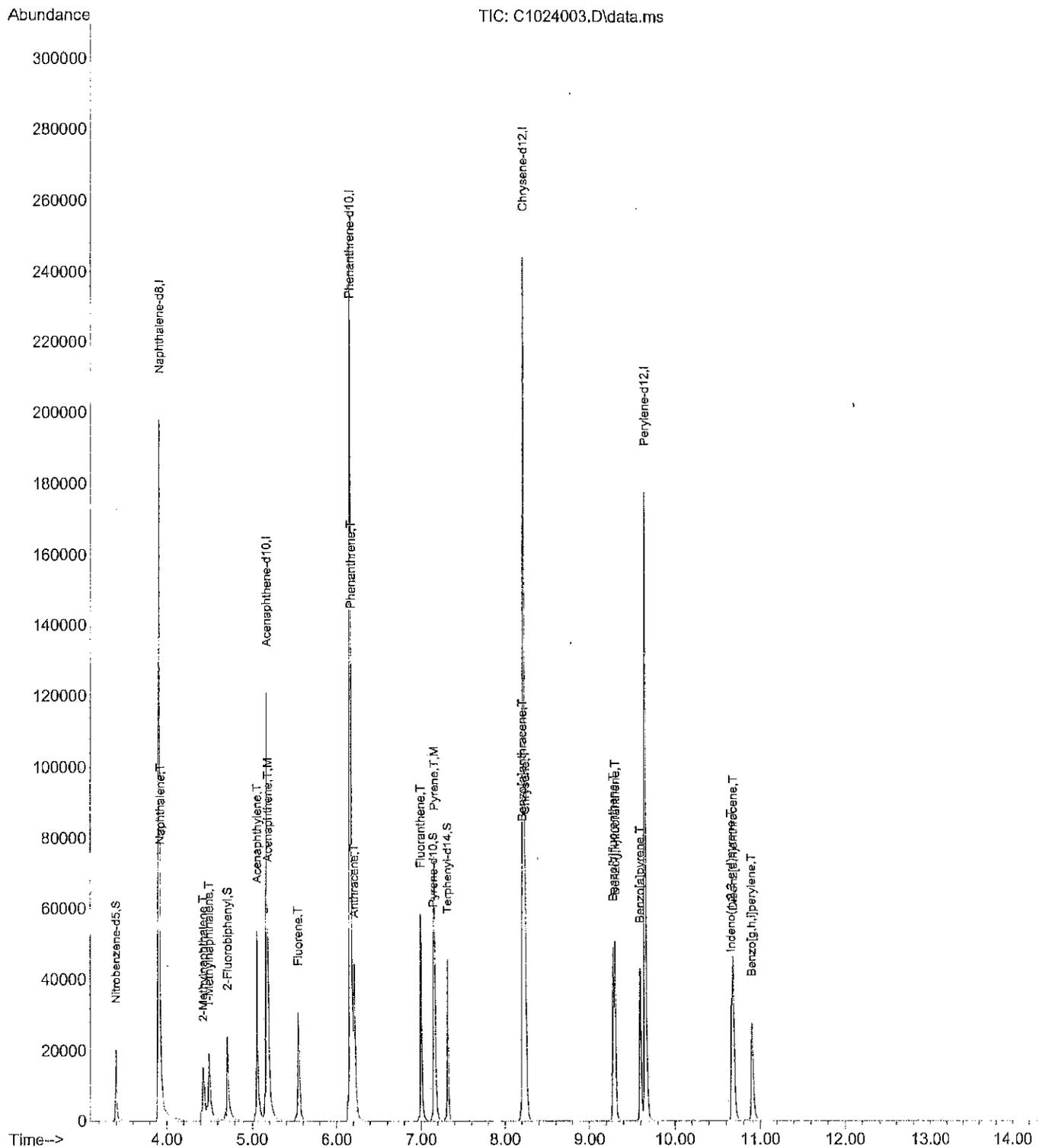
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Naphthalene-d8	3.913	136	232208	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.167	164	138763	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.168	188	268888	2000.00	ppb	-0.02
17) Chrysene-d12	8.226	240	279544	2000.00	ppb	-0.03
21) Perylene-d12	9.662	264	245706	2000.00	ppb	-0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.396	82	14625	409.89	ppb	-0.02
Spiked Amount	1000.000	Range 24 - 92	Recovery	=	40.99%	
7) 2-Fluorobiphenyl	4.717	172	41337	451.24	ppb	-0.01
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	45.12%	
11) Pyrene-d10	7.151	212	54057	483.56	ppb	-0.02
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	48.36%	
18) Terphenyl-d14	7.319	244	49544	509.66	ppb	-0.02
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	50.97%	
Target Compounds						
3) Naphthalene	3.925	128	53579	460.67	ppb	100
4) 2-Methylnaphthalene	4.432	142	25951	<del>273.78</del> 421.95	ppb	100
5) 1-Methylnaphthalene	4.502	142	41129	527.03	ppb	100
8) Acenaphthylene	5.059	152	54563	466.46	ppb	100
9) Acenaphthene	5.182	153	35661	456.40	ppb	100
12) Fluorene	5.545	166	41598	467.09	ppb	100
13) Phenanthrene	6.179	178	52016	440.37	ppb	100
14) Anthracene	6.215	178	55454	514.28	ppb	100
15) Fluoranthene	7.000	202	66616	486.97	ppb	100
16) Pyrene	7.162	202	68587	484.38	ppb	100
19) Benzo[a]anthracene	8.210	228	58407	425.62	ppb	100
20) Chrysene	8.245	228	59542	447.46	ppb	100
22) Benzo[b]fluoranthene	9.288	252	63390	527.85	ppb	100
23) Benzo(j,k)fluoranthene	9.311	252	55233	425.58	ppb	100
24) Benzo[a]pyrene	9.600	252	55275	475.90	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.669	276	61976	455.61	ppb	100
26) Dibenz[a,h]anthracene	10.692	278	52509	452.24	ppb	100
27) Benzo[g,h,i]perylene	10.907	276	52535	470.60	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

10/24/14  
 ZMM

Data Path : C:\MSDCHEM\1\DATA\C141024\  
 Data File : C1024003.D  
 Acq On : 24 Oct 2014 11:24 am  
 Operator :  
 Sample : PAHCCV1024  
 Misc : SV4-40-05  
 ALS Vial : 3 Sample Multiplier: 1

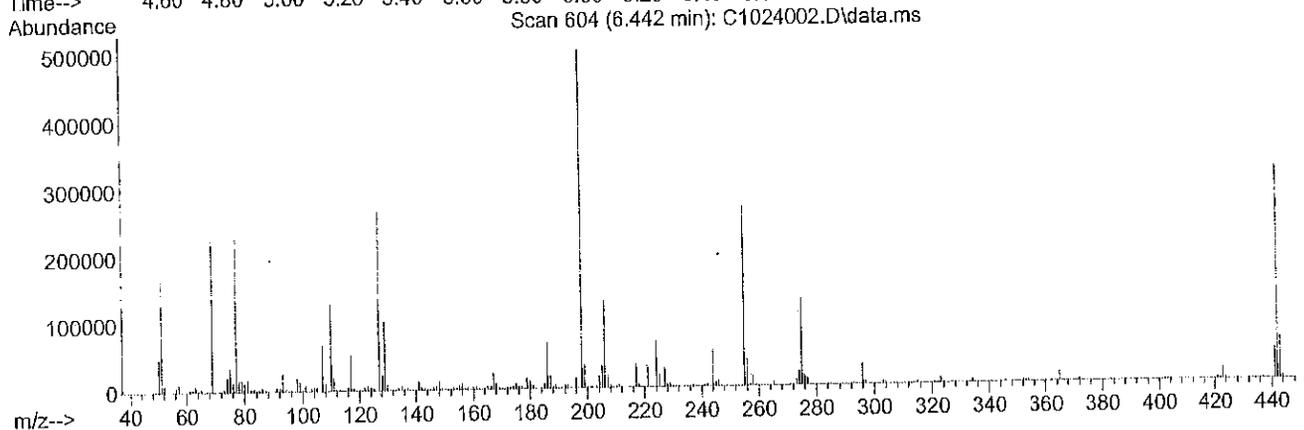
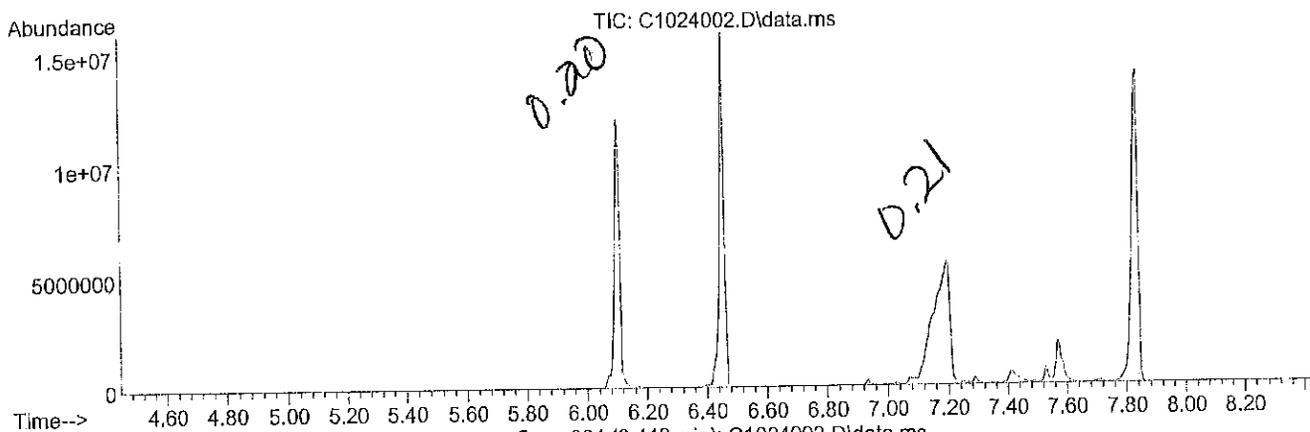
Quant Time: Oct 24 11:39:12 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1017.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Oct 17 14:47:37 2014  
 Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C141024\  
 Data File : C1024002.D  
 Acq On : 24 Oct 2014 11:02 am  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-39-01  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1017.M  
 Title : PAH'S BY SIMS  
 Last Update : Fri Oct 17 14:47:37 2014



Spectrum Information: Scan 604

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	33.4	168640	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.1	227392	PASS
70	69	0.00	2	0.6	1252	PASS
127	198	25	75	53.1	267712	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	504640	PASS
199	198	5	9	7.0	35136	PASS
275	198	10	30	25.7	129888	PASS
365	198	0.75	100	3.0	15047	PASS
441	443	0.01	100	75.3	47144	PASS
442	198	40	110	63.1	318592	PASS
443	442	15	24	19.7	62632	PASS

## Total Cadmium Data

P141024F1. Mean Only Report 10/28/2014, 11:34:26 AM

Sample	Label	Calc Conc.	Units	Date/Time
Blank	Cd 228.802	0.000	ppb	10/24/2014, 11:01:57 AM
Standard 5	Cd 228.802	10.000	ppb	10/24/2014, 11:05:59 AM
Standard 4	Cd 228.802	100.00	ppb	10/24/2014, 11:10:01 AM
Standard 3	Cd 228.802	1000.0	ppb	10/24/2014, 10:18:18 AM
Standard 2	Cd 228.802	2500.0	ppb	10/24/2014, 11:19:36 AM
Standard 1	Cd 228.802	5000.0	ppb	10/24/2014, 9:49:58 AM
Initial Calib Verif	Cd 228.802	1025.0	ppb	10/24/2014, 11:41:43 AM
LLICV	Cd 228.802	11.558	ppb	10/24/2014, 11:48:16 AM
Initial Calib Blank	Cd 228.802	-0.551uv	ppb	10/24/2014, 11:55:11 AM
Cont Calib Verif	Cd 228.802	1026.8	ppb	10/24/2014, 11:59:12 AM
Cont Calib Blank	Cd 228.802	1.450uv	ppb	10/24/2014, 12:04:32 PM
ICSA	Cd 228.802	-0.776uv	ppb	10/24/2014, 12:08:36 PM
ICSAB	Cd 228.802	971.28	ppb	10/24/2014, 12:12:40 PM
MB1024SM1	Cd 228.802	-0.635uv	ppb	10/24/2014, 12:20:35 PM
SB1024SM1	Cd 228.802	963.62	ppb	10/24/2014, 12:24:42 PM
10-271-01a	Cd 228.802	2.358	ppb	10/24/2014, 12:28:49 PM
10-271-01a D	Cd 228.802	1.083	ppb	10/24/2014, 12:32:54 PM
10-271-01a L	Cd 228.802	1.025	ppb	10/24/2014, 12:36:57 PM
10-271-01a MS	Cd 228.802	943.25	ppb	10/24/2014, 12:41:03 PM
10-271-01a MSD	Cd 228.802	939.98	ppb	10/24/2014, 12:45:07 PM
10-271-02a	Cd 228.802	3.012	ppb	10/24/2014, 12:49:12 PM
Cont Calib Verif	Cd 228.802	1045.0	ppb	10/24/2014, 1:02:32 PM
Cont Calib Blank	Cd 228.802	1.156	ppb	10/24/2014, 1:07:52 PM
LLCCV	Cd 228.802	10.725	ppb	10/24/2014, 1:26:29 PM
10-271-03a	Cd 228.802	2.303	ppb	10/24/2014, 1:34:11 PM
10-271-04a	Cd 228.802	1.453	ppb	10/24/2014, 1:38:16 PM
10-167-01a x 100	Cd 228.802	-0.825uv	ppb	10/24/2014, 1:44:11 PM
blk	Cd 228.802	-0.157uv	ppb	10/24/2014, 1:48:16 PM
MB1024SM2	Cd 228.802	-0.249uv	ppb	10/24/2014, 1:53:15 PM
SB1024SM2	Cd 228.802	966.83	ppb	10/24/2014, 1:57:20 PM
10-271-01a	Cd 228.802	1.887	ppb	10/24/2014, 2:03:33 PM
10-271-01a D	Cd 228.802	-0.514uv	ppb	10/24/2014, 2:07:37 PM
10-271-01a L	Cd 228.802	0.668uv	ppb	10/24/2014, 2:11:44 PM
10-271-01a MS	Cd 228.802	945.14	ppb	10/24/2014, 2:15:50 PM
Cont Calib Verif	Cd 228.802	1035.1	ppb	10/24/2014, 2:19:55 PM
Cont Calib Blank	Cd 228.802	1.402	ppb	10/24/2014, 2:25:47 PM
LLCCV	Cd 228.802	10.119	ppb	10/24/2014, 2:29:53 PM
10-271-01a MSD	Cd 228.802	930.99	ppb	10/24/2014, 2:33:59 PM
10-271-02a	Cd 228.802	4.457	ppb	10/24/2014, 2:38:04 PM
10-271-03a	Cd 228.802	1.174	ppb	10/24/2014, 2:42:07 PM
10-271-04a	Cd 228.802	0.461uv	ppb	10/24/2014, 2:46:11 PM
SB1022WH1	Cd 228.802	1021.9	ppb	10/24/2014, 2:51:37 PM
Cont Calib Verif	Cd 228.802	1027.8	ppb	10/24/2014, 2:56:18 PM
Cont Calib Blank	Cd 228.802	1.242uv	ppb	10/24/2014, 3:01:27 PM
LLCCV	Cd 228.802	11.792	ppb	10/24/2014, 3:10:18 PM
10-186-03 X 5	Cd 228.802	-0.800uv	ppb	10/24/2014, 3:36:51 PM
10-186-03 D X 5	Cd 228.802	-0.620uv	ppb	10/24/2014, 3:40:58 PM
10-186-03 L X 5	Cd 228.802	-0.549uv	ppb	10/24/2014, 3:45:02 PM
10-186-03 MS X 5	Cd 228.802	217.66	ppb	10/24/2014, 3:49:05 PM
10-186-03 MSD X 5	Cd 228.802	225.27	ppb	10/24/2014, 3:53:09 PM
Cont Calib Verif	Cd 228.802	1024.9	ppb	10/24/2014, 3:58:42 PM
Cont Calib Blank	Cd 228.802	2.170	ppb	10/24/2014, 4:03:35 PM

P141024F1. Mean Only Report 10/28/2014, 11:34:26 AM

Sample	Label	Calc Conc.	Units	Date/Time
LLCCV	Cd 228.802	10.220	ppb	10/24/2014, 4:07:40 PM
10-271-02a	Cd 228.802	1.992	ppb	10/24/2014, 4:13:33 PM
10-186-03 X 5	Cd 228.802	0.800	ppb	10/24/2014, 4:35:43 PM
10-186-03 MS X 5	Cd 228.802	231.08	ppb	10/24/2014, 4:39:46 PM
Cont Calib Verif	Cd 228.802	1020.2	ppb	10/24/2014, 4:44:35 PM
Cont Calib Blank	Cd 228.802	0.724 <sup>uv</sup>	ppb	10/24/2014, 4:50:00 PM
LLCCV	Cd 228.802	9.475	ppb	10/24/2014, 4:54:06 PM
10-256-01b	Cd 228.802	29.042	ppb	10/24/2014, 5:16:35 PM
10-256-02b	Cd 228.802	21.603	ppb	10/24/2014, 5:20:41 PM
10-281-02a	Cd 228.802	3.072	ppb	10/24/2014, 5:24:47 PM
10-281-05a	Cd 228.802	3.367	ppb	10/24/2014, 5:28:52 PM
10-281-07a	Cd 228.802	2.752	ppb	10/24/2014, 5:32:59 PM
Cont Calib Verif	Cd 228.802	1016.8	ppb	10/24/2014, 5:37:02 PM
Cont Calib Blank	Cd 228.802	2.678	ppb	10/24/2014, 5:41:06 PM
LLCCV	Cd 228.802	10.736	ppb	10/24/2014, 5:45:11 PM



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 3, 2014

Abhijit Joshi  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-012-06  
Laboratory Reference No. 1411-240

Dear Abhijit:

Enclosed are the analytical results and associated quality control data for samples submitted on November 24, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: December 3, 2014  
Samples Submitted: November 24, 2014  
Laboratory Reference: 1411-240  
Project: 5147-012-06

### Case Narrative

Samples were collected on November 22, 2014 and received by the laboratory on November 24, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx/Benzene (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: December 3, 2014  
Samples Submitted: November 24, 2014  
Laboratory Reference: 1411-240  
Project: 5147-012-06

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-8-7.5	11-240-01	Soil	11-22-14	11-24-14	
TRIP BLANK	11-240-02	Water	11-22-14	11-24-14	

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>EX-8-7.5</b>					
Laboratory ID:	11-240-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	11-25-14	12-2-14	
Gasoline	<b>ND</b>	10	NWTPH-Gx	11-25-14	12-2-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	93	68-123				

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>TRIP BLANK</b>					
Laboratory ID:	11-240-02					
Benzene	<b>ND</b>	1.0	EPA 8021B	11-25-14	11-25-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	87	71-113				

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-8-7.5</b>					
Laboratory ID:	11-240-01					
Diesel Fuel #2	<b>5400</b>	30	NWTPH-Dx	11-25-14	11-25-14	X1
Lube Oil Range Organics	<b>420</b>	61	NWTPH-Dx	11-25-14	11-25-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-8-7.5</b>					
Laboratory ID:	11-240-01					
Benzo[a]anthracene	<b>0.023</b>	0.0081	EPA 8270D/SIM	11-24-14	11-24-14	
Chrysene	<b>0.049</b>	0.0081	EPA 8270D/SIM	11-24-14	11-24-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0081	EPA 8270D/SIM	11-24-14	11-24-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0081	EPA 8270D/SIM	11-24-14	11-24-14	
Benzo[a]pyrene	<b>ND</b>	0.0081	EPA 8270D/SIM	11-24-14	11-24-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0081	EPA 8270D/SIM	11-24-14	11-24-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0081	EPA 8270D/SIM	11-24-14	11-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>78</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>64</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>69</i>	<i>31 - 116</i>				

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	11-240-01					
<b>Client ID:</b>	<b>EX-8-7.5</b>					
Cadmium	<b>ND</b>	0.61	6010C	11-25-14	11-25-14	

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1125S2					
Benzene	<b>ND</b>	0.020	EPA 8021B	11-25-14	11-25-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	11-161-01							
	ORIG	DUP						
Benzene	<b>0.0626</b>	<b>0.0566</b>	NA	NA	NA	NA	10	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				100	95	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB1125S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	<b>1.02</b>	<b>1.00</b>	1.00	1.00	<b>102</b>	<b>100</b>	75-117	2	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					98	97	68-123		

Date of Report: December 3, 2014  
Samples Submitted: November 24, 2014  
Laboratory Reference: 1411-240  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1125G-1	5.00	4.82	4	+/- 20%
CCVD1125G-2	5.00	4.58	8	+/- 20%
CCVD1202G-1	5.00	4.79	4	+/- 20%
CCVD1202G-2	5.00	4.82	4	+/- 20%

Date of Report: December 3, 2014  
Samples Submitted: November 24, 2014  
Laboratory Reference: 1411-240  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1125B-1	50.0	53.9	-8	+/- 15%
Benzene	CCVD1125B-2	50.0	54.3	-9	+/- 15%
Benzene	CCVD1202B-1	50.0	54.5	-9	+/- 15%
Benzene	CCVD1202B-2	50.0	53.4	-7	+/- 15%

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1125W1					
Benzene	<b>ND</b>	1.0	EPA 8021B	11-25-14	11-25-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	71-113				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	11-219-01							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				91	85	71-113		

**MATRIX SPIKES**

Analyte	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags
Laboratory ID:	11-219-01								
Benzene	<b>53.4</b>	<b>51.4</b>	50.0	50.0	ND	<b>107</b>	<b>103</b>	82-120	4 14
<i>Surrogate:</i>									
<i>Fluorobenzene</i>						93	91	71-113	

Date of Report: December 3, 2014  
Samples Submitted: November 24, 2014  
Laboratory Reference: 1411-240  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1125G-1	5.00	4.82	4	+/- 20%
CCVD1125G-2	5.00	4.58	8	+/- 20%

Date of Report: December 3, 2014  
Samples Submitted: November 24, 2014  
Laboratory Reference: 1411-240  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1125B-1	50.0	53.9	-8	+/- 15%
Benzene	CCVD1125B-2	50.0	54.3	-9	+/- 15%
Benzene	CCVD1125B-3	50.0	51.7	-3	+/- 15%
Benzene	CCVD1125B-4	50.0	49.1	2	+/- 15%

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1125S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	11-25-14	11-25-14	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	87	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	11-216-05							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				87	102	50-150		

Date of Report: December 3, 2014  
Samples Submitted: November 24, 2014  
Laboratory Reference: 1411-240  
Project: 5147-012-06

**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1125G-1	5.00	4.82	4	+/- 20%
CCVD1125G-2	5.00	4.58	8	+/- 20%

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1124S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	11-24-14	11-24-14	
Chrysene	ND	0.0067	EPA 8270D/SIM	11-24-14	11-24-14	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	11-24-14	11-24-14	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	11-24-14	11-24-14	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	11-24-14	11-24-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	11-24-14	11-24-14	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	11-24-14	11-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>92</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>90</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>31 - 116</i>				

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limits	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1124S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	<b>0.0768</b>	<b>0.0803</b>	0.0833	0.0833	92	96	60 - 128	4	15	
Chrysene	<b>0.0734</b>	<b>0.0748</b>	0.0833	0.0833	88	90	60 - 117	2	13	
Benzo[b]fluoranthene	<b>0.0673</b>	<b>0.0685</b>	0.0833	0.0833	81	82	60 - 131	2	16	
Benzo(j,k)fluoranthene	<b>0.0738</b>	<b>0.0755</b>	0.0833	0.0833	89	91	57 - 126	2	20	
Benzo[a]pyrene	<b>0.0751</b>	<b>0.0775</b>	0.0833	0.0833	90	93	62 - 136	3	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0732</b>	<b>0.0766</b>	0.0833	0.0833	88	92	60 - 127	5	19	
Dibenz[a,h]anthracene	<b>0.0655</b>	<b>0.0696</b>	0.0833	0.0833	79	84	62 - 133	6	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					83	88	32 - 114			
Pyrene-d10					83	86	33 - 121			
Terphenyl-d14					71	74	31 - 116			

Date of Report: December 3, 2014  
Samples Submitted: November 24, 2014  
Laboratory Reference: 1411-240  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 11-25-14  
Date Analyzed: 11-25-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1125SM1

Analyte	Method	Result	PQL
Cadmium	6010C	<b>ND</b>	0.50

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 11-25-14  
 Date Analyzed: 11-25-14  
  
 Matrix: Soil  
 Units: mg/kg (ppm)  
  
 Lab ID: 11-190-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	<b>ND</b>	<b>ND</b>	NA	0.50	

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 MS/MSD QUALITY CONTROL**

Date Extracted: 11-25-14

Date Analyzed: 11-25-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 11-190-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50.0	<b>44.4</b>	89	<b>44.4</b>	89	0	

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	ICV112514P	1.00	1.01	-1.0	+/- 10%
Cadmium	LLICV112514P	0.0100	0.01000	0	+/- 30%
Cadmium	CCV1112514P	1.00	1.01	-1.0	+/- 10%
Cadmium	CCV2112514P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV2112514P	0.0100	0.0113	-13	+/- 30%
Cadmium	CCV3112514P	1.00	1.01	-1.0	+/- 10%
Cadmium	LLCCV3112514P	0.0100	0.0108	-8.0	+/- 30%
Cadmium	CCV4112514P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV4112514P	0.0100	0.0100	0	+/- 30%
Cadmium	CCV5112514P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV5112514P	0.0100	0.0103	-3.0	+/- 30%
Cadmium	CCV6112514P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV6112514P	0.0100	0.0108	-8.0	+/- 30%
Cadmium	CCV7112514P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV7112514P	0.0100	0.0106	-6.0	+/- 30%
Cadmium	CCV8112514P	1.00	0.995	0.50	+/- 10%
Cadmium	LLCCV8112514P	0.0100	0.0112	-12	+/- 30%

Date of Report: December 3, 2014  
 Samples Submitted: November 24, 2014  
 Laboratory Reference: 1411-240  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	CCV9112514P	1.00	0.991	0.90	+/- 10%
Cadmium	LLCCV9112514P	0.0100	0.0103	-3.0	+/- 30%
Cadmium	CCV10112514P	1.00	0.990	1.0	+/- 10%
Cadmium	LLCCV10112514P	0.0100	0.0106	-6.0	+/- 30%

Date of Report: December 3, 2014  
Samples Submitted: November 24, 2014  
Laboratory Reference: 1411-240  
Project: 5147-012-06

### % MOISTURE

Date Analyzed: 11-24-14

Client ID	Lab ID	% Moisture
EX-8-7.5	11-240-01	17



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



# Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 5147-012-06

OnSite Project Number: 11-240

Initiated by: AM

Date Initiated: 11/24/14

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	<del>N/A</del>	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	<del>N/A</del>	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<del>N/A</del>	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	<del>Yes</del>	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	<del>Yes</del>	No	Temperature: <u>4</u>	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<del>N/A</del>		
1.7 How were the samples delivered?	Client	<del>Courier</del>	UPS/FedEx	OSE Pickup
			Other	

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<del>Yes</del>	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	<del>Yes</del>	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	<del>Yes</del>	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<del>Yes</del>	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	<del>Yes</del>	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<del>No</del>		1 2 3 4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<del>No</del>		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	<del>No</del>		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	<del>Yes</del>	No		1 2 3 4
3.4 Have the samples been correctly preserved?	<del>Yes</del>	No	<del>N/A</del>	1 2 3 4
3.5 Are volatile samples free from headspace and bubbles greater than 6mm?	<del>Yes</del>	No	<del>N/A</del>	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	<del>Yes</del>	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<del>No</del>		1 2 3 4
3.8 Was method 5035A used?	<del>Yes</del>	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	1	N/A	1 2 3 4

### Explain any discrepancies:


1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

- NWTPH-Gx/Benzene (soil) Data
- NWTPH- Gx/Benzene (water) Data
- NWTPH-Dx Data
- PAHs EPA 8270D/SIM Data
- Total Cadmium EPA 6010C Data

## NWTPH-Gx/Benzene (soil) Data

Quantitation Report (QT Reviewed)

Signal #1 : X:\BTEX\DARYL\DATA\D141202\1202005.D\FID1A.CH Vial: 5  
 Signal #2 : X:\BTEX\DARYL\DATA\D141202\1202005.D\FID2B.CH  
 Acq On : 2 Dec 2014 15:21 Operator:  
 Sample : 11-240-01s RR 1:100 Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 2 15:54 2014 Quant Results File: 141012DB.RES

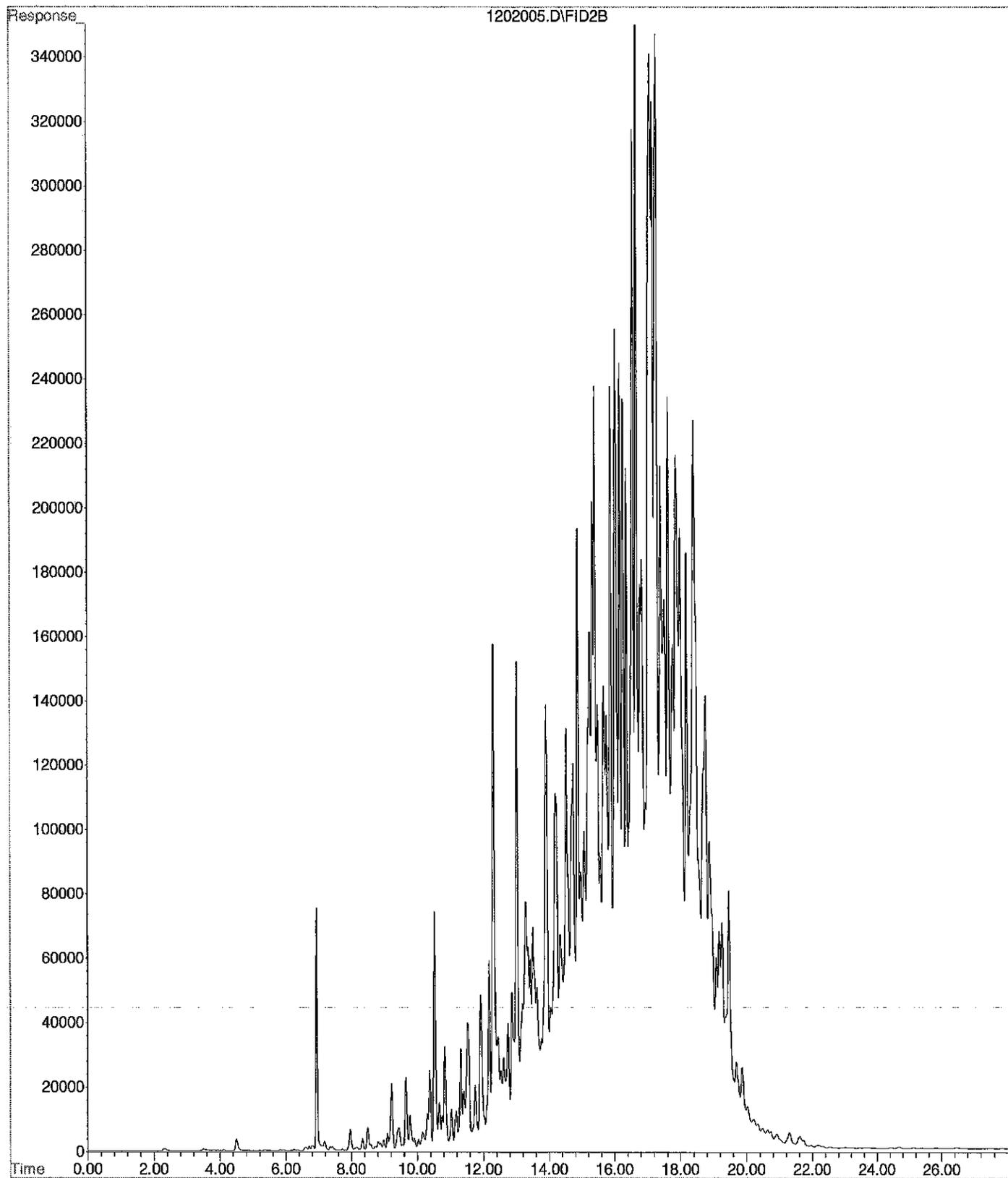
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.94	889285	12.588	PPB
5) S BROMOFLUOROBENZENE	12.31	3464479	85.978	PPB
11) S FLUOROBENZENE #2	6.94	2381568	10.498	PPB
16) S BROMOFLUOROBENZENE #2	12.30	5704851	18.809	PPB m
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	30825295	0.619	PPM
2) H Entire GAS Envelope (9-24-	12.21	224359021	3.425	PPM
3) H GASOLINE (9-24-14)	13.51	177576953	4.471	PPM
7) H entire GAS envelope #2 (9-	12.26	520315829	3.575	PPM
8) H GASOLINE #2 (9-24-14)	13.56	403857774	3.622	PPM
9) MTBE #2	0.00	0	N.D.	PPB
10) BENZENE #2	6.71	46981	0.116	PPB
12) TOLUENE #2	9.09	188309	0.500	PPB
13) ETHYLBENZENE #2	11.03	362222	1.357	PPB m
14) m,p-XYLENE #2	11.32	874107	2.466	PPB m
15) o-XYLENE #2	11.75	1230487	4.651	PPB ↑ PGL 5X

12/2  
 [Signature]  
 30

File : X:\BTEX\DARYL\DATA\D141202\1202005.D  
Operator :  
Acquired : 2 Dec 2014 15:21 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 11-240-01s RR 1:100  
Misc Info : V2-36-17  
Vial Number: 5



Signal #1 : d:\btex\DATA\D141125\1125005.D\FID1A.CH Vial: 5  
 Signal #2 : d:\btex\DATA\D141125\1125005.D\FID2B.CH  
 Acq On : 25 Nov 2014 12:55 Operator:  
 Sample : MB1125S2 Inst : Daryl  
 Misc : V2-36-15 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 13:24 2014 Quant Results File: 141012DB.RES

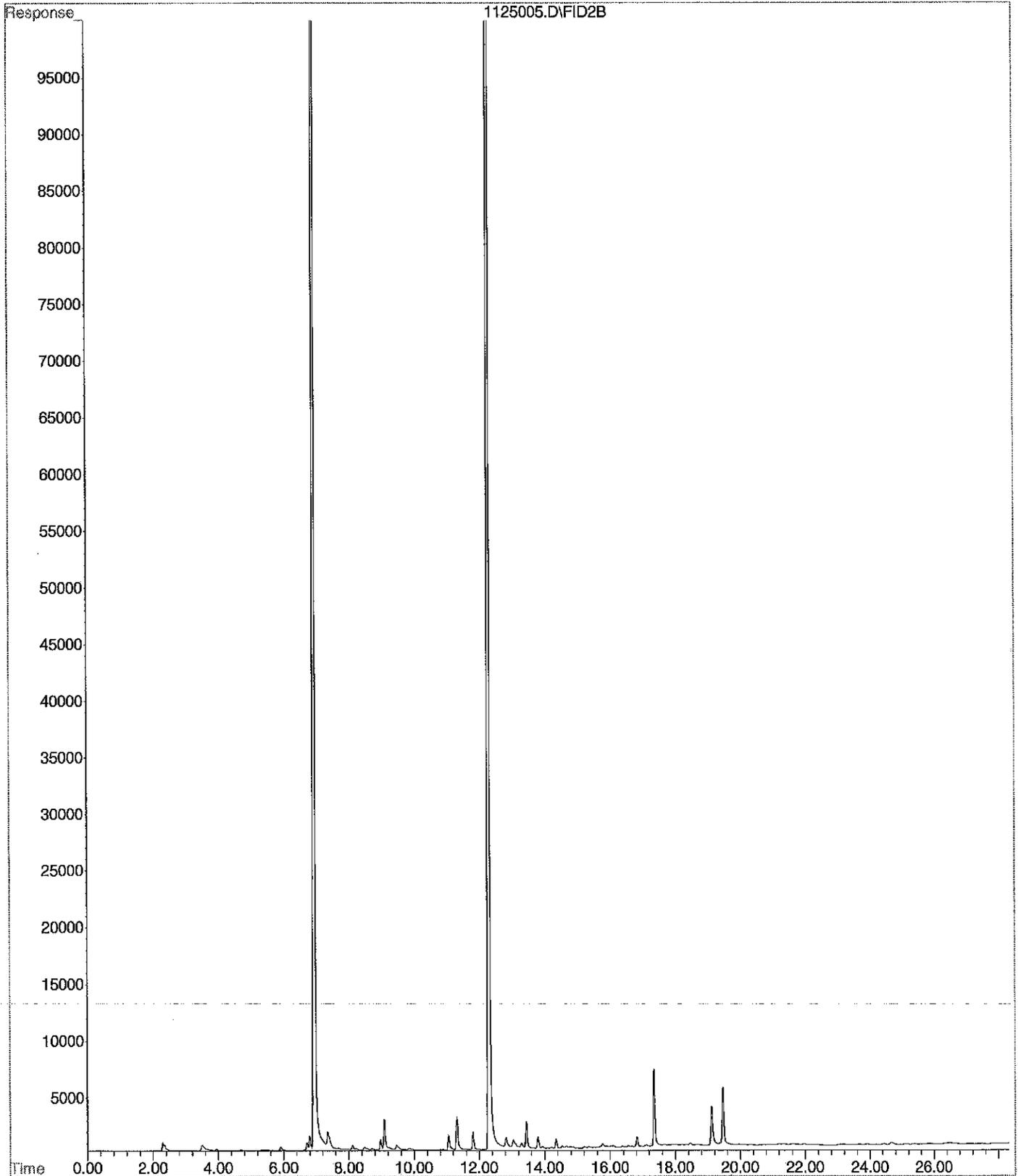
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3158813	45.561 PPB
5) S BROMOFLUOROBENZENE	12.30	1862902	45.966 PPB
11) S FLUOROBENZENE #2	6.95	8784672	39.610 PPB
16) S BROMOFLUOROBENZENE #2	12.30	12013531	40.120 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	808488	0.010 PPM
2) H Entire GAS Envelope (9-24-	12.21	2641541	0.029 PPM
3) H GASOLINE (9-24-14)	13.51	945751	0.002 PPM
7) H entire GAS envelope #2 (9-	12.26	3740098	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1998962	N.D. PPM
9) MTBE #2	4.69	5387	0.026 PPB
10) BENZENE #2	6.71	24740	0.040 PPB
12) TOLUENE #2	9.09	124600	0.271 PPB
13) ETHYLBENZENE #2	11.06	52632	0.096 PPB
14) m,p-XYLENE #2	11.32	119357	N.D. PPB
15) o-XYLENE #2	11.81	59729	N.D. PPB

*11/25  
 W*

File : X:\BTEX\DARYL\DATA\D141125\1125005.D  
Operator :  
Acquired : 25 Nov 2014 12:55 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1125S2  
Misc Info : V2-36-15  
Vial Number: 5



Signal #1 : X:\BTEX\DARYL\DATA\D141125\1125007.D\FID1A.CH Vial: 7  
 Signal #2 : X:\BTEX\DARYL\DATA\D141125\1125007.D\FID2B.CH  
 Acq On : 25 Nov 2014 14:03 Operator:  
 Sample : 11-161-01t Inst : Daryl  
 Misc : V2-36-15 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 14:31 2014 Quant Results File: 141012DB.RES

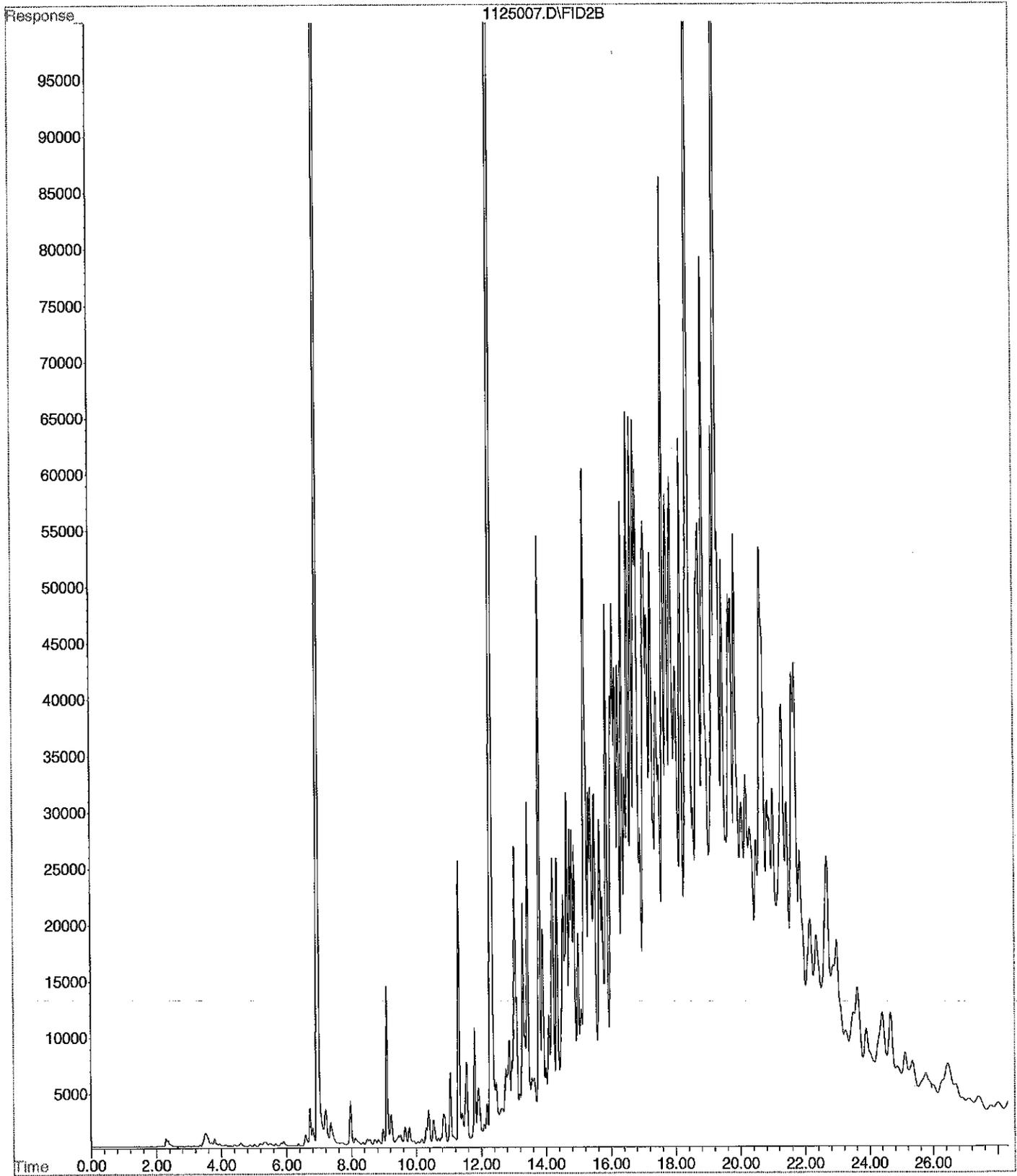
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.95	3234467	46.660 PPB
5) S BROMOFLUOROBENZENE	12.30	2090923	51.663 PPB
11) S FLUOROBENZENE #2	6.95	8845033	39.885 PPB
16) S BROMOFLUOROBENZENE #2	12.30	12457159	41.619 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	5265474	0.100 PPM
2) H Entire GAS Envelope (9-24-	12.21	69623379	1.055 PPM
3) H GASOLINE (9-24-14)	13.51	36809281	0.910 PPM
7) H entire GAS envelope #2 (9-	12.26	163464887	1.090 PPM
8) H GASOLINE #2 (9-24-14)	13.56	81168405	0.681 PPM DX
9) MTBE #2	4.60	32984	0.404 PPB
10) BENZENE #2	6.72	113613	0.343 PPB
12) TOLUENE #2	9.09	448802	1.438 PPB
13) ETHYLBENZENE #2	11.05	239451	0.857 PPB
14) m,p-XYLENE #2	11.31	843021	2.359 PPB
15) o-XYLENE #2	11.81	335498	1.074 PPB

12/2  


File : X:\BTEX\DARYL\DATA\D141125\1125007.D  
Operator :  
Acquired : 25 Nov 2014 14:03 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 11-161-01t  
Misc Info : V2-36-15  
Vial Number: 7



Signal #1 : X:\BTEX\DARYL\DATA\D141125\1125006.D\FID1A.CH vial: 6  
 Signal #2 : X:\BTEX\DARYL\DATA\D141125\1125006.D\FID2B.CH  
 Acq On : 25 Nov 2014 13:29 Operator:  
 Sample : 11-161-01t dup Inst : Daryl  
 Misc : V2-36-15 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

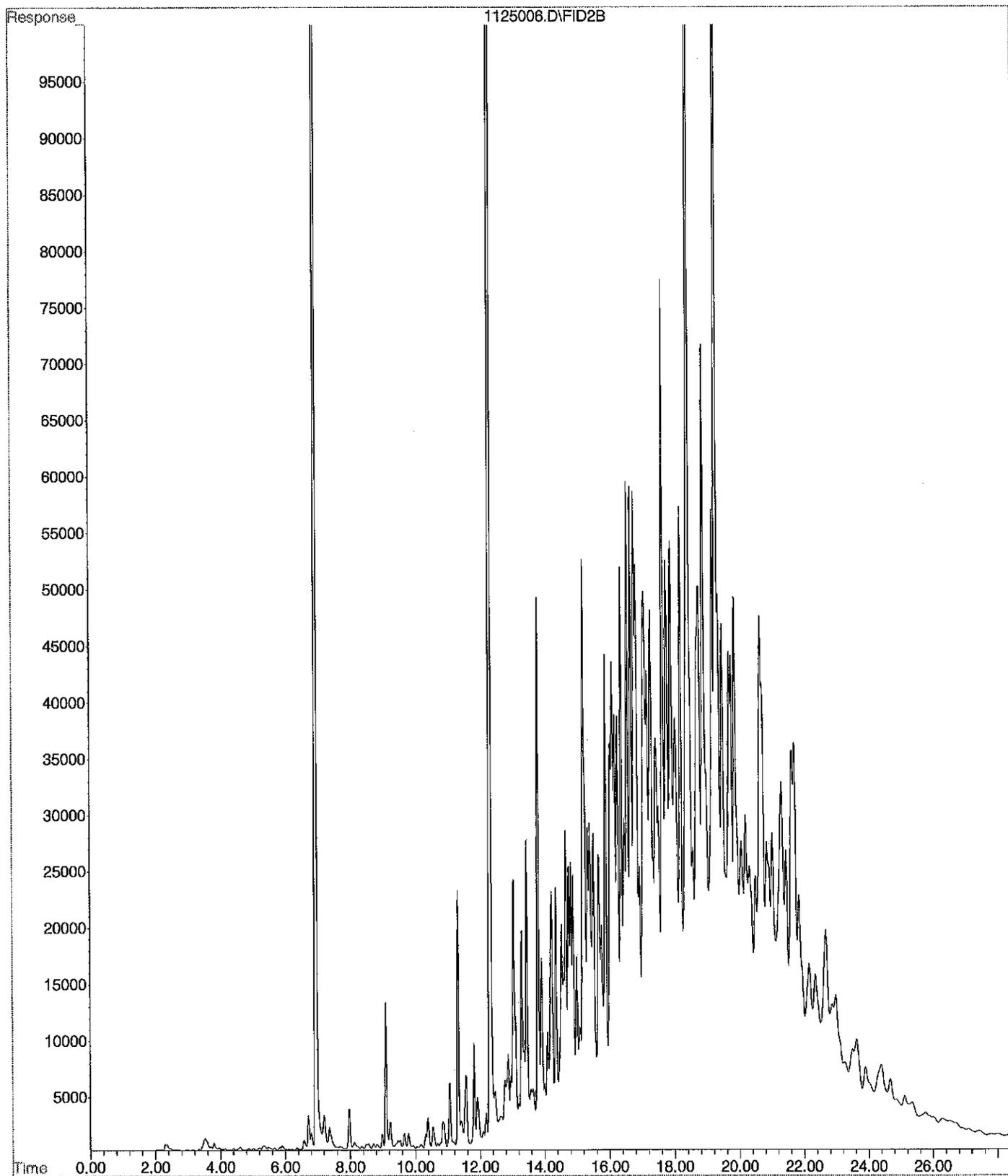
Quant Time: Nov 25 13:58 2014 Quant Results File: 141012DB.RES  
 Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.95	3146696	45.385	PPB
5) S BROMOFLUOROBENZENE	12.31	2036712	50.308	PPB
11) S FLUOROBENZENE #2	6.95	8434694	38.019	PPB
16) S BROMOFLUOROBENZENE #2	12.31	12005255	40.092	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	4735465	0.089	PPM
2) H Entire GAS Envelope (9-24-	12.21	62555290	0.947	PPM
3) H GASOLINE (9-24-14)	13.51	33051067	0.815	PPM
7) H entire GAS envelope #2 (9-	12.26	146682426	0.973	PPM
8) H GASOLINE #2 (9-24-14)	13.56	72855770	0.605	PPM Dx
9) MTBE #2	4.60	15351	0.162	PPB
10) BENZENE #2	6.72	103901	0.310	PPB
12) TOLUENE #2	9.10	413978	1.312	PPB
13) ETHYLBENZENE #2	11.06	234098	0.835	PPB
14) m,p-XYLENE #2	11.31	775961	2.128	PPB
15) o-XYLENE #2	11.81	320023	1.012	PPB

12/2  
 [Signature]

File : X:\BTEX\DARYL\DATA\D141125\1125006.D  
Operator :  
Acquired : 25 Nov 2014 13:29 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 11-161-01t dup  
Misc Info : V2-36-15  
Vial Number: 6



Signal #1 : d:\btex\DATA\D141125\1125008.D\FID1A.CH Vial: 8  
 Signal #2 : d:\btex\DATA\D141125\1125008.D\FID2B.CH  
 Acq On : 25 Nov 2014 14:36 Operator:  
 Sample : SB1125S1 Inst : Daryl  
 Misc : V2-36-15,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 15:05 2014 Quant Results File: 141012DB.RES

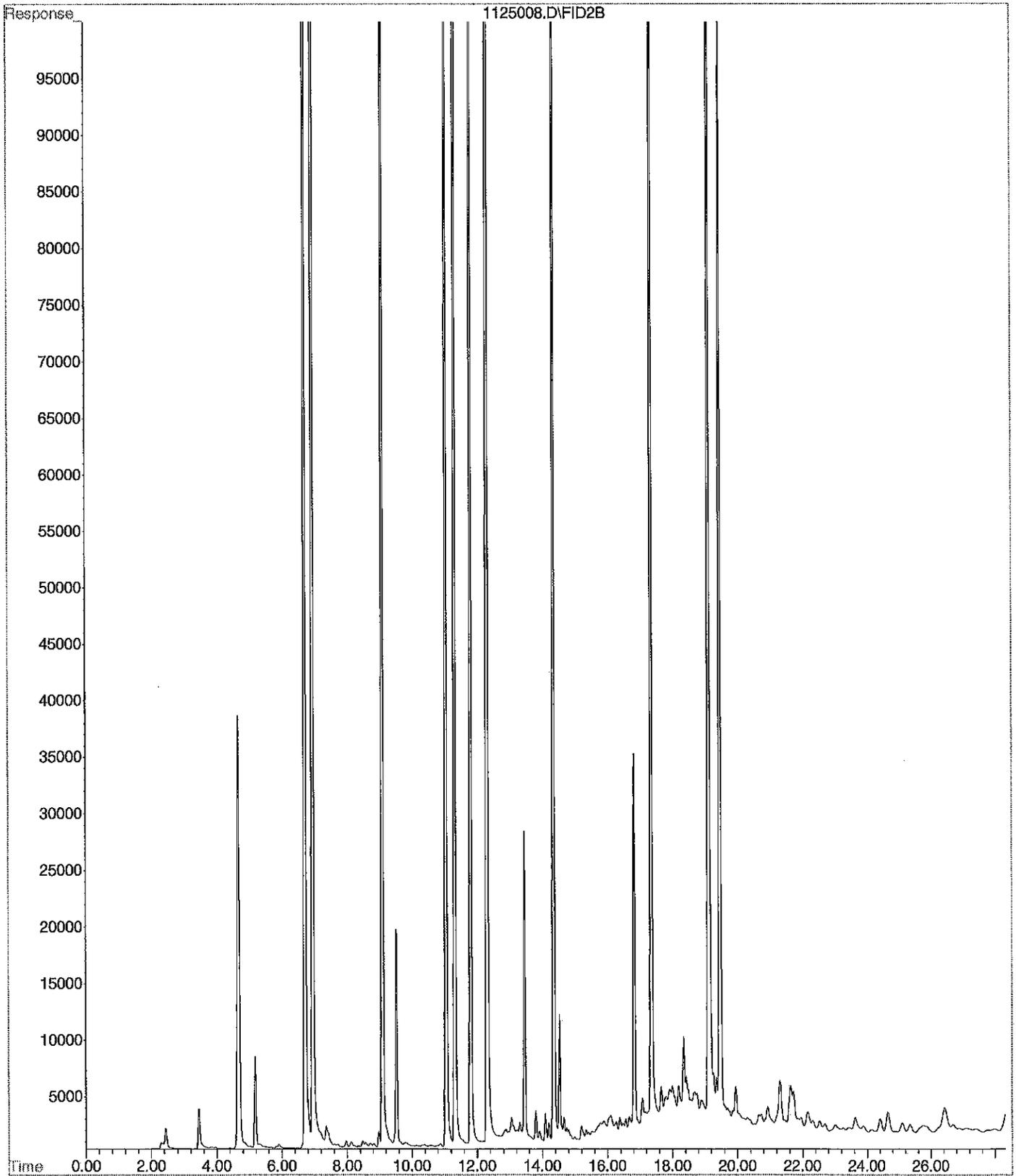
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3112981	44.895 PPB
5) S BROMOFLUOROBENZENE	12.31	1810816	44.665 PPB
11) S FLUOROBENZENE #2	6.95	8723751	39.333 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11958354	39.934 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	12847101	0.254 PPM
2) H Entire GAS Envelope (9-24-	12.21	28388503	0.424 PPM
3) H GASOLINE (9-24-14)	13.51	16915617	0.406 PPM
7) H entire GAS envelope #2 (9-	12.26	66354079	0.413 PPM
8) H GASOLINE #2 (9-24-14)	13.56	40785252	0.313 PPM
9) MTBE #2	4.67	1863134	25.467 PPB
10) BENZENE #2	6.71	5988885	20.363 PPB
12) TOLUENE #2	9.09	5585198	19.920 PPB
13) ETHYLBENZENE #2	11.06	4884447	19.772 PPB
14) m,p-XYLENE #2	11.32	5943475	19.943 PPB
15) o-XYLENE #2	11.81	4982681	19.647 PPB

11/26  


File : X:\BTEX\DARYL\DATA\D141125\1125008.D  
Operator :  
Acquired : 25 Nov 2014 14:36 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SB1125S1  
Misc Info : V2-36-15,V2-36-14  
Vial Number: 8



Signal #1 : d:\btex\DATA\D141125\1125009.D\FID1A.CH Vial: 9  
 Signal #2 : d:\btex\DATA\D141125\1125009.D\FID2B.CH  
 Acq On : 25 Nov 2014 16:11 Operator:  
 Sample : SBD1125S1 Inst : Daryl  
 Misc : V2-36-15,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 16:40 2014 Quant Results File: 141012DB.RES

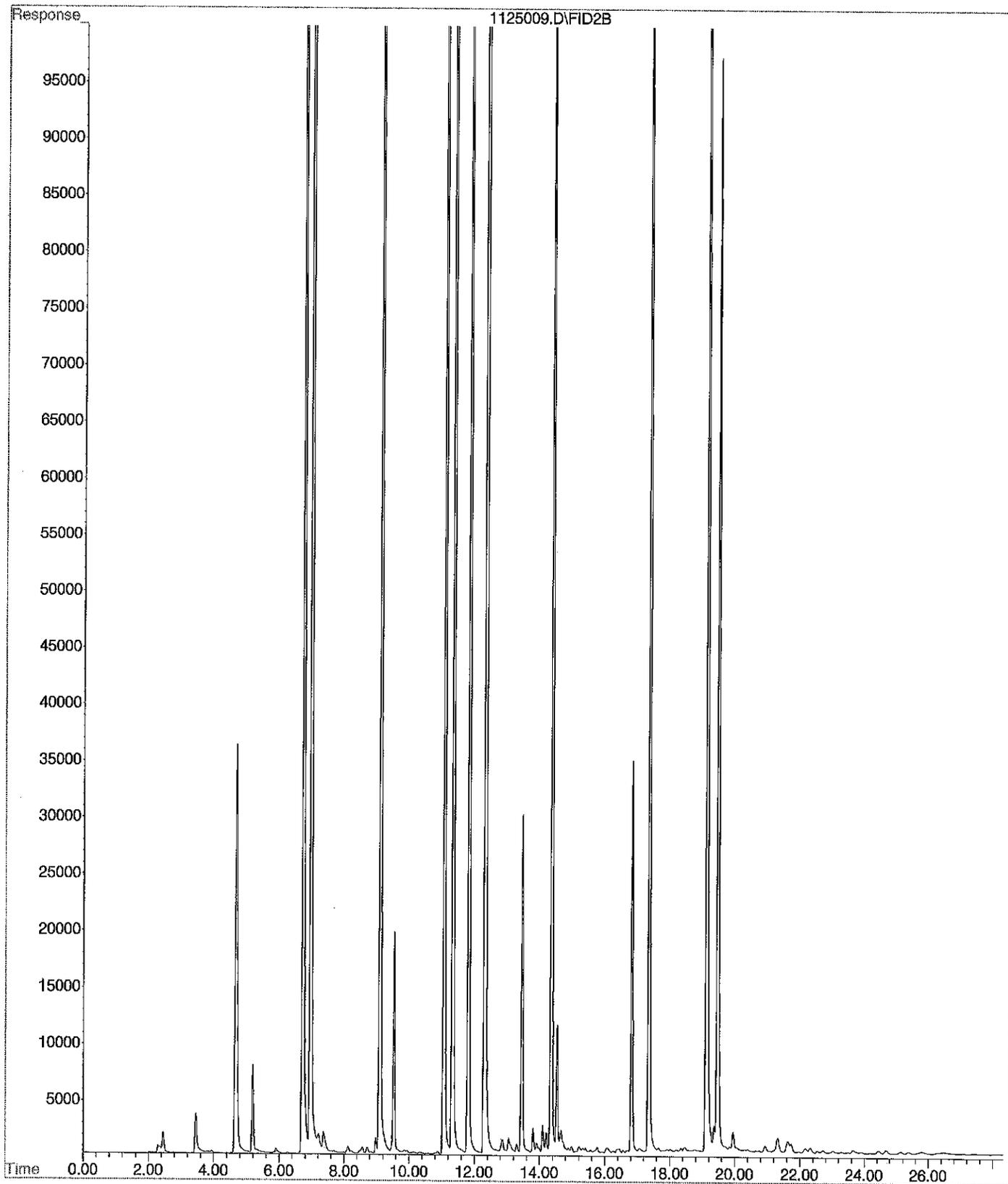
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.96	3151547	45.455 PPB
5) S BROMOFLUOROBENZENE	12.31	1840706	45.412 PPB
11) S FLUOROBENZENE #2	6.96	8590330	38.727 PPB
16) S BROMOFLUOROBENZENE #2	12.31	12011494	40.113 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	12711692	0.252 PPM
2) H Entire GAS Envelope (9-24-	12.21	24226366	0.360 PPM
3) H GASOLINE (9-24-14)	13.51	15494326	0.370 PPM
7) H entire GAS envelope #2 (9-	12.26	54801191	0.333 PPM
8) H GASOLINE #2 (9-24-14)	13.56	36439712	0.273 PPM
9) MTBE #2	4.68	1715850	23.450 PPB
10) BENZENE #2	6.72	5889392	20.024 PPB
12) TOLUENE #2	9.10	5657226	20.179 PPB
13) ETHYLBENZENE #2	11.06	4940696	20.001 PPB
14) m,p-XYLENE #2	11.33	6076760	20.402 PPB
15) o-XYLENE #2	11.81	5063600	19.971 PPB

*11/25/14*

File : X:\BTEX\DARYL\DATA\D141125\1125009.D  
Operator :  
Acquired : 25 Nov 2014 16:11 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SBD1125S1  
Misc Info : V2-36-15,V2-36-14  
Vial Number: 9



Signal #1 : d:\btex\DATA\D141125\1125004.D\FID1A.CH Vial: 4  
 Signal #2 : d:\btex\DATA\D141125\1125004.D\FID2B.CH  
 Acq On : 25 Nov 2014 12:22 Operator:  
 Sample : CCVD1125B-1 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 12:50 2014 Quant Results File: 141012DB.RES

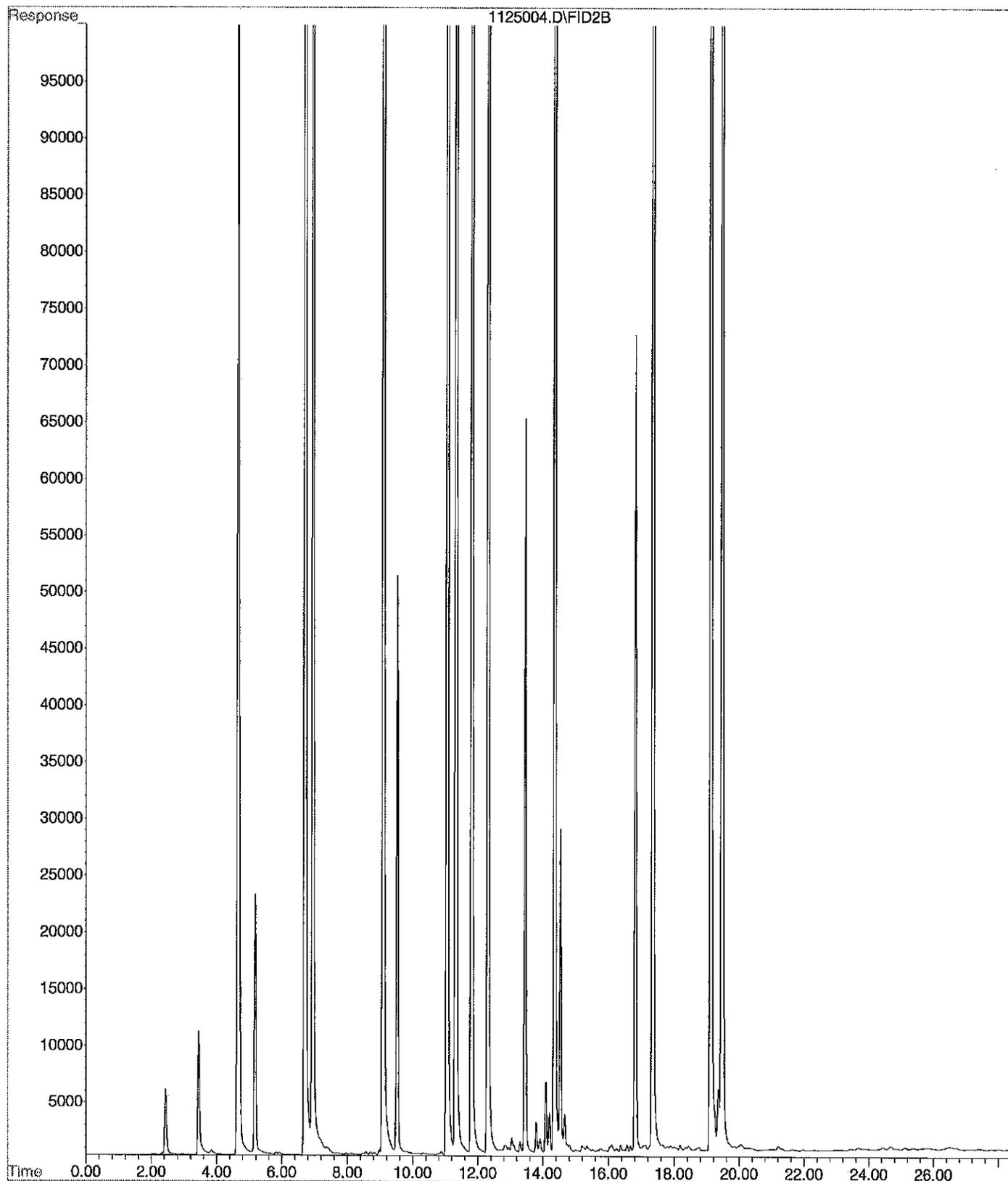
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.95	2814485	40.558	PPB
5) S BROMOFLUOROBENZENE	12.31	1666970	41.071	PPB
11) S FLUOROBENZENE #2	6.95	8216094	37.025	PPB
16) S BROMOFLUOROBENZENE #2	12.30	11021542	36.769	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	30859574	0.620	PPM
2) H Entire GAS Envelope (9-24-	12.21	54950116	0.830	PPM
3) H GASOLINE (9-24-14)	13.51	36395569	0.899	PPM
7) H entire GAS envelope #2 (9-	12.26	134111704	0.885	PPM
8) H GASOLINE #2 (9-24-14)	13.56	90429052	0.765	PPM
9) MTBE #2	4.67	4820724	65.970	PPB
10) BENZENE #2	6.71	15843059	53.942	PPB
12) TOLUENE #2	9.09	14712139	52.762	PPB
13) ETHYLBENZENE #2	11.05	12877938	52.323	PPB
14) m,p-XYLENE #2	11.32	15448924	52.713	PPB
15) o-XYLENE #2	11.81	12963705	51.545	PPB

*11/25/14*

File : X:\BTEX\DARYL\DATA\D141125\1125004.D  
Operator :  
Acquired : 25 Nov 2014 12:22 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125B-1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 4



Signal #1 : d:\btex\DATA\D141125\1125018.D\FID1A.CH Vial: 18  
 Signal #2 : d:\btex\DATA\D141125\1125018.D\FID2B.CH  
 Acq On : 25 Nov 2014 21:11 Operator:  
 Sample : CCVD1125B-2 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

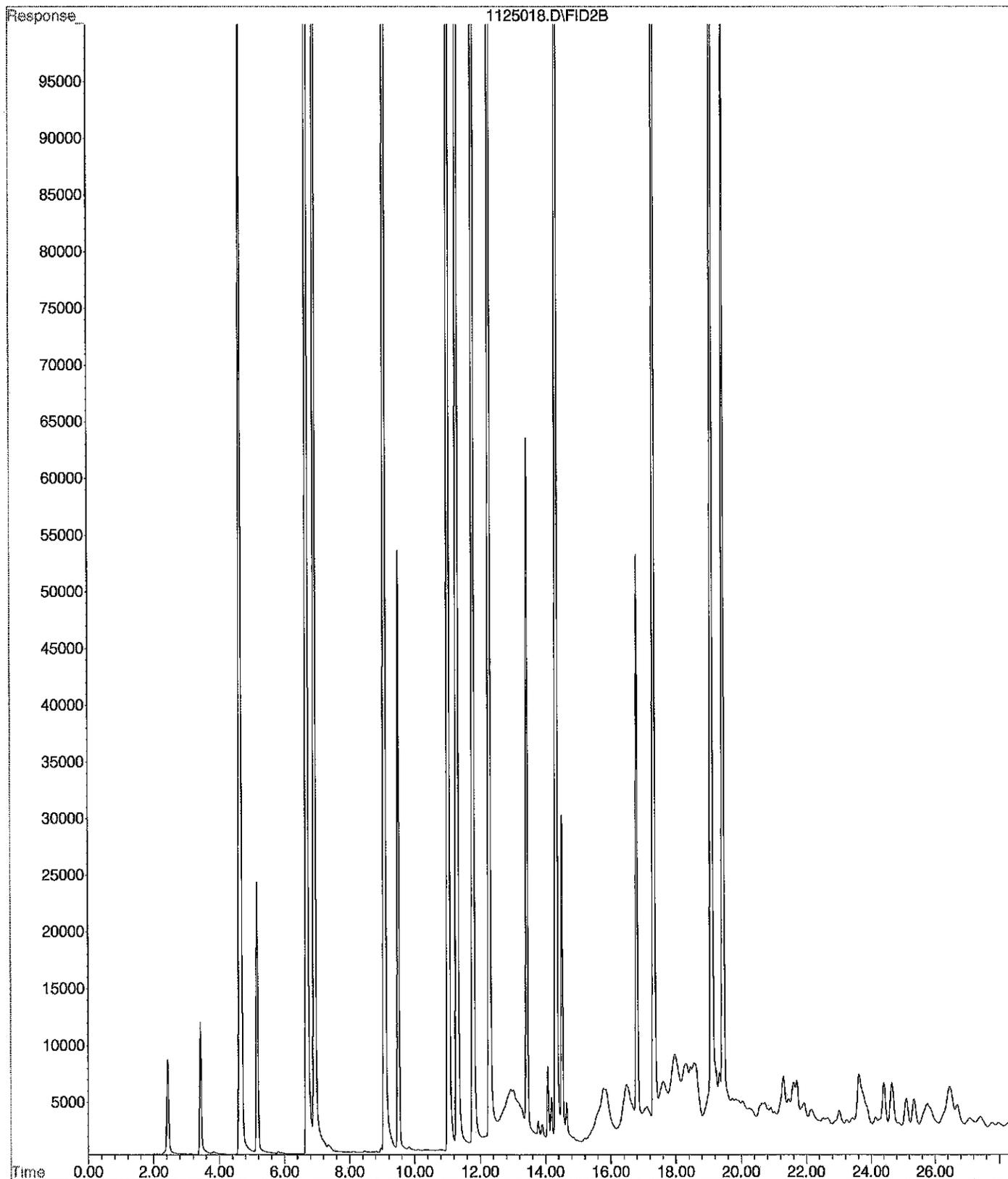
Quant Time: Nov 25 21:40 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.93	3023433	43.594 PPB
5) S BROMOFLUOROBENZENE	12.29	1738172	42.850 PPB
11) S FLUOROBENZENE #2	6.93	8575593	38.660 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11791159	39.369 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	31890095	0.641 PPM
2) H Entire GAS Envelope (9-24-	12.21	57072474	0.863 PPM
3) H GASOLINE (9-24-14)	13.51	37356740	0.924 PPM
7) H entire GAS envelope #2 (9-	12.26	139207129	0.921 PPM
8) H GASOLINE #2 (9-24-14)	13.56	95532144	0.812 PPM
9) MTBE #2	4.65	4756039	65.085 PPB
10) BENZENE #2	6.69	15934347	54.253 PPB
12) TOLUENE #2	9.07	14755883	52.920 PPB
13) ETHYLBENZENE #2	11.04	12961222	52.662 PPB
14) m,p-XYLENE #2	11.30	15588585	53.195 PPB
15) o-XYLENE #2	11.79	13169728	52.369 PPB

File : X:\BTEX\DARYL\DATA\D141125\1125018.D  
Operator :  
Acquired : 25 Nov 2014 21:11 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 18



Signal #1 : d:\btex\DATA\D141202\1202002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141202\1202002.D\FID2B.CH  
 Acq On : 2 Dec 2014 13:12 Operator:  
 Sample : CCVD1202B-1 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E  
 Quant Time: Dec 2 13:40 2014 Quant Results File: 141012DB.RES

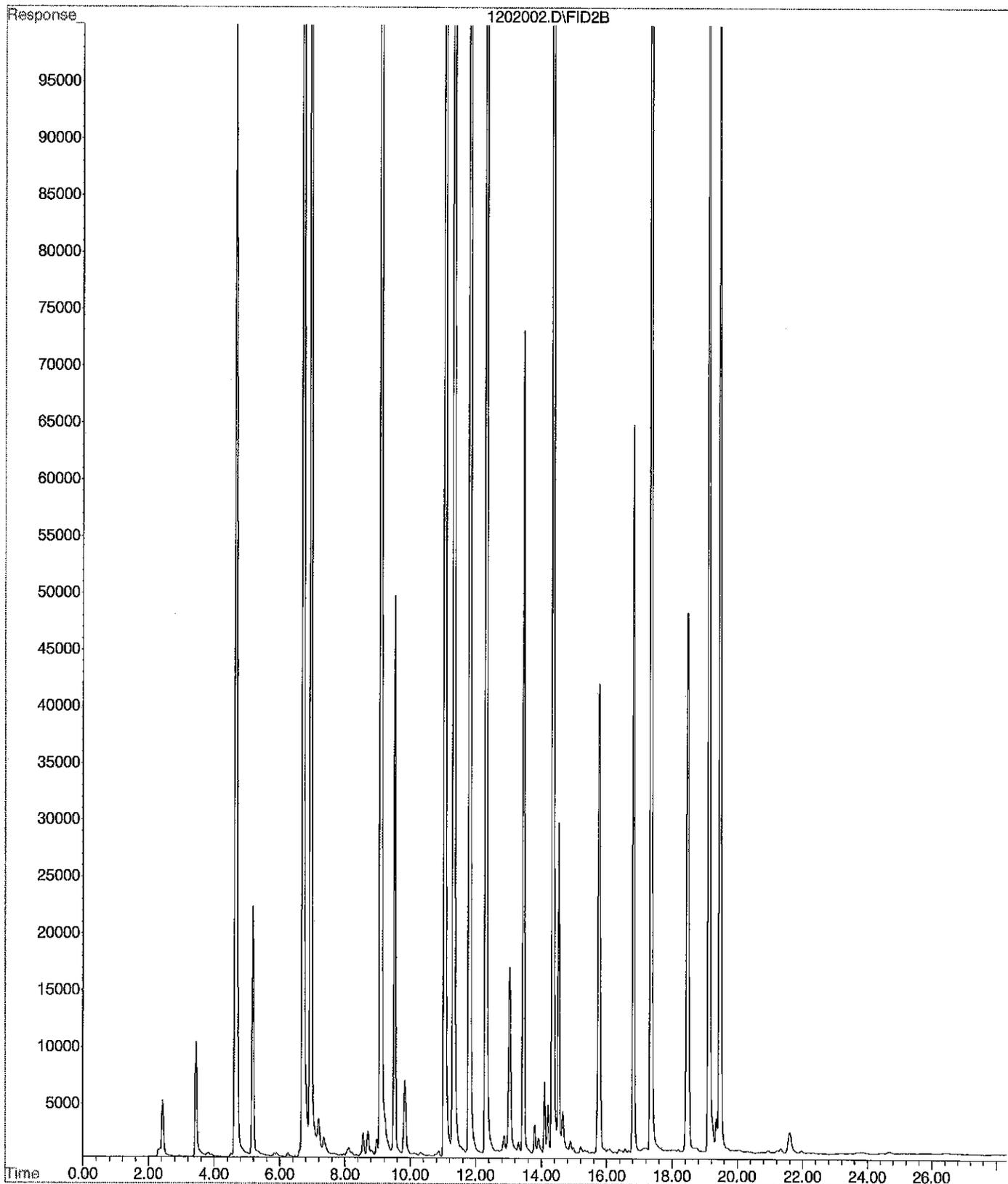
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	2978485	42.941 PPB
5) S BROMOFLUOROBENZENE	12.30	1761923	43.443 PPB
11) S FLUOROBENZENE #2	6.95	8220414	37.045 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11413257	38.093 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	32670946	0.657 PPM
2) H Entire GAS Envelope (9-24-	12.21	55650680	0.841 PPM
3) H GASOLINE (9-24-14)	13.51	37436374	0.926 PPM
7) H entire GAS envelope #2 (9-	12.26	128750605	0.848 PPM
8) H GASOLINE #2 (9-24-14)	13.56	92432652	0.783 PPM
9) MTBE #2	4.66	4701375	64.336 PPB
10) BENZENE #2	6.71	15992806	54.452 PPB
12) TOLUENE #2	9.09	15183534	54.458 PPB
13) ETHYLBENZENE #2	11.05	13148101	53.423 PPB
14) m,p-XYLENE #2	11.32	15898804	54.264 PPB
15) o-XYLENE #2	11.80	13276574	52.796 PPB

12/3  


File : X:\BTEX\DARYL\DATA\D141202\1202002.D  
Operator :  
Acquired : 2 Dec 2014 13:12 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1202B-1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141202\1202017.D\FID1A.CH      Vial: 17  
 Signal #2 : d:\btex\DATA\D141202\1202017.D\FID2B.CH  
 Acq On : 2 Dec 2014 22:04      Operator:  
 Sample : CCVD1202B-2      Inst : Daryl  
 Misc : V2-36-11,V2-36-14      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 2 22:32 2014      Quant Results File: 141012DB.RES

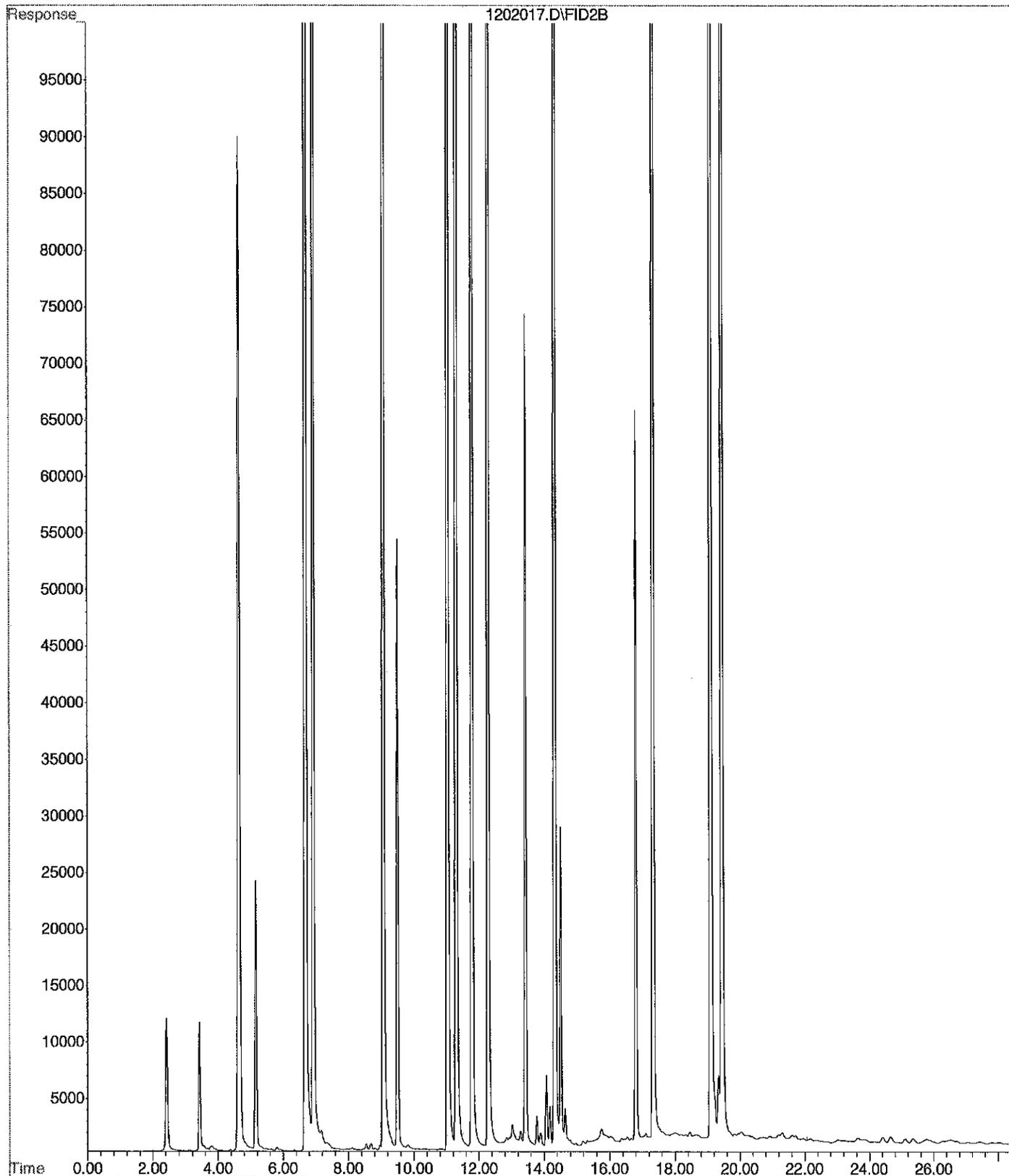
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2951984	42.556 PPB
5) S BROMOFLUOROBENZENE	12.29	1741575	42.935 PPB
11) S FLUOROBENZENE #2	6.93	8195898	36.933 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11307425	37.735 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31389158	0.631 PPM
2) H Entire GAS Envelope (9-24-	12.21	55996883	0.846 PPM
3) H GASOLINE (9-24-14)	13.51	37112220	0.917 PPM
7) H entire GAS envelope #2 (9-	12.26	135281694	0.893 PPM
8) H GASOLINE #2 (9-24-14)	13.56	90480977	0.766 PPM
9) MTBE #2	4.65	4172651	57.095 PPB
10) BENZENE #2	6.69	15681799	53.392 PPB
12) TOLUENE #2	9.07	14616963	52.420 PPB
13) ETHYLBENZENE #2	11.04	12763771	51.858 PPB
14) m,p-XYLENE #2	11.30	15324644	52.285 PPB
15) o-XYLENE #2	11.79	12895661	51.273 PPB

*12/3*  
*aw*

File : X:\BTEX\DARYL\DATA\D141202\1202017.D  
Operator :  
Acquired : 2 Dec 2014 22:04 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1202B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 17



Signal #1 : d:\btex\DATA\D141125\1125001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141125\1125001.D\FID2B.CH  
 Acq On : 25 Nov 2014 10:41 Operator:  
 Sample : CCVD1125G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Nov 25 11:09 2014 Quant Results File: 141012DB.RES

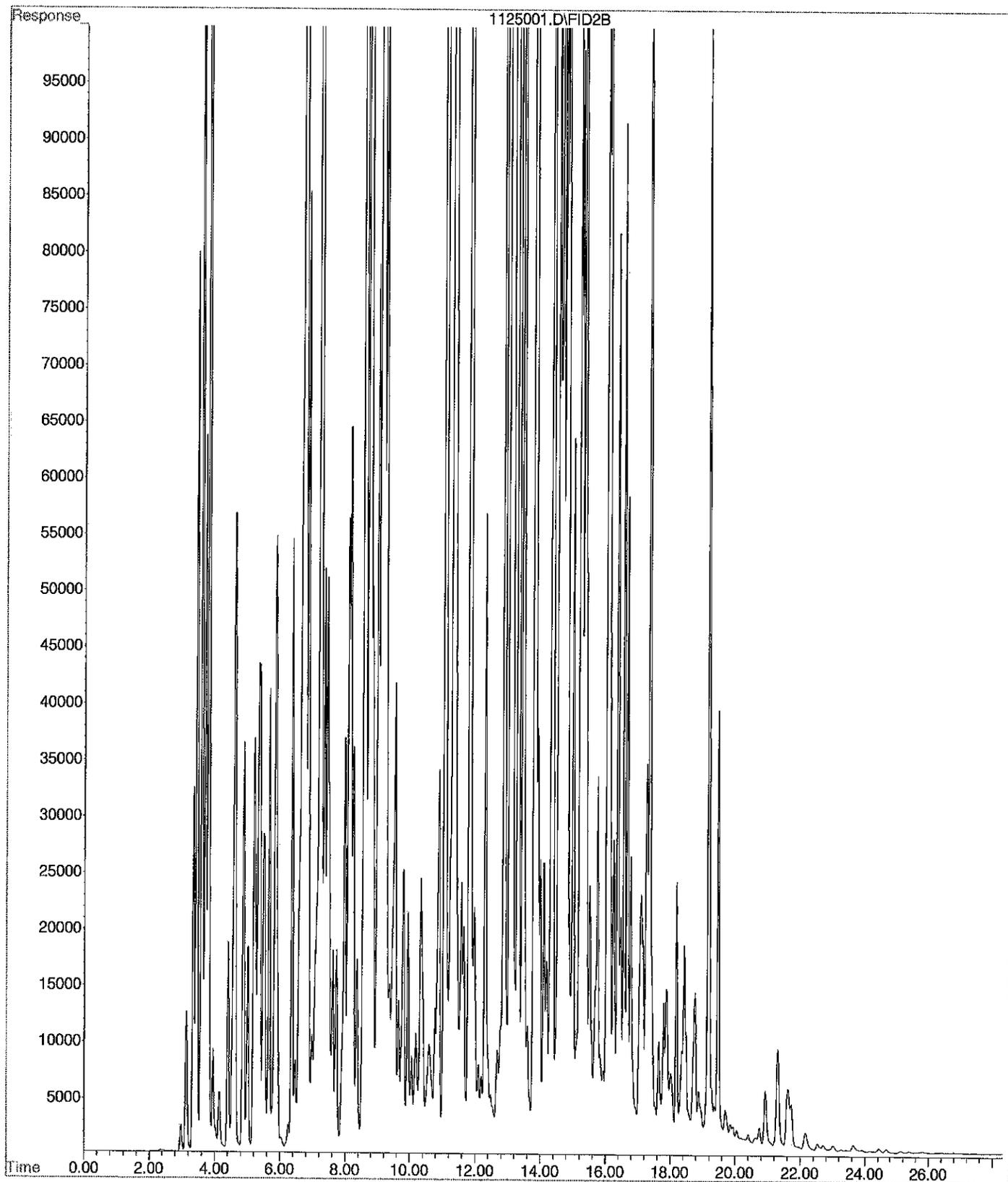
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.85	6669135	96.560 PPB
5) S BROMOFLUOROBENZENE	12.29	1279282	31.386 PPB
11) S FLUOROBENZENE #2	6.98	448307	1.708 PPB
16) S BROMOFLUOROBENZENE #2	12.29	2550767	8.155 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	267181445	5.421 PPM
2) H Entire GAS Envelope (9-24-	12.21	355633310	5.436 PPM
3) H GASOLINE (9-24-14)	13.51	212570028	5.356 PPM
7) H entire GAS envelope #2 (9-	12.26	696255852	4.801 PPM
8) H GASOLINE #2 (9-24-14)	13.56	535243745	4.820 PPM
9) MTBE #2	4.60	3066248	41.943 PPB
10) BENZENE #2	6.72	44830980	152.720 PPB
12) TOLUENE #2	9.10	121084148	435.527 PPB
13) ETHYLBENZENE #2	11.06	29417684	119.675 PPB
14) m,p-XYLENE #2	11.32	109268451	376.158 PPB
15) o-XYLENE #2	11.81	40681444	162.325 PPB

11/25  
 RW

File : X:\BTEX\DARYL\DATA\D141125\1125001.D  
Operator :  
Acquired : 25 Nov 2014 10:41 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141125\1125042.D\FID1A.CH Vial: 42  
 Signal #2 : d:\btex\DATA\D141125\1125042.D\FID2B.CH  
 Acq On : 26 Nov 2014 10:39 Operator:  
 Sample : CCVD1125G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 26 11:07 2014 Quant Results File: 141012DB.RES

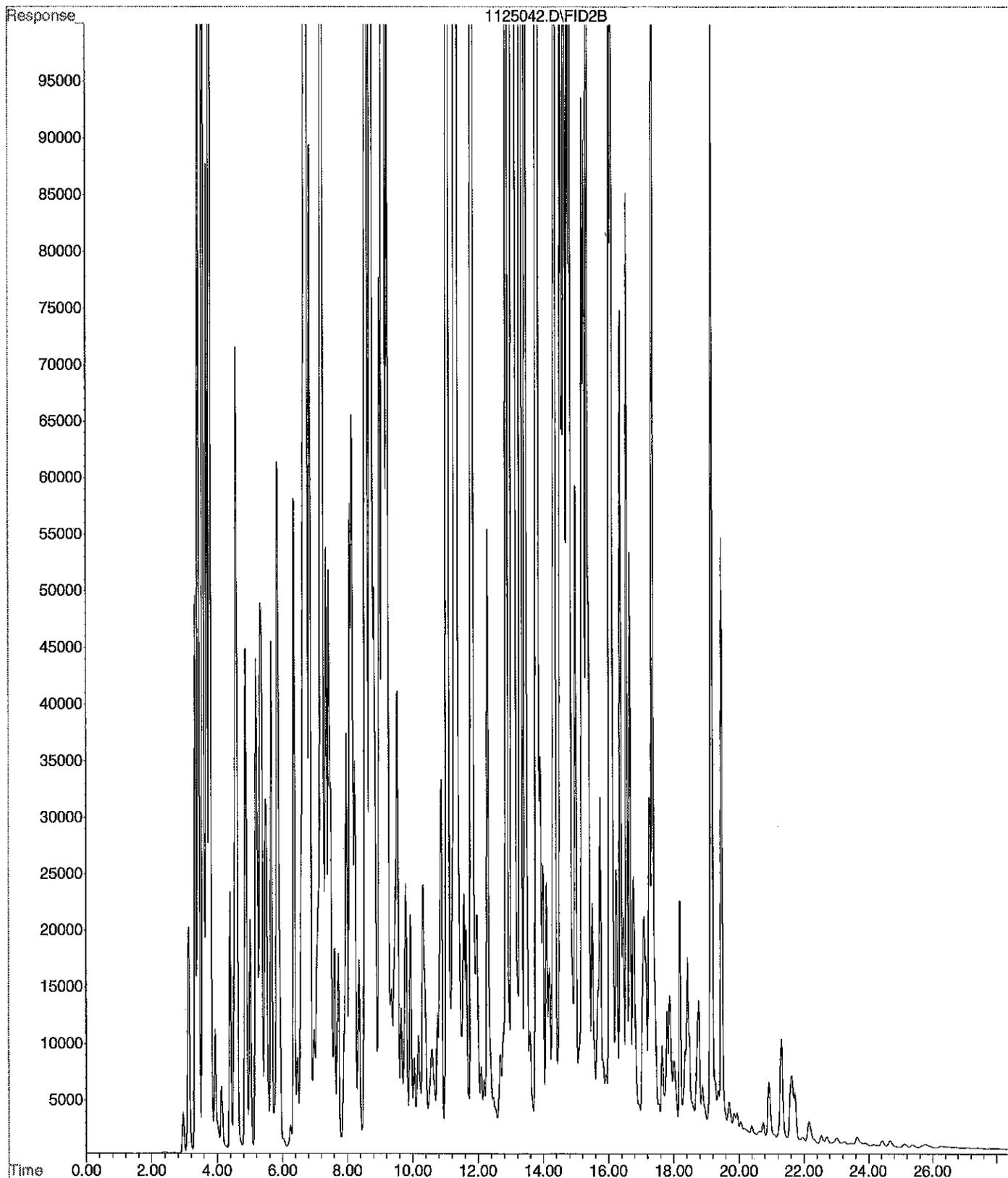
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.85	6980354	101.081	PPB
5) S BROMOFLUOROBENZENE	12.29	1222010	29.955	PPB
11) S FLUOROBENZENE #2	6.98	476276	1.835	PPB
16) S BROMOFLUOROBENZENE #2	12.30	2518588	8.046	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	260627276	5.288	PPM
2) H Entire GAS Envelope (9-24-	12.21	353794249	5.408	PPM
3) H GASOLINE (9-24-14)	13.51	202044266	5.090	PPM
7) H entire GAS envelope #2 (9-	12.26	678929508	4.680	PPM
8) H GASOLINE #2 (9-24-14)	13.56	508849817	4.579	PPM
9) MTBE #2	4.59	3834870	52.469	PPB
10) BENZENE #2	6.72	45020236	153.365	PPB
12) TOLUENE #2	9.10	117568852	422.877	PPB
13) ETHYLBENZENE #2	11.06	27769714	112.965	PPB
14) m,p-XYLENE #2	11.32	104412198	359.416	PPB
15) o-XYLENE #2	11.81	38570610	153.889	PPB

11/26  
 W

File : X:\BTEX\DARYL\DATA\D141125\1125042.D  
Operator :  
Acquired : 26 Nov 2014 10:39 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125G-2  
Misc Info : V2-36-08  
Vial Number: 42



Signal #1 : d:\btex\DATA\D141202\1202001.D\FID1A.CH      Via: 1  
 Signal #2 : d:\btex\DATA\D141202\1202001.D\FID2B.CH  
 Acq On : 2 Dec 2014 12:38      Operator:  
 Sample : CCVD1202G-1      Inst : Daryl  
 Misc : V2-36-08      Multiplr: 1.00  
                                  Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 2 13:07 2014      Quant Results File: 141012DB.RES

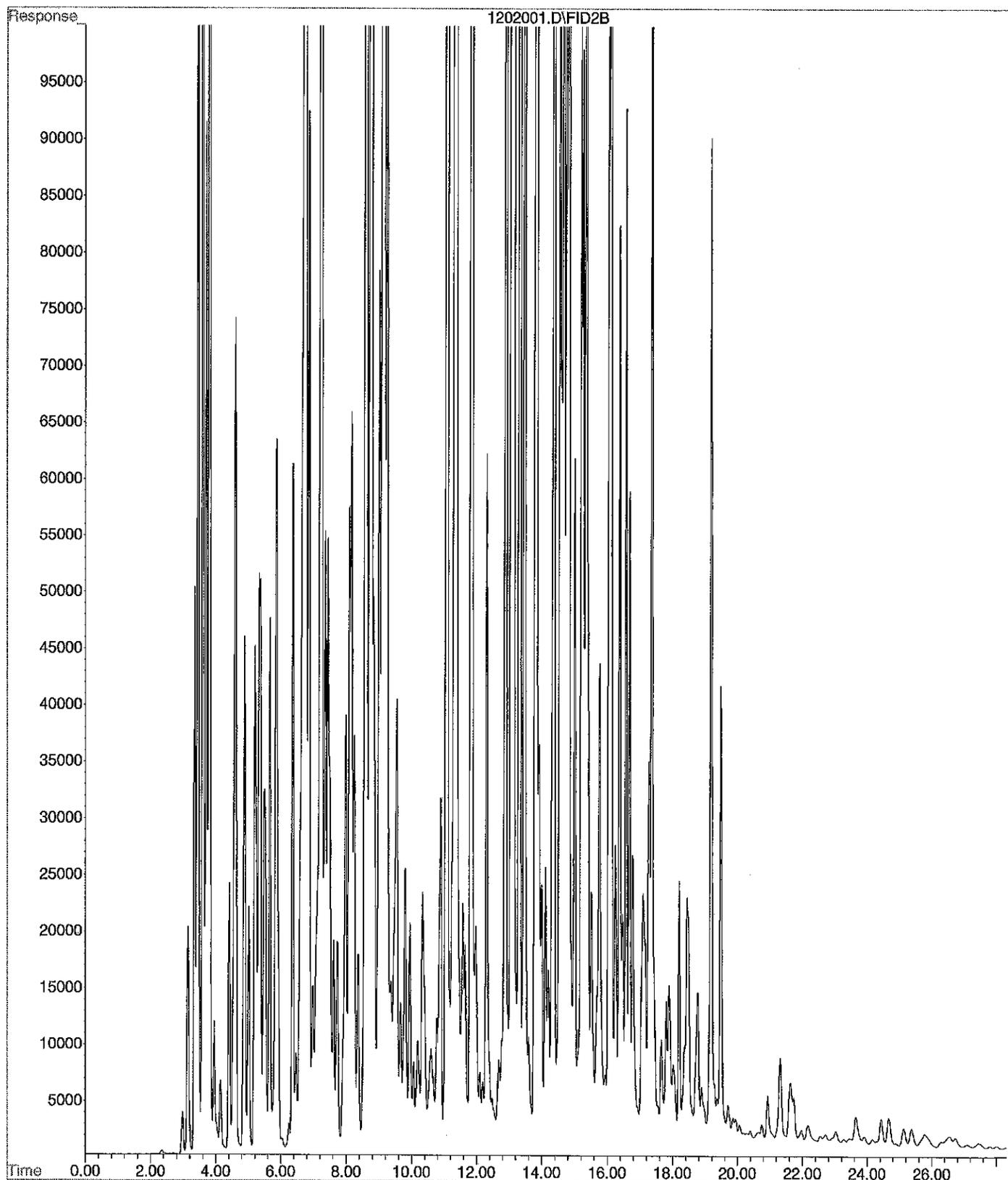
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.98	239319	3.145 PPB
5) S BROMOFLUOROBENZENE	12.30	1281888	31.451 PPB
11) S FLUOROBENZENE #2	6.97	660756	2.674 PPB
16) S BROMOFLUOROBENZENE #2	12.30	2722602	8.735 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	287727961	5.838 PPM
2) H Entire GAS Envelope (9-24-	12.21	387746795	5.928 PPM
3) H GASOLINE (9-24-14)	13.51	216081631	5.445 PPM
7) H entire GAS envelope #2 (9-	12.26	708552714	4.886 PPM
8) H GASOLINE #2 (9-24-14)	13.56	531685708	4.787 PPM ✓
9) MTBE #2	4.60	3947069	54.006 PPB
10) BENZENE #2	6.72	46986125	160.063 PPB
12) TOLUENE #2	9.10	120141725	432.135 PPB
13) ETHYLBENZENE #2	11.06	29285351	119.136 PPB
14) m,p-XYLENE #2	11.32	107802578	371.105 PPB
15) o-XYLENE #2	11.82	40864058	163.055 PPB

12/3  
 OR

File : X:\BTEX\DARYL\DATA\D141202\1202001.D  
Operator :  
Acquired : 2 Dec 2014 12:38 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1202G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141202\1202033.D\FID1A.CH Vial: 33  
 Signal #2 : d:\btex\DATA\D141202\1202033.D\FID2B.CH  
 Acq On : 3 Dec 2014 6:59 Operator:  
 Sample : CCVD1202G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 3 7:28 2014 Quant Results File: 141012DB.RES

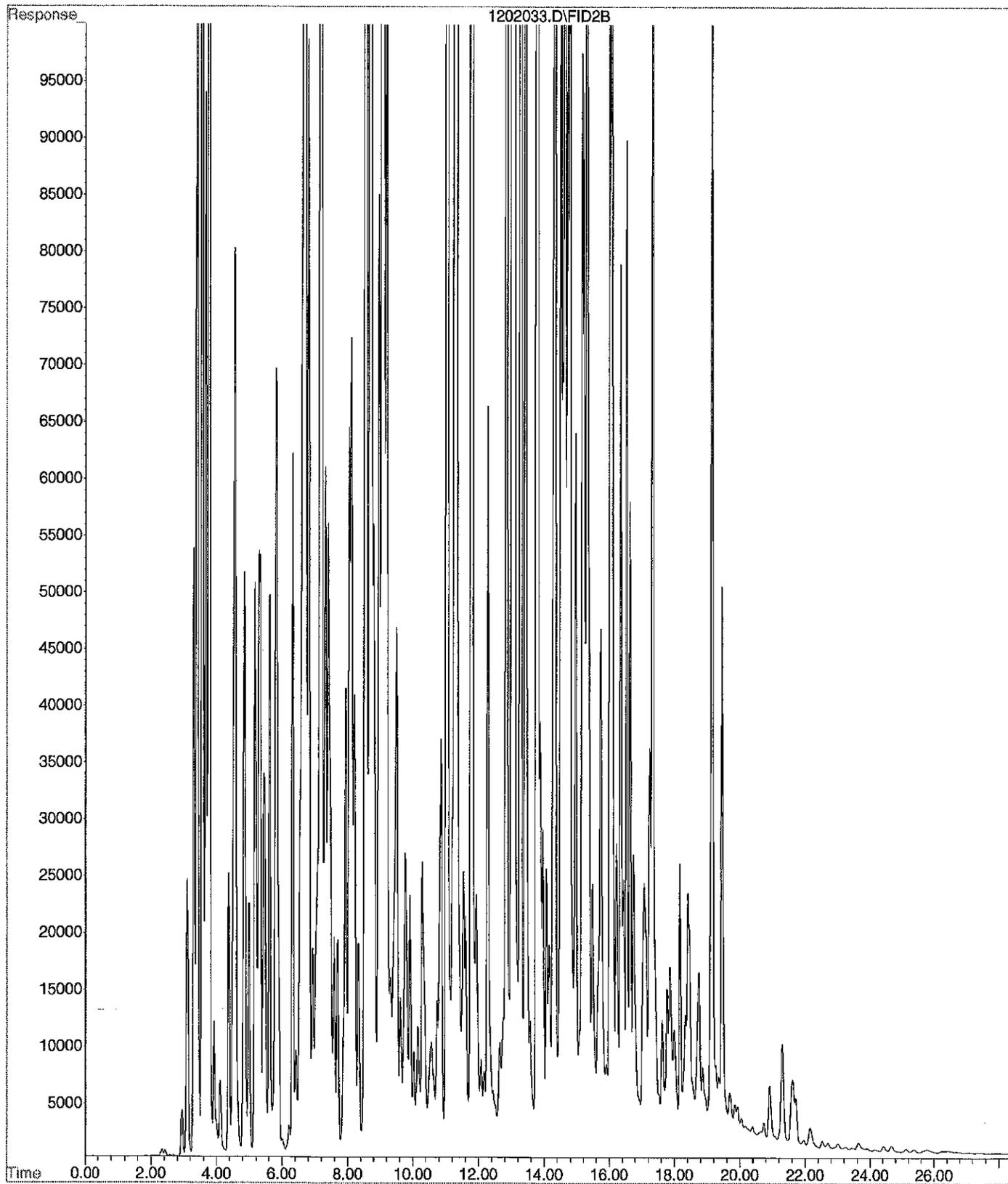
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.94	289020	3.867	PPB
5) S BROMOFLUOROBENZENE	12.27	1386263	34.059	PPB
11) S FLUOROBENZENE #2	6.94	785902	3.243	PPB
16) S BROMOFLUOROBENZENE #2	12.28	3029968	9.773	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	289366072	5.871	PPM
2) H Entire GAS Envelope (9-24-	12.21	392485197	6.001	PPM
3) H GASOLINE (9-24-14)	13.51	215843514	5.439	PPM
7) H entire GAS envelope #2 (9-	12.26	723447291	4.990	PPM
8) H GASOLINE #2 (9-24-14)	13.56	534976266	4.817	PPM ✓
9) MTBE #2	4.57	4504553	61.641	PPB
10) BENZENE #2	6.69	48332332	164.651	PPB
12) TOLUENE #2	9.08	122219393	439.612	PPB
13) ETHYLBENZENE #2	11.04	29215336	118.851	PPB
14) m,p-XYLENE #2	11.30	108036683	371.912	PPB
15) o-XYLENE #2	11.79	40181617	160.327	PPB

12/3

File : X:\BTEX\DARYL\DATA\D141202\1202033.D  
Operator :  
Acquired : 3 Dec 2014 6:59 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1202G-2  
Misc Info : V2-36-08  
Vial Number: 33



NWTPH-Gx/Benzene (water) Data

Signal #1 : d:\btex\DATA\D141125\1125039.D\FID1A.CH Vial: 39  
 Signal #2 : d:\btex\DATA\D141125\1125039.D\FID2B.CH  
 Acq On : 26 Nov 2014 8:49 Operator:  
 Sample : 11-240-02 Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 26 9:17 2014 Quant Results File: 141012DB.RES

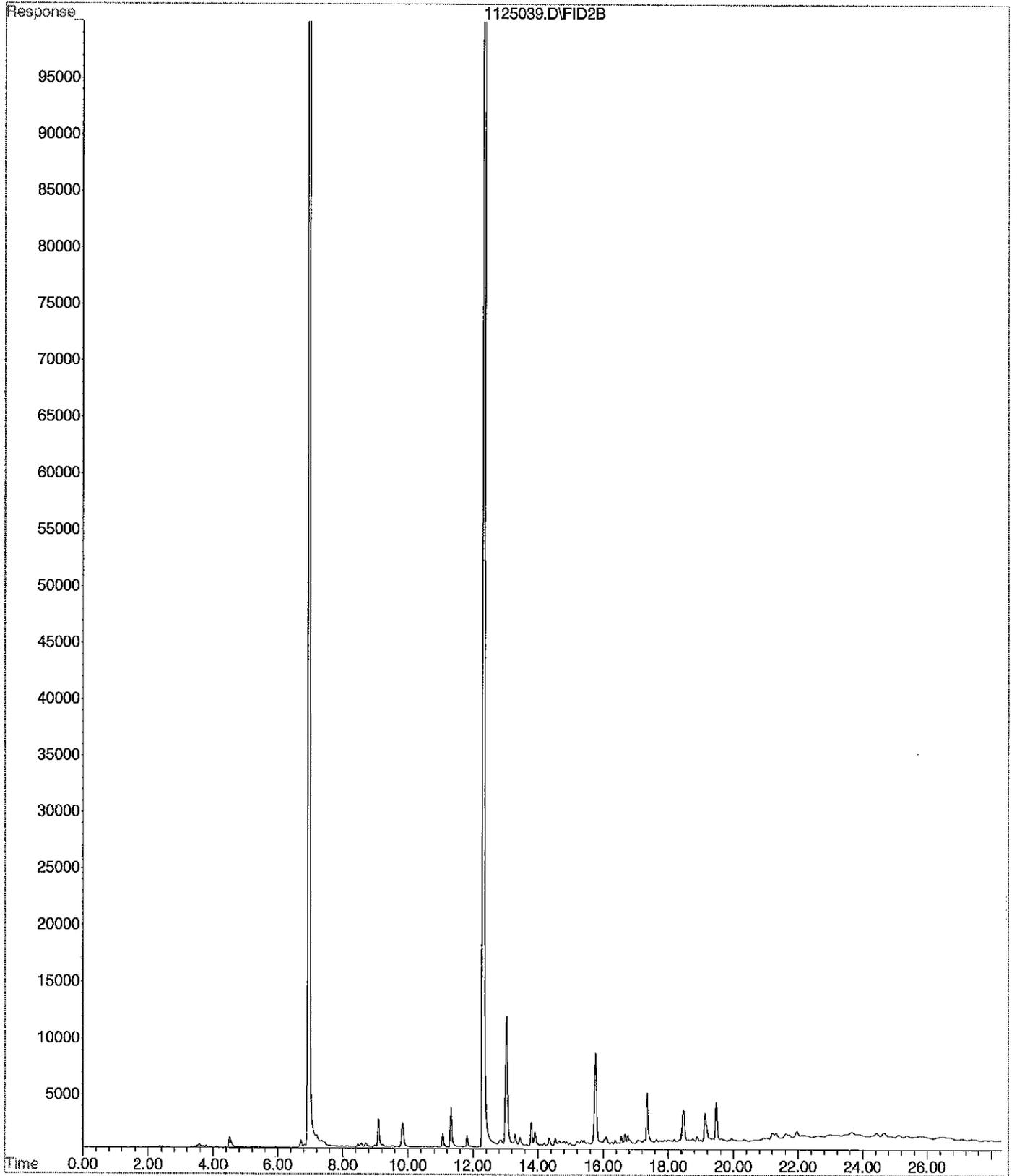
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.95	2830826	40.795	PPB
5) S BROMOFLUOROBENZENE	12.31	1662413	40.957	PPB
11) S FLUOROBENZENE #2	6.95	7710751	34.728	PPB
16) S BROMOFLUOROBENZENE #2	12.30	10674109	35.596	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	700526	0.008	PPM
2) H Entire GAS Envelope (9-24-	12.21	2366064	0.025	PPM
3) H GASOLINE (9-24-14)	13.51	1151121	0.008	PPM
7) H entire GAS envelope #2 (9-	12.26	6213469	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	3631297	N.D.	PPM
9) MTBE #2	4.71	647	N.D.	PPB
10) BENZENE #2	6.72	28539	0.053	PPB
12) TOLUENE #2	9.10	91587	0.152	PPB
13) ETHYLBENZENE #2	11.07	45843	0.069	PPB
14) m,p-XYLENE #2	11.32	140271	N.D.	PPB
15) o-XYLENE #2	11.81	40246	N.D.	PPB

11/26

File : X:\BTEX\DARYL\DATA\D141125\1125039.D  
Operator :  
Acquired : 26 Nov 2014 8:49 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 11-240-02  
Misc Info : V2-36-11  
Vial Number: 39



Signal #1 : d:\btex\DATA\D141125\1125010.D\FID1A.CH Vial: 10  
 Signal #2 : d:\btex\DATA\D141125\1125010.D\FID2B.CH  
 Acq On : 25 Nov 2014 16:45 Operator:  
 Sample : MB1125W1 Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 17:13 2014 Quant Results File: 141012DB.RES

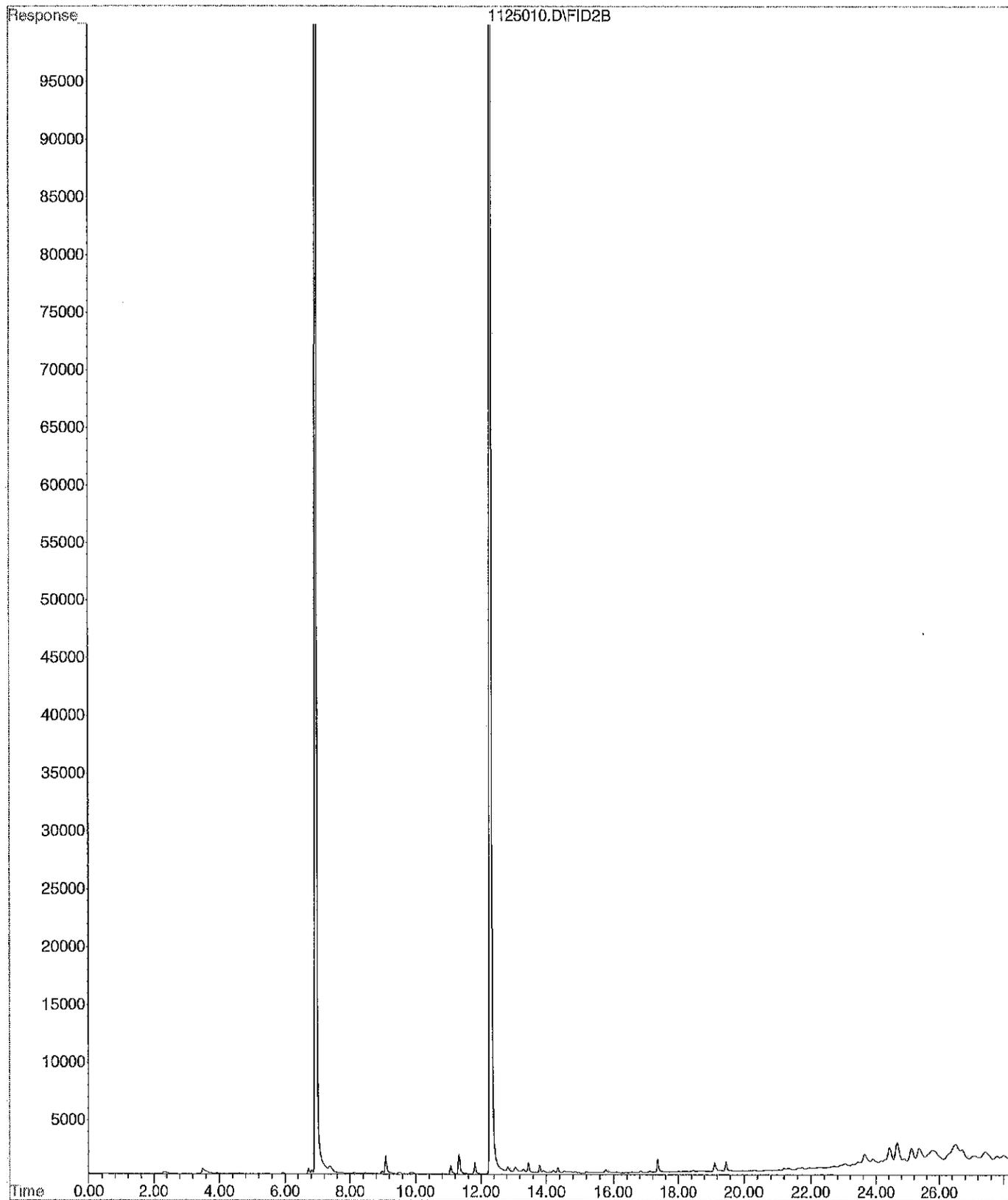
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.95	2898104	41.773	PPB
5) S BROMOFLUOROBENZENE	12.30	1743157	42.975	PPB
11) S FLUOROBENZENE #2	6.95	8026506	36.163	PPB
16) S BROMOFLUOROBENZENE #2	12.30	11267089	37.599	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	485849	0.003	PPM
2) H Entire GAS Envelope (9-24-	12.21	1563232	0.013	PPM
3) H GASOLINE (9-24-14)	13.51	564988	N.D.	PPM
7) H entire GAS envelope #2 (9-	12.26	1930382	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	1019505	N.D.	PPM
9) MTBE #2	4.60	7132	0.049	PPB
10) BENZENE #2	6.72	16368	0.011	PPB
12) TOLUENE #2	9.10	72831	0.085	PPB
13) ETHYLBENZENE #2	11.07	30184	0.005	PPB
14) m,p-XYLENE #2	11.32	72491	N.D.	PPB
15) o-XYLENE #2	11.81	37915	N.D.	PPB

*Mex*

File : X:\BTEX\DARYL\DATA\D141125\1125010.D  
Operator :  
Acquired : 25 Nov 2014 16:45 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1125w1  
Misc Info : V2-36-11  
Vial Number: 10



Signal #1 : d:\btex\DATA\D141125\1125012.D\FID1A.CH Vial: 12  
 Signal #2 : d:\btex\DATA\D141125\1125012.D\FID2B.CH  
 Acq On : 25 Nov 2014 17:51 Operator:  
 Sample : 11-219-01d Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 18:20 2014 Quant Results File: 141012DB.RES

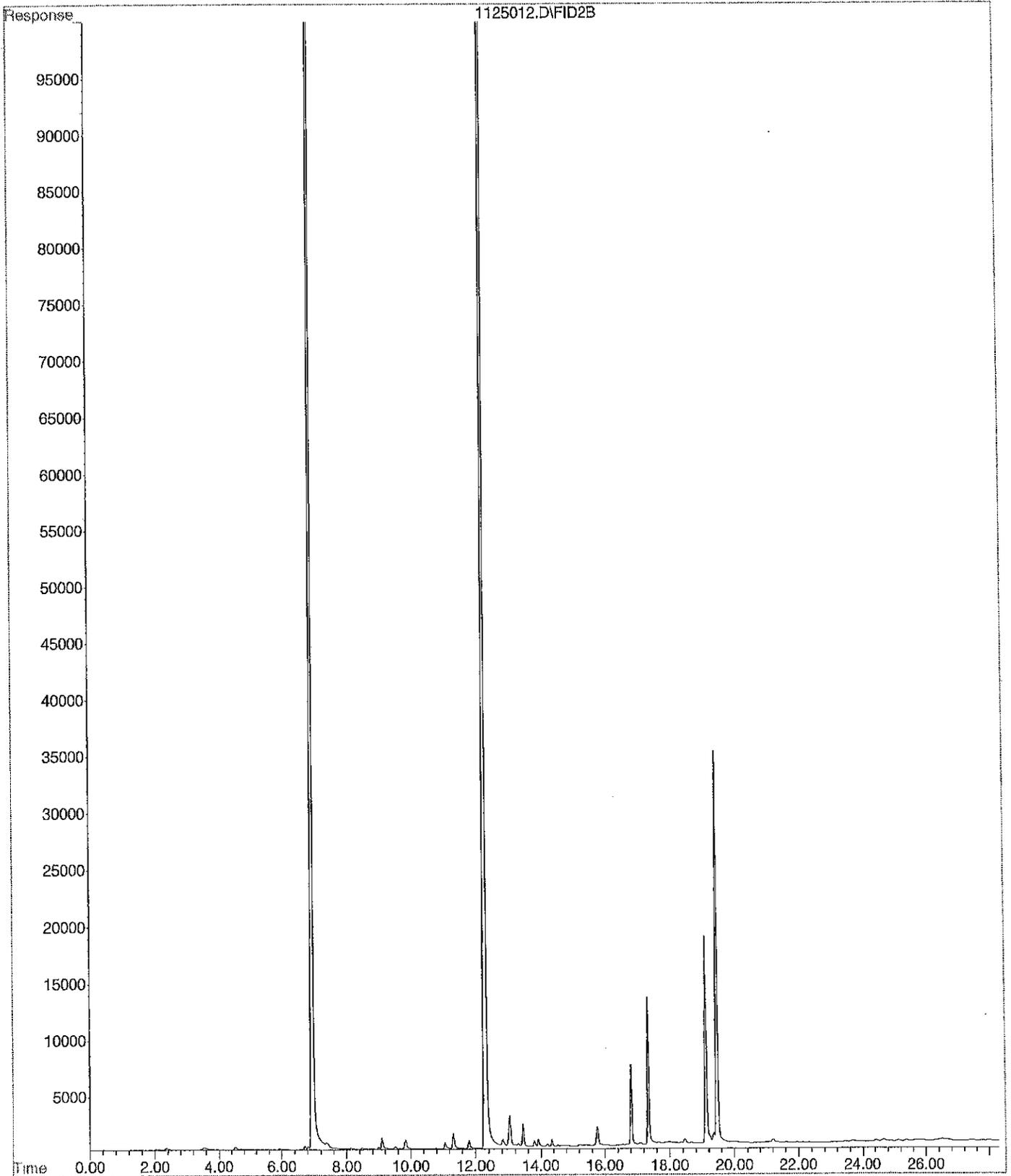
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	2920970	42.105 PPB
5) S BROMOFLUOROBENZENE	12.30	1706393	42.056 PPB
11) S FLUOROBENZENE #2	6.94	8049177	36.266 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11038308	36.826 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	439820	0.002 PPM
2) H Entire GAS Envelope (9-24-	12.21	2433997	0.026 PPM
3) H GASOLINE (9-24-14)	13.51	1112078	0.007 PPM
7) H entire GAS envelope #2 (9-	12.26	5465646	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	2255985	N.D. PPM
9) MTBE #2	4.68	5162	0.023 PPB
10) BENZENE #2	6.71	12198	N.D. PPB
12) TOLUENE #2	9.10	49704	0.001 PPB
13) ETHYLBENZENE #2	11.06	24078	N.D. PPB
14) m,p-XYLENE #2	11.32	55724	N.D. PPB
15) o-XYLENE #2	11.81	28423	N.D. PPB

*11/25/14*

File : X:\BTEX\DARYL\DATA\D141125\1125012.D  
Operator :  
Acquired : 25 Nov 2014 17:51 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 11-219-01d  
Misc Info : V2-36-11  
Vial Number: 12



Signal #1 : d:\btex\DATA\D141125\1125014.D\FID1A.CH      vial: 14  
 Signal #2 : d:\btex\DATA\D141125\1125014.D\FID2B.CH  
 Acq On : 25 Nov 2014 18:59      Operator:  
 Sample : 11-219-01d DUP      Inst : Daryl  
 Misc : V2-36-11      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 19:27 2014      Quant Results File: 141012DB.RES

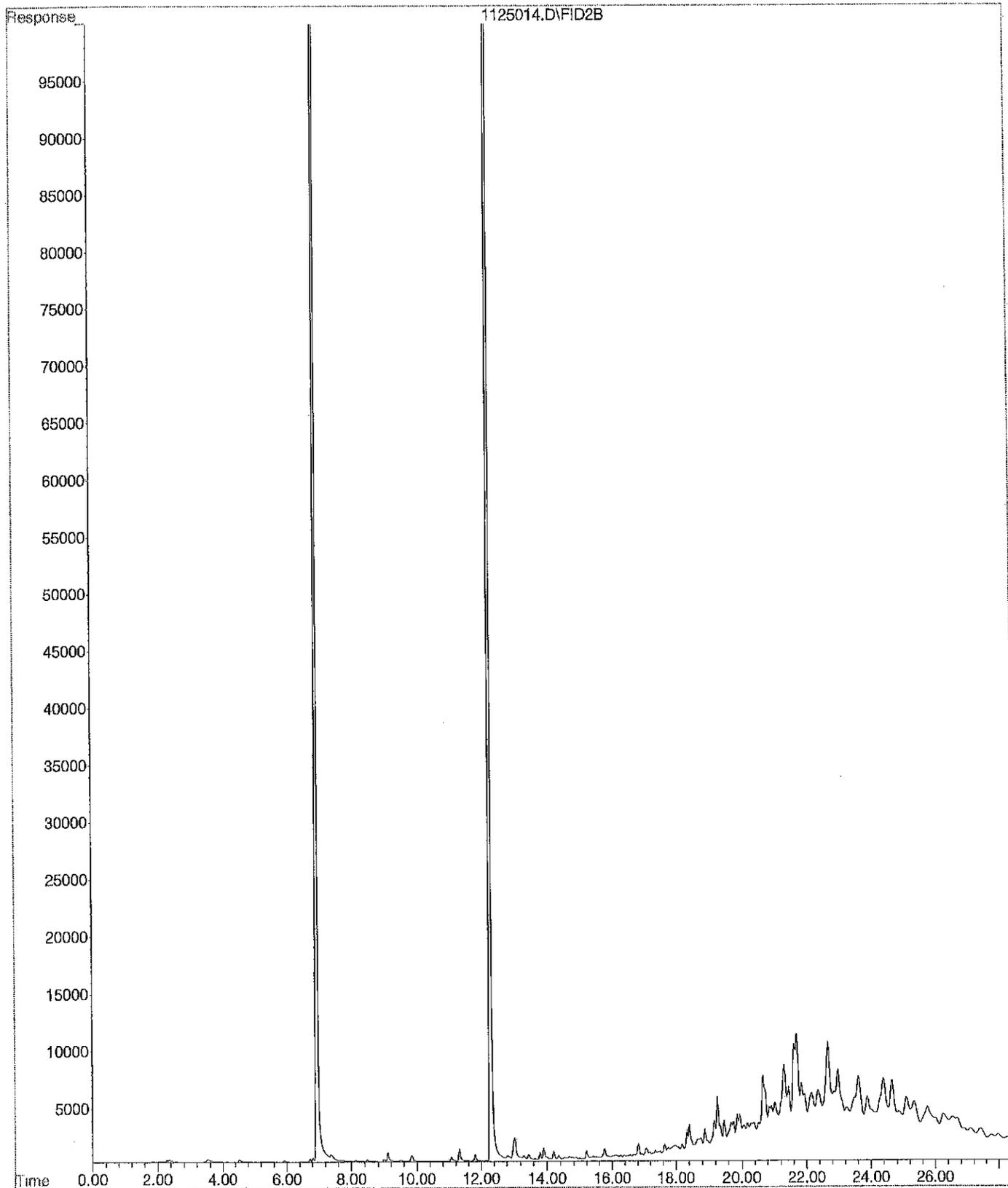
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
4) S FLUOROBENZENE	6.95	2785998	40.144	PPB
5) S BROMOFLUOROBENZENE	12.30	1632434	40.208	PPB
11) S FLUOROBENZENE #2	6.95	7586106	34.161	PPB
16) S BROMOFLUOROBENZENE #2	12.30	10555940	35.197	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	563923	0.005	PPM
2) H Entire GAS Envelope (9-24-	12.21	4174537	0.053	PPM
3) H GASOLINE (9-24-14)	13.51	1007131	0.004	PPM
7) H entire GAS envelope #2 (9-	12.26	7899339	0.006	PPM
8) H GASOLINE #2 (9-24-14)	13.56	1784862	N.D.	PPM
9) MTBE #2	4.72	881	N.D.	PPB
10) BENZENE #2	6.72	8493	N.D.	PPB
12) TOLUENE #2	9.10	40142	N.D.	PPB
13) ETHYLBENZENE #2	11.07	17542	N.D.	PPB
14) m,p-XYLENE #2	11.32	48493	N.D.	PPB
15) o-XYLENE #2	11.81	23186	N.D.	PPB

*Handwritten signature*

File : X:\BTEX\DARYL\DATA\D141125\1125014.D  
Operator :  
Acquired : 25 Nov 2014 18:59 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 11-219-01d DUP  
Misc Info : V2-36-11  
Vial Number: 14



Signal #1 : d:\btex\DATA\D141125\1125030.D\FID1A.CH Vial: 30  
 Signal #2 : d:\btex\DATA\D141125\1125030.D\FID2B.CH  
 Acq On : 26 Nov 2014 3:48 Operator:  
 Sample : 11-219-01b MS Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E  
 Quant Time: Nov 26 4:16 2014 Quant Results File: 141012DB.RES

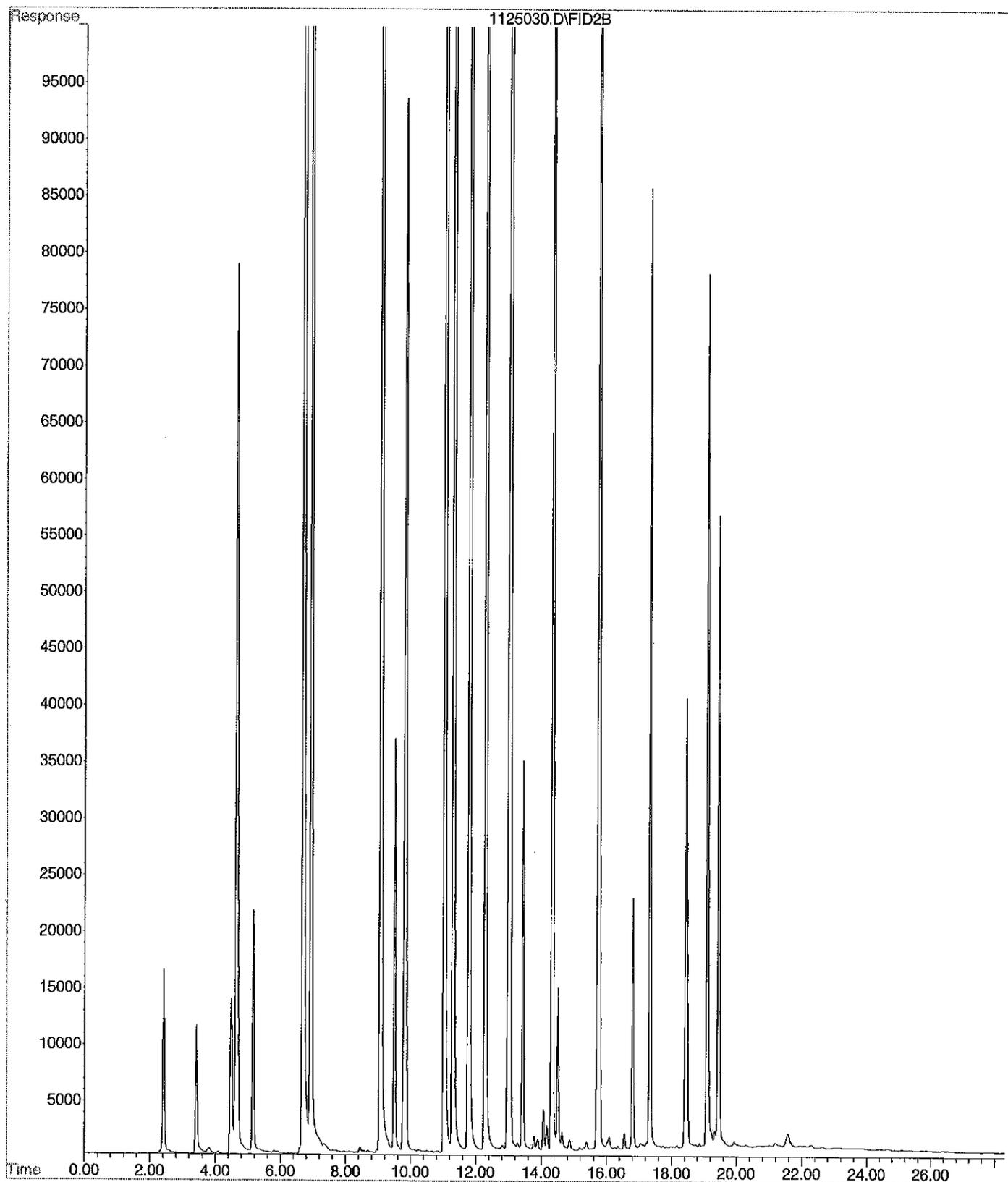
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2840647	40.938 PPB
5) S BROMOFLUOROBENZENE	12.28	1518483	37.362 PPB
11) S FLUOROBENZENE #2	6.93	8250640	37.182 PPB
16) S BROMOFLUOROBENZENE #2	12.28	10060051	33.521 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30437219	0.612 PPM
2) H Entire GAS Envelope (9-24-	12.21	44476098	0.670 PPM
3) H GASOLINE (9-24-14)	13.51	28923864	0.710 PPM
7) H entire GAS envelope #2 (9-	12.26	119224361	0.782 PPM
8) H GASOLINE #2 (9-24-14)	13.56	88796930	0.750 PPM
9) MTBE #2	4.65	3762907	51.484 PPB
10) BENZENE #2	6.69	15693149	53.431 PPB
12) TOLUENE #2	9.07	14477150	51.917 PPB
13) ETHYLBENZENE #2	11.03	12473596	50.676 PPB
14) m,p-XYLENE #2	11.30	14800717	50.478 PPB
15) o-XYLENE #2	11.79	12321630	48.979 PPB

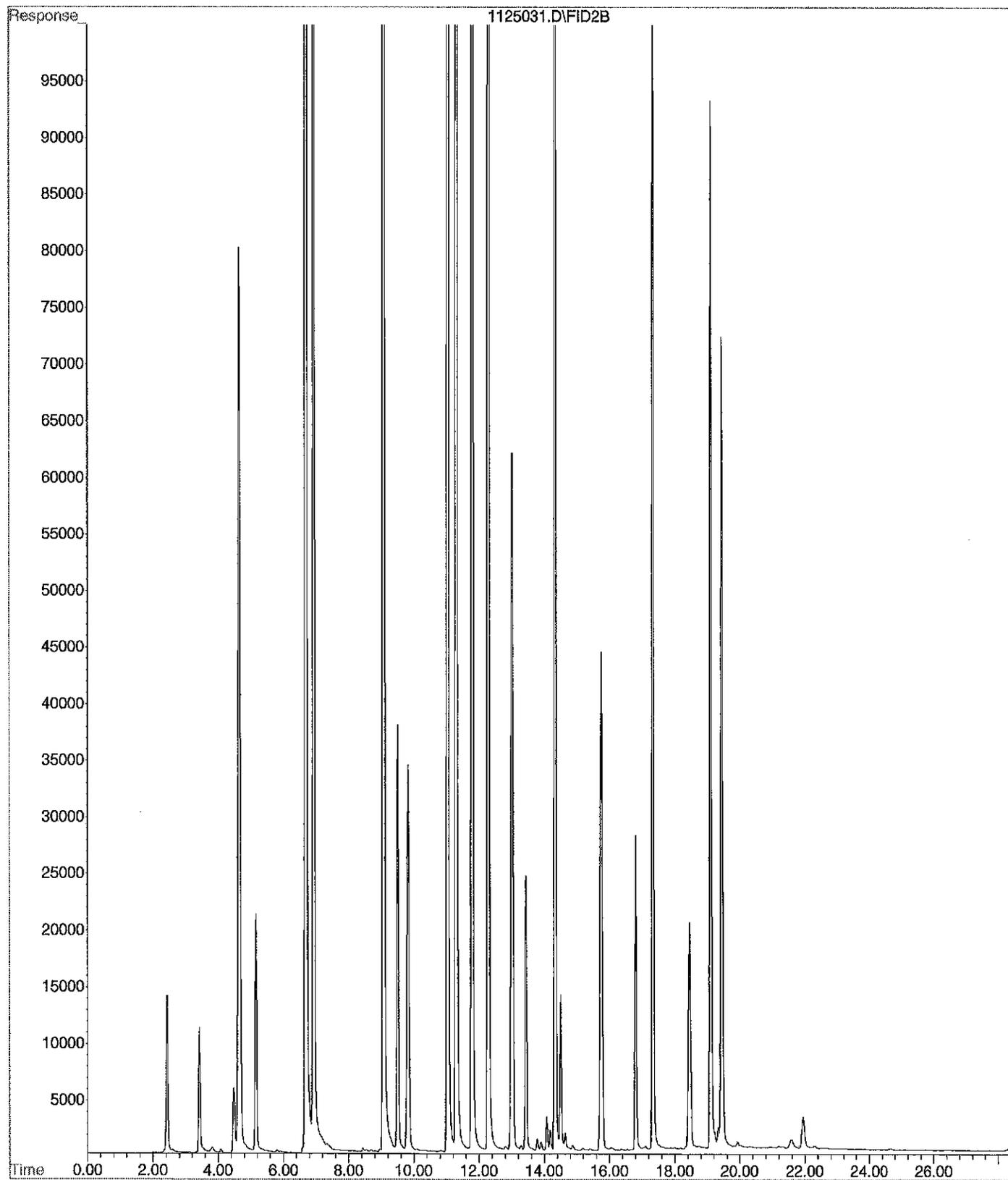
*11/26/14*

File : X:\BTEX\DARYL\DATA\D141125\1125030.D  
Operator :  
Acquired : 26 Nov 2014 3:48 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 11-219-01b MS  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 30





File : X:\BTEX\DARYL\DATA\D141125\1125031.D  
Operator :  
Acquired : 26 Nov 2014 4:21 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 11-219-01b MSD  
Misc Info : V2-36-11,v2-36-14  
Vial Number: 31



Signal #1 : d:\btex\DATA\D141125\1125004.D\FID1A.CH Vial: 4  
 Signal #2 : d:\btex\DATA\D141125\1125004.D\FID2B.CH  
 Acq On : 25 Nov 2014 12:22 Operator:  
 Sample : CCVD1125B-1 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 12:50 2014 Quant Results File: 141012DB.RES

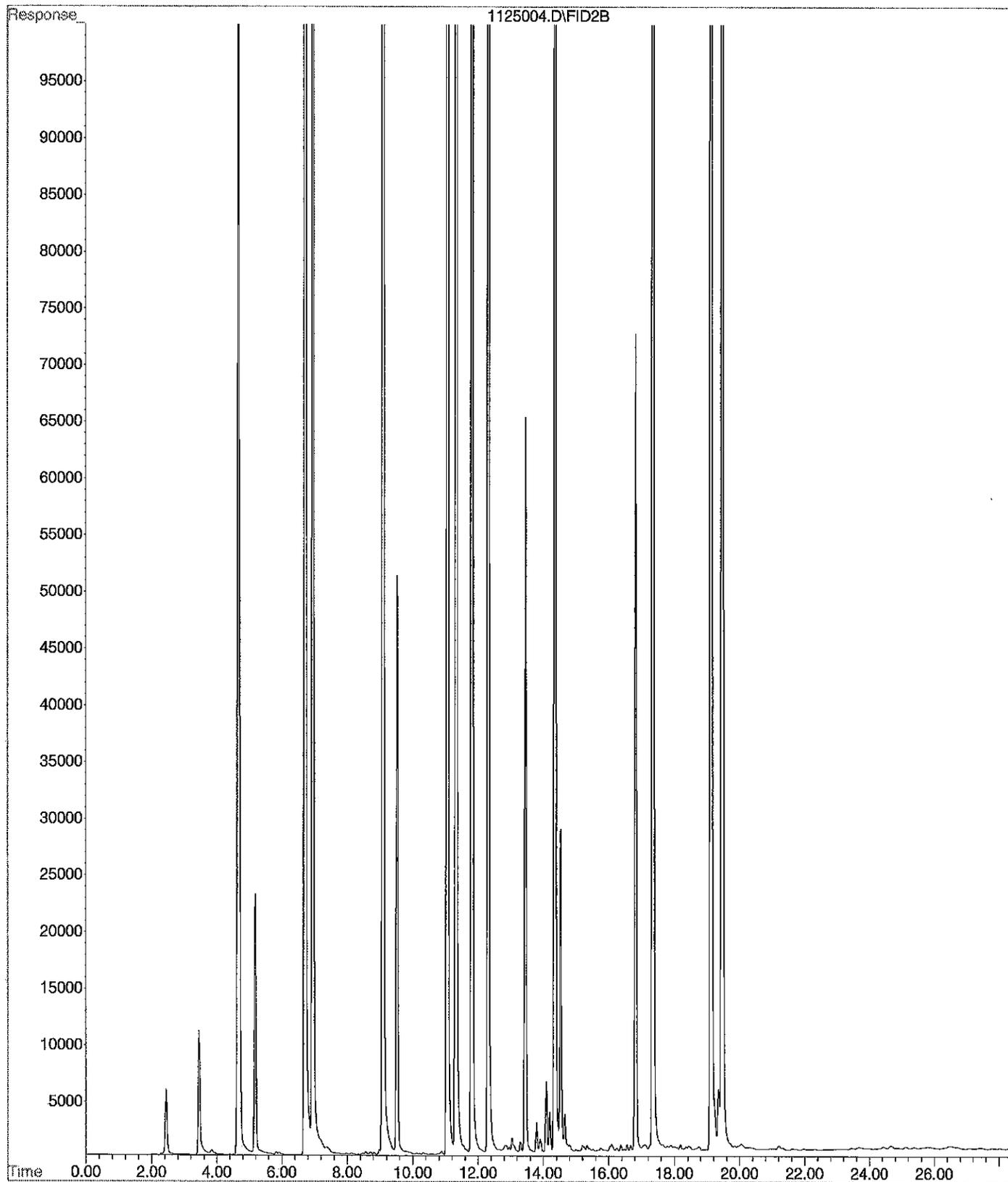
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	2814485	40.558 PPB
5) S BROMOFLUOROBENZENE	12.31	1666970	41.071 PPB
11) S FLUOROBENZENE #2	6.95	8216094	37.025 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11021542	36.769 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30859574	0.620 PPM
2) H Entire GAS Envelope (9-24-	12.21	54950116	0.830 PPM
3) H GASOLINE (9-24-14)	13.51	36395569	0.899 PPM
7) H entire GAS envelope #2 (9-	12.26	134111704	0.885 PPM
8) H GASOLINE #2 (9-24-14)	13.56	90429052	0.765 PPM
9) MTBE #2	4.67	4820724	65.970 PPB
10) BENZENE #2	6.71	15843059	53.942 PPB
12) TOLUENE #2	9.09	14712139	52.762 PPB
13) ETHYLBENZENE #2	11.05	12877938	52.323 PPB
14) m,p-XYLENE #2	11.32	15448924	52.713 PPB
15) o-XYLENE #2	11.81	12963705	51.545 PPB

*11/25/14*

File : X:\BTEX\DARYL\DATA\D141125\1125004.D  
Operator :  
Acquired : 25 Nov 2014 12:22 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125B-1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 4



Signal #1 : d:\btex\DATA\D141125\1125018.D\FID1A.CH      Vial: 18  
 Signal #2 : d:\btex\DATA\D141125\1125018.D\FID2B.CH  
 Acq On : 25 Nov 2014 21:11      Operator:  
 Sample : CCVD1125B-2      Inst : Daryl  
 Misc : V2-36-11,V2-36-14      Multiplr: 1.00  
    Sample Amount: 0.00  
 IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

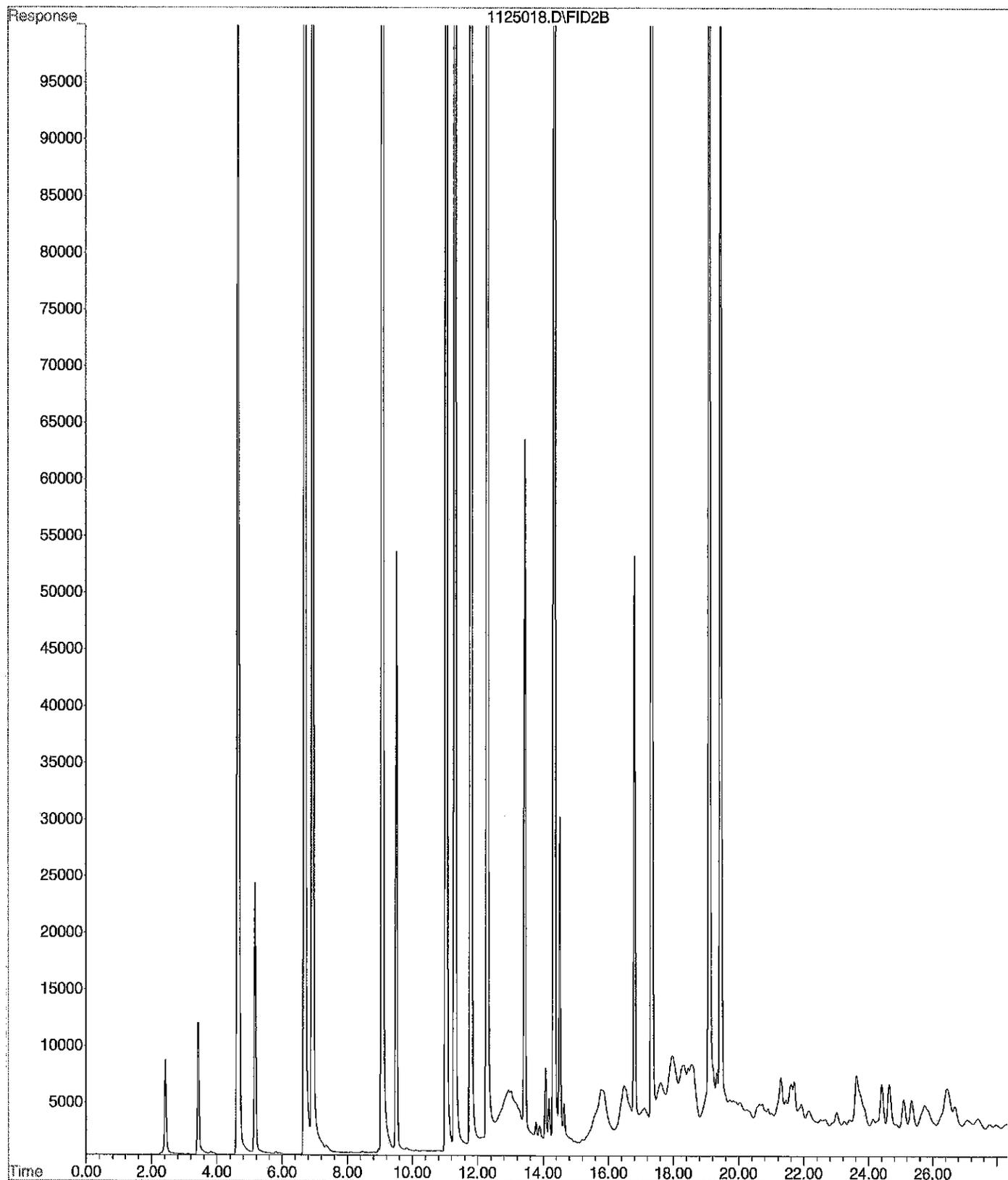
Quant Time: Nov 25 21:40 2014      Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3023433	43.594 PPB
5) S BROMOFLUOROBENZENE	12.29	1738172	42.850 PPB
11) S FLUOROBENZENE #2	6.93	8575593	38.660 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11791159	39.369 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31890095	0.641 PPM
2) H Entire GAS Envelope (9-24-	12.21	57072474	0.863 PPM
3) H GASOLINE (9-24-14)	13.51	37356740	0.924 PPM
7) H entire GAS envelope #2 (9-	12.26	139207129	0.921 PPM
8) H GASOLINE #2 (9-24-14)	13.56	95532144	0.812 PPM
9) MTBE #2	4.65	4756039	65.085 PPB
10) BENZENE #2	6.69	15934347	54.253 PPB
12) TOLUENE #2	9.07	14755883	52.920 PPB
13) ETHYLBENZENE #2	11.04	12961222	52.662 PPB
14) m,p-XYLENE #2	11.30	15588585	53.195 PPB
15) o-XYLENE #2	11.79	13169728	52.369 PPB

File : X:\BTEX\DARYL\DATA\D141125\1125018.D  
Operator :  
Acquired : 25 Nov 2014 21:11 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 18



Signal #1 : d:\btex\DATA\D141125\1125032.D\FID1A.CH Vial: 32  
 Signal #2 : d:\btex\DATA\D141125\1125032.D\FID2B.CH  
 Acq On : 26 Nov 2014 4:54 Operator:  
 Sample : CCVD1125B-3 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 26 5:22 2014 Quant Results File: 141012DB.RES

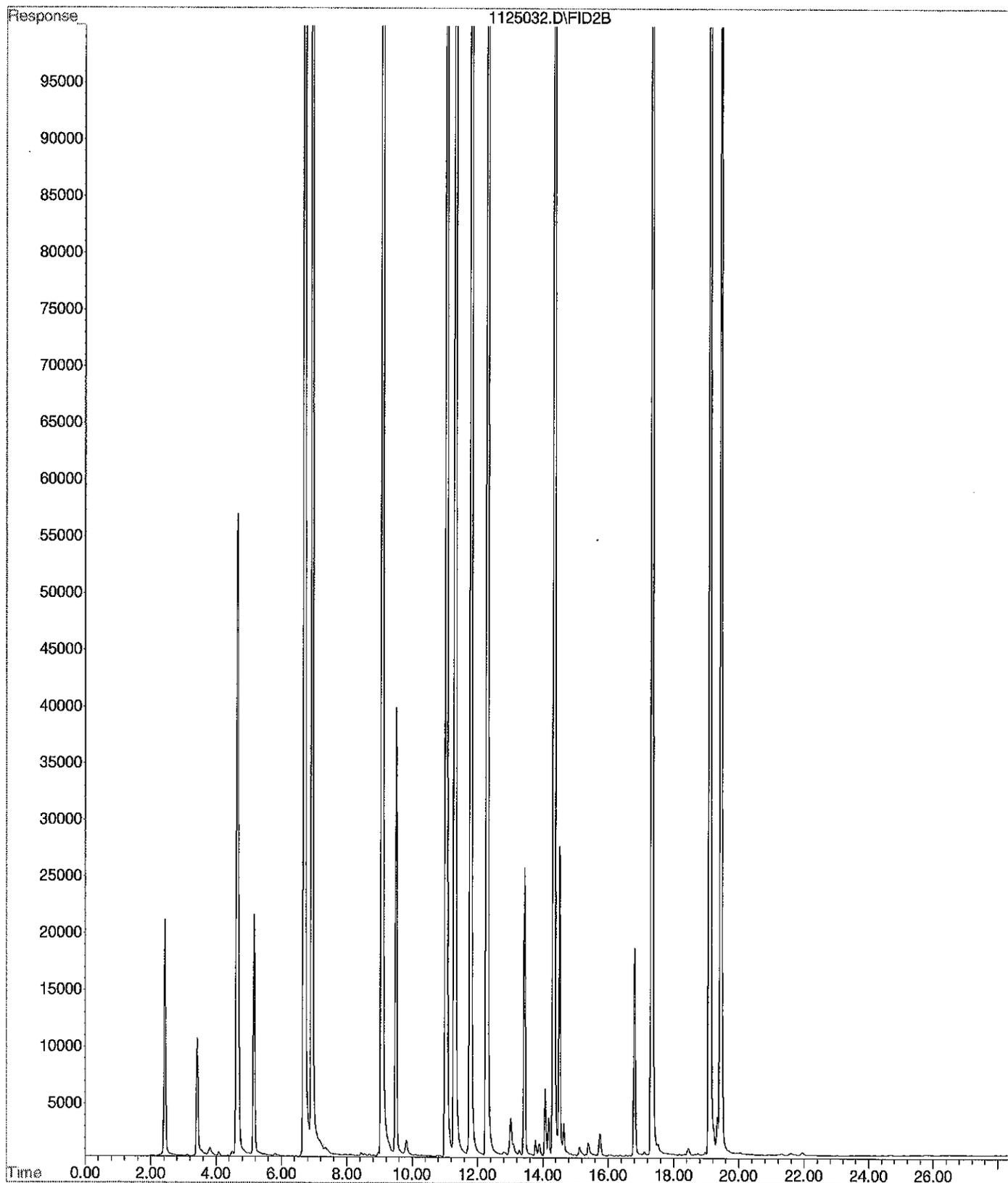
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2814173	40.554 PPB
5) S BROMOFLUOROBENZENE	12.29	1676293	41.304 PPB
11) S FLUOROBENZENE #2	6.93	8162528	36.782 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11033434	36.809 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	28486077	0.572 PPM
2) H Entire GAS Envelope (9-24-	12.21	44479818	0.670 PPM
3) H GASOLINE (9-24-14)	13.51	29246034	0.718 PPM
7) H entire GAS envelope #2 (9-	12.26	112807920	0.737 PPM
8) H GASOLINE #2 (9-24-14)	13.56	80755956	0.677 PPM
9) MTBE #2	4.65	2687460	36.756 PPB
10) BENZENE #2	6.69	15193470	51.728 PPB
12) TOLUENE #2	9.07	14108262	50.589 PPB
13) ETHYLBENZENE #2	11.04	12325524	50.073 PPB
14) m,p-XYLENE #2	11.30	14697844	50.124 PPB
15) o-XYLENE #2	11.79	12555050	49.912 PPB

*11/26*

File : X:\BTEX\DARYL\DATA\D141125\1125032.D  
Operator :  
Acquired : 26 Nov 2014 4:54 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125B-3  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 32



Signal #1 : d:\btex\DATA\D141125\1125043.D\FID1A.CH Vial: 43  
 Signal #2 : d:\btex\DATA\D141125\1125043.D\FID2B.CH  
 Acq On : 26 Nov 2014 11:12 Operator:  
 Sample : CCVD1125B-4 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Nov 26 11:41 2014 Quant Results File: 141012DB.RES

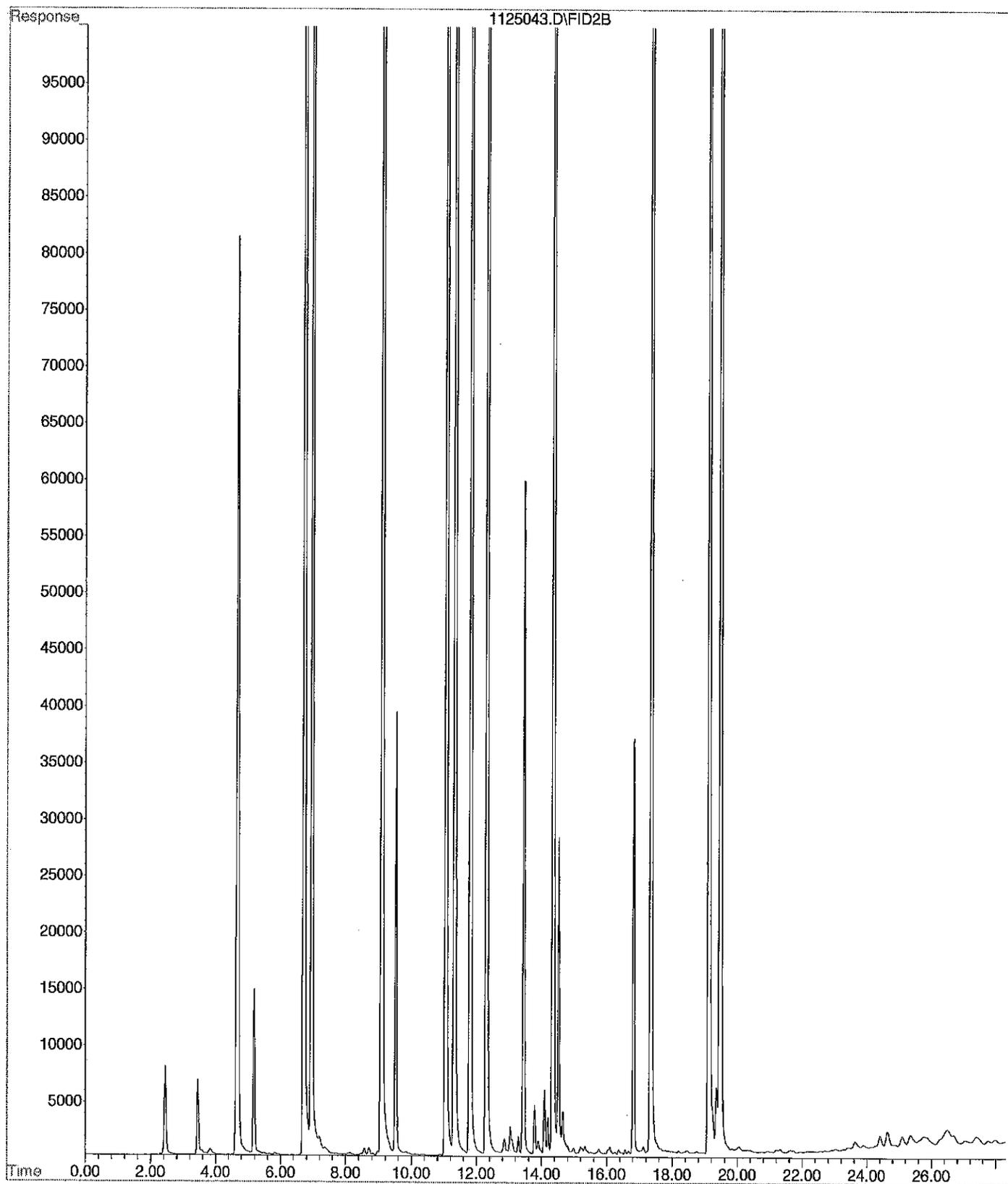
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.95	2782415	40.092	PPB
5) S BROMOFLUOROBENZENE	12.30	1702761	41.965	PPB
11) S FLUOROBENZENE #2	6.95	7644791	34.428	PPB
16) S BROMOFLUOROBENZENE #2	12.30	11079942	36.967	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	27852333	0.559	PPM
2) H Entire GAS Envelope (9-24-	12.21	48552331	0.732	PPM
3) H GASOLINE (9-24-14)	13.51	33146122	0.817	PPM
7) H entire GAS envelope #2 (9-	12.26	124921858	0.821	PPM
8) H GASOLINE #2 (9-24-14)	13.56	84603776	0.712	PPM
9) MTBE #2	4.67	3862053	52.842	PPB
10) BENZENE #2	6.71	14433086	49.137	PPB
12) TOLUENE #2	9.09	13819299	49.549	PPB
13) ETHYLBENZENE #2	11.05	11866722	48.205	PPB
14) m,p-XYLENE #2	11.32	14586704	49.741	PPB
15) o-XYLENE #2	11.80	12385990	49.236	PPB

*11/26  
 [Signature]*

File : X:\BTEX\DARYL\DATA\D141125\1125043.D  
Operator :  
Acquired : 26 Nov 2014 11:12 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125B-4  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 43



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141125\1125001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141125\1125001.D\FID2B.CH  
 Acq On : 25 Nov 2014 10:41 Operator:  
 Sample : CCVD1125G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 25 11:09 2014 Quant Results File: 141012DB.RES

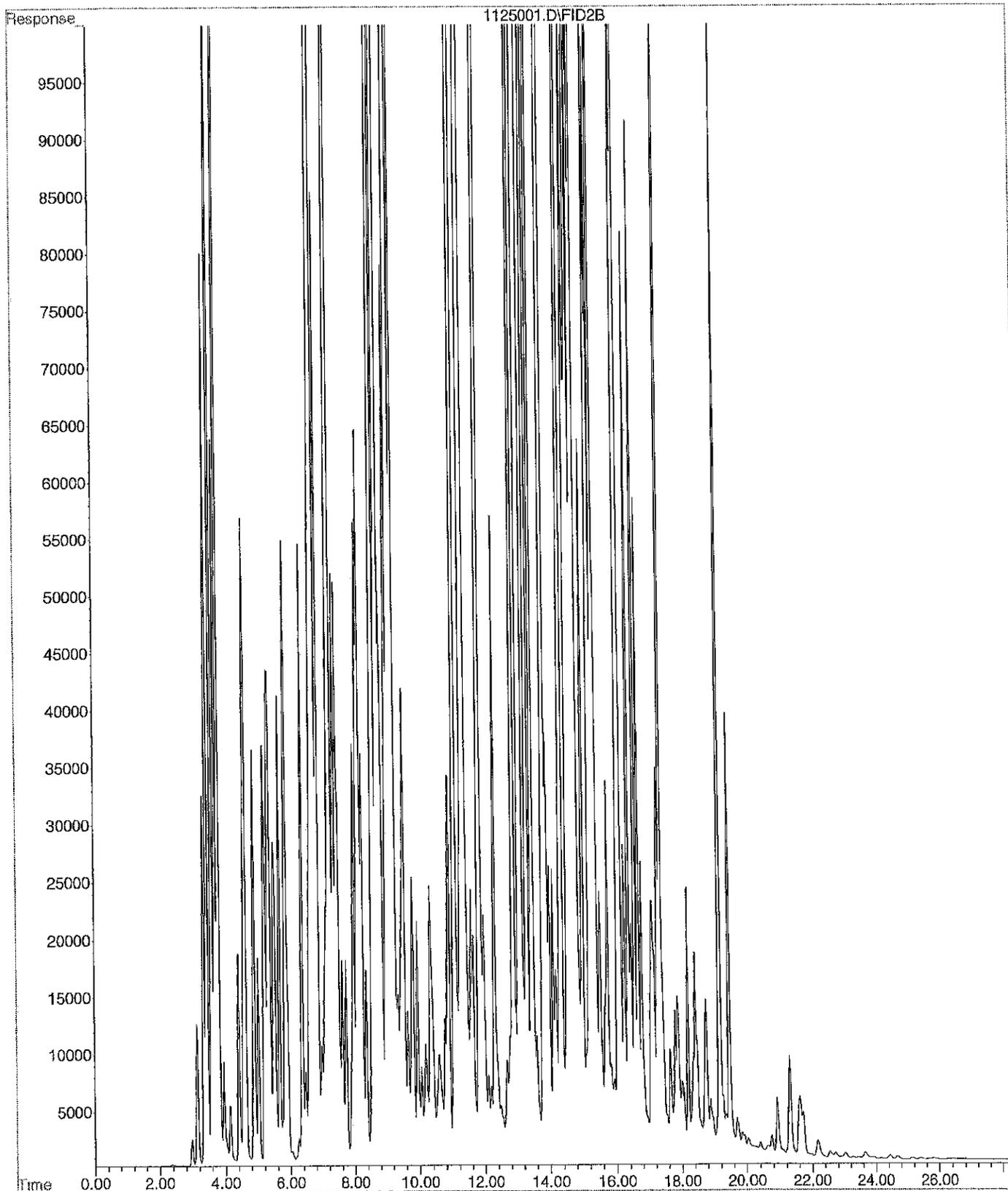
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S FLUOROBENZENE	6.85	6669135	96.560 PPB
5) S BROMOFLUOROBENZENE	12.29	1279282	31.386 PPB
11) S FLUOROBENZENE #2	6.98	448307	1.708 PPB
16) S BROMOFLUOROBENZENE #2	12.29	2550767	8.155 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	267181445	5.421 PPM
2) H Entire GAS Envelope (9-24-	12.21	355633310	5.436 PPM
3) H GASOLINE (9-24-14)	13.51	212570028	5.356 PPM
7) H entire GAS envelope #2 (9-	12.26	696255852	4.801 PPM
8) H GASOLINE #2 (9-24-14)	13.56	535243745	4.820 PPM
9) MTBE #2	4.60	3066248	41.943 PPB
10) BENZENE #2	6.72	44830980	152.720 PPB
12) TOLUENE #2	9.10	121084148	435.527 PPB
13) ETHYLBENZENE #2	11.06	29417684	119.675 PPB
14) m,p-XYLENE #2	11.32	109268451	376.158 PPB
15) o-XYLENE #2	11.81	40681444	162.325 PPB

11/25  
 RW

File : X:\BTEX\DARYL\DATA\D141125\1125001.D  
Operator :  
Acquired : 25 Nov 2014 10:41 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141125\1125042.D\FID1A.CH Vial: 42  
 Signal #2 : d:\btex\DATA\D141125\1125042.D\FID2B.CH  
 Acq On : 26 Nov 2014 10:39 Operator:  
 Sample : CCVD1125G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Nov 26 11:07 2014 Quant Results File: 141012DB.RES

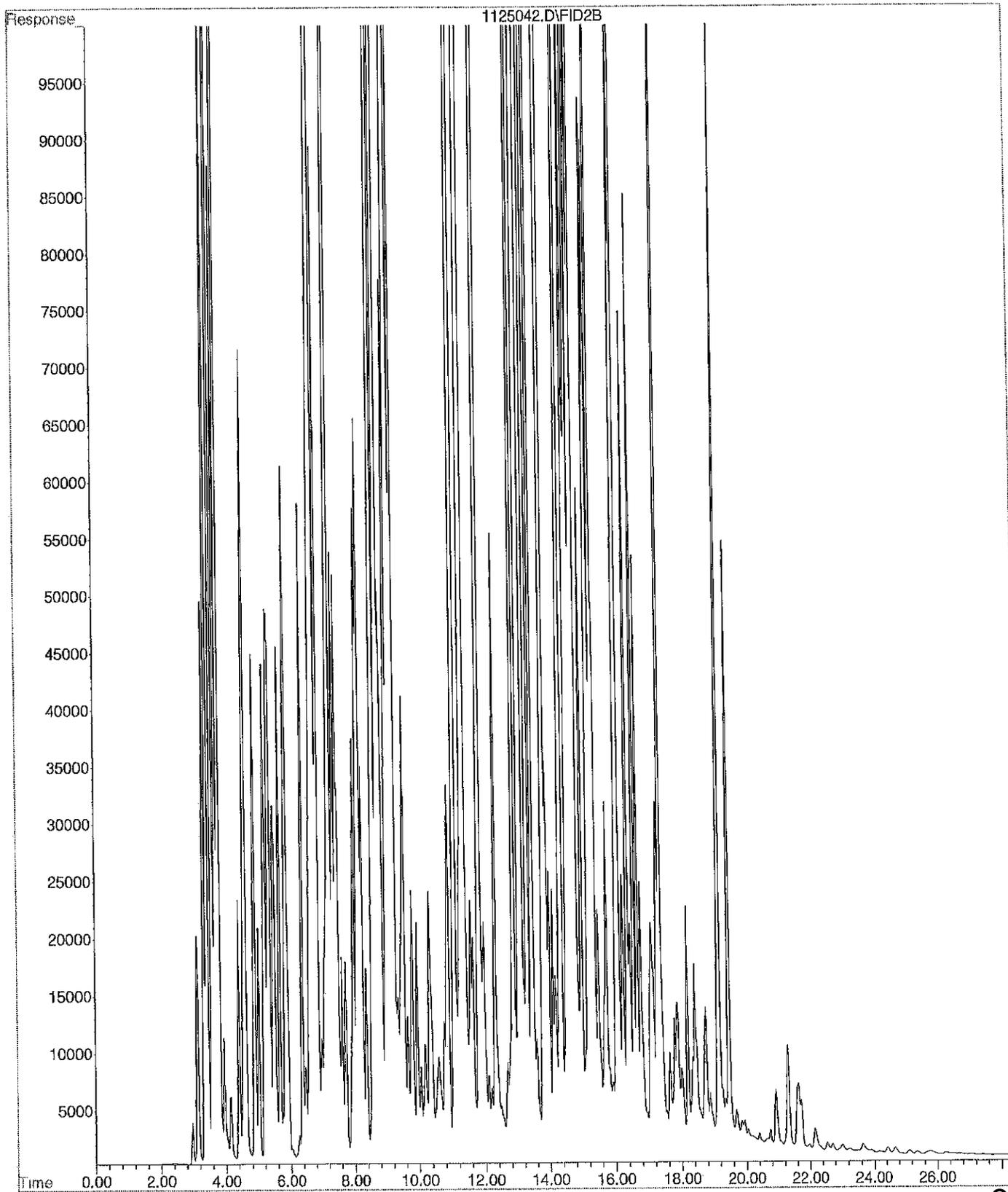
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.85	6980354	101.081 PPB
5) S BROMOFLUOROBENZENE	12.29	1222010	29.955 PPB
11) S FLUOROBENZENE #2	6.98	476276	1.835 PPB
16) S BROMOFLUOROBENZENE #2	12.30	2518588	8.046 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	260627276	5.288 PPM
2) H Entire GAS Envelope (9-24-	12.21	353794249	5.408 PPM
3) H GASOLINE (9-24-14)	13.51	202044266	5.090 PPM
7) H entire GAS envelope #2 (9-	12.26	678929508	4.680 PPM
8) H GASOLINE #2 (9-24-14)	13.56	508849817	4.579 PPM
9) MTBE #2	4.59	3834870	52.469 PPB
10) BENZENE #2	6.72	45020236	153.365 PPB
12) TOLUENE #2	9.10	117568852	422.877 PPB
13) ETHYLBENZENE #2	11.06	27769714	112.965 PPB
14) m,p-XYLENE #2	11.32	104412198	359.416 PPB
15) o-XYLENE #2	11.81	38570610	153.889 PPB

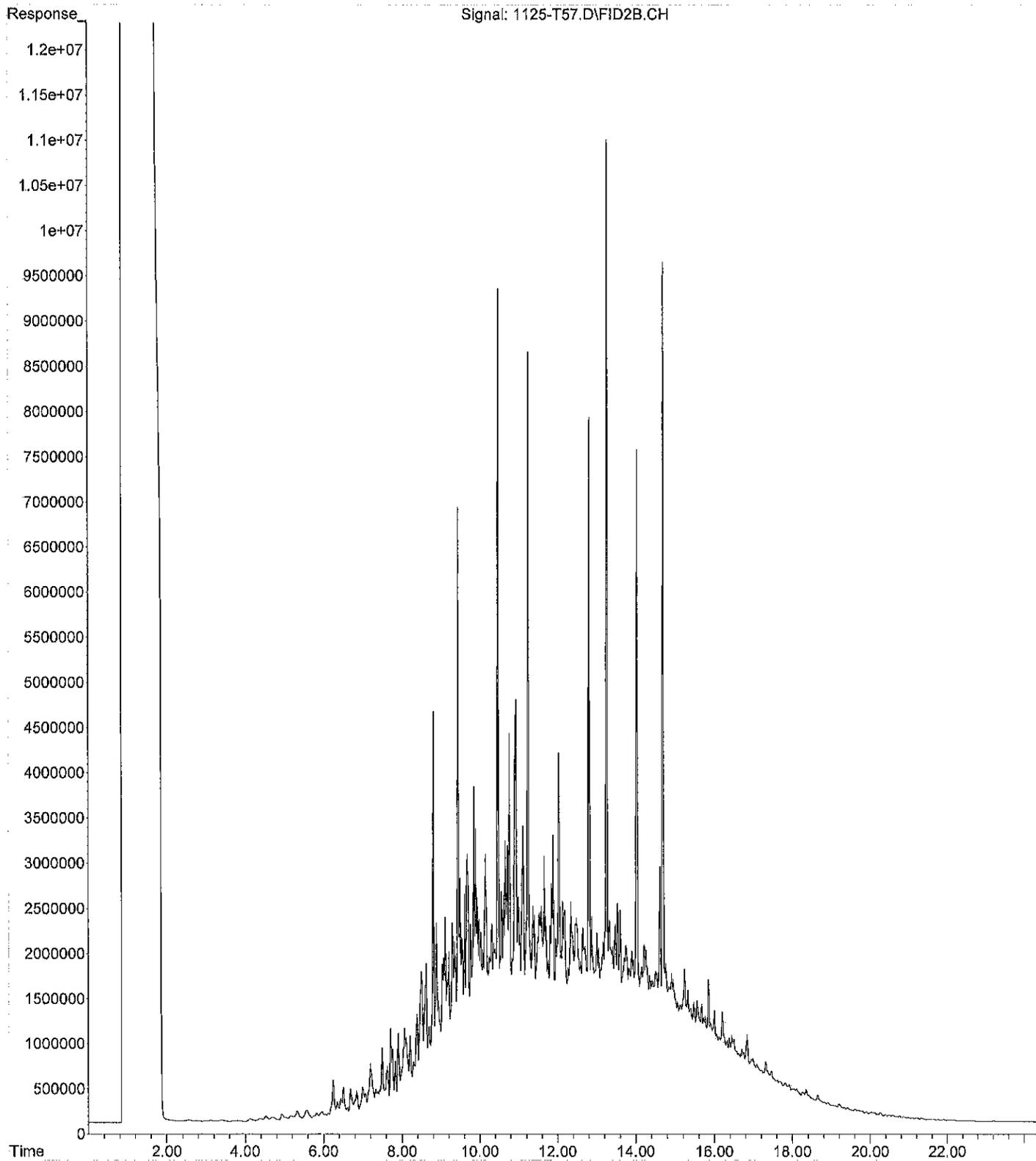
11/26  
 WS

File : X:\BTEX\DARYL\DATA\D141125\1125042.D  
Operator :  
Acquired : 26 Nov 2014 10:39 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1125G-2  
Misc Info : V2-36-08  
Vial Number: 42



# NWTPH-Diesel Data

File :X:\DIESELS\TERI\DATA\T141125.SEC\1125-T57.D  
Operator : ZT  
Acquired : 25 Nov 2014 13:35 using AcqMethod T141104F.M  
Instrument : Teri  
Sample Name: 11-240-01  
Misc Info :  
Vial Number: 57



Data File : 1125-T57.D  
 Sample : 11-240-01  
 Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 25 Nov 2014 13:35  
 Operator : ZT  
 Misc :  
 ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Nov 25 14:11:15 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.690	144239520	46.621 PPM
Spiked Amount 50.000		Recovery =	93.24%
Target Compounds			
2) H Gasoline	4.000	149335353	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	9463367816	4072.921 PPM
4) H Diesel Fuel #2 (01-1...	14.000	10450139686	4497.657 PPM
5) H Oil (02-24-14)	22.000	1416322209	702.636 PPM
6) H Oil Acid Clean (02-...	22.000	1416322209	709.618 PPM
7) H Diesel Fuel #2 Combo ...	14.000	10103547118	4459.518 PPM
8) H Oil Combo (02-24-14)	22.000	700226888	342.714 PPM
9) H Oil Acid Clean Combo ...	22.000	700226888	346.869 PPM
10) H Oil MO Combo (02-24-14)	22.000	391999827	188.123 PPM
11) H Oil Acid Clean MO Com...	22.000	391999827	190.768 PPM
12) H Alaska 102 DF2 (05-29...	13.025	10422997285	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	382587845	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	6867191034	2610.493 PPM
15) H Mineral Oil Combo (0...	16.000	6586840327	2613.567 PPM
-----			

(f)=RT Delta > 1/2 Window

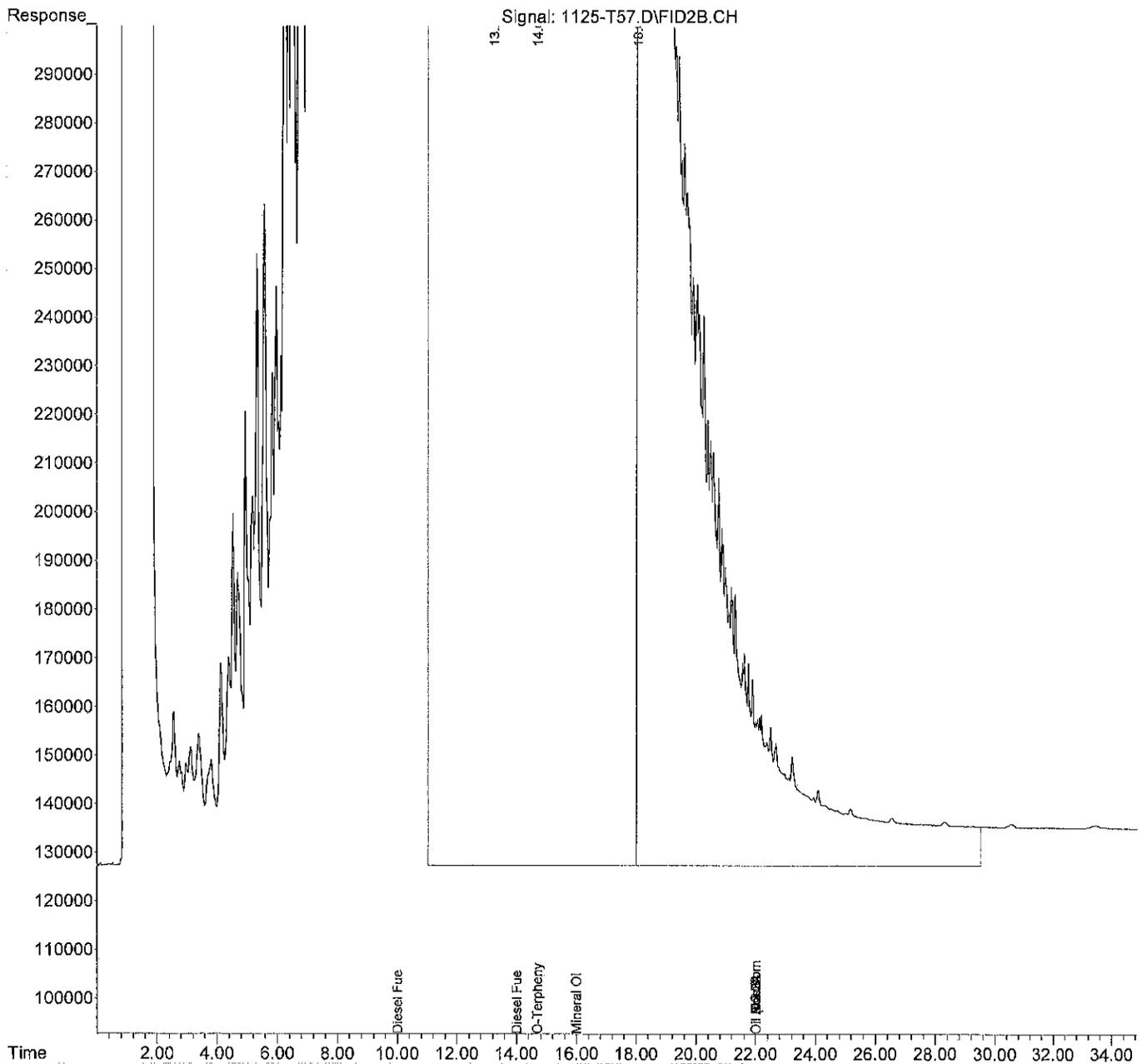
(m)=manual int.

Data File : 1125-T57.D  
Sample : 11-240-01

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
Signal(s) : FID2B.CH  
Acq On : 25 Nov 2014 13:35  
Operator : ZT  
Misc :  
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Nov 25 14:11:15 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1125-T56.D  
 Sample : MB1125S1 ACU

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 25 Nov 2014 12:53  
 Operator : ZT  
 Misc :  
 ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Nov 25 13:28:28 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.680f	140844650	45.520	PPM
Spiked Amount	50.000	Recovery =	91.04%	
Target Compounds				
2) H Gasoline	4.000	10953230	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	9193301	N.D.	PPM
4) H Diesel Fuel #2 (01-1...	14.000	6724792	N.D.	PPM
5) H Oil (02-24-14)	22.000	46295298	N.D.	PPM
6) H Oil Acid Clean (02-...	22.000	46295298	0.743	PPM
7) H Diesel Fuel #2 Combo ...	14.000	6276710	N.D.	PPM
8) H Oil Combo (02-24-14)	22.000	45803273	0.055	PPM
9) H Oil Acid Clean Combo ...	22.000	45803273	0.926	PPM
10) H Oil MO Combo (02-24-14)	22.000	45425956	0.154	PPM
11) H Oil Acid Clean MO Com...	22.000	45425956	0.988	PPM
12) H Alaska 102 DF2 (05-29...	13.025	7689833	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	14264591	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	5958874	N.D.	PPM
15) H Mineral Oil Combo (0...	16.000	3868040	N.D.	PPM

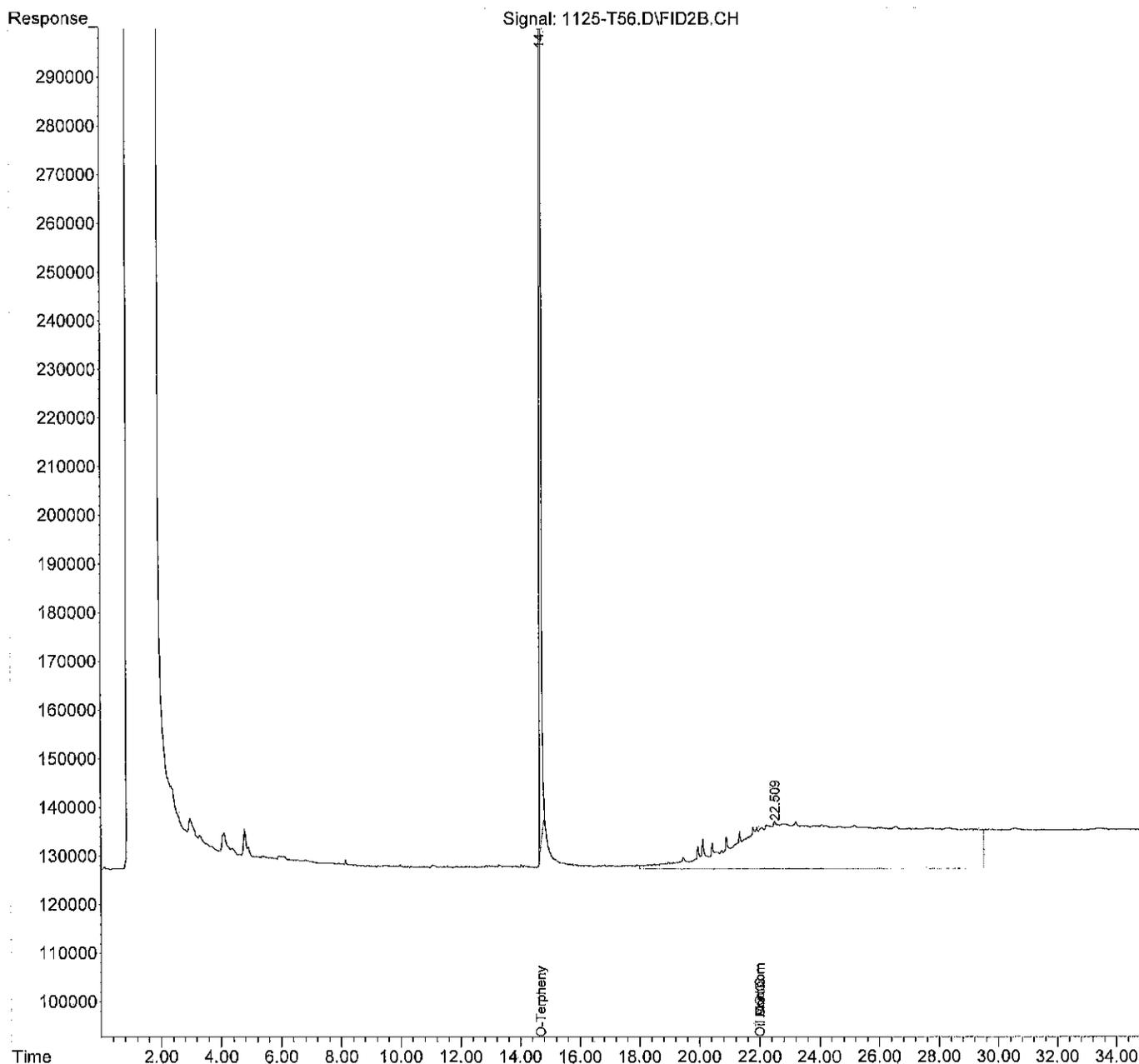
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : 1125-T56.D  
Sample : MB1125S1 ACU  
Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
Signal(s) : FID2B.CH  
Acq On : 25 Nov 2014 12:53  
Operator : ZT  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Nov 25 13:28:28 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1125-T64.D  
 Sample : 11-216-05  
 Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 25 Nov 2014 18:32  
 Operator : ZT  
 Misc :  
 ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Nov 25 19:08:18 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.679f	134369464	43.420 PPM
Spiked Amount 50.000		Recovery =	86.84%
Target Compounds			
2) H Gasoline	4.000	11307364	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	9819687	N.D. PPM
4) H Diesel Fuel #2 (01-1...	14.000	10364260	1.084 PPM
5) H Oil (02-24-14)	22.000	91060085	22.844 PPM
6) H Oil Acid Clean (02-...	22.000	91060085	23.905 PPM
7) H Diesel Fuel #2 Combo ...	14.000	7751330	0.118 PPM
8) H Oil Combo (02-24-14)	22.000	89489758	22.930 PPM
9) H Oil Acid Clean Combo ...	22.000	89489758	24.019 PPM
10) H Oil MO Combo (02-24-14)	22.000	87330423	22.882 PPM
11) H Oil Acid Clean MO Com...	22.000	87330423	23.934 PPM
12) H Alaska 102 DF2 (05-29...	13.025	10755747	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	43872755	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	17958161	3.839 PPM
15) H Mineral Oil Combo (0...	16.000	6910005	0.879 PPM
-----			

(f)=RT Delta > 1/2 Window

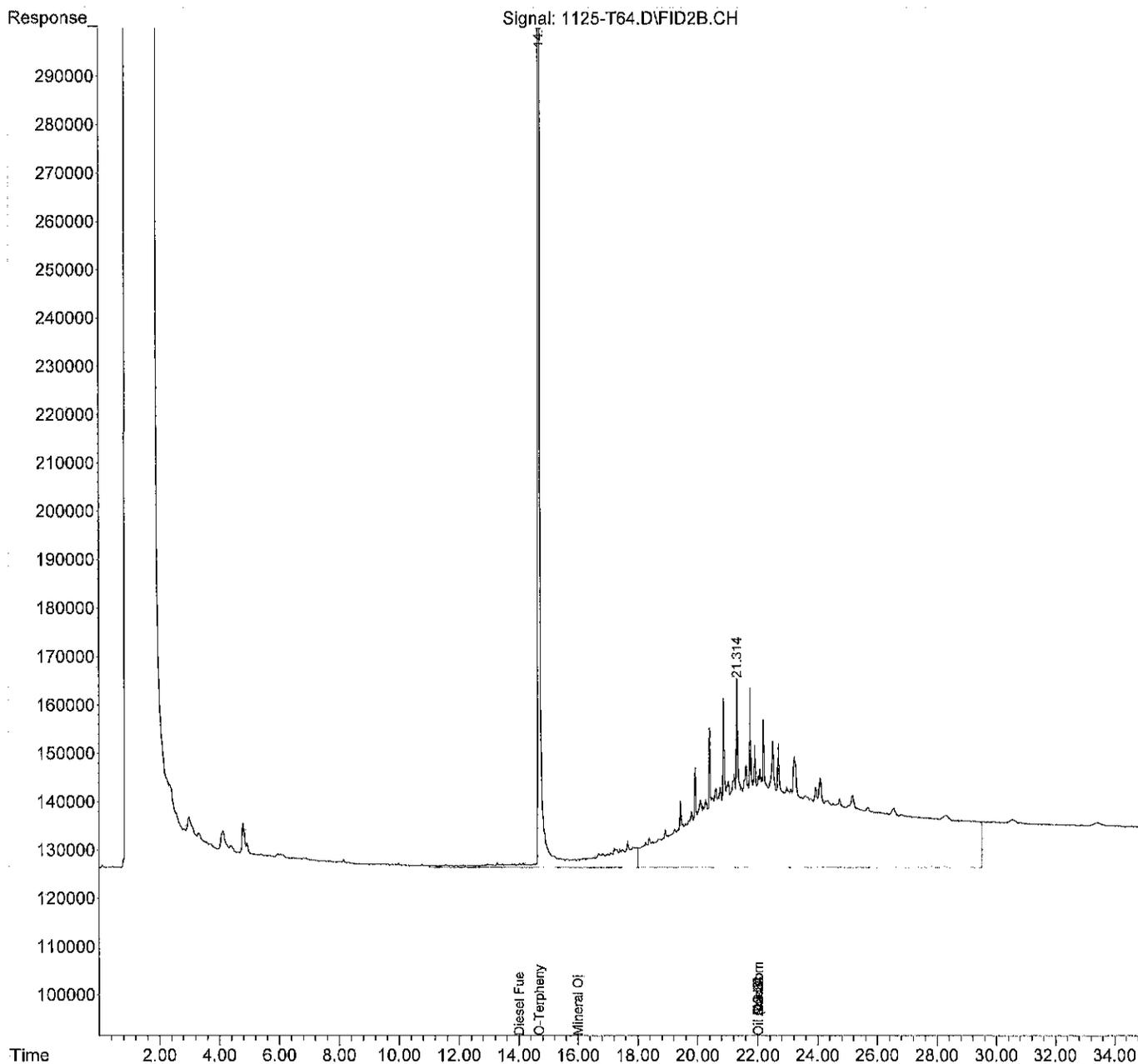
(m)=manual int.

Data File : 1125-T64.D  
Sample : 11-216-05

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
Signal(s) : FID2B.CH  
Acq On : 25 Nov 2014 18:32  
Operator : ZT  
Misc :  
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Nov 25 19:08:18 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1125-T66.D  
 Sample : 11-216-05 DUP

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 25 Nov 2014 19:57  
 Operator : ZT  
 Misc :  
 ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Nov 25 20:32:38 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.683	158461859	51.234 PPM
Spiked Amount 50.000		Recovery =	102.47%
Target Compounds			
2) H Gasoline	4.000	11689905	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	11044640	N.D. PPM
4) H Diesel Fuel #2 (01-1...	14.000	14005613	2.652 PPM
5) H Oil (02-24-14)	22.000	124683752	40.091 PPM
6) H Oil Acid Clean (02-...	22.000	124683752	41.302 PPM
7) H Diesel Fuel #2 Combo ...	14.000	9842603	1.042 PPM
8) H Oil Combo (02-24-14)	22.000	122145418	40.028 PPM
9) H Oil Acid Clean Combo ...	22.000	122145418	41.282 PPM
10) H Oil MO Combo (02-24-14)	22.000	118722665	39.908 PPM
11) H Oil Acid Clean MO Com...	22.000	118722665	41.124 PPM
12) H Alaska 102 DF2 (05-29...	13.025	13977205	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	63260481	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	27670902	7.536 PPM
15) H Mineral Oil Combo (0...	16.000	10189122	2.181 PPM
-----			

(f)=RT Delta > 1/2 Window

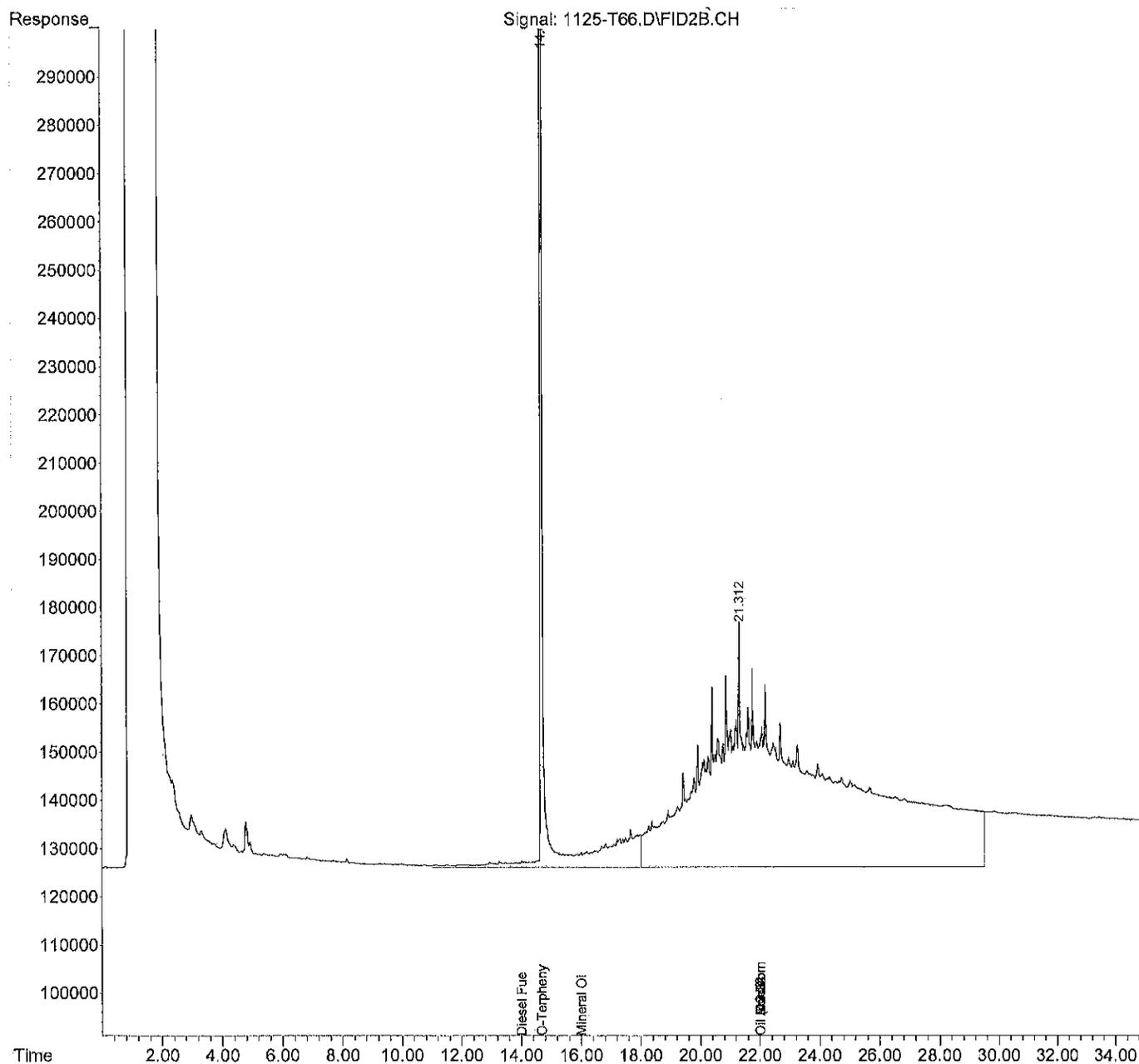
(m)=manual int.

Data File : 1125-T66.D  
Sample : 11-216-05 DUP

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
Signal(s) : FID2B.CH  
Acq On : 25 Nov 2014 19:57  
Operator : ZT  
Misc :  
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Nov 25 20:32:38 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1125-T51.D  
 Sample : CCV1125R-T1

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 25 Nov 2014 9:17  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Nov 25 09:52:33 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
Target Compounds				
2) H Gasoline	4.000	33326392	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	216782905	87.132	PPM
4) H Diesel Fuel #2 (01-1...	14.000	213785387	88.701	PPM
5) H Oil (02-24-14)	22.000	69389762	11.728	PPM
6) H Oil Acid Clean (02-...	22.000	69389762	12.692	PPM
7) H Diesel Fuel #2 Combo ...	14.000	210341647	89.604	PPM
8) H Oil Combo (02-24-14)	22.000	60206943	7.597	PPM
9) H Oil Acid Clean Combo ...	22.000	60206943	8.540	PPM
10) H Oil MO Combo (02-24-14)	22.000	57114407	6.494	PPM
11) H Oil Acid Clean MO Com...	22.000	57114407	7.388	PPM
12) H Alaska 102 DF2 (05-29...	13.025	219645113	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	17899060	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	132994442	47.619	PPM
15) H Mineral Oil Combo (0...	16.000	129439679	49.531	PPM

(f)=RT Delta > 1/2 Window

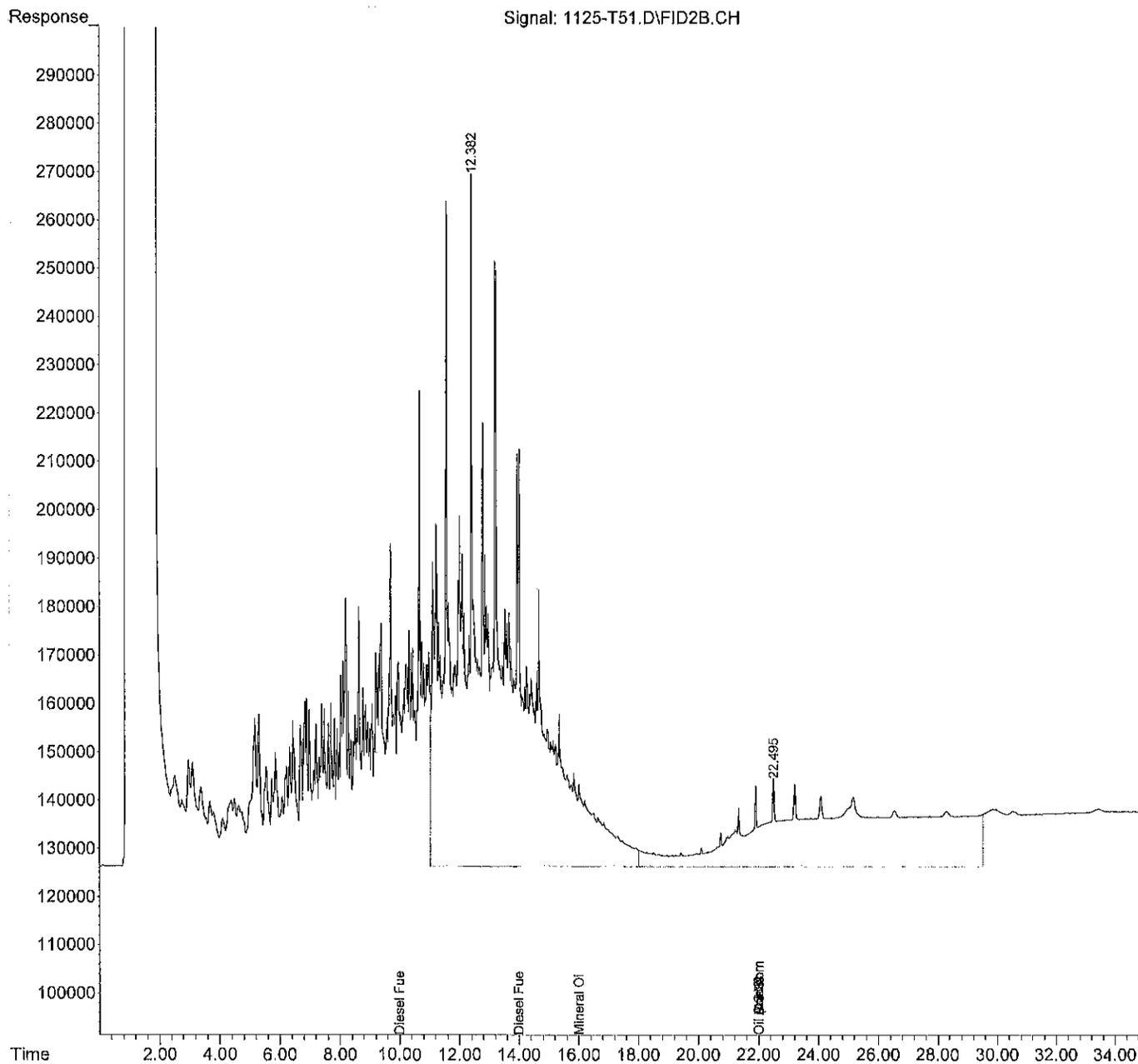
(m)=manual int.

Data File : 1125-T51.D  
Sample : CCV1125R-T1

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
Signal(s) : FID2B.CH  
Acq On : 25 Nov 2014 9:17  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Nov 25 09:52:33 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1125-T61.D  
 Sample : CCV1125R-T2

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 25 Nov 2014 16:25  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Nov 25 17:01:13 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	4.000	34034739	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	237182343	95.925	PPM
4) H Diesel Fuel #2 (01-1...	14.000	236664262	98.555	PPM
5) H Oil (02-24-14)	22.000	61594028	7.730	PPM
6) H Oil Acid Clean (02-...	22.000	61594028	8.659	PPM
7) H Diesel Fuel #2 Combo ...	14.000	232657825	99.462	PPM
8) H Oil Combo (02-24-14)	22.000	50047489	2.278	PPM
9) H Oil Acid Clean Combo ...	22.000	50047489	3.169	PPM
10) H Oil MO Combo (02-24-14)	22.000	46378246	0.671	PPM
11) H Oil Acid Clean MO Com...	22.000	46378246	1.509	PPM
12) H Alaska 102 DF2 (05-29...	13.025	242931053	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	14967132	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	151640888	54.716	PPM
15) H Mineral Oil Combo (0...	16.000	148811591	57.223	PPM

(f)=RT Delta > 1/2 Window

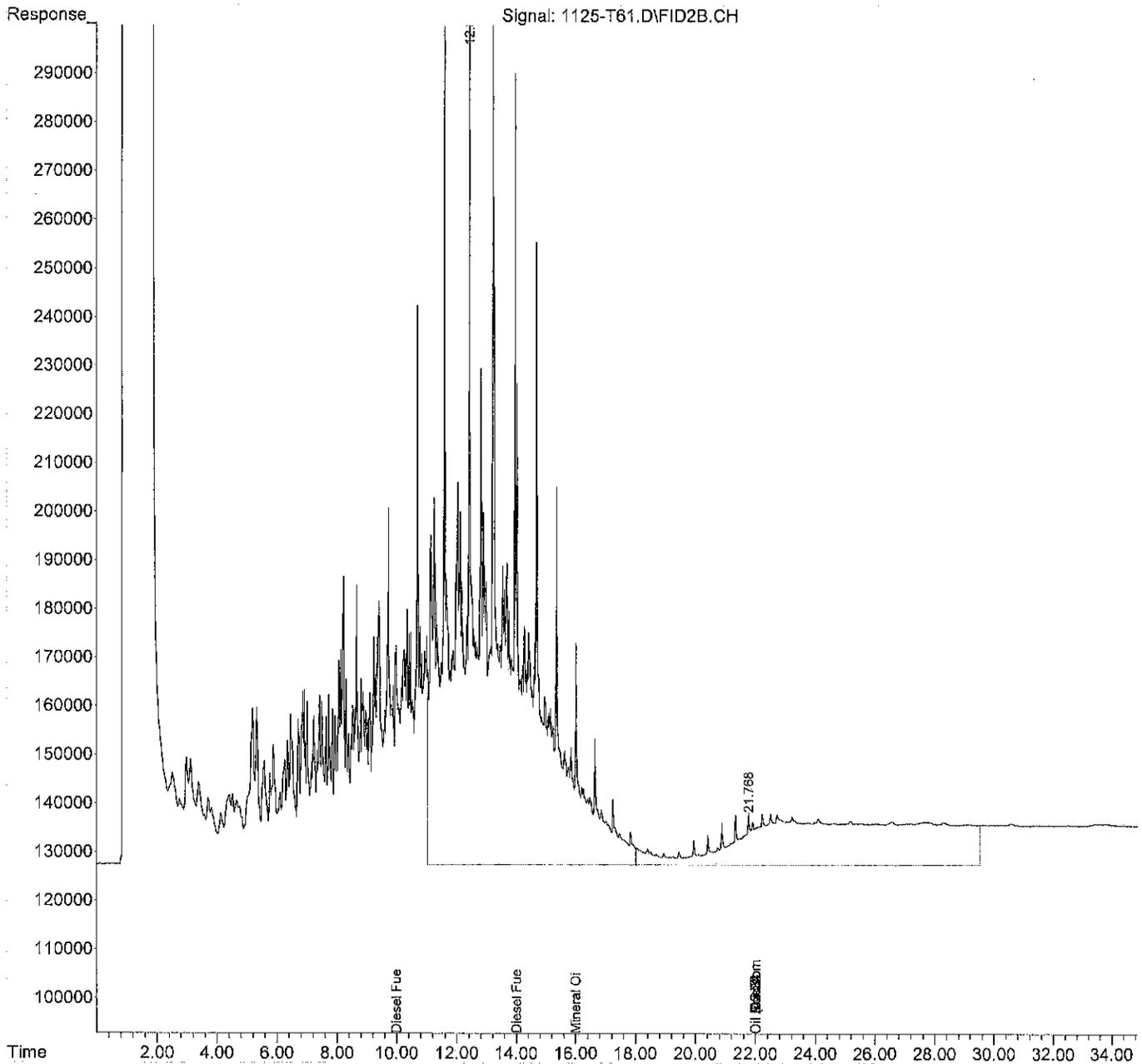
(m)=manual int.

Data File : 1125-T61.D  
Sample : CCV1125R-T2

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
Signal(s) : FID2B.CH  
Acq On : 25 Nov 2014 16:25  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Nov 25 17:01:13 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1125-T70.D  
 Sample : CCV1125R-T3

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 25 Nov 2014 22:46  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Nov 25 23:21:52 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery =	0.00%	
Target Compounds				
2) H Gasoline	4.000	33492364	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	231938546	93.665	PPM
4) H Diesel Fuel #2 (01-1...	14.000	231784457	96.453	PPM
5) H Oil (02-24-14)	22.000	57385535	5.571	PPM
6) H Oil Acid Clean (02-...	22.000	57385535	6.481	PPM
7) H Diesel Fuel #2 Combo ...	14.000	227697792	97.271	PPM
8) H Oil Combo (02-24-14)	22.000	45883549	0.097	PPM
9) H Oil Acid Clean Combo ...	22.000	45883549	0.968	PPM
10) H Oil MO Combo (02-24-14)	22.000	42147219	N.D.	PPM
11) H Oil Acid Clean MO Com...	22.000	42147219	N.D.	PPM
12) H Alaska 102 DF2 (05-29...	13.025	237821529	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	13145109	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	148795509	53.633	PPM
15) H Mineral Oil Combo (0...	16.000	145943329	56.084	PPM

(f)=RT Delta > 1/2 Window

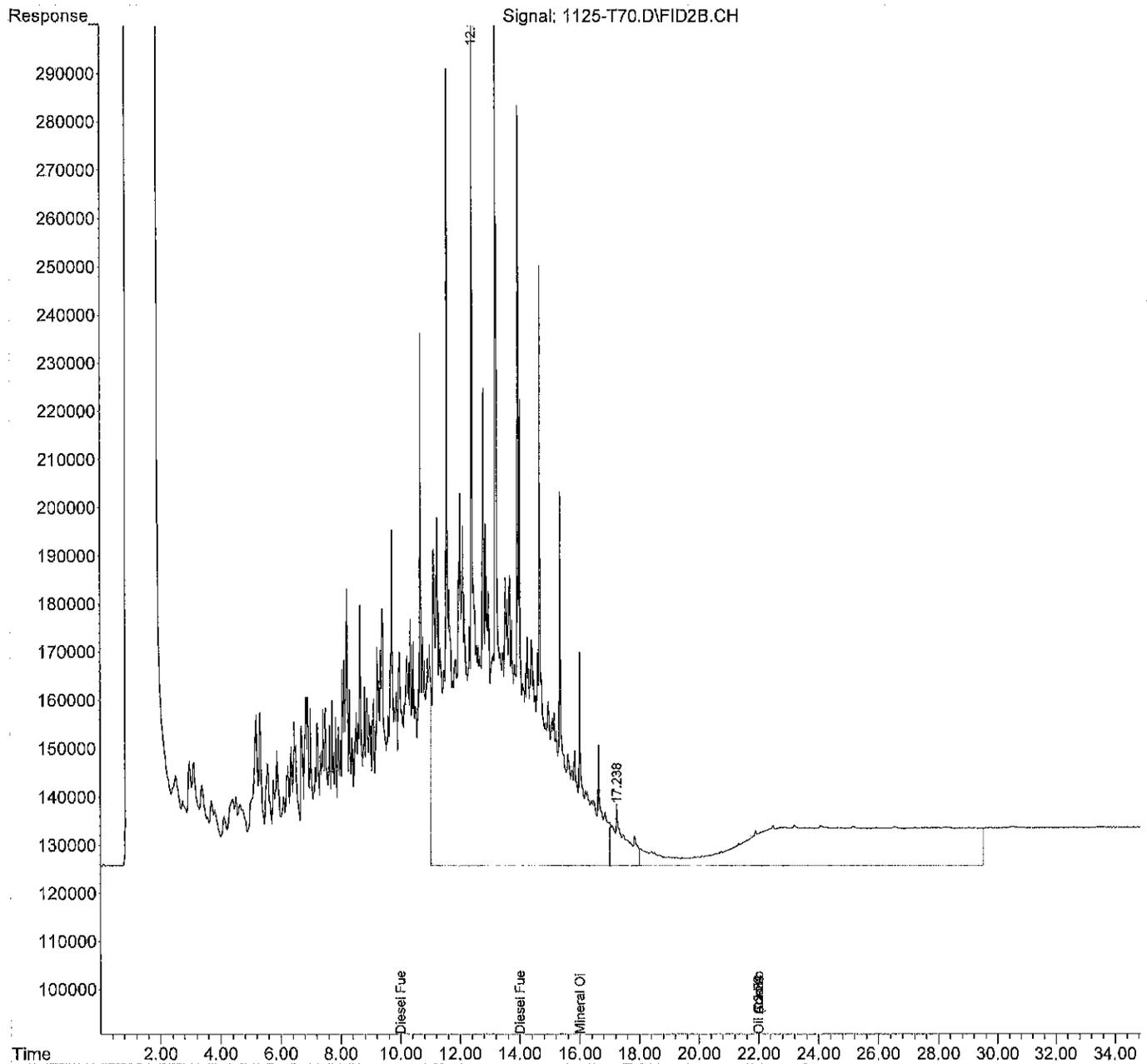
(m)=manual int.

Data File : 1125-T70.D  
Sample : CCV1125R-T3

Data Path : X:\DIESELS\TERI\DATA\T141125.SEC\  
Signal(s) : FID2B.CH  
Acq On : 25 Nov 2014 22:46  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Nov 25 23:21:52 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCV1125R-T	100	88.7	11.3	+/-15%
CCV1125R-T	100	98.6	1.4	+/-15%
CCV1125R-T	100	96.5	3.5	+/-15%

## PAHs Data

Data Path : C:\MSDCHEM\1\DATA\C141124\  
 Data File : C1124015.D  
 Acq On : 24 Nov 2014 3:30 pm  
 Operator :  
 Sample : 11-240-01  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

20X  
 CPah's  
 only

Quant Time: Nov 24 15:45:42 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	Qvalue
<b>Internal Standards</b>							
1) Naphthalene-d8	4.106	136	390771	2000.00	ppb	0.03	
6) Acenaphthene-d10	5.395	164	212137	2000.00	ppb	0.07	
10) Phenanthrene-d10	6.391	188	290776	2000.00	ppb	0.07	
17) Chrysene-d12	8.469	240	214628	2000.00	ppb	0.02	
21) Perylene-d12	9.919	264	172405	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.583	82	373867	7336.57	ppb	0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery = 733.66%#				
7) 2-Fluorobiphenyl	4.911	172	275672	1552.52	ppb	0.05	
Spiked Amount	1000.000	Range 25 - 89	Recovery = 155.25%#				
11) Pyrene-d10	7.382	212	159066	1283.96	ppb	0.05	
Spiked Amount	1000.000	Range 40 - 110	Recovery = 128.40%#				
18) Terphenyl-d14	7.532	244	112092	1384.08	ppb	0.04	
Spiked Amount	1000.000	Range 39 - 92	Recovery = 138.41%#				
<b>Target Compounds</b>							
3) Naphthalene	4.123	128	1157295	4750.66	ppb	100	
4) 2-Methylnaphthalene	4.630	142	1251554	8007.38	ppb	100	
5) 1-Methylnaphthalene	4.708	142	3233608	22474.21	ppb	100	
8) Acenaphthylene	5.256	152	80529	366.29	ppb	100	
9) Acenaphthene	5.418	153	711350	4589.57	ppb	100	
12) Fluorene	5.757	166	1415141	10955.74	ppb	100	
13) Phenanthrene	6.407	178	1574986	8047.32	ppb	100	
14) Anthracene	6.407	178	1574986	12262.06	ppb	100	
15) Fluoranthene	7.271	202	33551	189.12	ppb	100	
16) Pyrene	7.393	202	97563	516.24	ppb	100	
19) Benzo [a] anthracene	8.454	228	12532	112.70	ppb	100	
20) Chrysene	8.489	228	28840	244.92	ppb	100	
22) Benzo [b] fluoranthene	9.540	252	3615	34.80	ppb	100	22.82
23) Benzo (j, k) fluoranthene	9.540	252	3615	35.15	ppb	100	13.87
24) Benzo [a] pyrene	9.860	252	2051	21.13	ppb	100	
25) Indeno (1, 2, 3-c, d) pyrene	10.947	276	1767	16.01	ppb	100	
26) Dibenz [a, h] anthracene	10.970	278	608	6.15	ppb	100	
27) Benzo [g, h, i] perylene	11.208	276	2892	28.39	ppb	100	

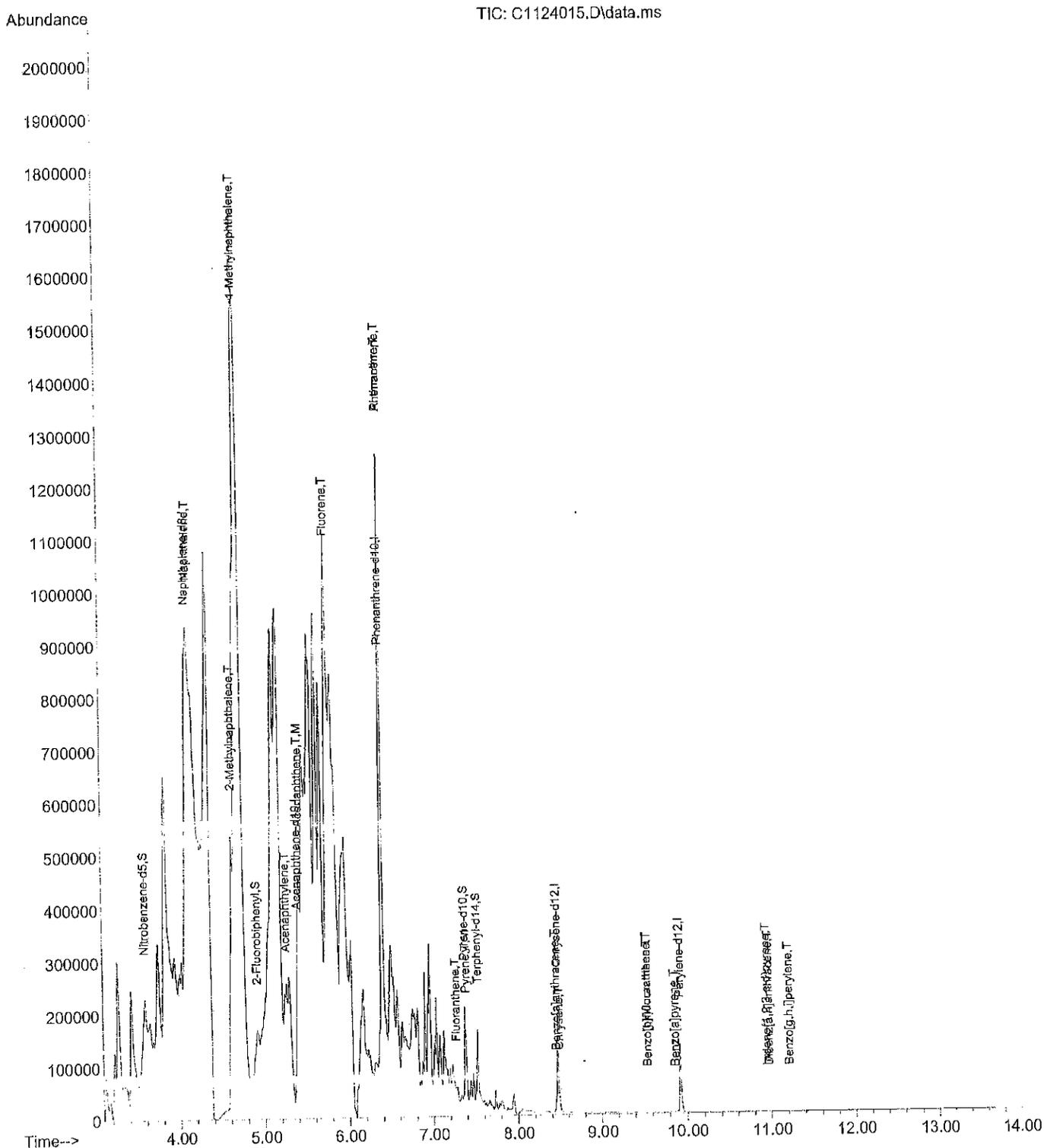
20X  
 OK

(#) = qualifier out of range (m) = manual integration (+) = signals summed

11/25/14  
 ZMM

Data Path : C:\MSDCHEM\1\DATA\C141124\  
 Data File : C1124015.D  
 Acq On : 24 Nov 2014 3:30 pm  
 Operator :  
 Sample : 11-240-01  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 24 15:45:42 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141124\  
 Data File : C1124004.D  
 Acq On : 24 Nov 2014 11:19 am  
 Operator :  
 Sample : MB1124S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 24 11:34:15 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration

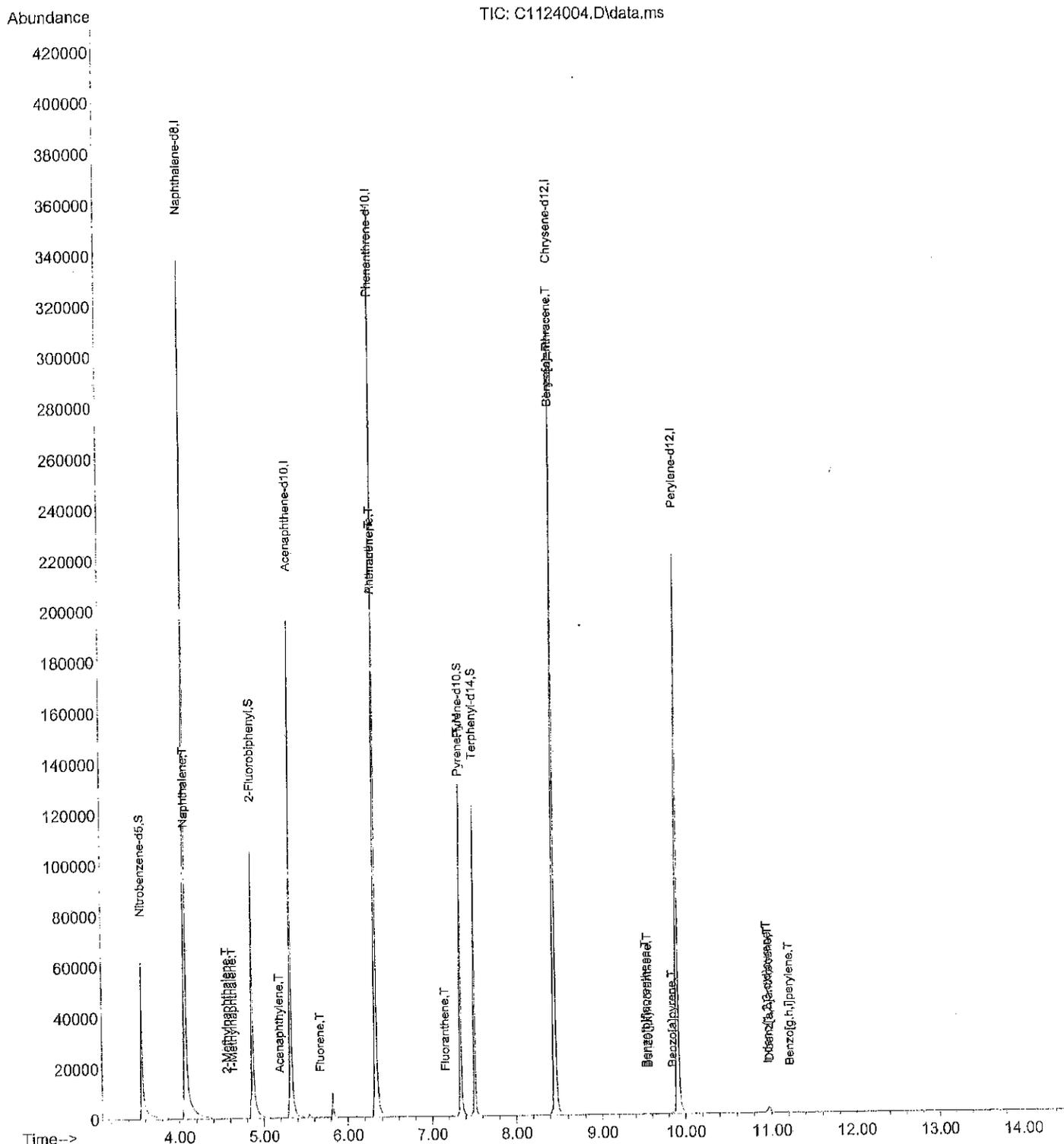
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	4.065	136	386710	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.319	164	200575	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.321	188	375830	2000.00	ppb	0.00	
17) Chrysene-d12	8.447	240	356931	2000.00	ppb	0.00	
21) Perylene-d12	9.907	264	306566	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.560	82	63158	1252.39	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92					Recovery = 125.24%#
7) 2-Fluorobiphenyl	4.861	172	154341	919.31	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89					Recovery = 91.93%#
11) Pyrene-d10	7.342	212	143489	896.10	ppb	0.01	
Spiked Amount	1000.000	Range 40 - 110					Recovery = 89.61%
18) Terphenyl-d14	7.504	244	105353	782.23	ppb	0.01	
Spiked Amount	1000.000	Range 39 - 92					Recovery = 78.22%
Target Compounds							
3) Naphthalene	4.077	128	385	1.60	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.561	142	11	0.07	ppb	100	
5) 1-Methylnaphthalene	4.635	142	11	0.08	ppb	100	
8) Acenaphthylene	5.188	152	31	0.15	ppb	100	
9) Acenaphthene	0.000		0	N.D.			
12) Fluorene	5.673	166	61	0.37	ppb	100	
13) Phenanthrene	6.317	178	453	1.79	ppb	100	
14) Anthracene	6.317	178	453	2.73	ppb	100	φ
15) Fluoranthene	7.156	202	84	0.37	ppb	100	
16) Pyrene	7.336	202	391	1.60	ppb	100	
19) Benzo[a]anthracene	8.443	228	1628	8.80	ppb	100	
20) Chrysene	8.443	228	1628	8.31	ppb	100	φ
22) Benzo[b]fluoranthene	9.533	252	821	4.44	ppb	100	
23) Benzo[j,k]fluoranthene	9.556	252	394	2.15	ppb	100	
24) Benzo[a]pyrene	9.849	252	625	3.62	ppb	100	
25) Indeno[1,2,3-c,d]pyrene	10.959	276	2555	13.02	ppb	100	
26) Dibenz[a,h]anthracene	10.974	278	2971	16.89	ppb	100	
27) Benzo[g,h,i]perylene	11.212	276	1321	7.29	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

11/24/14  


Data Path : C:\MSDCHEM\1\DATA\C1124004\  
 Data File : C1124004.D  
 Acq On : 24 Nov 2014 11:19 am  
 Operator :  
 Sample : MB1124S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 24 11:34:15 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141124\  
 Data File : C1124005.D  
 Acq On : 24 Nov 2014 11:40 am  
 Operator :  
 Sample : SB1124S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 24 11:55:58 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration

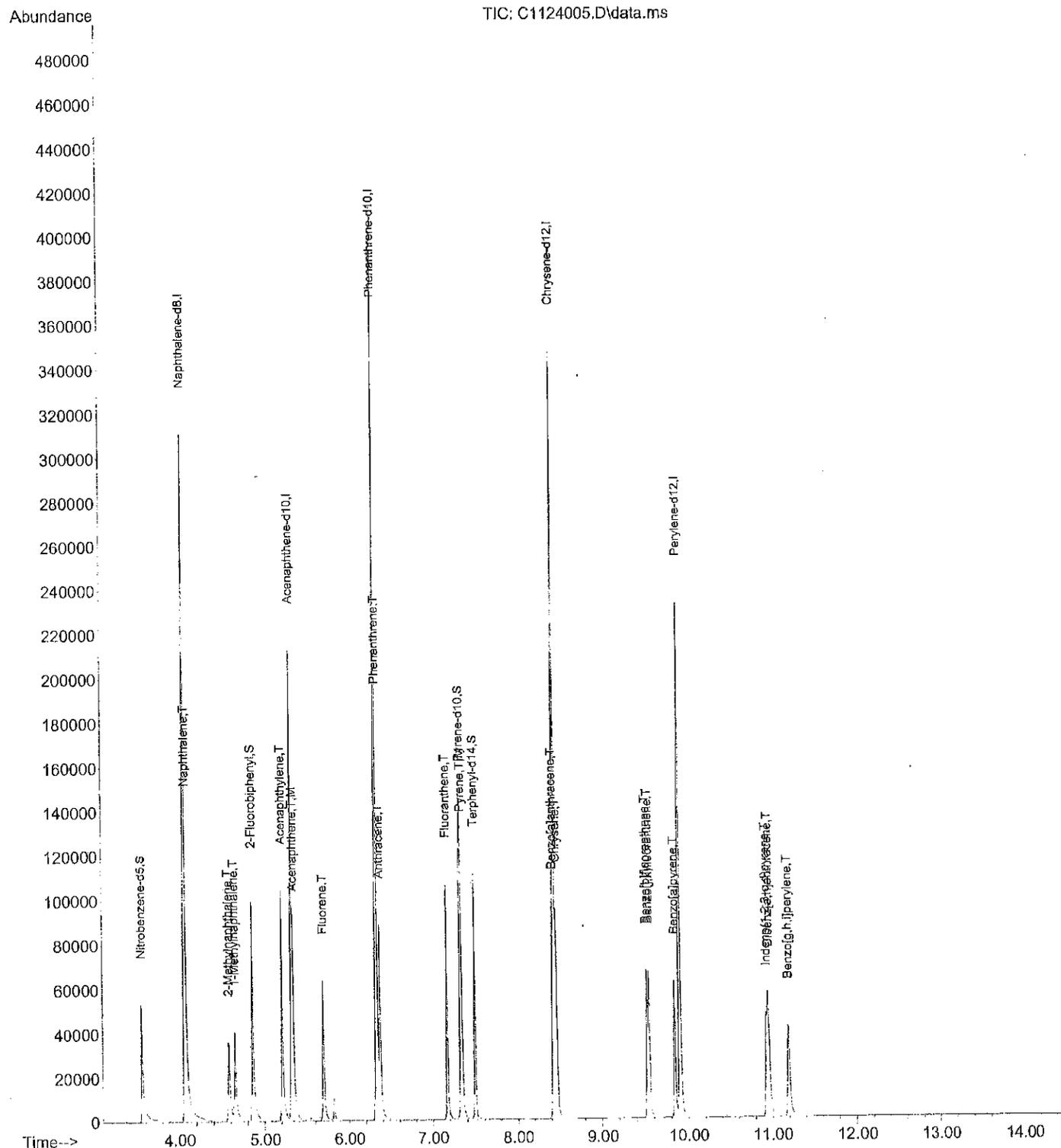
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.064	136	387078	2000.00	ppb	0.00
6) Acenaphthene-d10	5.318	164	200631	2000.00	ppb	0.00
10) Phenanthrene-d10	6.322	188	375036	2000.00	ppb	0.00
17) Chrysene-d12	8.436	240	367282	2000.00	ppb	-0.01
21) Perylene-d12	9.903	264	319430	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Nitrobenzene-d5	3.559	82	57242	1134.00	ppb	0.00
Spiked Amount	1000.000	Range 24 - 92	Recovery = 113.40%#			
7) 2-Fluorobiphenyl	4.860	172	139680	831.76	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery = 83.18%			
11) Pyrene-d10	7.329	212	132605	829.89	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery = 82.99%			
18) Terphenyl-d14	7.492	244	98193	708.52	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery = 70.85%			
<b>Target Compounds</b>						
3) Naphthalene	4.082	128	95696	396.58	ppb	100
4) 2-Methylnaphthalene	4.582	142	54265	350.50	ppb	100
5) 1-Methylnaphthalene	4.653	142	64394	451.82	ppb	100
8) Acenaphthylene	5.210	152	97251	467.72	ppb	100
9) Acenaphthene	5.341	153	62734	427.97	ppb	100
12) Fluorene	5.696	166	68586	411.68	ppb	100
13) Phenanthrene	6.333	178	92012	364.51	ppb	100
14) Anthracene	6.369	178	100989	609.60	ppb	100
15) Fluoranthene	7.167	202	103019	450.24	ppb	100
16) Pyrene	7.341	202	107982	443.00	ppb	100
19) Benzo [a]anthracene	8.420	228	87703	460.88	ppb	100
20) Chrysene	8.459	228	88782	440.59	ppb	100
22) Benzo [b]fluoranthene	9.520	252	77666	403.51	ppb	100
23) Benzo [j,k]fluoranthene	9.544	252	84357	442.71	ppb	100
24) Benzo [a]pyrene	9.840	252	81025	450.55	ppb	100
25) Indeno (1,2,3-c,d)pyrene	10.934	276	89815	439.11	ppb	100
26) Dibenz [a,h]anthracene	10.957	278	72038	393.13	ppb	100
27) Benzo [g,h,i]perylene	11.191	276	81076	429.59	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

11/24/14  
 SM

Data Path : C:\MSDCHEM\1\DATA\C141124\  
 Data File : C1124005.D  
 Acq On : 24 Nov 2014 11:40 am  
 Operator :  
 Sample : SB1124S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 24 11:55:58 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141124\  
 Data File : C1124006.D  
 Acq On : 24 Nov 2014 12:02 pm  
 Operator :  
 Sample : SB1124S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 24 12:17:46 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration

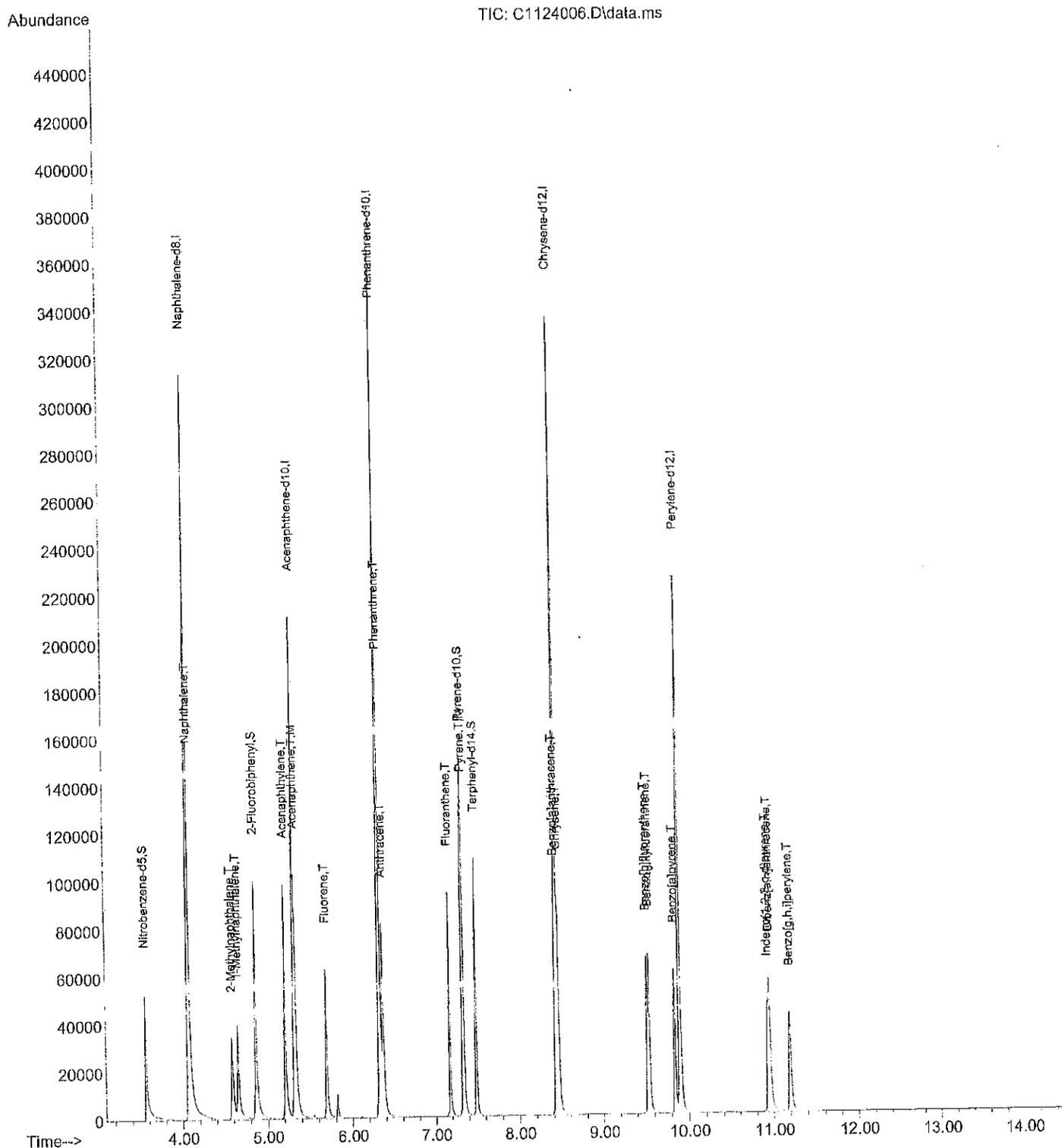
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.070	136	373898	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.319	164	197395	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.322	188	365755	2000.00	ppb	0.00	
17) Chrysene-d12	8.436	240	356113	2000.00	ppb	-0.01	
21) Perylene-d12	9.903	264	310636	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.559	82	57343	1176.05	ppb	0.00	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	117.61%	#		
7) 2-Fluorobiphenyl	4.859	172	144787	876.30	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	87.63%			
11) Pyrene-d10	7.329	212	134630	863.94	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	86.39%			
18) Terphenyl-d14	7.492	244	98878	735.84	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	73.58%			
<b>Target Compounds</b>							
3) Naphthalene	4.081	128	96890	415.68	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.582	142	54057	361.46	ppb	100	
5) 1-Methylnaphthalene	4.653	142	67794	492.44	ppb	100	
8) Acenaphthylene	5.211	152	97328	475.76	ppb	100	
9) Acenaphthene	5.334	153	62588	433.97	ppb	100	
12) Fluorene	5.697	166	68102	419.15	ppb	100	
13) Phenanthrene	6.334	178	91678	372.40	ppb	100	
14) Anthracene	6.369	178	101874	630.55	ppb	100	
15) Fluoranthene	7.167	202	102646	459.99	ppb	100	
16) Pyrene	7.341	202	107904	453.91	ppb	100	
19) Benzo[a]anthracene	8.420	228	88921	481.94	ppb	100	
20) Chrysene	8.459	228	87628	448.51	ppb	100	
22) Benzo[b]fluoranthene	9.520	252	76966	411.19	ppb	100	
23) Benzo[j,k]fluoranthene	9.544	252	83908	452.82	ppb	100	
24) Benzo[a]pyrene	9.840	252	81303	464.89	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.934	276	91391	459.46	ppb	100	
26) Dibenz[a,h]anthracene	10.957	278	74382	417.42	ppb	100	
27) Benzo[g,h,i]perylene	11.195	276	81775	445.56	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

11/24/14  
 sam

Data Path : C:\MSDCHEM\1\DATA\C141124\  
 Data File : C1124006.D  
 Acq On : 24 Nov 2014 12:02 pm  
 Operator :  
 Sample : SB1124S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 24 12:17:46 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141124\  
 Data File : C1124003.D  
 Acq On : 24 Nov 2014 9:57 am  
 Operator :  
 Sample : PAH CCV1124  
 Misc : SV4-45-04  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 24 10:12:52 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev (min)
1 I Naphthalene-d8	2000.000	2000.000	0.0	83	0.00
2 S Nitrobenzene-d5	500.000	636.370	-27.3#	123	0.00
3 T Naphthalene	500.000	472.866	5.4	81	0.00
4 T 2-Methylnaphthalene	500.000	415.720	16.9	72	0.00
5 T 1-Methylnaphthalene	500.000	552.561	-10.5	94	0.00
6 I Acenaphthene-d10	2000.000	2000.000	0.0	83	0.00
7 S 2-Fluorobiphenyl	500.000	512.760	-2.6	88	0.00
8 T Acenaphthylene	500.000	541.368	-8.3	94	0.00
9 T,M Acenaphthene	500.000	500.730	-0.1	87	0.00
10 I Phenanthrene-d10	2000.000	2000.000	0.0	90	0.00
11 S Pyrene-d10	500.000	506.224	-1.2	89	0.00
12 T Fluorene	500.000	476.364	4.7	85	0.00
13 T Phenanthrene	500.000	425.340	14.9	78	0.00
14 T Anthracene	500.000	537.832	-7.6	94	0.00
15 T Fluoranthene	500.000	527.951	-5.6	93	0.00
16 T,M Pyrene	500.000	516.895	-3.4	90	0.00
17 I Chrysene-d12	2000.000	2000.000	0.0	91	0.00
18 S Terphenyl-d14	500.000	474.462	5.1	88	0.00
19 T Benzo[a]anthracene	500.000	538.466	-7.7	95	0.00
20 T Chrysene	500.000	514.720	-2.9	92	0.00
21 I Perylene-d12	2000.000	2000.000	0.0	95	0.00
22 T Benzo[b]fluoranthene	500.000	544.125	-8.8	95	0.00
23 T Benzo(j,k)fluoranthene	500.000	530.673	-6.1	96	0.00
24 T Benzo[a]pyrene	500.000	540.698	-8.1	108	0.00
25 T Indeno(1,2,3-c,d)pyrene	500.000	542.364	-8.5	94	0.00
26 T Dibenz[a,h]anthracene	500.000	473.001	5.4	85	0.00
27 T Benzo[g,h,i]perylene	500.000	498.925	0.2	89	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : C:\MSDCHEM\1\DATA\C1124003\  
 Data File : C1124003.D  
 Acq On : 24 Nov 2014 9:57 am  
 Operator :  
 Sample : PAH CCV1124  
 Misc : SV4-45-04  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 24 10:12:52 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration

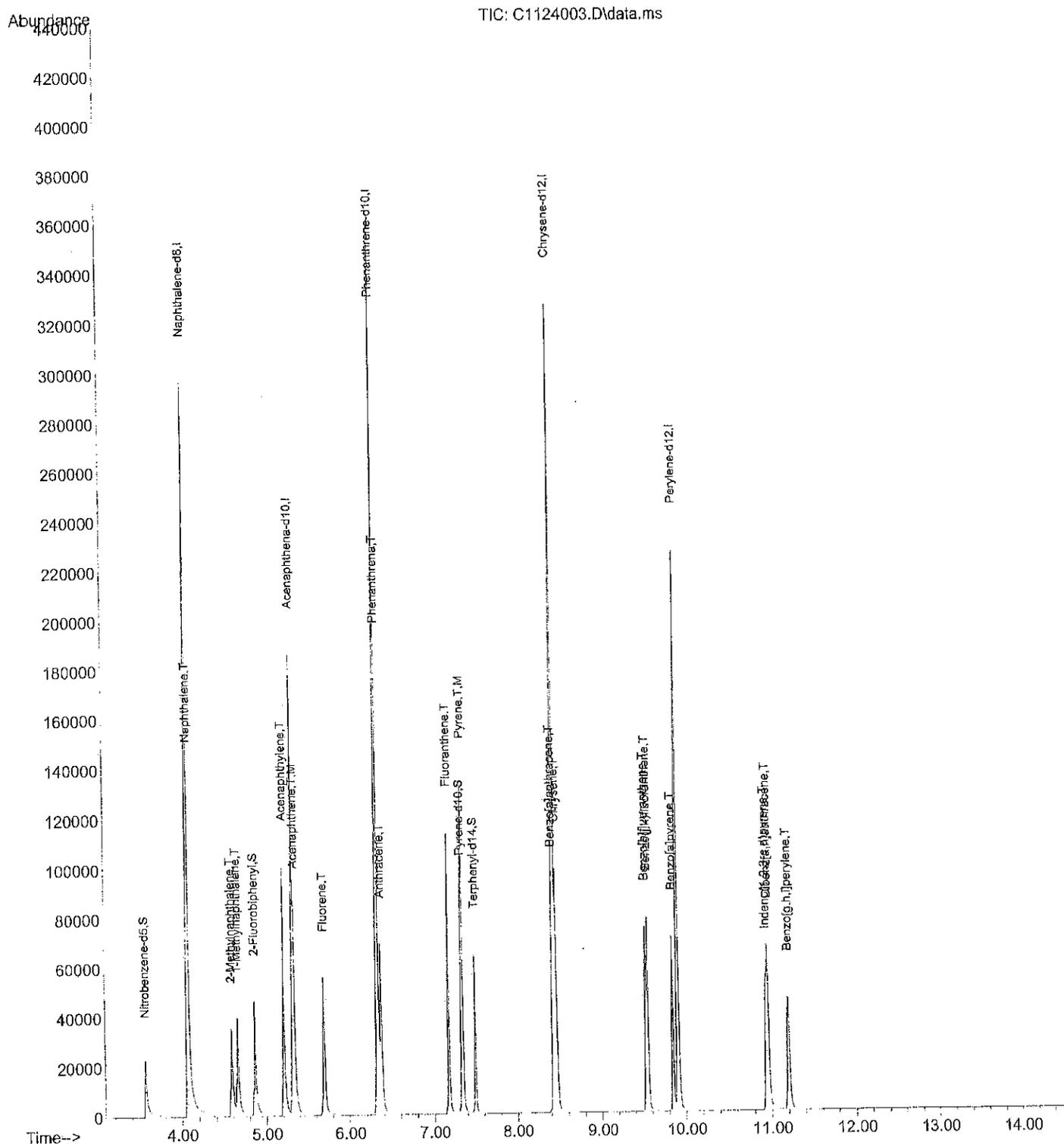
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	4.070	136	351150	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.319	164	183539	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.323	188	348900	2000.00	ppb	0.00	
17) Chrysene-d12	8.438	240	342862	2000.00	ppb	0.00	
21) Perylene-d12	9.903	264	295913	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.560	82	29141	636.37	ppb	0.00	
Spiked Amount 1000.000	Range 24	- 92	Recovery =	63.64%			
7) 2-Fluorobiphenyl	4.864	172	78774	512.76	ppb	0.00	
Spiked Amount 1000.000	Range 25	- 89	Recovery =	51.28%			
11) Pyrene-d10	7.329	212	75251	506.22	ppb	0.00	
Spiked Amount 1000.000	Range 40	- 110	Recovery =	50.62%			
18) Terphenyl-d14	7.492	244	61383	474.46	ppb	0.00	
Spiked Amount 1000.000	Range 39	- 92	Recovery =	47.45%			
Target Compounds							
3) Naphthalene	4.082	128	103514	472.87	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.583	142	58389	415.72	ppb	100	
5) 1-Methylnaphthalene	4.653	142	71442	552.56	ppb	100	
8) Acenaphthylene	5.211	152	102975	541.37	ppb	100	
9) Acenaphthene	5.342	153	67147	500.73	ppb	100	
12) Fluorene	5.697	166	73831	476.36	ppb	100	
13) Phenanthrene	6.334	178	99886	425.34	ppb	100	
14) Anthracene	6.369	178	82890	537.83	ppb	100	
15) Fluoranthene	7.172	202	112382	527.95	ppb	100	
16) Pyrene	7.341	202	117214	516.90	ppb	100	
19) Benzo[a]anthracene	8.418	228	95654	538.47	ppb	100	
20) Chrysene	8.461	228	96823	514.72	ppb	100	
22) Benzo[b]fluoranthene	9.524	252	97021	544.12	ppb	100	
23) Benzo(j,k)fluoranthene	9.548	252	93673	530.67	ppb	100	
24) Benzo[a]pyrene	9.844	252	90078	540.70	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.938	276	102768	542.36	ppb	100	
26) Dibenz[a,h]anthracene	10.957	278	80292	473.00	ppb	100	
27) Benzo[g,h,i]perylene	11.195	276	87230	498.93	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

11/24/14  
 SM

Data Path : C:\MSDCHEM\1\DATA\C141124\  
 Data File : C1124003.D  
 Acq On : 24 Nov 2014 9:57 am  
 Operator :  
 Sample : PAH CCV1124  
 Misc : SV4-45-04  
 ALS Vial : 3 Sample Multiplier: 1

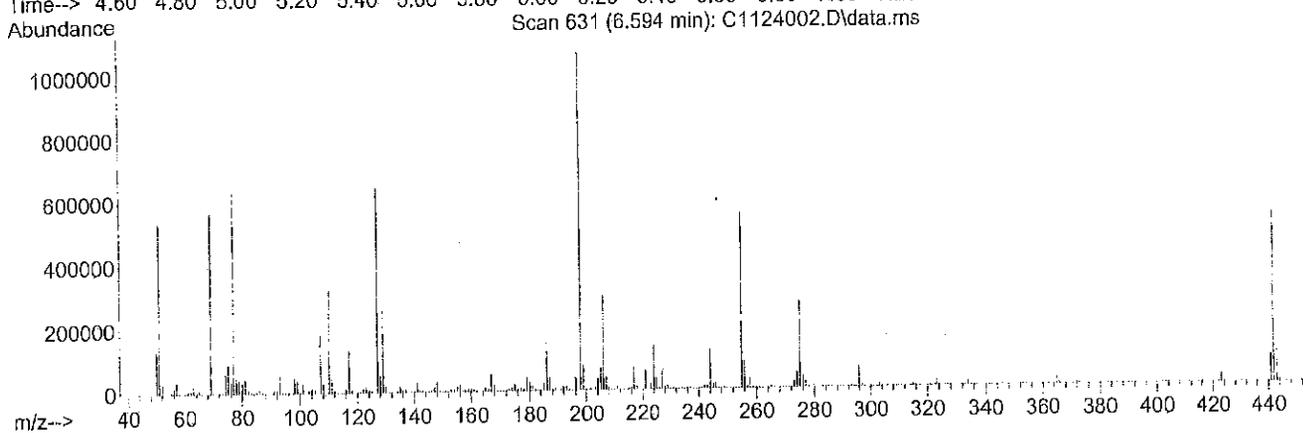
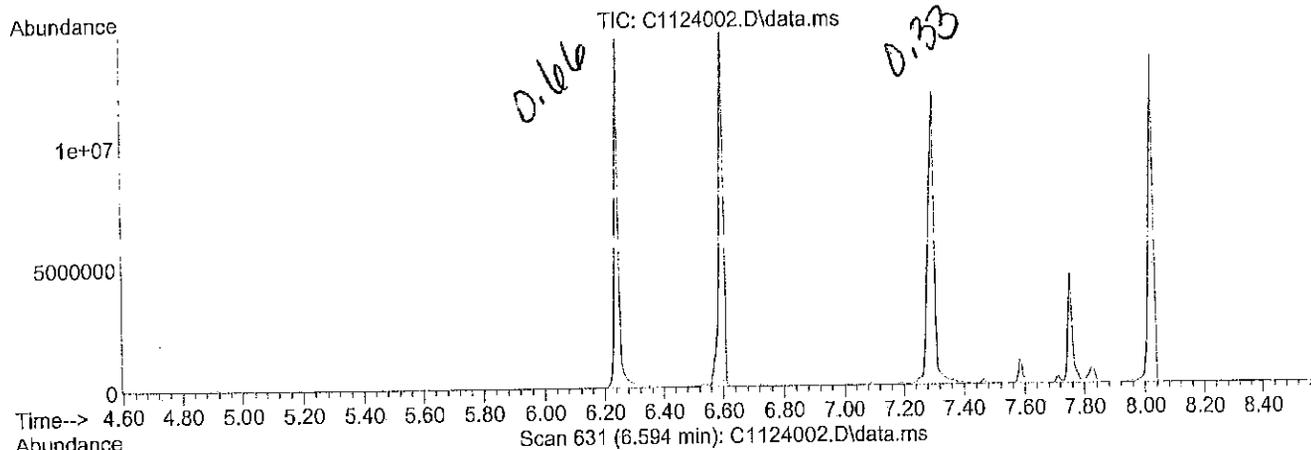
Quant Time: Nov 24 10:12:52 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1110.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Nov 21 12:16:22 2014  
 Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C141124\  
 Data File : C1124002.D  
 Acq On : 24 Nov 2014 9:36 am  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-40-13  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1110.M  
 Title : PAH'S BY SIMS  
 Last Update : Fri Nov 21 12:16:22 2014



Spectrum Information: Scan 631

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	49.9	535424	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	53.1	569472	PASS
70	69	0.00	2	0.6	3272	PASS
127	198	25	75	60.1	644224	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1072640	PASS
199	198	5	9	7.5	80928	PASS
275	198	10	30	25.7	275712	PASS
365	198	0.75	100	2.6	28104	PASS
441	443	0.01	100	78.7	85224	PASS
442	198	40	110	50.1	537216	PASS
443	442	15	24	20.2	108352	PASS

## Total Cadmium Data

P141125F1B. Mean Only Report 11/26/2014, 10:19:33 AM

Sample	Label	Calc Conc.	Units	Date/Time
Blank	Cd 228.802	0.000	ppb	11/25/2014, 9:54:04 AM
Standard 5	Cd 228.802	10.000	ppb	11/25/2014, 9:58:10 AM
Standard 4	Cd 228.802	100.00	ppb	11/25/2014, 10:02:16 AM
Standard 3	Cd 228.802	1000.0	ppb	11/25/2014, 10:06:20 AM
Standard 2	Cd 228.802	2500.0	ppb	11/25/2014, 10:10:26 AM
Standard 1	Cd 228.802	5000.0	ppb	11/25/2014, 10:14:32 AM
Initial Calib Verif	Cd 228.802	1010.6	ppb	11/25/2014, 10:35:54 AM
LLICV	Cd 228.802	10.006	ppb	11/25/2014, 10:42:54 AM
Initial Calib Blank	Cd 228.802	-0.039uv	ppb	11/25/2014, 10:48:22 AM
Cont Calib Verif	Cd 228.802	1014.2	ppb	11/25/2014, 10:52:26 AM
Cont Calib Blank	Cd 228.802	0.571uv	ppb	11/25/2014, 11:00:01 AM
ICSA	Cd 228.802	-0.806uv	ppb	11/25/2014, 11:04:05 AM
ICSAB	Cd 228.802	890.75	ppb	11/25/2014, 11:08:08 AM
MB1125WH2	Cd 228.802	-0.884uv	ppb	11/25/2014, 11:15:17 AM
SB1125WH2	Cd 228.802	1.365uv	ppb	11/25/2014, 11:19:25 AM
11-243-01	Cd 228.802	0.250	ppb	11/25/2014, 11:23:30 AM
11-243-01 D	Cd 228.802	0.014uv	ppb	11/25/2014, 11:27:34 AM
11-243-01 L	Cd 228.802	0.533uv	ppb	11/25/2014, 11:31:40 AM
11-243-01 MS	Cd 228.802	1.979	ppb	11/25/2014, 11:35:43 AM
11-243-01 MSD	Cd 228.802	0.827	ppb	11/25/2014, 11:39:46 AM
MRI ICP1(T.V=50)	Cd 228.802	10.772	ppb	11/25/2014, 11:50:17 AM
Cont Calib Verif	Cd 228.802	1016.6	ppb	11/25/2014, 11:56:32 AM
Cont Calib Blank	Cd 228.802	-0.006uv	ppb	11/25/2014, 12:02:56 PM
LLCCV	Cd 228.802	11.276	ppb	11/25/2014, 12:07:00 PM
MRI ICP1(T.V=50)	Cd 228.802	10.492	ppb	11/25/2014, 12:12:12 PM
MRI ICP1(T.V=125)	Cd 228.802	25.366	ppb	11/25/2014, 12:17:49 PM
MB1124SM3	Cd 228.802	-0.129uv	ppb	11/25/2014, 12:25:21 PM
SB1124SM3	Cd 228.802	883.50	ppb	11/25/2014, 12:29:26 PM
10-021-23	Cd 228.802	3.107	ppb	11/25/2014, 12:33:29 PM
10-021-23 D	Cd 228.802	2.803	ppb	11/25/2014, 12:37:33 PM
10-021-23 L	Cd 228.802	1.056	ppb	11/25/2014, 12:41:39 PM
10-021-23 MS	Cd 228.802	884.11	ppb	11/25/2014, 12:45:44 PM
10-021-23 MSD	Cd 228.802	885.02	ppb	11/25/2014, 12:49:49 PM
11-230-01a X 10	Cd 228.802	0.247uv	ppb	11/25/2014, 12:53:55 PM
Cont Calib Verif	Cd 228.802	1010.7	ppb	11/25/2014, 12:57:59 PM
Cont Calib Blank	Cd 228.802	0.835	ppb	11/25/2014, 1:04:07 PM
LLCCV	Cd 228.802	10.795	ppb	11/25/2014, 1:08:12 PM
10-019-056	Cd 228.802	2.896	ppb	11/25/2014, 1:28:22 PM
10-019-058	Cd 228.802	-0.088uv	ppb	11/25/2014, 1:32:25 PM
10-021-06	Cd 228.802	2.382	ppb	11/25/2014, 1:36:31 PM
10-021-08	Cd 228.802	0.939uv	ppb	11/25/2014, 1:40:36 PM
10-021-10	Cd 228.802	5.225	ppb	11/25/2014, 1:44:39 PM
10-021-14	Cd 228.802	0.894uv	ppb	11/25/2014, 1:48:43 PM
10-021-23	Cd 228.802	3.449	ppb	11/25/2014, 1:52:46 PM
10-021-30	Cd 228.802	1.251uv	ppb	11/25/2014, 1:56:50 PM
10-021-31	Cd 228.802	2.954	ppb	11/25/2014, 2:00:53 PM
10-021-35	Cd 228.802	1.630	ppb	11/25/2014, 2:04:56 PM
Cont Calib Verif	Cd 228.802	1017.1	ppb	11/25/2014, 2:09:00 PM
Cont Calib Blank	Cd 228.802	0.898	ppb	11/25/2014, 2:16:44 PM
LLCCV	Cd 228.802	10.019	ppb	11/25/2014, 2:20:48 PM
10-021-42	Cd 228.802	2.368	ppb	11/25/2014, 2:30:26 PM
10-021-46	Cd 228.802	11.698	ppb	11/25/2014, 2:34:33 PM

P141125F1B. Mean Only Report 11/26/2014, 10:19:33 AM

Sample	Label	Calc Conc.	Units	Date/Time
BLK	Cd 228.802	-1.207uv	ppb	11/25/2014, 2:38:38 PM
MB1124SM	Cd 228.802	1.354	ppb	11/25/2014, 2:42:44 PM
SB1124SM	Cd 228.802	919.05	ppb	11/25/2014, 2:46:49 PM
10-020-05	Cd 228.802	5.373	ppb	11/25/2014, 2:50:55 PM
10-020-05 D	Cd 228.802	4.025	ppb	11/25/2014, 2:55:00 PM
10-020-05 L	Cd 228.802	0.597uv	ppb	11/25/2014, 2:59:04 PM
10-020-05 MS	Cd 228.802	923.76	ppb	11/25/2014, 3:03:08 PM
10-020-05 MSD	Cd 228.802	917.36	ppb	11/25/2014, 3:07:13 PM
Cont Calib Verif	Cd 228.802	1021.6	ppb	11/25/2014, 3:11:18 PM
Cont Calib Blank	Cd 228.802	-0.309uv	ppb	11/25/2014, 3:17:36 PM
LLCCV	Cd 228.802	10.282	ppb	11/25/2014, 3:21:41 PM
10-020-01	Cd 228.802	7.704	ppb	11/25/2014, 3:27:45 PM
10-020-07	Cd 228.802	2.484	ppb	11/25/2014, 3:31:49 PM
10-020-09	Cd 228.802	4.287	ppb	11/25/2014, 3:35:52 PM
10-020-11	Cd 228.802	0.979uv	ppb	11/25/2014, 3:39:57 PM
10-020-25	Cd 228.802	0.432uv	ppb	11/25/2014, 3:44:03 PM
10-020-27	Cd 228.802	0.746	ppb	11/25/2014, 3:48:07 PM
10-020-29	Cd 228.802	2.854	ppb	11/25/2014, 3:52:12 PM
10-020-33	Cd 228.802	3.773	ppb	11/25/2014, 3:56:17 PM
10-020-42	Cd 228.802	1.839	ppb	11/25/2014, 4:00:22 PM
BLK	Cd 228.802	-1.889uv	ppb	11/25/2014, 4:04:27 PM
Cont Calib Verif	Cd 228.802	1017.7	ppb	11/25/2014, 4:08:35 PM
Cont Calib Blank	Cd 228.802	1.329	ppb	11/25/2014, 4:13:48 PM
LLCCV	Cd 228.802	10.843	ppb	11/25/2014, 4:17:53 PM
10-020-45	Cd 228.802	10.768	ppb	11/25/2014, 4:23:53 PM
10-020-47	Cd 228.802	0.275	ppb	11/25/2014, 4:27:59 PM
10-020-49	Cd 228.802	1.558	ppb	11/25/2014, 4:32:04 PM
10-020-54	Cd 228.802	30.655	ppb	11/25/2014, 4:36:09 PM
10-020-55	Cd 228.802	5.409	ppb	11/25/2014, 4:40:15 PM
10-020-56	Cd 228.802	32.656	ppb	11/25/2014, 4:44:20 PM
10-020-58	Cd 228.802	2.851	ppb	11/25/2014, 4:48:24 PM
10-020-63	Cd 228.802	4.458	ppb	11/25/2014, 4:52:30 PM
10-020-65	Cd 228.802	4.007	ppb	11/25/2014, 4:56:35 PM
BLK	Cd 228.802	1.487	ppb	11/25/2014, 5:00:41 PM
Cont Calib Verif	Cd 228.802	1017.5	ppb	11/25/2014, 5:04:46 PM
Cont Calib Blank	Cd 228.802	0.845uv	ppb	11/25/2014, 5:11:26 PM
LLCCV	Cd 228.802	10.578	ppb	11/25/2014, 5:15:30 PM
MB1125WH3	Cd 228.802	0.064	ppb	11/25/2014, 5:23:20 PM
SB1125WH3	Cd 228.802	0.796uv	ppb	11/25/2014, 5:27:24 PM
11-243-01	Cd 228.802	-0.778uv	ppb	11/25/2014, 5:31:28 PM
11-243-01 D	Cd 228.802	1.391	ppb	11/25/2014, 5:35:33 PM
11-243-01 L	Cd 228.802	-1.135uv	ppb	11/25/2014, 5:39:38 PM
11-243-01 MS	Cd 228.802	-0.197uv	ppb	11/25/2014, 5:43:43 PM
11-243-01 MSD	Cd 228.802	1.182uv	ppb	11/25/2014, 5:47:47 PM
MRI ICP1(T.V=50)	Cd 228.802	10.942	ppb	11/25/2014, 5:58:15 PM
MB1125PM1	Cd 228.802	0.713uv	ppb	11/25/2014, 6:05:27 PM
SB1125PM1	Cd 228.802	916.57	ppb	11/25/2014, 6:09:31 PM
Cont Calib Verif	Cd 228.802	995.37	ppb	11/25/2014, 6:19:17 PM
Cont Calib Blank	Cd 228.802	0.229uv	ppb	11/25/2014, 6:24:44 PM
LLCCV	Cd 228.802	11.243	ppb	11/25/2014, 6:28:49 PM
SBD1125PM1	Cd 228.802	894.48	ppb	11/25/2014, 6:39:46 PM
11-193-01	Cd 228.802	7.873	ppb	11/25/2014, 6:43:49 PM

## P141125F1B. Mean Only Report 11/26/2014, 10:19:33 AM

Sample	Label	Calc Conc.	Units	Date/Time
11-193-02	Cd 228.802	2.437	ppb	11/25/2014, 6:47:52 PM
11-193-03	Cd 228.802	10.285	ppb	11/25/2014, 6:51:55 PM
11-193-03 L	Cd 228.802	3.285	ppb	11/25/2014, 7:12:35 PM
11-193-03 PS	Cd 228.802	943.11	ppb	11/25/2014, 7:16:39 PM
11-193-04	Cd 228.802	14.179	ppb	11/25/2014, 7:20:44 PM
11-193-05	Cd 228.802	12.436	ppb	11/25/2014, 7:24:50 PM
11-193-06	Cd 228.802	16.640	ppb	11/25/2014, 7:28:54 PM
11-193-07	Cd 228.802	411.14	ppb	11/25/2014, 7:32:58 PM
Cont Calib Verif	Cd 228.802	991.13	ppb	11/25/2014, 7:37:04 PM
Cont Calib Blank	Cd 228.802	0.240uv	ppb	11/25/2014, 7:41:09 PM
LLCCV	Cd 228.802	10.297	ppb	11/25/2014, 7:45:13 PM
MB1125SM1	Cd 228.802	1.194	ppb	11/25/2014, 7:49:20 PM
SB1125SM1	Cd 228.802	910.30	ppb	11/25/2014, 7:53:25 PM
11-190--01a	Cd 228.802	1.887	ppb	11/25/2014, 7:57:30 PM
11-190--01a D	Cd 228.802	1.219	ppb	11/25/2014, 8:01:36 PM
11-190--01a L	Cd 228.802	0.944uv	ppb	11/25/2014, 8:05:42 PM
11-190--01a MS	Cd 228.802	887.09	ppb	11/25/2014, 8:09:46 PM
11-190--01a MSD	Cd 228.802	887.27	ppb	11/25/2014, 8:13:51 PM
11-240-01a	Cd 228.802	4.019	ppb	11/25/2014, 8:17:59 PM
11-190--02a	Cd 228.802	0.672uv	ppb	11/25/2014, 8:22:06 PM
BLK	Cd 228.802	0.284uv	ppb	11/25/2014, 8:26:12 PM
Cont Calib Verif	Cd 228.802	990.41	ppb	11/25/2014, 8:30:21 PM
Cont Calib Blank	Cd 228.802	1.655	ppb	11/25/2014, 8:34:27 PM
LLCCV	Cd 228.802	10.602	ppb	11/25/2014, 8:38:33 PM
11-190--03a	Cd 228.802	2.414	ppb	11/25/2014, 8:42:39 PM
11-190--04a	Cd 228.802	1.360uv	ppb	11/25/2014, 8:46:45 PM
11-190--05a	Cd 228.802	1.610	ppb	11/25/2014, 8:50:52 PM
11-235--01a	Cd 228.802	6.370	ppb	11/25/2014, 8:54:59 PM
11-235--02a	Cd 228.802	1.179	ppb	11/25/2014, 8:59:08 PM
11-235--03a	Cd 228.802	0.039uv	ppb	11/25/2014, 9:03:14 PM
blk	Cd 228.802	-0.938uv	ppb	11/25/2014, 9:07:21 PM
Cont Calib Verif	Cd 228.802	977.79	ppb	11/25/2014, 9:11:28 PM
Cont Calib Blank	Cd 228.802	-0.782uv	ppb	11/25/2014, 9:15:34 PM
LLCCV	Cd 228.802	9.459	ppb	11/25/2014, 9:19:40 PM



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 8, 2014

Abhijit Joshi  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-012-06  
Laboratory Reference No. 1412-034

Dear Abhijit:

Enclosed are the analytical results and associated quality control data for samples submitted on December 4, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal line extending to the right from the end of the signature.

David Baumeister  
Project Manager

Enclosures

Date of Report: December 8, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-034  
Project: 5147-012-06

### Case Narrative

Samples were collected on December 3, 2014 and received by the laboratory on December 4, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH-Gx/Benzene EPA 8021B (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: December 8, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-034  
Project: 5147-012-06

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-10-13.5	12-034-01	Soil	12-3-14	12-4-14	
EX-11-13.0	12-034-02	Soil	12-3-14	12-4-14	
TRIP BLANK	12-034-03	Water	12-3-14	12-4-14	

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

### NWTPH-Gx/BENZENE

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-10-13.5</b>					
Laboratory ID:	12-034-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	118	68-123				
<b>Client ID:</b>	<b>EX-11-13.0</b>					
Laboratory ID:	12-034-02					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	113	68-123				

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>TRIP BLANK</b>					
Laboratory ID:	12-034-03					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-4-14	12-4-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-4-14	12-4-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	71-113				

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-10-13.5</b>					
Laboratory ID:	12-034-01					
Diesel Range Organics	<b>ND</b>	31	NWTPH-Dx	12-5-14	12-5-14	X1
Lube Oil Range Organics	<b>ND</b>	61	NWTPH-Dx	12-5-14	12-5-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	70	50-150				
<b>Client ID:</b>	<b>EX-11-13.0</b>					
Laboratory ID:	12-034-02					
Diesel Range Organics	<b>92</b>	30	NWTPH-Dx	12-5-14	12-8-14	X1
Lube Oil Range Organics	<b>ND</b>	60	NWTPH-Dx	12-5-14	12-8-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	98	50-150				

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-10-13.5</b>					
Laboratory ID:	12-034-01					
Benzo[a]anthracene	ND	0.0082	EPA 8270D/SIM	12-4-14	12-5-14	
Chrysene	ND	0.0082	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[b]fluoranthene	ND	0.0082	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo(j,k)fluoranthene	ND	0.0082	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[a]pyrene	ND	0.0082	EPA 8270D/SIM	12-4-14	12-5-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0082	EPA 8270D/SIM	12-4-14	12-5-14	
Dibenz[a,h]anthracene	ND	0.0082	EPA 8270D/SIM	12-4-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>69</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>58</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>52</i>	<i>31 - 116</i>				

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-11-13.0</b>					
Laboratory ID:	12-034-02					
Benzo[a]anthracene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-4-14	12-5-14	
Chrysene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[a]pyrene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-4-14	12-5-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-4-14	12-5-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-4-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>53</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>60</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>52</i>	<i>31 - 116</i>				

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	12-034-01					
<b>Client ID:</b>	<b>EX-10-13.5</b>					
Cadmium	<b>ND</b>	0.61	6010C	12-4-14	12-4-14	
Lab ID:	12-034-02					
<b>Client ID:</b>	<b>EX-11-13.0</b>					
Cadmium	<b>ND</b>	0.60	6010C	12-4-14	12-4-14	

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1205S3					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-029-01							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				103	100	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB1205S2								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	<b>0.980</b>	<b>1.04</b>	1.00	1.00	<b>98</b>	<b>104</b>	75-117	6	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					94	100	68-123		

Date of Report: December 8, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-034  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1205G-1	5.00	4.73	5.4	+/- 20%
CCVD1205G-2	5.00	4.69	6.2	+/- 20%

Date of Report: December 8, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-034  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1205B-1	50.0	50.5	-0.952	+/- 15%
Benzene	CCVD1205B-2	50.0	53.2	-6.38	+/- 15%
Benzene	CCVD1205B-3	50.0	46.6	6.73	+/- 15%

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1204W2					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-4-14	12-4-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-4-14	12-4-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	86	71-113				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-030-01							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				87	87	71-113		

**MATRIX SPIKES**

Laboratory ID:	12-030-01									
	MS	MSD	MS	MSD	MS	MSD				
Benzene	<b>53.1</b>	<b>52.7</b>	50.0	50.0	ND	<b>106</b>	<b>105</b>	82-120	1	14
<i>Surrogate:</i>										
<i>Fluorobenzene</i>						97	92	71-113		

Date of Report: December 8, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-034  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1204G-1	5.00	4.79	4	+/- 20%
CCVD1204G-2	5.00	5.14	-3	+/- 20%

Date of Report: December 8, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-034  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1204B-1	50.0	52.1	-4	+/- 15%
Benzene	CCVD1204B-2	50.0	52.4	-5	+/- 15%
Benzene	CCVD1204B-3	50.0	53.2	-6	+/- 15%

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1205S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	12-5-14	12-5-14	X1
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	12-5-14	12-5-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-022-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				95	88	50-150		

Date of Report: December 8, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-034  
Project: 5147-012-06

**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCV1205R-T2	100	99.5	0.5	+/-15%
CCV1205R-T3	100	98.1	1.9	+/-15%
CCV1208R-T1	100	100	0.0	+/-15%
CCV1208R-T2	100	98.0	2.0	+/-15%

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1204S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Chrysene	ND	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>90</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>93</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>85</i>	<i>31 - 116</i>				

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1204S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	<b>0.0793</b>	<b>0.0781</b>	0.0833	0.0833	95	94	60 - 128	2	15	
Chrysene	<b>0.0776</b>	<b>0.0830</b>	0.0833	0.0833	93	100	60 - 117	7	13	
Benzo[b]fluoranthene	<b>0.0685</b>	<b>0.0736</b>	0.0833	0.0833	82	88	60 - 131	7	16	
Benzo(j,k)fluoranthene	<b>0.0714</b>	<b>0.0721</b>	0.0833	0.0833	86	87	57 - 126	1	20	
Benzo[a]pyrene	<b>0.0792</b>	<b>0.0823</b>	0.0833	0.0833	95	99	62 - 136	4	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0744</b>	<b>0.0761</b>	0.0833	0.0833	89	91	60 - 127	2	19	
Dibenz[a,h]anthracene	<b>0.0746</b>	<b>0.0759</b>	0.0833	0.0833	90	91	62 - 133	2	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					93	98	32 - 114			
Pyrene-d10					94	98	33 - 121			
Terphenyl-d14					85	89	31 - 116			

Date of Report: December 8, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-034  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-4-14  
Date Analyzed: 12-4-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1204SM1

Analyte	Method	Result	PQL
Cadmium	6010C	<b>ND</b>	0.50

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 12-4-14

Date Analyzed: 12-4-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-284-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	ND	ND	NA	0.50	

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 MS/MSD QUALITY CONTROL**

Date Extracted: 12-4-14

Date Analyzed: 12-4-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-284-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50.0	<b>46.8</b>	94	<b>47.3</b>	95	1	

Date of Report: December 8, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-034  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	ICV120414P	1.00	1.04	-4.0	+/- 10%
Cadmium	LLICV1120414P	0.0100	0.0101	-1.0	+/- 30%
Cadmium	CCV1120414P	1.00	1.05	-5.0	+/- 10%
Cadmium	CCV2120414P	1.00	1.06	-6.0	+/- 10%
Cadmium	LLCCV2120414P	0.0100	0.0103	-3.0	+/- 30%
Cadmium	CCV3120414P	1.00	1.04	-4.0	+/- 10%
Cadmium	LLCCV3120414P	0.0100	0.0102	-2.0	+/- 30%
Cadmium	CCV4120414P	1.00	1.03	-3.0	+/- 10%
Cadmium	LLCCV4120414P	0.0100	0.0100	0	+/- 30%
Cadmium	CCV5120414P	1.00	1.00	0	+/- 10%
Cadmium	LLCCV5120414P	0.0100	0.0101	-1.0	+/- 30%
Cadmium	CCV6120414P	1.00	0.989	1.1	+/- 10%
Cadmium	LLCCV6120414P	0.0100	0.00745	26	+/- 30%

Date of Report: December 8, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-034  
Project: 5147-012-06

### % MOISTURE

Date Analyzed: 12-4-14

Client ID	Lab ID	% Moisture
EX-10-13.5	12-034-01	19
EX-11-13.0	12-034-02	16



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



# Sample/Cooler Receipt and Acceptance Checklist

Client: GES  
 Client Project Name/Number: 5147-012-06  
 OnSite Project Number: 12-034

Initiated by: MM  
 Date Initiated: 12/4/14

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	<u>N/A</u>	1	2	3	4
1.2 Were the custody seals intact?	Yes	No	<u>N/A</u>	1	2	3	4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<u>N/A</u>	1	2	3	4
1.4 Were the samples delivered on ice or blue ice?	<u>Yes</u>	No		1	2	3	4
1.5 Were samples received between 0-6 degrees Celsius?	<u>Yes</u>	No	Temperature: <u>0</u>				
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<u>N/A</u>					
1.7 How were the samples delivered?	Client	<u>Courier</u>	UPS/FedEx	OSE Pickup	Other		

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<u>Yes</u>	No		1	2	3	4
2.2 Was the COC legible and written in permanent ink?	<u>Yes</u>	No		1	2	3	4
2.3 Have samples been relinquished and accepted by each custodian?	<u>Yes</u>	No		1	2	3	4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<u>Yes</u>	No		1	2	3	4
2.5 Were all of the samples listed on the COC submitted?	<u>Yes</u>	No		1	2	3	4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<u>No</u>		1	2	3	4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<u>No</u>		1	2	3	4
3.2 Were any sample labels missing or illegible?	Yes	<u>No</u>		1	2	3	4
3.3 Have the correct containers been used for each analysis requested?	<u>Yes</u>	No		1	2	3	4
3.4 Have the samples been correctly preserved?	<u>Yes</u>	No	<u>N/A</u>	1	2	3	4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	<u>Yes</u>	No	<u>N/A</u>	1	2	3	4
3.6 Is there sufficient sample submitted to perform requested analyses?	<u>Yes</u>	No		1	2	3	4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<u>No</u>		1	2	3	4
3.8 Was method 5035A used?	<u>Yes</u>	No	N/A	1	2	3	4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	<u>1</u>	N/A	1	2	3	4

### Explain any discrepancies:


- 1 - Discuss issue in Case Narrative
- 2 - Process Sample As-is
- 3 - Client contacted to discuss problem
- 4 - Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

- NWTPH-Gx/Benzene (soil) Data
- NWTPH- Gx/Benzene (water) Data
- NWTPH-Dx Data
- Total Cadmium EPA 6010CData

## NWTPH-Gx/Benzene (soil) Data

Signal #1 : d:\btex\DATA\D141205\1205018.D\FID1A.CH Vial: 18  
 Signal #2 : d:\btex\DATA\D141205\1205018.D\FID2B.CH  
 Acq On : 5 Dec 2014 23:36 Operator:  
 Sample : 12-034-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 0:04 2014 Quant Results File: 141012DB.RES

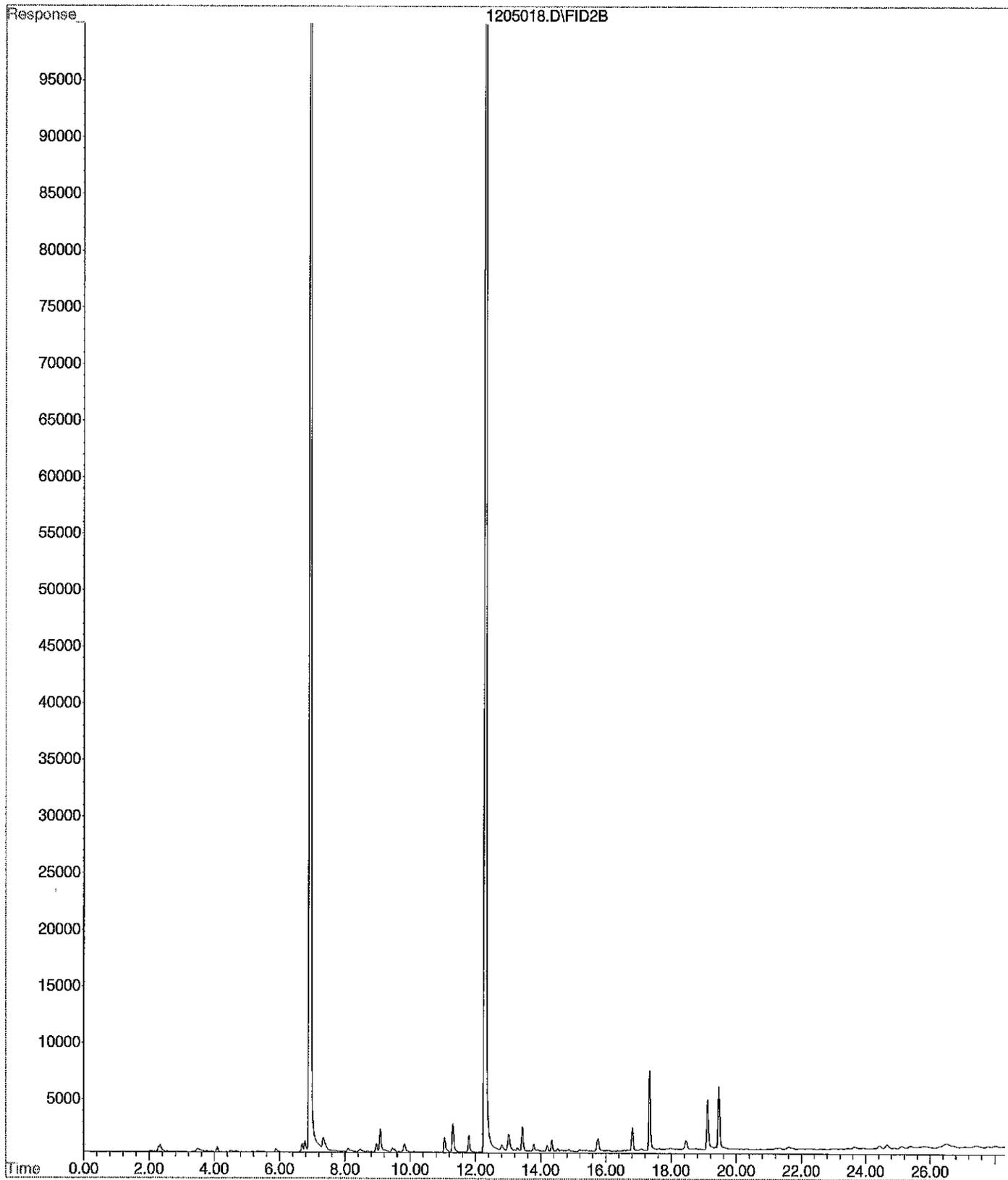
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2645859	38.108 PPB
5) S BROMOFLUOROBENZENE	12.29	1566875	38.571 PPB
11) S FLUOROBENZENE #2	6.93	7251335	32.639 PPB
16) S BROMOFLUOROBENZENE #2	12.29	9936853	33.105 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	697999	0.007 PPM
2) H Entire GAS Envelope (9-24-	12.21	2569830	0.028 PPM
3) H GASOLINE (9-24-14)	13.51	883141	0.001 PPM
7) H entire GAS envelope #2 (9-	12.26	3423370	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1814948	N.D. PPM
9) MTBE #2	4.67	6526	0.041 PPB
10) BENZENE #2	6.70	27784	0.050 PPB
12) TOLUENE #2	9.08	82155	0.118 PPB
13) ETHYLBENZENE #2	11.05	55624	0.108 PPB
14) m,p-XYLENE #2	11.31	102105	N.D. PPB
15) o-XYLENE #2	11.80	54245	N.D. PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205018.D  
Operator :  
Acquired : 5 Dec 2014 23:36 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-034-01s  
Misc Info : V2-36-17  
Vial Number: 18



Signal #1 : d:\btex\DATA\D141205\1205027.D\FID1A.CH Vial: 27  
 Signal #2 : d:\btex\DATA\D141205\1205027.D\FID2B.CH  
 Acq On : 6 Dec 2014 4:34 Operator:  
 Sample : 12-034-02s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 5:02 2014 Quant Results File: 141012DB.RES

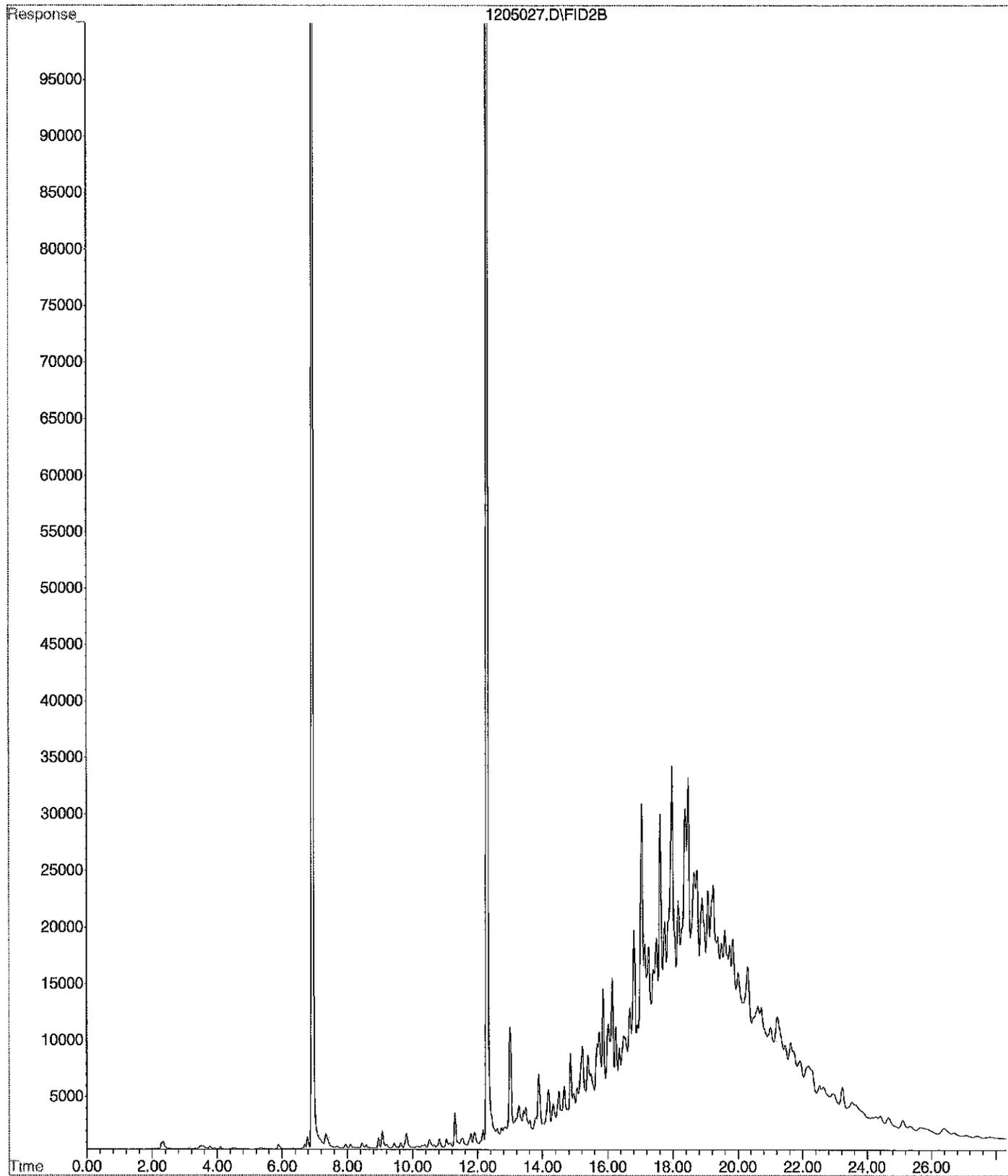
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2587058	37.254 PPB
5) S BROMOFLUOROBENZENE	12.28	1586681	39.065 PPB
11) S FLUOROBENZENE #2	6.93	7198926	32.400 PPB
16) S BROMOFLUOROBENZENE #2	12.28	10079837	33.588 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1823794	0.030 PPM
2) H Entire GAS Envelope (9-24-	12.21	26893673	0.401 PPM
3) H GASOLINE (9-24-14)	13.51	11717987	0.275 PPM
7) H entire GAS envelope #2 (9-	12.26	62311269	0.385 PPM
8) H GASOLINE #2 (9-24-14)	13.56	26430412	0.182 PPM
9) MTBE #2	4.56	6931	0.047 PPB
10) BENZENE #2	6.70	14248	0.004 PPB
12) TOLUENE #2	9.08	60781	0.041 PPB
13) ETHYLBENZENE #2	11.04	28258	N.D. PPB
14) m,p-XYLENE #2	11.30	129991	N.D. PPB
15) o-XYLENE #2	11.79	63517	N.D. PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205027.D  
Operator :  
Acquired : 6 Dec 2014 4:34 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-034-02s  
Misc Info : V2-36-17  
Vial Number: 27



Signal #1 : X:\BTEX\DARYL\DATA\D141205\1205004.D\FID1A.CH Vial: 4  
 Signal #2 : X:\BTEX\DARYL\DATA\D141205\1205004.D\FID2B.CH  
 Acq On : 5 Dec 2014 14:34 Operator:  
 Sample : MB1205S3 Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 15:03 2014 Quant Results File: 141012DB.RES

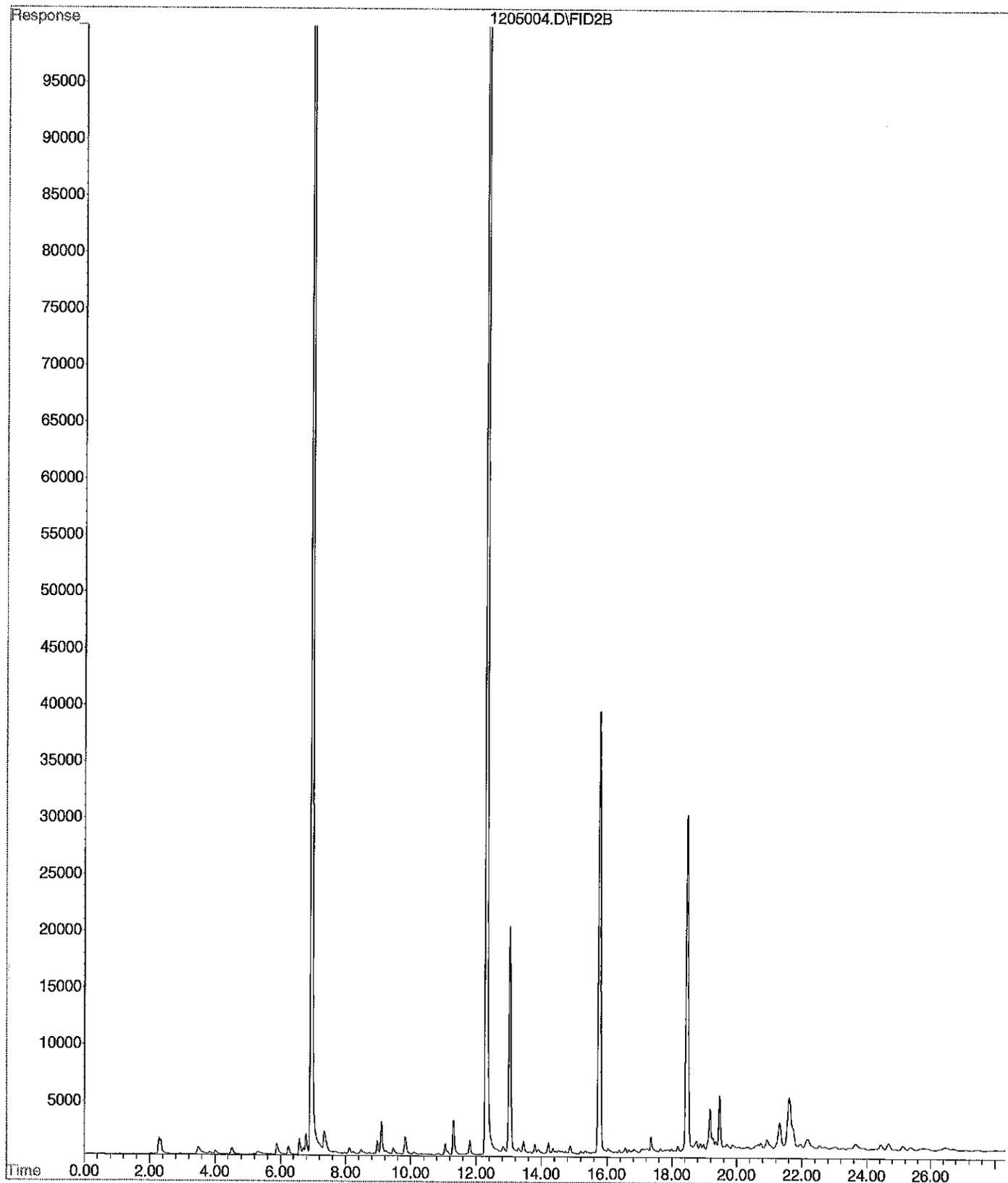
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3265387	47.109 PPB
5) S BROMOFLUOROBENZENE	12.31	1925556	47.531 PPB
11) S FLUOROBENZENE #2	6.95	8530552	38.455 PPB
16) S BROMOFLUOROBENZENE #2	12.31	11794767	39.381 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1117565	0.016 PPM
2) H Entire GAS Envelope (9-24-	12.21	4294861	0.054 PPM
3) H GASOLINE (9-24-14)	13.51	1215300	0.009 PPM
7) H entire GAS envelope #2 (9-	12.26	9313695	0.016 PPM
8) H GASOLINE #2 (9-24-14)	13.56	4932443	N.D. PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.71	19106	0.021 PPB
12) TOLUENE #2	9.09	115347	0.238 PPB
13) ETHYLBENZENE #2	11.07	44006	0.061 PPB
14) m,p-XYLENE #2	11.32	123069	N.D. PPB
15) o-XYLENE #2	11.81	51021	N.D. PPB

12/5  
 [Signature]

File : X:\BTEX\DARYL\DATA\D141205\1205004.D  
Operator :  
Acquired : 5 Dec 2014 14:34 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1205S3  
Misc Info : V2-36-17  
Vial Number: 4



Signal #1 : d:\btex\DATA\D141205\1205008.D\FID1A.CH Vial: 8  
 Signal #2 : d:\btex\DATA\D141205\1205008.D\FID2B.CH  
 Acq On : 5 Dec 2014 18:03 Operator:  
 Sample : 12-029-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 18:32 2014 Quant Results File: 141012DB.RES

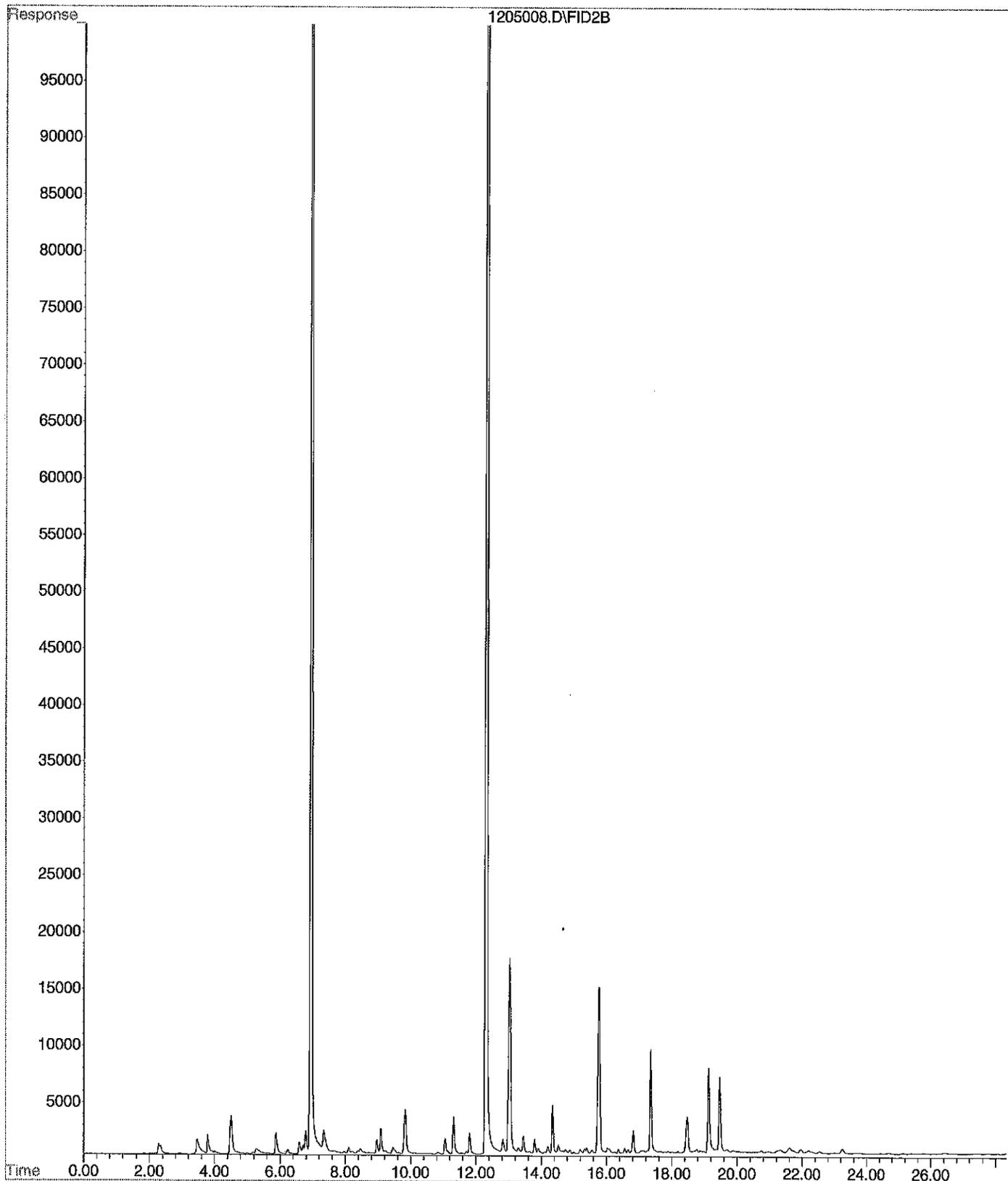
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3020048	43.545 PPB
5) S BROMOFLUOROBENZENE	12.30	1779532	43.883 PPB
11) S FLUOROBENZENE #2	6.94	8174890	36.838 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11243037	37.518 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1148811	0.017 PPM
2) H Entire GAS Envelope (9-24-	12.21	3665867	0.045 PPM
3) H GASOLINE (9-24-14)	13.51	1271789	0.011 PPM
7) H entire GAS envelope #2 (9-	12.26	7063299	0.000 PPM
8) H GASOLINE #2 (9-24-14)	13.56	4247476	N.D. PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.71	27059	0.048 PPB
12) TOLUENE #2	9.09	90941	0.150 PPB
13) ETHYLBENZENE #2	11.06	62299	0.136 PPB
14) m,p-XYLENE #2	11.32	135051	N.D. PPB
15) o-XYLENE #2	11.81	72365	0.022 PPB

12/9 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205008.D  
Operator :  
Acquired : 5 Dec 2014 18:03 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-029-01s  
Misc Info : V2-36-17  
Vial Number: 8



Signal #1 : d:\btex\DATA\D141205\1205016.D\FID1A.CH      via: 16  
 Signal #2 : d:\btex\DATA\D141205\1205016.D\FID2B.CH  
 Acq On : 5 Dec 2014 22:30      Operator:  
 Sample : 12-029-01s DUP      Inst : Daryl  
 Misc : V2-36-17      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 22:58 2014      Quant Results File: 141012DB.RES

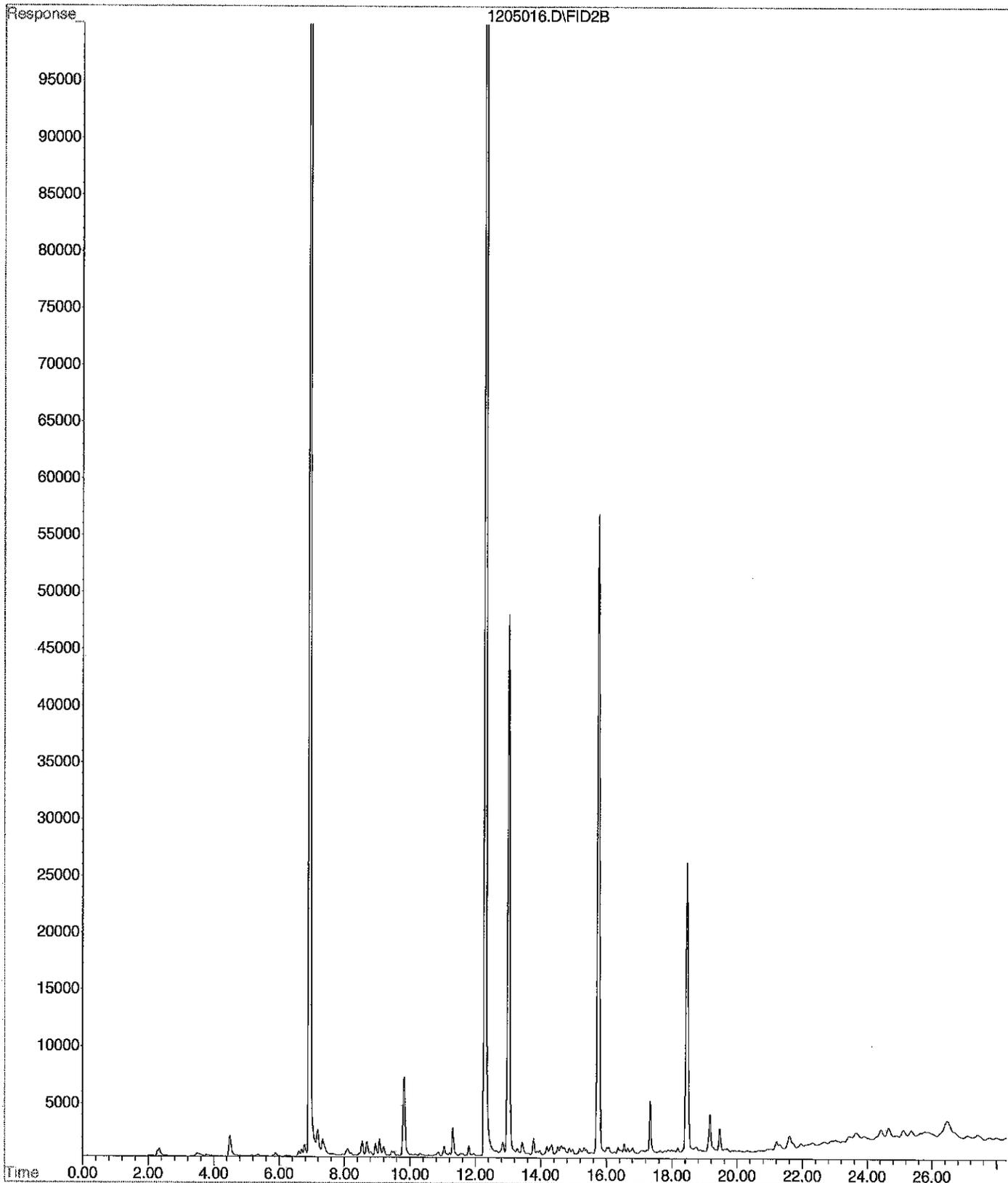
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.93	2981522	42.985 PPB
5) S BROMOFLUOROBENZENE	12.29	1763639	43.486 PPB
11) S FLUOROBENZENE #2	6.93	7945088	35.793 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11106615	37.057 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	1596107	0.026 PPM
2) H Entire GAS Envelope (9-24-	12.21	4325842	0.055 PPM
3) H GASOLINE (9-24-14)	13.51	1889719	0.026 PPM
7) H entire GAS envelope #2 (9-	12.26	11558691	0.032 PPM
8) H GASOLINE #2 (9-24-14)	13.56	7774270	0.012 PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.70	21725	0.030 PPB
12) TOLUENE #2	9.08	56755	0.027 PPB
13) ETHYLBENZENE #2	11.04	37589	0.035 PPB
14) m,p-XYLENE #2	11.30	103047	N.D. PPB
15) o-XYLENE #2	11.80	31113	N.D. PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205016.D  
Operator :  
Acquired : 5 Dec 2014 22:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-029-01s DUP  
Misc Info : V2-36-17  
Vial Number: 16



Signal #1 : d:\btex\DATA\D141205\1205006.D\FID1A.CH Vial: 6  
 Signal #2 : d:\btex\DATA\D141205\1205006.D\FID2B.CH  
 Acq On : 5 Dec 2014 16:56 Operator:  
 Sample : SB1205S2 Inst : Daryl  
 Misc : V2-36-17,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 17:25 2014 Quant Results File: 141012DB.RES

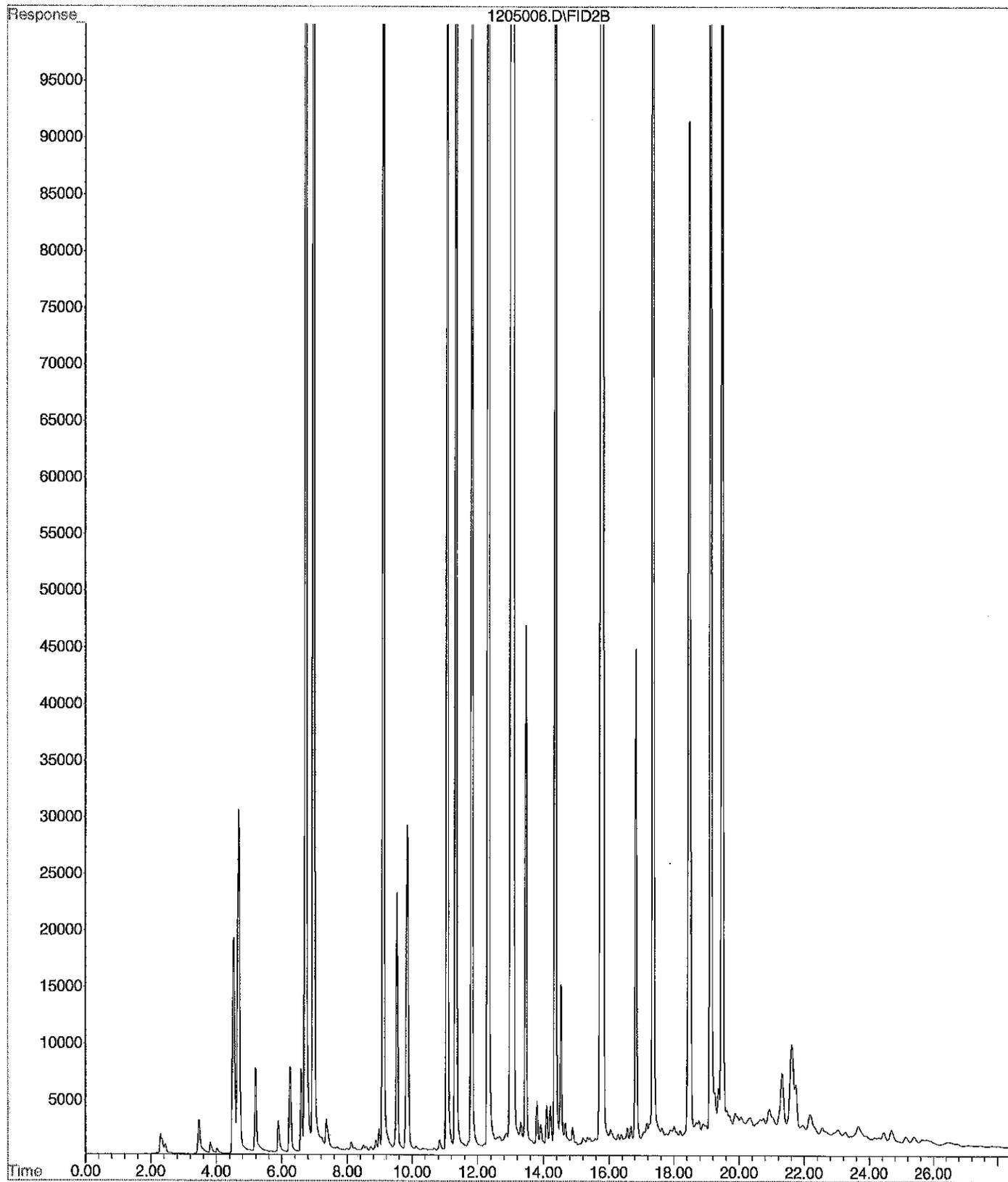
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.96	3179471	45.861 PPB
5) S BROMOFLUOROBENZENE	12.32	1788036	44.096 PPB
11) S FLUOROBENZENE #2	6.96	8361058	37.684 PPB
16) S BROMOFLUOROBENZENE #2	12.32	11262525	37.583 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	17861474	0.356 PPM
2) H Entire GAS Envelope (9-24-	12.21	37279636	0.560 PPM
3) H GASOLINE (9-24-14)	13.51	25284390	0.618 PPM
7) H entire GAS envelope #2 (9-	12.26	123231487	0.809 PPM
8) H GASOLINE #2 (9-24-14)	13.56	92660964	0.785 PPM
9) MTBE #2	4.68	1538770	21.025 PPB
10) BENZENE #2	6.72	5763666	19.596 PPB
12) TOLUENE #2	9.10	5668786	20.221 PPB
13) ETHYLBENZENE #2	11.07	4906352	19.861 PPB
14) m,p-XYLENE #2	11.33	6223083	20.907 PPB
15) o-XYLENE #2	11.82	5080417	20.038 PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\d141205\1205006.D  
Operator :  
Acquired : 5 Dec 2014 16:56 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SB1205S2  
Misc Info : V2-36-17,v2-36-14  
Vial Number: 6



Signal #1 : d:\btex\DATA\D141205\1205007.D\FID1A.CH Vial: 7  
 Signal #2 : d:\btex\DATA\D141205\1205007.D\FID2B.CH  
 Acq On : 5 Dec 2014 17:30 Operator:  
 Sample : SBD1205S2 Inst : Daryl  
 Misc : V2-36-17,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 17:58 2014 Quant Results File: 141012DB.RES

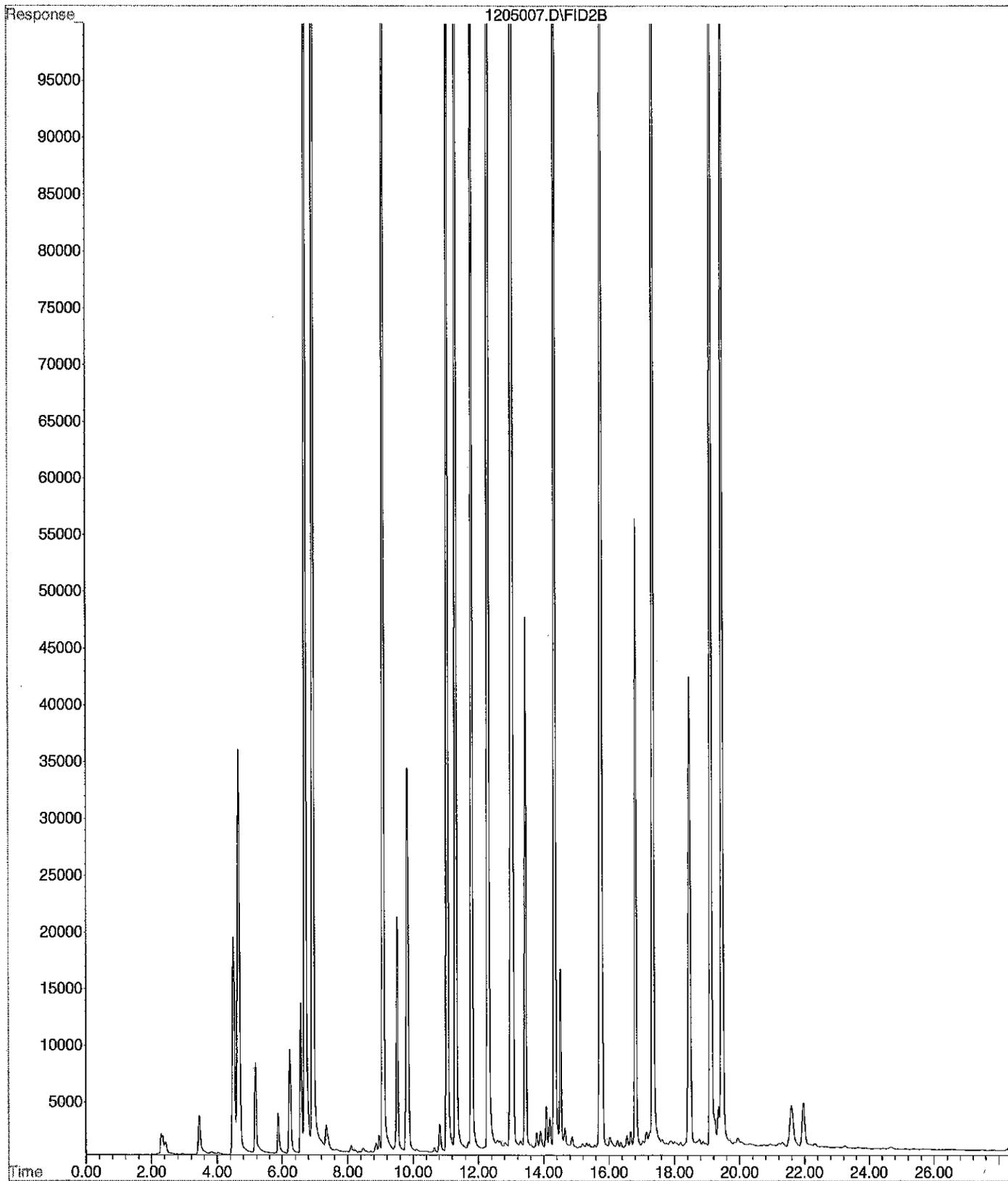
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3243603	46.792 PPB
5) S BROMOFLUOROBENZENE	12.30	1736266	42.802 PPB
11) S FLUOROBENZENE #2	6.94	8863055	39.967 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11181967	37.311 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	14417546	0.286 PPM
2) H Entire GAS Envelope (9-24-	12.21	31219535	0.467 PPM
3) H GASOLINE (9-24-14)	13.51	20618307	0.500 PPM
7) H entire GAS envelope #2 (9-	12.26	85071675	0.544 PPM
8) H GASOLINE #2 (9-24-14)	13.56	59067757	0.479 PPM
9) MTBE #2	4.66	1793247	24.510 PPB
10) BENZENE #2	6.70	6101770	20.748 PPB
12) TOLUENE #2	9.08	5737055	20.467 PPB
13) ETHYLBENZENE #2	11.05	5073580	20.542 PPB
14) m,p-XYLENE #2	11.31	6106207	20.504 PPB
15) o-XYLENE #2	11.80	5167635	20.387 PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205007.D  
Operator :  
Acquired : 5 Dec 2014 17:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SBD1205S2  
Misc Info : V2-36-17,V2-36-14  
Vial Number: 7



Signal #1 : d:\btex\DATA\D141205\1205002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141205\1205002.D\FID2B.CH  
 Acq On : 5 Dec 2014 13:00 Operator:  
 Sample : CCVD1205B-1 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 13:28 2014 Quant Results File: 141012DB.RES

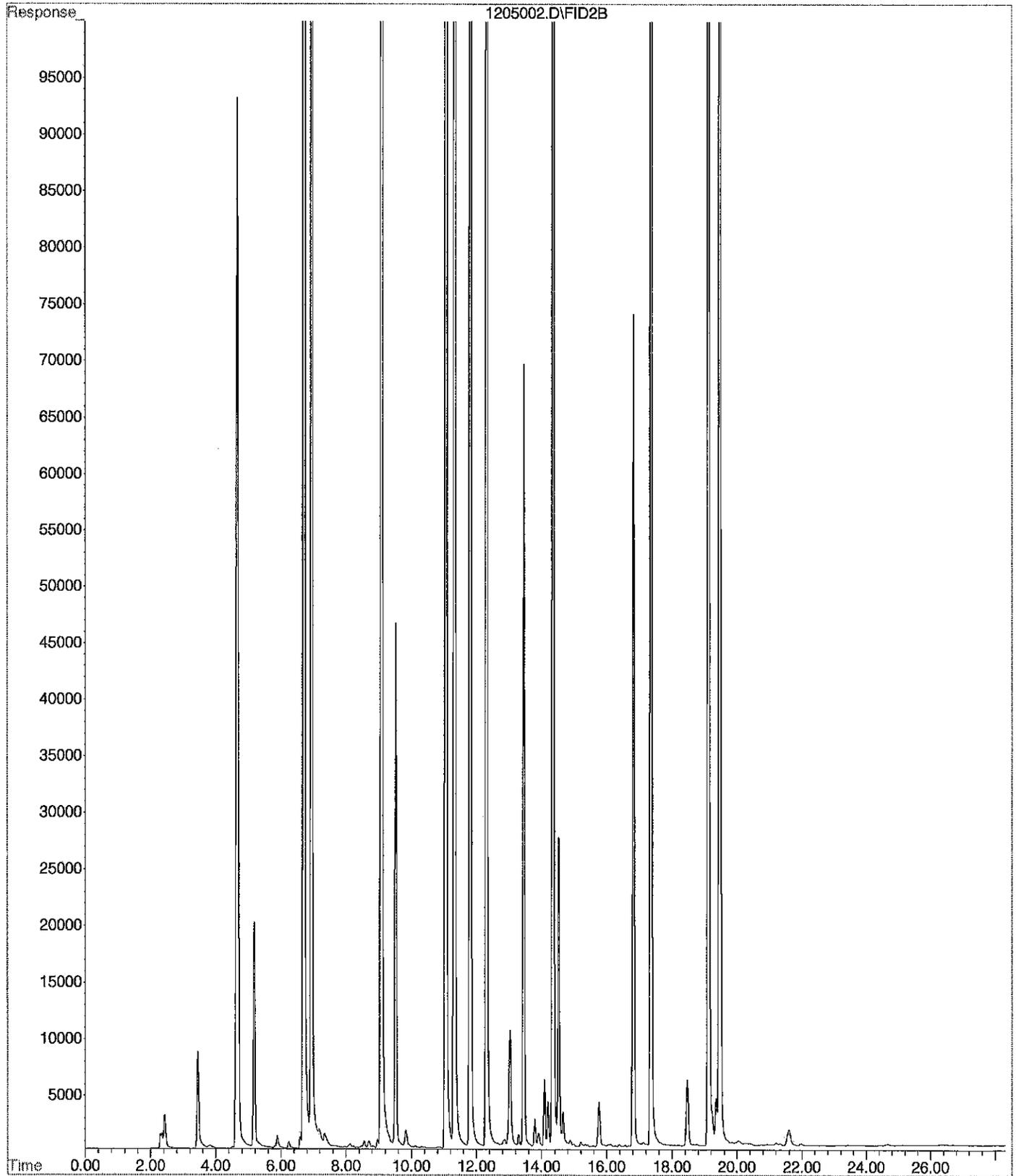
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.94	2992597	43.146 PPB
5) S BROMOFLUOROBENZENE	12.30	1784581	44.009 PPB
11) S FLUOROBENZENE #2	6.94	8113842	36.560 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11475759	38.304 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	30403792	0.611 PPM
2) H Entire GAS Envelope (9-24-	12.21	53294755	0.805 PPM
3) H GASOLINE (9-24-14)	13.51	35570964	0.878 PPM
7) H entire GAS envelope #2 (9-	12.26	121650008	0.798 PPM
8) H GASOLINE #2 (9-24-14)	13.56	84760212	0.713 PPM
9) MTBE #2	4.66	4361955	59.688 PPB
10) BENZENE #2	6.70	14825897	50.476 PPB
12) TOLUENE #2	9.08	14198481	50.914 PPB
13) ETHYLBENZENE #2	11.05	12291418	49.935 PPB
14) m,p-XYLENE #2	11.32	14990069	51.131 PPB
15) o-XYLENE #2	11.80	12546820	49.879 PPB

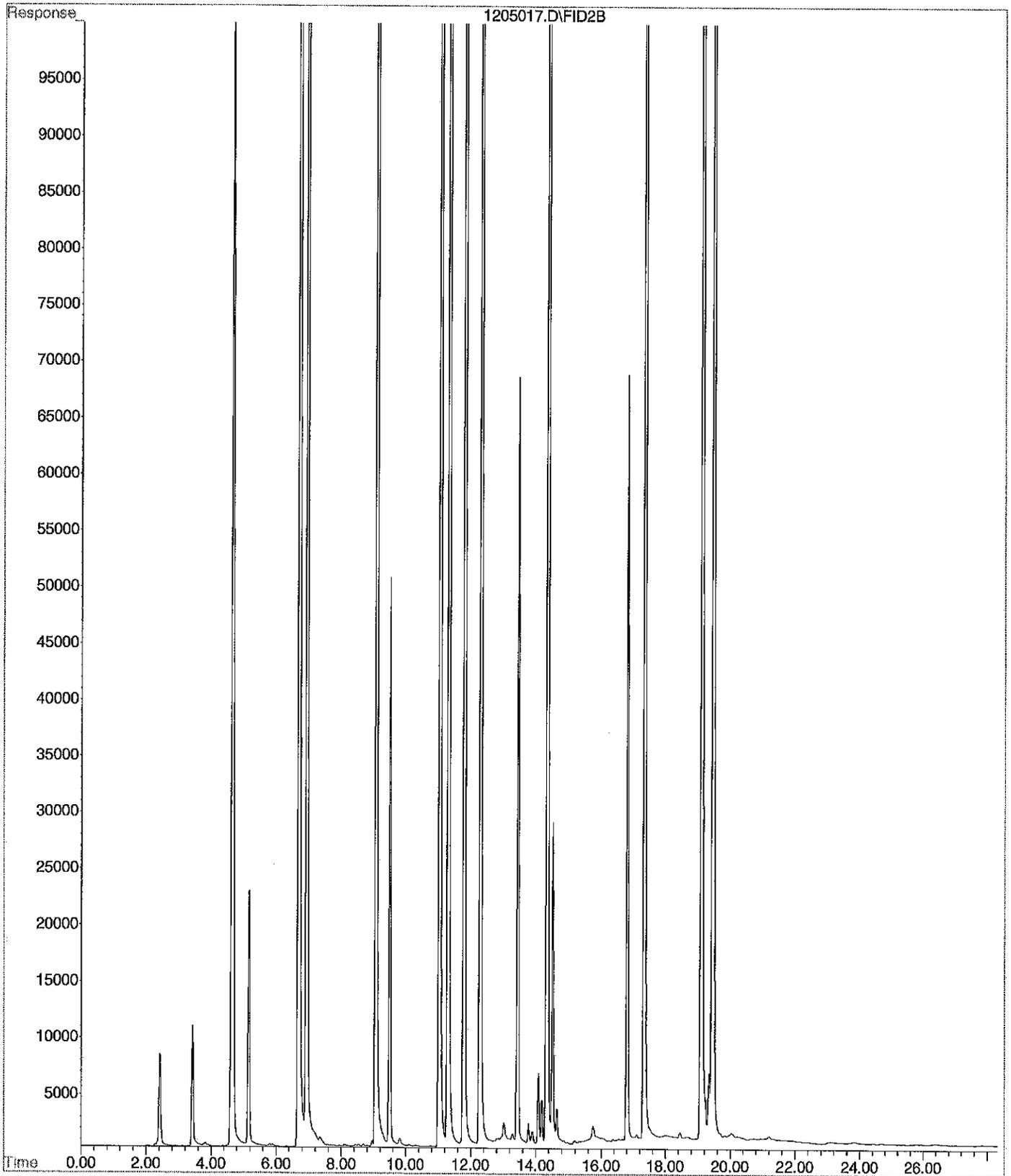
12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205002.D  
Operator :  
Acquired : 5 Dec 2014 13:00 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205B-1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 2





File : X:\BTEX\DARYL\DATA\D141205\1205017.D  
Operator :  
Acquired : 5 Dec 2014 23:03 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 17



Signal #1 : d:\btex\DATA\D141205\1205031.D\FID1A.CH Vial: 31  
 Signal #2 : d:\btex\DATA\D141205\1205031.D\FID2B.CH  
 Acq On : 6 Dec 2014 6:46 Operator:  
 Sample : CCVD1205B-3 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 7:14 2014 Quant Results File: 141012DB.RES

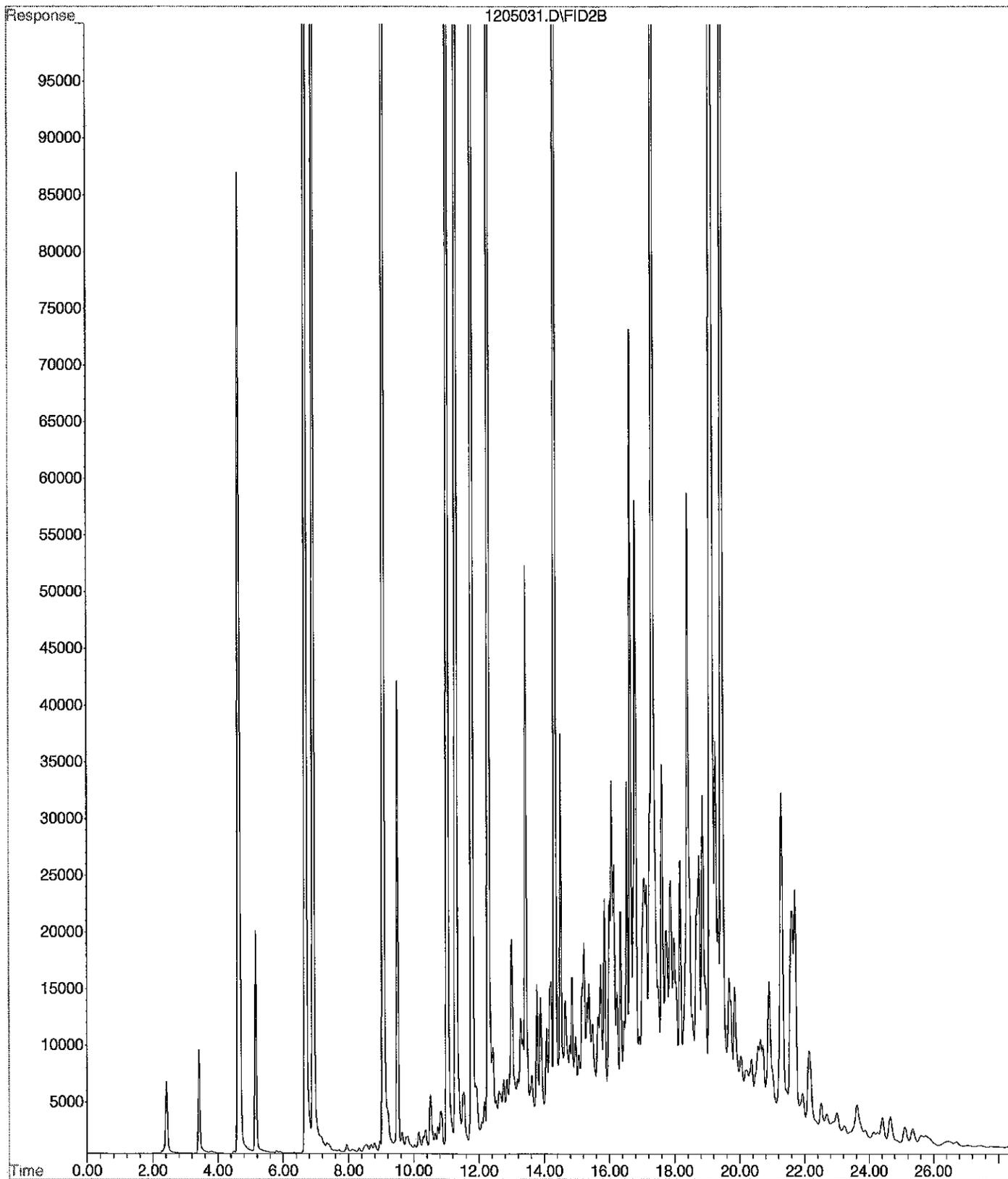
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3073274	44.318 PPB
5) S BROMOFLUOROBENZENE	12.29	2253088	55.714 PPB
11) S FLUOROBENZENE #2	6.93	7701755	34.687 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11677006	38.984 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	34231079	0.689 PPM
2) H Entire GAS Envelope (9-24-	12.21	81568579	1.238 PPM
3) H GASOLINE (9-24-14)	13.51	52738685	1.313 PPM
7) H entire GAS envelope #2 (9-	12.26	186126250	1.248 PPM
8) H GASOLINE #2 (9-24-14)	13.56	120287308	1.037 PPM
9) MTBE #2	4.64	4056762	55.508 PPB
10) BENZENE #2	6.69	13698793	46.635 PPB
12) TOLUENE #2	9.07	13008427	46.632 PPB
13) ETHYLBENZENE #2	11.04	11720028	47.608 PPB
14) m,p-XYLENE #2	11.30	14365863	48.979 PPB
15) o-XYLENE #2	11.79	11989465	47.652 PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205031.D  
Operator :  
Acquired : 6 Dec 2014 6:46 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205B-3  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 31



Signal #1 : d:\btex\DATA\D141205\1205001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141205\1205001.D\FID2B.CH  
 Acq On : 5 Dec 2014 12:26 Operator:  
 Sample : CCVD1205G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 12:55 2014 Quant Results File: 141012DB.RES

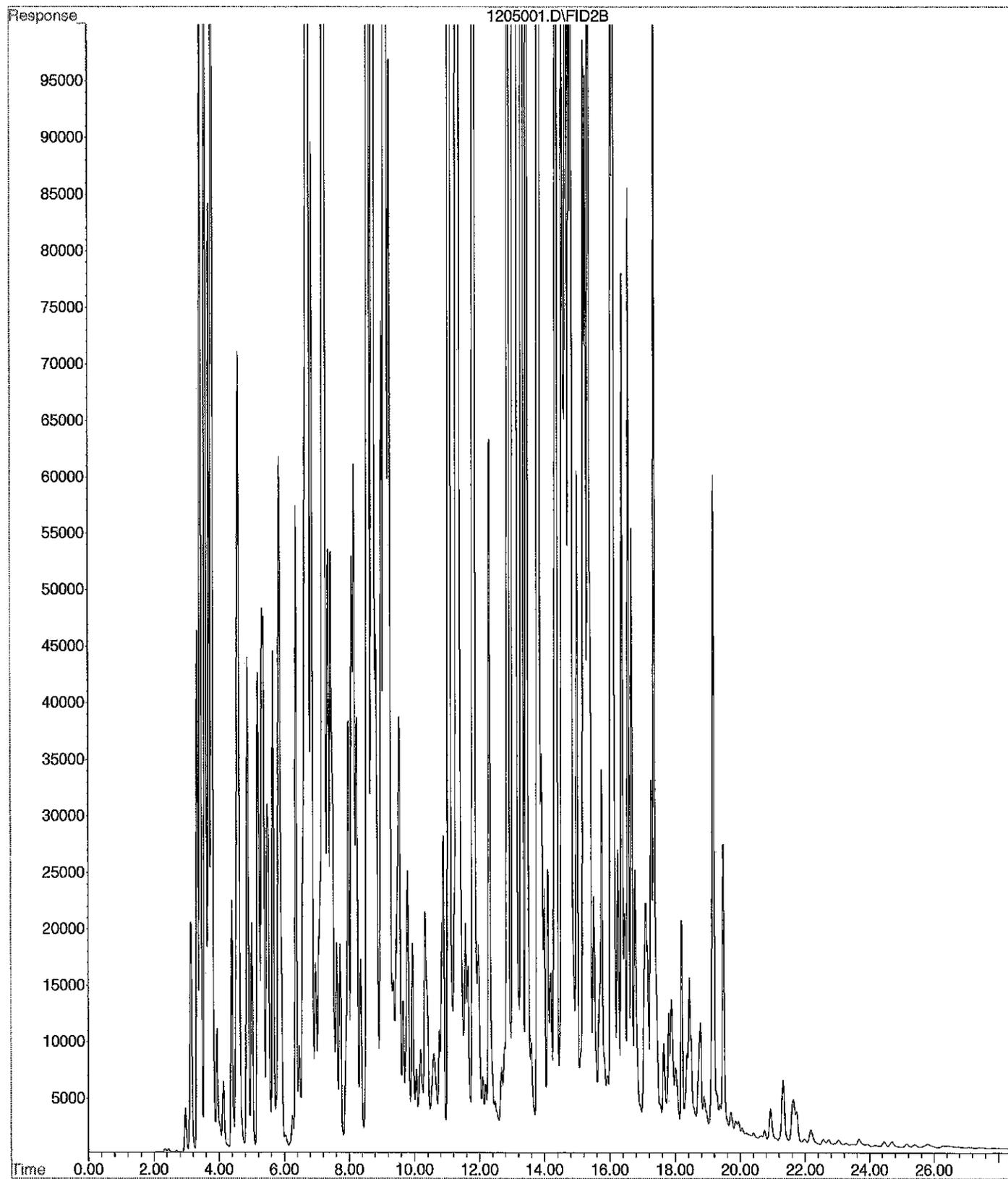
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.97	276497	3.685 PPB
5) S BROMOFLUOROBENZENE	12.30	1233498	30.242 PPB
11) S FLUOROBENZENE #2	6.97	732959	3.002 PPB
16) S BROMOFLUOROBENZENE #2	12.30	2722876	8.736 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	289479991	5.874 PPM
2) H Entire GAS Envelope (9-24-	12.21	387332031	5.922 PPM
3) H GASOLINE (9-24-14)	13.51	212838853	5.363 PPM
7) H entire GAS envelope #2 (9-	12.26	697251851	4.808 PPM
8) H GASOLINE #2 (9-24-14)	13.56	524937838	4.726 PPM ✓
9) MTBE #2	4.59	3875565	53.027 PPB
10) BENZENE #2	6.72	46487289	158.364 PPB
12) TOLUENE #2	9.10	120385133	433.011 PPB
13) ETHYLBENZENE #2	11.06	29483095	119.942 PPB
14) m,p-XYLENE #2	11.32	107881243	371.376 PPB
15) o-XYLENE #2	11.82	40898267	163.192 PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205001.D  
Operator :  
Acquired : 5 Dec 2014 12:26 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141205\1205032.D\FID1A.CH Vial: 32  
 Signal #2 : d:\btex\DATA\D141205\1205032.D\FID2B.CH  
 Acq On : 6 Dec 2014 7:19 Operator:  
 Sample : CCVD1205G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 7:47 2014 Quant Results File: 141012DB.RES

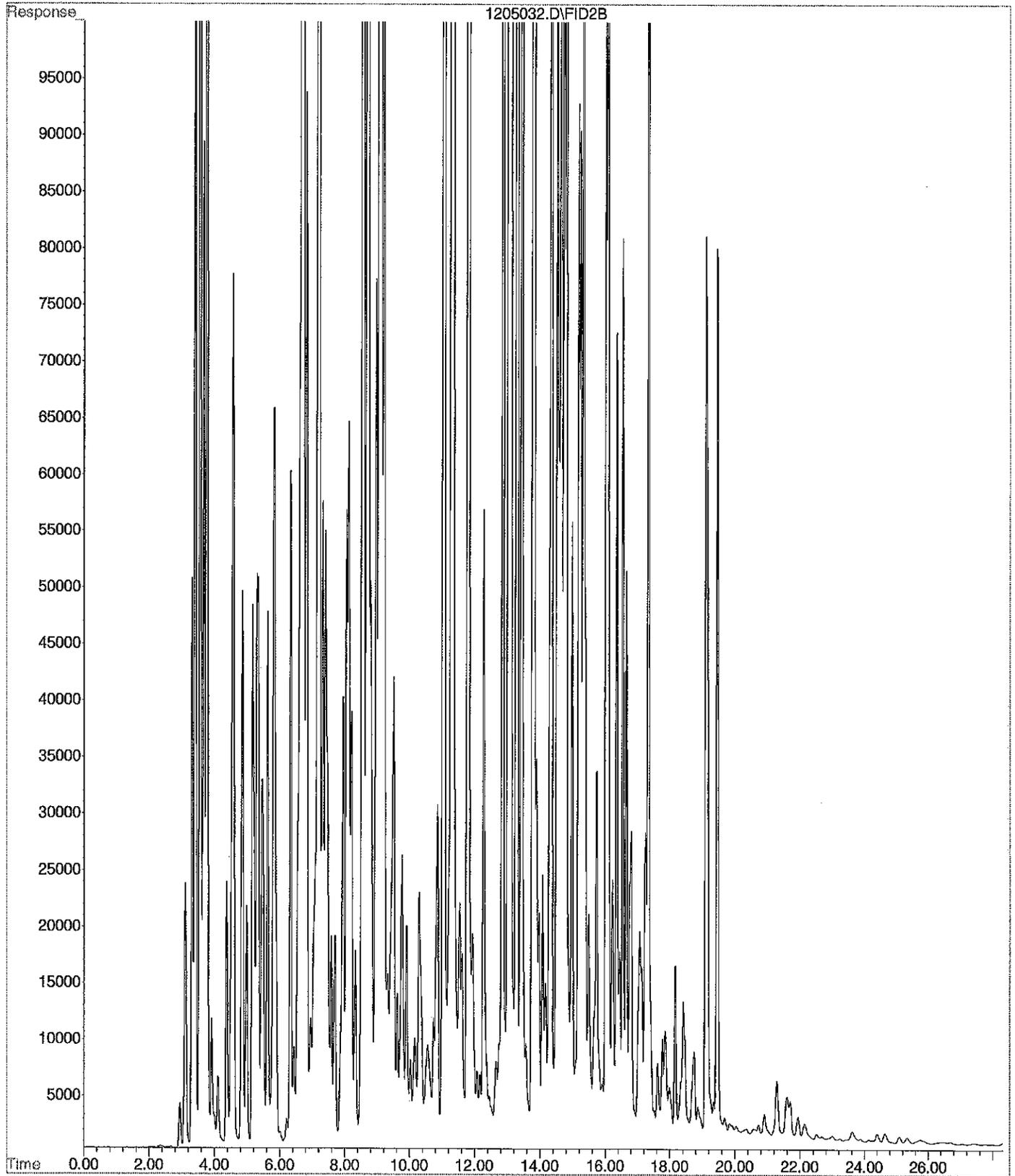
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.27	1218418	29.865	PPB
11) S FLUOROBENZENE #2	6.95	493722	1.914	PPB
16) S BROMOFLUOROBENZENE #2	12.27	2490581	7.951	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	282236425	5.727	PPM
2) H Entire GAS Envelope (9-24-	12.21	378242148	5.783	PPM
3) H GASOLINE (9-24-14)	13.51	208887362	5.263	PPM
7) H entire GAS envelope #2 (9-	12.26	697527958	4.810	PPM
8) H GASOLINE #2 (9-24-14)	13.56	520506989	4.685	PPM ✓
9) MTBE #2	4.57	4216171	57.691	PPB
10) BENZENE #2	6.69	46369193	157.961	PPB
12) TOLUENE #2	9.07	121040970	435.371	PPB
13) ETHYLBENZENE #2	11.03	29128313	118.497	PPB
14) m,p-XYLENE #2	11.29	107992922	371.761	PPB
15) o-XYLENE #2	11.79	40515001	161.660	PPB

12/8/14

File : X:\BTEX\DARYL\DATA\D141205\1205032.D  
Operator :  
Acquired : 6 Dec 2014 7:19 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205G-2  
Misc Info : V2-36-08  
Vial Number: 32



## NWTPH-Gx/Benzene (water) Data

Signal #1 : d:\btex\DATA\D141204\1204020.D\FID1A.CH Vial: 20  
 Signal #2 : d:\btex\DATA\D141204\1204020.D\FID2B.CH  
 Acq On : 4 Dec 2014 23:47 Operator:  
 Sample : 12-034-03 Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 0:15 2014 Quant Results File: 141012DB.RES

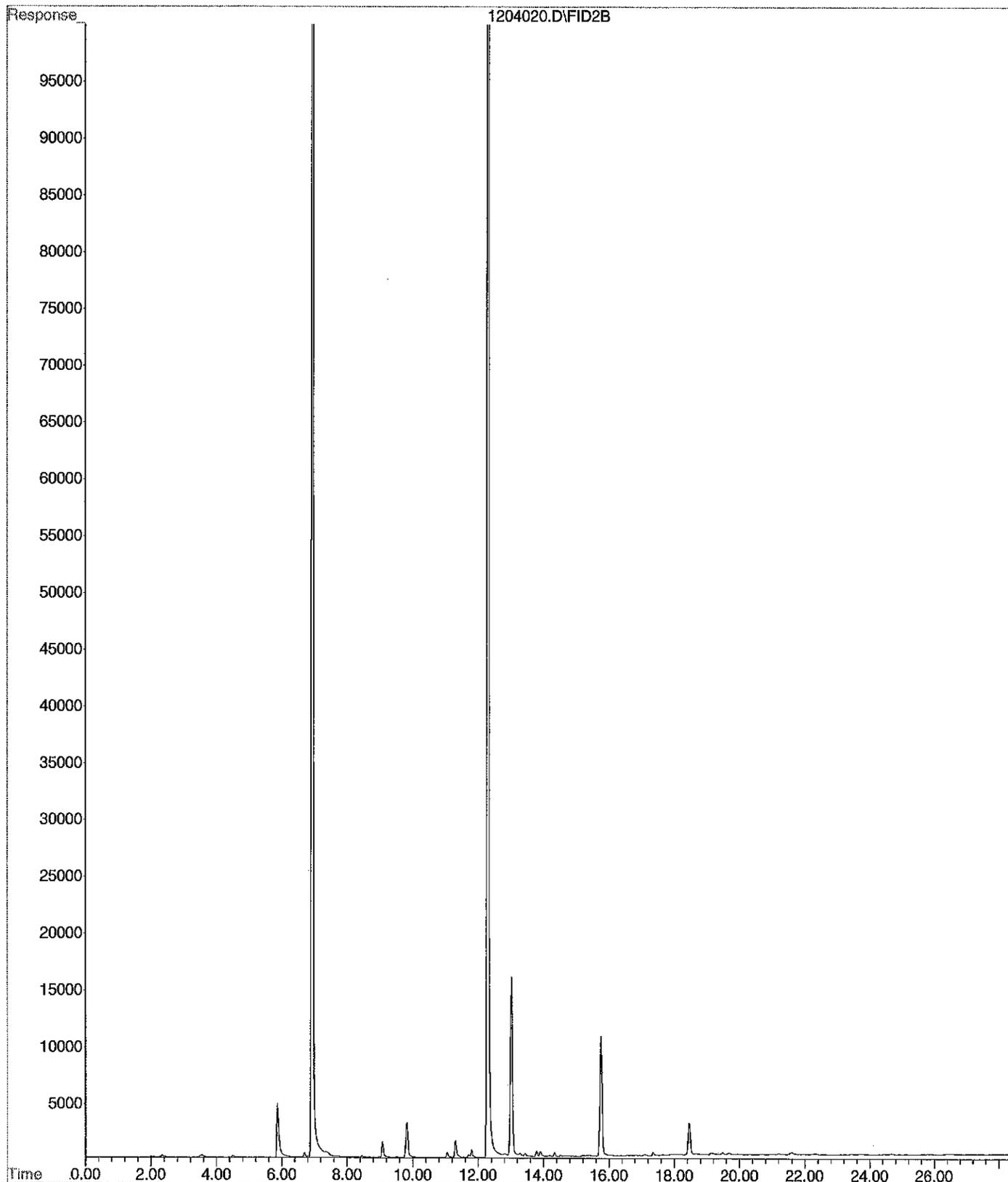
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.93	2910127	41.948	PPB
5) S BROMOFLUOROBENZENE	12.29	1724439	42.507	PPB
11) S FLUOROBENZENE #2	6.93	7957778	35.851	PPB
16) S BROMOFLUOROBENZENE #2	12.29	10977720	36.621	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	495201	0.003	PPM
2) H Entire GAS Envelope (9-24-	12.21	1254268	0.008	PPM
3) H GASOLINE (9-24-14)	13.51	475286	N.D.	PPM
7) H entire GAS envelope #2 (9-	12.26	3484099	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	2253583	N.D.	PPM
9) MTBE #2	0.00	0	N.D.	PPB
10) BENZENE #2	6.70	11436	N.D.	PPB
12) TOLUENE #2	9.08	56840	0.027	PPB
13) ETHYLBENZENE #2	11.05	17983	N.D.	PPB
14) m,p-XYLENE #2	11.31	62523	N.D.	PPB
15) o-XYLENE #2	11.80	26808	N.D.	PPB

12/5 ✓

File : X:\BTEX\DARYL\DATA\D141204\1204020.D  
Operator :  
Acquired : 4 Dec 2014 23:47 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-034-03  
Misc Info : V2-36-11  
Vial Number: 20



Signal #1 : d:\btex\DATA\D141204\1204018.D\FID1A.CH      Vial: 18  
 Signal #2 : d:\btex\DATA\D141204\1204018.D\FID2B.CH  
 Acq On : 4 Dec 2014 22:41      Operator:  
 Sample : MB1204w2      Inst : Daryl  
 Misc : v2-36-11      Multiplr: 1.00  
                                  Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 4 23:09 2014      Quant Results File: 141012DB.RES

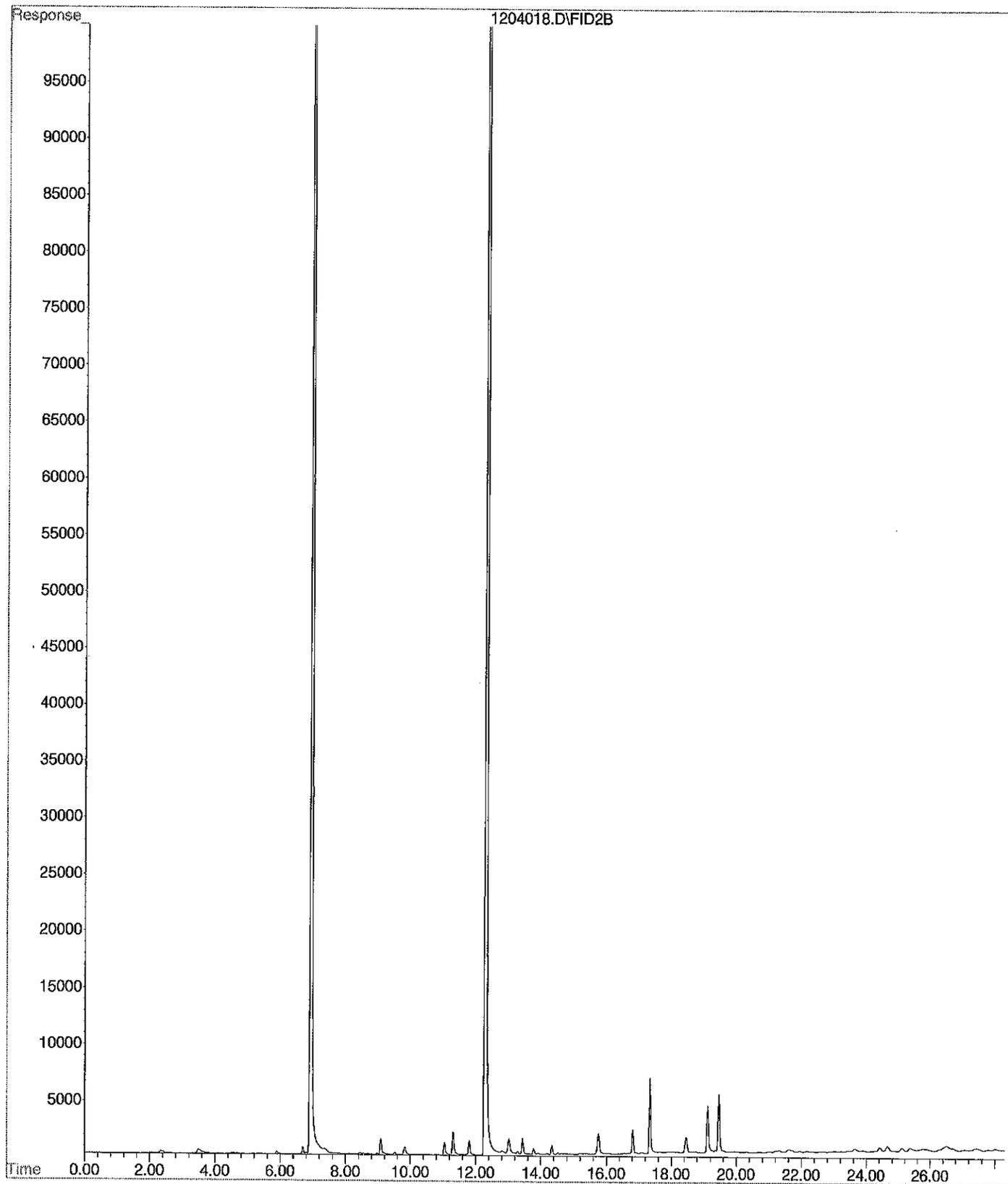
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.93	2807009	40.449	PPB
5) S BROMOFLUOROBENZENE	12.29	1661275	40.929	PPB
11) S FLUOROBENZENE #2	6.93	7681042	34.592	PPB
16) S BROMOFLUOROBENZENE #2	12.29	10630160	35.447	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	458750	0.003	PPM
2) H Entire GAS Envelope (9-24-	12.21	1754892	0.016	PPM
3) H GASOLINE (9-24-14)	13.51	716513	N.D.	PPM
7) H entire GAS envelope #2 (9-	12.26	3039084	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	1554047	N.D.	PPM
9) MTBE #2	4.67	5476	0.027	PPB
10) BENZENE #2	6.70	22502	0.032	PPB
12) TOLUENE #2	9.08	61194	0.043	PPB
13) ETHYLBENZENE #2	11.05	42159	0.054	PPB
14) m,p-XYLENE #2	11.31	86043	N.D.	PPB
15) o-XYLENE #2	11.80	49000	N.D.	PPB

12/5 ✓

File : X:\BTEX\DARYL\DATA\D141204\1204018.D  
Operator :  
Acquired : 4 Dec 2014 22:41 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1204W2  
Misc Info : V2-36-11  
Vial Number: 18



Signal #1 : d:\btex\DATA\D141204\1204008.D\FID1A.CH      vial: 8  
 Signal #2 : d:\btex\DATA\D141204\1204008.D\FID2B.CH  
 Acq On : 4 Dec 2014 17:08      Operator:  
 Sample : 12-030-01g      Inst : Daryl  
 Misc : V2-36-11      Multiplr: 1.00  
                                  Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 4 17:36 2014      Quant Results File: 141012DB.RES

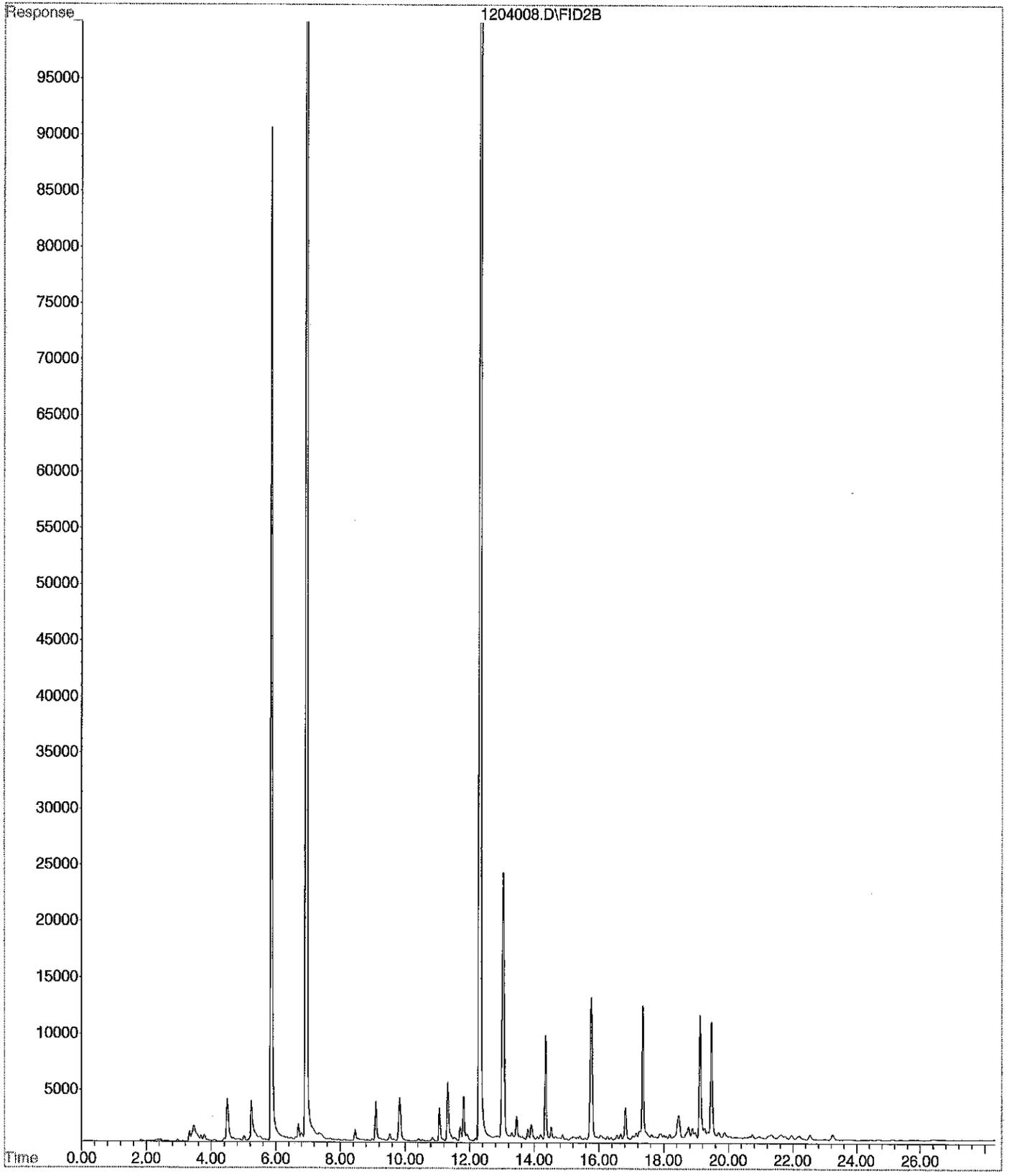
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.95	2821132	40.655 PPB
5) S BROMOFLUOROBENZENE	12.31	1716320	42.304 PPB
11) S FLUOROBENZENE #2	6.95	7734636	34.836 PPB
16) S BROMOFLUOROBENZENE #2	12.30	10720111	35.751 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	2945700	0.053 PPM
2) H Entire GAS Envelope (9-24-	12.21	5335887	0.070 PPM
3) H GASOLINE (9-24-14)	13.51	1821173	0.025 PPM
7) H entire GAS envelope #2 (9-	12.26	11821519	0.033 PPM
8) H GASOLINE #2 (9-24-14)	13.56	5280128	N.D. PPM
9) MTBE #2	4.68	14660	0.153 PPB
10) BENZENE #2	6.71	57041	0.150 PPB
12) TOLUENE #2	9.10	128387	0.285 PPB
13) ETHYLBENZENE #2	11.06	109380	0.327 PPB
14) m,p-XYLENE #2	11.32	214018	0.190 PPB
15) o-XYLENE #2	11.81	136866	0.280 PPB

12/5 ✓

File : X:\BTEX\DARYL\DATA\D141204\1204008.D  
Operator :  
Acquired : 4 Dec 2014 17:08 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-030-01g  
Misc Info : V2-36-11  
Vial Number: 8



Signal #1 : d:\btex\DATA\D141204\1204009.D\FID1A.CH Vial: 9  
 Signal #2 : d:\btex\DATA\D141204\1204009.D\FID2B.CH  
 Acq On : 4 Dec 2014 17:41 Operator:  
 Sample : 12-030-01g DUP Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 4 18:10 2014 Quant Results File: 141012DB.RES

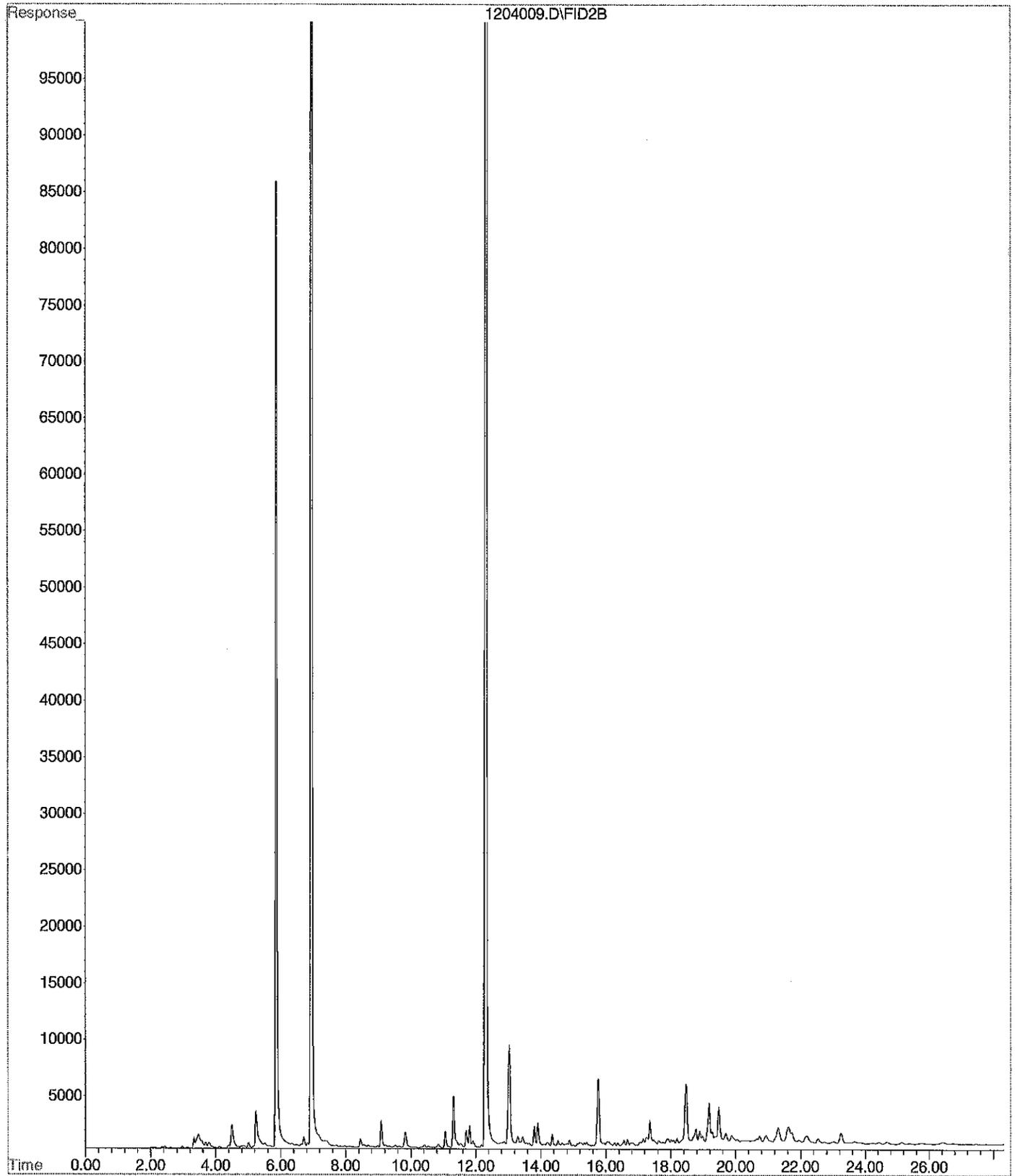
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	2855476	41.154 PPB
5) S BROMOFLUOROBENZENE	12.30	1738744	42.864 PPB
11) S FLUOROBENZENE #2	6.95	7703778	34.696 PPB
16) S BROMOFLUOROBENZENE #2	12.30	10763926	35.899 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	2524218	0.045 PPM
2) H Entire GAS Envelope (9-24-	12.21	4371422	0.056 PPM
3) H GASOLINE (9-24-14)	13.51	1147622	0.008 PPM
7) H entire GAS envelope #2 (9-	12.26	9614339	0.018 PPM
8) H GASOLINE #2 (9-24-14)	13.56	3305855	N.D. PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.71	39825	0.091 PPB
12) TOLUENE #2	9.09	86535	0.134 PPB
13) ETHYLBENZENE #2	11.06	53928	0.102 PPB
14) m,p-XYLENE #2	11.32	190705	0.110 PPB
15) o-XYLENE #2	11.81	67976	0.005 PPB

12/5 ✓

File : X:\BTEX\DARYL\DATA\D141204\1204009.D  
Operator :  
Acquired : 4 Dec 2014 17:41 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-030-01g DUP  
Misc Info : V2-36-11  
Vial Number: 9



Signal #1 : d:\btex\DATA\D141204\1204006.D\FID1A.CH Vial: 6  
 Signal #2 : d:\btex\DATA\D141204\1204006.D\FID2B.CH  
 Acq On : 4 Dec 2014 16:00 Operator:  
 Sample : 12-030-01g MS Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 4 16:29 2014 Quant Results File: 141012DB.RES

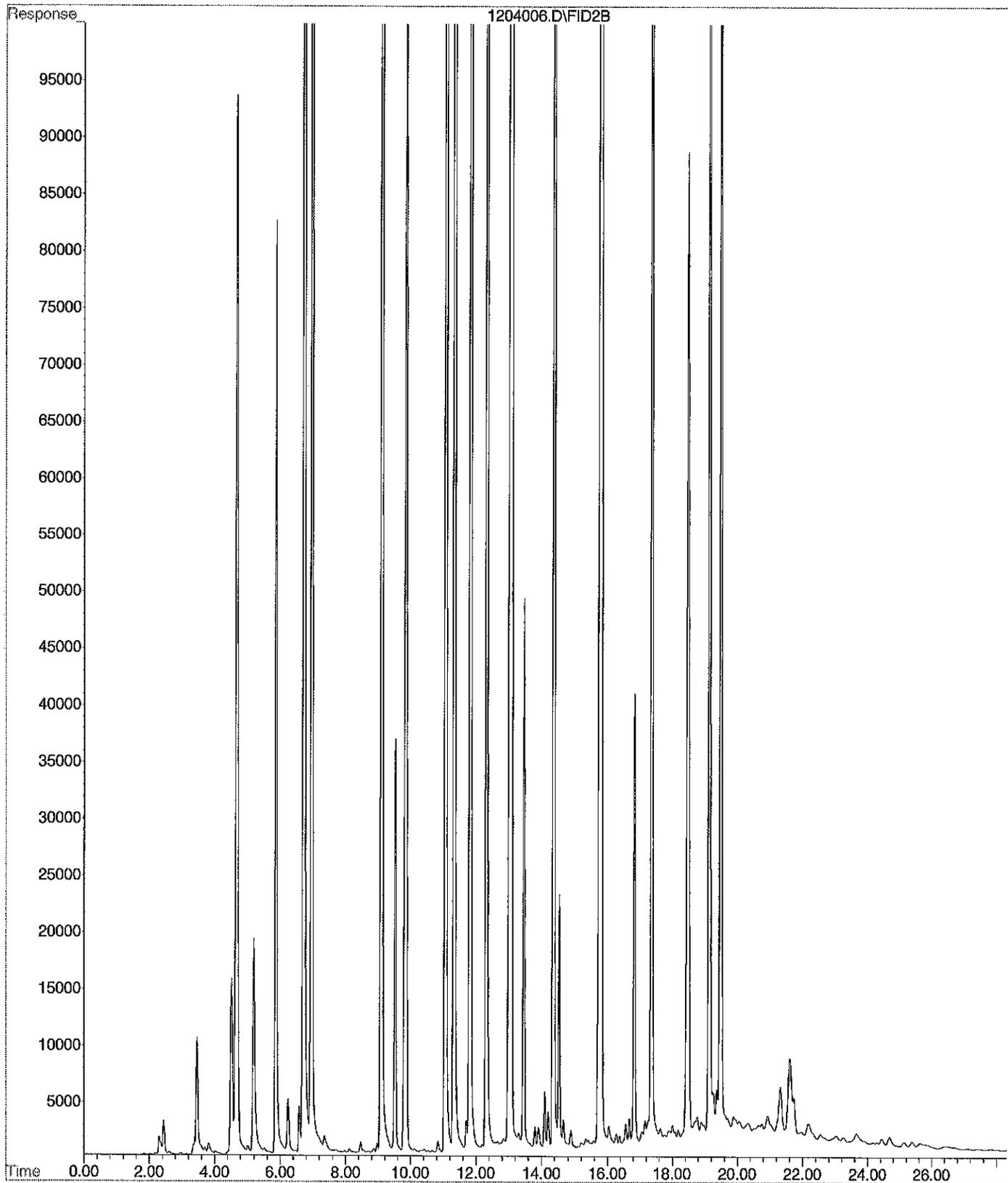
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3106590	44.802 PPB
5) S BROMOFLUOROBENZENE	12.31	1741364	42.930 PPB
11) S FLUOROBENZENE #2	6.95	8619433	38.859 PPB
16) S BROMOFLUOROBENZENE #2	12.31	11266224	37.596 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	34614229	0.696 PPM
2) H Entire GAS Envelope (9-24-	12.21	57645752	0.872 PPM
3) H GASOLINE (9-24-14)	13.51	37389186	0.924 PPM
7) H entire GAS envelope #2 (9-	12.26	170610979	1.139 PPM
8) H GASOLINE #2 (9-24-14)	13.56	125373870	1.084 PPM
9) MTBE #2	4.67	4326498	59.202 PPB
10) BENZENE #2	6.71	15585049	53.063 PPB
12) TOLUENE #2	9.09	14418817	51.707 PPB
13) ETHYLBENZENE #2	11.05	12494809	50.763 PPB
14) m,p-XYLENE #2	11.32	14954259	51.008 PPB
15) o-XYLENE #2	11.81	12569525	49.970 PPB

12/5  
2

File : X:\BTEX\DARYL\DATA\D141204\1204006.D  
Operator :  
Acquired : 4 Dec 2014 16:00 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-030-01g MS  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 6



Signal #1 : d:\btex\DATA\D141204\1204007.D\FID1A.CH Vial: 7  
 Signal #2 : d:\btex\DATA\D141204\1204007.D\FID2B.CH  
 Acq On : 4 Dec 2014 16:34 Operator:  
 Sample : 12-030-01g MSD Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 4 17:03 2014 Quant Results File: 141012DB.RES

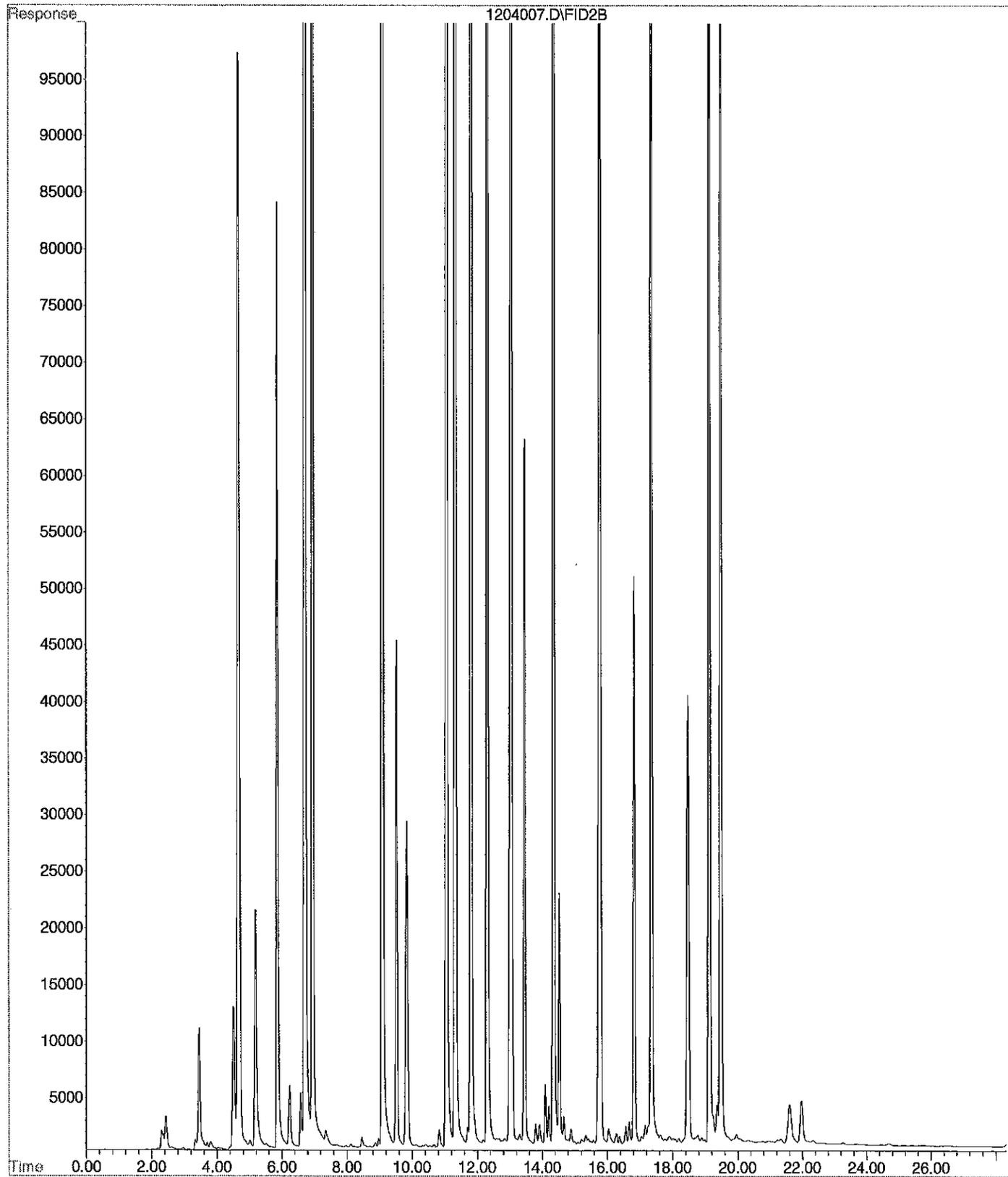
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	2867829	41.333 PPB
5) S BROMOFLUOROBENZENE	12.31	1611020	39.674 PPB
11) S FLUOROBENZENE #2	6.95	8183530	36.877 PPB
16) S BROMOFLUOROBENZENE #2	12.30	10395165	34.653 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	32934898	0.662 PPM
2) H Entire GAS Envelope (9-24-	12.21	54285394	0.820 PPM
3) H GASOLINE (9-24-14)	13.51	34453920	0.850 PPM
7) H entire GAS envelope #2 (9-	12.26	133698624	0.882 PPM
8) H GASOLINE #2 (9-24-14)	13.56	93625096	0.794 PPM
9) MTBE #2	4.66	4535823	62.069 PPB
10) BENZENE #2	6.71	15492377	52.747 PPB
12) TOLUENE #2	9.09	14264193	51.150 PPB
13) ETHYLBENZENE #2	11.05	12373802	50.270 PPB
14) m,p-XYLENE #2	11.32	14816903	50.534 PPB
15) o-XYLENE #2	11.81	12326435	48.998 PPB

12/5

File : X:\BTEX\DARYL\DATA\D141204\1204007.D  
Operator :  
Acquired : 4 Dec 2014 16:34 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-030-01g MSD  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 7



Signal #1 : d:\btex\DATA\D141204\1204002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141204\1204002.D\FID2B.CH  
 Acq On : 4 Dec 2014 13:30 Operator:  
 Sample : CCVD1204B-1 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 4 13:58 2014 Quant Results File: 141012DB.RES

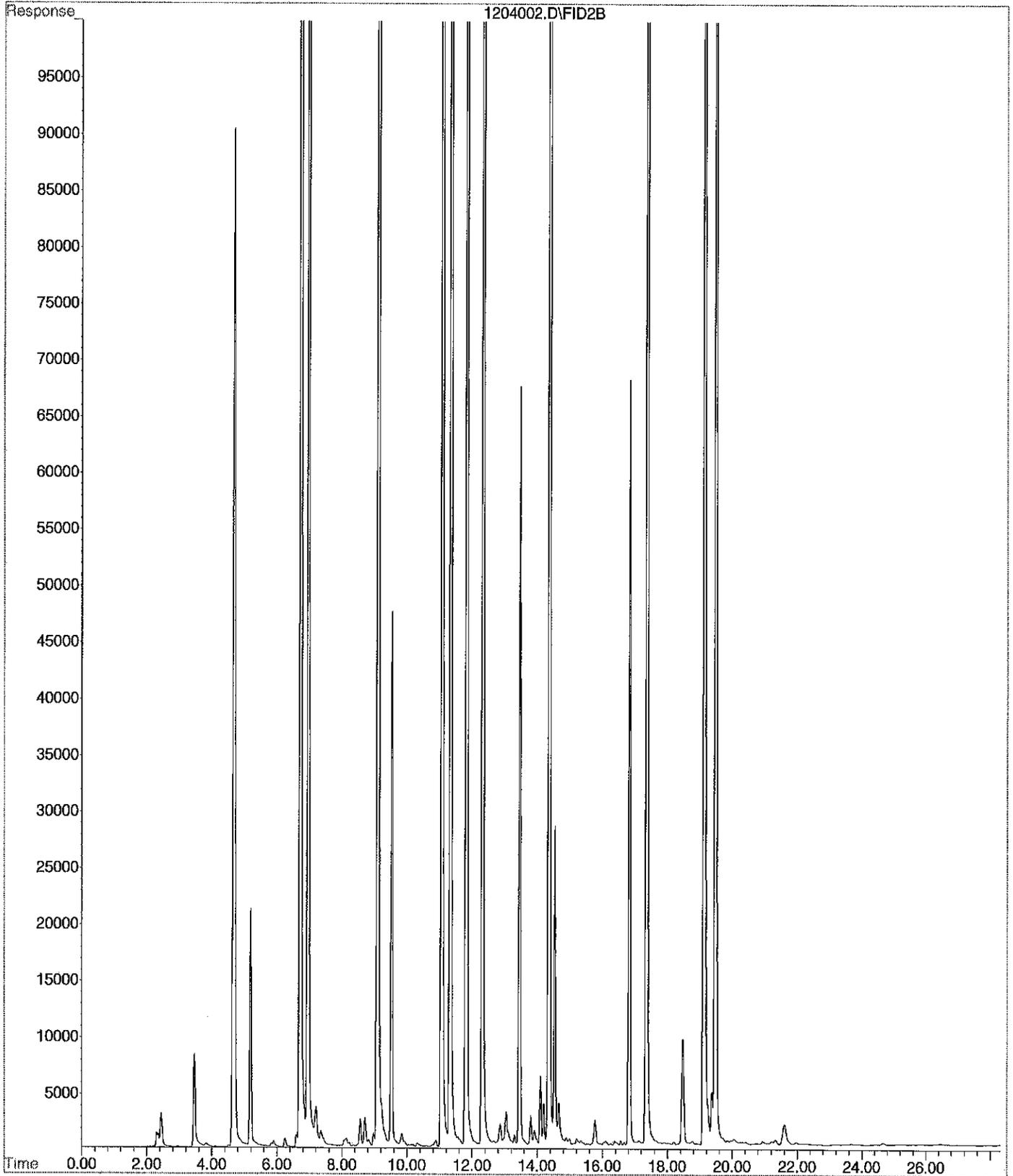
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.95	3027573	43.654 PPB
5) S BROMOFLUOROBENZENE	12.31	1809964	44.644 PPB
11) S FLUOROBENZENE #2	6.95	8124787	36.610 PPB
16) S BROMOFLUOROBENZENE #2	12.31	11428886	38.145 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	32642965	0.656 PPM
2) H Entire GAS Envelope (9-24-	12.21	56518622	0.854 PPM
3) H GASOLINE (9-24-14)	13.51	37300484	0.922 PPM
7) H entire GAS envelope #2 (9-	12.26	126425755	0.832 PPM
8) H GASOLINE #2 (9-24-14)	13.56	87201980	0.736 PPM
9) MTBE #2	4.67	4218760	57.727 PPB
10) BENZENE #2	6.71	15289262	52.055 PPB
12) TOLUENE #2	9.09	14616818	52.419 PPB
13) ETHYLBENZENE #2	11.06	12620984	51.277 PPB
14) m,p-XYLENE #2	11.32	15329243	52.301 PPB
15) o-XYLENE #2	11.81	12811321	50.936 PPB

12/5 ✓

File : X:\BTEX\DARYL\DATA\D141204\1204002.D  
Operator :  
Acquired : 4 Dec 2014 13:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1204B-1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141204\1204017.D\FID1A.CH      Vial: 17  
 Signal #2 : d:\btex\DATA\D141204\1204017.D\FID2B.CH  
 Acq On : 4 Dec 2014 22:08      Operator:  
 Sample : CCVD1204B-2      Inst : Daryl  
 Misc : V2-36-11,V2-36-14      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 4 22:36 2014      Quant Results File: 141012DB.RES

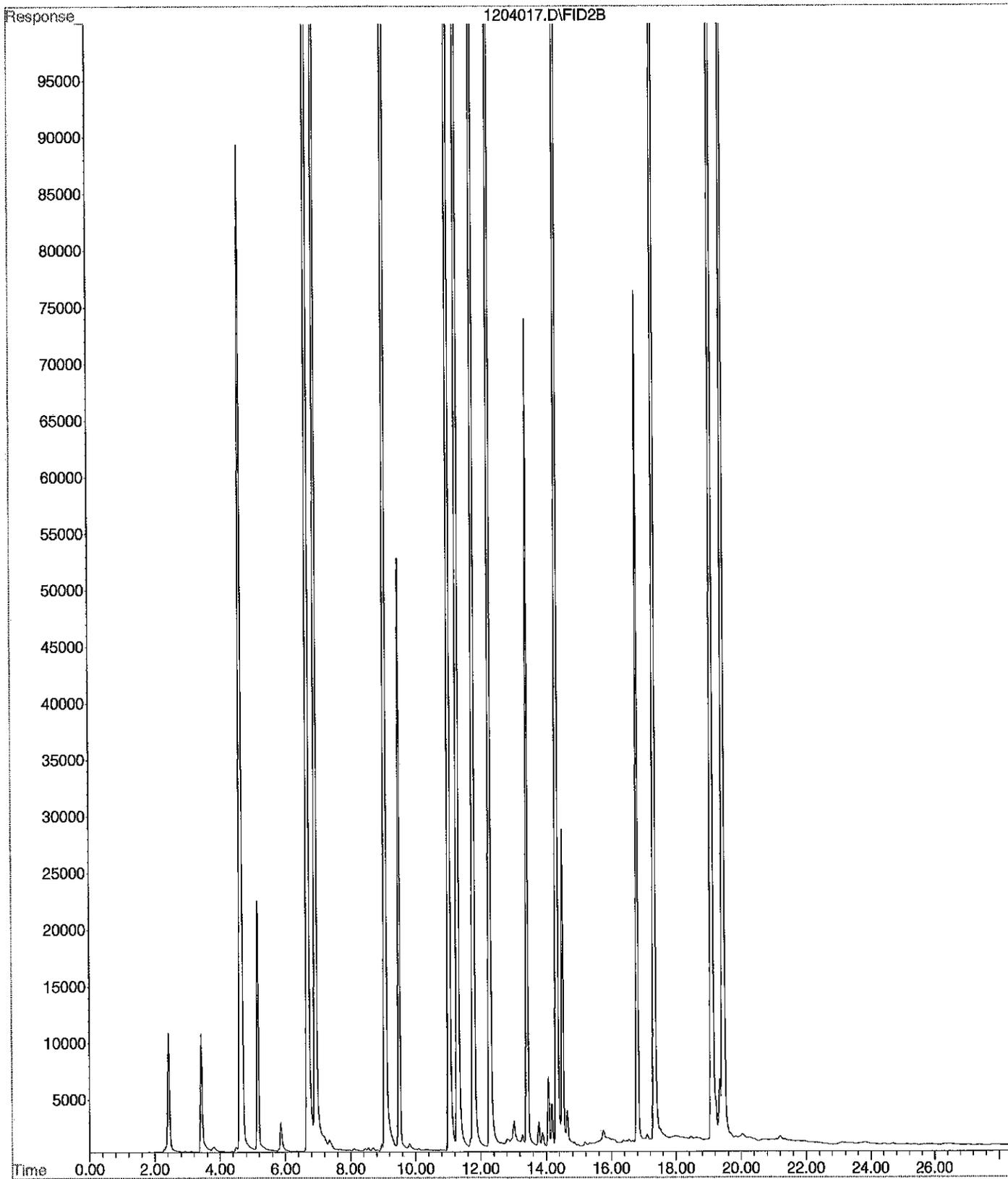
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.93	2928937	42.221 PPB
5) S BROMOFLUOROBENZENE	12.29	1758663	43.362 PPB
11) S FLUOROBENZENE #2	6.93	8295609	37.387 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11398208	38.042 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	31152491	0.626 PPM
2) H Entire GAS Envelope (9-24-	12.21	56183798	0.849 PPM
3) H GASOLINE (9-24-14)	13.51	37378811	0.924 PPM
7) H entire GAS envelope #2 (9-	12.26	133383788	0.880 PPM
8) H GASOLINE #2 (9-24-14)	13.56	89501884	0.757 PPM
9) MTBE #2	4.65	4171280	57.076 PPB
10) BENZENE #2	6.69	15399501	52.430 PPB
12) TOLUENE #2	9.07	14411524	51.680 PPB
13) ETHYLBENZENE #2	11.04	12640948	51.358 PPB
14) m,p-XYLENE #2	11.30	15163864	51.730 PPB
15) o-XYLENE #2	11.79	12798757	50.886 PPB

12/5 ✓

File : X:\BTEX\DARYL\DATA\D141204\1204017.D  
Operator :  
Acquired : 4 Dec 2014 22:08 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1204B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 17



Signal #1 : d:\btex\DATA\D141204\1204032.D\FID1A.CH Vial: 32  
 Signal #2 : d:\btex\DATA\D141204\1204032.D\FID2B.CH  
 Acq On : 5 Dec 2014 6:26 Operator:  
 Sample : CCVD1204B-3 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 6:54 2014 Quant Results File: 141012DB.RES

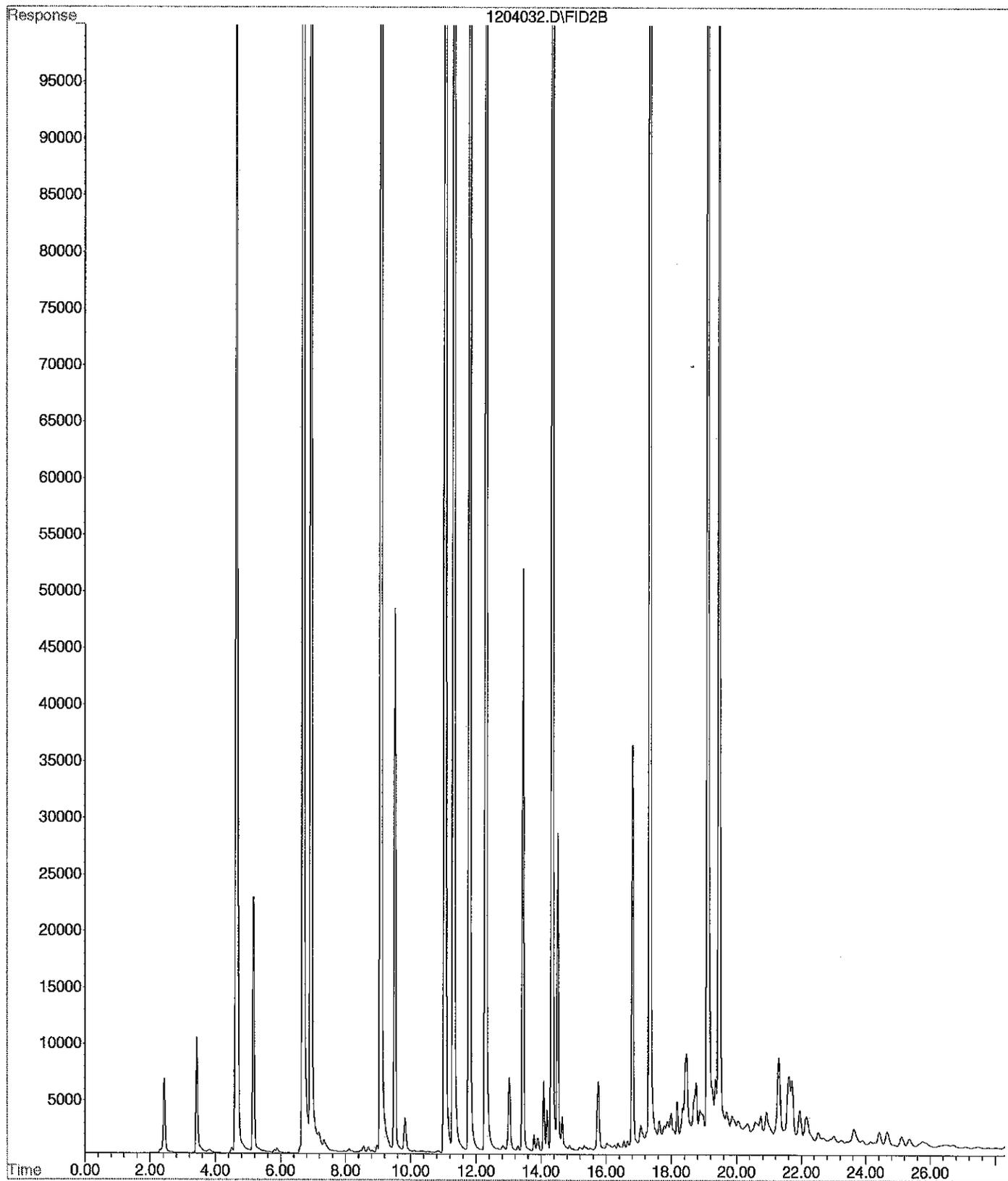
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.94	3000204	43.256 PPB
5) S BROMOFLUOROBENZENE	12.29	1765090	43.523 PPB
11) S FLUOROBENZENE #2	6.94	8299007	37.402 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11413887	38.095 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	30799591	0.619 PPM
2) H Entire GAS Envelope (9-24-	12.21	52885165	0.799 PPM
3) H GASOLINE (9-24-14)	13.51	33942362	0.837 PPM
7) H entire GAS envelope #2 (9-	12.26	126436802	0.832 PPM
8) H GASOLINE #2 (9-24-14)	13.56	86641785	0.731 PPM
9) MTBE #2	4.65	4821147	65.976 PPB
10) BENZENE #2	6.70	15619102	53.179 PPB
12) TOLUENE #2	9.08	14520688	52.073 PPB
13) ETHYLBENZENE #2	11.04	12778928	51.920 PPB
14) m,p-XYLENE #2	11.31	15241926	52.000 PPB
15) o-XYLENE #2	11.79	12789692	50.850 PPB

2/5

File : X:\BTEX\DARYL\DATA\D141204\1204032.D  
Operator :  
Acquired : 5 Dec 2014 6:26 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1204B-3  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 32



Signal #1 : d:\btex\DATA\D141204\1204001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141204\1204001.D\FID2B.CH  
 Acq On : 4 Dec 2014 12:55 Operator:  
 Sample : CCVD1204G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 4 13:24 2014 Quant Results File: 141012DB.RES

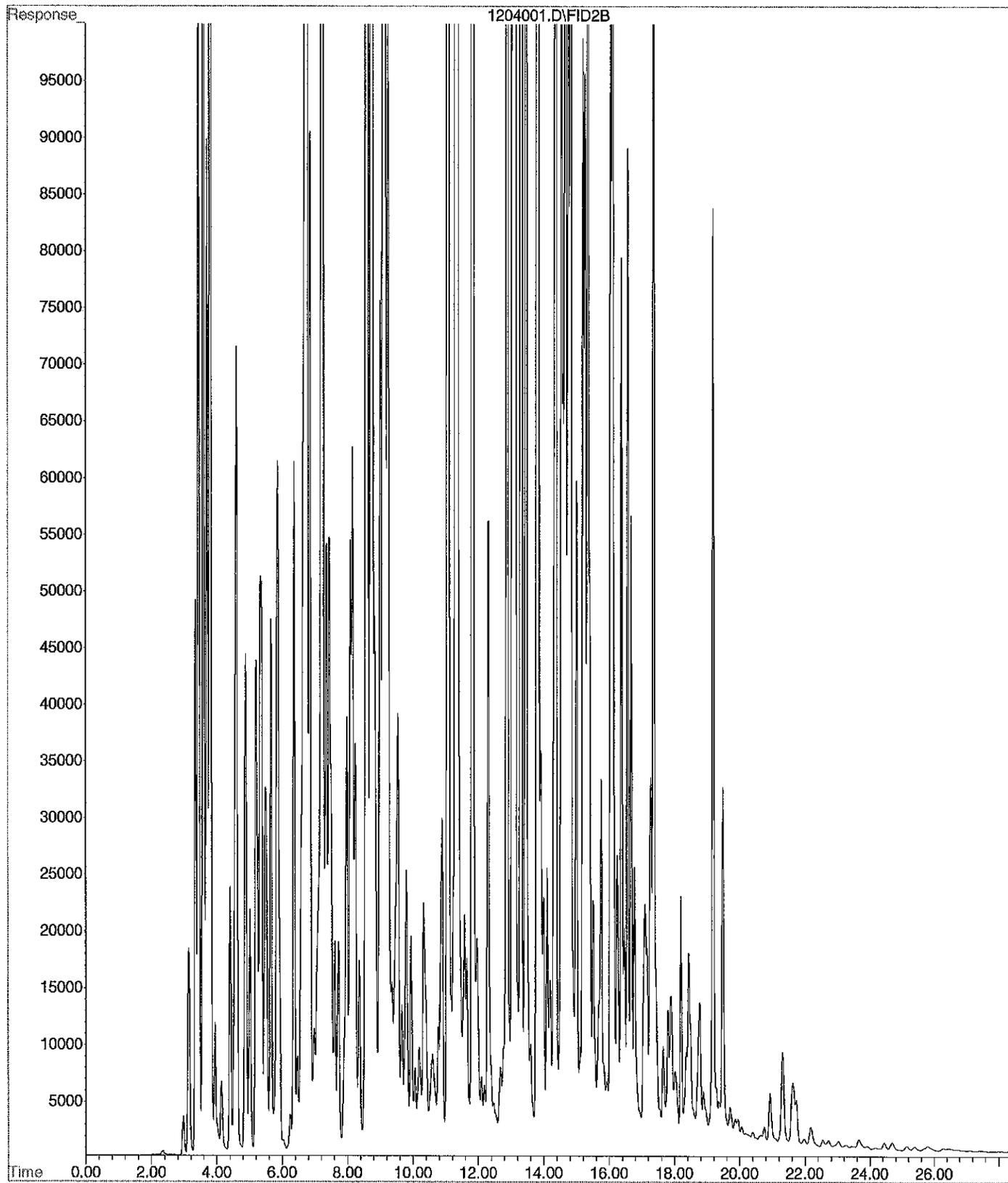
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.85	7412144	107.354	PPB
5) S BROMOFLUOROBENZENE	12.30	1223056	29.981	PPB
11) S FLUOROBENZENE #2	6.98	478771	1.846	PPB
16) S BROMOFLUOROBENZENE #2	12.30	2448495	7.809	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	281295549	5.707	PPM
2) H Entire GAS Envelope (9-24-	12.21	380688553	5.820	PPM
3) H GASOLINE (9-24-14)	13.51	216381528	5.452	PPM
7) H entire GAS envelope #2 (9-	12.26	706279050	4.871	PPM
8) H GASOLINE #2 (9-24-14)	13.56	532115281	4.791	PPM
9) MTBE #2	4.60	3829675	52.398	PPB
10) BENZENE #2	6.72	47570951	162.056	PPB
12) TOLUENE #2	9.10	122815681	441.757	PPB
13) ETHYLBENZENE #2	11.06	29887489	121.588	PPB
14) m,p-XYLENE #2	11.32	109490642	376.924	PPB
15) o-XYLENE #2	11.81	41406137	165.222	PPB

12/5 ✓

File : X:\BTEX\DARYL\DATA\D141204\1204001.D  
Operator :  
Acquired : 4 Dec 2014 12:55 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1204G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141204\1204033.D\FID1A.CH Vial: 33  
 Signal #2 : d:\btex\DATA\D141204\1204033.D\FID2B.CH  
 Acq On : 5 Dec 2014 6:59 Operator:  
 Sample : CCVD1204G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 7:28 2014 Quant Results File: 141012DB.RES

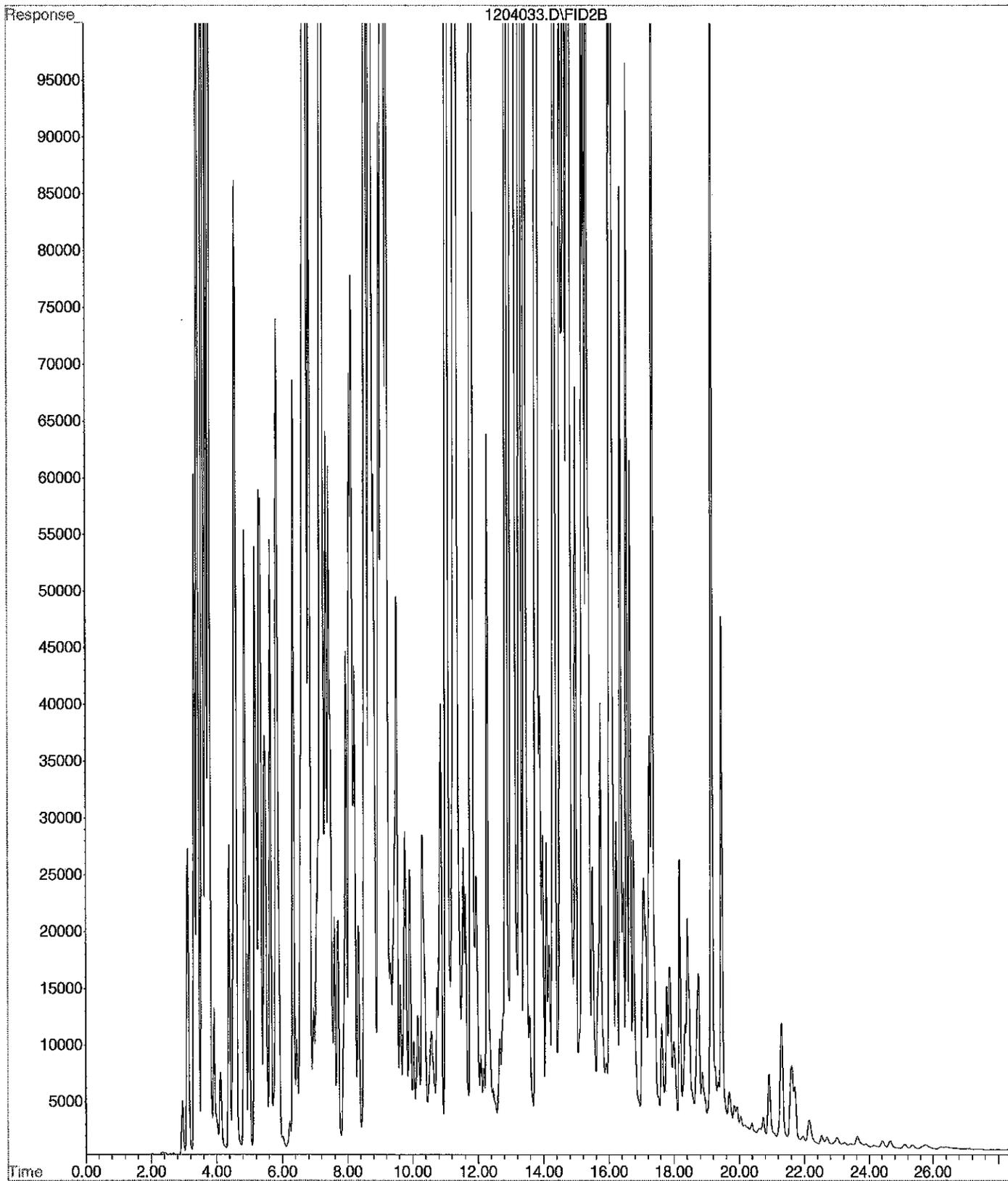
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.28	1420691	34.919	PPB
11) S FLUOROBENZENE #2	6.96	565514	2.241	PPB
16) S BROMOFLUOROBENZENE #2	12.28	2902935	9.344	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	316302896	6.419	PPM
2) H Entire GAS Envelope (9-24-	12.21	425836599	6.512	PPM
3) H GASOLINE (9-24-14)	13.51	235462438	5.935	PPM
7) H entire GAS envelope #2 (9-	12.26	769762413	5.313	PPM
8) H GASOLINE #2 (9-24-14)	13.56	570022503	5.137	PPM
9) MTBE #2	4.58	4728838	64.712	PPB
10) BENZENE #2	6.70	51338112	174.893	PPB
12) TOLUENE #2	9.08	127516199	458.671	PPB
13) ETHYLBENZENE #2	11.05	31745948	129.156	PPB
14) m,p-XYLENE #2	11.30	113994482	392.451	PPB
15) o-XYLENE #2	11.80	43844762	174.968	PPB

12/5 ✓

File : X:\BTEX\DARYL\DATA\D141204\1204033.D  
Operator :  
Acquired : 5 Dec 2014 6:59 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1204G-2  
Misc Info : V2-36-08  
Vial Number: 33



## NWTPH-Diesel Data

Data File : 1205-T65.D  
 Sample : 12-034-01

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 21:10  
 Operator : ZT  
 Misc :  
 ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 21:45:50 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.659f	107837358	34.814	PPM
Spiked Amount 50.000		Recovery =	69.63%	
Target Compounds				
2) H Gasoline	4.000	5364173	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	6813213	N.D.	PPM
4) H Diesel Fuel #2 (01-1...	14.000	5904174	N.D.	PPM
5) H Oil (02-24-14)	22.000	47385199	0.441	PPM
6) H Oil Acid Clean (02-...	22.000	47385199	1.307	PPM
7) H Diesel Fuel #2 Combo ...	14.000	5512356	N.D.	PPM
8) H Oil Combo (02-24-14)	22.000	47029245	0.697	PPM
9) H Oil Acid Clean Combo ...	22.000	47029245	1.574	PPM
10) H Oil MO Combo (02-24-14)	22.000	46690787	0.840	PPM
11) H Oil Acid Clean MO Com...	22.000	46690787	1.681	PPM
12) H Alaska 102 DF2 (05-29...	13.025	6523279	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	16478985	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	6877450	N.D.	PPM
15) H Mineral Oil Combo (0...	16.000	3859073	N.D.	PPM
-----				

(f)=RT Delta > 1/2 Window

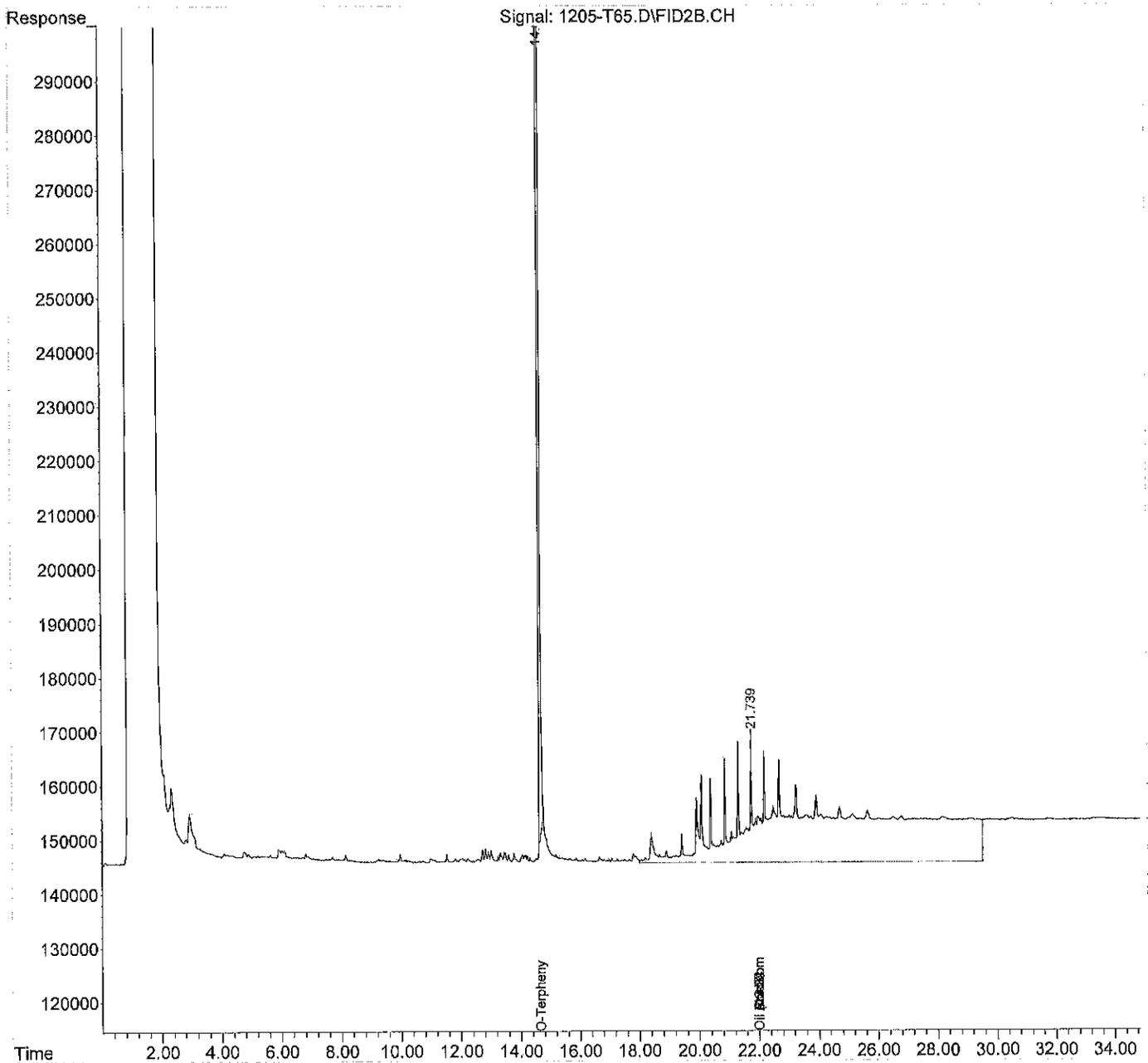
(m)=manual int.

Data File : 1205-T65.D  
Sample : 12-034-01

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
Signal(s) : FID2B.CH  
Acq On : 05 Dec 2014 21:10  
Operator : ZT  
Misc :  
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 21:45:50 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1208-T54.D  
 Sample : 12-034-02 RR

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 08 Dec 2014 12:13  
 Operator : ZT  
 Misc :  
 ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 08 12:48:34 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.660f	151792616	49.071 PPM
Spiked Amount 50.000		Recovery =	98.14%
Target Compounds			
2) H Gasoline	4.000	7325047	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	150202994	58.432 PPM
4) H Diesel Fuel #2 (01-1...	14.000	187435359	77.351 PPM
5) H Oil (02-24-14)	22.000	155097489	55.692 PPM
6) H Oil Acid Clean (02-...	22.000	155097489	57.039 PPM
7) H Diesel Fuel #2 Combo ...	14.000	172335538	72.817 PPM
8) H Oil Combo (02-24-14)	22.000	130552591	44.430 PPM
9) H Oil Acid Clean Combo ...	22.000	130552591	45.726 PPM
10) H Oil MO Combo (02-24-14)	22.000	117518923	39.255 PPM
11) H Oil Acid Clean MO Com...	22.000	117518923	40.465 PPM
12) H Alaska 102 DF2 (05-29...	13.025	185243911	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	75328223	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	181056193	65.910 PPM
15) H Mineral Oil Combo (0...	16.000	151032890	58.105 PPM

(f)=RT Delta > 1/2 Window

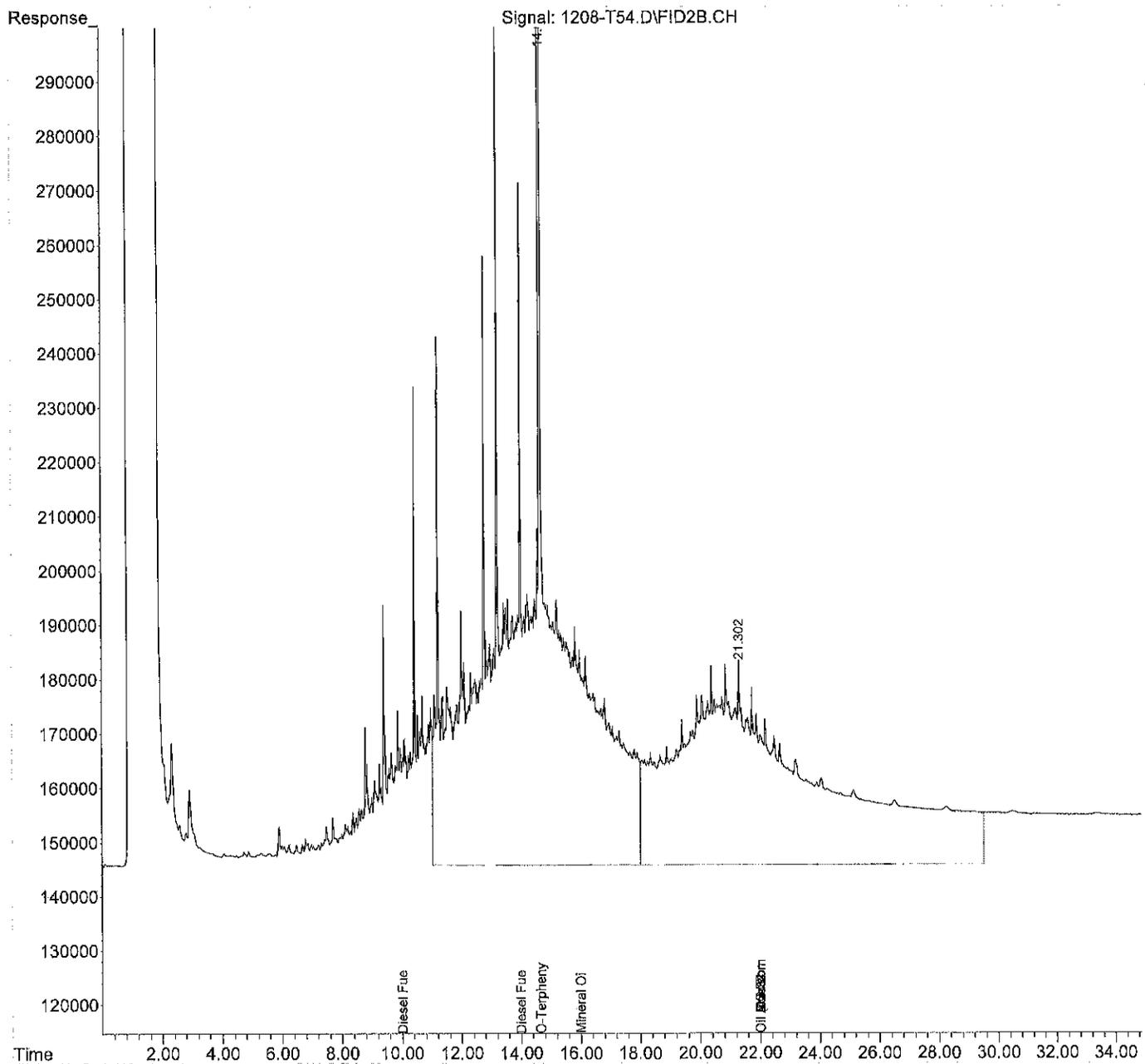
(m)=manual int.

Data File : 1208-T54.D  
Sample : 12-034-02 RR

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
Signal(s) : FID2B.CH  
Acq On : 08 Dec 2014 12:13  
Operator : ZT  
Misc :  
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 08 12:48:34 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T60.D  
 Sample : MB1205S1 ACU

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 17:38  
 Operator : ZT  
 Misc :  
 ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 18:14:02 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.671f	140630280	45.450	PPM
Spiked Amount 50.000		Recovery =	90.90%	
Target Compounds				
2) H Gasoline	4.000	5481627	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	6076624	N.D.	PPM
4) H Diesel Fuel #2 (01-1...	14.000	5166271	N.D.	PPM
5) H Oil (02-24-14)	22.000	39080237	N.D.	PPM
6) H Oil Acid Clean (02-...	22.000	39080237	N.D.	PPM
7) H Diesel Fuel #2 Combo ...	14.000	4828368	N.D.	PPM
8) H Oil Combo (02-24-14)	22.000	38628877	N.D.	PPM
9) H Oil Acid Clean Combo ...	22.000	38628877	N.D.	PPM
10) H Oil MO Combo (02-24-14)	22.000	38328217	N.D.	PPM
11) H Oil Acid Clean MO Com...	22.000	38328217	N.D.	PPM
12) H Alaska 102 DF2 (05-29...	13.025	5812708	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	12239617	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	4476225	N.D.	PPM
15) H Mineral Oil Combo (0...	16.000	3181735	N.D.	PPM

(f)=RT Delta > 1/2 Window

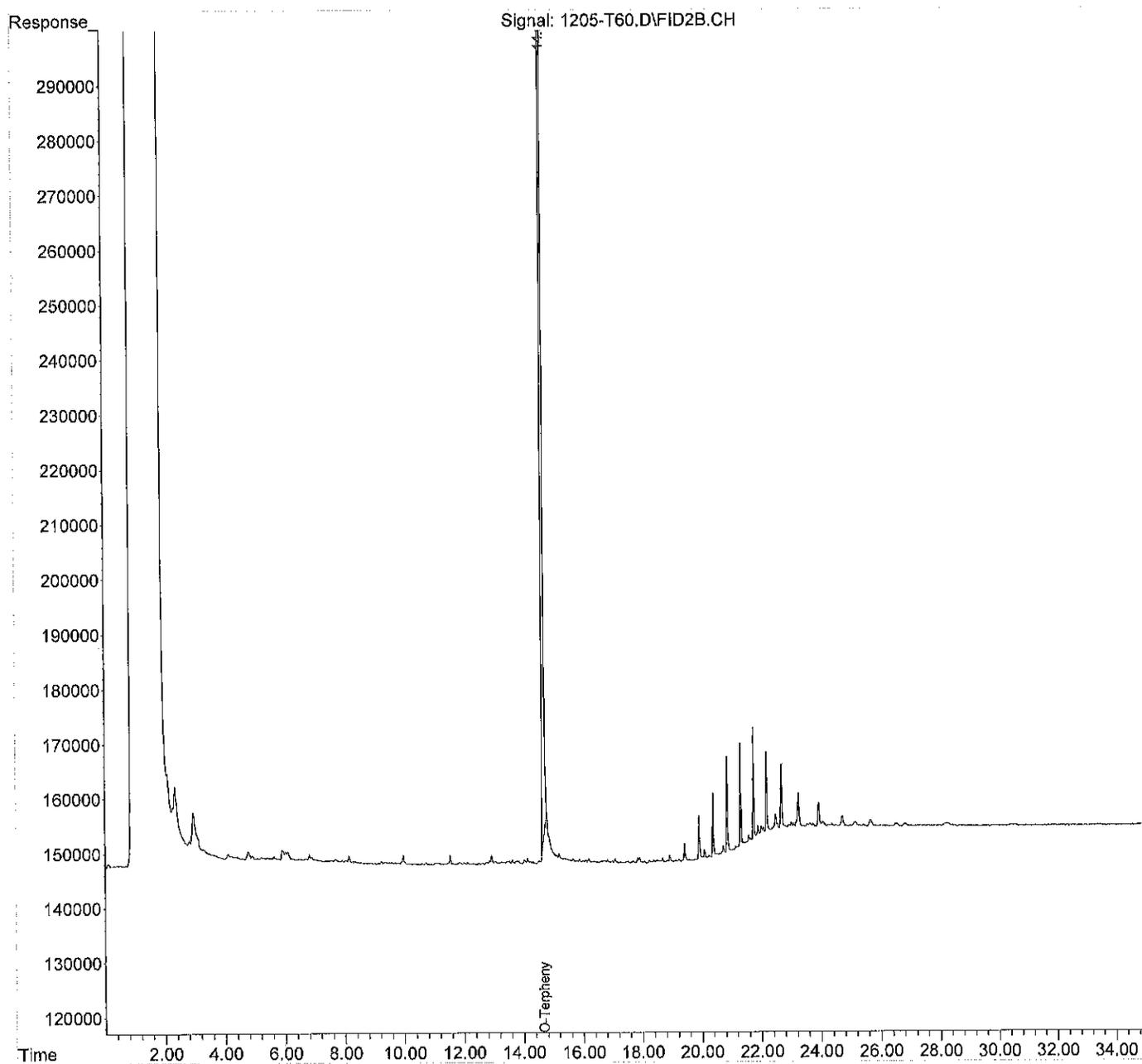
(m)=manual int.

Data File : 1205-T60.D  
Sample : MB1205S1 ACU

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
Signal(s) : FID2B.CH  
Acq On : 05 Dec 2014 17:38  
Operator : ZT  
Misc :  
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 18:14:02 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T62.D  
 Sample : 12-022-01

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 19:03  
 Operator : ZT  
 Misc :  
 ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 19:38:56 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.666f	147295914	47.612	PPM
Spiked Amount 50.000		Recovery =	95.22%	
Target Compounds				
2) H Gasoline	4.000	5524128	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	7150419	N.D.	PPM
4) H Diesel Fuel #2 (01-1...	14.000	9089244	0.535	PPM
5) H Oil (02-24-14)	22.000	56147688	4.936	PPM
6) H Oil Acid Clean (02-...	22.000	56147688	5.841	PPM
7) H Diesel Fuel #2 Combo ...	14.000	7036061	N.D.	PPM
8) H Oil Combo (02-24-14)	22.000	54547023	4.634	PPM
9) H Oil Acid Clean Combo ...	22.000	54547023	5.548	PPM
10) H Oil MO Combo (02-24-14)	22.000	52834434	4.172	PPM
11) H Oil Acid Clean MO Com...	22.000	52834434	5.045	PPM
12) H Alaska 102 DF2 (05-29...	13.025	9216011	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	24469888	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	13910196	2.299	PPM
15) H Mineral Oil Combo (0...	16.000	7184481	0.988	PPM

(f)=RT Delta > 1/2 Window

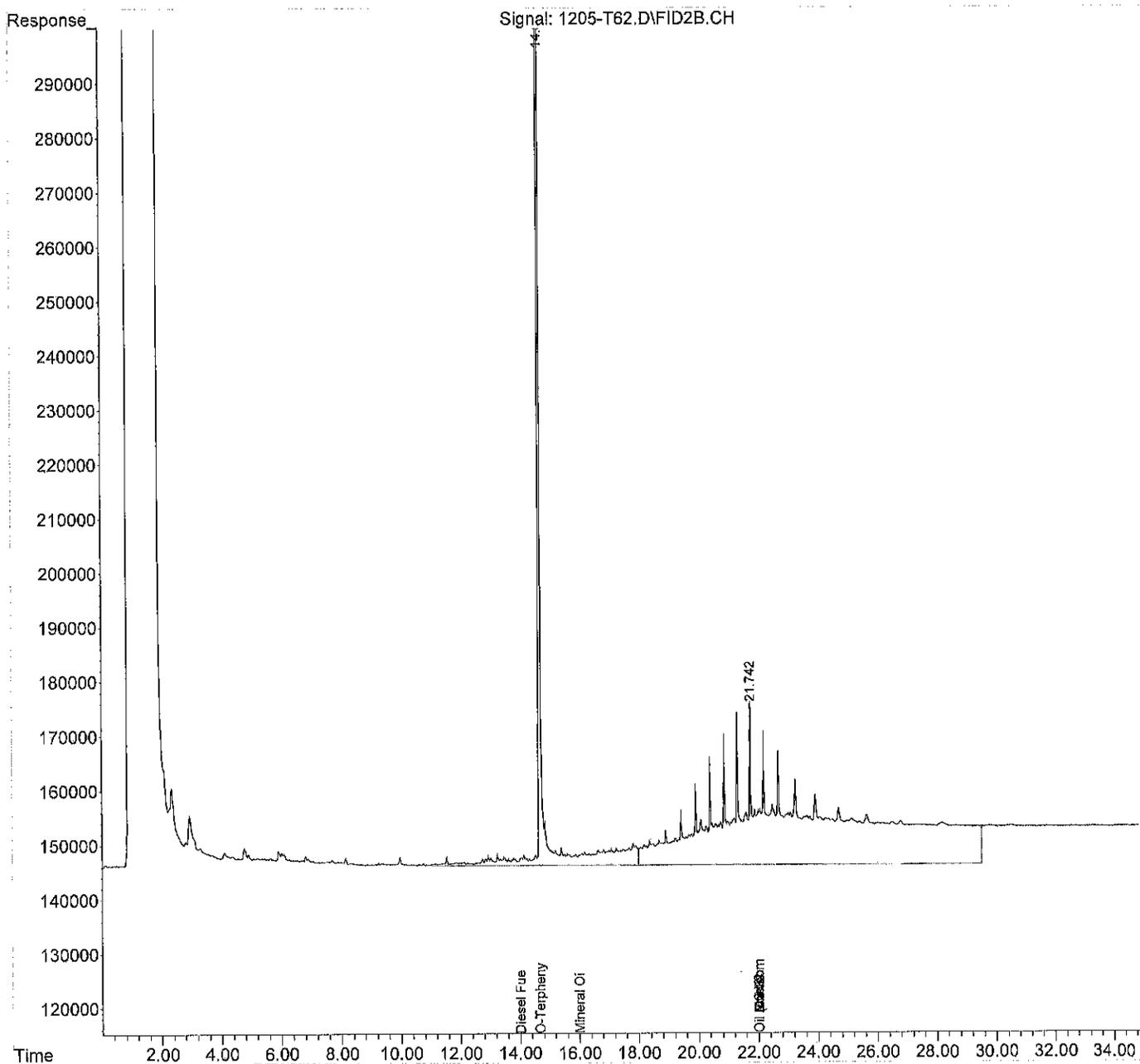
(m)=manual int.

Data File : 1205-T62.D  
Sample : 12-022-01

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
Signal(s) : FID2B.CH  
Acq On : 05 Dec 2014 19:03  
Operator : ZT  
Misc :  
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 19:38:56 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T63.D  
 Sample : 12-022-01 DUP

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 19:45  
 Operator : ZT  
 Misc :  
 ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 20:21:12 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.666f	135580634	43.812	PPM
Spiked Amount 50.000		Recovery =	87.62%	
Target Compounds				
2) H Gasoline	4.000	5957910	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	8753652	N.D.	PPM
4) H Diesel Fuel #2 (01-1...	14.000	10869854	1.302	PPM
5) H Oil (02-24-14)	22.000	53414120	3.534	PPM
6) H Oil Acid Clean (02-...	22.000	53414120	4.426	PPM
7) H Diesel Fuel #2 Combo ...	14.000	8696347	0.536	PPM
8) H Oil Combo (02-24-14)	22.000	51579028	3.080	PPM
9) H Oil Acid Clean Combo ...	22.000	51579028	3.979	PPM
10) H Oil MO Combo (02-24-14)	22.000	49752487	2.501	PPM
11) H Oil Acid Clean MO Com...	22.000	49752487	3.357	PPM
12) H Alaska 102 DF2 (05-29...	13.025	11064771	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	21602980	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	14566570	2.548	PPM
15) H Mineral Oil Combo (0...	16.000	8284648	1.424	PPM

(f)=RT Delta > 1/2 Window

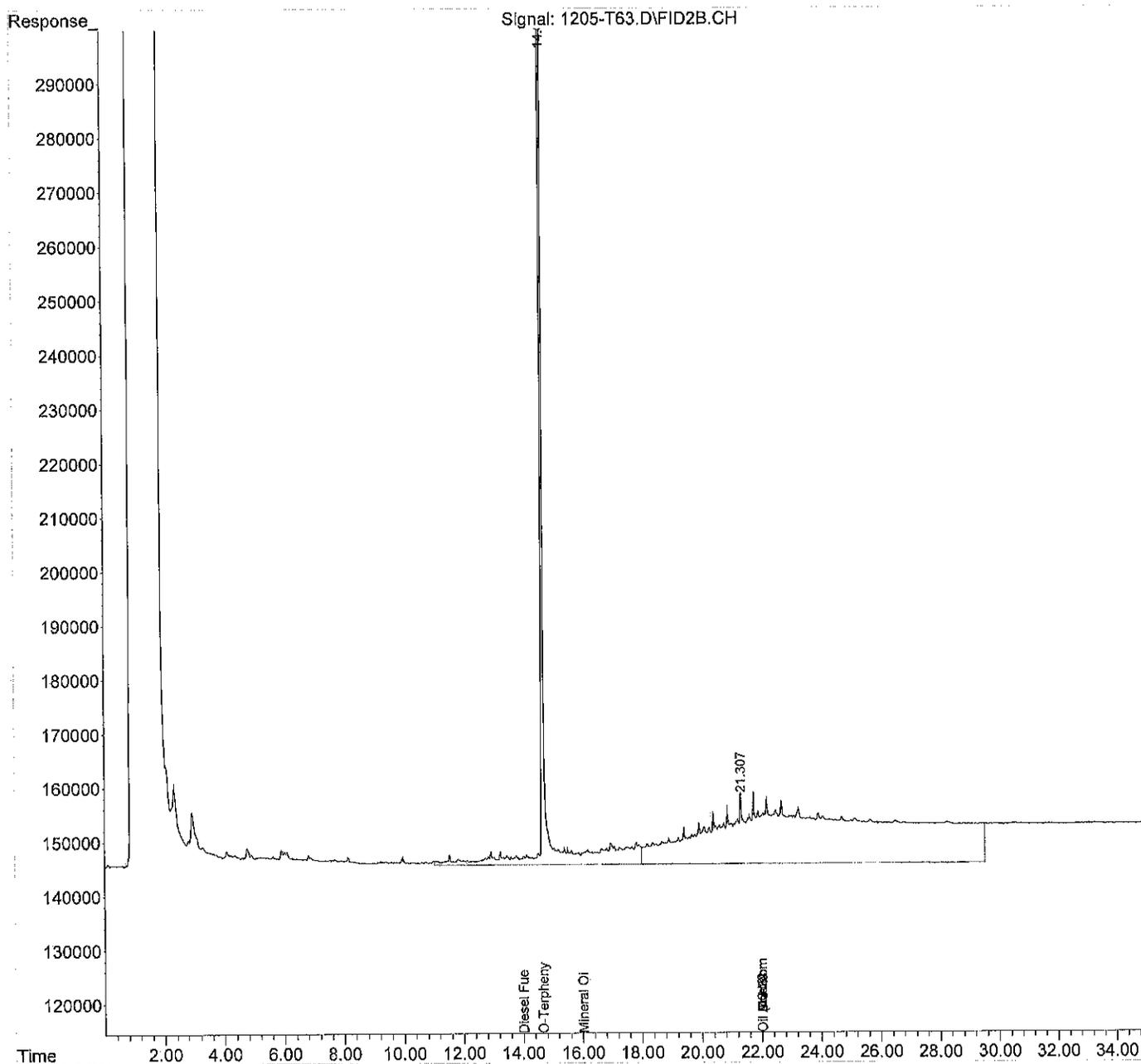
(m)=manual int.

Data File : 1205-T63.D  
Sample : 12-022-01 DUP

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
Signal(s) : FID2B.CH  
Acq On : 05 Dec 2014 19:45  
Operator : ZT  
Misc :  
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 20:21:12 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T58.D  
 Sample : CCV1205R-T2

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 16:13  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 16:49:08 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.650f	2112658	0.523	PPM
Spiked Amount 50.000		Recovery =	1.05%	
Target Compounds				
2) H Gasoline	4.000	30527222	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	237956679	96.259	PPM
4) H Diesel Fuel #2 (01-1...	14.000	238933858	99.533	PPM
5) H Oil (02-24-14)	22.000	55027934	4.361	PPM
6) H Oil Acid Clean (02-...	22.000	55027934	5.261	PPM
7) H Diesel Fuel #2 Combo ...	14.000	234658841	100.345	PPM
8) H Oil Combo (02-24-14)	22.000	42950499	N.D.	PPM
9) H Oil Acid Clean Combo ...	22.000	42950499	N.D.	PPM
10) H Oil MO Combo (02-24-14)	22.000	39022510	N.D.	PPM
11) H Oil Acid Clean MO Com...	22.000	39022510	N.D.	PPM
12) H Alaska 102 DF2 (05-29...	13.025	244655285	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	11720751	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	152382107	54.998	PPM
15) H Mineral Oil Combo (0...	16.000	149700719	57.576	PPM

(f)=RT Delta > 1/2 Window

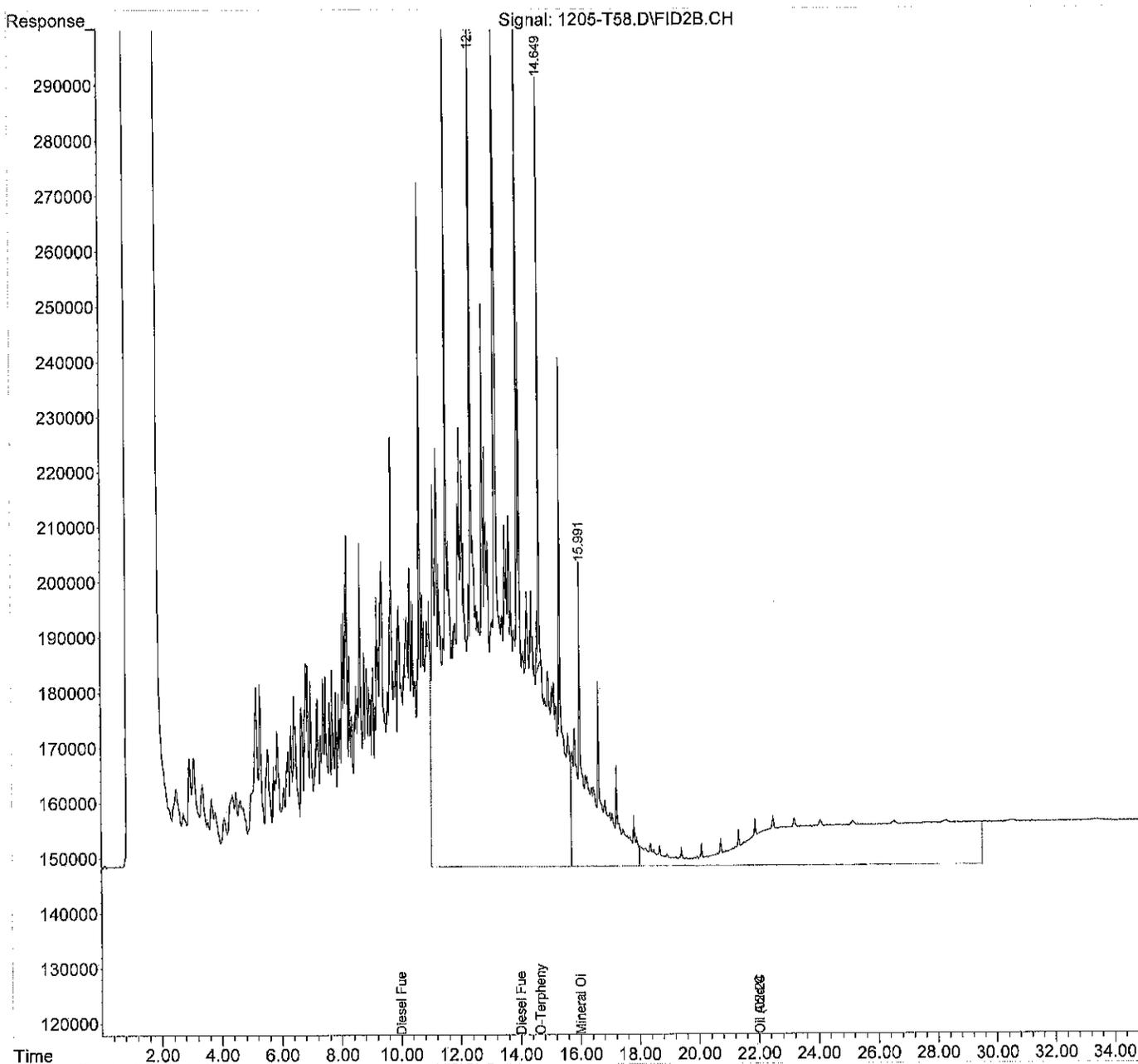
(m)=manual int.

Data File : 1205-T58.D  
 Sample : CCV1205R-T2

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 16:13  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 16:49:08 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :



Data File : 1205-T68.D  
 Sample : CCV1205R-T3

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 23:17  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 23:52:57 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	4.000	29219218	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	234477653	94.759	PPM
4) H Diesel Fuel #2 (01-1...	14.000	235617663	98.104	PPM
5) H Oil (02-24-14)	22.000	54688569	4.187	PPM
6) H Oil Acid Clean (02-...	22.000	54688569	5.086	PPM
7) H Diesel Fuel #2 Combo ...	14.000	231517967	98.958	PPM
8) H Oil Combo (02-24-14)	22.000	42949058	N.D.	PPM
9) H Oil Acid Clean Combo ...	22.000	42949058	N.D.	PPM
10) H Oil MO Combo (02-24-14)	22.000	39188906	N.D.	PPM
11) H Oil Acid Clean MO Com...	22.000	39188906	N.D.	PPM
12) H Alaska 102 DF2 (05-29...	13.025	241142799	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	12028798	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	151303275	54.587	PPM
15) H Mineral Oil Combo (0...	16.000	148676365	57.170	PPM

(f)=RT Delta > 1/2 Window

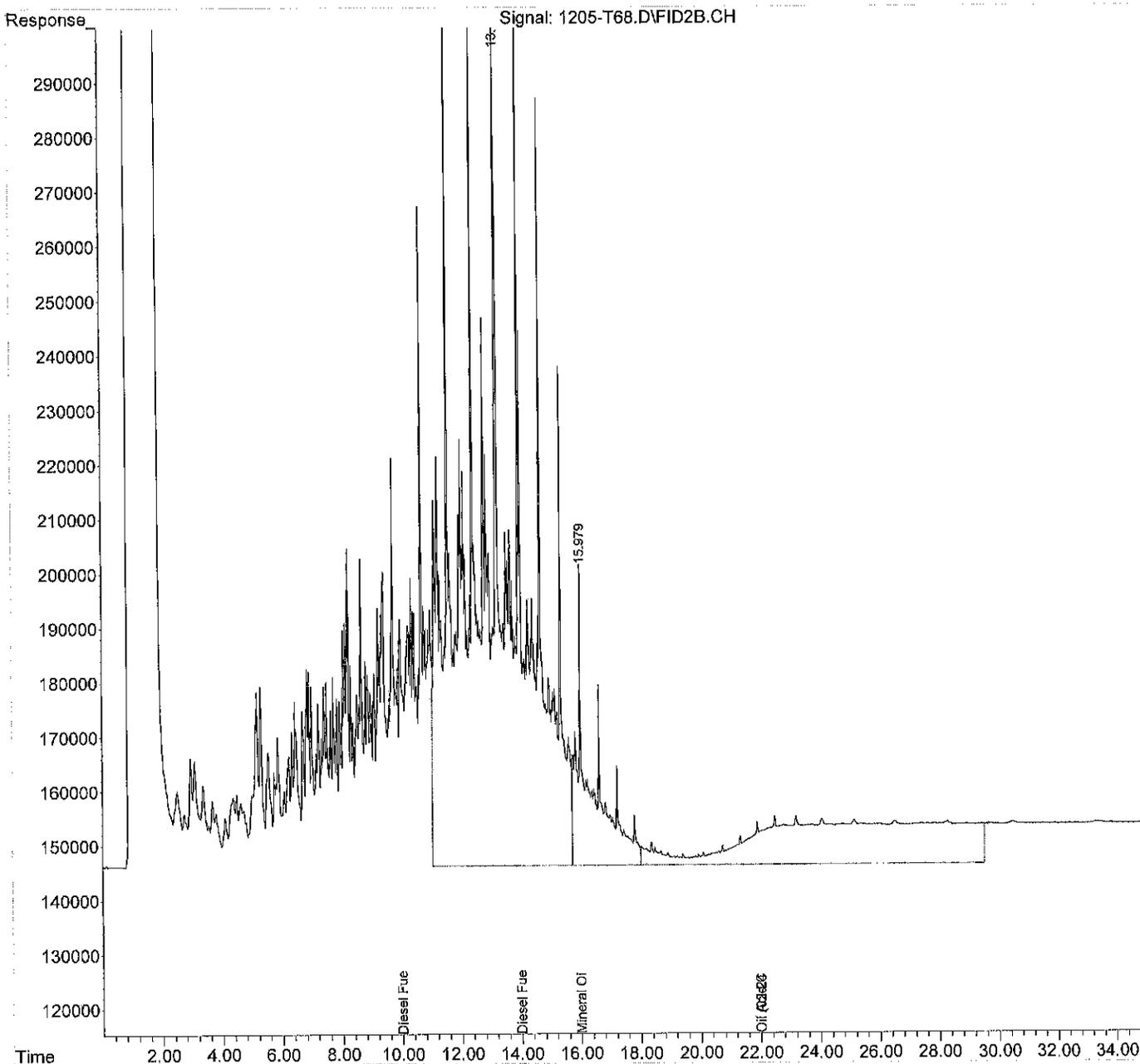
(m)=manual int.

Data File : 1205-T68.D  
Sample : CCV1205R-T3

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
Signal(s) : FID2B.CH  
Acq On : 05 Dec 2014 23:17  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 23:52:57 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1208-T51.D  
 Sample : CCV1208R-T1

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 08 Dec 2014 9:59  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 08 10:34:50 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	4.000	32435059	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	240444073	97.331	PPM
4) H Diesel Fuel #2 (01-1...	14.000	240433356	100.178	PPM
5) H Oil (02-24-14)	22.000	72940177	13.550	PPM
6) H Oil Acid Clean (02-...	22.000	72940177	14.529	PPM
7) H Diesel Fuel #2 Combo ...	14.000	235915898	100.901	PPM
8) H Oil Combo (02-24-14)	22.000	61397960	8.221	PPM
9) H Oil Acid Clean Combo ...	22.000	61397960	9.169	PPM
10) H Oil MO Combo (02-24-14)	22.000	57335562	6.614	PPM
11) H Oil Acid Clean MO Com...	22.000	57335562	7.510	PPM
12) H Alaska 102 DF2 (05-29...	13.025	246274371	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	18432974	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	153936231	55.589	PPM
15) H Mineral Oil Combo (0...	16.000	149217134	57.384	PPM

(f)=RT Delta > 1/2 Window

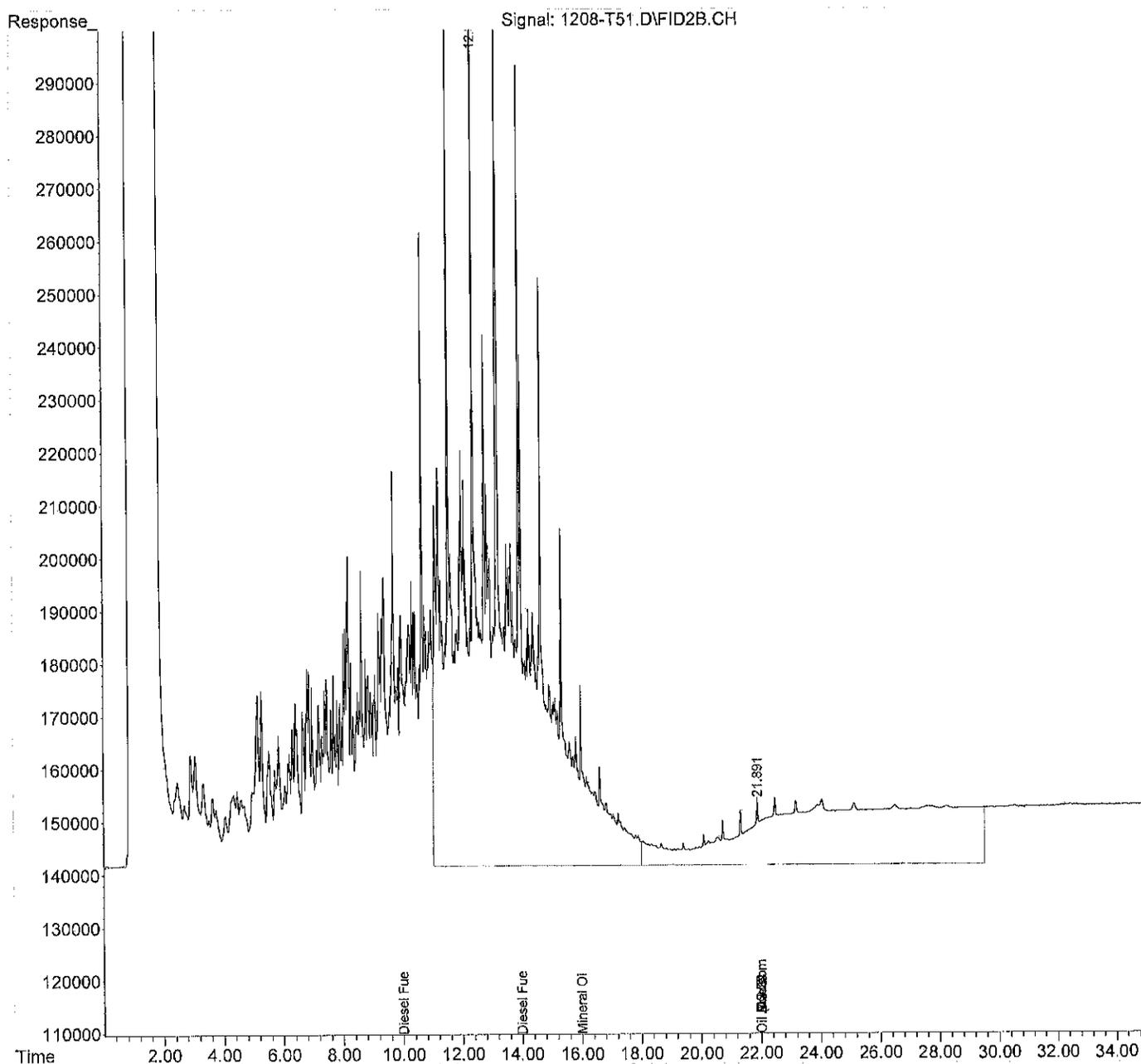
(m)=manual int.

Data File : 1208-T51.D  
 Sample : CCV1208R-T1

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 08 Dec 2014 9:59  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 08 10:34:50 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :



Data File : 1208-T57.D  
 Sample : CCV1208R-T2

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 08 Dec 2014 14:21  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 08 14:56:43 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	4.000	29521675	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	233737060	94.440	PPM
4) H Diesel Fuel #2 (01-1...	14.000	235261117	97.951	PPM
5) H Oil (02-24-14)	22.000	55525634	4.617	PPM
6) H Oil Acid Clean (02-...	22.000	55525634	5.519	PPM
7) H Diesel Fuel #2 Combo ...	14.000	230914254	98.691	PPM
8) H Oil Combo (02-24-14)	22.000	43581811	N.D.	PPM
9) H Oil Acid Clean Combo ...	22.000	43581811	N.D.	PPM
10) H Oil MO Combo (02-24-14)	22.000	39599300	N.D.	PPM
11) H Oil Acid Clean MO Com...	22.000	39599300	N.D.	PPM
12) H Alaska 102 DF2 (05-29...	13.025	240768515	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	12438970	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	151628061	54.711	PPM
15) H Mineral Oil Combo (0...	16.000	148613509	57.145	PPM

(f)=RT Delta > 1/2 Window

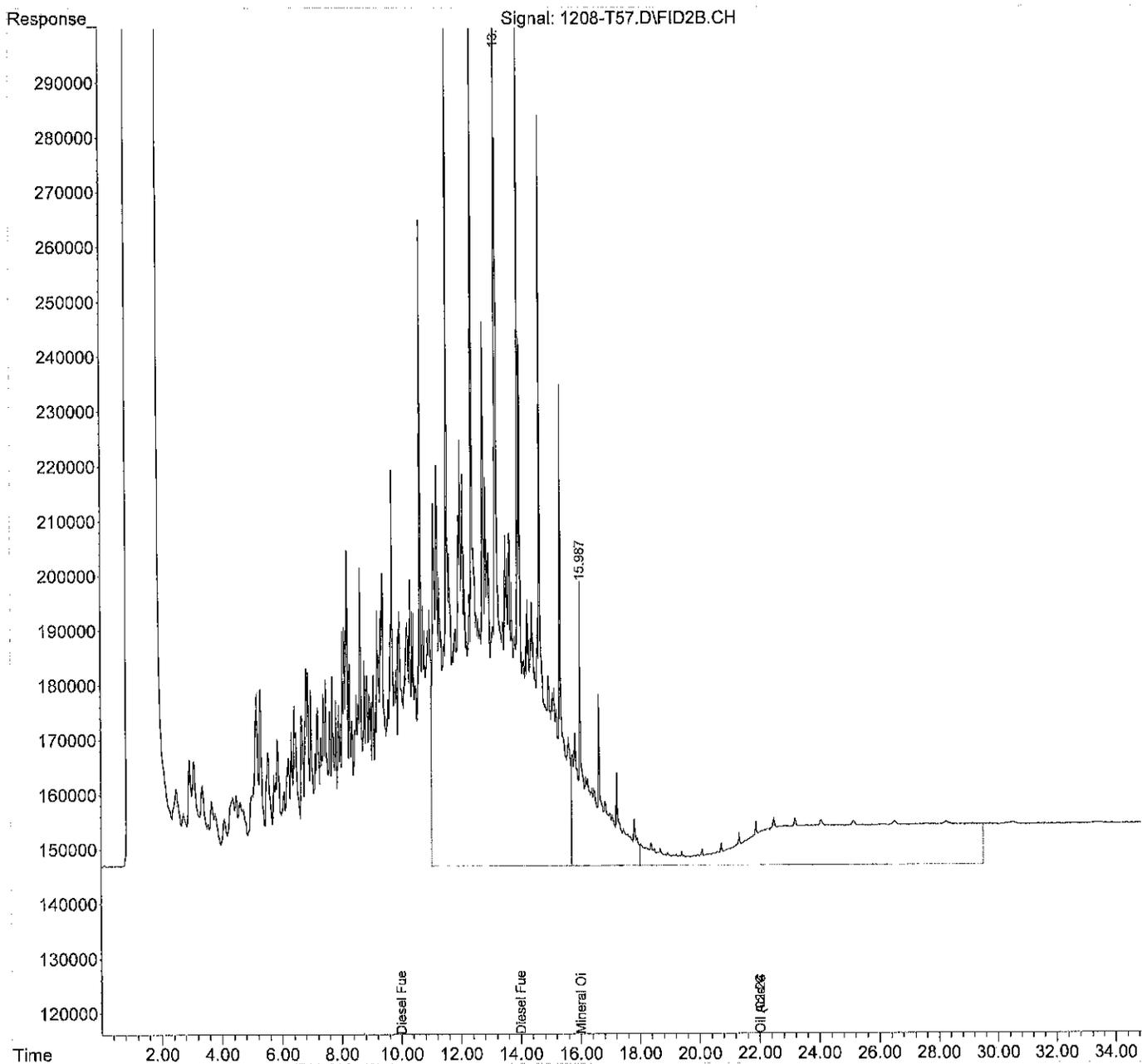
(m)=manual int.

Data File : 1208-T57.D  
Sample : CCV1208R-T2

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
Signal(s) : FID2B.CH  
Acq On : 08 Dec 2014 14:21  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 08 14:56:43 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



## PAHs Data

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205010.D  
 Acq On : 5 Dec 2014 12:11 pm  
 Operator :  
 Sample : 12-034-01  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 05 12:27:33 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

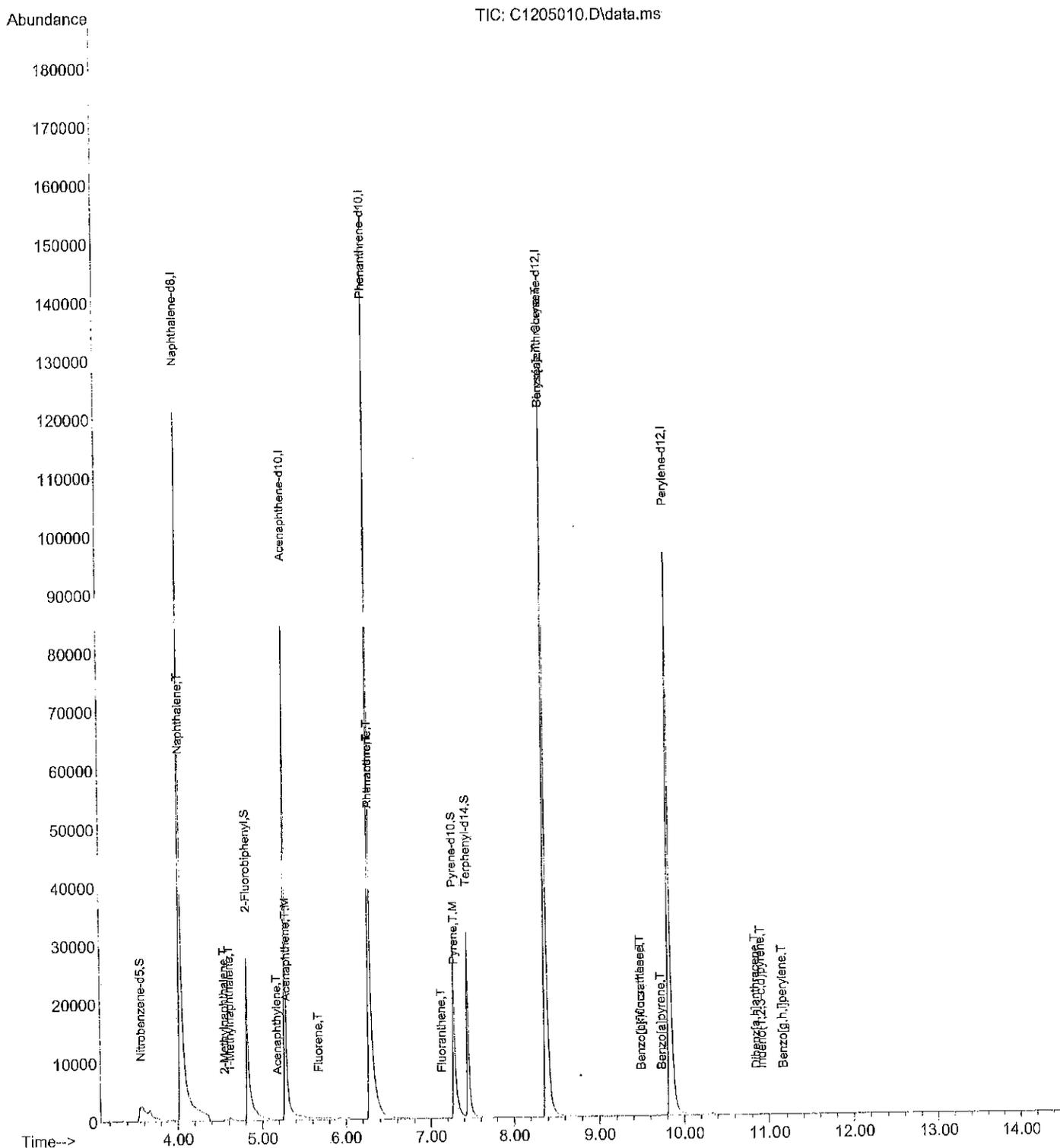
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.029	136	202698	2000.00	ppb	0.00
6) Acenaphthene-d10	5.280	164	111719	2000.00	ppb	0.00
10) Phenanthrene-d10	6.279	188	215989	2000.00	ppb	0.00
17) Chrysene-d12	8.377	240	206446	2000.00	ppb	0.00
21) Perylene-d12	9.829	264	188037	2000.00	ppb	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.565	82	8765	308.03	ppb	0.00
Spiked Amount	1000.000	Range 24 - 92	Recovery =	30.80%		
7) 2-Fluorobiphenyl	4.821	172	61015	690.02	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery =	69.00%		
11) Pyrene-d10	7.277	212	54532	584.11	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery =	58.41%		
18) Terphenyl-d14	7.446	244	46554	519.73	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery =	51.97%		
Target Compounds						
3) Naphthalene	4.041	128	781	6.11	ppb	100
4) 2-Methylnaphthalene	4.556	142	598	10.30	ppb	100
5) 1-Methylnaphthalene	4.618	142	1827	18.53	ppb	100
8) Acenaphthylene	5.180	152	139	1.14	ppb	100
9) Acenaphthene	5.296	153	121	1.53	ppb	100
12) Fluorene	5.673	166	505	5.64	ppb	100
13) Phenanthrene	6.295	178	1710	<del>15.44</del> 13.21	ppb	100
14) Anthracene	6.295	178	1710	<del>16.84</del> 9	ppb	100
15) Fluoranthene	7.132	202	281	2.18	ppb	100
16) Pyrene	7.289	202	391	2.91	ppb	100
19) Benzo[a]anthracene	8.373	228	850	<del>9.02</del> 5.30	ppb	100
20) Chrysene	8.373	228	850	<del>7.23</del> 0	ppb	100
22) Benzo[b]fluoranthene	9.493	252	199	2.69	ppb	100
23) Benzo[j,k]fluoranthene	9.493	252	199	<del>1.47</del> 0	ppb	100
24) Benzo[a]pyrene	9.735	252	81	0.82	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.922	276	128	1.06	ppb	100
26) Dibenz[a,h]anthracene	10.856	278	8	0.08	ppb	100
27) Benzo[g,h,i]perylene	11.160	276	191	1.90	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/5/14  
 gmm

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205010.D  
 Acq On : 5 Dec 2014 12:11 pm  
 Operator :  
 Sample : 12-034-01  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 05 12:27:33 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205021.D  
 Acq On : 5 Dec 2014 4:14 pm  
 Operator :  
 Sample : 12-034-02  
 Misc :  
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 05 16:29:04 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

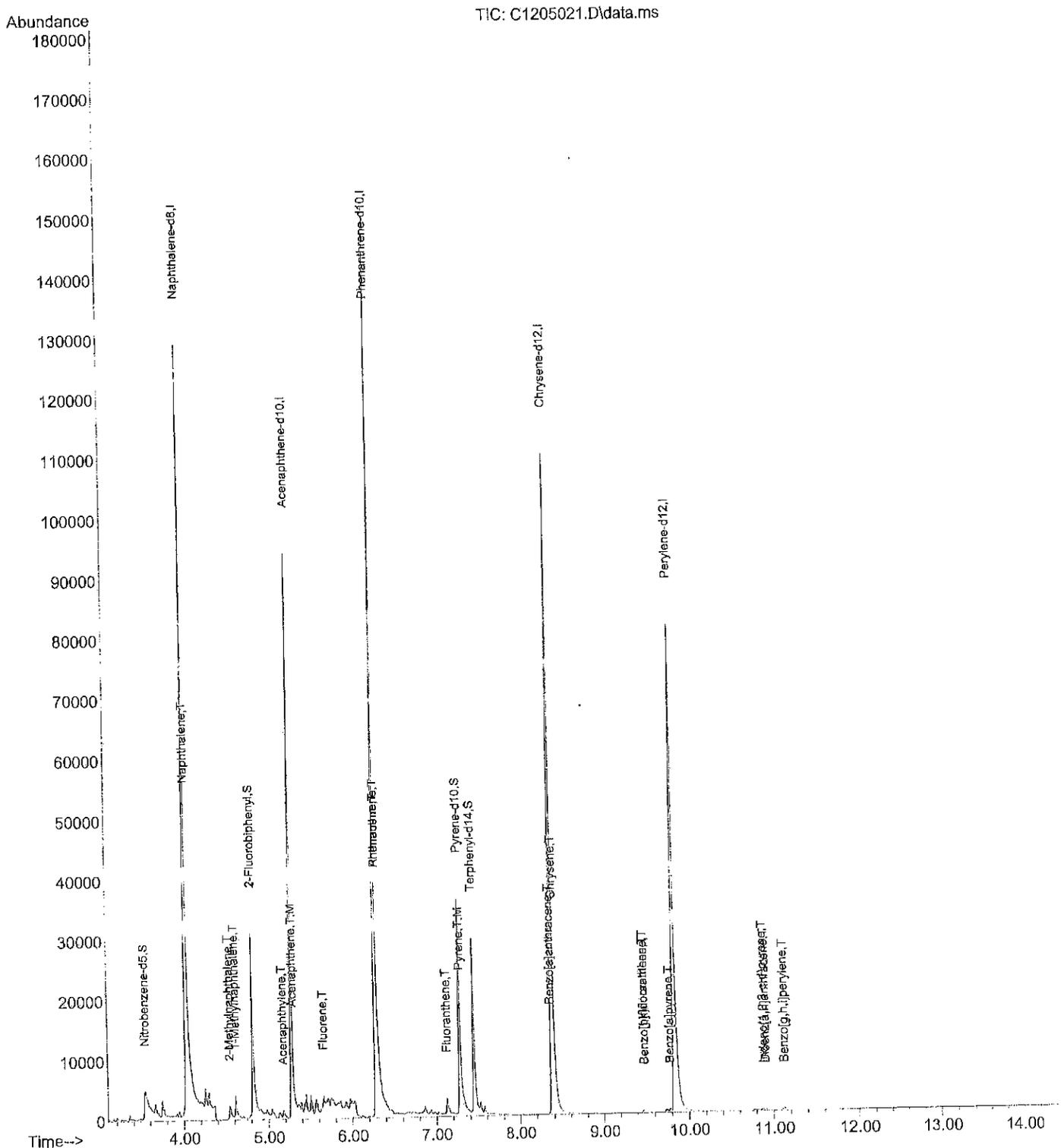
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.029	136	166681	2000.00	ppb	0.00
6) Acenaphthene-d10	5.279	164	96906	2000.00	ppb	0.00
10) Phenanthrene-d10	6.279	188	183905	2000.00	ppb	0.00
17) Chrysene-d12	8.377	240	172190	2000.00	ppb	0.00
21) Perylene-d12	9.829	264	158494	2000.00	ppb	-0.01
<b>System Monitoring Compounds</b>						
2) Nitrobenzene-d5	3.542	82	12802	547.11	ppb	-0.02
Spiked Amount 1000.000	Range 24	- 92	Recovery =	54.71%		
7) 2-Fluorobiphenyl	4.821	172	40666	530.19	ppb	0.00
Spiked Amount 1000.000	Range 25	- 89	Recovery =	53.02%		
11) Pyrene-d10	7.277	212	47715	600.25	ppb	0.00
Spiked Amount 1000.000	Range 40	- 110	Recovery =	60.02%		
18) Terphenyl-d14	7.440	244	38875	520.35	ppb	-0.01
Spiked Amount 1000.000	Range 39	- 92	Recovery =	52.03%		
<b>Target Compounds</b>						
3) Naphthalene	4.041	128	11699	<del>111.36</del> <sup>90.73</sup> ppb	100	
4) 2-Methylnaphthalene	4.544	142	4310	90.32	ppb	100
5) 1-Methylnaphthalene	4.614	142	5975	73.68	ppb	100
8) Acenaphthylene	5.171	152	1705	16.15	ppb	100
9) Acenaphthene	5.294	153	1577	22.94	ppb	100
12) Fluorene	5.657	166	2709	35.51	ppb	100
13) Phenanthrene	6.295	178	5844	61.99	ppb	100
14) Anthracene	6.295	178	5844	67.61	ppb	100
15) Fluoranthene	7.126	202	3426	31.21	ppb	100
16) Pyrene	7.289	202	4311	37.64	ppb	100
19) Benzo[a]anthracene	8.362	228	1040	13.24	ppb	100
20) Chrysene	8.397	228	1680	17.14	ppb	100
22) Benzo[b]fluoranthene	9.481	252	1687	<del>27.10</del> <sup>14.07</sup> ppb	100	
23) Benzo[j,k]fluoranthene	9.481	252	1687	<del>14.77</del> <sup>7.33</sup> ppb	100	
24) Benzo[a]pyrene	9.778	252	975	11.65	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.887	276	596	5.86	ppb	100
26) Dibenz[a,h]anthracene	10.907	278	164	1.92	ppb	100
27) Benzo[g,h,i]perylene	11.125	276	1030	12.16	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/8/14  
 SM

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205021.D  
 Acq On : 5 Dec 2014 4:14 pm  
 Operator :  
 Sample : 12-034-02  
 Misc :  
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 05 16:29:04 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205004.D  
 Acq On : 5 Dec 2014 10:00 am  
 Operator :  
 Sample : MB1204S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 05 10:15:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

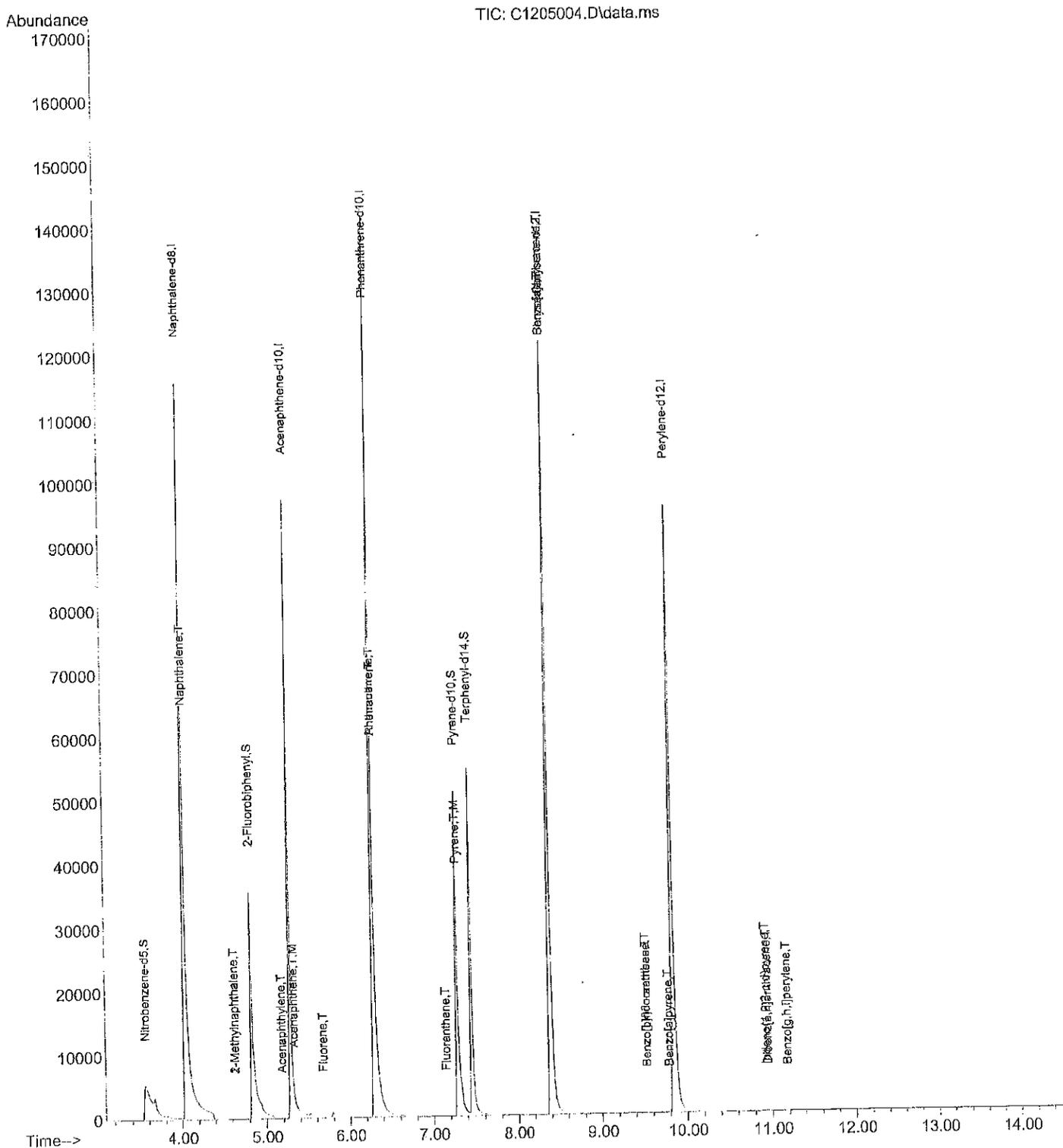
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	Qvalue
Internal Standards							
1) Naphthalene-d8	4.030	136	200658	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	114720	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.279	188	215482	2000.00	ppb	0.00	
17) Chrysene-d12	8.381	240	205473	2000.00	ppb	0.00	
21) Perylene-d12	9.832	264	185280	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.560	82	17203	610.71	ppb	0.00	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	61.07%			
7) 2-Fluorobiphenyl	4.824	172	82151	904.74	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	90.47%#			
11) Pyrene-d10	7.283	212	86359	927.19	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	92.72%			
18) Terphenyl-d14	7.445	244	76197	854.70	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	85.47%			
Target Compounds							
3) Naphthalene	4.042	128	527	4.17	ppb	100	
4) 2-Methylnaphthalene	4.629	142	223	3.88	ppb	100	
5) 1-Methylnaphthalene	4.629	142	223	<del>2.28</del>	ppb	100	
8) Acenaphthylene	5.180	152	69	0.55	ppb	100	
9) Acenaphthene	5.326	153	153	1.88	ppb	100	
12) Fluorene	5.673	166	43	0.48	ppb	100	
13) Phenanthrene	6.295	178	876	7.93	ppb	100	
14) Anthracene	6.295	178	876	<del>8.65</del>	ppb	100	
15) Fluoranthene	7.149	202	118	0.92	ppb	100	
16) Pyrene	7.289	202	240	1.79	ppb	100	
19) Benzo[a]anthracene	8.377	228	676	7.21	ppb	100	
20) Chrysene	8.377	228	676	<del>5.78</del>	ppb	100	
22) Benzo[b]fluoranthene	9.524	252	276	3.79	ppb	100	
23) Benzo[j,k]fluoranthene	9.524	252	276	<del>2.07</del>	ppb	100	
24) Benzo[a]pyrene	9.786	252	95	0.97	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.930	276	405	3.41	ppb	100	
26) Dibenz[a,h]anthracene	10.945	278	356	3.56	ppb	100	
27) Benzo[g,h,i]perylene	11.176	276	313	3.16	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/5/14  
 2014

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205004.D  
 Acq On : 5 Dec 2014 10:00 am  
 Operator :  
 Sample : MB1204S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 05 10:15:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205005.D  
 Acq On : 5 Dec 2014 10:22 am  
 Operator :  
 Sample : SB1204S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 05 10:37:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

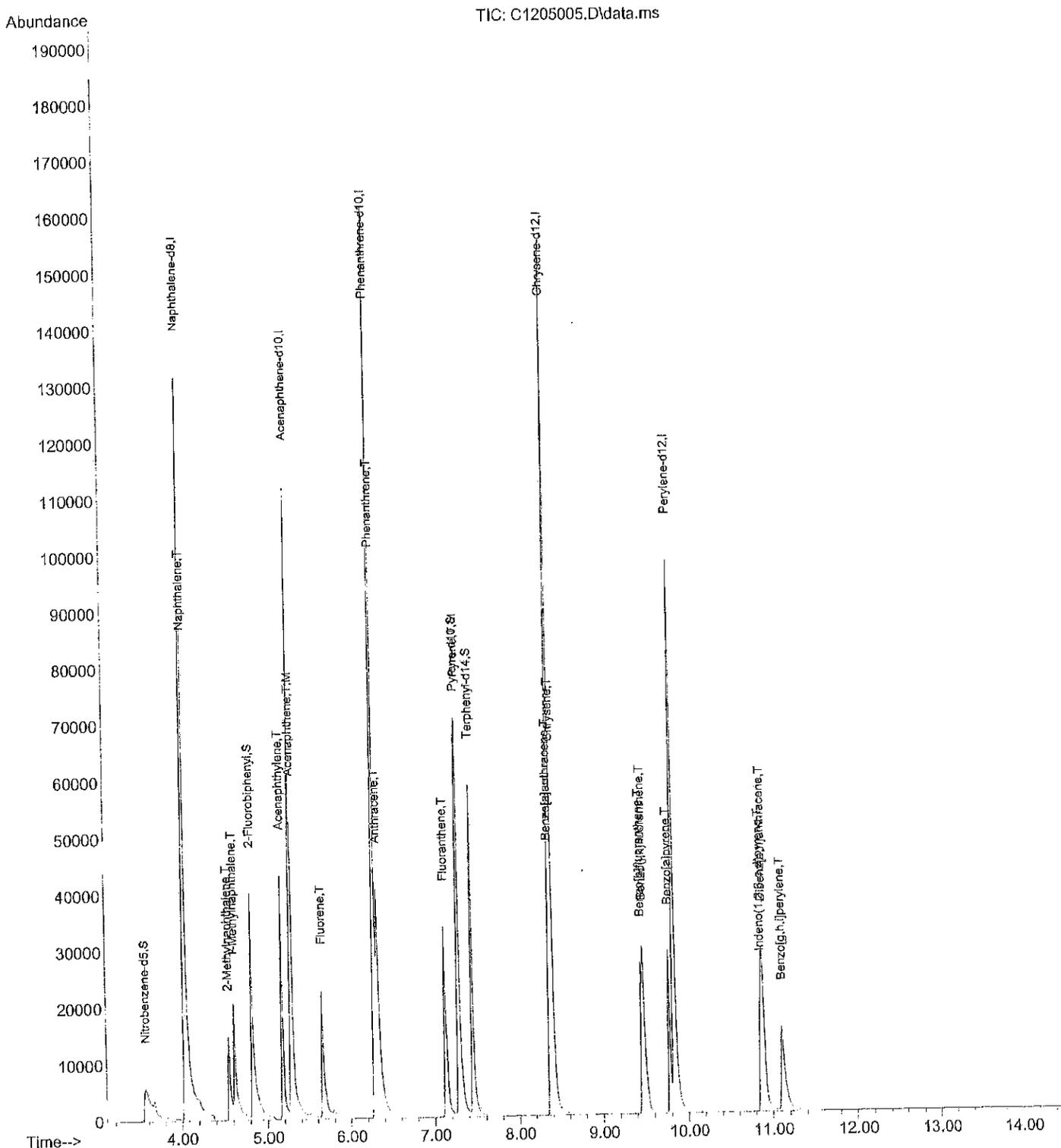
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.032	136	193683	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.279	164	117475	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.278	188	221603	2000.00	ppb	0.00	
17) Chrysene-d12	8.376	240	213492	2000.00	ppb	0.00	
21) Perylene-d12	9.833	264	193948	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.561	82	18145	667.34	ppb	0.00	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	66.73%			
7) 2-Fluorobiphenyl	4.822	172	86226	927.35	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	92.73%#			
11) Pyrene-d10	7.276	212	90118	940.82	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	94.08%			
18) Terphenyl-d14	7.445	244	78486	847.31	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	84.73%			
							<b>Qvalue</b>
<b>Target Compounds</b>							
3) Naphthalene	4.043	128	53414	437.57	ppb	100	
4) 2-Methylnaphthalene	4.549	142	26420	476.46	ppb	100	
5) 1-Methylnaphthalene	4.615	142	46717	495.78	ppb	100	
8) Acenaphthylene	5.171	152	56574	441.99	ppb	100	
9) Acenaphthene	5.295	153	37490	449.95	ppb	100	
12) Fluorene	5.657	166	42873	466.41	ppb	100	
13) Phenanthrene	6.294	178	46451	408.89	ppb	100	
14) Anthracene	6.329	178	70746	679.25	ppb	100	
15) Fluoranthene	7.125	202	61526	465.15	ppb	100	
16) Pyrene	7.288	202	63707	461.60	ppb	100	
19) Benzo[a]anthracene	8.361	228	46320	475.51	ppb	100	
20) Chrysene	8.400	228	56573	465.60	ppb	100	
22) Benzo[b]fluoranthene	9.459	252	31294	410.85	ppb	100	
23) Benzo[j,k]fluoranthene	9.478	252	59847	428.19	ppb	100	
24) Benzo[a]pyrene	9.779	252	48684	475.39	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.864	276	55545	446.54	ppb	100	
26) Dibenz[a,h]anthracene	10.888	278	46919	447.83	ppb	100	
27) Benzo[g,h,i]perylene	11.114	276	48990	472.68	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/5/14  
 gmm

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205005.D  
 Acq On : 5 Dec 2014 10:22 am  
 Operator :  
 Sample : SB1204S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 05 10:37:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205006.D  
 Acq On : 5 Dec 2014 10:44 am  
 Operator :  
 Sample : SB1204S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 05 10:59:05 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

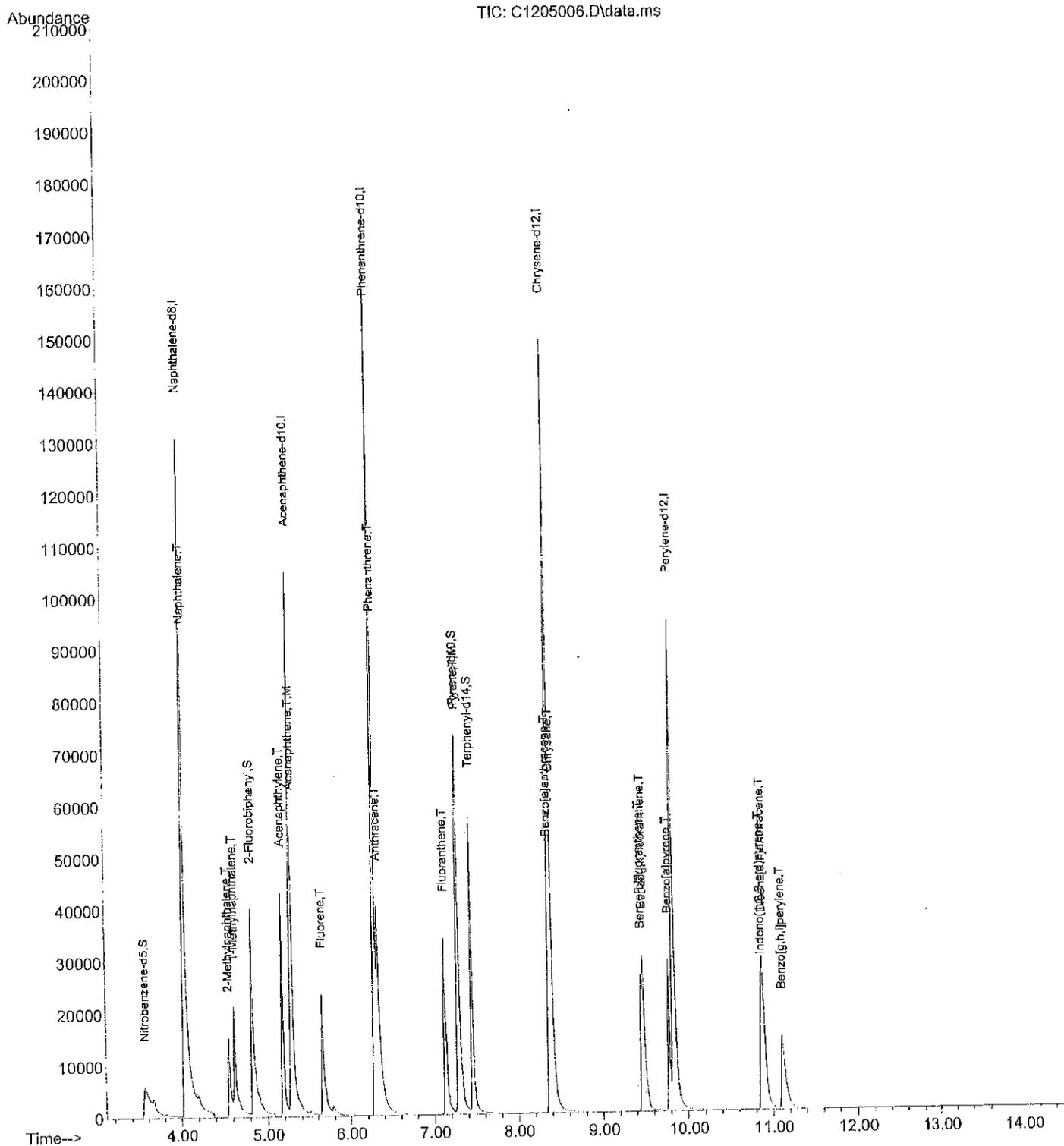
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	4.030	136	190917	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	115535	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.279	188	220357	2000.00	ppb	0.00	
17) Chrysene-d12	8.377	240	211517	2000.00	ppb	0.00	
21) Perylene-d12	9.834	264	192808	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.560	82	18637	695.37	ppb	0.00	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	69.54%			
7) 2-Fluorobiphenyl	4.825	172	89393	977.55	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	97.75%#			
11) Pyrene-d10	7.276	212	93006	976.46	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	97.65%			
18) Terphenyl-d14	7.445	244	82105	894.65	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	89.46%			
Target Compounds							
3) Naphthalene	4.042	128	55505	461.29	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.551	142	27058	495.03	ppb	100	
5) 1-Methylnaphthalene	4.618	142	50832	547.27	ppb	100	
8) Acenaphthylene	5.172	152	57955	460.38	ppb	100	
9) Acenaphthene	5.295	153	40304	491.84	ppb	100	
12) Fluorene	5.658	166	43770	478.86	ppb	100	
13) Phenanthrene	6.295	178	48220	426.86	ppb	100	
14) Anthracene	6.330	178	72246	697.57	ppb	100	
15) Fluoranthene	7.125	202	63257	480.94	ppb	100	
16) Pyrene	7.288	202	64919	473.04	ppb	100	
19) Benzo[a]anthracene	8.361	228	45239	468.75	ppb	100	
20) Chrysene	8.400	228	59948	497.98	ppb	100	
22) Benzo[b]fluoranthene	9.459	252	33460	441.89	ppb	100	
23) Benzo(j,k)fluoranthene	9.479	252	60068	432.32	ppb	100	
24) Benzo[a]pyrene	9.779	252	50273	493.81	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.869	276	56489	456.81	ppb	100	
26) Dibenz[a,h]anthracene	10.888	278	47410	455.19	ppb	100	
27) Benzo[g,h,i]perylene	11.115	276	50296	488.15	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/5/14  
 GMM

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205006.D  
 Acq On : 5 Dec 2014 10:44 am  
 Operator :  
 Sample : SB1204S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 05 10:59:05 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141205\  
 Data File : C1205003.D  
 Acq On : 5 Dec 2014 9:37 am  
 Operator :  
 Sample : PAH CCV1205  
 Misc : SV4-46-25  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 05 09:52:28 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev (min)
1 I Naphthalene-d8	2000.000	2000.000	0.0	91	0.00
2 S Nitrobenzene-d5	500.000	243.835	51.2#	62	0.02
3 T Naphthalene	500.000	487.380	2.5	84	0.00
4 T 2-Methylnaphthalene	500.000	510.167	-2.0	87	0.00
5 T 1-Methylnaphthalene	500.000	553.855	-10.8	95	0.00
6 I Acenaphthene-d10	2000.000	2000.000	0.0	92	0.00
7 S 2-Fluorobiphenyl	500.000	502.928	-0.6	95	0.00
8 T Acenaphthylene	500.000	455.100	9.0	92	0.00
9 T,M Acenaphthene	500.000	489.781	2.0	95	0.00
10 I Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11 S Pyrene-d10	500.000	489.626	2.1	96	0.00
12 T Fluorene	500.000	487.171	2.6	95	0.00
13 T Phenanthrene	500.000	444.528	11.1	95	0.00
14 T Anthracene	500.000	506.231	-1.2	95	0.00
15 T Fluoranthene	500.000	483.508	3.3	95	0.00
16 T,M Pyrene	500.000	476.288	4.7	96	0.00
17 I Chrysene-d12	2000.000	2000.000	0.0	97	0.00
18 S Terphenyl-d14	500.000	473.358	5.3	99	0.00
19 T Benzo[a]anthracene	500.000	459.431	8.1	90	0.00
20 T Chrysene	500.000	488.646	2.3	101	0.00
21 I Perylene-d12	2000.000	2000.000	0.0	95	0.00
22 T Benzo[b]fluoranthene	500.000	419.470	16.1	85	0.00
23 T Benzo[j,k]fluoranthene	500.000	477.841	4.4	103	0.00
24 T Benzo[a]pyrene	500.000	490.422	1.9	95	0.00
25 T Indeno(1,2,3-c,d)pyrene	500.000	476.948	4.6	96	0.00
26 T Dibenz[a,h]anthracene	500.000	473.812	5.2	96	0.00
27 T Benzo[g,h,i]perylene	500.000	492.272	1.5	97	-0.01

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205003.D  
 Acq On : 5 Dec 2014 9:37 am  
 Operator :  
 Sample : PAH CCV1205  
 Misc : SV4-46-25  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 05 09:52:28 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

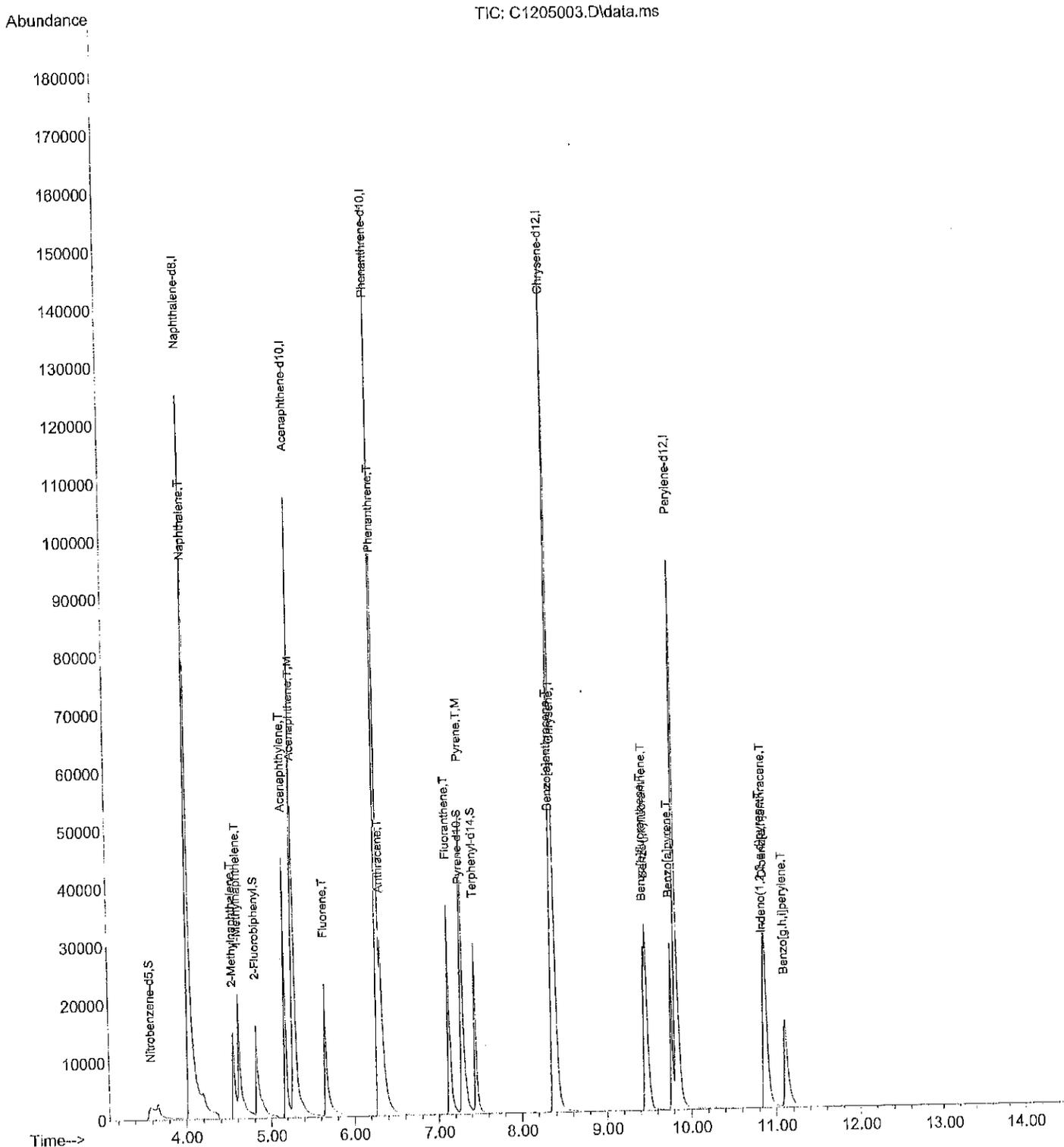
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	4.029	136	186472	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	112886	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.279	188	212084	2000.00	ppb	0.00	
17) Chrysene-d12	8.376	240	206758	2000.00	ppb	0.00	
21) Perylene-d12	9.834	264	188506	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.588	82	6383	243.83	ppb	0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	24.38%			
7) 2-Fluorobiphenyl	4.824	172	44936	502.93	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	50.29%			
11) Pyrene-d10	7.277	212	44885	489.63	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	48.96%			
18) Terphenyl-d14	7.445	244	42464	473.36	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	47.34%			
Target Compounds							
3) Naphthalene	4.041	128	57279	487.38	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.551	142	27236	510.17	ppb	100	
5) 1-Methylnaphthalene	4.617	142	50246	553.86	ppb	100	
8) Acenaphthylene	5.172	152	55977	455.10	ppb	100	
9) Acenaphthene	5.295	153	39215	489.78	ppb	100	
12) Fluorene	5.657	166	42858	487.17	ppb	100	
13) Phenanthrene	6.294	178	48330	444.53	ppb	100	
14) Anthracene	6.330	178	50461	506.23	ppb	100	
15) Fluoranthene	7.126	202	61207	483.51	ppb	100	
16) Pyrene	7.288	202	62911	476.29	ppb	100	
19) Benzo[a]anthracene	8.361	228	43342	459.43	ppb	100	
20) Chrysene	8.400	228	57501	488.65	ppb	100	
22) Benzo[b]fluoranthene	9.455	252	31054	419.47	ppb	100	
23) Benzo[j,k]fluoranthene	9.479	252	64912	477.84	ppb	100	
24) Benzo[a]pyrene	9.775	252	48814	490.42	ppb	100	
25) Indeno[1,2,3-c,d]pyrene	10.865	276	57663	476.95	ppb	100	
26) Dibenz[a,h]anthracene	10.888	278	48248	473.81	ppb	100	
27) Benzo[g,h,i]perylene	11.115	276	49589	492.27	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/5/14  
 JMM

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205003.D  
 Acq On : 5 Dec 2014 9:37 am  
 Operator :  
 Sample : PAH CCV1205  
 Misc : SV4-46-25  
 ALS Vial : 3 Sample Multiplier: 1

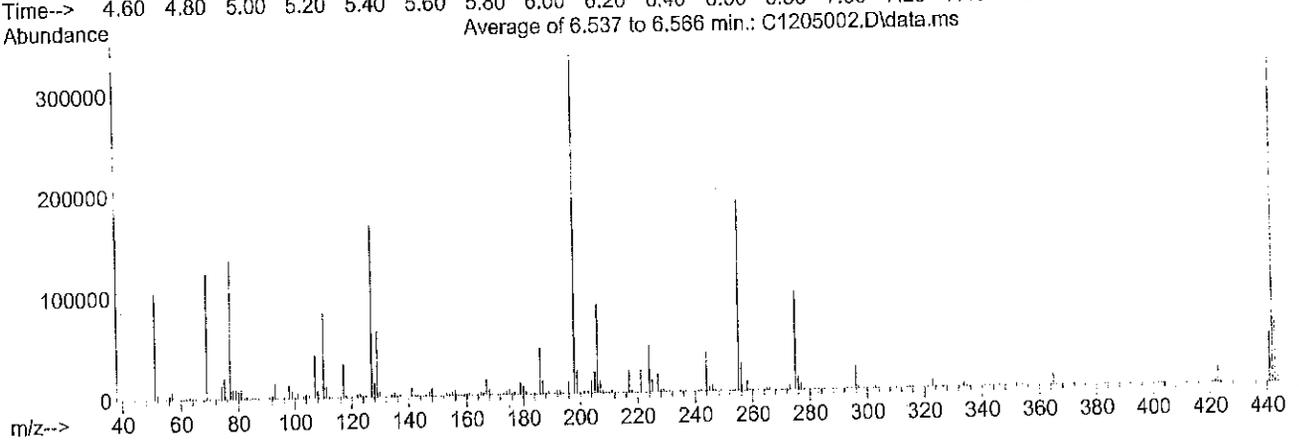
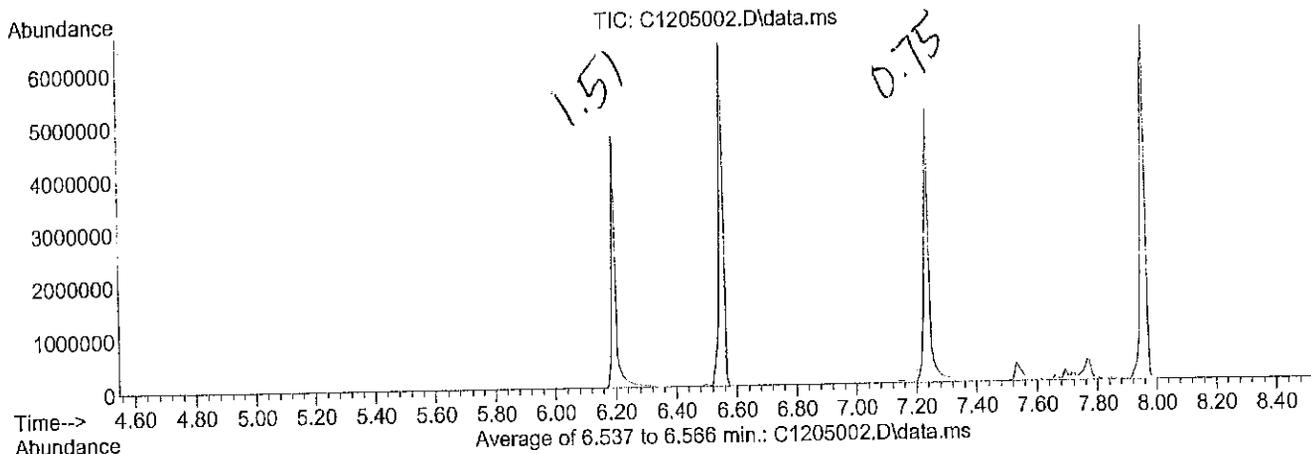
Quant Time: Dec 05 09:52:28 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C141205\  
 Data File : C1205002.D  
 Acq On : 5 Dec 2014 9:15 am  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-46-13  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1203.M  
 Title : PAH'S BY SIMS  
 Last Update : Wed Dec 03 14:22:32 2014



Spectrum Information: Average of 6.537 to 6.566 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	31.2	104114	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	36.9	123249	PASS
70	69	0.00	2	0.3	363	PASS
127	198	25	75	50.5	168751	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	334125	PASS
199	198	5	9	7.2	23914	PASS
275	198	10	30	28.9	96701	PASS
365	198	0.75	100	3.4	11354	PASS
441	443	0.01	100	74.6	48297	PASS
442	198	40	110	96.0	320598	PASS
443	442	15	24	20.2	64776	PASS

## Total Cadmium Data

P141204F1. Mean Only Report 12/8/2014, 10:20:15 AM

Sample	Label	Calc Conc.	Units	Date/Time
Blank	Cd 228.802	0.000	ppb	12/4/2014, 11:27:04 AM
Standard 5	Cd 228.802	10.000	ppb	12/4/2014, 12:55:59 PM
Standard 4	Cd 228.802	100.00	ppb	12/4/2014, 11:43:58 AM
Standard 3	Cd 228.802	1000.0	ppb	12/4/2014, 11:48:00 AM
Standard 2	Cd 228.802	2500.0	ppb	12/4/2014, 1:18:51 PM
Standard 1	Cd 228.802	5000.0	ppb	12/4/2014, 1:04:05 PM
Initial Calib Verif	Cd 228.802	1038.0	ppb	12/4/2014, 2:39:07 PM
LLICV	Cd 228.802	10.105	ppb	12/4/2014, 3:17:08 PM
Initial Calib Blank	Cd 228.802	-1.243uv	ppb	12/4/2014, 3:26:29 PM
Cont Calib Verif	Cd 228.802	1053.9	ppb	12/4/2014, 3:30:32 PM
Cont Calib Blank	Cd 228.802	-0.120uv	ppb	12/4/2014, 3:42:04 PM
ICSA	Cd 228.802	1.624	ppb	12/4/2014, 3:46:09 PM
ICSAB	Cd 228.802	944.95	ppb	12/4/2014, 3:50:12 PM
MB12047WH1	Cd 228.802	-2.195uv	ppb	12/4/2014, 4:03:40 PM
SB1204WH1	Cd 228.802	1003.2	ppb	12/4/2014, 4:07:45 PM
12-020-01	Cd 228.802	7.502	ppb	12/4/2014, 4:29:08 PM
12-020-01 DUP	Cd 228.802	0.913	ppb	12/4/2014, 4:33:12 PM
12-020-01 L	Cd 228.802	-0.553uv	ppb	12/4/2014, 4:37:17 PM
12-020-01 MS	Cd 228.802	1075.9	ppb	12/4/2014, 4:41:22 PM
12-020-01 MSD	Cd 228.802	1081.0	ppb	12/4/2014, 4:45:26 PM
BLK	Cd 228.802	2.492	ppb	12/4/2014, 4:49:29 PM
Cont Calib Verif	Cd 228.802	1059.0	ppb	12/4/2014, 4:59:10 PM
Cont Calib Blank	Cd 228.802	0.933	ppb	12/4/2014, 5:03:15 PM
LLCCV	Cd 228.802	10.282	ppb	12/4/2014, 5:13:08 PM
12-020-01	Cd 228.802	-0.721uv	ppb	12/4/2014, 5:21:50 PM
12-004-01c	Cd 228.802	1.197	ppb	12/4/2014, 5:25:56 PM
12-017-01	Cd 228.802	-0.788uv	ppb	12/4/2014, 5:30:02 PM
12-018-01	Cd 228.802	-0.316uv	ppb	12/4/2014, 5:34:06 PM
12-019-01	Cd 228.802	-1.268uv	ppb	12/4/2014, 5:38:11 PM
12-021-04c	Cd 228.802	0.526uv	ppb	12/4/2014, 5:42:18 PM
12-020-01 DUP	Cd 228.802	-0.588uv	ppb	12/4/2014, 5:51:14 PM
STAND 1	Cd 228.802	4973.6	ppb	12/4/2014, 5:55:18 PM
BLK	Cd 228.802	5.881	ppb	12/4/2014, 5:59:23 PM
Cont Calib Verif	Cd 228.802	1044.6	ppb	12/4/2014, 6:03:27 PM
Cont Calib Blank	Cd 228.802	3.088	ppb	12/4/2014, 6:07:33 PM
LLCCV	Cd 228.802	10.160	ppb	12/4/2014, 6:16:44 PM
12-005-01	Cd 228.802	210.31	ppb	12/4/2014, 6:24:51 PM
12-005-02	Cd 228.802	13.126	ppb	12/4/2014, 6:28:57 PM
12-005-03	Cd 228.802	24.524	ppb	12/4/2014, 6:33:00 PM
12-005-04	Cd 228.802	1290.2	ppb	12/4/2014, 6:37:06 PM
12-005-01 x20	Cd 228.802	11.100	ppb	12/4/2014, 6:49:04 PM
12-005-02 x20	Cd 228.802	1.160uv	ppb	12/4/2014, 6:53:11 PM
12-005-03 x20	Cd 228.802	2.110	ppb	12/4/2014, 6:57:16 PM
12-005-04 x20	Cd 228.802	68.984	ppb	12/4/2014, 7:01:22 PM
12-005-01 x200	Cd 228.802	1.807	ppb	12/4/2014, 7:15:05 PM
12-005-04 x200	Cd 228.802	7.060	ppb	12/4/2014, 7:19:09 PM
Cont Calib Verif	Cd 228.802	1025.8	ppb	12/4/2014, 7:23:14 PM
Cont Calib Blank	Cd 228.802	0.622	ppb	12/4/2014, 7:27:19 PM
LLCCV	Cd 228.802	9.996	ppb	12/4/2014, 7:38:16 PM
MB1204SM1	Cd 228.802	-0.466uv	ppb	12/4/2014, 7:57:24 PM
SB1204SM1	Cd 228.802	961.93	ppb	12/4/2014, 8:01:29 PM
12-284-02 COMP D	Cd 228.802	1.934	ppb	12/4/2014, 8:05:35 PM

P141204F1. Mean Only Report 12/8/2014, 10:20:15 AM

Sample	Label	Calc Conc.	Units	Date/Time
12-284-02 COMP d DUP	Cd 228.802	-0.139uv	ppb	12/4/2014, 8:09:41 PM
12-284-02 L	Cd 228.802	0.530	ppb	12/4/2014, 8:13:45 PM
12-284-02 MS	Cd 228.802	935.87	ppb	12/4/2014, 8:17:50 PM
12-284-02 MSD	Cd 228.802	464.13	ppb	12/4/2014, 8:21:55 PM
12-284-01 COMP C	Cd 228.802	10.166	ppb	12/4/2014, 8:26:00 PM
12-284-10 COMP A	Cd 228.802	-0.150uv	ppb	12/4/2014, 8:30:07 PM
12-284-11 COMP B	Cd 228.802	6.932	ppb	12/4/2014, 8:34:13 PM
Cont Calib Verif	Cd 228.802	1001.9	ppb	12/4/2014, 8:38:18 PM
Cont Calib Blank	Cd 228.802	2.306	ppb	12/4/2014, 8:42:25 PM
LLCCV	Cd 228.802	10.064	ppb	12/4/2014, 8:46:30 PM
11-284-14 COMP I	Cd 228.802	5.938	ppb	12/4/2014, 8:50:35 PM
111-284-15 COMP J	Cd 228.802	2.271	ppb	12/4/2014, 8:54:40 PM
11-284-24 COMP G	Cd 228.802	0.716uv	ppb	12/4/2014, 8:58:45 PM
11-284-25 COMP H	Cd 228.802	2.969	ppb	12/4/2014, 9:02:49 PM
11-284-33 COMP E	Cd 228.802	3.075	ppb	12/4/2014, 9:06:54 PM
11-284-02 COMP D MSD	Cd 228.802	946.26	ppb	12/4/2014, 9:12:56 PM
12-034-01a	Cd 228.802	3.829	ppb	12/4/2014, 9:16:59 PM
12-034-02a	Cd 228.802	2.940	ppb	12/4/2014, 9:21:02 PM
12-044-01a	Cd 228.802	16.524	ppb	12/4/2014, 9:25:05 PM
12-044-02a	Cd 228.802	12.696	ppb	12/4/2014, 9:29:08 PM
Cont Calib Verif	Cd 228.802	988.79	ppb	12/4/2014, 9:33:11 PM
Cont Calib Blank	Cd 228.802	0.010uv	ppb	12/4/2014, 9:37:15 PM
LLCCV	Cd 228.802	7.452	ppb	12/4/2014, 9:50:10 PM
12-044-03a	Cd 228.802	3.686	ppb	12/4/2014, 10:01:12 PM
12-044-04a	Cd 228.802	11.459	ppb	12/4/2014, 10:05:16 PM
BLK	Cd 228.802	-1.820uv	ppb	12/4/2014, 10:09:21 PM
11-096-19a	Cd 228.802	1.661	ppb	12/4/2014, 10:13:25 PM
11-096-20a	Cd 228.802	1.894	ppb	12/4/2014, 10:17:29 PM
MB1203SH1	Cd 228.802	-1.310uv	ppb	12/4/2014, 10:21:32 PM
SB1203SH1	Cd 228.802	984.19	ppb	12/4/2014, 10:25:35 PM
12-002-03	Cd 228.802	2.504	ppb	12/4/2014, 10:29:38 PM
12-002-03 DUP	Cd 228.802	2.464	ppb	12/4/2014, 10:33:44 PM
12-002-03 L	Cd 228.802	-0.332uv	ppb	12/4/2014, 10:37:49 PM
Cont Calib Verif	Cd 228.802	1011.1	ppb	12/4/2014, 10:41:53 PM
Cont Calib Blank	Cd 228.802	0.447	ppb	12/4/2014, 10:45:59 PM
LLCCV	Cd 228.802	10.359	ppb	12/4/2014, 10:50:03 PM



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 9, 2014

Abhijit Joshi  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-012-06  
Laboratory Reference No. 1412-044

Dear Abhijit:

Enclosed are the analytical results and associated quality control data for samples submitted on December 4, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Manager

Enclosures

Date of Report: December 9, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-044  
Project: 5147-012-06

### Case Narrative

Samples were collected on December 4, 2014 and received by the laboratory on December 4, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx/Benzene EPA 8021B (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

#### cPAHs EPA 8270D/SIM Analysis

Sample EX-14-4.0 had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

**Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.**

Date of Report: December 9, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-044  
Project: 5147-012-06

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-12-11.0	12-044-01	Soil	12-4-14	12-4-14	
EX-13-10.0	12-044-02	Soil	12-4-14	12-4-14	
EX-14-4.0	12-044-03	Soil	12-4-14	12-4-14	
DUP-1	12-044-04	Soil	12-4-14	12-4-14	
TRIP - 120414	12-044-05	Water	---	12-4-14	

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

### NWTPH-Gx/BENZENE

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-12-11.0</b>					
Laboratory ID:	12-044-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	9.8	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	115	68-123				
<b>Client ID:</b>	<b>EX-13-10.0</b>					
Laboratory ID:	12-044-02					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	6.1	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	107	68-123				
<b>Client ID:</b>	<b>EX-14-4.0</b>					
Laboratory ID:	12-044-03					
Benzene	<b>0.16</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>1100</b>	64	NWTPH-Gx	12-5-14	12-8-14	O
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	105	68-123				
<b>Client ID:</b>	<b>DUP-1</b>					
Laboratory ID:	12-044-04					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	6.2	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	112	68-123				

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>TRIP - 120414</b>					
Laboratory ID:	12-044-05					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-8-14	12-8-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-8-14	12-8-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	85	71-113				

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-12-11.0</b>					
Laboratory ID:	12-044-01					
Diesel Range Organics	<b>ND</b>	41	NWTPH-Dx	12-5-14	12-8-14	X1
Lube Oil Range Organics	<b>ND</b>	82	NWTPH-Dx	12-5-14	12-8-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	51	50-150				
<b>Client ID:</b>	<b>EX-13-10.0</b>					
Laboratory ID:	12-044-02					
Diesel Range Organics	<b>ND</b>	37	NWTPH-Dx	12-5-14	12-5-14	X1
Lube Oil Range Organics	<b>ND</b>	74	NWTPH-Dx	12-5-14	12-5-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				
<b>Client ID:</b>	<b>EX-14-4.0</b>					
Laboratory ID:	12-044-03					
Diesel Fuel #2	<b>29000</b>	290	NWTPH-Dx	12-5-14	12-8-14	X1
Lube Oil Range Organics	<b>ND</b>	1400	NWTPH-Dx	12-5-14	12-8-14	U1,X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S
<b>Client ID:</b>	<b>DUP-1</b>					
Laboratory ID:	12-044-04					
Diesel Range Organics	<b>ND</b>	37	NWTPH-Dx	12-5-14	12-5-14	X1
Lube Oil Range Organics	<b>ND</b>	74	NWTPH-Dx	12-5-14	12-5-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-12-11.0</b>					
Laboratory ID:	12-044-01					
Benzo[a]anthracene	<b>0.10</b>	0.011	EPA 8270D/SIM	12-4-14	12-5-14	
Chrysene	<b>0.11</b>	0.011	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[b]fluoranthene	<b>0.12</b>	0.011	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo(j,k)fluoranthene	<b>0.057</b>	0.011	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[a]pyrene	<b>0.10</b>	0.011	EPA 8270D/SIM	12-4-14	12-5-14	
Indeno(1,2,3-c,d)pyrene	<b>0.049</b>	0.011	EPA 8270D/SIM	12-4-14	12-5-14	
Dibenz[a,h]anthracene	<b>0.015</b>	0.011	EPA 8270D/SIM	12-4-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>75</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>61</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>60</i>	<i>31 - 116</i>				

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-13-10.0</b>					
Laboratory ID:	12-044-02					
Benzo[a]anthracene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Chrysene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[b]fluoranthene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo(j,k)fluoranthene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[a]pyrene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Dibenz[a,h]anthracene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>76</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>73</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>64</i>	<i>31 - 116</i>				

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-14-4.0</b>					
Laboratory ID:	12-044-03					
Benzo[a]anthracene	<b>0.021</b>	0.0076	EPA 8270D/SIM	12-4-14	12-5-14	
Chrysene	<b>0.055</b>	0.0076	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0076	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0076	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[a]pyrene	<b>ND</b>	0.0076	EPA 8270D/SIM	12-4-14	12-5-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0076	EPA 8270D/SIM	12-4-14	12-5-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0076	EPA 8270D/SIM	12-4-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>45</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>136</i>	<i>33 - 121</i>				Q
<i>Terphenyl-d14</i>	<i>75</i>	<i>31 - 116</i>				

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>DUP-1</b>					
Laboratory ID:	12-044-04					
Benzo[a]anthracene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Chrysene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[b]fluoranthene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo(j,k)fluoranthene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[a]pyrene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
Dibenz[a,h]anthracene	ND	0.0099	EPA 8270D/SIM	12-4-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>61</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>69</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>59</i>	<i>31 - 116</i>				

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	12-044-01					
<b>Client ID:</b>	<b>EX-12-11.0</b>					
Cadmium	<b>1.4</b>	0.82	6010C	12-4-14	12-4-14	
Lab ID:	12-044-02					
<b>Client ID:</b>	<b>EX-13-10.0</b>					
Cadmium	<b>0.94</b>	0.74	6010C	12-4-14	12-4-14	
Lab ID:	12-044-03					
<b>Client ID:</b>	<b>EX-14-4.0</b>					
Cadmium	<b>ND</b>	0.57	6010C	12-4-14	12-4-14	
Lab ID:	12-044-04					
<b>Client ID:</b>	<b>DUP-1</b>					
Cadmium	<b>0.85</b>	0.74	6010C	12-4-14	12-4-14	

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1205S3					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-029-01							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				103	100	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB1205S2								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	<b>0.980</b>	<b>1.04</b>	1.00	1.00	<b>98</b>	<b>104</b>	75-117	6	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					94	100	68-123		

Date of Report: December 9, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-044  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1205G-1	5.00	4.73	5	+/- 20%
CCVD1205G-2	5.00	4.69	6	+/- 20%
CCVD1208G-1	5.00	4.89	2	+/- 20%
CCVD1208G-2	5.00	4.76	5	+/- 20%

Date of Report: December 9, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-044  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1205B-1	50.0	50.5	-1	+/- 15%
Benzene	CCVD1205B-2	50.0	53.2	-6	+/- 15%
Benzene	CCVD1205B-3	50.0	46.6	7	+/- 15%
Benzene	CCVD1208B-1	50.0	52.3	-5	+/- 15%
Benzene	CCVD1208B-2	50.0	52.3	-5	+/- 15%

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1208W2					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-8-14	12-8-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-8-14	12-8-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	71-113				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-057-01							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				90	98	71-113		

**MATRIX SPIKES**

Laboratory ID:	12-057-01									
	MS	MSD	MS	MSD		MS	MSD			
Benzene	<b>48.6</b>	<b>54.4</b>	50.0	50.0	ND	<b>97</b>	<b>109</b>	82-120	11	14
<i>Surrogate:</i>										
<i>Fluorobenzene</i>						97	92	71-113		

Date of Report: December 9, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-044  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1208G-1	5.00	4.89	2	+/- 20%
CCVD1208G-2	5.00	4.76	5	+/- 20%

Date of Report: December 9, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-044  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1208B-1	50.0	52.3	-5	+/- 15%
Benzene	CCVD1208B-2	50.0	52.3	-5	+/- 15%

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1205S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	12-5-14	12-5-14	X1
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	12-5-14	12-5-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-022-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				95	88	50-150		

Date of Report: December 9, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-044  
Project: 5147-012-06

**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCV1205F-T2	100	87.8	12.2	+/-15%
CCV1205F-T3	100	95.4	4.6	+/-15%
CCV1205R-T2	100	99.5	0.5	+/-15%
CCV1205R-T3	100	98.1	1.9	+/-15%
CCV1208R-T1	100	100	0.0	+/-15%
CCV1208R-T2	100	98.0	2.0	+/-15%

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1204S1					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-4-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>90</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>93</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>85</i>	<i>31 - 116</i>				

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1204S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	<b>0.0793</b>	<b>0.0781</b>	0.0833	0.0833	95	94	60 - 128	2	15	
Chrysene	<b>0.0776</b>	<b>0.0830</b>	0.0833	0.0833	93	100	60 - 117	7	13	
Benzo[b]fluoranthene	<b>0.0685</b>	<b>0.0736</b>	0.0833	0.0833	82	88	60 - 131	7	16	
Benzo(j,k)fluoranthene	<b>0.0714</b>	<b>0.0721</b>	0.0833	0.0833	86	87	57 - 126	1	20	
Benzo[a]pyrene	<b>0.0792</b>	<b>0.0823</b>	0.0833	0.0833	95	99	62 - 136	4	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0744</b>	<b>0.0761</b>	0.0833	0.0833	89	91	60 - 127	2	19	
Dibenz[a,h]anthracene	<b>0.0746</b>	<b>0.0759</b>	0.0833	0.0833	90	91	62 - 133	2	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					93	98	32 - 114			
Pyrene-d10					94	98	33 - 121			
Terphenyl-d14					85	89	31 - 116			

Date of Report: December 9, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-044  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-4-14  
Date Analyzed: 12-4-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1204SM1

Analyte	Method	Result	PQL
Cadmium	6010C	<b>ND</b>	0.50

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 12-4-14

Date Analyzed: 12-4-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-284-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	ND	ND	NA	0.50	

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 MS/MSD QUALITY CONTROL**

Date Extracted: 12-4-14

Date Analyzed: 12-4-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-284-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50.0	<b>46.8</b>	94	<b>47.3</b>	95	1	

Date of Report: December 9, 2014  
 Samples Submitted: December 4, 2014  
 Laboratory Reference: 1412-044  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	ICV120414P	1.00	1.04	-4.0	+/- 10%
Cadmium	LLICV1120414P	0.0100	0.0101	-1.0	+/- 30%
Cadmium	CCV1120414P	1.00	1.05	-5.0	+/- 10%
Cadmium	CCV2120414P	1.00	1.06	-6.0	+/- 10%
Cadmium	LLCCV2120414P	0.0100	0.0103	-3.0	+/- 30%
Cadmium	CCV3120414P	1.00	1.04	-4.0	+/- 10%
Cadmium	LLCCV3120414P	0.0100	0.0102	-2.0	+/- 30%
Cadmium	CCV4120414P	1.00	1.03	-3.0	+/- 10%
Cadmium	LLCCV4120414P	0.0100	0.0100	0	+/- 30%
Cadmium	CCV5120414P	1.00	1.00	0	+/- 10%
Cadmium	LLCCV5120414P	0.0100	0.0101	-1.0	+/- 30%
Cadmium	CCV6120414P	1.00	0.989	1.1	+/- 10%
Cadmium	LLCCV6120414P	0.0100	0.00745	26	+/- 30%
Cadmium	CCV7120414P	1.00	1.010	-1.0	+/- 10%
Cadmium	LLCCV7120414P	0.0100	0.0104	-4.0	+/- 30%

Date of Report: December 9, 2014  
Samples Submitted: December 4, 2014  
Laboratory Reference: 1412-044  
Project: 5147-012-06

### % MOISTURE

Date Analyzed: 12-4-14

Client ID	Lab ID	% Moisture
EX-12-11.0	12-044-01	39
EX-13-10.0	12-044-02	32
EX-14-4.0	12-044-03	13
DUP-1	12-044-04	32



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



**Onsite Environmental Inc.**  
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# Chain of Custody

Turnaround Request  
(in working days)

(Check One)

- Same Day     1 Day  
 2 Days     3 Days  
 Standard (7 Days)  
 (PH analysis 5 Days)  
 \_\_\_\_\_ (other)

Laboratory Number: **12-044**

Company: **GeoEngineers**  
 Project Number: **5147-012-06**  
 Project Name: **FOREK SHELL OIL TANK FARM**  
 Project Manager: **ABHJIT JOSHI**  
 Sampled by: **ABHJIT JOSHI**

Lab ID    Sample Identification    Date Sampled    Time Sampled    Matrix

1	EX-12-11.0	12/4/14	0900	S
2	EX-13-10.0		1000	
3	EX-14-4.0		1015	
4	DUP-1		1005	
5	TRIP-120414	N/A	NA	W

Number of Containers	
NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	X
NWTPH-Dx	X
Volatiles 8260C	
Halogenated Volatiles 8260C	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664A	
Benzene 8021B	X
cPAHs 8270D/SIM	X
Cadmium 6010C	X
% Moisture	X

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	GEI	12/4/14	223	
<i>[Signature]</i>	<i>Alpha Services</i>	12/4/14	2:23	
<i>[Signature]</i>	<i>Alpha Services</i>	12/4/14	4:00	
Received				
Relinquished				
Relinquished				
Reviewed/Date				

# Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 5147-012-06

OnSite Project Number: 12-044

Initiated by: 

Date Initiated: 12/4/14

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	<u>N/A</u>	1	2	3	4
1.2 Were the custody seals intact?	Yes	No	<u>N/A</u>	1	2	3	4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<u>N/A</u>	1	2	3	4
1.4 Were the samples delivered on ice or blue ice?	<u>Yes</u>	No		1	2	3	4
1.5 Were samples received between 0-6 degrees Celsius?	<u>Yes</u>	No	Temperature: <u>5</u>				
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<u>N/A</u>					
1.7 How were the samples delivered?	Client	<u>Courier</u>	UPS/FedEx	OSE Pickup	Other		

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<u>Yes</u>	No		1	2	3	4
2.2 Was the COC legible and written in permanent ink?	<u>Yes</u>	No		1	2	3	4
2.3 Have samples been relinquished and accepted by each custodian?	<u>Yes</u>	No		1	2	3	4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<u>Yes</u>	No		1	2	3	4
2.5 Were all of the samples listed on the COC submitted?	<u>Yes</u>	No		1	2	3	4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<u>No</u>		1	2	3	4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<u>No</u>		1	2	3	4
3.2 Were any sample labels missing or illegible?	Yes	<u>No</u>		1	2	3	4
3.3 Have the correct containers been used for each analysis requested?	<u>Yes</u>	No		1	2	3	4
3.4 Have the samples been correctly preserved?	<u>Yes</u>	No	N/A	1	2	3	4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	<u>Yes</u>	No	N/A	1	2	3	4
3.6 Is there sufficient sample submitted to perform requested analyses?	<u>Yes</u>	No		1	2	3	4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<u>No</u>		1	2	3	4
3.8 Was method 5035A used?	<u>Yes</u>	No	N/A	1	2	3	4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	1	N/A	1	2	3	4

### Explain any discrepancies:


1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

- NWTPH-Gx/Benzene (soil) Data
- NWTPH- Gx/Benzene (water) Data
- NWTPH-Dx Data
- cPAHs EPA 8270D/SIM Data
- Total Cadmium EPA 6010CData

## NWTPH-Gx/Benzene (soil) Data

Signal #1 : d:\btex\DATA\D141205\1205019.D\FID1A.CH Vial: 19  
 Signal #2 : d:\btex\DATA\D141205\1205019.D\FID2B.CH  
 Acq On : 6 Dec 2014 00:09 Operator:  
 Sample : 12-044-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 6 0:38 2014 Quant Results File: 141012DB.RES

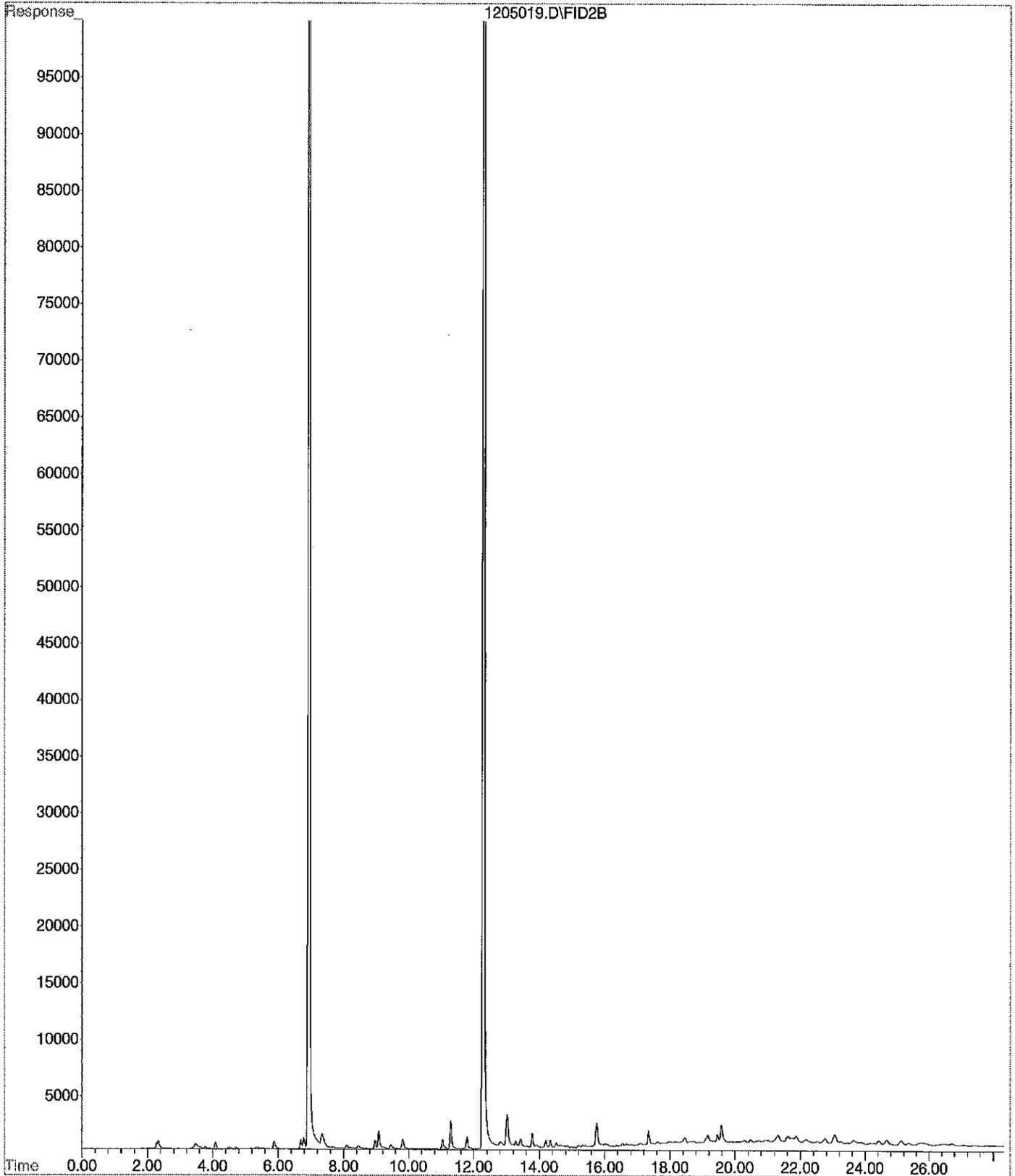
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3175492	45.803 PPB
5) S BROMOFLUOROBENZENE	12.29	1845761	45.538 PPB
11) S FLUOROBENZENE #2	6.93	8558278	38.581 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11700536	39.063 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	666857	0.007 PPM
2) H Entire GAS Envelope (9-24-	12.21	2656606	0.029 PPM
3) H GASOLINE (9-24-14)	13.51	783499	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	4329331	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	2133319	N.D. PPM
9) MTBE #2	4.71	6953	0.047 PPB
10) BENZENE #2	6.69	28474	0.053 PPB
12) TOLUENE #2	9.08	66273	0.061 PPB
13) ETHYLBENZENE #2	11.05	38482	0.039 PPB
14) m,p-XYLENE #2	11.30	100535	N.D. PPB
15) o-XYLENE #2	11.80	47048	N.D. PPB

12/9

File : X:\BTEX\DARYL\DATA\D141205\1205019.D  
Operator :  
Acquired : 6 Dec 2014 00:09 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-044-01s  
Misc Info : V2-36-17  
Vial Number: 19



Signal #1 : d:\btex\DATA\D141205\1205020.D\FID1A.CH Vial: 20  
 Signal #2 : d:\btex\DATA\D141205\1205020.D\FID2B.CH  
 Acq On : 6 Dec 2014 00:42 Operator:  
 Sample : 12-044-02s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 1:11 2014 Quant Results File: 141012DB.RES

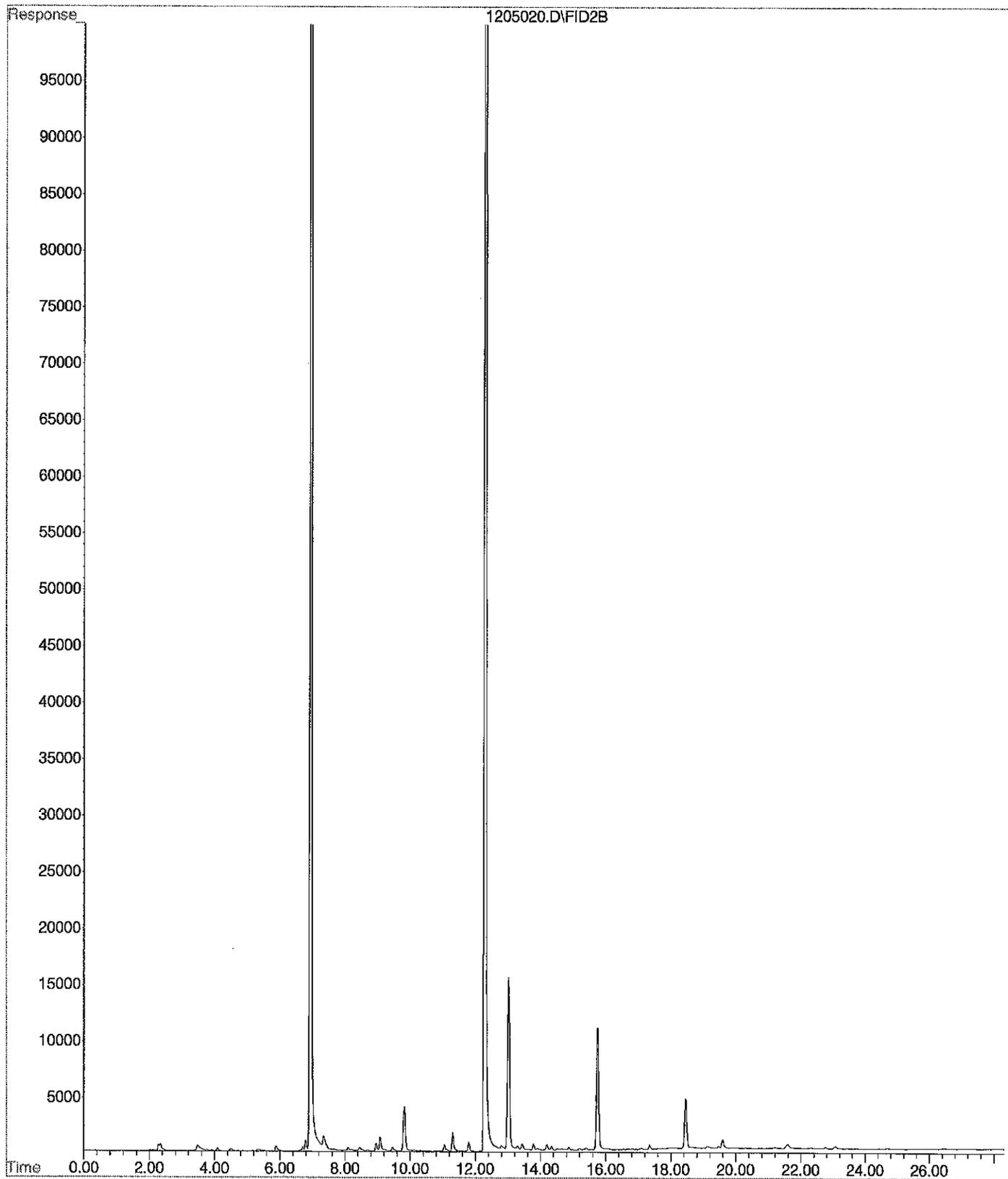
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3534441	51.018 PPB
5) S BROMOFLUOROBENZENE	12.29	2115644	52.280 PPB
11) S FLUOROBENZENE #2	6.93	9609451	43.360 PPB
16) S BROMOFLUOROBENZENE #2	12.29	13336308	44.589 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	829178	0.010 PPM
2) H Entire GAS Envelope (9-24-	12.21	2462465	0.026 PPM
3) H GASOLINE (9-24-14)	13.51	804545	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	4008711	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	2573867	N.D. PPM
9) MTBE #2	4.71	1111	N.D. PPB
10) BENZENE #2	6.70	16123	0.011 PPB
12) TOLUENE #2	9.08	60780	0.041 PPB
13) ETHYLBENZENE #2	11.05	28312	N.D. PPB
14) m,p-XYLENE #2	11.31	72153	N.D. PPB
15) o-XYLENE #2	11.80	33006	N.D. PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205020.D  
Operator :  
Acquired : 6 Dec 2014 00:42 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-044-02s  
Misc Info : V2-36-17  
Vial Number: 20



Signal #1 : X:\BTEX\DARYL\DATA\D141205\1205030.D\FID1A.CH Vial: 30  
 Signal #2 : X:\BTEX\DARYL\DATA\D141205\1205030.D\FID2B.CH  
 Acq On : 6 Dec 2014 6:13 Operator:  
 Sample : 12-044-03s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 8 10:32 2014 Quant Results File: 141012DB.RES

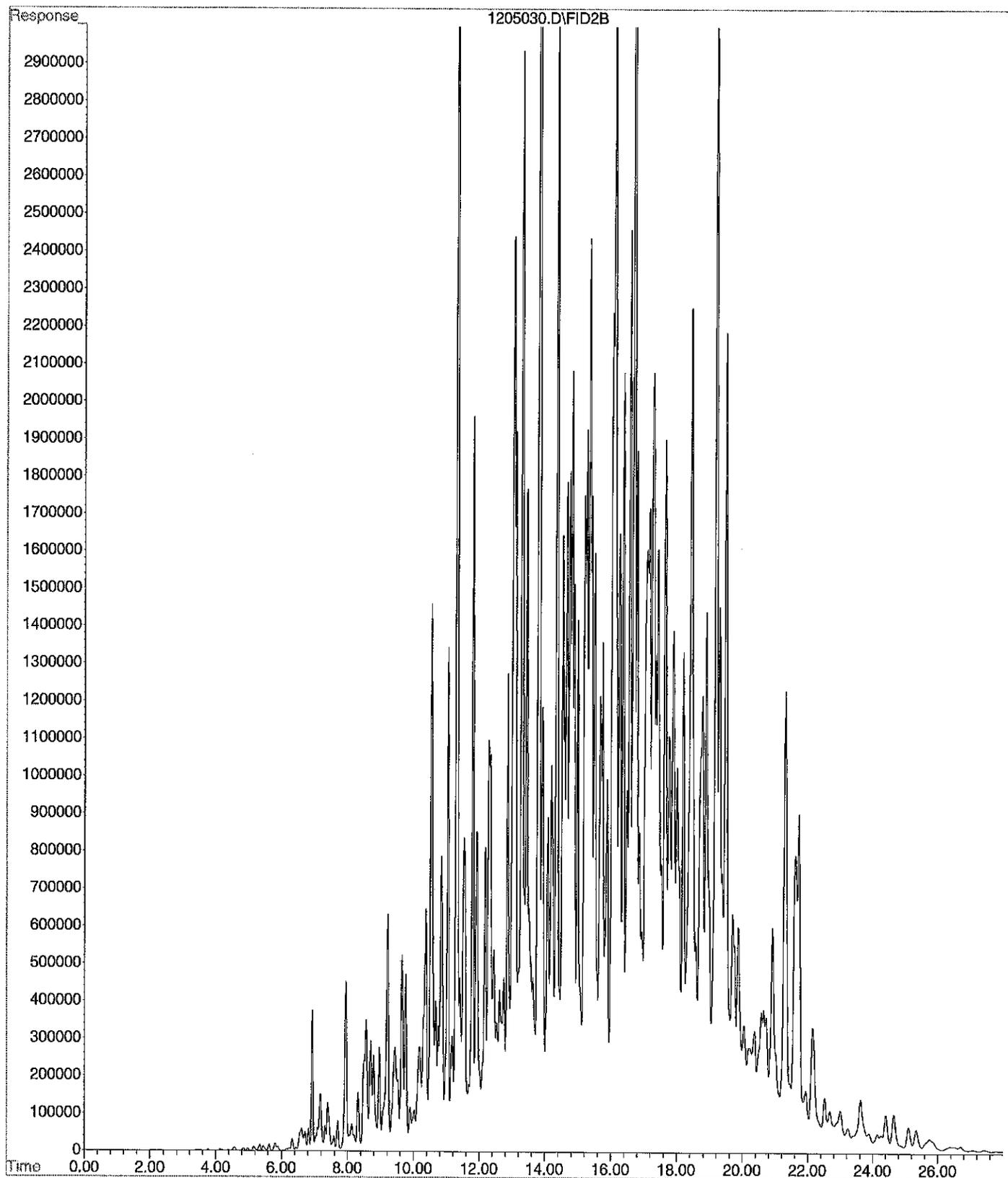
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	4462911	64.507 PPB
5) S BROMOFLUOROBENZENE	12.33	48747208	1217.256 PPB
11) S FLUOROBENZENE #2	6.93	11875863	53.665 PPB
16) S BROMOFLUOROBENZENE #2	12.28	26409508	88.750 PPB m
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	847781108	17.215 PPM
2) H Entire GAS Envelope (9-24-	12.21	3014487494	46.164 PPM
3) H GASOLINE (9-24-14)	13.51	2328154072	58.875 PPM
7) H entire GAS envelope #2 (9-	12.26	6068951276	42.223 PPM
8) H GASOLINE #2 (9-24-14)	13.56	4578109878	41.671 PPM
9) MTBE #2	4.57	414228	5.625 PPB
10) BENZENE #2	6.71	1502085	5.074 PPB m
12) TOLUENE #2	9.09	1106844	3.805 PPB m
13) ETHYLBENZENE #2	11.04	43581496	177.353 PPB m
14) m,p-XYLENE #2	11.30	134511718	463.185 PPB m
15) o-XYLENE #2	11.79	60055944	239.759 PPB m

*12/8*  


File : X:\BTEX\DARYL\DATA\D141205\1205030.D  
Operator :  
Acquired : 6 Dec 2014 6:13 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-044-03s  
Misc Info : V2-36-17  
Vial Number: 30



Signal #1 : X:\BTEX\DARYL\DATA\D141208\1208005.D\FID1A.CH Vial: 5  
 Signal #2 : X:\BTEX\DARYL\DATA\D141208\1208005.D\FID2B.CH  
 Acq On : 8 Dec 2014 17:57 Operator:  
 Sample : 12-044-03s RR 1:1000 Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 9 9:48 2014 Quant Results File: 141012DB.RES

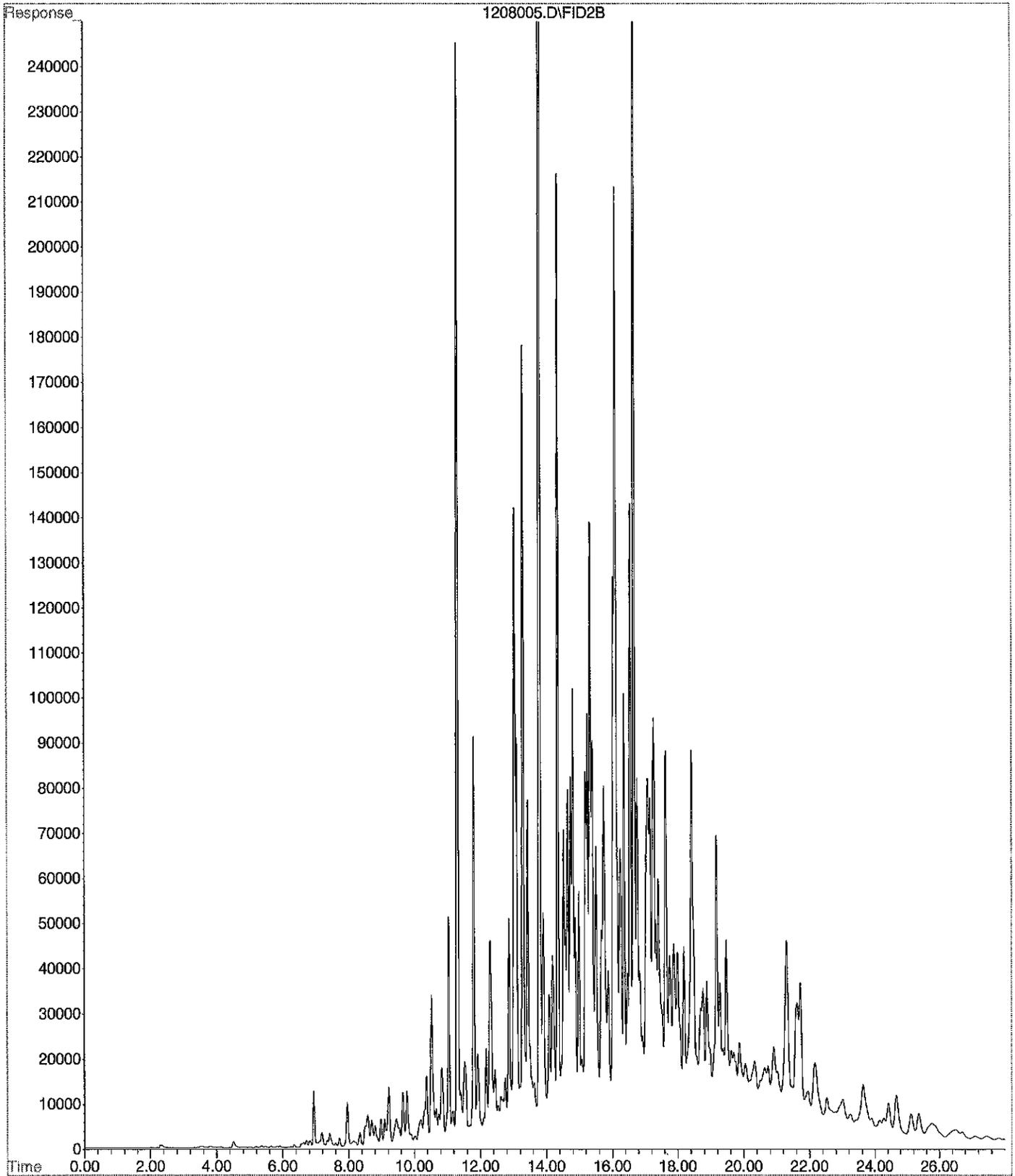
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	156349	1.940 PPB
5) S BROMOFLUOROBENZENE	12.28	1404644	34.518 PPB
11) S FLUOROBENZENE #2	6.94	413974	1.552 PPB
16) S BROMOFLUOROBENZENE #2	12.30	1698467	5.276 PPB m
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	23576034	0.472 PPM
2) H Entire GAS Envelope (9-24-	12.21	104157811	1.584 PPM
3) H GASOLINE (9-24-14)	13.51	82011590	2.053 PPM
7) H entire GAS envelope #2 (9-	12.26	251587712	1.704 PPM
8) H GASOLINE #2 (9-24-14)	13.56	198929086	1.754 PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.71	61852	0.166 PPB
12) TOLUENE #2	9.09	263124	0.769 PPB
13) ETHYLBENZENE #2	11.05	1582342	6.326 PPB m
14) m,p-XYLENE #2	11.30	7818628	26.408 PPB m
15) o-XYLENE #2	11.80	2658078	10.357 PPB m

12/9  
 QM

File : X:\BTEX\DARYL\DATA\D141208\1208005.D  
Operator :  
Acquired : 8 Dec 2014 17:57 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-044-03s RR 1:1000  
Misc Info : V2-36-17  
Vial Number: 5



Signal #1 : d:\btex\DATA\D141205\1205021.D\FID1A.CH Vial: 21  
 Signal #2 : d:\btex\DATA\D141205\1205021.D\FID2B.CH  
 Acq On : 6 Dec 2014 1:15 Operator:  
 Sample : 12-044-04s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 1:44 2014 Quant Results File: 141012DB.RES

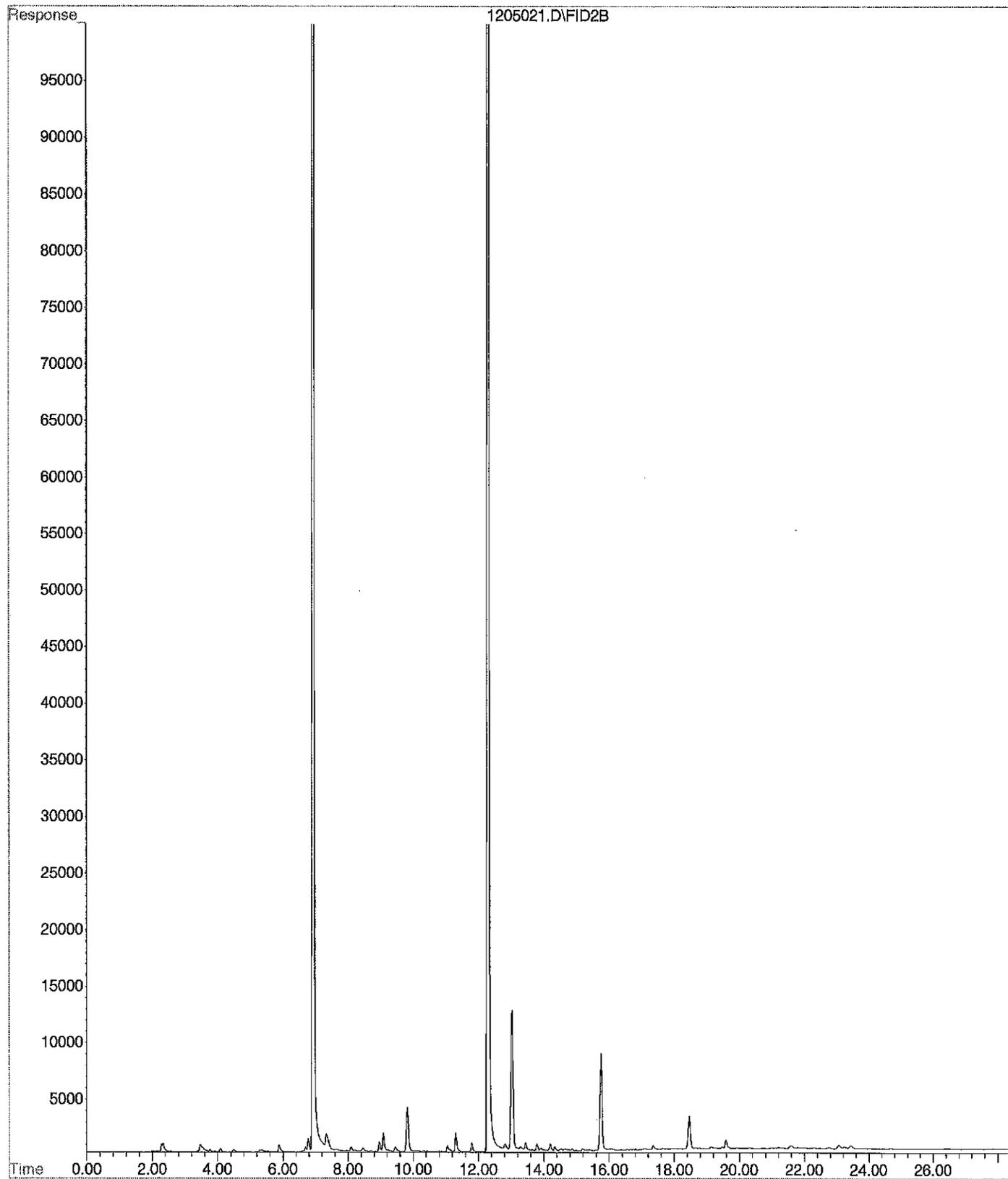
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 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.93	3717667	53.680 PPB
5) S BROMOFLUOROBENZENE	12.29	2302173	56.940 PPB
11) S FLUOROBENZENE #2	6.93	10127530	45.716 PPB
16) S BROMOFLUOROBENZENE #2	12.29	14526019	48.608 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	839973	0.010 PPM
2) H Entire GAS Envelope (9-24-	12.21	2509085	0.027 PPM
3) H GASOLINE (9-24-14)	13.51	752522	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	3781567	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	2380065	N.D. PPM
9) MTBE #2	4.71	320	N.D. PPB
10) BENZENE #2	6.70	15396	0.008 PPB
12) TOLUENE #2	9.08	68264	0.068 PPB
13) ETHYLBENZENE #2	11.05	26792	N.D. PPB
14) m,p-XYLENE #2	11.31	68119	N.D. PPB
15) o-XYLENE #2	11.80	32714	N.D. PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205021.D  
Operator :  
Acquired : 6 Dec 2014 1:15 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-044-04s  
Misc Info : V2-36-17  
Vial Number: 21



Quantitation Report (Not Reviewed)

Signal #1 : X:\BTEX\DARYL\DATA\D141205\1205004.D\FID1A.CH Via: 4  
 Signal #2 : X:\BTEX\DARYL\DATA\D141205\1205004.D\FID2B.CH  
 Acq On : 5 Dec 2014 14:34 Operator:  
 Sample : MB1205s3 Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 5 15:03 2014 Quant Results File: 141012DB.RES

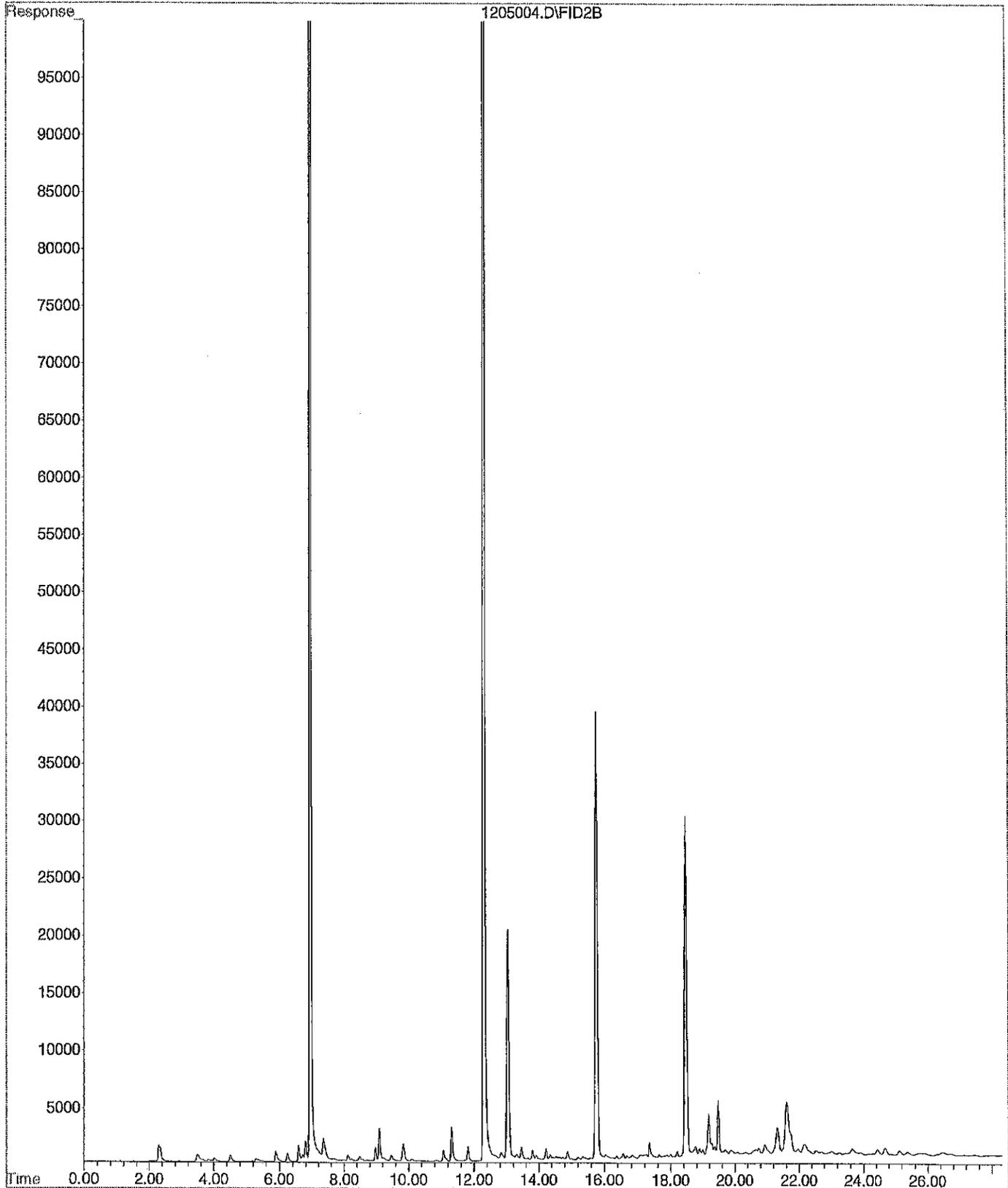
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.95	3265387	47.109	PPB
5) S BROMOFLUOROBENZENE	12.31	1925556	47.531	PPB
11) S FLUOROBENZENE #2	6.95	8530552	38.455	PPB
16) S BROMOFLUOROBENZENE #2	12.31	11794767	39.381	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	1117565	0.016	PPM
2) H Entire GAS Envelope (9-24-	12.21	4294861	0.054	PPM
3) H GASOLINE (9-24-14)	13.51	1215300	0.009	PPM
7) H entire GAS envelope #2 (9-	12.26	9313695	0.016	PPM
8) H GASOLINE #2 (9-24-14)	13.56	4932443	N.D.	PPM
9) MTBE #2	0.00	0	N.D.	PPB
10) BENZENE #2	6.71	19106	0.021	PPB
12) TOLUENE #2	9.09	115347	0.238	PPB
13) ETHYLBENZENE #2	11.07	44006	0.061	PPB
14) m,p-XYLENE #2	11.32	123069	N.D.	PPB
15) o-XYLENE #2	11.81	51021	N.D.	PPB

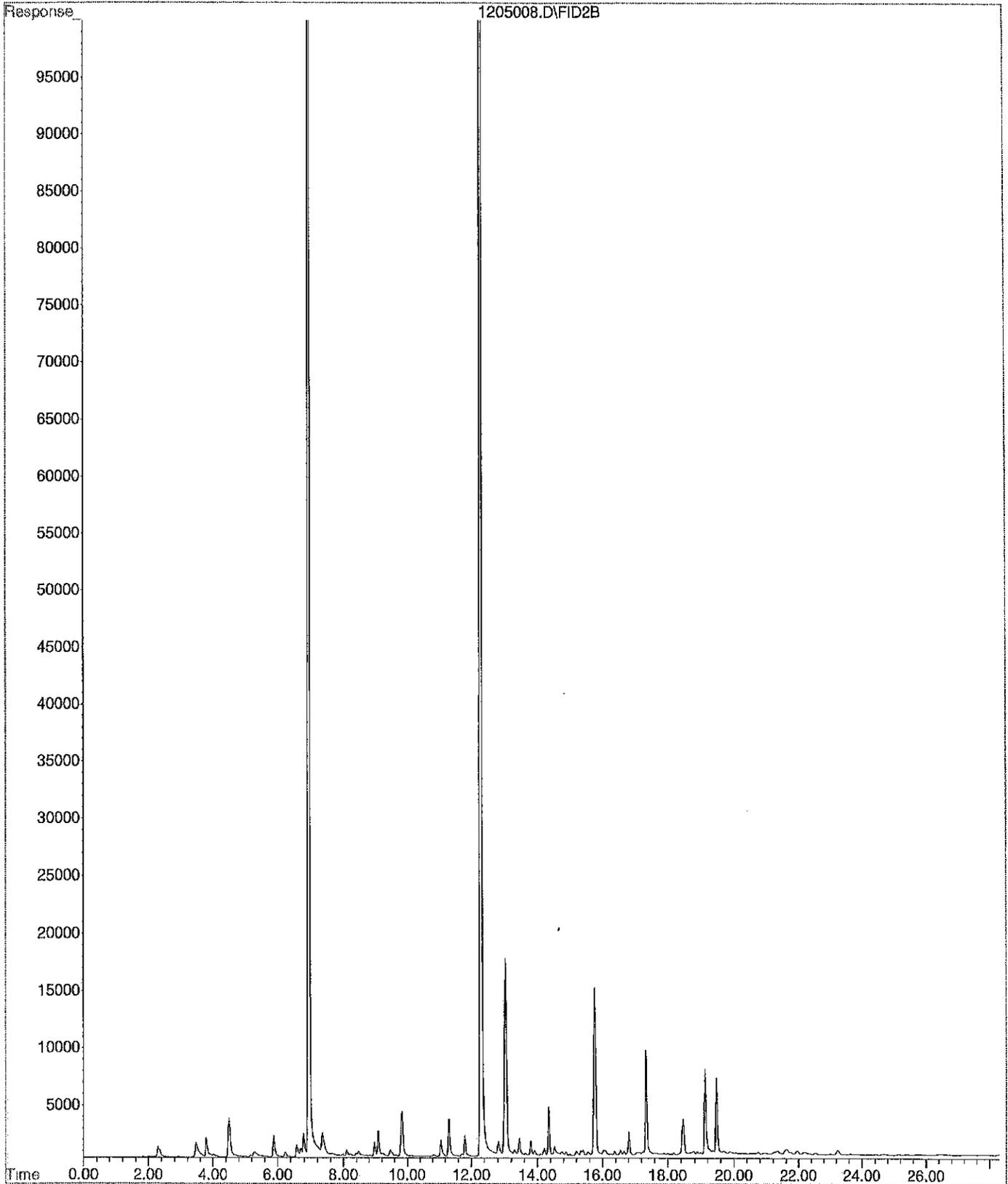
12/5  
 DW

File : X:\BTEX\DARYL\DATA\D141205\1205004.D  
Operator :  
Acquired : 5 Dec 2014 14:34 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1205S3  
Misc Info : V2-36-17  
Vial Number: 4





File : X:\BTEX\DARYL\DATA\D141205\1205008.D  
Operator :  
Acquired : 5 Dec 2014 18:03 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-029-01s  
Misc Info : V2-36-17  
Vial Number: 8



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141205\1205016.D\FID1A.CH  
 Signal #2 : d:\btex\DATA\D141205\1205016.D\FID2B.CH  
 Acq On : 5 Dec 2014 22:30  
 Sample : 12-029-01s DUP  
 Misc : V2-36-17

Vial: 16

Operator:  
 Inst : Daryl  
 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 22:58 2014 Quant Results File: 141012DB.RES

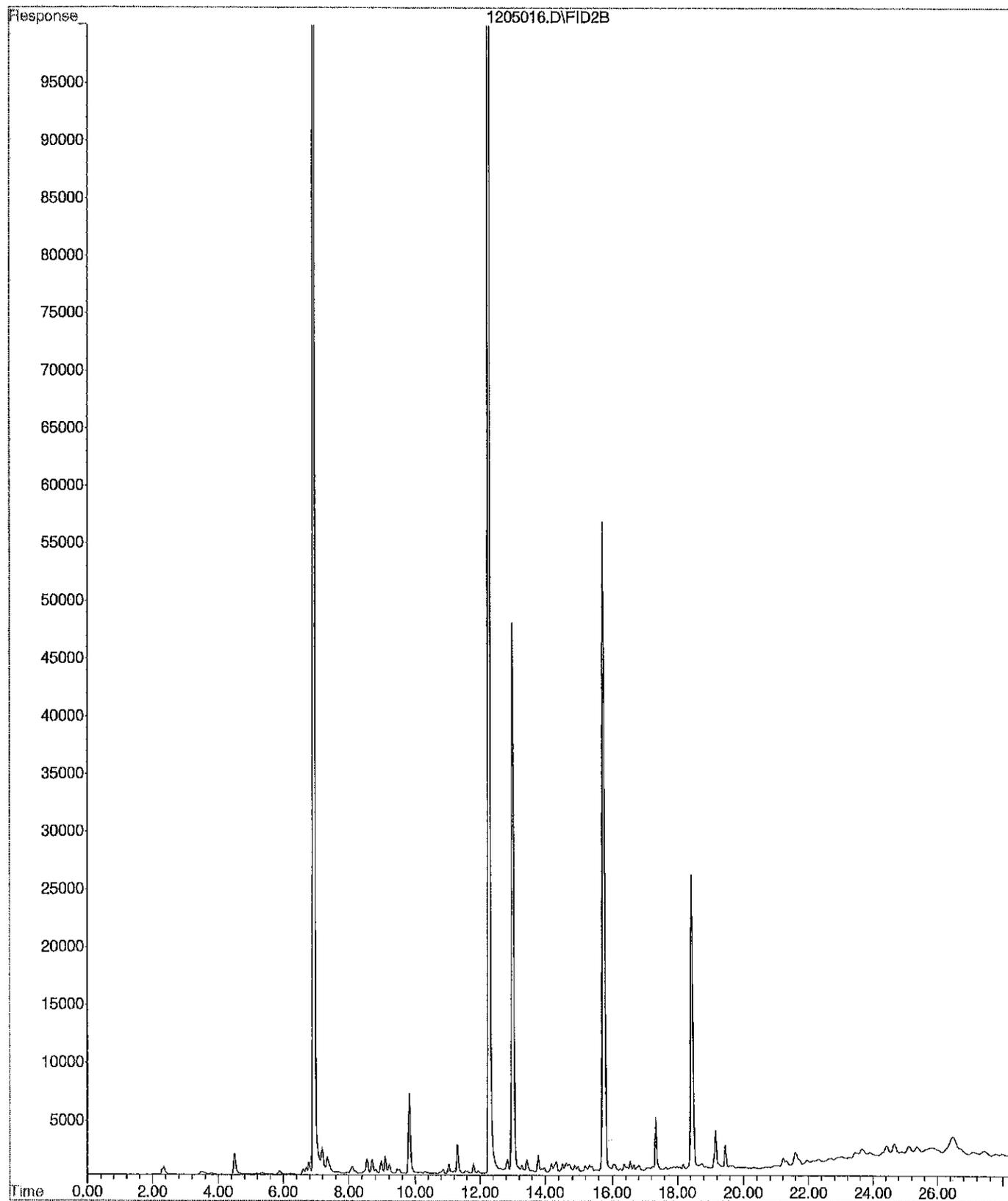
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :  
 Signal #1 Info :  
 Signal #2 Phase:  
 Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.93	2981522	42.985	PPB
5) S BROMOFLUOROBENZENE	12.29	1763639	43.486	PPB
11) S FLUOROBENZENE #2	6.93	7945088	35.793	PPB
16) S BROMOFLUOROBENZENE #2	12.29	11106615	37.057	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	1596107	0.026	PPM
2) H Entire GAS Envelope (9-24-	12.21	4325842	0.055	PPM
3) H GASOLINE (9-24-14)	13.51	1889719	0.026	PPM
7) H entire GAS envelope #2 (9-	12.26	11558691	0.032	PPM
8) H GASOLINE #2 (9-24-14)	13.56	7774270	0.012	PPM
9) MTBE #2	0.00	0	N.D.	PPB
10) BENZENE #2	6.70	21725	0.030	PPB
12) TOLUENE #2	9.08	56755	0.027	PPB
13) ETHYLBENZENE #2	11.04	37589	0.035	PPB
14) m,p-XYLENE #2	11.30	103047	N.D.	PPB
15) o-XYLENE #2	11.80	31113	N.D.	PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205016.D  
Operator :  
Acquired : 5 Dec 2014 22:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-029-01s DUP  
Misc Info : V2-36-17  
Vial Number: 16



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141205\1205006.D\FID1A.CH Vial: 6  
 Signal #2 : d:\btex\DATA\D141205\1205006.D\FID2B.CH  
 Acq On : 5 Dec 2014 16:56 Operator:  
 Sample : SB1205S2 Inst : Daryl  
 Misc : V2-36-17,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 17:25 2014 Quant Results File: 141012DB.RES

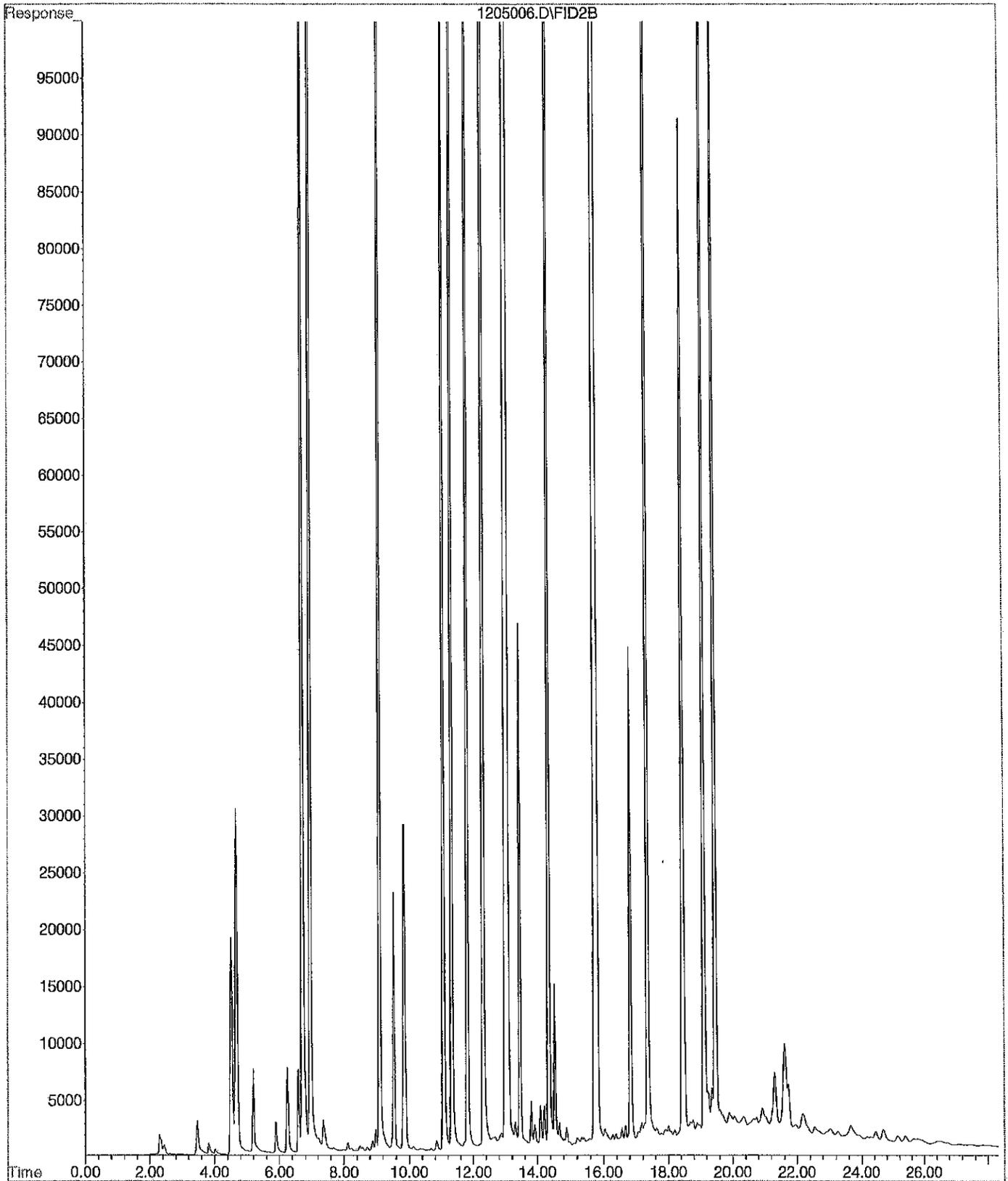
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.96	3179471	45.861 PPB
5) S BROMOFLUOROBENZENE	12.32	1788036	44.096 PPB
11) S FLUOROBENZENE #2	6.96	8361058	37.684 PPB
16) S BROMOFLUOROBENZENE #2	12.32	11262525	37.583 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	17861474	0.356 PPM
2) H Entire GAS Envelope (9-24-	12.21	37279636	0.560 PPM
3) H GASOLINE (9-24-14)	13.51	25284390	0.618 PPM
7) H entire GAS envelope #2 (9-	12.26	123231487	0.809 PPM
8) H GASOLINE #2 (9-24-14)	13.56	92660964	0.785 PPM
9) MTBE #2	4.68	1538770	21.025 PPB
10) BENZENE #2	6.72	5763666	19.596 PPB
12) TOLUENE #2	9.10	5668786	20.221 PPB
13) ETHYLBENZENE #2	11.07	4906352	19.861 PPB
14) m,p-XYLENE #2	11.33	6223083	20.907 PPB
15) o-XYLENE #2	11.82	5080417	20.038 PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205006.D  
Operator :  
Acquired : 5 Dec 2014 16:56 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SB1205S2  
Misc Info : V2-36-17,V2-36-14  
Vial Number: 6



Signal #1 : d:\btex\DATA\D141205\1205007.D\FID1A.CH Vial: 7  
 Signal #2 : d:\btex\DATA\D141205\1205007.D\FID2B.CH  
 Acq On : 5 Dec 2014 17:30 Operator:  
 Sample : SBD1205S2 Inst : Daryl  
 Misc : V2-36-17,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 17:58 2014 Quant Results File: 141012DB.RES

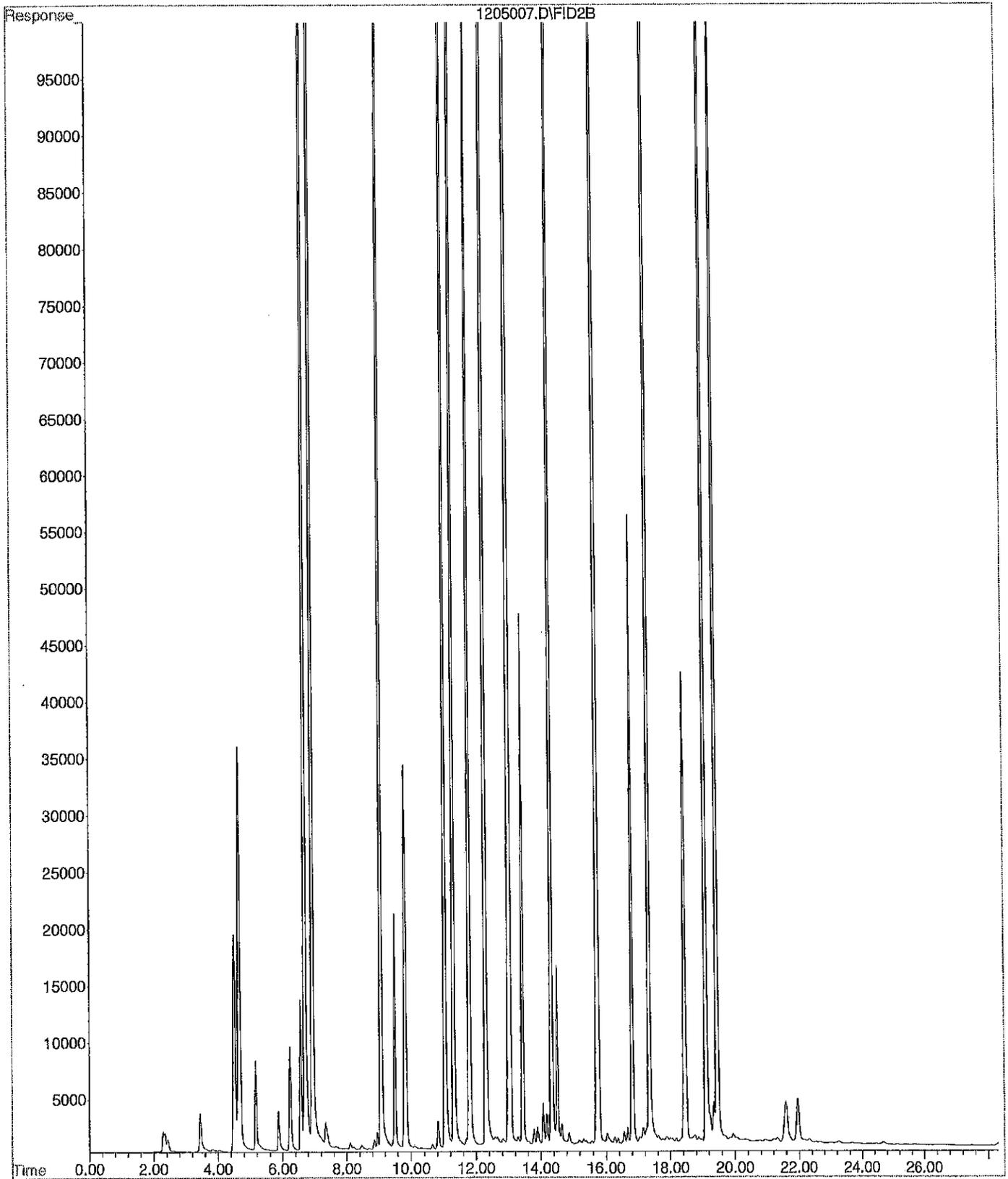
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3243603	46.792 PPB
5) S BROMOFLUOROBENZENE	12.30	1736266	42.802 PPB
11) S FLUOROBENZENE #2	6.94	8863055	39.967 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11181967	37.311 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	14417546	0.286 PPM
2) H Entire GAS Envelope (9-24-	12.21	31219535	0.467 PPM
3) H GASOLINE (9-24-14)	13.51	20618307	0.500 PPM
7) H entire GAS envelope #2 (9-	12.26	85071675	0.544 PPM
8) H GASOLINE #2 (9-24-14)	13.56	59067757	0.479 PPM
9) MTBE #2	4.66	1793247	24.510 PPB
10) BENZENE #2	6.70	6101770	20.748 PPB
12) TOLUENE #2	9.08	5737055	20.467 PPB
13) ETHYLBENZENE #2	11.05	5073580	20.542 PPB
14) m,p-XYLENE #2	11.31	6106207	20.504 PPB
15) o-XYLENE #2	11.80	5167635	20.387 PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205007.D  
Operator :  
Acquired : 5 Dec 2014 17:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SBD1205S2  
Misc Info : V2-36-17,V2-36-14  
Vial Number: 7



Signal #1 : d:\btex\DATA\D141205\1205002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141205\1205002.D\FID2B.CH  
 Acq On : 5 Dec 2014 13:00 Operator:  
 Sample : CCVD1205B-1 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 13:28 2014 Quant Results File: 141012DB.RES

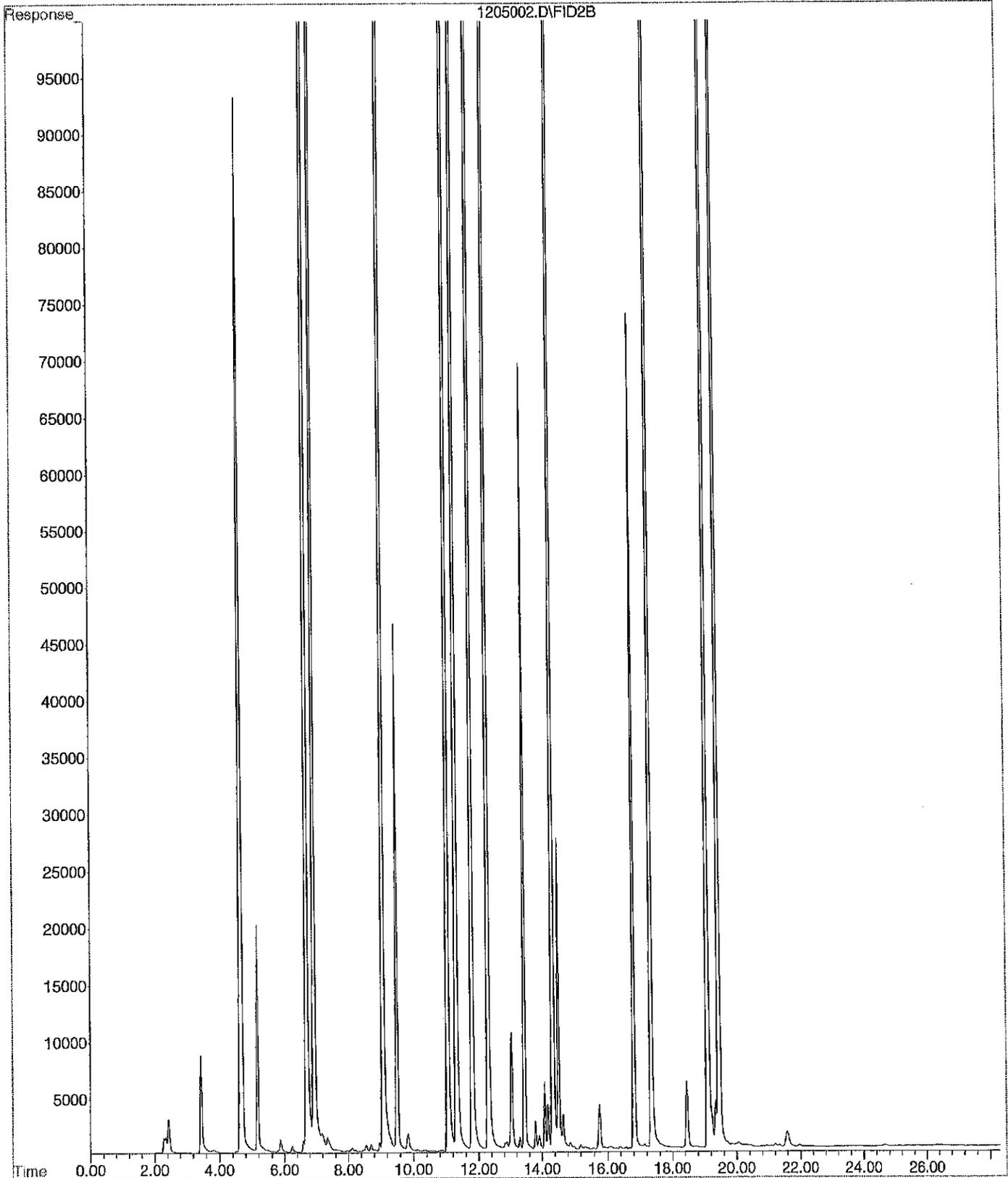
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	2992597	43.146 PPB
5) S BROMOFLUOROBENZENE	12.30	1784581	44.009 PPB
11) S FLUOROBENZENE #2	6.94	8113842	36.560 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11475759	38.304 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30403792	0.611 PPM
2) H Entire GAS Envelope (9-24-	12.21	53294755	0.805 PPM
3) H GASOLINE (9-24-14)	13.51	35570964	0.878 PPM
7) H entire GAS envelope #2 (9-	12.26	121650008	0.798 PPM
8) H GASOLINE #2 (9-24-14)	13.56	84760212	0.713 PPM
9) MTBE #2	4.66	4361955	59.688 PPB
10) BENZENE #2	6.70	14825897	50.476 PPB
12) TOLUENE #2	9.08	14198481	50.914 PPB
13) ETHYLBENZENE #2	11.05	12291418	49.935 PPB
14) m,p-XYLENE #2	11.32	14990069	51.131 PPB
15) o-XYLENE #2	11.80	12546820	49.879 PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205002.D  
Operator :  
Acquired : 5 Dec 2014 13:00 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205B-1  
Misc Info : V2-36-11,v2-36-14  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141205\1205017.D\FID1A.CH      Vial: 17  
 Signal #2 : d:\btex\DATA\D141205\1205017.D\FID2B.CH  
 Acq On : 5 Dec 2014 23:03      Operator:  
 Sample : CCVD1205B-2      Inst : Daryl  
 Misc : V2-36-11,V2-36-14      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile signal #1: events.e      IntFile signal #2: EVENTS2.E

Quant Time: Dec 5 23:31 2014      Quant Results File: 141012DB.RES

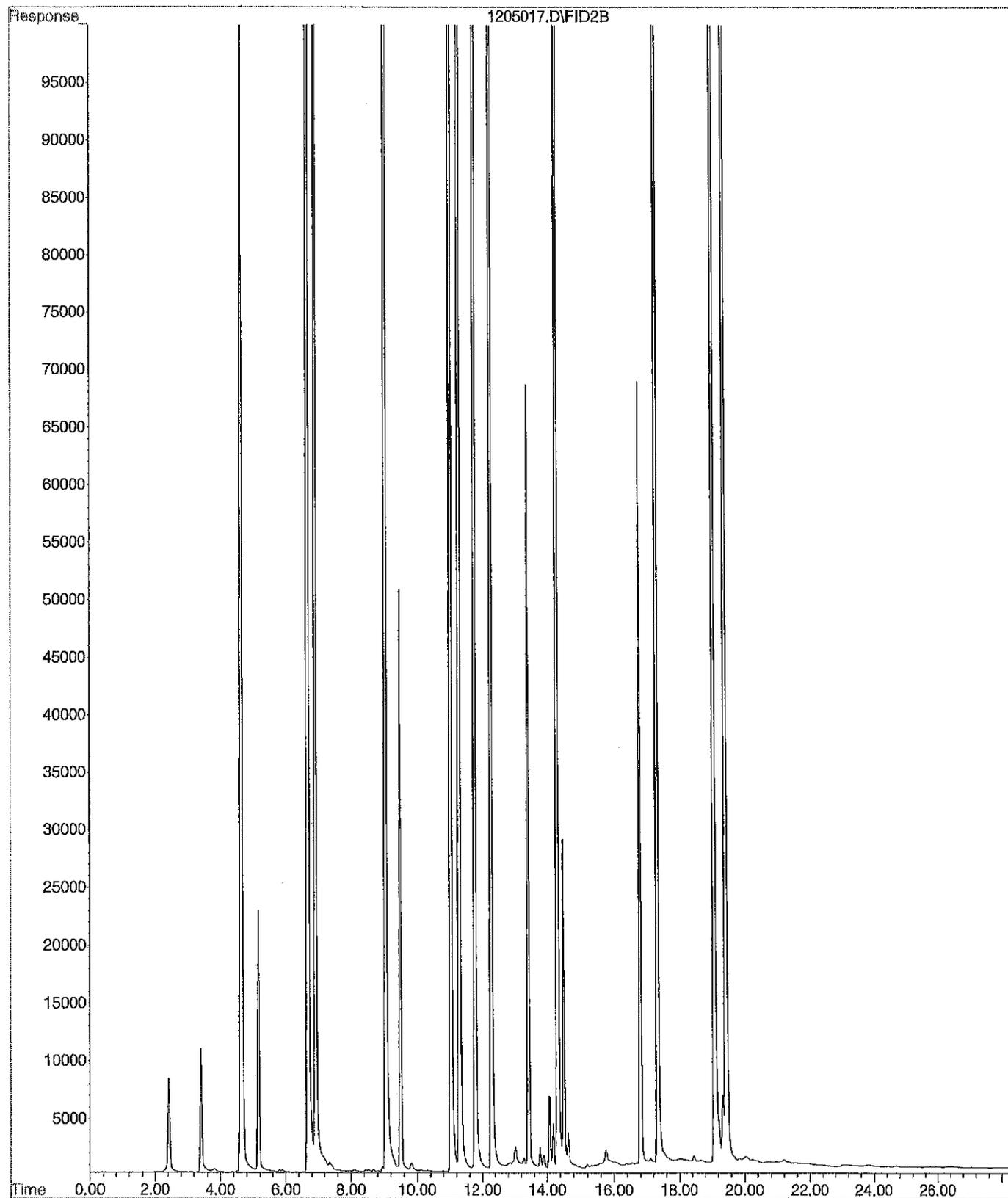
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2907886	41.915 PPB
5) S BROMOFLUOROBENZENE	12.29	1766288	43.552 PPB
11) S FLUOROBENZENE #2	6.92	8205354	36.976 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11374106	37.960 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31101634	0.625 PPM
2) H Entire GAS Envelope (9-24-	12.21	55885353	0.845 PPM
3) H GASOLINE (9-24-14)	13.51	36864738	0.911 PPM
7) H entire GAS envelope #2 (9-	12.26	134994868	0.891 PPM
8) H GASOLINE #2 (9-24-14)	13.56	89876252	0.760 PPM
9) MTBE #2	4.64	4817597	65.928 PPB
10) BENZENE #2	6.68	15622481	53.190 PPB
12) TOLUENE #2	9.07	14536365	52.130 PPB
13) ETHYLBENZENE #2	11.03	12796324	51.991 PPB
14) m,p-XYLENE #2	11.30	15306980	52.224 PPB
15) o-XYLENE #2	11.79	12938094	51.443 PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205017.D  
Operator :  
Acquired : 5 Dec 2014 23:03 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 17



Signal #1 : d:\btex\DATA\D141205\1205031.D\FID1A.CH      Vial: 31  
 Signal #2 : d:\btex\DATA\D141205\1205031.D\FID2B.CH  
 Acq On : 6 Dec 2014 6:46      Operator:  
 Sample : CCVD1205B-3      Inst : Daryl  
 Misc : V2-36-11,V2-36-14      Multiplr: 1.00  
    Sample Amount: 0.00  
 IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 7:14 2014      Quant Results File: 141012DB.RES

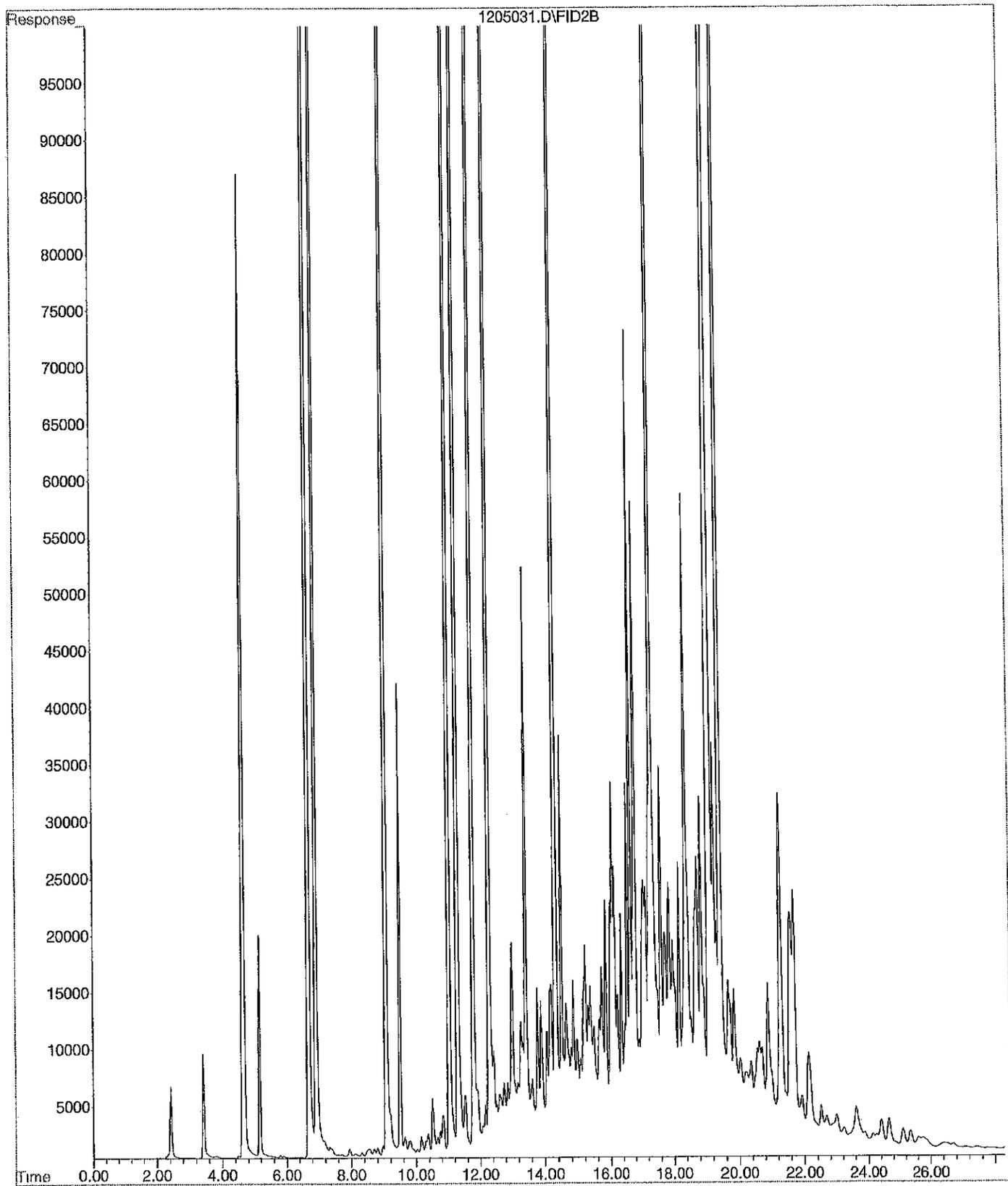
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 signal #1 Phase :      signal #2 Phase:  
 signal #1 Info :      signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3073274	44.318 PPB
5) S BROMOFLUOROBENZENE	12.29	2253088	55.714 PPB
11) S FLUOROBENZENE #2	6.93	7701755	34.687 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11677006	38.984 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	34231079	0.689 PPM
2) H Entire GAS Envelope (9-24-	12.21	81568579	1.238 PPM
3) H GASOLINE (9-24-14)	13.51	52738685	1.313 PPM
7) H entire GAS envelope #2 (9-	12.26	186126250	1.248 PPM
8) H GASOLINE #2 (9-24-14)	13.56	120287308	1.037 PPM
9) MTBE #2	4.64	4056762	55.508 PPB
10) BENZENE #2	6.69	13698793	46.635 PPB
12) TOLUENE #2	9.07	13008427	46.632 PPB
13) ETHYLBENZENE #2	11.04	11720028	47.608 PPB
14) m,p-XYLENE #2	11.30	14365863	48.979 PPB
15) o-XYLENE #2	11.79	11989465	47.652 PPB

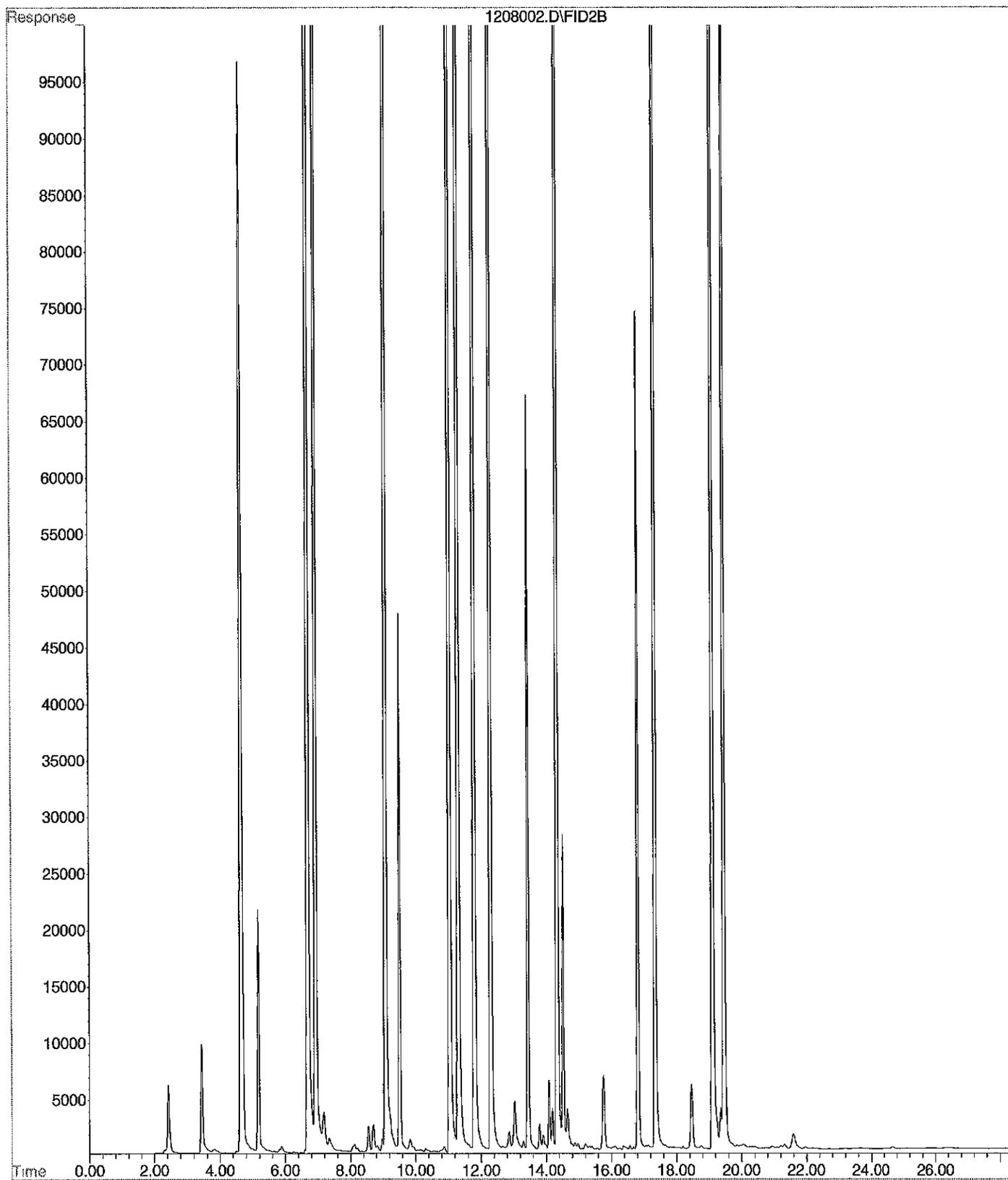
12/8

File : X:\BTEX\DARYL\DATA\D141205\1205031.D  
Operator :  
Acquired : 6 Dec 2014 6:46 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205B-3  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 31





File : X:\BTEX\DARYL\DATA\D141208\1208002.D  
Operator :  
Acquired : 8 Dec 2014 16:06 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1208B-1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141208\1208017.D\FID1A.CH Vial: 17  
 Signal #2 : d:\btex\DATA\D141208\1208017.D\FID2B.CH  
 Acq On : 9 Dec 2014 00:36 Operator:  
 Sample : CCVD1208B-2 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 9 1:05 2014 Quant Results File: 141012DB.RES

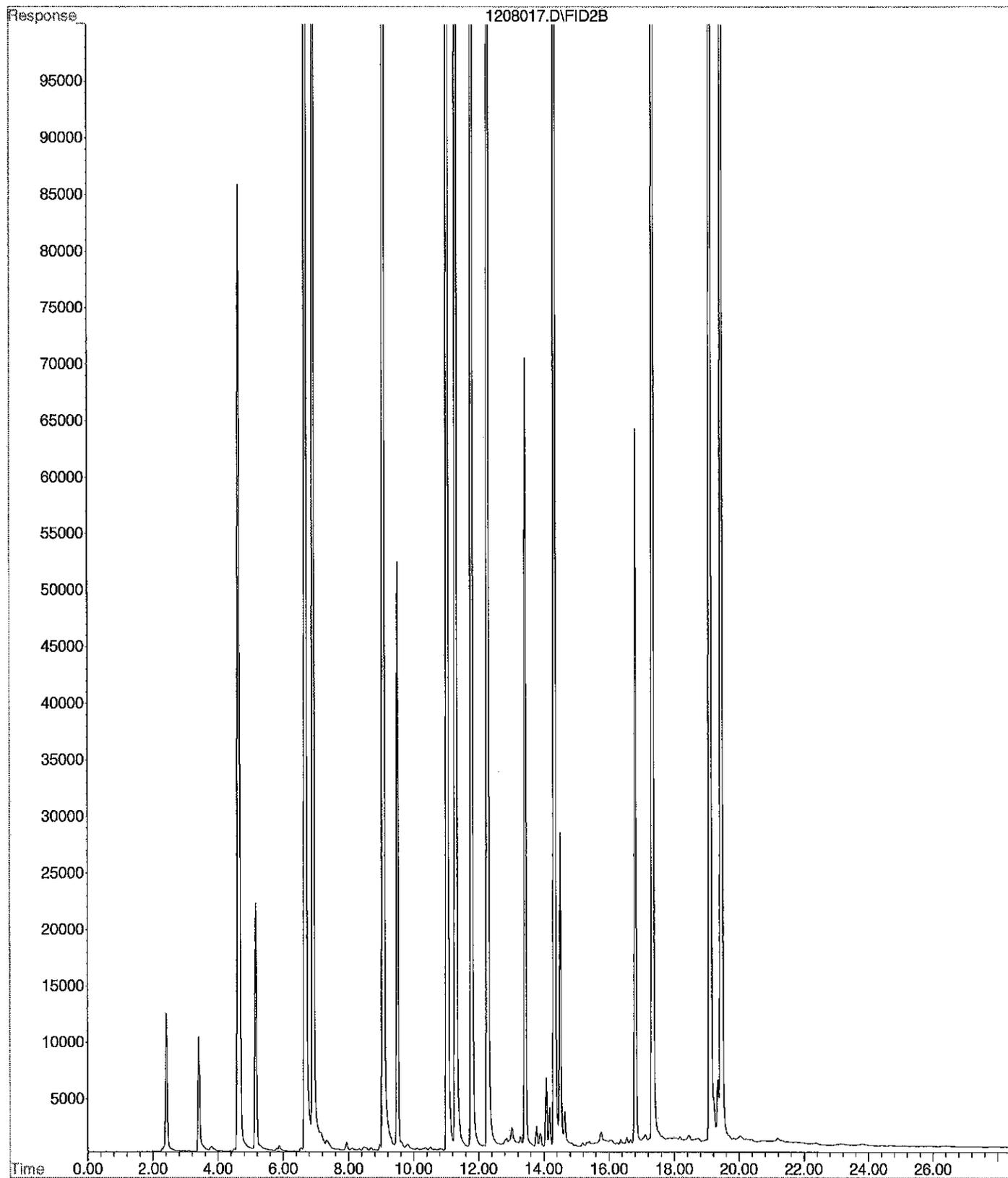
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.92	3010988	43.413 PPB
5) S BROMOFLUOROBENZENE	12.29	1785815	44.040 PPB
11) S FLUOROBENZENE #2	6.92	8263290	37.240 PPB
16) S BROMOFLUOROBENZENE #2	12.28	11519621	38.452 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30729026	0.618 PPM
2) H Entire GAS Envelope (9-24-	12.21	54472662	0.823 PPM
3) H GASOLINE (9-24-14)	13.51	36279994	0.896 PPM
7) H entire GAS envelope #2 (9-	12.26	131049801	0.864 PPM
8) H GASOLINE #2 (9-24-14)	13.56	88005283	0.743 PPM
9) MTBE #2	4.64	4017148	54.966 PPB
10) BENZENE #2	6.68	15360629	52.298 PPB
12) TOLUENE #2	9.07	14329919	51.387 PPB
13) ETHYLBENZENE #2	11.03	12528210	50.899 PPB
14) m,p-XYLENE #2	11.30	15023437	51.246 PPB
15) o-XYLENE #2	11.79	12677690	50.402 PPB

12/9  
 DL

File : X:\BTEX\DARYL\DATA\D141208\1208017.D  
Operator :  
Acquired : 9 Dec 2014 00:36 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1208B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 17



Signal #1 : d:\btex\DATA\D141205\1205001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141205\1205001.D\FID2B.CH  
 Acq On : 5 Dec 2014 12:26 Operator:  
 Sample : CCVD1205G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 5 12:55 2014 Quant Results File: 141012DB.RES

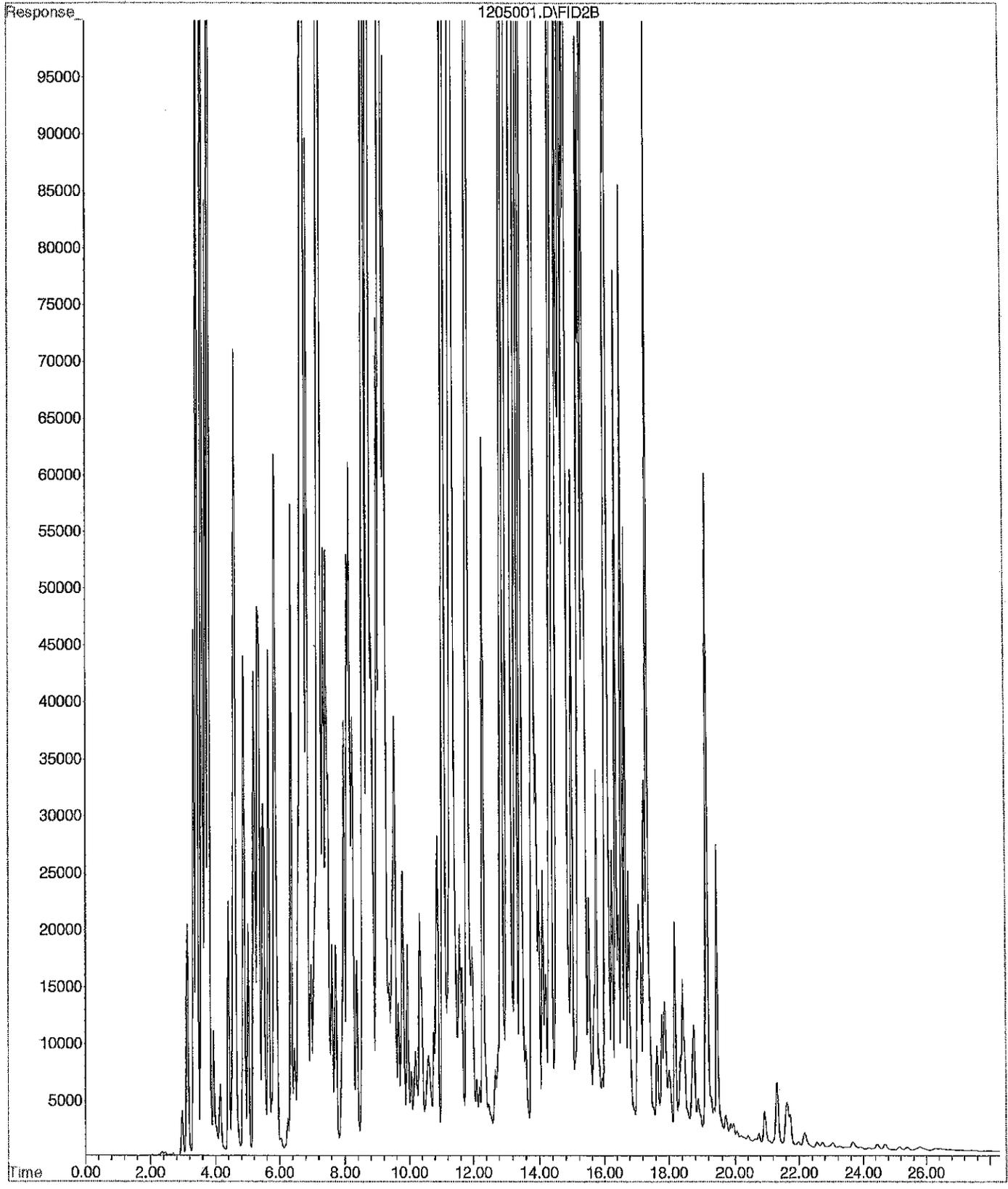
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.97	276497	3.685 PPB
5) S BROMOFLUOROBENZENE	12.30	1233498	30.242 PPB
11) S FLUOROBENZENE #2	6.97	732959	3.002 PPB
16) S BROMOFLUOROBENZENE #2	12.30	2722876	8.736 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	289479991	5.874 PPM
2) H Entire GAS Envelope (9-24-	12.21	387332031	5.922 PPM
3) H GASOLINE (9-24-14)	13.51	212838853	5.363 PPM
7) H entire GAS envelope #2 (9-	12.26	697251851	4.808 PPM
8) H GASOLINE #2 (9-24-14)	13.56	524937838	4.726 PPM ✓
9) MTBE #2	4.59	3875565	53.027 PPB
10) BENZENE #2	6.72	46487289	158.364 PPB
12) TOLUENE #2	9.10	120385133	433.011 PPB
13) ETHYLBENZENE #2	11.06	29483095	119.942 PPB
14) m,p-XYLENE #2	11.32	107881243	371.376 PPB
15) o-XYLENE #2	11.82	40898267	163.192 PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205001.D  
Operator :  
Acquired : 5 Dec 2014 12:26 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141205\1205032.D\FID1A.CH      Vial: 32  
 Signal #2 : d:\btex\DATA\D141205\1205032.D\FID2B.CH  
 Acq On : 6 Dec 2014 7:19      Operator:  
 Sample : CCVD1205G-2      Inst : Daryl  
 Misc : V2-36-08      Multiplr: 1.00  
                                  Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 7:47 2014      Quant Results File: 141012DB.RES

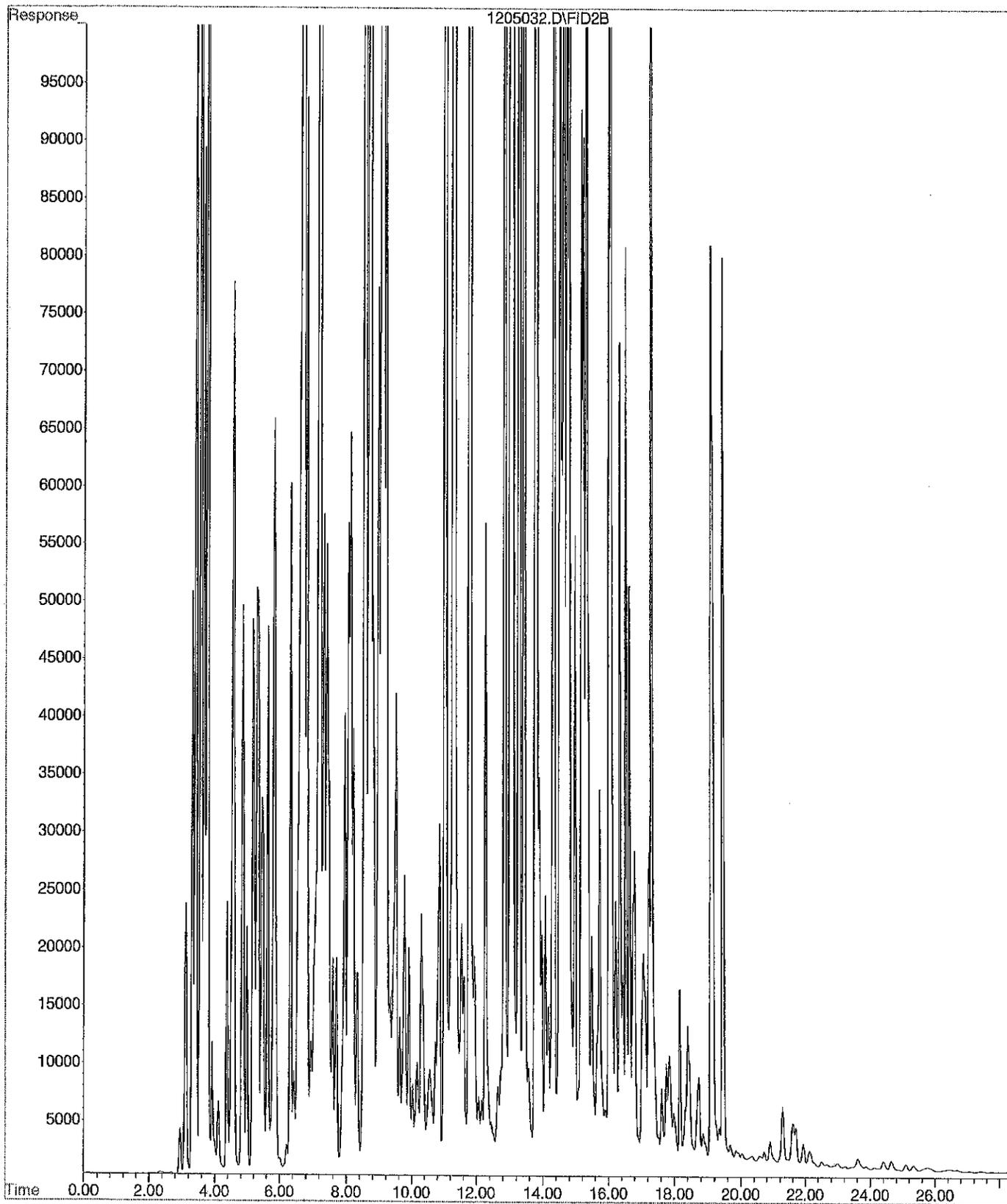
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.27	1218418	29.865	PPB
11) S FLUOROBENZENE #2	6.95	493722	1.914	PPB
16) S BROMOFLUOROBENZENE #2	12.27	2490581	7.951	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	282236425	5.727	PPM
2) H Entire GAS Envelope (9-24-	12.21	378242148	5.783	PPM
3) H GASOLINE (9-24-14)	13.51	208887362	5.263	PPM
7) H entire GAS envelope #2 (9-	12.26	697527958	4.810	PPM
8) H GASOLINE #2 (9-24-14)	13.56	520506989	4.685	PPM
9) MTBE #2	4.57	4216171	57.691	PPB
10) BENZENE #2	6.69	46369193	157.961	PPB
12) TOLUENE #2	9.07	121040970	435.371	PPB
13) ETHYLBENZENE #2	11.03	29128313	118.497	PPB
14) m,p-XYLENE #2	11.29	107992922	371.761	PPB
15) o-XYLENE #2	11.79	40515001	161.660	PPB

12/8/14

File : X:\BTEX\DARYL\DATA\D141205\1205032.D  
Operator :  
Acquired : 6 Dec 2014 7:19 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205G-2  
Misc Info : V2-36-08  
Vial Number: 32



Signal #1 : d:\btex\DATA\D141208\1208001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141208\1208001.D\FID2B.CH  
 Acq On : 8 Dec 2014 15:32 Operator:  
 Sample : CCVD1208G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 8 16:01 2014 Quant Results File: 141012DB.RES

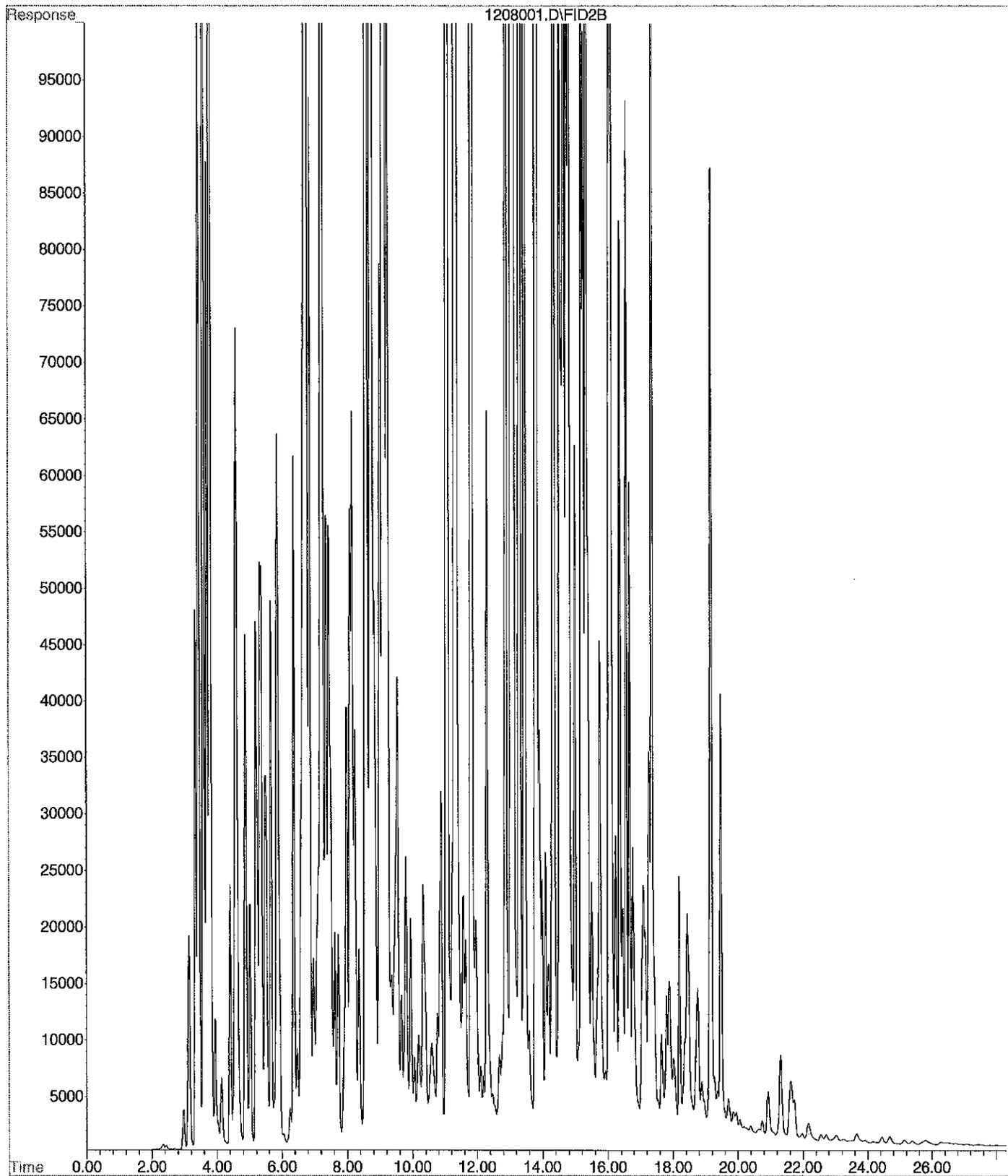
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.97	277513	3.700 PPB
5) S BROMOFLUOROBENZENE	12.29	1323192	32.483 PPB
11) S FLUOROBENZENE #2	6.97	741507	3.041 PPB
16) S BROMOFLUOROBENZENE #2	12.30	2873287	9.244 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	297703484	6.041 PPM
2) H Entire GAS Envelope (9-24-	12.21	400751649	6.127 PPM
3) H GASOLINE (9-24-14)	13.51	224709781	5.663 PPM
7) H entire GAS envelope #2 (9-	12.26	721575129	4.977 PPM
8) H GASOLINE #2 (9-24-14)	13.56	543174704	4.892 PPM
9) MTBE #2	4.60	4095292	56.036 PPB
10) BENZENE #2	6.72	47893284	163.155 PPB
12) TOLUENE #2	9.10	121921274	438.539 PPB
13) ETHYLBENZENE #2	11.06	30580096	124.409 PPB
14) m,p-XYLENE #2	11.32	109856919	378.187 PPB
15) o-XYLENE #2	11.81	42253498	168.608 PPB

12/9 ✓

File : X:\BTEX\DARYL\DATA\D141208\1208001.D  
Operator :  
Acquired : 8 Dec 2014 15:32 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1208G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141208\1208032.D\FID1A.CH Vial: 32  
 Signal #2 : d:\btex\DATA\D141208\1208032.D\FID2B.CH  
 Acq On : 9 Dec 2014 8:56 Operator:  
 Sample : CCVH1208G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 9 9:25 2014 Quant Results File: 141012DB.RES

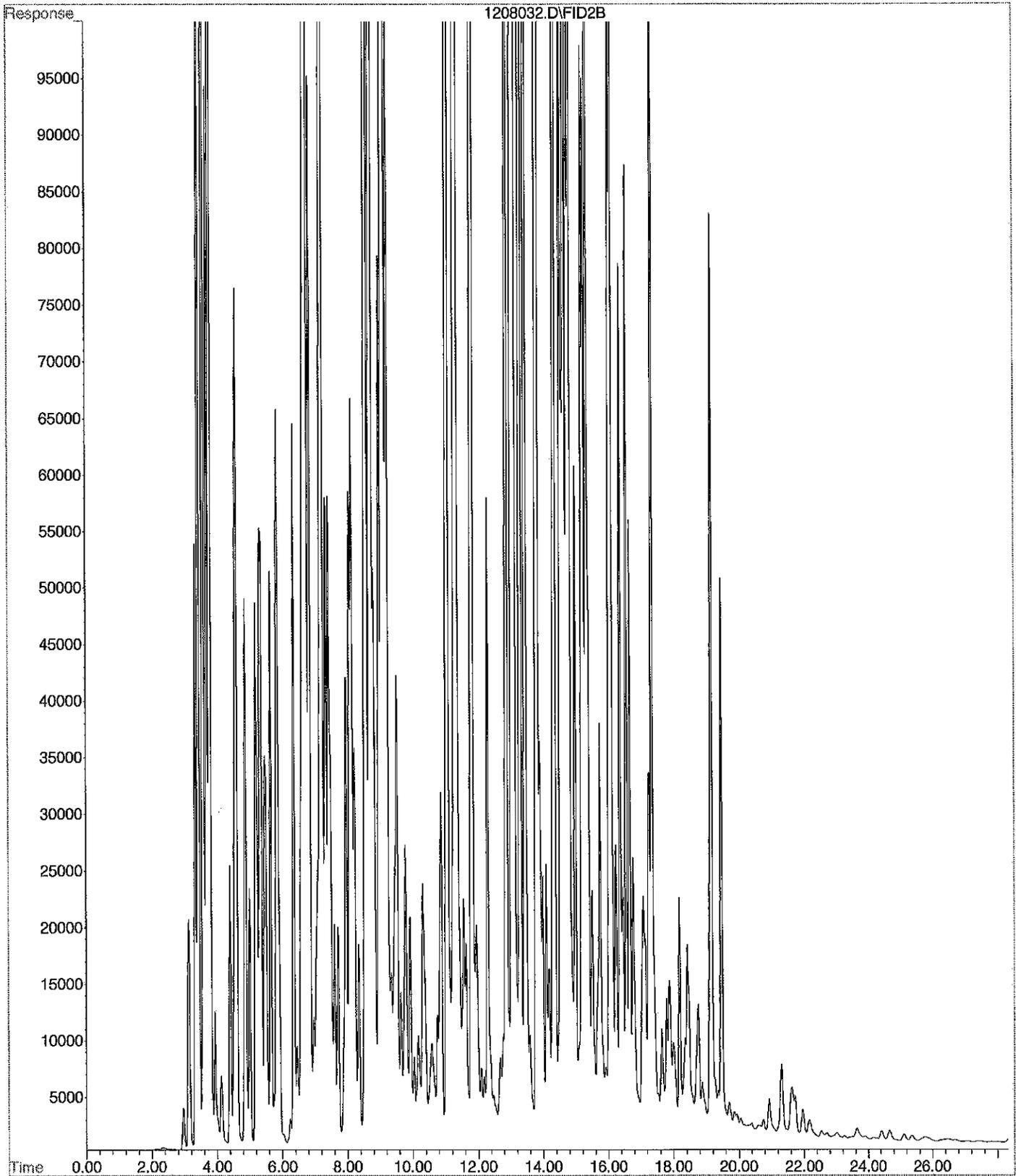
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.84	7794994	112.916 PPB
5) S BROMOFLUOROBENZENE	12.29	1254879	30.776 PPB
11) S FLUOROBENZENE #2	6.97	506653	1.973 PPB
16) S BROMOFLUOROBENZENE #2	12.29	2534176	8.099 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	283166569	5.745 PPM
2) H Entire GAS Envelope (9-24-	12.21	386182488	5.904 PPM
3) H GASOLINE (9-24-14)	13.51	218296683	5.501 PPM
7) H entire GAS envelope #2 (9-	12.26	708141900	4.884 PPM
8) H GASOLINE #2 (9-24-14)	13.56	528571816	4.759 PPM
9) MTBE #2	4.59	4185894	57.277 PPB
10) BENZENE #2	6.71	47696340	162.484 PPB
12) TOLUENE #2	9.09	120499807	433.424 PPB
13) ETHYLBENZENE #2	11.05	29547517	120.204 PPB
14) m,p-XYLENE #2	11.31	107449979	369.889 PPB
15) o-XYLENE #2	11.81	40651695	162.206 PPB

12/9 ✓

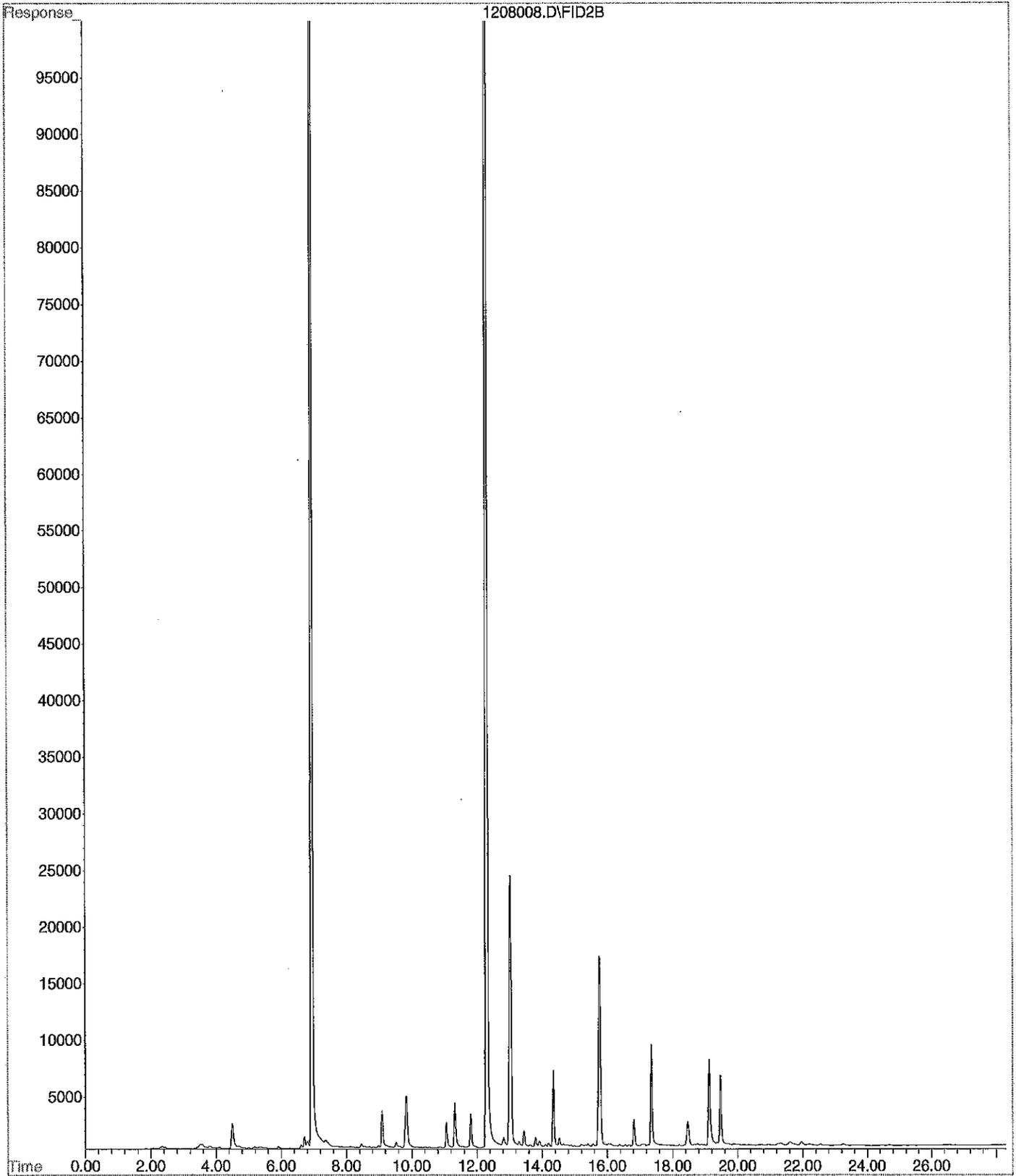
File : X:\BTEX\DARYL\DATA\D141208\1208032.D  
Operator :  
Acquired : 9 Dec 2014 8:56 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVH1208G-2  
Misc Info : V2-36-08  
Vial Number: 32



## NWTPH-Gx/Benzene (water) Data



File : X:\BTEX\DARYL\DATA\D141208\1208008.D  
Operator :  
Acquired : 8 Dec 2014 19:39 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-044-05  
Misc Info : V2-36-11  
Vial Number: 8



Signal #1 : d:\btex\DATA\D141208\1208004.D\FID1A.CH Vial: 4  
 Signal #2 : d:\btex\DATA\D141208\1208004.D\FID2B.CH  
 Acq On : 8 Dec 2014 17:24 Operator:  
 Sample : MB1208w2 Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 8 17:52 2014 Quant Results File: 141012DB.RES

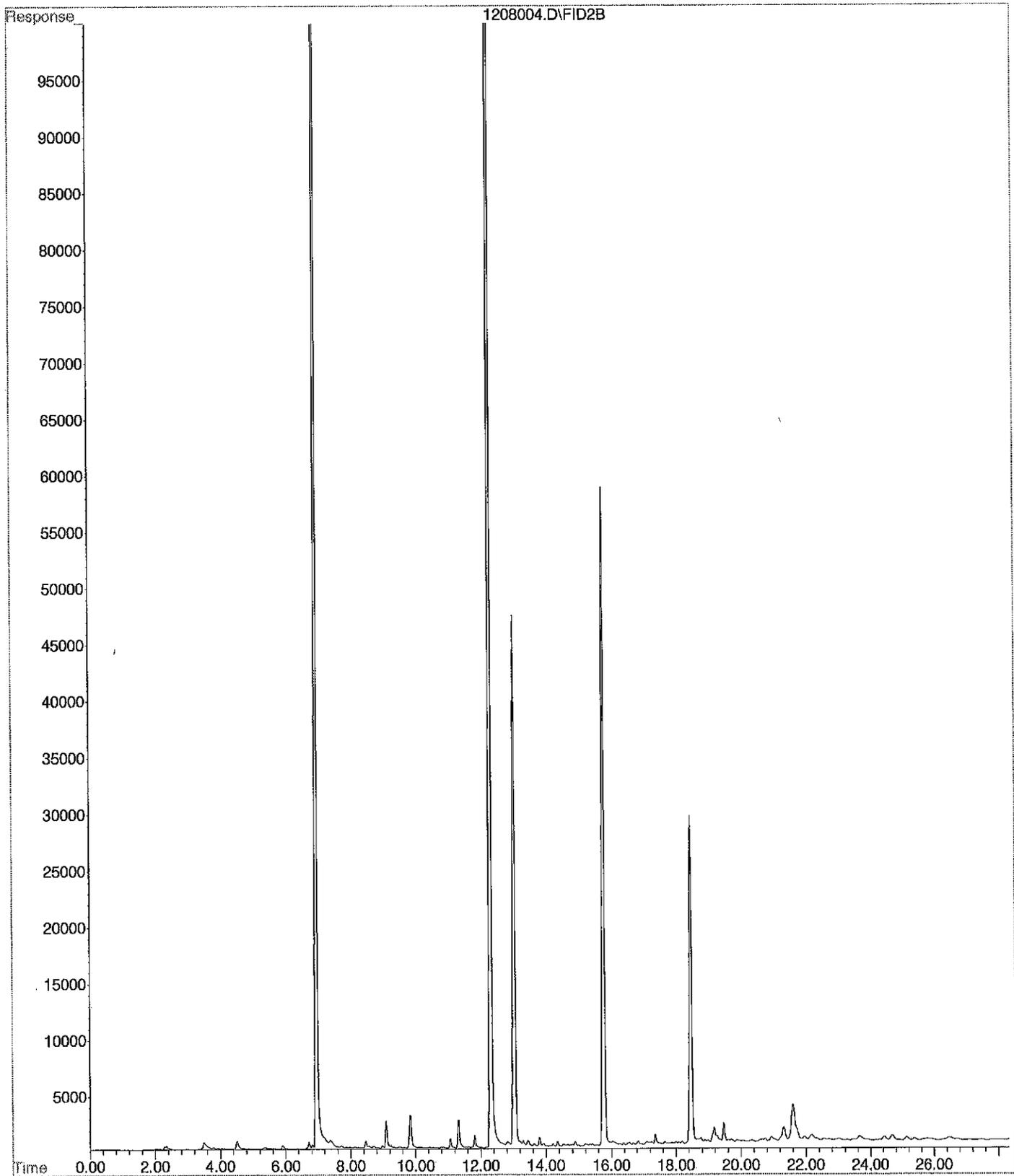
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	2988382	43.084 PPB
5) S BROMOFLUOROBENZENE	12.30	1818859	44.866 PPB
11) S FLUOROBENZENE #2	6.95	8028106	36.170 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11381519	37.985 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	879323	0.011 PPM
2) H Entire GAS Envelope (9-24-	12.21	2734407	0.031 PPM
3) H GASOLINE (9-24-14)	13.51	1257112	0.010 PPM
7) H entire GAS envelope #2 (9-	12.26	9832389	0.020 PPM
8) H GASOLINE #2 (9-24-14)	13.56	6550170	0.000 PPM
9) MTBE #2	4.72	3635	0.002 PPB
10) BENZENE #2	6.71	24669	0.040 PPB
12) TOLUENE #2	9.09	104520	0.199 PPB
13) ETHYLBENZENE #2	11.06	30733	0.007 PPB
14) m,p-XYLENE #2	11.32	101988	N.D. PPB
15) o-XYLENE #2	11.81	43865	N.D. PPB

12/9 ✓

File : X:\BTEX\DARYL\DATA\D141208\1208004.D  
Operator :  
Acquired : 8 Dec 2014 17:24 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1208w2  
Misc Info : V2-36-11  
Vial Number: 4



Signal #1 : d:\btex\DATA\D141208\1208009.D\FID1A.CH Vial: 9  
 Signal #2 : d:\btex\DATA\D141208\1208009.D\FID2B.CH  
 Acq On : 8 Dec 2014 20:12 Operator:  
 Sample : 12-057-01b Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 8 20:40 2014 Quant Results File: 141012DB.RES

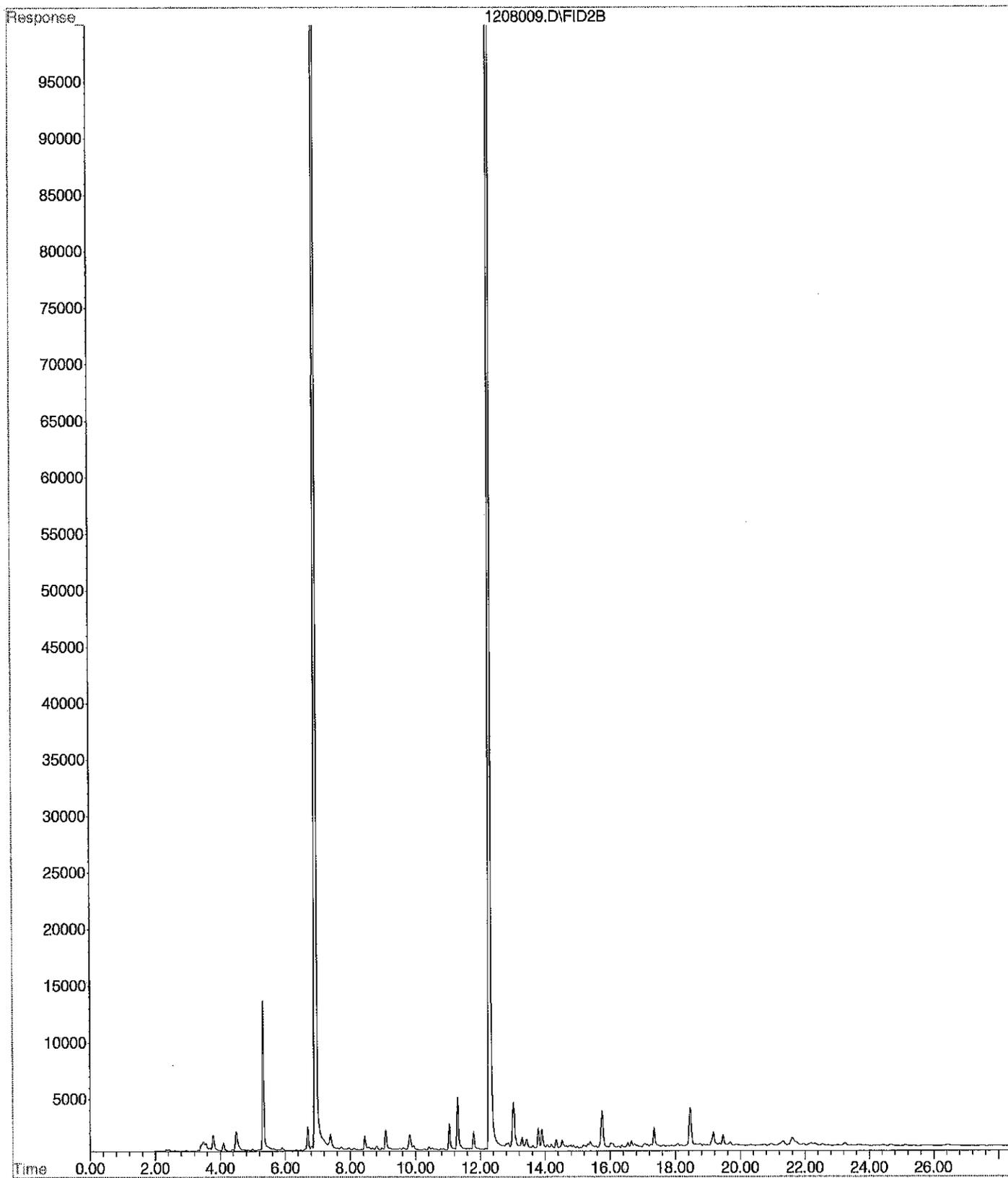
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.94	2920116	42.093	PPB
5) S BROMOFLUOROBENZENE	12.29	1774722	43.763	PPB
11) S FLUOROBENZENE #2	6.94	7966114	35.889	PPB
16) S BROMOFLUOROBENZENE #2	12.29	11152551	37.212	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	785574	0.009	PPM
2) H Entire GAS Envelope (9-24-	12.21	2134024	0.021	PPM
3) H GASOLINE (9-24-14)	13.51	913644	0.002	PPM
7) H entire GAS envelope #2 (9-	12.26	5399758	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	2760086	N.D.	PPM
9) MTBE #2	0.00	0	N.D.	PPB
10) BENZENE #2	6.70	77208	0.219	PPB
12) TOLUENE #2	9.09	66619	0.062	PPB
13) ETHYLBENZENE #2	11.05	84151	0.225	PPB
14) m,p-XYLENE #2	11.31	188252	0.102	PPB
15) o-XYLENE #2	11.80	61728	N.D.	PPB

12/9  


File : X:\BTEX\DARYL\DATA\D141208\1208009.D  
Operator :  
Acquired : 8 Dec 2014 20:12 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-057-01b  
Misc Info : V2-36-11  
Vial Number: 9



Signal #1 : d:\btex\DATA\D141208\1208010.D\FID1A.CH vial: 10  
 Signal #2 : d:\btex\DATA\D141208\1208010.D\FID2B.CH  
 Acq On : 8 Dec 2014 20:45 Operator:  
 Sample : 12-057-01b DUP Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 8 21:13 2014 Quant Results File: 141012DB.RES

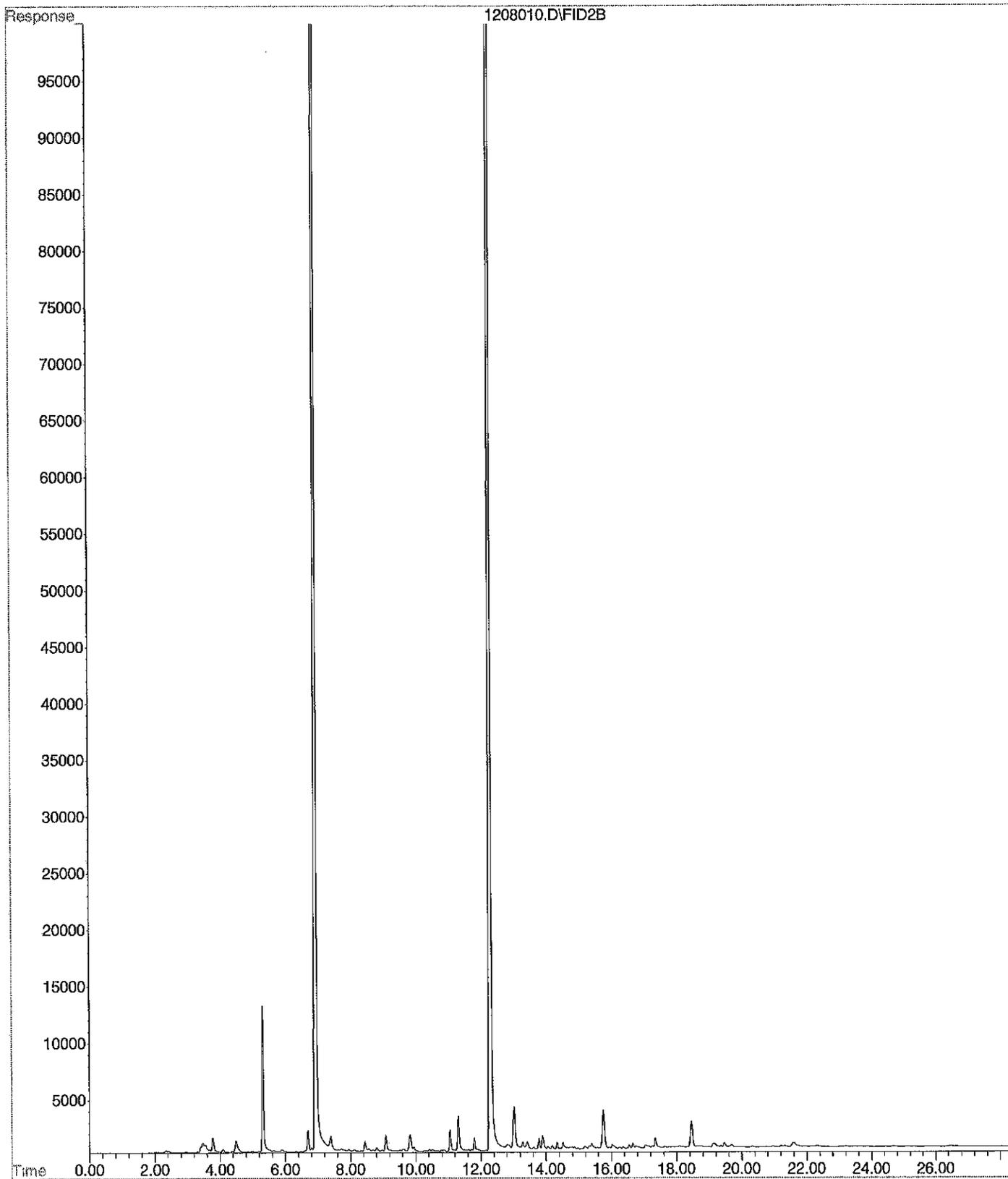
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3203646	46.212 PPB
5) S BROMOFLUOROBENZENE	12.29	1934491	47.755 PPB
11) S FLUOROBENZENE #2	6.93	8663818	39.061 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12227706	40.844 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	870872	0.011 PPM
2) H Entire GAS Envelope (9-24-	12.21	2305761	0.024 PPM
3) H GASOLINE (9-24-14)	13.51	1004440	0.004 PPM
7) H entire GAS envelope #2 (9-	12.26	4792828	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	2500668	N.D. PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.70	71299	0.199 PPB
12) TOLUENE #2	9.08	57421	0.029 PPB
13) ETHYLBENZENE #2	11.05	66848	0.154 PPB
14) m,p-XYLENE #2	11.30	128853	N.D. PPB
15) o-XYLENE #2	11.80	48069	N.D. PPB

12/9  


File : X:\BTEX\DARYL\DATA\D141208\1208010.D  
Operator :  
Acquired : 8 Dec 2014 20:45 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-057-01b DUP  
Misc Info : V2-36-11  
Vial Number: 10



Signal #1 : d:\btex\DATA\D141208\1208006.D\FID1A.CH Vial: 6  
 Signal #2 : d:\btex\DATA\D141208\1208006.D\FID2B.CH  
 Acq On : 8 Dec 2014 18:31 Operator:  
 Sample : 12-057-01b MS Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 8 19:00 2014 Quant Results File: 141012DB.RES

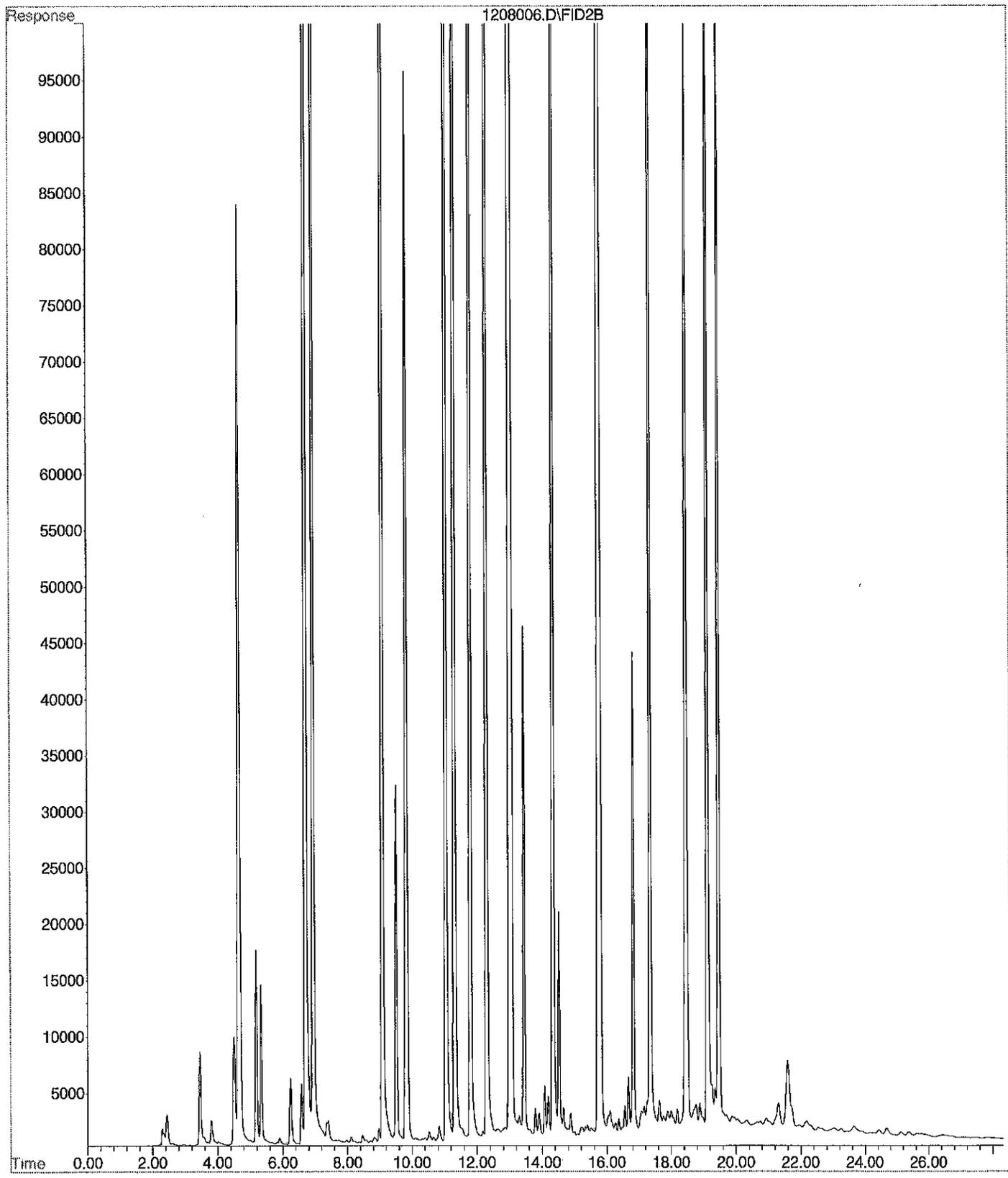
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3119441	44.989 PPB
5) S BROMOFLUOROBENZENE	12.30	1775569	43.784 PPB
11) S FLUOROBENZENE #2	6.95	8586627	38.710 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11344777	37.861 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30838851	0.620 PPM
2) H Entire GAS Envelope (9-24-	12.21	52973300	0.800 PPM
3) H GASOLINE (9-24-14)	13.51	35270527	0.871 PPM
7) H entire GAS envelope #2 (9-	12.26	160449780	1.069 PPM
8) H GASOLINE #2 (9-24-14)	13.56	120098815	1.035 PPM
9) MTBE #2	4.67	3966658	54.274 PPB
10) BENZENE #2	6.71	14265508	48.566 PPB
12) TOLUENE #2	9.09	13112442	47.006 PPB
13) ETHYLBENZENE #2	11.05	11313078	45.951 PPB
14) m,p-XYLENE #2	11.32	13426488	45.741 PPB
15) o-XYLENE #2	11.80	11254401	44.714 PPB

*12/9*  
*aw*

File : X:\BTEX\DARYL\DATA\D141208\1208006.D  
Operator :  
Acquired : 8 Dec 2014 18:31 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-057-01b MS  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 6



Signal #1 : d:\btex\DATA\D141208\1208007.D\FID1A.CH Vial: 7  
 Signal #2 : d:\btex\DATA\D141208\1208007.D\FID2B.CH  
 Acq On : 8 Dec 2014 19:05 Operator:  
 Sample : 12-057-01b MSD Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 8 19:34 2014 Quant Results File: 141012DB.RES

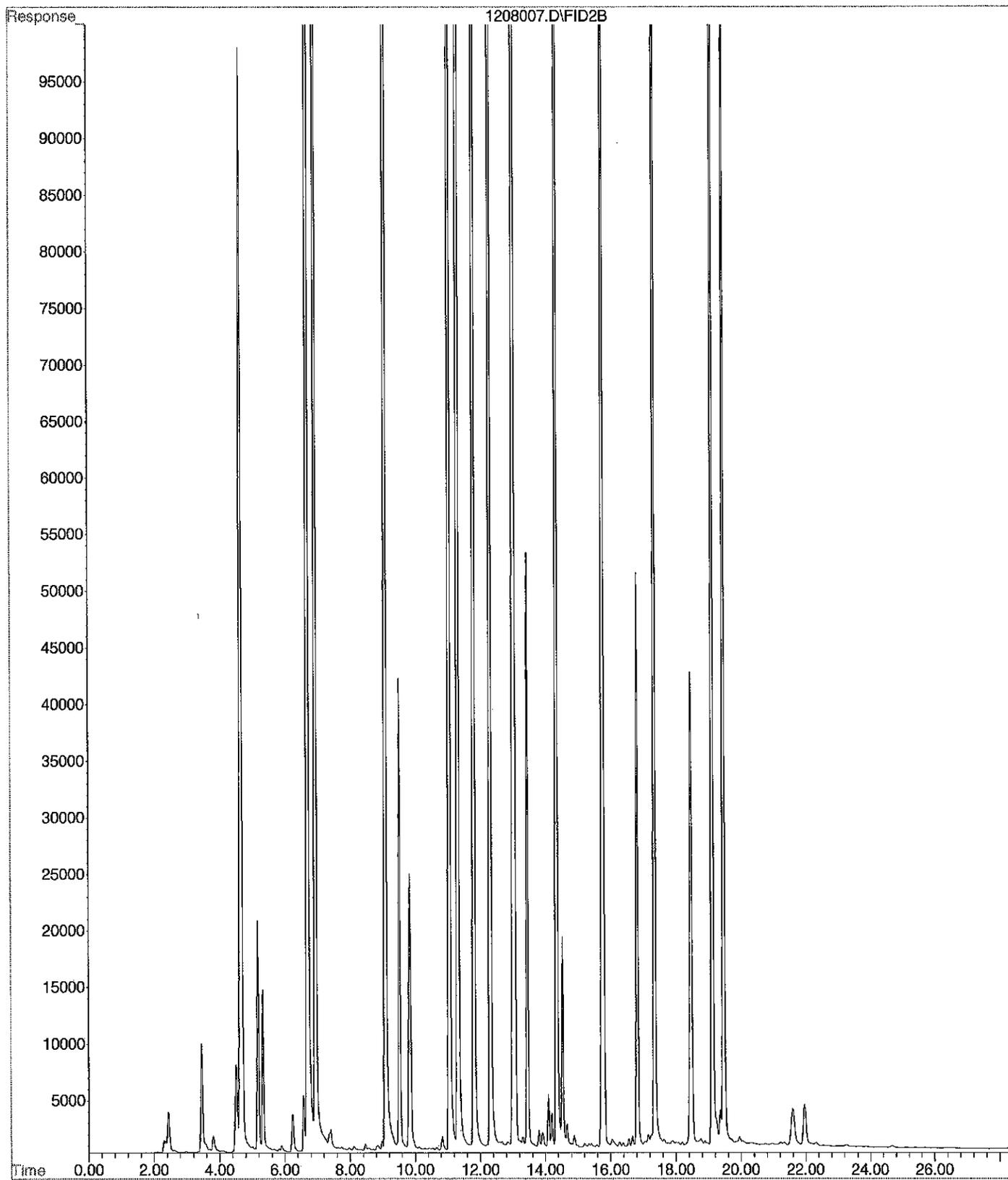
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	2890113	41.657 PPB
5) S BROMOFLUOROBENZENE	12.31	1613281	39.730 PPB
11) S FLUOROBENZENE #2	6.95	8136972	36.665 PPB
16) S BROMOFLUOROBENZENE #2	12.30	10245581	34.148 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	32317101	0.650 PPM
2) H Entire GAS Envelope (9-24-	12.21	52429818	0.792 PPM
3) H GASOLINE (9-24-14)	13.51	34005639	0.839 PPM
7) H entire GAS envelope #2 (9-	12.26	130481693	0.860 PPM
8) H GASOLINE #2 (9-24-14)	13.56	92855277	0.787 PPM
9) MTBE #2	4.67	4681466	64.063 PPB
10) BENZENE #2	6.71	15980526	54.410 PPB
12) TOLUENE #2	9.09	14655565	52.559 PPB
13) ETHYLBENZENE #2	11.05	12568047	51.061 PPB
14) m,p-XYLENE #2	11.32	14949798	50.992 PPB
15) o-XYLENE #2	11.81	12281592	48.819 PPB

12/9  
 CW

File : X:\BTEX\DARYL\DATA\D141208\1208007.D  
Operator :  
Acquired : 8 Dec 2014 19:05 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-057-01b MSD  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 7



Signal #1 : d:\btex\DATA\D141208\1208002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141208\1208002.D\FID2B.CH  
 Acq On : 8 Dec 2014 16:06 Operator:  
 Sample : CCVD1208B-1 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 8 16:34 2014 Quant Results File: 141012DB.RES

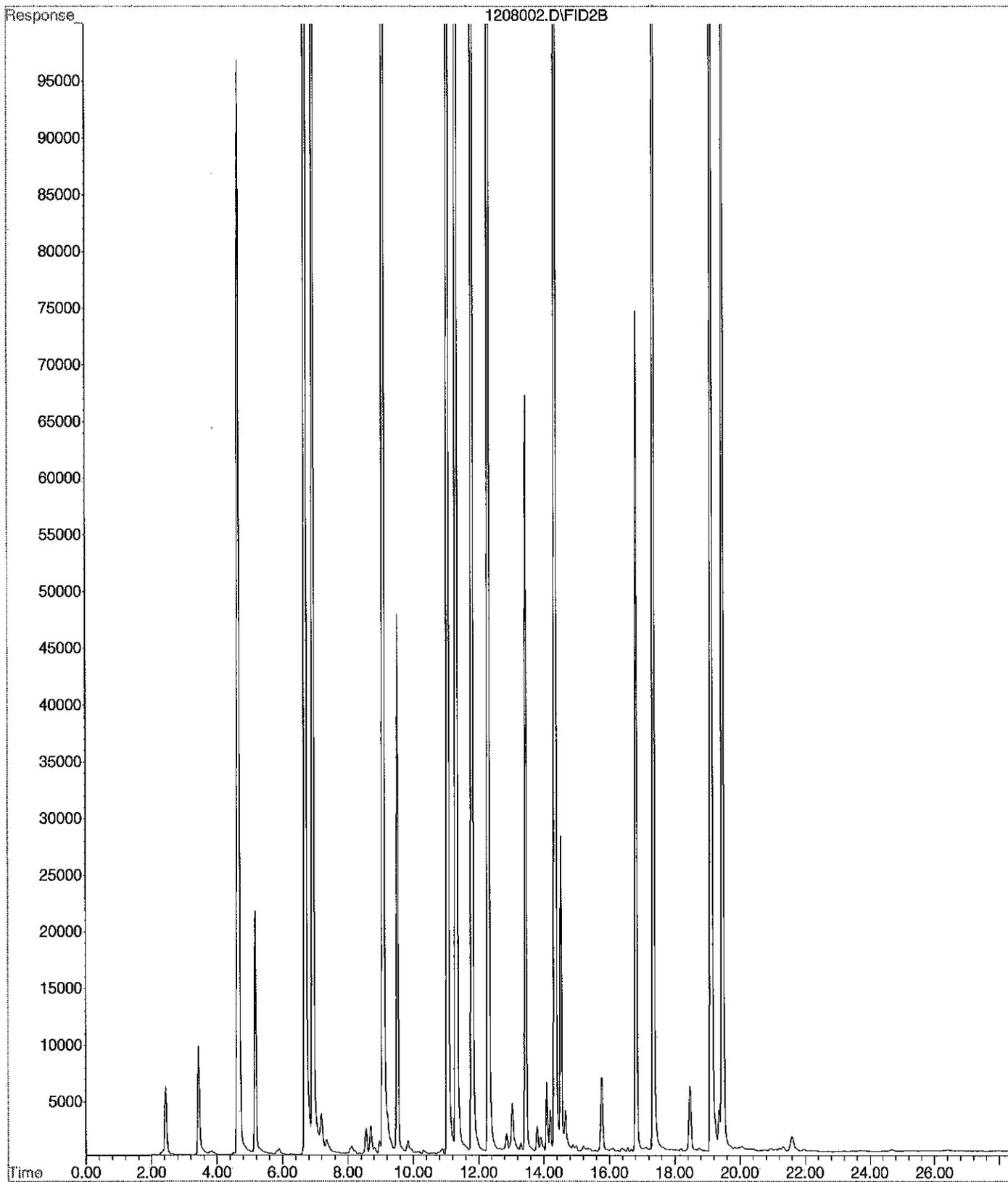
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3044420	43.899 PPB
5) S BROMOFLUOROBENZENE	12.30	1820043	44.895 PPB
11) S FLUOROBENZENE #2	6.94	8341015	37.593 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11635799	38.844 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31275918	0.629 PPM
2) H Entire GAS Envelope (9-24-	12.21	53383757	0.806 PPM
3) H GASOLINE (9-24-14)	13.51	35974422	0.889 PPM
7) H entire GAS envelope #2 (9-	12.26	122504662	0.804 PPM
8) H GASOLINE #2 (9-24-14)	13.56	85942146	0.724 PPM
9) MTBE #2	4.66	4566806	62.493 PPB
10) BENZENE #2	6.70	15374597	52.345 PPB
12) TOLUENE #2	9.08	14572816	52.261 PPB
13) ETHYLBENZENE #2	11.05	12596247	51.176 PPB
14) m,p-XYLENE #2	11.32	15153372	51.694 PPB
15) o-XYLENE #2	11.80	12699586	50.490 PPB

12/9 ✓

File : X:\BTEX\DARYL\DATA\D141208\1208002.D  
Operator :  
Acquired : 8 Dec 2014 16:06 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1208B-1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141208\1208017.D\FID1A.CH Vial: 17  
 Signal #2 : d:\btex\DATA\D141208\1208017.D\FID2B.CH  
 Acq On : 9 Dec 2014 00:36 Operator:  
 Sample : CCVD1208B-2 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 9 1:05 2014 Quant Results File: 141012DB.RES

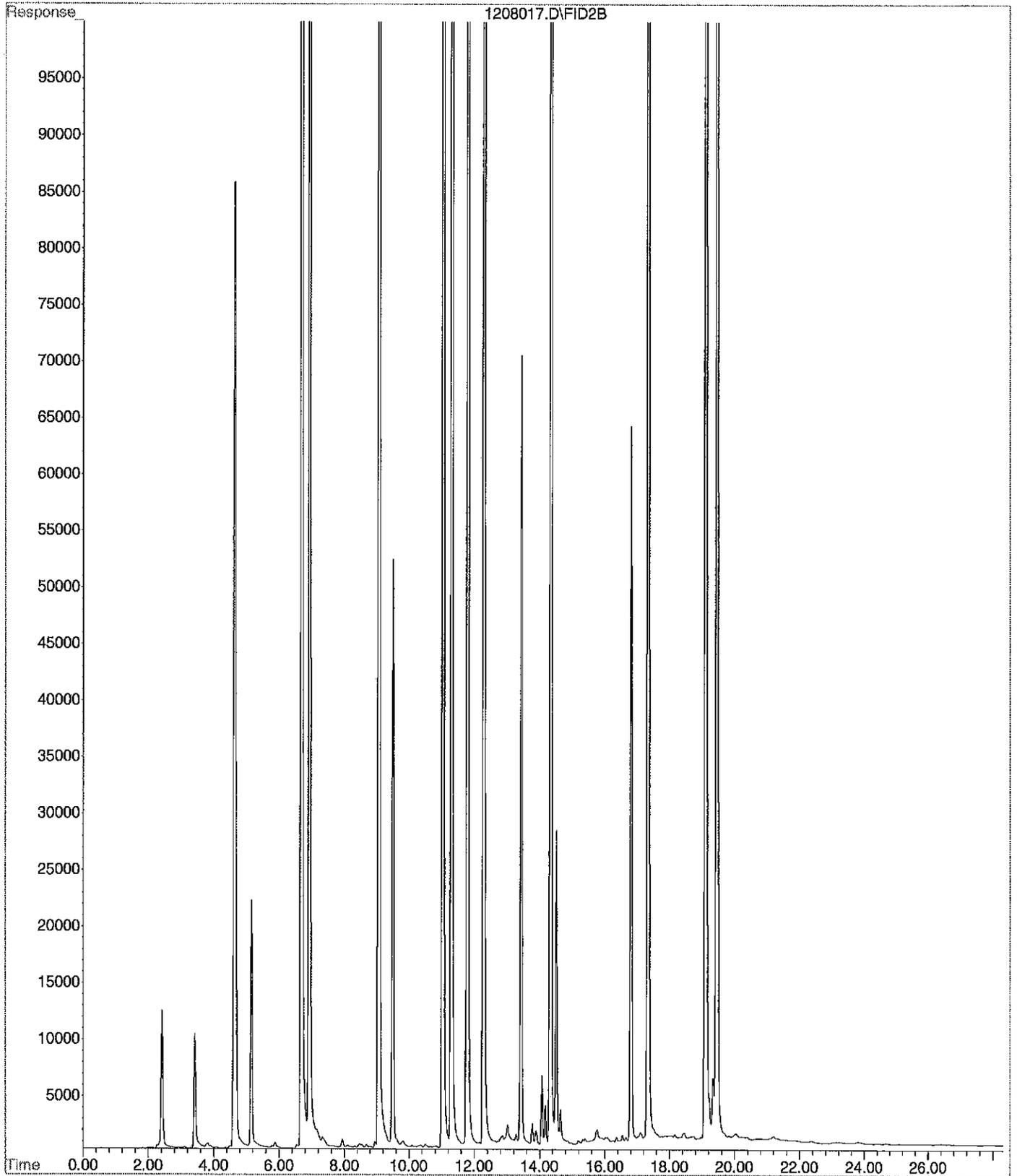
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.92	3010988	43.413	PPB
5) S BROMOFLUOROBENZENE	12.29	1785815	44.040	PPB
11) S FLUOROBENZENE #2	6.92	8263290	37.240	PPB
16) S BROMOFLUOROBENZENE #2	12.28	11519621	38.452	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	30729026	0.618	PPM
2) H Entire GAS Envelope (9-24-	12.21	54472662	0.823	PPM
3) H GASOLINE (9-24-14)	13.51	36279994	0.896	PPM
7) H entire GAS envelope #2 (9-	12.26	131049801	0.864	PPM
8) H GASOLINE #2 (9-24-14)	13.56	88005283	0.743	PPM
9) MTBE #2	4.64	4017148	54.966	PPB
10) BENZENE #2	6.68	15360629	52.298	PPB
12) TOLUENE #2	9.07	14329919	51.387	PPB
13) ETHYLBENZENE #2	11.03	12528210	50.899	PPB
14) m,p-XYLENE #2	11.30	15023437	51.246	PPB
15) o-XYLENE #2	11.79	12677690	50.402	PPB

12/9  
 [Signature]

File : X:\BTEX\DARYL\DATA\D141208\1208017.D  
Operator :  
Acquired : 9 Dec 2014 00:36 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1208B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 17



Signal #1 : d:\btex\DATA\D141208\1208001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141208\1208001.D\FID2B.CH  
 Acq On : 8 Dec 2014 15:32 Operator:  
 Sample : CCVD1208G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 8 16:01 2014 Quant Results File: 141012DB.RES

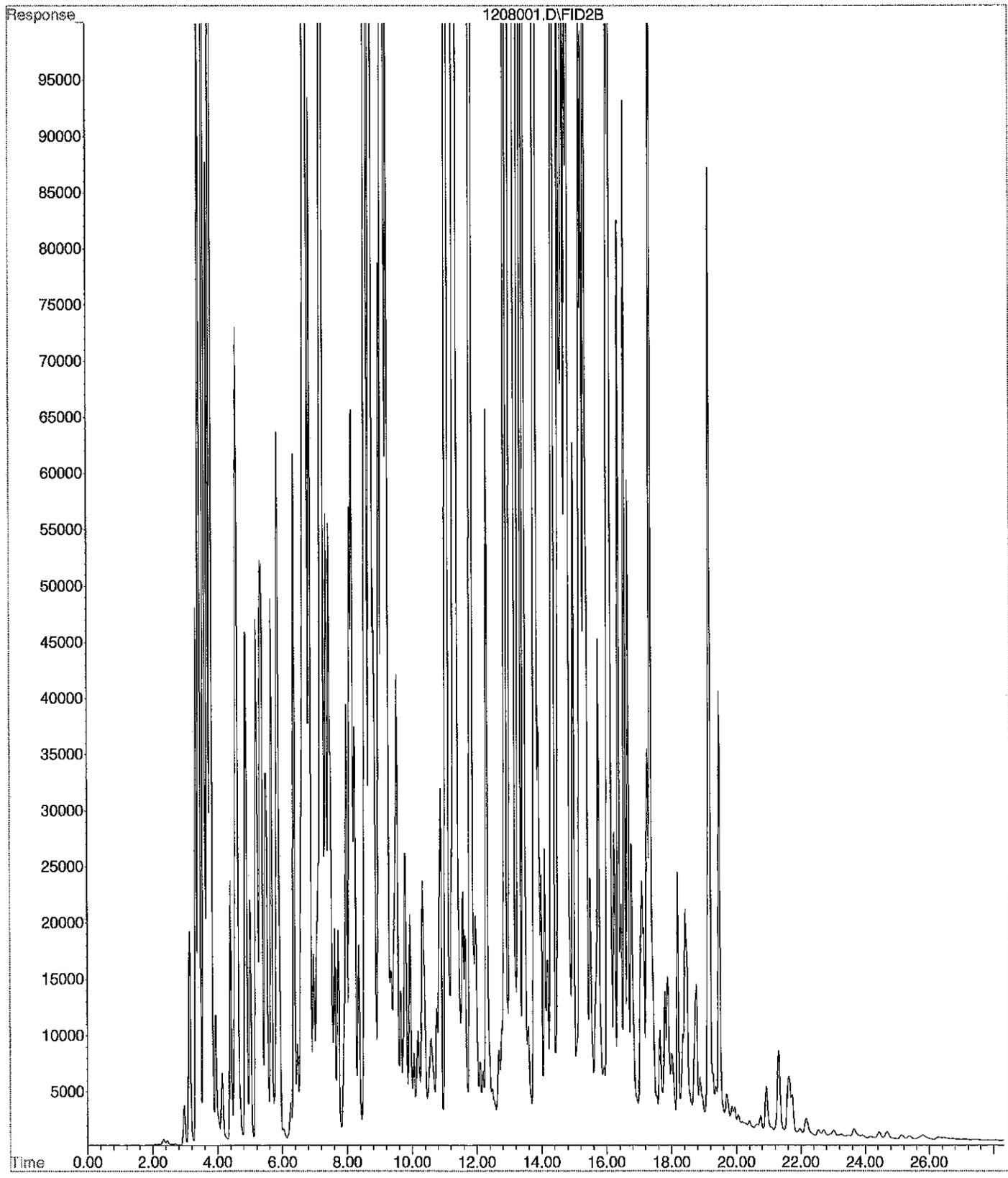
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.97	277513	3.700 PPB
5) S BROMOFLUOROBENZENE	12.29	1323192	32.483 PPB
11) S FLUOROBENZENE #2	6.97	741507	3.041 PPB
16) S BROMOFLUOROBENZENE #2	12.30	2873287	9.244 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	297703484	6.041 PPM
2) H Entire GAS Envelope (9-24-	12.21	400751649	6.127 PPM
3) H GASOLINE (9-24-14)	13.51	224709781	5.663 PPM
7) H entire GAS envelope #2 (9-	12.26	721575129	4.977 PPM
8) H GASOLINE #2 (9-24-14)	13.56	543174704	4.892 PPM
9) MTBE #2	4.60	4095292	56.036 PPB
10) BENZENE #2	6.72	47893284	163.155 PPB
12) TOLUENE #2	9.10	121921274	438.539 PPB
13) ETHYLBENZENE #2	11.06	30580096	124.409 PPB
14) m,p-XYLENE #2	11.32	109856919	378.187 PPB
15) o-XYLENE #2	11.81	42253498	168.608 PPB

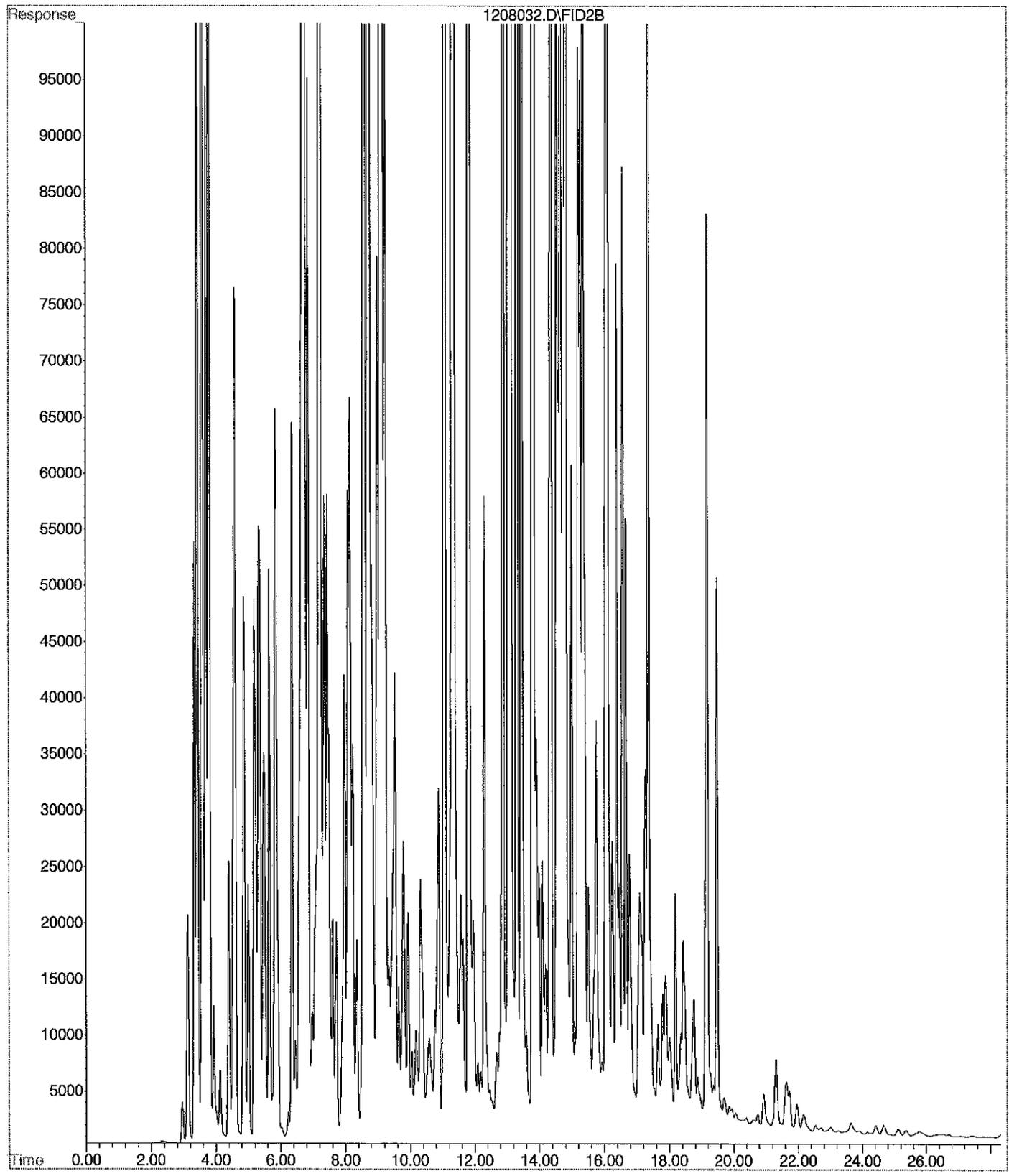
12/9 ✓

File : X:\BTEX\DARYL\DATA\D141208\1208001.D  
Operator :  
Acquired : 8 Dec 2014 15:32 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1208G-1  
Misc Info : V2-36-08  
Vial Number: 1





File : X:\BTEX\DARYL\DATA\141208\1208032.D  
Operator :  
Acquired : 9 Dec 2014 8:56 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVH1208G-2  
Misc Info : V2-36-08  
Vial Number: 32



## NWTPH-Diesel Data

Data File : 1208-T56.D  
 Sample : 12-044-01 RR

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 08 Dec 2014 13:38  
 Operator : ZT  
 Misc :  
 ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 08 14:13:49 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.658f	79835248	25.732 PPM
Spiked Amount 50.000		Recovery =	51.46%
Target Compounds			
2) H Gasoline	4.000	7790810	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	31475061	7.254 PPM
4) H Diesel Fuel #2 (01-1...	14.000	55489444	20.520 PPM
5) H Oil (02-24-14)	22.000	136868833	46.342 PPM
6) H Oil Acid Clean (02-...	22.000	136868833	47.607 PPM
7) H Diesel Fuel #2 Combo ...	14.000	43105380	15.735 PPM
8) H Oil Combo (02-24-14)	22.000	122690638	40.314 PPM
9) H Oil Acid Clean Combo ...	22.000	122690638	41.570 PPM
10) H Oil MO Combo (02-24-14)	22.000	112271345	36.409 PPM
11) H Oil Acid Clean MO Com...	22.000	112271345	37.592 PPM
12) H Alaska 102 DF2 (05-29...	13.025	53520789	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	72433287	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	73628772	25.026 PPM
15) H Mineral Oil Combo (0...	16.000	44554752	15.826 PPM

(f)=RT Delta > 1/2 Window

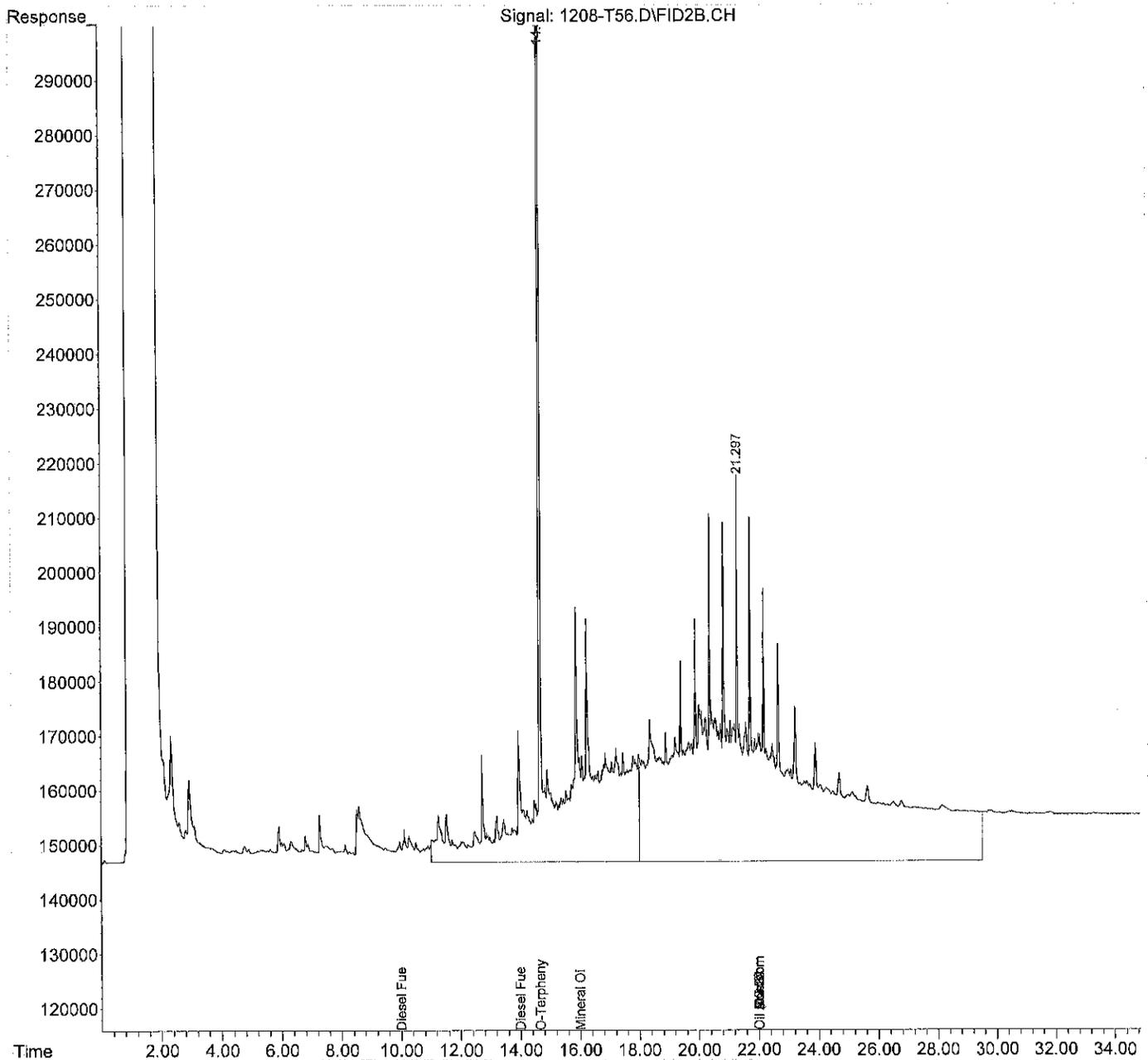
(m)=manual int.

Data File : 1208-T56.D  
Sample : 12-044-01 RR

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
Signal(s) : FID2B.CH  
Acq On : 08 Dec 2014 13:38  
Operator : ZT  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 08 14:13:49 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T10.D  
 Sample : 12-044-02

Data Path : X:\DIESELS\TERI\DATA\T141205\  
 Signal(s) : FID1A.CH  
 Acq On : 05 Dec 2014 17:38  
 Operator : ZT  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 18:13:42 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141104F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	14.689	131897417	45.840	PPM
Spiked Amount 50.000		Recovery =	91.68%	
Target Compounds				
2) H Gasoline	3.500	10854559	NoCal	PPM
3) H Diesel Fuel #1 (04-0...	10.000	10499632	N.D.	PPM
4) H Diesel Fuel #2 (04-0...	14.000	9546303	N.D.	PPM
5) H Oil (11-04-14)	22.000	56261635	15.161	PPM
6) H Oil Acid Clean (11-...	22.000	56261635	4.942	PPM
7) H Diesel Fuel #2 Combo ...	14.000	8172661	N.D.	PPM
8) H Oil Combo (11-04-14)	22.000	55171112	14.910	PPM
9) H Oil Acid Clean Combo ...	22.000	55171112	4.412	PPM
10) H Alaska 102 DF2	13.025	9973695	NoCal	PPM
11) H Alaska 103 Oil	20.000	26584688	NoCal	PPM
12) H Mineral Oil (04-01-14)	16.000	9658414	N.D.	PPM
13) H Mineral Oil Combo (0...	16.000	5883415	N.D.	PPM
14) H Oil MO Combo (11-04-14)	22.000	53978378	14.832	PPM
15) H Oil Acid Clean MO Com...	22.000	53978378	3.924	PPM
-----				

(f)=RT Delta > 1/2 Window

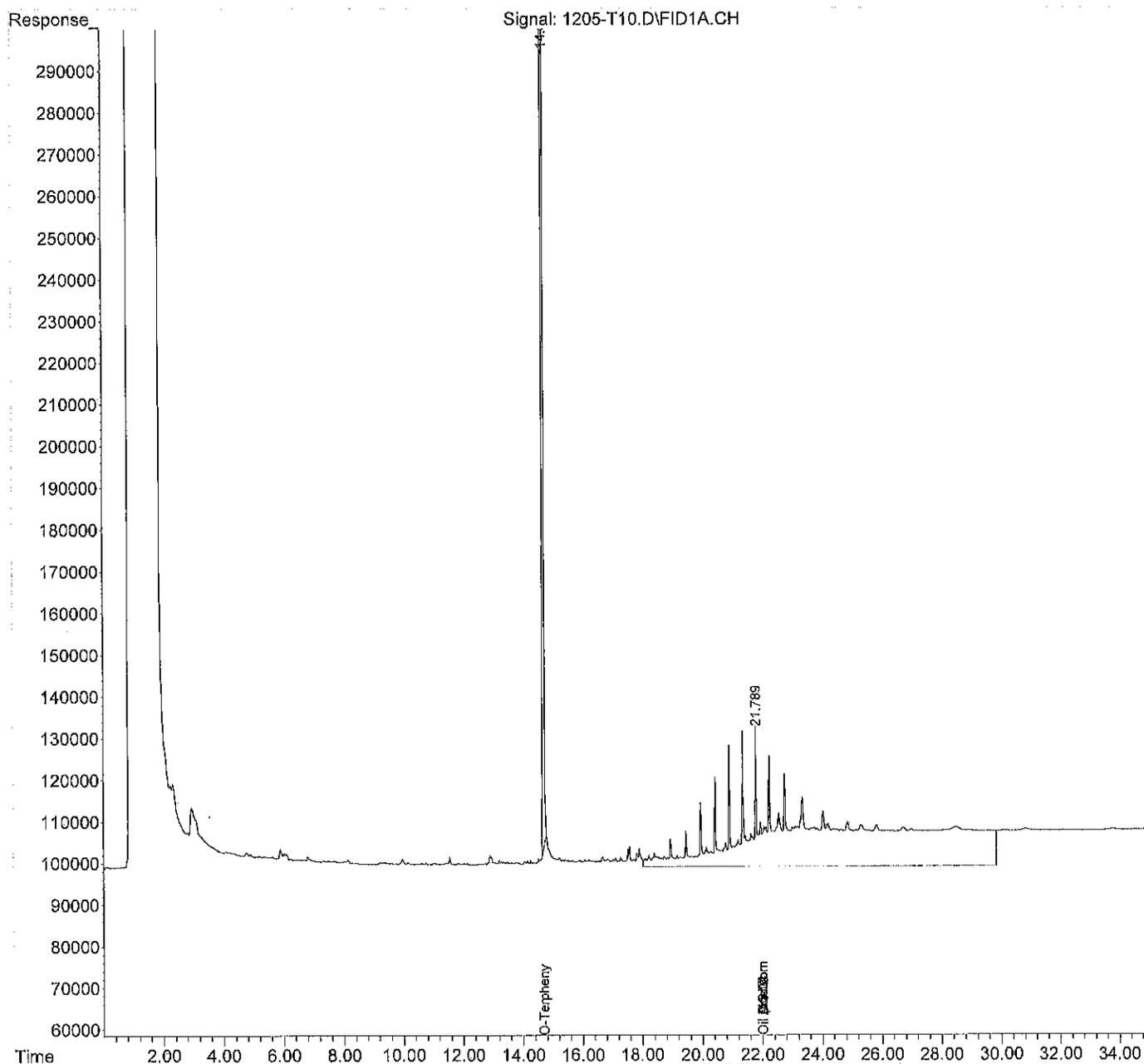
(m)=manual int.

Data File : 1205-T10.D  
Sample : 12-044-02

Data Path : X:\DIESELS\TERI\DATA\T141205\  
Signal(s) : FID1A.CH  
Acq On : 05 Dec 2014 17:38  
Operator : ZT  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 18:13:42 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141104F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1208-T55.D  
 Sample : 12-044-03 10X

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 08 Dec 2014 12:55  
 Operator : ZT  
 Misc :  
 ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 08 13:31:17 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

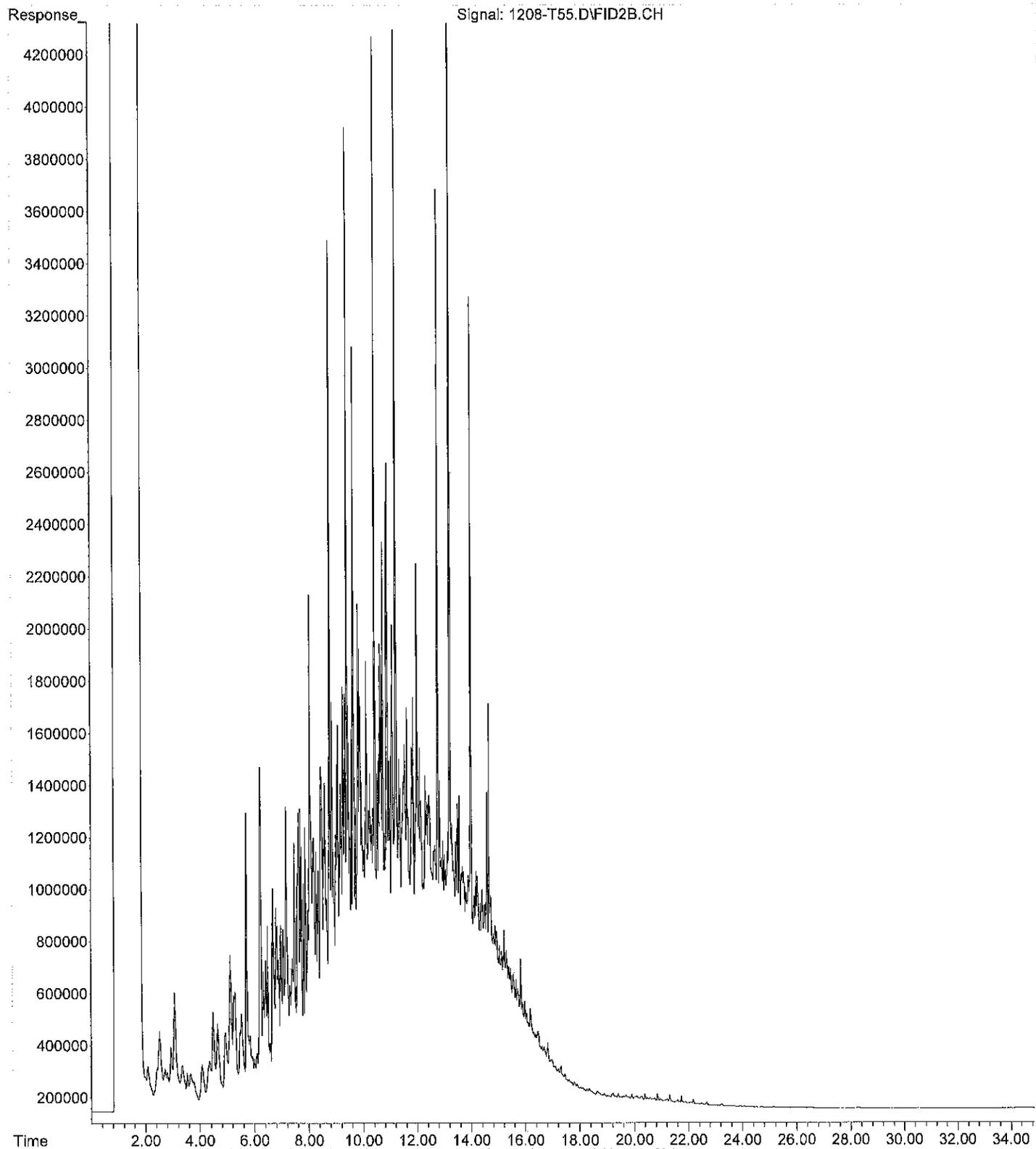
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.656f	17424794	5.490	PPM
Spiked Amount	50.000	Recovery =	10.98%	
Target Compounds				
2) H Gasoline	4.000	573462581	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	5862627761	2520.803	PPM
4) H Diesel Fuel #2 (01-1...	14.000	5897379796	2536.713	PPM
5) H Oil (02-24-14)	22.000	511425492	238.470	PPM
6) H Oil Acid Clean (02-...	22.000	511425492	241.409	PPM
7) H Diesel Fuel #2 Combo ...	14.000	5809830409	2562.947	PPM
8) H Oil Combo (02-24-14)	22.000	273311419	119.179	PPM
9) H Oil Acid Clean Combo ...	22.000	273311419	121.192	PPM
10) H Oil MO Combo (02-24-14)	22.000	195208562	81.391	PPM
11) H Oil Acid Clean MO Com...	22.000	195208562	83.007	PPM
12) H Alaska 102 DF2 (05-29...	13.025	6007739154	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	156808548	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	3160199134	1199.701	PPM
15) H Mineral Oil Combo (0...	16.000	3072944894	1218.307	PPM

(f)=RT Delta > 1/2 Window

(m)=manual int.

File :X:\DIESELS\TERI\DATA\T141208.SEC\1208-T55.D  
Operator : ZT  
Acquired : 08 Dec 2014 12:55 using AcqMethod T141104F.M  
Instrument : Teri  
Sample Name: 12-044-03 10X  
Misc Info :  
Vial Number: 55



Data File : 1205-T12.D  
 Sample : 12-044-04

Data Path : X:\DIESELS\TERI\DATA\T141205\  
 Signal(s) : FID1A.CH  
 Acq On : 05 Dec 2014 19:03  
 Operator : ZT  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 19:38:36 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141104F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	14.687	116243558	40.428	PPM
Spiked Amount 50.000		Recovery =	80.86%	
Target Compounds				
2) H Gasoline	3.500	9771429	NoCal	PPM
3) H Diesel Fuel #1 (04-0...	10.000	11266475	N.D.	PPM
4) H Diesel Fuel #2 (04-0...	14.000	10605219	N.D.	PPM
5) H Oil (11-04-14)	22.000	74183375	23.969	PPM
6) H Oil Acid Clean (11-...	22.000	74183375	14.854	PPM
7) H Diesel Fuel #2 Combo ...	14.000	9318482	N.D.	PPM
8) H Oil Combo (11-04-14)	22.000	72993635	23.883	PPM
9) H Oil Acid Clean Combo ...	22.000	72993635	14.474	PPM
10) H Alaska 102 DF2	13.025	11062547	NoCal	PPM
11) H Alaska 103 Oil	20.000	34464945	NoCal	PPM
12) H Mineral Oil (04-01-14)	16.000	11237456	N.D.	PPM
13) H Mineral Oil Combo (0...	16.000	6582269	N.D.	PPM
14) H Oil MO Combo (11-04-14)	22.000	71916045	24.216	PPM
15) H Oil Acid Clean MO Com...	22.000	71916045	14.392	PPM

(f)=RT Delta > 1/2 Window

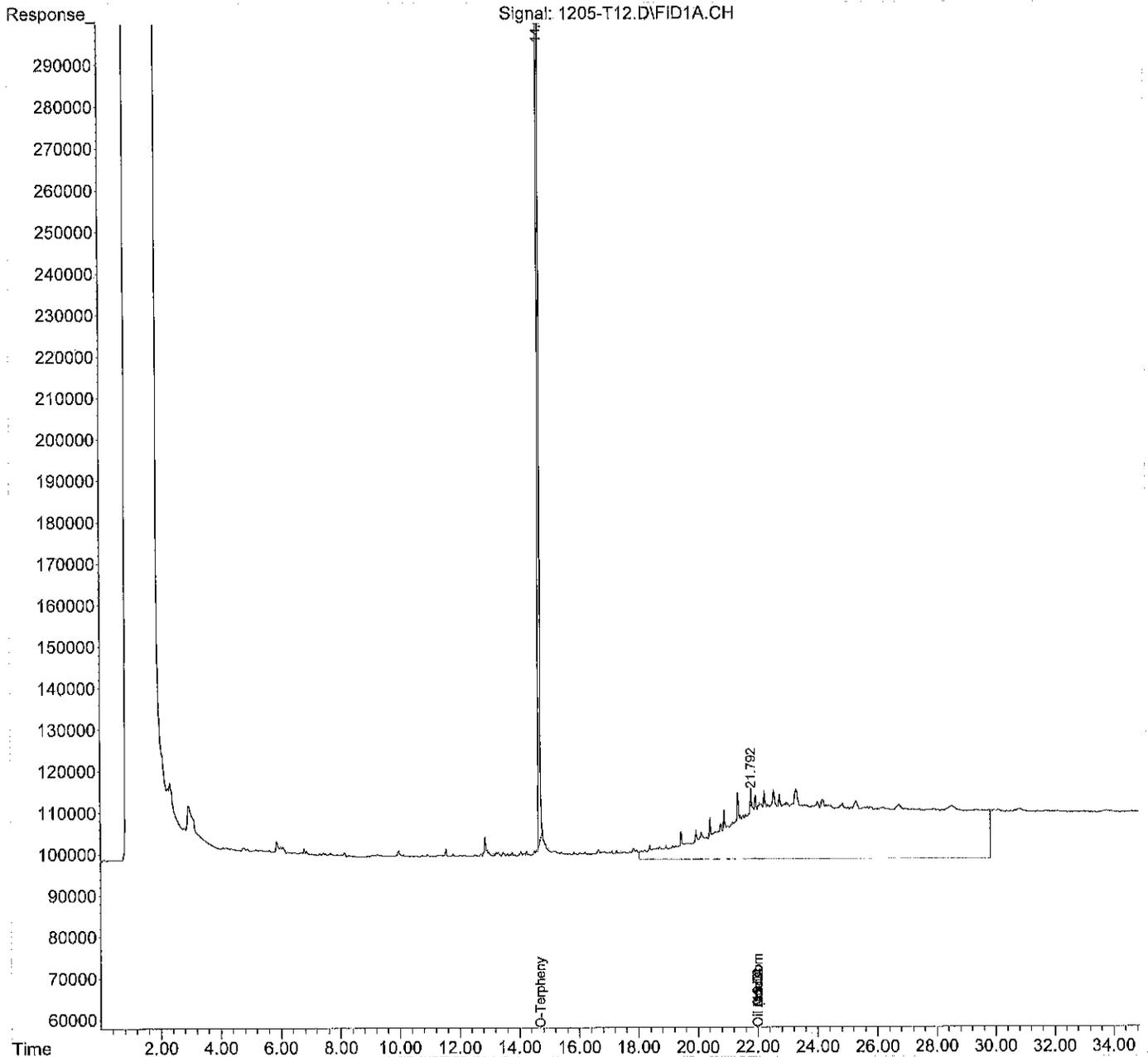
(m)=manual int.

Data File : 1205-T12.D  
Sample : 12-044-04

Data Path : X:\DIESELS\TERI\DATA\T141205\  
Signal(s) : FID1A.CH  
Acq On : 05 Dec 2014 19:03  
Operator : ZT  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 19:38:36 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141104F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T60.D  
 Sample : MB1205S1 ACU

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 17:38  
 Operator : ZT  
 Misc :  
 ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 18:14:02 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.671f	140630280	45.450	PPM
Spiked Amount	50.000	Recovery =	90.90%	
Target Compounds				
2) H Gasoline	4.000	5481627	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	6076624	N.D.	PPM
4) H Diesel Fuel #2 (01-1...	14.000	5166271	N.D.	PPM
5) H Oil (02-24-14)	22.000	39080237	N.D.	PPM
6) H Oil Acid Clean (02-...	22.000	39080237	N.D.	PPM
7) H Diesel Fuel #2 Combo ...	14.000	4828368	N.D.	PPM
8) H Oil Combo (02-24-14)	22.000	38628877	N.D.	PPM
9) H Oil Acid Clean Combo ...	22.000	38628877	N.D.	PPM
10) H Oil MO Combo (02-24-14)	22.000	38328217	N.D.	PPM
11) H Oil Acid Clean MO Com...	22.000	38328217	N.D.	PPM
12) H Alaska 102 DF2 (05-29...	13.025	5812708	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	12239617	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	4476225	N.D.	PPM
15) H Mineral Oil Combo (0...	16.000	3181735	N.D.	PPM

(f)=RT Delta > 1/2 Window

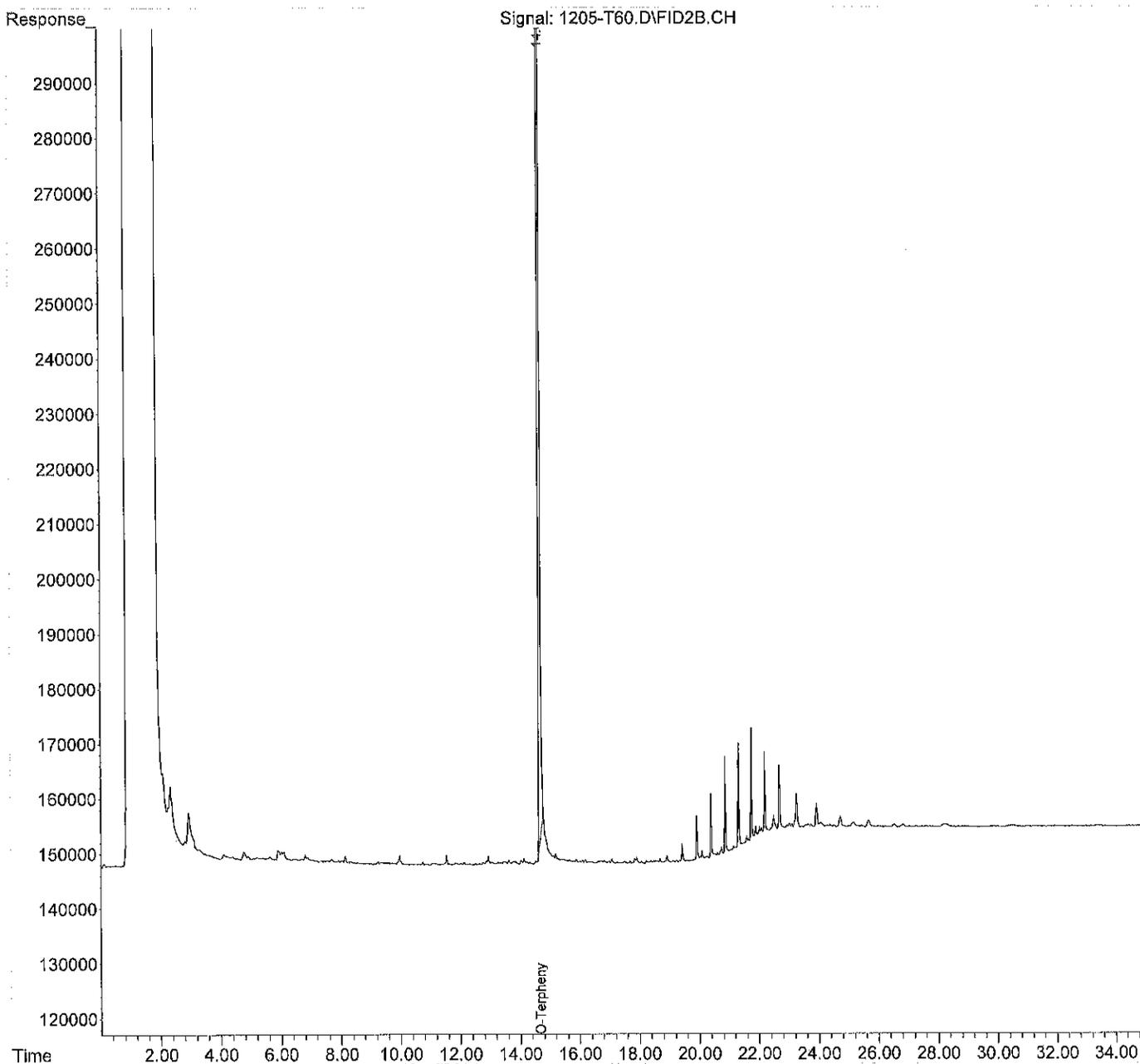
(m)=manual int.

Data File : 1205-T60.D  
 Sample : MB1205S1 ACU

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 17:38  
 Operator : ZT  
 Misc :  
 ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 18:14:02 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :



Data File : 1205-T62.D  
 Sample : 12-022-01

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 19:03  
 Operator : ZT  
 Misc :  
 ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 19:38:56 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.666f	147295914	47.612 PPM
Spiked Amount 50.000		Recovery =	95.22%
Target Compounds			
2) H Gasoline	4.000	5524128	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	7150419	N.D. PPM
4) H Diesel Fuel #2 (01-1...	14.000	9089244	0.535 PPM
5) H Oil (02-24-14)	22.000	56147688	4.936 PPM
6) H Oil Acid Clean (02-...	22.000	56147688	5.841 PPM
7) H Diesel Fuel #2 Combo ...	14.000	7036061	N.D. PPM
8) H Oil Combo (02-24-14)	22.000	54547023	4.634 PPM
9) H Oil Acid Clean Combo ...	22.000	54547023	5.548 PPM
10) H Oil MO Combo (02-24-14)	22.000	52834434	4.172 PPM
11) H Oil Acid Clean MO Com...	22.000	52834434	5.045 PPM
12) H Alaska 102 DF2 (05-29...	13.025	9216011	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	24469888	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	13910196	2.299 PPM
15) H Mineral Oil Combo (0...	16.000	7184481	0.988 PPM
-----			

(f)=RT Delta > 1/2 Window

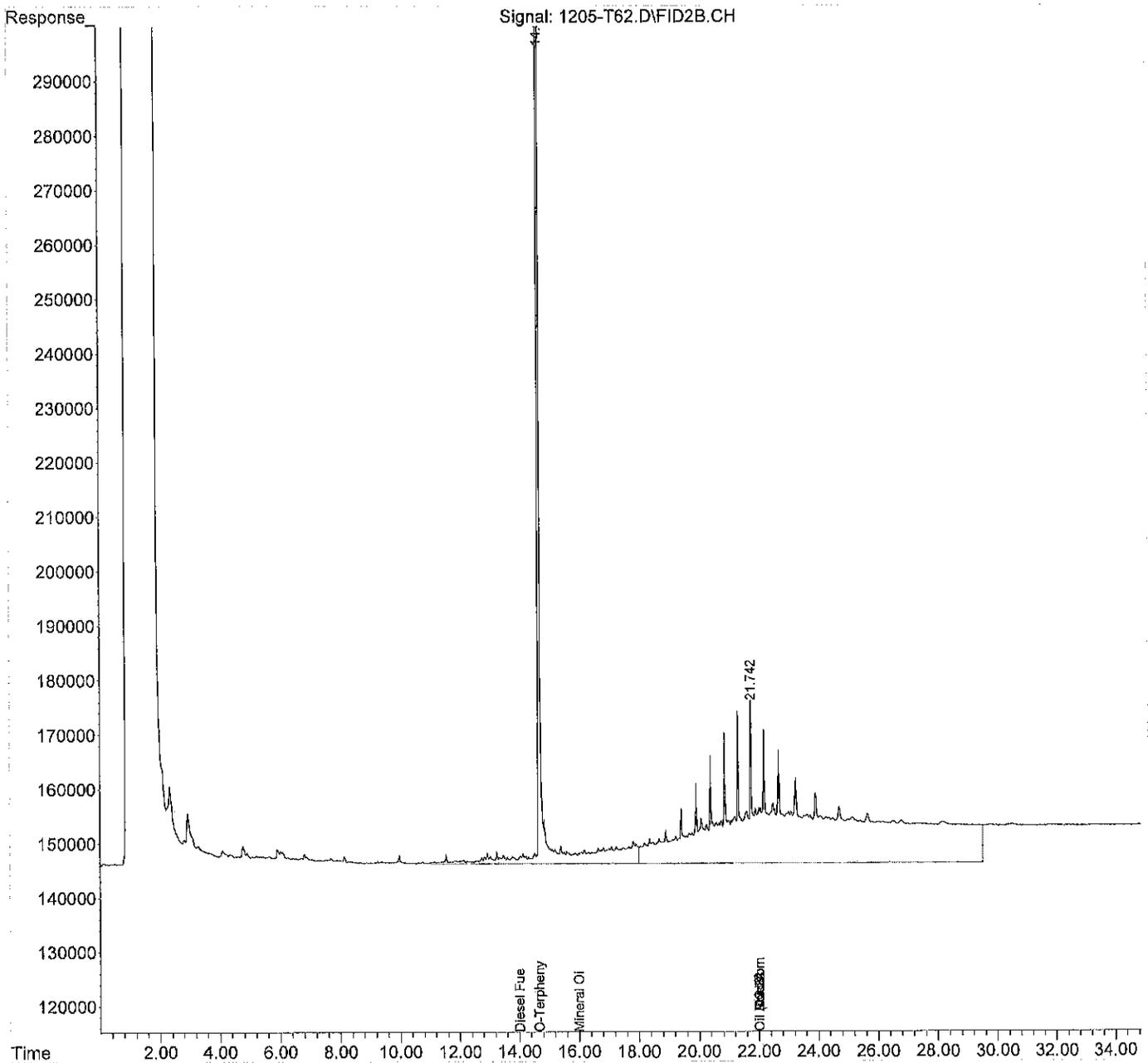
(m)=manual int.

Data File : 1205-T62.D  
Sample : 12-022-01

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
Signal(s) : FID2B.CH  
Acq On : 05 Dec 2014 19:03  
Operator : ZT  
Misc :  
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 19:38:56 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T63.D  
 Sample : 12-022-01 DUP

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 19:45  
 Operator : ZT  
 Misc :  
 ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 20:21:12 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.666f	135580634	43.812 PPM
Spiked Amount 50.000		Recovery =	87.62%
Target Compounds			
2) H Gasoline	4.000	5957910	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	8753652	N.D. PPM
4) H Diesel Fuel #2 (01-1...	14.000	10869854	1.302 PPM
5) H Oil (02-24-14)	22.000	53414120	3.534 PPM
6) H Oil Acid Clean (02-...	22.000	53414120	4.426 PPM
7) H Diesel Fuel #2 Combo ...	14.000	8696347	0.536 PPM
8) H Oil Combo (02-24-14)	22.000	51579028	3.080 PPM
9) H Oil Acid Clean Combo ...	22.000	51579028	3.979 PPM
10) H Oil MO Combo (02-24-14)	22.000	49752487	2.501 PPM
11) H Oil Acid Clean MO Com...	22.000	49752487	3.357 PPM
12) H Alaska 102 DF2 (05-29...	13.025	11064771	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	21602980	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	14566570	2.548 PPM
15) H Mineral Oil Combo (0...	16.000	8284648	1.424 PPM
-----			

(f)=RT Delta > 1/2 Window

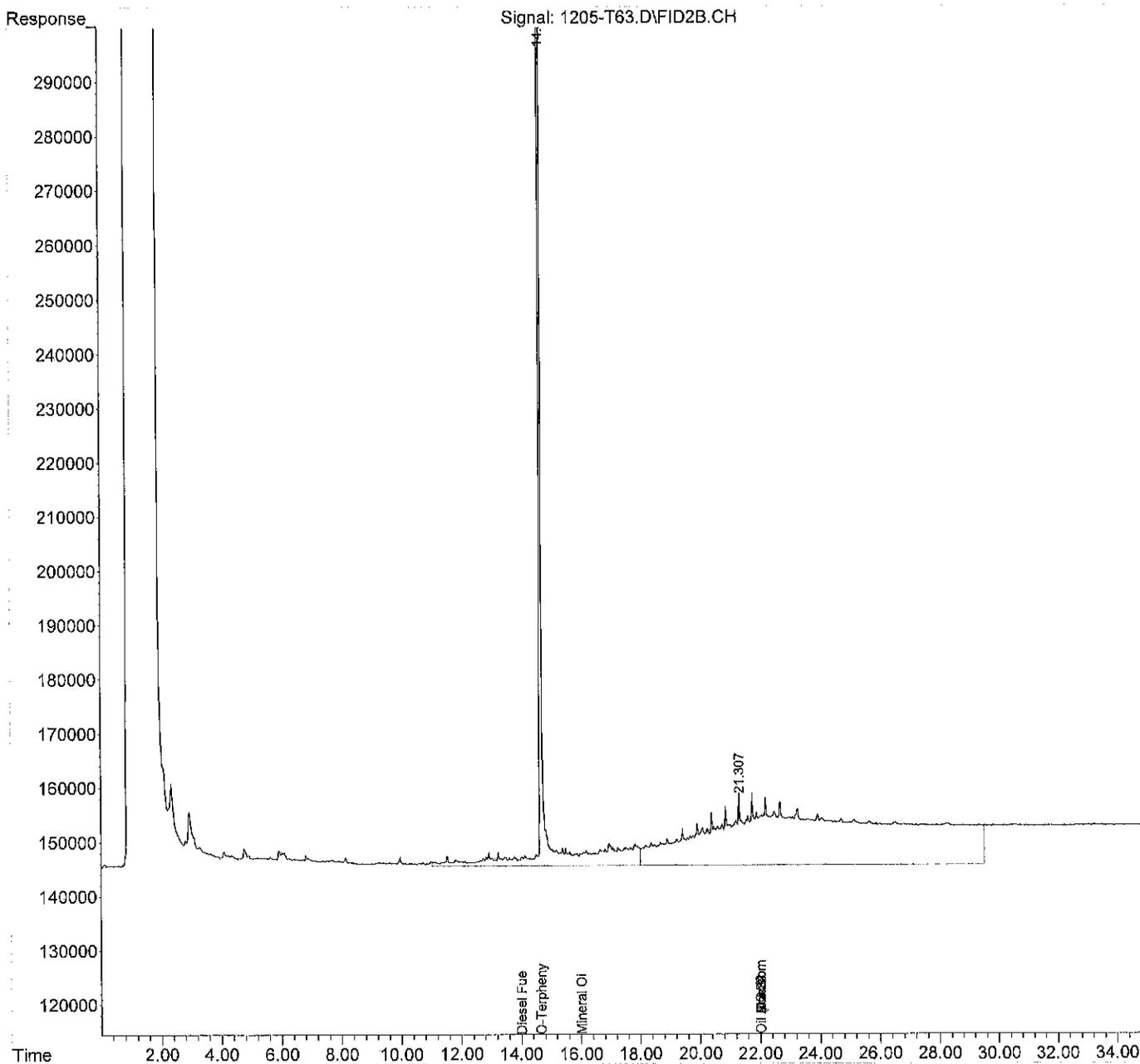
(m)=manual int.

Data File : 1205-T63.D  
Sample : 12-022-01 DUP

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
Signal(s) : FID2B.CH  
Acq On : 05 Dec 2014 19:45  
Operator : ZT  
Misc :  
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 20:21:12 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T08.D  
 Sample : CCV1205F-T2

Data Path : X:\DIESELS\TERI\DATA\T141205\  
 Signal(s) : FID1A.CH  
 Acq On : 05 Dec 2014 16:13  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 16:48:39 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141104F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	3.500	32423971	NoCal	PPM
3) H Diesel Fuel #1 (04-0...	10.000	217416437	81.096	PPM
4) H Diesel Fuel #2 (04-0...	14.000	215786411	87.791	PPM
5) H Oil (11-04-14)	22.000	62055850	18.009	PPM
6) H Oil Acid Clean (11-...	22.000	62055850	8.146	PPM
7) H Diesel Fuel #2 Combo ...	14.000	211894607	88.856	PPM
8) H Oil Combo (11-04-14)	22.000	51733599	13.180	PPM
9) H Oil Acid Clean Combo ...	22.000	51733599	2.471	PPM
10) H Alaska 102 DF2	13.025	216238381	NoCal	PPM
11) H Alaska 103 Oil	20.000	20846392	NoCal	PPM
12) H Mineral Oil (04-01-14)	16.000	138073352	48.719	PPM
13) H Mineral Oil Combo (0...	16.000	134840958	51.383	PPM
14) H Oil MO Combo (11-04-14)	22.000	48183404	11.801	PPM
15) H Oil Acid Clean MO Com...	22.000	48183404	0.542	PPM

(f)=RT Delta > 1/2 Window

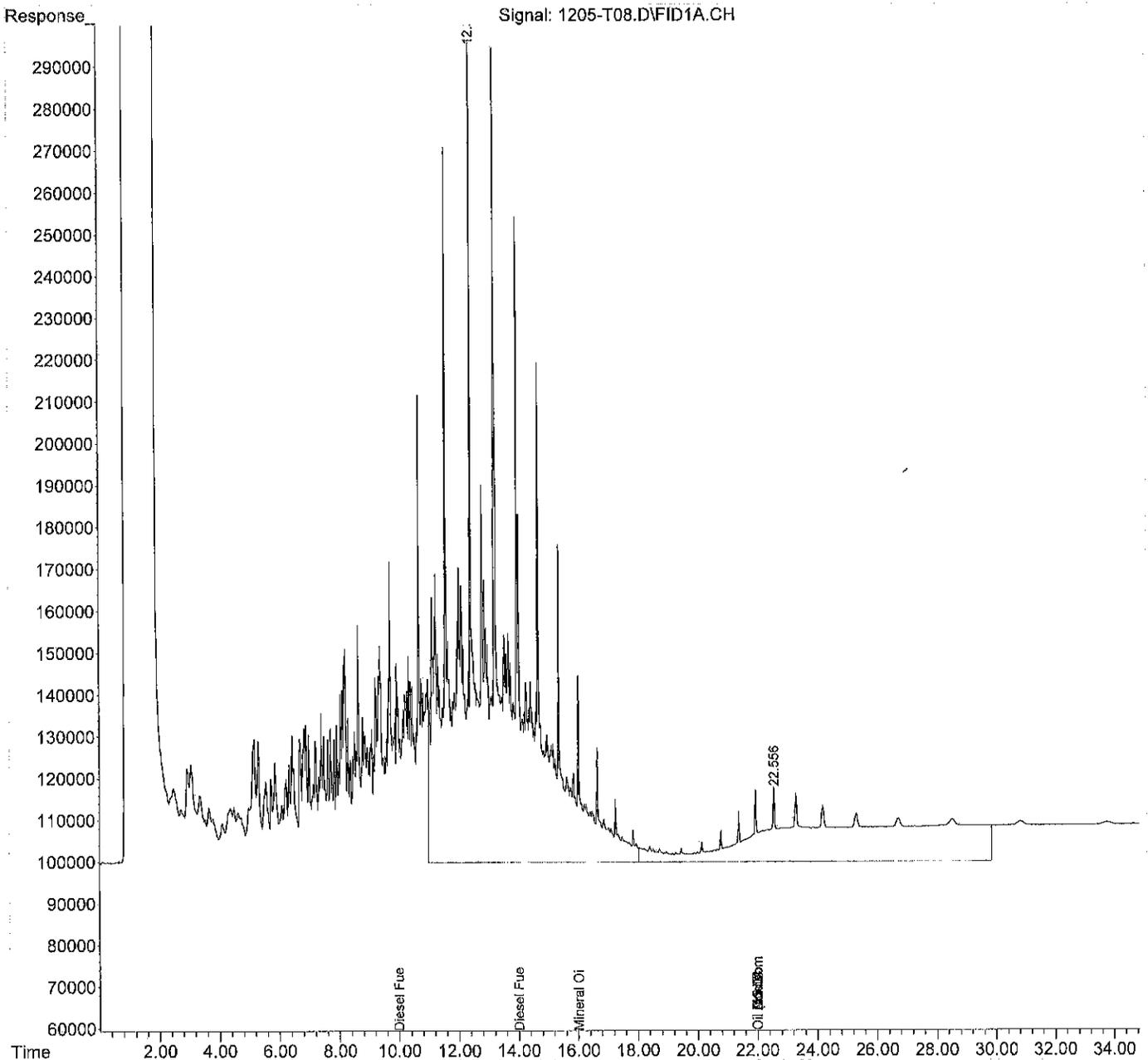
(m)=manual int.

Data File : 1205-T08.D  
Sample : CCV1205F-T2

Data Path : X:\DIESELS\TERI\DATA\T141205\  
Signal(s) : FID1A.CH  
Acq On : 05 Dec 2014 16:13  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 16:48:39 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141104F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T18.D  
 Sample : CCV1205F-T3

Data Path : X:\DIESELS\TERI\DATA\T141205\  
 Signal(s) : FID1A.CH  
 Acq On : 05 Dec 2014 23:17  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 23:52:37 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141104F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
Target Compounds				
2) H Gasoline	3.500	37421803	NoCal	PPM
3) H Diesel Fuel #1 (04-0...	10.000	235504313	88.854	PPM
4) H Diesel Fuel #2 (04-0...	14.000	232992775	95.437	PPM
5) H Oil (11-04-14)	22.000	77171827	25.438	PPM
6) H Oil Acid Clean (11-...	22.000	77171827	16.506	PPM
7) H Diesel Fuel #2 Combo ...	14.000	228592755	96.436	PPM
8) H Oil Combo (11-04-14)	22.000	65829876	20.276	PPM
9) H Oil Acid Clean Combo ...	22.000	65829876	10.430	PPM
10) H Alaska 102 DF2	13.025	233530578	NoCal	PPM
11) H Alaska 103 Oil	20.000	27862549	NoCal	PPM
12) H Mineral Oil (04-01-14)	16.000	149495539	53.196	PPM
13) H Mineral Oil Combo (0...	16.000	145540559	55.748	PPM
14) H Oil MO Combo (11-04-14)	22.000	61833228	18.942	PPM
15) H Oil Acid Clean MO Com...	22.000	61833228	8.508	PPM

(f)=RT Delta > 1/2 Window

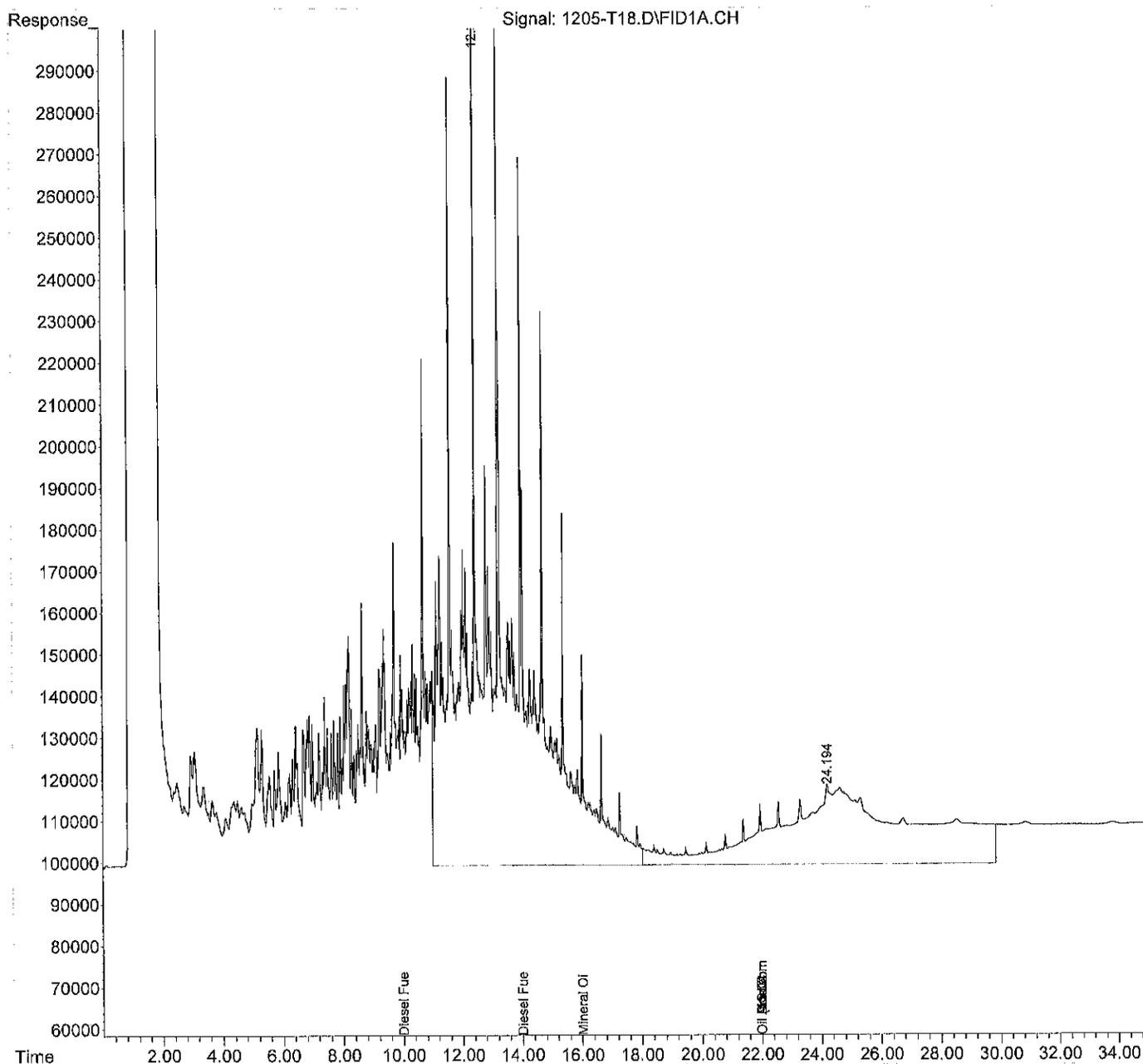
(m)=manual int.

Data File : 1205-T18.D  
Sample : CCV1205F-T3

Data Path : X:\DIESELS\TERI\DATA\T141205\  
Signal(s) : FID1A.CH  
Acq On : 05 Dec 2014 23:17  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 23:52:37 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141104F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1205-T58.D  
 Sample : CCV1205R-T2

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 16:13  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 16:49:08 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.650f	2112658	0.523 PPM
Spiked Amount 50.000		Recovery =	1.05%
Target Compounds			
2) H Gasoline	4.000	30527222	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	237956679	96.259 PPM
4) H Diesel Fuel #2 (01-1...	14.000	238933858	99.533 PPM
5) H Oil (02-24-14)	22.000	55027934	4.361 PPM
6) H Oil Acid Clean (02-...	22.000	55027934	5.261 PPM
7) H Diesel Fuel #2 Combo ...	14.000	234658841	100.345 PPM
8) H Oil Combo (02-24-14)	22.000	42950499	N.D. PPM
9) H Oil Acid Clean Combo ...	22.000	42950499	N.D. PPM
10) H Oil MO Combo (02-24-14)	22.000	39022510	N.D. PPM
11) H Oil Acid Clean MO Com...	22.000	39022510	N.D. PPM
12) H Alaska 102 DF2 (05-29...	13.025	244655285	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	11720751	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	152382107	54.998 PPM
15) H Mineral Oil Combo (0...	16.000	149700719	57.576 PPM

(f)=RT Delta > 1/2 Window

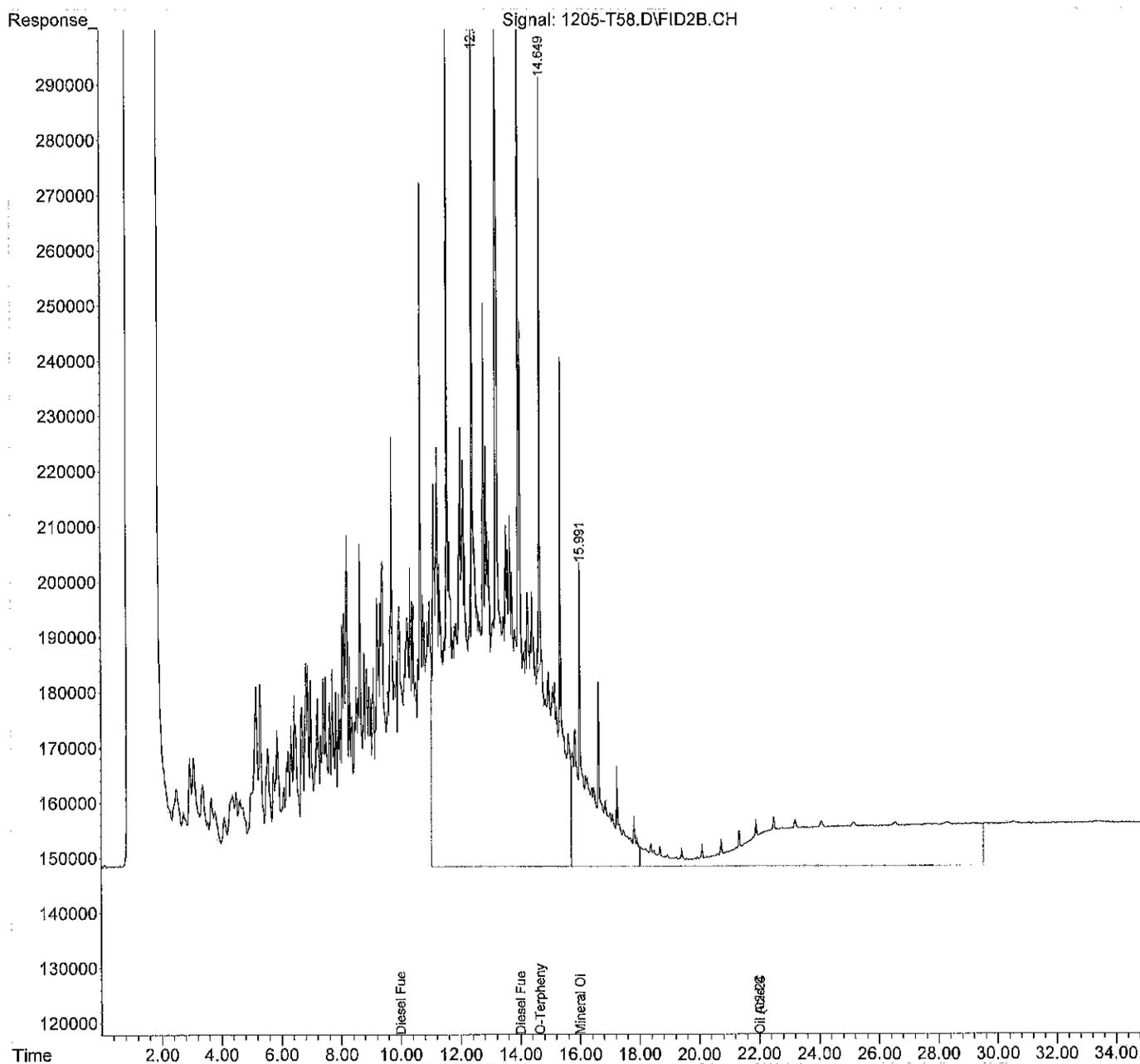
(m)=manual int.

Data File : 1205-T58.D  
 Sample : CCV1205R-T2

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 16:13  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 16:49:08 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :



Data File : 1205-T68.D  
 Sample : CCV1205R-T3

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 05 Dec 2014 23:17  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 05 23:52:57 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	4.000	29219218	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	234477653	94.759	PPM
4) H Diesel Fuel #2 (01-1...	14.000	235617663	98.104	PPM
5) H Oil (02-24-14)	22.000	54688569	4.187	PPM
6) H Oil Acid Clean (02-...	22.000	54688569	5.086	PPM
7) H Diesel Fuel #2 Combo ...	14.000	231517967	98.958	PPM
8) H Oil Combo (02-24-14)	22.000	42949058	N.D.	PPM
9) H Oil Acid Clean Combo ...	22.000	42949058	N.D.	PPM
10) H Oil MO Combo (02-24-14)	22.000	39188906	N.D.	PPM
11) H Oil Acid Clean MO Com...	22.000	39188906	N.D.	PPM
12) H Alaska 102 DF2 (05-29...	13.025	241142799	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	12028798	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	151303275	54.587	PPM
15) H Mineral Oil Combo (0...	16.000	148676365	57.170	PPM

(f)=RT Delta > 1/2 Window

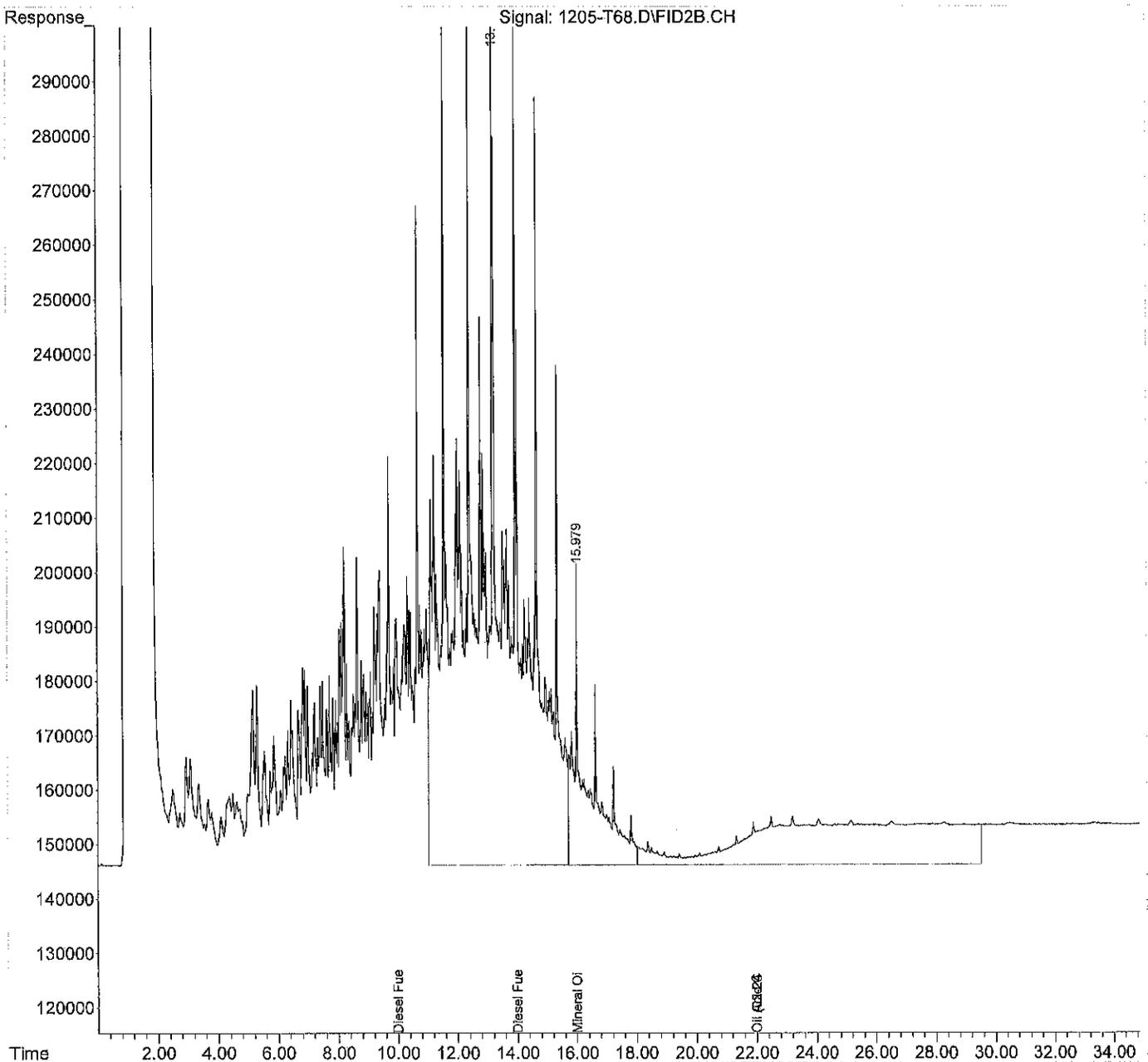
(m)=manual int.

Data File : 1205-T68.D  
Sample : CCV1205R-T3

Data Path : X:\DIESELS\TERI\DATA\T141205.SEC\  
Signal(s) : FID2B.CH  
Acq On : 05 Dec 2014 23:17  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 05 23:52:57 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1208-T51.D  
 Sample : CCV1208R-T1

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 08 Dec 2014 9:59  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 08 10:34:50 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	4.000	32435059	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	240444073	97.331	PPM
4) H Diesel Fuel #2 (01-1...	14.000	240433356	100.178	PPM
5) H Oil (02-24-14)	22.000	72940177	13.550	PPM
6) H Oil Acid Clean (02-...	22.000	72940177	14.529	PPM
7) H Diesel Fuel #2 Combo ...	14.000	235915898	100.901	PPM
8) H Oil Combo (02-24-14)	22.000	61397960	8.221	PPM
9) H Oil Acid Clean Combo ...	22.000	61397960	9.169	PPM
10) H Oil MO Combo (02-24-14)	22.000	57335562	6.614	PPM
11) H Oil Acid Clean MO Com...	22.000	57335562	7.510	PPM
12) H Alaska 102 DF2 (05-29...	13.025	246274371	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	18432974	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	153936231	55.589	PPM
15) H Mineral Oil Combo (0...	16.000	149217134	57.384	PPM

(f)=RT Delta > 1/2 Window

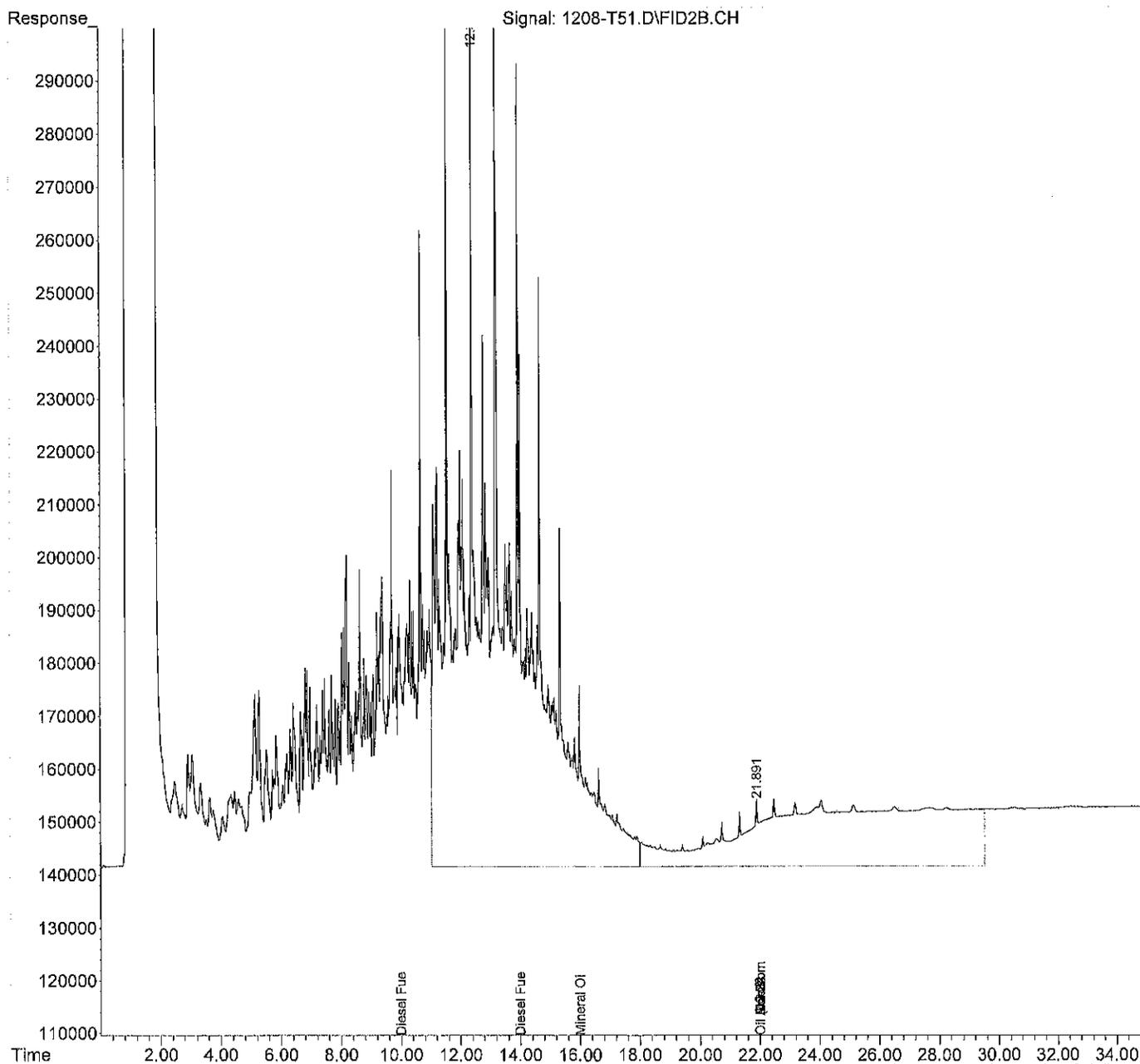
(m)=manual int.

Data File : 1208-T51.D  
Sample : CCV1208R-T1

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
Signal(s) : FID2B.CH  
Acq On : 08 Dec 2014 9:59  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 08 10:34:50 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1208-T57.D  
 Sample : CCV1208R-T2

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 08 Dec 2014 14:21  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 08 14:56:43 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery =	0.00%	
Target Compounds				
2) H Gasoline	4.000	29521675	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	233737060	94.440	PPM
4) H Diesel Fuel #2 (01-1...	14.000	235261117	97.951	PPM
5) H Oil (02-24-14)	22.000	55525634	4.617	PPM
6) H Oil Acid Clean (02-...	22.000	55525634	5.519	PPM
7) H Diesel Fuel #2 Combo ...	14.000	230914254	98.691	PPM
8) H Oil Combo (02-24-14)	22.000	43581811	N.D.	PPM
9) H Oil Acid Clean Combo ...	22.000	43581811	N.D.	PPM
10) H Oil MO Combo (02-24-14)	22.000	39599300	N.D.	PPM
11) H Oil Acid Clean MO Com...	22.000	39599300	N.D.	PPM
12) H Alaska 102 DF2 (05-29...	13.025	240768515	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	12438970	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	151628061	54.711	PPM
15) H Mineral Oil Combo (0...	16.000	148613509	57.145	PPM

(f)=RT Delta > 1/2 Window

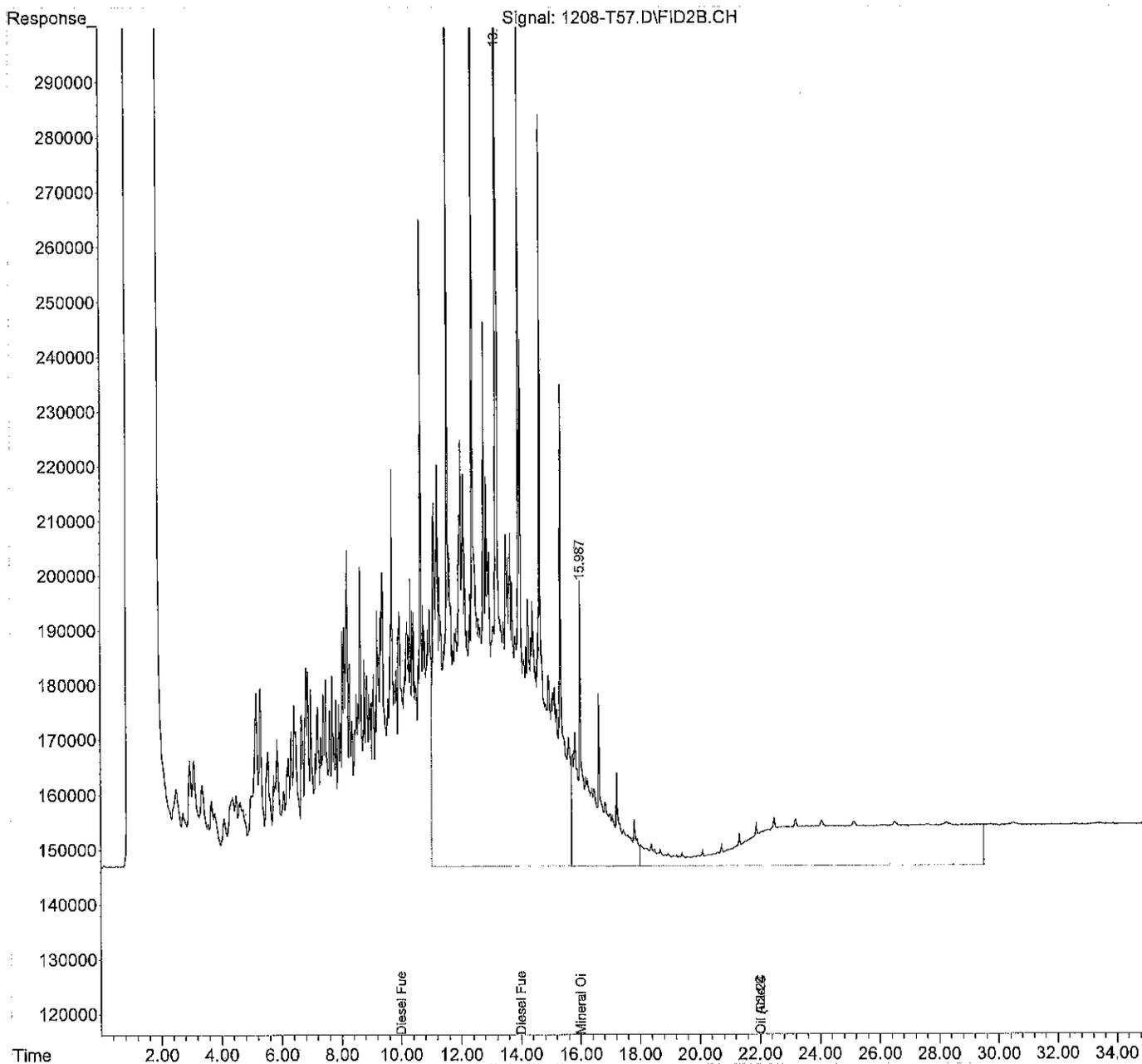
(m)=manual int.

Data File : 1208-T57.D  
Sample : CCV1208R-T2

Data Path : X:\DIESELS\TERI\DATA\T141208.SEC\  
Signal(s) : FID2B.CH  
Acq On : 08 Dec 2014 14:21  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 08 14:56:43 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



## PAHs Data

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205023.D  
 Acq On : 5 Dec 2014 4:57 pm  
 Operator :  
 Sample : 12-044-01  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 05 17:12:54 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

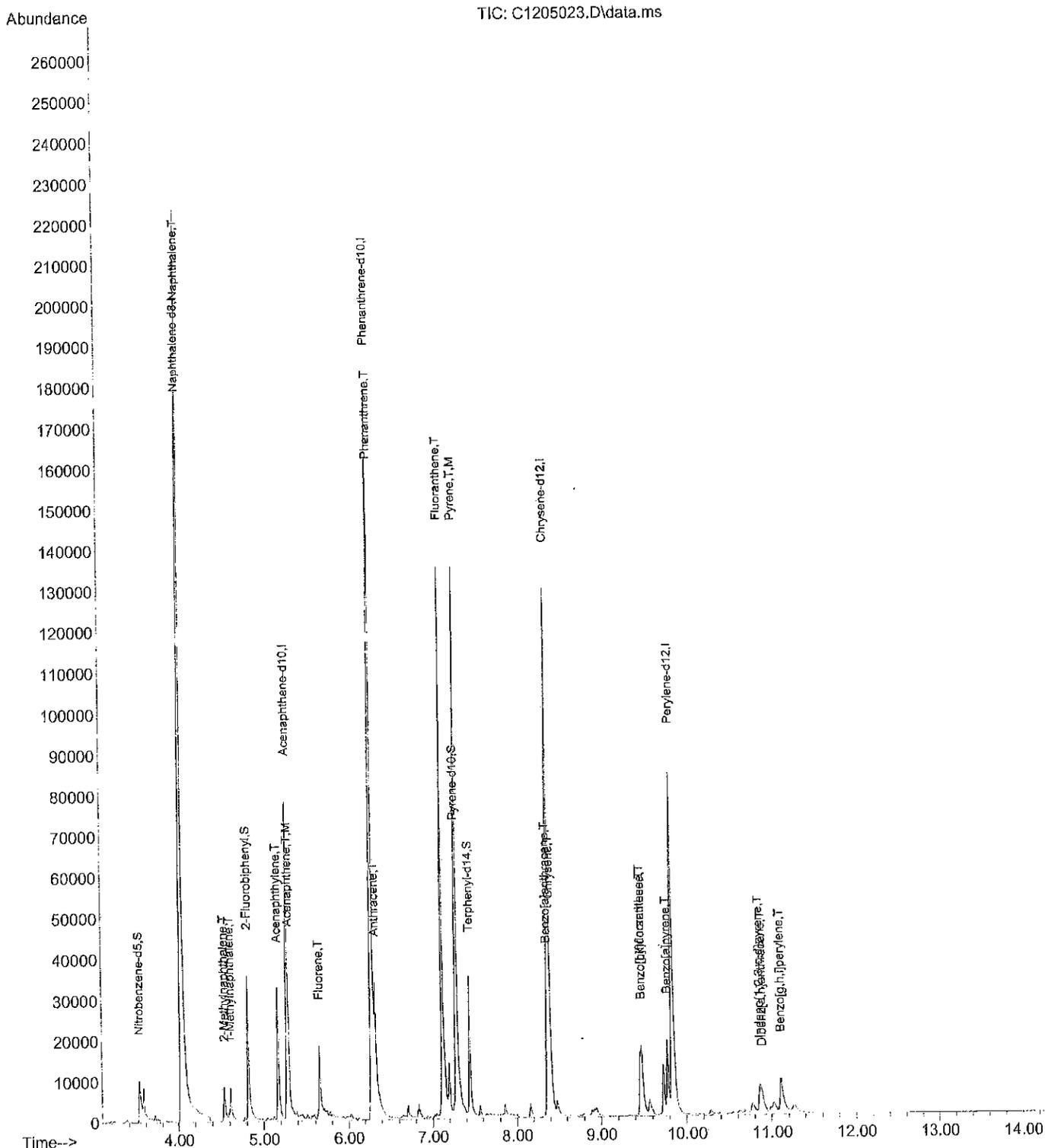
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.030	136	165555	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	95390	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.279	188	182467	2000.00	ppb	0.00	
17) Chrysene-d12	8.377	240	171339	2000.00	ppb	0.00	
21) Perylene-d12	9.833	264	151667	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.525	82	11463	493.22	ppb	-0.04	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	49.32%			
7) 2-Fluorobiphenyl	4.817	172	56717	751.21	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	75.12%			
11) Pyrene-d10	7.277	212	47788	605.91	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	60.59%			
18) Terphenyl-d14	7.445	244	44369	596.83	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	59.68%			
<b>Target Compounds</b>							
3) Naphthalene	4.041	128	240318	2303.19	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.544	142	11647	245.73	ppb	100	
5) 1-Methylnaphthalene	4.614	142	14534	180.45	ppb	100	
8) Acenaphthylene	5.165	152	41332	397.67	ppb	100	
9) Acenaphthene	5.296	153	21415	316.52	ppb	100	
12) Fluorene	5.650	166	21421	283.02	ppb	100	
13) Phenanthrene	6.291	178	115731	1237.24	ppb	100	
14) Anthracene	6.326	178	47522	554.13	ppb	100	
15) Fluoranthene	7.120	202	154422	1417.87	ppb	100	
16) Pyrene	7.288	202	154682	1361.15	ppb	100	
19) Benzo[a]anthracene	8.361	228	29587	378.46	ppb	100	
20) Chrysene	8.400	228	39323	403.25	ppb	100	
22) Benzo[b]fluoranthene	9.473	252	48673	<del>817.16</del> 453.08	ppb	100	
23) Benzo[j,k]fluoranthene	9.473	252	48673	<del>445.33</del> 207.45	ppb	100	
24) Benzo[a]pyrene	9.778	252	30589	381.97	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.864	276	17431	179.20	ppb	100	
26) Dibenz[a,h]anthracene	10.891	278	4593	56.06	ppb	100	
27) Benzo[g,h,i]perylene	11.110	276	22322	275.41	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/8/14  
zm

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205023.D  
 Acq On : 5 Dec 2014 4:57 pm  
 Operator :  
 Sample : 12-044-01  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 05 17:12:54 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205024.D  
 Acq On : 5 Dec 2014 5:19 pm  
 Operator :  
 Sample : 12-044-02  
 Misc :  
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 05 17:34:44 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

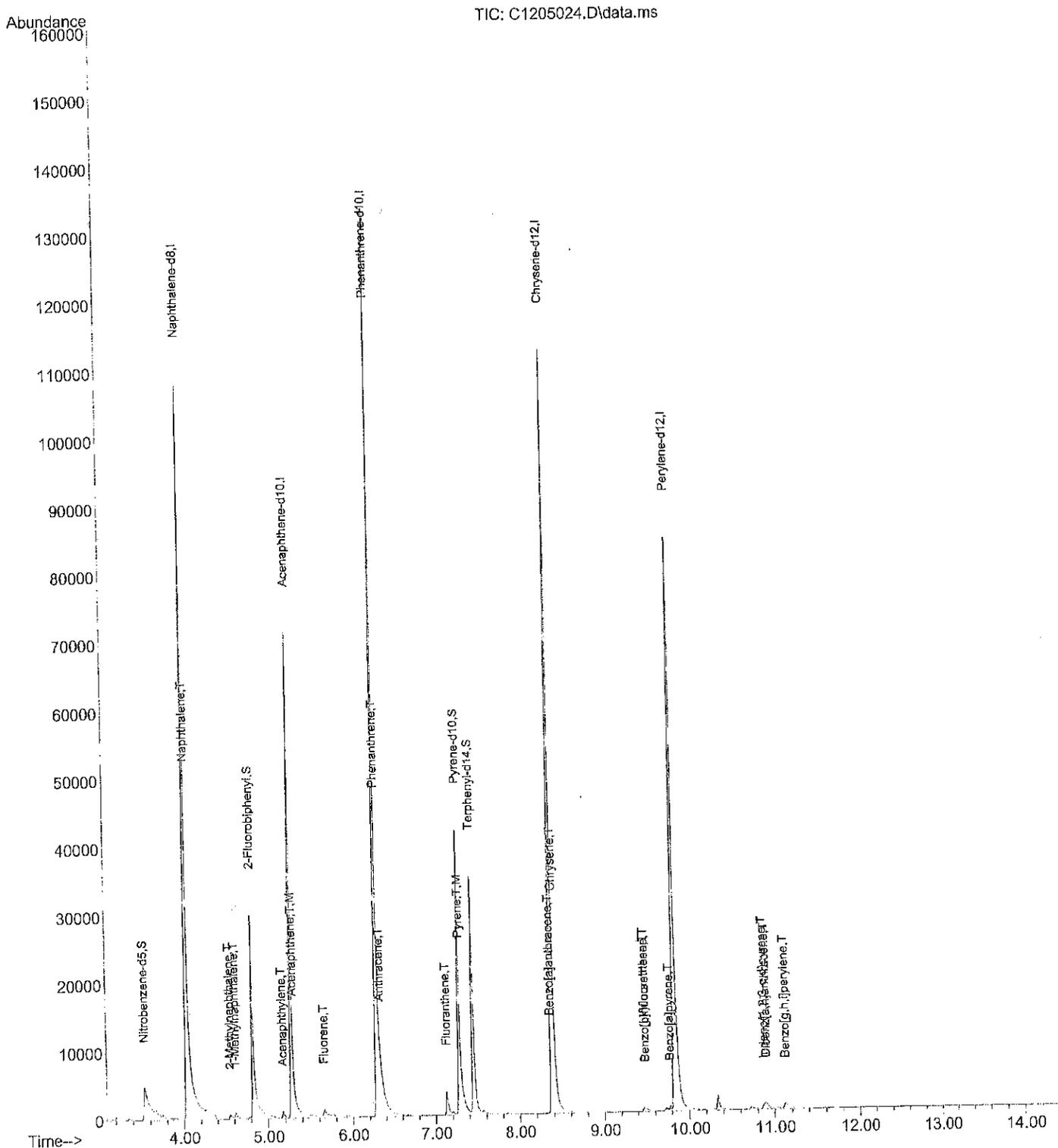
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.031	136	163608	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	93384	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.278	188	181113	2000.00	ppb	0.00	
17) Chrysene-d12	8.376	240	177431	2000.00	ppb	0.00	
21) Perylene-d12	9.829	264	162609	2000.00	ppb	-0.01	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.537	82	12677	551.95	ppb	-0.03	
Spiked Amount	1000.000	Range 24 - 92	Recovery	=	55.20%		
7) 2-Fluorobiphenyl	4.817	172	56205	760.42	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	76.04%		
11) Pyrene-d10	7.277	212	57362	732.73	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	73.27%		
18) Terphenyl-d14	7.439	244	49126	638.14	ppb	-0.01	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	63.81%		
<b>Target Compounds</b>							
							Qvalue
3) Naphthalene	4.042	128	17315	167.92	ppb		100
4) 2-Methylnaphthalene	4.548	142	1460	31.17	ppb		100
5) 1-Methylnaphthalene	4.615	142	2273	28.56	ppb		100
8) Acenaphthylene	5.172	152	1444	14.19	ppb		100
9) Acenaphthene	5.296	153	1308	19.75	ppb		100
12) Fluorene	5.658	166	2019	26.87	ppb		100
13) Phenanthrene	6.293	178	8217	88.50	ppb		100
14) Anthracene	6.328	178	4622	54.30	ppb		100
15) Fluoranthene	7.126	202	6175	57.12	ppb		100
16) Pyrene	7.288	202	6561	58.17	ppb		100
19) Benzo [a] anthracene	8.360	228	1203	14.86	ppb		100
20) Chrysene	8.399	228	1694	16.78	ppb		100
22) Benzo [b] fluoranthene	9.485	252	2200	<del>34.45</del> 15.36	ppb		100
23) Benzo (j,k) fluoranthene	9.485	252	2200	<del>18.77</del> 10.63	ppb		100
24) Benzo [a] pyrene	9.778	252	1131	13.17	ppb		100
25) Indeno (1,2,3-c,d) pyrene	10.880	276	2131	20.43	ppb		100
26) Dibenz [a,h] anthracene	10.903	278	1282	14.59	ppb		100
27) Benzo [g,h,i] perylene	11.125	276	2478	28.52	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/8/14  
 em

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205024.D  
 Acq On : 5 Dec 2014 5:19 pm  
 Operator :  
 Sample : 12-044-02  
 Misc :  
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 05 17:34:44 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205025.D  
 Acq On : 5 Dec 2014 5:41 pm  
 Operator :  
 Sample : 12-044-03  
 Misc :  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 05 17:56:38 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

*PAH's only*

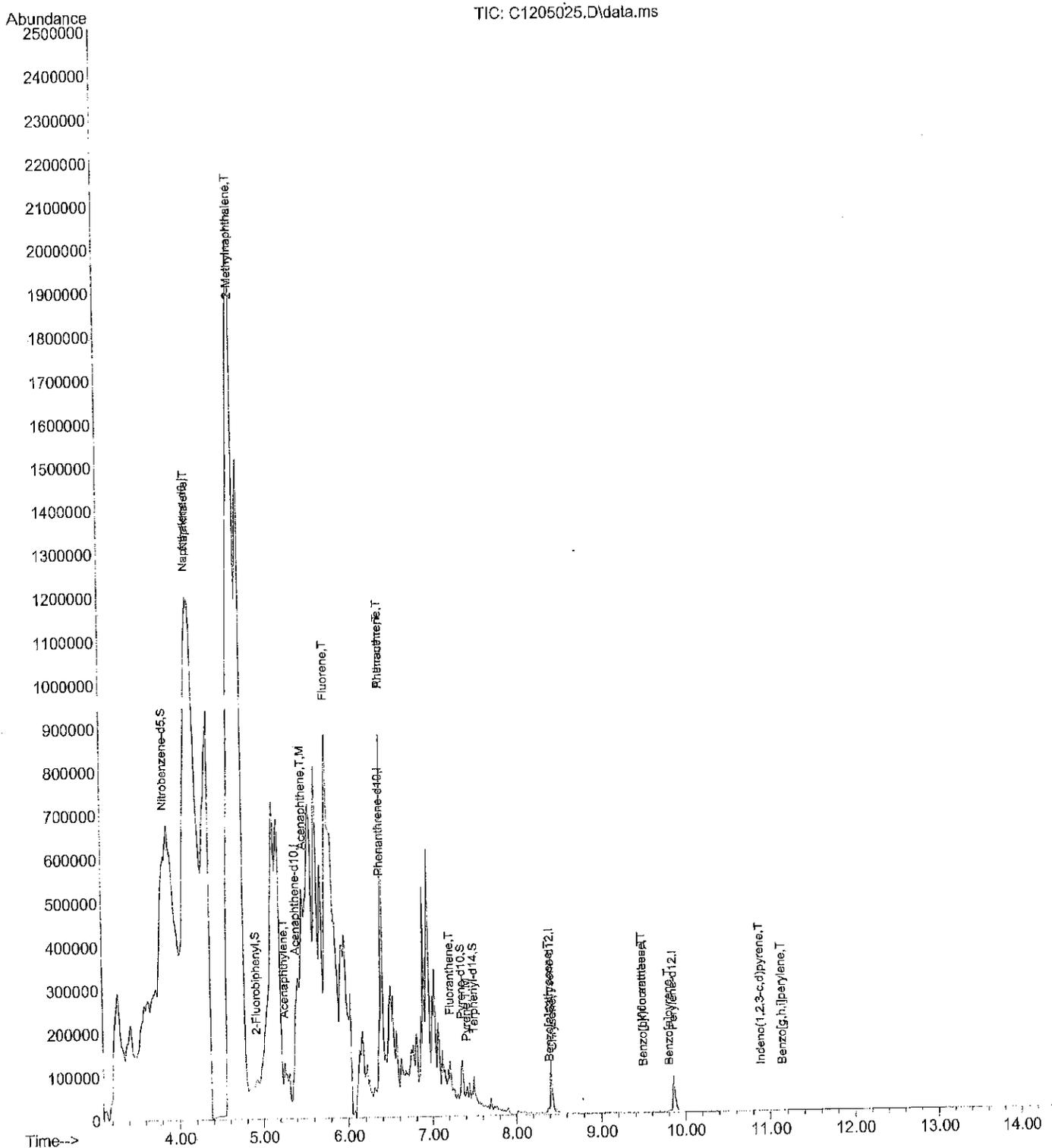
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
<b>Internal Standards</b>							
1) Naphthalene-d8	4.128	136	271469	2000.00	ppb	0.10	
6) Acenaphthene-d10	5.404	164	141506	2000.00	ppb	0.12	
10) Phenanthrene-d10	6.391	188	113059	2000.00	ppb	0.11	
17) Chrysene-d12	8.415	240	154691	2000.00	ppb	0.03	
21) Perylene-d12	9.860	264	143266	2000.00	ppb	0.02	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.844	82	1100824	28885.65	ppb	0.28	
Spiked Amount	1000.000	Range 24 - 92	Recovery	=	2888.57%#		
7) 2-Fluorobiphenyl	4.919	172	50641	452.15	ppb	0.09	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	45.21%		
11) Pyrene-d10	7.358	212	66672	1364.30	ppb	0.08	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	136.43%#		
18) Terphenyl-d14	7.503	244	50011	745.13	ppb	0.05	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	74.51%		
<b>Target Compounds</b>							
3) Naphthalene	4.140	128	2295772	13418.21	ppb	100	
4) 2-Methylnaphthalene	4.688	142	12882338	165751.52	ppb	100	
5) 1-Methylnaphthalene	4.688	142	12882338	97540.02	ppb	100	
8) Acenaphthylene	5.258	152	55189	357.94	ppb	100	
9) Acenaphthene	5.489	153	1347458	13425.49	ppb	100	
12) Fluorene	5.766	166	1205850	25712.60	ppb	100	
13) Phenanthrene	6.407	178	1311889	22635.08	ppb	100	
14) Anthracene	6.407	178	1311889	24688.40	ppb	100	
15) Fluoranthene	7.219	202	47653	706.15	ppb	100	
16) Pyrene	7.416	202	47389	673.01	ppb	100	
19) Benzo[a]anthracene	8.400	228	7663	108.57	ppb	100	
20) Chrysene	8.435	228	25503	289.67	ppb	100	
22) Benzo[b]fluoranthene	9.497	252	3302	<del>50.69</del> <sup>30.78</sup>	ppb	100	
23) Benzo[j,k]fluoranthene	9.497	252	3302	<del>31.98</del> <sup>15.10</sup>	ppb	100	
24) Benzo[a]pyrene	9.806	252	2845	<del>37.61</del> <sup>23.20</sup>	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.896	276	1694	18.44	ppb	100	
26) Dibenz[a,h]anthracene	<del>10.000</del> <sup>10.9</sup>		0	N.D.	ppb	100	
27) Benzo[g,h,i]perylene	11.142	276	2105	27.49	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*12/8/14  
sm*

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205025.D  
 Acq On : 5 Dec 2014 5:41 pm  
 Operator :  
 Sample : 12-044-03  
 Misc :  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 05 17:56:38 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205026.D  
 Acq On : 5 Dec 2014 6:03 pm  
 Operator :  
 Sample : 12-044-04  
 Misc :  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 05 18:18:31 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

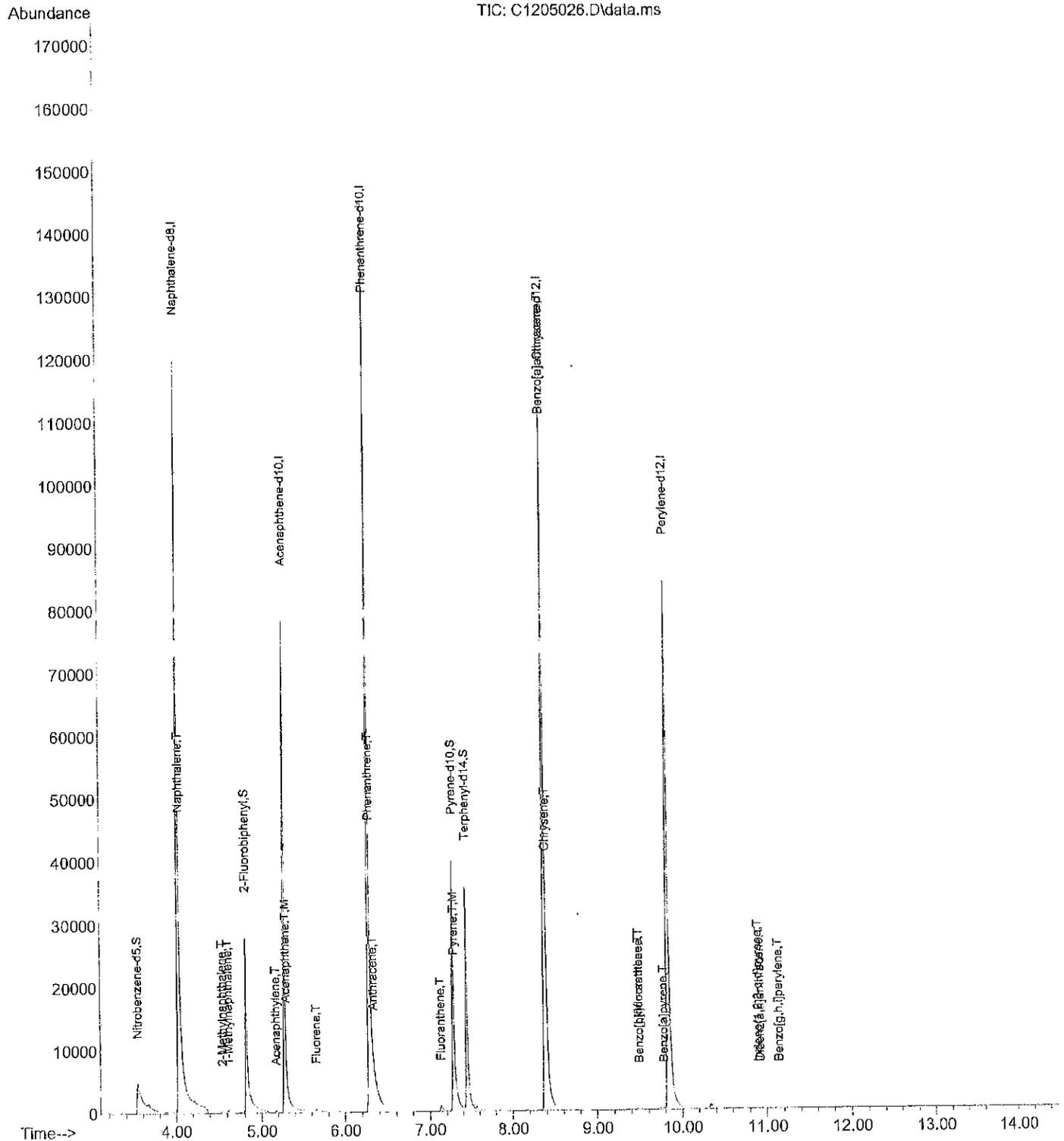
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.030	136	177928	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	103910	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.278	188	194604	2000.00	ppb	0.00	
17) Chrysene-d12	8.377	240	183065	2000.00	ppb	0.00	
21) Perylene-d12	9.829	264	164618	2000.00	ppb	-0.01	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.536	82	12561	502.88	ppb	-0.03	
Spiked Amount 1000.000	Range 24	- 92	Recovery =	50.29%			
7) 2-Fluorobiphenyl	4.817	172	50043	608.47	ppb	0.00	
Spiked Amount 1000.000	Range 25	- 89	Recovery =	60.85%			
11) Pyrene-d10	7.278	212	57703	685.99	ppb	0.00	
Spiked Amount 1000.000	Range 40	- 110	Recovery =	68.60%			
18) Terphenyl-d14	7.440	244	47057	592.45	ppb	-0.01	
Spiked Amount 1000.000	Range 39	- 92	Recovery =	59.25%			
<b>Target Compounds</b>							
							Qvalue
3) Naphthalene	4.041	128	6364	56.75	ppb		100
4) 2-Methylnaphthalene	4.548	142	703	13.80	ppb		100
5) 1-Methylnaphthalene	4.615	142	1235	14.27	ppb		100
8) Acenaphthylene	5.172	152	512	4.52	ppb		100
9) Acenaphthene	5.295	153	454	6.16	ppb		100
12) Fluorene	5.657	166	719	8.91	ppb		100
13) Phenanthrene	6.294	178	2496	25.02	ppb		100
14) Anthracene	6.333	178	1192	13.03	ppb		100
15) Fluoranthene	7.127	202	1655	14.25	ppb		100
16) Pyrene	7.289	202	1633	13.47	ppb		100
19) Benzo[a]anthracene	8.373	228	638	7.64	ppb		100
20) Chrysene	8.396	228	748	7.18	ppb		100
22) Benzo[b]fluoranthene	9.490	252	797	<del>12.33</del>	ppb		100
23) Benzo[j,k]fluoranthene	9.490	252	797	<del>6.72</del>	ppb		100
24) Benzo[a]pyrene	9.778	252	356	4.10	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.900	276	410	3.88	ppb		100
26) Dibenz[a,h]anthracene	10.919	278	154	1.73	ppb		100
27) Benzo[g,h,i]perylene	11.138	276	555	6.31	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*12/8/14  
gmm*

Data Path : C:\MSDCHEM\1\DATA\C141205\  
Data File : C1205026.D  
Acq On : 5 Dec 2014 6:03 pm  
Operator :  
Sample : 12-044-04  
Misc :  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 05 18:18:31 2014  
Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Wed Dec 03 14:22:32 2014  
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205004.D  
 Acq On : 5 Dec 2014 10:00 am  
 Operator :  
 Sample : MB1204S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 05 10:15:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

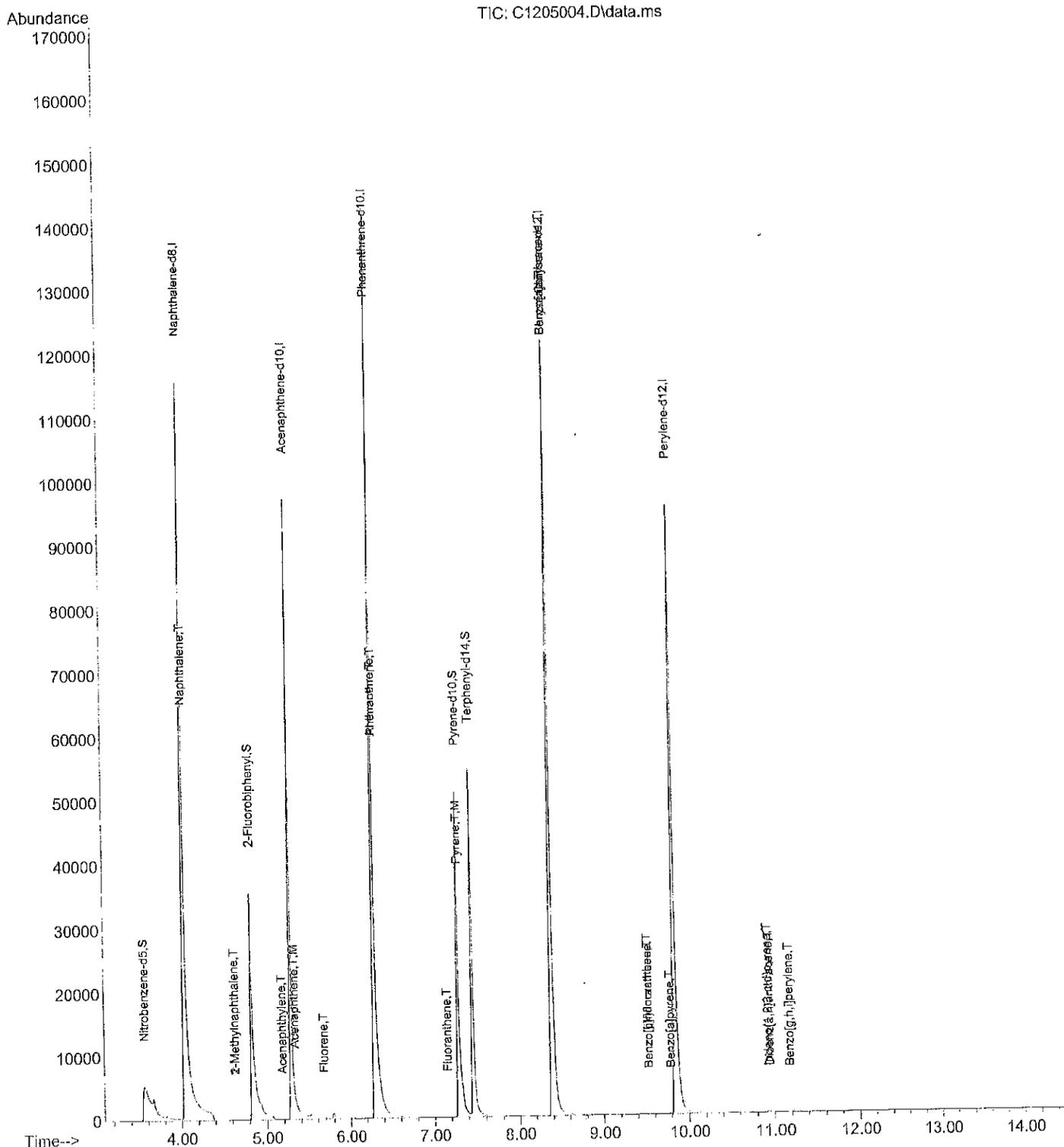
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.030	136	200658	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	114720	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.279	188	215482	2000.00	ppb	0.00	
17) Chrysene-d12	8.381	240	205473	2000.00	ppb	0.00	
21) Perylene-d12	9.832	264	185280	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.560	82	17203	610.71	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92	Recovery	=	61.07%		
7) 2-Fluorobiphenyl	4.824	172	82151	904.74	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	90.47%#		
11) Pyrene-d10	7.283	212	86359	927.19	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	92.72%		
18) Terphenyl-d14	7.445	244	76197	854.70	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	85.47%		
<b>Target Compounds</b>							
							Qvalue
3) Naphthalene	4.042	128	527	4.17	ppb		100
4) 2-Methylnaphthalene	4.629	142	223	3.88	ppb		100
5) 1-Methylnaphthalene	4.629	142	223	<del>2.28</del>	ppb		100
8) Acenaphthylene	5.180	152	69	0.55	ppb		100
9) Acenaphthene	5.326	153	153	1.88	ppb		100
12) Fluorene	5.673	166	43	0.48	ppb		100
13) Phenanthrene	6.295	178	876	7.93	ppb		100
14) Anthracene	6.295	178	876	<del>8.65</del>	ppb		100
15) Fluoranthene	7.149	202	118	0.92	ppb		100
16) Pyrene	7.289	202	240	1.79	ppb		100
19) Benzo[a]anthracene	8.377	228	676	7.21	ppb		100
20) Chrysene	8.377	228	676	<del>5.78</del>	ppb		100
22) Benzo[b]fluoranthene	9.524	252	276	3.79	ppb		100
23) Benzo[j,k]fluoranthene	9.524	252	276	<del>2.07</del>	ppb		100
24) Benzo[a]pyrene	9.786	252	95	0.97	ppb		100
25) Indeno[1,2,3-c,d]pyrene	10.930	276	405	3.41	ppb		100
26) Dibenz[a,h]anthracene	10.945	278	356	3.56	ppb		100
27) Benzo[g,h,i]perylene	11.176	276	313	3.16	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/5/14  
 2000

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205004.D  
 Acq On : 5 Dec 2014 10:00 am  
 Operator :  
 Sample : MB1204S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 05 10:15:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205005.D  
 Acq On : 5 Dec 2014 10:22 am  
 Operator :  
 Sample : SB1204S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 05 10:37:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

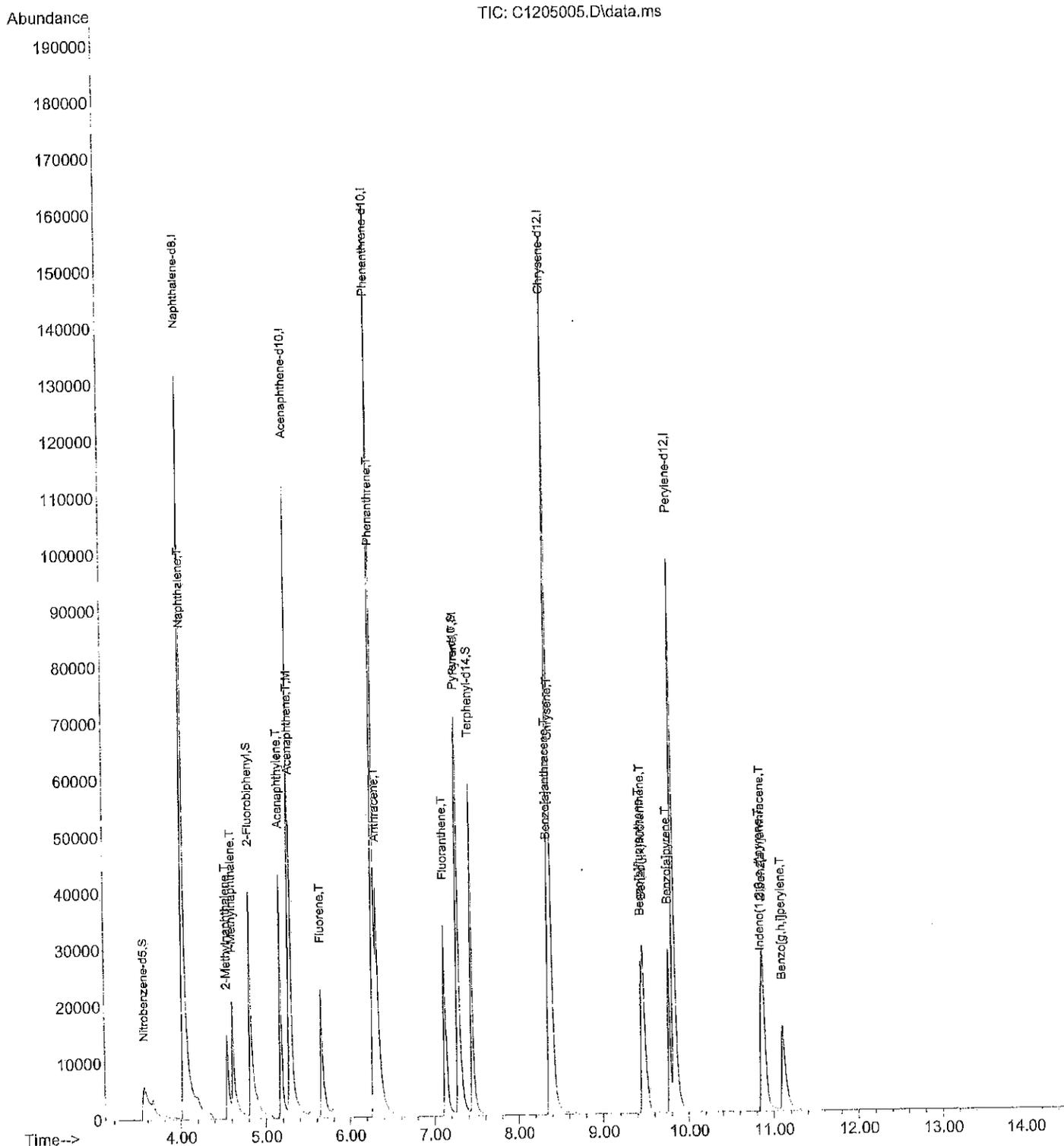
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	4.032	136	193683	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.279	164	117475	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.278	188	221603	2000.00	ppb	0.00	
17) Chrysene-d12	8.376	240	213492	2000.00	ppb	0.00	
21) Perylene-d12	9.833	264	193948	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.561	82	18145	667.34	ppb	0.00	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	66.73%			
7) 2-Fluorobiphenyl	4.822	172	86226	927.35	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	92.73%#			
11) Pyrene-d10	7.276	212	90118	940.82	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	94.08%			
18) Terphenyl-d14	7.445	244	78486	847.31	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	84.73%			
							Qvalue
Target Compounds							
3) Naphthalene	4.043	128	53414	437.57	ppb	100	
4) 2-Methylnaphthalene	4.549	142	26420	476.46	ppb	100	
5) 1-Methylnaphthalene	4.615	142	46717	495.78	ppb	100	
8) Acenaphthylene	5.171	152	56574	441.99	ppb	100	
9) Acenaphthene	5.295	153	37490	449.95	ppb	100	
12) Fluorene	5.657	166	42873	466.41	ppb	100	
13) Phenanthrene	6.294	178	46451	408.89	ppb	100	
14) Anthracene	6.329	178	70746	679.25	ppb	100	
15) Fluoranthene	7.125	202	61526	465.15	ppb	100	
16) Pyrene	7.288	202	63707	461.60	ppb	100	
19) Benzo[a]anthracene	8.361	228	46320	475.51	ppb	100	
20) Chrysene	8.400	228	56573	465.60	ppb	100	
22) Benzo[b]fluoranthene	9.459	252	31294	410.85	ppb	100	
23) Benzo[j,k]fluoranthene	9.478	252	59847	428.19	ppb	100	
24) Benzo[a]pyrene	9.779	252	48684	475.39	ppb	100	
25) Indeno[1,2,3-c,d]pyrene	10.864	276	55545	446.54	ppb	100	
26) Dibenz[a,h]anthracene	10.888	278	46919	447.83	ppb	100	
27) Benzo[g,h,i]perylene	11.114	276	48990	472.68	ppb	100	
-----							

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/5/14  
 mm

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205005.D  
 Acq On : 5 Dec 2014 10:22 am  
 Operator :  
 Sample : SB1204S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 05 10:37:09 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205006.D  
 Acq On : 5 Dec 2014 10:44 am  
 Operator :  
 Sample : SB1204S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 05 10:59:05 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

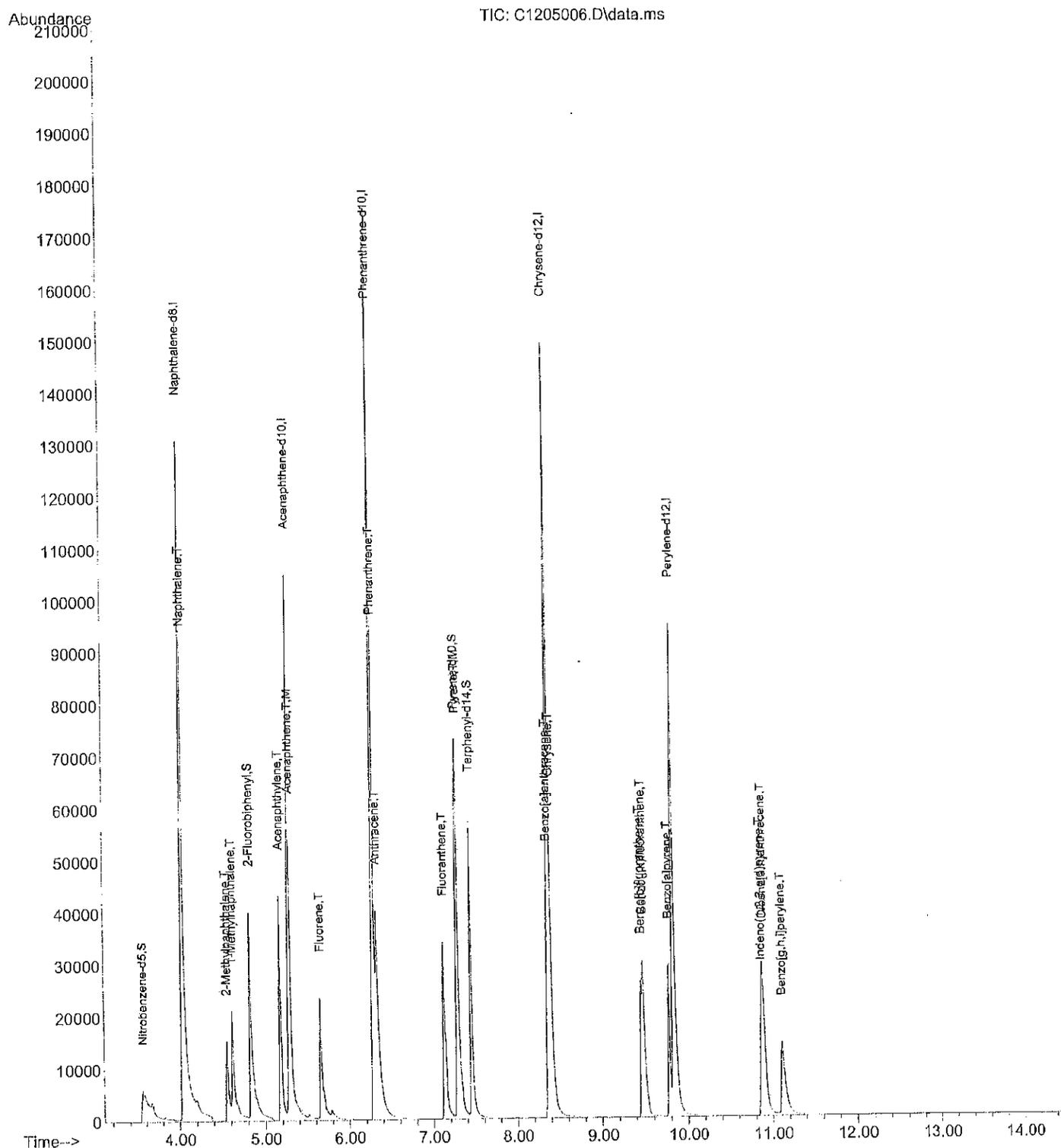
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
-----							
Internal Standards							
1) Naphthalene-d8	4.030	136	190917	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	115535	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.279	188	220357	2000.00	ppb	0.00	
17) Chrysene-d12	8.377	240	211517	2000.00	ppb	0.00	
21) Perylene-d12	9.834	264	192808	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.560	82	18637	695.37	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	69.54%			
7) 2-Fluorobiphenyl	4.825	172	89393	977.55	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	97.75%#			
11) Pyrene-d10	7.276	212	93006	976.46	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	97.65%			
18) Terphenyl-d14	7.445	244	82105	894.65	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	89.46%			
Target Compounds							
							Qvalue
3) Naphthalene	4.042	128	55505	461.29	ppb		100
4) 2-Methylnaphthalene	4.551	142	27058	495.03	ppb		100
5) 1-Methylnaphthalene	4.618	142	50832	547.27	ppb		100
8) Acenaphthylene	5.172	152	57955	460.38	ppb		100
9) Acenaphthene	5.295	153	40304	491.84	ppb		100
12) Fluorene	5.658	166	43770	478.86	ppb		100
13) Phenanthrene	6.295	178	48220	426.86	ppb		100
14) Anthracene	6.330	178	72246	697.57	ppb		100
15) Fluoranthene	7.125	202	63257	480.94	ppb		100
16) Pyrene	7.288	202	64919	473.04	ppb		100
19) Benzo[a]anthracene	8.361	228	45239	468.75	ppb		100
20) Chrysene	8.400	228	59948	497.98	ppb		100
22) Benzo[b]fluoranthene	9.459	252	33460	441.89	ppb		100
23) Benzo[j,k]fluoranthene	9.479	252	60068	432.32	ppb		100
24) Benzo[a]pyrene	9.779	252	50273	493.81	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.869	276	56489	456.81	ppb		100
26) Dibenz[a,h]anthracene	10.888	278	47410	455.19	ppb		100
27) Benzo[g,h,i]perylene	11.115	276	50296	488.15	ppb		100
-----							

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/5/14  
 GMM

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205006.D  
 Acq On : 5 Dec 2014 10:44 am  
 Operator :  
 Sample : SB1204S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 05 10:59:05 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141205\  
 Data File : C1205003.D  
 Acq On : 5 Dec 2014 9:37 am  
 Operator :  
 Sample : PAH CCV1205  
 Misc : SV4-46-25  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 05 09:52:28 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev (min)
1 I Naphthalene-d8	2000.000	2000.000	0.0	91	0.00
2 S Nitrobenzene-d5	500.000	243.835	51.2#	62	0.02
3 T Naphthalene	500.000	487.380	2.5	84	0.00
4 T 2-Methylnaphthalene	500.000	510.167	-2.0	87	0.00
5 T 1-Methylnaphthalene	500.000	553.855	-10.8	95	0.00
6 I Acenaphthene-d10	2000.000	2000.000	0.0	92	0.00
7 S 2-Fluorobiphenyl	500.000	502.928	-0.6	95	0.00
8 T Acenaphthylene	500.000	455.100	9.0	92	0.00
9 T,M Acenaphthene	500.000	489.781	2.0	95	0.00
10 I Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11 S Pyrene-d10	500.000	489.626	2.1	96	0.00
12 T Fluorene	500.000	487.171	2.6	95	0.00
13 T Phenanthrene	500.000	444.528	11.1	95	0.00
14 T Anthracene	500.000	506.231	-1.2	95	0.00
15 T Fluoranthene	500.000	483.508	3.3	95	0.00
16 T,M Pyrene	500.000	476.288	4.7	96	0.00
17 I Chrysene-d12	2000.000	2000.000	0.0	97	0.00
18 S Terphenyl-d14	500.000	473.358	5.3	99	0.00
19 T Benzo[a]anthracene	500.000	459.431	8.1	90	0.00
20 T Chrysene	500.000	488.646	2.3	101	0.00
21 I Perylene-d12	2000.000	2000.000	0.0	95	0.00
22 T Benzo[b]fluoranthene	500.000	419.470	16.1	85	0.00
23 T Benzo(j,k)fluoranthene	500.000	477.841	4.4	103	0.00
24 T Benzo[a]pyrene	500.000	490.422	1.9	95	0.00
25 T Indeno(1,2,3-c,d)pyrene	500.000	476.948	4.6	96	0.00
26 T Dibenz[a,h]anthracene	500.000	473.812	5.2	96	0.00
27 T Benzo[g,h,i]perylene	500.000	492.272	1.5	97	-0.01

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205003.D  
 Acq On : 5 Dec 2014 9:37 am  
 Operator :  
 Sample : PAH CCV1205  
 Misc : SV4-46-25  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 05 09:52:28 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

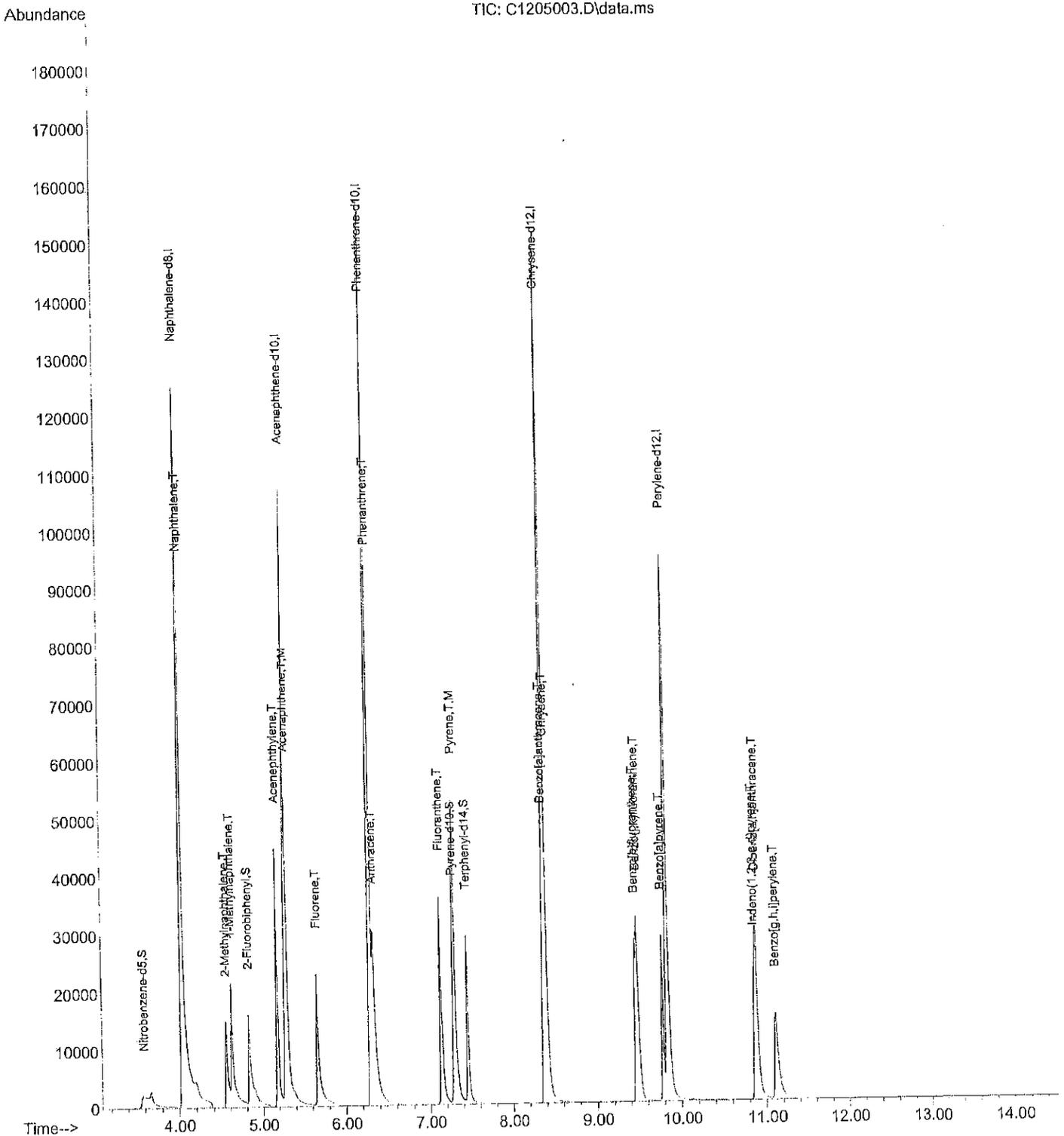
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.029	136	186472	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	112886	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.279	188	212084	2000.00	ppb	0.00	
17) Chrysene-d12	8.376	240	206758	2000.00	ppb	0.00	
21) Perylene-d12	9.834	264	188506	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.588	82	6383	243.83	ppb	0.02	
Spiked Amount 1000.000	Range 24	- 92	Recovery	=	24.38%		
7) 2-Fluorobiphenyl	4.824	172	44936	502.93	ppb	0.00	
Spiked Amount 1000.000	Range 25	- 89	Recovery	=	50.29%		
11) Pyrene-d10	7.277	212	44885	489.63	ppb	0.00	
Spiked Amount 1000.000	Range 40	- 110	Recovery	=	48.96%		
18) Terphenyl-d14	7.445	244	42464	473.36	ppb	0.00	
Spiked Amount 1000.000	Range 39	- 92	Recovery	=	47.34%		
<b>Target Compounds</b>							
							Qvalue
3) Naphthalene	4.041	128	57279	487.38	ppb		100
4) 2-Methylnaphthalene	4.551	142	27236	510.17	ppb		100
5) 1-Methylnaphthalene	4.617	142	50246	553.86	ppb		100
8) Acenaphthylene	5.172	152	55977	455.10	ppb		100
9) Acenaphthene	5.295	153	39215	489.78	ppb		100
12) Fluorene	5.657	166	42858	487.17	ppb		100
13) Phenanthrene	6.294	178	48330	444.53	ppb		100
14) Anthracene	6.330	178	50461	506.23	ppb		100
15) Fluoranthene	7.126	202	61207	483.51	ppb		100
16) Pyrene	7.288	202	62911	476.29	ppb		100
19) Benzo[a]anthracene	8.361	228	43342	459.43	ppb		100
20) Chrysene	8.400	228	57501	488.65	ppb		100
22) Benzo[b]fluoranthene	9.455	252	31054	419.47	ppb		100
23) Benzo[j,k]fluoranthene	9.479	252	64912	477.84	ppb		100
24) Benzo[a]pyrene	9.775	252	48814	490.42	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.865	276	57663	476.95	ppb		100
26) Dibenz[a,h]anthracene	10.888	278	48248	473.81	ppb		100
27) Benzo[g,h,i]perylene	11.115	276	49589	492.27	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/5/14  
 SM

Data Path : C:\MSDCHEM\1\DATA\C141205\  
 Data File : C1205003.D  
 Acq On : 5 Dec 2014 9:37 am  
 Operator :  
 Sample : PAH CCV1205  
 Misc : SV4-46-25  
 ALS Vial : 3 Sample Multiplier: 1

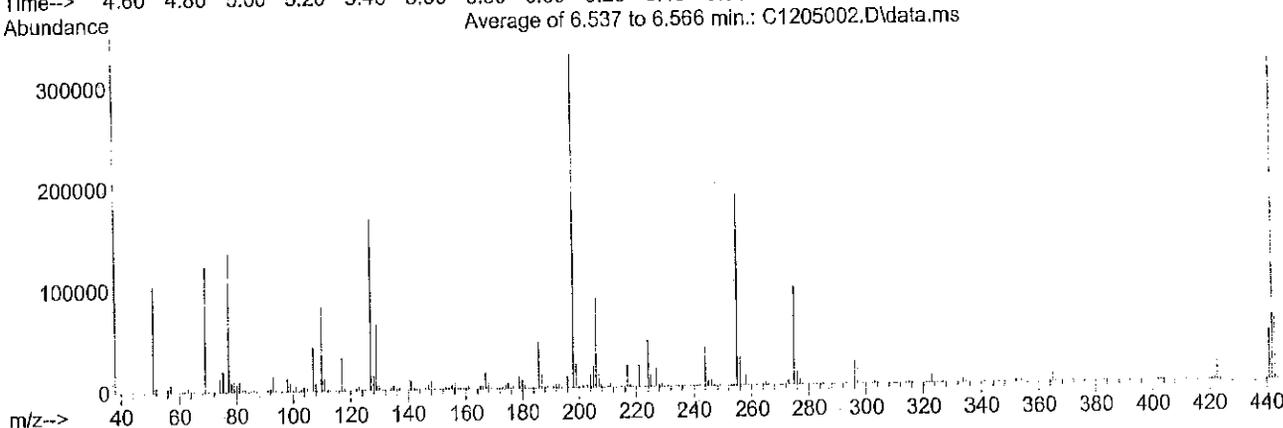
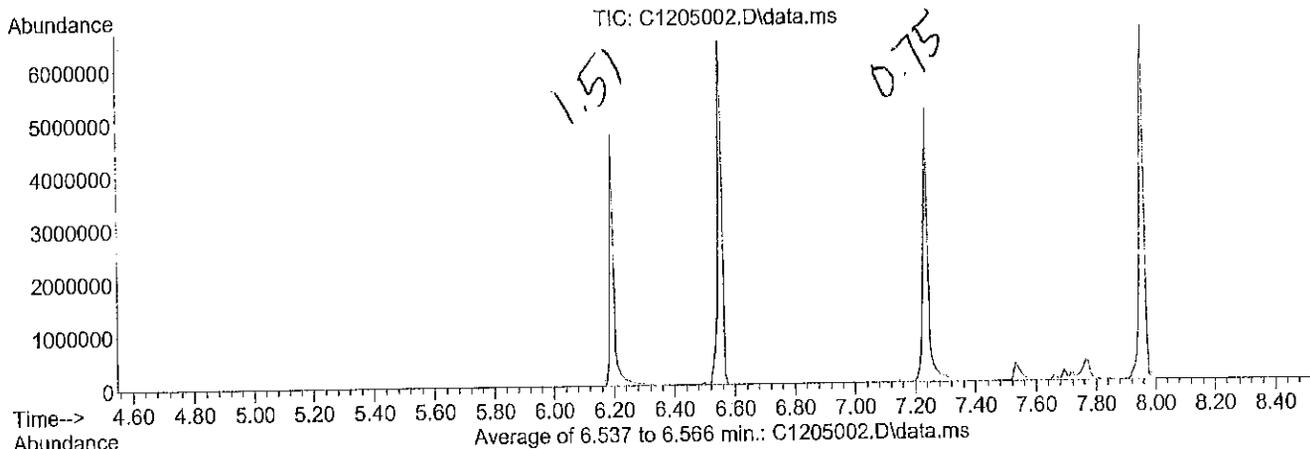
Quant Time: Dec 05 09:52:28 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C141205\  
 Data File : C1205002.D  
 Acq On : 5 Dec 2014 9:15 am  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-46-13  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1203.M  
 Title : PAH'S BY SIMS  
 Last Update : Wed Dec 03 14:22:32 2014



Spectrum Information: Average of 6.537 to 6.566 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	31.2	104114	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	36.9	123249	PASS
70	69	0.00	2	0.3	363	PASS
127	198	25	75	50.5	168751	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	334125	PASS
199	198	5	9	7.2	23914	PASS
275	198	10	30	28.9	96701	PASS
365	198	0.75	100	3.4	11354	PASS
441	443	0.01	100	74.6	48297	PASS
442	198	40	110	96.0	320598	PASS
443	442	15	24	20.2	64776	PASS

## Total Cadmium Data

## P141204F1. Mean Only Report 12/8/2014, 10:20:15 AM

Sample	Label	Calc Conc.	Units	Date/Time
12-284-02 COMP d DUP	Cd 228.802	-0.139uv	ppb	12/4/2014, 8:09:41 PM
12-284-02 L	Cd 228.802	0.530	ppb	12/4/2014, 8:13:45 PM
12-284-02 MS	Cd 228.802	935.87	ppb	12/4/2014, 8:17:50 PM
12-284-02 MSD	Cd 228.802	464.13	ppb	12/4/2014, 8:21:55 PM
12-284-01 COMP C	Cd 228.802	10.166	ppb	12/4/2014, 8:26:00 PM
12-284-10 COMP A	Cd 228.802	-0.150uv	ppb	12/4/2014, 8:30:07 PM
12-284-11 COMP B	Cd 228.802	6.932	ppb	12/4/2014, 8:34:13 PM
Cont Calib Verif	Cd 228.802	1001.9	ppb	12/4/2014, 8:38:18 PM
Cont Calib Blank	Cd 228.802	2.306	ppb	12/4/2014, 8:42:25 PM
LLCCV	Cd 228.802	10.064	ppb	12/4/2014, 8:46:30 PM
11-284-14 COMP I	Cd 228.802	5.938	ppb	12/4/2014, 8:50:35 PM
111-284-15 COMP J	Cd 228.802	2.271	ppb	12/4/2014, 8:54:40 PM
11-284-24 COMP G	Cd 228.802	0.716uv	ppb	12/4/2014, 8:58:45 PM
11-284-25 COMP H	Cd 228.802	2.969	ppb	12/4/2014, 9:02:49 PM
11-284-33 COMP E	Cd 228.802	3.075	ppb	12/4/2014, 9:06:54 PM
11-284-02 COMP D MSD	Cd 228.802	946.26	ppb	12/4/2014, 9:12:56 PM
12-034-01a	Cd 228.802	3.829	ppb	12/4/2014, 9:16:59 PM
12-034-02a	Cd 228.802	2.940	ppb	12/4/2014, 9:21:02 PM
12-044-01a	Cd 228.802	16.524	ppb	12/4/2014, 9:25:05 PM
12-044-02a	Cd 228.802	12.696	ppb	12/4/2014, 9:29:08 PM
Cont Calib Verif	Cd 228.802	988.79	ppb	12/4/2014, 9:33:11 PM
Cont Calib Blank	Cd 228.802	0.010uv	ppb	12/4/2014, 9:37:15 PM
LLCCV	Cd 228.802	7.452	ppb	12/4/2014, 9:50:10 PM
12-044-03a	Cd 228.802	3.686	ppb	12/4/2014, 10:01:12 PM
12-044-04a	Cd 228.802	11.459	ppb	12/4/2014, 10:05:16 PM
BLK	Cd 228.802	-1.820uv	ppb	12/4/2014, 10:09:21 PM
11-096-19a	Cd 228.802	1.661	ppb	12/4/2014, 10:13:25 PM
11-096-20a	Cd 228.802	1.894	ppb	12/4/2014, 10:17:29 PM
MB1203SH1	Cd 228.802	-1.310uv	ppb	12/4/2014, 10:21:32 PM
SB1203SH1	Cd 228.802	984.19	ppb	12/4/2014, 10:25:35 PM
12-002-03	Cd 228.802	2.504	ppb	12/4/2014, 10:29:38 PM
12-002-03 DUP	Cd 228.802	2.464	ppb	12/4/2014, 10:33:44 PM
12-002-03 L	Cd 228.802	-0.332uv	ppb	12/4/2014, 10:37:49 PM
Cont Calib Verif	Cd 228.802	1011.1	ppb	12/4/2014, 10:41:53 PM
Cont Calib Blank	Cd 228.802	0.447	ppb	12/4/2014, 10:45:59 PM
LLCCV	Cd 228.802	10.359	ppb	12/4/2014, 10:50:03 PM

P141204F1. Mean Only Report 12/8/2014, 10:20:15 AM

Sample	Label	Calc Conc.	Units	Date/Time
Blank	Cd 228.802	0.000	ppb	12/4/2014, 11:27:04 AM
Standard 5	Cd 228.802	10.000	ppb	12/4/2014, 12:55:59 PM
Standard 4	Cd 228.802	100.00	ppb	12/4/2014, 11:43:58 AM
Standard 3	Cd 228.802	1000.0	ppb	12/4/2014, 11:48:00 AM
Standard 2	Cd 228.802	2500.0	ppb	12/4/2014, 1:18:51 PM
Standard 1	Cd 228.802	5000.0	ppb	12/4/2014, 1:04:05 PM
Initial Calib Verif	Cd 228.802	1038.0	ppb	12/4/2014, 2:39:07 PM
LLICV	Cd 228.802	10.105	ppb	12/4/2014, 3:17:08 PM
Initial Calib Blank	Cd 228.802	-1.243uv	ppb	12/4/2014, 3:26:29 PM
Cont Calib Verif	Cd 228.802	1053.9	ppb	12/4/2014, 3:30:32 PM
Cont Calib Blank	Cd 228.802	-0.120uv	ppb	12/4/2014, 3:42:04 PM
ICSA	Cd 228.802	1.624	ppb	12/4/2014, 3:46:09 PM
ICSAB	Cd 228.802	944.95	ppb	12/4/2014, 3:50:12 PM
MB12047WH1	Cd 228.802	-2.195uv	ppb	12/4/2014, 4:03:40 PM
SB1204WH1	Cd 228.802	1003.2	ppb	12/4/2014, 4:07:45 PM
12-020-01	Cd 228.802	7.502	ppb	12/4/2014, 4:29:08 PM
12-020-01 DUP	Cd 228.802	0.913	ppb	12/4/2014, 4:33:12 PM
12-020-01 L	Cd 228.802	-0.553uv	ppb	12/4/2014, 4:37:17 PM
12-020-01 MS	Cd 228.802	1075.9	ppb	12/4/2014, 4:41:22 PM
12-020-01 MSD	Cd 228.802	1081.0	ppb	12/4/2014, 4:45:26 PM
BLK	Cd 228.802	2.492	ppb	12/4/2014, 4:49:29 PM
Cont Calib Verif	Cd 228.802	1059.0	ppb	12/4/2014, 4:59:10 PM
Cont Calib Blank	Cd 228.802	0.933	ppb	12/4/2014, 5:03:15 PM
LLCCV	Cd 228.802	10.282	ppb	12/4/2014, 5:13:08 PM
12-020-01	Cd 228.802	-0.721uv	ppb	12/4/2014, 5:21:50 PM
12-004-01c	Cd 228.802	1.197	ppb	12/4/2014, 5:25:56 PM
12-017-01	Cd 228.802	-0.788uv	ppb	12/4/2014, 5:30:02 PM
12-018-01	Cd 228.802	-0.316uv	ppb	12/4/2014, 5:34:06 PM
12-019-01	Cd 228.802	-1.268uv	ppb	12/4/2014, 5:38:11 PM
12-021-04c	Cd 228.802	0.526uv	ppb	12/4/2014, 5:42:18 PM
12-020-01 DUP	Cd 228.802	-0.588uv	ppb	12/4/2014, 5:51:14 PM
STAND 1	Cd 228.802	4973.6	ppb	12/4/2014, 5:55:18 PM
BLK	Cd 228.802	5.881	ppb	12/4/2014, 5:59:23 PM
Cont Calib Verif	Cd 228.802	1044.6	ppb	12/4/2014, 6:03:27 PM
Cont Calib Blank	Cd 228.802	3.088	ppb	12/4/2014, 6:07:33 PM
LLCCV	Cd 228.802	10.160	ppb	12/4/2014, 6:16:44 PM
12-005-01	Cd 228.802	210.31	ppb	12/4/2014, 6:24:51 PM
12-005-02	Cd 228.802	13.126	ppb	12/4/2014, 6:28:57 PM
12-005-03	Cd 228.802	24.524	ppb	12/4/2014, 6:33:00 PM
12-005-04	Cd 228.802	1290.2	ppb	12/4/2014, 6:37:06 PM
12-005-01 x20	Cd 228.802	11.100	ppb	12/4/2014, 6:49:04 PM
12-005-02 x20	Cd 228.802	1.160uv	ppb	12/4/2014, 6:53:11 PM
12-005-03 x20	Cd 228.802	2.110	ppb	12/4/2014, 6:57:16 PM
12-005-04 x20	Cd 228.802	68.984	ppb	12/4/2014, 7:01:22 PM
12-005-01 x200	Cd 228.802	1.807	ppb	12/4/2014, 7:15:05 PM
12-005-04 x200	Cd 228.802	7.060	ppb	12/4/2014, 7:19:09 PM
Cont Calib Verif	Cd 228.802	1025.8	ppb	12/4/2014, 7:23:14 PM
Cont Calib Blank	Cd 228.802	0.622	ppb	12/4/2014, 7:27:19 PM
LLCCV	Cd 228.802	9.996	ppb	12/4/2014, 7:38:16 PM
MB1204SM1	Cd 228.802	-0.466uv	ppb	12/4/2014, 7:57:24 PM
SB1204SM1	Cd 228.802	961.93	ppb	12/4/2014, 8:01:29 PM
12-284-02 COMP D	Cd 228.802	1.934	ppb	12/4/2014, 8:05:35 PM



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 10, 2014

Abhijit Joshi  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-012-06  
Laboratory Reference No. 1412-051

Dear Abhijit:

Enclosed are the analytical results and associated quality control data for samples submitted on December 5, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Manager

Enclosures

Date of Report: December 10, 2014  
Samples Submitted: December 5, 2014  
Laboratory Reference: 1412-051  
Project: 5147-012-06

### Case Narrative

Samples were collected on December 5, 2014 and received by the laboratory on December 5, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx/Benzene EPA 8021B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: December 10, 2014  
Samples Submitted: December 5, 2014  
Laboratory Reference: 1412-051  
Project: 5147-012-06

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-15-8.5	12-051-01	Soil	12-5-14	12-5-14	
EX-16-6.5	12-051-02	Soil	12-5-14	12-5-14	

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

### NWTPH-Gx/BENZENE

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-15-8.5</b>					
Laboratory ID:	12-051-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	68-123				
<b>Client ID:</b>	<b>EX-16-6.5</b>					
Laboratory ID:	12-051-02					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	68-123				

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-15-8.5</b>					
Laboratory ID:	12-051-01					
Diesel Range Organics	<b>ND</b>	31	NWTPH-Dx	12-9-14	12-9-14	X1
Lube Oil Range Organics	<b>ND</b>	62	NWTPH-Dx	12-9-14	12-9-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				
<b>Client ID:</b>	<b>EX-16-6.5</b>					
Laboratory ID:	12-051-02					
Diesel Range Organics	<b>ND</b>	31	NWTPH-Dx	12-9-14	12-9-14	X1
Lube Oil Range Organics	<b>ND</b>	62	NWTPH-Dx	12-9-14	12-9-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-15-8.5</b>					
Laboratory ID:	12-051-01					
Benzo[a]anthracene	<b>ND</b>	0.0083	EPA 8270D/SIM	12-8-14	12-8-14	
Chrysene	<b>ND</b>	0.0083	EPA 8270D/SIM	12-8-14	12-8-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0083	EPA 8270D/SIM	12-8-14	12-8-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0083	EPA 8270D/SIM	12-8-14	12-8-14	
Benzo[a]pyrene	<b>ND</b>	0.0083	EPA 8270D/SIM	12-8-14	12-8-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0083	EPA 8270D/SIM	12-8-14	12-8-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0083	EPA 8270D/SIM	12-8-14	12-8-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>79</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>70</i>	<i>31 - 116</i>				

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-16-6.5</b>					
Laboratory ID:	12-051-02					
Benzo[a]anthracene	<b>ND</b>	0.0082	EPA 8270D/SIM	12-8-14	12-8-14	
Chrysene	<b>ND</b>	0.0082	EPA 8270D/SIM	12-8-14	12-8-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0082	EPA 8270D/SIM	12-8-14	12-8-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0082	EPA 8270D/SIM	12-8-14	12-8-14	
Benzo[a]pyrene	<b>ND</b>	0.0082	EPA 8270D/SIM	12-8-14	12-8-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0082	EPA 8270D/SIM	12-8-14	12-8-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0082	EPA 8270D/SIM	12-8-14	12-8-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>69</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>63</i>	<i>31 - 116</i>				

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	12-051-01					
<b>Client ID:</b>	<b>EX-15-8.5</b>					
Cadmium	<b>ND</b>	0.62	6010C	12-9-14	12-9-14	
Lab ID:	12-051-02					
<b>Client ID:</b>	<b>EX-16-6.5</b>					
Cadmium	<b>ND</b>	0.62	6010C	12-9-14	12-9-14	

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1205S3					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-5-14	12-5-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-5-14	12-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-029-01							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				103	100	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB1205S2								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	<b>0.980</b>	<b>1.04</b>	1.00	1.00	<b>98</b>	<b>104</b>	75-117	6	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					94	100	68-123		

Date of Report: December 10, 2014  
Samples Submitted: December 5, 2014  
Laboratory Reference: 1412-051  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1205G-1	5.00	4.73	5	+/- 20%
CCVD1205G-2	5.00	4.69	6	+/- 20%
CCVD1208G-1	5.00	4.89	2	+/- 20%
CCVD1208G-2	5.00	4.76	5	+/- 20%

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**BENZENE  
 EPA 8021B  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1205B-1	50.0	50.5	-1	+/- 15%
Benzene	CCVD1205B-2	50.0	53.2	-6	+/- 15%
Benzene	CCVD1205B-3	50.0	46.6	7	+/- 15%
Benzene	CCVD1208B-1	50.0	52.3	-5	+/- 15%
Benzene	CCVD1208B-2	50.0	52.3	-5	+/- 15%

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1209S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	12-9-14	12-9-14	X1
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	12-9-14	12-9-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-065-04							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	
Lube Oil	<b>206</b>	<b>179</b>	NA	NA	NA	14	NA	
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				70	68	50-150		

Date of Report: December 10, 2014  
Samples Submitted: December 5, 2014  
Laboratory Reference: 1412-051  
Project: 5147-012-06

**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCV1209F-V1	100	98.2	1.8	+/-15%
CCV1209F-V2	100	95.2	4.8	+/-15%
CCV1209F-T1	100	99.7	0.3	+/-15%
CCV1209F-T2	100	96.2	3.8	+/-15%
CCV1209R-T2	100	99.8	0.2	+/-15%
CCV1209R-T3	100	101	-1.0	+/-15%

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1208S1					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-8-14	12-8-14	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-8-14	12-8-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-8-14	12-8-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-8-14	12-8-14	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-8-14	12-8-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-8-14	12-8-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	12-8-14	12-8-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>81</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>86</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>74</i>	<i>31 - 116</i>				

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 MS/MS QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent	Recovery	RPD		
					Result	Recovery	Limits	RPD	Limit	Flags
<b>MATRIX SPIKES</b>										
Laboratory ID:	12-051-01									
	MS	MSD	MS	MSD		MS	MSD			
Benzo[a]anthracene	<b>0.0657</b>	<b>0.0655</b>	0.0833	0.0833	ND	79	79	42 - 134	0	27
Chrysene	<b>0.0671</b>	<b>0.0670</b>	0.0833	0.0833	ND	81	80	45 - 114	0	27
Benzo[b]fluoranthene	<b>0.0696</b>	<b>0.0684</b>	0.0833	0.0833	ND	84	82	38 - 131	2	33
Benzo(j,k)fluoranthene	<b>0.0593</b>	<b>0.0593</b>	0.0833	0.0833	ND	71	71	44 - 114	0	34
Benzo[a]pyrene	<b>0.0687</b>	<b>0.0678</b>	0.0833	0.0833	ND	82	81	40 - 136	1	29
Indeno(1,2,3-c,d)pyrene	<b>0.0606</b>	<b>0.0602</b>	0.0833	0.0833	ND	73	72	45 - 126	1	30
Dibenz[a,h]anthracene	<b>0.0605</b>	<b>0.0598</b>	0.0833	0.0833	ND	73	72	46 - 121	1	28
<i>Surrogate:</i>										
2-Fluorobiphenyl						77	78	32 - 114		
Pyrene-d10						82	81	33 - 121		
Terphenyl-d14						72	71	31 - 116		

Date of Report: December 10, 2014  
Samples Submitted: December 5, 2014  
Laboratory Reference: 1412-051  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-9-14  
Date Analyzed: 12-9-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1209SM1

Analyte	Method	Result	PQL
Cadmium	6010C	<b>ND</b>	0.50

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 12-9-14

Date Analyzed: 12-9-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-059-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	<b>0.645</b>	<b>0.520</b>	21	0.50	C

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 MS/MSD QUALITY CONTROL**

Date Extracted: 12-9-14

Date Analyzed: 12-9-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-059-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50.0	<b>47.8</b>	94	<b>47.5</b>	94	1	

Date of Report: December 10, 2014  
 Samples Submitted: December 5, 2014  
 Laboratory Reference: 1412-051  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	ICV120914P	1.00	1.04	-4.2	+/- 10%
Cadmium	LLICV1120914P	0.0100	0.0118	-18	+/- 30%
Cadmium	CCV1120914P	1.00	1.02	-2.0	+/- 10%
Cadmium	CCV2120914P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV2120914P	0.0100	0.00940	6.0	+/- 30%
Cadmium	CCV3120914P	1.00	1.03	-3.0	+/- 10%
Cadmium	LLCCV3120914P	0.0100	0.0109	-9.0	+/- 30%

Date of Report: December 10, 2014  
Samples Submitted: December 5, 2014  
Laboratory Reference: 1412-051  
Project: 5147-012-06

**% MOISTURE**

Date Analyzed: 12-5-14

Client ID	Lab ID	% Moisture
EX-15-8.5	12-051-01	19
EX-16-6.5	12-051-02	19



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



# Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 5147-012-06

OnSite Project Number: 12-051

Initiated by: [Signature]

Date Initiated: 12/5/14

### 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	<u>N/A</u>	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	<u>N/A</u>	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<u>N/A</u>	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	<u>Yes</u>	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	<u>Yes</u>	No	Temperature: <u>5</u>	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<u>N/A</u>		
1.7 How were the samples delivered?	Client	<u>Courier</u>	UPS/FedEx	OSE Pickup    Other

### 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<u>Yes</u>	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	<u>Yes</u>	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	<u>Yes</u>	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<u>Yes</u>	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	<u>Yes</u>	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<u>No</u>	1 2 3 4

### 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<u>No</u>	1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	<u>No</u>	1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	<u>Yes</u>	No	1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	<u>N/A</u>
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	<u>N/A</u>
3.6 Is there sufficient sample submitted to perform requested analyses?	<u>Yes</u>	No	1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<u>No</u>	1 2 3 4
3.8 Was method 5035A used?	<u>Yes</u>	No	N/A    1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A    1 2 3 4

### Explain any discrepancies:


- 1 - Discuss issue in Case Narrative
- 2 - Process Sample As-is
- 3 - Client contacted to discuss problem
- 4 - Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

- NWTPH-Gx/Benzene EPA 8021B Data
- NWTPH-Dx Data
- cPAHs EPA 8270D/SIM Data
- Total Cadmium EPA 6010C Data

## NWTPH-Gx/Benzene Data

Signal #1 : d:\btex\DATA\D141205\1205028.D\FID1A.CH vial: 28  
 Signal #2 : d:\btex\DATA\D141205\1205028.D\FID2B.CH  
 Acq On : 6 Dec 2014 5:07 Operator:  
 Sample : 12-051-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 5:35 2014 Quant Results File: 141012DB.RES

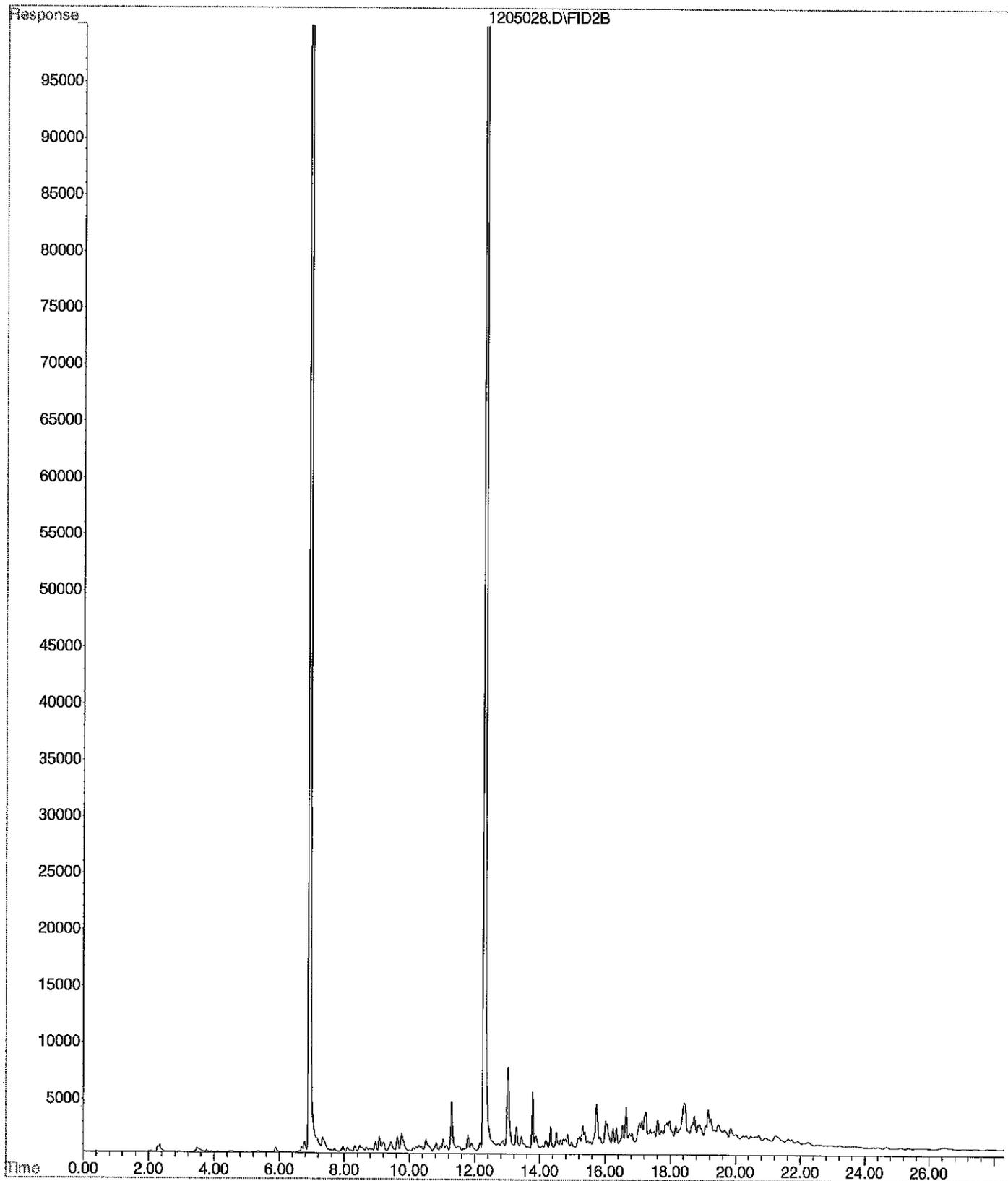
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.93	3611362	52.135	PPB
5) S BROMOFLUOROBENZENE	12.29	2246704	55.555	PPB
11) S FLUOROBENZENE #2	6.93	9895681	44.662	PPB
16) S BROMOFLUOROBENZENE #2	12.28	14286114	47.797	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	1611765	0.026	PPM
2) H Entire GAS Envelope (9-24-	12.21	5767959	0.077	PPM
3) H GASOLINE (9-24-14)	13.51	2661112	0.046	PPM
7) H entire GAS envelope #2 (9-	12.26	11002600	0.028	PPM
8) H GASOLINE #2 (9-24-14)	13.56	6242257	N.D.	PPM
9) MTBE #2	4.70	275	N.D.	PPB
10) BENZENE #2	6.70	25437	0.042	PPB
12) TOLUENE #2	9.08	54177	0.018	PPB
13) ETHYLBENZENE #2	11.04	43665	0.060	PPB
14) m,p-XYLENE #2	11.30	194429	0.123	PPB
15) o-XYLENE #2	11.79	79711	0.052	PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205028.D  
Operator :  
Acquired : 6 Dec 2014 5:07 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-051-01s  
Misc Info : V2-36-17  
Vial Number: 28



Signal #1 : d:\btex\DATA\D141205\1205029.D\FID1A.CH Vial: 29  
 Signal #2 : d:\btex\DATA\D141205\1205029.D\FID2B.CH  
 Acq On : 6 Dec 2014 5:40 Operator:  
 Sample : 12-051-02s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 6:09 2014 Quant Results File: 141012DB.RES

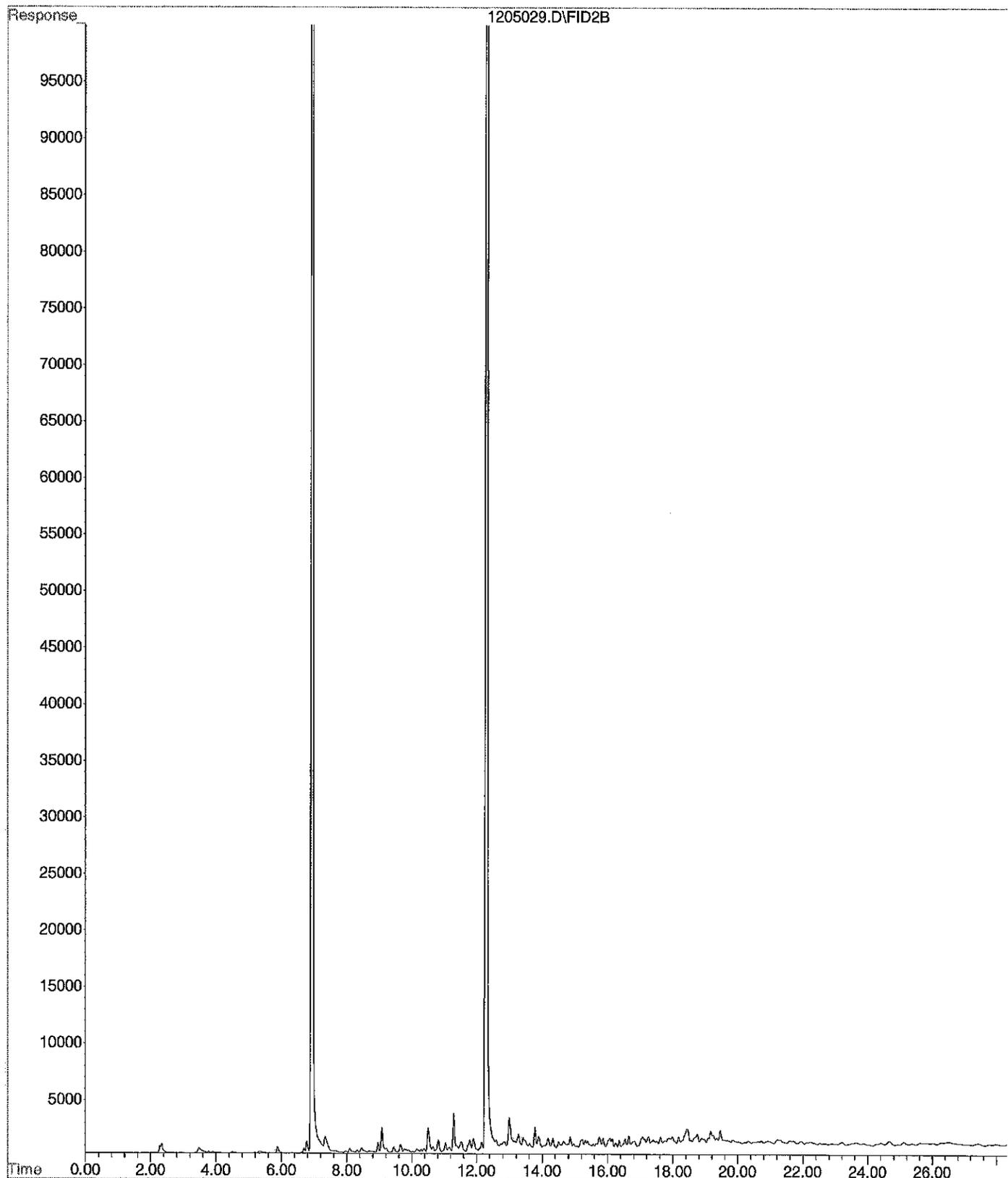
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3762914	54.337 PPB
5) S BROMOFLUOROBENZENE	12.28	2342490	57.947 PPB
11) S FLUOROBENZENE #2	6.93	10344501	46.702 PPB
16) S BROMOFLUOROBENZENE #2	12.28	14824916	49.617 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1510614	0.024 PPM
2) H Entire GAS Envelope (9-24-	12.21	4682239	0.060 PPM
3) H GASOLINE (9-24-14)	13.51	2180136	0.034 PPM
7) H entire GAS envelope #2 (9-	12.26	7424971	0.003 PPM
8) H GASOLINE #2 (9-24-14)	13.56	4420675	N.D. PPM
9) MTBE #2	4.71	571	N.D. PPB
10) BENZENE #2	6.70	17122	0.014 PPB
12) TOLUENE #2	9.08	83460	0.123 PPB
13) ETHYLBENZENE #2	11.04	33189	0.017 PPB
14) m,p-XYLENE #2	11.30	126023	N.D. PPB
15) o-XYLENE #2	11.79	54720	N.D. PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205029.D  
Operator :  
Acquired : 6 Dec 2014 5:40 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-051-02s  
Misc Info : V2-36-17  
Vial Number: 29



Quantitation Report (Not Reviewed)

Signal #1 : X:\BTEX\DARYL\DATA\D141205\1205004.D\FID1A.CH Vial: 4  
 Signal #2 : X:\BTEX\DARYL\DATA\D141205\1205004.D\FID2B.CH  
 Acq On : 5 Dec 2014 14:34 Operator:  
 Sample : MB1205S3 Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 15:03 2014 Quant Results File: 141012DB.RES

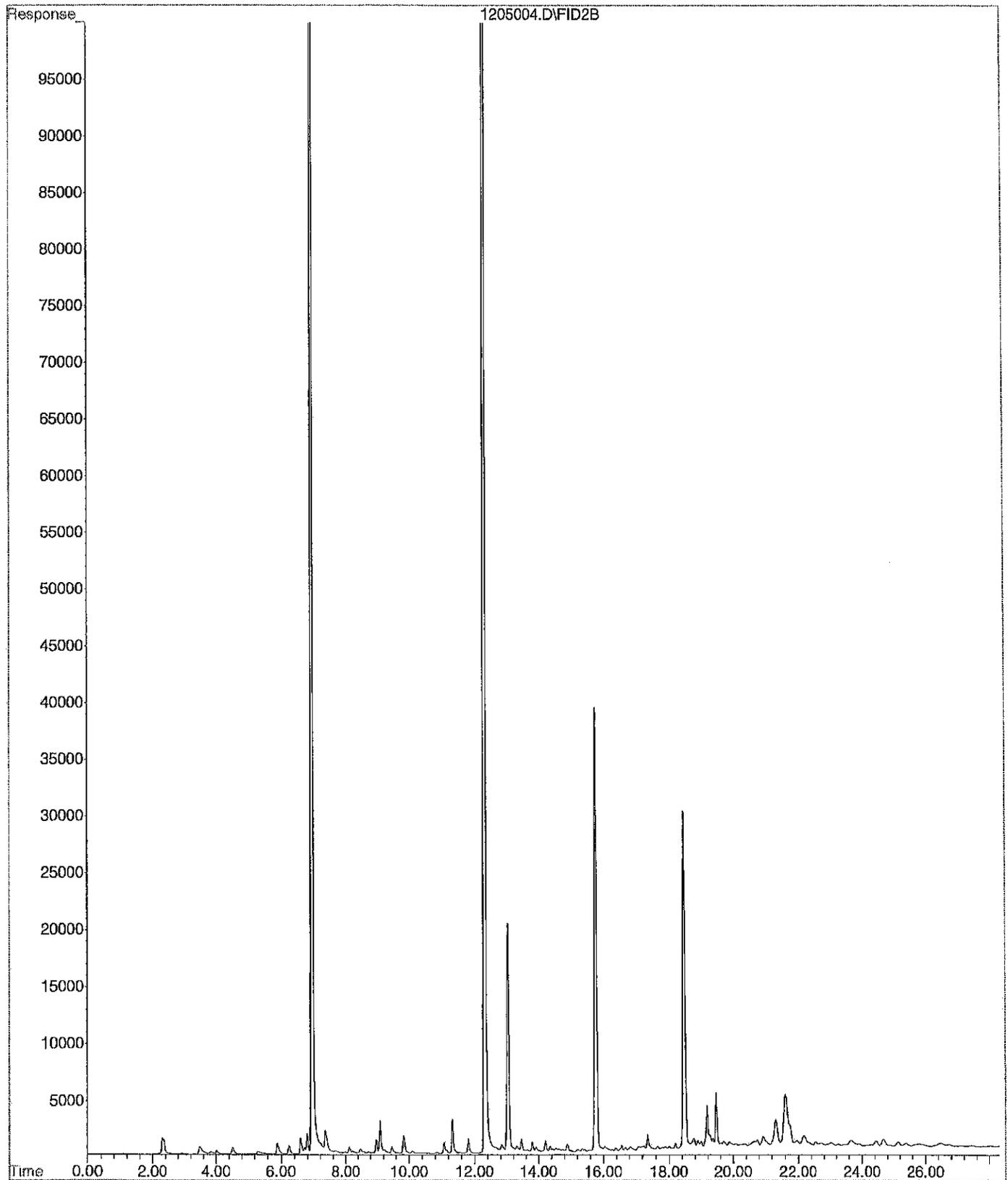
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.95	3265387	47.109	PPB
5) S BROMOFLUOROBENZENE	12.31	1925556	47.531	PPB
11) S FLUOROBENZENE #2	6.95	8530552	38.455	PPB
16) S BROMOFLUOROBENZENE #2	12.31	11794767	39.381	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	1117565	0.016	PPM
2) H Entire GAS Envelope (9-24-	12.21	4294861	0.054	PPM
3) H GASOLINE (9-24-14)	13.51	1215300	0.009	PPM
7) H entire GAS envelope #2 (9-	12.26	9313695	0.016	PPM
8) H GASOLINE #2 (9-24-14)	13.56	4932443	N.D.	PPM
9) MTBE #2	0.00	0	N.D.	PPB
10) BENZENE #2	6.71	19106	0.021	PPB
12) TOLUENE #2	9.09	115347	0.238	PPB
13) ETHYLBENZENE #2	11.07	44006	0.061	PPB
14) m,p-XYLENE #2	11.32	123069	N.D.	PPB
15) o-XYLENE #2	11.81	51021	N.D.	PPB

*12/5  
 CW*

File : X:\BTEX\DARYL\DATA\D141205\1205004.D  
Operator :  
Acquired : 5 Dec 2014 14:34 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1205S3  
Misc Info : V2-36-17  
Vial Number: 4



Signal #1 : d:\btex\DATA\D141205\1205008.D\FID1A.CH Vial: 8  
 Signal #2 : d:\btex\DATA\D141205\1205008.D\FID2B.CH  
 Acq On : 5 Dec 2014 18:03 Operator:  
 Sample : 12-029-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 18:32 2014 Quant Results File: 141012DB.RES

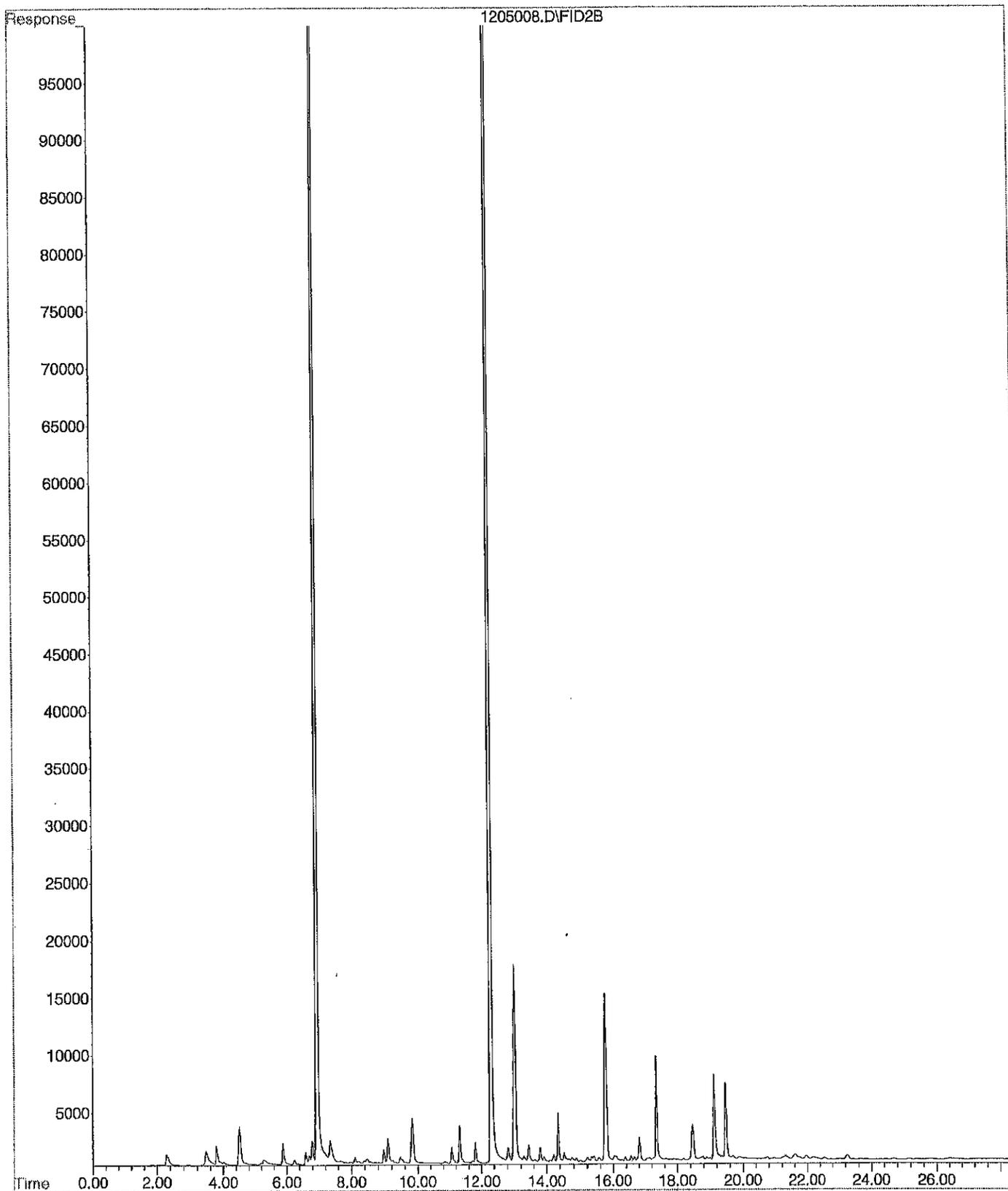
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.94	3020048	43.545	PPB
5) S BROMOFLUOROBENZENE	12.30	1779532	43.883	PPB
11) S FLUOROBENZENE #2	6.94	8174890	36.838	PPB
16) S BROMOFLUOROBENZENE #2	12.30	11243037	37.518	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	1148811	0.017	PPM
2) H Entire GAS Envelope (9-24-	12.21	3665867	0.045	PPM
3) H GASOLINE (9-24-14)	13.51	1271789	0.011	PPM
7) H entire GAS envelope #2 (9-	12.26	7063299	0.000	PPM
8) H GASOLINE #2 (9-24-14)	13.56	4247476	N.D.	PPM
9) MTBE #2	0.00	0	N.D.	PPB
10) BENZENE #2	6.71	27059	0.048	PPB
12) TOLUENE #2	9.09	90941	0.150	PPB
13) ETHYLBENZENE #2	11.06	62299	0.136	PPB
14) m,p-XYLENE #2	11.32	135051	N.D.	PPB
15) o-XYLENE #2	11.81	72365	0.022	PPB

12/8  
2

File : X:\BTEX\DARYL\DATA\D141205\1205008.D  
Operator :  
Acquired : 5 Dec 2014 18:03 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-029-01s  
Misc Info : V2-36-17  
Vial Number: 8



Signal #1 : d:\btex\DATA\D141205\1205016.D\FID1A.CH Vial: 16  
 Signal #2 : d:\btex\DATA\D141205\1205016.D\FID2B.CH  
 Acq On : 5 Dec 2014 22:30 Operator:  
 Sample : 12-029-01s DUP Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 22:58 2014 Quant Results File: 141012DB.RES

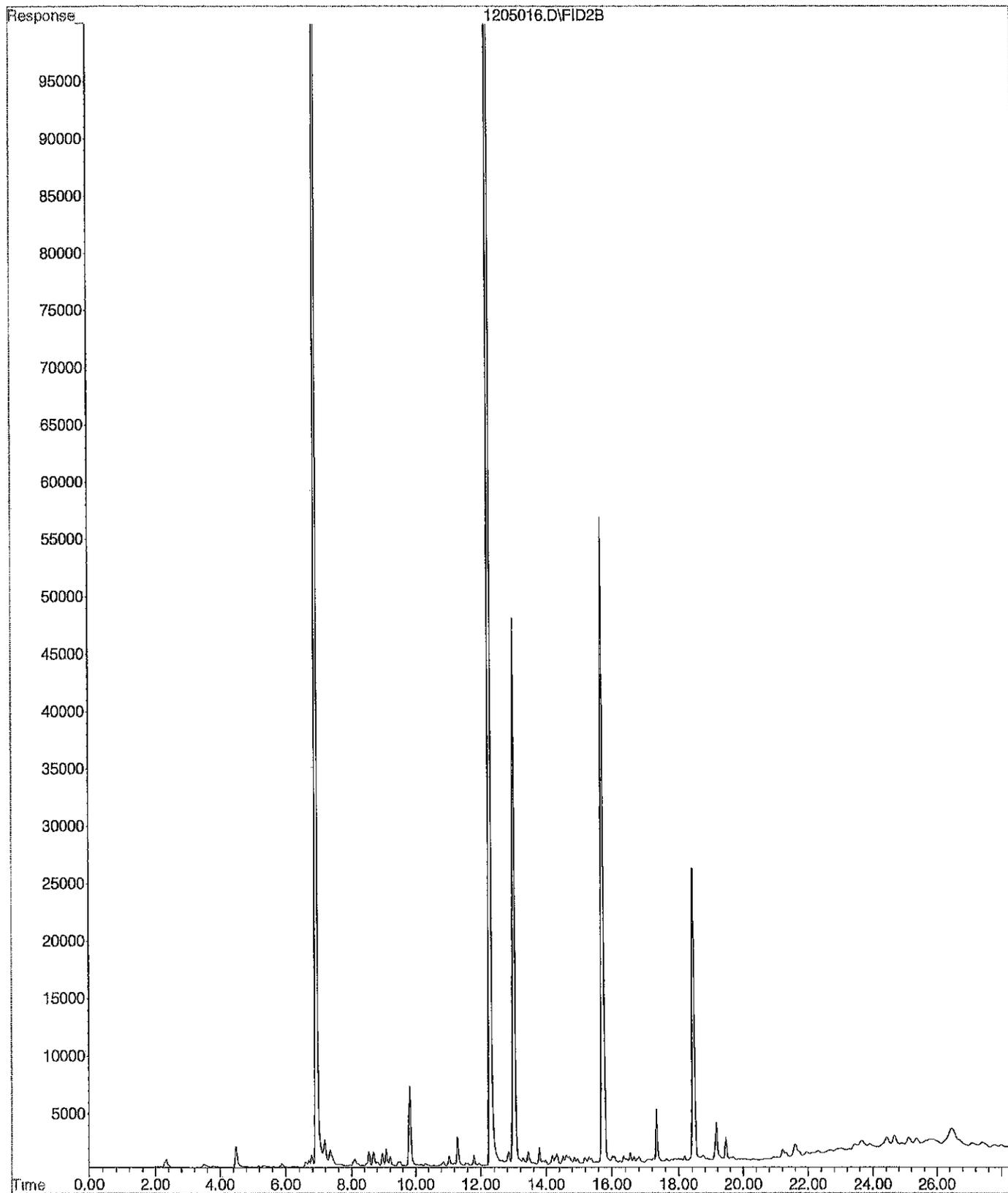
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.93	2981522	42.985 PPB
5) S BROMOFLUOROBENZENE	12.29	1763639	43.486 PPB
11) S FLUOROBENZENE #2	6.93	7945088	35.793 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11106615	37.057 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	1596107	0.026 PPM
2) H Entire GAS Envelope (9-24-	12.21	4325842	0.055 PPM
3) H GASOLINE (9-24-14)	13.51	1889719	0.026 PPM
7) H entire GAS envelope #2 (9-	12.26	11558691	0.032 PPM
8) H GASOLINE #2 (9-24-14)	13.56	7774270	0.012 PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.70	21725	0.030 PPB
12) TOLUENE #2	9.08	56755	0.027 PPB
13) ETHYLBENZENE #2	11.04	37589	0.035 PPB
14) m,p-XYLENE #2	11.30	103047	N.D. PPB
15) o-XYLENE #2	11.80	31113	N.D. PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205016.D  
Operator :  
Acquired : 5 Dec 2014 22:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-029-01s DUP  
Misc Info : V2-36-17  
Vial Number: 16



Signal #1 : d:\btex\DATA\D141205\1205006.D\FID1A.CH Vial: 6  
 Signal #2 : d:\btex\DATA\D141205\1205006.D\FID2B.CH  
 Acq On : 5 Dec 2014 16:56 Operator:  
 Sample : SB1205S2 Inst : Daryl  
 Misc : V2-36-17,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 17:25 2014 Quant Results File: 141012DB.RES

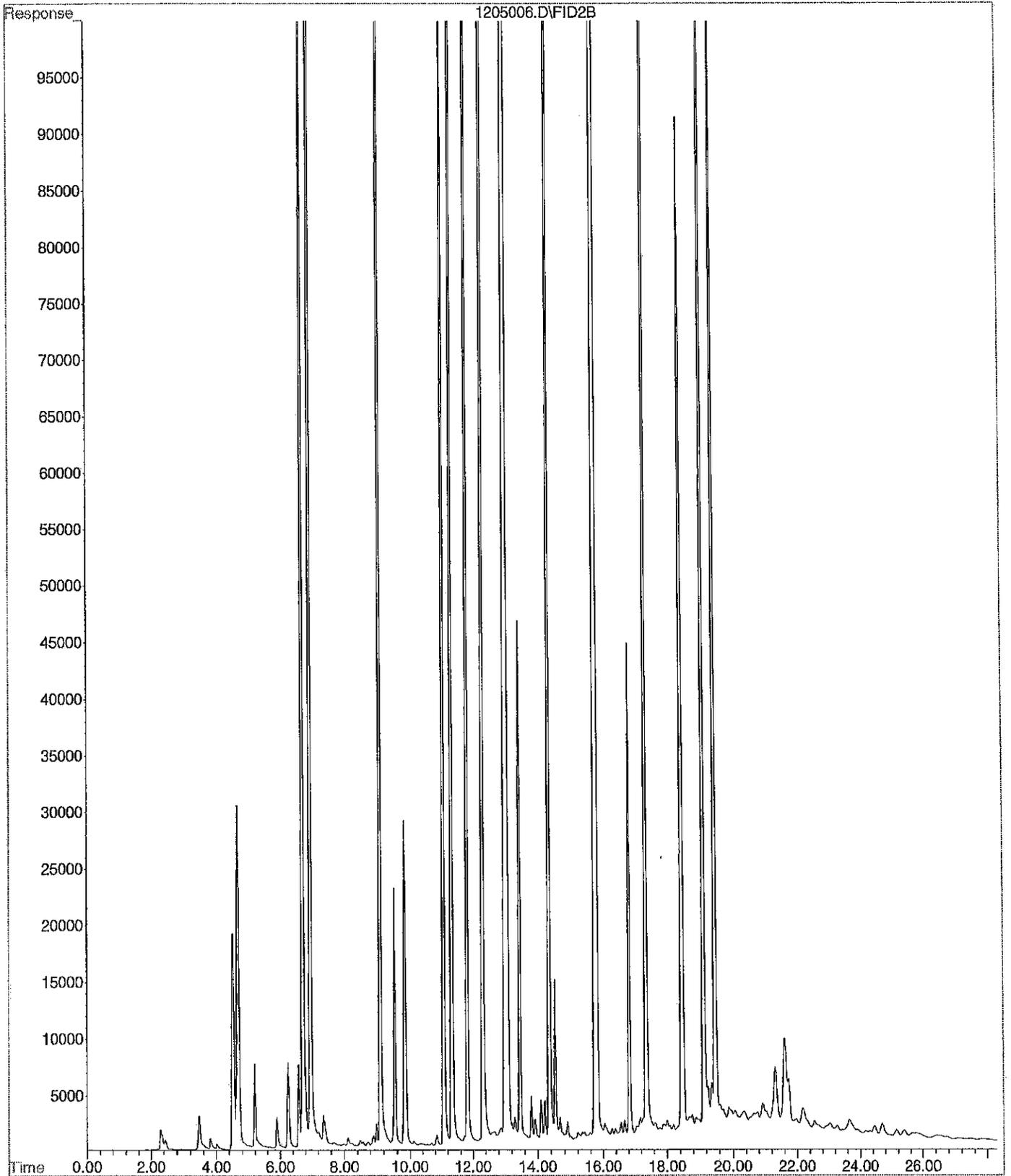
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.96	3179471	45.861 PPB
5) S BROMOFLUOROBENZENE	12.32	1788036	44.096 PPB
11) S FLUOROBENZENE #2	6.96	8361058	37.684 PPB
16) S BROMOFLUOROBENZENE #2	12.32	11262525	37.583 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	17861474	0.356 PPM
2) H Entire GAS Envelope (9-24-	12.21	37279636	0.560 PPM
3) H GASOLINE (9-24-14)	13.51	25284390	0.618 PPM
7) H entire GAS envelope #2 (9-	12.26	123231487	0.809 PPM
8) H GASOLINE #2 (9-24-14)	13.56	92660964	0.785 PPM
9) MTBE #2	4.68	1538770	21.025 PPB
10) BENZENE #2	6.72	5763666	19.596 PPB
12) TOLUENE #2	9.10	5668786	20.221 PPB
13) ETHYLBENZENE #2	11.07	4906352	19.861 PPB
14) m,p-XYLENE #2	11.33	6223083	20.907 PPB
15) o-XYLENE #2	11.82	5080417	20.038 PPB

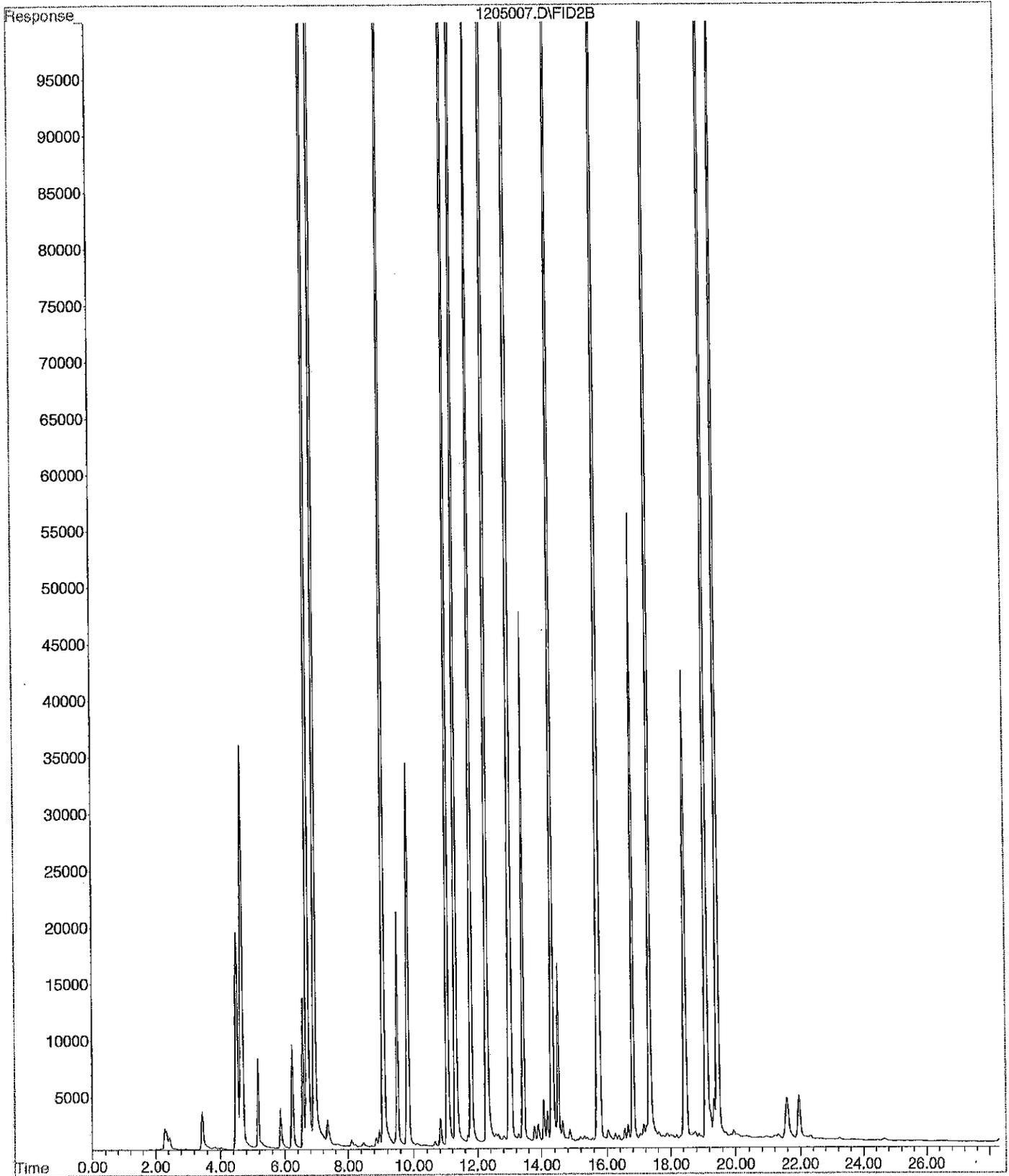
12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205006.D  
Operator :  
Acquired : 5 Dec 2014 16:56 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SB1205S2  
Misc Info : V2-36-17,V2-36-14  
Vial Number: 6



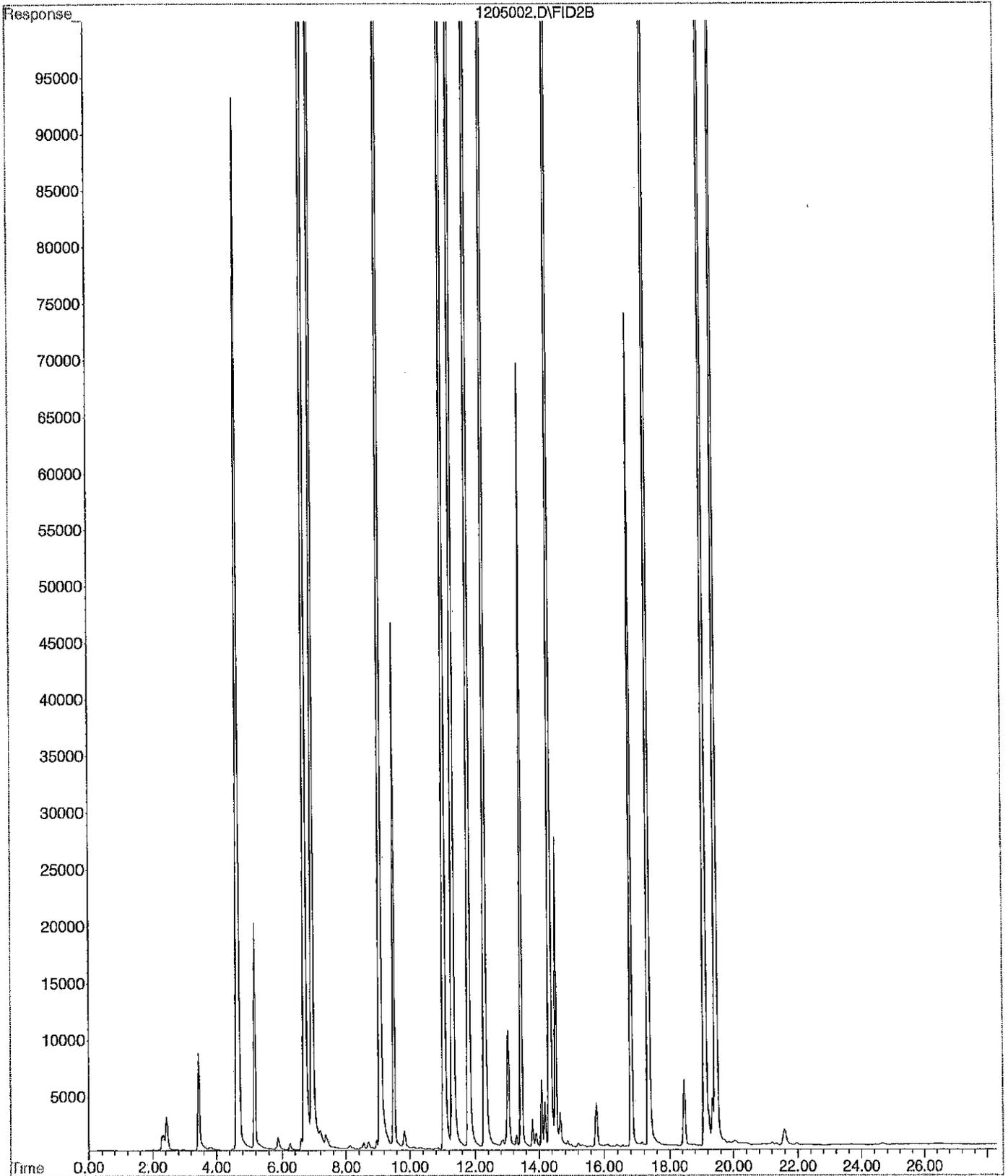


File : X:\BTEX\DARYL\DATA\D141205\1205007.D  
Operator :  
Acquired : 5 Dec 2014 17:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SBD1205S2  
Misc Info : V2-36-17,V2-36-14  
Vial Number: 7





File : X:\BTEX\DARYL\DATA\D141205\1205002.D  
Operator :  
Acquired : 5 Dec 2014 13:00 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205B-1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141205\1205017.D\FID1A.CH Vial: 17  
 Signal #2 : d:\btex\DATA\D141205\1205017.D\FID2B.CH  
 Acq On : 5 Dec 2014 23:03 Operator:  
 Sample : CCVD1205B-2 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 23:31 2014 Quant Results File: 141012DB.RES

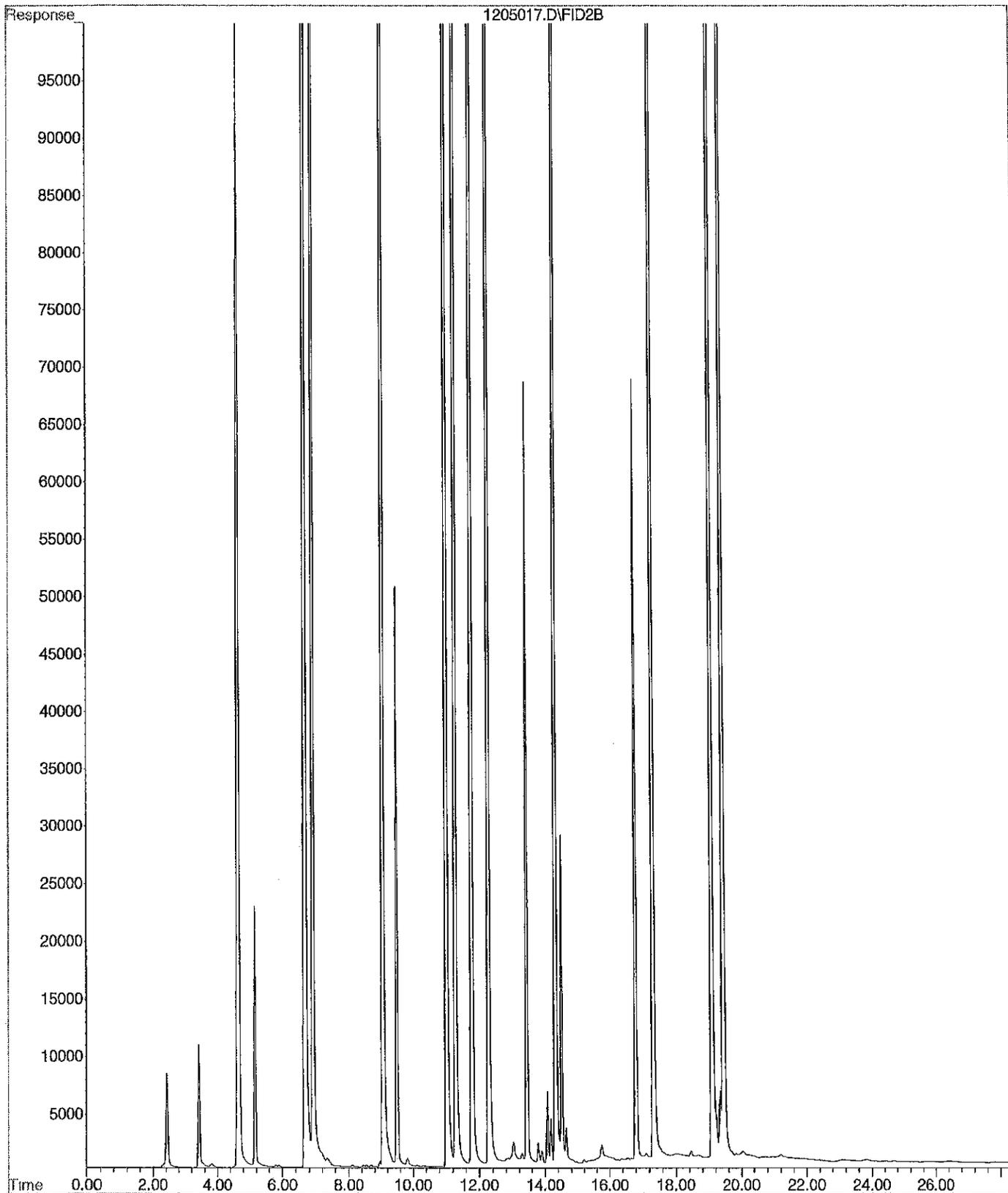
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2907886	41.915 PPB
5) S BROMOFLUOROBENZENE	12.29	1766288	43.552 PPB
11) S FLUOROBENZENE #2	6.92	8205354	36.976 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11374106	37.960 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31101634	0.625 PPM
2) H Entire GAS Envelope (9-24-	12.21	55885353	0.845 PPM
3) H GASOLINE (9-24-14)	13.51	36864738	0.911 PPM
7) H entire GAS envelope #2 (9-	12.26	134994868	0.891 PPM
8) H GASOLINE #2 (9-24-14)	13.56	89876252	0.760 PPM
9) MTBE #2	4.64	4817597	65.928 PPB
10) BENZENE #2	6.68	15622481	53.190 PPB
12) TOLUENE #2	9.07	14536365	52.130 PPB
13) ETHYLBENZENE #2	11.03	12796324	51.991 PPB
14) m,p-XYLENE #2	11.30	15306980	52.224 PPB
15) o-XYLENE #2	11.79	12938094	51.443 PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205017.D  
Operator :  
Acquired : 5 Dec 2014 23:03 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 17



Signal #1 : d:\btex\DATA\D141205\1205031.D\FID1A.CH Vial: 31  
 Signal #2 : d:\btex\DATA\D141205\1205031.D\FID2B.CH  
 Acq On : 6 Dec 2014 6:46 Operator:  
 Sample : CCVD1205B-3 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 7:14 2014 Quant Results File: 141012DB.RES

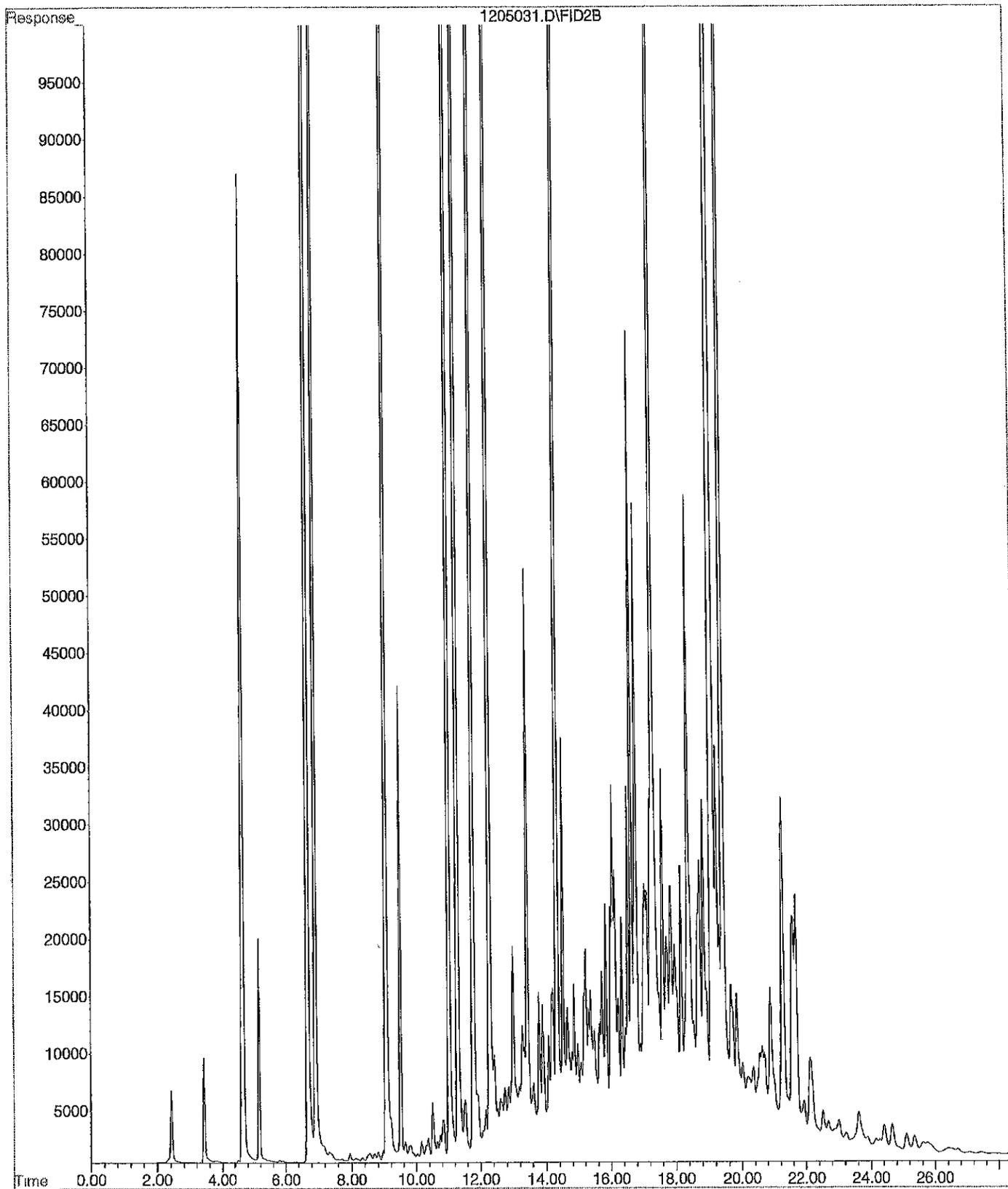
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3073274	44.318 PPB
5) S BROMOFLUOROBENZENE	12.29	2253088	55.714 PPB
11) S FLUOROBENZENE #2	6.93	7701755	34.687 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11677006	38.984 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	34231079	0.689 PPM
2) H Entire GAS Envelope (9-24-	12.21	81568579	1.238 PPM
3) H GASOLINE (9-24-14)	13.51	52738685	1.313 PPM
7) H entire GAS envelope #2 (9-	12.26	186126250	1.248 PPM
8) H GASOLINE #2 (9-24-14)	13.56	120287308	1.037 PPM
9) MTBE #2	4.64	4056762	55.508 PPB
10) BENZENE #2	6.69	13698793	46.635 PPB
12) TOLUENE #2	9.07	13008427	46.632 PPB
13) ETHYLBENZENE #2	11.04	11720028	47.608 PPB
14) m,p-XYLENE #2	11.30	14365863	48.979 PPB
15) o-XYLENE #2	11.79	11989465	47.652 PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205031.D  
Operator :  
Acquired : 6 Dec 2014 6:46 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205B-3  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 31



Signal #1 : d:\btex\DATA\D141205\1205001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141205\1205001.D\FID2B.CH  
 Acq On : 5 Dec 2014 12:26 Operator:  
 Sample : CCVD1205G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 5 12:55 2014 Quant Results File: 141012DB.RES

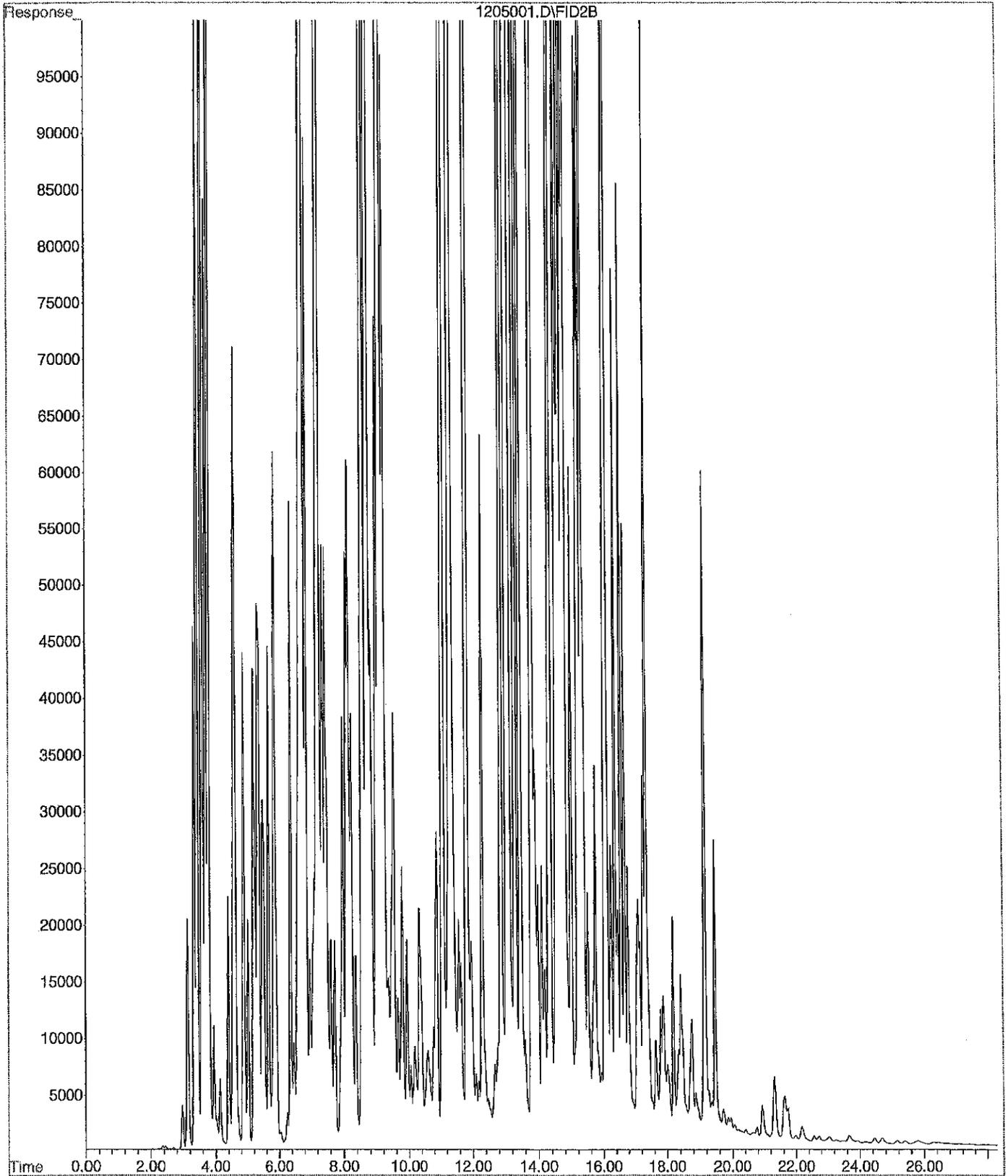
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.97	276497	3.685 PPB
5) S BROMOFLUOROBENZENE	12.30	1233498	30.242 PPB
11) S FLUOROBENZENE #2	6.97	732959	3.002 PPB
16) S BROMOFLUOROBENZENE #2	12.30	2722876	8.736 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	289479991	5.874 PPM
2) H Entire GAS Envelope (9-24-	12.21	387332031	5.922 PPM
3) H GASOLINE (9-24-14)	13.51	212838853	5.363 PPM
7) H entire GAS envelope #2 (9-	12.26	697251851	4.808 PPM
8) H GASOLINE #2 (9-24-14)	13.56	524937838	4.726 PPM ✓
9) MTBE #2	4.59	3875565	53.027 PPB
10) BENZENE #2	6.72	46487289	158.364 PPB
12) TOLUENE #2	9.10	120385133	433.011 PPB
13) ETHYLBENZENE #2	11.06	29483095	119.942 PPB
14) m,p-XYLENE #2	11.32	107881243	371.376 PPB
15) o-XYLENE #2	11.82	40898267	163.192 PPB

12/8 ✓

File : X:\BTEX\DARYL\DATA\D141205\1205001.D  
Operator :  
Acquired : 5 Dec 2014 12:26 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141205\1205032.D\FID1A.CH Vial: 32  
 Signal #2 : d:\btex\DATA\D141205\1205032.D\FID2B.CH  
 Acq On : 6 Dec 2014 7:19 Operator:  
 Sample : CCVD1205G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 6 7:47 2014 Quant Results File: 141012DB.RES

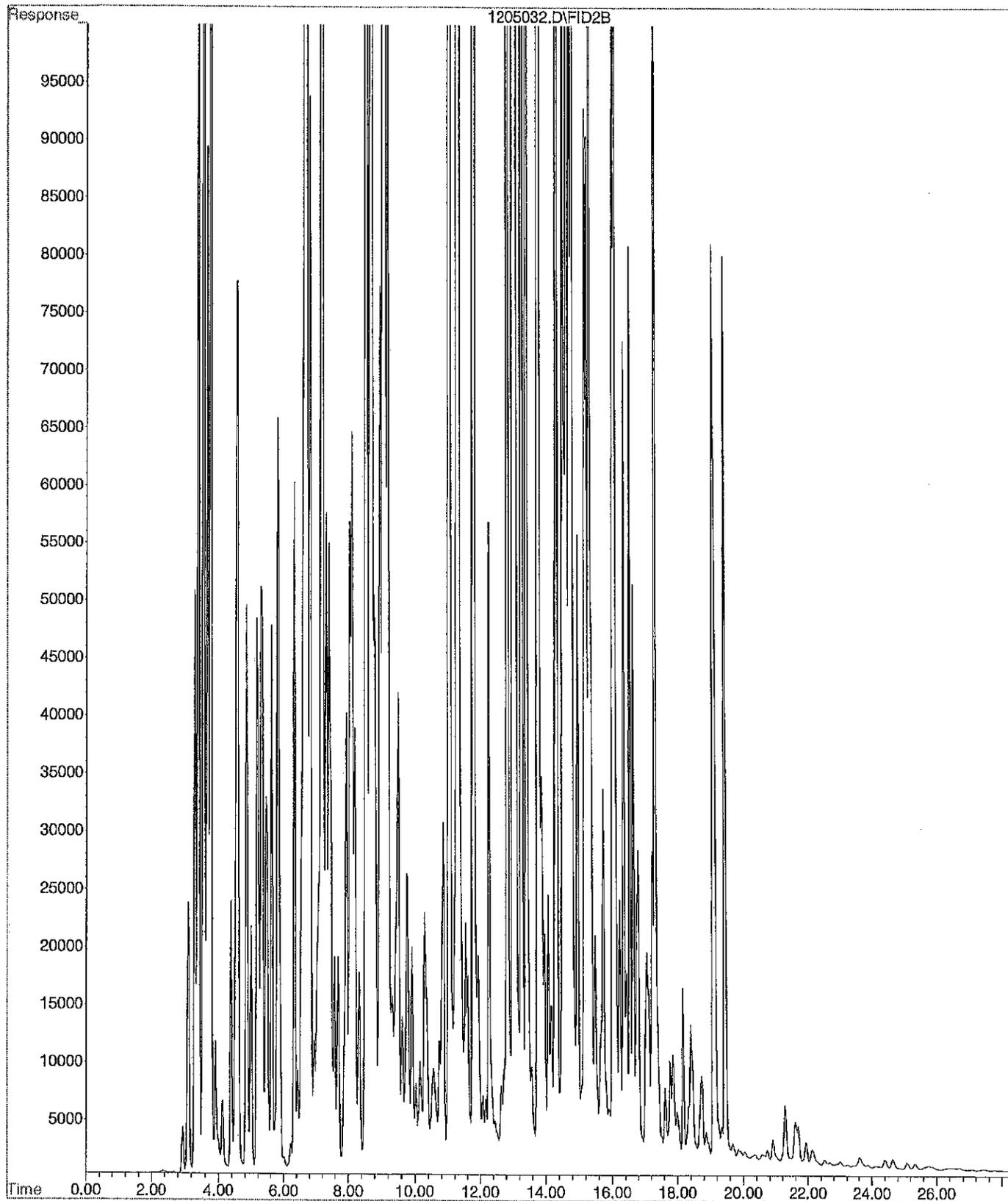
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.27	1218418	29.865	PPB
11) S FLUOROBENZENE #2	6.95	493722	1.914	PPB
16) S BROMOFLUOROBENZENE #2	12.27	2490581	7.951	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	282236425	5.727	PPM
2) H Entire GAS Envelope (9-24-	12.21	378242148	5.783	PPM
3) H GASOLINE (9-24-14)	13.51	208887362	5.263	PPM
7) H entire GAS envelope #2 (9-	12.26	697527958	4.810	PPM
8) H GASOLINE #2 (9-24-14)	13.56	520506989	4.685	PPM ✓
9) MTBE #2	4.57	4216171	57.691	PPB
10) BENZENE #2	6.69	46369193	157.961	PPB
12) TOLUENE #2	9.07	121040970	435.371	PPB
13) ETHYLBENZENE #2	11.03	29128313	118.497	PPB
14) m,p-XYLENE #2	11.29	107992922	371.761	PPB
15) o-XYLENE #2	11.79	40515001	161.660	PPB

12/8

File : X:\BTEX\DARYL\DATA\D141205\1205032.D  
Operator :  
Acquired : 6 Dec 2014 7:19 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1205G-2  
Misc Info : V2-36-08  
Vial Number: 32



## NWTPH-Diesel Data

Data File : 1209-T06.D  
 Sample : 12-051-01 ACU

Data Path : X:\DIESELS\TERI\DATA\T141209\  
 Signal(s) : FID1A.CH  
 Acq On : 09 Dec 2014 14:46  
 Operator : ZT  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 15:21:20 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-Terphenyl (04-01-14)	14.687	136131814	47.304 PPM
Spiked Amount 50.000		Recovery =	94.61%
Target Compounds			
2) H Gasoline	3.500	14017835	NoCal PPM
3) H Diesel Fuel #1 (12-0...	10.000	13184655	1.223 PPM
4) H Diesel Fuel #2 (12-0...	14.000	9217793	1.008 PPM
5) H Oil (11-04-14)	22.000	47232120	10.723 PPM
6) H Oil Acid Clean (11-...	22.000	47232120	N.D. PPM
7) H Diesel Fuel #2 Combo ...	14.000	8579653	1.038 PPM
8) H Oil Combo (11-04-14)	22.000	46577553	10.584 PPM
9) H Oil Acid Clean Combo ...	22.000	46577553	N.D. PPM
10) H Alaska 102 DF2	13.025	9379831	NoCal PPM
11) H Alaska 103 Oil	20.000	20657087	NoCal PPM
12) H Mineral Oil (12-08-14)	16.000	7175468	0.865 PPM
13) H Mineral Oil Combo (1...	16.000	4961255	0.788 PPM
14) H Oil MO Combo (11-04-14)	22.000	46037515	10.678 PPM
15) H Oil Acid Clean MO Com...	22.000	46037515	N.D. PPM

(f)=RT Delta > 1/2 Window

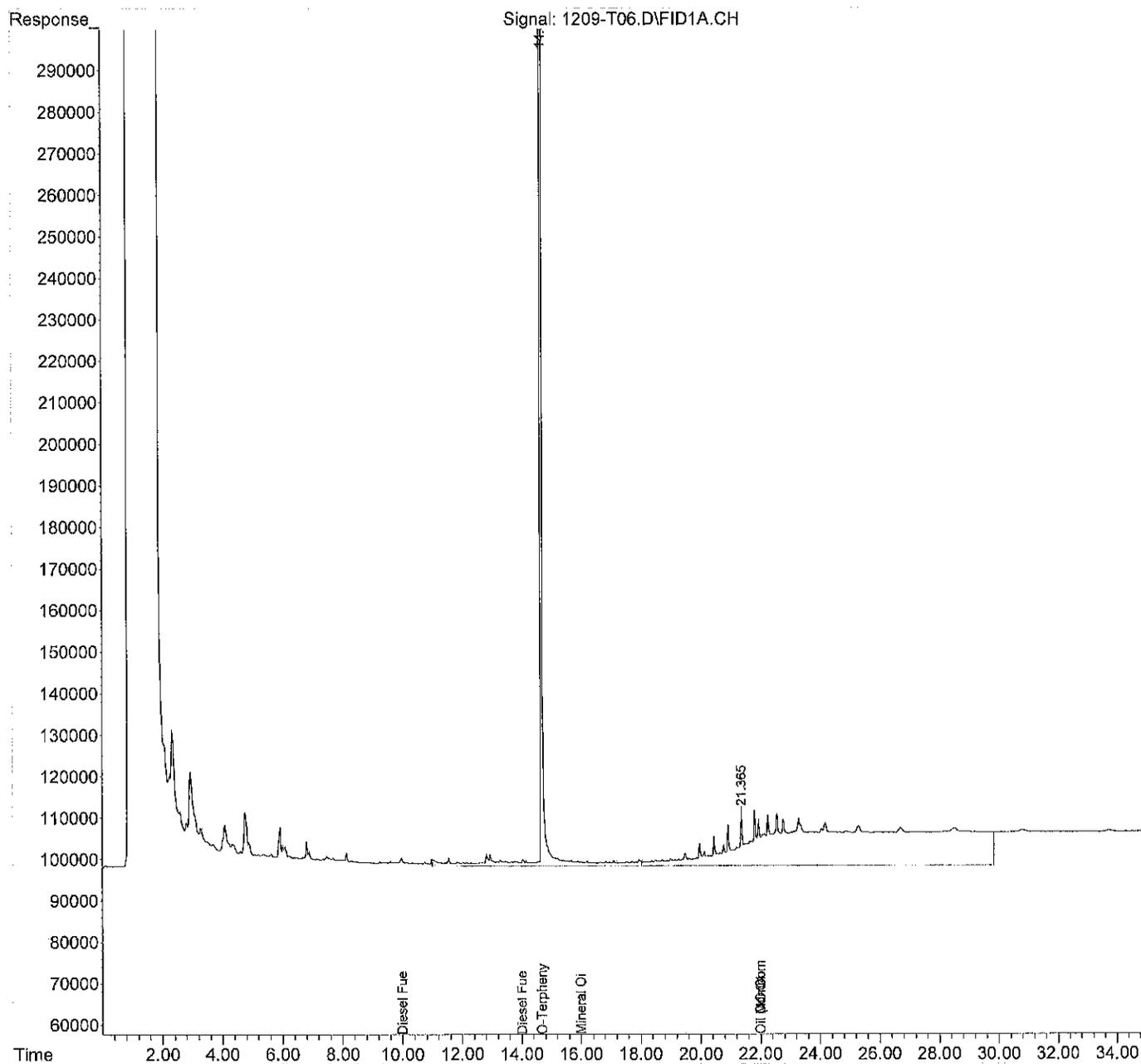
(m)=manual int.

Data File : 1209-T06.D  
Sample : 12-051-01 ACU

Data Path : X:\DIESELS\TERI\DATA\T141209\  
Signal(s) : FID1A.CH  
Acq On : 09 Dec 2014 14:46  
Operator : ZT  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 15:21:20 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-T05.D  
 Sample : 12-051-02 ACU

Data Path : X:\DIESELS\TERI\DATA\T141209\  
 Signal(s) : FID1A.CH  
 Acq On : 09 Dec 2014 14:03  
 Operator : ZT  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 14:38:43 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (04-01-14)	14.686	114455731	39.810 PPM
Spiked Amount 50.000		Recovery =	79.62%
Target Compounds			
2) H Gasoline	3.500	13367448	NoCal PPM
3) H Diesel Fuel #1 (12-0...	10.000	12312695	0.854 PPM
4) H Diesel Fuel #2 (12-0...	14.000	8456688	0.670 PPM
5) H Oil (11-04-14)	22.000	46484070	10.355 PPM
6) H Oil Acid Clean (11-...	22.000	46484070	N.D. PPM
7) H Diesel Fuel #2 Combo ...	14.000	7871182	0.718 PPM
8) H Oil Combo (11-04-14)	22.000	45884104	10.235 PPM
9) H Oil Acid Clean Combo ...	22.000	45884104	N.D. PPM
10) H Alaska 102 DF2	13.025	8596038	NoCal PPM
11) H Alaska 103 Oil	20.000	19721713	NoCal PPM
12) H Mineral Oil (12-08-14)	16.000	6655410	0.659 PPM
13) H Mineral Oil Combo (1...	16.000	4645317	0.659 PPM
14) H Oil MO Combo (11-04-14)	22.000	45389181	10.339 PPM
15) H Oil Acid Clean MO Com...	22.000	45389181	N.D. PPM
-----			

(f)=RT Delta > 1/2 Window

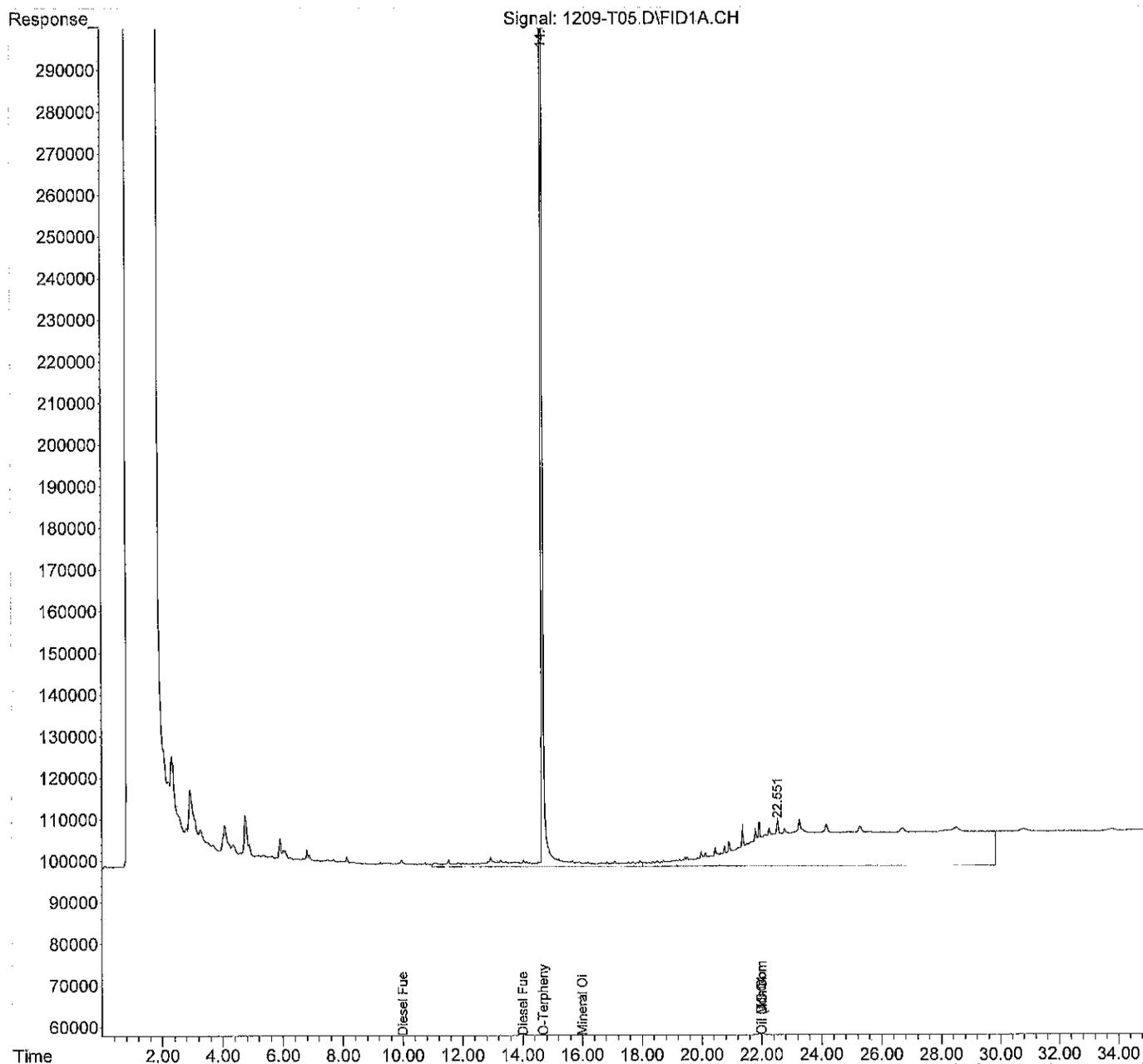
(m)=manual int.

Data File : 1209-T05.D  
Sample : 12-051-02 ACU

Data Path : X:\DIESELS\TERI\DATA\T141209\  
Signal(s) : FID1A.CH  
Acq On : 09 Dec 2014 14:03  
Operator : ZT  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 14:38:43 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-V03.D  
 Sample : MB1209S1 ACU

Data Path : X:\DIESELS\VIGO\DATA\V141209\  
 Signal(s) : FID1A.ch  
 Acq On : 9 Dec 2014 12:46  
 Operator :  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 13:22:58 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (02-10-14)	14.672	132953476	43.150	PPM
Spiked Amount	50.000	Recovery	=	86.30%
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	8002507	NoCal	PPM
4) H Diesel Fuel #1 (02-1...	10.000	13212905	0.048	PPM
5) H Diesel Fuel #2 (02-...	14.000	13651198	3.464	PPM
6) H Oil (02-10-14)	22.000	97644288	32.947	PPM
7) H Oil Acid Clean (02-...	22.000	97644288	29.859	PPM
8) H Diesel Fuel #2 Combo ...	14.000	12112911	3.213	PPM
9) H Oil Combo (02-10-14)	22.000	95765956	32.915	PPM
10) H Oil Acid Clean Combo ...	22.000	95765956	29.970	PPM
11) H Alaska 102 DF2 (06-2...	13.025	14370614	3.094	PPM
12) H Alaska 103 Oil (06-2...	22.000	34015058	23.938	PPM
13) H Mineral Oil (02-10-14)	16.000	15140444	3.777	PPM
14) H Bunker C ACU (Fuel Oi...	15.000	96338908	53.068	PPM
15) H Bunker C (Fuel Oil #6...	15.000	96338908	59.151	PPM
16) H ALKANE C9-C40 10-26-07	12.666	98298552	1229.607	PPM
17) H Mineral Oil Combo (0...	16.000	10303646	3.706	PPM
18) H Oil Acid Clean MO Com...	22.000	94526179	30.616	PPM
19) H Oil MO Combo (02-10-14)	22.000	94526179	33.482	PPM

(f)=RT Delta > 1/2 Window

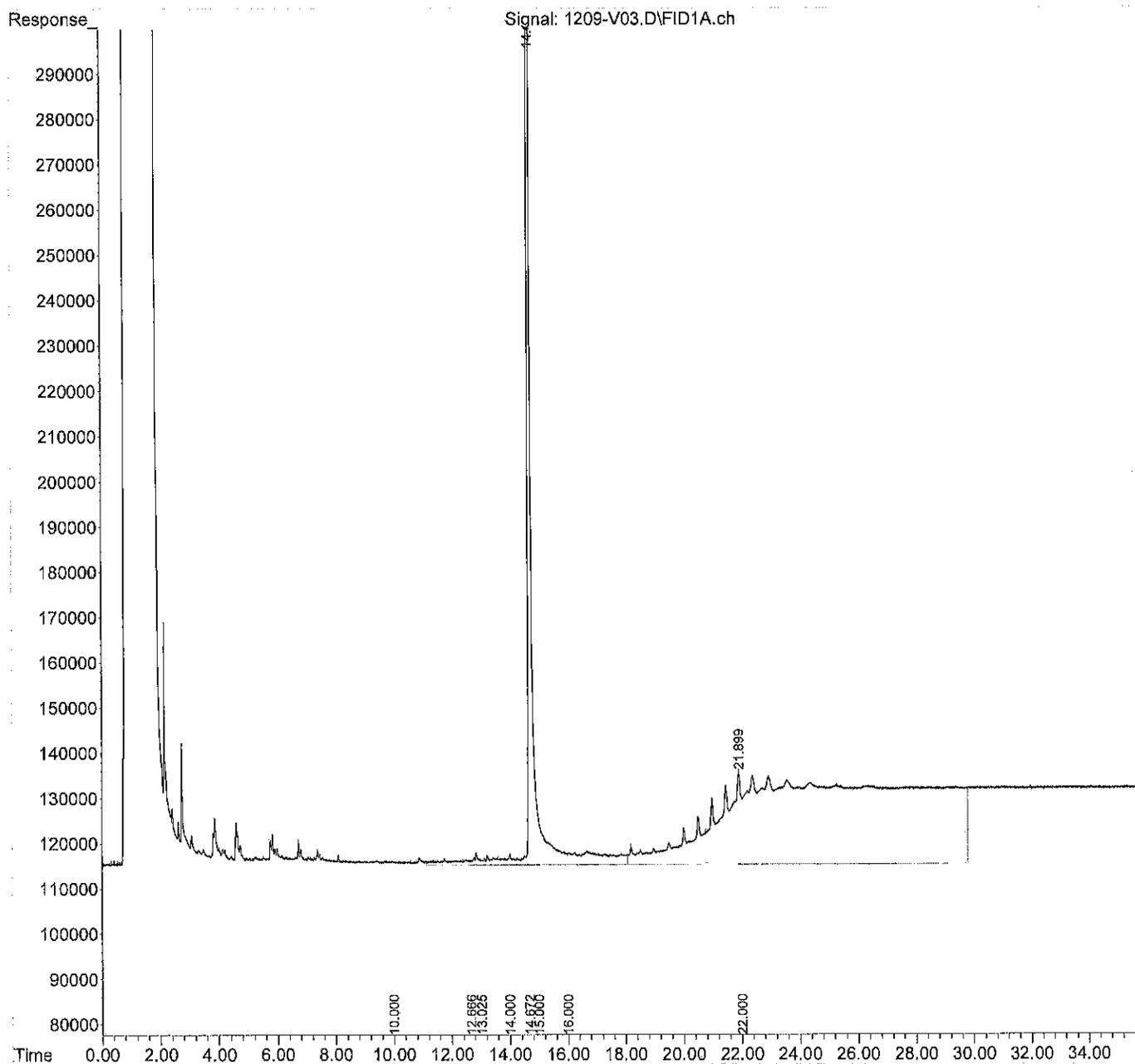
(m)=manual int.

Data File : 1209-V03.D  
Sample : MB1209S1 ACU

Data Path : X:\DIESELS\VIGO\DATA\V141209\  
Signal(s) : FID1A.ch  
Acq On : 9 Dec 2014 12:46  
Operator :  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 13:22:58 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-T63.D  
 Sample : 12-065-04

Data Path : X:\DIESELS\TERI\DATA\T141209.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 09 Dec 2014 19:47  
 Operator : ZT  
 Misc :  
 ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 20:22:52 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.661f	109054395	35.209	PPM
Spiked Amount	50.000	Recovery	=	70.42%
Target Compounds				
2) H Gasoline	4.000	8084839	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	21425512	2.922	PPM
4) H Diesel Fuel #2 (01-1...	14.000	51272206	18.704	PPM
5) H Oil (02-24-14)	22.000	449030141	206.464	PPM
6) H Oil Acid Clean (02-...	22.000	449030141	209.125	PPM
7) H Diesel Fuel #2 Combo ...	14.000	29702720	9.815	PPM
8) H Oil Combo (02-24-14)	22.000	437737511	205.274	PPM
9) H Oil Acid Clean Combo ...	22.000	437737511	208.111	PPM
10) H Oil MO Combo (02-24-14)	22.000	420279336	203.461	PPM
11) H Oil Acid Clean MO Com...	22.000	420279336	206.253	PPM
12) H Alaska 102 DF2 (05-29...	13.025	45549716	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	262962217	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	127645051	45.583	PPM
15) H Mineral Oil Combo (0...	16.000	41589273	14.649	PPM

(f)=RT Delta > 1/2 Window

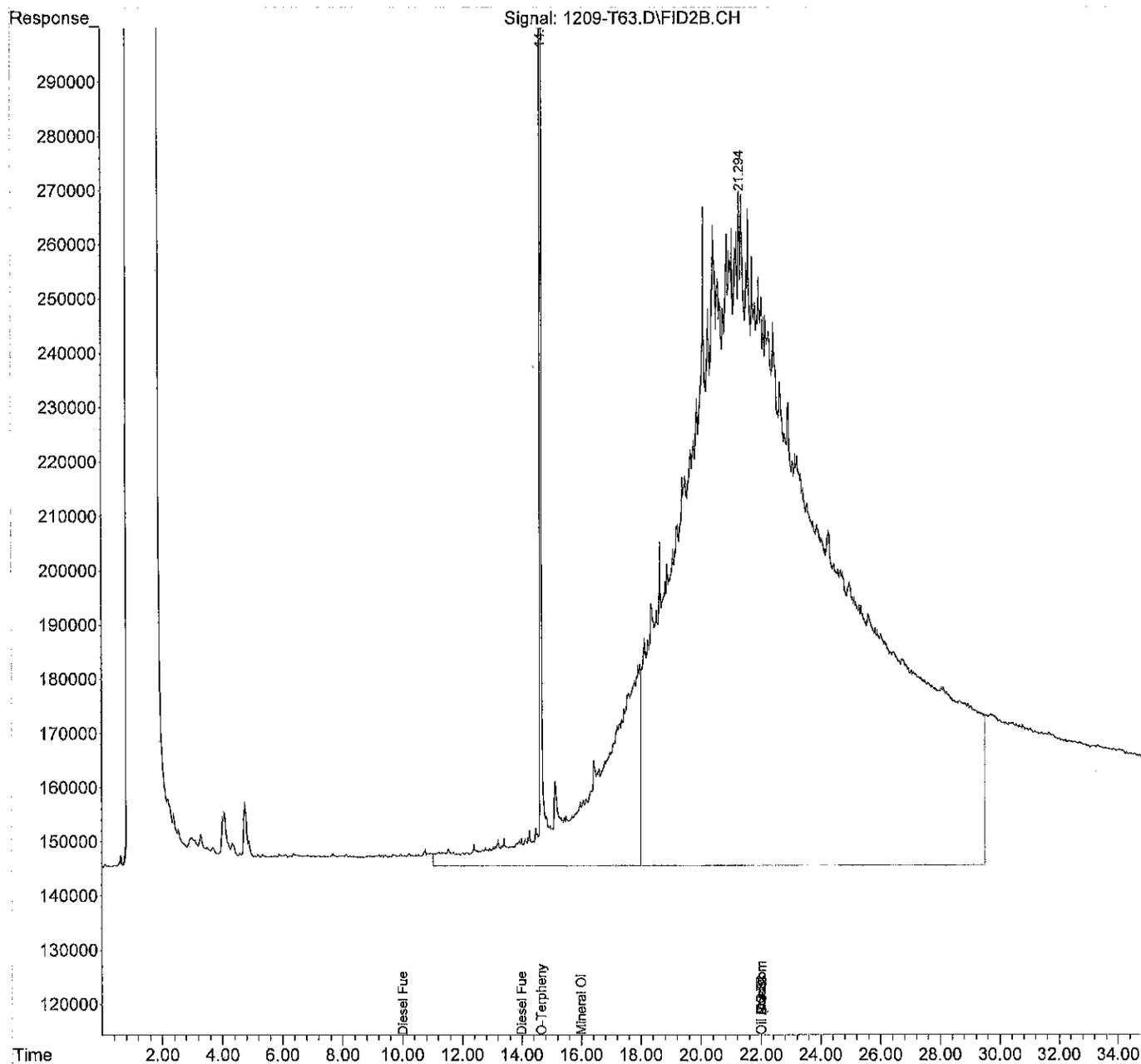
(m)=manual int.

Data File : 1209-T63.D  
Sample : 12-065-04

Data Path : X:\DIESELS\TERI\DATA\T141209.SEC\  
Signal(s) : FID2B.CH  
Acq On : 09 Dec 2014 19:47  
Operator : ZT  
Misc :  
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 20:22:52 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-T65.D  
 Sample : 12-065-04 DUP

Data Path : X:\DIESELS\TERI\DATA\T141209.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 09 Dec 2014 21:12  
 Operator : ZT  
 Misc :  
 ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 21:47:37 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.657f	105451458	34.040 PPM
Spiked Amount 50.000		Recovery =	68.08%
Target Compounds			
2) H Gasoline	4.000	8546475	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	22920722	3.567 PPM
4) H Diesel Fuel #2 (01-1...	14.000	49818325	18.078 PPM
5) H Oil (02-24-14)	22.000	395387930	178.949 PPM
6) H Oil Acid Clean (02-...	22.000	395387930	181.369 PPM
7) H Diesel Fuel #2 Combo ...	14.000	30334987	10.094 PPM
8) H Oil Combo (02-24-14)	22.000	384781173	177.545 PPM
9) H Oil Acid Clean Combo ...	22.000	384781173	180.117 PPM
10) H Oil MO Combo (02-24-14)	22.000	368930968	175.611 PPM
11) H Oil Acid Clean MO Com...	22.000	368930968	178.136 PPM
12) H Alaska 102 DF2 (05-29...	13.025	44961335	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	225234724	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	115418038	40.930 PPM
15) H Mineral Oil Combo (0...	16.000	40536806	14.231 PPM

(f)=RT Delta > 1/2 Window

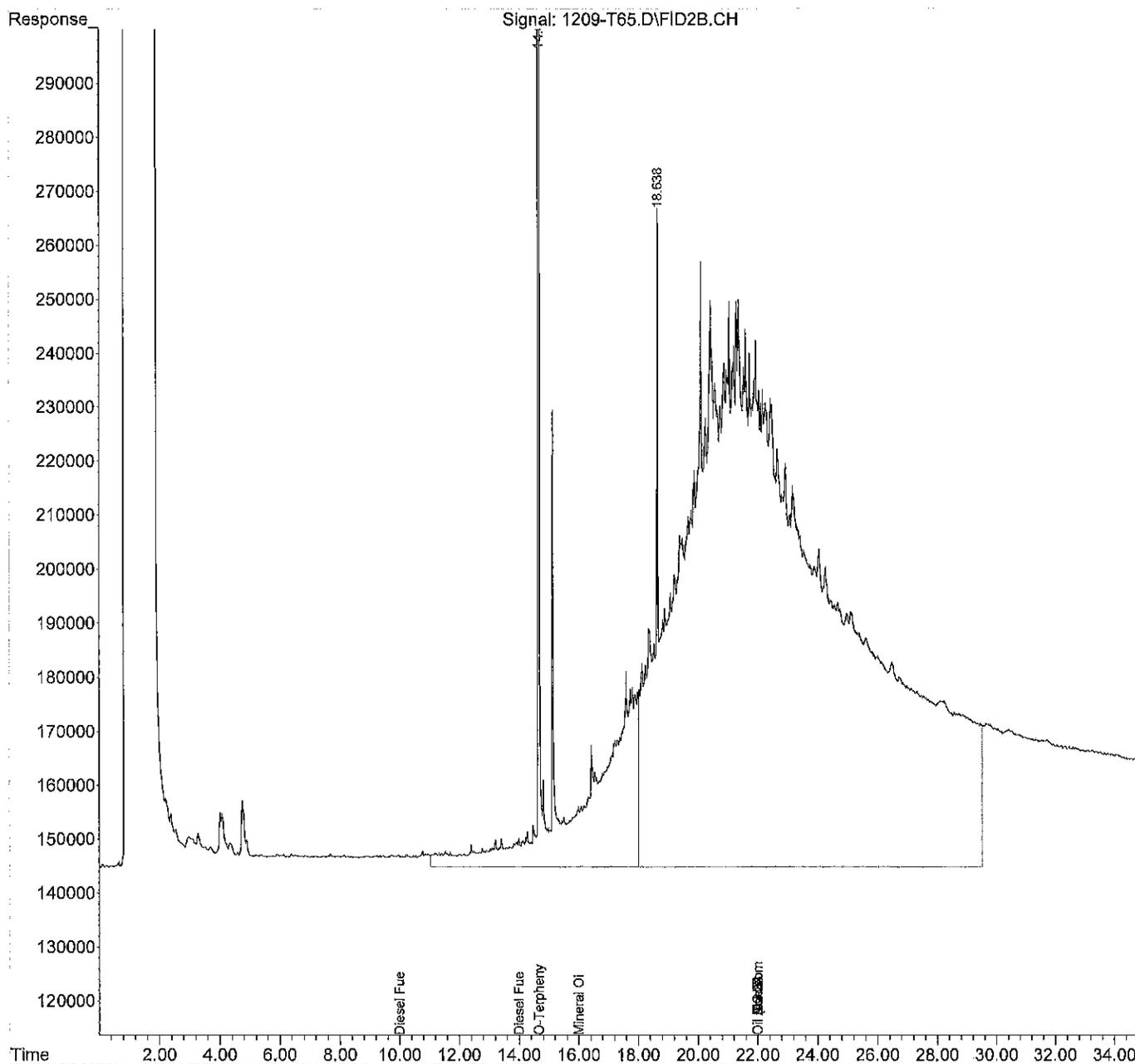
(m)=manual int.

Data File : 1209-T65.D  
Sample : 12-065-04 DUP

Data Path : X:\DIESELS\TERI\DATA\T141209.SEC\  
Signal(s) : FID2B.CH  
Acq On : 09 Dec 2014 21:12  
Operator : ZT  
Misc :  
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 21:47:37 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-V01.D  
 Sample : CCV1209F-V1

Data Path : X:\DIESELS\VIGO\DATA\V141209\  
 Signal(s) : FID1A.ch  
 Acq On : 9 Dec 2014 11:16  
 Operator :  
 Misc : SV3-11-20  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 11:52:45 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (02-10-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	29136540	NoCal	PPM
4) H Diesel Fuel #1 (02-1...	10.000	232097548	92.264	PPM
5) H Diesel Fuel #2 (02-...	14.000	232857097	98.236	PPM
6) H Oil (02-10-14)	22.000	122655612	44.591	PPM
7) H Oil Acid Clean (02-...	22.000	122655612	42.153	PPM
8) H Diesel Fuel #2 Combo ...	14.000	227929172	98.582	PPM
9) H Oil Combo (02-10-14)	22.000	110896427	40.091	PPM
10) H Oil Acid Clean Combo ...	22.000	110896427	37.550	PPM
11) H Alaska 102 DF2 (06-2...	13.025	236994569	91.252	PPM
12) H Alaska 103 Oil (06-2...	22.000	37554254	27.204	PPM
13) H Mineral Oil (02-10-14)	16.000	154230049	57.226	PPM
14) H Bunker C ACU (Fuel Oi...	15.000	327431110	220.204	PPM
15) H Bunker C (Fuel Oil #6...	15.000	327431110	220.835	PPM
16) H ALKANE C9-C40 10-26-07	12.666	340735288	4316.459	PPM
17) H Mineral Oil Combo (0...	16.000	148011606	58.454	PPM
18) H Oil Acid Clean MO Com...	22.000	106539273	36.832	PPM
19) H Oil MO Combo (02-10-14)	22.000	106539273	39.366	PPM

(f)=RT Delta > 1/2 Window

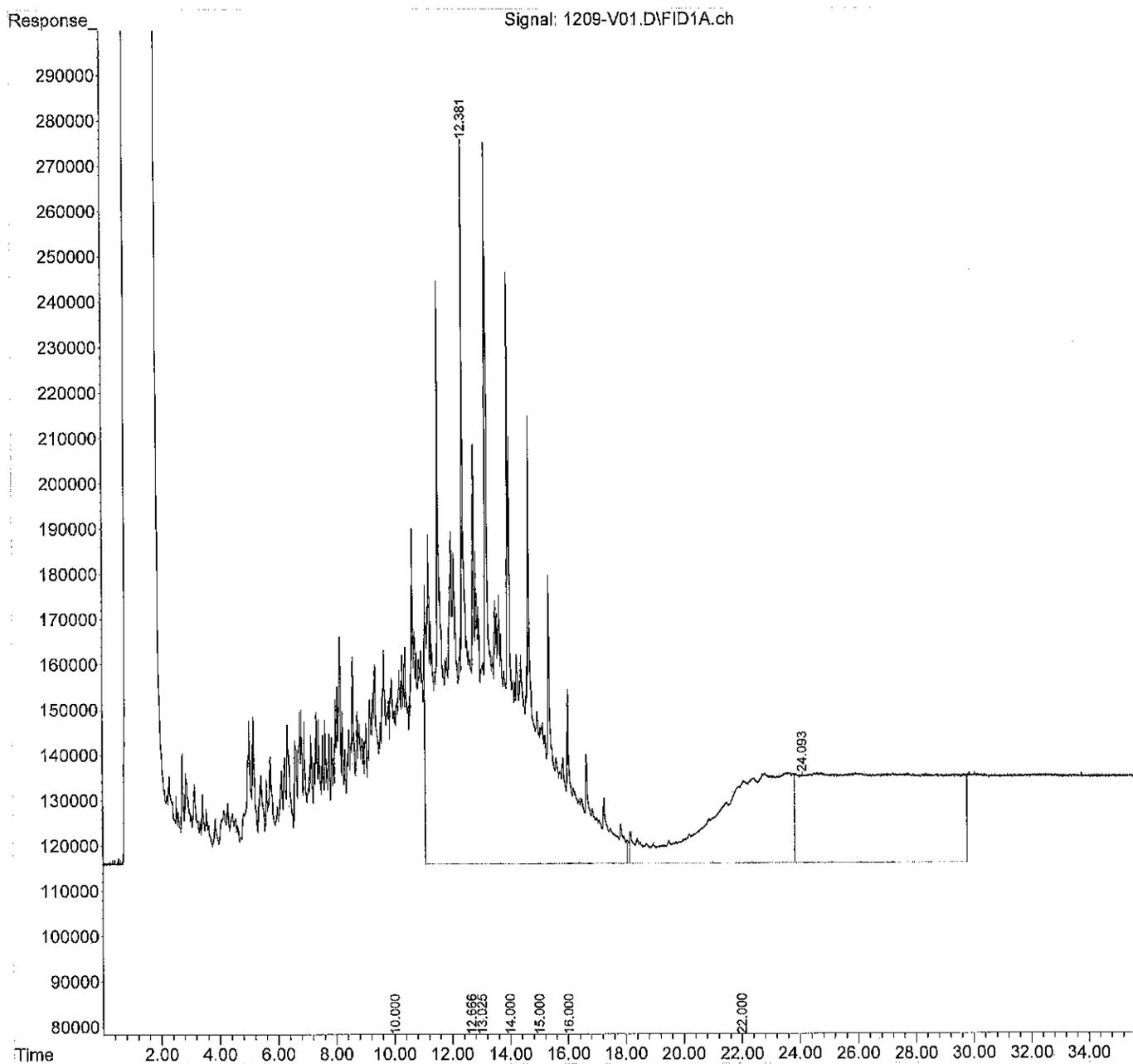
(m)=manual int.

Data File : 1209-V01.D  
Sample : CCV1209F-V1

Data Path : X:\DIESELS\VIGO\DATA\V141209\  
Signal(s) : FID1A.ch  
Acq On : 9 Dec 2014 11:16  
Operator :  
Misc : SV3-11-20  
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 11:52:45 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-V08.D  
 Sample : CCV1209F-V2

Data Path : X:\DIESELS\VIGO\DATA\V141209\  
 Signal(s) : FID1A.ch  
 Acq On : 9 Dec 2014 16:12  
 Operator :  
 Misc : SV3-11-20  
 ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 16:48:17 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (02-10-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	28671852	NoCal	PPM
4) H Diesel Fuel #1 (02-1...	10.000	225598721	89.526	PPM
5) H Diesel Fuel #2 (02-...	14.000	225942471	95.247	PPM
6) H Oil (02-10-14)	22.000	92761598	30.673	PPM
7) H Oil Acid Clean (02-...	22.000	92761598	27.459	PPM
8) H Diesel Fuel #2 Combo ...	14.000	221344962	95.673	PPM
9) H Oil Combo (02-10-14)	22.000	81419010	26.111	PPM
10) H Oil Acid Clean Combo ...	22.000	81419010	22.782	PPM
11) H Alaska 102 DF2 (06-2...	13.025	229995469	88.480	PPM
12) H Alaska 103 Oil (06-2...	22.000	27225087	17.671	PPM
13) H Mineral Oil (02-10-14)	16.000	148575038	55.052	PPM
14) H Bunker C ACU (Fuel Oi...	15.000	295010365	196.756	PPM
15) H Bunker C (Fuel Oil #6...	15.000	295010365	198.152	PPM
16) H ALKANE C9-C40 10-26-07	12.666	308333785	3903.903	PPM
17) H Mineral Oil Combo (0...	16.000	143616404	56.707	PPM
18) H Oil Acid Clean MO Com...	22.000	77337286	21.722	PPM
19) H Oil MO Combo (02-10-14)	22.000	77337286	25.062	PPM

(f)=RT Delta > 1/2 Window

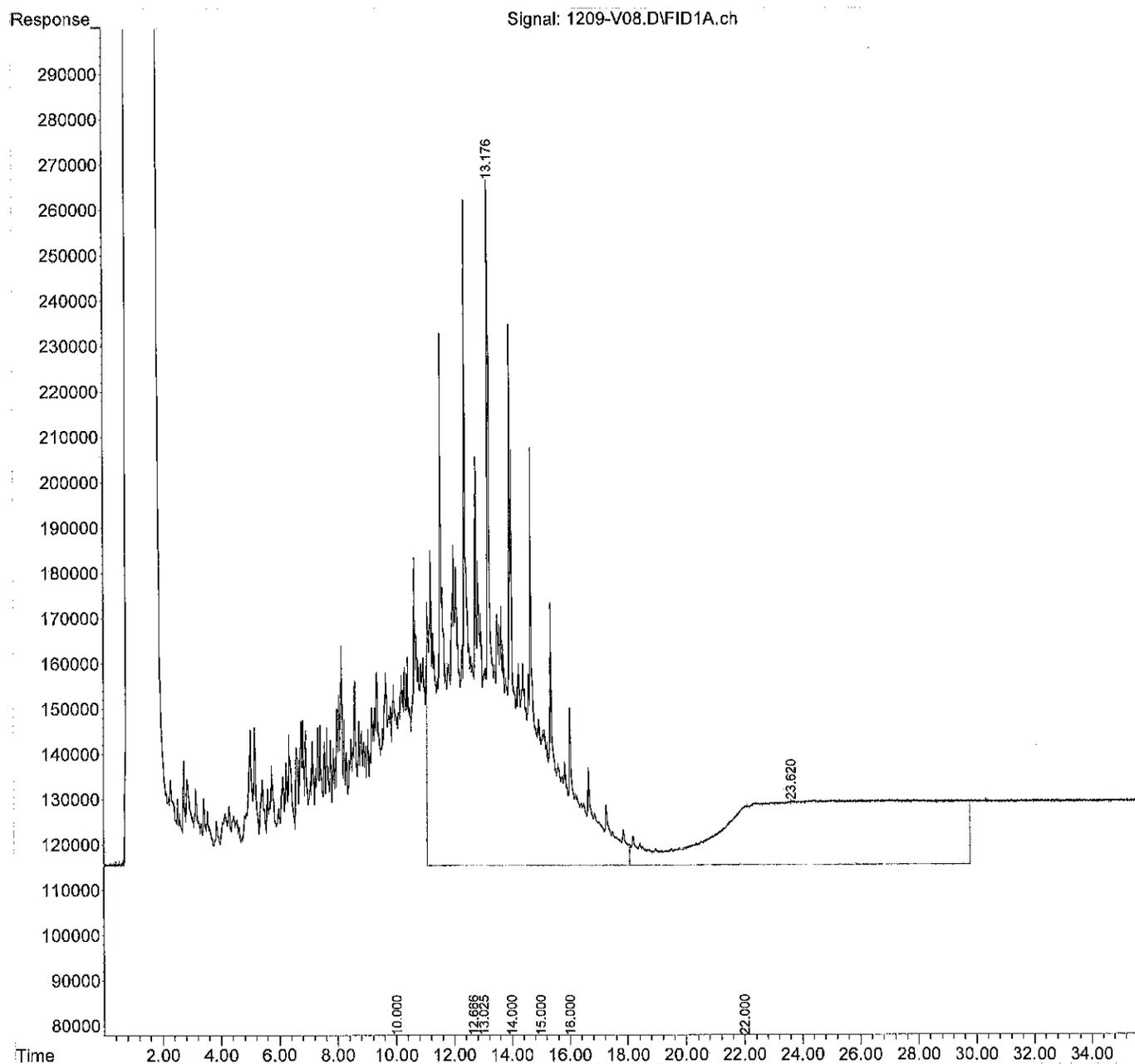
(m)=manual int.

Data File : 1209-V08.D  
Sample : CCV1209F-V2

Data Path : X:\DIESELS\VIGO\DATA\V141209\  
Signal(s) : FID1A.ch  
Acq On : 9 Dec 2014 16:12  
Operator :  
Misc : SV3-11-20  
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 16:48:17 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-T01.D  
 Sample : CCV1209F-T1

Data Path : X:\DIESELS\TERI\DATA\T141209\  
 Signal(s) : FID1A.CH  
 Acq On : 09 Dec 2014 11:12  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 11:47:50 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
Target Compounds				
2) H Gasoline	3.500	33613050	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	232314611	93.911	PPM
4) H Diesel Fuel #2 (12-0...	14.000	231004654	99.653	PPM
5) H Oil (11-04-14)	22.000	64333785	19.128	PPM
6) H Oil Acid Clean (11-...	22.000	64333785	9.406	PPM
7) H Diesel Fuel #2 Combo ...	14.000	226836679	99.694	PPM
8) H Oil Combo (11-04-14)	22.000	53259760	13.948	PPM
9) H Oil Acid Clean Combo ...	22.000	53259760	3.332	PPM
10) H Alaska 102 DF2	13.025	231485754	NoCal	PPM
11) H Alaska 103 Oil	20.000	22291461	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	148400178	57.055	PPM
13) H Mineral Oil Combo (1...	16.000	144887021	58.191	PPM
14) H Oil MO Combo (11-04-14)	22.000	49471390	12.474	PPM
15) H Oil Acid Clean MO Com...	22.000	49471390	1.293	PPM

(f)=RT Delta > 1/2 Window

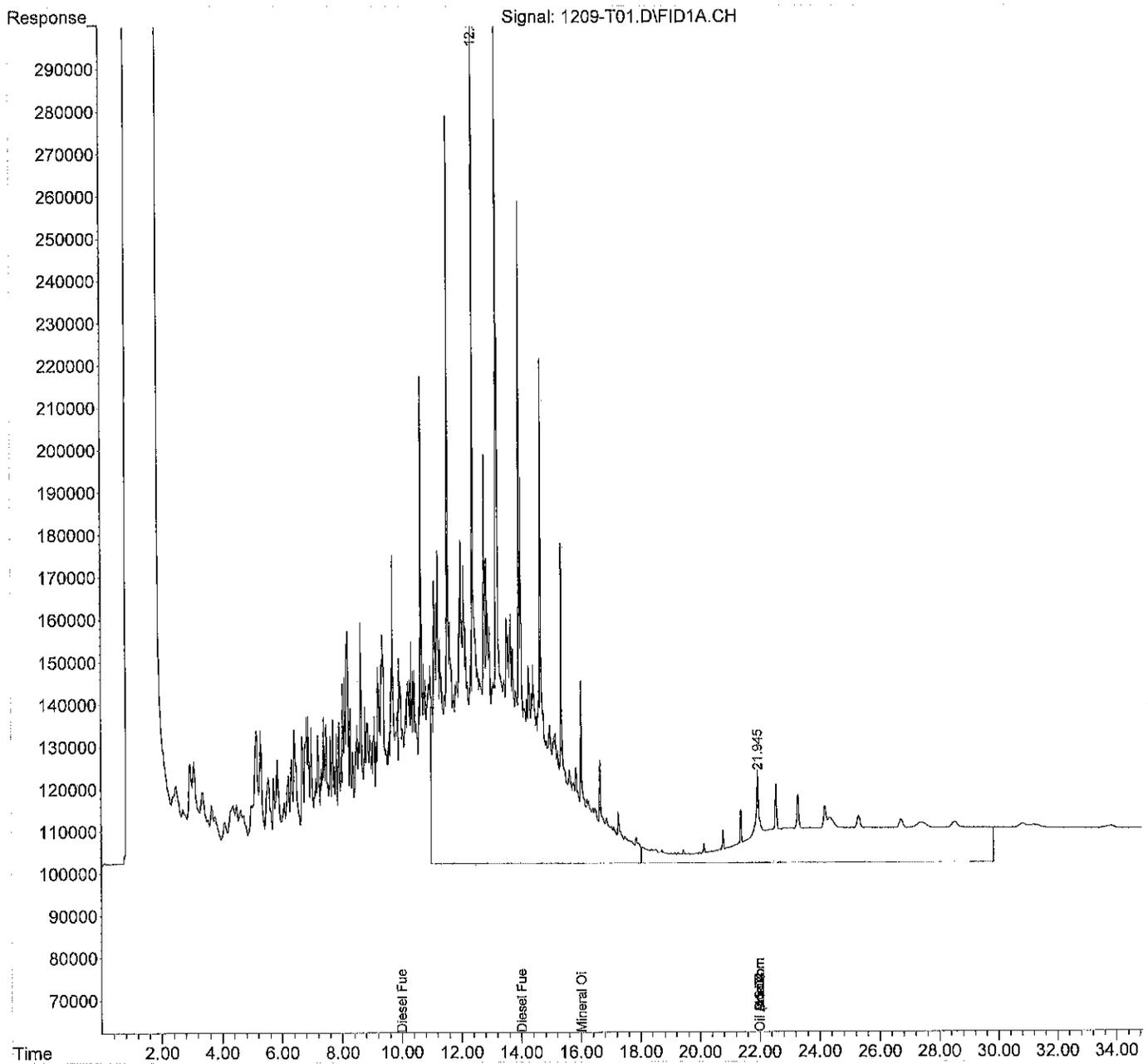
(m)=manual int.

Data File : 1209-T01.D  
Sample : CCV1209F-T1

Data Path : X:\DIESELS\TERI\DATA\T141209\  
Signal(s) : FID1A.CH  
Acq On : 09 Dec 2014 11:12  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 11:47:50 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-T07.D  
 Sample : CCV1209F-T2

Data Path : X:\DIESELS\TERI\DATA\T141209\  
 Signal(s) : FID1A.CH  
 Acq On : 09 Dec 2014 15:29  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 16:04:07 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	3.500	32830114	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	224476082	90.595	PPM
4) H Diesel Fuel #2 (12-0...	14.000	223247900	96.203	PPM
5) H Oil (11-04-14)	22.000	59574785	16.789	PPM
6) H Oil Acid Clean (11-...	22.000	59574785	6.774	PPM
7) H Diesel Fuel #2 Combo ...	14.000	219254436	96.267	PPM
8) H Oil Combo (11-04-14)	22.000	48860832	11.734	PPM
9) H Oil Acid Clean Combo ...	22.000	48860832	0.849	PPM
10) H Alaska 102 DF2	13.025	223688631	NoCal	PPM
11) H Alaska 103 Oil	20.000	19116382	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	143690086	55.181	PPM
13) H Mineral Oil Combo (1...	16.000	140449674	56.371	PPM
14) H Oil MO Combo (11-04-14)	22.000	45212721	10.246	PPM
15) H Oil Acid Clean MO Com...	22.000	45212721	N.D.	PPM

(f)=RT Delta > 1/2 Window

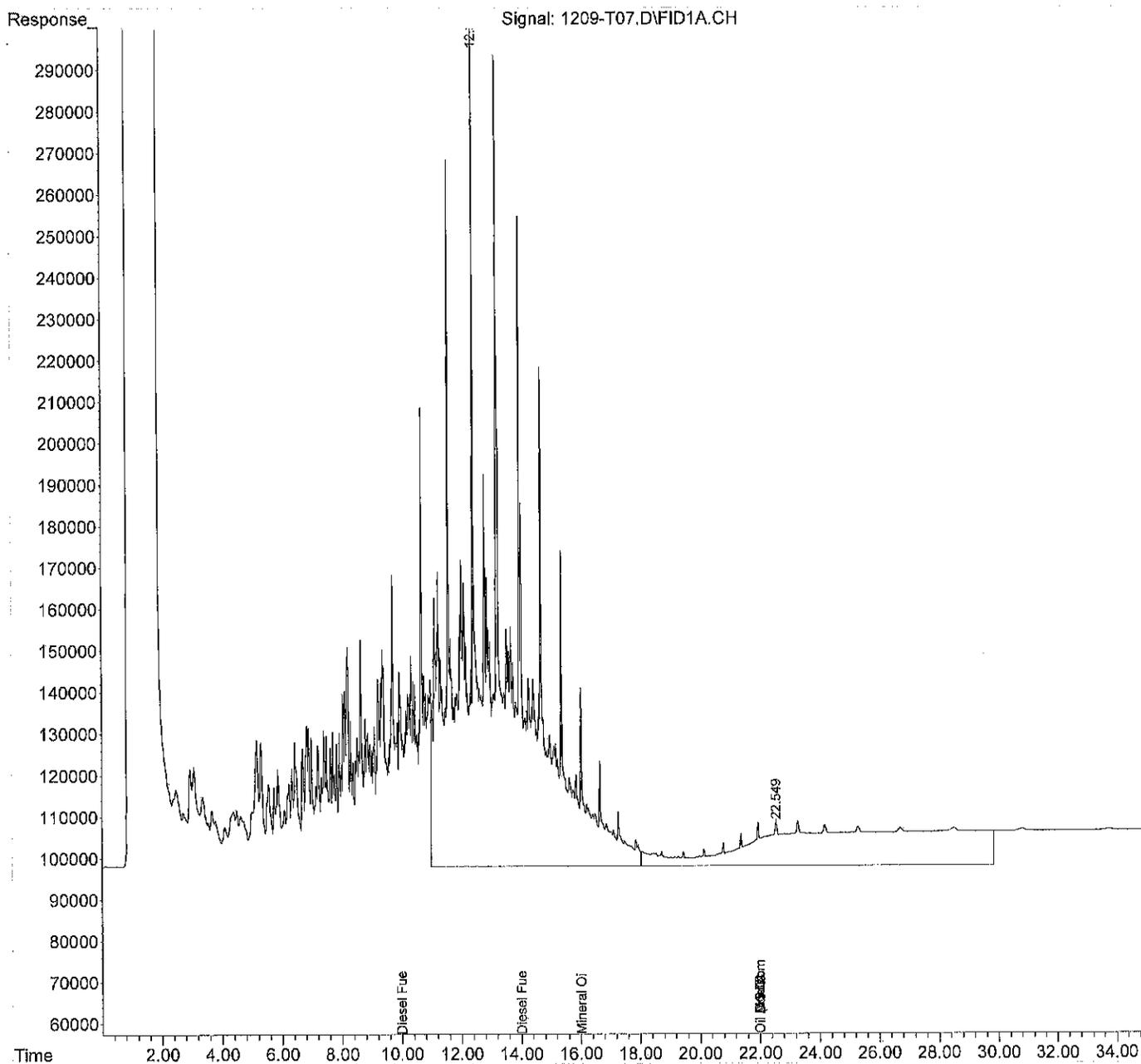
(m)=manual int.

Data File : 1209-T07.D  
Sample : CCV1209F-T2

Data Path : X:\DIESELS\TERI\DATA\T141209\  
Signal(s) : FID1A.CH  
Acq On : 09 Dec 2014 15:29  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 16:04:07 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-T57.D  
 Sample : CCV1209R-T2

Data Path : X:\DIESELS\TERI\DATA\T141209.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 09 Dec 2014 15:29  
 Operator : ZT  
 Misc : SV3-11-20  
 ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 09 16:04:27 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.651f	2097025	0.518 PPM
Spiked Amount 50.000		Recovery =	1.04%
Target Compounds			
2) H Gasoline	4.000	29562373	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	236572742	95.662 PPM
4) H Diesel Fuel #2 (01-1...	14.000	239480988	99.768 PPM
5) H Oil (02-24-14)	22.000	60305487	7.069 PPM
6) H Oil Acid Clean (02-...	22.000	60305487	7.992 PPM
7) H Diesel Fuel #2 Combo ...	14.000	234468667	100.261 PPM
8) H Oil Combo (02-24-14)	22.000	47548730	0.969 PPM
9) H Oil Acid Clean Combo ...	22.000	47548730	1.848 PPM
10) H Oil MO Combo (02-24-14)	22.000	42998820	N.D. PPM
11) H Oil Acid Clean MO Com...	22.000	42998820	N.D. PPM
12) H Alaska 102 DF2 (05-29...	13.025	244978839	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	14937857	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	155668937	56.249 PPM
15) H Mineral Oil Combo (0...	16.000	151529233	58.302 PPM
-----			

(f)=RT Delta > 1/2 Window

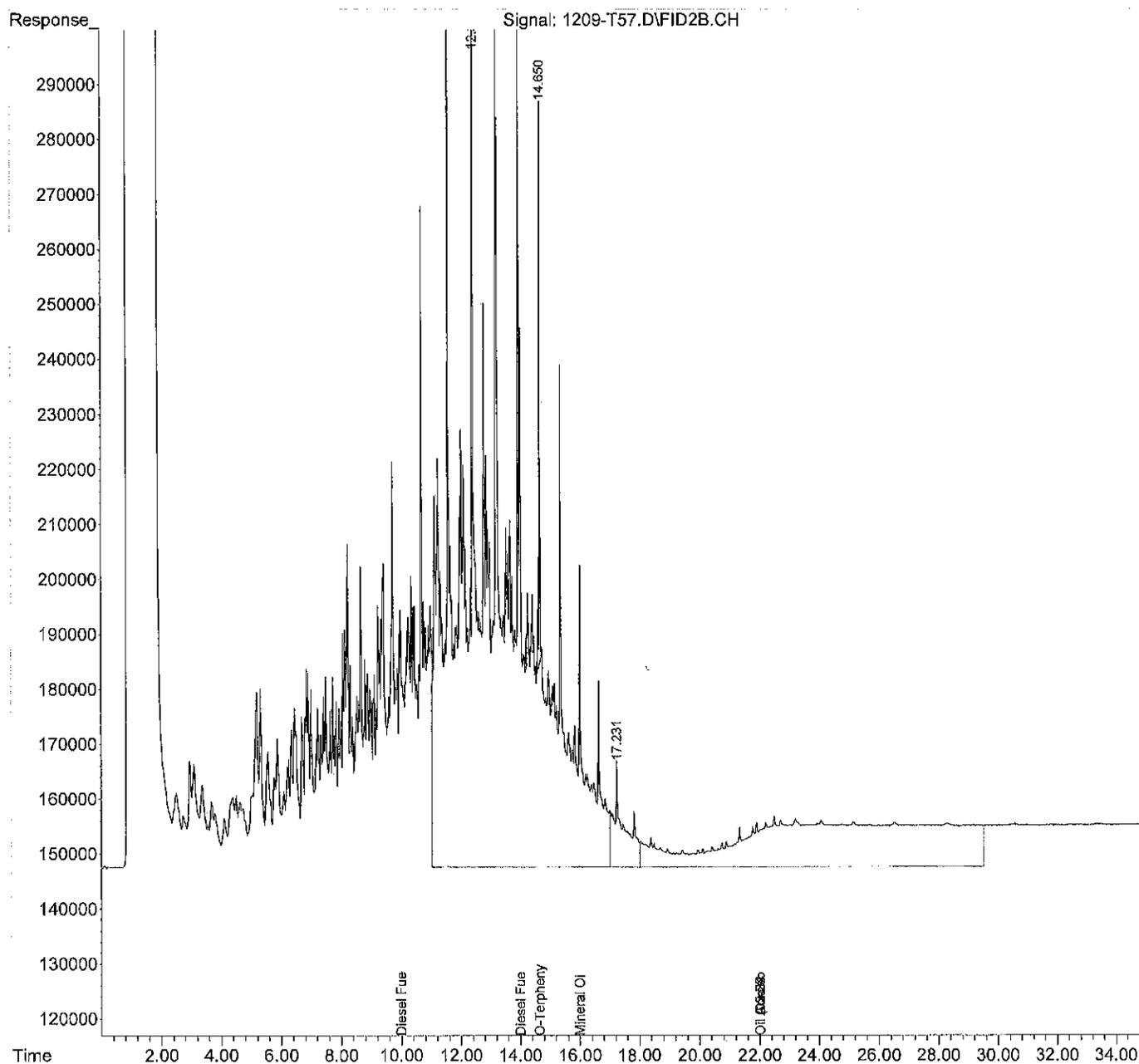
(m)=manual int.

Data File : 1209-T57.D  
Sample : CCV1209R-T2

Data Path : X:\DIESELS\TERI\DATA\T141209.SEC\  
Signal(s) : FID2B.CH  
Acq On : 09 Dec 2014 15:29  
Operator : ZT  
Misc : SV3-11-20  
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 09 16:04:27 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1209-T69.D  
 Sample : CCV1209R-T3

Data Path : X:\DIESELS\TERI\DATA\T141209.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 10 Dec 2014 0:01  
 Operator : ZT  
 Misc : SV3-11-24  
 ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 10 00:37:02 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	14.635f	1914929	0.459	PPM
Spiked Amount 50.000		Recovery =	0.92%	
Target Compounds				
2) H Gasoline	4.000	29764877	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	239942752	97.115	PPM
4) H Diesel Fuel #2 (01-1...	14.000	243341877	101.431	PPM
5) H Oil (02-24-14)	22.000	172285534	64.509	PPM
6) H Oil Acid Clean (02-...	22.000	172285534	65.932	PPM
7) H Diesel Fuel #2 Combo ...	14.000	237836676	101.749	PPM
8) H Oil Combo (02-24-14)	22.000	159452266	59.562	PPM
9) H Oil Acid Clean Combo ...	22.000	159452266	61.003	PPM
10) H Oil MO Combo (02-24-14)	22.000	154567613	59.349	PPM
11) H Oil Acid Clean MO Com...	22.000	154567613	60.753	PPM
12) H Alaska 102 DF2 (05-29...	13.025	248466746	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	51897138	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	163494864	59.227	PPM
15) H Mineral Oil Combo (0...	16.000	153987449	59.278	PPM
-----				

(f)=RT Delta > 1/2 Window

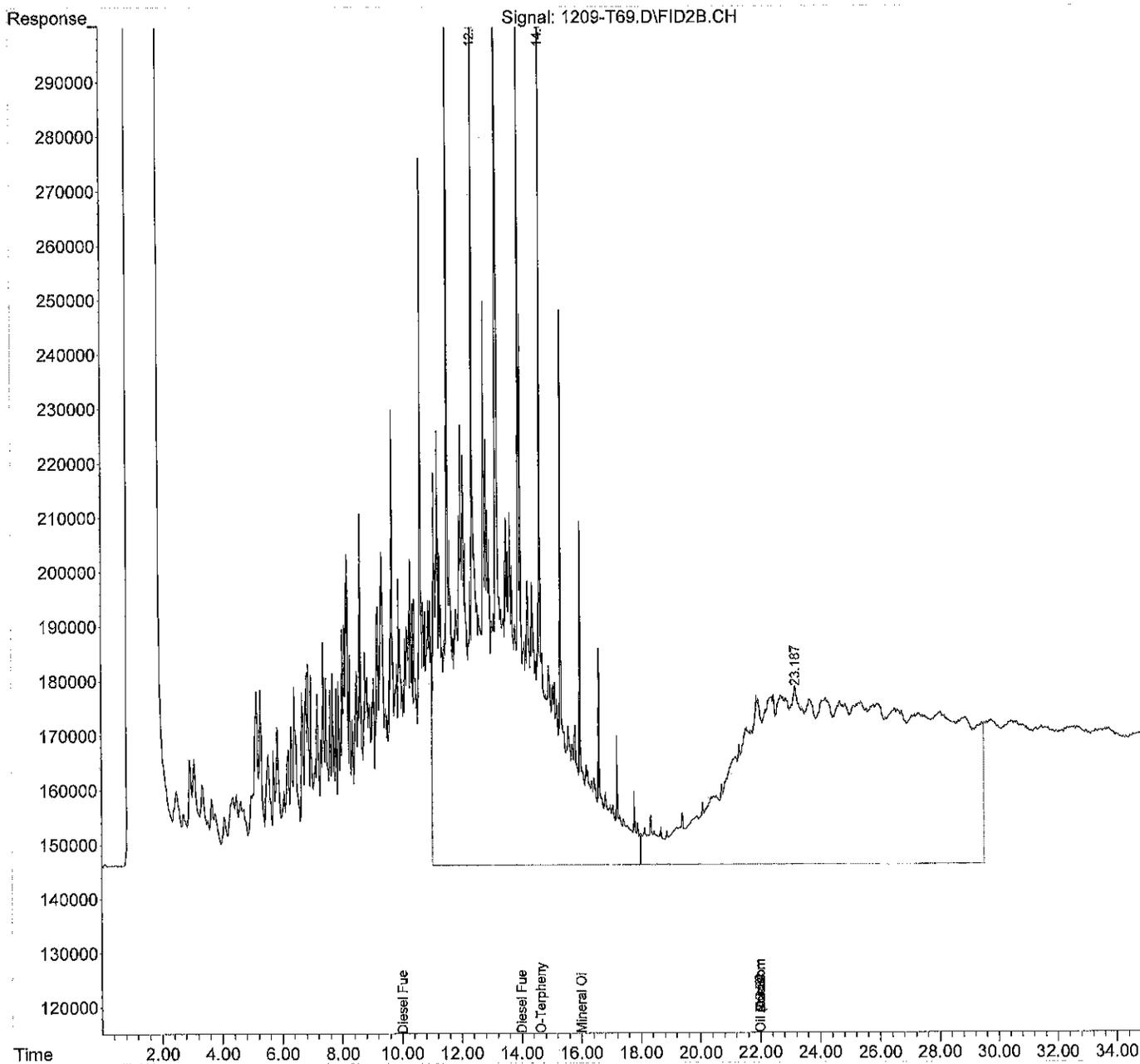
(m)=manual int.

Data File : 1209-T69.D  
Sample : CCV1209R-T3

Data Path : X:\DIESELS\TERI\DATA\T141209.SEC\  
Signal(s) : FID2B.CH  
Acq On : 10 Dec 2014 0:01  
Operator : ZT  
Misc : SV3-11-24  
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 10 00:37:02 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T140224R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



## cPAHs Data

Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208014.D  
 Acq On : 8 Dec 2014 5:10 pm  
 Operator :  
 Sample : 12-051-01  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 08 17:25:37 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

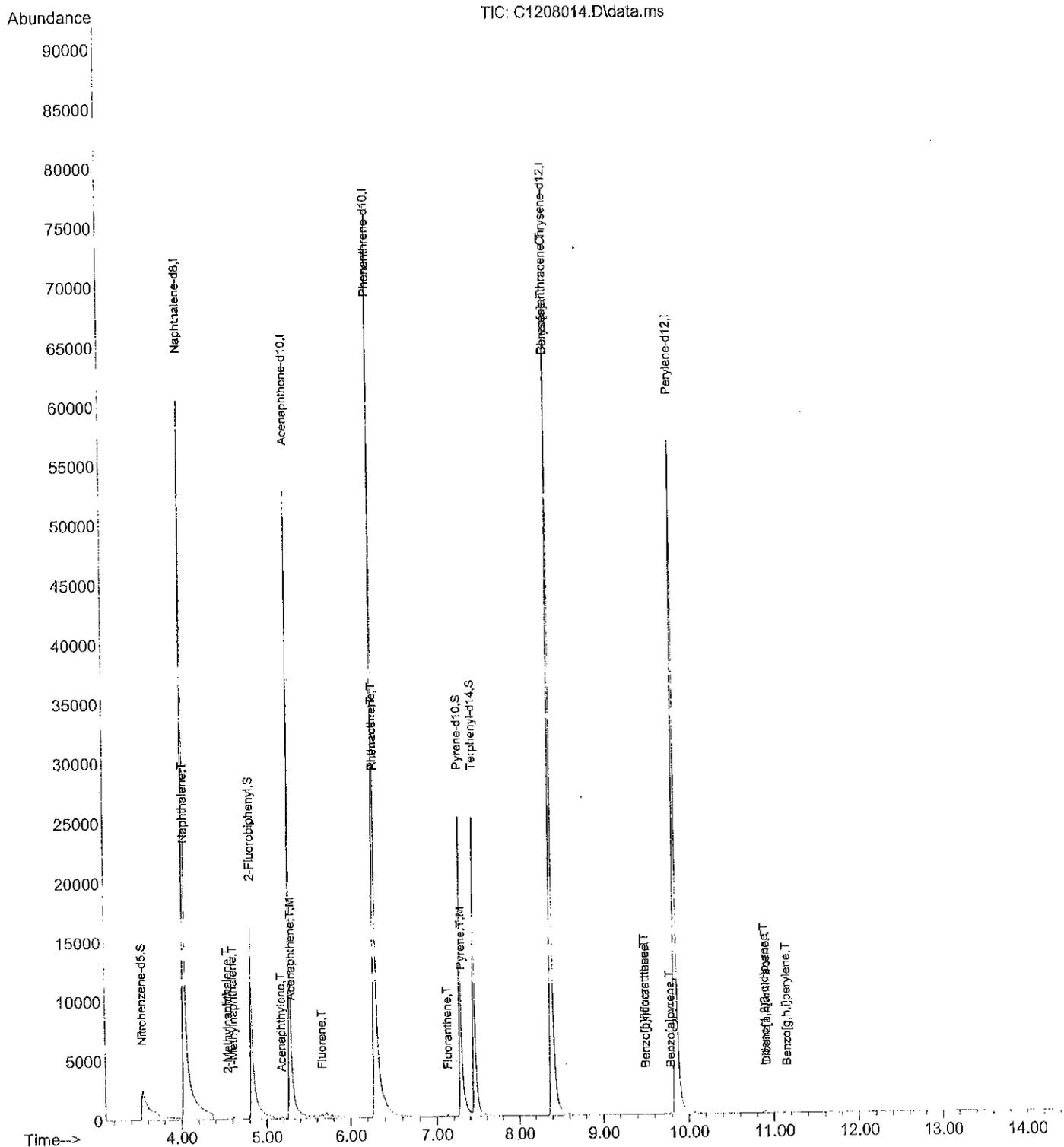
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	4.035	136	104117	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	59987	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.283	188	114157	2000.00	ppb	0.00	
17) Chrysene-d12	8.388	240	110046	2000.00	ppb	0.00	
21) Perylene-d12	9.848	264	101943	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.535	82	7429	508.27	ppb	-0.03	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	50.83%			
7) 2-Fluorobiphenyl	4.824	172	35337	744.26	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	74.43%			
11) Pyrene-d10	7.283	212	38929	788.94	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	78.89%			
18) Terphenyl-d14	7.451	244	33245	696.28	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	69.63%			
Target Compounds							
3) Naphthalene	4.046	128	608	9.27	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.551	142	153	5.13	ppb	100	
5) 1-Methylnaphthalene	4.617	142	394	7.78	ppb	100	
8) Acenaphthylene	5.180	152	449	6.87	ppb	100	
9) Acenaphthene	5.303	153	369	8.67	ppb	100	
12) Fluorene	5.665	166	307	6.48	ppb	100	
13) Phenanthrene	6.299	178	503	8.60	ppb	100	
14) Anthracene	6.299	178	503	9.37	ppb	100	
15) Fluoranthene	7.132	202	301	4.42	ppb	100	
16) Pyrene	7.300	202	406	5.71	ppb	100	
19) Benzo[a]anthracene	8.384	228	537	<del>10.69</del> 7.27	ppb	100	
20) Chrysene	8.384	228	537	<del>8.57</del> 8	ppb	100	
22) Benzo[b]fluoranthene	9.496	252	255	6.37	ppb	100	
23) Benzo[j,k]fluoranthene	9.496	252	255	<del>8.47</del> 8	ppb	100	
24) Benzo[a]pyrene	9.793	252	101	1.88	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.903	276	323	4.94	ppb	100	
26) Dibenz[a,h]anthracene	10.919	278	274	4.98	ppb	100	
27) Benzo[g,h,i]perylene	11.153	276	279	5.12	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*12/9/14*  


Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208014.D  
 Acq On : 8 Dec 2014 5:10 pm  
 Operator :  
 Sample : 12-051-01  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 08 17:25:37 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208017.D  
 Acq On : 8 Dec 2014 6:16 pm  
 Operator :  
 Sample : 12-051-02  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 08 18:31:16 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

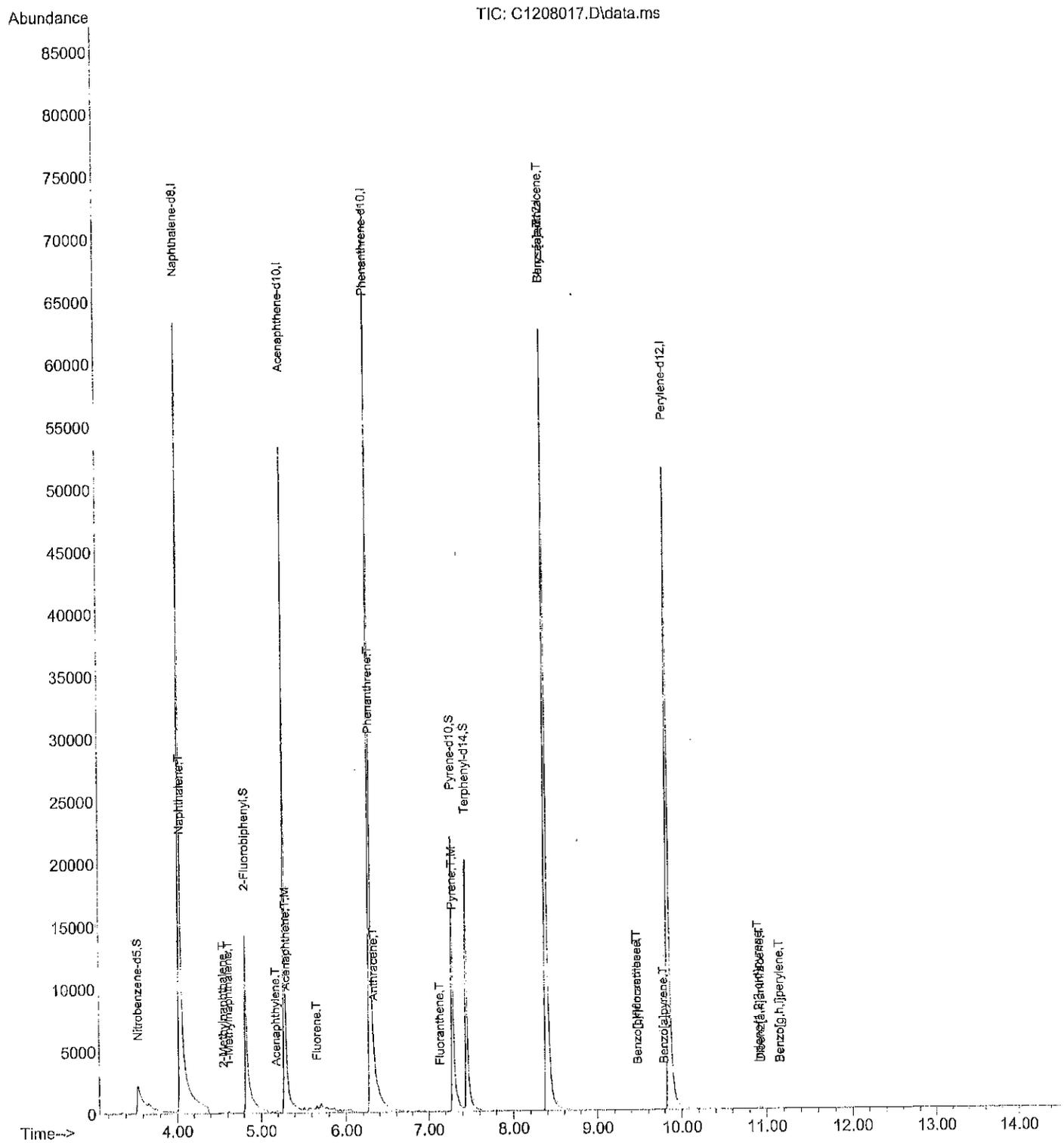
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	4.029	136	103448	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	59779	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.283	188	114065	2000.00	ppb	0.00	
17) Chrysene-d12	8.385	240	108116	2000.00	ppb	0.00	
21) Perylene-d12	9.844	264	99565	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.541	82	6367	438.43	ppb	-0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	43.84%			
7) 2-Fluorobiphenyl	4.821	172	31812	672.35	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	67.23%			
11) Pyrene-d10	7.283	212	34145	692.54	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	69.25%			
18) Terphenyl-d14	7.451	244	29559	630.13	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	63.01%			
Target Compounds							
3) Naphthalene	4.046	128	525	8.05	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.555	142	55	1.86	ppb	100	
5) 1-Methylnaphthalene	4.618	142	265	5.27	ppb	100	
8) Acenaphthylene	5.180	152	286	4.39	ppb	100	
9) Acenaphthene	5.303	153	239	5.64	ppb	100	
12) Fluorene	5.666	166	501	10.59	ppb	100	
13) Phenanthrene	6.298	178	441	7.54	ppb	100	
14) Anthracene	6.337	178	197	3.67	ppb	100	
15) Fluoranthene	7.138	202	131	1.92	ppb	100	
16) Pyrene	7.294	202	262	3.69	ppb	100	
19) Benzo[a]anthracene	8.385	228	430	8.72	ppb	100	
20) Chrysene	8.385	228	430	9.99	ppb	100	
22) Benzo[b]fluoranthene	9.477	252	37	0.95	ppb	100	
23) Benzo[j,k]fluoranthene	9.477	252	37	0.52	ppb	100	
24) Benzo[a]pyrene	9.793	252	51	0.97	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.911	276	152	2.38	ppb	100	
26) Dibenz[a,h]anthracene	10.934	278	143	2.66	ppb	100	
27) Benzo[g,h,i]perylene	11.157	276	64	1.20	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*12/9/14  
 km*

Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208017.D  
 Acq On : 8 Dec 2014 6:16 pm  
 Operator :  
 Sample : 12-051-02  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 08 18:31:16 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208011.D  
 Acq On : 8 Dec 2014 4:04 pm  
 Operator :  
 Sample : MB1208S1  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 16:19:48 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

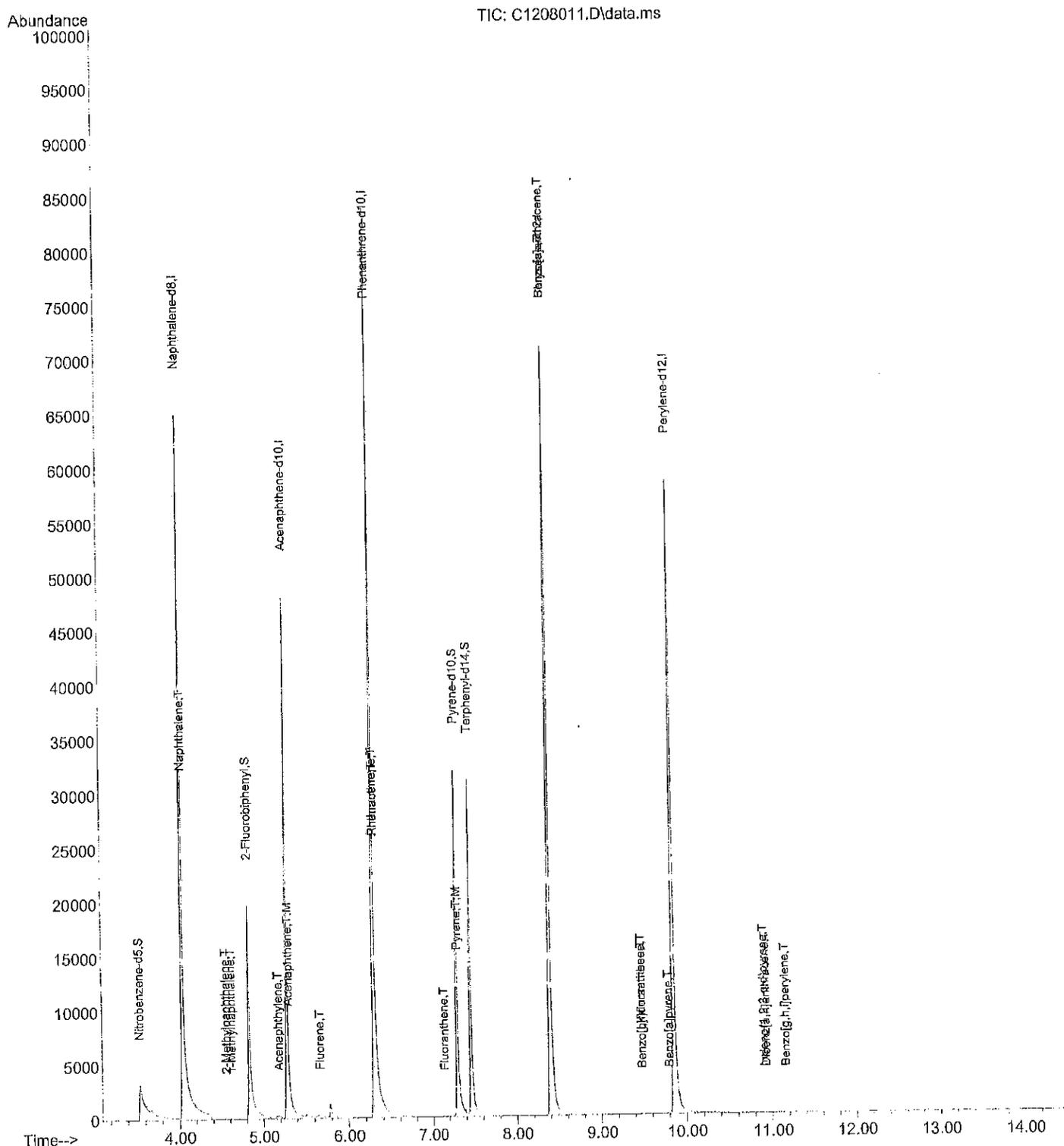
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) Naphthalene-d8	4.030	136	100143	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	59036	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.286	188	114309	2000.00	ppb	0.00	
17) Chrysene-d12	8.388	240	110991	2000.00	ppb	0.00	
21) Perylene-d12	9.849	264	100971	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.537	82	8272	588.40	ppb	-0.03	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	58.84%			
7) 2-Fluorobiphenyl	4.822	172	37621	805.13	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	80.51%			
11) Pyrene-d10	7.288	212	42666	863.52	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	86.35%			
18) Terphenyl-d14	7.450	244	35818	743.78	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	74.38%			
Target Compounds							
3) Naphthalene	4.042	128	533	8.44	ppb	100	
4) 2-Methylnaphthalene	4.553	142	90	3.14	ppb	100	
5) 1-Methylnaphthalene	4.619	142	99	2.03	ppb	100	
8) Acenaphthylene	5.180	152	534	8.30	ppb	100	
9) Acenaphthene	5.303	153	221	5.28	ppb	100	
12) Fluorene	5.665	166	642	13.54	ppb	100	
13) Phenanthrene	6.302	178	940	16.04	ppb	100	
14) Anthracene	6.302	178	940	<del>17.50</del> ppb		100	
15) Fluoranthene	7.137	202	182	2.67	ppb	100	
16) Pyrene	7.300	202	263	3.69	ppb	100	
19) Benzo[a]anthracene	8.388	228	473	9.34	ppb	100	
20) Chrysene	8.388	228	473	<del>7.49</del> ppb		100	
22) Benzo[b]fluoranthene	9.478	252	26	0.66	ppb	100	
23) Benzo(j,k)fluoranthene	9.478	252	26	<del>0.36</del> ppb		100	
24) Benzo[a]pyrene	9.798	252	66	1.24	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.904	276	47	0.73	ppb	100	
26) Dibenz[a,h]anthracene	10.928	278	63	1.16	ppb	100	
27) Benzo[g,h,i]perylene	11.154	276	59	1.09	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/9/14  
 am

Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208011.D  
 Acq On : 8 Dec 2014 4:04 pm  
 Operator :  
 Sample : MB1208S1  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 16:19:48 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208015.D  
 Acq On : 8 Dec 2014 5:32 pm  
 Operator :  
 Sample : 12-051-01 MS  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 08 17:47:35 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

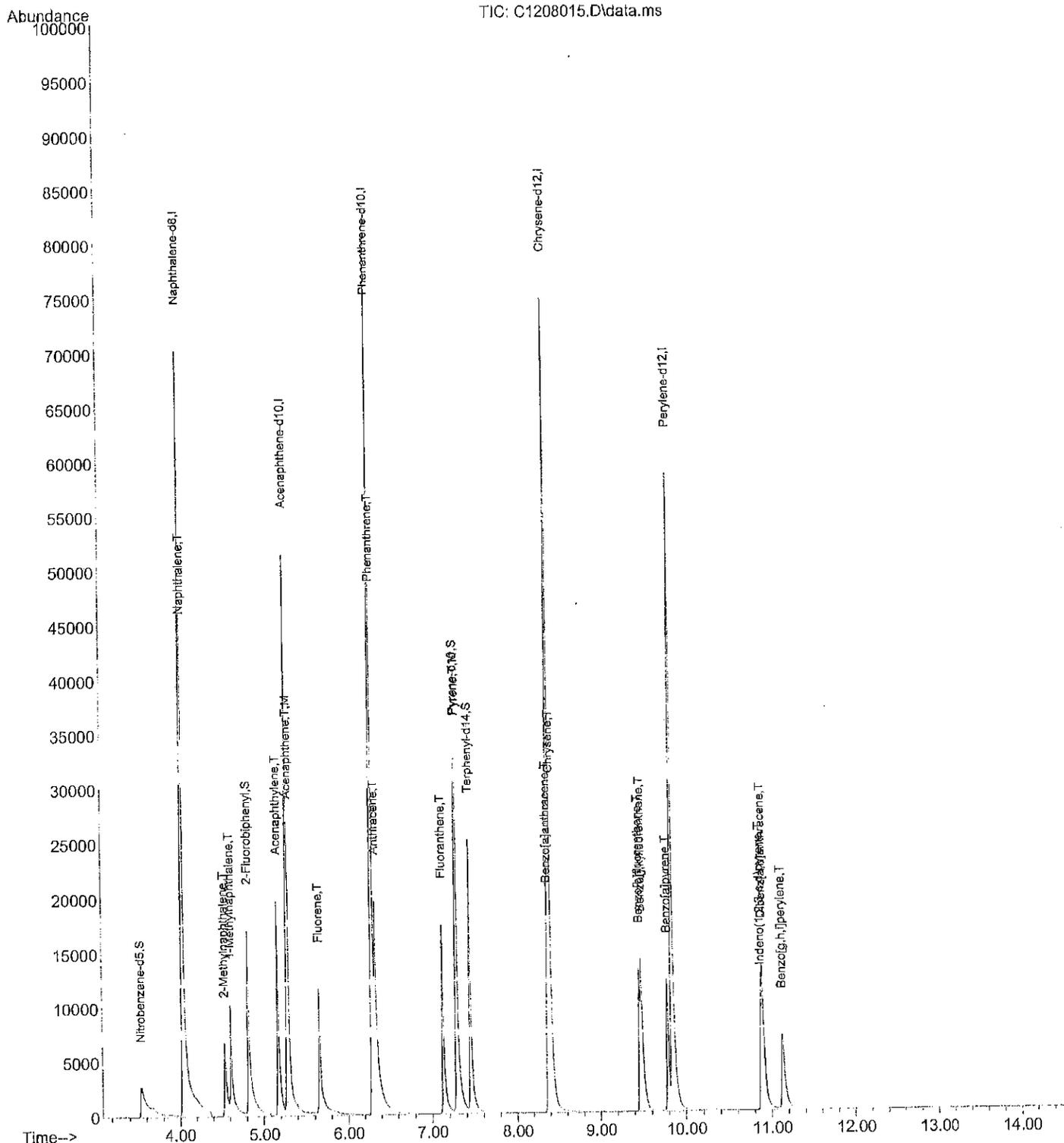
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	4.030	136	104187	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.279	164	59551	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.286	188	112904	2000.00	ppb	0.00	
17) Chrysene-d12	8.384	240	109568	2000.00	ppb	0.00	
21) Perylene-d12	9.845	264	101088	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.537	82	7587	518.73	ppb	-0.03	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	51.87%			
7) 2-Fluorobiphenyl	4.825	172	36353	771.26	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	77.13%			
11) Pyrene-d10	7.283	212	40126	822.22	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	82.22%			
18) Terphenyl-d14	7.446	244	34329	722.12	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	72.21%			
Target Compounds							
							Qvalue
3) Naphthalene	4.042	128	26461	402.98	ppb		100
4) 2-Methylnaphthalene	4.544	142	11385	381.68	ppb		100
5) 1-Methylnaphthalene	4.618	142	19774	390.11	ppb		100
8) Acenaphthylene	5.171	152	24930	384.21	ppb		100
9) Acenaphthene	5.302	153	15511	367.23	ppb		100
12) Fluorene	5.657	166	17923	382.70	ppb		100
13) Phenanthrene	6.298	178	19712	340.57	ppb		100
14) Anthracene	6.333	178	31638	596.21	ppb		100
15) Fluoranthene	7.126	202	27002	400.68	ppb		100
16) Pyrene	7.295	202	27371	389.25	ppb		100
19) Benzo[a]anthracene	8.368	228	19720	394.45	ppb		100
20) Chrysene	8.411	228	25104	402.57	ppb		100
22) Benzo[b]fluoranthene	9.466	252	16584	417.73	ppb		100
23) Benzo(j,k)fluoranthene	9.490	252	25912	355.70	ppb		100
24) Benzo[a]pyrene	9.790	252	21989	411.96	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.880	276	23558	363.36	ppb		100
26) Dibenz[a,h]anthracene	10.899	278	19826	363.07	ppb		100
27) Benzo[g,h,i]perylene	11.130	276	20467	378.88	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/9/14  


Data Path : C:\MSDCHEM\1\DATA\C141208\  
Data File : C1208015.D  
Acq On : 8 Dec 2014 5:32 pm  
Operator :  
Sample : 12-051-01 MS  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 08 17:47:35 2014  
Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Wed Dec 03 14:22:32 2014  
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208016.D  
 Acq On : 8 Dec 2014 5:54 pm  
 Operator :  
 Sample : 12-051-01 MSD  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 08 18:09:24 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

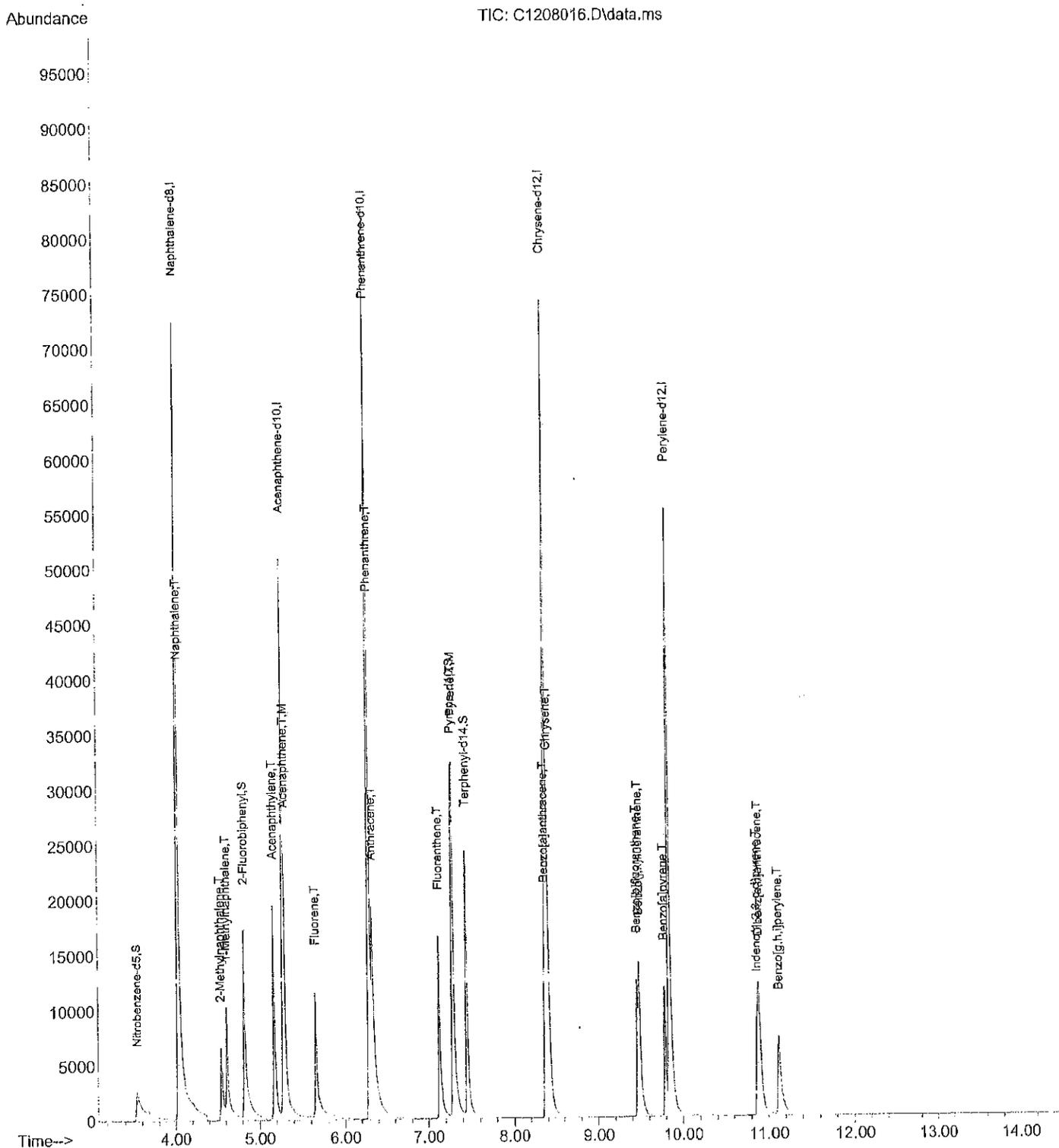
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
-----							
Internal Standards							
1) Naphthalene-d8	4.032	136	103427	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.279	164	58308	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.286	188	112154	2000.00	ppb	0.00	
17) Chrysene-d12	8.384	240	108088	2000.00	ppb	0.00	
21) Perylene-d12	9.845	264	100416	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.544	82	7169	493.75	ppb	-0.02	
Spiked Amount	1000.000	Range 24 - 92					Recovery = 49.38%
7) 2-Fluorobiphenyl	4.825	172	35952	779.02	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89					Recovery = 77.90%
11) Pyrene-d10	7.283	212	39195	808.51	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110					Recovery = 80.85%
18) Terphenyl-d14	7.451	244	33463	713.54	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92					Recovery = 71.35%
Target Compounds							
							Qvalue
3) Naphthalene	4.043	128	26699	409.59	ppb		100
4) 2-Methylnaphthalene	4.544	142	11348	383.24	ppb		100
5) 1-Methylnaphthalene	4.614	142	19662	390.75	ppb		100
8) Acenaphthylene	5.171	152	24796	390.29	ppb		100
9) Acenaphthene	5.302	153	15364	371.51	ppb		100
12) Fluorene	5.657	166	18881	405.85	ppb		100
13) Phenanthrene	6.297	178	19284	335.41	ppb		100
14) Anthracene	6.332	178	31223	592.33	ppb		100
15) Fluoranthene	7.126	202	26582	397.08	ppb		100
16) Pyrene	7.295	202	26920	385.40	ppb		100
19) Benzo[a]anthracene	8.368	228	19383	393.02	ppb		100
20) Chrysene	8.407	228	24714	401.74	ppb		100
22) Benzo[b]fluoranthene	9.466	252	16181	410.31	ppb		100
23) Benzo(j,k)fluoranthene	9.490	252	25728	355.54	ppb		100
24) Benzo[a]pyrene	9.786	252	21581	407.02	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.877	276	23255	361.09	ppb		100
26) Dibenz[a,h]anthracene	10.900	278	19447	358.51	ppb		100
27) Benzo[g,h,i]perylene	11.130	276	20257	377.50	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/9/14  
 em

Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208016.D  
 Acq On : 8 Dec 2014 5:54 pm  
 Operator :  
 Sample : 12-051-01 MSD  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 08 18:09:24 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141208\  
 Data File : C1208003.D  
 Acq On : 8 Dec 2014 1:00 pm  
 Operator :  
 Sample : PAH CCV1208  
 Misc : SV4-46-27  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 08 13:15:20 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound		Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	84	0.00
2 S	Nitrobenzene-d5	500.000	287.781	42.4#	68	-0.02
3 T	Naphthalene	500.000	479.125	4.2	77	0.00
4 T	2-Methylnaphthalene	500.000	490.540	1.9	78	0.00
5 T	1-Methylnaphthalene	500.000	475.868	4.8	75	0.00
6 I	Acenaphthene-d10	2000.000	2000.000	0.0	81	0.00
7 S	2-Fluorobiphenyl	500.000	443.258	11.3	73	0.00
8 T	Acenaphthylene	500.000	457.492	8.5	81	0.00
9 T,M	Acenaphthene	500.000	464.251	7.1	79	0.00
10 I	Phenanthrene-d10	2000.000	2000.000	0.0	83	0.00
11 S	Pyrene-d10	500.000	508.413	-1.7	88	0.00
12 T	Fluorene	500.000	480.228	4.0	82	0.00
13 T	Phenanthrene	500.000	430.876	13.8	81	0.00
14 T	Anthracene	500.000	511.379	-2.3	85	0.00
15 T	Fluoranthene	500.000	491.978	1.6	86	0.00
16 T,M	Pyrene	500.000	479.166	4.2	85	0.00
17 I	Chrysene-d12	2000.000	2000.000	0.0	87	0.00
18 S	Terphenyl-d14	500.000	479.894	4.0	90	0.00
19 T	Benzo[a]anthracene	500.000	504.028	-0.8	88	0.00
20 T	Chrysene	500.000	458.660	8.3	85	0.00
21 I	Perylene-d12	2000.000	2000.000	0.0	87	0.00
22 T	Benzo[b]fluoranthene	500.000	519.137	-3.8	96	0.00
23 T	Benzo(j,k)fluoranthene	500.000	463.478	7.3	92	0.00
24 T	Benzo[a]pyrene	500.000	501.852	-0.4	89	0.00
25 T	Indeno(1,2,3-c,d)pyrene	500.000	434.481	13.1	80	0.00
26 T	Dibenz[a,h]anthracene	500.000	422.042	15.6	79	0.00
27 T	Benzo[g,h,i]perylene	500.000	448.275	10.3	81	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208003.D  
 Acq On : 8 Dec 2014 1:00 pm  
 Operator :  
 Sample : PAH CCV1208  
 Misc : SV4-46-27  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 08 13:15:20 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration

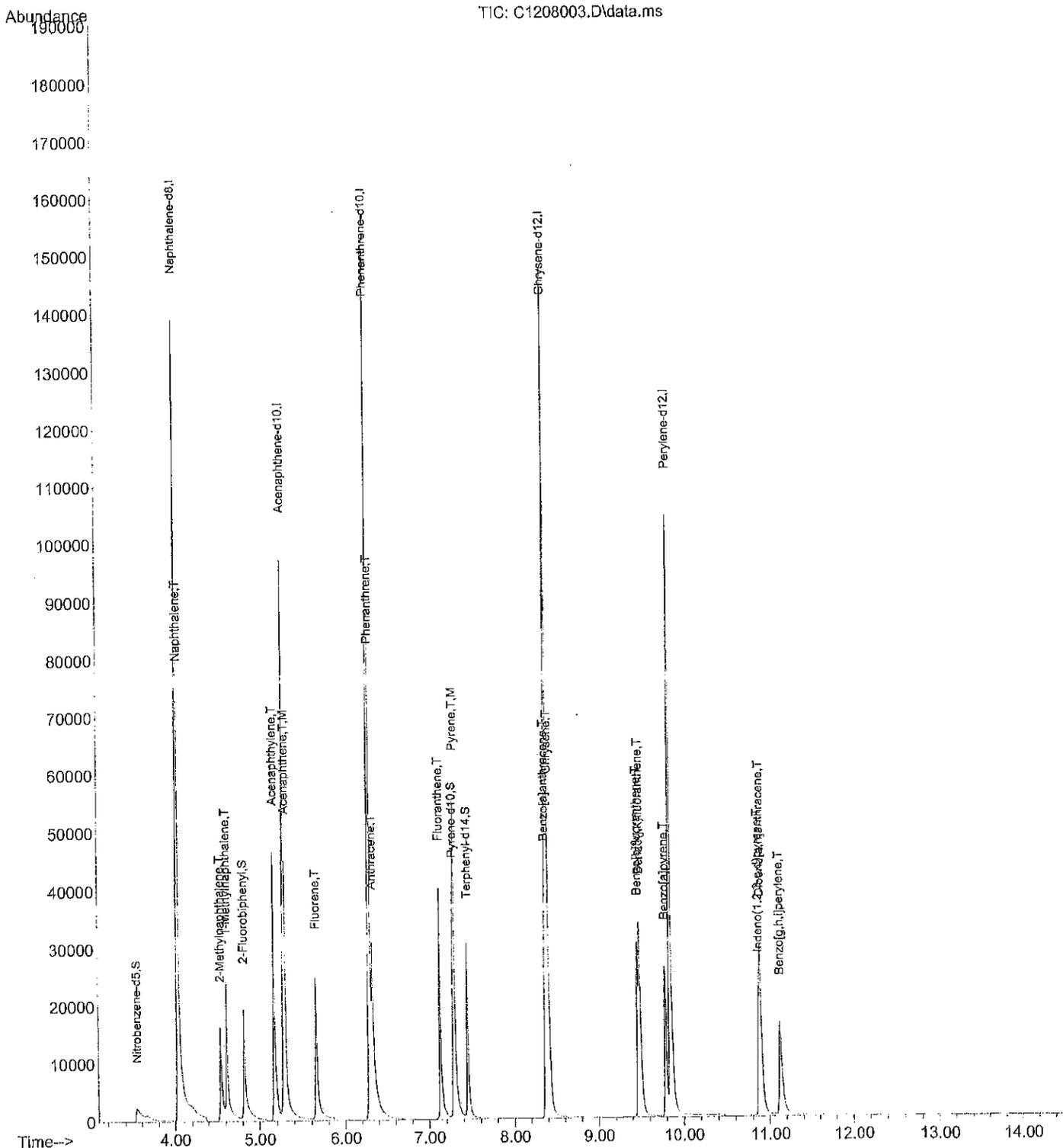
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8	4.031	136	172650	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.280	164	98895	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.283	188	186737	2000.00	ppb	0.00	
17) Chrysene-d12	8.384	240	185442	2000.00	ppb	0.00	
21) Perylene-d12	9.846	264	172710	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.543	82	6975	287.78	ppb	-0.02	
Spiked Amount 1000.000	Range 24	- 92	Recovery	=	28.78%		
7) 2-Fluorobiphenyl	4.821	172	34696	443.26	ppb	0.00	
Spiked Amount 1000.000	Range 25	- 89	Recovery	=	44.33%		
11) Pyrene-d10	7.282	212	41037	508.41	ppb	0.00	
Spiked Amount 1000.000	Range 40	- 110	Recovery	=	50.84%		
18) Terphenyl-d14	7.450	244	38612	479.89	ppb	0.00	
Spiked Amount 1000.000	Range 39	- 92	Recovery	=	47.99%		
Target Compounds							Qvalue
3) Naphthalene	4.042	128	52135	479.13	ppb	100	
4) 2-Methylnaphthalene	4.544	142	24247	490.54	ppb	100	
5) 1-Methylnaphthalene	4.614	142	39971	475.87	ppb	100	
8) Acenaphthylene	5.172	152	49297	457.49	ppb	100	
9) Acenaphthene	5.303	153	32564	464.25	ppb	100	
12) Fluorene	5.657	166	37198	480.23	ppb	100	
13) Phenanthrene	6.299	178	41247	430.88	ppb	100	
14) Anthracene	6.330	178	44882	511.38	ppb	100	
15) Fluoranthene	7.125	202	54836	491.98	ppb	100	
16) Pyrene	7.294	202	55727	479.17	ppb	100	
19) Benzo[a]anthracene	8.369	228	42647	504.03	ppb	100	
20) Chrysene	8.408	228	48408	458.66	ppb	100	
22) Benzo[b]fluoranthene	9.467	252	35212	519.14	ppb	100	
23) Benzo[j,k]fluoranthene	9.487	252	57685	463.48	ppb	100	
24) Benzo[a]pyrene	9.787	252	45766	501.85	ppb	100	
25) Indeno[1,2,3-c,d]pyrene	10.877	276	48127	434.48	ppb	100	
26) Dibenz[a,h]anthracene	10.896	278	39375	422.04	ppb	100	
27) Benzo[g,h,i]perylene	11.127	276	41373	448.27	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*12/8/14*  


Data Path : C:\MSDCHEM\1\DATA\C141208\  
 Data File : C1208003.D  
 Acq On : 8 Dec 2014 1:00 pm  
 Operator :  
 Sample : PAH CCV1208  
 Misc : SV4-46-27  
 ALS Vial : 3 Sample Multiplier: 1

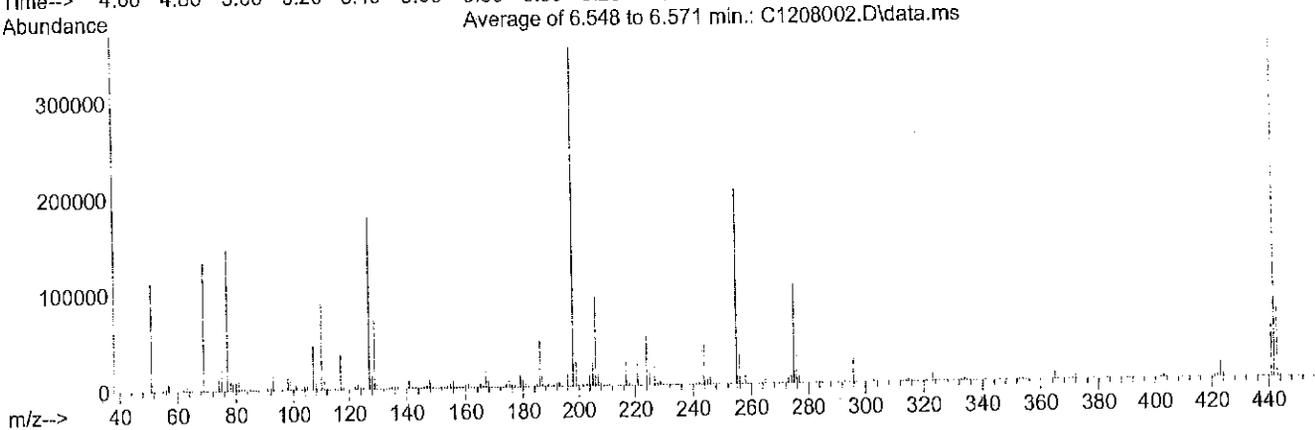
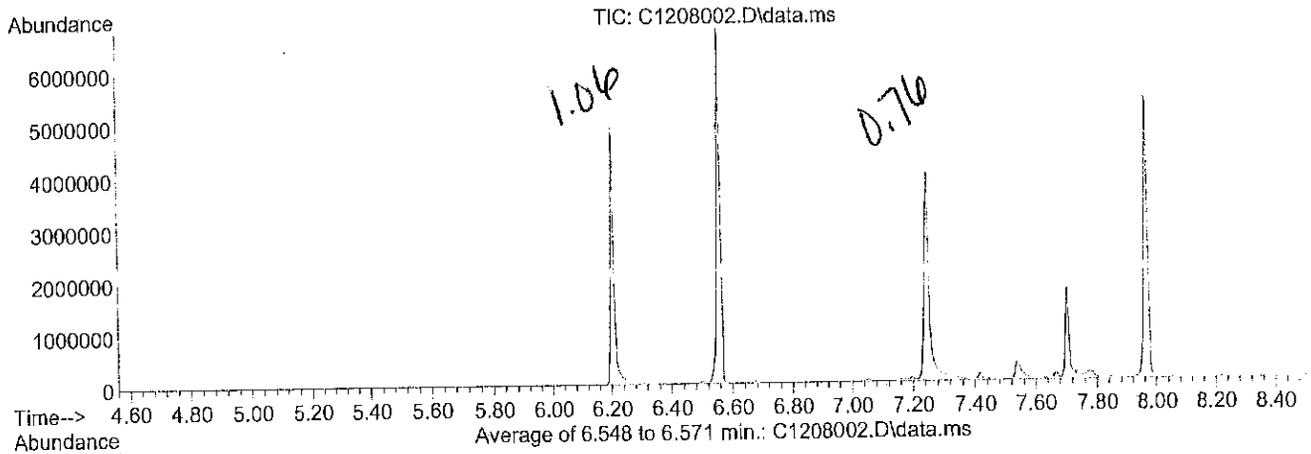
Quant Time: Dec 08 13:15:20 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1203.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed Dec 03 14:22:32 2014  
 Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C141208\  
 Data File : C1208002.D  
 Acq On : 8 Dec 2014 12:38 pm  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-46-13  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1203.M  
 Title : PAH'S BY SIMS  
 Last Update : Wed Dec 03 14:22:32 2014



Spectrum Information: Average of 6.548 to 6.571 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	32.0	112732	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	38.0	133781	PASS
70	69	0.00	2	0.6	771	PASS
127	198	25	75	51.0	179589	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	352109	PASS
199	198	5	9	7.2	25287	PASS
275	198	10	30	29.2	102841	PASS
365	198	0.75	100	3.6	12528	PASS
441	443	0.01	100	74.0	53864	PASS
442	198	40	110	99.6	350740	PASS
443	442	15	24	20.8	72807	PASS

## Total Cadmium Data

P141209F1. Mean Only Report 12/9/2014, 1:51:22 PM

Sample	Label	Calc Conc.	Units	Date/Time
Blank	Cd 228.802	0.000	ppb	12/9/2014, 9:01:22 AM
Standard 5	Cd 228.802	10.000	ppb	12/9/2014, 9:15:47 AM
Standard 4	Cd 228.802	100.00	ppb	12/9/2014, 10:55:57 AM
Standard 3	Cd 228.802	1000.0	ppb	12/9/2014, 9:24:55 AM
Standard 2	Cd 228.802	2500.0	ppb	12/9/2014, 9:29:30 AM
Standard 1	Cd 228.802	5000.0	ppb	12/9/2014, 9:34:02 AM
Initial Calib Verif	Cd 228.802	1018.3	ppb	12/9/2014, 11:01:00 AM
LLICV	Cd 228.802	11.773	ppb	12/9/2014, 11:12:20 AM
Initial Calib Blank	Cd 228.802	0.510uv	ppb	12/9/2014, 11:19:38 AM
Cont Calib Verif	Cd 228.802	1016.3	ppb	12/9/2014, 11:24:10 AM
Cont Calib Blank	Cd 228.802	0.046uv	ppb	12/9/2014, 11:30:53 AM
ICSA	Cd 228.802	-0.041uv	ppb	12/9/2014, 11:35:25 AM
ICSAB	Cd 228.802	929.98	ppb	12/9/2014, 11:39:59 AM
BLK	Cd 228.802	0.452uv	ppb	12/9/2014, 11:49:54 AM
MB1209SM1	Cd 228.802	0.364uv	ppb	12/9/2014, 11:54:32 AM
SB1209SM1	Cd 228.802	953.47	ppb	12/9/2014, 11:59:10 AM
12-059-01a	Cd 228.802	12.850	ppb	12/9/2014, 12:03:47 PM
12-059-01a D	Cd 228.802	10.361	ppb	12/9/2014, 12:08:24 PM
12-059-01a L	Cd 228.802	2.726	ppb	12/9/2014, 12:13:00 PM
12-059-01a MS	Cd 228.802	954.81	ppb	12/9/2014, 12:17:35 PM
12-059-01a MSD	Cd 228.802	950.29	ppb	12/9/2014, 12:22:12 PM
Cont Calib Verif	Cd 228.802	1020.8	ppb	12/9/2014, 12:26:48 PM
Cont Calib Blank	Cd 228.802	0.497	ppb	12/9/2014, 12:32:48 PM
LLCCV	Cd 228.802	9.399	ppb	12/9/2014, 12:37:23 PM
12-051-01a	Cd 228.802	4.724	ppb	12/9/2014, 12:43:14 PM
12-051-02a	Cd 228.802	1.234	ppb	12/9/2014, 12:47:47 PM
BLK	Cd 228.802	0.075uv	ppb	12/9/2014, 12:56:00 PM
MB1209TM1	Cd 228.802	-0.533uv	ppb	12/9/2014, 1:00:37 PM
SB1209TM1	Cd 228.802	995.75	ppb	12/9/2014, 1:05:14 PM
11-070-08a	Cd 228.802	2.069	ppb	12/9/2014, 1:09:52 PM
11-070-08a D	Cd 228.802	1.239uv	ppb	12/9/2014, 1:14:28 PM
11-070-08a L	Cd 228.802	0.267uv	ppb	12/9/2014, 1:19:05 PM
11-070-08a MS	Cd 228.802	998.26	ppb	12/9/2014, 1:23:41 PM
11-070-08a MSD	Cd 228.802	999.87	ppb	12/9/2014, 1:28:20 PM
Cont Calib Verif	Cd 228.802	1033.8	ppb	12/9/2014, 1:32:57 PM
Cont Calib Blank	Cd 228.802	-0.320uv	ppb	12/9/2014, 1:38:57 PM
LLCCV	Cd 228.802	10.932	ppb	12/9/2014, 1:43:33 PM



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 16, 2014

Abhijit Joshi  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-012-06  
Laboratory Reference No. 1412-130

Dear Abhijit:

Enclosed are the analytical results and associated quality control data for samples submitted on December 11, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Manager

Enclosures

Date of Report: December 16, 2014  
Samples Submitted: December 11, 2014  
Laboratory Reference: 1412-130  
Project: 5147-012-06

### Case Narrative

Samples were collected on December 11, 2014 and received by the laboratory on December 11, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx/Benzene EPA 8021B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: December 16, 2014  
Samples Submitted: December 11, 2014  
Laboratory Reference: 1412-130  
Project: 5147-012-06

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-12-12.0	12-130-01	Soil	12-11-14	12-11-14	
EX-17-6.0	12-130-02	Soil	12-11-14	12-11-14	
TRIP-121014	12-130-03	Water	12-11-14	12-11-14	

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**NWTPH-Gx/ BENZENE EPA 8021B**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>EX-12-12.0</b>					
Laboratory ID:	12-130-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-15-14	12-15-14	
Gasoline	<b>ND</b>	8.8	NWTPH-Gx	12-15-14	12-15-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	68-123				
<b>Client ID:</b>	<b>EX-17-6.0</b>					
Laboratory ID:	12-130-02					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-15-14	12-15-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-15-14	12-15-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	68-123				

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**NWTPH-Gx/ BENZENE EPA 8021B**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>TRIP-121014</b>					
Laboratory ID:	12-130-03					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-12-14	12-12-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-12-14	12-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>81</i>	<i>71-113</i>				

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-12-12.0</b>					
Laboratory ID:	12-130-01					
Diesel Range Organics	<b>ND</b>	64	NWTPH-Dx	12-12-14	12-12-14	U1,X1
Lube Oil	<b>230</b>	91	NWTPH-Dx	12-12-14	12-12-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>81</i>	<i>50-150</i>				
<b>Client ID:</b>	<b>EX-17-6.0</b>					
Laboratory ID:	12-130-02					
Diesel Range Organics	<b>ND</b>	35	NWTPH-Dx	12-12-14	12-12-14	X1
Lube Oil Range Organics	<b>ND</b>	69	NWTPH-Dx	12-12-14	12-12-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>80</i>	<i>50-150</i>				

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

PAHs EPA 8270D/SIM

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-12-12.0</b>					
Laboratory ID:	12-130-01					
Benzo[a]anthracene	<b>0.52</b>	0.012	EPA 8270D/SIM	12-12-14	12-12-14	
Chrysene	<b>0.52</b>	0.012	EPA 8270D/SIM	12-12-14	12-12-14	
Benzo[b]fluoranthene	<b>0.33</b>	0.012	EPA 8270D/SIM	12-12-14	12-12-14	
Benzo(j,k)fluoranthene	<b>0.29</b>	0.012	EPA 8270D/SIM	12-12-14	12-12-14	
Benzo[a]pyrene	<b>0.50</b>	0.012	EPA 8270D/SIM	12-12-14	12-12-14	
Indeno(1,2,3-c,d)pyrene	<b>0.26</b>	0.012	EPA 8270D/SIM	12-12-14	12-12-14	
Dibenz[a,h]anthracene	<b>0.081</b>	0.012	EPA 8270D/SIM	12-12-14	12-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>75</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>80</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>67</i>	<i>31 - 116</i>				

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>EX-17-6.0</b>					
Laboratory ID:	12-130-02					
Benzo[a]anthracene	<b>ND</b>	0.0092	EPA 8270D/SIM	12-12-14	12-12-14	
Chrysene	<b>ND</b>	0.0092	EPA 8270D/SIM	12-12-14	12-12-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0092	EPA 8270D/SIM	12-12-14	12-12-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0092	EPA 8270D/SIM	12-12-14	12-12-14	
Benzo[a]pyrene	<b>ND</b>	0.0092	EPA 8270D/SIM	12-12-14	12-12-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0092	EPA 8270D/SIM	12-12-14	12-12-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0092	EPA 8270D/SIM	12-12-14	12-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>73</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>83</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>66</i>	<i>31 - 116</i>				

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	12-130-01					
<b>Client ID:</b>	<b>EX-12-12.0</b>					
Cadmium	<b>ND</b>	0.91	6010B	12-12-14	12-12-14	
Lab ID:	12-130-02					
<b>Client ID:</b>	<b>EX-17-6.0</b>					
Cadmium	<b>ND</b>	0.69	6010B	12-12-14	12-12-14	

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**NWTPH-Gx/ BENZENE EPA 8021B  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1215S1					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-15-14	12-15-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-15-14	12-15-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-130-01							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				98	93	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB1215S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	<b>0.934</b>	<b>0.987</b>	1.00	1.00	<b>93</b>	<b>99</b>	75-117	6	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					92	97	68-123		

Date of Report: December 16, 2014  
Samples Submitted: December 11, 2014  
Laboratory Reference: 1412-130  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1215G-1	5.00	4.90	2	+/- 20%
CCVD1215G-2	5.00	4.75	5	+/- 20%

Date of Report: December 16, 2014  
Samples Submitted: December 11, 2014  
Laboratory Reference: 1412-130  
Project: 5147-012-06

**BENZENE EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1215B-1	50.0	52.8	-6	+/- 15%
Benzene	CCVD1215B-2	50.0	51.6	-3	+/- 15%

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**NWTPH-Gx/ BENZENE EPA 8021B  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1212W1					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-12-14	12-12-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-12-14	12-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	88	71-113				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-122-02							
	ORIG	DUP						
Benzene	<b>2.90</b>	<b>2.89</b>	NA	NA	NA	NA	0	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				83	89	71-113		

**SPIKE BLANKS**

Laboratory ID:	SB1212W1							
	SB	SBD	SB	SBD	SB	SBD		
Benzene	<b>50.0</b>	<b>49.5</b>	50.0	50.0	<b>100</b>	<b>99</b>	80-118	1 11
<i>Surrogate:</i>								
<i>Fluorobenzene</i>					86	90	71-113	

Date of Report: December 16, 2014  
Samples Submitted: December 11, 2014  
Laboratory Reference: 1412-130  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1212G-1	5.00	4.98	0	+/- 20%
CCVD1212G-2	5.00	4.39	12	+/- 20%

Date of Report: December 16, 2014  
Samples Submitted: December 11, 2014  
Laboratory Reference: 1412-130  
Project: 5147-012-06

**BENZENE EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1212B-2	50.0	51.2	-2	+/- 15%
Benzene	CCVD1212B-3	50.0	47.5	5	+/- 15%

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1212S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	12-12-14	12-12-14	X1
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	12-12-14	12-12-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-130-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	U1,X1
Lube Oil	<b>125</b>	<b>104</b>	NA	NA	NA	18	NA	X1
<i>Surrogate:</i>								
<i>o-Terphenyl</i>			81	73	50-150			

Date of Report: December 16, 2014  
Samples Submitted: December 11, 2014  
Laboratory Reference: 1412-130  
Project: 5147-012-06

**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCV1212F-V1	100	92.1	7.9	+/-15%
CCV1212F-V2	100	96.0	4.0	+/-15%
CCV1212R-V1	100	96.2	3.8	+/-15%
CCV1212R-V2	100	101	-1.0	+/-15%

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**PAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1212S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	12-12-14	12-12-14	
Chrysene	ND	0.0067	EPA 8270D/SIM	12-12-14	12-12-14	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	12-12-14	12-12-14	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	12-12-14	12-12-14	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	12-12-14	12-12-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	12-12-14	12-12-14	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	12-12-14	12-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>89</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>96</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>74</i>	<i>31 - 116</i>				

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**PAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1212S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	<b>0.0911</b>	<b>0.0951</b>	0.0833	0.0833	109	114	60 - 128	4	15	
Chrysene	<b>0.0766</b>	<b>0.0796</b>	0.0833	0.0833	92	96	60 - 117	4	13	
Benzo[b]fluoranthene	<b>0.0714</b>	<b>0.0767</b>	0.0833	0.0833	86	92	60 - 131	7	16	
Benzo(j,k)fluoranthene	<b>0.0730</b>	<b>0.0750</b>	0.0833	0.0833	88	90	57 - 126	3	20	
Benzo[a]pyrene	<b>0.0762</b>	<b>0.0798</b>	0.0833	0.0833	91	96	62 - 136	5	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0745</b>	<b>0.0786</b>	0.0833	0.0833	89	94	60 - 127	5	19	
Dibenz[a,h]anthracene	<b>0.0755</b>	<b>0.0791</b>	0.0833	0.0833	91	95	62 - 133	5	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					92	100	32 - 114			
Pyrene-d10					95	100	33 - 121			
Terphenyl-d14					73	77	31 - 116			

Date of Report: December 16, 2014  
Samples Submitted: December 11, 2014  
Laboratory Reference: 1412-130  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-12-14  
Date Analyzed: 12-12-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1212SM1

Analyte	Method	Result	PQL
Cadmium	6010B	<b>ND</b>	0.50

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 12-12-14  
 Date Analyzed: 12-12-14  
  
 Matrix: Soil  
 Units: mg/kg (ppm)  
  
 Lab ID: 12-049-03

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	<b>ND</b>	<b>ND</b>	NA	0.50	

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 MS/MSD QUALITY CONTROL**

Date Extracted: 12-12-14

Date Analyzed: 12-12-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-049-03

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50	<b>46.0</b>	92	<b>46.3</b>	93	1	

Date of Report: December 16, 2014  
 Samples Submitted: December 11, 2014  
 Laboratory Reference: 1412-130  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	ICV121214Y	1.00	1.06	-6.0	+/- 10%
Cadmium	LLICV1121214Y	0.0100	0.0118	-18	+/- 30%
Cadmium	CCV1121214Y	1.00	1.01	-1.0	+/- 10%
Cadmium	CCV2121214Y	1.00	1.01	-1.0	+/- 10%
Cadmium	LLCCV2121214Y	0.0100	0.00962	3.8	+/- 30%
Cadmium	CCV3121214Y	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV3121214Y	0.0100	0.0109	-9.0	+/- 30%

Date of Report: December 16, 2014  
Samples Submitted: December 11, 2014  
Laboratory Reference: 1412-130  
Project: 5147-012-06

### % MOISTURE

Date Analyzed: 12-12-14

Client ID	Lab ID	% Moisture
EX-12-12.0	12-130-01	45
EX-17-6.0	12-130-02	28



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



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# Chain of Custody

Turnaround Request  
 (In working days)  
 (Check One)

Laboratory Number: **12-130**

Page 1 of 1

Company: **GEODESKINERS**  
 Project Number: **5147-012-06**  
 Project Name: **FLOWER SHELL OIL TANK FARM**  
 Project Manager: **ABHJIT JOSHI**  
 Sampled by: **NATHAN SALMON**

Same Day  1 Day   
 2 Days  3 Days   
 Standard (7 Days)   
 (TPH analysis 5 Days)   
 (other) \_\_\_\_\_

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	EX-12-12.0	12.11.14	0805	SOL	2
2	EX-17-6.0	12.11.14	1030	SOL	2
3	TRIP-121014	N/A	N/A	LIQUID	1

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	BENZENE 8021B	CPAHS 8270 D/SIM	CADMIUM 6010C	% Moisture
2			X	X													X	X	X	X
2			X	X													X	X	X	X
1			X														X			X

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	GEI	12/10/14	1215	
<i>[Signature]</i>	ALP	12-11-14	1216	
<i>[Signature]</i>	ALP	12/11/14	1416	

Received \_\_\_\_\_  
 Relinquished \_\_\_\_\_  
 Received \_\_\_\_\_  
 Relinquished \_\_\_\_\_  
 Received \_\_\_\_\_  
 Relinquished \_\_\_\_\_  
 Reviewed/Date \_\_\_\_\_  
 Reviewed/Date \_\_\_\_\_  
 Data Package: Standard  Level III  Level IV   
 Electronic Data Deliverables (EDDs)  \_\_\_\_\_  
 Chromatograms with final report

# Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: S147-012-06

OnSite Project Number: 12-130

Initiated by: AMV

Date Initiated: 12/11/14

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A	1 2 3 4
1.2 Were the custody seals intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Temperature: <u>5</u>	
1.6 Have shipping bills (if any) been attached to the back of this form?	<input checked="" type="radio"/> Yes	<input checked="" type="radio"/> N/A		
1.7 How were the samples delivered?	<input type="radio"/> Client	<input checked="" type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup
			<input type="radio"/> Other	

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		1 2 3 4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		1 2 3 4
3.2 Were any sample labels missing or illegible?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
3.4 Have the samples been correctly preserved?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	1 2 3 4
3.5 Are volatile samples free from headspace and bubbles greater than 6mm?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		1 2 3 4
3.8 Was method 5035A used?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	<input type="radio"/> #	<input type="radio"/> 1	<input type="radio"/> N/A	1 2 3 4

### Explain any discrepancies:


1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

- NWTPH-Gx/Benzene (soil) Data
- NWTPH- Gx/Benzene (water) Data
- NWTPH-Dx Data
- cPAHs EPA 8270D/SIM Data
- Total Cadmium EPA 6010CData

## NWTPH-Gx/Benzene (soil) Data

Signal #1 : d:\btex\DATA\D141215\1215004.D\FID1A.CH vial: 4  
 Signal #2 : d:\btex\DATA\D141215\1215004.D\FID2B.CH  
 Acq On : 15 Dec 2014 12:34 Operator:  
 Sample : 12-130-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 15 13:02 2014 Quant Results File: 141012DB.RES

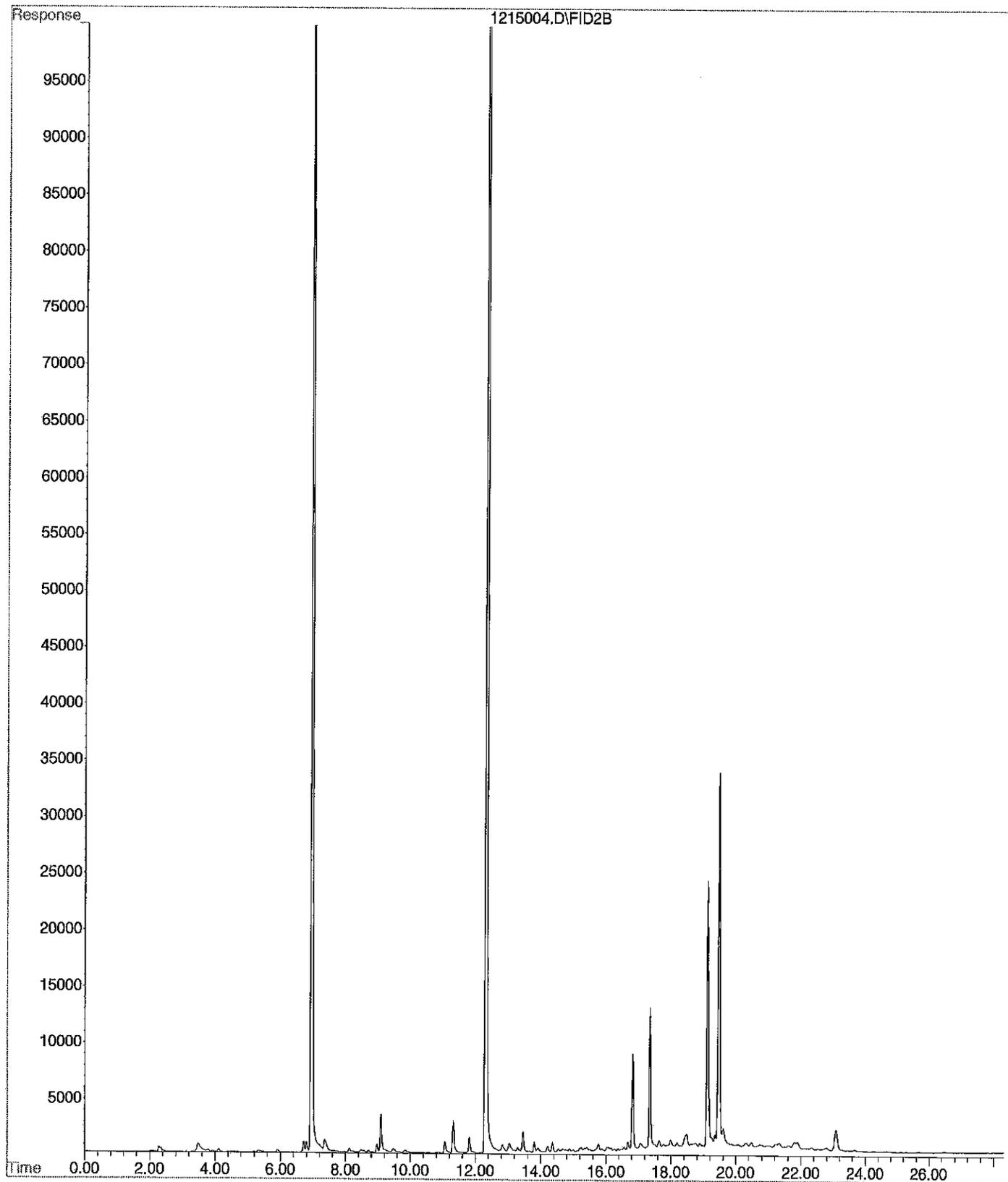
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
4) S FLUOROBENZENE	6.95	1760270	25.242	PPB
5) S BROMOFLUOROBENZENE	12.31	1053061	25.734	PPB
11) S FLUOROBENZENE #2	6.95	4700336	21.040	PPB
16) S BROMOFLUOROBENZENE #2	12.31	6537185	21.621	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	883216	0.011	PPM
2) H Entire GAS Envelope (9-24-	12.21	4109480	0.052	PPM
3) H GASOLINE (9-24-14)	13.51	1649987	0.020	PPM
7) H entire GAS envelope #2 (9-	12.26	7425769	0.003	PPM
8) H GASOLINE #2 (9-24-14)	13.56	2877536	N.D.	PPM
9) MTBE #2	4.68	2009	N.D.	PPB
10) BENZENE #2	6.71	33931	0.071	PPB
12) TOLUENE #2	9.10	145285	0.345	PPB
13) ETHYLBENZENE #2	11.07	42168	0.054	PPB
14) m,p-XYLENE #2	11.32	115312	N.D.	PPB
15) o-XYLENE #2	11.81	54919	N.D.	PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141215\1215004.D  
Operator :  
Acquired : 15 Dec 2014 12:34 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-130-01s  
Misc Info : V2-36-17  
Vial Number: 4



Signal #1 : d:\btex\DATA\D141215\1215005.D\FID1A.CH Vial: 5  
 Signal #2 : d:\btex\DATA\D141215\1215005.D\FID2B.CH  
 Acq On : 15 Dec 2014 13:08 Operator:  
 Sample : 12-130-02s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 15 13:36 2014 Quant Results File: 141012DB.RES

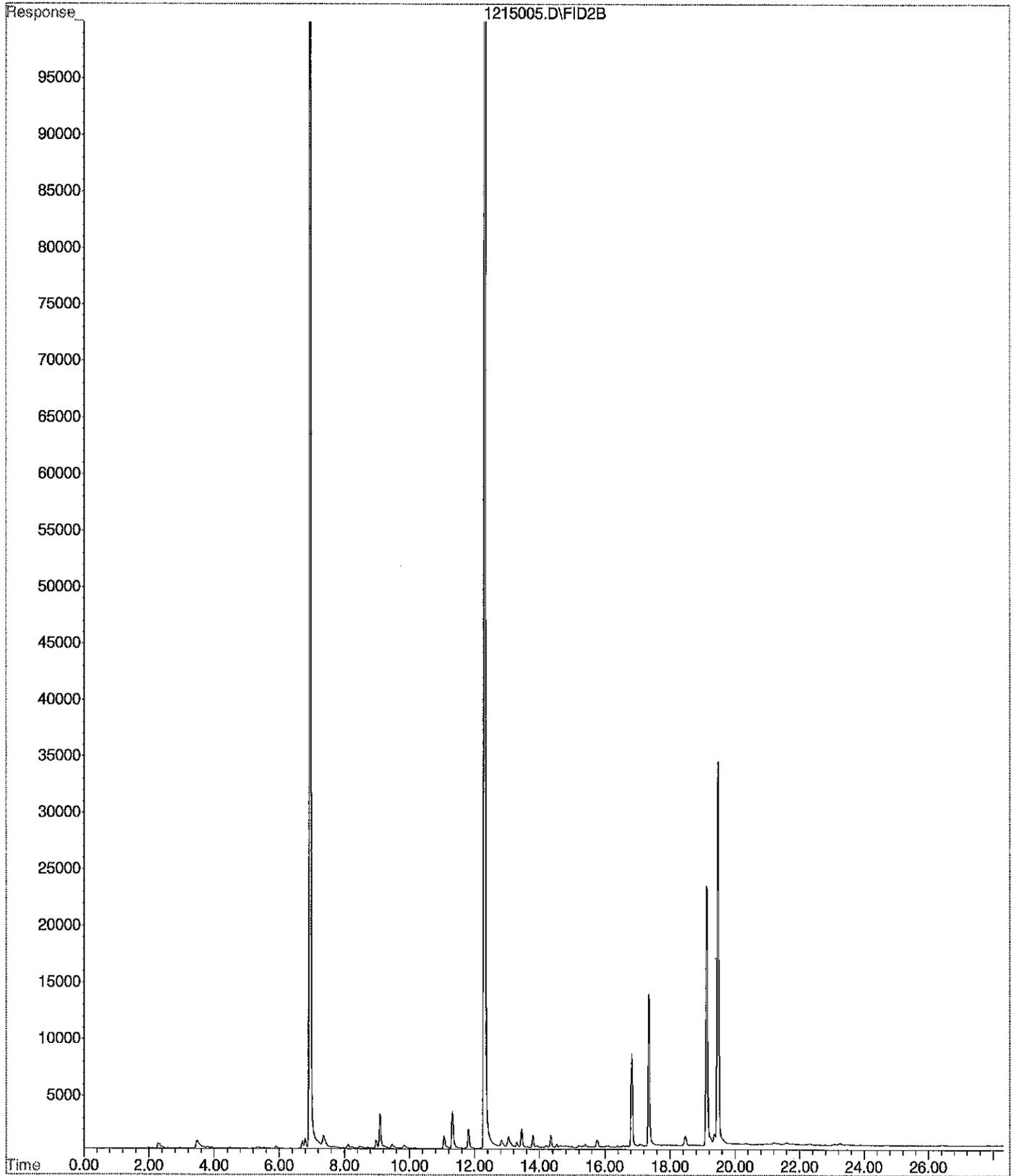
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.94	1822144	26.141	PPB
5) S BROMOFLUOROBENZENE	12.31	1126782	27.576	PPB
11) S FLUOROBENZENE #2	6.94	4846394	21.704	PPB
16) S BROMOFLUOROBENZENE #2	12.30	6997238	23.175	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	612502	0.006	PPM
2) H Entire GAS Envelope (9-24-	12.21	2997914	0.035	PPM
3) H GASOLINE (9-24-14)	13.51	1137945	0.007	PPM
7) H entire GAS envelope #2 (9-	12.26	5720588	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	2261352	N.D.	PPM
9) MTBE #2	4.67	4662	0.016	PPB
10) BENZENE #2	6.71	24109	0.038	PPB
12) TOLUENE #2	9.09	129894	0.290	PPB
13) ETHYLBENZENE #2	11.06	47084	0.074	PPB
14) m,p-XYLENE #2	11.32	131425	N.D.	PPB
15) o-XYLENE #2	11.81	65302	N.D.	PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141215\1215005.D  
Operator :  
Acquired : 15 Dec 2014 13:08 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name : 12-130-02s  
Misc Info : V2-36-17  
Vial Number: 5



Signal #1 : d:\btex\DATA\D141215\1215003.D\FID1A.CH Vial: 3  
 Signal #2 : d:\btex\DATA\D141215\1215003.D\FID2B.CH  
 Acq On : 15 Dec 2014 12:00 Operator:  
 Sample : MB1215S1 Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 15 12:28 2014 Quant Results File: 141012DB.RES

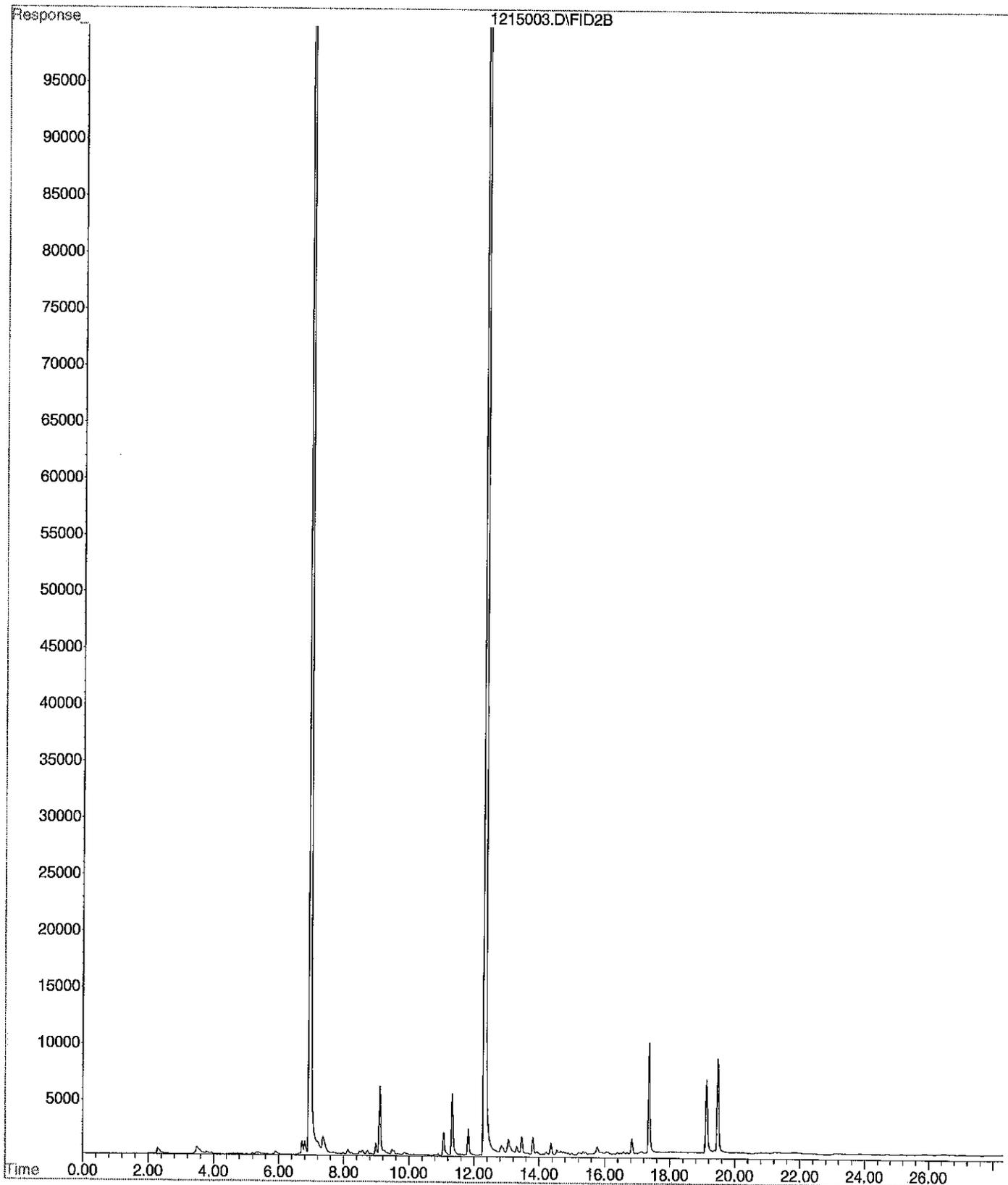
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.96	3385454	48.853 PPB
5) S BROMOFLUOROBENZENE	12.32	2005233	49.522 PPB
11) S FLUOROBENZENE #2	6.96	8877549	40.033 PPB
16) S BROMOFLUOROBENZENE #2	12.32	12558427	41.961 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	909952	0.012 PPM
2) H Entire GAS Envelope (9-24-	12.21	2792190	0.031 PPM
3) H GASOLINE (9-24-14)	13.51	1063532	0.005 PPM
7) H entire GAS envelope #2 (9-	12.26	5132508	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	2773179	N.D. PPM
9) MTBE #2	4.60	6111	0.036 PPB
10) BENZENE #2	6.73	46395	0.114 PPB
12) TOLUENE #2	9.11	213349	0.590 PPB
13) ETHYLBENZENE #2	11.08	76511	0.194 PPB
14) m,p-XYLENE #2	11.33	211971	0.183 PPB
15) o-XYLENE #2	11.82	88241	0.086 PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141215\1215003.D  
Operator :  
Acquired : 15 Dec 2014 12:00 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1215S1  
Misc Info : V2-36-17  
Vial Number: 3



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141215\1215004.D\FID1A.CH Vial: 4  
 Signal #2 : d:\btex\DATA\D141215\1215004.D\FID2B.CH  
 Acq On : 15 Dec 2014 12:34 Operator:  
 Sample : 12-130-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 15 13:02 2014 Quant Results File: 141012DB.RES

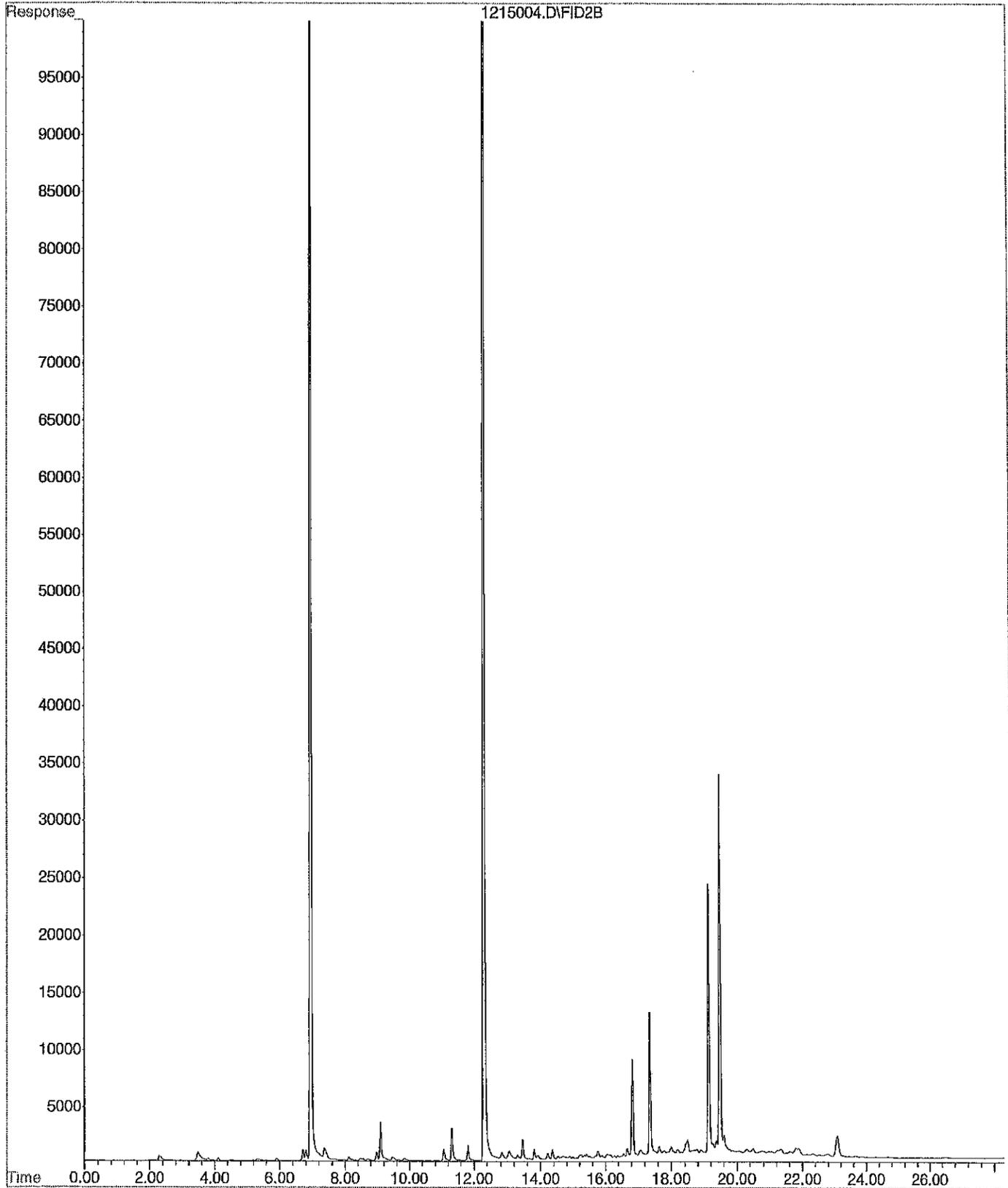
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.95	1760270	25.242	PPB
5) S BROMOFLUOROBENZENE	12.31	1053061	25.734	PPB
11) S FLUOROBENZENE #2	6.95	4700336	21.040	PPB
16) S BROMOFLUOROBENZENE #2	12.31	6537185	21.621	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	883216	0.011	PPM
2) H Entire GAS Envelope (9-24-	12.21	4109480	0.052	PPM
3) H GASOLINE (9-24-14)	13.51	1649987	0.020	PPM
7) H entire GAS envelope #2 (9-	12.26	7425769	0.003	PPM
8) H GASOLINE #2 (9-24-14)	13.56	2877536	N.D.	PPM
9) MTBE #2	4.68	2009	N.D.	PPB
10) BENZENE #2	6.71	33931	0.071	PPB
12) TOLUENE #2	9.10	145285	0.345	PPB
13) ETHYLBENZENE #2	11.07	42168	0.054	PPB
14) m,p-XYLENE #2	11.32	115312	N.D.	PPB
15) o-XYLENE #2	11.81	54919	N.D.	PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141215\1215004.D  
Operator :  
Acquired : 15 Dec 2014 12:34 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-130-01s  
Misc Info : V2-36-17  
Vial Number: 4



Signal #1 : d:\btex\DATA\D141215\1215006.D\FID1A.CH Vial: 6  
 Signal #2 : d:\btex\DATA\D141215\1215006.D\FID2B.CH  
 Acq On : 15 Dec 2014 13:42 Operator:  
 Sample : 12-130-01s DUP Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 15 14:10 2014 Quant Results File: 141012DB.RES

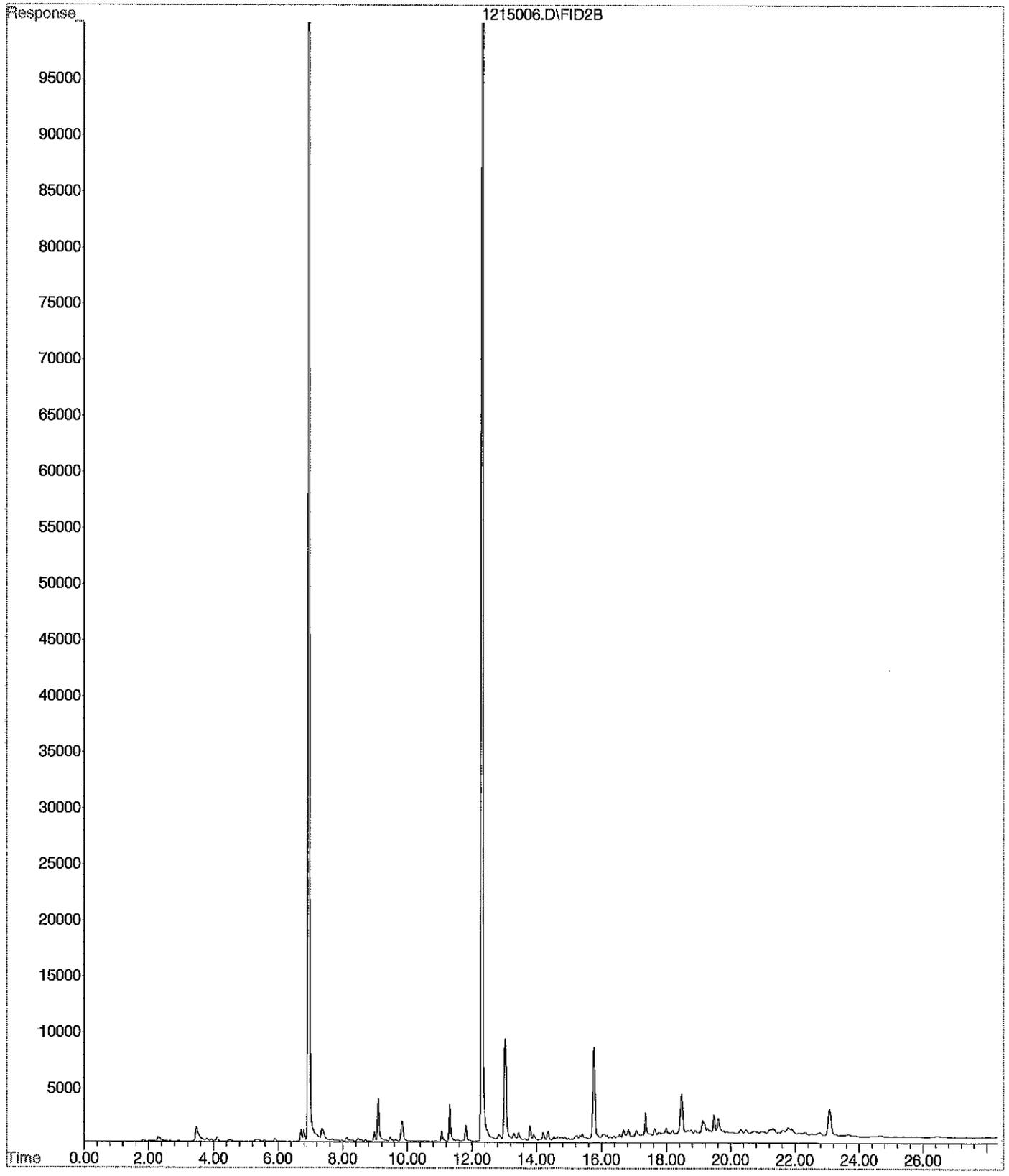
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	1669490	23.923 PPB
5) S BROMOFLUOROBENZENE	12.31	981421	23.945 PPB
11) S FLUOROBENZENE #2	6.95	4433536	19.827 PPB
16) S BROMOFLUOROBENZENE #2	12.31	6134544	20.261 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1046188	0.015 PPM
2) H Entire GAS Envelope (9-24-	12.21	3730786	0.046 PPM
3) H GASOLINE (9-24-14)	13.51	1419430	0.014 PPM
7) H entire GAS envelope #2 (9-	12.26	6130097	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	3242002	N.D. PPM
9) MTBE #2	4.73	1875	N.D. PPB
10) BENZENE #2	6.71	37031	0.082 PPB
12) TOLUENE #2	9.09	150104	0.363 PPB
13) ETHYLBENZENE #2	11.07	37423	0.034 PPB
14) m,p-XYLENE #2	11.32	127533	N.D. PPB
15) o-XYLENE #2	11.81	58132	N.D. PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141215\1215006.D  
Operator :  
Acquired : 15 Dec 2014 13:42 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-130-01s DUP  
Misc Info : V2-36-17  
Vial Number: 6



Signal #1 : d:\btex\DATA\D141215\1215008.D\FID1A.CH Vial: 8  
 Signal #2 : d:\btex\DATA\D141215\1215008.D\FID2B.CH  
 Acq On : 15 Dec 2014 14:55 Operator:  
 Sample : SB1215S1 Inst : Daryl  
 Misc : V2-36-17,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 15 15:24 2014 Quant Results File: 141012DB.RES

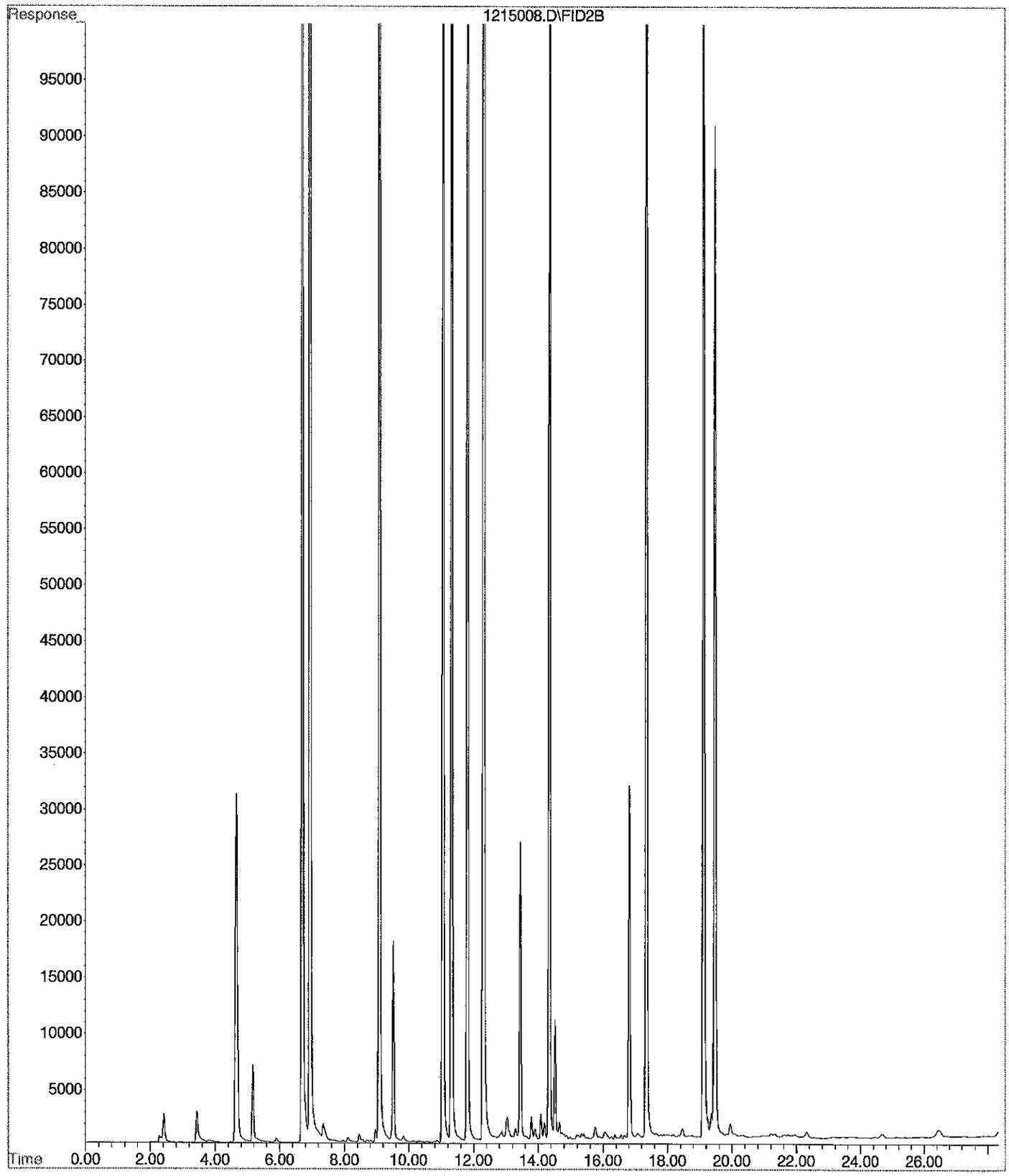
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	2989453	43.100 PPB
5) S BROMOFLUOROBENZENE	12.30	1787456	44.081 PPB
11) S FLUOROBENZENE #2	6.94	8163077	36.784 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11313238	37.755 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	11676748	0.230 PPM
2) H Entire GAS Envelope (9-24-	12.21	22271382	0.330 PPM
3) H GASOLINE (9-24-14)	13.51	14612345	0.348 PPM
7) H entire GAS envelope #2 (9-	12.26	51475759	0.310 PPM
8) H GASOLINE #2 (9-24-14)	13.56	34348205	0.254 PPM
9) MTBE #2	4.66	1510914	20.643 PPB
10) BENZENE #2	6.70	5492983	18.673 PPB
12) TOLUENE #2	9.08	5234188	18.657 PPB
13) ETHYLBENZENE #2	11.05	4585008	18.553 PPB
14) m,p-XYLENE #2	11.32	5591599	18.730 PPB
15) o-XYLENE #2	11.80	4665542	18.380 PPB

2/16 ✓

File : X:\BTEX\DARYL\DATA\1215008.D  
Operator :  
Acquired : 15 Dec 2014 14:55 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SB1215S1  
Misc Info : V2-36-17,V2-36-14  
Vial Number: 8



Signal #1 : d:\btex\DATA\D141215\1215009.D\FID1A.CH      Vial: 9  
 Signal #2 : d:\btex\DATA\D141215\1215009.D\FID2B.CH  
 Acq On : 15 Dec 2014 15:29      Operator:  
 Sample : SBD1215S1      Inst : Daryl  
 Misc : V2-36-17,V2-36-14      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 15 15:57 2014      Quant Results File: 141012DB.RES

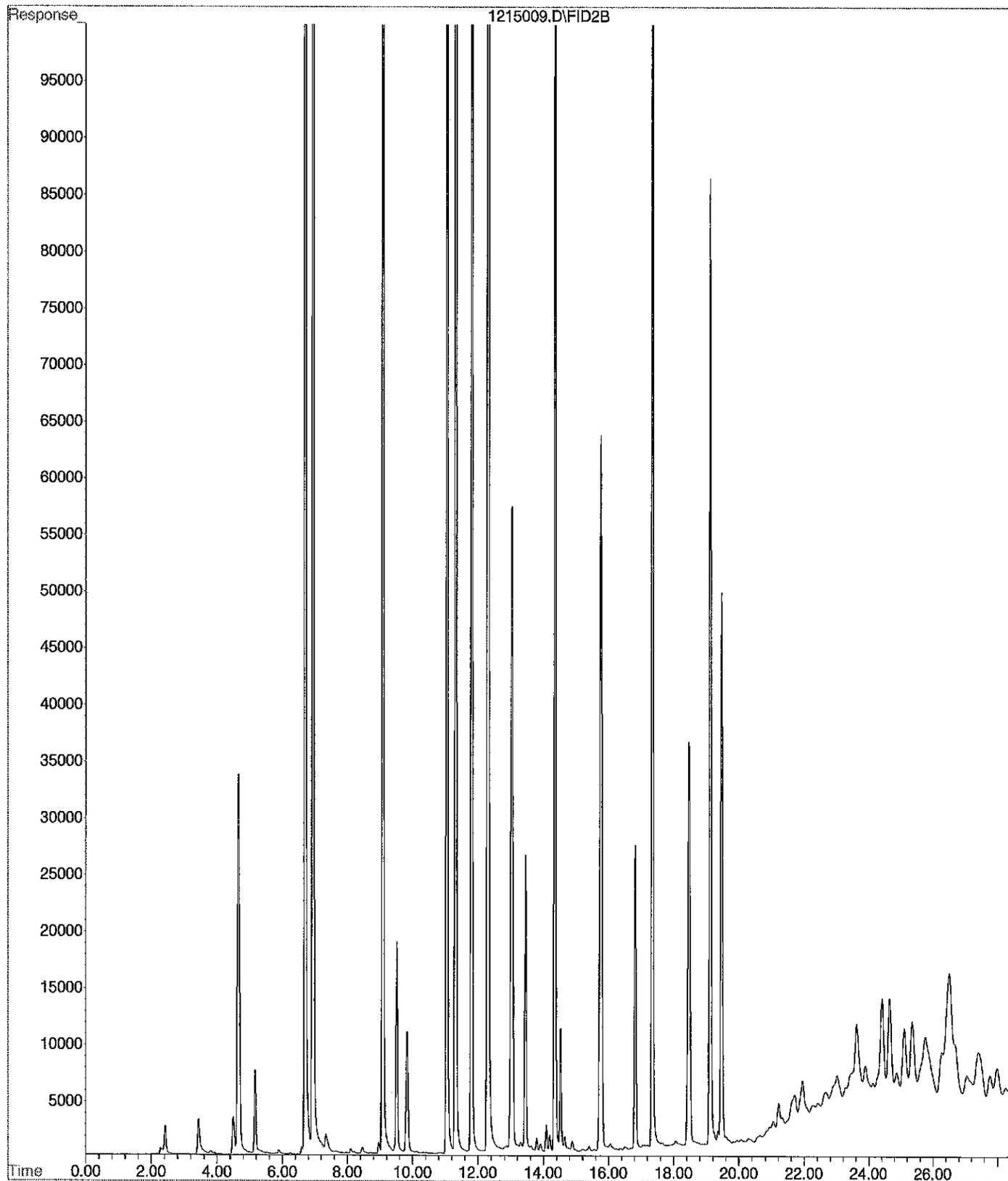
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3084995	44.488 PPB
5) S BROMOFLUOROBENZENE	12.30	1844168	45.498 PPB
11) S FLUOROBENZENE #2	6.94	8576314	38.663 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11836316	39.522 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	12545310	0.248 PPM
2) H Entire GAS Envelope (9-24-	12.21	23350583	0.346 PPM
3) H GASOLINE (9-24-14)	13.51	15272238	0.365 PPM
7) H entire GAS envelope #2 (9-	12.26	59039305	0.362 PPM
8) H GASOLINE #2 (9-24-14)	13.56	40970835	0.314 PPM
9) MTBE #2	4.66	1646232	22.497 PPB
10) BENZENE #2	6.70	5803586	19.732 PPB
12) TOLUENE #2	9.08	5488101	19.571 PPB
13) ETHYLBENZENE #2	11.05	4820386	19.511 PPB
14) m,p-XYLENE #2	11.31	5825016	19.534 PPB
15) o-XYLENE #2	11.80	4897152	19.306 PPB

12/16 ✓

File : X:\BTEX\DARYL\DATA\D141215\1215009.D  
Operator :  
Acquired : 15 Dec 2014 15:29 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SBD1215S1  
Misc Info : V2-36-17,V2-36-14  
Vial Number: 9



Signal #1 : d:\btex\DATA\D141215\1215002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141215\1215002.D\FID2B.CH  
 Acq On : 15 Dec 2014 11:17 Operator:  
 Sample : CCVD1215B-1 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 15 11:45 2014 Quant Results File: 141012DB.RES

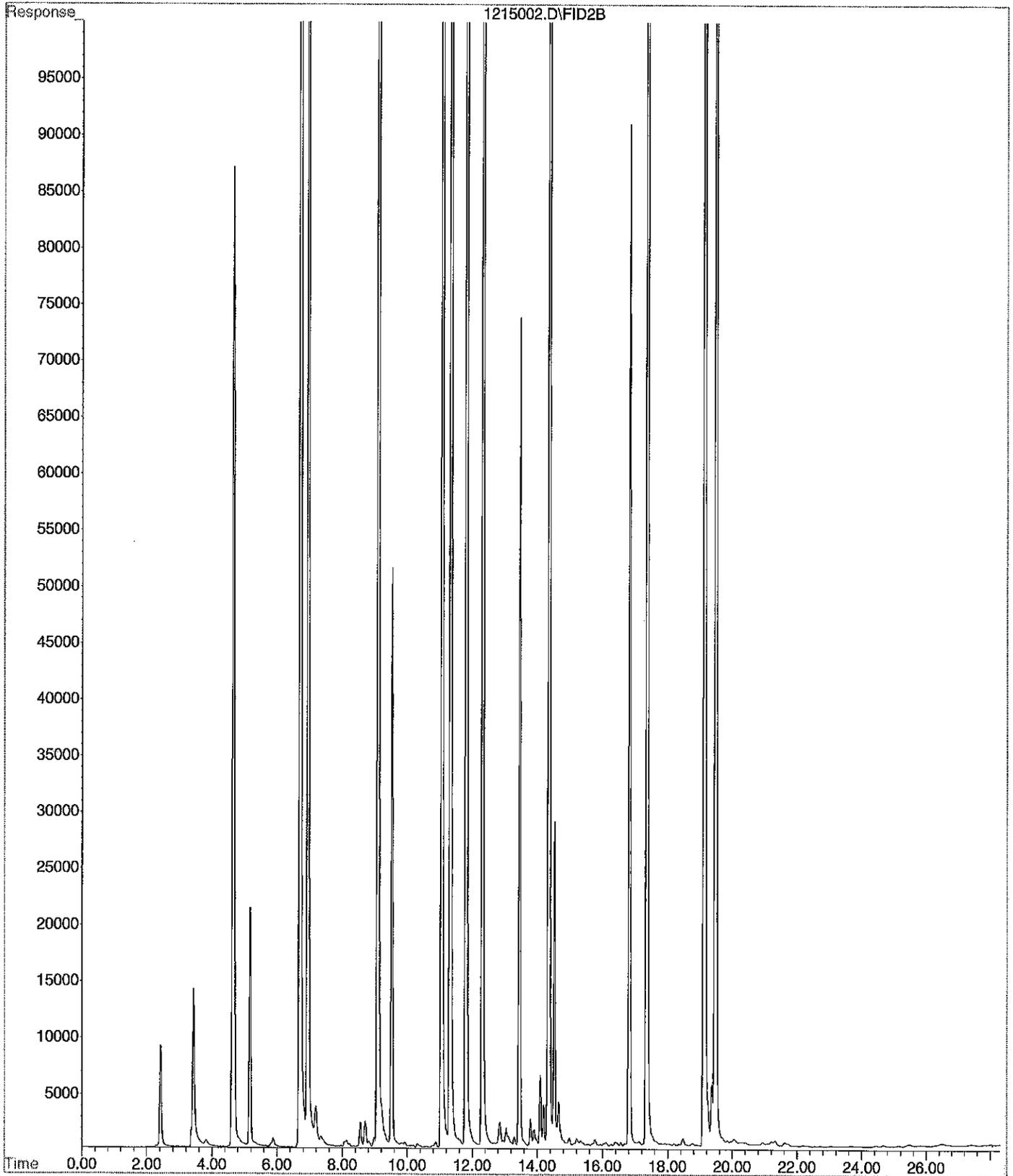
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.94	2949427	42.519	PPB
5) S BROMOFLUOROBENZENE	12.30	1753418	43.231	PPB
11) S FLUOROBENZENE #2	6.94	8019691	36.132	PPB
16) S BROMOFLUOROBENZENE #2	12.30	11151243	37.207	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	32117693	0.646	PPM
2) H Entire GAS Envelope (9-24-	12.21	57263940	0.866	PPM
3) H GASOLINE (9-24-14)	13.51	38814551	0.960	PPM
7) H entire GAS envelope #2 (9-	12.26	133692371	0.882	PPM
8) H GASOLINE #2 (9-24-14)	13.56	90640436	0.767	PPM
9) MTBE #2	4.65	4020379	55.010	PPB
10) BENZENE #2	6.70	15506280	52.794	PPB
12) TOLUENE #2	9.08	14757083	52.924	PPB
13) ETHYLBENZENE #2	11.05	12780743	51.927	PPB
14) m,p-XYLENE #2	11.32	15363890	52.420	PPB
15) o-XYLENE #2	11.80	12888837	51.246	PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141215\1215002.D  
Operator :  
Acquired : 15 Dec 2014 11:17 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1215B-1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141215\1215018.D\FID1A.CH Vial: 18  
 Signal #2 : d:\btex\DATA\D141215\1215018.D\FID2B.CH  
 Acq On : 15 Dec 2014 20:42 Operator:  
 Sample : CCVD1215B-2 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 15 21:11 2014 Quant Results File: 141012DB.RES

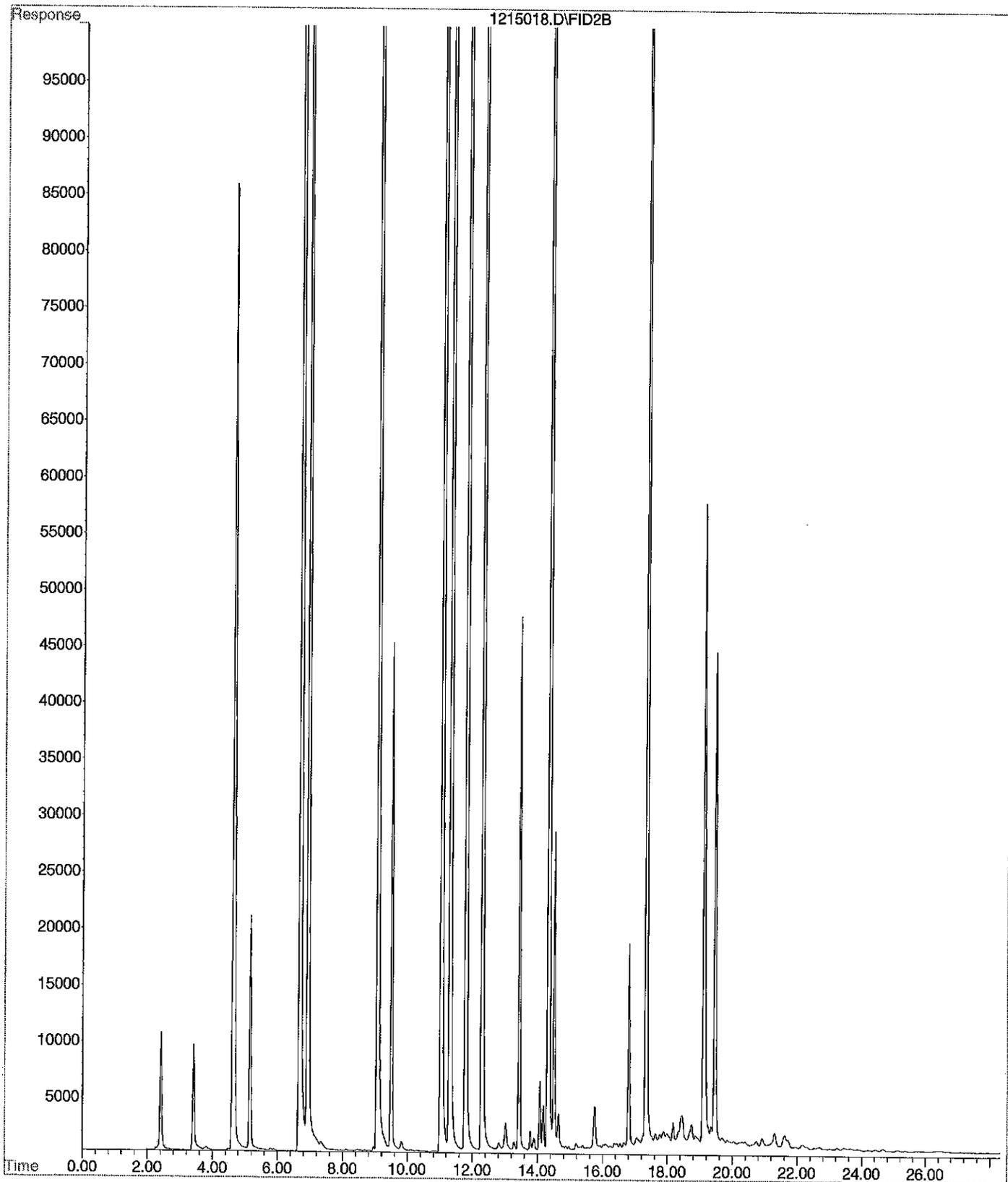
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.93	2936444	42.330 PPB
5) S BROMOFLUOROBENZENE	12.29	1745220	43.026 PPB
11) S FLUOROBENZENE #2	6.92	7798036	35.124 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11027442	36.789 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	31065312	0.624 PPM
2) H Entire GAS Envelope (9-24-	12.21	48643990	0.734 PPM
3) H GASOLINE (9-24-14)	13.51	32728832	0.806 PPM
7) H entire GAS envelope #2 (9-	12.26	109130528	0.711 PPM
8) H GASOLINE #2 (9-24-14)	13.56	81666903	0.685 PPM
9) MTBE #2	4.64	3989646	54.589 PPB
10) BENZENE #2	6.68	15160585	51.616 PPB
12) TOLUENE #2	9.07	14356614	51.483 PPB
13) ETHYLBENZENE #2	11.04	12701972	51.606 PPB
14) m,p-XYLENE #2	11.30	15363137	52.417 PPB
15) o-XYLENE #2	11.79	13044444	51.868 PPB

*12/16*

File : X:\BTEX\DARYL\DATA\D141215\1215018.D  
Operator :  
Acquired : 15 Dec 2014 20:42 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1215B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 18



Signal #1 : d:\btex\DATA\D141215\1215001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141215\1215001.D\FID2B.CH  
 Acq On : 15 Dec 2014 10:43 Operator:  
 Sample : CCVD1215G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 15 11:11 2014 Quant Results File: 141012DB.RES

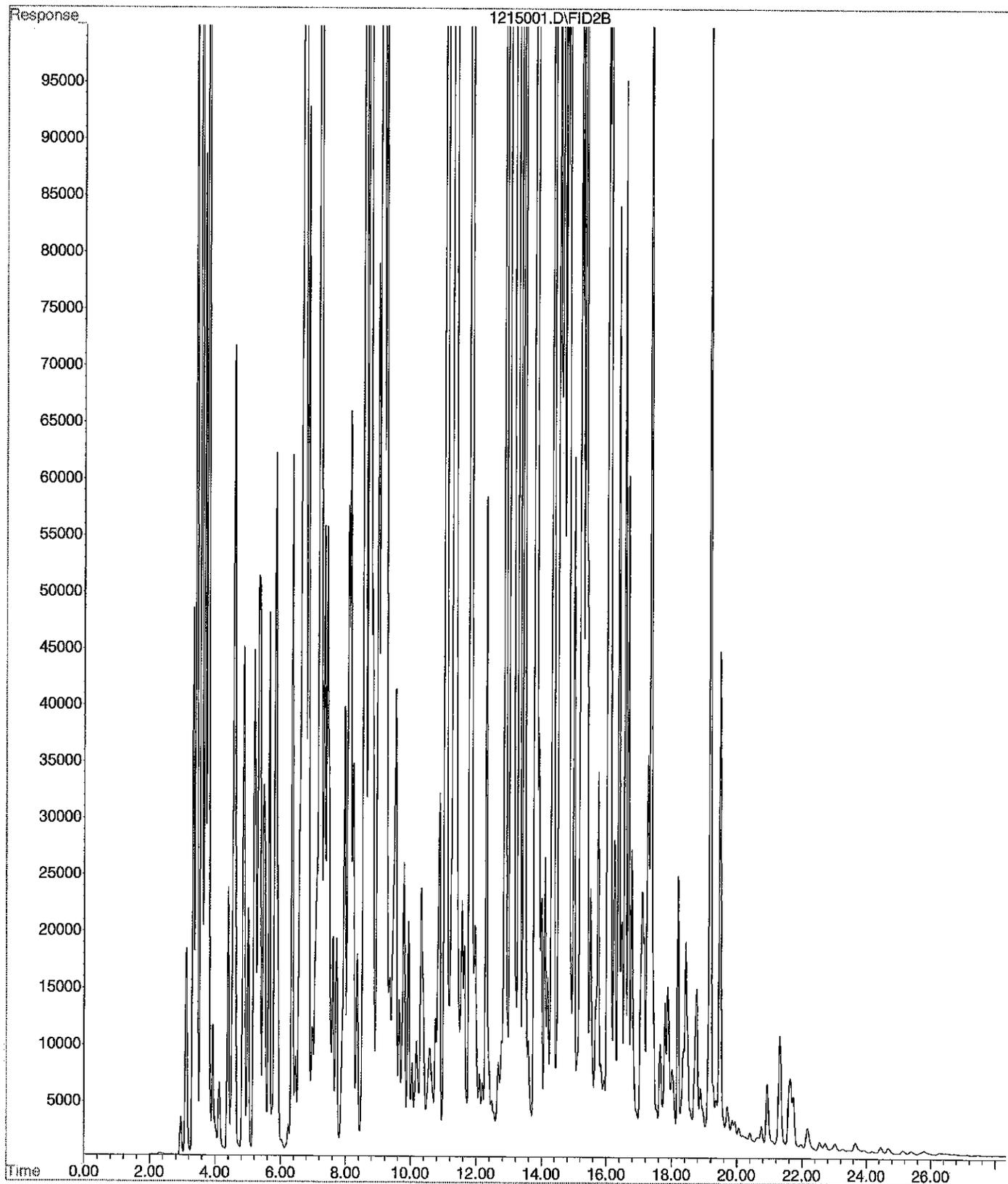
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.84	7712541	111.719	PPB
5) S BROMOFLUOROBENZENE	12.29	1305827	32.049	PPB
11) S FLUOROBENZENE #2	6.98	484436	1.872	PPB
16) S BROMOFLUOROBENZENE #2	12.29	2558927	8.182	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	290392882	5.892	PPM
2) H Entire GAS Envelope (9-24-	12.21	394722667	6.035	PPM
3) H GASOLINE (9-24-14)	13.51	227697978	5.739	PPM
7) H entire GAS envelope #2 (9-	12.26	719481236	4.963	PPM
8) H GASOLINE #2 (9-24-14)	13.56	543826578	4.898	PPM ✓
9) MTBE #2	4.58	3866761	52.906	PPB
10) BENZENE #2	6.71	47828692	162.935	PPB
12) TOLUENE #2	9.10	122313645	439.951	PPB
13) ETHYLBENZENE #2	11.06	30543620	124.260	PPB
14) m,p-XYLENE #2	11.32	110156346	379.219	PPB
15) o-XYLENE #2	11.81	42498965	169.589	PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141215\1215001.D  
Operator :  
Acquired : 15 Dec 2014 10:43 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1215G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141215\1215019.D\FID1A.CH Vial: 19  
 Signal #2 : d:\btex\DATA\D141215\1215019.D\FID2B.CH  
 Acq On : 15 Dec 2014 21:15 Operator:  
 Sample : CCVD1215G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

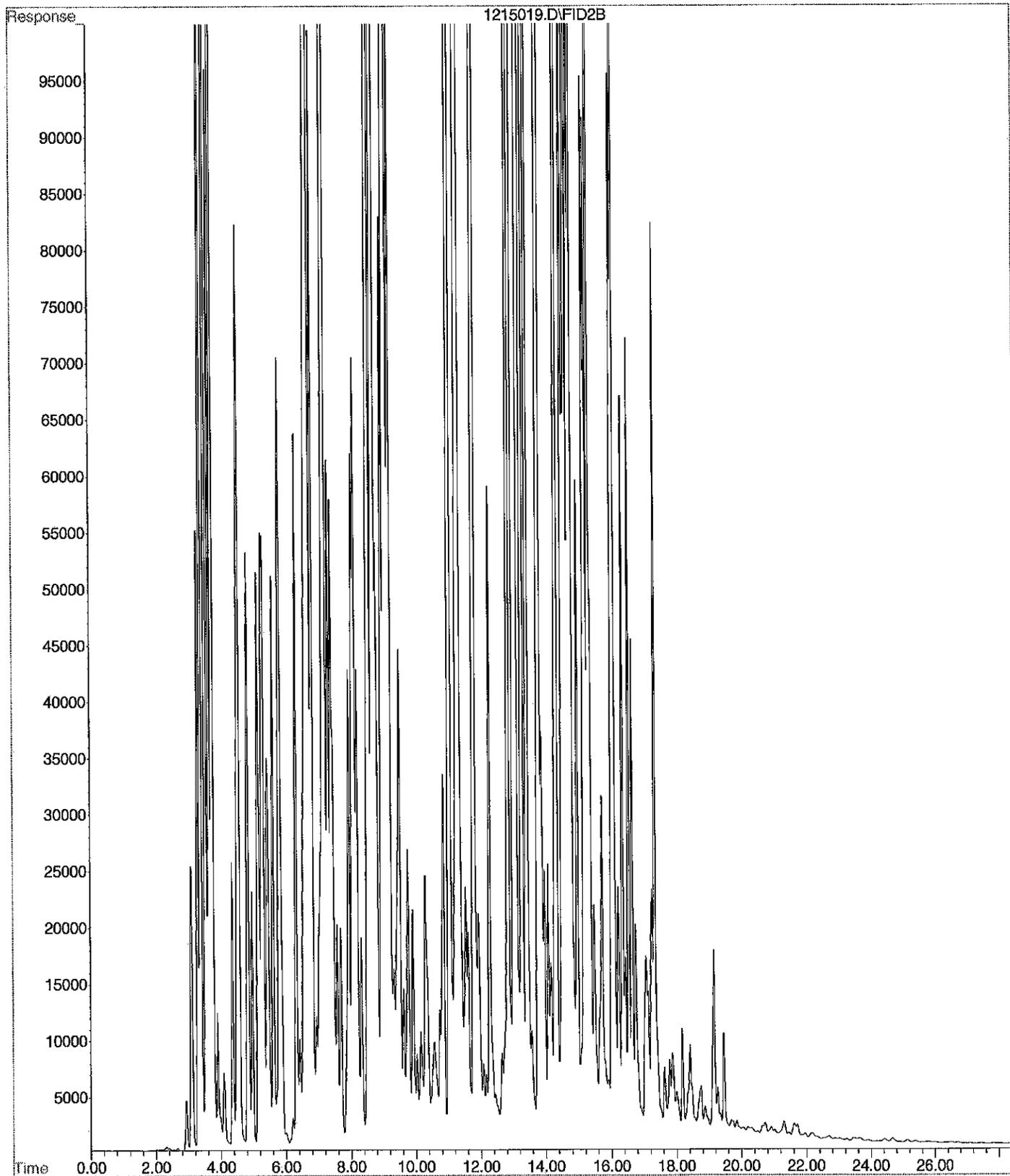
Quant Time: Dec 15 21:44 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.27	1297167	31.833	PPB
11) S FLUOROBENZENE #2	6.95	502109	1.952	PPB
16) S BROMOFLUOROBENZENE #2	12.27	2612226	8.362	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	299250781	6.072	PPM
2) H Entire GAS Envelope (9-24-	12.21	396944707	6.069	PPM
3) H GASOLINE (9-24-14)	13.51	215600526	5.433	PPM
7) H entire GAS envelope #2 (9-	12.26	707915086	4.882	PPM
8) H GASOLINE #2 (9-24-14)	13.56	527531249	4.749	PPM
9) MTBE #2	4.56	4462496	61.065	PPB ✓
10) BENZENE #2	6.68	47948266	163.342	PPB
12) TOLUENE #2	9.07	122273739	439.807	PPB
13) ETHYLBENZENE #2	11.04	29694957	120.804	PPB
14) m,p-XYLENE #2	11.29	109635632	377.424	PPB
15) o-XYLENE #2	11.79	41153974	164.214	PPB

File : X:\BTEX\DARYL\DATA\D141215\1215019.D  
Operator :  
Acquired : 15 Dec 2014 21:15 using AcqMethod 141012DB.M  
Instrument : Dary1  
Sample Name: CCVD1215G-2  
Misc Info : V2-36-08  
Vial Number: 19



## NWTPH-Gx/Benzene (water) Data

Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141212\1212028.D\FID1A.CH Vial: 28  
 Signal #2 : d:\btex\DATA\D141212\1212028.D\FID2B.CH  
 Acq On : 13 Dec 2014 4:08 Operator:  
 Sample : 12-130-03 Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 13 4:37 2014 Quant Results File: 141012DB.RES

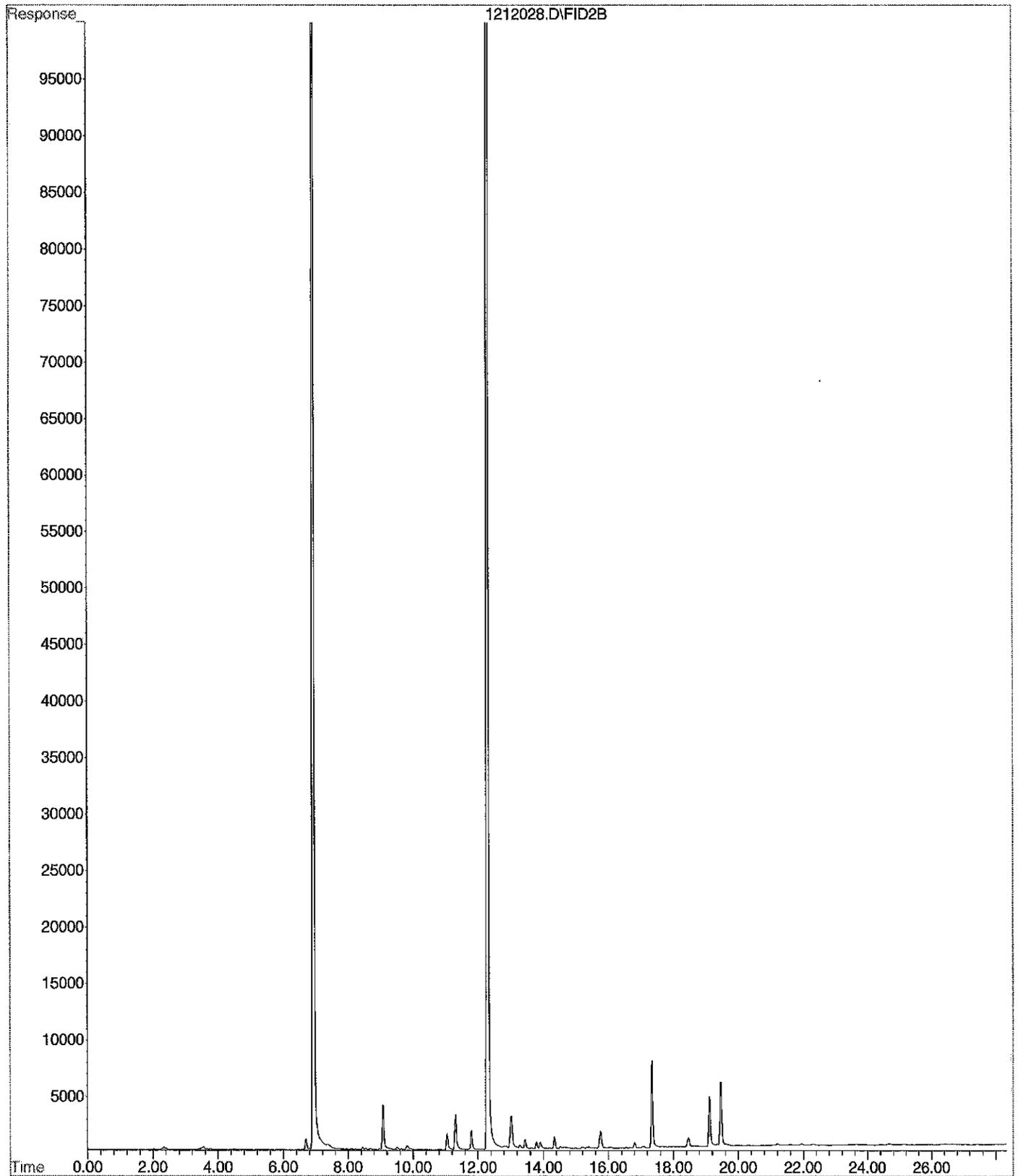
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2682918	38.647 PPB
5) S BROMOFLUOROBENZENE	12.29	1622333	39.956 PPB
11) S FLUOROBENZENE #2	6.93	7186673	32.345 PPB
16) S BROMOFLUOROBENZENE #2	12.29	10101346	33.661 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	534345	0.004 PPM
2) H Entire GAS Envelope (9-24-	12.21	1785424	0.016 PPM
3) H GASOLINE (9-24-14)	13.51	702686	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	3043261	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1673039	N.D. PPM
9) MTBE #2	4.67	4324	0.011 PPB
10) BENZENE #2	6.69	34920	0.075 PPB
12) TOLUENE #2	9.08	155529	0.382 PPB
13) ETHYLBENZENE #2	11.05	56125	0.111 PPB
14) m,p-XYLENE #2	11.31	127539	N.D. PPB
15) o-XYLENE #2	11.80	61211	N.D. PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141212\1212028.D  
Operator :  
Acquired : 13 Dec 2014 4:08 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-130-03  
Misc Info : V2-36-11  
Vial Number: 28



Signal #1 : d:\btex\DATA\D141212\1212025.D\FID1A.CH Vial: 25  
 Signal #2 : d:\btex\DATA\D141212\1212025.D\FID2B.CH  
 Acq On : 13 Dec 2014 2:29 Operator:  
 Sample : MB1212W1 Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 13 2:57 2014 Quant Results File: 141012DB.RES

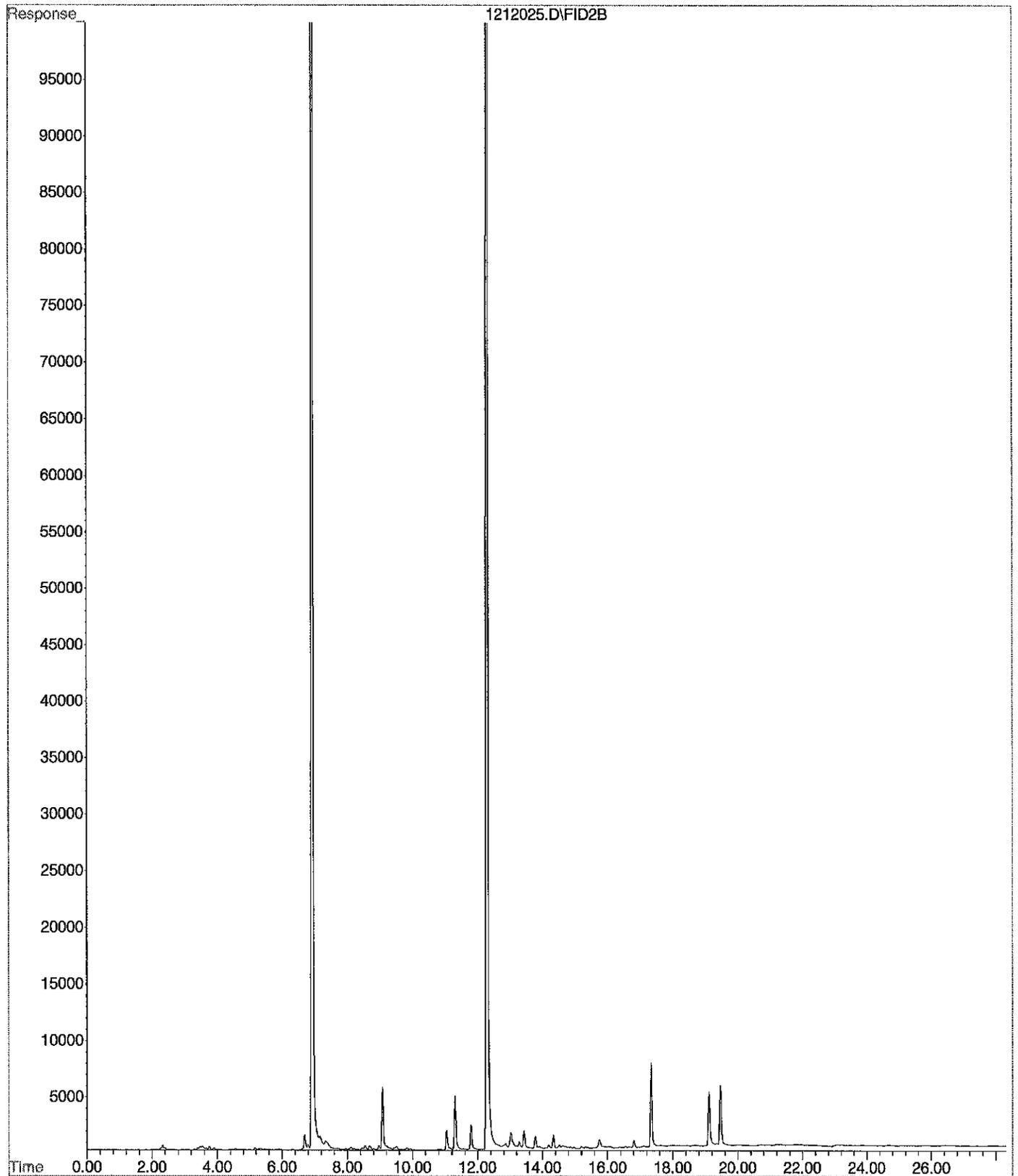
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3005963	43.340 PPB
5) S BROMOFLUOROBENZENE	12.29	1828279	45.101 PPB
11) S FLUOROBENZENE #2	6.93	7809025	35.174 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11262519	37.583 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	837562	0.010 PPM
2) H Entire GAS Envelope (9-24-	12.21	2477549	0.027 PPM
3) H GASOLINE (9-24-14)	13.51	951700	0.003 PPM
7) H entire GAS envelope #2 (9-	12.26	3855845	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	2088084	N.D. PPM
9) MTBE #2	4.70	5877	0.032 PPB
10) BENZENE #2	6.69	53513	0.138 PPB
12) TOLUENE #2	9.08	220942	0.618 PPB
13) ETHYLBENZENE #2	11.05	66737	0.154 PPB
14) m,p-XYLENE #2	11.30	186656	0.096 PPB
15) o-XYLENE #2	11.79	82175	0.062 PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141212\1212025.D  
Operator :  
Acquired : 13 Dec 2014 2:29 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1212w1  
Misc Info : V2-36-11  
Vial Number: 25



Signal #1 : d:\btex\DATA\D141212\1212034.D\FID1A.CH Vial: 34  
 Signal #2 : d:\btex\DATA\D141212\1212034.D\FID2B.CH  
 Acq On : 13 Dec 2014 7:27 Operator:  
 Sample : 12-122-02c Inst : Daryl  
 Misc : V2-36-11 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 13 7:55 2014 Quant Results File: 141012DB.RES

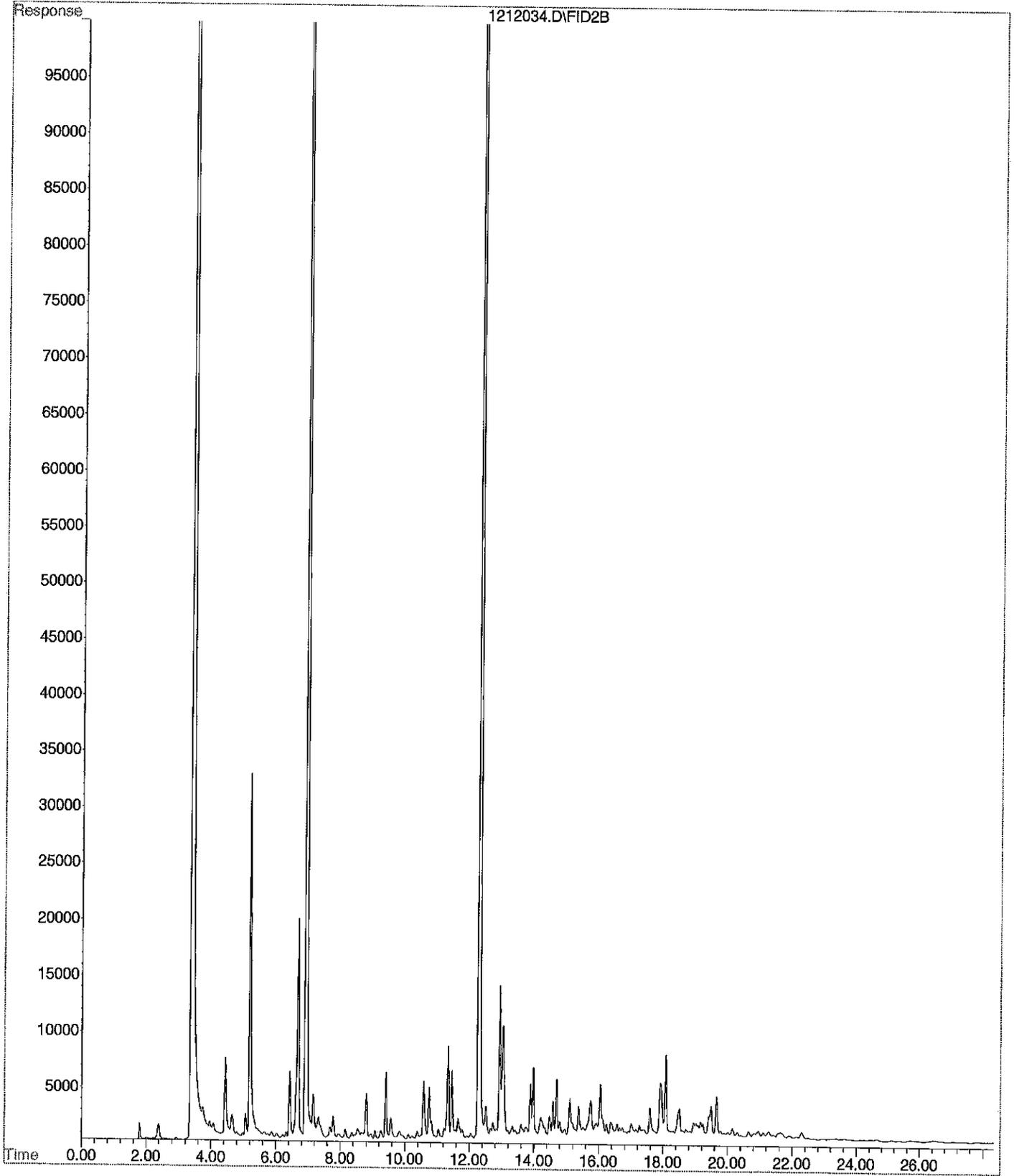
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.92	2715267	39.117 PPB
5) S BROMOFLUOROBENZENE	12.28	1663423	40.983 PPB
11) S FLUOROBENZENE #2	6.92	7336190	33.025 PPB
16) S BROMOFLUOROBENZENE #2	12.28	10459259	34.870 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	4243814	0.079 PPM
2) H Entire GAS Envelope (9-24-	12.21	12448482	0.179 PPM
3) H GASOLINE (9-24-14)	13.51	3842789	0.076 PPM
7) H entire GAS envelope #2 (9-	12.26	34413777	0.191 PPM
8) H GASOLINE #2 (9-24-14)	13.56	8630437	0.019 PPM
9) MTBE #2	4.65	140896	1.881 PPB
10) BENZENE #2	6.69	862829	2.896 PPB
12) TOLUENE #2	9.08	36154	N.D. PPB
13) ETHYLBENZENE #2	11.05	62964	0.138 PPB
14) m,p-XYLENE #2	11.34	332667	0.599 PPB
15) o-XYLENE #2	11.79	48552	N.D. PPB

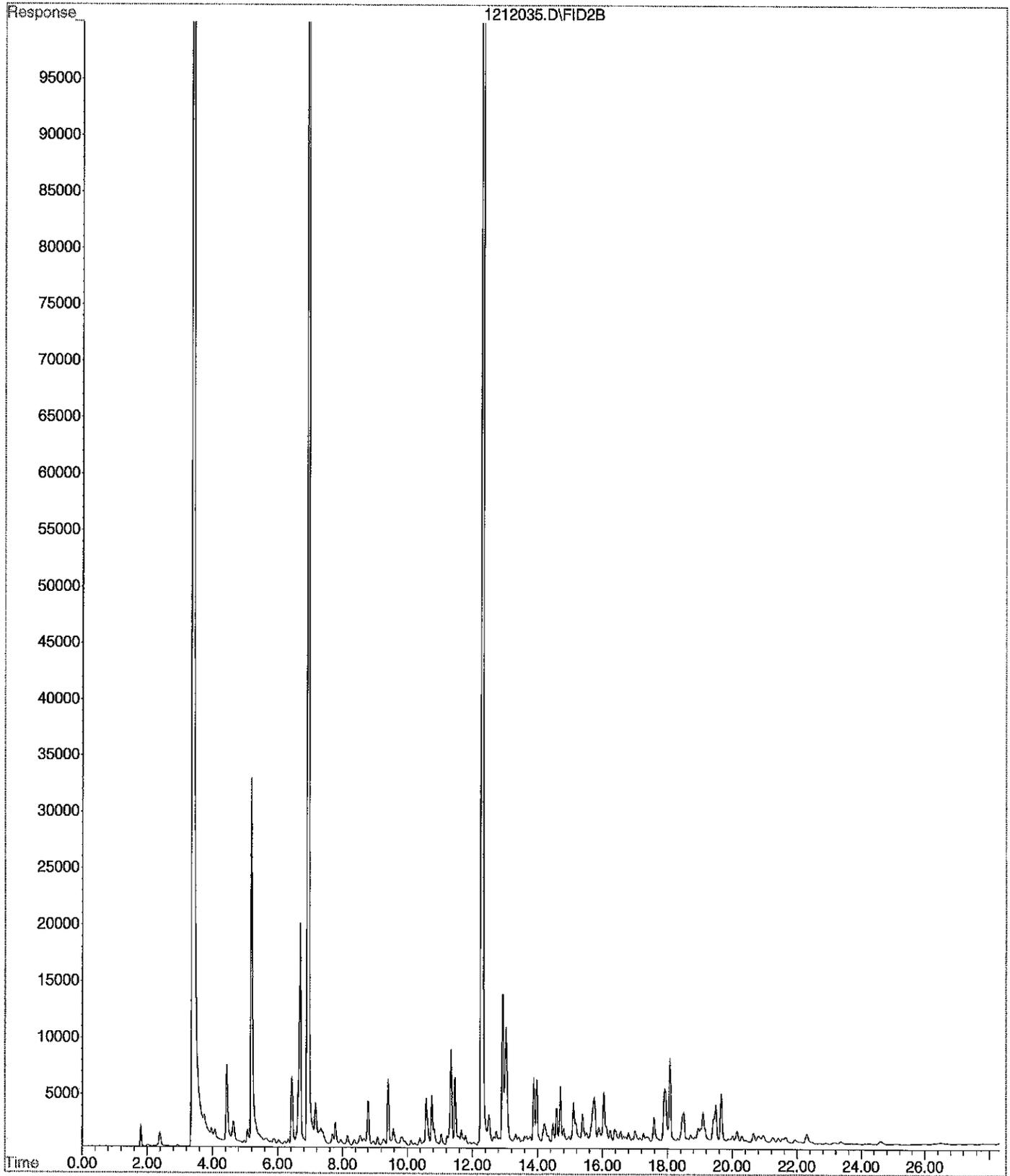
12/15 ✓

File : X:\BTEX\DARYL\DATA\D141212\1212034.D  
Operator :  
Acquired : 13 Dec 2014 7:27 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-122-02c  
Misc Info : V2-36-11  
Vial Number: 34



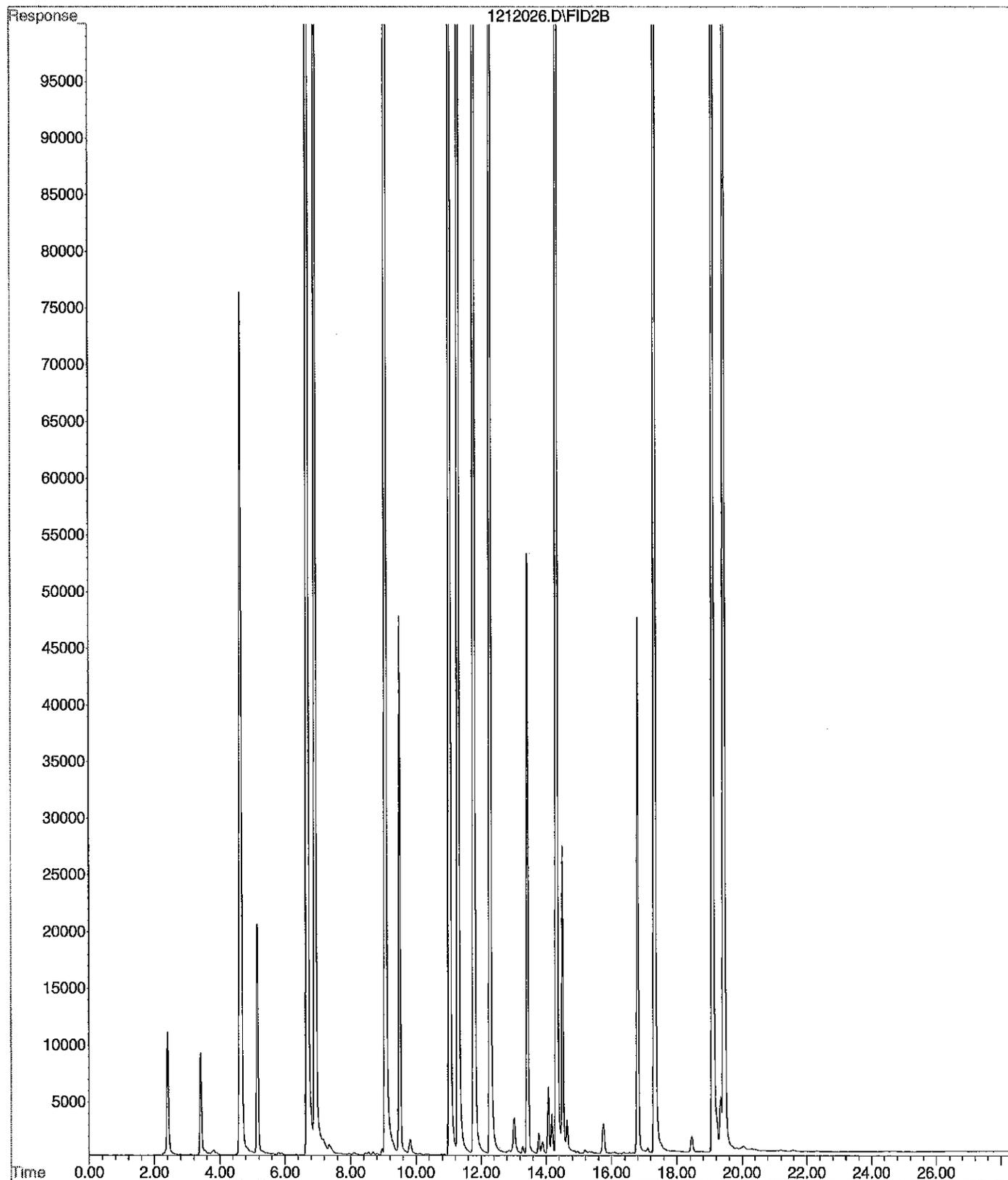


File : X:\BTEX\DARYL\DATA\D141212\1212035.D  
Operator :  
Acquired : 13 Dec 2014 8:00 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-122-02c DUP  
Misc Info : V2-36-11  
Vial Number: 35



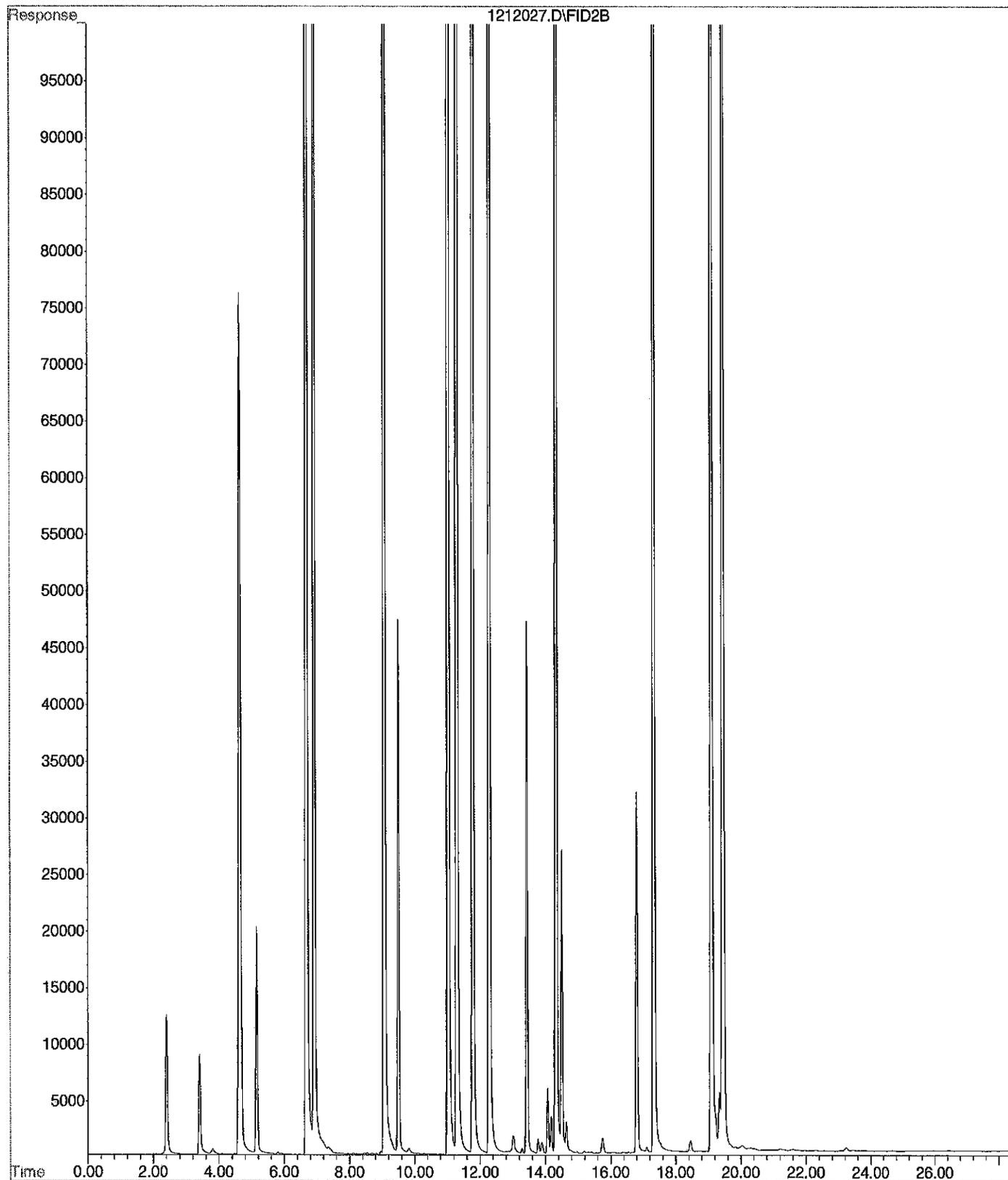


File : X:\BTEX\DARYL\DATA\D141212\1212026.D  
Operator :  
Acquired : 13 Dec 2014 3:02 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SB1212W1  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 26





File : X:\BTEX\DARYL\DATA\D141212\1212027.D  
Operator :  
Acquired : 13 Dec 2014 3:35 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SBD1212w1  
Misc Info : V2-36-11,v2-36-14  
Vial Number: 27



Signal #1 : d:\btex\DATA\D141212\1212024.D\FID1A.CH Vial: 24  
 Signal #2 : d:\btex\DATA\D141212\1212024.D\FID2B.CH  
 Acq On : 13 Dec 2014 1:56 Operator:  
 Sample : CCVD1212B-2 Inst : Daryl  
 Misc : V2-36-11,V2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 13 2:24 2014 Quant Results File: 141012DB.RES

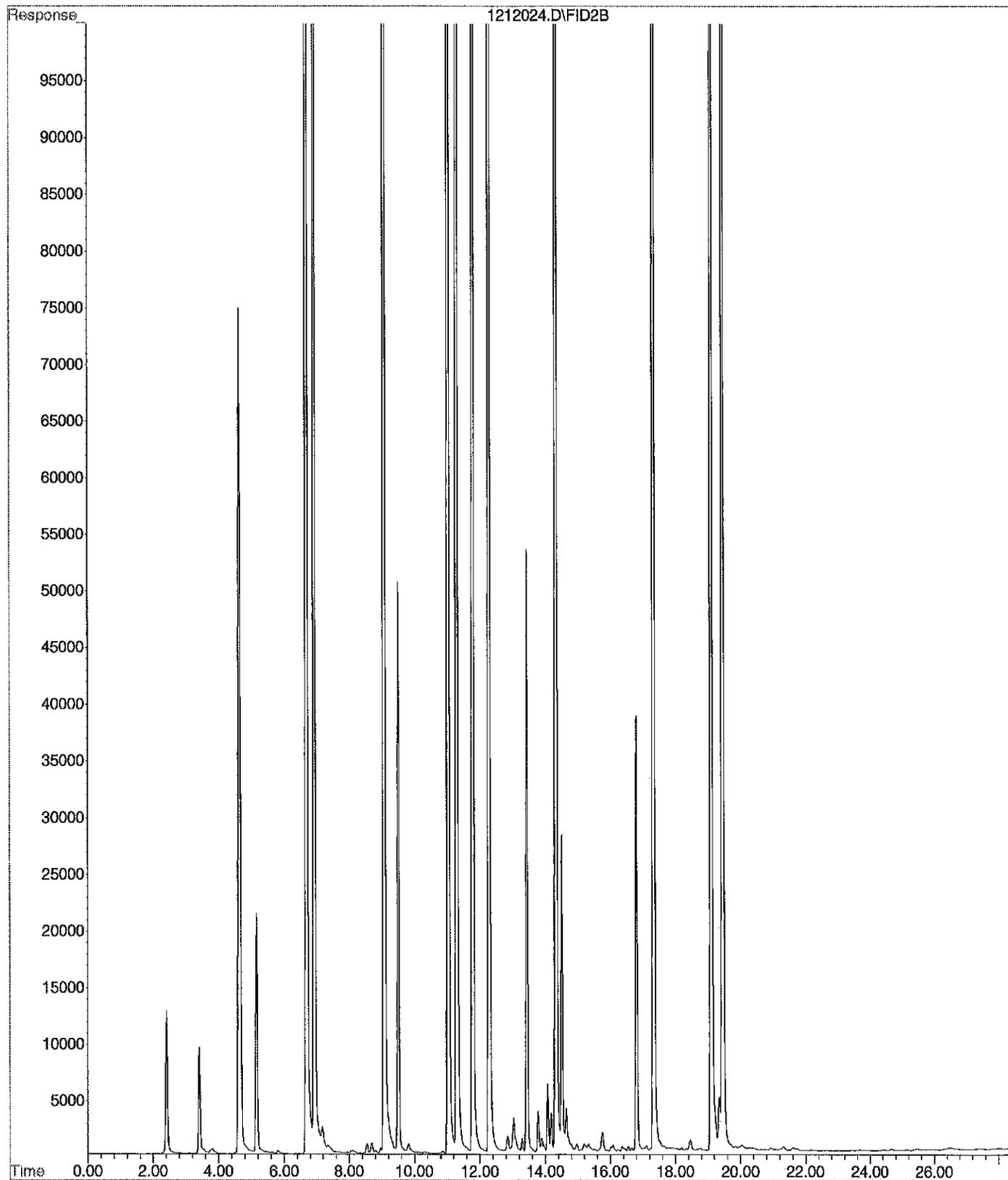
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2978865	42.946 PPB
5) S BROMOFLUOROBENZENE	12.29	1836913	45.317 PPB
11) S FLUOROBENZENE #2	6.93	7997014	36.029 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11628711	38.820 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31661580	0.636 PPM
2) H Entire GAS Envelope (9-24-	12.21	52825341	0.798 PPM
3) H GASOLINE (9-24-14)	13.51	35328328	0.872 PPM
7) H entire GAS envelope #2 (9-	12.26	124083317	0.815 PPM
8) H GASOLINE #2 (9-24-14)	13.56	86198758	0.726 PPM
9) MTBE #2	4.64	3536165	48.379 PPB
10) BENZENE #2	6.69	15039430	51.203 PPB
12) TOLUENE #2	9.07	14468209	51.884 PPB
13) ETHYLBENZENE #2	11.04	12535213	50.927 PPB
14) m,p-XYLENE #2	11.30	15271693	52.102 PPB
15) o-XYLENE #2	11.79	12754654	50.710 PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141212\1212024.D  
Operator :  
Acquired : 13 Dec 2014 1:56 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1212B-2  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 24



Signal #1 : d:\btex\DATA\D141212\1212038.D\FID1A.CH Vial: 38  
 Signal #2 : d:\btex\DATA\D141212\1212038.D\FID2B.CH  
 Acq On : 13 Dec 2014 9:40 Operator:  
 Sample : CCVD1212B-3 Inst : Daryl  
 Misc : v2-36-11,v2-36-14 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 13 10:08 2014 Quant Results File: 141012DB.RES

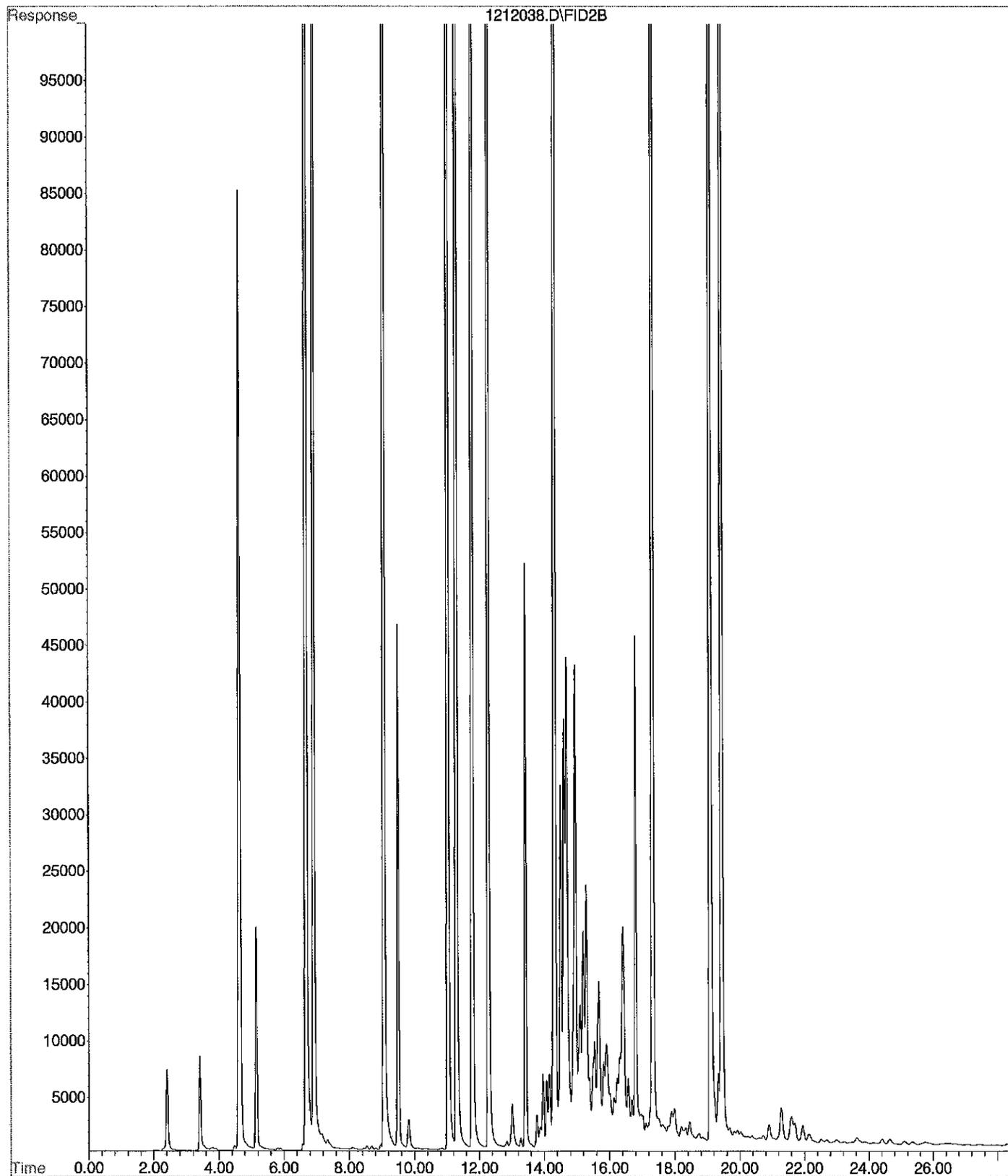
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2895042	41.728 PPB
5) S BROMOFLUOROBENZENE	12.29	1739300	42.878 PPB
11) S FLUOROBENZENE #2	6.93	7544886	33.973 PPB
16) S BROMOFLUOROBENZENE #2	12.28	10981076	36.633 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	29718021	0.597 PPM
2) H Entire GAS Envelope (9-24-	12.21	61072547	0.924 PPM
3) H GASOLINE (9-24-14)	13.51	42657132	1.058 PPM
7) H entire GAS envelope #2 (9-	12.26	141221058	0.935 PPM
8) H GASOLINE #2 (9-24-14)	13.56	99164297	0.845 PPM
9) MTBE #2	4.64	3940713	53.919 PPB
10) BENZENE #2	6.68	13965164	47.543 PPB
12) TOLUENE #2	9.07	13280292	47.610 PPB
13) ETHYLBENZENE #2	11.04	11690243	47.486 PPB
14) m,p-XYLENE #2	11.30	14296415	48.740 PPB
15) o-XYLENE #2	11.79	12019672	47.772 PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141212\1212038.D  
Operator :  
Acquired : 13 Dec 2014 9:40 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1212B-3  
Misc Info : V2-36-11,V2-36-14  
Vial Number: 38



Signal #1 : d:\btex\DATA\D141212\1212023.D\FID1A.CH Vial: 23  
 Signal #2 : d:\btex\DATA\D141212\1212023.D\FID2B.CH  
 Acq On : 13 Dec 2014 1:22 Operator:  
 Sample : CCVD1212G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 13 1:51 2014 Quant Results File: 141012DB.RES

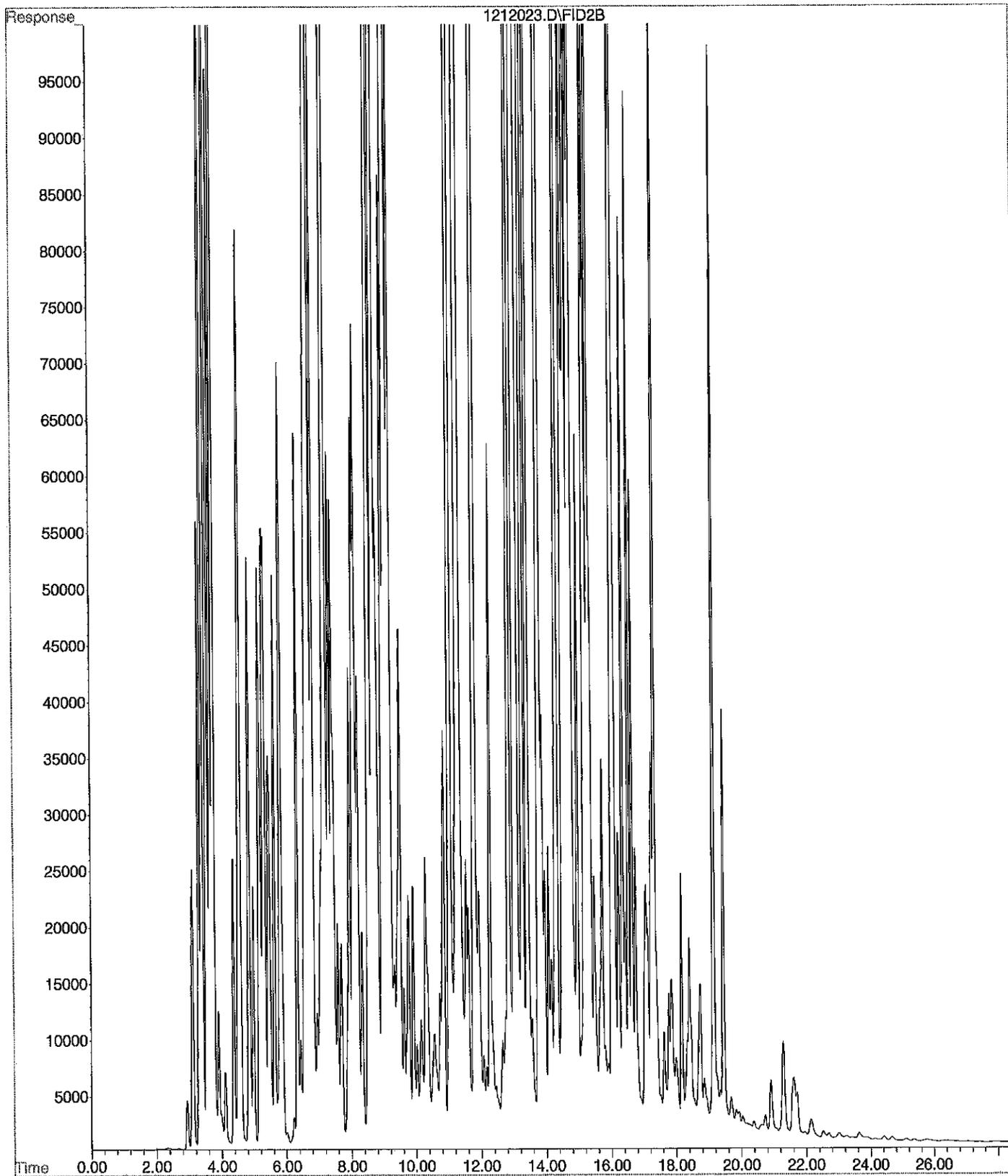
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	0.00	0	N.D. PPB
5) S BROMOFLUOROBENZENE	12.27	1374346	33.761 PPB
11) S FLUOROBENZENE #2	6.95	517609	2.023 PPB
16) S BROMOFLUOROBENZENE #2	12.27	2819812	9.064 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	303935980	6.167 PPM
2) H Entire GAS Envelope (9-24-	12.21	408195260	6.241 PPM
3) H GASOLINE (9-24-14)	13.51	226078673	5.698 PPM
7) H entire GAS envelope #2 (9-	12.26	741356662	5.115 PPM
8) H GASOLINE #2 (9-24-14)	13.56	552787568	4.979 PPM ✓
9) MTBE #2	4.56	4467360	61.131 PPB
10) BENZENE #2	6.69	49252254	167.785 PPB
12) TOLUENE #2	9.08	124460196	447.675 PPB
13) ETHYLBENZENE #2	11.04	30783227	125.236 PPB
14) m,p-XYLENE #2	11.30	112038473	385.708 PPB
15) o-XYLENE #2	11.79	42724206	170.489 PPB

12/15

File : X:\BTEX\DARYL\DATA\D141212\1212023.D  
Operator :  
Acquired : 13 Dec 2014 1:22 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1212G-1  
Misc Info : V2-36-08  
Vial Number: 23



Signal #1 : d:\btex\DATA\D141212\1212039.D\FID1A.CH Vial: 39  
 Signal #2 : d:\btex\DATA\D141212\1212039.D\FID2B.CH  
 Acq On : 13 Dec 2014 10:13 Operator:  
 Sample : CCVD1212G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 13 10:41 2014 Quant Results File: 141012DB.RES

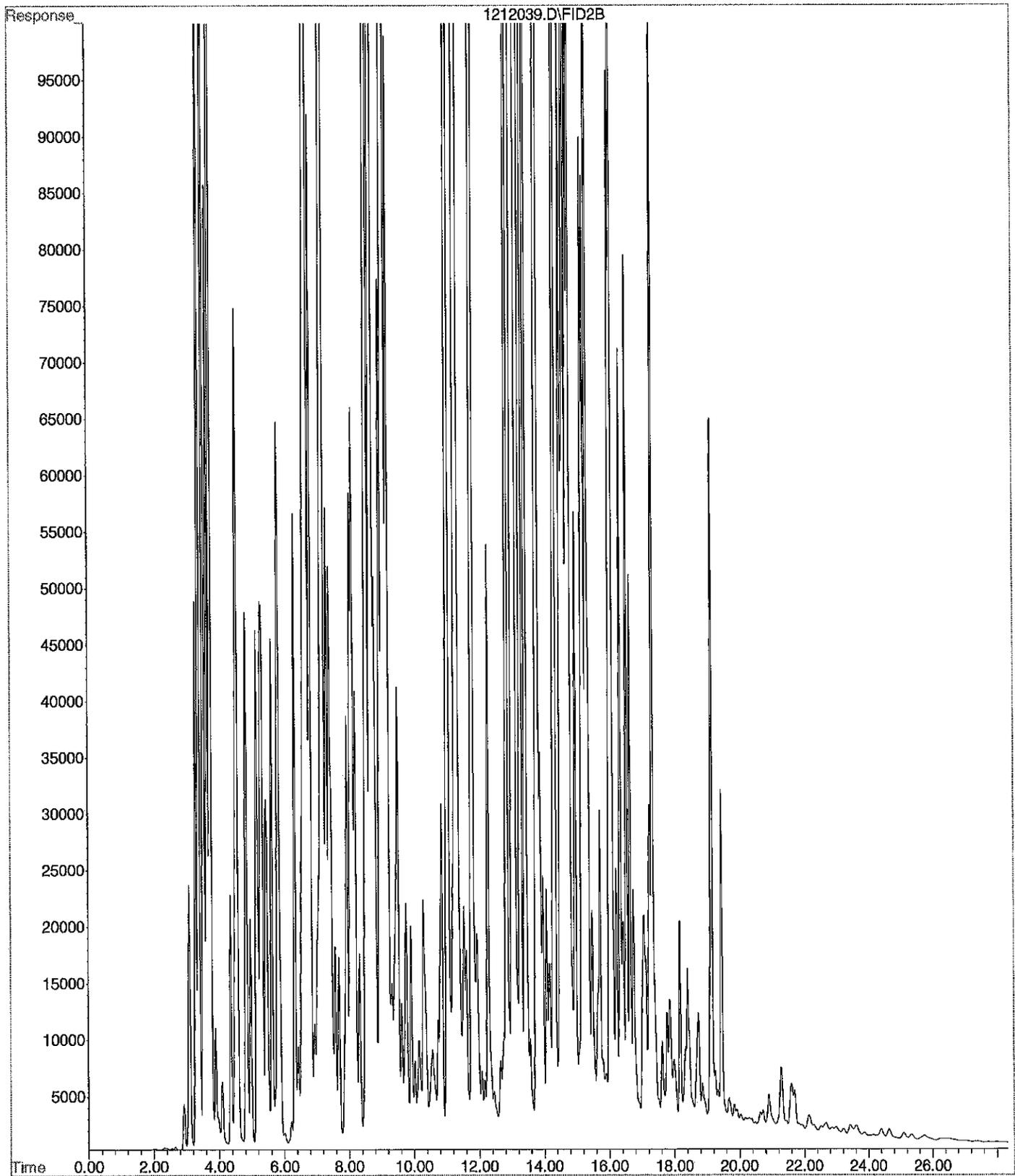
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.27	1132671	27.723	PPB
11) S FLUOROBENZENE #2	6.95	475375	1.831	PPB
16) S BROMOFLUOROBENZENE #2	12.27	2388099	7.605	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	271442526	5.507	PPM
2) H Entire GAS Envelope (9-24-	12.21	364168855	5.567	PPM
3) H GASOLINE (9-24-14)	13.51	195116429	4.914	PPM
7) H entire GAS envelope #2 (9-	12.26	660833995	4.554	PPM
8) H GASOLINE #2 (9-24-14)	13.56	487726291	4.386	PPM
9) MTBE #2	4.55	4048708	55.398	PPB
10) BENZENE #2	6.68	43617529	148.585	PPB
12) TOLUENE #2	9.07	113172872	407.059	PPB
13) ETHYLBENZENE #2	11.04	26611267	108.247	PPB
14) m,p-XYLENE #2	11.29	100437178	345.712	PPB
15) o-XYLENE #2	11.79	37002634	147.622	PPB

12/15 ✓

File : X:\BTEX\DARYL\DATA\D141212\1212039.D  
Operator :  
Acquired : 13 Dec 2014 10:13 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1212G-2  
Misc Info : V2-36-08  
Vial Number: 39



## NWTPH-Diesel Data

Data File : 1212-V06.D  
 Sample : 12-130-01

Data Path : X:\DIESELS\VIGO\DATA\V141212\  
 Signal(s) : FID1A.ch  
 Acq On : 12 Dec 2014 13:57  
 Operator :  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 12 14:34:13 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (02-10-14)	14.670	124758905	40.484	PPM
Spiked Amount	50.000	Recovery	=	80.97%
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	9486738	NoCal	PPM
4) H Diesel Fuel #1 (02-1...	10.000	37021211	10.079	PPM
5) H Diesel Fuel #2 (02-...	14.000	86793019	35.087	PPM
6) H Oil (02-10-14)	22.000	291076836	123.004	PPM
7) H Oil Acid Clean (02-...	22.000	291076836	124.937	PPM
8) H Diesel Fuel #2 Combo ...	14.000	58927617	23.900	PPM
9) H Oil Combo (02-10-14)	22.000	265538158	113.428	PPM
10) H Oil Acid Clean Combo ...	22.000	265538158	115.021	PPM
11) H Alaska 102 DF2 (06-2...	13.025	85326387	31.192	PPM
12) H Alaska 103 Oil (06-2...	22.000	174820738	153.898	PPM
13) H Mineral Oil (02-10-14)	16.000	150612437	55.835	PPM
14) H Bunker C ACU (Fuel Oi...	15.000	315039713	211.242	PPM
15) H Bunker C (Fuel Oil #6...	15.000	315039713	212.165	PPM
16) H ALKANE C9-C40 10-26-07	12.666	317609703	4022.010	PPM
17) H Mineral Oil Combo (0...	16.000	76220960	29.912	PPM
18) H Oil Acid Clean MO Com...	22.000	242329305	107.091	PPM
19) H Oil MO Combo (02-10-14)	22.000	242329305	105.881	PPM

(f)=RT Delta > 1/2 Window

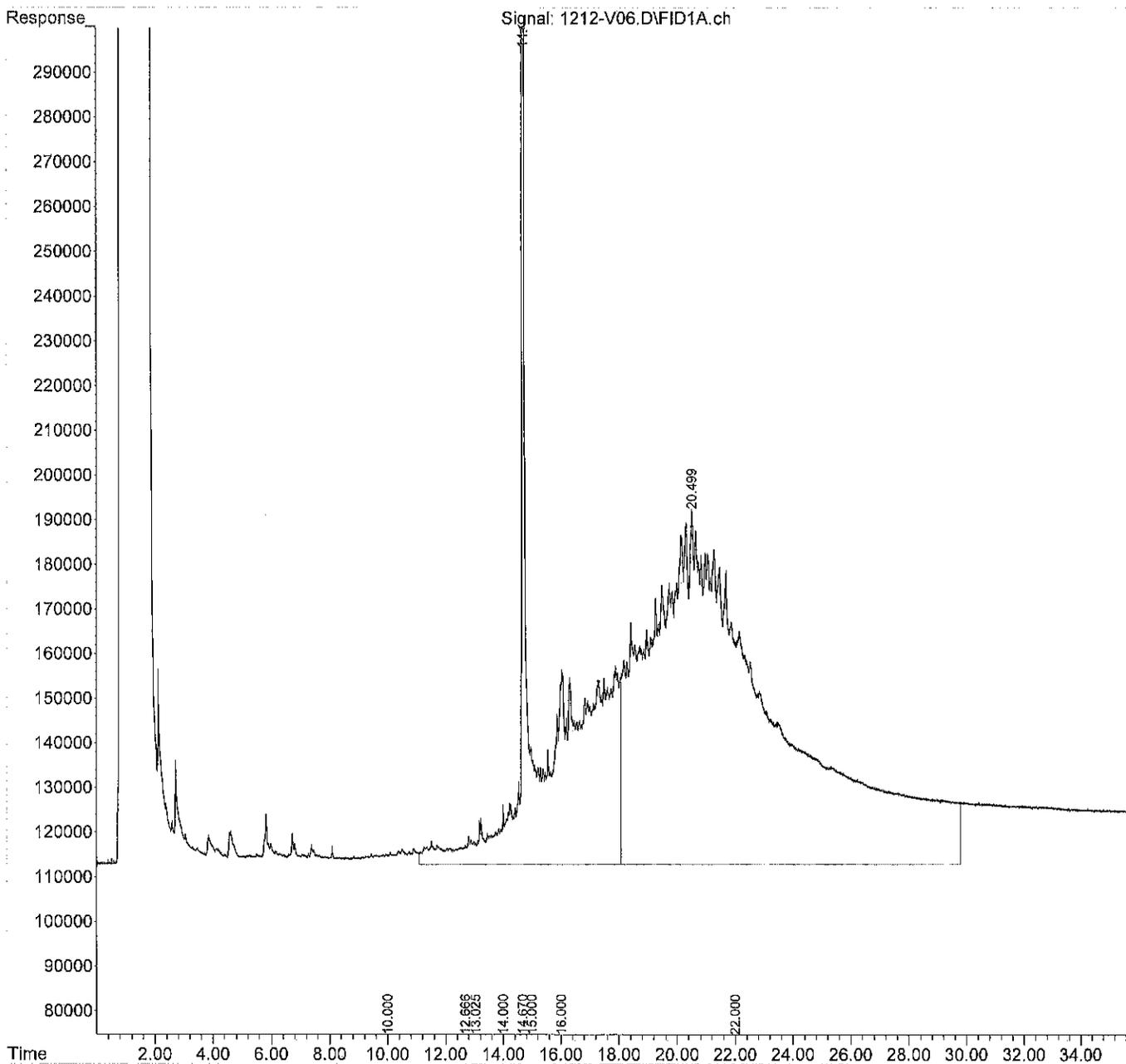
(m)=manual int.

Data File : 1212-V06.D  
Sample : 12-130-01

Data Path : X:\DIESELS\VIGO\DATA\V141212\  
Signal(s) : FID1A.ch  
Acq On : 12 Dec 2014 13:57  
Operator :  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 12 14:34:13 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1212-V55.D  
 Sample : 12-130-02

Data Path : X:\DIESELS\VIGO\DATA\V141212.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 12 Dec 2014 13:16  
 Operator :  
 Misc :  
 ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 12 13:52:56 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (09-28-14)	14.896	112800126	39.922	PPM
Spiked Amount	50.000	Recovery =	79.84%	
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	17869993	NoCal	PPM
4) H Diesel Fuel #1 (10-0...)	10.000	17305609	5.895	PPM
5) H Diesel Fuel #2 (10-0...)	14.000	13656354	3.917	PPM
6) H Oil (09-28-14)	22.000	66655251	7.577	PPM
7) H Oil Acid Clean (09-2...)	22.000	66655251	11.836	PPM
8) H Diesel Fuel #2 Combo ...	14.000	12493824	3.479	PPM
9) H Oil Combo (09-28-14)	22.000	65493863	7.435	PPM
10) H Oil Acid Clean Combo ...	22.000	65493863	11.477	PPM
11) H Alaska 102 DF2 (06-2...)	13.025	14922793	0.582	PPM
12) H Alaska 103 Oil (06-2...)	22.000	25440912	11.888	PPM
13) H Mineral Oil (10-06-14)	16.000	11006992	3.317	PPM
14) H Bunker C ACU (Fuel O...)	15.000	73030560	9.943	PPM
15) H Bunker C (Fuel Oil #...)	15.000	73030560	40.864	PPM
16) H ALKANE C9-C40	12.666	78926114	NoCal	PPM
17) H Mineral Oil Combo (10...)	16.000	7216662	2.492	PPM
18) H Oil Acid Clean MO Com...	22.000	64534951	11.345	PPM
19) H Oil MO Combo (09-28-14)	22.000	64534951	7.348	PPM

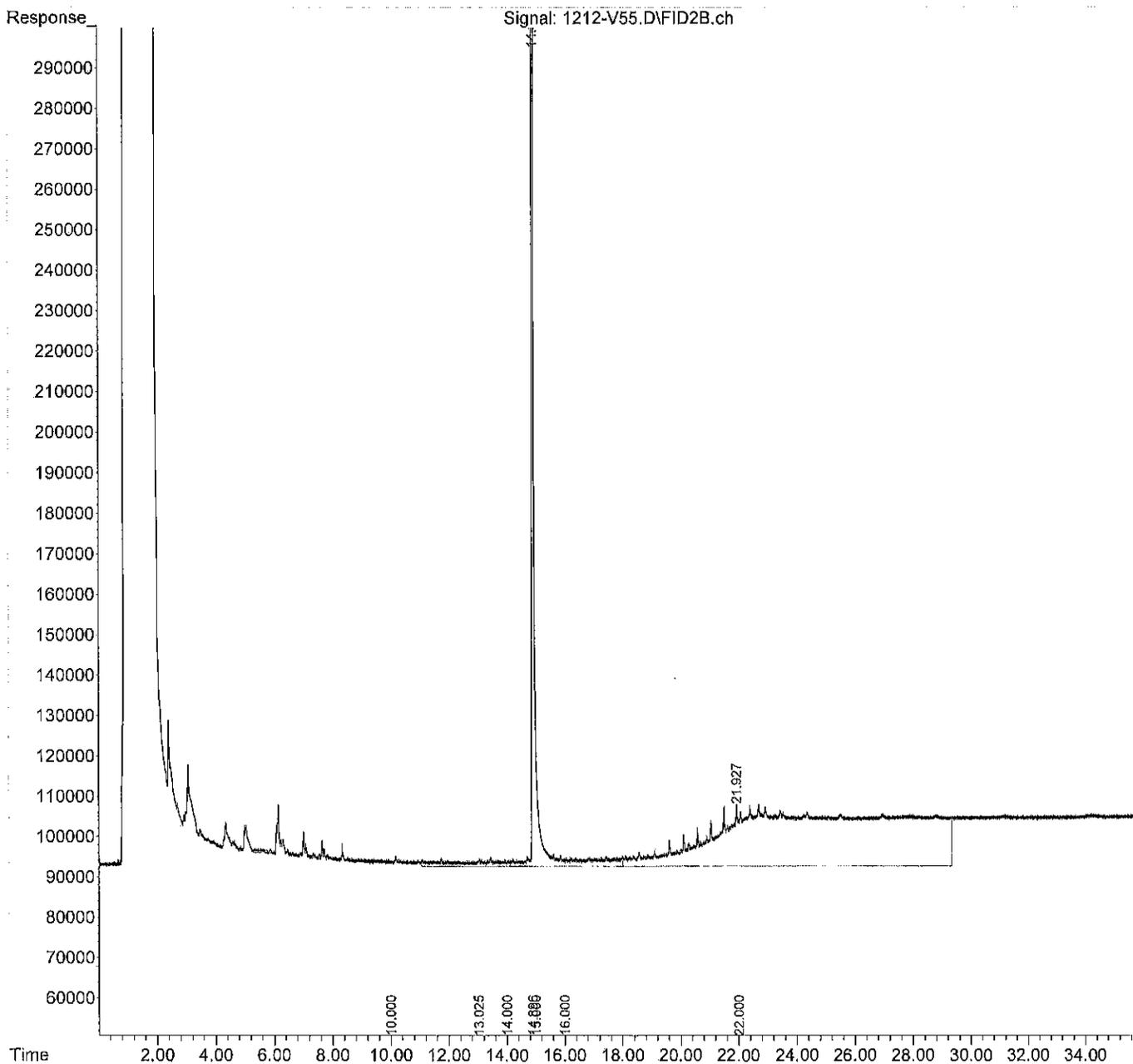
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : 1212-V55.D  
Sample : 12-130-02  
Data Path : X:\DIESELS\VIGO\DATA\V141212.SEC\  
Signal(s) : FID2B.ch  
Acq On : 12 Dec 2014 13:16  
Operator :  
Misc :  
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 12 13:52:56 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1212-V04.D  
 Sample : MB1212S1

Data Path : X:\DIESELS\VIGO\DATA\V141212\  
 Signal(s) : FID1A.ch  
 Acq On : 12 Dec 2014 12:35  
 Operator :  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 12 13:11:56 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (02-10-14)	14.683	142641014	46.303	PPM
Spiked Amount	50.000	Recovery =	92.61%	
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	8099507	NoCal	PPM
4) H Diesel Fuel #1 (02-1...	10.000	13476507	0.159	PPM
5) H Diesel Fuel #2 (02-...	14.000	12929492	3.152	PPM
6) H Oil (02-10-14)	22.000	58158199	14.563	PPM
7) H Oil Acid Clean (02-...	22.000	58158199	10.450	PPM
8) H Diesel Fuel #2 Combo ...	14.000	11872149	3.106	PPM
9) H Oil Combo (02-10-14)	22.000	56812370	14.442	PPM
10) H Oil Acid Clean Combo ...	22.000	56812370	10.455	PPM
11) H Alaska 102 DF2 (06-2...	13.025	13815695	2.875	PPM
12) H Alaska 103 Oil (06-2...	22.000	19834253	10.849	PPM
13) H Mineral Oil (02-10-14)	16.000	12585220	2.795	PPM
14) H Bunker C ACU (Fuel Oi...	15.000	61998282	28.232	PPM
15) H Bunker C (Fuel Oil #6...	15.000	61998282	35.125	PPM
16) H ALKANE C9-C40 10-26-07	12.666	64248719	796.064	PPM
17) H Mineral Oil Combo (0...	16.000	9536017	3.401	PPM
18) H Oil Acid Clean MO Com...	22.000	55963444	10.663	PPM
19) H Oil MO Combo (02-10-14)	22.000	55963444	14.593	PPM

(f)=RT Delta > 1/2 Window

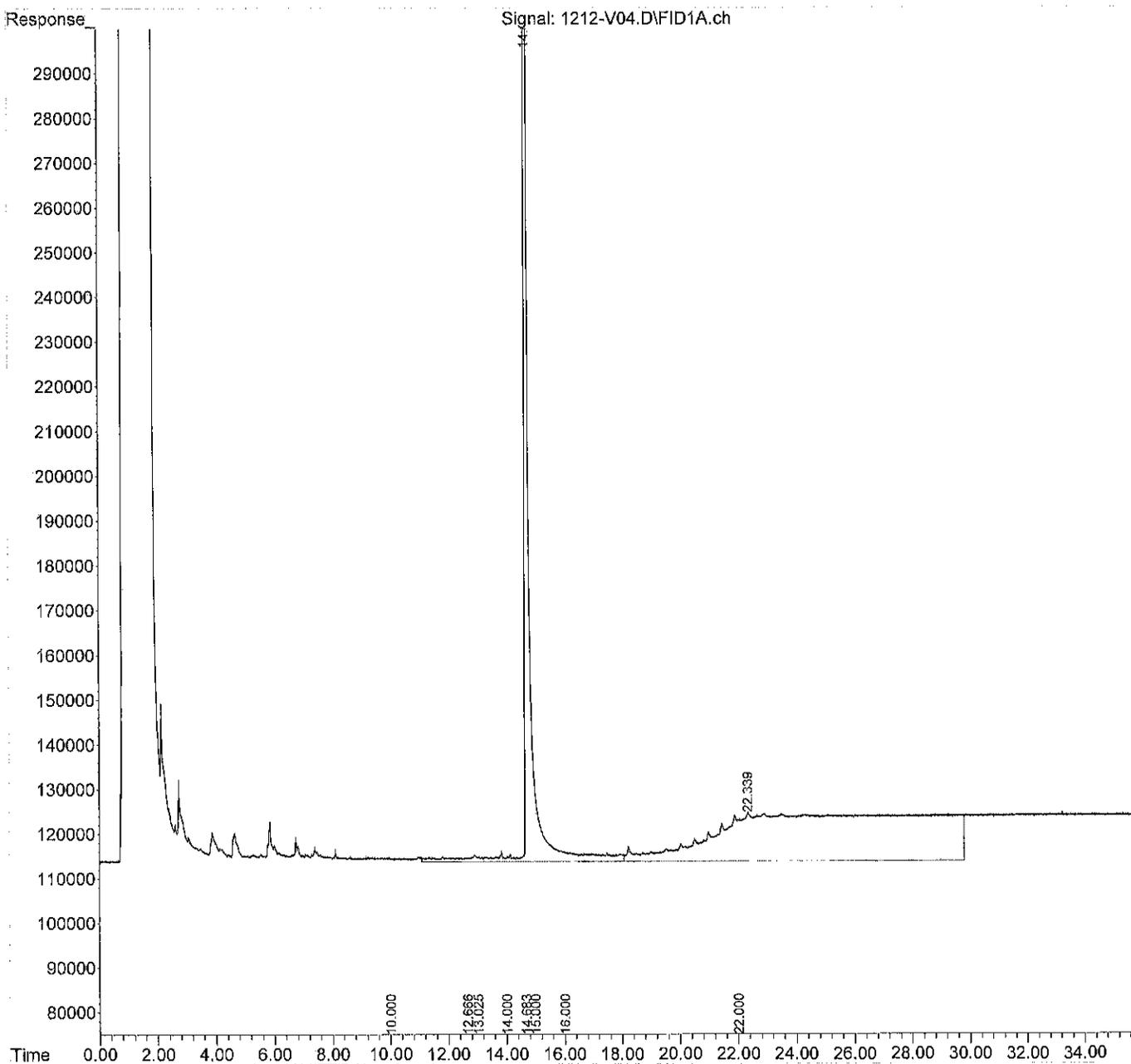
(m)=manual int.

Data File : 1212-V04.D  
Sample : MB1212S1

Data Path : X:\DIESELS\VIGO\DATA\V141212\  
Signal(s) : FID1A.ch  
Acq On : 12 Dec 2014 12:35  
Operator :  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 12 13:11:56 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1212-V56.D  
 Sample : 12-130-01 DUP  
 Data Path : X:\DIESELS\VIGO\DATA\V141212.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 12 Dec 2014 13:57  
 Operator :  
 Misc :  
 ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 12 14:34:28 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (09-28-14)	14.896	103802806	36.726 PPM
Spiked Amount 50.000		Recovery =	73.45%
Target Compounds			
2) 1-Chlorooctadecane (...)	0.000	0	N.D. PPM
3) H Gasoline	3.500	17307287	NoCal PPM
4) H Diesel Fuel #1 (10-0...	10.000	32089480	12.569 PPM
5) H Diesel Fuel #2 (10-0...	14.000	62669360	27.656 PPM
6) H Oil (09-28-14)	22.000	222255313	90.658 PPM
7) H Oil Acid Clean (09-2...	22.000	222255313	103.742 PPM
8) H Diesel Fuel #2 Combo ...	14.000	43611202	18.833 PPM
9) H Oil Combo (09-28-14)	22.000	204927435	83.175 PPM
10) H Oil Acid Clean Combo ...	22.000	204927435	95.100 PPM
11) H Alaska 102 DF2 (06-2...	13.025	64534764	19.700 PPM
12) H Alaska 103 Oil (06-2...	22.000	128177970	102.012 PPM
13) H Mineral Oil (10-06-14)	16.000	101520550	41.341 PPM
14) H Bunker C ACU (Fuel O...	15.000	242232800	138.411 PPM
15) H Bunker C (Fuel Oil #...	15.000	242232800	170.357 PPM
16) H ALKANE C9-C40	12.666	247785301	NoCal PPM
17) H Mineral Oil Combo (10...	16.000	51782601	21.990 PPM
18) H Oil Acid Clean MO Com...	22.000	189104960	88.159 PPM
19) H Oil MO Combo (09-28-14)	22.000	189104960	77.154 PPM
-----			

(f)=RT Delta > 1/2 Window

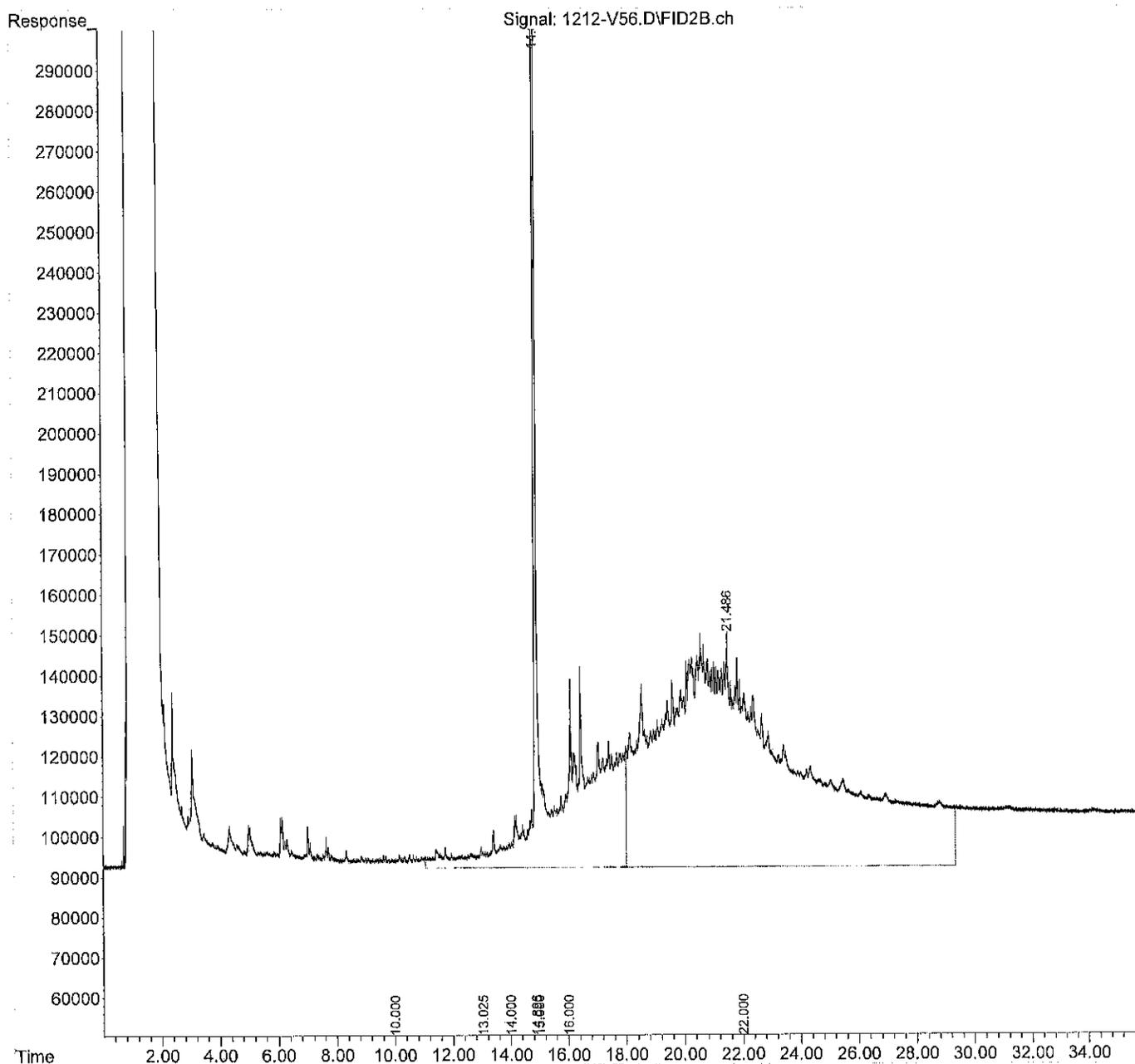
(m)=manual int.

Data File : 1212-V56.D  
Sample : 12-130-01 DUP

Data Path : X:\DIESELS\VIGO\DATA\V141212.SEC\  
Signal(s) : FID2B.ch  
Acq On : 12 Dec 2014 13:57  
Operator :  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 12 14:34:28 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1212-V01.D  
 Sample : CCV1212F-V1

Data Path : X:\DIESELS\VIGO\DATA\V141212\  
 Signal(s) : FID1A.ch  
 Acq On : 12 Dec 2014 9:14  
 Operator :  
 Misc : SV3-11-24  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 12 09:50:57 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (02-10-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery =	0.00%	
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	27982534	NoCal	PPM
4) H Diesel Fuel #1 (02-1...	10.000	219126317	86.800	PPM
5) H Diesel Fuel #2 (02-...	14.000	218616483	92.080	PPM
6) H Oil (02-10-14)	22.000	68205858	19.241	PPM
7) H Oil Acid Clean (02-...	22.000	68205858	15.389	PPM
8) H Diesel Fuel #2 Combo ...	14.000	214754063	92.760	PPM
9) H Oil Combo (02-10-14)	22.000	57536756	14.785	PPM
10) H Oil Acid Clean Combo ...	22.000	57536756	10.818	PPM
11) H Alaska 102 DF2 (06-2...	13.025	222611809	85.556	PPM
12) H Alaska 103 Oil (06-2...	22.000	18014508	9.169	PPM
13) H Mineral Oil (02-10-14)	16.000	142734954	52.808	PPM
14) H Bunker C ACU (Fuel Oi...	15.000	267150060	176.606	PPM
15) H Bunker C (Fuel Oil #6...	15.000	267150060	178.659	PPM
16) H ALKANE C9-C40 10-26-07	12.666	280180721	3545.441	PPM
17) H Mineral Oil Combo (0...	16.000	139779052	55.181	PPM
18) H Oil Acid Clean MO Com...	22.000	54044996	9.671	PPM
19) H Oil MO Combo (02-10-14)	22.000	54044996	13.653	PPM

(f)=RT Delta > 1/2 Window

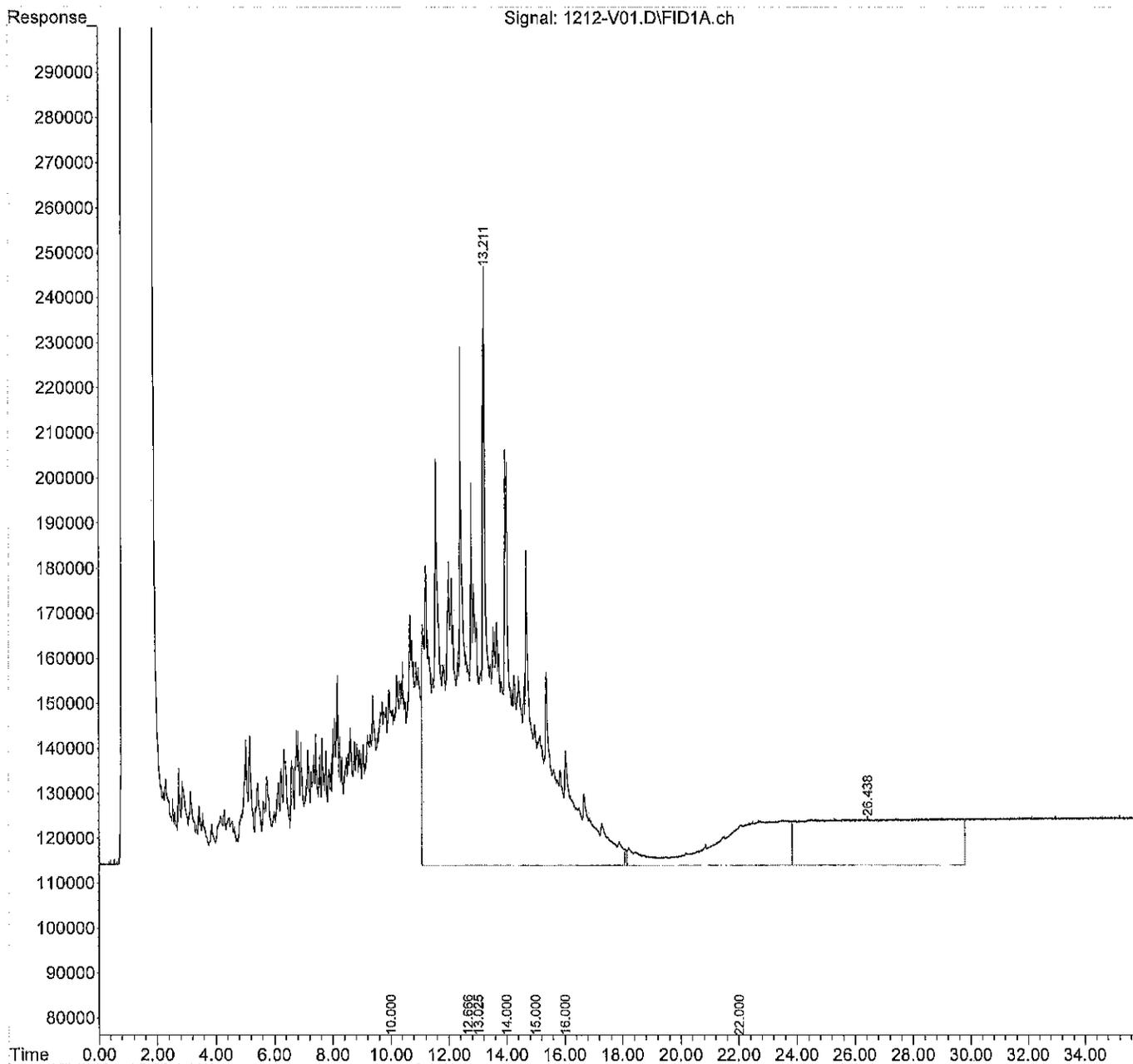
(m)=manual int.

Data File : 1212-V01.D  
Sample : CCV1212F-V1

Data Path : X:\DIESELS\VIGO\DATA\V141212\  
Signal(s) : FID1A.ch  
Acq On : 12 Dec 2014 9:14  
Operator :  
Misc : SV3-11-24  
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 12 09:50:57 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1212-V18.D  
 Sample : CCV1212F-V2

Data Path : X:\DIESELS\VIGO\DATA\V141212\  
 Signal(s) : FID1A.ch  
 Acq On : 12 Dec 2014 23:49  
 Operator :  
 Misc : SV3-11-24  
 ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 13 00:25:52 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (02-10-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	29542202	NoCal	PPM
4) H Diesel Fuel #1 (02-1...	10.000	227239408	90.218	PPM
5) H Diesel Fuel #2 (02-...	14.000	227656715	95.988	PPM
6) H Oil (02-10-14)	22.000	63605900	17.099	PPM
7) H Oil Acid Clean (02-...	22.000	63605900	13.128	PPM
8) H Diesel Fuel #2 Combo ...	14.000	223087646	96.443	PPM
9) H Oil Combo (02-10-14)	22.000	51929450	12.126	PPM
10) H Oil Acid Clean Combo ...	22.000	51929450	8.009	PPM
11) H Alaska 102 DF2 (06-2...	13.025	231813322	89.200	PPM
12) H Alaska 103 Oil (06-2...	22.000	17136799	8.359	PPM
13) H Mineral Oil (02-10-14)	16.000	150063457	55.624	PPM
14) H Bunker C ACU (Fuel Oi...	15.000	271098013	179.461	PPM
15) H Bunker C (Fuel Oil #6...	15.000	271098013	181.421	PPM
16) H ALKANE C9-C40 10-26-07	12.666	284963016	3606.332	PPM
17) H Mineral Oil Combo (0...	16.000	146242956	57.751	PPM
18) H Oil Acid Clean MO Com...	22.000	47814198	6.447	PPM
19) H Oil MO Combo (02-10-14)	22.000	47814198	10.601	PPM

(f)=RT Delta > 1/2 Window

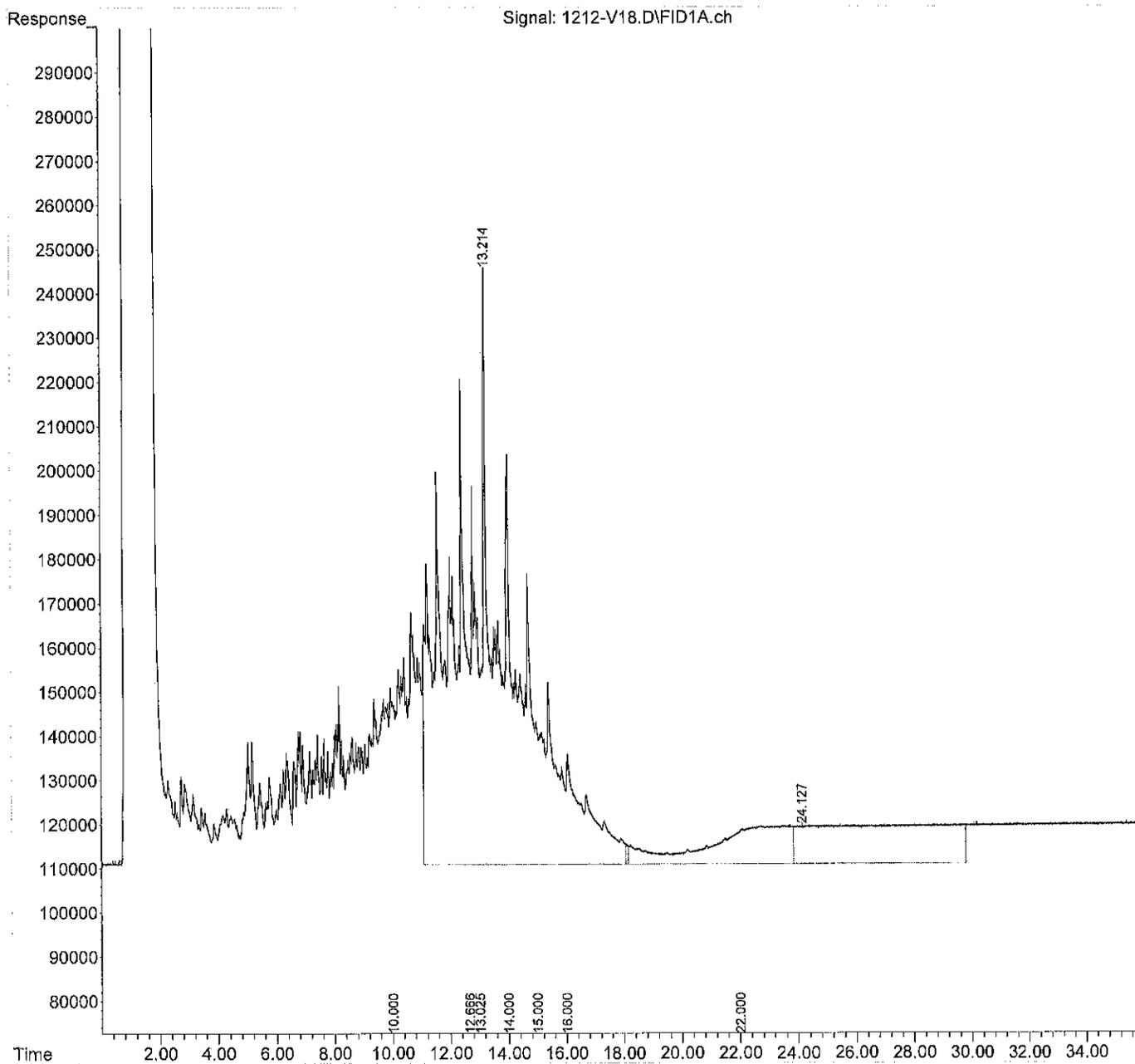
(m)=manual int.

Data File : 1212-V18.D  
Sample : CCV1212F-V2

Data Path : X:\DIESELS\VIGO\DATA\V141212\  
Signal(s) : FID1A.ch  
Acq On : 12 Dec 2014 23:49  
Operator :  
Misc : SV3-11-24  
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 13 00:25:52 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V140210F.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1212-V51.D  
 Sample : CCV1212R-V1

Data Path : X:\DIESELS\VIGO\DATA\V141212.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 12 Dec 2014 9:14  
 Operator :  
 Misc : SV3-11-24  
 ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 12 09:51:13 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (09-28-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery =	0.00%	
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	32360279	NoCal	PPM
4) H Diesel Fuel #1 (10-0...	10.000	205522255	90.851	PPM
5) H Diesel Fuel #2 (10-0...	14.000	204262489	96.235	PPM
6) H Oil (09-28-14)	22.000	79679489	14.532	PPM
7) H Oil Acid Clean (09-2...	22.000	79679489	19.529	PPM
8) H Diesel Fuel #2 Combo ...	14.000	200352665	96.173	PPM
9) H Oil Combo (09-28-14)	22.000	69199824	9.448	PPM
10) H Oil Acid Clean Combo ...	22.000	69199824	13.700	PPM
11) H Alaska 102 DF2 (06-2...	13.025	208532162	75.191	PPM
12) H Alaska 103 Oil (06-2...	22.000	23451561	10.143	PPM
13) H Mineral Oil (10-06-14)	16.000	131990341	54.141	PPM
14) H Bunker C ACU (Fuel O...	15.000	265744835	156.262	PPM
15) H Bunker C (Fuel Oil #...	15.000	265744835	188.351	PPM
16) H ALKANE C9-C40	12.666	280327088	NoCal	PPM
17) H Mineral Oil Combo (10...	16.000	128676006	55.632	PPM
18) H Oil Acid Clean MO Com...	22.000	65668805	12.044	PPM
19) H Oil MO Combo (09-28-14)	22.000	65668805	7.983	PPM

(f)=RT Delta > 1/2 Window

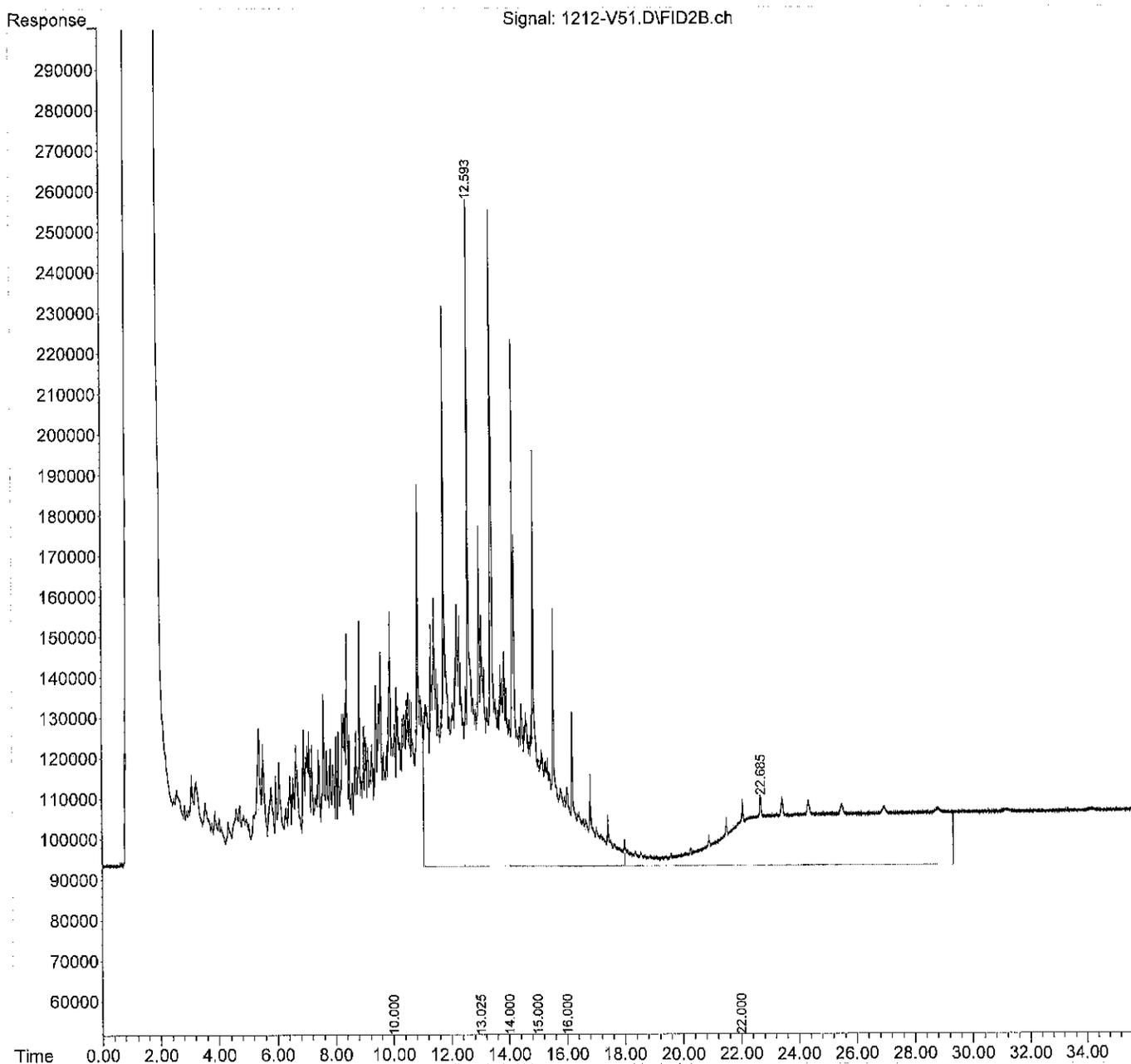
(m)=manual int.

Data File : 1212-V51.D  
Sample : CCV1212R-V1

Data Path : X:\DIESELS\VIGO\DATA\V141212.SEC\  
Signal(s) : FID2B.ch  
Acq On : 12 Dec 2014 9:14  
Operator :  
Misc : SV3-11-24  
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 12 09:51:13 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1212-V68.D  
 Sample : CCV1212R-V2

Data Path : X:\DIESELS\VIGO\DATA\V141212.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 12 Dec 2014 23:49  
 Operator :  
 Misc : SV3-11-24  
 ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 13 00:26:07 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
1) S O-Terphenyl (09-28-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery =	0.00%	
<b>Target Compounds</b>				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	33776632	NoCal	PPM
4) H Diesel Fuel #1 (10-0...	10.000	214657388	94.975	PPM
5) H Diesel Fuel #2 (10-0...	14.000	214615685	101.250	PPM
6) H Oil (09-28-14)	22.000	77854905	13.557	PPM
7) H Oil Acid Clean (09-2...	22.000	77854905	18.451	PPM
8) H Diesel Fuel #2 Combo ...	14.000	209847987	100.858	PPM
9) H Oil Combo (09-28-14)	22.000	66274544	7.859	PPM
10) H Oil Acid Clean Combo ...	22.000	66274544	11.946	PPM
11) H Alaska 102 DF2 (06-2...	13.025	219110662	79.268	PPM
12) H Alaska 103 Oil (06-2...	22.000	23367443	10.069	PPM
13) H Mineral Oil (10-06-14)	16.000	140260296	57.615	PPM
14) H Bunker C ACU (Fuel O...	15.000	273123264	161.864	PPM
15) H Bunker C (Fuel Oil #...	15.000	273123264	193.997	PPM
16) H ALKANE C9-C40	12.666	288435780	NoCal	PPM
17) H Mineral Oil Combo (10...	16.000	135843589	58.768	PPM
18) H Oil Acid Clean MO Com...	22.000	62020219	9.795	PPM
19) H Oil MO Combo (09-28-14)	22.000	62020219	5.939	PPM

(f)=RT Delta > 1/2 Window

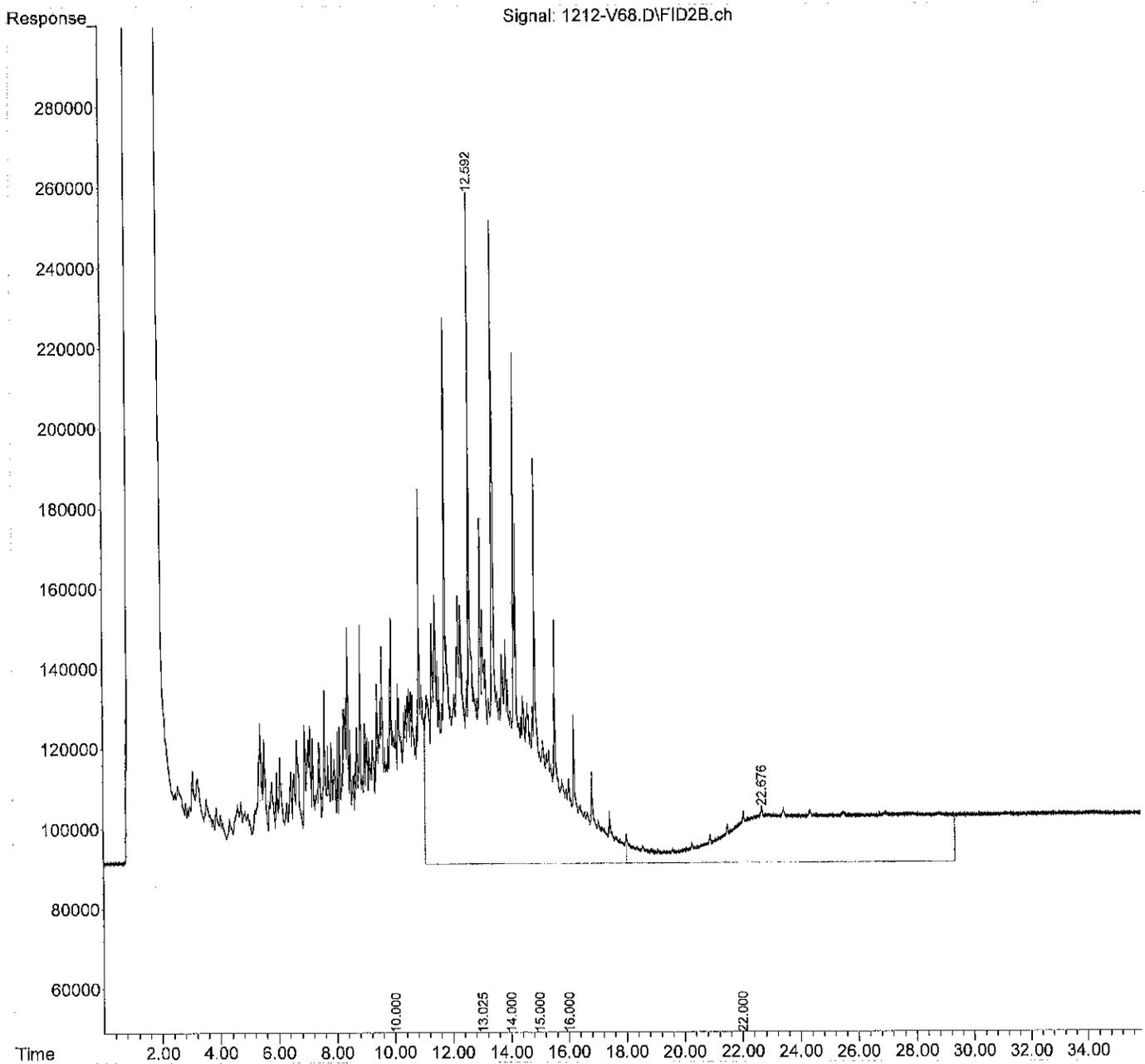
(m)=manual int.

Data File : 1212-V68.D  
Sample : CCV1212R-V2

Data Path : X:\DIESELS\VIGO\DATA\V141212.SEC\  
Signal(s) : FID2B.ch  
Acq On : 12 Dec 2014 23:49  
Operator :  
Misc : SV3-11-24  
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 13 00:26:07 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



## cPAHs Data

Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212018.D  
 Acq On : 12 Dec 2014 4:43 pm  
 Operator :  
 Sample : 12-130-01  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 12 16:58:13 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration

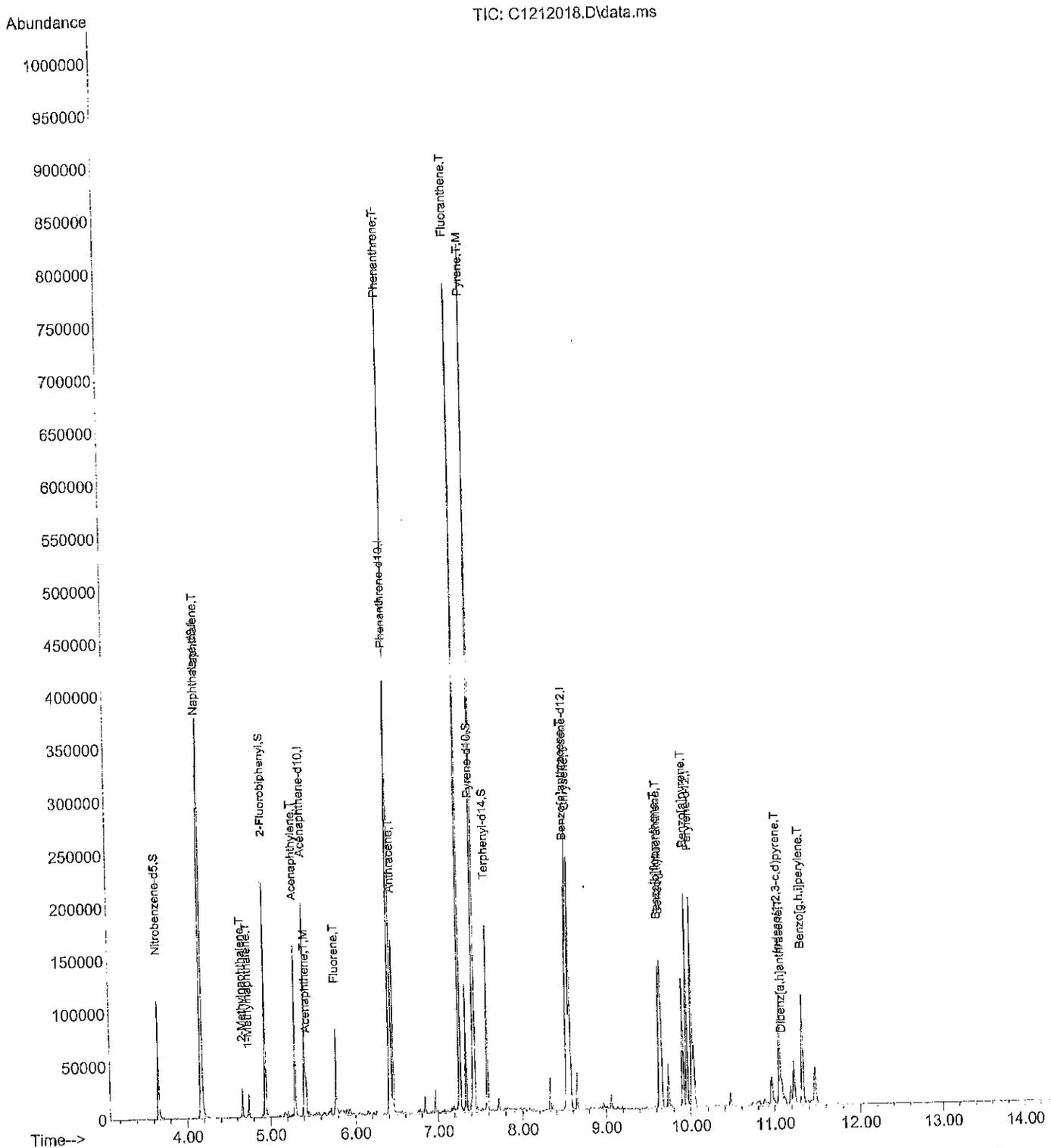
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.163	136	239862	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.408	164	135162	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.411	188	246384	2000.00	ppb	0.00	
17) Chrysene-d12	8.551	240	235849	2000.00	ppb	0.00	
21) Perylene-d12	10.023	264	207024	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.652	82	58409	1654.47	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	165.45%#			
7) 2-Fluorobiphenyl	4.945	172	155848	1490.27	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	149.03%#			
11) Pyrene-d10	7.426	212	174576	1600.85	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	160.08%#			
18) Terphenyl-d14	7.595	244	133430	1333.27	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	133.33%#			
							<b>Qvalue</b>
<b>Target Compounds</b>							
3) Naphthalene	4.174	128	284758	2243.92	ppb	100	
4) 2-Methylnaphthalene	4.668	142	21083	247.99	ppb	100	
5) 1-Methylnaphthalene	4.742	142	15103	186.88	ppb	100	
8) Acenaphthylene	5.300	152	106887	786.36	ppb	100	
9) Acenaphthene	5.431	153	24488	277.57	ppb	100	
12) Fluorene	5.777	166	54333	578.01	ppb	100	
13) Phenanthrene	6.423	178	539577	3734.19	ppb	100	
14) Anthracene	6.454	178	109989	1089.53	ppb	100	
15) Fluoranthene	7.264	202	686644	4296.51	ppb	100	
16) Pyrene	7.444	202	682558	4041.63	ppb	100	
19) Benzo[a]anthracene	8.532	228	200528	1717.33	ppb	100	
20) Chrysene	8.574	228	218882	1720.20	ppb	100	
22) Benzo[b]fluoranthene	9.641	252	147886	1082.92	ppb	100	
23) Benzo[j,k]fluoranthene	9.660	252	121103	952.37	ppb	100	
24) Benzo[a]pyrene	9.965	252	202027	1631.96	ppb	100	
25) Indeno[1,2,3-c,d]pyrene	11.066	276	120008	865.03	ppb	100	
26) Dibenz[a,h]anthracene	11.089	278	30677	267.44	ppb	100	
27) Benzo[g,h,i]perylene	11.335	276	132287	1127.82	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/15/14  
 sm

Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212018.D  
 Acq On : 12 Dec 2014 4:43 pm  
 Operator :  
 Sample : 12-130-01  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 12 16:58:13 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212019.D  
 Acq On : 12 Dec 2014 5:05 pm  
 Operator :  
 Sample : 12-130-02  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 12 17:20:02 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration

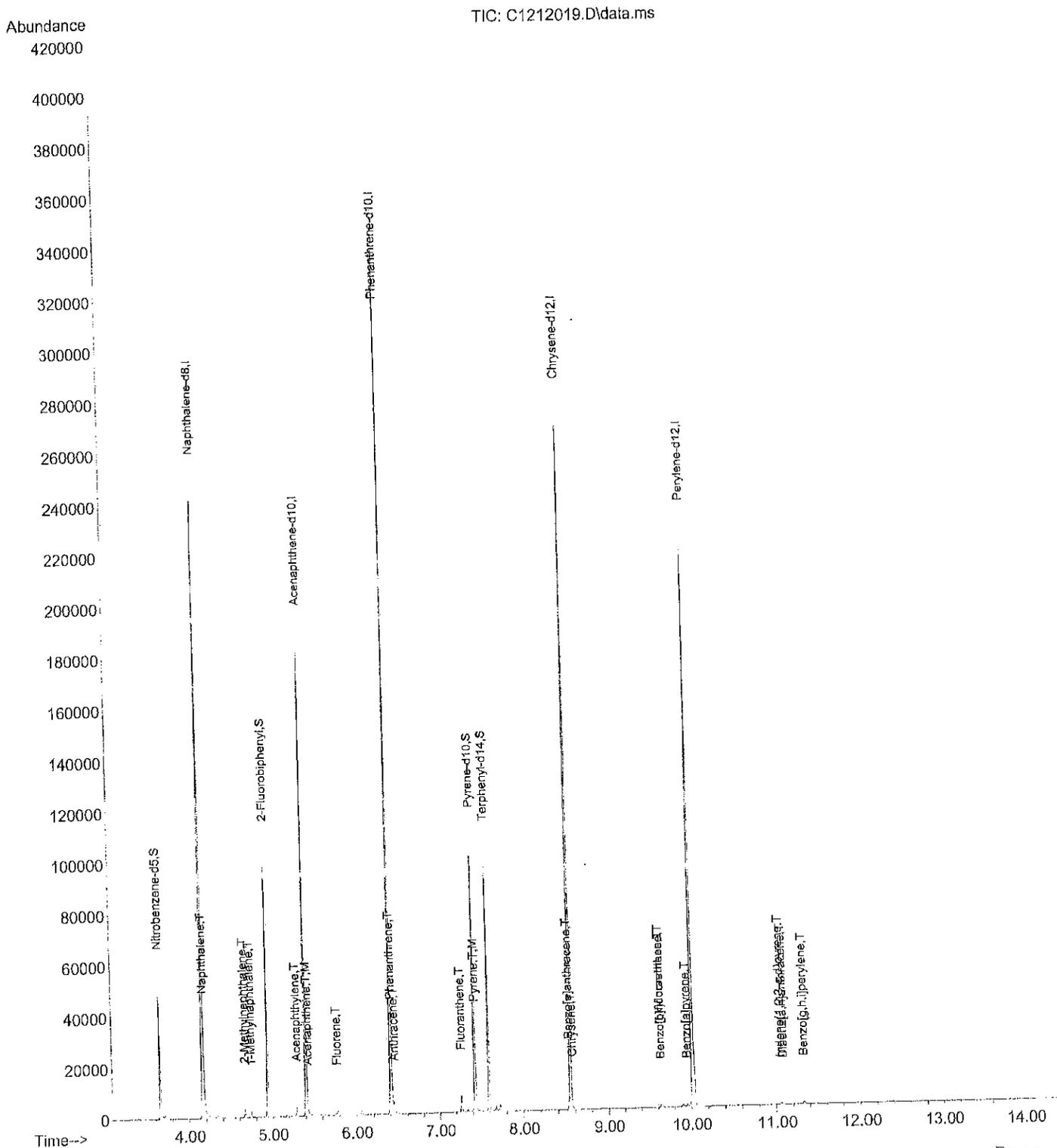
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.163	136	223786	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.407	164	126793	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.408	188	232420	2000.00	ppb	0.00	
17) Chrysene-d12	8.546	240	243241	2000.00	ppb	0.00	
21) Perylene-d12	10.020	264	219848	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.652	82	25667	779.26	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	77.93%			
7) 2-Fluorobiphenyl	4.945	172	71158	725.35	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	72.54%			
11) Pyrene-d10	7.420	212	84953	825.81	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	82.58%			
18) Terphenyl-d14	7.589	244	67990	658.73	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	65.87%			
							<b>Qvalue</b>
<b>Target Compounds</b>							
3) Naphthalene	4.175	128	12982	109.65	ppb	100	
4) 2-Methylnaphthalene	4.668	142	2817	35.52	ppb	100	
5) 1-Methylnaphthalene	4.742	142	1880	24.93	ppb	100	
8) Acenaphthylene	5.300	152	3081	24.16	ppb	100	
9) Acenaphthene	5.431	153	760	9.18	ppb	100	
12) Fluorene	5.777	166	1398	15.77	ppb	100	
13) Phenanthrene	6.419	178	9383	68.84	ppb	100	
14) Anthracene	6.451	178	1352	14.20	ppb	100	
15) Fluoranthene	7.264	202	5565	36.91	ppb	100	
16) Pyrene	7.432	202	6205	38.95	ppb	100	
19) Benzo[a]anthracene	8.530	228	2091	17.36	ppb	100	
20) Chrysene	8.569	228	1821	13.88	ppb	100	
22) Benzo[b]fluoranthene	9.634	252	1510	10.41	ppb	100	
23) Benzo[j,k]fluoranthene	9.644	252	1510	<del>11.18</del> 6.88	ppb	100	
24) Benzo[a]pyrene	9.954	252	1253	9.53	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	11.055	276	994	6.75	ppb	100	
26) Dibenz[a,h]anthracene	11.082	278	353	2.90	ppb	100	
27) Benzo[g,h,i]perylene	11.324	276	1466	11.77	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/15/14  
 gm

Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212019.D  
 Acq On : 12 Dec 2014 5:05 pm  
 Operator :  
 Sample : 12-130-02  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 12 17:20:02 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212015.D  
 Acq On : 12 Dec 2014 3:37 pm  
 Operator :  
 Sample : MB1212S1  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 12 15:52:31 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration

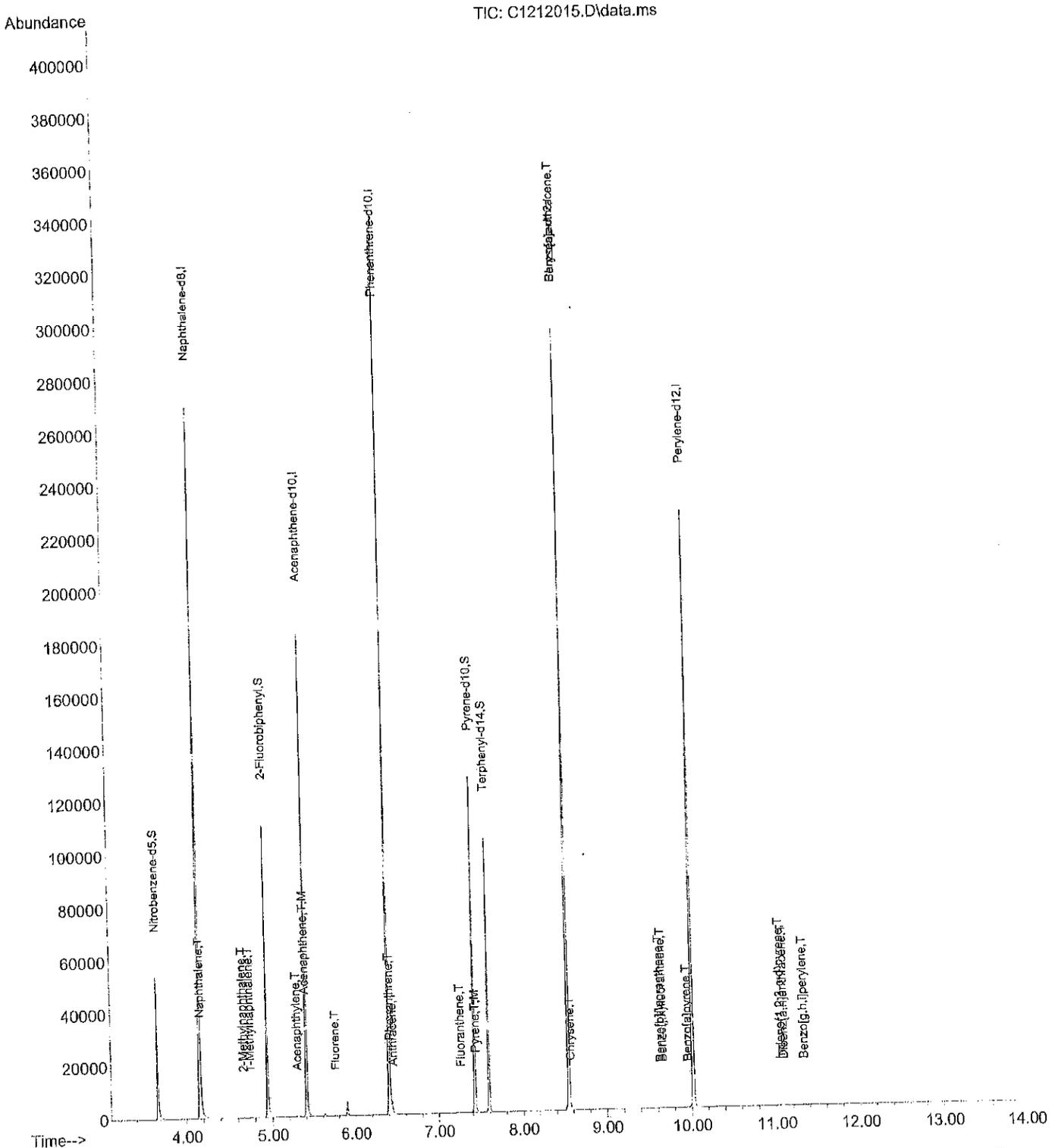
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.163	136	234196	2000.00	ppb	0.00
6) Acenaphthene-d10	5.407	164	129627	2000.00	ppb	0.00
10) Phenanthrene-d10	6.407	188	238779	2000.00	ppb	0.00
17) Chrysene-d12	8.547	240	255553	2000.00	ppb	0.00
21) Perylene-d12	10.019	264	232026	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Nitrobenzene-d5	3.652	82	28584	829.25	ppb	0.00
Spiked Amount 1000.000	Range 24 -	92	Recovery =	82.93%		
7) 2-Fluorobiphenyl	4.945	172	88859	885.98	ppb	0.00
Spiked Amount 1000.000	Range 25 -	89	Recovery =	88.60%		
11) Pyrene-d10	7.426	212	101210	957.65	ppb	0.00
Spiked Amount 1000.000	Range 40 -	110	Recovery =	95.77%		
18) Terphenyl-d14	7.588	244	80721	744.40	ppb	0.00
Spiked Amount 1000.000	Range 39 -	92	Recovery =	74.44%		
<b>Target Compounds</b>						
						Qvalue
3) Naphthalene	4.175	128	273	2.20	ppb	100
4) 2-Methylnaphthalene	4.667	142	192	2.31	ppb	100
5) 1-Methylnaphthalene	4.746	142	122	1.55	ppb	100
8) Acenaphthylene	5.299	152	340	2.61	ppb	100
9) Acenaphthene	5.399	153	77	0.91	ppb	100
12) Fluorene	5.762	166	197	2.16	ppb	100
13) Phenanthrene	6.423	178	785	5.61	ppb	100
14) Anthracene	6.454	178	142	1.45	ppb	100
15) Fluoranthene	7.263	202	171	1.10	ppb	100
16) Pyrene	7.437	202	369	2.25	ppb	100
19) Benzo[a]anthracene	8.547	228	921	7.28	ppb	100
20) Chrysene	8.570	228	129	0.94	ppb	100
22) Benzo[b]fluoranthene	9.636	252	227	1.48	ppb	100
23) Benzo[j,k]fluoranthene	9.660	252	192	1.35	ppb	100
24) Benzo[a]pyrene	9.956	252	199	1.43	ppb	100
25) Indeno[1,2,3-c,d]pyrene	11.058	276	375	2.41	ppb	100
26) Dibenz[a,h]anthracene	11.089	278	261	2.03	ppb	100
27) Benzo[g,h,i]perylene	11.327	276	305	2.32	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/15/14  
 sum

Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212015.D  
 Acq On : 12 Dec 2014 3:37 pm  
 Operator :  
 Sample : MB1212S1  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 12 15:52:31 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212016.D  
 Acq On : 12 Dec 2014 3:59 pm  
 Operator :  
 Sample : SB1212S1  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 12 16:14:29 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration

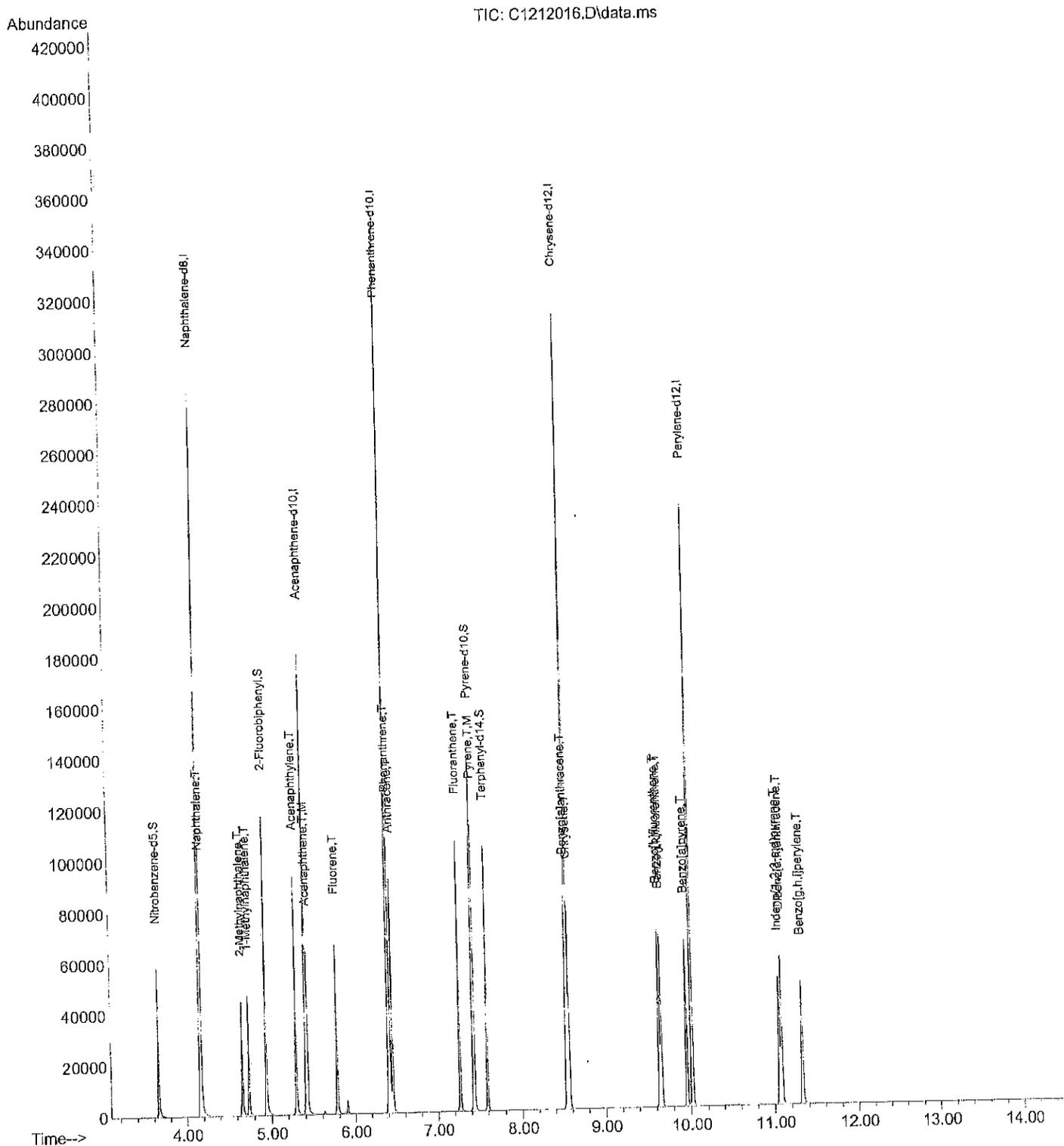
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.162	136	243779	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.406	164	134523	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.407	188	250059	2000.00	ppb	0.00	
17) Chrysene-d12	8.546	240	267274	2000.00	ppb	0.00	
21) Perylene-d12	10.020	264	243857	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.652	82	30719	856.15	ppb	0.00	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	85.61%			
7) 2-Fluorobiphenyl	4.946	172	95805	920.47	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	92.05%#			
11) Pyrene-d10	7.426	212	104667	945.68	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	94.57%			
18) Terphenyl-d14	7.588	244	82904	731.00	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	73.10%			
<b>Target Compounds</b>							
							Qvalue
3) Naphthalene	4.174	128	54177	420.06	ppb	100	
4) 2-Methylnaphthalene	4.665	142	37977	439.54	ppb	100	
5) 1-Methylnaphthalene	4.743	142	36336	442.40	ppb	100	
8) Acenaphthylene	5.299	152	60894	450.12	ppb	100	
9) Acenaphthene	5.430	153	37535	427.47	ppb	100	
12) Fluorene	5.776	166	44860	470.22	ppb	100	
13) Phenanthrene	6.423	178	65535	446.88	ppb	100	
14) Anthracene	6.454	178	67099	654.90	ppb	100	
15) Fluoranthene	7.263	202	73687	454.30	ppb	100	
16) Pyrene	7.437	202	76949	448.94	ppb	100	
19) Benzo[a]anthracene	8.530	228	72335	546.64	ppb	100	
20) Chrysene	8.569	228	66270	459.58	ppb	100	
22) Benzo[b]fluoranthene	9.634	252	68946	428.61	ppb	100	
23) Benzo(j,k)fluoranthene	9.657	252	65648	438.29	ppb	100	
24) Benzo[a]pyrene	9.954	252	66629	456.93	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	11.055	276	60500	<del>370.22</del> 447.00	ppb	100	
26) Dibenz[a,h]anthracene	11.086	278	61185	452.84	ppb	100	
27) Benzo[g,h,i]perylene	11.324	276	62253	450.58	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/15/14  
 2014

Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212016.D  
 Acq On : 12 Dec 2014 3:59 pm  
 Operator :  
 Sample : SB1212S1  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 12 16:14:29 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212017.D  
 Acq On : 12 Dec 2014 4:21 pm  
 Operator :  
 Sample : SB1212S1 DUP  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 12 16:36:21 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration

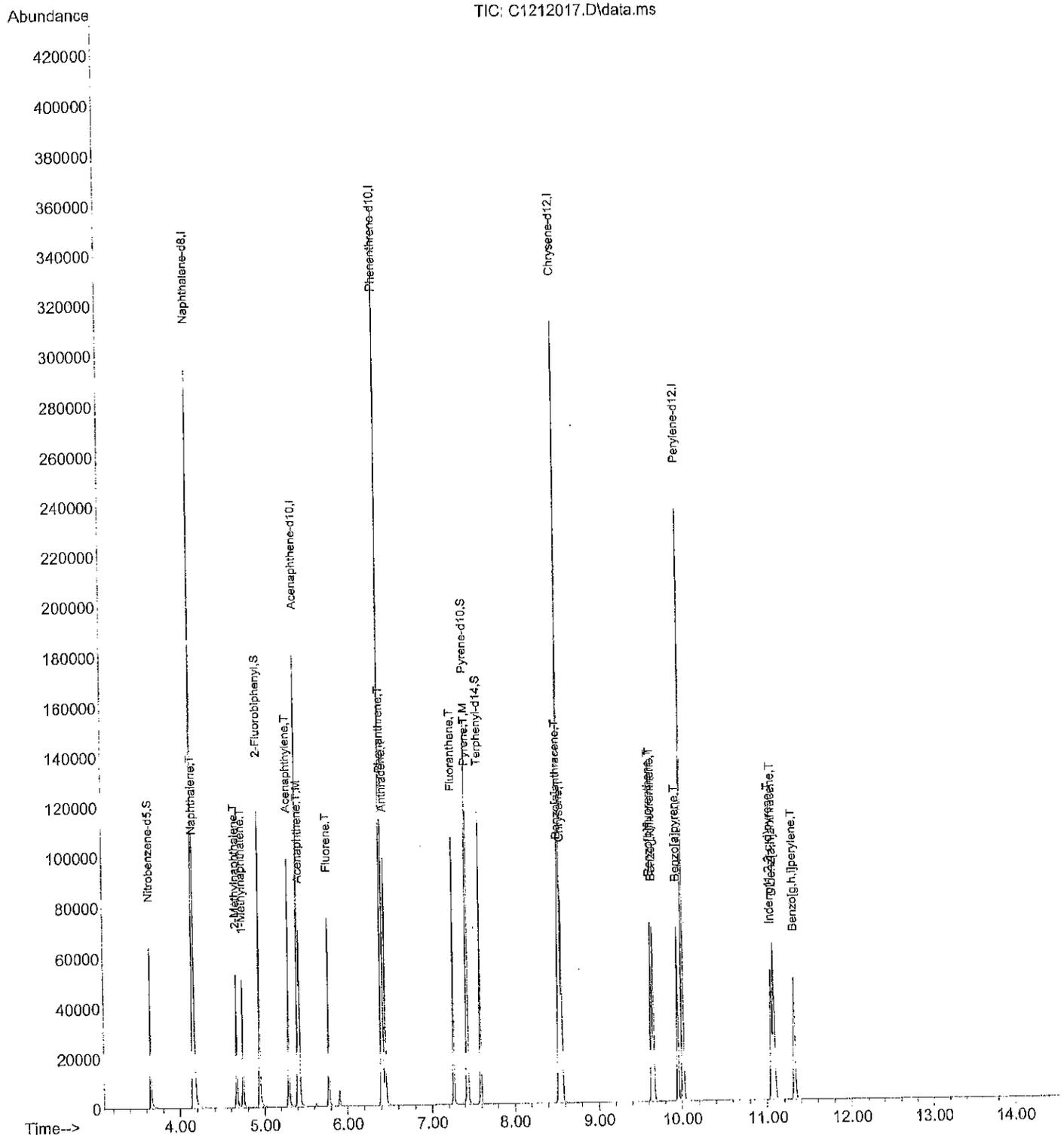
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.162	136	242732	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.407	164	133629	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.407	188	250453	2000.00	ppb	0.00	
17) Chrysene-d12	8.546	240	268945	2000.00	ppb	0.00	
21) Perylene-d12	10.017	264	243702	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.652	82	33197	929.20	ppb	0.00	
Spiked Amount 1000.000	Range 24 -	92	Recovery =	92.92%#			
7) 2-Fluorobiphenyl	4.944	172	103032	996.53	ppb	0.00	
Spiked Amount 1000.000	Range 25 -	89	Recovery =	99.65%#			
11) Pyrene-d10	7.426	212	110513	996.93	ppb	0.00	
Spiked Amount 1000.000	Range 40 -	110	Recovery =	99.69%			
18) Terphenyl-d14	7.588	244	87368	765.58	ppb	0.00	
Spiked Amount 1000.000	Range 39 -	92	Recovery =	76.56%			
							<b>Qvalue</b>
<b>Target Compounds</b>							
3) Naphthalene	4.174	128	58568	456.06	ppb	100	
4) 2-Methylnaphthalene	4.667	142	41237	479.33	ppb	100	
5) 1-Methylnaphthalene	4.741	142	39536	483.43	ppb	100	
8) Acenaphthylene	5.299	152	65462	487.13	ppb	100	
9) Acenaphthene	5.430	153	40906	468.98	ppb	100	
12) Fluorene	5.777	166	48870	511.44	ppb	100	
13) Phenanthrene	6.423	178	69457	472.87	ppb	100	
14) Anthracene	6.450	178	71667	698.38	ppb	100	
15) Fluoranthene	7.263	202	77373	476.28	ppb	100	
16) Pyrene	7.437	202	80714	470.17	ppb	100	
19) Benzo[a]anthracene	8.531	228	75953	570.42	ppb	100	
20) Chrysene	8.570	228	69262	477.35	ppb	100	
22) Benzo[b]fluoranthene	9.634	252	73988	460.25	ppb	100	
23) Benzo[j,k]fluoranthene	9.658	252	67343	449.89	ppb	100	
24) Benzo[a]pyrene	9.954	252	69731	478.51	ppb	100	
25) Indeno[1,2,3-c,d]pyrene	11.055	276	76989	471.42	ppb	100	
26) Dibenz[a,h]anthracene	11.083	278	64116	474.83	ppb	100	
27) Benzo[g,h,i]perylene	11.324	276	65361	473.37	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/15/14  
 SM

Data Path : C:\MSDCHEM\1\DATA\C141212\  
 Data File : C1212017.D  
 Acq On : 12 Dec 2014 4:21 pm  
 Operator :  
 Sample : SB1212S1 DUP  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 12 16:36:21 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141212\  
 Data File : C1212013.D  
 Acq On : 12 Dec 2014 2:51 pm  
 Operator :  
 Sample : PAH CCV1212  
 Misc : SV4-46-32  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 12 15:08:30 2014  
 Quant Method : C:\msdchem\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev (min)
1 I Naphthalene-d8	2000.000	2000.000	0.0	76	0.00
2 S Nitrobenzene-d5	500.000	512.528	-2.5	84	0.00
3 T Naphthalene	500.000	507.523	-1.5	84	0.00
4 T 2-Methylnaphthalene	500.000	519.586	-3.9	85	0.00
5 T 1-Methylnaphthalene	500.000	529.557	-5.9	86	0.00
6 I Acenaphthene-d10	2000.000	2000.000	0.0	77	0.00
7 S 2-Fluorobiphenyl	500.000	545.236	-9.0	87	0.00
8 T Acenaphthylene	500.000	521.599	-4.3	87	0.00
9 T,M Acenaphthene	500.000	511.621	-2.3	88	0.00
10 I Phenanthrene-d10	2000.000	2000.000	0.0	77	0.00
11 S Pyrene-d10	500.000	544.007	-8.8	90	0.00
12 T Fluorene	500.000	553.409	-10.7	91	0.00
13 T Phenanthrene	500.000	523.896	-4.8	90	0.00
14 T Anthracene	500.000	512.680	-2.5	85	0.00
15 T Fluoranthene	500.000	517.758	-3.6	90	0.00
16 T,M Pyrene	500.000	508.188	-1.6	89	0.00
17 I Chrysene-d12	2000.000	2000.000	0.0	78	0.00
18 S Terphenyl-d14	500.000	453.754	9.2	90	0.00
19 T Benzo[a]anthracene	500.000	598.527	-19.7	88	0.00
20 T Chrysene	500.000	524.491	-4.9	90	0.00
21 I Perylene-d12	2000.000	2000.000	0.0	77	0.00
22 T Benzo[b]fluoranthene	500.000	506.220	-1.2	88	0.00
23 T Benzo(j,k)fluoranthene	500.000	529.683	-5.9	93	0.00
24 T Benzo[a]pyrene	500.000	523.188	-4.6	90	0.00
25 T Indeno(1,2,3-c,d)pyrene	500.000	522.657	-4.5	90	0.00
26 T Dibenz[a,h]anthracene	500.000	524.049	-4.8	91	0.00
27 T Benzo[g,h,i]perylene	500.000	518.850	-3.8	91	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : X:\SEMIVOLS\COREY\DATA\C141212\  
 Data File : C1212013.D  
 Acq On : 12 Dec 2014 2:51 pm  
 Operator :  
 Sample : PAH CCV1212  
 Misc : SV4-46-32  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 12 15:08:30 2014  
 Quant Method : C:\msdchem\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration

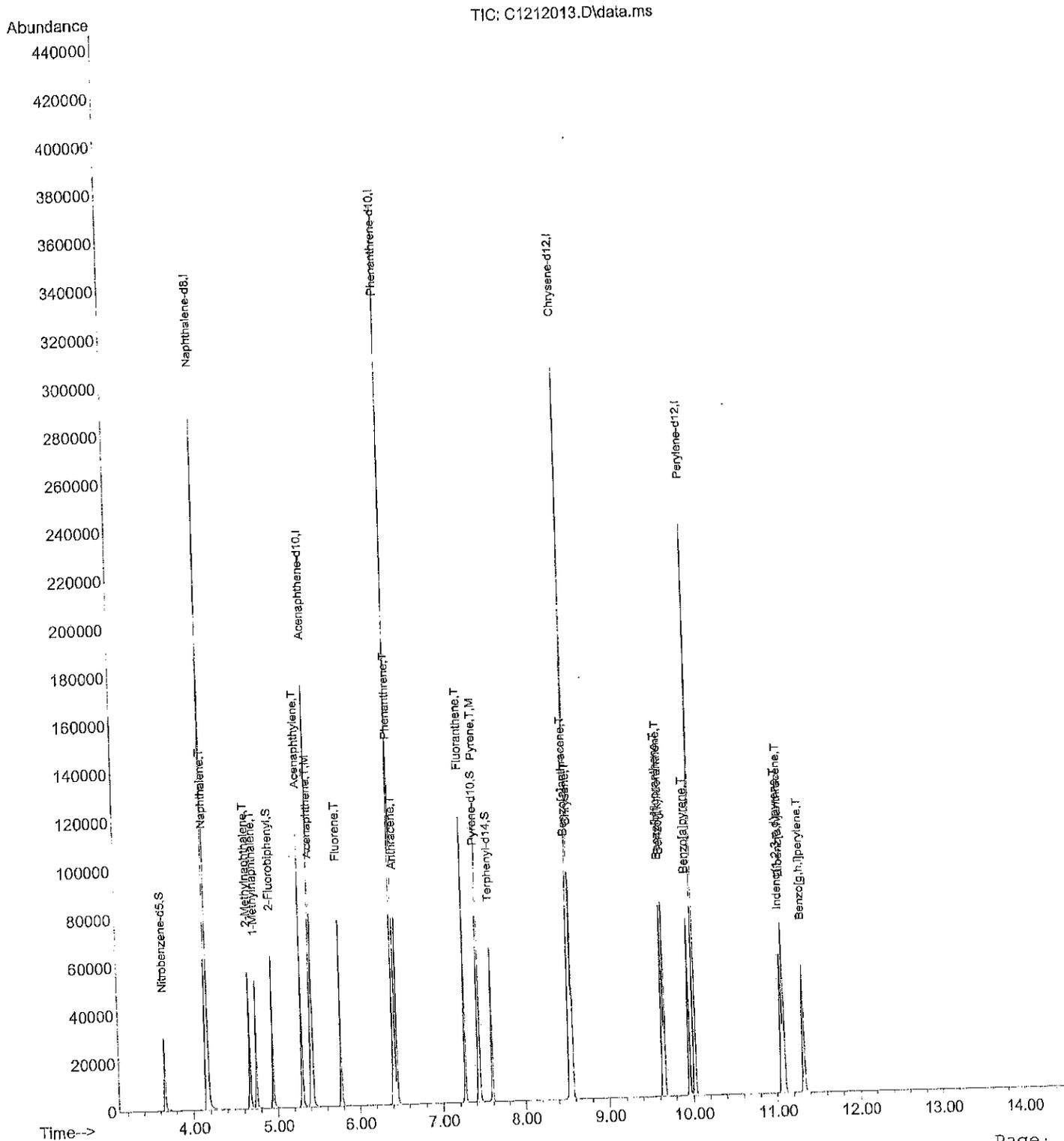
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.164	136	246991	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.407	164	135790	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.411	188	253622	2000.00	ppb	0.00	
17) Chrysene-d12	8.550	240	269607	2000.00	ppb	0.00	
21) Perylene-d12	10.021	264	242266	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.653	82	18632	512.53	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	51.25%			
7) 2-Fluorobiphenyl	4.948	172	57284	545.24	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	54.52%			
11) Pyrene-d10	7.426	212	61068	544.01	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	54.40%			
18) Terphenyl-d14	7.588	244	51910	453.75	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	45.38%			
							<b>Qvalue</b>
<b>Target Compounds</b>							
3) Naphthalene	4.176	128	66320	507.52	ppb	100	
4) 2-Methylnaphthalene	4.667	142	45485	519.59	ppb	100	
5) 1-Methylnaphthalene	4.745	142	44068	529.56	ppb	100	
8) Acenaphthylene	5.299	152	71228	521.60	ppb	100	
9) Acenaphthene	5.430	153	45347	511.62	ppb	100	
12) Fluorene	5.777	166	53549	553.41	ppb	100	
13) Phenanthrene	6.423	178	77925	523.90	ppb	100	
14) Anthracene	6.454	178	53276	512.68	ppb	100	
15) Fluoranthene	7.263	202	85176	517.76	ppb	100	
16) Pyrene	7.438	202	88345	508.19	ppb	100	
19) Benzo[a]anthracene	8.531	228	79892m	598.53	ppb	100	
20) Chrysene	8.570	228	76290	524.49	ppb	100	
22) Benzo[b]fluoranthene	9.635	252	80899	506.22	ppb	100	
23) Benzo[j,k]fluoranthene	9.658	252	78820	529.68	ppb	100	
24) Benzo[a]pyrene	9.958	252	75793	523.19	ppb	100	
25) Indeno[1,2,3-c,d]pyrene	11.058	276	84853m	522.66	ppb	100	
26) Dibenz[a,h]anthracene	11.085	278	70345	524.05	ppb	100	
27) Benzo[g,h,i]perylene	11.327	276	71218	518.85	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/12/14  


Data Path : X:\SEMIVOLS\COREY\DATA\C141212\  
 Data File : C1212013.D  
 Acq On : 12 Dec 2014 2:51 pm  
 Operator :  
 Sample : PAH CCV1212  
 Misc : SV4-46-32  
 ALS Vial : 3 Sample Multiplier: 1

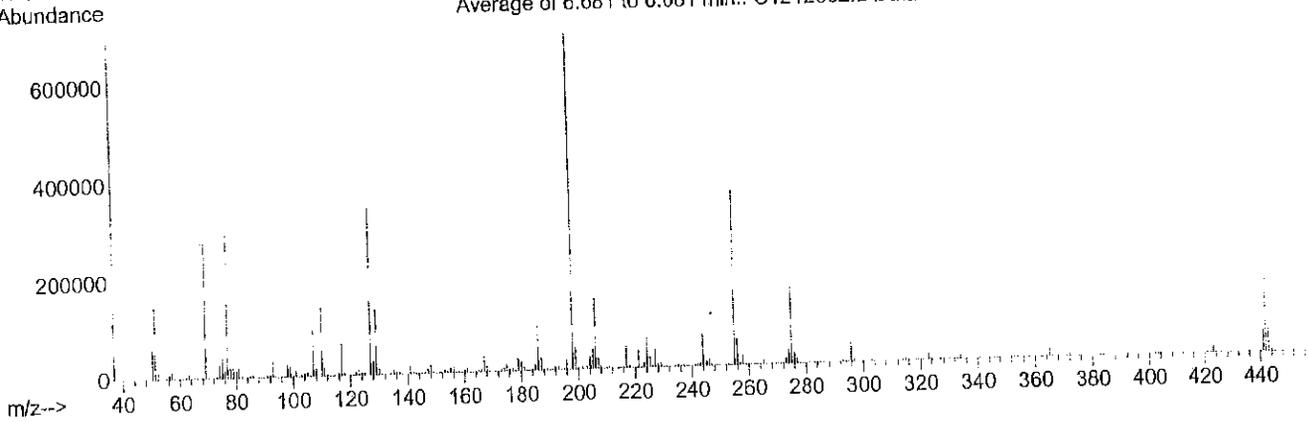
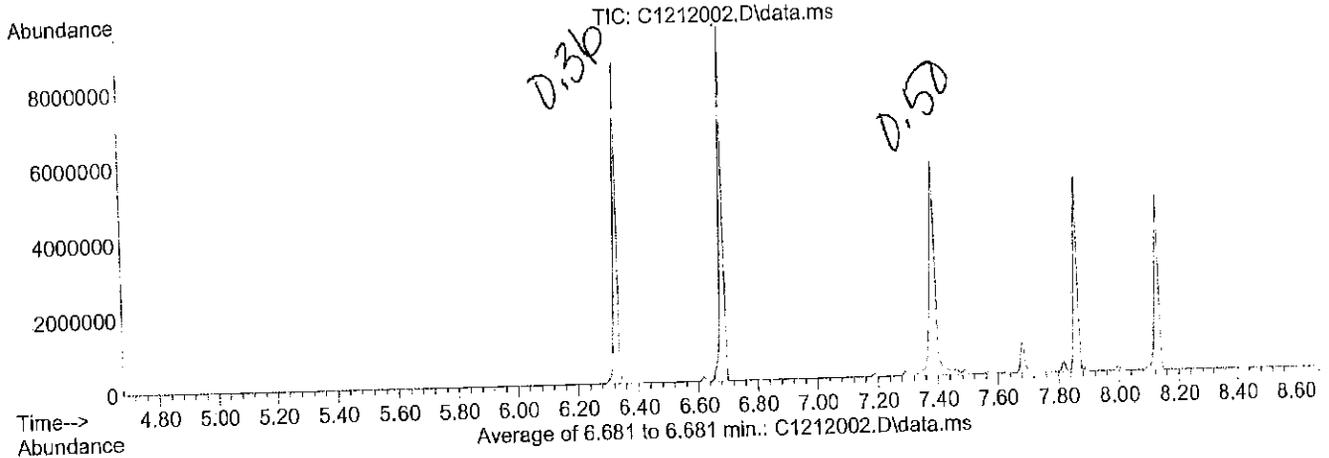
Quant Time: Dec 12 15:08:30 2014  
 Quant Method : C:\msdchem\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C141212\  
 Data File : C1212002.D  
 Acq On : 12 Dec 2014 10:45 am  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-46-13  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1210.M  
 Title : PAH'S BY SIMS  
 Last Update : Thu Dec 11 16:32:24 2014



Spectrum Information: Average of 6.681 to 6.681 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	33.4	232064	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.0	278272	PASS
70	69	0.00	2	0.5	1458	PASS
127	198	25	75	50.0	347392	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	694976	PASS
199	198	5	9	6.8	47128	PASS
275	198	10	30	23.7	164672	PASS
365	198	0.75	100	2.3	15703	PASS
441	443	0.01	100	78.8	45648	PASS
442	198	40	110	41.3	286912	PASS
443	442	15	24	20.2	57936	PASS

## Total Cadmium Data

P141212F1. Mean Only Report 12/12/2014, 2:44:43 PM

Sample	Label	Calc Conc.	Units	Date/Time
Blank	Cd 228.802	0.000	ppb	12/12/2014, 10:26:00 AM
Standard 5	Cd 228.802	10.000	ppb	12/12/2014, 10:30:31 AM
Standard 4	Cd 228.802	100.00	ppb	12/12/2014, 11:07:25 AM
Standard 3	Cd 228.802	1000.0	ppb	12/12/2014, 10:38:40 AM
Standard 2	Cd 228.802	2500.0	ppb	12/12/2014, 10:42:43 AM
Standard 1	Cd 228.802	5000.0	ppb	12/12/2014, 10:46:48 AM
Initial Calib Verif	Cd 228.802	1057.2	ppb	12/12/2014, 11:15:17 AM
LLICV	Cd 228.802	11.802	ppb	12/12/2014, 11:32:17 AM
Initial Calib Blank	Cd 228.802	-0.741uv	ppb	12/12/2014, 11:37:51 AM
Cont Calib Verif	Cd 228.802	1007.3	ppb	12/12/2014, 11:41:58 AM
Cont Calib Blank	Cd 228.802	1.655	ppb	12/12/2014, 11:47:49 AM
ICSA	Cd 228.802	2.207	ppb	12/12/2014, 11:51:52 AM
ICSAB	Cd 228.802	917.24	ppb	12/12/2014, 11:55:54 AM
BLK	Cd 228.802	2.484	ppb	12/12/2014, 12:00:00 PM
MB1212SM1	Cd 228.802	-0.233uv	ppb	12/12/2014, 12:05:59 PM
SB1212SM1	Cd 228.802	939.33	ppb	12/12/2014, 12:10:06 PM
12-049-03a	Cd 228.802	2.237	ppb	12/12/2014, 12:14:10 PM
12-049-03a D	Cd 228.802	3.098	ppb	12/12/2014, 12:18:14 PM
12-049-03a L	Cd 228.802	1.752	ppb	12/12/2014, 12:22:19 PM
12-049-03a MS	Cd 228.802	920.12	ppb	12/12/2014, 12:26:23 PM
12-049-03a MSD	Cd 228.802	926.03	ppb	12/12/2014, 12:30:26 PM
Cont Calib Verif	Cd 228.802	1012.2	ppb	12/12/2014, 12:40:47 PM
Cont Calib Blank	Cd 228.802	1.914	ppb	12/12/2014, 12:44:53 PM
LLCCV	Cd 228.802	9.615	ppb	12/12/2014, 1:01:00 PM
12-130-01	Cd 228.802	3.562	ppb	12/12/2014, 1:12:14 PM
12-130-02	Cd 228.802	1.475	ppb	12/12/2014, 1:16:22 PM
BLK	Cd 228.802	0.405uv	ppb	12/12/2014, 1:20:27 PM
MB1212TM1	Cd 228.802	1.557uv	ppb	12/12/2014, 1:24:32 PM
SB1212TM1	Cd 228.802	1023.8	ppb	12/12/2014, 1:28:39 PM
12-113-01	Cd 228.802	4.193	ppb	12/12/2014, 1:32:45 PM
12-113-01 D	Cd 228.802	2.907	ppb	12/12/2014, 1:36:50 PM
12-113-01 L	Cd 228.802	0.189uv	ppb	12/12/2014, 1:40:56 PM
12-113-01 MS	Cd 228.802	1021.1	ppb	12/12/2014, 1:45:03 PM
12-113-01 MSD	Cd 228.802	993.14	ppb	12/12/2014, 1:49:09 PM
Initial Calib Blank	Cd 228.802	1016.6Z	ppb	12/12/2014, 1:53:15 PM
Cont Calib Blank	Cd 228.802	1.604	ppb	12/12/2014, 1:59:36 PM
LLCCV	Cd 228.802	10.921	ppb	12/12/2014, 2:03:40 PM

→ Wrong ID !!

↳ Cont Calib Verif.



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 19, 2014

Abhijit Joshi  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-012-06  
Laboratory Reference No. 1412-198

Dear Abhijit:

Enclosed are the analytical results and associated quality control data for samples submitted on December 17, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Manager

Enclosures

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

### Case Narrative

Samples were collected on December 16, 2014 and received by the laboratory on December 17, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx/BENZENE EPA 8021B (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-12-13.0	12-198-01	Soil	12-16-14	12-17-14	
TRIP BLANK-121614	12-198-03	Water	N/A	12-17-14	

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-12-13.0</b>					
Laboratory ID:	12-198-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-17-14	12-17-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-17-14	12-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	68-123				

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>TRIP BLANK-121614</b>					
Laboratory ID:	12-198-03					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-17-14	12-17-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-17-14	12-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	71-113				

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-12-13.0</b>					
Laboratory ID:	12-198-01					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	12-18-14	12-18-14	X1
Lube Oil Range Organics	<b>ND</b>	60	NWTPH-Dx	12-18-14	12-18-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	65	50-150				

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-12-13.0</b>					
Laboratory ID:	12-198-01					
Benzo[a]anthracene	<b>ND</b>	0.0080	EPA 8270D/SIM	12-18-14	12-19-14	
Chrysene	<b>ND</b>	0.0080	EPA 8270D/SIM	12-18-14	12-19-14	
Benzo[b]fluoranthene	<b>ND</b>	0.0080	EPA 8270D/SIM	12-18-14	12-19-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0080	EPA 8270D/SIM	12-18-14	12-19-14	
Benzo[a]pyrene	<b>ND</b>	0.0080	EPA 8270D/SIM	12-18-14	12-19-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0080	EPA 8270D/SIM	12-18-14	12-19-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0080	EPA 8270D/SIM	12-18-14	12-19-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>68</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>69</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>53</i>	<i>31 - 116</i>				

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C**

Matrix: Soil  
Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	12-198-01					
<b>Client ID:</b>	<b>EX-12-13.0</b>					
Cadmium	<b>ND</b>	0.60	6010C	12-18-14	12-18-14	

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1217S1					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-17-14	12-17-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-17-14	12-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	93	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-193-01							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				100	102	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB	SBD	SB	SBD	SB	SBD			
SB1217S1									
Benzene	<b>1.02</b>	<b>1.06</b>	1.00	1.00	<b>102</b>	<b>106</b>	75-117	4	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					95	99	68-123		

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1217G-1	5.00	4.77	5	+/- 20%
CCVD1217G-2	5.00	4.59	8	+/- 20%

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1217B-1	50.0	51.7	-3	+/- 15%
Benzene	CCVD1217B-2	50.0	52.0	-4	+/- 15%

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1217W2					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-17-14	12-17-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-17-14	12-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	71-113				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-191-01							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	30	
Gasoline	<b>325</b>	<b>301</b>	NA	NA	NA	8	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				90	83	71-113		

**MATRIX SPIKES**

Laboratory ID:	MS	MSD	MS	MSD	MS	MSD	RPD	RPD Limit	Flags
12-180-01									
Benzene	<b>52.6</b>	<b>53.5</b>	50.0	50.0	ND	<b>105</b>	<b>107</b>	82-120	2 14
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					98	97	71-113		

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1217G-1	5.00	4.77	5	+/- 20%
CCVD1217G-2	5.00	4.59	8	+/- 20%

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1217B-1	50.0	51.7	-3	+/- 15%
Benzene	CCVD1217B-2	50.0	52.0	-4	+/- 15%
Benzene	CCVD1217B-3	50.0	53.1	-6	+/- 15%
Benzene	CCVD1217B-4	50.0	51.2	-2	+/- 15%

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1218S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	12-18-14	12-18-14	X1
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	12-18-14	12-18-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	76	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-198-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				65	70	50-150		

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCV1218R-V3	100	96.9	3.1	+/-15%
CCV1218R-V4	100	99.7	0.3	+/-15%

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1218S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	12-18-14	12-18-14	
Chrysene	ND	0.0067	EPA 8270D/SIM	12-18-14	12-18-14	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	12-18-14	12-18-14	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	12-18-14	12-18-14	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	12-18-14	12-18-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	12-18-14	12-18-14	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	12-18-14	12-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	83	32 - 114				
<i>Pyrene-d10</i>	93	33 - 121				
<i>Terphenyl-d14</i>	74	31 - 116				

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1218S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	<b>0.0775</b>	<b>0.0795</b>	0.0833	0.0833	93	95	60 - 128	3	15	
Chrysene	<b>0.0765</b>	<b>0.0765</b>	0.0833	0.0833	92	92	60 - 117	0	13	
Benzo[b]fluoranthene	<b>0.0641</b>	<b>0.0613</b>	0.0833	0.0833	77	74	60 - 131	4	16	
Benzo(j,k)fluoranthene	<b>0.0716</b>	<b>0.0777</b>	0.0833	0.0833	86	93	57 - 126	8	20	
Benzo[a]pyrene	<b>0.0716</b>	<b>0.0731</b>	0.0833	0.0833	86	88	62 - 136	2	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0657</b>	<b>0.0674</b>	0.0833	0.0833	79	81	60 - 127	3	19	
Dibenz[a,h]anthracene	<b>0.0654</b>	<b>0.0669</b>	0.0833	0.0833	79	80	62 - 133	2	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					79	86	32 - 114			
Pyrene-d10					87	90	33 - 121			
Terphenyl-d14					69	71	31 - 116			

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-18-14  
Date Analyzed: 12-18-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1218SM1

Analyte	Method	Result	PQL
Cadmium	6010C	<b>ND</b>	0.50

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 12-18-14  
 Date Analyzed: 12-18-14  
  
 Matrix: Soil  
 Units: mg/kg (ppm)  
  
 Lab ID: 12-150-06

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	<b>ND</b>	<b>ND</b>	NA	0.50	

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 MS/MSD QUALITY CONTROL**

Date Extracted: 12-18-14

Date Analyzed: 12-18-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-150-06

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50.0	<b>48.2</b>	96	<b>49.1</b>	98	2	

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	ICV121814P	1.00	0.985	1.5	+/- 10%
Cadmium	LLICV1121814P	0.0100	0.00932	6.8	+/- 30%
Cadmium	CCV1121814P	1.00	0.979	2.1	+/- 10%
Cadmium	CCV2121814P	1.00	1.03	-3.0	+/- 10%
Cadmium	LLCCV2121814P	0.0100	0.00831	17	+/- 30%
Cadmium	CCV3121814P	1.00	0.981	1.9	+/- 10%
Cadmium	LLCCV3121814P	0.0100	0.00976	2.4	+/- 30%
Cadmium	CCV4121814P	1.00	0.981	1.9	+/- 10%
Cadmium	LLCCV4121814P	0.0100	0.00977	2.3	+/- 30%
Cadmium	CCV5121814P	1.00	0.969	3.1	+/- 10%
Cadmium	CCV6121814P	1.00	0.949	5.1	+/- 10%
Cadmium	CCV7121814P	1.00	0.959	4.1	+/- 10%
Cadmium	LLCCV5121814P	0.0100	0.0108	-8.0	+/- 30%

Date of Report: December 19, 2014  
Samples Submitted: December 17, 2014  
Laboratory Reference: 1412-198  
Project: 5147-012-06

**% MOISTURE**

Date Analyzed: 12-18-14

Client ID	Lab ID	% Moisture
EX-12-13.0	12-198-01	17



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



# Sample/Cooler Receipt and Acceptance Checklist

Client: GES  
 Client Project Name/Number: 5147-012-06  
 OnSite Project Number: 12-198

Initiated by: *MM*  
 Date Initiated: 12/17/14

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	1 2 3 4
1.2 Were the custody seals intact?	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Temperature: <u>0</u>	
1.6 Have shipping bills (if any) been attached to the back of this form?	<input type="radio"/> Yes	<input type="radio"/> N/A		
1.7 How were the samples delivered?	<input type="radio"/> Client	<input checked="" type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup
			<input type="radio"/> Other	

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		1 2 3 4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		1 2 3 4
3.2 Were any sample labels missing or illegible?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
3.4 Have the samples been correctly preserved?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	1 2 3 4
3.5 Are volatile samples free from headspace and bubbles greater than 6mm?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	<input type="radio"/> Yes	<input checked="" type="radio"/> No		1 2 3 4
3.8 Was method 5035A used?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	1	<input type="radio"/> N/A	1 2 3 4

Explain any discrepancies:

<u>2.4) Sample 2) EX-12-14.0 12/16/14 1245 on COC</u>
<u>EX-12-13.0 " " on vial</u>

1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

- NWTPH-Gx/Benzene (soil) Data
- NWTPH- Gx/Benzene (water) Data
- NWTPH-Dx Data
- cPAHs EPA 8270D/SIM Data
- Total Cadmium EPA 6010CData

## NWTPH-Gx/Benzene (soil) Data

Signal #1 : d:\btex\DATA\D141217\1217014.D\FID1A.CH Vial: 14  
 Signal #2 : d:\btex\DATA\D141217\1217014.D\FID2B.CH  
 Acq On : 17 Dec 2014 19:37 Operator:  
 Sample : 12-198-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 20:06 2014 Quant Results File: 141012DB.RES

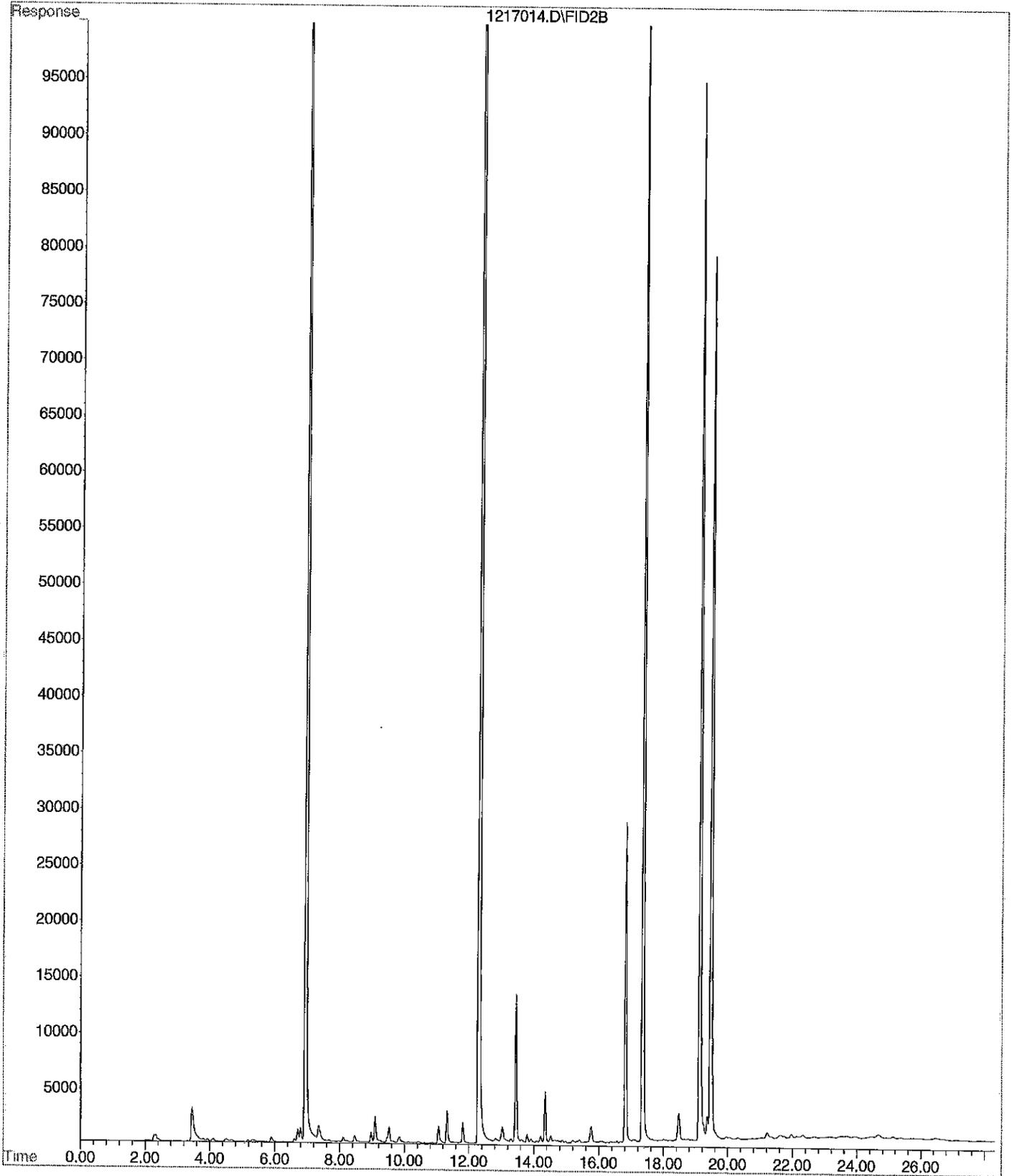
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.95	2040323	29.311	PPB
5) S BROMOFLUOROBENZENE	12.30	1239269	30.386	PPB
11) S FLUOROBENZENE #2	6.95	5430931	24.362	PPB
16) S BROMOFLUOROBENZENE #2	12.30	7677456	25.473	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	886221	0.011	PPM
2) H Entire GAS Envelope (9-24-	12.21	6868761	0.094	PPM
3) H GASOLINE (9-24-14)	13.51	3775402	0.074	PPM
7) H entire GAS envelope #2 (9-	12.26	15639961	0.060	PPM
8) H GASOLINE #2 (9-24-14)	13.56	7088592	0.005	PPM
9) MTBE #2	4.67	9579	0.083	PPB
10) BENZENE #2	6.71	38746	0.088	PPB
12) TOLUENE #2	9.10	90420	0.148	PPB
13) ETHYLBENZENE #2	11.06	61711	0.133	PPB
14) m,p-XYLENE #2	11.32	107477	N.D.	PPB
15) o-XYLENE #2	11.81	67058	0.001	PPB

12/17 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217014.D  
Operator :  
Acquired : 17 Dec 2014 19:37 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-198-01s  
Misc Info : V2-36-17  
Vial Number: 14



Signal #1 : d:\btex\DATA\D141217\1217013.D\FID1A.CH Vial: 13  
 Signal #2 : d:\btex\DATA\D141217\1217013.D\FID2B.CH  
 Acq On : 17 Dec 2014 19:04 Operator:  
 Sample : MB1217S1 Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 19:32 2014 Quant Results File: 141012DB.RES

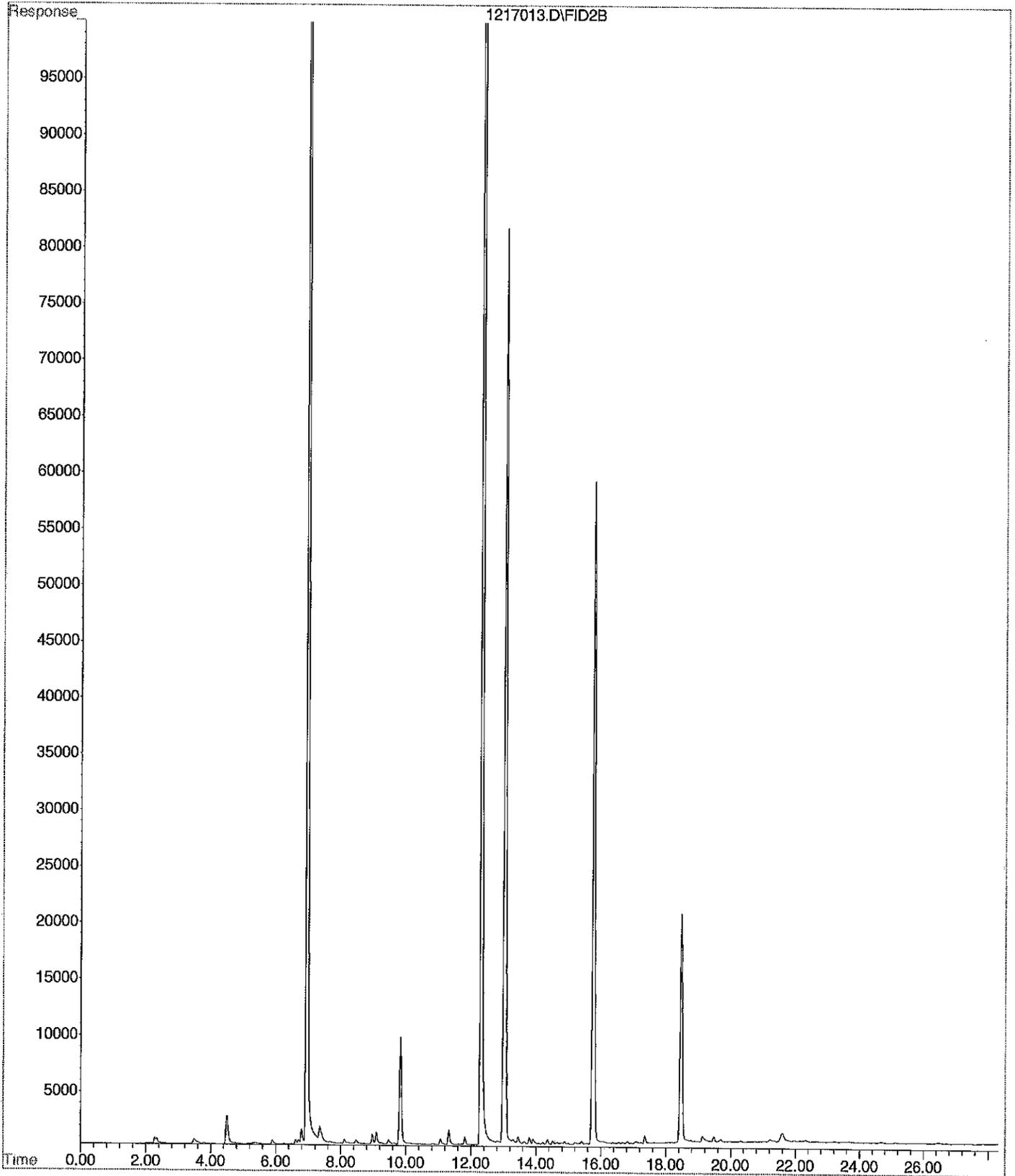
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3092334	44.595 PPB
5) S BROMOFLUOROBENZENE	12.30	1846038	45.545 PPB
11) S FLUOROBENZENE #2	6.94	8229120	37.084 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11405046	38.065 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1308444	0.020 PPM
2) H Entire GAS Envelope (9-24-	12.21	3451070	0.042 PPM
3) H GASOLINE (9-24-14)	13.51	1601571	0.019 PPM
7) H entire GAS envelope #2 (9-	12.26	11100373	0.028 PPM
8) H GASOLINE #2 (9-24-14)	13.56	8300049	0.016 PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.71	13835	0.003 PPB
12) TOLUENE #2	9.10	47439	N.D. PPB
13) ETHYLBENZENE #2	11.07	23532	N.D. PPB
14) m,p-XYLENE #2	11.32	55948	N.D. PPB
15) o-XYLENE #2	11.81	28229	N.D. PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217013.D  
Operator :  
Acquired : 17 Dec 2014 19:04 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1217S1  
Misc Info : V2-36-17  
Vial Number: 13



Signal #1 : d:\btex\DATA\D141217\1217011.D\FID1A.CH vial: 11  
 Signal #2 : d:\btex\DATA\D141217\1217011.D\FID2B.CH  
 Acq On : 17 Dec 2014 17:57 Operator:  
 Sample : 12-193-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 18:25 2014 Quant Results File: 141012DB.RES

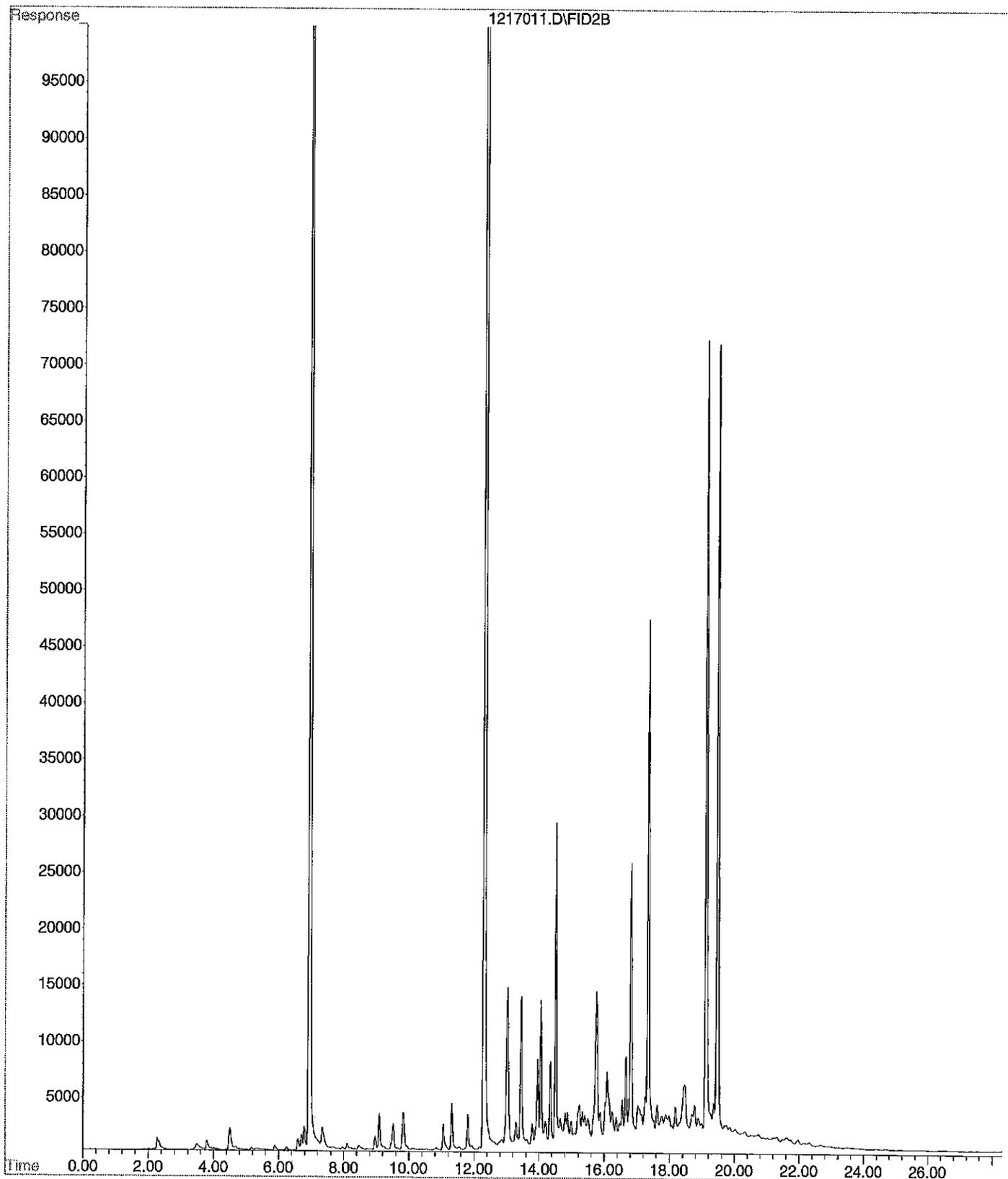
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	2888664	41.636 PPB
5) S BROMOFLUOROBENZENE	12.30	1737457	42.832 PPB
11) S FLUOROBENZENE #2	6.94	7874336	35.471 PPB
16) S BROMOFLUOROBENZENE #2	12.30	10934734	36.476 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1587827	0.026 PPM
2) H Entire GAS Envelope (9-24-	12.21	10740660	0.153 PPM
3) H GASOLINE (9-24-14)	13.51	6156602	0.134 PPM
7) H entire GAS envelope #2 (9-	12.26	24781994	0.124 PPM
8) H GASOLINE #2 (9-24-14)	13.56	13966609	0.068 PPM
9) MTBE #2	4.67	22616	0.262 PPB
10) BENZENE #2	6.71	46498	0.114 PPB
12) TOLUENE #2	9.09	126184	0.277 PPB
13) ETHYLBENZENE #2	11.06	102848	0.301 PPB
14) m,p-XYLENE #2	11.32	167288	0.029 PPB
15) o-XYLENE #2	11.81	118985	0.209 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217011.D  
Operator :  
Acquired : 17 Dec 2014 17:57 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-193-01s  
Misc Info : v2-36-17  
Vial Number: 11



Signal #1 : d:\btex\DATA\D141217\1217012.D\FID1A.CH vial: 12  
 Signal #2 : d:\btex\DATA\D141217\1217012.D\FID2B.CH  
 Acq On : 17 Dec 2014 18:30 Operator:  
 Sample : 12-193-01s DUP Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 18:58 2014 Quant Results File: 141012DB.RES

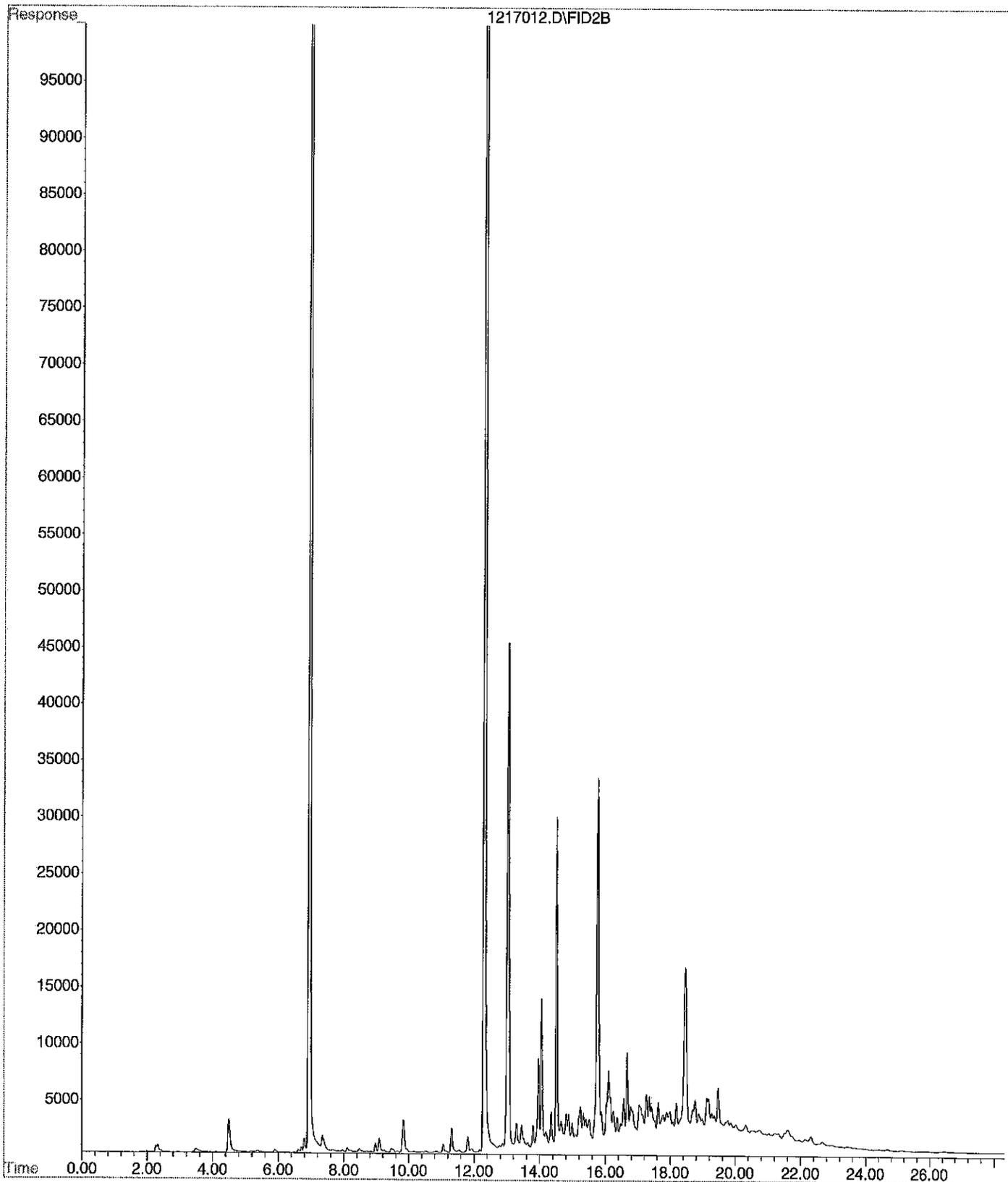
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	2948990	42.512 PPB
5) S BROMOFLUOROBENZENE	12.30	1751784	43.190 PPB
11) S FLUOROBENZENE #2	6.94	7989860	35.997 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11091651	37.006 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1185716	0.017 PPM
2) H Entire GAS Envelope (9-24-	12.21	7893957	0.110 PPM
3) H GASOLINE (9-24-14)	13.51	4321623	0.088 PPM
7) H entire GAS envelope #2 (9-	12.26	20684093	0.095 PPM
8) H GASOLINE #2 (9-24-14)	13.56	13333165	0.062 PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.71	16284	0.011 PPB
12) TOLUENE #2	9.09	53776	0.016 PPB
13) ETHYLBENZENE #2	11.06	33249	0.017 PPB
14) m,p-XYLENE #2	11.32	90360	N.D. PPB
15) o-XYLENE #2	11.81	54336	N.D. PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217012.D  
Operator :  
Acquired : 17 Dec 2014 18:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-193-01s DUP  
Misc Info : V2-36-17  
Vial Number: 12



Signal #1 : d:\btex\DATA\D141217\1217009.D\FID1A.CH Vial: 9  
 Signal #2 : d:\btex\DATA\D141217\1217009.D\FID2B.CH  
 Acq On : 17 Dec 2014 16:49 Operator:  
 Sample : SB1217S1 Inst : Daryl  
 Misc : V2-36-17,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 17:18 2014 Quant Results File: 141012DB.RES

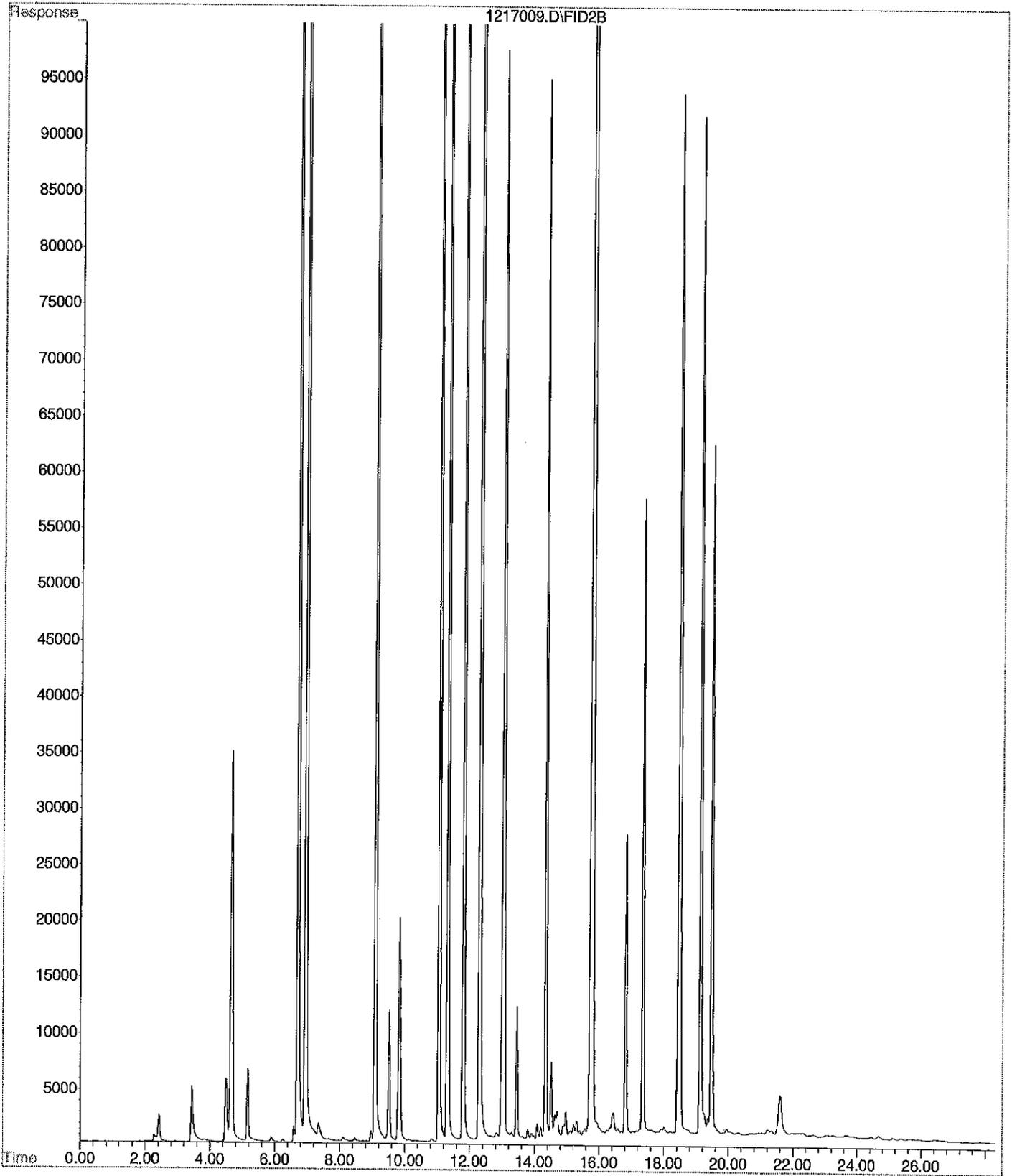
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3117023	44.953 PPB
5) S BROMOFLUOROBENZENE	12.30	1648334	40.606 PPB
11) S FLUOROBENZENE #2	6.94	8436029	38.025 PPB
16) S BROMOFLUOROBENZENE #2	12.30	10518252	35.069 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	12068429	0.238 PPM
2) H Entire GAS Envelope (9-24-	12.21	23026182	0.341 PPM
3) H GASOLINE (9-24-14)	13.51	14685021	0.350 PPM
7) H entire GAS envelope #2 (9-	12.26	69537776	0.435 PPM
8) H GASOLINE #2 (9-24-14)	13.56	48082763	0.379 PPM
9) MTBE #2	4.66	1708350	23.347 PPB
10) BENZENE #2	6.70	6009538	20.433 PPB
12) TOLUENE #2	9.08	5602090	19.981 PPB
13) ETHYLBENZENE #2	11.05	4724830	19.122 PPB
14) m,p-XYLENE #2	11.31	5674567	19.016 PPB
15) o-XYLENE #2	11.80	4741623	18.684 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217009.D  
Operator :  
Acquired : 17 Dec 2014 16:49 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SB1217S1  
Misc Info : V2-36-17,V2-36-22  
Vial Number: 9



Signal #1 : d:\btex\DATA\D141217\1217010.D\FID1A.CH      Vial: 10  
 Signal #2 : d:\btex\DATA\D141217\1217010.D\FID2B.CH  
 Acq On : 17 Dec 2014 17:23      Operator:  
 Sample : SBD1217S1      Inst : Daryl  
 Misc : V2-36-17,V2-36-22      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile signal #1: events.e      IntFile signal #2: EVENTS2.E

Quant Time: Dec 17 17:51 2014      Quant Results File: 141012DB.RES

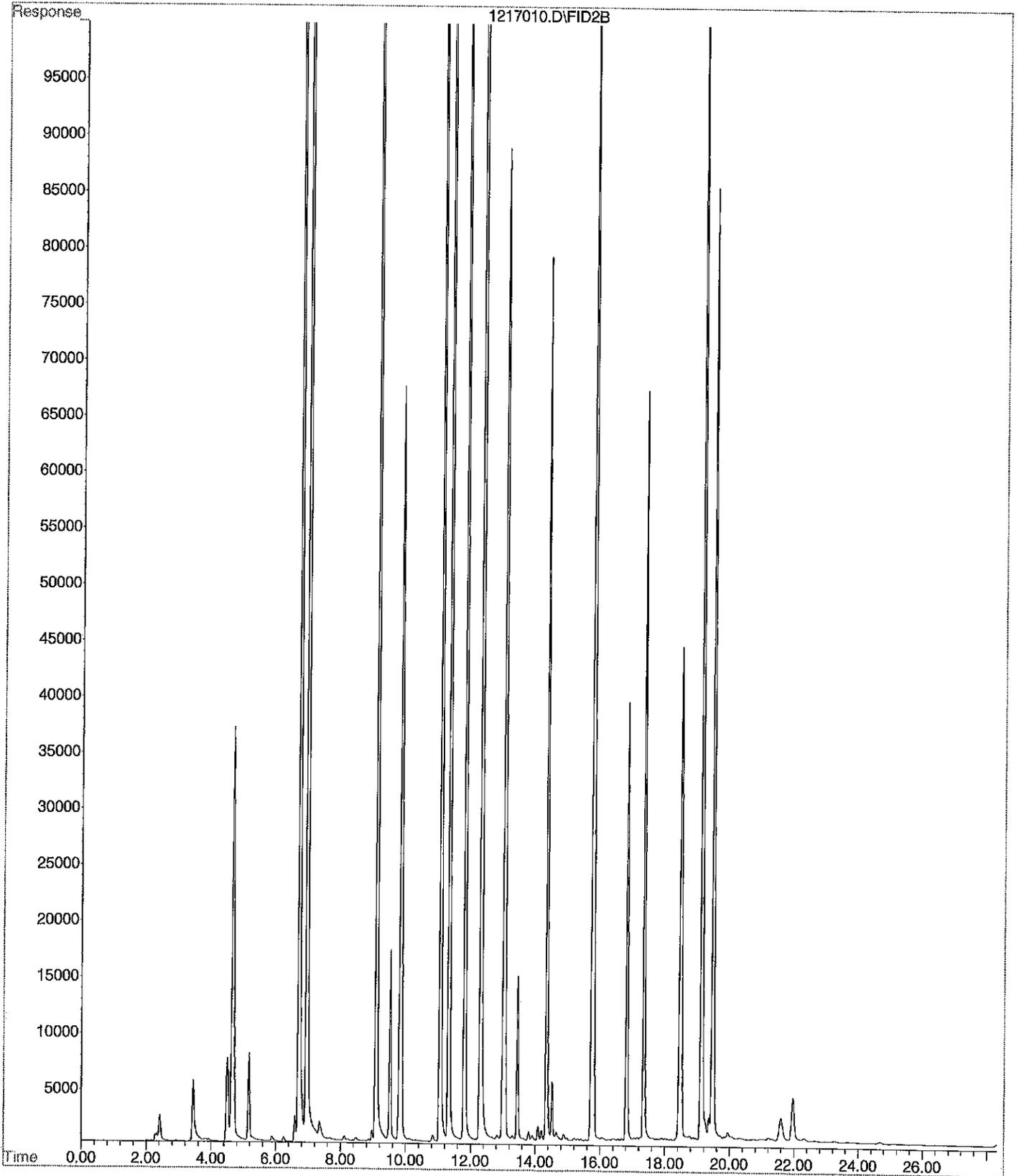
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      signal #2 Phase:  
 Signal #1 Info :      signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3230713	46.605 PPB
5) S BROMOFLUOROBENZENE	12.30	1664376	41.006 PPB
11) S FLUOROBENZENE #2	6.95	8752585	39.464 PPB
16) S BROMOFLUOROBENZENE #2	12.30	10671550	35.587 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	13383410	0.265 PPM
2) H Entire GAS Envelope (9-24-	12.21	23076880	0.342 PPM
3) H GASOLINE (9-24-14)	13.51	14502446	0.345 PPM
7) H entire GAS envelope #2 (9-	12.26	63088299	0.391 PPM
8) H GASOLINE #2 (9-24-14)	13.56	42586147	0.329 PPM
9) MTBE #2	4.66	1800770	24.613 PPB
10) BENZENE #2	6.71	6230372	21.186 PPB
12) TOLUENE #2	9.09	5801083	20.697 PPB
13) ETHYLBENZENE #2	11.05	4985268	20.183 PPB
14) m,p-XYLENE #2	11.32	5967816	20.027 PPB
15) o-XYLENE #2	11.80	4916471	19.383 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217010.D  
Operator :  
Acquired : 17 Dec 2014 17:23 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SBD1217S1  
Misc Info : V2-36-17,V2-36-22  
Vial Number: 10



Signal #1 : d:\btex\DATA\D141217\1217002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141217\1217002.D\FID2B.CH  
 Acq On : 17 Dec 2014 12:10 Operator:  
 Sample : CCVD1217B-1 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 12:38 2014 Quant Results File: 141012DB.RES

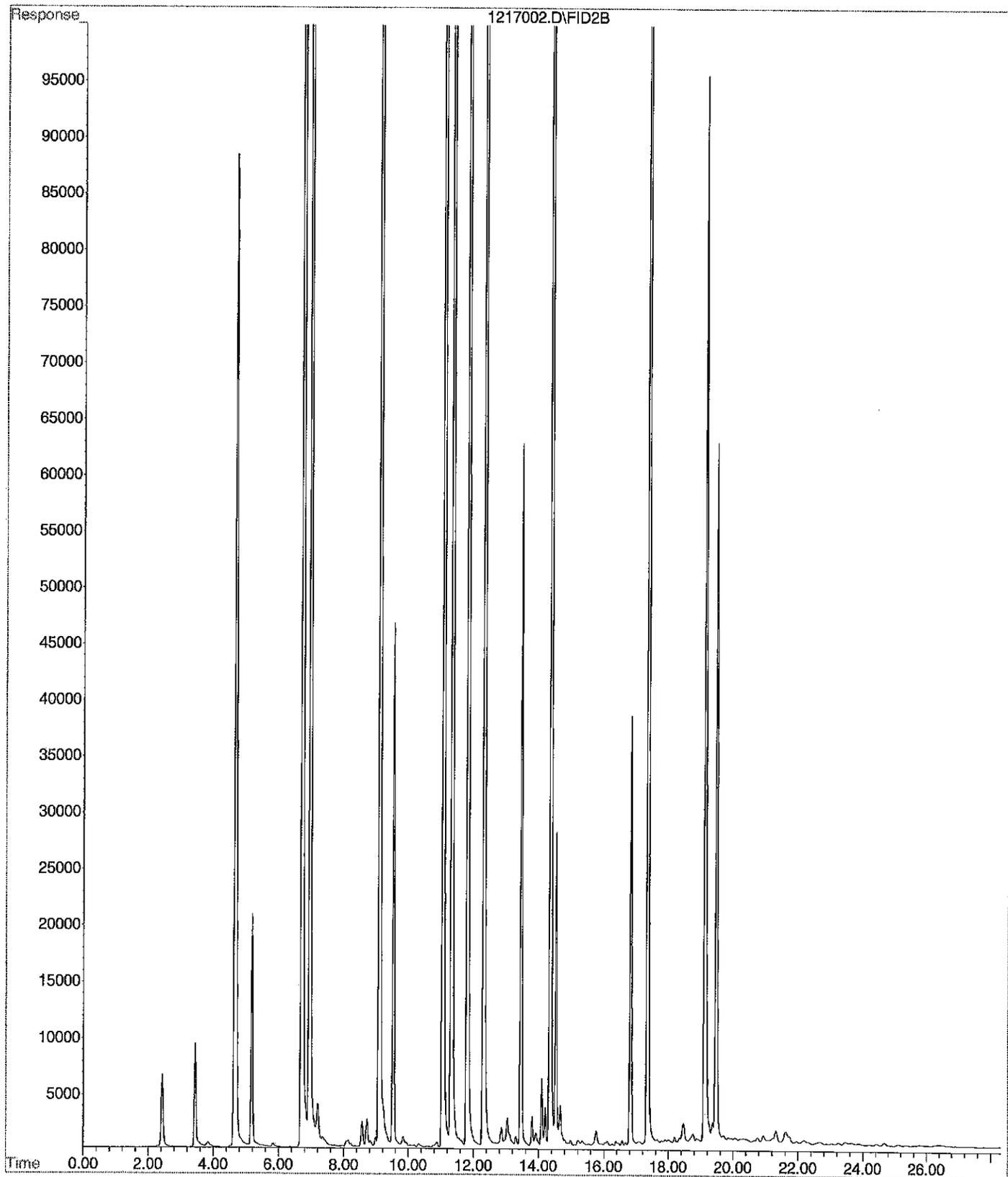
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3341069	48.208 PPB
5) S BROMOFLUOROBENZENE	12.31	1915604	47.283 PPB
11) S FLUOROBENZENE #2	6.95	8982428	40.509 PPB
16) S BROMOFLUOROBENZENE #2	12.31	12159098	40.612 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31635753	0.636 PPM
2) H Entire GAS Envelope (9-24-	12.21	50827105	0.767 PPM
3) H GASOLINE (9-24-14)	13.51	34447418	0.850 PPM
7) H entire GAS envelope #2 (9-	12.26	111930780	0.731 PPM
8) H GASOLINE #2 (9-24-14)	13.56	82621975	0.694 PPM
9) MTBE #2	4.66	4140298	56.652 PPB
10) BENZENE #2	6.71	15195239	51.734 PPB
12) TOLUENE #2	9.09	14469179	51.888 PPB
13) ETHYLBENZENE #2	11.06	12500925	50.788 PPB
14) m,p-XYLENE #2	11.32	15122637	51.588 PPB
15) o-XYLENE #2	11.81	12687827	50.443 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217002.D  
Operator :  
Acquired : 17 Dec 2014 12:10 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217B-1  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141217\1217016.D\FID1A.CH Vial: 16  
 Signal #2 : d:\btex\DATA\D141217\1217016.D\FID2B.CH  
 Acq On : 17 Dec 2014 20:44 Operator:  
 Sample : CCVD1217B-2 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 21:12 2014 Quant Results File: 141012DB.RES

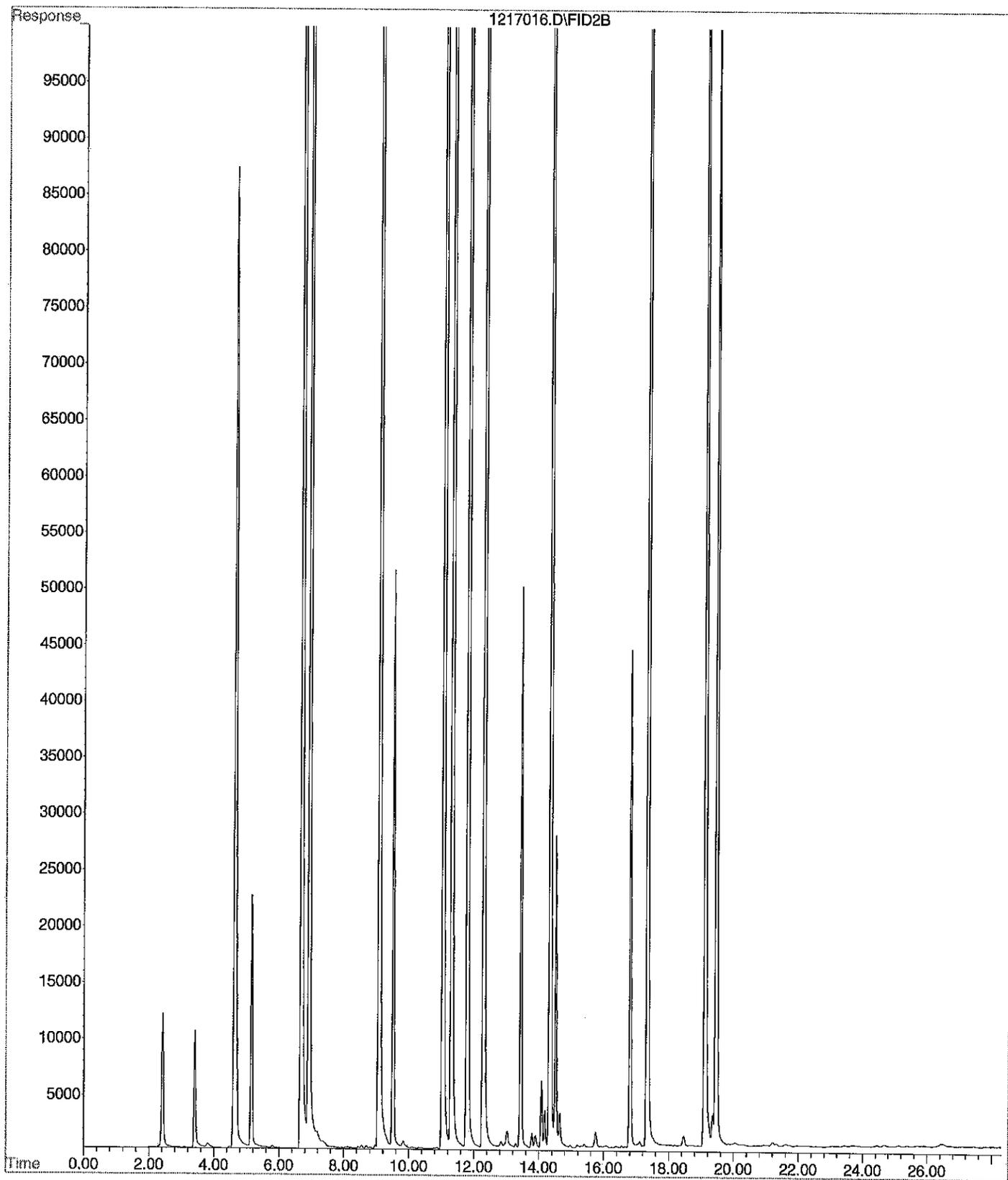
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3290422	47.473 PPB
5) S BROMOFLUOROBENZENE	12.29	1918832	47.363 PPB
11) S FLUOROBENZENE #2	6.93	9035863	40.752 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12205843	40.770 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30490701	0.613 PPM
2) H Entire GAS Envelope (9-24-	12.21	49911785	0.753 PPM
3) H GASOLINE (9-24-14)	13.51	33787185	0.833 PPM
7) H entire GAS envelope #2 (9-	12.26	116770055	0.764 PPM
8) H GASOLINE #2 (9-24-14)	13.56	83544152	0.702 PPM
9) MTBE #2	4.64	4152070	56.813 PPB
10) BENZENE #2	6.69	15283452	52.035 PPB
12) TOLUENE #2	9.07	14175910	50.833 PPB
13) ETHYLBENZENE #2	11.04	12438693	50.534 PPB
14) m,p-XYLENE #2	11.31	14835165	50.597 PPB
15) o-XYLENE #2	11.79	12562903	49.943 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217016.D  
Operator :  
Acquired : 17 Dec 2014 20:44 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217B-2  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 16



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141217\1217001.D\FID1A.CH  
 Signal #2 : d:\btex\DATA\D141217\1217001.D\FID2B.CH  
 Acq On : 17 Dec 2014 11:36  
 Sample : CCVD1217G-1  
 Misc : V2-36-08

Vial: 1

Operator:  
 Inst : Daryl  
 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 12:04 2014 Quant Results File: 141012DB.RES

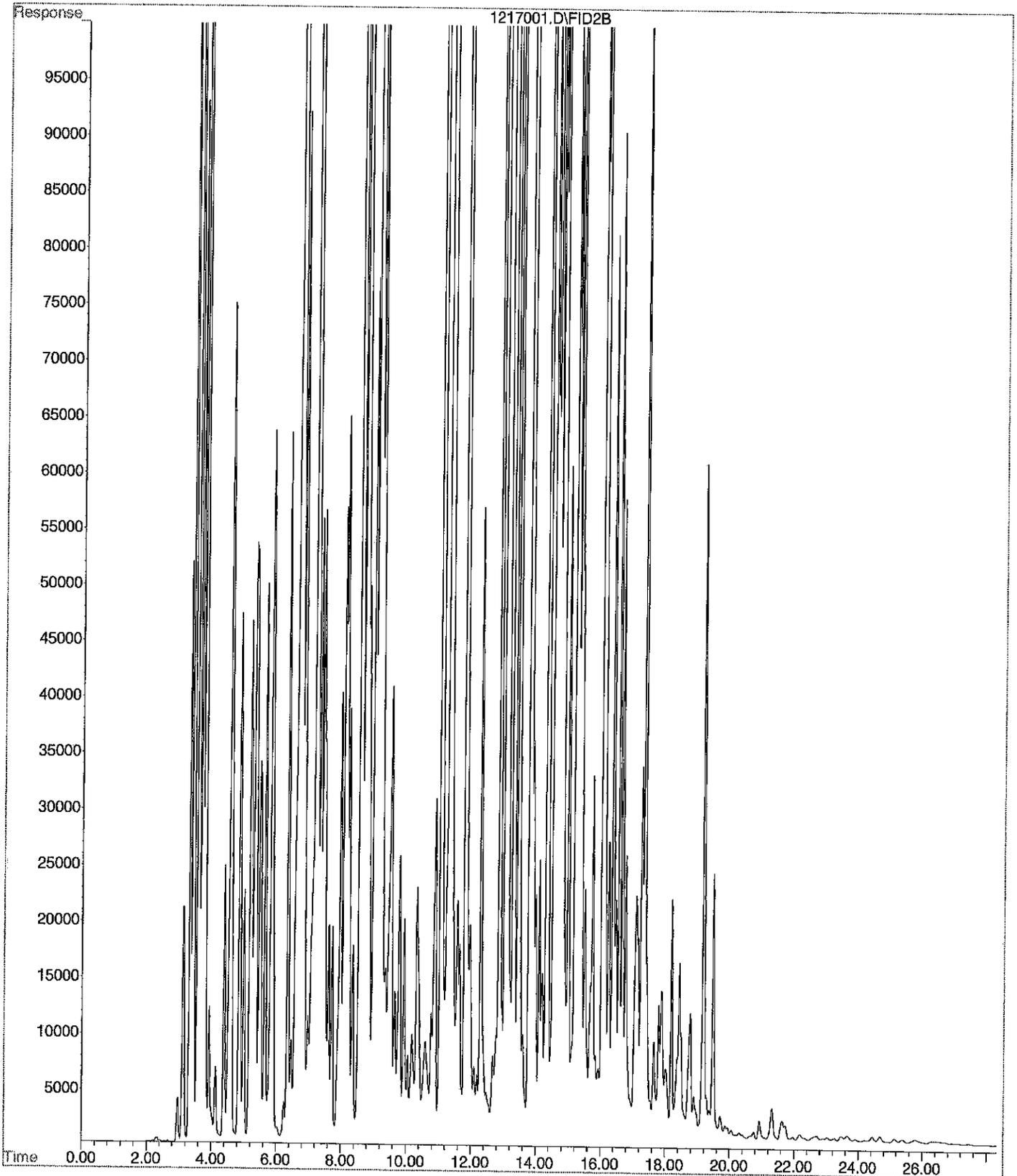
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :  
 Signal #1 Info :  
 Signal #2 Phase:  
 Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.84	7641937	110.693	PPB
5) S BROMOFLUOROBENZENE	12.29	1266996	31.079	PPB
11) S FLUOROBENZENE #2	6.97	480915	1.856	PPB
16) S BROMOFLUOROBENZENE #2	12.29	2474291	7.896	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	289126209	5.866	PPM
2) H Entire GAS Envelope (9-24-	12.21	390118665	5.964	PPM
3) H GASOLINE (9-24-14)	13.51	220461644	5.556	PPM
7) H entire GAS envelope #2 (9-	12.26	706019269	4.869	PPM
8) H GASOLINE #2 (9-24-14)	13.56	530130394	4.773	PPM ✓
9) MTBE #2	4.58	4054464	55.477	PPB
10) BENZENE #2	6.71	47498273	161.809	PPB
12) TOLUENE #2	9.10	120244117	432.504	PPB
13) ETHYLBENZENE #2	11.06	29707927	120.857	PPB
14) m,p-XYLENE #2	11.32	108086144	372.082	PPB
15) o-XYLENE #2	11.81	41202877	164.409	PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217001.D  
Operator :  
Acquired : 17 Dec 2014 11:36 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141217\1217042.D\FID1A.CH      Vial: 42  
 Signal #2 : d:\btex\DATA\D141217\1217042.D\FID2B.CH  
 Acq On : 18 Dec 2014 12:00      Operator:  
 Sample : CCVD1217G-2      Inst : Daryl  
 Misc : V2-36-08      Multiplr: 1.00  
                                  Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 18 12:28 2014      Quant Results File: 141012DB.RES

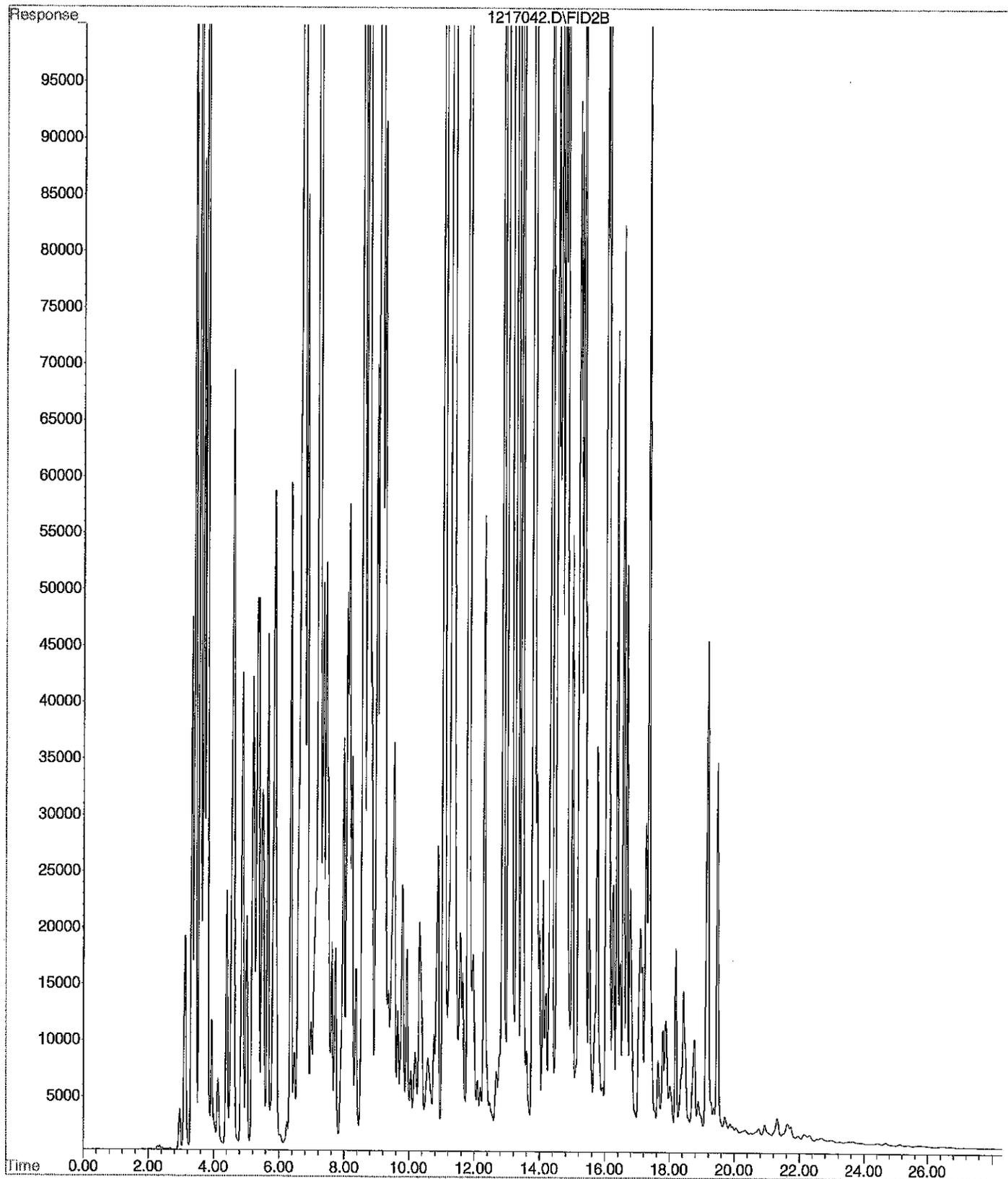
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.85	6897334	99.875 PPB
5) S BROMOFLUOROBENZENE	12.30	1142357	27.965 PPB
11) S FLUOROBENZENE #2	6.98	506919	1.974 PPB
16) S BROMOFLUOROBENZENE #2	12.30	2437054	7.771 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	270296917	5.484 PPM
2) H Entire GAS Envelope (9-24-	12.21	364385105	5.570 PPM
3) H GASOLINE (9-24-14)	13.51	207631010	5.231 PPM
7) H entire GAS envelope #2 (9-	12.26	676333396	4.662 PPM
8) H GASOLINE #2 (9-24-14)	13.56	509489313	4.585 PPM
9) MTBE #2	4.59	3776301	51.667 PPB
10) BENZENE #2	6.72	46055399	156.892 PPB
12) TOLUENE #2	9.10	118743629	427.105 PPB
13) ETHYLBENZENE #2	11.07	28726401	116.860 PPB
14) m,p-XYLENE #2	11.32	105658669	363.714 PPB
15) o-XYLENE #2	11.82	39925025	159.302 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217042.D  
Operator :  
Acquired : 18 Dec 2014 12:00 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217G-2  
Misc Info : V2-36-08  
Vial Number: 42



## NWTPH-Gx/Benzene (water) Data

Signal #1 : d:\btex\DATA\D141217\1217032.D\FID1A.CH Vial: 32  
 Signal #2 : d:\btex\DATA\D141217\1217032.D\FID2B.CH  
 Acq On : 18 Dec 2014 5:34 Operator:  
 Sample : 12-198-03 Inst : Daryl  
 Misc : V2-36-23 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 18 6:03 2014 Quant Results File: 141012DB.RES

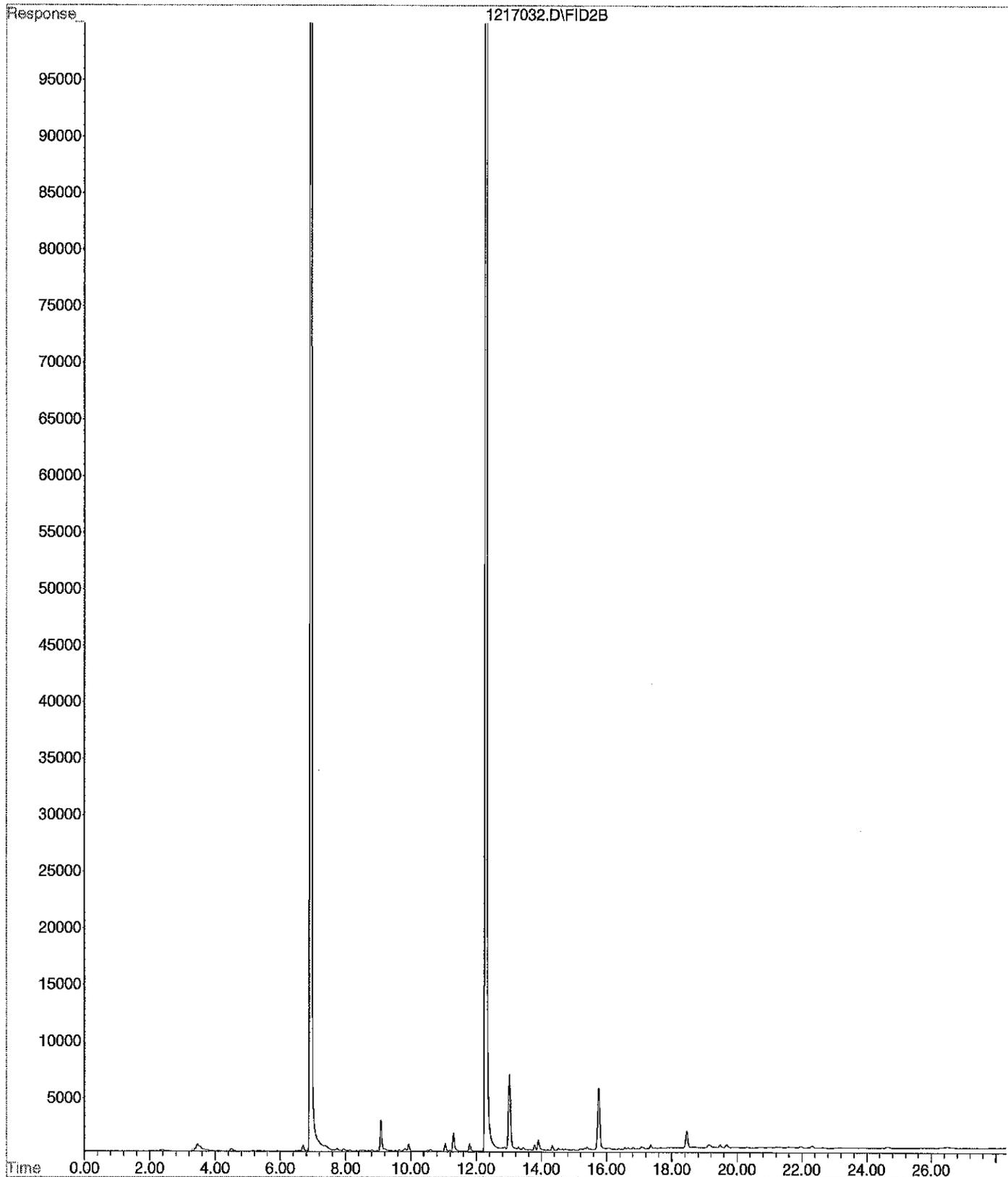
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	6.93	3138529	45.266	PPB
5) S BROMOFLUOROBENZENE	12.29	1798535	44.358	PPB
11) S FLUOROBENZENE #2	6.93	8499343	38.313	PPB
16) S BROMOFLUOROBENZENE #2	12.29	11304244	37.724	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	512028	0.004	PPM
2) H Entire GAS Envelope (9-24-	12.21	1475533	0.011	PPM
3) H GASOLINE (9-24-14)	13.51	654130	N.D.	PPM
7) H entire GAS envelope #2 (9-	12.26	2861039	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	1738407	N.D.	PPM
9) MTBE #2	4.69	1158	N.D.	PPB
10) BENZENE #2	6.70	27939	0.051	PPB
12) TOLUENE #2	9.08	108550	0.213	PPB
13) ETHYLBENZENE #2	11.05	25235	N.D.	PPB
14) m,p-XYLENE #2	11.31	68483	N.D.	PPB
15) o-XYLENE #2	11.80	25744	N.D.	PPB

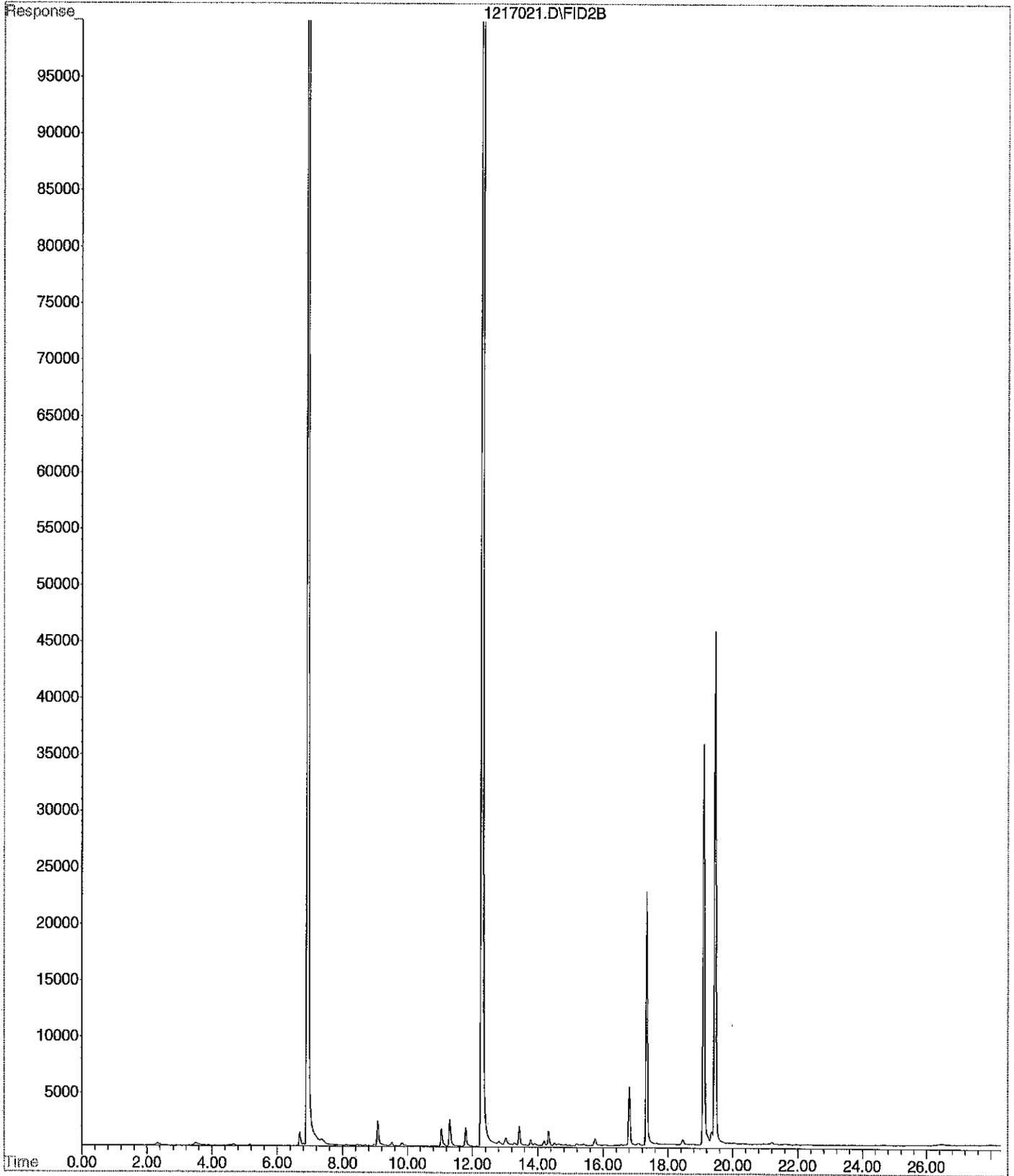
12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217032.D  
Operator :  
Acquired : 18 Dec 2014 5:34 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-198-03  
Misc Info : V2-36-23  
Vial Number: 32





File : X:\BTEX\DARYL\DATA\D141217\1217021.D  
Operator :  
Acquired : 17 Dec 2014 23:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1217W2  
Misc Info : V2-36-23  
Vial Number: 21



Signal #1 : d:\btex\DATA\D141217\1217030.D\FID1A.CH      Vial: 30  
 Signal #2 : d:\btex\DATA\D141217\1217030.D\FID2B.CH  
 Acq On : 18 Dec 2014 4:28      Operator:  
 Sample : 12-191-01b      Inst : Daryl  
 Misc : V2-36-23      Multiplr: 1.00  
                                  Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 18 4:56 2014      Quant Results File: 141012DB.RES

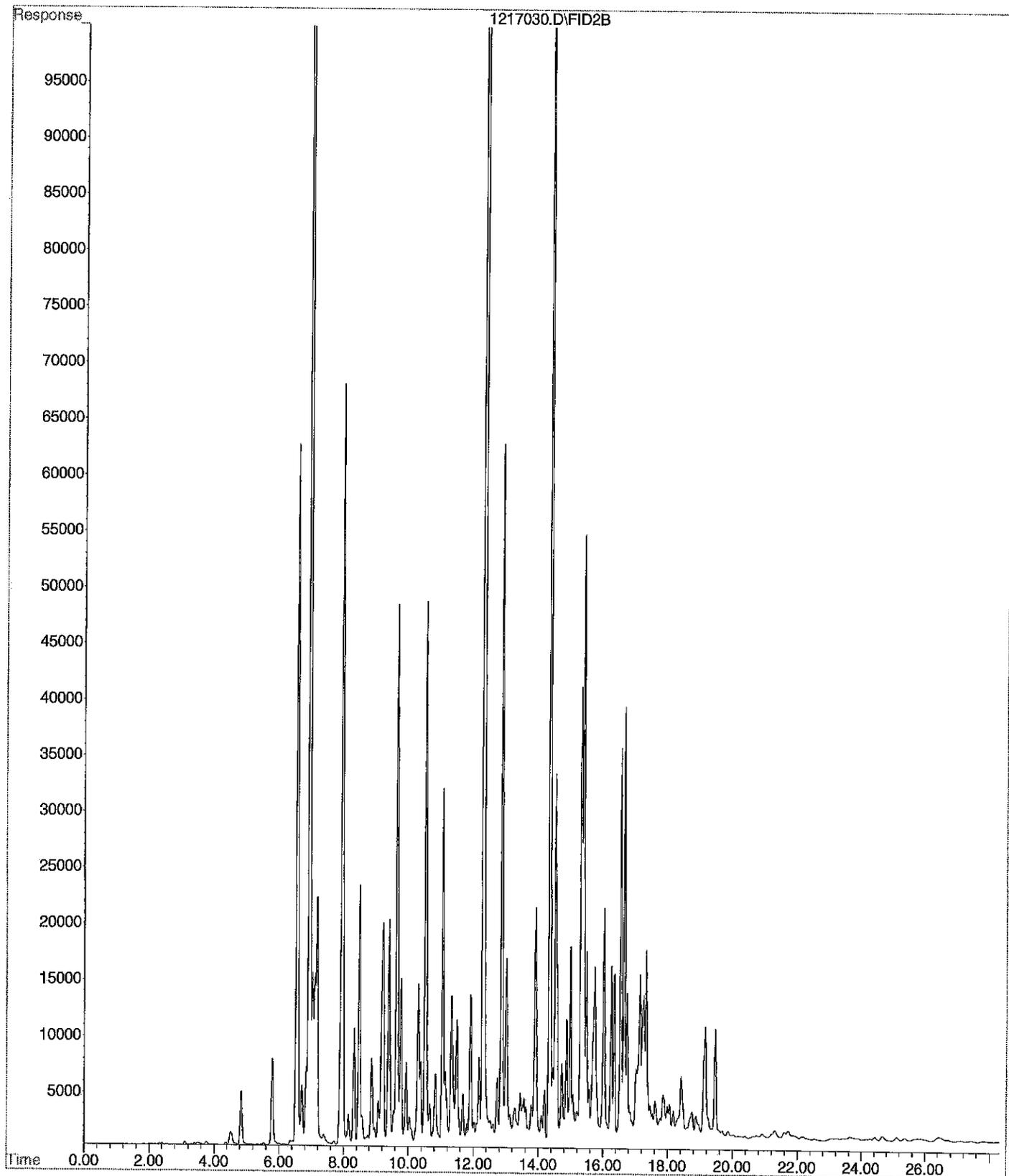
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.93	3013779	43.453 PPB
5) S BROMOFLUOROBENZENE	12.29	2525581	62.522 PPB
11) S FLUOROBENZENE #2	6.93	7979296	35.949 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12897110	43.105 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	23181870	0.464 PPM
2) H Entire GAS Envelope (9-24-	12.21	35540825	0.533 PPM
3) H GASOLINE (9-24-14)	13.51	18937556	0.458 PPM
7) H entire GAS envelope #2 (9-	12.26	57715908	0.353 PPM
8) H GASOLINE #2 (9-24-14)	13.56	42102542	0.325 PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.70	244971	0.790 PPB
12) TOLUENE #2	9.08	136268	0.313 PPB
13) ETHYLBENZENE #2	11.04	1014301	4.012 PPB
14) m,p-XYLENE #2	11.32	725673	1.954 PPB
15) o-XYLENE #2	11.80	63302	N.D. PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217030.D  
Operator :  
Acquired : 18 Dec 2014 4:28 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-191-01b  
Misc Info : V2-36-23  
Vial Number: 30



Signal #1 : d:\btex\DATA\D141217\1217028.D\FID1A.CH vial: 28  
 Signal #2 : d:\btex\DATA\D141217\1217028.D\FID2B.CH  
 Acq On : 18 Dec 2014 3:22 Operator:  
 Sample : 12-191-01b DUP Inst : Daryl  
 Misc : V2-36-23 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 18 3:50 2014 Quant Results File: 141012DB.RES

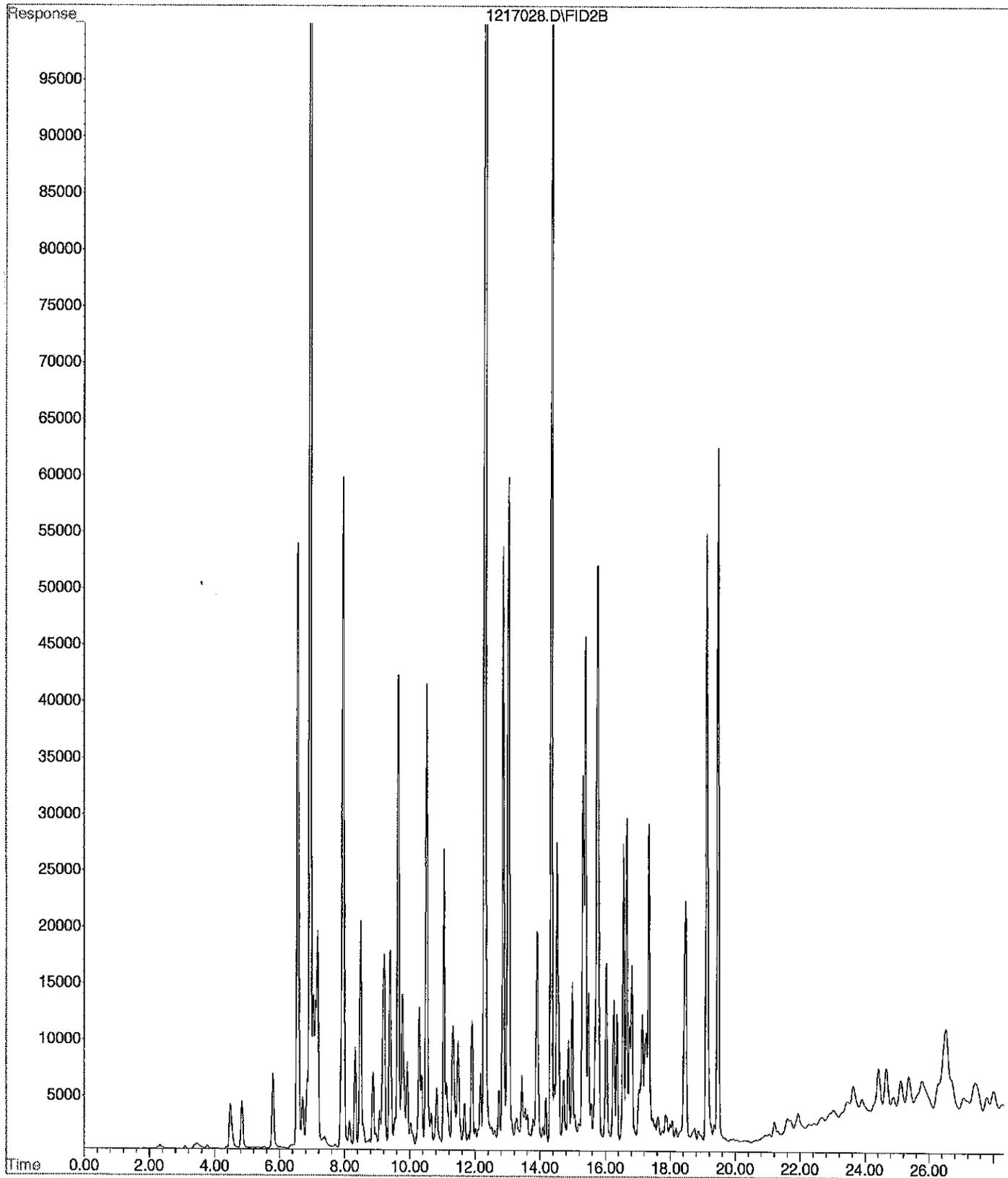
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2767512	39.876 PPB
5) S BROMOFLUOROBENZENE	12.29	2246465	55.549 PPB
11) S FLUOROBENZENE #2	6.93	7394228	33.288 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11334298	37.826 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	20920074	0.418 PPM
2) H Entire GAS Envelope (9-24-	12.21	33243290	0.498 PPM
3) H GASOLINE (9-24-14)	13.51	17199290	0.414 PPM
7) H entire GAS envelope #2 (9-	12.26	57320761	0.350 PPM
8) H GASOLINE #2 (9-24-14)	13.56	39557149	0.301 PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.71	210086	0.671 PPB
12) TOLUENE #2	9.08	115397	0.238 PPB
13) ETHYLBENZENE #2	11.04	840359	3.304 PPB
14) m,p-XYLENE #2	11.32	594770	1.503 PPB
15) o-XYLENE #2	11.79	34697	N.D. PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217028.D  
Operator :  
Acquired : 18 Dec 2014 3:22 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-191-01b DUP  
Misc Info : V2-36-23  
Vial Number: 28



Signal #1 : d:\btex\DATA\D141217\1217015.D\FID1A.CH      Vial: 15  
 Signal #2 : d:\btex\DATA\D141217\1217015.D\FID2B.CH  
 Acq On : 17 Dec 2014 20:10      Operator:  
 Sample : 12-180-01b MS      Inst : Daryl  
 Misc : V2-36-23,V2-36-22      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 20:39 2014      Quant Results File: 141012DB.RES

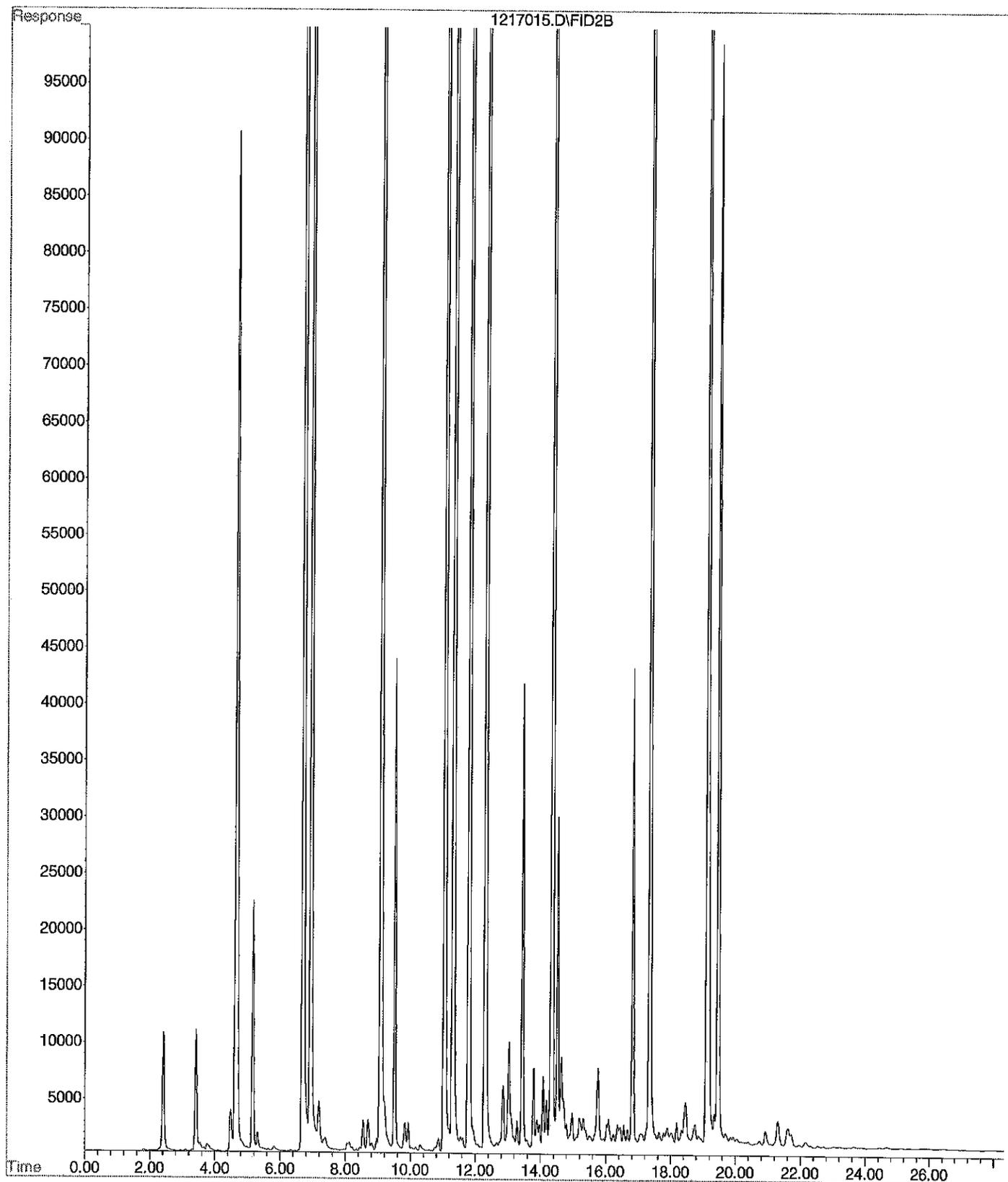
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3198003	46.130 PPB
5) S BROMOFLUOROBENZENE	12.30	1902620	46.958 PPB
11) S FLUOROBENZENE #2	6.93	8675104	39.112 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11971634	39.979 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	32147039	0.646 PPM
2) H Entire GAS Envelope (9-24-	12.21	53746124	0.812 PPM
3) H GASOLINE (9-24-14)	13.51	35828116	0.885 PPM
7) H entire GAS envelope #2 (9-	12.26	125742479	0.827 PPM
8) H GASOLINE #2 (9-24-14)	13.56	89803518	0.759 PPM
9) MTBE #2	4.64	4356975	59.620 PPB
10) BENZENE #2	6.69	15457807	52.629 PPB
12) TOLUENE #2	9.08	14672325	52.619 PPB
13) ETHYLBENZENE #2	11.04	12769718	51.882 PPB
14) m,p-XYLENE #2	11.31	15433150	52.659 PPB
15) o-XYLENE #2	11.80	12906230	51.316 PPB

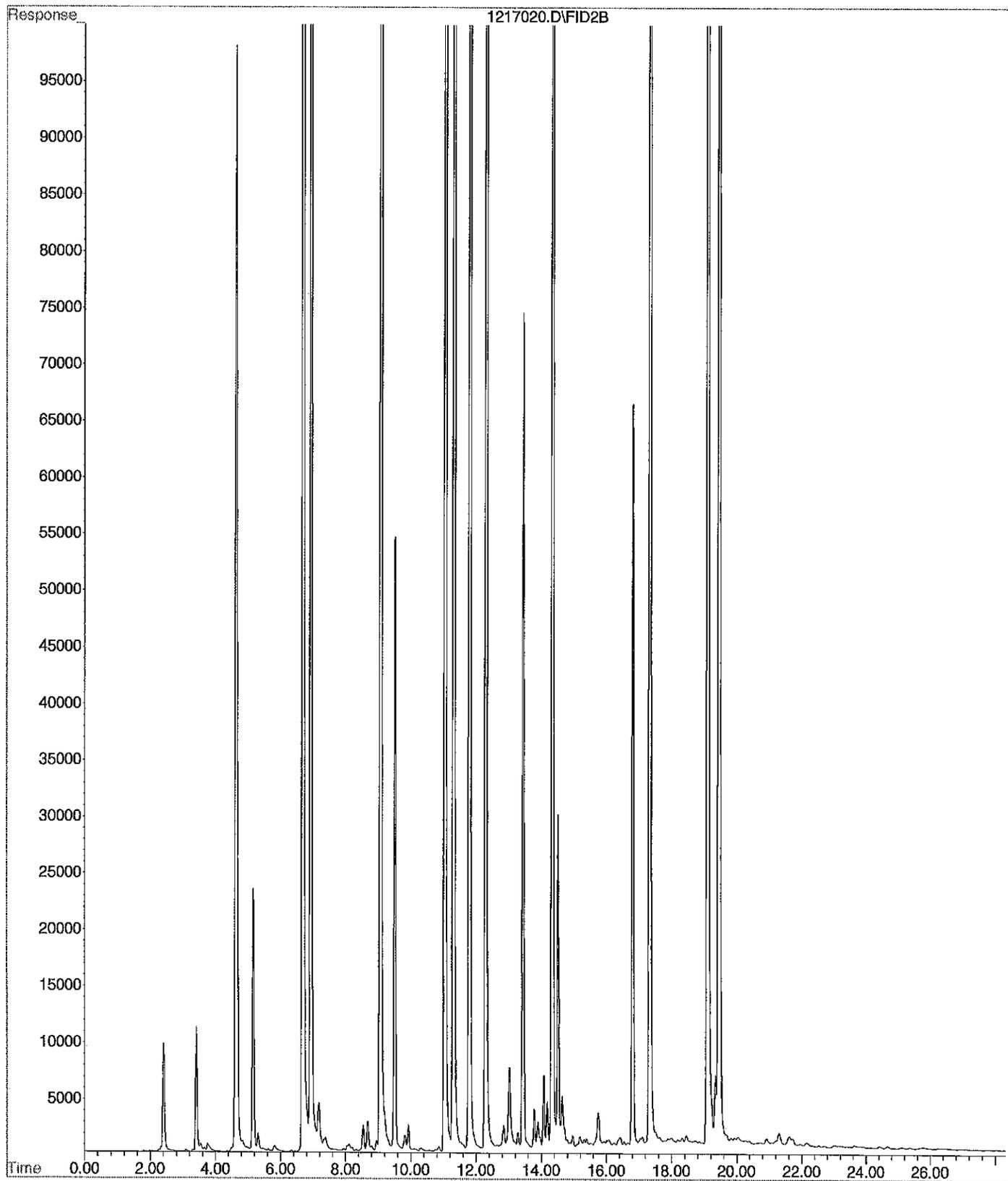
12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217015.D  
Operator :  
Acquired : 17 Dec 2014 20:10 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-180-01b MS  
Misc Info : V2-36-23,v2-36-22  
Vial Number: 15





File : X:\BTEX\DARYL\DATA\D141217\1217020.D  
Operator :  
Acquired : 17 Dec 2014 22:56 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-180-01b MSD  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 20



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141217\1217002.D\FID1A.CH  
 Signal #2 : d:\btex\DATA\D141217\1217002.D\FID2B.CH  
 Acq On : 17 Dec 2014 12:10  
 Sample : CCVD1217B-1  
 Misc : V2-36-23,V2-36-22

Vial: 2

Operator:  
 Inst : Daryl  
 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 12:38 2014 Quant Results File: 141012DB.RES

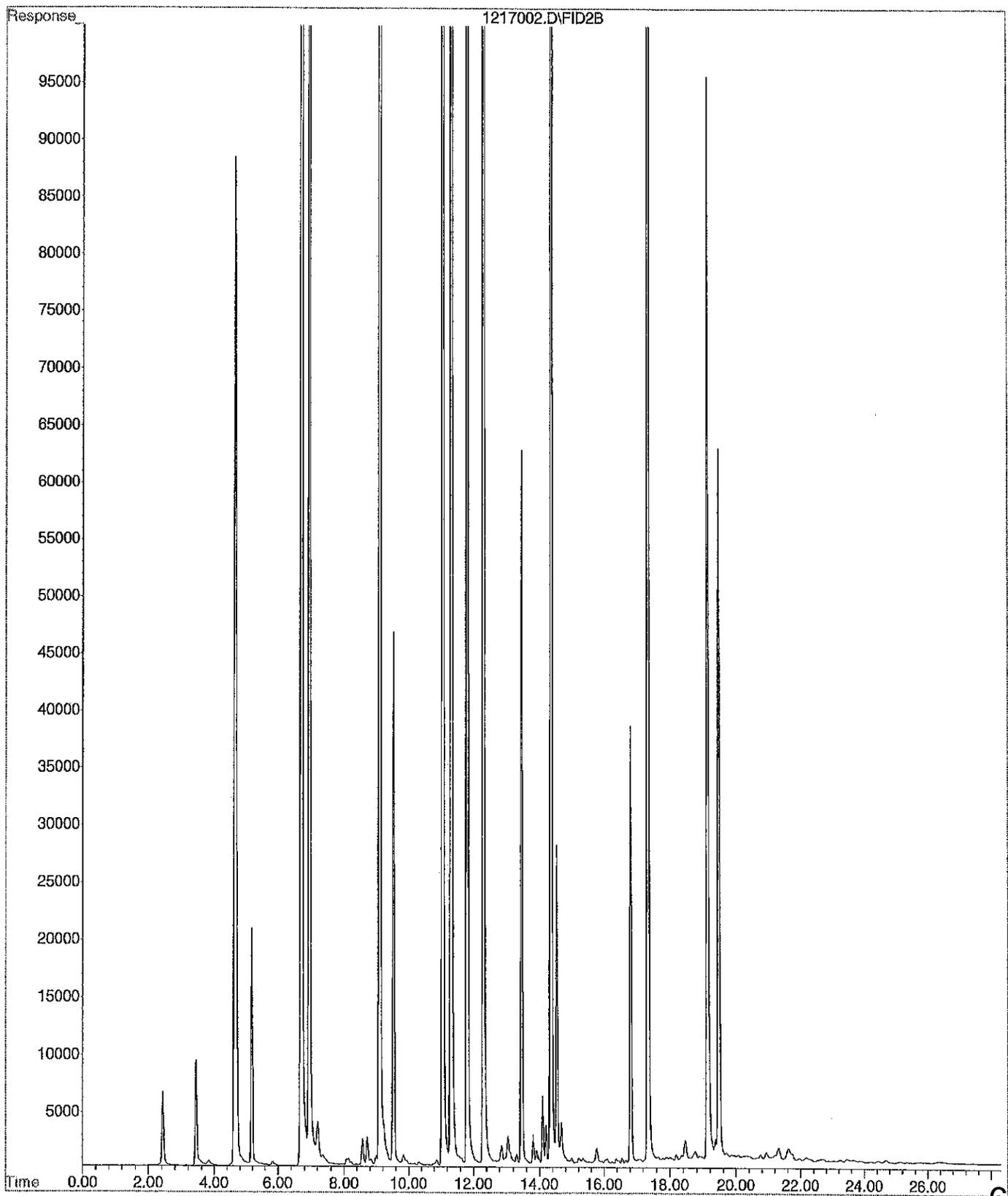
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :  
 Signal #1 Info :  
 Signal #2 Phase :  
 Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3341069	48.208 PPB
5) S BROMOFLUOROBENZENE	12.31	1915604	47.283 PPB
11) S FLUOROBENZENE #2	6.95	8982428	40.509 PPB
16) S BROMOFLUOROBENZENE #2	12.31	12159098	40.612 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31635753	0.636 PPM
2) H Entire GAS Envelope (9-24-	12.21	50827105	0.767 PPM
3) H GASOLINE (9-24-14)	13.51	34447418	0.850 PPM
7) H entire GAS envelope #2 (9-	12.26	111930780	0.731 PPM
8) H GASOLINE #2 (9-24-14)	13.56	82621975	0.694 PPM
9) MTBE #2	4.66	4140298	56.652 PPB
10) BENZENE #2	6.71	15195239	51.734 PPB
12) TOLUENE #2	9.09	14469179	51.888 PPB
13) ETHYLBENZENE #2	11.06	12500925	50.788 PPB
14) m,p-XYLENE #2	11.32	15122637	51.588 PPB
15) o-XYLENE #2	11.81	12687827	50.443 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217002.D  
Operator :  
Acquired : 17 Dec 2014 12:10 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217B-1  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 2



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141217\1217016.D\FID1A.CH Vial: 16  
 Signal #2 : d:\btex\DATA\D141217\1217016.D\FID2B.CH  
 Acq On : 17 Dec 2014 20:44 Operator:  
 Sample : CCVD1217B-2 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 17 21:12 2014 Quant Results File: 141012DB.RES

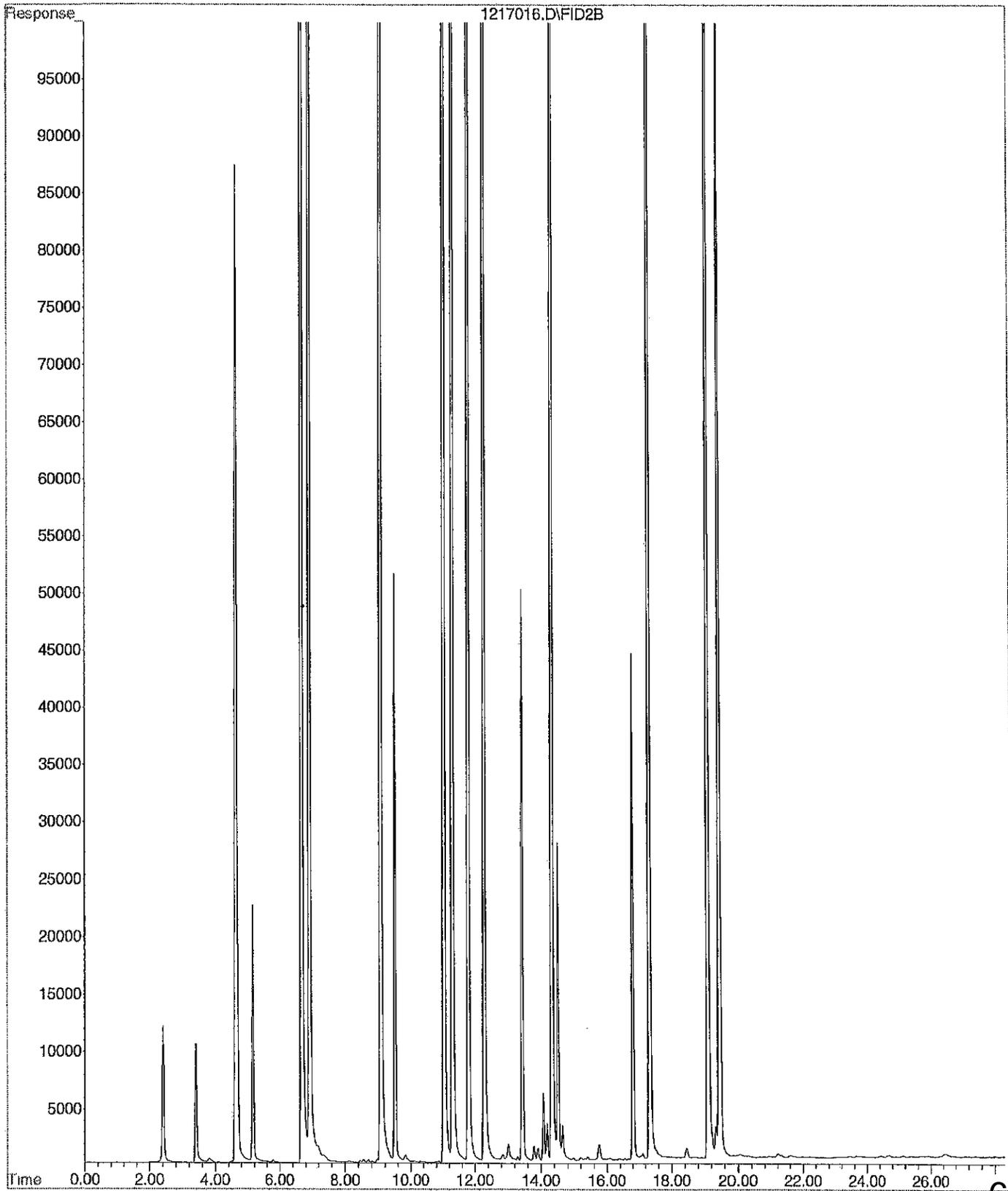
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3290422	47.473 PPB
5) S BROMOFLUOROBENZENE	12.29	1918832	47.363 PPB
11) S FLUOROBENZENE #2	6.93	9035863	40.752 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12205843	40.770 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30490701	0.613 PPM
2) H Entire GAS Envelope (9-24-	12.21	49911785	0.753 PPM
3) H GASOLINE (9-24-14)	13.51	33787185	0.833 PPM
7) H entire GAS envelope #2 (9-	12.26	116770055	0.764 PPM
8) H GASOLINE #2 (9-24-14)	13.56	83544152	0.702 PPM
9) MTBE #2	4.64	4152070	56.813 PPB
10) BENZENE #2	6.69	15283452	52.035 PPB
12) TOLUENE #2	9.07	14175910	50.833 PPB
13) ETHYLBENZENE #2	11.04	12438693	50.534 PPB
14) m,p-XYLENE #2	11.31	14835165	50.597 PPB
15) o-XYLENE #2	11.79	12562903	49.943 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217016.D  
Operator :  
Acquired : 17 Dec 2014 20:44 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217B-2  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 16



Signal #1 : d:\btex\DATA\D141217\1217029.D\FID1A.CH vial: 29  
 Signal #2 : d:\btex\DATA\D141217\1217029.D\FID2B.CH  
 Acq On : 18 Dec 2014 3:55 Operator:  
 Sample : CCVD1217B-3 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 18 4:23 2014 Quant Results File: 141012DB.RES

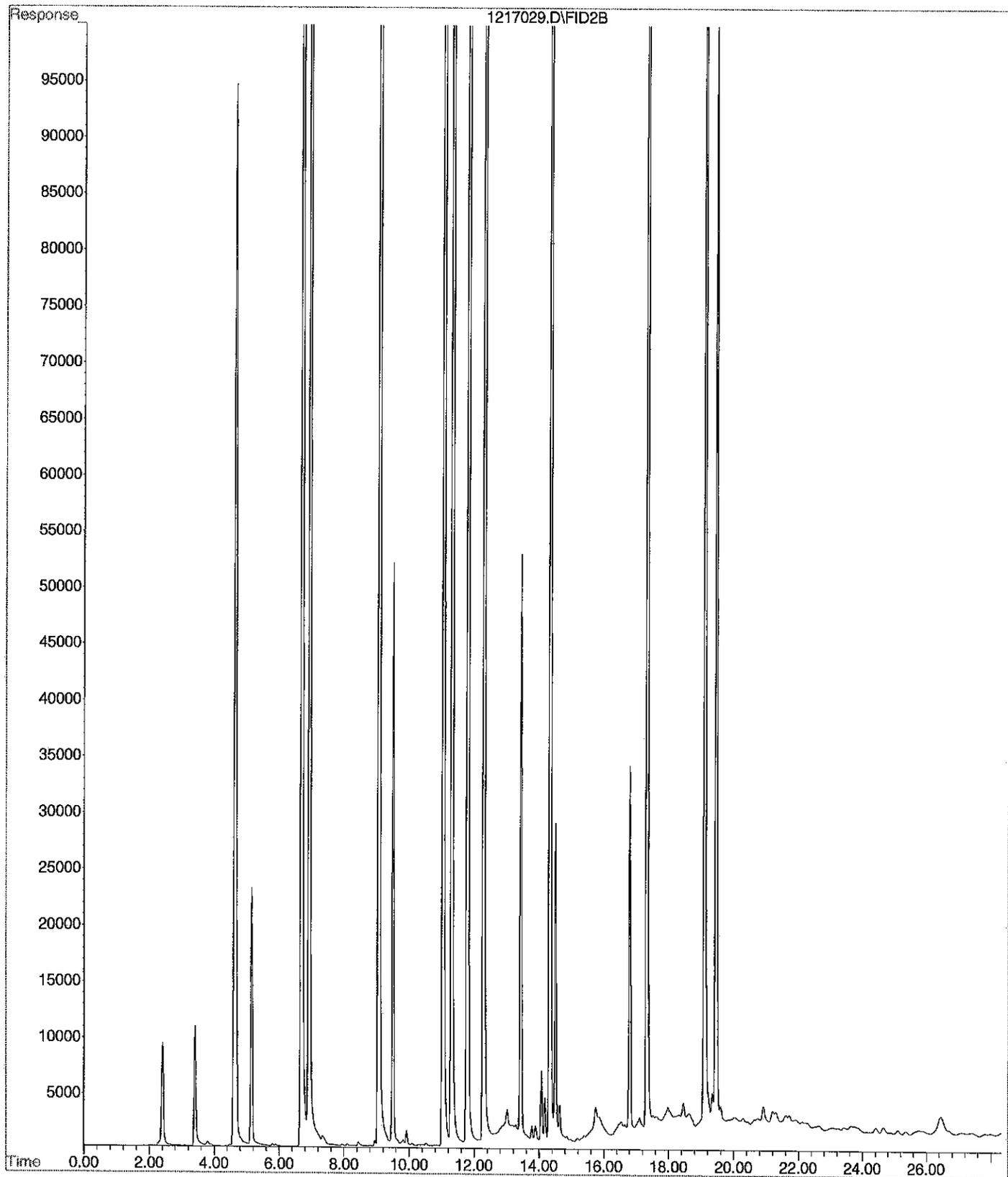
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3359526	48.477 PPB
5) S BROMOFLUOROBENZENE	12.29	1922707	47.460 PPB
11) S FLUOROBENZENE #2	6.93	9244440	41.701 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12335121	41.207 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31318485	0.629 PPM
2) H Entire GAS Envelope (9-24-	12.21	52863902	0.798 PPM
3) H GASOLINE (9-24-14)	13.51	34948572	0.863 PPM
7) H entire GAS envelope #2 (9-	12.26	124639767	0.819 PPM
8) H GASOLINE #2 (9-24-14)	13.56	87871894	0.742 PPM
9) MTBE #2	4.64	4474946	61.235 PPB
10) BENZENE #2	6.69	15591369	53.084 PPB
12) TOLUENE #2	9.07	14435225	51.766 PPB
13) ETHYLBENZENE #2	11.04	12646126	51.379 PPB
14) m,p-XYLENE #2	11.30	15094363	51.491 PPB
15) o-XYLENE #2	11.79	12793987	50.867 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217029.D  
Operator :  
Acquired : 18 Dec 2014 3:55 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217B-3  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 29



Signal #1 : d:\btex\DATA\D141217\1217041.D\FID1A.CH      Vial: 41  
 Signal #2 : d:\btex\DATA\D141217\1217041.D\FID2B.CH  
 Acq On : 18 Dec 2014 10:38      Operator:  
 Sample : CCVD1217B-4      Inst : Daryl  
 Misc : V2-36-23,V2-36-22      Multiplr: 1.00  
    Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 18 11:07 2014      Quant Results File: 141012DB.RES

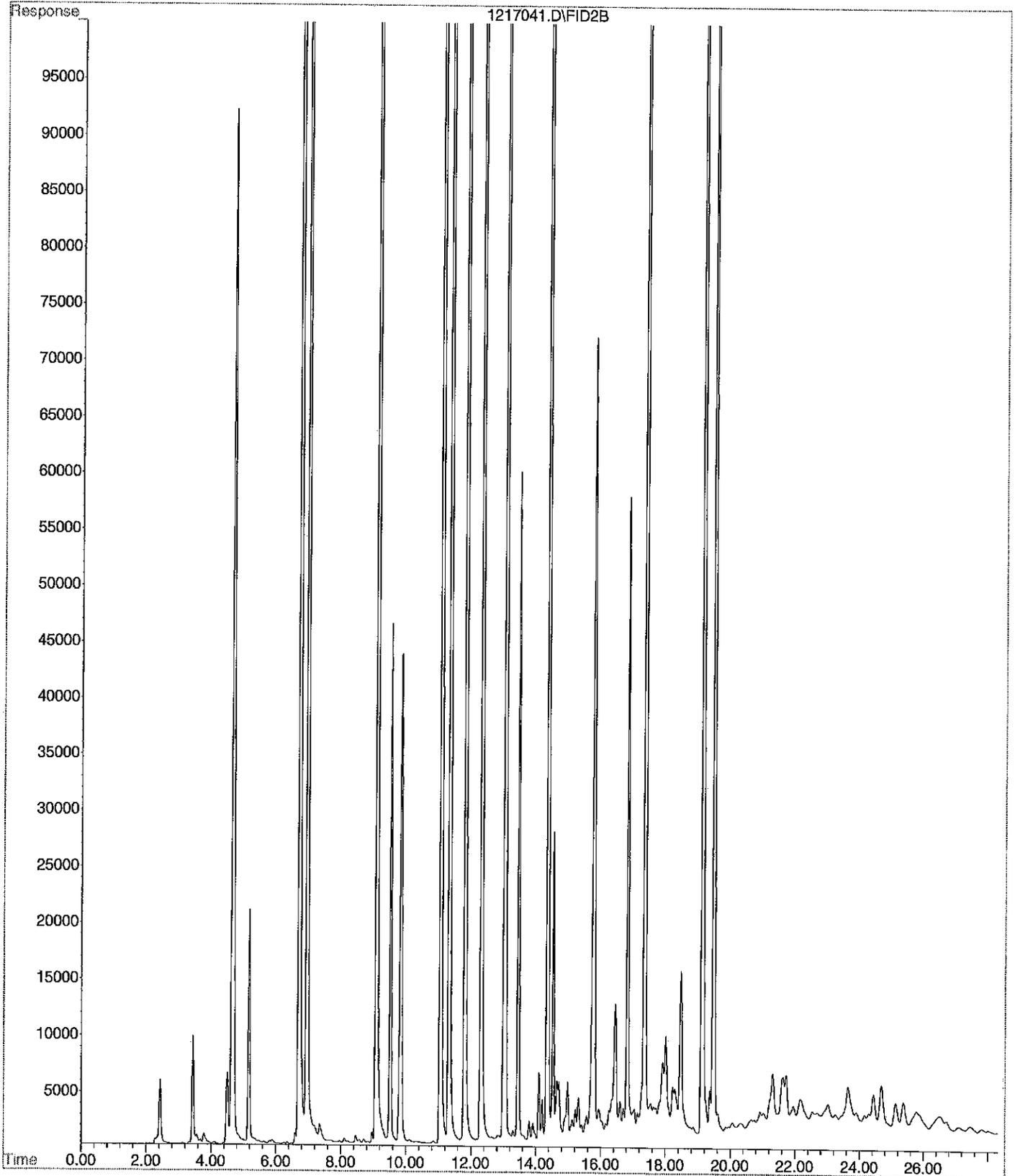
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.95	3414980	49.282 PPB
5) S BROMOFLUOROBENZENE	12.31	1963686	48.484 PPB
11) S FLUOROBENZENE #2	6.95	9372158	42.281 PPB
16) S BROMOFLUOROBENZENE #2	12.31	12445373	41.579 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	31260334	0.628 PPM
2) H Entire GAS Envelope (9-24-	12.21	57475192	0.869 PPM
3) H GASOLINE (9-24-14)	13.51	38436286	0.951 PPM
7) H entire GAS envelope #2 (9-	12.26	142122577	0.941 PPM
8) H GASOLINE #2 (9-24-14)	13.56	100156991	0.854 PPM
9) MTBE #2	4.66	4439101	60.744 PPB
10) BENZENE #2	6.71	15029904	51.171 PPB
12) TOLUENE #2	9.09	13975544	50.112 PPB
13) ETHYLBENZENE #2	11.06	12225946	49.668 PPB
14) m,p-XYLENE #2	11.32	14589990	49.752 PPB
15) o-XYLENE #2	11.81	12261086	48.737 PPB

*D/18 ✓*

File : X:\BTEX\DARYL\DATA\D141217\1217041.D  
Operator :  
Acquired : 18 Dec 2014 10:38 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217B-4  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 41



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141217\1217001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141217\1217001.D\FID2B.CH  
 Acq On : 17 Dec 2014 11:36 Operator:  
 Sample : CCVD1217G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 17 12:04 2014 Quant Results File: 141012DB.RES

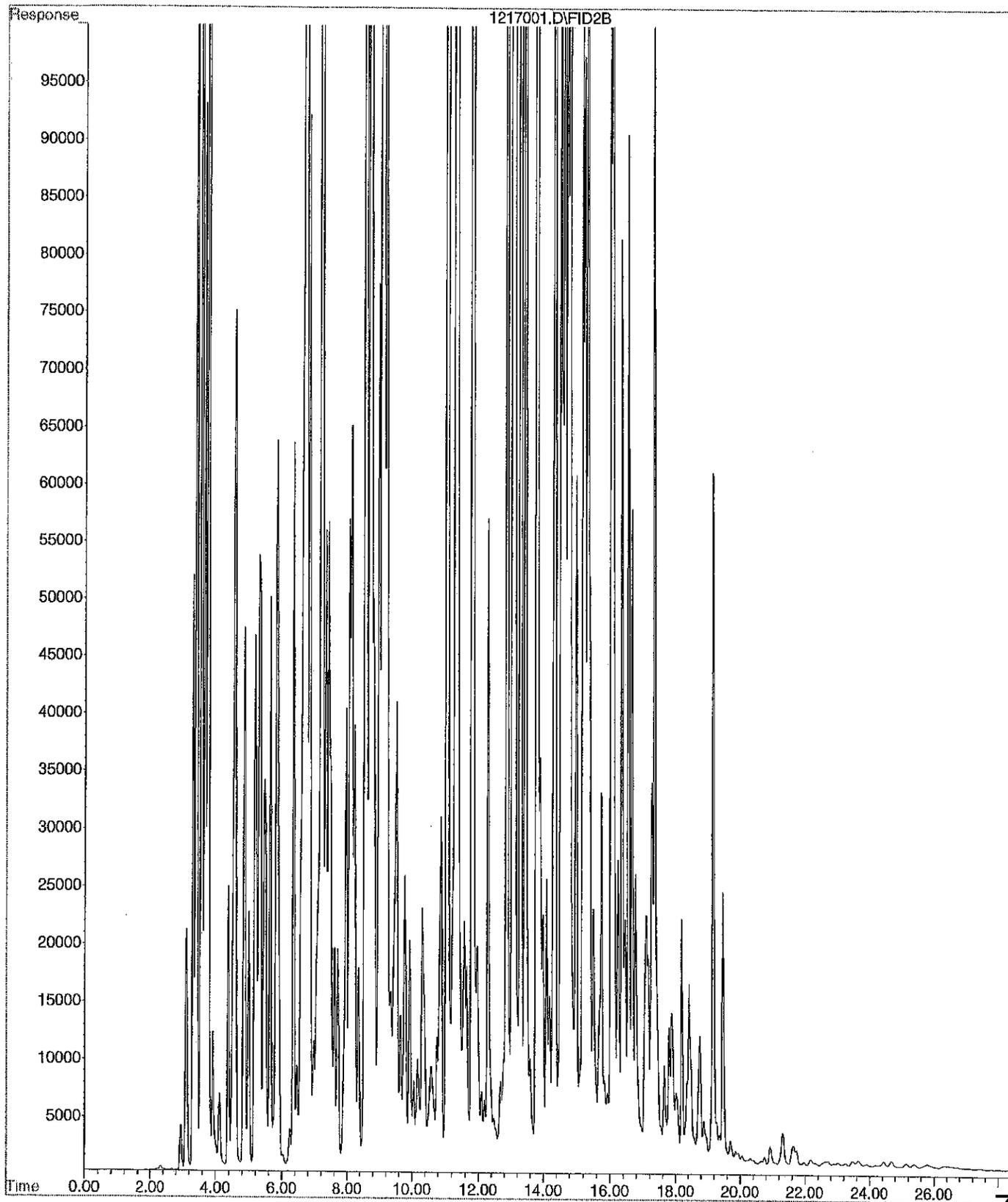
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :  
 Signal #1 Info :  
 Signal #2 Phase:  
 Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.84	7641937	110.693 PPB
5) S BROMOFLUOROBENZENE	12.29	1266996	31.079 PPB
11) S FLUOROBENZENE #2	6.97	480915	1.856 PPB
16) S BROMOFLUOROBENZENE #2	12.29	2474291	7.896 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	289126209	5.866 PPM
2) H Entire GAS Envelope (9-24-	12.21	390118665	5.964 PPM
3) H GASOLINE (9-24-14)	13.51	220461644	5.556 PPM
7) H entire GAS envelope #2 (9-	12.26	706019269	4.869 PPM
8) H GASOLINE #2 (9-24-14)	13.56	530130394	4.773 PPM ✓
9) MTBE #2	4.58	4054464	55.477 PPB
10) BENZENE #2	6.71	47498273	161.809 PPB
12) TOLUENE #2	9.10	120244117	432.504 PPB
13) ETHYLBENZENE #2	11.06	29707927	120.857 PPB
14) m,p-XYLENE #2	11.32	108086144	372.082 PPB
15) o-XYLENE #2	11.81	41202877	164.409 PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217001.D  
Operator :  
Acquired : 17 Dec 2014 11:36 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217G-1  
Misc Info : V2-36-08  
Vial Number: 1



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141217\1217042.D\FID1A.CH Vial: 42  
 Signal #2 : d:\btex\DATA\D141217\1217042.D\FID2B.CH  
 Acq On : 18 Dec 2014 12:00 Operator:  
 Sample : CCVD1217G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 18 12:28 2014 Quant Results File: 141012DB.RES

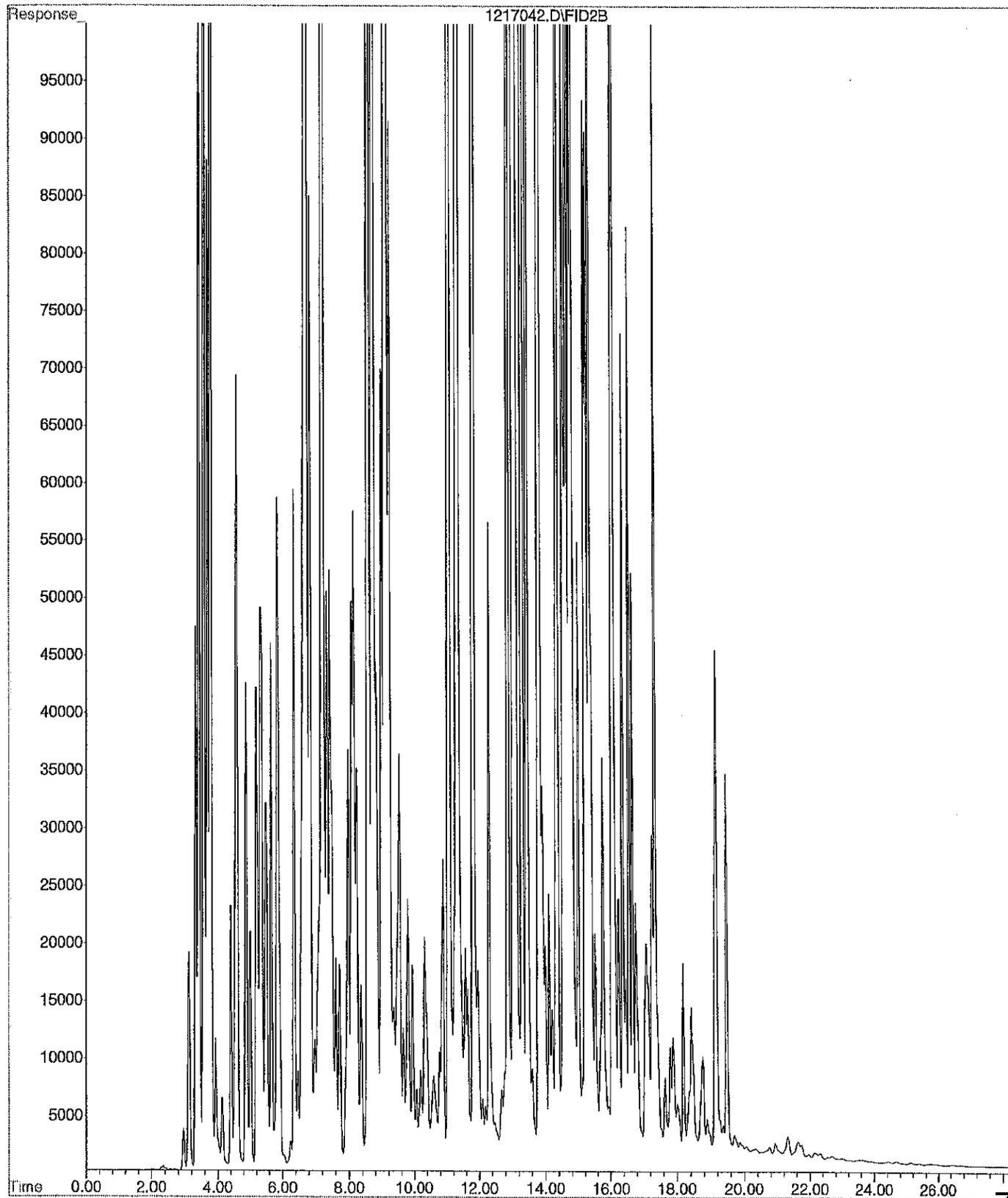
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.85	6897334	99.875	PPB
5) S BROMOFLUOROBENZENE	12.30	1142357	27.965	PPB
11) S FLUOROBENZENE #2	6.98	506919	1.974	PPB
16) S BROMOFLUOROBENZENE #2	12.30	2437054	7.771	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	270296917	5.484	PPM
2) H Entire GAS Envelope (9-24-	12.21	364385105	5.570	PPM
3) H GASOLINE (9-24-14)	13.51	207631010	5.231	PPM
7) H entire GAS envelope #2 (9-	12.26	676333396	4.662	PPM
8) H GASOLINE #2 (9-24-14)	13.56	509489313	4.585	PPM
9) MTBE #2	4.59	3776301	51.667	PPB
10) BENZENE #2	6.72	46055399	156.892	PPB
12) TOLUENE #2	9.10	118743629	427.105	PPB
13) ETHYLBENZENE #2	11.07	28726401	116.860	PPB
14) m,p-XYLENE #2	11.32	105658669	363.714	PPB
15) o-XYLENE #2	11.82	39925025	159.302	PPB

12/18 ✓

File : X:\BTEX\DARYL\DATA\D141217\1217042.D  
Operator :  
Acquired : 18 Dec 2014 12:00 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1217G-2  
Misc Info : V2-36-08  
Vial Number: 42



## NWTPH-Diesel Data

Data File : 1218-V66.D  
 Sample : 12-198-01

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 18 Dec 2014 21:42  
 Operator :  
 Misc :  
 ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 18 22:19:06 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (09-28-14)	14.889	92556496	32.733 PPM
Spiked Amount	50.000	Recovery =	65.47%
Target Compounds			
2) 1-Chlorooctadecane (...)	0.000	0	N.D. PPM
3) H Gasoline	3.500	16266625	NoCal PPM
4) H Diesel Fuel #1 (10-0...	10.000	22172681	8.092 PPM
5) H Diesel Fuel #2 (10-0...	14.000	19492491	6.743 PPM
6) H Oil (09-28-14)	22.000	64641843	6.502 PPM
7) H Oil Acid Clean (09-2...	22.000	64641843	10.646 PPM
8) H Diesel Fuel #2 Combo ...	14.000	18156702	6.273 PPM
9) H Oil Combo (09-28-14)	22.000	62608988	5.868 PPM
10) H Oil Acid Clean Combo ...	22.000	62608988	9.747 PPM
11) H Alaska 102 DF2 (06-2...	13.025	20499140	2.731 PPM
12) H Alaska 103 Oil (06-2...	22.000	23704141	10.364 PPM
13) H Mineral Oil (10-06-14)	16.000	16539767	5.642 PPM
14) H Bunker C ACU (Fuel O...	15.000	75722955	11.987 PPM
15) H Bunker C (Fuel Oil #...	15.000	75722955	42.925 PPM
16) H ALKANE C9-C40	12.666	81907076	NoCal PPM
17) H Mineral Oil Combo (10...	16.000	12971023	5.009 PPM
18) H Oil Acid Clean MO Com...	22.000	61497675	9.472 PPM
19) H Oil MO Combo (09-28-14)	22.000	61497675	5.646 PPM
-----			

(f)=RT Delta > 1/2 Window

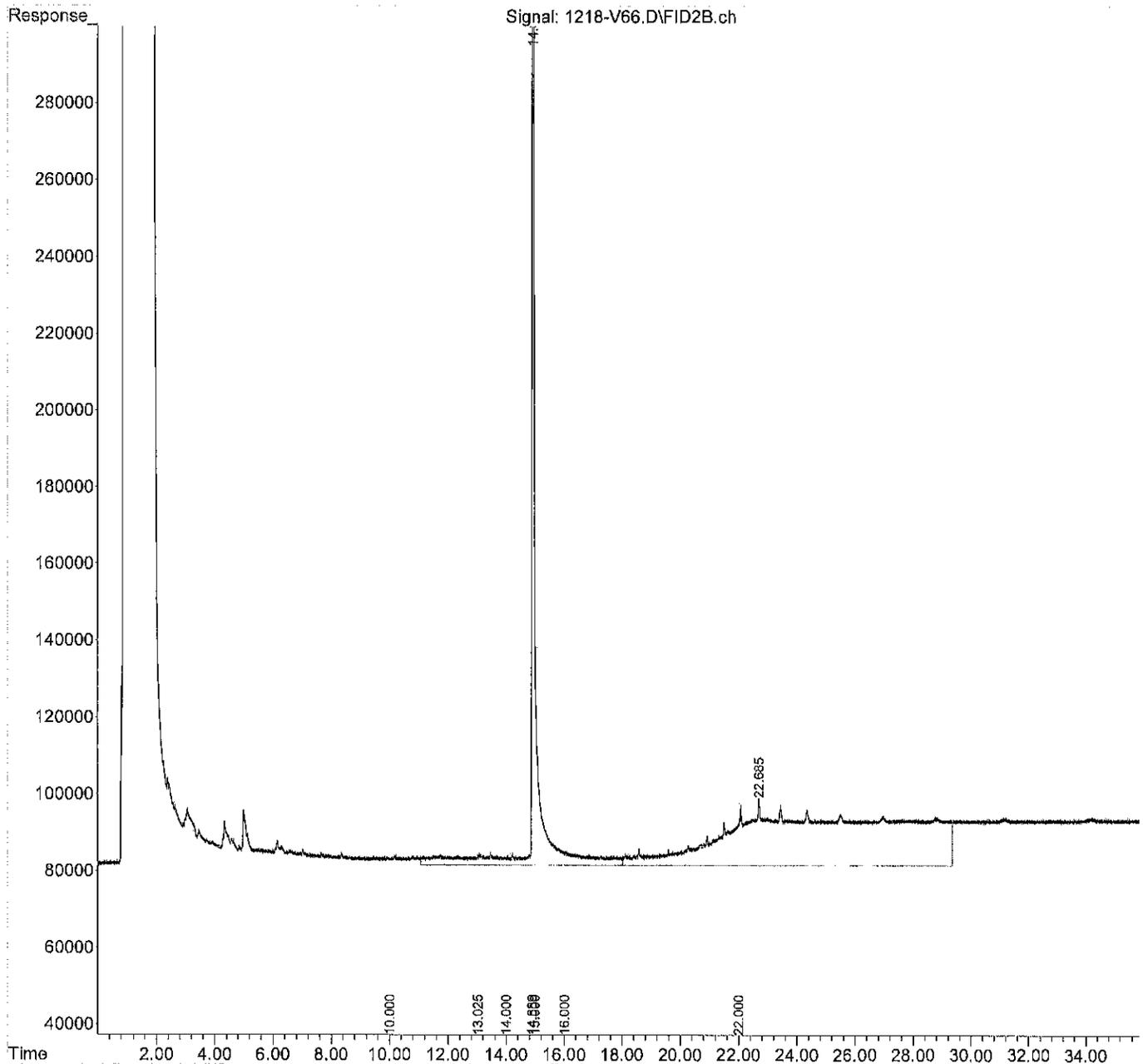
(m)=manual int.

Data File : 1218-V66.D  
Sample : 12-198-01

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
Signal(s) : FID2B.ch  
Acq On : 18 Dec 2014 21:42  
Operator :  
Misc :  
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 18 22:19:06 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1218-V65.D  
 Sample : MB1218S1

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 18 Dec 2014 21:02  
 Operator :  
 Misc :  
 ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 18 21:38:32 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (09-28-14)	14.891	107616527	38.081 PPM
Spiked Amount 50.000		Recovery =	76.16%
Target Compounds			
2) 1-Chlorooctadecane (...)	0.000	0	N.D. PPM
3) H Gasoline	3.500	17277994	NoCal PPM
4) H Diesel Fuel #1 (10-0...	10.000	23194035	8.553 PPM
5) H Diesel Fuel #2 (10-0...	14.000	20474913	7.219 PPM
6) H Oil (09-28-14)	22.000	67606352	8.085 PPM
7) H Oil Acid Clean (09-2...	22.000	67606352	12.397 PPM
8) H Diesel Fuel #2 Combo ...	14.000	18870041	6.625 PPM
9) H Oil Combo (09-28-14)	22.000	65339668	7.351 PPM
10) H Oil Acid Clean Combo ...	22.000	65339668	11.385 PPM
11) H Alaska 102 DF2 (06-2...	13.025	21568965	3.143 PPM
12) H Alaska 103 Oil (06-2...	22.000	24941613	11.450 PPM
13) H Mineral Oil (10-06-14)	16.000	17025260	5.846 PPM
14) H Bunker C ACU (Fuel O...	15.000	79033954	14.501 PPM
15) H Bunker C (Fuel Oil #...	15.000	79033954	45.459 PPM
16) H ALKANE C9-C40	12.666	85787666	NoCal PPM
17) H Mineral Oil Combo (10...	16.000	13025655	5.033 PPM
18) H Oil Acid Clean MO Com...	22.000	63992730	11.011 PPM
19) H Oil MO Combo (09-28-14)	22.000	63992730	7.044 PPM
-----			

(f)=RT Delta > 1/2 Window

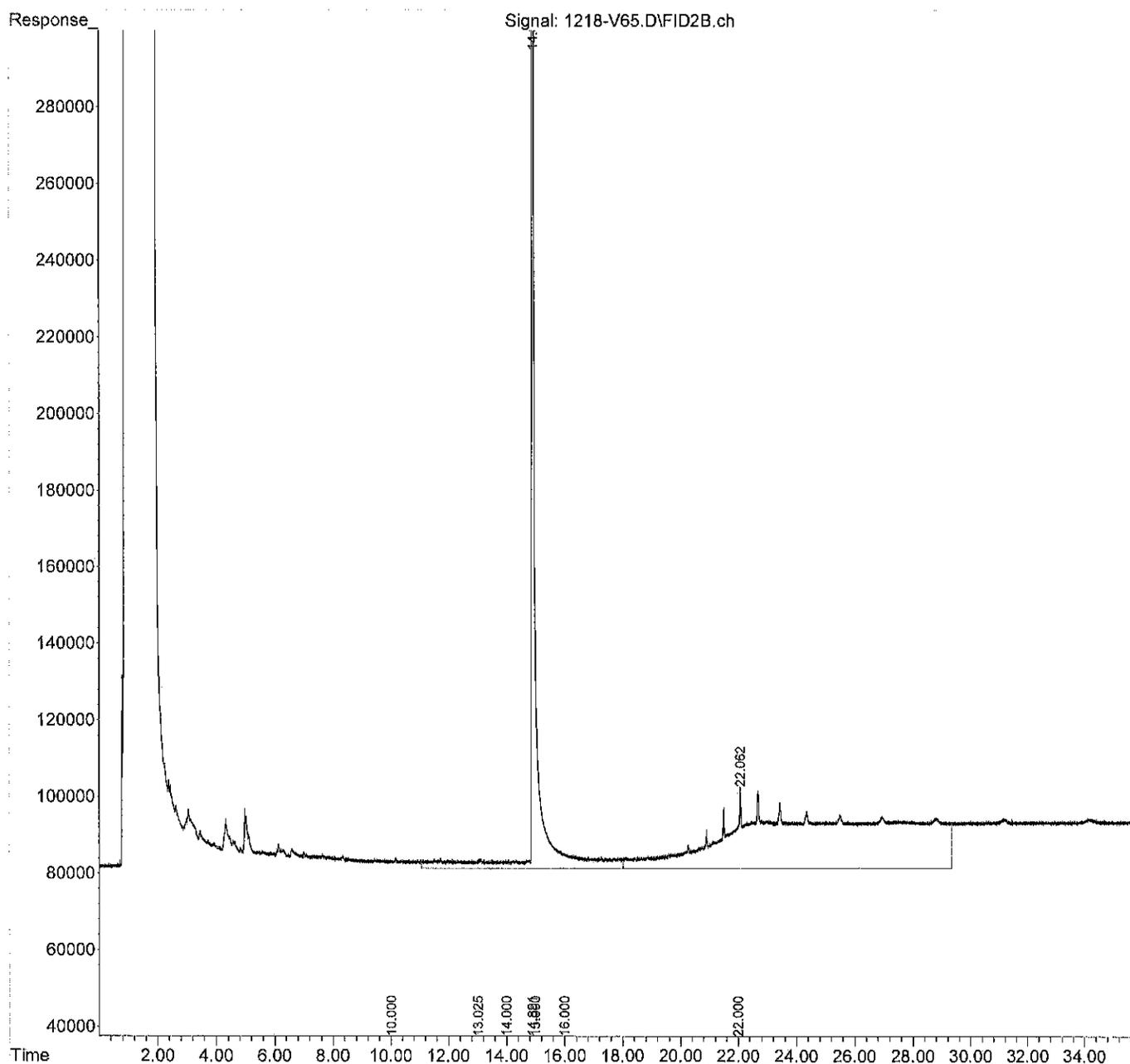
(m)=manual int.

Data File : 1218-V65.D  
Sample : MB1218S1

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
Signal(s) : FID2B.ch  
Acq On : 18 Dec 2014 21:02  
Operator :  
Misc :  
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 18 21:38:32 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1218-V67.D  
 Sample : 12-198-01 DUP

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 18 Dec 2014 22:23  
 Operator :  
 Misc :  
 ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 18 22:59:43 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (09-28-14)	14.890	99210606	35.096 PPM
Spiked Amount 50.000		Recovery =	70.19%
Target Compounds			
2) 1-Chlorooctadecane (...)	0.000	0	N.D. PPM
3) H Gasoline	3.500	17220998	NoCal PPM
4) H Diesel Fuel #1 (10-0...	10.000	21469550	7.775 PPM
5) H Diesel Fuel #2 (10-0...	14.000	17965309	6.004 PPM
6) H Oil (09-28-14)	22.000	61159779	4.643 PPM
7) H Oil Acid Clean (09-2...	22.000	61159779	8.590 PPM
8) H Diesel Fuel #2 Combo ...	14.000	16863948	5.635 PPM
9) H Oil Combo (09-28-14)	22.000	59288650	4.064 PPM
10) H Oil Acid Clean Combo ...	22.000	59288650	7.756 PPM
11) H Alaska 102 DF2 (06-2...	13.025	19002476	2.154 PPM
12) H Alaska 103 Oil (06-2...	22.000	21989201	8.860 PPM
13) H Mineral Oil (10-06-14)	16.000	14823429	4.921 PPM
14) H Bunker C ACU (Fuel O...	15.000	71323678	8.647 PPM
15) H Bunker C (Fuel Oil #...	15.000	71323678	39.558 PPM
16) H ALKANE C9-C40	12.666	77990475	NoCal PPM
17) H Mineral Oil Combo (10...	16.000	11713068	4.459 PPM
18) H Oil Acid Clean MO Com...	22.000	58367798	7.542 PPM
19) H Oil MO Combo (09-28-14)	22.000	58367798	3.892 PPM
-----			

(f)=RT Delta > 1/2 Window

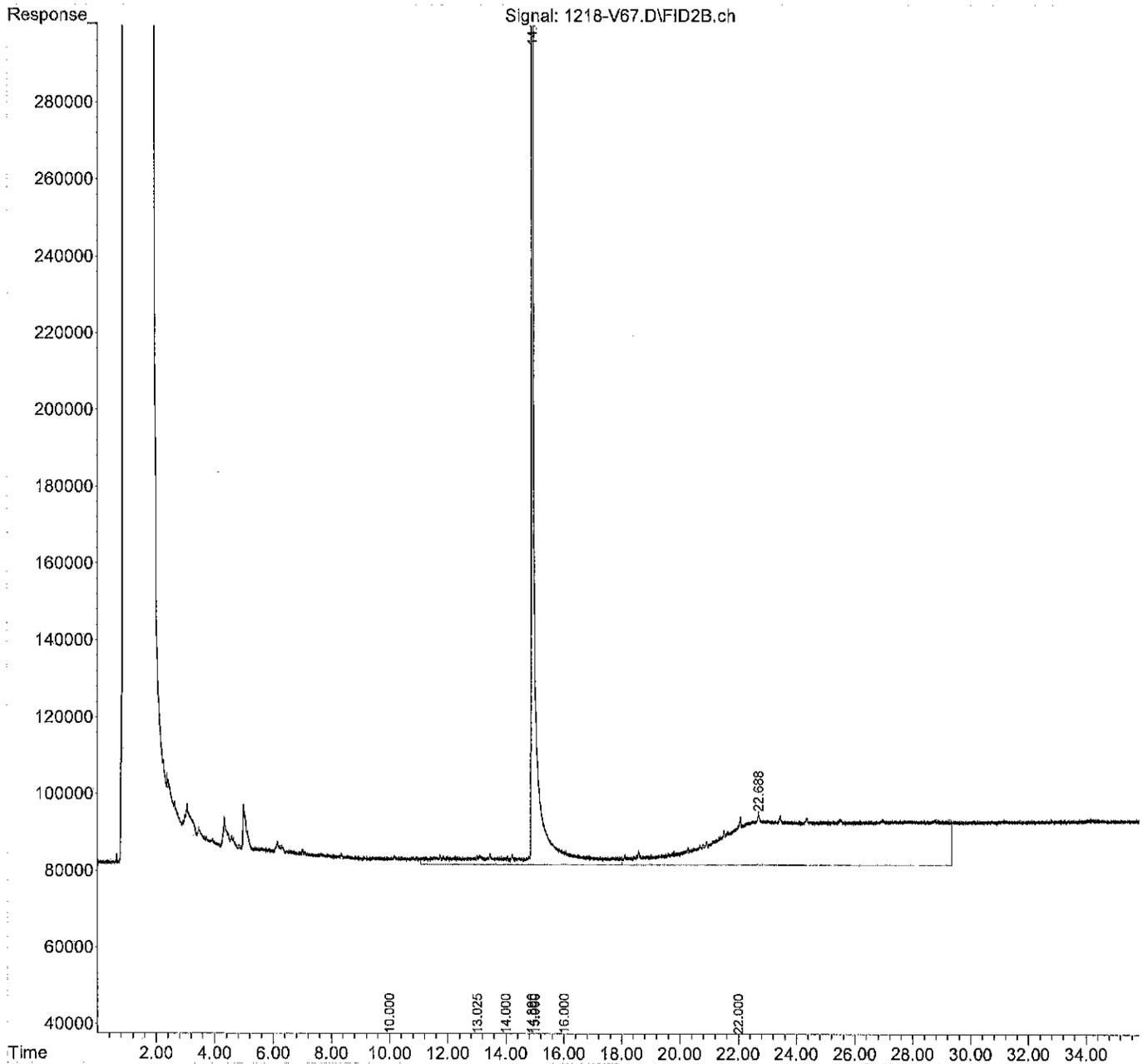
(m)=manual int.

Data File : 1218-V67.D  
Sample : 12-198-01 DUP

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
Signal(s) : FID2B.ch  
Acq On : 18 Dec 2014 22:23  
Operator :  
Misc :  
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 18 22:59:43 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1218-V63.D  
 Sample : CCV1218R-V3

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 18 Dec 2014 19:40  
 Operator :  
 Misc :  
 ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 18 20:17:16 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (09-28-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	35231523	NoCal	PPM
4) H Diesel Fuel #1 (10-0...	10.000	206301920	91.203	PPM
5) H Diesel Fuel #2 (10-0...	14.000	205654382	96.909	PPM
6) H Oil (09-28-14)	22.000	82855246	16.227	PPM
7) H Oil Acid Clean (09-2...	22.000	82855246	21.404	PPM
8) H Diesel Fuel #2 Combo ...	14.000	200753310	96.371	PPM
9) H Oil Combo (09-28-14)	22.000	71526460	10.712	PPM
10) H Oil Acid Clean Combo ...	22.000	71526460	15.095	PPM
11) H Alaska 102 DF2 (06-2...	13.025	210219942	75.842	PPM
12) H Alaska 103 Oil (06-2...	22.000	27572084	13.757	PPM
13) H Mineral Oil (10-06-14)	16.000	134905048	55.366	PPM
14) H Bunker C ACU (Fuel O...	15.000	269061169	158.780	PPM
15) H Bunker C (Fuel Oil #...	15.000	269061169	190.889	PPM
16) H ALKANE C9-C40	12.666	284960869	NoCal	PPM
17) H Mineral Oil Combo (10...	16.000	130052570	56.234	PPM
18) H Oil Acid Clean MO Com...	22.000	67171639	12.971	PPM
19) H Oil MO Combo (09-28-14)	22.000	67171639	8.825	PPM

(f)=RT Delta > 1/2 Window

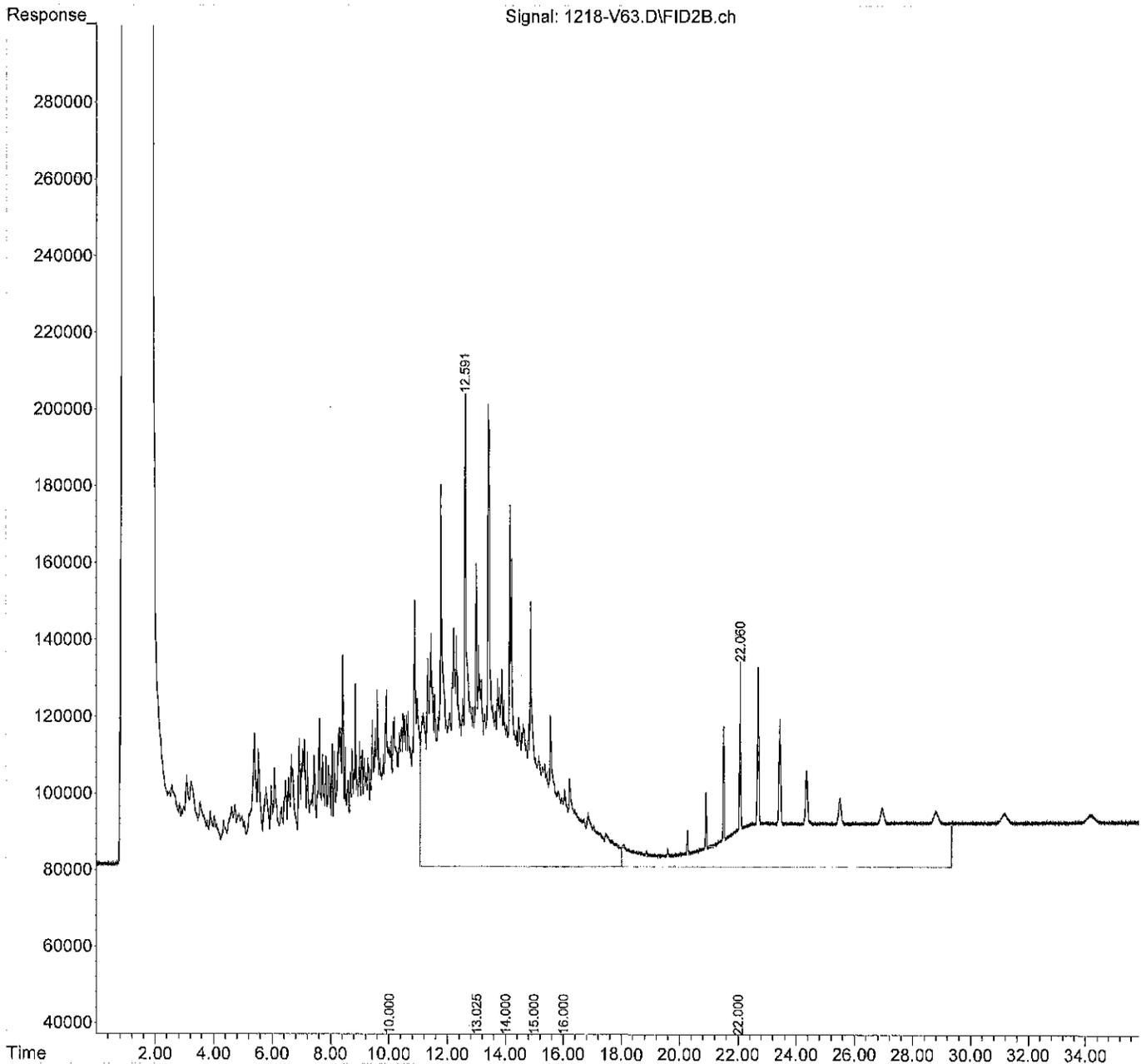
(m)=manual int.

Data File : 1218-V63.D  
Sample : CCV1218R-V3

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
Signal(s) : FID2B.ch  
Acq On : 18 Dec 2014 19:40  
Operator :  
Misc :  
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 18 20:17:16 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1218-V74.D  
 Sample : CCV1218R-V4

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
 Signal(s) : FID2B.ch  
 Acq On : 19 Dec 2014 3:08  
 Operator :  
 Misc : SV3-11-24  
 ALS Vial : 74 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 19 03:44:26 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
1) S O-Terphenyl (09-28-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
<b>Target Compounds</b>				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	34333356	NoCal	PPM
4) H Diesel Fuel #1 (10-0...	10.000	210928676	93.292	PPM
5) H Diesel Fuel #2 (10-0...	14.000	211474804	99.729	PPM
6) H Oil (09-28-14)	22.000	76048488	12.593	PPM
7) H Oil Acid Clean (09-2...	22.000	76048488	17.384	PPM
8) H Diesel Fuel #2 Combo ...	14.000	206231535	99.074	PPM
9) H Oil Combo (09-28-14)	22.000	64153664	6.707	PPM
10) H Oil Acid Clean Combo ...	22.000	64153664	10.674	PPM
11) H Alaska 102 DF2 (06-2...	13.025	216020606	78.077	PPM
12) H Alaska 103 Oil (06-2...	22.000	22825247	9.593	PPM
13) H Mineral Oil (10-06-14)	16.000	140032955	57.520	PPM
14) H Bunker C ACU (Fuel O...	15.000	267652577	157.711	PPM
15) H Bunker C (Fuel Oil #...	15.000	267652577	189.811	PPM
16) H ALKANE C9-C40	12.666	283188809	NoCal	PPM
17) H Mineral Oil Combo (10...	16.000	135173888	58.475	PPM
18) H Oil Acid Clean MO Com...	22.000	59491921	8.236	PPM
19) H Oil MO Combo (09-28-14)	22.000	59491921	4.522	PPM

(f)=RT Delta > 1/2 Window

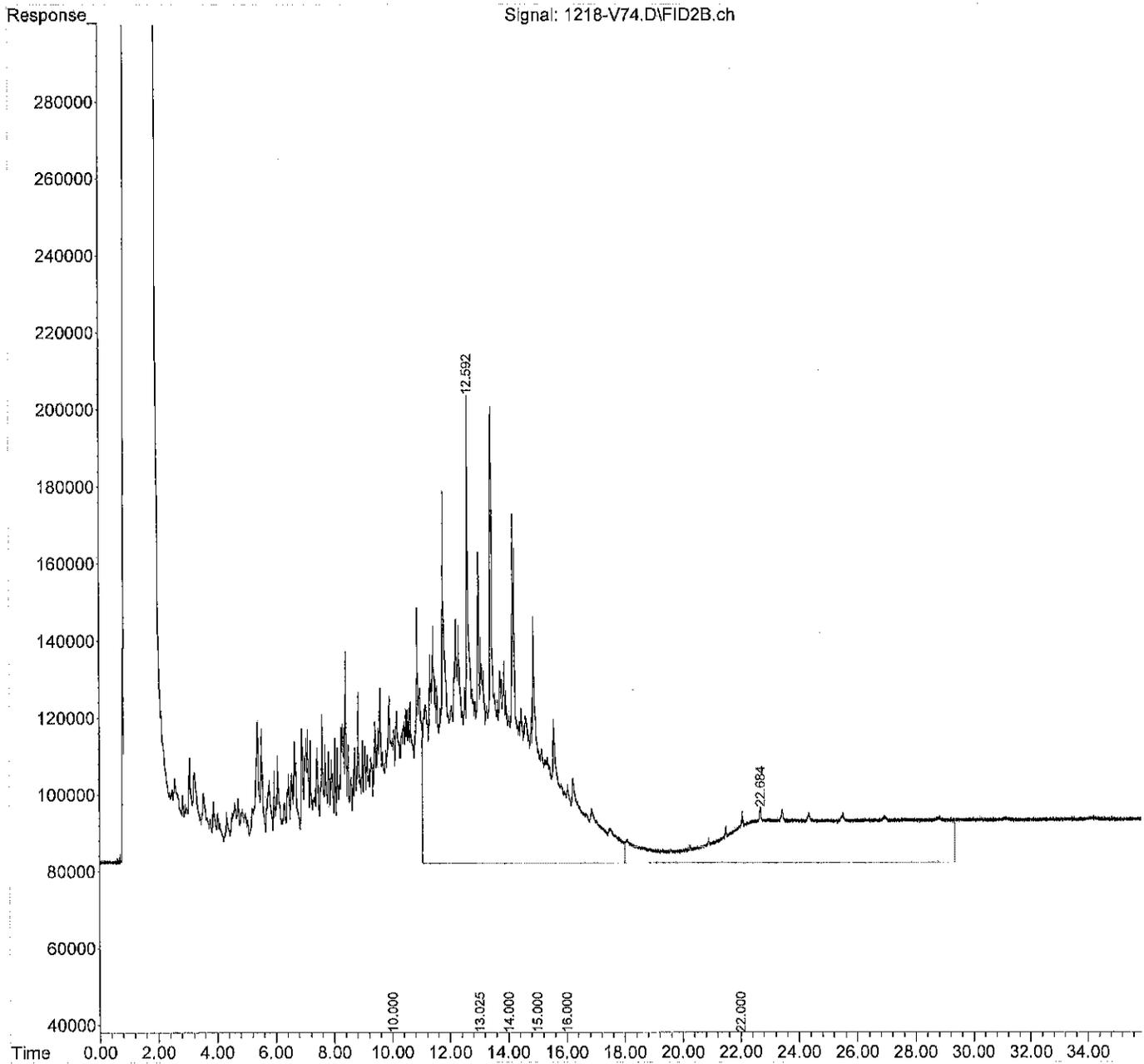
(m)=manual int.

Data File : 1218-V74.D  
Sample : CCV1218R-V4

Data Path : X:\DIESELS\VIGO\DATA\V141218.SEC\  
Signal(s) : FID2B.ch  
Acq On : 19 Dec 2014 3:08  
Operator :  
Misc : SV3-11-24  
ALS Vial : 74 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 19 03:44:26 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141006R.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



## cPAHs Data

Data Path : C:\MSDCHEM\1\DATA\C141219\  
 Data File : C1219006.D  
 Acq On : 19 Dec 2014 10:56 am  
 Operator :  
 Sample : 12-198-01  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 19 11:11:53 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration

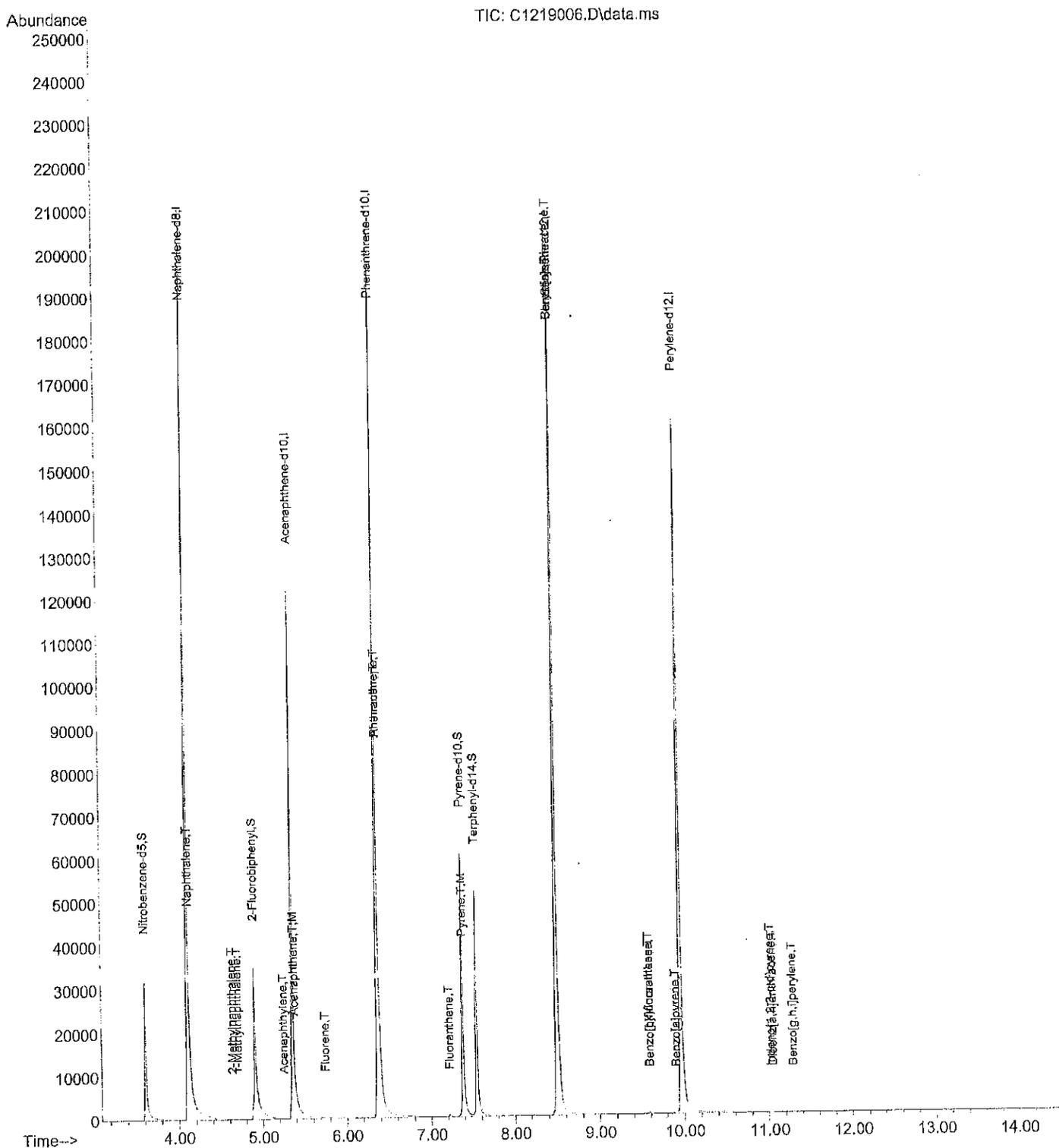
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) Naphthalene-d8	4.112	136	248754	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.360	164	141627	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.364	188	268369	2000.00	ppb	0.00	
17) Chrysene-d12	8.492	240	283681	2000.00	ppb	0.00	
21) Perylene-d12	9.961	264	250130	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.607	82	30390	830.04	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	83.00%			
7) 2-Fluorobiphenyl	4.902	172	73967	675.01	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	67.50%			
11) Pyrene-d10	7.374	212	82352	693.30	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	69.33%			
18) Terphenyl-d14	7.542	244	63481	527.37	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	52.74%			
Target Compounds							
3) Naphthalene	4.123	128	383	2.91	ppb	100	
4) 2-Methylnaphthalene	4.632	142	198	2.25	ppb	100	
5) 1-Methylnaphthalene	4.699	142	228	2.72	ppb	100	
8) Acenaphthylene	5.252	152	99	0.70	ppb	100	
9) Acenaphthene	5.383	153	105	1.14	ppb	100	
12) Fluorene	5.745	166	374	3.65	ppb	100	
13) Phenanthrene	6.376	178	1623	10.31	ppb	100	
14) Anthracene	6.376	178	1623	<del>14.76</del>	ppb	100	
15) Fluoranthene	7.217	202	580	3.33	ppb	100	
16) Pyrene	7.385	202	815	4.43	ppb	100	
19) Benzo[a]anthracene	8.489	228	1164	8.29	ppb	100	
20) Chrysene	8.489	228	1164	<del>7.61</del>	ppb	100	
22) Benzo[b]fluoranthene	9.586	252	417	2.53	ppb	100	
23) Benzo[j,k]fluoranthene	9.586	252	417	<del>2.71</del>	ppb	100	
24) Benzo[a]pyrene	9.902	252	291	1.95	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	11.027	276	410	2.45	ppb	100	
26) Dibenz[a,h]anthracene	11.047	278	312	2.25	ppb	100	
27) Benzo[g,h,i]perylene	11.281	276	326	2.30	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*Handwritten:* 12/19/14 am

Data Path : C:\MSDCHEM\1\DATA\C141219\  
 Data File : C1219006.D  
 Acq On : 19 Dec 2014 10:56 am  
 Operator :  
 Sample : 12-198-01  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 19 11:11:53 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141218\  
 Data File : C1218004.D  
 Acq On : 18 Dec 2014 3:37 pm  
 Operator :  
 Sample : MB1218S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

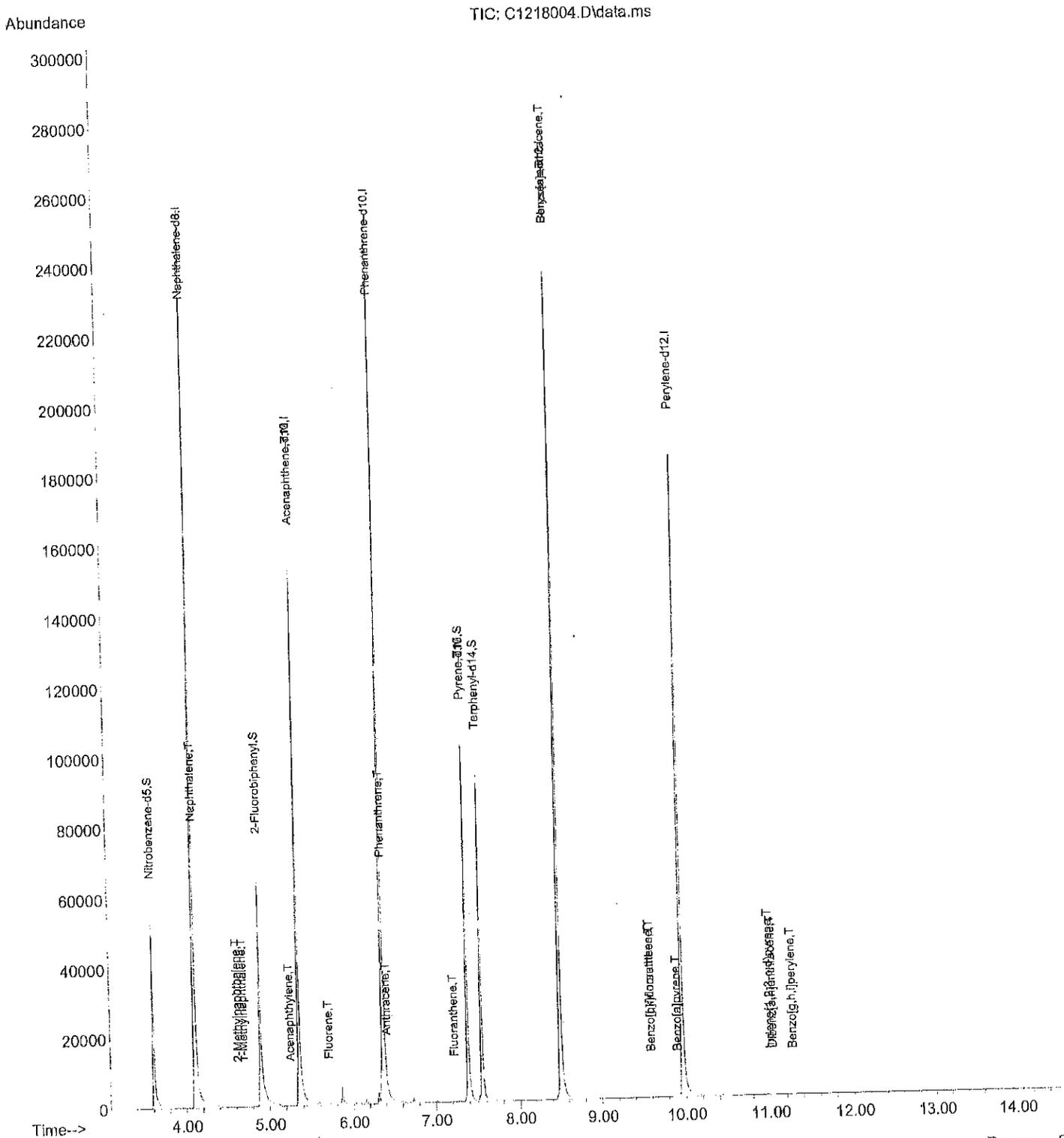
Quant Time: Dec 18 15:52:20 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) Naphthalene-d8	4.105	136	277272	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.360	164	154603	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.363	188	285250	2000.00	ppb	0.00	
17) Chrysene-d12	8.499	240	290345	2000.00	ppb	0.00	
21) Perylene-d12	9.962	264	253174	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.600	82	43562	1067.43	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	106.74%	#		
7) 2-Fluorobiphenyl	4.899	172	99209	829.38	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	82.94%			
11) Pyrene-d10	7.381	212	117926	934.03	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	93.40%			
18) Terphenyl-d14	7.549	244	91110	739.52	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	73.95%			
Target Compounds							
3) Naphthalene	4.117	128	276	1.88	ppb	100	
4) 2-Methylnaphthalene	4.626	142	117	1.19	ppb	100	
5) 1-Methylnaphthalene	4.696	142	83	0.89	ppb	100	
8) Acenaphthylene	5.252	152	61	0.39	ppb	100	
9) Acenaphthene	5.360	153	130	1.29	ppb	100	
12) Fluorene	5.707	166	112	1.03	ppb	100	
13) Phenanthrene	6.379	178	1668	9.97	ppb	100	
14) Anthracene	6.414	178	411	3.52	ppb	100	
15) Fluoranthene	7.224	202	169	0.91	ppb	100	
16) Pyrene	7.381	202	673	3.44	ppb	100	
19) Benzo[a]anthracene	8.499	228	1274	8.86	ppb	100	
20) Chrysene	8.499	228	1274	<del>8.13</del>	ppb	100	
22) Benzo[b]fluoranthene	9.587	252	370	2.22	ppb	100	
23) Benzo[j,k]fluoranthene	9.587	252	370	<del>2.38</del>	ppb	100	
24) Benzo[a]pyrene	9.903	252	164	1.08	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	11.008	276	495	2.92	ppb	100	
26) Dibenz[a,h]anthracene	11.036	278	537	3.83	ppb	100	
27) Benzo[g,h,i]perylene	11.270	276	416	2.90	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDCHEM\1\DATA\C141218\  
 Data File : C1218004.D  
 Acq On : 18 Dec 2014 3:37 pm  
 Operator :  
 Sample : MB1218S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 18 15:52:20 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141218\  
 Data File : C1218005.D  
 Acq On : 18 Dec 2014 3:58 pm  
 Operator :  
 Sample : SB1218S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 18 16:13:57 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration

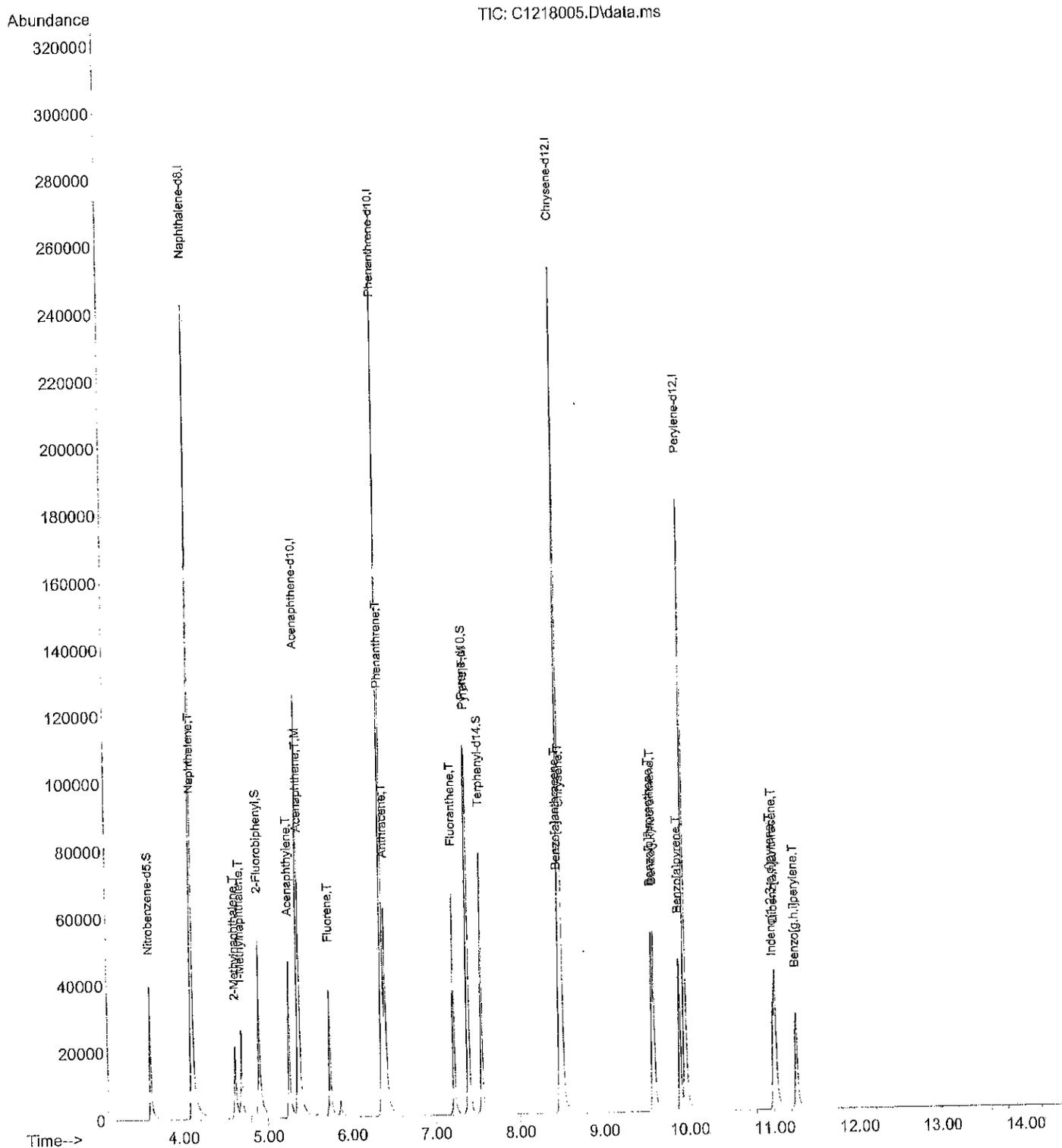
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) Naphthalene-d8	4.111	136	264912	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.361	164	148821	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.361	188	284031	2000.00	ppb	0.00	
17) Chrysene-d12	8.491	240	297615	2000.00	ppb	0.00	
21) Perylene-d12	9.957	264	259787	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.600	82	36731	942.04	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	94.20%#			
7) 2-Fluorobiphenyl	4.898	172	91348	793.33	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	79.33%			
11) Pyrene-d10	7.374	212	109192	868.57	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	86.86%			
18) Terphenyl-d14	7.542	244	86782	687.19	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	68.72%			
Target Compounds							
3) Naphthalene	4.122	128	55415	395.38	ppb	100	
4) 2-Methylnaphthalene	4.621	142	31689	337.50	ppb	100	
5) 1-Methylnaphthalene	4.691	142	42145	472.19	ppb	100	
8) Acenaphthylene	5.253	152	59366	396.67	ppb	100	
9) Acenaphthene	5.377	153	39651	408.19	ppb	100	
12) Fluorene	5.731	166	46518	429.28	ppb	100	
13) Phenanthrene	6.376	178	60310	362.06	ppb	100	
14) Anthracene	6.407	178	76800	659.93	ppb	100	
15) Fluoranthene	7.217	202	77859	422.61	ppb	100	
16) Pyrene	7.386	202	80531	413.64	ppb	100	
19) Benzo[a]anthracene	8.471	228	68486	464.79	ppb	100	
20) Chrysene	8.514	228	73702	459.01	ppb	100	
22) Benzo[b]fluoranthene	9.578	252	65954	384.87	ppb	100	
23) Benzo[j,k]fluoranthene	9.602	252	68529	429.47	ppb	100	
24) Benzo[a]pyrene	9.894	252	66766	429.79	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.996	276	68595	394.02	ppb	100	
26) Dibenz[a,h]anthracene	11.019	278	56459	392.24	ppb	100	
27) Benzo[g,h,i]perylene	11.257	276	57402	389.99	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*12/19/14  
ZMM*

Data Path : C:\MSDCHEM\1\DATA\C141218\  
 Data File : C1218005.D  
 Acq On : 18 Dec 2014 3:58 pm  
 Operator :  
 Sample : SB1218S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 18 16:13:57 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141218\  
 Data File : C1218006.D  
 Acq On : 18 Dec 2014 4:20 pm  
 Operator :  
 Sample : SB1218S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 18 16:35:48 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration

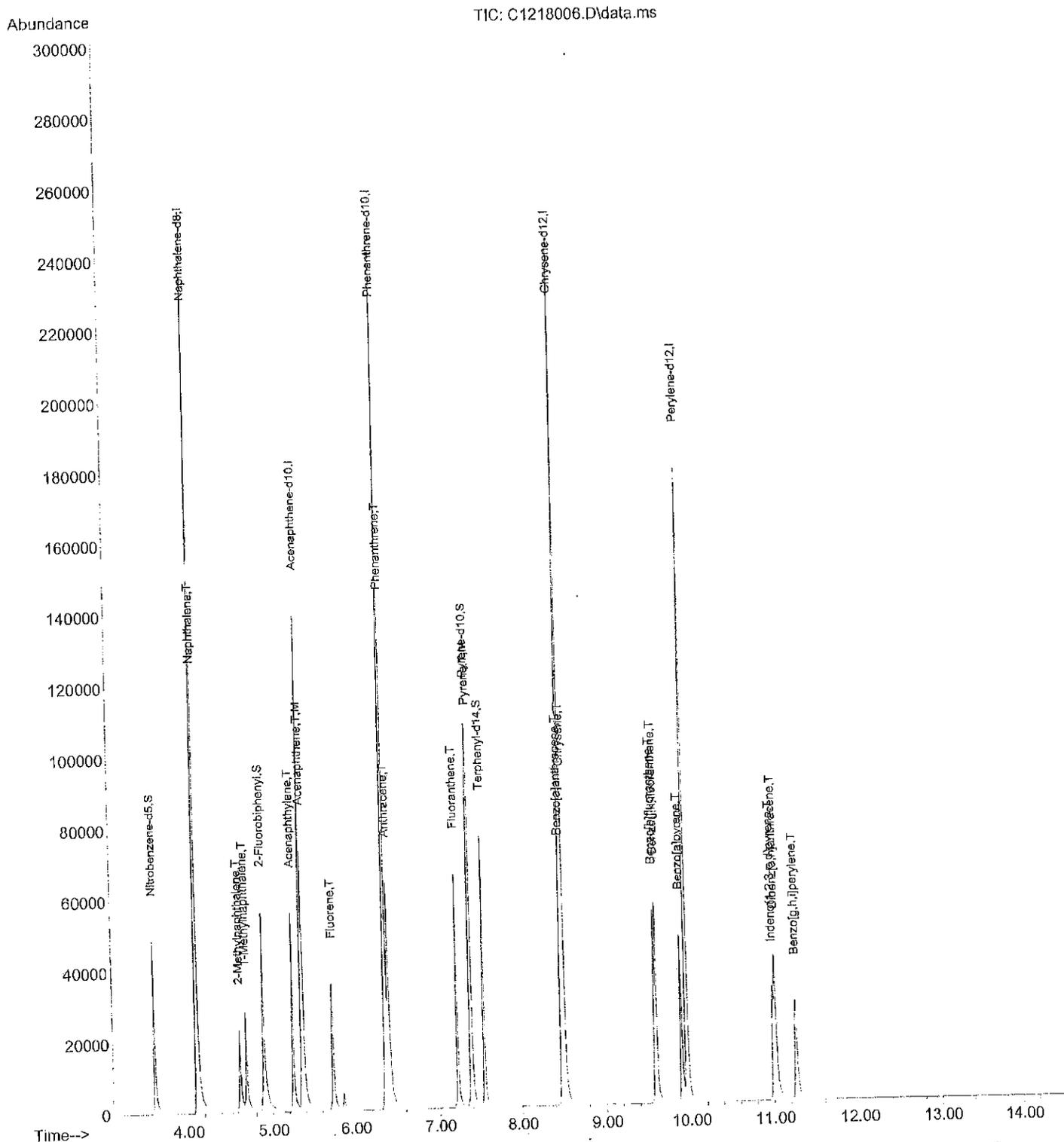
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	4.107	136	262801	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.361	164	146053	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.363	188	279190	2000.00	ppb	0.00	
17) Chrysene-d12	8.488	240	293709	2000.00	ppb	0.00	
21) Perylene-d12	9.958	264	257940	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.602	82	40057	1035.60	ppb	0.00	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	103.56%#			
7) 2-Fluorobiphenyl	4.899	172	97742	864.95	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	86.50%			
11) Pyrene-d10	7.374	212	110794	896.59	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	89.66%			
18) Terphenyl-d14	7.536	244	88186	707.59	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	70.76%			
Target Compounds							
3) Naphthalene	4.118	128	62310	448.15	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.622	142	33738	362.21	ppb	100	
5) 1-Methylnaphthalene	4.696	142	44735	505.23	ppb	100	
8) Acenaphthylene	5.253	152	62650	426.54	ppb	100	
9) Acenaphthene	5.376	153	41945	439.98	ppb	100	
12) Fluorene	5.738	166	49620	465.84	ppb	100	
13) Phenanthrene	6.375	178	63094	385.34	ppb	100	
14) Anthracene	6.406	178	78903	689.76	ppb	100	
15) Fluoranthene	7.211	202	78164	431.62	ppb	100	
16) Pyrene	7.385	202	81104	423.81	ppb	100	
19) Benzo[a]anthracene	8.472	228	69371	477.06	ppb	100	
20) Chrysene	8.511	228	72770	459.24	ppb	100	
22) Benzo[b]fluoranthene	9.576	252	62599	367.91	ppb	100	
23) Benzo[j,k]fluoranthene	9.599	252	73818	465.92	ppb	100	
24) Benzo[a]pyrene	9.896	252	67664	438.69	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.993	276	69878	404.26	ppb	100	
26) Dibenz[a,h]anthracene	11.020	278	57385	401.52	ppb	100	
27) Benzo[g,h,i]perylene	11.258	276	58532	400.52	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/19/14  
 em

Data Path : C:\MSDCHEM\1\DATA\C141218\  
 Data File : C1218006.D  
 Acq On : 18 Dec 2014 4:20 pm  
 Operator :  
 Sample : SB1218S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 18 16:35:48 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141218\  
 Data File : C1218003.D  
 Acq On : 18 Dec 2014 1:11 pm  
 Operator :  
 Sample : PAH CCV1218  
 Misc : SV4-47-26  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 18 13:46:15 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I Naphthalene-d8	2000.000	2000.000	0.0	83	-0.05
2 S Nitrobenzene-d5	500.000	566.724	-13.3	102	-0.05
3 T Naphthalene	500.000	490.066	2.0	89	-0.05
4 T 2-Methylnaphthalene	500.000	400.666	19.9	72	-0.05
5 T 1-Methylnaphthalene	500.000	552.742	-10.5	98	-0.05
6 I Acenaphthene-d10	2000.000	2000.000	0.0	87	-0.05
7 S 2-Fluorobiphenyl	500.000	455.872	8.8	83	-0.05
8 T Acenaphthylene	500.000	451.763	9.6	86	-0.05
9 T,M Acenaphthene	500.000	474.144	5.2	92	-0.05
10 I Phenanthrene-d10	2000.000	2000.000	0.0	90	-0.05
11 S Pyrene-d10	500.000	471.579	5.7	90	-0.05
12 T Fluorene	500.000	487.614	2.5	94	-0.04
13 T Phenanthrene	500.000	410.334	17.9	82	-0.05
14 T Anthracene	500.000	511.201	-2.2	99	-0.04
15 T Fluoranthene	500.000	462.337	7.5	93	-0.05
16 T,M Pyrene	500.000	448.652	10.3	92	-0.05
17 I Chrysene-d12	2000.000	2000.000	0.0	87	-0.06
18 S Terphenyl-d14	500.000	405.657	18.9	91	-0.05
19 T Benzo[a]anthracene	500.000	502.990	-0.6	84	-0.06
20 T Chrysene	500.000	488.253	2.3	95	-0.06
21 I Perylene-d12	2000.000	2000.000	0.0	82	-0.07
22 T Benzo[b]fluoranthene	500.000	412.351	17.5	77	-0.06
23 T Benzo(j,k)fluoranthene	500.000	506.067	-1.2	95	-0.06
24 T Benzo[a]pyrene	500.000	454.419	9.1	83	-0.06
25 T Indeno(1,2,3-c,d)pyrene	500.000	443.420	11.3	82	-0.07
26 T Dibenz[a,h]anthracene	500.000	438.653	12.3	82	-0.07
27 T Benzo[g,h,i]perylene	500.000	432.135	13.6	81	-0.07

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : X:\SEMIVOLS\COREY\DATA\C141218\  
 Data File : C1218003.D  
 Acq On : 18 Dec 2014 1:11 pm  
 Operator :  
 Sample : PAH CCV1218  
 Misc : SV4-47-26  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 18 13:46:15 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration

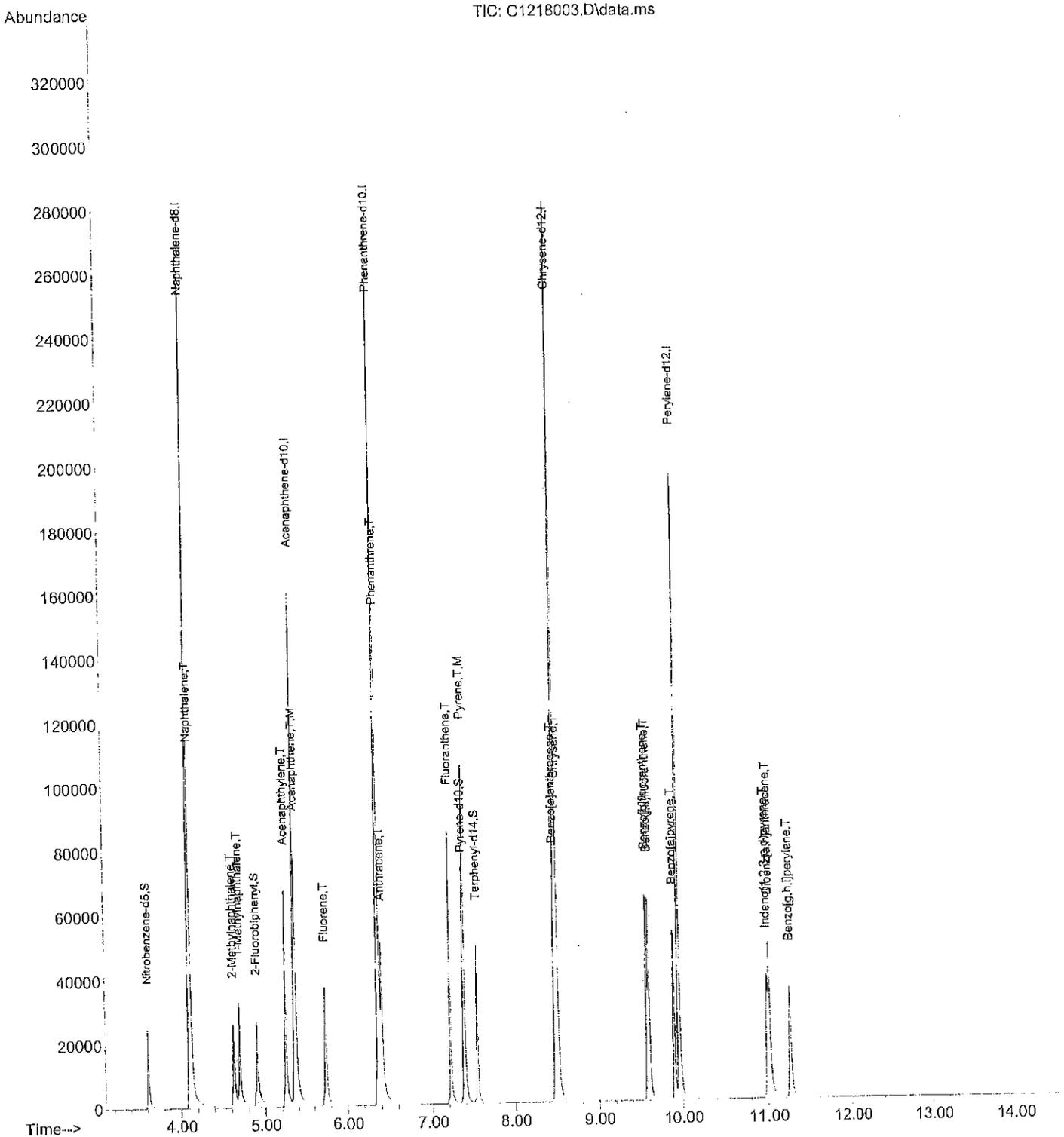
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	4.111	136	269971	2000.00	ppb	-0.05	
6) Acenaphthene-d10	5.361	164	153257	2000.00	ppb	-0.05	
10) Phenanthrene-d10	6.364	188	295095	2000.00	ppb	-0.05	
17) Chrysene-d12	8.492	240	304123	2000.00	ppb	-0.06	
21) Perylene-d12	9.960	264	259954	2000.00	ppb	-0.07	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.606	82	22519	566.72	ppb	-0.05	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	56.67%			
7) 2-Fluorobiphenyl	4.902	172	54056	455.87	ppb	-0.05	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	45.59%			
11) Pyrene-d10	7.374	212	61594	471.58	ppb	-0.05	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	47.16%			
18) Terphenyl-d14	7.542	244	52349	405.66	ppb	-0.05	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	40.57%			
Target Compounds							
3) Naphthalene	4.123	128	69997	490.07	ppb		Qvalue 100
4) 2-Methylnaphthalene	4.621	142	38338m	400.67	ppb		100
5) 1-Methylnaphthalene	4.695	142	50277	552.74	ppb		100
8) Acenaphthylene	5.253	152	69627	451.76	ppb		100
9) Acenaphthene	5.376	153	47431	474.14	ppb		100
12) Fluorene	5.739	166	54898	487.61	ppb		100
13) Phenanthrene	6.376	178	71014	410.33	ppb		100
14) Anthracene	6.411	178	61809	511.20	ppb		100
15) Fluoranthene	7.217	202	88496	462.34	ppb		100
16) Pyrene	7.385	202	90749	448.65	ppb		100
19) Benzo[a]anthracene	8.473	228	75735	502.99	ppb		100
20) Chrysene	8.515	228	80111	488.25	ppb		100
22) Benzo[b]fluoranthene	9.578	252	70709	412.35	ppb		100
23) Benzo[j,k]fluoranthene	9.601	252	80804	506.07	ppb		100
24) Benzo[a]pyrene	9.898	252	70637	454.42	ppb		100
25) Indeno[1,2,3-c,d]pyrene	10.996	276	77245	443.42	ppb		100
26) Dibenz[a,h]anthracene	11.023	278	63181	438.65	ppb		100
27) Benzo[g,h,i]perylene	11.261	276	63646	432.13	ppb		100
-----							

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*12/18/14  
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Data Path : X:\SEMIVOLS\COREY\DATA\C141218\  
 Data File : C1218003.D  
 Acq On : 18 Dec 2014 1:11 pm  
 Operator :  
 Sample : PAH CCV1218  
 Misc : SV4-47-26  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 18 13:46:15 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Dec 12 14:27:58 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141219\  
 Data File : C1219003.D  
 Acq On : 19 Dec 2014 9:51 am  
 Operator :  
 Sample : PAH CCV1218  
 Misc : SV4-47-26  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 19 10:33:24 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I Naphthalene-d8	2000.000	2000.000	0.0	97	0.00
2 S Nitrobenzene-d5	500.000	562.322	-12.5	118	0.00
3 T Naphthalene	500.000	485.612	2.9	103	0.00
4 T 2-Methylnaphthalene	500.000	400.021	20.0	84	0.00
5 T 1-Methylnaphthalene	500.000	575.263	-15.1	120	0.00
6 I Acenaphthene-d10	2000.000	2000.000	0.0	100	0.00
7 S 2-Fluorobiphenyl	500.000	428.786	14.2	89	0.00
8 T Acenaphthylene	500.000	452.490	9.5	98	0.00
9 T,M Acenaphthene	500.000	486.144	2.8	108	0.00
10 I Phenanthrene-d10	2000.000	2000.000	0.0	106	0.00
11 S Pyrene-d10	500.000	465.329	6.9	105	0.00
12 T Fluorene	500.000	479.079	4.2	109	0.00
13 T Phenanthrene	500.000	405.702	18.9	95	0.00
14 T Anthracene	500.000	508.295	-1.7	116	0.00
15 T Fluoranthene	500.000	455.090	9.0	108	0.00
16 T,M Pyrene	500.000	445.679	10.9	107	0.00
17 I Chrysene-d12	2000.000	2000.000	0.0	103	0.00
18 S Terphenyl-d14	500.000	403.048	19.4	106	0.00
19 T Benzo[a]anthracene	500.000	505.712	-1.1	99	0.00
20 T Chrysene	500.000	482.578	3.5	110	0.00
21 I Perylene-d12	2000.000	2000.000	0.0	96	0.00
22 T Benzo[b]fluoranthene	500.000	402.923	19.4	87	0.00
23 T Benzo(j,k)fluoranthene	500.000	526.198	-5.2	115	0.00
24 T Benzo[a]pyrene	500.000	471.242	5.8	100	0.00
25 T Indeno(1,2,3-c,d)pyrene	500.000	436.433	12.7	94	0.00
26 T Dibenz[a,h]anthracene	500.000	430.226	14.0	93	0.00
27 T Benzo[g,h,i]perylene	500.000	429.689	14.1	94	0.00

(#) = Out of Range

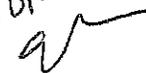
SPCC's out = 0 CCC's out = 0

Data Path : X:\SEMIVOLS\COREY\DATA\C141219\  
 Data File : C1219003.D  
 Acq On : 19 Dec 2014 9:51 am  
 Operator :  
 Sample : PAH CCV1218  
 Misc : SV4-47-26  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 19 10:33:24 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration

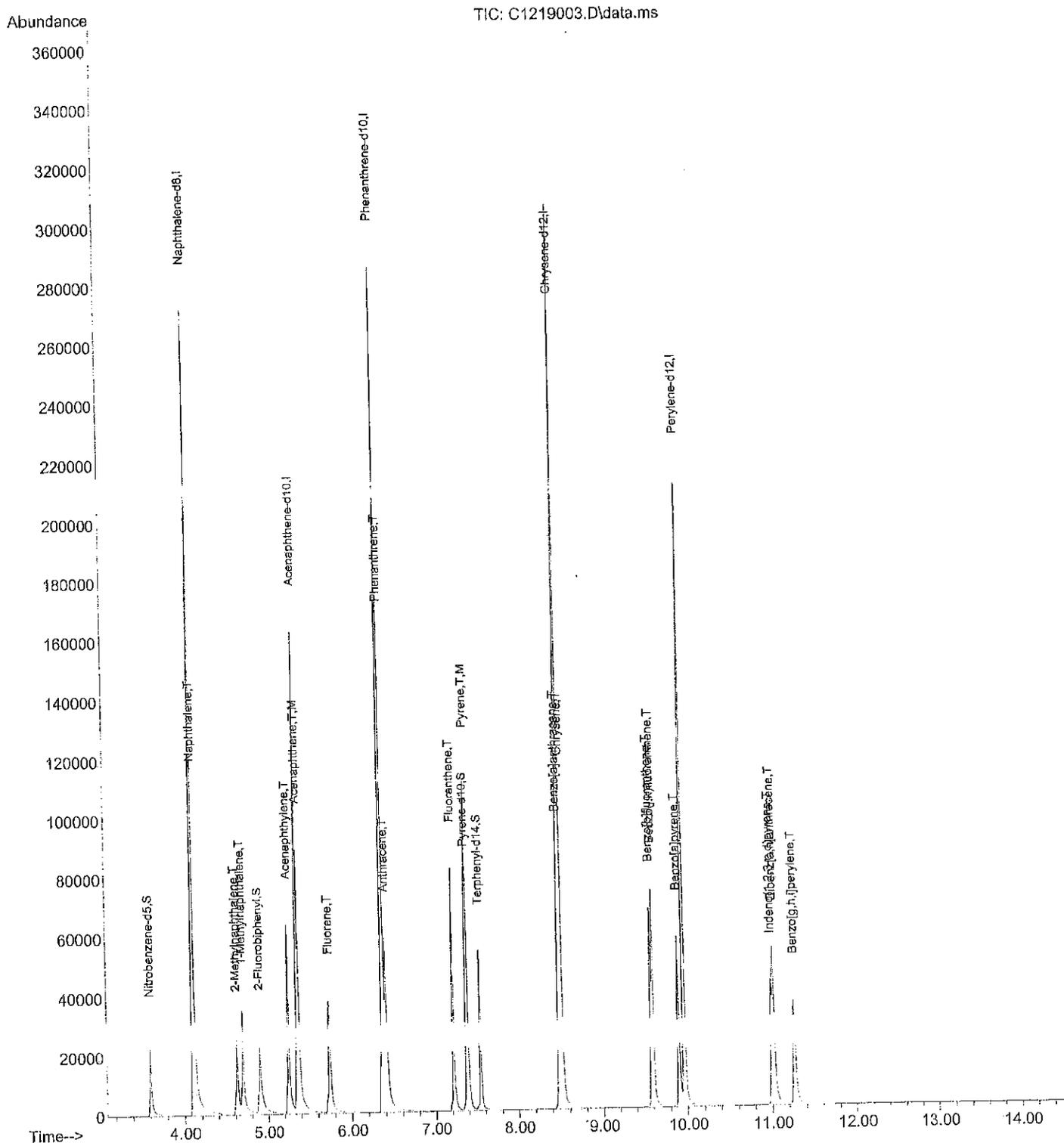
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8	4.111	136	315702	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.360	164	176204	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.360	188	348126	2000.00	ppb	0.00	
17) Chrysene-d12	8.488	240	357827	2000.00	ppb	0.00	
21) Perylene-d12	9.958	264	301840	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.606	82	26129	562.32	ppb	0.00	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	56.23%			
7) 2-Fluorobiphenyl	4.899	172	58457	428.79	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	42.88%			
11) Pyrene-d10	7.373	212	71700	465.33	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	46.53%			
18) Terphenyl-d14	7.542	244	61197	403.05	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	40.31%			
Target Compounds							
3) Naphthalene	4.123	128	81110	485.61	ppb		Qvalue 100
4) 2-Methylnaphthalene	4.618	142	44760m	400.02	ppb		100
5) 1-Methylnaphthalene	4.692	142	61189	575.26	ppb		100
8) Acenaphthylene	5.253	152	80181	452.49	ppb		100
9) Acenaphthene	5.376	153	55913	486.14	ppb		100
12) Fluorene	5.738	166	63630	479.08	ppb		100
13) Phenanthrene	6.375	178	82830	405.70	ppb		100
14) Anthracene	6.407	178	72502	508.29	ppb		100
15) Fluoranthene	7.216	202	102763	455.09	ppb		100
16) Pyrene	7.385	202	106348	445.68	ppb		100
19) Benzo[a]anthracene	8.472	228	89591	505.71	ppb		100
20) Chrysene	8.511	228	93162	482.58	ppb		100
22) Benzo[b]fluoranthene	9.575	252	80225	402.92	ppb		100
23) Benzo(j,k)fluoranthene	9.599	252	97556	526.20	ppb		100
24) Benzo[a]pyrene	9.895	252	85055	471.24	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.997	276	88278	436.43	ppb		100
26) Dibenz[a,h]anthracene	11.020	278	71952	430.23	ppb		100
27) Benzo[g,h,i]perylene	11.259	276	73483	429.69	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/18/14  


Data Path : X:\SEMIVOLS\COREY\DATA\C141219\  
 Data File : C1219003.D  
 Acq On : 19 Dec 2014 9:51 am  
 Operator :  
 Sample : PAH CCV1218  
 Misc : SV4-47-26  
 ALS Vial : 3 Sample Multiplier: 1

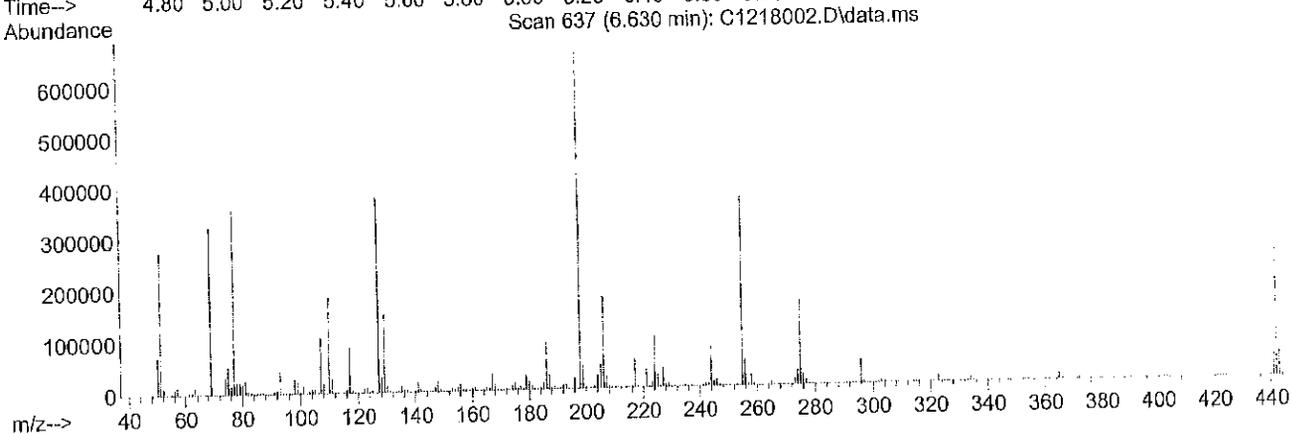
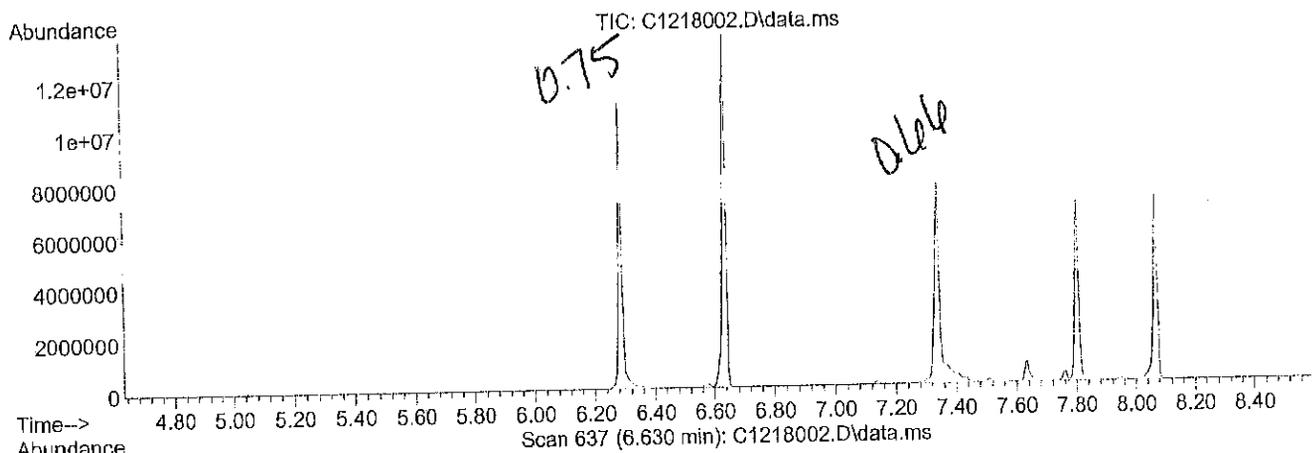
Quant Time: Dec 19 10:33:24 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1212.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Dec 18 15:36:32 2014  
 Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C141218\  
 Data File : C1218002.D  
 Acq On : 18 Dec 2014 12:49 pm  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-46-13  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1212.M  
 Title : PAH'S BY SIMS  
 Last Update : Fri Dec 12 14:27:58 2014



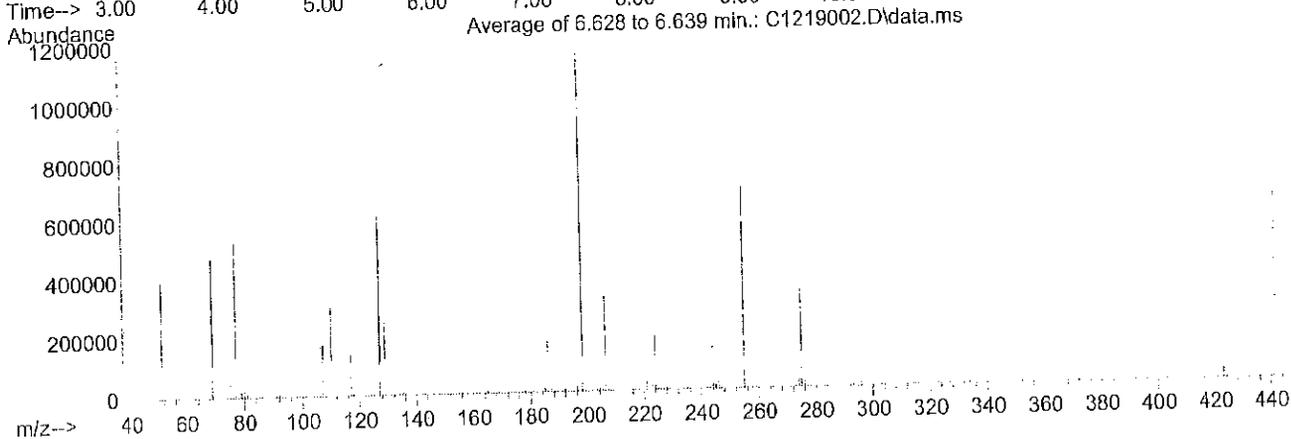
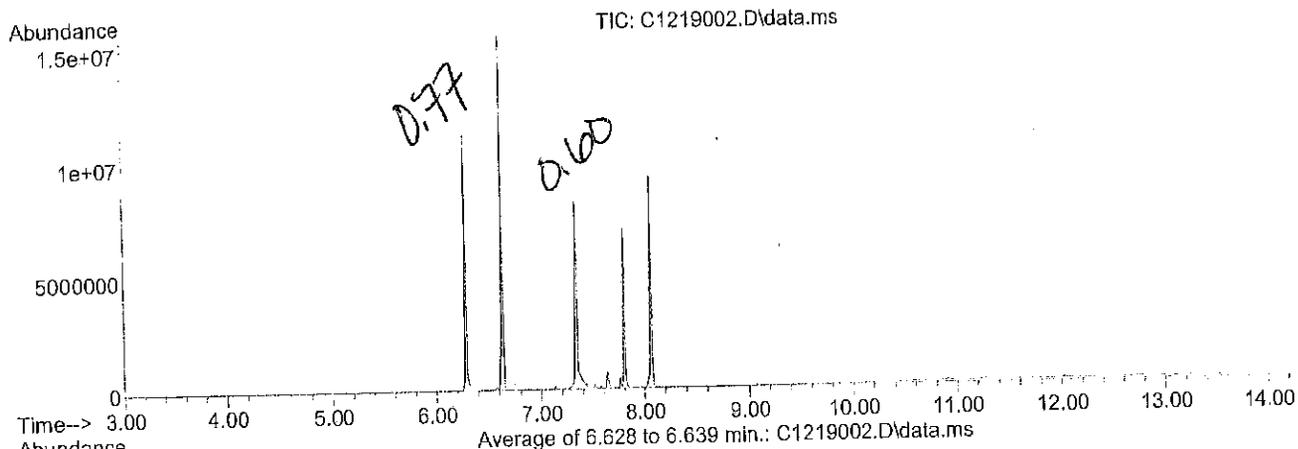
Spectrum Information: Scan 637

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	42.6	282368	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.4	327232	PASS
70	69	0.00	2	0.6	2030	PASS
127	198	25	75	58.0	384448	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	662720	PASS
199	198	5	9	6.9	45936	PASS
275	198	10	30	24.9	165184	PASS
365	198	0.75	100	2.3	15567	PASS
441	443	0.01	100	84.8	43840	PASS
442	198	40	110	41.9	277504	PASS
443	442	15	24	18.6	51728	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C141219\  
 Data File : C1219002.D  
 Acq On : 19 Dec 2014 9:29 am  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-46-13  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1212.M  
 Title : PAH'S BY SIMS  
 Last Update : Thu Dec 18 15:36:32 2014



Spectrum Information: Average of 6.628 to 6.639 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	34.7	401472	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.1	476245	PASS
70	69	0.00	2	0.5	2410	PASS
127	198	25	75	53.1	615253	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1158293	PASS
199	198	5	9	7.6	88256	PASS
275	198	10	30	29.7	343914	PASS
365	198	0.75	100	3.2	36490	PASS
441	443	0.01	100	32.5	43168	PASS
442	198	40	110	55.9	647381	PASS
443	442	15	24	20.5	132690	PASS

## Total Cadmium Data

## P141218F1B. Mean Only Report 12/19/2014, 10:26:55 AM

Sample	Label	Calc Conc.	Units	Date/Time
Blank	Cd 228.802	0.000	ppb	12/18/2014, 11:04:56 AM
Standard 5	Cd 228.802	10.000	ppb	12/18/2014, 11:09:31 AM
Standard 4	Cd 228.802	100.00	ppb	12/18/2014, 11:14:06 AM
Standard 3	Cd 228.802	1000.0	ppb	12/18/2014, 11:18:43 AM
Standard 2	Cd 228.802	2500.0	ppb	12/18/2014, 11:23:18 AM
Standard 1	Cd 228.802	5000.0	ppb	12/18/2014, 11:27:52 AM
Initial Calib Verif	Cd 228.802	985.14	ppb	12/18/2014, 12:05:21 PM
LLICV	Cd 228.802	9.323	ppb	12/18/2014, 12:13:23 PM
Initial Calib Blank	Cd 228.802	-1.355uv	ppb	12/18/2014, 12:19:59 PM
Cont Calib Verif	Cd 228.802	979.18	ppb	12/18/2014, 12:24:32 PM
Cont Calib Blank	Cd 228.802	-0.691uv	ppb	12/18/2014, 12:31:15 PM
ICSA	Cd 228.802	-1.080uv	ppb	12/18/2014, 12:35:50 PM
ICSAB	Cd 228.802	913.41	ppb	12/18/2014, 12:40:28 PM
MB1218TM1	Cd 228.802	-1.714uv	ppb	12/18/2014, 12:51:12 PM
SB1218TM1	Cd 228.802	938.05	ppb	12/18/2014, 12:55:51 PM
11-183-05a	Cd 228.802	-1.519uv	ppb	12/18/2014, 1:21:11 PM
11-183-05a D	Cd 228.802	-1.303uv	ppb	12/18/2014, 1:25:45 PM
11-183-05a L	Cd 228.802	0.790	ppb	12/18/2014, 1:30:20 PM
11-183-05a MS	Cd 228.802	943.26	ppb	12/18/2014, 1:34:54 PM
11-183-05a MSD	Cd 228.802	940.27	ppb	12/18/2014, 1:39:28 PM
12-189-01	Cd 228.802	-0.635uv	ppb	12/18/2014, 1:44:04 PM
Cont Calib Verif	Cd 228.802	1022.8	ppb	12/18/2014, 1:48:39 PM
Cont Calib Blank	Cd 228.802	-0.956uv	ppb	12/18/2014, 1:54:41 PM
LLCCV	Cd 228.802	9.022	ppb	12/18/2014, 1:59:15 PM
12-101-01a	Cd 228.802	39.639	ppb	12/18/2014, 2:06:53 PM
11-183-02a	Cd 228.802	0.311uv	ppb	12/18/2014, 2:11:29 PM
Cont Calib Verif	Cd 228.802	1027.1	ppb	12/18/2014, 2:16:04 PM
Cont Calib Blank	Cd 228.802	-0.406uv	ppb	12/18/2014, 2:21:23 PM
LLCCV	Cd 228.802	8.308	ppb	12/18/2014, 2:25:56 PM
MB1217PH1	Cd 228.802	0.609uv	ppb	12/18/2014, 2:40:08 PM
SB1217PH1	Cd 228.802	953.09	ppb	12/18/2014, 2:44:42 PM
12-112-02a	Cd 228.802	0.479uv	ppb	12/18/2014, 2:49:16 PM
12-112-02a D	Cd 228.802	27.439	ppb	12/18/2014, 2:53:50 PM
12-112-02a L	Cd 228.802	-0.696uv	ppb	12/18/2014, 2:58:25 PM
12-112-02a MS	Cd 228.802	944.83	ppb	12/18/2014, 3:02:59 PM
12-112-02a MSD	Cd 228.802	944.03	ppb	12/18/2014, 3:07:34 PM
12-112-01a	Cd 228.802	0.385uv	ppb	12/18/2014, 3:12:09 PM
blk	Cd 228.802	0.193uv	ppb	12/18/2014, 3:16:42 PM
Cont Calib Verif	Cd 228.802	981.00	ppb	12/18/2014, 3:21:14 PM
Cont Calib Blank	Cd 228.802	-1.219uv	ppb	12/18/2014, 4:11:46 PM
LLCCV	Cd 228.802	9.765	ppb	12/18/2014, 4:18:18 PM
MB1217WH1	Cd 228.802	-0.502uv	ppb	12/18/2014, 4:29:12 PM
SB1217WH1	Cd 228.802	1001.9	ppb	12/18/2014, 4:33:47 PM
12-161-19	Cd 228.802	1.195uv	ppb	12/18/2014, 4:38:21 PM
12-161-19 D	Cd 228.802	-1.157uv	ppb	12/18/2014, 4:42:56 PM
12-161-19 L	Cd 228.802	-1.936uv	ppb	12/18/2014, 4:47:30 PM
12-161-19 MS	Cd 228.802	949.36	ppb	12/18/2014, 4:52:06 PM
12-161-19 MSD	Cd 228.802	933.69	ppb	12/18/2014, 4:56:40 PM
12-194-01	Cd 228.802	1.390	ppb	12/18/2014, 5:01:14 PM
12-195-01	Cd 228.802	-0.369uv	ppb	12/18/2014, 5:05:47 PM
Cont Calib Verif	Cd 228.802	968.82	ppb	12/18/2014, 5:10:22 PM
Cont Calib Verif Blank	Cd 228.802	-1.310uv	ppb	12/18/2014, 5:14:57 PM

OK

Data Wrong JDI

OK

P141218F1B. Mean Only Report 12/19/2014, 10:26:55 AM

Sample	Label	Calc Conc.	Units	Date/Time
12-161-20	Cd 228.802	-0.966uv	ppb	12/18/2014, 5:24:22 PM
12-161-21	Cd 228.802	-1.429uv	ppb	12/18/2014, 5:28:56 PM
12-161-22	Cd 228.802	-2.923uv	ppb	12/18/2014, 5:33:32 PM
12-161-23	Cd 228.802	-0.827uv	ppb	12/18/2014, 5:38:08 PM
Cont Calib Verif	Cd 228.802	949.48	ppb	12/18/2014, 5:42:43 PM
Cont Calib Blank	Cd 228.802	1.617	ppb	12/18/2014, 5:47:35 PM
MB1218SM1	Cd 228.802	-0.820uv	ppb	12/18/2014, 6:01:56 PM
SB1218SM1	Cd 228.802	961.24	ppb	12/18/2014, 6:10:17 PM
12-150-06a	Cd 228.802	1.854uv	ppb	12/18/2014, 6:14:54 PM
12-150-06a D	Cd 228.802	-0.194uv	ppb	12/18/2014, 6:19:30 PM
12-150-06a L	Cd 228.802	-0.583uv	ppb	12/18/2014, 6:24:06 PM
12-150-06a MS	Cd 228.802	963.44	ppb	12/18/2014, 6:28:42 PM
12-150-06a MSD	Cd 228.802	981.62	ppb	12/18/2014, 6:33:18 PM
12-198-01a	Cd 228.802	1.551	ppb	12/18/2014, 6:37:53 PM
12-140-02a	Cd 228.802	74.745	ppb	12/18/2014, 6:42:30 PM
BLK	Cd 228.802	0.243uv	ppb	12/18/2014, 6:47:08 PM
Cont Calib Verif	Cd 228.802	958.68	ppb	12/18/2014, 6:51:44 PM
Cont Calib Blank	Cd 228.802	0.228uv	ppb	12/18/2014, 6:56:20 PM
LLCCV	Cd 228.802	10.781	ppb	12/18/2014, 7:00:56 PM



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 30, 2014

Abhijit Joshi  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-012-06  
Laboratory Reference No. 1412-214

Dear Abhijit:

Enclosed are the analytical results and associated quality control data for samples submitted on December 18, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: December 30, 2014  
Samples Submitted: December 18, 2014  
Laboratory Reference: 1412-214  
Project: 5147-012-06

### Case Narrative

Samples were collected on December 17, 2014 and received by the laboratory on December 18, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx/Benzene EPA 8021B (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

#### PAHs EPA 8270D/SIM Analysis

Sample EX-18-6.0 had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

**Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.**

Date of Report: December 30, 2014  
Samples Submitted: December 18, 2014  
Laboratory Reference: 1412-214  
Project: 5147-012-06

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-18-6.0	12-214-01	Soil	12-17-14	12-18-14	
TRIP BLANK-121714	12-214-02	Water	N/A	12-18-14	

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-18-6.0</b>					
Laboratory ID:	12-214-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	68-123				

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>TRIP BLANK-121714</b>					
Laboratory ID:	12-214-02					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-19-14	12-19-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-19-14	12-19-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>102</i>	<i>71-113</i>				

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-18-6.0</b>					
Laboratory ID:	12-214-01					
Diesel Fuel #2	<b>6900</b>	150	NWTPH-Dx	12-23-14	12-24-14	X1
Lube Oil	<b>2700</b>	300	NWTPH-Dx	12-23-14	12-24-14	X1,N1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-18-6.0</b>					
Laboratory ID:	12-214-01					
Benzo[a]anthracene	<b>ND</b>	0.039	EPA 8270D/SIM	12-23-14	12-24-14	
Chrysene	<b>ND</b>	0.039	EPA 8270D/SIM	12-23-14	12-24-14	
Benzo[b]fluoranthene	<b>0.0083</b>	0.0079	EPA 8270D/SIM	12-23-14	12-24-14	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-23-14	12-24-14	
Benzo[a]pyrene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-23-14	12-24-14	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-23-14	12-24-14	
Dibenz[a,h]anthracene	<b>ND</b>	0.0079	EPA 8270D/SIM	12-23-14	12-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>32</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>38</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>23</i>	<i>31 - 116</i>				Q

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	12-214-01					
<b>Client ID:</b>	<b>EX-18-6.0</b>					
Cadmium	<b>1.5</b>	0.59	6010C	12-23-14	12-23-14	

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1222S3					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>94</i>	<i>68-123</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-255-02							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				<i>84</i>	<i>82</i>	<i>68-123</i>		

**SPIKE BLANKS**

Laboratory ID:	SB1222S1							
	SB	SBD	SB	SBD	SB	SBD		
Benzene	<b>0.976</b>	<b>1.00</b>	1.00	1.00	<b>98</b>	<b>100</b>	75-117	2 13
<i>Surrogate:</i>								
<i>Fluorobenzene</i>					<i>91</i>	<i>95</i>	<i>68-123</i>	

Date of Report: December 30, 2014  
Samples Submitted: December 18, 2014  
Laboratory Reference: 1412-214  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1222G-1	5.00	4.72	6	+/- 20%
CCVD1222G-2	5.00	4.55	9	+/- 20%

Date of Report: December 30, 2014  
Samples Submitted: December 18, 2014  
Laboratory Reference: 1412-214  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1222B-1	50.0	53.9	-8	+/- 15%
Benzene	CCVD1222B-2	50.0	51.9	-4	+/- 15%
Benzene	CCVD1222B-3	50.0	51.7	-3	+/- 15%

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1219W6					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-19-14	12-19-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-19-14	12-19-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	71-113				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-199-02							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	30	
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				97	90	71-113		

**MATRIX SPIKES**

Laboratory ID:	12-199-02									
	MS	MSD	MS	MSD		MS	MSD			
Benzene	<b>52.9</b>	<b>53.2</b>	50.0	50.0	ND	<b>106</b>	<b>106</b>	82-120	1	14
<i>Surrogate:</i>										
<i>Fluorobenzene</i>						102	105	71-113		

Date of Report: December 30, 2014  
Samples Submitted: December 18, 2014  
Laboratory Reference: 1412-214  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1219G-1	5.00	4.59	8	+/- 20%
CCVD1219G-2	5.00	4.69	6	+/- 20%

Date of Report: December 30, 2014  
Samples Submitted: December 18, 2014  
Laboratory Reference: 1412-214  
Project: 5147-012-06

**BENZENE  
EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1219B-1	50.0	52.7	-5	+/- 15%
Benzene	CCVD1219B-2	50.0	51.9	-4	+/- 15%
Benzene	CCVD1219B-3	50.0	49.6	1	+/- 15%

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1223S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	12-23-14	12-23-14	X1
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	12-23-14	12-23-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	132	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-214-01							
	ORIG	DUP						
Diesel Fuel #2	<b>5820</b>	<b>5010</b>	NA	NA	NA	NA	15	NA X1
Lube Oil	<b>2280</b>	<b>1880</b>	NA	NA	NA	NA	19	NA X1,N1
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				88	95	50-150		

Date of Report: December 30, 2014  
Samples Submitted: December 18, 2014  
Laboratory Reference: 1412-214  
Project: 5147-012-06

**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCV1223R-T1	100	98.5	1.5	+/-15%
CCV1223R-T2	100	98.8	1.2	+/-15%
CCV1224F-V2	100	95.6	4.4	+/-15%
CCV1224F-V3	100	97.9	2.1	+/-15%

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1223S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Chrysene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>97</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>90</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>31 - 116</i>				

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1223S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	<b>0.0762</b>	<b>0.0737</b>	0.0833	0.0833	91	88	60 - 128	3	15	
Chrysene	<b>0.0696</b>	<b>0.0679</b>	0.0833	0.0833	84	82	60 - 117	2	13	
Benzo[b]fluoranthene	<b>0.0659</b>	<b>0.0655</b>	0.0833	0.0833	79	79	60 - 131	1	16	
Benzo(j,k)fluoranthene	<b>0.0650</b>	<b>0.0685</b>	0.0833	0.0833	78	82	57 - 126	5	20	
Benzo[a]pyrene	<b>0.0736</b>	<b>0.0715</b>	0.0833	0.0833	88	86	62 - 136	3	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0718</b>	<b>0.0693</b>	0.0833	0.0833	86	83	60 - 127	4	19	
Dibenz[a,h]anthracene	<b>0.0720</b>	<b>0.0697</b>	0.0833	0.0833	86	84	62 - 133	3	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					92	80	32 - 114			
Pyrene-d10					85	82	33 - 121			
Terphenyl-d14					78	76	31 - 116			

Date of Report: December 30, 2014  
Samples Submitted: December 18, 2014  
Laboratory Reference: 1412-214  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-23-14  
Date Analyzed: 12-23-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1223SM1

Analyte	Method	Result	PQL
Cadmium	6010C	<b>ND</b>	0.50

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 12-23-14  
 Date Analyzed: 12-23-14  
  
 Matrix: Soil  
 Units: mg/kg (ppm)  
  
 Lab ID: 12-209-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	<b>ND</b>	<b>ND</b>	NA	0.50	

Date of Report: December 30, 2014  
 Samples Submitted: December 18, 2014  
 Laboratory Reference: 1412-214  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 MS/MSD QUALITY CONTROL**

Date Extracted: 12-23-14

Date Analyzed: 12-23-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-209-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50.0	<b>47.4</b>	95	<b>48.2</b>	96	2	

Date of Report: December 19, 2014  
 Samples Submitted: December 17, 2014  
 Laboratory Reference: 1412-198  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	ICV122314P	1.00	0.979	2.1	+/- 10%
Cadmium	LLICV1122314P	0.0100	0.0120	-20	+/- 30%
Cadmium	CCV1122314P	1.00	1.02	-2.0	+/- 10%
Cadmium	CCV2122314P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV2122314P	0.0100	0.00985	1.5	+/- 30%
Cadmium	CCV3122314P	1.00	1.01	-1.0	+/- 10%
Cadmium	LLCCV3122314P	0.0100	0.0117	-17	+/- 30%
Cadmium	CCV4122314P	1.00	1.01	-1.0	+/- 10%
Cadmium	LLCCV4122314P	0.0100	0.0116	-16	+/- 30%
Cadmium	CCV5122314P	1.00	1.01	-1.0	+/- 10%
Cadmium	LLCCV5122314P	0.0100	0.0120	-20	+/- 30%
Cadmium	CCV6122314P	1.00	1.05	-5.0	+/- 10%
Cadmium	LLCCV6122314P	0.0100	0.00973	2.7	+/- 30%
Cadmium	CCV7122314P	1.00	1.01	-1.0	+/- 10%
Cadmium	LLCCV7122314P	0.0100	0.0119	-19	+/- 30%
Cadmium	CCV8122314P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLCCV8122314P	0.0100	0.0118	-18	+/- 30%

Date of Report: December 30, 2014  
Samples Submitted: December 18, 2014  
Laboratory Reference: 1412-214  
Project: 5147-012-06

**% MOISTURE**

Date Analyzed: 12-22-14

Client ID	Lab ID	% Moisture
EX-18-6.0	12-214-01	15



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



# OnSite Environmental Inc.

Analytical Laboratory Testing Services  
14648 NE 95th Street • Redmond, WA 98052  
Phone: (425) 883-3881 • www.onsite-env.com

## Chain of Custody

Company:

GEOENGINEERS

Project Number:

5147-012-06

Project Name:

SHELL TANK FARM

Project Manager:

ABRAHAM JOSHI

Sampled by:

NATHAN SALOMON

### Turnaround Request (In working days)

(Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)  
(TPH analysis 5 Days)

\_\_\_\_\_ (other)

### Laboratory Number:

12-214

Lab ID Sample Identification

1 EX-18-U.O

12/17/14 1200 SOIL 2

2 TRIBUNAL-121714

N/A N/A 4200 1

### Number of Containers

NWTPH-HCID

NWTPH-Gx/BTEX

NWTPH-Gx

NWTPH-Dx W/ SILCA CLEANUP

Volatiles 8260C

Halogenated Volatiles 8260C

Semivolatiles 8270D/SIM

(with low-level PAHs)

PAHs 8270D/SIM (low-level)

PCBs 8082A

Organochlorine Pesticides 8081B

Organophosphorus Pesticides 8270D/SIM

Chlorinated Acid Herbicides 8151A

Total RCRA Metals

Total MTCA Metals

TCLP Metals

HEM (oil and grease) 1664A

X BENZENE 8021B

X CPAH 8270/SIM

X CADMIUM 6010C

X % Moisture

Signature

*[Signature]*

Company

GeoEngineers

Date

12/18/14

Time

8:37

Comments/Special Instructions

Relinquished

Received

Relinquished

Received

Relinquished

Received

*[Signature]*

*[Signature]*

*[Signature]*

*[Signature]*

*[Signature]*

GeoEngineers

GeoEngineers

GeoEngineers

GeoEngineers

GeoEngineers

12/18/14

12/18/14

12/18/14

12/18/14

12/18/14

9:37

10:43

10:43

10:43

10:43

# Sample/Cooler Receipt and Acceptance Checklist

Client: GES  
 Client Project Name/Number: 5147-012-06  
 OnSite Project Number: 12-214

Initiated by: [Signature]  
 Date Initiated: 12/18/14

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1	2	3	4
1.2 Were the custody seals intact?	Yes	No	N/A	1	2	3	4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1	2	3	4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1	2	3	4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: <u>1</u>				
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A					
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other		

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1	2	3	4
2.2 Was the COC legible and written in permanent ink?	Yes	No		1	2	3	4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No		1	2	3	4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1	2	3	4
2.5 Were all of the samples listed on the COC submitted?	Yes	No		1	2	3	4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1	2	3	4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1	2	3	4
3.2 Were any sample labels missing or illegible?	Yes	No		1	2	3	4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1	2	3	4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1	2	3	4
3.5 Are volatile samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1	2	3	4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1	2	3	4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1	2	3	4
3.8 Was method 5035A used?	Yes	No	N/A	1	2	3	4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	1	N/A	1	2	3	4

### Explain any discrepancies:


- 1 - Discuss issue in Case Narrative
- 2 - Process Sample As-is
- 3 - Client contacted to discuss problem
- 4 - Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

- NWTPH-Gx/Benzene (soil) Data
- NWTPH- Gx/Benzene (water) Data
- NWTPH-Dx Data
- cPAHs EPA 8270D/SIM Data
- Total Cadmium EPA 6010CData

## NWTPH-Gx/Benzene (soil) Data

Signal #1 : X:\BTEX\DARYL\DATA\D141222\1222010.D\FID1A.CH Vial: 10  
 Signal #2 : X:\BTEX\DARYL\DATA\D141222\1222010.D\FID2B.CH  
 Acq On : 22 Dec 2014 15:17 Operator:  
 Sample : 12-214-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 10:03 2014 Quant Results File: 141012DB.RES

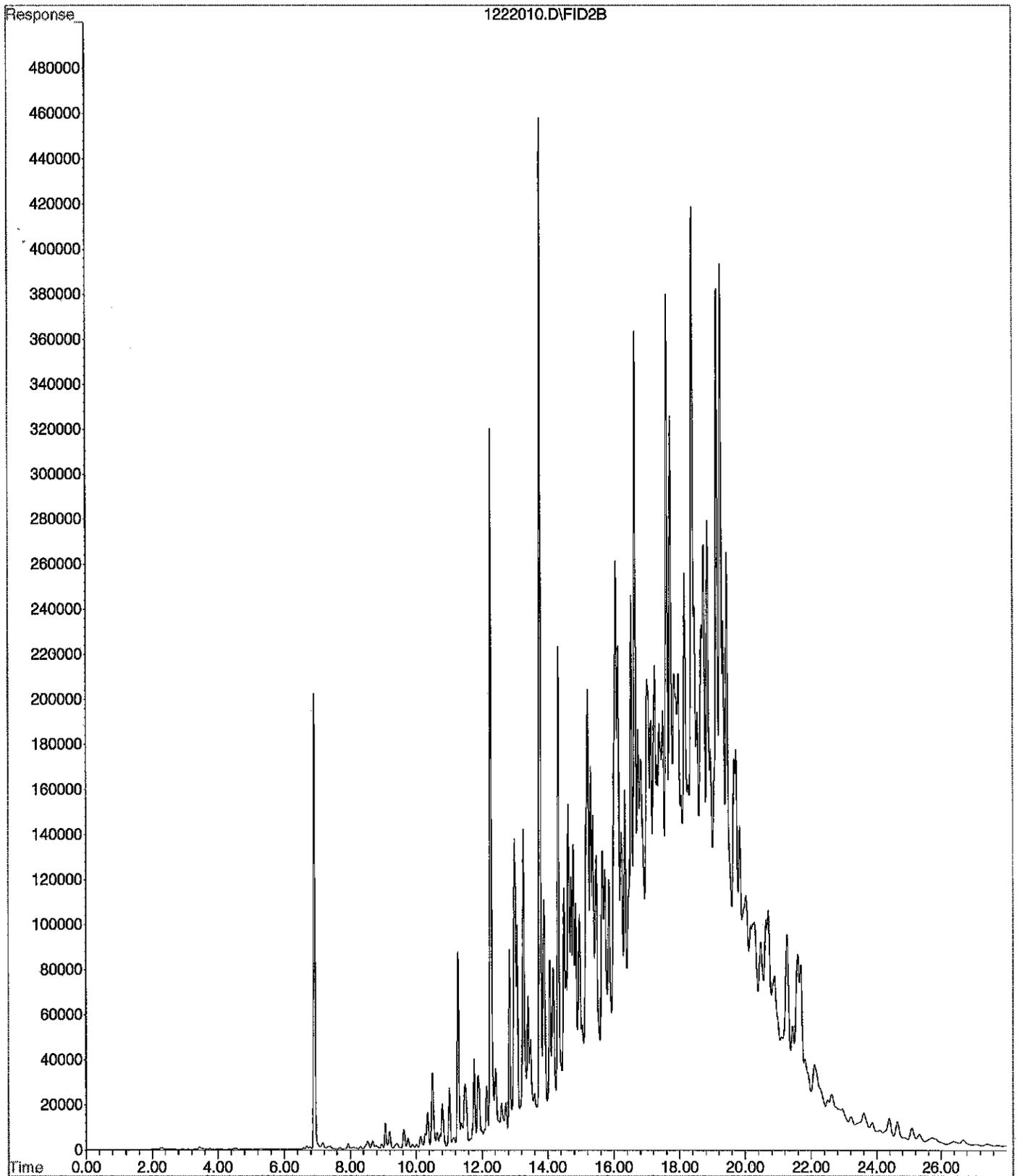
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.91	2383226	34.293 PPB
5) S BROMOFLUOROBENZENE	12.27	3356361	83.277 PPB
11) S FLUOROBENZENE #2	6.91	6332816	28.463 PPB
16) S BROMOFLUOROBENZENE #2	12.27	10345208	34.485 PPB m
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	21874767	0.438 PPM
2) H Entire GAS Envelope (9-24-	12.21	275322671	4.206 PPM
3) H GASOLINE (9-24-14)	13.51	156883241	3.947 PPM
7) H entire GAS envelope #2 (9-	12.26	689646708	4.755 PPM
8) H GASOLINE #2 (9-24-14)	13.56	379836289	3.403 PPM
9) MTBE #2	4.71	652	N.D. PPB
10) BENZENE #2	6.68	56058	0.147 PPB
12) TOLUENE #2	9.06	385352	1.209 PPB
13) ETHYLBENZENE #2	11.02	868877	3.420 PPB m
14) m,p-XYLENE #2	11.28	2815784	9.160 PPB m
15) o-XYLENE #2	11.77	1153837	4.345 PPB m

12/23  
 AW

File : X:\BTEX\DARYL\DATA\D141222\1222010.D  
Operator :  
Acquired : 22 Dec 2014 15:17 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-214-01s  
Misc Info : V2-36-17  
Vial Number: 10



Signal #1 : d:\btex\DATA\D141222\1222028.D\FID1A.CH vial: 28  
 Signal #2 : d:\btex\DATA\D141222\1222028.D\FID2B.CH  
 Acq On : 23 Dec 2014 1:24 Operator:  
 Sample : MB1222S3 Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 1:52 2014 Quant Results File: 141012DB.RES

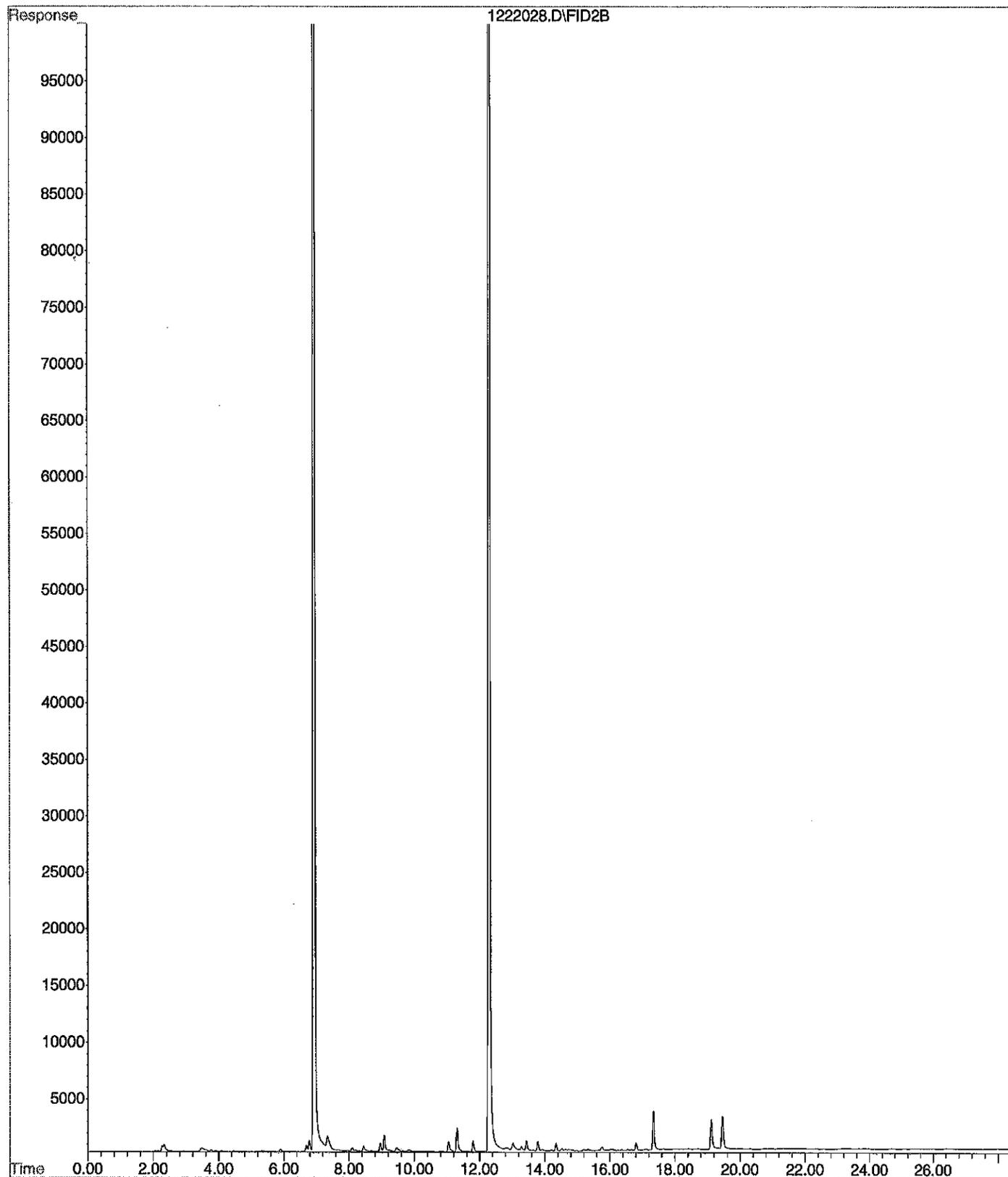
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3144430	45.352 PPB
5) S BROMOFLUOROBENZENE	12.29	1850035	45.645 PPB
11) S FLUOROBENZENE #2	6.93	8351453	37.641 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11460885	38.253 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	851224	0.011 PPM
2) H Entire GAS Envelope (9-24-	12.21	2729281	0.030 PPM
3) H GASOLINE (9-24-14)	13.51	820525	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	2428017	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1226245	N.D. PPM
9) MTBE #2	4.70	4425	0.012 PPB
10) BENZENE #2	6.70	22029	0.031 PPB
12) TOLUENE #2	9.08	55000	0.021 PPB
13) ETHYLBENZENE #2	11.05	37543	0.035 PPB
14) m,p-XYLENE #2	11.31	85307	N.D. PPB
15) o-XYLENE #2	11.80	36292	N.D. PPB

*Handwritten signature/initials*

File : X:\BTEX\DARYL\DATA\D141222\1222028.D  
Operator :  
Acquired : 23 Dec 2014 1:24 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1222S3  
Misc Info : V2-36-17  
Vial Number: 28



Signal #1 : d:\btex\DATA\D141222\1222030.D\FID1A.CH Vial: 30  
 Signal #2 : d:\btex\DATA\D141222\1222030.D\FID2B.CH  
 Acq On : 23 Dec 2014 2:30 Operator:  
 Sample : 12-255-02s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 2:58 2014 Quant Results File: 141012DB.RES

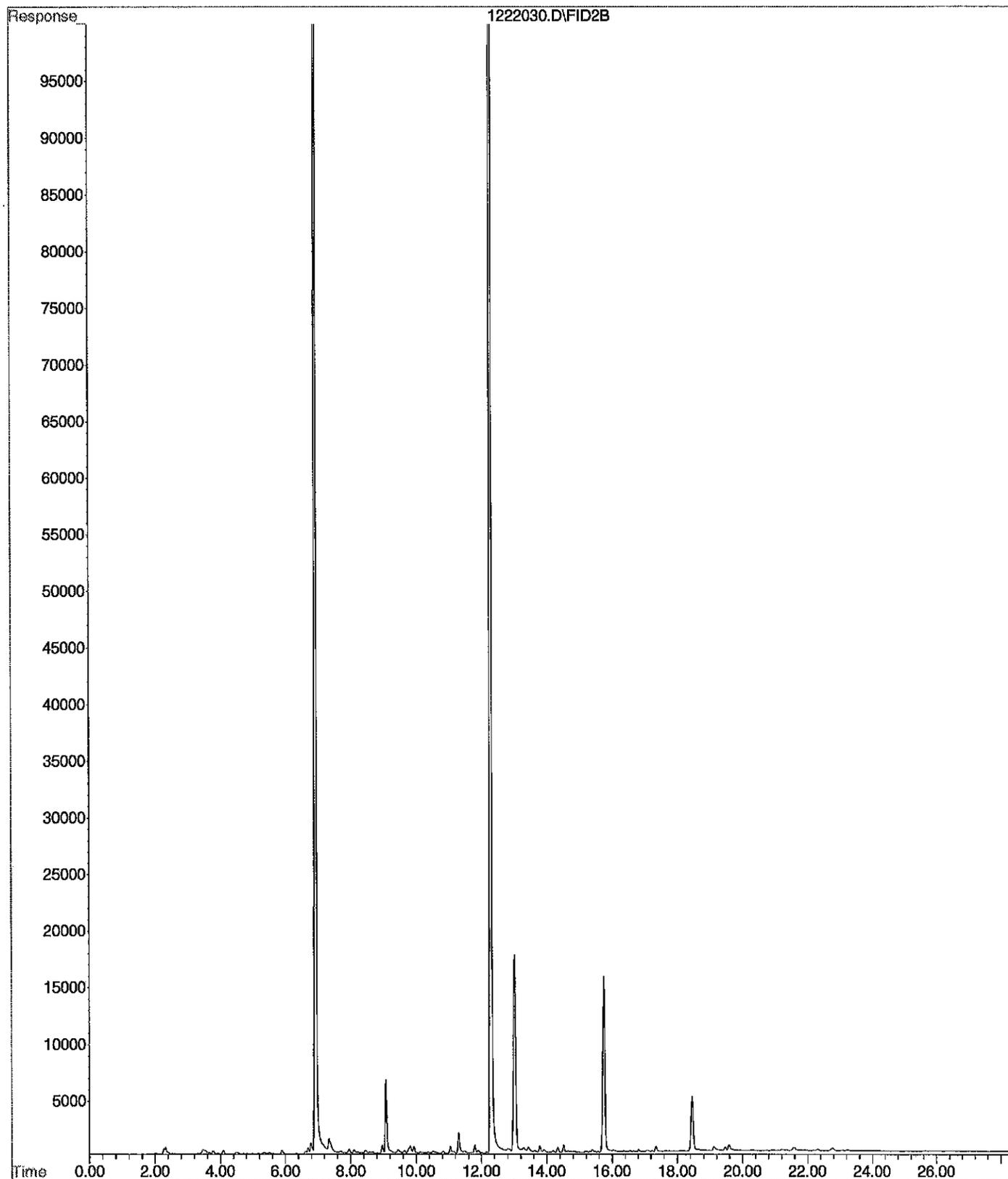
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2388379	34.367 PPB
5) S BROMOFLUOROBENZENE	12.29	1426538	35.065 PPB
11) S FLUOROBENZENE #2	6.93	6318745	28.399 PPB
16) S BROMOFLUOROBENZENE #2	12.29	8827929	29.359 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1124553	0.016 PPM
2) H Entire GAS Envelope (9-24-	12.21	2800542	0.032 PPM
3) H GASOLINE (9-24-14)	13.51	1039573	0.005 PPM
7) H entire GAS envelope #2 (9-	12.26	4459095	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	3053909	N.D. PPM
9) MTBE #2	4.71	2357	N.D. PPB
10) BENZENE #2	6.70	19288	0.021 PPB
12) TOLUENE #2	9.08	243266	0.698 PPB
13) ETHYLBENZENE #2	11.05	22533	N.D. PPB
14) m,p-XYLENE #2	11.31	74713	N.D. PPB
15) o-XYLENE #2	11.80	31294	N.D. PPB

12/23 ✓

File : X:\BTEX\DARYL\DATA\D141222\1222030.D  
Operator :  
Acquired : 23 Dec 2014 2:30 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-255-02s  
Misc Info : V2-36-17  
Vial Number: 30



Signal #1 : d:\btex\DATA\D141222\1222031.D\FID1A.CH Vial: 31  
 Signal #2 : d:\btex\DATA\D141222\1222031.D\FID2B.CH  
 Acq On : 23 Dec 2014 3:03 Operator:  
 Sample : 12-255-02s DUP Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 3:32 2014 Quant Results File: 141012DB.RES

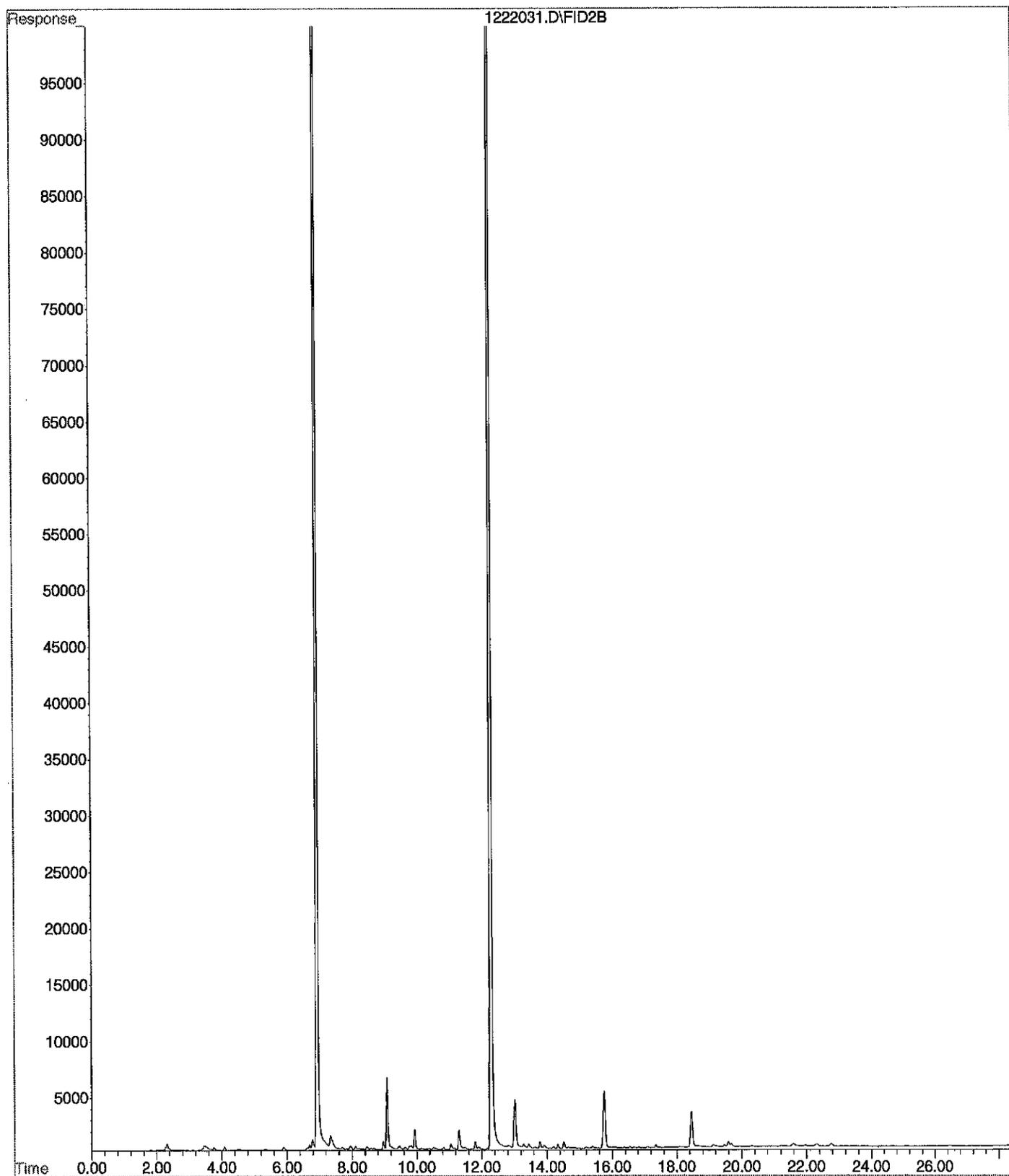
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2344372	33.728 PPB
5) S BROMOFLUOROBENZENE	12.29	1425938	35.050 PPB
11) S FLUOROBENZENE #2	6.93	6174059	27.741 PPB
16) S BROMOFLUOROBENZENE #2	12.29	8733145	29.039 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	936683	0.012 PPM
2) H Entire GAS Envelope (9-24-	12.21	2519039	0.027 PPM
3) H GASOLINE (9-24-14)	13.51	785666	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	2944984	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1786197	N.D. PPM
9) MTBE #2	4.71	2122	N.D. PPB
10) BENZENE #2	6.70	16705	0.013 PPB
12) TOLUENE #2	9.08	241344	0.691 PPB
13) ETHYLBENZENE #2	11.05	18195	N.D. PPB
14) m,p-XYLENE #2	11.31	70145	N.D. PPB
15) o-XYLENE #2	11.80	26054	N.D. PPB

12/23 ✓

File : X:\BTEX\DARYL\DATA\D141222\1222031.D  
Operator :  
Acquired : 23 Dec 2014 3:03 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-255-02s DUP  
Misc Info : V2-36-17  
Vial Number: 31



Signal #1 : d:\btex\DATA\D141222\1222026.D\FID1A.CH Vial: 26  
 Signal #2 : d:\btex\DATA\D141222\1222026.D\FID2B.CH  
 Acq On : 23 Dec 2014 00:17 Operator:  
 Sample : SB1222S1 Inst : Daryl  
 Misc : V2-36-17,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 0:46 2014 Quant Results File: 141012DB.RES

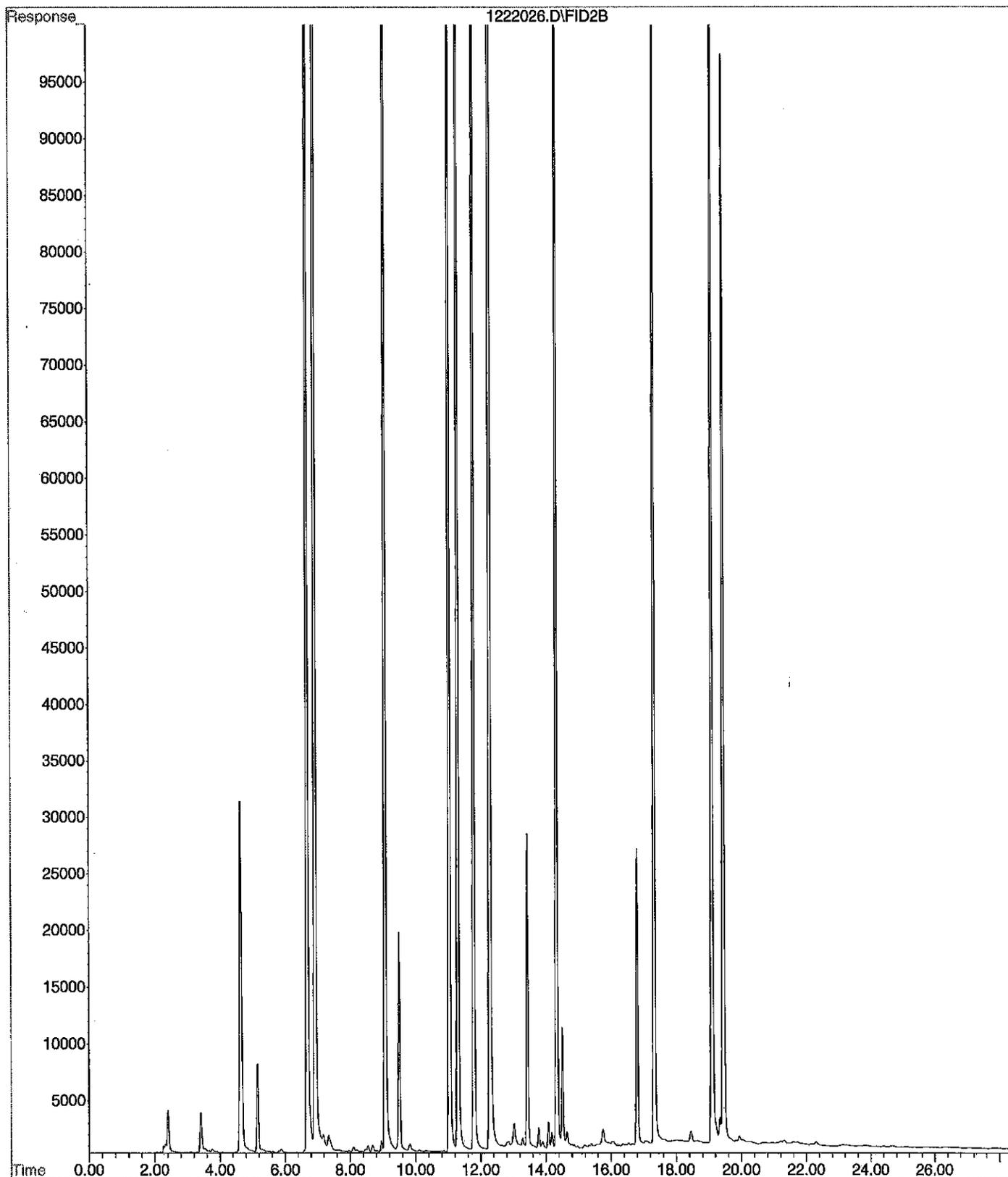
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3028286	43.664 PPB
5) S BROMOFLUOROBENZENE	12.29	1798398	44.355 PPB
11) S FLUOROBENZENE #2	6.93	8108736	36.537 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11475811	38.304 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	12508735	0.247 PPM
2) H Entire GAS Envelope (9-24-	12.21	23475152	0.348 PPM
3) H GASOLINE (9-24-14)	13.51	14954376	0.357 PPM
7) H entire GAS envelope #2 (9-	12.26	53818268	0.326 PPM
8) H GASOLINE #2 (9-24-14)	13.56	35533736	0.265 PPM
9) MTBE #2	4.64	1509764	20.628 PPB
10) BENZENE #2	6.69	5743900	19.528 PPB
12) TOLUENE #2	9.07	5518932	19.682 PPB
13) ETHYLBENZENE #2	11.04	4764448	19.284 PPB
14) m,p-XYLENE #2	11.30	5867395	19.681 PPB
15) o-XYLENE #2	11.79	4913249	19.370 PPB

12/23 ✓

File : X:\BTEX\DARYL\DATA\D141222\1222026.D  
Operator :  
Acquired : 23 Dec 2014 00:17 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SB1222S1  
Misc Info : V2-36-17,v2-36-22  
Vial Number: 26



Signal #1 : d:\btex\DATA\D141222\1222027.D\FID1A.CH Vial: 27  
 Signal #2 : d:\btex\DATA\D141222\1222027.D\FID2B.CH  
 Acq On : 23 Dec 2014 00:50 Operator:  
 Sample : SBD1222S1 Inst : Daryl  
 Misc : V2-36-17,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 1:19 2014 Quant Results File: 141012DB.RES

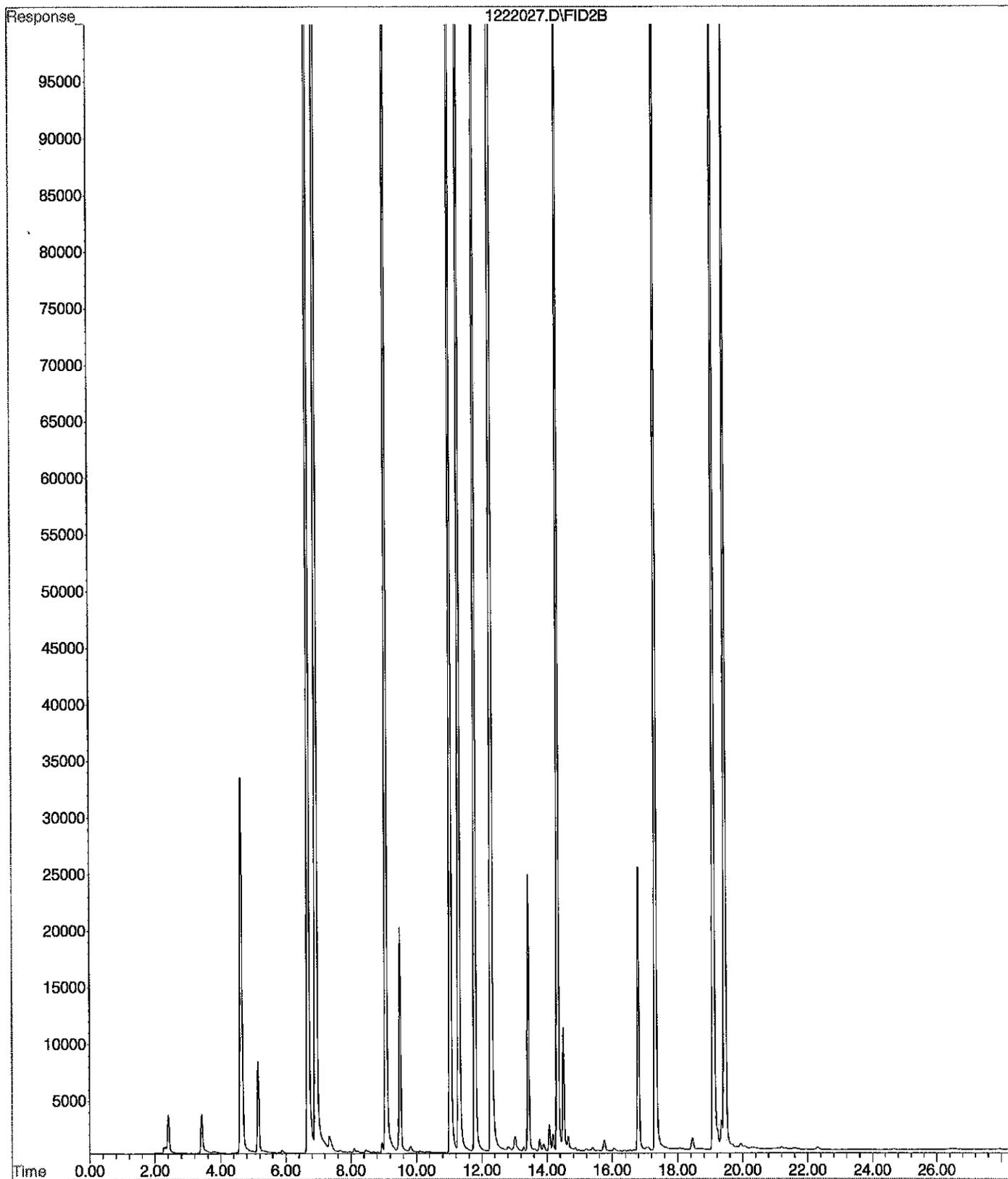
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3070406	44.276 PPB
5) S BROMOFLUOROBENZENE	12.29	1850691	45.661 PPB
11) S FLUOROBENZENE #2	6.93	8421188	37.958 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11760947	39.267 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	12777625	0.253 PPM
2) H Entire GAS Envelope (9-24-	12.21	23289337	0.345 PPM
3) H GASOLINE (9-24-14)	13.51	14773472	0.352 PPM
7) H entire GAS envelope #2 (9-	12.26	52870265	0.319 PPM
8) H GASOLINE #2 (9-24-14)	13.56	34898514	0.259 PPM
9) MTBE #2	4.64	1600958	21.877 PPB
10) BENZENE #2	6.69	5880401	19.993 PPB
12) TOLUENE #2	9.07	5597959	19.966 PPB
13) ETHYLBENZENE #2	11.04	4903700	19.851 PPB
14) m,p-XYLENE #2	11.30	5965115	20.017 PPB
15) o-XYLENE #2	11.79	5005548	19.739 PPB

12/23 ✓

File : X:\BTEX\DARYL\DATA\D141222\1222027.D  
Operator :  
Acquired : 23 Dec 2014 00:50 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: SBD1222S1  
Misc Info : V2-36-17,V2-36-22  
Vial Number: 27



Signal #1 : d:\btex\DATA\D141222\1222001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141222\1222001.D\FID2B.CH  
 Acq On : 22 Dec 2014 10:11 Operator:  
 Sample : CCVD1222G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 22 10:39 2014 Quant Results File: 141012DB.RES

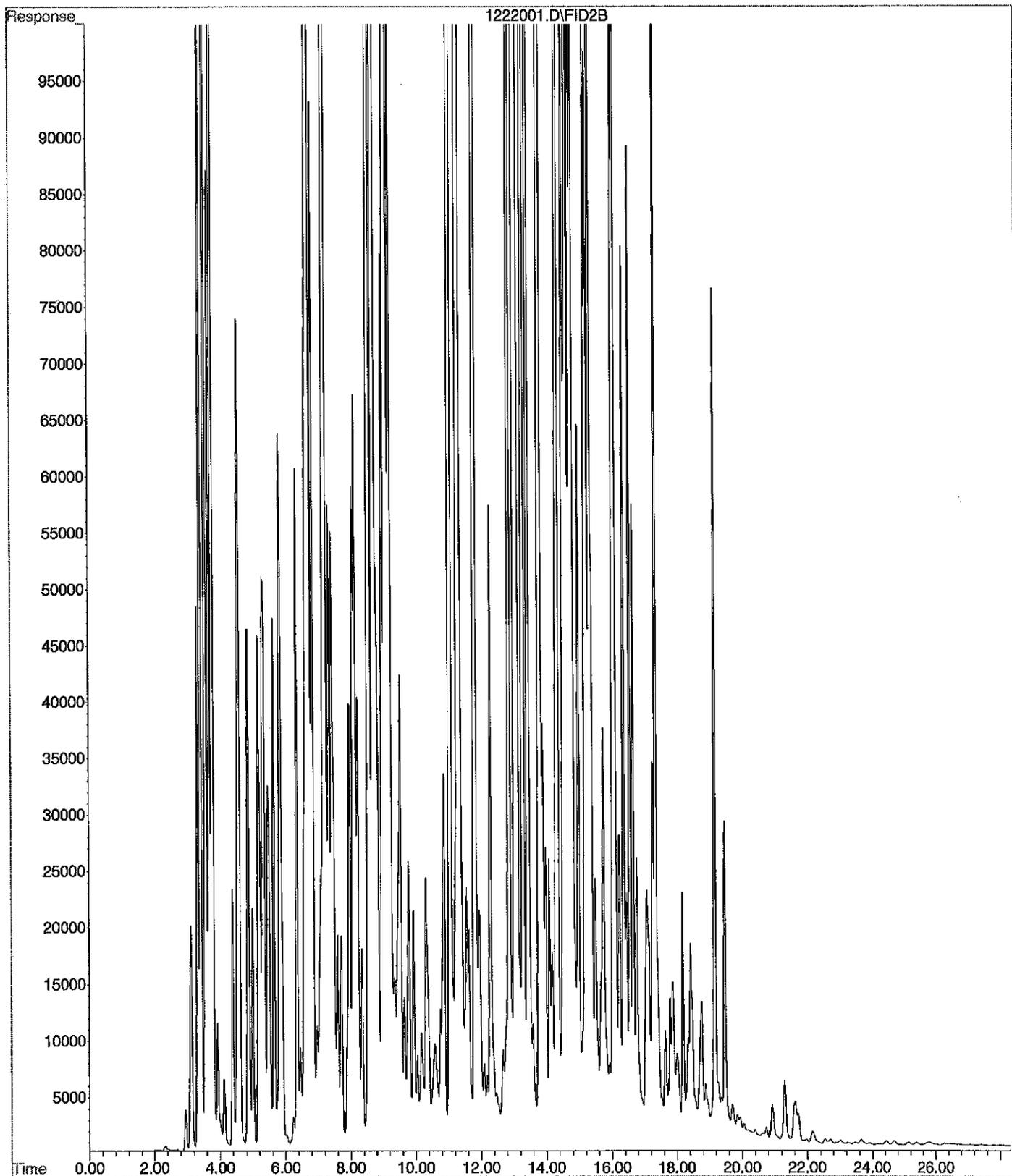
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S FLUOROBENZENE	6.84	7542762	109.252 PPB
5) S BROMOFLUOROBENZENE	12.29	1291987	31.703 PPB
11) S FLUOROBENZENE #2	6.97	468839	1.801 PPB
16) S BROMOFLUOROBENZENE #2	12.29	2553742	8.165 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	285784459	5.799 PPM
2) H Entire GAS Envelope (9-24-	12.21	387439863	5.923 PPM
3) H GASOLINE (9-24-14)	13.51	218175125	5.498 PPM
7) H entire GAS envelope #2 (9-	12.26	700457214	4.830 PPM
8) H GASOLINE #2 (9-24-14)	13.56	524226133	4.719 PPM ✓
9) MTBE #2	4.58	3980986	54.470 PPB
10) BENZENE #2	6.71	45761044	155.889 PPB
12) TOLUENE #2	9.09	116277957	418.232 PPB
13) ETHYLBENZENE #2	11.05	29024800	118.075 PPB
14) m,p-XYLENE #2	11.31	105237540	362.262 PPB
15) o-XYLENE #2	11.81	40127237	160.110 PPB

12/22 ✓

File : X:\BTEX\DARYL\DATA\D141222\1222001.D  
Operator :  
Acquired : 22 Dec 2014 10:11 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1222G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141222\1222041.D\FID1A.CH Vial: 41  
 Signal #2 : d:\btex\DATA\D141222\1222041.D\FID2B.CH  
 Acq On : 23 Dec 2014 8:35 Operator:  
 Sample : CCVD1222G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 23 9:04 2014 Quant Results File: 141012DB.RES

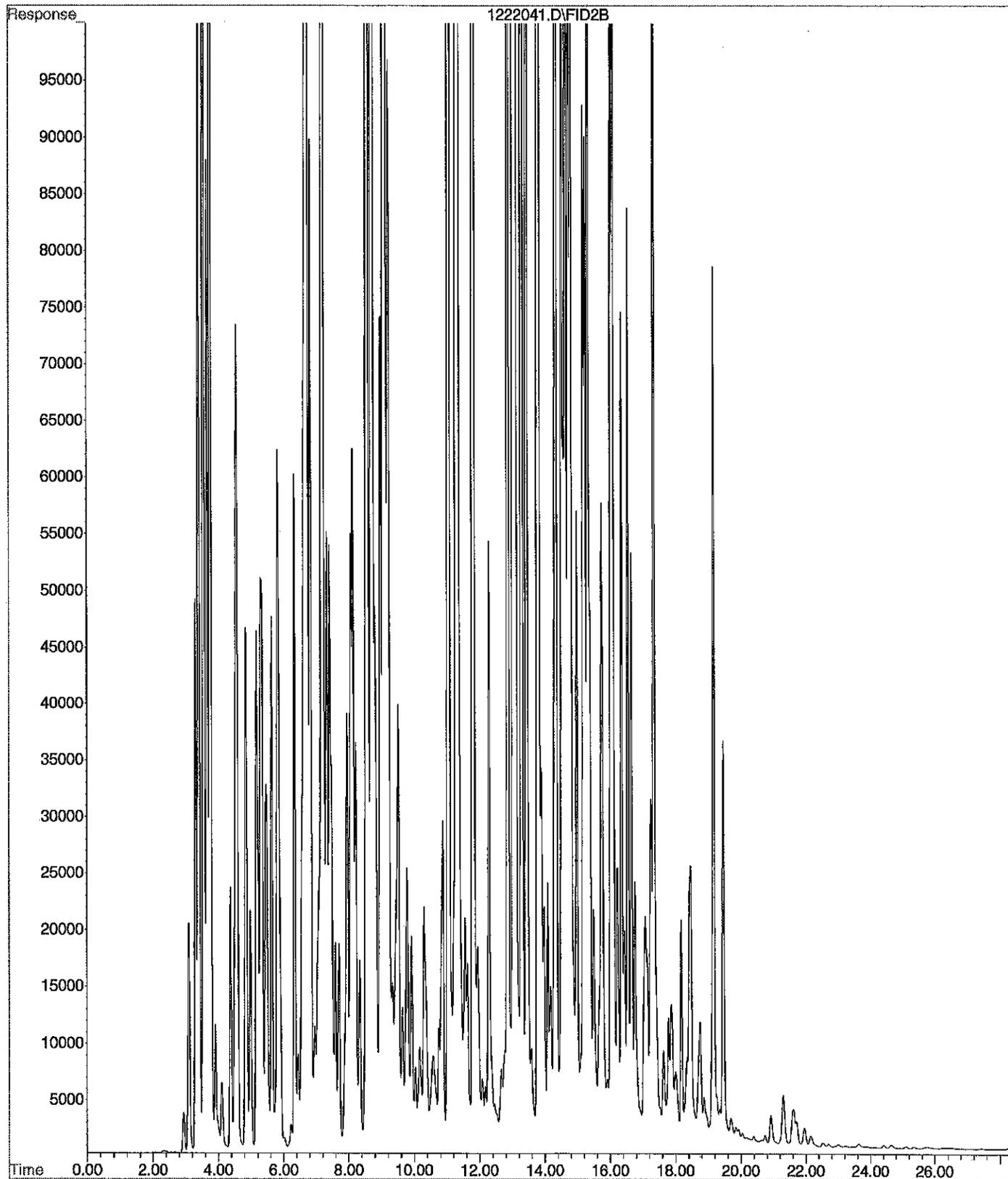
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.28	1165992	28.556	PPB
11) S FLUOROBENZENE #2	6.96	487876	1.888	PPB
16) S BROMOFLUOROBENZENE #2	12.28	2374519	7.559	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	272228003	5.523	PPM
2) H Entire GAS Envelope (9-24-	12.21	366692178	5.606	PPM
3) H GASOLINE (9-24-14)	13.51	203296764	5.121	PPM
7) H entire GAS envelope #2 (9-	12.26	676467143	4.663	PPM
8) H GASOLINE #2 (9-24-14)	13.56	506143006	4.554	PPM
9) MTBE #2	4.57	4029324	55.132	PPB
10) BENZENE #2	6.70	45681572	155.618	PPB
12) TOLUENE #2	9.08	116189584	417.914	PPB
13) ETHYLBENZENE #2	11.05	28012332	113.953	PPB
14) m,p-XYLENE #2	11.30	103439908	356.064	PPB
15) o-XYLENE #2	11.80	38864135	155.062	PPB

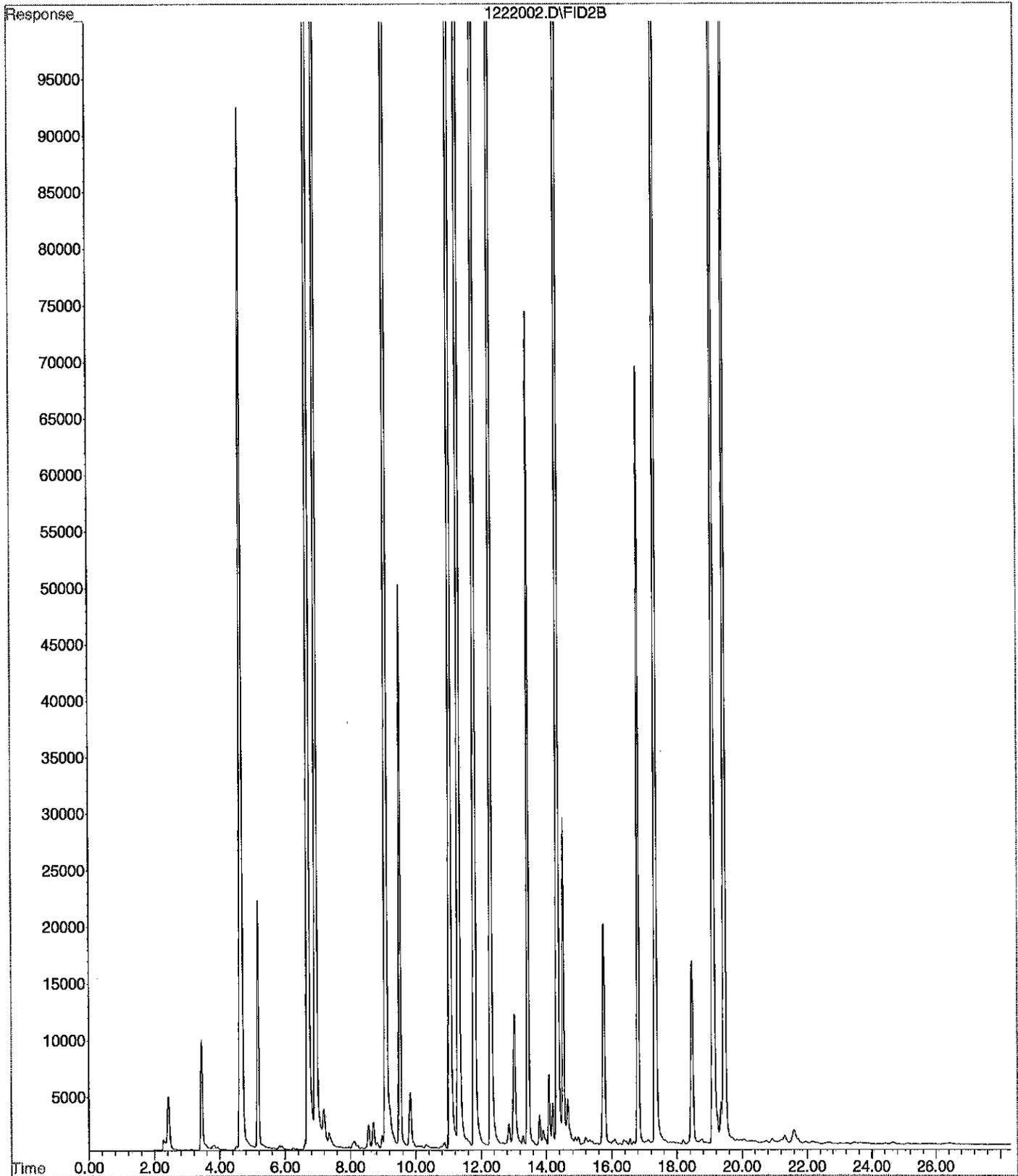
*Handwritten signature/initials*

File : X:\BTEX\DARYL\DATA\D141222\1222041.D  
Operator :  
Acquired : 23 Dec 2014 8:35 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1222G-2  
Misc Info : V2-36-08  
Vial Number: 41





File : X:\BTEX\DARYL\DATA\D141222\1222002.D  
Operator :  
Acquired : 22 Dec 2014 10:45 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1222B-1  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141222\1222021.D\FID1A.CH Vial: 21  
 Signal #2 : d:\btex\DATA\D141222\1222021.D\FID2B.CH  
 Acq On : 22 Dec 2014 21:32 Operator:  
 Sample : CCVD1222B-2 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 22:00 2014 Quant Results File: 141012DB.RES

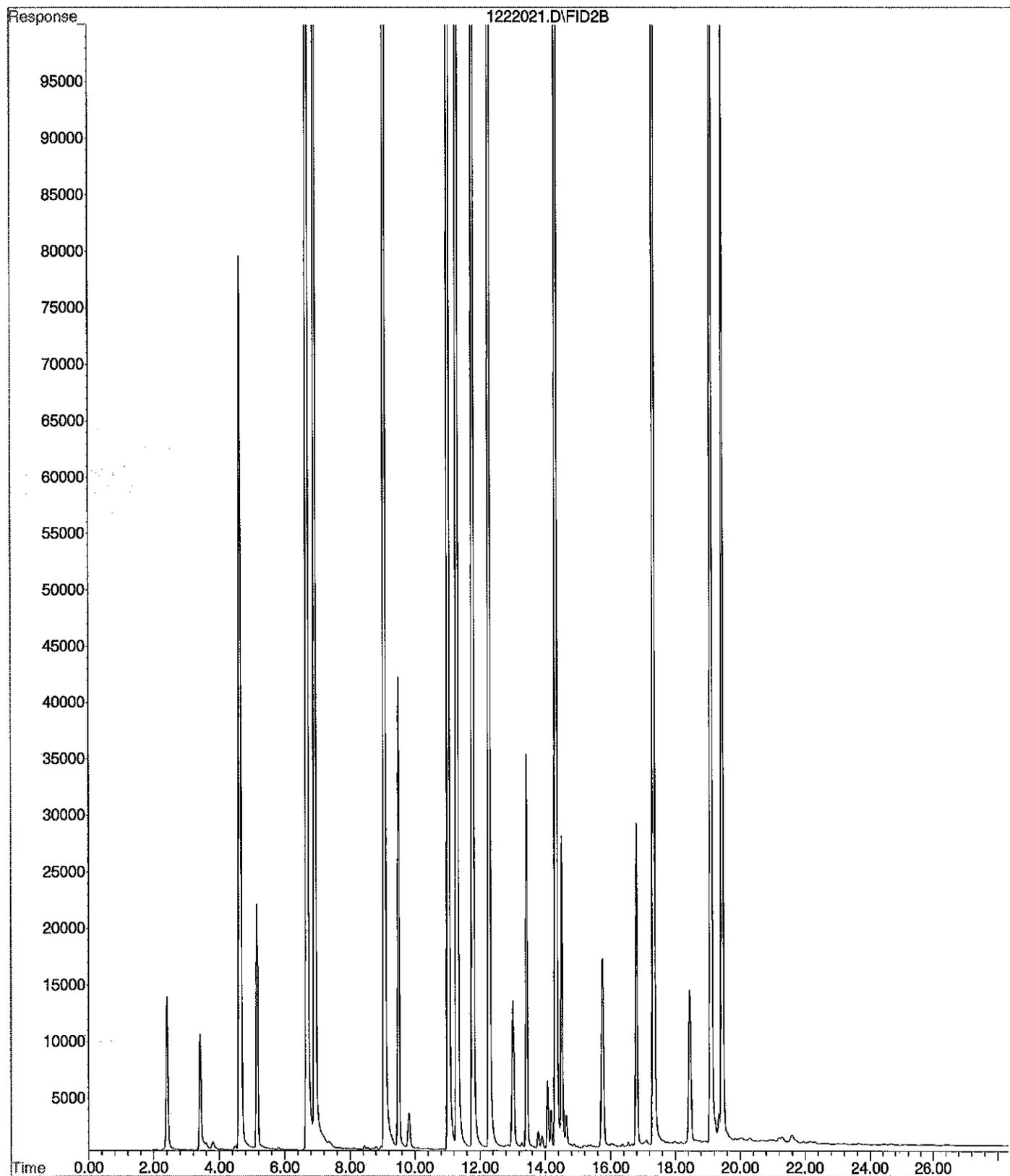
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3238948	46.725 PPB
5) S BROMOFLUOROBENZENE	12.29	1874670	46.260 PPB
11) S FLUOROBENZENE #2	6.93	9009524	40.633 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12097199	40.403 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	29576013	0.594 PPM
2) H Entire GAS Envelope (9-24-	12.21	47350316	0.714 PPM
3) H GASOLINE (9-24-14)	13.51	31408914	0.773 PPM
7) H entire GAS envelope #2 (9-	12.26	116609647	0.763 PPM
8) H GASOLINE #2 (9-24-14)	13.56	83225721	0.699 PPM
9) MTBE #2	4.64	3699783	50.619 PPB
10) BENZENE #2	6.69	15244152	51.901 PPB
12) TOLUENE #2	9.07	14206131	50.941 PPB
13) ETHYLBENZENE #2	11.04	12489533	50.741 PPB
14) m,p-XYLENE #2	11.30	14985920	51.117 PPB
15) o-XYLENE #2	11.79	12621676	50.178 PPB

12/23 ✓

File : X:\BTEX\DARYL\DATA\D141222\1222021.D  
Operator :  
Acquired : 22 Dec 2014 21:32 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1222B-2  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 21



Signal #1 : d:\btex\DATA\D141222\1222040.D\FID1A.CH Vial: 40  
 Signal #2 : d:\btex\DATA\D141222\1222040.D\FID2B.CH  
 Acq On : 23 Dec 2014 8:02 Operator:  
 Sample : CCVD1222B-3 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 8:30 2014 Quant Results File: 141012DB.RES

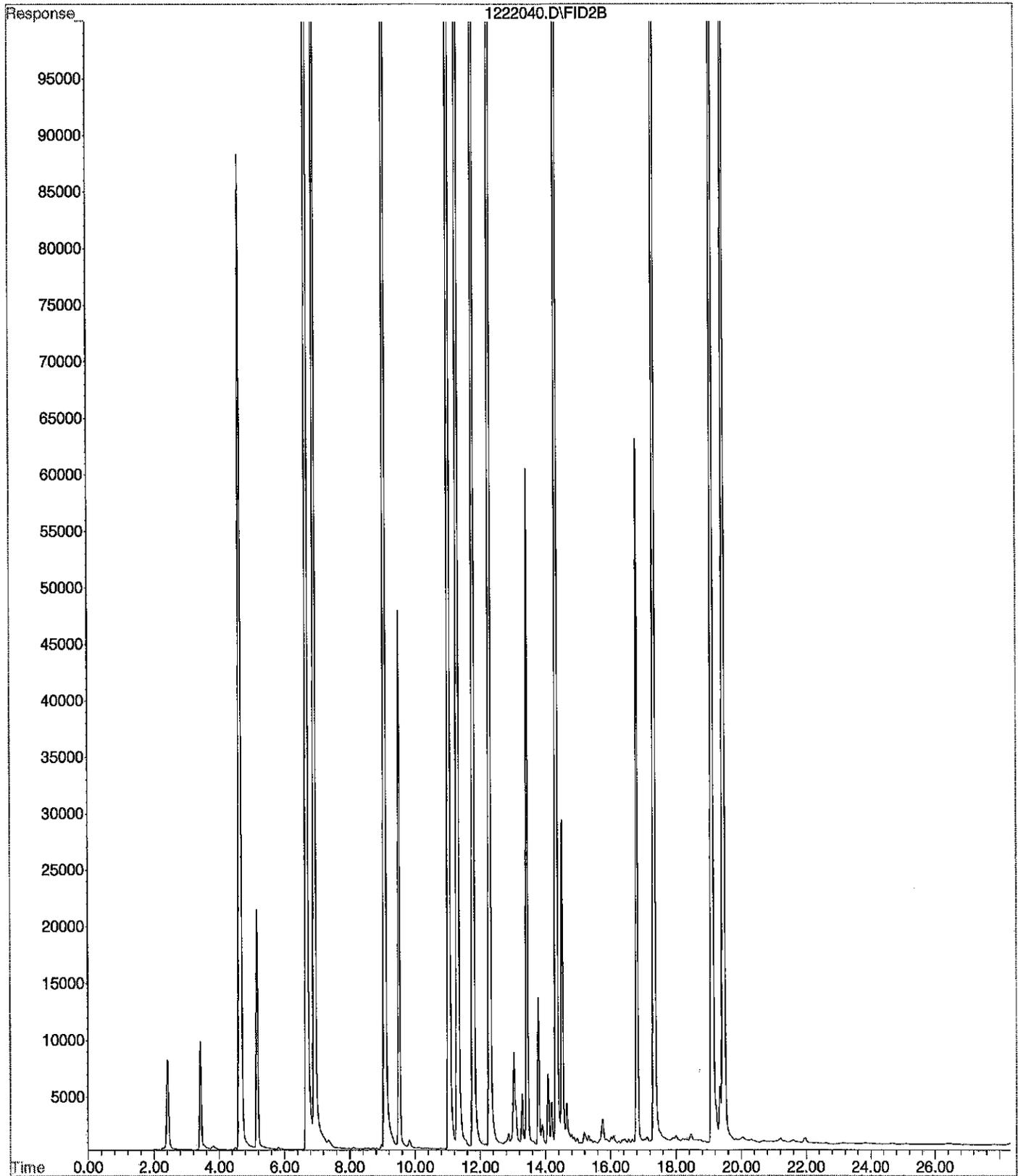
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3272299	47.209 PPB
5) S BROMOFLUOROBENZENE	12.30	1902920	46.966 PPB
11) S FLUOROBENZENE #2	6.94	8800187	39.681 PPB
16) S BROMOFLUOROBENZENE #2	12.30	12074862	40.327 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31231163	0.628 PPM
2) H Entire GAS Envelope (9-24-	12.21	54751034	0.827 PPM
3) H GASOLINE (9-24-14)	13.51	36678265	0.906 PPM
7) H entire GAS envelope #2 (9-	12.26	129206742	0.851 PPM
8) H GASOLINE #2 (9-24-14)	13.56	89210111	0.754 PPM
9) MTBE #2	4.65	4134309	56.570 PPB
10) BENZENE #2	6.70	15173153	51.659 PPB
12) TOLUENE #2	9.08	14282705	51.217 PPB
13) ETHYLBENZENE #2	11.05	12611040	51.236 PPB
14) m,p-XYLENE #2	11.31	15351720	52.378 PPB
15) o-XYLENE #2	11.80	12874087	51.187 PPB

12/23

File : X:\BTEX\DARYL\DATA\D141222\1222040.D  
Operator :  
Acquired : 23 Dec 2014 8:02 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1222B-3  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 40



## NWTPH-Gx/Benzene (water) Data

Signal #1 : d:\btex\DATA\D141219\1219020.D\FID1A.CH Vial: 20  
 Signal #2 : d:\btex\DATA\D141219\1219020.D\FID2B.CH  
 Acq On : 19 Dec 2014 22:08 Operator:  
 Sample : 12-214-02 Inst : Daryl  
 Misc : V2-36-23 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 19 22:36 2014 Quant Results File: 141012DB.RES

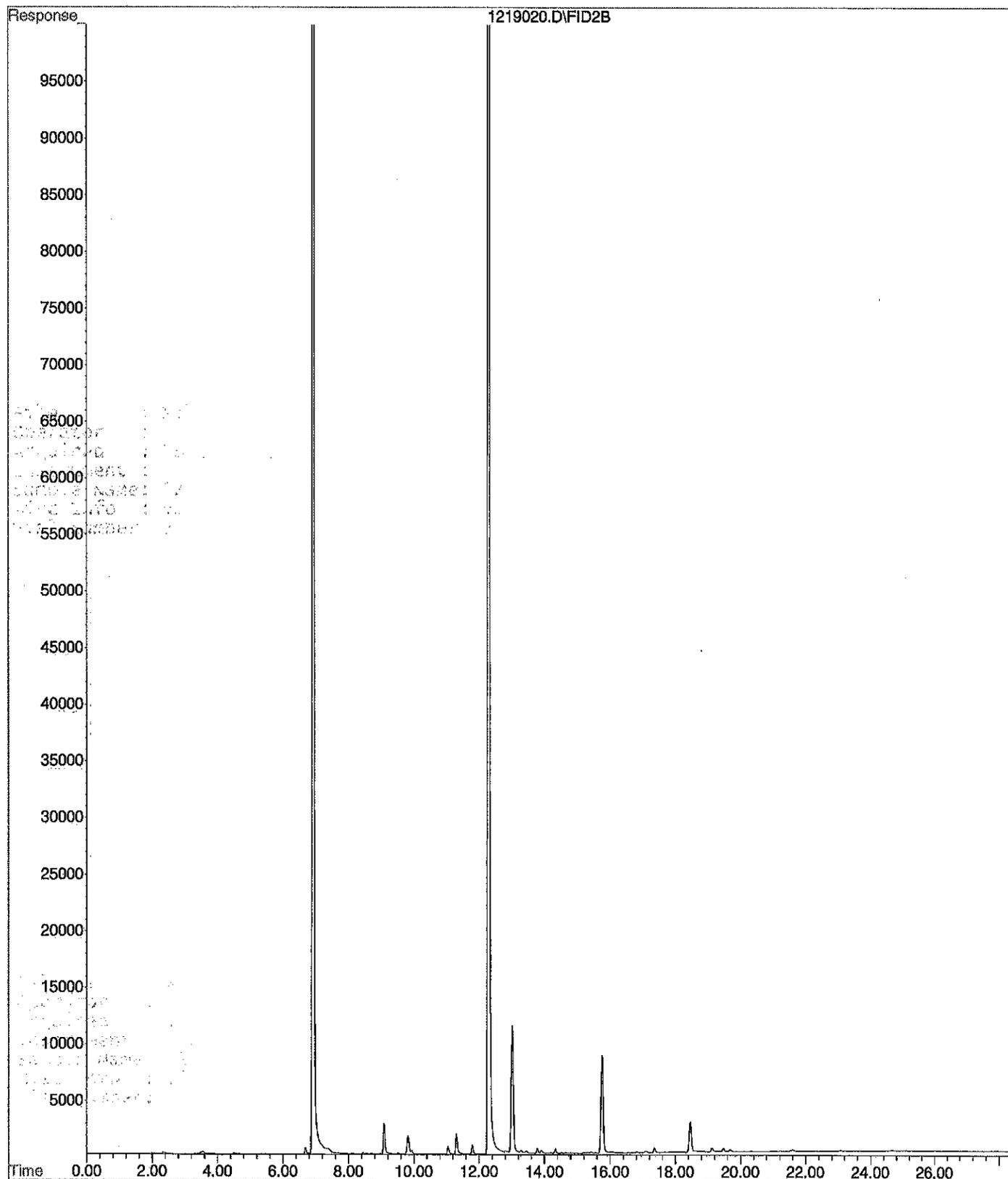
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3413822	49.265 PPB
5) S BROMOFLUOROBENZENE	12.29	1943595	47.982 PPB
11) S FLUOROBENZENE #2	6.93	9074904	40.930 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12169766	40.648 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	436423	0.002 PPM
2) H Entire GAS Envelope (9-24-	12.21	1255582	0.008 PPM
3) H GASOLINE (9-24-14)	13.51	539251	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	2805567	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1887605	N.D. PPM
9) MTBE #2	0.00	0	N.D. PPB
10) BENZENE #2	6.69	20478	0.025 PPB
12) TOLUENE #2	9.08	104238	0.198 PPB
13) ETHYLBENZENE #2	11.05	28576	N.D. PPB
14) m,p-XYLENE #2	11.31	76056	N.D. PPB
15) o-XYLENE #2	11.80	31477	N.D. PPB

12/22 ✓

File : X:\BTEX\DARYL\DATA\D141219\1219020.D  
Operator :  
Acquired : 19 Dec 2014 22:08 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-214-02  
Misc Info : V2-36-23  
Vial Number: 20



Signal #1 : d:\btex\DATA\D141219\1219019.D\FID1A.CH vial: 19  
 Signal #2 : d:\btex\DATA\D141219\1219019.D\FID2B.CH  
 Acq On : 19 Dec 2014 21:35 Operator:  
 Sample : MB1219W6 Inst : Daryl  
 Misc : V2-36-23 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 19 22:03 2014 Quant Results File: 141012DB.RES

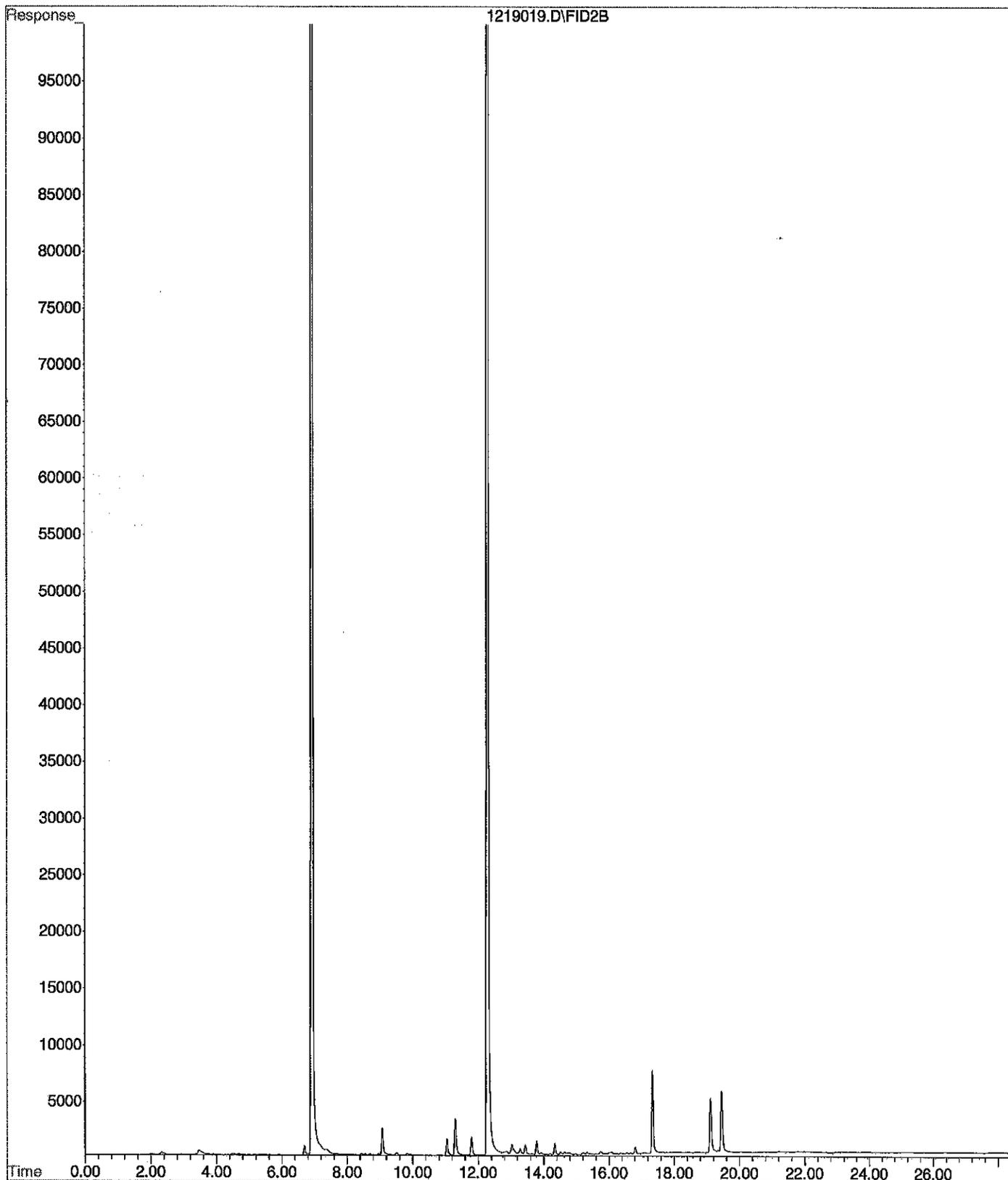
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.92	3134324	45.205 PPB
5) S BROMOFLUOROBENZENE	12.29	1792514	44.208 PPB
11) S FLUOROBENZENE #2	6.92	8398437	37.854 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11279951	37.642 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	516409	0.004 PPM
2) H Entire GAS Envelope (9-24-	12.21	1719117	0.015 PPM
3) H GASOLINE (9-24-14)	13.51	677917	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	2992725	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1549101	N.D. PPM
9) MTBE #2	4.67	7875	0.060 PPB
10) BENZENE #2	6.69	30742	0.060 PPB
12) TOLUENE #2	9.08	99874	0.182 PPB
13) ETHYLBENZENE #2	11.05	56133	0.111 PPB
14) m,p-XYLENE #2	11.30	131534	N.D. PPB
15) o-XYLENE #2	11.79	61266	N.D. PPB

12/22 ✓

File : X:\BTEX\DARYL\DATA\D141219\1219019.D  
Operator :  
Acquired : 19 Dec 2014 21:35 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: MB1219W6  
Misc Info : V2-36-23  
Vial Number: 19



Signal #1 : d:\btex\DATA\D141219\1219008.D\FID1A.CH Vial: 8  
 Signal #2 : d:\btex\DATA\D141219\1219008.D\FID2B.CH  
 Acq On : 19 Dec 2014 15:27 Operator:  
 Sample : 12-199-02c Inst : Daryl  
 Misc : V2-36-23 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 19 15:55 2014 Quant Results File: 141012DB.RES

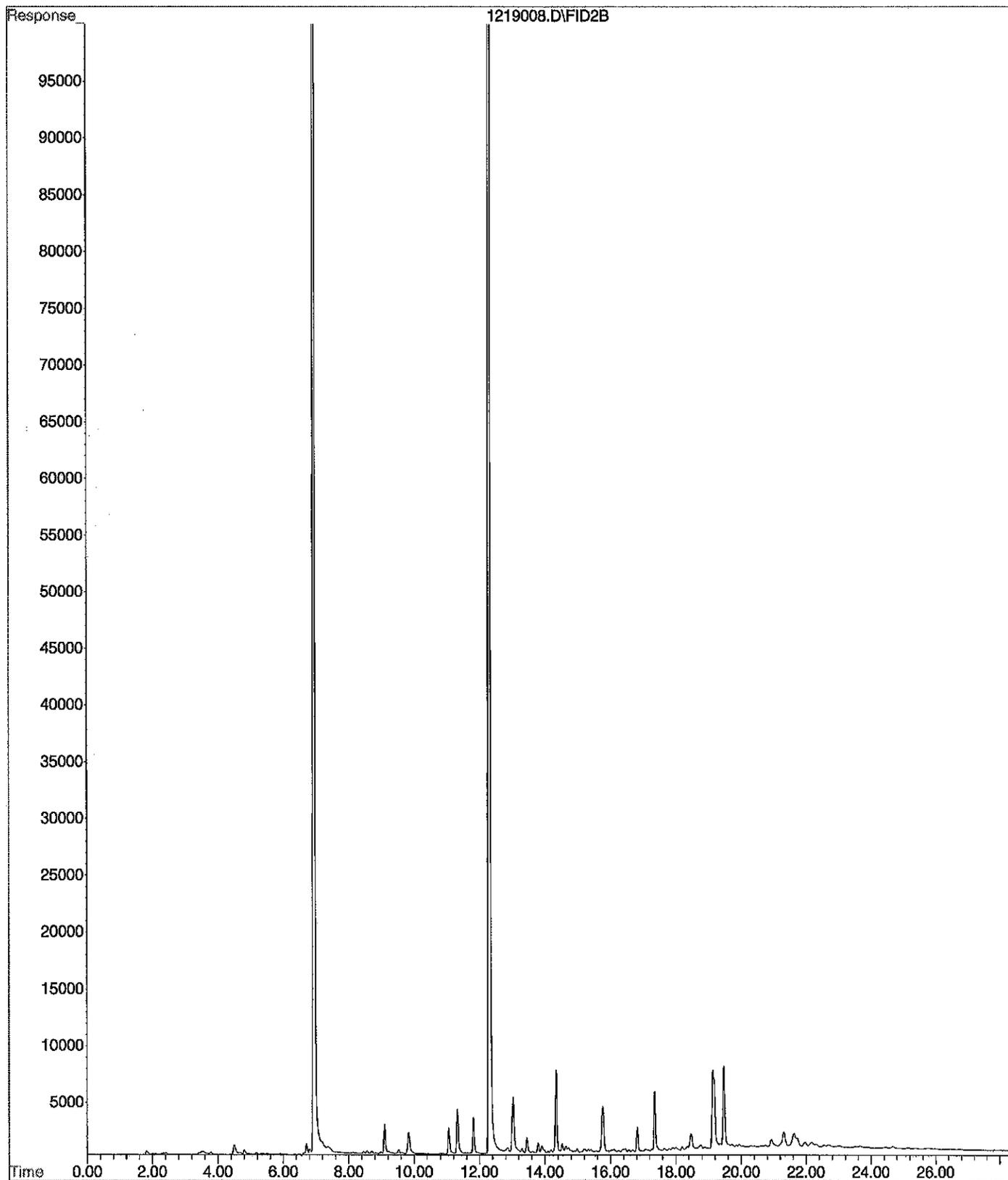
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3158703	45.559 PPB
5) S BROMOFLUOROBENZENE	12.30	1852363	45.703 PPB
11) S FLUOROBENZENE #2	6.94	8622583	38.873 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11635485	38.843 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	850866	0.011 PPM
2) H Entire GAS Envelope (9-24-	12.21	2835170	0.032 PPM
3) H GASOLINE (9-24-14)	13.51	1283300	0.011 PPM
7) H entire GAS envelope #2 (9-	12.26	5550912	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	2858218	N.D. PPM
9) MTBE #2	4.68	12067	0.117 PPB
10) BENZENE #2	6.71	35407	0.076 PPB
12) TOLUENE #2	9.09	117540	0.246 PPB
13) ETHYLBENZENE #2	11.06	86572	0.234 PPB
14) m,p-XYLENE #2	11.32	157388	N.D. PPB
15) o-XYLENE #2	11.81	118201	0.206 PPB

12/22 ✓

File : X:\BTEX\DARYL\DATA\D141219\1219008.D  
Operator :  
Acquired : 19 Dec 2014 15:27 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-199-02c  
Misc Info : V2-36-23  
Vial Number: 8



Signal #1 : d:\btex\DATA\D141219\1219009.D\FID1A.CH vial: 9  
 Signal #2 : d:\btex\DATA\D141219\1219009.D\FID2B.CH  
 Acq On : 19 Dec 2014 16:00 Operator:  
 Sample : 12-199-02c DUP Inst : Daryl  
 Misc : V2-36-23 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 19 16:29 2014 Quant Results File: 141012DB.RES

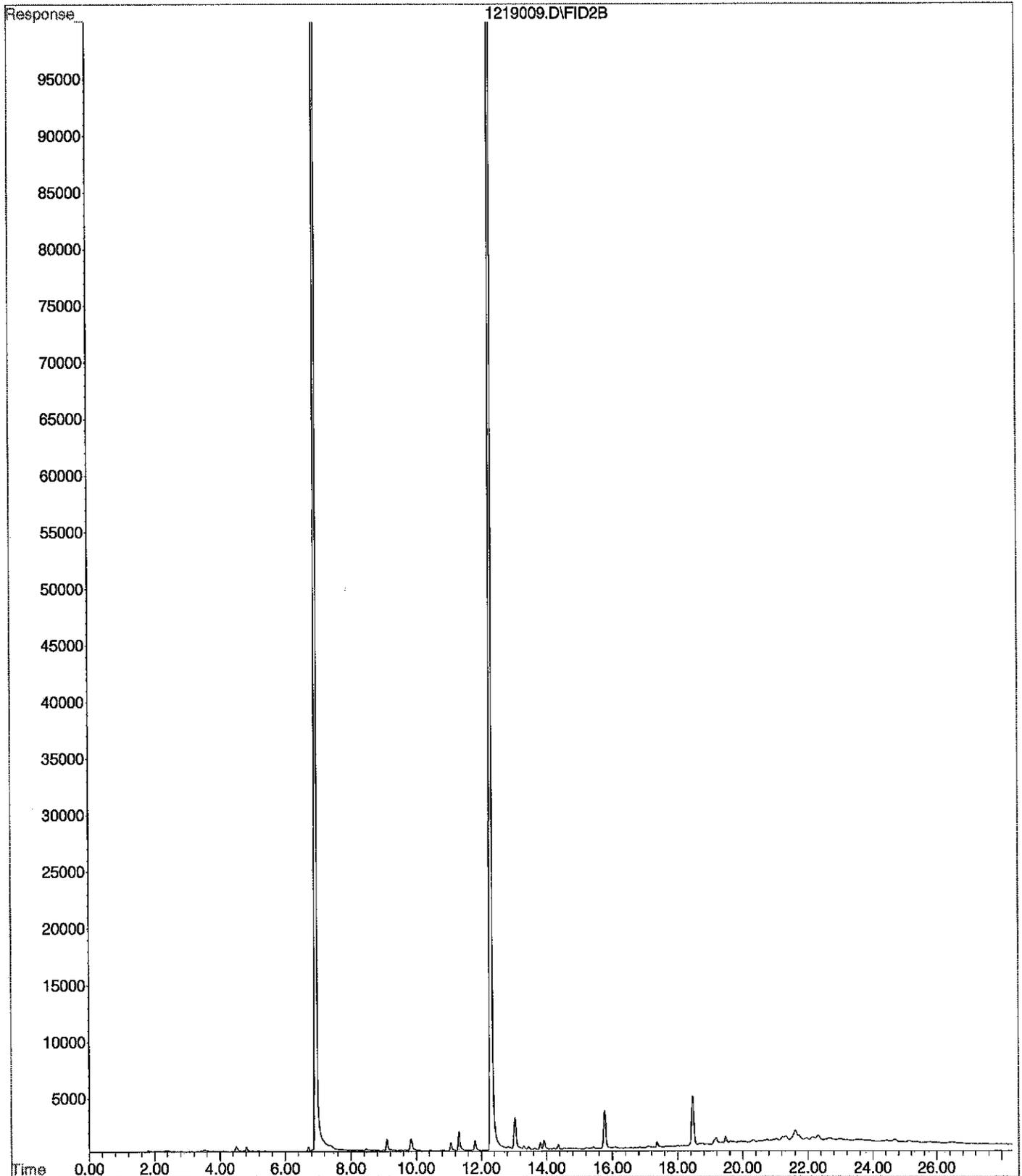
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3025789	43.628 PPB
5) S BROMOFLUOROBENZENE	12.31	1789714	44.138 PPB
11) S FLUOROBENZENE #2	6.94	8031501	36.186 PPB
16) S BROMOFLUOROBENZENE #2	12.31	11139503	37.168 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	377886	0.001 PPM
2) H Entire GAS Envelope (9-24-	12.21	1538475	0.012 PPM
3) H GASOLINE (9-24-14)	13.51	579147	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	3514679	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1522348	N.D. PPM
9) MTBE #2	4.71	1694	N.D. PPB
10) BENZENE #2	6.71	13378	0.001 PPB
12) TOLUENE #2	9.10	52294	0.011 PPB
13) ETHYLBENZENE #2	11.07	29083	0.000 PPB
14) m,p-XYLENE #2	11.33	71154	N.D. PPB
15) o-XYLENE #2	11.82	36867	N.D. PPB

12/22 ✓

File : X:\BTEX\DARYL\DATA\D141219\1219009.D  
Operator :  
Acquired : 19 Dec 2014 16:00 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-199-02c DUP  
Misc Info : V2-36-23  
Vial Number: 9



Signal #1 : d:\btex\DATA\D141219\1219006.D\FID1A.CH Vial: 6  
 Signal #2 : d:\btex\DATA\D141219\1219006.D\FID2B.CH  
 Acq On : 19 Dec 2014 14:20 Operator:  
 Sample : 12-199-02c MS Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 19 14:48 2014 Quant Results File: 141012DB.RES

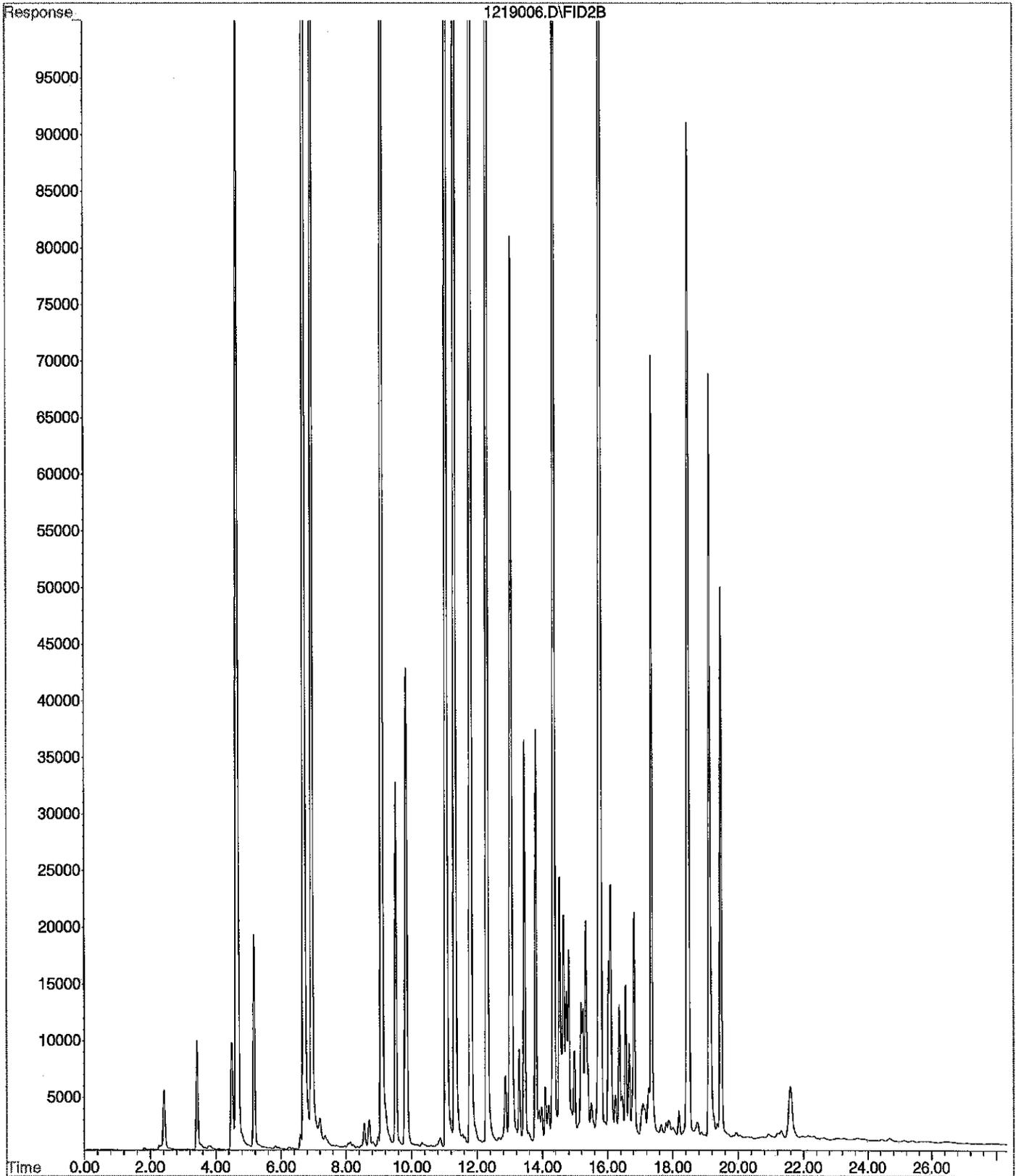
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3325238	47.978 PPB
5) S BROMOFLUOROBENZENE	12.30	1822836	44.965 PPB
11) S FLUOROBENZENE #2	6.95	9062184	40.872 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11551445	38.559 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30786542	0.619 PPM
2) H Entire GAS Envelope (9-24-	12.21	51017645	0.770 PPM
3) H GASOLINE (9-24-14)	13.51	34255822	0.845 PPM
7) H entire GAS envelope #2 (9-	12.26	130295976	0.859 PPM
8) H GASOLINE #2 (9-24-14)	13.56	95779369	0.814 PPM
9) MTBE #2	4.66	4847725	66.340 PPB
10) BENZENE #2	6.71	15533484	52.887 PPB
12) TOLUENE #2	9.09	14623756	52.444 PPB
13) ETHYLBENZENE #2	11.05	12571898	51.077 PPB
14) m,p-XYLENE #2	11.32	15071485	51.412 PPB
15) o-XYLENE #2	11.81	12508231	49.725 PPB

12/22  
 [Signature]

File : X:\BTEX\DARYL\DATA\D141219\1219006.D  
Operator :  
Acquired : 19 Dec 2014 14:20 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-199-02c MS  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 6



Signal #1 : d:\btex\DATA\D141219\1219007.D\FID1A.CH Vial: 7  
 Signal #2 : d:\btex\DATA\D141219\1219007.D\FID2B.CH  
 Acq On : 19 Dec 2014 14:53 Operator:  
 Sample : 12-199-02c MSD Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 19 15:22 2014 Quant Results File: 141012DB.RES

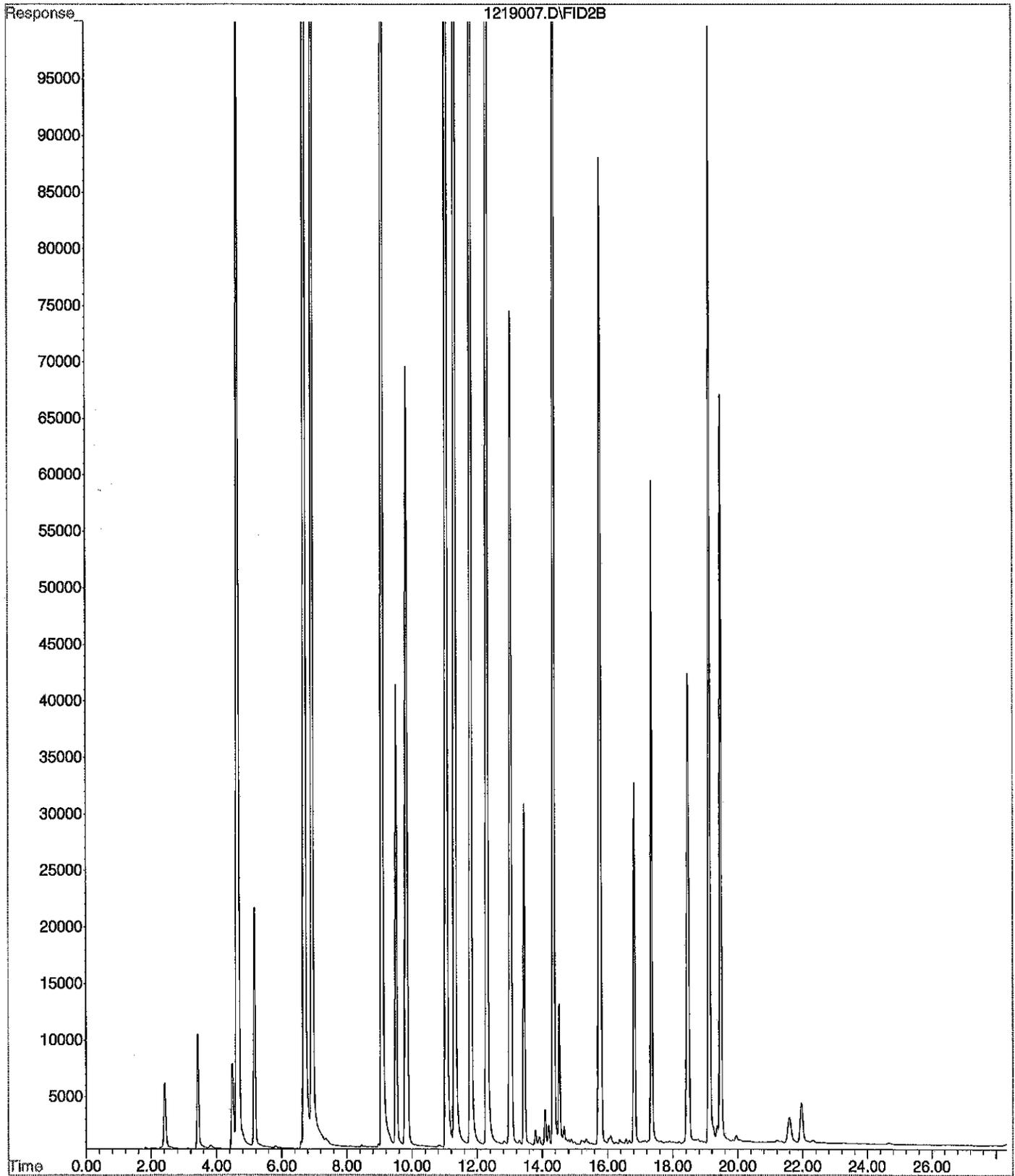
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3286403	47.414 PPB
5) S BROMOFLUOROBENZENE	12.30	1739757	42.890 PPB
11) S FLUOROBENZENE #2	6.94	9272311	41.827 PPB
16) S BROMOFLUOROBENZENE #2	12.30	11149856	37.203 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30382419	0.610 PPM
2) H Entire GAS Envelope (9-24-	12.21	44140749	0.665 PPM
3) H GASOLINE (9-24-14)	13.51	28333437	0.695 PPM
7) H entire GAS envelope #2 (9-	12.26	110119051	0.718 PPM
8) H GASOLINE #2 (9-24-14)	13.56	78307038	0.655 PPM
9) MTBE #2	4.65	5009796	68.560 PPB
10) BENZENE #2	6.70	15615737	53.167 PPB
12) TOLUENE #2	9.08	14520352	52.072 PPB
13) ETHYLBENZENE #2	11.05	12569515	51.067 PPB
14) m,p-XYLENE #2	11.32	14904864	50.837 PPB
15) o-XYLENE #2	11.80	12240617	48.655 PPB

12/22 ✓

File : X:\BTEX\DARYL\DATA\D141219\1219007.D  
Operator :  
Acquired : 19 Dec 2014 14:53 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: 12-199-02c MSD  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 7



Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141219\1219001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141219\1219001.D\FID2B.CH  
 Acq On : 19 Dec 2014 10:57 Operator:  
 Sample : CCVD1219G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 19 11:26 2014 Quant Results File: 141012DB.RES

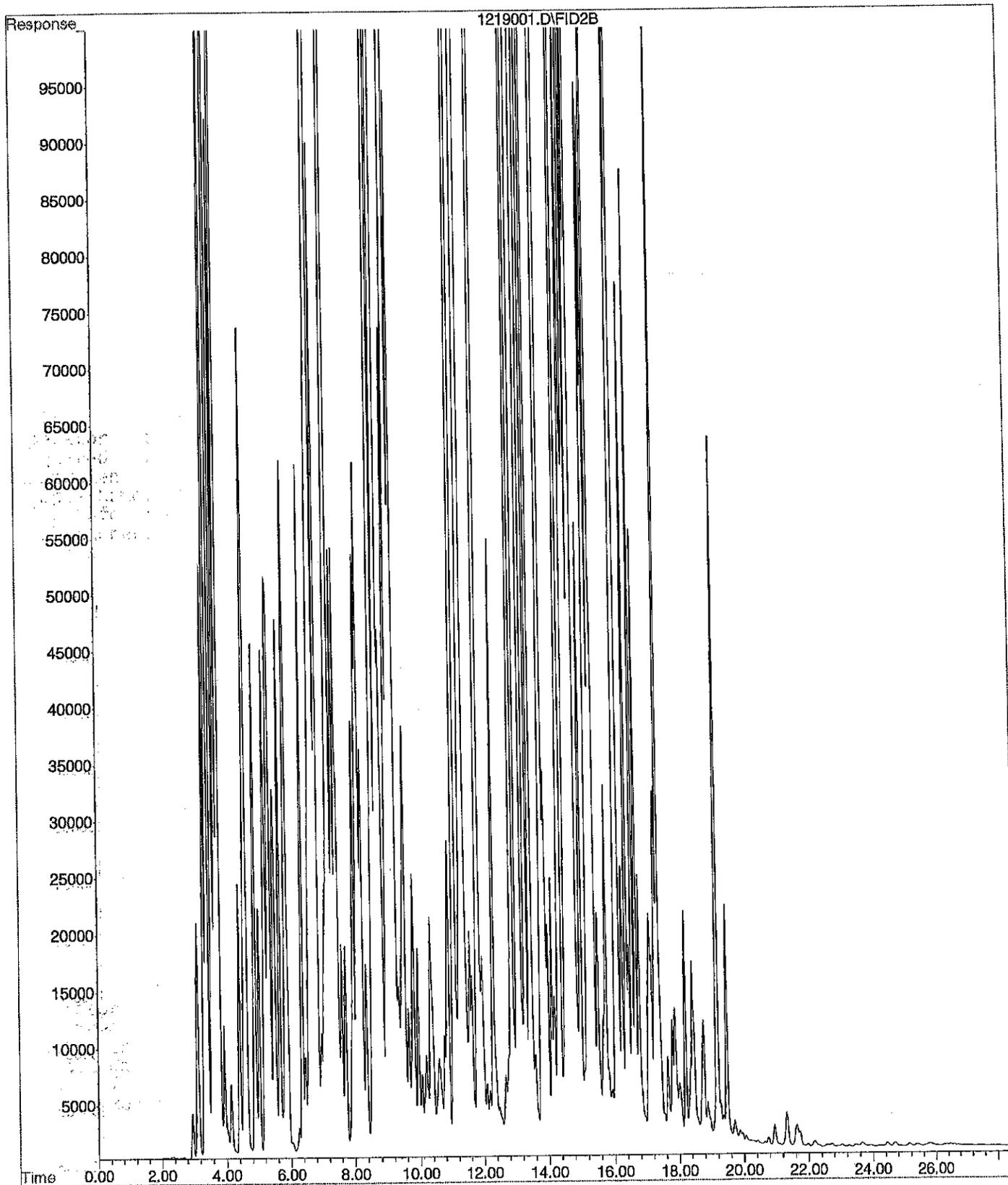
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.85	7351009	106.466	PPB
5) S BROMOFLUOROBENZENE	12.30	1184910	29.028	PPB
11) S FLUOROBENZENE #2	6.98	468955	1.802	PPB
16) S BROMOFLUOROBENZENE #2	12.30	2353798	7.489	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	273417380	5.547	PPM
2) H Entire GAS Envelope (9-24-	12.21	368601520	5.635	PPM
3) H GASOLINE (9-24-14)	13.51	208524471	5.254	PPM
7) H entire GAS envelope #2 (9-	12.26	679276748	4.682	PPM
8) H GASOLINE #2 (9-24-14)	13.56	510081978	4.590	PPM
9) MTBE #2	4.59	3947494	54.012	PPB
10) BENZENE #2	6.72	45793046	155.998	PPB
12) TOLUENE #2	9.10	117137311	421.324	PPB
13) ETHYLBENZENE #2	11.06	28639849	116.508	PPB
14) m,p-XYLENE #2	11.32	105128184	361.885	PPB
15) o-XYLENE #2	11.82	39729207	158.519	PPB

12/22 ✓

File : X:\BTEX\DARYL\DATA\D141219\1219001.D  
Operator :  
Acquired : 19 Dec 2014 10:57 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1219G-1  
Misc Info : V2-36-08  
Vial Number: 1



Signal #1 : d:\btex\DATA\D141219\1219032.D\FID1A.CH Vial: 32  
 Signal #2 : d:\btex\DATA\D141219\1219032.D\FID2B.CH  
 Acq On : 20 Dec 2014 4:45 Operator:  
 Sample : CCVD1219G-2 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 20 5:13 2014 Quant Results File: 141012DB.RES

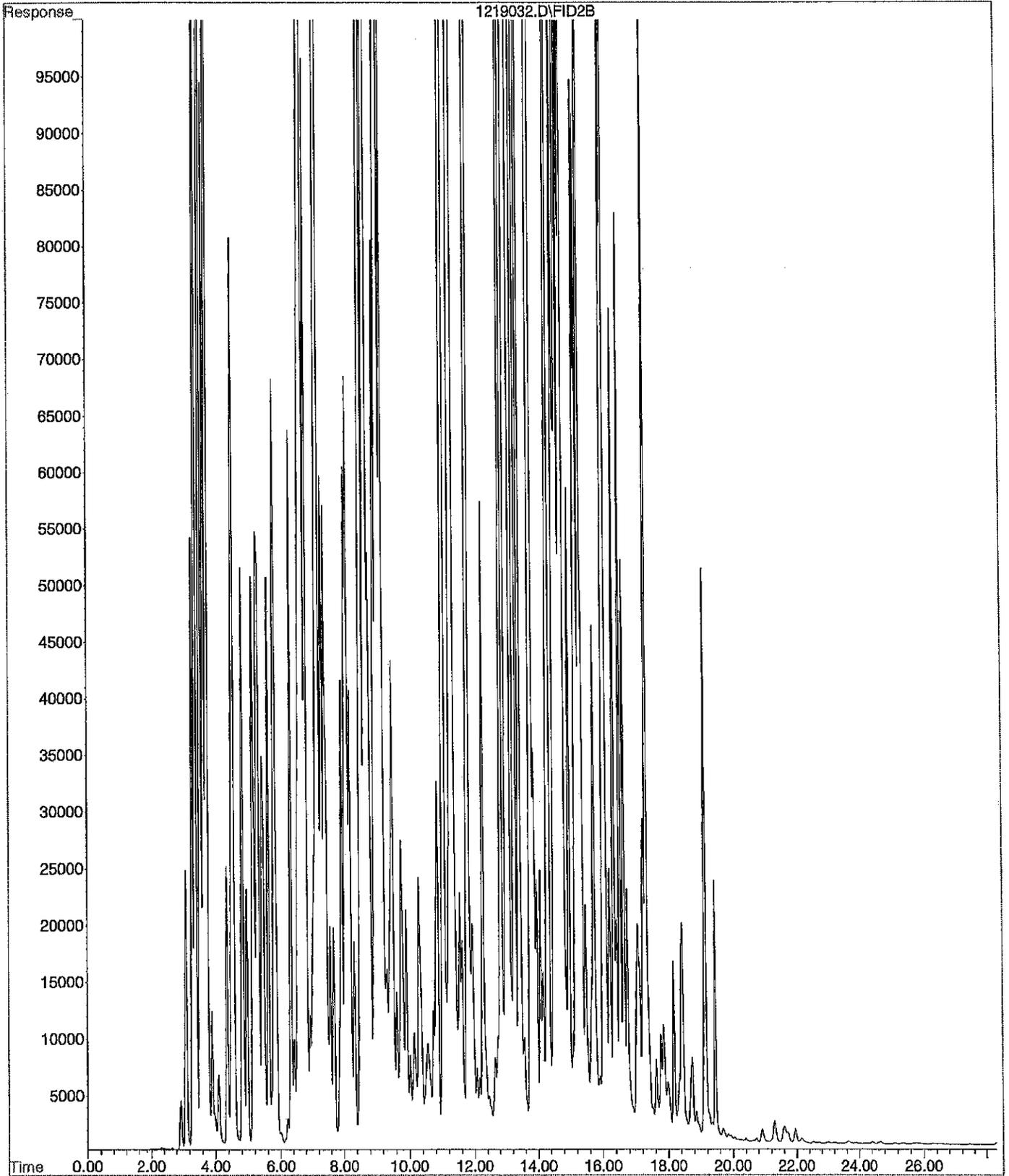
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	0.00	0	N.D. PPB
5) S BROMOFLUOROBENZENE	12.27	1286022	31.554 PPB
11) S FLUOROBENZENE #2	6.95	507639	1.977 PPB
16) S BROMOFLUOROBENZENE #2	12.27	2533164	8.095 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	295507884	5.996 PPM
2) H Entire GAS Envelope (9-24-	12.21	394134022	6.026 PPM
3) H GASOLINE (9-24-14)	13.51	215465300	5.429 PPM
7) H entire GAS envelope #2 (9-	12.26	699644200	4.824 PPM
8) H GASOLINE #2 (9-24-14)	13.56	521094532	4.691 PPM ✓
9) MTBE #2	4.55	4453846	60.946 PPB
10) BENZENE #2	6.68	47179118	160.721 PPB
12) TOLUENE #2	9.07	119750053	430.726 PPB
13) ETHYLBENZENE #2	11.04	28981918	117.901 PPB
14) m,p-XYLENE #2	11.29	107064877	368.561 PPB
15) o-XYLENE #2	11.79	39982518	159.532 PPB

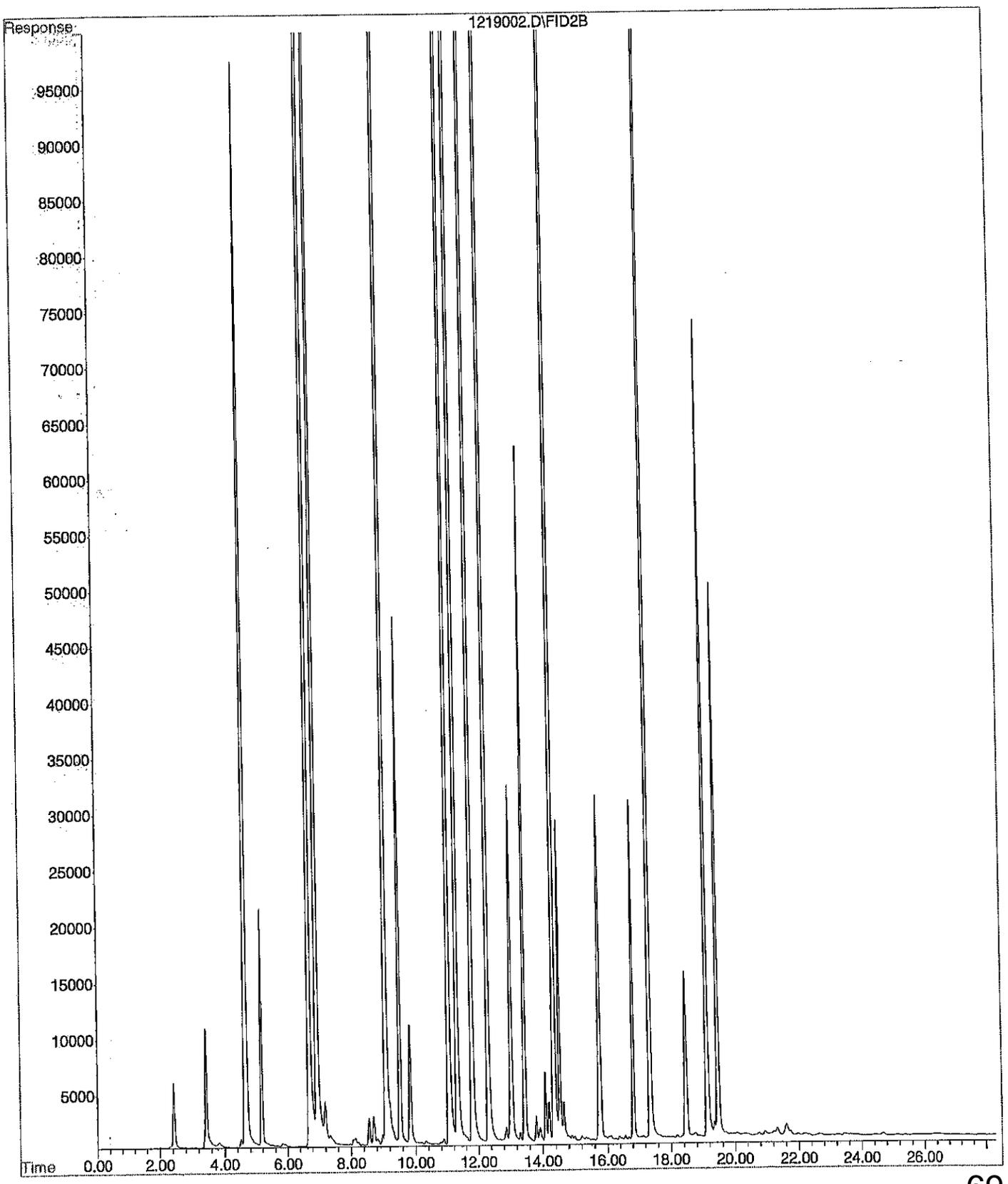
*12/22*  
*AW*

File : X:\BTEX\DARYL\DATA\D141219\1219032.D  
Operator :  
Acquired : 20 Dec 2014 4:45 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1219G-2  
Misc Info : V2-36-08  
Vial Number: 32





File : X:\BTEX\DARYL\DATA\D141219\1219002.D  
Operator :  
Acquired : 19 Dec 2014 11:31 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1219B-1  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 2



Signal #1 : d:\btex\DATA\D141219\1219017.D\FID1A.CH Vial: 17  
 Signal #2 : d:\btex\DATA\D141219\1219017.D\FID2B.CH  
 Acq On : 19 Dec 2014 20:29 Operator:  
 Sample : CCVD1219B-2 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 19 20:57 2014 Quant Results File: 141012DB.RES

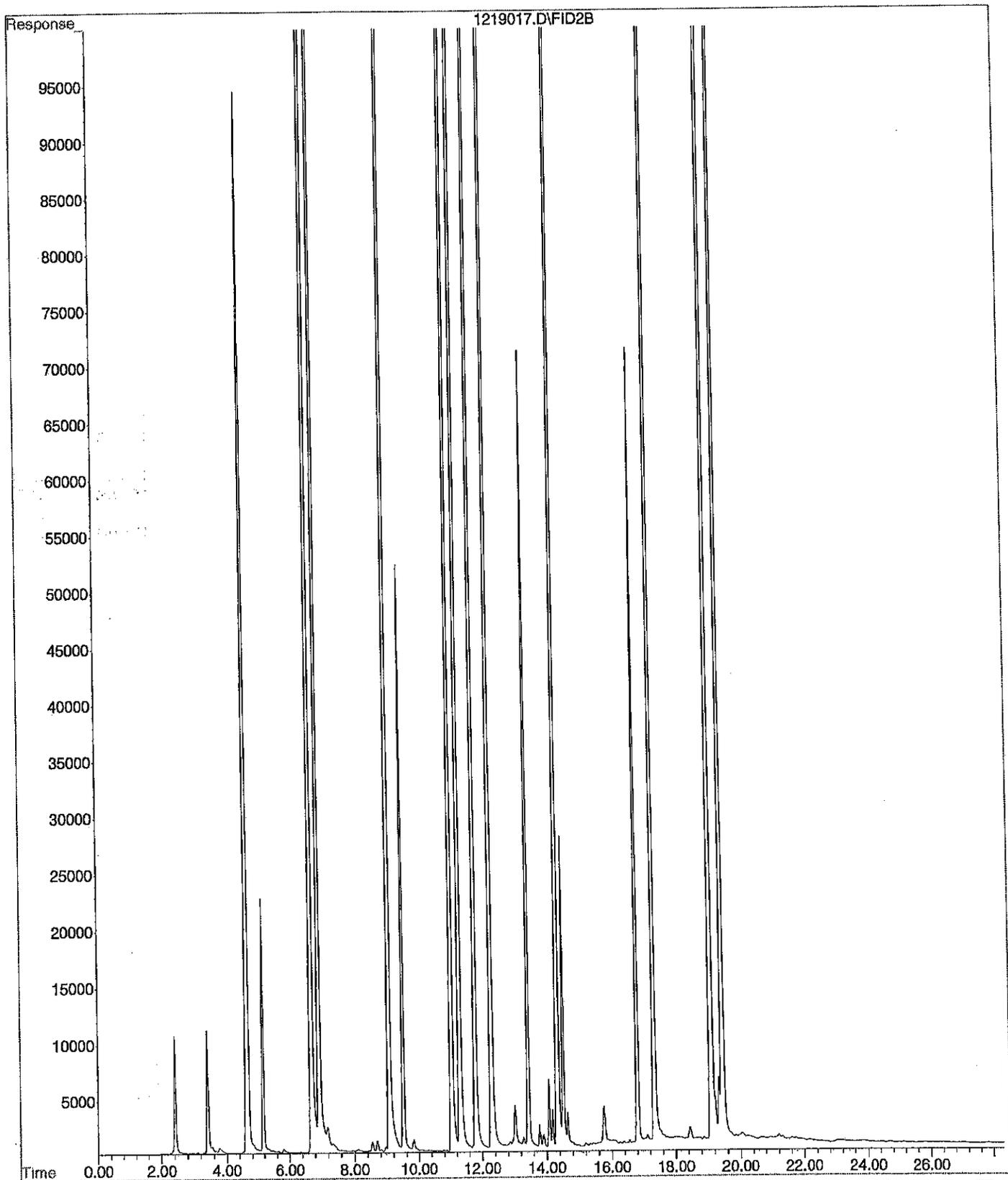
Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3339352	48.183 PPB
5) S BROMOFLUOROBENZENE	12.29	1980391	48.901 PPB
11) S FLUOROBENZENE #2	6.93	9144541	41.247 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12619756	42.168 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	30822342	0.619 PPM
2) H Entire GAS Envelope (9-24-	12.21	55299462	0.836 PPM
3) H GASOLINE (9-24-14)	13.51	36665011	0.906 PPM
7) H entire GAS envelope #2 (9-	12.26	131482851	0.867 PPM
8) H GASOLINE #2 (9-24-14)	13.56	87556973	0.739 PPM
9) MTBE #2	4.64	4439970	60.756 PPB
10) BENZENE #2	6.69	15236426	51.875 PPB
12) TOLUENE #2	9.07	14182349	50.856 PPB
13) ETHYLBENZENE #2	11.04	12411847	50.425 PPB
14) m,p-XYLENE #2	11.31	14854646	50.664 PPB
15) o-XYLENE #2	11.79	12507534	49.722 PPB

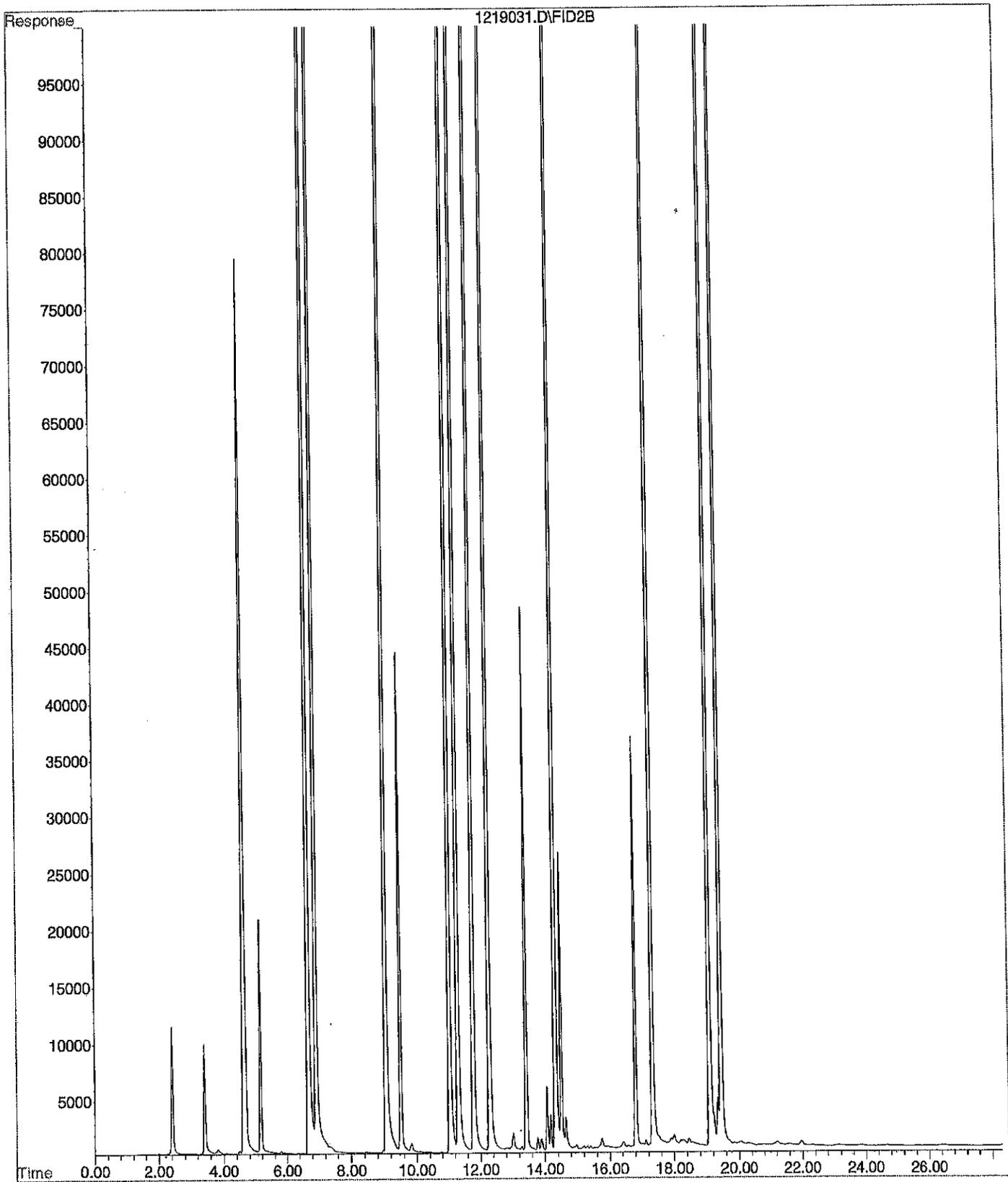
12/22 ✓

File : X:\BTEX\DARYL\DATA\D141219\1219017.D  
Operator :  
Acquired : 19 Dec 2014 20:29 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1219B-2  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 17





File : X:\BTEX\DARYL\DATA\D141219\1219031.D  
Operator :  
Acquired : 20 Dec 2014 4:12 using AcqMethod 141012DB.M  
Instrument : Daryl  
Sample Name: CCVD1219B-3  
Misc Info : V2-36-23,V2-36-22  
Vial Number: 31



## NWTPH-Diesel Data

Data File : 1224-V14.D  
 Sample : 12-214-01 5X

Data Path : X:\DIESELS\VIGO\DATA\V141224\  
 Signal(s) : FID1A.ch  
 Acq On : 24 Dec 2014 21:03  
 Operator :  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 21:39:19 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141218F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

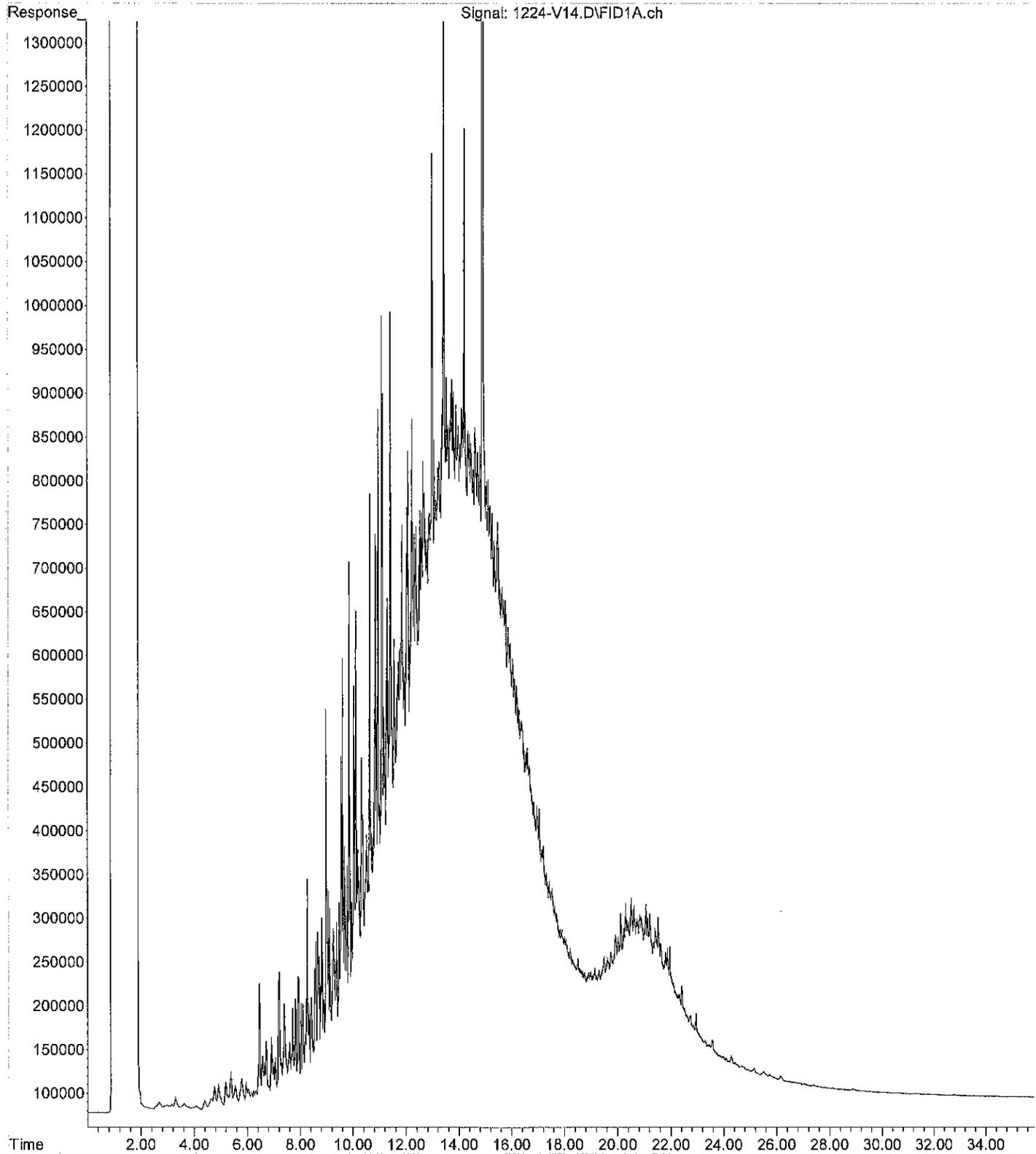
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (12-18-14)	14.901	108520121	35.187	PPM
Spiked Amount	50.000	Recovery	=	70.37%
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	39532212	NoCal	PPM
4) H Diesel Fuel #1 (12-1...)	10.000	2327945672	938.114	PPM
5) H Diesel Fuel #2 (12-...)	14.000	2828695314	1213.648	PPM
6) H Oil (12-18-14)	22.000	1187055971	569.447	PPM
7) H Oil Acid Clean (12-...)	22.000	1187055971	638.976	PPM
8) H Diesel Fuel #2 Combo ...	14.000	2653198172	1164.014	PPM
9) H Oil Combo (12-18-14)	22.000	840399138	407.544	PPM
10) H Oil Acid Clean Combo ...	22.000	840399138	455.408	PPM
11) H Alaska 102 DF2 (06-2...)	13.025	2834746851	1119.940	PPM
12) H Alaska 103 Oil (06-2...)	22.000	539045932	490.071	PPM
13) H Mineral Oil (12-18-14)	16.000	2579445539	981.250	PPM
14) H Bunker C ACU (Fuel Oi...)	15.000	3487477438	2505.680	PPM
15) H Bunker C (Fuel Oil #6...)	15.000	3487477438	2431.762	PPM
16) H ALKANE C9-C40 10-26-07	12.666	3505841238	44616.502	PPM
17) H Mineral Oil Combo (1...)	16.000	2342777704	915.019	PPM
18) H Oil Acid Clean MO Com...	22.000	685741904	379.640	PPM
19) H Oil MO Combo (12-18-14)	22.000	685741904	341.506	PPM

(f)=RT Delta > 1/2 Window

(m)=manual int.

File :X:\DIESELS\VIGO\DATA\V141224\1224-V14.D  
Operator :  
Acquired : 24 Dec 2014 21:03 using AcqMethod V141218F.M  
Instrument : Vigo  
Sample Name: 12-214-01 5X  
Misc Info :  
Vial Number: 14



Data File : 1223-T56.D  
 Sample : MB1223S1

Data Path : X:\DIESELS\TERI\DATA\T141223.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 23 Dec 2014 14:45  
 Operator : ZT  
 Misc :  
 ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 23 15:21:32 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141222R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (01-08-14)	14.703	730131698	236.650 PPM
Spiked Amount	50.000	Recovery	= 473.30%
Target Compounds			
2) H Gasoline	4.000	8762528	NoCal PPM
3) H Diesel Fuel #1 (01-1...	10.000	19146692	1.940 PPM
4) H Diesel Fuel #2 (01-1...	14.000	18637564	4.648 PPM
5) H Oil (12-22-14)	22.000	58089145	20.246 PPM
6) H Oil Acid Clean (12-...	22.000	58089145	14.928 PPM
7) H Diesel Fuel #2 Combo ...	14.000	17445600	4.401 PPM
8) H Oil Combo (12-22-14)	22.000	56515964	19.699 PPM
9) H Oil Acid Clean Combo ...	22.000	56515964	14.293 PPM
10) H Oil MO Combo (12-22-14)	22.000	55473474	19.666 PPM
11) H Oil Acid Clean MO Com...	22.000	55473474	14.133 PPM
12) H Alaska 102 DF2 (05-29...	13.025	19419489	NoCal PPM
13) H Alaska 103 Oil (05-29...	20.000	19189184	NoCal PPM
14) H Mineral Oil (01-09-14)	16.000	15241877	2.805 PPM
15) H Mineral Oil Combo (0...	16.000	12138269	2.955 PPM
-----			

(f)=RT Delta > 1/2 Window

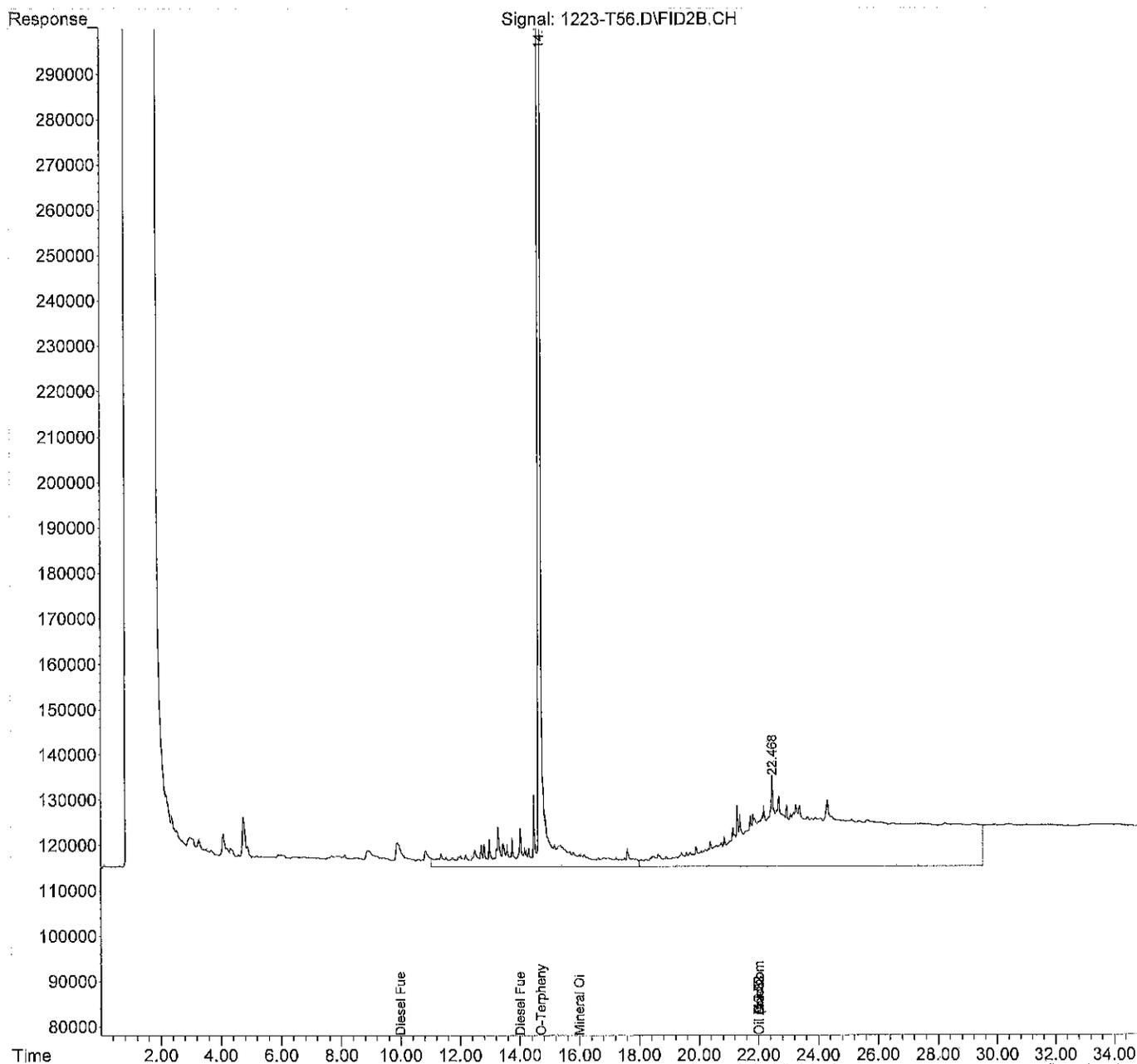
(m)=manual int.

Data File : 1223-T56.D  
Sample : MB1223S1

Data Path : X:\DIESELS\TERI\DATA\T141223.SEC\  
Signal(s) : FID2B.CH  
Acq On : 23 Dec 2014 14:45  
Operator : ZT  
Misc :  
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 23 15:21:32 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141222R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1224-V11.D  
 Sample : 12-214-01 5X DUP  
 Data Path : X:\DIESELS\VIGO\DATA\V141224\  
 Signal(s) : FID1A.ch  
 Acq On : 24 Dec 2014 19:01  
 Operator :  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 19:37:41 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141218F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

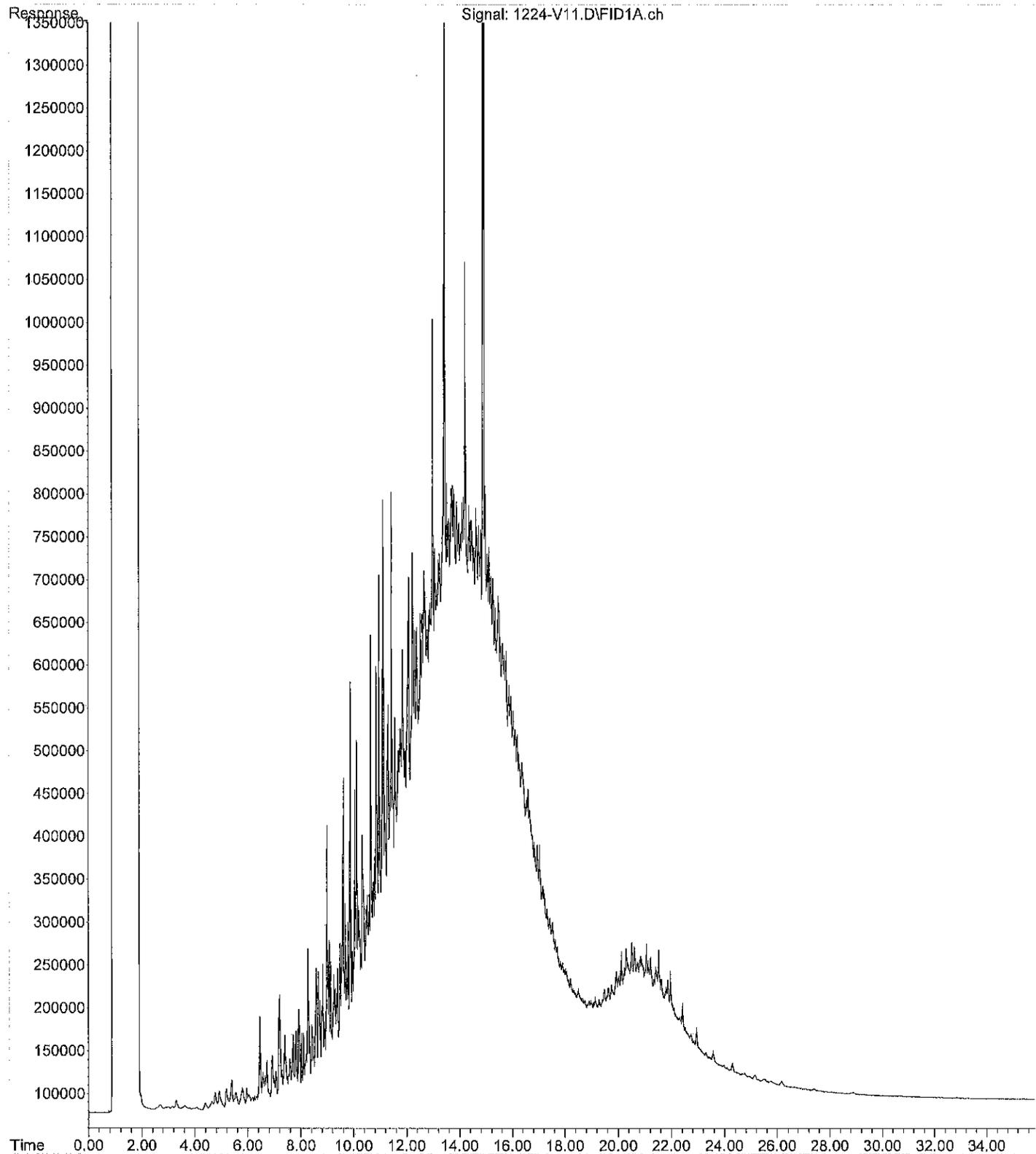
Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (12-18-14)	14.901	117684646	38.165 PPM
Spiked Amount	50.000	Recovery =	76.33%
Target Compounds			
2) 1-Chlorooctadecane (...)	0.000	0	N.D. PPM
3) H Gasoline	3.500	30564103	NoCal PPM
4) H Diesel Fuel #1 (12-1...)	10.000	1988688987	801.034 PPM
5) H Diesel Fuel #2 (12-...)	14.000	2433595778	1043.706 PPM
6) H Oil (12-18-14)	22.000	1009856132	482.743 PPM
7) H Oil Acid Clean (12-...)	22.000	1009856132	541.475 PPM
8) H Diesel Fuel #2 Combo ...	14.000	2282942866	1001.199 PPM
9) H Oil Combo (12-18-14)	22.000	698951226	337.081 PPM
10) H Oil Acid Clean Combo ...	22.000	698951226	376.349 PPM
11) H Alaska 102 DF2 (06-2...)	13.025	2438309548	962.954 PPM
12) H Alaska 103 Oil (06-2...)	22.000	440106832	398.752 PPM
13) H Mineral Oil (12-18-14)	16.000	2240764890	852.071 PPM
14) H Bunker C ACU (Fuel Oi...)	15.000	2976434125	2136.072 PPM
15) H Bunker C (Fuel Oil #6...)	15.000	2976434125	2074.210 PPM
16) H ALKANE C9-C40 10-26-07	12.666	2990585124	38055.950 PPM
17) H Mineral Oil Combo (1...)	16.000	2047578385	799.627 PPM
18) H Oil Acid Clean MO Com...	22.000	565729979	310.630 PPM
19) H Oil MO Combo (12-18-14)	22.000	565729979	279.766 PPM
-----			

(f)=RT Delta > 1/2 Window

(m)=manual int.

File :X:\DIESELS\VIGO\DATA\V141224\1224-V11.D  
Operator :  
Acquired : 24 Dec 2014 19:01 using AcqMethod V141218F.M  
Instrument : Vigo  
Sample Name: 12-214-01 5X DUP  
Misc Info :  
Vial Number: 11



Data File : 1223-T51.D  
 Sample : CCV1223R-T1

Data Path : X:\DIESELS\TERI\DATA\T141223.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 23 Dec 2014 11:04  
 Operator : ZT  
 Misc : SV3-11-24  
 ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 23 11:39:49 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141222R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	4.000	31078009	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	235389796	95.152	PPM
4) H Diesel Fuel #2 (01-1...	14.000	236557171	98.509	PPM
5) H Oil (12-22-14)	22.000	209856330	91.638	PPM
6) H Oil Acid Clean (12-...	22.000	209856330	94.192	PPM
7) H Diesel Fuel #2 Combo ...	14.000	231604018	98.996	PPM
8) H Oil Combo (12-22-14)	22.000	198266408	87.984	PPM
9) H Oil Acid Clean Combo ...	22.000	198266408	89.860	PPM
10) H Oil MO Combo (12-22-14)	22.000	193883195	88.904	PPM
11) H Oil Acid Clean MO Com...	22.000	193883195	90.342	PPM
12) H Alaska 102 DF2 (05-29...	13.025	241906248	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	67567005	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	158919121	57.486	PPM
15) H Mineral Oil Combo (0...	16.000	147964126	56.887	PPM

(f)=RT Delta > 1/2 Window

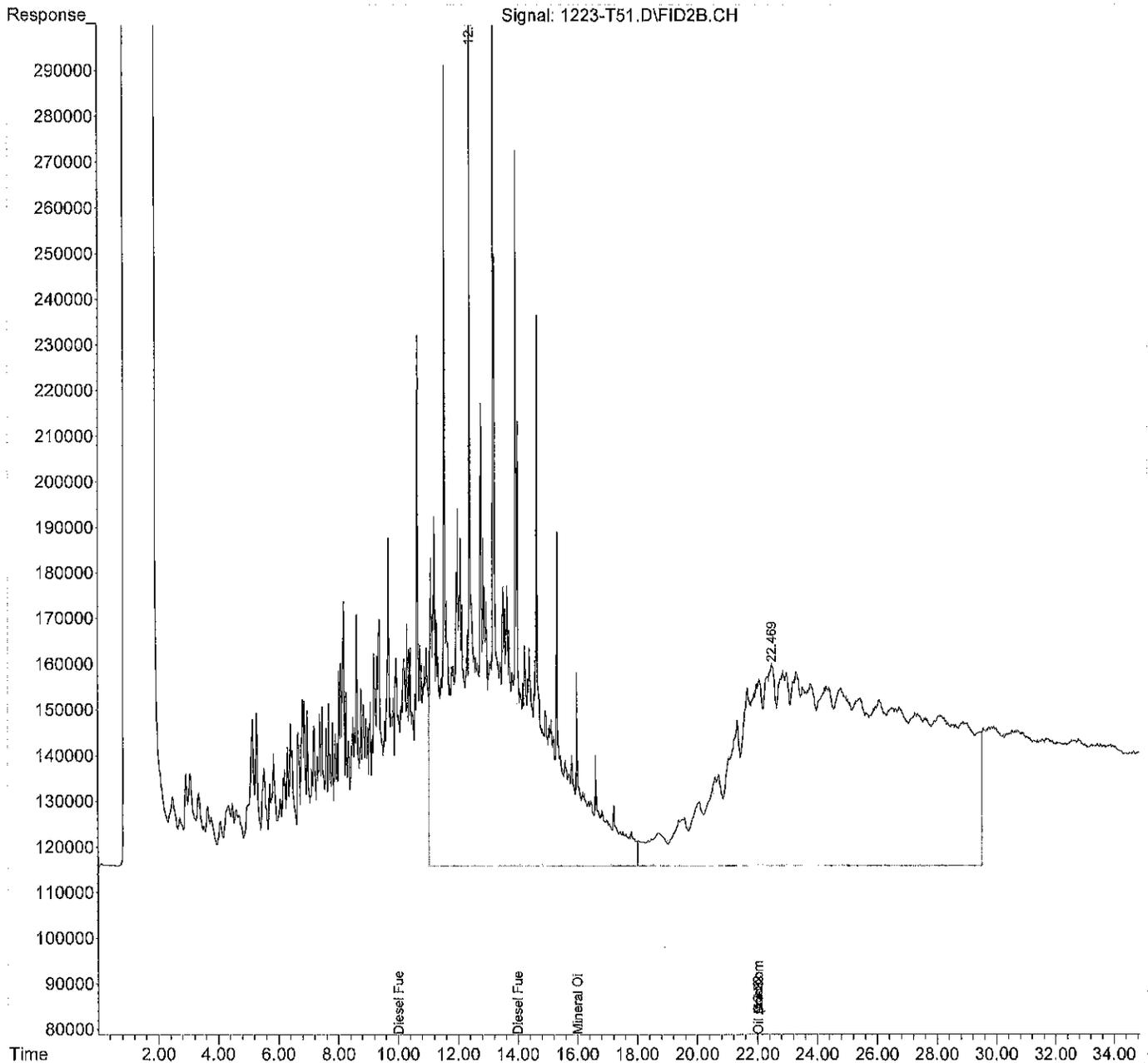
(m)=manual int.

Data File : 1223-T51.D  
Sample : CCV1223R-T1

Data Path : X:\DIESELS\TERI\DATA\T141223.SEC\  
Signal(s) : FID2B.CH  
Acq On : 23 Dec 2014 11:04  
Operator : ZT  
Misc : SV3-11-24  
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 23 11:39:49 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141222R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T62.D  
 Sample : CCV1223R-T2

Data Path : X:\DIESELS\TERI\DATA\T141223.SEC\  
 Signal(s) : FID2B.CH  
 Acq On : 23 Dec 2014 19:13  
 Operator : ZT  
 Misc : SV3-11-24  
 ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 23 19:49:10 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141222R.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:58:02 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (01-08-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery	=	0.00%
Target Compounds				
2) H Gasoline	4.000	30703684	NoCal	PPM
3) H Diesel Fuel #1 (01-1...	10.000	236313464	95.551	PPM
4) H Diesel Fuel #2 (01-1...	14.000	237249870	98.807	PPM
5) H Oil (12-22-14)	22.000	131327630	54.698	PPM
6) H Oil Acid Clean (12-...	22.000	131327630	53.179	PPM
7) H Diesel Fuel #2 Combo ...	14.000	232813906	99.531	PPM
8) H Oil Combo (12-22-14)	22.000	119644002	50.110	PPM
9) H Oil Acid Clean Combo ...	22.000	119644002	47.946	PPM
10) H Oil MO Combo (12-22-14)	22.000	115646689	49.767	PPM
11) H Oil Acid Clean MO Com...	22.000	115646689	47.264	PPM
12) H Alaska 102 DF2 (05-29...	13.025	242759931	NoCal	PPM
13) H Alaska 103 Oil (05-29...	20.000	37498343	NoCal	PPM
14) H Mineral Oil (01-09-14)	16.000	155497147	56.183	PPM
15) H Mineral Oil Combo (0...	16.000	149184952	57.372	PPM

(f)=RT Delta > 1/2 Window

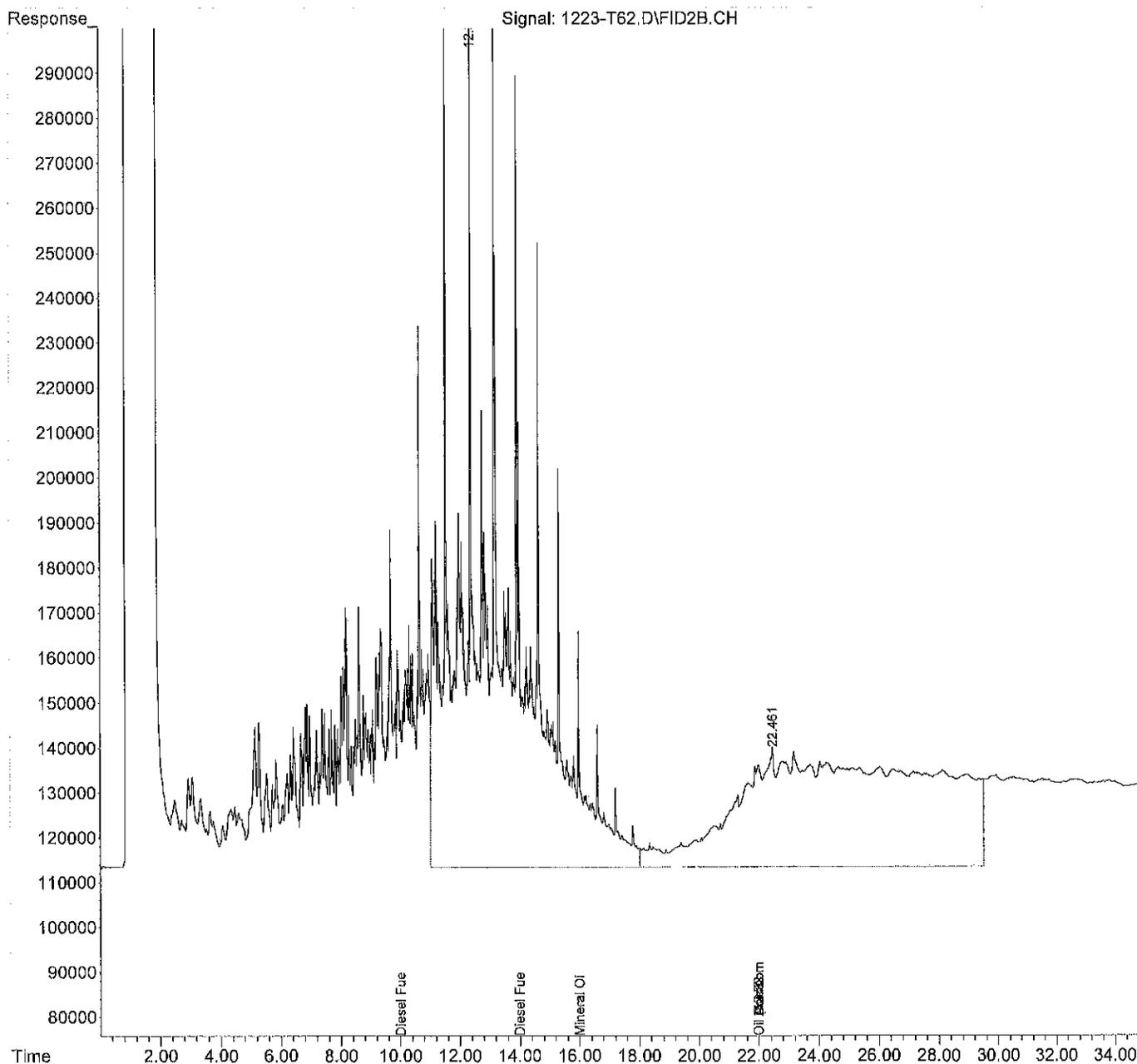
(m)=manual int.

Data File : 1223-T62.D  
Sample : CCV1223R-T2

Data Path : X:\DIESELS\TERI\DATA\T141223.SEC\  
Signal(s) : FID2B.CH  
Acq On : 23 Dec 2014 19:13  
Operator : ZT  
Misc : SV3-11-24  
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 23 19:49:10 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141222R.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:58:02 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1224-V10.D  
 Sample : CCV1224F-V2

Data Path : X:\DIESELS\VIGO\DATA\V141224\  
 Signal(s) : FID1A.ch  
 Acq On : 24 Dec 2014 18:21  
 Operator :  
 Misc : SV3-11-24  
 ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 18:57:08 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141218F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S O-Terphenyl (12-18-14)	14.852	1965512	0.559 PPM
Spiked Amount 50.000		Recovery =	1.12%
Target Compounds			
2) 1-Chlorooctadecane (...)	0.000	0	N.D. PPM
3) H Gasoline	3.500	25916710	NoCal PPM
4) H Diesel Fuel #1 (12-1...)	10.000	224272392	88.105 PPM
5) H Diesel Fuel #2 (12-...)	14.000	229450850	95.647 PPM
6) H Oil (12-18-14)	22.000	78615662	27.087 PPM
7) H Oil Acid Clean (12-...)	22.000	78615662	29.077 PPM
8) H Diesel Fuel #2 Combo ...	14.000	223884274	95.751 PPM
9) H Oil Combo (12-18-14)	22.000	65128060	21.339 PPM
10) H Oil Acid Clean Combo ...	22.000	65128060	22.089 PPM
11) H Alaska 102 DF2 (06-2...)	13.025	232470678	89.460 PPM
12) H Alaska 103 Oil (06-2...)	22.000	23961964	14.659 PPM
13) H Mineral Oil (12-18-14)	16.000	152693587	55.640 PPM
14) H Bunker C ACU (Fuel Oi...)	15.000	286797881	190.816 PPM
15) H Bunker C (Fuel Oil #6...)	15.000	286797881	192.406 PPM
16) H ALKANE C9-C40 10-26-07	12.666	299384428	3789.954 PPM
17) H Mineral Oil Combo (1...)	16.000	147916484	57.060 PPM
18) H Oil Acid Clean MO Com...	22.000	60238870	19.959 PPM
19) H Oil MO Combo (12-18-14)	22.000	60238870	19.717 PPM

(f)=RT Delta > 1/2 Window

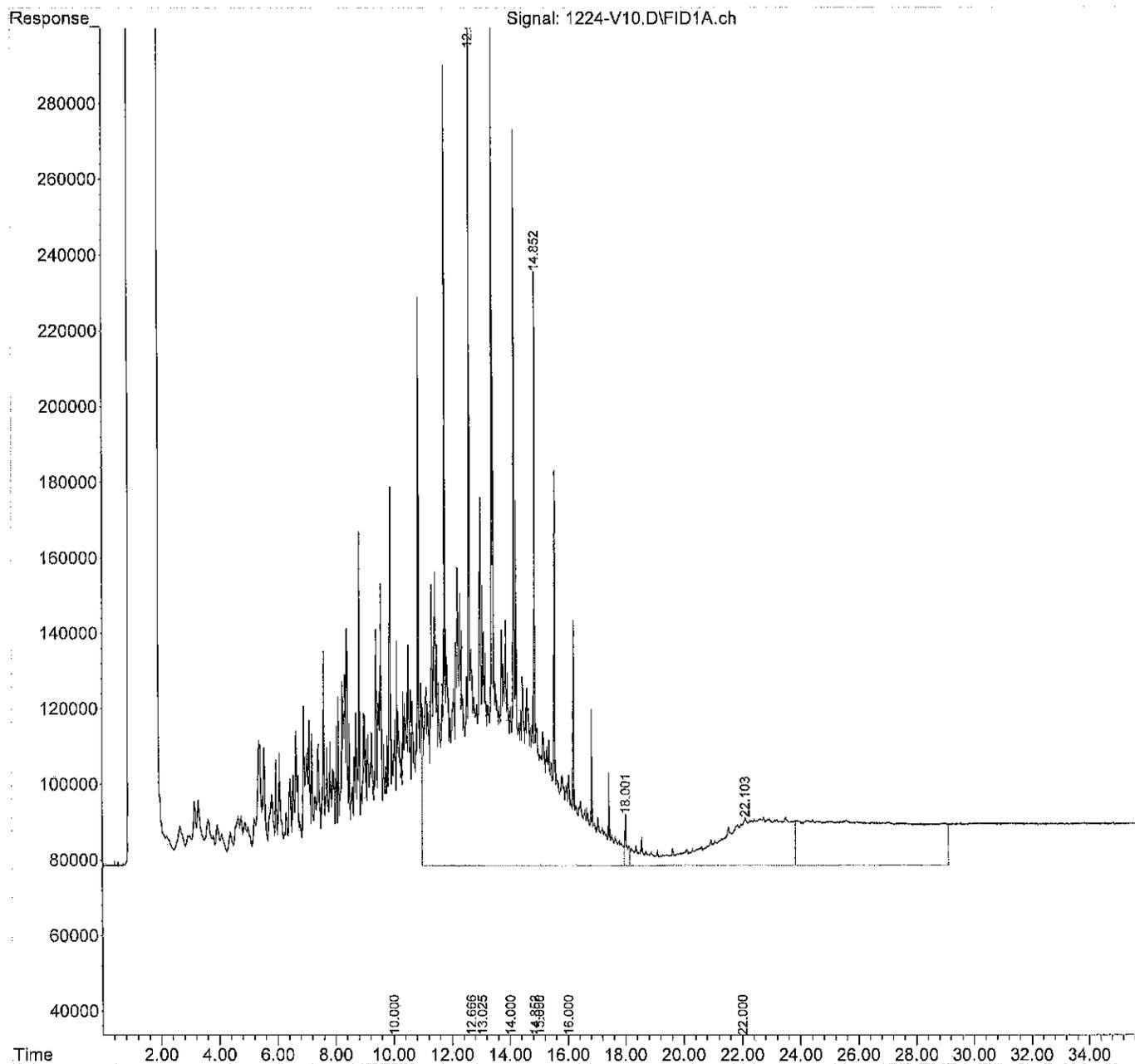
(m)=manual int.

Data File : 1224-V10.D  
Sample : CCV1224F-V2

Data Path : X:\DIESELS\VIGO\DATA\V141224\  
Signal(s) : FID1A.ch  
Acq On : 24 Dec 2014 18:21  
Operator :  
Misc : SV3-11-24  
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 24 18:57:08 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141218F.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1224-V20.D  
 Sample : CCV1224F-V3

Data Path : X:\DIESELS\VIGO\DATA\V141224\  
 Signal(s) : FID1A.ch  
 Acq On : 25 Dec 2014 1:06  
 Operator :  
 Misc : SV3-11-24  
 ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 25 01:43:02 2014  
 Quant Method : C:\MSDCHEM\2\METHODS\V141218F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Oct 19 15:50:31 2007  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (12-18-14)	14.851	1995839	0.569	PPM
Spiked Amount	50.000	Recovery =	1.14%	
Target Compounds				
2) 1-Chlorooctadecane (...)	0.000	0	N.D.	PPM
3) H Gasoline	3.500	26927324	NoCal	PPM
4) H Diesel Fuel #1 (12-1...)	10.000	228664055	89.879	PPM
5) H Diesel Fuel #2 (12-...)	14.000	234599962	97.862	PPM
6) H Oil (12-18-14)	22.000	96733713	35.952	PPM
7) H Oil Acid Clean (12-...)	22.000	96733713	39.046	PPM
8) H Diesel Fuel #2 Combo ...	14.000	228499678	97.781	PPM
9) H Oil Combo (12-18-14)	22.000	82540159	30.013	PPM
10) H Oil Acid Clean Combo ...	22.000	82540159	31.821	PPM
11) H Alaska 102 DF2 (06-2...)	13.025	237729487	91.543	PPM
12) H Alaska 103 Oil (06-2...)	22.000	30411060	20.611	PPM
13) H Mineral Oil (12-18-14)	16.000	157807696	57.590	PPM
14) H Bunker C ACU (Fuel Oi...)	15.000	307479717	205.774	PPM
15) H Bunker C (Fuel Oil #6...)	15.000	307479717	206.876	PPM
16) H ALKANE C9-C40 10-26-07	12.666	320297049	4056.227	PPM
17) H Mineral Oil Combo (1...)	16.000	151433487	58.435	PPM
18) H Oil Acid Clean MO Com...	22.000	77185676	29.704	PPM
19) H Oil MO Combo (12-18-14)	22.000	77185676	28.435	PPM

(f)=RT Delta > 1/2 Window

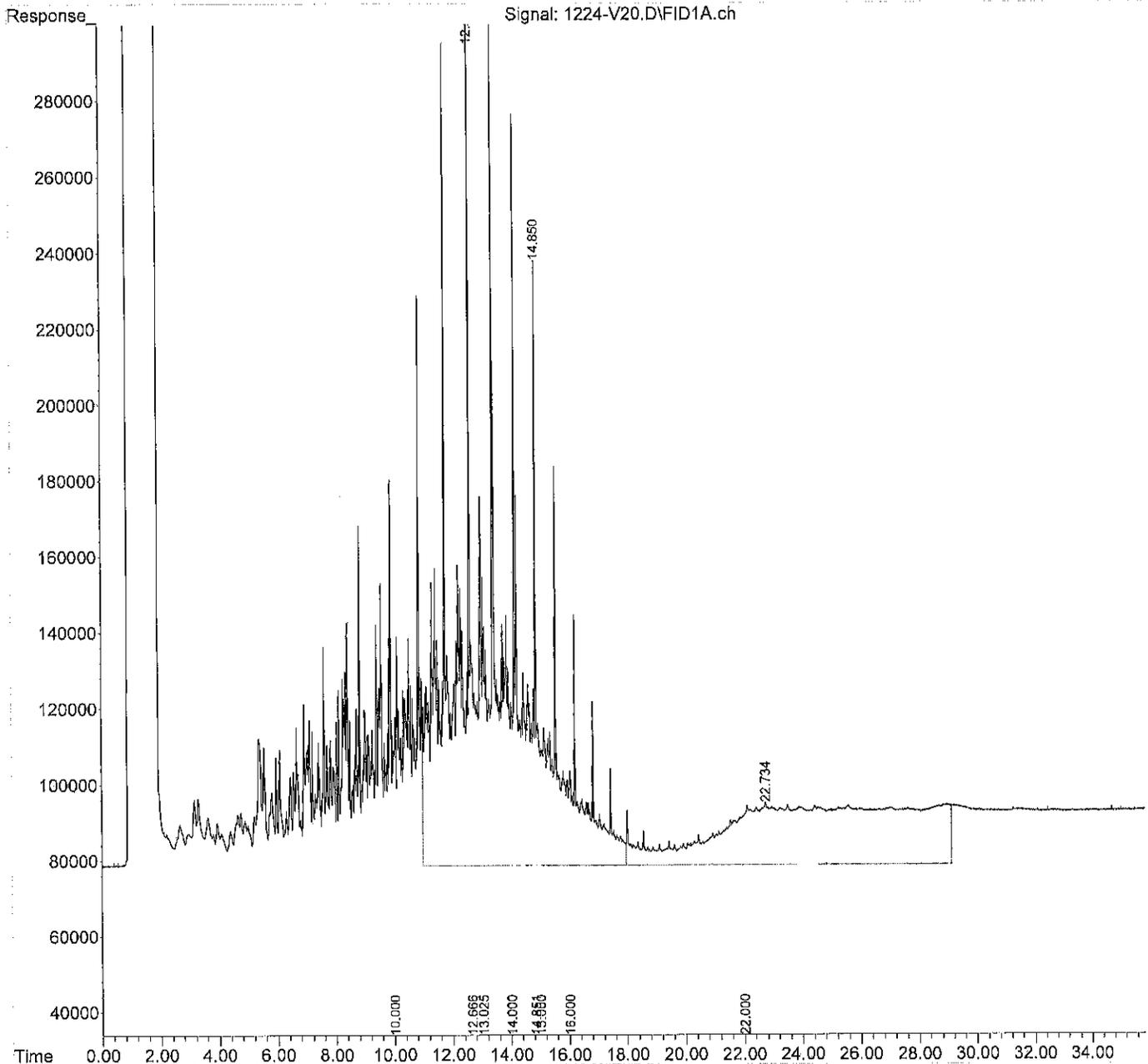
(m)=manual int.

Data File : 1224-V20.D  
Sample : CCV1224F-V3

Data Path : X:\DIESELS\VIGO\DATA\V141224\  
Signal(s) : FID1A.ch  
Acq On : 25 Dec 2014 1:06  
Operator :  
Misc : SV3-11-24  
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 25 01:43:02 2014  
Quant Method : C:\MSDCHEM\2\METHODS\V141218F.M  
Quant Title : GCTPH  
QLast Update : Fri Oct 19 15:50:31 2007  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. :  
Signal Phase :  
Signal Info :



## cPAHs Data

Data Path : C:\MSDCHEM\1\DATA\C141224\  
 Data File : C1224011.D  
 Acq On : 24 Dec 2014 12:40 pm  
 Operator :  
 Sample : 12-214-01  
 Misc : RR  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 24 12:55:31 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration

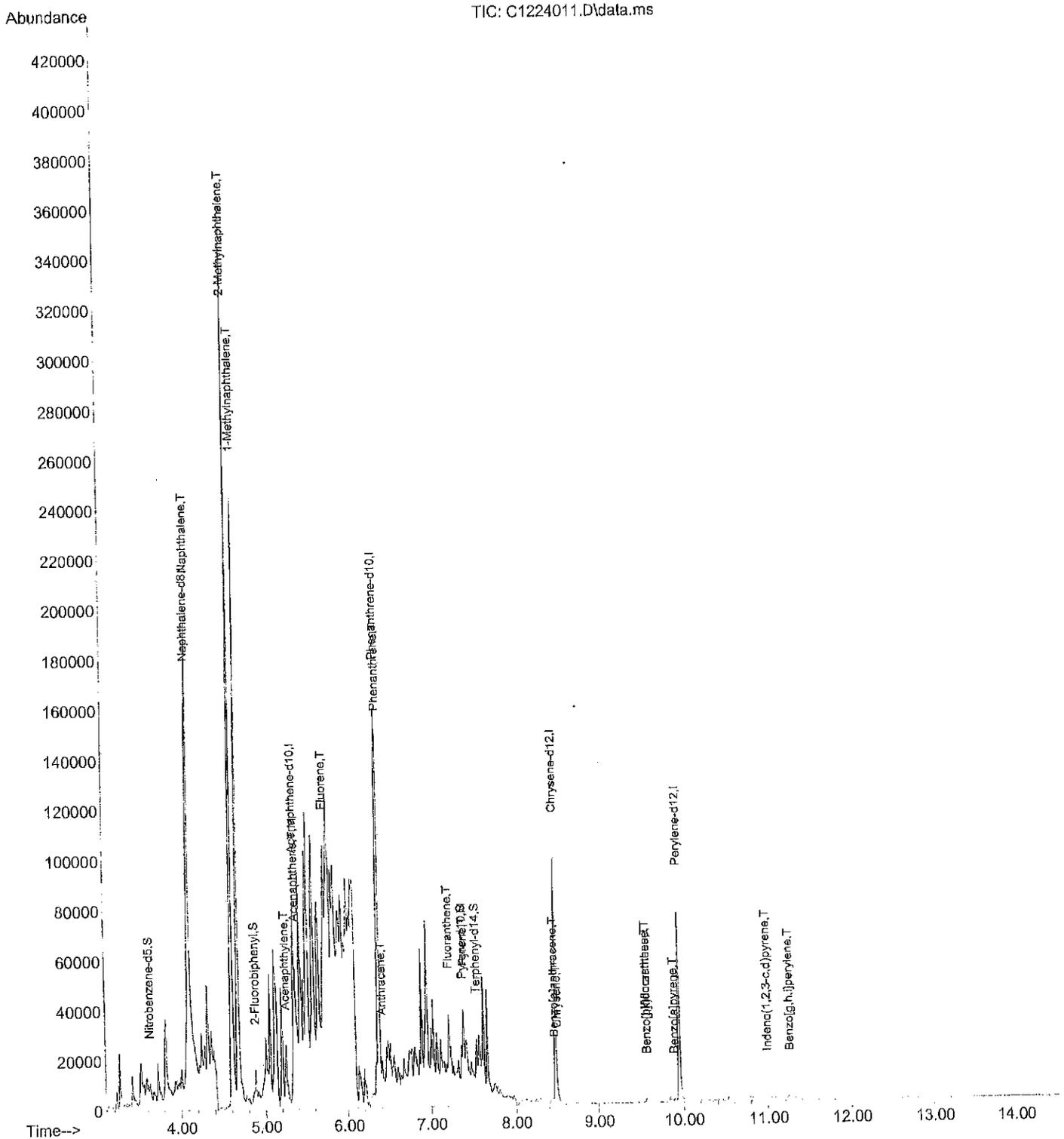
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.094	136	138418	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.353	164	91964	2000.00	ppb	0.02	
10) Phenanthrene-d10	6.364	188	147050	2000.00	ppb	0.03	
17) Chrysene-d12	8.480	240	<del>110928</del>	2000.00	ppb	0.03	
21) Perylene-d12	9.951	264	102498	2000.00	ppb	0.04	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.624	82	6372	268.02	ppb	0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery	277.12	26.80%		
7) 2-Fluorobiphenyl	4.882	172	18003	279.87	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	27.99%		
11) Pyrene-d10	7.379	212	23993	381.99	ppb	0.04	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	38.20%#		
18) Terphenyl-d14	7.536	244	9722	246.10	ppb	0.03	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	24.61%#		
							<b>Qvalue</b>
<b>Target Compounds</b>							
3) Naphthalene	4.106	128	209587	2890.71	ppb	100	
4) 2-Methylnaphthalene	4.605	142	399389	9566.26	ppb	100	
5) 1-Methylnaphthalene	4.679	142	301283	5829.90	ppb	100	
8) Acenaphthylene	5.245	152	24324	274.52	ppb	100	
9) Acenaphthene	5.368	153	51340	880.18	ppb	100	
12) Fluorene	5.723	166	72292	1293.07	ppb	100	
13) Phenanthrene	6.380	178	118176	1593.97	ppb	100	
14) Anthracene	6.411	178	11066	156.19	ppb	100	
15) Fluoranthene	7.217	202	17009	190.41	ppb	100	
16) Pyrene	7.391	202	21662	235.02	ppb	100	
19) Benzo[a]anthracene	8.465	228	1993	39.36	ppb	100	
20) Chrysene	8.500	228	6133	98.33	ppb	100	
22) Benzo[b]fluoranthene	9.572	252	3093	<del>59.62</del>	ppb	100	42.31
23) Benzo[j,k]fluoranthene	9.572	252	3093	47.10	ppb	100	13.77
24) Benzo[a]pyrene	9.892	252	1287	23.26	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.997	276	1035	17.85	ppb	100	
26) Dibenz[a,h]anthracene	0.000	0	0	N.D.	ppb	100	15.81
27) Benzo[g,h,i]perylene	11.259	276	1487	32.55	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/29/14  
 SM

Data Path : C:\MSDCHEM\1\DATA\C141224\  
Data File : C1224011.D  
Acq On : 24 Dec 2014 12:40 pm  
Operator :  
Sample : 12-214-01  
Misc : RR  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 24 12:55:31 2014  
Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Mon Dec 22 16:38:26 2014  
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141224\  
 Data File : C1224005.D  
 Acq On : 24 Dec 2014 10:03 am  
 Operator :  
 Sample : 12-214-01 5X  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 10:18:00 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration

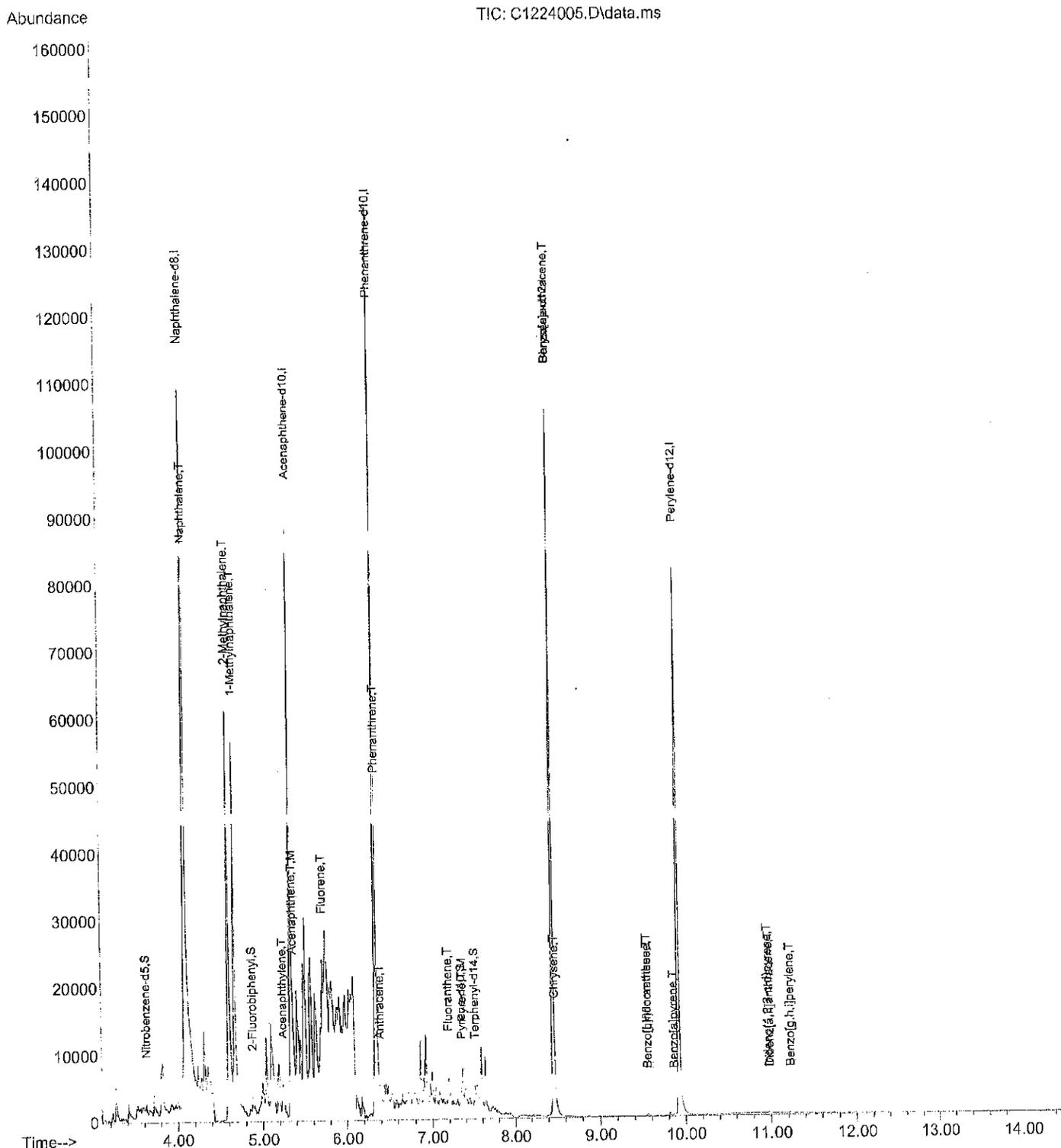
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	4.088	136	165250	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.338	164	92544	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.345	188	130863	2000.00	ppb	0.00	
17) Chrysene-d12	8.457	240	120016	2000.00	ppb	0.00	
21) Perylene-d12	9.922	264	115439	2000.00	ppb	0.01	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.624	82	1338	47.14	ppb	0.02	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	4.71%	#		
7) 2-Fluorobiphenyl	4.878	172	3294	50.89	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	5.09%	#		
11) Pyrene-d10	7.350	212	4177	74.73	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	7.47%	#		
18) Terphenyl-d14	7.513	244	1814	42.44	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	4.24%	#		
Target Compounds							
							Qvalue
3) Naphthalene	4.100	128	48982	565.88	ppb		100
4) 2-Methylnaphthalene	4.597	142	88261	1770.79	ppb		100
5) 1-Methylnaphthalene	4.671	142	75235	1219.43	ppb		100
8) Acenaphthylene	5.238	152	5973	66.99	ppb		100
9) Acenaphthene	5.361	153	11081	188.78	ppb		100
12) Fluorene	5.715	166	16562	332.88	ppb		100
13) Phenanthrene	6.357	178	23786	360.51	ppb		100
14) Anthracene	6.392	178	1701	26.98	ppb		100
15) Fluoranthene	7.194	202	3191	40.14	ppb		100
16) Pyrene	7.362	202	4547	55.44	ppb		100
19) Benzo[a]anthracene	8.457	228	742	13.54	ppb		100
20) Chrysene	8.476	228	1363	20.20	ppb		100
22) Benzo[b]fluoranthene	9.551	252	809	<del>13.85</del> 9.98	ppb		100
23) Benzo[j,k]fluoranthene	9.551	252	809	<del>10.94</del> 3.14	ppb		100
24) Benzo[a]pyrene	9.863	252	395	6.34	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.972	276	294	4.50	ppb		100
26) Dibenz[a,h]anthracene	10.988	278	149	2.79	ppb		100
27) Benzo[g,h,i]perylene	11.226	276	488	9.48	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/29/14  
 sm

Data Path : C:\MSDCHEM\1\DATA\C141224\  
 Data File : C1224005.D  
 Acq On : 24 Dec 2014 10:03 am  
 Operator :  
 Sample : 12-214-01 5X  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 24 10:18:00 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141223\  
 Data File : C1223004.D  
 Acq On : 23 Dec 2014 2:52 pm  
 Operator :  
 Sample : MB1223S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 23 15:07:49 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration

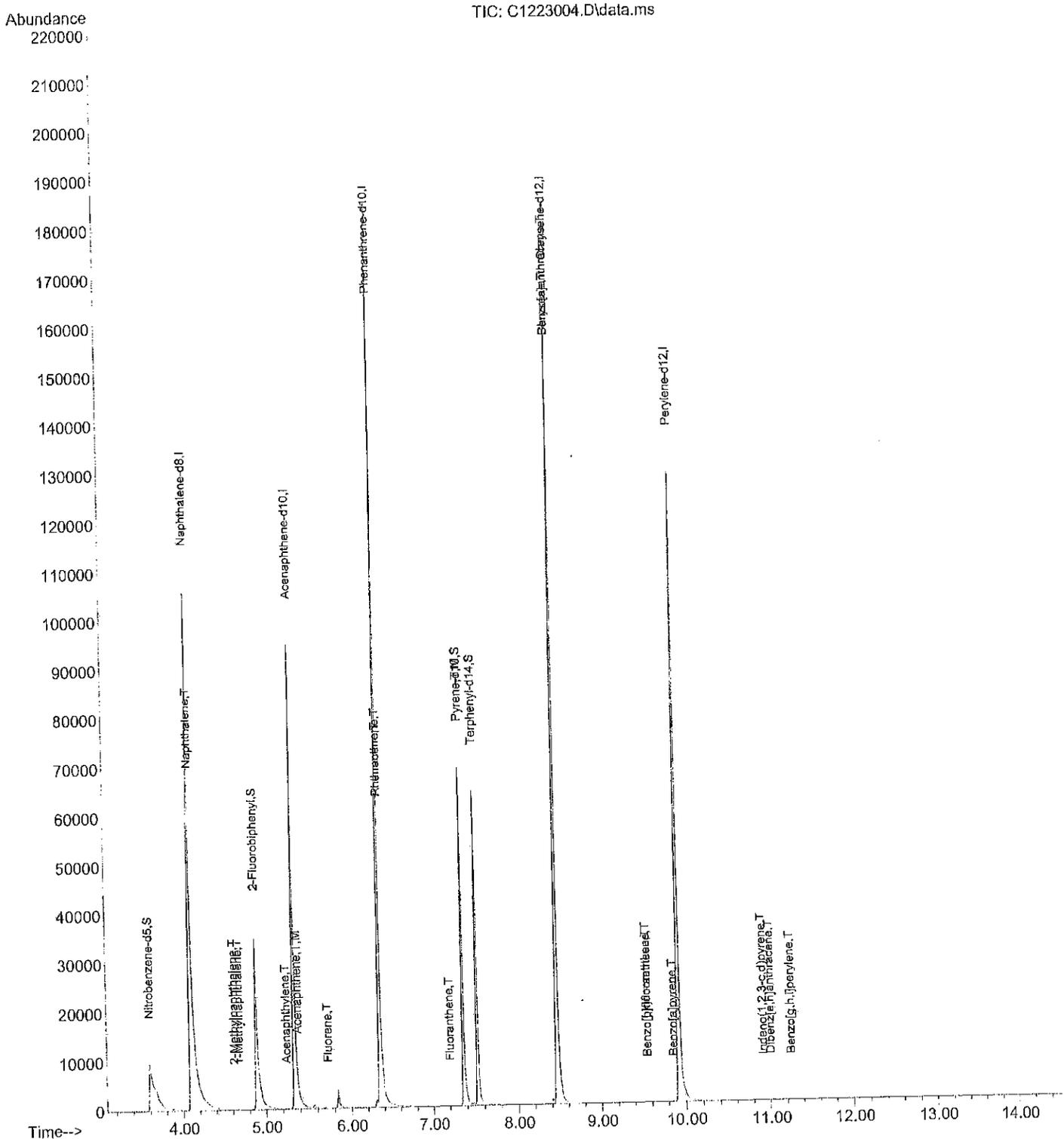
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.088	136	214219	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.338	164	118994	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.341	188	222562	2000.00	ppb	0.00	
17) Chrysene-d12	8.460	240	231489	2000.00	ppb	0.01	
21) Perylene-d12	9.918	264	206251	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.595	82	32676	888.07	ppb	-0.01	
Spiked Amount 1000.000	Range 24	- 92	Recovery =	88.81%			
7) 2-Fluorobiphenyl	4.883	172	81098	974.33	ppb	0.00	
Spiked Amount 1000.000	Range 25	- 89	Recovery =	97.43%#			
11) Pyrene-d10	7.351	212	85109	895.27	ppb	0.00	
Spiked Amount 1000.000	Range 40	- 110	Recovery =	89.53%			
18) Terphenyl-d14	7.513	244	68963	836.52	ppb	0.00	
Spiked Amount 1000.000	Range 39	- 92	Recovery =	83.65%			
<b>Target Compounds</b>							
							Qvalue
3) Naphthalene	4.100	128	327	2.91	ppb		100
4) 2-Methylnaphthalene	4.617	142	223	3.45	ppb		100
5) 1-Methylnaphthalene	4.680	142	99	1.24	ppb		100
8) Acenaphthylene	5.245	152	137	1.19	ppb		100
9) Acenaphthene	5.376	153	223	2.95	ppb		100
12) Fluorene	5.723	166	264	3.12	ppb		100
13) Phenanthrene	6.353	178	315	2.81	ppb		100
14) Anthracene	6.353	178	315	<del>2.94</del>	ppb		100
15) Fluoranthene	7.200	202	102	0.75	ppb		100
16) Pyrene	7.351	202	257	1.84	ppb		100
19) Benzo[a]anthracene	8.456	228	812	7.68	ppb		100
20) Chrysene	8.456	228	812	<del>6.24</del>	ppb		100
22) Benzo[b]fluoranthene	9.547	252	52	0.50	ppb		100
23) Benzo[j,k]fluoranthene	9.547	252	52	<del>0.39</del>	ppb		100
24) Benzo[a]pyrene	9.855	252	56	0.50	ppb		100
25) Indeno[1,2,3-c,d]pyrene	10.910	276	8	0.07	ppb		100
26) Dibenz[a,h]anthracene	11.004	278	163	1.71	ppb		100
27) Benzo[g,h,i]perylene	11.242	276	82	0.89	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/24/14  
 ZMM

Data Path : C:\MSDCHEM\1\DATA\C141223\  
 Data File : C1223004.D  
 Acq On : 23 Dec 2014 2:52 pm  
 Operator :  
 Sample : MB1223S1  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 23 15:07:49 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141223\  
 Data File : C1223005.D  
 Acq On : 23 Dec 2014 3:14 pm  
 Operator :  
 Sample : SB1223S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 23 15:29:32 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration

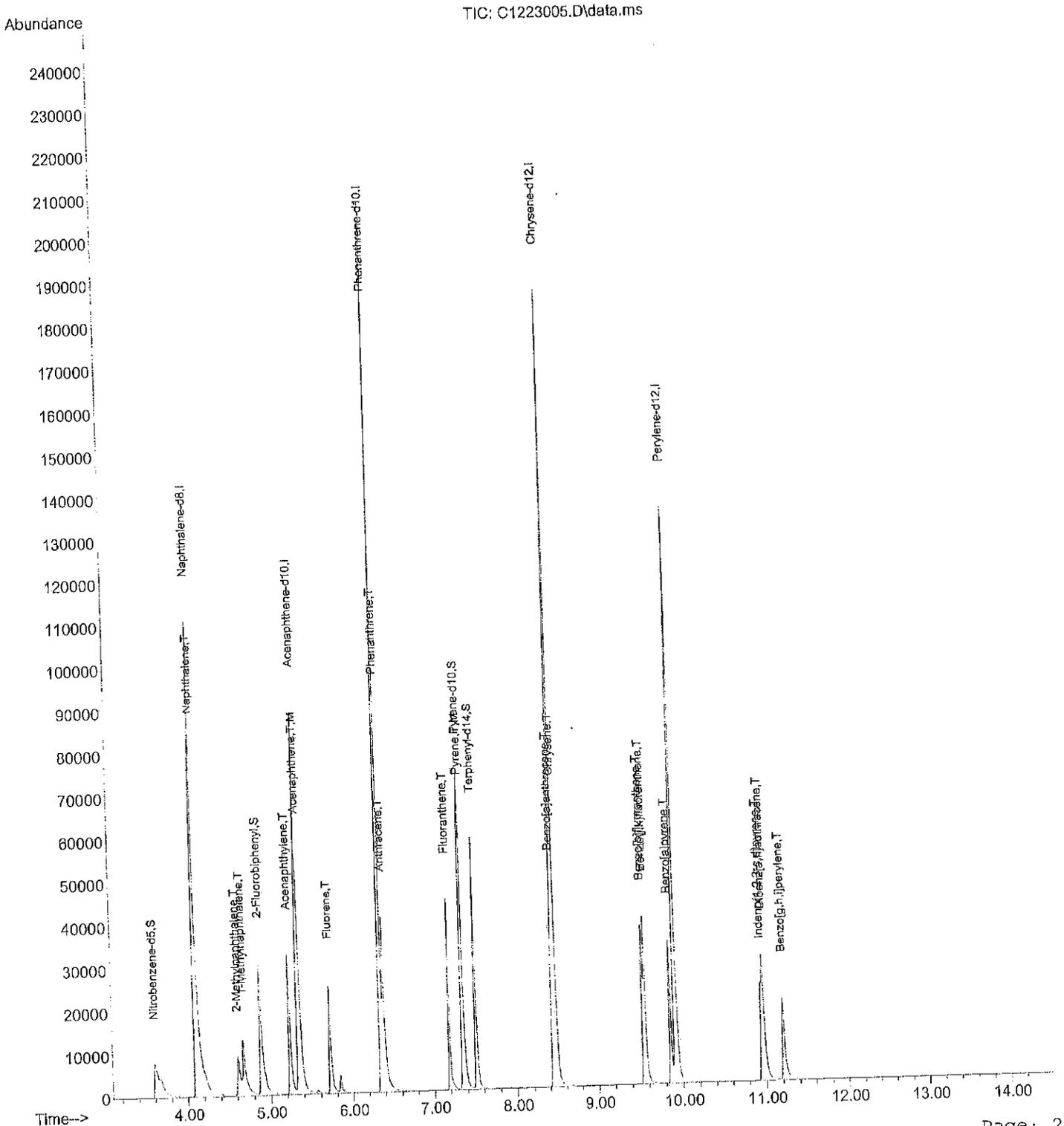
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) Naphthalene-d8	4.088	136	211000	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.338	164	117923	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.337	188	222460	2000.00	ppb	0.00	
17) Chrysene-d12	8.449	240	236686	2000.00	ppb	0.00	
21) Perylene-d12	9.911	264	211045	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.595	82	16772	462.79	ppb	-0.01	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	46.28%			
7) 2-Fluorobiphenyl	4.883	172	75662	917.28	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	91.73%#			
11) Pyrene-d10	7.345	212	80317	845.25	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	84.52%			
18) Terphenyl-d14	7.507	244	65404	775.93	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	77.59%			
Target Compounds							
3) Naphthalene	4.100	128	45743	413.88	ppb	100	
4) 2-Methylnaphthalene	4.609	142	22231	349.31	ppb	100	
5) 1-Methylnaphthalene	4.676	142	36857	467.86	ppb	100	
8) Acenaphthylene	5.230	152	47255	415.91	ppb	100	
9) Acenaphthene	5.353	153	31517	421.39	ppb	100	
12) Fluorene	5.715	166	36366	429.97	ppb	100	
13) Phenanthrene	6.352	178	45770	408.08	ppb	100	
14) Anthracene	6.387	178	58295	543.89	ppb	100	
15) Fluoranthene	7.182	202	57074	422.33	ppb	100	
16) Pyrene	7.356	202	58692	420.92	ppb	100	
19) Benzo[a]anthracene	8.434	228	49386	457.08	ppb	100	
20) Chrysene	8.473	228	55603	417.81	ppb	100	
22) Benzo[b]fluoranthene	9.537	252	42242	395.48	ppb	100	
23) Benzo(j,k)fluoranthene	9.560	252	52756	390.15	ppb	100	
24) Benzo[a]pyrene	9.853	252	50288	441.48	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.949	276	51446	430.91	ppb	100	
26) Dibenz[a,h]anthracene	10.972	278	42147	431.87	ppb	100	
27) Benzo[g,h,i]perylene	11.206	276	42494	451.72	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/24/14  
 sam

Data Path : C:\MSDCHEM\1\DATA\C141223\  
 Data File : C1223005.D  
 Acq On : 23 Dec 2014 3:14 pm  
 Operator :  
 Sample : SB1223S1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 23 15:29:32 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C141223\  
 Data File : C1223006.D  
 Acq On : 23 Dec 2014 3:35 pm  
 Operator :  
 Sample : SB1223S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 23 15:50:58 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration

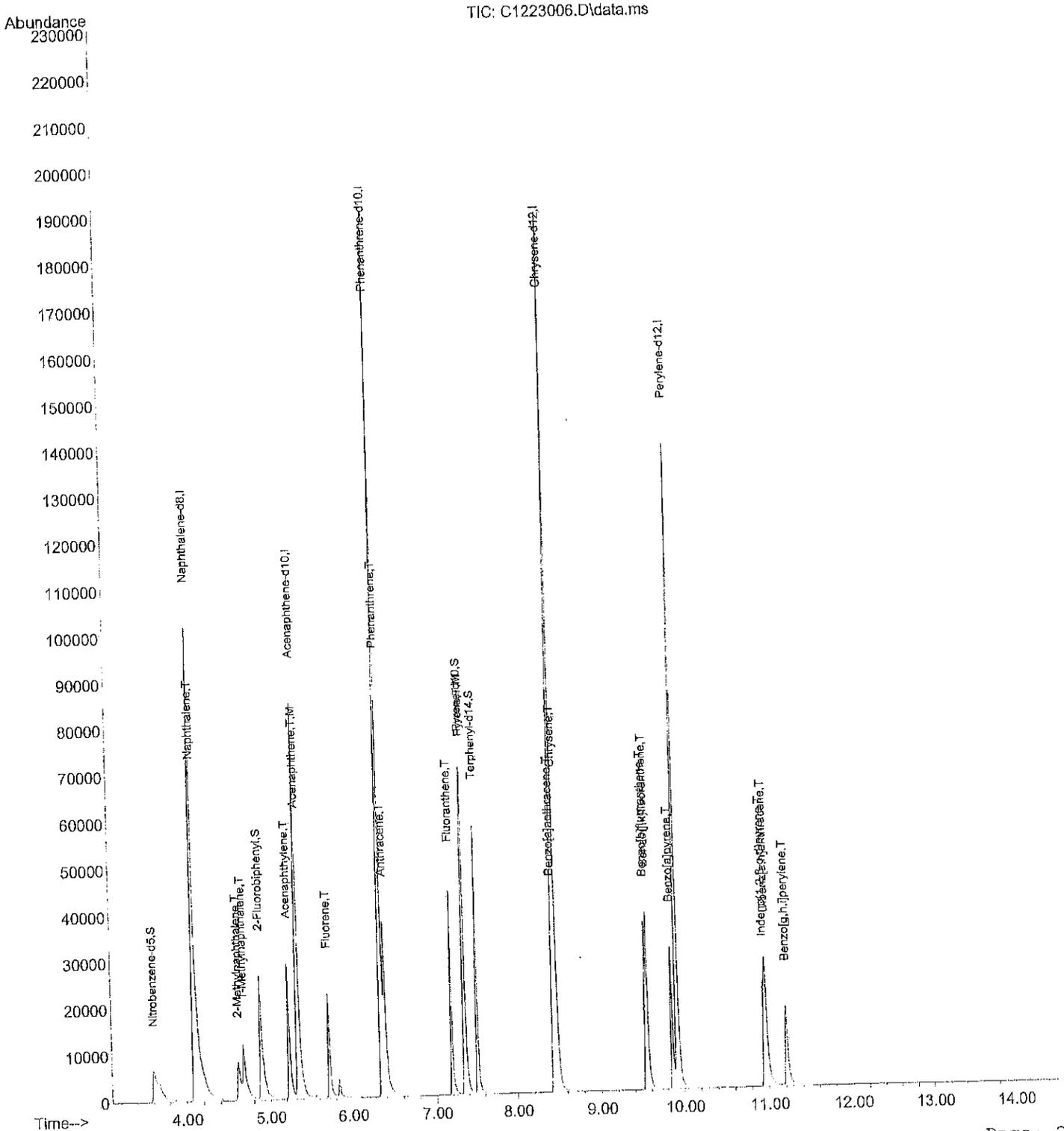
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8	4.093	136	210343	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.338	164	117299	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.338	188	224342	2000.00	ppb	0.00	
17) Chrysene-d12	8.452	240	237165	2000.00	ppb	0.00	
21) Perylene-d12	9.914	264	210978	2000.00	ppb	0.00	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.605	82	14288	395.48	ppb	0.00	
Spiked Amount 1000.000	Range 24	- 92	Recovery =	39.55%			
7) 2-Fluorobiphenyl	4.886	172	65606	799.60	ppb	0.00	
Spiked Amount 1000.000	Range 25	- 89	Recovery =	79.96%			
11) Pyrene-d10	7.345	212	78295	817.06	ppb	0.00	
Spiked Amount 1000.000	Range 40	- 110	Recovery =	81.71%			
18) Terphenyl-d14	7.507	244	64124	759.21	ppb	0.00	
Spiked Amount 1000.000	Range 39	- 92	Recovery =	75.92%			
Target Compounds							
3) Naphthalene	4.105	128	40368	366.39	ppb	100	Qvalue
4) 2-Methylnaphthalene	4.617	142	20361	320.93	ppb	100	
5) 1-Methylnaphthalene	4.679	142	34389	437.90	ppb	100	
8) Acenaphthylene	5.230	152	44218	391.25	ppb	100	
9) Acenaphthene	5.354	153	29157	391.91	ppb	100	
12) Fluorene	5.716	166	34339	402.60	ppb	100	
13) Phenanthrene	6.353	178	43144	381.44	ppb	100	
14) Anthracene	6.388	178	56766	525.19	ppb	100	
15) Fluoranthene	7.188	202	55138	404.59	ppb	100	
16) Pyrene	7.356	202	57178	406.63	ppb	100	
19) Benzo[a]anthracene	8.432	228	47843	441.91	ppb	100	
20) Chrysene	8.475	228	54358	407.63	ppb	100	
22) Benzo[b]fluoranthene	9.540	252	41942	392.80	ppb	100	
23) Benzo(j,k)fluoranthene	9.559	252	55593	411.26	ppb	100	
24) Benzo[a]pyrene	9.852	252	48843	428.93	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	10.949	276	49651	416.01	ppb	100	
26) Dibenz[a,h]anthracene	10.973	278	40827	418.48	ppb	100	
27) Benzo[g,h,i]perylene	11.211	276	41269	438.84	ppb	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/24/14  
 JMM

Data Path : C:\MSDCHEM\1\DATA\C141223\  
 Data File : C1223006.D  
 Acq On : 23 Dec 2014 3:35 pm  
 Operator :  
 Sample : SB1223S1 DUP  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 23 15:50:58 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141223\  
 Data File : C1223003.D  
 Acq On : 23 Dec 2014 1:44 pm  
 Operator :  
 Sample : PAH CCV1223  
 Misc : SV4-48-02  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 13:59:59 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound		Amount	Calc.	%Dev	Area%	Dev (min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	84	0.00
2 S	Nitrobenzene-d5	500.000	504.856	-1.0	87	0.00
3 T	Naphthalene	500.000	480.512	3.9	84	0.00
4 T	2-Methylnaphthalene	500.000	410.098	18.0	71	0.00
5 T	1-Methylnaphthalene	500.000	534.920	-7.0	88	0.00
6 I	Acenaphthene-d10	2000.000	2000.000	0.0	81	0.00
7 S	2-Fluorobiphenyl	500.000	492.325	1.5	84	0.00
8 T	Acenaphthylene	500.000	488.661	2.3	84	0.00
9 T,M	Acenaphthene	500.000	495.170	1.0	84	0.00
10 I	Phenanthrene-d10	2000.000	2000.000	0.0	81	0.00
11 S	Pyrene-d10	500.000	490.158	2.0	85	0.00
12 T	Fluorene	500.000	489.763	2.0	84	0.00
13 T	Phenanthrene	500.000	467.204	6.6	85	0.00
14 T	Anthracene	500.000	440.593	11.9	80	0.00
15 T	Fluoranthene	500.000	489.921	2.0	86	0.00
16 T,M	Pyrene	500.000	492.634	1.5	85	0.00
17 I	Chrysene-d12	2000.000	2000.000	0.0	80	0.00
18 S	Terphenyl-d14	500.000	486.057	2.8	85	0.00
19 T	Benzo[a]anthracene	500.000	518.201	-3.6	85	0.00
20 T	Chrysene	500.000	480.950	3.8	82	0.00
21 I	Perylene-d12	2000.000	2000.000	0.0	79	0.00
22 T	Benzo[b]fluoranthene	500.000	552.226	-10.4	96	0.00
23 T	Benzo[j,k]fluoranthene	500.000	454.916	9.0	82	0.00
24 T	Benzo[a]pyrene	500.000	513.212	-2.6	83	0.00
25 T	Indeno(1,2,3-c,d)pyrene	500.000	490.033	2.0	80	0.00
26 T	Dibenz[a,h]anthracene	500.000	490.168	2.0	80	0.00
27 T	Benzo[g,h,i]perylene	500.000	498.634	0.3	79	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : C:\MSDCHEM\1\DATA\C141223\  
 Data File : C1223003.D  
 Acq On : 23 Dec 2014 1:44 pm  
 Operator :  
 Sample : PAH CCV1223  
 Misc : SV4-48-02  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 13:59:59 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration

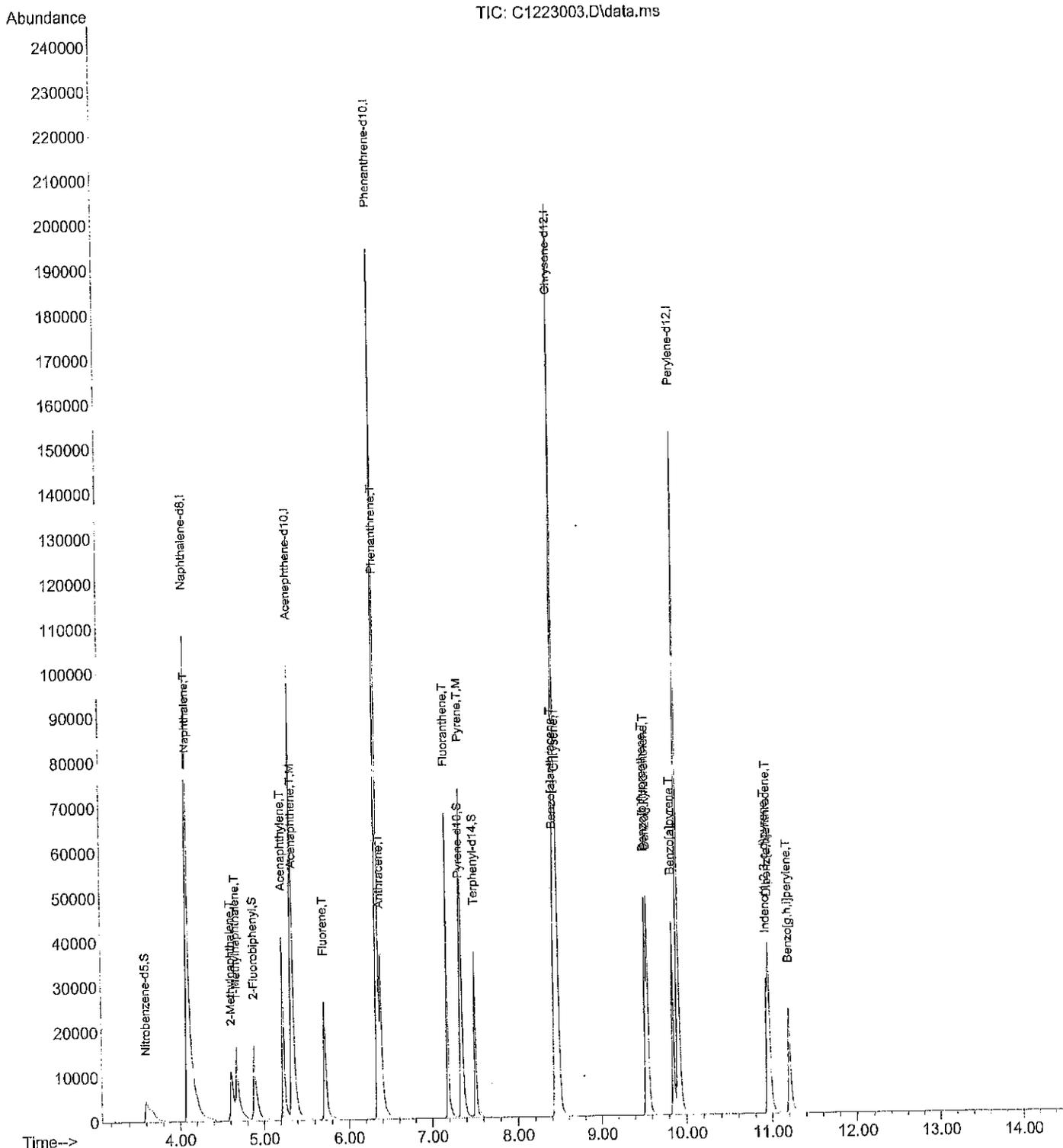
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.088	136	211627	2000.00	ppb	0.00
6) Acenaphthene-d10	5.337	164	119475	2000.00	ppb	0.00
10) Phenanthrene-d10	6.336	188	234265	2000.00	ppb	0.00
17) Chrysene-d12	8.452	240	247164	2000.00	ppb	0.00
21) Perylene-d12	9.915	264	215432	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Nitrobenzene-d5	3.600	82	18351	504.86	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	50.49%		
7) 2-Fluorobiphenyl	4.887	172	41144	492.33	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	49.23%		
11) Pyrene-d10	7.340	212	49047	490.16	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	49.02%		
18) Terphenyl-d14	7.508	244	42784	486.06	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	48.61%		
<b>Target Compounds</b>						
						Qvalue
3) Naphthalene	4.105	128	53265	480.51	ppb	100
4) 2-Methylnaphthalene	4.613	142	26177	410.10	ppb	100
5) 1-Methylnaphthalene	4.676	142	42265	534.92	ppb	100
8) Acenaphthylene	5.229	152	56251	488.66	ppb	100
9) Acenaphthene	5.360	153	37523	495.17	ppb	100
12) Fluorene	5.714	166	43621	489.76	ppb	100
13) Phenanthrene	6.351	178	55182	467.20	ppb	100
14) Anthracene	6.387	178	49729	440.59	ppb	100
15) Fluoranthene	7.183	202	69721	489.92	ppb	100
16) Pyrene	7.351	202	72336	492.63	ppb	100
19) Benzo[a]anthracene	8.432	228	58468	518.20	ppb	100
20) Chrysene	8.475	228	66840	480.95	ppb	100
22) Benzo[b]fluoranthene	9.536	252	60210	552.23	ppb	100
23) Benzo[j,k]fluoranthene	9.560	252	62792	454.92	ppb	100
24) Benzo[a]pyrene	9.852	252	59674	513.21	ppb	100
25) Indeno[1,2,3-c,d]pyrene	10.946	276	59721	490.03	ppb	100
26) Dibenz[a,h]anthracene	10.969	278	48831	490.17	ppb	100
27) Benzo[g,h,i]perylene	11.207	276	47882	498.63	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*12/23/14  
SM*

Data Path : C:\MSDCHEM\1\DATA\C141223\  
 Data File : C1223003.D  
 Acq On : 23 Dec 2014 1:44 pm  
 Operator :  
 Sample : PAH CCV1223  
 Misc : SV4-48-02  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 23 13:59:59 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C141224\  
 Data File : C1224003.D  
 Acq On : 24 Dec 2014 9:19 am  
 Operator :  
 Sample : PAH CCV1223  
 Misc : SV4-48-02  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 09:35:47 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound		Amount	Calc.	%Dev	Area%	Dev (min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	82	0.00
2 S	Nitrobenzene-d5	500.000	447.475	10.5	75	0.07
3 T	Naphthalene	500.000	498.153	0.4	85	0.00
4 T	2-Methylnaphthalene	500.000	449.352	10.1	77	0.01
5 T	1-Methylnaphthalene	500.000	489.277	2.1	79	0.00
6 I	Acenaphthene-d10	2000.000	2000.000	0.0	80	0.00
7 S	2-Fluorobiphenyl	500.000	524.914	-5.0	89	0.00
8 T	Acenaphthylene	500.000	472.218	5.6	81	0.00
9 T,M	Acenaphthene	500.000	502.163	-0.4	84	0.00
10 I	Phenanthrene-d10	2000.000	2000.000	0.0	80	0.00
11 S	Pyrene-d10	500.000	483.376	3.3	83	0.00
12 T	Fluorene	500.000	488.835	2.2	83	0.01
13 T	Phenanthrene	500.000	437.742	12.5	79	0.00
14 T	Anthracene	500.000	468.628	6.3	84	0.00
15 T	Fluoranthene	500.000	487.152	2.6	84	0.00
16 T,M	Pyrene	500.000	483.541	3.3	83	0.00
17 I	Chrysene-d12	2000.000	2000.000	0.0	77	0.00
18 S	Terphenyl-d14	500.000	485.560	2.9	82	0.00
19 T	Benzo[a]anthracene	500.000	510.959	-2.2	81	0.00
20 T	Chrysene	500.000	487.307	2.5	81	0.00
21 I	Perylene-d12	2000.000	2000.000	0.0	73	0.00
22 T	Benzo[b]fluoranthene	500.000	481.029	3.8	77	0.00
23 T	Benzo(j,k)fluoranthene	500.000	485.302	2.9	81	0.00
24 T	Benzo[a]pyrene	500.000	520.743	-4.1	78	0.00
25 T	Indeno(1,2,3-c,d)pyrene	500.000	463.685	7.3	70	0.01
26 T	Dibenz[a,h]anthracene	500.000	462.414	7.5	70	0.00
27 T	Benzo[g,h,i]perylene	500.000	487.675	2.5	71	0.01

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : X:\SEMIVOLS\COREY\DATA\C141224\  
 Data File : C1224003.D  
 Acq On : 24 Dec 2014 9:19 am  
 Operator :  
 Sample : PAH CCV1223  
 Misc : SV4-48-02  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 24 09:35:47 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration

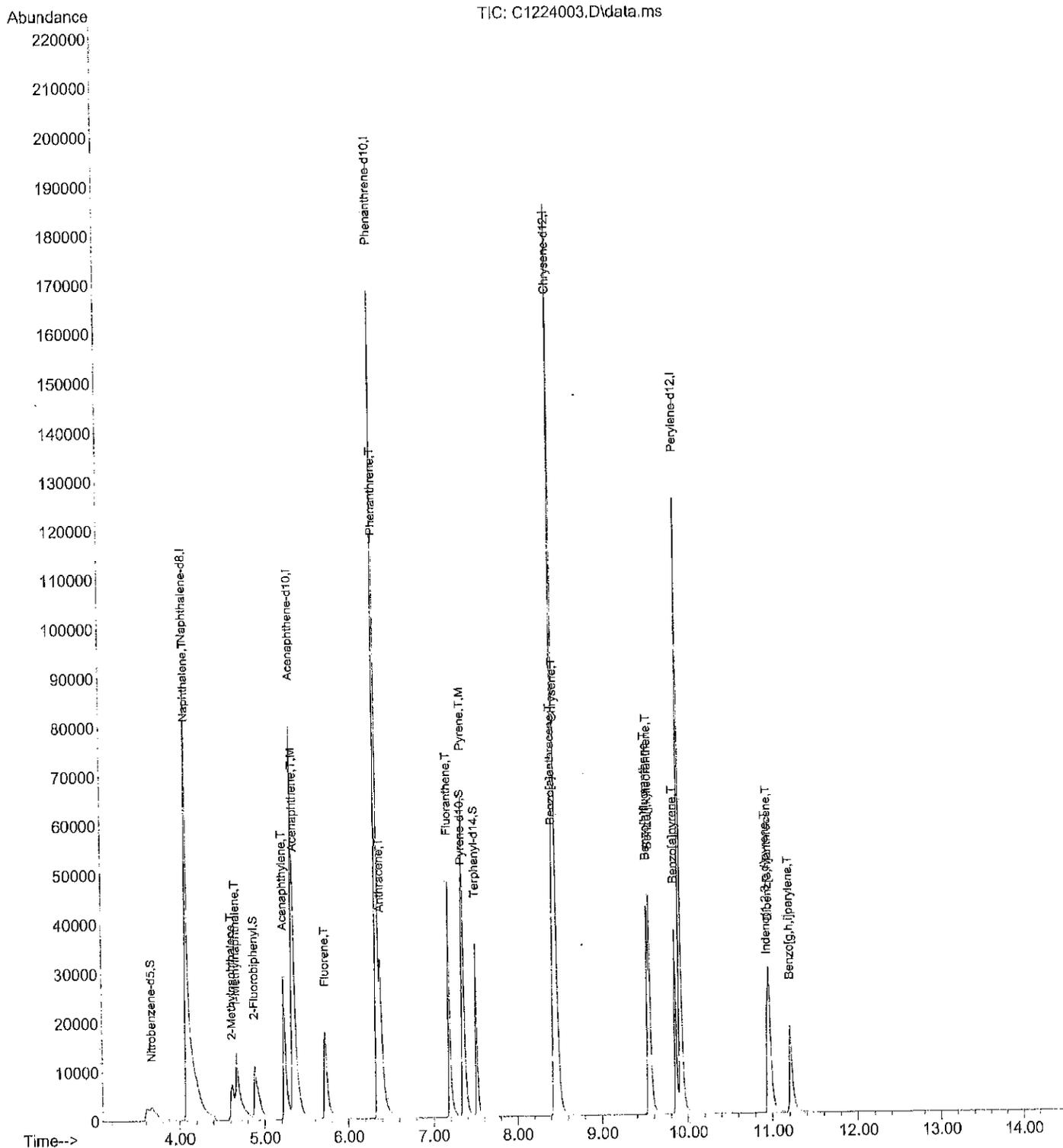
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.088	136	207616	2000.00	ppb	0.00	
6) Acenaphthene-d10	5.337	164	118191	2000.00	ppb	0.00	
10) Phenanthrene-d10	6.340	188	231890	2000.00	ppb	0.00	
17) Chrysene-d12	8.452	240	239396	2000.00	ppb	0.00	
21) Perylene-d12	9.918	264	198647	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
2) Nitrobenzene-d5	3.670	82	15957m	447.48	ppb	0.07	
Spiked Amount	1000.000	Range 24 - 92	Recovery =	44.75%			
7) 2-Fluorobiphenyl	4.887	172	43396	524.91	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	52.49%			
11) Pyrene-d10	7.346	212	47878	483.38	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	48.34%			
18) Terphenyl-d14	7.509	244	41397	485.56	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	48.56%			
<b>Target Compounds</b>							
							Qvalue
3) Naphthalene	4.100	128	54174	498.15	ppb		100
4) 2-Methylnaphthalene	4.621	142	28139m	449.35	ppb		
5) 1-Methylnaphthalene	4.676	142	37926m	489.28	ppb		
8) Acenaphthylene	5.229	152	53774	472.22	ppb		100
9) Acenaphthene	5.360	153	37644	502.16	ppb		100
12) Fluorene	5.730	166	43097	488.84	ppb		100
13) Phenanthrene	6.352	178	51178	437.74	ppb		100
14) Anthracene	6.391	178	52357	468.63	ppb		100
15) Fluoranthene	7.189	202	68624	487.15	ppb		100
16) Pyrene	7.358	202	70281	483.54	ppb		100
19) Benzo[a]anthracene	8.437	228	55839	510.96	ppb		100
20) Chrysene	8.476	228	65595	487.31	ppb		100
22) Benzo[b]fluoranthene	9.536	252	48361	481.03	ppb		100
23) Benzo[j,k]fluoranthene	9.563	252	61767	485.30	ppb		100
24) Benzo[a]pyrene	9.856	252	55832	520.74	ppb		100
25) Indeno[1,2,3-c,d]pyrene	10.953	276	52107	463.68	ppb		100
26) Dibenz[a,h]anthracene	10.976	278	42477	462.41	ppb		100
27) Benzo[g,h,i]perylene	11.214	276	43181	487.68	ppb		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

*12/24/14*

Data Path : X:\SEMIVOLS\COREY\DATA\C141224\  
 Data File : C1224003.D  
 Acq On : 24 Dec 2014 9:19 am  
 Operator :  
 Sample : PAH CCV1223  
 Misc : SV4-48-02  
 ALS Vial : 3 Sample Multiplier: 1

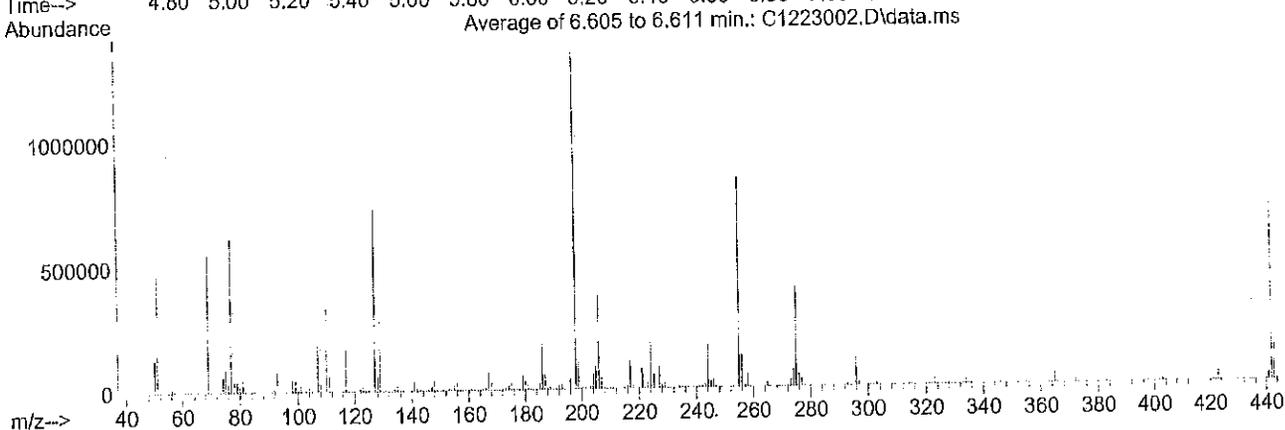
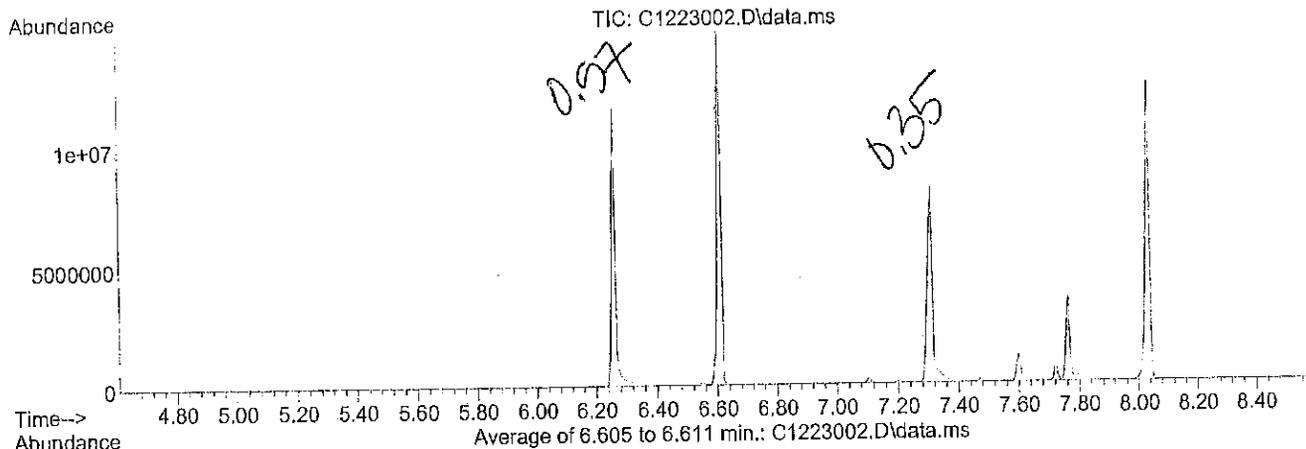
Quant Time: Dec 24 09:35:47 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\CSIM1222.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon Dec 22 16:38:26 2014  
 Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C141223\  
 Data File : C1223002.D  
 Acq On : 23 Dec 2014 1:23 pm  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-46-13  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1222.M  
 Title : PAH'S BY SIMS  
 Last Update : Mon Dec 22 16:38:26 2014



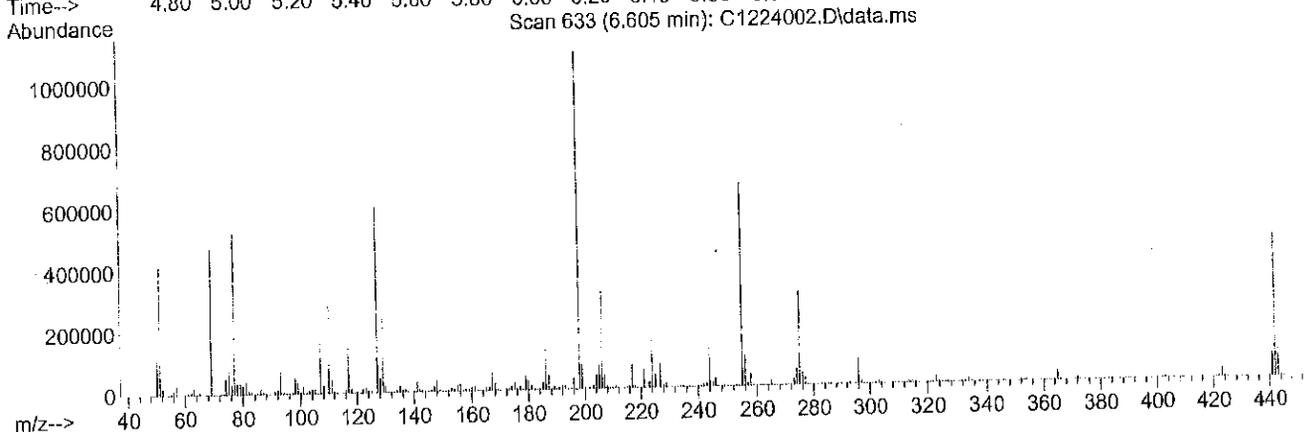
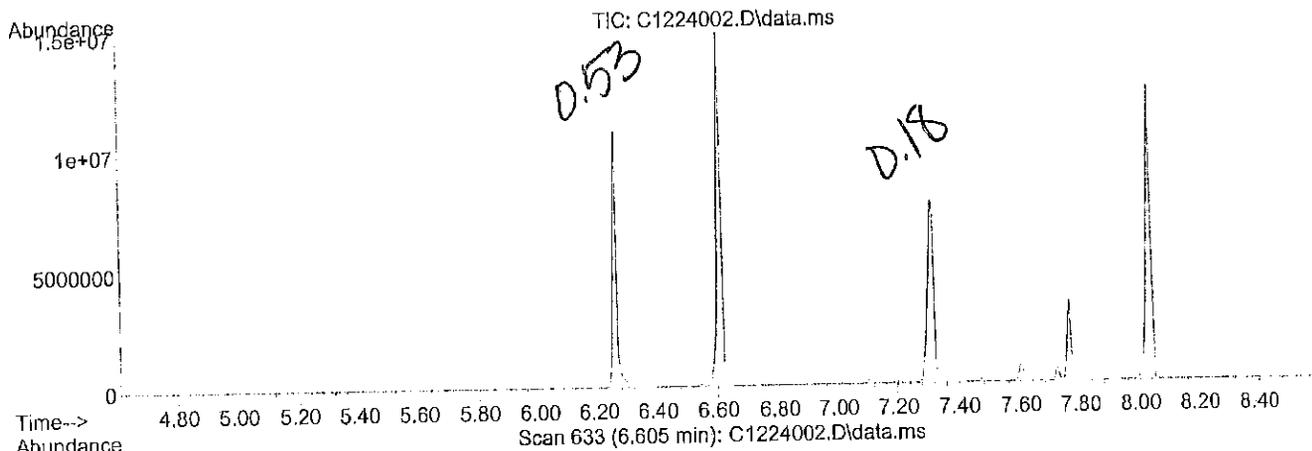
Spectrum Information: Average of 6.605 to 6.611 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	34.8	472320	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.9	556000	PASS
70	69	0.00	2	0.6	3374	PASS
127	198	25	75	53.9	732000	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1357952	PASS
199	198	5	9	7.9	107496	PASS
275	198	10	30	29.6	401536	PASS
365	198	0.75	100	3.3	44256	PASS
441	443	0.01	100	22.6	32432	PASS
442	198	40	110	52.4	711392	PASS
443	442	15	24	20.2	143436	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C141224\  
 Data File : C1224002.D  
 Acq On : 24 Dec 2014 8:57 am  
 Operator :  
 Sample : DFTPP  
 Misc : SV4-46-13  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM1222.M  
 Title : PAH'S BY SIMS  
 Last Update : Mon Dec 22 16:38:26 2014



Spectrum Information: Scan 633

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	38.0	418048	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.3	476096	PASS
70	69	0.00	2	0.5	2593	PASS
127	198	25	75	55.0	604416	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1099264	PASS
199	198	5	9	7.4	81696	PASS
275	198	10	30	27.6	303680	PASS
365	198	0.75	100	3.1	34432	PASS
441	443	0.01	100	84.1	78888	PASS
442	198	40	110	42.2	464000	PASS
443	442	15	24	20.2	93800	PASS

## Total Cadmium Data

P141223F1B. Mean Only Report 12/24/2014, 11:21:15 AM

Sample	Label	Calc Conc.	Units	Date/Time
Blank	Cd 228.802	0.000	ppb	12/23/2014, 9:12:23 AM
Standard 5	Cd 228.802	10.000	ppb	12/23/2014, 9:25:04 AM
Standard 4	Cd 228.802	100.00	ppb	12/23/2014, 9:29:38 AM
Standard 3	Cd 228.802	1000.0	ppb	12/23/2014, 9:34:12 AM
Standard 2	Cd 228.802	2500.0	ppb	12/23/2014, 9:38:47 AM
Standard 1	Cd 228.802	5000.0	ppb	12/23/2014, 9:43:21 AM
Initial Calib Verif	Cd 228.802	978.59	ppb	12/23/2014, 10:02:37 AM
LLICV	Cd 228.802	11.995	ppb	12/23/2014, 10:16:16 AM
Initial Calib Blank	Cd 228.802	1.275	ppb	12/23/2014, 10:34:37 AM
Cont Calib Verif	Cd 228.802	1012.6	ppb	12/23/2014, 10:39:10 AM
Cont Calib Blank	Cd 228.802	1.516	ppb	12/23/2014, 10:46:08 AM
ICSA	Cd 228.802	0.307uv	ppb	12/23/2014, 10:50:43 AM
ICSAB	Cd 228.802	923.55	ppb	12/23/2014, 10:55:17 AM
12-140-01	Cd 228.802	53.746	ppb	12/23/2014, 11:01:21 AM
BLK	Cd 228.802	0.486uv	ppb	12/23/2014, 11:16:38 AM
MB1222WH1	Cd 228.802	0.362uv	ppb	12/23/2014, 11:21:12 AM
SB1222WH1	Cd 228.802	996.31	ppb	12/23/2014, 11:25:47 AM
12-036-04a	Cd 228.802	1.678uv	ppb	12/23/2014, 11:30:21 AM
12-036-04a D	Cd 228.802	0.960	ppb	12/23/2014, 11:34:57 AM
12-036-04a L	Cd 228.802	1.129	ppb	12/23/2014, 11:39:31 AM
12-036-04a MS	Cd 228.802	1006.5	ppb	12/23/2014, 11:44:04 AM
Cont Calib Verif	Cd 228.802	1022.9	ppb	12/23/2014, 11:48:39 AM
Cont Calib Blank	Cd 228.802	0.964	ppb	12/23/2014, 11:54:39 AM
LLCCV	Cd 228.802	9.847	ppb	12/23/2014, 11:59:12 AM
12-036-04a MSD	Cd 228.802	984.19	ppb	12/23/2014, 12:11:15 PM
12-187-16	Cd 228.802	1.113uv	ppb	12/23/2014, 12:15:49 PM
12-187-17	Cd 228.802	0.651	ppb	12/23/2014, 12:20:24 PM
12-187-18	Cd 228.802	1.400	ppb	12/23/2014, 12:24:59 PM
12-187-19	Cd 228.802	0.306uv	ppb	12/23/2014, 12:29:33 PM
12-187-20	Cd 228.802	1.664uv	ppb	12/23/2014, 12:34:08 PM
12-187-21	Cd 228.802	1.091uv	ppb	12/23/2014, 12:38:44 PM
12-197-01 X 10	Cd 228.802	14.784	ppb	12/23/2014, 12:43:18 PM
BLK	Cd 228.802	0.565	ppb	12/23/2014, 12:47:52 PM
Cont Calib Verif	Cd 228.802	1007.5	ppb	12/23/2014, 12:52:26 PM
Cont Calib Blank	Cd 228.802	1.237	ppb	12/23/2014, 12:58:05 PM
LLCCV	Cd 228.802	11.694	ppb	12/23/2014, 1:14:13 PM
MB1223WH1	Cd 228.802	0.405uv	ppb	12/23/2014, 1:21:56 PM
SB1223WH1	Cd 228.802	1021.3	ppb	12/23/2014, 1:26:30 PM
12-036-05a	Cd 228.802	1.592	ppb	12/23/2014, 1:31:03 PM
12-036-05a D	Cd 228.802	0.662uv	ppb	12/23/2014, 1:35:38 PM
12-036-05a L	Cd 228.802	1.144	ppb	12/23/2014, 1:40:14 PM
12-036-05a MS	Cd 228.802	988.70	ppb	12/23/2014, 1:44:51 PM
12-036-05a MSD	Cd 228.802	978.19	ppb	12/23/2014, 1:49:26 PM
12-247-01 X 5	Cd 228.802	32.694	ppb	12/23/2014, 1:54:02 PM
12-247-01	Cd 228.802	135.77	ppb	12/23/2014, 1:58:36 PM
BLK	Cd 228.802	0.330uv	ppb	12/23/2014, 2:03:11 PM
Cont Calib Verif	Cd 228.802	1013.6	ppb	12/23/2014, 2:07:46 PM
Cont Calib Blank	Cd 228.802	3.651	ppb	12/23/2014, 2:12:56 PM
LLCCV	Cd 228.802	11.613	ppb	12/23/2014, 2:17:33 PM
MB1223TM1	Cd 228.802	0.309uv	ppb	12/23/2014, 2:28:32 PM
SB1223TM1	Cd 228.802	986.48	ppb	12/23/2014, 2:33:08 PM
12-240-01	Cd 228.802	5.896	ppb	12/23/2014, 2:37:44 PM

## P141223F1B. Mean Only Report 12/24/2014, 11:21:15 AM

Sample	Label	Calc Conc.	Units	Date/Time
12-240-01 D	Cd 228.802	5.765	ppb	12/23/2014, 2:42:20 PM
12-240-01 L	Cd 228.802	2.212	ppb	12/23/2014, 2:46:54 PM
12-240-01 MS	Cd 228.802	986.83	ppb	12/23/2014, 2:51:29 PM
12-240-01 MSD	Cd 228.802	1005.3	ppb	12/23/2014, 2:56:04 PM
12-240-02	Cd 228.802	2.984uv	ppb	12/23/2014, 3:00:39 PM
12-240-03	Cd 228.802	3.332	ppb	12/23/2014, 3:05:16 PM
BLK	Cd 228.802	0.107uv	ppb	12/23/2014, 3:09:49 PM
Cont Calib Verif	Cd 228.802	1007.2	ppb	12/23/2014, 3:14:25 PM
Cont Calib Blank	Cd 228.802	1.238	ppb	12/23/2014, 3:47:35 PM
LLCCV	Cd 228.802	11.960	ppb	12/23/2014, 3:52:08 PM
12-050-01	Cd 228.802	3.685	ppb	12/23/2014, 4:03:18 PM
12-050-02	Cd 228.802	2.960	ppb	12/23/2014, 4:07:53 PM
12-050-03	Cd 228.802	3.460	ppb	12/23/2014, 4:12:28 PM
12-050-04	Cd 228.802	0.795uv	ppb	12/23/2014, 4:17:03 PM
12-217-01(1223WH1)	Cd 228.802	-1.371uv	ppb	12/23/2014, 4:21:38 PM
12-203-14	Cd 228.802	278.30	ppb	12/23/2014, 4:26:13 PM
12-203-15	Cd 228.802	87.090	ppb	12/23/2014, 4:30:48 PM
12-203-16	Cd 228.802	23.308	ppb	12/23/2014, 4:35:23 PM
12-203-17	Cd 228.802	4.400	ppb	12/23/2014, 4:40:01 PM
BLK	Cd 228.802	0.730uv	ppb	12/23/2014, 4:44:36 PM
Cont Calib Verif	Cd 228.802	1047.5	ppb	12/23/2014, 4:55:45 PM
Cont Calib Blank	Cd 228.802	0.735uv	ppb	12/23/2014, 5:02:23 PM
LLCCV	Cd 228.802	9.730	ppb	12/23/2014, 5:06:56 PM
12-203-18	Cd 228.802	406.78	ppb	12/23/2014, 5:13:56 PM
12-203-19	Cd 228.802	37.738	ppb	12/23/2014, 5:18:30 PM
12-203-20	Cd 228.802	5.262	ppb	12/23/2014, 5:23:04 PM
12-203-21	Cd 228.802	2661.3	ppb	12/23/2014, 5:27:37 PM
12-203-22	Cd 228.802	1967.9	ppb	12/23/2014, 5:32:11 PM
12-203-23	Cd 228.802	589.71	ppb	12/23/2014, 5:36:46 PM
12-203-24	Cd 228.802	92.880	ppb	12/23/2014, 5:41:20 PM
12-203-25	Cd 228.802	17.336	ppb	12/23/2014, 5:45:53 PM
12-203-26	Cd 228.802	2.468	ppb	12/23/2014, 5:50:27 PM
BLK	Cd 228.802	1.437uv	ppb	12/23/2014, 5:55:01 PM
Cont Calib Verif	Cd 228.802	1013.3	ppb	12/23/2014, 5:59:35 PM
Cont Calib Blank	Cd 228.802	1.965	ppb	12/23/2014, 6:04:24 PM
LLCCV	Cd 228.802	11.931	ppb	12/23/2014, 6:27:12 PM
MB1223SM1	Cd 228.802	1.110uv	ppb	12/23/2014, 6:31:46 PM
SB1223SM1	Cd 228.802	988.11	ppb	12/23/2014, 6:36:19 PM
12-209-01a	Cd 228.802	3.440	ppb	12/23/2014, 6:40:52 PM
12-209-01a D	Cd 228.802	3.466	ppb	12/23/2014, 6:45:25 PM
12-209-01a L	Cd 228.802	0.330uv	ppb	12/23/2014, 6:49:59 PM
12-209-01a MS	Cd 228.802	947.75	ppb	12/23/2014, 6:54:32 PM
12-209-01a MSD	Cd 228.802	963.99	ppb	12/23/2014, 6:59:06 PM
12-214-01a	Cd 228.802	25.394	ppb	12/23/2014, 7:03:40 PM
12-233-01a	Cd 228.802	3.183	ppb	12/23/2014, 7:08:12 PM
blk	Cd 228.802	-0.260uv	ppb	12/23/2014, 7:12:45 PM
Cont Calib Verif	Cd 228.802	1023.7	ppb	12/23/2014, 7:17:17 PM
Cont Calib Blank	Cd 228.802	4.533	ppb	12/23/2014, 7:21:51 PM
LLCCV	Cd 228.802	11.792	ppb	12/23/2014, 7:26:27 PM



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 24, 2014

Abhijit Joshi  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 5147-012-06  
Laboratory Reference No. 1412-255

Dear Abhijit:

Enclosed are the analytical results and associated quality control data for samples submitted on December 22, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: December 24, 2014  
Samples Submitted: December 22, 2014  
Laboratory Reference: 1412-255  
Project: 5147-012-06

### Case Narrative

Samples were collected on December 22, 2014 and received by the laboratory on December 22, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx/Benzene (soil) Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: December 24, 2014  
Samples Submitted: December 22, 2014  
Laboratory Reference: 1412-255  
Project: 5147-012-06

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-19-6.0	12-255-01	Soil	12-22-14	12-22-14	
EX-20-6.0	12-255-02	Soil	12-22-14	12-22-14	
EX-21-3.5	12-255-03	Soil	12-22-14	12-22-14	
EX-22-3.5	12-255-04	Soil	12-22-14	12-22-14	
EX-23-6.0	12-255-05	Soil	12-22-14	12-22-14	
EX-23-6.0-DUP-2	12-255-06	Soil	12-22-14	12-22-14	
EX-24-7.0	12-255-07	Soil	12-22-14	12-22-14	
TRIP BLANK-122214	12-255-08	Water	---	12-22-14	

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-19-6.0</b>					
Laboratory ID:	12-255-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	68-123				
<b>Client ID:</b>	<b>EX-20-6.0</b>					
Laboratory ID:	12-255-02					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	84	68-123				
<b>Client ID:</b>	<b>EX-21-3.5</b>					
Laboratory ID:	12-255-03					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	104	68-123				
<b>Client ID:</b>	<b>EX-22-3.5</b>					
Laboratory ID:	12-255-04					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	68-123				
<b>Client ID:</b>	<b>EX-23-6.0</b>					
Laboratory ID:	12-255-05					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-23-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	109	68-123				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>EX-23-6.0-DUP-2</b>					
Laboratory ID:	12-255-06					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>104</i>	<i>68-123</i>				
<b>Client ID:</b>	<b>EX-24-7.0</b>					
Laboratory ID:	12-255-07					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>116</i>	<i>68-123</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>TRIP BLANK-122214</b>					
Laboratory ID:	12-255-08					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>101</i>	<i>71-113</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-19-6.0</b>					
Laboratory ID:	12-255-01					
Diesel Range Organics	ND	28	NWTPH-Dx	12-23-14	12-23-14	X1
Lube Oil Range Organics	ND	56	NWTPH-Dx	12-23-14	12-23-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				
<b>Client ID:</b>	<b>EX-20-6.0</b>					
Laboratory ID:	12-255-02					
Diesel Range Organics	ND	27	NWTPH-Dx	12-23-14	12-23-14	X1
Lube Oil Range Organics	ND	54	NWTPH-Dx	12-23-14	12-23-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				
<b>Client ID:</b>	<b>EX-21-3.5</b>					
Laboratory ID:	12-255-03					
Diesel Range Organics	ND	33	NWTPH-Dx	12-23-14	12-23-14	X1
Lube Oil Range Organics	ND	65	NWTPH-Dx	12-23-14	12-23-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				
<b>Client ID:</b>	<b>EX-22-3.5</b>					
Laboratory ID:	12-255-04					
Diesel Range Organics	ND	32	NWTPH-Dx	12-23-14	12-23-14	X1
Lube Oil Range Organics	ND	64	NWTPH-Dx	12-23-14	12-23-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				
<b>Client ID:</b>	<b>EX-23-6.0</b>					
Laboratory ID:	12-255-05					
Diesel Range Organics	ND	29	NWTPH-Dx	12-23-14	12-23-14	X1
Lube Oil Range Organics	ND	58	NWTPH-Dx	12-23-14	12-23-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				
<b>Client ID:</b>	<b>EX-23-6.0-DUP-2</b>					
Laboratory ID:	12-255-06					
Diesel Range Organics	ND	27	NWTPH-Dx	12-23-14	12-23-14	X1
Lube Oil Range Organics	ND	53	NWTPH-Dx	12-23-14	12-23-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-24-7.0</b>					
Laboratory ID:	12-255-07					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	12-23-14	12-23-14	X1
Lube Oil Range Organics	<b>ND</b>	60	NWTPH-Dx	12-23-14	12-23-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-19-6.0</b>					
Laboratory ID:	12-255-01					
Benzo[a]anthracene	ND	0.0074	EPA 8270D/SIM	12-23-14	12-23-14	
Chrysene	ND	0.0074	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[b]fluoranthene	ND	0.0074	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo(j,k)fluoranthene	ND	0.0074	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[a]pyrene	ND	0.0074	EPA 8270D/SIM	12-23-14	12-23-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0074	EPA 8270D/SIM	12-23-14	12-23-14	
Dibenz[a,h]anthracene	ND	0.0074	EPA 8270D/SIM	12-23-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>69</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>75</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>70</i>	<i>31 - 116</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-20-6.0</b>					
Laboratory ID:	12-255-02					
Benzo[a]anthracene	ND	0.0072	EPA 8270D/SIM	12-23-14	12-23-14	
Chrysene	ND	0.0072	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[b]fluoranthene	ND	0.0072	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo(j,k)fluoranthene	ND	0.0072	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[a]pyrene	ND	0.0072	EPA 8270D/SIM	12-23-14	12-23-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0072	EPA 8270D/SIM	12-23-14	12-23-14	
Dibenz[a,h]anthracene	ND	0.0072	EPA 8270D/SIM	12-23-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>85</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>87</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>31 - 116</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-21-3.5</b>					
Laboratory ID:	12-255-03					
Benzo[a]anthracene	ND	0.0087	EPA 8270D/SIM	12-23-14	12-23-14	
Chrysene	ND	0.0087	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[b]fluoranthene	ND	0.0087	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo(j,k)fluoranthene	ND	0.0087	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[a]pyrene	ND	0.0087	EPA 8270D/SIM	12-23-14	12-23-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0087	EPA 8270D/SIM	12-23-14	12-23-14	
Dibenz[a,h]anthracene	ND	0.0087	EPA 8270D/SIM	12-23-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>57</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>53</i>	<i>31 - 116</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-22-3.5</b>					
Laboratory ID:	12-255-04					
Benzo[a]anthracene	ND	0.0086	EPA 8270D/SIM	12-23-14	12-23-14	
Chrysene	ND	0.0086	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[b]fluoranthene	ND	0.0086	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo(j,k)fluoranthene	ND	0.0086	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[a]pyrene	ND	0.0086	EPA 8270D/SIM	12-23-14	12-23-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0086	EPA 8270D/SIM	12-23-14	12-23-14	
Dibenz[a,h]anthracene	ND	0.0086	EPA 8270D/SIM	12-23-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>62</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>58</i>	<i>31 - 116</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-23-6.0</b>					
Laboratory ID:	12-255-05					
Benzo[a]anthracene	ND	0.0077	EPA 8270D/SIM	12-23-14	12-23-14	
Chrysene	ND	0.0077	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[b]fluoranthene	ND	0.0077	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo(j,k)fluoranthene	ND	0.0077	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[a]pyrene	ND	0.0077	EPA 8270D/SIM	12-23-14	12-23-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0077	EPA 8270D/SIM	12-23-14	12-23-14	
Dibenz[a,h]anthracene	ND	0.0077	EPA 8270D/SIM	12-23-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>83</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>83</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>75</i>	<i>31 - 116</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-23-6.0-DUP-2</b>					
Laboratory ID:	12-255-06					
Benzo[a]anthracene	ND	0.0071	EPA 8270D/SIM	12-23-14	12-23-14	
Chrysene	ND	0.0071	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[b]fluoranthene	ND	0.0071	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo(j,k)fluoranthene	ND	0.0071	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[a]pyrene	ND	0.0071	EPA 8270D/SIM	12-23-14	12-23-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0071	EPA 8270D/SIM	12-23-14	12-23-14	
Dibenz[a,h]anthracene	ND	0.0071	EPA 8270D/SIM	12-23-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>73</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>68</i>	<i>31 - 116</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-24-7.0</b>					
Laboratory ID:	12-255-07					
Benzo[a]anthracene	ND	0.0080	EPA 8270D/SIM	12-23-14	12-23-14	
Chrysene	ND	0.0080	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[b]fluoranthene	ND	0.0080	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[a]pyrene	ND	0.0080	EPA 8270D/SIM	12-23-14	12-23-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270D/SIM	12-23-14	12-23-14	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270D/SIM	12-23-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>85</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>83</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>73</i>	<i>31 - 116</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>EPA Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Lab ID:	12-255-01					
<b>Client ID:</b>	<b>EX-19-6.0</b>					
Cadmium	<b>ND</b>	0.56	6010C	12-22-14	12-22-14	
Lab ID:	12-255-02					
<b>Client ID:</b>	<b>EX-20-6.0</b>					
Cadmium	<b>ND</b>	0.54	6010C	12-22-14	12-22-14	
Lab ID:	12-255-03					
<b>Client ID:</b>	<b>EX-21-3.5</b>					
Cadmium	<b>ND</b>	0.65	6010C	12-22-14	12-22-14	
Lab ID:	12-255-04					
<b>Client ID:</b>	<b>EX-22-3.5</b>					
Cadmium	<b>ND</b>	0.64	6010C	12-22-14	12-22-14	
Lab ID:	12-255-05					
<b>Client ID:</b>	<b>EX-23-6.0</b>					
Cadmium	<b>ND</b>	0.58	6010C	12-22-14	12-22-14	
Lab ID:	12-255-06					
<b>Client ID:</b>	<b>EX-23-6.0-DUP-2</b>					
Cadmium	<b>ND</b>	0.53	6010C	12-22-14	12-22-14	
Lab ID:	12-255-07					
<b>Client ID:</b>	<b>EX-24-7.0</b>					
Cadmium	<b>ND</b>	0.60	6010C	12-22-14	12-22-14	

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1222S3					
Benzene	<b>ND</b>	0.020	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-255-02							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				84	82	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB1222S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	<b>0.976</b>	<b>1.00</b>	1.00	1.00	<b>98</b>	<b>100</b>	75-117	2	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					91	95	68-123		

Date of Report: December 24, 2014  
Samples Submitted: December 22, 2014  
Laboratory Reference: 1412-255  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVD1222G-1	5.00	4.72	6	+/- 20%
CCVD1222G-2	5.00	4.55	9	+/- 20%
CCVD1223G-1	5.00	4.73	5	+/- 20%
CCVD1223G-2	5.00	4.64	7	+/- 20%

Date of Report: December 24, 2014  
Samples Submitted: December 22, 2014  
Laboratory Reference: 1412-255  
Project: 5147-012-06

**BENZENE EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVD1222B-2	50.0	51.9	-4	+/- 15%
Benzene	CCVD1222B-3	50.0	51.7	-3	+/- 15%
Benzene	CCVD1223B-1	50.0	50.6	-1	+/- 15%
Benzene	CCVD1223B-2	50.0	48.2	4	+/- 15%

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**NWTPH-Gx/BENZENE EPA 8021B  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1222W2					
Benzene	<b>ND</b>	1.0	EPA 8021B	12-22-14	12-22-14	
Gasoline	<b>ND</b>	100	NWTPH-Gx	12-22-14	12-22-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	71-113				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-238-06							
	ORIG	DUP						
Benzene	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
Gasoline	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				100	100	71-113		

**MATRIX SPIKES**

Laboratory ID:	MS	MSD	MS	MSD	MS	MSD	MSD	RPD	RPD Limit
12-238-06									
Benzene	<b>51.7</b>	<b>52.2</b>	50.0	50.0	ND	<b>103</b>	<b>104</b>	82-120	1 14
<i>Surrogate:</i>									
<i>Fluorobenzene</i>						103	103	71-113	

Date of Report: December 24, 2014  
Samples Submitted: December 22, 2014  
Laboratory Reference: 1412-255  
Project: 5147-012-06

**NWTPH-Gx**  
**CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCVH1222G-1	5.00	5.11	-2	+/- 20%
CCVH1222G-2	5.00	5.20	-4	+/- 20%

Date of Report: December 24, 2014  
Samples Submitted: December 22, 2014  
Laboratory Reference: 1412-255  
Project: 5147-012-06

**BENZENE EPA 8021B  
CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Benzene	CCVH1222B-1	50.0	51.8	-4	+/- 15%
Benzene	CCVH1222B-2	50.0	50.6	-1	+/- 15%
Benzene	CCVD1222B-1	50.0	53.9	-8	+/- 15%
Benzene	CCVD1222B-2	50.0	51.9	-4	+/- 15%

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1223S2					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	12-23-14	12-23-14	X1
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	12-23-14	12-23-14	X1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-255-02							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	X1
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				89	103	50-150		

Date of Report: December 24, 2014  
Samples Submitted: December 22, 2014  
Laboratory Reference: 1412-255  
Project: 5147-012-06

**NWTPH-Dx  
CONTINUING CALIBRATION SUMMARY**

<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
CCV1223F-T2	100	98.1	1.9	+/-15%
CCV1223F-T3	100	99.5	0.5	+/-15%

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB1223S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Chrysene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	12-23-14	12-23-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>97</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>90</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>31 - 116</i>				

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**cPAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent	Recovery	RPD		Flags
					Result	Recovery	Limits	RPD	Limit	
<b>MATRIX SPIKES</b>										
Laboratory ID:	12-255-02									
	MS	MSD	MS	MSD		MS	MSD			
Benzo[a]anthracene	<b>0.0616</b>	<b>0.0630</b>	0.0833	0.0833	ND	74	76	42 - 134	2	27
Chrysene	<b>0.0634</b>	<b>0.0662</b>	0.0833	0.0833	ND	76	79	45 - 114	4	27
Benzo[b]fluoranthene	<b>0.0611</b>	<b>0.0580</b>	0.0833	0.0833	ND	73	70	38 - 131	5	33
Benzo(j,k)fluoranthene	<b>0.0591</b>	<b>0.0654</b>	0.0833	0.0833	ND	71	79	44 - 114	10	34
Benzo[a]pyrene	<b>0.0639</b>	<b>0.0661</b>	0.0833	0.0833	ND	77	79	40 - 136	3	29
Indeno(1,2,3-c,d)pyrene	<b>0.0618</b>	<b>0.0640</b>	0.0833	0.0833	ND	74	77	45 - 126	3	30
Dibenz[a,h]anthracene	<b>0.0622</b>	<b>0.0649</b>	0.0833	0.0833	ND	75	78	46 - 121	4	28
<i>Surrogate:</i>										
<i>2-Fluorobiphenyl</i>						74	82	32 - 114		
<i>Pyrene-d10</i>						75	78	33 - 121		
<i>Terphenyl-d14</i>						67	71	31 - 116		

Date of Report: December 24, 2014  
Samples Submitted: December 22, 2014  
Laboratory Reference: 1412-255  
Project: 5147-012-06

**TOTAL CADMIUM  
EPA 6010C  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 12-22-14  
Date Analyzed: 12-22-14  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB1222SM1

Analyte	Method	Result	PQL
Cadmium	6010C	<b>ND</b>	0.50

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 12-22-14

Date Analyzed: 12-22-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-255-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	ND	ND	NA	0.50	

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 MS/MSD QUALITY CONTROL**

Date Extracted: 12-22-14

Date Analyzed: 12-22-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 12-255-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50.0	<b>49.4</b>	99	<b>51.6</b>	103	4	

Date of Report: December 24, 2014  
 Samples Submitted: December 22, 2014  
 Laboratory Reference: 1412-255  
 Project: 5147-012-06

**TOTAL CADMIUM  
 EPA 6010C  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppm)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Cadmium	ICV122214P	1.00	1.02	-2.0	+/- 10%
Cadmium	LLICV1122214P	0.0100	0.0116	-16	+/- 30%
Cadmium	CCV1122214P	1.00	1.02	-2.0	+/- 10%
Cadmium	CCV2122214P	1.00	1.01	-1.0	+/- 10%
Cadmium	LLCCV2122214P	0.0100	0.0100	0	+/- 30%
Cadmium	CCV3122214P	1.00	1.03	-3.0	+/- 10%
Cadmium	LLCCV3122214P	0.0100	0.0108	-8.0	+/- 30%
Cadmium	CCV4122214P	1.00	1.05	-5.0	+/- 10%
Cadmium	LLCCV4122214P	0.0100	0.0102	-2.0	+/- 30%
Cadmium	CCV5122214P	1.00	1.03	-3.0	+/- 10%
Cadmium	LLCCV5122214P	0.0100	0.0116	-16	+/- 30%
Cadmium	CCV6122214P	1.00	1.06	-6.0	+/- 10%
Cadmium	LLCCV6122214P	0.0100	0.0120	-20	+/- 30%
Cadmium	CCV7122214P	1.00	1.06	-6.0	+/- 10%
Cadmium	LLCCV7122214P	0.0100	0.0117	-17	+/- 30%

Date of Report: December 24, 2014  
Samples Submitted: December 22, 2014  
Laboratory Reference: 1412-255  
Project: 5147-012-06

### % MOISTURE

Date Analyzed: 12-22-14

Client ID	Lab ID	% Moisture
EX-19-6.0	12-255-01	10
EX-20-6.0	12-255-02	8
EX-21-3.5	12-255-03	23
EX-22-3.5	12-255-04	22
EX-23-6.0	12-255-05	13
EX-23-6.0-DUP-2	12-255-06	6
EX-24-7.0	12-255-07	16



### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference



Analytical Laboratory/Testing Services  
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# Chain of Custody

**Turnaround Request**  
(in working days)  
(Check One)

- Same Day     1 Day  
 2 Days     3 Days  
 Standard (7 Days)  
 (TYP analysis 5 Days)

**Laboratory Number:**

**12-255**

Company: **GEOENGINEERS**  
 Project Number: **5147-012-06**  
 Project Name: **FORMER SHELL OIL TANK FARM**  
 Project Manager: **ABHISIT JOSHI**  
 Sampled by: **NATHAN SOLOMON**

Lab ID    Sample Identification    Date Sampled    Time Sampled    Matrix

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	BENZENE 8021B	CPAHs 8270 D/SIM	CADMIUM 6010C	MS/MSD	% Moisture
1	EX-19-6.0	12/21/14	SOIL	0935	2			X	X														X	X	X	
2	EX-26-6.0			0945	2			X	X														X	X	X	
3	EX-21-3.5			0940	2			X	X														X	X	X	
4	EX-22-3.5			0950	2			X	X														X	X	X	
5	EX-23-6.0			0955	2			X	X														X	X	X	
6	EX-23-6.0-DUR-2			1000	2			X	X														X	X	X	
7	EX-24-7.0			1005	2			X	X														X	X	X	
8	TRIPBLANK-122214	NA	LIQUID	NA	1			X															X			

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	GEOENGINEERS	12/21/14	1015	PLEASE RUN FOR RESULTS BY WEN.
<i>[Signature]</i>	Syng	12/24/10/11		
<i>[Signature]</i>	Syng	12/21/14		
<i>[Signature]</i>	Syng	12/21/14	1300	
Received				
Relinquished				
Received				
Relinquished				
Reviewed/Date	Reviewed/Date			Chromatograms with final report <input type="checkbox"/>

# Sample/Cooler Receipt and Acceptance Checklist

Client: GES  
 Client Project Name/Number: 5147-012-06  
 OnSite Project Number: 12-255

Initiated by: [Signature]  
 Date Initiated: 12/22/14

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1	2	3	4
1.2 Were the custody seals intact?	Yes	No	N/A	1	2	3	4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1	2	3	4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1	2	3	4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: <u>2</u>				
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A					
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other		

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1	2	3	4
2.2 Was the COC legible and written in permanent ink?	Yes	No		1	2	3	4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No		1	2	3	4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1	2	3	4
2.5 Were all of the samples listed on the COC submitted?	Yes	No		1	2	3	4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1	2	3	4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1	2	3	4
3.2 Were any sample labels missing or illegible?	Yes	No		1	2	3	4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1	2	3	4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1	2	3	4
3.5 Are volatile samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1	2	3	4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1	2	3	4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1	2	3	4
3.8 Was method 5035A used?	Yes	No	N/A	1	2	3	4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	1	N/A	1	2	3	4

### Explain any discrepancies:


1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

- NWTPH-Gx/Benzene (soil) Data
- NWTPH- Gx/Benzene (water) Data
- NWTPH-Dx Data
- cPAHs EPA 8270D/SIM Data
- Total Cadmium EPA 6010CData

## NWTPH-Gx/Benzene (soil) Data

# Injection Log

Directory: X:\BTEX\DARYL\DATA\141222

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1222001.d	1.	CCVD1222G-1	V2-36-08	22 Dec 2014 10:11
2	2	1222002.d	1.	CCVD1222B-1	V2-36-23,V2-36-22	22 Dec 2014 10:45
3	3	1222003.d	1.	MB1222S1	V2-36-17	22 Dec 2014 11:27
4	4	1222004.d	1.	12-245-01s	V2-36-17	22 Dec 2014 11:59
5	5	1222005.d	1.	12-245-02s	V2-36-17	22 Dec 2014 12:32
6	6	1222006.d	1.	12-245-03s	V2-36-17	22 Dec 2014 13:07
7	7	1222007.d	1.	12-243-01s	V2-36-17	22 Dec 2014 13:39
8	8	1222008.d	1.	12-243-02s	V2-36-17	22 Dec 2014 14:12
9	9	1222009.d	1.	12-197-02s	V2-36-17	22 Dec 2014 14:44
10	10	1222010.d	1.	12-214-01s	V2-36-17	22 Dec 2014 15:17
11	11	1222011.d	1.	12-238-04s	V2-36-17	22 Dec 2014 15:51
12	12	1222012.d	1.	MB1222W1	V2-36-23	22 Dec 2014 16:31
13	13	1222013.d	1.	12-251-01e 1:4	V2-36-23	22 Dec 2014 17:05
14	14	1222014.d	1.	12-251-01e 1:4 DUP	V2-36-23	22 Dec 2014 17:38
15	15	1222015.d	1.	12-238-06d MS	V2-36-23,V2-36-22	22 Dec 2014 18:12
16	16	1222016.d	1.	12-238-06d MSD	V2-36-23,V2-36-22	22 Dec 2014 18:45
17	17	1222017.d	1.	12-211-14e RR 1:4	V2-36-23	22 Dec 2014 19:19
18	18	1222018.d	1.	12-211-18e RR 1:100	V2-36-23	22 Dec 2014 19:52
19	19	1222019.d	1.	12-211-19b RR 1:100	V2-36-23	22 Dec 2014 20:25
20	20	1222020.d	1.	12-227-04b RR 1:50	V2-36-23	22 Dec 2014 20:59
21	21	1222021.d	1.	CCVD1222B-2	V2-36-23,V2-36-22	22 Dec 2014 21:32
22	22	1222022.d	1.	SB1222W1	V2-36-23,V2-36-22	22 Dec 2014 22:05
23	23	1222023.d	1.	12-238-16s	V2-36-17	22 Dec 2014 22:38
24	24	1222024.d	1.	WATER		22 Dec 2014 23:11
25	25	1222025.d	1.	12-238-16s DUP	V2-36-17	22 Dec 2014 23:44
26	26	1222026.d	1.	SB1222S1	V2-36-17,V2-36-22	23 Dec 2014 00:17
27	27	1222027.d	1.	SBD1222S1	V2-36-17,V2-36-22	23 Dec 2014 00:50
28	28	1222028.d	1.	MB1222S3	V2-36-17	23 Dec 2014 01:24
29	29	1222029.d	1.	12-255-01s	V2-36-17	23 Dec 2014 01:57
30	30	1222030.d	1.	12-255-02s	V2-36-17	23 Dec 2014 02:30
31	31	1222031.d	1.	12-255-02s DUP	V2-36-17	23 Dec 2014 03:03
32	32	1222032.d	1.	12-255-03s	V2-36-17	23 Dec 2014 03:36
33	33	1222033.d	1.	12-255-04s	V2-36-17	23 Dec 2014 04:10
34	34	1222034.d	1.	12-255-05s	V2-36-17	23 Dec 2014 04:43
35	35	1222035.d	1.	12-255-06s	V2-36-17	23 Dec 2014 05:16
36	36	1222036.d	1.	WATER		23 Dec 2014 05:49
37	37	1222037.d	1.	12-255-07s	V2-36-17	23 Dec 2014 06:22
38	38	1222038.d	1.	12-231-01s 1:250	V2-36-17	23 Dec 2014 06:55
39	39	1222039.d	1.	12-231-02s 1:250	V2-36-17	23 Dec 2014 07:28
40	40	1222040.d	1.	CCVD1222B-3	V2-36-23,V2-36-22	23 Dec 2014 08:02
41	41	1222041.d	1.	CCVD1222G-2	V2-36-08	23 Dec 2014 08:35

# Injection Log

Directory: X:\BTEX\IDARYL\DATA\ID141223

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
<i>Used ending CCVs from previous run - BTEX(a) 8:02 AM</i>						
1	1	1223001.d	1.	MB1223W1	V2-36-23	23 Dec 2014 11:35
2	2	1223002.d	1.	12-211-19b RR 1:100	V2-36-23	23 Dec 2014 12:09
3	3	1223003.d	1.	12-259-01b	V2-36-23	23 Dec 2014 12:42
4	4	1223004.d	1.	12-259-01b MS	V2-36-23,V2-36-22	23 Dec 2014 13:16
5	5	1223005.d	1.	12-259-01b MSD	V2-36-23,V2-36-22	23 Dec 2014 13:50
6	6	1223006.d	1.	12-259-01b DUP	V2-36-23	23 Dec 2014 14:23
7	7	1223007.d	1.	12-258-01a 1:100	V2-36-23	23 Dec 2014 14:57
8	8	1223008.d	1.	12-258-02a 1:100	V2-36-23	23 Dec 2014 15:30
9	9	1223009.d	1.	12-258-03a	V2-36-23	23 Dec 2014 16:04
10	10	1223010.d	1.	12-258-04a	V2-36-23	23 Dec 2014 16:38
11	11	1223011.d	1.	CCVD1223G-1	V2-36-08	23 Dec 2014 17:57
12	12	1223012.d	1.	CCVD1223B-1	V2-36-23,V2-36-22	23 Dec 2014 18:31
13	13	1223013.d	1.	12-264-01d	V2-36-23	23 Dec 2014 19:04
14	14	1223014.d	1.	12-255-05s RR	V2-36-17	23 Dec 2014 19:38
15	15	1223015.d	1.	12-231-02s RR 1:1000	V2-36-17	23 Dec 2014 20:11
16	16	1223016.d	1.	12-258-05a	V2-36-23	23 Dec 2014 20:44
17	17	1223017.d	1.	12-258-07a	V2-36-23	23 Dec 2014 21:17
18	18	1223018.d	1.	12-258-06a	V2-36-23	23 Dec 2014 21:51
19	19	1223019.d	1.	WATER		23 Dec 2014 22:24
20	20	1223020.d	1.	SB1223W1	V2-36-23,V2-36-22	23 Dec 2014 22:58
21	21	1223021.d	1.	CCVD1223B-2	V2-36-23,V2-36-22	23 Dec 2014 23:31
22	22	1223022.d	1.	CCVD1223G-2	V2-36-08	24 Dec 2014 00:04
23	23	1223023.d	1.	WATER		24 Dec 2014 00:37
24	24	1223024.d	1.	WATER		24 Dec 2014 01:10
25	25	1223025.d	1.	WATER		24 Dec 2014 01:44
26	26	1223026.d	1.	WATER		24 Dec 2014 02:17
27	27	1223027.d	1.	WATER		24 Dec 2014 02:50
28	28	1223028.d	1.	WATER		24 Dec 2014 03:23
29	29	1223029.d	1.	WATER		24 Dec 2014 03:56
30	30	1223030.d	1.	WATER		24 Dec 2014 04:30
31	31	1223031.d	1.	WATER		24 Dec 2014 05:04
32	32	1223032.d	1.	WATER		24 Dec 2014 05:37
33	33	1223033.d	1.	WATER		24 Dec 2014 06:11
34	34	1223034.d	1.	WATER		24 Dec 2014 06:44
35	35	1223035.d	1.	WATER		24 Dec 2014 07:18
36	36	1223036.d	1.	WATER		24 Dec 2014 07:52
37	37	1223037.d	1.	WATER		24 Dec 2014 08:26
38	38	1223038.d	1.	WATER		24 Dec 2014 09:00

Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141222\1222029.D\FID1A.CH Vial: 29  
 Signal #2 : d:\btex\DATA\D141222\1222029.D\FID2B.CH  
 Acq On : 23 Dec 2014 1:57 Operator:  
 Sample : 12-255-01s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 23 2:25 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2547866	36.685 PPB
5) S BROMOFLUOROBENZENE	12.29	1512307	37.207 PPB
11) S FLUOROBENZENE #2	6.93	6743802	30.331 PPB
16) S BROMOFLUOROBENZENE #2	12.29	9326138	31.042 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1078499	0.015 PPM
2) H Entire GAS Envelope (9-24-	12.21	2902591	0.033 PPM
3) H GASOLINE (9-24-14)	13.51	1068331	0.006 PPM
7) H entire GAS envelope #2 (9-	12.26	4454732	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	3164929	N.D. PPM
9) MTBE #2	4.71	2600	N.D. PPB
10) BENZENE #2	6.69	26707	0.047 PPB
12) TOLUENE #2	9.08	112741	0.228 PPB
13) ETHYLBENZENE #2	11.05	40740	0.048 PPB
14) m,p-XYLENE #2	11.30	110019	N.D. PPB
15) o-XYLENE #2	11.80	48780	N.D. PPB

12/23 ✓

Quantitation Report (Not Reviewed)

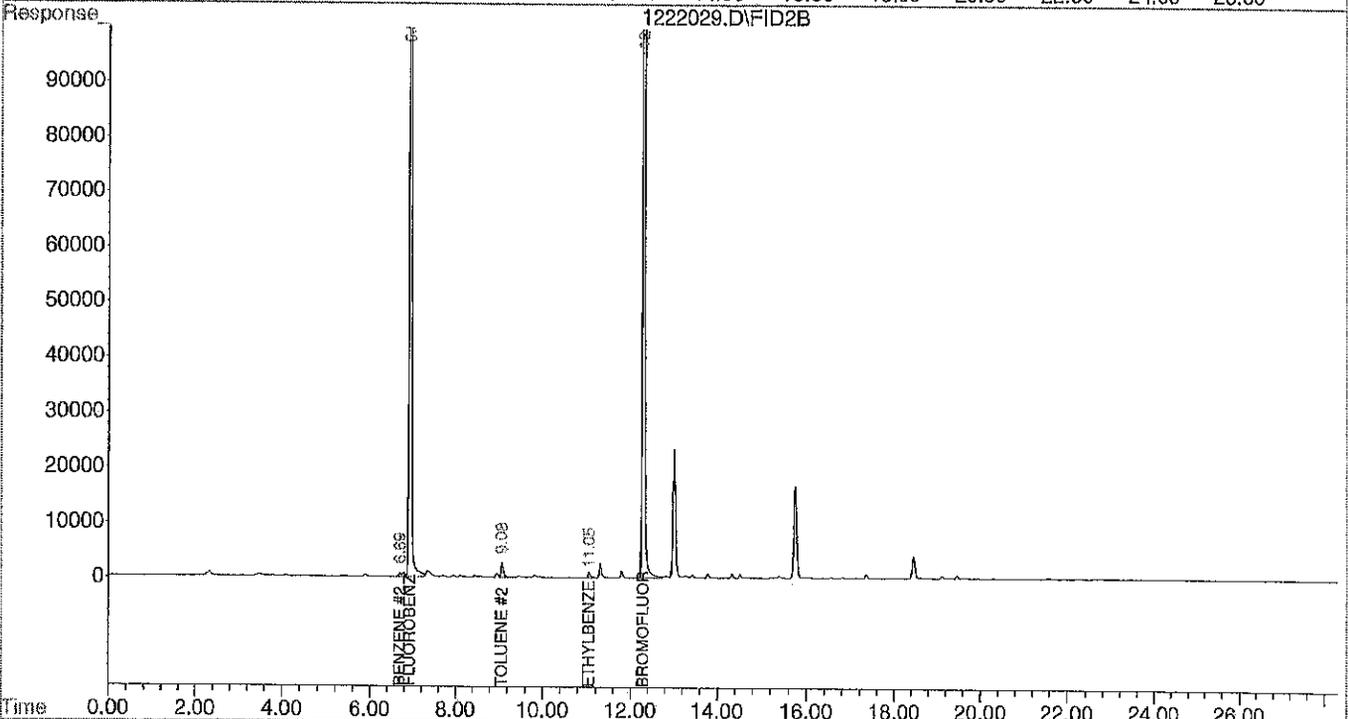
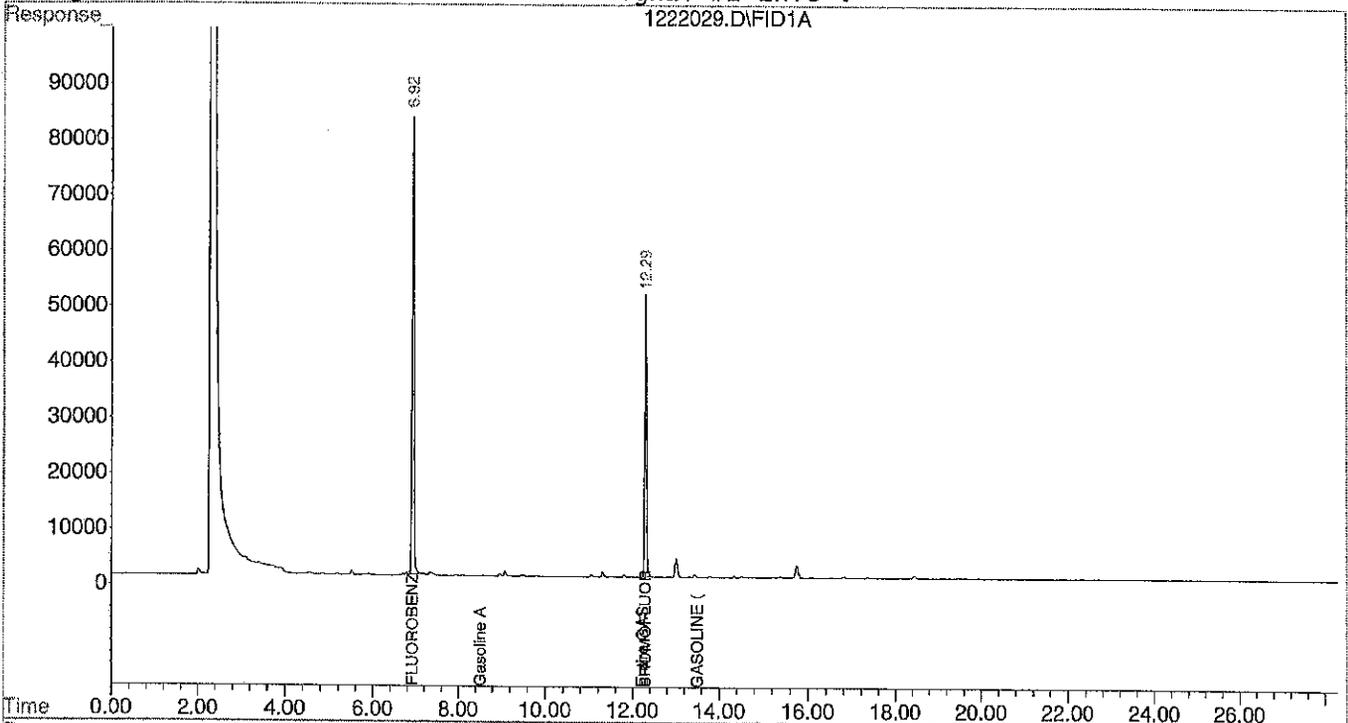
Signal #1 : d:\btex\DATA\D141222\1222029.D\FID1A.CH Vial: 29  
Signal #2 : d:\btex\DATA\D141222\1222029.D\FID2B.CH  
Acq On : 23 Dec 2014 1:57 Operator:  
Sample : 12-255-01s Inst : Daryl  
Misc : V2-36-17 Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 2:25 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222030.D\FID1A.CH vial: 30  
 Signal #2 : d:\btex\DATA\D141222\1222030.D\FID2B.CH  
 Acq On : 23 Dec 2014 2:30 Operator:  
 Sample : 12-255-02s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 2:58 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2388379	34.367 PPB
5) S BROMOFLUOROBENZENE	12.29	1426538	35.065 PPB
11) S FLUOROBENZENE #2	6.93	6318745	28.399 PPB
16) S BROMOFLUOROBENZENE #2	12.29	8827929	29.359 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	1124553	0.016 PPM
2) H Entire GAS Envelope (9-24-	12.21	2800542	0.032 PPM
3) H GASOLINE (9-24-14)	13.51	1039573	0.005 PPM
7) H entire GAS envelope #2 (9-	12.26	4459095	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	3053909	N.D. PPM
9) MTBE #2	4.71	2357	N.D. PPB
10) BENZENE #2	6.70	19288	0.021 PPB
12) TOLUENE #2	9.08	243266	0.698 PPB
13) ETHYLBENZENE #2	11.05	22533	N.D. PPB
14) m,p-XYLENE #2	11.31	74713	N.D. PPB
15) o-XYLENE #2	11.80	31294	N.D. PPB

12/23 ✓

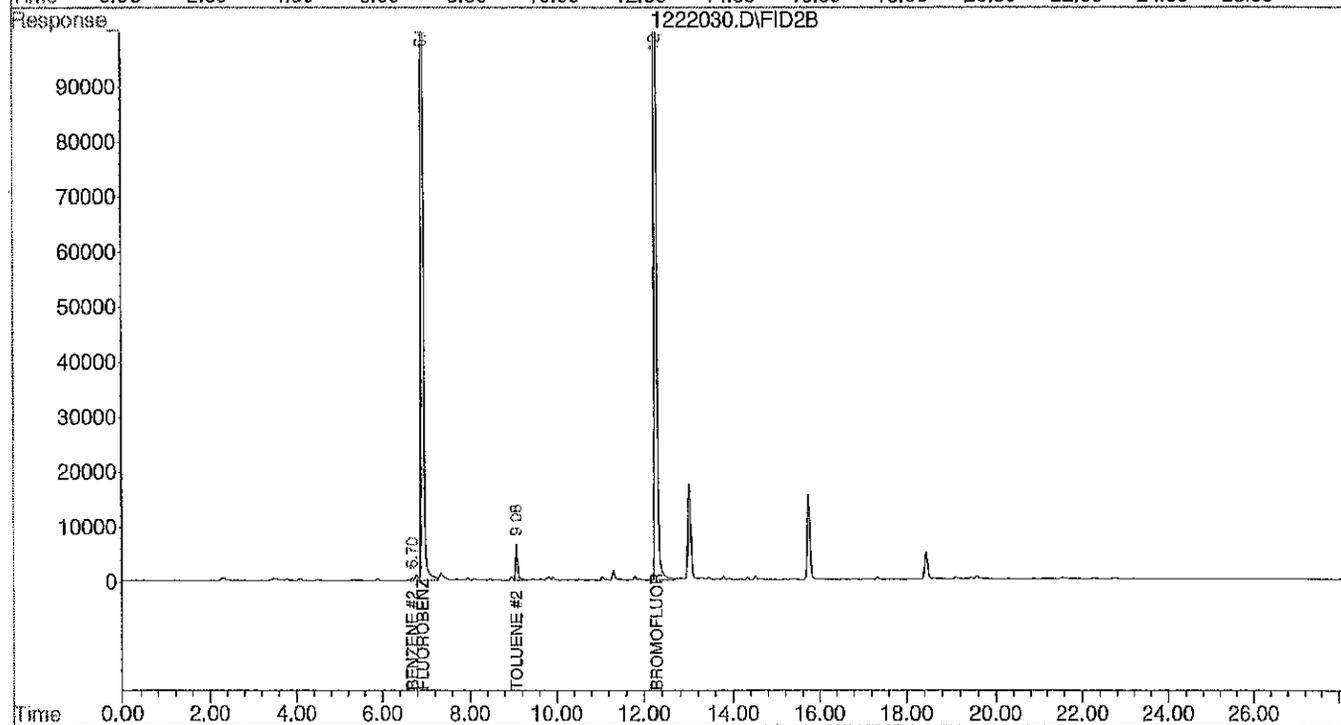
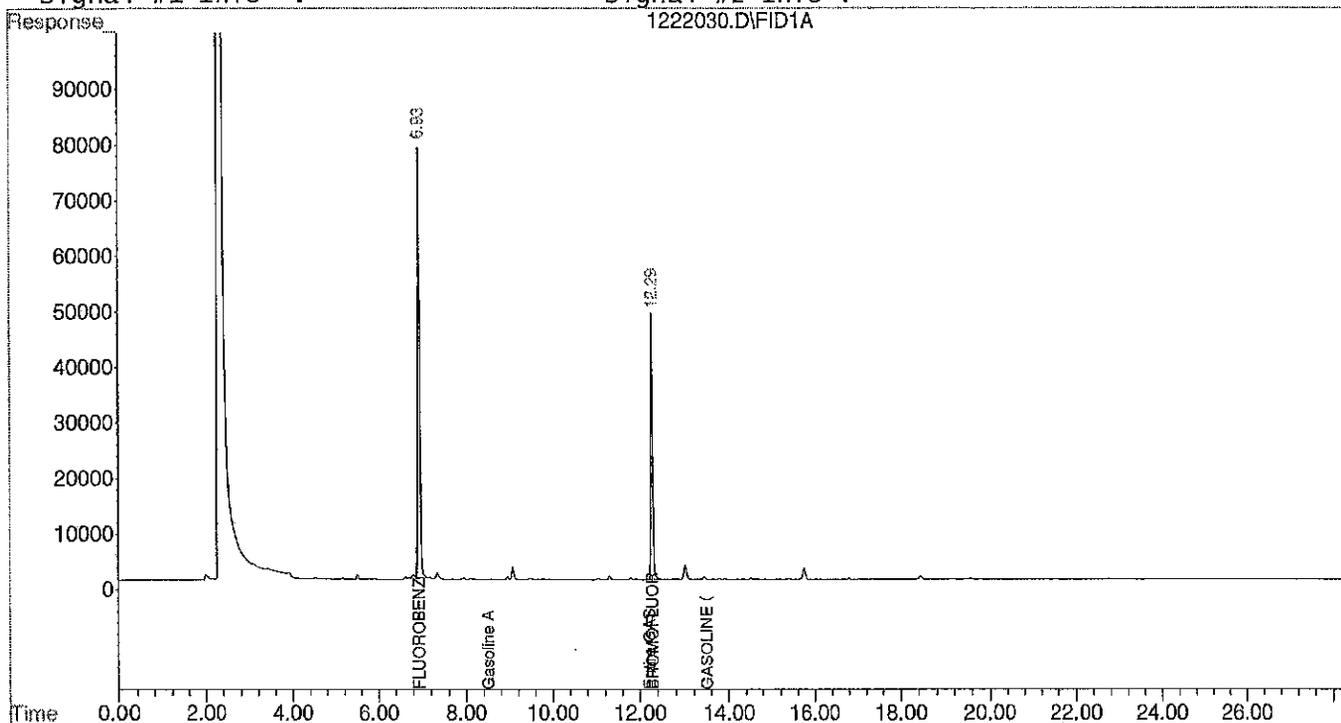
Signal #1 : d:\btex\DATA\D141222\1222030.D\FID1A.CH Vial: 30  
Signal #2 : d:\btex\DATA\D141222\1222030.D\FID2B.CH  
Acq On : 23 Dec 2014 2:30 Operator:  
Sample : 12-255-02s Inst : Daryl  
Misc : V2-36-17 Multiplr: 1.00  
Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 23 2:58 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222032.D\FID1A.CH Vial: 32  
 Signal #2 : d:\btex\DATA\D141222\1222032.D\FID2B.CH  
 Acq On : 23 Dec 2014 3:36 Operator:  
 Sample : 12-255-03s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 4:05 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2371097	34.116 PPB
5) S BROMOFLUOROBENZENE	12.29	1427816	35.097 PPB
11) S FLUOROBENZENE #2	6.93	6226026	27.977 PPB
16) S BROMOFLUOROBENZENE #2	12.29	8834074	29.380 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	524234	0.004 PPM
2) H Entire GAS Envelope (9-24-	12.21	1882981	0.018 PPM
3) H GASOLINE (9-24-14)	13.51	455784	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	2354796	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1314729	N.D. PPM
9) MTBE #2	4.71	928	N.D. PPB
10) BENZENE #2	6.69	16481	0.012 PPB
12) TOLUENE #2	9.08	59702	0.037 PPB
13) ETHYLBENZENE #2	11.05	18359	N.D. PPB
14) m,p-XYLENE #2	11.31	53534	N.D. PPB
15) o-XYLENE #2	11.80	22546	N.D. PPB

12/23 ✓

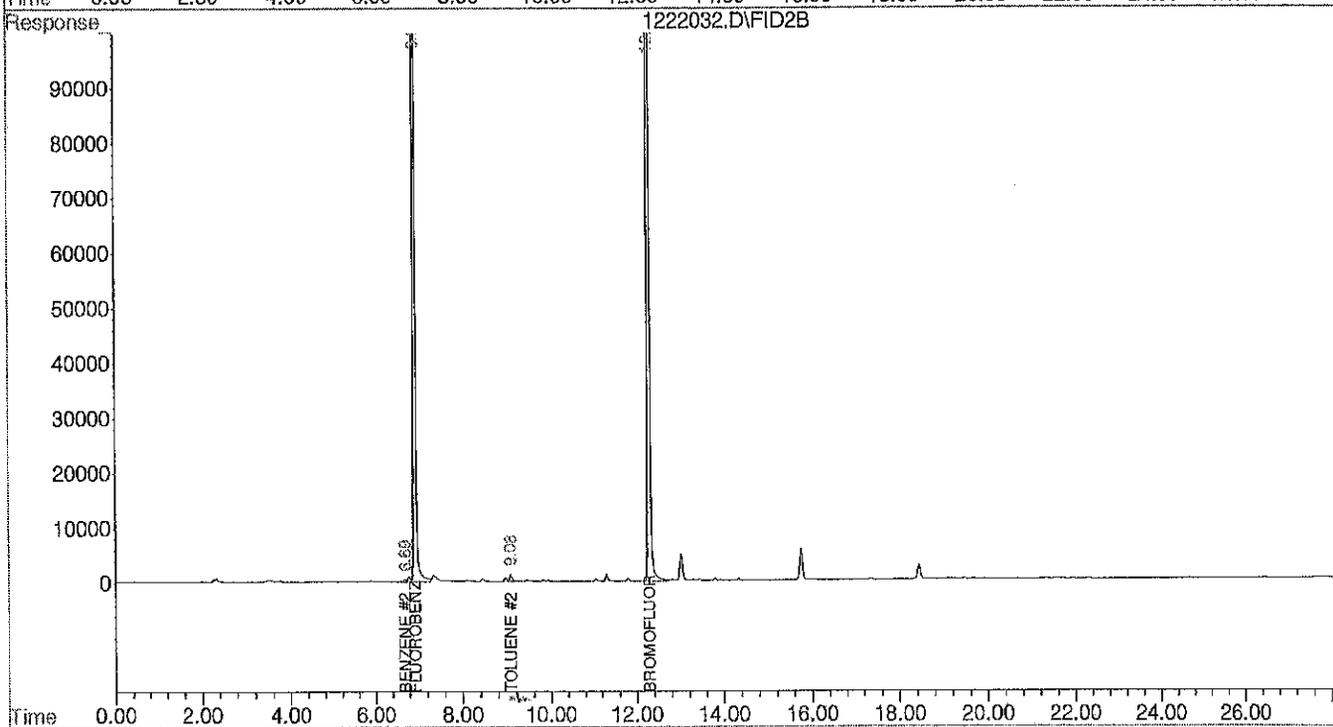
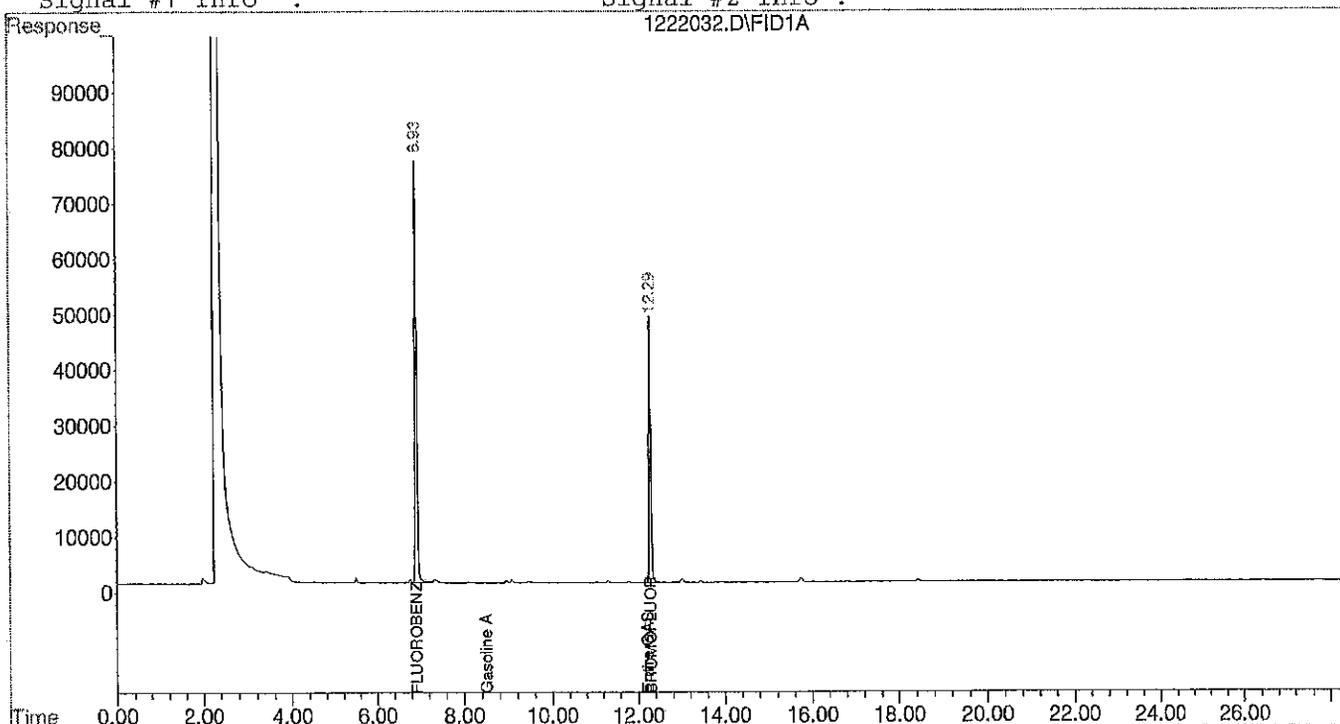
Signal #1 : d:\btex\DATA\D141222\1222032.D\FID1A.CH Vial: 32  
Signal #2 : d:\btex\DATA\D141222\1222032.D\FID2B.CH  
Acq On : 23 Dec 2014 3:36 Operator:  
Sample : 12-255-03s Inst : Daryl  
Misc : V2-36-17 Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 4:05 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222033.D\FID1A.CH Vial: 33  
 Signal #2 : d:\btex\DATA\D141222\1222033.D\FID2B.CH  
 Acq On : 23 Dec 2014 4:10 Operator:  
 Sample : 12-255-04s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 4:38 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2215591	31.857 PPB
5) S BROMOFLUOROBENZENE	12.29	1352157	33.206 PPB
11) S FLUOROBENZENE #2	6.93	5849236	26.264 PPB
16) S BROMOFLUOROBENZENE #2	12.29	8273142	27.485 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	883695	0.011 PPM
2) H Entire GAS Envelope (9-24-	12.21	3348720	0.040 PPM
3) H GASOLINE (9-24-14)	13.51	1685279	0.021 PPM
7) H entire GAS envelope #2 (9-	12.26	5714346	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	4297145	N.D. PPM
9) MTBE #2	4.70	356	N.D. PPB
10) BENZENE #2	6.70	16432	0.012 PPB
12) TOLUENE #2	9.09	56252	0.025 PPB
13) ETHYLBENZENE #2	11.05	18435	N.D. PPB
14) m,p-XYLENE #2	11.31	58623	N.D. PPB
15) o-XYLENE #2	11.80	36480	N.D. PPB

12/23 ✓

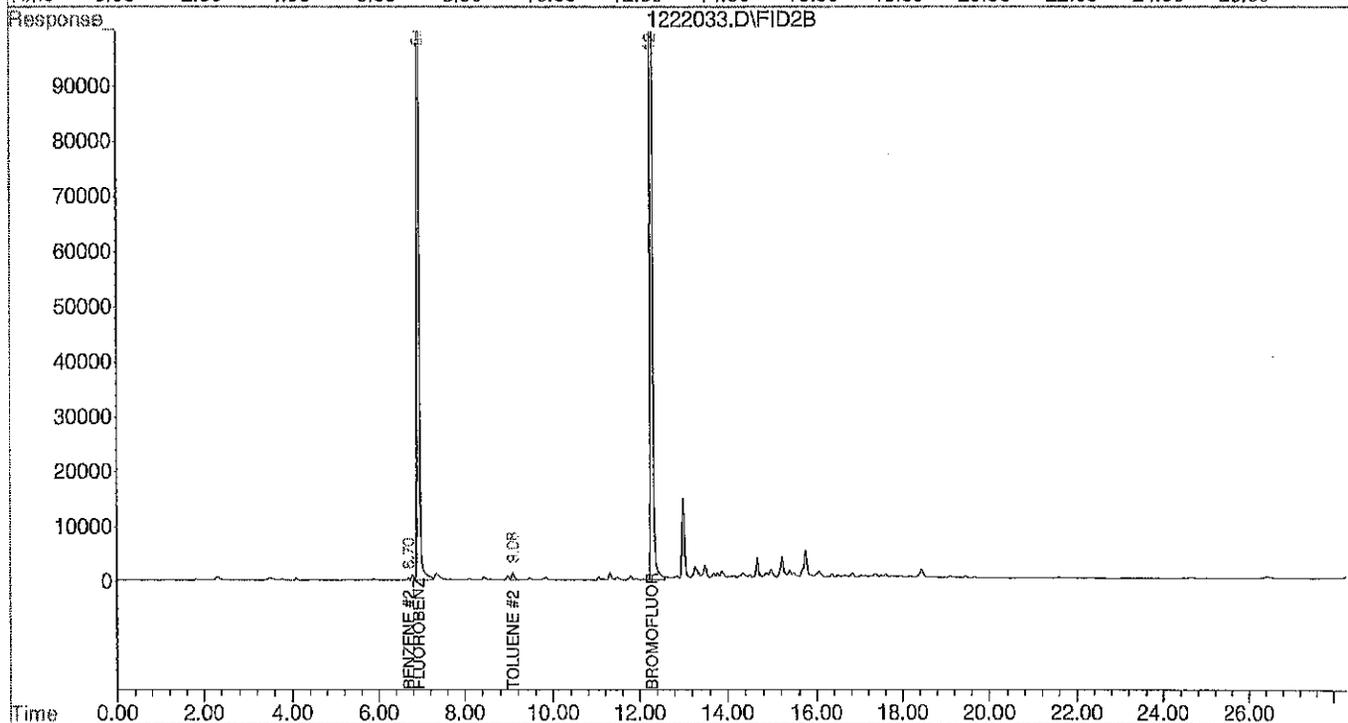
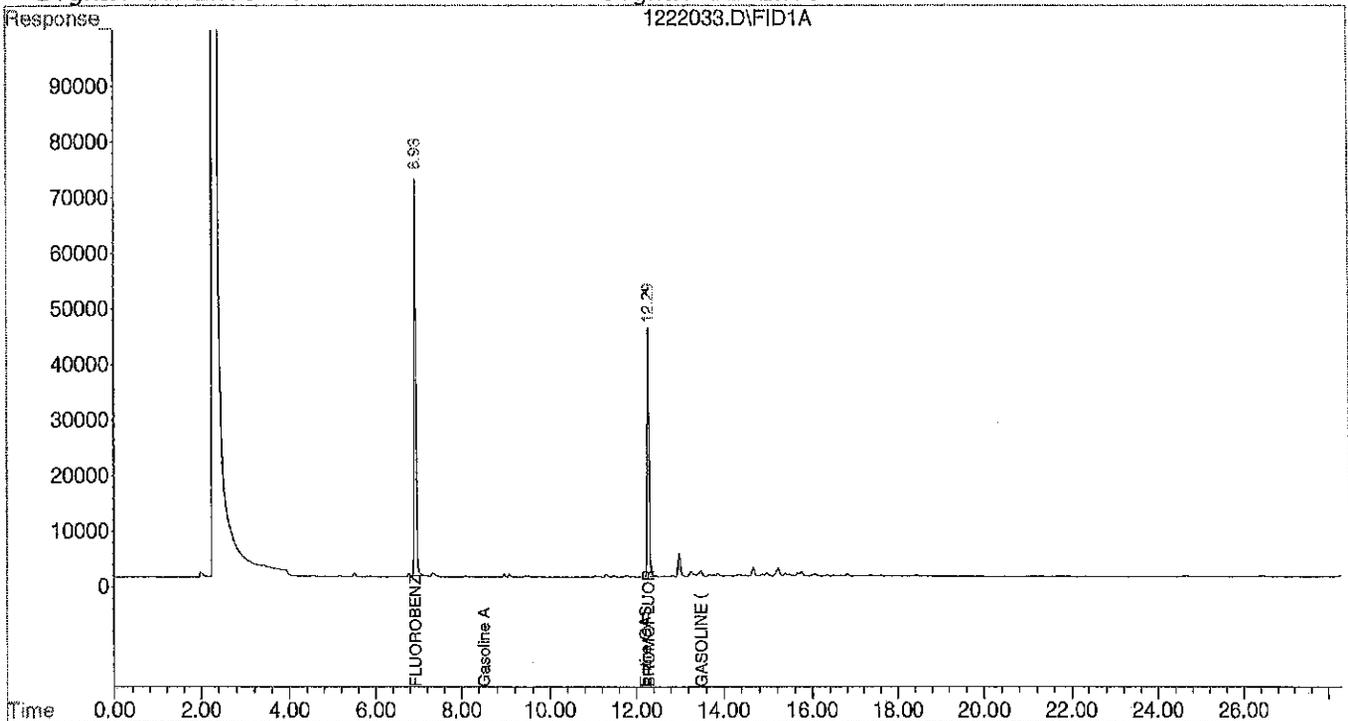
Signal #1 : d:\btex\DATA\D141222\1222033.D\FID1A.CH vial: 33  
Signal #2 : d:\btex\DATA\D141222\1222033.D\FID2B.CH  
Acq On : 23 Dec 2014 4:10 Operator:  
Sample : 12-255-04s Inst : Daryl  
Misc : V2-36-17 Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 4:38 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141223\1223014.D\FID1A.CH Vial: 14  
 Signal #2 : d:\btex\DATA\D141223\1223014.D\FID2B.CH  
 Acq On : 23 Dec 2014 19:38 Operator:  
 Sample : 12-255-05s RR Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 20:07 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.95	3012158	43.430 PPB
5) S BROMOFLUOROBENZENE	12.30	1812453	44.706 PPB
11) S FLUOROBENZENE #2	6.95	7771147	35.002 PPB
16) S BROMOFLUOROBENZENE #2	12.30	10858256	36.218 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	1217710	0.018 PPM
2) H Entire GAS Envelope (9-24-	12.21	3126929	0.037 PPM
3) H GASOLINE (9-24-14)	13.51	1199199	0.009 PPM
7) H entire GAS envelope #2 (9-	12.26	4455776	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	2743958	N.D. PPM
9) MTBE #2	4.73	2761	N.D. PPB
10) BENZENE #2	6.71	40059	0.092 PPB
12) TOLUENE #2	9.09	221958	0.621 PPB
13) ETHYLBENZENE #2	11.06	60925	0.130 PPB
14) m,p-XYLENE #2	11.32	178075	0.067 PPB
15) o-XYLENE #2	11.81	77689	0.044 PPB

*12/23/14*

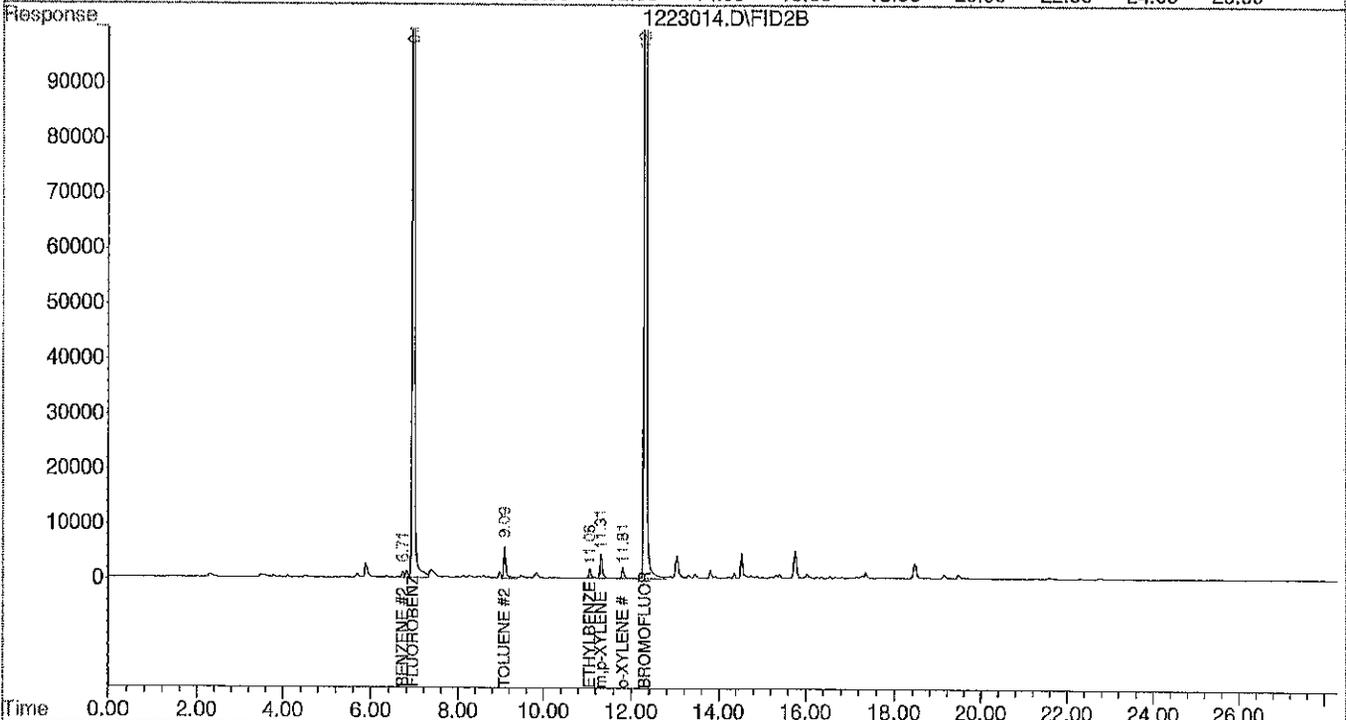
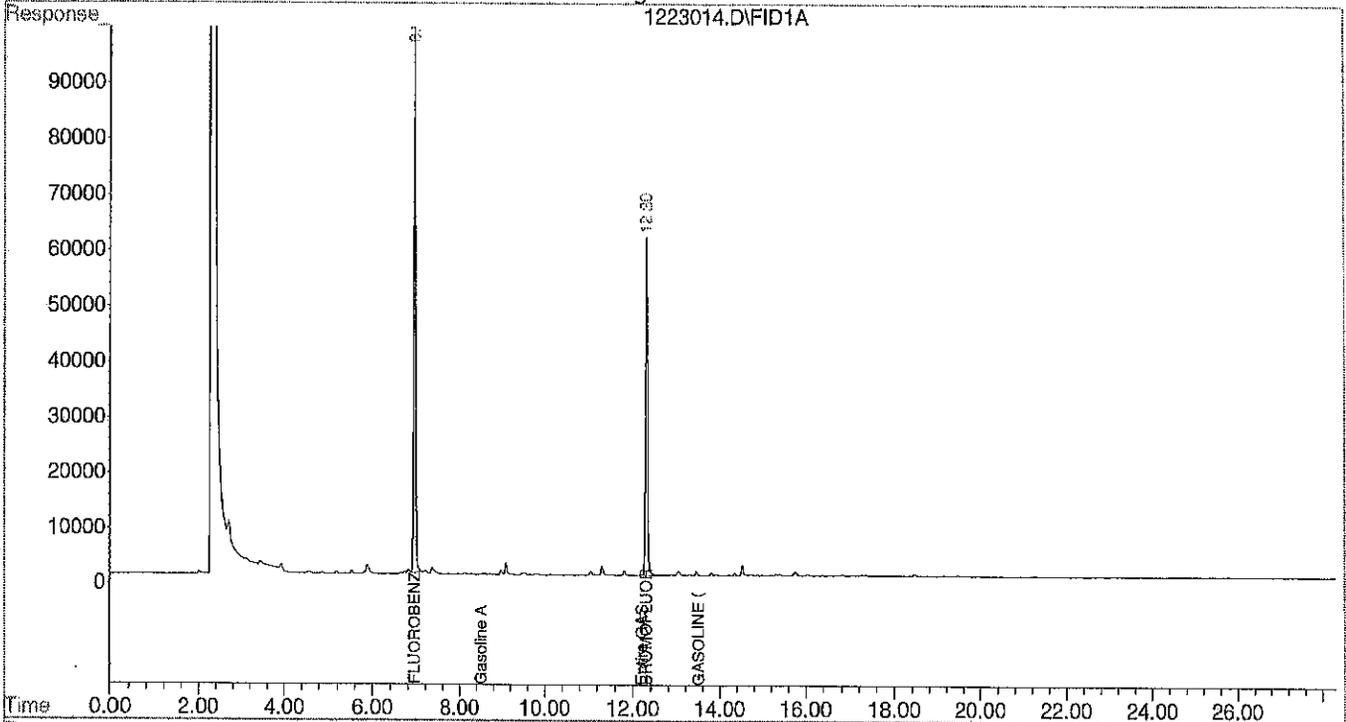
Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141223\1223014.D\FID1A.CH Vial: 14  
Signal #2 : d:\btex\DATA\D141223\1223014.D\FID2B.CH  
Acq On : 23 Dec 2014 19:38 Operator:  
Sample : 12-255-05s RR Inst : Daryl  
Misc : V2-36-17 Multiplr: 1.00  
Sample Amount: 0.00  
IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 20:07 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222035.D\FID1A.CH Vial: 35  
 Signal #2 : d:\btex\DATA\D141222\1222035.D\FID2B.CH  
 Acq On : 23 Dec 2014 5:16 Operator:  
 Sample : 12-255-06s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 5:44 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3105222	44.782 PPB
5) S BROMOFLUOROBENZENE	12.29	1814911	44.767 PPB
11) S FLUOROBENZENE #2	6.93	8358290	37.672 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11578616	38.651 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	992546	0.013 PPM
2) H Entire GAS Envelope (9-24-	12.21	4624584	0.060 PPM
3) H GASOLINE (9-24-14)	13.51	1885736	0.026 PPM
7) H entire GAS envelope #2 (9-	12.26	10322416	0.023 PPM
8) H GASOLINE #2 (9-24-14)	13.56	5229430	N.D. PPM
9) MTBE #2	4.71	2868	N.D. PPB
10) BENZENE #2	6.70	19273	0.021 PPB
12) TOLUENE #2	9.08	97638	0.174 PPB
13) ETHYLBENZENE #2	11.05	25407	N.D. PPB
14) m,p-XYLENE #2	11.31	66461	N.D. PPB
15) o-XYLENE #2	11.80	35387	N.D. PPB

12/23 ✓

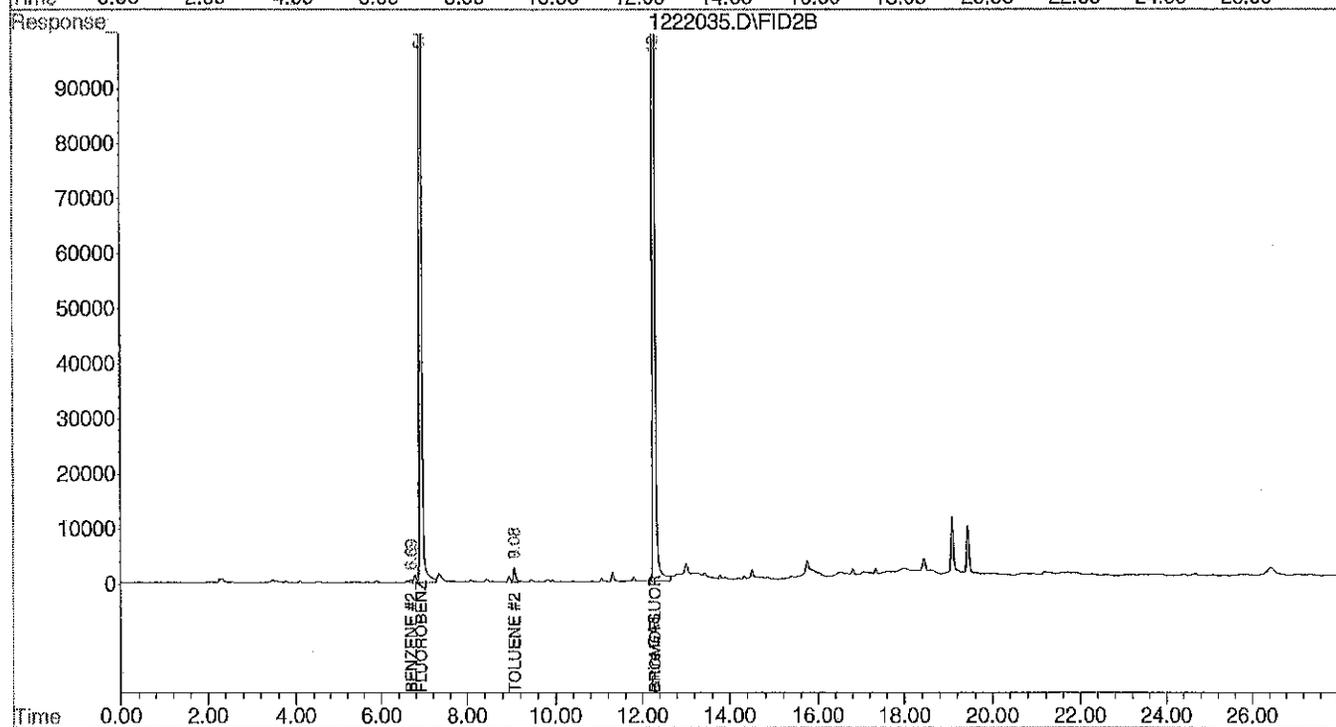
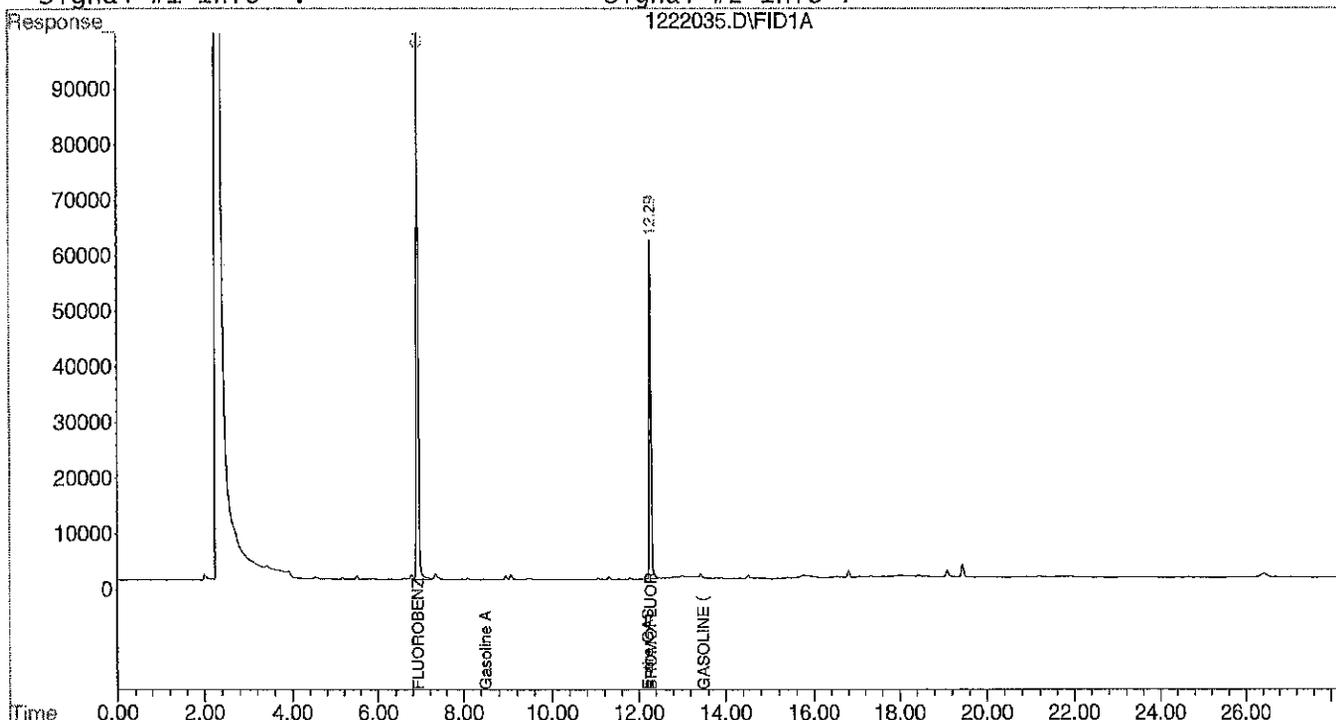
Signal #1 : d:\btex\DATA\D141222\1222035.D\FID1A.CH Vial: 35  
Signal #2 : d:\btex\DATA\D141222\1222035.D\FID2B.CH  
Acq On : 23 Dec 2014 5:16 Operator:  
Sample : 12-255-06s Inst : Daryl  
Misc : V2-36-17 Multiplr: 1.00  
Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 23 5:44 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : signal #2 Phase:  
Signal #1 Info : signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222037.D\FID1A.CH      vial: 37  
 Signal #2 : d:\btex\DATA\D141222\1222037.D\FID2B.CH  
 Acq On : 23 Dec 2014 6:22      Operator:  
 Sample : 12-255-07s      Inst : Daryl  
 Misc : V2-36-17      Multiplr: 1.00  
                                  Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 6:50 2014      Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      signal #2 Phase:  
 Signal #1 Info :      signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.93	2980367	42.968	PPB
5) S BROMOFLUOROBENZENE	12.29	1738950	42.870	PPB
11) S FLUOROBENZENE #2	6.93	7970833	35.910	PPB
16) S BROMOFLUOROBENZENE #2	12.29	11005282	36.714	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	1785376	0.030	PPM
2) H Entire GAS Envelope (9-24-	12.21	3893827	0.048	PPM
3) H GASOLINE (9-24-14)	13.51	1785133	0.024	PPM
7) H entire GAS envelope #2 (9-	12.26	6657792	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	4607809	N.D.	PPM
9) MTBE #2	4.71	382	N.D.	PPB
10) BENZENE #2	6.70	27544	0.049	PPB
12) TOLUENE #2	9.08	2342030	8.250	PPB
13) ETHYLBENZENE #2	11.05	35239	0.025	PPB
14) m,p-XYLENE #2	11.31	102186	N.D.	PPB
15) o-XYLENE #2	11.80	32544	N.D.	PPB

12/23 ✓

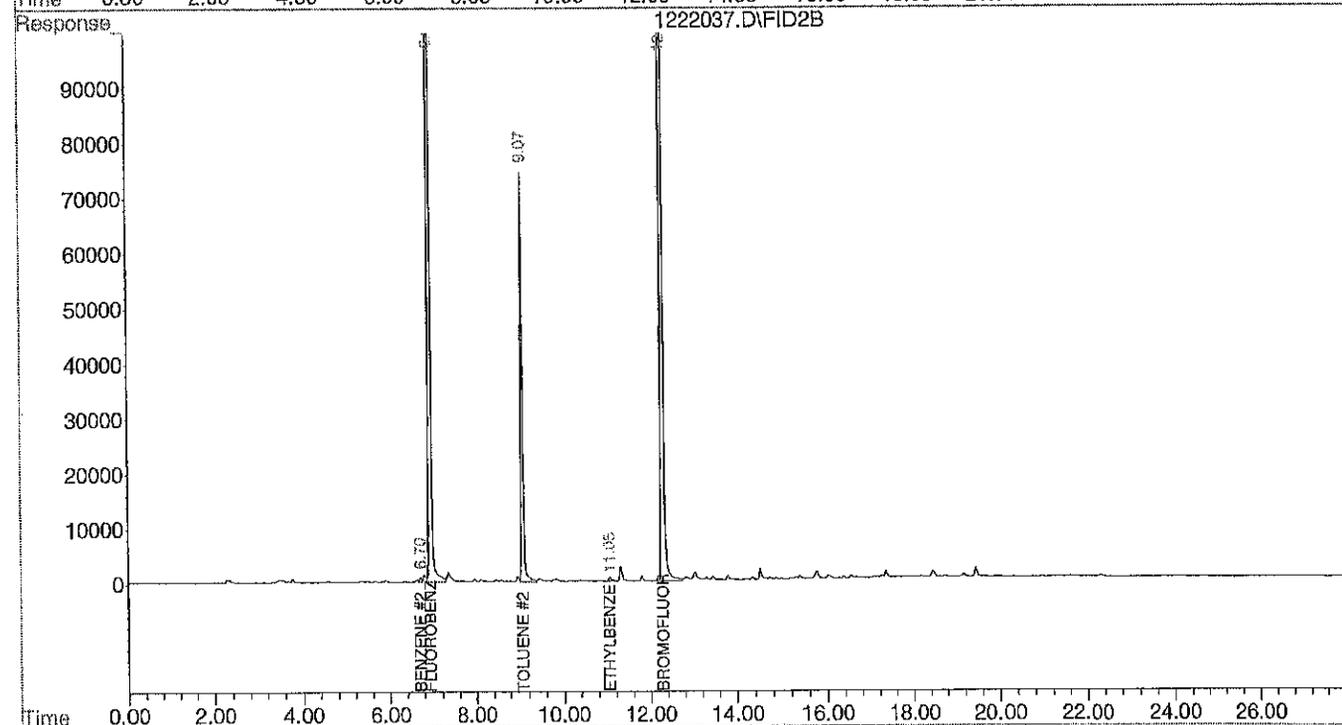
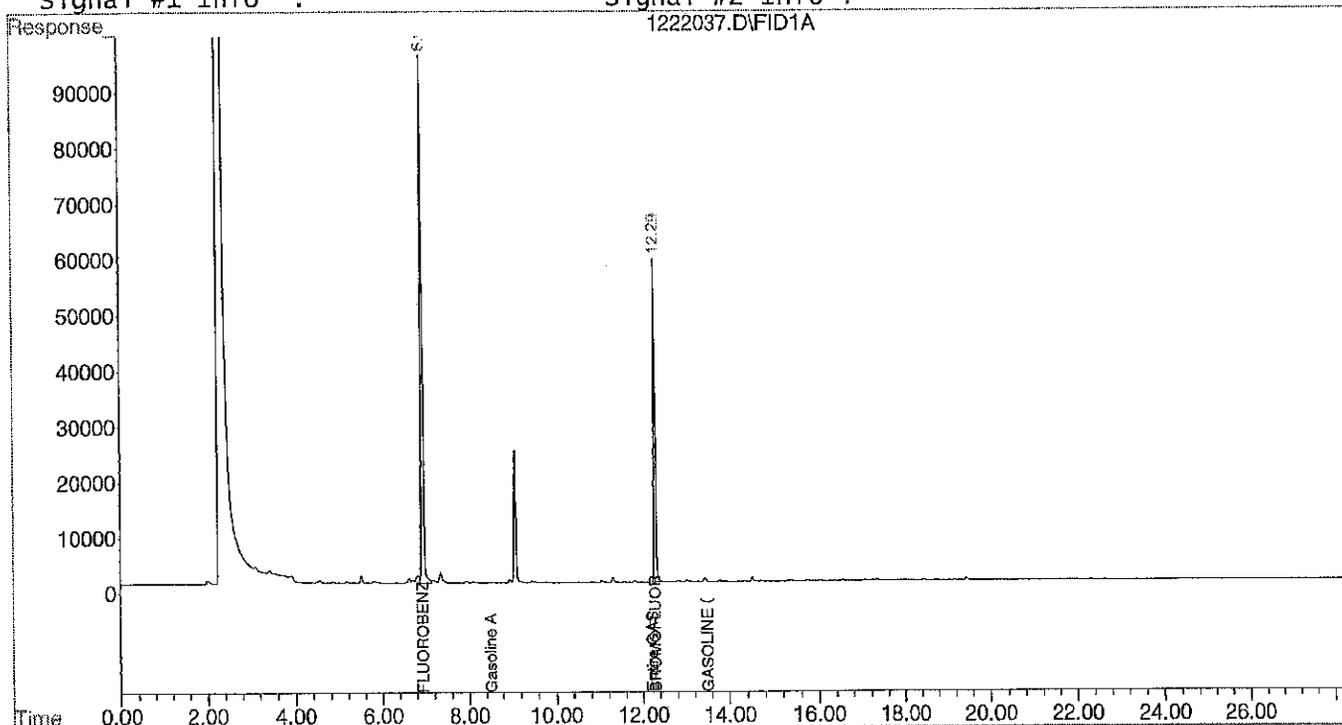
Signal #1 : d:\btex\DATA\D141222\1222037.D\FID1A.CH      vial: 37  
Signal #2 : d:\btex\DATA\D141222\1222037.D\FID2B.CH  
Acq On : 23 Dec 2014 6:22      Operator:  
Sample : 12-255-07s      Inst : Daryl  
Misc : V2-36-17      Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 6:50 2014      Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase :      Signal #2 Phase:  
Signal #1 Info :      Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222028.D\FID1A.CH Vial: 28  
 Signal #2 : d:\btex\DATA\D141222\1222028.D\FID2B.CH  
 Acq On : 23 Dec 2014 1:24 Operator:  
 Sample : MB1222S3 Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 1:52 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.93	3144430	45.352 PPB
5) S BROMOFLUOROBENZENE	12.29	1850035	45.645 PPB
11) S FLUOROBENZENE #2	6.93	8351453	37.641 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11460885	38.253 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	851224	0.011 PPM
2) H Entire GAS Envelope (9-24-	12.21	2729281	0.030 PPM
3) H GASOLINE (9-24-14)	13.51	820525	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	2428017	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1226245	N.D. PPM
9) MTBE #2	4.70	4425	0.012 PPB
10) BENZENE #2	6.70	22029	0.031 PPB
12) TOLUENE #2	9.08	55000	0.021 PPB
13) ETHYLBENZENE #2	11.05	37543	0.035 PPB
14) m,p-XYLENE #2	11.31	85307	N.D. PPB
15) o-XYLENE #2	11.80	36292	N.D. PPB

*Handwritten signature/initials*

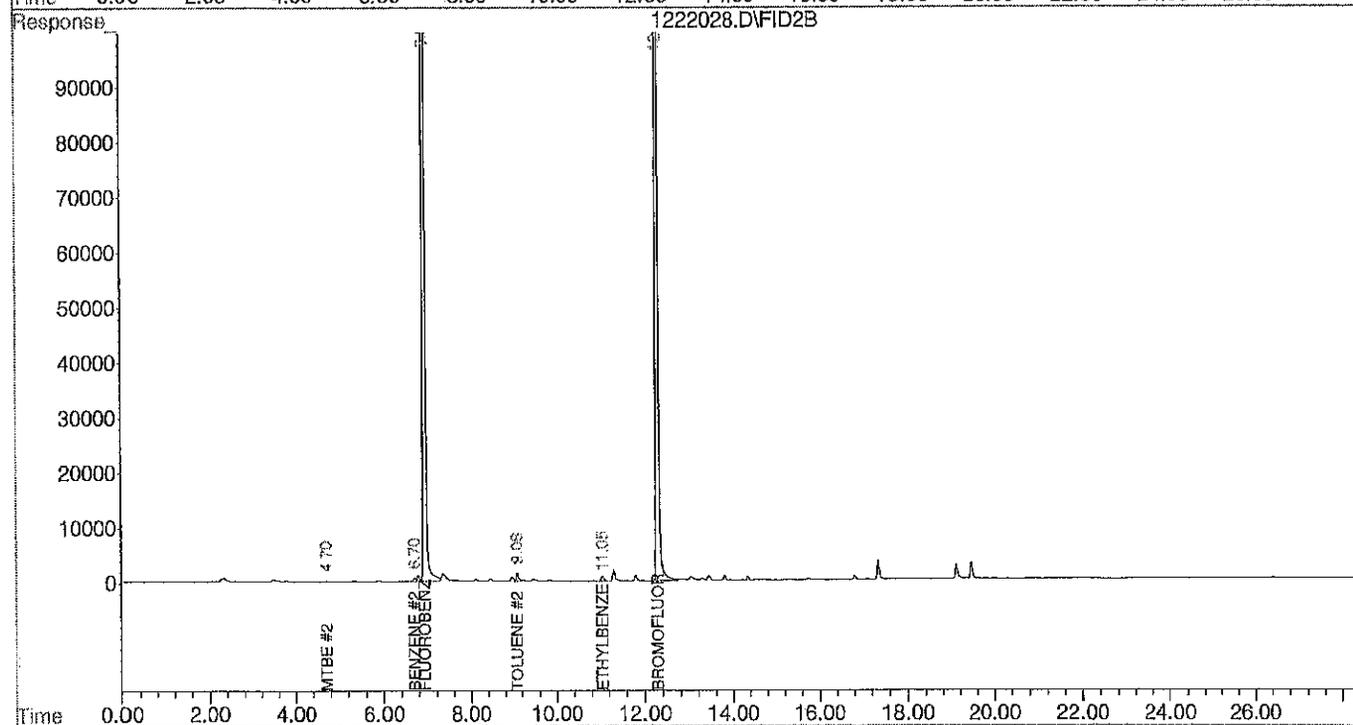
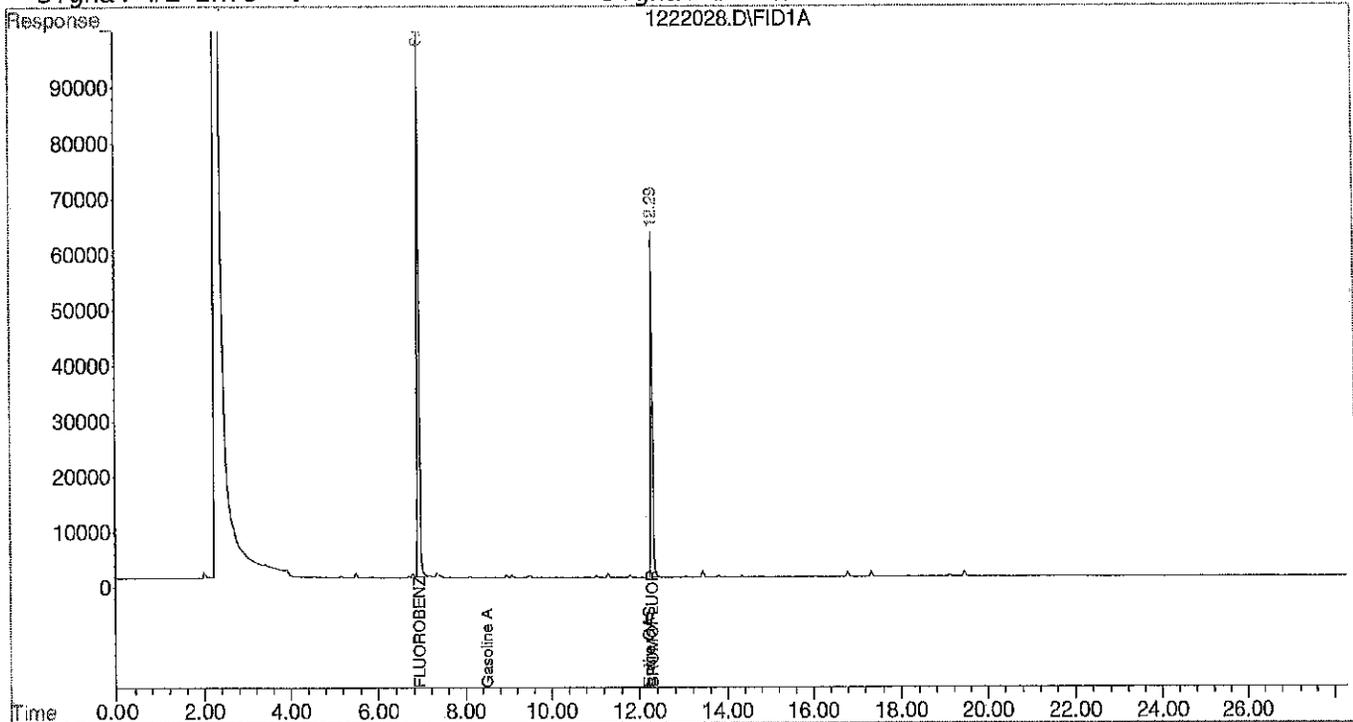
Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141222\1222028.D\FID1A.CH Vial: 28  
Signal #2 : d:\btex\DATA\D141222\1222028.D\FID2B.CH  
Acq On : 23 Dec 2014 1:24 Operator:  
Sample : MB122253 Inst : Daryl  
Misc : V2-36-17 Multiplr: 1.00  
Sample Amount: 0.00  
IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 1:52 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222030.D\FID1A.CH vial: 30  
 Signal #2 : d:\btex\DATA\D141222\1222030.D\FID2B.CH  
 Acq On : 23 Dec 2014 2:30 Operator:  
 Sample : 12-255-02s Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 2:58 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : signal #2 Phase:  
 Signal #1 Info : signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.93	2388379	34.367	PPB
5) S BROMOFLUOROBENZENE	12.29	1426538	35.065	PPB
11) S FLUOROBENZENE #2	6.93	6318745	28.399	PPB
16) S BROMOFLUOROBENZENE #2	12.29	8827929	29.359	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	1124553	0.016	PPM
2) H Entire GAS Envelope (9-24-	12.21	2800542	0.032	PPM
3) H GASOLINE (9-24-14)	13.51	1039573	0.005	PPM
7) H entire GAS envelope #2 (9-	12.26	4459095	N.D.	PPM
8) H GASOLINE #2 (9-24-14)	13.56	3053909	N.D.	PPM
9) MTBE #2	4.71	2357	N.D.	PPB
10) BENZENE #2	6.70	19288	0.021	PPB
12) TOLUENE #2	9.08	243266	0.698	PPB
13) ETHYLBENZENE #2	11.05	22533	N.D.	PPB
14) m,p-XYLENE #2	11.31	74713	N.D.	PPB
15) o-XYLENE #2	11.80	31294	N.D.	PPB

12/23 ✓

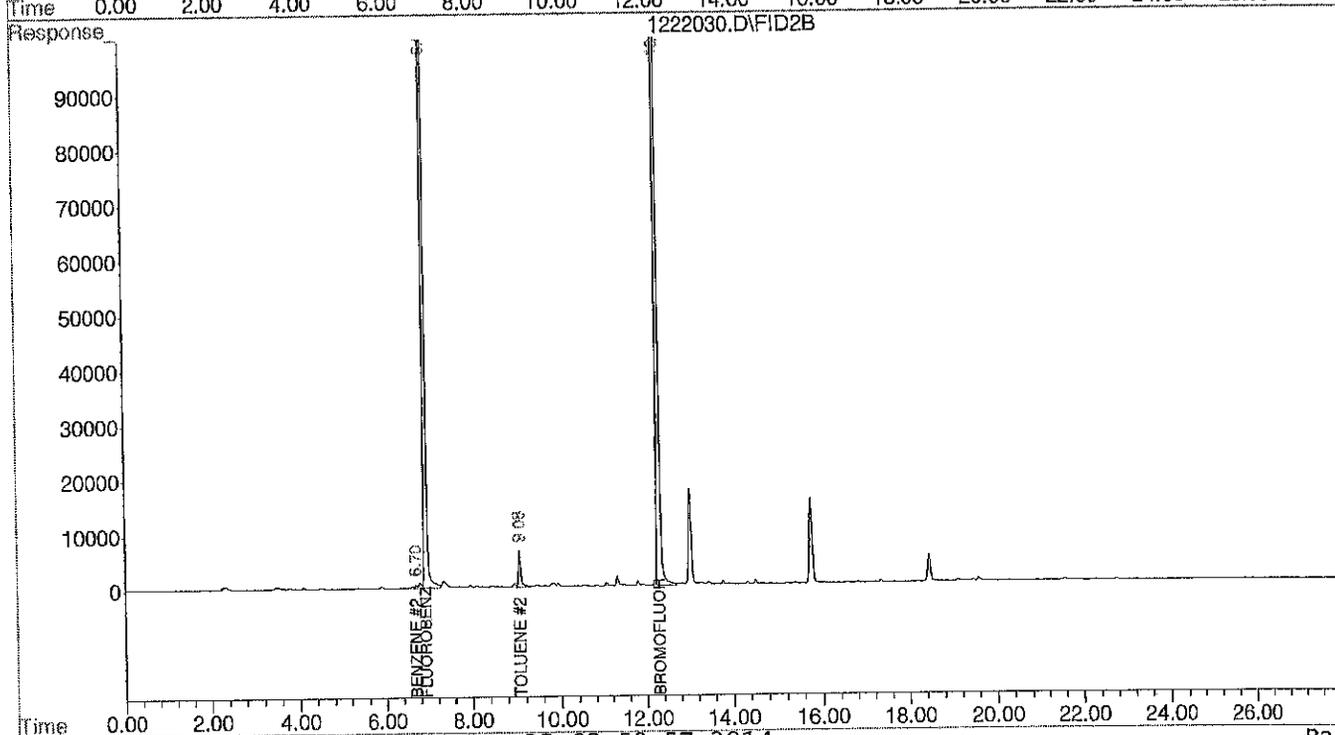
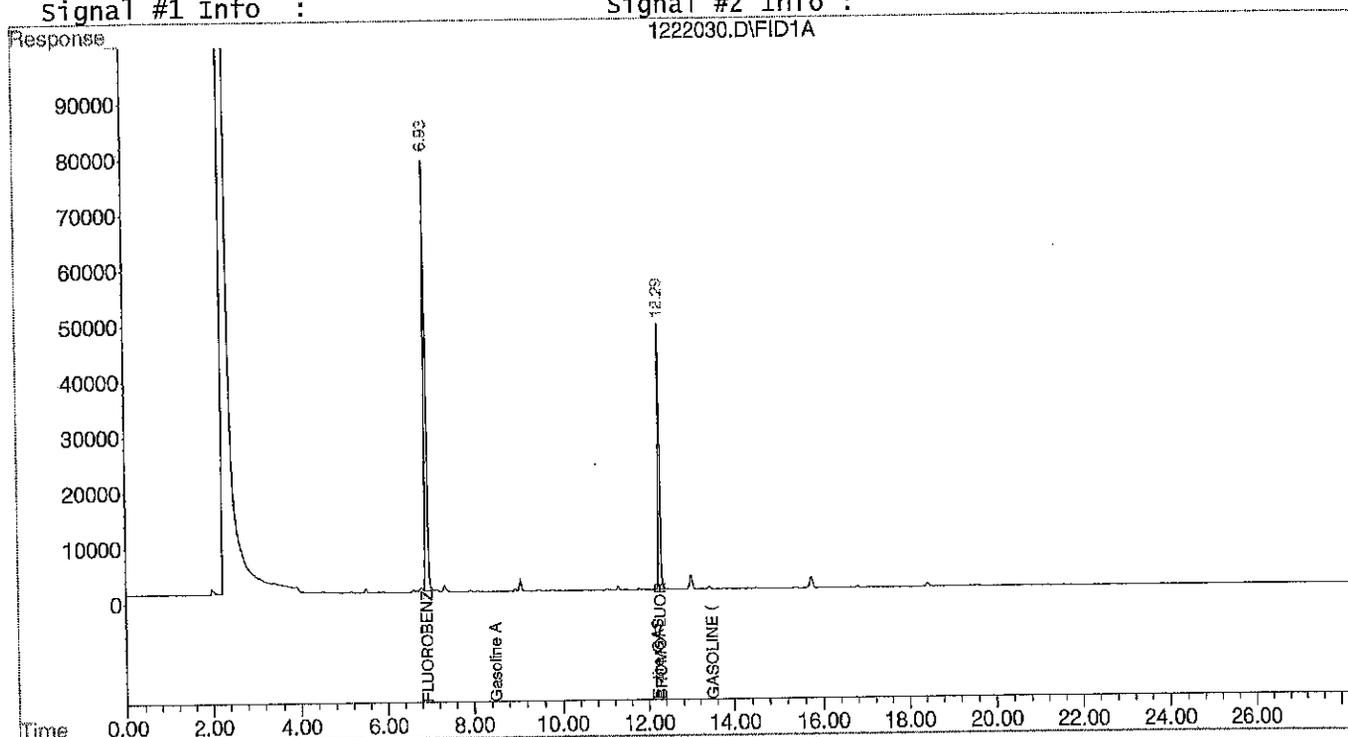
Signal #1 : d:\btex\DATA\D141222\1222030.D\FID1A.CH Vial: 30  
Signal #2 : d:\btex\DATA\D141222\1222030.D\FID2B.CH  
Acq On : 23 Dec 2014 2:30 Operator:  
Sample : 12-255-02s Inst : Dary1  
Misc : V2-36-17 Multiplr: 1.00  
Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 23 2:58 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info:



Signal #1 : d:\btex\DATA\D141222\1222031.D\FID1A.CH Vial: 31  
 Signal #2 : d:\btex\DATA\D141222\1222031.D\FID2B.CH  
 Acq On : 23 Dec 2014 3:03 Operator:  
 Sample : 12-255-02s DUP Inst : Daryl  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 3:32 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	2344372	33.728 PPB
5) S BROMOFLUOROBENZENE	12.29	1425938	35.050 PPB
11) S FLUOROBENZENE #2	6.93	6174059	27.741 PPB
16) S BROMOFLUOROBENZENE #2	12.29	8733145	29.039 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	936683	0.012 PPM
2) H Entire GAS Envelope (9-24-	12.21	2519039	0.027 PPM
3) H GASOLINE (9-24-14)	13.51	785666	N.D. PPM
7) H entire GAS envelope #2 (9-	12.26	2944984	N.D. PPM
8) H GASOLINE #2 (9-24-14)	13.56	1786197	N.D. PPM
9) MTBE #2	4.71	2122	N.D. PPB
10) BENZENE #2	6.70	16705	0.013 PPB
12) TOLUENE #2	9.08	241344	0.691 PPB
13) ETHYLBENZENE #2	11.05	18195	N.D. PPB
14) m,p-XYLENE #2	11.31	70145	N.D. PPB
15) o-XYLENE #2	11.80	26054	N.D. PPB

12/23 ✓

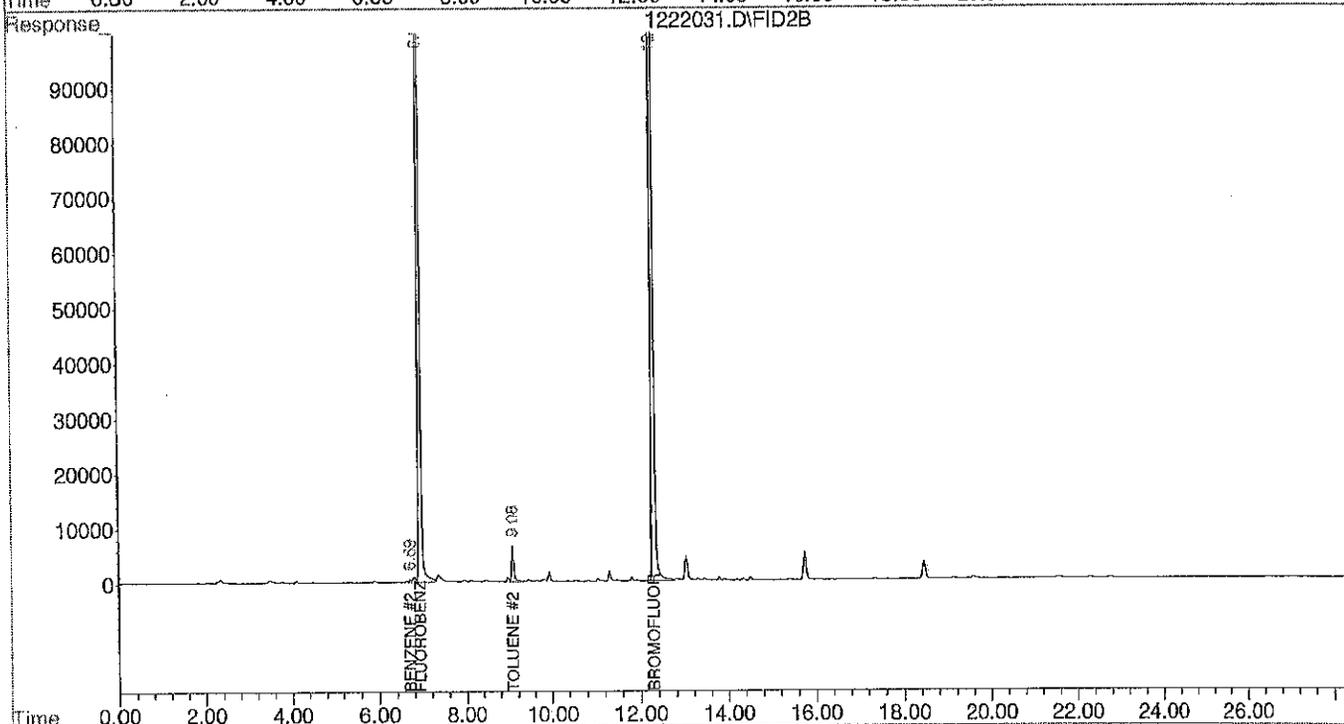
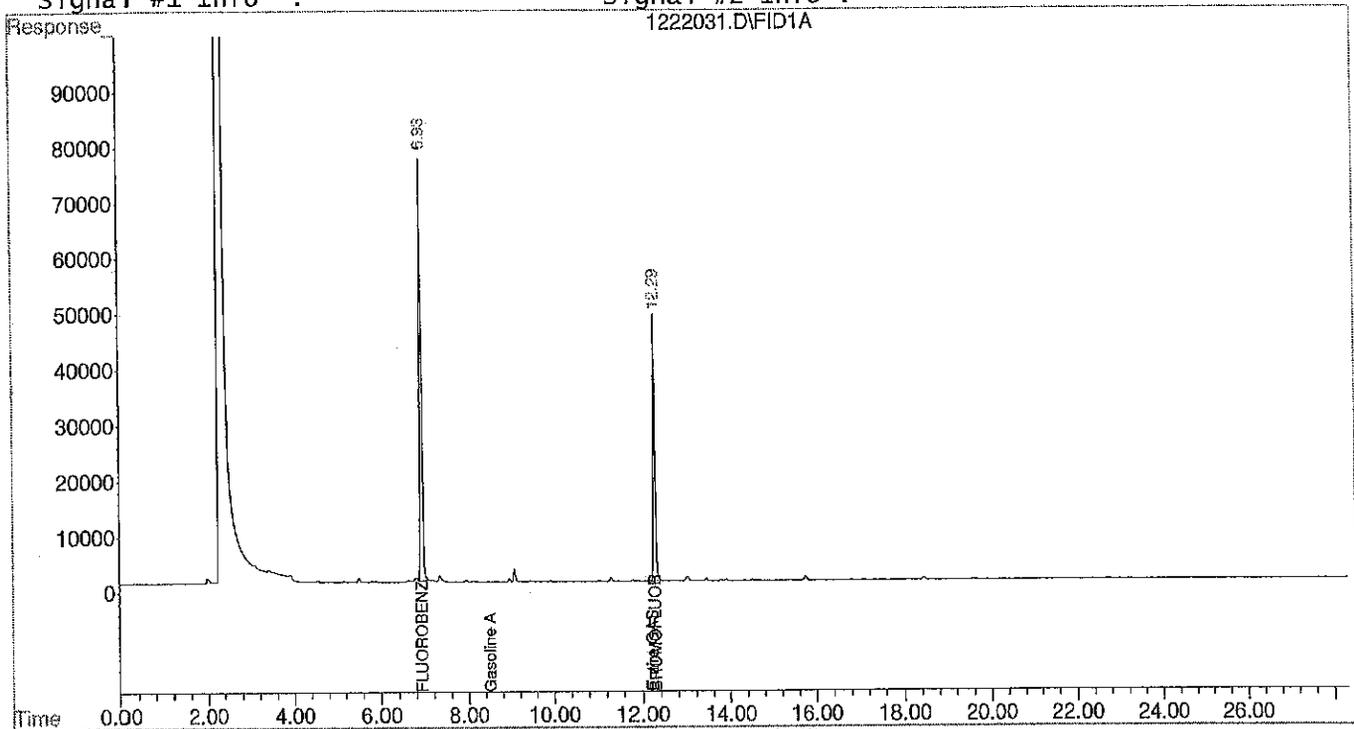
Signal #1 : d:\btex\DATA\D141222\1222031.D\FID1A.CH Vial: 31  
Signal #2 : d:\btex\DATA\D141222\1222031.D\FID2B.CH  
Acq On : 23 Dec 2014 3:03 Operator:  
Sample : 12-255-02s DUP Inst : Daryl  
Misc : V2-36-17 Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 3:32 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222026.D\FID1A.CH Vial: 26  
 Signal #2 : d:\btex\DATA\D141222\1222026.D\FID2B.CH  
 Acq On : 23 Dec 2014 00:17 Operator:  
 Sample : SB122251 Inst : Daryl  
 Misc : V2-36-17,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 0:46 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3028286	43.664 PPB
5) S BROMOFLUOROBENZENE	12.29	1798398	44.355 PPB
11) S FLUOROBENZENE #2	6.93	8108736	36.537 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11475811	38.304 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	12508735	0.247 PPM
2) H Entire GAS Envelope (9-24-	12.21	23475152	0.348 PPM
3) H GASOLINE (9-24-14)	13.51	14954376	0.357 PPM
7) H entire GAS envelope #2 (9-	12.26	53818268	0.326 PPM
8) H GASOLINE #2 (9-24-14)	13.56	35533736	0.265 PPM
9) MTBE #2	4.64	1509764	20.628 PPB
10) BENZENE #2	6.69	5743900	19.528 PPB
12) TOLUENE #2	9.07	5518932	19.682 PPB
13) ETHYLBENZENE #2	11.04	4764448	19.284 PPB
14) m,p-XYLENE #2	11.30	5867395	19.681 PPB
15) o-XYLENE #2	11.79	4913249	19.370 PPB

12/23 ✓

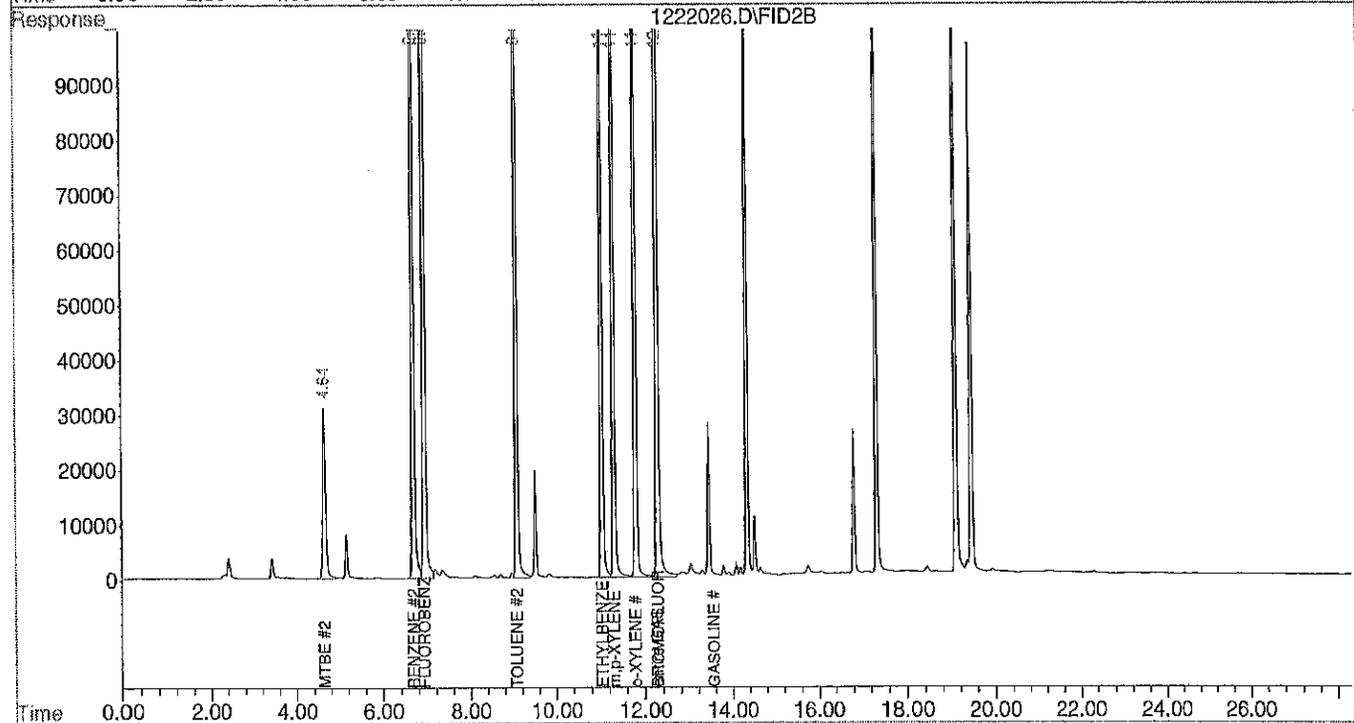
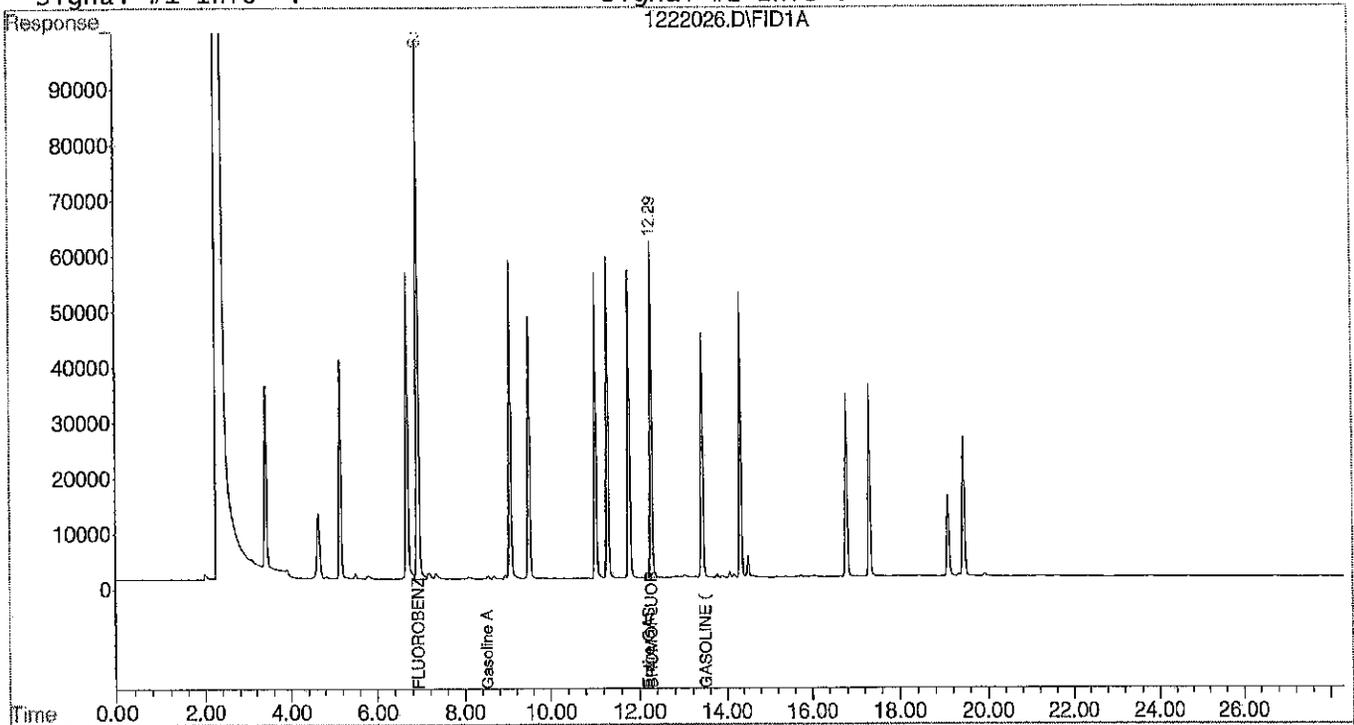
Signal #1 : d:\btex\DATA\D141222\1222026.D\FID1A.CH Vial: 26  
 Signal #2 : d:\btex\DATA\D141222\1222026.D\FID2B.CH  
 Acq On : 23 Dec 2014 00:17 Operator:  
 Sample : SB1222S1 Inst : Daryl  
 Misc : V2-36-17,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 0:46 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222027.D\FID1A.CH Vial: 27  
 Signal #2 : d:\btex\DATA\D141222\1222027.D\FID2B.CH  
 Acq On : 23 Dec 2014 00:50 Operator:  
 Sample : SBD1222S1 Inst : Daryl  
 Misc : V2-36-17,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 1:19 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.93	3070406	44.276 PPB
5) S BROMOFLUOROBENZENE	12.29	1850691	45.661 PPB
11) S FLUOROBENZENE #2	6.93	8421188	37.958 PPB
16) S BROMOFLUOROBENZENE #2	12.29	11760947	39.267 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	12777625	0.253 PPM
2) H Entire GAS Envelope (9-24-	12.21	23289337	0.345 PPM
3) H GASOLINE (9-24-14)	13.51	14773472	0.352 PPM
7) H entire GAS envelope #2 (9-	12.26	52870265	0.319 PPM
8) H GASOLINE #2 (9-24-14)	13.56	34898514	0.259 PPM
9) MTBE #2	4.64	1600958	21.877 PPB
10) BENZENE #2	6.69	5880401	19.993 PPB
12) TOLUENE #2	9.07	5597959	19.966 PPB
13) ETHYLBENZENE #2	11.04	4903700	19.851 PPB
14) m,p-XYLENE #2	11.30	5965115	20.017 PPB
15) o-XYLENE #2	11.79	5005548	19.739 PPB

12/23 ✓

Signal #1 : d:\btex\DATA\D141222\1222027.D\FID1A.CH  
Signal #2 : d:\btex\DATA\D141222\1222027.D\FID2B.CH  
Acq On : 23 Dec 2014 00:50  
Sample : SBD1222S1  
Misc : V2-36-17,V2-36-22

vial: 27

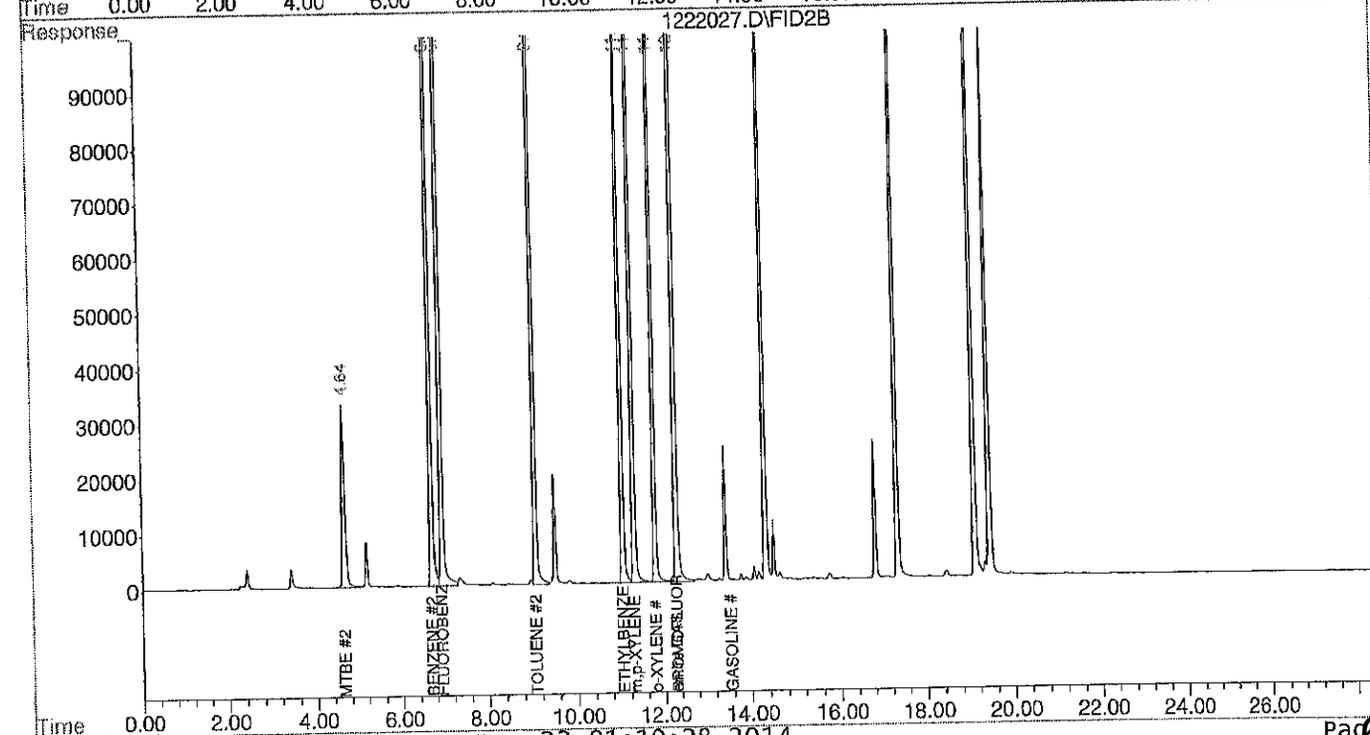
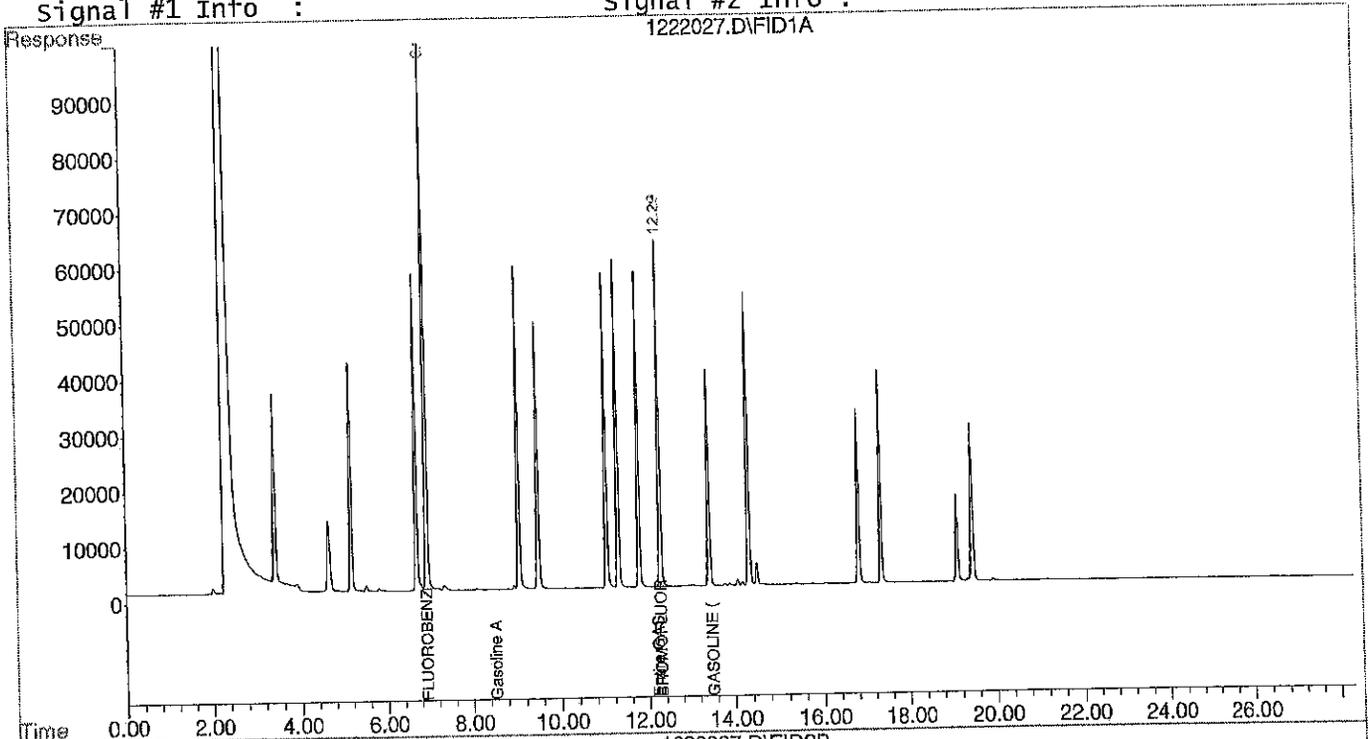
Operator: Daryl  
Inst : Daryl  
Multiplr: 1.00  
Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 23 1:19 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase :  
Signal #1 Info :  
Signal #2 Phase :  
Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222001.D\FID1A.CH Vial: 1  
 Signal #2 : d:\btex\DATA\D141222\1222001.D\FID2B.CH  
 Acq On : 22 Dec 2014 10:11 Operator:  
 Sample : CCVD1222G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 10:39 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.84	7542762	109.252 PPB
5) S BROMOFLUOROBENZENE	12.29	1291987	31.703 PPB
11) S FLUOROBENZENE #2	6.97	468839	1.801 PPB
16) S BROMOFLUOROBENZENE #2	12.29	2553742	8.165 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	285784459	5.799 PPM
2) H Entire GAS Envelope (9-24-	12.21	387439863	5.923 PPM
3) H GASOLINE (9-24-14)	13.51	218175125	5.498 PPM
7) H entire GAS envelope #2 (9-	12.26	700457214	4.830 PPM
8) H GASOLINE #2 (9-24-14)	13.56	524226133	4.719 PPM ✓
9) MTBE #2	4.58	3980986	54.470 PPB
10) BENZENE #2	6.71	45761044	155.889 PPB
12) TOLUENE #2	9.09	116277957	418.232 PPB
13) ETHYLBENZENE #2	11.05	29024800	118.075 PPB
14) m,p-XYLENE #2	11.31	105237540	362.262 PPB
15) o-XYLENE #2	11.81	40127237	160.110 PPB

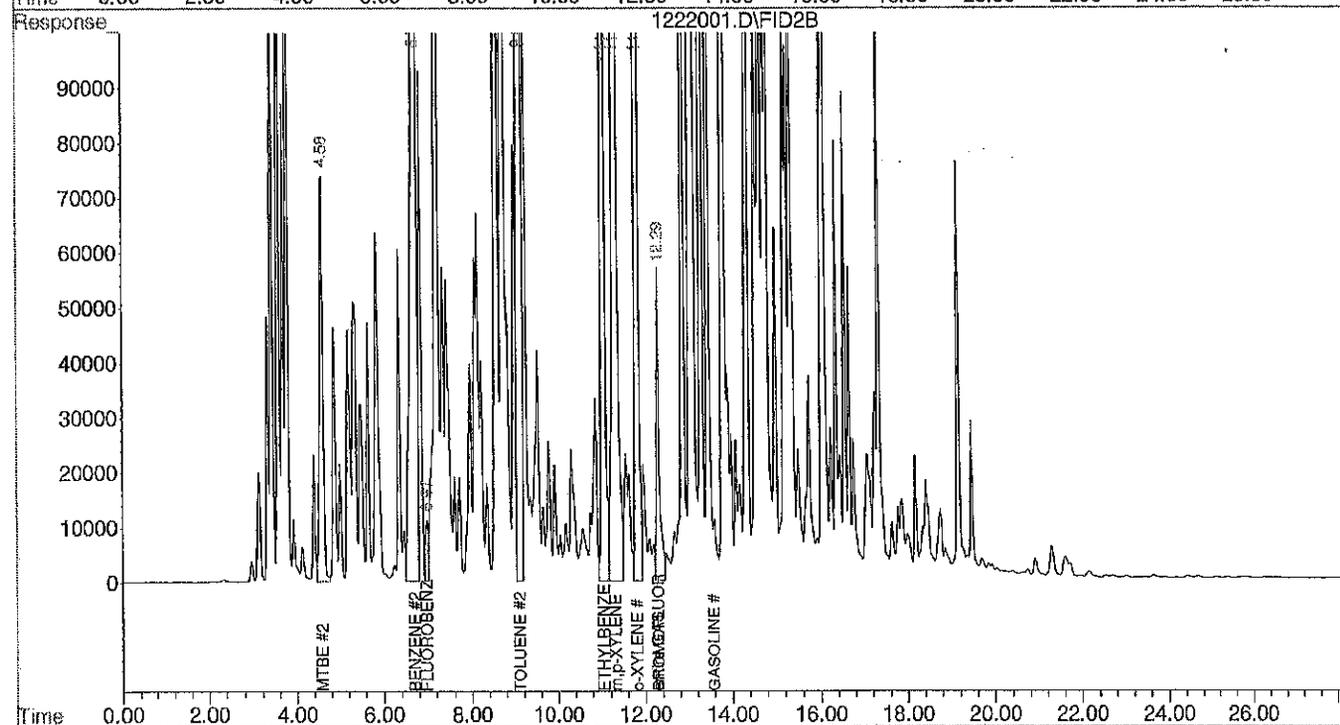
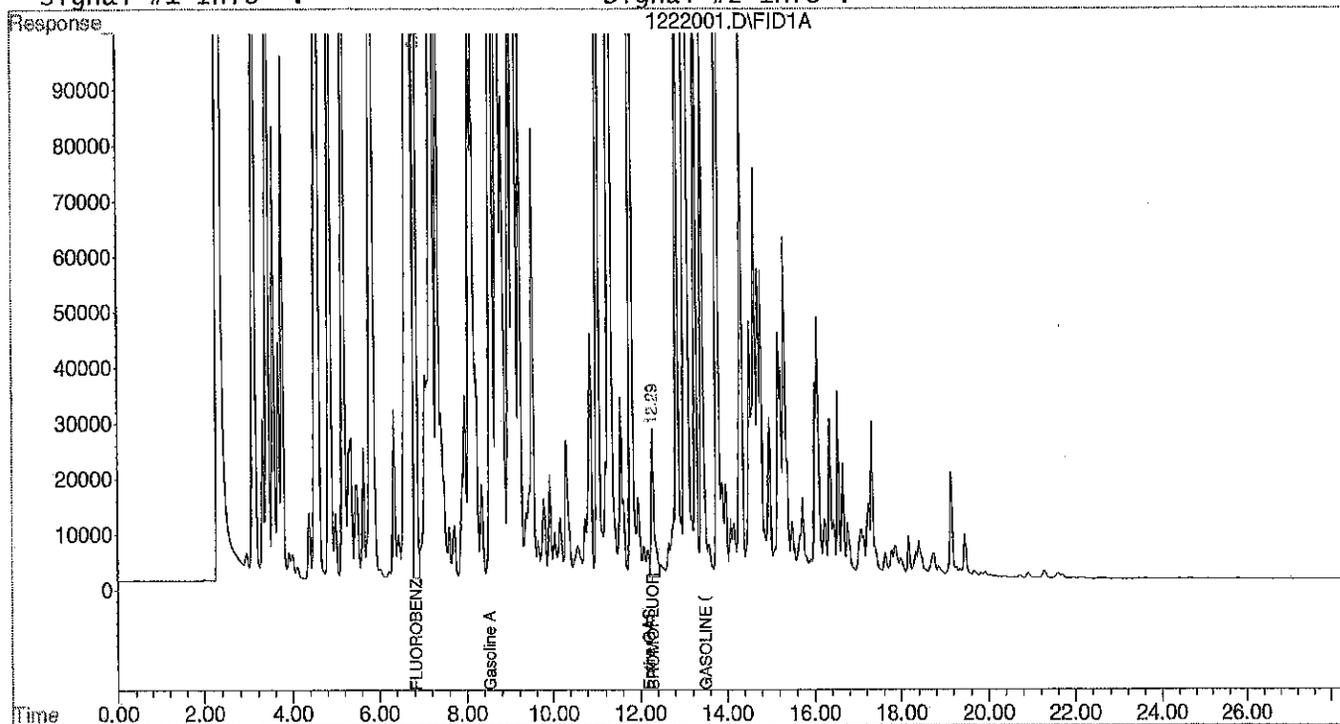
12/22 ✓

Signal #1 : d:\btex\DATA\D141222\1222001.D\FID1A.CH Vial: 1  
Signal #2 : d:\btex\DATA\D141222\1222001.D\FID2B.CH  
Acq On : 22 Dec 2014 10:11 Operator:  
Sample : CCVD1222G-1 Inst : Dary1  
Misc : V2-36-08 Multiplr: 1.00  
Sample Amount: 0.00  
IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 10:39 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222041.D\FID1A.CH      vial: 41  
 Signal #2 : d:\btex\DATA\D141222\1222041.D\FID2B.CH  
 Acq On : 23 Dec 2014 8:35      Operator:  
 Sample : CCVD1222G-2      Inst : Daryl  
 Misc : V2-36-08      Multiplr: 1.00  
    Sample Amount: 0.00  
 IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 9:04 2014      Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc	Units
<b>System Monitoring Compounds</b>				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.28	1165992	28.556	PPB
11) S FLUOROBENZENE #2	6.96	487876	1.888	PPB
16) S BROMOFLUOROBENZENE #2	12.28	2374519	7.559	PPB
<b>Target Compounds</b>				
1) H Gasoline AK GRO (9-24-14)	8.51	272228003	5.523	PPM
2) H Entire GAS Envelope (9-24-	12.21	366692178	5.606	PPM
3) H GASOLINE (9-24-14)	13.51	203296764	5.121	PPM
7) H entire GAS envelope #2 (9-	12.26	676467143	4.663	PPM
8) H GASOLINE #2 (9-24-14)	13.56	506143006	4.554	PPM ✓
9) MTBE #2	4.57	4029324	55.132	PPB
10) BENZENE #2	6.70	45681572	155.618	PPB
12) TOLUENE #2	9.08	116189584	417.914	PPB
13) ETHYLBENZENE #2	11.05	28012332	113.953	PPB
14) m,p-XYLENE #2	11.30	103439908	356.064	PPB
15) o-XYLENE #2	11.80	38864135	155.062	PPB

*12/23*  
*[Signature]*

Quantitation Report (Not Reviewed)

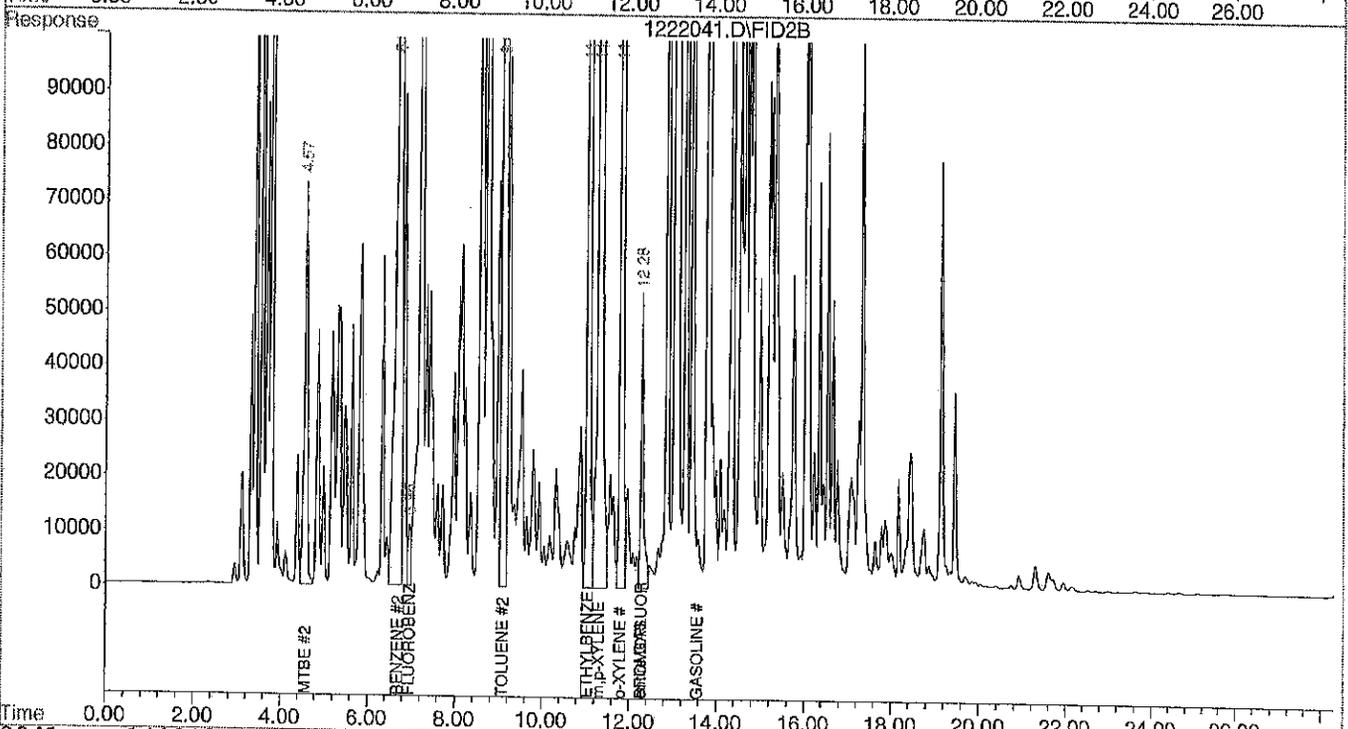
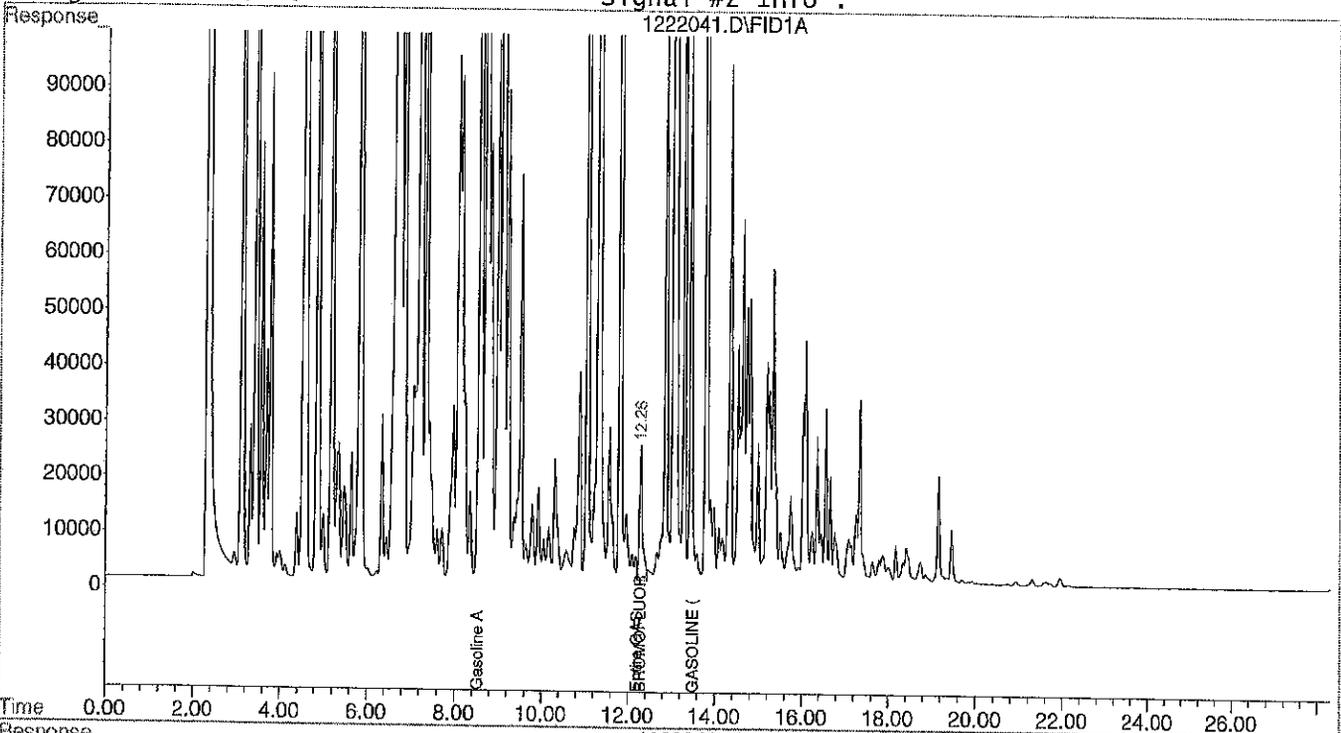
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Signal #2 : d:\btex\DATA\D141222\1222041.D\FID2B.CH  
Acq On : 23 Dec 2014 8:35 Operator:  
Sample : CCVD1222G-2 Inst : Daryl  
Misc : V2-36-08 Multiplr: 1.00  
Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 23 9:04 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141223\1223011.D\FID1A.CH Vial: 11  
 Signal #2 : d:\btex\DATA\D141223\1223011.D\FID2B.CH  
 Acq On : 23 Dec 2014 17:57 Operator:  
 Sample : CCVD1223G-1 Inst : Daryl  
 Misc : V2-36-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 18:26 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.85	7604520	110.149 PPB
5) S BROMOFLUOROBENZENE	12.30	1291188	31.683 PPB
11) S FLUOROBENZENE #2	6.99	506612	1.973 PPB
16) S BROMOFLUOROBENZENE #2	12.30	2564762	8.202 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	285953889	5.802 PPM
2) H Entire GAS Envelope (9-24-	12.21	386671976	5.912 PPM
3) H GASOLINE (9-24-14)	13.51	220076247	5.546 PPM
7) H entire GAS envelope #2 (9-	12.26	704604790	4.859 PPM
8) H GASOLINE #2 (9-24-14)	13.56	525716789	4.733 PPM ✓
9) MTBE #2	4.59	4027090	55.102 PPB
10) BENZENE #2	6.72	47959108	163.379 PPB
12) TOLUENE #2	9.11	120122073	432.065 PPB
13) ETHYLBENZENE #2	11.06	29913063	121.693 PPB
14) m,p-XYLENE #2	11.32	101303056	348.697 PPB
15) o-XYLENE #2	11.82	41472906	165.488 PPB

12/24  
ML

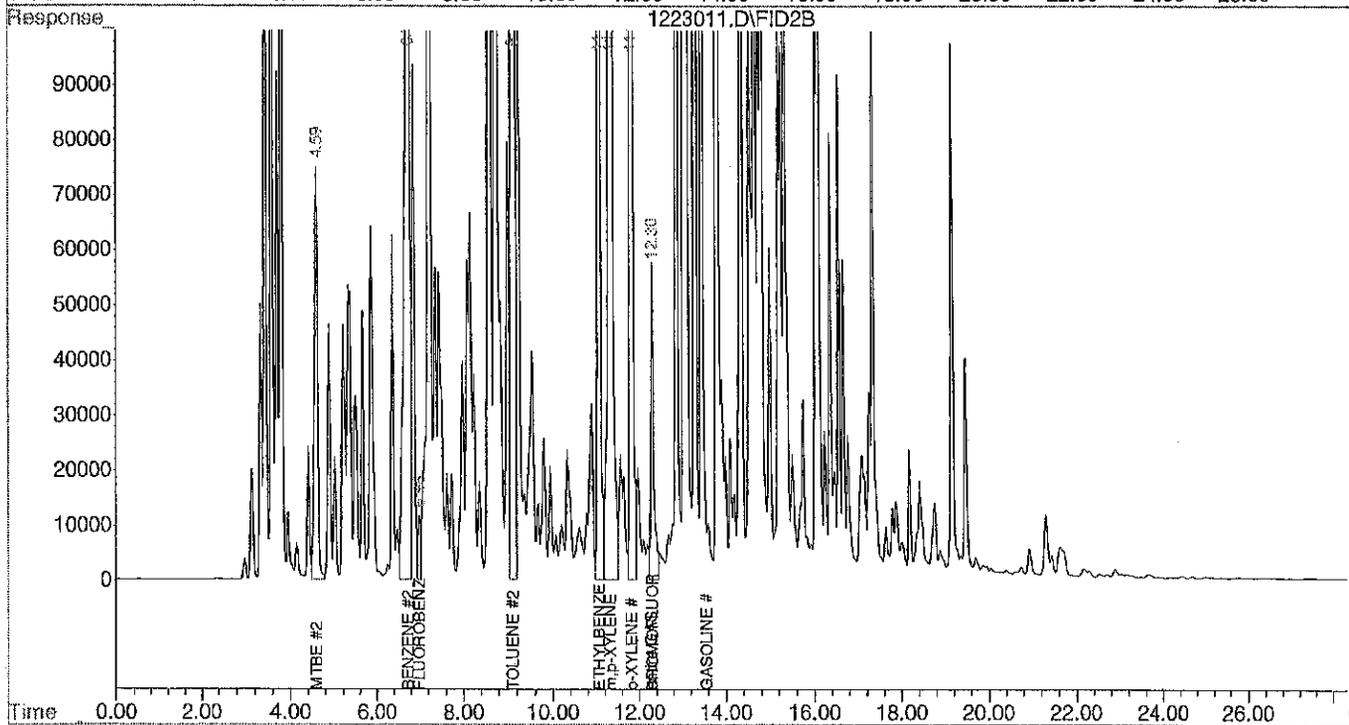
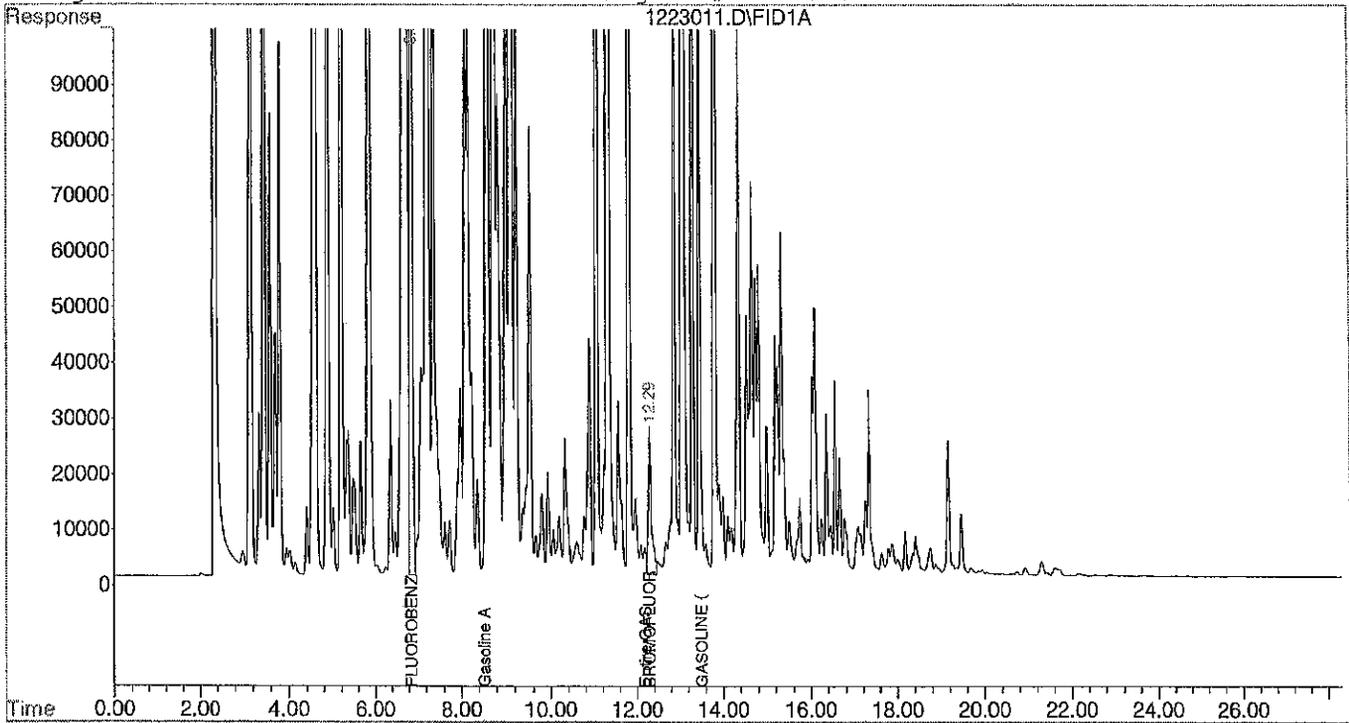
Signal #1 : d:\btex\DATA\D141223\1223011.D\FID1A.CH Vial: 11  
Signal #2 : d:\btex\DATA\D141223\1223011.D\FID2B.CH  
Acq On : 23 Dec 2014 17:57 Operator:  
Sample : CCVD1223G-1 Inst : Daryl  
Misc : V2-36-08 Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 18:26 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141223\1223022.D\FID1A.CH Vial: 22  
 Signal #2 : d:\btex\DATA\D141223\1223022.D\FID2B.CH  
 Acq On : 24 Dec 2014 00:04  
 Sample : CCVD1223G-2 Operator:  
 Misc : V2-36-08 Inst : Daryl  
 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 24 0:32 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	0.00	0	N.D.	PPB
5) S BROMOFLUOROBENZENE	12.27	1255073	30.781	PPB
11) S FLUOROBENZENE #2	6.95	525580	2.059	PPB
16) S BROMOFLUOROBENZENE #2	12.27	2557997	8.179	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	292093822	5.927	PPM
2) H Entire GAS Envelope (9-24-	12.21	390015857	5.963	PPM
3) H GASOLINE (9-24-14)	13.51	213207603	5.372	PPM
7) H entire GAS envelope #2 (9-	12.26	692813016	4.777	PPM
8) H GASOLINE #2 (9-24-14)	13.56	515247714	4.637	PPM ✓
9) MTBE #2	4.56	4184979	57.264	PPB
10) BENZENE #2	6.69	46926974	159.862	PPB
12) TOLUENE #2	9.08	118530875	426.339	PPB
13) ETHYLBENZENE #2	11.04	28888455	117.520	PPB
14) m,p-XYLENE #2	11.30	105706003	363.877	PPB
15) o-XYLENE #2	11.79	40011523	159.648	PPB

12/24  
 M

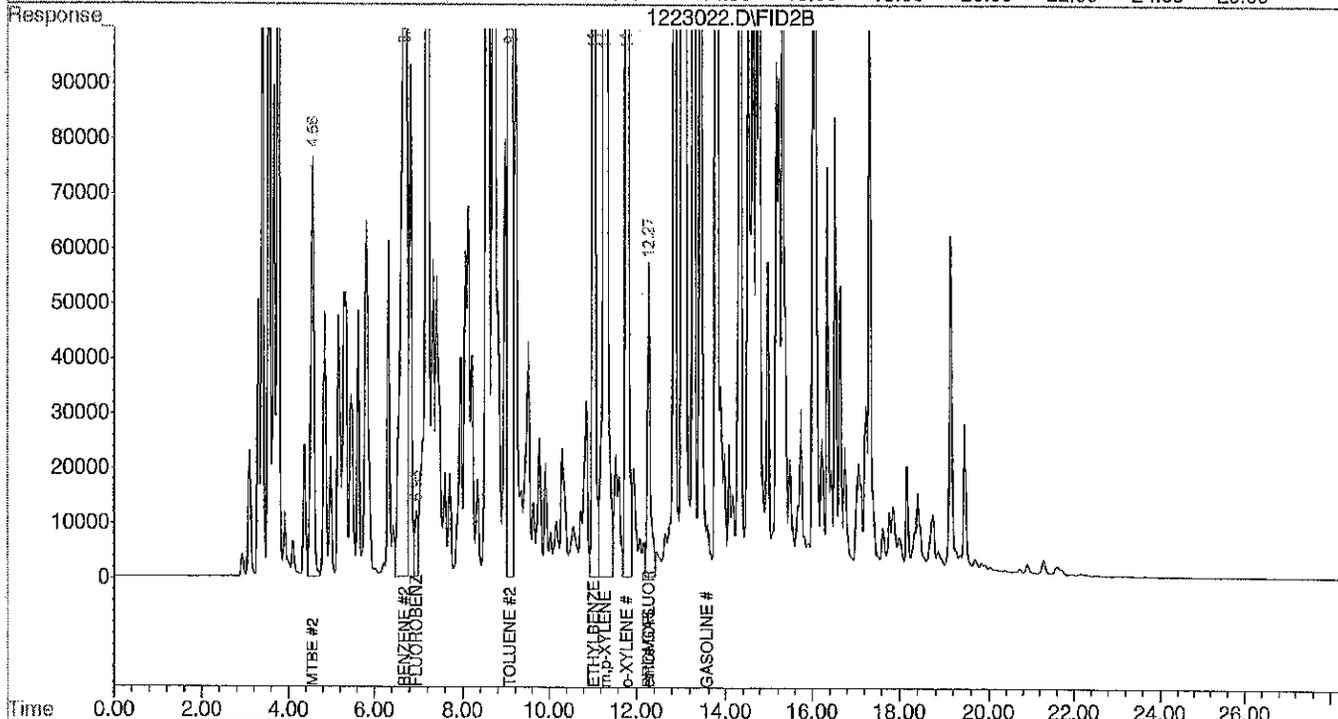
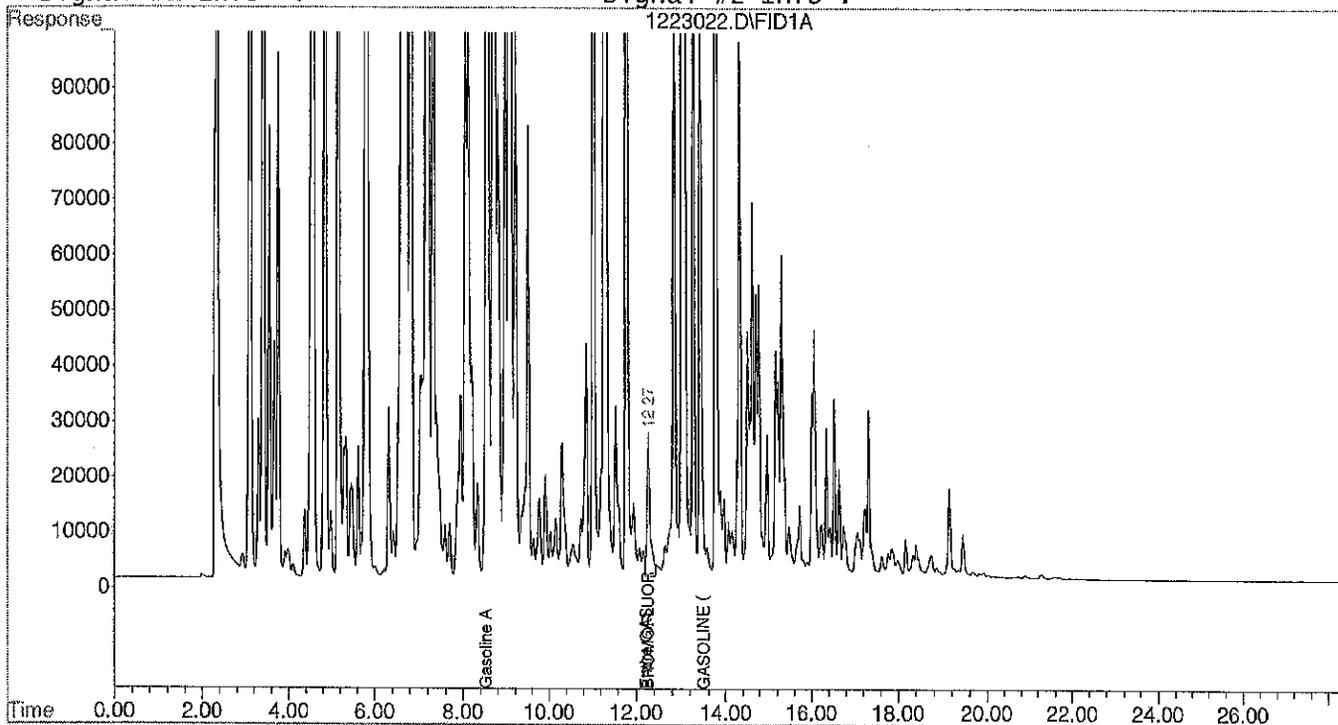
Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141223\1223022.D\FID1A.CH Vial: 22  
Signal #2 : d:\btex\DATA\D141223\1223022.D\FID2B.CH  
Acq On : 24 Dec 2014 00:04 Operator:  
Sample : CCVD1223G-2 Inst : Daryl  
Misc : V2-36-08 Multiplr: 1.00  
Sample Amount: 0.00  
IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 24 0:32 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222021.D\FID1A.CH Vial: 21  
 Signal #2 : d:\btex\DATA\D141222\1222021.D\FID2B.CH  
 Acq On : 22 Dec 2014 21:32 Operator:  
 Sample : CCVD1222B-2 Inst : Daryl  
 Misc : V2-36-23,v2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 22:00 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3238948	46.725 PPB
5) S BROMOFLUOROBENZENE	12.29	1874670	46.260 PPB
11) S FLUOROBENZENE #2	6.93	9009524	40.633 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12097199	40.403 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	29576013	0.594 PPM
2) H Entire GAS Envelope (9-24-	12.21	47350316	0.714 PPM
3) H GASOLINE (9-24-14)	13.51	31408914	0.773 PPM
7) H entire GAS envelope #2 (9-	12.26	116609647	0.763 PPM
8) H GASOLINE #2 (9-24-14)	13.56	83225721	0.699 PPM
9) MTBE #2	4.64	3699783	50.619 PPB
10) BENZENE #2	6.69	15244152	51.901 PPB
12) TOLUENE #2	9.07	14206131	50.941 PPB
13) ETHYLBENZENE #2	11.04	12489533	50.741 PPB
14) m,p-XYLENE #2	11.30	14985920	51.117 PPB
15) o-XYLENE #2	11.79	12621676	50.178 PPB

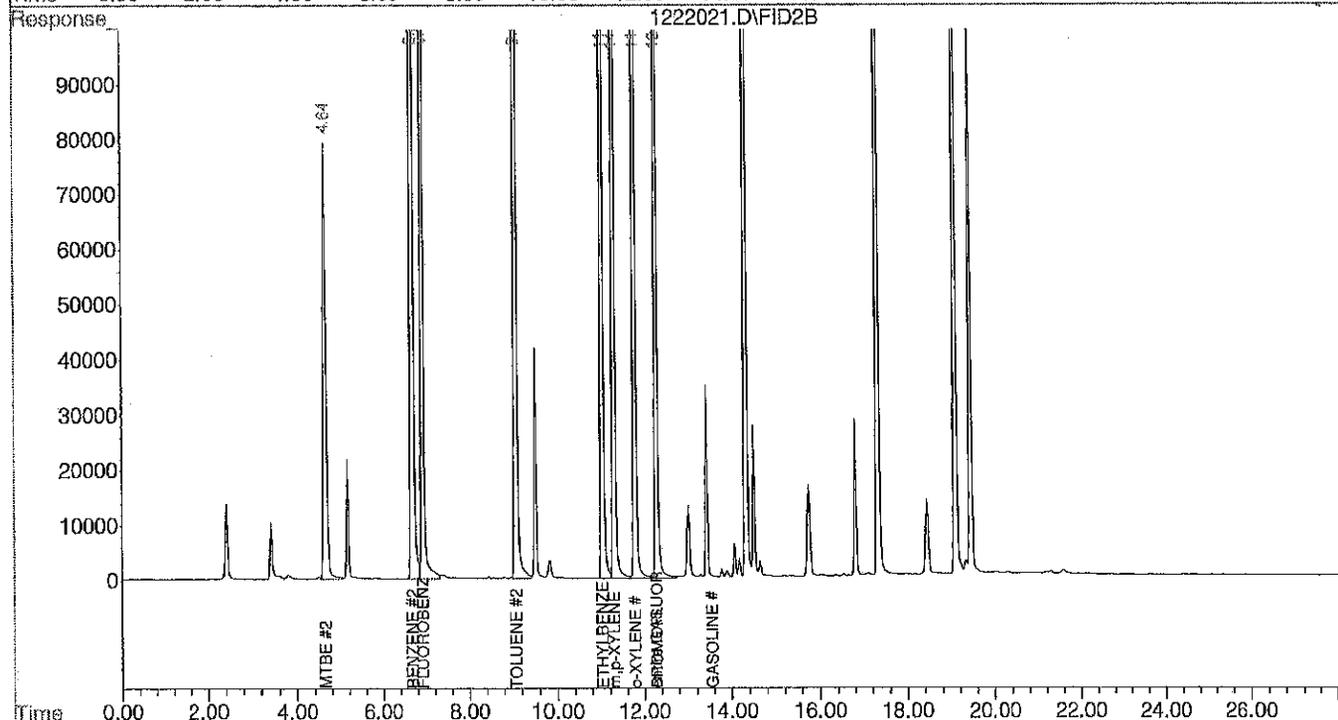
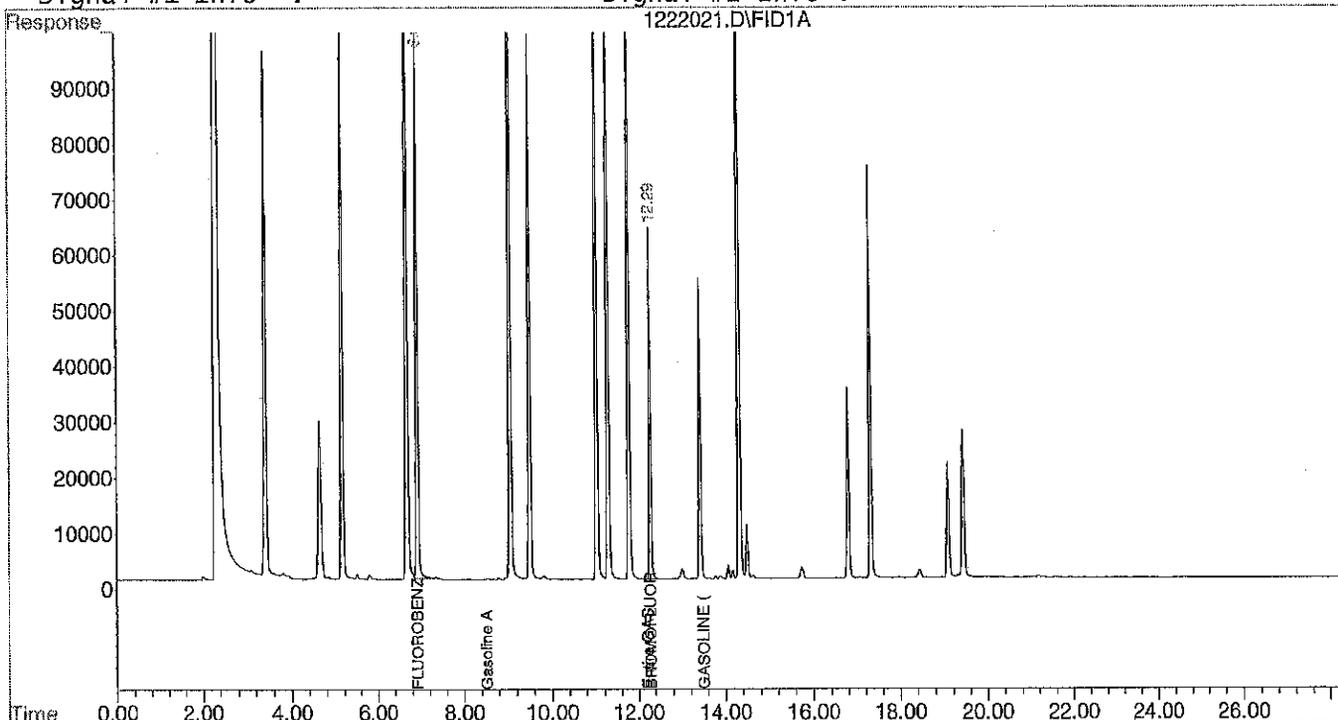
12/23 ✓

Signal #1 : d:\btex\DATA\D141222\1222021.D\FID1A.CH vial: 21  
Signal #2 : d:\btex\DATA\D141222\1222021.D\FID2B.CH  
Acq on : 22 Dec 2014 21:32 Operator:  
Sample : CCVD1222B-2 Inst : Daryl  
Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
Sample Amount: 0.00  
IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 22:00 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : signal #2 Phase:  
Signal #1 Info : signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222040.D\FID1A.CH Vial: 40  
 Signal #2 : d:\btex\DATA\D141222\1222040.D\FID2B.CH  
 Acq On : 23 Dec 2014 8:02 Operator:  
 Sample : CCVD1222B-3 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 8:30 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3272299	47.209 PPB
5) S BROMOFLUOROBENZENE	12.30	1902920	46.966 PPB
11) S FLUOROBENZENE #2	6.94	8800187	39.681 PPB
16) S BROMOFLUOROBENZENE #2	12.30	12074862	40.327 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	31231163	0.628 PPM
2) H Entire GAS Envelope (9-24-	12.21	54751034	0.827 PPM
3) H GASOLINE (9-24-14)	13.51	36678265	0.906 PPM
7) H entire GAS envelope #2 (9-	12.26	129206742	0.851 PPM
8) H GASOLINE #2 (9-24-14)	13.56	89210111	0.754 PPM
9) MTBE #2	4.65	4134309	56.570 PPB
10) BENZENE #2	6.70	15173153	51.659 PPB
12) TOLUENE #2	9.08	14282705	51.217 PPB
13) ETHYLBENZENE #2	11.05	12611040	51.236 PPB
14) m,p-XYLENE #2	11.31	15351720	52.378 PPB
15) o-XYLENE #2	11.80	12874087	51.187 PPB

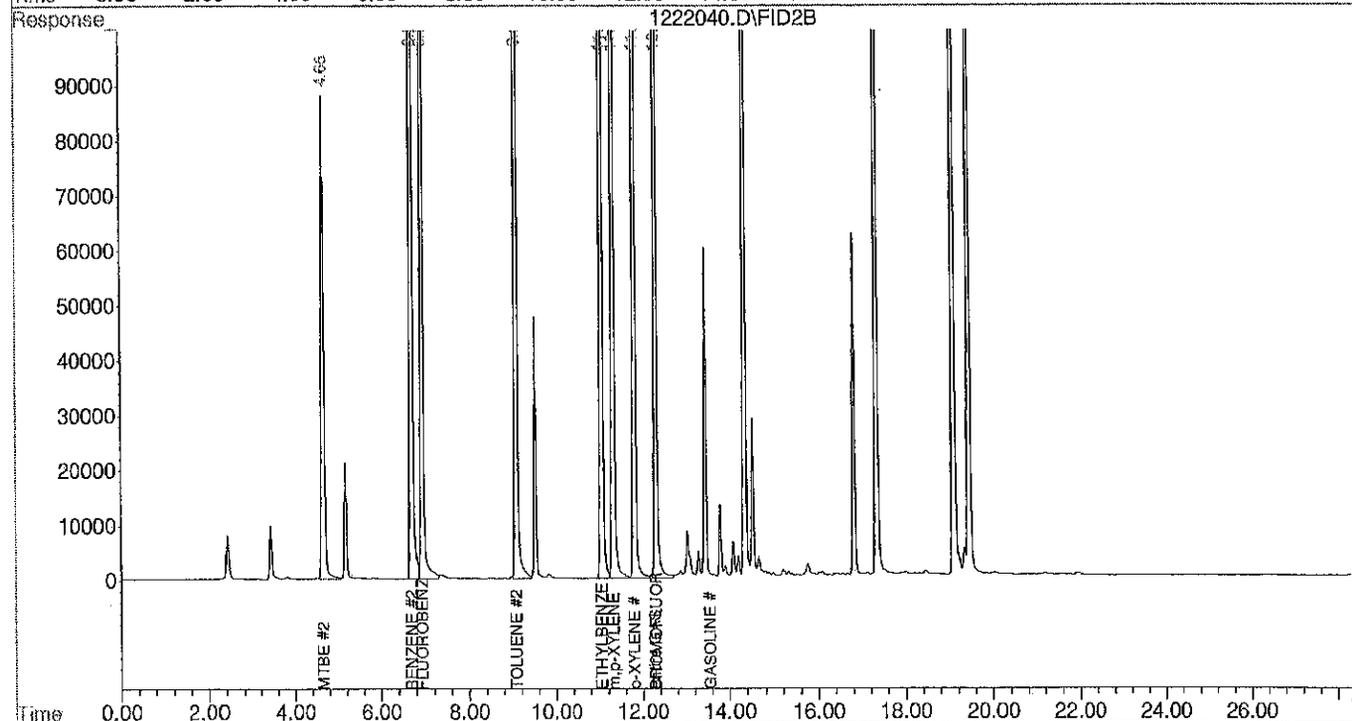
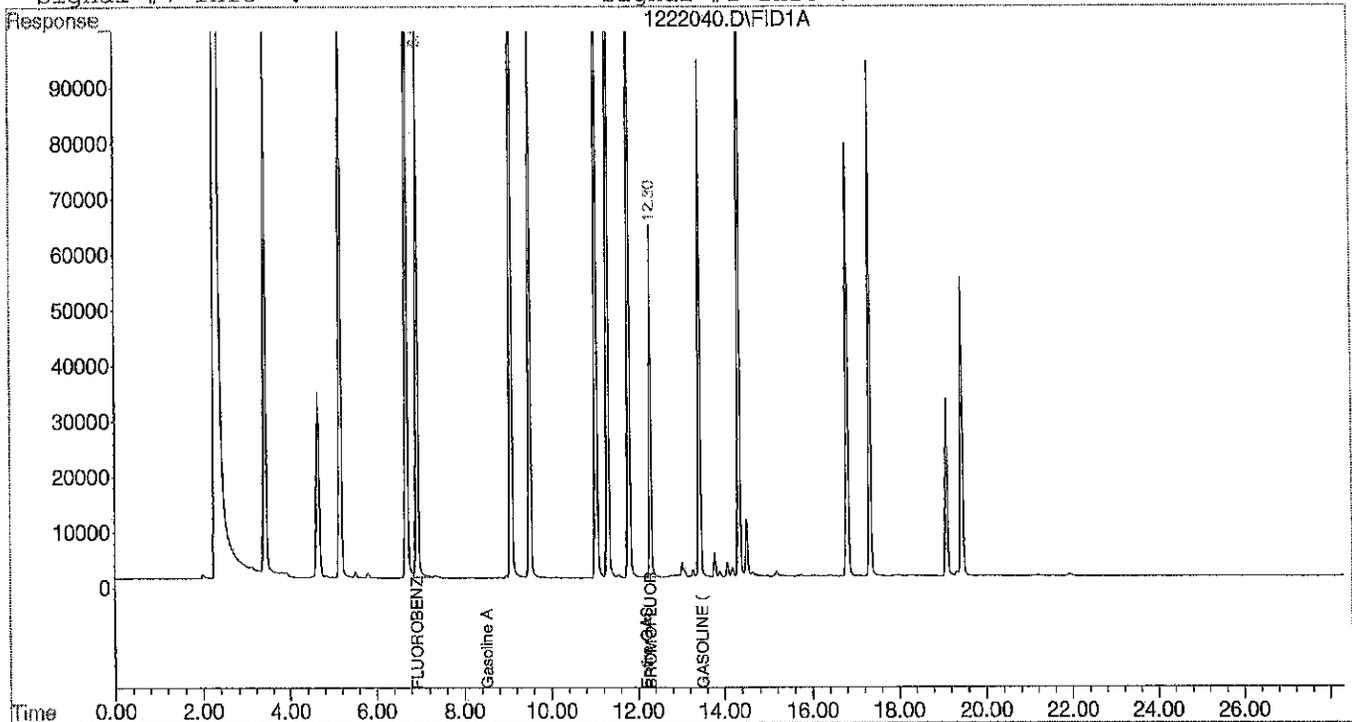
12/23  


Signal #1 : d:\btex\DATA\D141222\1222040.D\FID1A.CH Vial: 40  
 Signal #2 : d:\btex\DATA\D141222\1222040.D\FID2B.CH  
 Acq On : 23 Dec 2014 8:02 Operator:  
 Sample : CCVD1222B-3 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 8:30 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141223\1223012.D\FID1A.CH Vial: 12  
 Signal #2 : d:\btex\DATA\D141223\1223012.D\FID2B.CH  
 Acq On : 23 Dec 2014 18:31 Operator:  
 Sample : CCVD1223B-1 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 23 18:59 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.95	3414281	49.272	PPB
5) S BROMOFLUOROBENZENE	12.30	2004013	49.491	PPB
11) S FLUOROBENZENE #2	6.95	9047714	40.806	PPB
16) S BROMOFLUOROBENZENE #2	12.30	12596756	42.090	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	32433505	0.652	PPM
2) H Entire GAS Envelope (9-24-	12.21	57298285	0.866	PPM
3) H GASOLINE (9-24-14)	13.51	38872467	0.962	PPM
7) H entire GAS envelope #2 (9-	12.26	129452142	0.853	PPM
8) H GASOLINE #2 (9-24-14)	13.56	89443995	0.756	PPM
9) MTBE #2	4.66	4373151	59.841	PPB
10) BENZENE #2	6.71	14867076	50.616	PPB
12) TOLUENE #2	9.09	14419709	51.710	PPB
13) ETHYLBENZENE #2	11.05	12653731	51.410	PPB
14) m,p-XYLENE #2	11.32	15363810	52.420	PPB
15) o-XYLENE #2	11.80	12919977	51.371	PPB

*12/24/14*

Signal #1 : d:\btex\DATA\D141223\1223012.D\FID1A.CH  
Signal #2 : d:\btex\DATA\D141223\1223012.D\FID2B.CH  
Acq On : 23 Dec 2014 18:31  
Sample : CCVD1223B-1  
Misc : V2-36-23,V2-36-22

Vial: 12

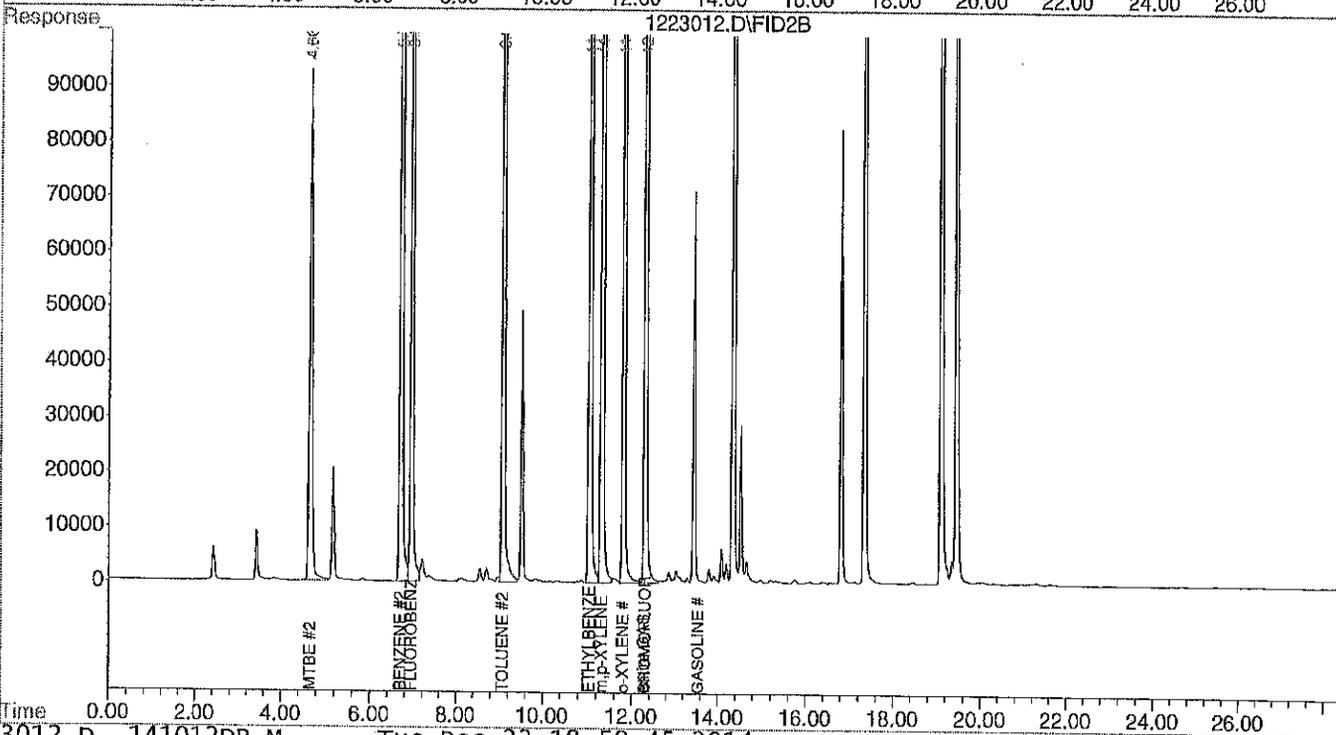
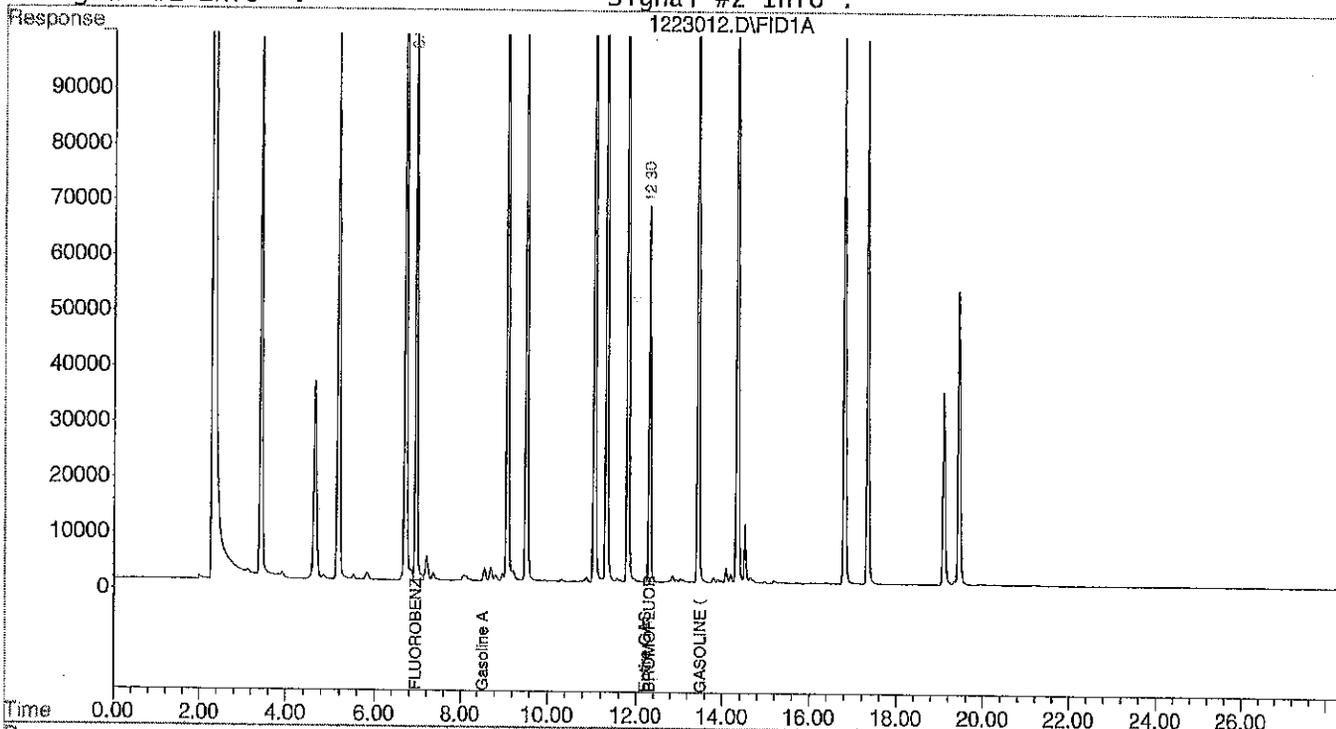
Operator:  
Inst : Daryl  
Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 18:59 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase :  
Signal #1 Info :  
Signal #2 Phase :  
Signal #2 Info :



Signal #1 : d:\btex\DATA\D141223\1223021.D\FID1A.CH Vial: 21  
 Signal #2 : d:\btex\DATA\D141223\1223021.D\FID2B.CH  
 Acq On : 23 Dec 2014 23:31 Operator:  
 Sample : CCVD1223B-2 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 23 23:59 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) S FLUOROBENZENE	6.93	3297579	47.577	PPB
5) S BROMOFLUOROBENZENE	12.29	1894269	46.750	PPB
11) S FLUOROBENZENE #2	6.93	8666325	39.072	PPB
16) S BROMOFLUOROBENZENE #2	12.29	11738998	39.193	PPB
Target Compounds				
1) H Gasoline AK GRO (9-24-14)	8.51	30423509	0.611	PPM
2) H Entire GAS Envelope (9-24-	12.21	52184872	0.788	PPM
3) H GASOLINE (9-24-14)	13.51	35268470	0.871	PPM
7) H entire GAS envelope #2 (9-	12.26	119414321	0.783	PPM
8) H GASOLINE #2 (9-24-14)	13.56	83514843	0.702	PPM
9) MTBE #2	4.64	3482545	47.644	PPB
10) BENZENE #2	6.69	14154560	48.188	PPB
12) TOLUENE #2	9.07	13943605	49.997	PPB
13) ETHYLBENZENE #2	11.04	11779467	47.850	PPB
14) m,p-XYLENE #2	11.31	14672384	50.036	PPB
15) o-XYLENE #2	11.79	12087442	48.043	PPB

*12/24*

Quantitation Report (Not Reviewed)

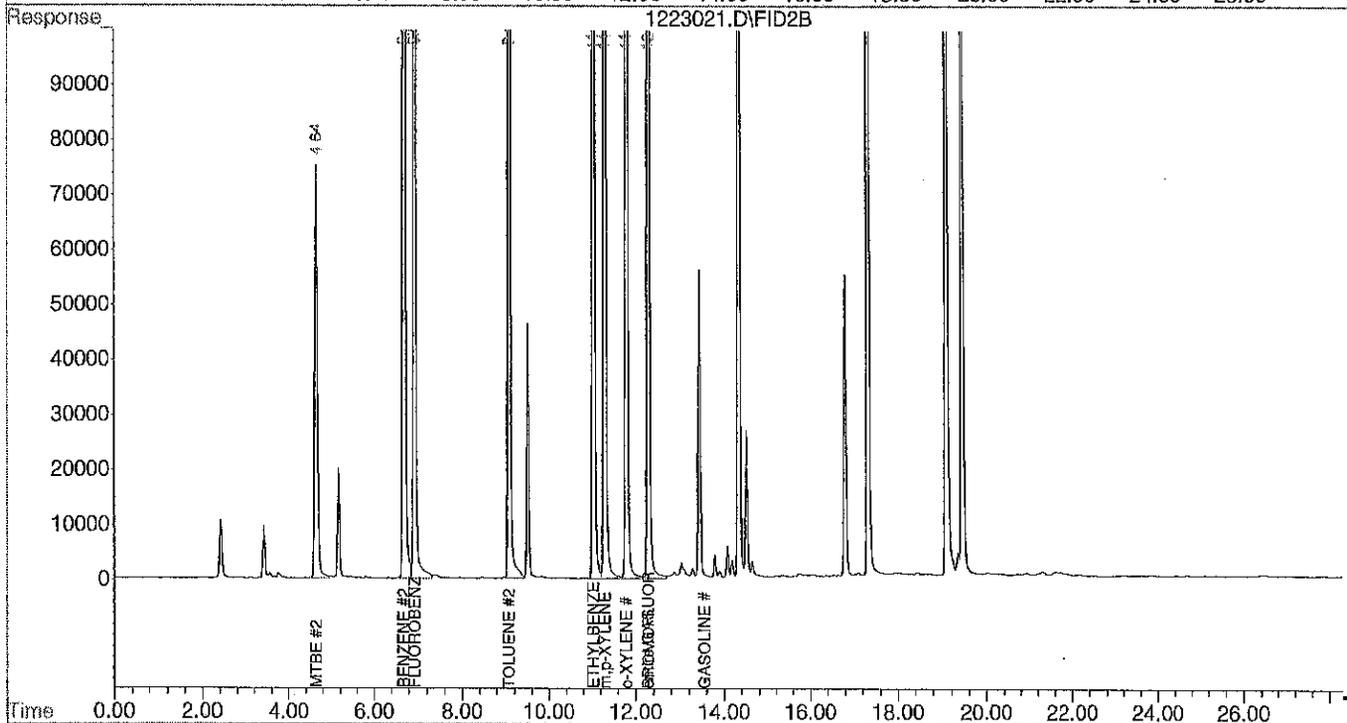
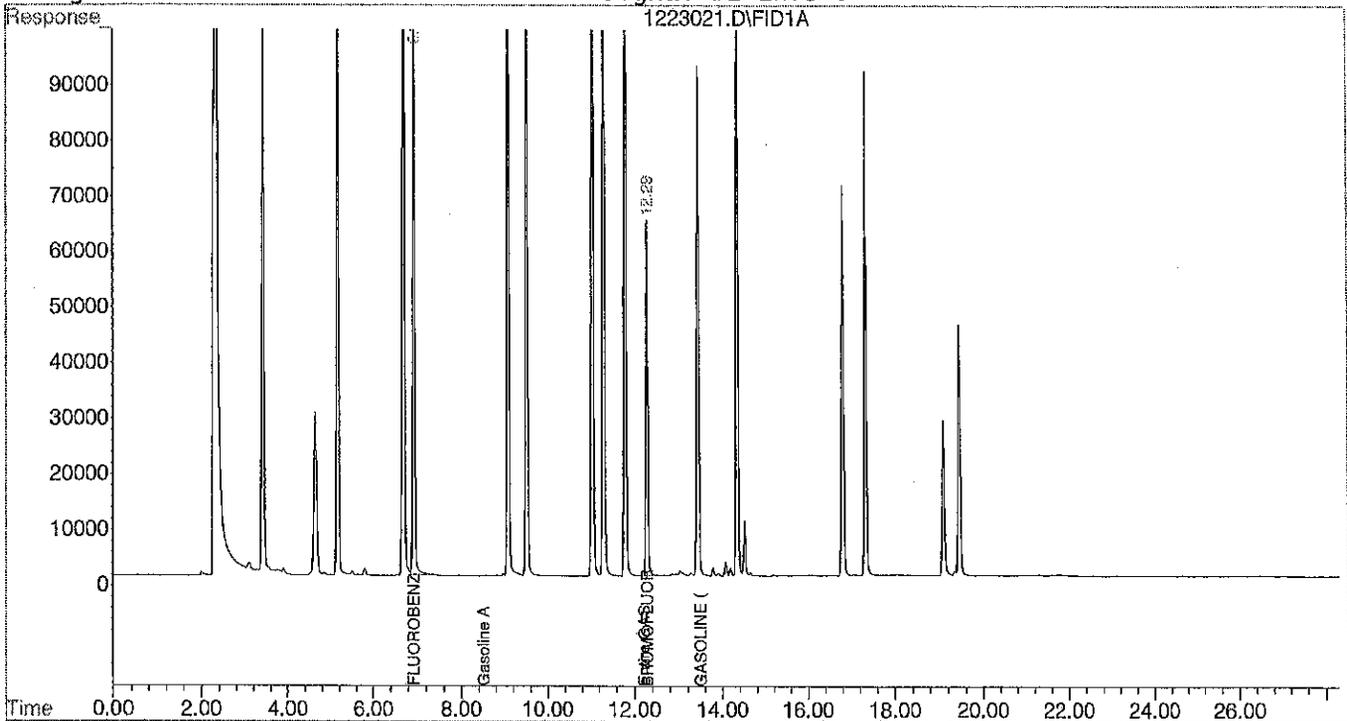
Signal #1 : d:\btex\DATA\D141223\1223021.D\FID1A.CH Vial: 21  
Signal #2 : d:\btex\DATA\D141223\1223021.D\FID2B.CH  
Acq On : 23 Dec 2014 23:31 Operator:  
Sample : CCVD1223B-2 Inst : Daryl  
Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 23 23:59 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



## NWTPH-Gx/Benzene (water) Data

# Injection Log

Directory: X:\BTEX\HOPE\DATA\H141222

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1222001.d	1.	CCVH1222G-1	V2-37-08	22 Dec 2014 09:50
2	2	1222002.d	1.	WATER		22 Dec 2014 10:24
3	3	1222003.d	1.	CCVH1222B-1	V2-36-17,V2-36-22	22 Dec 2014 10:58
4	4	1222004.d	1.	WATER		22 Dec 2014 11:39
5	5	1222005.d	1.	WATER		22 Dec 2014 12:12
6	6	1222006.d	1.	12-243-03s		22 Dec 2014 12:45
7	7	1222007.d	1.	12-243-04s		22 Dec 2014 13:19
8	8	1222008.d	1.	12-243-05s		22 Dec 2014 13:51
9	9	1222009.d	1.	12-243-06s		22 Dec 2014 14:24
10	10	1222010.d	1.	12-245-01s DUP		22 Dec 2014 14:56
11	11	1222011.d	1.	MB1222S2		22 Dec 2014 15:30
12	12	1222012.d	1.	12-238-10s	V2-36-17	22 Dec 2014 16:23
13	13	1222013.d	1.	MB1222W2	V2-36-17	22 Dec 2014 17:05
14	14	1222014.d	1.	12-255-08	V2-36-17	22 Dec 2014 17:38
15	15	1222015.d	1.	12-238-06d	V2-36-17	22 Dec 2014 18:12
16	16	1222016.d	1.	12-238-06d DUP	V2-36-17	22 Dec 2014 18:46
17	17	1222017.d	1.	CCVH1222B-2	V2-36-17,V2-36-22	22 Dec 2014 19:20
18	18	1222018.d	1.	12-238-12d	V2-36-17	22 Dec 2014 19:53
19	19	1222019.d	1.	12-211-02e RR	V2-36-17	22 Dec 2014 20:26
20	20	1222020.d	1.	12-211-03e RR	V2-36-17	22 Dec 2014 21:00
21	21	1222021.d	1.	12-211-08e RR	V2-36-17	22 Dec 2014 21:33
22	22	1222022.d	1.	12-211-09e RR	V2-36-17	22 Dec 2014 22:06
23	23	1222023.d	1.	12-238-18f	V2-36-17	22 Dec 2014 22:40
24	24	1222024.d	1.	12-254-01a	V2-36-17	22 Dec 2014 23:13
25	25	1222025.d	1.	12-254-02a	V2-36-17	22 Dec 2014 23:46
26	26	1222026.d	1.	12-211-13e RR	V2-36-17	23 Dec 2014 00:19
27	27	1222027.d	1.	12-227-05b RR	V2-36-17	23 Dec 2014 00:52
28	28	1222028.d	1.	WATER	V2-36-17	23 Dec 2014 01:26
29	29	1222029.d	1.	CCVH1222B-3	V2-36-17,V2-36-22	23 Dec 2014 01:59
30	30	1222030.d	1.	CCVH1222G-2	V2-36-08	23 Dec 2014 02:32

## Injection Log

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1222001.d	1.	CCVD1222G-1	V2-36-08	22 Dec 2014 10:11
2	2	1222002.d	1.	CCVD1222B-1	V2-36-23,V2-36-22	22 Dec 2014 10:45
3	3	1222003.d	1.	MB1222S1	V2-36-17	22 Dec 2014 11:27
4	4	1222004.d	1.	12-245-01s	V2-36-17	22 Dec 2014 11:59
5	5	1222005.d	1.	12-245-02s	V2-36-17	22 Dec 2014 12:32
6	6	1222006.d	1.	12-245-03s	V2-36-17	22 Dec 2014 13:07
7	7	1222007.d	1.	12-243-01s	V2-36-17	22 Dec 2014 13:39
8	8	1222008.d	1.	12-243-02s	V2-36-17	22 Dec 2014 14:12
9	9	1222009.d	1.	12-197-02s	V2-36-17	22 Dec 2014 14:44
10	10	1222010.d	1.	12-214-01s	V2-36-17	22 Dec 2014 15:17
11	11	1222011.d	1.	12-238-04s	V2-36-17	22 Dec 2014 15:51
12	12	1222012.d	1.	MB1222W1	V2-36-23	22 Dec 2014 16:31
13	13	1222013.d	1.	12-251-01e 1:4	V2-36-23	22 Dec 2014 17:05
14	14	1222014.d	1.	12-251-01e 1:4 DUP	V2-36-23	22 Dec 2014 17:38
15	15	1222015.d	1.	12-238-06d MS	V2-36-23,V2-36-22	22 Dec 2014 18:12
16	16	1222016.d	1.	12-238-06d MSD	V2-36-23,V2-36-22	22 Dec 2014 18:45
17	17	1222017.d	1.	12-211-14e RR 1:4	V2-36-23	22 Dec 2014 19:19
18	18	1222018.d	1.	12-211-18e RR 1:100	V2-36-23	22 Dec 2014 19:52
19	19	1222019.d	1.	12-211-19b RR 1:100	V2-36-23	22 Dec 2014 20:25
20	20	1222020.d	1.	12-227-04b RR 1:50	V2-36-23	22 Dec 2014 20:59
21	21	1222021.d	1.	CCVD1222B-2	V2-36-23,V2-36-22	22 Dec 2014 21:32
22	22	1222022.d	1.	SB1222W1	V2-36-23,V2-36-22	22 Dec 2014 22:05
23	23	1222023.d	1.	12-238-16s	V2-36-17	22 Dec 2014 22:38
24	24	1222024.d	1.	WATER		22 Dec 2014 23:11
25	25	1222025.d	1.	12-238-16s DUP	V2-36-17	22 Dec 2014 23:44
26	26	1222026.d	1.	SB1222S1	V2-36-17,V2-36-22	23 Dec 2014 00:17
27	27	1222027.d	1.	SBD1222S1	V2-36-17,V2-36-22	23 Dec 2014 00:50
28	28	1222028.d	1.	MB1222S3	V2-36-17	23 Dec 2014 01:24
29	29	1222029.d	1.	12-255-01s	V2-36-17	23 Dec 2014 01:57
30	30	1222030.d	1.	12-255-02s	V2-36-17	23 Dec 2014 02:30
31	31	1222031.d	1.	12-255-02s DUP	V2-36-17	23 Dec 2014 03:03
32	32	1222032.d	1.	12-255-03s	V2-36-17	23 Dec 2014 03:36
33	33	1222033.d	1.	12-255-04s	V2-36-17	23 Dec 2014 04:10
34	34	1222034.d	1.	12-255-05s	V2-36-17	23 Dec 2014 04:43
35	35	1222035.d	1.	12-255-06s	V2-36-17	23 Dec 2014 05:16
36	36	1222036.d	1.	WATER		23 Dec 2014 05:49
37	37	1222037.d	1.	12-255-07s	V2-36-17	23 Dec 2014 06:22
38	38	1222038.d	1.	12-231-01s 1:250	V2-36-17	23 Dec 2014 06:55
39	39	1222039.d	1.	12-231-02s 1:250	V2-36-17	23 Dec 2014 07:28
40	40	1222040.d	1.	CCVD1222B-3	V2-36-23,V2-36-22	23 Dec 2014 08:02
41	41	1222041.d	1.	CCVD1222G-2	V2-36-08	23 Dec 2014 08:35

Data File : d:\archon\DATA\H141222\1222014.D Vial: 14  
 Acq On : 22 Dec 2014 17:38 Operator:  
 Sample : 12-255-08 Inst : HOPE  
 Misc : V2-36-17 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 18:07 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Fri Dec 19 10:19:17 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141218B.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
6) S FLUOROBENZENE #2	9.12	3067730	40.390	PPB
11) S BROMOFLUOROBENZENE #2	14.70	3357565	41.906	PPB
Target Compounds				
2) H Entire GAS Envelope #2	14.31	1040246	N.D.	PPM
3) H GASOLINE #2	14.96	287988	N.D.	PPM
4) MTBE #2	6.63	739	0.022	PPB
5) BENZENE #2	8.90	16059	0.143	PPB
7) TOLUENE #2	11.38	48814	0.528	PPB
8) ETHYLBENZENE #2	13.38	316	N.D.	PPB
9) m,p-XYLENE #2	13.67	39745	0.395	PPB
10) o-XYLENE #2	14.21	11343	0.118	PPB

Data File : d:\archon\DATA\H141222\1222014.D

Vial: 14

Acq On : 22 Dec 2014 17:38

Operator:

Sample : 12-255-08

Inst : HOPE

Misc : V2-36-17

Multiplr: 1.00

Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 18:07 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)

Title : Fid calibration

Last Update : Fri Dec 19 10:19:17 2014

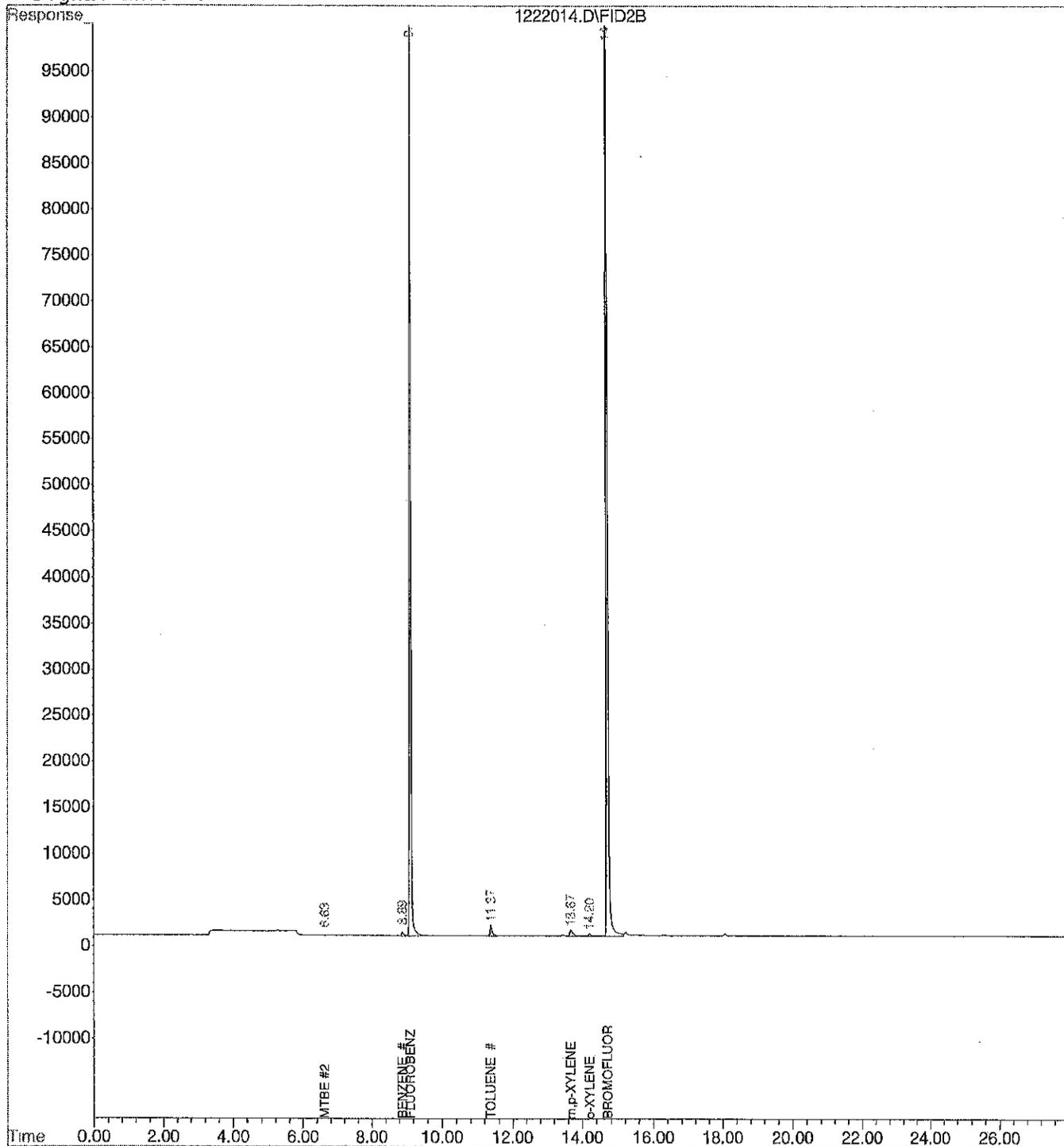
Response via : Multiple Level Calibration

DataAcq Meth : 141218B.M

Volume Inj. :

Signal Phase :

Signal Info :



Data File : d:\archon\DATA\H141222\1222013.D  
 Acq On : 22 Dec 2014 17:05  
 Sample : MB1222W2  
 Misc : V2-36-17

Vial: 13  
 Operator:  
 Inst : HOPE  
 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 17:33 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Fri Dec 19 10:19:17 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141218B.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
6) S FLUOROBENZENE #2	9.12	3077134	40.515	PPB
11) S BROMOFLUOROBENZENE #2	14.70	3408877	42.552	PPB
Target Compounds				
2) H Entire GAS Envelope #2	14.31	788577	N.D.	PPM
3) H GASOLINE #2	14.96	129755	N.D.	PPM
4) MTBE #2	6.64	1271	0.034	PPB
5) BENZENE #2	8.90	18552	0.166	PPB
7) TOLUENE #2	11.38	39720	0.424	PPB
8) ETHYLBENZENE #2	13.36	190	N.D.	PPB
9) m,p-XYLENE #2	13.67	41756	0.420	PPB
10) o-XYLENE #2	14.20	15333	0.177	PPB

Data File : d:\archon\DATA\H141222\1222013.D  
Acq On : 22 Dec 2014 17:05  
Sample : MB1222w2  
Misc : V2-36-17

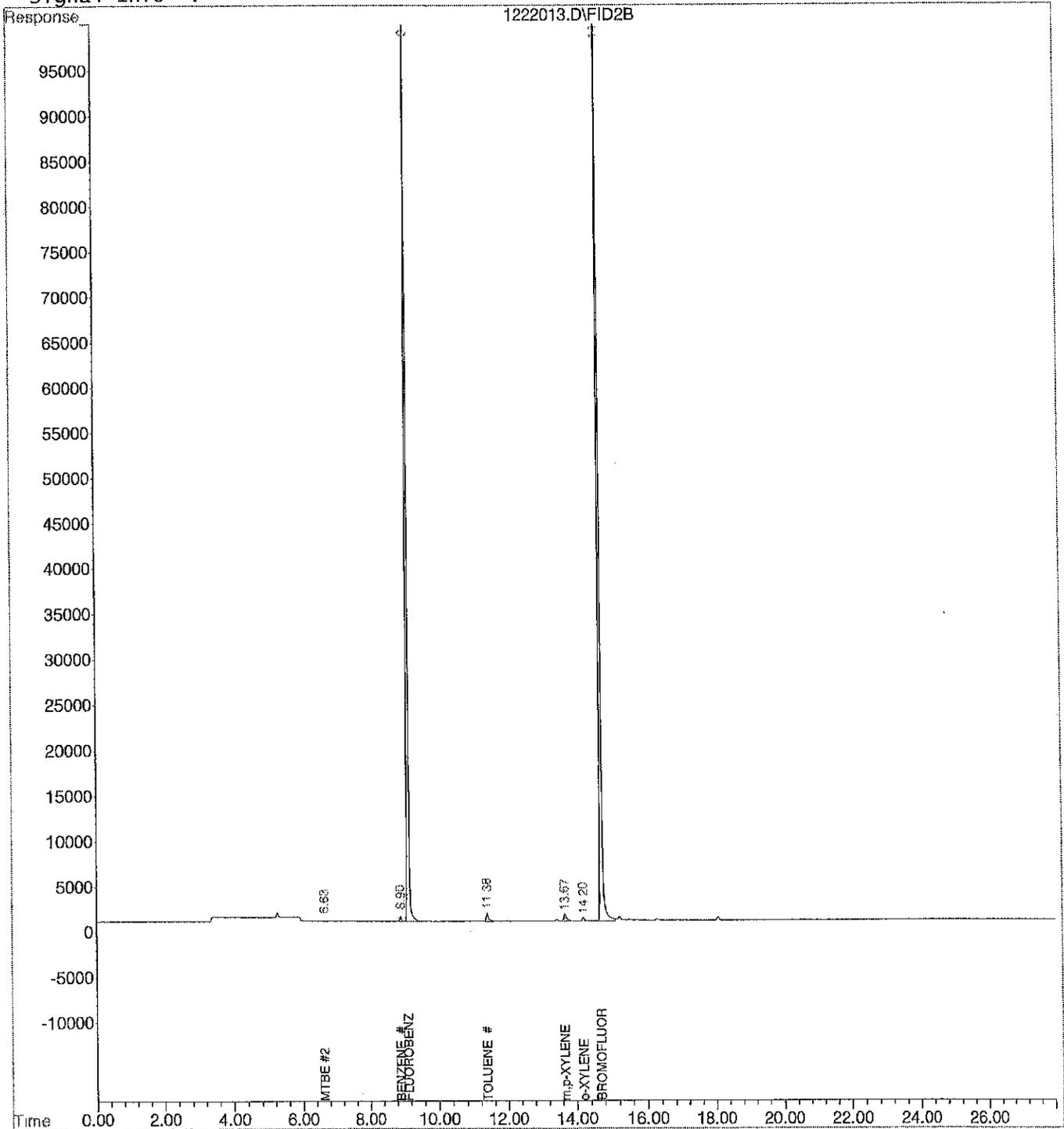
Vial: 13  
Operator:  
Inst : HOPE  
Multiplr: 1.00  
Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 17:33 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Fri Dec 19 10:19:17 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141218B.M

Volume Inj. :  
Signal Phase :  
Signal Info :





Data File : d:\archon\DATA\H141222\1222015.D  
Acq On : 22 Dec 2014 18:12  
Sample : 12-238-06d  
Misc : V2-36-17

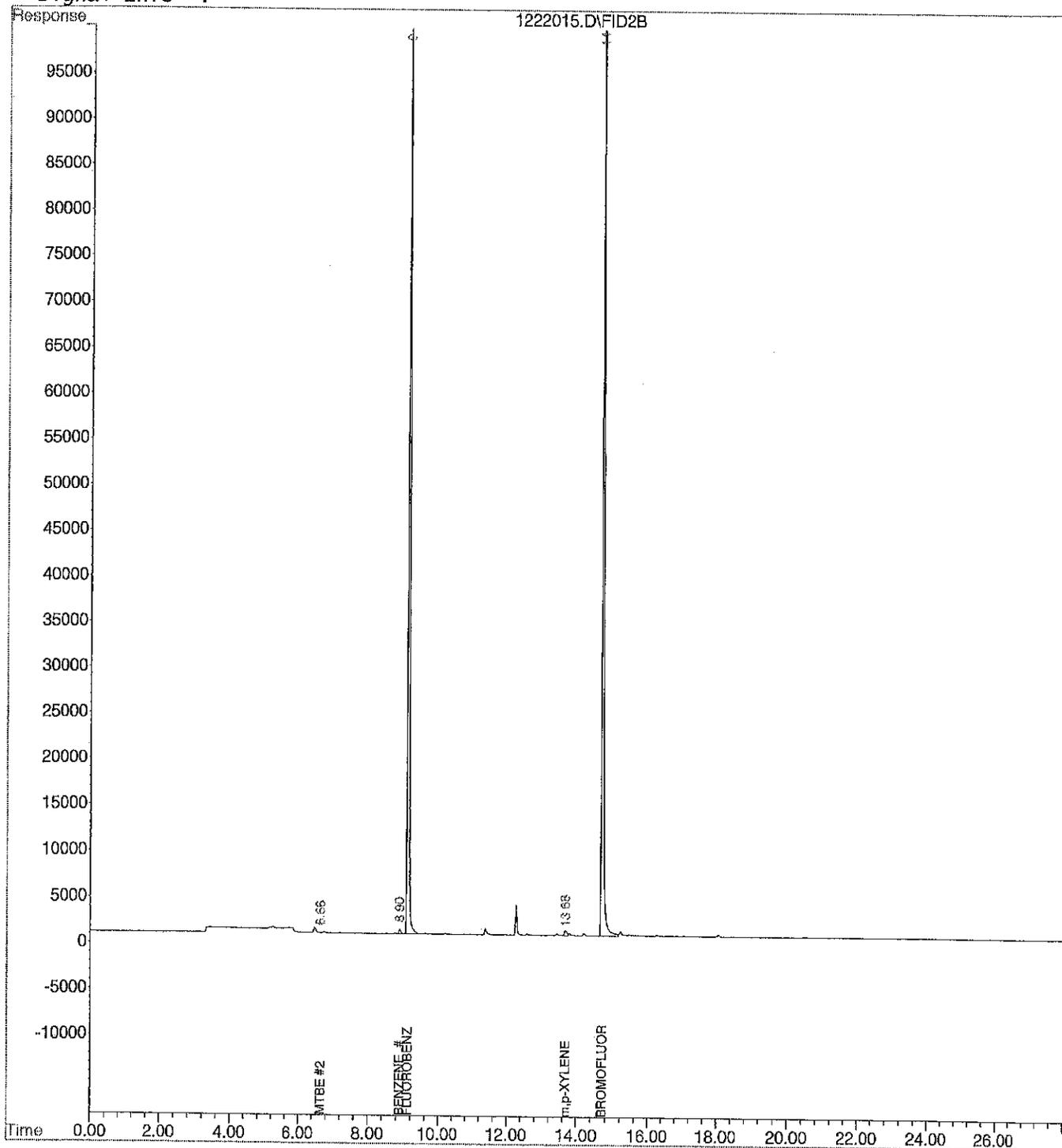
Vial: 15  
Operator:  
Inst : HOPE  
Multiplr: 1.00  
Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 18:41 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Fri Dec 19 10:19:17 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141218B.M

Volume Inj. :  
Signal Phase :  
Signal Info :





Data File : d:\archon\DATA\H141222\1222016.D  
Acq On : 22 Dec 2014 18:46  
Sample : 12-238-06d DUP  
Misc : V2-36-17

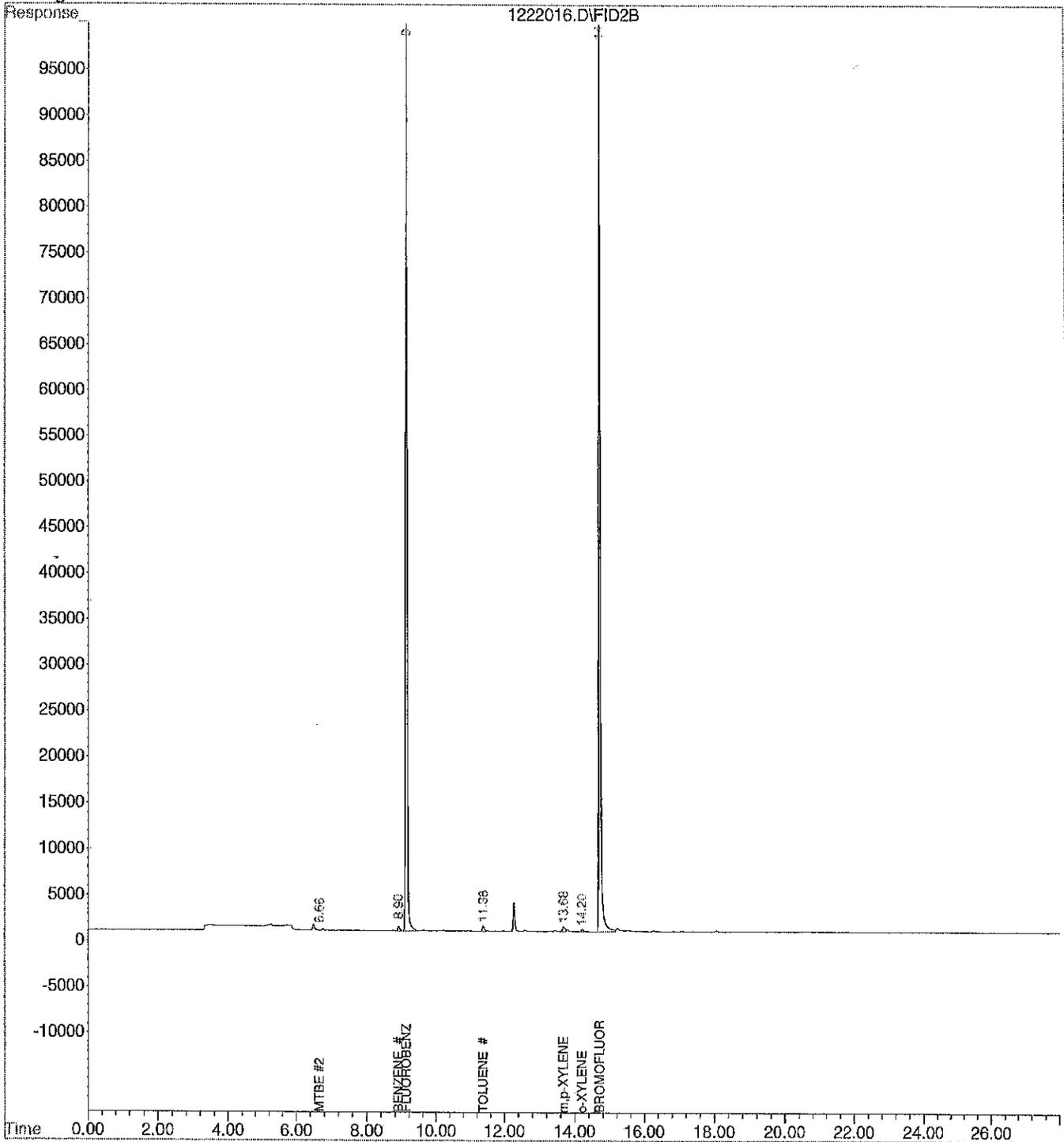
Vial: 16  
Operator:  
Inst : HOPE  
Multiplr: 1.00  
Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 19:14 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Fri Dec 19 10:19:17 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141218B.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Signal #1 : d:\btex\DATA\D141222\1222015.D\FID1A.CH      Via: 15  
 Signal #2 : d:\btex\DATA\D141222\1222015.D\FID2B.CH  
 Acq On : 22 Dec 2014 18:12      Operator:  
 Sample : 12-238-06d MS      Inst : Daryl  
 Misc : V2-36-23,V2-36-22      Multiplr: 1.00  
    Sample Amount: 0.00  
 IntFile Signal #1: events.e      IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 18:40 2014      Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase :      Signal #2 Phase:  
 Signal #1 Info :      Signal #2 Info :

Compound	R.T.	Response	Conc Units
<b>System Monitoring Compounds</b>			
4) S FLUOROBENZENE	6.95	3343487	48.244 PPB
5) S BROMOFLUOROBENZENE	12.31	1941019	47.918 PPB
11) S FLUOROBENZENE #2	6.95	9162780	41.329 PPB
16) S BROMOFLUOROBENZENE #2	12.31	12456059	41.615 PPB
<b>Target Compounds</b>			
1) H Gasoline AK GRO (9-24-14)	8.51	34823659	0.701 PPM
2) H Entire GAS Envelope (9-24-	12.21	56822773	0.859 PPM
3) H GASOLINE (9-24-14)	13.51	39750560	0.984 PPM
7) H entire GAS envelope #2 (9-	12.26	172551020	1.153 PPM
8) H GASOLINE #2 (9-24-14)	13.56	136579495	1.186 PPM
9) MTBE #2	4.66	4012874	54.907 PPB
10) BENZENE #2	6.71	15179313	51.680 PPB
12) TOLUENE #2	9.09	14211966	50.962 PPB
13) ETHYLBENZENE #2	11.06	12254440	49.784 PPB
14) m,p-XYLENE #2	11.32	14847370	50.639 PPB
15) o-XYLENE #2	11.81	12276315	48.798 PPB

12/23  
 DW

Quantitation Report (Not Reviewed)

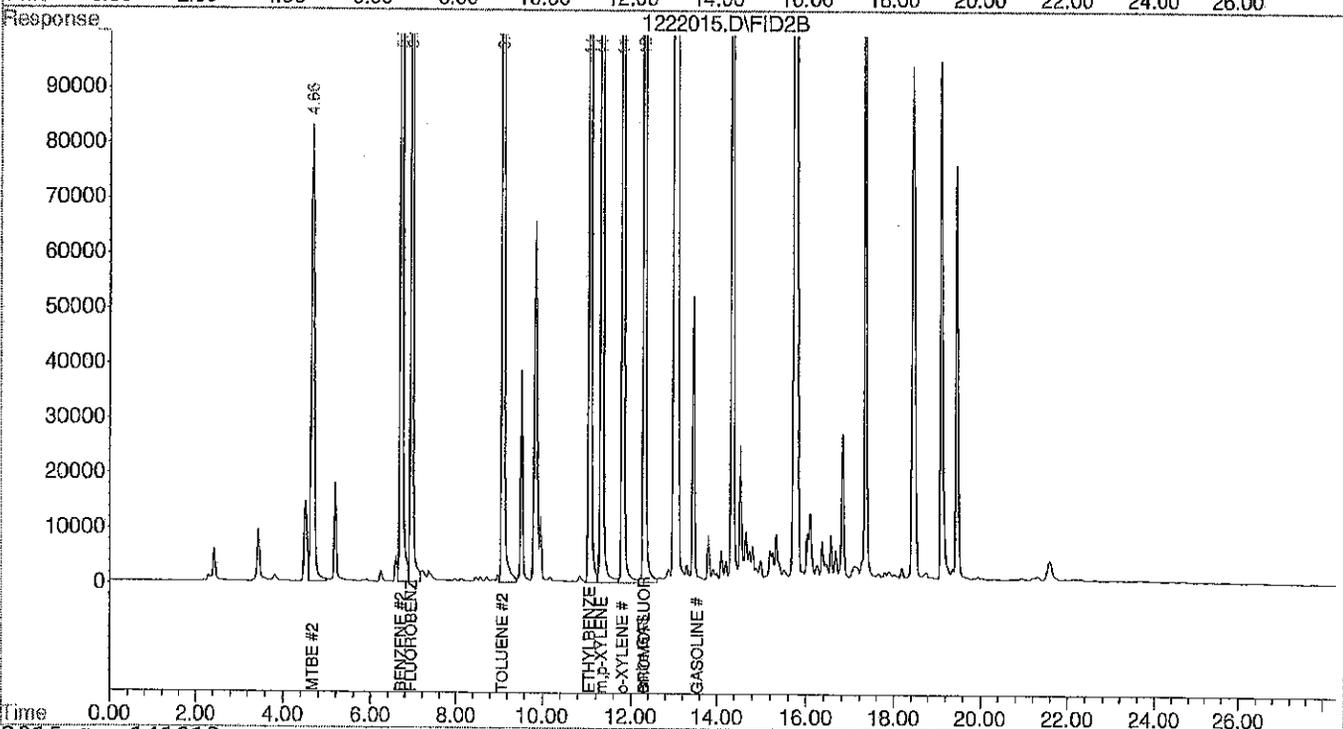
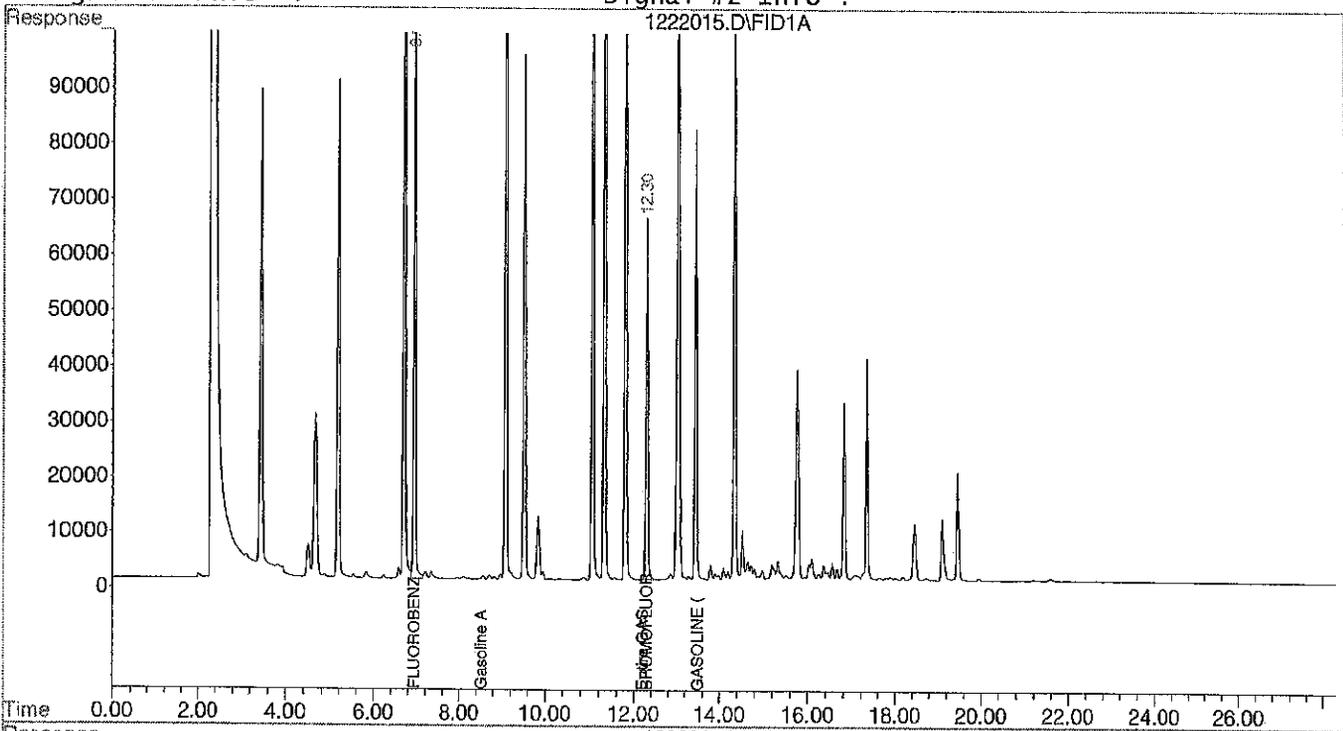
Signal #1 : d:\btex\DATA\D141222\1222015.D\FID1A.CH Vial: 15  
Signal #2 : d:\btex\DATA\D141222\1222015.D\FID2B.CH  
Acq On : 22 Dec 2014 18:12 Operator:  
Sample : 12-238-06d MS Inst : Daryl  
Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 18:40 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222016.D\FID1A.CH Vial: 16  
 Signal #2 : d:\btex\DATA\D141222\1222016.D\FID2B.CH  
 Acq On : 22 Dec 2014 18:45 Operator:  
 Sample : 12-238-06d MSD Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 19:14 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.95	3284540	47.387 PPB
5) S BROMOFLUOROBENZENE	12.31	1804463	44.506 PPB
11) S FLUOROBENZENE #2	6.95	9129726	41.179 PPB
16) S BROMOFLUOROBENZENE #2	12.31	11616625	38.780 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	33046188	0.665 PPM
2) H Entire GAS Envelope (9-24-	12.21	51935156	0.784 PPM
3) H GASOLINE (9-24-14)	13.51	35169188	0.868 PPM
7) H entire GAS envelope #2 (9-	12.26	136543084	0.902 PPM
8) H GASOLINE #2 (9-24-14)	13.56	102983096	0.879 PPM
9) MTBE #2	4.66	4105003	56.169 PPB
10) BENZENE #2	6.71	15330122	52.194 PPB
12) TOLUENE #2	9.09	14229368	51.025 PPB
13) ETHYLBENZENE #2	11.05	12378497	50.289 PPB
14) m,p-XYLENE #2	11.32	14797531	50.467 PPB
15) o-XYLENE #2	11.81	12235674	48.636 PPB

12/23  
 ML

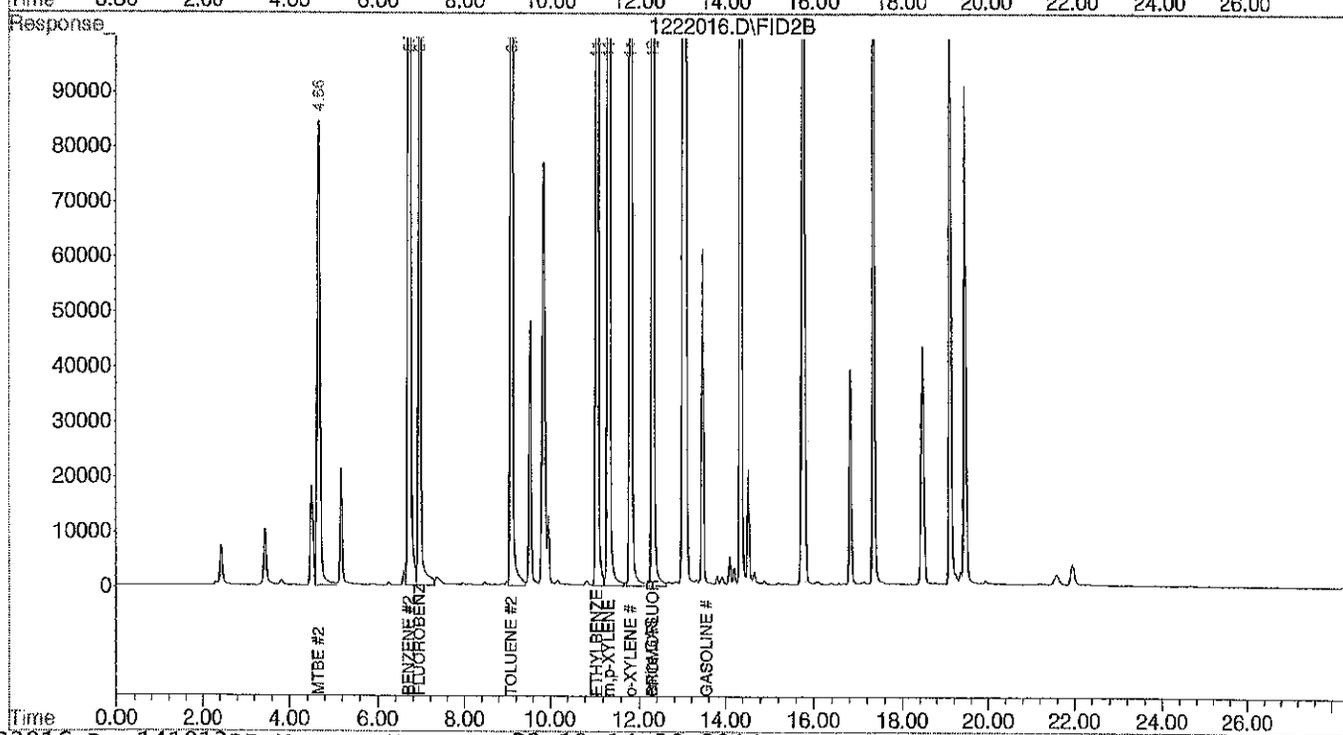
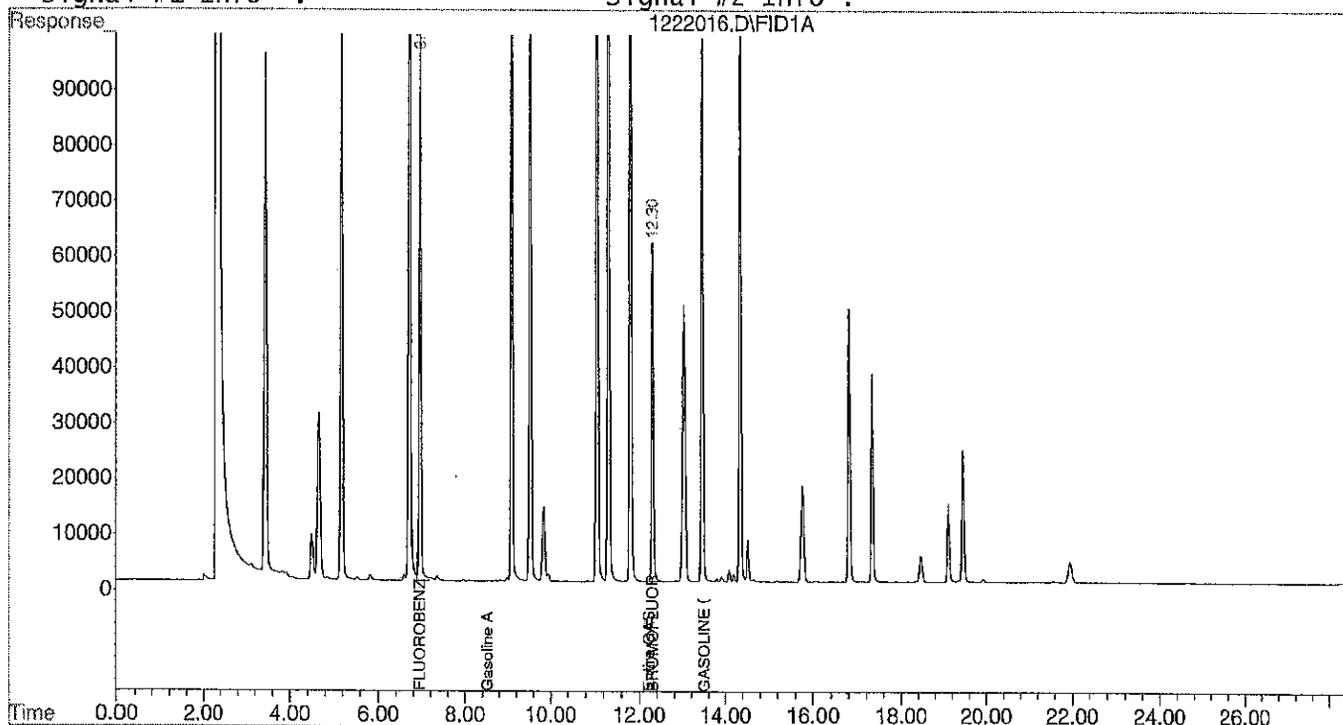
Signal #1 : d:\btex\DATA\D141222\1222016.D\FID1A.CH Vial: 16  
Signal #2 : d:\btex\DATA\D141222\1222016.D\FID2B.CH  
Acq On : 22 Dec 2014 18:45 Operator:  
Sample : 12-238-06d MSD Inst : Daryl  
Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 19:14 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Thu Oct 16 17:24:28 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141012DB.M

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data File : d:\archon\DATA\H141222\1222001.D Vial: 1  
 Acq On : 22 Dec 2014 9:50 Operator:  
 Sample : CCVH1222G-1 Inst : HOPE  
 Misc : V2-37-08 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 10:18 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Fri Dec 19 10:19:17 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141218B.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
6) S FLUOROBENZENE #2	9.10	3576450	47.123 PPB
11) S BROMOFLUOROBENZENE #2	14.69	4436774	55.500 PPB
Target Compounds			
2) H Entire GAS Envelope #2	14.31	176761075	5.127 PPM
3) H GASOLINE #2	14.96	137141474	5.105 PPM ✓
4) MTBE #2	6.65	68820	1.567 PPB
5) BENZENE #2	8.87	13544467	127.923 PPB
7) TOLUENE #2	11.34	37969330	433.078 PPB
8) ETHYLBENZENE #2	13.37	7517464	107.027 PPB
9) m,p-XYLENE #2	13.63	28407821	353.590 PPB
10) o-XYLENE #2	14.16	10525677	156.492 PPB

12/22 ✓

Data File : d:\archon\DATA\H141222\1222001.D  
Acq On : 22 Dec 2014 9:50  
Sample : CCVH1222G-1  
Misc : V2-37-08

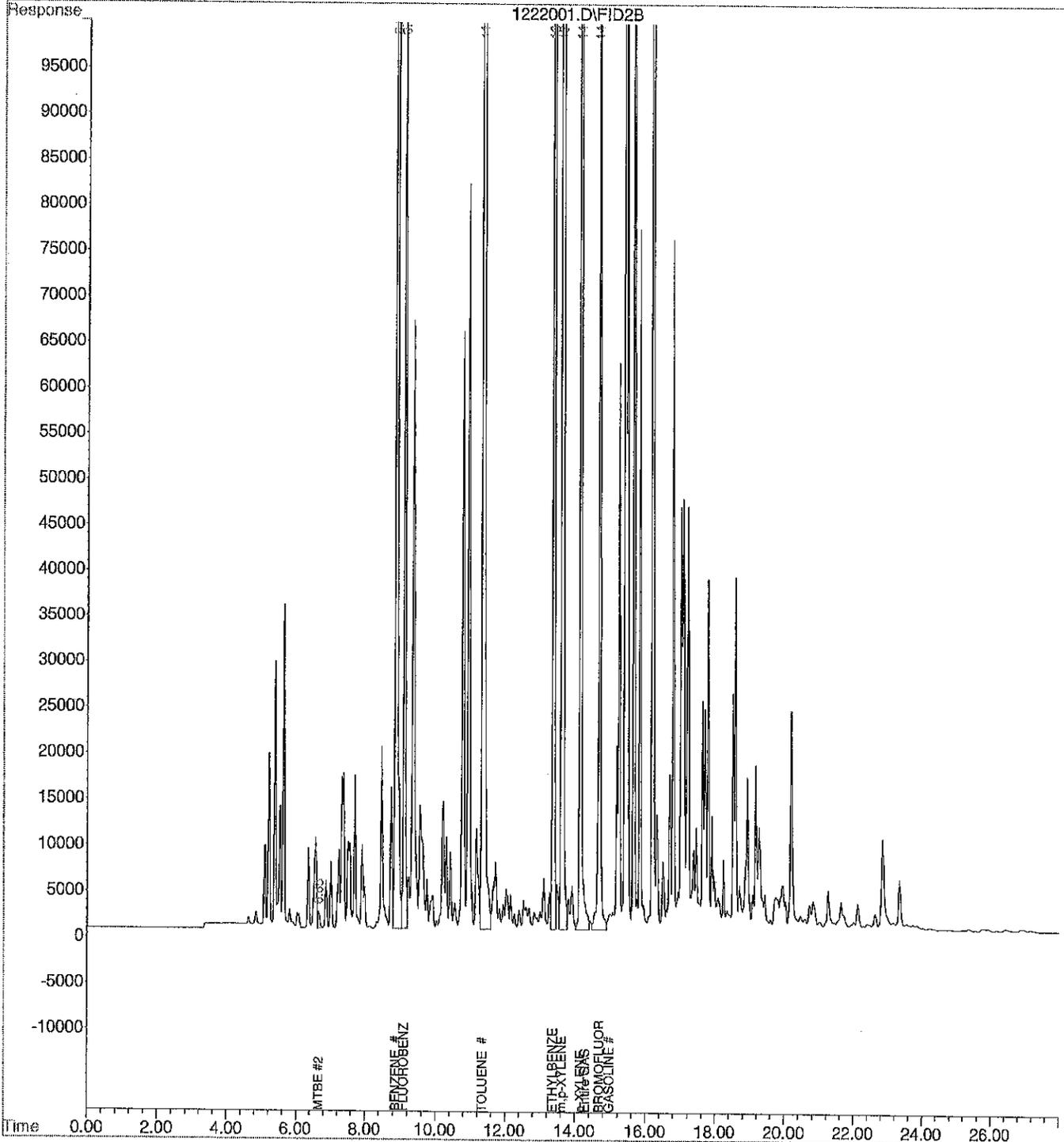
Vial: 1  
Operator:  
Inst : HOPE  
Multiplr: 1.00  
Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 10:18 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Fri Dec 19 10:19:17 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141218B.M

Volume Inj. :  
Signal Phase :  
Signal Info :





Data File : d:\archon\DATA\H141222\1222030.D  
Acq On : 23 Dec 2014 2:32  
Sample : CCVH1222G-2  
Misc : V2-36-08

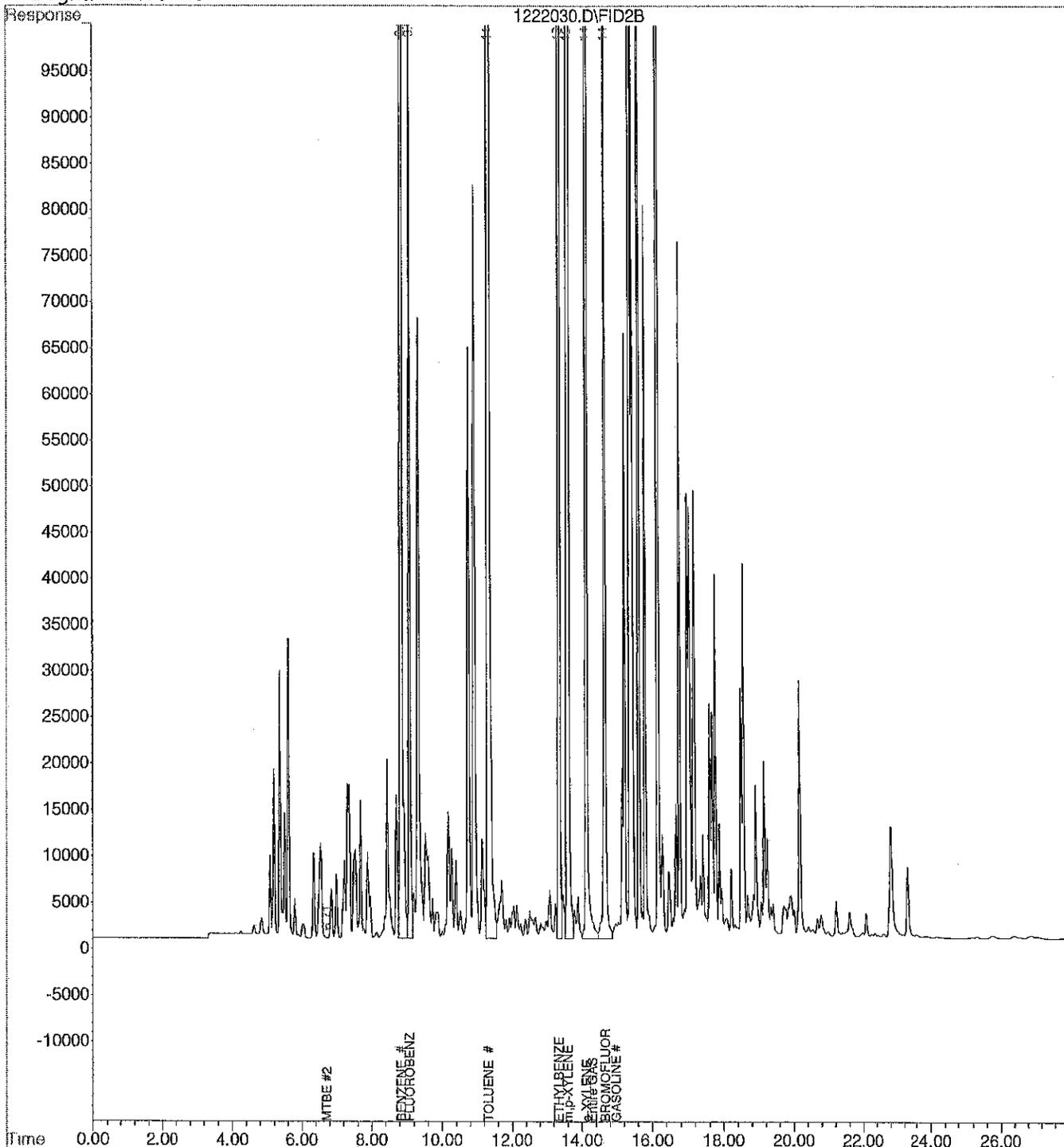
vial: 30  
Operator:  
Inst : HOPE  
Multiplr: 1.00  
Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 23 3:00 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Fri Dec 19 10:19:17 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141218B.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Signal #1 : d:\btex\DATA\D141222\1222002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141222\1222002.D\FID2B.CH  
 Acq On : 22 Dec 2014 10:45 Operator:  
 Sample : CCVD1222B-1 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 22 11:13 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.94	3300134	47.614 PPB
5) S BROMOFLUOROBENZENE	12.30	1921667	47.434 PPB
11) S FLUOROBENZENE #2	6.94	9054518	40.837 PPB
16) S BROMOFLUOROBENZENE #2	12.30	12381859	41.365 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	32516093	0.654 PPM
2) H Entire GAS Envelope (9-24-	12.21	55786817	0.843 PPM
3) H GASOLINE (9-24-14)	13.51	37615640	0.930 PPM
7) H entire GAS envelope #2 (9-	12.26	127292909	0.838 PPM
8) H GASOLINE #2 (9-24-14)	13.56	91237732	0.772 PPM
9) MTBE #2	4.66	4358020	59.634 PPB
10) BENZENE #2	6.70	15843031	53.942 PPB
12) TOLUENE #2	9.08	15089073	54.118 PPB
13) ETHYLBENZENE #2	11.05	13035442	52.964 PPB
14) m,p-XYLENE #2	11.32	15699895	53.578 PPB
15) o-XYLENE #2	11.80	13131190	52.215 PPB

12/22 ✓

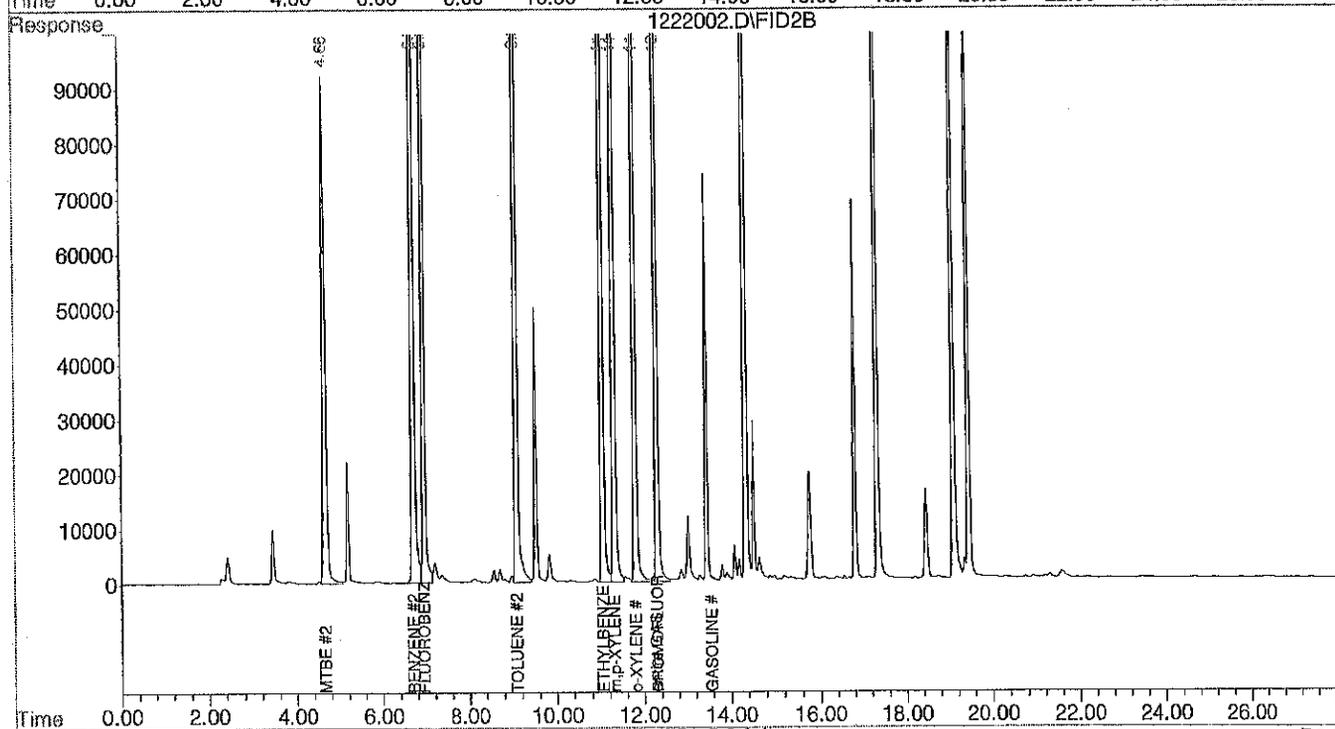
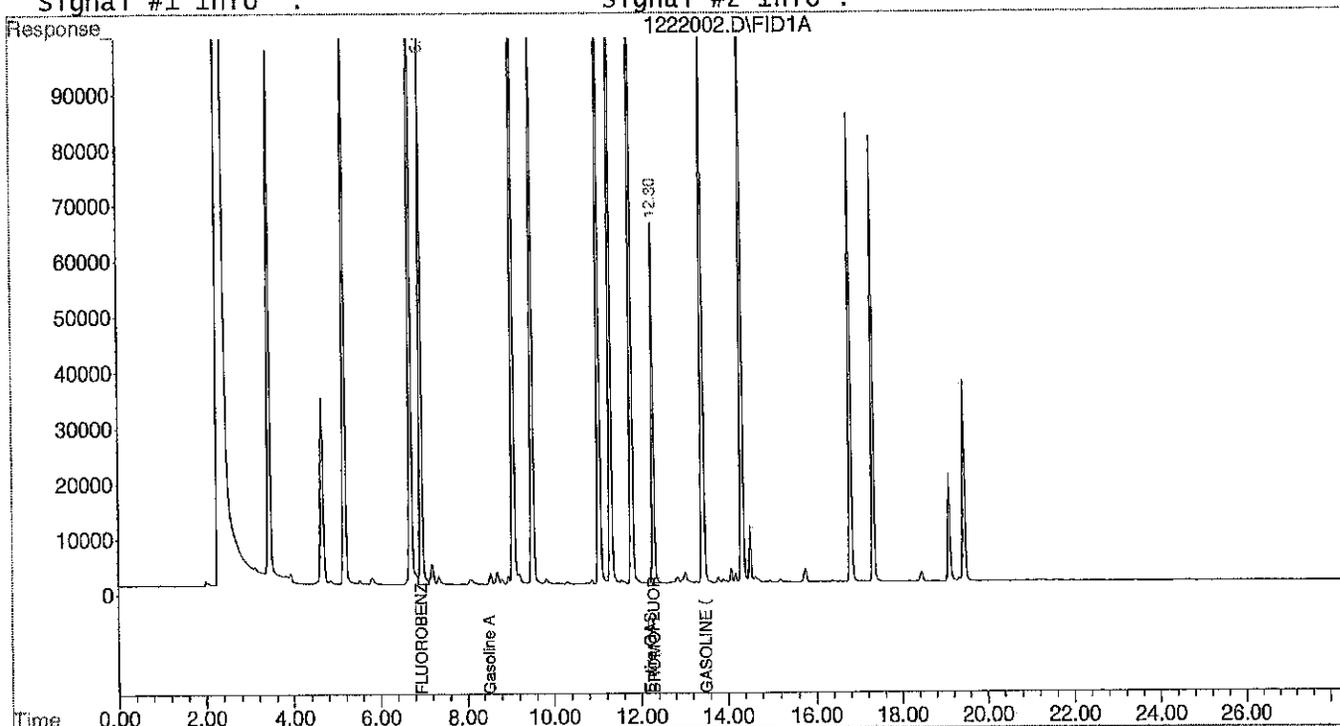
Signal #1 : d:\btex\DATA\D141222\1222002.D\FID1A.CH Vial: 2  
 Signal #2 : d:\btex\DATA\D141222\1222002.D\FID2B.CH  
 Acq On : 22 Dec 2014 10:45 Operator:  
 Sample : CCVD1222B-1 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 11:13 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Signal #1 : d:\btex\DATA\D141222\1222021.D\FID1A.CH Vial: 21  
 Signal #2 : d:\btex\DATA\D141222\1222021.D\FID2B.CH  
 Acq On : 22 Dec 2014 21:32 Operator:  
 Sample : CCVD1222B-2 Inst : Daryl  
 Misc : V2-36-23,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile Signal #1: events.e IntFile Signal #2: EVENTS2.E

Quant Time: Dec 22 22:00 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Thu Oct 16 17:24:28 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141012DB.M

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S FLUOROBENZENE	6.93	3238948	46.725 PPB
5) S BROMOFLUOROBENZENE	12.29	1874670	46.260 PPB
11) S FLUOROBENZENE #2	6.93	9009524	40.633 PPB
16) S BROMOFLUOROBENZENE #2	12.29	12097199	40.403 PPB
Target Compounds			
1) H Gasoline AK GRO (9-24-14)	8.51	29576013	0.594 PPM
2) H Entire GAS Envelope (9-24-	12.21	47350316	0.714 PPM
3) H GASOLINE (9-24-14)	13.51	31408914	0.773 PPM
7) H entire GAS envelope #2 (9-	12.26	116609647	0.763 PPM
8) H GASOLINE #2 (9-24-14)	13.56	83225721	0.699 PPM
9) MTBE #2	4.64	3699783	50.619 PPB
10) BENZENE #2	6.69	15244152	51.901 PPB
12) TOLUENE #2	9.07	14206131	50.941 PPB
13) ETHYLBENZENE #2	11.04	12489533	50.741 PPB
14) m,p-XYLENE #2	11.30	14985920	51.117 PPB
15) o-XYLENE #2	11.79	12621676	50.178 PPB

12/23 ✓

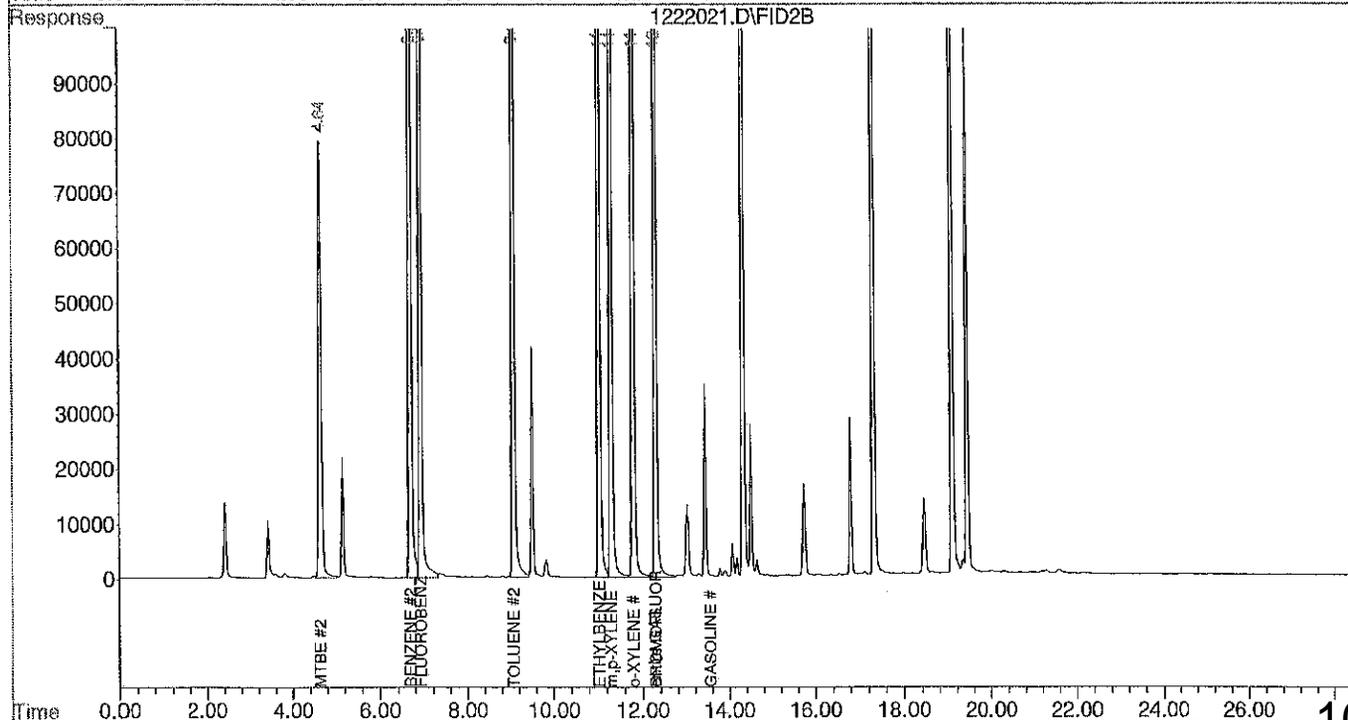
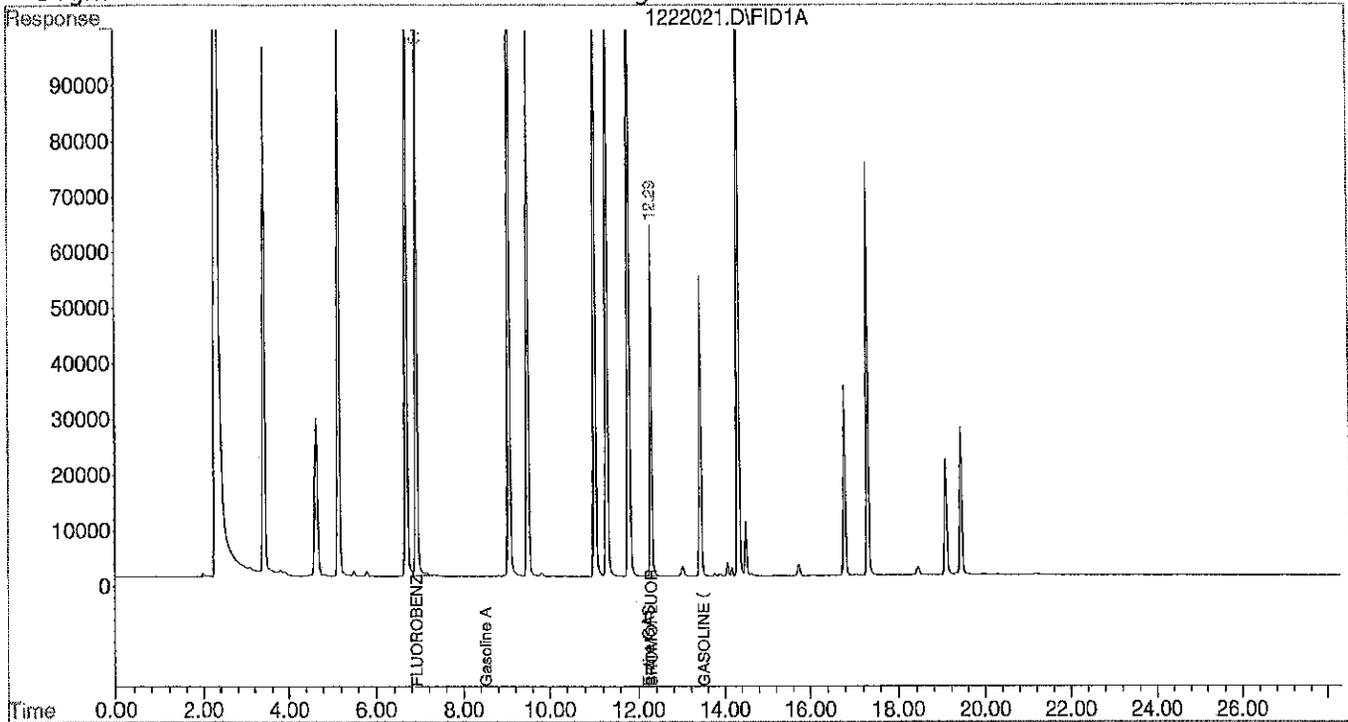
Quantitation Report (Not Reviewed)

Signal #1 : d:\btex\DATA\D141222\1222021.D\FID1A.CH Vial: 21
Signal #2 : d:\btex\DATA\D141222\1222021.D\FID2B.CH
Acq On : 22 Dec 2014 21:32 Operator:
Sample : CCVD1222B-2 Inst : Daryl
Misc : V2-36-23,V2-36-22 Multiplr: 1.00
Sample Amount: 0.00
IntFile signal #1: events.e IntFile signal #2: EVENTS2.E

Quant Time: Dec 22 22:00 2014 Quant Results File: 141012DB.RES

Quant Method : D:\BTEX\methods\141012DB.M (Chemstation Integrator)
Title : Fid calibration
Last Update : Thu Oct 16 17:24:28 2014
Response via : Multiple Level Calibration
DataAcq Meth : 141012DB.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Data File : d:\archon\DATA\H141222\1222003.D  
 Acq On : 22 Dec 2014 10:58  
 Sample : CCVH1222B-1  
 Misc : V2-36-17,V2-36-22

Vial: 3  
 Operator:  
 Inst : HOPE  
 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 11:26 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Fri Dec 19 10:19:17 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141218B.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
6) S FLUOROBENZENE #2	9.12	3301390	43.483 PPB
11) S BROMOFLUOROBENZENE #2	14.71	3626648	45.295 PPB
Target Compounds			
2) H Entire GAS Envelope #2	14.31	36706064	1.024 PPM
3) H GASOLINE #2	14.96	23865140	0.865 PPM
4) MTBE #2	6.66	2319347	52.633 PPB
5) BENZENE #2	8.88	5482805	51.778 PPB
7) TOLUENE #2	11.35	4832708	55.096 PPB
8) ETHYLBENZENE #2	13.39	3667823	52.213 PPB
9) m,p-XYLENE #2	13.65	4325899	53.760 PPB
10) o-XYLENE #2	14.17	3492433	51.890 PPB

*12/22*

Data File : d:\archon\DATA\H141222\1222003.D  
 Acq On : 22 Dec 2014 10:58  
 Sample : CCVH1222B-1  
 Misc : V2-36-17,V2-36-22

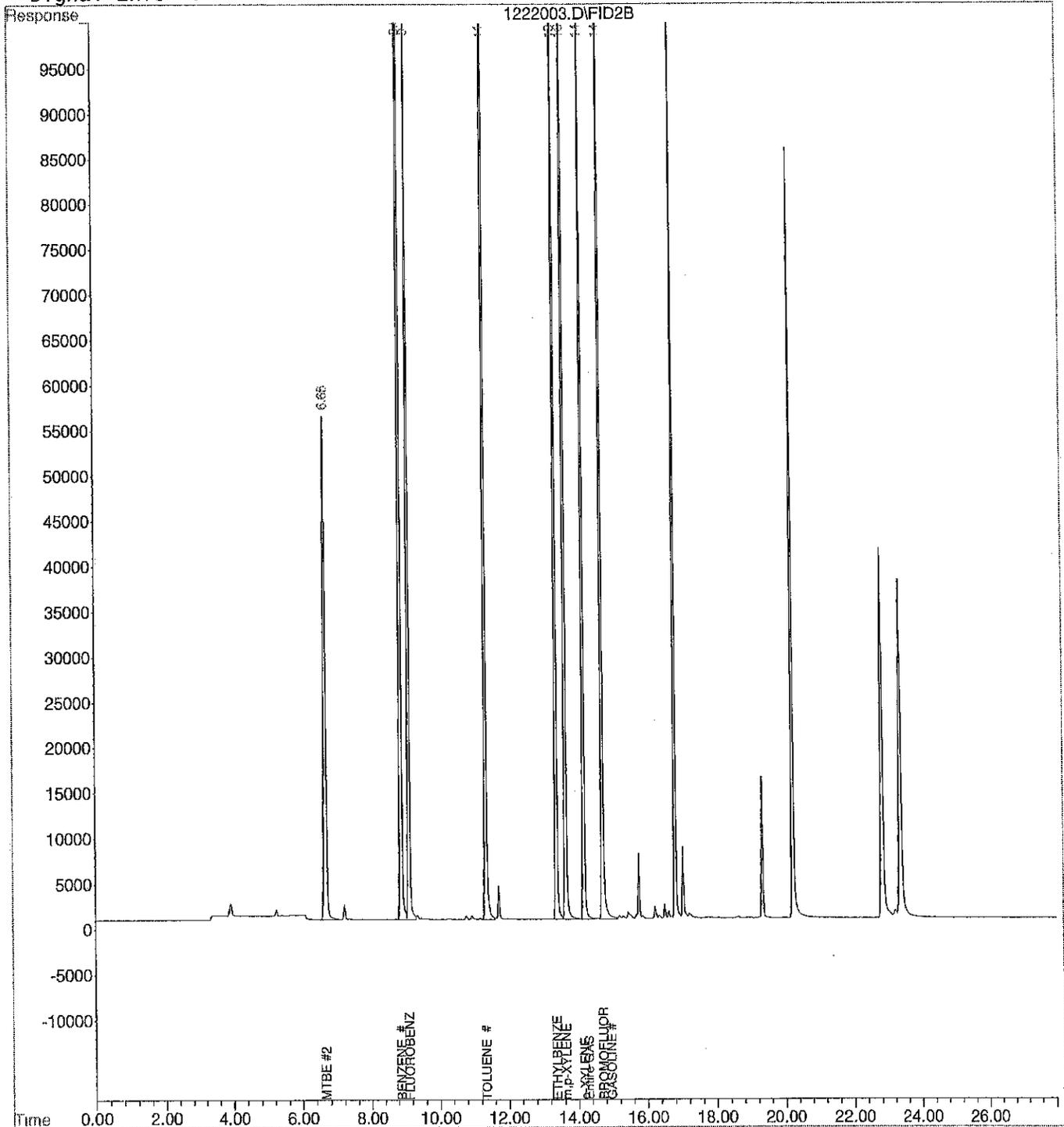
Vial: 3  
 Operator:  
 Inst : HOPE  
 Multiplr: 1.00  
 Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 11:26 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Fri Dec 19 10:19:17 2014  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 141218B.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :



Data File : d:\archon\DATA\H141222\1222017.D Vial: 17  
 Acq On : 22 Dec 2014 19:20 Operator:  
 Sample : CCVH1222B-2 Inst : HOPE  
 Misc : V2-36-17,V2-36-22 Multiplr: 1.00  
 Sample Amount: 0.00  
 IntFile : EVENTS1.E

Quant Time: Dec 22 19:48 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
 Title : Fid calibration  
 Last Update : Fri Dec 19 10:19:17 2014  
 Response via : Initial Calibration  
 DataAcq Meth : 141218B.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
6) S FLUOROBENZENE #2	9.11	3071619	40.442 PPB
11) S BROMOFLUOROBENZENE #2	14.70	3432176	42.846 PPB
Target Compounds			
2) H Entire GAS Envelope #2	14.31	35140048	0.978 PPM
3) H GASOLINE #2	14.96	22626365	0.819 PPM
4) MTBE #2	6.66	2338627	53.070 PPB
5) BENZENE #2	8.87	5362498	50.641 PPB
7) TOLUENE #2	11.34	4483184	51.109 PPB
8) ETHYLBENZENE #2	13.38	3576841	50.918 PPB
9) m,p-XYLENE #2	13.64	4120272	51.200 PPB
10) o-XYLENE #2	14.16	3410465	50.671 PPB

Quantitation Report (Not Reviewed)

Data File : d:\archon\DATA\H141222\1222017.D  
Acq On : 22 Dec 2014 19:20  
Sample : CCVH1222B-2  
Misc : V2-36-17,V2-36-22

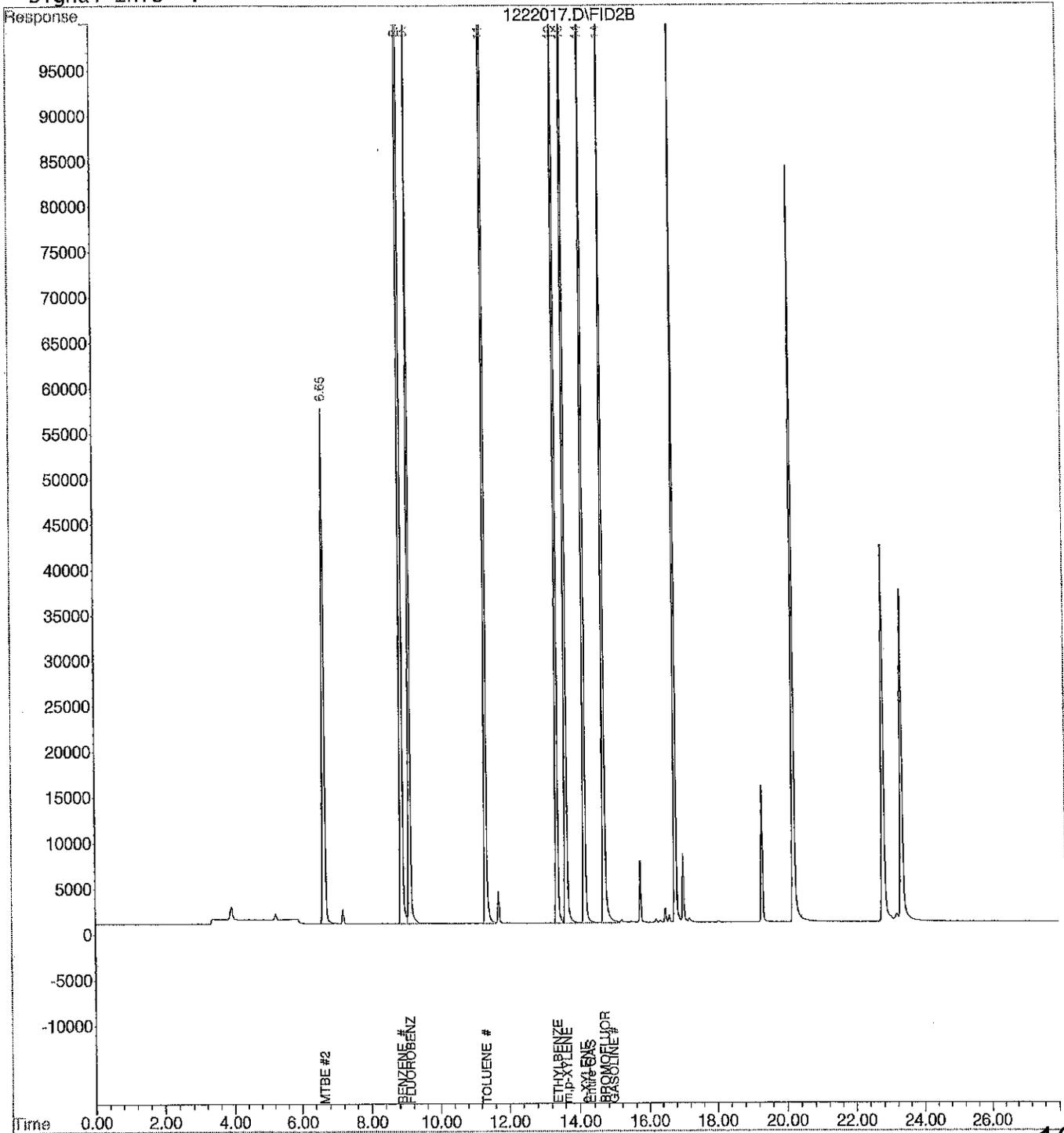
Vial: 17  
Operator:  
Inst : HOPE  
Multiplr: 1.00  
Sample Amount: 0.00

IntFile : EVENTS1.E

Quant Time: Dec 22 19:48 2014 Quant Results File: 141218B.RES

Quant Method : D:\ARCHON\METHODS\141218B.M (Chemstation Integrator)  
Title : Fid calibration  
Last Update : Fri Dec 19 10:19:17 2014  
Response via : Multiple Level Calibration  
DataAcq Meth : 141218B.M

Volume Inj. :  
Signal Phase :  
Signal Info :



## NWTPH-Diesel Data

Data File : 1223-T15.D  
 Sample : 12-255-01 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 23 Dec 2014 21:20  
 Operator : ZT  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 23 21:55:28 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	14.708	534019395	184.852	PPM
Spiked Amount	50.000	Recovery	=	369.70%
Target Compounds				
2) H Gasoline	3.500	13780533	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	25136279	6.278	PPM
4) H Diesel Fuel #2 (12-0...	14.000	22815831	7.056	PPM
5) H Oil (11-04-14)	22.000	71984907	22.889	PPM
6) H Oil Acid Clean (11-...	22.000	71984907	13.638	PPM
7) H Diesel Fuel #2 Combo ...	14.000	21518621	6.887	PPM
8) H Oil Combo (11-04-14)	22.000	70543265	22.649	PPM
9) H Oil Acid Clean Combo ...	22.000	70543265	13.091	PPM
10) H Alaska 102 DF2	13.025	23236135	NoCal	PPM
11) H Alaska 103 Oil	20.000	33759292	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	17904263	5.134	PPM
13) H Mineral Oil Combo (1...	16.000	13523134	4.301	PPM
14) H Oil MO Combo (11-04-14)	22.000	69451656	22.927	PPM
15) H Oil Acid Clean MO Com...	22.000	69451656	12.954	PPM

(f)=RT Delta > 1/2 Window

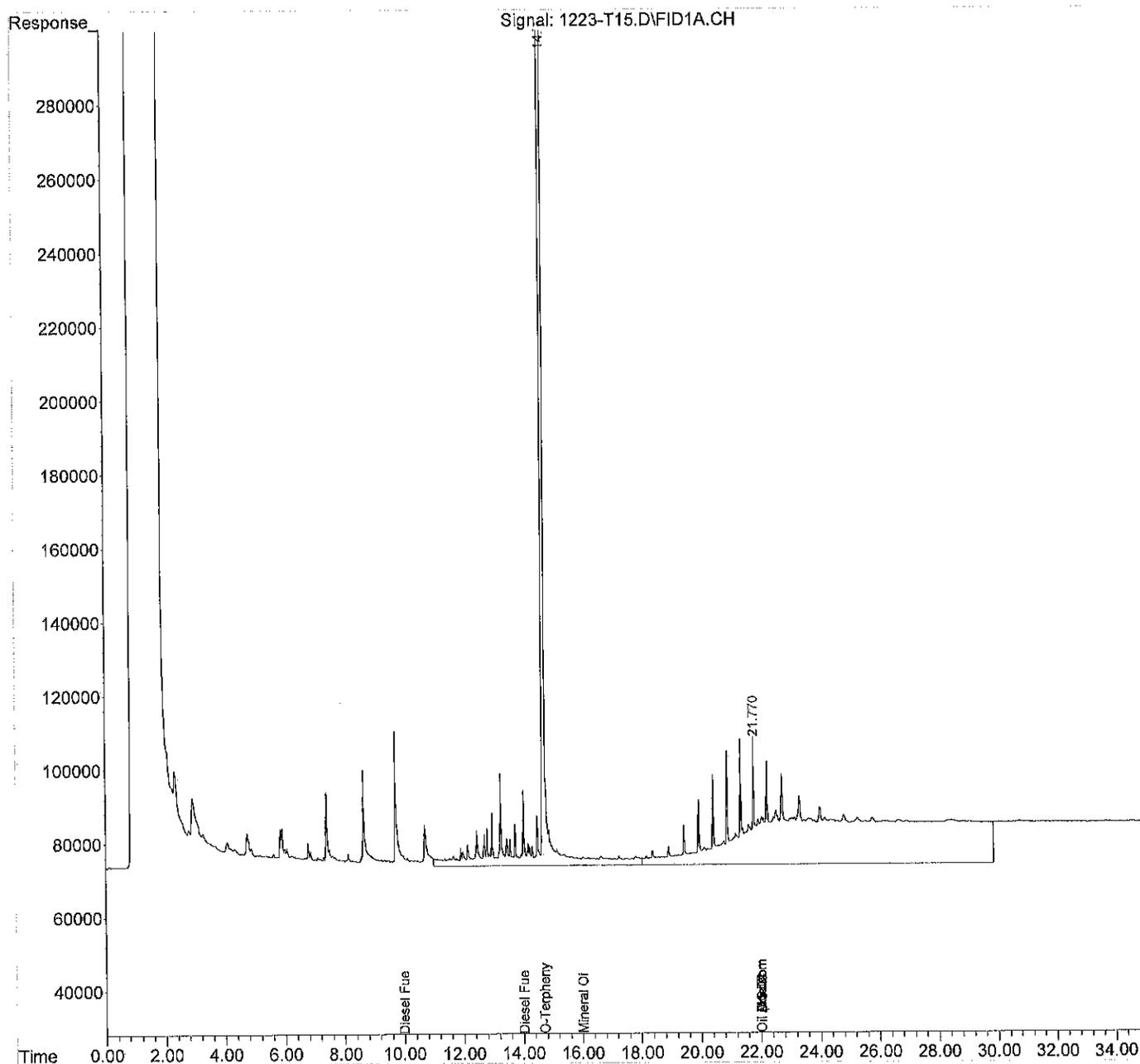
(m)=manual int.

Data File : 1223-T15.D  
Sample : 12-255-01 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 23 Dec 2014 21:20  
Operator : ZT  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 23 21:55:28 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T16.D  
 Sample : 12-255-02 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 23 Dec 2014 22:02  
 Operator : ZT  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 23 22:37:31 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	14.709	513247374	177.671	PPM
Spiked Amount	50.000	Recovery =	355.34%	
Target Compounds				
2) H Gasoline	3.500	12960287	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	21843166	4.885	PPM
4) H Diesel Fuel #2 (12-0...	14.000	19496729	5.580	PPM
5) H Oil (11-04-14)	22.000	64239310	19.082	PPM
6) H Oil Acid Clean (11-...	22.000	64239310	9.354	PPM
7) H Diesel Fuel #2 Combo ...	14.000	18352767	5.456	PPM
8) H Oil Combo (11-04-14)	22.000	63020158	18.862	PPM
9) H Oil Acid Clean Combo ...	22.000	63020158	8.843	PPM
10) H Alaska 102 DF2	13.025	19852753	NoCal	PPM
11) H Alaska 103 Oil	20.000	29050550	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	15182987	4.051	PPM
13) H Mineral Oil Combo (1...	16.000	11416404	3.436	PPM
14) H Oil MO Combo (11-04-14)	22.000	62060935	19.061	PPM
15) H Oil Acid Clean MO Com...	22.000	62060935	8.641	PPM
-----				

(f)=RT Delta > 1/2 Window

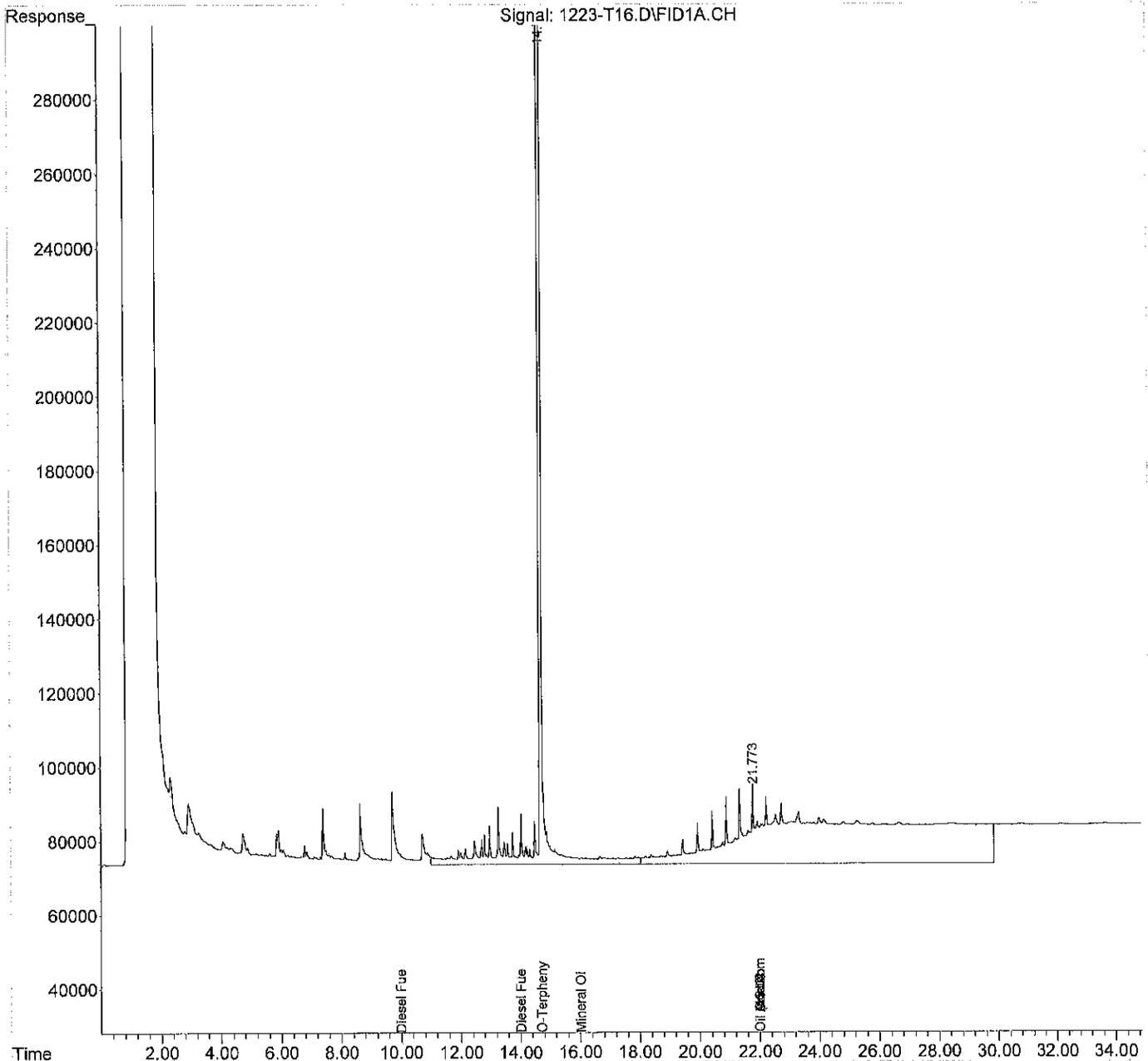
(m)=manual int.

Data File : 1223-T16.D  
Sample : 12-255-02 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 23 Dec 2014 22:02  
Operator : ZT  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 23 22:37:31 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T17.D  
 Sample : 12-255-03 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 23 Dec 2014 22:44  
 Operator : ZT  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 23 23:19:45 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	14.707	475764061	164.713	PPM
Spiked Amount	50.000	Recovery	=	329.43%
Target Compounds				
2) H Gasoline	3.500	13206366	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	21839633	4.883	PPM
4) H Diesel Fuel #2 (12-0...	14.000	20055384	5.828	PPM
5) H Oil (11-04-14)	22.000	67039619	20.458	PPM
6) H Oil Acid Clean (11-...	22.000	67039619	10.903	PPM
7) H Diesel Fuel #2 Combo ...	14.000	18599252	5.567	PPM
8) H Oil Combo (11-04-14)	22.000	65479644	20.100	PPM
9) H Oil Acid Clean Combo ...	22.000	65479644	10.232	PPM
10) H Alaska 102 DF2	13.025	20491132	NoCal	PPM
11) H Alaska 103 Oil	20.000	31168405	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	18046501	5.191	PPM
13) H Mineral Oil Combo (1...	16.000	13603168	4.334	PPM
14) H Oil MO Combo (11-04-14)	22.000	64256339	20.209	PPM
15) H Oil Acid Clean MO Com...	22.000	64256339	9.922	PPM

(f)=RT Delta > 1/2 Window

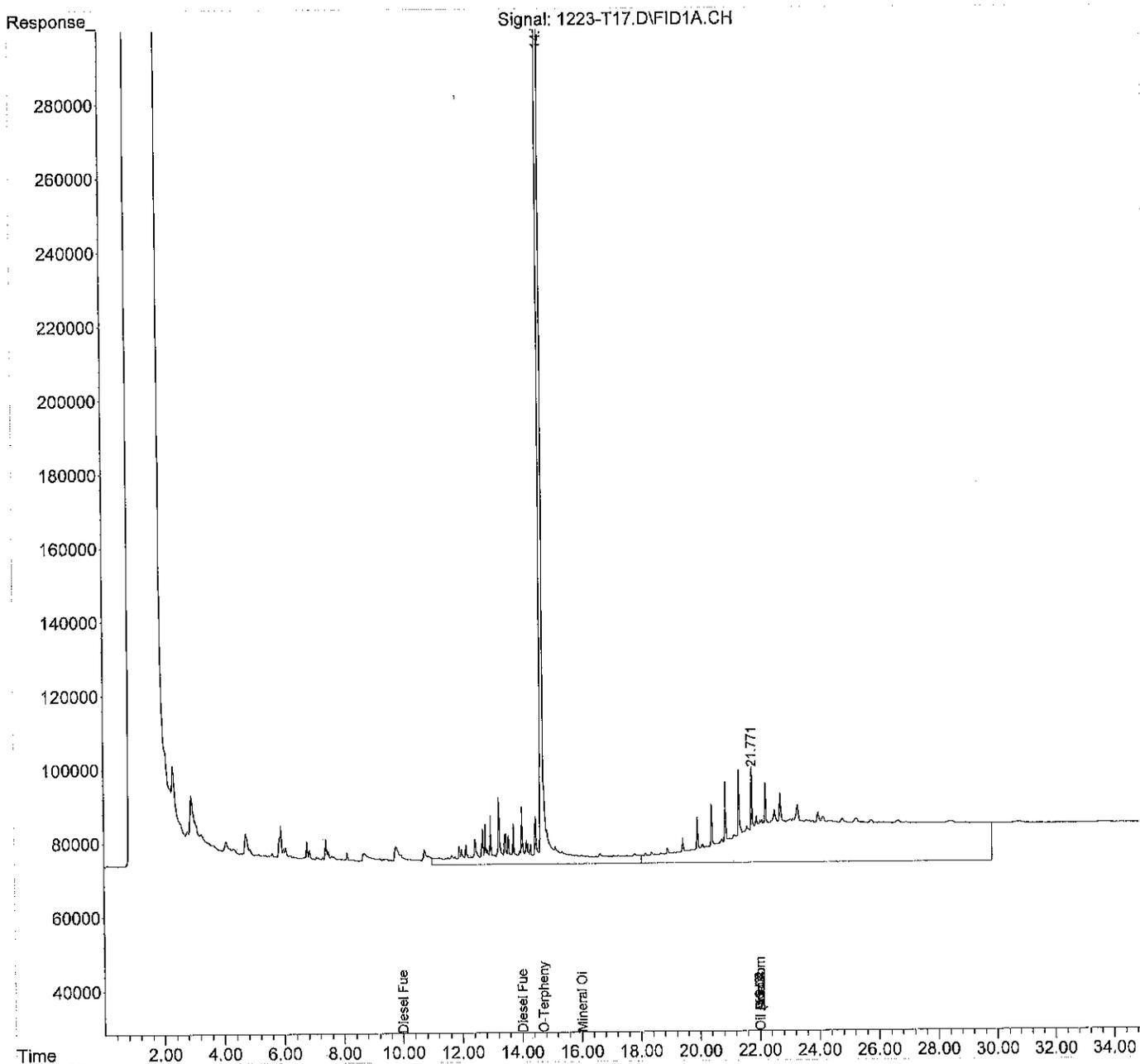
(m)=manual int.

Data File : 1223-T17.D  
Sample : 12-255-03 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 23 Dec 2014 22:44  
Operator : ZT  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 23 23:19:45 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T18.D  
 Sample : 12-255-04 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 23 Dec 2014 23:26  
 Operator : ZT  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 00:01:45 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	14.709	547379574	189.470	PPM
Spiked Amount	50.000	Recovery	=	378.94%
Target Compounds				
2) H Gasoline	3.500	17613286	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	30902056	8.717	PPM
4) H Diesel Fuel #2 (12-0...	14.000	26644632	8.759	PPM
5) H Oil (11-04-14)	22.000	64152941	19.039	PPM
6) H Oil Acid Clean (11-...	22.000	64152941	9.306	PPM
7) H Diesel Fuel #2 Combo ...	14.000	25253021	8.575	PPM
8) H Oil Combo (11-04-14)	22.000	62657850	18.679	PPM
9) H Oil Acid Clean Combo ...	22.000	62657850	8.639	PPM
10) H Alaska 102 DF2	13.025	27042379	NoCal	PPM
11) H Alaska 103 Oil	20.000	29563293	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	18880108	5.522	PPM
13) H Mineral Oil Combo (1...	16.000	14628113	4.754	PPM
14) H Oil MO Combo (11-04-14)	22.000	61495646	18.765	PPM
15) H Oil Acid Clean MO Com...	22.000	61495646	8.311	PPM

(f)=RT Delta > 1/2 Window

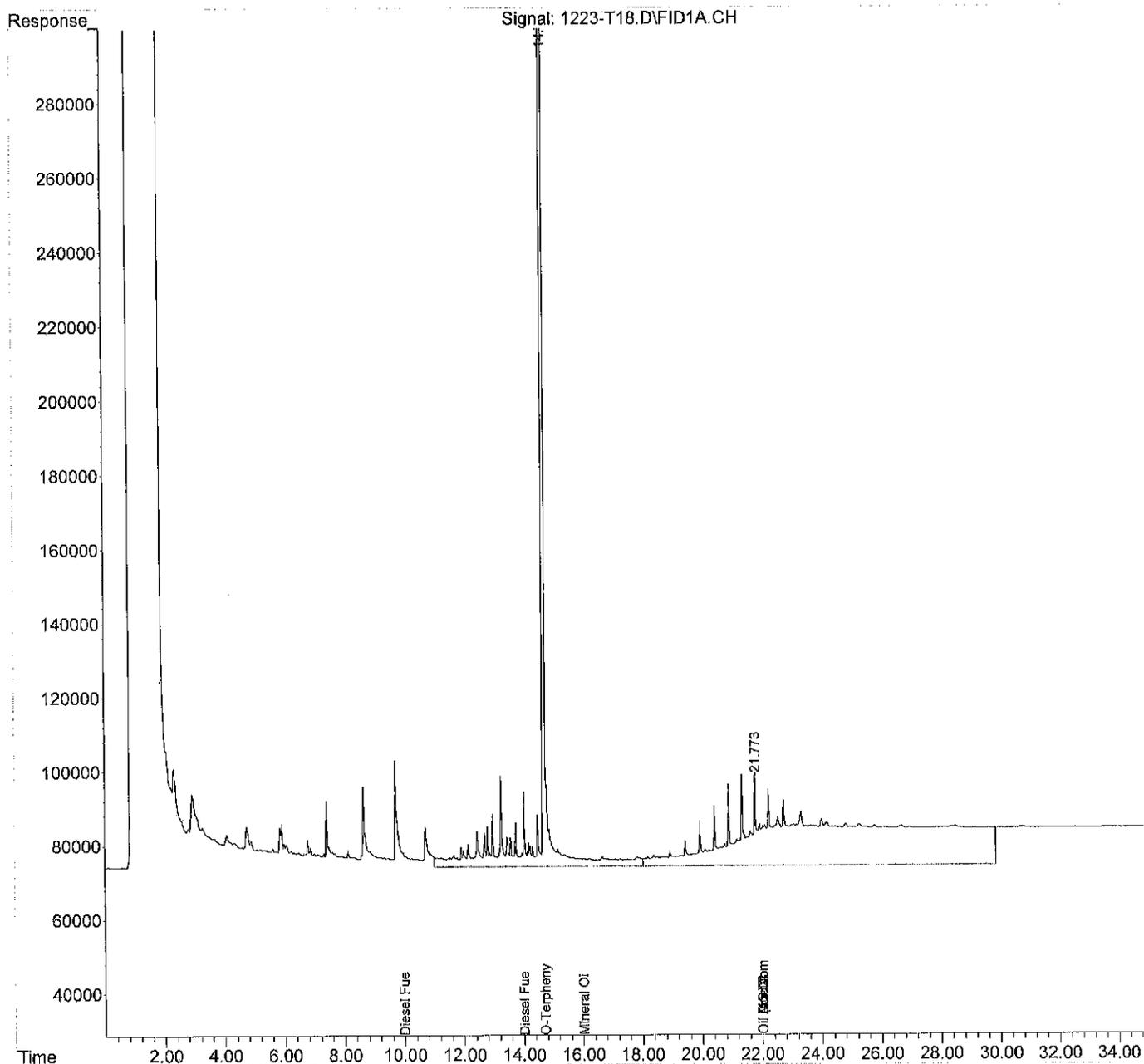
(m)=manual int.

Data File : 1223-T18.D  
Sample : 12-255-04 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 23 Dec 2014 23:26  
Operator : ZT  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 24 00:01:45 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T19.D  
 Sample : 12-255-05 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 24 Dec 2014 0:09  
 Operator : ZT  
 Misc :  
 ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 00:44:02 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (04-01-14)	14.709	550516893	190.555 PPM
Spiked Amount 50.000		Recovery =	381.11%
Target Compounds			
2) H Gasoline	3.500	15240683	NoCal PPM
3) H Diesel Fuel #1 (12-0...	10.000	22782135	5.282 PPM
4) H Diesel Fuel #2 (12-0...	14.000	19233668	5.463 PPM
5) H Oil (11-04-14)	22.000	57315518	15.679 PPM
6) H Oil Acid Clean (11-...	22.000	57315518	5.525 PPM
7) H Diesel Fuel #2 Combo ...	14.000	18246987	5.408 PPM
8) H Oil Combo (11-04-14)	22.000	56230648	15.444 PPM
9) H Oil Acid Clean Combo ...	22.000	56230648	5.010 PPM
10) H Alaska 102 DF2	13.025	19504295	NoCal PPM
11) H Alaska 103 Oil	20.000	25393350	NoCal PPM
12) H Mineral Oil (12-08-14)	16.000	14041448	3.597 PPM
13) H Mineral Oil Combo (1...	16.000	10895844	3.223 PPM
14) H Oil MO Combo (11-04-14)	22.000	55404506	15.578 PPM
15) H Oil Acid Clean MO Com...	22.000	55404506	4.756 PPM
-----			

(f)=RT Delta > 1/2 Window

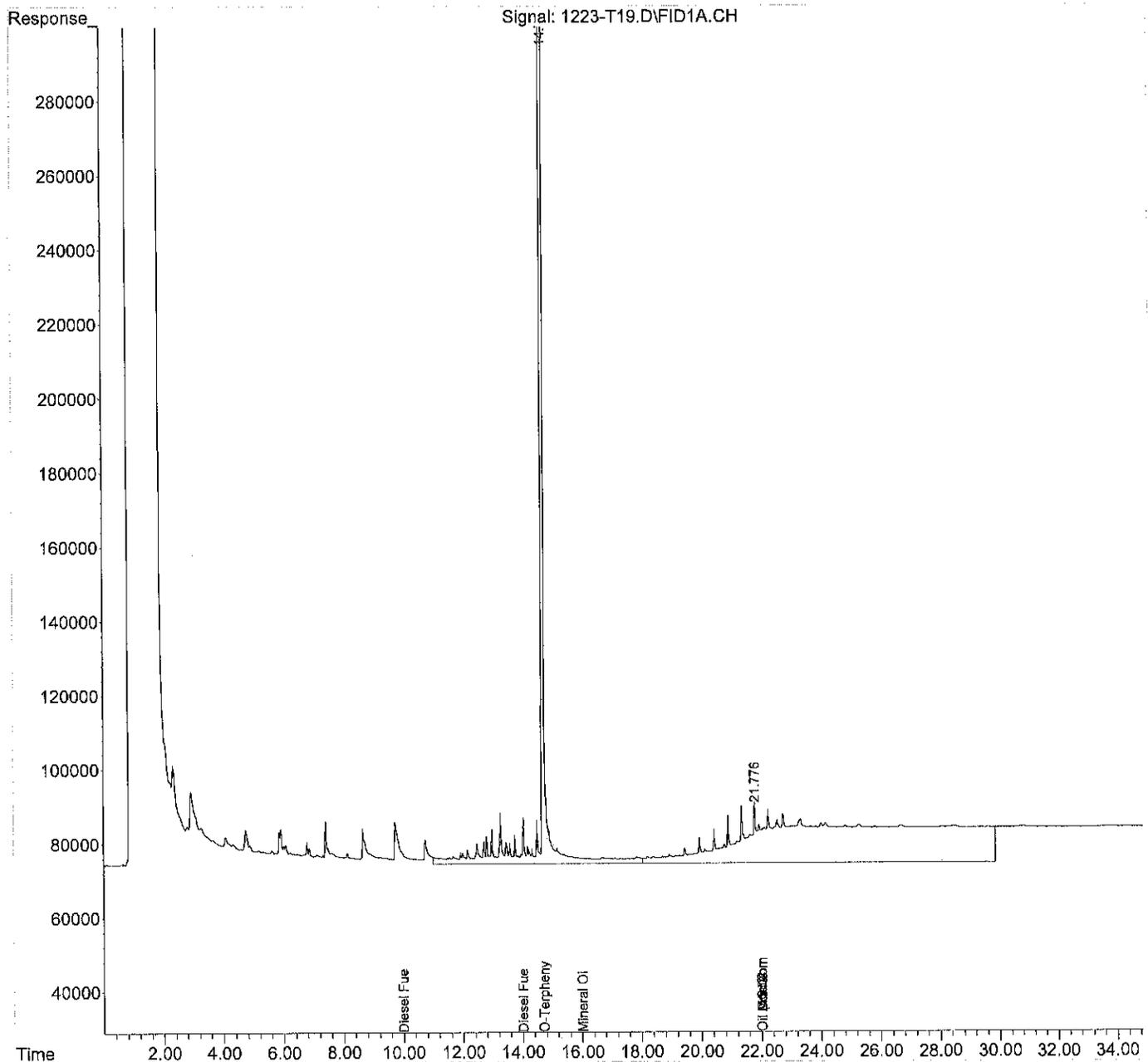
(m)=manual int.

Data File : 1223-T19.D  
Sample : 12-255-05 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 24 Dec 2014 0:09  
Operator : ZT  
Misc :  
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 24 00:44:02 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T21.D  
 Sample : 12-255-06 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 24 Dec 2014 1:33  
 Operator : ZT  
 Misc :  
 ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 02:08:29 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	14.708	539205302	186.644	PPM
Spiked Amount	50.000	Recovery	=	373.29%
Target Compounds				
2) H Gasoline	3.500	16370029	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	24221995	5.891	PPM
4) H Diesel Fuel #2 (12-0...	14.000	20526791	6.038	PPM
5) H Oil (11-04-14)	22.000	57754196	15.894	PPM
6) H Oil Acid Clean (11-...	22.000	57754196	5.767	PPM
7) H Diesel Fuel #2 Combo ...	14.000	19472729	5.962	PPM
8) H Oil Combo (11-04-14)	22.000	56589896	15.625	PPM
9) H Oil Acid Clean Combo ...	22.000	56589896	5.213	PPM
10) H Alaska 102 DF2	13.025	20828492	NoCal	PPM
11) H Alaska 103 Oil	20.000	26687238	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	15302741	4.099	PPM
13) H Mineral Oil Combo (1...	16.000	11790612	3.590	PPM
14) H Oil MO Combo (11-04-14)	22.000	55703898	15.735	PPM
15) H Oil Acid Clean MO Com...	22.000	55703898	4.931	PPM

(f)=RT Delta > 1/2 Window

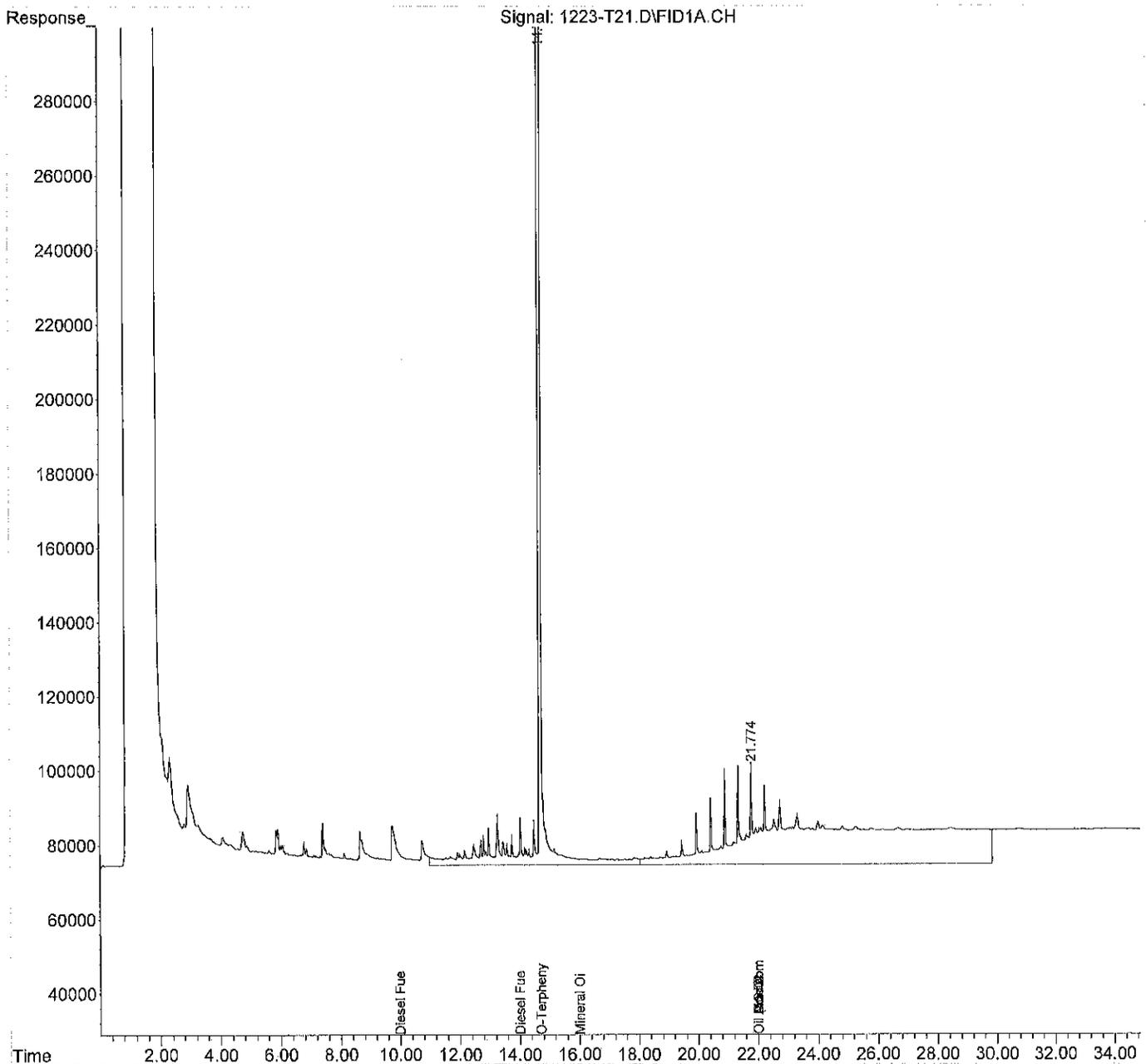
(m)=manual int.

Data File : 1223-T21.D  
Sample : 12-255-06 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 24 Dec 2014 1:33  
Operator : ZT  
Misc :  
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 24 02:08:29 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T22.D  
 Sample : 12-255-07 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 24 Dec 2014 2:15  
 Operator : ZT  
 Misc :  
 ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 02:50:30 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (04-01-14)	14.707	508675050	176.090 PPM
Spiked Amount 50.000		Recovery =	352.18%
Target Compounds			
2) H Gasoline	3.500	21575304	NoCal PPM
3) H Diesel Fuel #1 (12-0...	10.000	29720818	8.217 PPM
4) H Diesel Fuel #2 (12-0...	14.000	24072102	7.615 PPM
5) H Oil (11-04-14)	22.000	54771999	14.428 PPM
6) H Oil Acid Clean (11-...	22.000	54771999	4.118 PPM
7) H Diesel Fuel #2 Combo ...	14.000	22924532	7.523 PPM
8) H Oil Combo (11-04-14)	22.000	53427885	14.033 PPM
9) H Oil Acid Clean Combo ...	22.000	53427885	3.427 PPM
10) H Alaska 102 DF2	13.025	24362263	NoCal PPM
11) H Alaska 103 Oil	20.000	23669622	NoCal PPM
12) H Mineral Oil (12-08-14)	16.000	16145022	4.434 PPM
13) H Mineral Oil Combo (1...	16.000	12922279	4.054 PPM
14) H Oil MO Combo (11-04-14)	22.000	52457964	14.037 PPM
15) H Oil Acid Clean MO Com...	22.000	52457964	3.036 PPM
-----			

(f)=RT Delta > 1/2 Window

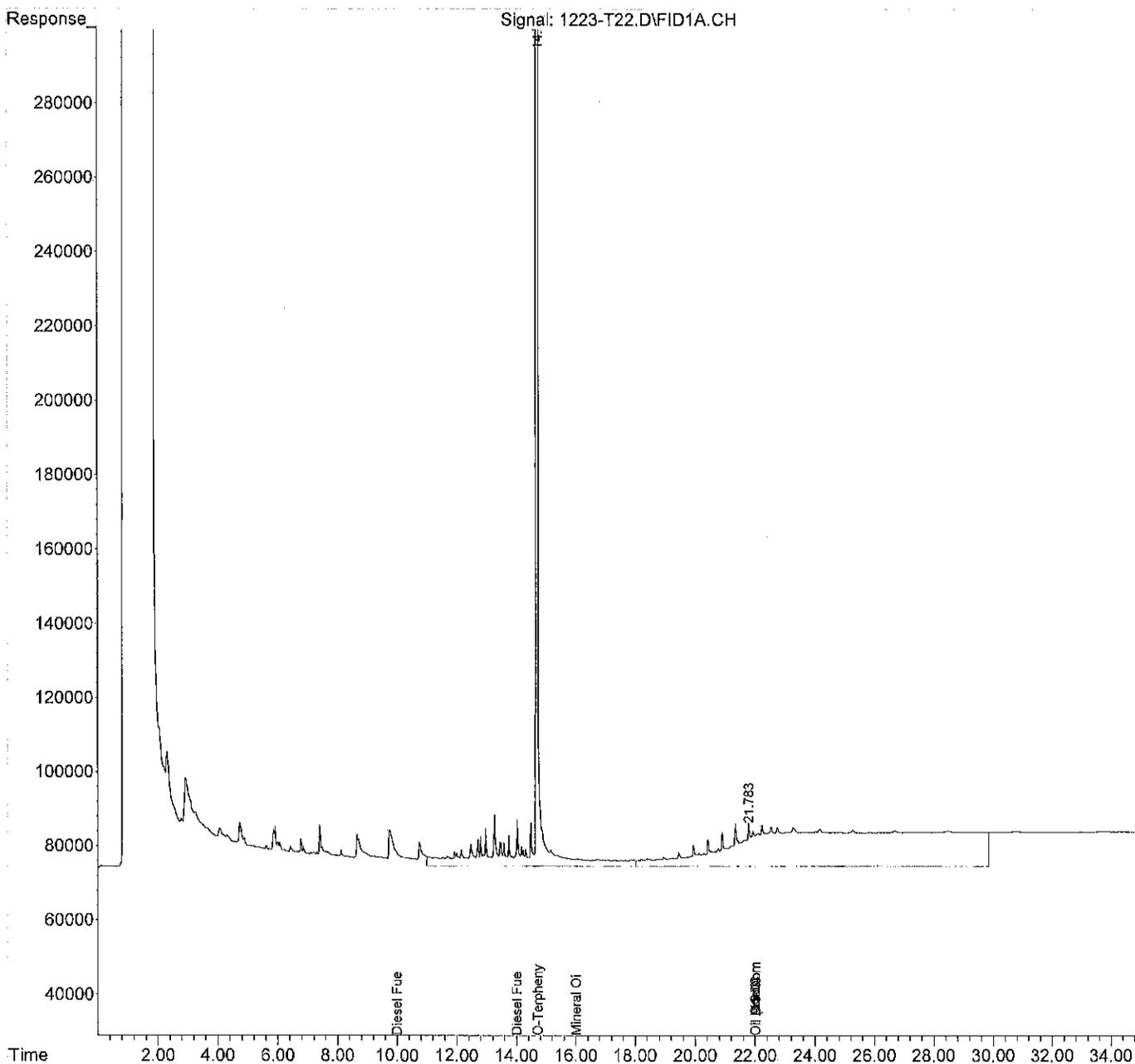
(m)=manual int.

Data File : 1223-T22.D  
Sample : 12-255-07 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 24 Dec 2014 2:15  
Operator : ZT  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 24 02:50:30 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T20.D  
 Sample : MB1223S2 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 24 Dec 2014 0:51  
 Operator : ZT  
 Misc :  
 ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 01:26:08 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	14.708	526608402	182.290	PPM
Spiked Amount 50.000		Recovery =	364.58%	
Target Compounds				
2) H Gasoline	3.500	18541907	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	25237720	6.321	PPM
4) H Diesel Fuel #2 (12-0...	14.000	21187506	6.332	PPM
5) H Oil (11-04-14)	22.000	61311684	17.643	PPM
6) H Oil Acid Clean (11-...	22.000	61311684	7.735	PPM
7) H Diesel Fuel #2 Combo ...	14.000	20140380	6.264	PPM
8) H Oil Combo (11-04-14)	22.000	59918193	17.300	PPM
9) H Oil Acid Clean Combo ...	22.000	59918193	7.092	PPM
10) H Alaska 102 DF2	13.025	21433721	NoCal	PPM
11) H Alaska 103 Oil	20.000	29050668	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	15065063	4.004	PPM
13) H Mineral Oil Combo (1...	16.000	11441634	3.447	PPM
14) H Oil MO Combo (11-04-14)	22.000	59030324	17.475	PPM
15) H Oil Acid Clean MO Com...	22.000	59030324	6.872	PPM
-----				

(f)=RT Delta > 1/2 Window

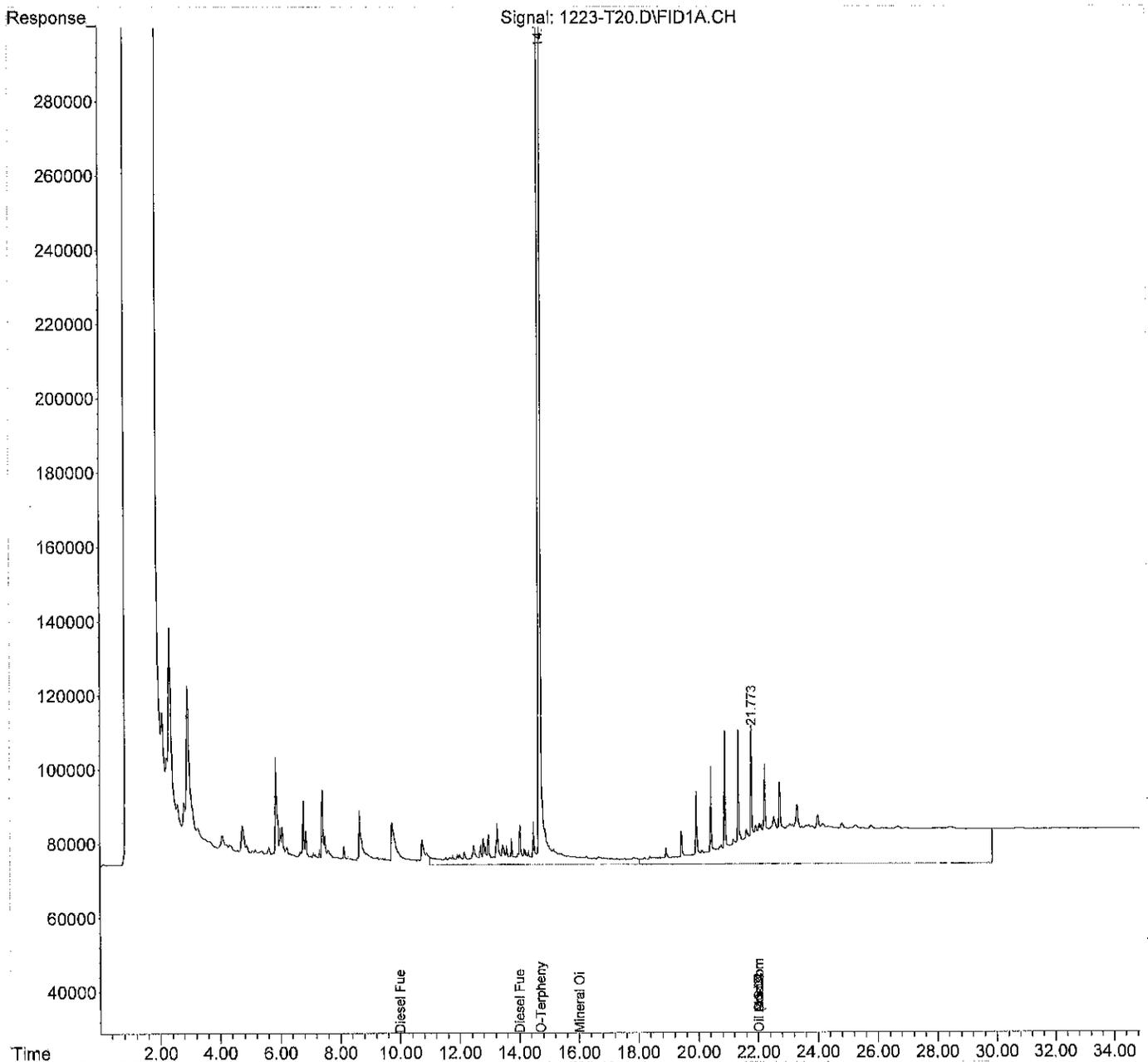
(m)=manual int.

Data File : 1223-T20.D  
Sample : MB1223S2 ACU

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 24 Dec 2014 0:51  
Operator : ZT  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 24 01:26:08 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T23.D  
 Sample : 12-255-02 ACU DUP

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 24 Dec 2014 2:57  
 Operator : ZT  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 03:32:49 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
1) S O-Terphenyl (04-01-14)	14.712	595495971	206.104 PPM
Spiked Amount 50.000		Recovery =	412.21%
Target Compounds			
2) H Gasoline	3.500	16426643	NoCal PPM
3) H Diesel Fuel #1 (12-0...	10.000	25742976	6.535 PPM
4) H Diesel Fuel #2 (12-0...	14.000	21596200	6.514 PPM
5) H Oil (11-04-14)	22.000	55587551	14.829 PPM
6) H Oil Acid Clean (11-...	22.000	55587551	4.569 PPM
7) H Diesel Fuel #2 Combo ...	14.000	20523515	6.437 PPM
8) H Oil Combo (11-04-14)	22.000	54335691	14.490 PPM
9) H Oil Acid Clean Combo ...	22.000	54335691	3.940 PPM
10) H Alaska 102 DF2	13.025	21886579	NoCal PPM
11) H Alaska 103 Oil	20.000	25080375	NoCal PPM
12) H Mineral Oil (12-08-14)	16.000	15722113	4.266 PPM
13) H Mineral Oil Combo (1...	16.000	12332361	3.812 PPM
14) H Oil MO Combo (11-04-14)	22.000	53427820	14.544 PPM
15) H Oil Acid Clean MO Com...	22.000	53427820	3.602 PPM
-----			

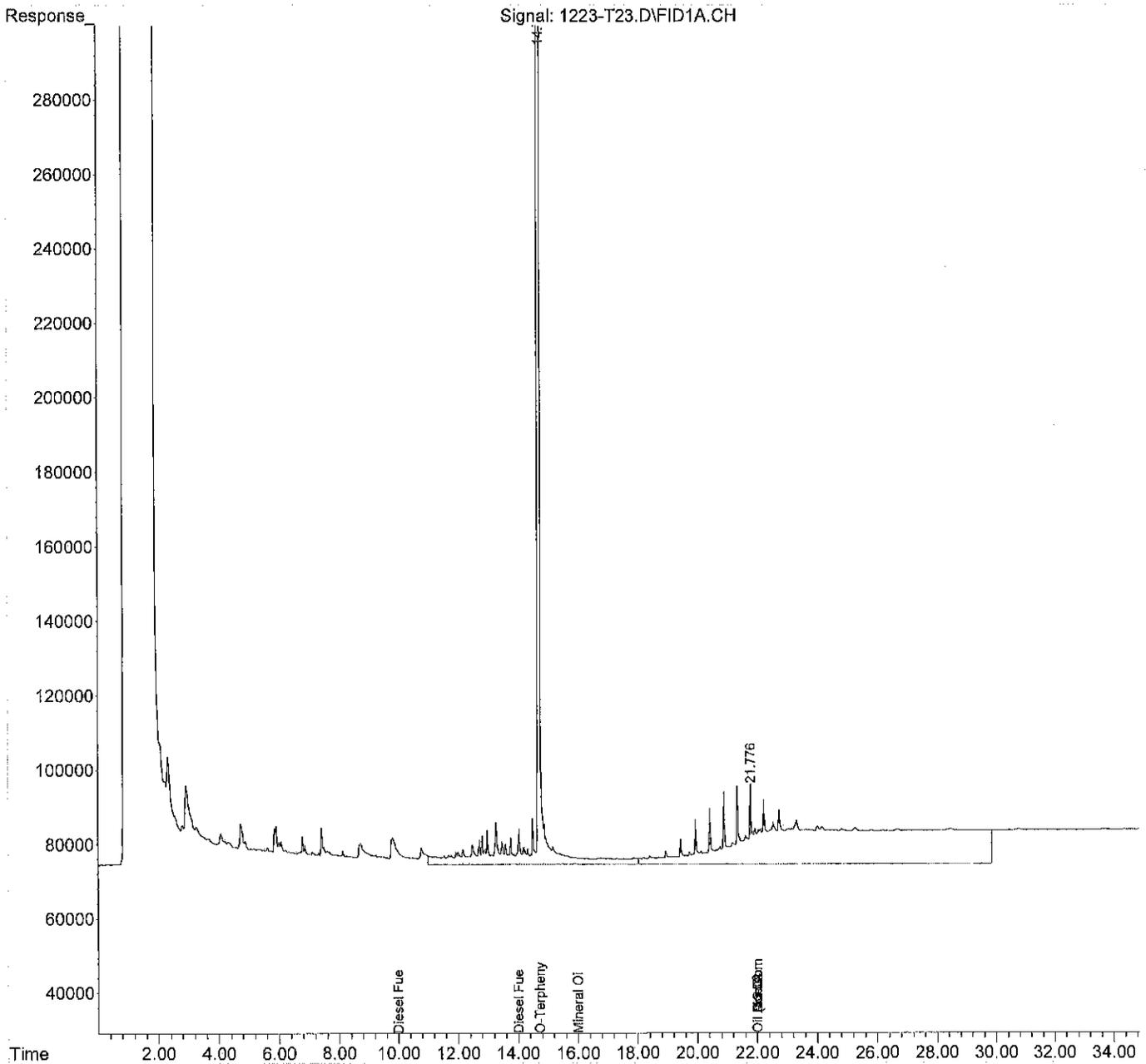
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : 1223-T23.D  
Sample : 12-255-02 ACU DUP  
Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 24 Dec 2014 2:57  
Operator : ZT  
Misc :  
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 24 03:32:49 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T12.D  
 Sample : CCV1223F-T2

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 23 Dec 2014 19:13  
 Operator : ZT  
 Misc : SV3-11-24  
 ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 23 19:48:49 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	0.000	0	N.D.	PPM
Spiked Amount 50.000		Recovery =	0.00%	
Target Compounds				
2) H Gasoline	3.500	34524322	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	227823848	92.011	PPM
4) H Diesel Fuel #2 (12-0...	14.000	227513341	98.100	PPM
5) H Oil (11-04-14)	22.000	99723732	36.522	PPM
6) H Oil Acid Clean (11-...	22.000	99723732	28.979	PPM
7) H Diesel Fuel #2 Combo ...	14.000	222849333	97.892	PPM
8) H Oil Combo (11-04-14)	22.000	88142855	31.509	PPM
9) H Oil Acid Clean Combo ...	22.000	88142855	23.028	PPM
10) H Alaska 102 DF2	13.025	228186948	NoCal	PPM
11) H Alaska 103 Oil	20.000	38062758	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	149380344	57.445	PPM
13) H Mineral Oil Combo (1...	16.000	143944413	57.805	PPM
14) H Oil MO Combo (11-04-14)	22.000	83941575	30.508	PPM
15) H Oil Acid Clean MO Com...	22.000	83941575	21.410	PPM
-----				

(f)=RT Delta > 1/2 Window

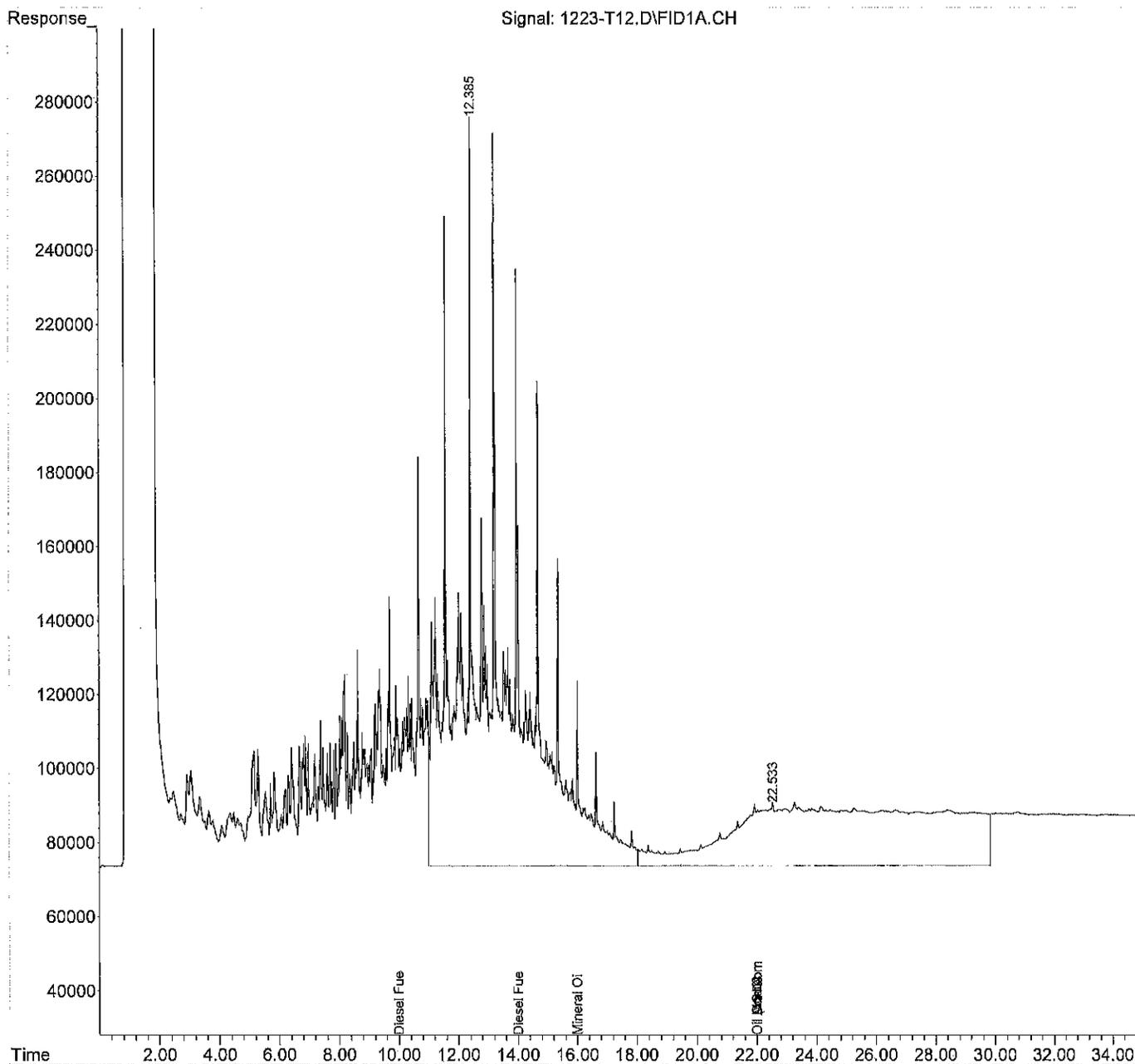
(m)=manual int.

Data File : 1223-T12.D  
Sample : CCV1223F-T2

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 23 Dec 2014 19:13  
Operator : ZT  
Misc : SV3-11-24  
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 23 19:48:49 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : 1223-T24.D  
 Sample : CCV1223F-T3

Data Path : X:\DIESELS\TERI\DATA\T141223\  
 Signal(s) : FID1A.CH  
 Acq On : 24 Dec 2014 3:39  
 Operator : ZT  
 Misc : SV3-11-24  
 ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e  
 Quant Time: Dec 24 04:14:51 2014  
 Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
 Quant Title : GCTPH  
 QLast Update : Fri Jun 18 15:10:26 2010  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase :  
 Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S O-Terphenyl (04-01-14)	0.000	0	N.D.	PPM
Spiked Amount	50.000	Recovery =	0.00%	
Target Compounds				
2) H Gasoline	3.500	41583309	NoCal	PPM
3) H Diesel Fuel #1 (12-0...	10.000	234220102	94.717	PPM
4) H Diesel Fuel #2 (12-0...	14.000	230639345	99.490	PPM
5) H Oil (11-04-14)	22.000	65457526	19.680	PPM
6) H Oil Acid Clean (11-...	22.000	65457526	10.028	PPM
7) H Diesel Fuel #2 Combo ...	14.000	226134206	99.376	PPM
8) H Oil Combo (11-04-14)	22.000	53903992	14.272	PPM
9) H Oil Acid Clean Combo ...	22.000	53903992	3.696	PPM
10) H Alaska 102 DF2	13.025	231172157	NoCal	PPM
11) H Alaska 103 Oil	20.000	21616677	NoCal	PPM
12) H Mineral Oil (12-08-14)	16.000	148397675	57.054	PPM
13) H Mineral Oil Combo (1...	16.000	144494220	58.030	PPM
14) H Oil MO Combo (11-04-14)	22.000	49825471	12.660	PPM
15) H Oil Acid Clean MO Com...	22.000	49825471	1.500	PPM

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : 1223-T24.D  
Sample : CCV1223F-T3

Data Path : X:\DIESELS\TERI\DATA\T141223\  
Signal(s) : FID1A.CH  
Acq On : 24 Dec 2014 3:39  
Operator : ZT  
Misc : SV3-11-24  
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e  
Quant Time: Dec 24 04:14:51 2014  
Quant Method : C:\MSDCHEM\1\METHODS\T141208F.M  
Quant Title : GCTPH  
QLast Update : Fri Jun 18 15:10:26 2010  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase :  
Signal Info :

