DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
OCEANPORT, NEW JERSEY 07757

July 22, 2016

Ms. Linda Range
New Jersey Department of Environmental Protection
Bureau of Case Management
401 East State Street,
PO Box 420/Mail Code 401-05F
Trenton, New Jersey 08625-0028

Re: Building 1203 Soil Interim Removal Action
Fort Monmouth, Oceanport, Monmouth County, New Jersey
PI G000000032

Attachments:

Figure 1 – Building 1203 Interim Removal Measure Location Map
Table 1 – Northern Transformer Area Excavation Results
Table 2 – Northern Transformer Area Waste Characterization Results
Attachment A – Photograph Log
Attachment B – Laboratory Data Reports
Attachment C – Recycling Documentation for Transformers
Attachment D – EPH Soil Remediation Criteria Calculation Sheets
Attachment E – Clean Fill Analysis

Dear Ms. Range,

This letter report summarizes an Interim Removal Measure (IRM) for one of the transformers at Building 1203 at Fort Monmouth (FTMM) in Oceanport, Monmouth County, New Jersey. The IRM was first described in a July 21, 2015 letter to NJDEP, "Soil Interim Removal Action of a Transformer – Near Building 1203." FTMM disposed of the two transformers and their oil contents off-Site, and conducted a small-scale soil IRM to excavate soil impacted by leaked transformer oil at one of the transformers.

Setting/Description

The two transformers were located on individual concrete pads near Building 1203 as shown in **Figure 1**. Prior to the July 21, 2015 letter, impacted soil to the north of the concrete transformer pad was observed and determined to have been caused by a leak from the northern transformer. The initial observed visual extent of impacted soils from the leaked oil encompassed an area approximately 10 feet long by 1 to 2 feet (20 square feet) wide. The northern transformer pad

was surrounded by crushed stone and soil contained by concrete curbing with dimensions of 13 feet by 14 feet (182 square feet). The southern transformer was found to be in good condition and there was no visual evidence of a release (e.g., staining) to the pad or surrounding soil.

Transformer Removal

The process of removing the transformers included disconnecting them from the concrete pads, draining the oil from and cleaning the transformers and transporting the transformers off-site for disposal. Photos of the transformer concrete pads after transformer removal are shown in **Attachment A**.

Prior to the July 21, 2015 letter, approximately 350 gallons of transformer oil was removed from the northern transformer and stored in a double wall oil tank designated for non-PCB transformer oil. This transformer oil was recycled off-site by Lorco Petroleum Services of Elizabeth, New Jersey on June 16, 2015.

On July 23, 2015, the remainder of the transformer oil (approximately 40 gallons) was removed from the northern transformer, and 500 gallons of transformer oil was pumped from the southern transformer by Lorco Petroleum Services of Elizabeth, New Jersey into their truck and taken off-Site for recycling. Samples of the transformer oil were submitted to EMSL Analytical, Inc of Cinnaminson, New Jersey for polychlorinated biphenyl (PCB) analyses for disposal in compliance with Federal and state regulations. The transformer oil was non-detect for the nine PCB aroclors tested. The laboratory report for the southern transformer is included as **Attachment B**. Upon receipt of laboratory results, the non-PCB transformer oil was recycled off-Site by Lorco Petroleum Services in accordance with federal and state regulations.

After the transformer oil was removed from the two transformers, the transformers were moved off their respective concrete pads and placed onto plastic sheeting. The transformers sat to let any residual oil collect within the holding reservoir prior to cleaning out the units. On July 29, 2015, the interior of both transformers were wiped clean of residual oil with absorbent pads, and the pads were placed into a spill debris drum for disposal. The transformers were transported off-Site by Monmouth Wire and Computer Recycling of Tinton Falls, New Jersey to their facility for recycling. The recycling documentation for the transformers and transformer oil is provided as **Attachment C**.

Soil IRM at Northern Transformer

After the two transformers were removed off-Site, the crushed stone and soil impacted by the leaked transformer oil from the northern transformer were excavated as part of an IRM. Soil excavation and off-Site disposal was performed by AWT Environmental Services of Sayreville, New Jersey. Excavation of the transformer oil-impacted soil occurred on September 3, 2015 and September 4, 2015. Photographs of the soil IRM process are provided in **Attachment A**.

The soil IRM at the northern transformer pad was completed in the following sequence:

- Concrete transformer pad was broken up;

- Crushed stone and soils around the concrete pad were removed down to the underlying concrete liner and stockpiled adjacent to the excavation area. Non-impacted crushed stone was segregated from impacted soils, and impacted soils were placed on plastic sheeting;

- Underlying concrete bottom was broken up while concrete curbing was left in place;

- Crushed concrete pad and concrete bottom were removed and transported to a concrete storage area on-Site for later disposal;

- The defunct transformer piping leading into the building was removed;

- Soils adjacent to and underneath the former concrete pad, and soil underlying concrete bottom were excavated until no visible staining or odor was observed. The excavation extended to an average depth of 2.5 feet below ground surface; and

- Approximately 2.5 cubic yards of non-impacted crushed stone and 14.5 cubic yards of impacted soils were removed from the excavation area and stockpiled separately. Impacted soils were stockpiled on-Site for waste characterization sampling and future off-Site disposal.

- Backfilling of the excavation with clean fill and the non-impacted clean crushed stone at the surface has yet to be performed.

Soil confirmation samples were collected from the northern transformer pad excavation area on September 8, 2015 to demonstrate the effectiveness of the remedial measure and compliance with state regulations. The remediation sampling/analysis was conducted in accordance with the sampling requirements in Section 6.3.1 of NJDEP's Technical Guidance for Site Investigation of Soil, Remedial Investigation of Soil, and Remedial Action Verification Sampling for Soil (March 2015), and the analytical requirements of Table 2-1 in N.J.A.C 7:26E-2.1(d) Technical Regulations for Site Remediation (TRSR) for petroleum hydrocarbons contamination for all petroleum storage and discharge areas for transformer oil. The analytical requirements for soil require extractable petroleum hydrocarbons (EPH) and polychlorinated biphenyls (PCB) analyses, with contingency analysis for polycyclic aromatic hydrocarbons (PAHs). Five soil grab samples were collected, one from each of the four side walls and one from the bottom of the excavation. (See **Figure 1** for the limits of excavation and the excavation confirmation sample locations.) The samples were submitted to ALS Environmental of Rochester, New York (NJ cert #NY004) and were analyzed per NJDEP requirements for EPH and PCBs. See **Table 1** for excavation confirmation soil sample analytical results.

EPH compliance was assessed using NJDEP's *Protocol for Addressing Extractable Petroleum Hydrocarbons (Version 5.0, August 9, 2010)* for Category 2 discharges of petroleum hydrocarbon mixtures other than No. 2 fuel oil. NJDEP provided spreadsheets obtained from their website were used to calculate the sample-specific, human health-based EPH soil remediation criterion (SRC). Both non-residential and residential SRCs were calculated. Calculated EPH SRCs for the individual samples ranged from 23,000 to 210,000 mg/kg for a

non-residential setting and from 2,100 to 19,000 for a residential setting. The five confirmation samples EPH results were less than their respective calculated non-residential and residential EPH SRCs. The EPH SRC calculation sheets are included as **Attachment D**. In addition per NJDEP protocol, the five confirmation sample results were compared to and determined to be less than the allowable EPH residual product/free product limit for a Category 2 discharge (17,000 mg/kg).

PCB results for the five confirmation samples were non-detect.

Additional contingency analyses were performed per TRSR Table 2-1 "Analytical Requirements for Petroleum Storage and Discharge Areas" which requires 25 percent of those samples with EPH detections to be tested for PAHs. The additional PAH analysis was conducted on the samples with the highest EPH concentrations, which were the samples from the northern sidewall [BLD1203-SS-EX1-01(N)-30-36] and eastern sidewall [BLD1203-SS-EX1-02(E)-29-35]. Soil samples were collected on October 9, 2015 and from the same locations as the sidewall samples previously collected.

The two contingency samples were non-detect for all PAHs; however, in the north side wall sample, two of the PAHs (benzo(a)pyrene and dibenzo(a,h)anthracene) slightly exceeded their respective non-residential and residential SRC. Due to high concentrations of non-target analytes (non-PAH Semi-Volatile Organic Compounds), the north side wall sample was diluted by 100x resulting in the reporting of PAHs at slightly elevated Method Detection Limits (MDLs). The results for the contingency samples are presented in **Table 1**.

However, the slightly elevated PAH results may not be attributable to the transformer oil since the other sixteen PAHs tested in each of the two contingency samples have non-detect results below their respective SRC. Since the benzo(a)pyrene and dibenzo(a,h)anthracene "U" results are non-detect, it is reasonable to conclude that these two results are also less than their respective SRCs. Based on the EPH, PCB, and PAH analytical results for the excavation confirmation samples, the remediation is complete at the Building 1203 excavation area, and no additional soil removal is required.

A soil sample was collected from the excavated impacted soil stockpile on September 8, 2015 to demonstrate compliance with appropriate state regulations for waste characterization disposal analysis. The soils were determined to be non-hazardous in accordance with New Jersey Hazardous Waste Regulations N.J.A.C. 7:26G. See **Table 2** for waste characterization laboratory results.

Summary and Future Actions

In summary, the transformer removal and soil excavation/waste characterization portions of the IRM have been successfully completed at Building 1203. Subsequent to the submission of this letter report, the stockpiled non-hazardous soils will be loaded and transported off-Site for disposal by AWT. The excavation will be backfilled with certified clean fill to grade and compacted, and overlaid with the stockpiled crushed stone removed from the excavation. The clean fill analysis for the proposed backfill soil from Trap Rock Quarry in Kingston, New Jersey

is included as **Attachment E**. Documentation of the impacted soils off-Site disposal and backfilling activities will be submitted under separate cover. The technical Point of Contact (POC) for this matter is Cris Grill at (617) 449-1583 or by email at cris.grill@parsons.com. Should you have any questions or require additional information, please contact me at (732) 380-7064 or by email at william.r.colvin18.civ@mail.mil.

Sincerely,

William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator
Fort Monmouth, New Jersey

cc: James Moore, USACE
Cris Grill, Parsons

New Jersey Department of Environmental Protection
Site Remediation Program

Report Certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites

These certifications are to be used for reports submitted for RCRA GPRA 2020, CERCLA, and Federal Facility Sites. The Department has developed guidance for report certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites under traditional oversight. The "Person Responsible for Conducting the Remediation Information and Certification" is required to be submitted with each report. For those sites that are required or opt to use a Licensed Site Remediation Professional (LSRP) the report must also be certified by the LSRP using the "Licensed Site Remediation Professional Information and Statement". For additional guidance regarding the requirement for LSRPs at RCRA GPRA 2020, CERCLA and Federal Facility Sites see http://www.nj.gov/dep/srp/srra/training/matrix/quick_ref/rcra_cercla_fed_facility_sites.pdf.

Document: "Building 1203 Soil Interim Removal Action Letter"

PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: William R. Colvin
Representative First Name: William Representative Last Name: Colvin
Title: BRAC Environmental Coordinator
Phone Number: (732) 380-7064 Ext: Fax:
Mailing Address: P.O. Box 148
City/Town: Oceanport State: NJ Zip Code: 07757
Email Address: william.r.colvin18.civ@mail.mil

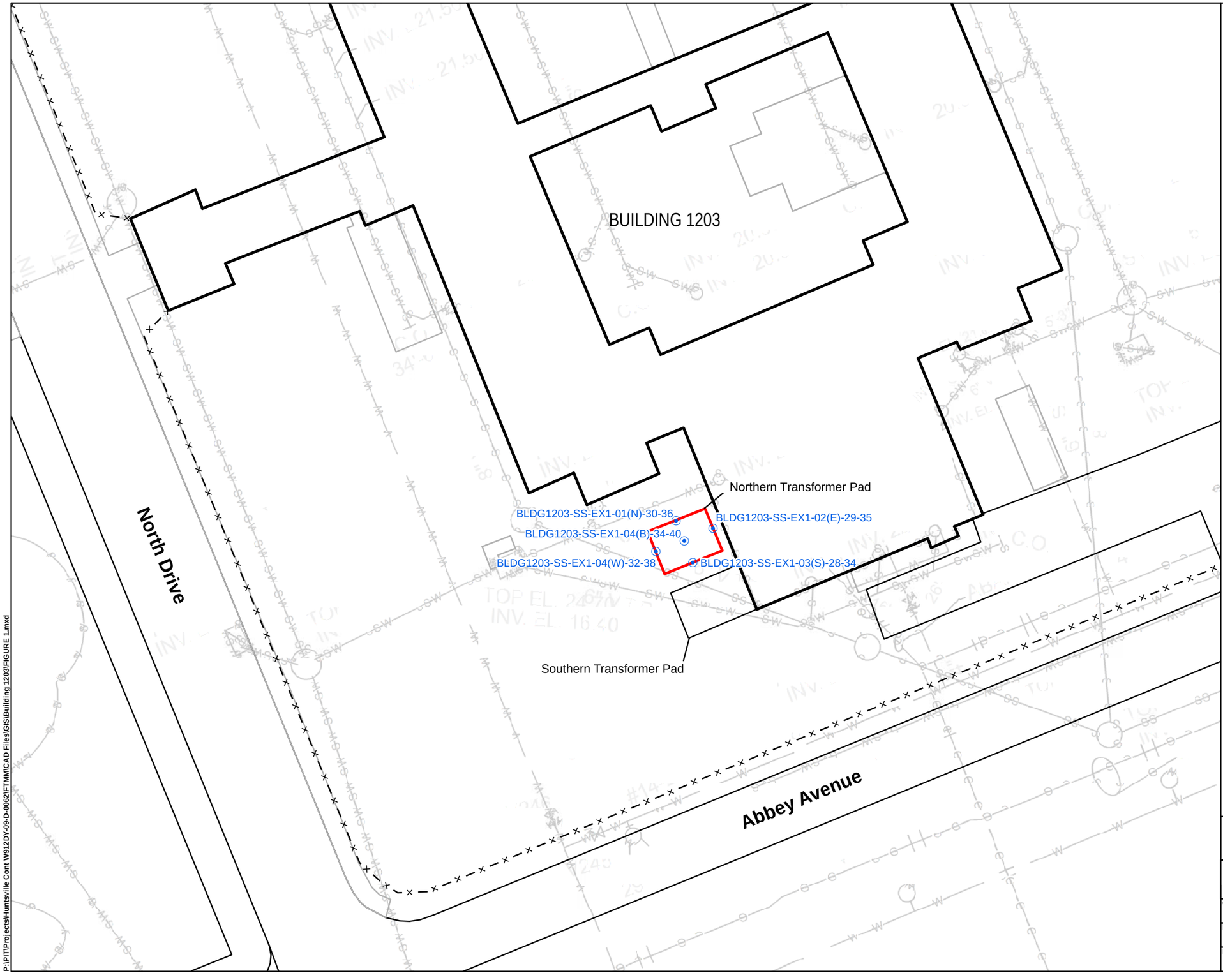
This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: William R Colvin Date: 7/22/2016

Name/Title: William R. Colvin / BRAC Environmental Coordinator

Figure 1 - Building 1203 Interim Removal Measure Location Map



LEGEND:

- Sample Location
- Existing Fence
- Demolished Fence
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Surface Water Feature
- Installation Boundary
- Limits of Excavation

N

1 inch = 30 feet

0 15 30 60 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	**Fort Monmouth** **New Jersey**

BUILDING 1203 SOIL
INTERIM REMOVAL MEASURE

CREATED BY: RR	REVIEWED BY: JTK
DATE: JULY 2016	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-06032	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\Building 1203\FIGURE 1.mxd

Table 1 - Northern Transformer Area Excavation Results

TABLE 1
NORTHERN TRANSFORMER AREA EXCAVATION RESULTS
BUILDING 1203 INTERIM REMOVAL MEASURE
FORT MONMOUTH, NEW JERSEY

Loc ID	Non-Residential Soil Remediation Criteria	Residential Soil Remediation Criteria	Northern Sidewall	Eastern Sidewall	Southern Sidewall	Western Sidewall	Bottom
Sample ID			BLDG1203-SS-EX1-01(N)-30-36	BLDG1203-SS-EX1-02(E)-29-35	BLDG1203-SS-EX1-03(S)-28-34	BLDG1203-SS-EX1-04(W)-32-38	BLDG1203-SS-EX1-04(B)-34-40
Sample Date			9/8/2015	9/8/2015	9/8/2015	9/8/2015	9/8/2015
Extractable Petroleum Hydrocarbons (mg/kg)							
Aromatic							
C10-C12	* Calculated sample-specific EPH SRC are presented in Appendix D	* Calculated sample-specific EPH SRC are presented in Appendix D	1.21	1.21	1.21	1.11	1.21
C12-C16			7.7	7.6	0.63 J	0.63 J	23.0
C16-C21			198	163	13.8	8.8	632
C21-C36			214	166	34.0	15.8	364
Aliphatic							
C9-C12			7.3	9.1	0.59 J	0.79 J	50
C12-C16			1970	2280	62.8	124	53.4
C16-C21			5990	6340	269	376	74.5
C21-C40			2870	3070	159	202	101
Total EPH			11300	12000	540	728	9920
PCBs (mg/kg)							
Aroclor 1016	1	0.2	0.021 U	0.022 U	0.022 U	0.02 U	0.021 U
Aroclor 1221	1	0.2	0.041 U	0.043 U	0.043 U	0.039 U	0.042 U
Aroclor 1232	1	0.2	0.021 U	0.022 U	0.022 U	0.02 U	0.021 U
Aroclor 1242	1	0.2	0.021 U	0.022 U	0.022 U	0.02 U	0.021 U
Aroclor 1248	1	0.2	0.021 U	0.022 U	0.022 U	0.02 U	0.021 U
Aroclor 1254	1	0.2	0.023 U	0.024 U	0.024 U	0.022 U	0.024 U
Aroclor 1260	1	0.2	0.021 U	0.022 U	0.022 U	0.020 U	0.021 U
Aroclor 1268	1	0.2	0.022 U	0.023 U	0.023 U	0.021 U	0.022 U
PAHs (mg/kg)							
1-Methylnaphthalene	NLE	NLE	0.21 U	0.02 U	NA	NA	NA
2-Methylnaphthalene	2,400	230	0.39 U	0.04 U	NA	NA	NA
Acenaphthene	37,000	3,400	0.34 U	0.04 U	NA	NA	NA
Acenaphthylene	300,000	NLE	0.21 U	0.02 U	NA	NA	NA
Anthracene	30,000	17,000	0.25 U	0.03 U	NA	NA	NA
Benzo(a)anthracene	2	0.6	0.24 U	0.02 U	NA	NA	NA
Benzo(a)pyrene	0.2	0.2	*0.21 U	0.02 U	NA	NA	NA
Benzo(b)fluoranthene	2	0.6	0.26 U	0.03 U	NA	NA	NA
Benzo(g,h,i)perylene	30,000	380,000	0.27 U	0.03 U	NA	NA	NA
Benzo(k)fluoranthene	23	6	0.21 U	0.02 U	NA	NA	NA
Chrysene	230	62	0.21 U	0.02 U	NA	NA	NA
Dibenz(a,h)anthracene	0.2	0.2	*0.27 U	0.03 U	NA	NA	NA
Fluoranthene	24,000	2,300	0.24 U	0.03 U	NA	NA	NA
Fluorene	24,000	2,300	0.37 U	0.04 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	2	0.6	0.21 U	0.02 U	NA	NA	NA
Naphthalene	17	6	0.25 U	0.03 U	NA	NA	NA
Phenanthrene	300,000	NA	0.52 U	0.05 U	NA	NA	NA
Pyrene	18,000	1,700	0.31 U	0.03 U	NA	NA	NA

Notes:
(1) The NJ Non-Residential and Residential Direct Contact Soil Remediation Standard refers to the NJDEP's May 7, 2012 Remediation Standards N.J.A.C. 7:26D, Appendix 1 - Soil Remediation Standards Tables
(2) NA = Not analyzed.
(3) NLE = No limit established.
(4) J = estimated (detect or non-detect) value
(5) U = analyte not detected above method detection limit (MDL).
(6) mg/kg = milligrams per kilogram.
(7) The Northern and Eastern Sidewall Samples analyzed for PAHs were collected on October 9, 2015.
(8) *Cell value highlighted in yellow represents a non-detect result that is slightly above the NJDEP non-residential and residential SRC due to elevated reporting limits.

Table 2 - Northern Transformer Area Waste Characterization Results

TABLE 2
NORTHERN TRANSFORMER AREA WASTE CHARACTERIZATION RESULTS
BUILDING 1203 INTERIM REMOVAL MEASURE
FORT MONMOUTH, NEW JERSEY

Loc ID	Waste Characterization Sample 1	
Sample ID	BLDG1203-20150908-WC1	
Sample Date	9/8/2015	
Metals (mg/kg)		
Silver, Total	0.3	J
Arsenic, Total	13.8	
Barium, Total	27.9	
Beryllium, Total	1.02	
Cadmium, Total	0.45	J
Chromium, Total	91.1	
Copper, Total	14.8	
Nickel, Total	5.6	
Lead, Total	13	
Antimony, Total	1.4	J
Selenium, Total	0.5	U
Thallium, Total	0.4	U
Zinc, Total	180	
Mercury, Total	0.017	J
PCBs (µg/kg)		
Aroclor 1016	21	U
Aroclor 1221	42	U
Aroclor 1232	21	U
Aroclor 1242	21	U
Aroclor 1248	21	U
Aroclor 1254	24	U
Aroclor 1260	21	U
Aroclor 1268	22	U
Volatile Organic Compounds (µg/kg)		
1,1,1,2-Tetrachloroethane	0.45	U
1,1,1-Trichloroethane (TCA)	0.4	U
1,1,2,2-Tetrachloroethane	0.44	U
1,1,2-Trichloroethane	0.4	U
1,1-Dichloroethane (1,1-DCA)	0.67	U
1,1-Dichloroethene (1,1-DCE)	0.69	U
1,1-Dichloropropene	0.57	U
1,2,3-Trichlorobenzene	0.34	U
1,2,3-Trichloropropane	0.71	U
1,2,4-Trichlorobenzene	0.32	U
1,2,4-Trimethylbenzene	0.29	U
1,2-Dibromo-3-chloropropane (DBCP)	1.1	U
1,2-Dibromoethane	0.65	U
1,2-Dichlorobenzene	0.33	U
1,2-Dichloroethane	0.33	U
1,2-Dichloropropane	0.52	U
1,3,5-Trimethylbenzene	0.43	U
1,3-Dichlorobenzene	0.34	U
1,3-Dichloropropane	0.22	U
1,4-Dichlorobenzene	0.31	U
2,2-Dichloropropane	0.59	U
2-Butanone (MEK)	1.3	U
2-Chlorotoluene	0.33	U
2-Hexanone	0.65	U
tert-Butyl Alcohol	14	U
4-Chlorotoluene	0.3	U
p-Isopropyltoluene	0.47	U
4-Methyl-2-pentanone	0.53	U
Acetone	32	

TABLE 2
NORTHERN TRANSFORMER AREA WASTE CHARACTERIZATION RESULTS
BUILDING 1203 INTERIM REMOVAL MEASURE
FORT MONMOUTH, NEW JERSEY

Loc ID	Waste Characterization Sample 1	
Sample ID	BLDG1203-20150908-WC1	
Sample Date	9/8/2015	
Volatile Organic Compounds (µg/kg)		
Benzene	0.16	U
Bromobenzene	0.51	U
Bromochloromethane	0.73	U
Bromodichloromethane	0.33	U
Bromoform	0.5	U
Bromomethane	0.74	U
Carbon Tetrachloride	0.5	U
Chlorobenzene	0.16	U
Chloroethane	1.6	U
Chloroform	0.68	U
Chloromethane	0.22	U
Dibromochloromethane	0.4	U
Dichlorodifluoromethane (CFC 12)	1.1	U
Methylene Chloride	0.31	U
Ethylbenzene	0.13	U
Hexachlorobutadiene	0.5	U
Isopropylbenzene (Cumene)	0.36	U
Methyl tert-Butyl Ether	0.51	U
Naphthalene	0.28	U
Styrene	0.17	U
Tetrachloroethene (PCE)	0.48	U
Toluene	0.54	U
Trichloroethene (TCE)	0.55	U
Trichlorofluoromethane (CFC 11)	0.36	U
Vinyl Chloride	0.99	U
cis-1,2-Dichloroethene	0.51	U
cis-1,3-Dichloropropene	0.49	U
m,p-Xylenes	0.59	U
n-Butylbenzene	0.53	U
n-Propylbenzene	0.42	U
o-Xylene	0.26	U
sec-Butylbenzene	0.39	U
tert-Butylbenzene	0.32	U
trans-1,2-Dichloroethene	0.47	U
trans-1,3-Dichloropropene	0.11	U
Semivolatile Organic Compounds (µg/kg)		
1,2,4-Trichlorobenzene	52	U
1,2-Dichlorobenzene	44	U
1,2-Diphenylhydrazine	62	U
1,3-Dichlorobenzene	50	U
1,4-Dichlorobenzene	44	U
2,4,5-Trichlorophenol	73	U
2,4,6-Trichlorophenol	48	U
2,4-Dichlorophenol	71	U
2,4-Dimethylphenol	74	U
2,4-Dinitrophenol	310	U
2,4-Dinitrotoluene	77	U
2,6-Dinitrotoluene	110	U
2-Chloronaphthalene	63	U

TABLE 2
NORTHERN TRANSFORMER AREA WASTE CHARACTERIZATION RESULTS
BUILDING 1203 INTERIM REMOVAL MEASURE
FORT MONMOUTH, NEW JERSEY

Loc ID	Waste Characterization Sample 1	
Sample ID	BLDG1203-20150908-WC1	
Sample Date	9/8/2015	
Semivolatile Organic Compounds (µg/kg)		
2-Chlorophenol	53	U
2-Methylnaphthalene	66	U
2-Methylphenol	84	U
2-Nitroaniline	270	U
2-Nitrophenol	56	U
3,3'-Dichlorobenzidine	79	U
3- and 4-Methylphenol Coelution	150	U
3-Nitroaniline	410	U
4,6-Dinitro-2-methylphenol	420	U
4-Bromophenyl Phenyl Ether	77	U
4-Chloro-3-methylphenol	64	U
4-Chloroaniline	78	U
4-Chlorophenyl Phenyl Ether	71	U
4-Nitroaniline	300	U
4-Nitrophenol	260	U
Acenaphthene	68	U
Acenaphthylene	67	U
Anthracene	75	U
Benz(a)anthracene	150	J
Benzidine	1400	U
Benzo(a)pyrene	150	J
Benzo(b)fluoranthene	190	J
Benzo(g,h,i)perylene	110	J
Benzo(k)fluoranthene	67	U
Benzoic Acid	480	U
Benzyl Alcohol	87	J
2,2'-Oxybis(1-chloropropane)	71	U
Bis(2-chloroethoxy)methane	47	U
Bis(2-chloroethyl) Ether	74	U
Bis(2-ethylhexyl) Phthalate	320	J
Butyl Benzyl Phthalate	79	U
Carbazole	69	U
Chrysene	150	J
Di-n-butyl Phthalate	98	U
Di-n-octyl Phthalate	76	U
Dibenz(a,h)anthracene	61	U
Dibenzofuran	69	U
Diethyl Phthalate	78	U
Dimethyl Phthalate	74	U
Fluoranthene	270	J
Fluorene	65	U
Hexachlorobenzene	74	U
Hexachlorobutadiene	44	U
Hexachlorocyclopentadiene	89	U
Hexachloroethane	53	U
Indeno(1,2,3-cd)pyrene	120	J
Isophorone	63	U
N-Nitrosodi-n-propylamine	91	U
N-Nitrosodimethylamine	47	U

TABLE 2
NORTHERN TRANSFORMER AREA WASTE CHARACTERIZATION RESULTS
BUILDING 1203 INTERIM REMOVAL MEASURE
FORT MONMOUTH, NEW JERSEY

Loc ID	Waste Characterization Sample 1	
Sample ID	BLDG1203-20150908-WC1	
Sample Date	9/8/2015	
Semivolatile Organic Compounds (µg/kg)		
N-Nitrosodiphenylamine	70	U
Naphthalene	57	U
Nitrobenzene	61	U
Pentachlorophenol (PCP)	330	U
Phenanthrene	180	J
Phenol	150	U
Pyrene	270	U
TCLP Metals (mg/L)		
Silver	0.1	U
Arsenic	0.5	U
Barium	1	U
Cadmium	0.1	U
Chromium	0.1	U
Copper	0.1	U
Nickel	0.1	U
Lead	0.1	U
Selenium	0.5	U
Zinc	1.83	B
Mercury	0.0003	U
TCLP VOCs (mg/L)		
1,1-Dichloroethene (1,1-DCE)	50	U
1,2-Dichloroethane	50	U
2-Butanone (MEK)	100	U
Benzene	50	U
Carbon Tetrachloride	50	U
Chlorobenzene	50	U
Chloroform	50	U
Tetrachloroethene (PCE)	50	U
Trichloroethene (TCE)	50	U
Vinyl Chloride	50	U
Wet Chemistry		
Cyanide, Reactive (mg/kg)	23	U
Sulfide, Reactive (mg/kg)	120	U
pH	7.14	
Free Liquid	Absent	
Total Solids (%)	82.1	
Flash Point (deg C)	>100	

Notes:
(1) U = analyte not detected above method detection limit (MDL)
(2) J = estimated (detect or non-detect) value
(3) B = Compound detected in the sample and its associated blank sample
(4) µg/kg = micrograms per kilogram
(5) mg/kg = milligrams per kilogram
(5) mg/L = milligrams per liter

Attachment A

Photograph Log

Attachment A - Photograph Log
Building 1203 Interim Removal Measure
FTMM – Fort Monmouth, New Jersey

Northern and Southern Transformer Pads

Northern Transformer concrete pad in background and Southern Transformer concrete pad in foreground looking north, prior to soil IRM

Northern Transformer Pad

Northern Transformer concrete pad looking east, prior to soil IRM.

Northern Transformer concrete pad broken up.

Crushed stone and soils around the concrete pad were removed down to underlying concrete

Northern Transformer Pad

The crushed Northern Transformer concrete pad was removed.

The defunct transformer piping and the underlying concrete bottom were removed at the former Northern Transformer concrete pad.

The soils underneath the former Northern Transformer concrete pad and underlying concrete bottoms were excavated until no visible free oil or odor was observed. Approximately 14.5 cubic yards of impacted soils and stockpiled in background.

Approximately 2.5 cubic yards of non-impacted crushed stone was removed from the excavation area and stockpiled.

Attachment B

Laboratory Data Reports

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 303-2500 Fax: (856) 858-4571 Email: EnvChemistry2@emsl.com

Attn: **David Turotsy** 6/5/2015
Accredited Environmental Tech (AET)
28 North Pennell Road
Media, PA 19063
Phone: (610) 891-0114
Fax: (610) 891-0559

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 5/29/2015. The results are tabulated on the attached data pages for the following client designated project:

Fort Monmouth 10275

The reference number for these samples is EMSL Order #011502905. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Reviewed and Approved By:

Julie Smith - Laboratory Director

The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com EnvChemistry2@emsl.com

EMSL Order:	011502905
CustomerID:	ACCR50
CustomerPO:	10275
ProjectID:	

Attn: **David Turotsy**
Accredited Environmental Tech (AET)
28 North Pennell Road
Media, PA 19063

Phone: (610) 891-0114
Fax: (610) 891-0559
Received: 05/29/15 12:00 PM

Project: **Fort Monmouth 10275**

Analytical Results

Client Sample Description 210-ELV ***Collected:*** 5/29/2015 10:30:00 AM ***Lab ID:*** *0001*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3580A/8082	Aroclor-1016	ND	0.48	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1221	ND	0.48	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1232	ND	0.48	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1242	ND	0.48	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1248	ND	0.48	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1254	ND	0.48	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1260	ND	0.48	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1262	ND	0.48	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1268	ND	0.48	mg/Kg	6/4/2015	AB	6/5/2015	TL

Client Sample Description 482-TNK ***Collected:*** 5/29/2015 10:30:00 AM ***Lab ID:*** *0002*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date*	*Analyst*	*Analysis Date*	*Analyst*
3580A/8082	Aroclor-1016	ND	0.47	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1221	ND	0.47	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1232	ND	0.47	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1242	ND	0.47	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1248	ND	0.47	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1254	ND	0.47	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1260	ND	0.47	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1262	ND	0.47	mg/Kg	6/4/2015	AB	6/5/2015	TL
3580A/8082	Aroclor-1268	ND	0.47	mg/Kg	6/4/2015	AB	6/5/2015	TL

Definitions:
ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

September 22, 2015

Ms. Janice Jaeger
ALS Environmental-Rochester NY
1565 Jefferson Road, Bldg. 300
Suite 360
Rochester, NY 14623

Certificate of Analysis

Project Name:	**NJ EPH**	Workorder:	**2095064**
Purchase Order:	**58R1507525**	Workorder ID:	**AER122|BLDG1203-SS-EX-01-05**

Dear Ms. Jaeger:

Enclosed are the analytical results for samples received by the laboratory between Thursday, September 10, 2015 and Friday, September 11, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mr. Brad W Kintzer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Joni Janson

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Brad W. Kintzer

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2095064001	BLDG1203-SS-EX1-01(N)-30-36	Solid	9/8/2015 13:22	9/10/2015 09:31	Collected by Client
2095064002	BLDG1203-SS-EX1-02(E)-29-35	Solid	9/8/2015 13:30	9/11/2015 09:19	Collected by Client
2095064003	BLDG1203-SS-EX1-03(S)-28-34	Solid	9/8/2015 13:24	9/11/2015 09:19	Collected by Client
2095064004	BLDG1203-SS-EX1-04(W)-32-38	Solid	9/8/2015 13:26	9/11/2015 09:19	Collected by Client
2095064005	BLDG1203-SS-EX1-05(B)-34-40	Solid	9/8/2015 13:28	9/11/2015 09:19	Collected by Client

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PROJECT SUMMARY

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

Sample Comments

Lab ID: 2095064001 **Sample ID:** BLDG1203-SS-EX1-01(N)-30-36 **Sample Type:** SAMPLE

The LCS and LCS Dup exhibited an overall low bias in the NJ EPH fractionated aromatic analysis.

Due to the amount of analyte detected, surrogate recoveries were not able to be evaluated in the NJEPH aliphatic analysis.

Lab ID: 2095064002 **Sample ID:** BLDG1203-SS-EX1-02(E)-29-35 **Sample Type:** SAMPLE

The LCS and LCS Dup exhibited an overall low bias in the NJ EPH fractionated aromatic analysis.

Due to the amount of analyte detected, surrogate recoveries were not able to be evaluated in the NJEPH aliphatic analysis.

Lab ID: 2095064003 **Sample ID:** BLDG1203-SS-EX1-03(S)-28-34 **Sample Type:** SAMPLE

The LCS and LCS Dup exhibited an overall low bias in the NJ EPH fractionated aromatic analysis.

Lab ID: 2095064004 **Sample ID:** BLDG1203-SS-EX1-04(W)-32-38 **Sample Type:** SAMPLE

The LCS and LCS Dup exhibited an overall low bias in the NJ EPH fractionated aromatic analysis.

Lab ID: 2095064005 **Sample ID:** BLDG1203-SS-EX1-05(B)-34-40 **Sample Type:** SAMPLE

The LCS and LCS Dup exhibited an overall low bias in the NJ EPH fractionated aromatic analysis.

Due to the amount of analyte detected, surrogate recoveries were not able to be evaluated in the NJEPH aliphatic analysis.

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

Lab ID: **2095064001** Date Collected: 9/8/2015 13:22 Matrix: Solid

Sample ID: **BLDG1203-SS-EX1-01(N)-30-36** Date Received: 9/10/2015 09:31

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
AROMATIC PETROLEUM HC's												
C10 TO C12	1.21		mg/kg	1.2	1.2	0.54	NJEPH	9/16/15	KAC	9/19/15 02:16	KJH	B
C12 TO C16	7.7		mg/kg	1.2	1.2	0.22	NJEPH	9/16/15	KAC	9/19/15 02:16	KJH	B
C16 TO C21	198		mg/kg	23.9	23.9	4.1	NJEPH	9/16/15	KAC	9/21/15 21:44	KJH	B
C21 TO C36	214		mg/kg	23.9	23.9	5.7	NJEPH	9/16/15	KAC	9/21/15 21:44	KJH	B
Total EPH Aromatic	420		mg/kg				NJEPH	9/16/15	KAC	9/19/15 02:16	KJH	B
Total EPH (Aliphatic+Aromatic)	11300		mg/kg				NJEPH	9/16/15	KAC	9/19/15 02:16	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Bromonaphthalene (S)	12.3	1	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 02:16	KJH	B
2-Fluorobiphenyl (S)	12.5	2	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 02:16	KJH	B
o-Terphenyl (S)	16.4	3	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 02:16	KJH	B
ALIPHATIC PETROLEUM HC's												
C9 TO C12	7.3		mg/kg	1.2	1.2	0.14	NJEPH	9/16/15	KAC	9/18/15 15:33	KJH	B
C12 TO C16	1970		mg/kg	239	239	103	NJEPH	9/16/15	KAC	9/21/15 11:58	KJH	B
C16 TO C21	5990		mg/kg	597	597	251	NJEPH	9/16/15	KAC	9/21/15 17:50	KJH	B
C21 TO C40	2870		mg/kg	239	239	117	NJEPH	9/16/15	KAC	9/21/15 11:58	KJH	B
Total EPH Aliphatic	10800		mg/kg				NJEPH	9/16/15	KAC	9/18/15 15:33	KJH	B
WET CHEMISTRY												
Moisture	17.4		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A
Total Solids	82.6		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

Lab ID: **2095064002** Date Collected: 9/8/2015 13:30 Matrix: Solid

Sample ID: **BLDG1203-SS-EX1-02(E)-29-35** Date Received: 9/11/2015 09:19

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
AROMATIC PETROLEUM HC's												
C10 TO C12	1.21		mg/kg	1.2	1.2	0.55	NJEPH	9/16/15	KAC	9/19/15 04:13	KJH	B
C12 TO C16	7.6		mg/kg	1.2	1.2	0.22	NJEPH	9/16/15	KAC	9/19/15 04:13	KJH	B
C16 TO C21	163		mg/kg	12.3	12.3	2.1	NJEPH	9/16/15	KAC	9/21/15 22:42	KJH	B
C21 TO C36	166		mg/kg	12.3	12.3	2.9	NJEPH	9/16/15	KAC	9/21/15 22:42	KJH	B
Total EPH Aromatic	337		mg/kg				NJEPH	9/16/15	KAC	9/19/15 04:13	KJH	B
Total EPH (Aliphatic+Aromatic)	12000		mg/kg				NJEPH	9/16/15	KAC	9/19/15 04:13	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Bromonaphthalene (S)	4.28		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 22:42	KJH	B
2-Bromonaphthalene (S)	8.67	1	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 04:13	KJH	B
2-Fluorobiphenyl (S)	8.38	2	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 04:13	KJH	B
2-Fluorobiphenyl (S)	9.52		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 22:42	KJH	B
o-Terphenyl (S)	14.8	3	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 04:13	KJH	B
o-Terphenyl (S)	18.8		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 22:42	KJH	B
ALIPHATIC PETROLEUM HC's												
C9 TO C12	9.1		mg/kg	1.2	1.2	0.15	NJEPH	9/16/15	KAC	9/18/15 17:30	KJH	B
C12 TO C16	2280		mg/kg	245	245	105	NJEPH	9/16/15	KAC	9/21/15 12:56	KJH	B
C16 TO C21	6340		mg/kg	613	613	257	NJEPH	9/16/15	KAC	9/21/15 18:48	KJH	B
C21 TO C40	3070		mg/kg	245	245	120	NJEPH	9/16/15	KAC	9/21/15 12:56	KJH	B
Total EPH Aliphatic	11700		mg/kg				NJEPH	9/16/15	KAC	9/18/15 17:30	KJH	B
WET CHEMISTRY												
Moisture	19.5		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A
Total Solids	80.5		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

Lab ID: **2095064003** Date Collected: 9/8/2015 13:24 Matrix: Solid

Sample ID: **BLDG1203-SS-EX1-03(S)-28-34** Date Received: 9/11/2015 09:19

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
AROMATIC PETROLEUM HC's												
C10 TO C12	1.21		mg/kg	1.2	1.2	0.54	NJEPH	9/16/15	KAC	9/19/15 05:12	KJH	B
C12 TO C16	0.63J	J	mg/kg	1.2	1.2	0.22	NJEPH	9/16/15	KAC	9/19/15 05:12	KJH	B
C16 TO C21	13.8		mg/kg	1.2	1.2	0.21	NJEPH	9/16/15	KAC	9/19/15 05:12	KJH	B
C21 TO C36	34.0		mg/kg	1.2	1.2	0.29	NJEPH	9/16/15	KAC	9/19/15 05:12	KJH	B
Total EPH Aromatic	48.9		mg/kg				NJEPH	9/16/15	KAC	9/19/15 05:12	KJH	B
Total EPH (Aliphatic+Aromatic)	540		mg/kg				NJEPH	9/16/15	KAC	9/19/15 05:12	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Bromonaphthalene (S)	12.7	1	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 05:12	KJH	B
2-Fluorobiphenyl (S)	6.74	2	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 05:12	KJH	B
o-Terphenyl (S)	21.8	3	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 05:12	KJH	B
ALIPHATIC PETROLEUM HC's												
C9 TO C12	0.59J	J	mg/kg	1.2	1.2	0.15	NJEPH	9/16/15	KAC	9/18/15 18:28	KJH	B
C12 TO C16	62.8		mg/kg	24.2	24.2	10.4	NJEPH	9/16/15	KAC	9/21/15 13:55	KJH	B
C16 TO C21	269		mg/kg	24.2	24.2	10.2	NJEPH	9/16/15	KAC	9/21/15 13:55	KJH	B
C21 TO C40	159		mg/kg	24.2	24.2	11.9	NJEPH	9/16/15	KAC	9/21/15 13:55	KJH	B
Total EPH Aliphatic	491		mg/kg				NJEPH	9/16/15	KAC	9/18/15 18:28	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1-Chlorooctadecane (S)	66.6		%	40 - 140			NJEPH	9/16/15	KAC	9/18/15 18:28	KJH	B
WET CHEMISTRY												
Moisture	19.5		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A
Total Solids	80.5		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

Lab ID: **2095064004** Date Collected: 9/8/2015 13:26 Matrix: Solid

Sample ID: **BLDG1203-SS-EX1-04(W)-32-38** Date Received: 9/11/2015 09:19

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
AROMATIC PETROLEUM HC's												
C10 TO C12	1.11		mg/kg	1.1	1.1	0.51	NJEPH	9/16/15	KAC	9/19/15 06:11	KJH	B
C12 TO C16	0.63J	J1	mg/kg	1.1	1.1	0.20	NJEPH	9/16/15	KAC	9/19/15 06:11	KJH	B
C16 TO C21	8.8		mg/kg	1.1	1.1	0.19	NJEPH	9/16/15	KAC	9/19/15 06:11	KJH	B
C21 TO C36	15.8	2	mg/kg	1.1	1.1	0.27	NJEPH	9/16/15	KAC	9/19/15 06:11	KJH	B
Total EPH Aromatic	25.6	3	mg/kg				NJEPH	9/16/15	KAC	9/19/15 06:11	KJH	B
Total EPH (Aliphatic+Aromatic)	728	4	mg/kg				NJEPH	9/16/15	KAC	9/19/15 06:11	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Bromonaphthalene (S)	7.54	5	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 06:11	KJH	B
2-Fluorobiphenyl (S)	4.93	6	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 06:11	KJH	B
o-Terphenyl (S)	13.8	7	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 06:11	KJH	B
ALIPHATIC PETROLEUM HC's												
C9 TO C12	0.79J	J	mg/kg	1.1	1.1	0.14	NJEPH	9/16/15	KAC	9/18/15 19:26	KJH	B
C12 TO C16	124		mg/kg	22.8	22.8	9.8	NJEPH	9/16/15	KAC	9/21/15 14:54	KJH	B
C16 TO C21	376		mg/kg	22.8	22.8	9.6	NJEPH	9/16/15	KAC	9/21/15 14:54	KJH	B
C21 TO C40	202		mg/kg	22.8	22.8	11.2	NJEPH	9/16/15	KAC	9/21/15 14:54	KJH	B
Total EPH Aliphatic	703		mg/kg				NJEPH	9/16/15	KAC	9/18/15 19:26	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1-Chlorooctadecane (S)	57.3		%	40 - 140			NJEPH	9/16/15	KAC	9/18/15 19:26	KJH	B
WET CHEMISTRY												
Moisture	13.9		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A
Total Solids	86.1		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

Lab ID: **2095064005** Date Collected: 9/8/2015 13:28 Matrix: Solid

Sample ID: **BLDG1203-SS-EX1-05(B)-34-40** Date Received: 9/11/2015 09:19

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
AROMATIC PETROLEUM HC's												
C10 TO C12	1.21		mg/kg	1.2	1.2	0.52	NJEPH	9/16/15	KAC	9/19/15 08:08	KJH	B
C12 TO C16	23.0		mg/kg	1.2	1.2	0.21	NJEPH	9/16/15	KAC	9/19/15 08:08	KJH	B
C16 TO C21	632		mg/kg	23.2	23.2	4.0	NJEPH	9/16/15	KAC	9/22/15 02:36	KJH	B
C21 TO C36	364		mg/kg	23.2	23.2	5.6	NJEPH	9/16/15	KAC	9/22/15 02:36	KJH	B
Total EPH Aromatic	1020		mg/kg				NJEPH	9/16/15	KAC	9/19/15 08:08	KJH	B
Total EPH (Aliphatic+Aromatic)	9920		mg/kg				NJEPH	9/16/15	KAC	9/19/15 08:08	KJH	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Bromonaphthalene (S)	50		%	40 - 140	NJEPH	9/16/15	KAC	9/22/15 02:36	KJH	B
2-Bromonaphthalene (S)	53.4		%	40 - 140	NJEPH	9/16/15	KAC	9/19/15 08:08	KJH	B
2-Fluorobiphenyl (S)	74.5		%	40 - 140	NJEPH	9/16/15	KAC	9/19/15 08:08	KJH	B
2-Fluorobiphenyl (S)	101		%	40 - 140	NJEPH	9/16/15	KAC	9/22/15 02:36	KJH	B
o-Terphenyl (S)	60.3		%	40 - 140	NJEPH	9/16/15	KAC	9/19/15 08:08	KJH	B
o-Terphenyl (S)	88.1		%	40 - 140	NJEPH	9/16/15	KAC	9/22/15 02:36	KJH	B

ALIPHATIC PETROLEUM HC's												
C9 TO C12	7.1		mg/kg	1.2	1.2	0.14	NJEPH	9/16/15	KAC	9/18/15 21:23	KJH	B
C12 TO C16	1730		mg/kg	232	232	99.9	NJEPH	9/16/15	KAC	9/21/15 16:51	KJH	B
C16 TO C21	4600		mg/kg	232	232	97.6	NJEPH	9/16/15	KAC	9/21/15 16:51	KJH	B
C21 TO C40	2570		mg/kg	232	232	114	NJEPH	9/16/15	KAC	9/21/15 16:51	KJH	B
Total EPH Aliphatic	8900		mg/kg				NJEPH	9/16/15	KAC	9/18/15 21:23	KJH	B
WET CHEMISTRY												
Moisture	17.8		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A
Total Solids	82.2		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A

Mr. Brad W Kintzer
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2095064001	1	BLDG1203-SS-EX1-01(N)-30-36	NJEPH	2-Bromonaphthalene
The surrogate 2-Bromonaphthalene for method NJEPH was outside of control limits. The % Recovery was reported as 12.3 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064001	2	BLDG1203-SS-EX1-01(N)-30-36	NJEPH	2-Fluorobiphenyl
The surrogate 2-Fluorobiphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 12.5 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064001	3	BLDG1203-SS-EX1-01(N)-30-36	NJEPH	o-Terphenyl
The surrogate o-Terphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 16.4 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064002	1	BLDG1203-SS-EX1-02(E)-29-35	NJEPH	2-Bromonaphthalene
The surrogate 2-Bromonaphthalene for method NJEPH was outside of control limits. The % Recovery was reported as 8.67 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064002	2	BLDG1203-SS-EX1-02(E)-29-35	NJEPH	2-Fluorobiphenyl
The surrogate 2-Fluorobiphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 8.38 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064002	3	BLDG1203-SS-EX1-02(E)-29-35	NJEPH	o-Terphenyl
The surrogate o-Terphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 14.8 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064003	1	BLDG1203-SS-EX1-03(S)-28-34	NJEPH	2-Bromonaphthalene
The surrogate 2-Bromonaphthalene for method NJEPH was outside of control limits. The % Recovery was reported as 12.7 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064003	2	BLDG1203-SS-EX1-03(S)-28-34	NJEPH	2-Fluorobiphenyl
The surrogate 2-Fluorobiphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 6.74 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064003	3	BLDG1203-SS-EX1-03(S)-28-34	NJEPH	o-Terphenyl
The surrogate o-Terphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 21.8 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064004	1	BLDG1203-SS-EX1-04(W)-32-38	NJEPH	C12 TO C16
The QC sample type DUP for method NJEPH was outside the control limits for the analyte C12 TO C16. The RPD was reported as 92 and the upper control limit is 40.				
2095064004	2	BLDG1203-SS-EX1-04(W)-32-38	NJEPH	C21 TO C36
The QC sample type DUP for method NJEPH was outside the control limits for the analyte C21 TO C36. The RPD was reported as 94.1 and the upper control limit is 40.				
2095064004	3	BLDG1203-SS-EX1-04(W)-32-38	NJEPH	Total EPH Aromatic
The QC sample type DUP for method NJEPH was outside the control limits for the analyte Total EPH Aromatic. The RPD was reported as 114 and the upper control limit is .				
2095064004	4	BLDG1203-SS-EX1-04(W)-32-38	NJEPH	Total EPH (Aliphatic+Aromatic)
The QC sample type DUP for method NJEPH was outside the control limits for the analyte Total EPH (Aliphatic+Aromatic). The RPD was reported as 22.6 and the upper control limit is .				
2095064004	5	BLDG1203-SS-EX1-04(W)-32-38	NJEPH	2-Bromonaphthalene
The surrogate 2-Bromonaphthalene for method NJEPH was outside of control limits. The % Recovery was reported as 7.54 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064004	6	BLDG1203-SS-EX1-04(W)-32-38	NJEPH	2-Fluorobiphenyl
The surrogate 2-Fluorobiphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 4.93 and the control limits were 40 to 140. This result was reported at a dilution of 1.				
2095064004	7	BLDG1203-SS-EX1-04(W)-32-38	NJEPH	o-Terphenyl
The surrogate o-Terphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 13.8 and the control limits were 40 to 140. This result was reported at a dilution of 1.				

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

QC Batch: EXTR/40752 **Analysis Method:** NJEPH

QC Batch Method: SW846 3546

Associated Lab Samples: 2095064001, 2095064002, 2095064003, 2095064004, 2095064005

METHOD BLANK: 2232801

Parameter	Blank Result	Units	Reporting Limit
C9 TO C12	0.27J	mg/kg	1.0
C12 TO C16	1.01	mg/kg	1.0
C16 TO C21	1.01	mg/kg	1.0
C21 TO C40	0.63J	mg/kg	1.0
1-Chlorooctadecane (S)	82.1	%	40 - 140

LABORATORY CONTROL SAMPLE: 2232802 DUPLICATE: 2232803

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	LCSD Result	LCSD % Rec	% Rec Limit	RPD	Max
1-Chlorooctadecane (S)	73.1	%			73.1		40 - 140		

SAMPLE DUPLICATE: 2232805 ORIGINAL: 2095064004

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
C9 TO C12	.67634	mg/kg	.66634	1.49	40
C12 TO C16	106.827	mg/kg	128.386	18.3	40
C16 TO C21	324.007	mg/kg	402.06	21.5	40
C21 TO C40	173.817	mg/kg	175.575	1.01	40
Total EPH Aliphatic	605.32734	mg/kg	706.68734	15.5	

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

QC Batch: EXTR/40753 **Analysis Method:** NJEPH

QC Batch Method: SW846 3546

Associated Lab Samples: 2095064001, 2095064002, 2095064003, 2095064004, 2095064005

METHOD BLANK: 2232806

Parameter	Blank Result	Units	Reporting Limit
C10 TO C12	1.01	mg/kg	1.0
C12 TO C16	1.01	mg/kg	1.0
C16 TO C21	0.69J	mg/kg	1.0
C21 TO C36	1.0	mg/kg	1.0
2-Bromonaphthalene (S)	65.6	%	40 - 140
2-Fluorobiphenyl (S)	29	%	40 - 140
o-Terphenyl (S)	75.7	%	40 - 140

LABORATORY CONTROL SAMPLE: 2232807 DUPLICATE: 2232808

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	LCSD Result	LCSD % Rec	% Rec Limit	RPD	Max
2-Bromonaphthalene (S)	83.6	%			83.6		40 - 140		
2-Fluorobiphenyl (S)	44	%			44		40 - 140		
o-Terphenyl (S)	67.5	%			67.5		40 - 140		

SAMPLE DUPLICATE: 2232810 ORIGINAL: 2095064004

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
C10 TO C12	.27285	mg/kg	.2015	30.1	40
C12 TO C16	.53938	mg/kg	1.45888	92*	40
C16 TO C21	7.59647	mg/kg	40.7696	137*	40
C21 TO C36	13.6362	mg/kg	37.8455	94.1*	40
Total EPH Aromatic	22.0449	mg/kg	80.27548	114	
Total EPH (Aliphatic+Aromatic)	627.37225	mg/kg	786.96282	22.6	

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

QC Batch: WETC/159676 **Analysis Method:** S2540G-11

QC Batch Method: S2540G-11

Associated Lab Samples: 2095064001, 2095064002, 2095064003, 2095064004, 2095064005

SAMPLE DUPLICATE: 2233755 ORIGINAL: 2094755004

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	99.8316	%	99.8022	.03	10
Total Solids	.1683	%	.1977	16.1*	5

SAMPLE DUPLICATE: 2233756 ORIGINAL: 2095108001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	77.1248	%	84.6219	9.27	10
Total Solids	22.8751	%	15.378	39.2*	5

SAMPLE DUPLICATE: 2233757 ORIGINAL: 2095569001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	7.2238	%	7.4985	3.73	10
Total Solids	92.7761	%	92.5014	.3	5

SAMPLE DUPLICATE: 2233758 ORIGINAL: 2095572001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	18.3176	%	18.2402	.42	10
Total Solids	81.6823	%	81.7597	.09	5

SAMPLE DUPLICATE: 2233759 ORIGINAL: 2095644001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	11.983	%	12.7263	6.02	10
Total Solids	88.0169	%	87.2736	.85	5

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

SAMPLE DUPLICATE: 2233760 ORIGINAL: 2095655002

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	8.4295	%	7.655	9.63	10
Total Solids	91.5704	%	92.3449	.84	5

SAMPLE DUPLICATE: 2233761 ORIGINAL: 2095660001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	16.4821	%	15.8576	3.86	10
Total Solids	83.5178	%	84.1423	.74	5

SAMPLE DUPLICATE: 2233762 ORIGINAL: 2095712003

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	24.8971	%	30.7339	21*	10
Total Solids	75.1028	%	69.266	8.09*	5

SAMPLE DUPLICATE: 2233763 ORIGINAL: 2095815001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	99.1204	%	98.87	.25	10
Total Solids	.8795	%	1.1299	24.9*	5

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2095064 AER122|BLDG1203-SS-EX-01-05

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2095064001	BLDG1203-SS-EX1-01(N)-30-36	SW846 3546	EXTR/40752	NJEPH	SVGC/39487
2095064002	BLDG1203-SS-EX1-02(E)-29-35	SW846 3546	EXTR/40752	NJEPH	SVGC/39487
2095064003	BLDG1203-SS-EX1-03(S)-28-34	SW846 3546	EXTR/40752	NJEPH	SVGC/39487
2095064004	BLDG1203-SS-EX1-04(W)-32-38	SW846 3546	EXTR/40752	NJEPH	SVGC/39487
2095064005	BLDG1203-SS-EX1-05(B)-34-40	SW846 3546	EXTR/40752	NJEPH	SVGC/39487
2095064001	BLDG1203-SS-EX1-01(N)-30-36	SW846 3546	EXTR/40753	NJEPH	SVGC/39488
2095064002	BLDG1203-SS-EX1-02(E)-29-35	SW846 3546	EXTR/40753	NJEPH	SVGC/39488
2095064003	BLDG1203-SS-EX1-03(S)-28-34	SW846 3546	EXTR/40753	NJEPH	SVGC/39488
2095064004	BLDG1203-SS-EX1-04(W)-32-38	SW846 3546	EXTR/40753	NJEPH	SVGC/39488
2095064005	BLDG1203-SS-EX1-05(B)-34-40	SW846 3546	EXTR/40753	NJEPH	SVGC/39488
2095064001	BLDG1203-SS-EX1-01(N)-30-36			S2540G-11	WETC/159676
2095064002	BLDG1203-SS-EX1-02(E)-29-35			S2540G-11	WETC/159676
2095064003	BLDG1203-SS-EX1-03(S)-28-34			S2540G-11	WETC/159676
2095064004	BLDG1203-SS-EX1-04(W)-32-38			S2540G-11	WETC/159676
2095064005	BLDG1203-SS-EX1-05(B)-34-40			S2540G-11	WETC/159676

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS C

* 2 0 9 5 0 6 4 *

Project Number: R1507508
Project Manager: Janice Jaeger

MJ EPH

Lab Code	Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Lab ID	Misc Out I None	SVO 8270D extract sl hold
R1507508-001	BLDG1203-SS-EX1-01(N)-30-36	1	Soil	9/8/15	1322	Middletown ALS	X	X (P)
R1507508-002	BLDG1203-SS-EX1-02(E)-29-35		Soil	9/8/15	1330	Middletown ALS	X	X (P)
R1507508-003	BLDG1203-SS-EX1-03(S)-28-34		Soil	9/8/15	1324	Middletown ALS	X	X (P)
R1507508-004	BLDG1203-SS-EX1-04(W)-32-38		Soil	9/8/15	1326	Middletown ALS	X	X (P)
R1507508-005	BLDG1203-SS-EX1-05(B)-34-40		Soil	9/8/15	1328	Middletown ALS	X	X (P)

Cooler Temp: 2 °C
Cooler #:
Therm ID: IR-206
Ship Carrier: UPS / FedEx / DHL
Tracking #: 6296 7600 9060

Initials	Y	N
Custody Seals Present? (if present) Seals Intact?		
Received on Ice?		
COC/Lbls Complete		
Cont in Good Cond?		
Correct Containers?		
Correct Samp Vol?		
Correct Preservation?		
Headspace/Volatiles?		

AS 9/9/15

Folder Comments:
DoD reporting

Special Instructions/Comments
ERPTOOLSX EDD

H - Test is On Hold P - Test is Authorized for Prep Only

Turnaround Requirements
____RUSH (Surcharges Apply)
PLEASE CIRCLE WORK DAYS
1 2 3 4 5
K STANDARD
Requested FAX Date: _____
Requested Report Date: 09/23/15

Report Requirements
____ I. Results Only
____ II. Results + QC Summaries
____ III. Results + QC and Calibration Summaries
K IV. Data Validation Report with Raw Data
PQL/MDL/J N
EDD Y

Invoice Information
PO# 58R1507508
Bill to

Relinquished By: [signature] 9/9/15 1700
Received By: [signature] DLS 9/10/15 0931
Airbill Number:

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Janice Jaeger

Project Number: R1507508
Project Manager: Janice Jaeger

R1507508

____ **Ship To: Middletown ALS**
ALS Laboratory Group
34 Dogwood Lane
Middletown, PA 17057

PC _____ Date _____

SMO _____ Date _____

Instructions:

Ice _____

Dry Ice _____

No Ice _____

Shipping:

Overnight _____

2nd Day _____

Ground _____

Bill to Client Account _____

Comments:

Brad Kintzer

From: Janice Jaeger
Sent: Thursday, September 10, 2015 10:29 AM
To: Brad Kintzer
Subject: R1507525 & 7508

Could you make sure that above gets logged in under the client sample ID and not our lab ID? Our shipping dept. neglected to sharpie out the lab IDs. You should see these this morning.

Regards,

ANNOUNCEMENT: In order to better serve you, improvements to Webtrieve™ are coming soon! Contact your Project Manager or Sales Representative for more information.

Ordering PDBs or RPPS? ORDER HERE!

Take our short online customer survey for a chance to win a FREE iPad!

Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, see the attached certificate.

The information in this message, including attachments, is confidential and is intended for the identified recipient(s). If you are not an intended recipient, please delete the message and notify the sender immediately. Any unauthorized use, disclosure or copying of this message is strictly forbidden and may be subject to legal action.

Janice M. Jaeger

Project Manager
ALS Life Sciences | Environmental

1565 Jefferson Road, Building 300, Suite 360
Rochester, NY 14623 USA

D +1 585 672 7472
T +1 585 288 5380
F +1 585 288 8475

www.alsglobal.com

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

October 09, 2015

Analytical Report for Service Request No: R1507508

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Bldg 1203/748810-06032

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on September 9, 2015. For your reference, these analyses have been assigned our service request number **R1507508.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

ALS Environmental

Client:	Parsons Inc
Service Request No.:	R1507508
Project:	FTMM Bldg 1203/748810-06032
Date Received:	9/09/15
Sample Matrix:	Soil
Project/Case No.:	

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 9/09/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

PCB's

Samples were analyzed for PCB's by Method 8082A/3541 from SW-846.

All the initial and continuing calibration criteria were met for all analytes.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

The MS/MSD recoveries associated with sample R1507508-004 were outside method acceptance limits. The RPD was acceptable.

The Method Blanks associated with these samples were free of contamination.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-03000	Batch Complete: Yes		Date Revised:
Submission: R1507508	Diskette Requested: No		Date Due: 9/30/15
Client: Parsons Engineering Science	Date: 9/10/15		Protocol: MISC and TEMP
Client Rep: JJAEGER	Custody Seal: Present/Absent:		Shipping No.:
Project: FTMM Baseline	Chain of Custody: Present/Absent:		SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1507508-001	BLDG1203-SS-EX1-01(N) -30-36	Soil	None, ALS SOP, 8082A, 8270D	9/8/15	9/9/15			
R1507508-002	BLDG1203-SS-EX1-02(E) -29-35	Soil	None, ALS SOP, 8082A, 8270D	9/8/15	9/9/15			
R1507508-003	BLDG1203-SS-EX1-03(S) -28-34	Soil	None, ALS SOP, 8270D, 8082A	9/8/15	9/9/15			
R1507508-004	BLDG1203-SS-EX1-04(W) -32-38	Soil	None, ALS SOP, 8082A, 8270D	9/8/15	9/9/15			
R1507508-005	BLDG1203-SS-EX1-05(B) -34-40	Soil	None, 8082A, ALS SOP, 8270D	9/8/15	9/9/15			

Folder Comments: DoD reporting

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30670

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: FTMMBldg1203	Project Number: 749810.066632
Project Manager: Cris Grill	Report CC: Julia Kibeid
Company/Address: Parsons, 100 High Street, 4th Floor, Boston, MA 02110	
Phone #: 617-449-1583	Email: Cris.Grill@parsons.com
Sampler's Signature: Rebecca McDonald	Sampler's Printed Name: Rebecca McDonald

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	EPH	PAH (Hold*)						REMARKS/ ALTERNATE DESCRIPTION
BLDG1203-SS-EX1-01(N)-30-36		090815	1322	SOIL	3					1			1	1						N. Wall
BLDG1203-SS-EX1-02(E)-29-35		090815	1330		3					1			1	1						E. Wall
BLDG1203-SS-EX1-03(S)-29-34		090815	1324		3					1			1	1						S. Wall
BLDG1203-SS-EX1-04(W)-32-38		090815	1326		3					1			1	1						W. Wall
BLDG1203-SS-EX1-05(B)-34-40		090815	1328		3					1			1	1						Bottom

Preservative Key: 0. NONE; 1. HCL; 2. HNO_3; 3. H_2SO_4; 4. NaOH; 5. Zn. Acetate; 6. MeOH; 7. $NaHSO_4$; 8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

Metals

PAH Hold- Extract PAH only. Hold for analysis upon EPH results + client approval.

* These samples to be forwarded to ALS' Middletown, PA Lab.

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: Excavation Pit / New Jersey

TURNAROUND REQUIREMENTS

_____ RUSH (SURCHARGES APPLY)

_____ 1 day _____ 2 day _____ 3 day

_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS

_____ I. Results Only

_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

_____ III. Results + QC and Calibration Summaries

_____ IV. Data Validation Report with Raw Data

Edata _____ Yes _____ No

INVOICE INFORMATION

PO #

BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Rebecca McDonald	Signature:	Signature	Signature	Signature	Signature
Printed Name: Parsons	Printed Name:	Printed Name	Printed Name	Printed Name	Printed Name
Firm: 090815/1600	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time	Date/Time: 9/9/- 1010	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

© 2012 by ALS Group

Cooler Receipt and Preservation Check Form

Project/Client Kasco Folder Number R15-7564

Cooler received on 9/9/15 by: MDS COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y	N	(NA)
6	Where did the bottles originate?	(ALS/ROC)		CLIENT
7	Soil VOA received as: Bulk Encore 5035set			(NA)

8. Temperature Readings Date: 9/9/15 Time: 1050 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.1						
Correction Factor (°C)	-1.1						
Corrected Temp (°C)	3.0						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Room by MDS on 9/9/15 at 1051
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: MDS 9/9/15

Cooler Breakdown: Date: 9/9/15 Time: 1545 by: MDS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 071315-1BNV

Other Comments:

PC Secondary Review: MDS 9/10/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1322
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 16:54
Sample Name:	BLDG1203-SS-EX1-01(N)-30-36	**Units:**	µg/Kg
Lab Code:	R1507508-001	**Basis:**	Dry
		Percent Solids:	83.7

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB344.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	40	21	21	
11104-28-2	Aroclor 1221	ND	U	80	41	41	
11141-16-5	Aroclor 1232	ND	U	40	21	21	
53469-21-9	Aroclor 1242	ND	U	40	21	21	
12672-29-6	Aroclor 1248	ND	U	40	21	21	
11097-69-1	Aroclor 1254	ND	U	40	23	23	
11096-82-5	Aroclor 1260	ND	U	40	21	21	
11100-14-4	Aroclor 1268	ND	U	40	22	22	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	84	60-125	9/14/15 16:54	
Tetrachloro-m-xylene	63	27-134	9/14/15 16:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1330
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 18:10
Sample Name:	BLDG1203-SS-EX1-02(E)-29-35	**Units:**	µg/Kg
Lab Code:	R1507508-002	**Basis:**	Dry
		Percent Solids:	80.4

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB347.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	41	22	22	
11104-28-2	Aroclor 1221	ND	U	83	43	43	
11141-16-5	Aroclor 1232	ND	U	41	22	22	
53469-21-9	Aroclor 1242	ND	U	41	22	22	
12672-29-6	Aroclor 1248	ND	U	41	22	22	
11097-69-1	Aroclor 1254	ND	U	41	24	24	
11096-82-5	Aroclor 1260	ND	U	41	22	22	
11100-14-4	Aroclor 1268	ND	U	41	23	23	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	88	60-125	9/14/15 18:10	
Tetrachloro-m-xylene	71	27-134	9/14/15 18:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1324
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 18:35
Sample Name:	BLDG1203-SS-EX1-03(S)-28-34	**Units:**	µg/Kg
Lab Code:	R1507508-003	**Basis:**	Dry
		Percent Solids:	81.1

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB348.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	41	22	22	
11104-28-2	Aroclor 1221	ND	U	83	43	43	
11141-16-5	Aroclor 1232	ND	U	41	22	22	
53469-21-9	Aroclor 1242	ND	U	41	22	22	
12672-29-6	Aroclor 1248	ND	U	41	22	22	
11097-69-1	Aroclor 1254	ND	U	41	24	24	
11096-82-5	Aroclor 1260	ND	U	41	22	22	
11100-14-4	Aroclor 1268	ND	U	41	23	23	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	88	60-125	9/14/15 18:35	
Tetrachloro-m-xylene	68	27-134	9/14/15 18:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1326
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 19:00
Sample Name:	BLDG1203-SS-EX1-04(W)-32-38	**Units:**	µg/Kg
Lab Code:	R1507508-004	**Basis:**	Dry
		Percent Solids:	89.3

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB349.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	37	20	20	
11104-28-2	Aroclor 1221	ND	U	75	39	39	
11141-16-5	Aroclor 1232	ND	U	37	20	20	
53469-21-9	Aroclor 1242	ND	U	37	20	20	
12672-29-6	Aroclor 1248	ND	U	37	20	20	
11097-69-1	Aroclor 1254	ND	U	37	22	22	
11096-82-5	Aroclor 1260	ND	U	37	20	20	
11100-14-4	Aroclor 1268	ND	U	37	21	21	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	82	60-125	9/14/15 19:00	
Tetrachloro-m-xylene	68	27-134	9/14/15 19:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1328
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 19:25
Sample Name:	BLDG1203-SS-EX1-05(B)-34-40	**Units:**	µg/Kg
Lab Code:	R1507508-005	**Basis:**	Dry
		Percent Solids:	82.2

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB350.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	40	21	21	
11104-28-2	Aroclor 1221	ND	U	82	42	42	
11141-16-5	Aroclor 1232	ND	U	40	21	21	
53469-21-9	Aroclor 1242	ND	U	40	21	21	
12672-29-6	Aroclor 1248	ND	U	40	21	21	
11097-69-1	Aroclor 1254	ND	U	40	24	24	
11096-82-5	Aroclor 1260	ND	U	40	21	21	
11100-14-4	Aroclor 1268	ND	U	40	22	22	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	93	60-125	9/14/15 19:25	
Tetrachloro-m-xylene	68	27-134	9/14/15 19:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 13:33
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1510616-01	**Basis:**	Dry

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB336.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	33	17	17	
11104-28-2	Aroclor 1221	ND	U	67	34	34	
11141-16-5	Aroclor 1232	ND	U	33	17	17	
53469-21-9	Aroclor 1242	ND	U	33	17	17	
12672-29-6	Aroclor 1248	ND	U	33	17	17	
11097-69-1	Aroclor 1254	ND	U	33	19	19	
11096-82-5	Aroclor 1260	ND	U	33	17	17	
11100-14-4	Aroclor 1268	ND	U	33	18	18	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	76	60-125	9/14/15 13:33	
Tetrachloro-m-xylene	82	27-134	9/14/15 13:33	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507508
Date Collected: 9/8/15
Date Received: 9/9/15
Date Analyzed: 9/14/15

Matrix Spike Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name: BLDG1203-SS-EX1-01(N)-30-36
Lab Code: R1507508-001

Units: µg/Kg
Basis: Dry

Analytical Method: 8082A
Prep Method: EPA 3541

		BLDG1203-SS-EX1-01(N) -30-36MS Matrix Spike RQ1510616-04				BLDG1203-SS-EX1-01(N) -30-36DMS Duplicate Matrix Spike RQ1510616-05						
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**		**% Rec Limits**	**RPD**	**RPD Limit**
Aroclor 1016	ND	77.5	200	39	*	67.2	199	34	*	40 - 140	14	30
Aroclor 1260	ND	95.3	200	48	*	87.5	199	44	*	60 - 130	9	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507508
Date Analyzed: 9/14/15

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541

Units: µg/Kg
Basis: Dry

Extraction Lot: 244583

	Lab Control Sample RQ1510616-02			Duplicate Lab Control Sample RQ1510616-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Aroclor 1016	125	167	75	125	167	75	40 - 140	<1	30
Aroclor 1260	125	167	75	125	167	75	60 - 130	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1322
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-01(N)-30-36		
Lab Code:	R1507508-001	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	83.7		Percent			1	NA	9/9/15 15:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1330
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-02(E)-29-35		
Lab Code:	R1507508-002	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	80.4		Percent			1	NA	9/9/15 15:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1324
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-03(S)-28-34		
Lab Code:	R1507508-003	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	81.1		Percent			1	NA	9/9/15 15:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1326
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-04(W)-32-38		
Lab Code:	R1507508-004	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	89.3		Percent			1	NA	9/9/15 15:35	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1328
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-05(B)-34-40		
Lab Code:	R1507508-005	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	82.2		Percent			1	NA	9/9/15 15:35	

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

October 09, 2015

Analytical Report for Service Request No: R1507508

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Bldg 1203/748810-06032

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on September 9, 2015. For your reference, these analyses have been assigned our service request number **R1507508**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

Parsons, Inc.
R1507508

TABLE OF CONTENTS

SECTION	***PAGE***
SDG Narrative	00002
Chains of Custody	00006
PCB's QC Summary	00011
PCB's Sample Data	00015
PCB's Standards Data	00036
PCB's Raw QC Data	00115
General Chemistry Data	00149

ALS Environmental

SDG NARRATIVE

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Environmental

Client:	Parsons Inc
Service Request No.:	R1507508
Project:	FTMM Bldg 1203/748810-06032
Date Received:	9/09/15
Sample Matrix:	Soil
Project/Case No.:	

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 9/09/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

PCB's

Samples were analyzed for PCB's by Method 8082A/3541 from SW-846.

All the initial and continuing calibration criteria were met for all analytes.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

The MS/MSD recoveries associated with sample R1507508-004 were outside method acceptance limits. The RPD was acceptable.

The Method Blanks associated with these samples were free of contamination.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-03000	Batch Complete: Yes	Date Revised:
Submission: R1507508	Diskette Requested: No	Date Due: 9/30/15
Client: Parsons Engineering Science	Date: 9/10/15	Protocol: MISC and TEMP
Client Rep: JJAEGER	Custody Seal: Present/Absent:	Shipping No.:
Project: FTMM Baseline	Chain of Custody: Present/Absent:	SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1507508-001	BLDG1203-SS-EX1-01(N) -30-36	Soil	None, ALS SOP, 8082A, 8270D	9/8/15	9/9/15			
R1507508-002	BLDG1203-SS-EX1-02(E) -29-35	Soil	None, ALS SOP, 8082A, 8270D	9/8/15	9/9/15			
R1507508-003	BLDG1203-SS-EX1-03(S) -28-34	Soil	None, ALS SOP, 8270D, 8082A	9/8/15	9/9/15			
R1507508-004	BLDG1203-SS-EX1-04(W) -32-38	Soil	None, ALS SOP, 8082A, 8270D	9/8/15	9/9/15			
R1507508-005	BLDG1203-SS-EX1-05(B) -34-40	Soil	None, 8082A, ALS SOP, 8270D	9/8/15	9/9/15			

Folder Comments: DoD reporting

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAINS OF CUSTODY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30670

ALS Environmental
1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: FTUM Bldg 1203	Project Number: 748810.06632
Project Manager: Cris Grill	Report CC: Julia Kibeid
Company/Address: Parsons, 100 High Street, 4th Floor, Boston, MA 02110	
Phone #: 617-449-1583	Email: Cris.Grill@parsons.com
Sampler's Signature: Rebecca McDonald	Sampler's Printed Name: Rebecca McDonald

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	EPH	PAH (Hold*)							REMARKS/ ALTERNATE DESCRIPTION
BLDG1203-SS-EX1-01(N)-30-36		090815	1322	SOIL	3					1			1	1							N. Wall
													*	*							
BLDG1203-SS-EX1-02(E)-29-35		090815	1330		3					1			1	1							E. Wall
BLDG1203-SS-EX1-03(S)-29-34		090815	1324		3					1			1	1							S. Wall
BLDG1203-SS-EX1-04(W)-32-38		090815	1326		3					1			1	1							W. Wall
BLDG1203-SS-EX1-05(B)-34-40		090815	1328		3					1			1	1							Bottom

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals
PAH Hold – Extract PAH only. Hold for analysis upon EPH results + client approval.
* These samples to be forwarded to ALS' Middletown, PA Lab.

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: Excavation Pit / New Jersey

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Rebecca McDonald	Signature:	Signature	Signature	Signature	Signature
Printed Name: Parsons	Printed Name:	Printed Name	Printed Name	Printed Name	Printed Name
Firm: 090815/1600	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time	Date/Time: 9/9/15 1010	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

© 2012 by ALS Group

Cooler Receipt and Preservation Check Form

Project/Client Kassar Folder Number R157564

Cooler received on 9/9/15 by: MDS COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y	N	(NA)
6	Where did the bottles originate?	(ALS/ROC)		CLIENT
7	Soil VOA received as: Bulk Encore 5035set			(NA)

8. Temperature Readings Date: 9/9/15 Time: 1050 ID: (IR#3) IR#5 From: Temp Blank Sample Bottle

Observed Temp (°C)	4.1						
Correction Factor (°C)	-1.1						
Corrected Temp (°C)	3.0						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by MDS on 9/9/15 at 1051
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: MDS 9/9/15

Cooler Breakdown: Date: 9/9/15 Time: 1545 by: MDS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 071315-1BNV
Other Comments:

PC Secondary Review: MDS 9/10/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Bldg 1203/748810-06032

Service Request: R1507508

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1507508-001.01					
	8082A				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/11/15	0723	In Lab / EBRUEN	
		9/11/15	0928	R-002 / EBRUEN	
R1507508-001.02					
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1547	SUBBED / ROCHESTER SMO	
R1507508-001.03					
	ALS SOP				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/9/15	1900	In Lab / KWONG	
		9/9/15	1924	R-002 / EBRUEN	
R1507508-002.01					
	8082A				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/11/15	0723	In Lab / EBRUEN	
		9/11/15	0928	R-002 / EBRUEN	
R1507508-002.02					
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1547	SUBBED / ROCHESTER SMO	
R1507508-002.03					
	ALS SOP				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/9/15	1900	In Lab / KWONG	
		9/9/15	1924	R-002 / EBRUEN	
R1507508-003.01					
	8082A				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/11/15	0723	In Lab / EBRUEN	
		9/11/15	0928	R-002 / EBRUEN	
R1507508-003.02					
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1547	SUBBED / ROCHESTER SMO	
R1507508-003.03					

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc. **Service Request:** R1507508
Project: FTMM Bldg 1203/748810-06032

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
	ALS SOP				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/9/15	1900	In Lab / KWONG	
		9/9/15	1924	R-002 / EBRUEN	
R1507508-004.01					
	8082A				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/11/15	0723	In Lab / EBRUEN	
		9/11/15	0928	R-002 / EBRUEN	
R1507508-004.02					
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1547	SUBBED / ROCHESTER SMO	
R1507508-004.03					
	ALS SOP				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/9/15	1900	In Lab / KWONG	
		9/9/15	1924	R-002 / EBRUEN	
R1507508-005.01					
	8082A				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/11/15	0723	In Lab / EBRUEN	
R1507508-005.02					
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1547	SUBBED / ROCHESTER SMO	
R1507508-005.03					
	ALS SOP				
		9/9/15	1547	SMO / ROCHESTER SMO	
		9/9/15	1548	R-002 / ROCHESTER SMO	
		9/9/15	1900	In Lab / KWONG	
		9/9/15	1924	R-002 / EBRUEN	

ALS Environmental

PCB's
QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507508
Date Collected: 9/8/15
Date Received: 9/9/15
Date Analyzed: 9/14/15

Matrix Spike Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name: BLDG1203-SS-EX1-01(N)-30-36
Lab Code: R1507508-001

Units: µg/Kg
Basis: Dry

Analytical Method: 8082A
Prep Method: EPA 3541

Analyte Name	Sample Result	BLDG1203-SS-EX1-01(N) -30-36MS Matrix Spike RQ1510616-04 Result	Spike Amount	% Rec		BLDG1203-SS-EX1-01(N) -30-36DMS Duplicate Matrix Spike RQ1510616-05 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
Aroclor 1016	ND	77.5	200	39	*	67.2	199	34	*	40 - 140	14	30
Aroclor 1260	ND	95.3	200	48	*	87.5	199	44	*	60 - 130	9	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507508
Date Analyzed: 9/14/15

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541

Units: µg/Kg
Basis: Dry

Extraction Lot: 244583

	Lab Control Sample RQ1510616-02			Duplicate Lab Control Sample RQ1510616-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Aroclor 1016	125	167	75	125	167	75	40 - 140	<1	30
Aroclor 1260	125	167	75	125	167	75	60 - 130	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Analyzed:**	9/14/15 13:33
Sample Matrix:	Soil	**Date Extracted:**	9/11/15

Method Blank Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name:	Method Blank	**Instrument ID:**	R-GC-58
Lab Code:	RQ1510616-01	**File ID:**	I:\ACQUDATA\6890G\DATA\091415\BB336.D\
Analytical Method:	8082A		
Prep Method:	EPA 3541		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1510616-02	I:\ACQUDATA\6890G\DATA\091415\BB337.D\	9/14/15 13:58
Duplicate Lab Control Sample	RQ1510616-03	I:\ACQUDATA\6890G\DATA\091415\BB338.D\	9/14/15 14:24
BLDG1203-SS-EX1-01(N)-30-36	R1507508-001	I:\ACQUDATA\6890G\DATA\091415\BB344.D\	9/14/15 16:54
BLDG1203-SS-EX1-01(N)-30-36MS	RQ1510616-04	I:\ACQUDATA\6890G\DATA\091415\BB345.D\	9/14/15 17:19
BLDG1203-SS-EX1-01(N)-30-36DMS	RQ1510616-05	I:\ACQUDATA\6890G\DATA\091415\BB346.D\	9/14/15 17:44
BLDG1203-SS-EX1-02(E)-29-35	R1507508-002	I:\ACQUDATA\6890G\DATA\091415\BB347.D\	9/14/15 18:10
BLDG1203-SS-EX1-03(S)-28-34	R1507508-003	I:\ACQUDATA\6890G\DATA\091415\BB348.D\	9/14/15 18:35
BLDG1203-SS-EX1-04(W)-32-38	R1507508-004	I:\ACQUDATA\6890G\DATA\091415\BB349.D\	9/14/15 19:00
BLDG1203-SS-EX1-05(B)-34-40	R1507508-005	I:\ACQUDATA\6890G\DATA\091415\BB350.D\	9/14/15 19:25

ALS Environmental

PCB'S
SAMPLE DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1322
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 16:54
Sample Name:	BLDG1203-SS-EX1-01(N)-30-36	**Units:**	µg/Kg
Lab Code:	R1507508-001	**Basis:**	Dry
		Percent Solids:	83.7

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB344.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	40	21	21	
11104-28-2	Aroclor 1221	ND	U	80	41	41	
11141-16-5	Aroclor 1232	ND	U	40	21	21	
53469-21-9	Aroclor 1242	ND	U	40	21	21	
12672-29-6	Aroclor 1248	ND	U	40	21	21	
11097-69-1	Aroclor 1254	ND	U	40	23	23	
11096-82-5	Aroclor 1260	ND	U	40	21	21	
11100-14-4	Aroclor 1268	ND	U	40	22	22	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	84	60-125	9/14/15 16:54	
Tetrachloro-m-xylene	63	27-134	9/14/15 16:54	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB344.D
Acq On : 14 Sep 2015 4:54 pm
Operator : m.pedro
Sample : r1507508-001|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 13:08:54 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.07	7.20	1278.6E6	916.9E6	62.539	64.551m
Spiked Amount 100.000	Range 30 - 150		Recovery =		62.54%	64.55%
2) S SURR2,Decachloro	17.96	19.39	973.5E6	780.3E6	84.436m	88.023m
Spiked Amount 100.000	Range 30 - 150		Recovery =		84.44%	88.02%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

9/15

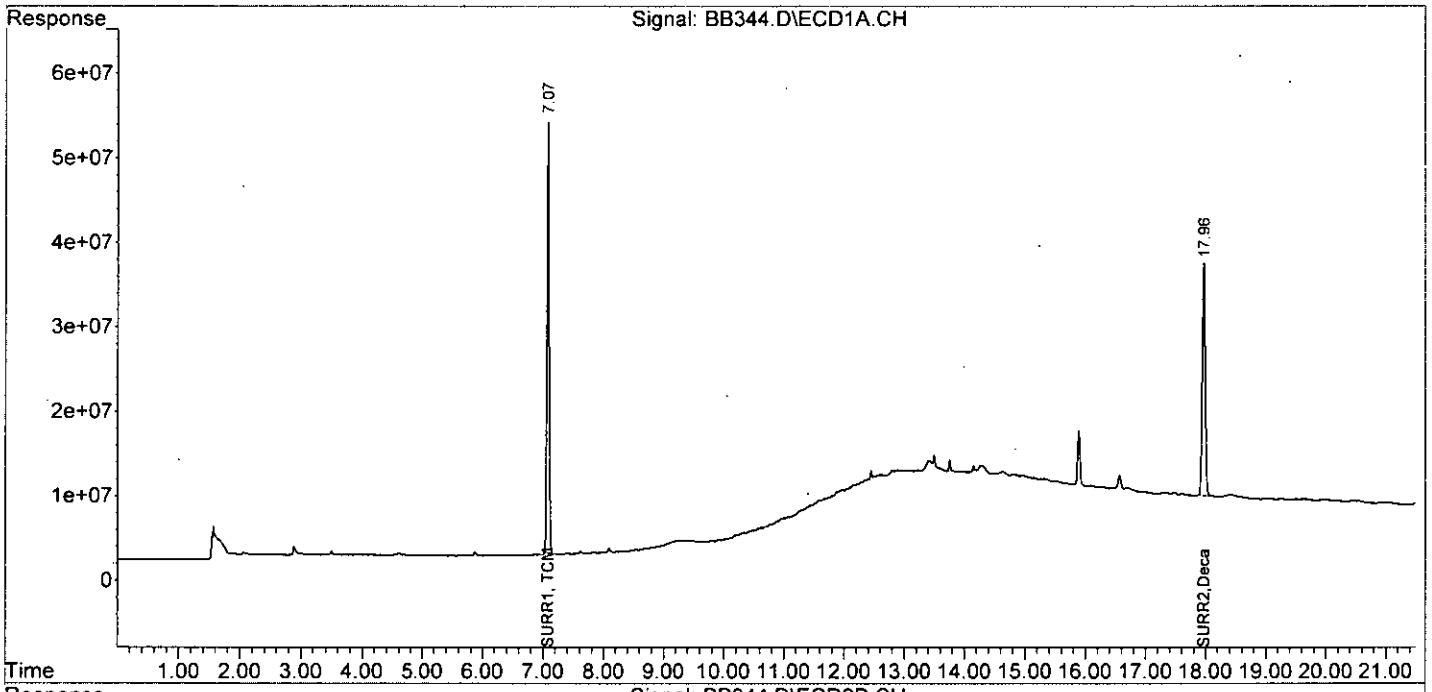
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

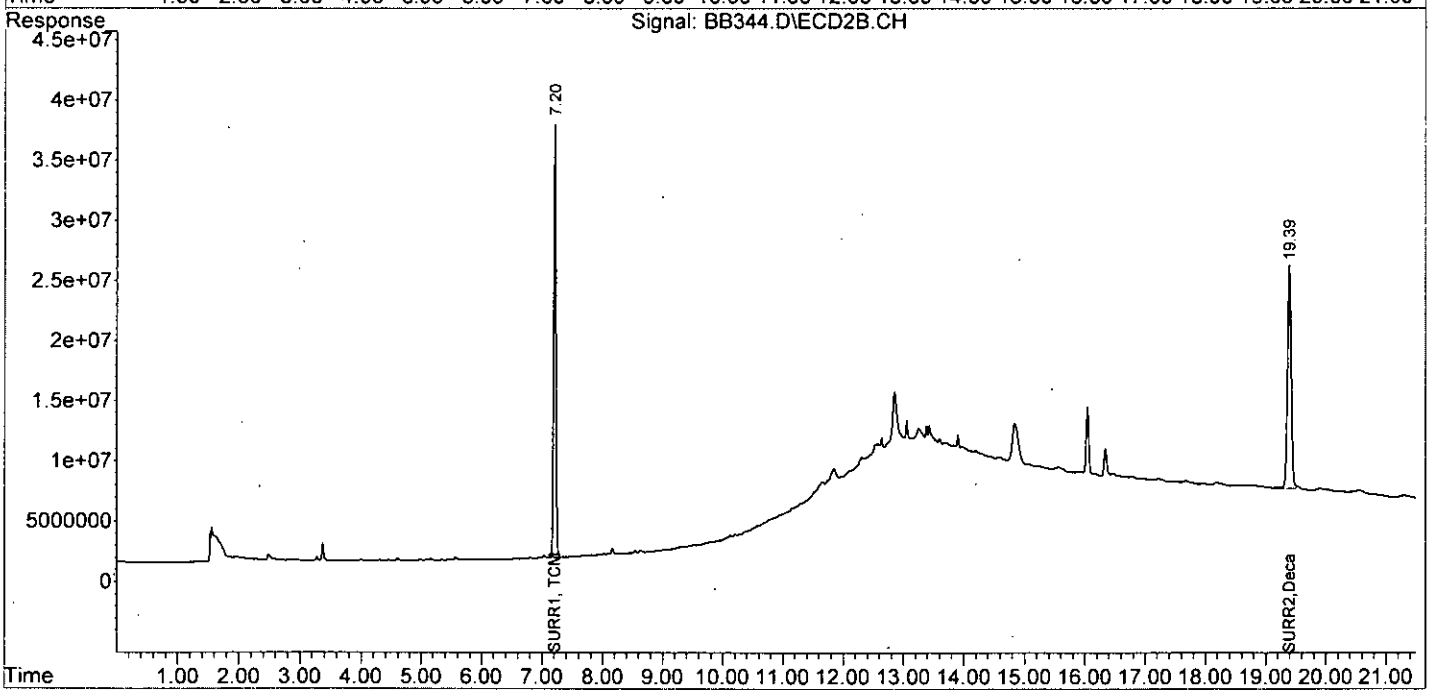
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB344.D
Acq On : 14 Sep 2015 4:54 pm
Operator : m.pedro
Sample : r1507508-001|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 13:08:54 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



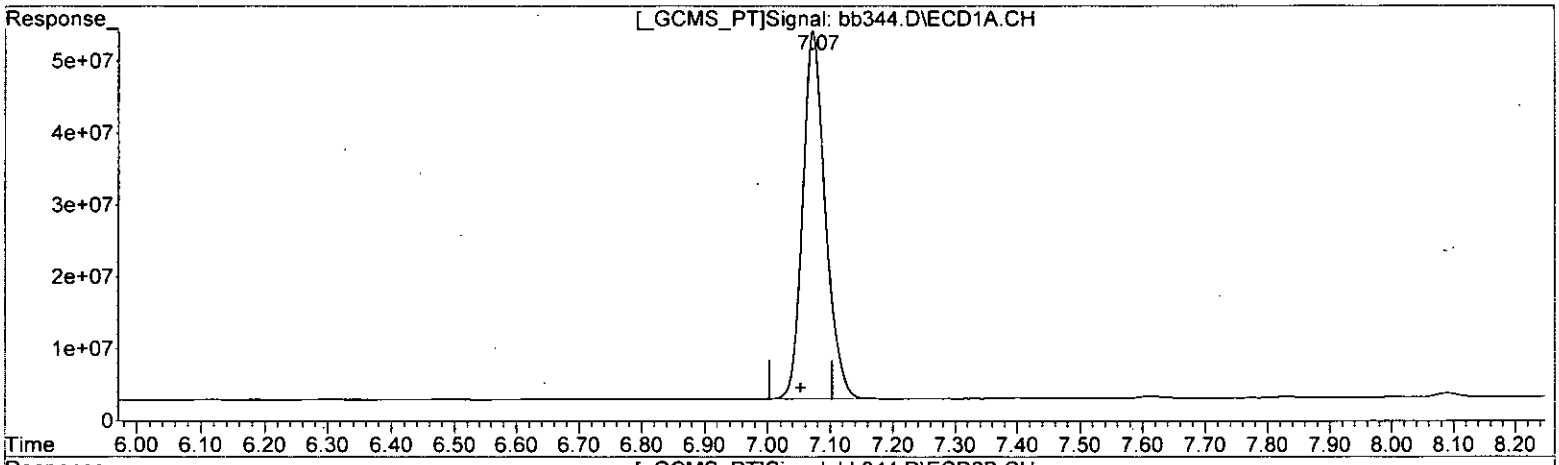


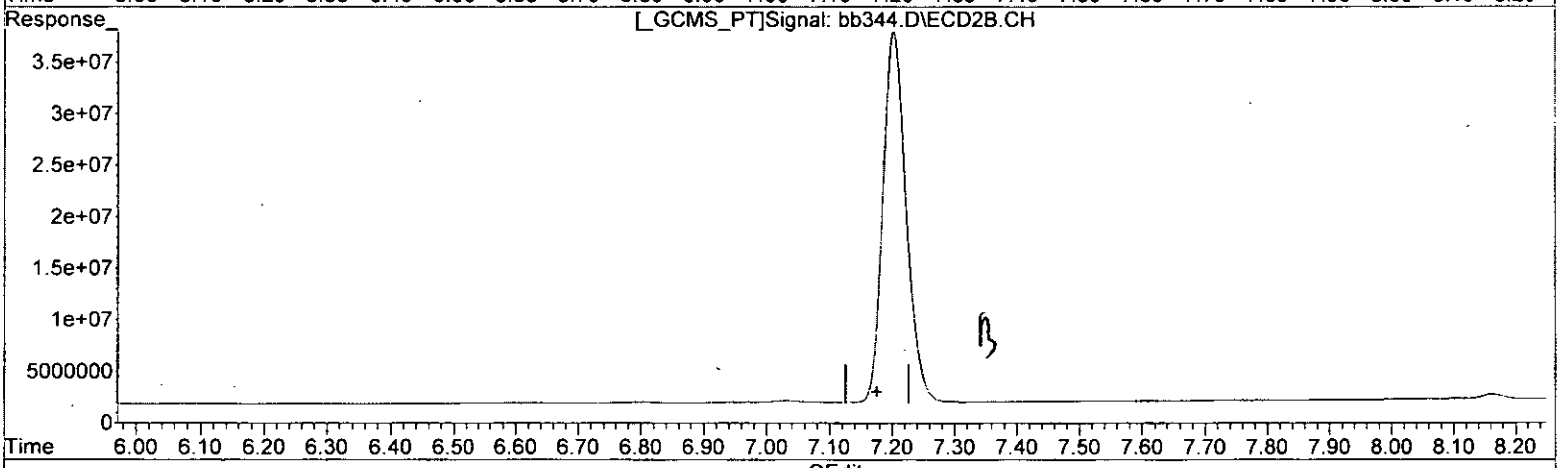
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb344.D
Acq On : 14 Sep 2015 4:54 pm
Operator : m.pedro
Sample : r1507508-001|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 07:28:27 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(1) SURR1, TCMX (S)

7.07min 62.539ug/l

response 1278631880

(1) SURR1, TCMX #2 (S)

0.00min 0.000ug/l

response 0

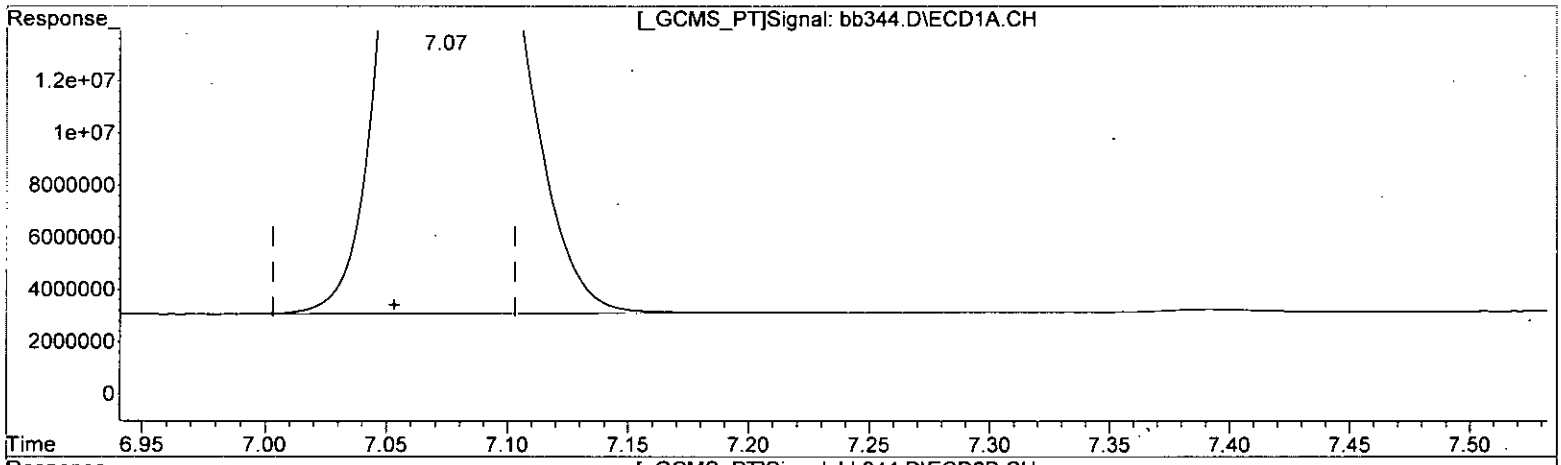
(+) = Expected Retention Time

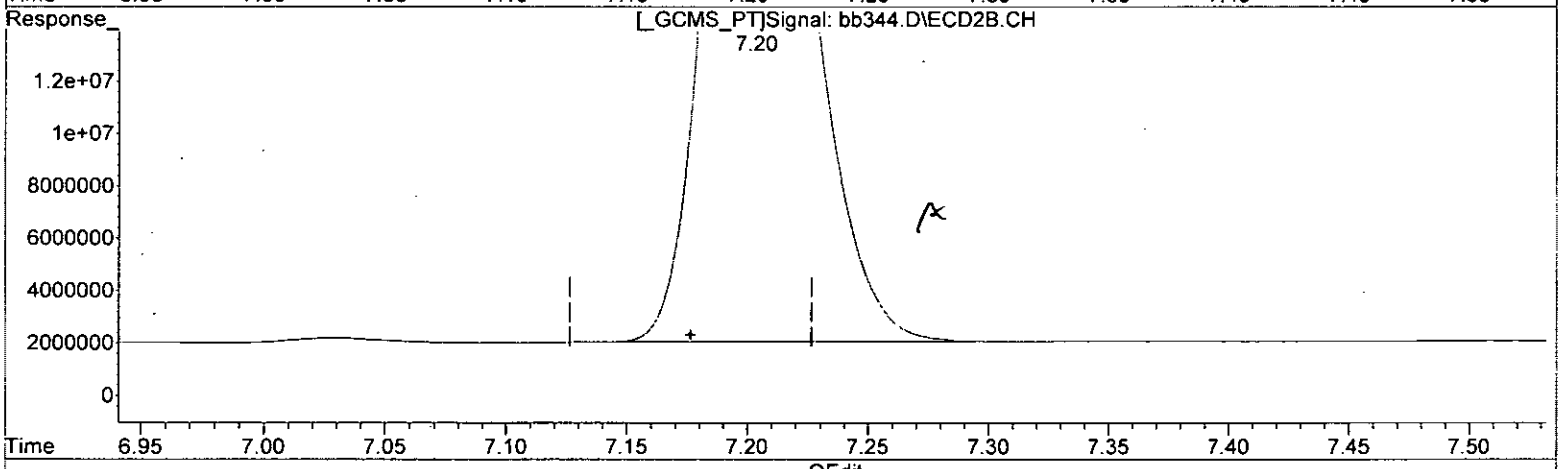
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb344.D
Acq On : 14 Sep 2015 4:54 pm
Operator : m.pedro
Sample : r1507508-001|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 07:28:27 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





(1) SURR1, TCMX (S)

7.07min 62.539ug/l

response 1278631880

(1) SURR1, TCMX #2 (S)

7.20min 64.551ug/l m

response 916852084

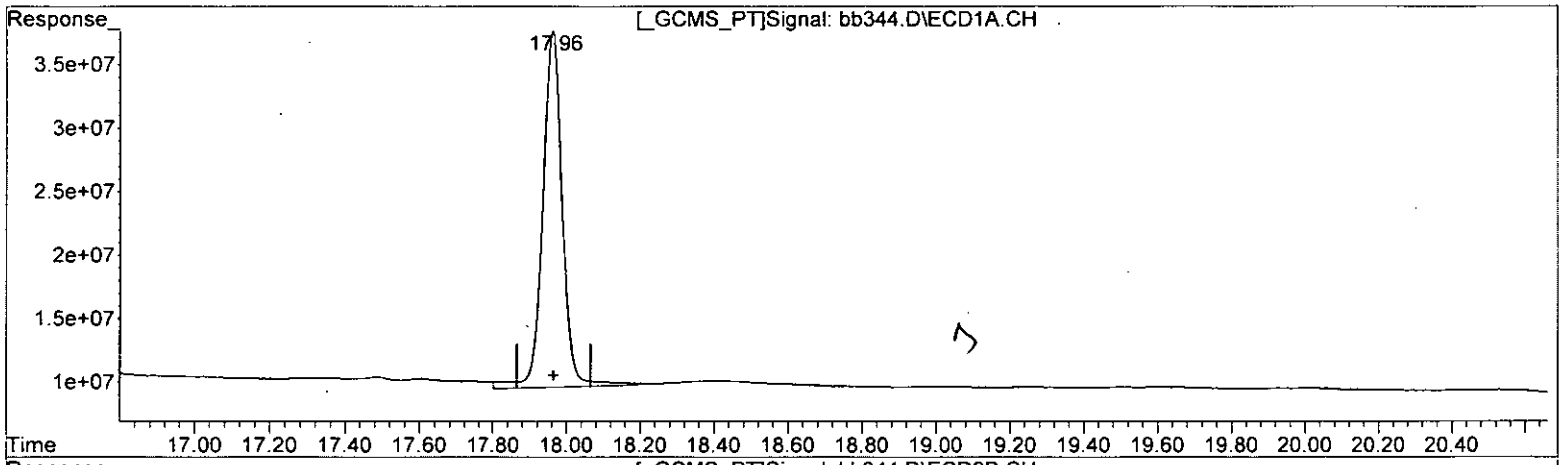
(+) = Expected Retention Time

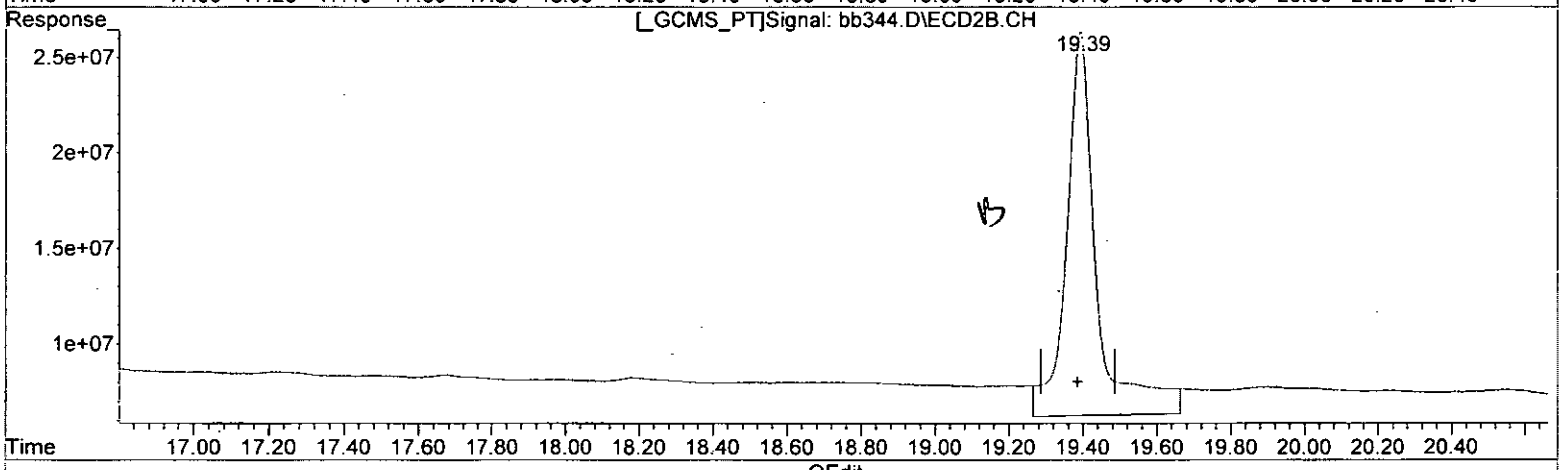
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb344.D
Acq On : 14 Sep 2015 4:54 pm
Operator : m.pedro
Sample : r1507508-001|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 07:28:27 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(2) SURR2,Decachlorobiphenyl (S)

17.96min 91.959ug/l

response 1060290143

(2) SURR2,Decachlorobiphenyl #2 (S)

19.39min 127.903ug/l

response 1133858852

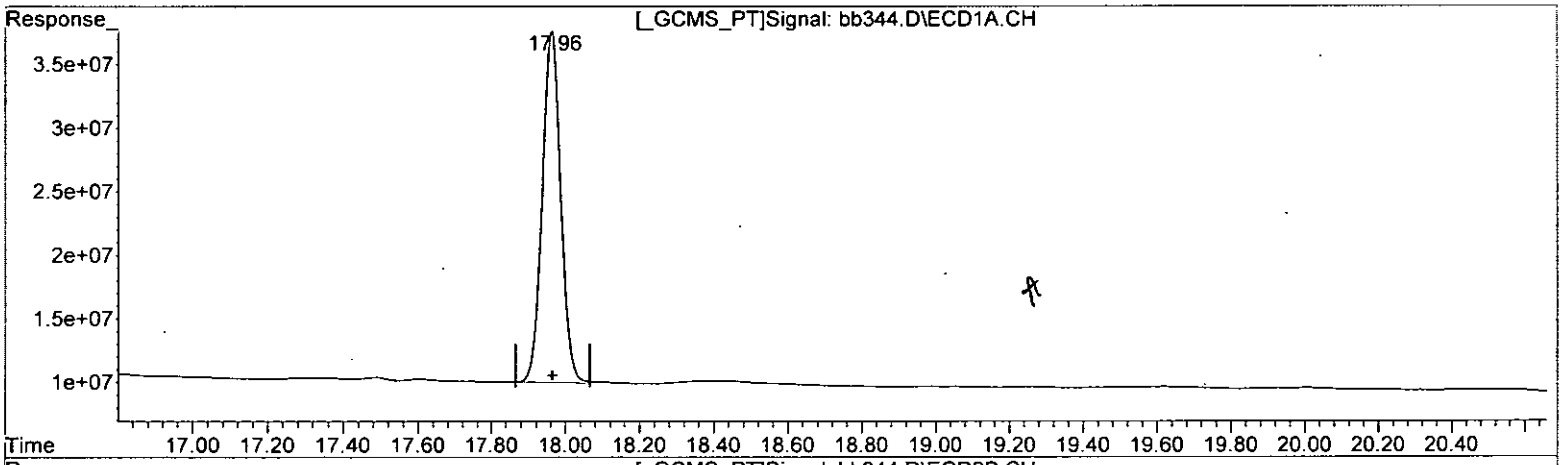
(+) = Expected Retention Time

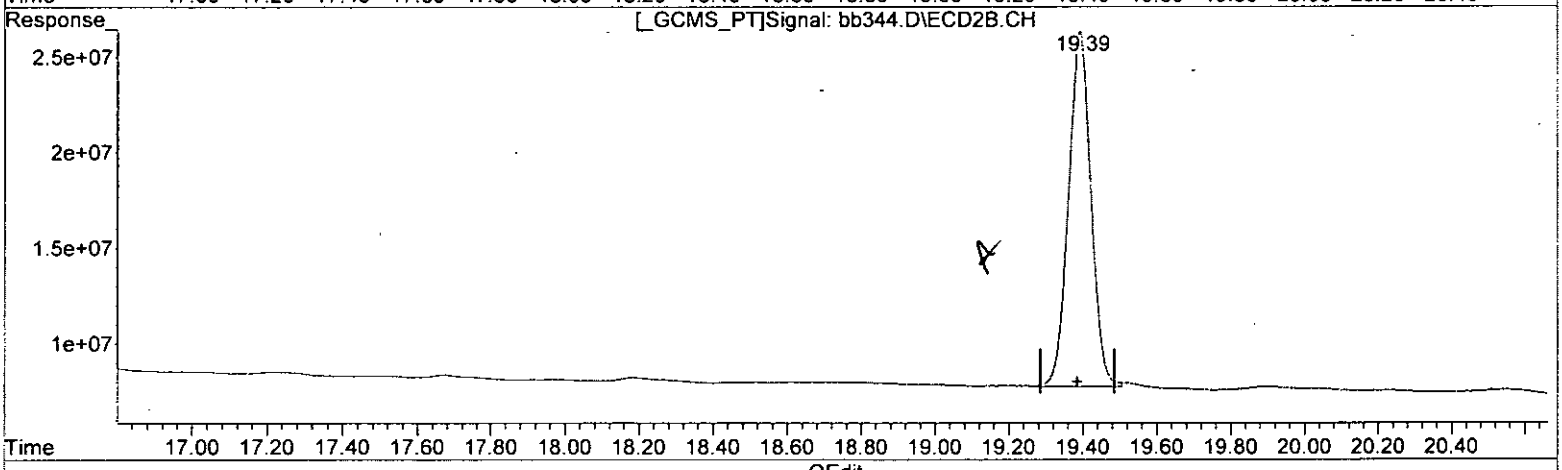
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb344.D
Acq On : 14 Sep 2015 4:54 pm
Operator : m.pedro
Sample : r1507508-001|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 07:28:27 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(2) SURR2,Decachlorobiphenyl (S)

17.96min 84.436ug/l m

response 973542407

(2) SURR2,Decachlorobiphenyl #2 (S)

19.39min 88.023ug/l m

response 780322142

(+) = Expected Retention Time

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1330
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 18:10
Sample Name:	BLDG1203-SS-EX1-02(E)-29-35	**Units:**	µg/Kg
Lab Code:	R1507508-002	**Basis:**	Dry
		Percent Solids:	80.4

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB347.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	41	22	22	
11104-28-2	Aroclor 1221	ND	U	83	43	43	
11141-16-5	Aroclor 1232	ND	U	41	22	22	
53469-21-9	Aroclor 1242	ND	U	41	22	22	
12672-29-6	Aroclor 1248	ND	U	41	22	22	
11097-69-1	Aroclor 1254	ND	U	41	24	24	
11096-82-5	Aroclor 1260	ND	U	41	22	22	
11100-14-4	Aroclor 1268	ND	U	41	23	23	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	88	60-125	9/14/15 18:10	
Tetrachloro-m-xylene	71	27-134	9/14/15 18:10	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB347.D
Acq On : 14 Sep 2015 6:10 pm
Operator : m.pedro
Sample : r1507508-002|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 15 13:14:58 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.06	7.19	1457.9E6	1026.8E6	71.305	72.295
Spiked Amount 100.000	Range 30 - 150		Recovery =		71.31%	72.30%
2) S SURR2,Decachloro	17.96	19.39	1015.4E6	797.8E6	88.063	89.998
Spiked Amount 100.000	Range 30 - 150		Recovery =		88.06%	90.00%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

9/15

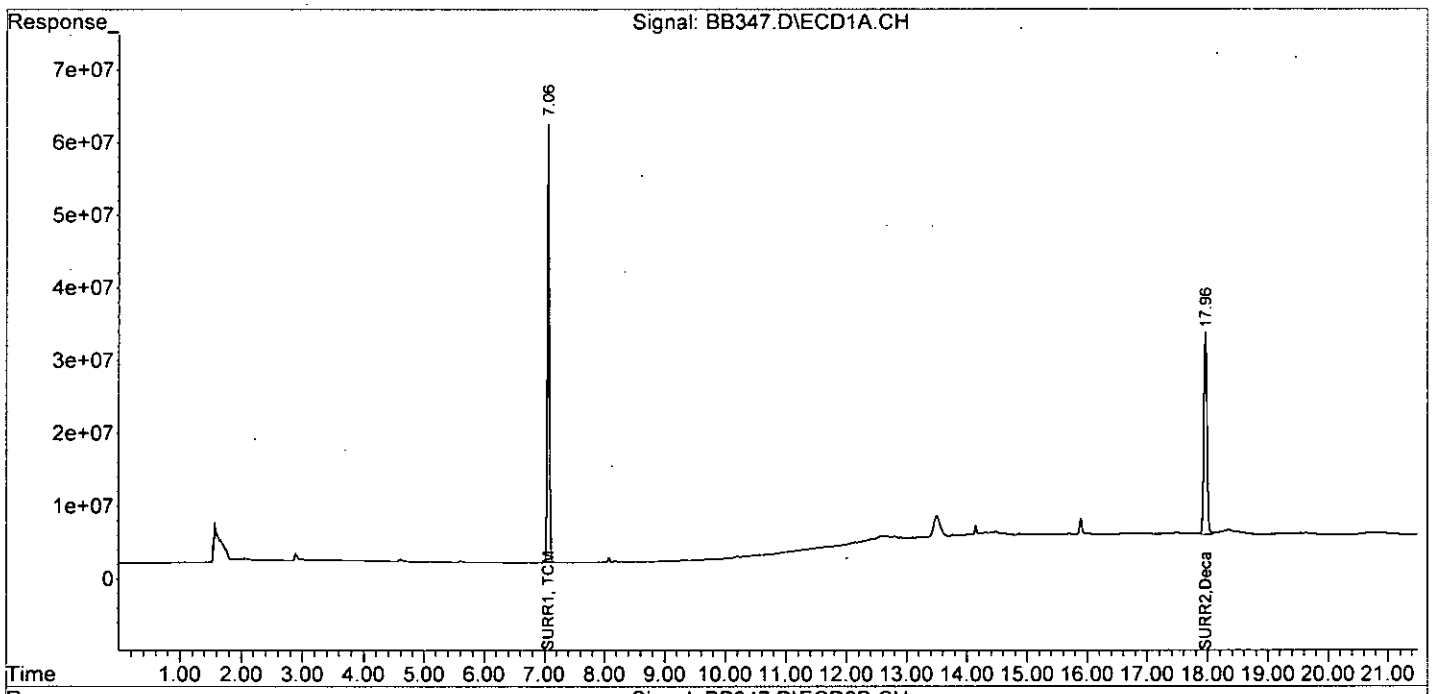
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

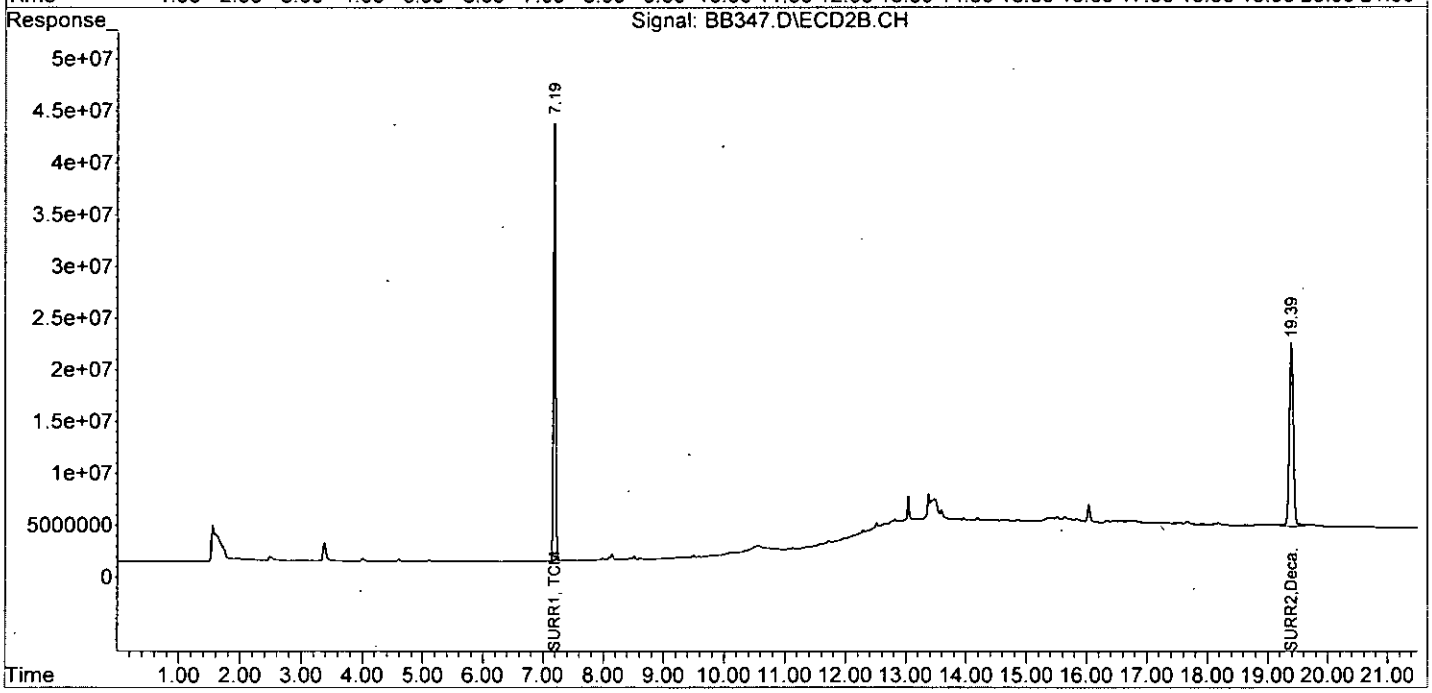
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB347.D
Acq On : 14 Sep 2015 6:10 pm
Operator : m.pedro
Sample : r1507508-002|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 15 13:14:58 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1324
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 18:35
Sample Name:	BLDG1203-SS-EX1-03(S)-28-34	**Units:**	µg/Kg
Lab Code:	R1507508-003	**Basis:**	Dry
		Percent Solids:	81.1

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB348.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	41	22	22	
11104-28-2	Aroclor 1221	ND	U	83	43	43	
11141-16-5	Aroclor 1232	ND	U	41	22	22	
53469-21-9	Aroclor 1242	ND	U	41	22	22	
12672-29-6	Aroclor 1248	ND	U	41	22	22	
11097-69-1	Aroclor 1254	ND	U	41	24	24	
11096-82-5	Aroclor 1260	ND	U	41	22	22	
11100-14-4	Aroclor 1268	ND	U	41	23	23	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	88	60-125	9/14/15 18:35	
Tetrachloro-m-xylene	68	27-134	9/14/15 18:35	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB348.D
Acq On : 14 Sep 2015 6:35 pm
Operator : m.pedro
Sample : r1507508-003|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 15 13:15:45 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1386.4E6	964.9E6	67.808	67.933
Spiked Amount 100.000	Range 30 - 150		Recovery =		67.81%	67.93%
2) S SURR2,Decachloro	17.96	19.39	1015.9E6	781.5E6	88.109	88.158
Spiked Amount 100.000	Range 30 - 150		Recovery =		88.11%	88.16%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

9/15

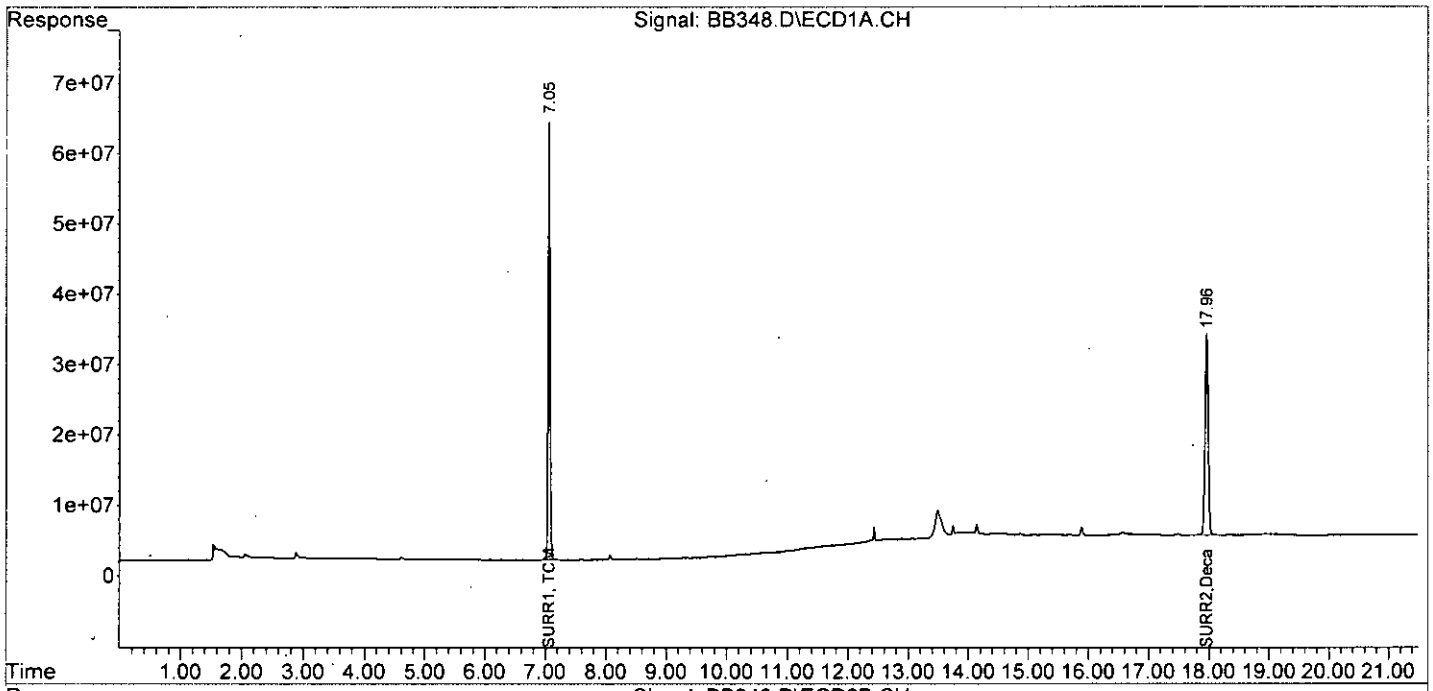
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

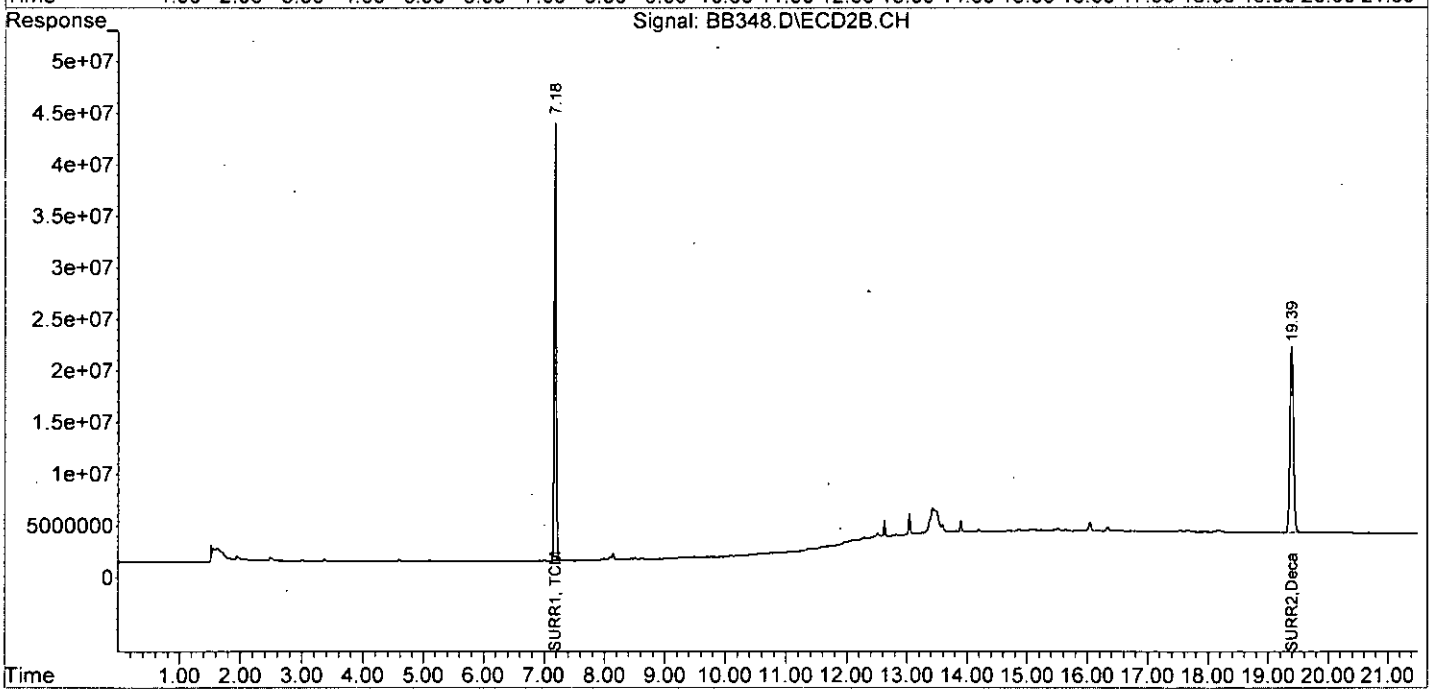
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB348.D
Acq On : 14 Sep 2015 6:35 pm
Operator : m.pedro
Sample : r1507508-003|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 15 13:15:45 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1326
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 19:00
Sample Name:	BLDG1203-SS-EX1-04(W)-32-38	**Units:**	µg/Kg
Lab Code:	R1507508-004	**Basis:**	Dry
		Percent Solids:	89.3

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB349.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	37	20	20	
11104-28-2	Aroclor 1221	ND	U	75	39	39	
11141-16-5	Aroclor 1232	ND	U	37	20	20	
53469-21-9	Aroclor 1242	ND	U	37	20	20	
12672-29-6	Aroclor 1248	ND	U	37	20	20	
11097-69-1	Aroclor 1254	ND	U	37	22	22	
11096-82-5	Aroclor 1260	ND	U	37	20	20	
11100-14-4	Aroclor 1268	ND	U	37	21	21	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	82	60-125	9/14/15 19:00	
Tetrachloro-m-xylene	68	27-134	9/14/15 19:00	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB349.D
Acq On : 14 Sep 2015 7:00 pm
Operator : m.pedro
Sample : r1507508-004|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 15 13:16:24 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1386.1E6	971.8E6	67.794	68.417
Spiked Amount 100.000	Range 30 - 150		Recovery =		67.79%	68.42%
2) S SURR2,Decachloro	17.96	19.39	944.2E6	746.1E6	81.887	84.164
Spiked Amount 100.000	Range 30 - 150		Recovery =		81.89%	84.16%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

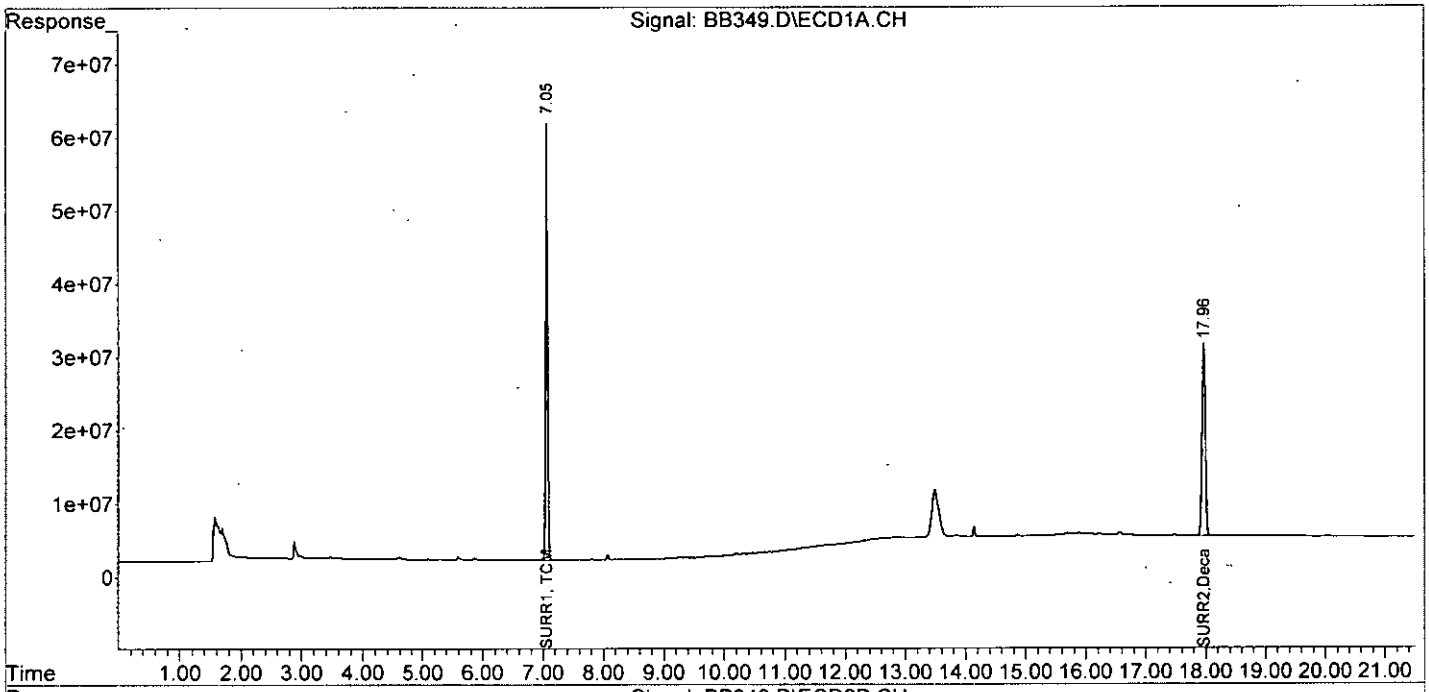
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

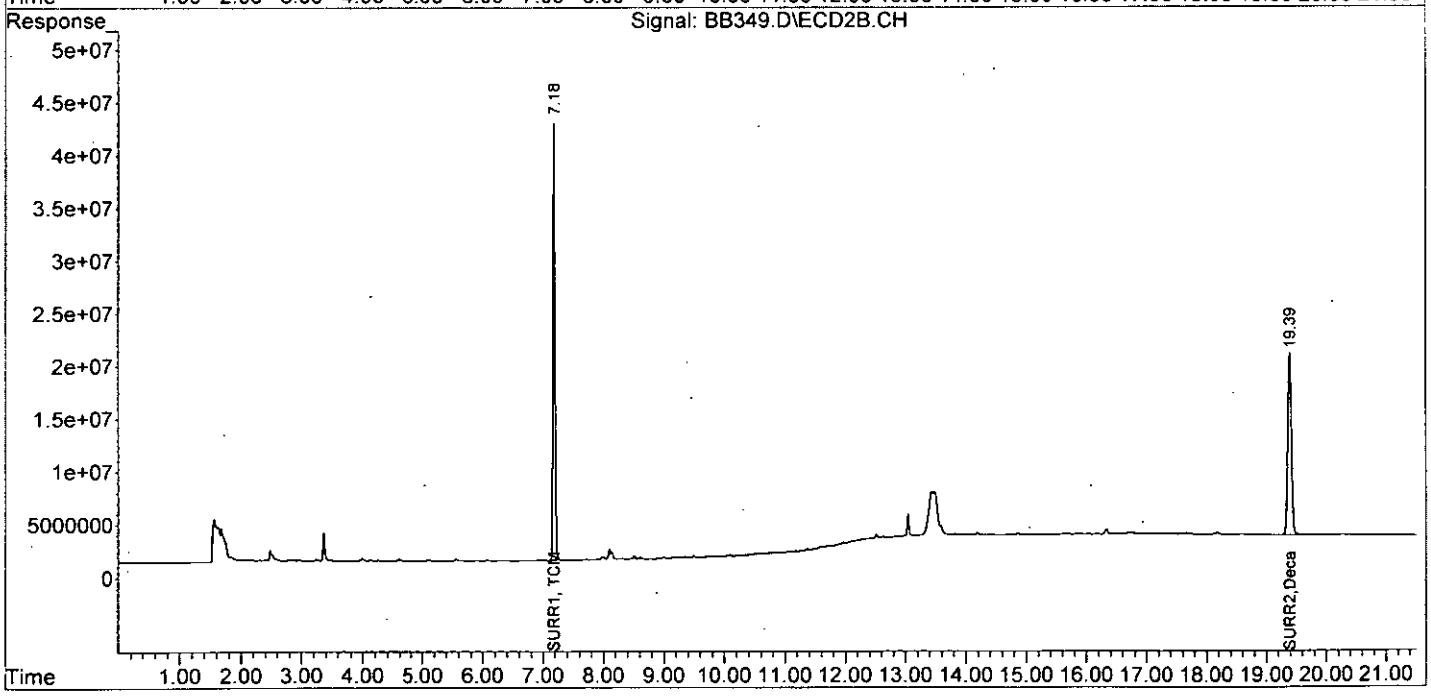
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB349.D
Acq On : 14 Sep 2015 7:00 pm
Operator : m.pedro
Sample : r1507508-004|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 15 13:16:24 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1328
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 19:25
Sample Name:	BLDG1203-SS-EX1-05(B)-34-40	**Units:**	µg/Kg
Lab Code:	R1507508-005	**Basis:**	Dry
		Percent Solids:	82.2

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB350.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	40	21	21	
11104-28-2	Aroclor 1221	ND	U	82	42	42	
11141-16-5	Aroclor 1232	ND	U	40	21	21	
53469-21-9	Aroclor 1242	ND	U	40	21	21	
12672-29-6	Aroclor 1248	ND	U	40	21	21	
11097-69-1	Aroclor 1254	ND	U	40	24	24	
11096-82-5	Aroclor 1260	ND	U	40	21	21	
11100-14-4	Aroclor 1268	ND	U	40	22	22	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	93	60-125	9/14/15 19:25	
Tetrachloro-m-xylene	68	27-134	9/14/15 19:25	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : bb350.D
Acq On : 14 Sep 2015 7:25 pm
Operator : m.pedro
Sample : r1507508-005|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 15 14:25:34 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.07	7.20f	1347.4E6	970.2E6	65.902	68.305m
Spiked Amount 100.000	Range 30 - 150		Recovery =		65.90%	68.31%
2) S SURR2,Decachloro	17.96	19.39	1068.4E6	859.5E6	92.661	96.952
Spiked Amount 100.000	Range 30 - 150		Recovery =		92.66%	96.95%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

9/9/15

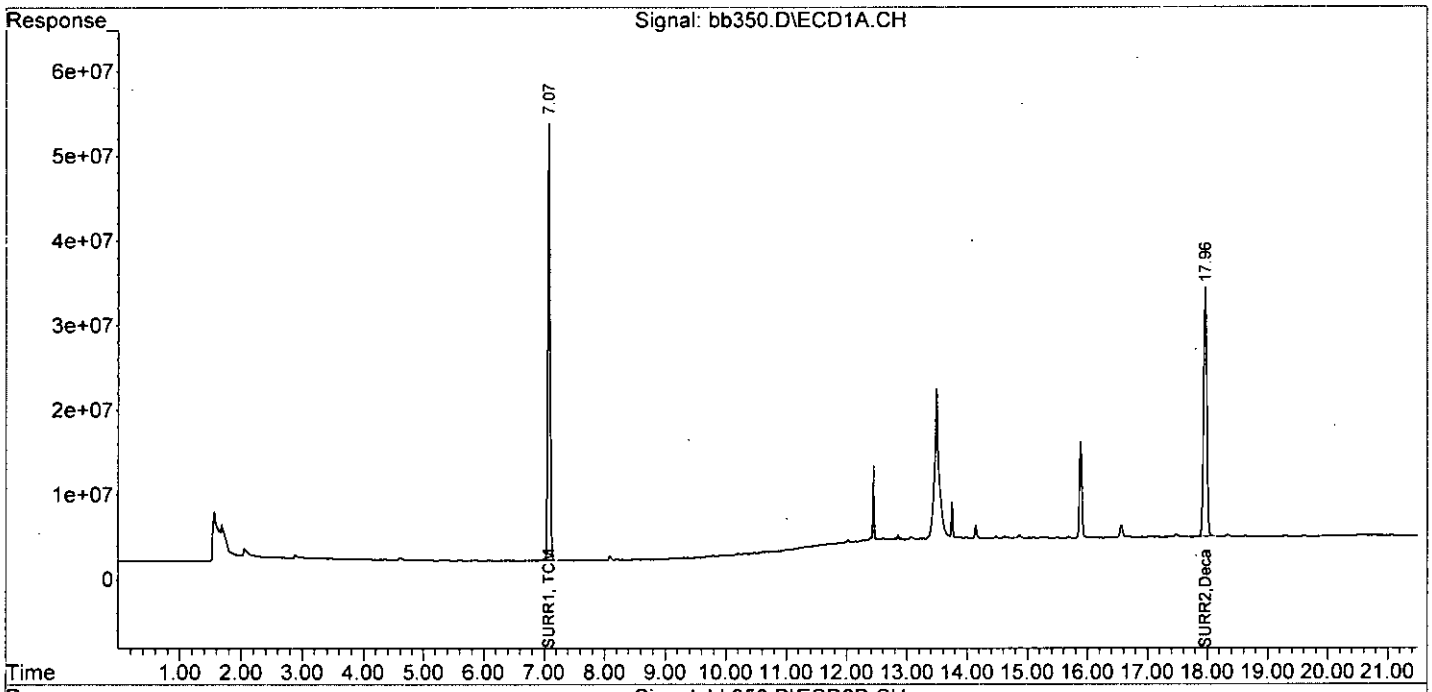
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

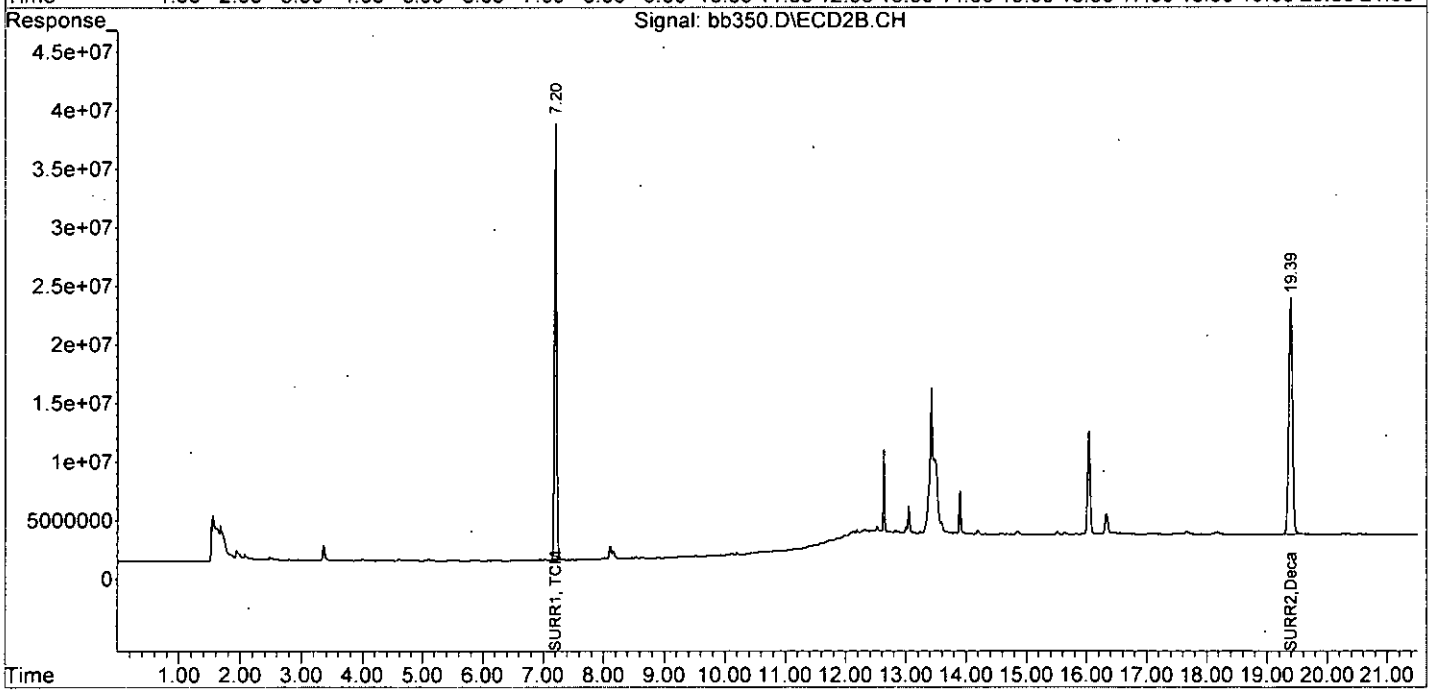
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : bb350.D
Acq On : 14 Sep 2015 7:25 pm
Operator : m.pedro
Sample : r1507508-005|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 15 14:25:34 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



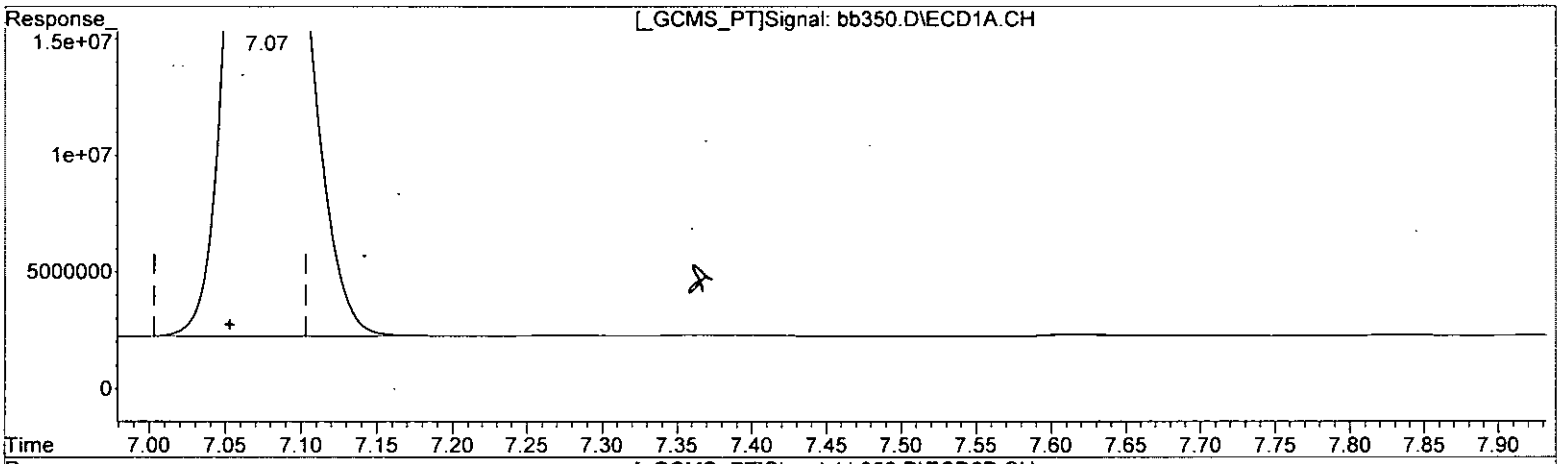


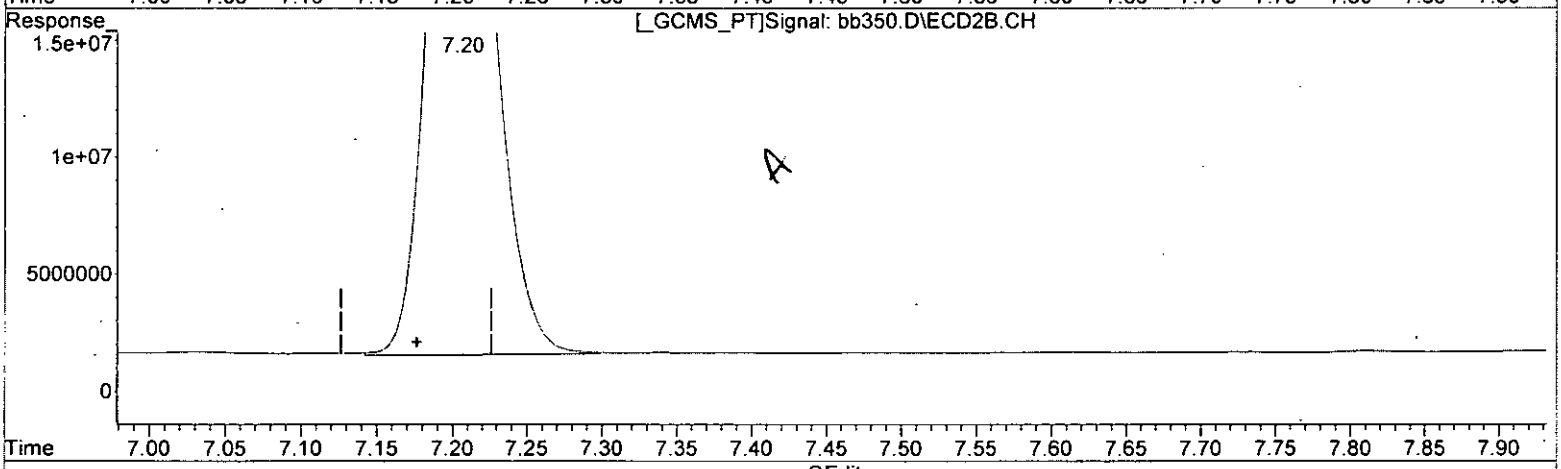
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : bb350.D
Acq On : 14 Sep 2015 7:25 pm
Operator : m.pedro
Sample : r1507508-005|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 15 13:17:03 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(1) SURR1, TCMX (S)

7.07min 65.902ug/l

response 1347395432

(1) SURR1, TCMX #2 (S)

7.20min 68.305ug/l m

response 970176546

(+) = Expected Retention Time

ALS Environmental

PCB's
STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Pesticide Initial Calibration of Multicomponent Analytes

Lab Name: ALS Environmental *Client:* PARSONS

Lab Code: 10145 *Case.No.:* R1507508 *SAS No.:* _____ *SDG No.:* BLDG1203-SS-EX1

Instrument ID: 6890G *Date Anlyzed:* 9/2/2015

GC Column(1) DB-1701 *(ID):* 0.32mm 30				*GC Column(2)* DB-17 *(ID):* 0.32mm 30			
		RT Window			*RT Window*		
Compound	*RT*	*From*	*To*	*RT*	*From*	*To*	
SURR1, TCMX	7.05	7.00	7.10	7.18	7.13	7.23	
SURR2,Decachlorobip	17.97	17.87	18.07	19.39	19.29	19.49	
PCB 1016	8.35	8.28	8.42	8.78	8.71	8.85	
PCB 1016	9.24	9.17	9.31	9.71	9.64	9.78	
PCB 1016	9.64	9.57	9.71	10.69	10.62	10.76	
PCB 1016	9.74	9.67	9.81	11.03	10.96	11.10	
PCB 1016	10.37	10.30	10.44	11.47	11.40	11.54	
PCB 1221	6.09	6.02	6.16	6.54	6.47	6.61	
PCB 1221	7.87	7.80	7.94	8.27	8.20	8.34	
PCB 1221	8.23	8.16	8.30	8.63	8.56	8.70	
PCB 1221	8.35	8.28	8.42	8.78	8.71	8.85	
PCB 1221	9.24	9.17	9.31	8.92	8.85	8.99	
PCB 1232	8.35	8.28	8.42	8.63	8.56	8.70	
PCB 1232	9.24	9.17	9.31	8.78	8.71	8.85	
PCB 1232	10.11	10.04	10.18	9.71	9.64	9.78	
PCB 1232	10.37	10.30	10.44	11.85	11.78	11.92	
PCB 1232	11.73	11.66	11.80	11.95	11.88	12.02	
PCB 1242	8.35	8.28	8.42	8.78	8.71	8.85	
PCB 1242	9.73	9.66	9.80	9.71	9.64	9.78	
PCB 1242	10.11	10.04	10.18	11.47	11.40	11.54	
PCB 1242	11.12	11.05	11.19	11.95	11.88	12.02	
PCB 1242	11.28	11.21	11.35	12.35	12.28	12.42	
PCB 1248	9.24	9.17	9.31	9.70	9.63	9.77	
PCB 1248	10.11	10.04	10.18	10.95	10.88	11.02	
PCB 1248	10.37	10.30	10.44	11.03	10.96	11.10	
PCB 1248	11.12	11.05	11.19	11.47	11.40	11.54	
PCB 1248	11.28	11.21	11.35	11.66	11.59	11.73	
PCB 1254	12.34	12.27	12.41	12.14	12.07	12.21	

6F

Pesticide Initial Calibration of Multicomponent Analytes

Lab Name: ALS Environmental *Client:* PARSONS

Lab Code: 10145 *Case.No.:* R1507508 *SAS No.:* _____ *SDG No.:* BLDG1203-SS-EX1

Instrument ID: 6890G *Date Anlyzed:* 9/2/2015

GC Column(1) DB-1701 *(ID):* 0.32mm 30				*GC Column(2)* DB-17 *(ID):* 0.32mm 30			
		RT Window			*RT Window*		
Compound	*RT*	*From*	*To*	*RT*	*From*	*To*
PCB 1254	12.48	12.41	12.55	12.71	12.64	12.78
PCB 1254	12.59	12.52	12.66	13.02	12.95	13.09
PCB 1254	12.80	12.73	12.87	13.67	13.60	13.74
PCB 1254	14.14	14.07	14.21	14.67	14.60	14.74
PCB 1260	12.80	12.73	12.87	13.11	13.04	13.18
PCB 1260	13.09	13.02	13.16	14.59	14.52	14.66
PCB 1260	14.17	14.10	14.24	14.81	14.74	14.88
PCB 1260	14.62	14.55	14.69	15.82	15.75	15.89
PCB 1260	16.69	16.62	16.76	17.02	16.95	17.09
PCB 1268	13.69	13.62	13.76	13.94	13.87	14.01
PCB 1268	14.06	13.99	14.13	14.53	14.46	14.60
PCB 1268	15.69	15.62	15.76	16.48	16.41	16.55
PCB 1268	15.87	15.80	15.94	16.80	16.73	16.87
PCB 1268	16.69	16.62	16.76	17.02	16.95	17.09

Method Path : I:\ACQUDATA\6890G\METHODS\
Method File : PCB090215.M
Title : 608/8082 PCB'S
Last Update : Thu Sep 03 08:19:01 2015
Response Via : Initial Calibration

Calibration Files
1 =bb248.D 2 =bb247.D 3 =bb246.D
4 =bb245.D 5 =bb244.D 6 =bb243.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1) S	SURR1, TCMX	2.058	2.006	2.049	2.015	2.058	2.081	2.045 E7	1.39
2) S	SURR2,Decachloro	1.113	1.114	1.167	1.097	1.210	1.217	1.153 E7	4.55
3) L1c	PCB 1016	3.384	3.375	3.532	3.659	4.047	4.416	3.735 E5	11.11
4) L1c	PCB 1016{2}	6.870	6.836	7.147	7.237	8.166	8.737	7.499 E5	10.34
5) L1c	PCB 1016{3}	2.084	2.048	2.114	2.131	2.290	2.333	2.167 E5	5.38
6) L1c	PCB 1016{4}	2.752	2.730	2.851	2.933	3.219	3.346	2.972 E5	8.56
7) L1c	PCB 1016{5}	5.896	5.862	6.095	6.247	6.661	7.296	6.343 E5	8.67
8) L2c	PCB 1221	1.397		1.482		1.754		1.544 E5	12.08
9) L2c	PCB 1221{2}	2.035		2.043		2.329		2.136 E5	7.85
10) L2c	PCB 1221{3}	1.359		1.391		1.592		1.447 E5	8.72
11) L2c	PCB 1221{4}	4.801		4.877		5.581		5.086 E5	8.46
12) L2c	PCB 1221{5}	8.223		8.215		8.547		8.328 E4	2.28
13) L3c	PCB 1232	4.019		4.058		4.825		4.301 E5	10.57
14) L3c	PCB 1232{2}	3.233		3.235		3.313		3.260 E5	1.39
15) L3c	PCB 1232{3}	6.490		6.407		7.353		6.750 E5	7.76
16) L3c	PCB 1232{4}	2.667		2.659		3.055		2.794 E5	8.11
17) L3c	PCB 1232{5}	1.874		1.864		1.953		1.897 E5	2.58
18) L4c	PCB 1242	2.838		2.764		3.276		2.959 E5	9.35
19) L4c	PCB 1242{2}	2.266		2.196		2.579		2.347 E5	8.70
20) L4c	PCB 1242{3}	1.197		1.134		1.288		1.206 E6	6.41
21) L4c	PCB 1242{4}	4.782		4.564		5.281		4.876 E5	7.54
22) L4c	PCB 1242{5}	4.708		4.477		5.062		4.749 E5	6.21
23) L5c	PCB 1248	3.171		3.359		3.791		3.440 E5	9.24
24) L5c	PCB 1248{2}	8.150		8.441		9.468		8.686 E5	7.97
25) L5c	PCB 1248{3}	3.106		3.260		4.366		3.577 E5	19.22
26) L5c	PCB 1248{4}	7.576		7.909		9.075		8.187 E5	9.62
27) L5c	PCB 1248{5}	6.303		6.504		7.213		6.673 E5	7.17
28) L6c	PCB 1254	3.037		2.975		3.567		3.193 E5	10.20
29) L6c	PCB 1254{2}	2.307		2.268		2.790		2.455 E5	11.84
30) L6c	PCB 1254{3}	0.996		0.963		1.138		1.033 E6	9.00
31) L6c	PCB 1254{4}	5.176		5.048		6.014		5.413 E5	9.69
32) L6c	PCB 1254{5}	2.480		2.324		2.832		2.545 E5	10.23
33) L7c	PCB 1260	6.980	6.797	7.192	7.306	7.848	8.373	7.416 E5	7.95
34) L7c	PCB 1260{2}	0.853	0.824	0.881	0.876	0.985	1.026	0.907 E6	8.76
35) L7c	PCB 1260{3}	5.997	5.763	6.143	5.840	6.448	6.873	6.177 E5	6.78
36) L7C	PCB 1260{4}	1.156	1.118	1.160	1.104	1.203	1.170	1.152 E6	3.12
37) L7C	PCB 1260{5}	2.760	2.738	2.860	2.805	2.934	3.182	2.880 E5	5.70
38) L8C	PCB 1268			3.731				3.731 E5	0.00
39) L8C	PCB 1268{2}			4.653				4.653 E5	0.00
40) L8C	PCB 1268{3}			1.597				1.597 E6	0.00
41) L8C	PCB 1268{4}			4.076				4.076 E5	0.00
42) L8C	PCB 1268{5}			6.563				6.563 E5	0.00

ignal #2 Calibration Files
1 =bb248.D 2 =bb247.D 3 =bb246.D
4 =bb245.D 5 =bb244.D 6 =bb243.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1) S	SURR1, TCMX	1.405	1.376	1.415	1.399	1.444	1.484	1.420 E7	2.69
2) S	SURR2,Decachloro	8.702	8.706	9.077	8.474	9.132	9.099	8.865 E6	3.09
3) L1c	PCB 1016	2.271	2.273	2.392	2.505	2.786	3.179	2.568 E5	13.85
4) L1c	PCB 1016{2}	4.930	4.927	5.211	5.397	5.984	6.820	5.545 E5	13.28
5) L1c	PCB 1016{3}	3.126	3.091	3.258	3.365	3.600	3.829	3.378 E5	8.51
6) L1c	PCB 1016{4}	2.054	2.023	2.121	2.189	2.341	3.099	2.305 E5	17.59

Method Path : I:\ACQUDATA\6890G\METHODS\
Method File : PCB090215.M
Title : 608/8082 PCB'S
Last Update : Thu Sep 03 08:19:01 2015
Response Via : Initial Calibration

Calibration Files
1 =bb248.D 2 =bb247.D 3 =bb246.D
4 =bb245.D 5 =bb244.D 6 =bb243.D

Compound	1	2	3	4	5	6	Avg	%RSD
7) L1c PCB 1016{5}	3.750	3.720	3.869	3.967	4.366	4.818	4.082 E5	10.52
8) L2c PCB 1221	1.033		1.099		1.313		1.148 E5	12.76
9) L2c PCB 1221{2}	1.447		1.474		1.698		1.540 E5	8.97
10) L2c PCB 1221{3}	0.981		1.016		1.175		1.057 E5	9.82
11) L2c PCB 1221{4}	2.945		3.042		3.526		3.171 E5	9.81
12) L2c PCB 1221{5}	4.636		4.761		5.425		4.941 E4	8.58
13) L3c PCB 1232	7.672		7.908		9.824		8.468 E4	13.94
14) L3c PCB 1232{2}	2.550		2.613		3.172		2.778 E5	12.32
15) L3c PCB 1232{3}	2.496		2.537		3.054		2.696 E5	11.55
16) L3c PCB 1232{4}	1.286		1.289		1.500		1.358 E5	9.01
17) L3c PCB 1232{5}	1.619		1.607		1.859		1.695 E5	8.39
18) L4c PCB 1242	1.930		1.901		2.276		2.036 E5	10.26
19) L4c PCB 1242{2}	4.146		4.076		4.873		4.365 E5	10.11
20) L4c PCB 1242{3}	3.238		3.132		3.678		3.349 E5	8.64
21) L4c PCB 1242{4}	3.276		3.183		3.574		3.344 E5	6.10
22) L4c PCB 1242{5}	2.717		2.684		2.952		2.784 E5	5.24
23) L5c PCB 1248	2.280		2.424		2.817		2.507 E5	11.09
24) L5c PCB 1248{2}	3.541		3.842		4.574		3.986 E5	13.32
25) L5c PCB 1248{3}	2.671		2.875		3.317		2.954 E5	11.17
26) L5c PCB 1248{4}	4.633		4.926		5.590		5.050 E5	9.71
27) L5c PCB 1248{5}	2.774		2.906		3.265		2.982 E5	8.52
28) L6c PCB 1254	5.162		5.218		6.444		5.608 E5	12.92
29) L6c PCB 1254{2}	3.909		3.888		4.939		4.245 E5	14.15
30) L6c PCB 1254{3}	5.968		5.925		7.470		6.454 E5	13.63
31) L6c PCB 1254{4}	3.110		3.022		3.808		3.313 E5	13.01
32) L6c PCB 1254{5}	2.722		2.619		3.036		2.792 E5	7.77
33) L7c PCB 1260	6.376	6.313	6.593	6.945	7.700	8.811	7.123 E5	13.62
34) L7c PCB 1260{2}	4.041	3.970	4.119	4.120	4.426	4.312	4.165 E5	4.12
35) L7c PCB 1260{3}	0.982	0.959	0.996	0.959	1.035	0.955	0.981 E6	3.17
36) L7C PCB 1260{4}	5.276	5.175	5.376	5.193	5.756	6.145	5.487 E5	7.04
37) L7C PCB 1260{5}	3.216	3.161	3.308	3.141	3.311	2.892	3.172 E5	4.87
38) L8C PCB 1268			3.132				3.132 E5	0.00
39) L8C PCB 1268{2}			3.836				3.836 E5	0.00
40) L8C PCB 1268{3}			1.286				1.286 E6	0.00
41) L8C PCB 1268{4}			3.225				3.225 E5	0.00
42) L8C PCB 1268{5}			5.595				5.595 E5	0.00

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB243.D
Acq On : 02 Sep 2015 11:07 am
Operator : m.pedro
Sample : ar166011 Inst : 6890G
Misc : initial cal
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 03 07:56:16 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.17	83237872	59355775	4.681	4.485
Spiked Amount 100.000	Range 30 - 150		Recovery =		4.68%#	4.49%#
2) S SURR2,Decachloro	17.97	19.38	48684988	36394966	4.651	4.389
Spiked Amount 100.000	Range 30 - 150		Recovery =		4.65%#	4.39%#
Target Compounds						
3) L1c PCB 1016	8.36	8.78	8832744	6358719	26.679	26.688
4) L1c PCB 1016{2}	9.24	9.70	17473060	13640503	26.167	26.226
5) L1c PCB 1016{3}	9.64	10.69	4666996	7658094	23.958	23.815
6) L1c PCB 1016{4}	9.74	11.03	6692297	6197972	24.870	29.525
7) L1c PCB 1016{5}	10.37	11.47	14591693	9636336	25.548	32.169 #
Sum PCB 1016			52256791	43491624	127.222	138.423
Average PCB 1016					25.444	27.685
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	16746656	17621624	26.816m	29.929m
34) L7c PCB 1260{2}	13.09	14.58	20519387	8624016	27.457m	23.214
35) L7c PCB 1260{3}	14.17	14.81	13746240	19098235	25.707	21.735
36) L7C PCB 1260{4}	14.62	15.82	23396335	12289968	22.601	24.427
37) L7C PCB 1260{5}	16.69	17.01	6364048	5783951	24.879	18.994
Sum PCB 1260			80772666	63417794	127.461	118.300
Average PCB 1260					25.492	23.660
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

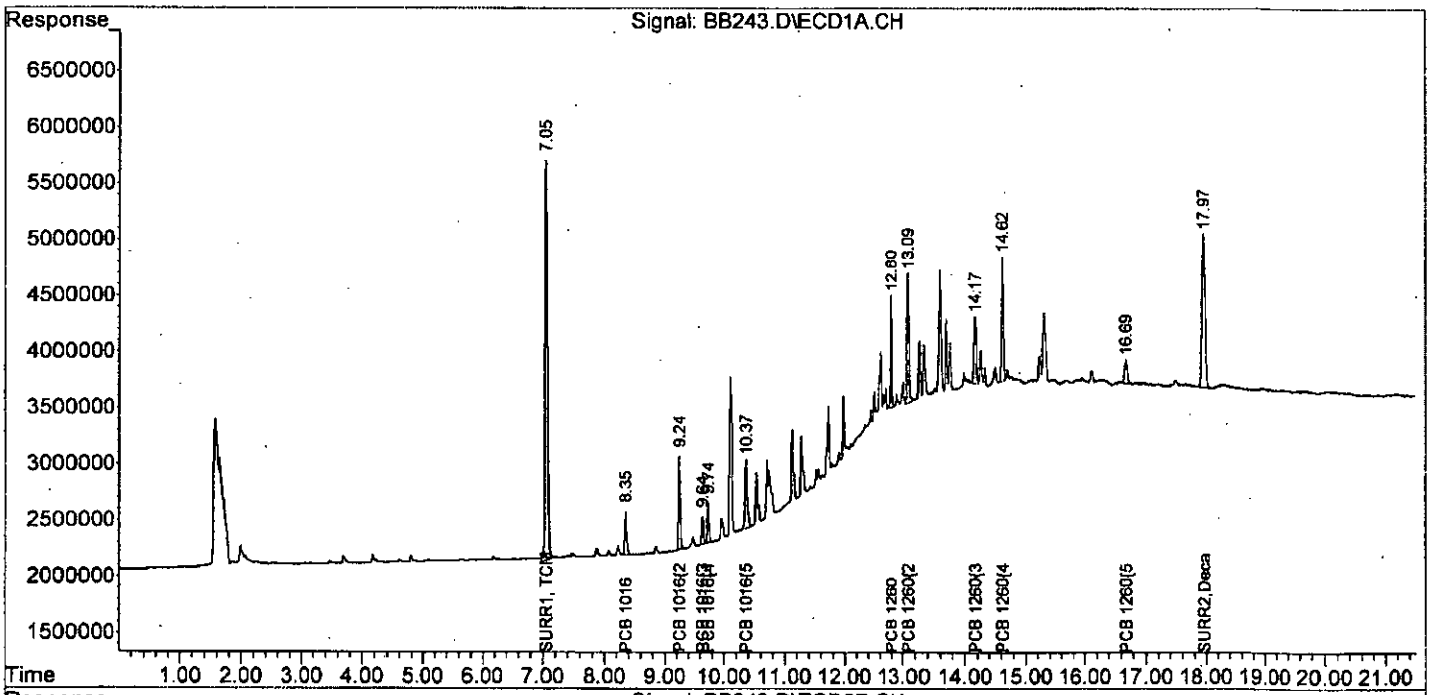
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

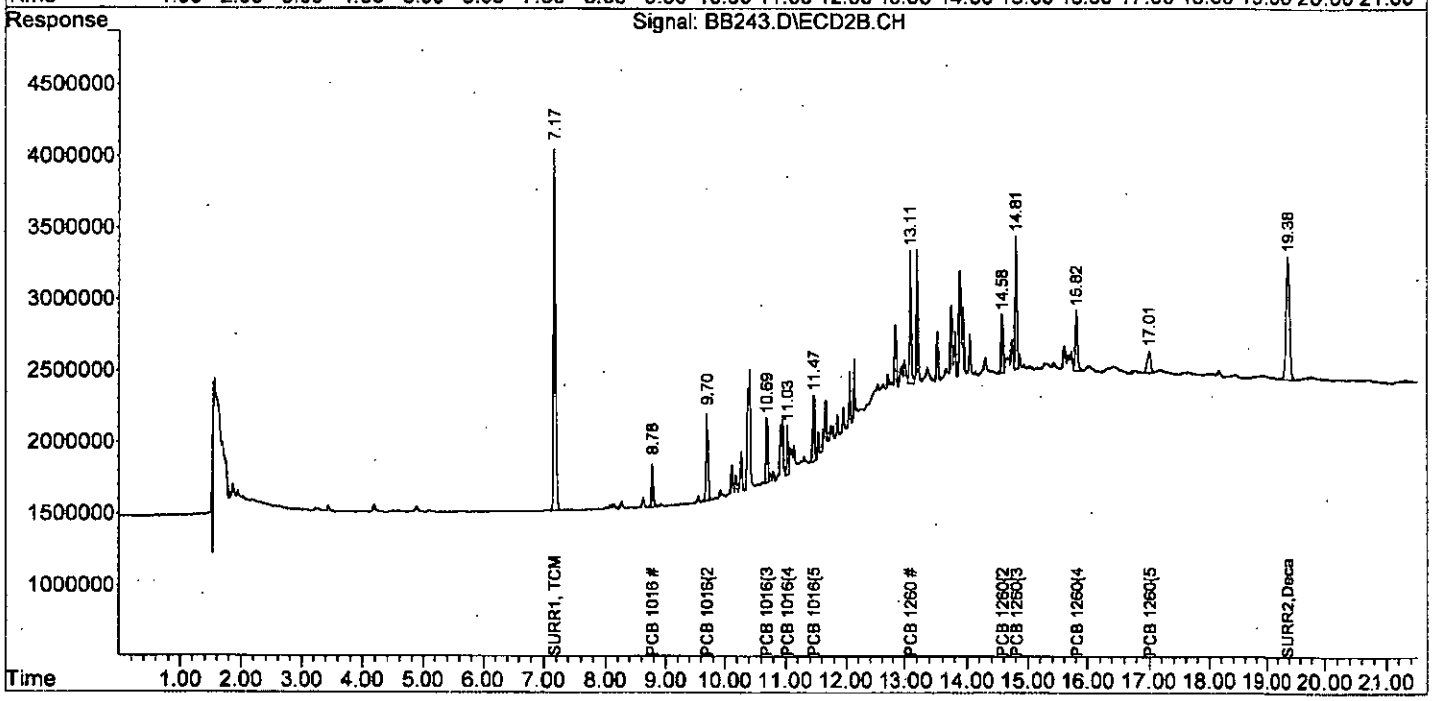
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB243.D
Acq On : 02 Sep 2015 11:07 am
Operator : m.pedro
Sample : ar166011 Inst : 6890G
Misc : initial cal
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 03 07:56:16 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



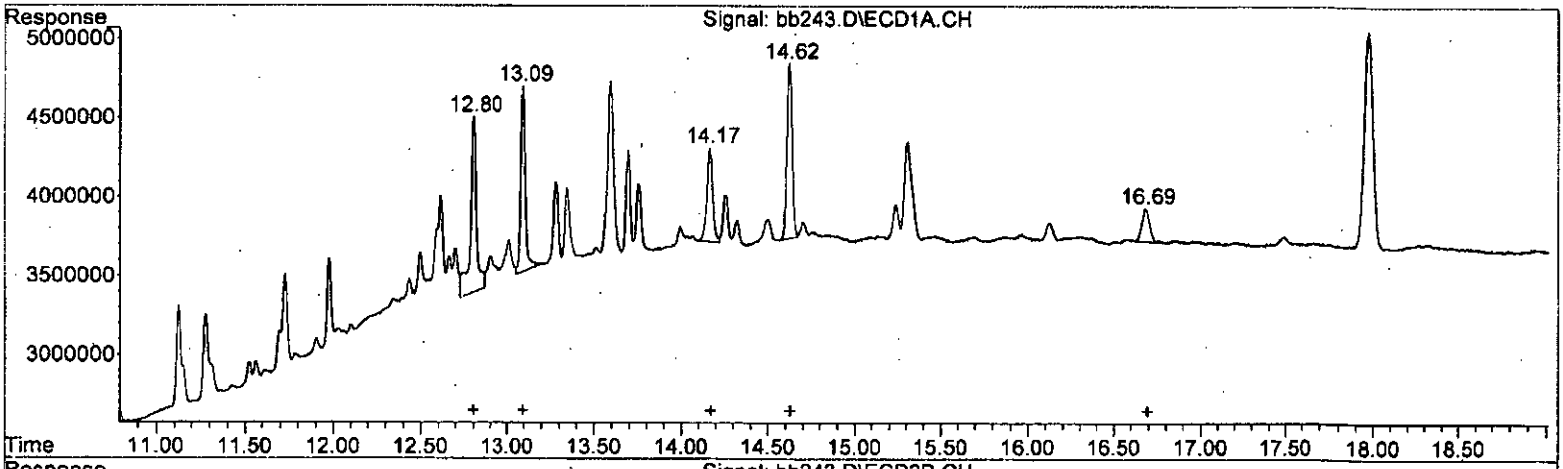


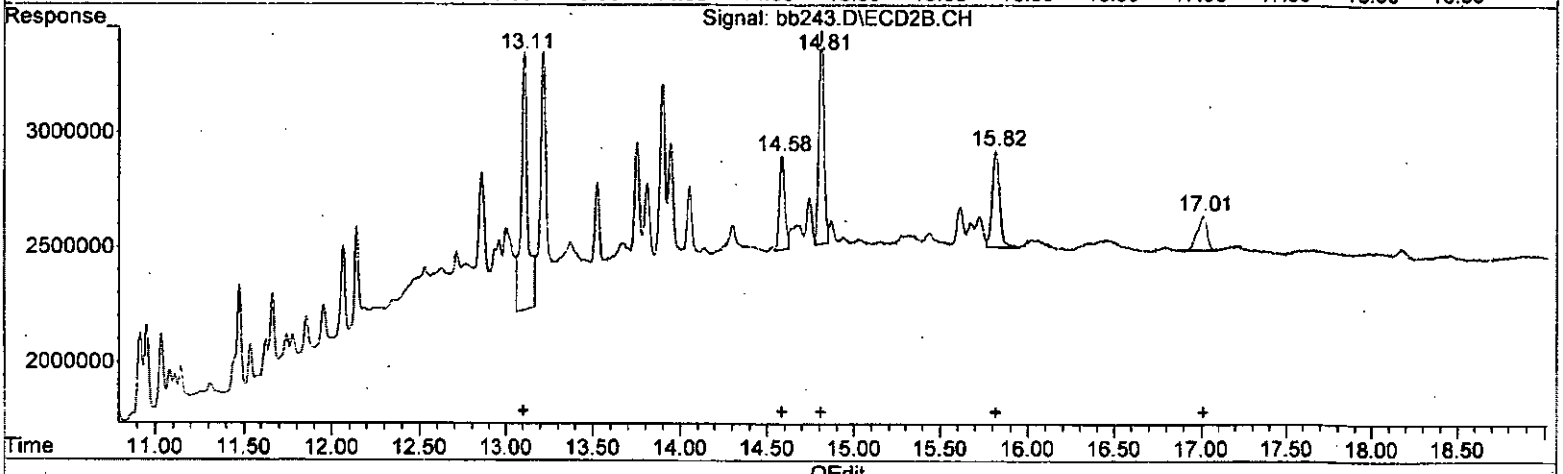
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : bb243.D
Acq On : 02 Sep 2015 11:07 am
Operator : m.pedro
Sample : ar166011 Inst : 6890G
Misc : initial cal
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 03 07:50:59 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(33) PCB 1260 (L7c)

R.T.	Response	Conc
12.80	26560516	42.53
13.09	21795814	29.17
14.17	13746240	25.71
14.62	23396335	22.60
16.69	6364048	24.88

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
13.11	29507244	50.12
14.58	8624016	23.21
14.81	19098235	21.74
15.82	12289968	24.43
17.01	5783951	18.99

b

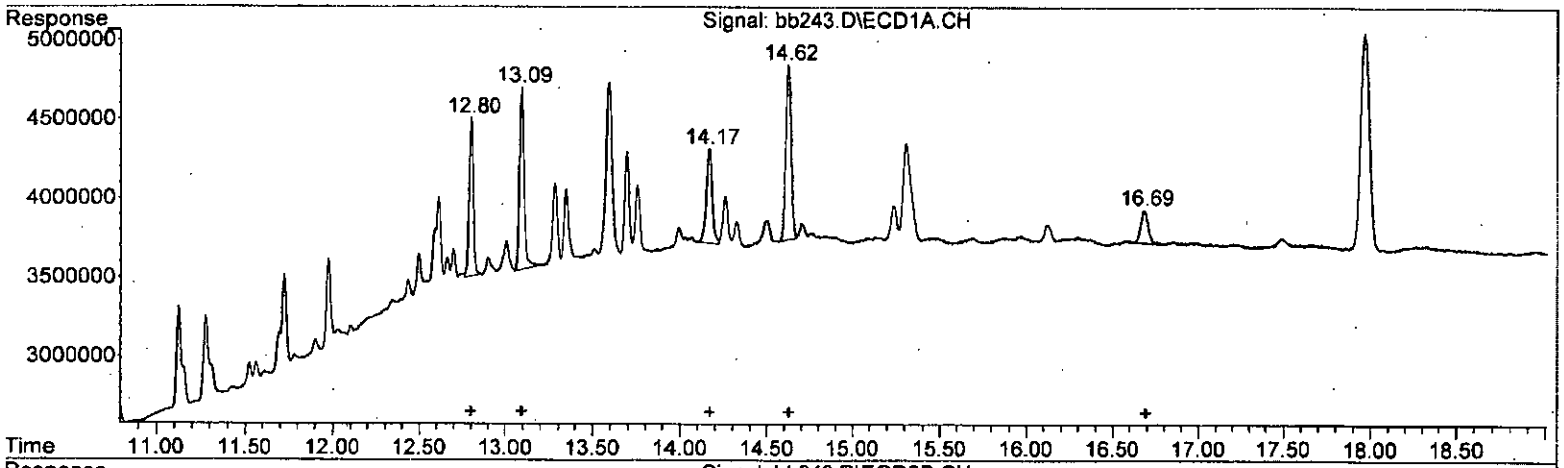
(+) = Expected Retention Time

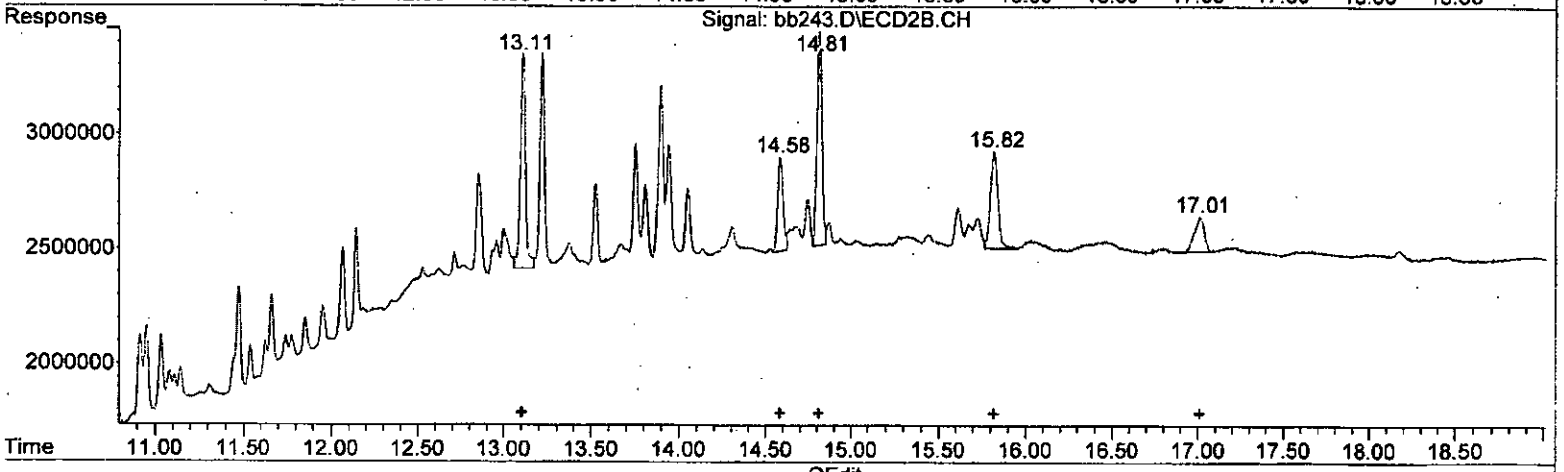
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : bb243.D
Acq On : 02 Sep 2015 11:07 am
Operator : m.pedro
Sample : ar166011 Inst : 6890G
Misc : initial cal
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 03 07:50:59 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
12.80	16746656	26.82
13.09	20519387	27.46
14.17	13746240	25.71
14.62	23396335	22.60
16.69	6364048	24.88

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
13.11	17621624	29.93
14.58	8624016	23.21
14.81	19098235	21.74
15.82	12289968	24.43
17.01	5783951	18.99

Avg 25.13 9/4

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB244.D
Acq On : 02 Sep 2015 11:33 am
Operator : m.pedro
Sample : ar16601 Inst : 6890G
Misc : initial cal
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 07:57:40 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	411.7E6	288.7E6	23.152	21.817
Spiked Amount 100.000	Range 30 - 150		Recovery =		23.15%#	21.82%#
2) S SURR2,Decachloro	17.97	19.38	241.9E6	182.6E6	23.115	22.022
Spiked Amount 100.000	Range 30 - 150		Recovery =		23.11%#	22.02%#
Target Compounds						
3) L1c PCB 1016	8.35	8.78	40465551	27864512	122.223	116.950
4) L1c PCB 1016(2)	9.24	9.70	81662230	59840453	122.296	115.053
5) L1c PCB 1016(3)	9.64	10.69	22896091	36003063	117.537	111.961
6) L1c PCB 1016(4)	9.74	11.03	32185613	23408386	119.608	111.510
7) L1c PCB 1016(5)	10.37	11.47	66613446	43661955	116.630	145.755
Sum PCB 1016			243.8E6	190.8E6	598.293	601.229
Average PCB 1016					119.659	120.246
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	78483301	77002623	125.675m	130.785m
34) L7c PCB 1260(2)	13.09	14.58	98453164	44259336	131.742m	119.138
35) L7c PCB 1260(3)	14.17	14.81	64478349	103.5E6	120.584	117.799
36) L7C PCB 1260(4)	14.62	15.82	120.3E6	57560659	116.236	114.406
37) L7C PCB 1260(5)	16.69	17.02	29336252	33109936	114.682	108.732
Sum PCB 1260			391.1E6	315.4E6	608.919	590.859
Average PCB 1260					121.784	118.172
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

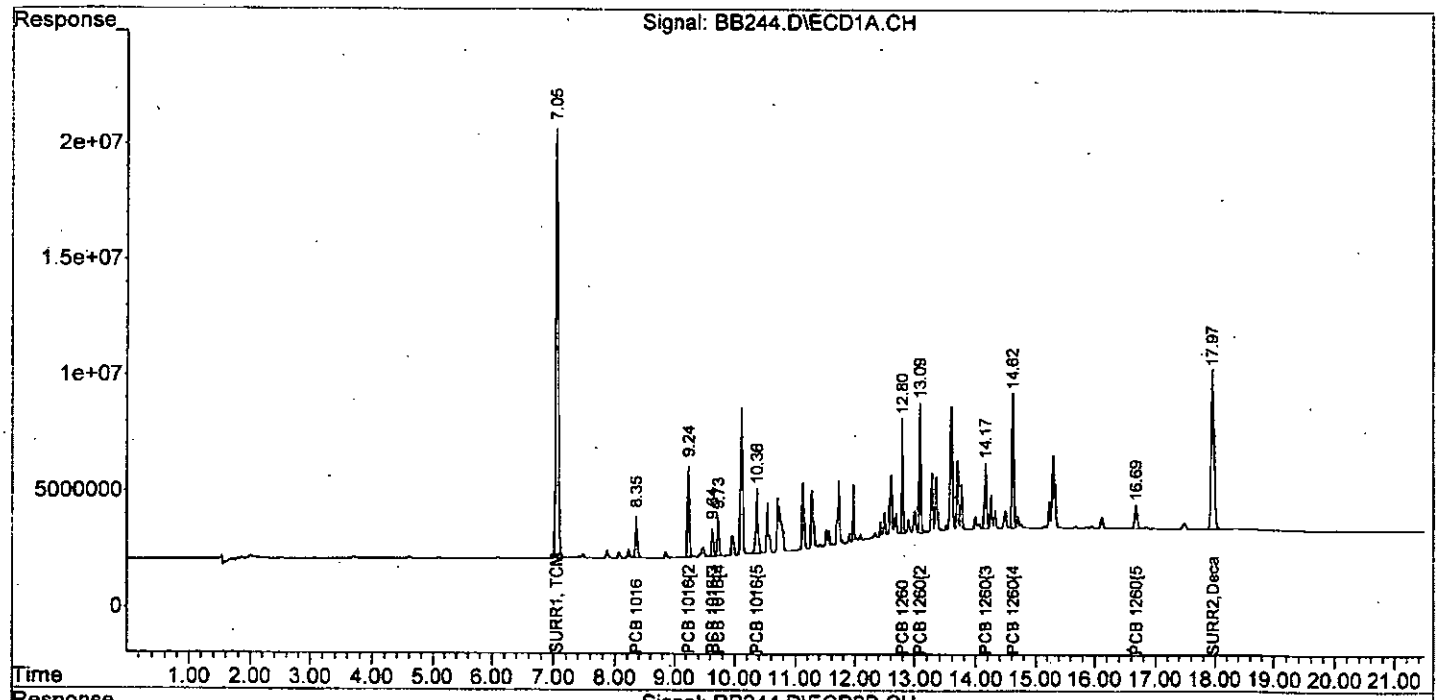
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

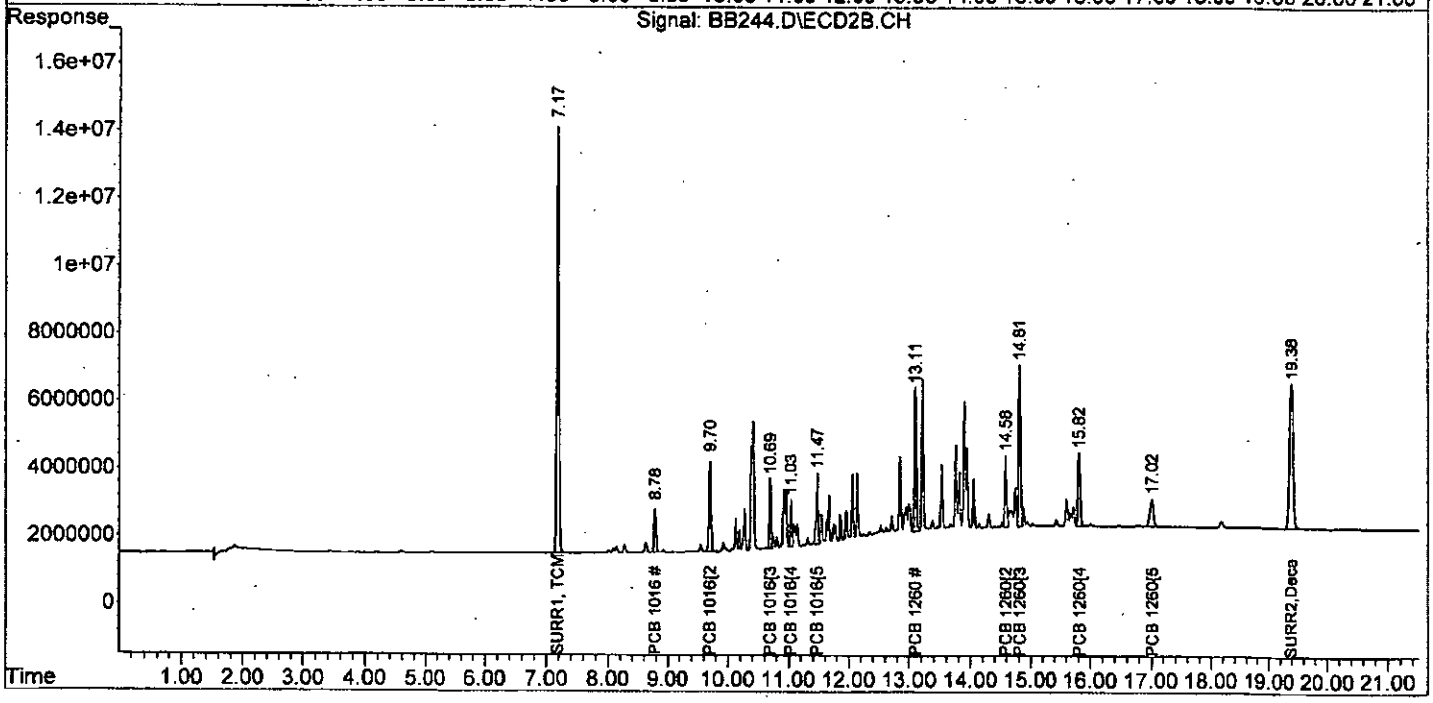
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB244.D
Acq On : 02 Sep 2015 11:33 am
Operator : m.pedro
Sample : ar16601 Inst : 6890G
Misc : initial cal
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 07:57:40 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



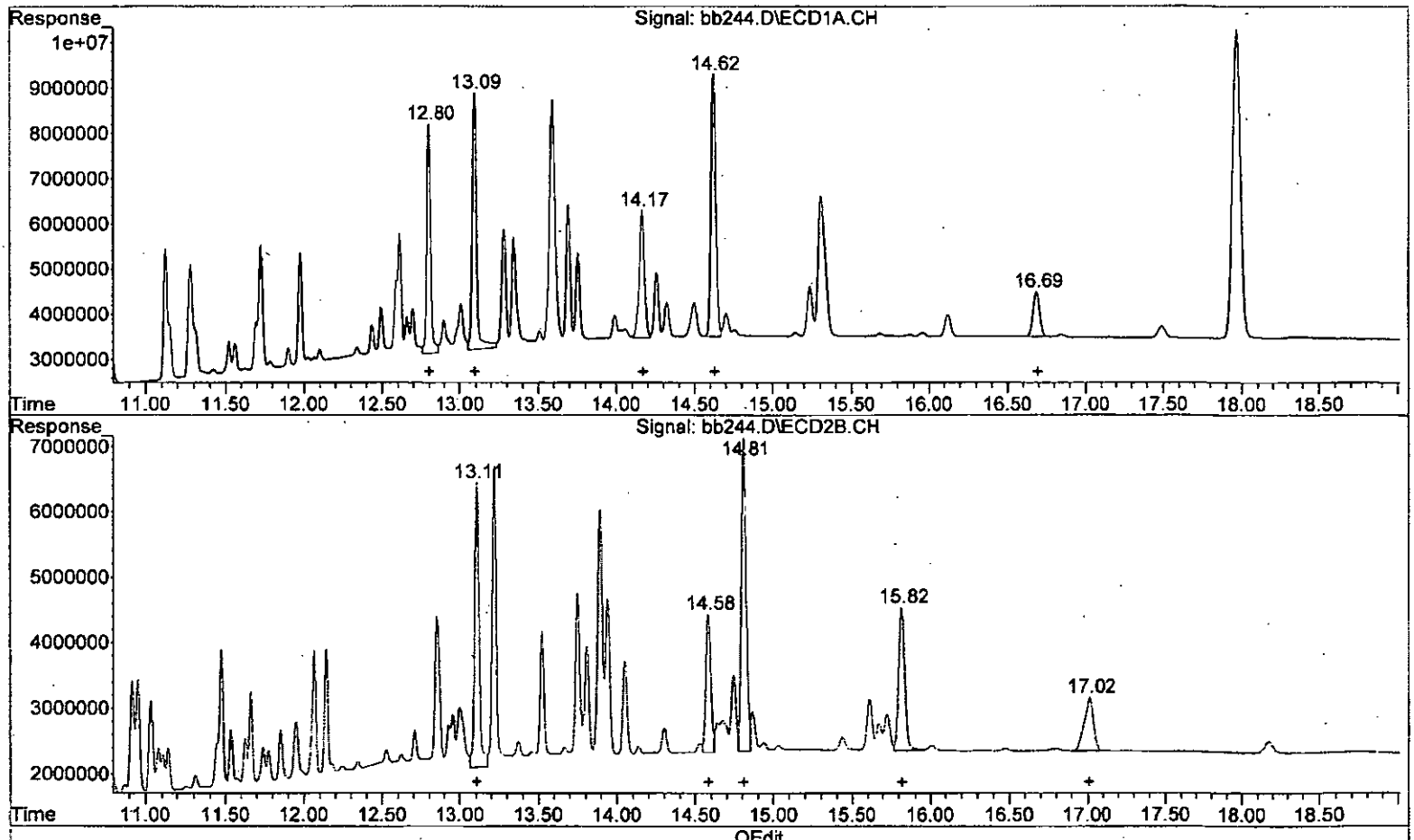


Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\090215\
Data File : bb244.D
Acq On : 02 Sep 2015 11:33 am
Operator : m.pedro
Sample : ar16601 Inst : 6890G
Misc : initial cal
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 07:51:02 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(33) PCB 1260 (L7c)

R.T.	Response	Conc
12.80	86470411	138.46
13.09	106256337	142.18
14.17	64478349	120.58
14.62	120325114	116.24
16.69	29336252	114.68

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
13.11	83278662	141.44
14.58	44259336	119.14
14.81	103508020	117.80
15.82	57560659	114.41
17.02	33109936	108.73

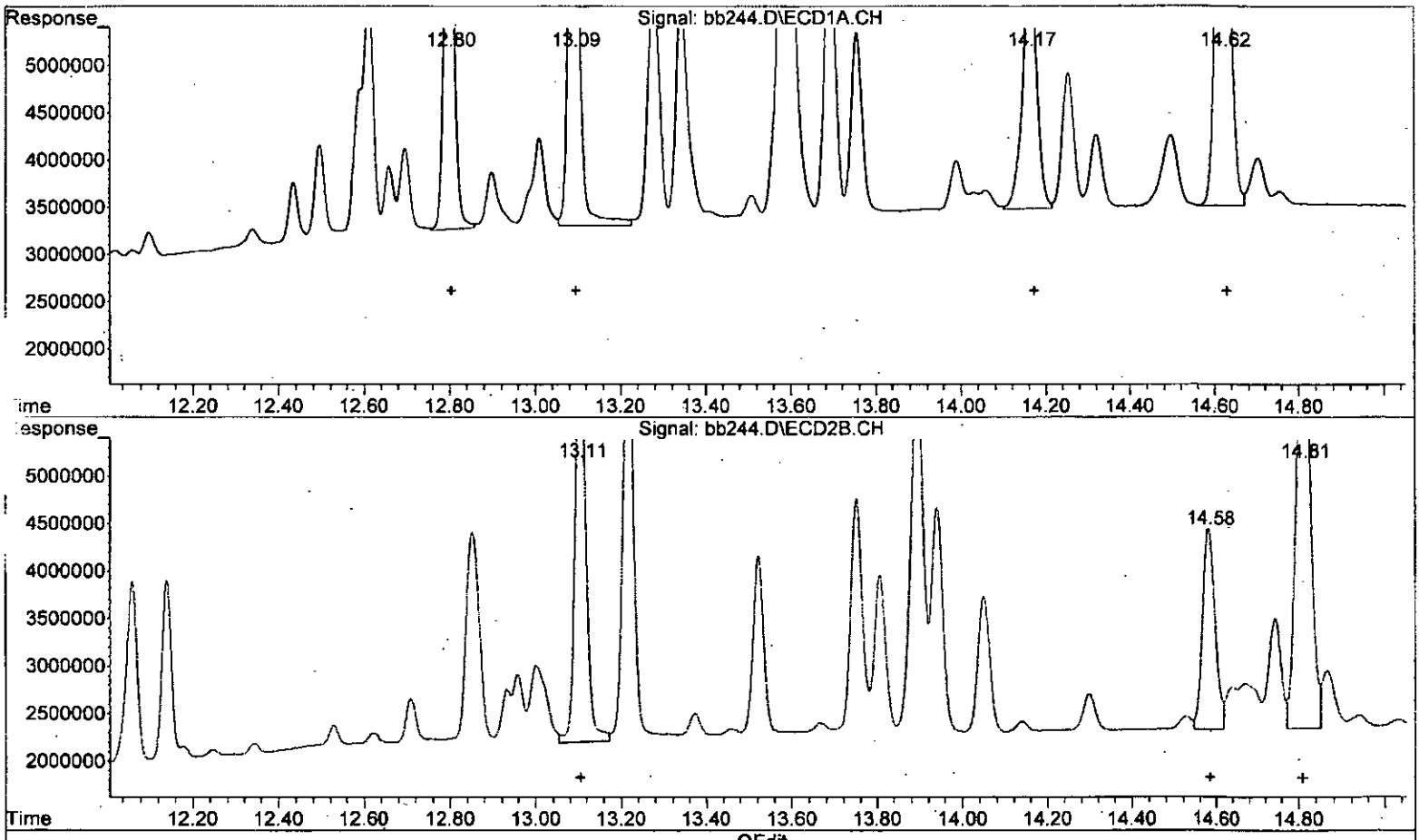
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\090215\
Data File : bb244.D
Acq On : 02 Sep 2015 11:33 am
Operator : m.pedro
Sample : ar16601 Inst : 6890G
Misc : initial cal
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 07:51:02 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
12.80	78483301	125.67
13.09	98453164	131.74
14.17	64478349	120.58
14.62	120325114	116.24
16.69	29336252	114.68

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
13.11	77002623	130.78
14.58	44259336	119.14
14.81	103508020	117.80
15.82	57560659	114.41
17.02	33109936	108.73

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB245.D
Acq On : 02 Sep 2015 11:59 am
Operator : m.pedro
Sample : ar1660ml Inst : 6890G
Misc : initial cal
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 07:58:13 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	806.0E6	559.8E6	45.328	42.297
Spiked Amount 100.000	Range 30 - 150			Recovery =	45.33%	42.30%
2) S SURR2,Decachloro	17.97	19.39	438.8E6	339.0E6	41.925	40.871
Spiked Amount 100.000	Range 30 - 150			Recovery =	41.92%	40.87%
Target Compounds						
3) L1c PCB 1016	8.35	8.78	91481108	62629785	276.312	262.863
4) L1c PCB 1016{2}	9.24	9.70	180.9E6	134.9E6	270.954	259.401
5) L1c PCB 1016{3}	9.64	10.69	53278172	84125849	273.503	261.611
6) L1c PCB 1016{4}	9.74	11.03	73337400	54723007	272.535	260.682
7) L1c PCB 1016{5}	10.37	11.47	156.2E6	99167517	273.456	331.047
Sum PCB 1016			555.2E6	435.6E6	1366.761	1375.605
verage PCB 1016					273.352	275.121
Sum PCB 1221			0	0	N.D.	N.D.
verage PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
verage PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
verage PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
verage PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
verage PCB 1254					0.000	0.000
3) L7c PCB 1260	12.80	13.11	182.7E6	173.6E6	292.485	294.884
4) L7c PCB 1260{2}	13.09	14.59	218.9E6	103.0E6	292.934	277.262
5) L7c PCB 1260{3}	14.17	14.81	146.0E6	239.7E6	273.025	272.753
6) L7C PCB 1260{4}	14.62	15.82	276.0E6	129.8E6	266.630	258.037
7) L7C PCB 1260{5}	16.69	17.02	70114640	78527180	274.095	257.881
Sum PCB 1260			893.7E6	724.6E6	1399.169	1360.817
verage PCB 1260					279.834	272.163
Sum PCB 1268			0	0	N.D.	N.D.
verage PCB 1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

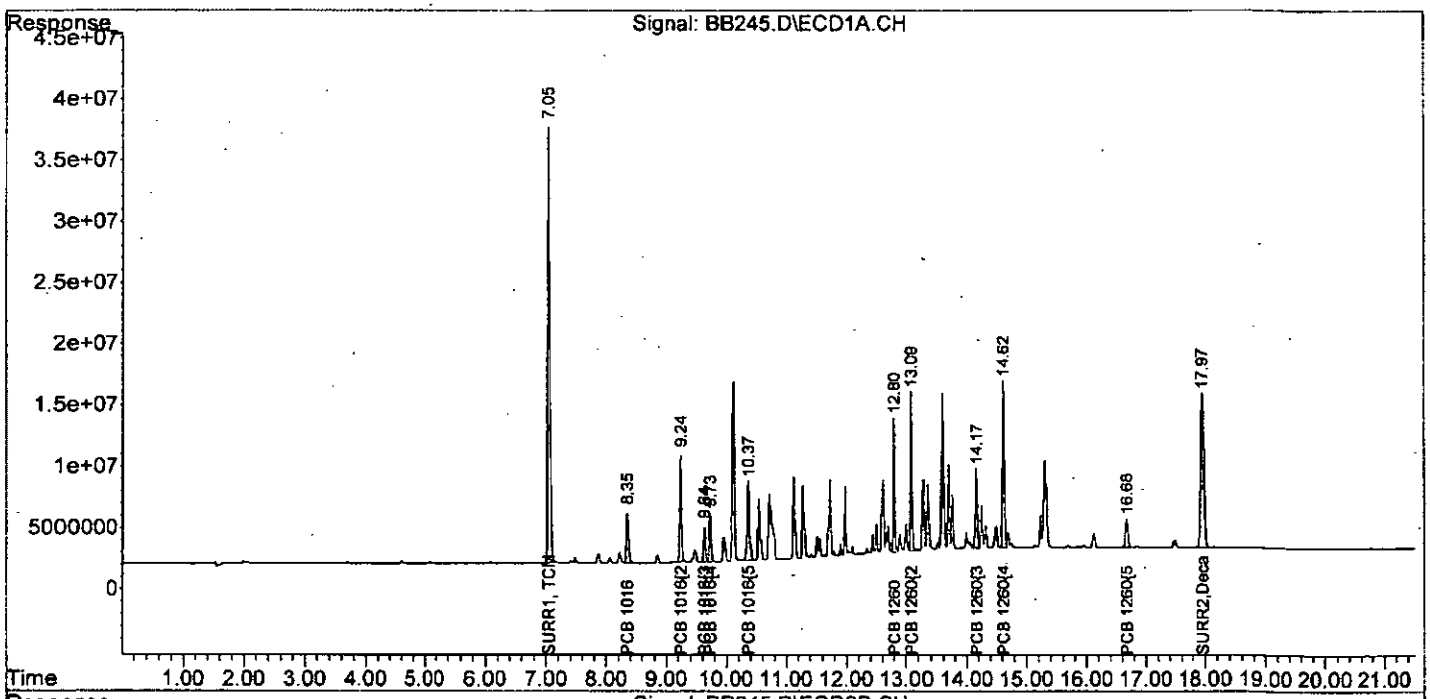
mw 9B

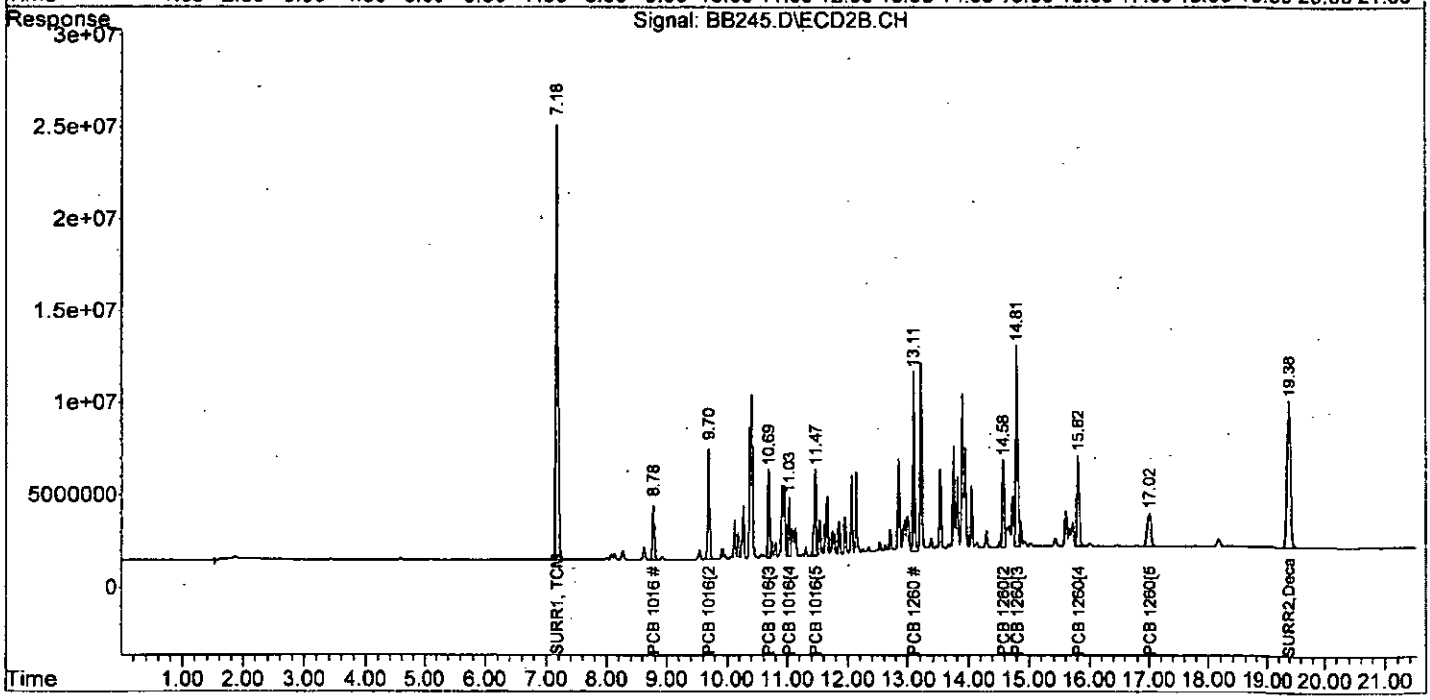
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB245.D
Acq On : 02 Sep 2015 11:59 am
Operator : m.pedro
Sample : ar1660ml Inst : 6890G
Misc : initial cal
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 07:58:13 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB246.D
Acq On : 02 Sep 2015 12:25 pm
Operator : m.pedro
Sample : ar1660m Inst : 6890G
Misc : initial cal
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 07:58:57 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1229.3E6	849.1E6	69.134	64.158
Spiked Amount 100.000	Range 30 - 150		Recovery =		69.13%	64.16%
2) S SURR2,Decachloro	17.97	19.39	700.1E6	544.6E6	66.892	65.672
Spiked Amount 100.000	Range 30 - 150		Recovery =		66.89%	65.67%
Target Compounds						
3) L1c PCB 1016	8.36	8.78	176.6E6	119.6E6	533.358	501.879
4) L1c PCB 1016{2}	9.24	9.71	357.3E6	260.6E6	535.140	500.993
5) L1c PCB 1016{3}	9.64	10.69	105.7E6	162.9E6	542.718	506.535
6) L1c PCB 1016{4}	9.74	11.03	142.5E6	106.1E6	529.664	505.210
7) L1c PCB 1016{5}	10.37	11.47	304.7E6	193.5E6	533.551	645.802
Sum PCB 1016			1086.9E6	842.5E6	2674.431	2660.420
Average PCB 1016					534.886	532.084
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	359.6E6	329.7E6	575.803	559.924
34) L7c PCB 1260{2}	13.09	14.59	440.5E6	205.9E6	589.420	554.327
35) L7c PCB 1260{3}	14.17	14.81	307.1E6	498.1E6	574.410	566.825
36) L7C PCB 1260{4}	14.62	15.82	579.8E6	268.8E6	560.125	534.243
37) L7C PCB 1260{5}	16.69	17.02	143.0E6	165.4E6	559.078	543.191
Sum PCB 1260			1830.1E6	1467.9E6	2858.836	2758.511
Average PCB 1260					571.767	551.702
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

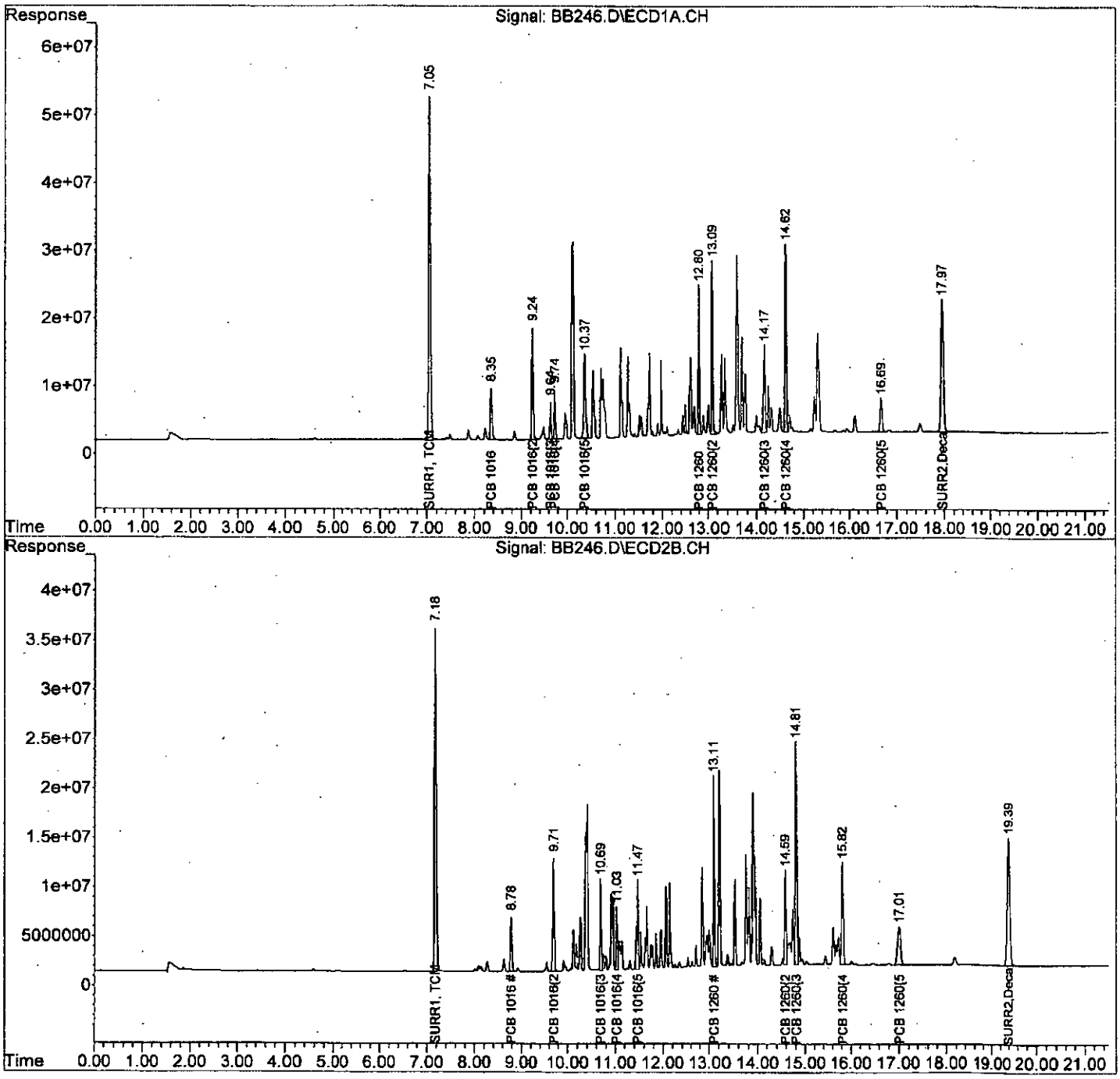
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB246.D
Acq On : 02 Sep 2015 12:25 pm
Operator : m.pedro
Sample : ar1660m Inst : 6890G
Misc : initial cal
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 07:58:57 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB247.D
Acq On : 02 Sep 2015 12:51 pm
Operator : m.pedro
Sample : ar1660mh Inst : 6890G
Misc : initial cal
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 03 07:59:36 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

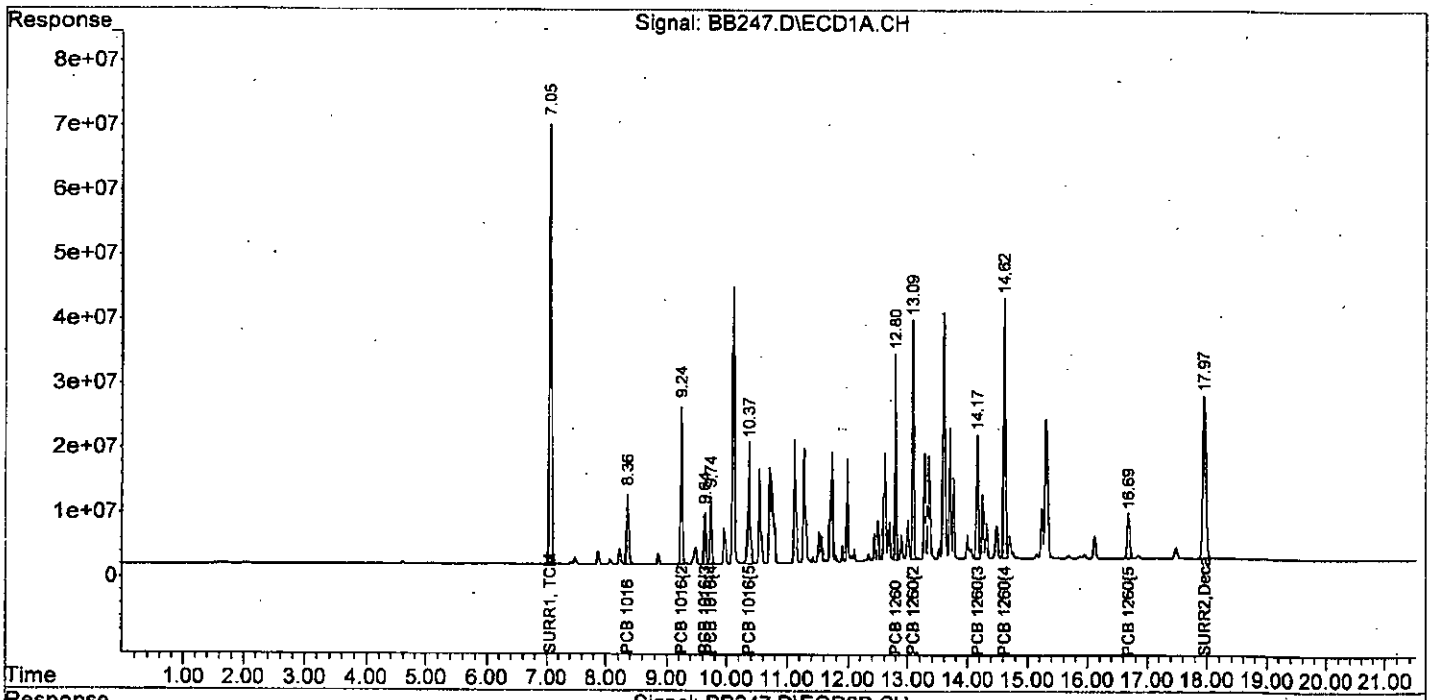
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1604.9E6	1100.5E6	90.255	83.152
Spiked Amount 100.000	Range 30 - 150		Recovery =		90.25%	83.15%
2) S SURR2,Decachloro	17.97	19.39	891.5E6	696.5E6	85.173	83.980
Spiked Amount 100.000	Range 30 - 150		Recovery =		85.17%	83.98%
Target Compounds						
3) L1c PCB 1016	8.36	8.78	253.1E6	170.5E6	764.568	715.501
4) L1c PCB 1016{2}	9.24	9.71	512.7E6	369.5E6	767.798	710.488
5) L1c PCB 1016{3}	9.64	10.69	153.6E6	231.8E6	788.396	720.954
6) L1c PCB 1016{4}	9.74	11.03	204.8E6	151.7E6	760.943	722.753
7) L1c PCB 1016{5}	10.37	11.47	439.6E6	279.0E6	769.702	931.353
Sum PCB 1016			1563.8E6	1202.6E6	3851.407	3801.049
verage PCB 1016					770.281	760.210
Sum PCB 1221			0	0	N.D.	N.D.
verage PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
verage PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
verage PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
verage PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
verage PCB 1254					0.000	0.000
3) L7c PCB 1260	12.80	13.11	509.8E6	473.5E6	816.351	804.177
4) L7c PCB 1260{2}	13.09	14.59	618.0E6	297.7E6	826.939	801.458
5) L7c PCB 1260{3}	14.17	14.81	432.2E6	719.0E6	808.364	818.273
6) L7C PCB 1260{4}	14.62	15.82	838.8E6	388.1E6	810.274	771.402
7) L7C PCB 1260{5}	16.69	17.02	205.3E6	237.0E6	802.678	778.441
Sum PCB 1260			2604.1E6	2115.4E6	4064.606	3973.751
verage PCB 1260					812.921	794.750
Sum PCB 1268			0	0	N.D.	N.D.
verage PCB 1268					0.000	0.000

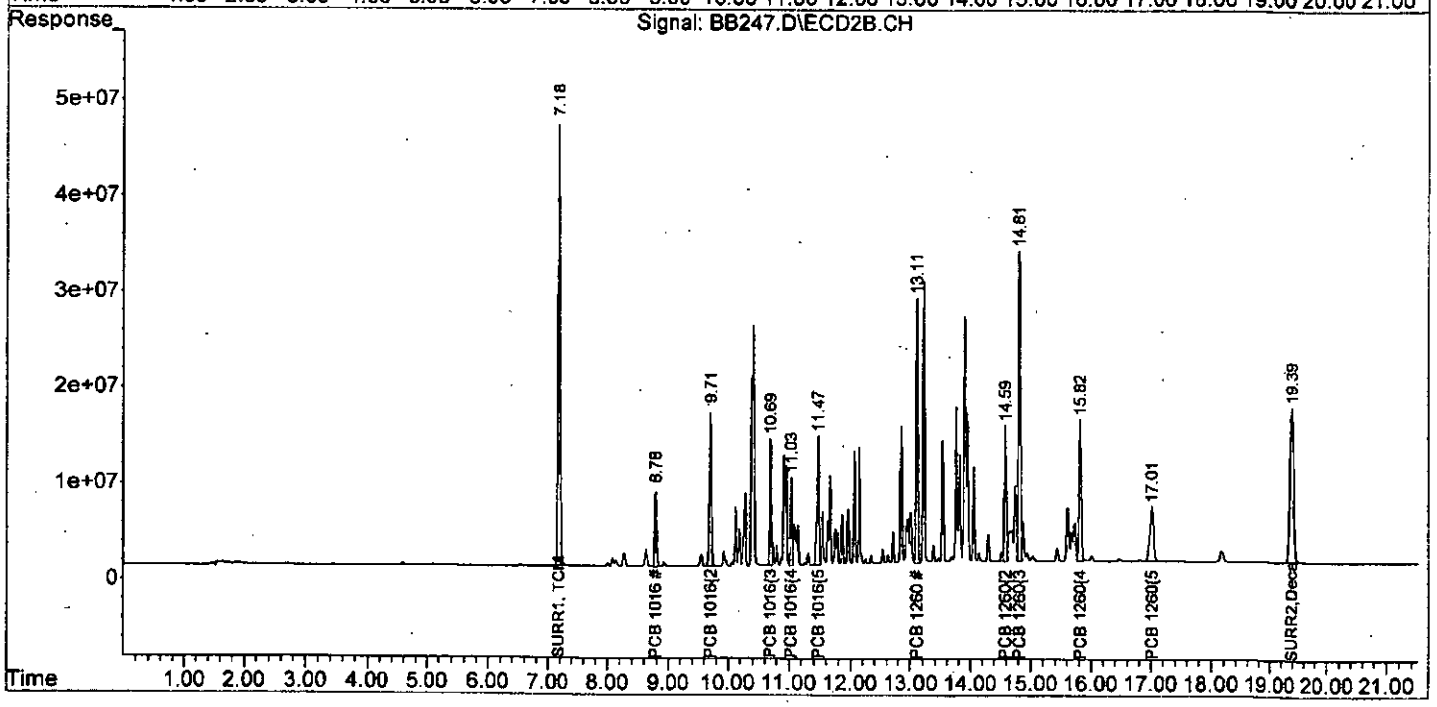
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB247.D
Acq On : 02 Sep 2015 12:51 pm
Operator : m.pedro
Sample : ar1660mh Inst : 6890G
Misc : initial cal
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 03 07:59:36 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB248.D
Acq On : 02 Sep 2015 1:16 pm
Operator : m.pedro
Sample : ar1660h Inst : 6890G
Misc : initial cal
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 03 08:00:34 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

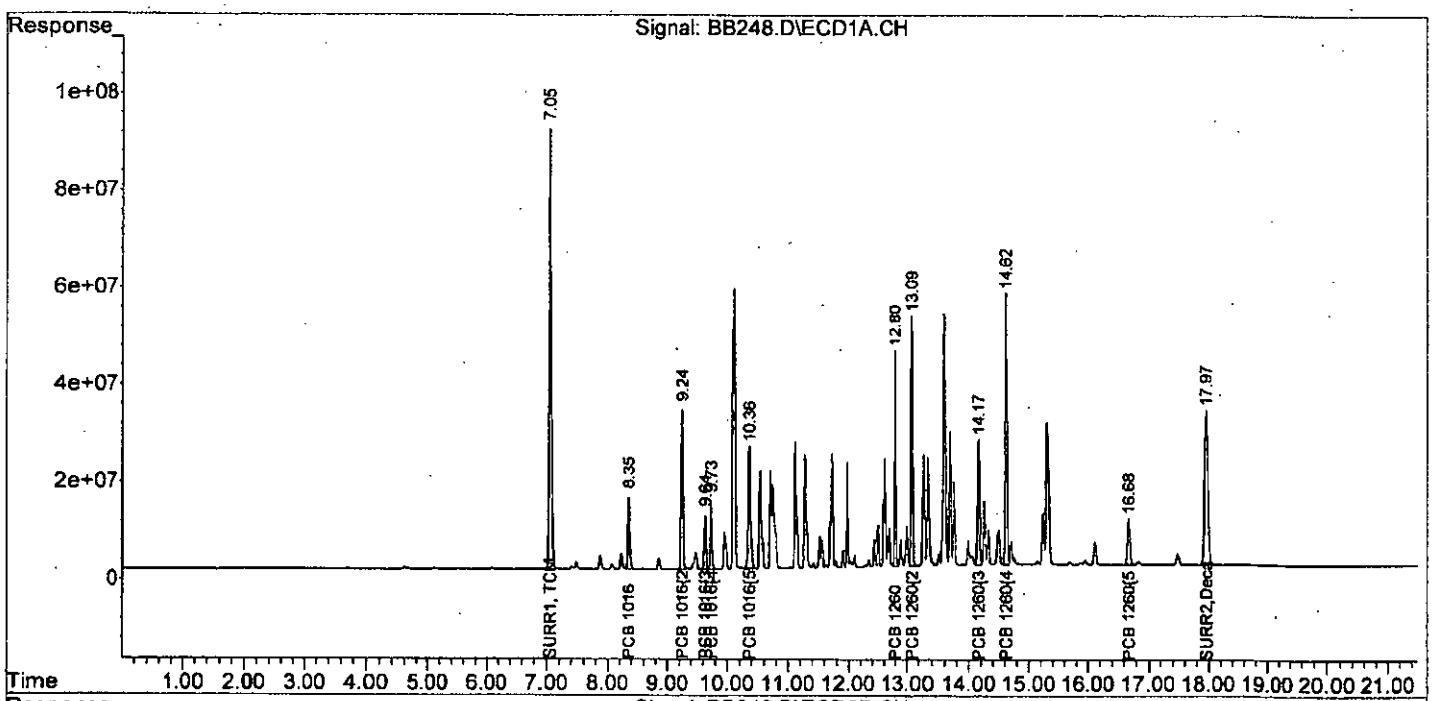
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	2057.8E6	1404.5E6	115.725	106.127
Spiked Amount 100.000	Range 30 - 150		Recovery =		115.72%	106.13%
2) S SURR2,Decachloro	17.97	19.39	1112.8E6	870.2E6	106.321	104.931
Spiked Amount 100.000	Range 30 - 150		Recovery =		106.32%	104.93%
Target Compounds						
3) L1c PCB 1016	8.35	8.78	338.4E6	227.1E6	1021.970	952.965
4) L1c PCB 1016{2}	9.24	9.71	687.0E6	493.0E6	1028.904	947.807
5) L1c PCB 1016{3}	9.64	10.69	208.4E6	312.6E6	1069.819	972.013
6) L1c PCB 1016{4}	9.73	11.03	275.2E6	205.4E6	1022.822	978.575
7) L1c PCB 1016{5}	10.36	11.47	589.6E6	375.0E6	1032.343	1251.971
Sum PCB 1016			2098.7E6	1613.1E6	5175.858	5103.331
Average PCB 1016					1035.172	1020.666
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	698.0E6	637.6E6	1117.774	1082.870
34) L7c PCB 1260{2}	13.09	14.59	853.2E6	404.1E6	1141.734	1087.804
35) L7c PCB 1260{3}	14.17	14.81	599.7E6	981.7E6	1121.545	1117.285
36) L7C PCB 1260{4}	14.62	15.82	1155.9E6	527.6E6	1116.568	1048.619
37) L7C PCB 1260{5}	16.68	17.01	276.0E6	321.6E6	1078.881	1056.212
Sum PCB 1260			3582.8E6	2872.6E6	5576.502	5392.790
Average PCB 1260					1115.300	1078.558
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

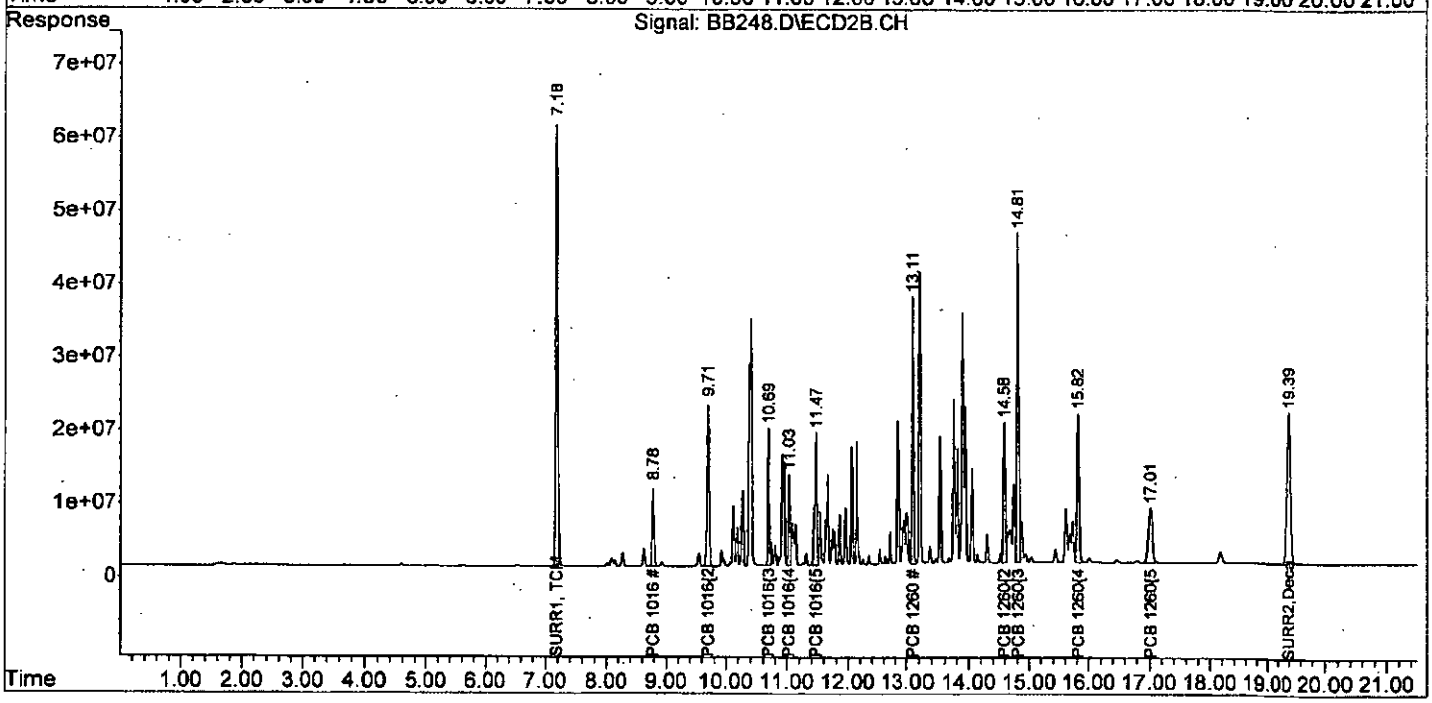
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB248.D
Acq On : 02 Sep 2015 1:16 pm
Operator : m.pedro
Sample : ar1660h Inst : 6890G
Misc : initial cal
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 03 08:00:34 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Aug 20 13:40:19 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB249.D
Acq On : 02 Sep 2015 1:42 pm
Operator : m.pedro
Sample : ar1221/1254l Inst : 6890G
Misc : initial cal
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 03 08:07:45 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	415.5E6	293.1E6	20.323	20.635
Spiked Amount 100.000	Range 30 - 150		Recovery =		20.32%#	20.64%#
2) S SURR2,Decachloro	17.97	19.39	256.0E6	195.0E6	22.200	21.998
Spiked Amount 100.000	Range 30 - 150		Recovery =		22.20%#	22.00%#
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
verage PCB 1016					0.000	0.000
8) L2c PCB 1221	6.09	6.54	35076920	26259570	242.909	245.176
9) L2c PCB 1221{2}	7.87	8.27	46579012	33967198	249.054	238.558
0) L2c PCB 1221{3}	8.23	8.63	31834926	23509159	249.809	238.632
1) L2c PCB 1221{4}	8.35	8.78	111.6E6	70515186	251.859	241.555
2) L2c PCB 1221{5}	9.24	8.92	17093889	10849422	226.063	242.013
Sum PCB 1221			242.2E6	165.1E6	1219.694	1205.933
verage PCB 1221					243.939	241.187
Sum PCB 1232			0	0	N.D.	N.D.
verage PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
verage PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
verage PCB 1248					0.000	0.000
8) L6c PCB 1254	12.34	12.14	35672966	64436531	136.538	134.635
9) L6c PCB 1254{2}	12.48	12.71	27895448	49388229	143.343	136.101
0) L6c PCB 1254{3}	12.59	13.02	113.8E6	74697596	134.793	138.897
1) L6c PCB 1254{4}	12.80	13.67	60138612	38083519	139.725	150.650
2) L6c PCB 1254{5}	14.14	14.67	28318188	30355399	137.070	128.926
Sum PCB 1254			265.8E6	257.0E6	691.470	689.210
verage PCB 1254					138.294	137.842
Sum PCB 1260			0	0	N.D.	N.D.
verage PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
verage PCB 1268					0.000	0.000

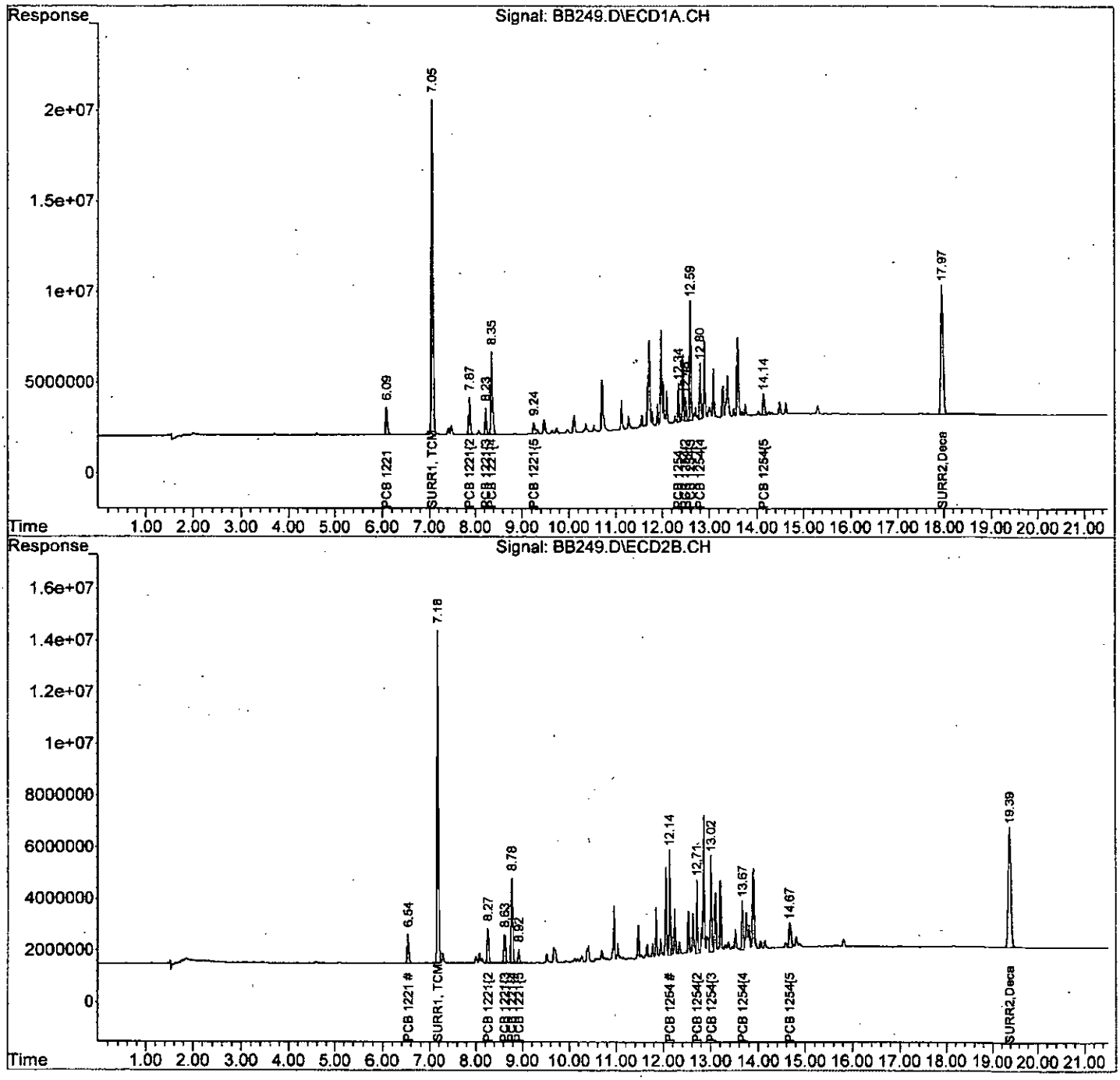
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB249.D
Acq On : 02 Sep 2015 1:42 pm
Operator : m.pedro
Sample : ar1221/12541 Inst : 6890G
Misc : initial cal
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 03 08:07:45 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB250.D
Acq On : 02 Sep 2015 2:08 pm
Operator : m.pedro
Sample : ar1221/1254m Inst : 6890G
Misc : initial cal
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 03 08:08:25 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1132.0E6	797.2E6	55.368	56.127
Spiked Amount 100.000	Range 30 - 150		Recovery =		55.37%	56.13%
2) S SURR2,Decachloro	17.97	19.39	645.7E6	500.7E6	56.000	56.484
Spiked Amount 100.000	Range 30 - 150		Recovery =		56.00%	56.48%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
8) L2c PCB 1221	6.09	6.54	74091899	54945856	513.089	513.009
9) L2c PCB 1221{2}	7.87	8.27	102.1E6	73711784	546.072	517.692
10) L2c PCB 1221{3}	8.23	8.63	69534475	50791879	545.638	515.567
11) L2c PCB 1221{4}	8.35	8.78	243.8E6	152.1E6	550.158	521.024
12) L2c PCB 1221{5}	9.24	8.92	41072673	23806744	543.177	531.045
Sum PCB 1221			530.7E6	355.4E6	2698.134	2598.338
Average PCB 1221					539.627	519.668
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
28) L6c PCB 1254	12.34	12.14	148.7E6	260.9E6	569.313	545.100
29) L6c PCB 1254{2}	12.48	12.71	113.4E6	194.4E6	582.698	535.653
30) L6c PCB 1254{3}	12.59	13.02	481.7E6	296.2E6	570.454	550.855
31) L6c PCB 1254{4}	12.80	13.67	252.4E6	151.1E6	586.442	597.708
32) L6c PCB 1254{5}	14.14	14.67	116.2E6	131.0E6	562.393	556.240
Sum PCB 1254			1112.4E6	1033.6E6	2871.300	2785.554
Average PCB 1254					574.260	557.111
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

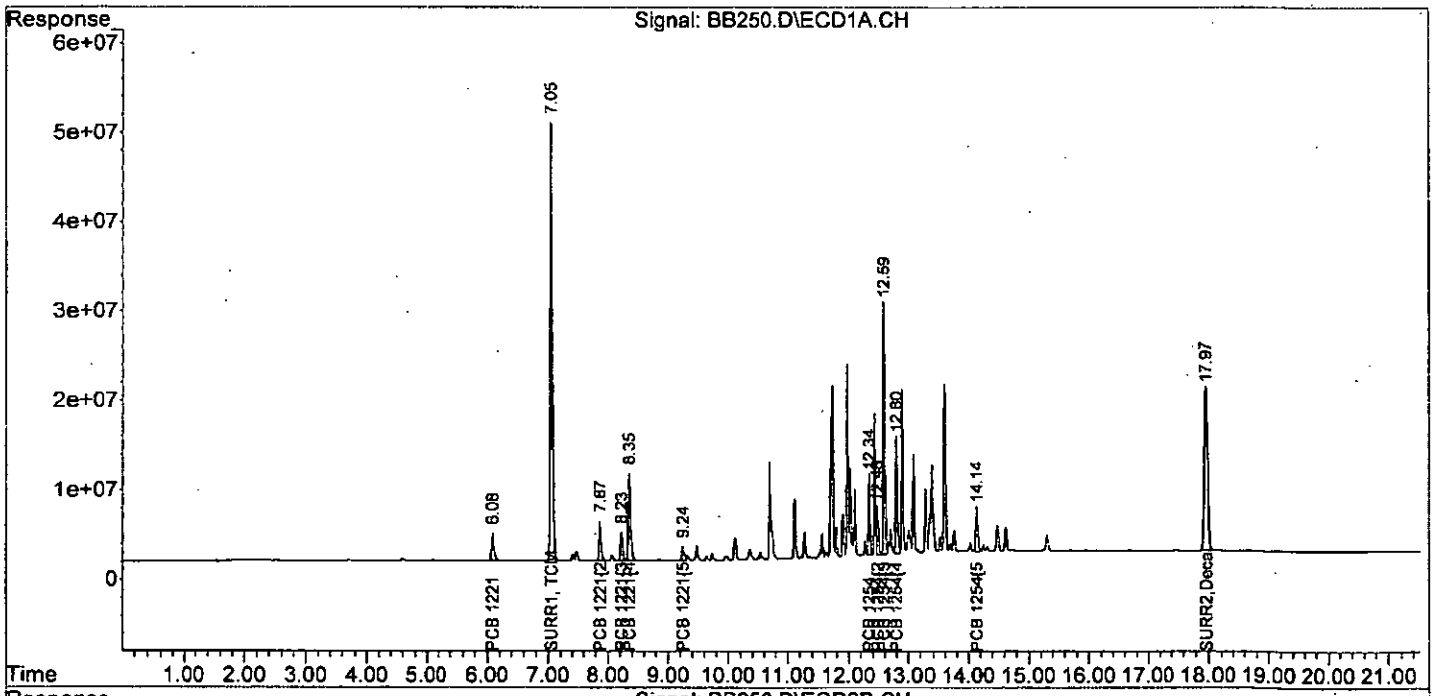
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

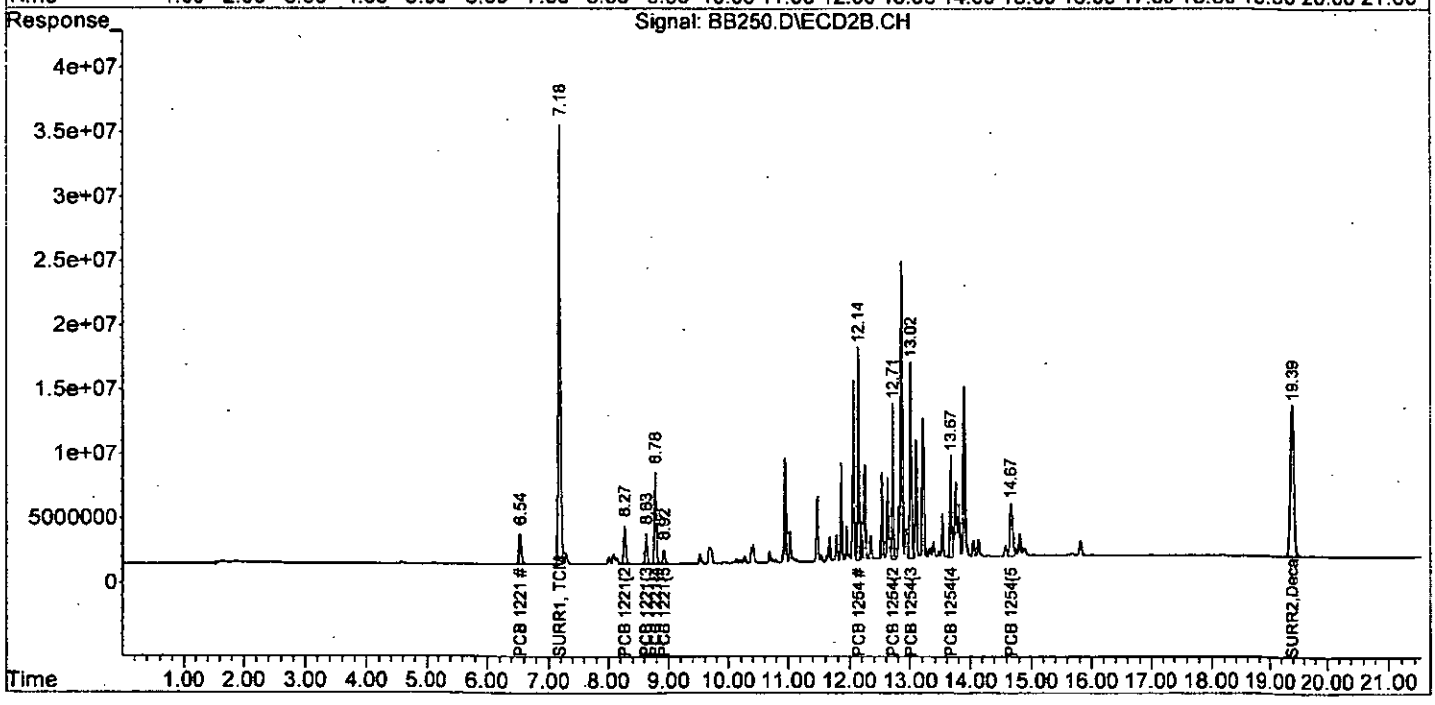
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB250.D
Acq On : 02 Sep 2015 2:08 pm
Operator : m.pedro
Sample : ar1221/1254m Inst : 6890G
Misc : initial cal
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 03 08:08:25 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB251.D
Acq On : 02 Sep 2015 2:33 pm
Operator : m.pedro
Sample : ar1221/1254h Inst : 6890G
Misc : initial cal
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 03 08:09:02 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1913.6E6	1348.9E6	93.594	94.969
Spiked Amount 100.000	Range 30 - 150		Recovery =		93.59%	94.97%
2) S SURR2,Decachloro	17.97	19.39	1152.8E6	906.5E6	99.978	102.262
Spiked Amount 100.000	Range 30 - 150		Recovery =		99.98%	102.26%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
8) L2c PCB 1221	6.09	6.54	139.7E6	103.3E6	967.220	964.079
9) L2c PCB 1221{2}	7.87	8.27	203.5E6	144.7E6	1088.136	1015.993
10) L2c PCB 1221{3}	8.22	8.63	135.9E6	98059448	1066.530	995.361
11) L2c PCB 1221{4}	8.35	8.78	480.1E6	294.5E6	1083.262	1008.748
12) L2c PCB 1221{5}	9.24	8.93	82226342	46355035	1087.424	1034.019
Sum PCB 1221			1041.4E6	686.8E6	5292.572	5018.199
Average PCB 1221					1058.514	1003.640
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
28) L6c PCB 1254	12.34	12.14	303.7E6	516.2E6	1162.456	1078.581
29) L6c PCB 1254{2}	12.48	12.71	230.7E6	390.9E6	1185.242	1077.344
30) L6c PCB 1254{3}	12.59	13.02	996.2E6	596.8E6	1179.712	1109.682
31) L6c PCB 1254{4}	12.80	13.67	517.6E6	311.0E6	1202.527	1230.181
32) L6c PCB 1254{5}	14.14	14.67	248.0E6	272.2E6	1200.181	1156.024
Sum PCB 1254			2296.1E6	2087.1E6	5930.117	5651.811
Average PCB 1254					1186.023	1130.362
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

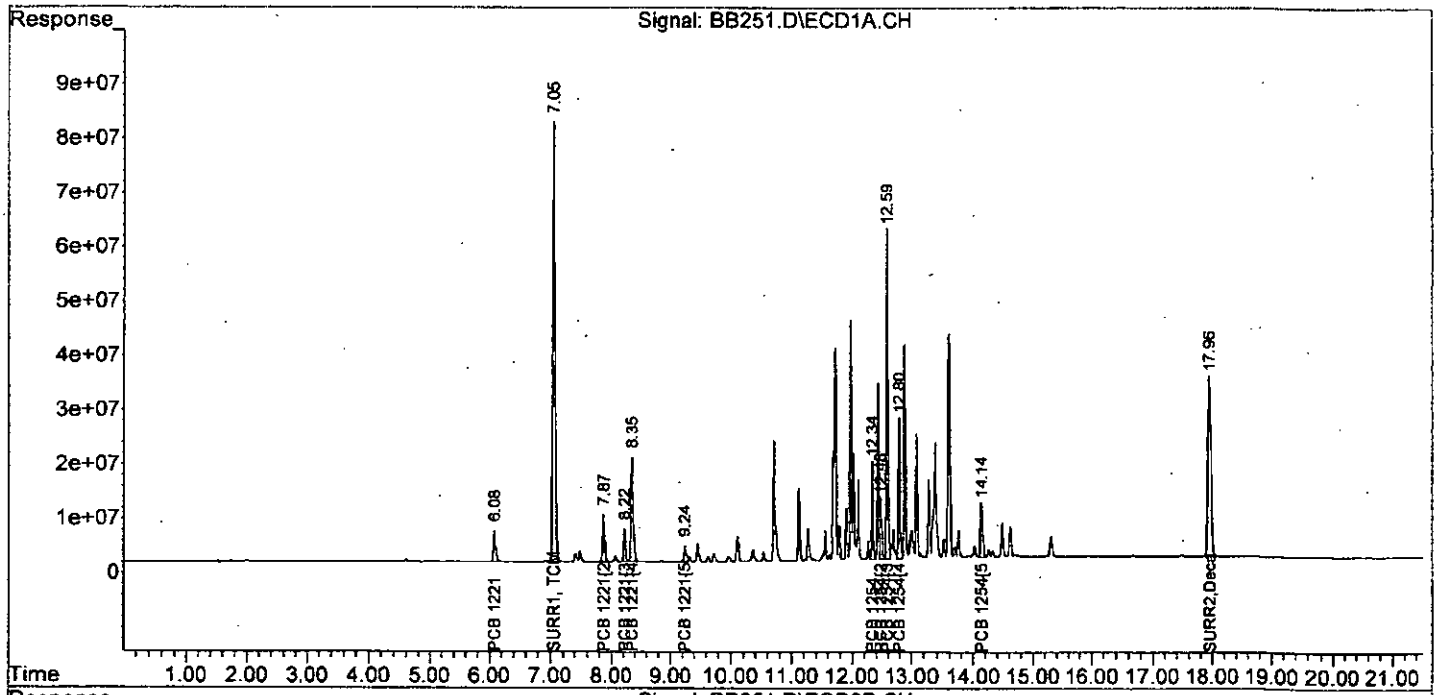
mi 9/5

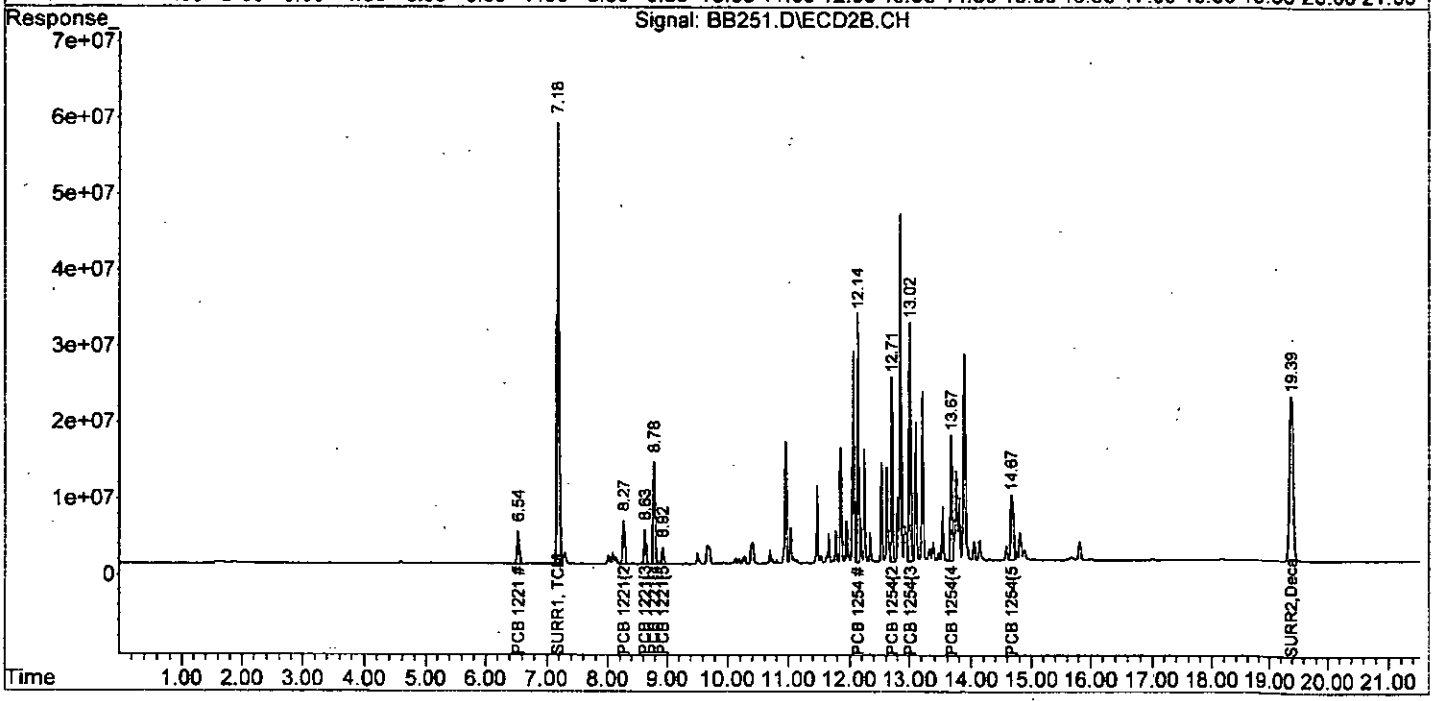
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB251.D
Acq On : 02 Sep 2015 2:33 pm
Operator : m.pedro
Sample : ar1221/1254h Inst : 6890G
Misc : initial cal
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 03 08:09:02 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB252.D
Acq On : 02 Sep 2015 2:58 pm
Operator : m.pedro
Sample : ar12321 Inst : 6890G
Misc : initial cal
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 03 08:11:16 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	403.9E6	287.0E6	19.755	20.208
Spiked Amount 100.000	Range 30 - 150		Recovery =		19.75%#	20.21%#
2) S SURR2,Decachloro	17.97	19.39	242.1E6	184.8E6	21.000	20.841
Spiked Amount 100.000	Range 30 - 150		Recovery =		21.00%#	20.84%#
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
verage PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
verage PCB 1221					0.000	0.000
3) L3c PCB 1232	8.35	8.63	48254253	9824230	125.128	122.118
4) L3c PCB 1232{2}	9.24	8.78	33127430	31717471	106.606	121.770
5) L3c PCB 1232{3}	10.11	9.71	73534831	30544601	121.874	121.099
6) L3c PCB 1232{4}	10.37	11.86	30553364	14995663	121.486	120.830
7) L3c PCB 1232{5}	11.73	11.95	19534612	18589487	114.882	120.938
Sum PCB 1232			205.0E6	105.7E6	589.976	606.755
verage PCB 1232					117.995	121.351
Sum PCB 1242			0	0	N.D.	N.D.
verage PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
verage PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
verage PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
verage PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
verage PCB 1268					0.000	0.000

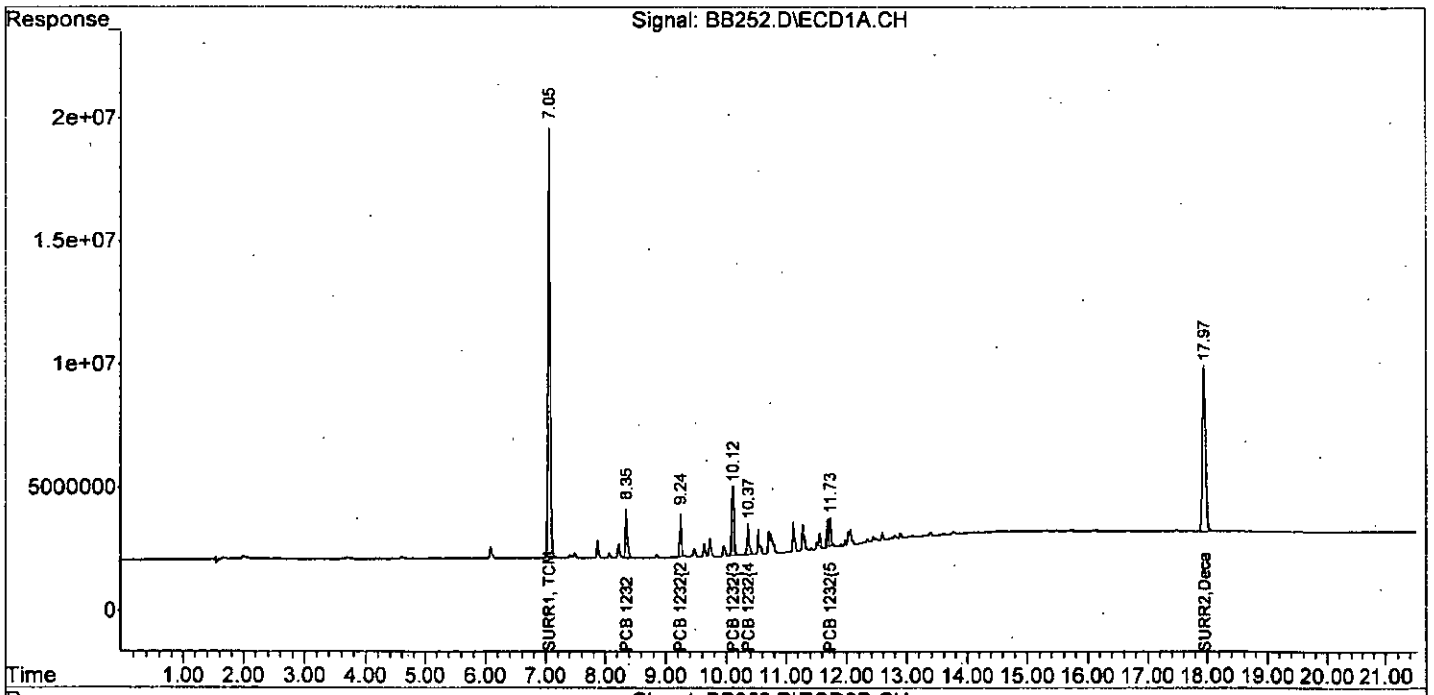
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

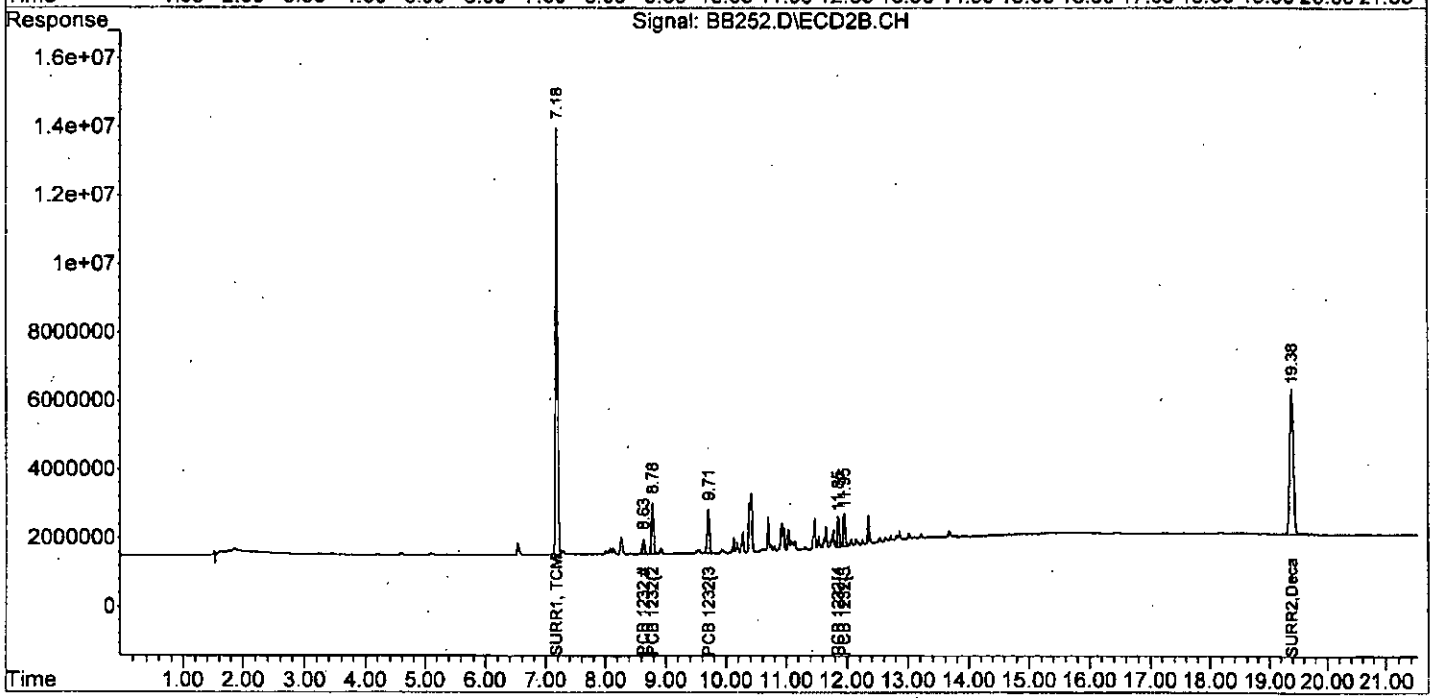
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB252.D
Acq On : 02 Sep 2015 2:58 pm
Operator : m.pedro
Sample : ar12321 Inst : 6890G
Misc : initial cal
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 03 08:11:16 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB253.D
Acq On : 02 Sep 2015 3:23 pm
Operator : m.pedro
Sample : ar1232m Inst : 6890G
Misc : initial cal
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 03 08:10:27 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1141.7E6	800.0E6	55.841	56.325
Spiked Amount 100.000	Range 30 - 150		Recovery =		55.84%	56.33%
2) S SURR2,Decachloro	17.97	19.38	647.8E6	508.3E6	56.182	57.340
Spiked Amount 100.000	Range 30 - 150		Recovery =		56.18%	57.34%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
13) L3c PCB 1232	8.35	8.63	202.9E6	39541402	526.128	491.511
14) L3c PCB 1232{2}	9.24	8.78	161.8E6	130.6E6	520.585	501.570
15) L3c PCB 1232{3}	10.12	9.71	320.4E6	126.8E6	530.945	502.893
16) L3c PCB 1232{4}	10.37	11.85	133.0E6	64467673	528.671	519.458
17) L3c PCB 1232{5}	11.73	11.95	93212897	80344288	548.180	522.698
Sum PCB 1232			911.2E6	441.8E6	2654.509	2538.130
Average PCB 1232					530.902	507.626
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

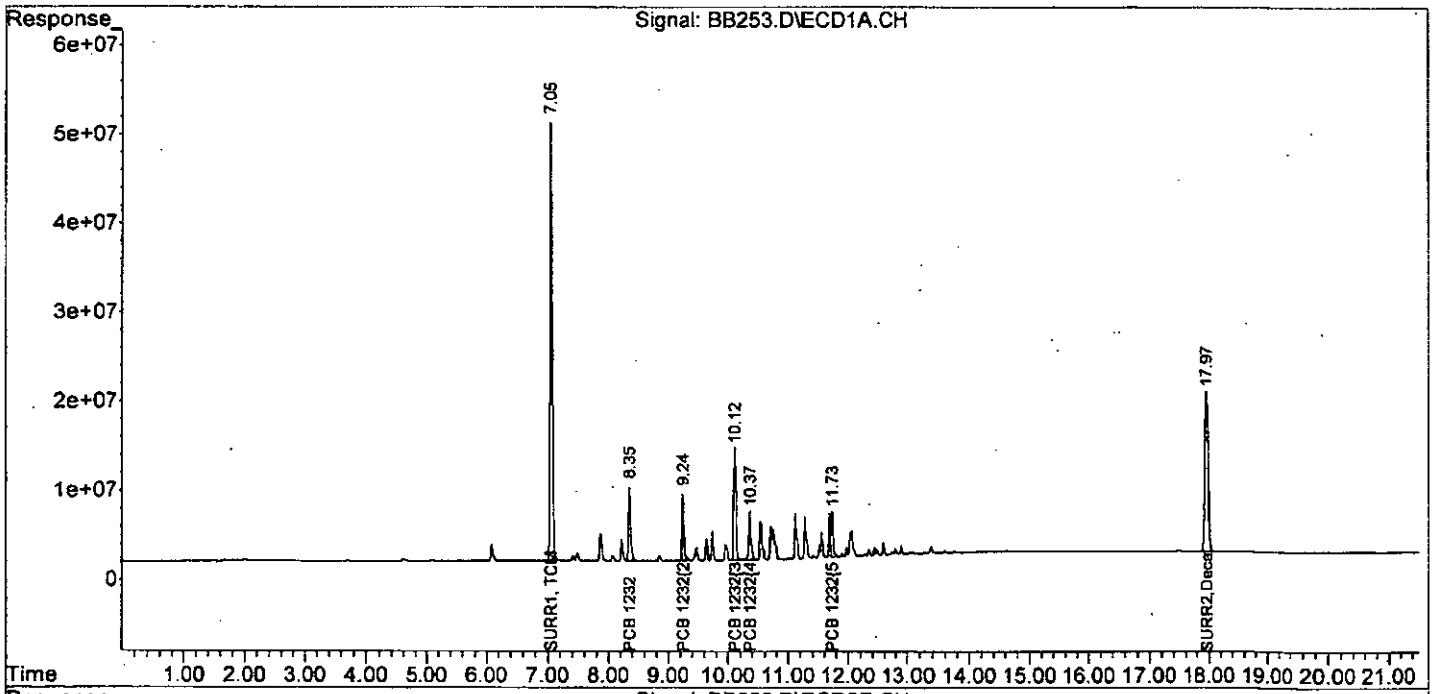
Emc 9/11

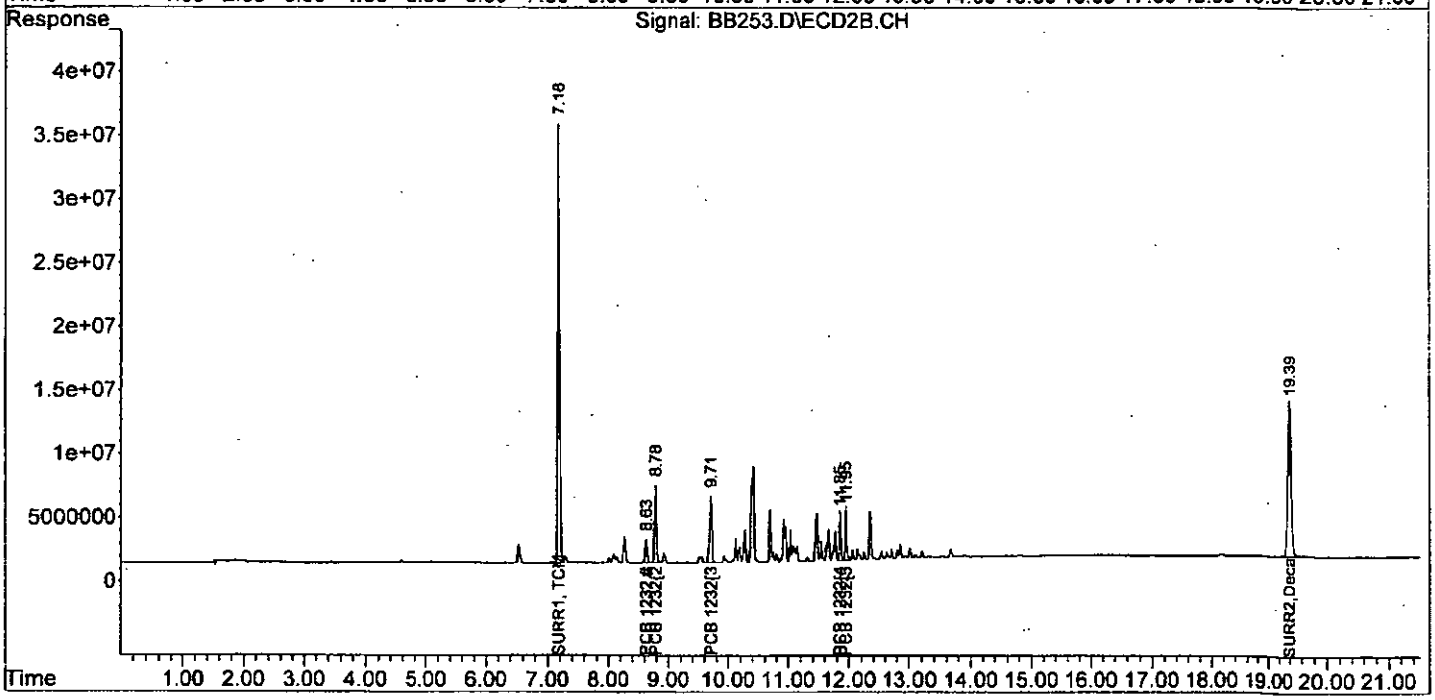
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB253.D
Acq On : 02 Sep 2015 3:23 pm
Operator : m.pedro
Sample : ar1232m Inst : 6890G
Misc : initial cal
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 03 08:10:27 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB254.D
Acq On : 02 Sep 2015 3:48 pm
Operator : m.pedro
Sample : ar1232h Inst : 6890G
Misc : initial cal
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 03 08:11:50 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1956.0E6	1361.7E6	95.672	95.871
Spiked Amount 100.000	Range 30 - 150		Recovery =		95.67%	95.87%
2) S SURR2,Decachloro	17.97	19.39	1170.2E6	920.1E6	101.493	103.790
Spiked Amount 100.000	Range 30 - 150		Recovery =		101.49%	103.79%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
3) L3c PCB 1232	8.35	8.63	401.9E6	76715075	1042.293	953.591
4) L3c PCB 1232{2}	9.24	8.78	323.3E6	255.0E6	1040.317	979.066
5) L3c PCB 1232{3}	10.12	9.71	649.0E6	249.6E6	1075.637	989.432
6) L3c PCB 1232{4}	10.37	11.85	266.7E6	128.6E6	1060.373	1036.070
7) L3c PCB 1232{5}	11.73	11.95	187.4E6	161.9E6	1101.864	1053.338
Sum PCB 1232			1828.3E6	871.8E6	5320.484	5011.497
Average PCB 1232					1064.097	1002.299
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

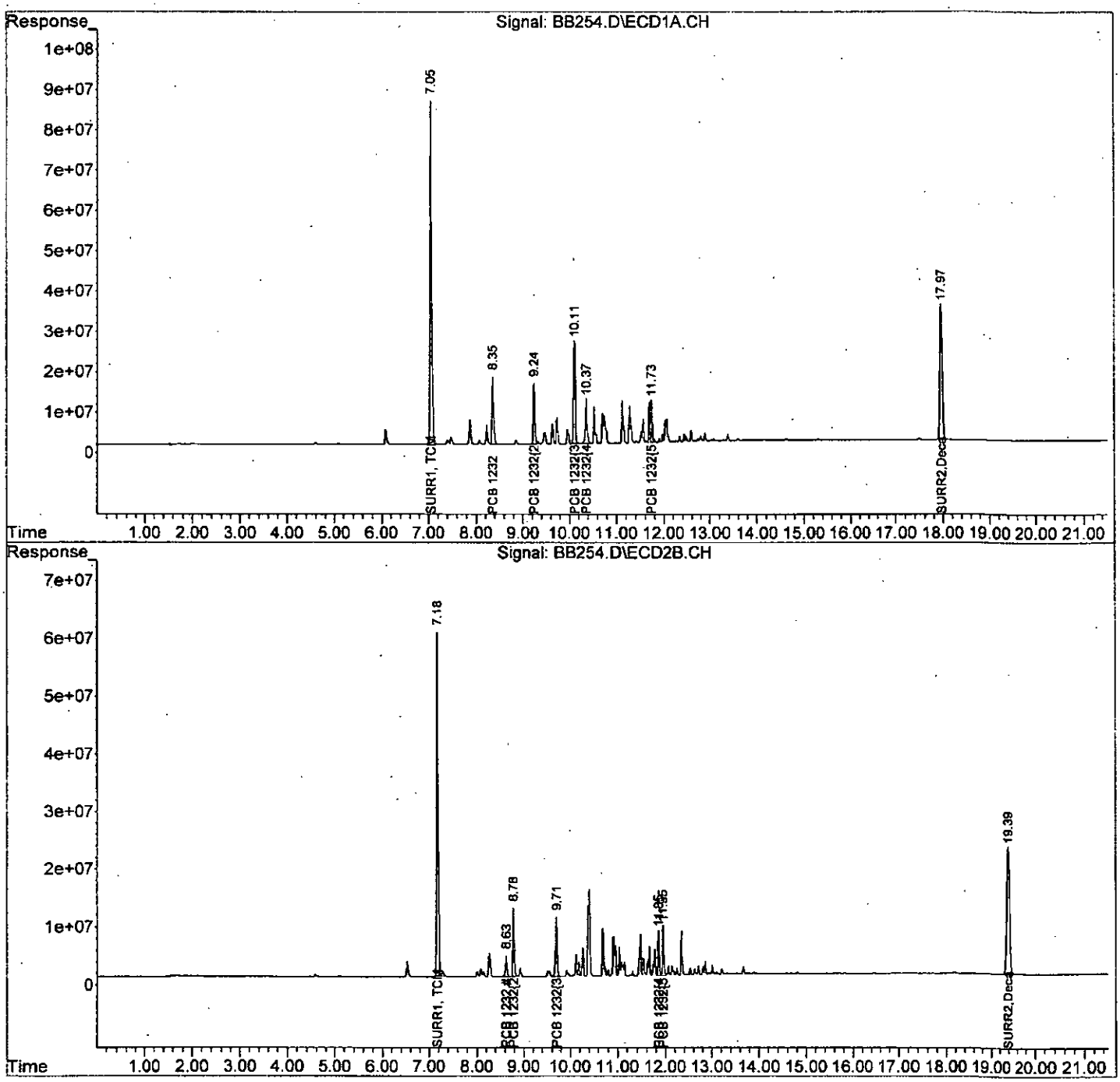
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB254.D
Acq On : 02 Sep 2015 3:48 pm
Operator : m.pedro
Sample : ar1232h Inst : 6890G
Misc : initial cal
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 03 08:11:50 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB255.D
Acq On : 02 Sep 2015 4:13 pm
Operator : m.pedro
Sample : ar12421 Inst : 6890G
Misc : initial cal
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 03 08:12:37 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

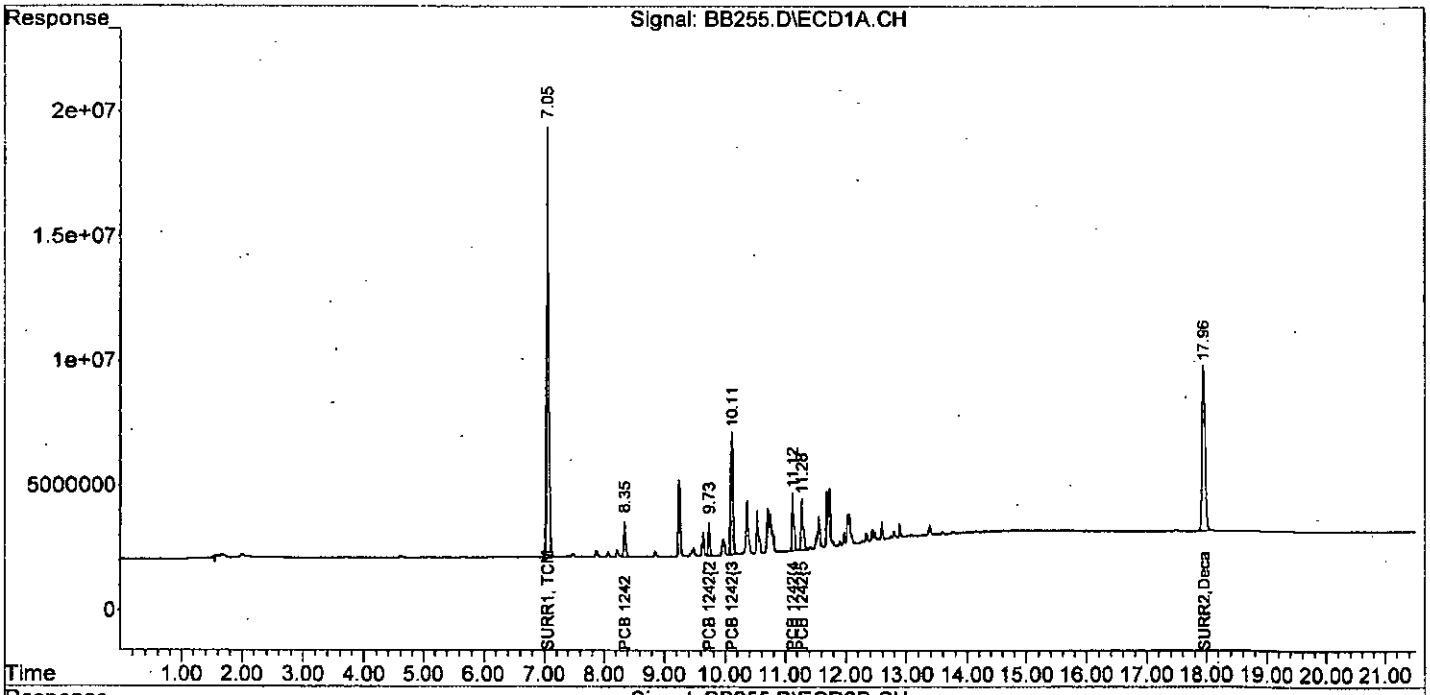
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	390.0E6	277.6E6	19.074	19.543
Spiked Amount 100.000	Range 30 - 150		Recovery =		19.07%#	19.54%#
2) S SURR2,Decachloro	17.97	19.39	234.9E6	178.1E6	20.376	20.087
Spiked Amount 100.000	Range 30 - 150		Recovery =		20.38%#	20.09%#
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
verage PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
verage PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
verage PCB 1232					0.000	0.000
3) L4c PCB 1242	8.35	8.78	32760039	22764592	118.535	117.386
9) L4c PCB 1242{2}	9.73	9.71	25791272	48731652	118.346	117.524
0) L4c PCB 1242{3}	10.11	11.47	128.8E6	36780768	115.968	155.687 #
1) L4c PCB 1242{4}	11.12	11.95	52810634	35738218	116.304m	119.348
2) L4c PCB 1242{5}	11.28	12.35	50620760	29516494	115.995	121.304
Sum PCB 1242			290.8E6	173.5E6	585.148	631.249
verage PCB 1242					117.030	126.250
Sum PCB 1248			0	0	N.D.	N.D.
verage PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
verage PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
verage PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
verage PCB 1268					0.000	0.000

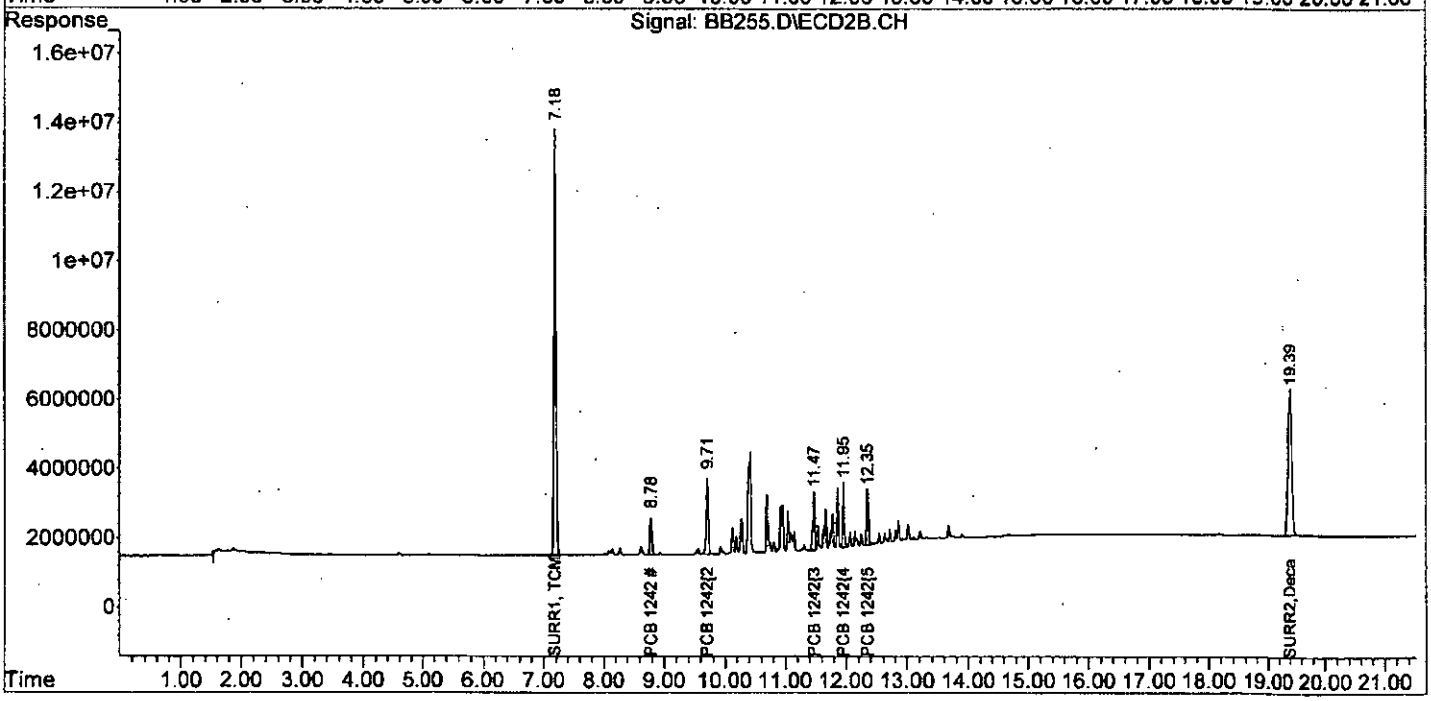
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB255.D
Acq On : 02 Sep 2015 4:13 pm
Operator : m.pedro
Sample : ar12421 Inst : 6890G
Misc : initial cal
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 03 08:12:37 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



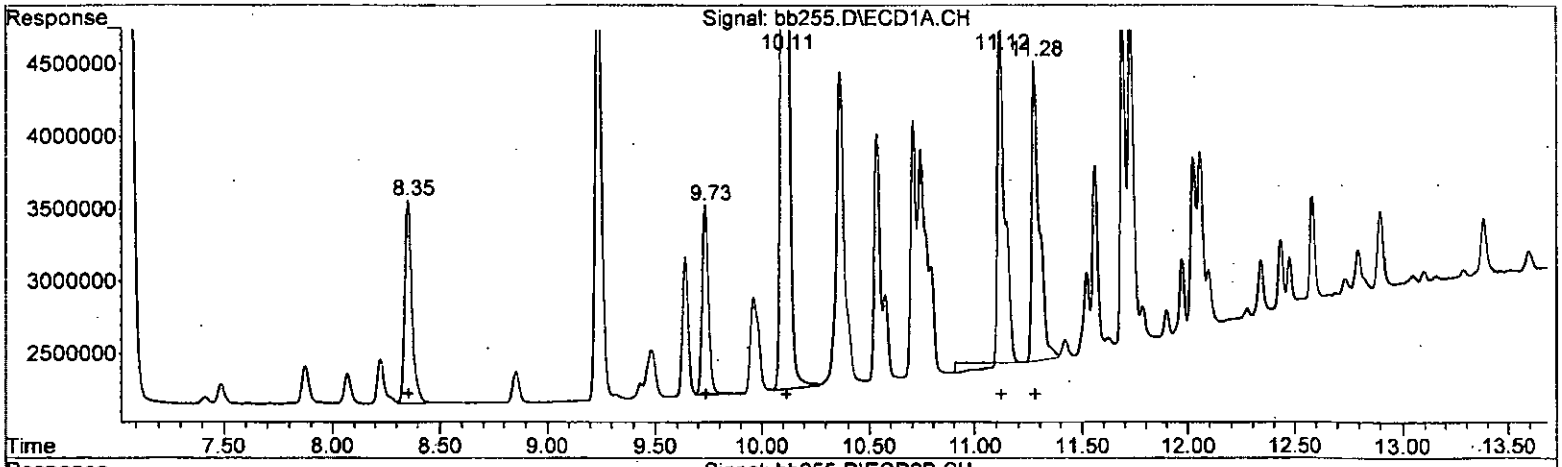


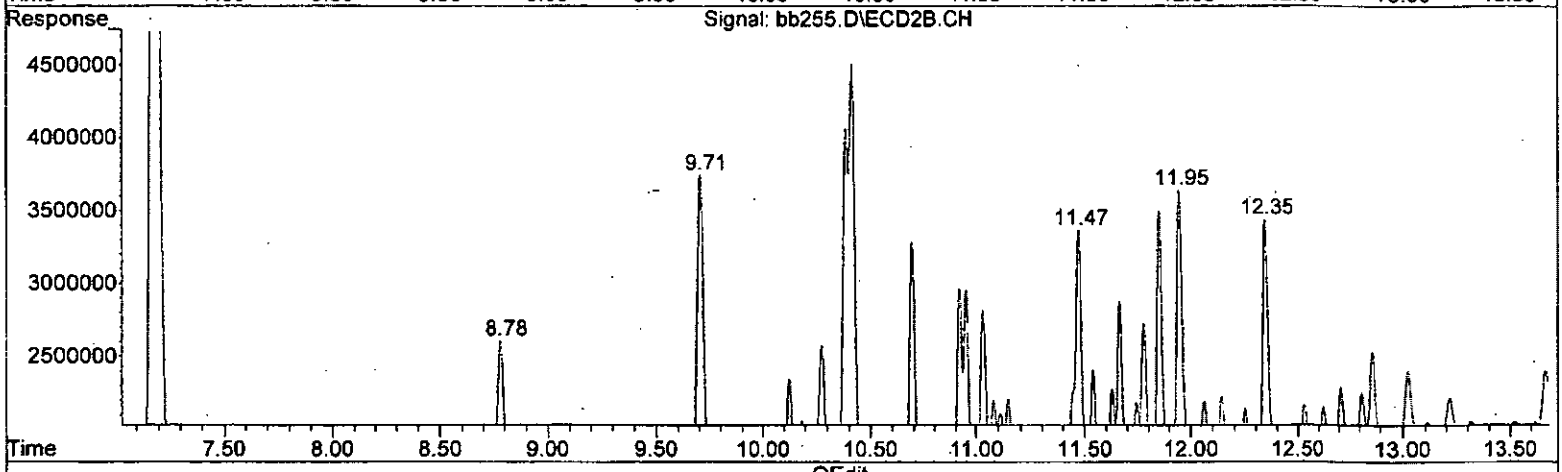
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\090215\
Data File : bb255.D
Acq On : 02 Sep 2015 4:13 pm
Operator : m.pedro
Sample : ar12421 Inst : 6890G
Misc : initial cal
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 03 08:05:41 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(18) PCB 1242 (L4c)

R.T.	Response	Conc
8.35	32760039	118.53
9.73	25791272	118.35
10.11	128778388	115.97
11.12	52455995	115.52
11.28	50620760	115.99

(18) PCB 1242 #2 (L4c)

R.T.	Response	Conc
8.78	22764592	117.39
9.71	48731652	117.52
11.47	36780768	155.69
11.95	35738218	119.35
12.35	29516494	121.30

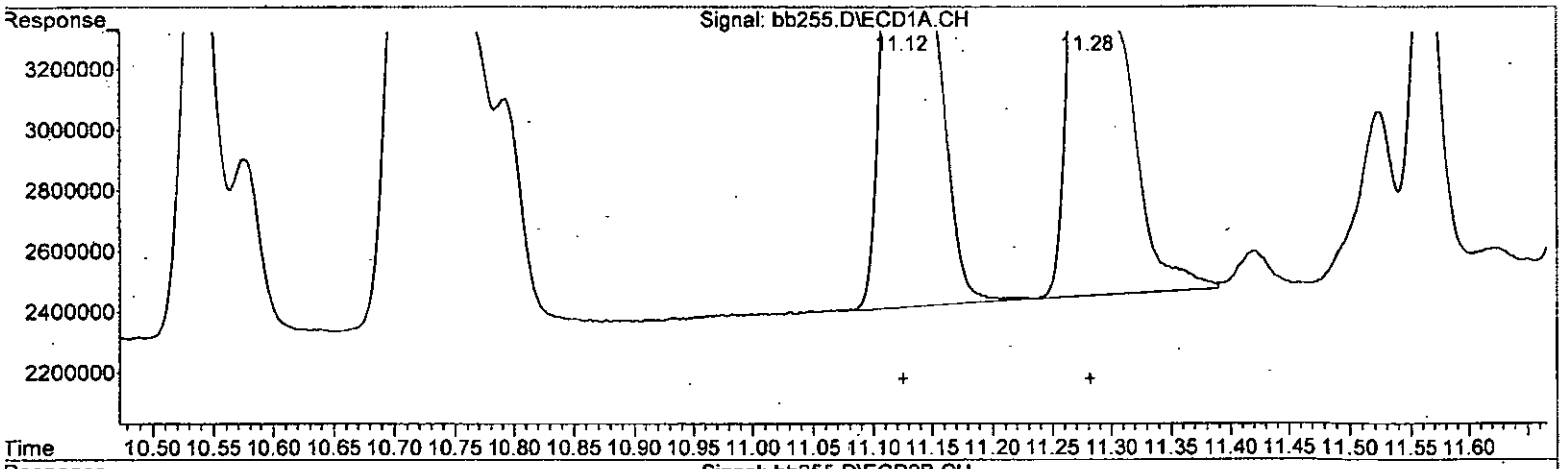
(+) = Expected Retention Time

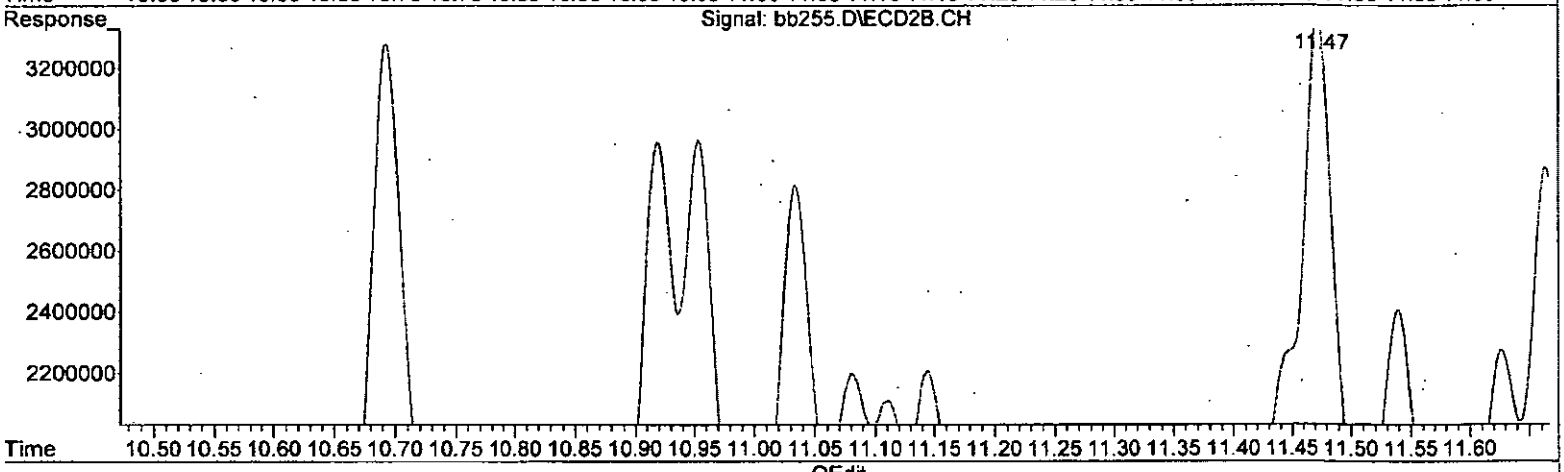
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\090215\
Data File : bb255.D
Acq On : 02 Sep 2015 4:13 pm
Operator : m.pedro
Sample : ar12421 Inst : 6890G
Misc : initial cal
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 03 08:05:41 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(18) PCB 1242 #2 (L4c)

R.T.	Response	Conc
8.35	32760039	118.53
9.73	25791272	118.35
10.11	128778388	115.97
11.12	52810634	116.30
11.28	50620760	115.99

(18) PCB 1242 #2 (L4c)

R.T.	Response	Conc
8.78	22764592	117.39
9.71	48731652	117.52
11.47	36780768	155.69
11.95	35738218	119.35
12.35	29516494	121.30

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB256.D
Acq On : 02 Sep 2015 4:38 pm
Operator : m.pedro
Sample : ar1242m Inst : 6890G
Misc : initial cal
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 03 08:13:10 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1111.1E6	780.1E6	54.343	54.924
Spiked Amount 100.000	Range 30 - 150		Recovery =		54.34%	54.92%
2) S SURR2,Decachloro	17.97	19.39	637.2E6	500.9E6	55.261	56.506
Spiked Amount 100.000	Range 30 - 150		Recovery =		55.26%	56.51%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
verage PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
verage PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
verage PCB 1232					0.000	0.000
8) L4c PCB 1242	8.35	8.78	138.2E6	95063004	500.014	490.193
9) L4c PCB 1242{2}	9.73	9.71	109.8E6	203.8E6	503.739	491.512
0) L4c PCB 1242{3}	10.12	11.47	567.0E6	156.6E6	510.641	662.948 #
1) L4c PCB 1242{4}	11.12	11.95	228.2E6	159.2E6	502.568	531.542
2) L4c PCB 1242{5}	11.28	12.35	223.8E6	134.2E6	512.923	551.502
Sum PCB 1242			1267.1E6	748.9E6	2529.885	2727.696
verage PCB 1242					505.977	545.539
Sum PCB 1248			0	0	N.D.	N.D.
verage PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
verage PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
verage PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
verage PCB 1268					0.000	0.000

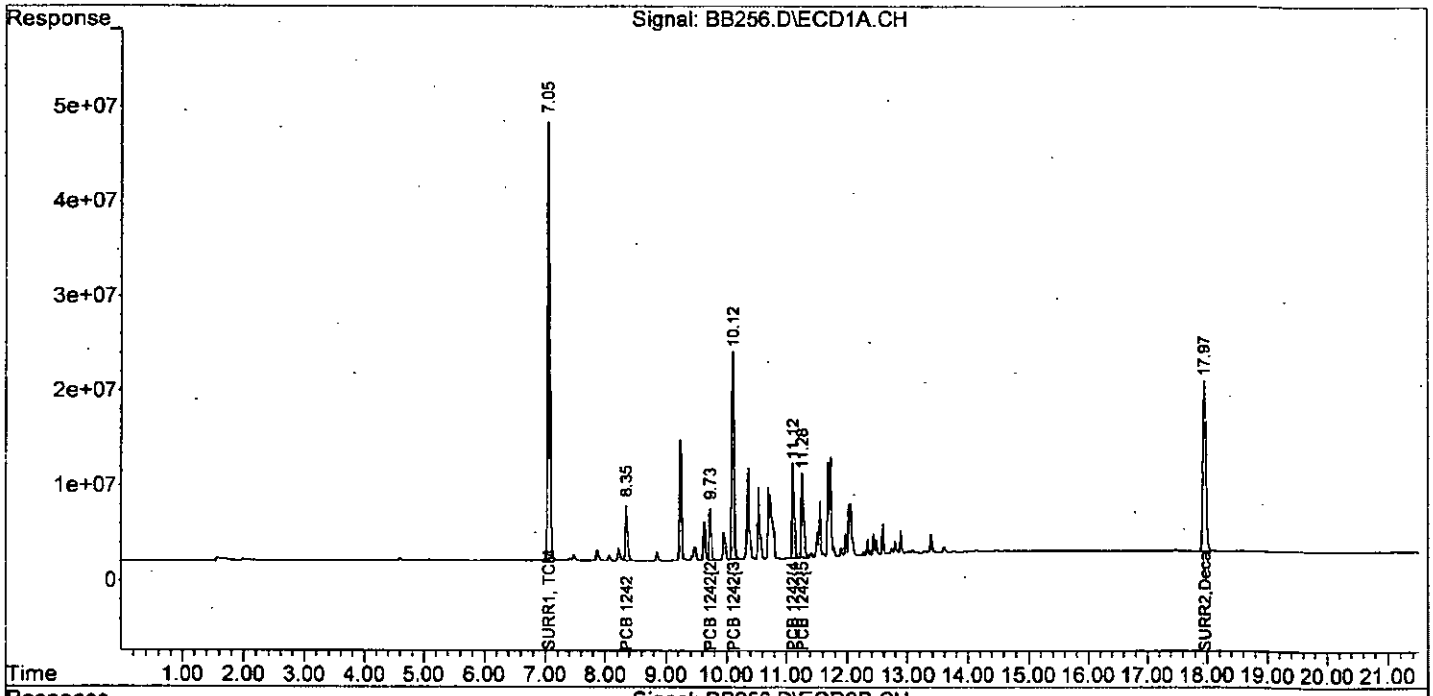
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

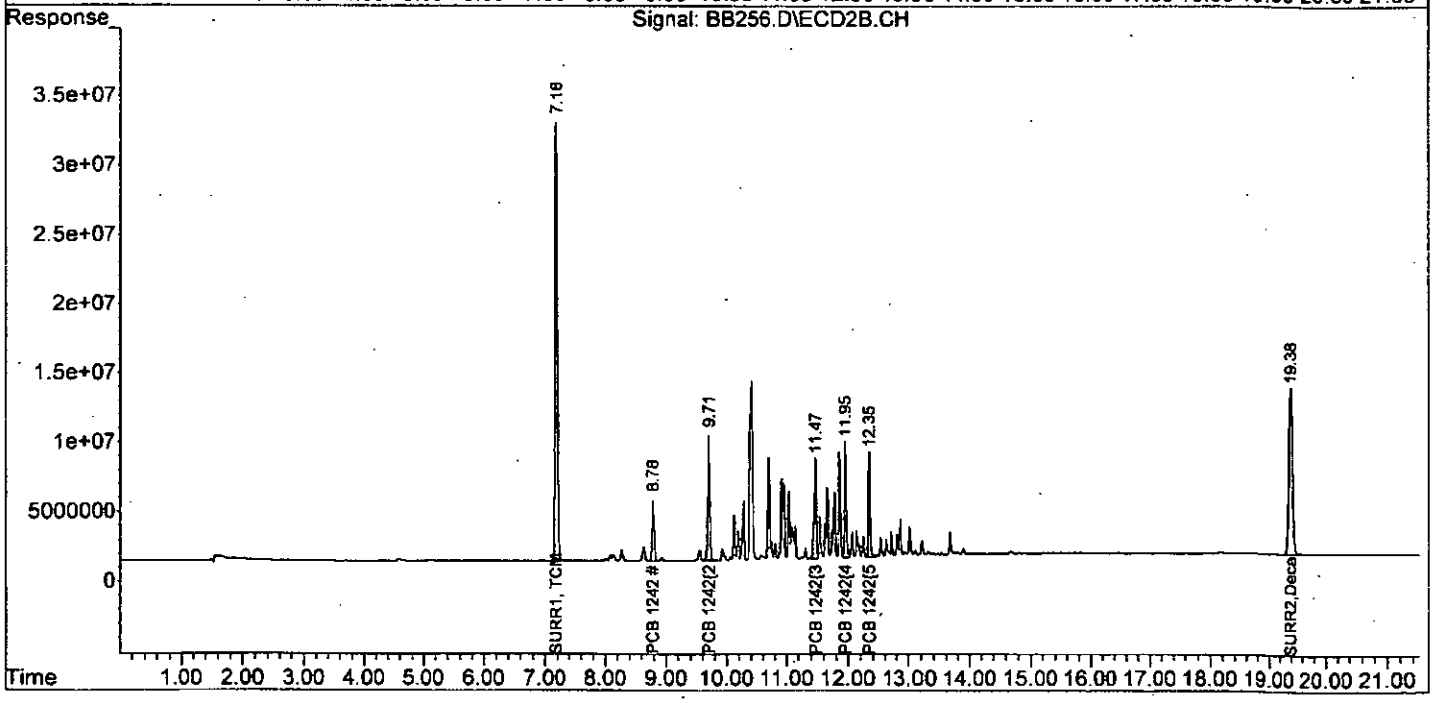
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB256.D
Acq On : 02 Sep 2015 4:38 pm
Operator : m.pedro
Sample : ar1242m Inst : 6890G
Misc : initial cal
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 03 08:13:10 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB257.D
Acq On : 02 Sep 2015 5:04 pm
Operator : m.pedro
Sample : ar1242h Inst : 6890G
Misc : initial cal
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 03 08:13:42 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
System Monitoring Compounds							
1) S SURR1, TCMX	7.05	7.18	2024.5E6	1398.6E6	99.021	98.465	
Spiked Amount 100.000	Range 30 - 150		Recovery =		99.02%	98.47%	
2) S SURR2,Decachloro	17.97	19.39	1107.4E6	880.8E6	96.047	99.352	
Spiked Amount 100.000	Range 30 - 150		Recovery =		96.05%	99.35%	
Target Compounds							
Sum PCB 1016			0	0	N.D.	N.D.	
verage PCB 1016					0.000	0.000	
Sum PCB 1221			0	0	N.D.	N.D.	
verage PCB 1221					0.000	0.000	
Sum PCB 1232			0	0	N.D.	N.D.	
verage PCB 1232					0.000	0.000	
8) L4c PCB 1242	8.35	8.78	283.8E6	193.0E6	1026.970	995.167	
9) L4c PCB 1242{2}	9.73	9.71	226.6E6	414.6E6	1039.637	999.902	
0) L4c PCB 1242{3}	10.11	11.47	1196.9E6	323.8E6	1077.833	1370.417	#
1) L4c PCB 1242{4}	11.12	11.95	478.2E6	327.6E6	1053.201	1093.987	
2) L4c PCB 1242{5}	11.28	12.35	470.8E6	271.7E6	1078.889	1116.532	
Sum PCB 1242			2656.4E6	1530.6E6	5276.530	5576.005	
verage PCB 1242					1055.306	1115.201	
Sum PCB 1248			0	0	N.D.	N.D.	
verage PCB 1248					0.000	0.000	
Sum PCB 1254			0	0	N.D.	N.D.	
verage PCB 1254					0.000	0.000	
Sum PCB 1260			0	0	N.D.	N.D.	
verage PCB 1260					0.000	0.000	
Sum PCB 1268			0	0	N.D.	N.D.	
verage PCB 1268					0.000	0.000	

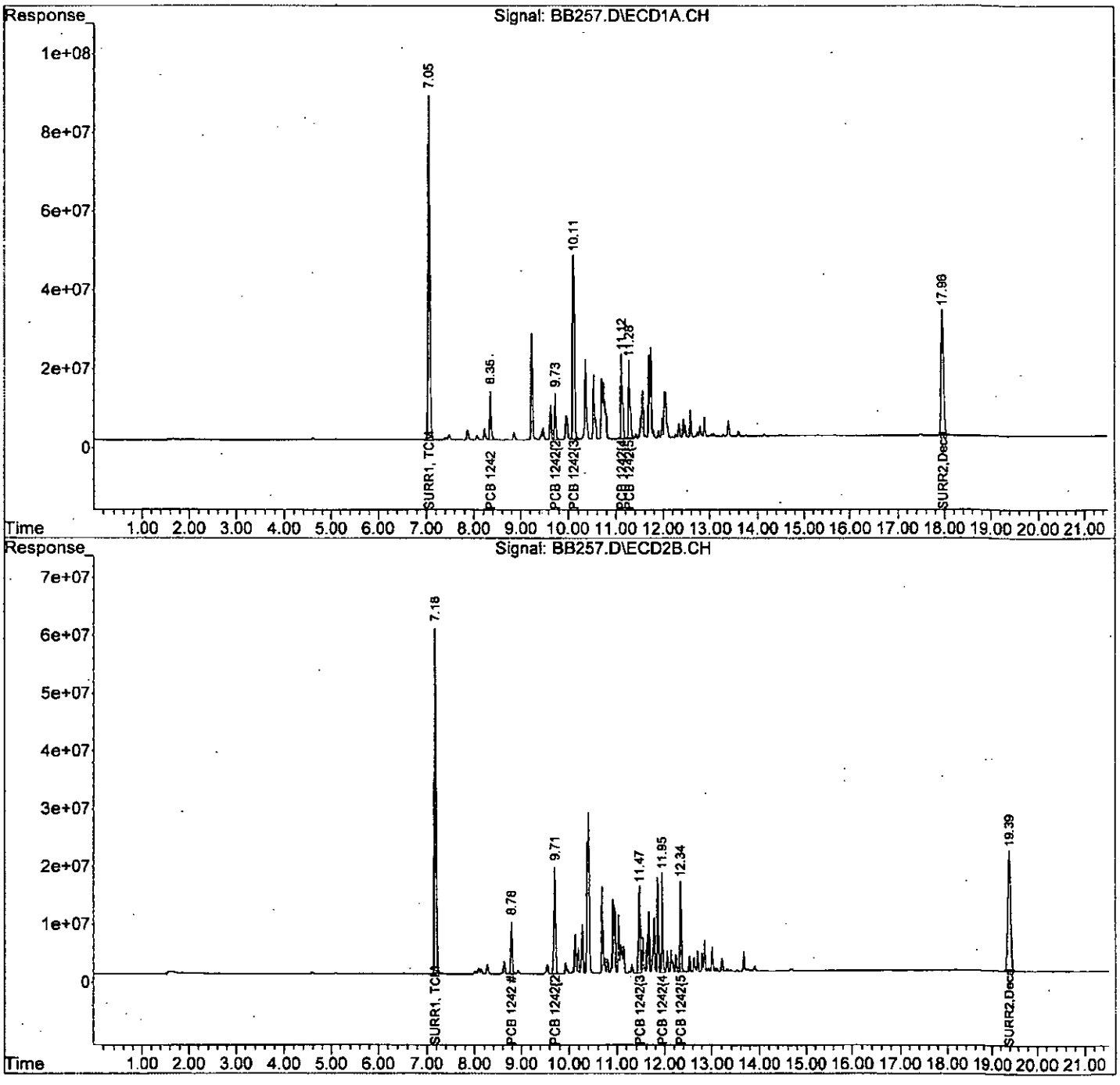
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB257.D
Acq On : 02 Sep 2015 5:04 pm
Operator : m.pedro
Sample : ar1242h Inst : 6890G
Misc : initial cal
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 03 08:13:42 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB258.D
Acq On : 02 Sep 2015 5:29 pm
Operator : m.pedro
Sample : ar12481 Inst : 6890G
Misc : initial cal
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 03 08:14:22 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	434.6E6	312.4E6	21.257	21.994
Spiked Amount 100.000	Range 30 - 150		Recovery =		21.26%#	21.99%#
2) S SURR2,Decachloro	17.97	19.39	267.4E6	205.5E6	23.194	23.178
Spiked Amount 100.000	Range 30 - 150		Recovery =		23.19%#	23.18%#
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
23) L5c PCB 1248	9.24	9.70	37909012	28167972	126.592	129.645
24) L5c PCB 1248{2}	10.11	10.95	94675832	45740042	129.951	139.208
25) L5c PCB 1248{3}	10.37	11.03	43664346	33167037	154.727	135.427
26) L5c PCB 1248{4}	11.12	11.47	90754310	55902397	133.236m	132.617
27) L5c PCB 1248{5}	11.28	11.66	72132708	32650847	128.717	133.174
Sum PCB 1248			339.1E6	195.6E6	673.224	670.072
Average PCB 1248					134.645	134.014
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

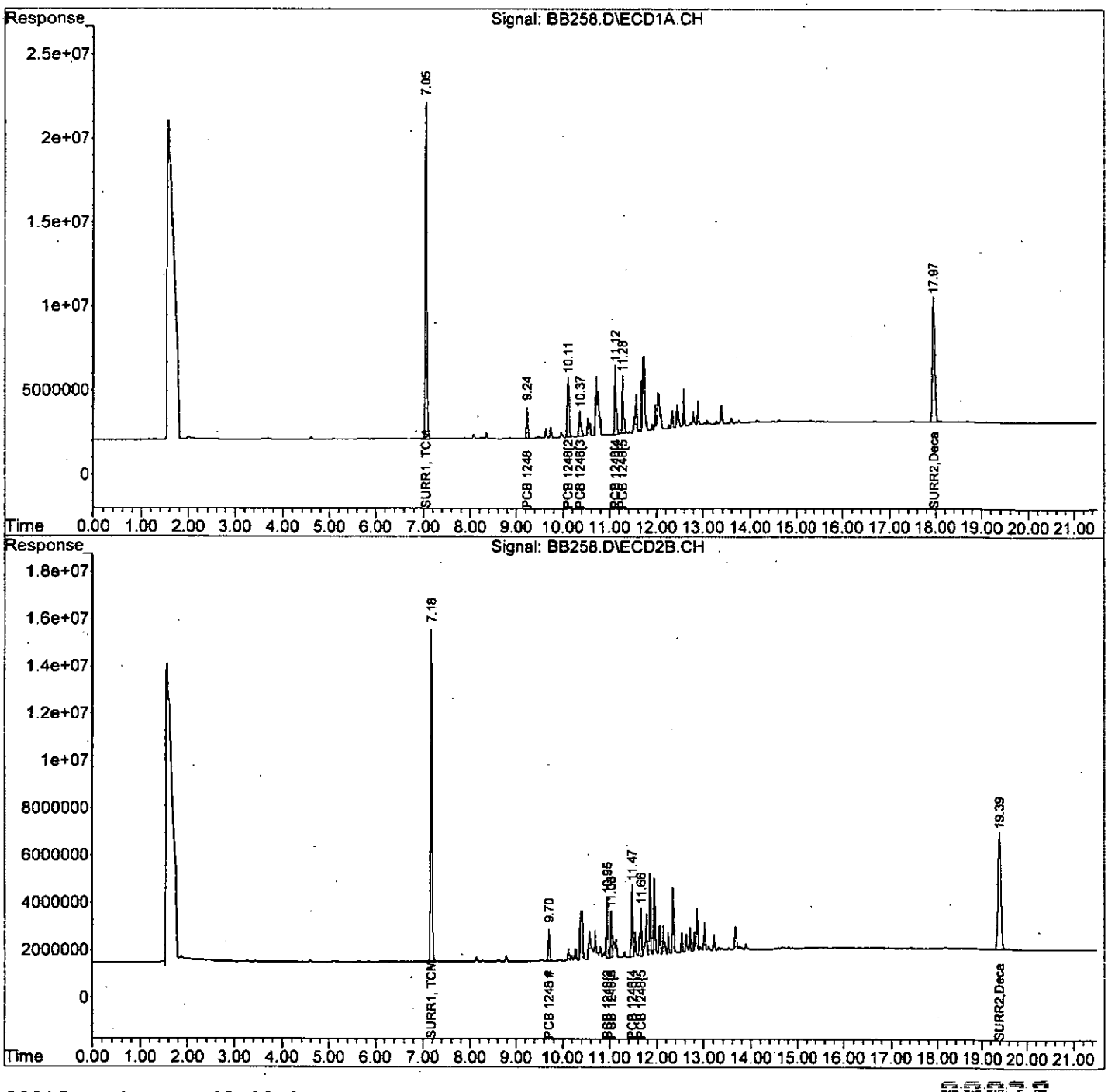
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB258.D
Acq On : 02 Sep 2015 5:29 pm
Operator : m.pedro
Sample : ar12481 Inst : 6890G
Misc : initial cal
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 03 08:14:22 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

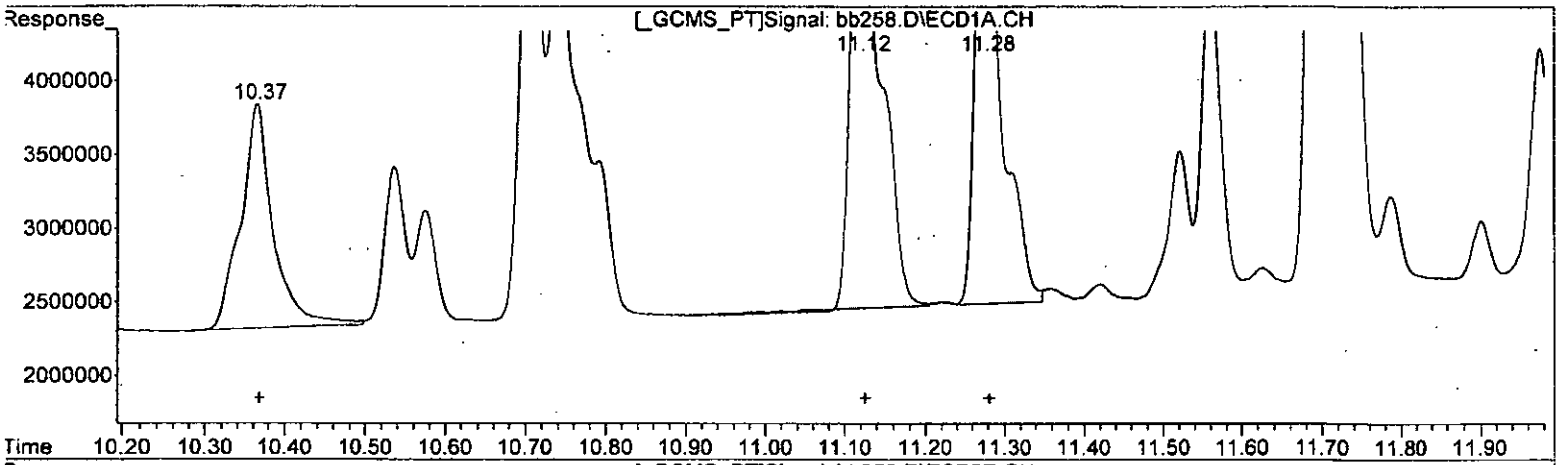


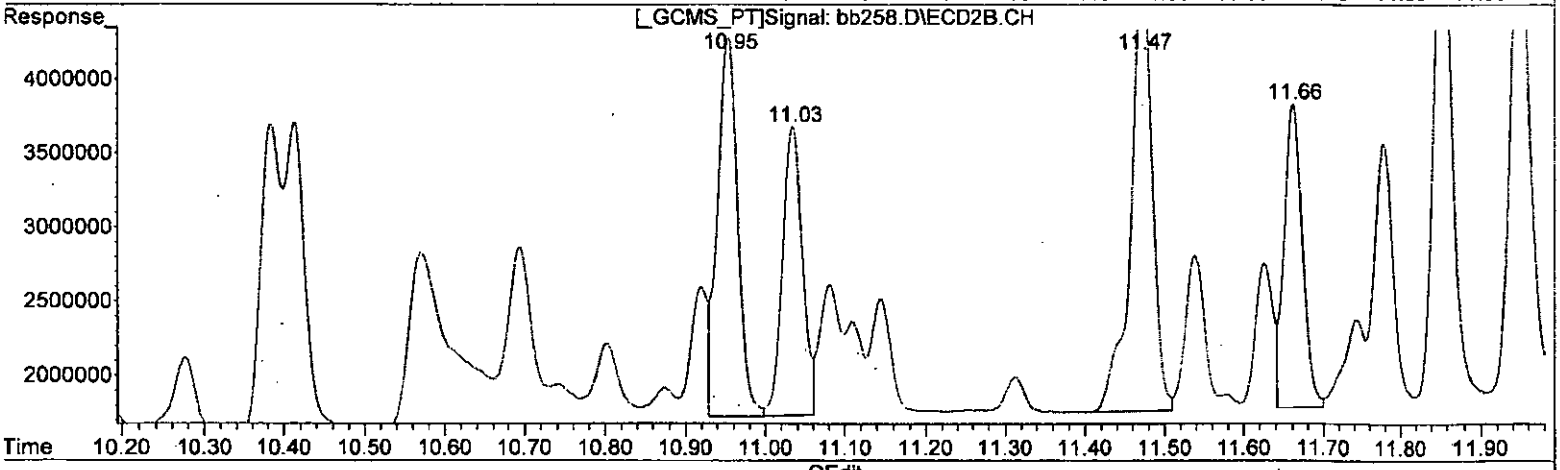
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\090215\
Data File : bb258.D
Acq On : 02 Sep 2015 5:29 pm
Operator : m.pedro
Sample : ar12481 Inst : 6890G
Misc : initial cal
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 03 08:05:47 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(23) PCB 1248 (L5c)

R.T.	Response	Conc
9.24	37909012	126.59
10.11	94675832	129.95
10.37	43664346	154.73
11.12	87917445	129.07
11.28	72132708	128.72

(23) PCB 1248 #2 (L5c)

R.T.	Response	Conc
9.70	28167972	129.65
10.95	45740042	139.21
11.03	33167037	135.43
11.47	55902397	132.62
11.66	32650847	133.17

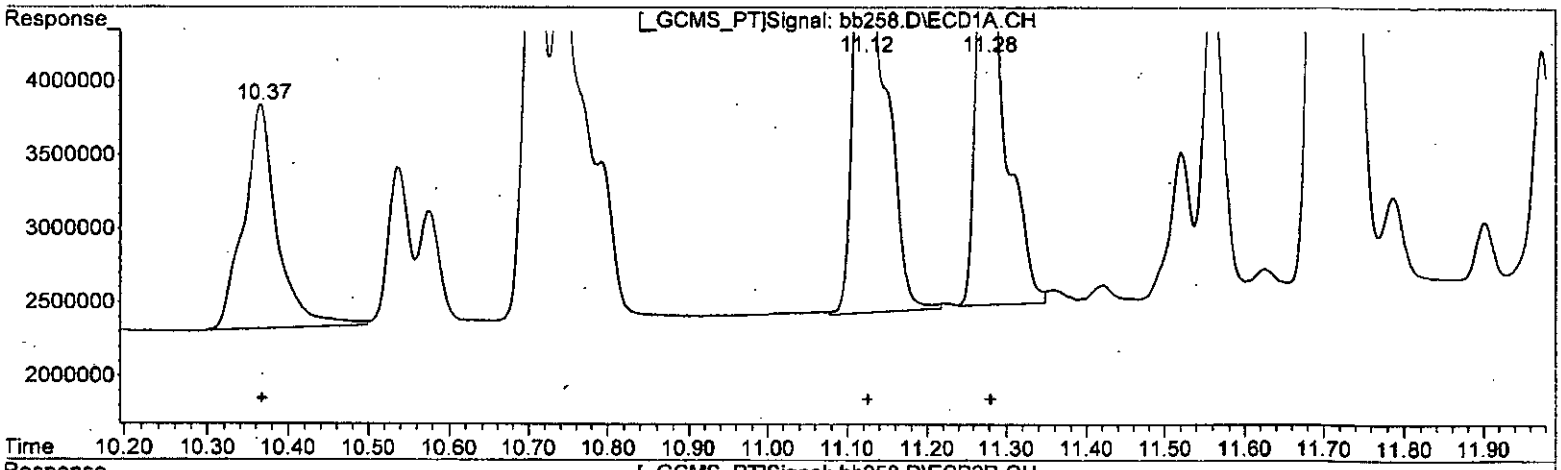
(+) = Expected Retention Time

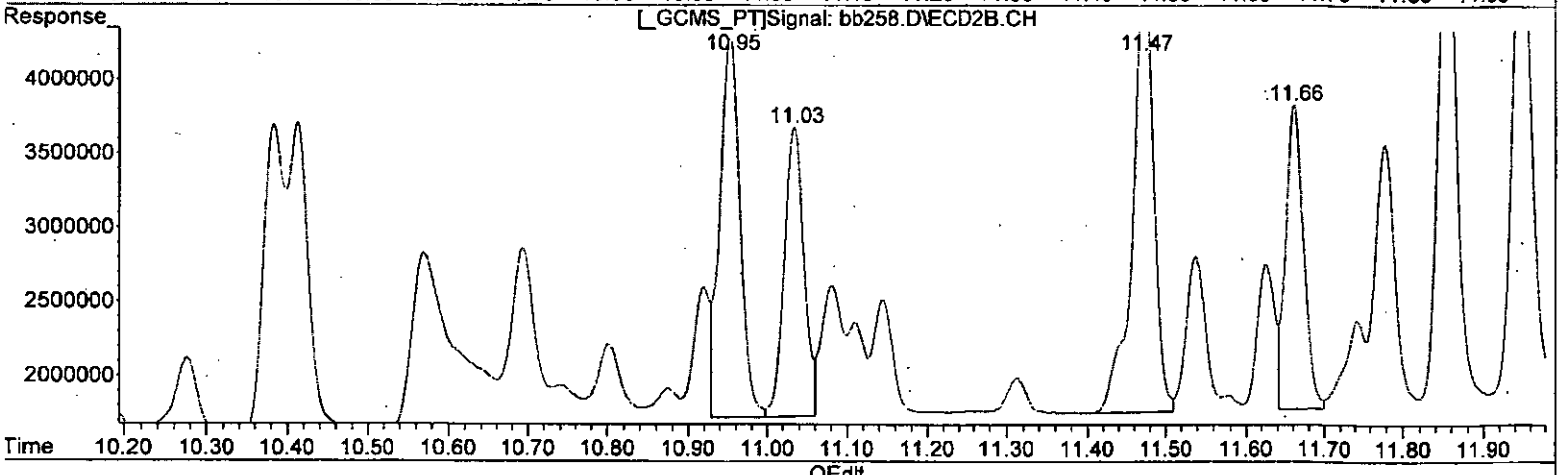
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\090215\
Data File : bb258.D
Acq On : 02 Sep 2015 5:29 pm
Operator : m.pedro
Sample : ar1248l Inst : 6890G
Misc : initial cal
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 03 08:05:47 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





(23) PCB 1248 #2 (L5c)

R.T.	Response	Conc
9.24	37909012	126.59
10.11	94675832	129.95
10.37	43664346	154.73
11.12	90754310	133.24
11.28	72132708	128.72

(23) PCB 1248 #2 (L5c)

R.T.	Response	Conc
9.70	28167972	129.65
10.95	45740042	139.21
11.03	33167037	135.43
11.47	55902397	132.62
11.66	32650847	133.17

9/4

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB259.D
Acq On : 02 Sep 2015 5:54 pm
Operator : m.pedro
Sample : ar1248m Inst : 6890G
Misc : initial cal
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 03 08:14:55 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1297.3E6	909.8E6	63.450	64.054
Spiked Amount 100.000	Range 30 - 150		Recovery =		63.45%	64.05%
2) S SURR2,Decachloro	17.97	19.39	720.8E6	572.2E6	62.514	64.549
Spiked Amount 100.000	Range 30 - 150		Recovery =		62.51%	64.55%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
verage PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
verage PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
verage PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
verage PCB 1242					0.000	0.000
3) L5c PCB 1248	9.24	9.70	167.9E6	121.2E6	560.798	557.719
4) L5c PCB 1248{2}	10.11	10.95	422.1E6	192.1E6	579.336	584.660
5) L5c PCB 1248{3}	10.36	11.03	163.0E6	143.7E6	577.543	586.949
6) L5c PCB 1248{4}	11.12	11.47	395.4E6	246.3E6	580.526	584.338
7) L5c PCB 1248{5}	11.28	11.66	325.2E6	145.3E6	580.274	592.724
Sum PCB 1248			1473.6E6	848.7E6	2878.478	2906.390
verage PCB 1248					575.696	581.278
Sum PCB 1254			0	0	N.D.	N.D.
verage PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
verage PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
verage PCB 1268					0.000	0.000

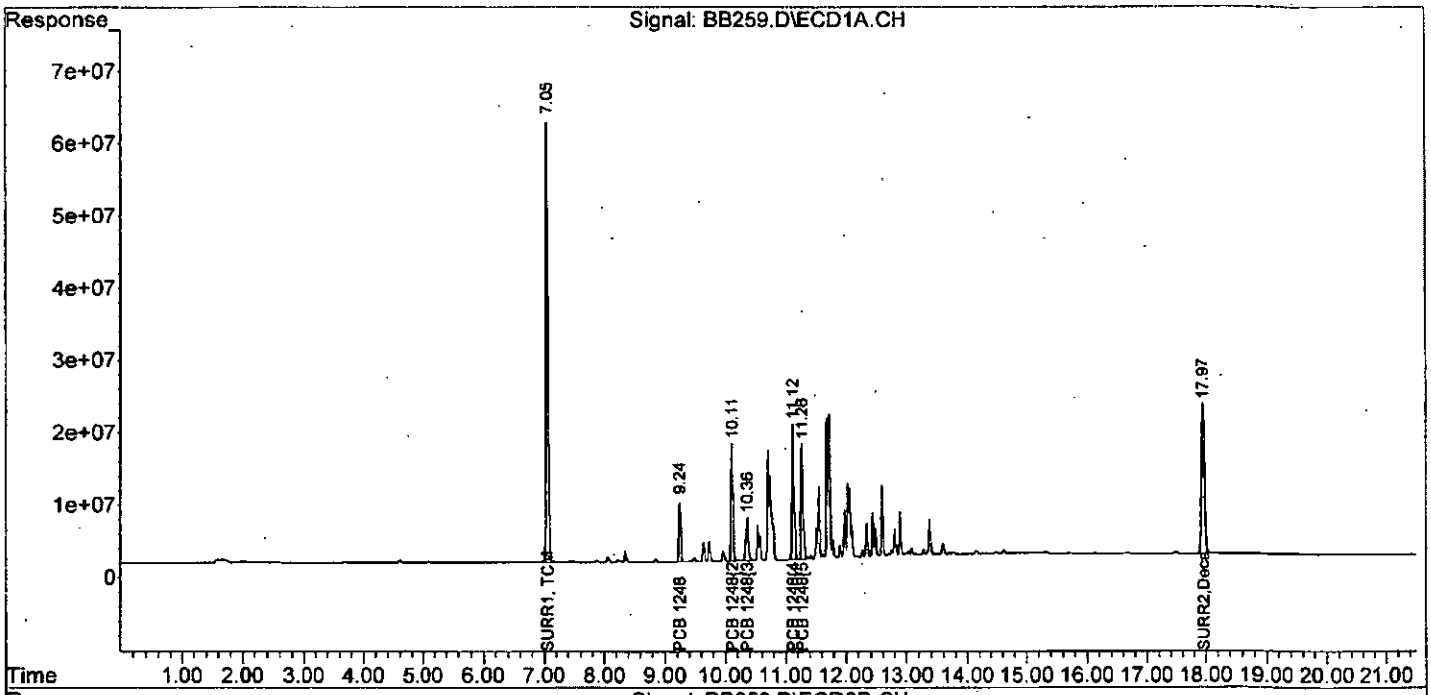
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

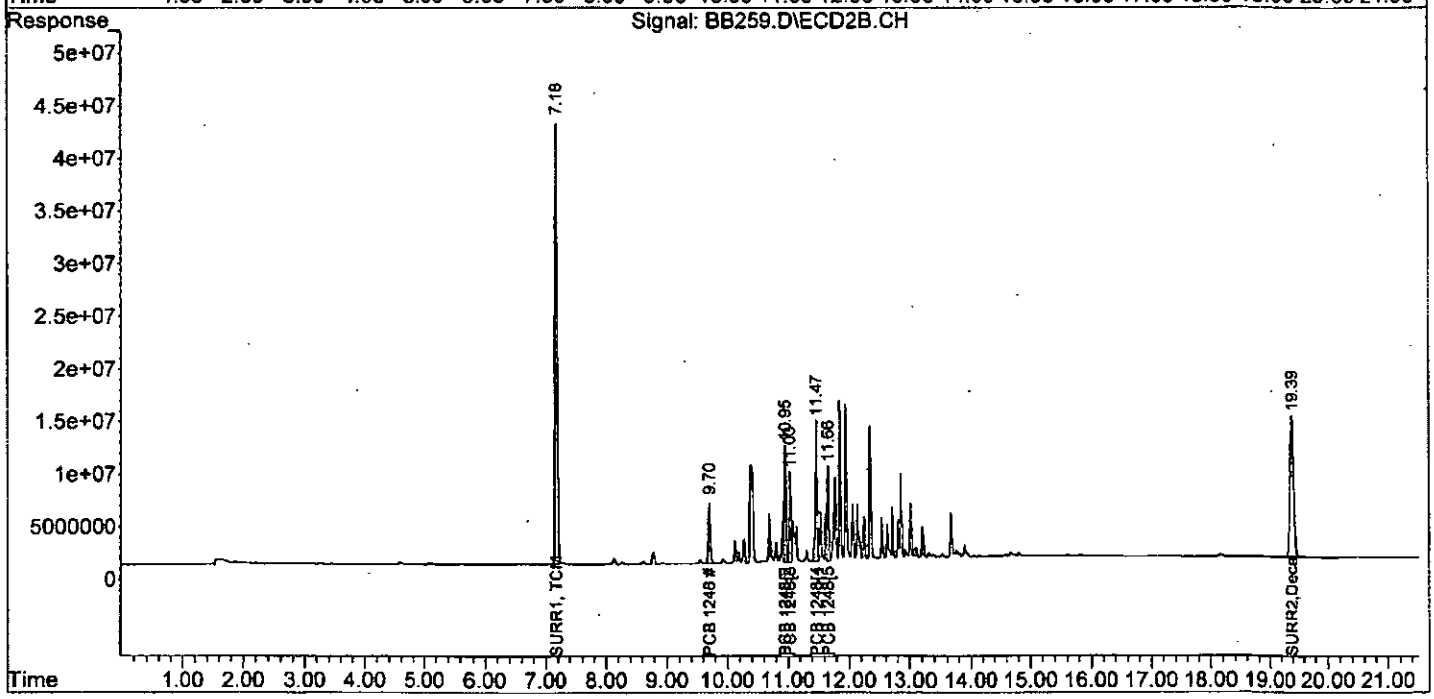
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB259.D
Acq On : 02 Sep 2015 5:54 pm
Operator : m.pedro
Sample : ar1248m Inst : 6890G
Misc : initial cal
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 03 08:14:55 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB260.D
Acq On : 02 Sep 2015 6:19 pm
Operator : m.pedro
Sample : ar1248h Inst : 6890G
Misc : initial cal
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 03 08:15:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	2124.1E6	1474.4E6	103.894	103.801
Spiked Amount 100.000	Range 30 - 150		Recovery =		103.89%	103.80%
2) S SURR2,Decachloro	17.97	19.39	1141.0E6	913.4E6	98.961	103.039
Spiked Amount 100.000	Range 30 - 150		Recovery =		98.96%	103.04%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
23) L5c PCB 1248	9.24	9.71	317.1E6	228.0E6	1058.818	1049.345
24) L5c PCB 1248{2}	10.11	10.95	815.0E6	354.1E6	1118.686	1077.815
25) L5c PCB 1248{3}	10.37	11.03	310.6E6	267.1E6	1100.601	1090.754
26) L5c PCB 1248{4}	11.12	11.47	757.6E6	463.3E6	1112.232	1099.045
27) L5c PCB 1248{5}	11.28	11.66	630.3E6	277.4E6	1124.691	1131.581
Sum PCB 1248			2830.6E6	1590.0E6	5515.029	5448.540
Average PCB 1248					1103.006	1089.708
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

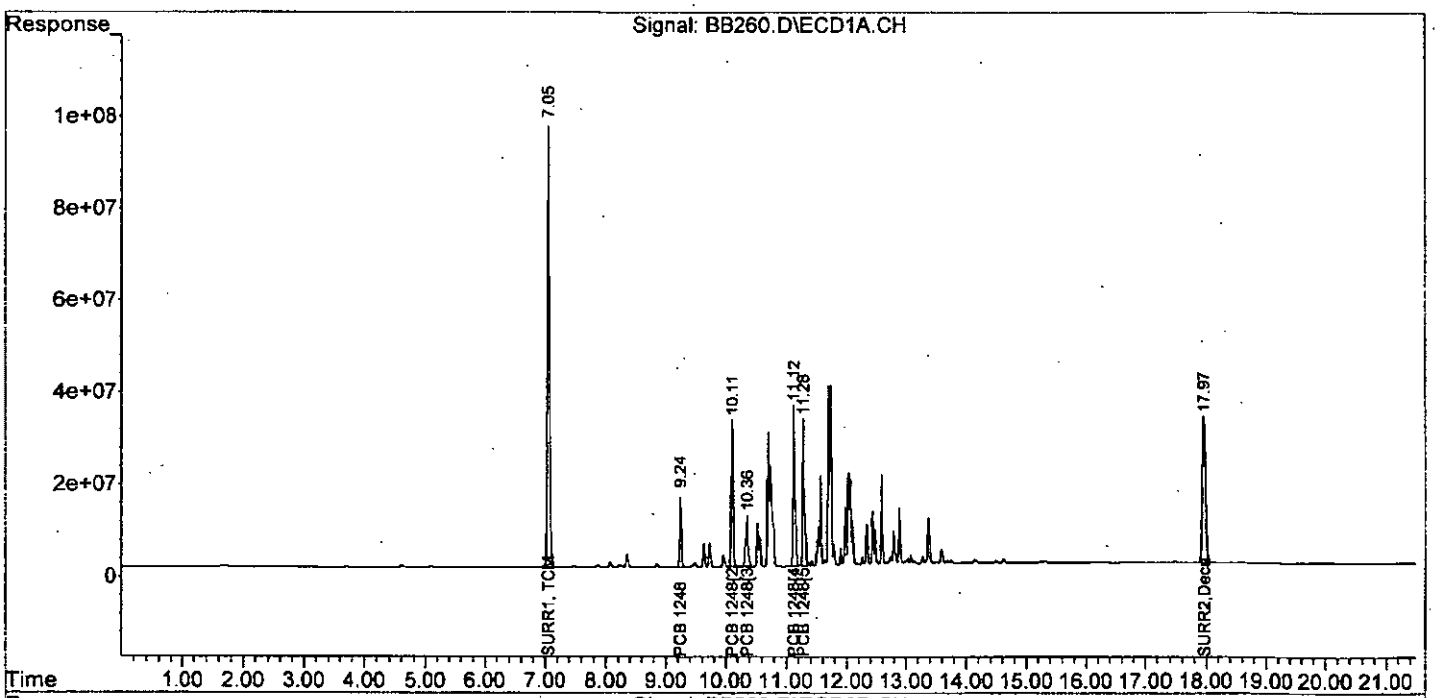
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

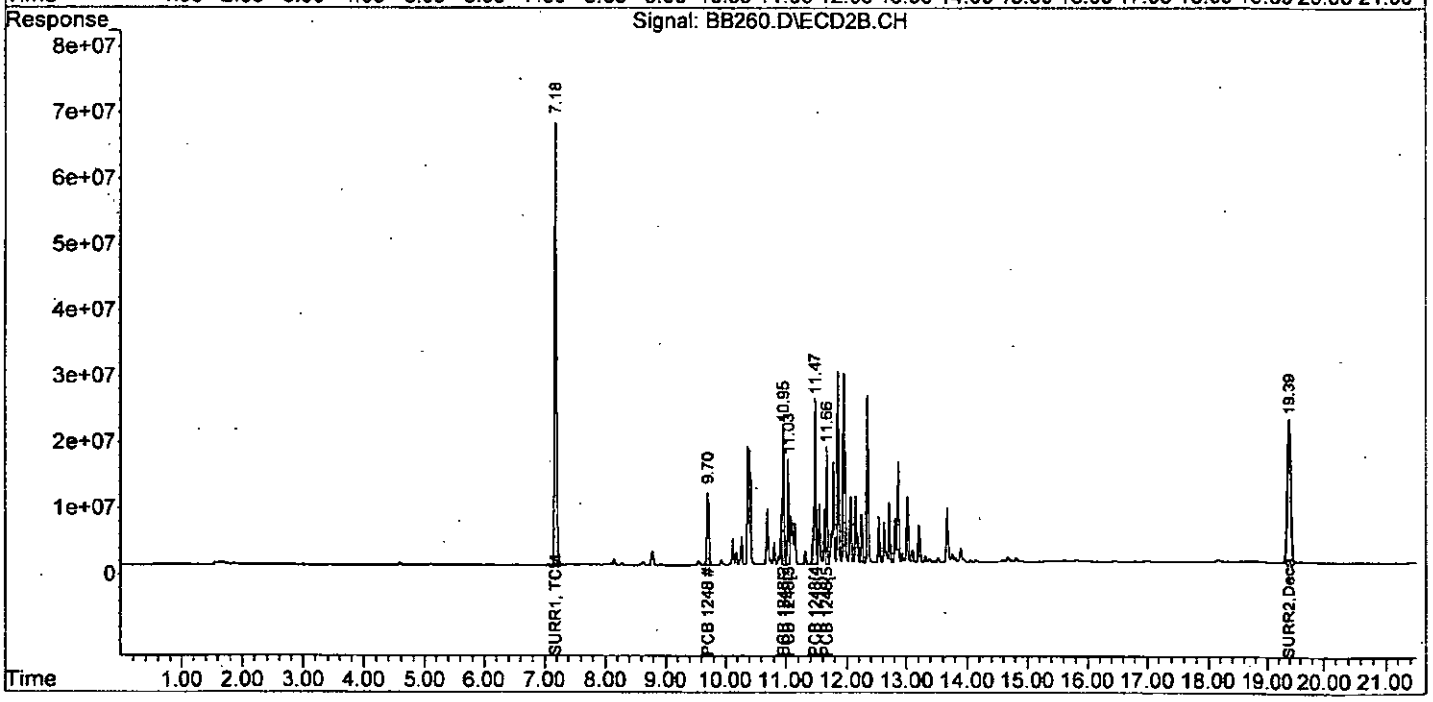
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB260.D
Acq On : 02 Sep 2015 6:19 pm
Operator : m.pedro
Sample : ar1248h Inst : 6890G
Misc : initial cal
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 03 08:15:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB261.D
Acq On : 02 Sep 2015 6:44 pm
Operator : m.pedro
Sample : ar1268m Inst : 6890G
Misc : initial cal
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 03 08:15:57 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1329.6E6	939.0E6	65.032	66.109
Spiked Amount 100.000	Range 30 - 150		Recovery =		65.03%	66.11%
2) S SURR2,Decachloro	17.97	19.39	1180.3E6	951.2E6	102.367	107.304
Spiked Amount 100.000	Range 30 - 150		Recovery =		102.37%	107.30%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
38) L8C PCB 1268	13.69	13.94	186.5E6	156.6E6	623.517	640.762
39) L8C PCB 1268(2)	14.06	14.53	232.7E6	191.8E6	600.327	615.264
40) L8C PCB 1268(3)	15.69	16.48	798.5E6	642.8E6	598.471	603.563
41) L8C PCB 1268(4)	15.87	16.80	203.8E6	161.3E6	602.712	580.291
42) L8C PCB 1268(5)	16.69	17.02	328.2E6	279.7E6	597.103	602.064
Sum PCB 1268			1749.7E6	1432.2E6	3022.130	3041.945
Average PCB 1268					604.426	608.389

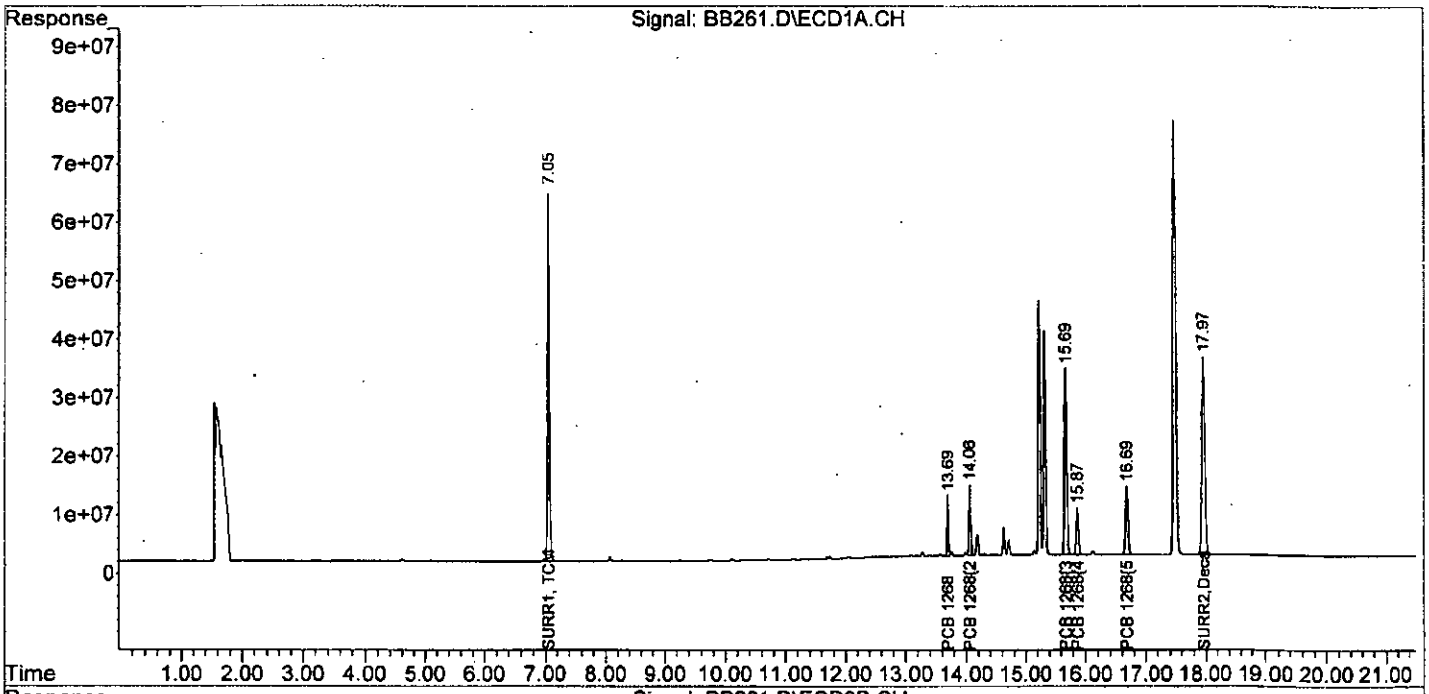
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

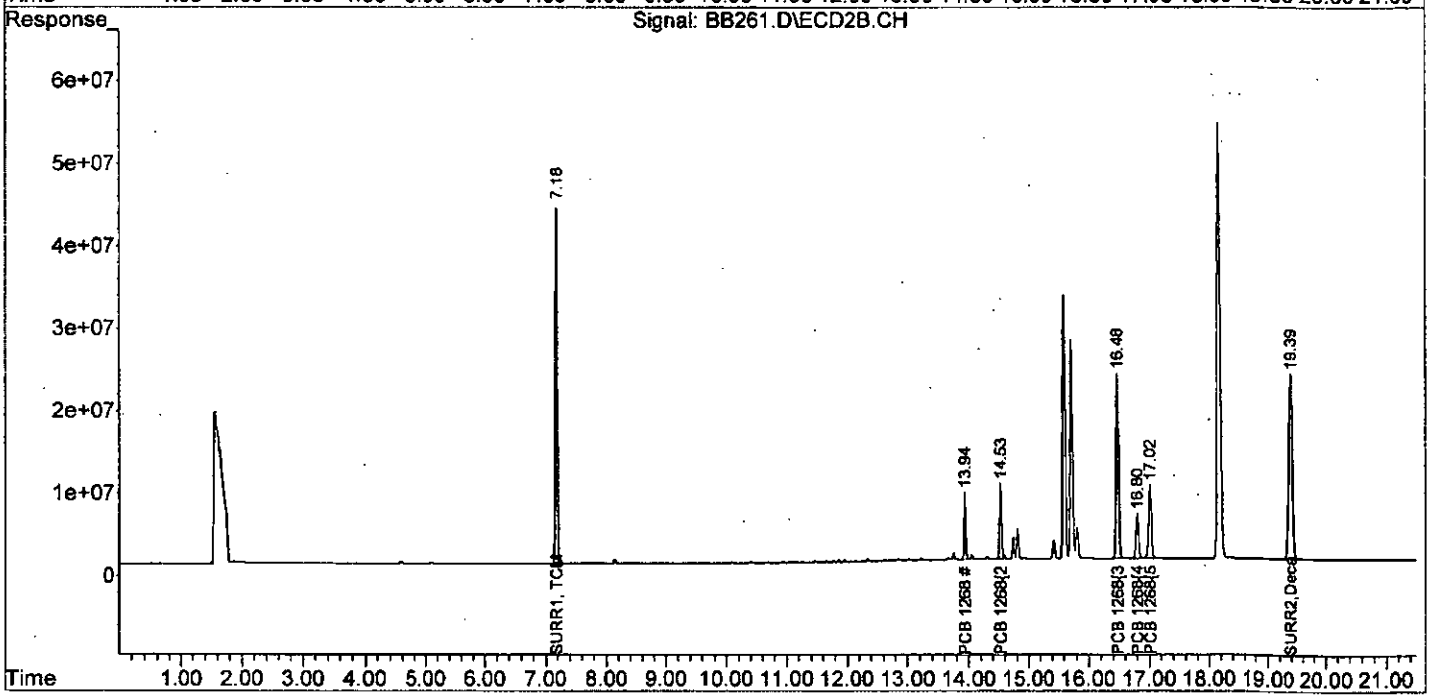
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB261.D
Acq On : 02 Sep 2015 6:44 pm
Operator : m.pedro
Sample : ar1268m Inst : 6890G
Misc : initial cal
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 03 08:15:57 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:02:29 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\6890G\Data\090215\
Data File : bb262.D
Acq On : 02 Sep 2015 7:09 pm
Operator : m.pedro
Sample : ar1660icv Inst : 6890G
Misc : initial cal
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 03 08:22:02 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
3	L1c PCB 1016	373.541	359.327 E3	3.8	102	0.00
4	L1c PCB 1016{2}	749.882	730.926 E3	2.5	102	0.00
5	L1c PCB 1016{3}	216.673	216.843 E3	-0.1	103	0.00
6	L1c PCB 1016{4}	297.189	288.505 E3	2.9	101	0.00
7	L1c PCB 1016{5}	634.287	631.132 E3	0.5	104	0.00
33	L7c PCB 1260	741.624	750.786 E3	-1.2	104	0.00
34	L7c PCB 1260{2}	907.390	911.575 E3	-0.5	103	0.00
35	L7c PCB 1260{3}	617.732	632.175 E3	-2.3	103	0.00
36	L7C PCB 1260{4}	1.152	1.174 E6	-1.9	101	0.00
37	L7C PCB 1260{5}	287.968	283.766 E3	1.5	99	0.00
	Signal #2					
3	L1c PCB 1016	256.768	251.529 E3	2.0	105	0.00
4	L1c PCB 1016{2}	554.488	546.630 E3	1.4	105	0.00
5	L1c PCB 1016{3}	337.816	340.294 E3	-0.7	104	0.00
6	L1c PCB 1016{4}	230.451	226.198 E3	1.8	107	0.00
7	L1c PCB 1016{5}	408.174	411.366 E3	-0.8	106	0.00
33	L7c PCB 1260	712.299	703.859 E3	1.2	107	0.00
34	L7c PCB 1260{2}	416.460	438.474 E3	-5.3	106	0.00
35	L7c PCB 1260{3}	980.862	1027.384 E3	-4.7	103	0.00
36	L7C PCB 1260{4}	548.678	554.385 E3	-1.0	103	0.00
37	L7C PCB 1260{5}	317.150	339.219 E3	-7.0	103	0.00

Evaluate Continuing Calibration Report - Not Founds

1	S SURR1, TCMX	20.445	0.000 E6	100.0#	0#	-7.05#
2	S SURR2,Decachlorobiphenyl	11.530	0.000 E6	100.0#	0#	-17.97#
8	L2c PCB 1221	154.413	0.000 E3	100.0#	0#	-6.09#
9	L2c PCB 1221{2}	213.553	0.000 E3	100.0#	0#	-7.87#
10	L2c PCB 1221{3}	144.720	0.000 E3	100.0#	0#	-8.23#
11	L2c PCB 1221{4}	508.631	0.000 E3	100.0#	0#	-8.35#
12	L2c PCB 1221{5}	83.280	0.000 E3	100.0#	0#	-9.24#
13	L3c PCB 1232	430.093	0.000 E3	100.0#	0#	-8.35#
14	L3c PCB 1232{2}	326.030	0.000 E3	100.0#	0#	-9.24#
15	L3c PCB 1232{3}	675.020	0.000 E3	100.0#	0#	-10.11#
16	L3c PCB 1232{4}	279.378	0.000 E3	100.0#	0#	-10.37#
17	L3c PCB 1232{5}	189.711	0.000 E3	100.0#	0#	-11.73#
18	L4c PCB 1242	295.937	0.000 E3	100.0#	0#	-8.35#
19	L4c PCB 1242{2}	234.680	0.000 E3	100.0#	0#	-9.73#
20	L4c PCB 1242{3}	1.206	0.000 E6	100.0#	0#	-10.11#
21	L4c PCB 1242{4}	487.581	0.000 E3	100.0#	0#	-11.12#

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB262.D
Acq On : 02 Sep 2015 7:09 pm
Operator : m.pedro
Sample : ar1660icv Inst : 6890G
Misc : initial cal
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 03 08:22:02 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
3) L1c PCB 1016	8.35	8.78	179.7E6	125.8E6	480.974	489.799
4) L1c PCB 1016{2}	9.24	9.71	365.5E6	273.3E6	487.360	492.915
5) L1c PCB 1016{3}	9.64	10.69	108.4E6	170.1E6	500.393	503.668
6) L1c PCB 1016{4}	9.73	11.03	144.3E6	113.1E6	485.390	490.774
7) L1c PCB 1016{5}	10.37	11.47	315.6E6	205.7E6	497.513	503.910
Sum PCB 1016			1113.4E6	888.0E6	2451.630	2481.065
Average PCB 1016					490.326	496.213
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	375.4E6	351.9E6	506.177	494.075
34) L7c PCB 1260{2}	13.09	14.59	455.8E6	219.2E6	502.306	526.430
35) L7c PCB 1260{3}	14.17	14.81	316.1E6	513.7E6	511.690	523.715
36) L7C PCB 1260{4}	14.62	15.82	586.9E6	277.2E6	509.495	505.201
37) L7C PCB 1260{5}	16.69	17.02	141.9E6	169.6E6	492.704	534.792
Sum PCB 1260			1876.0E6	1531.7E6	2522.373	2584.212
Average PCB 1260					504.475	516.842
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

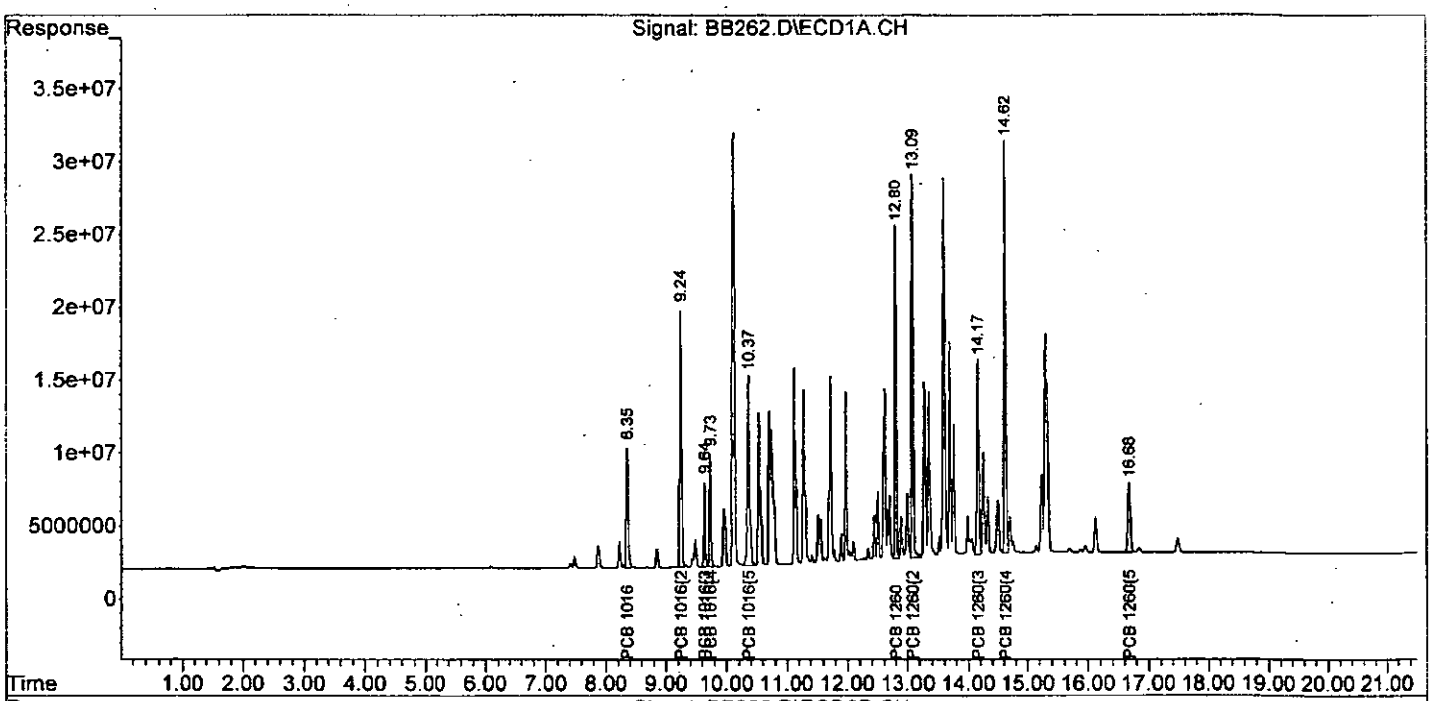
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

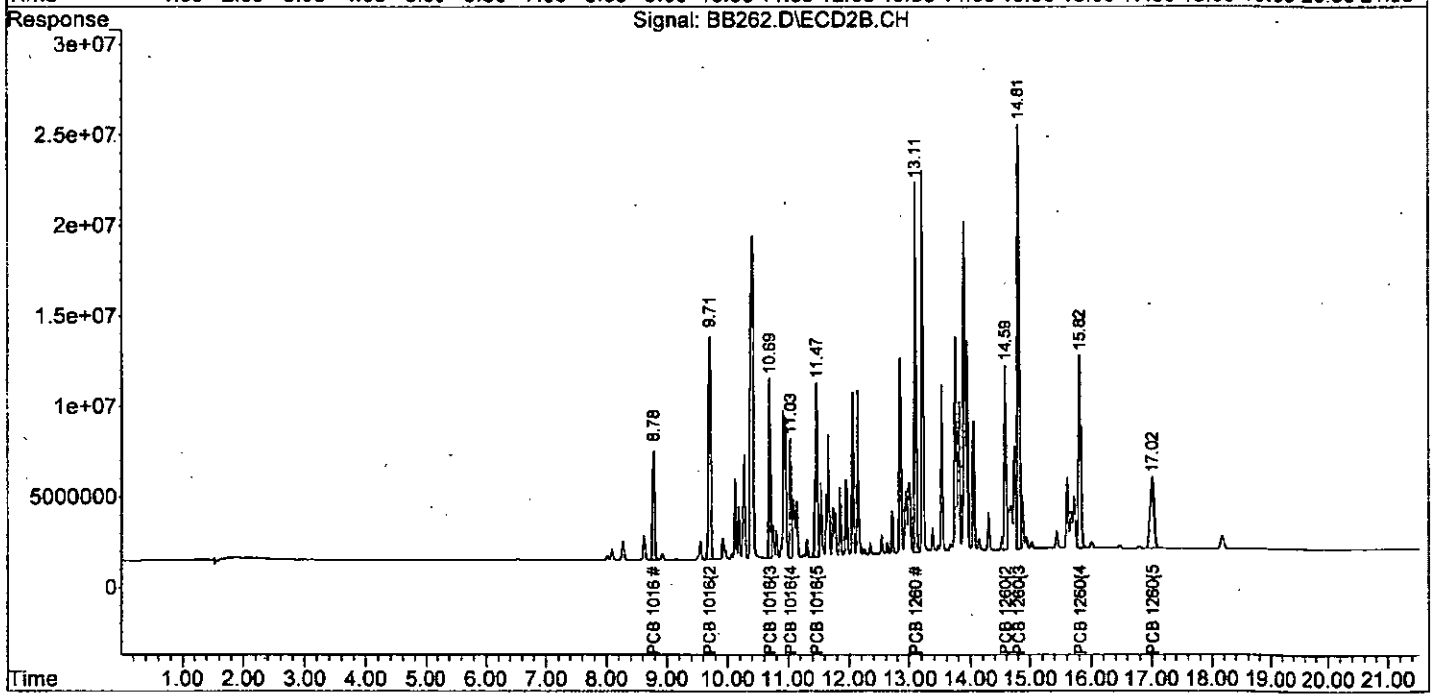
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB262.D
Acq On : 02 Sep 2015 7:09 pm
Operator : m.pedro
Sample : ar1660icv Inst : 6890G
Misc : initial cal
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 03 08:22:02 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB242.D
Acq On : 02 Sep 2015 10:42 am
Operator : m.pedro
Sample : blk Inst : 6890G
Misc : inst. blk
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 08:23:22 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

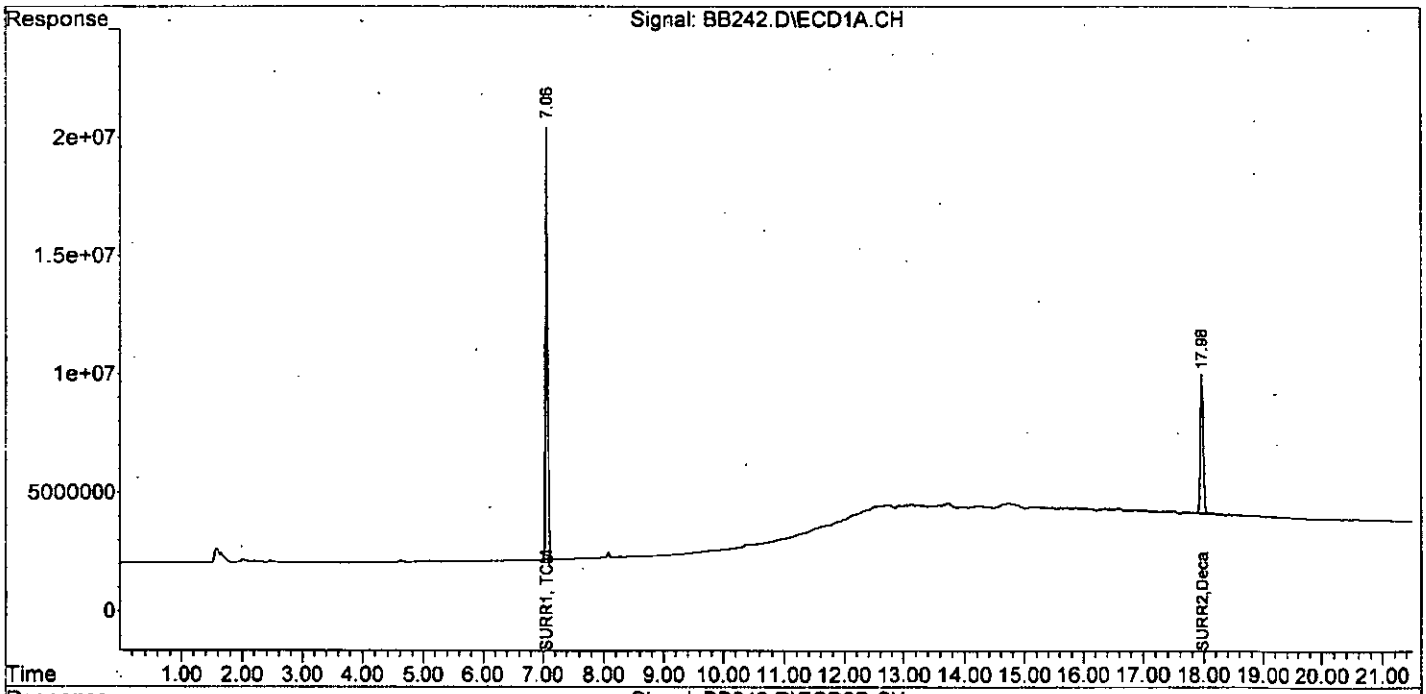
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.06	7.17	414.5E6	271.6E6	20.276	19.119
Spiked Amount 100.000	Range 30 - 150		Recovery =		20.28%#	19.12%#
2) S SURR2,Decachloro	17.98	19.38	205.8E6	157.7E6	17.845	17.791
Spiked Amount 100.000	Range 30 - 150		Recovery =		17.84%#	17.79%#
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

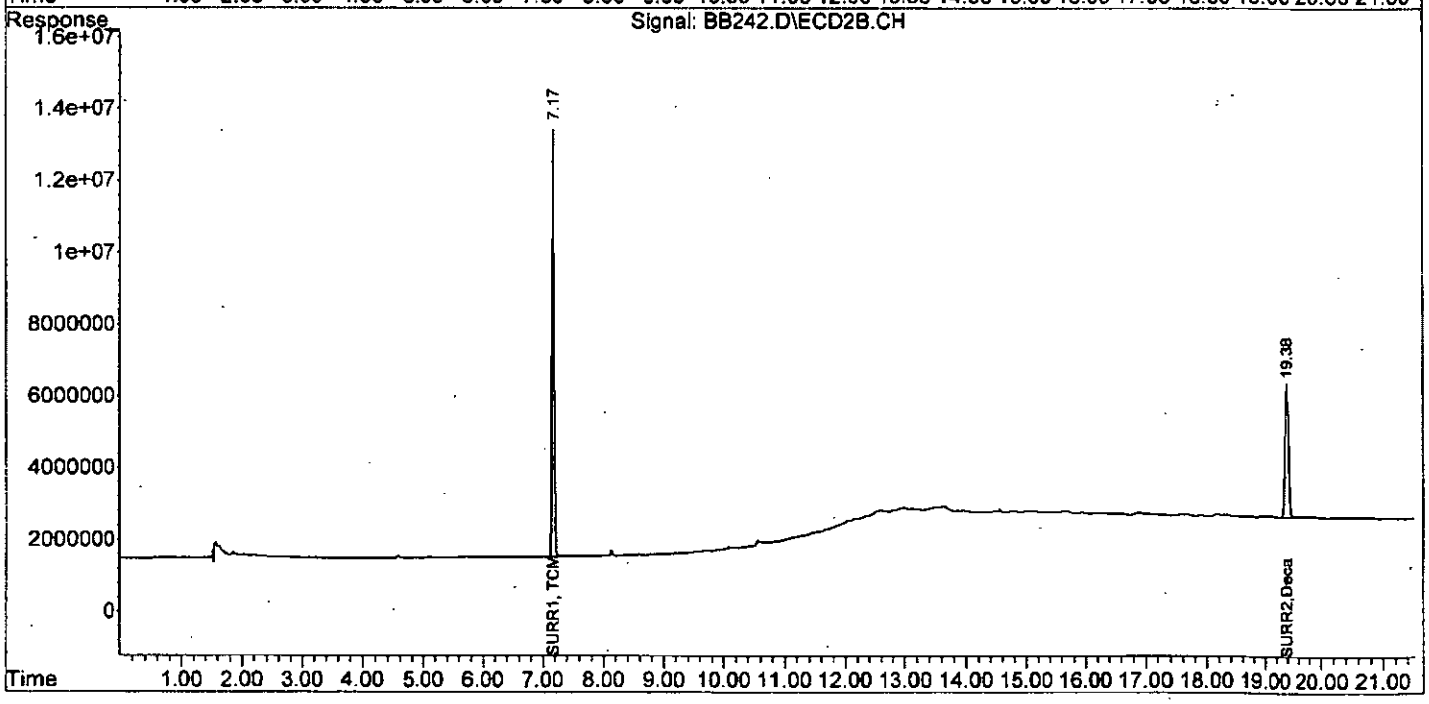
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\6890G\DATA\090215\
Data File : BB242.D
Acq On : 02 Sep 2015 10:42 am
Operator : m.pedro
Sample : blk Inst : 6890G
Misc : inst, blk
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 08:23:22 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8D

Pesticide Analytical Sequence

Lab Name: ALS Environmental *Client:* PARSONS

Lab Code: 10145 *Case.No.:* R1507508 *SAS No.:* _____ *SDG No.:* BLDG1203-SS-EX1

GC Column(1) DB-1701 *(ID):* 0.32mm 30

Instrument ID: 6890G

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 7.05 DCB 17.97

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
ar1660ll	ar1660ll	9/2/2015	11:07	7.05	17.97
ar1660l	ar1660l	9/2/2015	11:33	7.05	17.97
ar1660ml	ar1660ml	9/2/2015	11:59	7.05	17.97
ar1660m	ar1660m	9/2/2015	12:25	7.05	17.97
ar1660mh	ar1660mh	9/2/2015	12:51	7.05	17.97
ar1660h	ar1660h	9/2/2015	13:16	7.05	17.97
ar1221/1254l	ar1221/1254l	9/2/2015	13:42	7.05	17.97
ar1221/1254m	ar1221/1254m	9/2/2015	14:08	7.05	17.97
ar1221/1254h	ar1221/1254h	9/2/2015	14:33	7.05	17.97
ar1232l	ar1232l	9/2/2015	14:58	7.05	17.97
ar1232m	ar1232m	9/2/2015	15:23	7.05	17.97
ar1232h	ar1232h	9/2/2015	15:48	7.05	17.97
ar1242l	ar1242l	9/2/2015	16:13	7.05	17.97
ar1242m	ar1242m	9/2/2015	16:38	7.05	17.97
ar1242h	ar1242h	9/2/2015	17:04	7.05	17.97
ar1248l	ar1248l	9/2/2015	17:29	7.05	17.97
ar1248m	ar1248m	9/2/2015	17:54	7.05	17.97
ar1248h	ar1248h	9/2/2015	18:19	7.05	17.97
ar1268m	ar1268m	9/2/2015	18:44	7.05	17.97
ar1660icv	ar1660icv	9/2/2015	19:09	0.00	0.00
ccv12	ccv12	9/14/2015	7:28	7.05	17.96

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

8D

Pesticide Analytical Sequence

Lab Name: ALS Environmental *Client:* PARSONS

Lab Code: 10145 *Case.No.:* R1507508 *SAS No.:* _____ *SDG No.:* BLDG1203-SS-EX1

GC Column(1) DB-1701 *(ID):* 0.32mm 30

Instrument ID: 6890G

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 7.05 DCB 17.97

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
ZZZZZ	ZZZZZ	9/14/2015	11:50	7.06	17.97
ZZZZZ	ZZZZZ	9/14/2015	12:16	7.05	17.96
ZZZZZ	ZZZZZ	9/14/2015	12:41	7.05	17.96
ZZZZZ	ZZZZZ	9/14/2015	13:07	7.05	17.96
PBLK1	rq1510616-01|1.0	9/14/2015	13:33	7.05	17.96
PBLK1MS	rq1510616-02|1.0	9/14/2015	13:58	7.05	17.96
PBLK1MSD	rq1510616-03|1.0	9/14/2015	14:24	7.05	17.96
ZZZZZ	ZZZZZ	9/14/2015	14:49	7.05	17.96
ZZZZZ	ZZZZZ	9/14/2015	15:14	7.05	17.96
ZZZZZ	ZZZZZ	9/14/2015	15:39	7.05	17.96
ccv13	ccv13	9/14/2015	16:04	7.05	17.96
ZZZZZ	ZZZZZ	9/14/2015	16:29	7.05	17.98
BLDG1203-SS-EX1-01	r1507508-001|1.0	9/14/2015	16:54	7.07	17.96
BLDG1203-SS-EX1-01	rq1510616-04|1.0	9/14/2015	17:19	7.08	17.97
BLDG1203-SS-EX1-01	rq1510616-05|1.0	9/14/2015	17:44	7.08	17.97
BLDG1203-SS-EX1-02	r1507508-002|1.0	9/14/2015	18:10	7.06	17.96
BLDG1203-SS-EX1-03	r1507508-003|1.0	9/14/2015	18:35	7.05	17.96
BLDG1203-SS-EX1-04	r1507508-004|1.0	9/14/2015	19:00	7.05	17.96
BLDG1203-SS-EX1-05	r1507508-005|1.0	9/14/2015	19:25	7.07	17.96
ZZZZZ	ZZZZZ	9/14/2015	19:50	7.06	17.96
ccv14	ccv14	9/14/2015	20:15	7.05	17.96

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

8D

Pesticide Analytical Sequence

Lab Name: **ALS Environmental** ***Contract:*** PARSONS

Lab Code: **10145** ***Case.No.:*** R1507508 ***SAS No.:*** _____ ***SDG No.:*** BLDG1203-SS-EX1

GC Column(1) DB-17 ***(ID):*** 0.32mm 30

Instrument ID: 6890G

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 7.18 DCB 19.39

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
ar1660ll	ar1660ll	9/2/2015	11:07	7.17	19.38
ar1660l	ar1660l	9/2/2015	11:33	7.18	19.38
ar1660ml	ar1660ml	9/2/2015	11:59	7.18	19.39
ar1660m	ar1660m	9/2/2015	12:25	7.18	19.39
ar1660mh	ar1660mh	9/2/2015	12:51	7.18	19.39
ar1660h	ar1660h	9/2/2015	13:16	7.18	19.39
ar1221/1254l	ar1221/1254l	9/2/2015	13:42	7.18	19.39
ar1221/1254m	ar1221/1254m	9/2/2015	14:08	7.18	19.39
ar1221/1254h	ar1221/1254h	9/2/2015	14:33	7.18	19.39
ar1232l	ar1232l	9/2/2015	14:58	7.18	19.39
ar1232m	ar1232m	9/2/2015	15:23	7.18	19.38
ar1232h	ar1232h	9/2/2015	15:48	7.18	19.39
ar1242l	ar1242l	9/2/2015	16:13	7.18	19.39
ar1242m	ar1242m	9/2/2015	16:38	7.18	19.39
ar1242h	ar1242h	9/2/2015	17:04	7.18	19.39
ar1248l	ar1248l	9/2/2015	17:29	7.18	19.39
ar1248m	ar1248m	9/2/2015	17:54	7.18	19.39
ar1248h	ar1248h	9/2/2015	18:19	7.18	19.39
ar1268m	ar1268m	9/2/2015	18:44	7.18	19.39
ar1660icv	ar1660icv	9/2/2015	19:09	0.00	0.00
ccv12	ccv12	9/14/2015	7:28	7.18	19.39

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

8D

Pesticide Analytical Sequence

Lab Name: ALS Environmental *Contract:* PARSONS

Lab Code: 10145 *Case.No.:* R1507508 *SAS No.:* _____ *SDG No.:* BLDG1203-SS-EX1

GC Column(1) DB-17 *(ID):* 0.32mm 30

Instrument ID: 6890G

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 7.18 DCB 19.39

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
ZZZZZ	ZZZZZ	9/14/2015	11:50	7.17	19.39
ZZZZZ	ZZZZZ	9/14/2015	12:16	7.18	19.39
ZZZZZ	ZZZZZ	9/14/2015	12:41	7.18	19.39
ZZZZZ	ZZZZZ	9/14/2015	13:07	7.18	19.39
PBLK1	rq1510616-01|1.0	9/14/2015	13:33	7.18	19.39
PBLK1MS	rq1510616-02|1.0	9/14/2015	13:58	7.18	19.39
PBLK1MSD	rq1510616-03|1.0	9/14/2015	14:24	7.18	19.39
ZZZZZ	ZZZZZ	9/14/2015	14:49	7.18	19.39
ZZZZZ	ZZZZZ	9/14/2015	15:14	7.18	19.39
ZZZZZ	ZZZZZ	9/14/2015	15:39	7.18	19.39
ccv13	ccv13	9/14/2015	16:04	7.18	19.39
ZZZZZ	ZZZZZ	9/14/2015	16:29	7.18	19.41
BLDG1203-SS-EX1-01	r1507508-001|1.0	9/14/2015	16:54	7.20	19.39
BLDG1203-SS-EX1-01	rq1510616-04|1.0	9/14/2015	17:19	7.21	19.40
BLDG1203-SS-EX1-01	rq1510616-05|1.0	9/14/2015	17:44	7.21	19.40
BLDG1203-SS-EX1-02	r1507508-002|1.0	9/14/2015	18:10	7.19	19.39
BLDG1203-SS-EX1-03	r1507508-003|1.0	9/14/2015	18:35	7.18	19.39
BLDG1203-SS-EX1-04	r1507508-004|1.0	9/14/2015	19:00	7.18	19.39
BLDG1203-SS-EX1-05	r1507508-005|1.0	9/14/2015	19:25	7.20	19.39
ZZZZZ	ZZZZZ	9/14/2015	19:50	7.19	19.39
ccv14	ccv14	9/14/2015	20:15	7.18	19.39

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb331.D
Acq On : 14 Sep 2015 7:28 am
Operator : m.pedro
Sample : ccv12 Inst : 6890G
Misc : ar1660m
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 15 12:59:23 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	S	SURR1, TCMX	20.445	21.454 E6	-4.9	105	0.00
2	S	SURR2,Decachlorobiphenyl	11.530	10.318 E6	10.5	88	0.00
3	L1c	PCB 1016	373.541	362.897 E3	2.8	103	0.00
4	L1c	PCB 1016{2}	749.882	732.185 E3	2.4	102	0.00
5	L1c	PCB 1016{3}	216.673	212.990 E3	1.7	101	0.00
6	L1c	PCB 1016{4}	297.189	287.343 E3	3.3	101	0.00
7	L1c	PCB 1016{5}	634.287	606.403 E3	4.4	99	0.00
33	L7c	PCB 1260	741.624	697.588 E3	5.9	97	0.00
34	L7c	PCB 1260{2}	907.390	827.818 E3	8.8	94	0.00
35	L7c	PCB 1260{3}	617.732	609.799 E3	1.3	99	0.00
36	L7C	PCB 1260{4}	1.152	1.100 E6	4.5	95	0.00
37	L7C	PCB 1260{5}	287.968	255.086 E3	11.4	89	0.00

Signal #2

1	S	SURR1, TCMX	14.204	13.822 E6	2.7	98	0.00
2	S	SURR2,Decachlorobiphenyl	8.865	7.927 E6	10.6	87	0.00
3	L1c	PCB 1016	256.768	228.926 E3	10.8	96	0.00
4	L1c	PCB 1016{2}	554.488	497.737 E3	10.2	96	0.00
5	L1c	PCB 1016{3}	337.816	299.481 E3	11.3	92	0.00
6	L1c	PCB 1016{4}	230.451	197.212 E3	14.4	93	0.00
7	L1c	PCB 1016{5}	408.174	359.314 E3	12.0	93	0.00
33	L7c	PCB 1260	712.299	648.009 E3	9.0	98	0.00
34	L7c	PCB 1260{2}	416.460	386.313 E3	7.2	94	0.00
35	L7c	PCB 1260{3}	980.862	943.001 E3	3.9	95	0.00
36	L7C	PCB 1260{4}	548.678	488.893 E3	10.9	91	0.00
37	L7C	PCB 1260{5}	317.150	288.078 E3	9.2	87	0.00

Evaluate Continuing Calibration Report - Not Founds

8	L2c	PCB 1221	154.413	0.000 E3	100.0#	0#	-6.09#
9	L2c	PCB 1221{2}	213.553	0.000 E3	100.0#	0#	-7.87#
10	L2c	PCB 1221{3}	144.720	0.000 E3	100.0#	0#	-8.23#
11	L2c	PCB 1221{4}	508.631	0.000 E3	100.0#	0#	-8.35#
12	L2c	PCB 1221{5}	83.280	0.000 E3	100.0#	0#	-9.24#
13	L3c	PCB 1232	430.093	0.000 E3	100.0#	0#	-8.35#
14	L3c	PCB 1232{2}	326.030	0.000 E3	100.0#	0#	-9.24#
15	L3c	PCB 1232{3}	675.020	0.000 E3	100.0#	0#	-10.11#
16	L3c	PCB 1232{4}	279.378	0.000 E3	100.0#	0#	-10.37#
17	L3c	PCB 1232{5}	189.711	0.000 E3	100.0#	0#	-11.73#
18	L4c	PCB 1242	295.937	0.000 E3	100.0#	0#	-8.35#
19	L4c	PCB 1242{2}	234.680	0.000 E3	100.0#	0#	-9.73#

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB331.D
Acq On : 14 Sep 2015 7:28 am
Operator : m.pedro
Sample : ccv12 Inst : 6890G
Misc : ar1660m
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 15 12:59:23 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1287.2E6	829.3E6	62.959	58.390
Spiked Amount 100.000	Range 30 - 150		Recovery =		62.96%	58.39%
2) S SURR2,Decachloro	17.96	19.39	619.1E6	475.6E6	53.692	53.650
Spiked Amount 100.000	Range 30 - 150		Recovery =		53.69%	53.65%
Target Compounds						
3) L1c PCB 1016	8.35	8.78	181.4E6	114.5E6	485.752	445.783
4) L1c PCB 1016{2}	9.24	9.70	366.1E6	248.9E6	488.200	448.826
5) L1c PCB 1016{3}	9.64	10.69	106.5E6	149.7E6	491.501	443.261
6) L1c PCB 1016{4}	9.73	11.03	143.7E6	98605901	483.435	427.883
7) L1c PCB 1016{5}	10.36	11.47	303.2E6	179.7E6	478.019	440.149
Sum PCB 1016			1100.9E6	791.3E6	2426.907	2205.902
Average PCB 1016					485.381	441.180
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	348.8E6	324.0E6	470.311m	454.871
34) L7c PCB 1260{2}	13.09	14.59	413.9E6	193.2E6	456.153m	463.806
35) L7c PCB 1260{3}	14.17	14.81	304.9E6	471.5E6	493.578	480.700
36) L7C PCB 1260{4}	14.62	15.82	549.9E6	244.4E6	477.425	445.519
37) L7C PCB 1260{5}	16.68	17.02	127.5E6	144.0E6	442.908	454.166
Sum PCB 1260			1745.1E6	1377.1E6	2340.376	2299.062
Average PCB 1260					468.075	459.812
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

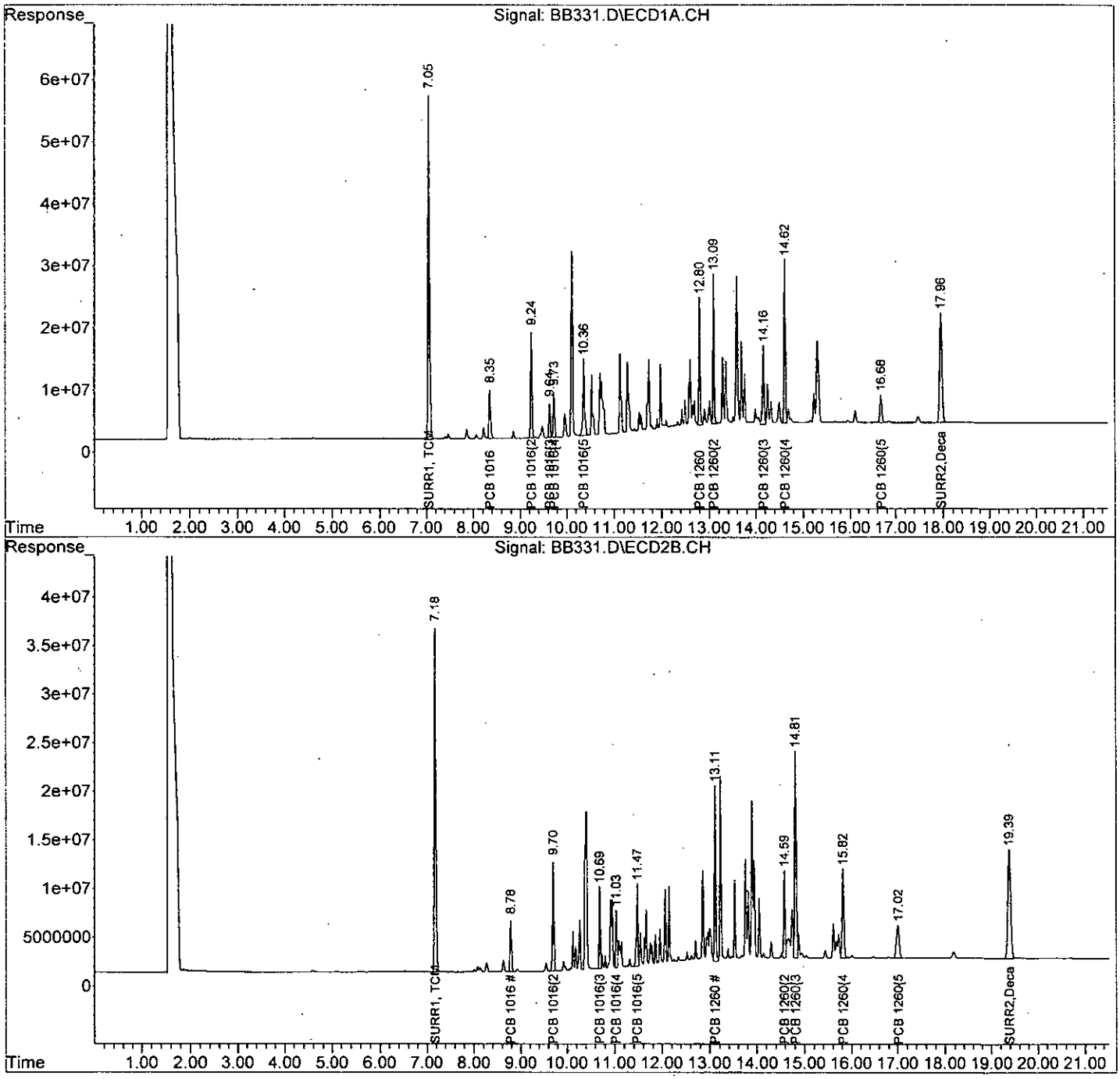
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB331.D
Acq On : 14 Sep 2015 7:28 am
Operator : m.pedro
Sample : ccv12 Inst : 6890G
Misc : ar1660m
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 15 12:59:23 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

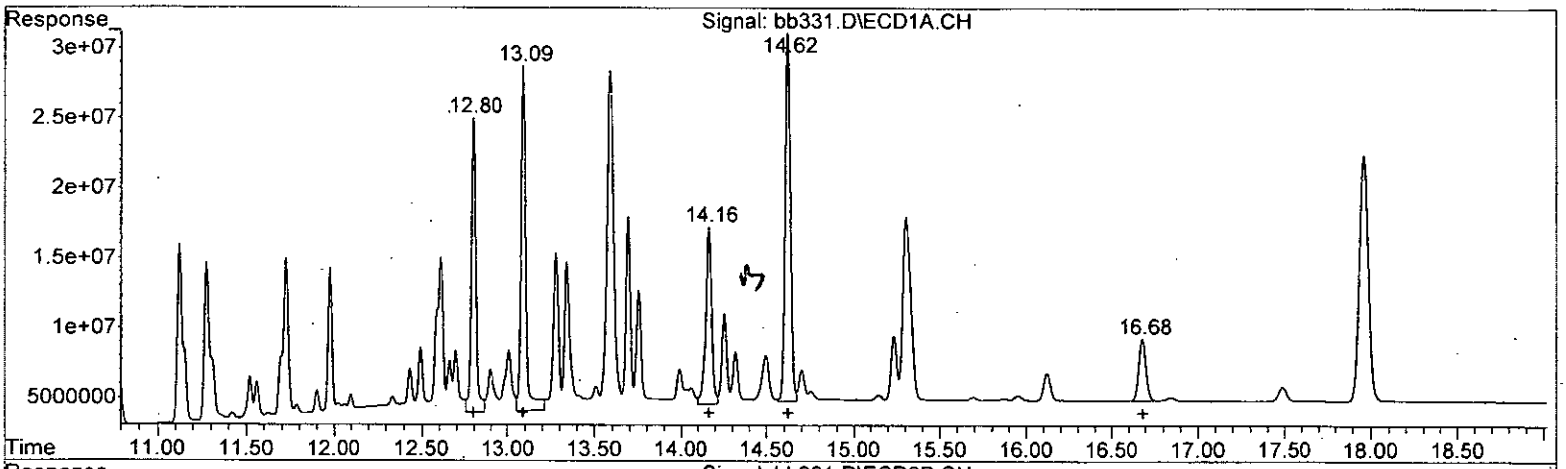


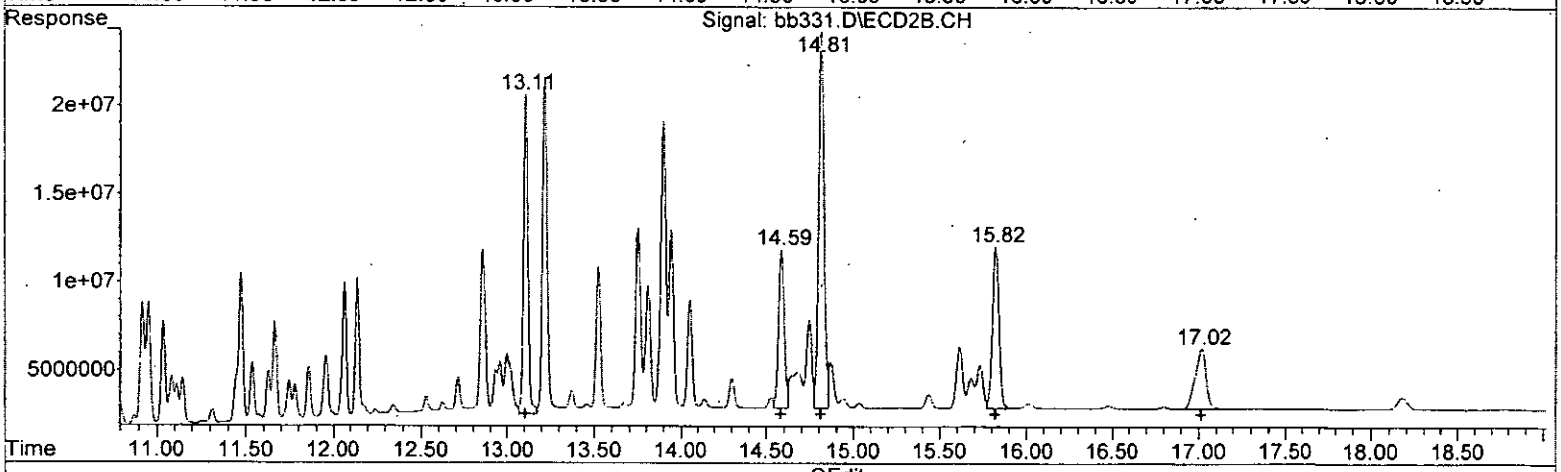
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb331.D
Acq On : 14 Sep 2015 7:28 am
Operator : m.pedro
Sample : ccv12 Inst : 6890G
Misc : ar1660m
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 14 11:32:59 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(33) PCB 1260 (L7c)

R.T.	Response	Conc
12.80	387888754	523.03
13.09	478260430	527.07
14.17	304899281	493.58
14.62	549914229	477.43
16.68	127543195	442.91

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
13.11	324004536	454.87
14.59	193156643	463.81
14.81	471500424	480.70
15.82	244446257	445.52
17.02	144038968	454.17

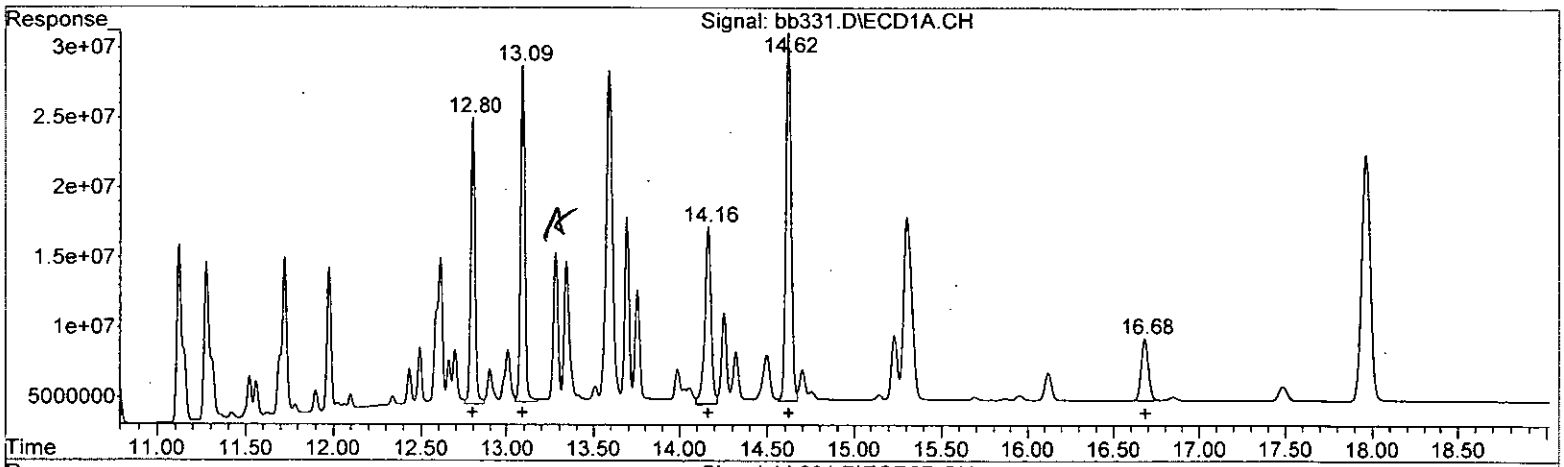
(+) = Expected Retention Time

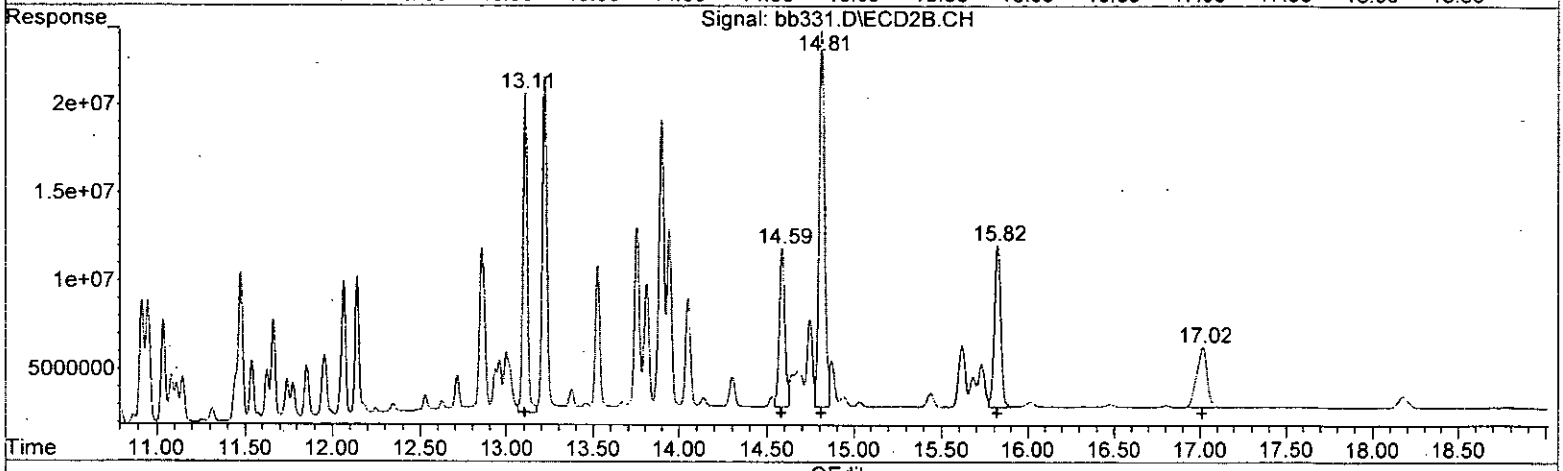
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : bb331.D
Acq On : 14 Sep 2015 7:28 am
Operator : m.pedro
Sample : ccv12 Inst : 6890G
Misc : ar1660m
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 15 12:59:23 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(33) PCB 1260 (L7c)

R.T.	Response	Conc
12.80	348794222	470.31
13.09	413908761	456.15
14.17	304899281	493.58
14.62	549914229	477.43
16.68	127543195	442.91

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
13.11	324004536	454.87
14.59	193156643	463.81
14.81	471500424	480.70
15.82	244446257	445.52
17.02	144038968	454.17

BC 9/15 W 9/15

(+) = Expected Retention Time

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : bb342.D
Acq On : 14 Sep 2015 4:04 pm
Operator : m.pedro
Sample : ccv13 Inst : 6890G
Misc : ar1660m
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 15 13:07:47 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	S	SURR1, TCMX	20.445	19.746 E6	3.4	96	0.00
2	S	SURR2,Decachlorobiphenyl	11.530	9.982 E6	13.4	86	0.00
3	L1c	PCB 1016	373.541	338.788 E3	9.3	96	0.00
4	L1c	PCB 1016{2}	749.882	695.130 E3	7.3	97	0.00
5	L1c	PCB 1016{3}	216.673	199.648 E3	7.9	94	0.00
6	L1c	PCB 1016{4}	297.189	270.576 E3	9.0	95	0.00
7	L1c	PCB 1016{5}	634.287	577.312 E3	9.0	95	0.00
33	L7c	PCB 1260	741.624	705.270 E3	4.9	98	0.00
34	L7c	PCB 1260{2}	907.390	876.891 E3	3.4	100	0.00
35	L7c	PCB 1260{3}	617.732	579.661 E3	6.2	94	0.00
36	L7C	PCB 1260{4}	1.152	1.051 E6	8.8	91	0.00
37	L7C	PCB 1260{5}	287.968	240.940 E3	16.3#	84	0.00

Signal #2

1	S	SURR1, TCMX	14.204	13.153 E6	7.4	93	0.00
2	S	SURR2,Decachlorobiphenyl	8.865	7.578 E6	14.5	83	0.00
3	L1c	PCB 1016	256.768	219.975 E3	14.3	92	0.00
4	L1c	PCB 1016{2}	554.488	478.155 E3	13.8	92	0.00
5	L1c	PCB 1016{3}	337.816	288.675 E3	14.5	89	0.00
6	L1c	PCB 1016{4}	230.451	190.509 E3	17.3#	90	0.00
7	L1c	PCB 1016{5}	408.174	340.040 E3	16.7#	88	0.00
33	L7c	PCB 1260	712.299	612.277 E3	14.0	93	0.00
34	L7c	PCB 1260{2}	416.460	369.251 E3	11.3	90	0.00
35	L7c	PCB 1260{3}	980.862	870.560 E3	11.2	87	0.00
36	L7C	PCB 1260{4}	548.678	459.938 E3	16.2#	86	0.00
37	L7C	PCB 1260{5}	317.150	272.122 E3	14.2	82	0.00

Evaluate Continuing Calibration Report - Not Founds

8	L2c	PCB 1221	154.413	0.000 E3	100.0#	0#	-6.09#
9	L2c	PCB 1221{2}	213.553	0.000 E3	100.0#	0#	-7.87#
10	L2c	PCB 1221{3}	144.720	0.000 E3	100.0#	0#	-8.23#
11	L2c	PCB 1221{4}	508.631	0.000 E3	100.0#	0#	-8.35#
12	L2c	PCB 1221{5}	83.280	0.000 E3	100.0#	0#	-9.24#
13	L3c	PCB 1232	430.093	0.000 E3	100.0#	0#	-8.35#
14	L3c	PCB 1232{2}	326.030	0.000 E3	100.0#	0#	-9.24#
15	L3c	PCB 1232{3}	675.020	0.000 E3	100.0#	0#	-10.11#
16	L3c	PCB 1232{4}	279.378	0.000 E3	100.0#	0#	-10.37#
17	L3c	PCB 1232{5}	189.711	0.000 E3	100.0#	0#	-11.73#
18	L4c	PCB 1242	295.937	0.000 E3	100.0#	0#	-8.35#
19	L4c	PCB 1242{2}	234.680	0.000 E3	100.0#	0#	-9.73#

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB342.D
Acq On : 14 Sep 2015 4:04 pm
Operator : m.pedro
Sample : ccv13 Inst : 6890G
Misc : ar1660m
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 15 13:07:47 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1184.7E6	789.2E6	57.946	55.561
Spiked Amount 100.000	Range 30 - 150		Recovery =		57.95%	55.56%
2) S SURR2,Decachloro	17.96	19.39	598.9E6	454.7E6	51.946	51.293
Spiked Amount 100.000	Range 30 - 150		Recovery =		51.95%	51.29%
Target Compounds						
3) L1c PCB 1016	8.35	8.78	169.4E6	110.0E6	453.482	428.354
4) L1c PCB 1016{2}	9.24	9.71	347.6E6	239.1E6	463.493	431.169
5) L1c PCB 1016{3}	9.64	10.69	99823960	144.3E6	460.713	427.266
6) L1c PCB 1016{4}	9.73	11.03	135.3E6	95254694	455.226	413.341
7) L1c PCB 1016{5}	10.36	11.47	288.7E6	170.0E6	455.087	416.538
Sum PCB 1016			1040.7E6	758.7E6	2288.001	2116.668
Average PCB 1016					457.600	423.334
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	352.6E6	306.1E6	475.490	429.789
34) L7c PCB 1260{2}	13.09	14.59	438.4E6	184.6E6	483.195	443.321
35) L7c PCB 1260{3}	14.16	14.82	289.8E6	435.3E6	469.185	443.773
36) L7C PCB 1260{4}	14.62	15.82	525.7E6	230.0E6	456.412	419.133
37) L7C PCB 1260{5}	16.68	17.02	120.5E6	136.1E6	418.345	429.012
Sum PCB 1260			1727.1E6	1292.1E6	2302.627	2165.027
Average PCB 1260					460.525	433.005
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

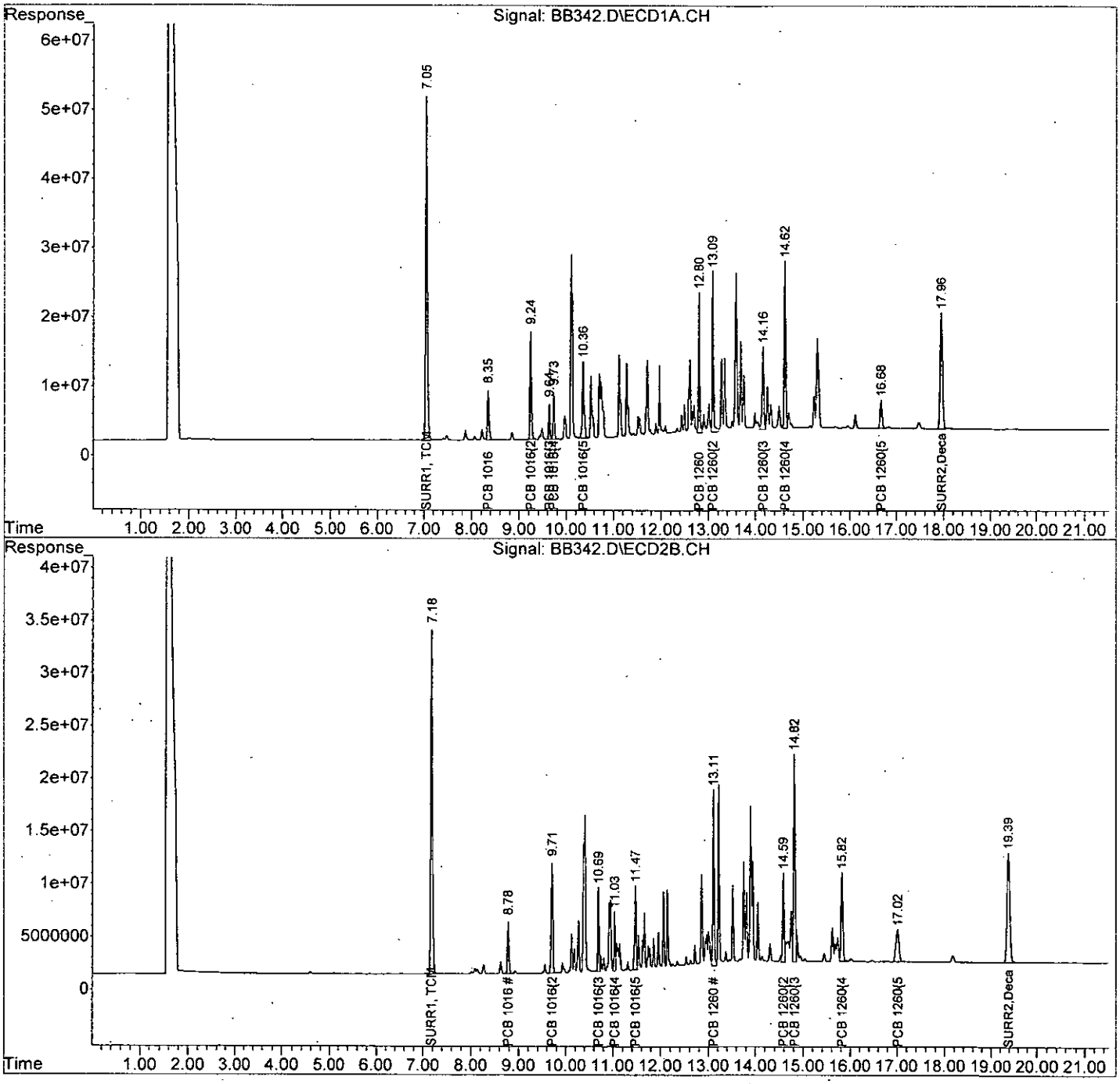
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB342.D
Acq On : 14 Sep 2015 4:04 pm
Operator : m.pedro
Sample : ccv13 Inst : 6890G
Misc : ar1660m
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 15 13:07:47 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb352.D
Acq On : 14 Sep 2015 8:15 pm
Operator : m.pedro
Sample : ccv14 Inst : 6890G
Misc : ar1660m
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 15 13:21:57 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	S	SURR1, TCMX	20.445	23.546 E6	-15.2#	115	0.00
2	S	SURR2,Decachlorobiphenyl	11.530	12.335 E6	-7.0	106	0.00
3	L1c	PCB 1016	373.541	392.967 E3	-5.2	111	0.00
4	L1c	PCB 1016{2}	749.882	789.565 E3	-5.3	110	0.00
5	L1c	PCB 1016{3}	216.673	228.862 E3	-5.6	108	0.00
6	L1c	PCB 1016{4}	297.189	308.270 E3	-3.7	108	0.00
7	L1c	PCB 1016{5}	634.287	651.159 E3	-2.7	107	0.00
33	L7c	PCB 1260	741.624	804.139 E3	-8.4	112	0.00
34	L7c	PCB 1260{2}	907.390	1019.344 E3	-12.3	116	0.00
35	L7c	PCB 1260{3}	617.732	675.967 E3	-9.4	110	0.00
36	L7C	PCB 1260{4}	1.152	1.260 E6	-9.4	109	0.00
37	L7C	PCB 1260{5}	287.968	305.134 E3	-6.0	107	0.00

Signal #2

1	S	SURR1, TCMX	14.204	15.726 E6	-10.7	111	0.00
2	S	SURR2,Decachlorobiphenyl	8.865	9.941 E6	-12.1	110	0.00
3	L1c	PCB 1016	256.768	260.235 E3	-1.4	109	0.00
4	L1c	PCB 1016{2}	554.488	563.413 E3	-1.6	108	0.00
5	L1c	PCB 1016{3}	337.816	333.435 E3	1.3	102	0.00
6	L1c	PCB 1016{4}	230.451	220.940 E3	4.1	104	0.00
7	L1c	PCB 1016{5}	408.174	398.572 E3	2.4	103	0.00
33	L7c	PCB 1260	712.299	727.958 E3	-2.2	110	0.00
34	L7c	PCB 1260{2}	416.460	436.874 E3	-4.9	106	0.00
35	L7c	PCB 1260{3}	980.862	1075.276 E3	-9.6	108	0.00
36	L7C	PCB 1260{4}	548.678	563.866 E3	-2.8	105	0.00
37	L7C	PCB 1260{5}	317.150	348.399 E3	-9.9	105	0.00

Evaluate Continuing Calibration Report - Not Founds

8	L2c	PCB 1221	154.413	0.000 E3	100.0#	0#	-6.09#
9	L2c	PCB 1221{2}	213.553	0.000 E3	100.0#	0#	-7.87#
10	L2c	PCB 1221{3}	144.720	0.000 E3	100.0#	0#	-8.23#
11	L2c	PCB 1221{4}	508.631	0.000 E3	100.0#	0#	-8.35#
12	L2c	PCB 1221{5}	83.280	0.000 E3	100.0#	0#	-9.24#
13	L3c	PCB 1232	430.093	0.000 E3	100.0#	0#	-8.35#
14	L3c	PCB 1232{2}	326.030	0.000 E3	100.0#	0#	-9.24#
15	L3c	PCB 1232{3}	675.020	0.000 E3	100.0#	0#	-10.11#
16	L3c	PCB 1232{4}	279.378	0.000 E3	100.0#	0#	-10.37#
17	L3c	PCB 1232{5}	189.711	0.000 E3	100.0#	0#	-11.73#
18	L4c	PCB 1242	295.937	0.000 E3	100.0#	0#	-8.35#
19	L4c	PCB 1242{2}	234.680	0.000 E3	100.0#	0#	-9.73#

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB352.D
Acq On : 14 Sep 2015 8:15 pm
Operator : m.pedro
Sample : ccv14 Inst : 6890G
Misc : ar1660m
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 15 13:21:57 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

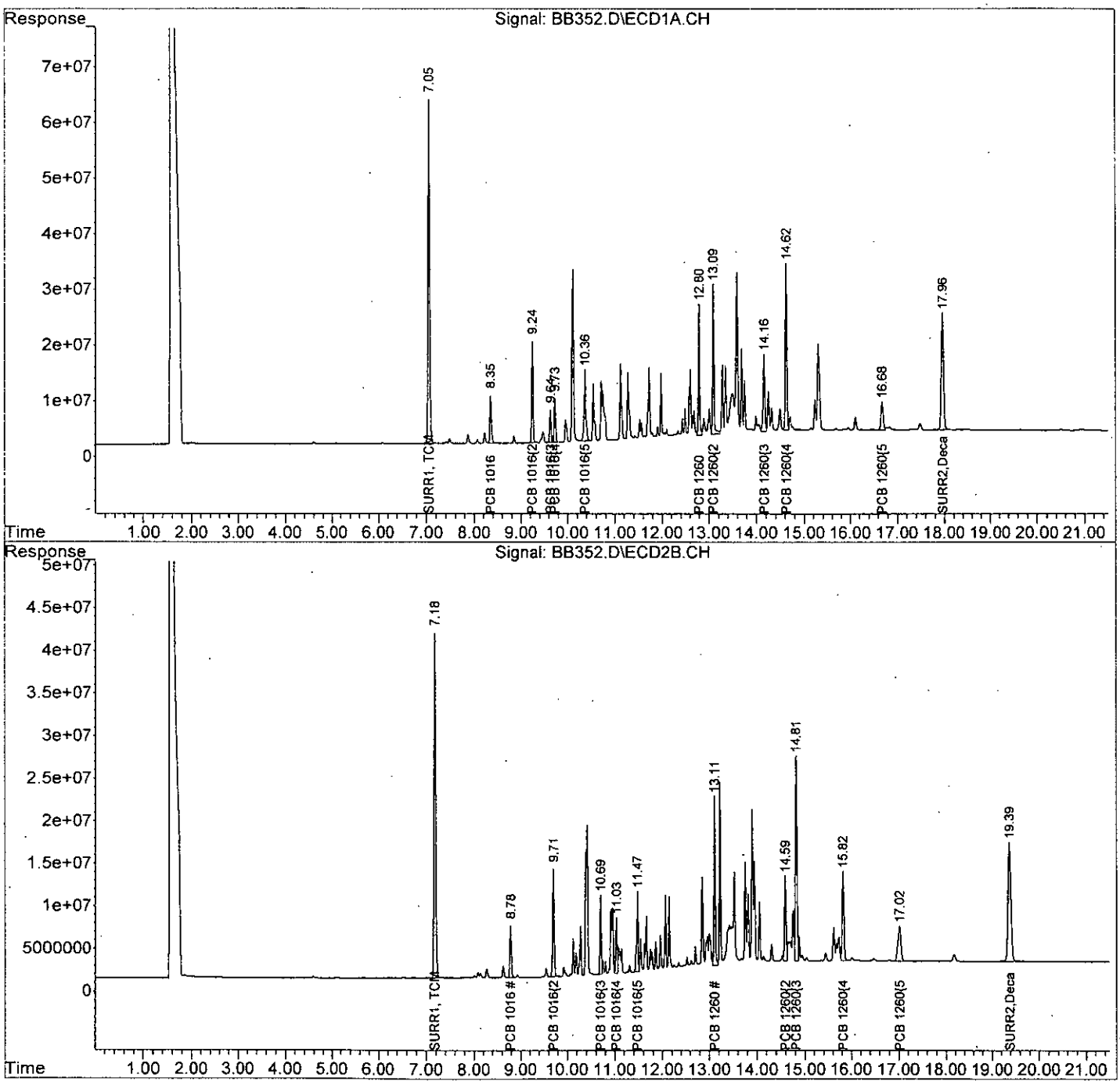
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1412.8E6	943.5E6	69.100	66.429
Spiked Amount 100.000	Range 30 - 150		Recovery =		69.10%	66.43%
2) S SURR2,Decachloro	17.96	19.39	740.1E6	596.5E6	64.188	67.284
Spiked Amount 100.000	Range 30 - 150		Recovery =		64.19%	67.28%
Target Compounds						
3) L1c PCB 1016	8.35	8.78	196.5E6	130.1E6	526.002	506.752
4) L1c PCB 1016{2}	9.24	9.71	394.8E6	281.7E6	526.459	508.049
5) L1c PCB 1016{3}	9.64	10.69	114.4E6	166.7E6	528.129	493.516
6) L1c PCB 1016{4}	9.73	11.03	154.1E6	110.5E6	518.643	479.364
7) L1c PCB 1016{5}	10.36	11.47	325.6E6	199.3E6	513.300	488.238
Sum PCB 1016			1185.4E6	888.3E6	2612.533	2475.919
Average PCB 1016					522.507	495.184
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	402.1E6	364.0E6	542.147	510.992
34) L7c PCB 1260{2}	13.09	14.59	509.7E6	218.4E6	561.690	524.509
35) L7c PCB 1260{3}	14.16	14.81	338.0E6	537.6E6	547.136	548.128
36) L7C PCB 1260{4}	14.62	15.82	629.8E6	281.9E6	546.783	513.840
37) L7C PCB 1260{5}	16.68	17.02	152.6E6	174.2E6	529.807	549.265
Sum PCB 1260			2032.1E6	1576.2E6	2727.563	2646.734
Average PCB 1260					545.513	529.347
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB352.D
Acq On : 14 Sep 2015 8:15 pm
Operator : m.pedro
Sample : ccv14 Inst : 6890G
Misc : ar1660m
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 15 13:21:57 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



10A

Pesticide Identification Summary
For Multi Component Analytes

NYSDEC Sample No.

PBLK1MS

Lab Name: ALS Environmental ***Contract:*** PARSONS

Lab Code: 10145 ***Case.No.:*** R1507508 ***SAS No.:*** _____ ***SDG No.:*** BLDG1203-SS-EX1

Lab Sample ID: rq1510616-02|1.0 ***Date anlyzed:*** 9/14/2015

Instrument ID: 6890G ***Instrument ID:*** 6890G

GC Column(1) DB-1701 ***(ID):*** 0.32mm 30 ***GC Column(2)*** DB-17 ***(ID):*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
PCB 1016	DB-1701	8.35	8.28	8.42	134.68	
PCB 1016	DB-1701	9.24	9.17	9.31	137.15	
PCB 1016	DB-1701	9.64	9.57	9.71	140.17	
PCB 1016	DB-1701	9.73	9.67	9.81	140.77	
PCB 1016	DB-1701	10.36	10.30	10.44	144.48	
				Result Average	139.45	0.00
PCB 1016	DB-17	8.78	8.71	8.85	122.58	
PCB 1016	DB-17	9.71	9.64	9.78	127.01	
PCB 1016	DB-17	10.69	10.62	10.76	127.61	
PCB 1016	DB-17	11.03	10.96	11.10	121.07	
PCB 1016	DB-17	11.47	11.40	11.54	125.75	
				Result Average	124.80	11.09

10A

Pesticide Identification Summary
For Multi Component Analytes

NYSDEC Sample No.

PBLK1MS

Lab Name: ALS Environmental ***Contract:*** PARSONS

Lab Code: 10145 ***Case.No.:*** R1507508 ***SAS No.:*** _____ ***SDG No.:*** BLDG1203-SS-EX1

Lab Sample ID: rq1510616-02|1.0 ***Date anlyzed:*** 9/14/2015

Instrument ID: 6890G ***Instrument ID:*** 6890G

GC Column(1) DB-1701 ***(ID):*** 0.32mm 30 ***GC Column(2)*** DB-17 ***(ID):*** 0.32mm 30m

RT Window

Analyte	*Column*	*RT*	*From*	*To*	*Concentration*	*%RPD*
PCB 1260	DB-1701	12.80	12.73	12.87	144.26	
PCB 1260	DB-1701	13.09	13.02	13.16	143.75	
PCB 1260	DB-1701	14.16	14.10	14.24	144.54	
PCB 1260	DB-1701	14.62	14.55	14.69	132.41	
PCB 1260	DB-1701	16.68	16.62	16.76	117.79	
				Result Average	136.55	0.00
PCB 1260	DB-17	13.11	13.04	13.18	125.04	
PCB 1260	DB-17	14.59	14.52	14.66	126.57	
PCB 1260	DB-17	14.81	14.74	14.88	131.60	
PCB 1260	DB-17	15.82	15.75	15.89	119.21	
PCB 1260	DB-17	17.02	16.95	17.09	123.06	
				Result Average	125.10	8.75

10A

Pesticide Identification Summary
For Multi Component Analytes

NYSDEC Sample No.

PBLK1MSD

Lab Name: ALS Environmental *Contract:* PARSONS

Lab Code: 10145 *Case.No.:* R1507508 *SAS No.:* _____ *SDG No.:* BLDG1203-SS-EX1

Lab Sample ID: rq1510616-03|1.0 *Date anlyzed:* 9/14/2015

Instrument ID: 6890G *Instrument ID:* 6890G

GC Column(1) DB-1701 *(ID):* 0.32mm 30 *GC Column(2)* DB-17 *(ID):* 0.32mm 30m

			RT Window			
Analyte	*Column*	*RT*	*From*	*To*	*Concentration*	*%RPD*
PCB 1016	DB-1701	8.35	8.28	8.42	125.26	
PCB 1016	DB-1701	9.24	9.17	9.31	128.58	
PCB 1016	DB-1701	9.64	9.57	9.71	129.97	
PCB 1016	DB-1701	9.73	9.67	9.81	135.42	
PCB 1016	DB-1701	10.36	10.30	10.44	139.84	
				Result Average	131.81	0.00
PCB 1016	DB-17	8.78	8.71	8.85	115.83	
PCB 1016	DB-17	9.71	9.64	9.78	121.11	
PCB 1016	DB-17	10.69	10.62	10.76	129.22	
PCB 1016	DB-17	11.03	10.96	11.10	122.14	
PCB 1016	DB-17	11.47	11.40	11.54	138.72	
				Result Average	125.40	4.99

10A

Pesticide Identification Summary
For Multi Component Analytes

NYSDEC Sample No.

PBLK1MSD

Lab Name: ALS Environmental ***Contract:*** PARSONS

Lab Code: 10145 ***Case.No.:*** R1507508 ***SAS No.:*** _____ ***SDG No.:*** BLDG1203-SS-EX1

Lab Sample ID: rq1510616-03|1.0 ***Date anlyzed:*** 9/14/2015

Instrument ID: 6890G ***Instrument ID:*** 6890G

GC Column(1) DB-1701 ***(ID):*** 0.32mm 30 ***GC Column(2)*** DB-17 ***(ID):*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
PCB 1260	DB-1701	12.80	12.73	12.87	133.42	
PCB 1260	DB-1701	13.09	13.02	13.16	134.28	
PCB 1260	DB-1701	14.16	14.10	14.24	134.54	
PCB 1260	DB-1701	14.62	14.55	14.69	126.06	
PCB 1260	DB-1701	16.68	16.62	16.76	118.33	
				Result Average	129.32	0.00
PCB 1260	DB-17	13.11	13.04	13.18	125.87	
PCB 1260	DB-17	14.59	14.52	14.66	129.97	
PCB 1260	DB-17	14.81	14.74	14.88	127.23	
PCB 1260	DB-17	15.82	15.75	15.89	119.38	
PCB 1260	DB-17	17.02	16.95	17.09	120.95	
				Result Average	124.68	3.66

00119

10A

Pesticide Identification Summary
For Multi Component Analytes

NYSDEC Sample No.

G1203-SS-EX1-01(N)-30-3

Lab Name: ALS Environmental ***Contract:*** PARSONS

Lab Code: 10145 ***Case.No.:*** R1507508 ***SAS No.:*** _____ ***SDG No.:*** BLDG1203-SS-EX1

Lab Sample ID: rq1510616-04|1.0 ***Date anlyzed:*** 9/14/2015

Instrument ID: 6890G ***Instrument ID:*** 6890G

GC Column(1) DB-1701 ***(ID):*** 0.32mm 30 ***GC Column(2)*** DB-17 ***(ID):*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
PCB 1016	DB-1701	8.38	8.28	8.42	66.75	
PCB 1016	DB-1701	9.26	9.17	9.31	69.93	
PCB 1016	DB-1701	9.66	9.57	9.71	82.08	
PCB 1016	DB-1701	9.75	9.67	9.81	87.62	
PCB 1016	DB-1701	10.38	10.30	10.44	80.69	
				Result Average	77.42	0.00
PCB 1016	DB-17	8.80	8.71	8.85	82.18	
PCB 1016	DB-17	9.73	9.64	9.78	75.98	
PCB 1016	DB-17	10.71	10.62	10.76	76.76	
PCB 1016	DB-17	11.05	10.96	11.10	76.51	
PCB 1016	DB-17	11.49	11.40	11.54	81.00	
				Result Average	78.49	1.37

10A

Pesticide Identification Summary

For Multi Component Analytes

NYSDEC Sample No.

G1203-SS-EX1-01(N)-30-3

Lab Name: ALS Environmental ***Contract:*** PARSONS

Lab Code: 10145 ***Case.No.:*** R1507508 ***SAS No.:*** _____ ***SDG No.:*** BLDG1203-SS-EX1

Lab Sample ID: rq1510616-04|1.0 ***Date anlyzed:*** 9/14/2015

Instrument ID: 6890G ***Instrument ID:*** 6890G

GC Column(1) DB-1701 ***(ID):*** 0.32mm 30 ***GC Column(2)*** DB-17 ***(ID):*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
PCB 1260	DB-1701	12.81	12.73	12.87	88.56	
PCB 1260	DB-1701	13.10	13.02	13.16	89.58	
PCB 1260	DB-1701	14.17	14.10	14.24	107.72	
PCB 1260	DB-1701	14.63	14.55	14.69	100.23	
PCB 1260	DB-1701	16.69	16.62	16.76	134.63	
				Result Average	104.14	0.00
PCB 1260	DB-17	13.12	13.04	13.18	85.81	
PCB 1260	DB-17	14.59	14.52	14.66	93.21	
PCB 1260	DB-17	14.82	14.74	14.88	93.47	
PCB 1260	DB-17	15.83	15.75	15.89	96.71	
PCB 1260	DB-17	17.02	16.95	17.09	106.75	
				Result Average	95.19	8.99

10A

Pesticide Identification Summary
For Multi Component Analytes

NYSDEC Sample No.

1203-SS-EX1-01(N)-30-36

Lab Name: ALS Environmental ***Contract:*** PARSONS

Lab Code: 10145 ***Case.No.:*** R1507508 ***SAS No.:*** _____ ***SDG No.:*** BLDG1203-SS-EX1

Lab Sample ID: rq1510616-05|1.0 ***Date anlyzed:*** 9/14/2015

Instrument ID: 6890G ***Instrument ID:*** 6890G

GC Column(1) DB-1701 ***(ID):*** 0.32mm 30 ***GC Column(2)*** DB-17 ***(ID):*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
PCB 1016	DB-1701	8.38	8.28	8.42	60.63	
PCB 1016	DB-1701	9.27	9.17	9.31	63.43	
PCB 1016	DB-1701	9.66	9.57	9.71	64.14	
PCB 1016	DB-1701	9.76	9.67	9.81	69.17	
PCB 1016	DB-1701	10.39	10.30	10.44	78.43	
				Result Average	67.16	0.00
PCB 1016	DB-17	8.81	8.71	8.85	65.81	
PCB 1016	DB-17	9.73	9.64	9.78	64.97	
PCB 1016	DB-17	10.71	10.62	10.76	78.41	
PCB 1016	DB-17	11.05	10.96	11.10	63.13	
PCB 1016	DB-17	11.49	11.40	11.54	68.64	
				Result Average	68.19	1.52

10A

Pesticide Identification Summary
For Multi Component Analytes

NYSDEC Sample No.

1203-SS-EX1-01(N)-30-36

Lab Name: ALS Environmental *Contract:* PARSONS

Lab Code: 10145 *Case.No.:* R1507508 *SAS No.:* _____ *SDG No.:* BLDG1203-SS-EX1

Lab Sample ID: rq1510616-05|1.0 *Date anlyzed:* 9/14/2015

Instrument ID: 6890G *Instrument ID:* 6890G

GC Column(1) DB-1701 *(ID):* 0.32mm 30 *GC Column(2)* DB-17 *(ID):* 0.32mm 30m

			RT Window			
Analyte	*Column*	*RT*	*From*	*To*	*Concentration*	*%RPD*
PCB 1260	DB-1701	12.81	12.73	12.87	80.95	
PCB 1260	DB-1701	13.11	13.02	13.16	78.89	
PCB 1260	DB-1701	14.17	14.10	14.24	92.59	
PCB 1260	DB-1701	14.63	14.55	14.69	86.62	
PCB 1260	DB-1701	16.69	16.62	16.76	137.70	
				Result Average	95.35	0.00
PCB 1260	DB-17	13.12	13.04	13.18	69.96	
PCB 1260	DB-17	14.59	14.52	14.66	95.17	
PCB 1260	DB-17	14.82	14.74	14.88	85.46	
PCB 1260	DB-17	15.83	15.75	15.89	98.45	
PCB 1260	DB-17	17.03	16.95	17.09	88.20	
				Result Average	87.45	8.64

ALS Environmental

PCB's
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 13:33
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1510616-01	**Basis:**	Dry

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB336.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	33	17	17	
11104-28-2	Aroclor 1221	ND	U	67	34	34	
11141-16-5	Aroclor 1232	ND	U	33	17	17	
53469-21-9	Aroclor 1242	ND	U	33	17	17	
12672-29-6	Aroclor 1248	ND	U	33	17	17	
11097-69-1	Aroclor 1254	ND	U	33	19	19	
11096-82-5	Aroclor 1260	ND	U	33	17	17	
11100-14-4	Aroclor 1268	ND	U	33	18	18	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	76	60-125	9/14/15 13:33	
Tetrachloro-m-xylene	82	27-134	9/14/15 13:33	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB336.D
Acq On : 14 Sep 2015 1:33 pm
Operator : m.pedro
Sample : rq1510616-01|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 15 13:04:07 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1801.9E6	1168.4E6	88.131	82.264
Spiked Amount 100.000	Range 30 - 150		Recovery =		88.13%	82.26%
2) S SURR2,Decachloro	17.96	19.39	873.2E6	674.4E6	75.731	76.078
Spiked Amount 100.000	Range 30 - 150		Recovery =		75.73%	76.08%
Target Compounds						
Sum PCB 1016			0	0	N.D.	N.D.
Average PCB 1016					0.000	0.000
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
Sum PCB 1260			0	0	N.D.	N.D.
Average PCB 1260					0.000	0.000
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

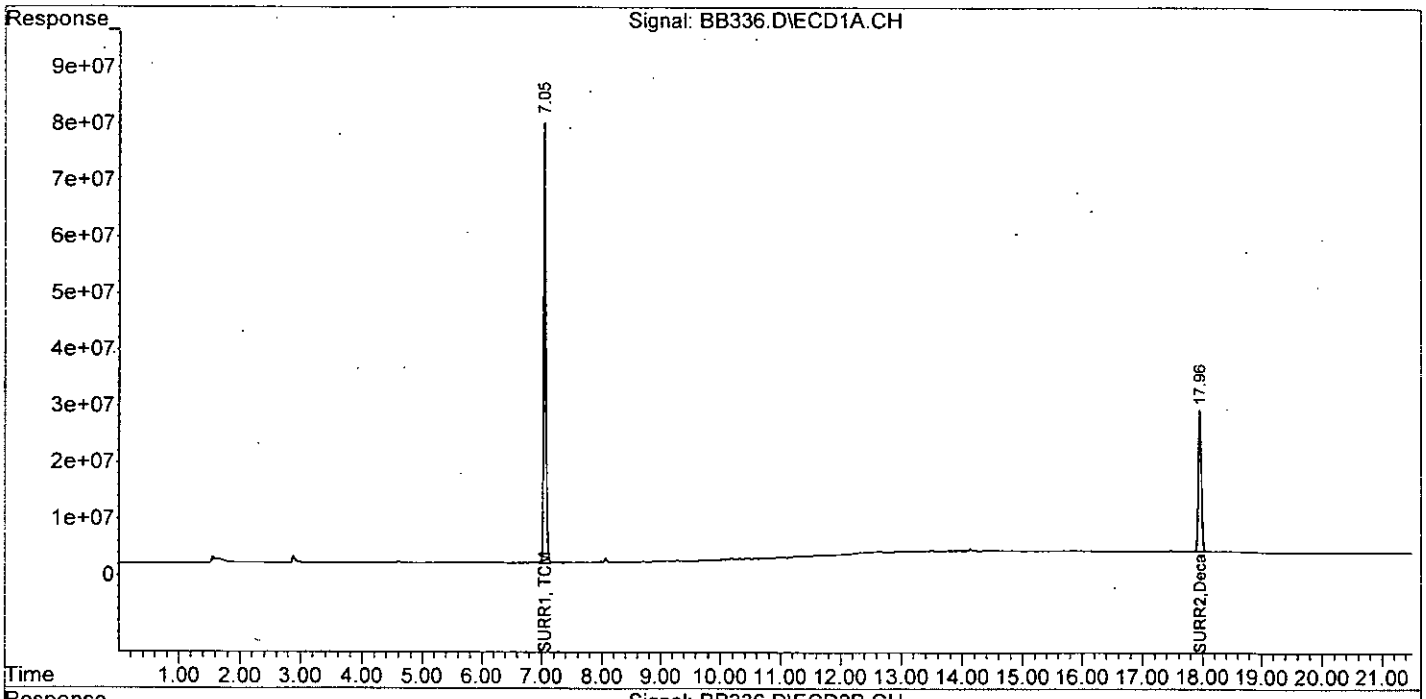
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

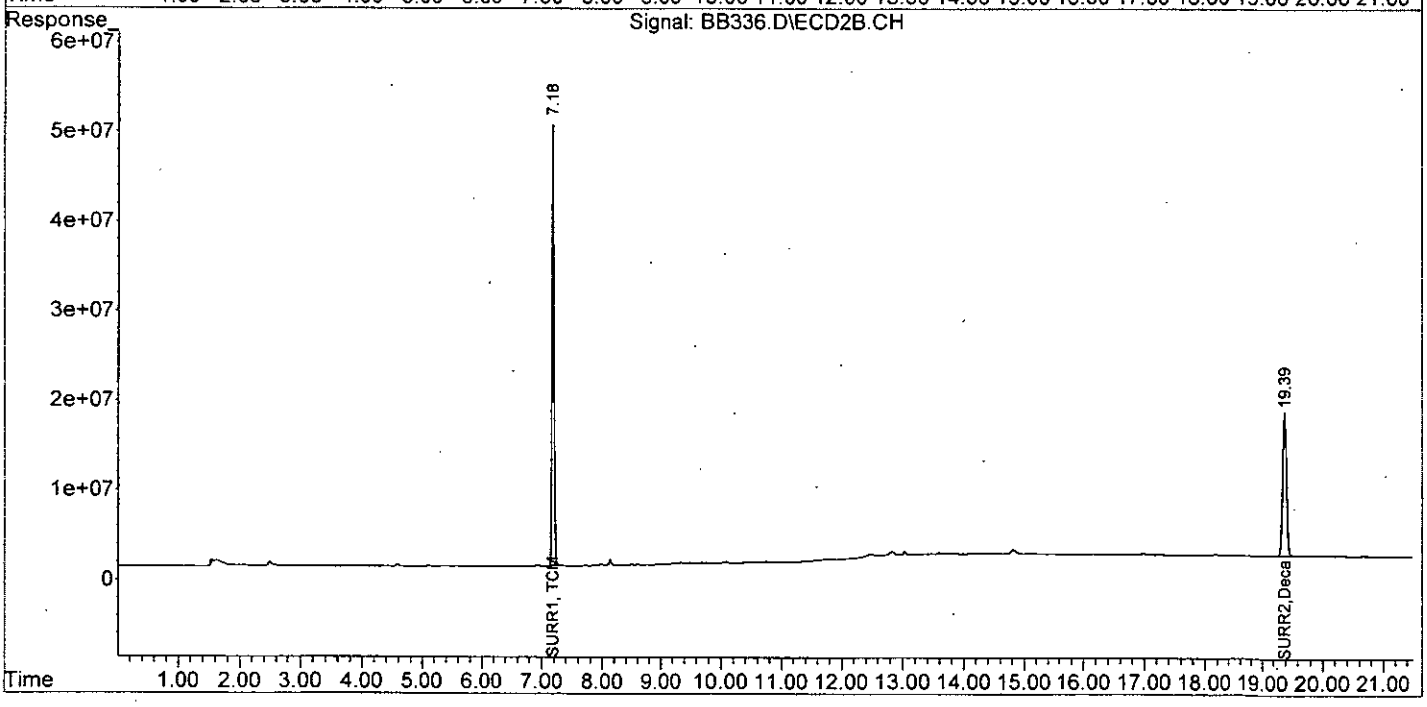
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB336.D
Acq On : 14 Sep 2015 1:33 pm
Operator : m.pedro
Sample : rq1510616-01|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 15 13:04:07 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 13:58
Sample Name:	Lab Control Sample	**Units:**	µg/Kg
Lab Code:	RQ1510616-02	**Basis:**	Dry

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB337.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	**125**		33	17	17	
11104-28-2	Aroclor 1221	ND	U	67	34	34	
11141-16-5	Aroclor 1232	ND	U	33	17	17	
53469-21-9	Aroclor 1242	ND	U	33	17	17	
12672-29-6	Aroclor 1248	ND	U	33	17	17	
11097-69-1	Aroclor 1254	ND	U	33	19	19	
11096-82-5	Aroclor 1260	**125**		33	17	17	
11100-14-4	Aroclor 1268	ND	U	33	18	18	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	76	60-125	9/14/15 13:58	
Tetrachloro-m-xylene	82	27-134	9/14/15 13:58	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB337.D
Acq On : 14 Sep 2015 1:58 pm
Operator : m.pedro
Sample : rq1510616-02|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 15 13:04:38 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1774.4E6	1160.2E6	86.785	81.682
Spiked Amount 100.000	Range 30 - 150		Recovery =		86.78%	81.68%
2) S SURR2,Decachloro	17.96	19.39	874.7E6	680.7E6	75.863	76.781
Spiked Amount 100.000	Range 30 - 150		Recovery =		75.86%	76.78%
Target Compounds						
3) L1c PCB 1016	8.35	8.78	150.9E6	94424764	404.054	367.743
4) L1c PCB 1016{2}	9.24	9.71	308.5E6	211.3E6	411.443	381.041
5) L1c PCB 1016{3}	9.64	10.69	91113824	129.3E6	420.514	382.818
6) L1c PCB 1016{4}	9.73	11.03	125.5E6	83698613	422.324	363.195
7) L1c PCB 1016{5}	10.36	11.47	274.9E6	154.0E6	433.437	377.254
Sum PCB 1016			951.0E6	672.7E6	2091.771	1872.052
Average PCB 1016					418.354	374.410
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	321.0E6	267.2E6	432.795	375.105
34) L7c PCB 1260{2}	13.09	14.59	391.3E6	158.1E6	431.254	379.721
35) L7c PCB 1260{3}	14.16	14.81	267.9E6	387.3E6	433.619	394.808
36) L7C PCB 1260{4}	14.62	15.82	457.5E6	196.2E6	397.218	357.632
37) L7C PCB 1260{5}	16.68	17.02	101.8E6	117.1E6	353.368	369.189
Sum PCB 1260			1539.4E6	1125.9E6	2048.254	1876.456
Average PCB 1260					409.651	375.291
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

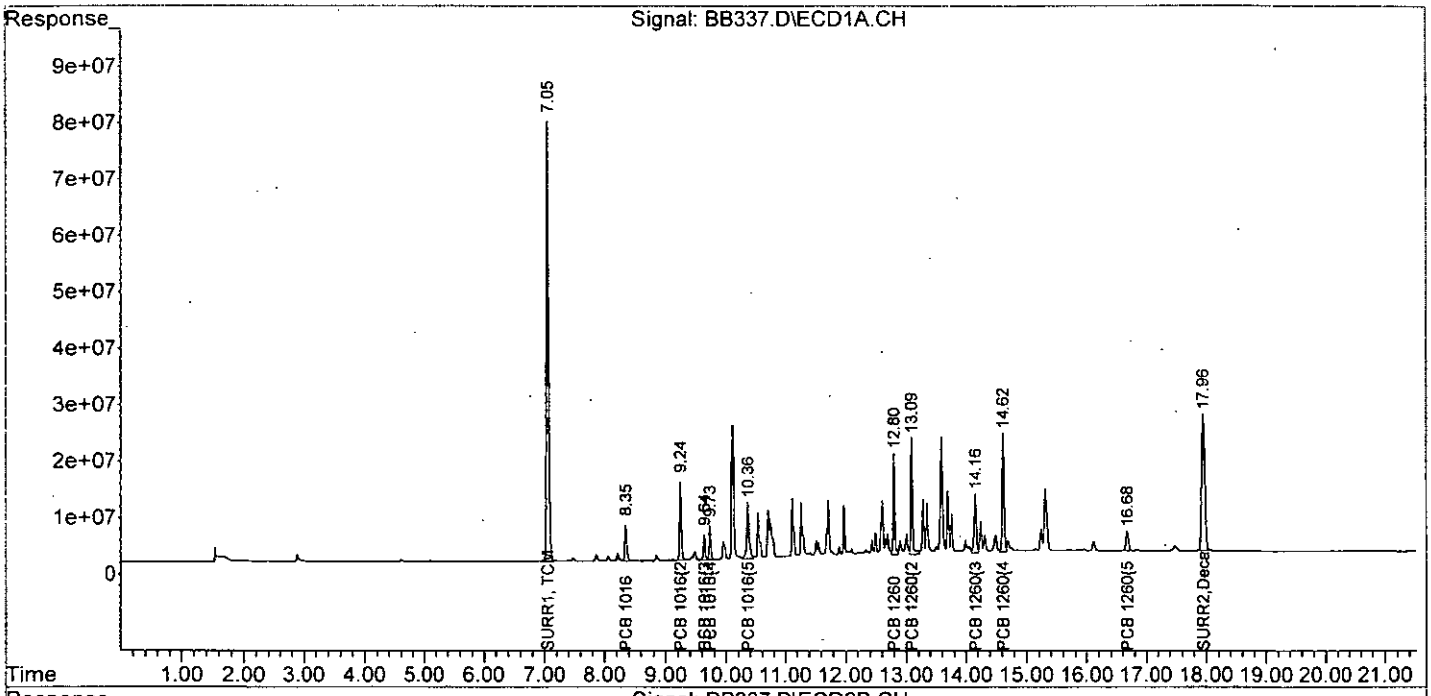
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

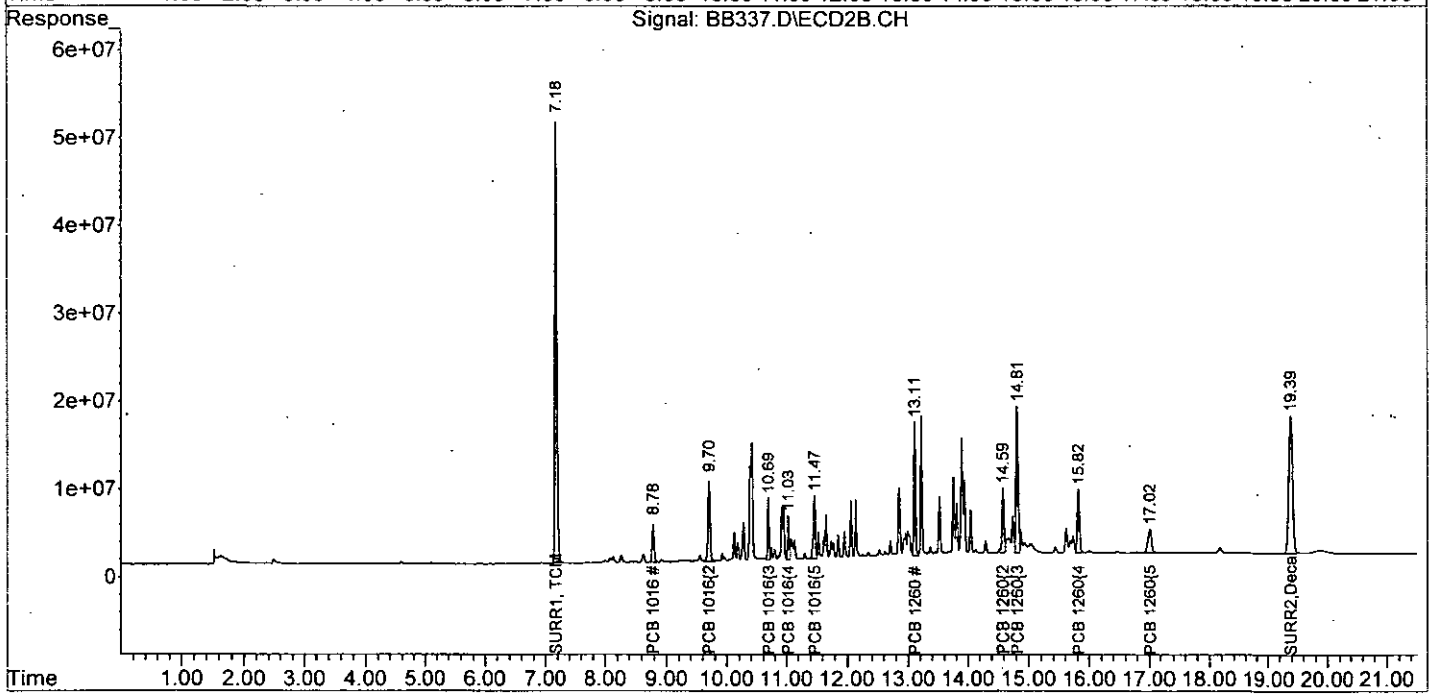
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB337.D
Acq On : 14 Sep 2015 1:58 pm
Operator : m.pedro
Sample : rq1510616-02|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 15 13:04:38 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 14:24
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/Kg
Lab Code:	RQ1510616-03	**Basis:**	Dry

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB338.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	**125**		33	17	17	
11104-28-2	Aroclor 1221	ND	U	67	34	34	
11141-16-5	Aroclor 1232	ND	U	33	17	17	
53469-21-9	Aroclor 1242	ND	U	33	17	17	
12672-29-6	Aroclor 1248	ND	U	33	17	17	
11097-69-1	Aroclor 1254	ND	U	33	19	19	
11096-82-5	Aroclor 1260	**125**		33	17	17	
11100-14-4	Aroclor 1268	ND	U	33	18	18	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	89	60-125	9/14/15 14:24	
Tetrachloro-m-xylene	89	27-134	9/14/15 14:24	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB338.D
Acq On : 14 Sep 2015 2:24 pm
Operator : m.pedro
Sample : rq1510616-03|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 15 13:05:13 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.05	7.18	1950.4E6	1270.9E6	95.397	89.475
Spiked Amount 100.000	Range 30 - 150		Recovery =		95.40%	89.47%
2) S SURR2,Decachloro	17.96	19.39	1025.8E6	785.5E6	88.967	88.610
Spiked Amount 100.000	Range 30 - 150		Recovery =		88.97%	88.61%
Target Compounds						
3) L1c PCB 1016	8.35	8.78	140.4E6	89226655	375.771	347.499
4) L1c PCB 1016{2}	9.24	9.71	289.3E6	201.5E6	385.740	363.322
5) L1c PCB 1016{3}	9.64	10.69	84483745	131.0E6	389.914	387.648
6) L1c PCB 1016{4}	9.73	11.03	120.7E6	84439445	406.272	366.410
7) L1c PCB 1016{5}	10.36	11.47	266.1E6	169.9E6	419.512	416.154
Sum PCB 1016			900.9E6	675.9E6	1977.209	1881.032
Average PCB 1016					395.442	376.206
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.80	13.11	296.8E6	269.0E6	400.247	377.620
34) L7c PCB 1260{2}	13.09	14.59	365.5E6	162.4E6	402.836	389.902
35) L7c PCB 1260{3}	14.16	14.81	249.3E6	374.4E6	403.610	381.683
36) L7C PCB 1260{4}	14.62	15.82	435.6E6	196.5E6	378.191	358.142
37) L7C PCB 1260{5}	16.68	17.02	102.2E6	115.1E6	354.979	362.852
Sum PCB 1260			1449.5E6	1117.3E6	1939.862	1870.199
Average PCB 1260					387.972	374.040
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

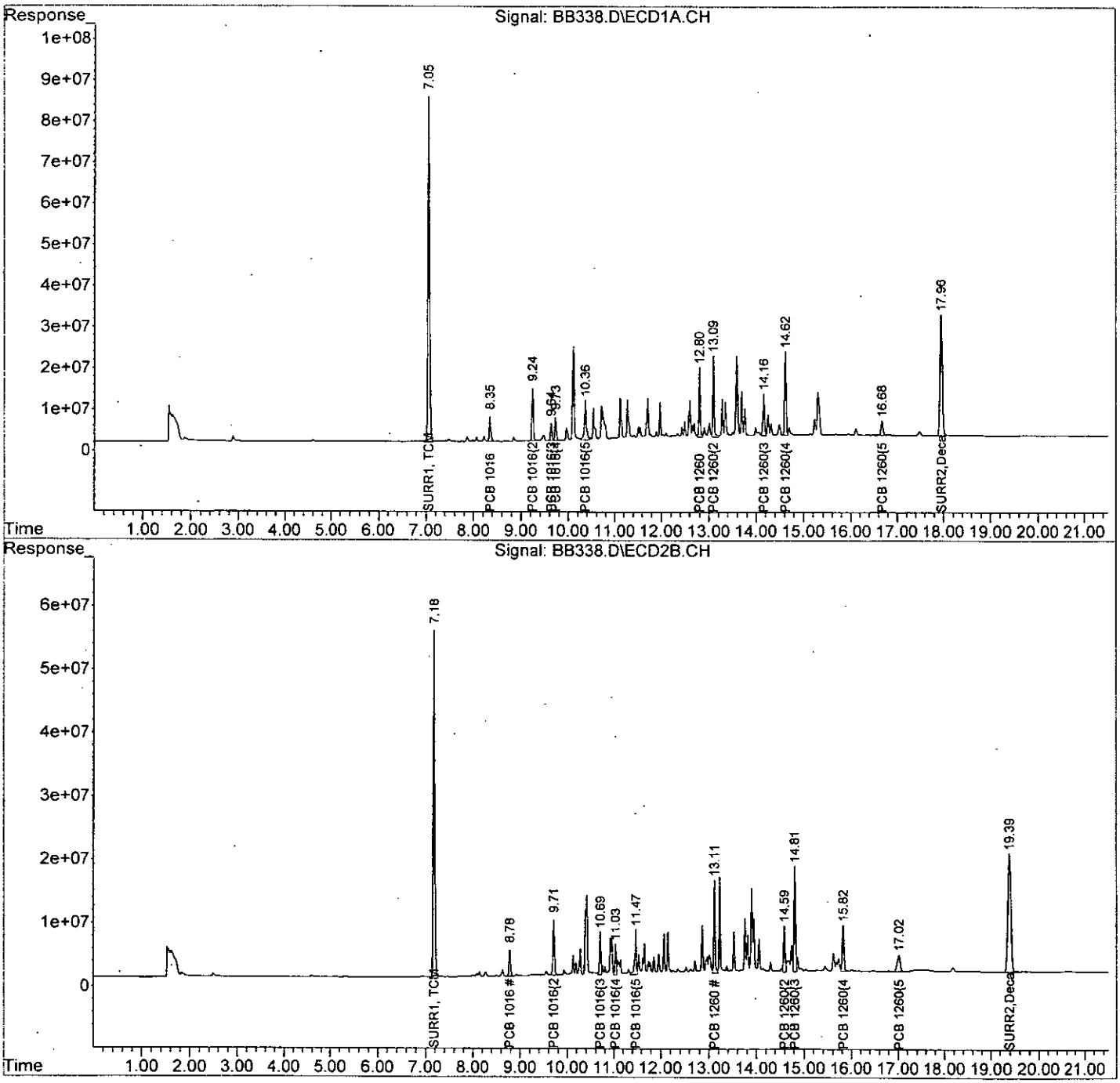
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB338.D
Acq On : 14 Sep 2015 2:24 pm
Operator : m.pedro
Sample : rq1510616-03|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 15 13:05:13 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1322
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 17:19
Sample Name:	BLDG1203-SS-EX1-01(N)-30-36	**Units:**	µg/Kg
Lab Code:	RQ1510616-04	**Basis:**	Dry
Run Type:	Matrix Spike	**Percent Solids:**	83.7

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB345.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	**77.5**		40	21	21	
11104-28-2	Aroclor 1221	ND	U	80	41	41	
11141-16-5	Aroclor 1232	ND	U	40	21	21	
53469-21-9	Aroclor 1242	ND	U	40	21	21	
12672-29-6	Aroclor 1248	ND	U	40	21	21	
11097-69-1	Aroclor 1254	ND	U	40	23	23	
11096-82-5	Aroclor 1260	**95.3**		40	21	21	
11100-14-4	Aroclor 1268	ND	U	40	22	22	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	82	60-125	9/14/15 17:19	
Tetrachloro-m-xylene	59	27-134	9/14/15 17:19	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 13:11:06 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.08f	7.21f	1198.9E6	876.8E6	58.640	61.731m
Spiked Amount 100.000	Range 30 - 150		Recovery =		58.64%	61.73%
2) S SURR2,Decachloro	17.97	19.40	950.0E6	737.1E6	82.397	83.145m
Spiked Amount 100.000	Range 30 - 150		Recovery =		82.40%	83.14%
Target Compounds						
3) L1c PCB 1016	8.38	8.80	62404342	52806919	167.061	205.660
4) L1c PCB 1016{2}	9.26	9.73	131.2E6	105.4E6	175.006	190.142
5) L1c PCB 1016{3}	9.66	10.71	44509885	64894587	205.424	192.101m
6) L1c PCB 1016{4}	9.75	11.05	65167430	44126788	219.280	191.480m
7) L1c PCB 1016{5}	10.38	11.49	128.1E6	82745982	201.944	202.722m
Sum PCB 1016			431.4E6	350.0E6	968.715	982.105
Average PCB 1016					193.743	196.421
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.81	13.12	164.4E6	153.0E6	221.643m	214.747m
34) L7c PCB 1260{2}	13.10	14.59	203.4E6	97143826	224.181m	233.261m
35) L7c PCB 1260{3}	14.17	14.82	166.5E6	229.5E6	269.581m	233.930m
36) L7C PCB 1260{4}	14.63	15.83	288.9E6	132.8E6	250.846m	242.020m
37) L7C PCB 1260{5}	16.69	17.02	97025597	84729571	336.932	267.159m
Sum PCB 1260			920.3E6	697.1E6	1303.183	1191.117
Average PCB 1260					260.637	238.223
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

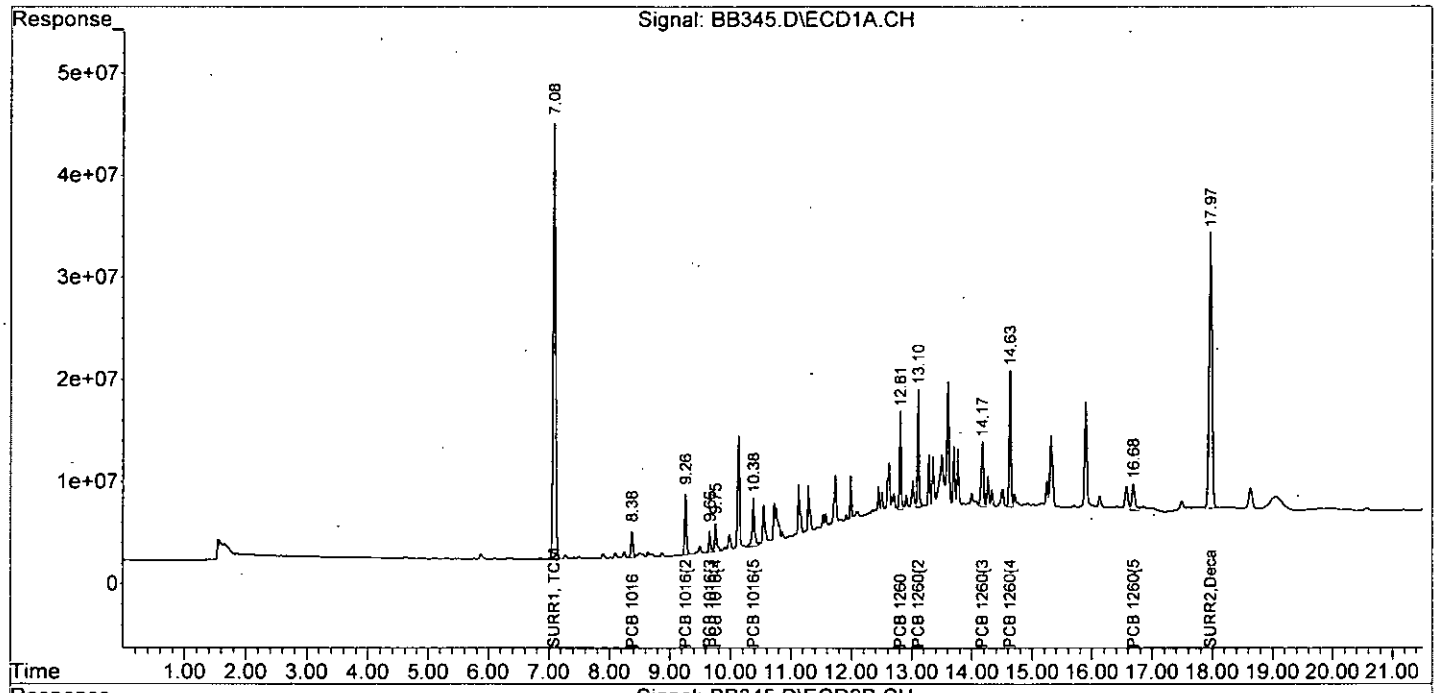
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

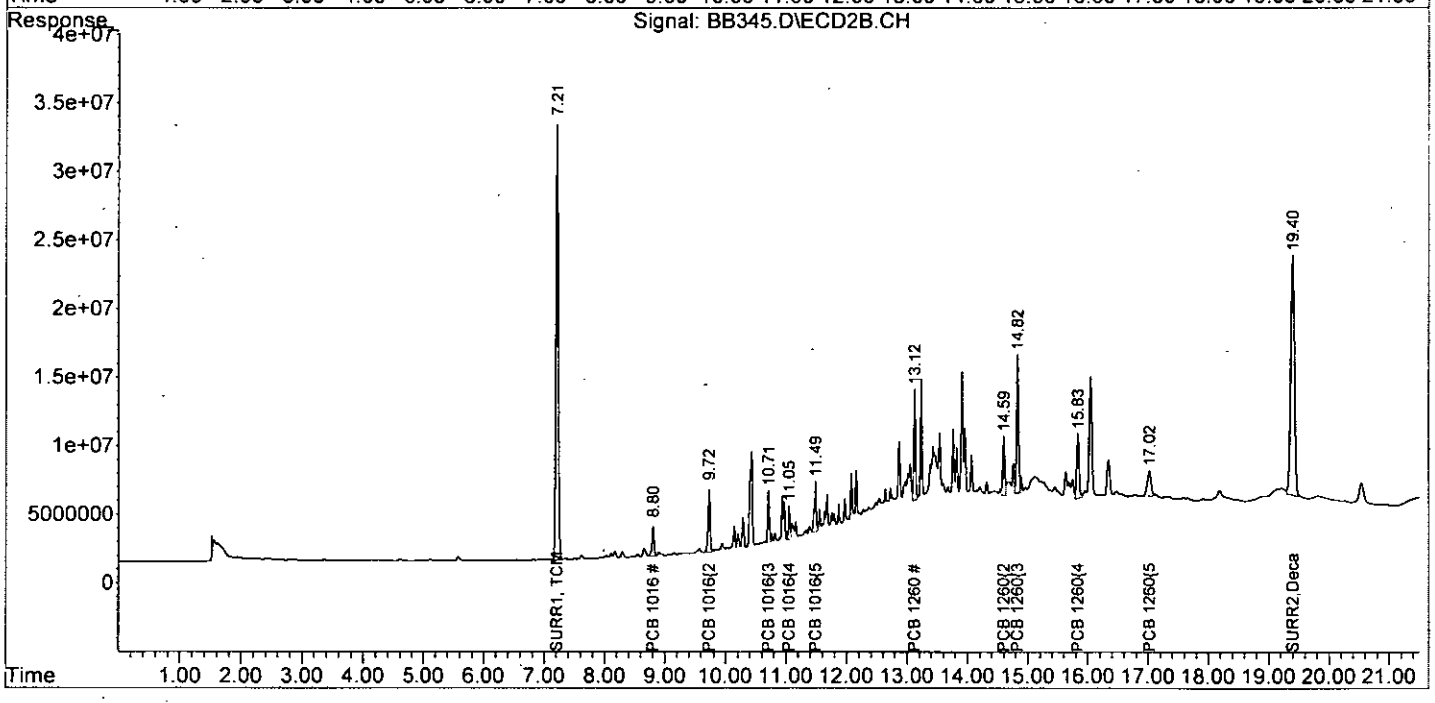
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 13:11:06 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



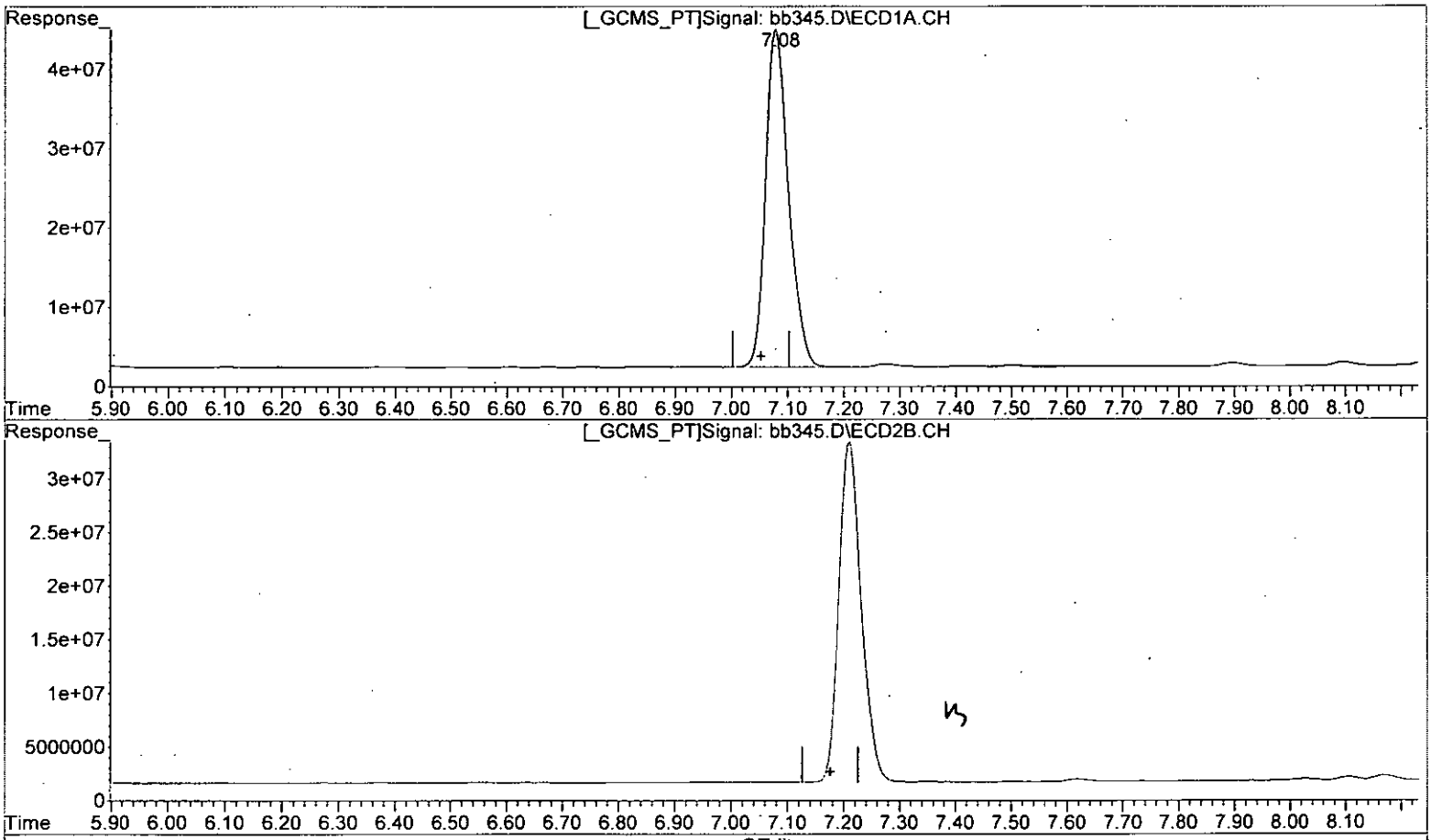


Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:28:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



QEdit

(1) SURR1, TCMX (S)

7.08min 58.640ug/l

response 1198905051

(1) SURR1, TCMX #2 (S)

0.00min 0.000ug/l

response 0

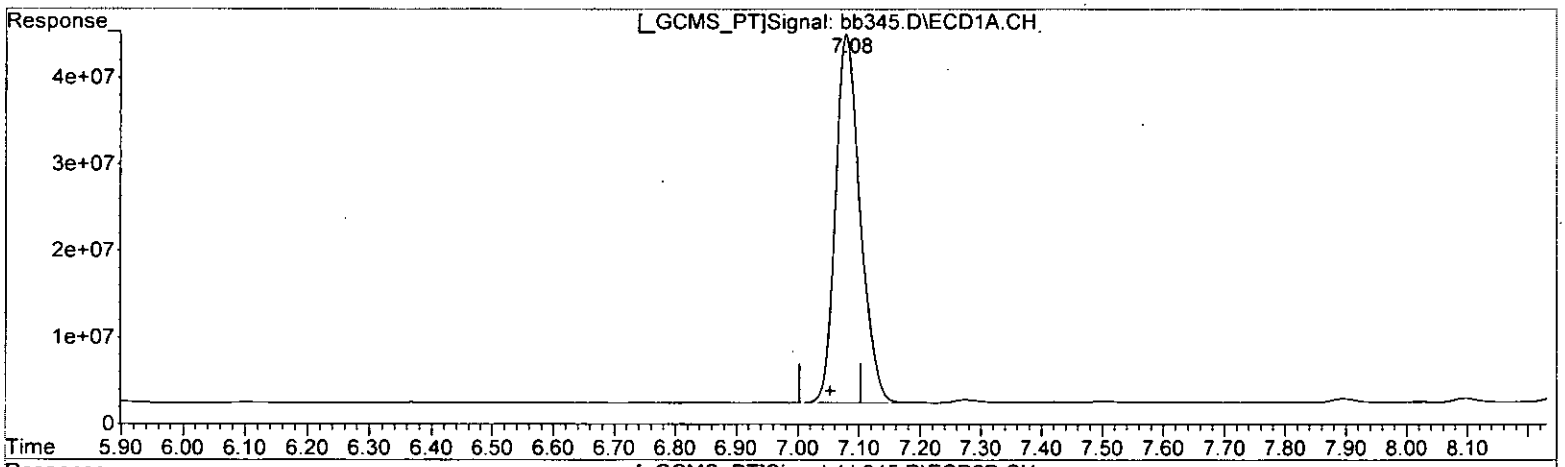
(+) = Expected Retention Time

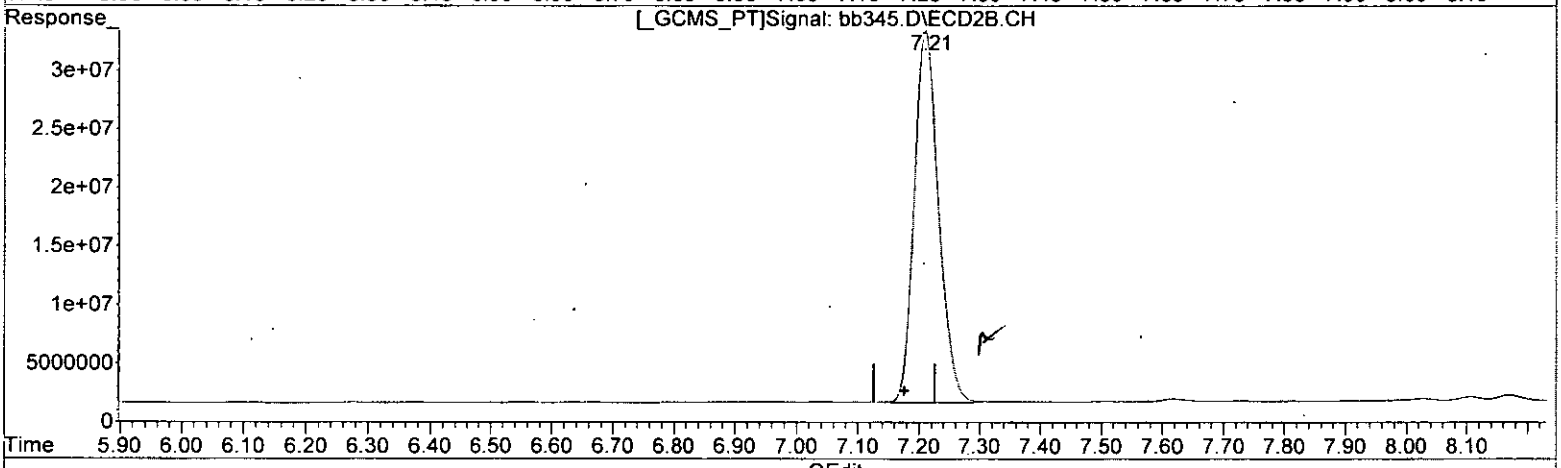
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:28:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(1) SURR1, TCMX (S)

7.08min 58.640ug/l

response 1198905051

(1) SURR1, TCMX #2 (S)

7.21min 61.731ug/l m

response 876804196

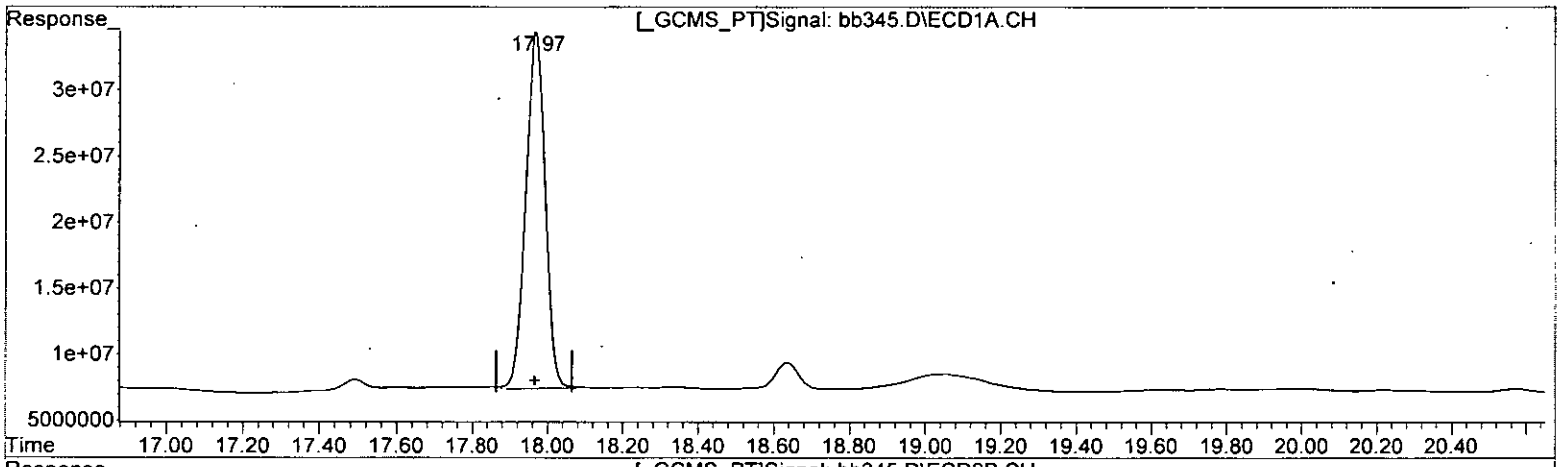
(+) = Expected Retention Time

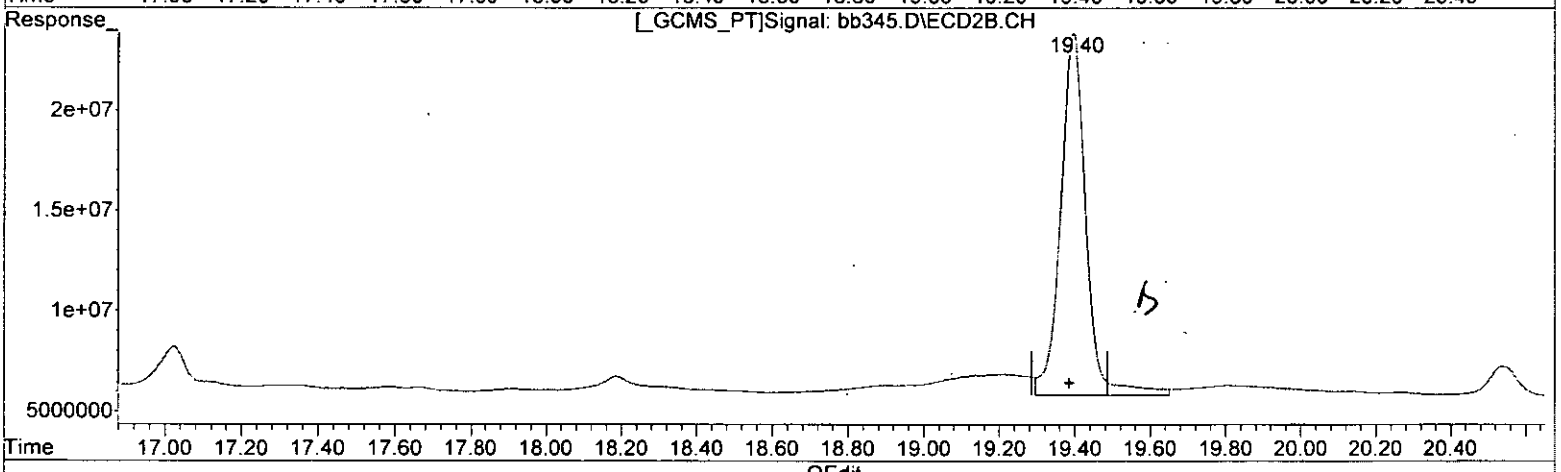
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:28:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(2) SURR2,Decachlorobiphenyl (S)

17.97min 82.397ug/l

response 950034007

(2) SURR2,Decachlorobiphenyl #2 (S)

19.39min 94.696ug/l

response 839472520

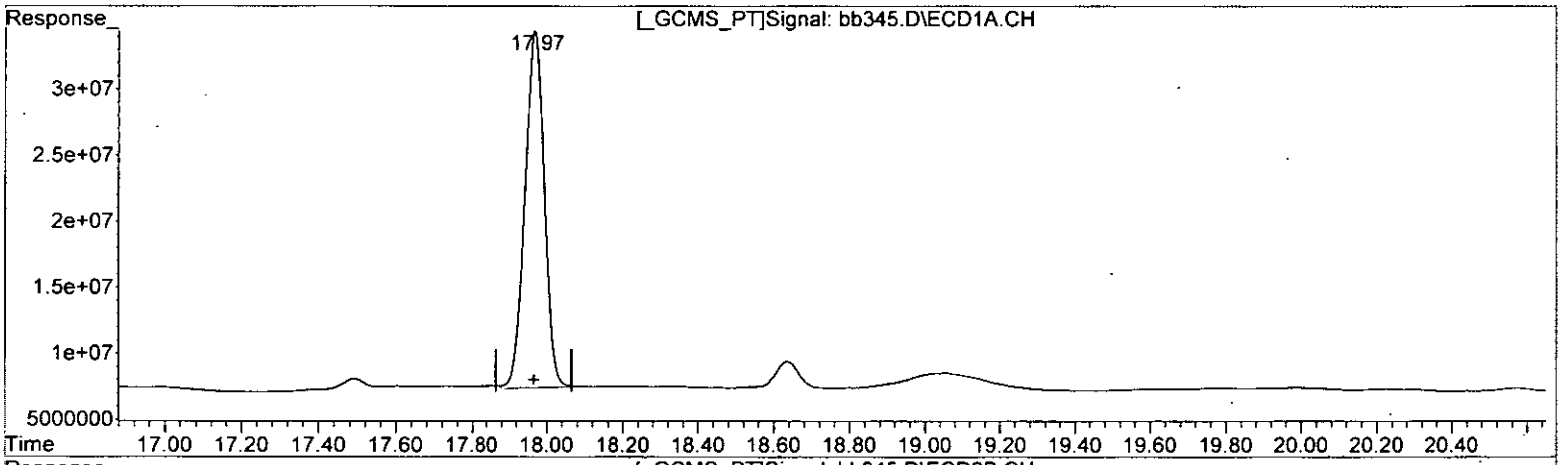
(+) = Expected Retention Time

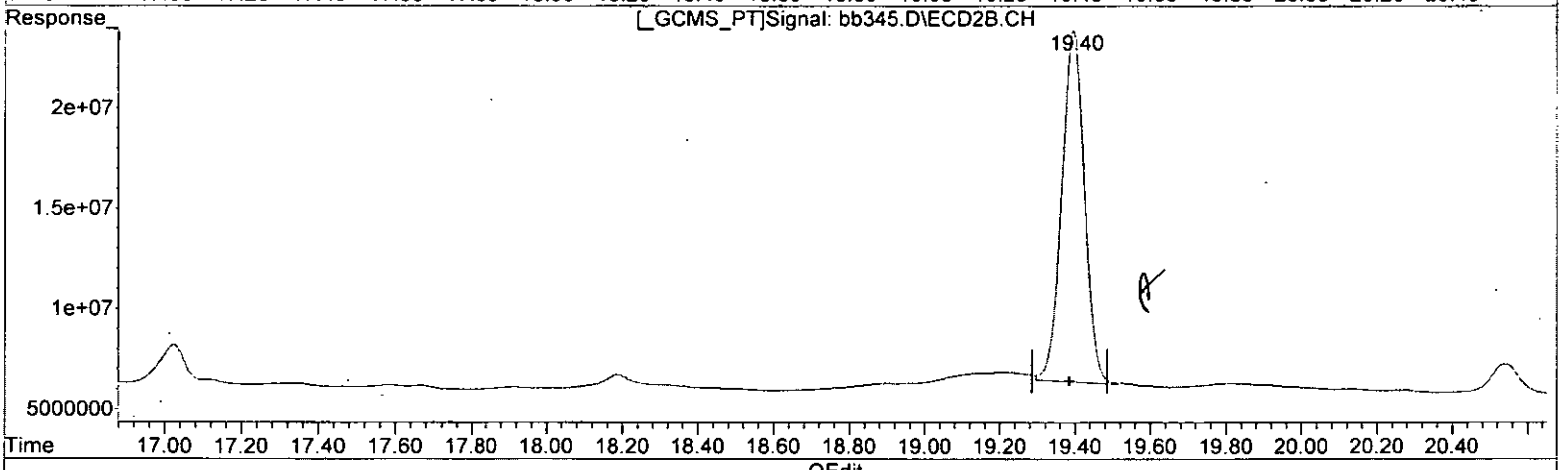
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:28:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(2) SURR2,Decachlorobiphenyl (S)

17.97min 82.397ug/l

response 950034007

(2) SURR2,Decachlorobiphenyl #2 (S)

19.40min 83.145ug/l m

response 737074505

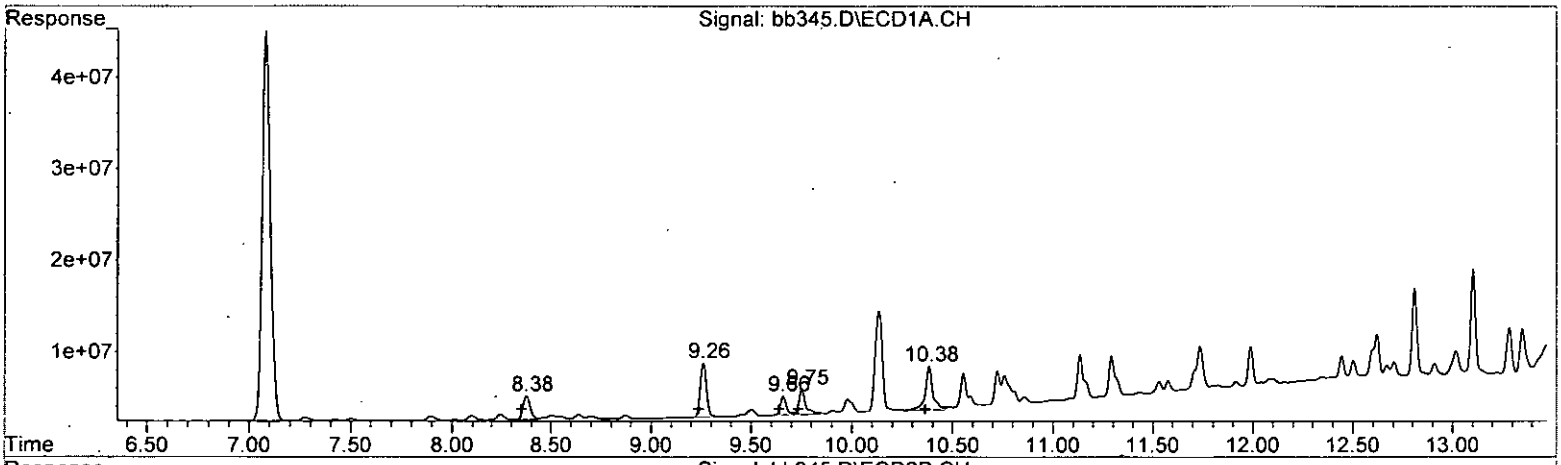
(+) = Expected Retention Time

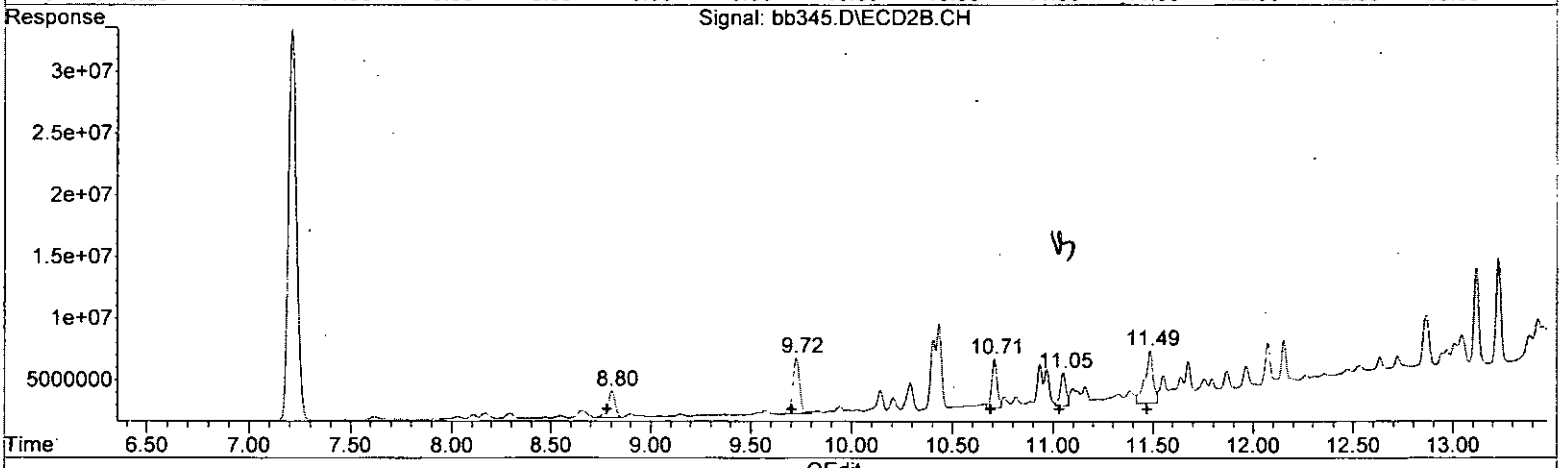
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:28:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(3) PCB 1016 (L1c)

R.T.	Response	Conc
8.38	62404342	167.06
9.26	131233644	175.01
9.66	44509885	205.42
9.75	65167430	219.28
10.38	128090439	201.94

(3) PCB 1016 #2 (L1c)

R.T.	Response	Conc
8.80	52806919	205.66
9.73	105431257	190.14
10.71	73303779	216.99
11.05	51812453	224.83
11.49	121182074	296.89

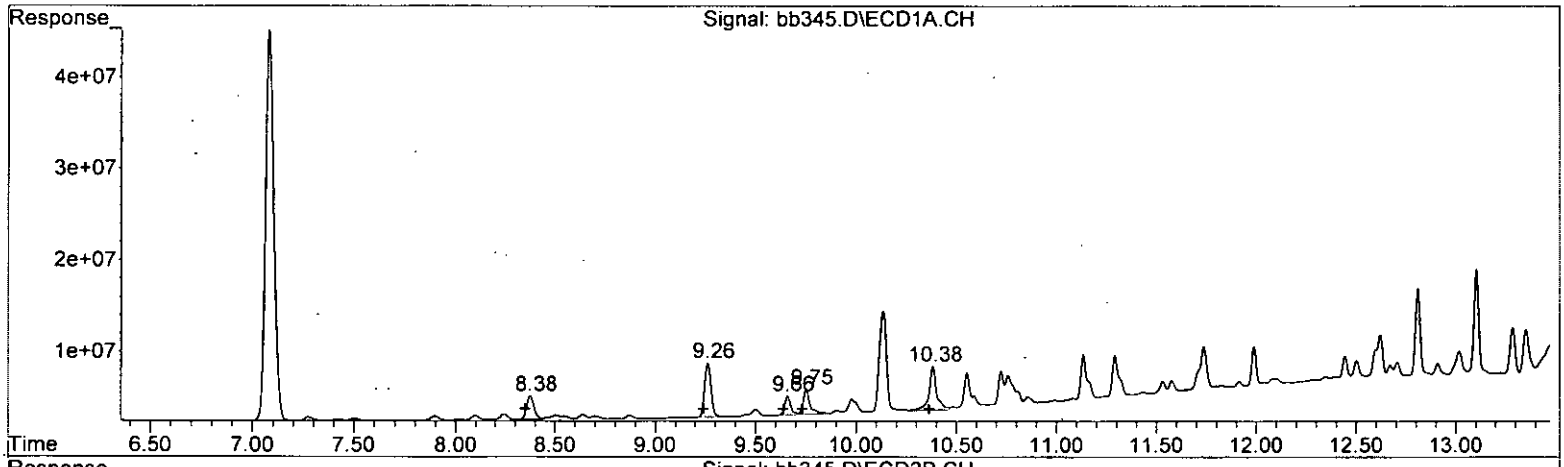
(+) = Expected Retention Time

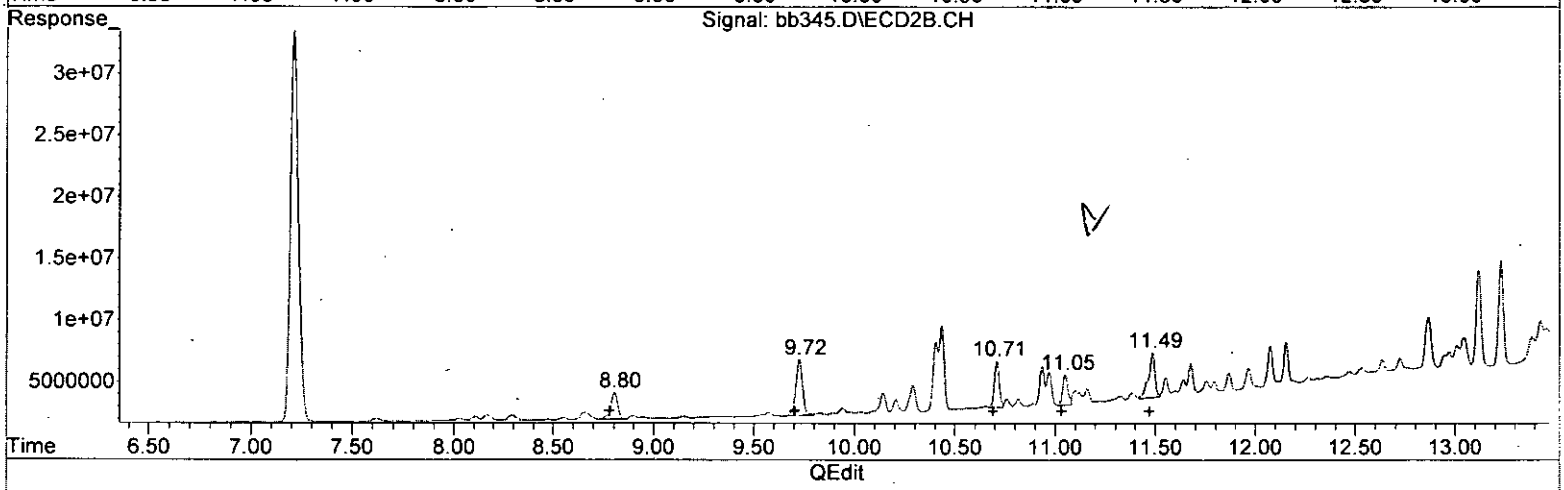
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:28:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(3) PCB 1016 #2 (L1c)

R.T.	Response	Conc
8.38	62404342	167.06
9.26	131233644	175.01
9.66	44509885	205.42
9.75	65167430	219.28
10.38	128090439	201.94

(3) PCB 1016 #2 (L1c)

R.T.	Response	Conc
8.80	52806919	205.66
9.73	105431257	190.14
10.71	64894587	192.10
11.05	44126788	191.48
11.49	82745982	202.72

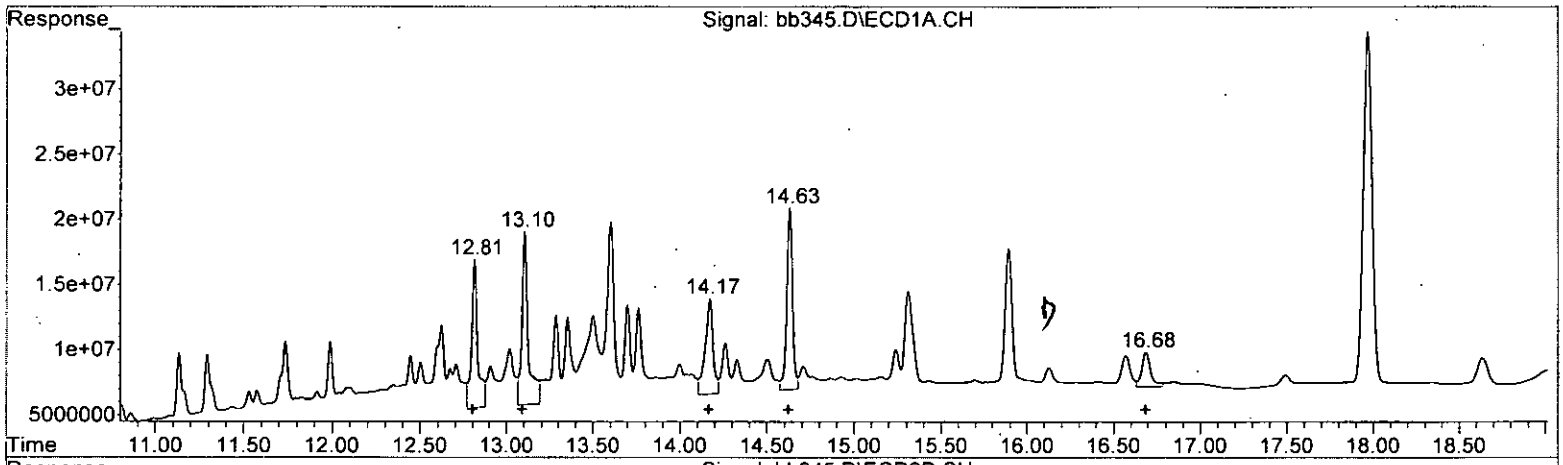
(+) = Expected Retention Time

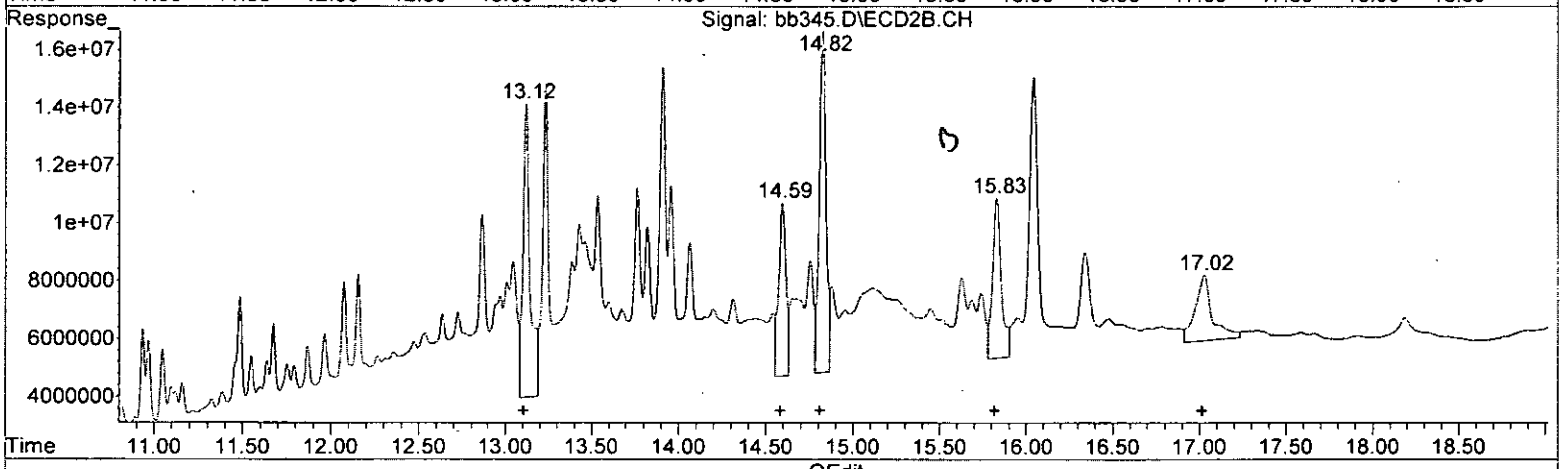
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:28:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(33) PCB 1260 (L7c)

R.T.	Response	Conc
12.81	290082750	391.15
13.10	335726238	369.99
14.17	234799821	380.10
14.63	325280166	282.40
16.69	97025597	336.93

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
13.12	282336168	396.37
14.59	177796169	426.92
14.82	315256662	321.41
15.83	195669050	356.62
17.02	155831917	491.35

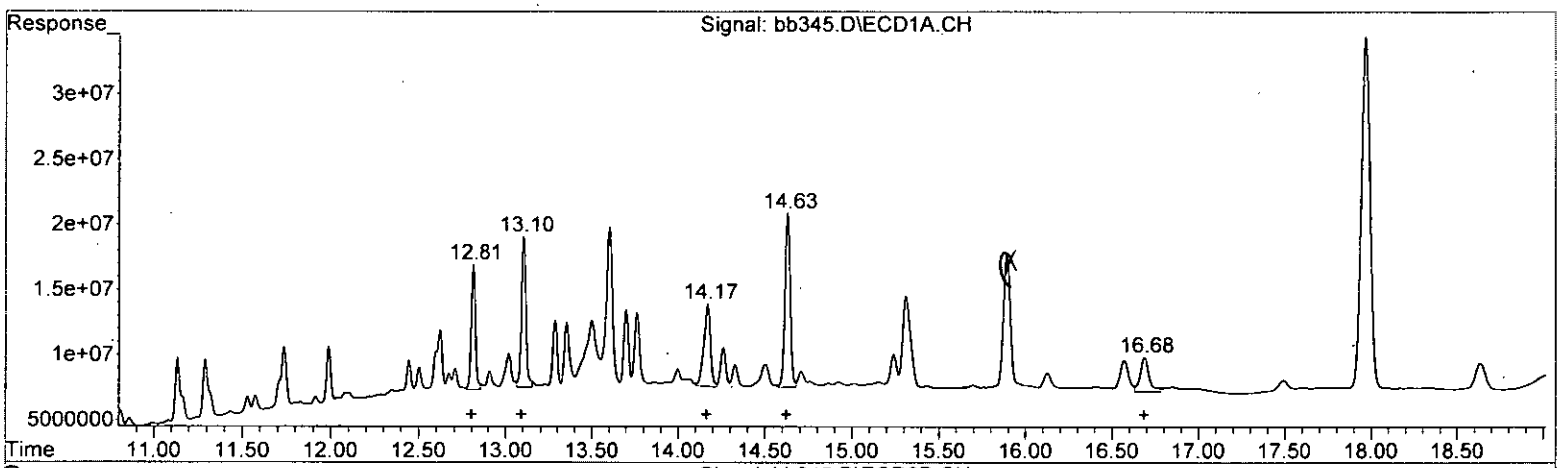
(+) = Expected Retention Time

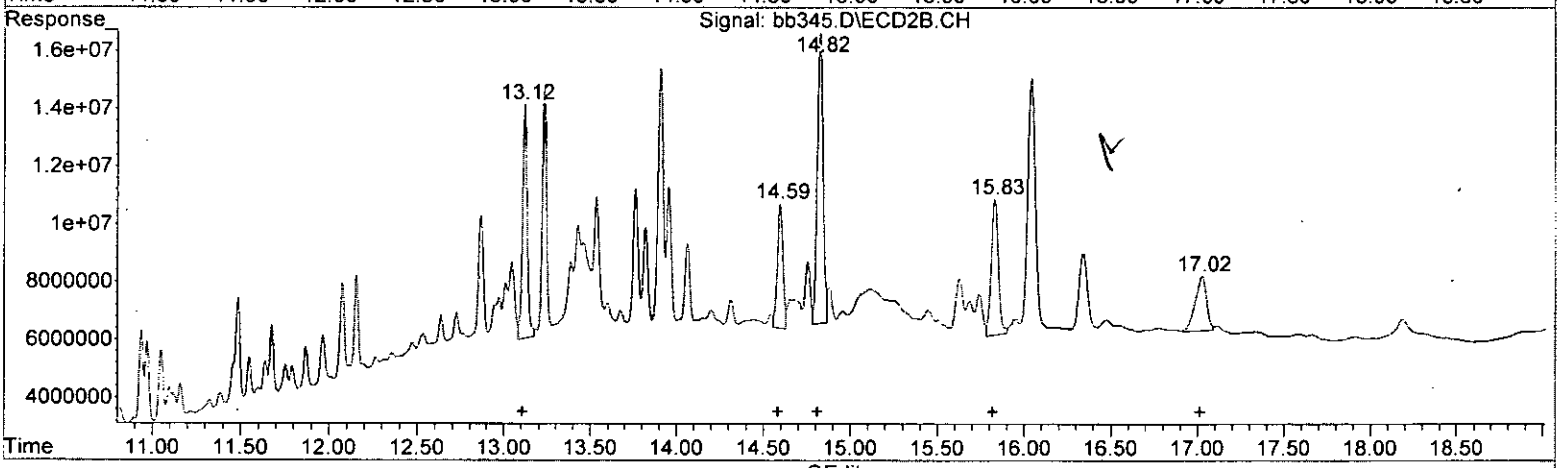
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb345.D
Acq On : 14 Sep 2015 5:19 pm
Operator : m.pedro
Sample : rq1510616-04|1.0 Inst : 6890G
Misc : 244583 2.99 8082
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:28:30 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(33) PCB 1260 #2 (L7C)

R.T.	Response	Conc
12.81	164375684	221.64
13.10	203419830	224.18
14.17	166528757	269.58
14.63	288932283	250.85
16.69	97025597	336.93

(33) PCB 1260 #2 (L7C)

R.T.	Response	Conc
13.12	152964478	214.75
14.59	97143826	233.26
14.82	229452818	233.93
15.83	132790963	242.02
17.02	84729571	267.16

(+) = Expected Retention Time

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1322
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 17:44
Sample Name:	BLDG1203-SS-EX1-01(N)-30-36	**Units:**	µg/Kg
Lab Code:	RQ1510616-05	**Basis:**	Dry
Run Type:	Duplicate Matrix Spike	**Percent Solids:**	83.7

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB346.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	**67.2**		39	21	21	
11104-28-2	Aroclor 1221	ND	U	80	41	41	
11141-16-5	Aroclor 1232	ND	U	39	21	21	
53469-21-9	Aroclor 1242	ND	U	39	21	21	
12672-29-6	Aroclor 1248	ND	U	39	21	21	
11097-69-1	Aroclor 1254	ND	U	39	23	23	
11096-82-5	Aroclor 1260	**87.5**		39	21	21	
11100-14-4	Aroclor 1268	ND	U	39	22	22	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	75	60-125	9/14/15 17:44	
Tetrachloro-m-xylene	54	27-134	9/14/15 17:44	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB346.D
Acq On : 14 Sep 2015 5:44 pm
Operator : m.pedro
Sample : rq1510616-05|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 13:14:07 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1, TCMX	7.08f	7.21f	1098.8E6	805.4E6	53.745m	56.702m
Spiked Amount 100.000	Range 30 - 150		Recovery =		53.74%	56.70%
2) S SURR2,Decachloro	17.97	19.40	878.1E6	662.5E6	76.161	74.729
Spiked Amount 100.000	Range 30 - 150		Recovery =		76.16%	74.73%
Target Compounds						
3) L1c PCB 1016	8.38	8.81	56862689	42430357	152.226m	165.248m
4) L1c PCB 1016{2}	9.27	9.73	119.4E6	90453710	159.275	163.130
5) L1c PCB 1016{3}	9.66	10.71	34897986	66508584	161.063	196.878
6) L1c PCB 1016{4}	9.76	11.05	51618980	36529655	173.691	158.514
7) L1c PCB 1016{5}	10.39	11.49	124.9E6	70350959	196.935	172.355m
Sum PCB 1016			387.7E6	306.3E6	843.190	856.126
Average PCB 1016					168.638	171.225
Sum PCB 1221			0	0	N.D.	N.D.
Average PCB 1221					0.000	0.000
Sum PCB 1232			0	0	N.D.	N.D.
Average PCB 1232					0.000	0.000
Sum PCB 1242			0	0	N.D.	N.D.
Average PCB 1242					0.000	0.000
Sum PCB 1248			0	0	N.D.	N.D.
Average PCB 1248					0.000	0.000
Sum PCB 1254			0	0	N.D.	N.D.
Average PCB 1254					0.000	0.000
33) L7c PCB 1260	12.81	13.12	150.7E6	125.1E6	203.267m	175.666m
34) L7c PCB 1260{2}	13.11	14.59	179.7E6	99524979	198.092m	238.978
35) L7c PCB 1260{3}	14.17	14.82	143.6E6	210.5E6	232.503m	214.600
36) L7C PCB 1260{4}	14.63	15.83	250.5E6	135.6E6	217.515m	247.220
37) L7C PCB 1260{5}	16.69	17.03	99567122	70236954	345.758	221.463 #
Sum PCB 1260			824.2E6	641.0E6	1197.135	1097.927
Average PCB 1260					239.427	219.585
Sum PCB 1268			0	0	N.D.	N.D.
Average PCB 1268					0.000	0.000

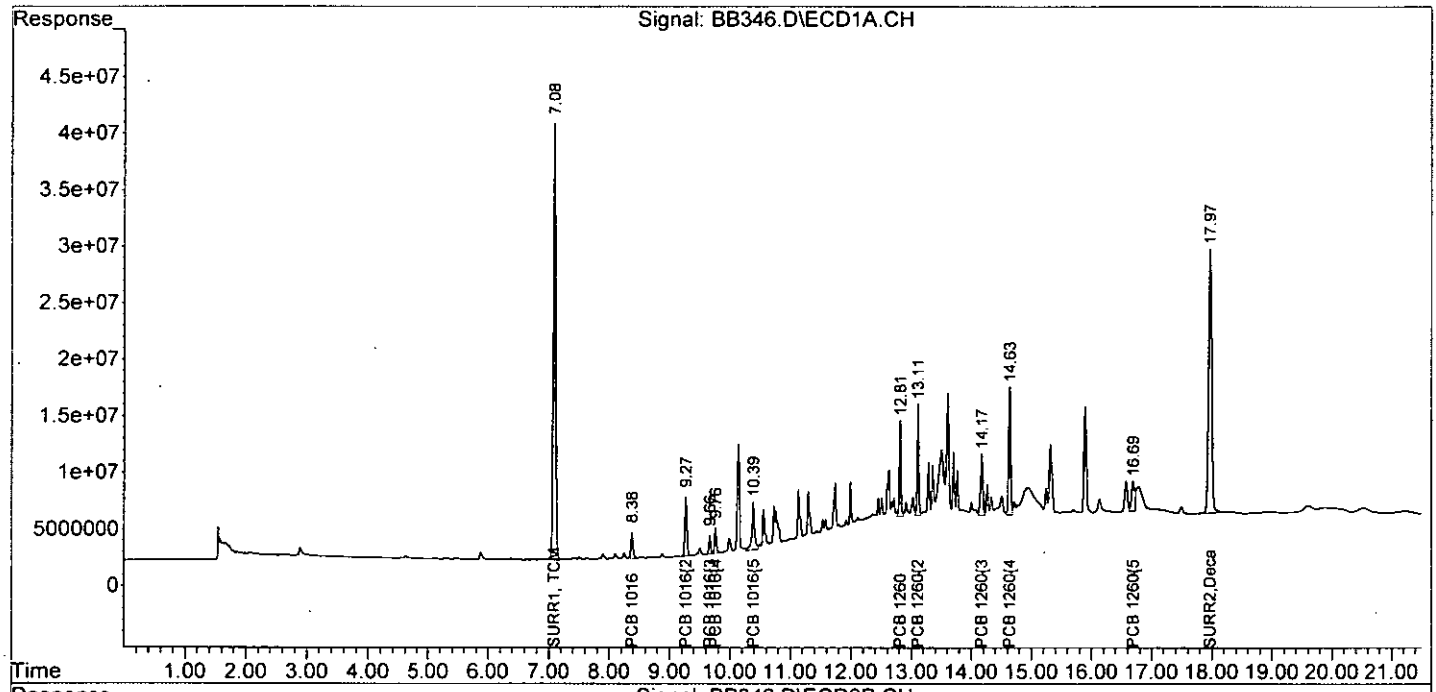
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

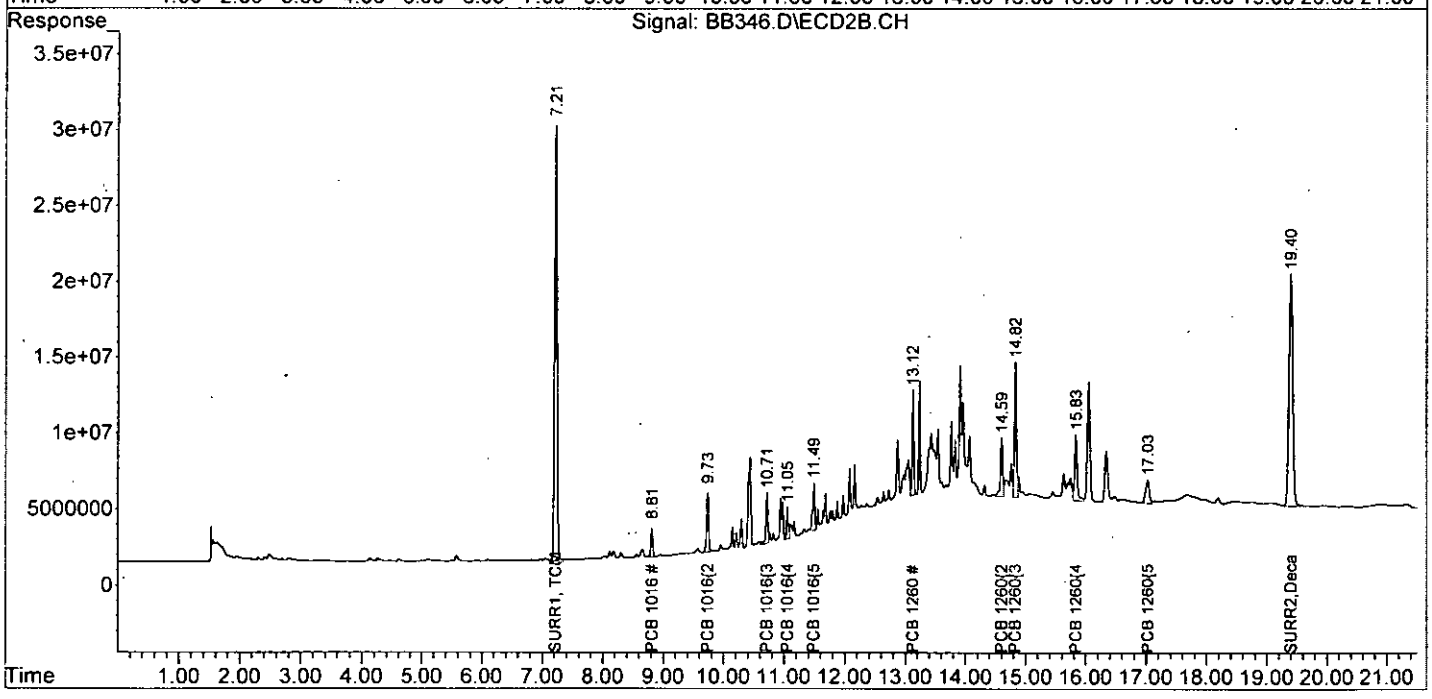
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\6890G\DATA\091415\
Data File : BB346.D
Acq On : 14 Sep 2015 5:44 pm
Operator : m.pedro
Sample : rq1510616-05|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 13:14:07 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



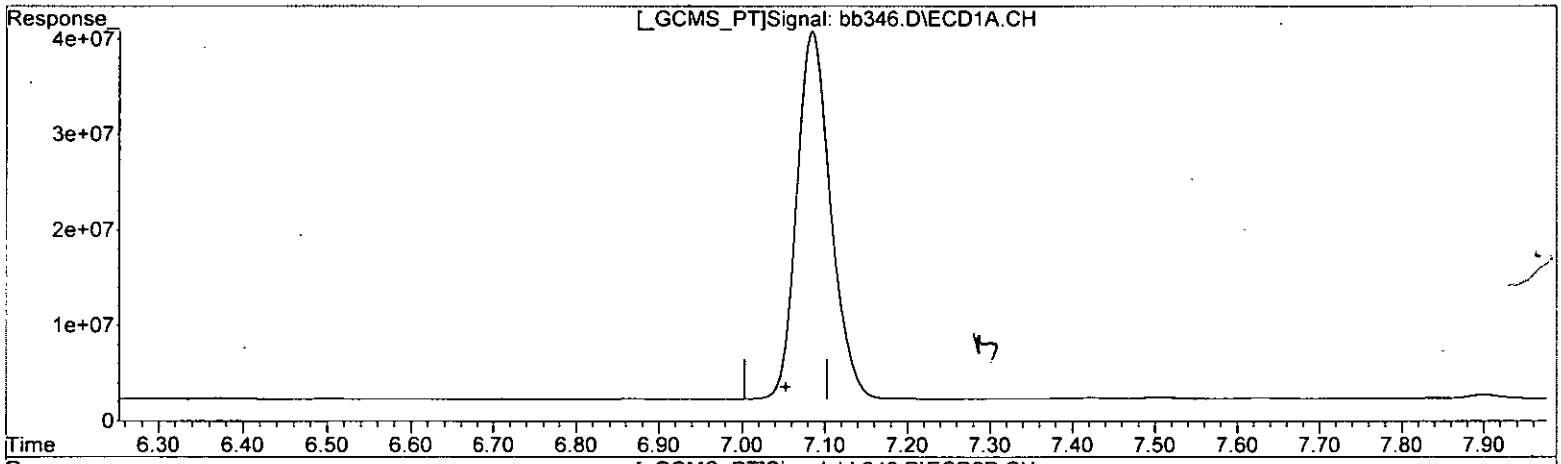


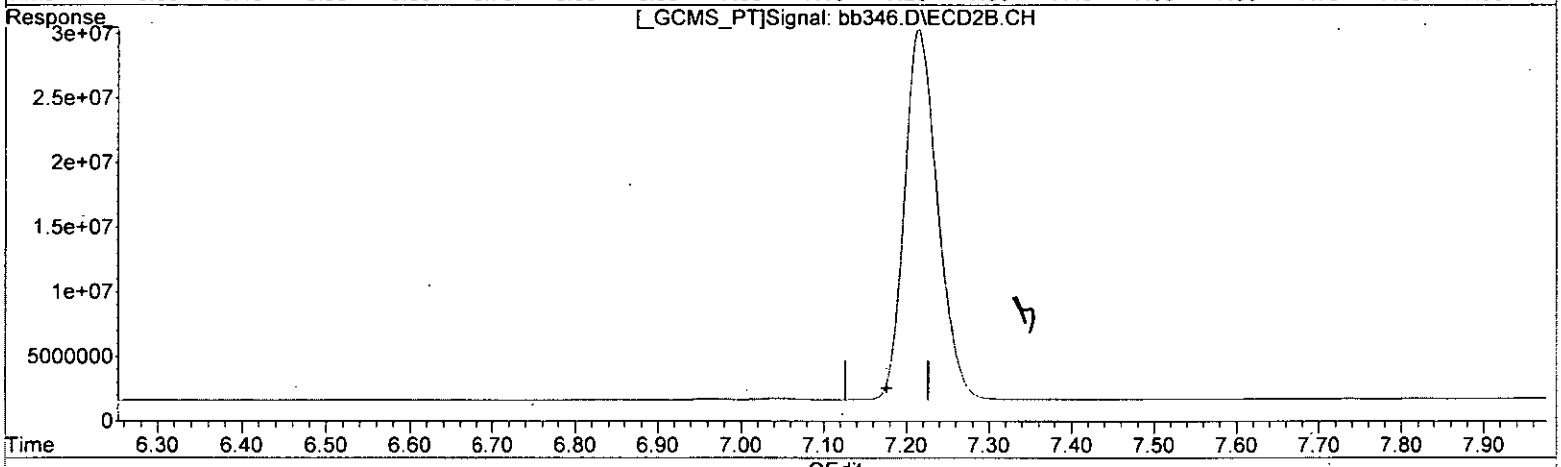
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb346.D
Acq On : 14 Sep 2015 5:44 pm
Operator : m.pedro
Sample : rq1510616-05|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:28:32 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(1) SURR1, TCMX (S)

0.00min 0.000ug/l

response 0

(1) SURR1, TCMX #2 (S)

0.00min 0.000ug/l

response 0

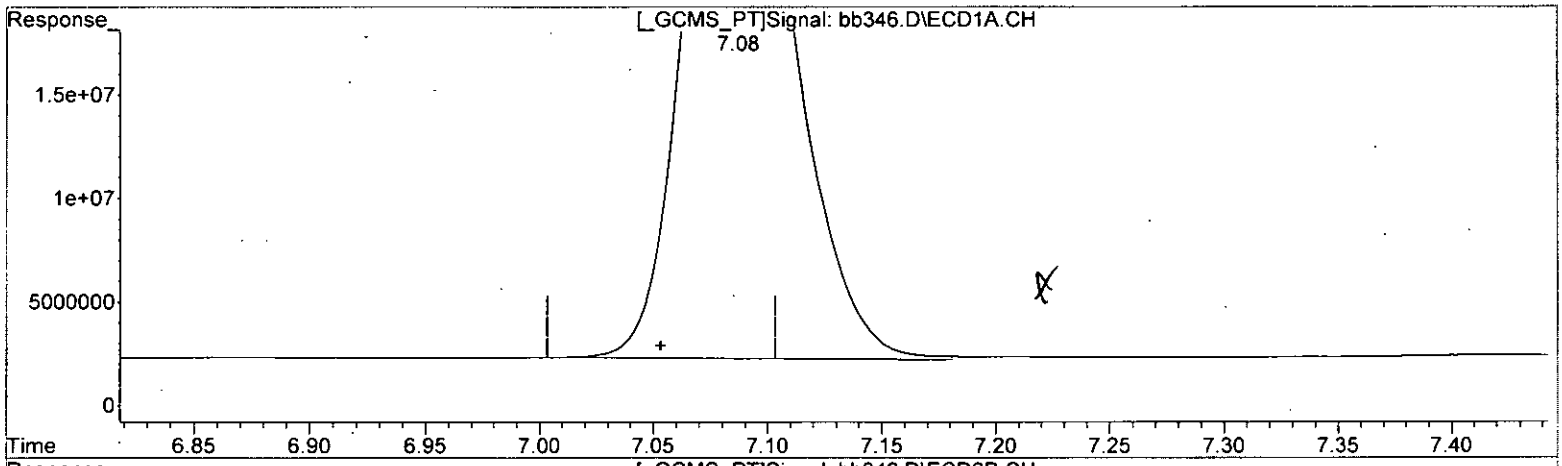
(+) = Expected Retention Time

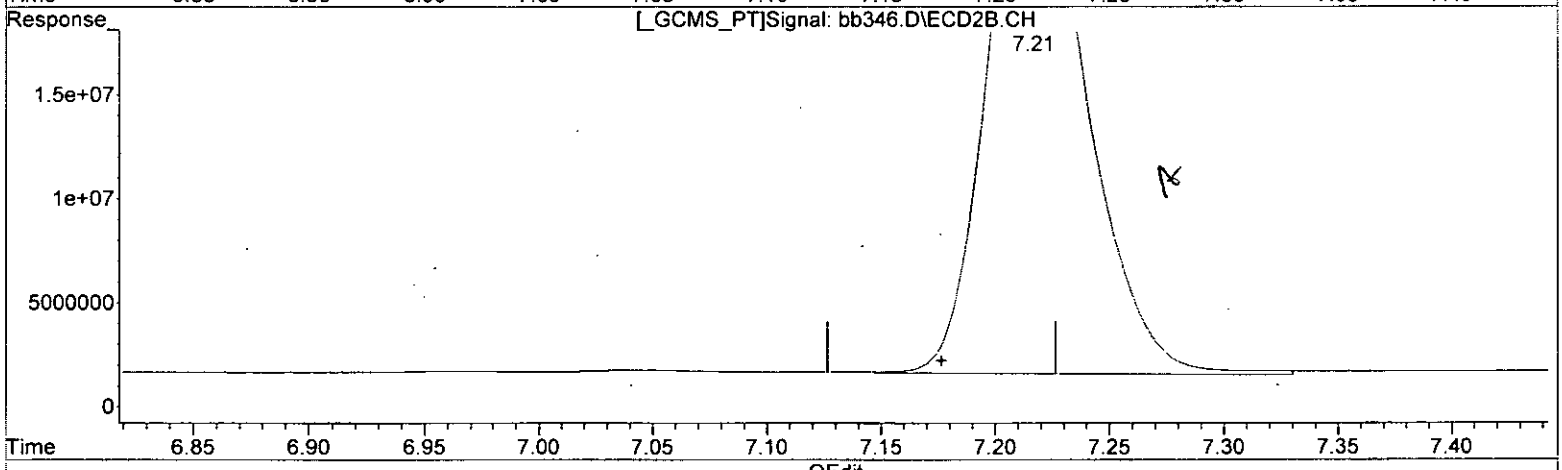
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb346.D
Acq On : 14 Sep 2015 5:44 pm
Operator : m.pedro
Sample : rq1510616-05|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:28:32 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(1) SURR1, TCMX (S)

7.08min 53.745ug/l m

response 1098840556

(1) SURR1, TCMX #2 (S)

7.21min 56.702ug/l m

response 805381037

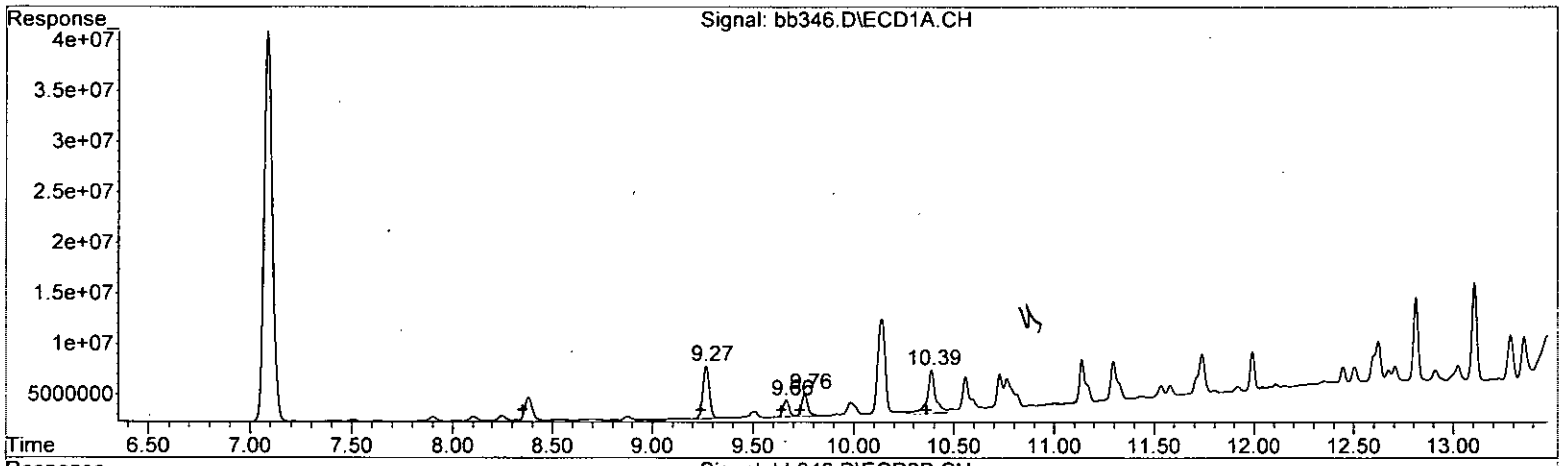
(+) = Expected Retention Time

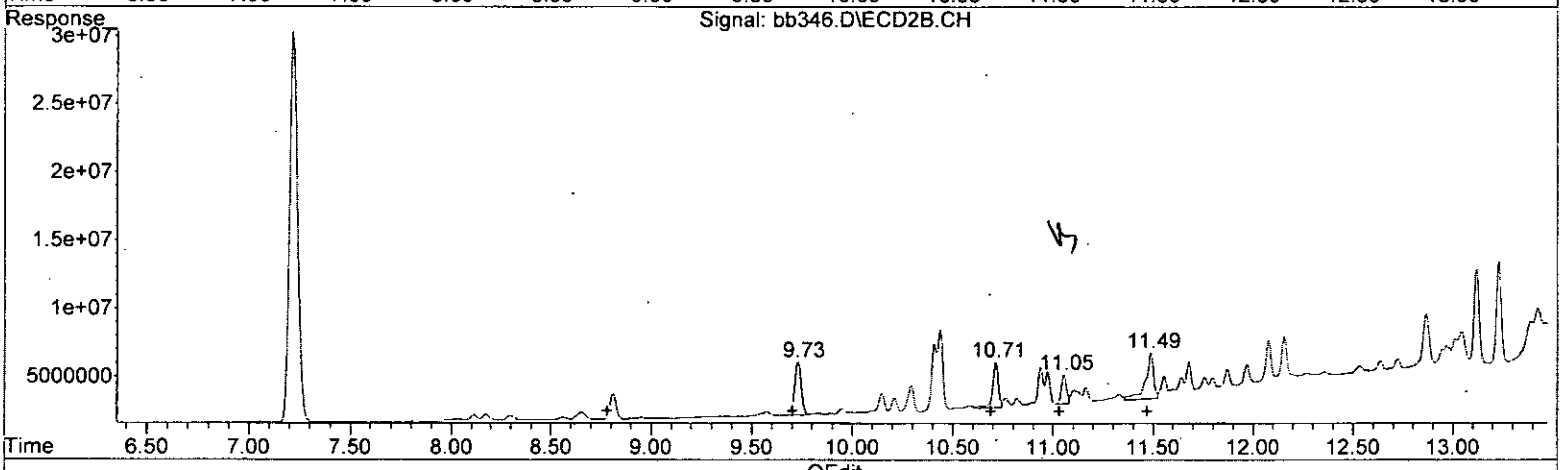
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb346.D
Acq On : 14 Sep 2015 5:44 pm
Operator : m.pedro
Sample : rq1510616-05|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:28:32 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation . 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(3) PCB 1016 (L1c)

R.T.	Response	Conc
0.00	0	0.00
9.27	119437307	159.27
9.66	34897986	161.06
9.76	51618980	173.69
10.39	124913489	196.94

(3) PCB 1016 #2 (L1c)

R.T.	Response	Conc
0.00	0	0.00
9.73	90453710	163.13
10.71	66508584	196.88
11.05	36529655	158.51
11.49	96129372	235.51

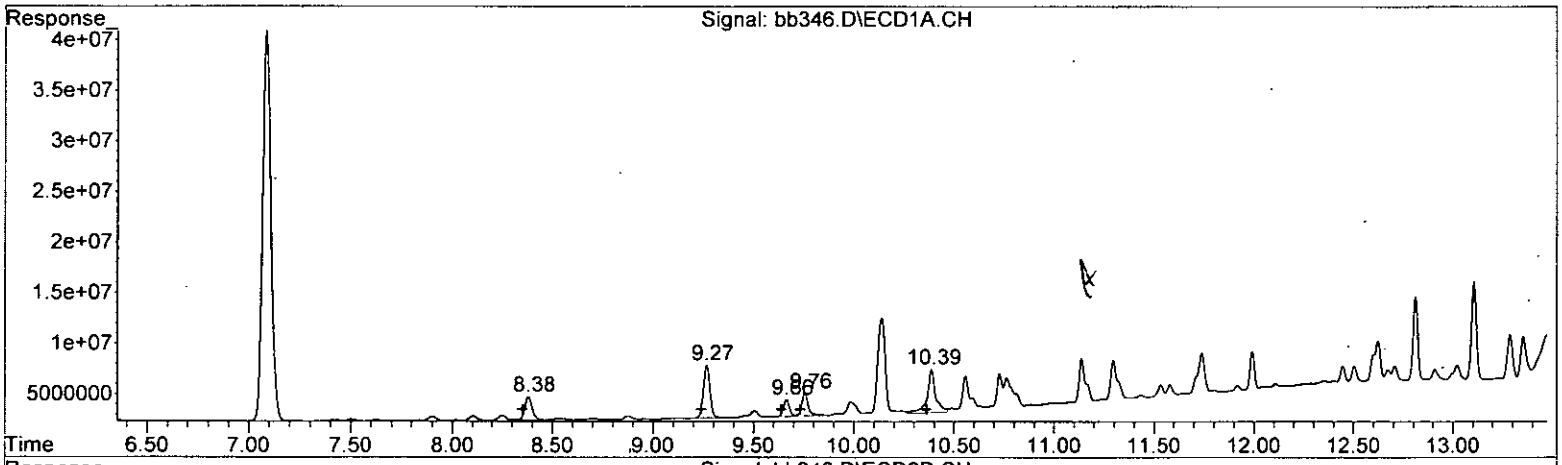
(+) = Expected Retention Time

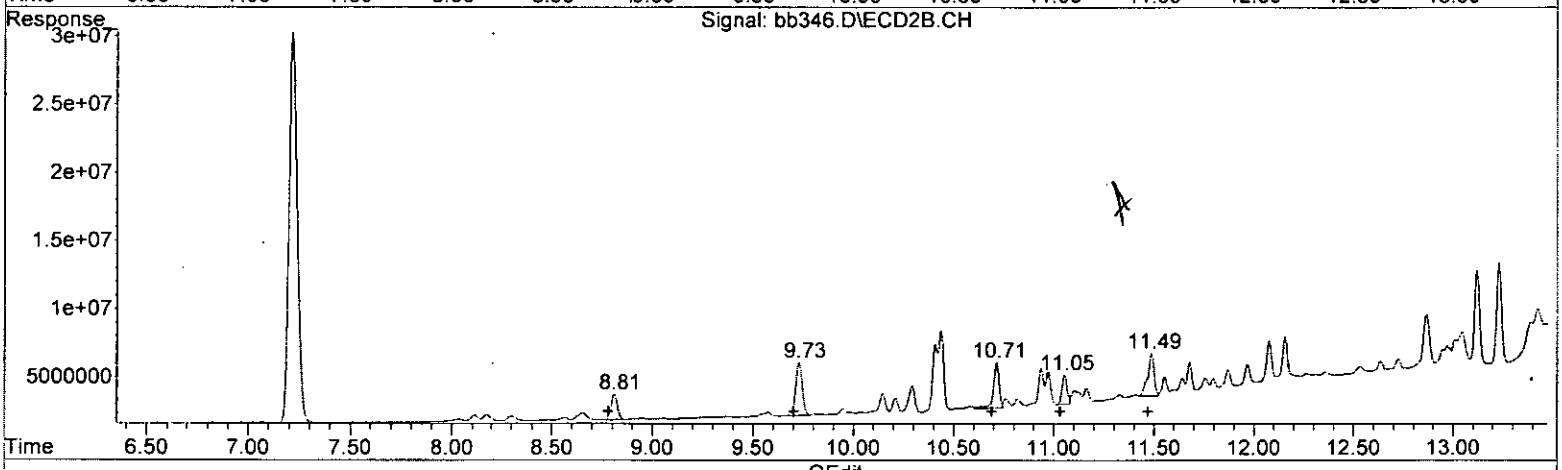
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb346.D
Acq On : 14 Sep 2015 5:44 pm
Operator : m.pedro
Sample : rq1510616-05|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:28:32 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(3) PCB 1016 #2 (L1c)

R.T.	Response	Conc
8.38	56862689	152.23
9.27	119437307	159.27
9.66	34897986	161.06
9.76	51618980	173.69
10.39	124913489	196.94

(3) PCB 1016 #2 (L1c)

R.T.	Response	Conc
8.81	42430357	165.25
9.73	90453710	163.13
10.71	66508584	196.88
11.05	36529655	158.51
11.49	70350959	172.36

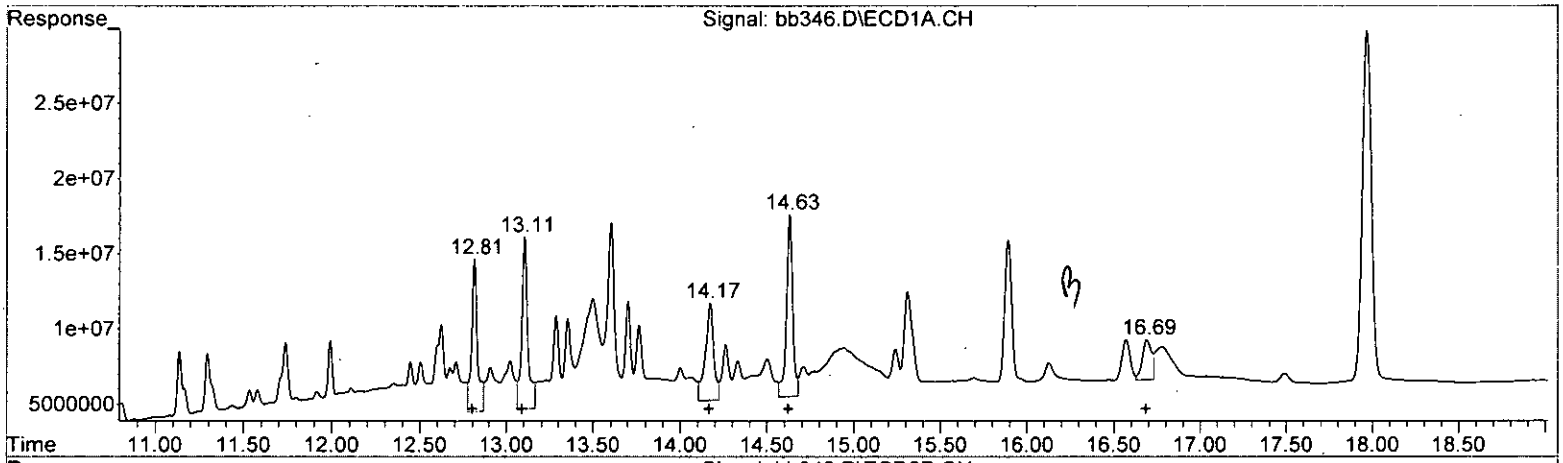
(+) = Expected Retention Time

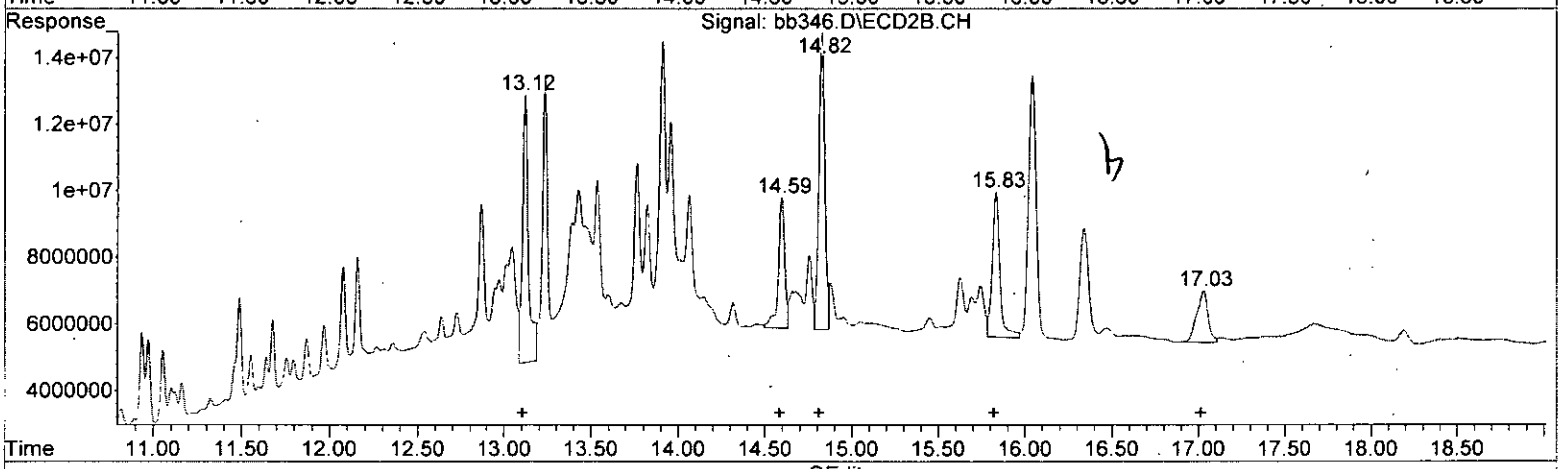
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb346.D
Acq On : 14 Sep 2015 5:44 pm
Operator : m.pedro
Sample : rq1510616-05|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:28:32 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(33) PCB 1260 (L7c)

R.T.	Response	Conc
12.81	245549818	331.10
13.11	276145125	304.33
14.17	215690678	349.17
14.63	305907987	265.58
16.69	99567122	345.76

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
13.12	190982777	268.12
14.59	99524979	238.98
14.82	210493084	214.60
15.83	135644212	247.22
17.03	70236954	221.46

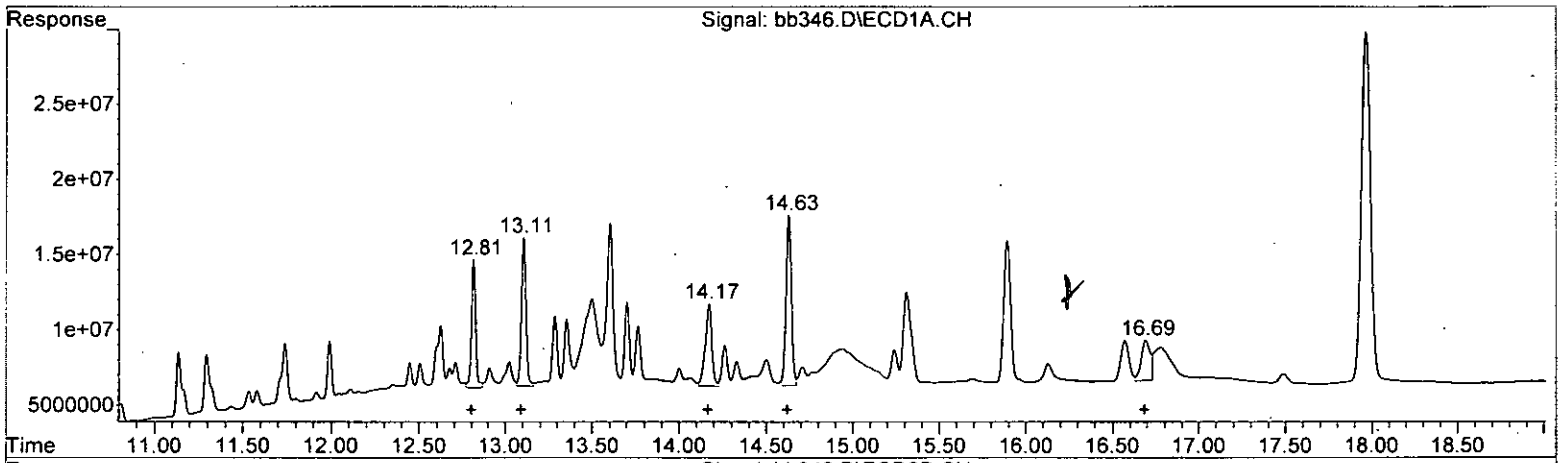
(+) = Expected Retention Time

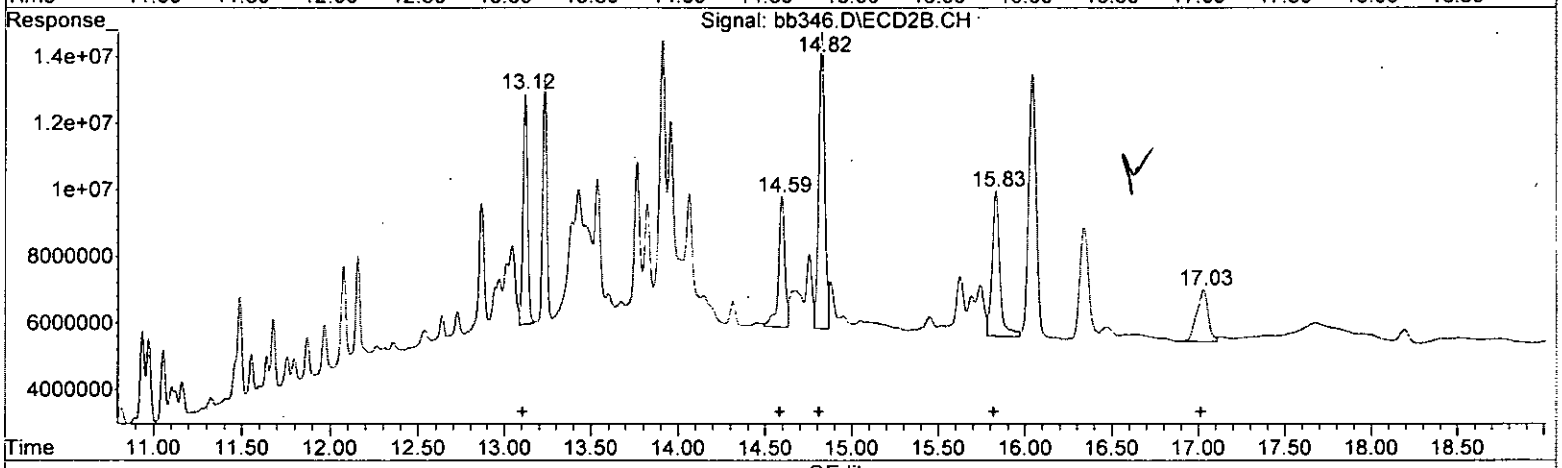
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\6890G\Data\091415\
Data File : bb346.D
Acq On : 14 Sep 2015 5:44 pm
Operator : m.pedro
Sample : rq1510616-05|1.0 Inst : 6890G
Misc : 244583 3.0 8082
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:28:32 2015
Quant Method : I:\ACQUDATA\6890G\METHODS\PCB090215.M
Quant Title : 608/8082 PCB'S
QLast Update : Thu Sep 03 08:19:01 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
12.81	150747605	203.27
13.11	179746953	198.09
14.17	143624734	232.50
14.63	250540900	217.51
16.69	99567122	345.76

(33) PCB 1260 #2 (L7c)

R.T.	Response	Conc
13.12	125126513	175.67
14.59	99524979	238.98
14.82	210493084	214.60
15.83	135644212	247.22
17.03	70236954	221.46

(+) = Expected Retention Time

Preparation Information Benchsheet

Prep Run#: 244583 **Prep WorkFlow:** OrgExtS(14) **Status:** Prepped
Team: Semivoa GC/EBRUEN **Prep Method:** EPA 3541 **Prep Date/Time:** 9/11/15 08:50 AM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1510616-01	MB		30.0g	8082A/PCB				10.00mL		1.0000 mL/84072	
2	RQ1510616-02	LCS		30.0g	8082A/PCB				10.00mL		1.0000 mL/84072; 1.0000 mL/84073	
3	RQ1510616-03	DLCS		30.0g	8082A/PCB				10.00mL		1.0000 mL/84073; 1.0000 mL/84072	
4	R1507279-001	Sludge	.03	29.5200g	8082A/PCB				10.00mL	black, coarse	1.0000 mL/84072	
5	R1507474-001	14041059_09032015_SS	.05	15.2400g	8082A/PCB				5.00mL	brown, medium	0.5000 mL/84072	
6	R1507474-002	14041035_09032015_SS	.05	15.1400g	8082A/PCB				5.00mL	brown/red, medium	0.5000 mL/84072	
7	R1507474-003	14010047_09032015_SS	.05	14.9900g	8082A/PCB				5.00mL	brown, fine	0.5000 mL/84072	
8	R1507508-001	BLDG1203-SS-EX1-01(N) -30-36	.01	29.9200g	8082A/PCB				10.00mL	green/blue, fine	1.0000 mL/84072	
9	RQ1510616-04	R1507508-001 MS	.01	29.8600g	8082A/PCB				10.00mL		1.0000 mL/84073; 1.0000 mL/84072	
10	RQ1510616-05	R1507508-001 DMS	.01	29.9900g	8082A/PCB				10.00mL		1.0000 mL/84072; 1.0000 mL/84073	
11	R1507508-002	BLDG1203-SS-EX1-02(E) -29-35	.01	29.9800g	8082A/PCB				10.00mL	blue/brown, fine	1.0000 mL/84072	
12	R1507508-003	BLDG1203-SS-EX1-03(S) -28-34	.01	29.8600g	8082A/PCB				10.00mL	brown/green, fine	1.0000 mL/84072	
13	R1507508-004	BLDG1203-SS-EX1-04(W -32-38	.01	29.9600g	8082A/PCB				10.00mL	brown, fine	1.0000 mL/84072	
14	R1507508-005	BLDG1203-SS-EX1-05(B) -34-40	.01	29.9100g	8082A/PCB				10.00mL	brown/green, fine	1.0000 mL/84072	
15	R1507525-001	BLDG1203-20150908-WC	.03	30.0g	8082A/PCB				10.00mL	brown, fine	1.0000 mL/84072	

Spiking Solutions

Name: 8081/8082 Surrogate Spike STD 1 ug/ ml Inventory ID 84072 Logbook Ref: Expires On: 03/07/2016

Name: 8082 Spike 5 ug/mL AR1260 in Hexane Inventory ID 84073 Logbook Ref: Expires On: 03/07/2016

Preparation Materials

50:50 acetone:hexane mix (84090)
Sulfuric Acid Reagent Grade H2SO4 (83185)
Sand Reagent Grade (83719)
2mL Graduated Vials (83588)

Boiling Stones PTFE M5280042W (77535)
Hexanes 95% (83966)
Prepared Tetrabutylammonium hydrogen sulfate (TBA) (81660)

Eppendorf Pipette Repeater EXT #14 (61350)
Prepared Sodium Sulfate Na2SO4 (84116)
Extraction Thimbles 25 x 90 mm (1573)

Preparation Information Benchsheet

Prep Run#: 244583 **Prep WorkFlow:** OrgExtS(14) **Status:** Prepped
Team: Semivoa GC/EBRUEN **Prep Method:** EPA 3541 **Prep Date/Time:** 9/11/15 08:50 AM

Preparation Steps

Step:	Extraction	Step:	Concentration	Step:	Acid Clean-EPA 3665A	Step:	Sulfur Clean-EPA 3660B	Step:	Extraction Complete
Started:	9/11/15 08:50	Started:	9/11/15 12:25	Started:	9/11/15 13:38	Started:	9/11/15 13:18	Started:	9/11/15 15:49
Finished:	9/11/15 11:25	Finished:	9/11/15 13:12	Finished:	9/11/15 14:23	Finished:	9/11/15 13:37	Finished:	9/11/15 15:49
By:	CPSCHIERER	By:	CPSCHIERER	By:	CPSCHIERER	By:	CPSCHIERER	By:	CPSCHIERER
Comments		Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: _____ Date: _____ Spike Witness: DMURPHY Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analysis: 608/8082 Analyst: LLDLQ Run Method: PCB

Date: 9/12 Instr. 6890G Quant Method: PCB090215

LIMS Run#:

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
	BLK			B0242	Y	
	AR1016DL		81739	238	Y	
	L		81738	244	Y	
	ML		81740	245	Y	
	M		81741	246	Y	
	MH		81742	247	Y	
	H		81743	248	Y	
	AR1221/1254L		81744	249	Y	
	M		81745	250	Y	
	H		81746	251	Y	
	AR1232L		81747	252	Y	
	M		81748	253	Y	
	H		81749	254	Y	
	AR1242L		81855	255	Y	
	M		81896	256	Y	
	H		81897	257	Y	
	AR1248L		81849	258	Y	
	M		81900	259	Y	
	H		81901	260	Y	
	AR1260M		81902	261	Y	
	AR1016DL2		82292	262	Y	

MV 9/13

All samples = _____mL + _____uL Combined IS/Surr.;

Primary :_____ exp: Secondary :_____ exp:

Primary:_____ exp: Secondary :_____ exp:

Runlog GCEXT r1 12/5/12

Analysis: 8082 Analyst: MPeña Run Method: PCB

Date: 9/14 Instr. 6890G Quant Method: PCB090215

LIMS Run#: 462295

Pos.	Sample	Dil'n.	Stds. ID	File#	OK?	Comments
	BK			B6330		
	CW2			331	Y cc	
	RQ1510617-01			332	Y	
	↓ 02			333	Y	
	↓ 03			334	Y	
	R1507509-002			335	Y	Rpt
	RQ1510616-01			336	Y	
	↓ 02			337	Y	
	↓ 03			338	Y	
	L1507474-001			339	Y	
	DUP			340	Y	
	MS			341	Y	
	CW3			342	Y cc	>15% for 608
	R1507279-001			343	Y	
	R1507508-001			344	Y	
	RQ1510616-04			345	Y	MS+MSD ↓ for DOD
	↓ 05			346	Y	
	R1507508-002			347	Y	
	DUP			348	Y	
	MS			349	Y	
	MSD			350	Y	
	R1507525-001			351	Y	
	CW4			352	Y cc	
	BK					
	CW					
	R1507279-001				Rpt	
	CCV				N	
	CWb				N	

All samples = _____mL + _____uL Combined IS/Surr.;

Primary: _____ exp: Secondary: _____ exp:

Primary: _____ exp: Secondary: _____ exp:

Runlog GCEXT r1 12/5/12

ALS Environmental

GENERAL CHEMISTRY DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1322
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-01(N)-30-36		
Lab Code:	R1507508-001	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	83.7		Percent			1	NA	9/9/15 15:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1330
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-02(E)-29-35		
Lab Code:	R1507508-002	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	80.4		Percent			1	NA	9/9/15 15:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1324
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-03(S)-28-34		
Lab Code:	R1507508-003	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	81.1		Percent			1	NA	9/9/15 15:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1326
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-04(W)-32-38		
Lab Code:	R1507508-004	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	89.3		Percent			1	NA	9/9/15 15:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507508
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1328
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-SS-EX1-05(B)-34-40		
Lab Code:	R1507508-005	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	82.2		Percent			1	NA	9/9/15 15:35	

Analytical Results Summary

Instrument Name: R-Balance-17 **Analyst:** KWONG **Analysis Lot:** 461440 **Method/Testcode:** ALS SOP/Total Solids

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R1507442-001	Total Solids	N/A		Soil	31.61 Percent		31.6 Percent	1					9/9/15 15:35	N	II
RQ1510519-01	Total Solids	DUP	R1507442-001	Soil	33.04 Percent		33.0 Percent	1				4	9/9/15 15:35	N	II
R1507444-001	Total Solids	N/A		Soil	90.10 Percent		90.1 Percent	1					9/9/15 15:35	N	II
R1507444-002	Total Solids	N/A		Soil	80.76 Percent		80.8 Percent	1					9/9/15 15:35	N	II
R1507444-003	Total Solids	N/A		Soil	85.12 Percent		85.1 Percent	1					9/9/15 15:35	N	II
R1507508-001	Total Solids	N/A		Soil	83.68 Percent		83.7 Percent	1					9/9/15 15:35	N	IV
R1507508-002	Total Solids	N/A		Soil	80.36 Percent		80.4 Percent	1					9/9/15 15:35	N	IV
R1507508-003	Total Solids	N/A		Soil	81.06 Percent		81.1 Percent	1					9/9/15 15:35	N	IV
R1507508-004	Total Solids	N/A		Soil	89.28 Percent		89.3 Percent	1					9/9/15 15:35	N	IV
R1507508-005	Total Solids	N/A		Soil	82.21 Percent		82.2 Percent	1					9/9/15 15:35	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analyte: % Volatile Solids
Method: SM20 2540G
Analytes: Dry Weight % Solid
Method : EPA-600 160.3

Analyst: KAW Date: 9/9/15
Pipet: NA Time: 15:35
Thermolyne F48025-6048000 Muffle Furnace
Balance ID R-BALANCE-17 **Oven ID** 2
Class 1 Weight Initial: 9.99 Final: 10.00

% Volatile Solids:
% VS = (A - D) / (A - B) * 100

% Solids:
% Solid = (A - B) / (C - B) * 100

Where: A = wgt (g) of dried residue + dish
B = wgt (g) of tared dish
C = wgt (g) of wet sample + dish
D = wgt (g) of residue + dish after ign. @550 C.

	Misc.	Order #	Dish ID	Before Ignition / Wet Weight (g)		After Ignition / Dry Weight (g)		% Volatile Solids	% Solids
1		MB	8	C)		Dry wgt (A):	1.3100		1.00
				B)	1.3100	550 wgt (D):			
2	DECANTED	R1507356-001	9	C)	11.7300	Dry wgt (A):	9.9800		83.24
				B)	1.2900	550 wgt (D):			
3	2.2844	R1507356-001 DUP	10	C)	11.7700	Dry wgt (A):	9.8200		81.36
				B)	1.3100	550 wgt (D):			
4	DECANTED	R1507356-002	11	C)	11.5100	Dry wgt (A):	9.6200		81.47
				B)	1.3100	550 wgt (D):			
5	DECANTED	R1507356-003	12	C)	11.7100	Dry wgt (A):	9.1800		75.65
				B)	1.3200	550 wgt (D):			
6	DECANTED	R1507356-004	13	C)	11.7200	Dry wgt (A):	8.2600		66.83
				B)	1.2900	550 wgt (D):			
7	DECANTED	R1507356-005	14	C)	11.4100	Dry wgt (A):	9.2200		78.32
				B)	1.3100	550 wgt (D):			
8	DECANTED	R1507356-006	15	C)	11.7000	Dry wgt (A):	8.9600		73.60
				B)	1.3200	550 wgt (D):			
9	DECANTED	R1507356-007	16	C)	11.9900	Dry wgt (A):	9.0200		72.19
				B)	1.3100	550 wgt (D):			
10	DECANTED	R1507356-008	17	C)	11.8300	Dry wgt (A):	9.4600		77.47
				B)	1.3100	550 wgt (D):			
11	DECANTED	R1507356-009	18	C)	11.7500	Dry wgt (A):	8.1700		65.68
				B)	1.3200	550 wgt (D):			
12	DECANTED	R1507356-010	19	C)	11.6400	Dry wgt (A):	9.1000		75.39
				B)	1.3200	550 wgt (D):			
13		R1507442-001	20	C)	11.5700	Dry wgt (A):	4.5600		31.61
				B)	1.3200	550 wgt (D):			
14	4.4248	R1507442-001 DUP	21	C)	11.5200	Dry wgt (A):	4.6700		33.04
				B)	1.2900	550 wgt (D):			
15		R1507444-001	22	C)	11.8300	Dry wgt (A):	10.7900		90.10
				B)	1.3200	550 wgt (D):			
16		R1507444-002	23	C)	11.5300	Dry wgt (A):	9.5600		80.76
				B)	1.2900	550 wgt (D):			
17		R1507444-003	24	C)	11.4800	Dry wgt (A):	9.9700		85.12
				B)	1.3300	550 wgt (D):			
18		R1507508-001	25	C)	11.4800	Dry wgt (A):	9.8200		83.68
				B)	1.3100	550 wgt (D):			
19		R1507508-002	26	C)	11.4000	Dry wgt (A):	9.4200		80.36
				B)	1.3200	550 wgt (D):			
20		R1507508-003	27	C)	11.6400	Dry wgt (A):	9.6800		81.06
				B)	1.2900	550 wgt (D):			

Analyte: % Volatile Solids
Method: SM20 2540G
Analytes: Dry Weight % Solid
Method : EPA-600 160.3

Analyst: KAW Date: 9/9/15
Pipet: NA Time: 15:35
Thermolyne F48025-6048000 Muffle Furnace
Balance ID R-BALANCE-17 **Oven ID** 2
Class 1 Weight Initial: 9.99 Final: 10.00

% Volatile Solids:
% VS = (A - D) / (A - B) * 100

% Solids:
% Solid = (A - B) / (C - B) * 100

Where: A = wgt (g) of dried residue + dish
B = wgt (g) of tared dish
C = wgt (g) of wet sample + dish
D = wgt (g) of residue + dish after ign. @550 C.

	Misc.	Order #	Dish ID	Before Ignition / Wet Weight (g)		After Ignition / Dry Weight (g)		% Volatile Solids	% Solids
21		R1507508-004	28	C)	11.9200	Dry wgt (A):	10.7800		89.28
				B)	1.2900	550 wgt (D):			
22		R1507508-005	29	C)	11.8500	Dry wgt (A):	9.9700		82.21
				B)	1.2800	550 wgt (D):			
23				C)		Dry wgt (A):			
				B)		550 wgt (D):			
24				C)		Dry wgt (A):			
				B)		550 wgt (D):			
25				C)		Dry wgt (A):			
				B)		550 wgt (D):			
26				C)		Dry wgt (A):			
				B)		550 wgt (D):			
27				C)		Dry wgt (A):			
				B)		550 wgt (D):			
28				C)		Dry wgt (A):			
				B)		550 wgt (D):			
29				C)		Dry wgt (A):			
				B)		550 wgt (D):			
30				C)		Dry wgt (A):			
				B)		550 wgt (D):			
31				C)		Dry wgt (A):			
				B)		550 wgt (D):			
32				C)		Dry wgt (A):			
				B)		550 wgt (D):			
33				C)		Dry wgt (A):			
				B)		550 wgt (D):			
34				C)		Dry wgt (A):			
				B)		550 wgt (D):			
35				C)		Dry wgt (A):			
				B)		550 wgt (D):			
36				C)		Dry wgt (A):			
				B)		550 wgt (D):			
37				C)		Dry wgt (A):			
				B)		550 wgt (D):			
38				C)		Dry wgt (A):			
				B)		550 wgt (D):			
39				C)		Dry wgt (A):			
				B)		550 wgt (D):			
40				C)		Dry wgt (A):			
				B)		550 wgt (D):			

ALS Environmental
1565 Jefferson Rd., Rochester, NY 14623

General Chemistry Analytical Run Cover Sheet

Analyst: K. Wong Date: 09/09/15

Analysis: % Solids Instrument: OHAUS Toploading Balance

Quality Control:

	Log Book #	Log Book Date	Log Book Page #	Stock Sol (m/Ls)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:							
b) I/CCV Preparation:							
c) LCS Preparation:							
d) Matrix Spike Prep.:							

Instrument log filled in? (Y) (N)

Comments:

Production (optional):

	Start Time	End Time	Total (minutes)
Preparation Time :			
Analytical Time:			
Finish Time:			

# of Samples (including Mtx QC): _____
Repeats due to Sample: _____
Repeats due to Error: _____

p:\L\123\greg\forms\cover\dwps.xls

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com
NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 06, 2015

Work Order: 2095063
SDG: AER121

Ms. Janice Jaeger
ALS Environmental-Rochester NY
1565 Jefferson Road, Bldg. 300
Suite 360
Rochester, NY 14623

Laboratory Results for: NJ EPH

Dear Ms. Janice Jaeger:

Enclosed are the analytical results for samples received by the laboratory starting on September 10, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP. Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads. This laboratory report may not be reproduced, except infull, without the written approval of ALS Environmental. Any events, such as QC failures, are explained in the report narrative.

If you have any questions regarding this certificate of analysis, please contact Ms. Jennifer M Stanhope Lamoreux (Reporting Manager) at (717) 944-5541. You may also contact me via email at jennifer.lamoreux@ALSglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Jennifer M Stanhope Lamoreux
Reporting Manager

Table of Contents

Chain of Custody Records 3
Certificate of Analysis 7
Case Narrative 13
Aromatic Petroleum Hydrocarbons C10-C36 by NJEPH Summary Forms 16
Aromatic Petroleum Hydrocarbons C10-C36 Raw Data 29
- Sample Raw Data 30
- Standards Raw Data 41
  - Initial Calibrations 42
  - Initial Calibration Verifications 89
  - Continuing Calibrations 99
- QC Raw Data 126
  - Blank Raw Data 127
  - Duplicate Raw Data 133
  - LCS Raw Data 153
- Preparation Logbook 166
- Analytical Logbook 168

Aliphatic Petroleum Hydrocarbons C9-C40 by NJEPH Summary Forms 171
Aliphatic Petroleum Hydrocarbons C9-C40 Raw Data 186
- Sample Raw Data 187
- Standards Raw Data 208
  - Initial Calibrations 209
  - Initial Calibration Verifications 256
  - Continuing Calibrations 273
- QC Raw Data 304
  - Blank Raw Data 305
  - Duplicate Raw Data 311
  - LCS Raw Data 322
- Preparation Logbook 335
- Analytical Logbook 337

Total Solids Raw Data 340

Chain of Custody Records

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

2095063

263

Project Number: R1507525
Project Manager: Janice Jaeger

1520 9/9/15
Jessica Smith

Lab Code	Sample ID	# of Cont.	Matrix	Date Sample	Time	Lab ID	Misc Out Name EDD
R1507525-001	BLDG1203-20150908-WC1	1	Soil	9/8/15	1320	Middletown ALS	X

9/9/15

	Y	N	Initials
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?	✓		JS
COC/Lbls Complete	✓		
Cont in Good Cond?	✓		
Correct Containers?	✓		
Correct Samp Vol?	✓		
Correct Preservation?	✓		
Headspace/Volatiles?		✓	

Cooler Temp: 2 °C
Cooler #:
Therm ID: FA-209
Ship Carrier: FedEx UPS DHL
Tracking #: 1Z9E9 7E00 9060

Folder Comments:
DoD reporting

Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
H - Test is On Hold P - Test is Authorized for Prep Only	____RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ____ STANDARD Requested FAX Date: _____ Requested Report Date: 09/23/15	____ I. Results Only ____ II. Results + QC Summaries ____ III. Results + QC and Calibration Summaries ____ IV. Data Validation Report with Raw Data PQL/MDL/J N EDD Y	PO# 58R1507525 Bill to

Relinquished By: [signature] 9/9/15/1649
Received By: [signature] JS 9/10/15 0931
Airbill Number:

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Janice Jaeger

Project Number: R1507525
Project Manager: Janice Jaeger

R1507525

____ **Ship To: Middletown ALS**
ALS Laboratory Group
34 Dogwood Lane
Middletown, PA 17057

PC _____ Date _____

SMO _____ Date _____

Instructions:

Ice _____

Dry Ice _____

No Ice _____

Shipping:

Overnight _____

2nd Day _____

Ground _____

Bill to Client Account _____

Comments:

ALS Group USA, Corp.
www.alsglobal.com
An ALS Limited Company

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

Internal Chain of Custody

Work Order: 2095063

2095063001-A	COC - Chain of Custody		
Transfer Date	To Location	Transfer Reason	Transferred To
09-11-15 14:13	RECEIVING	LOGIN	Trovinger, Mr. Adam R.
09-10-15 09:31	*Sample Received At Lab*		

2095063001-B	G - CLEAR GLASS		
Transfer Date	To Location	Transfer Reason	Transferred To
09-18-15 10:05	SVGC_LAB	NJEPHS AROMATIC Soil	Hinchliffe, Mr. Kevin J
09-18-15 10:04	SVGC_LAB	NJEPHS ALIPHATIC Soil	Hinchliffe, Mr. Kevin J
09-18-15 09:51	SR-FR4	Extract storage	Powroznik, Mr. Matt P
09-18-15 09:50	SR-FR4	Extract storage	Powroznik, Mr. Matt P
09-16-15 00:25	ORGPREP-LAB	3546 AROMATIC Soil Extraction NJEPHS	Ciaston, Miss Kristi A
09-16-15 00:23	ORGPREP-LAB	3546 ALIPHATIC Soil Extraction NJEPHS	Ciaston, Miss Kristi A
09-11-15 14:17	NEW-WALKIN	STORAGE	Trovinger, Mr. Adam R.
09-11-15 14:13	RECEIVING	LOGIN	Trovinger, Mr. Adam R.
09-10-15 09:31	*Sample Received At Lab*		

Certificate of Analysis

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

September 22, 2015

Ms. Janice Jaeger
ALS Environmental-Rochester NY
1565 Jefferson Road, Bldg. 300
Suite 360
Rochester, NY 14623

Certificate of Analysis

Project Name:	**NJ EPH**	Workorder:	**2095063**
Purchase Order:	**58R1507525**	Workorder ID:	**AER121|BLDG1203-20150908-WC1**

Dear Ms. Jaeger:

Enclosed are the analytical results for samples received by the laboratory on Thursday, September 10, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mr. Brad W Kintzer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Joni Janson

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Brad W. Kintzer

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2095063 AER121|BLDG1203-20150908-WC1

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2095063001	BLDG1203-20150908-WC1	Solid	9/8/2015 13:20	9/10/2015 09:31	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PROJECT SUMMARY

Workorder: 2095063 AER121|BLDG1203-20150908-WC1

Sample Comments

Lab ID: 2095063001 **Sample ID:** BLDG1203-20150908-WC1 **Sample Type:** SAMPLE

The LCS and LCS Dup exhibited an overall low bias in the NJ EPH fractionated aromatic analysis.

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2095063 AER121|BLDG1203-20150908-WC1

Lab ID: **2095063001** Date Collected: 9/8/2015 13:20 Matrix: Solid

Sample ID: **BLDG1203-20150908-WC1** Date Received: 9/10/2015 09:31

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
AROMATIC PETROLEUM HC's												
C10 TO C12	1.21		mg/kg	1.2	1.2	0.52	NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
C12 TO C16	2.3		mg/kg	1.2	1.2	0.21	NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
C16 TO C21	144		mg/kg	11.6	11.6	2.0	NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
C21 TO C36	129		mg/kg	11.6	11.6	2.8	NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
Total EPH Aromatic	276		mg/kg				NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
Total EPH (Aliphatic+Aromatic)	2370		mg/kg				NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Bromonaphthalene (S)	50.2		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
2-Bromonaphthalene (S)	64.3		%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
2-Fluorobiphenyl (S)	27.1	1	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
2-Fluorobiphenyl (S)	18.5		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
o-Terphenyl (S)	75.7		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
o-Terphenyl (S)	47.5		%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
ALIPHATIC PETROLEUM HC's												
C9 TO C12	1.1J	J	mg/kg	1.2	1.2	0.14	NJEPH	9/16/15	KAC	9/18/15 14:34	KJH	B
C12 TO C16	391		mg/kg	57.8	57.8	24.9	NJEPH	9/16/15	KAC	9/21/15 11:00	KJH	B
C16 TO C21	1200		mg/kg	57.8	57.8	24.3	NJEPH	9/16/15	KAC	9/21/15 11:00	KJH	B
C21 TO C40	504		mg/kg	57.8	57.8	28.3	NJEPH	9/16/15	KAC	9/21/15 11:00	KJH	B
Total EPH Aliphatic	2100		mg/kg				NJEPH	9/16/15	KAC	9/18/15 14:34	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1-Chlorooctadecane (S)	62.7		%	40 - 140			NJEPH	9/16/15	KAC	9/18/15 14:34	KJH	B
WET CHEMISTRY												
Moisture	14.1		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A
Total Solids	85.9		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A

Mr. Brad W Kintzer
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2095063001	1	BLDG1203-20150908-WC1	NJEPH	2-Fluorobiphenyl

The surrogate 2-Fluorobiphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 27.1 and the control limits were 40 to 140. This result was reported at a dilution of 1.

Case Narrative

ALS - Middletown
Analytical Narrative
ALS Environmental – Rochester NY
AER-121

SAMPLE MANAGEMENT

This report contains the results of the analysis of one (1) solid sample collected on September 8, 2015. Analytical results and quality control information are summarized in this data package.

SAMPLE RECEIPT

The sample arrived at ALS via courier on September 10, 2015. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

NJEPH Aromatic Petroleum Hydrocarbons

Sample Handling. One (1) soil sample was extracted by Method 3546NJEPH and analyzed for NJEPH Aromatic (C9-C40) by GC-FID, Method NJEPH. The extractions and analyses were performed within the holding times associated with each method.

Calibrations. The initial calibrations for NJEPH Aromatic Petroleum Hydrocarbons and the surrogate compounds (2-bromonaphthalene, 2-fluorobiphenyl and o-terphenyl) met method criteria for all target analytes.

Continuing Calibration Verifications. Continuing Calibration Verification standards were properly analyzed and met method criteria for all target analytes.

Blanks. NJEPH Aromatic Petroleum Hydrocarbons were not detected in the method blank.

Surrogates. Recoveries were within control limits; except as follows:

- In samples 2232806, BLDG1203-S-EX1-04(W)32-38 DUP (1:5) (2232810), (2095063001), BLDG1203-SS-EX1-(W)-32-38 (2095064004) and BLDG1203-SS-EX1-(W)-32-38DUP (2232810), 2-fluorobiphenyl was recovered below the control limits.
- In samples BLDG1203-SS-EX1-04(W)-32-38 (2095064004), 2-bromonaphthalene and 2-fluorobiphenyl were recovered below the control limits.

Laboratory Control Sample. Target analytes were recovered within control limits; except as follows:

- In 2232807 and 2232808, 1,2,3-trimethylbenzene, indeno(1,2,3-cd pyrene), dibenzo(a,h)anthracene and benzo(g,h,i)perylene were recovered below the control limits.

Duplicate Samples. A duplicate sample, identified as 2232810, was extracted and analyzed from non-project sample BLDG1203-SS-EX1-04(W)-32-38 (2095064004). Target analytes were detected above the reporting limit and %RPD were outside of control limits.

Comments. As defined in NJEPH, Aromatic is defined as petroleum hydrocarbons eluting in the retention time range of nC-9 to nC-40. The result reported for these samples reflected the total response in the aforementioned retention time range.

NJEPH Aliphatic Petroleum Hydrocarbons

Sample Handling. One (1) soil sample was extracted and analyzed by Method NJEPH for Aliphatic Petroleum Hydrocarbons. All extractions and analyses were performed within the holding time.

Calibrations. The initial calibrations for NJEPHS and the surrogate compounds (1-chlorooctadecane) met method criteria for all target analytes.

Continuing Calibration Verifications. Continuing Calibration Verification standards were properly analyzed and met method criteria for all target analytes.

Blanks. NJEPH Aliphatic Petroleum Hydrocarbons were not detected in the method blank.

Surrogates. All surrogates were recovered within control limits; except as follows:

- In samples BLDG1203-SS-EX1-04(W)-32-38 (2095064004) and BLDG1203-SS-EX1-04(W)-32-38DUP (2232805), 1-chlorooctadecane was recovered outside of the control limits. Due to the amount of target analytes detected the samples were analyzed at a dilution and surrogate recoveries were not able to be evaluated as a result of the dilution.

Spiked Blanks. Target analytes were recovered within control limits.

Duplicate Sample. A duplicate sample, identified as 2232805, was extracted and analyzed from non-project sample BLDG1203-SS-EX1-04(W)-32-38 (2095064004). Due to high concentration of target analytes the background sample and duplicate sample were analyzed at a dilution and %RPD were outside control limits.

Total Solids by SM 2540G

Sample handling. One (1) solid sample was analyzed for total solids by Standard Method 2540G for dry weight reporting purposes. The sample was analyzed within the 14-day method recommended hold time for dry weight reporting.

Aromatic Petroleum Hydrocarbons C10-C36 by NJEPH Summary Forms

FORM 2
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Level:(low/med) LOW

	SAMPLE NO.	S1 #	S2 #	S3 (FBP)#	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	2232806	76	66	29*						1
02	2232807LCS	68	84	44						0
03	2232808LCSD	71	75	41						0
04	BLDG1203-201	48	64	27*						1
05	BLDG1203-SS-	14*	8*	5*						3
06	BLDG1203-SS-	55	58	24*						1
07	BLDG1203-201	76	50	18*						1
08	BLDG1203-SS-	72	54	18*						1
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

	QC LIMITS
S1 = o-terphenyl	(40-140)
S2 = 2-Bromonaphthalene	(40-140)
S3 (FBP) = 2-Fluorobiphenyl	(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 3
SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix Spike - Sample No.: 2232807LCS Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (mg/kg)	LCS % REC #	QC. LIMITS REC.
1,2,3-Trimethylbenzene	0.373333	0.00	0.127461	34*	40-140
Fluorene	0.373333	0.00	0.227845	61	40-140
Phenanthrene	0.373333	0.00	0.235234	63	40-140
Anthracene	0.373333	0.00	0.242272	65	40-140
Fluoranthene	0.373333	0.00	0.274115	73	40-140
Pyrene	0.373333	0.00	0.293154	79	40-140
Benz(a)anthracene	0.373333	0.00	0.207205	56	40-140
Chrysene	0.373333	0.00	0.245560	66	40-140
Benzo(b)fluoranthene	0.373333	0.00	0.204364	55	40-140
Benzo(k)fluoranthene	0.373333	0.00	0.240988	65	40-140
Benzo(a)pyrene	0.373333	0.00	0.198504	53	40-140
Indeno(1,2,3-cd)pyrene	0.373333	0.00	0.135027	36*	40-140
Dibenz(a,h)anthracene	0.373333	0.00	0.128953	35*	40-140
Benzo(g,h,i)perylene	0.373333	0.00	0.146595	39*	40-140
Naphthalene	0.373333	0.00	0.174461	47	40-140
2-Methylnapthalene	0.373333	0.00	0.184266	49	40-140
Acenaphthylene	0.373333	0.00	0.212462	57	40-140
Acenaphthene	0.373333	0.00	0.250468	67	40-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____ZB-5_____

FORM 3
SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix Spike - Sample No.: 2232808LCS Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	LCSD CONCENTRATION (mg/kg)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2,3-Trimethylbenzene	0.373333	0.112767	30*	13	40	40-140
Fluorene	0.373333	0.216831	58	5	40	40-140
Phenanthrene	0.373333	0.223066	60	5	40	40-140
Anthracene	0.373333	0.232287	62	5	40	40-140
Fluoranthene	0.373333	0.266327	71	3	40	40-140
Pyrene	0.373333	0.265921	71	11	40	40-140
Benz(a)anthracene	0.373333	0.190347	51	9	40	40-140
Chrysene	0.373333	0.241090	65	2	40	40-140
Benzo(b)fluoranthene	0.373333	0.205983	55	0	40	40-140
Benzo(k)fluoranthene	0.373333	0.216271	58	11	40	40-140
Benzo(a)pyrene	0.373333	0.183473	49	8	40	40-140
Indeno(1,2,3-cd)pyrene	0.373333	0.124070	33*	9	40	40-140
Dibenz(a,h)anthracene	0.373333	0.111646	30*	15	40	40-140
Benzo(g,h,i)perylene	0.373333	0.130623	35*	11	40	40-140
Naphthalene	0.373333	0.156013	42	11	40	40-140
2-Methylnapthalene	0.373333	0.161144	43	13	40	40-140
Acenaphthylene	0.373333	0.194073	52	9	40	40-140
Acenaphthene	0.373333	0.233645	63	6	40	40-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 18 outside limits
Spike Recovery: 8 out of 36 outside limits

COMMENTS: _____ZB-5_____

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.
2232806

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Lab File ID: CIIM015 Lab Sample ID: 2232806

Instrument ID: GC15 Date Extracted: 09/16/15

Matrix: (soil/water) SOIL Date Analyzed: 09/18/15

Level:(low/med) LOW Time Analyzed: 2222

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	2232807LCS	2232807	CIIM016	09/18/15
02	2232808LCSD	2232808	CIIM017	09/19/15
03	BLDG1203-201	2095063001	CIIM018	09/19/15
04	BLDG1203-SS-	2095064004	CIIM023	09/19/15
05	BLDG1203-SS-	2232810	CIIM024	09/19/15
06	BLDG1203-201	2095063001	CIIM041	09/21/15
07	BLDG1203-SS-	2232810	CIIM046	09/22/15
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 07/08/15 09/16/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 25.08 S2 : 22.34

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	AROICAL1	AROICAL1	09/16/15	1827	25.07	22.30
02	AROICAL2	AROICAL2	09/16/15	1925	25.06	22.29
03	AROICAL3	AROICAL3	09/16/15	2024	25.07	22.31
04	AROICAL4	AROICAL4	09/16/15	2122	25.08	22.32
05	AROICAL5	AROICAL5	09/16/15	2221	25.08	22.34
06	AROSS	AROSS	09/16/15	2319	25.08	22.32
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 1-Chlorooctadecane (+/- 0.10 MINUTES)
S2 = o-terphenyl (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 07/08/15 09/16/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S3 : 13.57 S4 : 15.46

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S3 RT	#	S4 RT	#
01	AROICAL1	AROICAL1	09/16/15	1827	13.57		15.44	
02	AROICAL2	AROICAL2	09/16/15	1925	13.55		15.43	
03	AROICAL3	AROICAL3	09/16/15	2024	13.56		15.43	
04	AROICAL4	AROICAL4	09/16/15	2122	13.56		15.43	
05	AROICAL5	AROICAL5	09/16/15	2221	13.57		15.46	
06	AROSS	AROSS	09/16/15	2319	13.57		15.45	
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								

QC LIMITS

S3 = 2-Bromonaphthalene (+/- 0.10 MINUTES)
S4 = 2-Fluorobiphenyl (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 07/08/15 09/16/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 25.08 S2 : 22.34

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	AROICAL1	AROICAL1	09/16/15	1827	25.07	22.30
02	AROICAL2	AROICAL2	09/16/15	1925	25.06	22.29
03	AROICAL3	AROICAL3	09/16/15	2024	25.07	22.31
04	AROICAL4	AROICAL4	09/16/15	2122	25.08	22.32
05	AROICAL5	AROICAL5	09/16/15	2221	25.08	22.34
06	AROSS	AROSS	09/16/15	2319	25.08	22.32
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 1-Chlorooctadecane (+/- 0.10 MINUTES)
S2 = o-terphenyl (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 07/08/15 09/16/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S3 : 13.58 S4 : 15.46

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S3 RT	#	S4 RT	#
01	AROICAL1	AROICAL1	09/16/15	1827	13.57		15.44	
02	AROICAL2	AROICAL2	09/16/15	1925	13.55		15.43	
03	AROICAL3	AROICAL3	09/16/15	2024	13.56		15.43	
04	AROICAL4	AROICAL4	09/16/15	2122	13.56		15.43	
05	AROICAL5	AROICAL5	09/16/15	2221	13.58		15.46	
06	AROSS	AROSS	09/16/15	2319	13.57		15.45	
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								

QC LIMITS

S3 = 2-Bromonaphthalene (+/- 0.10 MINUTES)
S4 = 2-Fluorobiphenyl (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 07/08/15 09/16/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 25.08 S2 : 22.34

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	AROCCV	AROCCV	09/18/15	1034	25.09	22.33
02	2232807LCS	2232807	09/18/15	2320	25.08	22.32
03	2232808LCSD	2232808	09/19/15	0019	25.08	22.31
04	AROCCV	AROCCV	09/19/15	1006	25.10	22.33
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = 1-Chlorooctadecane (+/- 0.10 MINUTES)
S2 = o-terphenyl (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 07/08/15 09/16/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S3 : 13.57 S4 : 15.46

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S3 RT	#	S4 RT	#
01	AROCCV	AROCCV	09/18/15	1034	13.58		15.46	
02	2232807LCS	2232807	09/18/15	2320	13.57		15.44	
03	2232808LCSD	2232808	09/19/15	0019	13.57		15.44	
04	AROCCV	AROCCV	09/19/15	1006	13.59		15.47	
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								

QC LIMITS

S3 = 2-Bromonaphthalene (+/- 0.10 MINUTES)
S4 = 2-Fluorobiphenyl (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 07/08/15 09/16/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 25.08 S2 : 22.34

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	AROCCV	AROCCV	09/18/15	1034	25.09	22.33
02	2232806	2232806	09/18/15	2222	25.08	22.32
03	BLDG1203-201	2095063001	09/19/15	0118		22.32
04	BLDG1203-SS-	2095064004	09/19/15	0611		22.33
05	BLDG1203-SS-	2232810	09/19/15	0709		22.32
06	AROCCV	AROCCV	09/19/15	1006	25.10	22.33
07	AROCCV	AROCCV	09/21/15	0904	25.06	22.30
08	BLDG1203-201	2095063001	09/21/15	2045		22.28
09	BLDG1203-SS-	2232810	09/22/15	0137		22.29
10	AROCCV	AROCCV	09/22/15	0433	25.08	22.33
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = 1-Chlorooctadecane (+/- 0.10 MINUTES)
S2 = o-terphenyl (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 07/08/15 09/16/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S3 : 13.58 S4 : 15.46

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S3 RT	#	S4 RT	#
01	AROCCV	AROCCV	09/18/15	1034	13.58		15.46	
02	2232806	2232806	09/18/15	2222	13.57		15.45	
03	BLDG1203-201	2095063001	09/19/15	0118	13.58		15.45	
04	BLDG1203-SS-	2095064004	09/19/15	0611	13.58		15.47	
05	BLDG1203-SS-	2232810	09/19/15	0709	13.57		15.44	
06	AROCCV	AROCCV	09/19/15	1006	13.59		15.47	
07	AROCCV	AROCCV	09/21/15	0904	13.55		15.43	
08	BLDG1203-201	2095063001	09/21/15	2045	13.55		15.44	
09	BLDG1203-SS-	2232810	09/22/15	0137	13.56		15.45	
10	AROCCV	AROCCV	09/22/15	0433	13.57		15.45	
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								

QC LIMITS

S3 = 2-Bromonaphthalene (+/- 0.10 MINUTES)
S4 = 2-Fluorobiphenyl (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

Aromatic Petroleum Hydrocarbons C10-C36 Raw Data

Sample Raw Data

FORM 1 ALS Environmental-R SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BLDG1203-20150908-W

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2095063001

Sample wt/vol: 15.1(g/mL) G Lab File ID: CIIM018

Level: (low/med) LOW Date Received: 09/10/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/19/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C10_C12	C10:C12		1.21	_____
C12_C16	C12:C16		2.3	_____
C16_C21	C16:C21		138	E
C21_C36	C21:C36		141	E

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: 2095063001 Client Smp ID: BLDG1203-20150908-W
Inj Date : 19-SEP-2015 01:18
Operator : KJH Inst ID: gc15.i
Smp Info : 2095063001;;15.1
Misc Info : ZZ SVGC 39488 NJEPHS_AR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 21-Sep-2015 08:23 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.100	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C10:C12	6.300-9.900			45582	1.68221	0.222809(a)
S 28 C12:C16	10.000-15.750			372221	14.7434	1.95277(M)
S 29 C16:C21	15.850-25.300			21906874	891.480	118.077(AM) LR at dilution
S 30 C21:C36	25.400-37.600			18849517	912.017	120.797(AM)
$ 6 o-terphenyl	22.316	22.341	-0.025	539879	23.7633	3.14746(M)
$ 11 2-Bromonaphthalene	13.575	13.583	-0.008	699274	32.1278	4.25533(M)
$ 14 2-Fluorobiphenyl	15.450	15.458	-0.008	193011	13.5263	1.79156(RM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: ALS Environmental-R Client SDG: AER121|BLDG1203-201
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2095063001 Client Smp ID: BLDG1203-20150908-W
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: C-range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c
Misc Info: ZZ SVGC 39488 NJEPHS_AR

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 4 1-Chlorooctadecane	6.62252	0.000000	*	40-140
$ 6 o-terphenyl	6.62252	3.14746	47.53	40-140
$ 11 2-Bromonaphthalene	6.62252	4.25533	64.26	40-140
$ 14 2-Fluorobiphenyl	6.62252	1.79156	27.05*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name: ALS Environmental-R
Lab Smp Id: 2095063001
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHS_AR

Client SDG: AER121|BLDG1203-201
Client Smp ID: BLDG1203-20150908-W
Sample Point:
Date Received: 10-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	0.222809	J
C12_C16	C12:C16	1.95277	
C16_C21	C16:C21	118.077	E
C21_C36	C21:C36	120.797	E
3386-33-2	1-Chlorooctadecane	0.705960	U
84-15-1	o-terphenyl	3.14746	
580-13-2	2-Bromonaphthalene	4.25533	
321-60-8	2-Fluorobiphenyl	1.79156	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim018.d

Date : 19-SEP-2015 01:18

Client ID: BLDG1203-20150908-W

Instrument: gc15.i

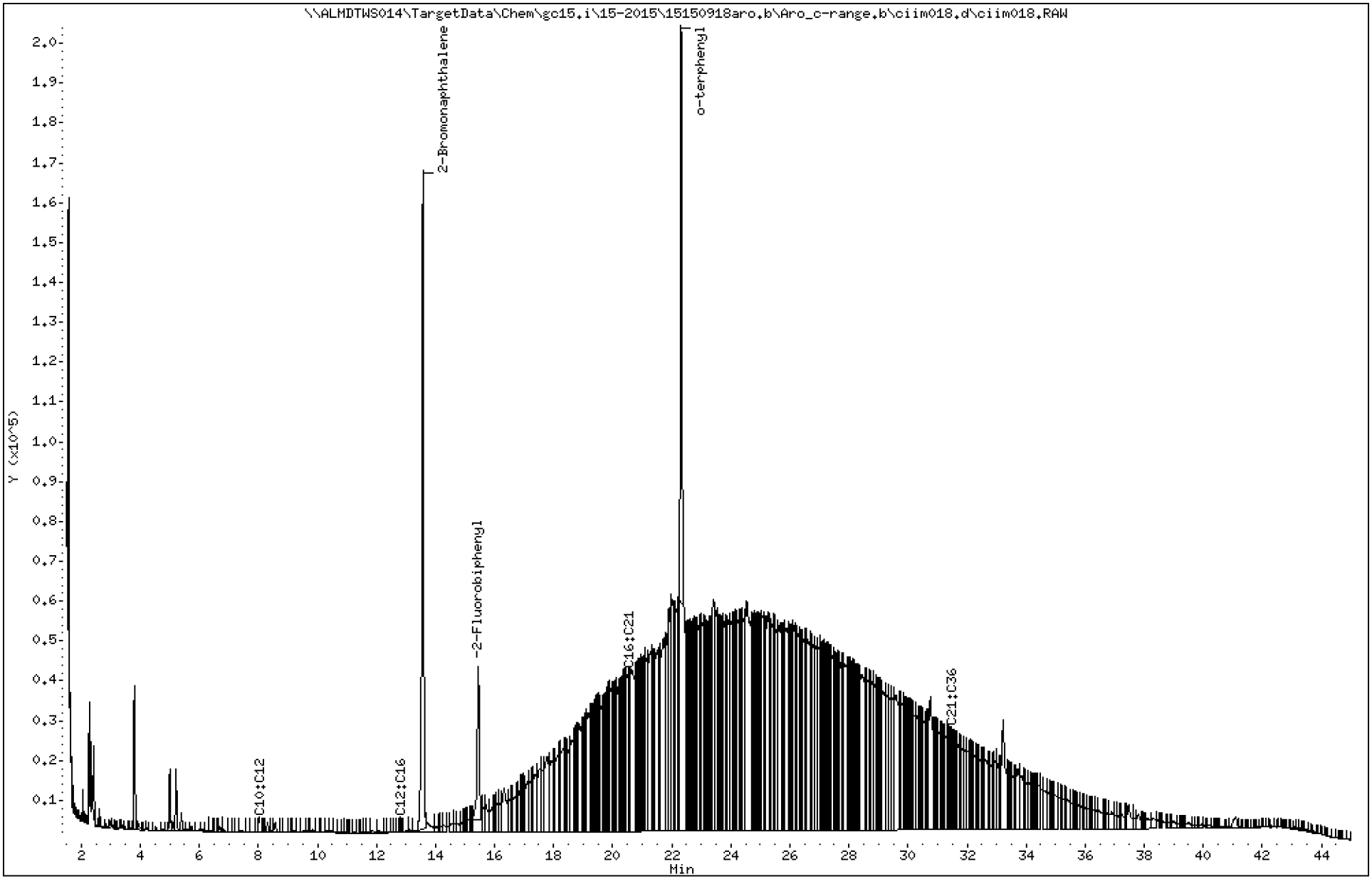
Sample Info: 2095063001;;15.1

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 1 ALS Environmental-R SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BLDG1203-20150908-W

Lab Name: ALSI Contract: DL10

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2095063001

Sample wt/vol: 15.1(g/mL) G Lab File ID: CIIM041

Level: (low/med) LOW Date Received: 09/10/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/21/15

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C10_C12	C10:C12		0.41	J
C12_C16	C12:C16		3.5	J
C16_C21	C16:C21		144	
C21_C36	C21:C36		129	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: 2095063001 Client Smp ID: BLDG1203-20150908-W
Inj Date : 21-SEP-2015 20:45
Operator : KJH Inst ID: gc15.i
Smp Info : 2095063001;;15.1;;;;;10
Misc Info : ZZ SVGC 39488 NJEPHS_AR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 22-Sep-2015 06:30 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 14
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.100	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C10:C12	6.300-9.900			7129	0.26310	0.348473(a)
S 28 C12:C16	10.000-15.750			56909	2.25413	2.98560(aM)
S 29 C16:C21	15.850-25.300			2293630	93.3372	123.625(M)
S 30 C21:C36	25.400-37.600			1731642	83.7840	110.972(M)
$ 6 o-terphenyl	22.283	22.341	-0.058	85957	3.78348	5.01124(aM)
$ 11 2-Bromonaphthalene	13.550	13.583	-0.033	54613	2.50916	3.32340(aM)
$ 14 2-Fluorobiphenyl	15.441	15.458	-0.017	13164	0.92254	1.22191(aRM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: ALS Environmental-R Client SDG: AER121|BLDG1203-201
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2095063001 Client Smp ID: BLDG1203-20150908-W
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: C-range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c
Misc Info: ZZ SVGC 39488 NJEPHS_AR

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 4 1-Chlorooctadecane	6.62252	0.000000	*	40-140
$ 6 o-terphenyl	6.62252	5.01124	75.67	40-140
$ 11 2-Bromonaphthalene	6.62252	3.32340	50.18	40-140
$ 14 2-Fluorobiphenyl	6.62252	1.22191	18.45*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name: ALS Environmental-R
Lab Smp Id: 2095063001
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHS_AR

Client SDG: AER121|BLDG1203-201
Client Smp ID: BLDG1203-20150908-W
Sample Point:
Date Received: 10-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	0.348473	J
C12_C16	C12:C16	2.98560	J
C16_C21	C16:C21	123.625	
C21_C36	C21:C36	110.972	
3386-33-2	1-Chlorooctadecane	7.05960	U
84-15-1	o-terphenyl	5.01124	J
580-13-2	2-Bromonaphthalene	3.32340	J
321-60-8	2-Fluorobiphenyl	1.22191	J

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim041.d

Date : 21-SEP-2015 20:45

Client ID: BLDG1203-20150908-W

Instrument: gc15.i

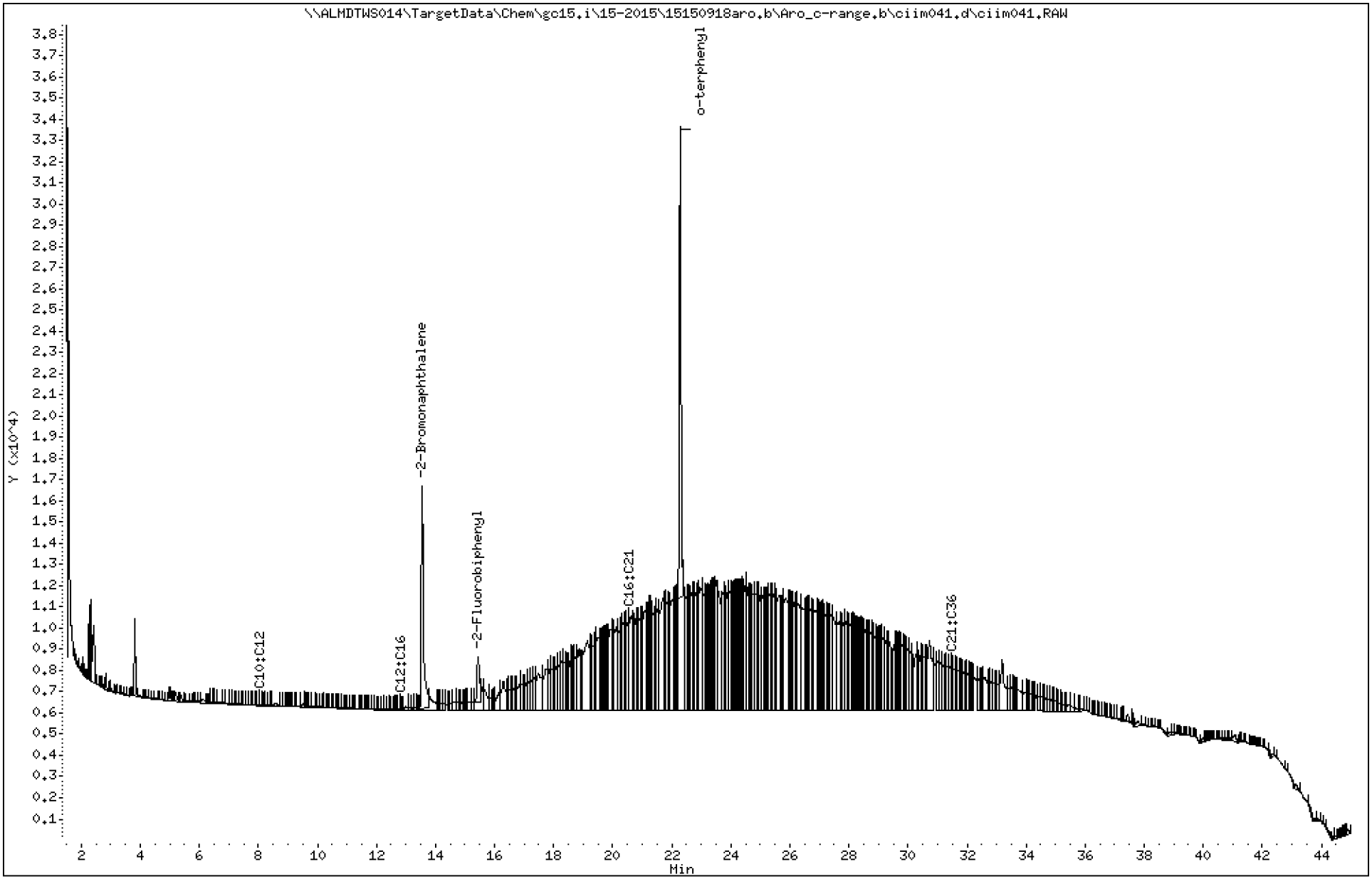
Sample Info: 2095063001;;15.1;;;;;10

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Standards Raw Data

Initial Calibrations

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 07/08/15 09/16/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0125 2221

LAB FILE ID: RT1: CIGM009 RT2: CIGM010 RT3: CIGM011
RT4: CIGM012 RT5: CIGM013

COMPOUND	RT1	RT2	RT3	RT4	RT5
1,2,3-Trimethylbenzene	6.408	6.408	6.408	6.392	6.408
Fluorene	17.375	17.342	17.350	17.342	17.358
Phenanthrene	20.517	20.492	20.500	20.500	20.517
Anthracene	20.667	20.642	20.650	20.650	20.667
Fluoranthene	24.550	24.533	24.542	24.542	24.550
Pyrene	25.233	25.217	25.233	25.233	25.242
Benz(a)anthracene	29.458	29.442	29.450	29.458	29.467
Chrysene	29.583	29.567	29.575	29.583	29.592
Benzo(b)fluoranthene	32.933	32.925	32.925	32.950	32.967
Benzo(k)fluoranthene	33.008	33.000	33.000	33.025	33.050
Benzo(a)pyrene	33.842	33.833	33.825	33.850	33.867
Indeno(1,2,3-cd)pyrene	36.892	36.883	36.875	36.908	36.942
Dibenz(a,h)anthracene	37.042	37.025	37.025	37.042	37.075
Benzo(g,h,i)perylene	37.483	37.475	37.475	37.508	37.550
Naphthalene	9.833	9.825	9.825	9.808	9.825
2-Methylnapthalene	12.092	12.083	12.092	12.075	12.092
Acenaphthylene	15.000	14.983	14.992	14.983	15.000
Acenaphthene	15.650	15.633	15.642	15.642	15.650
1-Chlorooctadecane	25.067	25.058	25.067	25.075	25.083
o-terphenyl	22.300	22.292	22.308	22.317	22.342
2-Bromonaphthalene	13.567	13.550	13.558	13.558	13.567
2-Fluorobiphenyl	15.442	15.425	15.433	15.433	15.458

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 07/08/15 09/16/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0125 2221

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
1,2,3-Trimethylbenzene	6.405	6.308	6.508
Fluorene	17.353	17.258	17.458
Phenanthrene	20.505	20.417	20.617
Anthracene	20.655	20.567	20.767
Fluoranthene	24.543	24.450	24.650
Pyrene	25.232	25.142	25.342
Benz(a)anthracene	29.455	29.367	29.567
Chrysene	29.580	29.492	29.692
Benzo(b)fluoranthene	32.940	32.867	33.067
Benzo(k)fluoranthene	33.017	32.950	33.150
Benzo(a)pyrene	33.843	33.767	33.967
Indeno(1,2,3-cd)pyrene	36.900	36.842	37.042
Dibenz(a,h)anthracene	37.042	36.975	37.175
Benzo(g,h,i)perylene	37.498	37.450	37.650
Naphthalene	9.823	9.725	9.925
2-Methylnapthalene	12.087	11.992	12.192
Acenaphthylene	14.992	14.900	15.100
Acenaphthene	15.643	15.550	15.750
1-Chlorooctadecane	25.070	24.983	25.183
o-terphenyl	22.312	22.242	22.442
2-Bromonaphthalene	13.560	13.467	13.667
2-Fluorobiphenyl	15.438	15.358	15.558

FORM VI SV

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUL-2015 01:25
End Cal Date : 16-SEP-2015 22:21
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPHindi.m
Last Edit : 17-Sep-2015 07:35 gc15.i

Calibration File Names:
Level 1: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm009.d
Level 2: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm010.d
Level 3: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm011.d
Level 4: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm012.d
Level 5: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm013.d

	Compound	1.1200 Level 1	5.6000 Level 2	14.0000 Level 3	28.0000 Level 4	56.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
1	1,2,3-Trimethylbenzene	25935	23020	27123	28626	29507	AVRG		26842		9.46071
2	Naphthalene	22990	22085	25818	27731	28327	AVRG		25390		10.95981
3	2-Methylnapthalene	23034	21512	24749	26674	27291	AVRG		24652		9.84060
5	Acenaphthylene	21993	20290	23683	25326	25733	AVRG		23405		9.76254
7	Acenaphthene	25654	21176	24900	25684	26068	AVRG		24696		8.15124
8	Fluorene	21624	19657	22932	24454	24769	AVRG		22687		9.30605
9	Phenanthrene	19999	18882	22442	24907	23785	AVRG		22003		11.48944
10	Anthracene	21261	19466	22020	22075	21476	AVRG		21259		4.99250
12	Fluoranthene	21192	19576	22318	23665	24449	AVRG		22240		8.73929
13	Pyrene	24009	20141	22968	23483	23182	AVRG		22757		6.65037
15	Benz(a)anthracene	17292	17452	20889	21946	22312	AVRG		19978		12.19562
16	Chrysene	21138	18607	21975	22537	22986	AVRG		21449		8.07399
17	Benzo(b)fluoranthene	16944	18434	20453	21900	22769	AVRG		20100		11.98851
18	Benzo(k)fluoranthene	21682	18818	23203	23638	24111	AVRG		22291		9.61903
19	Benzo(a)pyrene	16404	17081	21124	22357	23009	AVRG		19995		15.27791

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUL-2015 01:25
End Cal Date : 16-SEP-2015 22:21
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPHindi.m
Last Edit : 17-Sep-2015 07:35 gc15.i

Compound	1.1200 Level 1	5.6000 Level 2	14.0000 Level 3	28.0000 Level 4	56.0000 Level 5	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
20 Indeno(1,2,3-cd)pyrene	13952	13365	16724	18221	18961	AVRG		16245		15.41021
21 Dibenz(a,h)anthracene	13502	13223	17599	19261	20467	AVRG		16810		19.68796
22 Benzo(g,h,i)perylene	17130	15176	19964	21266	21796	AVRG		19067		14.83019
$ 4 1-Chlorooctadecane	17784	16255	16775	16557	16410	AVRG		16756		3.61571
$ 6 o-terphenyl	24702	22147	22908	22133	21649	AVRG		22708		5.29485
$ 11 2-Bromonaphthalene	20088	20142	21820	23195	22655	AVRG		21580		6.60077
$ 14 2-Fluorobiphenyl	12721	13159	14444	15283	15528	AVRG		14227		8.79683

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUL-2015 01:25
End Cal Date : 16-SEP-2015 22:21
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPHindi.m
Last Edit : 17-Sep-2015 07:35 gc15.i

Average %RSD Results.	
Calculated Average %RSD =	10.03382
Maximun Average %RSD =	25.00000
* Passed Average %RSD Test.	

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm00
Lab Smp Id: aroical1
Inj Date : 16-SEP-2015 18:27
Operator : KJH Inst ID: gc15.i
Smp Info : aroical1;;;1;1
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPH
Meth Date : 17-Sep-2015 07:38 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 18:27 Cal File: cigm009.RAW
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
	1 1,2,3-Trimethylbenzene	6.408	6.408	0.000	29047	1.12000	1.08214(a)
	2 Naphthalene	9.833	9.825	0.008	25749	1.12000	1.01413(a)
	3 2-Methylnapthalene	12.091	12.091	0.000	25798	1.12000	1.04648(a)
$	4 1-Chlorooctadecane	25.066	25.083	-0.017	71137	4.00000	4.24541(a)
	5 Acenaphthylene	15.000	15.000	0.000	24632	1.12000	1.05243(a)
$	6 o-terphenyl	22.300	22.341	-0.041	98807	4.00000	4.35125(a)
	7 Acenaphthene	15.650	15.650	0.000	28732	1.12000	1.16342(a)
	8 Fluorene	17.375	17.358	0.017	24219	1.12000	1.06751(a)
	9 Phenanthrene	20.516	20.516	0.000	22399	1.12000	1.01800(a)
	10 Anthracene	20.666	20.666	0.000	23812	1.12000	1.12007(a)
$	11 2-Bromonaphthalene	13.566	13.566	0.000	80350	4.00000	3.72340(a)
	12 Fluoranthene	24.550	24.550	0.000	23735	1.12000	1.06723(a)
	13 Pyrene	25.233	25.241	-0.008	26890	1.12000	1.18163(a)
$	14 2-Fluorobiphenyl	15.441	15.458	-0.017	50882	4.00000	3.57645(a)
	15 Benz(a)anthracene	29.458	29.466	-0.008	19367	1.12000	0.969403(a)
	16 Chrysene	29.583	29.591	-0.008	23675	1.12000	1.10380(a)
	17 Benzo(b)fluoranthene	32.933	32.966	-0.033	18977	1.12000	0.944127(a)
	18 Benzo(k)fluoranthene	33.008	33.050	-0.042	24284	1.12000	1.08943(a)
	19 Benzo(a)pyrene	33.841	33.866	-0.025	18372	1.12000	0.918833(a)
	20 Indeno(1,2,3-cd)pyrene	36.891	36.941	-0.050	15626	1.12000	0.961920(a)
	21 Dibenz(a,h)anthracene	37.041	37.075	-0.034	15122	1.12000	0.899567(a)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
22 Benzo(g,h,i)perylene	37.483	37.550	-0.067	19186	1.12000	1.00626(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

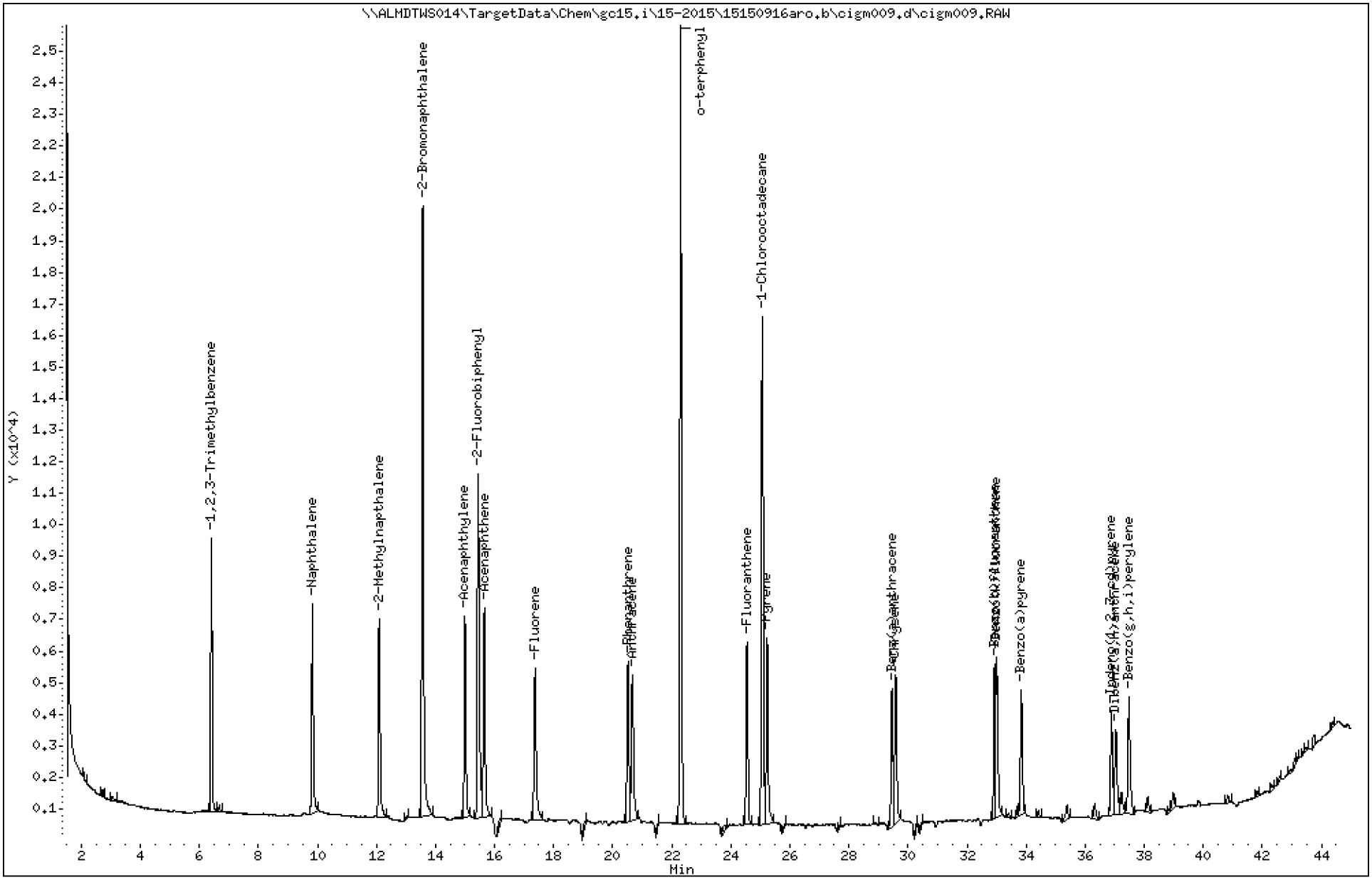
ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916aro.b
Lab Smp Id: aroical1
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
526-73-8	1,2,3-Trimethylbenzene	1.08214	J
91-20-3	Naphthalene	1.01413	J
91-57-6	2-Methylnapthalene	1.04648	J
208-96-8	Acenaphthylene	1.05243	J
83-32-9	Acenaphthene	1.16342	J
86-73-7	Fluorene	1.06751	J
85-01-8	Phenanthrene	1.01800	J
120-12-7	Anthracene	1.12007	J
206-44-0	Fluoranthene	1.06723	J
129-00-0	Pyrene	1.18163	J
56-55-3	Benz(a)anthracene	0.969403	J
218-01-9	Chrysene	1.10380	J
205-99-2	Benzo(b)fluoranthene	0.944127	J
207-08-9	Benzo(k)fluoranthene	1.08943	J
50-32-8	Benzo(a)pyrene	0.918833	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.961920	J
53-70-3	Dibenz(a,h)anthracene	0.899567	J
191-24-2	Benzo(g,h,i)perylene	1.00626	J
3386-33-2	1-Chlorooctadecane	4.24541	J
84-15-1	o-terphenyl	4.35125	J
580-13-2	2-Bromonaphthalene	3.72340	J
321-60-8	2-Fluorobiphenyl	3.57645	J

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm009.d
Date : 16-SEP-2015 18:27
Client ID:
Instrument: gc15.i
Sample Info: aroical1;;;1;1
Volume Injected (uL): 2.0
Operator: KJH
Column phase: ZB-5
Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm01
Lab Smp Id: aroical2
Inj Date : 16-SEP-2015 19:25
Operator : KJH Inst ID: gc15.i
Smp Info : aroical2;;;1;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPH
Meth Date : 17-Sep-2015 07:38 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 19:25 Cal File: cigm010.RAW
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng/uL)	ON-COL (ng/uL)
	1 1,2,3-Trimethylbenzene	6.408	6.408	0.000	128913	5.60000	4.80261(a)
	2 Naphthalene	9.825	9.825	0.000	123675	5.60000	4.87097(a)
	3 2-Methylnapthalene	12.083	12.091	-0.008	120468	5.60000	4.88672(a)
$	4 1-Chlorooctadecane	25.058	25.083	-0.025	325091	20.0000	19.4012
	5 Acenaphthylene	14.983	15.000	-0.017	113624	5.60000	4.85471(a)
$	6 o-terphenyl	22.291	22.341	-0.050	442949	20.0000	19.5065
	7 Acenaphthene	15.633	15.650	-0.017	118584	5.60000	4.80171(a)
	8 Fluorene	17.341	17.358	-0.017	110079	5.60000	4.85199(a)
	9 Phenanthrene	20.491	20.516	-0.025	105737	5.60000	4.80556(a)
	10 Anthracene	20.641	20.666	-0.025	109009	5.60000	5.12759(a)
$	11 2-Bromonaphthalene	13.550	13.566	-0.016	402839	20.0000	18.6675
	12 Fluoranthene	24.533	24.550	-0.017	109625	5.60000	4.92923(a)
	13 Pyrene	25.216	25.241	-0.025	112791	5.60000	4.95640(a)
$	14 2-Fluorobiphenyl	15.425	15.458	-0.033	263184	20.0000	18.4990
	15 Benz(a)anthracene	29.441	29.466	-0.025	97732	5.60000	4.89191(a)
	16 Chrysene	29.566	29.591	-0.025	104199	5.60000	4.85806(a)
	17 Benzo(b)fluoranthene	32.925	32.966	-0.041	103231	5.60000	5.13586(a)
	18 Benzo(k)fluoranthene	33.000	33.050	-0.050	105382	5.60000	4.72766(a)
	19 Benzo(a)pyrene	33.833	33.866	-0.033	95654	5.60000	4.78391(a)
	20 Indeno(1,2,3-cd)pyrene	36.883	36.941	-0.058	74843	5.60000	4.60725(a)
	21 Dibenz(a,h)anthracene	37.025	37.075	-0.050	74048	5.60000	4.40491(a)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
22 Benzo(g,h,i)perylene	37.475	37.550	-0.075	84985	5.60000	4.45728(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916aro.b
Lab Smp Id: aroical2
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
526-73-8	1,2,3-Trimethylbenzene	4.80261	J
91-20-3	Naphthalene	4.87097	J
91-57-6	2-Methylnapthalene	4.88672	J
208-96-8	Acenaphthylene	4.85471	J
83-32-9	Acenaphthene	4.80171	J
86-73-7	Fluorene	4.85199	J
85-01-8	Phenanthrene	4.80556	J
120-12-7	Anthracene	5.12759	J
206-44-0	Fluoranthene	4.92923	J
129-00-0	Pyrene	4.95640	J
56-55-3	Benz(a)anthracene	4.89191	J
218-01-9	Chrysene	4.85806	J
205-99-2	Benzo(b)fluoranthene	5.13586	J
207-08-9	Benzo(k)fluoranthene	4.72766	J
50-32-8	Benzo(a)pyrene	4.78391	J
193-39-5	Indeno(1,2,3-cd)pyrene	4.60725	J
53-70-3	Dibenz(a,h)anthracene	4.40491	J
191-24-2	Benzo(g,h,i)perylene	4.45728	J
3386-33-2	1-Chlorooctadecane	19.4012	
84-15-1	o-terphenyl	19.5065	
580-13-2	2-Bromonaphthalene	18.6675	
321-60-8	2-Fluorobiphenyl	18.4990	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm010.d

Date : 16-SEP-2015 19:25

Client ID:

Instrument: gc15.i

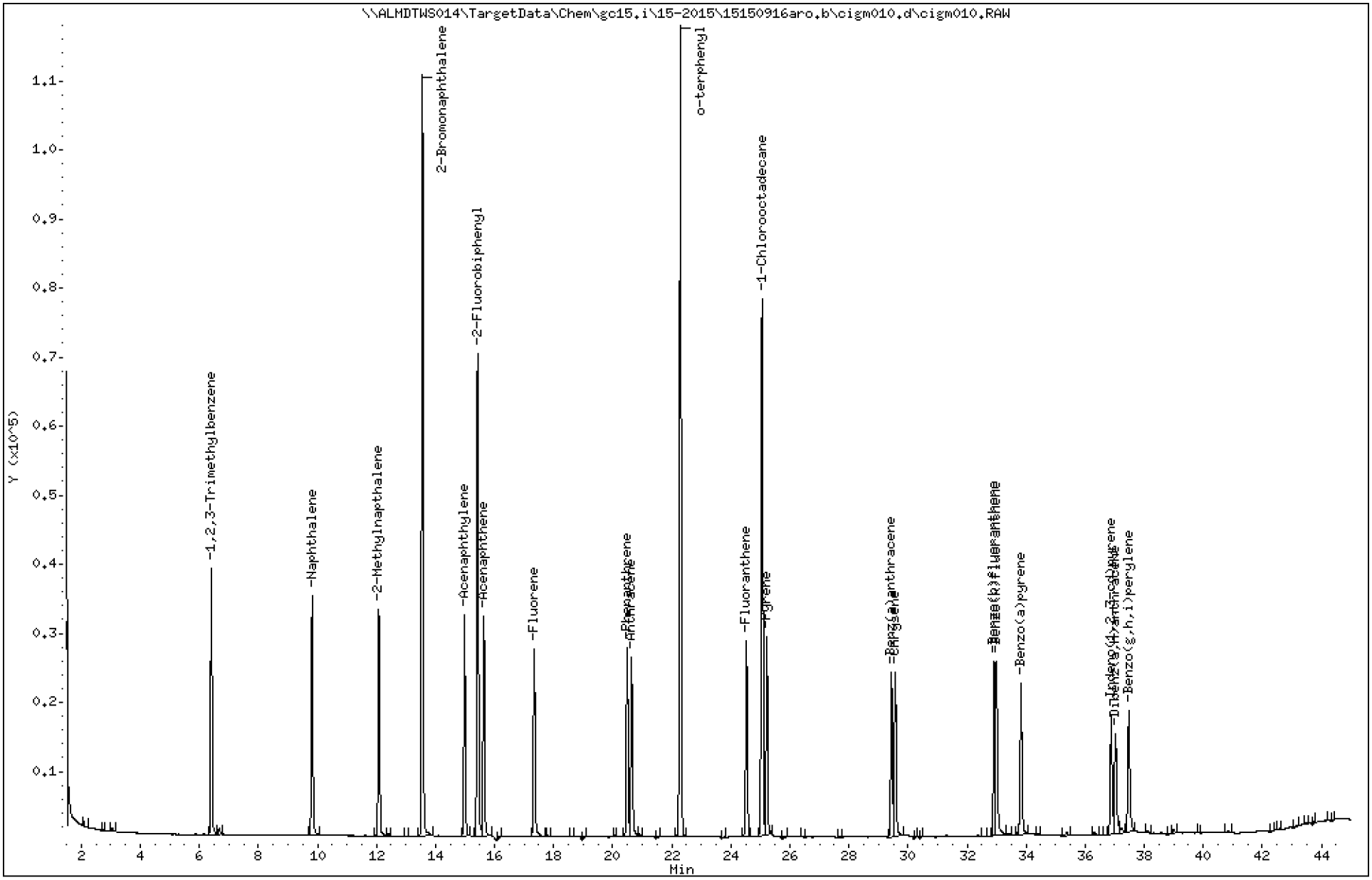
Sample Info: aroical2;;;1;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm01
Lab Smp Id: aroical3
Inj Date : 16-SEP-2015 20:24
Operator : KJH Inst ID: gc15.i
Smp Info : aroical3;;;1;3
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPH
Meth Date : 17-Sep-2015 07:38 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 20:24 Cal File: cigm011.RAW
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
	1 1,2,3-Trimethylbenzene	6.408	6.408	0.000	379719	14.0000	14.1463
	2 Naphthalene	9.825	9.825	0.000	361449	14.0000	14.2358
	3 2-Methylnapthalene	12.091	12.091	0.000	346490	14.0000	14.0552
$	4 1-Chlorooctadecane	25.066	25.083	-0.017	838743	50.0000	50.0556
	5 Acenaphthylene	14.991	15.000	-0.009	331563	14.0000	14.1664
$	6 o-terphenyl	22.308	22.341	-0.033	1145405	50.0000	50.4412
	7 Acenaphthene	15.641	15.650	-0.009	348596	14.0000	14.1154
	8 Fluorene	17.350	17.358	-0.008	321051	14.0000	14.1511
	9 Phenanthrene	20.500	20.516	-0.016	314184	14.0000	14.2791
	10 Anthracene	20.650	20.666	-0.016	308275	14.0000	14.5007
$	11 2-Bromonaphthalene	13.558	13.566	-0.008	1090982	50.0000	50.5558
	12 Fluoranthene	24.541	24.550	-0.009	312446	14.0000	14.0490
	13 Pyrene	25.233	25.241	-0.008	321556	14.0000	14.1302
$	14 2-Fluorobiphenyl	15.433	15.458	-0.025	722191	50.0000	50.7622
	15 Benz(a)anthracene	29.450	29.466	-0.016	292450	14.0000	14.6384
	16 Chrysene	29.575	29.591	-0.016	307654	14.0000	14.3437
	17 Benzo(b)fluoranthene	32.925	32.966	-0.041	286343	14.0000	14.2459
	18 Benzo(k)fluoranthene	33.000	33.050	-0.050	324848	14.0000	14.5734
	19 Benzo(a)pyrene	33.825	33.866	-0.041	295736	14.0000	14.7906
	20 Indeno(1,2,3-cd)pyrene	36.875	36.941	-0.066	234136	14.0000	14.4132
	21 Dibenz(a,h)anthracene	37.025	37.075	-0.050	246389	14.0000	14.6570

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
22 Benzo(g,h,i)perylene	37.475	37.550	-0.075	279498	14.0000	14.6591

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916aro.b
Lab Smp Id: aroical3
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
526-73-8	1,2,3-Trimethylbenzene	14.1463	
91-20-3	Naphthalene	14.2358	
91-57-6	2-Methylnapthalene	14.0552	
208-96-8	Acenaphthylene	14.1664	
83-32-9	Acenaphthene	14.1154	
86-73-7	Fluorene	14.1511	
85-01-8	Phenanthrene	14.2791	
120-12-7	Anthracene	14.5007	
206-44-0	Fluoranthene	14.0490	
129-00-0	Pyrene	14.1302	
56-55-3	Benz(a)anthracene	14.6384	
218-01-9	Chrysene	14.3437	
205-99-2	Benzo(b)fluoranthene	14.2459	
207-08-9	Benzo(k)fluoranthene	14.5734	
50-32-8	Benzo(a)pyrene	14.7906	
193-39-5	Indeno(1,2,3-cd)pyrene	14.4132	
53-70-3	Dibenz(a,h)anthracene	14.6570	
191-24-2	Benzo(g,h,i)perylene	14.6591	
3386-33-2	1-Chlorooctadecane	50.0556	
84-15-1	o-terphenyl	50.4412	
580-13-2	2-Bromonaphthalene	50.5558	
321-60-8	2-Fluorobiphenyl	50.7622	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm011.d

Date : 16-SEP-2015 20:24

Client ID:

Instrument: gc15.i

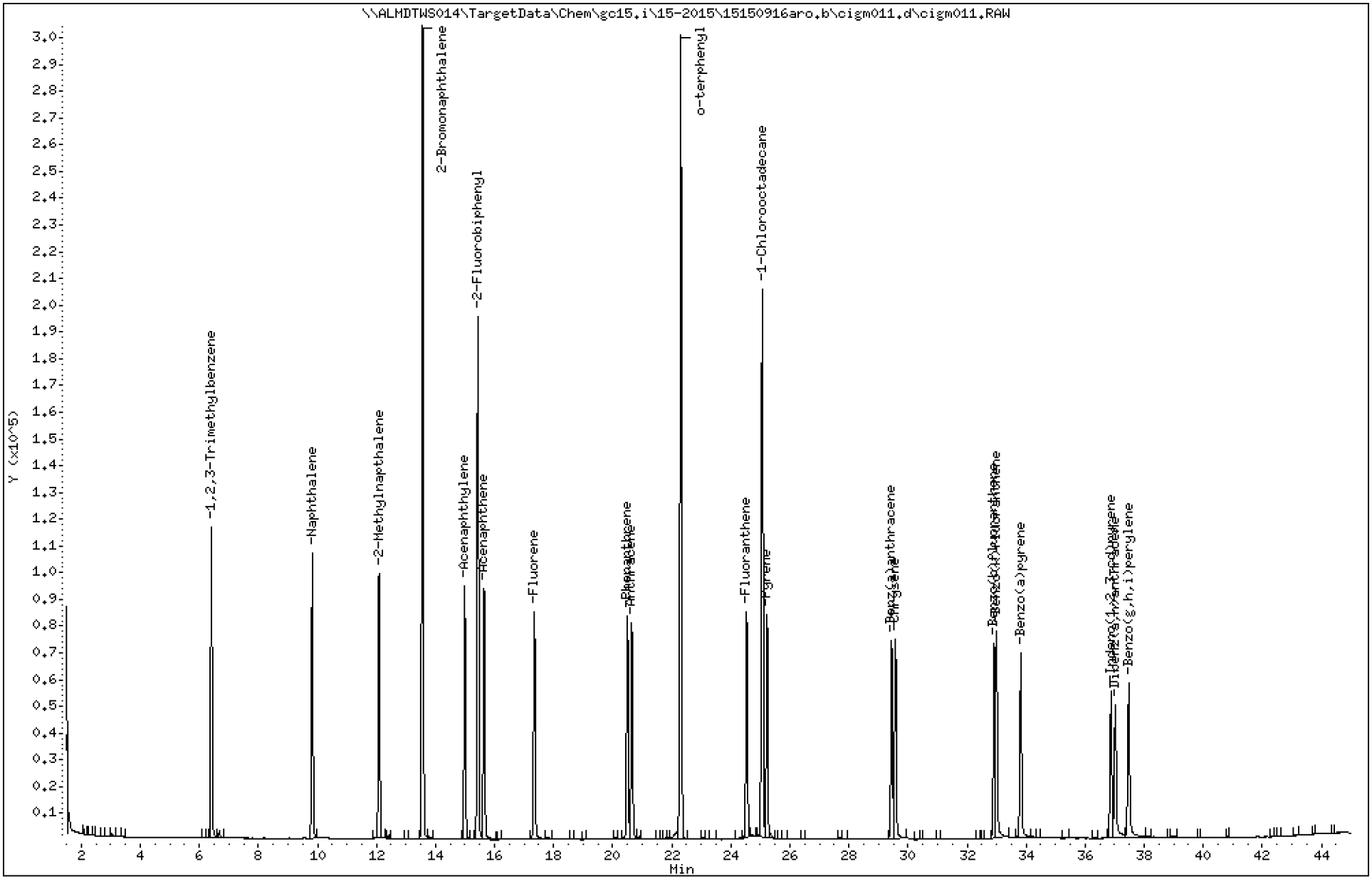
Sample Info: aroical3;;;1;3

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm01
Lab Smp Id: aroical4
Inj Date : 16-SEP-2015 21:22
Operator : KJH Inst ID: gc15.i
Smp Info : aroical4;;;1;4
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPH
Meth Date : 17-Sep-2015 07:38 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 21:22 Cal File: cigm012.RAW
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
	1 1,2,3-Trimethylbenzene	6.391	6.408	-0.017	801528	28.0000	29.8607
	2 Naphthalene	9.808	9.825	-0.017	776468	28.0000	30.5814
	3 2-Methylnapthalene	12.075	12.091	-0.016	746868	28.0000	30.2963
$	4 1-Chlorooctadecane	25.075	25.083	-0.008	1655748	100.000	98.8139
	5 Acenaphthylene	14.983	15.000	-0.017	709114	28.0000	30.2976
$	6 o-terphenyl	22.316	22.341	-0.025	2213284	100.000	97.4683
	7 Acenaphthene	15.641	15.650	-0.009	719147	28.0000	29.1198
	8 Fluorene	17.341	17.358	-0.017	684717	28.0000	30.1805
	9 Phenanthrene	20.500	20.516	-0.016	697406	28.0000	31.6959
	10 Anthracene	20.650	20.666	-0.016	618090	28.0000	29.0738
$	11 2-Bromonaphthalene	13.558	13.566	-0.008	2319501	100.000	107.485
	12 Fluoranthene	24.541	24.550	-0.009	662620	28.0000	29.7943
	13 Pyrene	25.233	25.241	-0.008	657523	28.0000	28.8937
$	14 2-Fluorobiphenyl	15.433	15.458	-0.025	1528284	100.000	107.422
	15 Benz(a)anthracene	29.458	29.466	-0.008	614493	28.0000	30.7581
	16 Chrysene	29.583	29.591	-0.008	631031	28.0000	29.4205
	17 Benzo(b)fluoranthene	32.950	32.966	-0.016	613211	28.0000	30.5079
	18 Benzo(k)fluoranthene	33.025	33.050	-0.025	661868	28.0000	29.6928
	19 Benzo(a)pyrene	33.850	33.866	-0.016	625988	28.0000	31.3073
	20 Indeno(1,2,3-cd)pyrene	36.908	36.941	-0.033	510197	28.0000	31.4072
	21 Dibenz(a,h)anthracene	37.041	37.075	-0.034	539304	28.0000	32.0817

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
22 Benzo(g,h,i)perylene	37.508	37.550	-0.042	595457	28.0000	31.2304

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916aro.b
Lab Smp Id: aroical4
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
526-73-8	1,2,3-Trimethylbenzene	29.8607	
91-20-3	Naphthalene	30.5814	
91-57-6	2-Methylnapthalene	30.2963	
208-96-8	Acenaphthylene	30.2976	
83-32-9	Acenaphthene	29.1198	
86-73-7	Fluorene	30.1805	
85-01-8	Phenanthrene	31.6959	
120-12-7	Anthracene	29.0738	
206-44-0	Fluoranthene	29.7943	
129-00-0	Pyrene	28.8937	
56-55-3	Benz(a)anthracene	30.7581	
218-01-9	Chrysene	29.4205	
205-99-2	Benzo(b)fluoranthene	30.5079	
207-08-9	Benzo(k)fluoranthene	29.6928	
50-32-8	Benzo(a)pyrene	31.3073	
193-39-5	Indeno(1,2,3-cd)pyrene	31.4072	
53-70-3	Dibenz(a,h)anthracene	32.0817	
191-24-2	Benzo(g,h,i)perylene	31.2304	
3386-33-2	1-Chlorooctadecane	98.8139	
84-15-1	o-terphenyl	97.4683	
580-13-2	2-Bromonaphthalene	107.485	
321-60-8	2-Fluorobiphenyl	107.422	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm012.d

Date : 16-SEP-2015 21:22

Client ID:

Instrument: gc15.i

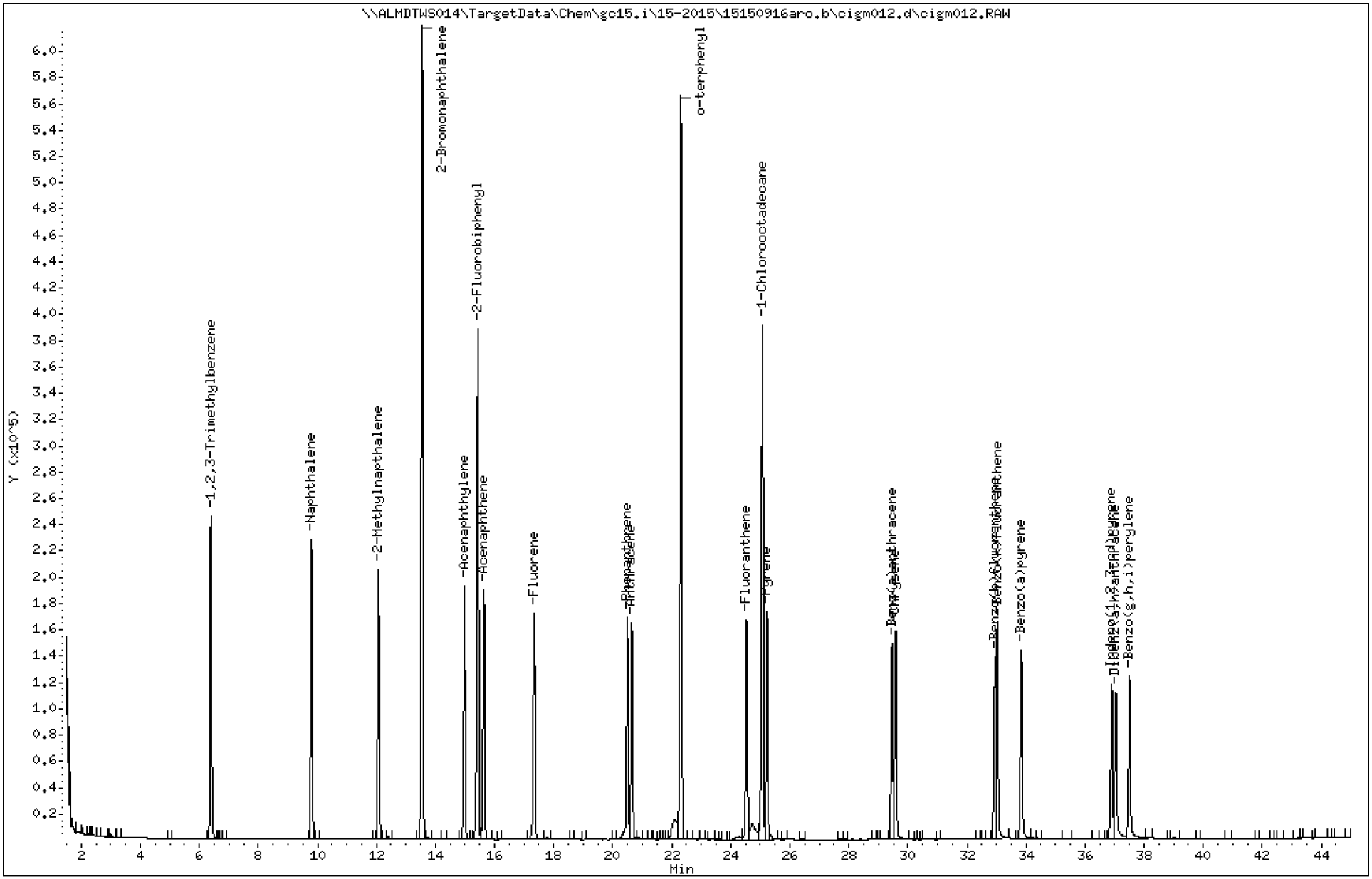
Sample Info: aroical4;;;1;4

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm01
Lab Smp Id: aroical5
Inj Date : 16-SEP-2015 22:21
Operator : KJH Inst ID: gc15.i
Smp Info : aroical5;;;1;5
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPH
Meth Date : 17-Sep-2015 07:38 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.RAW
Als bottle: 9 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
	1 1,2,3-Trimethylbenzene	6.408	6.408	0.000	1652419	56.0000	61.5604
	2 Naphthalene	9.825	9.825	0.000	1586326	56.0000	62.4779
	3 2-Methylnapthalene	12.091	12.091	0.000	1528314	56.0000	61.9953
$	4 1-Chlorooctadecane	25.083	25.083	0.000	3281995	200.000	195.867
	5 Acenaphthylene	15.000	15.000	0.000	1441057	56.0000	61.5707
$	6 o-terphenyl	22.341	22.341	0.000	4329715	200.000	190.671
	7 Acenaphthene	15.650	15.650	0.000	1459816	56.0000	59.1110
	8 Fluorene	17.358	17.358	0.000	1387087	56.0000	61.1392
	9 Phenanthrene	20.516	20.516	0.000	1331987	56.0000	60.5365
	10 Anthracene	20.666	20.666	0.000	1202639	56.0000	56.5700
$	11 2-Bromonaphthalene	13.566	13.566	0.000	4530919	200.000	209.962
	12 Fluoranthene	24.550	24.550	0.000	1369121	56.0000	61.5617
	13 Pyrene	25.241	25.241	0.000	1298176	56.0000	57.0461
$	14 2-Fluorobiphenyl	15.458	15.458	0.000	3105682	200.000	218.296
	15 Benz(a)anthracene	29.466	29.466	0.000	1249462	56.0000	62.5410
	16 Chrysene	29.591	29.591	0.000	1287210	56.0000	60.0135
	17 Benzo(b)fluoranthene	32.966	32.966	0.000	1275062	56.0000	63.4357
	18 Benzo(k)fluoranthene	33.050	33.050	0.000	1350193	56.0000	60.5726
	19 Benzo(a)pyrene	33.866	33.866	0.000	1288518	56.0000	64.4423
	20 Indeno(1,2,3-cd)pyrene	36.941	36.941	0.000	1061820	56.0000	65.3645
	21 Dibenz(a,h)anthracene	37.075	37.075	0.000	1146144	56.0000	68.1810

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
22 Benzo(g,h,i)perylene	37.550	37.550	0.000	1220585	56.0000	64.0170

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916aro.b
Lab Smp Id: aroical5
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
526-73-8	1,2,3-Trimethylbenzene	61.5604	
91-20-3	Naphthalene	62.4779	
91-57-6	2-Methylnapthalene	61.9953	
208-96-8	Acenaphthylene	61.5707	
83-32-9	Acenaphthene	59.1110	
86-73-7	Fluorene	61.1392	
85-01-8	Phenanthrene	60.5365	
120-12-7	Anthracene	56.5700	
206-44-0	Fluoranthene	61.5617	
129-00-0	Pyrene	57.0461	
56-55-3	Benz(a)anthracene	62.5410	
218-01-9	Chrysene	60.0135	
205-99-2	Benzo(b)fluoranthene	63.4357	
207-08-9	Benzo(k)fluoranthene	60.5726	
50-32-8	Benzo(a)pyrene	64.4423	
193-39-5	Indeno(1,2,3-cd)pyrene	65.3645	
53-70-3	Dibenz(a,h)anthracene	68.1810	
191-24-2	Benzo(g,h,i)perylene	64.0170	
3386-33-2	1-Chlorooctadecane	195.867	
84-15-1	o-terphenyl	190.671	
580-13-2	2-Bromonaphthalene	209.962	
321-60-8	2-Fluorobiphenyl	218.296	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm013.d

Date : 16-SEP-2015 22:21

Client ID:

Instrument: gc15.i

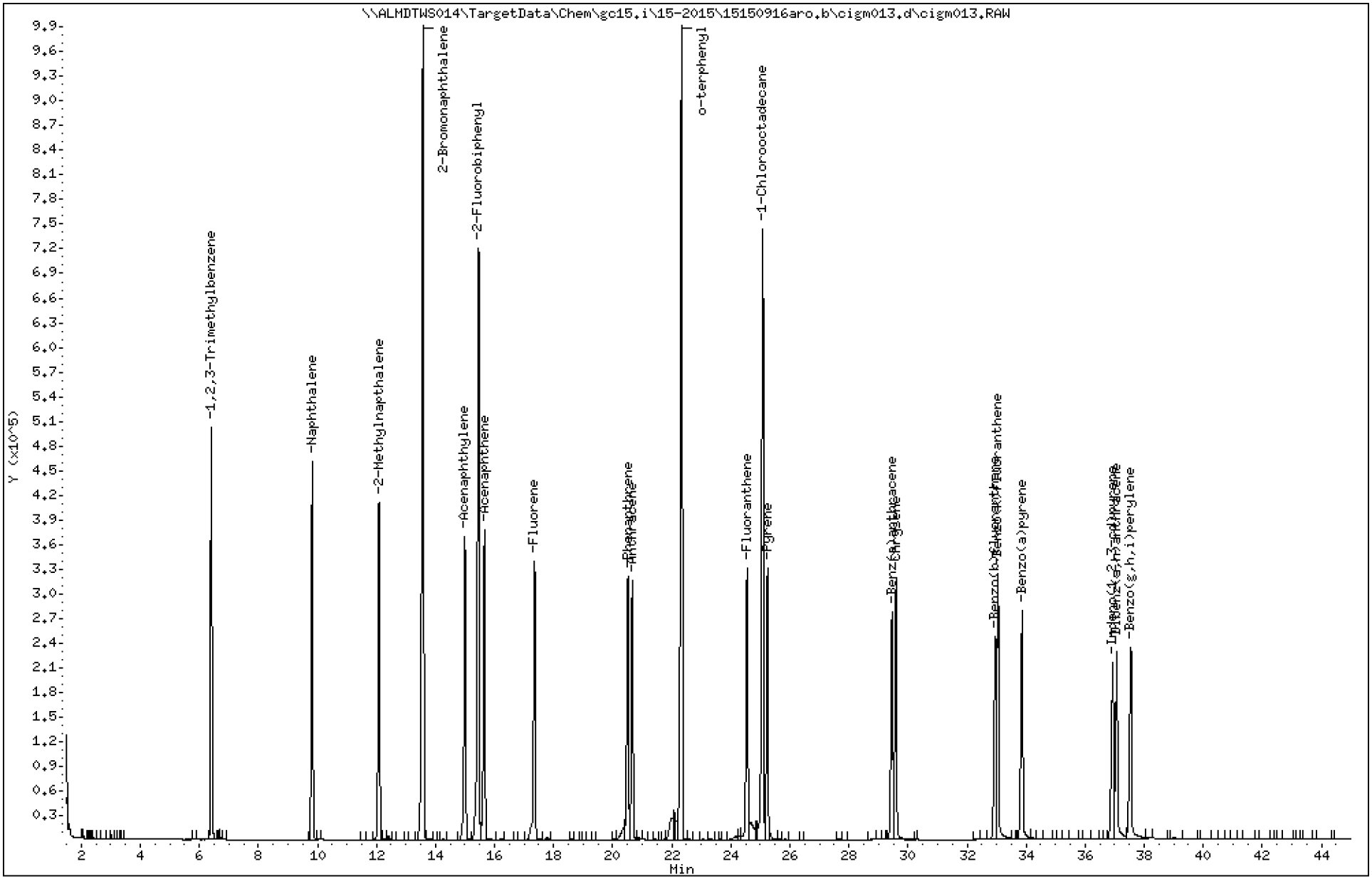
Sample Info: aroical5;;;1;5

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 07/08/15 09/16/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0125 2221

LAB FILE ID: RF20: CIGM009 RF100: CIGM010 RF250: CIGM011
RF500: CIGM012 RF1000: CIGM013

COMPOUND	RF20	RF100	RF250	RF500	RF1000
C10:C12	27369.196	23199.643	27005.607	28598.928	29309.071
C12:C16	26749.702	21690.298	24985.738	26240.369	26566.905
C16:C21	25116.250	20455.107	23765.143	26636.936	26894.521
C21:C36	20904.576	17207.634	20659.893	21924.951	22642.665
1-Chlorooctadecane	17828.250	16334.550	17034.320	16548.730	16410.160
o-terphenyl	24701.750	22157.750	22925.440	22145.750	21664.360
2-Bromonaphthalene	20889.000	20220.250	21849.660	23210.900	22657.275
2-Fluorobiphenyl	12885.250	13192.950	14450.440	15289.690	15528.200

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 07/08/15 09/16/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0125 2221

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
C10:C12	AVRG	27096.4893	8.737	20.000
C12:C16	AVRG	25246.6024	8.333	20.000
C16:C21	AVRG	24573.5914	10.680	20.000
C21:C36	AVRG	20667.9437	10.123	20.000
1-Chlorooctadecane	AVRG	16831.2020	3.685	20.000
o-terphenyl	AVRG	22719.0100	5.268	20.000
2-Bromonaphthalene	AVRG	21765.4170	5.649	20.000
2-Fluorobiphenyl	AVRG	14269.3060	8.390	20.000

Average %RSD test result.

Calculate Average %RSD: 7.608374119
Maximum Average %RSD: 30.00000000

Note: Passes Average %RSD Test.

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 07/08/15 09/16/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0125 2221

LAB FILE ID: RT1: CIGM009 RT2: CIGM010 RT3: CIGM011
RT4: CIGM012 RT5: CIGM013

COMPOUND	RT1	RT2	RT3	RT4	RT5
C10:C12	8.100	8.100	8.100	8.100	8.100
C12:C16	12.875	12.875	12.875	12.875	12.875
C16:C21	20.575	20.575	20.575	20.575	20.575
C21:C36	31.500	31.500	31.500	31.500	31.500
1-Chlorooctadecane	25.067	25.058	25.067	25.075	25.083
o-terphenyl	22.300	22.292	22.308	22.317	22.342
2-Bromonaphthalene	13.567	13.550	13.558	13.558	13.583
2-Fluorobiphenyl	15.442	15.425	15.433	15.433	15.458

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 07/08/15 09/16/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0125 2221

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
C10:C12	8.100	6.300	9.900
C12:C16	12.875	10.000	15.750
C16:C21	20.575	15.850	25.300
C21:C36	31.500	25.400	37.600
1-Chlorooctadecane	25.070	24.983	25.183
o-terphenyl	22.312	22.242	22.442
2-Bromonaphthalene	13.563	13.483	13.683
2-Fluorobiphenyl	15.438	15.358	15.558

FORM VI SV

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUL-2015 01:25
End Cal Date : 16-SEP-2015 22:21
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\AroEPH.m
Last Edit : 17-Sep-2015 07:29 gc15.i

Calibration File Names:
Level 1: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm009.d
Level 2: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm010.d
Level 3: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm011.d
Level 4: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm012.d
Level 5: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm013.d

Compound	20.0000 Level 1	100.0000 Level 2	250.0000 Level 3	500.0000 Level 4	1000.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
S 27 C10:C12	27369	23200	27006	28599	29309	AVRG		27096		8.73742
S 28 C12:C16	26750	21690	24986	26240	26567	AVRG		25247		8.33336
S 29 C16:C21	25116	20455	23765	26637	26895	AVRG		24574		10.68057
S 30 C21:C36	20905	17208	20660	21925	22643	AVRG		20668		10.12298
$ 4 1-Chlorooctadecane	17828	16335	17034	16549	16410	AVRG		16831		3.68542
$ 6 o-terphenyl	24702	22158	22925	22146	21664	AVRG		22719		5.26805
$ 11 2-Bromonaphthalene	20889	20220	21850	23211	22657	AVRG		21765		5.64929
$ 14 2-Fluorobiphenyl	12885	13193	14450	15290	15528	AVRG		14269		8.38990

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUL-2015 01:25
End Cal Date : 16-SEP-2015 22:21
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\AroEPH.m
Last Edit : 17-Sep-2015 07:29 gc15.i

Average %RSD Results.	
Calculated Average %RSD =	7.60837
Maximun Average %RSD =	30.00000
* Passed Average %RSD Test.	

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Lab Smp Id: aroical1
Inj Date : 16-SEP-2015 18:27
Operator : KJH Inst ID: gc15.i
Smp Info : aroical1;;;1;1
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Meth Date : 17-Sep-2015 07:35 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 18:27 Cal File: cigm009.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE		(ng/uL)	(ng/uL)
S 27 C10:C12	6.300-9.900			61307		2.24000	2.26254
S 28 C12:C16	10.000-15.750			89879		3.36000	3.56004(M)
S 29 C16:C21	15.850-25.300			140651		5.60000	5.72366(M)
S 30 C21:C36	25.400-37.600			187305		8.96000	9.06259(M)
$ 4 1-Chlorooctadecane	25.066	25.083	-0.017	71313		4.00000	4.23695(a)
$ 6 o-terphenyl	22.300	22.341	-0.041	98807		4.00000	4.34909(a)
$ 11 2-Bromonaphthalene	13.566	13.583	-0.017	83556		4.00000	3.83893(a)
$ 14 2-Fluorobiphenyl	15.441	15.458	-0.017	51541		4.00000	3.61202(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: Aro_c-range.b
Lab Smp Id: aroical1
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	2.26254	
C12_C16	C12:C16	3.56004	
C16_C21	C16:C21	5.72366	
C21_C36	C21:C36	9.06259	
3386-33-2	1-Chlorooctadecane	4.23695	J
84-15-1	o-terphenyl	4.34909	J
580-13-2	2-Bromonaphthalene	3.83893	J
321-60-8	2-Fluorobiphenyl	3.61202	J

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm009.d

Date : 16-SEP-2015 18:27

Client ID:

Instrument: gc15.i

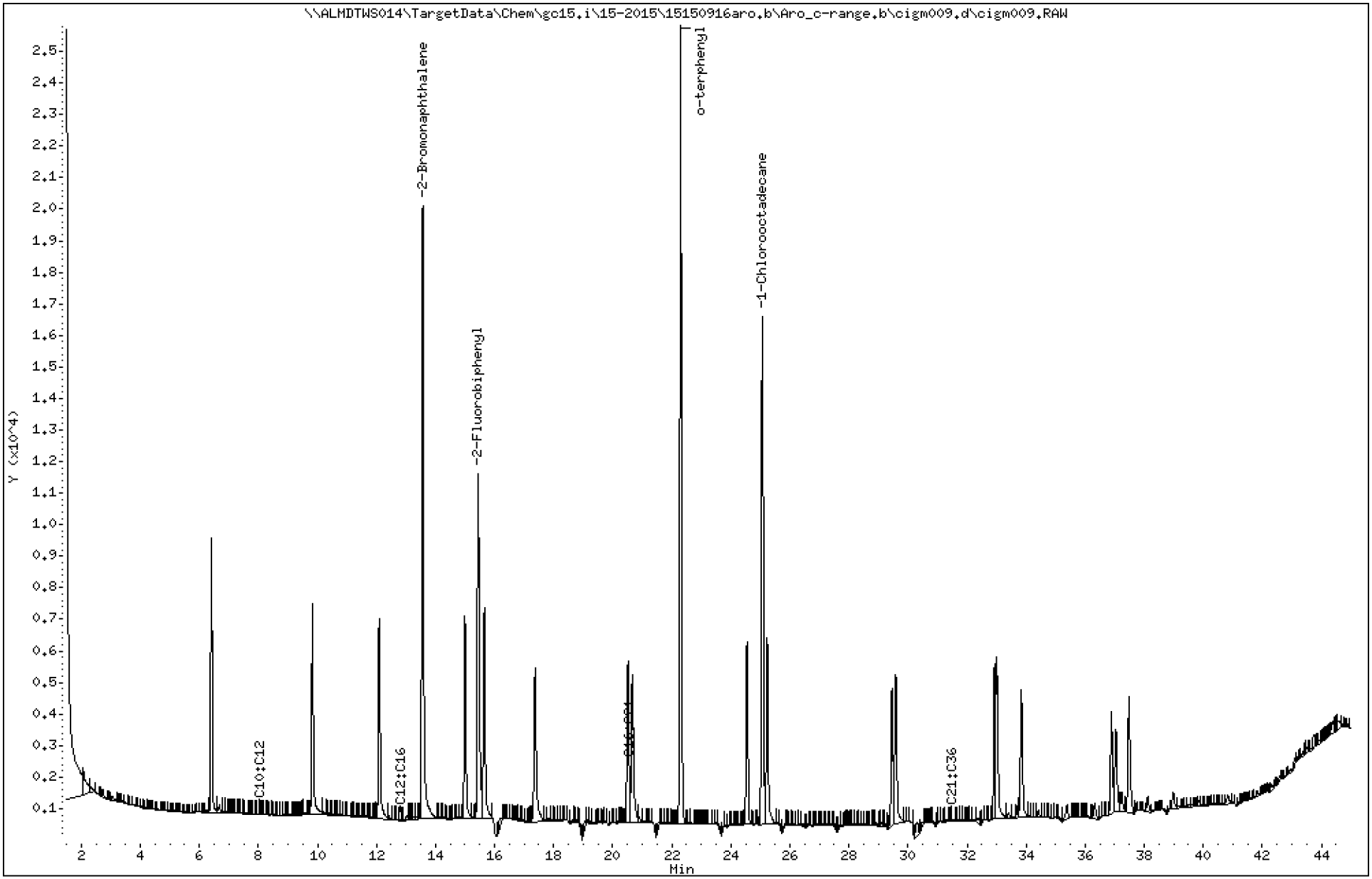
Sample Info: aroical1;;;1;1

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Lab Smp Id: aroical2
Inj Date : 16-SEP-2015 19:25
Operator : KJH Inst ID: gc15.i
Smp Info : aroical2;;;1;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Meth Date : 17-Sep-2015 07:35 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 19:25 Cal File: cigm010.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE		(ng/uL)	(ng/uL)
S 27 C10:C12	6.300-9.900			259836		11.2000	9.58929
S 28 C12:C16	10.000-15.750			364397		16.8000	14.4335(M)
S 29 C16:C21	15.850-25.300			572743		28.0000	23.3073(M)
S 30 C21:C36	25.400-37.600			770902		44.8000	37.2994(M)
$ 4 1-Chlorooctadecane	25.058	25.083	-0.025	326691		20.0000	19.4098
$ 6 o-terphenyl	22.291	22.341	-0.050	443155		20.0000	19.5059
$ 11 2-Bromonaphthalene	13.550	13.583	-0.033	404405		20.0000	18.5802(M)
$ 14 2-Fluorobiphenyl	15.425	15.458	-0.033	263859		20.0000	18.4914(M)

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: Aro_c-range.b
Lab Smp Id: aroical2
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	9.58929	
C12_C16	C12:C16	14.4335	
C16_C21	C16:C21	23.3073	
C21_C36	C21:C36	37.2994	
3386-33-2	1-Chlorooctadecane	19.4098	
84-15-1	o-terphenyl	19.5059	
580-13-2	2-Bromonaphthalene	18.5802	
321-60-8	2-Fluorobiphenyl	18.4914	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm010.d

Date : 16-SEP-2015 19:25

Client ID:

Instrument: gc15.i

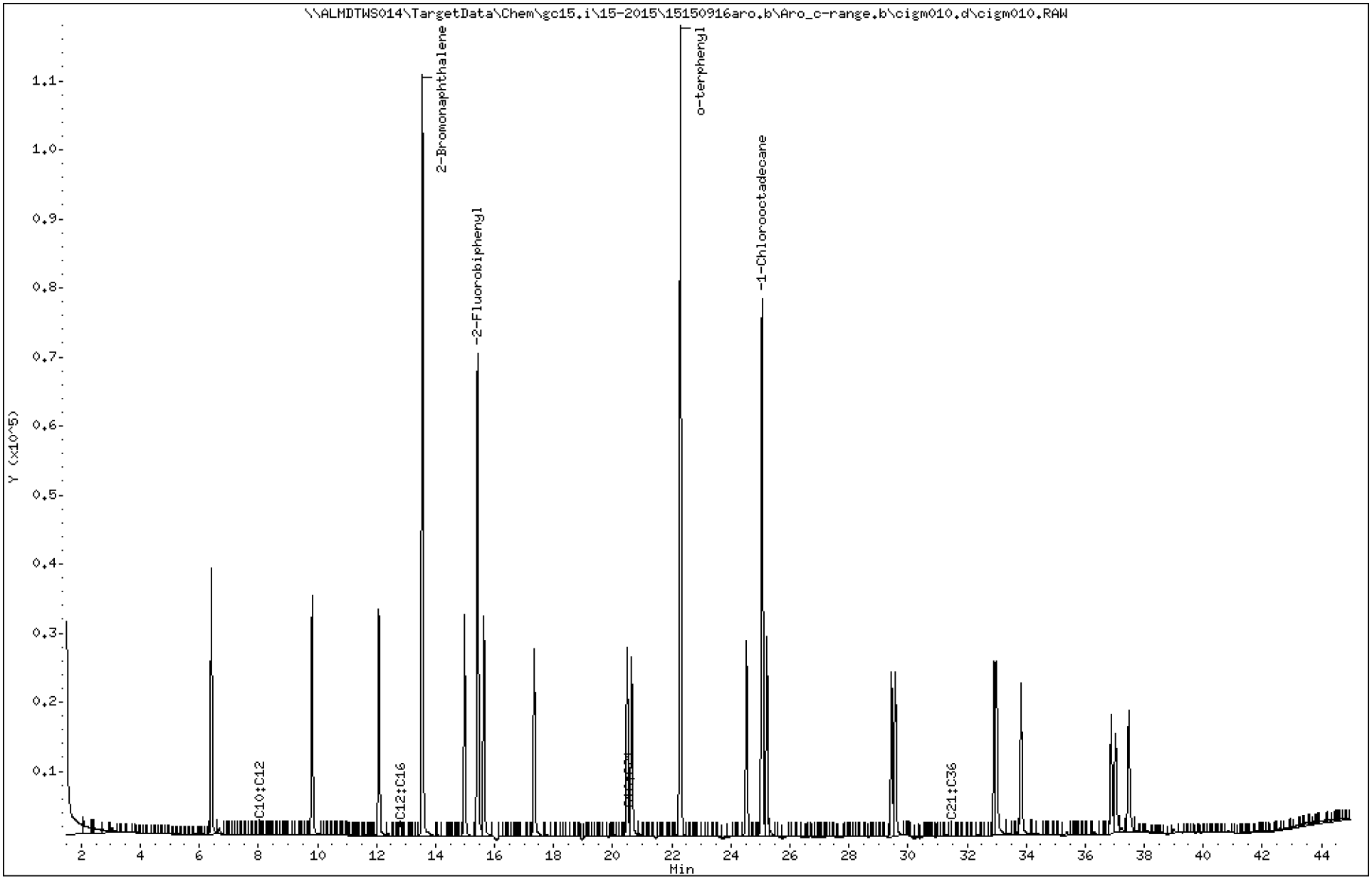
Sample Info: aroical2;;;1;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Lab Smp Id: aroical3
Inj Date : 16-SEP-2015 20:24
Operator : KJH Inst ID: gc15.i
Smp Info : aroical3;;;1;3
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Meth Date : 17-Sep-2015 07:35 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 20:24 Cal File: cigm011.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE		(ng/uL)	(ng/uL)
S 27 C10:C12	6.300-9.900			756157		28.0000	27.9061
S 28 C12:C16	10.000-15.750			1049401		42.0000	41.5660(M)
S 29 C16:C21	15.850-25.300			1663560		70.0000	67.6971(M)
S 30 C21:C36	25.400-37.600			2313908		112.000	111.956(M)
$ 4 1-Chlorooctadecane	25.066	25.083	-0.017	851716		50.0000	50.6034
$ 6 o-terphenyl	22.308	22.341	-0.033	1146272		50.0000	50.4543
$ 11 2-Bromonaphthalene	13.558	13.583	-0.025	1092483		50.0000	50.1935(M)
$ 14 2-Fluorobiphenyl	15.433	15.458	-0.025	722522		50.0000	50.6347(M)

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: Aro_c-range.b
Lab Smp Id: aroical3
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	27.9061	
C12_C16	C12:C16	41.5660	
C16_C21	C16:C21	67.6971	
C21_C36	C21:C36	111.956	
3386-33-2	1-Chlorooctadecane	50.6034	
84-15-1	o-terphenyl	50.4543	
580-13-2	2-Bromonaphthalene	50.1935	
321-60-8	2-Fluorobiphenyl	50.6347	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm011.d

Date : 16-SEP-2015 20:24

Client ID:

Instrument: gc15.i

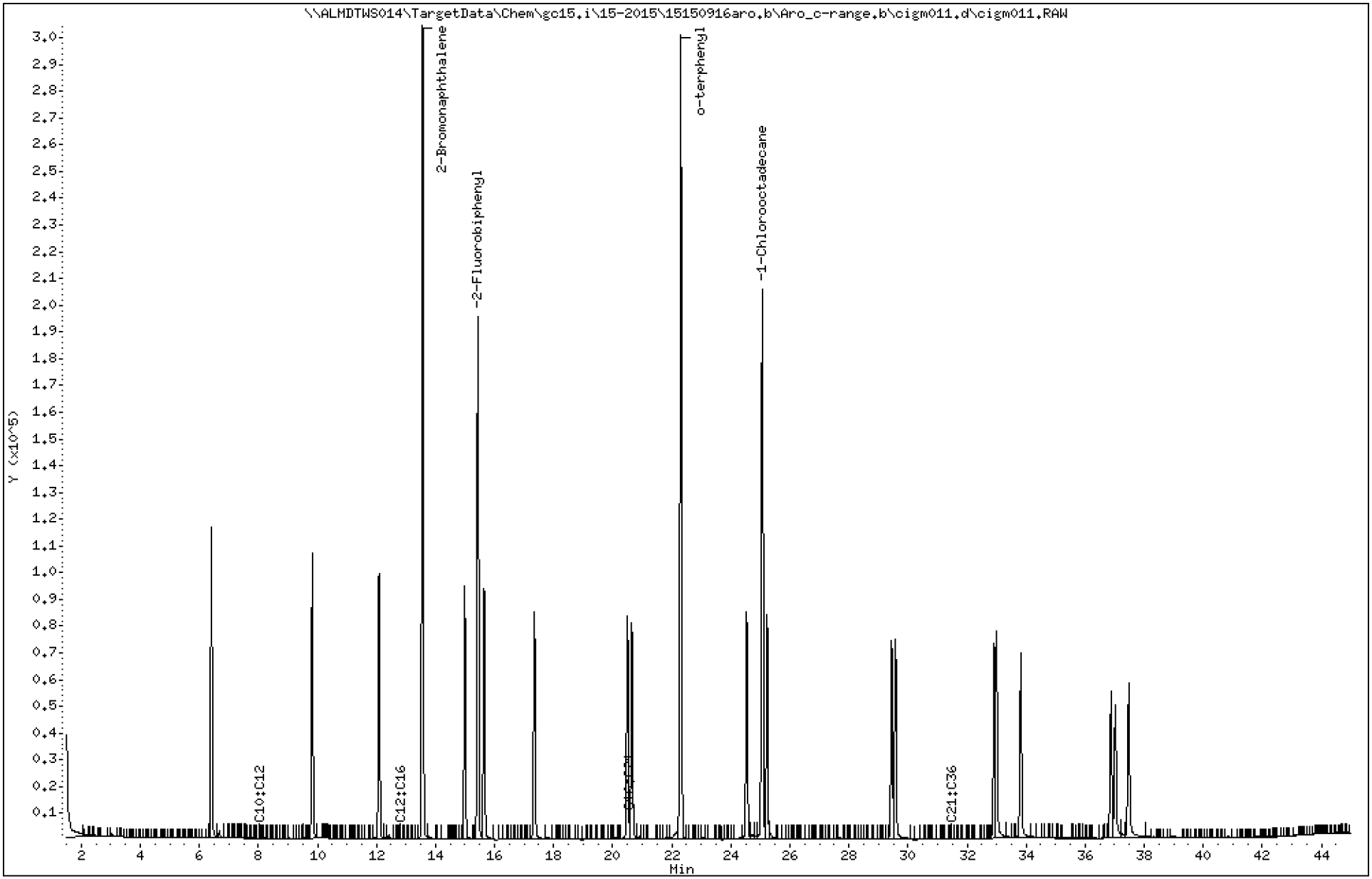
Sample Info: aroical3;;;1;3

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Lab Smp Id: aroical4
Inj Date : 16-SEP-2015 21:22
Operator : KJH Inst ID: gc15.i
Smp Info : aroical4;;;1;4
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Meth Date : 17-Sep-2015 07:35 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 21:22 Cal File: cigm012.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
S 27 C10:C12	6.300-9.900			1601540	56.0000	59.1051
S 28 C12:C16	10.000-15.750			2204191	84.0000	87.3064(M)
S 29 C16:C21	15.850-25.300			3729171	140.000	151.755(M)
S 30 C21:C36	25.400-37.600			4911189	224.000	237.623(M)
$ 4 1-Chlorooctadecane	25.075	25.083	-0.008	1654873	100.000	98.3217
$ 6 o-terphenyl	22.316	22.341	-0.025	2214575	100.000	97.4767
$ 11 2-Bromonaphthalene	13.558	13.583	-0.025	2321090	100.000	106.641
$ 14 2-Fluorobiphenyl	15.433	15.458	-0.025	1528969	100.000	107.151(M)

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: Aro_c-range.b
Lab Smp Id: aroical4
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	59.1051	
C12_C16	C12:C16	87.3064	
C16_C21	C16:C21	151.755	
C21_C36	C21:C36	237.623	
3386-33-2	1-Chlorooctadecane	98.3217	
84-15-1	o-terphenyl	97.4767	
580-13-2	2-Bromonaphthalene	106.641	
321-60-8	2-Fluorobiphenyl	107.151	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm012.d

Date : 16-SEP-2015 21:22

Client ID:

Instrument: gc15.i

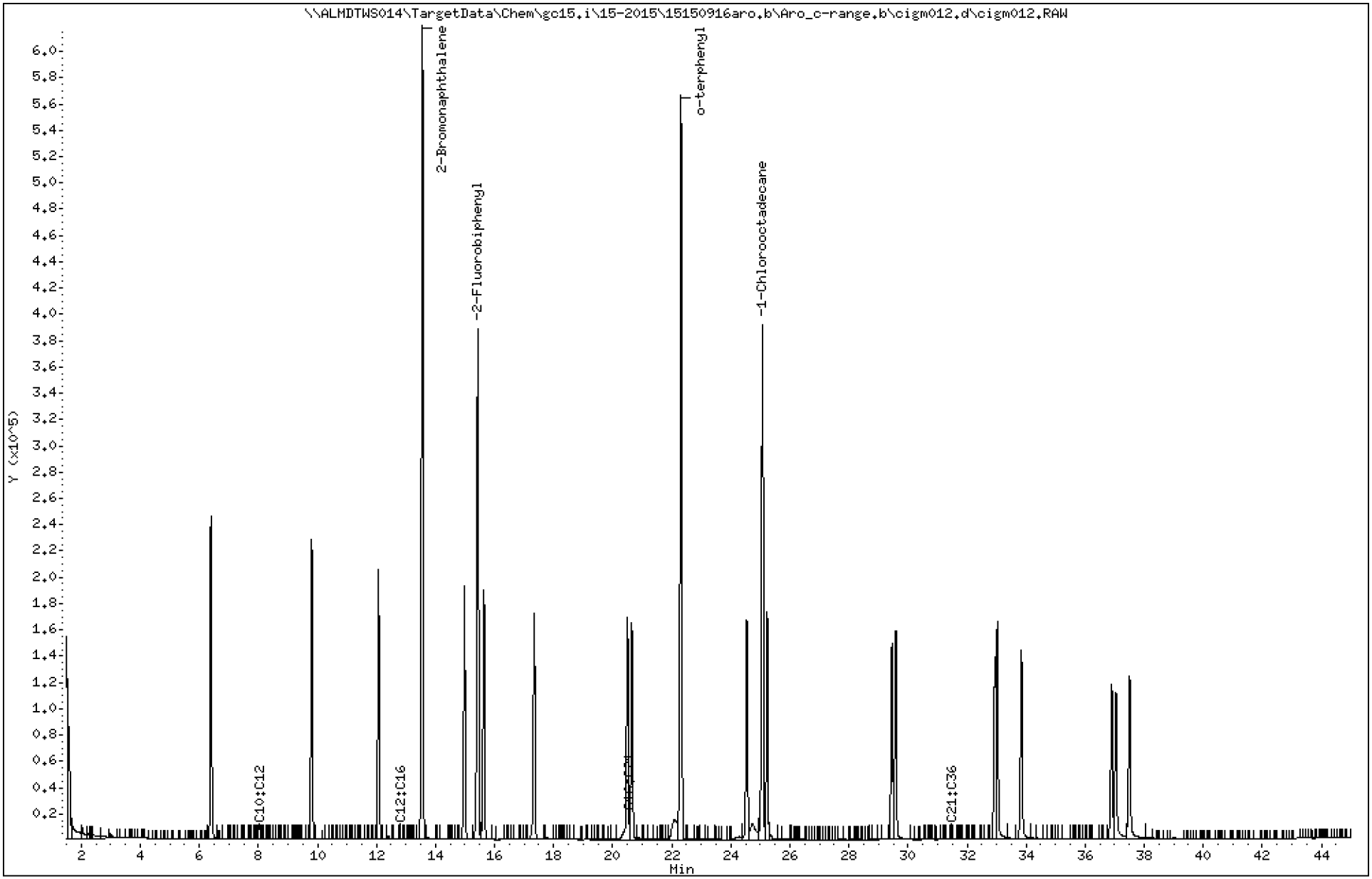
Sample Info: aroical4;;;1;4

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Lab Smp Id: aroical5
Inj Date : 16-SEP-2015 22:21
Operator : KJH Inst ID: gc15.i
Smp Info : aroical5;;;1;5
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Meth Date : 17-Sep-2015 07:35 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 9 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
S	27 C10:C12	6.300-9.900			3282616	112.000	121.145(A)
S	28 C12:C16	10.000-15.750			4463240	168.000	176.786(AM)
S	29 C16:C21	15.850-25.300			7530466	280.000	306.445(AM)
S	30 C21:C36	25.400-37.600			10143914	448.000	490.804(AM)
$	4 1-Chlorooctadecane	25.083	25.083	0.000	3282032	200.000	194.997
$	6 o-terphenyl	22.341	22.341	0.000	4332872	200.000	190.716
$	11 2-Bromonaphthalene	13.583	13.583	0.000	4531455	200.000	208.195(M)
$	14 2-Fluorobiphenyl	15.458	15.458	0.000	3105640	200.000	217.645(M)

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: Aro_c-range.b
Lab Smp Id: aroical5
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	121.145	E
C12_C16	C12:C16	176.786	E
C16_C21	C16:C21	306.445	E
C21_C36	C21:C36	490.804	E
3386-33-2	1-Chlorooctadecane	194.997	
84-15-1	o-terphenyl	190.716	
580-13-2	2-Bromonaphthalene	208.195	
321-60-8	2-Fluorobiphenyl	217.645	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm013.d

Date : 16-SEP-2015 22:21

Client ID:

Instrument: gc15.i

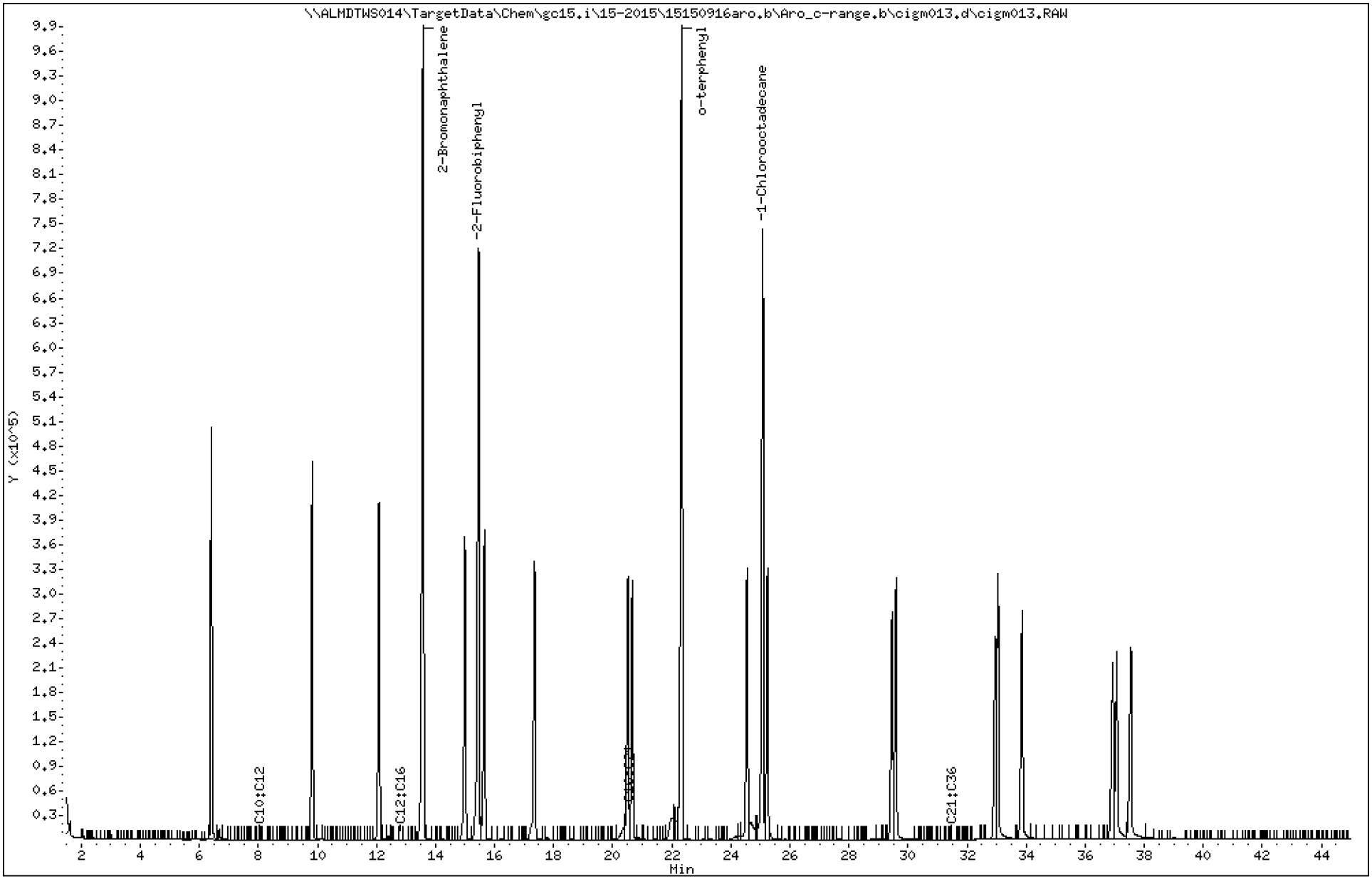
Sample Info: aroical5;;;1;5

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Initial Calibration Verifications

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/16/15 Time: 2319

Lab File ID: CIGM014 Init. Calib. Date(s): 07/08/15 09/16/15

Init. Calib. Times: 0125 2221

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF28.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,2,3-Trimethylbenzene	26842.253	28870.821	0.01	7.56	30.00	AVRG
Fluorene	22687.375	24315.357	0.01	7.18	30.00	AVRG
Phenanthrene	22003.053	24466.071	0.01	11.19	30.00	AVRG
Anthracene	21259.318	22629.429	0.01	6.44	30.00	AVRG
Fluoranthene	22239.803	22273.536	0.01	0.15	30.00	AVRG
Pyrene	22756.628	22992.821	0.01	1.04	30.00	AVRG
Benz(a)anthracene	19978.278	22082.286	0.01	10.53	30.00	AVRG
Chrysene	21448.671	22939.571	0.01	6.95	30.00	AVRG
Benzo(b)fluoranthene	20100.057	23234.321	0.01	15.59	30.00	AVRG
Benzo(k)fluoranthene	22290.503	22565.500	0.01	1.23	30.00	AVRG
Benzo(a)pyrene	19994.921	22460.357	0.01	12.33	30.00	AVRG
Indeno(1,2,3-cd)pyrene	16244.600	17667.786	0.01	8.76	30.00	AVRG
Dibenz(a,h)anthracene	16810.314	18933.179	0.01	12.63	30.00	AVRG
Benzo(g,h,i)perylene	19066.575	20746.357	0.01	8.81	30.00	AVRG
Naphthalene	25390.207	27518.786	0.01	8.38	30.00	AVRG
2-Methylnapthalene	24652.107	26338.393	0.01	6.84	30.00	AVRG
Acenaphthylene	23404.918	24989.143	0.01	6.77	30.00	AVRG
Acenaphthene	24696.193	25779.821	0.01	4.39	30.00	AVRG
1-Chlorooctadecane	16756.223	16421.560	0.01	-2.00	30.00	AVRG
o-terphenyl	22707.743	22479.610	0.01	-1.00	30.00	AVRG
2-Bromonaphthalene	21579.739	22718.130	0.01	5.28	30.00	AVRG
2-Fluorobiphenyl	14226.954	15006.640	0.01	5.48	30.00	AVRG

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm01
Lab Smp Id: aross
Inj Date : 16-SEP-2015 23:19
Operator : KJH Inst ID: gc15.i
Smp Info : aross;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPH
Meth Date : 17-Sep-2015 07:38 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
	1 1,2,3-Trimethylbenzene	6.408	6.408	0.000	808383	28.0000	30.1161
	2 Naphthalene	9.825	9.825	0.000	770526	28.0000	30.3474
	3 2-Methylnapthalene	12.091	12.091	0.000	737475	28.0000	29.9153
$	4 1-Chlorooctadecane	25.075	25.083	-0.008	1642156	100.000	98.0028
	5 Acenaphthylene	14.991	15.000	-0.009	699696	28.0000	29.8953
$	6 o-terphenyl	22.316	22.341	-0.025	2247961	100.000	98.9954
	7 Acenaphthene	15.650	15.650	0.000	721835	28.0000	29.2286
	8 Fluorene	17.358	17.358	0.000	680830	28.0000	30.0092
	9 Phenanthrene	20.508	20.516	-0.008	685050	28.0000	31.1343
	10 Anthracene	20.650	20.666	-0.016	633624	28.0000	29.8045
$	11 2-Bromonaphthalene	13.566	13.566	0.000	2271813	100.000	105.275
	12 Fluoranthene	24.541	24.550	-0.009	623659	28.0000	28.0425
	13 Pyrene	25.233	25.241	-0.008	643799	28.0000	28.2906
$	14 2-Fluorobiphenyl	15.450	15.458	-0.008	1500664	100.000	105.480
	15 Benz(a)anthracene	29.450	29.466	-0.016	618304	28.0000	30.9488
	16 Chrysene	29.583	29.591	-0.008	642308	28.0000	29.9463
	17 Benzo(b)fluoranthene	32.941	32.966	-0.025	650561	28.0000	32.3661
	18 Benzo(k)fluoranthene	33.025	33.050	-0.025	631834	28.0000	28.3454
	19 Benzo(a)pyrene	33.841	33.866	-0.025	628890	28.0000	31.4525
	20 Indeno(1,2,3-cd)pyrene	36.900	36.941	-0.041	494698	28.0000	30.4531

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
21 Dibenz(a,h)anthracene	37.041	37.075	-0.034	530129	28.0000	31.5359
22 Benzo(g,h,i)perylene	37.508	37.550	-0.042	580898	28.0000	30.4668

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 16-SEP-2015 23:19
Lab File ID: cigm014.d Init. Cal. Date(s): 08-JUL-2015 16-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 01:25 22:21
Lab Sample ID: aross Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\AroEPHindi

COMPOUND	RRF / AMOUNT	RF28	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 1,2,3-Trimethylbenzene	26842	28871	0.010	7.55737	30.00000	Averaged
2 Naphthalene	25390	27519	0.010	8.38346	30.00000	Averaged
3 2-Methylnapthalene	24652	26338	0.010	6.84033	30.00000	Averaged
$ 4 1-Chlorooctadecane	16756	16422	0.010	-1.99725	30.00000	Averaged
5 Acenaphthylene	23405	24989	0.010	6.76877	30.00000	Averaged
$ 6 o-terphenyl	22708	22480	0.010	-1.00465	30.00000	Averaged
7 Acenaphthene	24696	25780	0.010	4.38784	30.00000	Averaged
8 Fluorene	22687	24315	0.010	7.17572	30.00000	Averaged
9 Phenanthrene	22003	24466	0.010	11.19398	30.00000	Averaged
10 Anthracene	21259	22629	0.010	6.44475	30.00000	Averaged
$ 11 2-Bromonaphthalene	21580	22718	0.010	5.27528	30.00000	Averaged
12 Fluoranthene	22240	22274	0.010	0.15167	30.00000	Averaged
13 Pyrene	22757	22993	0.010	1.03791	30.00000	Averaged
$ 14 2-Fluorobiphenyl	14227	15007	0.010	5.48034	30.00000	Averaged
15 Benz(a)anthracene	19978	22082	0.010	10.53147	30.00000	Averaged
16 Chrysene	21449	22940	0.010	6.95101	30.00000	Averaged
17 Benzo(b)fluoranthene	20100	23234	0.010	15.59331	30.00000	Averaged
18 Benzo(k)fluoranthene	22291	22566	0.010	1.23369	30.00000	Averaged
19 Benzo(a)pyrene	19995	22460	0.010	12.33031	30.00000	Averaged
20 Indeno(1,2,3-cd)pyrene	16245	17668	0.010	8.76098	30.00000	Averaged
21 Dibenz(a,h)anthracene	16810	18933	0.010	12.62834	30.00000	Averaged
22 Benzo(g,h,i)perylene	19067	20746	0.010	8.81009	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.84266
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\cigm014.d

Date : 16-SEP-2015 23:19

Client ID:

Instrument: gc15.i

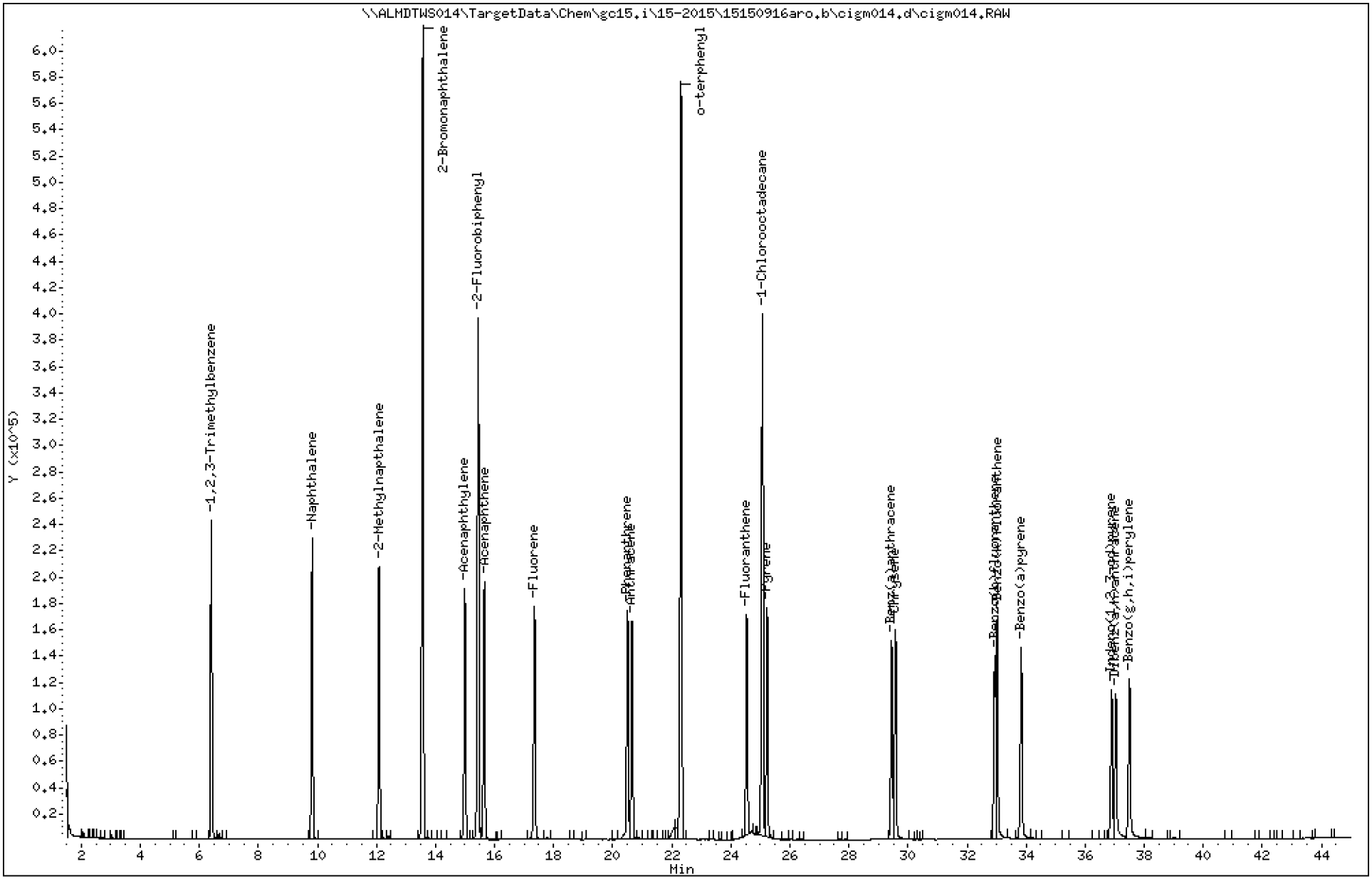
Sample Info: aross:::2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/16/15 Time: 2319

Lab File ID: CIGM014 Init. Calib. Date(s): 07/08/15 09/16/15

Init. Calib. Times: 0125 2221

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
C10:C12	27096.489	28579.714	0.01	5.47	25.00	AVRG
C12:C16	25246.602	25982.464	0.01	2.91	25.00	AVRG
C16:C21	24573.591	25655.536	0.01	4.40	25.00	AVRG
C21:C36	20667.944	21954.996	0.01	6.23	25.00	AVRG
1-Chlorooctadecane	16831.202	16936.520	0.01	0.62	25.00	AVRG
o-terphenyl	22719.010	22504.190	0.01	-0.94	25.00	AVRG
2-Bromonaphthalene	21765.417	22726.000	0.01	4.41	25.00	AVRG
2-Fluorobiphenyl	14269.306	14994.020	0.01	5.08	25.00	AVRG

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Lab Smp Id: aross
Inj Date : 16-SEP-2015 23:19
Operator : KJH Inst ID: gc15.i
Smp Info : aross;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-
Meth Date : 17-Sep-2015 07:35 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
S	27 C10:C12	6.300-9.900			1600464	56.0000	59.0654
S	28 C12:C16	10.000-15.750			2182527	84.0000	86.4483(M)
S	29 C16:C21	15.850-25.300			3591775	140.000	146.164(M)
S	30 C21:C36	25.400-37.600			4917919	224.000	237.949(M)
$	4 1-Chlorooctadecane	25.075	25.083	-0.008	1693652	100.000	100.626(M)
$	6 o-terphenyl	22.316	22.341	-0.025	2250419	100.000	99.0544
$	11 2-Bromonaphthalene	13.566	13.583	-0.017	2272600	100.000	104.413
$	14 2-Fluorobiphenyl	15.450	15.458	-0.008	1499402	100.000	105.079(M)

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 16-SEP-2015 23:19
Lab File ID: cigm014.d Init. Cal. Date(s): 08-JUL-2015 16-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 01:25 22:21
Lab Sample ID: aross Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-rang

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 27 C10:C12	27096	28580	0.010	5.47386	25.00000	Averaged
S 28 C12:C16	25247	25982	0.010	2.91470	25.00000	Averaged
S 29 C16:C21	24574	25656	0.010	4.40287	25.00000	Averaged
S 30 C21:C36	20668	21955	0.010	6.22729	25.00000	Averaged
$ 4 1-Chlorooctadecane	16831	16937	0.010	0.62573	25.00000	Averaged
$ 6 o-terphenyl	22719	22504	0.010	-0.94555	25.00000	Averaged
$ 11 2-Bromonaphthalene	21765	22726	0.010	4.41335	25.00000	Averaged
$ 14 2-Fluorobiphenyl	14269	14994	0.010	5.07883	25.00000	Averaged

Average %D / Drift Results.
Calculated Average %D/Drift = 3.76027
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916aro.b\Aro_c-range.b\cigm014.d

Date : 16-SEP-2015 23:19

Client ID:

Instrument: gc15.i

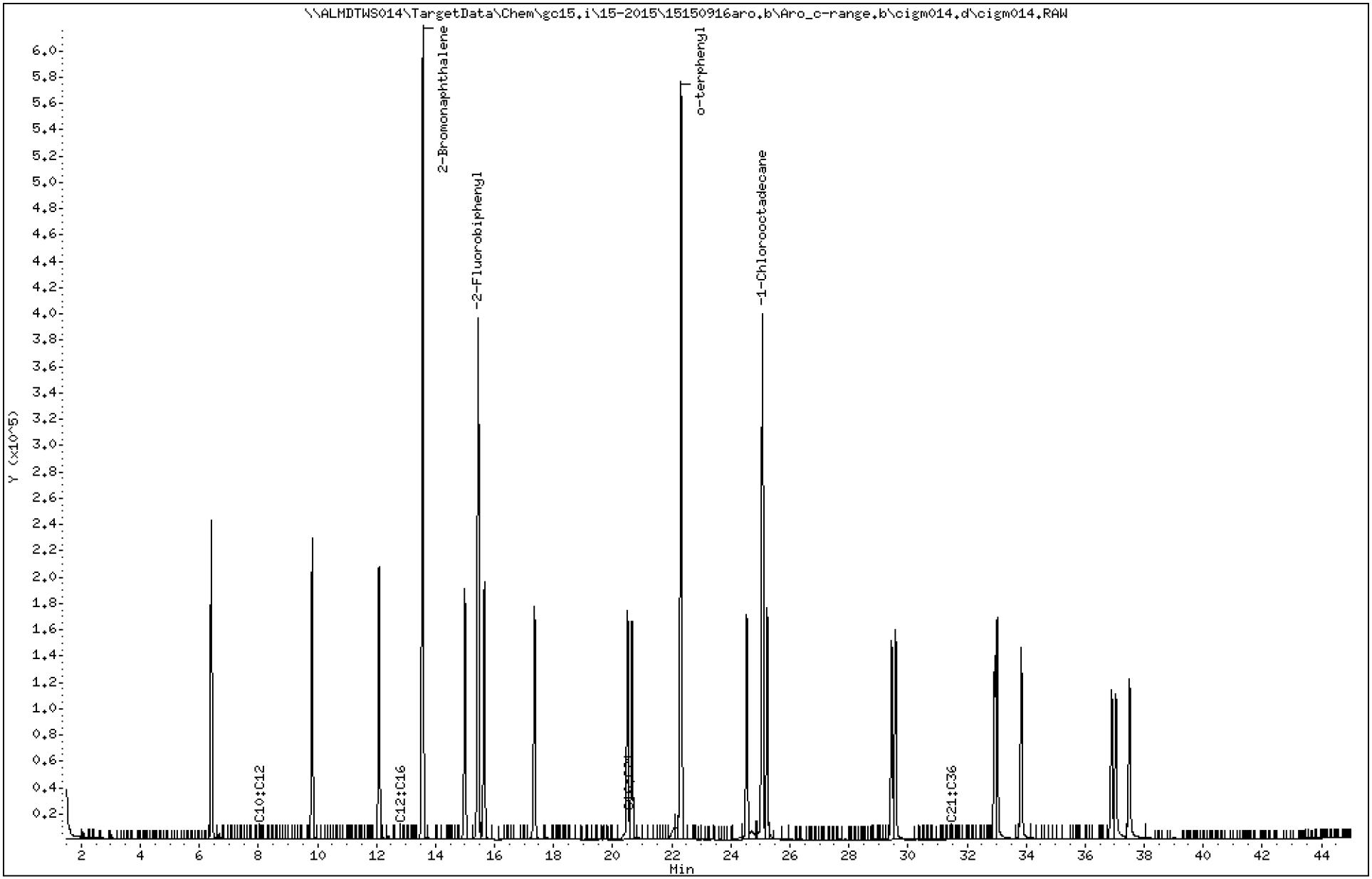
Sample Info: aross:::2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Continuing Calibrations

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/18/15 Time: 1034

Lab File ID: CIIM003 Init. Calib. Date(s): 07/08/15 09/16/15

Init. Calib. Times: 0125 2221

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF28.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,2,3-Trimethylbenzene	26842.253	29411.357	0.01	9.57	30.00	AVRG
Fluorene	22687.375	24947.321	0.01	9.96	30.00	AVRG
Phenanthrene	22003.053	25181.214	0.01	14.44	30.00	AVRG
Anthracene	21259.318	23050.500	0.01	8.42	30.00	AVRG
Fluoranthene	22239.803	22494.000	0.01	1.14	30.00	AVRG
Pyrene	22756.628	23256.821	0.01	2.20	30.00	AVRG
Benz(a)anthracene	19978.278	21869.429	0.01	9.47	30.00	AVRG
Chrysene	21448.671	23232.107	0.01	8.31	30.00	AVRG
Benzo(b)fluoranthene	20100.057	22054.214	0.01	9.72	30.00	AVRG
Benzo(k)fluoranthene	22290.503	23132.786	0.01	3.78	30.00	AVRG
Benzo(a)pyrene	19994.921	21579.536	0.01	7.92	30.00	AVRG
Indeno(1,2,3-cd)pyrene	16244.600	16043.857	0.01	-1.24	30.00	AVRG
Dibenz(a,h)anthracene	16810.314	15762.964	0.01	-6.23	30.00	AVRG
Benzo(g,h,i)perylene	19066.575	19221.929	0.01	0.81	30.00	AVRG
Naphthalene	25390.207	28410.464	0.01	11.90	30.00	AVRG
2-Methylnapthalene	24652.107	27329.607	0.01	10.86	30.00	AVRG
Acenaphthylene	23404.918	25999.286	0.01	11.08	30.00	AVRG
Acenaphthene	24696.193	26579.429	0.01	7.62	30.00	AVRG
1-Chlorooctadecane	16756.223	16613.380	0.01	-0.85	30.00	AVRG
o-terphenyl	22707.743	23001.950	0.01	1.30	30.00	AVRG
2-Bromonaphthalene	21579.739	23821.330	0.01	10.39	30.00	AVRG
2-Fluorobiphenyl	14226.954	15665.720	0.01	10.11	30.00	AVRG

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\ciim00
Lab Smp Id: aroccv
Inj Date : 18-SEP-2015 10:34
Operator : KJH Inst ID: gc15.i
Smp Info : aroccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\AroEPH
Meth Date : 21-Sep-2015 08:25 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
1	1,2,3-Trimethylbenzene	6.408	6.408	0.000	823518	28.0000	30.6799
2	Naphthalene	9.833	9.825	0.008	795493	28.0000	31.3307
3	2-Methylnapthalene	12.100	12.091	0.009	765229	28.0000	31.0411
$ 4	1-Chlorooctadecane	25.091	25.083	0.008	1661338	100.000	99.1475
5	Acenaphthylene	15.008	15.000	0.008	727980	28.0000	31.1037
$ 6	o-terphenyl	22.333	22.341	-0.008	2300195	100.000	101.296
7	Acenaphthene	15.658	15.650	0.008	744224	28.0000	30.1352
8	Fluorene	17.366	17.358	0.008	698525	28.0000	30.7892
9	Phenanthrene	20.516	20.516	0.000	705074	28.0000	32.0444
10	Anthracene	20.666	20.666	0.000	645414	28.0000	30.3591
$ 11	2-Bromonaphthalene	13.583	13.566	0.017	2382133	100.000	110.387
12	Fluoranthene	24.558	24.550	0.008	629832	28.0000	28.3200
13	Pyrene	25.250	25.241	0.009	651191	28.0000	28.6154
$ 14	2-Fluorobiphenyl	15.458	15.458	0.000	1566572	100.000	110.113
15	Benz(a)anthracene	29.475	29.466	0.009	612344	28.0000	30.6505
16	Chrysene	29.600	29.591	0.009	650499	28.0000	30.3282
17	Benzo(b)fluoranthene	32.966	32.966	0.000	617518	28.0000	30.7222
18	Benzo(k)fluoranthene	33.041	33.050	-0.009	647718	28.0000	29.0580
19	Benzo(a)pyrene	33.858	33.866	-0.008	604227	28.0000	30.2190
20	Indeno(1,2,3-cd)pyrene	36.916	36.941	-0.025	449228	28.0000	27.6540

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
21 Dibenz(a,h)anthracene	37.058	37.075	-0.017	441363	28.0000	26.2555
22 Benzo(g,h,i)perylene	37.516	37.550	-0.034	538214	28.0000	28.2281

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

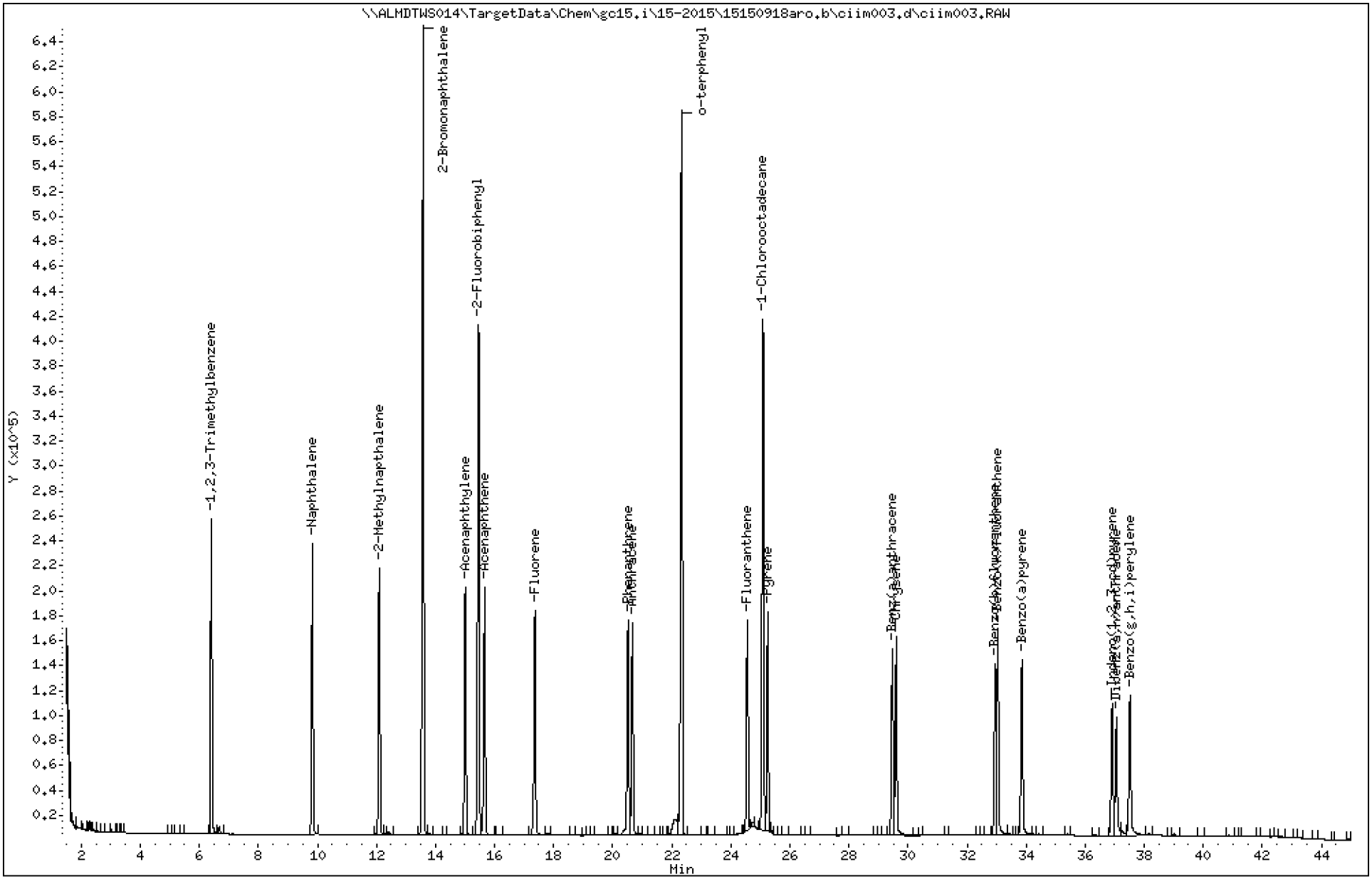
Instrument ID: gc15.i Injection Date: 18-SEP-2015 10:34
Lab File ID: ciim003.d Init. Cal. Date(s): 08-JUL-2015 16-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 01:25 22:21
Lab Sample ID: aroccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\AroEPHindi

COMPOUND	RRF / AMOUNT	RF28	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 1,2,3-Trimethylbenzene	26842	29411	0.010	9.57112	30.00000	Averaged
2 Naphthalene	25390	28410	0.010	11.89536	30.00000	Averaged
3 2-Methylnapthalene	24652	27330	0.010	10.86114	30.00000	Averaged
$ 4 1-Chlorooctadecane	16756	16613	0.010	-0.85248	30.00000	Averaged
5 Acenaphthylene	23405	25999	0.010	11.08471	30.00000	Averaged
$ 6 o-terphenyl	22708	23002	0.010	1.29562	30.00000	Averaged
7 Acenaphthene	24696	26579	0.010	7.62561	30.00000	Averaged
8 Fluorene	22687	24947	0.010	9.96125	30.00000	Averaged
9 Phenanthrene	22003	25181	0.010	14.44418	30.00000	Averaged
10 Anthracene	21259	23051	0.010	8.42540	30.00000	Averaged
$ 11 2-Bromonaphthalene	21580	23821	0.010	10.38748	30.00000	Averaged
12 Fluoranthene	22240	22494	0.010	1.14298	30.00000	Averaged
13 Pyrene	22757	23257	0.010	2.19801	30.00000	Averaged
$ 14 2-Fluorobiphenyl	14227	15666	0.010	10.11296	30.00000	Averaged
15 Benz(a)anthracene	19978	21869	0.010	9.46603	30.00000	Averaged
16 Chrysene	21449	23232	0.010	8.31490	30.00000	Averaged
17 Benzo(b)fluoranthene	20100	22054	0.010	9.72215	30.00000	Averaged
18 Benzo(k)fluoranthene	22291	23133	0.010	3.77866	30.00000	Averaged
19 Benzo(a)pyrene	19995	21580	0.010	7.92508	30.00000	Averaged
20 Indeno(1,2,3-cd)pyrene	16245	16044	0.010	-1.23575	30.00000	Averaged
21 Dibenz(a,h)anthracene	16810	15763	0.010	-6.23040	30.00000	Averaged
22 Benzo(g,h,i)perylene	19067	19222	0.010	0.81480	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 8.96629
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\ciim003.d
Date : 18-SEP-2015 10:34
Client ID:
Instrument: gc15.i
Sample Info: aroccv;;;2
Volume Injected (uL): 2.0
Operator: KJH
Column phase: ZB-5
Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/18/15 Time: 1034

Lab File ID: CIIM003 Init. Calib. Date(s): 07/08/15 09/16/15

Init. Calib. Times: 0125 2221

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
C10:C12	27096.489	29363.500	0.01	8.37	25.00	AVRG
C12:C16	25246.602	27003.560	0.01	6.96	25.00	AVRG
C16:C21	24573.591	25649.621	0.01	4.38	25.00	AVRG
C21:C36	20667.944	20878.473	0.01	1.02	25.00	AVRG
1-Chlorooctadecane	16831.202	16585.820	0.01	-1.46	25.00	AVRG
o-terphenyl	22719.010	23065.310	0.01	1.52	25.00	AVRG
2-Bromonaphthalene	21765.417	23831.950	0.01	9.49	25.00	AVRG
2-Fluorobiphenyl	14269.306	15666.140	0.01	9.79	25.00	AVRG

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: aroccv
Inj Date : 18-SEP-2015 10:34
Operator : KJH Inst ID: gc15.i
Smp Info : aroccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 21-Sep-2015 08:23 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
S 27 C10:C12	6.300-9.900			1644356	56.0000	60.6852(M)
S 28 C12:C16	10.000-15.750			2268299	84.0000	89.8457(M)
S 29 C16:C21	15.850-25.300			3590947	140.000	146.130(M)
S 30 C21:C36	25.400-37.600			4676778	224.000	226.282(M)
$ 4 1-Chlorooctadecane	25.091	25.083	0.008	1658582	100.000	98.5421
$ 6 o-terphenyl	22.333	22.341	-0.008	2306531	100.000	101.524
$ 11 2-Bromonaphthalene	13.583	13.583	0.000	2383195	100.000	109.495
$ 14 2-Fluorobiphenyl	15.458	15.458	0.000	1566614	100.000	109.789

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 18-SEP-2015 10:34
Lab File ID: ciim003.d Init. Cal. Date(s): 08-JUL-2015 16-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 01:25 22:21
Lab Sample ID: aroccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-rang

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 27 C10:C12	27096	29364	0.010	8.36644	25.00000	Averaged
S 28 C12:C16	25247	27004	0.010	6.95918	25.00000	Averaged
S 29 C16:C21	24574	25650	0.010	4.37881	25.00000	Averaged
S 30 C21:C36	20668	20878	0.010	1.01863	25.00000	Averaged
$ 4 1-Chlorooctadecane	16831	16586	0.010	-1.45790	25.00000	Averaged
$ 6 o-terphenyl	22719	23065	0.010	1.52427	25.00000	Averaged
$ 11 2-Bromonaphthalene	21765	23832	0.010	9.49457	25.00000	Averaged
$ 14 2-Fluorobiphenyl	14269	15666	0.010	9.78908	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.26875
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim003.d

Date : 18-SEP-2015 10:34

Client ID:

Instrument: gc15.i

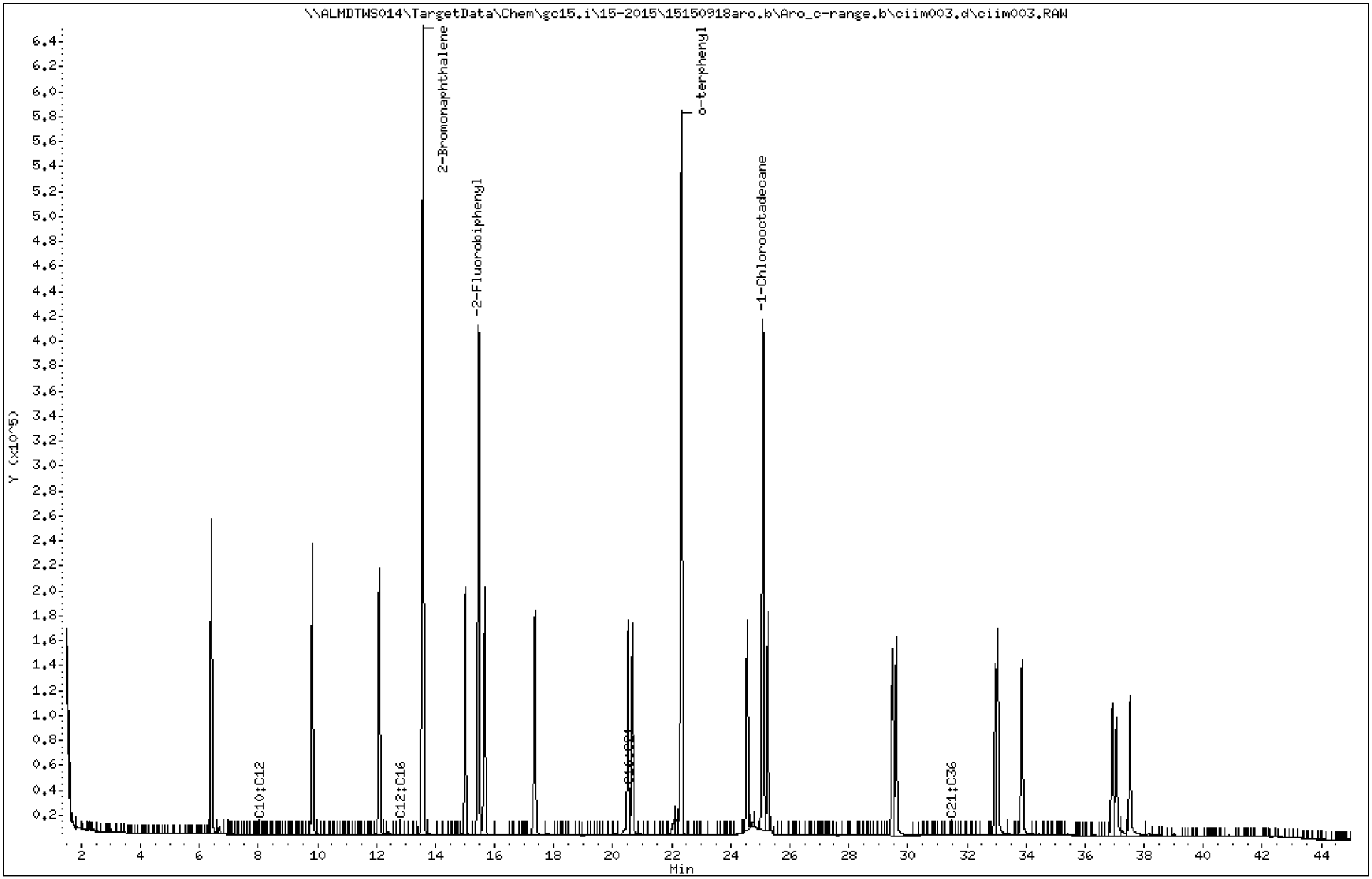
Sample Info: aroccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/19/15 Time: 1006

Lab File ID: CIIM027 Init. Calib. Date(s): 07/08/15 09/16/15

Init. Calib. Times: 0125 2221

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF28.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,2,3-Trimethylbenzene	26842.253	29339.536	0.01	9.30	30.00	AVRG
Fluorene	22687.375	25196.964	0.01	11.06	30.00	AVRG
Phenanthrene	22003.053	25187.429	0.01	14.47	30.00	AVRG
Anthracene	21259.318	23602.857	0.01	11.02	30.00	AVRG
Fluoranthene	22239.803	24665.786	0.01	10.91	30.00	AVRG
Pyrene	22756.628	24760.714	0.01	8.81	30.00	AVRG
Benz(a)anthracene	19978.278	21789.500	0.01	9.06	30.00	AVRG
Chrysene	21448.671	23441.250	0.01	9.29	30.00	AVRG
Benzo(b)fluoranthene	20100.057	22205.036	0.01	10.47	30.00	AVRG
Benzo(k)fluoranthene	22290.503	22603.143	0.01	1.40	30.00	AVRG
Benzo(a)pyrene	19994.921	21282.071	0.01	6.44	30.00	AVRG
Indeno(1,2,3-cd)pyrene	16244.600	15397.607	0.01	-5.21	30.00	AVRG
Dibenz(a,h)anthracene	16810.314	14851.250	0.01	-11.65	30.00	AVRG
Benzo(g,h,i)perylene	19066.575	18523.679	0.01	-2.85	30.00	AVRG
Naphthalene	25390.207	28391.536	0.01	11.82	30.00	AVRG
2-Methylnapthalene	24652.107	27351.786	0.01	10.95	30.00	AVRG
Acenaphthylene	23404.918	26152.643	0.01	11.74	30.00	AVRG
Acenaphthene	24696.193	26789.750	0.01	8.48	30.00	AVRG
1-Chlorooctadecane	16756.223	17760.440	0.01	5.99	30.00	AVRG
o-terphenyl	22707.743	23714.540	0.01	4.43	30.00	AVRG
2-Bromonaphthalene	21579.739	23939.010	0.01	10.93	30.00	AVRG
2-Fluorobiphenyl	14226.954	15784.780	0.01	10.95	30.00	AVRG

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\ciim02
Lab Smp Id: aroccv
Inj Date : 19-SEP-2015 10:06
Operator : KJH Inst ID: gc15.i
Smp Info : aroccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\AroEPH
Meth Date : 21-Sep-2015 08:25 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
1	1,2,3-Trimethylbenzene	6.416	6.408	0.008	821507	28.0000	30.6050
2	Naphthalene	9.841	9.825	0.016	794963	28.0000	31.3098
3	2-Methylnapthalene	12.108	12.091	0.017	765850	28.0000	31.0663
$ 4	1-Chlorooctadecane	25.100	25.083	0.017	1776044	100.000	105.993
5	Acenaphthylene	15.016	15.000	0.016	732274	28.0000	31.2872
$ 6	o-terphenyl	22.333	22.341	-0.008	2371454	100.000	104.434
7	Acenaphthene	15.666	15.650	0.016	750113	28.0000	30.3736
8	Fluorene	17.375	17.358	0.017	705515	28.0000	31.0973
9	Phenanthrene	20.525	20.516	0.009	705248	28.0000	32.0523
10	Anthracene	20.666	20.666	0.000	660880	28.0000	31.0866
$ 11	2-Bromonaphthalene	13.591	13.566	0.025	2393901	100.000	110.933
12	Fluoranthene	24.566	24.550	0.016	690642	28.0000	31.0543
13	Pyrene	25.258	25.241	0.017	693300	28.0000	30.4658
$ 14	2-Fluorobiphenyl	15.466	15.458	0.008	1578478	100.000	110.950
15	Benz(a)anthracene	29.483	29.466	0.017	610106	28.0000	30.5385
16	Chrysene	29.608	29.591	0.017	656355	28.0000	30.6012
17	Benzo(b)fluoranthene	32.975	32.966	0.009	621741	28.0000	30.9323
18	Benzo(k)fluoranthene	33.058	33.050	0.008	632888	28.0000	28.3927
19	Benzo(a)pyrene	33.875	33.866	0.009	595898	28.0000	29.8025
20	Indeno(1,2,3-cd)pyrene	36.933	36.941	-0.008	431133	28.0000	26.5401

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
21 Dibenz(a,h)anthracene	37.075	37.075	0.000	415835	28.0000	24.7369
22 Benzo(g,h,i)perylene	37.541	37.550	-0.009	518663	28.0000	27.2027

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 19-SEP-2015 10:06
Lab File ID: ciim027.d Init. Cal. Date(s): 08-JUL-2015 16-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 01:25 22:21
Lab Sample ID: aroccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\AroEPHindi

COMPOUND	RRF / AMOUNT	RF28	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 1,2,3-Trimethylbenzene	26842	29340	0.010	9.30355	30.00000	Averaged
2 Naphthalene	25390	28392	0.010	11.82081	30.00000	Averaged
3 2-Methylnapthalene	24652	27352	0.010	10.95111	30.00000	Averaged
$ 4 1-Chlorooctadecane	16756	17760	0.010	5.99310	30.00000	Averaged
5 Acenaphthylene	23405	26153	0.010	11.73995	30.00000	Averaged
$ 6 o-terphenyl	22708	23715	0.010	4.43372	30.00000	Averaged
7 Acenaphthene	24696	26790	0.010	8.47725	30.00000	Averaged
8 Fluorene	22687	25197	0.010	11.06161	30.00000	Averaged
9 Phenanthrene	22003	25187	0.010	14.47242	30.00000	Averaged
10 Anthracene	21259	23603	0.010	11.02359	30.00000	Averaged
$ 11 2-Bromonaphthalene	21580	23939	0.010	10.93281	30.00000	Averaged
12 Fluoranthene	22240	24666	0.010	10.90829	30.00000	Averaged
13 Pyrene	22757	24761	0.010	8.80660	30.00000	Averaged
$ 14 2-Fluorobiphenyl	14227	15785	0.010	10.94982	30.00000	Averaged
15 Benz(a)anthracene	19978	21790	0.010	9.06595	30.00000	Averaged
16 Chrysene	21449	23441	0.010	9.28999	30.00000	Averaged
17 Benzo(b)fluoranthene	20100	22205	0.010	10.47250	30.00000	Averaged
18 Benzo(k)fluoranthene	22291	22603	0.010	1.40257	30.00000	Averaged
19 Benzo(a)pyrene	19995	21282	0.010	6.43738	30.00000	Averaged
20 Indeno(1,2,3-cd)pyrene	16245	15398	0.010	-5.21400	30.00000	Averaged
21 Dibenz(a,h)anthracene	16810	14851	0.010	-11.65394	30.00000	Averaged
22 Benzo(g,h,i)perylene	19067	18524	0.010	-2.84737	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 8.96629
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\ciim027.d

Date : 19-SEP-2015 10:06

Client ID:

Instrument: gc15.i

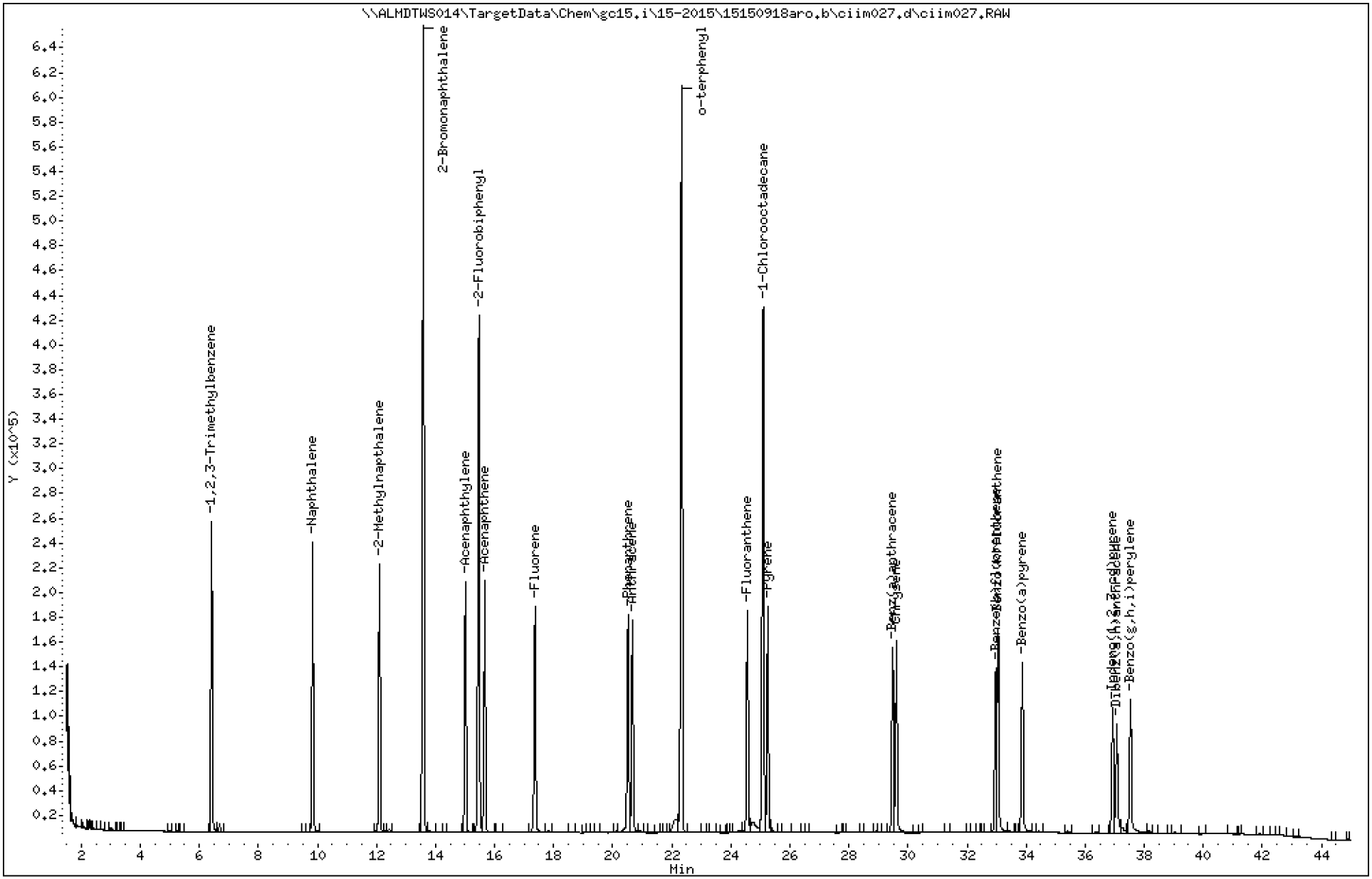
Sample Info: aroccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/19/15 Time: 1006

Lab File ID: CIIM027 Init. Calib. Date(s): 07/08/15 09/16/15

Init. Calib. Times: 0125 2221

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
C10:C12	27096.489	29327.732	0.01	8.23	25.00	AVRG
C12:C16	25246.602	27228.762	0.01	7.85	25.00	AVRG
C16:C21	24573.591	27205.293	0.01	10.71	25.00	AVRG
C21:C36	20667.944	20606.138	0.01	-0.30	25.00	AVRG
1-Chlorooctadecane	16831.202	17780.570	0.01	5.64	25.00	AVRG
o-terphenyl	22719.010	23766.690	0.01	4.61	25.00	AVRG
2-Bromonaphthalene	21765.417	23945.860	0.01	10.02	25.00	AVRG
2-Fluorobiphenyl	14269.306	15808.380	0.01	10.78	25.00	AVRG

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: aroccv
Inj Date : 19-SEP-2015 10:06
Operator : KJH Inst ID: gc15.i
Smp Info : aroccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 21-Sep-2015 08:23 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
S 27 C10:C12	6.300-9.900			1642353	56.0000	60.6113
S 28 C12:C16	10.000-15.750			2287216	84.0000	90.5950
S 29 C16:C21	15.850-25.300			3808741	140.000	154.993
S 30 C21:C36	25.400-37.600			4615775	224.000	223.330
$ 4 1-Chlorooctadecane	25.100	25.083	0.017	1778057	100.000	105.641
$ 6 o-terphenyl	22.333	22.341	-0.008	2376669	100.000	104.611
$ 11 2-Bromonaphthalene	13.591	13.583	0.008	2394586	100.000	110.018
$ 14 2-Fluorobiphenyl	15.466	15.458	0.008	1580838	100.000	110.786

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 19-SEP-2015 10:06
Lab File ID: ciim027.d Init. Cal. Date(s): 08-JUL-2015 16-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 01:25 22:21
Lab Sample ID: aroccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-rang

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 27 C10:C12	27096	29328	0.010	8.23444	25.00000	Averaged
S 28 C12:C16	25247	27229	0.010	7.85119	25.00000	Averaged
S 29 C16:C21	24574	27210	0.010	10.70947	25.00000	Averaged
S 30 C21:C36	20668	20610	0.010	-0.29904	25.00000	Averaged
$ 4 1-Chlorooctadecane	16831	17781	0.010	5.64052	25.00000	Averaged
$ 6 o-terphenyl	22719	23767	0.010	4.61147	25.00000	Averaged
$ 11 2-Bromonaphthalene	21765	23946	0.010	10.01792	25.00000	Averaged
$ 14 2-Fluorobiphenyl	14269	15808	0.010	10.78591	25.00000	Averaged

Average %D / Drift Results.
Calculated Average %D/Drift = 7.26875
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim027.d

Date : 19-SEP-2015 10:06

Client ID:

Instrument: gc15.i

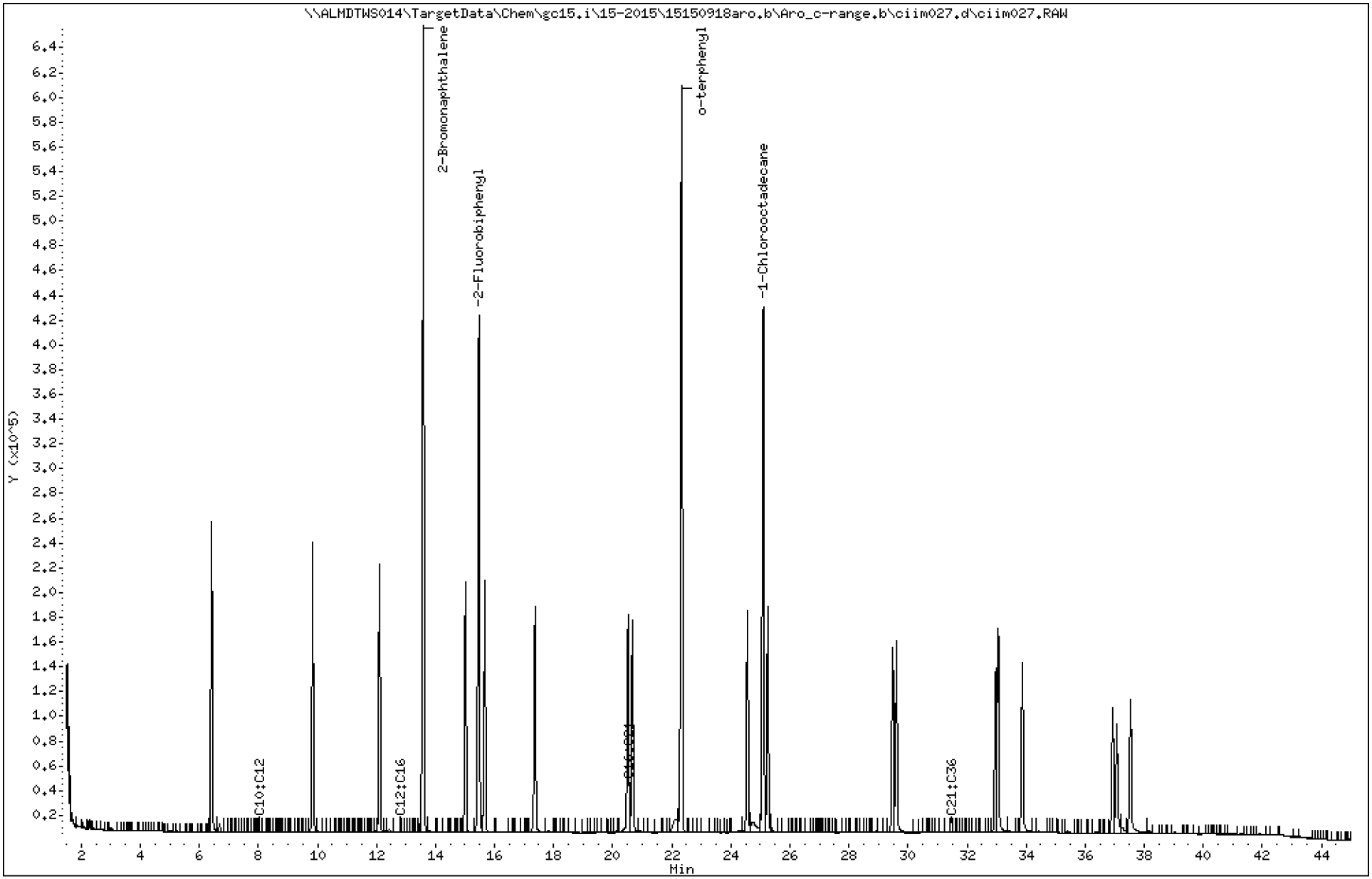
Sample Info: aroccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/21/15 Time: 0904

Lab File ID: CIIM029 Init. Calib. Date(s): 07/08/15 09/16/15

Init. Calib. Times: 0125 2221

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
C10:C12	27096.489	31808.143	0.01	17.39	25.00	AVRG
C12:C16	25246.602	29189.774	0.01	15.62	25.00	AVRG
C16:C21	24573.591	28296.814	0.01	15.15	25.00	AVRG
C21:C36	20667.944	17190.018	0.01	-16.83	25.00	AVRG
1-Chlorooctadecane	16831.202	18624.490	0.01	10.65	25.00	AVRG
o-terphenyl	22719.010	26147.570	0.01	15.09	25.00	AVRG
2-Bromonaphthalene	21765.417	25827.250	0.01	18.66	25.00	AVRG
2-Fluorobiphenyl	14269.306	17133.340	0.01	20.07	25.00	AVRG

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: aroccv
Inj Date : 21-SEP-2015 09:04
Operator : KJH Inst ID: gc15.i
Smp Info : aroccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 22-Sep-2015 06:30 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
S	27 C10:C12	6.300-9.900			1781256	56.0000	65.7375
S	28 C12:C16	10.000-15.750			2451941	84.0000	97.1196
S	29 C16:C21	15.850-25.300			3961554	140.000	161.212
S	30 C21:C36	25.400-37.600			3850564	224.000	186.306
$	4 1-Chlorooctadecane	25.058	25.083	-0.025	1862449	100.000	110.655
$	6 o-terphenyl	22.300	22.341	-0.041	2614757	100.000	115.091
$	11 2-Bromonaphthalene	13.550	13.583	-0.033	2582725	100.000	118.662
$	14 2-Fluorobiphenyl	15.433	15.458	-0.025	1713334	100.000	120.071

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 21-SEP-2015 09:04
Lab File ID: ciim029.d Init. Cal. Date(s): 08-JUL-2015 16-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 01:25 22:21
Lab Sample ID: aroccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-rang

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 27 C10:C12	27096	31808	0.010	17.38843	25.00000	Averaged
S 28 C12:C16	25247	29190	0.010	15.61862	25.00000	Averaged
S 29 C16:C21	24574	28297	0.010	15.15132	25.00000	Averaged
S 30 C21:C36	20668	17190	0.010	-16.82763	25.00000	Averaged
$ 4 1-Chlorooctadecane	16831	18624	0.010	10.65455	25.00000	Averaged
$ 6 o-terphenyl	22719	26148	0.010	15.09115	25.00000	Averaged
$ 11 2-Bromonaphthalene	21765	25827	0.010	18.66187	25.00000	Averaged
$ 14 2-Fluorobiphenyl	14269	17133	0.010	20.07129	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 13.14100
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim029.d

Date : 21-SEP-2015 09:04

Client ID:

Instrument: gc15.i

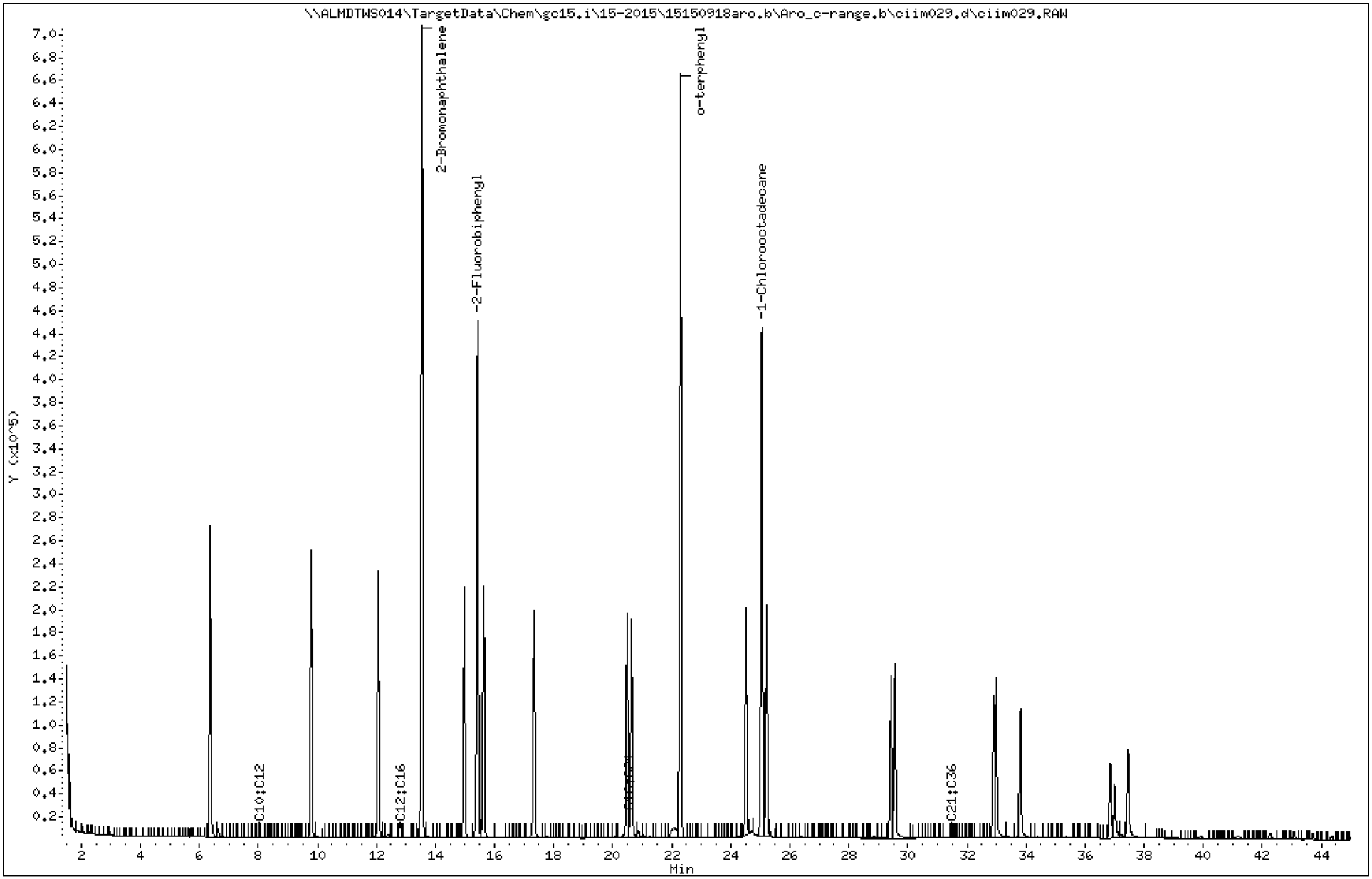
Sample Info: aroccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/22/15 Time: 0433

Lab File ID: CIIM049 Init. Calib. Date(s): 07/08/15 09/16/15

Init. Calib. Times: 0125 2221

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
C10:C12	27096.489	30582.054	0.01	12.86	25.00	AVRG
C12:C16	25246.602	28383.524	0.01	12.42	25.00	AVRG
C16:C21	24573.591	27991.757	0.01	13.91	25.00	AVRG
C21:C36	20667.944	17811.286	0.01	-13.82	25.00	AVRG
1-Chlorooctadecane	16831.202	18709.900	0.01	11.16	25.00	AVRG
o-terphenyl	22719.010	25293.540	0.01	11.33	25.00	AVRG
2-Bromonaphthalene	21765.417	24908.470	0.01	14.44	25.00	AVRG
2-Fluorobiphenyl	14269.306	16434.400	0.01	15.17	25.00	AVRG

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: aroccv
Inj Date : 22-SEP-2015 04:33
Operator : KJH Inst ID: gc15.i
Smp Info : aroccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 22-Sep-2015 06:30 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
S	27 C10:C12	6.300-9.900			1712595	56.0000	63.2036
S	28 C12:C16	10.000-15.750			2384216	84.0000	94.4371
S	29 C16:C21	15.850-25.300			3918846	140.000	159.474
S	30 C21:C36	25.400-37.600			3989728	224.000	193.039
$	4 1-Chlorooctadecane	25.083	25.083	0.000	1870990	100.000	111.162
$	6 o-terphenyl	22.325	22.341	-0.016	2529354	100.000	111.332
$	11 2-Bromonaphthalene	13.566	13.583	-0.017	2490847	100.000	114.441
$	14 2-Fluorobiphenyl	15.450	15.458	-0.008	1643440	100.000	115.173

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 22-SEP-2015 04:33
Lab File ID: ciim049.d Init. Cal. Date(s): 08-JUL-2015 16-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 01:25 22:21
Lab Sample ID: aroccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-rang

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
S 27 C10:C12	27096	30582	0.010	12.86353	25.00000	Averaged
S 28 C12:C16	25247	28384	0.010	12.42512	25.00000	Averaged
S 29 C16:C21	24574	27992	0.010	13.90992	25.00000	Averaged
S 30 C21:C36	20668	17811	0.010	-13.82168	25.00000	Averaged
$ 4 1-Chlorooctadecane	16831	18710	0.010	11.16200	25.00000	Averaged
$ 6 o-terphenyl	22719	25294	0.010	11.33205	25.00000	Averaged
$ 11 2-Bromonaphthalene	21765	24908	0.010	14.44058	25.00000	Averaged
$ 14 2-Fluorobiphenyl	14269	16434	0.010	15.17309	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 13.14100
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim049.d

Date : 22-SEP-2015 04:33

Client ID:

Instrument: gc15.i

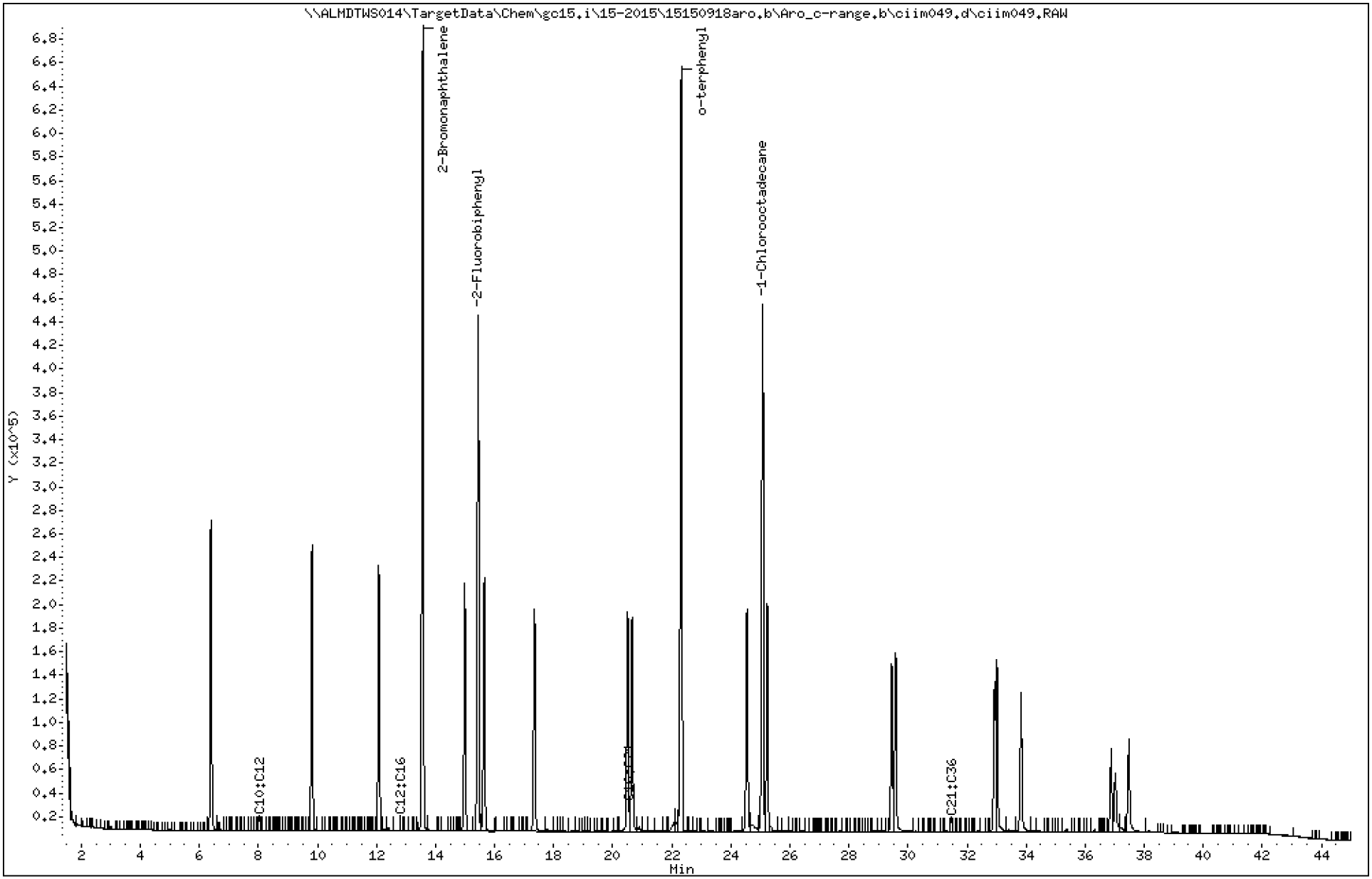
Sample Info: aroccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



QC Raw Data

Blank Raw Data

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
2232806

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232806

Sample wt/vol: 15.0(g/mL) G Lab File ID: CIIM015

Level: (low/med) LOW Date Received: 09/16/15

% Moisture: 0 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/18/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C10_C12	C10:C12	1.0	U	
C12_C16	C12:C16	1.0	U	
C16_C21	C16:C21	1.0	U	
C21_C36	C21:C36	1.0	U	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: 2232806 Client Smp ID: MB for HBN 97702 [E
Inj Date : 18-SEP-2015 22:22
Operator : KJH Inst ID: gc15.i
Smp Info : 2232806;;15.0
Misc Info : ZZ SVGC 39488 NJEPHS_AR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 21-Sep-2015 08:23 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	FINAL (mg/kg)
S 27 C10:C12	6.300-9.900			38392	1.41686	0.188915(a)
S 28 C12:C16	10.000-15.750			14104	0.55865	0.0744866(a)
S 29 C16:C21	15.850-25.300			127949	5.20677	0.694236(a)
S 30 C21:C36	25.400-37.600			156849	7.58900	1.01187(a)
$ 4 1-Chlorooctadecane	25.083	25.083	0.000	32728	1.94448	0.259265(aR)
$ 6 o-terphenyl	22.316	22.341	-0.025	859561	37.8344	5.04459
$ 11 2-Bromonaphthalene	13.566	13.583	-0.017	714193	32.8132	4.37509
$ 14 2-Fluorobiphenyl	15.450	15.458	-0.008	206614	14.4796	1.93061(R)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: Aro_c-range.b
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232806 Client Smp ID: MB for HBN 97702 [E
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: BLANK
SpikeList File: C-range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c
Misc Info: ZZ SVGC 39488 NJEPHS_AR

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 4 1-Chlorooctadecane	6.66667	0.259265	3.89*	40-140
$ 6 o-terphenyl	6.66667	5.04459	75.67	40-140
$ 11 2-Bromonaphthalene	6.66667	4.37509	65.63	40-140
$ 14 2-Fluorobiphenyl	6.66667	1.93061	28.96*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 2232806
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHS_AR

Client SDG: Aro_c-range.b
Client Smp ID: MB for HBN 97702 [E
Sample Point:
Date Received: 16-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	0.188915	J
C12_C16	C12:C16	0.0744866	J
C16_C21	C16:C21	0.694236	J
C21_C36	C21:C36	1.01187	J
3386-33-2	1-Chlorooctadecane	0.259265	J
84-15-1	o-terphenyl	5.04459	
580-13-2	2-Bromonaphthalene	4.37509	
321-60-8	2-Fluorobiphenyl	1.93061	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim015.d

Date : 18-SEP-2015 22:22

Client ID: MB for HBN 97702 [E

Instrument: gc15.i

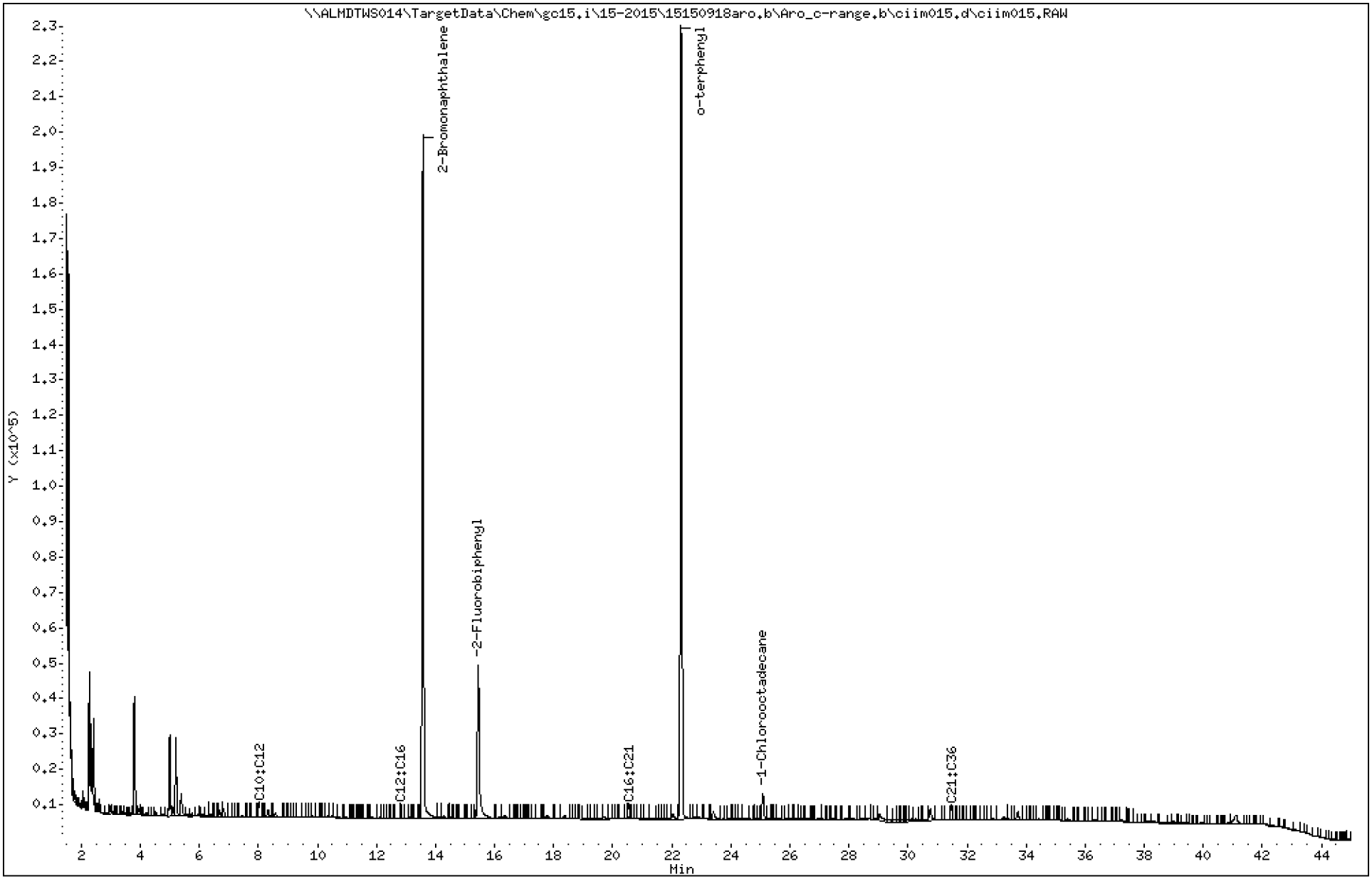
Sample Info: 2232806;;15.0

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Duplicate Raw Data

FORM 1 ALS Environmental-R SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BLDG1203 -SS-EX1-04(

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2095064004

Sample wt/vol: 15.3(g/mL) G Lab File ID: CIIM023

Level: (low/med) LOW Date Received: 09/11/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/19/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C10_C12	C10:C12		1.11	_____
C12_C16	C12:C16		0.63	_____
C16_C21	C16:C21		8.8	_____
C21_C36	C21:C36		15.8	_____

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: 2095064004 Client Smp ID: BLDG1203-SS-EX1-04(
Inj Date : 19-SEP-2015 06:11
Operator : KJH Inst ID: gc15.i
Smp Info : 2095064004;;15.3
Misc Info : ZZ SVGC 39488 NJEPHS_AR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 21-Sep-2015 08:23 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.300	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C10:C12	6.300-9.900			56559	2.08732	0.272852(a)
S 28 C12:C16	10.000-15.750			104174	4.12626	0.539380(M)
S 29 C16:C21	15.850-25.300			1428045	58.1130	7.59647(M)
S 30 C21:C36	25.400-37.600			2156019	104.317	13.6362(M)
$ 6 o-terphenyl	22.325	22.341	-0.016	157119	6.91575	0.904020(RM)
$ 11 2-Bromonaphthalene	13.583	13.583	0.000	82015	3.76813	0.492566(aRM)
$ 14 2-Fluorobiphenyl	15.466	15.458	0.008	35165	2.46438	0.322141(aRM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: ALS Environmental-R Client SDG: AER122|BLDG1203-SS-
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2095064004 Client Smp ID: BLDG1203-SS-EX1-04(
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: C-range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c
Misc Info: ZZ SVGC 39488 NJEPHS_AR

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 4 1-Chlorooctadecane	6.53595	0.000000	*	40-140
$ 6 o-terphenyl	6.53595	0.904020	13.83*	40-140
$ 11 2-Bromonaphthalene	6.53595	0.492566	7.54*	40-140
$ 14 2-Fluorobiphenyl	6.53595	0.322141	4.93*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name: ALS Environmental-R
Lab Smp Id: 2095064004
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHS_AR

Client SDG: AER122|BLDG1203-SS-
Client Smp ID: BLDG1203-SS-EX1-04(
Sample Point:
Date Received: 11-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	0.272852	J
C12_C16	C12:C16	0.539380	
C16_C21	C16:C21	7.59647	
C21_C36	C21:C36	13.6362	
3386-33-2	1-Chlorooctadecane	0.696732	U
84-15-1	o-terphenyl	0.904020	
580-13-2	2-Bromonaphthalene	0.492566	J
321-60-8	2-Fluorobiphenyl	0.322141	J

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim023.d

Date : 19-SEP-2015 06:11

Client ID: BLDG1203-SS-EX1-04(

Instrument: gc15.i

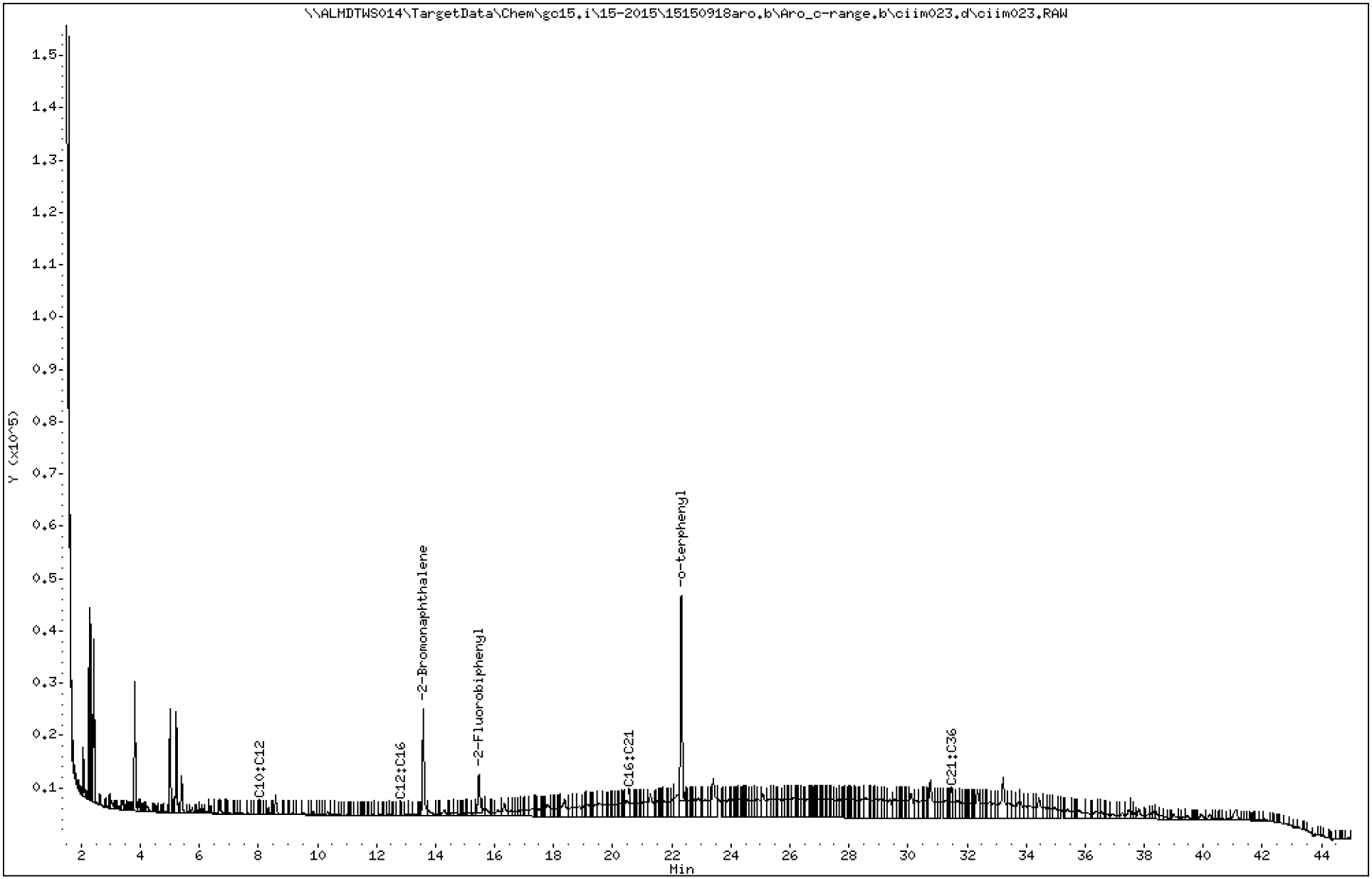
Sample Info: 2095064004::15.3

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Provided for informational purposes only

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: 2095064004 Client Smp ID: BLDG1203-SS-EX1-04(
Inj Date : 22-SEP-2015 00:39
Operator : KJH Inst ID: gc15.i
Smp Info : 2095064004;;15.3
Misc Info : ZZ SVGC 39488 NJEPHS_AR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 22-Sep-2015 06:30 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.300	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C10:C12	6.300-9.900			44738	1.65106	0.215825(a)
S 28 C12:C16	10.000-15.750			24472	0.96932	0.126708(a)
S 29 C16:C21	15.850-25.300			190788	7.76394	1.01489
S 30 C21:C36	25.400-37.600			253104	12.2462	1.60081
$ 4 1-Chlorooctadecane	25.050	25.083	-0.033	7574	0.45000	0.0588232(aR)
$ 6 o-terphenyl	22.283	22.341	-0.058	176472	7.76759	1.01537(R)
$ 11 2-Bromonaphthalene	13.550	13.583	-0.033	92021	4.22785	0.552661(aR)
$ 14 2-Fluorobiphenyl	15.433	15.458	-0.025	36019	2.52423	0.329965(aR)

rerun to confirm low surrogate results--report original analysis

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

ALS Environmental Services

RECOVERY REPORT

Client Name: ALS Environmental-R Client SDG: AER122|BLDG1203-SS-
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2095064004 Client Smp ID: BLDG1203-SS-EX1-04(
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: C-range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c
Misc Info: ZZ SVGC 39488 NJEPHS_AR

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 4 1-Chlorooctadecane	6.53595	0.0588232	0.90*	40-140
$ 6 o-terphenyl	6.53595	1.01537	15.54*	40-140
$ 11 2-Bromonaphthalene	6.53595	0.552661	8.46*	40-140
$ 14 2-Fluorobiphenyl	6.53595	0.329965	5.05*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name: ALS Environmental-R
Lab Smp Id: 2095064004
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHS_AR

Client SDG: AER122|BLDG1203-SS-
Client Smp ID: BLDG1203-SS-EX1-04(
Sample Point:
Date Received: 11-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	0.215825	J
C12_C16	C12:C16	0.126708	J
C16_C21	C16:C21	1.01489	
C21_C36	C21:C36	1.60081	
3386-33-2	1-Chlorooctadecane	0.0588232	J
84-15-1	o-terphenyl	1.01537	
580-13-2	2-Bromonaphthalene	0.552661	J
321-60-8	2-Fluorobiphenyl	0.329965	J

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim045.d

Date : 22-SEP-2015 00:39

Client ID: BLDG1203-SS-EX1-04(

Instrument: gc15.i

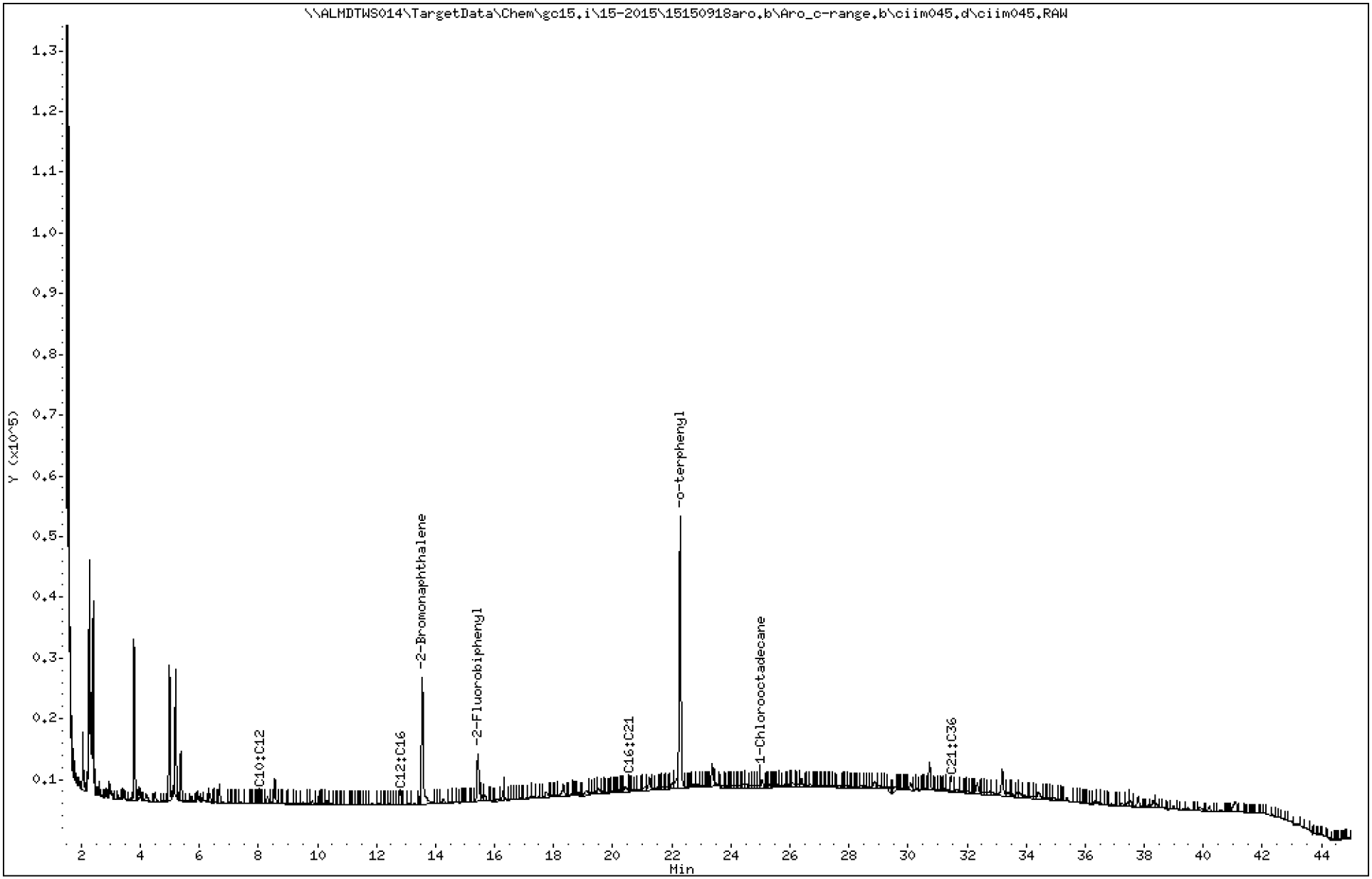
Sample Info: 2095064004;;15.3

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
BLDG1203-SS-EX1-DUP

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232810

Sample wt/vol: 15.5(g/mL) G Lab File ID: CIIM024

Level: (low/med) LOW Date Received: 09/11/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/19/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C10_C12	C10:C12		0.23	J
C12_C16	C12:C16		1.7	
C16_C21	C16:C21		48.6	E
C21_C36	C21:C36		43.9	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: 2232810 Client Smp ID: 2095064004DUP
Inj Date : 19-SEP-2015 07:09
Operator : KJH Inst ID: gc15.i
Smp Info : 2232810;;15.5
Misc Info : ZZ SVGC 39488 NJEPHS_AR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 21-Sep-2015 08:23 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.500	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						CONCENTRATIONS ON-COLUMN (ng/uL)	FINAL (mg/kg)	
Compounds		RT	EXP RT	DLT RT	RESPONSE			
S 27	C10:C12	6.300-9.900			42314	1.56160	0.201497(a)	
S 28	C12:C16	10.000-15.750			285447	11.3064	1.45888(M)	
S 29	C16:C21	15.850-25.300			7975122	324.540	41.8762(AM)	LR at dilution
S 30	C21:C36	25.400-37.600			6061960	293.303	37.8455(M)	
$ 6	o-terphenyl	22.316	22.341	-0.025	629247	27.6969	3.57380(M)	
$ 11	2-Bromonaphthalene	13.566	13.583	-0.017	631205	29.0004	3.74198(M)	
$ 14	2-Fluorobiphenyl	15.441	15.458	-0.017	174097	12.2008	1.57430(RM)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: Aro_c-range.b
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232810 Client Smp ID: 2095064004DUP
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: C-range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c
Misc Info: ZZ SVGC 39488 NJEPHS_AR

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 4 1-Chlorooctadecane	6.45161	0.000000	*	40-140
$ 6 o-terphenyl	6.45161	3.57380	55.39	40-140
$ 11 2-Bromonaphthalene	6.45161	3.74198	58.00	40-140
$ 14 2-Fluorobiphenyl	6.45161	1.57430	24.40*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 2232810
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHS_AR

Client SDG: Aro_c-range.b
Client Smp ID: 2095064004DUP
Sample Point:
Date Received: 11-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	0.201497	J
C12_C16	C12:C16	1.45888	
C16_C21	C16:C21	41.8762	E
C21_C36	C21:C36	37.8455	
3386-33-2	1-Chlorooctadecane	0.687742	U
84-15-1	o-terphenyl	3.57380	
580-13-2	2-Bromonaphthalene	3.74198	
321-60-8	2-Fluorobiphenyl	1.57430	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim024.d

Date : 19-SEP-2015 07:09

Client ID: 2095064004DUP

Instrument: gc15.i

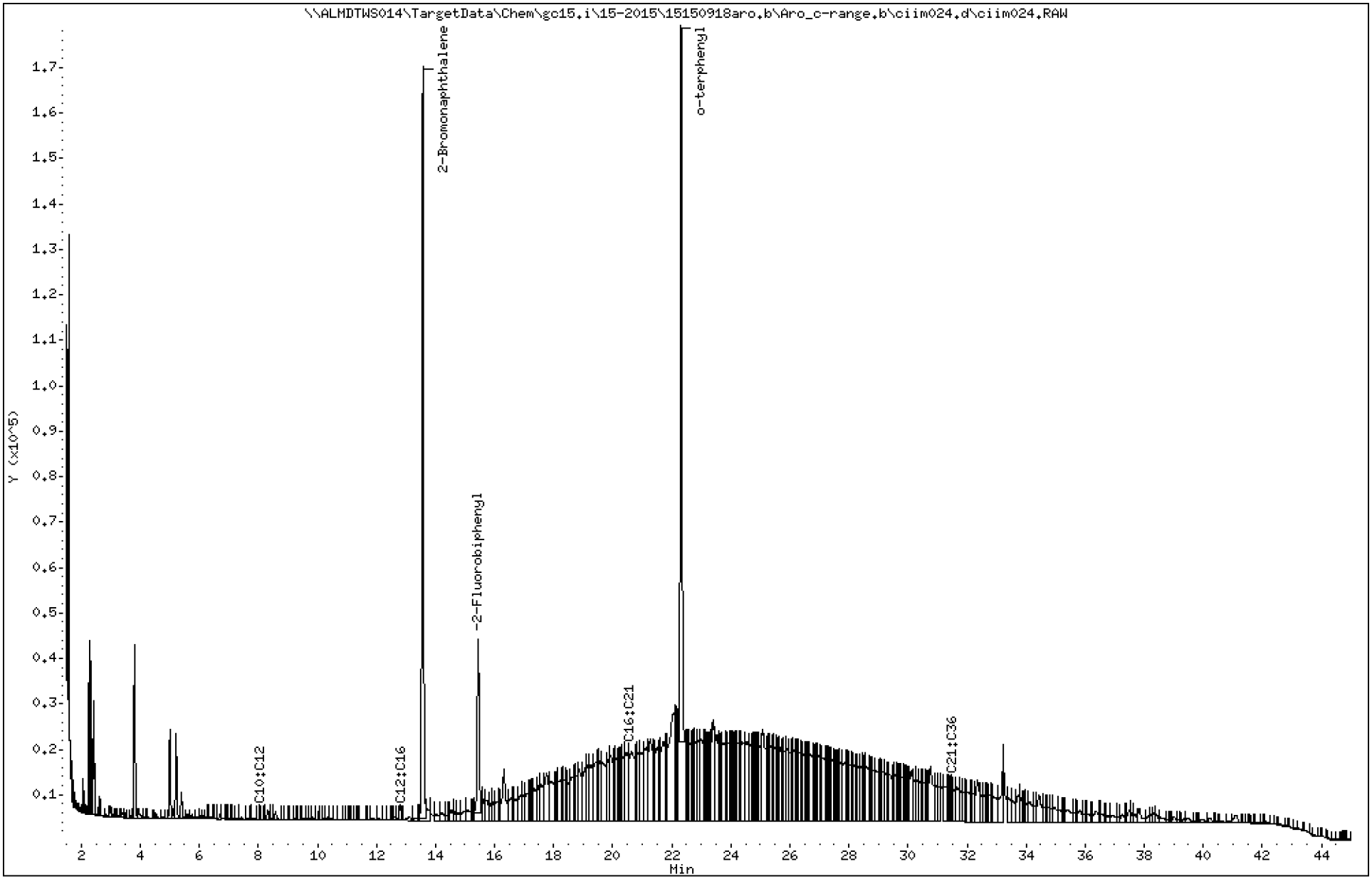
Sample Info: 2232810;;15.5

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
BLDG1203-SS-EX1-DUP

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232810

Sample wt/vol: 15.5(g/mL) G Lab File ID: CIIM046

Level: (low/med) LOW Date Received: 09/11/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/22/15

Injection Volume: 2.0(uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C10_C12	C10:C12	0.35	J	
C12_C16	C12:C16	2.4	J	
C16_C21	C16:C21	47.3	_____	
C21_C36	C21:C36	35.0	_____	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Lab Smp Id: 2232810 Client Smp ID: 2095064004DUP
Inj Date : 22-SEP-2015 01:37
Operator : KJH Inst ID: gc15.i
Smp Info : 2232810;;15.5;;;;;5
Misc Info : ZZ SVGC 39488 NJEPHS_AR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-
Meth Date : 22-Sep-2015 06:30 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 19
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.500	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C10:C12	6.300-9.900			12701	0.46873	0.302408(a)
S 28 C12:C16	10.000-15.750			82037	3.24943	2.09640(aM)
S 29 C16:C21	15.850-25.300			1552877	63.1929	40.7696(M)
S 30 C21:C36	25.400-37.600			965445	46.7122	30.1369(M)
$ 6 o-terphenyl	22.291	22.341	-0.050	163000	7.17461	4.62878(M)
$ 11 2-Bromonaphthalene	13.558	13.583	-0.025	117850	5.41455	3.49326(M)
$ 14 2-Fluorobiphenyl	15.450	15.458	-0.008	26161	1.83338	1.18282(aRM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: Aro_c-range.b
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232810 Client Smp ID: 2095064004DUP
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: C-range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c
Misc Info: ZZ SVGC 39488 NJEPHS_AR

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 4 1-Chlorooctadecane	6.45161	0.000000	*	40-140
$ 6 o-terphenyl	6.45161	4.62878	71.75	40-140
$ 11 2-Bromonaphthalene	6.45161	3.49326	54.15	40-140
$ 14 2-Fluorobiphenyl	6.45161	1.18282	18.33*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 2232810
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHS_AR

Client SDG: Aro_c-range.b
Client Smp ID: 2095064004DUP
Sample Point:
Date Received: 11-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C10_C12	C10:C12	0.302408	J
C12_C16	C12:C16	2.09640	J
C16_C21	C16:C21	40.7696	
C21_C36	C21:C36	30.1369	
3386-33-2	1-Chlorooctadecane	3.43871	U
84-15-1	o-terphenyl	4.62878	
580-13-2	2-Bromonaphthalene	3.49326	
321-60-8	2-Fluorobiphenyl	1.18282	J

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\Aro_c-range.b\ciim046.d

Date : 22-SEP-2015 01:37

Client ID: 2095064004DUP

Instrument: gc15.i

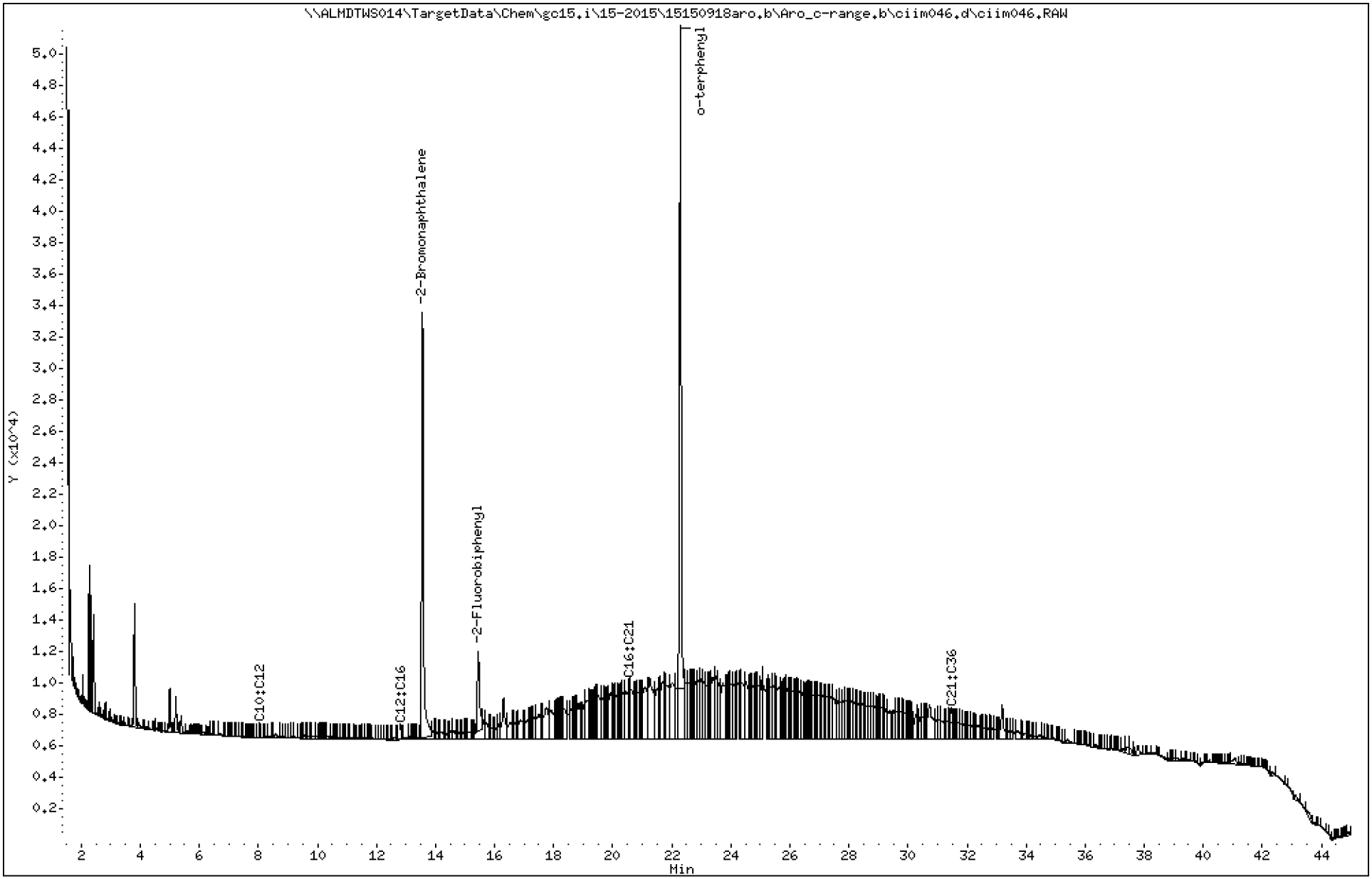
Sample Info: 2232810;;15.5;;;;;5

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



LCS Raw Data

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
2232807LCS

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232807

Sample wt/vol: 15.0(g/mL) G Lab File ID: CIIM016

Level: (low/med) LOW Date Received: 09/16/15

% Moisture: 0 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/18/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
526-73-8	1,2,3-Trimethylbenzene	0.13	J	
86-73-7	Fluorene	0.23	J	
85-01-8	Phenanthrene	0.24	J	
120-12-7	Anthracene	0.24	J	
206-44-0	Fluoranthene	0.27	J	
129-00-0	Pyrene	0.29	J	
56-55-3	Benz(a)anthracene	0.21	J	
218-01-9	Chrysene	0.25	J	
205-99-2	Benzo(b)fluoranthene	0.20	J	
207-08-9	Benzo(k)fluoranthene	0.24	J	
50-32-8	Benzo(a)pyrene	0.20	J	
193-39-5	Indeno(1,2,3-cd)pyrene	0.14	J	
53-70-3	Dibenz(a,h)anthracene	0.13	J	
191-24-2	Benzo(g,h,i)perylene	0.15	J	
91-20-3	Naphthalene	0.17	J	
91-57-6	2-Methylnapthalene	0.18	J	
208-96-8	Acenaphthylene	0.21	J	
83-32-9	Acenaphthene	0.25	J	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\ciim01
Lab Smp Id: 2232807 Client Smp ID: LCS for HBN 97702 [
Inj Date : 18-SEP-2015 23:20
Operator : KJH Inst ID: gc15.i
Smp Info : 2232807;;15.0
Misc Info : ZZ SVGC 39488 NJEPHSQAR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\AroEPH
Meth Date : 21-Sep-2015 08:25 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	FINAL (mg/kg)
	1 1,2,3-Trimethylbenzene	6.408	6.408	0.000	25660	0.95596	0.127461(aR)
	2 Naphthalene	9.825	9.825	0.000	33222	1.30846	0.174461(a)
	3 2-Methylnapthalene	12.091	12.091	0.000	34069	1.38199	0.184266(a)
$	4 1-Chlorooctadecane	25.083	25.083	0.000	40217	2.40012	0.320016(aR)
	5 Acenaphthylene	15.000	15.000	0.000	37295	1.59347	0.212462(a)
$	6 o-terphenyl	22.316	22.341	-0.025	766497	33.7549	4.50065
	7 Acenaphthene	15.650	15.650	0.000	46392	1.87851	0.250468(a)
	8 Fluorene	17.375	17.358	0.017	38769	1.70884	0.227845(a)
	9 Phenanthrene	20.516	20.516	0.000	38819	1.76426	0.235234(a)
	10 Anthracene	20.666	20.666	0.000	38629	1.81704	0.242272(a)
$	11 2-Bromonaphthalene	13.566	13.566	0.000	902331	41.8138	5.57517
	12 Fluoranthene	24.558	24.550	0.008	45722	2.05586	0.274115(a)
	13 Pyrene	25.250	25.241	0.009	50034	2.19866	0.293154(a)
$	14 2-Fluorobiphenyl	15.441	15.458	-0.017	312930	21.9956	2.93274
	15 Benz(a)anthracene	29.475	29.466	0.009	31047	1.55404	0.207205(a)
	16 Chrysene	29.600	29.591	0.009	39502	1.84170	0.245560(a)
	17 Benzo(b)fluoranthene	32.950	32.966	-0.016	30808	1.53273	0.204364(a)
	18 Benzo(k)fluoranthene	33.025	33.050	-0.025	40288	1.80741	0.240988(a)
	19 Benzo(a)pyrene	33.858	33.866	-0.008	29768	1.48878	0.198504(a)
	20 Indeno(1,2,3-cd)pyrene	36.916	36.941	-0.025	16451	1.01271	0.135027(aR)

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
21 Dibenz(a,h)anthracene	37.066	37.075	-0.009	16258	0.96714	0.128953(aR)
22 Benzo(g,h,i)perylene	37.508	37.550	-0.042	20963	1.09946	0.146595(aR)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: 15150918aro.b
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232807 Client Smp ID: LCS for HBN 97702 [
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: LCS
SpikeList File: aro.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\AroEP
Misc Info: ZZ SVGC 39488 NJEPHSQAR

	SPIKE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
1	1,2,3-Trimethylben	0.373333	0.127461	34.14*	40-140
2	Naphthalene	0.373333	0.174461	46.73	40-140
3	2-Methylnapthalene	0.373333	0.184266	49.36	40-140
5	Acenaphthylene	0.373333	0.212462	56.91	40-140
7	Acenaphthene	0.373333	0.250468	67.09	40-140
8	Fluorene	0.373333	0.227845	61.03	40-140
9	Phenanthrene	0.373333	0.235234	63.01	40-140
10	Anthracene	0.373333	0.242272	64.89	40-140
12	Fluoranthene	0.373333	0.274115	73.42	40-140
13	Pyrene	0.373333	0.293154	78.52	40-140
15	Benz(a)anthracene	0.373333	0.207205	55.50	40-140
16	Chrysene	0.373333	0.245560	65.77	40-140
17	Benzo(b)fluoranthe	0.373333	0.204364	54.74	40-140
18	Benzo(k)fluoranthe	0.373333	0.240988	64.55	40-140
19	Benzo(a)pyrene	0.373333	0.198504	53.17	40-140
20	Indeno(1,2,3-cd)py	0.373333	0.135027	36.17*	40-140
21	Dibenz(a,h)anthrac	0.373333	0.128953	34.54*	40-140
22	Benzo(g,h,i)peryle	0.373333	0.146595	39.27*	40-140

	SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 4	1-Chlorooctadecane	6.66667	0.320016	4.80*	40-140
$ 6	o-terphenyl	6.66667	4.50065	67.51	40-140
$ 11	2-Bromonaphthalene	6.66667	5.57517	83.63	40-140
$ 14	2-Fluorobiphenyl	6.66667	2.93274	43.99	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 2232807
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHSQAR

Client SDG: 15150918aro.b
Client Smp ID: LCS for HBN 97702 [
Sample Point:
Date Received: 16-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
526-73-8	1,2,3-Trimethylbenzene	0.127461	J
91-20-3	Naphthalene	0.174461	J
91-57-6	2-Methylnapthalene	0.184266	J
208-96-8	Acenaphthylene	0.212462	J
83-32-9	Acenaphthene	0.250468	J
86-73-7	Fluorene	0.227845	J
85-01-8	Phenanthrene	0.235234	J
120-12-7	Anthracene	0.242272	J
206-44-0	Fluoranthene	0.274115	J
129-00-0	Pyrene	0.293154	J
56-55-3	Benz(a)anthracene	0.207205	J
218-01-9	Chrysene	0.245560	J
205-99-2	Benzo(b)fluoranthene	0.204364	J
207-08-9	Benzo(k)fluoranthene	0.240988	J
50-32-8	Benzo(a)pyrene	0.198504	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.135027	J
53-70-3	Dibenz(a,h)anthracene	0.128953	J
191-24-2	Benzo(g,h,i)perylene	0.146595	J
3386-33-2	1-Chlorooctadecane	0.320016	J
84-15-1	o-terphenyl	4.50065	
580-13-2	2-Bromonaphthalene	5.57517	
321-60-8	2-Fluorobiphenyl	2.93274	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\ciim016.d

Date : 18-SEP-2015 23:20

Client ID: LCS for HBN 97702 [

Instrument: gc15.i

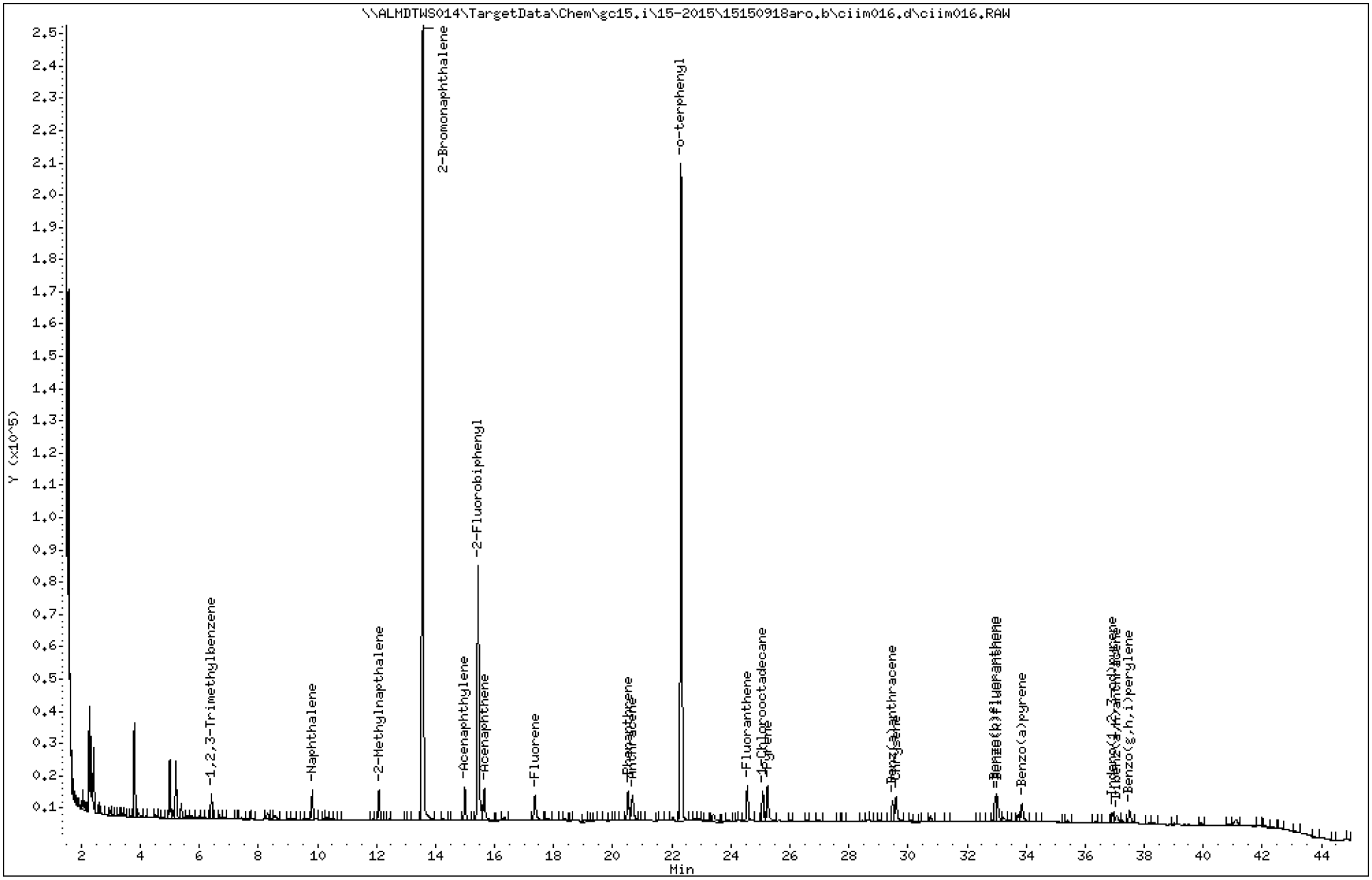
Sample Info: 2232807;;15.0

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
2232808LCSD

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232808

Sample wt/vol: 15.0(g/mL) G Lab File ID: CIIM017

Level: (low/med) LOW Date Received: 09/16/15

% Moisture: 0 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/19/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
526-73-8	1,2,3-Trimethylbenzene	0.11	J
86-73-7	Fluorene	0.22	J
85-01-8	Phenanthrene	0.22	J
120-12-7	Anthracene	0.23	J
206-44-0	Fluoranthene	0.27	J
129-00-0	Pyrene	0.27	J
56-55-3	Benz(a)anthracene	0.19	J
218-01-9	Chrysene	0.24	J
205-99-2	Benzo(b)fluoranthene	0.21	J
207-08-9	Benzo(k)fluoranthene	0.22	J
50-32-8	Benzo(a)pyrene	0.18	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.12	J
53-70-3	Dibenz(a,h)anthracene	0.11	J
191-24-2	Benzo(g,h,i)perylene	0.13	J
91-20-3	Naphthalene	0.16	J
91-57-6	2-Methylnapthalene	0.16	J
208-96-8	Acenaphthylene	0.19	J
83-32-9	Acenaphthene	0.23	J

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\ciim01
Lab Smp Id: 2232808 Client Smp ID: LCSD for HBN 97702
Inj Date : 19-SEP-2015 00:19
Operator : KJH Inst ID: gc15.i
Smp Info : 2232808;;15.0
Misc Info : ZZ SVGC 39488 NJEPHSQAR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\AroEPH
Meth Date : 21-Sep-2015 08:25 kjh Quant Type: ESTD
Cal Date : 16-SEP-2015 22:21 Cal File: cigm013.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
	1 1,2,3-Trimethylbenzene	6.408	6.408	0.000	22702	0.84576	0.112767(aR)
	2 Naphthalene	9.833	9.825	0.008	29709	1.17010	0.156013(a)
	3 2-Methylnapthalene	12.100	12.091	0.009	29794	1.20858	0.161144(a)
$	4 1-Chlorooctadecane	25.075	25.083	-0.008	50895	3.03738	0.404984(aR)
	5 Acenaphthylene	15.000	15.000	0.000	34067	1.45555	0.194073(a)
$	6 o-terphenyl	22.308	22.341	-0.033	801593	35.3004	4.70672
	7 Acenaphthene	15.650	15.650	0.000	43276	1.75233	0.233645(a)
	8 Fluorene	17.366	17.358	0.008	36895	1.62623	0.216831(a)
	9 Phenanthrene	20.516	20.516	0.000	36811	1.67300	0.223066(a)
	10 Anthracene	20.666	20.666	0.000	37037	1.74215	0.232287(a)
$	11 2-Bromonaphthalene	13.566	13.566	0.000	806968	37.3947	4.98596
	12 Fluoranthene	24.550	24.550	0.000	44423	1.99745	0.266327(a)
	13 Pyrene	25.241	25.241	0.000	45386	1.99441	0.265921(a)
$	14 2-Fluorobiphenyl	15.441	15.458	-0.017	288139	20.2530	2.70040
	15 Benz(a)anthracene	29.475	29.466	0.009	28521	1.42760	0.190347(a)
	16 Chrysene	29.591	29.591	0.000	38783	1.80818	0.241090(a)
	17 Benzo(b)fluoranthene	32.950	32.966	-0.016	31052	1.54487	0.205983(a)
	18 Benzo(k)fluoranthene	33.025	33.050	-0.025	36156	1.62204	0.216271(a)
	19 Benzo(a)pyrene	33.866	33.866	0.000	27514	1.37605	0.183473(a)
	20 Indeno(1,2,3-cd)pyrene	36.933	36.941	-0.008	15116	0.93052	0.124070(aR)

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
21 Dibenz(a,h)anthracene	37.083	37.075	0.008	14076	0.83734	0.111646(aR)
22 Benzo(g,h,i)perylene	37.516	37.550	-0.034	18679	0.97967	0.130623(aR)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: 15150918aro.b
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232808 Client Smp ID: LCSD for HBN 97702
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: LCS
SpikeList File: aro.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\AroEP
Misc Info: ZZ SVGC 39488 NJEPHSQAR

	SPIKE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
1	1,2,3-Trimethylben	0.373333	0.112767	30.21*	40-140
2	Naphthalene	0.373333	0.156013	41.79	40-140
3	2-Methylnapthalene	0.373333	0.161144	43.16	40-140
5	Acenaphthylene	0.373333	0.194073	51.98	40-140
7	Acenaphthene	0.373333	0.233645	62.58	40-140
8	Fluorene	0.373333	0.216831	58.08	40-140
9	Phenanthrene	0.373333	0.223066	59.75	40-140
10	Anthracene	0.373333	0.232287	62.22	40-140
12	Fluoranthene	0.373333	0.266327	71.34	40-140
13	Pyrene	0.373333	0.265921	71.23	40-140
15	Benz(a)anthracene	0.373333	0.190347	50.99	40-140
16	Chrysene	0.373333	0.241090	64.58	40-140
17	Benzo(b)fluoranthe	0.373333	0.205983	55.17	40-140
18	Benzo(k)fluoranthe	0.373333	0.216271	57.93	40-140
19	Benzo(a)pyrene	0.373333	0.183473	49.14	40-140
20	Indeno(1,2,3-cd)py	0.373333	0.124070	33.23*	40-140
21	Dibenz(a,h)anthrac	0.373333	0.111646	29.91*	40-140
22	Benzo(g,h,i)peryle	0.373333	0.130623	34.99*	40-140

	SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 4	1-Chlorooctadecane	6.66667	0.404984	6.07*	40-140
$ 6	o-terphenyl	6.66667	4.70672	70.60	40-140
$ 11	2-Bromonaphthalene	6.66667	4.98596	74.79	40-140
$ 14	2-Fluorobiphenyl	6.66667	2.70040	40.51	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 2232808
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHSQAR

Client SDG: 15150918aro.b
Client Smp ID: LCSD for HBN 97702
Sample Point:
Date Received: 16-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
526-73-8	1,2,3-Trimethylbenzene	0.112767	J
91-20-3	Naphthalene	0.156013	J
91-57-6	2-Methylnapthalene	0.161144	J
208-96-8	Acenaphthylene	0.194073	J
83-32-9	Acenaphthene	0.233645	J
86-73-7	Fluorene	0.216831	J
85-01-8	Phenanthrene	0.223066	J
120-12-7	Anthracene	0.232287	J
206-44-0	Fluoranthene	0.266327	J
129-00-0	Pyrene	0.265921	J
56-55-3	Benz(a)anthracene	0.190347	J
218-01-9	Chrysene	0.241090	J
205-99-2	Benzo(b)fluoranthene	0.205983	J
207-08-9	Benzo(k)fluoranthene	0.216271	J
50-32-8	Benzo(a)pyrene	0.183473	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.124070	J
53-70-3	Dibenz(a,h)anthracene	0.111646	J
191-24-2	Benzo(g,h,i)perylene	0.130623	J
3386-33-2	1-Chlorooctadecane	0.404984	J
84-15-1	o-terphenyl	4.70672	
580-13-2	2-Bromonaphthalene	4.98596	
321-60-8	2-Fluorobiphenyl	2.70040	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918aro.b\ciim017.d

Date : 19-SEP-2015 00:19

Client ID: LCSD for HBN 97702

Instrument: gc15.i

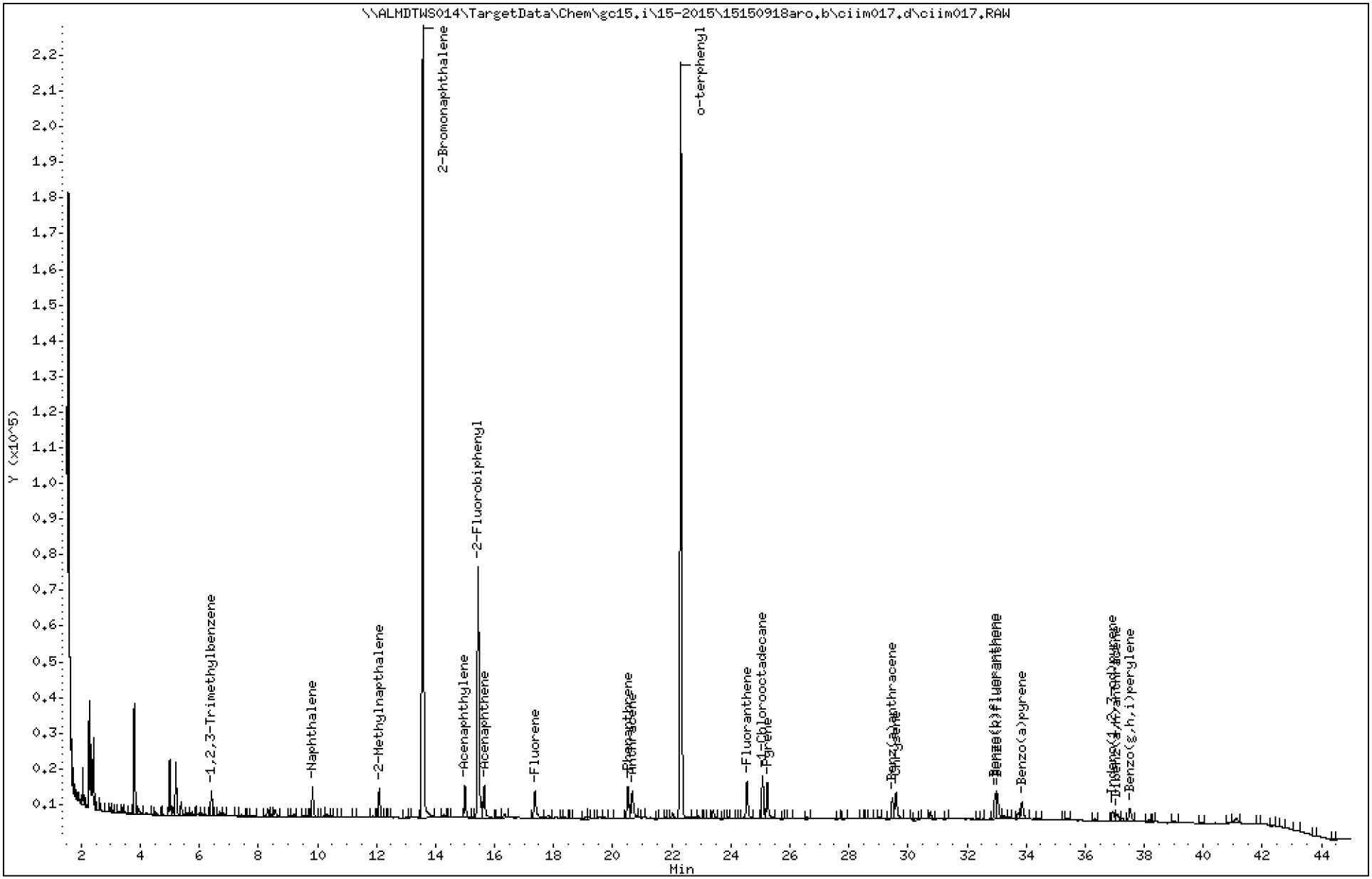
Sample Info: 2232808;;15.0

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Preparation Logbook

GENERAL ORGANIC EXTRACTION

EPA Method: 3546/NSEPII Batch 40752
Rule: 3546NSEPHL 3546NSEPHR 3546NSEAHL 40753
HBN: 97701 97702 97703 40754
Extraction Apparatus Name: Microwave
Extraction Apparatus ID#: MO-2249

Surrogate Amount: 1ml
Surrogate Lot #: OP19657
Tech: KAC

Steam Bath ID#:
Initial Temp. of Bath:
Final Temp. of Bath:
Thermometer ID#:

	Date	Time	Tech		Time On	Time Off	Total Hours
Extraction:	9/16/15	0200	KAC	Soxhlet:			
				Acid:			
Concentration:	9/16/15	0310	KAC	Base:			

N-EVAP ID#:: 50731
Initial Temp. : 65°C
Final Temp. : 106°C
Thermometer ID: TH25

Line #	Sample #	pH (1)	Start/Stop Time (2)	Sample Amount	Final Volume	QC Spike lot#	QC Spike Amount	Cleanup Required	Cleanup Method	QC Type	Sample Specific Comments
1.)	2232801 2232806 2232811			15.0g	2ml					MB	
2.)	2232807 2232801 2232812			15.0g	2ml	OP19998 OP19999	1ml KAC 1ml KAC			LCS	
3.)	2232803 2232808 2232813			15.0g	2ml	OP19998 OP19999	1ml KAC 1ml KAC			LCSD	
4.)	209506300.			15.1g	2ml					—	
5.)	209506400I			15.2g	2ml					—	
6.)	2232804 2232801			15.8g	2ml	OP19998 OP19999	1ml KAC 1ml KAC			MS	
7.)	209506400 2			15.2g	2ml					—	
8.)	209506400 3			15.4g	2ml					—	
9.)	209506400 4			15.3g	2ml					—	
10.)	2232805 2232810			15.5g	2ml					DUP	
11.)	209506400 5			15.7g	2ml					—	
12.)	209511900I			15.4g	2ml					—	
13.)											
14.)											KAC
15.)											9/16/15

Comments:

	Volume Aliquoted	I.S. Volume Added	I.S. ID#	Date	Time	Tech
1.) Reagent Sand OP18853 Na2SO4 OP18479 CH2Cl2 Chem 106567						
2.) Reagent: Hexane (Baker) 110031						
3.) Reagent: GPH Fractionating Surrogate OP19629						
4.)						

5.) Internal QCS Required chain 112644 and chain 112647 9/16/15 KAC
6.) (1) pH adjustments for all extraction steps. (2) Start/Stop Time for SPE extractions.

Approved by: KAC 9/16/15
Date Approved: 9/16/15
Revision 10/11

Page #: 26 Batched by: KAC

Reviewed by: LFH
Date Reviewed: 9/16/15

Analytical Logbook

Turbochrom Sequence File C:\METH_SEQ\GC15\ciga.seq
Printed by : manager on: 9/18/2015 7:19:11 AM
Created by : manager on: 9/16/2015 8:06:38 AM
Edited by : manager on: 9/17/2015 4:44:57 PM
Number of Times Edited : 10
Description: eph

Sequence File Header Information:
Number of Rows : 72
Instrument Type : 900 Series Intelligent Interface
Injection Type : SINGLE

Sequence Sample Descriptions - Channel A

Row	Type	Name
1	Sample	baseline
2	Sample	ccvscreen;;;2
3	Sample	2095419001;;15.4
4	Sample	2232811;;15.0
5	Sample	2232812;;15.0
6	Sample	2232813;;15.0
7	Sample	2095419001;;15.4;;;;;5
8	Sample	ccvscreen;;;2
9	Sample	aroical1;;;1;1
10	Sample	aroical2;;;1;2
11	Sample	aroical3;;;1;3
12	Sample	aroical4;;;1;4
13	Sample	aroical5;;;1;5
14	Sample	aross;;;2
15	Sample	aliical1;;;1;1
16	Sample	aliicall2;;;1;2
17	Sample	aliical3;;;1;3
18	Sample	aliical4;;;1;4
19	Sample	aliical5;;;1;5
20	Sample	aliss;;;2
21	Sample	aliss;;;2
22	Sample	icvfo;;;3;;lcs;1
23	Sample	2095548001;;15.2
24	Sample	2095550001;;15.6
25	Sample	2095551001;;15.1
26	Sample	2095547001;;15.2
27	Sample	2095902001;;16.0
28	Sample	2095902002;;15.3
29	Sample	2095902003;;15.8
30	Sample	2095905001;;15.5
31	Sample	2233490;;15.1
32	Sample	2095906001;;15.2
33	Sample	2233489;;15.9
34	Sample	2233486;;15.0
35	Sample	2233487;;15.0
36	Sample	2233488;;15.0
37	Sample	2095550001;;15.6;;;;;10
38	Sample	2095902003;;15.8;;;;;5
39	Sample	ccvfo;;;3;;lcs;1
40	Sample	
41	Sample	
42	Sample	
43	Sample	
44	Sample	
45	Sample	
46	Sample	
47	Sample	
48	Sample	
49	Sample	
50	Sample	
51	Sample	
52	Sample	
53	Sample	
54	Sample	
55	Sample	
56	Sample	
57	Sample	
58	Sample	
59	Sample	
60	Sample	
61	Sample	
62	Sample	
63	Sample	
64	Sample	
65	Sample	
66	Sample	
67	Sample	
68	Sample	
69	Sample	
70	Sample	
71	Sample	
72	Sample	

Turbochrom Sequence File C:\METH_SEQ\GC15\ciia.seq
Printed by : manager on: 9/22/2015 6:46:59 AM
Created by : manager on: 9/18/2015 7:18:40 AM
Edited by : manager on: 9/21/2015 2:21:42 PM
Number of Times Edited : 7
Description: eph

Sequence File Header Information:
Number of Rows : 72
Instrument Type : 900 Series Intelligent Interface
Injection Type : SINGLE

Sequence Sample Descriptions - Channel A

Row	Type	Name
1	Sample	baseline
2	Sample	aliccv;;;2
3	Sample	aroccv;;;2
4	Sample	2232801;;15.0
5	Sample	2232802;;15.0
6	Sample	2232803;;15.0
7	Sample	2095063001;;15.1
8	Sample	2095064001;;15.2
9	Sample	2232804;;15.8
10	Sample	2095064002;;15.2
11	Sample	2095064003;;15.4
12	Sample	2095064004;;15.3
13	Sample	2232805;;15.5
14	Sample	2095064005;;15.7
15	Sample	2232806;;15.0
16	Sample	2232807;;15.0
17	Sample	2232808;;15.0
18	Sample	2095063001;;15.1
19	Sample	2095064001;;15.2
20	Sample	2232809;;15.8
21	Sample	2095064002;;15.2
22	Sample	2095064003;;15.4
23	Sample	2095064004;;15.3
24	Sample	2232810;;15.5
25	Sample	2095064005;;15.7
26	Sample	aliccv;;;2
27	Sample	aroccv;;;2
28	Sample	aliccv;;;2
29	Sample	aroccv;;;2
30	Sample	aliccv;;;2
31	Sample	2095063001;;15.1;;;;50
32	Sample	2095064001;;15.2;;;;;200
33	Sample	2095064002;;15.2;;;;;200
34	Sample	2095064003;;15.4;;;;;20
35	Sample	2095064004;;15.3;;;;;20
36	Sample	2232805;;15.5;;;;;20
37	Sample	2095064005;;15.7;;;;;200
38	Sample	2095064001;;15.2;;;;;500
39	Sample	2095064002;;15.2;;;;;500
40	Sample	2095064005;;15.7;;;;;500
41	Sample	2095063001;;15.1;;;;;10
42	Sample	2095064001;;15.2;;;;;20
43	Sample	2095064002;;15.2;;;;;10
44	Sample	2095064003;;15.4
45	Sample	2095064004;;15.3
46	Sample	2232810;;15.5;;;;;5
47	Sample	2095064005;;15.7;;;;;20
48	Sample	aliccv;;;2
49	Sample	aroccv;;;2
50	Sample	
51	Sample	
52	Sample	
53	Sample	
54	Sample	
55	Sample	
56	Sample	
57	Sample	
58	Sample	
59	Sample	
60	Sample	
61	Sample	
62	Sample	
63	Sample	
64	Sample	
65	Sample	
66	Sample	
67	Sample	
68	Sample	
69	Sample	
70	Sample	
71	Sample	
72	Sample	

Aliphatic Petroleum Hydrocarbons C9-C40 by NJEPH Summary Forms

FORM 2
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Level:(low/med) LOW

	SAMPLE NO.	S1 #	S2 #	S3 (FBP)#	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	2232801	82								0
02	2232802LCS	73								0
03	2232803LCSD	79								0
04	BLDG1203-201	63								0
05	BLDG1203-SS-	57								0
06	BLDG1203-SS-	56								0
07	BLDG1203-201	0D								1
08	BLDG1203-SS-	0D								1
09	BLDG1203-SS-	0D								1
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS
S1	= 1-chlorooctadecane	(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 3
SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix Spike - Sample No.: 2232802LCS Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (mg/kg)	LCS % REC #	QC. LIMITS REC.
n-Eicosane (C20)	0.353333	0.00	0.281899	80	40-140
n-Heneicosane (C21)	0.353333	0.00	0.330098	93	40-140
n-Docosane (C22)	0.353333	0.00	0.290785	82	40-140
n-Tetracosane (C24)	0.353333	0.00	0.351706	100	40-140
n-Hexacosane (C26)	0.353333	0.00	0.289618	82	40-140
n-Octocosane (C28)	0.353333	0.00	0.278185	79	40-140
n-Triacontane (C30)	0.353333	0.00	0.273919	78	40-140
n-Dotriacontane (C32)	0.353333	0.00	0.258359	73	40-140
n-Tetratriacontane (C34	0.353333	0.00	0.239200	68	40-140
n-Hexatriacontane (C36)	0.353333	0.00	0.247013	70	40-140
n-Octatriacontane (C38)	0.353333	0.00	0.404274	114	40-140
n-Tetracontane (C40)	0.353333	0.00	0.236862	67	40-140
n-Decane (C10)	0.353333	0.00	0.179508	51	40-140
n-Dodecane (C12)	0.353333	0.00	0.230102	65	40-140
n-Hexadecane (C16)	0.353333	0.00	0.252681	72	40-140
n-Octadecane (C18)	0.353333	0.00	0.322547	91	40-140
n-Tetradecane (C14)	0.353333	0.00	0.237893	67	40-140
n-nonane (C9)	0.353333	0.00	0.154587	44	40-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____ZB-5_____

FORM 3
SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix Spike - Sample No.: 2232803LCS Level:(low/med) LOW

COMPOUND	SPIKE ADDED (mg/kg)	LCSD CONCENTRATION (mg/kg)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
n-Eicosane (C20)	0.353333	0.319665	90	12	40	40-140
n-Heneicosane (C21)	0.353333	0.381812	108	15	40	40-140
n-Docosane (C22)	0.353333	0.315792	89	8	40	40-140
n-Tetracosane (C24)	0.353333	0.404900	115	14	40	40-140
n-Hexacosane (C26)	0.353333	0.311452	88	7	40	40-140
n-Octocosane (C28)	0.353333	0.295595	84	6	40	40-140
n-Triacontane (C30)	0.353333	0.285230	81	4	40	40-140
n-Dotriacontane (C32)	0.353333	0.274701	78	7	40	40-140
n-Tetratriacontane (C34	0.353333	0.254914	72	6	40	40-140
n-Hexatriacontane (C36)	0.353333	0.283156	80	13	40	40-140
n-Octatriacontane (C38)	0.353333	0.416855	118	3	40	40-140
n-Tetracontane (C40)	0.353333	0.263431	75	11	40	40-140
n-Decane (C10)	0.353333	0.207733	59	15	40	40-140
n-Dodecane (C12)	0.353333	0.260597	74	13	40	40-140
n-Hexadecane (C16)	0.353333	0.282727	80	11	40	40-140
n-Octadecane (C18)	0.353333	0.316434	90	1	40	40-140
n-Tetradecane (C14)	0.353333	0.268311	76	13	40	40-140
n-nonane (C9)	0.353333	0.172200	49	11	40	40-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 18 outside limits
Spike Recovery: 0 out of 36 outside limits

COMMENTS: _____ZB-5_____

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.
2232801

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Lab File ID: CIIM004 Lab Sample ID: 2232801

Instrument ID: GC15 Date Extracted: 09/16/15

Matrix: (soil/water) SOIL Date Analyzed: 09/18/15

Level:(low/med) LOW Time Analyzed: 1133

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	2232802LCS	2232802	CIIM005	09/18/15
02	2232803LCSD	2232803	CIIM006	09/18/15
03	BLDG1203-201	2095063001	CIIM007	09/18/15
04	BLDG1203-SS-	2095064004	CIIM012	09/18/15
05	BLDG1203-SS-	2232805	CIIM013	09/18/15
06	BLDG1203-201	2095063001	CIIM031	09/21/15
07	BLDG1203-SS-	2095064004	CIIM035	09/21/15
08	BLDG1203-SS-	2232805	CIIM036	09/21/15
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 22.30 S2 : 11.98

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	ALIICAL1	ALIICAL1	09/17/15	0017	22.30	
02	ALIICAL2	ALIICALL2	09/17/15	0116	22.30	
03	ALIICAL3	ALIICAL3	09/17/15	0214	22.31	
04	ALIICAL4	ALIICAL4	09/17/15	0312	22.32	
05	ALIICAL5	ALIICAL5	09/17/15	0411	22.33	
06	ALISS	ALISS	09/17/15	0654	22.28	
07	ALISS	ALISS	09/17/15	0852	22.31	
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = o-terphenyl (+/- 0.10 MINUTES)
S2 = 2-Bromonaphthalene (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S3 : 12.35 S4 : 25.07

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S3 RT #	S4 RT #
01	ALIICAL1	ALIICAL1	09/17/15	0017		25.07
02	ALIICAL2	ALIICALL2	09/17/15	0116		25.07
03	ALIICAL3	ALIICAL3	09/17/15	0214		25.07
04	ALIICAL4	ALIICAL4	09/17/15	0312		25.08
05	ALIICAL5	ALIICAL5	09/17/15	0411		25.09
06	ALISS	ALISS	09/17/15	0654		25.04
07	ALISS	ALISS	09/17/15	0852		25.07
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S3 = 2-Fluorobiphenyl (+/- 0.10 MINUTES)
S4 = 1-chlorooctadecane (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 22.32 S2 : 13.78

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	ALIICAL1	ALIICAL1	09/17/15	0017	22.30	
02	ALIICAL2	ALIICALL2	09/17/15	0116	22.30	
03	ALIICAL3	ALIICAL3	09/17/15	0214	22.31	
04	ALIICAL4	ALIICAL4	09/17/15	0312	22.32	
05	ALIICAL5	ALIICAL5	09/17/15	0411	22.33	
06	ALISS	ALISS	09/17/15	0654	22.28	13.73
07	ALISS	ALISS	09/17/15	0852	22.31	13.78
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = o-terphenyl (+/- 0.10 MINUTES)
S2 = 2-Bromonaphthalene (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S3 : 16.08 S4 : 25.08

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S3 RT #	S4 RT #
01	ALIICAL1	ALIICAL1	09/17/15	0017		25.07
02	ALIICAL2	ALIICALL2	09/17/15	0116		25.07
03	ALIICAL3	ALIICAL3	09/17/15	0214		25.07
04	ALIICAL4	ALIICAL4	09/17/15	0312		25.08
05	ALIICAL5	ALIICAL5	09/17/15	0411		25.09
06	ALISS	ALISS	09/17/15	0654	16.04	25.04
07	ALISS	ALISS	09/17/15	0852	16.08	25.07
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S3 = 2-Fluorobiphenyl (+/- 0.10 MINUTES)
S4 = 1-chlorooctadecane (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 22.32 S2 : 13.78

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	ALIICAL1	ALIICAL1	09/17/15	0017	22.30	
02	ALIICAL2	ALIICALL2	09/17/15	0116	22.30	
03	ALIICAL3	ALIICAL3	09/17/15	0214	22.31	
04	ALIICAL4	ALIICAL4	09/17/15	0312	22.32	
05	ALIICAL5	ALIICAL5	09/17/15	0411	22.33	
06	ALISS	ALISS	09/17/15	0654	22.28	13.73
07	ALISS	ALISS	09/17/15	0852	22.31	13.78
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = o-terphenyl (+/- 0.10 MINUTES)
S2 = 2-Bromonaphthalene (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S3 : 16.08 S4 : 25.08

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S3 RT	#	S4 RT	#
01	ALIICAL1	ALIICAL1	09/17/15	0017			25.07	
02	ALIICAL2	ALIICALL2	09/17/15	0116			25.07	
03	ALIICAL3	ALIICAL3	09/17/15	0214			25.07	
04	ALIICAL4	ALIICAL4	09/17/15	0312			25.08	
05	ALIICAL5	ALIICAL5	09/17/15	0411			25.09	
06	ALISS	ALISS	09/17/15	0654	16.04		25.04	
07	ALISS	ALISS	09/17/15	0852	16.08		25.07	
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								

QC LIMITS

S3 = 2-Fluorobiphenyl (+/- 0.10 MINUTES)
S4 = 1-chlorooctadecane (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 22.30 S2 : 11.98

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	ALICCV	ALICCV	09/18/15	0935	22.31	
02	2232802LCS	2232802	09/18/15	1233		
03	2232803LCSD	2232803	09/18/15	1333		
04	ALICCV	ALICCV	09/19/15	0907	22.34	
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = o-terphenyl (+/- 0.10 MINUTES)
S2 = 2-Bromonaphthalene (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S3 : 12.35 S4 : 25.07

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S3 RT #	S4 RT #
01	ALICCV	ALICCV	09/18/15	0935		25.07
02	2232802LCS	2232802	09/18/15	1233		25.09
03	2232803LCSD	2232803	09/18/15	1333		25.10
04	ALICCV	ALICCV	09/19/15	0907		25.10
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S3 = 2-Fluorobiphenyl (+/- 0.10 MINUTES)
S4 = 1-chlorooctadecane (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 22.32 S2 : 13.57

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	ALICCV	ALICCV	09/18/15	0935	22.31	
02	2232801	2232801	09/18/15	1133	22.32	13.57
03	BLDG1203-201	2095063001	09/18/15	1434		13.60
04	BLDG1203-SS-	2095064004	09/18/15	1926	22.33	13.57
05	BLDG1203-SS-	2232805	09/18/15	2025	22.38	13.57
06	ALICCV	ALICCV	09/19/15	0907	22.34	
07	ALICCV	ALICCV	09/21/15	1002	22.30	
08	BLDG1203-201	2095063001	09/21/15	1100		
09	BLDG1203-SS-	2095064004	09/21/15	1454		
10	BLDG1203-SS-	2232805	09/21/15	1552		
11	ALICCV	ALICCV	09/22/15	0334	22.32	
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = o-terphenyl (+/- 0.10 MINUTES)
S2 = 2-Bromonaphthalene (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE ANALYTICAL SEQUENCE

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

GC Column: ZB-5 ID: 0.53(mm) Init. Calib. Date(s): 09/09/15 09/17/15

Instrument ID: GC15

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S3 : 15.44 S4 : 25.08

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S3 RT #	S4 RT #
01	ALICCV	ALICCV	09/18/15	0935		25.07
02	2232801	2232801	09/18/15	1133	15.44	25.09
03	BLDG1203-201	2095063001	09/18/15	1434	15.49	25.13
04	BLDG1203-SS-	2095064004	09/18/15	1926	15.45	25.08
05	BLDG1203-SS-	2232805	09/18/15	2025	15.45	25.09
06	ALICCV	ALICCV	09/19/15	0907		25.10
07	ALICCV	ALICCV	09/21/15	1002		25.07
08	BLDG1203-201	2095063001	09/21/15	1100		
09	BLDG1203-SS-	2095064004	09/21/15	1454		
10	BLDG1203-SS-	2232805	09/21/15	1552		
11	ALICCV	ALICCV	09/22/15	0334		25.08
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S3 = 2-Fluorobiphenyl (+/- 0.10 MINUTES)
S4 = 1-chlorooctadecane (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

Aliphatic Petroleum Hydrocarbons C9-C40 Raw Data

Sample Raw Data

FORM 1 ALS Environmental-R SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BLDG1203-20150908-W

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2095063001

Sample wt/vol: 15.1(g/mL) G Lab File ID: CIIM007

Level: (low/med) LOW Date Received: 09/10/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/18/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C9_C12	C9:C12		1.1	_____
C12_C16	C12:C16		402	E
C16_C21	C16:C21		1330	E
C21_C40	C21:C40		820	E

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: 2095063001 Client Smp ID: BLDG1203-20150908-W
Inj Date : 18-SEP-2015 14:34
Operator : KJH Inst ID: gc15.i
Smp Info : 2095063001;;15.1
Misc Info : ZZ SVGC 39487 NJEPHS_AL
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 21-Sep-2015 07:56 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.100	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)	
S 27 C9:C12	3.800-10.500			202268	7.42054	0.982853 (aM)	
$ 11 2-Bromonaphthalene	13.600	13.566	0.034	379510			
S 28 C12:C16	10.600-18.000			60579361	2605.19	345.058(AM)	LR at dilution
$ 14 2-Fluorobiphenyl	15.491	15.441	0.050	502858		(aM)	
S 29 C16:C21	18.100-25.400			232678158	8630.49	1143.11(AM)	
$ 31 1-chlorooctadecane	25.133	25.075	0.058	509580	31.3280	4.14941(M)	
S 30 C21:C40	25.500-43.900			100220719	5315.02	703.977(AM)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: ALS Environmental-R Client SDG: AER121|BLDG1203-201
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2095063001 Client Smp ID: BLDG1203-20150908-W
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: c_range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPH
Misc Info: ZZ SVGC 39487 NJEPHS_AL

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 11 2-Bromonaphthalene	6.62252	0.000000	0.00	0-140
$ 14 2-Fluorobiphenyl	6.62252	0.000000	0.00	0-140
$ 6 o-terphenyl	6.62252	0.000000	*	0-140
$ 31 1-chlorooctadecane	6.62252	4.14941	62.66	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name: ALS Environmental-R
Lab Smp Id: 2095063001
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39487 NJEPHS_AL

Client SDG: AER121|BLDG1203-201
Client Smp ID: BLDG1203-20150908-W
Sample Point:
Date Received: 10-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	0.982853	
C12_C16	C12:C16	345.058	E
C16_C21	C16:C21	1143.11	E
C21_C40	C21:C40	703.977	E
580-13-2	2-Bromonaphthalene	0.000000	J
321-60-8	2-Fluorobiphenyl	0.000000	J
84-15-1	o-terphenyl	0.705960	U
3386-33-2	1-chlorooctadecane	4.14941	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim007.d

Date : 18-SEP-2015 14:34

Client ID: BLDG1203-20150908-W

Instrument: gc15.i

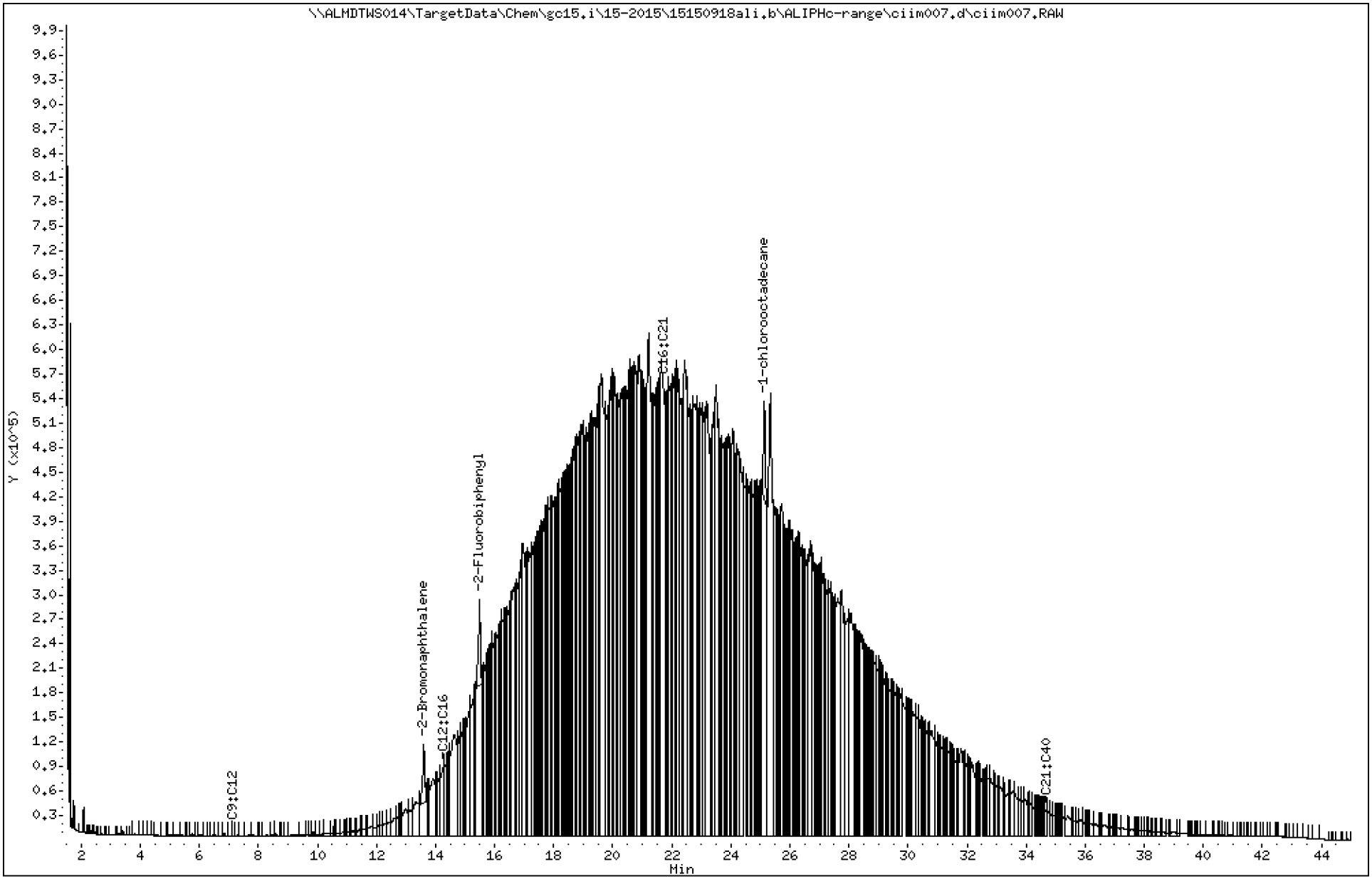
Sample Info: 2095063001;;15.1

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 1 ALS Environmental-R SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BLDG1203-20150908-W
DL50

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2095063001

Sample wt/vol: 15.1(g/mL) G Lab File ID: CIIM031

Level: (low/med) LOW Date Received: 09/10/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/21/15

Injection Volume: 2.0(uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C9_C12	C9:C12	0.31	J	
C12_C16	C12:C16	391	_____	
C16_C21	C16:C21	1200	_____	
C21_C40	C21:C40	504	_____	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: 2095063001 Client Smp ID: BLDG1203-20150908-W
Inj Date : 21-SEP-2015 11:00
Operator : KJH Inst ID: gc15.i
Smp Info : 2095063001;;15.1;;;;;50
Misc Info : ZZ SVGC 39488 NJEPHS_AR
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 22-Sep-2015 06:39 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 24
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	50.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.100	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C9:C12	3.800-10.500			1081	0.03966	0.262638(a)
S 28 C12:C16	10.600-18.000			1178556	50.6833	335.651
S 29 C16:C21	18.100-25.400			4197446	155.691	1031.07
S 30 C21:C40	25.500-43.900			1231343	65.3021	432.464

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ALS Environmental Services

RECOVERY REPORT

Client Name: ALS Environmental-R Client SDG: AER121|BLDG1203-201
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2095063001 Client Smp ID: BLDG1203-20150908-W
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: c_range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPH
Misc Info: ZZ SVGC 39488 NJEPHS_AR

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 11 2-Bromonaphthalene	6.62252	0.000000	*	0-140
$ 14 2-Fluorobiphenyl	6.62252	0.000000	*	0-140
$ 6 o-terphenyl	6.62252	0.000000	*	0-140
$ 31 1-chlorooctadecane	6.62252	0.000000	*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name: ALS Environmental-R
Lab Smp Id: 2095063001
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39488 NJEPHS_AR

Client SDG: AER121|BLDG1203-201
Client Smp ID: BLDG1203-20150908-W
Sample Point:
Date Received: 10-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
	C9_C12----------C9:C12	0.262638	J
	C12_C16---------C12:C16	335.651	
	C16_C21---------C16:C21	1031.07	
	C21_C40---------C21:C40	432.464	
580-13-2	--------2-Bromonaphthalene	35.2980	U
321-60-8	--------2-Fluorobiphenyl	35.2980	U
84-15-1	---------o-terphenyl	35.2980	U
3386-33-2	-------1-chlorooctadecane	35.2980	U

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim031.d

Date : 21-SEP-2015 11:00

Client ID: BLDG1203-20150908-W

Instrument: gc15.i

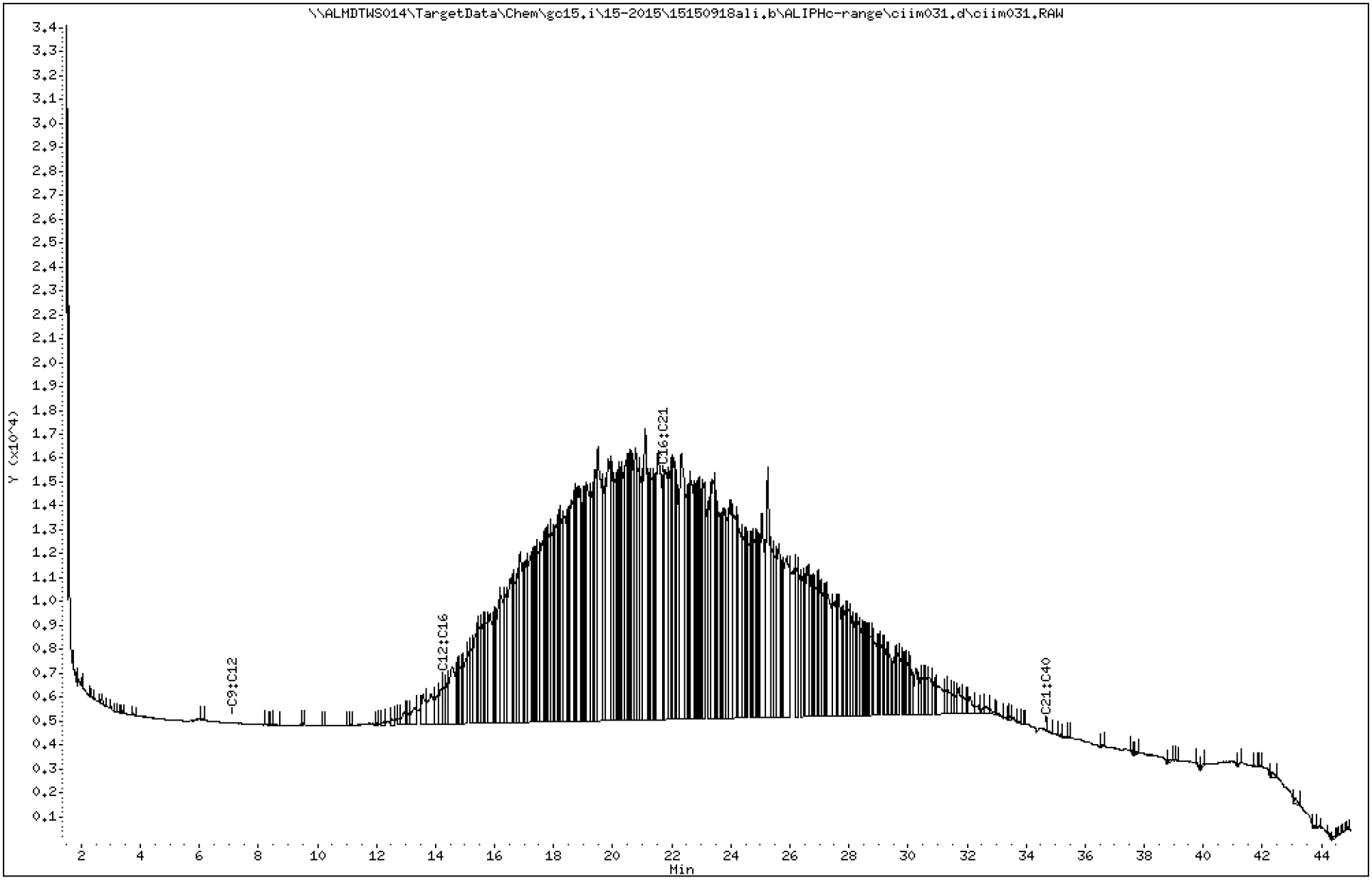
Sample Info: 2095063001;;15.1;;;;;50

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 1 ALS Environmental-R SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BLDG1203 -SS-EX1-04(

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2095064004

Sample wt/vol: 15.3(g/mL) G Lab File ID: CIIM012

Level: (low/med) LOW Date Received: 09/11/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/18/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C9_C12	C9:C12		0.79	J
C12_C16	C12:C16		134	E
C16_C21	C16:C21		402	E
C21_C40	C21:C40		250	E

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: 2095064004 Client Smp ID: BLDG1203-SS-EX1-04(
Inj Date : 18-SEP-2015 19:26
Operator : KJH Inst ID: gc15.i
Smp Info : 2095064004;;15.3
Misc Info : ZZ SVGC 39487 NJEPHS_AL
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 21-Sep-2015 07:56 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.300	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C9:C12	3.800	-10.500		141033	5.17403	0.676344
$ 11 2-Bromonaphthalene	13.566	13.566	0.000	928244		(aM)
S 28 C12:C16	10.600	-18.000		20591182	885.515	115.754(AM) LR at dilution
$ 14 2-Fluorobiphenyl	15.450	15.441	0.009	758197		(aM)
S 29 C16:C21	18.100	-25.400		71460782	2650.62	346.486(AM)
$ 6 o-terphenyl	22.325	22.317	0.008	407062	18.3537	2.39917(M)
$ 31 1-chlorooctadecane	25.083	25.075	0.008	466081	28.6538	3.74560(M)
S 30 C21:C40	25.500	-43.900		31020131	1645.10	215.045(AM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: ALS Environmental-R Client SDG: AER122|BLDG1203-SS-
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2095064004 Client Smp ID: BLDG1203-SS-EX1-04(
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: c_range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPH
Misc Info: ZZ SVGC 39487 NJEPHS_AL

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 11 2-Bromonaphthalene	6.53595	0.000000	0.00	0-140
$ 14 2-Fluorobiphenyl	6.53595	0.000000	0.00	0-140
$ 6 o-terphenyl	6.53595	2.39917	36.71	0-140
$ 31 1-chlorooctadecane	6.53595	3.74560	57.31	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name: ALS Environmental-R
Lab Smp Id: 2095064004
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39487 NJEPHS_AL

Client SDG: AER122|BLDG1203-SS-
Client Smp ID: BLDG1203-SS-EX1-04(
Sample Point:
Date Received: 11-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	0.676344	
C12_C16	C12:C16	115.754	E
C16_C21	C16:C21	346.486	E
C21_C40	C21:C40	215.045	E
580-13-2	2-Bromonaphthalene	0.000000	J
321-60-8	2-Fluorobiphenyl	0.000000	J
84-15-1	o-terphenyl	2.39917	
3386-33-2	1-chlorooctadecane	3.74560	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim012.d

Date : 18-SEP-2015 19:26

Client ID: BLDG1203-SS-EX1-04(

Instrument: gc15.i

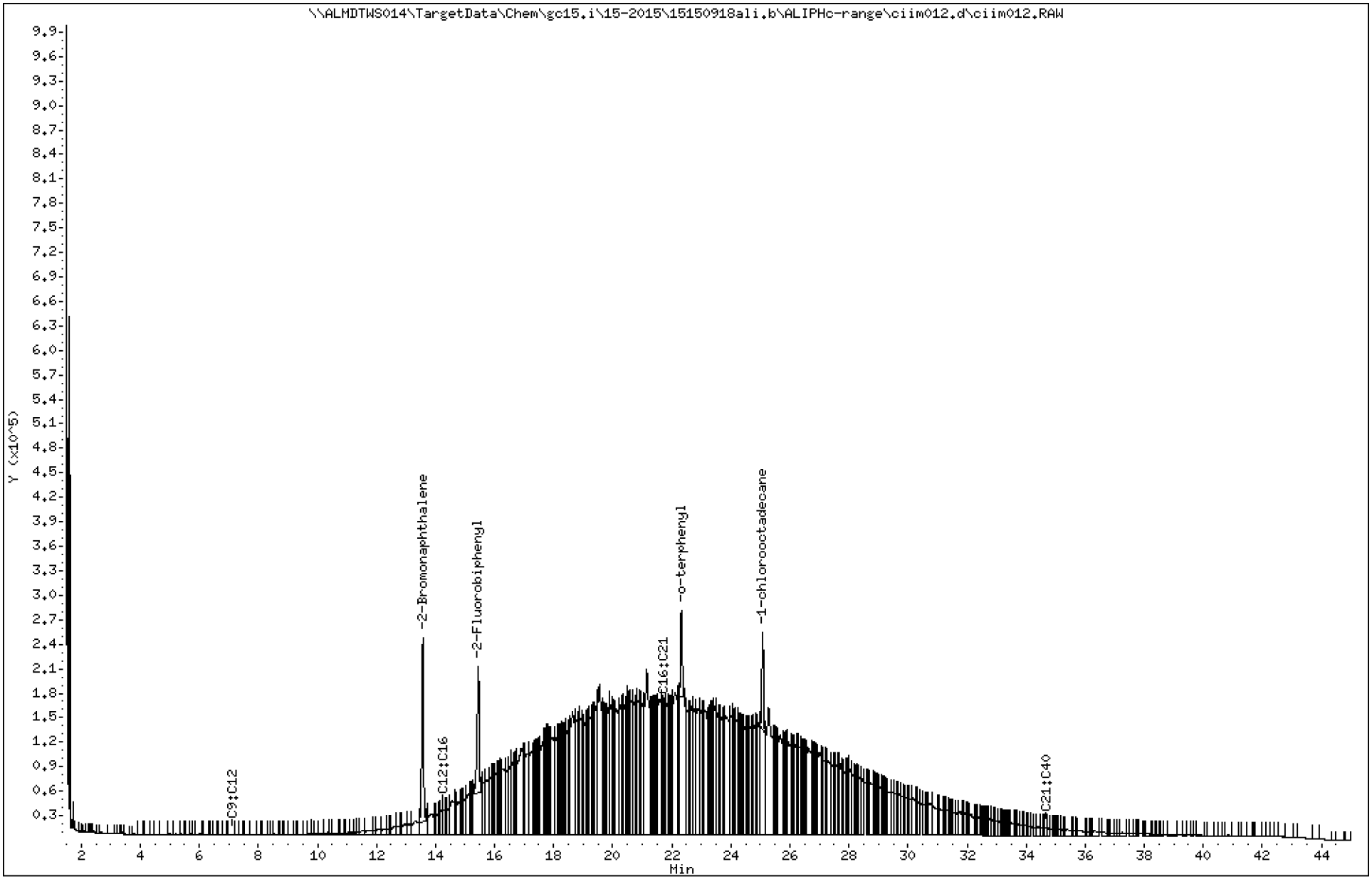
Sample Info: 2095064004;;15.3

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 1 ALS Environmental-R SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BLDG1203 -SS-EX1-04(
DL20

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2095064004

Sample wt/vol: 15.3(g/mL) G Lab File ID: CIIM035

Level: (low/med) LOW Date Received: 09/11/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/21/15

Injection Volume: 2.0(uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C9_C12	C9:C12	0.21	J	
C12_C16	C12:C16	124	_____	
C16_C21	C16:C21	376	_____	
C21_C40	C21:C40	202	_____	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: 2095064004 Client Smp ID: BLDG1203-SS-EX1-04(
Inj Date : 21-SEP-2015 14:54
Operator : KJH Inst ID: gc15.i
Smp Info : 2095064004;;15.3;;;;;20
Misc Info : ZZ SVGC 39487
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 22-Sep-2015 06:39 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 26
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	20.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.300	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C9:C12	3.800-10.500			1890	0.06934	0.181275(a)
S 28 C12:C16	10.600-18.000			950162	40.8613	106.827
S 29 C16:C21	18.100-25.400			3341229	123.933	324.007
S 30 C21:C40	25.500-43.900			1253648	66.4850	173.817

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ALS Environmental Services

RECOVERY REPORT

Client Name: ALS Environmental-R Client SDG: AER122|BLDG1203-SS-
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2095064004 Client Smp ID: BLDG1203-SS-EX1-04(
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: c_range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPH
Misc Info: ZZ SVGC 39487

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 11 2-Bromonaphthalene	6.53595	0.000000	*	0-140
$ 14 2-Fluorobiphenyl	6.53595	0.000000	*	0-140
$ 6 o-terphenyl	6.53595	0.000000	*	0-140
$ 31 1-chlorooctadecane	6.53595	0.000000	*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name: ALS Environmental-R
Lab Smp Id: 2095064004
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39487

Client SDG: AER122|BLDG1203-SS-
Client Smp ID: BLDG1203-SS-EX1-04(
Sample Point:
Date Received: 11-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	0.181275	J
C12_C16	C12:C16	106.827	
C16_C21	C16:C21	324.007	
C21_C40	C21:C40	173.817	
580-13-2	2-Bromonaphthalene	13.9346	U
321-60-8	2-Fluorobiphenyl	13.9346	U
84-15-1	o-terphenyl	13.9346	U
3386-33-2	1-chlorooctadecane	13.9346	U

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim035.d

Date : 21-SEP-2015 14:54

Client ID: BLDG1203-SS-EX1-04(

Instrument: gc15.i

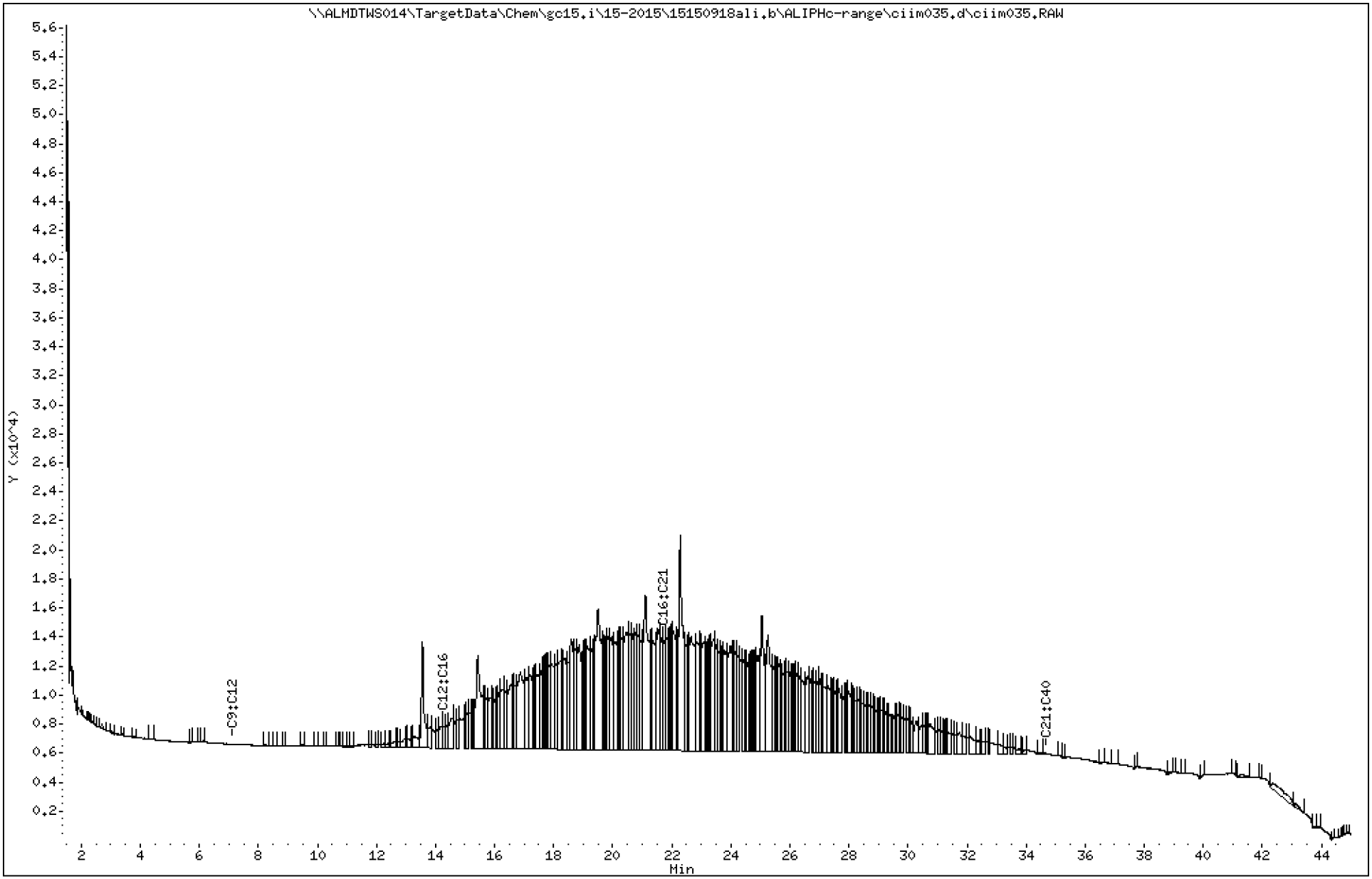
Sample Info: 2095064004;;15.3;;;;;20

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Standards Raw Data

Initial Calibrations

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 09/09/15 09/17/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0810 0411

LAB FILE ID: RF20: CIGM015 RF100: CIGM016 RF250: CIGM017
RF500: CIGM018 RF1000: CIGM019

COMPOUND	RF20	RF100	RF250	RF500	RF1000
n-octane (C8)	1468.900	1489.480	1511.904	1494.938	1452.473
n-Eicosane (C20)	25046.667	20706.538	18947.923	18228.346	15413.000
n-Heneicosane (C21)	22810.476	19228.846	19887.308	18607.615	16626.942
n-Docosane (C22)	19289.524	18858.846	18563.000	17461.692	15909.442
n-Tetracosane (C24)	18966.667	19938.269	18399.769	18174.769	16548.154
n-Hexacosane (C26)	19830.476	19025.385	19791.923	17374.038	16705.058
n-Octocosane (C28)	20622.857	19276.346	18745.923	18108.231	16913.173
n-Triacontane (C30)	23501.905	19559.615	19163.308	18466.808	17975.096
n-Dotriacontane (C32)	22888.571	19111.538	18970.385	18462.769	17656.519
n-Tetratriacontane (C34)	23802.857	17613.846	17230.538	17050.385	16490.346
n-Hexatriacontane (C36)	19229.524	14838.269	14589.462	14789.115	14503.519
n-Octatriacontane (C38)	14153.333	12189.808	12272.077	12485.000	12541.462
n-Tetracontane (C40)	10258.095	9684.423	10148.231	10352.808	10393.269
n-Decane (C10)	24882.857	27189.231	27769.615	27766.577	26948.750
n-Dodecane (C12)	20860.952	25348.846	26310.231	26195.808	25478.308
n-Hexadecane (C16)	20548.571	22361.731	23018.923	22941.077	22384.423
n-Octadecane (C18)	20536.190	23016.154	22807.769	19382.077	18610.404
n-Tetradecane (C14)	20185.714	23433.846	24484.615	24469.500	23783.846
n-nonane (C9)	28491.428	26812.885	29821.077	30427.538	17644.923
Napthalene					
2-Methylnapthalene					
o-terphenyl	25010.000	21852.750	22198.880	21553.560	20059.095
2-Bromonaphthalene					
2-Fluorobiphenyl					
1-chlorooctadecane	17951.250	15368.700	16273.800	16576.480	14879.725

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 09/09/15 09/17/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0810 0411

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
n-octane (C8)	AVRG	1483.53900	1.562	20.000
n-Eicosane (C20)	AVRG	19668.4949	18.102	20.000
n-Heneicosane (C21)	AVRG	19432.2375	11.567	20.000
n-Docosane (C22)	AVRG	18016.5009	7.537	20.000
n-Tetracosane (C24)	AVRG	18405.5256	6.746	20.000
n-Hexacosane (C26)	AVRG	18545.3760	7.718	20.000
n-Octocosane (C28)	AVRG	18733.3060	7.343	20.000
n-Triacontane (C30)	AVRG	19733.3463	11.118	20.000
n-Dotriacontane (C32)	AVRG	19417.9566	10.413	20.000
n-Tetratriacontane (C34)	AVRG	18437.5945	16.414	20.000
n-Hexatriacontane (C36)	AVRG	15589.9778	13.080	20.000
n-Octatriacontane (C38)	AVRG	12728.3359	6.362	20.000
n-Tetracontane (C40)	AVRG	10167.3652	2.813	20.000
n-Decane (C10)	AVRG	26911.4060	4.421	20.000
n-Dodecane (C12)	AVRG	24838.8289	9.114	20.000
n-Hexadecane (C16)	AVRG	22250.9451	4.491	20.000
n-Octadecane (C18)	AVRG	20870.5189	9.520	20.000
n-Tetradecane (C14)	AVRG	23271.5044	7.662	20.000
n-nonane (C9)	AVRG	26639.5703	19.580	20.000
Napthalene	AVRG			0.000
2-Methylnapthalene	AVRG			0.000
o-terphenyl	AVRG	22134.8570	8.144	20.000
2-Bromonaphthalene	AVRG			0.000
2-Fluorobiphenyl	AVRG			0.000
1-chlorooctadecane	AVRG	16209.9910	7.330	20.000

Average %RSD test result.

Calculate Average %RSD: 9.097152710
Maximum Average %RSD: 30.00000000

Note: Passes Average %RSD Test.

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 09/09/15 09/17/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0810 0411

LAB FILE ID: RT1: CIGM015 RT2: CIGM016 RT3: CIGM017
RT4: CIGM018 RT5: CIGM019

COMPOUND	RT1	RT2	RT3	RT4	RT5
n-octane (C8)	2.400	2.417	2.400	2.392	2.392
n-Eicosane (C20)	23.900	23.900	23.900	23.900	23.900
n-Heneicosane (C21)	25.258	25.258	25.258	25.258	25.267
n-Docosane (C22)	26.575	26.558	26.558	26.558	26.558
n-Tetracosane (C24)	29.025	29.017	29.017	29.017	29.017
n-Hexacosane (C26)	31.300	31.283	31.283	31.283	31.292
n-Octocosane (C28)	33.408	33.400	33.400	33.400	33.408
n-Triacontane (C30)	35.383	35.375	35.383	35.383	35.392
n-Dotriacontane (C32)	37.242	37.233	37.233	37.242	37.250
n-Tetratriacontane (C34)	38.983	38.983	38.983	38.992	39.000
n-Hexatriacontane (C36)	40.842	40.833	40.842	40.850	40.858
n-Octatriacontane (C38)	42.592	42.592	42.592	42.592	42.600
n-Tetracontane (C40)	43.758	43.758	43.750	43.758	43.758
n-Decane (C10)	6.000	6.017	6.008	6.008	6.008
n-Dodecane (C12)	10.333	10.333	10.325	10.325	10.325
n-Hexadecane (C16)	17.825	17.808	17.808	17.800	17.808
n-Octadecane (C18)	21.000	20.992	20.992	20.992	21.000
n-Tetradecane (C14)	14.300	14.275	14.275	14.267	14.267
n-nonane (C9)	3.950	3.958	3.950	3.950	3.950
Napthalene	8.383	8.367	8.367	8.308	8.317
2-Methylnapthalene	9.550	9.542	9.558	9.567	9.592
o-terphenyl	22.300	22.300	22.308	22.317	22.333
2-Bromonaphthalene	11.975	12.008	12.000	12.008	12.008
2-Fluorobiphenyl	12.308	12.292	12.358	12.350	12.350
1-chlorooctadecane	25.067	25.067	25.067	25.075	25.092

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 09/09/15 09/17/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0810 0411

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
n-octane (C8)	2.400	2.300	2.500
n-Eicosane (C20)	23.900	23.800	24.000
n-Heneicosane (C21)	25.260	25.158	25.358
n-Docosane (C22)	26.561	26.475	26.675
n-Tetracosane (C24)	29.019	28.925	29.125
n-Hexacosane (C26)	31.288	31.200	31.400
n-Octocosane (C28)	33.403	33.308	33.508
n-Triacontane (C30)	35.383	35.283	35.483
n-Dotriacontane (C32)	37.240	37.142	37.342
n-Tetratriacontane (C34)	38.988	38.883	39.083
n-Hexatriacontane (C36)	40.845	40.742	40.942
n-Octatriacontane (C38)	42.594	42.492	42.692
n-Tetracontane (C40)	43.756	43.658	43.858
n-Decane (C10)	6.008	5.900	6.100
n-Dodecane (C12)	10.328	10.233	10.433
n-Hexadecane (C16)	17.810	17.725	17.925
n-Octadecane (C18)	20.995	20.900	21.100
n-Tetradecane (C14)	14.277	14.200	14.400
n-nonane (C9)	3.952	3.850	4.050
Napthalene	8.348	8.217	8.417
2-Methylnapthalene	9.562	9.450	9.650
o-terphenyl	22.312	22.200	22.400
2-Bromonaphthalene	12.000	11.875	12.075
2-Fluorobiphenyl	12.332	12.250	12.450
1-chlorooctadecane	25.074	24.967	25.167

FORM VI SV

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 09-SEP-2015 08:10
End Cal Date : 17-SEP-2015 04:11
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphEPHindi.m
Last Edit : 17-Sep-2015 11:50 kjh

Calibration File Names:
Level 1: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm015.d
Level 2: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm016.d
Level 3: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm017.d
Level 4: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm018.d
Level 5: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm019.d

Compound	20.0000 Level 1	100.0000 Level 2	250.0000 Level 3	500.0000 Level 4	1000.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
1 n-octane (C8)	1469	1489	1512	1495	1452	AVRG		1484		1.56246
33 Napthalene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
34 2-Methylnapthalene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
32 n-nonane (C9)	28491	26813	29821	30428	17645	AVRG		26640		19.58054
2 n-Decane (C10)	24883	27189	27770	27767	26949	AVRG		26911		4.42076
3 n-Dodecane (C12)	20861	25349	26310	26196	25478	AVRG		24839		9.11391
4 n-Tetradecane (C14)	20186	23434	24485	24470	23784	AVRG		23272		7.66216
5 n-Hexadecane (C16)	20549	22362	23019	22941	22384	AVRG		22251		4.49095
7 n-Octadecane (C18)	20536	23016	22808	19382	18610	AVRG		20871		9.52042
8 n-Eicosane (C20)	25047	20707	18948	18228	15413	AVRG		19668		18.10186
9 n-Heneicosane (C21)	22810	19229	19887	18608	16627	AVRG		19432		11.56744
10 n-Docosane (C22)	19290	18859	18563	17462	15909	AVRG		18017		7.53735
12 n-Tetracosane (C24)	18967	19938	18400	18175	16548	AVRG		18406		6.74635
13 n-Hexacosane (C26)	19830	19025	19792	17374	16705	AVRG		18545		7.71787
15 n-Octocosane (C28)	20623	19276	18746	18108	16913	AVRG		18733		7.34305

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 09-SEP-2015 08:10
End Cal Date : 17-SEP-2015 04:11
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphEPHindi.m
Last Edit : 17-Sep-2015 11:50 kjh

Compound	20.0000 Level 1	100.0000 Level 2	250.0000 Level 3	500.0000 Level 4	1000.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
16 n-Triacontane (C30)	23502	19560	19163	18467	17975	AVRG		19733		11.11771
17 n-Dotriacontane (C32)	22889	19112	18970	18463	17657	AVRG		19418		10.41320
18 n-Tetratriacontane (C34)	23803	17614	17231	17050	16490	AVRG		18438		16.41459
19 n-Hexatriacontane (C36)	19230	14838	14589	14789	14504	AVRG		15590		13.08052
20 n-Octatriacontane (C38)	14153	12190	12272	12485	12541	AVRG		12728		6.36198
21 n-Tetracontane (C40)	10258	9684	10148	10353	10393	AVRG		10167		2.81322
$ 11 2-Bromonaphthalene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 14 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 6 o-terphenyl	25010	21853	22199	21554	20059	AVRG		22135		8.14352
$ 31 1-chlorooctadecane	17951	15369	16274	16576	14880	AVRG		16210		7.33035

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 09-SEP-2015 08:10
End Cal Date : 17-SEP-2015 04:11
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphEPHindi.m
Last Edit : 17-Sep-2015 11:50 kjh

Average %RSD Results.
Calculated Average %RSD = 9.09715
Maximun Average %RSD = 30.00000
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm01
Lab Smp Id: aliical1
Inj Date : 17-SEP-2015 00:17
Operator : KJH Inst ID: gc15.i
Smp Info : aliical1;;;1;1
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphE
Meth Date : 17-Sep-2015 11:50 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 00:17 Cal File: cigm015.RAW
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
	1 n-octane (C8)	2.400	2.400	0.000	29378	20.0000	19.8026
	32 n-nonane (C9)	3.950	3.950	0.000	29916	1.05000	1.12299(a)
	2 n-Decane (C10)	6.000	6.000	0.000	26127	1.05000	0.970852(a)
	3 n-Dodecane (C12)	10.333	10.333	0.000	21904	1.05000	0.881845(a)
	4 n-Tetradecane (C14)	14.300	14.300	0.000	21195	1.05000	0.910771(a)
	5 n-Hexadecane (C16)	17.825	17.825	0.000	21576	1.05000	0.969667(a)
	7 n-Octadecane (C18)	21.000	21.000	0.000	21563	1.05000	1.03318(a)
$	6 o-terphenyl	22.300	22.300	0.000	100040	4.00000	4.51957(a)
	8 n-Eicosane (C20)	23.900	23.900	0.000	26299	1.05000	1.33711(a)
$	31 1-chlorooctadecane	25.066	25.066	0.000	71805	4.00000	4.42968(a)
	9 n-Heneicosane (C21)	25.258	25.258	0.000	23951	1.05000	1.23254(a)
	10 n-Docosane (C22)	26.575	26.575	0.000	20254	1.05000	1.12419(a)
	12 n-Tetracosane (C24)	29.025	29.025	0.000	19915	1.05000	1.08201(a)
	13 n-Hexacosane (C26)	31.300	31.300	0.000	20822	1.05000	1.12276(a)
	15 n-Octocosane (C28)	33.408	33.408	0.000	21654	1.05000	1.15591(a)
	16 n-Triacontane (C30)	35.383	35.383	0.000	24677	1.05000	1.25052(a)
	17 n-Dotriacontane (C32)	37.241	37.241	0.000	24033	1.05000	1.23767(a)
	18 n-Tetratriacontane (C34)	38.983	38.983	0.000	24993	1.05000	1.35555(a)
	19 n-Hexatriacontane (C36)	40.841	40.841	0.000	20191	1.05000	1.29513(a)
	20 n-Octatriacontane (C38)	42.591	42.591	0.000	14861	1.05000	1.16755(a)
	21 n-Tetracontane (C40)	43.758	43.758	0.000	10771	1.05000	1.05937(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliical1
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
----------	n-octane (C8)	19.8026	
----------	Napthalene	0.000000	U
----------	2-Methylnapthalene	5.33000	U
111-84-2	n-nonane (C9)	1.12299	J
124-18-5	n-Decane (C10)	0.970852	J
112-40-3	n-Dodecane (C12)	0.881845	J
629-59-4	n-Tetradecane (C14)	0.910771	J
544-76-3	n-Hexadecane (C16)	0.969667	J
593-45-3	n-Octadecane (C18)	1.03318	J
112-95-8	n-Eicosane (C20)	1.33711	J
629-94-7	n-Heneicosane (C21)	1.23254	J
629-97-0	n-Docosane (C22)	1.12419	J
646-31-1	n-Tetracosane (C24)	1.08201	J
630-01-3	n-Hexacosane (C26)	1.12276	J
630-02-4	n-Octocosane (C28)	1.15591	J
638-68-6	n-Triacontane (C30)	1.25052	J
544-85-4	n-Dotriacontane (C32)	1.23767	J
14167-59-0	n-Tetratriacontane (C34)	1.35555	J
630-06-8	n-Hexatriacontane (C36)	1.29513	J
7194-85-6	n-Octatriacontane (C38)	1.16755	J
4181-95-7	n-Tetracontane (C40)	1.05937	J
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	4.51957	J
3386-33-2	1-chlorooctadecane	4.42968	J

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm015.d

Date : 17-SEP-2015 00:17

Client ID:

Instrument: gc15.i

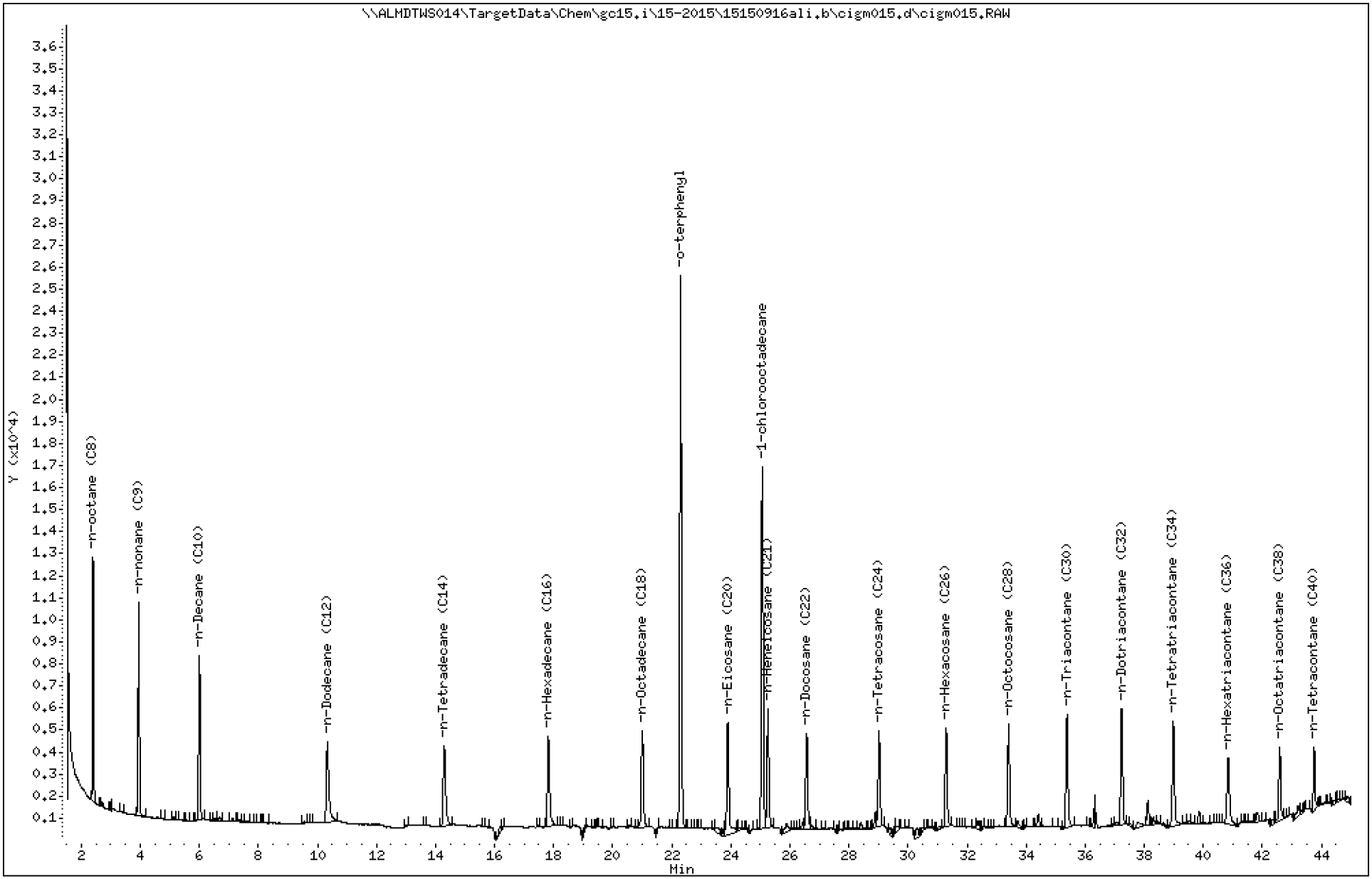
Sample Info: aliical1;;;1;1

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm01
Lab Smp Id: aliicall2
Inj Date : 17-SEP-2015 01:16
Operator : KJH Inst ID: gc15.i
Smp Info : aliicall2;;;1;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphE
Meth Date : 17-Sep-2015 11:50 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 01:16 Cal File: cigm016.RAW
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
	1 n-octane (C8)	2.416	2.400	0.016	148948	100.000	100.400
	32 n-nonane (C9)	3.958	3.950	0.008	139427	5.20000	5.23383(a)
	2 n-Decane (C10)	6.016	6.000	0.016	141384	5.20000	5.25368(a)
	3 n-Dodecane (C12)	10.333	10.333	0.000	131814	5.20000	5.30677(a)
	4 n-Tetradecane (C14)	14.275	14.300	-0.025	121856	5.20000	5.23628(a)
	5 n-Hexadecane (C16)	17.808	17.825	-0.017	116281	5.20000	5.22589(a)
	7 n-Octadecane (C18)	20.991	21.000	-0.009	119684	5.20000	5.73460
$	6 o-terphenyl	22.300	22.300	0.000	437055	20.0000	19.7451
	8 n-Eicosane (C20)	23.900	23.900	0.000	107674	5.20000	5.47444
$	31 1-chlorooctadecane	25.066	25.066	0.000	307374	20.0000	18.9620
	9 n-Heneicosane (C21)	25.258	25.258	0.000	99990	5.20000	5.14557(a)
	10 n-Docosane (C22)	26.558	26.575	-0.017	98066	5.20000	5.44312
	12 n-Tetracosane (C24)	29.016	29.025	-0.009	103679	5.20000	5.63304
	13 n-Hexacosane (C26)	31.283	31.300	-0.017	98932	5.20000	5.33459
	15 n-Octocosane (C28)	33.400	33.408	-0.008	100237	5.20000	5.35074
	16 n-Triacontane (C30)	35.375	35.383	-0.008	101710	5.20000	5.15422(a)
	17 n-Dotriacontane (C32)	37.233	37.241	-0.008	99380	5.20000	5.11794(a)
	18 n-Tetratriacontane (C34)	38.983	38.983	0.000	91592	5.20000	4.96768(a)
	19 n-Hexatriacontane (C36)	40.833	40.841	-0.008	77159	5.20000	4.94927(a)
	20 n-Octatriacontane (C38)	42.591	42.591	0.000	63387	5.20000	4.97999(a)
	21 n-Tetracontane (C40)	43.758	43.758	0.000	50359	5.20000	4.95300(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliicall2
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
	n-octane (C8)	100.400	
	Napthalene	0.000000	U
	2-Methylnapthalene	5.33000	U
111-84-2	n-nonane (C9)	5.23383	J
124-18-5	n-Decane (C10)	5.25368	J
112-40-3	n-Dodecane (C12)	5.30677	J
629-59-4	n-Tetradecane (C14)	5.23628	J
544-76-3	n-Hexadecane (C16)	5.22589	J
593-45-3	n-Octadecane (C18)	5.73460	
112-95-8	n-Eicosane (C20)	5.47444	
629-94-7	n-Heneicosane (C21)	5.14557	J
629-97-0	n-Docosane (C22)	5.44312	
646-31-1	n-Tetracosane (C24)	5.63304	
630-01-3	n-Hexacosane (C26)	5.33459	
630-02-4	n-Octocosane (C28)	5.35074	
638-68-6	n-Triacontane (C30)	5.15422	J
544-85-4	n-Dotriacontane (C32)	5.11794	J
14167-59-0	n-Tetratriacontane (C34)	4.96768	J
630-06-8	n-Hexatriacontane (C36)	4.94927	J
7194-85-6	n-Octatriacontane (C38)	4.97999	J
4181-95-7	n-Tetracontane (C40)	4.95300	J
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	19.7451	
3386-33-2	1-chlorooctadecane	18.9620	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm016.d

Date : 17-SEP-2015 01:16

Client ID:

Instrument: gc15.i

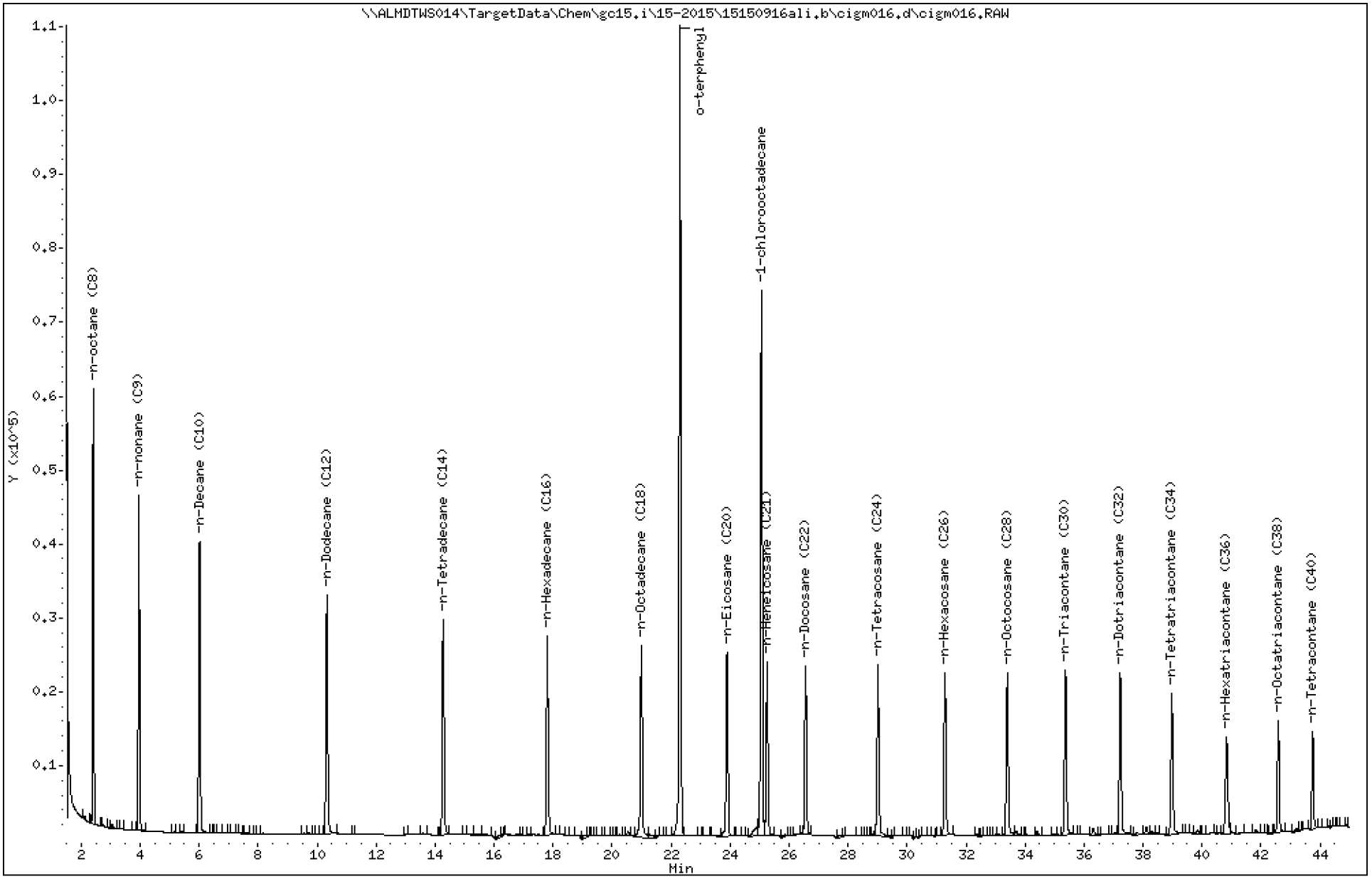
Sample Info: aliical12:::1:2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm01
Lab Smp Id: aliical3
Inj Date : 17-SEP-2015 02:14
Operator : KJH Inst ID: gc15.i
Smp Info : aliical3;;;1;3
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphE
Meth Date : 17-Sep-2015 11:50 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 02:14 Cal File: cigm017.RAW
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
	1 n-octane (C8)	2.400	2.400	0.000	377976	250.000	254.780
	32 n-nonane (C9)	3.950	3.950	0.000	387674	13.0000	14.5526
	2 n-Decane (C10)	6.008	6.000	0.008	361005	13.0000	13.4146
	3 n-Dodecane (C12)	10.325	10.333	-0.008	342033	13.0000	13.7701
	4 n-Tetradecane (C14)	14.275	14.300	-0.025	318300	13.0000	13.6777
	5 n-Hexadecane (C16)	17.808	17.825	-0.017	299246	13.0000	13.4487
	7 n-Octadecane (C18)	20.991	21.000	-0.009	296501	13.0000	14.2067
$	6 o-terphenyl	22.308	22.300	0.008	1109944	50.0000	50.1446
	8 n-Eicosane (C20)	23.900	23.900	0.000	246323	13.0000	12.5237
$	31 1-chlorooctadecane	25.066	25.066	0.000	813690	50.0000	50.1968
	9 n-Heneicosane (C21)	25.258	25.258	0.000	258535	13.0000	13.3044
	10 n-Docosane (C22)	26.558	26.575	-0.017	241319	13.0000	13.3943
	12 n-Tetracosane (C24)	29.016	29.025	-0.009	239197	13.0000	12.9959
	13 n-Hexacosane (C26)	31.283	31.300	-0.017	257295	13.0000	13.8738
	15 n-Octocosane (C28)	33.400	33.408	-0.008	243697	13.0000	13.0088
	16 n-Triacontane (C30)	35.383	35.383	0.000	249123	13.0000	12.6245
	17 n-Dotriacontane (C32)	37.233	37.241	-0.008	246615	13.0000	12.7004
	18 n-Tetratriacontane (C34)	38.983	38.983	0.000	223997	13.0000	12.1489
	19 n-Hexatriacontane (C36)	40.841	40.841	0.000	189663	13.0000	12.1657(M)
	20 n-Octatriacontane (C38)	42.591	42.591	0.000	159537	13.0000	12.5340
	21 n-Tetracontane (C40)	43.750	43.758	-0.008	131927	13.0000	12.9755

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliical3
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
----------	n-octane (C8)	254.780	
----------	Napthalene	0.000000	U
----------	2-Methylnapthalene	5.33000	U
111-84-2	n-nonane (C9)	14.5526	
124-18-5	n-Decane (C10)	13.4146	
112-40-3	n-Dodecane (C12)	13.7701	
629-59-4	n-Tetradecane (C14)	13.6777	
544-76-3	n-Hexadecane (C16)	13.4487	
593-45-3	n-Octadecane (C18)	14.2067	
112-95-8	n-Eicosane (C20)	12.5237	
629-94-7	n-Heneicosane (C21)	13.3044	
629-97-0	n-Docosane (C22)	13.3943	
646-31-1	n-Tetracosane (C24)	12.9959	
630-01-3	n-Hexacosane (C26)	13.8738	
630-02-4	n-Octocosane (C28)	13.0088	
638-68-6	n-Triacontane (C30)	12.6245	
544-85-4	n-Dotriacontane (C32)	12.7004	
14167-59-0	n-Tetratriacontane (C34)	12.1489	
630-06-8	n-Hexatriacontane (C36)	12.1657	
7194-85-6	n-Octatriacontane (C38)	12.5340	
4181-95-7	n-Tetracontane (C40)	12.9755	
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	50.1446	
3386-33-2	1-chlorooctadecane	50.1968	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm017.d

Date : 17-SEP-2015 02:14

Client ID:

Instrument: gc15.i

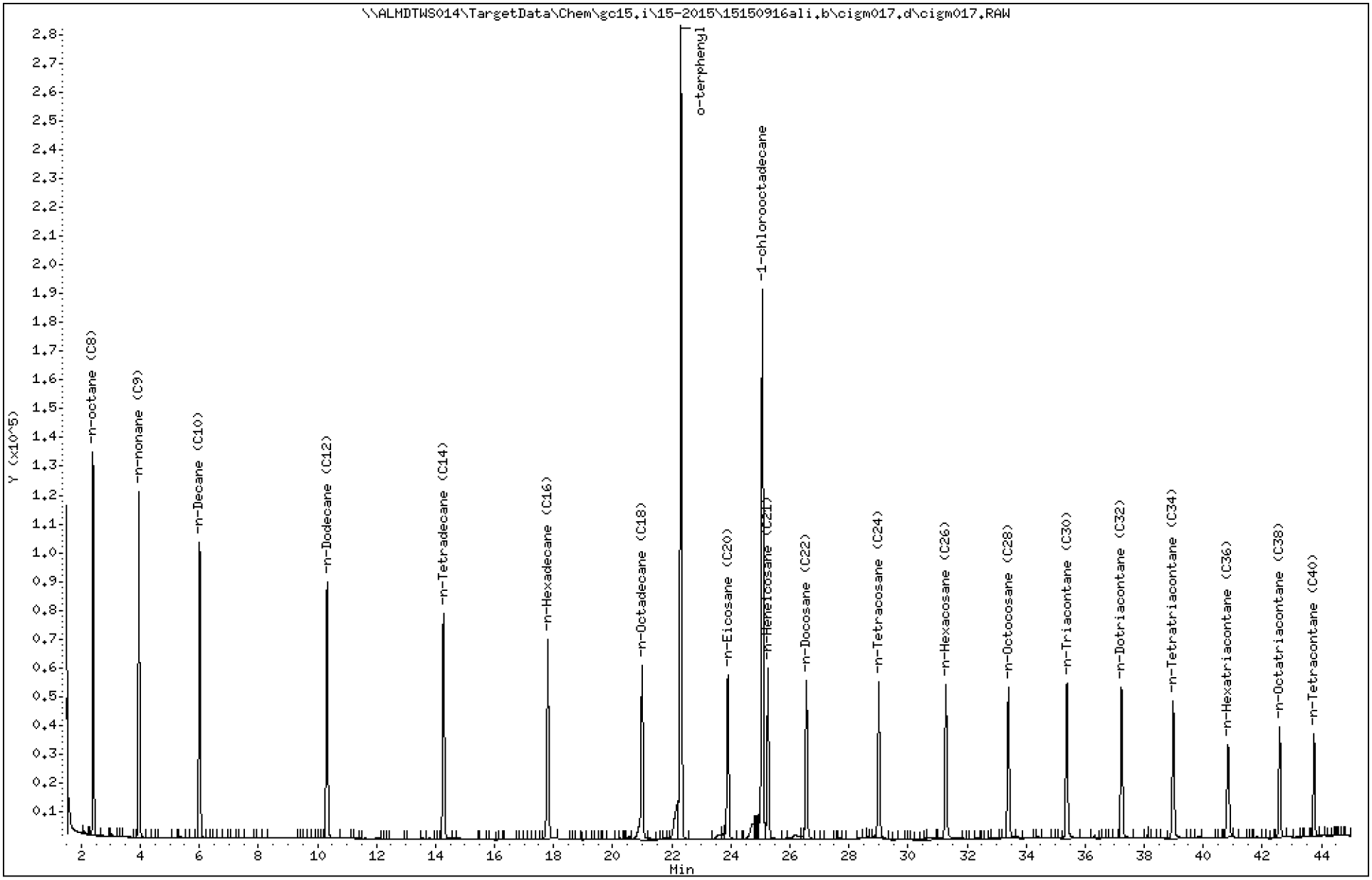
Sample Info: aliical3;;;1;3

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm01
Lab Smp Id: aliical4
Inj Date : 17-SEP-2015 03:12
Operator : KJH Inst ID: gc15.i
Smp Info : aliical4;;;1;4
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphE
Meth Date : 17-Sep-2015 11:50 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.RAW
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
	1 n-octane (C8)	2.391	2.400	-0.009	747469	500.000	503.842
	32 n-nonane (C9)	3.950	3.950	0.000	791116	26.0000	29.6970
	2 n-Decane (C10)	6.008	6.000	0.008	721931	26.0000	26.8262
	3 n-Dodecane (C12)	10.325	10.333	-0.008	681091	26.0000	27.4204
	4 n-Tetradecane (C14)	14.266	14.300	-0.034	636207	26.0000	27.3385
	5 n-Hexadecane (C16)	17.800	17.825	-0.025	596468	26.0000	26.8064
	7 n-Octadecane (C18)	20.991	21.000	-0.009	503934	26.0000	24.1457
$	6 o-terphenyl	22.316	22.300	0.016	2155356	100.000	97.3738
	8 n-Eicosane (C20)	23.900	23.900	0.000	473937	26.0000	24.0963
$	31 1-chlorooctadecane	25.075	25.066	0.009	1657648	100.000	102.261
	9 n-Heneicosane (C21)	25.258	25.258	0.000	483798	26.0000	24.8967
	10 n-Docosane (C22)	26.558	26.575	-0.017	454004	26.0000	25.1993
	12 n-Tetracosane (C24)	29.016	29.025	-0.009	472544	26.0000	25.6740
	13 n-Hexacosane (C26)	31.283	31.300	-0.017	451725	26.0000	24.3578
	15 n-Octocosane (C28)	33.400	33.408	-0.008	470814	26.0000	25.1325
	16 n-Triacontane (C30)	35.383	35.383	0.000	480137	26.0000	24.3313
	17 n-Dotriacontane (C32)	37.241	37.241	0.000	480032	26.0000	24.7210
	18 n-Tetratriacontane (C34)	38.991	38.983	0.008	443310	26.0000	24.0438
	19 n-Hexatriacontane (C36)	40.850	40.841	0.009	384517	26.0000	24.6644
	20 n-Octatriacontane (C38)	42.591	42.591	0.000	324610	26.0000	25.5029
	21 n-Tetracontane (C40)	43.758	43.758	0.000	269173	26.0000	26.4742

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliical4
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
	n-octane (C8)	503.842	
	Napthalene	0.000000	U
	2-Methylnapthalene	5.33000	U
111-84-2	n-nonane (C9)	29.6970	
124-18-5	n-Decane (C10)	26.8262	
112-40-3	n-Dodecane (C12)	27.4204	
629-59-4	n-Tetradecane (C14)	27.3385	
544-76-3	n-Hexadecane (C16)	26.8064	
593-45-3	n-Octadecane (C18)	24.1457	
112-95-8	n-Eicosane (C20)	24.0963	
629-94-7	n-Heneicosane (C21)	24.8967	
629-97-0	n-Docosane (C22)	25.1993	
646-31-1	n-Tetracosane (C24)	25.6740	
630-01-3	n-Hexacosane (C26)	24.3578	
630-02-4	n-Octocosane (C28)	25.1325	
638-68-6	n-Triacontane (C30)	24.3313	
544-85-4	n-Dotriacontane (C32)	24.7210	
14167-59-0	n-Tetratriacontane (C34)	24.0438	
630-06-8	n-Hexatriacontane (C36)	24.6644	
7194-85-6	n-Octatriacontane (C38)	25.5029	
4181-95-7	n-Tetracontane (C40)	26.4742	
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	97.3738	
3386-33-2	1-chlorooctadecane	102.261	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm018.d

Date : 17-SEP-2015 03:12

Client ID:

Instrument: gc15.i

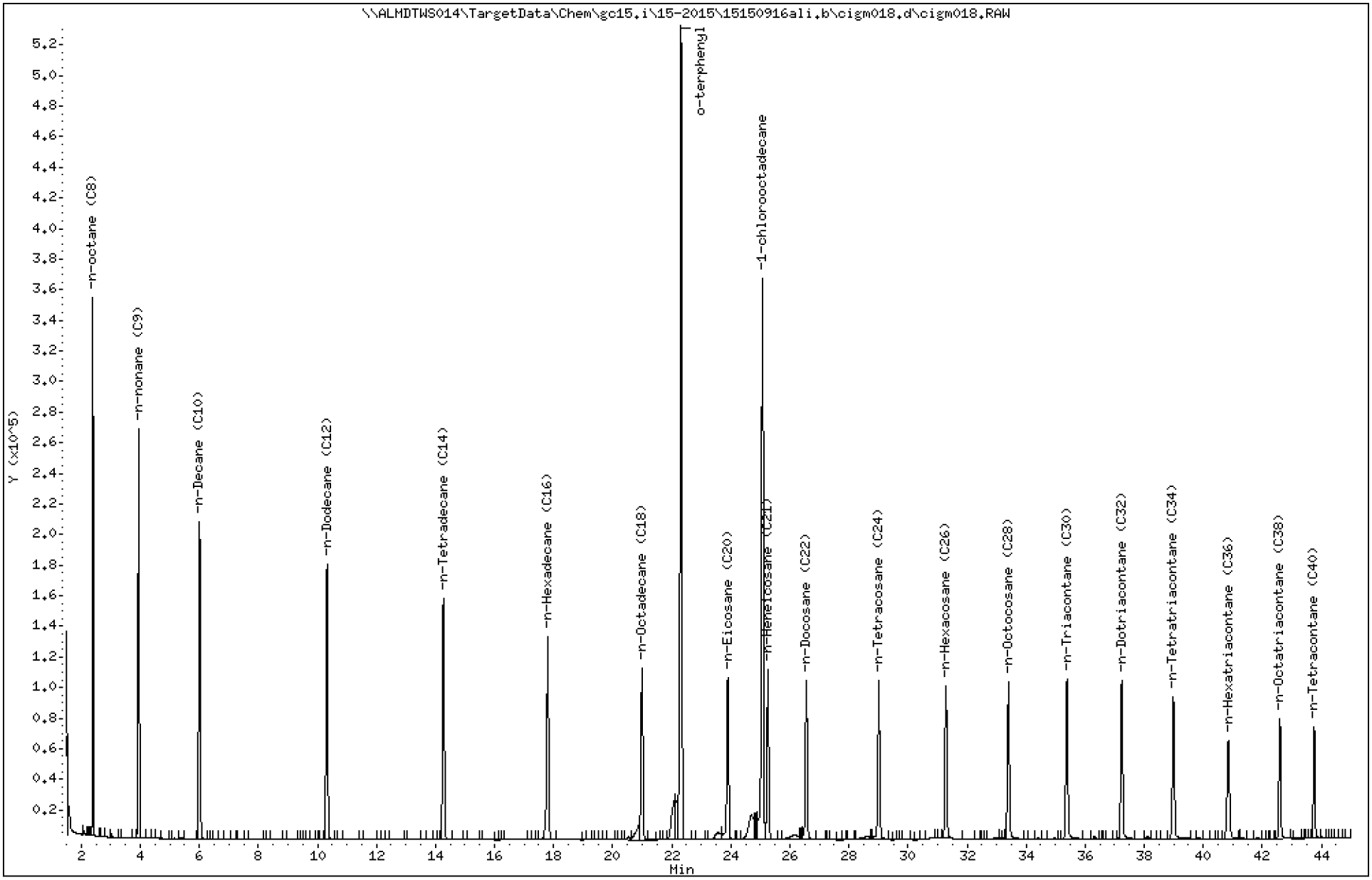
Sample Info: aliical4;;;1;4

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm01
Lab Smp Id: aliical5
Inj Date : 17-SEP-2015 04:11
Operator : KJH Inst ID: gc15.i
Smp Info : aliical5;;;1;5
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphE
Meth Date : 17-Sep-2015 11:50 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 04:11 Cal File: cigm019.RAW
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng/uL)	ON-COL (ng/uL)
	1 n-octane (C8)	2.391	2.400	-0.009	1452473	1000.00	979.060
	32 n-nonane (C9)	3.950	3.950	0.000	917536	52.0000	34.4426
	2 n-Decane (C10)	6.008	6.000	0.008	1401335	52.0000	52.0722
	3 n-Dodecane (C12)	10.325	10.333	-0.008	1324872	52.0000	53.3387
	4 n-Tetradecane (C14)	14.266	14.300	-0.034	1236760	52.0000	53.1448
	5 n-Hexadecane (C16)	17.808	17.825	-0.017	1163990	52.0000	52.3119
	7 n-Octadecane (C18)	21.000	21.000	0.000	967741	52.0000	46.3688
$	6 o-terphenyl	22.333	22.300	0.033	4011819	200.000	181.244
	8 n-Eicosane (C20)	23.900	23.900	0.000	801476	52.0000	40.7492
$	31 1-chlorooctadecane	25.091	25.066	0.025	2975945	200.000	183.587
	9 n-Heneicosane (C21)	25.266	25.258	0.008	864601	52.0000	44.4931
	10 n-Docosane (C22)	26.558	26.575	-0.017	827291	52.0000	45.9185
	12 n-Tetracosane (C24)	29.016	29.025	-0.009	860504	52.0000	46.7525
	13 n-Hexacosane (C26)	31.291	31.300	-0.009	868663	52.0000	46.8399
	15 n-Octocosane (C28)	33.408	33.408	0.000	879485	52.0000	46.9477
	16 n-Triacontane (C30)	35.391	35.383	0.008	934705	52.0000	47.3668
	17 n-Dotriacontane (C32)	37.250	37.241	0.009	918139	52.0000	47.2830
	18 n-Tetratriacontane (C34)	39.000	38.983	0.017	857498	52.0000	46.5081
	19 n-Hexatriacontane (C36)	40.858	40.841	0.017	754183	52.0000	48.3761
	20 n-Octatriacontane (C38)	42.600	42.591	0.009	652156	52.0000	51.2365
	21 n-Tetracontane (C40)	43.758	43.758	0.000	540450	52.0000	53.1554

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliical5
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
	n-octane (C8)	979.060	
	Napthalene	0.000000	U
	2-Methylnapthalene	5.33000	U
111-84-2	n-nonane (C9)	34.4426	
124-18-5	n-Decane (C10)	52.0722	
112-40-3	n-Dodecane (C12)	53.3387	
629-59-4	n-Tetradecane (C14)	53.1448	
544-76-3	n-Hexadecane (C16)	52.3119	
593-45-3	n-Octadecane (C18)	46.3688	
112-95-8	n-Eicosane (C20)	40.7492	
629-94-7	n-Heneicosane (C21)	44.4931	
629-97-0	n-Docosane (C22)	45.9185	
646-31-1	n-Tetracosane (C24)	46.7525	
630-01-3	n-Hexacosane (C26)	46.8399	
630-02-4	n-Octocosane (C28)	46.9477	
638-68-6	n-Triacontane (C30)	47.3668	
544-85-4	n-Dotriacontane (C32)	47.2830	
14167-59-0	n-Tetratriacontane (C34)	46.5081	
630-06-8	n-Hexatriacontane (C36)	48.3761	
7194-85-6	n-Octatriacontane (C38)	51.2365	
4181-95-7	n-Tetracontane (C40)	53.1554	
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	181.244	
3386-33-2	1-chlorooctadecane	183.587	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm019.d

Date : 17-SEP-2015 04:11

Client ID:

Instrument: gc15.i

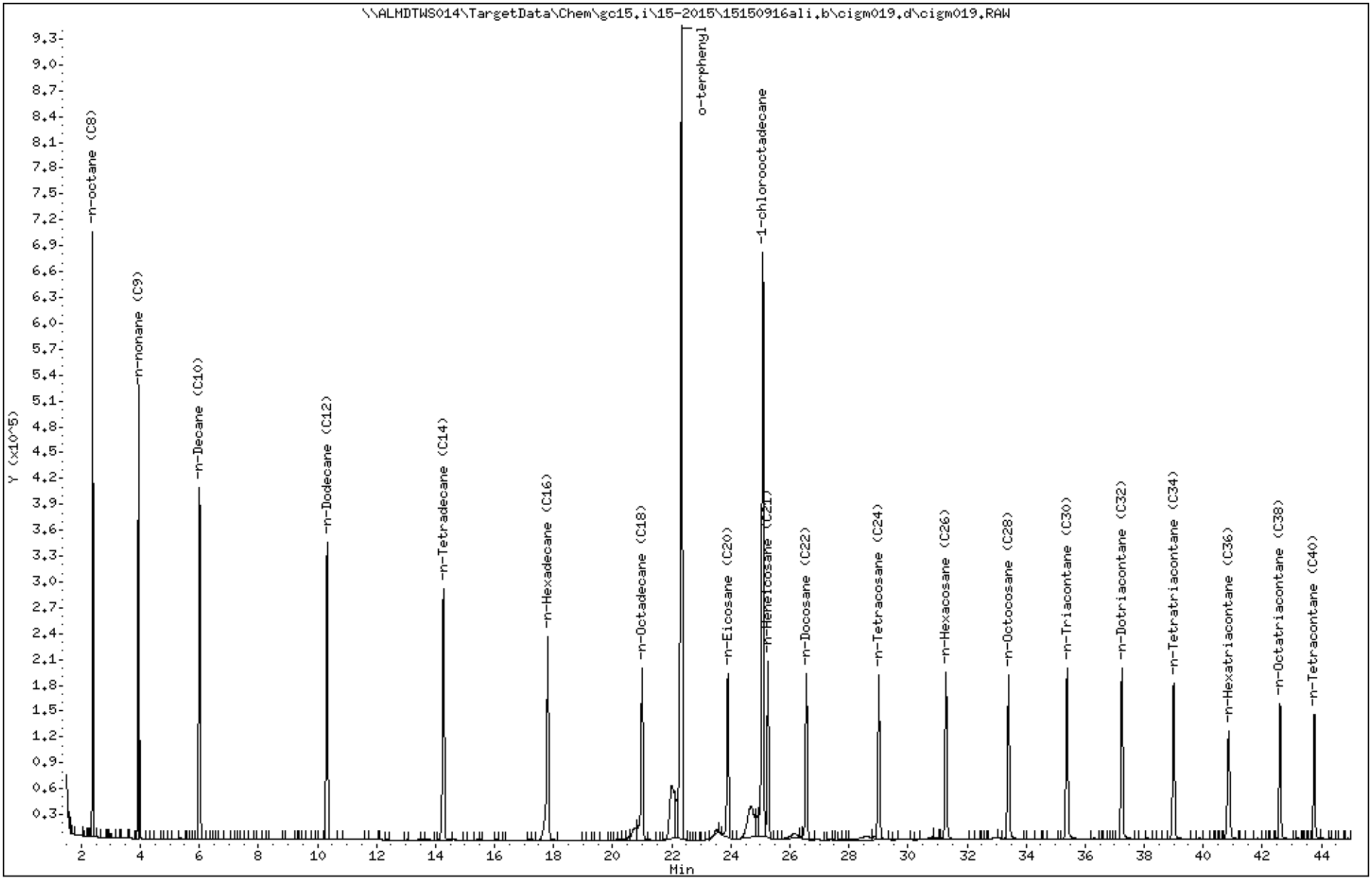
Sample Info: aliical5;;;1;5

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 09/09/15 09/17/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0810 0411

LAB FILE ID: RF20: CIGM015 RF100: CIGM016 RF250: CIGM017
RF500: CIGM018 RF1000: CIGM019

COMPOUND	RF20	RF100	RF250	RF500	RF1000
C9:C12	25773.750	26699.038	28114.820	28255.346	27446.269
C12:C16	21781.428	23373.750	24050.000	23855.404	23206.154
C16:C21	25135.938	23011.923	26419.179	28492.551	31740.570
C21:C40	25166.571	17976.019	17352.938	17240.669	16544.377
o-terphenyl	25010.000	21860.100	22198.880	21553.560	20271.270
2-Bromonaphthalene					
2-Fluorobiphenyl					
1-chlorooctadecane	17912.500	15368.700	16273.800	16576.480	15198.195

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 09/09/15 09/17/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0810 0411

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
C9:C12	AVRG	27257.8449	3.795	20.000
C12:C16	AVRG	23253.3473	3.835	20.000
C16:C21	AVRG	26960.0324	12.359	20.000
C21:C40	AVRG	18856.1151	18.901	20.000
o-terphenyl	AVRG	22178.7620	7.857	20.000
2-Bromonaphthalene	AVRG			0.000
2-Fluorobiphenyl	AVRG			0.000
1-chlorooctadecane	AVRG	16265.9350	6.701	20.000

Average %RSD test result.

Calculate Average %RSD: 8.908082962
Maximum Average %RSD: 30.00000000

Note: Passes Average %RSD Test.

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 09/09/15 09/17/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0810 0411

LAB FILE ID: RT1: CIGM015 RT2: CIGM016 RT3: CIGM017
RT4: CIGM018 RT5: CIGM019

COMPOUND	RT1	RT2	RT3	RT4	RT5
C9:C12	7.150	7.150	7.150	7.150	7.150
C12:C16	14.300	14.300	14.300	14.300	14.300
C16:C21	21.750	21.750	21.750	21.750	21.750
C21:C40	34.700	34.700	34.700	34.700	34.700
o-terphenyl	22.300	22.300	22.308	22.317	22.333
2-Bromonaphthalene	13.800	13.800	13.783	13.783	13.775
2-Fluorobiphenyl	16.058	16.025	16.100	16.083	16.075
1-chlorooctadecane	25.067	25.067	25.067	25.075	25.092

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date(s): 09/09/15 09/17/15

Column: ZB-5 ID: 0.53 (mm) Calibration Time(s): 0810 0411

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
C9:C12	7.150	3.800	10.500
C12:C16	14.300	10.600	18.000
C16:C21	21.750	18.100	25.400
C21:C40	34.700	25.500	43.900
o-terphenyl	22.312	22.217	22.417
2-Bromonaphthalene	13.788	13.683	13.883
2-Fluorobiphenyl	16.068	15.975	16.175
1-chlorooctadecane	25.074	24.975	25.175

FORM VI SV

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 09-SEP-2015 08:10
End Cal Date : 17-SEP-2015 04:11
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\AliphEPH.m
Last Edit : 17-Sep-2015 09:39 kjh

Calibration File Names:
Level 1: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm015.d
Level 2: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm016.d
Level 3: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm017.d
Level 4: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm018.d
Level 5: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm019.d

Compound	20.0000 Level 1	100.0000 Level 2	250.0000 Level 3	500.0000 Level 4	1000.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
S 27 C9:C12	25774	26699	28115	28255	27446	AVRG		27258		3.79478
S 28 C12:C16	21781	23374	24050	23855	23206	AVRG		23253		3.83464
S 29 C16:C21	25136	23012	26419	28493	31741	AVRG		26960		12.35913
S 30 C21:C40	25167	17976	17353	17241	16544	AVRG		18856		18.90129
$ 11 2-Bromonaphthalene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 14 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 6 o-terphenyl	25010	21860	22199	21554	20271	AVRG		22179		7.85727
$ 31 1-chlorooctadecane	17913	15369	16274	16576	15198	AVRG		16266		6.70139

ALS Environmental Services

INITIAL CALIBRATION DATA

Start Cal Date : 09-SEP-2015 08:10
End Cal Date : 17-SEP-2015 04:11
Quant Method : ESTD
Target Version : 4.14
Integrator : Falcon
Method file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\AliphEPH.m
Last Edit : 17-Sep-2015 09:39 kjh

Average %RSD Results.	
Calculated Average %RSD =	8.90808
Maximun Average %RSD =	30.00000
* Passed Average %RSD Test.	

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Lab Smp Id: aliical1
Inj Date : 17-SEP-2015 00:17
Operator : KJH Inst ID: gc15.i
Smp Info : aliical1;;;1;1
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Meth Date : 17-Sep-2015 10:57 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 00:17 Cal File: cigm015.d
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
S 27 C9:C12	3.800-10.500			82476	3.20000	3.02969(a)
S 28 C12:C16	10.600-18.000			45741	2.10000	1.87034(a)
S 29 C16:C21	18.100-25.400			80435	3.20000	2.47372(a)
$ 6 o-terphenyl	22.300	22.317	-0.017	100040	4.00000	4.51927(a)
$ 31 1-chlorooctadecane	25.066	25.075	-0.009	71650	4.00000	4.42209(a)
S 30 C21:C40	25.500-43.900			264249	10.5000	14.1736

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliical1
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	3.02969	J
C12_C16	C12:C16	1.87034	J
C16_C21	C16:C21	2.47372	J
C21_C40	C21:C40	14.1736	
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	4.51927	J
3386-33-2	1-chlorooctadecane	4.42209	J

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm015.d

Date : 17-SEP-2015 00:17

Client ID:

Instrument: gc15.i

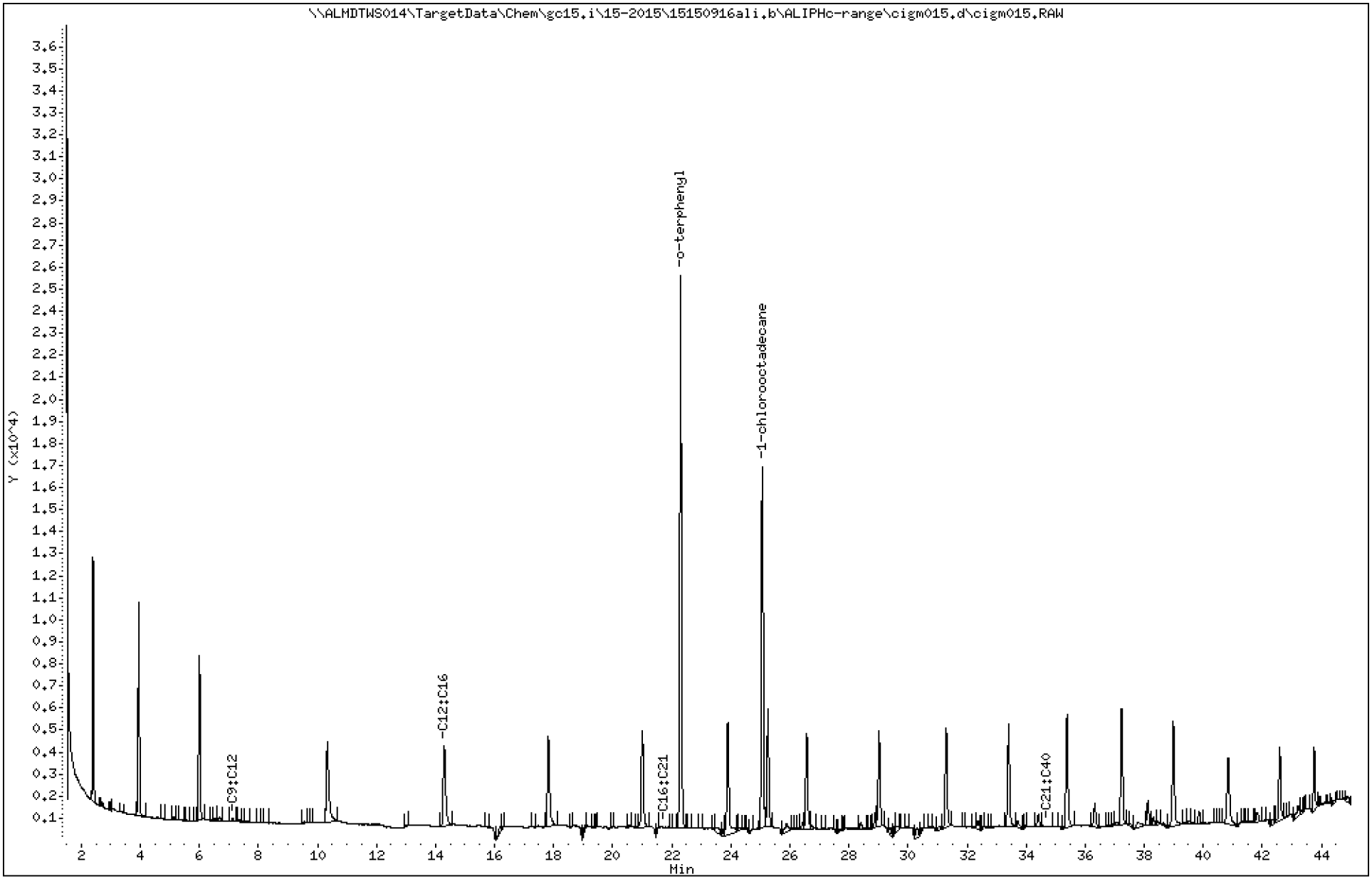
Sample Info: aliical1;;;1;1

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Lab Smp Id: aliicall2
Inj Date : 17-SEP-2015 01:16
Operator : KJH Inst ID: gc15.i
Smp Info : aliicall2;;;1;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Meth Date : 17-Sep-2015 10:57 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 01:16 Cal File: cigm016.d
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
S 27 C9:C12	3.800	-10.500		416505	15.6000	15.4196
S 28 C12:C16	10.600	-18.000		243087	10.4000	10.0550
S 29 C16:C21	18.100	-25.400		358986	15.6000	11.5893
$ 6 o-terphenyl	22.300	22.317	-0.017	437202	20.0000	19.7504
$ 31 1-chlorooctadecane	25.066	25.075	-0.009	307374	20.0000	18.9705
S 30 C21:C40	25.500	-43.900		934753	52.0000	50.1375

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliicall2
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	15.4196	
C12_C16	C12:C16	10.0550	
C16_C21	C16:C21	11.5893	
C21_C40	C21:C40	50.1375	
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	19.7504	
3386-33-2	1-chlorooctadecane	18.9705	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm016.d

Date : 17-SEP-2015 01:16

Client ID:

Instrument: gc15.i

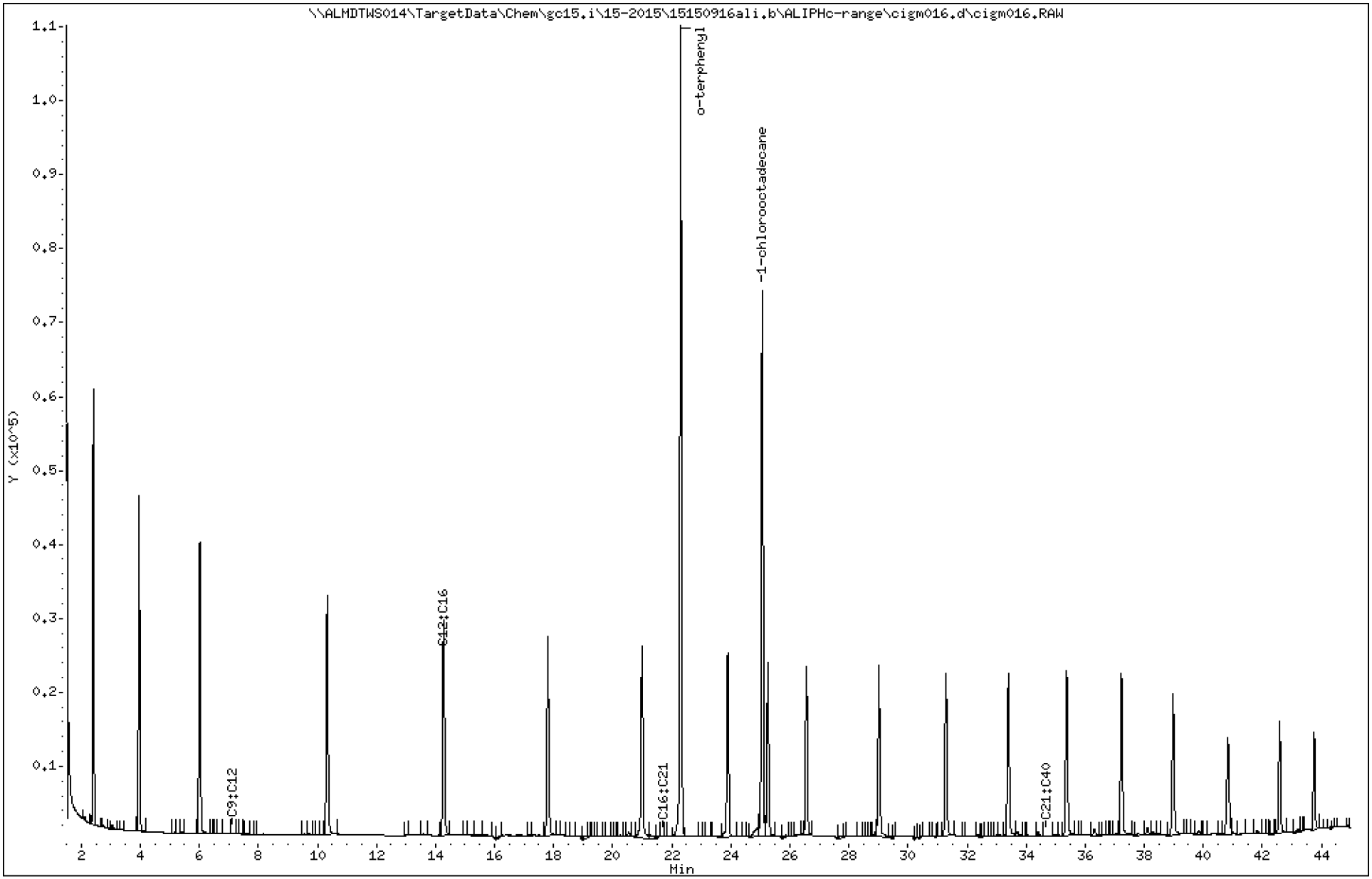
Sample Info: aliical12:::1:2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Lab Smp Id: aliical3
Inj Date : 17-SEP-2015 02:14
Operator : KJH Inst ID: gc15.i
Smp Info : aliical3;;;1;3
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Meth Date : 17-Sep-2015 10:57 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 02:14 Cal File: cigm017.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
S 27 C9:C12	3.800-10.500			1096478	39.0000	41.4378
S 28 C12:C16	10.600-18.000			625300	26.0000	26.9177
S 29 C16:C21	18.100-25.400			1030348	39.0000	39.0621
$ 6 o-terphenyl	22.308	22.317	-0.009	1109944	50.0000	50.1413
$ 31 1-chlorooctadecane	25.066	25.075	-0.009	813690	50.0000	50.2193
S 30 C21:C40	25.500-43.900			2255882	130.000	120.046(M)

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliical3
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	41.4378	
C12_C16	C12:C16	26.9177	
C16_C21	C16:C21	39.0621	
C21_C40	C21:C40	120.046	
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	50.1413	
3386-33-2	1-chlorooctadecane	50.2193	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm017.d

Date : 17-SEP-2015 02:14

Client ID:

Instrument: gc15.i

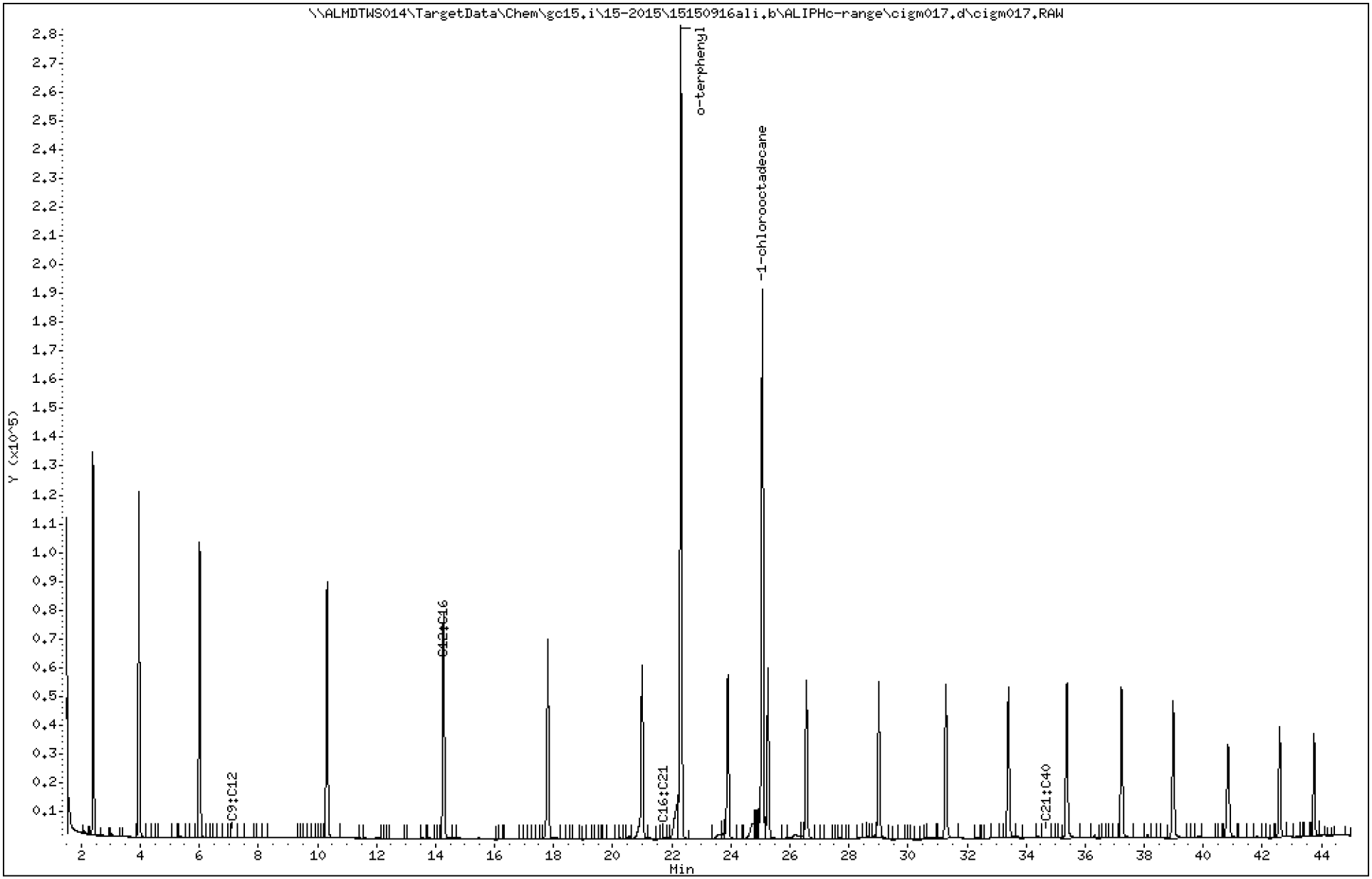
Sample Info: aliical3;;;1;3

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Lab Smp Id: aliical4
Inj Date : 17-SEP-2015 03:12
Operator : KJH Inst ID: gc15.i
Smp Info : aliical4;;;1;4
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Meth Date : 17-Sep-2015 10:57 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
S 27 C9:C12	3.800	-10.500		2203917	78.0000	80.8544
S 28 C12:C16	10.600	-18.000		1240481	52.0000	53.3463
S 29 C16:C21	18.100	-25.400		2222419	78.0000	82.4338
$ 6 o-terphenyl	22.316	22.317	-0.001	2155356	100.000	97.1811
$ 31 1-chlorooctadecane	25.075	25.075	0.000	1657648	100.000	101.909
S 30 C21:C40	25.500	-43.900		4482574	260.000	237.725

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliical4
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	80.8544	
C12_C16	C12:C16	53.3463	
C16_C21	C16:C21	82.4338	
C21_C40	C21:C40	237.725	
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	97.1811	
3386-33-2	1-chlorooctadecane	101.909	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm018.d

Date : 17-SEP-2015 03:12

Client ID:

Instrument: gc15.i

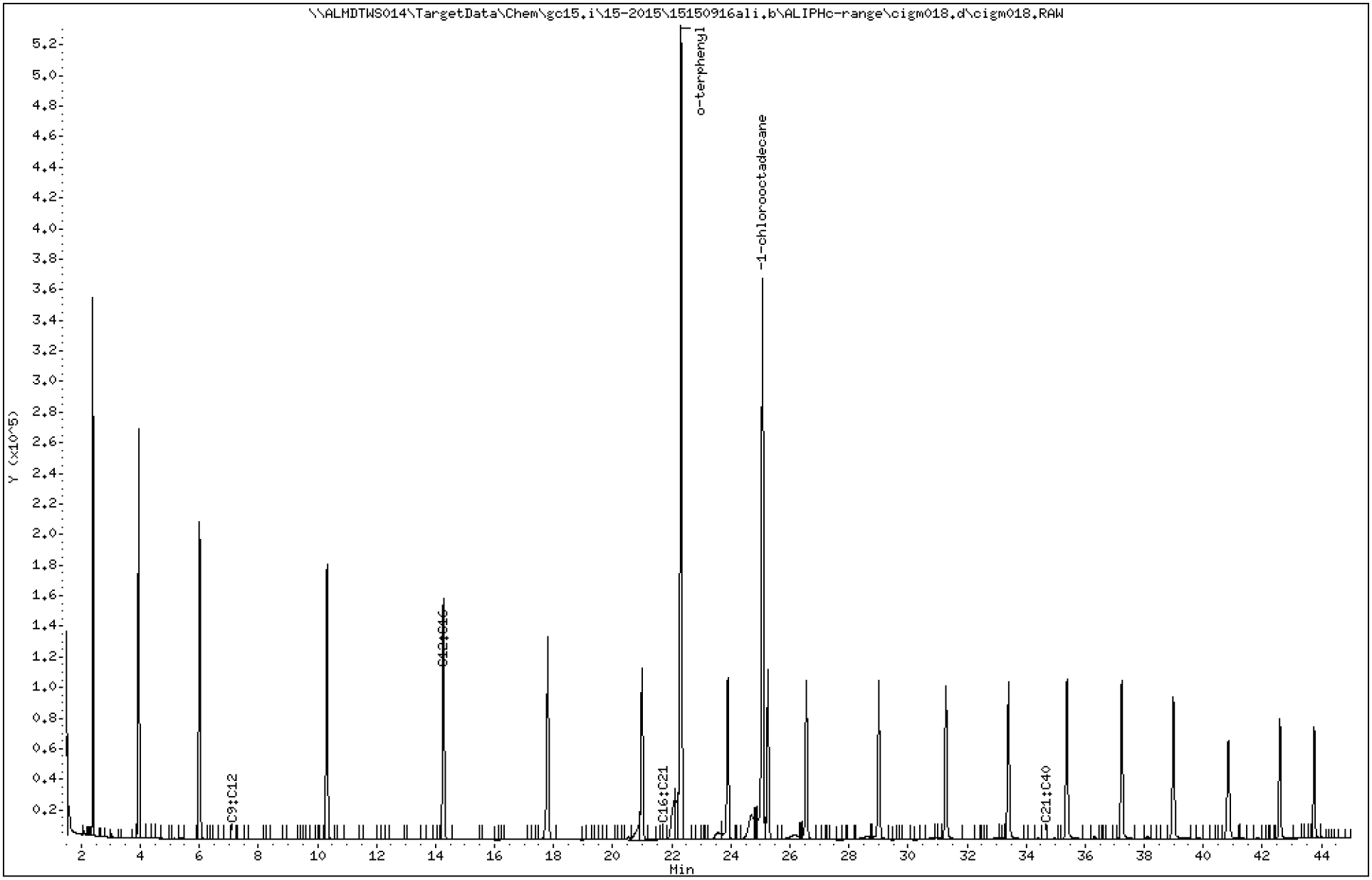
Sample Info: aliical4;;;1;4

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Lab Smp Id: aliical5
Inj Date : 17-SEP-2015 04:11
Operator : KJH Inst ID: gc15.i
Smp Info : aliical5;;;1;5
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Meth Date : 17-Sep-2015 10:57 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 04:11 Cal File: cigm019.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
S 27 C9:C12	3.800-10.500			4281618	156.000	157.078(AM)
S 28 C12:C16	10.600-18.000			2413440	104.000	103.789(M)
S 29 C16:C21	18.100-25.400			4951529	156.000	183.662(AM)
$ 6 o-terphenyl	22.333	22.317	0.016	4054254	200.000	182.799(M)
$ 31 1-chlorooctadecane	25.091	25.075	0.016	3039639	200.000	186.871(M)
S 30 C21:C40	25.500-43.900			8603076	520.000	456.866(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: 15150916ali.b
Lab Smp Id: aliical5
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	157.078	E
C12_C16	C12:C16	103.789	
C16_C21	C16:C21	183.662	E
C21_C40	C21:C40	456.866	
580-13-2	2-Bromonaphthalene	5.33000	U
321-60-8	2-Fluorobiphenyl	5.33000	U
84-15-1	o-terphenyl	182.799	
3386-33-2	1-chlorooctadecane	186.871	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm019.d

Date : 17-SEP-2015 04:11

Client ID:

Instrument: gc15.i

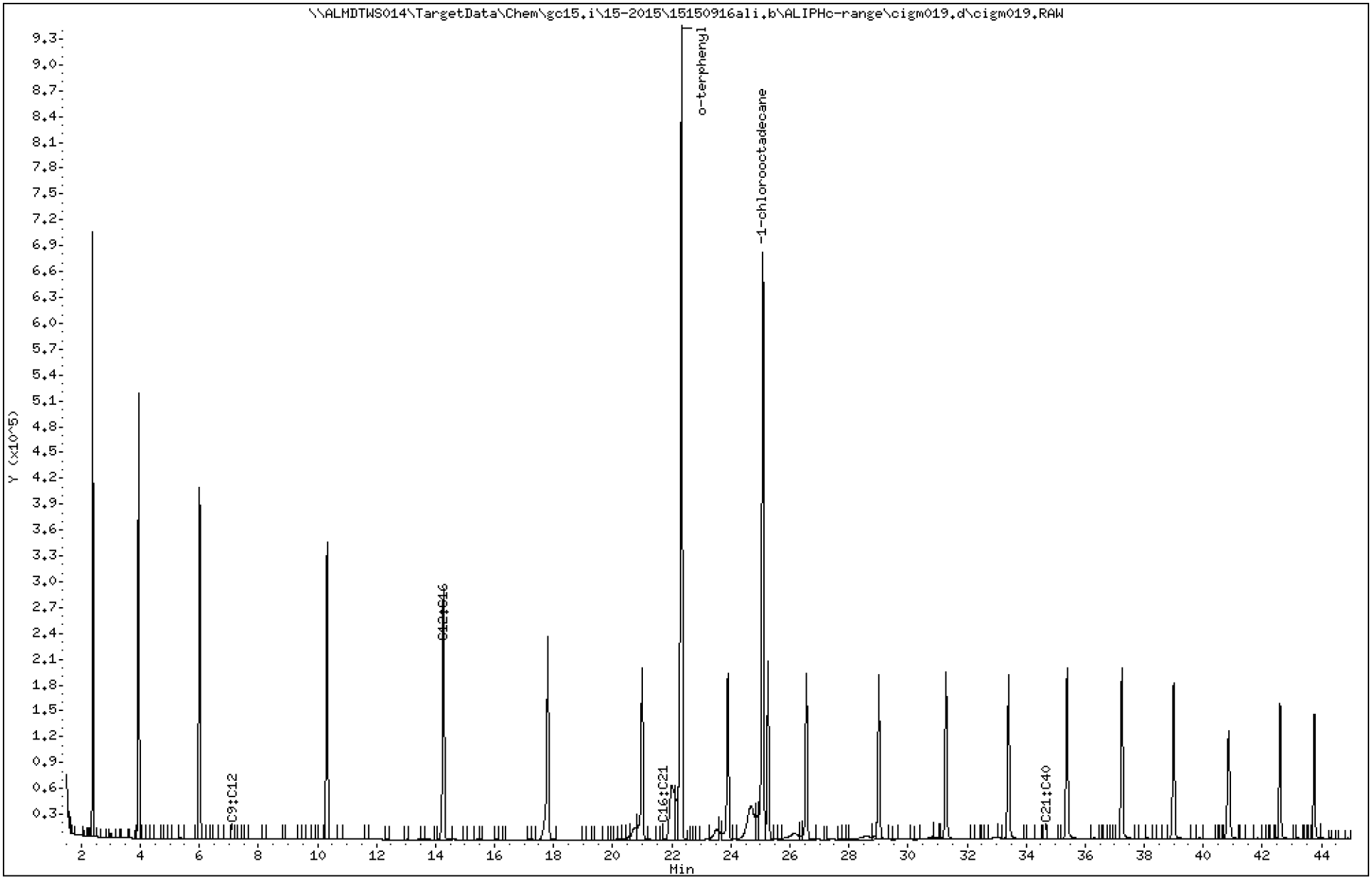
Sample Info: aliical5;;;1;5

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Initial Calibration Verifications

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/17/15 Time: 0654

Lab File ID: CIGM020 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
n-octane (C8)	1483.5390	1491.0100	0.01	0.50	30.00	AVRG	
n-Eicosane (C20)	19668.495	17751.346	0.01	-9.75	30.00	AVRG	
n-Heneicosane (C21)	19432.237	17603.500	0.01	-9.41	30.00	AVRG	
n-Docosane (C22)	18016.501	17040.577	0.01	-5.42	30.00	AVRG	
n-Tetracosane (C24)	18405.526	17244.346	0.01	-6.31	30.00	AVRG	
n-Hexacosane (C26)	18545.376	17643.769	0.01	-4.86	30.00	AVRG	
n-Octocosane (C28)	18733.306	17443.654	0.01	-6.88	30.00	AVRG	
n-Triacontane (C30)	19733.346	18083.308	0.01	-8.36	30.00	AVRG	
n-Dotriacontane (C32)	19417.956	16899.885	0.01	-12.97	30.00	AVRG	
n-Tetratriacontane (C34)	18437.594	12406.269	0.01	-32.71	30.00	AVRG	<-
n-Hexatriacontane (C36)	15589.978	7478.2692	0.01	-52.03	30.00	AVRG	<-
n-Octatriacontane (C38)	12728.336	4776.0769	0.01	-62.48	30.00	AVRG	<-
n-Tetracontane (C40)	10167.365	3682.6154	0.01	-63.78	30.00	AVRG	<-
n-Decane (C10)	26911.406	27739.192	0.01	3.08	30.00	AVRG	
n-Dodecane (C12)	24838.829	25973.846	0.01	4.57	30.00	AVRG	
n-Hexadecane (C16)	22250.945	22961.462	0.01	3.19	30.00	AVRG	
n-Octadecane (C18)	20870.519	22402.962	0.01	7.34	30.00	AVRG	
n-Tetradecane (C14)	23271.504	24245.962	0.01	4.19	30.00	AVRG	
n-nonane (C9)	26639.570	29785.500	0.01	11.81	30.00	AVRG	
Napthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
2-Methylnapthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
o-terphenyl	22134.857	19992.040	0.01	-9.68	30.00	AVRG	
2-Bromonaphthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
2-Fluorobiphenyl	0.0000000		0.01	0.00	30.00	AVRG	<-
1-chlorooctadecane	16209.991	15810.520	0.01	-2.46	30.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm02
Lab Smp Id: aliss
Inj Date : 17-SEP-2015 06:54
Operator : KJH Inst ID: gc15.i
Smp Info : aliss;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphE
Meth Date : 17-Sep-2015 11:50 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 04:11 Cal File: cigm019.RAW
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

standard reprepped and reanalyzed due to individual compounds failing

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	ON-COL (ng/uL)
	1 n-octane (C8)	2.358	2.400	-0.042	745505	500.000	502.518
	32 n-nonane (C9)	3.908	3.950	-0.042	774423	26.0000	29.0704
	2 n-Decane (C10)	5.966	6.000	-0.034	721219	26.0000	26.7998
	3 n-Dodecane (C12)	10.283	10.333	-0.050	675320	26.0000	27.1881
	4 n-Tetradecane (C14)	14.233	14.300	-0.067	630395	26.0000	27.0887
	5 n-Hexadecane (C16)	17.766	17.825	-0.059	596998	26.0000	26.8302
	7 n-Octadecane (C18)	20.958	21.000	-0.042	582477	26.0000	27.9091
$	6 o-terphenyl	22.275	22.300	-0.025	1999204	100.000	90.3193
	8 n-Eicosane (C20)	23.866	23.900	-0.034	461535	26.0000	23.4657
$	31 1-chlorooctadecane	25.041	25.066	-0.025	1581052	100.000	97.5356
	9 n-Heneicosane (C21)	25.225	25.258	-0.033	457691	26.0000	23.5532
	10 n-Docosane (C22)	26.533	26.575	-0.042	443055	26.0000	24.5916
	12 n-Tetracosane (C24)	28.983	29.025	-0.042	448353	26.0000	24.3597
	13 n-Hexacosane (C26)	31.258	31.300	-0.042	458738	26.0000	24.7360
	15 n-Octocosane (C28)	33.375	33.408	-0.033	453535	26.0000	24.2101
	16 n-Triacontane (C30)	35.358	35.383	-0.025	470166	26.0000	23.8260
	17 n-Dotriacontane (C32)	37.216	37.241	-0.025	439397	26.0000	22.6284
	18 n-Tetratriacontane (C34)	38.958	38.983	-0.025	322563	26.0000	17.4949
	19 n-Hexatriacontane (C36)	40.808	40.841	-0.033	194435	26.0000	12.4718
	20 n-Octatriacontane (C38)	42.566	42.591	-0.025	124178	26.0000	9.75603
	21 n-Tetracontane (C40)	43.733	43.758	-0.025	95748	26.0000	9.41719

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 17-SEP-2015 06:54
Lab File ID: cigm020.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliss Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphEPHin

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 n-octane (C8)	1484	1491	0.010	0.50359	30.00000	Averaged	
33 Napthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
34 2-Methylnapthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
32 n-nonane (C9)	26640	29786	0.010	11.80924	30.00000	Averaged	
2 n-Decane (C10)	26911	27739	0.010	3.07597	30.00000	Averaged	
3 n-Dodecane (C12)	24839	25974	0.010	4.56953	30.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
4 n-Tetradecane (C14)	23272	24246	0.010	4.18734	30.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	++++	0.010	++++	30.00000	Averaged	<-
5 n-Hexadecane (C16)	22251	22961	0.010	3.19320	30.00000	Averaged	
7 n-Octadecane (C18)	20871	22403	0.010	7.34262	30.00000	Averaged	
$ 6 o-terphenyl	22135	19992	0.010	-9.68074	30.00000	Averaged	
8 n-Eicosane (C20)	19668	17751	0.010	-9.74731	30.00000	Averaged	
$ 31 1-chlorooctadecane	16210	15811	0.010	-2.46435	30.00000	Averaged	
9 n-Heneicosane (C21)	19432	17604	0.010	-9.41084	30.00000	Averaged	
10 n-Docosane (C22)	18017	17041	0.010	-5.41683	30.00000	Averaged	
12 n-Tetracosane (C24)	18406	17244	0.010	-6.30886	30.00000	Averaged	
13 n-Hexacosane (C26)	18545	17644	0.010	-4.86163	30.00000	Averaged	
15 n-Octocosane (C28)	18733	17444	0.010	-6.88427	30.00000	Averaged	
16 n-Triacontane (C30)	19733	18083	0.010	-8.36168	30.00000	Averaged	
17 n-Dotriacontane (C32)	19418	16900	0.010	-12.96775	30.00000	Averaged	
18 n-Tetratriacontane (C34)	18438	12406	0.010	-32.71211	30.00000	Averaged	<-
19 n-Hexatriacontane (C36)	15590	7478	0.010	-52.03156	30.00000	Averaged	<-
20 n-Octatriacontane (C38)	12728	4776	0.010	-62.47682	30.00000	Averaged	<-
21 n-Tetracontane (C40)	10167	3683	0.010	-63.78004	30.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 11.91930
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm020.d

Date : 17-SEP-2015 06:54

Client ID:

Instrument: gc15.i

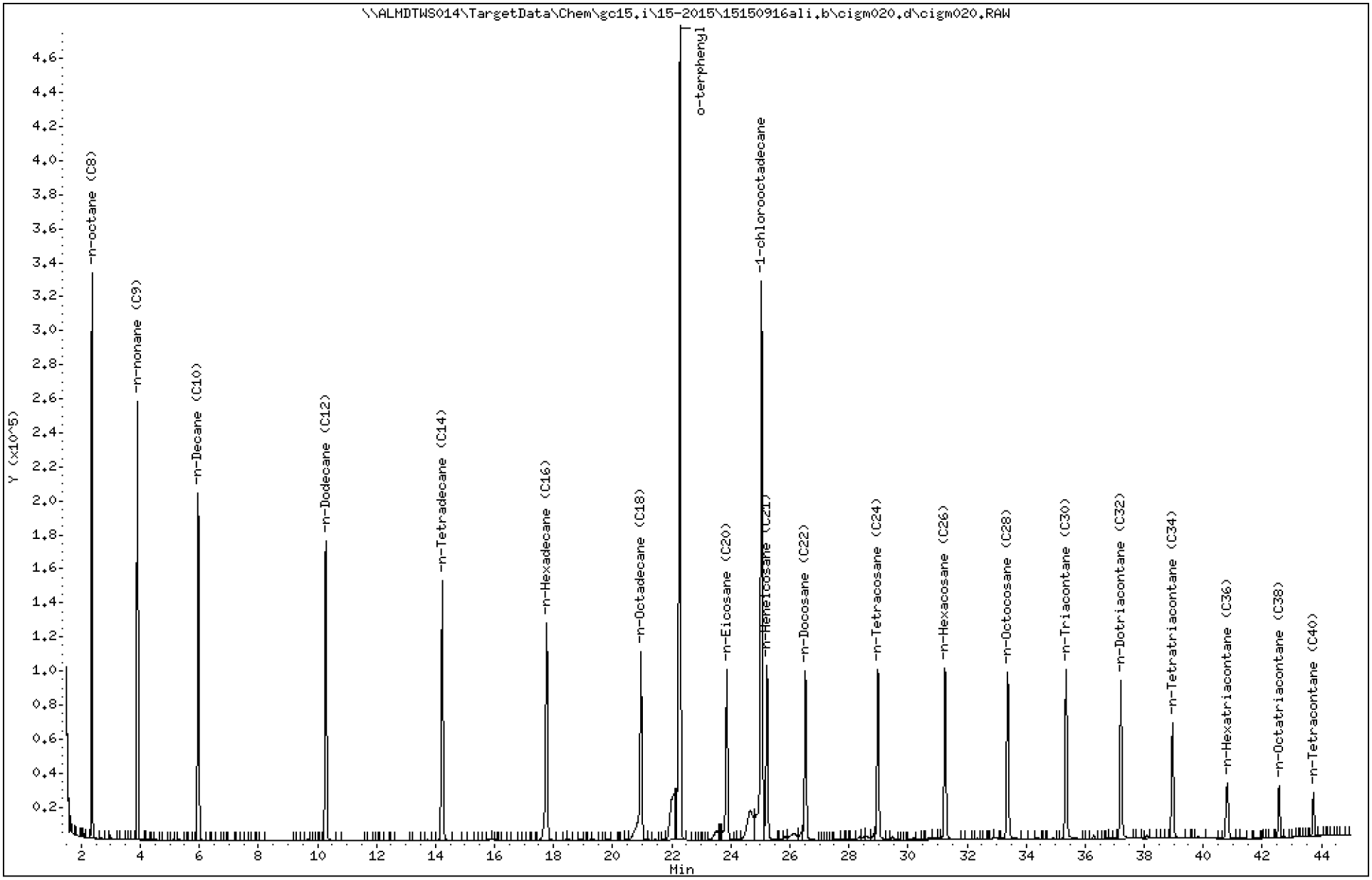
Sample Info: aliss:::2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/17/15 Time: 0654

Lab File ID: CIGM020 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
C9:C12	27257.845	28000.359	0.01	2.72	25.00	AVRG	
C12:C16	23253.347	23739.212	0.01	2.09	25.00	AVRG	
C16:C21	26960.032	28175.077	0.01	4.51	25.00	AVRG	
C21:C40	18856.115	14490.469	0.01	-23.15	25.00	AVRG	
o-terphenyl	22178.762	19992.040	0.01	-9.86	25.00	AVRG	
2-Bromonaphthalene	0.0000000	2.0840000	0.01	0.00	25.00	AVRG	<-
2-Fluorobiphenyl	0.0000000	2.7800000	0.01	0.00	25.00	AVRG	<-
1-chlorooctadecane	16265.935	15810.520	0.01	-2.80	25.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Lab Smp Id: aliss
Inj Date : 17-SEP-2015 06:54
Operator : KJH Inst ID: gc15.i
Smp Info : aliss;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Meth Date : 17-Sep-2015 10:57 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
S	27 C9:C12	3.800	-10.500		2184028	78.0000	80.1247
$	11 2-Bromonaphthalene	13.733	13.783	-0.050	1042	500.000	(a)
S	28 C12:C16	10.600	-18.000		1234439	52.0000	53.0865
$	14 2-Fluorobiphenyl	16.041	16.075	-0.034	1390	500.000	(a)
S	29 C16:C21	18.100	-25.400		2197656	78.0000	81.5153
$	6 o-terphenyl	22.275	22.317	-0.042	1999204	100.000	90.1405
$	31 1-chlorooctadecane	25.041	25.075	-0.034	1581052	100.000	97.2002
S	30 C21:C40	25.500	-43.900		3767522	260.000	199.804

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

standard reprepped and reanalyzed due to individual compounds failing

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 17-SEP-2015 06:54
Lab File ID: cigm020.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliss Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-ran

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
S 27 C9:C12	27258	28000	0.010	2.72404	25.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	2.08400	0.010	++++	25.00000	Averaged	<-
S 28 C12:C16	23253	23739	0.010	2.08944	25.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	2.78000	0.010	++++	25.00000	Averaged	<-
S 29 C16:C21	26960	28175	0.010	4.50684	25.00000	Averaged	
$ 6 o-terphenyl	22179	19992	0.010	-9.85953	25.00000	Averaged	
$ 31 1-chlorooctadecane	16266	15811	0.010	-2.79981	25.00000	Averaged	
S 30 C21:C40	18856	14490	0.010	-23.15241	25.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 10.12751
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm020.d

Date : 17-SEP-2015 06:54

Client ID:

Instrument: gc15.i

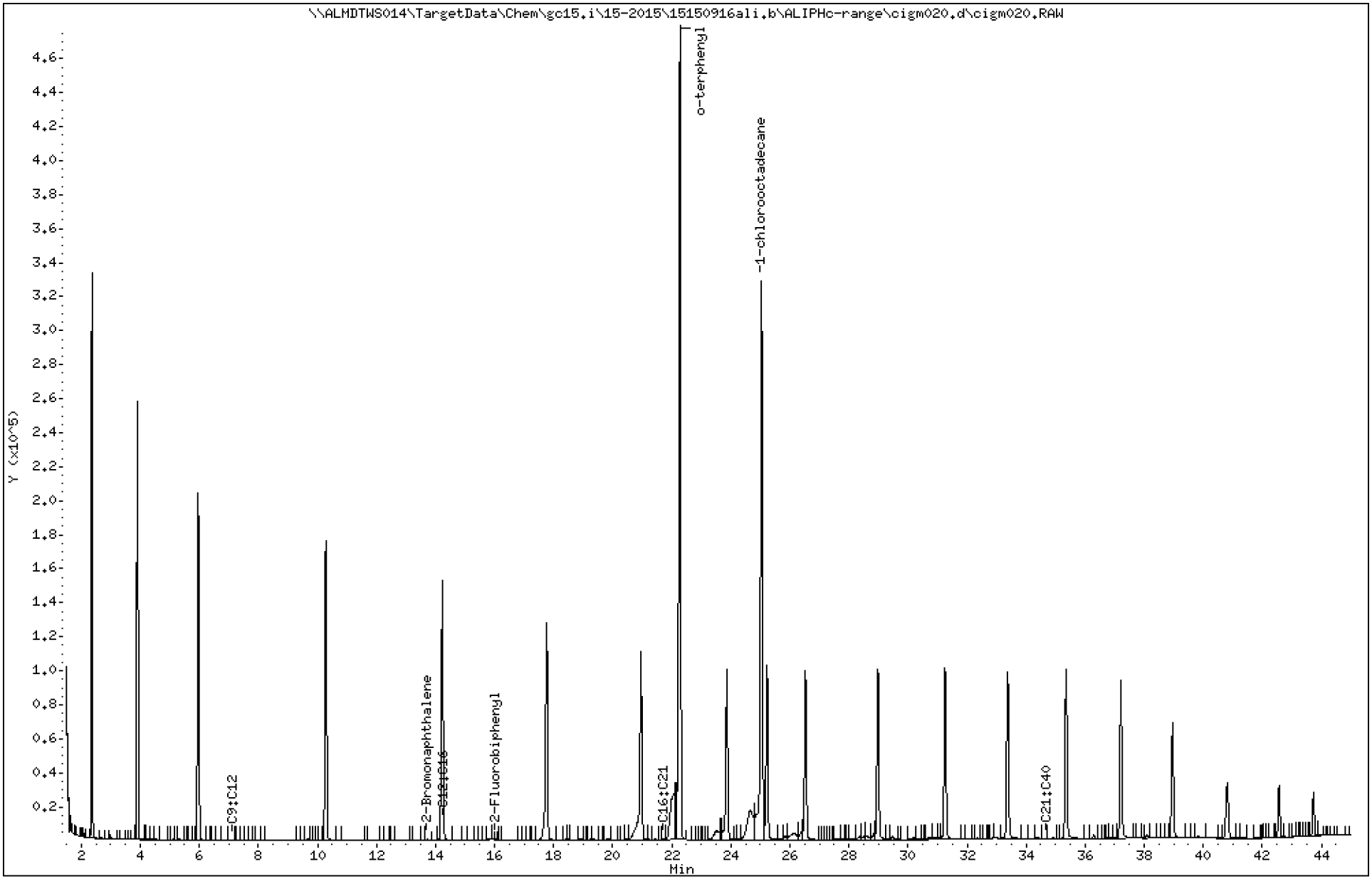
Sample Info: aliss:::2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/17/15 Time: 0852

Lab File ID: CIGM021 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
n-octane (C8)	1483.5390	1389.8000	0.01	-6.32	30.00	AVRG	
n-Eicosane (C20)	19668.495	17017.308	0.01	-13.48	30.00	AVRG	
n-Heneicosane (C21)	19432.237	16195.654	0.01	-16.66	30.00	AVRG	
n-Docosane (C22)	18016.501	16638.500	0.01	-7.65	30.00	AVRG	
n-Tetracosane (C24)	18405.526	17059.038	0.01	-7.32	30.00	AVRG	
n-Hexacosane (C26)	18545.376	16934.385	0.01	-8.69	30.00	AVRG	
n-Octocosane (C28)	18733.306	16837.615	0.01	-10.12	30.00	AVRG	
n-Triacontane (C30)	19733.346	17142.269	0.01	-13.13	30.00	AVRG	
n-Dotriacontane (C32)	19417.956	16308.231	0.01	-16.01	30.00	AVRG	
n-Tetratriacontane (C34)	18437.594	13833.385	0.01	-24.97	30.00	AVRG	
n-Hexatriacontane (C36)	15589.978	11459.654	0.01	-26.49	30.00	AVRG	
n-Octatriacontane (C38)	12728.336	9572.9615	0.01	-24.79	30.00	AVRG	
n-Tetracontane (C40)	10167.365	7142.0000	0.01	-29.76	30.00	AVRG	
n-Decane (C10)	26911.406	25348.846	0.01	-5.81	30.00	AVRG	
n-Dodecane (C12)	24838.829	23755.692	0.01	-4.36	30.00	AVRG	
n-Hexadecane (C16)	22250.945	20838.000	0.01	-6.35	30.00	AVRG	
n-Octadecane (C18)	20870.519	20788.000	0.01	-0.40	30.00	AVRG	
n-Tetradecane (C14)	23271.504	22214.885	0.01	-4.54	30.00	AVRG	
n-nonane (C9)	26639.570	25001.692	0.01	-6.15	30.00	AVRG	
Napthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
2-Methylnapthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
o-terphenyl	22134.857	20021.020	0.01	-9.55	30.00	AVRG	
2-Bromonaphthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
2-Fluorobiphenyl	0.0000000		0.01	0.00	30.00	AVRG	<-
1-chlorooctadecane	16209.991	14949.810	0.01	-7.77	30.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm02
Lab Smp Id: aliss
Inj Date : 17-SEP-2015 08:52
Operator : KJH Inst ID: gc15.i
Smp Info : aliss;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphE
Meth Date : 17-Sep-2015 11:50 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 04:11 Cal File: cigm019.RAW
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
	1 n-octane (C8)	2.391	2.400	-0.009	694900	500.000	468.407
	32 n-nonane (C9)	3.950	3.950	0.000	650044	26.0000	24.4014
	2 n-Decane (C10)	6.008	6.000	0.008	659070	26.0000	24.4904
	3 n-Dodecane (C12)	10.325	10.333	-0.008	617648	26.0000	24.8662
	4 n-Tetradecane (C14)	14.266	14.300	-0.034	577587	26.0000	24.8195
	5 n-Hexadecane (C16)	17.800	17.825	-0.025	541788	26.0000	24.3490
	7 n-Octadecane (C18)	20.991	21.000	-0.009	540488	26.0000	25.8972
$	6 o-terphenyl	22.308	22.300	0.008	2002102	100.000	90.4502
	8 n-Eicosane (C20)	23.891	23.900	-0.009	442450	26.0000	22.4954
$	31 1-chlorooctadecane	25.066	25.066	0.000	1494981	100.000	92.2259
	9 n-Heneicosane (C21)	25.250	25.258	-0.008	421087	26.0000	21.6695
	10 n-Docosane (C22)	26.550	26.575	-0.025	432601	26.0000	24.0114
	12 n-Tetracosane (C24)	29.008	29.025	-0.017	443535	26.0000	24.0979
	13 n-Hexacosane (C26)	31.283	31.300	-0.017	440294	26.0000	23.7414
	15 n-Octocosane (C28)	33.400	33.408	-0.008	437778	26.0000	23.3690
	16 n-Triacontane (C30)	35.383	35.383	0.000	445699	26.0000	22.5861
	17 n-Dotriacontane (C32)	37.241	37.241	0.000	424014	26.0000	21.8362
	18 n-Tetratriacontane (C34)	38.983	38.983	0.000	359668	26.0000	19.5073
	19 n-Hexatriacontane (C36)	40.850	40.841	0.009	297951	26.0000	19.1117
	20 n-Octatriacontane (C38)	42.591	42.591	0.000	248897	26.0000	19.5546
	21 n-Tetracontane (C40)	43.750	43.758	-0.008	185692	26.0000	18.2635

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 17-SEP-2015 08:52
Lab File ID: cigm021.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliss Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\AliphEPHin

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 n-octane (C8)	1484	1390	0.010	-6.31861	30.00000	Averaged	
33 Napthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
34 2-Methylnapthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
32 n-nonane (C9)	26640	25002	0.010	-6.14829	30.00000	Averaged	
2 n-Decane (C10)	26911	25349	0.010	-5.80631	30.00000	Averaged	
3 n-Dodecane (C12)	24839	23756	0.010	-4.36066	30.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
4 n-Tetradecane (C14)	23272	22215	0.010	-4.54040	30.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	++++	0.010	++++	30.00000	Averaged	<-
5 n-Hexadecane (C16)	22251	20838	0.010	-6.35005	30.00000	Averaged	
7 n-Octadecane (C18)	20871	20788	0.010	-0.39538	30.00000	Averaged	
$ 6 o-terphenyl	22135	20021	0.010	-9.54981	30.00000	Averaged	
8 n-Eicosane (C20)	19668	17017	0.010	-13.47936	30.00000	Averaged	
$ 31 1-chlorooctadecane	16210	14950	0.010	-7.77410	30.00000	Averaged	
9 n-Heneicosane (C21)	19432	16196	0.010	-16.65574	30.00000	Averaged	
10 n-Docosane (C22)	18017	16639	0.010	-7.64855	30.00000	Averaged	
12 n-Tetracosane (C24)	18406	17059	0.010	-7.31567	30.00000	Averaged	
13 n-Hexacosane (C26)	18545	16934	0.010	-8.68676	30.00000	Averaged	
15 n-Octocosane (C28)	18733	16838	0.010	-10.11936	30.00000	Averaged	
16 n-Triacontane (C30)	19733	17142	0.010	-13.13045	30.00000	Averaged	
17 n-Dotriacontane (C32)	19418	16308	0.010	-16.01469	30.00000	Averaged	
18 n-Tetratriacontane (C34)	18438	13833	0.010	-24.97186	30.00000	Averaged	
19 n-Hexatriacontane (C36)	15590	11460	0.010	-26.49346	30.00000	Averaged	
20 n-Octatriacontane (C38)	12728	9573	0.010	-24.79016	30.00000	Averaged	
21 n-Tetracontane (C40)	10167	7142	0.010	-29.75565	30.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 11.91930
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\cigm021.d

Date : 17-SEP-2015 08:52

Client ID:

Instrument: gc15.i

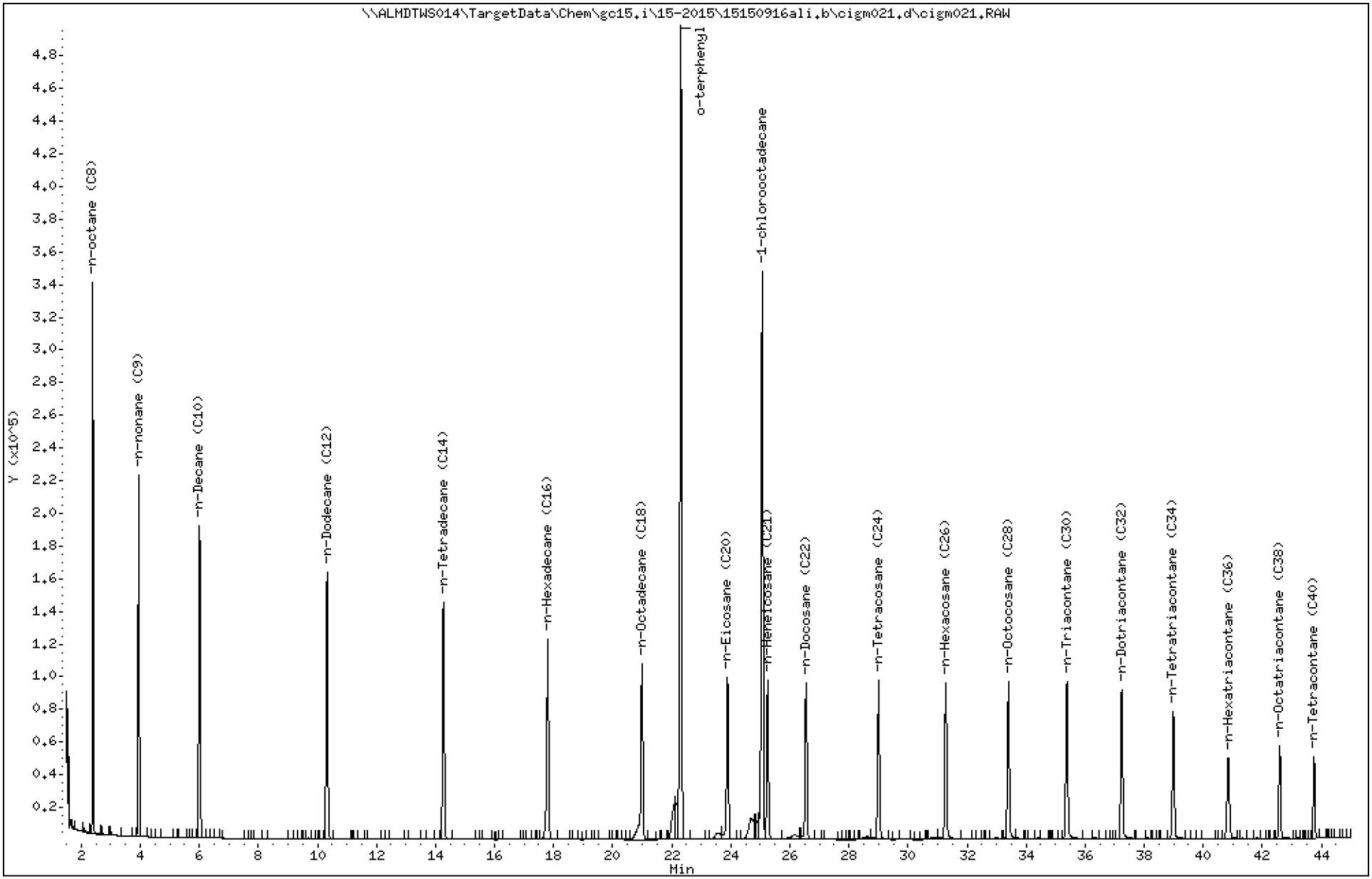
Sample Info: aliss:::2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/17/15 Time: 0852

Lab File ID: CIGM021 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
C9:C12	27257.845	24782.128	0.01	-9.08	25.00	AVRG	
C12:C16	23253.347	21603.808	0.01	-7.09	25.00	AVRG	
C16:C21	26960.032	25375.359	0.01	-5.88	25.00	AVRG	
C21:C40	18856.115	14916.796	0.01	-20.89	25.00	AVRG	
o-terphenyl	22178.762	20021.190	0.01	-9.73	25.00	AVRG	
2-Bromonaphthalene	0.0000000	2.1120000	0.01	0.00	25.00	AVRG	<-
2-Fluorobiphenyl	0.0000000	2.6920000	0.01	0.00	25.00	AVRG	<-
1-chlorooctadecane	16265.935	14949.810	0.01	-8.09	25.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Lab Smp Id: aliss
Inj Date : 17-SEP-2015 08:52
Operator : KJH Inst ID: gc15.i
Smp Info : aliss;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc
Meth Date : 17-Sep-2015 10:57 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
S	27 C9:C12	3.800	-10.500		1933006	78.0000	70.9156
$	11 2-Bromonaphthalene	13.783	13.783	0.000	1056	500.000	(a)
S	28 C12:C16	10.600	-18.000		1123398	52.0000	48.3112
$	14 2-Fluorobiphenyl	16.083	16.075	0.008	1346	500.000	(a)
S	29 C16:C21	18.100	-25.400		1979278	78.0000	73.4153
$	6 o-terphenyl	22.308	22.317	-0.009	2002119	100.000	90.2719
$	31 1-chlorooctadecane	25.066	25.075	-0.009	1494981	100.000	91.9087
S	30 C21:C40	25.500	-43.900		3878367	260.000	205.682

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 17-SEP-2015 08:52
Lab File ID: cigm021.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliss Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-ran

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
S 27 C9:C12	27258	24782	0.010	-9.08258	25.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	2.11200	0.010	++++	25.00000	Averaged	<-
S 28 C12:C16	23253	21604	0.010	-7.09377	25.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	2.69200	0.010	++++	25.00000	Averaged	<-
S 29 C16:C21	26960	25375	0.010	-5.87786	25.00000	Averaged	
$ 6 o-terphenyl	22179	20021	0.010	-9.72810	25.00000	Averaged	
$ 31 1-chlorooctadecane	16266	14950	0.010	-8.09130	25.00000	Averaged	
S 30 C21:C40	18856	14917	0.010	-20.89147	25.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 10.12751
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150916ali.b\ALIPHc-range\cigm021.d

Date : 17-SEP-2015 08:52

Client ID:

Instrument: gc15.i

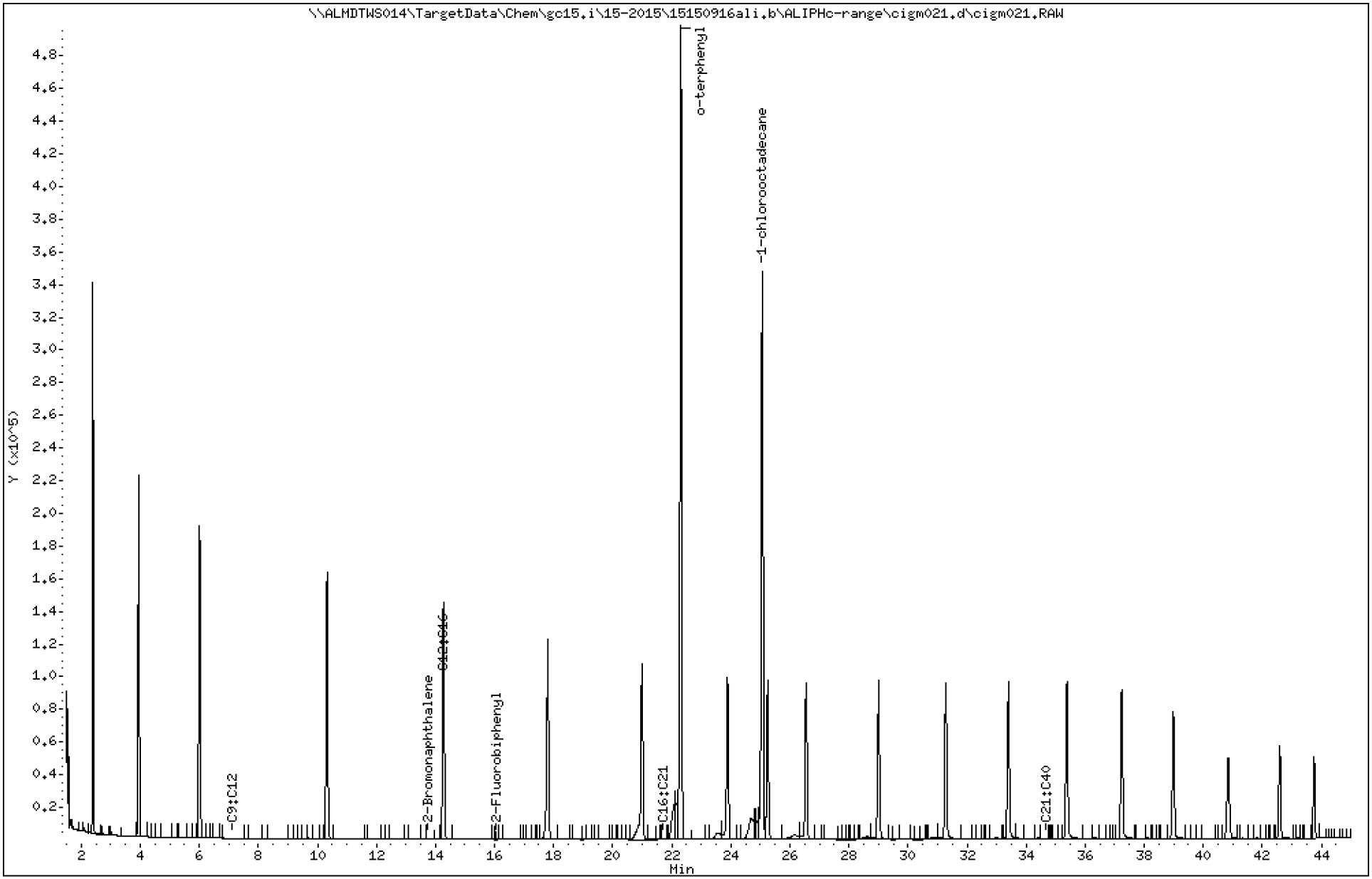
Sample Info: aliss:::2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Continuing Calibrations

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/18/15 Time: 0935

Lab File ID: CIIM002 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
n-octane (C8)	1483.5390	1503.2620	0.01	1.33	30.00	AVRG	
n-Eicosane (C20)	19668.495	19067.615	0.01	-3.06	30.00	AVRG	
n-Heneicosane (C21)	19432.237	19349.423	0.01	-0.43	30.00	AVRG	
n-Docosane (C22)	18016.501	18118.500	0.01	0.57	30.00	AVRG	
n-Tetracosane (C24)	18405.526	19055.885	0.01	3.53	30.00	AVRG	
n-Hexacosane (C26)	18545.376	18451.462	0.01	-0.51	30.00	AVRG	
n-Octocosane (C28)	18733.306	18269.231	0.01	-2.48	30.00	AVRG	
n-Triacontane (C30)	19733.346	19445.615	0.01	-1.46	30.00	AVRG	
n-Dotriacontane (C32)	19417.956	18801.615	0.01	-3.17	30.00	AVRG	
n-Tetratriacontane (C34)	18437.594	17028.308	0.01	-7.64	30.00	AVRG	
n-Hexatriacontane (C36)	15589.978	14798.769	0.01	-5.08	30.00	AVRG	
n-Octatriacontane (C38)	12728.336	12493.577	0.01	-1.84	30.00	AVRG	
n-Tetracontane (C40)	10167.365	9658.6538	0.01	-5.00	30.00	AVRG	
n-Decane (C10)	26911.406	27973.500	0.01	3.95	30.00	AVRG	
n-Dodecane (C12)	24838.829	26424.615	0.01	6.38	30.00	AVRG	
n-Hexadecane (C16)	22250.945	23398.385	0.01	5.16	30.00	AVRG	
n-Octadecane (C18)	20870.519	22975.462	0.01	10.08	30.00	AVRG	
n-Tetradecane (C14)	23271.504	24721.269	0.01	6.23	30.00	AVRG	
n-nonane (C9)	26639.570	30615.115	0.01	14.92	30.00	AVRG	
Napthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
2-Methylnapthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
o-terphenyl	22134.857	21948.550	0.01	-0.84	30.00	AVRG	
2-Bromonaphthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
2-Fluorobiphenyl	0.0000000		0.01	0.00	30.00	AVRG	<-
1-chlorooctadecane	16209.991	16519.860	0.01	1.91	30.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ciim00
Lab Smp Id: aliccv
Inj Date : 18-SEP-2015 09:35
Operator : KJH Inst ID: gc15.i
Smp Info : aliccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\AliphE
Meth Date : 21-Sep-2015 08:08 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 00:17 Cal File: cigm015.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
	1 n-octane (C8)	2.375	2.400	-0.025	751631	500.000	506.647
	32 n-nonane (C9)	3.925	3.950	-0.025	795993	26.0000	29.8801
	2 n-Decane (C10)	5.983	6.000	-0.017	727311	26.0000	27.0261
	3 n-Dodecane (C12)	10.308	10.333	-0.025	687040	26.0000	27.6599
	4 n-Tetradecane (C14)	14.258	14.300	-0.042	642753	26.0000	27.6197
	5 n-Hexadecane (C16)	17.791	17.825	-0.034	608358	26.0000	27.3408
	7 n-Octadecane (C18)	20.983	21.000	-0.017	597362	26.0000	28.6223
$	6 o-terphenyl	22.308	22.300	0.008	2194855	100.000	99.1583
	8 n-Eicosane (C20)	23.883	23.900	-0.017	495758	26.0000	25.2057
$	31 1-chlorooctadecane	25.066	25.066	0.000	1651986	100.000	101.912
	9 n-Heneicosane (C21)	25.250	25.258	-0.008	503085	26.0000	25.8892
	10 n-Docosane (C22)	26.550	26.575	-0.025	471081	26.0000	26.1472
	12 n-Tetracosane (C24)	29.008	29.025	-0.017	495453	26.0000	26.9187
	13 n-Hexacosane (C26)	31.283	31.300	-0.017	479738	26.0000	25.8683
	15 n-Octocosane (C28)	33.408	33.408	0.000	475000	26.0000	25.3559
	16 n-Triacontane (C30)	35.391	35.383	0.008	505586	26.0000	25.6209
	17 n-Dotriacontane (C32)	37.241	37.241	0.000	488842	26.0000	25.1747
	18 n-Tetratriacontane (C34)	38.991	38.983	0.008	442736	26.0000	24.0127
	19 n-Hexatriacontane (C36)	40.858	40.841	0.017	384768	26.0000	24.6805
	20 n-Octatriacontane (C38)	42.600	42.591	0.009	324833	26.0000	25.5205

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
21 n-Tetracontane (C40)	43.758	43.758	0.000	251125	26.0000	24.6991

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 18-SEP-2015 09:35
Lab File ID: ciim002.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\AliphEPHin

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 n-octane (C8)	1484	1503	0.010	1.32946	30.00000	Averaged	
33 Napthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
34 2-Methylnapthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
32 n-nonane (C9)	26640	30615	0.010	14.92346	30.00000	Averaged	
2 n-Decane (C10)	26911	27974	0.010	3.94663	30.00000	Averaged	
3 n-Dodecane (C12)	24839	26425	0.010	6.38430	30.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
4 n-Tetradecane (C14)	23272	24721	0.010	6.22979	30.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	++++	0.010	++++	30.00000	Averaged	<-
5 n-Hexadecane (C16)	22251	23398	0.010	5.15681	30.00000	Averaged	
7 n-Octadecane (C18)	20871	22975	0.010	10.08572	30.00000	Averaged	
$ 6 o-terphenyl	22135	21949	0.010	-0.84169	30.00000	Averaged	
8 n-Eicosane (C20)	19668	19068	0.010	-3.05504	30.00000	Averaged	
$ 31 1-chlorooctadecane	16210	16520	0.010	1.91159	30.00000	Averaged	
9 n-Heneicosane (C21)	19432	19349	0.010	-0.42617	30.00000	Averaged	
10 n-Docosane (C22)	18017	18119	0.010	0.56614	30.00000	Averaged	
12 n-Tetracosane (C24)	18406	19056	0.010	3.53350	30.00000	Averaged	
13 n-Hexacosane (C26)	18545	18451	0.010	-0.50640	30.00000	Averaged	
15 n-Octocosane (C28)	18733	18269	0.010	-2.47727	30.00000	Averaged	
16 n-Triacontane (C30)	19733	19446	0.010	-1.45810	30.00000	Averaged	
17 n-Dotriacontane (C32)	19418	18802	0.010	-3.17408	30.00000	Averaged	
18 n-Tetratriacontane (C34)	18438	17028	0.010	-7.64355	30.00000	Averaged	
19 n-Hexatriacontane (C36)	15590	14799	0.010	-5.07511	30.00000	Averaged	
20 n-Octatriacontane (C38)	12728	12494	0.010	-1.84438	30.00000	Averaged	
21 n-Tetracontane (C40)	10167	9659	0.010	-5.00337	30.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 5.10251
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ciim002.d

Date : 18-SEP-2015 09:35

Client ID:

Instrument: gc15.i

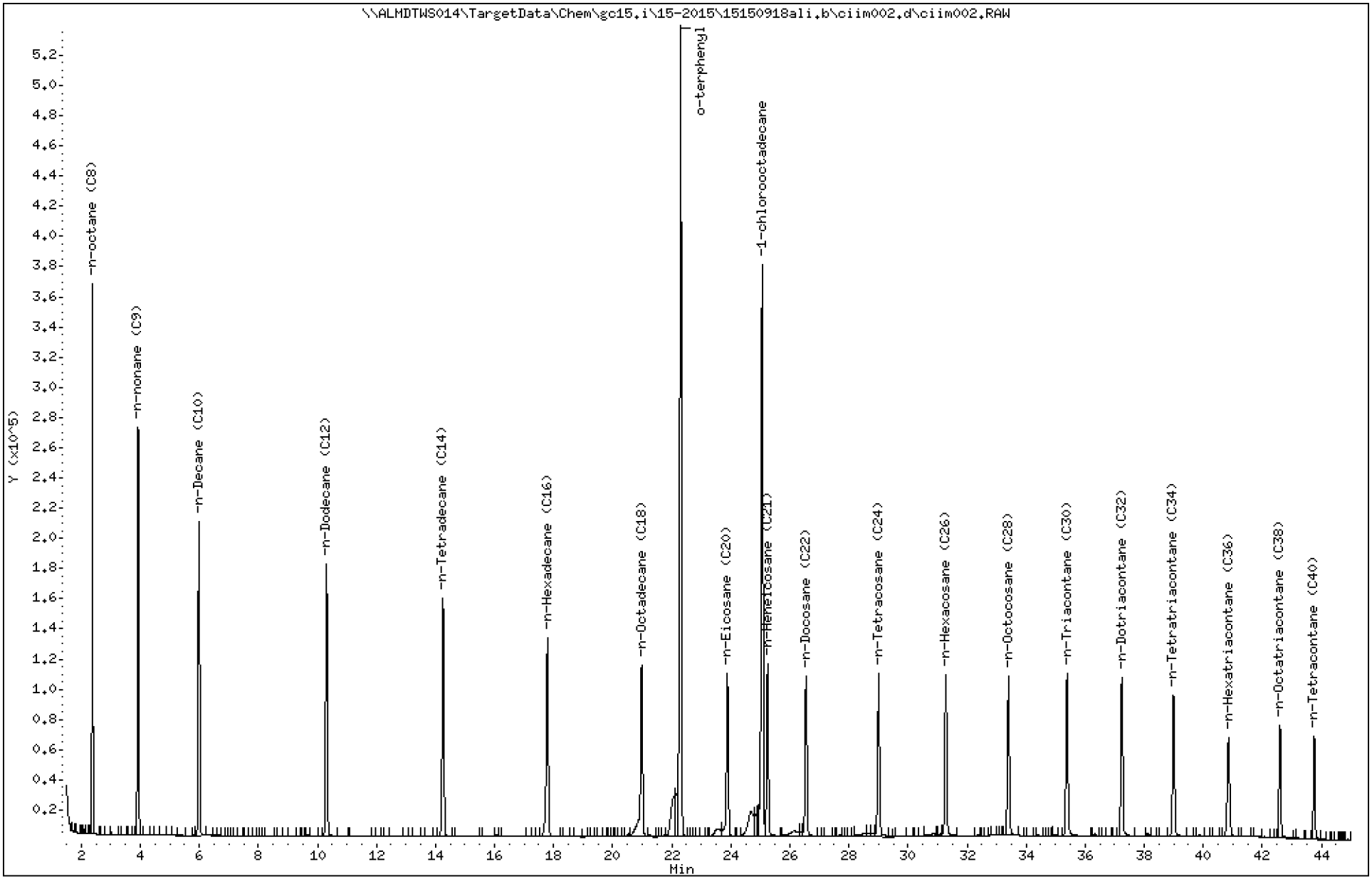
Sample Info: alicov;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/18/15 Time: 0935

Lab File ID: CIIM002 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
C9:C12	27257.845	28469.462	0.01	4.44	25.00	AVRG	
C12:C16	23253.347	24221.038	0.01	4.16	25.00	AVRG	
C16:C21	26960.032	30894.013	0.01	14.59	25.00	AVRG	
C21:C40	18856.115	17650.427	0.01	-6.39	25.00	AVRG	
o-terphenyl	22178.762	21948.550	0.01	-1.04	25.00	AVRG	
2-Bromonaphthalene	0.0000000		0.01	0.00	25.00	AVRG	<-
2-Fluorobiphenyl	0.0000000		0.01	0.00	25.00	AVRG	<-
1-chlorooctadecane	16265.935	16519.860	0.01	1.56	25.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: aliccv
Inj Date : 18-SEP-2015 09:35
Operator : KJH Inst ID: gc15.i
Smp Info : aliccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 21-Sep-2015 08:07 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
S	27 C9:C12	3.800	-10.500		2220618	78.0000	81.4671
S	28 C12:C16	10.600	-18.000		1259494	52.0000	54.1640(M)
S	29 C16:C21	18.100	-25.400		2409733	78.0000	89.3817
$	6 o-terphenyl	22.308	22.317	-0.009	2194855	100.000	98.9620
$	31 1-chlorooctadecane	25.066	25.075	-0.009	1651986	100.000	101.561
S	30 C21:C40	25.500	-43.900		4589111	260.000	243.375

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 18-SEP-2015 09:35
Lab File ID: ciim002.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-ran

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
S 27 C9:C12	27258	28469	0.010	4.44502	25.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	++++	0.010	++++	25.00000	Averaged	<-
S 28 C12:C16	23253	24221	0.010	4.16151	25.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	++++	0.010	++++	25.00000	Averaged	<-
S 29 C16:C21	26960	30890	0.010	14.59190	25.00000	Averaged	
$ 6 o-terphenyl	22179	21949	0.010	-1.03798	25.00000	Averaged	
$ 31 1-chlorooctadecane	16266	16520	0.010	1.56108	25.00000	Averaged	
S 30 C21:C40	18856	17650	0.010	-6.39415	25.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 5.36527
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim002.d

Date : 18-SEP-2015 09:35

Client ID:

Instrument: gc15.i

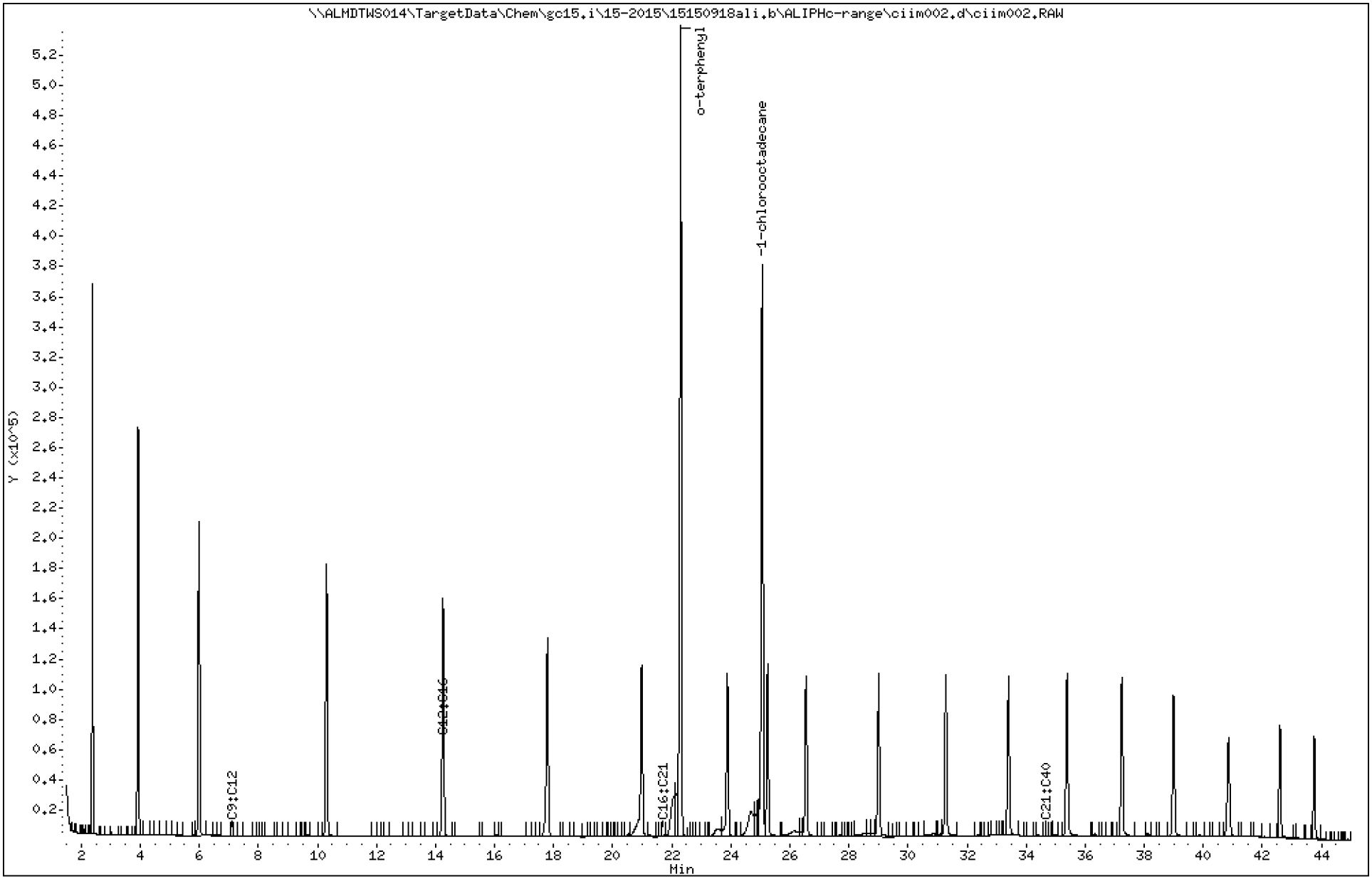
Sample Info: aliccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ciim00
Lab Smp Id: aliccv
Inj Date : 18-SEP-2015 09:35
Operator : KJH Inst ID: gc15.i
Smp Info : aliccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\AliphE
Meth Date : 21-Sep-2015 08:08 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 00:17 Cal File: cigm015.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng/uL)	ON-COL (ng/uL)
	1 n-octane (C8)	2.375	2.400	-0.025	751631	500.000	506.647
	32 n-nonane (C9)	3.925	3.950	-0.025	795993	26.0000	29.8801
	2 n-Decane (C10)	5.983	6.000	-0.017	727311	26.0000	27.0261
	3 n-Dodecane (C12)	10.308	10.333	-0.025	687040	26.0000	27.6599
	4 n-Tetradecane (C14)	14.258	14.300	-0.042	642753	26.0000	27.6197
	5 n-Hexadecane (C16)	17.791	17.825	-0.034	608358	26.0000	27.3408
	7 n-Octadecane (C18)	20.983	21.000	-0.017	597362	26.0000	28.6223
$	6 o-terphenyl	22.308	22.300	0.008	2194855	100.000	99.1583
	8 n-Eicosane (C20)	23.883	23.900	-0.017	495758	26.0000	25.2057
$	31 1-chlorooctadecane	25.066	25.066	0.000	1651986	100.000	101.912
	9 n-Heneicosane (C21)	25.250	25.258	-0.008	503085	26.0000	25.8892
	10 n-Docosane (C22)	26.550	26.575	-0.025	471081	26.0000	26.1472
	12 n-Tetracosane (C24)	29.008	29.025	-0.017	495453	26.0000	26.9187
	13 n-Hexacosane (C26)	31.283	31.300	-0.017	479738	26.0000	25.8683
	15 n-Octocosane (C28)	33.408	33.408	0.000	475000	26.0000	25.3559
	16 n-Triacontane (C30)	35.391	35.383	0.008	505586	26.0000	25.6209
	17 n-Dotriacontane (C32)	37.241	37.241	0.000	488842	26.0000	25.1747
	18 n-Tetratriacontane (C34)	38.991	38.983	0.008	442736	26.0000	24.0127
	19 n-Hexatriacontane (C36)	40.858	40.841	0.017	384768	26.0000	24.6805
	20 n-Octatriacontane (C38)	42.600	42.591	0.009	324833	26.0000	25.5205

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
21 n-Tetracontane (C40)	43.758	43.758	0.000	251125	26.0000	24.6991

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 18-SEP-2015 09:35
Lab File ID: ciim002.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\AliphEPHin

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 n-octane (C8)	1484	1503	0.010	1.32946	30.00000	Averaged	
33 Napthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
34 2-Methylnapthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
32 n-nonane (C9)	26640	30615	0.010	14.92346	30.00000	Averaged	
2 n-Decane (C10)	26911	27974	0.010	3.94663	30.00000	Averaged	
3 n-Dodecane (C12)	24839	26425	0.010	6.38430	30.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
4 n-Tetradecane (C14)	23272	24721	0.010	6.22979	30.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	++++	0.010	++++	30.00000	Averaged	<-
5 n-Hexadecane (C16)	22251	23398	0.010	5.15681	30.00000	Averaged	
7 n-Octadecane (C18)	20871	22975	0.010	10.08572	30.00000	Averaged	
$ 6 o-terphenyl	22135	21949	0.010	-0.84169	30.00000	Averaged	
8 n-Eicosane (C20)	19668	19068	0.010	-3.05504	30.00000	Averaged	
$ 31 1-chlorooctadecane	16210	16520	0.010	1.91159	30.00000	Averaged	
9 n-Heneicosane (C21)	19432	19349	0.010	-0.42617	30.00000	Averaged	
10 n-Docosane (C22)	18017	18119	0.010	0.56614	30.00000	Averaged	
12 n-Tetracosane (C24)	18406	19056	0.010	3.53350	30.00000	Averaged	
13 n-Hexacosane (C26)	18545	18451	0.010	-0.50640	30.00000	Averaged	
15 n-Octocosane (C28)	18733	18269	0.010	-2.47727	30.00000	Averaged	
16 n-Triacontane (C30)	19733	19446	0.010	-1.45810	30.00000	Averaged	
17 n-Dotriacontane (C32)	19418	18802	0.010	-3.17408	30.00000	Averaged	
18 n-Tetratriacontane (C34)	18438	17028	0.010	-7.64355	30.00000	Averaged	
19 n-Hexatriacontane (C36)	15590	14799	0.010	-5.07511	30.00000	Averaged	
20 n-Octatriacontane (C38)	12728	12494	0.010	-1.84438	30.00000	Averaged	
21 n-Tetracontane (C40)	10167	9659	0.010	-5.00337	30.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 5.10251
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ciim002.d

Date : 18-SEP-2015 09:35

Client ID:

Instrument: gc15.i

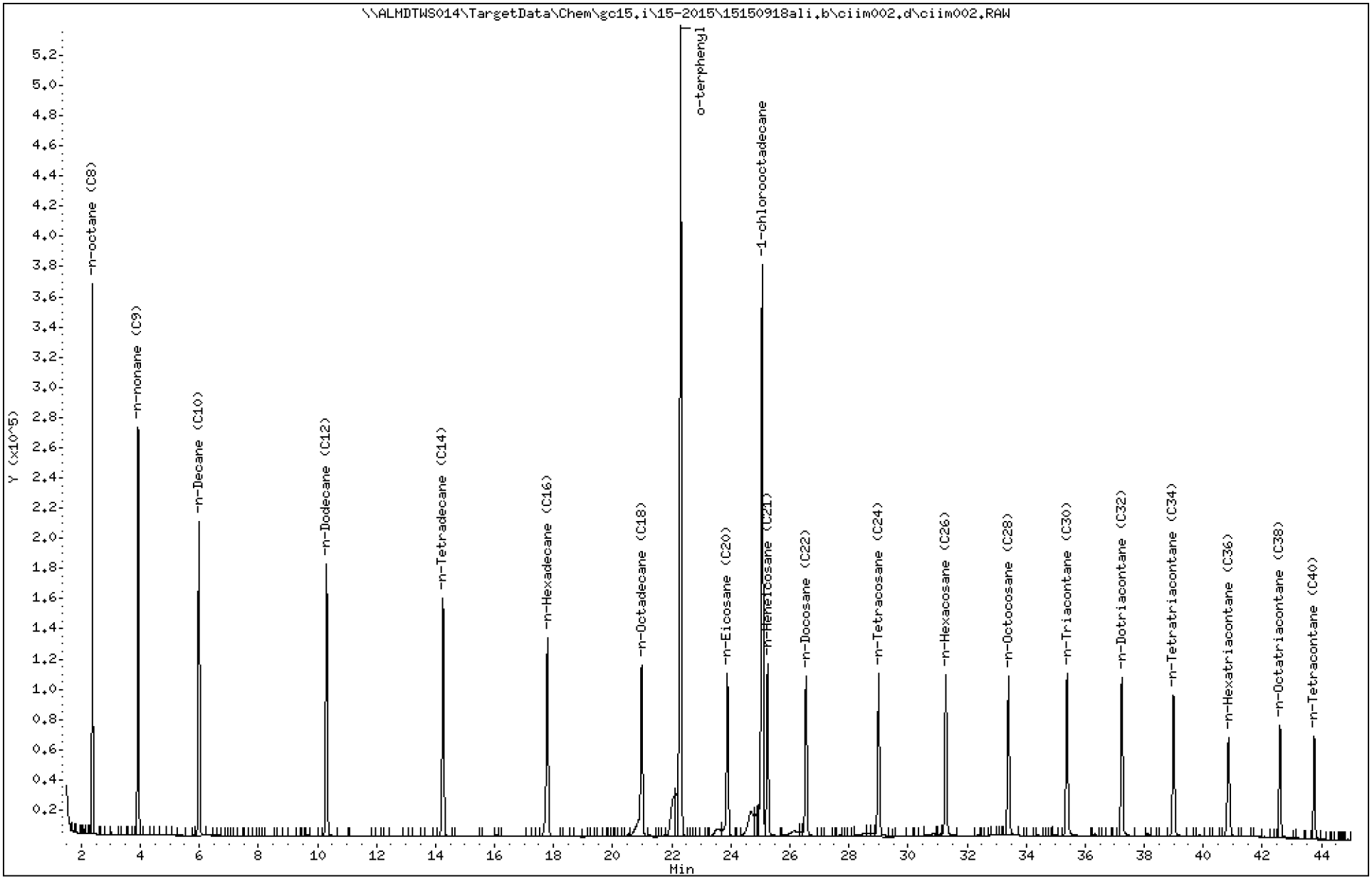
Sample Info: aliccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/19/15 Time: 0907

Lab File ID: CIIM026 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
n-octane (C8)	1483.5390	1508.7080	0.01	1.70	30.00	AVRG	
n-Eicosane (C20)	19668.495	18927.615	0.01	-3.77	30.00	AVRG	
n-Heneicosane (C21)	19432.237	19680.077	0.01	1.28	30.00	AVRG	
n-Docosane (C22)	18016.501	18384.577	0.01	2.04	30.00	AVRG	
n-Tetracosane (C24)	18405.526	19286.000	0.01	4.78	30.00	AVRG	
n-Hexacosane (C26)	18545.376	18481.846	0.01	-0.34	30.00	AVRG	
n-Octocosane (C28)	18733.306	19076.346	0.01	1.83	30.00	AVRG	
n-Triacontane (C30)	19733.346	19865.808	0.01	0.67	30.00	AVRG	
n-Dotriacontane (C32)	19417.956	19332.769	0.01	-0.44	30.00	AVRG	
n-Tetratriacontane (C34)	18437.594	17227.769	0.01	-6.56	30.00	AVRG	
n-Hexatriacontane (C36)	15589.978	14568.615	0.01	-6.55	30.00	AVRG	
n-Octatriacontane (C38)	12728.336	11685.538	0.01	-8.19	30.00	AVRG	
n-Tetracontane (C40)	10167.365	8393.3077	0.01	-17.45	30.00	AVRG	
n-Decane (C10)	26911.406	28239.538	0.01	4.94	30.00	AVRG	
n-Dodecane (C12)	24838.829	26577.154	0.01	7.00	30.00	AVRG	
n-Hexadecane (C16)	22250.945	23355.769	0.01	4.96	30.00	AVRG	
n-Octadecane (C18)	20870.519	22829.692	0.01	9.39	30.00	AVRG	
n-Tetradecane (C14)	23271.504	24741.115	0.01	6.32	30.00	AVRG	
n-nonane (C9)	26639.570	30856.385	0.01	15.83	30.00	AVRG	
Napthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
2-Methylnapthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
o-terphenyl	22134.857	22260.110	0.01	0.56	30.00	AVRG	
2-Bromonaphthalene	0.0000000		0.01	0.00	30.00	AVRG	<-
2-Fluorobiphenyl	0.0000000		0.01	0.00	30.00	AVRG	<-
1-chlorooctadecane	16209.991	16623.800	0.01	2.55	30.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: aliccv
Inj Date : 19-SEP-2015 09:07
Operator : KJH Inst ID: gc15.i
Smp Info : aliccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 21-Sep-2015 14:25 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
S	27 C9:C12	3.800-10.500			2237419	78.0000	82.0835
S	28 C12:C16	10.600-18.000			1259643	52.0000	54.1704(M)
S	29 C16:C21	18.100-25.400			2330925	78.0000	86.4585
$	6 o-terphenyl	22.341	22.317	0.024	2225843	100.000	100.359
$	31 1-chlorooctadecane	25.100	25.075	0.025	1662380	100.000	102.200
S	30 C21:C40	25.500-43.900			4613022	260.000	244.643

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 19-SEP-2015 09:07
Lab File ID: ciim026.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-ran

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
S 27 C9:C12	27258	28685	0.010	5.23524	25.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	++++	0.010	++++	25.00000	Averaged	<-
S 28 C12:C16	23253	24224	0.010	4.17384	25.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	++++	0.010	++++	25.00000	Averaged	<-
S 29 C16:C21	26960	29884	0.010	10.84428	25.00000	Averaged	
$ 6 o-terphenyl	22179	22258	0.010	0.35921	25.00000	Averaged	
$ 31 1-chlorooctadecane	16266	16624	0.010	2.20009	25.00000	Averaged	
S 30 C21:C40	18856	17742	0.010	-5.90643	25.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 4.78651
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim026.d

Date : 19-SEP-2015 09:07

Client ID:

Instrument: gc15.i

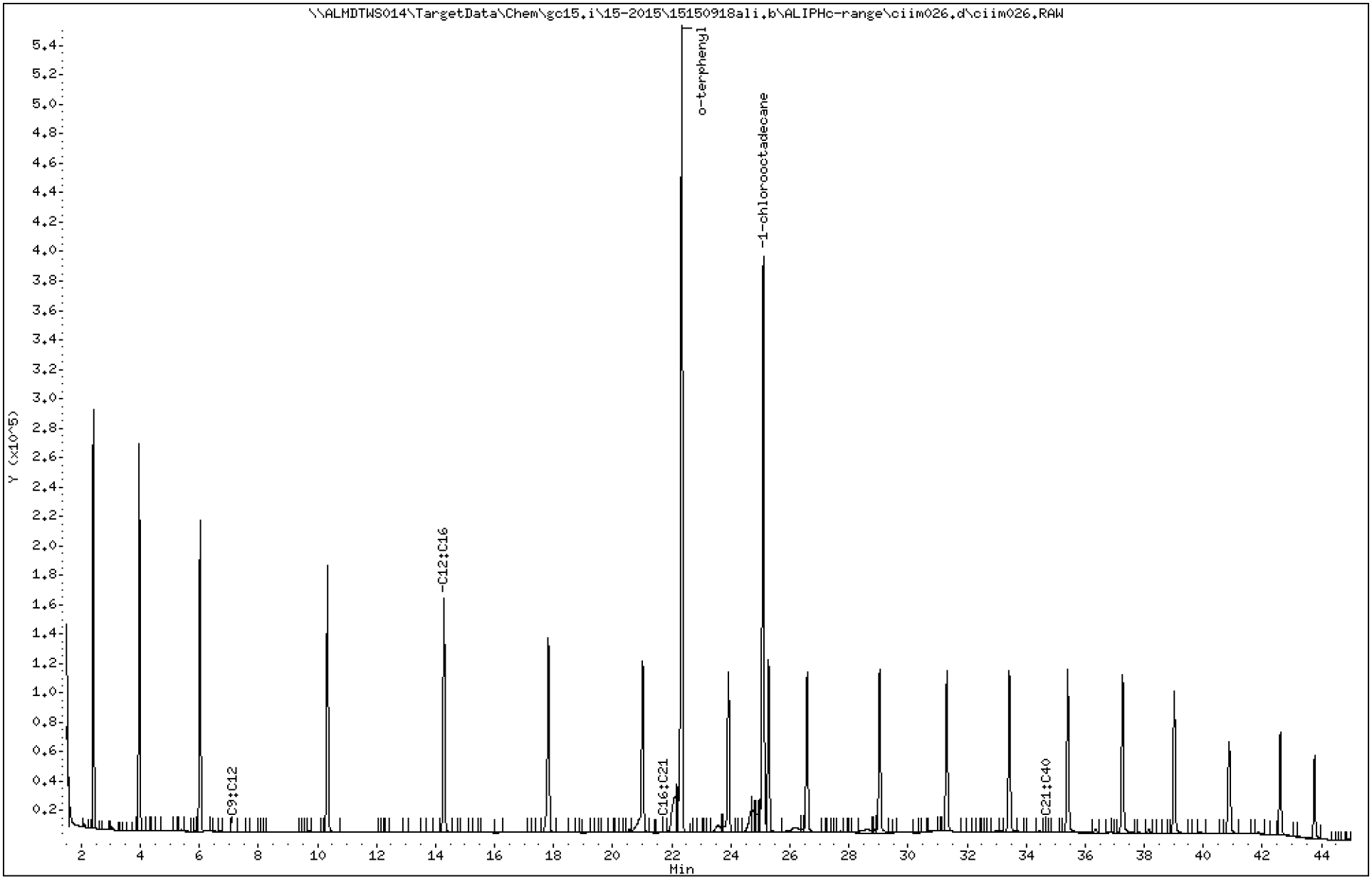
Sample Info: aliccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/19/15 Time: 0907

Lab File ID: CIIM026 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
C9:C12	27257.845	28684.859	0.01	5.24	25.00	AVRG	
C12:C16	23253.347	24223.904	0.01	4.17	25.00	AVRG	
C16:C21	26960.032	29883.654	0.01	10.84	25.00	AVRG	
C21:C40	18856.115	17742.392	0.01	-5.91	25.00	AVRG	
o-terphenyl	22178.762	22258.430	0.01	0.36	25.00	AVRG	
2-Bromonaphthalene	0.0000000		0.01	0.00	25.00	AVRG	<-
2-Fluorobiphenyl	0.0000000		0.01	0.00	25.00	AVRG	<-
1-chlorooctadecane	16265.935	16623.800	0.01	2.20	25.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: aliccv
Inj Date : 19-SEP-2015 09:07
Operator : KJH Inst ID: gc15.i
Smp Info : aliccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\AliphE
Meth Date : 21-Sep-2015 07:47 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 00:17 Cal File: cigm015.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
	1 n-octane (C8)	2.408	2.400	0.008	754354	500.000	508.483
	32 n-nonane (C9)	3.966	3.950	0.016	802266	26.0000	30.1156
	2 n-Decane (C10)	6.025	6.000	0.025	734228	26.0000	27.2832
	3 n-Dodecane (C12)	10.341	10.333	0.008	691006	26.0000	27.8196
	4 n-Tetradecane (C14)	14.283	14.300	-0.017	643269	26.0000	27.6419
	5 n-Hexadecane (C16)	17.825	17.825	0.000	607250	26.0000	27.2910
	7 n-Octadecane (C18)	21.016	21.000	0.016	593572	26.0000	28.4407
$	6 o-terphenyl	22.341	22.300	0.041	2226011	100.000	100.566
	8 n-Eicosane (C20)	23.916	23.900	0.016	492118	26.0000	25.0206
$	31 1-chlorooctadecane	25.100	25.066	0.034	1662380	100.000	102.553
	9 n-Heneicosane (C21)	25.283	25.258	0.025	511682	26.0000	26.3316
	10 n-Docosane (C22)	26.583	26.575	0.008	477999	26.0000	26.5312
	12 n-Tetracosane (C24)	29.041	29.025	0.016	501436	26.0000	27.2438
	13 n-Hexacosane (C26)	31.316	31.300	0.016	480528	26.0000	25.9109
	15 n-Octocosane (C28)	33.433	33.408	0.025	495985	26.0000	26.4761
	16 n-Triacontane (C30)	35.408	35.383	0.025	516511	26.0000	26.1745
	17 n-Dotriacontane (C32)	37.266	37.241	0.025	502652	26.0000	25.8859
	18 n-Tetratriacontane (C34)	39.016	38.983	0.033	447922	26.0000	24.2940
	19 n-Hexatriacontane (C36)	40.883	40.841	0.042	378784	26.0000	24.2966
	20 n-Octatriacontane (C38)	42.608	42.591	0.017	303824	26.0000	23.8699

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
21 n-Tetracontane (C40)	43.766	43.758	0.008	218226	26.0000	21.4634

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 19-SEP-2015 09:07
Lab File ID: ciim026.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\AliphEPHin

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 n-octane (C8)	1484	++++	0.010	++++	30.00000	Averaged	<-
33 Napthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
34 2-Methylnapthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
32 n-nonane (C9)	26640	++++	0.010	++++	30.00000	Averaged	<-
2 n-Decane (C10)	26911	++++	0.010	++++	30.00000	Averaged	<-
3 n-Dodecane (C12)	24839	++++	0.010	++++	30.00000	Averaged	<-
$ 11 2-Bromonaphthalene	++++	++++	0.010	++++	30.00000	Averaged	<-
4 n-Tetradecane (C14)	23272	++++	0.010	++++	30.00000	Averaged	<-
$ 14 2-Fluorobiphenyl	++++	++++	0.010	++++	30.00000	Averaged	<-
5 n-Hexadecane (C16)	22251	++++	0.010	++++	30.00000	Averaged	<-
7 n-Octadecane (C18)	20871	++++	0.010	++++	30.00000	Averaged	<-
$ 6 o-terphenyl	22135	++++	0.010	++++	30.00000	Averaged	<-
8 n-Eicosane (C20)	19668	++++	0.010	++++	30.00000	Averaged	<-
$ 31 1-chlorooctadecane	16210	++++	0.010	++++	30.00000	Averaged	<-
9 n-Heneicosane (C21)	19432	++++	0.010	++++	30.00000	Averaged	<-
10 n-Docosane (C22)	18017	++++	0.010	++++	30.00000	Averaged	<-
12 n-Tetracosane (C24)	18406	++++	0.010	++++	30.00000	Averaged	<-
13 n-Hexacosane (C26)	18545	++++	0.010	++++	30.00000	Averaged	<-
15 n-Octocosane (C28)	18733	++++	0.010	++++	30.00000	Averaged	<-
16 n-Triacontane (C30)	19733	++++	0.010	++++	30.00000	Averaged	<-
17 n-Dotriacontane (C32)	19418	++++	0.010	++++	30.00000	Averaged	<-
18 n-Tetratriacontane (C34)	18438	++++	0.010	++++	30.00000	Averaged	<-
19 n-Hexatriacontane (C36)	15590	++++	0.010	++++	30.00000	Averaged	<-
20 n-Octatriacontane (C38)	12728	++++	0.010	++++	30.00000	Averaged	<-
21 n-Tetracontane (C40)	10167	++++	0.010	++++	30.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 5.10251
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim026.d

Date : 19-SEP-2015 09:07

Client ID:

Instrument: gc15.i

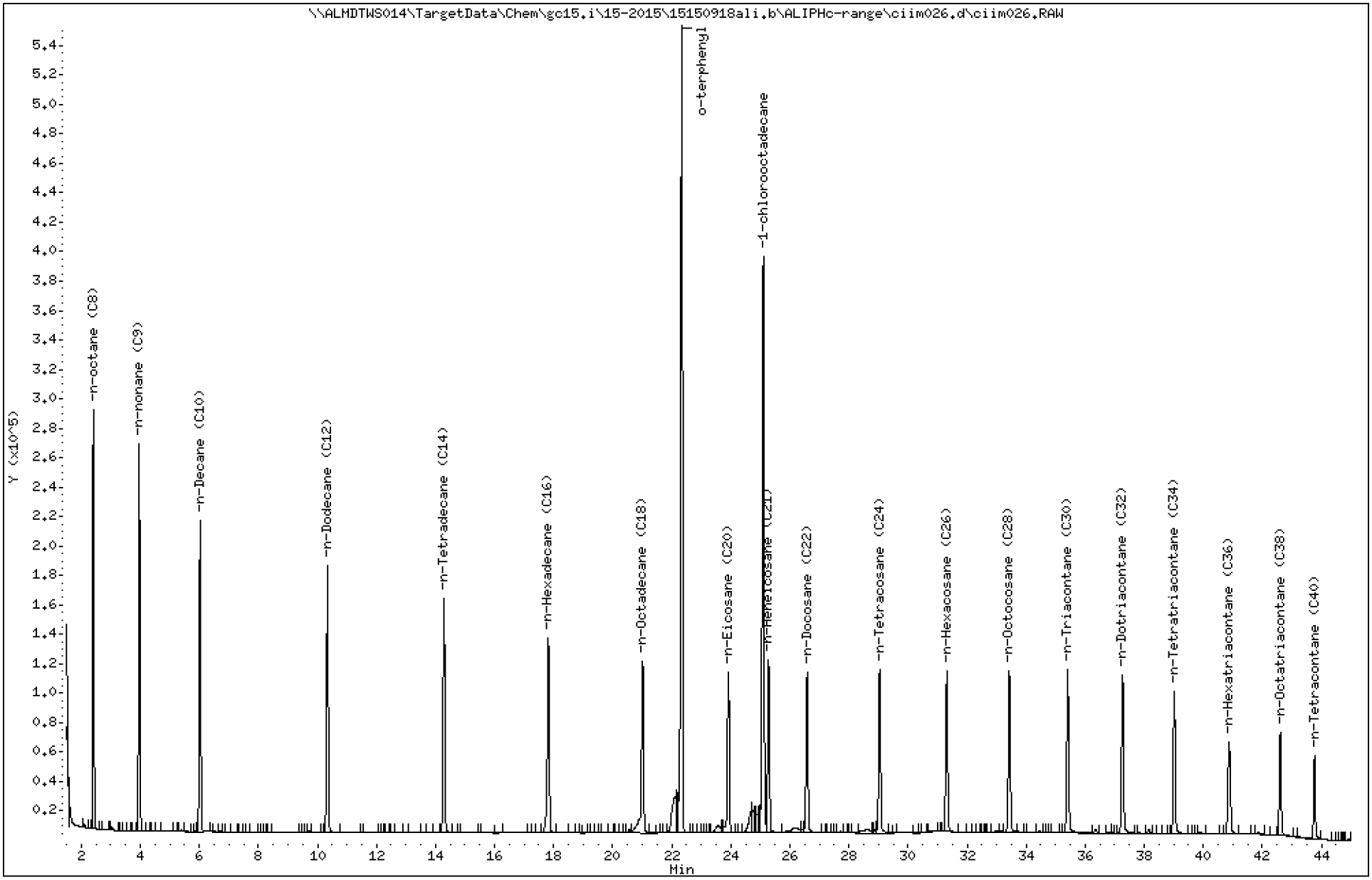
Sample Info: aliccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/21/15 Time: 1002

Lab File ID: CIIM030 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
C9:C12	27257.845	30561.744	0.01	12.12	25.00	AVRG	
C12:C16	23253.347	26066.981	0.01	12.10	25.00	AVRG	
C16:C21	26960.032	30822.795	0.01	14.33	25.00	AVRG	
C21:C40	18856.115	14741.504	0.01	-21.82	25.00	AVRG	
o-terphenyl	22178.762	25319.340	0.01	14.16	25.00	AVRG	
2-Bromonaphthalene	0.0000000		0.01	0.00	25.00	AVRG	<-
2-Fluorobiphenyl	0.0000000		0.01	0.00	25.00	AVRG	<-
1-chlorooctadecane	16265.935	18221.320	0.01	12.02	25.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: aliccv
Inj Date : 21-SEP-2015 10:02
Operator : KJH Inst ID: gc15.i
Smp Info : aliccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 22-Sep-2015 06:39 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/uL)	(ng/uL)
S	27 C9:C12	3.800-10.500			2383816	78.0000	87.4543
S	28 C12:C16	10.600-18.000			1355483	52.0000	58.2920
S	29 C16:C21	18.100-25.400			2404178	78.0000	89.1756
$	6 o-terphenyl	22.300	22.317	-0.017	2531934	100.000	114.160
$	31 1-chlorooctadecane	25.066	25.075	-0.009	1822132	100.000	112.021
S	30 C21:C40	25.500-43.900			3832791	260.000	203.265

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 21-SEP-2015 10:02
Lab File ID: ciim030.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-ran

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
S 27 C9:C12	27258	30562	0.010	12.12091	25.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	++++	0.010	++++	25.00000	Averaged	<-
S 28 C12:C16	23253	26070	0.010	12.09991	25.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	++++	0.010	++++	25.00000	Averaged	<-
S 29 C16:C21	26960	30820	0.010	14.32774	25.00000	Averaged	
$ 6 o-terphenyl	22179	25319	0.010	14.16029	25.00000	Averaged	
$ 31 1-chlorooctadecane	16266	18221	0.010	12.02135	25.00000	Averaged	
S 30 C21:C40	18856	14742	0.010	-21.82110	25.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 11.30634
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim030.d

Date : 21-SEP-2015 10:02

Client ID:

Instrument: gc15.i

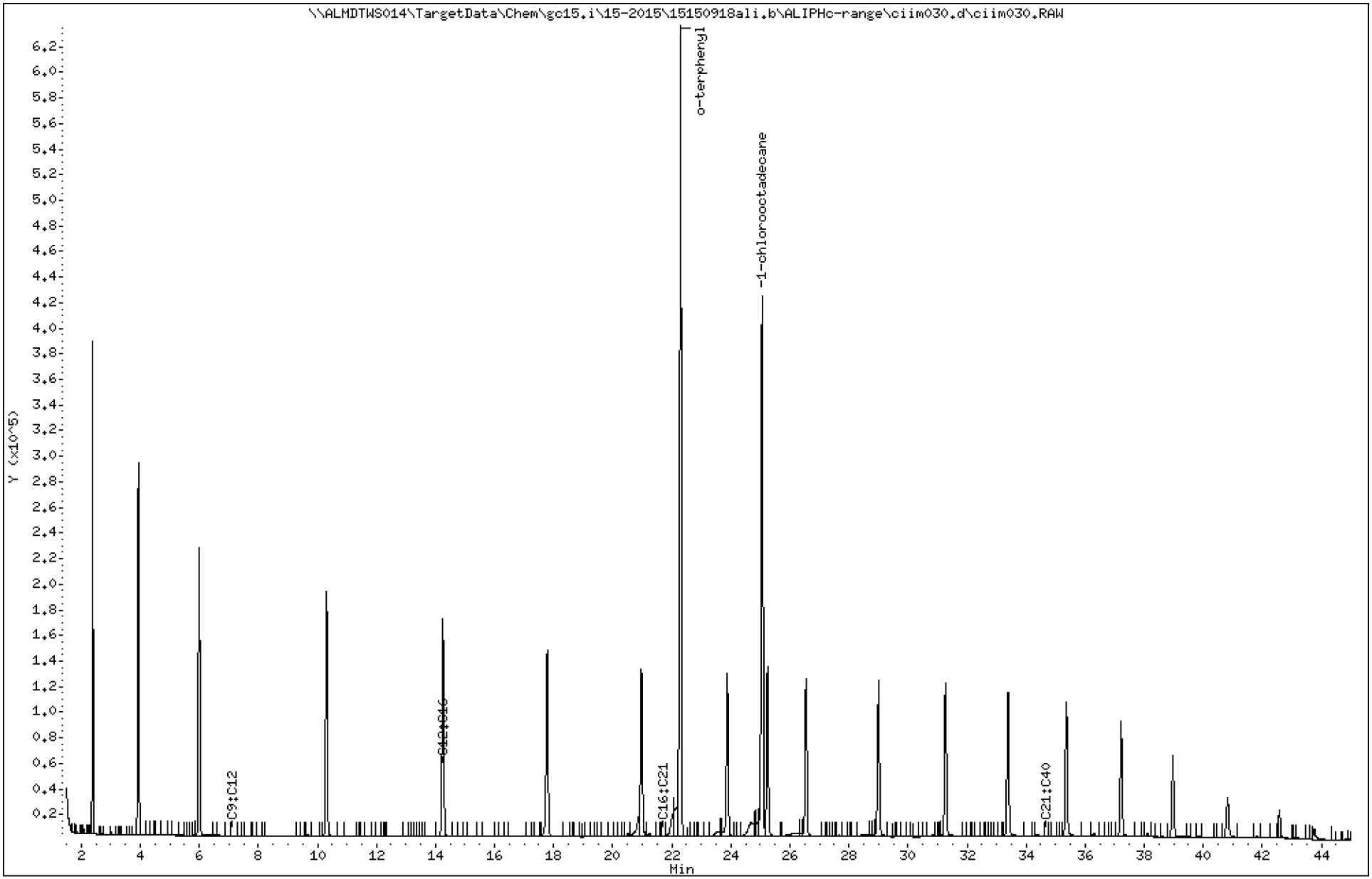
Sample Info: aliccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Instrument ID: GC15 Calibration Date: 09/22/15 Time: 0334

Lab File ID: CIIM048 Init. Calib. Date(s): 09/09/15 09/17/15

Init. Calib. Times: 0810 0411

GC Column: ZB-5 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF500.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
C9:C12	27257.845	30218.487	0.01	10.86	25.00	AVRG	
C12:C16	23253.347	25495.731	0.01	9.64	25.00	AVRG	
C16:C21	26960.032	30246.449	0.01	12.19	25.00	AVRG	
C21:C40	18856.115	15563.969	0.01	-17.46	25.00	AVRG	
o-terphenyl	22178.762	24285.610	0.01	9.50	25.00	AVRG	
2-Bromonaphthalene	0.0000000		0.01	0.00	25.00	AVRG	<-
2-Fluorobiphenyl	0.0000000		0.01	0.00	25.00	AVRG	<-
1-chlorooctadecane	16265.935	17597.220	0.01	8.18	25.00	AVRG	

FORM VII SV

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: aliccv
Inj Date : 22-SEP-2015 03:34
Operator : KJH Inst ID: gc15.i
Smp Info : aliccv;;;2
Misc Info :
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 22-Sep-2015 06:39 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/uL)	AMOUNTS ON-COL (ng/uL)
S 27 C9:C12	3.800	-10.500		2357042	78.0000	86.4721
S 28 C12:C16	10.600	-18.000		1325778	52.0000	57.0145(M)
S 29 C16:C21	18.100	-25.400		2359223	78.0000	87.5082
$ 6 o-terphenyl	22.316	22.317	-0.001	2428561	100.000	109.499
$ 31 1-chlorooctadecane	25.075	25.075	0.000	1759722	100.000	108.184
S 30 C21:C40	25.500	-43.900		4046632	260.000	214.606

QC Flag Legend

M - Compound response manually integrated.

ALS Environmental Services

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc15.i Injection Date: 22-SEP-2015 03:34
Lab File ID: ciim048.d Init. Cal. Date(s): 09-SEP-2015 17-SEP-2015
Analysis Type: SOIL Init. Cal. Times: 08:10 04:11
Lab Sample ID: aliccv Quant Type: ESTD
Method: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-ran

COMPOUND	RRF / AMOUNT	RF500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
S 27 C9:C12	27258	30218	0.010	10.86162	25.00000	Averaged	
$ 11 2-Bromonaphthalene	++++	++++	0.010	++++	25.00000	Averaged	<-
S 28 C12:C16	23253	25496	0.010	9.64327	25.00000	Averaged	
$ 14 2-Fluorobiphenyl	++++	++++	0.010	++++	25.00000	Averaged	<-
S 29 C16:C21	26960	30246	0.010	12.18996	25.00000	Averaged	
$ 6 o-terphenyl	22179	24286	0.010	9.49939	25.00000	Averaged	
$ 31 1-chlorooctadecane	16266	17597	0.010	8.18450	25.00000	Averaged	
S 30 C21:C40	18856	15564	0.010	-17.45930	25.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 11.30634
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim048.d

Date : 22-SEP-2015 03:34

Client ID:

Instrument: gc15.i

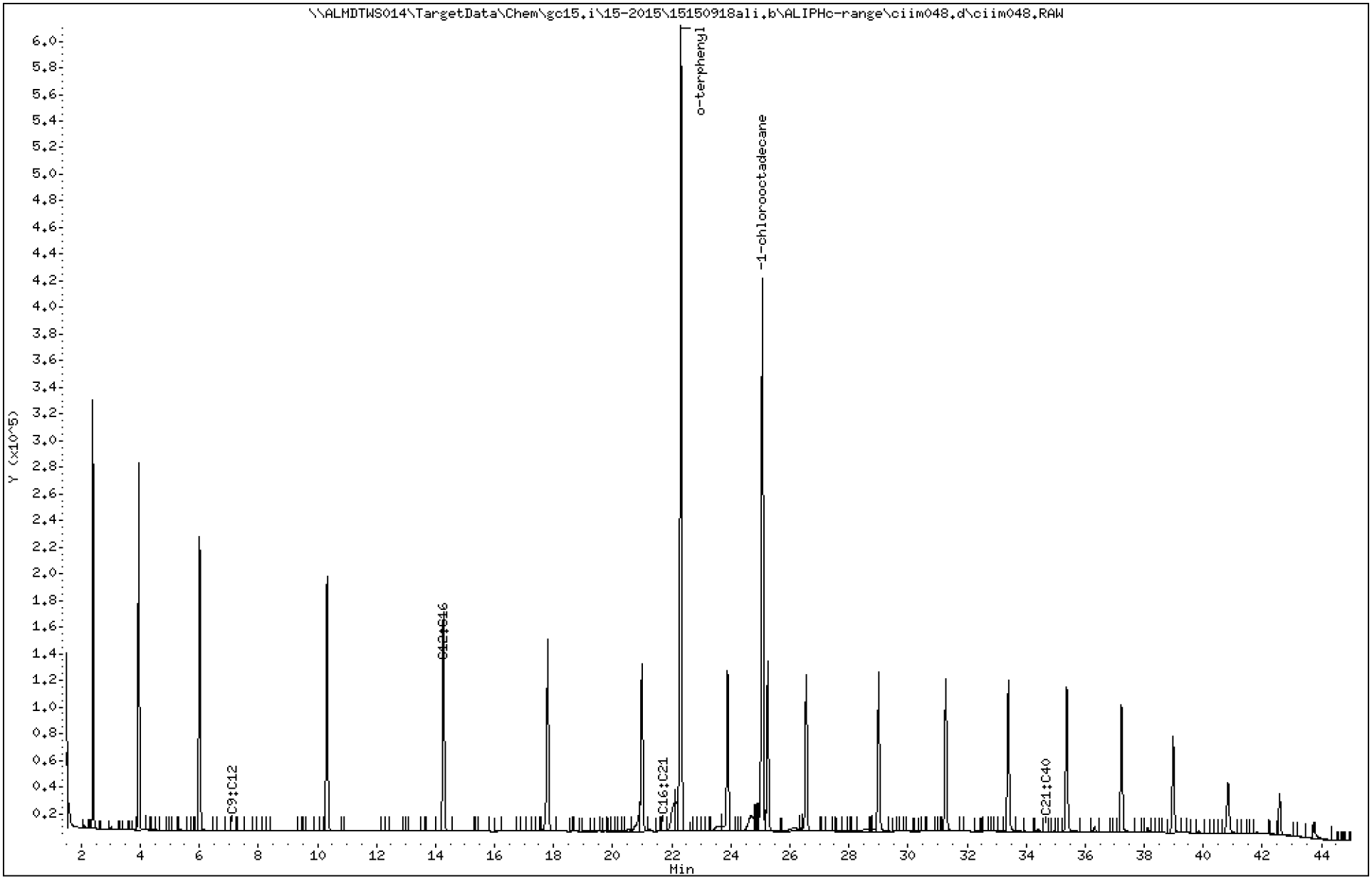
Sample Info: aliccv;;;2

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



QC Raw Data

Blank Raw Data

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
2232801

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232801

Sample wt/vol: 15.0(g/mL) G Lab File ID: CIIM004

Level: (low/med) LOW Date Received: 09/16/15

% Moisture: 0 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/18/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C9_C12	C9:C12	1.0	U	
C12_C16	C12:C16	1.0	U	
C16_C21	C16:C21	1.0	U	
C21_C40	C21:C40	1.0	U	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: 2232801 Client Smp ID: MB for HBN 97701 [E
Inj Date : 18-SEP-2015 11:33
Operator : KJH Inst ID: gc15.i
Smp Info : 2232801;;15.0
Misc Info : ZZ SVGC 39487 NJEPHS_AL
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 21-Sep-2015 07:56 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C9:C12	3.800-10.500			55424	2.03332	0.271110(a)
$ 11 2-Bromonaphthalene	13.566	13.566	0.000	344574		(a)
S 28 C12:C16	10.600-18.000			18125	0.77946	0.103928(a)
$ 14 2-Fluorobiphenyl	15.441	15.441	0.000	513024		(a)
S 29 C16:C21	18.100-25.400			57417	2.12971	0.283961(a)
$ 6 o-terphenyl	22.316	22.317	-0.001	37220	1.67818	0.223758(a)
$ 31 1-chlorooctadecane	25.091	25.075	0.016	667797	41.0549	5.47399
S 30 C21:C40	25.500-43.900			89783	4.76148	0.634864(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: ALIPHc-range
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232801 Client Smp ID: MB for HBN 97701 [E
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: BLANK
SpikeList File: c_range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPH
Misc Info: ZZ SVGC 39487 NJEPHS_AL

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 11 2-Bromonaphthalene	6.66667	0.000000	0.00	0-140
$ 14 2-Fluorobiphenyl	6.66667	0.000000	0.00	0-140
$ 6 o-terphenyl	6.66667	0.223758	3.36	0-140
$ 31 1-chlorooctadecane	6.66667	5.47399	82.11	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 2232801
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39487 NJEPHS_AL

Client SDG: ALIPHc-range
Client Smp ID: MB for HBN 97701 [E
Sample Point:
Date Received: 16-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	0.271110	J
C12_C16	C12:C16	0.103928	J
C16_C21	C16:C21	0.283961	J
C21_C40	C21:C40	0.634864	J
580-13-2	2-Bromonaphthalene	0.000000	J
321-60-8	2-Fluorobiphenyl	0.000000	J
84-15-1	o-terphenyl	0.223758	J
3386-33-2	1-chlorooctadecane	5.47399	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim004.d

Date : 18-SEP-2015 11:33

Client ID: MB for HBN 97701 [E

Instrument: gc15.i

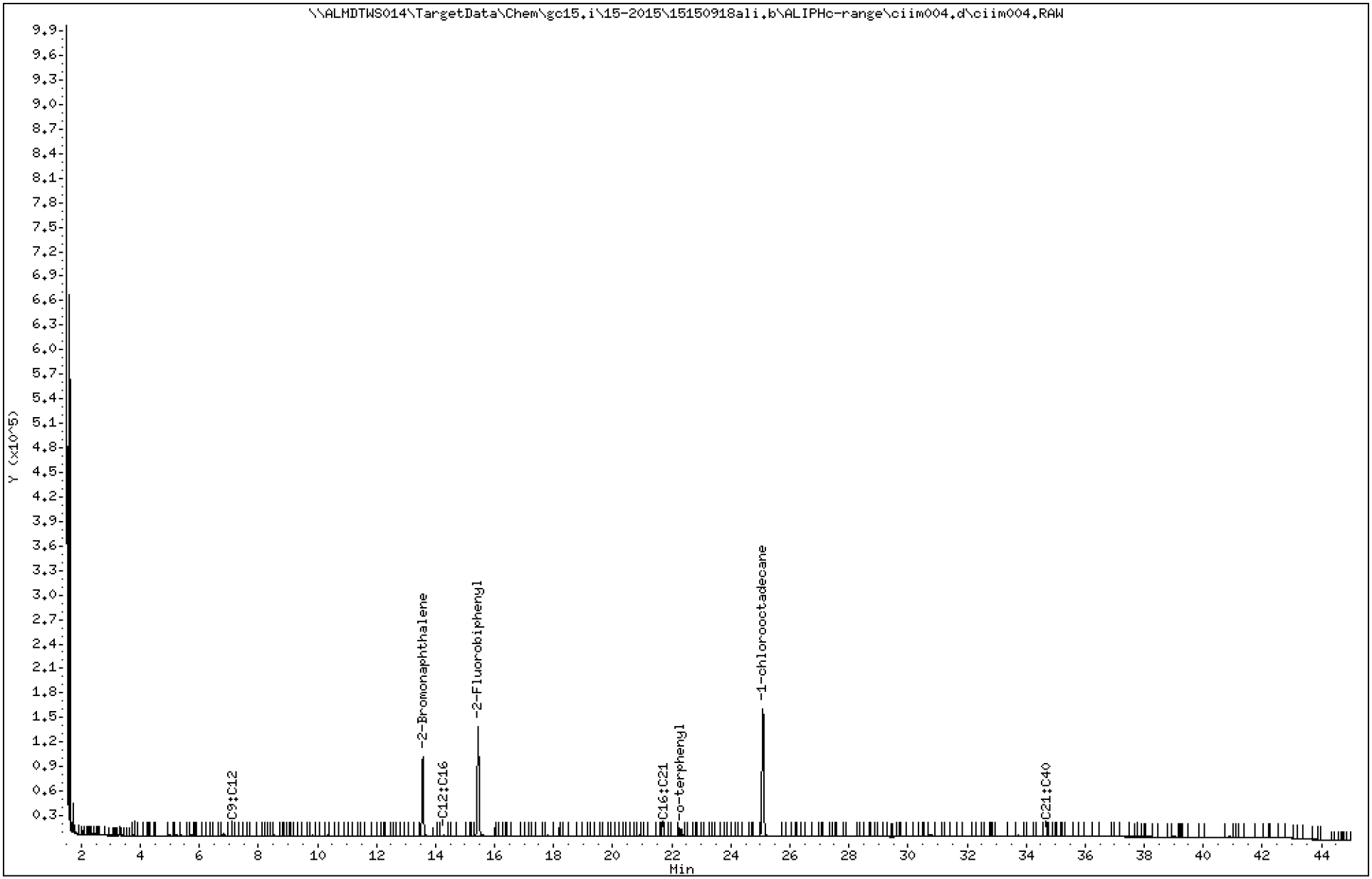
Sample Info: 2232801;;15.0

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Duplicate Raw Data

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
BLDG1203-SS-EX1-DUP

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232805

Sample wt/vol: 15.5(g/mL) G Lab File ID: CIIM013

Level: (low/med) LOW Date Received: 09/11/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/18/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C9_C12	C9:C12	0.77	J	
C12_C16	C12:C16	168	E	
C16_C21	C16:C21	519	E	
C21_C40	C21:C40	322	E	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: 2232805 Client Smp ID: 2095064004DUP
Inj Date : 18-SEP-2015 20:25
Operator : KJH Inst ID: gc15.i
Smp Info : 2232805;;15.5
Misc Info : ZZ SVGC 39487 NJEPHS_AL
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 21-Sep-2015 07:56 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.500	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C9:C12	3.800-10.500			140764	5.16416	0.666344
$ 11 2-Bromonaphthalene	13.566	13.566	0.000	709991		(aM)
S 28 C12:C16	10.600-18.000			26090068	1121.99	144.773(AM) LR at dilution
$ 14 2-Fluorobiphenyl	15.450	15.441	0.009	590420		(aM)
S 29 C16:C21	18.100-25.400			93308721	3461.00	446.581(AM)
$ 6 o-terphenyl	22.383	22.317	0.066	147048	6.63013	0.855500(M)
$ 31 1-chlorooctadecane	25.091	25.075	0.016	455628	28.0112	3.61435(M)
S 30 C21:C40	25.500-43.900			40561853	2151.12	277.564(AM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: ALIPHc-range
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232805 Client Smp ID: 2095064004DUP
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: c_range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPH
Misc Info: ZZ SVGC 39487 NJEPHS_AL

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 11 2-Bromonaphthalene	6.45161	0.000000	0.00	0-140
$ 14 2-Fluorobiphenyl	6.45161	0.000000	0.00	0-140
$ 6 o-terphenyl	6.45161	0.855500	13.26	0-140
$ 31 1-chlorooctadecane	6.45161	3.61435	56.02	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 2232805
Sample Location:
Sample Date: 08-SEP-2015
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39487 NJEPHS_AL

Client SDG: ALIPHc-range
Client Smp ID: 2095064004DUP
Sample Point:
Date Received: 11-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	0.666344	
C12_C16	C12:C16	144.773	E
C16_C21	C16:C21	446.581	E
C21_C40	C21:C40	277.564	E
580-13-2	2-Bromonaphthalene	0.000000	J
321-60-8	2-Fluorobiphenyl	0.000000	J
84-15-1	o-terphenyl	0.855500	
3386-33-2	1-chlorooctadecane	3.61435	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim013.d

Date : 18-SEP-2015 20:25

Client ID: 2095064004DUP

Instrument: gc15.i

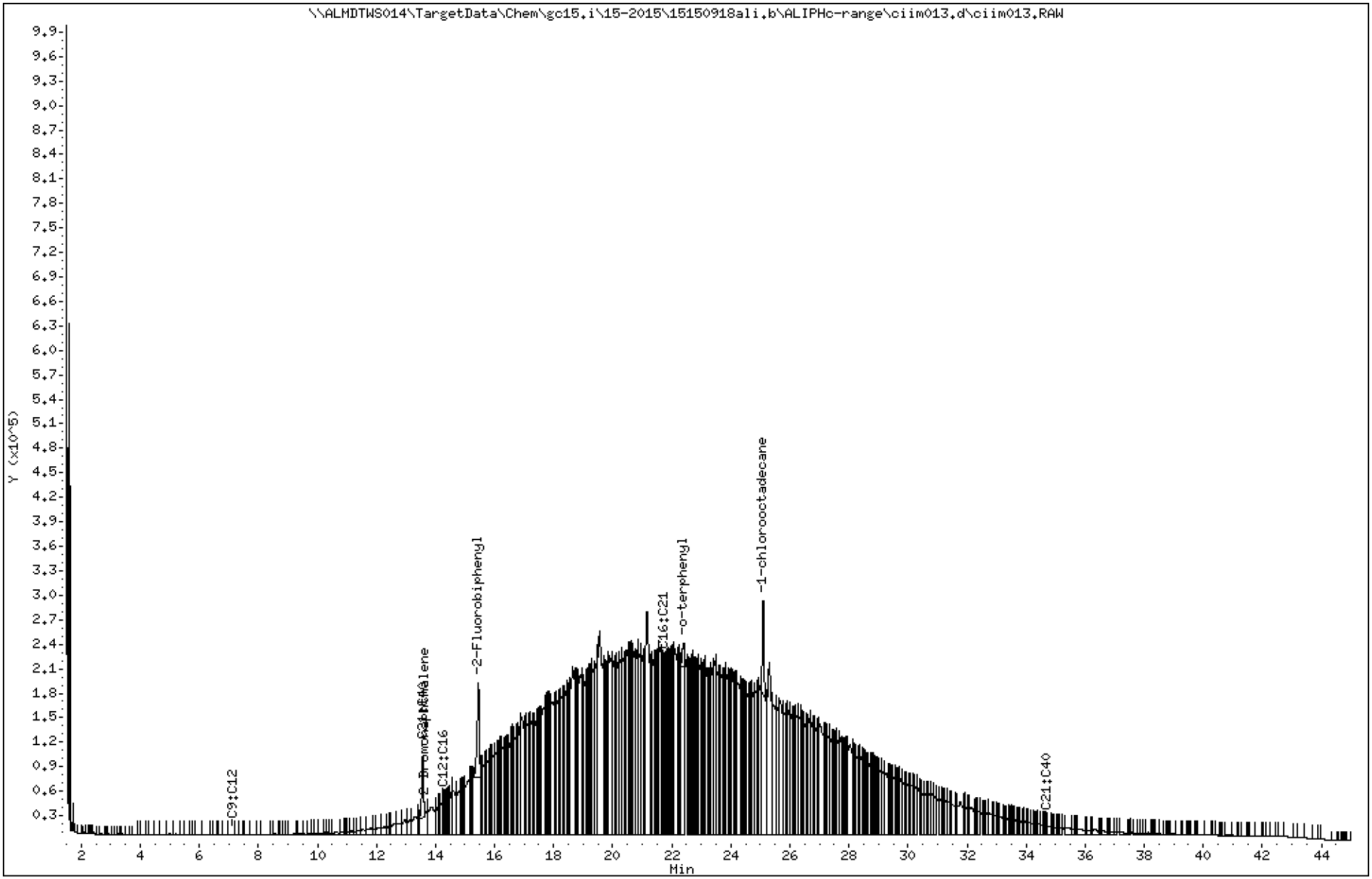
Sample Info: 2232805;;15.5

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
BLDG1203-SS-EX1-DUP
DL20

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232805

Sample wt/vol: 15.5(g/mL) G Lab File ID: CIIM036

Level: (low/med) LOW Date Received: 09/11/15

% Moisture: 14 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/21/15

Injection Volume: 2.0(uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
C9_C12	C9:C12		0.40	J
C12_C16	C12:C16		149	
C16_C21	C16:C21		467	
C21_C40	C21:C40		204	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Lab Smp Id: 2232805
Inj Date : 21-SEP-2015 15:52
Operator : KJH Inst ID: gc15.i
Smp Info : 2232805;;15.5;;;;;20
Misc Info : ZZ SVGC 39487
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc
Meth Date : 22-Sep-2015 06:39 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 03:12 Cal File: cigm018.d
Als bottle: 27
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	20.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.500	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
S 27 C9:C12	3.800-10.500			3651	0.13394	0.345660(a)
S 28 C12:C16	10.600-18.000			1156845	49.7496	128.386
S 29 C16:C21	18.100-25.400			4200323	155.798	402.060
S 30 C21:C40	25.500-43.900			1282881	68.0353	175.575

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: ALIPHc-range
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232805
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: c_range.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPH
Misc Info: ZZ SVGC 39487

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 11 2-Bromonaphthalene	6.45161	0.000000	*	0-140
$ 14 2-Fluorobiphenyl	6.45161	0.000000	*	0-140
$ 6 o-terphenyl	6.45161	0.000000	*	0-140
$ 31 1-chlorooctadecane	6.45161	0.000000	*	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name: Client SDG: ALIPHc-range
Lab Smp Id: 2232805
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: SOIL Quant Type: ESTD
Analysis Type: SV Level: LOW
Data Type: GC DATA Operator: KJH
Misc Info: ZZ SVGC 39487

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
C9_C12	C9:C12	0.345660	J
C12_C16	C12:C16	128.386	
C16_C21	C16:C21	402.060	
C21_C40	C21:C40	175.575	
580-13-2	2-Bromonaphthalene	13.7548	U
321-60-8	2-Fluorobiphenyl	13.7548	U
84-15-1	o-terphenyl	13.7548	U
3386-33-2	1-chlorooctadecane	13.7548	U

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ALIPHc-range\ciim036.d

Date : 21-SEP-2015 15:52

Client ID:

Instrument: gc15.i

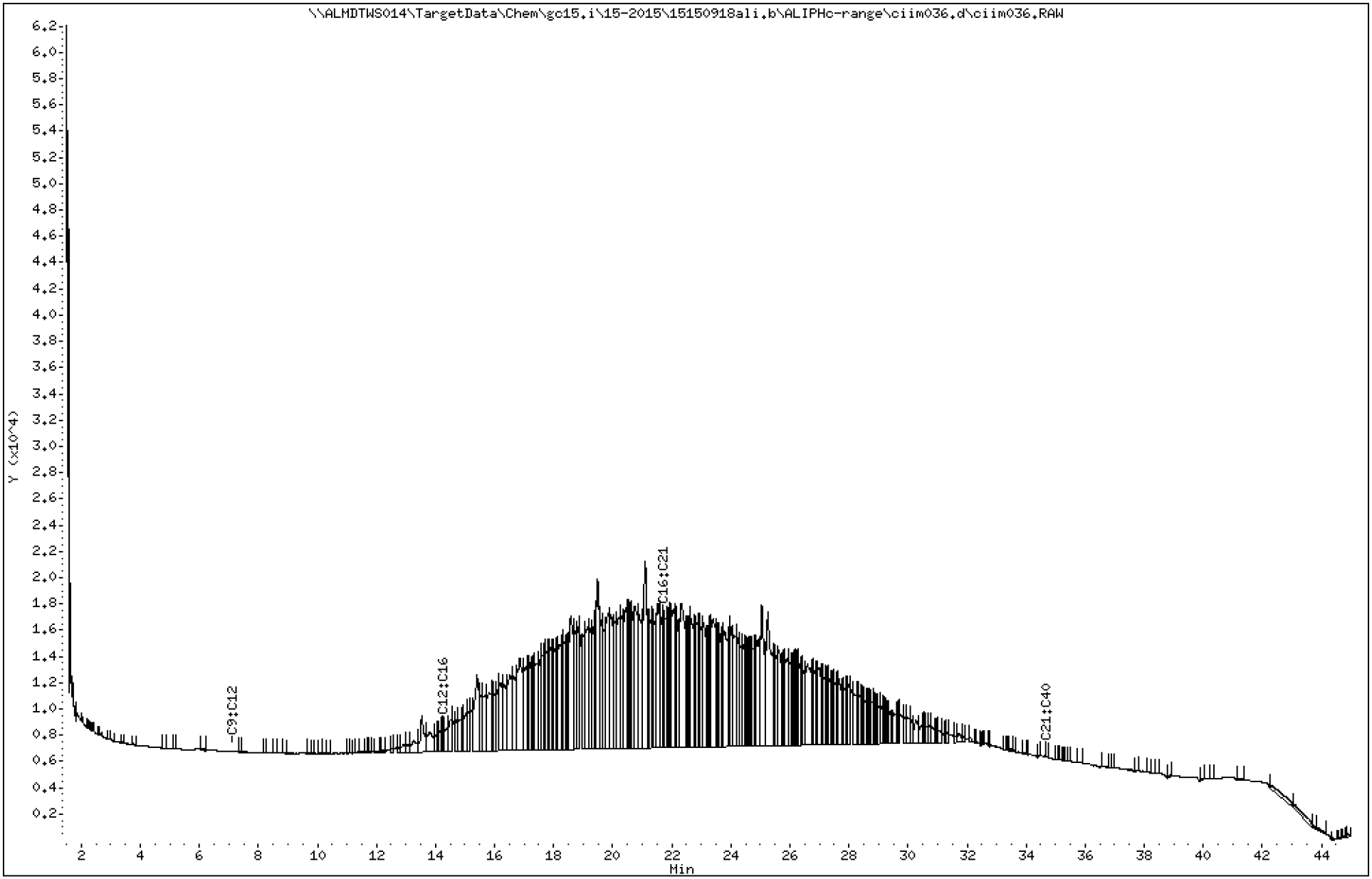
Sample Info: 2232805;;15.5;;;;;20

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



LCS Raw Data

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
2232802LCS

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232802

Sample wt/vol: 15.0(g/mL) G Lab File ID: CIIM005

Level: (low/med) LOW Date Received: 09/16/15

% Moisture: 0 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/18/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	MG/KG	Q
	n-octane (C8)	2.0	_____	
112-95-8	n-Eicosane (C20)	0.28	J	
629-94-7	n-Heneicosane (C21)	0.33	J	
629-97-0	n-Docosane (C22)	0.29	J	
646-31-1	n-Tetracosane (C24)	0.35	J	
630-01-3	n-Hexacosane (C26)	0.29	J	
630-02-4	n-Octocosane (C28)	0.28	J	
638-68-6	n-Triacontane (C30)	0.27	J	
544-85-4	n-Dotriacontane (C32)	0.26	J	
14167-59-0	n-Tetratriacontane (C34)	0.24	J	
630-06-8	n-Hexatriacontane (C36)	0.25	J	
7194-85-6	n-Octatriacontane (C38)	0.40	J	
4181-95-7	n-Tetracontane (C40)	0.24	J	
124-18-5	n-Decane (C10)	0.18	J	
112-40-3	n-Dodecane (C12)	0.23	J	
544-76-3	n-Hexadecane (C16)	0.25	J	
593-45-3	n-Octadecane (C18)	0.32	J	
629-59-4	n-Tetradecane (C14)	0.24	J	
111-84-2	n-nonane (C9)	0.15	J	
	Napthalene	0.00	U	
	2-Methylnapthalene	0.71	U	

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ciim00
Lab Smp Id: 2232802 Client Smp ID: LCS for HBN 97701 [
Inj Date : 18-SEP-2015 12:33
Operator : KJH Inst ID: gc15.i
Smp Info : 2232802;;15.0
Misc Info : ZZ SVGC 39487 NJEPHSQAL
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\AliphE
Meth Date : 21-Sep-2015 08:08 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 00:17 Cal File: cigm015.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
1	n-octane (C8)	2.408	2.400	0.008	22804	15.3714	2.04951
32	n-nonane (C9)	3.966	3.950	0.016	30886	1.15940	0.154587(a)
2	n-Decane (C10)	6.025	6.000	0.025	36231	1.34631	0.179508(a)
3	n-Dodecane (C12)	10.341	10.333	0.008	42866	1.72577	0.230102(a)
4	n-Tetradecane (C14)	14.283	14.300	-0.017	41521	1.78420	0.237893(a)
5	n-Hexadecane (C16)	17.816	17.825	-0.009	42168	1.89511	0.252681(a)
7	n-Octadecane (C18)	21.008	21.000	0.008	50488	2.41911	0.322547(a)
8	n-Eicosane (C20)	23.916	23.900	0.016	41584	2.11424	0.281899(a)
$ 31	1-chlorooctadecane	25.091	25.066	0.025	592753	36.5671	4.87562
9	n-Heneicosane (C21)	25.275	25.258	0.017	48109	2.47573	0.330098(a)
10	n-Docosane (C22)	26.583	26.575	0.008	39292	2.18089	0.290785(aM)
12	n-Tetracosane (C24)	29.033	29.025	0.008	48550	2.63779	0.351706(a)
13	n-Hexacosane (C26)	31.308	31.300	0.008	40283	2.17213	0.289618(a)
15	n-Octocosane (C28)	33.425	33.408	0.017	39085	2.08639	0.278185(a)
16	n-Triacontane (C30)	35.408	35.383	0.025	40540	2.05439	0.273919(a)
17	n-Dotriacontane (C32)	37.266	37.241	0.025	37626	1.93769	0.258359(a)
18	n-Tetratriacontane (C34)	39.016	38.983	0.033	33077	1.79400	0.239200(a)
19	n-Hexatriacontane (C36)	40.883	40.841	0.042	28882	1.85260	0.247013(a)
20	n-Octatriacontane (C38)	42.625	42.591	0.034	38593	3.03205	0.404274(a)
21	n-Tetracontane (C40)	43.783	43.758	0.025	18062	1.77647	0.236862(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: 15150918ali.b
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232802 Client Smp ID: LCS for HBN 97701 [
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: LCS
SpikeList File: aliph.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\Aliph
Misc Info: ZZ SVGC 39487 NJEPHSQAL

SPIKE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
32 n-nonane (C9)	0.353333	0.154587	43.75	40-140
2 n-Decane (C10)	0.353333	0.179508	50.80	40-140
3 n-Dodecane (C12)	0.353333	0.230102	65.12	40-140
4 n-Tetradecane (C14	0.353333	0.237893	67.33	40-140
5 n-Hexadecane (C16)	0.353333	0.252681	71.51	40-140
7 n-Octadecane (C18)	0.353333	0.322547	91.29	40-140
8 n-Eicosane (C20)	0.353333	0.281899	79.78	40-140
9 n-Heneicosane (C21	0.353333	0.330098	93.42	40-140
10 n-Docosane (C22)	0.353333	0.290785	82.30	40-140
12 n-Tetracosane (C24	0.353333	0.351706	99.54	40-140
13 n-Hexacosane (C26)	0.353333	0.289618	81.97	40-140
15 n-Octocosane (C28)	0.353333	0.278185	78.73	40-140
16 n-Triacontane (C30	0.353333	0.273919	77.52	40-140
17 n-Dotriacontane (C	0.353333	0.258359	73.12	40-140
18 n-Tetratriacontane	0.353333	0.239200	67.70	40-140
19 n-Hexatriacontane	0.353333	0.247013	69.91	40-140
20 n-Octatriacontane	0.353333	0.404274	114.42	40-140
21 n-Tetracontane (C4	0.353333	0.236862	67.04	40-140

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 11 2-Bromonaphthalene	6.66667	0.000000	*	40-140
$ 14 2-Fluorobiphenyl	6.66667	0.000000	*	40-140
$ 6 o-terphenyl	6.66667	0.000000	*	40-140
$ 31 1-chlorooctadecane	6.66667	4.87562	73.13	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 2232802
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39487 NJEPHSQAL

Client SDG: 15150918ali.b
Client Smp ID: LCS for HBN 97701 [
Sample Point:
Date Received: 16-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
	n-octane (C8)	2.04951	
	Napthalene	0.000000	U
	2-Methylnapthalene	0.710667	U
111-84-2	n-nonane (C9)	0.154587	J
124-18-5	n-Decane (C10)	0.179508	J
112-40-3	n-Dodecane (C12)	0.230102	J
629-59-4	n-Tetradecane (C14)	0.237893	J
544-76-3	n-Hexadecane (C16)	0.252681	J
593-45-3	n-Octadecane (C18)	0.322547	J
112-95-8	n-Eicosane (C20)	0.281899	J
629-94-7	n-Heneicosane (C21)	0.330098	J
629-97-0	n-Docosane (C22)	0.290785	J
646-31-1	n-Tetracosane (C24)	0.351706	J
630-01-3	n-Hexacosane (C26)	0.289618	J
630-02-4	n-Octocosane (C28)	0.278185	J
638-68-6	n-Triacontane (C30)	0.273919	J
544-85-4	n-Dotriacontane (C32)	0.258359	J
14167-59-0	n-Tetratriacontane (C34)	0.239200	J
630-06-8	n-Hexatriacontane (C36)	0.247013	J
7194-85-6	n-Octatriacontane (C38)	0.404274	J
4181-95-7	n-Tetracontane (C40)	0.236862	J
580-13-2	2-Bromonaphthalene	0.710667	U
321-60-8	2-Fluorobiphenyl	0.710667	U
84-15-1	o-terphenyl	0.710667	U
3386-33-2	1-chlorooctadecane	4.87562	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ciim005.d

Date : 18-SEP-2015 12:33

Client ID: LCS for HBN 97701 [

Instrument: gc15.i

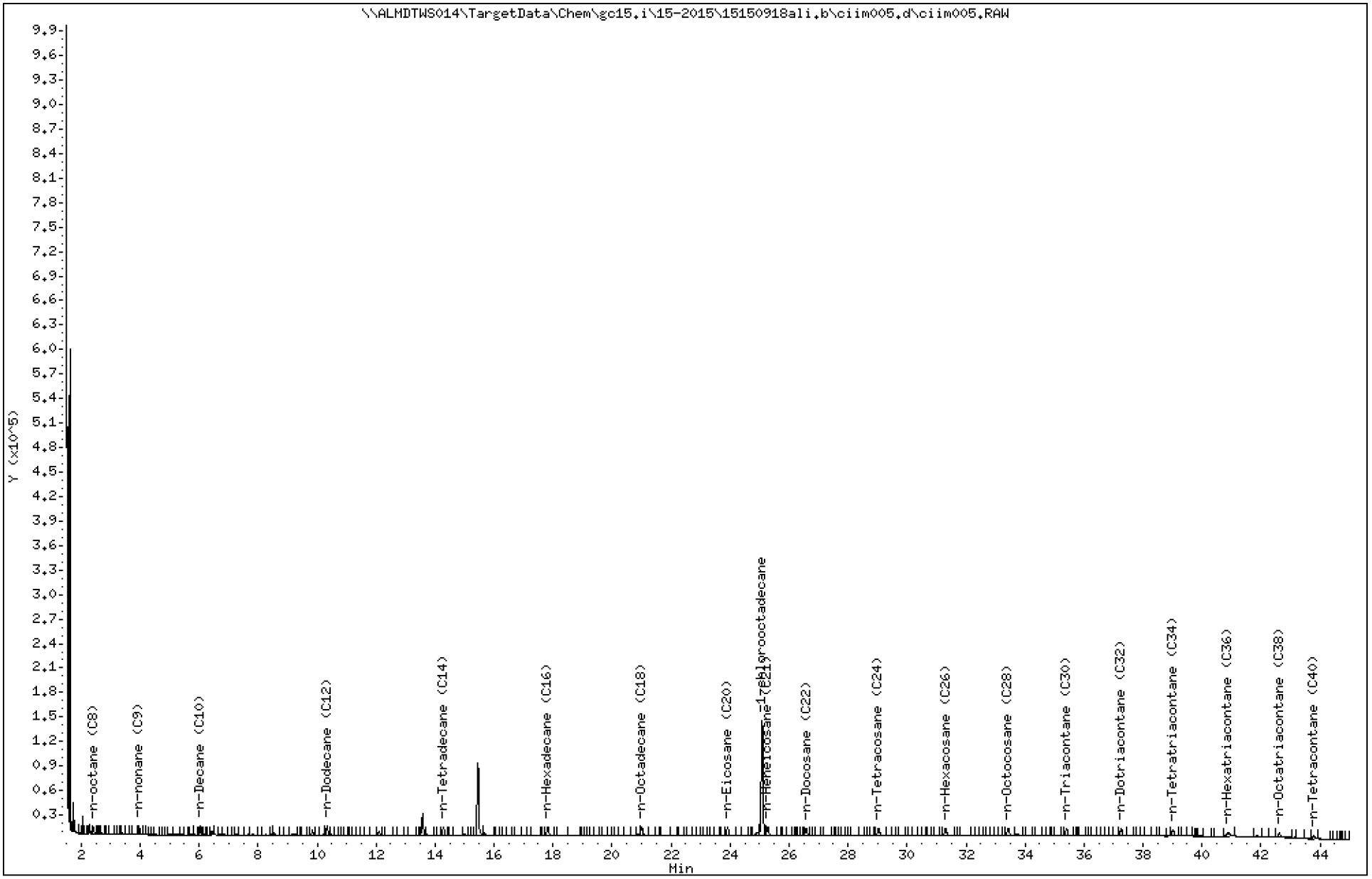
Sample Info: 2232802;;15.0

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
2232803LCSD

Lab Name: ALSI Contract:

Lab Code: PA-010 Case No.: SAS No.: SDG No.: AER121

Matrix: (soil/water) SOIL Lab Sample ID: 2232803

Sample wt/vol: 15.0(g/mL) G Lab File ID: CIIM006

Level: (low/med) LOW Date Received: 09/16/15

% Moisture: 0 Decanted: (Y/N)N Date Extracted: 09/16/15

Concentrated Extract Volume: 2(ml) Date Analyzed: 09/18/15

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
	n-octane (C8)	2.2	_____
112-95-8	n-Eicosane (C20)	0.32	J
629-94-7	n-Heneicosane (C21)	0.38	J
629-97-0	n-Docosane (C22)	0.32	J
646-31-1	n-Tetracosane (C24)	0.40	J
630-01-3	n-Hexacosane (C26)	0.31	J
630-02-4	n-Octocosane (C28)	0.30	J
638-68-6	n-Triacontane (C30)	0.29	J
544-85-4	n-Dotriacontane (C32)	0.27	J
14167-59-0	n-Tetratriacontane (C34)	0.25	J
630-06-8	n-Hexatriacontane (C36)	0.28	J
7194-85-6	n-Octatriacontane (C38)	0.42	J
4181-95-7	n-Tetracontane (C40)	0.26	J
124-18-5	n-Decane (C10)	0.21	J
112-40-3	n-Dodecane (C12)	0.26	J
544-76-3	n-Hexadecane (C16)	0.28	J
593-45-3	n-Octadecane (C18)	0.32	J
629-59-4	n-Tetradecane (C14)	0.27	J
111-84-2	n-nonane (C9)	0.17	J
	Napthalene	0.00	U
	2-Methylnapthalene	0.71	U

ALS Environmental Services

TPHDRO BY METHOD 8015

Data file : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ciim00
Lab Smp Id: 2232803 Client Smp ID: LCSD for HBN 97701
Inj Date : 18-SEP-2015 13:33
Operator : KJH Inst ID: gc15.i
Smp Info : 2232803;;15.0
Misc Info : ZZ SVGC 39487 NJEPHSQAL
Comment : RTX-5 F
Method : \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\AliphE
Meth Date : 21-Sep-2015 08:08 kjh Quant Type: ESTD
Cal Date : 17-SEP-2015 00:17 Cal File: cigm015.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.14
Processing Host: NAMDTW7006

Concentration Formula: Amt * DF * 2*Vt/(Ws*Vi*((100-M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.000	FinalVolume
Ws	15.000	SampleWeight
Vi	2.000	InjectionVol
M	0.00000	Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/uL)	CONCENTRATIONS FINAL (mg/kg)
1	n-octane (C8)	2.416	2.400	0.016	24091	16.2389	2.16518
32	n-nonane (C9)	3.966	3.950	0.016	34405	1.29150	0.172200(a)
2	n-Decane (C10)	6.025	6.000	0.025	41928	1.55800	0.207733(a)
3	n-Dodecane (C12)	10.350	10.333	0.017	48547	1.95448	0.260597(a)
4	n-Tetradecane (C14)	14.291	14.300	-0.009	46830	2.01233	0.268311(a)
5	n-Hexadecane (C16)	17.833	17.825	0.008	47182	2.12045	0.282727(a)
7	n-Octadecane (C18)	21.025	21.000	0.025	49531	2.37325	0.316434(a)
8	n-Eicosane (C20)	23.933	23.900	0.033	47155	2.39749	0.319665(a)
$ 31	1-chlorooctadecane	25.100	25.066	0.034	636914	39.2914	5.23886
9	n-Heneicosane (C21)	25.283	25.258	0.025	55646	2.86359	0.381812(a)
10	n-Docosane (C22)	26.600	26.575	0.025	42671	2.36844	0.315792(aM)
12	n-Tetracosane (C24)	29.050	29.025	0.025	55893	3.03675	0.404900(a)
13	n-Hexacosane (C26)	31.325	31.300	0.025	43320	2.33589	0.311452(a)
15	n-Octocosane (C28)	33.441	33.408	0.033	41531	2.21696	0.295595(a)
16	n-Triacontane (C30)	35.416	35.383	0.033	42214	2.13922	0.285230(a)
17	n-Dotriacontane (C32)	37.275	37.241	0.034	40006	2.06026	0.274701(a)
18	n-Tetratriacontane (C34)	39.025	38.983	0.042	35250	1.91185	0.254914(a)
19	n-Hexatriacontane (C36)	40.891	40.841	0.050	33108	2.12367	0.283156(a)
20	n-Octatriacontane (C38)	42.625	42.591	0.034	39794	3.12641	0.416855(a)
21	n-Tetracontane (C40)	43.783	43.758	0.025	20088	1.97573	0.263431(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

ALS Environmental Services

RECOVERY REPORT

Client Name: Client SDG: 15150918ali.b
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: 2232803 Client Smp ID: LCSD for HBN 97701
Level: LOW Operator: KJH
Data Type: GC DATA SampleType: LCS
SpikeList File: aliph.spk Quant Type: ESTD
Sublist File: all.sub
Method File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\Aliph
Misc Info: ZZ SVGC 39487 NJEPHSQAL

SPIKE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
32 n-nonane (C9)	0.353333	0.172200	48.74	40-140
2 n-Decane (C10)	0.353333	0.207733	58.79	40-140
3 n-Dodecane (C12)	0.353333	0.260597	73.75	40-140
4 n-Tetradecane (C14	0.353333	0.268311	75.94	40-140
5 n-Hexadecane (C16)	0.353333	0.282727	80.02	40-140
7 n-Octadecane (C18)	0.353333	0.316434	89.56	40-140
8 n-Eicosane (C20)	0.353333	0.319665	90.47	40-140
9 n-Heneicosane (C21	0.353333	0.381812	108.06	40-140
10 n-Docosane (C22)	0.353333	0.315792	89.38	40-140
12 n-Tetracosane (C24	0.353333	0.404900	114.59	40-140
13 n-Hexacosane (C26)	0.353333	0.311452	88.15	40-140
15 n-Octocosane (C28)	0.353333	0.295595	83.66	40-140
16 n-Triacontane (C30	0.353333	0.285230	80.73	40-140
17 n-Dotriacontane (C	0.353333	0.274701	77.75	40-140
18 n-Tetratriacontane	0.353333	0.254914	72.15	40-140
19 n-Hexatriacontane	0.353333	0.283156	80.14	40-140
20 n-Octatriacontane	0.353333	0.416855	117.98	40-140
21 n-Tetracontane (C4	0.353333	0.263431	74.56	40-140

SURROGATE COMPOUND	CONC ADDED mg/kg	CONC RECOVERED mg/kg	% RECOVERED	LIMITS
$ 11 2-Bromonaphthalene	6.66667	0.000000	*	40-140
$ 14 2-Fluorobiphenyl	6.66667	0.000000	*	40-140
$ 6 o-terphenyl	6.66667	0.000000	*	40-140
$ 31 1-chlorooctadecane	6.66667	5.23886	78.58	40-140

ALS Environmental Services

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 2232803
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: GC DATA
Misc Info: ZZ SVGC 39487 NJEPHSQAL

Client SDG: 15150918ali.b
Client Smp ID: LCSD for HBN 97701
Sample Point:
Date Received: 16-SEP-2015
Quant Type: ESTD
Level: LOW
Operator: KJH

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) mg/kg	Q
	n-octane (C8)	2.16518	
	Napthalene	0.000000	U
	2-Methylnapthalene	0.710667	U
111-84-2	n-nonane (C9)	0.172200	J
124-18-5	n-Decane (C10)	0.207733	J
112-40-3	n-Dodecane (C12)	0.260597	J
629-59-4	n-Tetradecane (C14)	0.268311	J
544-76-3	n-Hexadecane (C16)	0.282727	J
593-45-3	n-Octadecane (C18)	0.316434	J
112-95-8	n-Eicosane (C20)	0.319665	J
629-94-7	n-Heneicosane (C21)	0.381812	J
629-97-0	n-Docosane (C22)	0.315792	J
646-31-1	n-Tetracosane (C24)	0.404900	J
630-01-3	n-Hexacosane (C26)	0.311452	J
630-02-4	n-Octocosane (C28)	0.295595	J
638-68-6	n-Triacontane (C30)	0.285230	J
544-85-4	n-Dotriacontane (C32)	0.274701	J
14167-59-0	n-Tetratriacontane (C34)	0.254914	J
630-06-8	n-Hexatriacontane (C36)	0.283156	J
7194-85-6	n-Octatriacontane (C38)	0.416855	J
4181-95-7	n-Tetracontane (C40)	0.263431	J
580-13-2	2-Bromonaphthalene	0.710667	U
321-60-8	2-Fluorobiphenyl	0.710667	U
84-15-1	o-terphenyl	0.710667	U
3386-33-2	1-chlorooctadecane	5.23886	

Data File: \\ALMDTWS014\TargetData\Chem\gc15.i\15-2015\15150918ali.b\ciim006.d

Date : 18-SEP-2015 13:33

Client ID: LCSD for HBN 97701

Instrument: gc15.i

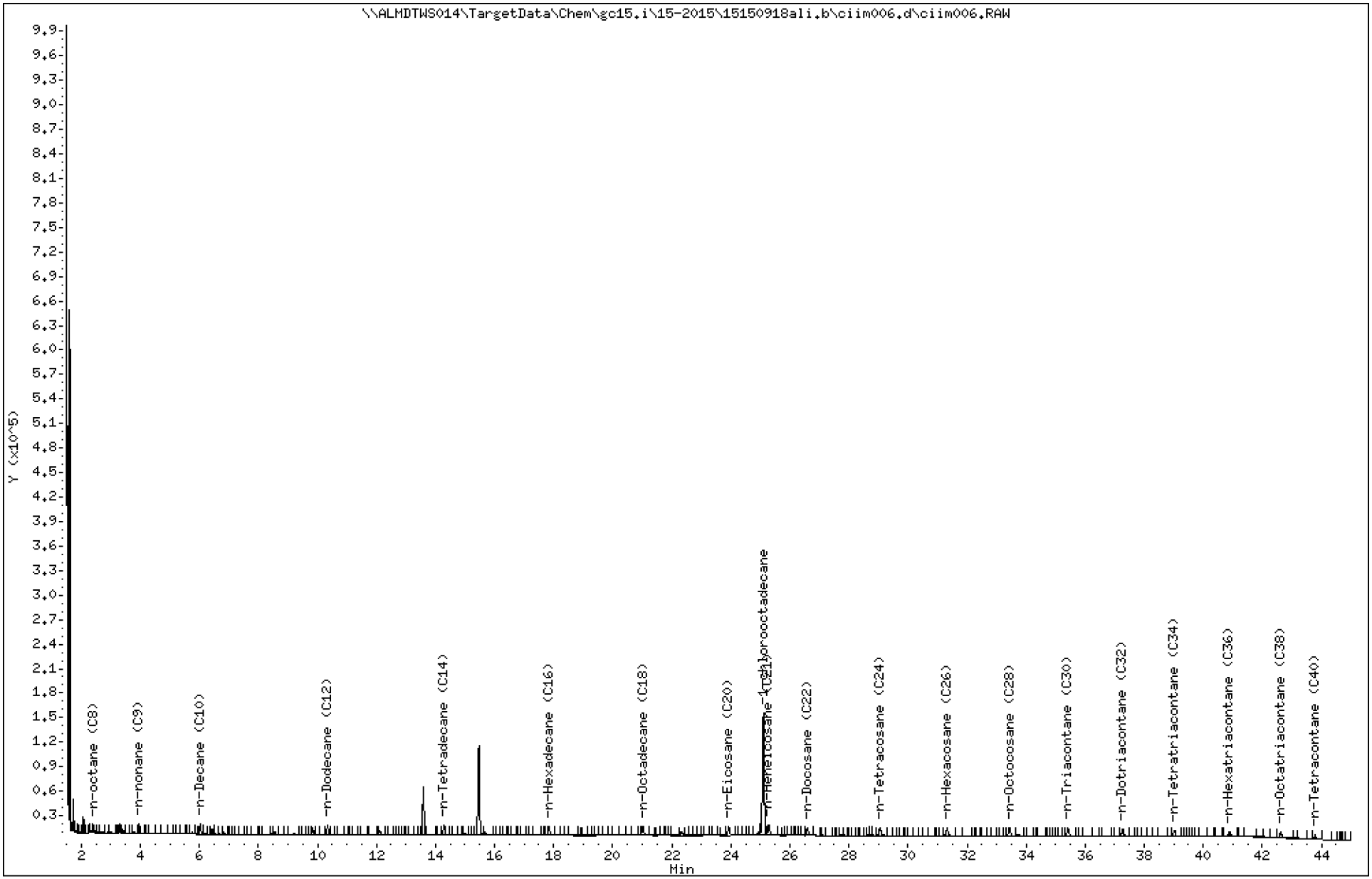
Sample Info: 2232803;;15.0

Volume Injected (uL): 2.0

Operator: KJH

Column phase: ZB-5

Column diameter: 0.53



Preparation Logbook

GENERAL ORGANIC EXTRACTION

EPA Method: 3546/NSEPII Batch 40752
Rule: 3546NSEPHL 3546NSEPHR 3546NSEAHL 40753
HBN: 97701 97702 97703 40754
Extraction Apparatus Name: Microwave
Extraction Apparatus ID#: MO-2249

Surrogate Amount: 1ml
Surrogate Lot #: OP19657
Tech: KAC

Steam Bath ID#:
Initial Temp. of Bath:
Final Temp. of Bath:
Thermometer ID#:

	Date	Time	Tech		Time On	Time Off	Total Hours
Extraction:	9/16/15	0200	KAC	Soxhlet:			
				Acid:			
Concentration:	9/16/15	0310	KAC	Base:			

N-EVAP ID#:: 50731
Initial Temp. : 65°C
Final Temp. : 106°C
Thermometer ID: TH25

Line #	Sample #	pH (1)	Start/Stop Time (2)	Sample Amount	Final Volume	QC Spike lot#	QC Spike Amount	Cleanup Required	Cleanup Method	QC Type	Sample Specific Comments
1.)	2232801 2232806 2232811			15.0g	2ml					MB	
2.)	2232807 2232801 2232812			15.0g	2ml	OP19998 OP19999	1ml KAC 1ml KAC			LCS	
3.)	2232803 2232808 2232813			15.0g	2ml	OP19998 OP19999	1ml KAC 1ml KAC			LCSD	
4.)	209506300.			15.1g	2ml					—	
5.)	209506400 1			15.2g	2ml					—	
6.)	2232804 2232801			15.8g	2ml	OP19998 OP19999	1ml KAC 1ml KAC			MS	
7.)	209506400 2			15.2g	2ml					—	
8.)	209506400 3			15.4g	2ml					—	
9.)	209506400 4			15.3g	2ml					—	
10.)	2232805 2232810			15.5g	2ml					DUP	
11.)	209506400 5			15.7g	2ml					—	
12.)	209511900 1			15.4g	2ml					—	
13.)											
14.)											KAC
15.)											9/16/15

Comments:

	Volume Aliquoted	I.S. Volume Added	I.S. ID#	Date	Time	Tech
1.) Reagent Sand OP18853 Na2SO4 OP18479 CH2Cl2 Chem 106567						
2.) Reagent: Hexane (Baker) 110031						
3.) Reagent: GPH Fractionating Surrogate OP19629						
4.)						

5.) Internal QCS Required chain 112644 and chain 112647 9/16/15 KAC
6.) (1) pH adjustments for all extraction steps. (2) Start/Stop Time for SPE extractions.

Approved by: KAC
Date Approved: 9/16/15
Revision 10/11

Page #: 26 Batched by: KAC

Reviewed by: LFH
Date Reviewed: 9/16/15

Analytical Logbook

Turbochrom Sequence File C:\METH_SEQ\GC15\ciga.seq
Printed by : manager on: 9/18/2015 7:19:11 AM
Created by : manager on: 9/16/2015 8:06:38 AM
Edited by : manager on: 9/17/2015 4:44:57 PM
Number of Times Edited : 10
Description: eph

Sequence File Header Information:
Number of Rows : 72
Instrument Type : 900 Series Intelligent Interface
Injection Type : SINGLE

Sequence Sample Descriptions - Channel A

Row	Type	Name
1	Sample	baseline
2	Sample	ccvscreen;;;2
3	Sample	2095419001;;15.4
4	Sample	2232811;;15.0
5	Sample	2232812;;15.0
6	Sample	2232813;;15.0
7	Sample	2095419001;;15.4;;;;;5
8	Sample	ccvscreen;;;2
9	Sample	aroical1;;;1;1
10	Sample	aroical2;;;1;2
11	Sample	aroical3;;;1;3
12	Sample	aroical4;;;1;4
13	Sample	aroical5;;;1;5
14	Sample	aross;;;2
15	Sample	aliical1;;;1;1
16	Sample	aliicall2;;;1;2
17	Sample	aliical3;;;1;3
18	Sample	aliical4;;;1;4
19	Sample	aliical5;;;1;5
20	Sample	aliss;;;2
21	Sample	aliss;;;2
22	Sample	icvfo;;;3;;lcs;1
23	Sample	2095548001;;15.2
24	Sample	2095550001;;15.6
25	Sample	2095551001;;15.1
26	Sample	2095547001;;15.2
27	Sample	2095902001;;16.0
28	Sample	2095902002;;15.3
29	Sample	2095902003;;15.8
30	Sample	2095905001;;15.5
31	Sample	2233490;;15.1
32	Sample	2095906001;;15.2
33	Sample	2233489;;15.9
34	Sample	2233486;;15.0
35	Sample	2233487;;15.0
36	Sample	2233488;;15.0
37	Sample	2095550001;;15.6;;;;;10
38	Sample	2095902003;;15.8;;;;;5
39	Sample	ccvfo;;;3;;lcs;1
40	Sample	
41	Sample	
42	Sample	
43	Sample	
44	Sample	
45	Sample	
46	Sample	
47	Sample	
48	Sample	
49	Sample	
50	Sample	
51	Sample	
52	Sample	
53	Sample	
54	Sample	
55	Sample	
56	Sample	
57	Sample	
58	Sample	
59	Sample	
60	Sample	
61	Sample	
62	Sample	
63	Sample	
64	Sample	
65	Sample	
66	Sample	
67	Sample	
68	Sample	
69	Sample	
70	Sample	
71	Sample	
72	Sample	

Turbochrom Sequence File C:\METH_SEQ\GC15\ciia.seq
Printed by : manager on: 9/22/2015 6:46:59 AM
Created by : manager on: 9/18/2015 7:18:40 AM
Edited by : manager on: 9/21/2015 2:21:42 PM
Number of Times Edited : 7
Description: eph

Sequence File Header Information:
Number of Rows : 72
Instrument Type : 900 Series Intelligent Interface
Injection Type : SINGLE

Sequence Sample Descriptions - Channel A

Row	Type	Name
1	Sample	baseline
2	Sample	aliccv;;;2
3	Sample	aroccv;;;2
4	Sample	2232801;;15.0
5	Sample	2232802;;15.0
6	Sample	2232803;;15.0
7	Sample	2095063001;;15.1
8	Sample	2095064001;;15.2
9	Sample	2232804;;15.8
10	Sample	2095064002;;15.2
11	Sample	2095064003;;15.4
12	Sample	2095064004;;15.3
13	Sample	2232805;;15.5
14	Sample	2095064005;;15.7
15	Sample	2232806;;15.0
16	Sample	2232807;;15.0
17	Sample	2232808;;15.0
18	Sample	2095063001;;15.1
19	Sample	2095064001;;15.2
20	Sample	2232809;;15.8
21	Sample	2095064002;;15.2
22	Sample	2095064003;;15.4
23	Sample	2095064004;;15.3
24	Sample	2232810;;15.5
25	Sample	2095064005;;15.7
26	Sample	aliccv;;;2
27	Sample	aroccv;;;2
28	Sample	aliccv;;;2
29	Sample	aroccv;;;2
30	Sample	aliccv;;;2
31	Sample	2095063001;;15.1;;;;;50
32	Sample	2095064001;;15.2;;;;;200
33	Sample	2095064002;;15.2;;;;;200
34	Sample	2095064003;;15.4;;;;;20
35	Sample	2095064004;;15.3;;;;;20
36	Sample	2232805;;15.5;;;;;20
37	Sample	2095064005;;15.7;;;;;200
38	Sample	2095064001;;15.2;;;;;500
39	Sample	2095064002;;15.2;;;;;500
40	Sample	2095064005;;15.7;;;;;500
41	Sample	2095063001;;15.1;;;;;10
42	Sample	2095064001;;15.2;;;;;20
43	Sample	2095064002;;15.2;;;;;10
44	Sample	2095064003;;15.4
45	Sample	2095064004;;15.3
46	Sample	2232810;;15.5;;;;;5
47	Sample	2095064005;;15.7;;;;;20
48	Sample	aliccv;;;2
49	Sample	aroccv;;;2
50	Sample	
51	Sample	
52	Sample	
53	Sample	
54	Sample	
55	Sample	
56	Sample	
57	Sample	
58	Sample	
59	Sample	
60	Sample	
61	Sample	
62	Sample	
63	Sample	
64	Sample	
65	Sample	
66	Sample	
67	Sample	
68	Sample	
69	Sample	
70	Sample	
71	Sample	
72	Sample	

Total Solids Raw Data

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Total Solids

Batch: 159676 Queue: WETC Analyst: EMW

File Name: 159676_150917-090701 Date/Time: 09/17/15 09:00

Misc:		Oven ID	Thermometer	1st Time In	10:40	2nd Time In	6:19	3rd Time In		4th Time In	
				1st Temp In °C	104	2nd Temp In °C	104	3rd Temp In °C		4th Temp In °C	
				1st Time Out	9/18/15 6:07	2nd Time Out	7:19	3rd Time Out		4th Time Out	
				1st Temp Out °C	104	2nd Temp Out °C	104	3rd Temp Out °C		4th Temp Out °C	

Sample ID	Cont ID	Samp Type	TVS	Weight of dish and sample (g) or Volume of sample (ml)	Dish Wt (g)	1st Dish + Sample Wt (g)	2nd Dish + Sample Wt (g)	3rd Dish + Sample Wt (g)	4th Dish + Sample Wt (g)	TS (%) or (mg/l)	Result1 TARE (g)	Result2 IWT (g)	Result3 FWT (g)
2233754	BALCHK			0.1000	0.1000	0.1000	0.1000			#DIV/0!	0.1000	0.1000	0.1000
2233755	A	DUP		16.3100	1.1400	1.1700	1.1700			0.1978	1.1400	16.3100	1.1700
2094755004	A	S		18.9700	1.1500	1.1800	1.1800			0.1684	1.1500	18.9700	1.1800
2094755005	A	S		18.5900	1.1400	1.1800	1.1800			0.2292	1.1400	18.5900	1.1800
* 2095063001	A	S		21.3700	1.1300	18.5100	18.5100			85.8696	1.1300	21.3700	18.5100
2095064001	A	S		17.3200	1.1300	14.5000	14.5000			82.5818	1.1300	17.3200	14.5000
2095064002	A	S		19.7100	1.1400	16.0900	16.0900			80.5062	1.1400	19.7100	16.0900
2095064003	A	S		26.5600	1.1400	21.6100	21.6100			80.5271	1.1400	26.5600	21.6100
2095064004	A	S		23.5600	1.1500	20.4500	20.4500			86.1223	1.1500	23.5600	20.4500
2095064005	A	S		18.9100	1.1400	15.7700	15.7500			82.2172	1.1400	18.9100	15.7500
2095078001	A	S		10.9800	1.1400	4.1600	4.1600			30.6911	1.1400	10.9800	4.1600
2095081001	A	S		15.5100	1.1400	1.3900	1.3800			1.6701	1.1400	15.5100	1.3800
2233756	A	DUP		12.9000	1.1300	2.9400	2.9400			15.3781	1.1300	12.9000	2.9400
2095108001	A	S		10.6800	1.1500	3.3300	3.3300			22.8751	1.1500	10.6800	3.3300
2095138001	A	S		27.6800	1.1500	23.3100	23.3100			83.5281	1.1500	27.6800	23.3100
2095144001	A	S		18.9300	1.1400	16.6400	16.6400			87.1276	1.1400	18.9300	16.6400
2095144002	A	S		18.1700	1.1400	15.8700	15.8700			86.4944	1.1400	18.1700	15.8700
2095144003	A	S		18.7700	1.1300	16.4100	16.4100			86.6213	1.1300	18.7700	16.4100
2095144004	A	S		15.8800	1.1300	14.6700	14.6600			91.7288	1.1300	15.8800	14.6600
2095196001	A	S		26.5400	1.1400	21.7300	21.7200			81.0236	1.1400	26.5400	21.7200
2095196002	A	S		21.0200	1.1500	16.7600	16.7600			78.5606	1.1500	21.0200	16.7600
2095207002	A	S		16.8900	1.1500	1.4100	1.4100			1.6518	1.1500	16.8900	1.4100
2095392001	A	S		7.8600	1.1500	7.6500	7.6500			96.8703	1.1500	7.8600	7.6500
2233757	A	DUP		18.6200	1.1500	17.3100	17.3100			92.5014	1.1500	18.6200	17.3100
2095569001	A	S		17.9000	1.1500	16.7000	16.6900			92.7761	1.1500	17.9000	16.6900
2095569002	B	S		20.4100	1.1500	18.8900	18.8900			92.1080	1.1500	20.4100	18.8900
2095570001	A	S		9.0800	1.1400	2.6900	2.6900			19.5214	1.1400	9.0800	2.6900
2095570002	A	S		8.7100	1.1300	2.6000	2.6000			19.3931	1.1300	8.7100	2.6000
2095570003	A	S		7.9100	1.1400	2.4200	2.4200			18.9069	1.1400	7.9100	2.4200
2095570004	A	S		7.4900	1.1400	2.3900	2.3900			19.6850	1.1400	7.4900	2.3900
2095570005	A	S		7.9700	1.1400	2.4600	2.4600			19.3265	1.1400	7.9700	2.4600

ALMDT.NOUSER

2095570006	A	S		8.2000	1.1400	2.5400	2.5400			19.8300	1.1400	8.2000	2.5400
2095570007	A	S		8.5000	1.1300	2.5600	2.5600			19.4030	1.1300	8.5000	2.5600
2095570008	A	S		9.6800	1.1300	2.9000	2.8900			20.5848	1.1300	9.6800	2.8900
2233758	A	DUP		16.7100	1.1400	13.8700	13.8700			81.7598	1.1400	16.7100	13.8700
2095572001	A	S		19.2000	1.1300	15.8900	15.8900			81.6823	1.1300	19.2000	15.8900
2095572002	A	S		19.0400	1.1400	15.3500	15.3400			79.3296	1.1400	19.0400	15.3400
2095632001	A	S		15.6400	1.1200	13.3900	13.3900			84.5041	1.1200	15.6400	13.3900
2095634001	A	S		19.8200	1.1600	17.2600	17.2500			86.2272	1.1600	19.8200	17.2500
2095635001	A	S		18.7800	1.1500	16.5100	16.5100			87.1242	1.1500	18.7800	16.5100
2095637001	A	S		19.8800	1.1600	16.8200	16.8200			83.6538	1.1600	19.8800	16.8200
2095638001	A	S		20.2600	1.1500	18.9000	18.9000			92.8833	1.1500	20.2600	18.9000
2095638002	E	S		17.6700	1.1400	16.6700	16.6700			93.9504	1.1400	17.6700	16.6700
2095641001	A	S		21.5800	1.1500	18.8800	18.8800			86.7841	1.1500	21.5800	18.8800
2095642001	A	S		31.3700	1.1500	27.7000	27.7000			87.8557	1.1500	31.3700	27.7000
2233759	A	DUP		20.4700	1.1400	18.0100	18.0100			87.2737	1.1400	20.4700	18.0100
2095644001	A	S		20.0000	1.1400	17.7400	17.7400			88.0170	1.1400	20.0000	17.7400
2095645001	A	S		20.9700	1.1300	18.6900	18.6700			88.4073	1.1300	20.9700	18.6700
2095646001	A	S		17.9300	1.1600	16.6400	16.6400			92.3077	1.1600	17.9300	16.6400
2095648001	A	S		28.9000	1.1200	24.5200	24.5200			84.2333	1.1200	28.9000	24.5200
2095649001	A	S		21.0100	1.1500	17.7400	17.7400			83.5347	1.1500	21.0100	17.7400
2095652001	A	S		13.9900	1.1400	12.5900	12.5900			89.1051	1.1400	13.9900	12.5900
2095652002		S		19.5200	1.1300	17.6100	17.6100			89.6139	1.1300	19.5200	17.6100
2095654001	A	S		19.2000	1.1600	17.4700	17.4700			90.4102	1.1600	19.2000	17.4700
2095654002	A	S		20.8800	1.1300	18.8900	18.8900			89.9241	1.1300	20.8800	18.8900
2095655001	A	S		20.1000	1.1300	18.3500	18.3500			90.7749	1.1300	20.1000	18.3500
2233760	A	DUP		21.7800	1.1400	20.2000	20.2000			92.3450	1.1400	21.7800	20.2000
2095655002	A	S		18.4700	1.1500	17.0100	17.0100			91.5704	1.1500	18.4700	17.0100
2095656001	A	S		21.3400	1.1400	19.7500	19.7500			92.1287	1.1400	21.3400	19.7500
2095656002	A	S		16.3000	1.1400	15.1200	15.1100			92.1504	1.1400	16.3000	15.1100
2095658001	A	S		23.1800	1.1500	13.5800	13.5800			56.4231	1.1500	23.1800	13.5800
2095658002	A	S		13.0700	1.1200	7.8400	7.8400			56.2343	1.1200	13.0700	7.8400
2095658003	A	S		7.6300	1.1500	2.3500	2.3500			18.5185	1.1500	7.6300	2.3500
2095658004	A	S		8.9300	1.1400	2.5000	2.5000			17.4583	1.1400	8.9300	2.5000
2095658005	A	S		14.5300	1.1400	7.0400	7.0400			44.0627	1.1400	14.5300	7.0400
2095658006	A	S		10.4700	1.1400	4.8400	4.8400			39.6570	1.1400	10.4700	4.8400
2095658007	A	S		9.2900	1.1500	3.8600	3.8600			33.2924	1.1500	9.2900	3.8600
2233761	A	DUP		16.5900	1.1400	14.1400	14.1400			84.1424	1.1400	16.5900	14.1400
2095660001	A	S		17.4000	1.1400	14.7200	14.7200			83.5178	1.1400	17.4000	14.7200
2095661001	A	S		9.3600	1.1400	3.7400	3.7400			31.6302	1.1400	9.3600	3.7400
2095662001	A	S		19.3200	1.1300	18.1400	18.1400			93.5129	1.1300	19.3200	18.1400
2095662002	A	S		27.2700	1.1400	24.8100	24.8100			90.5855	1.1400	27.2700	24.8100
2095662003	A	S		25.9600	1.1400	24.3800	24.3800			93.6342	1.1400	25.9600	24.3800
2095662004	A	S		24.8400	1.1500	22.8600	22.8600			91.6420	1.1500	24.8400	22.8600
2095662005	A	S		26.0800	1.1500	25.1300	25.1300			96.1893	1.1500	26.0800	25.1300
2095679001	A	S		17.2300	1.1300	14.9400	14.9400			85.7764	1.1300	17.2300	14.9400
2095712001	A	S		38.9100	1.1300	37.5900	37.5900			96.5061	1.1300	38.9100	37.5900
2095712002	A	S		7.7100	1.1500	4.4800	4.4800			50.7622	1.1500	7.7100	4.4800
2233762	A	DUP		7.6900	1.1500	5.6800	5.6800			69.2661	1.1500	7.6900	5.6800
2095712003	A	S		5.9900	1.1300	4.7800	4.7800			75.1029	1.1300	5.9900	4.7800
2095716001	A	S		17.6000	1.1500	1.9200	1.9200			4.6809	1.1500	17.6000	1.9200
2095810001	A	S		12.3400	1.1600	1.4800	1.4800			2.8623	1.1600	12.3400	1.4800

2095810002	A	S		13.3400	1.1300	1.2700	1.2700			1.1466	1.1300	13.3400	1.2700
2095812001	A	S		5.2100	1.1600	2.4200	2.4200			31.1111	1.1600	5.2100	2.4200
2095812002	A	S		6.1800	1.1300	3.1000	3.0900			38.8119	1.1300	6.1800	3.0900
2095813001	A	S		11.6400	1.1400	3.6600	3.6500			23.9048	1.1400	11.6400	3.6500
2095813002	A	S		10.2000	1.1400	5.8100	5.8000			51.4349	1.1400	10.2000	5.8000
2095814001	A	S		17.0400	1.1400	2.3400	2.3300			7.4843	1.1400	17.0400	2.3300
2095814002	A	S		13.4800	1.1300	2.4700	2.4500			10.6883	1.1300	13.4800	2.4500
2233763	A	DUP		11.7800	1.1600	1.2800	1.2800			1.1299	1.1600	11.7800	1.2800
2095815001	A	S		12.5300	1.1600	1.2600	1.2600			0.8795	1.1600	12.5300	1.2600
2095815002	A	S		16.9600	1.1300	2.0700	2.0700			5.9381	1.1300	16.9600	2.0700
2095819001	A	S		5.9200	1.1500	2.3500	2.3500			25.1572	1.1500	5.9200	2.3500
2095871001	A	S		29.0900	1.1400	26.1600	26.1500			89.4812	1.1400	29.0900	26.1500
2233764	BALCHK			0.1000	0.1000	0.1000	0.1000			#DIV/0!	0.1000	0.1000	0.1000

End

ANALYST EMW
ENTER REVIEW
SECOND REVIEW CF 9/18/15
APPROVED CF 9/18/15

ALMDT.NOUSER

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

October 28, 2015

Analytical Report for Service Request No: R1508577

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: Fort Monmouth Building 1203/748810-06032

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on October 9, 2015. For your reference, these analyses have been assigned our service request number **R1508577.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

ALS Environmental

Client:	Parsons Inc
Service Request No.:	R1508577
Project:	FTMM Bldg 1203/745510-06032
Date Received:	10/09/15
Sample Matrix:	Soil
Project/Case No.:	

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 10/09/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Semi-Volatile Organics

Samples were analyzed for a site list of Semi-Volatile Organics by Method 8270D from SW-846.

All Tuning criteria for DFTPP were within QC limits.

All the initial calibration criteria were met for all analytes.

All CCV standards were within 20% .

All Internal Standard Areas were within QC limits.

Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries and RPD's were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination.

Due to sample matrix interference from non-target analytes R1508577-001 and R1508577-002 had to be analyzed at a dilution. The LOD, LOQ, and MDL were adjusted accordingly. As a result of the dilution, the surrogate recoveries associated with R1508577-001 were outside of method limits. The surrogate recoveries for R1508577-002 were within limits.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-06032	Batch Complete: Yes	Date Revised:
Submission: R1508577	Diskette Requested: No	Date Due: 10/23/15
Client: Parsons Engineering Science	Date: 10/9/15	Protocol: CAS/SOP/Misc
Client Rep: JJAEGER	Custody Seal: Present/Absent:	Shipping No.:
Project: Fort Monmouth Building 1203	Chain of Custody: Present/Absent:	SDG #: North Wall

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1508577-001	Building 1203-North Wall	Soil	ALS SOP, 8270D	10/6/15	10/9/15			
R1508577-002	Building 1203-East Wall	Soil	ALS SOP, 8270D	10/6/15	10/9/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

CHAIN of CUSTODY

Page 1 of 1

ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: **Parsons**
100 High Street 4th Floor
Boston, MA 02110

Project Manager: **Christina Grill**

Project: Fort Monmouth - Building 1203
Project Number: 748810-02410 06032 smd

Telephone No.: 617.449.1583

Email: Cris.Grill@parsons.com

Method of Shipment: UPS

Special Detection Limit/Reporting

5day TAT added & project # modified as per Sandra delas Fuentes smd 10/9/15

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Water	Air	Other	Prsv.: Yes	No	Sampling Date	Sampling Time	PAH 8270																REMARKS
Building 1203-North wall		1	x					x	10-06-15	1505	x																2.5'-3.0'
Building 1203-East wall		1	x					x	10-06-15	1515	x																2.5'-3.0'

Sample Received Intact: Yes No

Temperature received: Ice No ice

	Date	Time		
Relinq. by sampler (Sign & Print Name)x D. Lozzo	10/8/15	@ 1700	Received by (Sign & Print Name) Gregory O. Esmerian	10-9-15 09:40
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by laboratory	Date Time

Lab Work No.

R1508577 5
Parsons, Inc.
FTMM Baseline

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number 15-8577

Cooler received on 10-9-15 by: KE

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: (**Wet Ice**) **Dry Ice** **Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y	(N)	NA
6	Where did the bottles originate?	(ALS/ROC)		(CLIENT)
7	Soil VOA received as: Bulk Encore (5035set)			NA

8. Temperature Readings Date: 10-9-15 Time: 10:15 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.9						
Correction Factor (°C)	-0.3						
Corrected Temp (°C)	4.6						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by KE on 10-9-15 at 10:20
5035 samples placed in storage location: F-09 by KE on 10-9-15 at 10:22

PC Secondary Review: JMV 10/9/15

Cooler Breakdown: Date: 10/9/15 Time: 11:55 by: MAC

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 0608 15-1BNS

Other Comments:

PC Secondary Review: JMV 10/9/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	10/ 6/15 1505
Sample Matrix:	Soil	**Date Received:**	10/ 9/15
		Date Extracted:	10/12/15
		Date Analyzed:	10/15/15 15:16
Sample Name:	Building 1203-North Wall	**Units:**	µg/Kg
Lab Code:	R1508577-001	**Basis:**	Dry
		Percent Solids:	81.4

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	467393
Prep Method:	EPA 3541	**Extraction Lot:**	246886
Data File Name:	I:\ACQUDATA\5973C\DATA\101515\BR014.D\	**Instrument Name:**	R-MS-53
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
83-32-9	Acenaphthene	ND	U	810	410	340	
208-96-8	Acenaphthylene	ND	U	810	410	210	
120-12-7	Anthracene	ND	U	810	410	250	
56-55-3	Benz(a)anthracene	ND	U	810	410	240	
205-99-2	Benzo(b)fluoranthene	ND	U	810	410	260	
207-08-9	Benzo(k)fluoranthene	ND	U	810	410	210	
191-24-2	Benzo(g,h,i)perylene	ND	U	810	410	270	
50-32-8	Benzo(a)pyrene	ND	U	810	410	210	
218-01-9	Chrysene	ND	U	810	410	210	
53-70-3	Dibenz(a,h)anthracene	ND	U	810	410	270	
206-44-0	Fluoranthene	ND	U	810	410	240	
86-73-7	Fluorene	ND	U	810	410	370	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U	810	410	210	
91-20-3	Naphthalene	ND	U	810	410	250	
85-01-8	Phenanthrene	ND	U	810	520	520	
129-00-0	Pyrene	ND	U	810	410	310	
91-57-6	2-Methylnaphthalene	ND	U	810	410	390	
90-12-0	1-Methylnaphthalene	ND	U	810	410	210	

Surrogate Name	%Rec		Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	0	*	29-135	10/15/15 15:16	D
Nitrobenzene-d5	0	*	35-113	10/15/15 15:16	D
p-Terphenyl-d14	0	*	42-165	10/15/15 15:16	D

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	10/ 6/15 1515
Sample Matrix:	Soil	**Date Received:**	10/ 9/15
		Date Extracted:	10/12/15
		Date Analyzed:	10/15/15 15:44
Sample Name:	Building 1203-East Wall	**Units:**	µg/Kg
Lab Code:	R1508577-002	**Basis:**	Dry
		Percent Solids:	79.8

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	467393
Prep Method:	EPA 3541	**Extraction Lot:**	246886
Data File Name:	I:\ACQUDATA\5973C\DATA\101515\BR015.D\	**Instrument Name:**	R-MS-53
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
83-32-9	Acenaphthene	ND	U	83	41	35	
208-96-8	Acenaphthylene	ND	U	83	41	21	
120-12-7	Anthracene	ND	U	83	41	25	
56-55-3	Benz(a)anthracene	ND	U	83	41	24	
205-99-2	Benzo(b)fluoranthene	ND	U	83	41	27	
207-08-9	Benzo(k)fluoranthene	ND	U	83	41	21	
191-24-2	Benzo(g,h,i)perylene	ND	U	83	41	27	
50-32-8	Benzo(a)pyrene	ND	U	83	41	21	
218-01-9	Chrysene	ND	U	83	41	21	
53-70-3	Dibenz(a,h)anthracene	ND	U	83	41	27	
206-44-0	Fluoranthene	ND	U	83	41	25	
86-73-7	Fluorene	ND	U	83	41	37	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U	83	41	21	
91-20-3	Naphthalene	ND	U	83	41	25	
85-01-8	Phenanthrene	ND	U	83	53	53	
129-00-0	Pyrene	ND	U	83	41	32	
91-57-6	2-Methylnaphthalene	ND	U	83	41	39	
90-12-0	1-Methylnaphthalene	ND	U	83	41	21	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	60	29-135	10/15/15 15:44	
Nitrobenzene-d5	65	35-113	10/15/15 15:44	
p-Terphenyl-d14	150	42-165	10/15/15 15:44	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	10/12/15
		Date Analyzed:	10/13/15 09:25
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1512132-01	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	467126
Prep Method:	EPA 3541	**Extraction Lot:**	246886
Data File Name:	I:\ACQUDATA\5973C\DATA\101315\BQ957.D\	**Instrument Name:**	R-MS-53
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
83-32-9	Acenaphthene	ND	U	6.6	3.3	2.8	
208-96-8	Acenaphthylene	ND	U	6.6	3.3	1.7	
120-12-7	Anthracene	ND	U	6.6	3.3	2.0	
56-55-3	Benz(a)anthracene	ND	U	6.6	3.3	1.9	
205-99-2	Benzo(b)fluoranthene	ND	U	6.6	3.3	2.1	
207-08-9	Benzo(k)fluoranthene	ND	U	6.6	3.3	1.7	
191-24-2	Benzo(g,h,i)perylene	ND	U	6.6	3.3	2.2	
50-32-8	Benzo(a)pyrene	ND	U	6.6	3.3	1.7	
218-01-9	Chrysene	ND	U	6.6	3.3	1.7	
53-70-3	Dibenz(a,h)anthracene	ND	U	6.6	3.3	2.2	
206-44-0	Fluoranthene	ND	U	6.6	3.3	2.0	
86-73-7	Fluorene	ND	U	6.6	3.3	3.0	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U	6.6	3.3	1.7	
91-20-3	Naphthalene	ND	U	6.6	3.3	2.0	
85-01-8	Phenanthrene	ND	U	6.6	4.3	4.3	
129-00-0	Pyrene	ND	U	6.6	3.3	2.5	
91-57-6	2-Methylnaphthalene	ND	U	6.6	3.3	3.2	
90-12-0	1-Methylnaphthalene	ND	U	6.6	3.3	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	78	29-135	10/13/15 09:25	
Nitrobenzene-d5	80	35-113	10/13/15 09:25	
p-Terphenyl-d14	109	42-165	10/13/15 09:25	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032
Sample Matrix: Soil

Service Request: R1508577
Date Analyzed: 10/13/15

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3541

Units: µg/Kg
Basis: Dry

Extraction Lot: 246886

Analyte Name	Lab Control Sample RQ1512132-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1512132-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Acenaphthene	115	133	86	108	133	81	45 - 110	7	30
Acenaphthylene	113	133	85	108	133	81	45 - 105	5	30
Anthracene	132	133	99	117	133	88	55 - 105	12	30
Benz(a)anthracene	125	133	94	117	133	88	50 - 110	7	30
Benzo(b)fluoranthene	118	133	88	110	133	82	45 - 115	7	30
Benzo(k)fluoranthene	104	133	78	119	133	89	45 - 125	13	30
Benzo(g,h,i)perylene	120	133	90	121	133	91	40 - 125	<1	30
Benzo(a)pyrene	118	133	88	118	133	88	50 - 110	<1	30
Chrysene	135	133	101	124	133	93	55 - 110	9	30
Dibenz(a,h)anthracene	124	133	93	124	133	93	40 - 125	<1	30
Fluoranthene	141	133	106	123	133	92	55 - 115	13	30
Fluorene	115	133	86	113	133	85	50 - 110	2	30
Indeno(1,2,3-cd)pyrene	123	133	92	120	133	90	40 - 120	3	30
Naphthalene	115	133	86	104	133	78	40 - 105	10	30
Phenanthrene	136	133	102	120	133	90	50 - 110	12	30
Pyrene	136	133	102	126	133	94	45 - 125	8	30
2-Methylnaphthalene	135	133	101	126	133	94	45 - 105	7	30
1-Methylnaphthalene	127	133	95	112	133	84	62 - 116	12	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	10/ 6/15 1505
Sample Matrix:	Soil	**Date Received:**	10/ 9/15
Sample Name:	Building 1203-North Wall		
Lab Code:	R1508577-001	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	81.4		Percent		1	NA	10/12/15 13:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	10/ 6/15 1515
Sample Matrix:	Soil	**Date Received:**	10/ 9/15
Sample Name:	Building 1203-East Wall		
Lab Code:	R1508577-002	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	79.8		Percent		1	NA	10/12/15 13:14	

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

October 28, 2015

Analytical Report for Service Request No: R1508577

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: Fort Monmouth Building 1203/748810-06032

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on October 9, 2015. For your reference, these analyses have been assigned our service request number **R1508577**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

Parsons, Inc.
R1508577

TABLE OF CONTENTS

SECTION	***PAGE***
SDG Narrative	00002
Chains of Custody	00006
Semi-VOA QC Summary	00010
Semi-VOA Sample Data	00020
Semi-VOA Standards Data	00028
Semi-VOA Raw QC Data	00142
General Chemistry Data	00166

ALS Environmental

SDG NARRATIVE

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Environmental

Client:	Parsons Inc
Service Request No.:	R1508577
Project:	FTMM Bldg 1203/745510-06032
Date Received:	10/09/15
Sample Matrix:	Soil
Project/Case No.:	

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 10/09/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Semi-Volatile Organics

Samples were analyzed for a site list of Semi-Volatile Organics by Method 8270D from SW-846.

All Tuning criteria for DFTPP were within QC limits.

All the initial calibration criteria were met for all analytes.

All CCV standards were within 20% .

All Internal Standard Areas were within QC limits.

Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries and RPD's were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination.

Due to sample matrix interference from non-target analytes R1508577-001 and R1508577-002 had to be analyzed at a dilution. The LOD, LOQ, and MDL were adjusted accordingly. As a result of the dilution, the surrogate recoveries associated with R1508577-001 were outside of method limits. The surrogate recoveries for R1508577-002 were within limits.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	748810-06032	Batch Complete:	Yes	Date Revised:	
Submission:	R1508577	Diskette Requested:	No	Date Due:	10/23/15
Client:	Parsons Engineering Science	Date:	10/9/15	Protocol:	CAS/SOP/Misc
Client Rep:	JJAEGER	Custody Seal: Present/Absent:		Shipping No.:	
Project:	Fort Monmouth Building 1203	Chain of Custody: Present/Absent:		SDG #:	North Wall

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1508577-001	Building 1203-North Wall	Soil	ALS SOP, 8270D	10/6/15	10/9/15			
R1508577-002	Building 1203-East Wall	Soil	ALS SOP, 8270D	10/6/15	10/9/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAINS OF CUSTODY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

CHAIN of CUSTODY

Page 1 of 1

ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: **Parsons**
100 High Street 4th Floor
Boston, MA 02110

Project: Fort Monmouth - Building 1203
Project Number: 748810-~~03410~~ 06032 sms

Method of Shipment: UPS

Project Manager: **Christina Grill**

Telephone No.: 617.449.1583

Email: Cris.Grill@parsons.com

Special Detection Limit/Reporting

5day TAT added & project # modified as per Sandra delas Fuentes 10/9/15 smd

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Water	Air	Other	Prsv.: Yes	No	Sampling Date	Sampling Time	PAH 8270																	REMARKS
Building 1203-North wall		1	x					x	10-06-15	1505	x																	2.5'-3.0'
Building 1203-East wall		1	x					x	10-06-15	1515	x																	2.5'-3.0'

Sample Received Intact: Yes No

Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name)x D. Lozeau	Date 10/8/15	Time @ 1700	Received by (Sign & Print Name) Gregory O. Esmerian
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory

Date 10-9-15 Time 09:40

Lab Work No.

R1508577 5
Persons, Inc.
FTMM Baseline

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number R15-8577

Cooler received on 10-9-15 by: KE

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: (**Wet Ice**) **Dry Ice** **Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y	(N)	NA
6	Where did the bottles originate?	(ALS/ROC)	(CLIENT)	
7	Soil VOA received as: Bulk Encore (5035set)	NA		

8. Temperature Readings Date: 10-9-15 Time: 10:15 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.9						
Correction Factor (°C)	-0.3						
Corrected Temp (°C)	4.6						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by KE on 10-9-15 at 10:20
5035 samples placed in storage location: F-09 by KE on 10-9-15 at 10:22

PC Secondary Review: JMV 10/9/15

Cooler Breakdown: Date: 10/9/15 Time: 11:55 by: MAC

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 0608 15-1BNS

Other Comments:

PC Secondary Review: JMV 10/9/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc. **Service Request:** R1508577
Project: Fort Monmouth Building 1203/748810-06032

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1508577-001.01					
	8270D, ALS SOP				
		10/9/15	1156	SMO / GLAFORCE	
		10/9/15	1157	R-002 / GLAFORCE	
		10/12/15	0722	In Lab / EBRUEN	
		10/12/15	1242	R-002 / EBRUEN	
		10/12/15	1251	In Lab / KWONG	
		10/12/15	1455	R-002 / EBRUEN	
R1508577-002.01					
	ALS SOP, 8270D				
		10/9/15	1156	SMO / GLAFORCE	
		10/9/15	1157	R-002 / GLAFORCE	
		10/12/15	0722	In Lab / EBRUEN	
		10/12/15	1242	R-002 / EBRUEN	
		10/12/15	1251	In Lab / KWONG	
		10/12/15	1455	R-002 / EBRUEN	

ALS Environmental

SEMI-VOLATILE ORGANICS
QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032
Sample Matrix: Soil

Service Request: R1508577
Date Analyzed: 10/13/15

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3541

Units: µg/Kg
Basis: Dry

Extraction Lot: 246886

Analyte Name	Lab Control Sample RQ1512132-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1512132-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Acenaphthene	115	133	86	108	133	81	45 - 110	7	30
Acenaphthylene	113	133	85	108	133	81	45 - 105	5	30
Anthracene	132	133	99	117	133	88	55 - 105	12	30
Benz(a)anthracene	125	133	94	117	133	88	50 - 110	7	30
Benzo(b)fluoranthene	118	133	88	110	133	82	45 - 115	7	30
Benzo(k)fluoranthene	104	133	78	119	133	89	45 - 125	13	30
Benzo(g,h,i)perylene	120	133	90	121	133	91	40 - 125	<1	30
Benzo(a)pyrene	118	133	88	118	133	88	50 - 110	<1	30
Chrysene	135	133	101	124	133	93	55 - 110	9	30
Dibenz(a,h)anthracene	124	133	93	124	133	93	40 - 125	<1	30
Fluoranthene	141	133	106	123	133	92	55 - 115	13	30
Fluorene	115	133	86	113	133	85	50 - 110	2	30
Indeno(1,2,3-cd)pyrene	123	133	92	120	133	90	40 - 120	3	30
Naphthalene	115	133	86	104	133	78	40 - 105	10	30
Phenanthrene	136	133	102	120	133	90	50 - 110	12	30
Pyrene	136	133	102	126	133	94	45 - 125	8	30
2-Methylnaphthalene	135	133	101	126	133	94	45 - 105	7	30
1-Methylnaphthalene	127	133	95	112	133	84	62 - 116	12	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Analyzed:**	10/13/15 09:25
Sample Matrix:	Soil	**Date Extracted:**	10/12/15

Method Blank Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-53
Lab Code:	RQ1512132-01	**File ID:**	I:\ACQUDATA\5973C\DATA\101315\BQ957.D\
Analytical Method:	8270D		
Prep Method:	EPA 3541		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1512132-02	I:\ACQUDATA\5973C\DATA\101315\BQ958.D\	10/13/15 09:53
Duplicate Lab Control Sample	RQ1512132-03	I:\ACQUDATA\5973C\DATA\101315\BQ959.D\	10/13/15 10:21
Building 1203-North Wall	R1508577-001	I:\ACQUDATA\5973C\DATA\101515\BR014.D\	10/15/15 15:16
Building 1203-East Wall	R1508577-002	I:\ACQUDATA\5973C\DATA\101515\BR015.D\	10/15/15 15:44

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032

Service Request: R1508577
Date Analyzed: 9/8/15 14:41

Tune Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973C\DATA\090815\BQ715.D\
Instrument ID: R-MS-53

Analytical Method: 8270D
Analysis Lot: 461778

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	43.23	107840	Pass
68	69	0.00	2	0.00	0	Pass
69	198	0.00	100	41.77	104192	Pass
70	69	0.00	2	0.34	358	Pass
127	198	10	80	49.08	122448	Pass
197	198	0.00	2	0.00	0	Pass
198	198	100	100	100.00	249472	Pass
199	198	5	9	6.60	16472	Pass
275	198	10	60	28.46	71008	Pass
365	198	1	100	5.37	13396	Pass
441	442	0.01	24	14.43	23016	Pass
442	442	100	100	100.00	159552	Pass
443	442	15	24	18.19	29024	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
SST001	0.1 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ717.D\	9/8/15 15:38	
SST002	0.2 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ718.D\	9/8/15 16:08	
SST005	0.5 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ719.D\	9/8/15 16:37	
SST010	1.0 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ720.D\	9/8/15 17:06	
SST030	3.0 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ721.D\	9/8/15 17:35	
SST050	5.0 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ722.D\	9/8/15 18:04	
SST080	8.0 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ723.D\	9/8/15 18:32	
SST100	10 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ724.D\	9/8/15 19:01	
ICV #1	5.0 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ725.D\	9/8/15 19:29	
ICV #2	5.0 ppm STD	I:\ACQUDATA\5973C\DATA\090815\BQ726.D\	9/8/15 19:58	

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032

Service Request: R1508577
Date Analyzed: 10/13/15 08:22

Tune Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973C\DATA\101315\BQ955.D\
Instrument ID: R-MS-53

Analytical Method: 8270D
Analysis Lot: 467126

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	28.70	125342	Pass
68	69	0.00	2	0.18	204	Pass
69	198	0.00	100	25.73	112335	Pass
70	69	0.00	2	0.27	305	Pass
127	198	10	80	38.44	167842	Pass
197	198	0.00	2	0.13	550	Pass
198	198	100	100	100.00	436672	Pass
199	198	5	9	6.92	30204	Pass
275	198	10	60	34.29	149754	Pass
365	198	1	100	9.52	41589	Pass
441	442	0.01	24	14.65	94181	Pass
442	442	100	100	100.00	643029	Pass
443	442	15	24	18.21	117122	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1512450-02	I:\ACQUDATA\5973C\DATA\101315\BQ956.D\	10/13/15 08:49	
Method Blank	RQ1512132-01	I:\ACQUDATA\5973C\DATA\101315\BQ957.D\	10/13/15 09:25	
Lab Control Sample	RQ1512132-02	I:\ACQUDATA\5973C\DATA\101315\BQ958.D\	10/13/15 09:53	
Duplicate Lab Control Sample	RQ1512132-03	I:\ACQUDATA\5973C\DATA\101315\BQ959.D\	10/13/15 10:21	

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032

Service Request: R1508577
Date Analyzed: 10/15/15 10:12

Tune Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973C\DATA\101515\BR003.D\
Instrument ID: R-MS-53

Analytical Method: 8270D
Analysis Lot: 467393

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	35.44	125560	Pass
68	69	0.00	2	0.35	473	Pass
69	198	0.00	100	38.56	136611	Pass
70	69	0.00	2	0.60	824	Pass
127	198	10	80	44.85	158864	Pass
197	198	0.00	2	0.00	0	Pass
198	198	100	100	100.00	354245	Pass
199	198	5	9	7.70	27288	Pass
275	198	10	60	35.74	126602	Pass
365	198	1	100	7.86	27831	Pass
441	442	0.01	24	16.01	83197	Pass
442	442	100	100	100.00	519765	Pass
443	442	15	24	18.49	96080	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1512532-02	I:\ACQUDATA\5973C\DATA\101515\BR004.D\	10/15/15 10:37	
Building 1203-North Wall	R1508577-001	I:\ACQUDATA\5973C\DATA\101515\BR014.D\	10/15/15 15:16	
Building 1203-East Wall	R1508577-002	I:\ACQUDATA\5973C\DATA\101515\BR015.D\	10/15/15 15:44	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032

Service Request: R1508577
Date Analyzed: 10/13/15 08:49

Internal Standard Area and RT Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973C\DATA\101315\BQ956.D\
Instrument ID: R-MS-53
Analytical Method: 8270D

Lab Code: RQ1512450-02
Analysis Lot: 467126
Signal ID:

		Acenaphthene-d10		1,4-Dichlorobenzene-d4		Chrysene-d12	
		Area	RT	Area	RT	Area	RT
	Results ==>	53,016	9.71	21,874	7.07	119,415	12.79
	Upper Limit ==>	106,032	10.21	43,748	7.57	238,830	13.29
	Lower Limit ==>	26,508	9.21	10,937	6.57	59,708	12.29
	ICAL Result ==>	38,406	9.72	19,393	7.09	77,365	12.87
Associated Analyses							
Method Blank	RQ1512132-01	52,670	9.71	20,394	7.07	100,529	12.80
Lab Control Sample	RQ1512132-02	56,799	9.71	20,276	7.07	102,552	12.79
Duplicate Lab Control Sample	RQ1512132-03	56,844	9.71	20,990	7.07	105,810	12.80

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032

Service Request: R1508577
Date Analyzed: 10/13/15 08:49

Internal Standard Area and RT Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973C\DATA\101315\BQ956.D\
Instrument ID: R-MS-53
Analytical Method: 8270D

Lab Code: RQ1512450-02
Analysis Lot: 467126
Signal ID:

		Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	86,120	8.32	119,472	14.03	100,523	10.79
	Upper Limit ==>	172,240	8.82	238,944	14.53	201,046	11.29
	Lower Limit ==>	43,060	7.82	59,736	13.53	50,262	10.29
	ICAL Result ==>	69,794	8.33	79,003	14.11	70,358	10.81
Associated Analyses							
Method Blank	RQ1512132-01	79,634	8.32	104,715	14.03	91,542	10.79
Lab Control Sample	RQ1512132-02	79,731	8.32	109,177	14.02	83,633	10.79
Duplicate Lab Control Sample	RQ1512132-03	81,076	8.32	103,779	14.03	91,870	10.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032

Service Request: R1508577
Date Analyzed: 10/15/15 10:37

Internal Standard Area and RT Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973C\DATA\101515\BR004.D\
Instrument ID: R-MS-53
Analytical Method: 8270D

Lab Code: RQ1512532-02
Analysis Lot: 467393
Signal ID:

		Acenaphthene-d10		1,4-Dichlorobenzene-d4		Chrysene-d12	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	46,548	9.70	19,265	7.06	90,291	12.78
	Upper Limit ==>	93,096	10.20	38,530	7.56	180,582	13.28
	Lower Limit ==>	23,274	9.20	9,633	6.56	45,146	12.28
	ICAL Result ==>	38,406	9.72	19,393	7.09	77,365	12.87
Associated Analyses							
Building 1203-North Wall	R1508577-001	45,349	9.70	16,203	7.06	60,276	12.79
Building 1203-East Wall	R1508577-002	54,691	9.70	19,329	7.06	62,381	12.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032

Service Request: R1508577
Date Analyzed: 10/15/15 10:37

Internal Standard Area and RT Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973C\DATA\101515\BR004.D\
Instrument ID: R-MS-53
Analytical Method: 8270D

Lab Code: RQ1512532-02
Analysis Lot: 467393
Signal ID:

		Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	69,657	8.31	96,235	14.01	79,902	10.78
	Upper Limit ==>	139,314	8.81	192,470	14.51	159,804	11.28
	Lower Limit ==>	34,829	7.81	48,118	13.51	39,951	10.28
	ICAL Result ==>	69,794	8.33	79,003	14.11	70,358	10.81
Associated Analyses							
Building 1203-North Wall	R1508577-001	63,522	8.31	79,517	14.01	64,597	10.79
Building 1203-East Wall	R1508577-002	64,525	8.31	73,022	14.01	66,931	10.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Environmental

SEMI-VOLATILE ORGANICS
SAMPLE DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	10/ 6/15 1505
Sample Matrix:	Soil	**Date Received:**	10/ 9/15
		Date Extracted:	10/12/15
		Date Analyzed:	10/15/15 15:16
Sample Name:	Building 1203-North Wall	**Units:**	µg/Kg
Lab Code:	R1508577-001	**Basis:**	Dry
		Percent Solids:	81.4

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	467393
Prep Method:	EPA 3541	**Extraction Lot:**	246886
Data File Name:	I:\ACQUDATA\5973C\DATA\101515\BR014.D\	**Instrument Name:**	R-MS-53
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
83-32-9	Acenaphthene	ND	U	810	410	340	
208-96-8	Acenaphthylene	ND	U	810	410	210	
120-12-7	Anthracene	ND	U	810	410	250	
56-55-3	Benz(a)anthracene	ND	U	810	410	240	
205-99-2	Benzo(b)fluoranthene	ND	U	810	410	260	
207-08-9	Benzo(k)fluoranthene	ND	U	810	410	210	
191-24-2	Benzo(g,h,i)perylene	ND	U	810	410	270	
50-32-8	Benzo(a)pyrene	ND	U	810	410	210	
218-01-9	Chrysene	ND	U	810	410	210	
53-70-3	Dibenz(a,h)anthracene	ND	U	810	410	270	
206-44-0	Fluoranthene	ND	U	810	410	240	
86-73-7	Fluorene	ND	U	810	410	370	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U	810	410	210	
91-20-3	Naphthalene	ND	U	810	410	250	
85-01-8	Phenanthrene	ND	U	810	520	520	
129-00-0	Pyrene	ND	U	810	410	310	
91-57-6	2-Methylnaphthalene	ND	U	810	410	390	
90-12-0	1-Methylnaphthalene	ND	U	810	410	210	

Surrogate Name	%Rec		Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	0	*	29-135	10/15/15 15:16	D
Nitrobenzene-d5	0	*	35-113	10/15/15 15:16	D
p-Terphenyl-d14	0	*	42-165	10/15/15 15:16	D

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR014.D Vial: 13
Acq On : 15 Oct 2015 3:16 pm Operator: JMisiurewicz
Sample : R1508577-001|100 Inst : 5973C
Misc : 246886 8270D Parson SOIL IV Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 11:29 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Oct 16 10:52:15 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

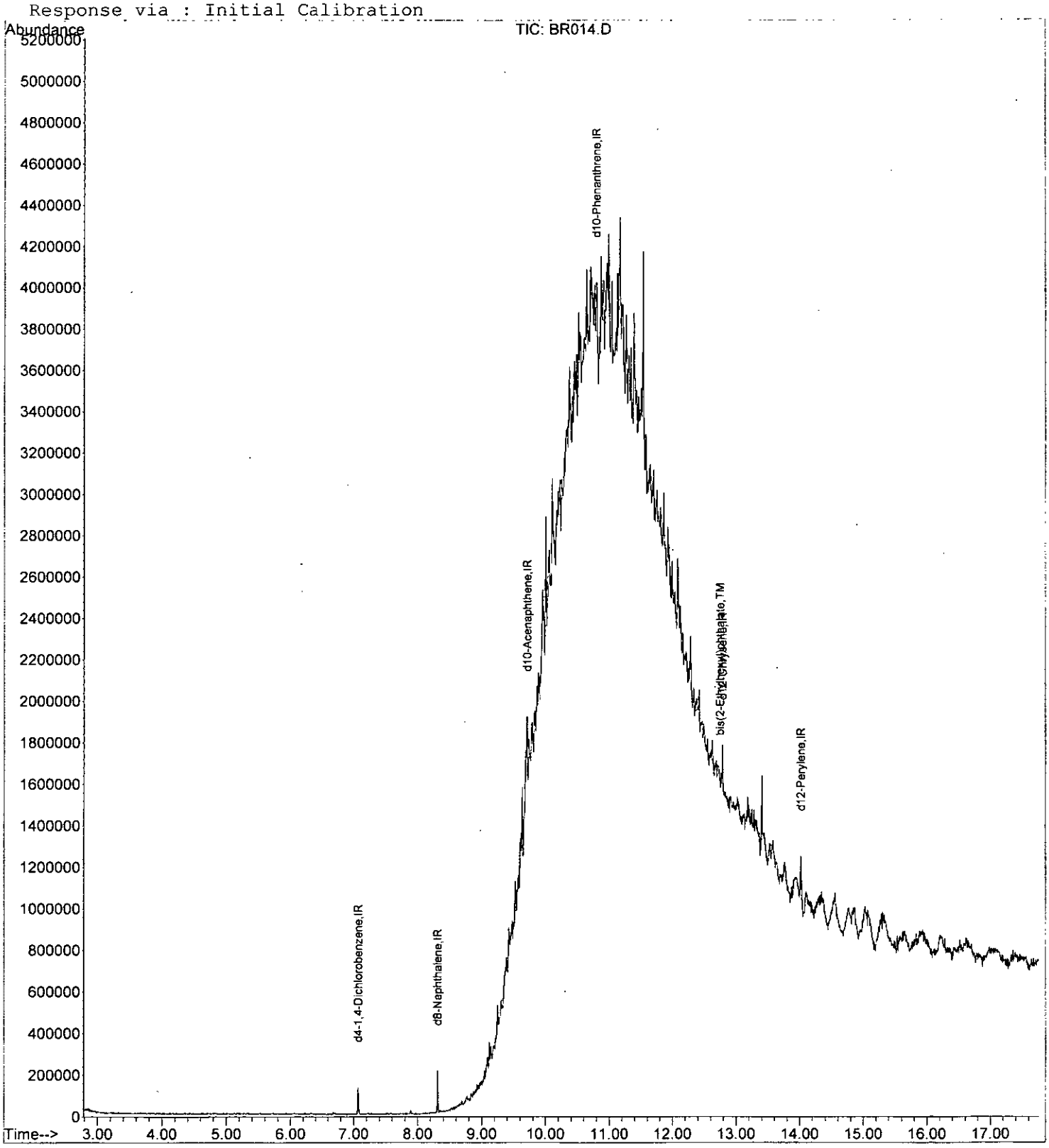
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.06	152	16203	1.00	ppm	0.000
9) d8-Naphthalene	8.31	136	63522	1.00	ppm	0.000
20) d10-Acenaphthene	9.70	164	45349	1.00	ppm	0.000
34) d10-Phenanthrene	10.79	188	64597	1.00	ppm	0.011
43) d12-Chrysene	12.79	240	60276	1.00	ppm	0.000
50) d12-Perylene	14.01	264	79517	1.00	ppm	0.000
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.26	112	143	0.01	ppm	0.01
Spiked Amount 4.000	Range 11 - 131		Recovery = 0.25%#			
4) SURR2,PHENOL-D6	6.71	99	452	0.02	ppm	0.01
Spiked Amount 4.000	Range 17 - 135		Recovery = 0.50%#			
10) SURR4,NITROBENZENE-D5	7.65	82	698	0.03	ppm	0.00
Spiked Amount 2.000	Range 16 - 161		Recovery = 1.50%#			
23) SURR5,2-FLUOROBIPHENYL	9.14	172	192	0.00	ppm	-0.05
Spiked Amount 2.000	Range 17 - 141		Recovery = 0.00%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	591	0.05	ppm	0.02
Spiked Amount 4.000	Range 35 - 157		Recovery = 1.25%#			
45) SURR6,TERPHENYL-D14	12.06	244	922	0.02	ppm	0.12
Spiked Amount 2.000	Range 13 - 167		Recovery = 1.00%#			
Target Compounds						Qvalue
49) bis(2-Ethylhexyl)phthalate	12.75	149	17489	0.431	ppm	80

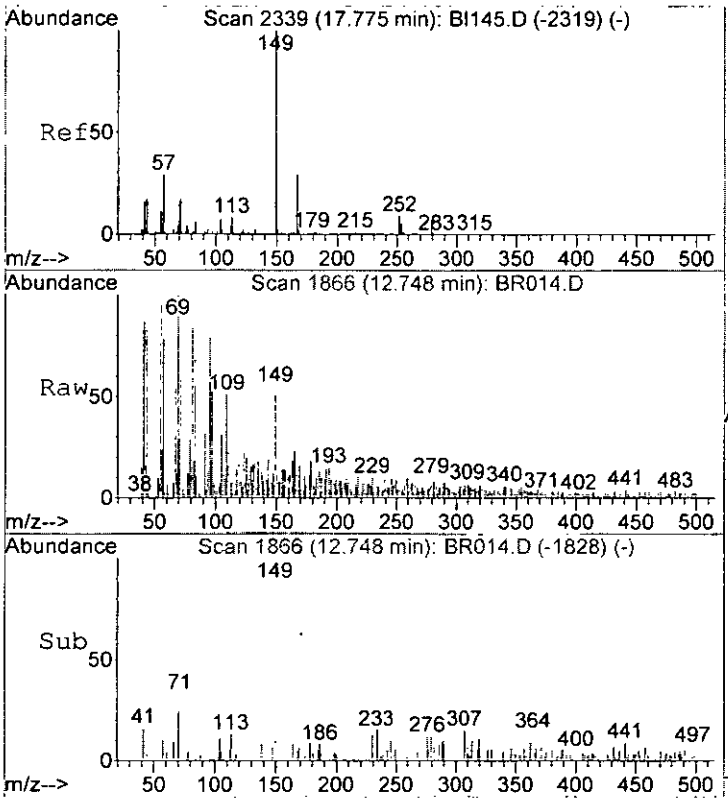
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR014.D Vial: 13
Acq On : 15 Oct 2015 3:16 pm Operator: JMisiurewicz
Sample : R1508577-001|100 Inst : 5973C
Misc : 246886 8270D Parson SOIL IV Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 11:29 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Oct 16 10:52:15 2015
Response via : Initial Calibration

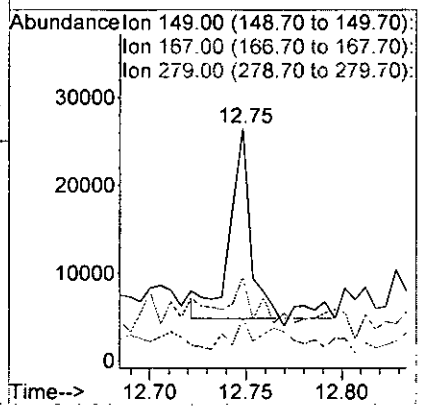




#49
bis(2-Ethylhexyl)phthalate
Concen: 0.43 ppm
RT: 12.75 min Scan# 1866
Delta R.T. 0.01 min
Lab File: BR014.D
Acq: 15 Oct 2015 3:16 pm

Tgt Ion:149 Resp: 17489

Ion	Ratio	Lower	Upper
149	100		
167	15.3	5.2	45.2
279	13.5	0.0	25.6



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	10/ 6/15 1515
Sample Matrix:	Soil	**Date Received:**	10/ 9/15
		Date Extracted:	10/12/15
		Date Analyzed:	10/15/15 15:44
Sample Name:	Building 1203-East Wall	**Units:**	µg/Kg
Lab Code:	R1508577-002	**Basis:**	Dry
		Percent Solids:	79.8

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	467393
Prep Method:	EPA 3541	**Extraction Lot:**	246886
Data File Name:	I:\ACQUDATA\5973C\DATA\101515\BR015.D\	**Instrument Name:**	R-MS-53
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
83-32-9	Acenaphthene	ND	U	83	41	35	
208-96-8	Acenaphthylene	ND	U	83	41	21	
120-12-7	Anthracene	ND	U	83	41	25	
56-55-3	Benz(a)anthracene	ND	U	83	41	24	
205-99-2	Benzo(b)fluoranthene	ND	U	83	41	27	
207-08-9	Benzo(k)fluoranthene	ND	U	83	41	21	
191-24-2	Benzo(g,h,i)perylene	ND	U	83	41	27	
50-32-8	Benzo(a)pyrene	ND	U	83	41	21	
218-01-9	Chrysene	ND	U	83	41	21	
53-70-3	Dibenz(a,h)anthracene	ND	U	83	41	27	
206-44-0	Fluoranthene	ND	U	83	41	25	
86-73-7	Fluorene	ND	U	83	41	37	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U	83	41	21	
91-20-3	Naphthalene	ND	U	83	41	25	
85-01-8	Phenanthrene	ND	U	83	53	53	
129-00-0	Pyrene	ND	U	83	41	32	
91-57-6	2-Methylnaphthalene	ND	U	83	41	39	
90-12-0	1-Methylnaphthalene	ND	U	83	41	21	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	60	29-135	10/15/15 15:44	
Nitrobenzene-d5	65	35-113	10/15/15 15:44	
p-Terphenyl-d14	150	42-165	10/15/15 15:44	

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR015.D Vial: 14
Acq On : 15 Oct 2015 3:44 pm Operator: JMisiurewicz
Sample : R1508577-002|10 Inst : 5973C
Misc : 246886 8270D Parson SOIL IV Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 11:31 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Oct 16 10:52:15 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

GM 10/19/16

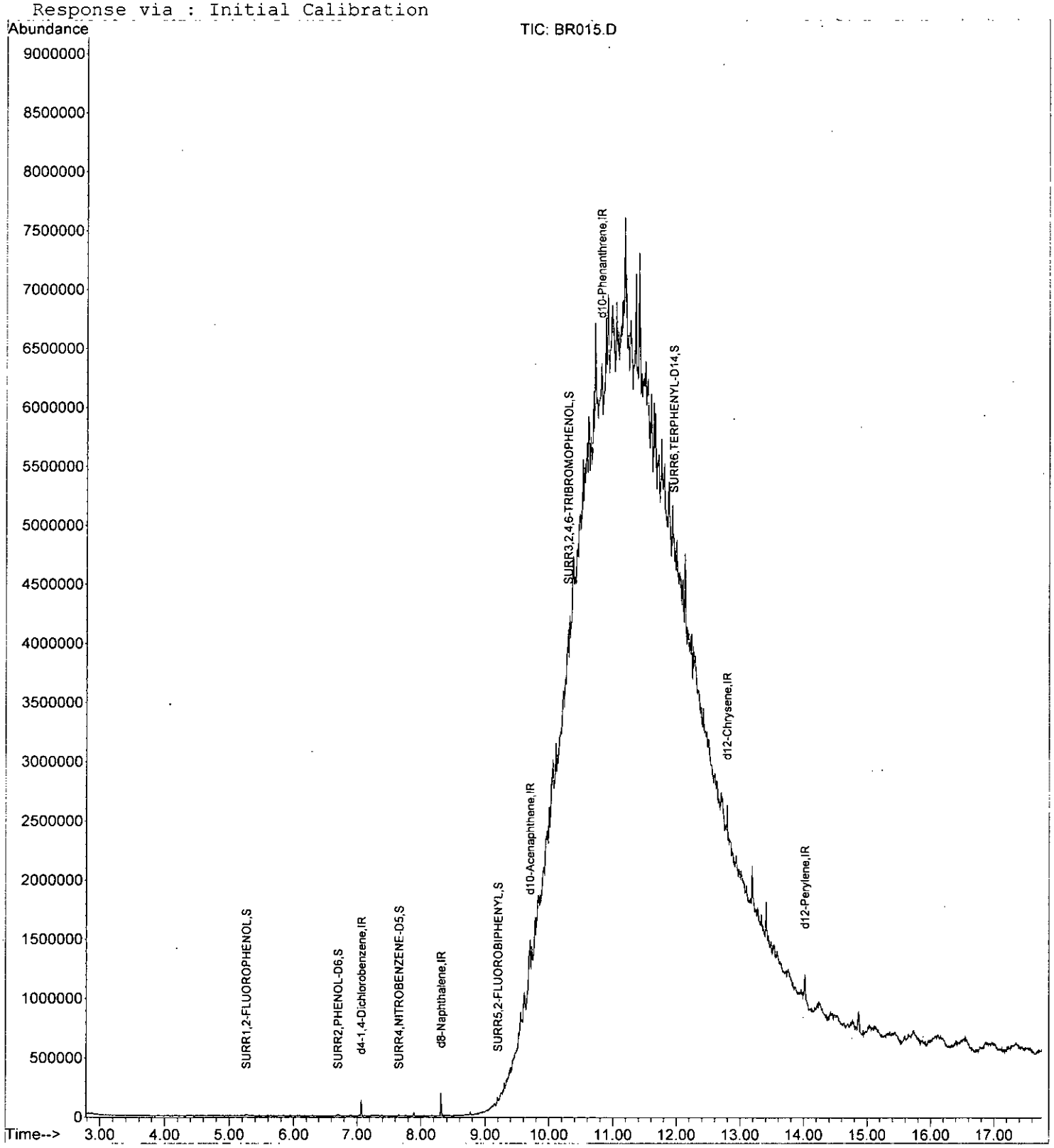
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.06	152	19329	1.00	ppm	0.000
9) d8-Naphthalene	8.31	136	64525	1.00	ppm	0.000
20) d10-Acenaphthene	9.70	164	54691	1.00	ppm	0.000
34) d10-Phenanthrene	10.79	188	66931	1.00	ppm	0.011
43) d12-Chrysene	12.79	240	62381	1.00	ppm	0.011
50) d12-Perylene	14.01	264	73022	1.00	ppm	0.000
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.26	112	4779	0.20	ppm	0.02
Spiked Amount 4.000	Range 11 - 131		Recovery = 5.00%#			
4) SURR2,PHENOL-D6	6.71	99	5886	0.21	ppm	0.01
Spiked Amount 4.000	Range 17 - 135		Recovery = 5.25%#			
10) SURR4,NITROBENZENE-D5	7.66	82	3246	0.13	ppm	0.00
Spiked Amount 2.000	Range 16 - 161		Recovery = 6.50%#			
23) SURR5,2-FLUOROBIPHENYL	9.19	172	9245	0.12	ppm	0.00
Spiked Amount 2.000	Range 17 - 141		Recovery = 6.00%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.29	330	4544	0.32	ppm	0.01
Spiked Amount 4.000	Range 35 - 157		Recovery = 8.00%#			
45) SURR6,TERPHENYL-D14	11.95	244	16939	0.30	ppm	0.00
Spiked Amount 2.000	Range 13 - 167		Recovery = 15.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR015.D Vial: 14
Acq On : 15 Oct 2015 3:44 pm Operator: JMisiurewicz
Sample : R1508577-002|10 Inst : 5973C
Misc : 246886 8270D Parson SOIL IV Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 11:31 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Oct 16 10:52:15 2015
Response via : Initial Calibration



ALS Environmental

SEMI-VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

Response Factor Report 5973C

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration

Calibration Files
0.1 =BQ717.D 0.2 =BQ718.D 0.5 =BQ719.D
1.0 =BQ720.D 3.0 =BQ721.D 5.0 =BQ722.D

		Compound	0.1	0.2	0.5	1.0	3.0	5.0	Avg	%RSD
1)	IR	d4-1,4-Dichlorobenzen	ISTD							
2)	T	1,4-Dioxane			0.758	0.827	0.701	0.645	0.732	8.39
3)	S	SURR1,2-FLUOROP		1.078	1.335	1.268	1.280	1.218	1.263	7.29
4)	S	SURR2,PHENOL-D6	1.356	1.365	1.408	1.570	1.477	1.474	1.470	5.91
5)	TMC	Phenol	1.933	1.749	1.727	1.813	1.723	1.655	1.779	4.78
6)	TM	2-Chlorophenol	1.339	1.306	1.237	1.329	1.227	1.252	1.289	3.44
7)	TM	2-Methylphenol	1.185	1.171	1.191	1.284	1.123	1.086	1.175	4.86
8)	TM	3+4-Methylpheno	1.219	1.301	1.408	1.330	1.179	1.168	1.276	6.39
9)	IR	d8-Naphthalene	ISTD							
10)	S	SURR4,NITROBENZ	0.466	0.384	0.389	0.374	0.385	0.367	0.390	8.09
11)	TM	Nitrobenzene	0.363	0.331	0.399	0.400	0.377	0.359	0.377	6.59
12)	TCM	2-Nitrophenol		0.208	0.187	0.216	0.188	0.190	0.198	5.70
13)	TM	2,4-Dimethylphe	0.400	0.381	0.393	0.400	0.375	0.352	0.379	4.65
14)	TCM	2,4-Dichlorophe	0.226	0.286	0.302	0.307	0.341	0.312	0.303	11.71
15)	TM	1,2,4-Trichloro	0.373	0.363	0.384	0.386	0.364	0.349	0.369	3.25
16)	TM	Naphthalene	1.051	1.034	1.130	1.041	0.983	0.971	1.027	4.95
17)	TMC	4-Chloro-3-meth	0.302	0.334	0.306	0.307	0.266	0.241	0.285	11.38
18)	TM	2-Methylnaphtha	0.571	0.605	0.691	0.659	0.657	0.623	0.636	5.89
19)	TM	1-Methylnaphtha	0.657	0.635	0.711	0.679	0.641	0.627	0.654	4.40
20)	IR	d10-Acenaphthene	ISTD							
21)	TCM	2,4,6-Trichloro		0.380	0.371	0.362	0.424	0.372	0.387	5.73
22)	TM	2,4,5-Trichloro		0.507	0.448	0.372	0.379	0.413	0.432	11.11
23)	S	SURR5,2-FLUOROB	1.521	1.415	1.469	1.372	1.492	1.468	1.461	3.39
24)	TM	2-Chloronaphtha	1.099	1.118	1.223	1.208	1.273	1.192	1.205	5.51
25)	TM	Acenaphthylene	1.566	1.861	1.739	1.722	1.841	1.755	1.752	5.14
26)	TM	Dimethyl phthal	1.245	1.268	1.274	1.026	1.183	1.387	1.281	10.79
27)	TMC	Acenaphthene	1.029	1.173	1.171	1.073	1.160	1.116	1.124	4.48
28)	TPM	2,4-Dinitrophen			0.041	0.072	0.139	0.147	0.135	49.97 Q
29)	TM	Dibenzofuran	1.660	1.724	1.711	1.601	1.618	1.558	1.644	3.35
30)	TMP	4-Nitrophenol			0.175	0.133	0.169	0.193	0.180	14.99
31)	TM	Fluorene	1.290	1.258	1.249	1.131	1.254	1.274	1.280	6.77
32)	TM	Diethylphthalat	1.379	1.076	1.198	1.151	1.296	1.354	1.285	10.08
33)	S	SURR3,2,4,6-TRI	0.281	0.216	0.264	0.240	0.251	0.276	0.263	9.68
34)	IR	d10-Phenanthrene	ISTD							
35)	TM	4,6-Dinitro-2-m			0.108	0.097	0.136	0.145	0.133	18.76
36)	TM	Hexachlorobenze	0.325	0.306	0.309	0.293	0.317	0.317	0.316	4.24
37)	TCM	Pentachlorophen			0.100	0.115	0.139	0.163	0.139	18.55
38)	TM	Phenanthrene	1.229	1.030	1.140	1.067	1.075	1.054	1.098	5.70
39)	TM	Anthracene	1.121	0.976	1.141	1.191	1.191	1.151	1.145	6.74
40)	TM	Carbazole	0.919	1.068	1.082	1.049	1.066	1.037	1.051	5.64
41)	TM	Di-n-butylphtha	1.258	1.070	1.193	1.139	1.241	1.288	1.229	7.49
42)	TCM	Fluoranthene	1.245	1.234	1.269	1.251	1.324	1.314	1.298	4.62
43)	IR	d12-Chrysene	ISTD							
44)	TM	Pyrene	1.193	1.108	1.131	1.141	1.098	1.242	1.151	4.36
45)	S	SURR6,TERPHENYL	0.965	0.857	0.912	0.882	0.861	0.917	0.896	4.45
46)	TM	Butyl benzyl ph	0.456	0.439	0.432	0.437	0.435	0.510	0.463	7.54
47)	TM	Benzo(a)anthrac	1.248	1.180	1.200	1.141	1.121	1.239	1.192	4.39
48)	TM	Chrysene	1.074	1.049	1.080	1.053	0.997	1.109	1.067	3.46

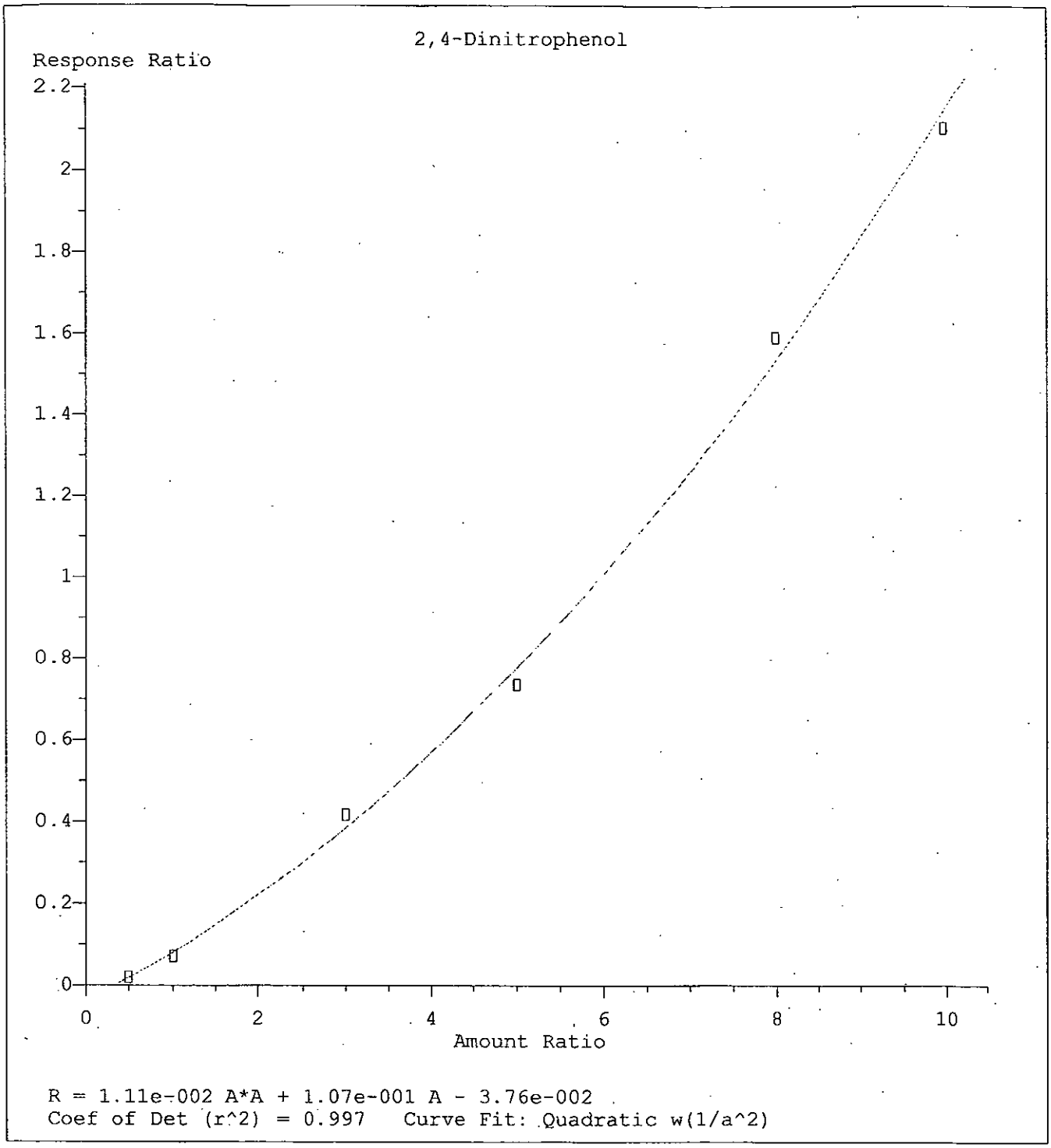
(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration

Calibration Files
0.1 =BQ717.D 0.2 =BQ718.D 0.5 =BQ719.D
1.0 =BQ720.D 3.0 =BQ721.D 5.0 =BQ722.D

		Compound	0.1	0.2	0.5	1.0	3.0	5.0	Avg	%RSD
49)	TM	bis(2-Ethylhexy	0.753	0.730	0.664	0.632	0.593	0.682	0.674	7.86
50)	IR	d12-Perylene	----------ISTD----------							
51)	TCM	Di-n-octyl phth	1.293	1.039	0.964	1.103	1.187	1.110	1.110	8.79
52)	TM	Benzo(b)Fluoran	1.272	1.093	1.084	1.245	1.221	1.122	1.171	6.06
53)	TM	Benzo(k)fluoran	0.889	1.138	1.118	1.045	1.169	1.079	1.099	8.84
54)	TCM	Benzo(a)pyrene	1.251	1.097	1.011	1.107	1.118	1.060	1.114	6.23
55)	TM	Indeno(1,2,3-cd	1.338	1.465	1.072	1.221	1.316	1.255	1.289	8.74
56)	TM	Dibenz(a,h)anth	1.213	1.173	0.946	1.004	1.039	0.988	1.063	8.58
57)	TM	Benzo(g,h,i)per	1.226	1.164	0.888	0.947	1.037	0.953	1.034	10.92

(#) = Out of Range ### Number of calibration levels exceeded format ###



Method Name: I:\ACQUDATA\5973C\METHODS\PAH090815.M
Calibration Table Last Updated: Wed Sep 09 06:50:11 2015

JM 9/9/15

2,4- Dinitrophenol

Lab Code	Type	Standard Amount	Calculated Conc	Difference
RC1500085-03	ICAL	0.500	0.5136	2.73
RC1500085-04	ICAL	1.000	0.9305	-6.95
RC1500085-05	ICAL	3.000	3.1856	6.19
RC1500085-06	ICAL	5.000	4.8115	-3.77
RC1500085-07	ICAL	8.000	8.2002	2.50
RC1500085-08	ICAL	10.000	9.8717	-1.28

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ716.D Vial: 2
Acq On : 8 Sep 2015 3:10 pm Operator: JMisiurewicz
Sample : BLK Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:54 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	15574	1.00	ppm	0.000
9) d8-Naphthalene	8.33	136	58867	1.00	ppm	0.000
20) d10-Acenaphthene	9.72	164	37134	1.00	ppm	0.000
34) d10-Phenanthrene	10.81	188	67577	1.00	ppm	0.000
43) d12-Chrysene	12.92	240	69242	1.00	ppm	0.056
50) d12-Perylene	14.19	264	74036	1.00	ppm	0.079

System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	0.00	112	0	0.00	ppm	
Spiked Amount 4.000	Range 10 - 104		Recovery = 0.00%#			
4) SURR2,PHENOL-D6	0.00	99	0	0.00	ppm	
Spiked Amount 4.000	Range 11 - 63		Recovery = 0.00%#			
10) SURR4,NITROBENZENE-D5	0.00	82	0	0.00	ppm	
Spiked Amount 2.000	Range 31 - 167		Recovery = 0.00%#			
23) SURR5,2-FLUOROBIPHENYL	0.00	172	0	0.00	ppm	
Spiked Amount 2.000	Range 27 - 133		Recovery = 0.00%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	0.00	330	0	0.00	ppm	
Spiked Amount 4.000	Range 10 - 212		Recovery = 0.00%#			
45) SURR6,TERPHENYL-D14	12.15	244	172	0.00	ppm	0.15
Spiked Amount 2.000	Range 38 - 166		Recovery = 0.00%#			

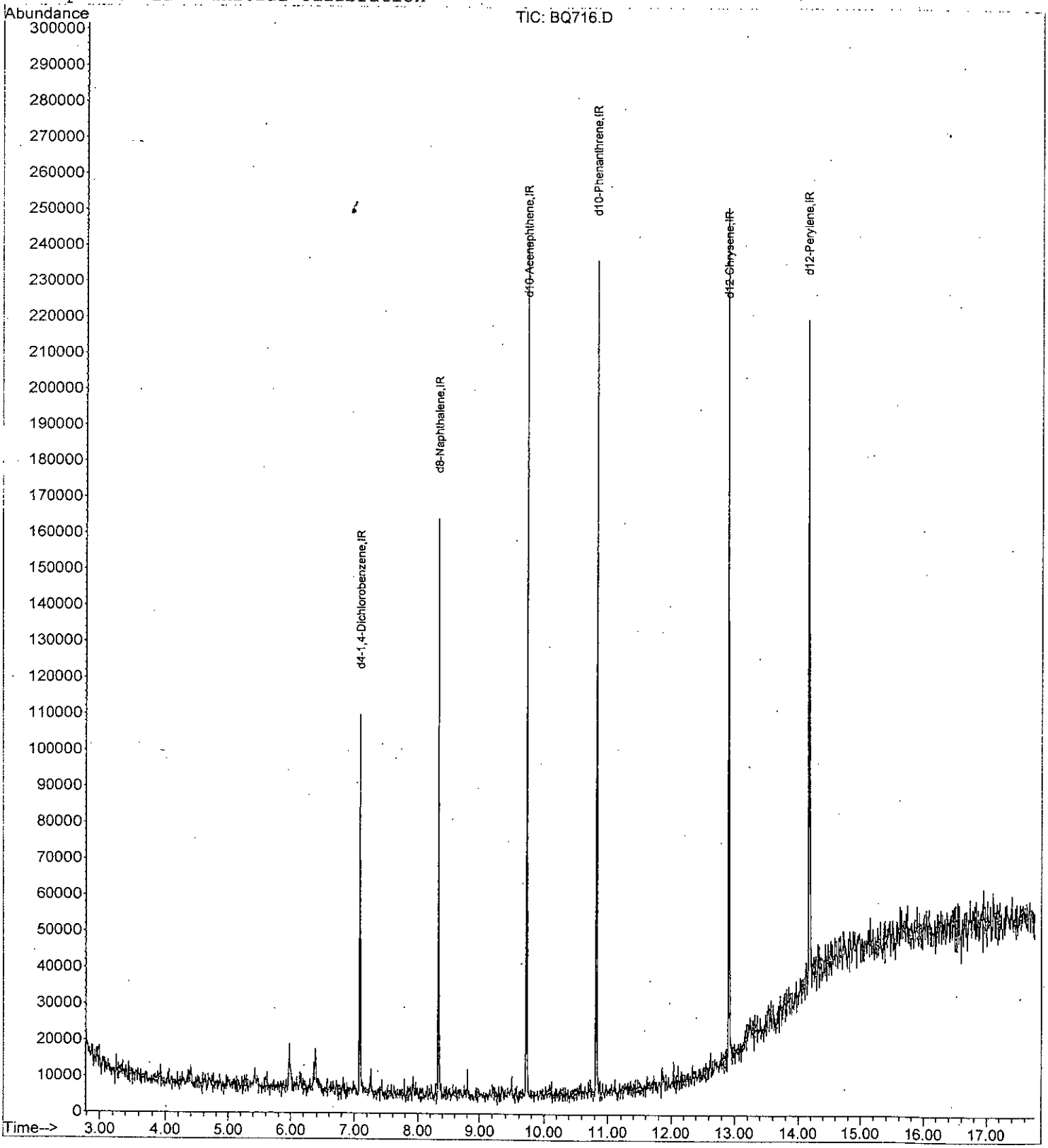
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
BQ716.D PAH090815.M Wed Sep 09 07:01:59 2015 00033 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ716.D Vial: 2
Acq On : 8 Sep 2015 3:10 pm Operator: JMisiurewicz
Sample : BLK Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:54 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ717.D Vial: 3
Acq On : 8 Sep 2015 3:38 pm Operator: JMisiurewicz
Sample : SSTD001 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:32 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	16034	1.00 ppm	0.000
9) d8-Naphthalene	8.33	136	57839	1.00 ppm	0.000
20) d10-Acenaphthene	9.72	164	37239	1.00 ppm	0.000
34) d10-Phenanthrene	10.81	188	66066	1.00 ppm	0.000
43) d12-Chrysene	12.92	240	68296	1.00 ppm	0.057
50) d12-Perylene	14.19	264	70801	1.00 ppm	0.084
System Monitoring Compounds					
3) SURR1,2-FLUOROPHENOL	5.29	112	1292	0.06 ppm	0.00
Spiked Amount 4.000	Range 10 - 104		Recovery = 1.50%#		
4) SURR2,PHENOL-D6	6.71	99	2174	0.09 ppm	0.00
Spiked Amount 4.000	Range 11 - 63		Recovery = 2.25%#		
10) SURR4,NITROBENZENE-D5	7.67	82	2696	0.12 ppm	0.00
Spiked Amount 2.000	Range 31 - 167		Recovery = 6.00%#		
23) SURR5,2-FLUOROBIPHENYL	9.21	172	5664	0.10 ppm	0.00
Spiked Amount 2.000	Range 27 - 133		Recovery = 5.00%#		
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	1045	0.10 ppm	0.00
Spiked Amount 4.000	Range 10 - 212		Recovery = 2.50%#		
45) SURR6,TERPHENYL-D14	12.03	244	6591	0.11 ppm	0.03
Spiked Amount 2.000	Range 38 - 166		Recovery = 5.50%#		
Target Compounds					Qvalue
5) Phenol	6.73	94	3100	0.110 ppm #	45
6) 2-Chlorophenol	6.85	128	2147	0.105 ppm #	66
7) 2-Methylphenol	7.41	108	1900	0.101 ppm #	43
8) 3+4-Methylphenol	7.57	108	1955	0.095 ppm #	69
11) Nitrobenzene	7.70	77	2098	0.096 ppm	78
12) 2-Nitrophenol	8.00	139	718	0.063 ppm	82
13) 2,4-Dimethylphenol	8.07	107	2314	0.107 ppm #	48
14) 2,4-Dichlorophenol	8.23	162	1309	0.071 ppm #	75
15) 1,2,4-Trichlorobenzene	8.29	180	2155	0.101 ppm #	80
16) Naphthalene	8.35	128	6079	0.102 ppm	91
17) 4-Chloro-3-methylphenol	8.84	107	1747m	0.111 ppm	
18) 2-Methylnaphthalene	8.93	142	3303m	0.090 ppm	
19) 1-Methylnaphthalene	9.00	142	3801	0.101 ppm	89
24) 2-Chloronaphthalene	9.31	162	4094	0.091 ppm	80
25) Acenaphthylene	9.61	152	5833	0.089 ppm	86
26) Dimethyl phthalate	9.52	163	4635	0.097 ppm	91
27) Acenaphthene	9.74	153	3833	0.092 ppm #	29
29) Dibenzofuran	9.87	168	6181	0.101 ppm	80
31) Fluorene	10.12	166	4804	0.101 ppm	93
32) Diethylphthalate	10.03	149	5135	0.108 ppm	89
36) Hexachlorobenzene	10.53	284	2144	0.103 ppm	82
38) Phenanthrene	10.83	178	8119	0.112 ppm	87
39) Anthracene	10.87	178	7409	0.098 ppm	97
40) Carbazole	11.00	167	6070	0.088 ppm	88
41) Di-n-butylphthalate	11.23	149	8314	0.103 ppm	95
42) Fluoranthene	11.74	202	8227	0.096 ppm	76
44) Pyrene	11.93	202	8147	0.104 ppm	87
46) Butyl benzyl phthalate	12.42	149	3114	0.098 ppm #	77
47) Benzo(a)anthracene	12.91	228	8526	0.105 ppm	87

(#) = qualifier out of range (m) = manual integration
BQ717.D PAH090815.M Wed Sep 09 07:02:07 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ717.D Vial: 3
Acq On : 8 Sep 2015 3:38 pm Operator: JMisiurewicz
Sample : SSTD001 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:32 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

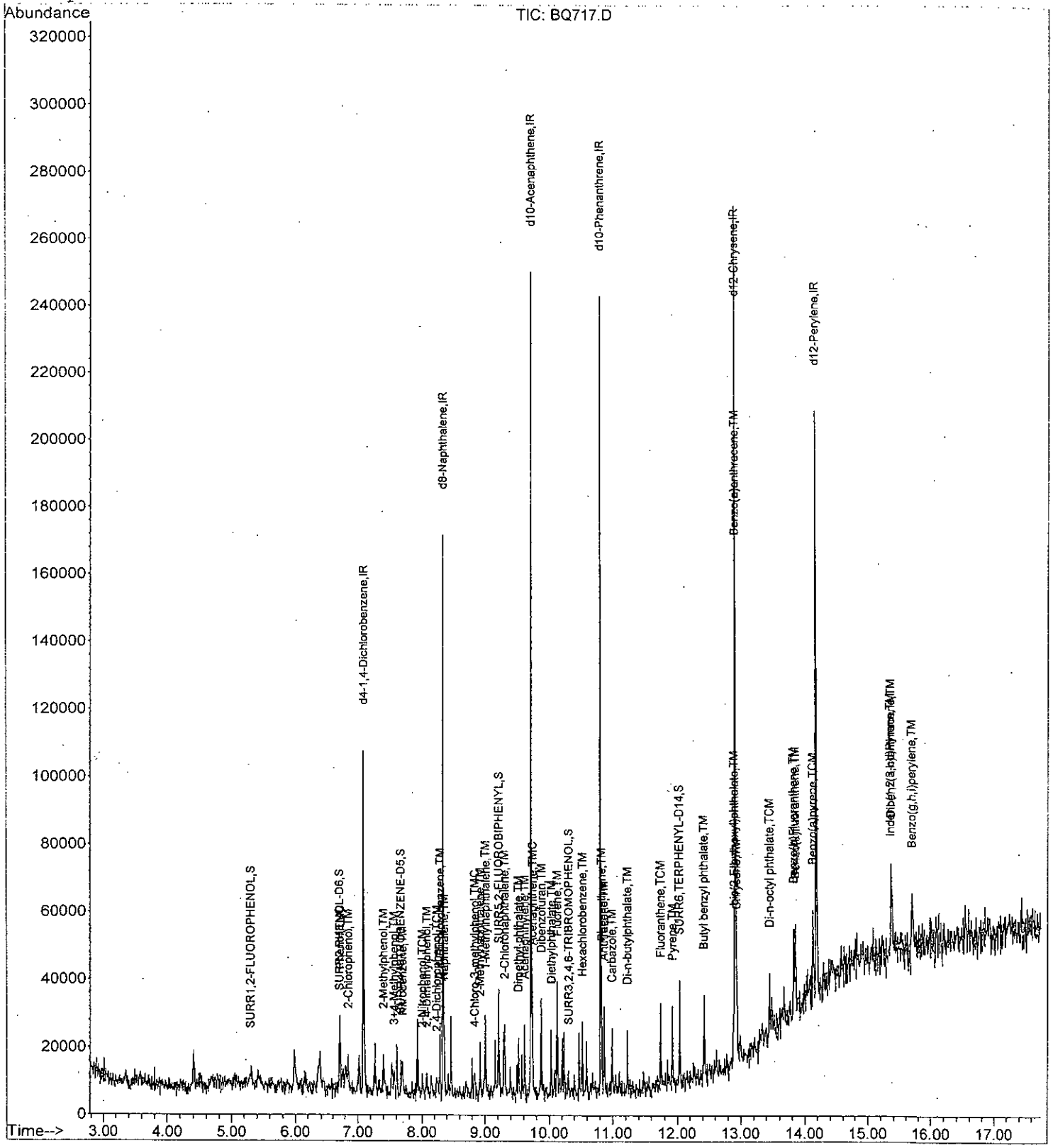
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48)	Chrysene	12.94	228	7338	0.101	ppm	89
49)	bis(2-Ethylhexyl)phthalate	12.90	149	5142	0.111	ppm	99
51)	Di-n-octyl phthalate	13.45	149	9154	0.119	ppm	80
52)	Benzo(b)Fluoranthene	13.83	252	9008	0.109	ppm	94
53)	Benzo(k)fluoranthene	13.85	252	6295m	0.081	ppm	
54)	Benzo(a)pyrene	14.14	252	8856	0.112	ppm	85
55)	Indeno(1,2,3-cd)Pyrene	15.37	276	9474	0.104	ppm	91
56)	Dibenz(a,h)anthracene	15.38	278	8588	0.114	ppm	80
57)	Benzo(g,h,i)perylene	15.73	276	8677	0.118	ppm	77

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ717.D Vial: 3
Acq On : 8 Sep 2015 3:38 pm Operator: JMisiurewicz
Sample : SSTD001 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:32 2015 Quant Results File: PAH090815.RES

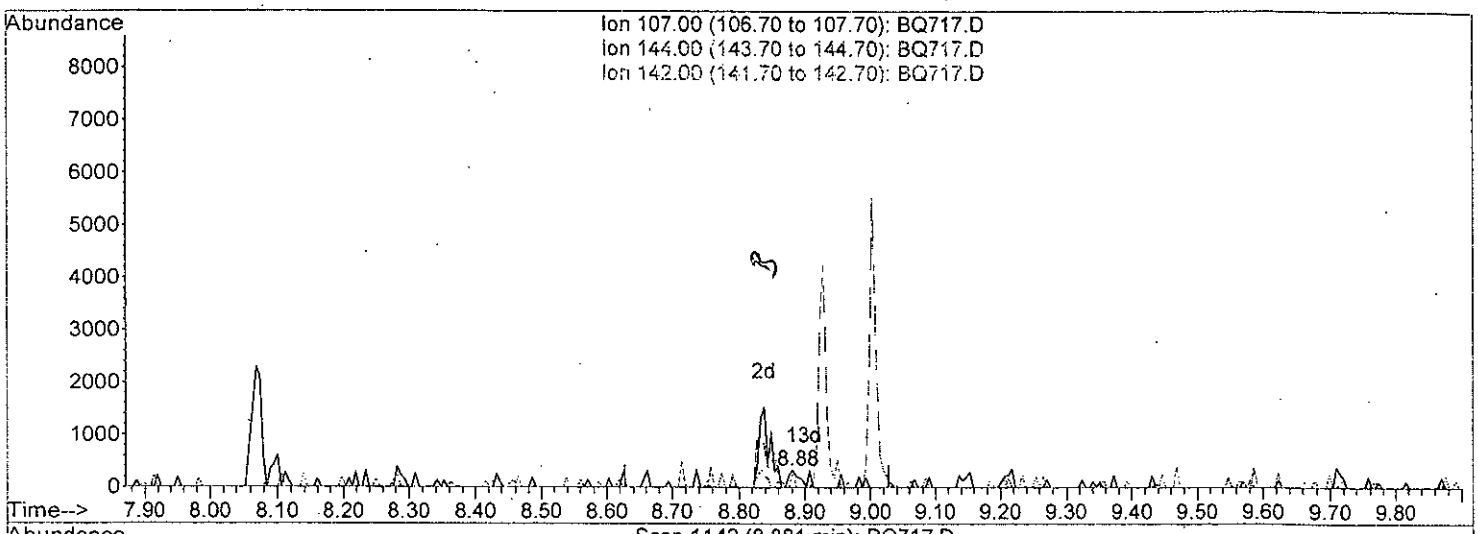
Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration

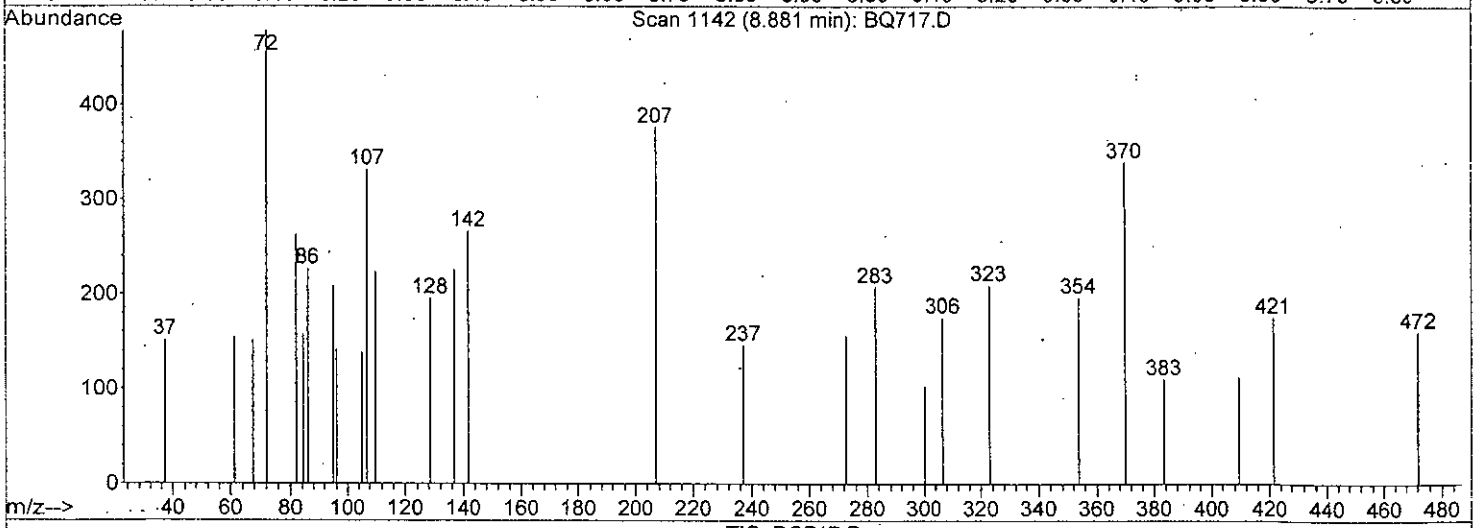


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ717.D Vial: 3
Acq On : 8 Sep 2015 3:38 pm Operator: JMisiurewicz
Sample : SSTD001 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:30 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ717.D

(17) 4-Chloro-3-methylphenol (TMC)

8.88min 0.02ppm

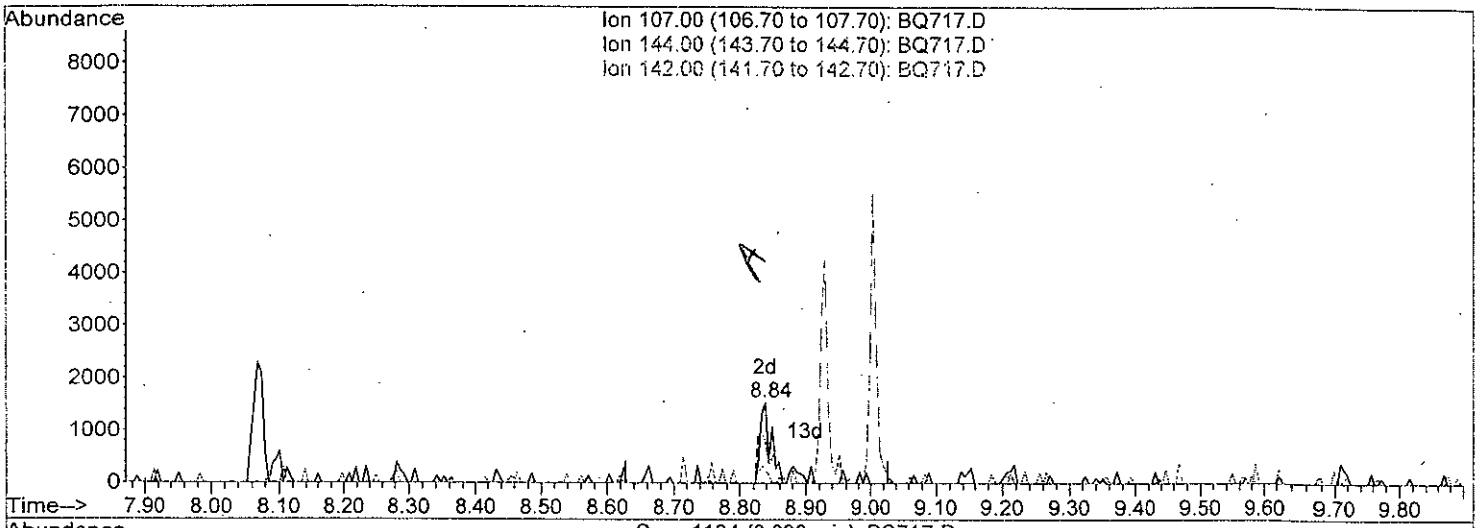
response 353

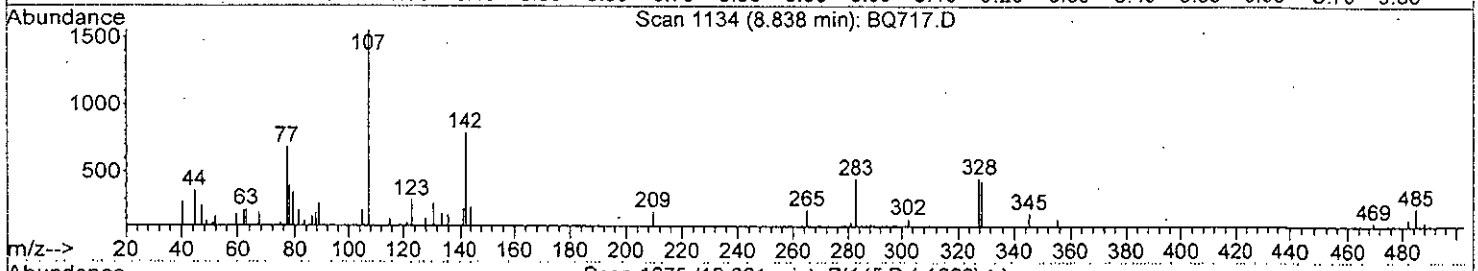
Ion	Exp%	Act%
107.00	100	100
144.00	27.80	0.00
142.00	85.10	80.36
0.00	0.00	0.00

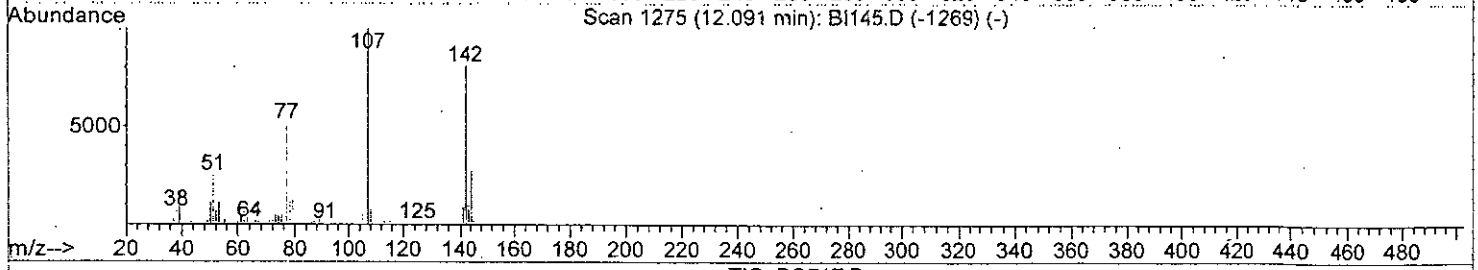
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ717.D Vial: 3
Acq On : 8 Sep 2015 3:38 pm Operator: JMisiurewicz
Sample : SSTD001 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:31 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration







TIC: BQ717.D

(17) 4-Chloro-3-methylphenol (TMC)

8.84min 0.11ppm m

response 1747

Ion	Exp%	Act%
107.00	100	100
144.00	27.80	15.37
142.00	85.10	50.90#
0.00	0.00	0.00

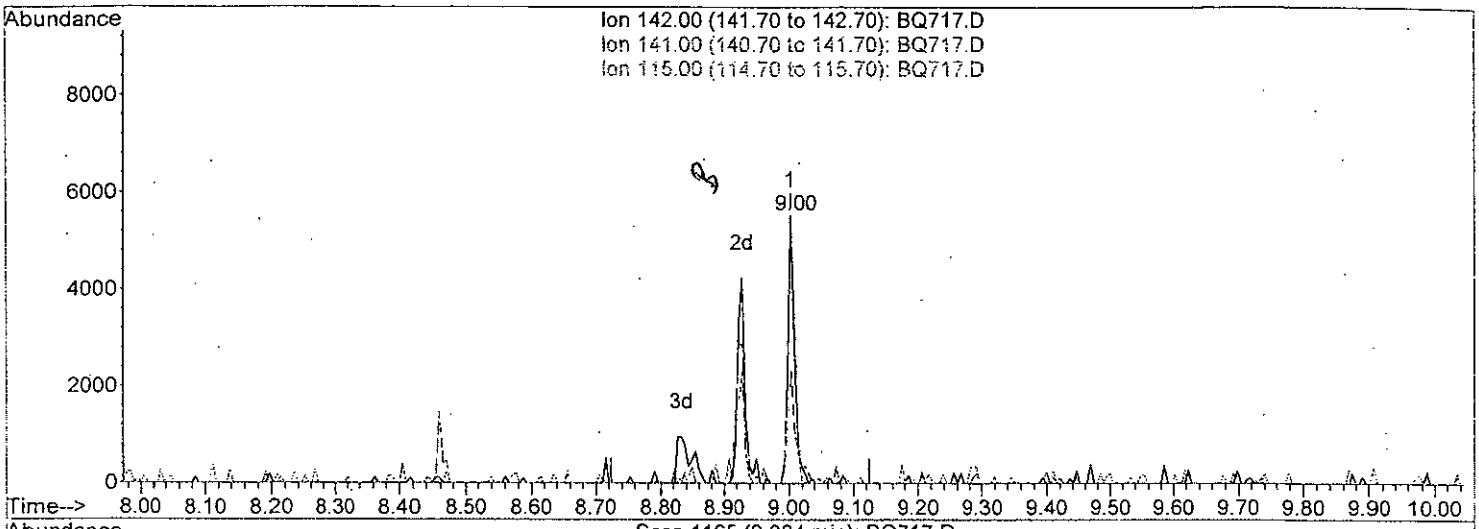
wp DM 9/9/15

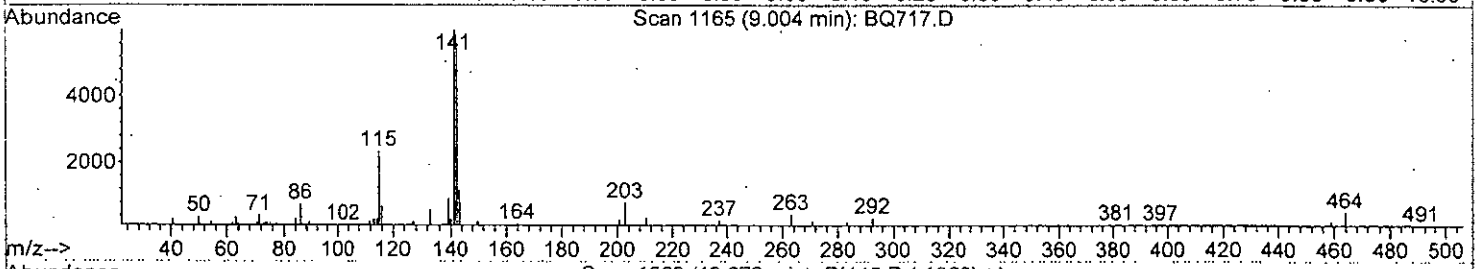
9/9

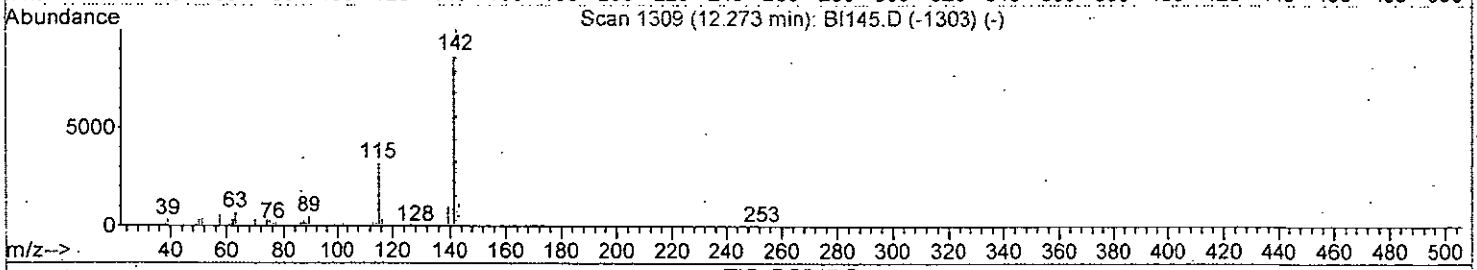
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ717.D Vial: 3
Acq On : 8 Sep 2015 3:38 pm Operator: JMisiurewicz
Sample : SSTD001 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:31 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Multiple Level Calibration







TIC: BQ717.D

(18) 2-Methylnaphthalene (TM)

9.00min 0.10ppm

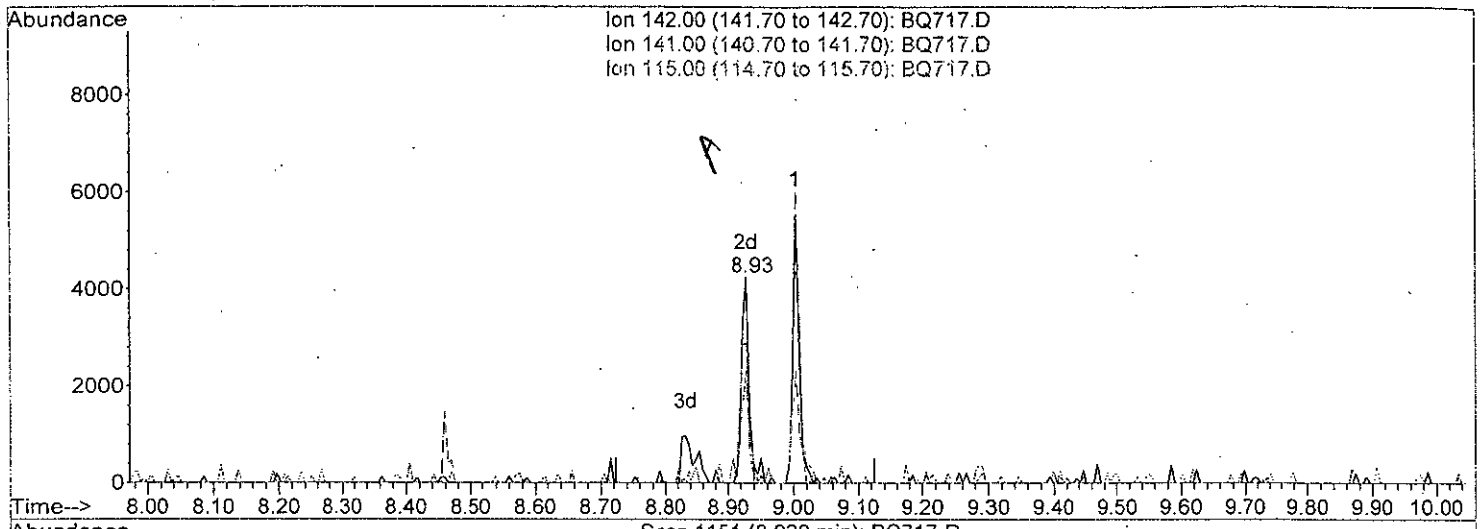
response 3801

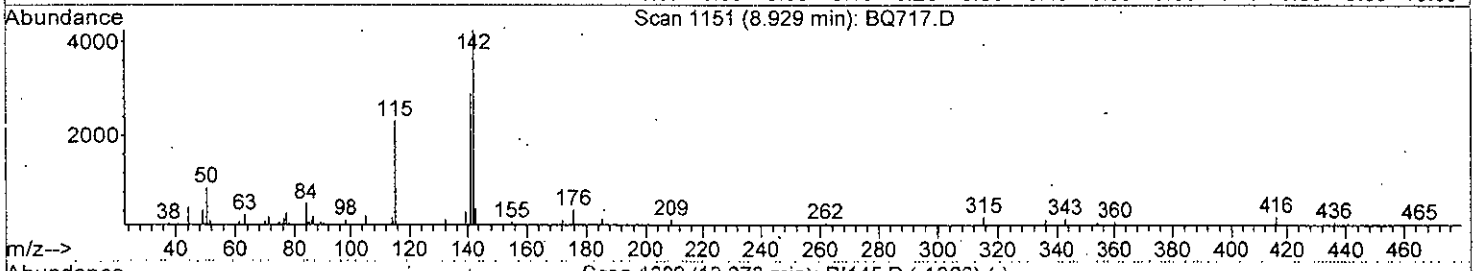
Ion	Exp%	Act%
142.00	100	100
141.00	91.00	107.13
115.00	38.90	42.06
0.00	0.00	0.00

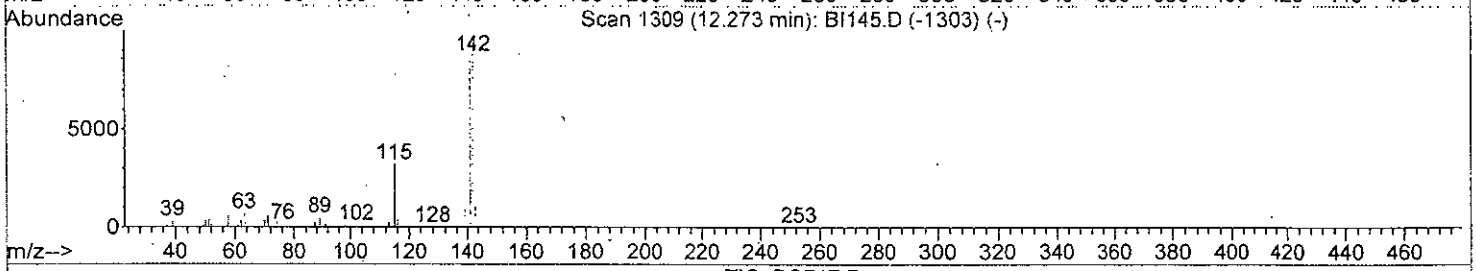
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ717.D Vial: 3
Acq On : 8 Sep 2015 3:38 pm Operator: JMisiurewicz
Sample : SSTD001 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:31 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Multiple Level Calibration







TIC: BQ717.D

(18) 2-Methylnaphthalene (TM)

8.93min 0.09ppm m

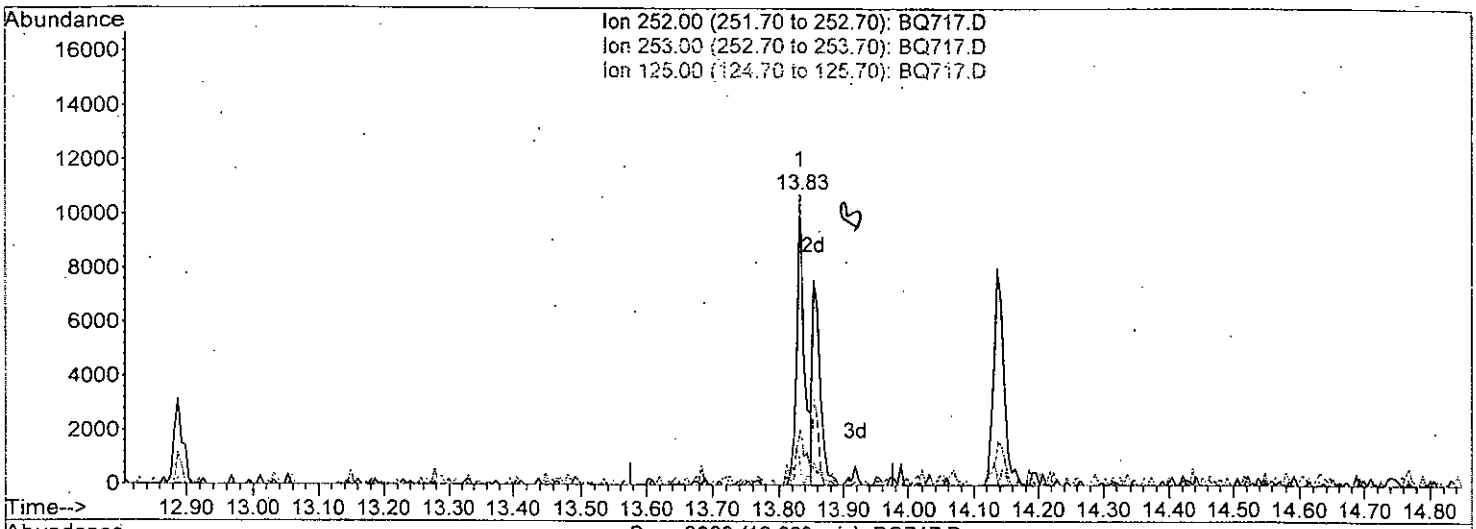
response 3303

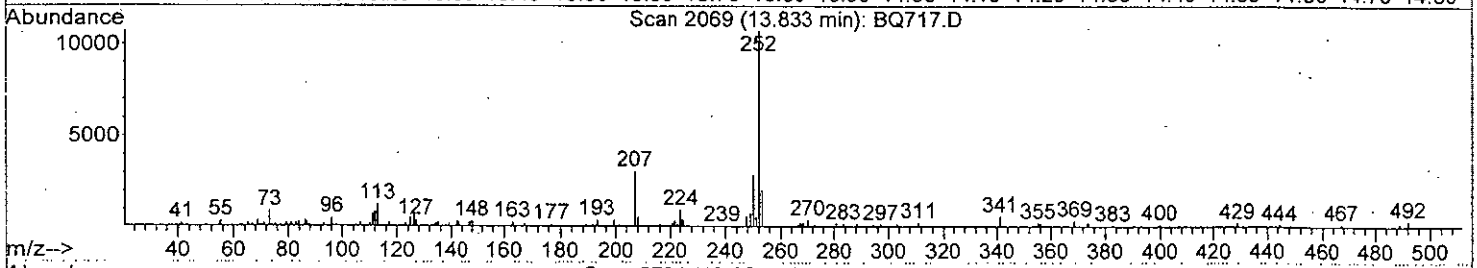
Ion	Exp%	Act%
142.00	100	100
141.00	91.00	67.88#
115.00	38.90	54.39
0.00	0.00	0.00

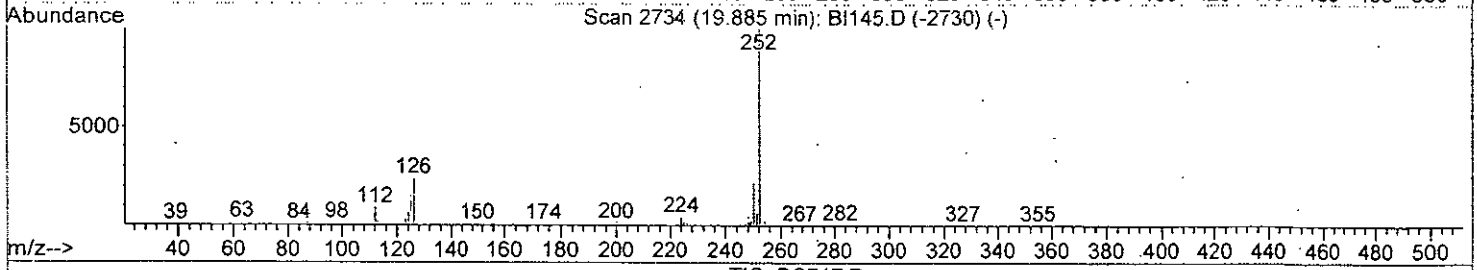
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ717.D Vial: 3
Acq On : 8 Sep 2015 3:38 pm Operator: JMisiurewicz
Sample : SSTD001 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:32 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Multiple Level Calibration







TIC: BQ717.D

(53) Benzo(k)fluoranthene (TM)

13.83min 0.12ppm

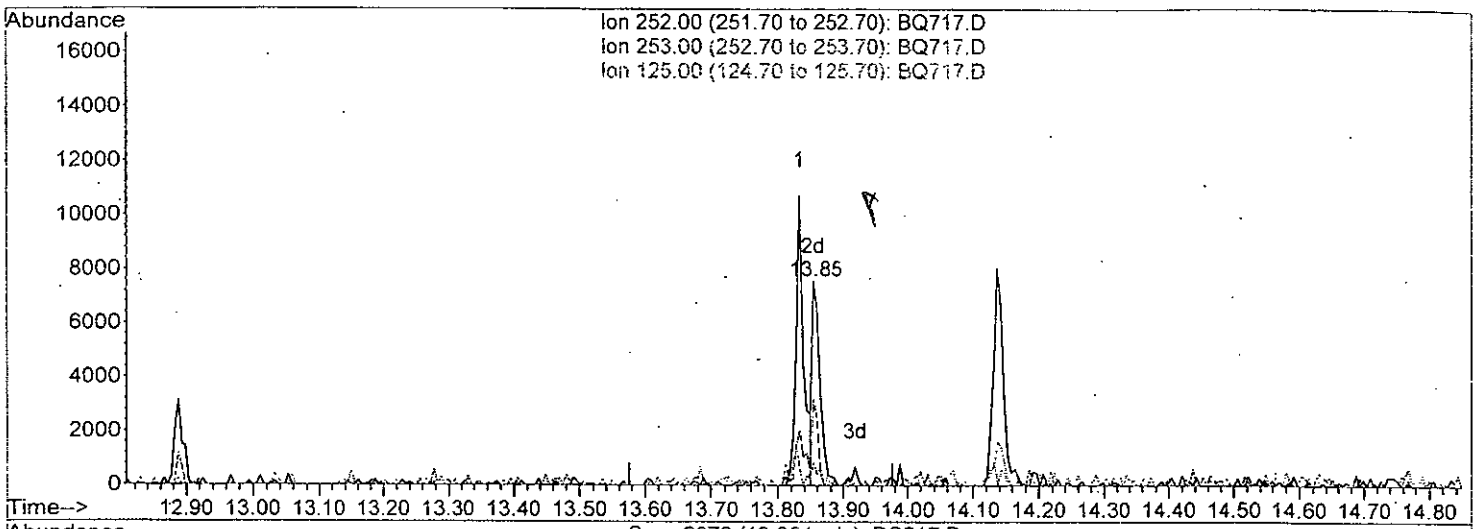
response 9008

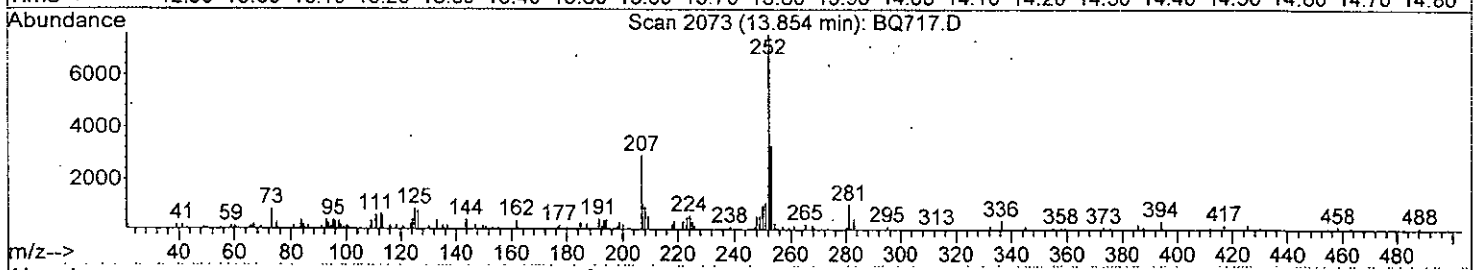
Ion	Exp%	Act%
252.00	100	100
253.00	21.00	18.93
125.00	8.80	4.43
0.00	0.00	0.00

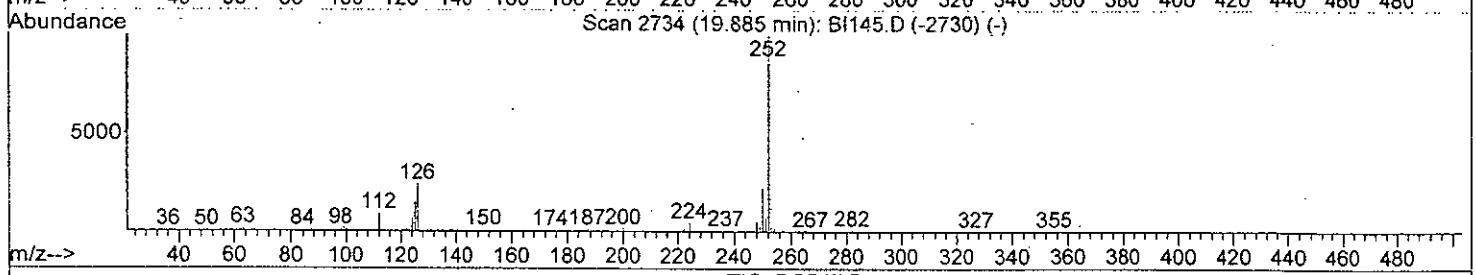
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ717.D Vial: 3
Acq On : 8 Sep 2015 3:38 pm Operator: JMisiurewicz
Sample : SSTD001 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:32 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Multiple Level Calibration







TIC: BQ717.D

(53) Benzo(k)fluoranthene (TM)

13.85min 0.08ppm m

response 6295

Ion	Exp%	Act%
252.00	100	100
253.00	21.00	43.69#
125.00	8.80	11.62
0.00	0.00	0.00

9/9/15

9/9

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ718.D Vial: 4
Acq On : 8 Sep 2015 4:08 pm Operator: JMisiurewicz
Sample : SSTD002 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:35 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

OM 9/9/15

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	16421	1.00	ppm		0.000
9) d8-Naphthalene	8.33	136	62178	1.00	ppm		0.000
20) d10-Acenaphthene	9.72	164	38458	1.00	ppm		0.000
34) d10-Phenanthrene	10.81	188	66531	1.00	ppm		0.000
43) d12-Chrysene	12.88	240	73464	1.00	ppm		0.014
50) d12-Perylene	14.13	264	73937	1.00	ppm		0.020
System Monitoring Compounds							
3) SURR1,2-FLUOROPHENOL	5.29	112	3541	0.17	ppm		0.00
Spiked Amount 4.000	Range 10 - 104		Recovery = 4.25%#				
4) SURR2,PHENOL-D6	6.71	99	4483	0.18	ppm		0.00
Spiked Amount 4.000	Range 11 - 63		Recovery = 4.50%#				
10) SURR4,NITROBENZENE-D5	7.67	82	4771	0.20	ppm		0.00
Spiked Amount 2.000	Range 31 - 167		Recovery = 10.00%#				
23) SURR5,2-FLUOROBIPHENYL	9.21	172	10880	0.19	ppm		0.00
Spiked Amount 2.000	Range 27 - 133		Recovery = 9.50%#				
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	1664	0.16	ppm		0.00
Spiked Amount 4.000	Range 10 - 212		Recovery = 4.00%#				
45) SURR6,TERPHENYL-D14	12.01	244	12595	0.19	ppm		0.01
Spiked Amount 2.000	Range 38 - 166		Recovery = 9.50%#				
Target Compounds							Qvalue
5) Phenol	6.72	94	5745	0.199	ppm	#	64
6) 2-Chlorophenol	6.85	128	4289	0.204	ppm	#	64
7) 2-Methylphenol	7.40	108	3845	0.199	ppm		90
8) 3+4-Methylphenol	7.56	108	4272m	0.203	ppm		
11) Nitrobenzene	7.69	77	4110	0.175	ppm		88
12) 2-Nitrophenol	8.00	139	2583	0.212	ppm		95
13) 2,4-Dimethylphenol	8.06	107	4744	0.203	ppm		83
14) 2,4-Dichlorophenol	8.23	162	3551	0.179	ppm	#	72
15) 1,2,4-Trichlorobenzene	8.29	180	4511	0.197	ppm	#	79
16) Naphthalene	8.35	128	12862	0.202	ppm		99
17) 4-Chloro-3-methylphenol	8.83	107	4159	0.245	ppm		94
18) 2-Methylnaphthalene	8.92	142	7518	0.190	ppm		98
19) 1-Methylnaphthalene	9.00	142	7900	0.194	ppm		91
21) 2,4,6-Trichlorophenol	9.16	196	2919	0.195	ppm		95
22) 2,4,5-Trichlorophenol	9.20	196	3901m	0.242	ppm		
24) 2-Chloronaphthalene	9.30	162	8601	0.186	ppm		90
25) Acenaphthylene	9.61	152	14311	0.212	ppm		93
26) Dimethyl phthalate	9.52	163	9752	0.198	ppm		97
27) Acenaphthene	9.74	153	9025	0.209	ppm		96
29) Dibenzofuran	9.87	168	13258	0.210	ppm		81
31) Fluorene	10.13	166	9673	0.196	ppm		94
32) Diethylphthalate	10.03	149	8273	0.169	ppm		81
36) Hexachlorobenzene	10.53	284	4073	0.194	ppm		96
37) Pentachlorophenol	10.69	266	1331	0.137	ppm	#	54
38) Phenanthrene	10.83	178	13700	0.188	ppm		90
39) Anthracene	10.87	178	12988	0.171	ppm		96
40) Carbazole	10.99	167	14207	0.204	ppm		93
41) Di-n-butylphthalate	11.22	149	14243	0.175	ppm		96
42) Fluoranthene	11.72	202	16420	0.190	ppm		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ718.D Vial: 4
Acq On : 8 Sep 2015 4:08 pm Operator: JMisiurewicz
Sample : SSTD002 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:35 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

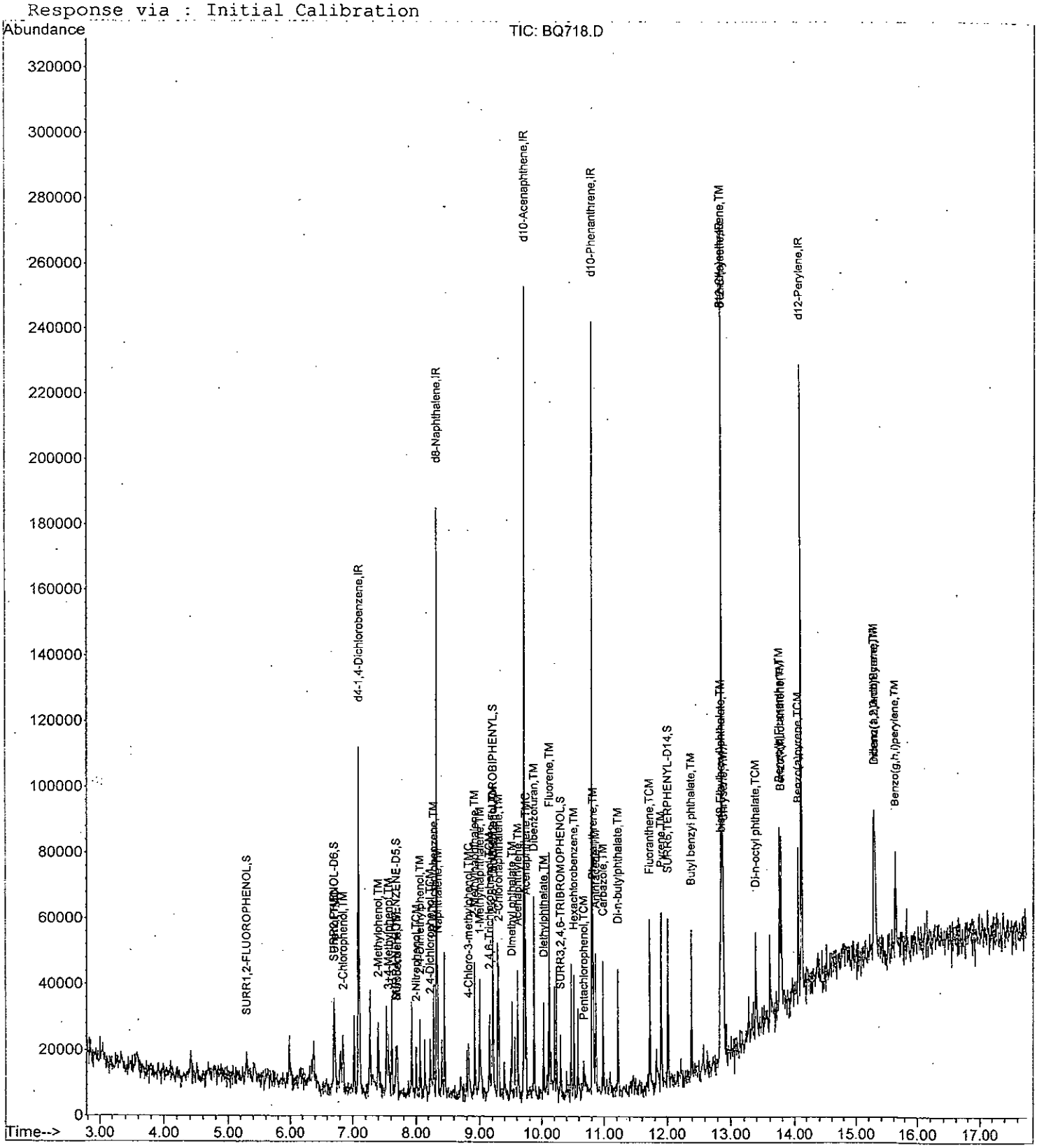
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Pyrene	11.90	202	16280	0.193	ppm		84
46)	Butyl benzyl phthalate	12.39	149	6449	0.190	ppm	#	68
47)	Benzo(a)anthracene	12.87	228	17339	0.198	ppm		98
48)	Chrysene	12.90	228	15412	0.197	ppm		93
49)	bis(2-Ethylhexyl)phthalate	12.86	149	10729	0.216	ppm		77
51)	Di-n-octyl phthalate	13.39	149	15361	0.190	ppm		80
52)	Benzo(b)Fluoranthene	13.77	252	16164	0.187	ppm		89
53)	Benzo(k)fluoranthene	13.79	252	16831	0.207	ppm		94
54)	Benzo(a)pyrene	14.07	252	16220	0.197	ppm		95
55)	Indeno(1,2,3-cd)Pyrene	15.31	276	21657	0.227	ppm		77
56)	Dibenz(a,h)anthracene	15.32	278	17346	0.221	ppm		96
57)	Benzo(g,h,i)perylene	15.65	276	17209	0.224	ppm		73

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ718.D Vial: 4
Acq On : 8 Sep 2015 4:08 pm Operator: JMisiurewicz
Sample : SSTD002 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:35 2015 Quant Results File: PAH090815.RES

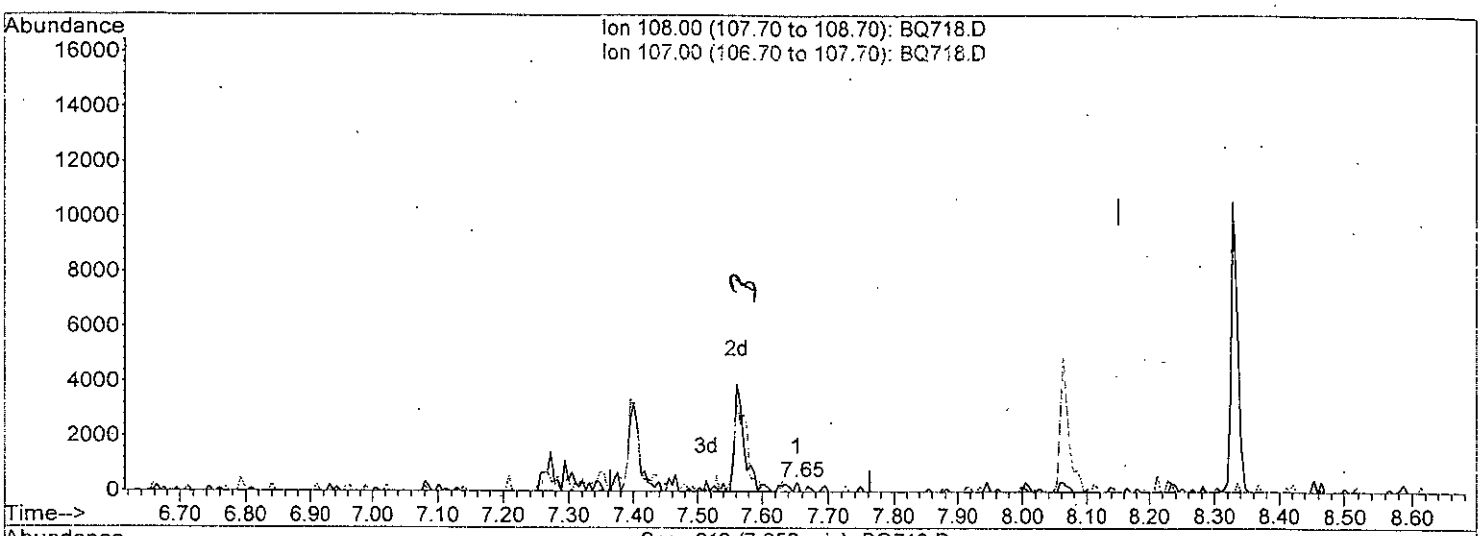
Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration

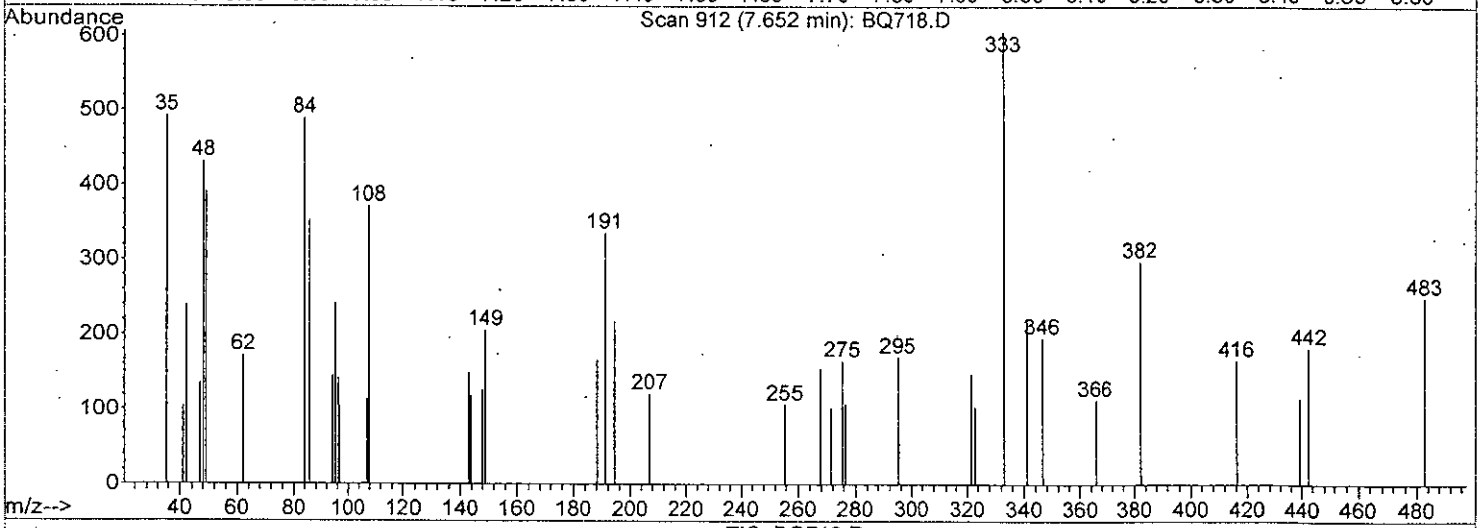


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ718.D Vial: 4
Acq On : 8 Sep 2015 4:08 pm Operator: JMisiurewicz
Sample : SSTD002 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:33 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ718.D

(8) 3+4-Methylphenol (TM)

7.65min 0.02ppm

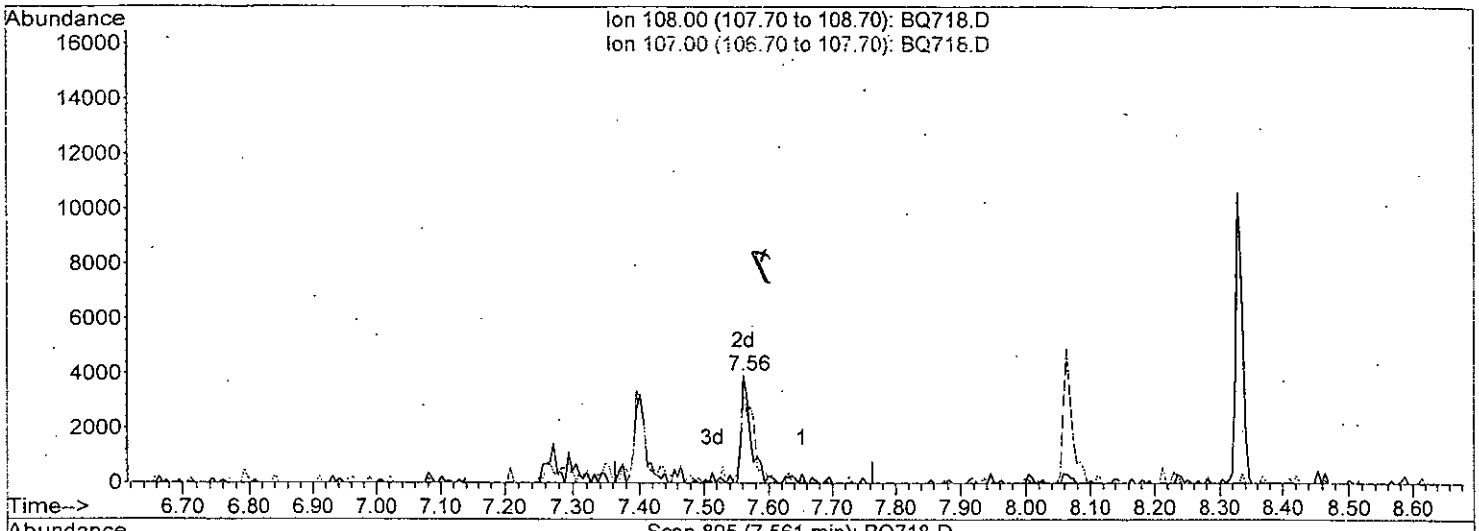
response 509

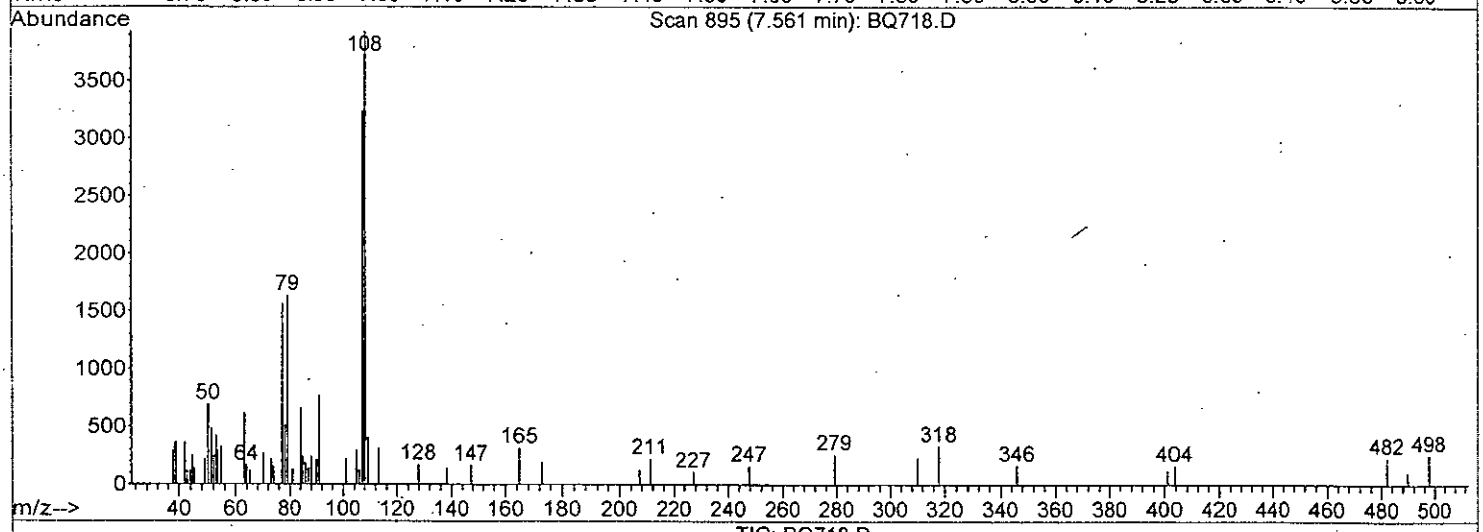
Ion	Exp%	Act%
108.00	100	100
107.00	124.20	130.46
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ718.D Vial: 4
Acq On : 8 Sep 2015 4:08 pm Operator: JMisiurewicz
Sample : SSTD002 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:33 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ718.D

(8) 3+4-Methylphenol (TM)

7.56min 0.20ppm m

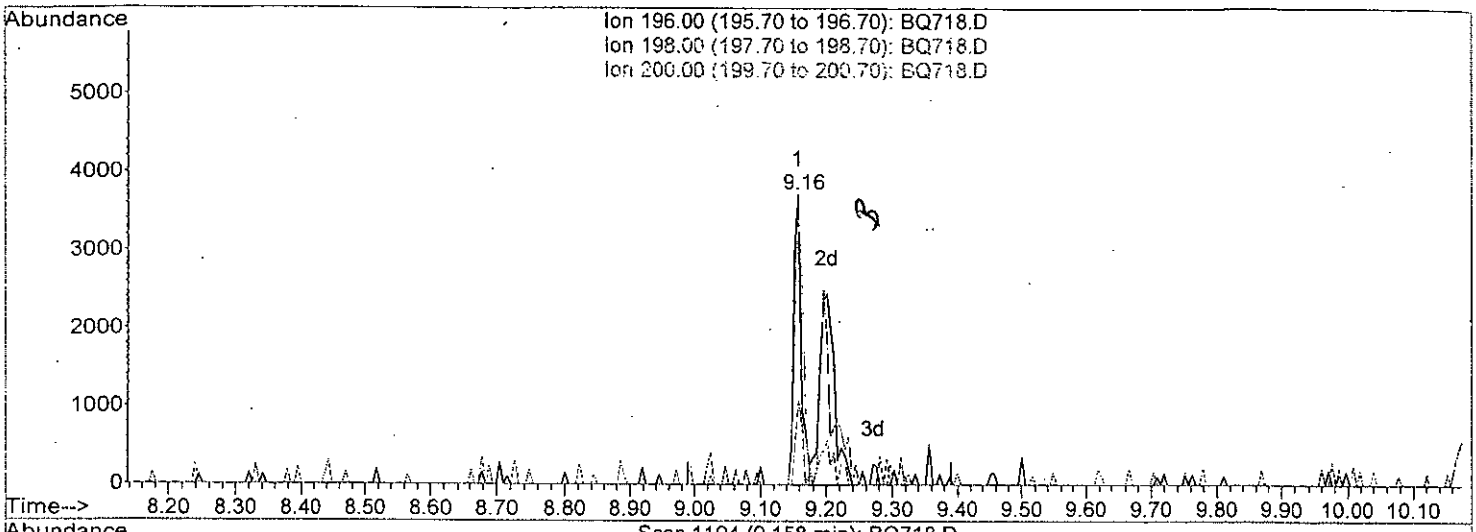
response 4272

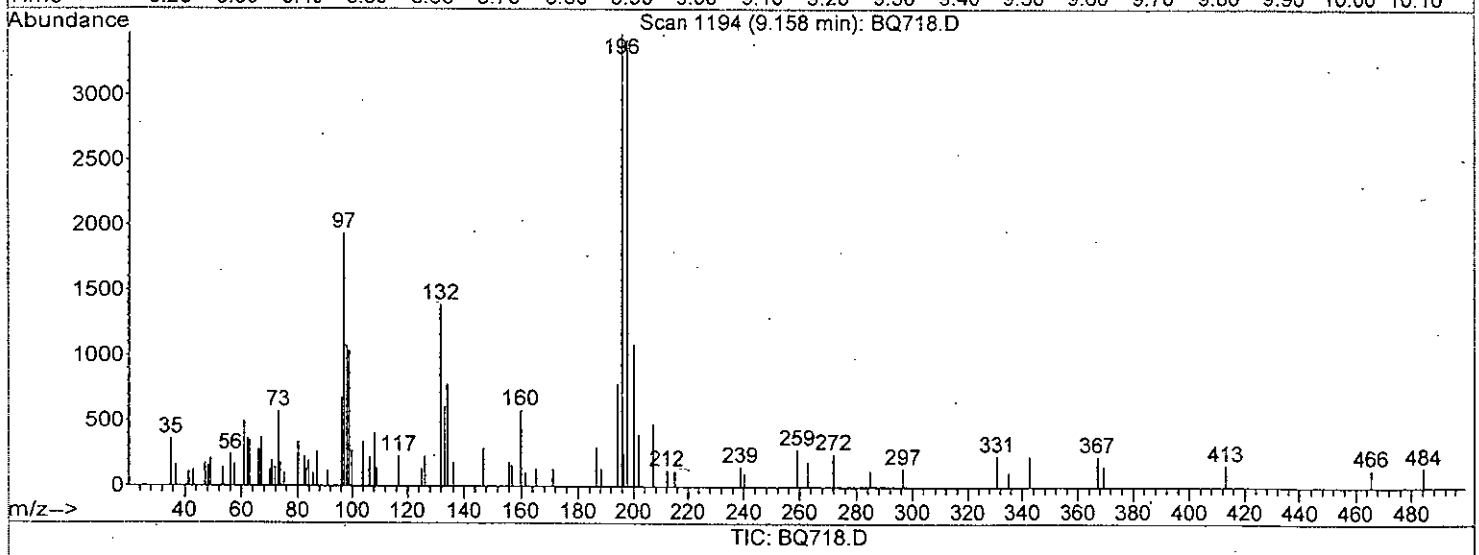
Ion	Exp%	Act%
108.00	100	100
107.00	124.20	82.27#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ718.D Vial: 4
Acq On : 8 Sep 2015 4:08 pm Operator: JMisiurewicz
Sample : SSTD002 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:33 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ718.D

(22) 2,4,5-Trichlorophenol (TM)

9.16min 0.18ppm

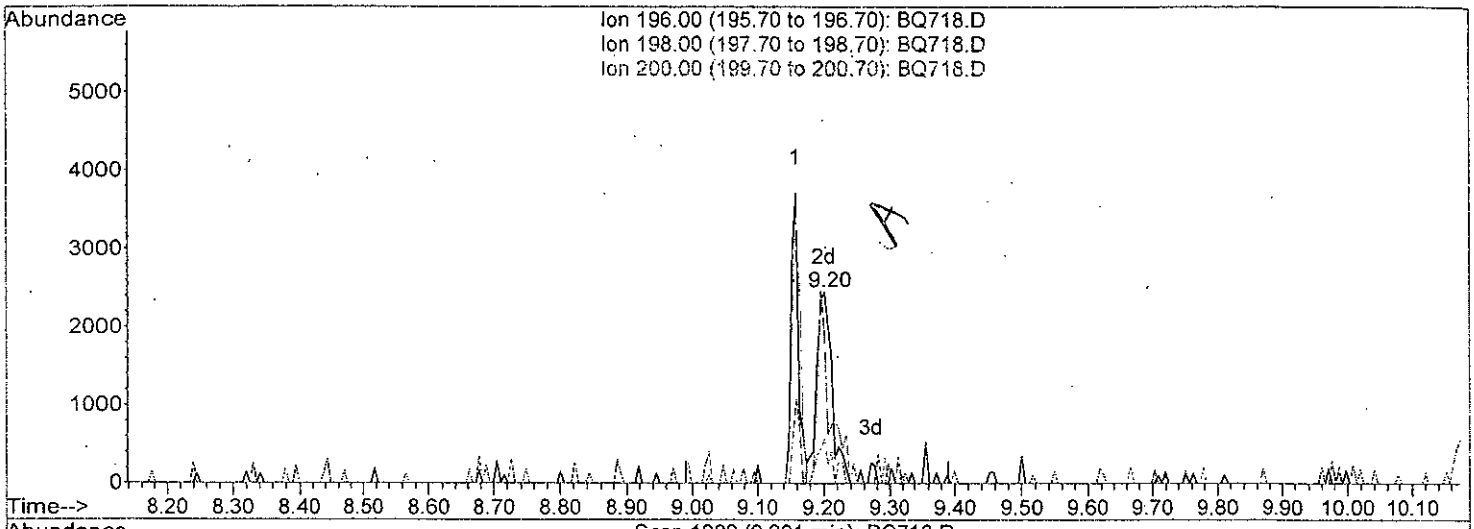
response 2919

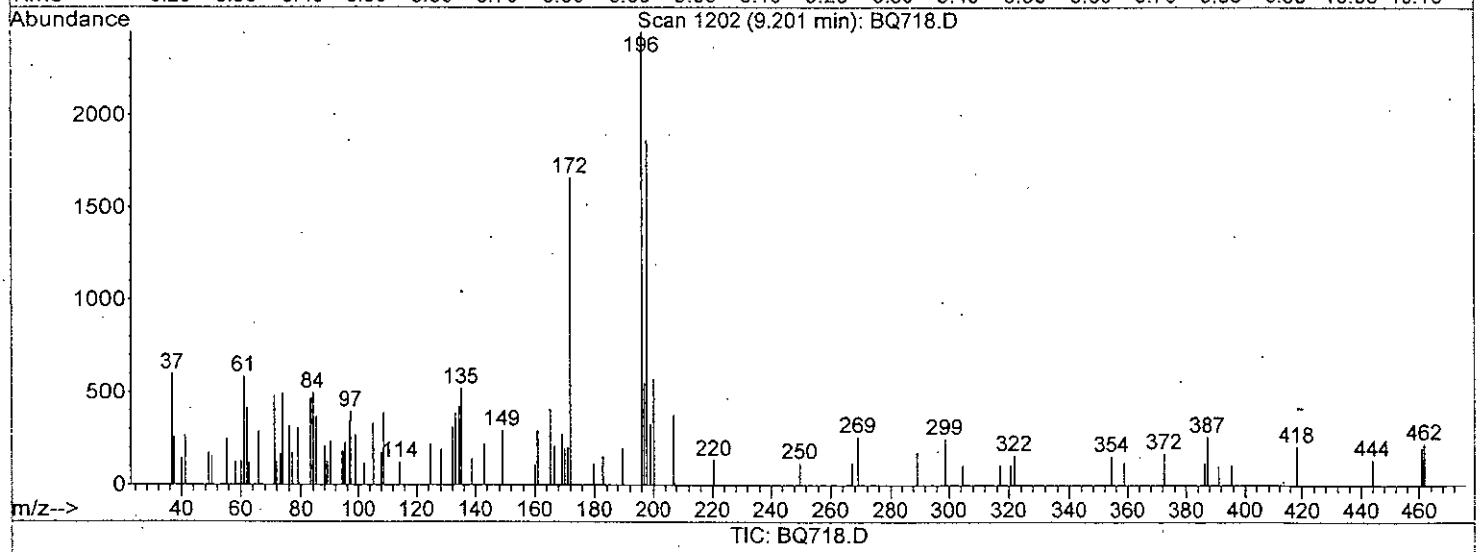
Ion	Exp%	Act%
196.00	100	100
198.00	98.80	92.15
200.00	35.90	29.29
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ718.D Vial: 4
Acq On : 8 Sep 2015 4:08 pm Operator: JMisiurewicz
Sample : SSTD002 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:34 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ718.D

(22) 2,4,5-Trichlorophenol (TM)

9.20min 0.24ppm m

response 3901

Ion	Exp%	Act%
196.00	100	100
198.00	98.80	76.20#
200.00	35.90	23.39
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ719.D Vial: 5
Acq On : 8 Sep 2015 4:37 pm Operator: JMisiurewicz
Sample : SSTD005 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:36 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	17547	1.00	ppm	0.000
9) d8-Naphthalene	8.33	136	62372	1.00	ppm	0.000
20) d10-Acenaphthene	9.72	164	38558	1.00	ppm	0.000
34) d10-Phenanthrene	10.81	188	64789	1.00	ppm	0.000
43) d12-Chrysene	12.88	240	76136	1.00	ppm	0.019
50) d12-Perylene	14.13	264	80051	1.00	ppm	0.025
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.30	112	11714m	0.52	ppm	0.01
Spiked Amount 4.000	Range 10 - 104		Recovery = 13.00%			
4) SURR2,PHENOL-D6	6.71	99	12353	0.47	ppm	0.00
Spiked Amount 4.000	Range 11 - 63		Recovery = 11.75%			
10) SURR4,NITROBENZENE-D5	7.68	82	12146	0.50	ppm	0.00
Spiked Amount 2.000	Range 31 - 167		Recovery = 25.00%#			
23) SURR5,2-FLUOROBIPHENYL	9.21	172	28315	0.50	ppm	0.00
Spiked Amount 2.000	Range 27 - 133		Recovery = 25.00%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	5096	0.49	ppm	0.00
Spiked Amount 4.000	Range 10 - 212		Recovery = 12.25%			
45) SURR6,TERPHENYL-D14	12.01	244	34707	0.51	ppm	0.01
Spiked Amount 2.000	Range 38 - 166		Recovery = 25.50%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	3.04	88	6651	0.518	ppm #	40
5) Phenol	6.73	94	15153	0.491	ppm #	39
6) 2-Chlorophenol	6.85	128	10851	0.484	ppm	92
7) 2-Methylphenol	7.40	108	10453	0.507	ppm	78
8) 3+4-Methylphenol	7.56	108	12357	0.549	ppm	98
11) Nitrobenzene	7.69	77	12453	0.529	ppm	91
12) 2-Nitrophenol	8.00	139	5817	0.476	ppm	83
13) 2,4-Dimethylphenol	8.06	107	12265	0.523	ppm	88
14) 2,4-Dichlorophenol	8.23	162	9412	0.473	ppm #	77
15) 1,2,4-Trichlorobenzene	8.29	180	11962	0.520	ppm	93
16) Naphthalene	8.35	128	35231	0.550	ppm	96
17) 4-Chloro-3-methylphenol	8.83	107	9555	0.561	ppm	75
18) 2-Methylnaphthalene	8.92	142	21544	0.542	ppm	90
19) 1-Methylnaphthalene	9.00	142	22184	0.544	ppm	93
21) 2,4,6-Trichlorophenol	9.16	196	7151	0.477	ppm	83
22) 2,4,5-Trichlorophenol	9.19	196	8638	0.533	ppm #	74
24) 2-Chloronaphthalene	9.30	162	23573	0.507	ppm	94
25) Acenaphthylene	9.61	152	33524	0.496	ppm	95
26) Dimethyl phthalate	9.52	163	24562	0.497	ppm	98
27) Acenaphthene	9.74	153	22584	0.521	ppm	98
28) 2,4-Dinitrophenol	9.78	184	793m	0.134	ppm	
29) Dibenzofuran	9.87	168	32989	0.520	ppm	87
30) 4-Nitrophenol	9.85	65	3382m	0.479	ppm	
31) Fluorene	10.12	166	24089	0.488	ppm	89
32) Diethylphthalate	10.02	149	23095	0.471	ppm	86
35) 4,6-Dinitro-2-methylphenol	10.16	198	3514	0.394	ppm #	63
36) Hexachlorobenzene	10.53	284	10022	0.490	ppm	88
37) Pentachlorophenol	10.68	266	3254	0.343	ppm	86
38) Phenanthrene	10.83	178	36945	0.519	ppm	95

(#) = qualifier out of range (m) = manual integration

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ719.D Vial: 5
Acq On : 8 Sep 2015 4:37 pm Operator: JMisiurewicz
Sample : SSTD005 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:36 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

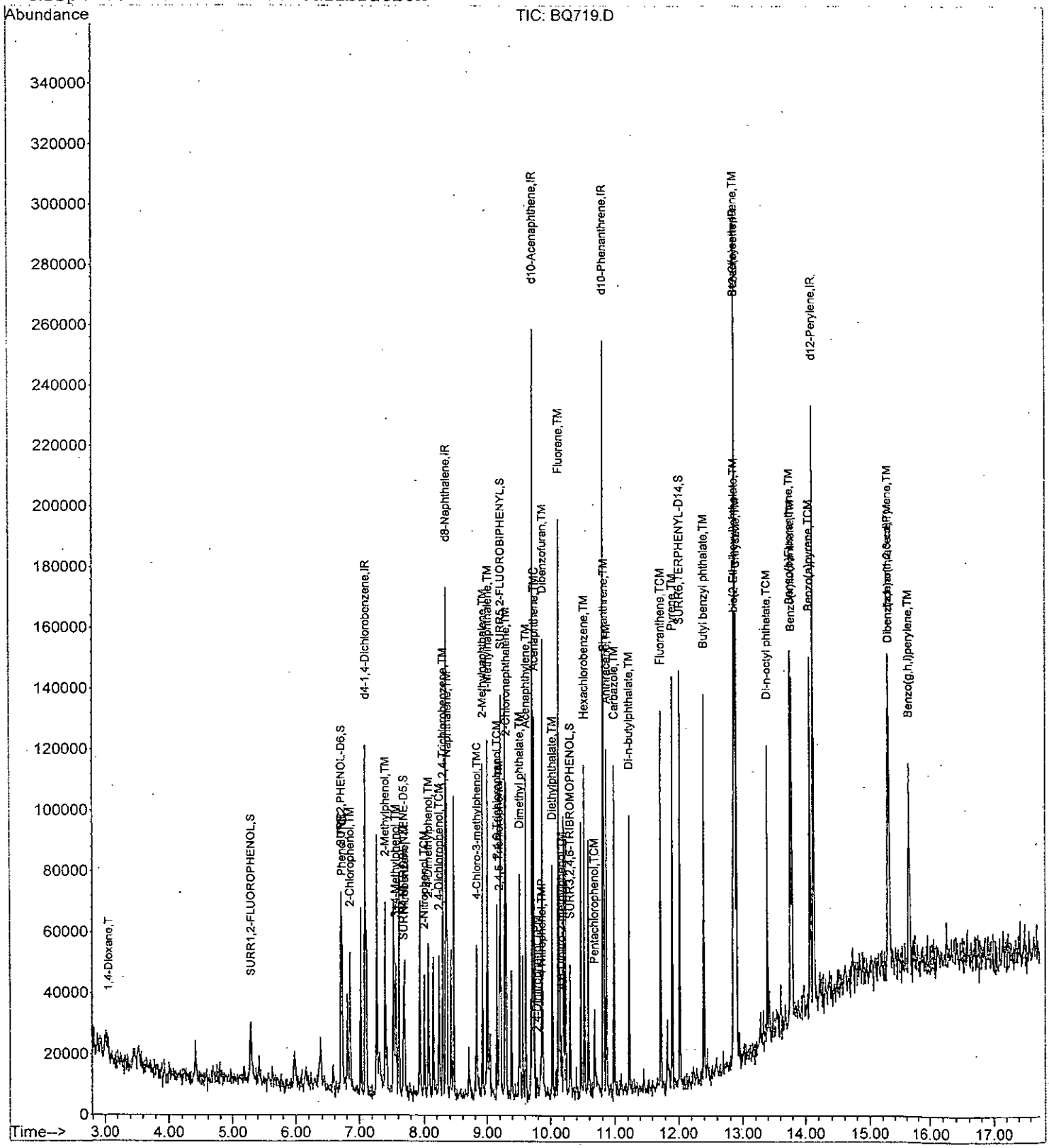
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Anthracene	10.87	178	36977	0.499	ppm	97
40)	Carbazole	10.99	167	35038	0.515	ppm	94
41)	Di-n-butylphthalate	11.22	149	38654	0.487	ppm	98
42)	Fluoranthene	11.73	202	41098	0.489	ppm	93
44)	Pyrene	11.90	202	43060	0.492	ppm	91
46)	Butyl benzyl phthalate	12.40	149	16436	0.466	ppm	96
47)	Benzo(a)anthracene	12.87	228	45688	0.503	ppm	95
48)	Chrysene	12.90	228	41097	0.506	ppm	96
49)	bis(2-Ethylhexyl)phthalate	12.86	149	25269	0.491	ppm	90
51)	Di-n-octyl phthalate	13.39	149	38580	0.442	ppm	84
52)	Benzo(b)Fluoranthene	13.77	252	43373	0.463	ppm	95
53)	Benzo(k)fluoranthene	13.80	252	44766	0.509	ppm	91
54)	Benzo(a)pyrene	14.08	252	40446	0.453	ppm	93
55)	Indeno(1,2,3-cd)Pyrene	15.31	276	42913	0.416	ppm	98
56)	Dibenz(a,h)anthracene	15.32	278	37864	0.445	ppm	81
57)	Benzo(g,h,i)perylene	15.65	276	35544	0.428	ppm	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

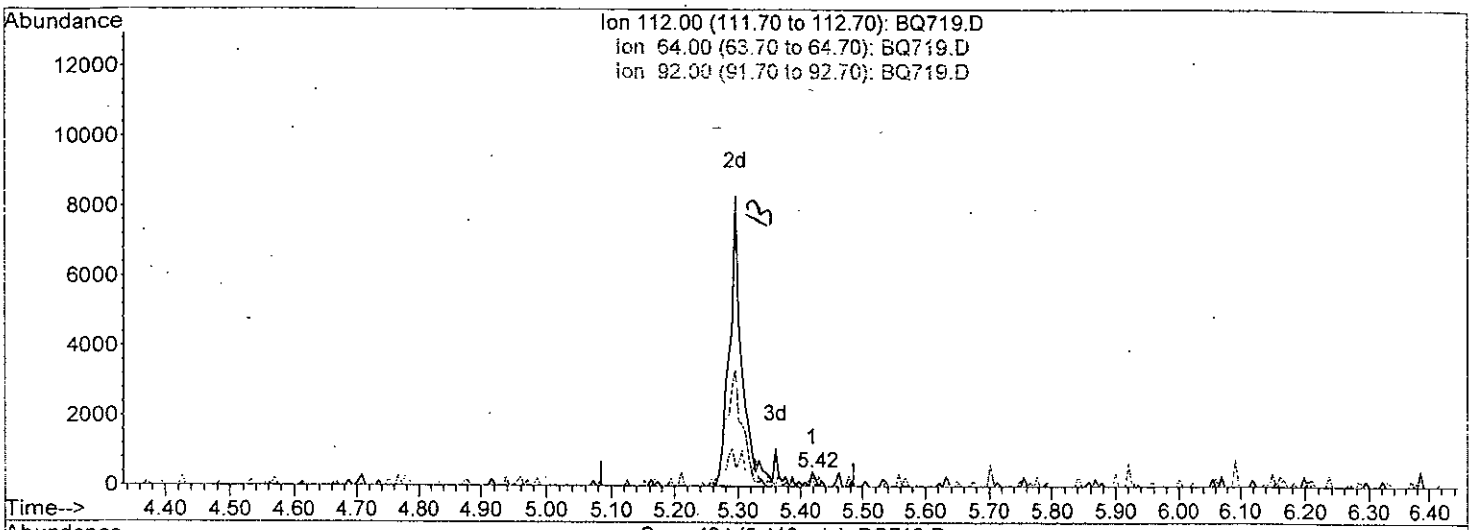
Data File : I:\ACQUDATA\5973C\DATA\090815\BQ719.D Vial: 5
Acq On : 8 Sep 2015 4:37 pm Operator: JMisiurewicz
Sample : SSTD005 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:36 2015 Quant Results File: PAH090815.RES

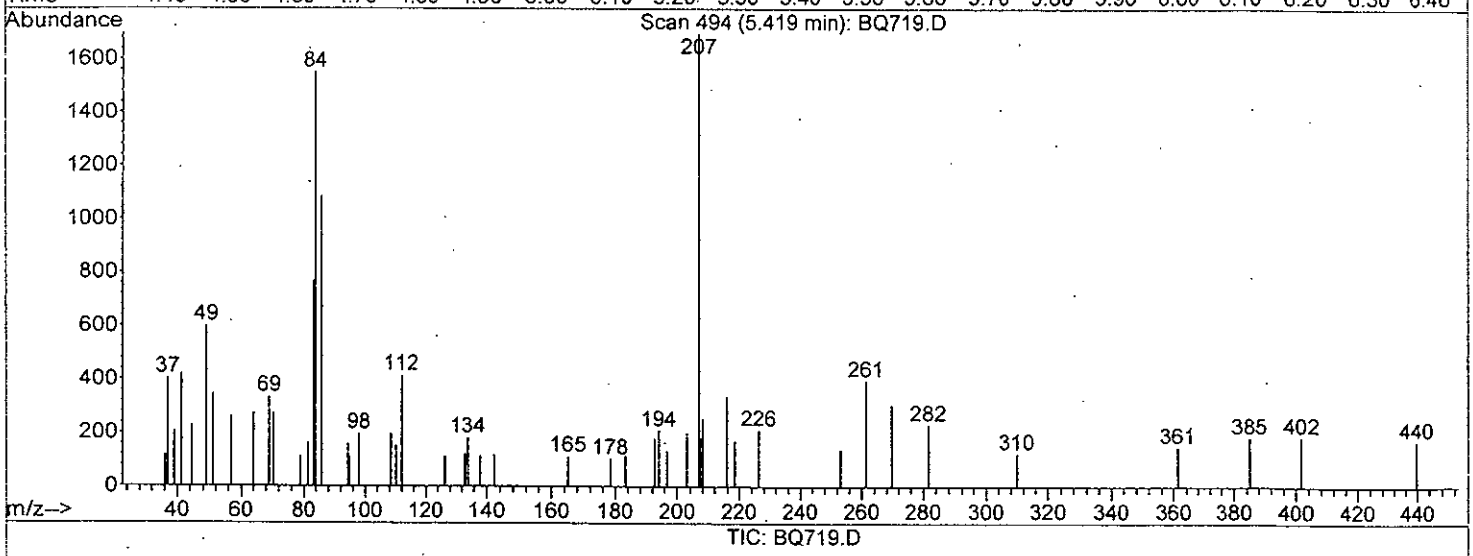
Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration



Data File : I:\ACQUDATA\5973C\DATA\090815\BQ719.D Vial: 5
Acq On : 8 Sep 2015 4:37 pm Operator: JMisiurewicz
Sample : SSTD005 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ719.D

(3) SURR1,2-FLUOROPHENOL (S)

5.42min 0.01ppm

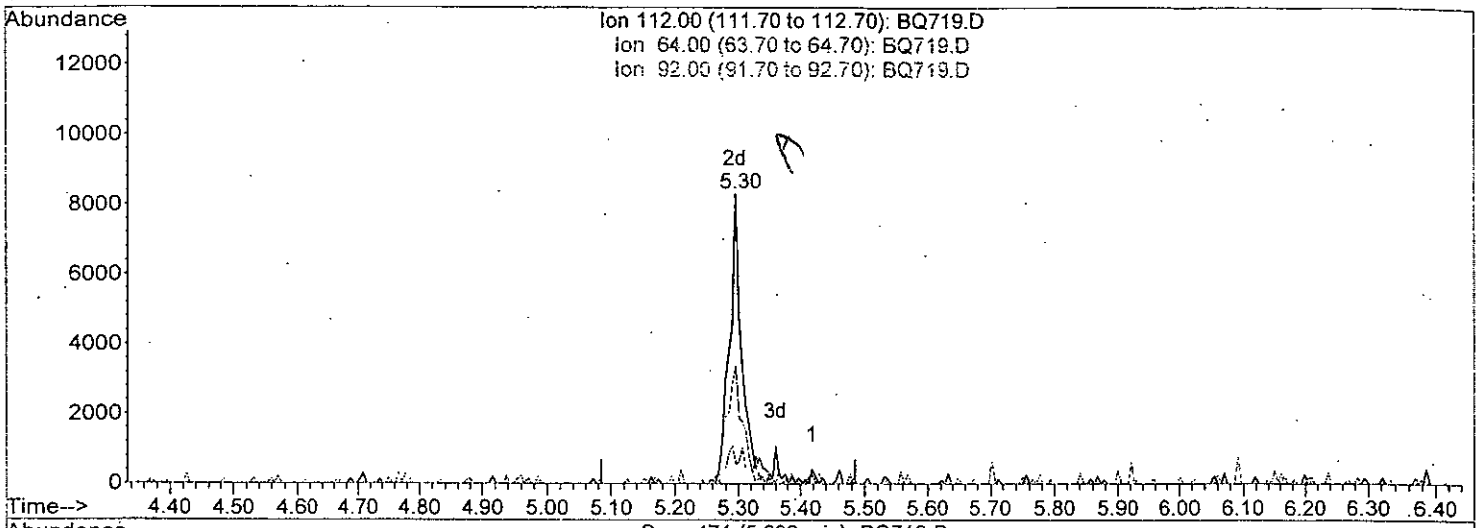
response 296

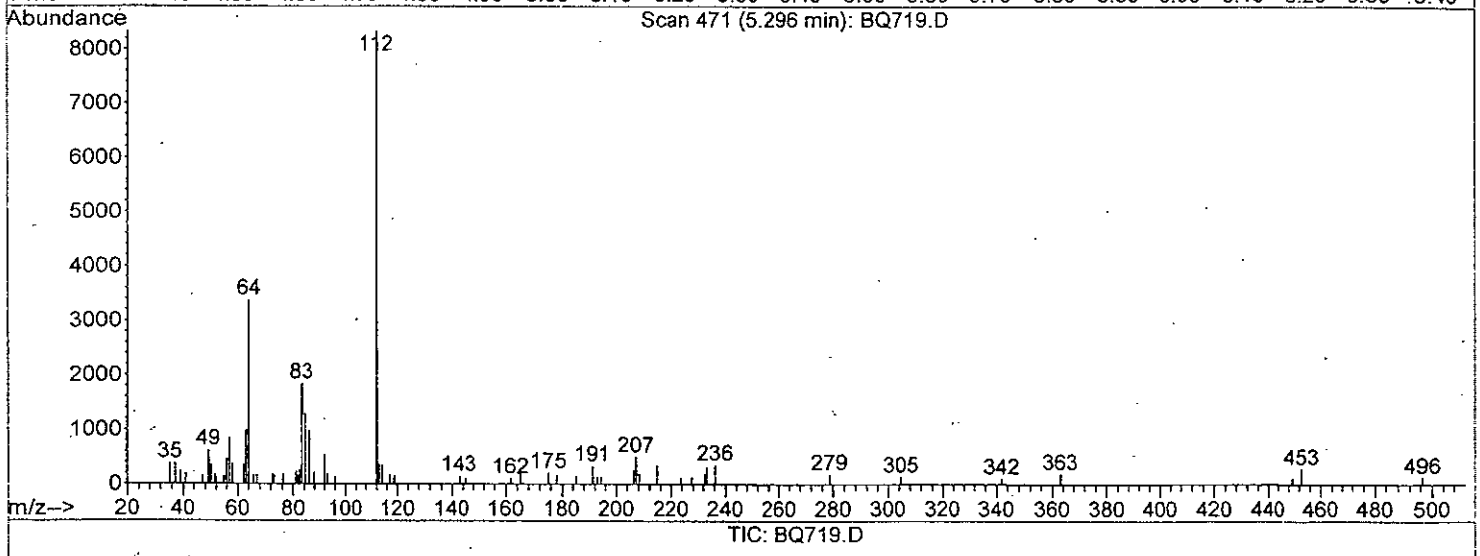
Ion	Exp%	Act%
112.00	100	100
64.00	69.00	65.70
92.00	23.40	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ719.D Vial: 5
Acq On : 8 Sep 2015 4:37 pm Operator: JMisiurewicz
Sample : SSTD005 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:35 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ719.D

(3) SURR1,2-FLUOROPHENOL (S)

5.30min 0.52ppm m

response 11714

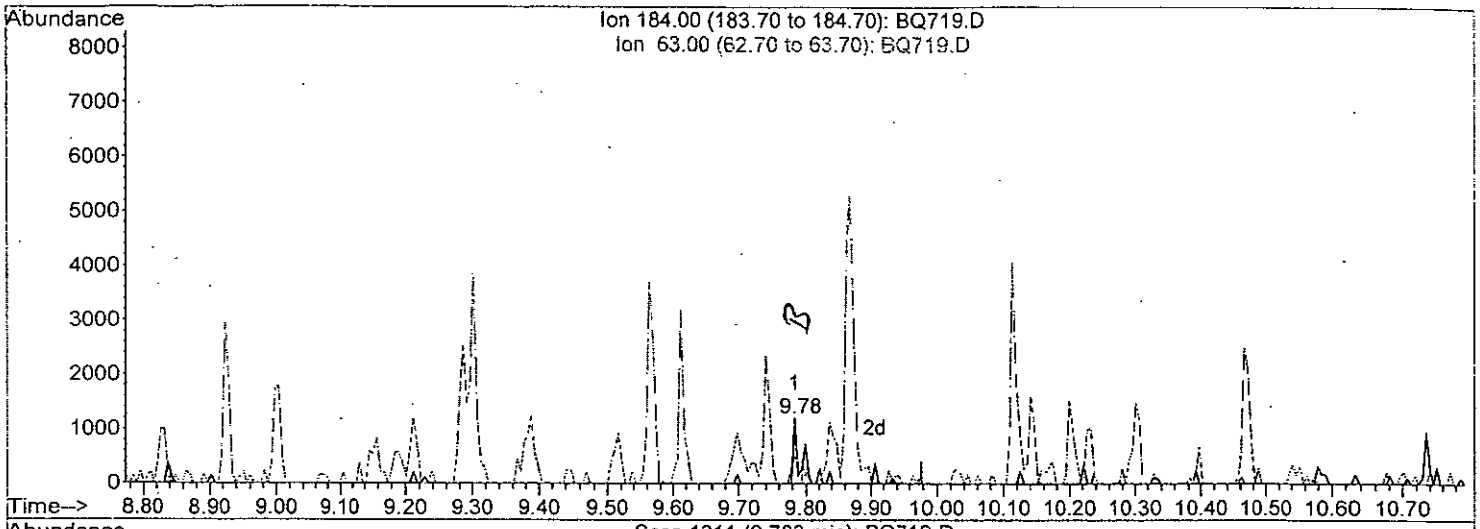
Ion	Exp%	Act%
112.00	100	100
64.00	69.00	40.50
92.00	23.40	6.47
0.00	0.00	0.00

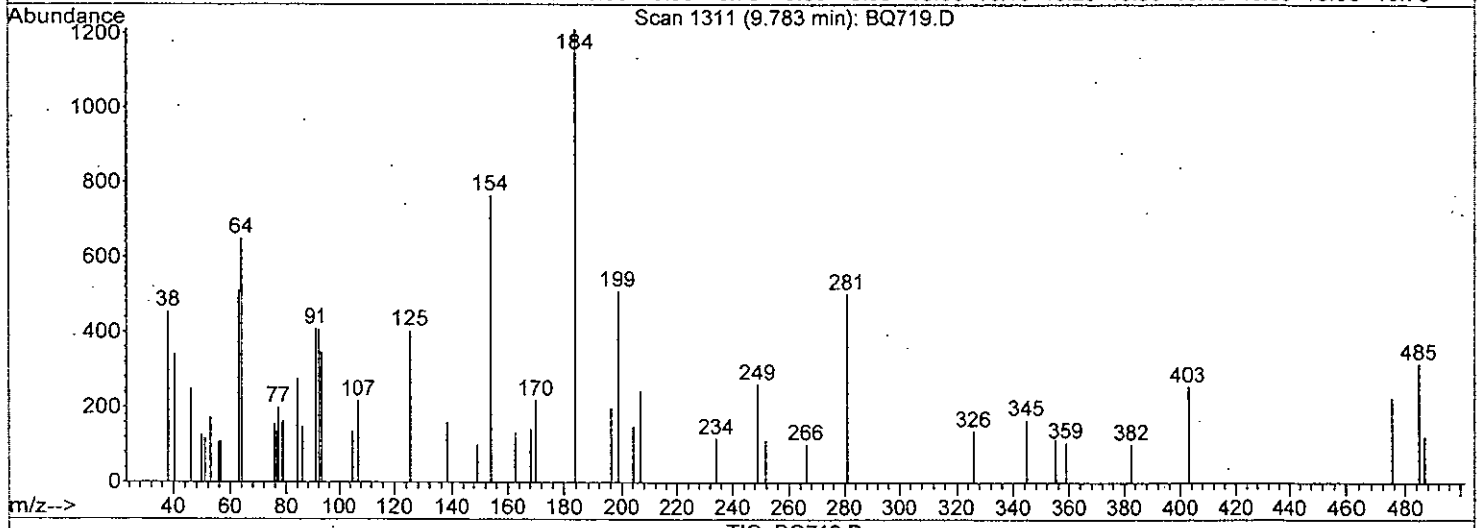
9/9/15

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ719.D Vial: 5
Acq On : 8 Sep 2015 4:37 pm Operator: JMisiurewicz
Sample : SSTD005 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:35 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ719.D

(28) 2,4-Dinitrophenol (TPM)

9.78min 0.09ppm

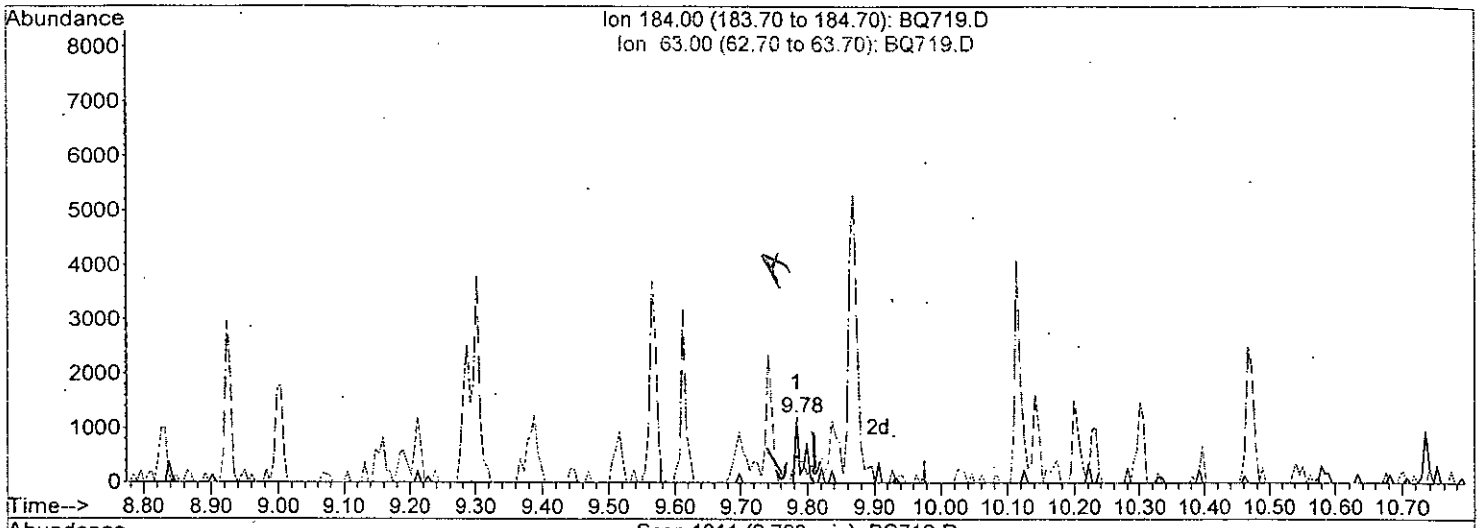
response 522

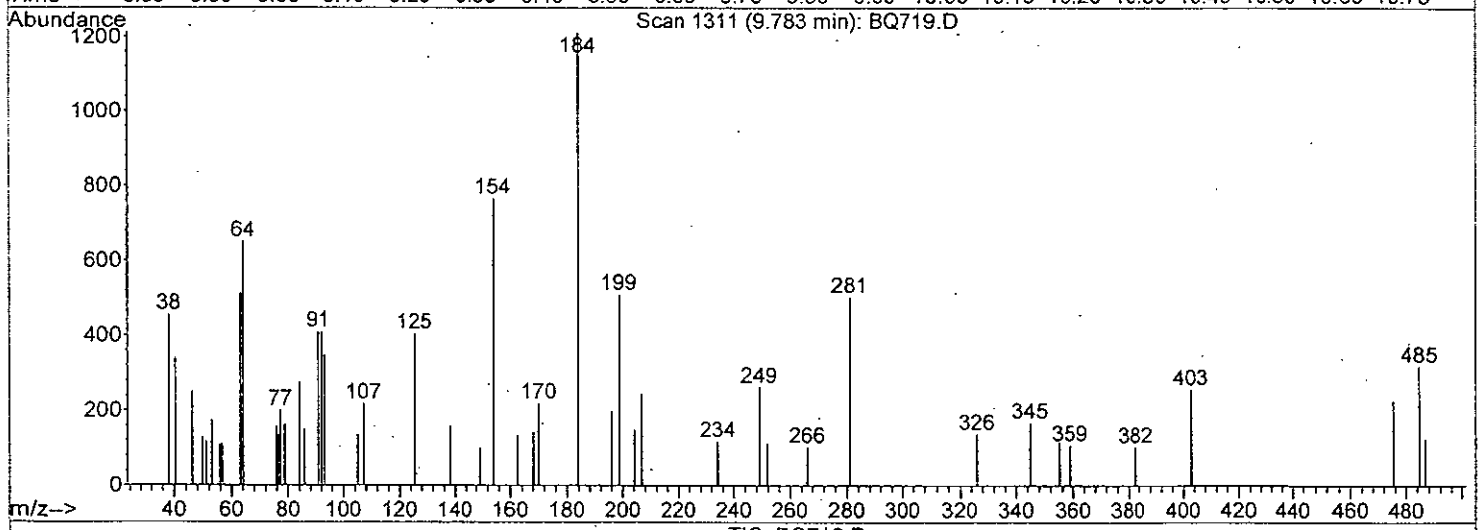
Ion	Exp%	Act%
184.00	100	100
63.00	89.20	42.15#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ719.D Vial: 5
Acq On : 8 Sep 2015 4:37 pm Operator: JMisiurewicz
Sample : SSTD005 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:36 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ719.D

(28) 2,4-Dinitrophenol (TPM)

9.78min 0.13ppm m

response 793

Ion	Exp%	Act%
184.00	100	100
63.00	89.20	42.15#
0.00	0.00	0.00
0.00	0.00	0.00

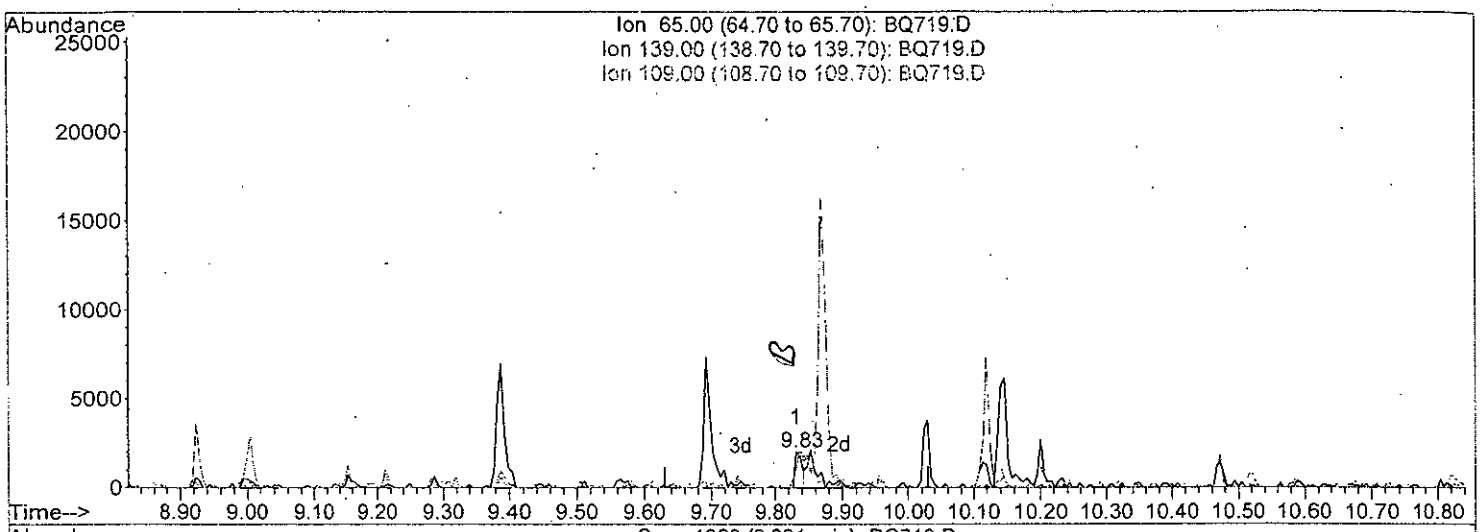
BLC DM 9/9/14

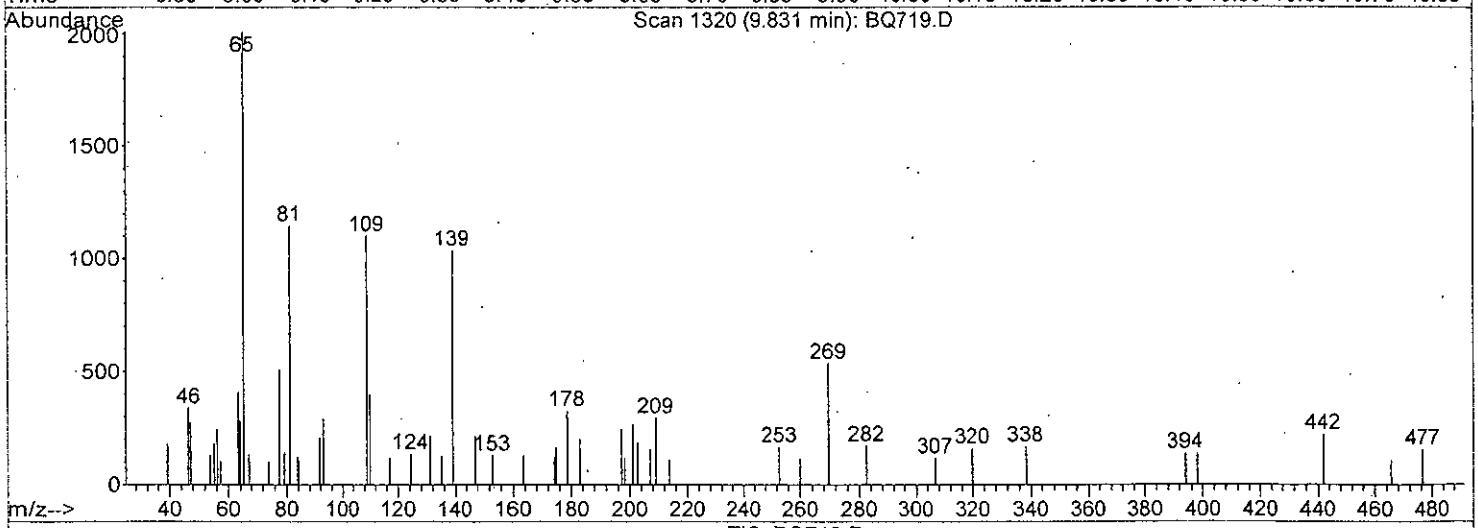
FW 9/9

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ719.D Vial: 5
Acq On : 8 Sep 2015 4:37 pm Operator: JMisiurewicz
Sample : SSTD005 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:36 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ719.D

(30) 4-Nitrophenol (TMP)

9.83min 0.22ppm

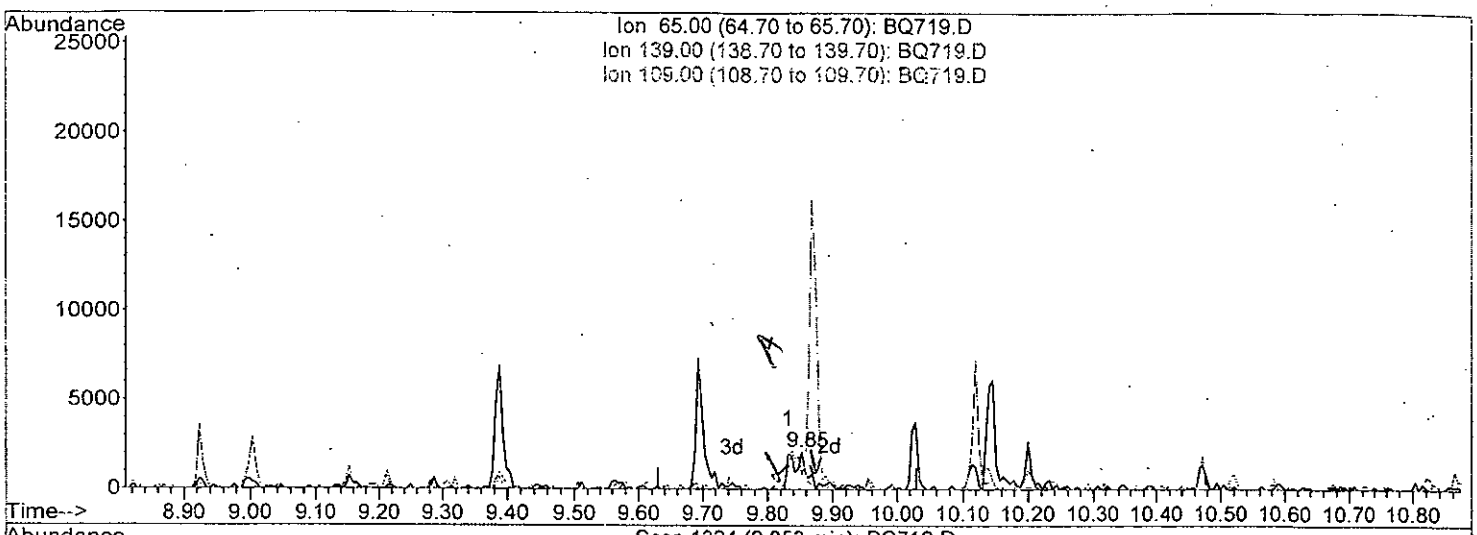
response 1534

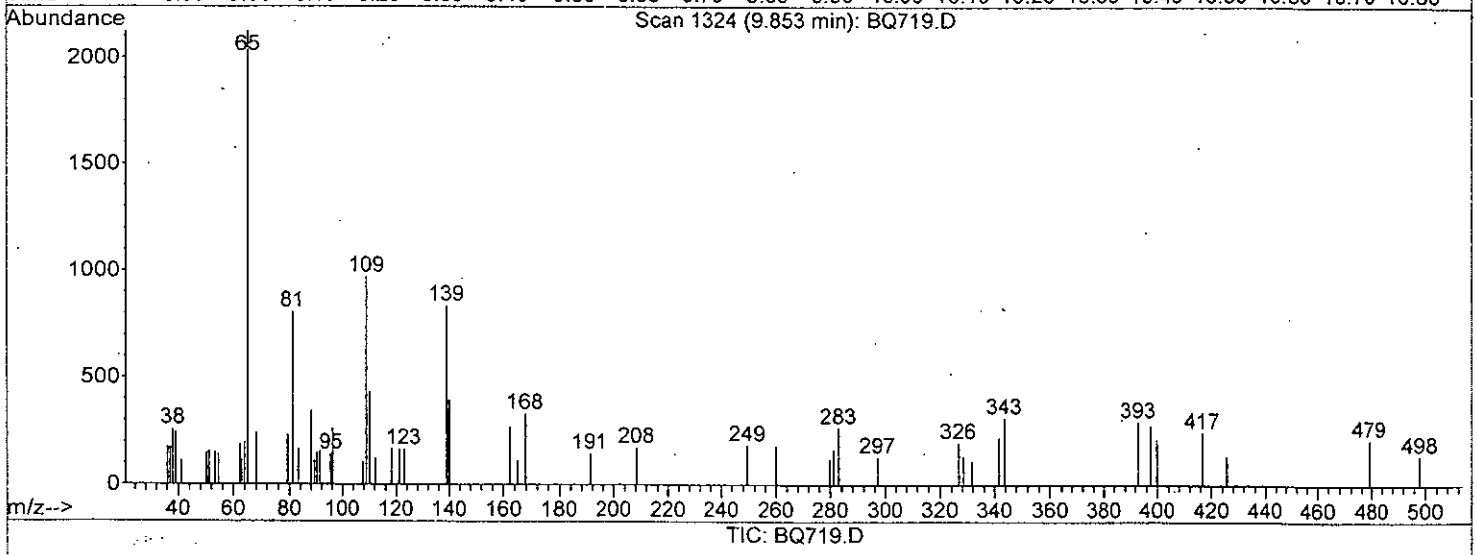
Ion	Exp%	Act%
65.00	100	100
139.00	84.90	10.88#
109.00	72.80	22.73#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ719.D Vial: 5
Acq On : 8 Sep 2015 4:37 pm Operator: JMisiurewicz
Sample : SSTD005 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:36 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ719.D

(30) 4-Nitrophenol (TMP)

9.85min 0.48ppm m

response 3382

Ion	Exp%	Act%
65.00	100	100
139.00	84.90	39.32#
109.00	72.80	45.69
0.00	0.00	0.00

DLC OM 9/9/15

MW 9/9

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ720.D Vial: 6
Acq On : 8 Sep 2015 5:06 pm Operator: JMisiurewicz
Sample : SSTD010 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	18316	1.00 ppm	0.000
9) d8-Naphthalene	8.33	136	64490	1.00 ppm	0.000
20) d10-Acenaphthene	9.72	164	42068	1.00 ppm	0.000
34) d10-Phenanthrene	10.81	188	71540	1.00 ppm	0.000
43) d12-Chrysene	12.89	240	82818	1.00 ppm	0.024
50) d12-Perylene	14.14	264	77916	1.00 ppm	0.036
System Monitoring Compounds					
3) SURR1,2-FLUOROPHENOL	5.29	112	23231	0.98 ppm	0.00
Spiked Amount 4.000	Range 10 - 104		Recovery = 24.50%		
4) SURR2,PHENOL-D6	6.71	99	28760	1.04 ppm	0.00
Spiked Amount 4.000	Range 11 - 63		Recovery = 26.00%		
10) SURR4,NITROBENZENE-D5	7.67	82	24091	0.96 ppm	0.00
Spiked Amount 2.000	Range 31 - 167		Recovery = 48.00%		
23) SURR5,2-FLUOROBIPHENYL	9.21	172	57712	0.94 ppm	0.00
Spiked Amount 2.000	Range 27 - 133		Recovery = 47.00%		
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	10094	0.90 ppm	0.00
Spiked Amount 4.000	Range 10 - 212		Recovery = 22.50%		
45) SURR6,TERPHENYL-D14	12.02	244	73039	0.98 ppm	0.02
Spiked Amount 2.000	Range 38 - 166		Recovery = 49.00%		
Target Compounds					Qvalue
2) 1,4-Dioxane	3.04	88	15146	1.129 ppm #	33
5) Phenol	6.72	94	33205	1.031 ppm #	45
6) 2-Chlorophenol	6.85	128	24346	1.040 ppm	82
7) 2-Methylphenol	7.40	108	23519	1.094 ppm	85
8) 3+4-Methylphenol	7.56	108	24357	1.037 ppm	91
11) Nitrobenzene	7.69	77	25805	1.061 ppm	98
12) 2-Nitrophenol	8.00	139	13938	1.104 ppm #	78
13) 2,4-Dimethylphenol	8.06	107	25769	1.064 ppm	90
14) 2,4-Dichlorophenol	8.23	162	19778	0.962 ppm	88
15) 1,2,4-Trichlorobenzene	8.29	180	24898	1.047 ppm	88
16) Naphthalene	8.35	128	67113	1.014 ppm	95
17) 4-Chloro-3-methylphenol	8.83	107	19830	1.125 ppm	87
18) 2-Methylnaphthalene	8.92	142	42515	1.035 ppm	94
19) 1-Methylnaphthalene	9.00	142	43819	1.040 ppm	92
21) 2,4,6-Trichlorophenol	9.15	196	15216	0.931 ppm	82
22) 2,4,5-Trichlorophenol	9.19	196	15658	0.886 ppm	92
24) 2-Chloronaphthalene	9.30	162	50805	1.002 ppm	96
25) Acenaphthylene	9.61	152	72450	0.983 ppm	98
26) Dimethyl phthalate	9.52	163	43170	0.801 ppm	97
27) Acenaphthene	9.74	153	45156	0.955 ppm	93
28) 2,4-Dinitrophenol	9.78	184	3031	0.469 ppm #	50
29) Dibenzofuran	9.87	168	67362	0.974 ppm	93
30) 4-Nitrophenol	9.83	65	5613	0.729 ppm	75
31) Fluorene	10.12	166	47576	0.884 ppm	95
32) Diethylphthalate	10.03	149	48428	0.905 ppm	96
35) 4,6-Dinitro-2-methylphenol	10.17	198	6931	0.703 ppm #	53
36) Hexachlorobenzene	10.53	284	20955	0.927 ppm	96
37) Pentachlorophenol	10.68	266	8244	0.787 ppm	90
38) Phenanthrene	10.83	178	76362	0.972 ppm	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ720.D Vial: 6
Acq On : 8 Sep 2015 5:06 pm Operator: JMisiurewicz
Sample : SSTD010 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

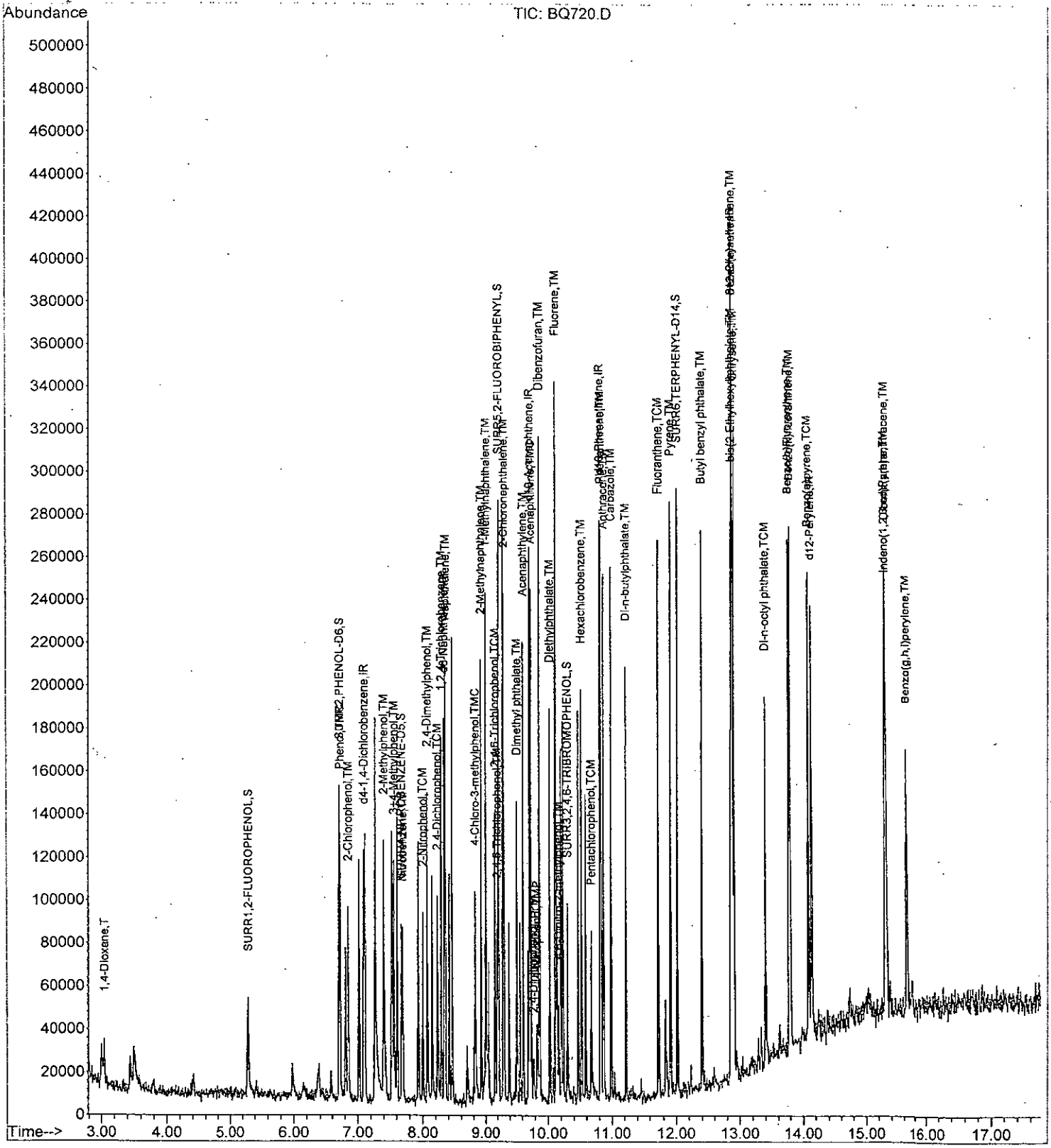
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Anthracene	10.87	178	85216	1.041	ppm	96
40)	Carbazole	10.99	167	75019	0.999	ppm	97
41)	Di-n-butylphthalate	11.22	149	81499	0.930	ppm	98
42)	Fluoranthene	11.73	202	89488	0.964	ppm	99
44)	Pyrene	11.90	202	94508	0.992	ppm	97
46)	Butyl benzyl phthalate	12.40	149	36197	0.944	ppm	89
47)	Benzo(a)anthracene	12.88	228	94533	0.957	ppm	98
48)	Chrysene	12.91	228	87229	0.987	ppm	95
49)	bis(2-Ethylhexyl)phthalate	12.87	149	52377	0.935	ppm	94
51)	Di-n-octyl phthalate	13.41	149	85938	1.011	ppm	78
52)	Benzo(b)Fluoranthene	13.78	252	97023	1.064	ppm	93
53)	Benzo(k)fluoranthene	13.81	252	81400	0.951	ppm	97
54)	Benzo(a)pyrene	14.09	252	86239	0.993	ppm	96
55)	Indeno(1,2,3-cd)Pyrene	15.31	276	95154	0.947	ppm	71
56)	Dibenz(a,h)anthracene	15.33	278	78191	0.944	ppm	93
57)	Benzo(g,h,i)perylene	15.66	276	73796	0.913	ppm	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ720.D Vial: 6
Acq On : 8 Sep 2015 5:06 pm Operator: JMisiurewicz
Sample : SSTD010 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ721.D Vial: 7
Acq On : 8 Sep 2015 5:35 pm Operator: JMisiurewicz
Sample : SSTD030 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	18823	1.00 ppm	0.000
9) d8-Naphthalene	8.33	136	66067	1.00 ppm	0.000
20) d10-Acenaphthene	9.72	164	37966	1.00 ppm	0.000
34) d10-Phenanthrene	10.80	188	67312	1.00 ppm	0.000
43) d12-Chrysene	12.86	240	82487	1.00 ppm	0.000
50) d12-Perylene	14.09	264	71116	1.00 ppm	-0.012
System Monitoring Compounds					
3) SURR1,2-FLUOROPHENOL	5.29	112	72269	2.97 ppm	0.00
Spiked Amount 4.000	Range 10 - 104		Recovery =	74.25%	
4) SURR2,PHENOL-D6	6.71	99	83382	2.94 ppm	0.00
Spiked Amount 4.000	Range 11 - 63		Recovery =	73.50%#	
10) SURR4,NITROBENZENE-D5	7.67	82	76281	2.96 ppm	0.00
Spiked Amount 2.000	Range 31 - 167		Recovery =	148.00%	
23) SURR5,2-FLUOROBIPHENYL	9.21	172	169949	3.06 ppm	0.00
Spiked Amount 2.000	Range 27 - 133		Recovery =	153.00%#	
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	28541	2.81 ppm	0.00
Spiked Amount 4.000	Range 10 - 212		Recovery =	70.25%	
45) SURR6,TERPHENYL-D14	12.00	244	213185	2.89 ppm	0.00
Spiked Amount 2.000	Range 38 - 166		Recovery =	144.50%	
Target Compounds					Qvalue
2) 1,4-Dioxane	3.03	88	39595	2.873 ppm #	44
5) Phenol	6.72	94	97274	2.939 ppm #	65
6) 2-Chlorophenol	6.85	128	69273	2.879 ppm	89
7) 2-Methylphenol	7.40	108	63420	2.870 ppm	95
8) 3+4-Methylphenol	7.56	108	66598	2.760 ppm	89
11) Nitrobenzene	7.69	77	74768	3.000 ppm	91
12) 2-Nitrophenol	8.00	139	37174	2.874 ppm	82
13) 2,4-Dimethylphenol	8.06	107	74402	2.998 ppm	93
14) 2,4-Dichlorophenol	8.22	162	67497	3.203 ppm	92
15) 1,2,4-Trichlorobenzene	8.29	180	72056	2.959 ppm	86
16) Naphthalene	8.35	128	194749	2.872 ppm	99
17) 4-Chloro-3-methylphenol	8.83	107	52817	2.925 ppm	89
18) 2-Methylnaphthalene	8.92	142	130284	3.095 ppm	97
19) 1-Methylnaphthalene	9.00	142	127033	2.942 ppm	93
21) 2,4,6-Trichlorophenol	9.15	196	48248	3.270 ppm	92
22) 2,4,5-Trichlorophenol	9.19	196	43124	2.705 ppm	90
24) 2-Chloronaphthalene	9.30	162	145034	3.170 ppm	96
25) Acenaphthylene	9.61	152	209720	3.152 ppm	98
26) Dimethyl phthalate	9.52	163	134744	2.771 ppm	99
27) Acenaphthene	9.74	153	132151	3.097 ppm	97
28) 2,4-Dinitrophenol	9.78	184	15845	2.719 ppm #	51
29) Dibenzofuran	9.87	168	184250	2.951 ppm	97
30) 4-Nitrophenol	9.83	65	19262	2.771 ppm #	56
31) Fluorene	10.12	166	142856	2.940 ppm	99
32) Diethylphthalate	10.03	149	147637	3.058 ppm	90
35) 4,6-Dinitro-2-methylphenol	10.16	198	27478	2.963 ppm #	69
36) Hexachlorobenzene	10.52	284	64108	3.014 ppm	95
37) Pentachlorophenol	10.67	266	27971	2.839 ppm	97
38) Phenanthrene	10.83	178	217162	2.938 ppm	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ721.D Vial: 7
Acq On : 8 Sep 2015 5:35 pm Operator: JMisiurewicz
Sample : SSTD030 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

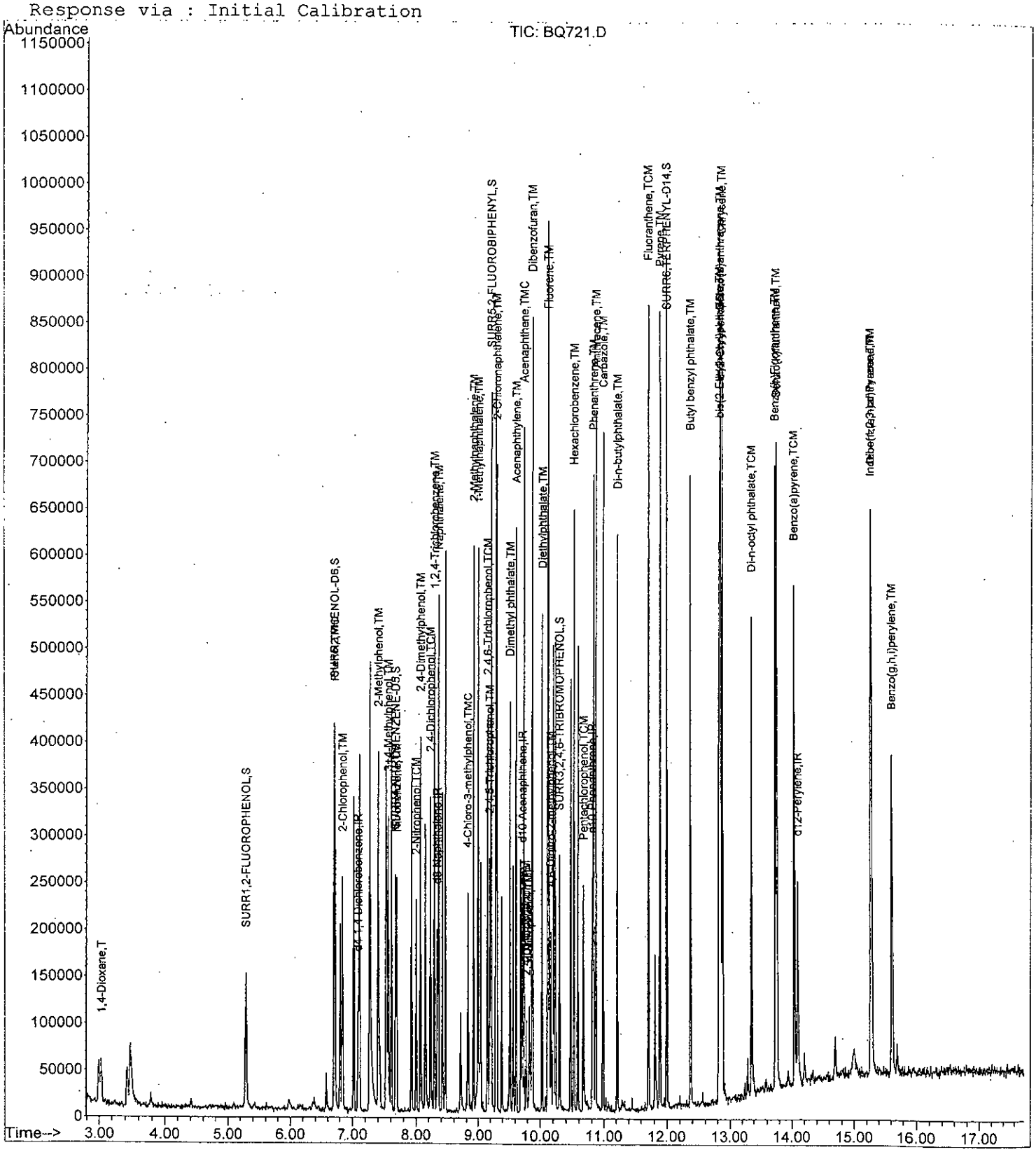
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Anthracene	10.86	178	240439	3.120	ppm	98
40)	Carbazole	10.98	167	215276	3.048	ppm	99
41)	Di-n-butylphthalate	11.22	149	250603	3.039	ppm	99
42)	Fluoranthene	11.71	202	267373	3.061	ppm	97
44)	Pyrene	11.89	202	271657	2.862	ppm	99
46)	Butyl benzyl phthalate	12.37	149	107535	2.815	ppm	85
47)	Benzo(a)anthracene	12.84	228	277475	2.821	ppm	96
48)	Chrysene	12.88	228	246681	2.803	ppm	98
49)	bis(2-Ethylhexyl)phthalate	12.83	149	146632	2.627	ppm	93
51)	Di-n-octyl phthalate	13.36	149	253166	3.264	ppm	78
52)	Benzo(b)Fluoranthene	13.74	252	260517	3.130	ppm	93
53)	Benzo(k)fluoranthene	13.76	252	249454	3.194	ppm	99
54)	Benzo(a)pyrene	14.05	252	238479	3.009	ppm	95
55)	Indeno(1,2,3-cd)Pyrene	15.27	276	280793	3.063	ppm	77
56)	Dibenz(a,h)anthracene	15.28	278	221687	2.933	ppm	97
57)	Benzo(g,h,i)perylene	15.62	276	221139	2.999	ppm	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ721.D Vial: 7
Acq On : 8 Sep 2015 5:35 pm Operator: JMisiurewicz
Sample : SSTD030 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:40 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	19393	1.00	ppm	0.000
9) d8-Naphthalene	8.33	136	69794	1.00	ppm	0.000
20) d10-Acenaphthene	9.72	164	38406	1.00	ppm	0.000
34) d10-Phenanthrene	10.81	188	70358	1.00	ppm	0.000
43) d12-Chrysene	12.87	240	77365	1.00	ppm	0.000
50) d12-Perylene	14.11	264	79003	1.00	ppm	0.000
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.29	112	118140	4.71	ppm	0.00
Spiked Amount 4.000	Range 10 - 104		Recovery = 117.75%#			
4) SURR2,PHENOL-D6	6.71	99	142881	4.89	ppm	0.00
Spiked Amount 4.000	Range 11 - 63		Recovery = 122.25%#			
10) SURR4,NITROBENZENE-D5	7.67	82	128092	4.71	ppm	0.00
Spiked Amount 2.000	Range 31 - 167		Recovery = 235.50%#			
23) SURR5,2-FLUOROBIPHENYL	9.21	172	281893	5.02	ppm	0.00
Spiked Amount 2.000	Range 27 - 133		Recovery = 251.00%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	52938	5.15	ppm	0.00
Spiked Amount 4.000	Range 10 - 212		Recovery = 128.75%			
45) SURR6,TERPHENYL-D14	12.00	244	354694	5.12	ppm	0.00
Spiked Amount 2.000	Range 38 - 166		Recovery = 256.00%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	3.03	88	62578	4.407	ppm #	52
5) Phenol	6.72	94	160467	4.706	ppm #	54
6) 2-Chlorophenol	6.85	128	121360	4.896	ppm	89
7) 2-Methylphenol	7.40	108	105343	4.628	ppm	98
8) 3+4-Methylphenol	7.56	108	113298	4.557	ppm	100
11) Nitrobenzene	7.69	77	125354	4.761	ppm	92
12) 2-Nitrophenol	8.00	139	66211	4.845	ppm	94
13) 2,4-Dimethylphenol	8.06	107	122664	4.679	ppm	97
14) 2,4-Dichlorophenol	8.22	162	109038	4.899	ppm	95
15) 1,2,4-Trichlorobenzene	8.29	180	121864	4.736	ppm	96
16) Naphthalene	8.35	128	339002	4.732	ppm	97
17) 4-Chloro-3-methylphenol	8.83	107	84055	4.407	ppm	97
18) 2-Methylnaphthalene	8.92	142	217268	4.886	ppm	99
19) 1-Methylnaphthalene	9.00	142	218634	4.793	ppm	95
21) 2,4,6-Trichlorophenol	9.15	196	71458	4.787	ppm	99
22) 2,4,5-Trichlorophenol	9.19	196	79257	4.914	ppm	91
24) 2-Chloronaphthalene	9.30	162	228920	4.946	ppm	96
25) Acenaphthylene	9.61	152	337105	5.009	ppm	99
26) Dimethyl phthalate	9.52	163	266394	5.415	ppm	99
27) Acenaphthene	9.74	153	214346	4.966	ppm	99
28) 2,4-Dinitrophenol	9.78	184	28276m	4.797	ppm	
29) Dibenzofuran	9.87	168	299149	4.737	ppm	94
30) 4-Nitrophenol	9.83	65	37120m	5.278	ppm	
31) Fluorene	10.12	166	244637	4.976	ppm	99
32) Diethylphthalate	10.03	149	260017	5.324	ppm	97
35) 4,6-Dinitro-2-methylphenol	10.17	198	51161m	5.277	ppm	
36) Hexachlorobenzene	10.53	284	111669	5.024	ppm	94
37) Pentachlorophenol	10.67	266	57191	5.554	ppm	97
38) Phenanthrene	10.83	178	370803	4.800	ppm	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:40 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

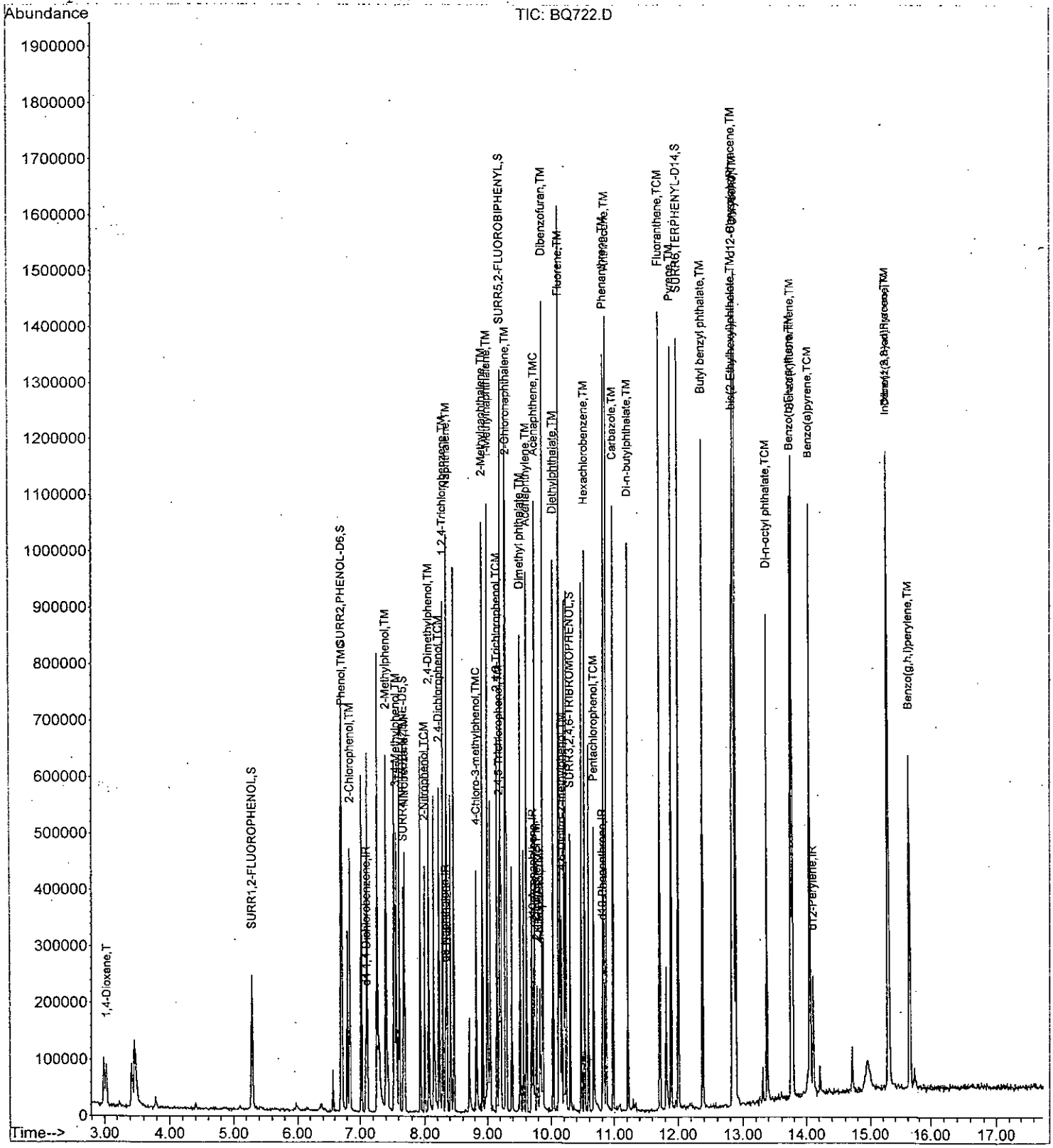
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Anthracene	10.86	178	405083	5.030	ppm	99
40)	Carbazole	10.98	167	364957m	4.944	ppm	
41)	Di-n-butylphthalate	11.22	149	452945	5.255	ppm	99
42)	Fluoranthene	11.72	202	462344	5.063	ppm	99
44)	Pyrene	11.90	202	480599	5.399	ppm	99
46)	Butyl benzyl phthalate	12.38	149	197322	5.507	ppm	95
47)	Benzo(a)anthracene	12.86	228	479429	5.197	ppm	99
48)	Chrysene	12.89	228	428876	5.195	ppm	99
49)	bis(2-Ethylhexyl)phthalate	12.84	149	263738	5.038	ppm	93
51)	Di-n-octyl phthalate	13.38	149	438309	5.086	ppm	77
52)	Benzo(b)Fluoranthene	13.76	252	443095	4.792	ppm	93
53)	Benzo(k)fluoranthene	13.78	252	426369	4.913	ppm	99
54)	Benzo(a)pyrene	14.06	252	418640	4.755	ppm	97
55)	Indeno(1,2,3-cd)Pyrene	15.29	276	495919	4.870	ppm	83
56)	Dibenz(a,h)anthracene	15.30	278	390249	4.648	ppm	98
57)	Benzo(g,h,i)perylene	15.64	276	376615	4.597	ppm	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:40 2015 Quant Results File: PAH090815.RES

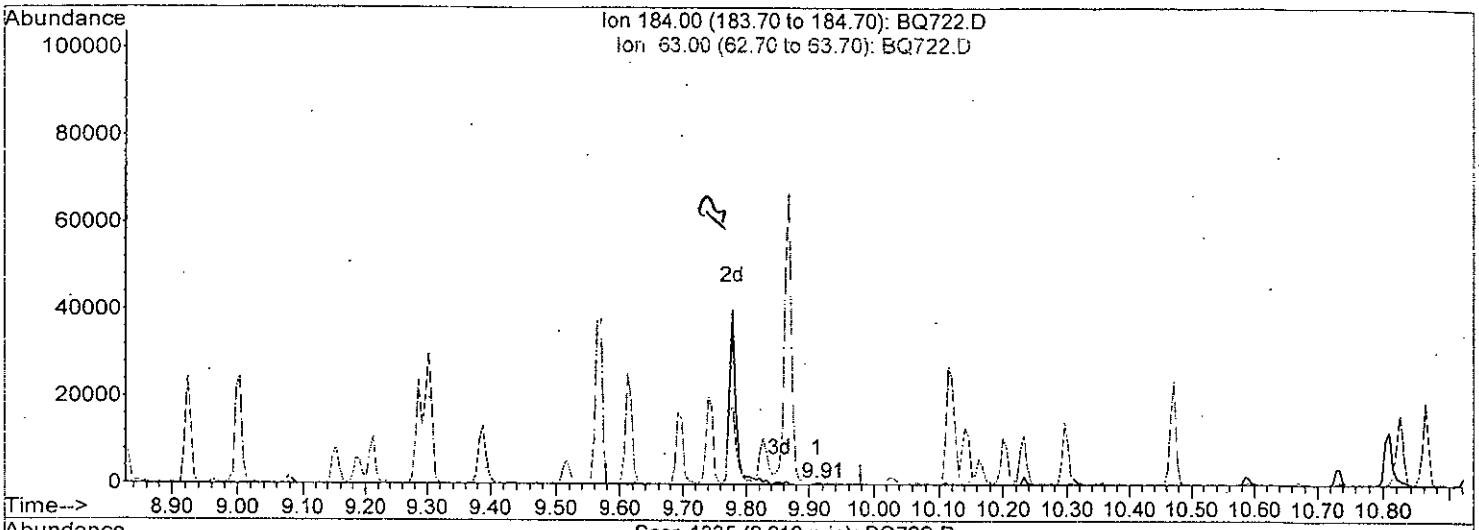
Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration

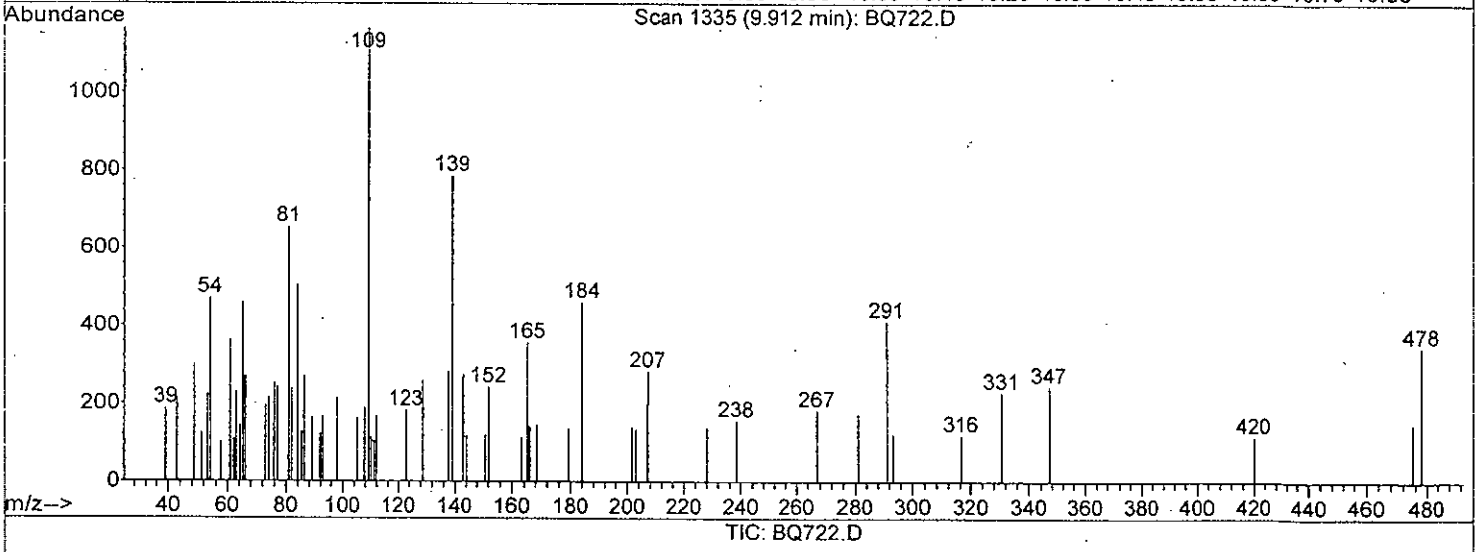


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ722.D

(28) 2,4-Dinitrophenol (TPM)

9.91min 0.05ppm

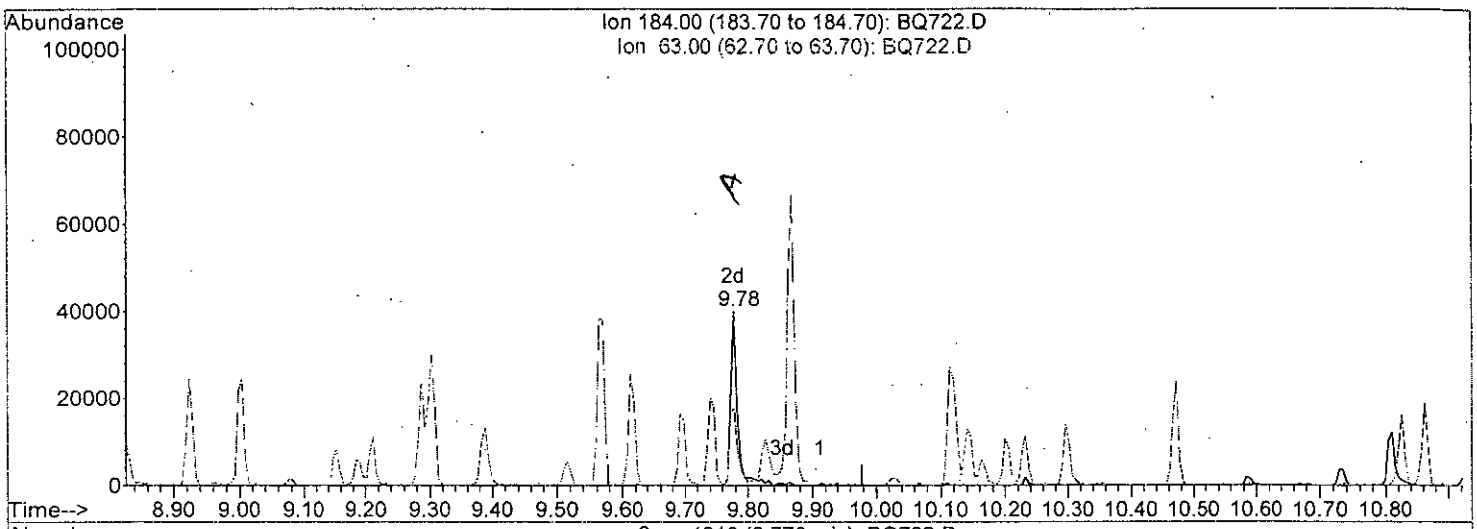
response 266

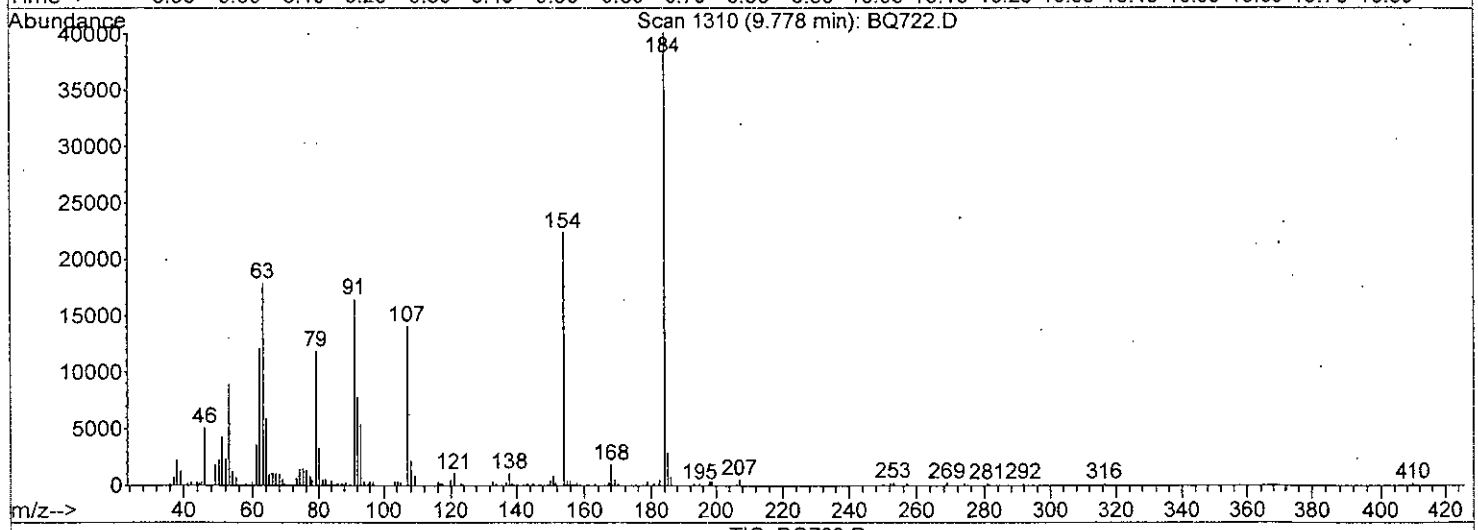
Ion	Exp%	Act%
184.00	100	100
63.00	89.20	50.11
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:39 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ722.D

(28) 2,4-Dinitrophenol (TPM)

9.78min 4.80ppm m

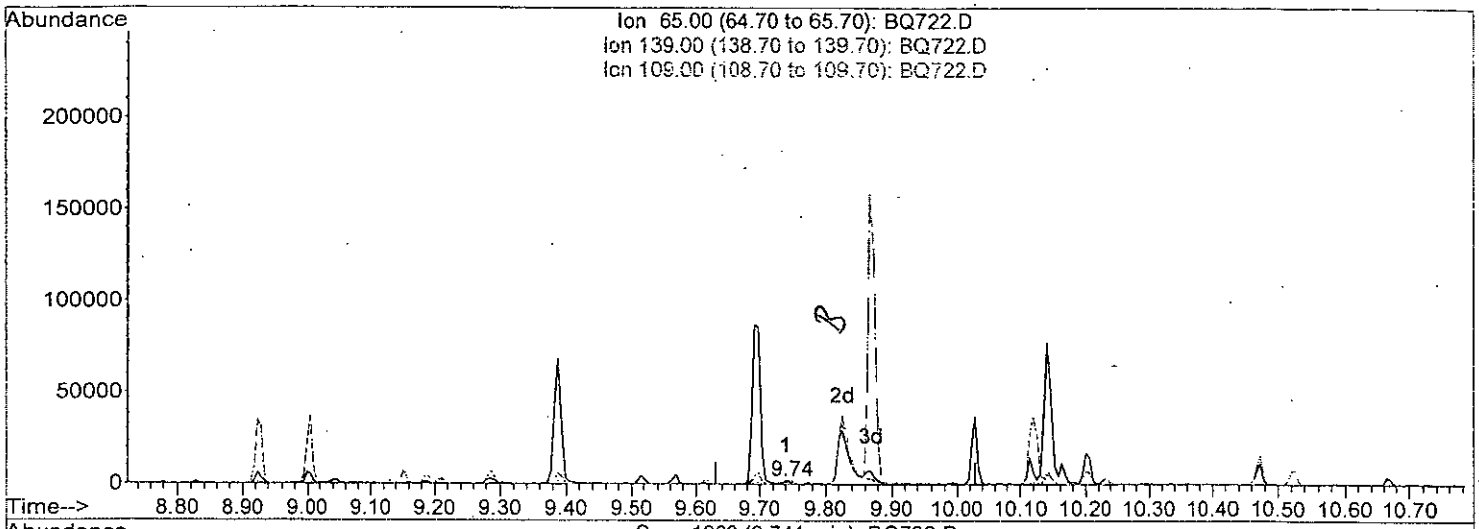
response 28276

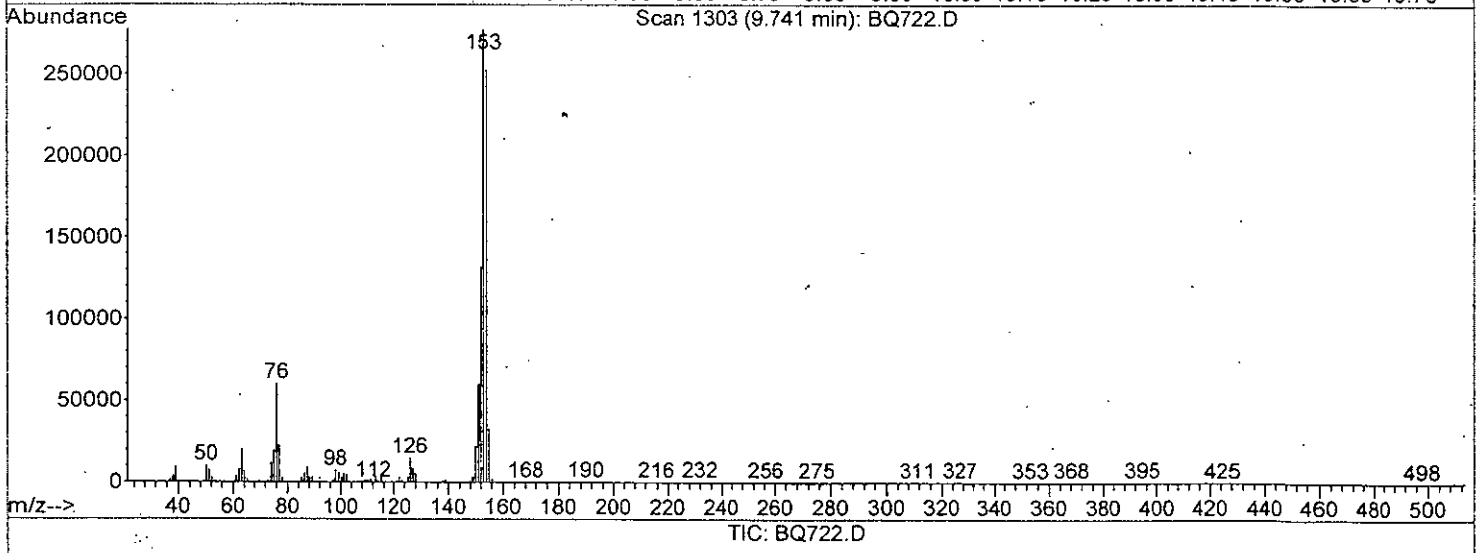
Ion	Exp%	Act%
184.00	100	100
63.00	89.20	44.55#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:39 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ722.D

(30) 4-Nitrophenol (TMP)

9.74min 0.22ppm

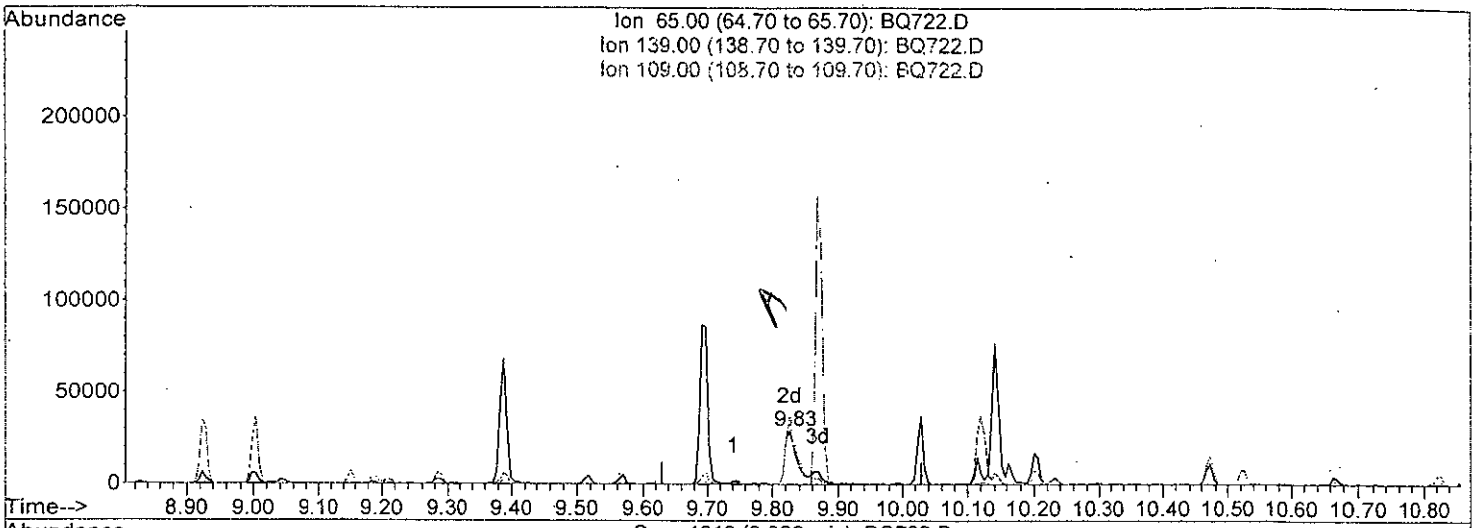
response 1553

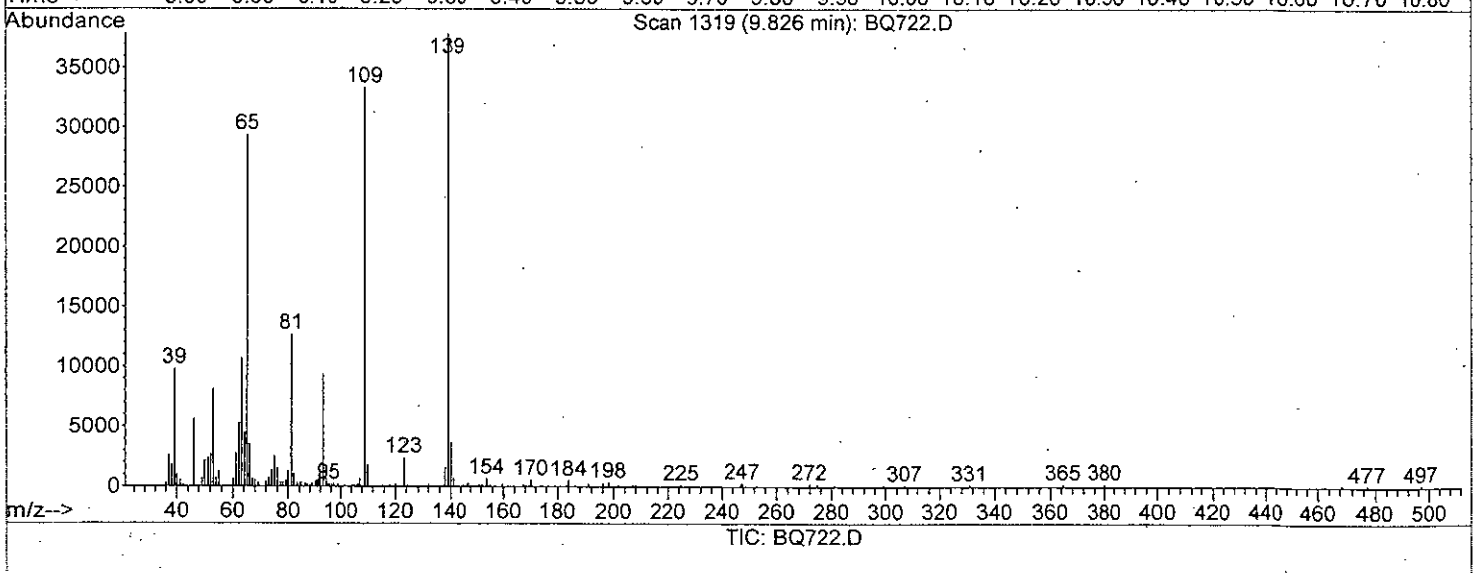
Ion	Exp%	Act%
65.00	100	100
139.00	84.90	81.63
109.00	72.80	73.41
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:39 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ722.D

(30) 4-Nitrophenol (TMP)

9.83min 5.28ppm m

response 37120

Ion	Exp%	Act%
65.00	100	100
139.00	84.90	128.94#
109.00	72.80	113.54#
0.00	0.00	0.00

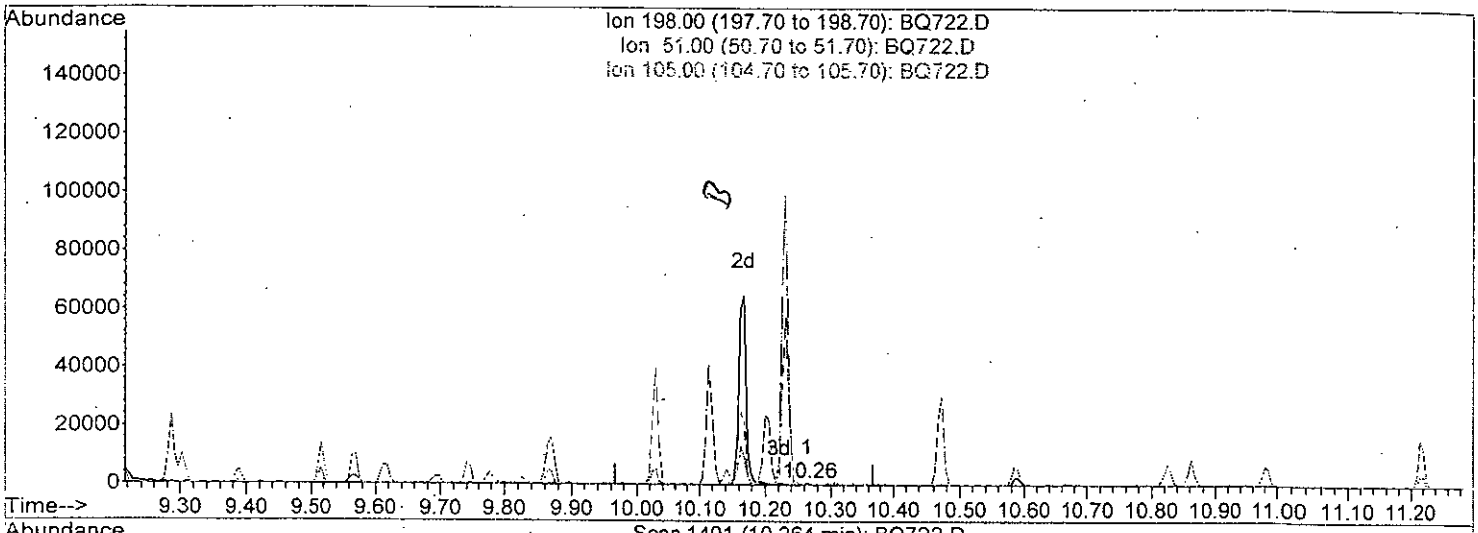
9/9/15

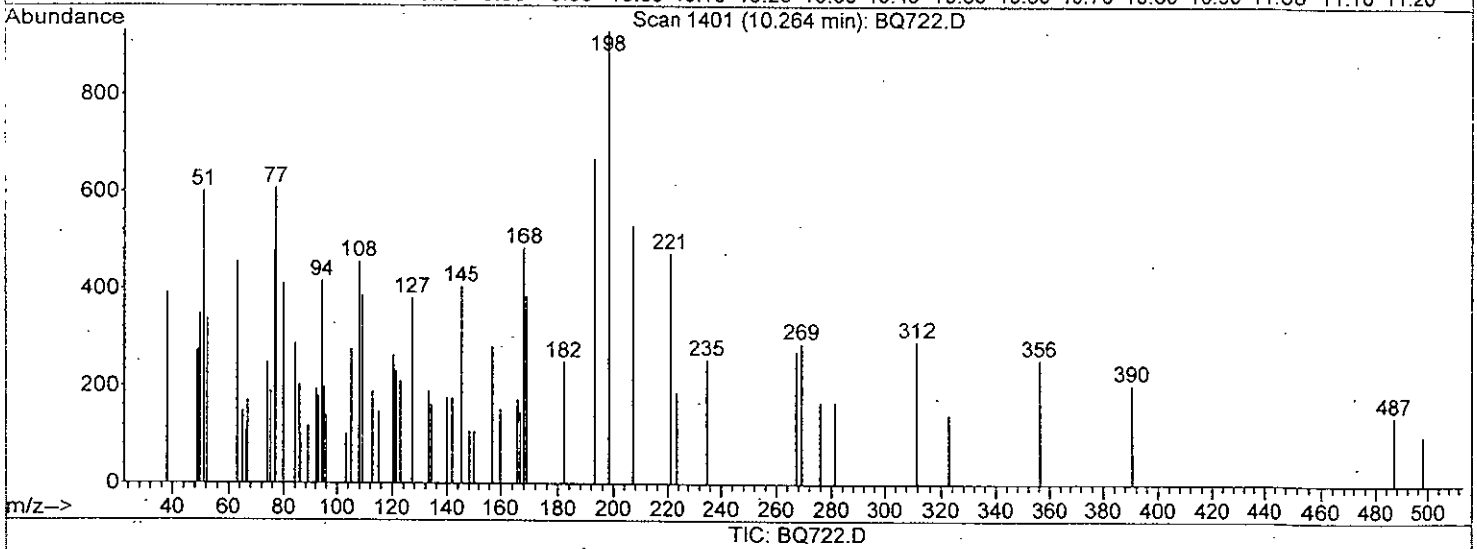
9/9

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:39 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ722.D

(35) 4,6-Dinitro-2-methylphenol (TM)

10.26min 0.04ppm

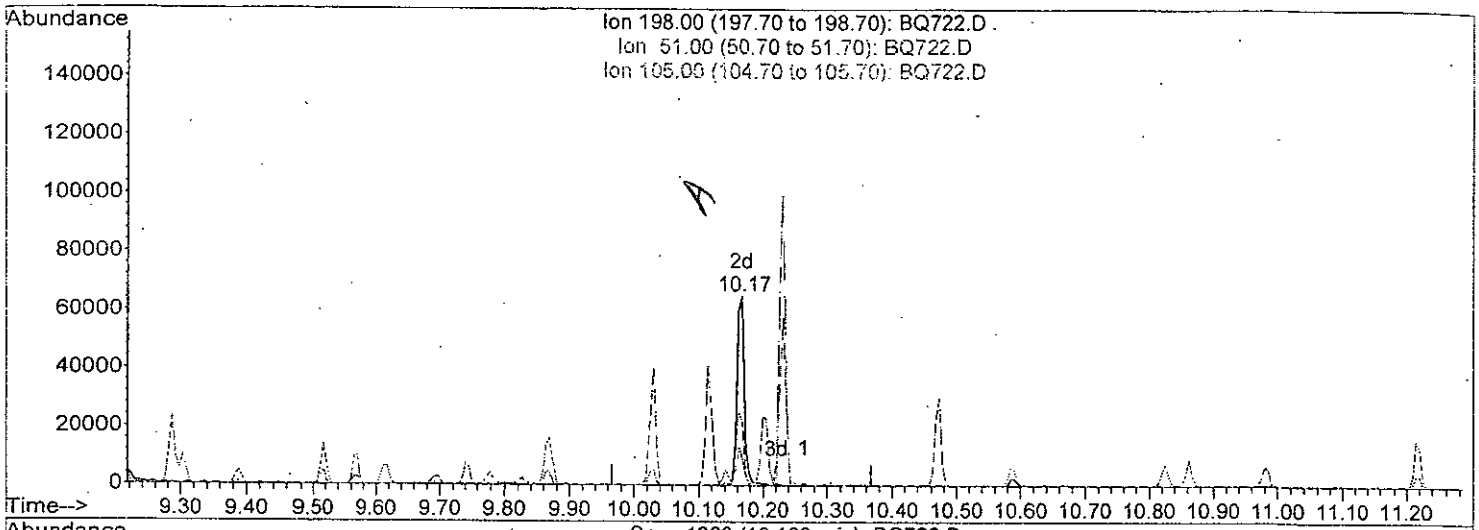
response 431

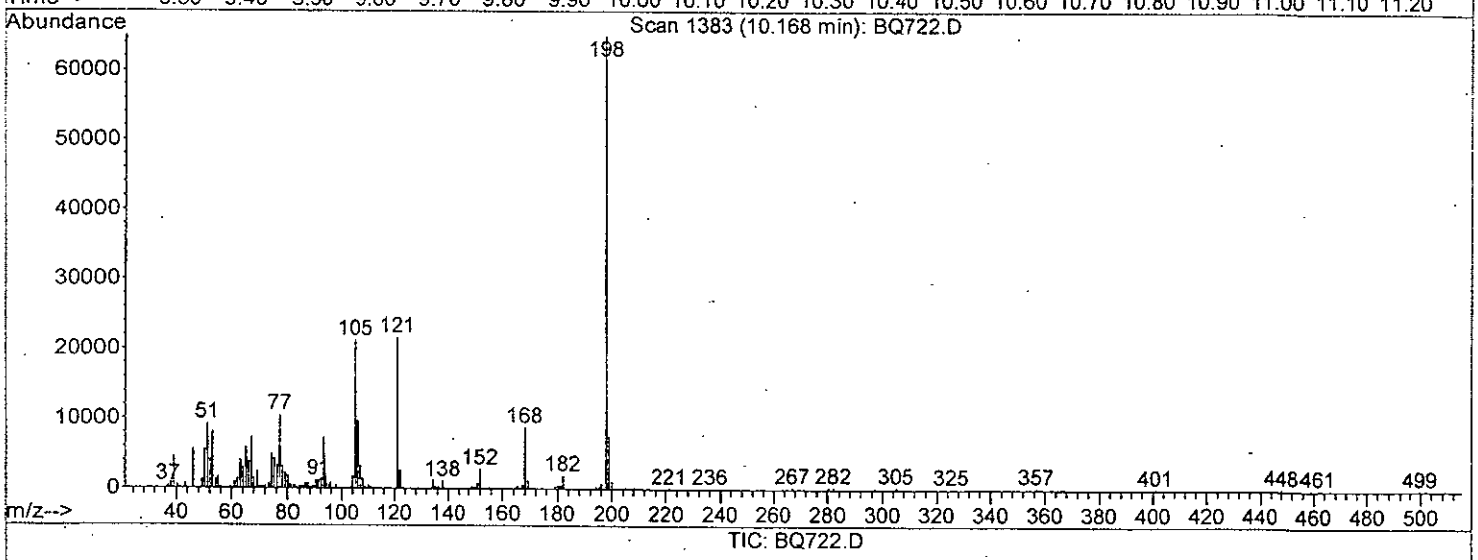
Ion	Exp%	Act%
198.00	100	100
51.00	63.90	64.48
105.00	48.00	29.51
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:39 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ722.D

(35) 4,6-Dinitro-2-methylphenol (TM)

10.17min 5.28ppm m

response 51161

Ion	Exp%	Act%
198.00	100	100
51.00	63.90	14.19#
105.00	48.00	32.61
0.00	0.00	0.00

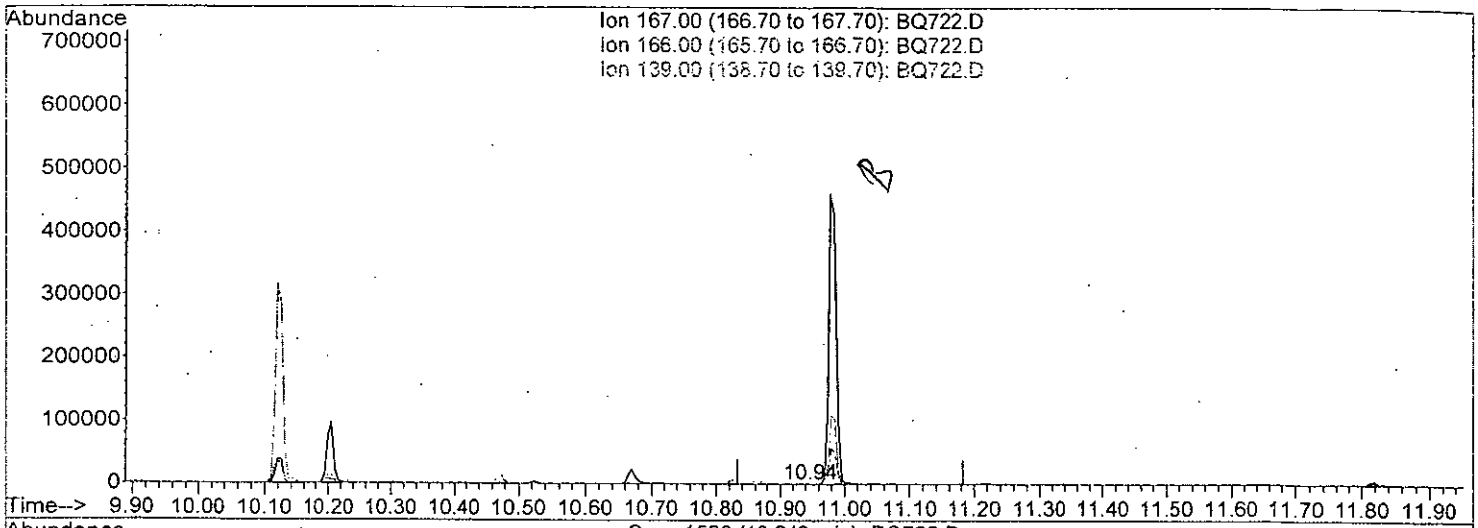
wp DM 9/9/15

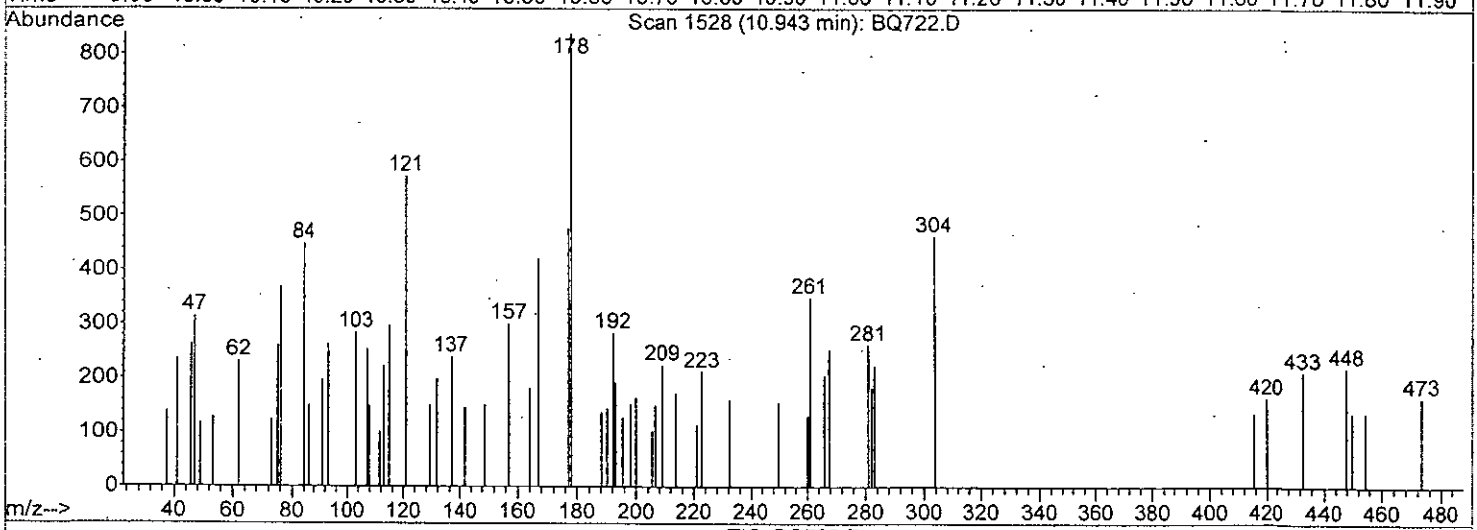
SW 9/9

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:39 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Multiple Level Calibration





TIC: BQ722.D

(40) Carbazole (TM)

10.94min 0.01ppm

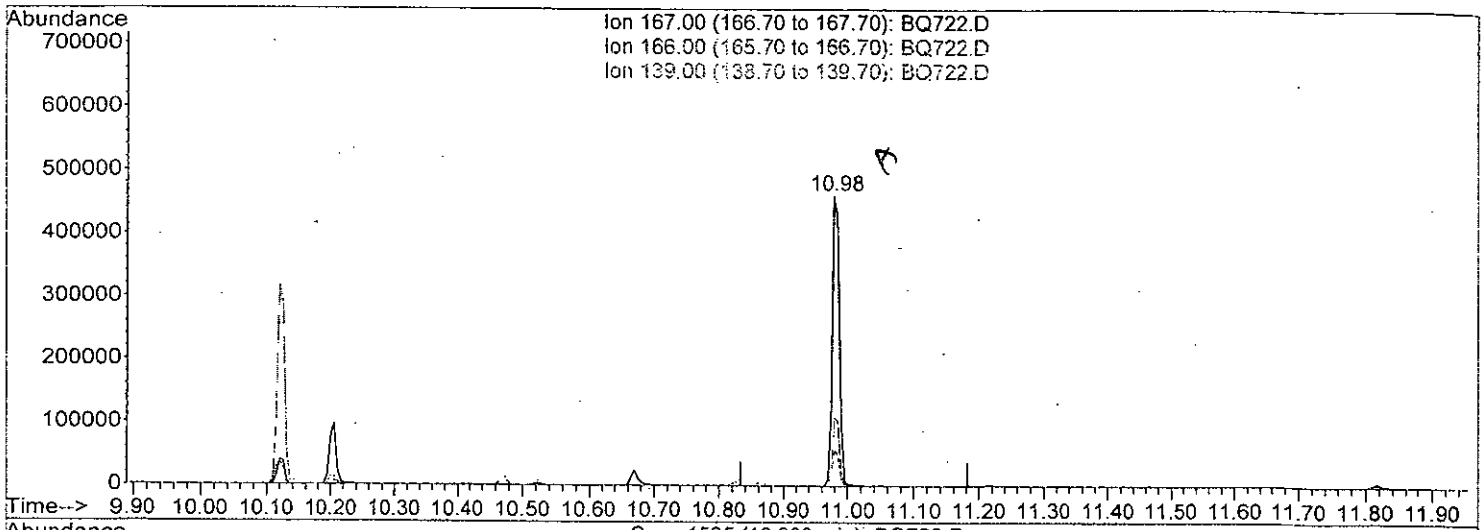
response 417

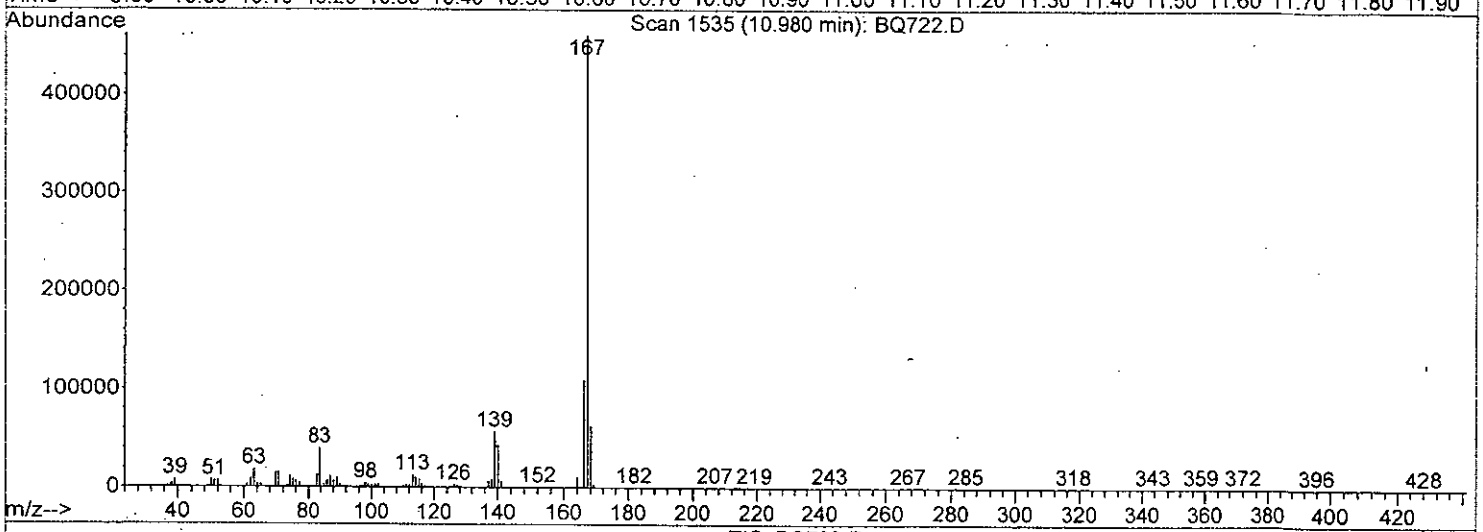
Ion	Exp%	Act%
167.00	100	100
166.00	23.30	0.00#
139.00	12.70	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ722.D Vial: 8
Acq On : 8 Sep 2015 6:04 pm Operator: JMisiurewicz
Sample : SSTD050 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:40 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Multiple Level Calibration





TIC: BQ722.D

(40) Carbazole (TM)

10.98min 4.94ppm m

response 364957

Ion	Exp%	Act%
167.00	100	100
166.00	23.30	23.65
139.00	12.70	12.33
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ723.D Vial: 9
Acq On : 8 Sep 2015 6:32 pm Operator: JMisiurewicz
Sample : SSTD080 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	16685	1.00	ppm	0.000
9) d8-Naphthalene	8.34	136	60900	1.00	ppm	0.000
20) d10-Acenaphthene	9.72	164	33857	1.00	ppm	0.000
34) d10-Phenanthrene	10.80	188	60836	1.00	ppm	0.000
43) d12-Chrysene	12.83	240	74426	1.00	ppm	-0.029
50) d12-Perylene	14.07	264	74962	1.00	ppm	-0.039
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.28	112	178134	8.25	ppm	0.00
Spiked Amount 4.000	Range 10 - 104		Recovery = 206.25%#			
4) SURR2,PHENOL-D6	6.71	99	209020	8.31	ppm	0.00
Spiked Amount 4.000	Range 11 - 63		Recovery = 207.75%#			
10) SURR4,NITROBENZENE-D5	7.68	82	185219	7.80	ppm	0.00
Spiked Amount 2.000	Range 31 - 167		Recovery = 390.00%#			
23) SURR5,2-FLUOROBIPHENYL	9.21	172	391387	7.91	ppm	0.00
Spiked Amount 2.000	Range 27 - 133		Recovery = 395.50%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	76839	8.48	ppm	0.00
Spiked Amount 4.000	Range 10 - 212		Recovery = 212.00%			
45) SURR6,TERPHENYL-D14	11.98	244	548842	8.23	ppm	-0.02
Spiked Amount 2.000	Range 38 - 166		Recovery = 411.50%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	3.02	88	100122	8.195	ppm	# 47
5) Phenol	6.72	94	245078	8.355	ppm	# 53
6) 2-Chlorophenol	6.85	128	176647	8.283	ppm	88
7) 2-Methylphenol	7.41	108	157573	8.045	ppm	98
8) 3+4-Methylphenol	7.57	108	173684	8.119	ppm	94
11) Nitrobenzene	7.69	77	190896	8.310	ppm	91
12) 2-Nitrophenol	8.00	139	98074	8.224	ppm	95
13) 2,4-Dimethylphenol	8.06	107	181082	7.916	ppm	98
14) 2,4-Dichlorophenol	8.23	162	161472	8.314	ppm	95
15) 1,2,4-Trichlorobenzene	8.29	180	179084	7.977	ppm	95
16) Naphthalene	8.35	128	493981	7.902	ppm	99
17) 4-Chloro-3-methylphenol	8.83	107	128069	7.695	ppm	98
18) 2-Methylnaphthalene	8.92	142	318943	8.220	ppm	97
19) 1-Methylnaphthalene	9.00	142	314729	7.908	ppm	95
21) 2,4,6-Trichlorophenol	9.15	196	108591	8.252	ppm	96
22) 2,4,5-Trichlorophenol	9.19	196	120531	8.477	ppm	92
24) 2-Chloronaphthalene	9.30	162	343888	8.428	ppm	99
25) Acenaphthylene	9.62	152	472878	7.970	ppm	97
26) Dimethyl phthalate	9.52	163	382429	8.818	ppm	99
27) Acenaphthene	9.75	153	306686	8.059	ppm	96
28) 2,4-Dinitrophenol	9.78	184	53807	10.354	ppm	61
29) Dibenzofuran	9.87	168	441810	7.936	ppm	94
30) 4-Nitrophenol	9.83	65	54374	8.771	ppm	81
31) Fluorene	10.13	166	366397	8.455	ppm	97
32) Diethylphthalate	10.03	149	375357	8.718	ppm	96
35) 4,6-Dinitro-2-methylphenol	10.17	198	75227	8.974	ppm	# 61
36) Hexachlorobenzene	10.52	284	164300	8.548	ppm	93
37) Pentachlorophenol	10.67	266	77238	8.674	ppm	91
38) Phenanthrene	10.83	178	538728	8.066	ppm	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ723.D Vial: 9
Acq On : 8 Sep 2015 6:32 pm Operator: JMisiurewicz
Sample : SSTD080 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

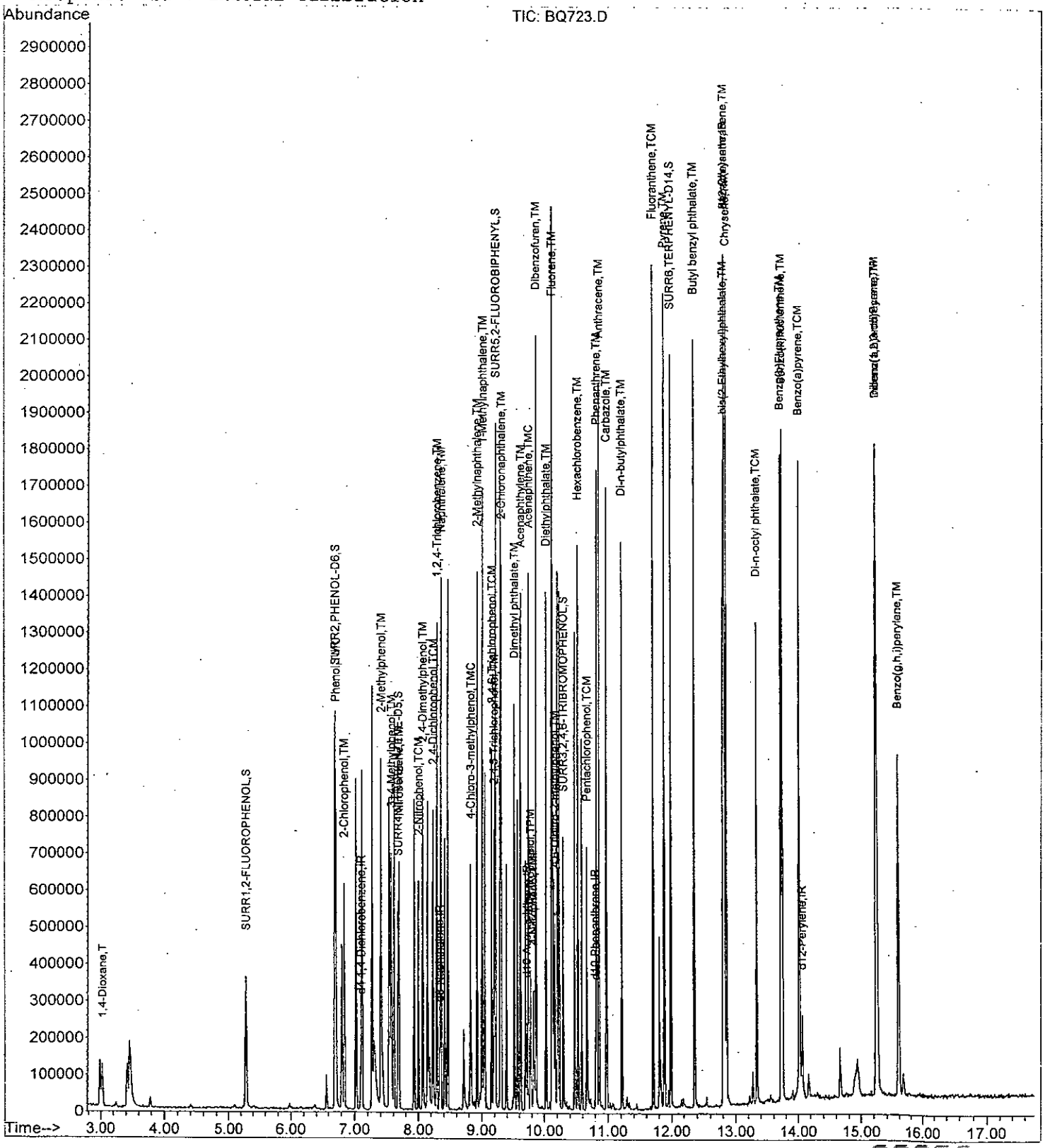
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Anthracene	10.86	178	601698	8.640	ppm	99
40)	Carbazole	10.98	167	547183	8.572	ppm	98
41)	Di-n-butylphthalate	11.21	149	662476	8.889	ppm	99
42)	Fluoranthene	11.71	202	687303	8.705	ppm	97
44)	Pyrene	11.88	202	702028	8.198	ppm	98
46)	Butyl benzyl phthalate	12.36	149	308189	8.941	ppm	93
47)	Benzo(a)anthracene	12.83	228	748890	8.438	ppm	99
48)	Chrysene	12.86	228	662700	8.345	ppm	98
49)	bis(2-Ethylhexyl)phthalate	12.81	149	414926	8.240	ppm	96
51)	Di-n-octyl phthalate	13.34	149	649574	7.944	ppm	79
52)	Benzo(b)Fluoranthene	13.72	252	686902	7.828	ppm	95
53)	Benzo(k)fluoranthene	13.74	252	696237	8.456	ppm	96
54)	Benzo(a)pyrene	14.02	252	681946	8.163	ppm	94
55)	Indeno(1,2,3-cd)Pyrene	15.25	276	789233	8.168	ppm	90
56)	Dibenz(a,h)anthracene	15.25	278	641516	8.053	ppm	96
57)	Benzo(g,h,i)perylene	15.60	276	610354	7.852	ppm	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ723.D Vial: 9
Acq On : 8 Sep 2015 6:32 pm Operator: JMisiurewicz
Sample : SSTD080 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ724.D Vial: 10
Acq On : 8 Sep 2015 7:01 pm Operator: JMisiurewicz
Sample : SSTD100 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:42 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	17067	1.00	ppm	0.000
9) d8-Naphthalene	8.34	136	62701	1.00	ppm	0.000
20) d10-Acenaphthene	9.72	164	32601	1.00	ppm	0.000
34) d10-Phenanthrene	10.81	188	63076	1.00	ppm	0.000
43) d12-Chrysene	12.87	240	77757	1.00	ppm	0.000
50) d12-Perylene	14.11	264	71763	1.00	ppm	0.000
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.28	112	226412	10.25	ppm	0.00
Spiked Amount 4.000	Range 10 - 104		Recovery = 256.25%#			
4) SURR2,PHENOL-D6	6.71	99	263781	10.26	ppm	0.00
Spiked Amount 4.000	Range 11 - 63		Recovery = 256.50%#			
10) SURR4,NITROBENZENE-D5	7.68	82	235494	9.63	ppm	0.00
Spiked Amount 2.000	Range 31 - 167		Recovery = 481.50%#			
23) SURR5,2-FLUOROBIPHENYL	9.21	172	491475	10.32	ppm	0.00
Spiked Amount 2.000	Range 27 - 133		Recovery = 516.00%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	94762	10.87	ppm	0.00
Spiked Amount 4.000	Range 10 - 212		Recovery = 271.75%#			
45) SURR6,TERPHENYL-D14	12.01	244	660886	9.49	ppm	0.00
Spiked Amount 2.000	Range 38 - 166		Recovery = 474.50%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	3.02	88	121523	9.724	ppm #	52
5) Phenol	6.72	94	306372	10.210	ppm #	53
6) 2-Chlorophenol	6.85	128	222072	10.180	ppm	87
7) 2-Methylphenol	7.41	108	200979	10.032	ppm	91
8) 3+4-Methylphenol	7.57	108	222428	10.165	ppm	94
11) Nitrobenzene	7.69	77	248806	10.519	ppm	97
12) 2-Nitrophenol	8.00	139	121397	9.888	ppm	92
13) 2,4-Dimethylphenol	8.07	107	227199	9.647	ppm	97
14) 2,4-Dichlorophenol	8.23	162	201007	10.052	ppm	93
15) 1,2,4-Trichlorobenzene	8.29	180	228106	9.869	ppm	94
16) Naphthalene	8.35	128	619925	9.631	ppm	99
17) 4-Chloro-3-methylphenol	8.83	107	160263	9.353	ppm	90
18) 2-Methylnaphthalene	8.93	142	392842	9.834	ppm	98
19) 1-Methylnaphthalene	9.00	142	396056	9.665	ppm	94
21) 2,4,6-Trichlorophenol	9.15	196	131273	10.360	ppm	97
22) 2,4,5-Trichlorophenol	9.19	196	151019	11.030	ppm	95
24) 2-Chloronaphthalene	9.30	162	410139	10.439	ppm	99
25) Acenaphthylene	9.62	152	583316	10.210	ppm	98
26) Dimethyl phthalate	9.52	163	473401	11.337	ppm	99
27) Acenaphthene	9.75	153	370122	10.101	ppm	99
28) 2,4-Dinitrophenol	9.78	184	68584	13.706	ppm	69
29) Dibenzofuran	9.87	168	538471	10.045	ppm	87
30) 4-Nitrophenol	9.83	65	67418	11.294	ppm #	70
31) Fluorene	10.13	166	466550	11.180	ppm	99
32) Diethylphthalate	10.03	149	469801	11.332	ppm	98
35) 4,6-Dinitro-2-methylphenol	10.17	198	99088m	11.401	ppm	
36) Hexachlorobenzene	10.53	284	203186	10.196	ppm	96
37) Pentachlorophenol	10.67	266	98914	10.714	ppm	95
38) Phenanthrene	10.83	178	681654	9.843	ppm	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ724.D Vial: 10
Acq On : 8 Sep 2015 7:01 pm Operator: JMisiurewicz
Sample : SSTD100 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:42 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

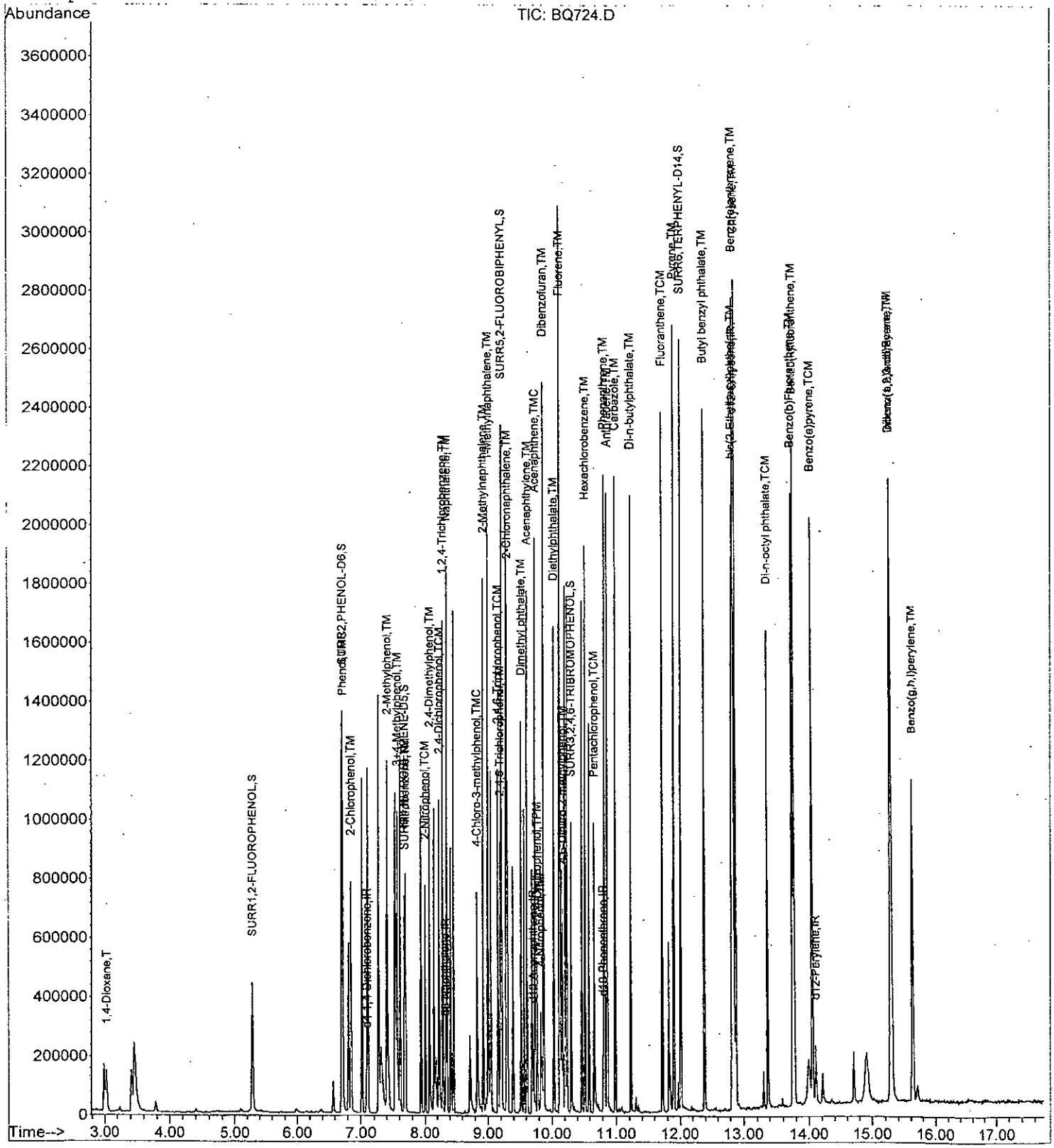
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Anthracene	10.87	178	724844	10.039 ppm	98
40)	Carbazole	10.99	167	669155	10.111 ppm	98
41)	Di-n-butylphthalate	11.22	149	809139	10.471 ppm	99
42)	Fluoranthene	11.72	202	840837	10.272 ppm	95
44)	Pyrene	11.90	202	864793	9.666 ppm	99
46)	Butyl benzyl phthalate	12.38	149	372504	10.344 ppm	93
47)	Benzo(a)anthracene	12.86	228	895157	9.654 ppm	98
48)	Chrysene	12.89	228	825194	9.946 ppm	98
49)	bis(2-Ethylhexyl)phthalate	12.84	149	497151	9.450 ppm	97
51)	Di-n-octyl phthalate	13.37	149	788322	10.071 ppm	78
52)	Benzo(b)Fluoranthene	13.75	252	847977	10.095 ppm	96
53)	Benzo(k)fluoranthene	13.78	252	852535	10.816 ppm	98
54)	Benzo(a)pyrene	14.06	252	814484	10.184 ppm	94
55)	Indeno(1,2,3-cd)Pyrene	15.29	276	951079	10.281 ppm	85
56)	Dibenz(a,h)anthracene	15.30	278	770910	10.108 ppm	95
57)	Benzo(g,h,i)perylene	15.64	276	744038	9.998 ppm	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ724.D Vial: 10
Acq On : 8 Sep 2015 7:01 pm Operator: JMisiurewicz
Sample : SSTD100 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:42 2015 Quant Results File: PAH090815.RES

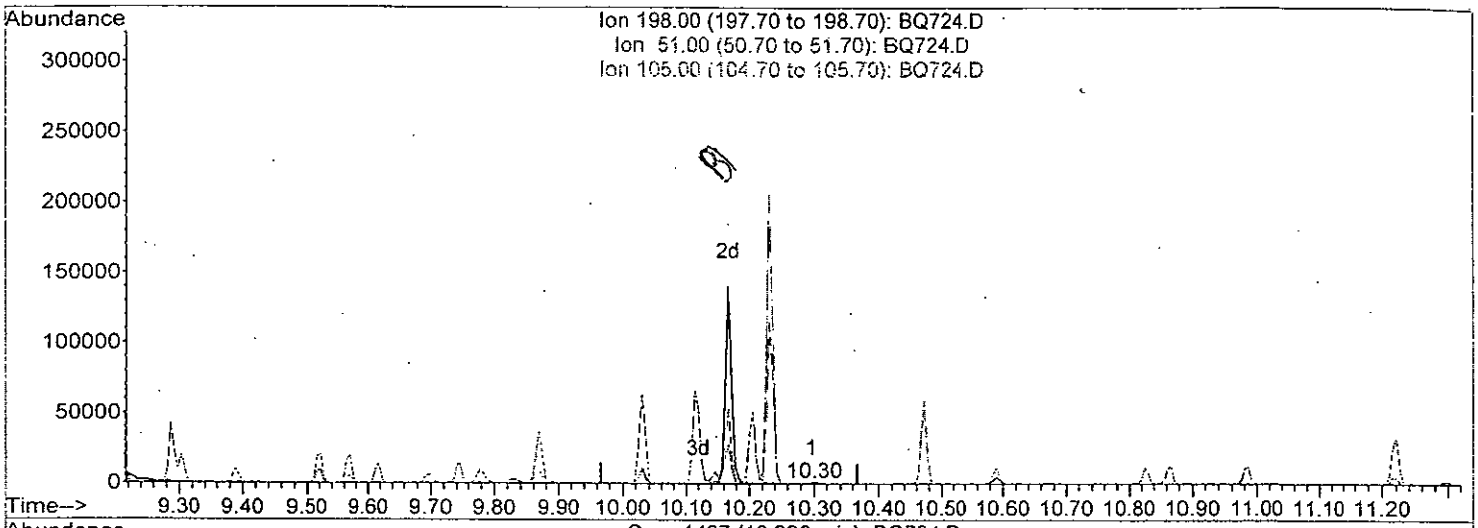
Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration

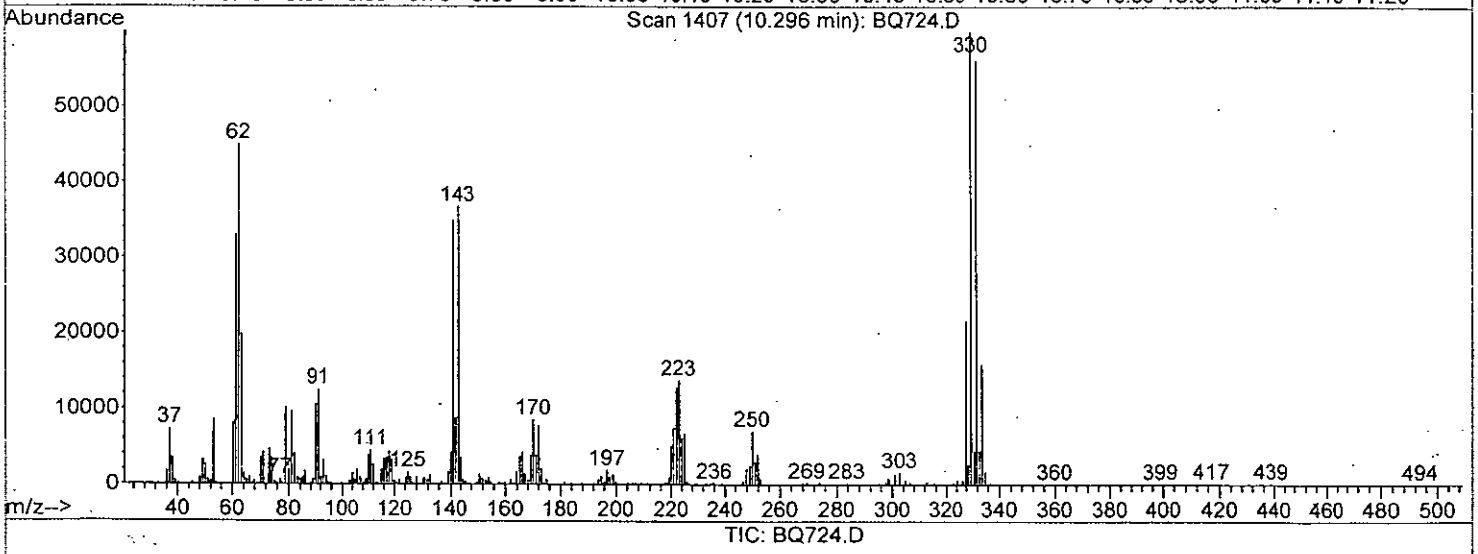


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ724.D Vial: 10
Acq On : 8 Sep 2015 7:01 pm Operator: JMisiurewicz
Sample : SSTD100 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:29 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ724.D

(35) 4,6-Dinitro-2-methylphenol (TM)

10.30min 0.11ppm

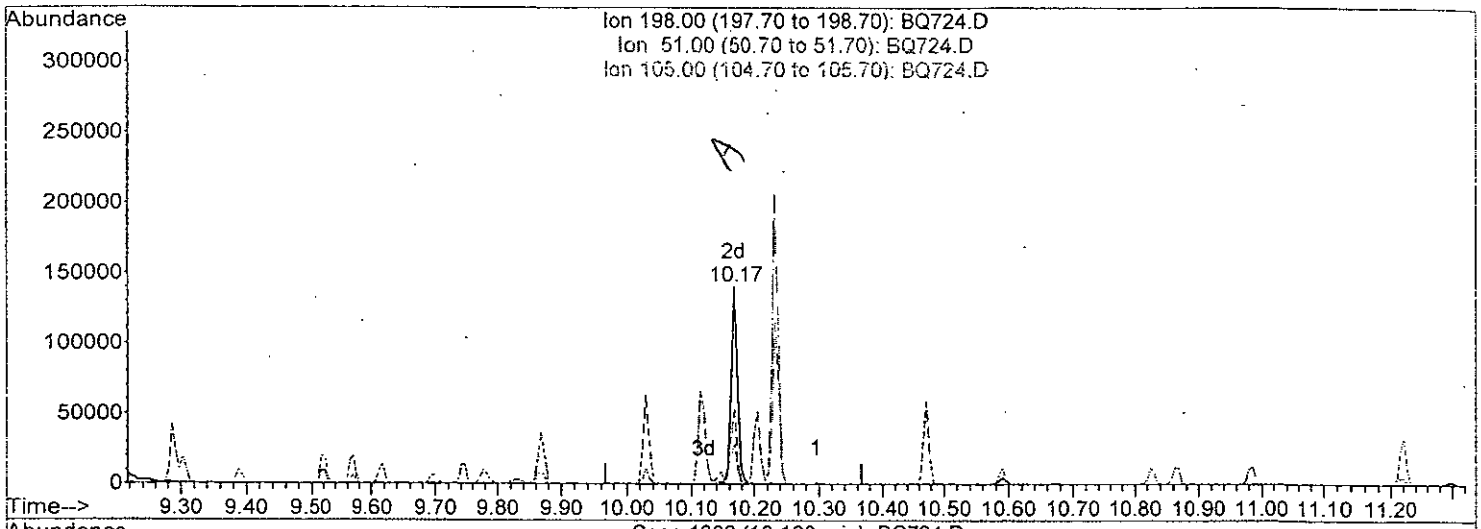
response 914

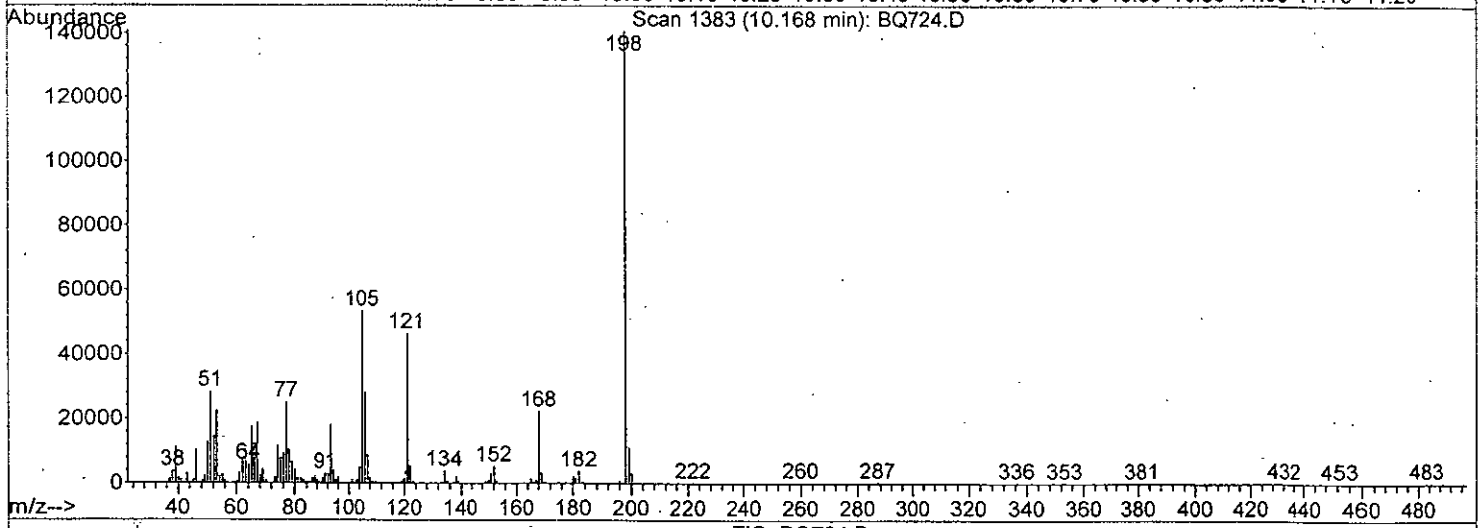
Ion	Exp%	Act%
198.00	100	100
51.00	63.90	67.06
105.00	48.00	59.47
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ724.D Vial: 10
Acq On : 8 Sep 2015 7:01 pm Operator: JMisiurewicz
Sample : SSTD100 Inst : 5973C
Misc : Initial Calibration 625/8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:42 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:28:04 2015
Response via : Single Level Calibration





TIC: BQ724.D

(35) 4,6-Dinitro-2-methylphenol (TM)

10.17min 11.40ppm m

response 99088

Ion	Exp%	Act%
198.00	100	100
51.00	63.90	20.11#
105.00	48.00	38.01
0.00	0.00	0.00

DM 9/9/15

W 9/9

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ725.D Vial: 11
Acq On : 8 Sep 2015 7:29 pm Operator: JMisiurewicz
Sample : ICV #1 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

JM 9/9/15

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	108	0.00
2	T	1,4-Dioxane	0.732	0.000#	100.0#	0#	-3.03#
3	S	SURR1,2-FLUOROPHENOL	1.263	0.000#	100.0#	0#	-5.29#
4	S	SURR2,PHENOL-D6	1.470	0.000#	100.0#	0#	-6.71#
5	TMC	Phenol	1.779	2.005	-12.7	131	0.00
6	TM	2-Chlorophenol	1.289	1.446	-12.2	125	0.00
7	TM	2-Methylphenol	1.175	1.364	-16.1	136	0.00
8	TM	3+4-Methylphenol	1.276	2.897	-127.0#	269#	0.00
9	IR	d8-Naphthalene	1.000	1.000	0.0	115	0.00
10	S	SURR4,NITROBENZENE-D5	0.390	0.000#	100.0#	0#	-7.68#
11	TM	Nitrobenzene	0.377	0.421	-11.7	135	0.00
12	TCM	2-Nitrophenol	0.198	0.211	-6.6	128	0.00
13	TM	2,4-Dimethylphenol	0.379	0.364	4.0	119	0.00
14	TCM	2,4-Dichlorophenol	0.303	0.358	-18.2	132	0.00
15	TM	1,2,4-Trichlorobenzene	0.369	0.412	-11.7	136	0.00
16	TM	Naphthalene	1.027	1.059	-3.1	126	0.00
17	TMC	4-Chloro-3-methylphenol	0.285	0.342	-20.0	164	0.00
18	TM	2-Methylnaphthalene	0.636	0.750	-17.9	139	0.00
19	TM	1-Methylnaphthalene	0.654	0.702	-7.3	129	0.00
20	IR	d10-Acenaphthene	1.000	1.000	0.0	136	0.00
21	TCM	2,4,6-Trichlorophenol	0.387	0.417	-7.8	153	0.00
22	TM	2,4,5-Trichlorophenol	0.432	0.453	-4.9	150	0.00
23	S	SURR5,2-FLUOROBIPHENYL	1.461	0.000#	100.0#	0#	-9.21#
24	TM	2-Chloronaphthalene	1.205	1.207	-0.2	138	0.00
25	TM	Acenaphthylene	1.752	1.797	-2.6	140	0.00
26	TM	Dimethyl phthalate	1.281	1.361	-6.2	134	0.00
27	TMC	Acenaphthene	1.124	1.154	-2.7	141	0.00
28	TPM	2,4-Dinitrophenol	0.135	0.175	-29.6#	162	0.00 Q
29	TM	Dibenzofuran	1.644	1.603	2.5	140	0.00
30	TMP	4-Nitrophenol	0.180	0.204	-13.3	144	0.00
31	TM	Fluorene	1.280	1.388	-8.4	149	0.00
32	TM	Diethylphthalate	1.285	1.407	-9.5	142	0.00
33	S	SURR3,2,4,6-TRIBROMOPHENOL	0.263	0.000#	100.0#	0#	-10.30#
34	IR	d10-Phenanthrene	1.000	1.000	0.0	137	0.00
35	TM	4,6-Dinitro-2-methylphenol	0.133	0.147	-10.5	139	0.00
36	TM	Hexachlorobenzene	0.316	0.321	-1.6	139	0.00
37	TCM	Pentachlorophenol	0.139	0.170	-22.3	144	0.00
38	TM	Phenanthrene	1.098	1.112	-1.3	145	0.00
39	TM	Anthracene	1.145	1.168	-2.0	139	0.00
40	TM	Carbazole	1.051	1.052	-0.1	139	0.00
41	TM	Di-n-butylphthalate	1.229	1.342	-9.2	143	0.00
42	TCM	Fluoranthene	1.298	1.406	-8.3	147	0.01
43	IR	d12-Chrysene	1.000	1.000	0.0	154	0.02
44	TM	Pyrene	1.151	1.229	-6.8	152	0.00
45	S	SURR6,TERPHENYL-D14	0.896	0.000#	100.0#	0#	-12.00#
46	TM	Butyl benzyl phthalate	0.463	0.484	-4.5	146	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ725.D Vial: 11
Acq On : 8 Sep 2015 7:29 pm Operator: JMisiurewicz
Sample : ICV #1 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	TM	Benzo(a)anthracene	1.192	1.203	-0.9	149	0.02
48	TM	Chrysene	1.067	1.094	-2.5	151	0.02
49	TM	bis(2-Ethylhexyl)phthalate	0.674	0.692	-2.7	156	0.02
50	IR	d12-Perylene	1.000	1.000	0.0	140	0.03
51	TCM	Di-n-octyl phthalate	1.110	1.164	-4.9	147	0.03
52	TM	Benzo(b)Fluoranthene	1.171	1.172	-0.1	146	0.03
53	TM	Benzo(k)fluoranthene	1.099	0.992	9.7	129	0.03
54	TCM	Benzo(a)pyrene	1.114	1.080	3.1	142	0.03
55	TM	Indeno(1,2,3-cd)Pyrene	1.289	1.148	10.9	128	0.04
56	TM	Dibenz(a,h)anthracene	1.063	0.931	12.4	132	0.04
57	TM	Benzo(g,h,i)perylene	1.034	0.889	14.0	130	0.04

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ725.D Vial: 11
Acq On : 8 Sep 2015 7:29 pm Operator: JMisiurewicz
Sample : ICV #1 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	108	0.00
2	T	1,4-Dioxane	5.000	0.000	100.0#	0	-3.03#
3	S	SURR1,2-FLUOROPHENOL	5.000	0.000	100.0#	0	-5.29#
4	S	SURR2,PHENOL-D6	5.000	0.000	100.0#	0	-6.71#
5	TMC	Phenol	5.000	5.634	-12.7	131	0.00
6	TM	2-Chlorophenol	5.000	5.609	-12.2	125	0.00
7	TM	2-Methylphenol	5.000	5.806	-16.1	136	0.00
8	TM	3+4-Methylphenol	5.000	11.347	-126.9#	269	0.00
9	IR	d8-Naphthalene	1.000	1.000	0.0	115	0.00
10	S	SURR4,NITROBENZENE-D5	5.000	0.000	100.0#	0	-7.68#
11	TM	Nitrobenzene	5.000	5.579	-11.6	135	0.00
12	TCM	2-Nitrophenol	5.000	5.352	-7.0	128	0.00
13	TM	2,4-Dimethylphenol	5.000	4.796	4.1	119	0.00
14	TCM	2,4-Dichlorophenol	5.000	5.903	-18.1	132	0.00
15	TM	1,2,4-Trichlorobenzene	5.000	5.584	-11.7	136	0.00
16	TM	Naphthalene	5.000	5.159	-3.2	126	0.00
17	TMC	4-Chloro-3-methylphenol	5.000	6.015	-20.3	164	0.00
18	TM	2-Methylnaphthalene	5.000	5.900	-18.0	139	0.00
19	TM	1-Methylnaphthalene	5.000	5.371	-7.4	129	0.00
20	IR	d10-Acenaphthene	1.000	1.000	0.0	136	0.00
21	TCM	2,4,6-Trichlorophenol	5.000	5.381	-7.6	153	0.00
22	TM	2,4,5-Trichlorophenol	5.000	5.237	-4.7	150	0.00
23	S	SURR5,2-FLUOROBIPHENYL	5.000	0.000	100.0#	0	-9.21#
24	TM	2-Chloronaphthalene	5.000	5.006	-0.1	138	0.00
25	TM	Acenaphthylene	5.000	5.126	-2.5	140	0.00
26	TM	Dimethyl phthalate	5.000	5.313	-6.3	134	0.00
27	TMC	Acenaphthene	5.000	5.132	-2.6	141	0.00
28	TPM	2,4-Dinitrophenol	5.000	5.431	-8.6	162	0.00
29	TM	Dibenzofuran	5.000	4.875	2.5	140	0.00
30	TMP	4-Nitrophenol	5.000	5.671	-13.4	144	0.00
31	TM	Fluorene	5.000	5.421	-8.4	149	0.00
32	TM	Diethylphthalate	5.000	5.475	-9.5	142	0.00
33	S	SURR3,2,4,6-TRIBROMOPHENOL	5.000	0.000	100.0#	0	-10.30#
34	IR	d10-Phenanthrene	1.000	1.000	0.0	137	0.00
35	TM	4,6-Dinitro-2-methylphenol	5.000	5.522	-10.4	139	0.00
36	TM	Hexachlorobenzene	5.000	5.083	-1.7	139	0.00
37	TCM	Pentachlorophenol	5.000	6.135	-22.7	144	0.00
38	TM	Phenanthrene	5.000	5.064	-1.3	145	0.00
39	TM	Anthracene	5.000	5.101	-2.0	139	0.00
40	TM	Carbazole	5.000	5.006	-0.1	139	0.00
41	TM	Di-n-butylphthalate	5.000	5.459	-9.2	143	0.00
42	TCM	Fluoranthene	5.000	5.415	-8.3	147	0.01
43	IR	d12-Chrysene	1.000	1.000	0.0	154	0.02
44	TM	Pyrene	5.000	5.340	-6.8	152	0.00
45	S	SURR6,TERPHENYL-D14	5.000	0.000	100.0#	0	-12.00#
46	TM	Butyl benzyl phthalate	5.000	5.227	-4.5	146	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ725.D Vial: 11
Acq On : 8 Sep 2015 7:29 pm Operator: JMisiurewicz
Sample : ICV #1 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
47	TM	Benzo(a)anthracene	5.000	5.044	-0.9	149	0.02
48	TM	Chrysene	5.000	5.125	-2.5	151	0.02
49	TM	bis(2-Ethylhexyl)phthalate	5.000	5.138	-2.8	156	0.02
50	IR	d12-Perylene	1.000	1.000	0.0	140	0.03
51	TCM	Di-n-octyl phthalate	5.000	5.246	-4.9	147	0.03
52	TM	Benzo(b)Fluoranthene	5.000	5.008	-0.2	146	0.03
53	TM	Benzo(k)fluoranthene	5.000	4.517	9.7	129	0.03
54	TCM	Benzo(a)pyrene	5.000	4.844	3.1	142	0.03
55	TM	Indeno(1,2,3-cd)Pyrene	5.000	4.453	10.9	128	0.04
56	TM	Dibenz(a,h)anthracene	5.000	4.377	12.5	132	0.04
57	TM	Benzo(g,h,i)perylene	5.000	4.299	14.0	130	0.04

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ725.D Vial: 11
Acq On : 8 Sep 2015 7:29 pm Operator: JMisiurewicz
Sample : ICV #1 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:59 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	21010	1.00	ppm		0.000
9) d8-Naphthalene	8.33	136	80371	1.00	ppm		0.000
20) d10-Acenaphthene	9.72	164	52382	1.00	ppm		0.000
34) d10-Phenanthrene	10.81	188	96610	1.00	ppm		0.000
43) d12-Chrysene	12.88	240	118791	1.00	ppm		0.019
50) d12-Perylene	14.14	264	110496	1.00	ppm		0.031
System Monitoring Compounds							
3) SURR1,2-FLUOROPHENOL	0.00	112	0d	0.00	ppm		
Spiked Amount 4.000	Range 10 - 104		Recovery = 0.00%#				
4) SURR2,PHENOL-D6	0.00	99	0d	0.00	ppm		
Spiked Amount 4.000	Range 11 - 63		Recovery = 0.00%#				
10) SURR4,NITROBENZENE-D5	0.00	82	0d	0.00	ppm		
Spiked Amount 2.000	Range 31 - 167		Recovery = 0.00%#				
23) SURR5,2-FLUOROBIPHENYL	0.00	172	0d	0.00	ppm		
Spiked Amount 2.000	Range 27 - 133		Recovery = 0.00%#				
33) SURR3,2,4,6-TRIBROMOPHENOL	0.00	330	0d	0.00	ppm		
Spiked Amount 4.000	Range 10 - 212		Recovery = 0.00%#				
45) SURR6,TERPHENYL-D14	0.00	244	0d	0.00	ppm		
Spiked Amount 2.000	Range 38 - 166		Recovery = 0.00%#				
Target Compounds							Qvalue
5) Phenol	6.72	94	210581	5.634	ppm	#	49
6) 2-Chlorophenol	6.85	128	151917	5.609	ppm		92
7) 2-Methylphenol	7.40	108	143319	5.806	ppm		91
8) 3+4-Methylphenol	7.57	108	304279	11.347	ppm		89
11) Nitrobenzene	7.69	77	169141	5.579	ppm		90
12) 2-Nitrophenol	8.00	139	84960	5.352	ppm		92
13) 2,4-Dimethylphenol	8.06	107	146248	4.796	ppm		94
14) 2,4-Dichlorophenol	8.22	162	143834	5.903	ppm		90
15) 1,2,4-Trichlorobenzene	8.29	180	165441	5.584	ppm		97
16) Naphthalene	8.35	128	425661	5.159	ppm		95
17) 4-Chloro-3-methylphenol	8.82	107	137544	6.015	ppm		93
18) 2-Methylnaphthalene	8.92	142	301529	5.900	ppm		97
19) 1-Methylnaphthalene	9.00	142	282124	5.371	ppm		93
21) 2,4,6-Trichlorophenol	9.15	196	109173	5.381	ppm		99
22) 2,4,5-Trichlorophenol	9.19	196	118630	5.237	ppm		87
24) 2-Chloronaphthalene	9.30	162	316034	5.006	ppm		98
25) Acenaphthylene	9.62	152	470561	5.126	ppm		99
26) Dimethyl phthalate	9.52	163	356463	5.313	ppm		99
27) Acenaphthene	9.75	153	302127	5.132	ppm		98
28) 2,4-Dinitrophenol	9.78	184	45738	5.431	ppm		62
29) Dibenzofuran	9.87	168	419925	4.875	ppm		92
30) 4-Nitrophenol	9.83	65	53409	5.671	ppm	#	68
31) Fluorene	10.13	166	363443	5.421	ppm		99
32) Diethylphthalate	10.03	149	368570	5.475	ppm		95
35) 4,6-Dinitro-2-methylphenol	10.17	198	70997	5.522	ppm	#	56
36) Hexachlorobenzene	10.53	284	155151	5.083	ppm		96
37) Pentachlorophenol	10.67	266	82221	6.135	ppm		98
38) Phenanthrene	10.83	178	537113	5.064	ppm		99
39) Anthracene	10.87	178	564174	5.101	ppm		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ725.D Vial: 11
Acq On : 8 Sep 2015 7:29 pm Operator: JMisiurewicz
Sample : ICV #1 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:59 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

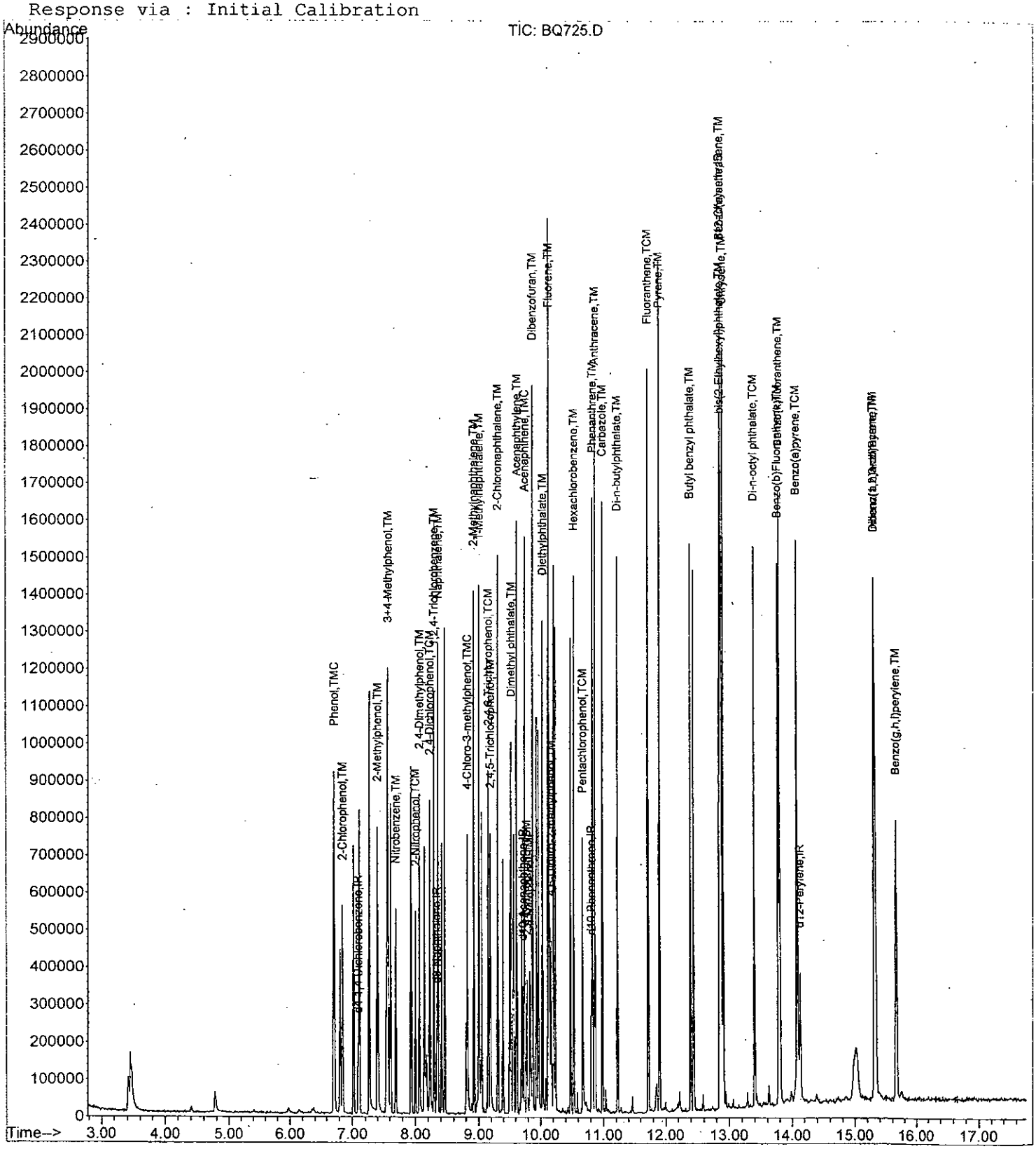
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40)	Carbazole	10.99	167	508172	5.006	ppm	98
41)	Di-n-butylphthalate	11.22	149	648284	5.459	ppm	99
42)	Fluoranthene	11.73	202	678962	5.415	ppm	97
44)	Pyrene	11.90	202	729801	5.340	ppm	98
46)	Butyl benzyl phthalate	12.40	149	287539	5.227	ppm	87
47)	Benzo(a)anthracene	12.88	228	714515	5.044	ppm	98
48)	Chrysene	12.91	228	649611	5.125	ppm	95
49)	bis(2-Ethylhexyl)phthalate	12.86	149	411248	5.138	ppm	98
51)	Di-n-octyl phthalate	13.40	149	643171	5.246	ppm	81
52)	Benzo(b)Fluoranthene	13.78	252	647659	5.008	ppm	94
53)	Benzo(k)fluoranthene	13.81	252	548233	4.517	ppm	99
54)	Benzo(a)pyrene	14.09	252	596491	4.844	ppm	96
55)	Indeno(1,2,3-cd)Pyrene	15.32	276	634013	4.453	ppm	83
56)	Dibenz(a,h)anthracene	15.33	278	514229	4.377	ppm	96
57)	Benzo(g,h,i)perylene	15.67	276	490945	4.299	ppm	93

(#) = qualifier out of range (m) = manual integration
BQ725.D PAH090815.M Wed Sep 09 07:03:23 2015 00050 Page 2

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ725.D Vial: 11
Acq On : 8 Sep 2015 7:29 pm Operator: JMisiurewicz
Sample : ICV #1 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:59 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ726.D Vial: 12
Acq On : 8 Sep 2015 7:58 pm Operator: JMisiurewicz
Sample : ICV #2 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	102	0.00
2	T	1,4-Dioxane	0.732	0.659	10.0	105	0.02
3	S	SURR1,2-FLUOROPHENOL	1.263	0.000#	100.0#	0#	-5.29#
4	S	SURR2,PHENOL-D6	1.470	0.000#	100.0#	0#	-6.71#
5	TMC	Phenol	1.779	0.000#	100.0#	0#	-6.72#
6	TM	2-Chlorophenol	1.289	0.000#	100.0#	0#	-6.85#
7	TM	2-Methylphenol	1.175	0.000#	100.0#	0#	-7.40#
8	TM	3+4-Methylphenol	1.276	0.000#	100.0#	0#	-7.56#
9	IR	d8-Naphthalene	1.000	1.000	0.0	99	0.00
10	S	SURR4,NITROBENZENE-D5	0.390	0.000#	100.0#	0#	-7.68#
11	TM	Nitrobenzene	0.377	0.000#	100.0#	0#	-7.69#
12	TCM	2-Nitrophenol	0.198	0.000#	100.0#	0#	-8.00#
13	TM	2,4-Dimethylphenol	0.379	0.000#	100.0#	0#	-8.06#
14	TCM	2,4-Dichlorophenol	0.303	0.000#	100.0#	0#	-8.23#
15	TM	1,2,4-Trichlorobenzene	0.369	0.000#	100.0#	0#	-8.29#
16	TM	Naphthalene	1.027	0.000#	100.0#	0#	-8.35#
17	TMC	4-Chloro-3-methylphenol	0.285	0.000#	100.0#	0#	-8.83#
18	TM	2-Methylnaphthalene	0.636	0.000#	100.0#	0#	-8.92#
19	TM	1-Methylnaphthalene	0.654	0.000#	100.0#	0#	-9.00#
20	IR	d10-Acenaphthene	1.000	1.000	0.0	108	0.00
21	TCM	2,4,6-Trichlorophenol	0.387	0.000#	100.0#	0#	-9.15#
22	TM	2,4,5-Trichlorophenol	0.432	0.000#	100.0#	0#	-9.19#
23	S	SURR5,2-FLUOROBIPHENYL	1.461	0.000#	100.0#	0#	-9.21#
24	TM	2-Chloronaphthalene	1.205	0.000#	100.0#	0#	-9.30#
25	TM	Acenaphthylene	1.752	0.000#	100.0#	0#	-9.61#
26	TM	Dimethyl phthalate	1.281	0.000#	100.0#	0#	-9.52#
27	TMC	Acenaphthene	1.124	0.000#	100.0#	0#	-9.74#
28	TPM	2,4-Dinitrophenol	0.135	0.000#	100.0#	0#	-9.78#
29	TM	Dibenzofuran	1.644	0.000#	100.0#	0#	-9.87#
30	TMP	4-Nitrophenol	0.180	0.000#	100.0#	0#	-9.83#
31	TM	Fluorene	1.280	0.000#	100.0#	0#	-10.12#
32	TM	Diethylphthalate	1.285	0.000#	100.0#	0#	-10.03#
33	S	SURR3,2,4,6-TRIBROMOPHENOL	0.263	0.000#	100.0#	0#	-10.30#
34	IR	d10-Phenanthrene	1.000	1.000	0.0	112	0.00
35	TM	4,6-Dinitro-2-methylphenol	0.133	0.000#	100.0#	0#	-10.17#
36	TM	Hexachlorobenzene	0.316	0.000#	100.0#	0#	-10.52#
37	TCM	Pentachlorophenol	0.139	0.000#	100.0#	0#	-10.67#
38	TM	Phenanthrene	1.098	0.000#	100.0#	0#	-10.83#
39	TM	Anthracene	1.145	0.000#	100.0#	0#	-10.86#
40	TM	Carbazole	1.051	0.000#	100.0#	0#	-10.98#
41	TM	Di-n-butylphthalate	1.229	0.000#	100.0#	0#	-11.22#
42	TCM	Fluoranthene	1.298	0.000#	100.0#	0#	-11.72#
43	IR	d12-Chrysene	1.000	1.000	0.0	99	0.00
44	TM	Pyrene	1.151	0.000#	100.0#	0#	-11.90#
45	S	SURR6,TERPHENYL-D14	0.896	0.000#	100.0#	0#	-12.00#
46	TM	Butyl benzyl phthalate	0.463	0.000#	100.0#	0#	-12.38#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ726.D Vial: 12
Acq On : 8 Sep 2015 7:58 pm Operator: JMisiurewicz
Sample : ICV #2 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	TM	Benzo(a)anthracene	1.192	0.000#	100.0#	0#	-12.85#
48	TM	Chrysene	1.067	0.000#	100.0#	0#	-12.89#
49	TM	bis(2-Ethylhexyl)phthalate	0.674	0.000#	100.0#	0#	-12.84#
50	IR	d12-Perylene	1.000	1.000	0.0	97	-0.01
51	TCM	Di-n-octyl phthalate	1.110	0.000#	100.0#	0#	-13.37#
52	TM	Benzo(b)Fluoranthene	1.171	0.000#	100.0#	0#	-13.75#
53	TM	Benzo(k)fluoranthene	1.099	0.000#	100.0#	0#	-13.78#
54	TCM	Benzo(a)pyrene	1.114	0.000#	100.0#	0#	-14.06#
55	TM	Indeno(1,2,3-cd)Pyrene	1.289	0.000#	100.0#	0#	-15.29#
56	TM	Dibenz(a,h)anthracene	1.063	0.000#	100.0#	0#	-15.30#
57	TM	Benzo(g,h,i)perylene	1.034	0.000#	100.0#	0#	-15.64#

(#) = Out of Range SPCC's out = 2 CCC's out = 10
BQ726.D PAH090815.M Wed Sep 09 07:01:29 2015 00093 Page 2

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ726.D Vial: 12
Acq On : 8 Sep 2015 7:58 pm Operator: JMisiurewicz
Sample : ICV #2 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 7:01 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.09	152	19865	1.00	ppm	0.000
9) d8-Naphthalene	8.33	136	68817	1.00	ppm	0.000
20) d10-Acenaphthene	9.72	164	41611	1.00	ppm	0.000
34) d10-Phenanthrene	10.80	188	78531	1.00	ppm	0.000
43) d12-Chrysene	12.86	240	76205	1.00	ppm	0.000
50) d12-Perylene	14.09	264	76515	1.00	ppm	-0.012

System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	0.00	112	0d	0.00	ppm	
Spiked Amount 4.000	Range 10 - 104		Recovery = 0.00%#			
4) SURR2,PHENOL-D6	0.00	99	0d	0.00	ppm	
Spiked Amount 4.000	Range 11 - 63		Recovery = 0.00%#			
10) SURR4,NITROBENZENE-D5	0.00	82	0d	0.00	ppm	
Spiked Amount 2.000	Range 31 - 167		Recovery = 0.00%#			
23) SURR5,2-FLUOROBIPHENYL	0.00	172	0d	0.00	ppm	
Spiked Amount 2.000	Range 27 - 133		Recovery = 0.00%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	0.00	330	0d	0.00	ppm	
Spiked Amount 4.000	Range 10 - 212		Recovery = 0.00%#			
45) SURR6,TERPHENYL-D14	0.00	244	0d	0.00	ppm	
Spiked Amount 2.000	Range 38 - 166		Recovery = 0.00%#			

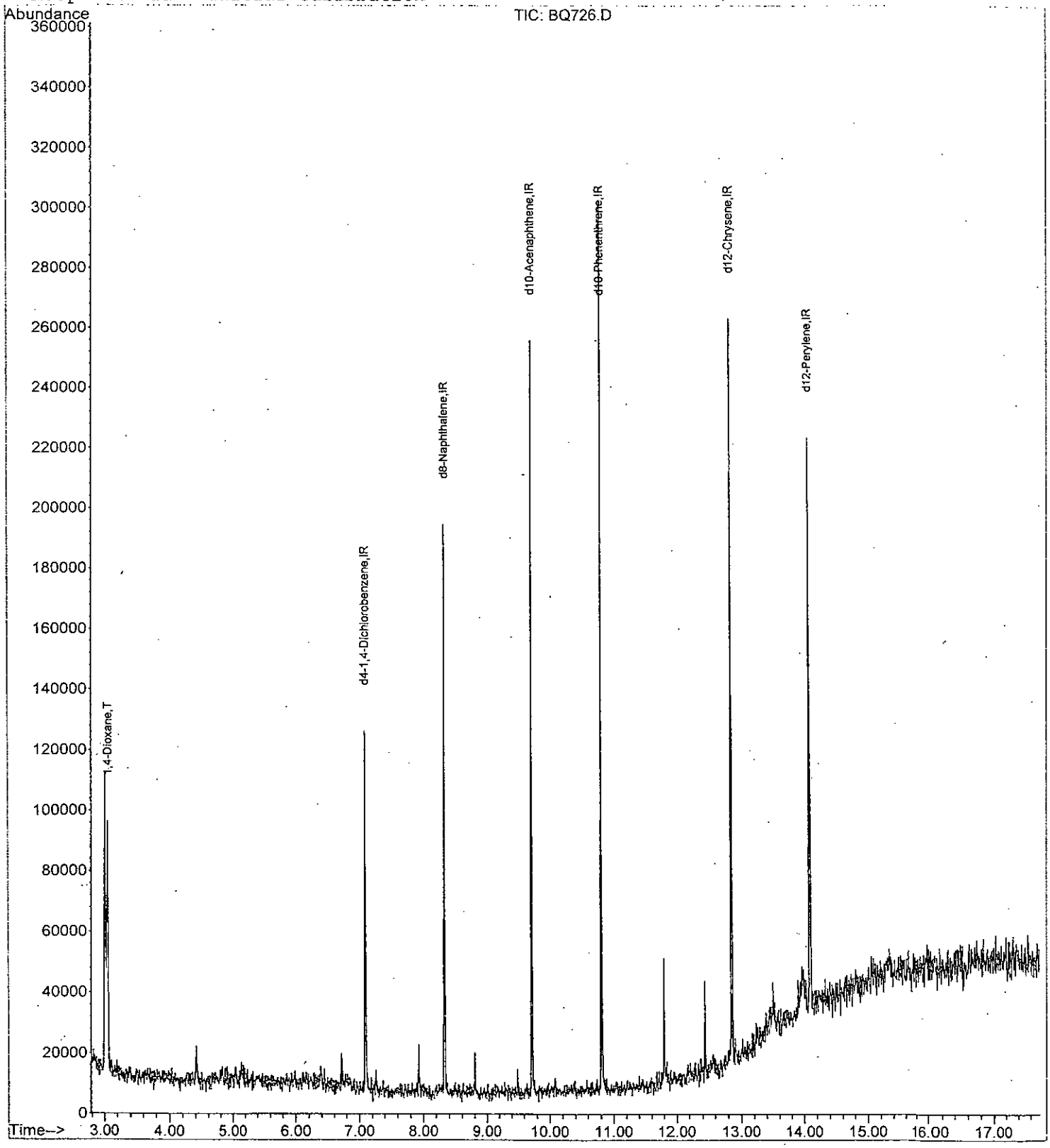
Target Compounds						Qvalue
2) 1,4-Dioxane	3.04	88	65417	4.497	ppm	# 51

(#) = qualifier out of range (m) = manual integration
BQ726.D PAH090815.M Wed Sep 09 07:03:32 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ726.D Vial: 12
Acq On : 8 Sep 2015 7:58 pm Operator: JMisiurewicz
Sample : ICV #2 Inst : 5973C
Misc : Initial Calibration 625/8270D LL 5.0 ppm Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 7:01 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:07 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.07	152	21874	1.00	ppm	-0.021
9) d8-Naphthalene	8.32	136	86120	1.00	ppm	-0.013
20) d10-Acenaphthene	9.71	164	53016	1.00	ppm	-0.011
34) d10-Phenanthrene	10.79	188	100523	1.00	ppm	-0.014
43) d12-Chrysene	12.79	240	119415m	1.00	ppm	-0.072
50) d12-Perylene	14.03	264	119472	1.00	ppm	-0.081
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.26	112	148812	5.39	ppm	-0.02
Spiked Amount 4.000	Range 10 - 104		Recovery = 134.75%#			
4) SURR2,PHENOL-D6	6.70	99	173411	5.39	ppm	0.00
Spiked Amount 4.000	Range 11 - 63		Recovery = 134.75%#			
10) SURR4,NITROBENZENE-D5	7.66	82	161728	4.81	ppm	-0.01
Spiked Amount 2.000	Range 31 - 167		Recovery = 240.50%#			
23) SURR5,2-FLUOROBIPHENYL	9.20	172	361870	4.67	ppm	-0.01
Spiked Amount 2.000	Range 27 - 133		Recovery = 233.50%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.30	330	76136	5.47	ppm	0.00
Spiked Amount 4.000	Range 10 - 212		Recovery = 136.75%			
45) SURR6,TERPHENYL-D14	11.95	244	531767	4.97	ppm	-0.05
Spiked Amount 2.000	Range 38 - 166		Recovery = 248.50%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.93	88	69625m	4.347	ppm	
5) Phenol	6.72	94	188879m	4.854	ppm	
6) 2-Chlorophenol	6.83	128	145066	5.144	ppm	90
7) 2-Methylphenol	7.40	108	135388	5.268	ppm	92
8) 3+4-Methylphenol	7.56	108	142909	5.119	ppm	95
11) Nitrobenzene	7.68	77	162512	5.002	ppm	95
12) 2-Nitrophenol	7.99	139	81339	4.782	ppm	86
13) 2,4-Dimethylphenol	8.06	107	161120	4.931	ppm	99
14) 2,4-Dichlorophenol	8.22	162	144631	5.539	ppm	90
15) 1,2,4-Trichlorobenzene	8.28	180	151988	4.787	ppm	95
16) Naphthalene	8.34	128	422119	4.775	ppm	98
17) 4-Chloro-3-methylphenol	8.83	107	118063	4.818	ppm	90
18) 2-Methylnaphthalene	8.91	142	286816	5.238	ppm	97
19) 1-Methylnaphthalene	8.99	142	282491	5.019	ppm	94
21) 2,4,6-Trichlorophenol	9.15	196	97527	4.749	ppm	94
22) 2,4,5-Trichlorophenol	9.19	196	101328	4.420	ppm	98
24) 2-Chloronaphthalene	9.29	162	299652	4.690	ppm	97
25) Acenaphthylene	9.61	152	440871	4.745	ppm	100
26) Dimethyl phthalate	9.51	163	358023	5.272	ppm	99
27) Acenaphthene	9.74	153	273239	4.586	ppm	92
28) 2,4-Dinitrophenol	9.78	184	36878	4.620	ppm	62
29) Dibenzofuran	9.86	168	405437	4.651	ppm	89
30) 4-Nitrophenol	9.84	65	55374	5.809	ppm	89
31) Fluorene	10.11	166	334286	4.926	ppm	95
32) Diethylphthalate	10.02	149	359536	5.277	ppm	93
35) 4,6-Dinitro-2-methylphenol	10.16	198	63608	4.755	ppm #	67
36) Hexachlorobenzene	10.52	284	162124	5.105	ppm	96
37) Pentachlorophenol	10.66	266	58809	4.218	ppm	90
38) Phenanthrene	10.81	178	523121	4.740	ppm	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:07 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

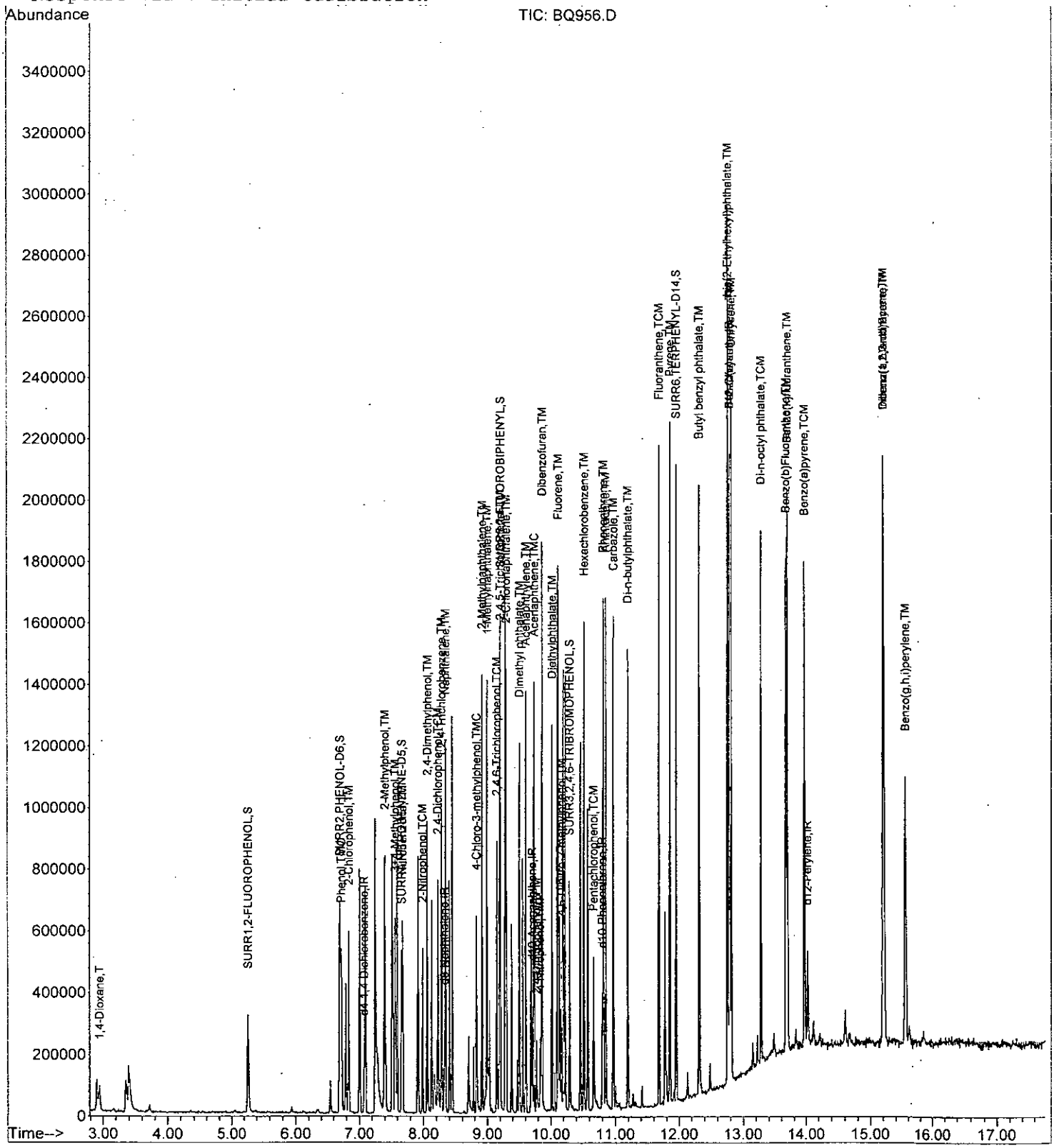
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Anthracene	10.85	178	558487	4.853	ppm	98
40)	Carbazole	10.97	167	508087	4.811	ppm	99
41)	Di-n-butylphthalate	11.19	149	667045	5.398	ppm	98
42)	Fluoranthene	11.68	202	649112	4.976	ppm	95
44)	Pyrene	11.85	202	672281	4.893	ppm	99
46)	Butyl benzyl phthalate	12.31	149	307462	5.559	ppm	90
47)	Benzo(a)anthracene	12.78	228	693785m	4.872	ppm	
48)	Chrysene	12.81	228	641102	5.032	ppm	98
49)	bis(2-Ethylhexyl)phthalate	12.75	149	418653	5.204	ppm	95
51)	Di-n-octyl phthalate	13.28	149	675049	5.092	ppm	82
52)	Benzo(b)Fluoranthene	13.67	252	702126	5.021	ppm	95
53)	Benzo(k)fluoranthene	13.69	252	614337	4.681	ppm	100
54)	Benzo(a)pyrene	13.97	252	623507	4.683	ppm	94
55)	Indeno(1,2,3-cd)Pyrene	15.21	276	748260	4.860	ppm	83
56)	Dibenz(a,h)anthracene	15.22	278	616684	4.854	ppm	92
57)	Benzo(g,h,i)perylene	15.56	276	574452	4.652	ppm	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:07 2015 Quant Results File: PAH090815.RES

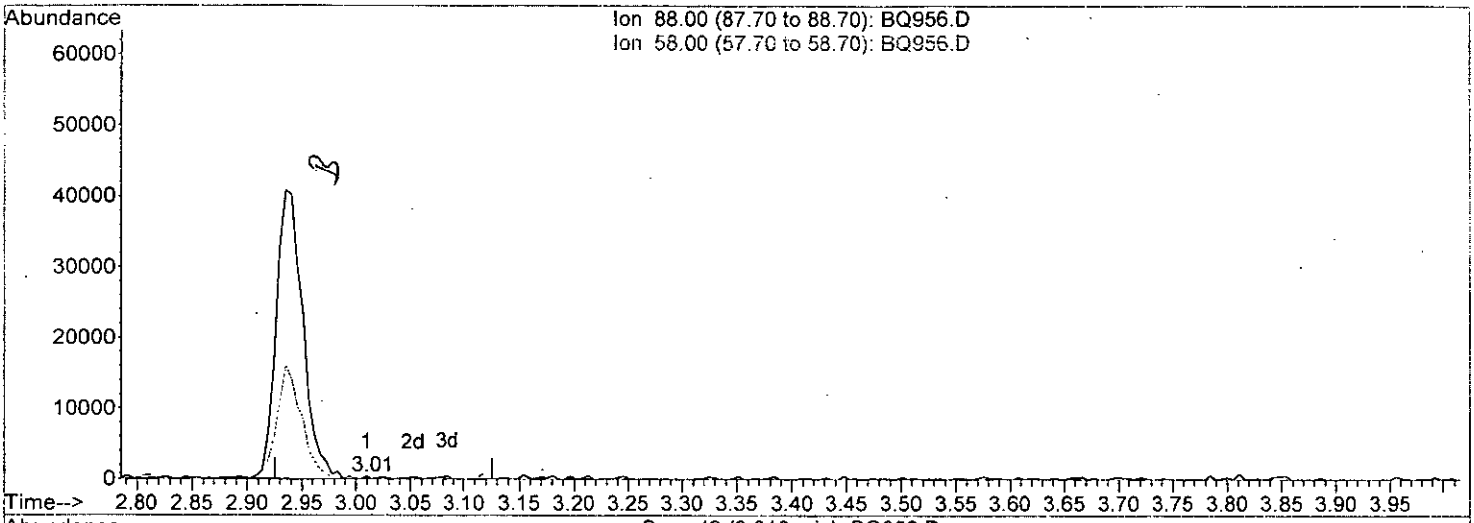
Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration

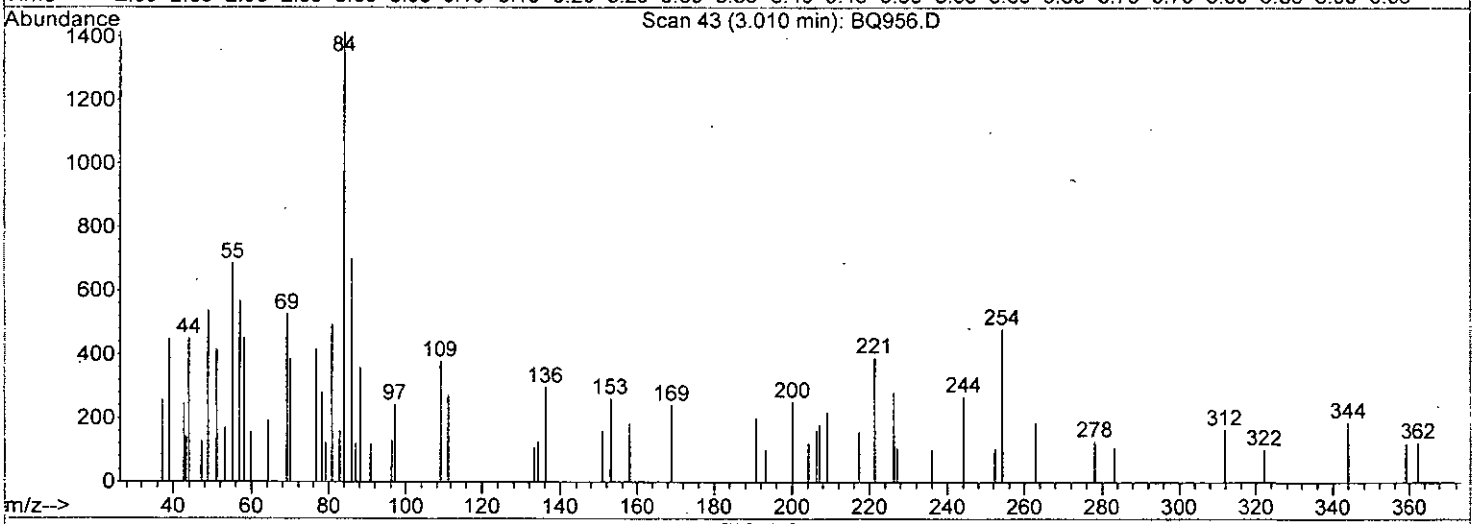


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 14 7:23 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Single Level Calibration





TIC: BQ956.D

(2) 1,4-Dioxane (T)

3.01min 0.01ppm

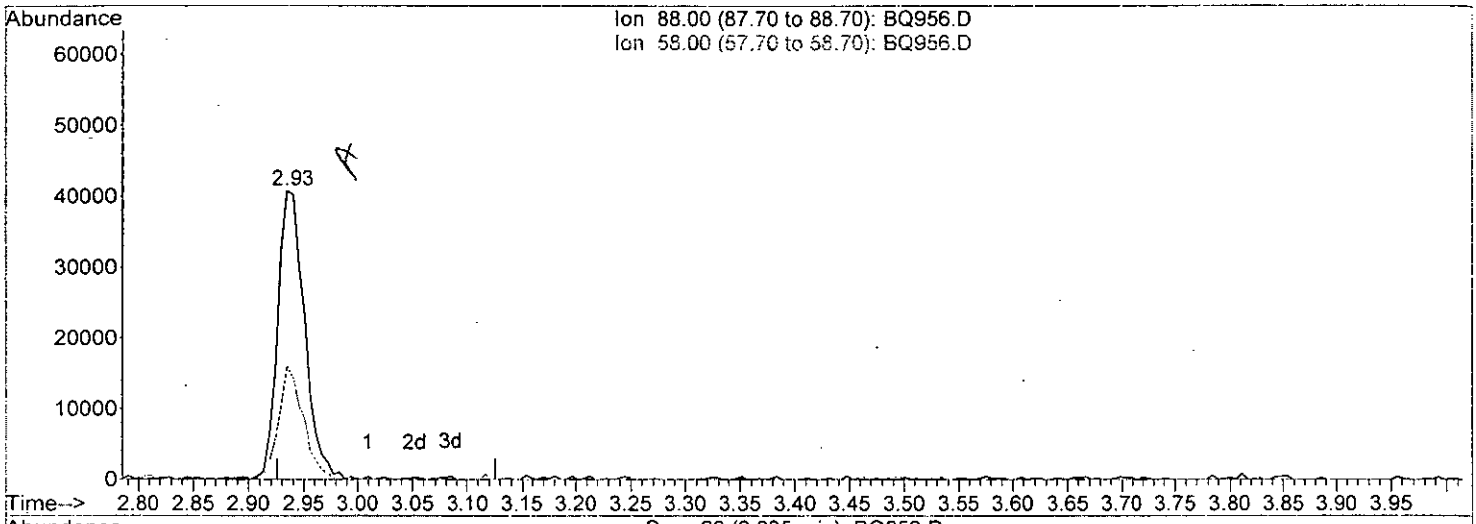
response 115

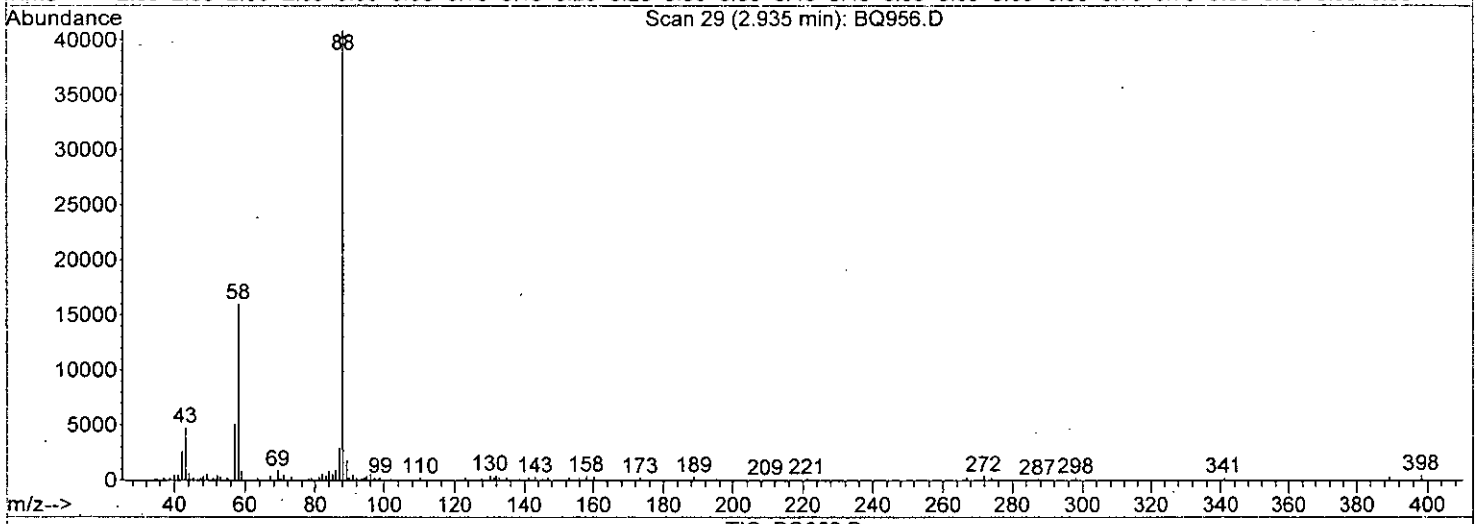
Ion	Exp%	Act%
88.00	100	100
58.00	79.20	126.54#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:05 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Single Level Calibration





TIC: BQ956.D

(2) 1,4-Dioxane (T)

2.93min 4.35ppm m

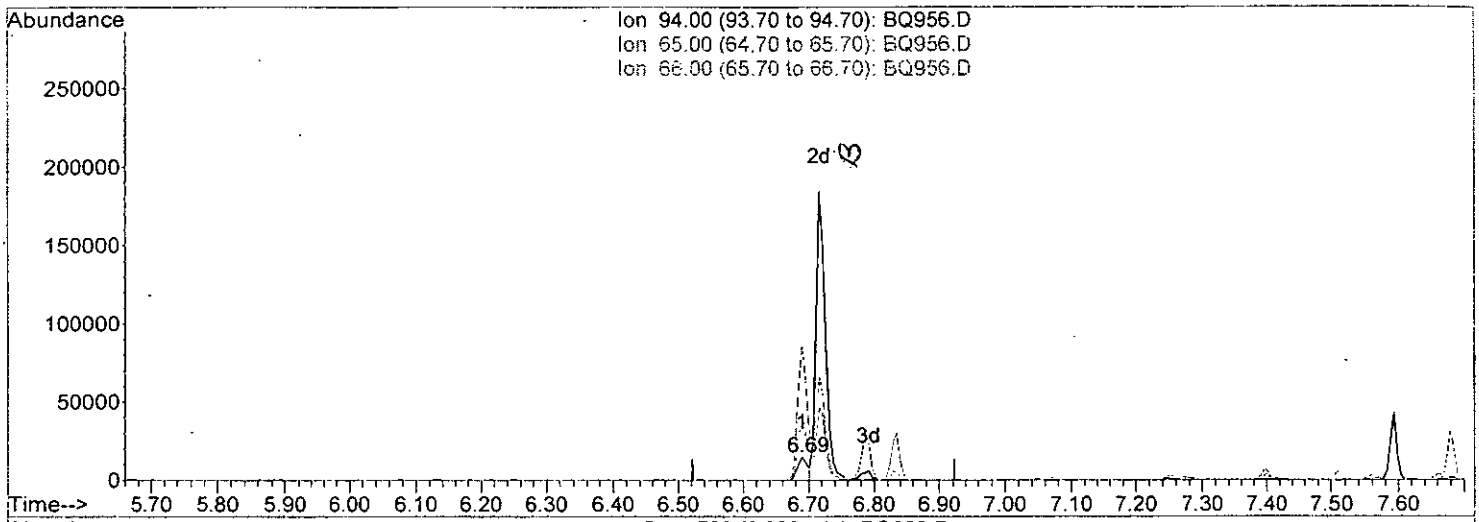
response 69625

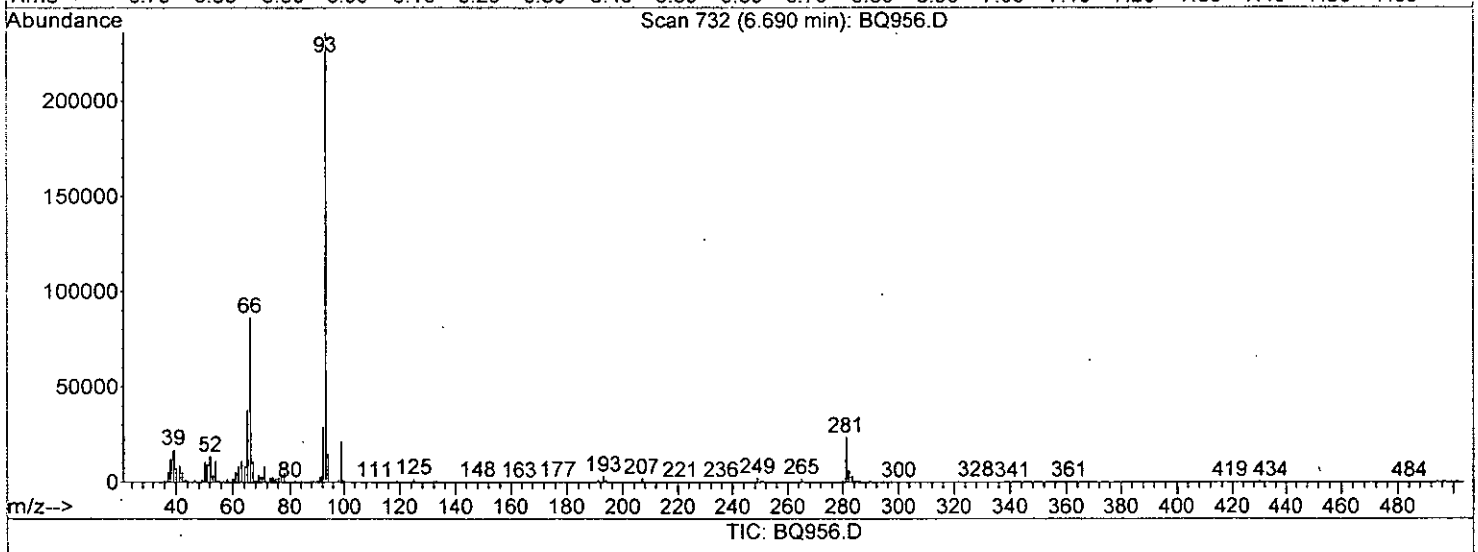
Ion	Exp%	Act%
88.00	100	100
58.00	79.20	39.10#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:05 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BQ956.D

(5) Phenol (TMC)

6.69min 0.41ppm

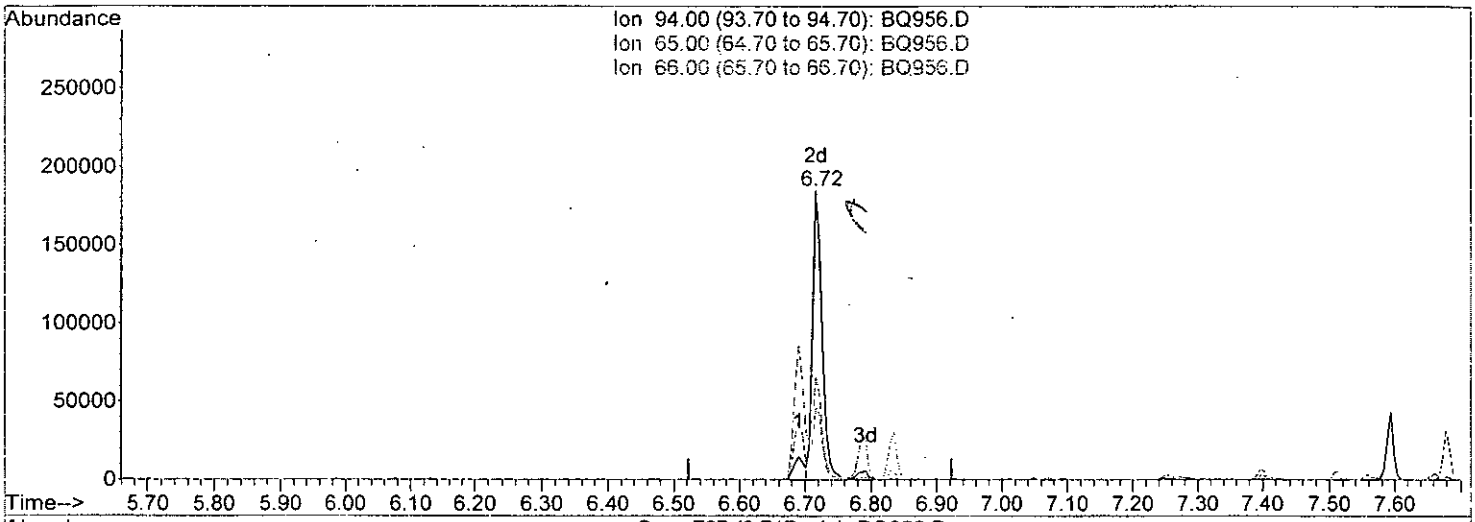
response 16009

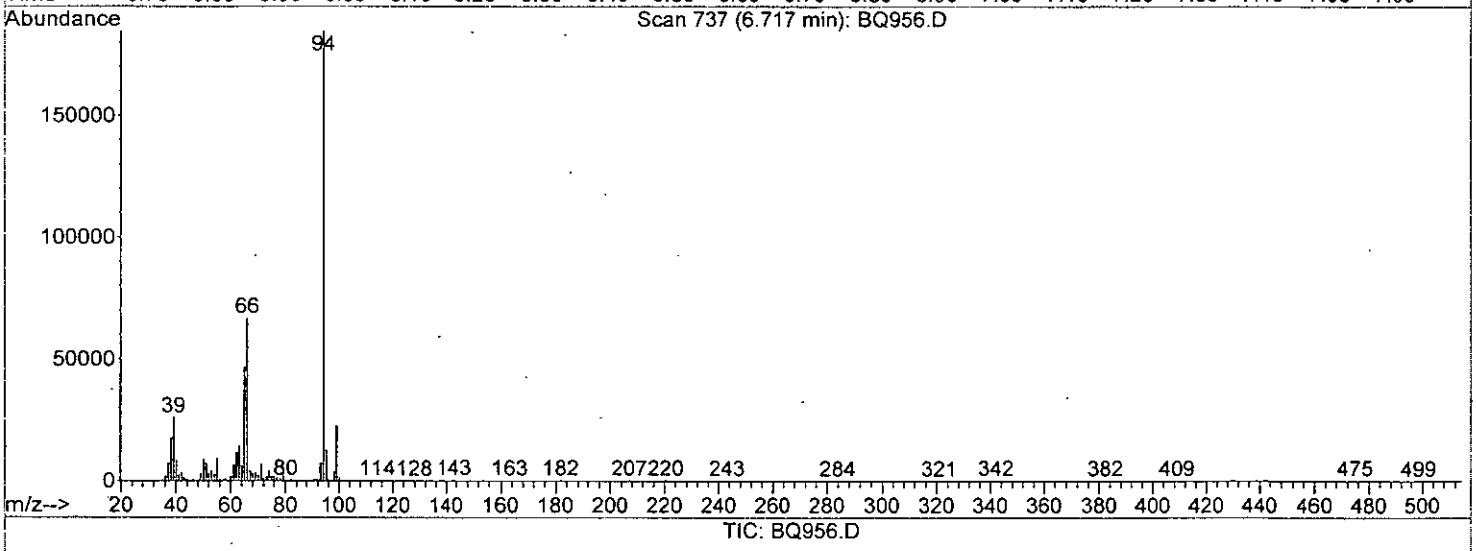
Ion	Exp%	Act%
94.00	100	100
65.00	58.10	291.46#
66.00	96.00	646.99#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:05 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BQ956.D

(5) Phenol (TMC)

6.72min 4.85ppm m

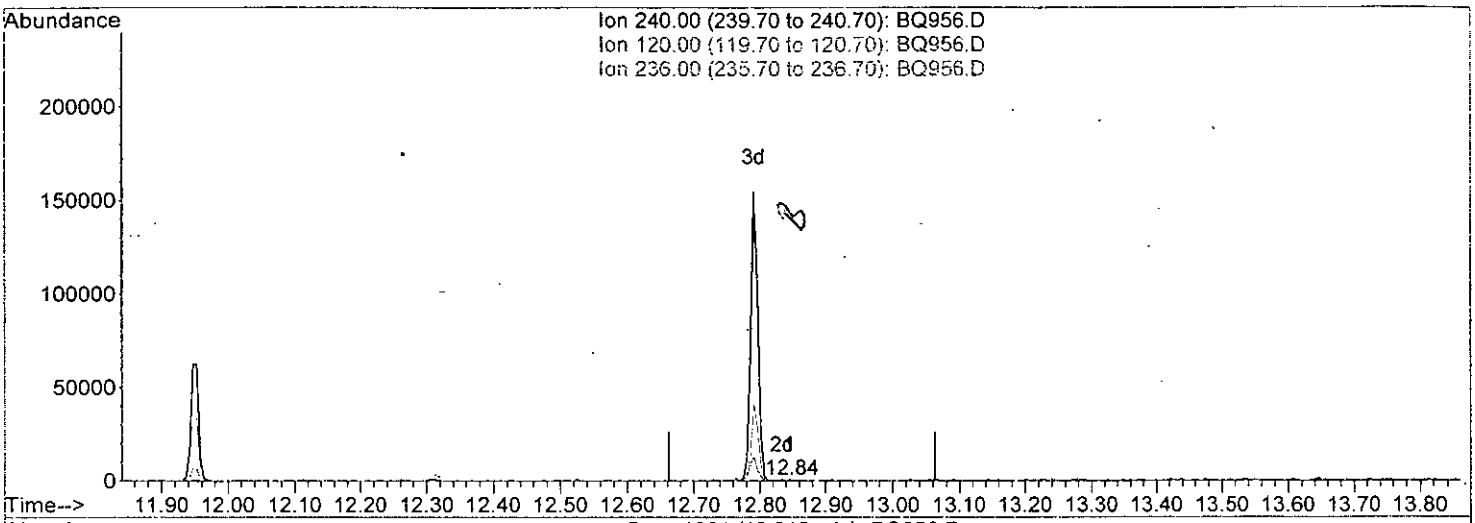
response 188879

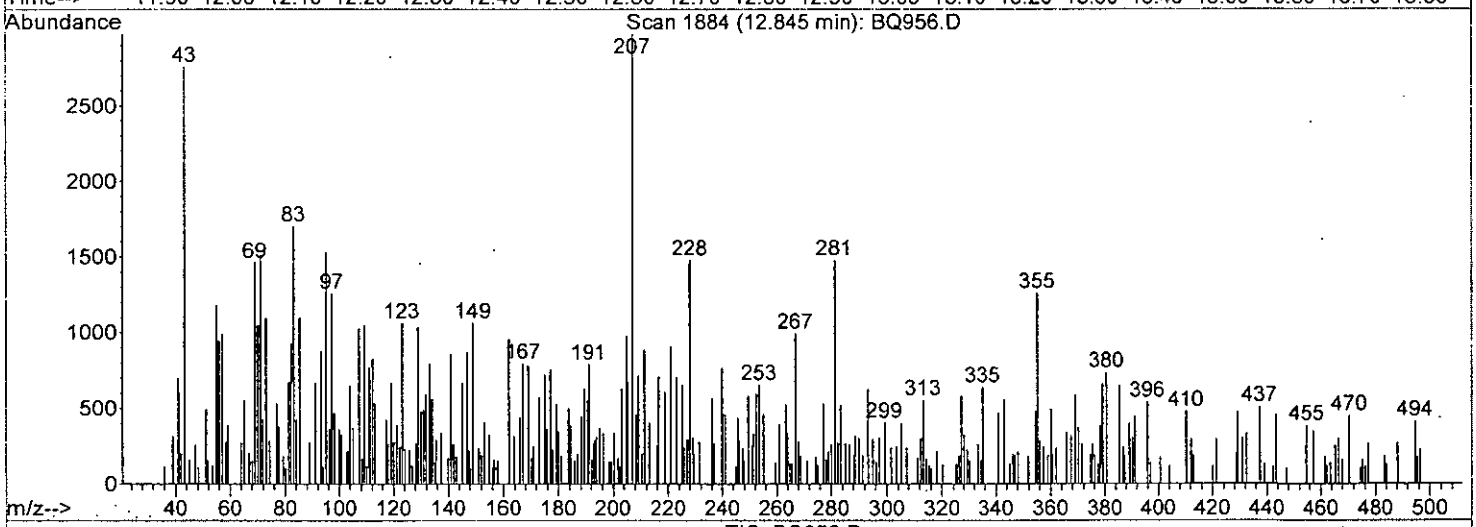
Ion	Exp%	Act%
94.00	100	100
65.00	58.10	25.22#
66.00	96.00	36.12#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:05 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BQ956.D

(43) d12-Chrysene (IR)

12.84min 1.00ppm

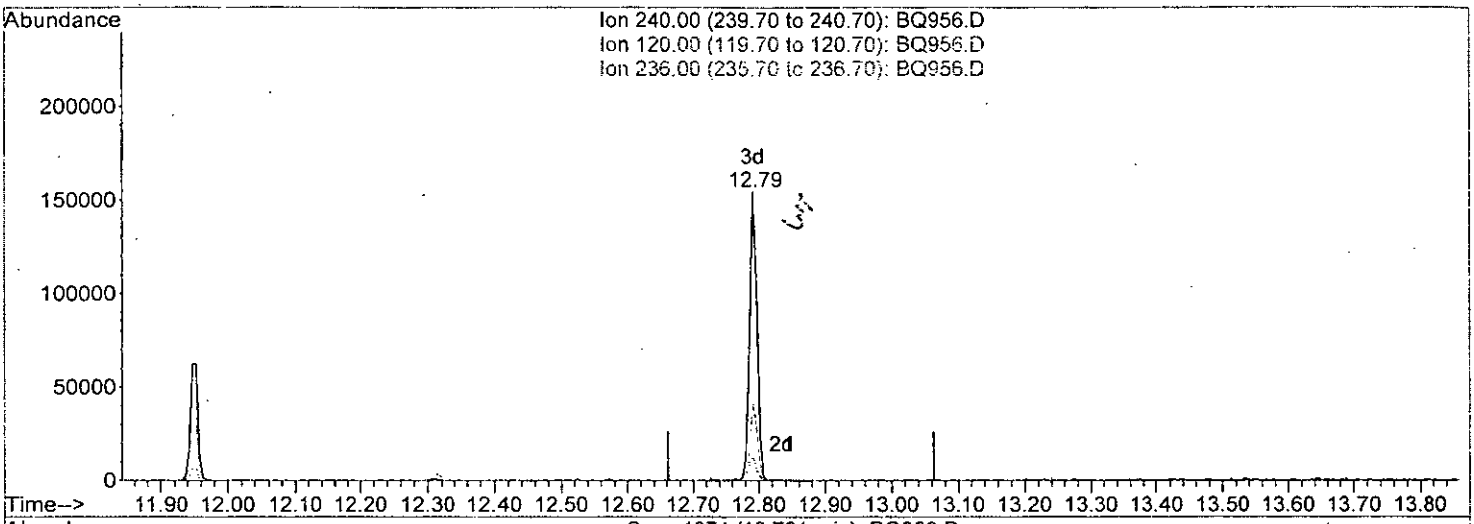
response 455

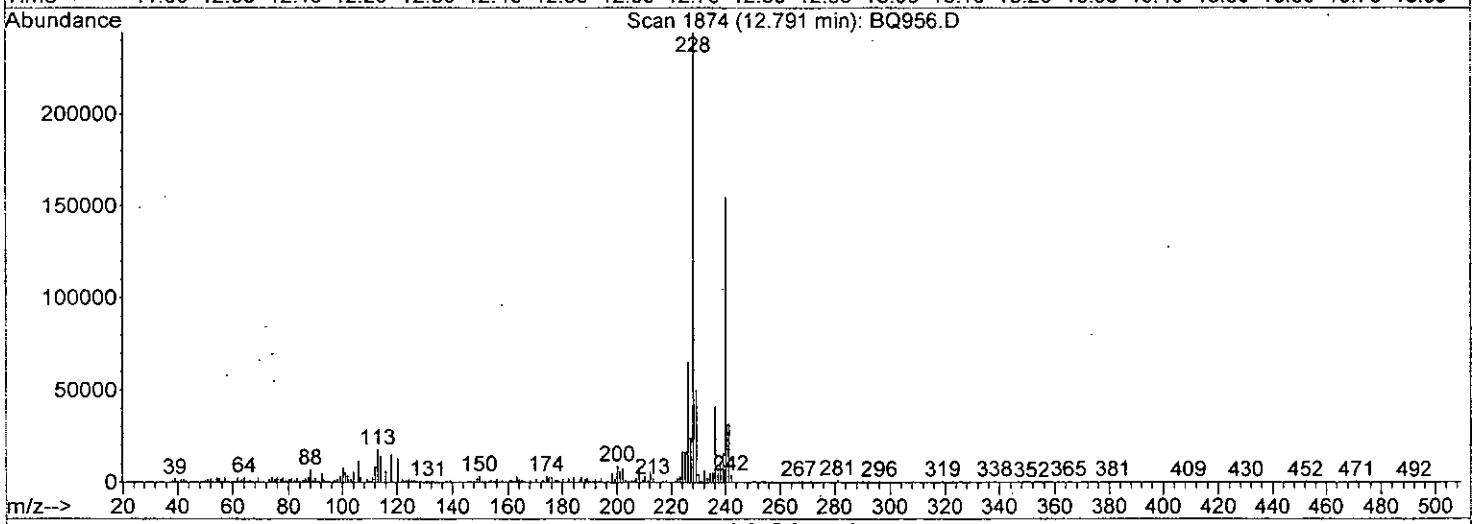
Ion	Exp%	Act%
240.00	100	100
120.00	13.30	0.00
236.00	27.20	25.92
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:06 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BQ956.D

(43) d12-Chrysene (IR)

12.79min 1.00ppm m

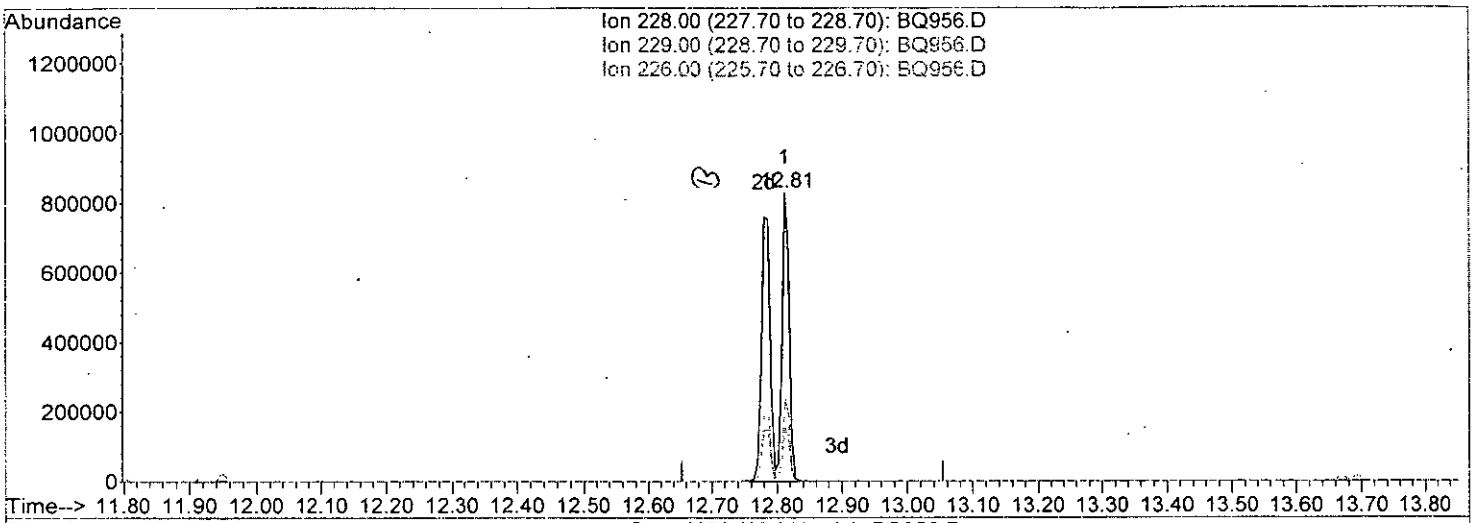
response 119415

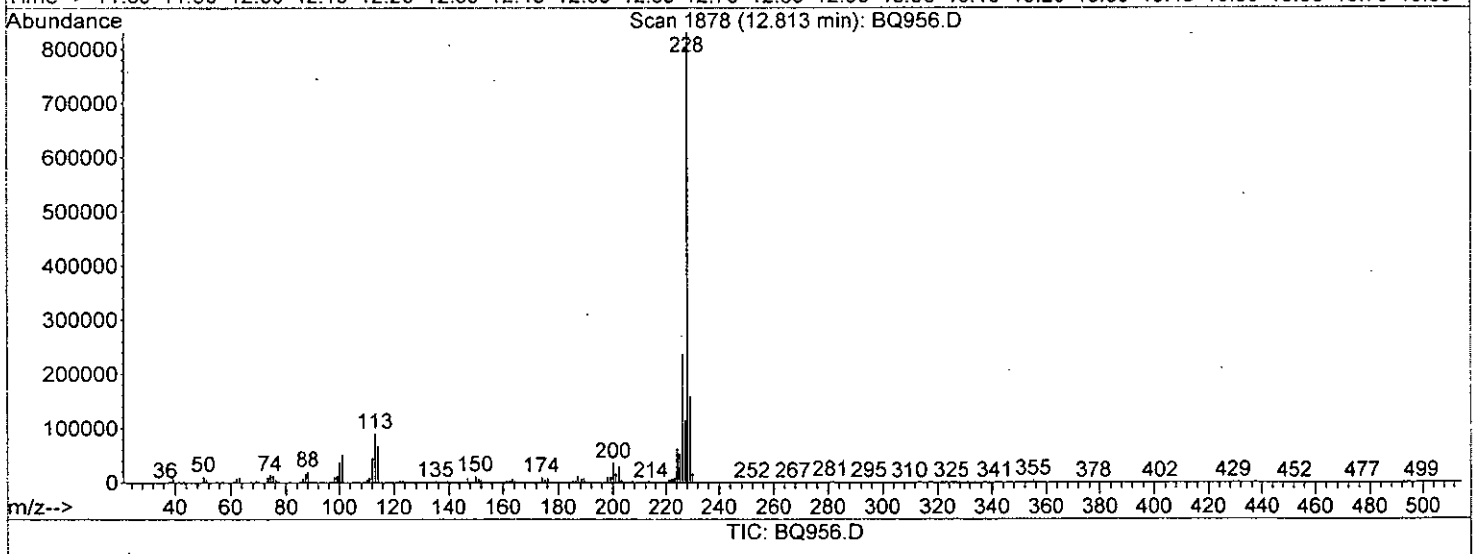
Ion	Exp%	Act%
240.00	100	100
120.00	13.30	8.52
236.00	27.20	26.49
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:06 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BQ956.D

(47) Benzo(a)anthracene (TM)

12.81min 4.50ppm

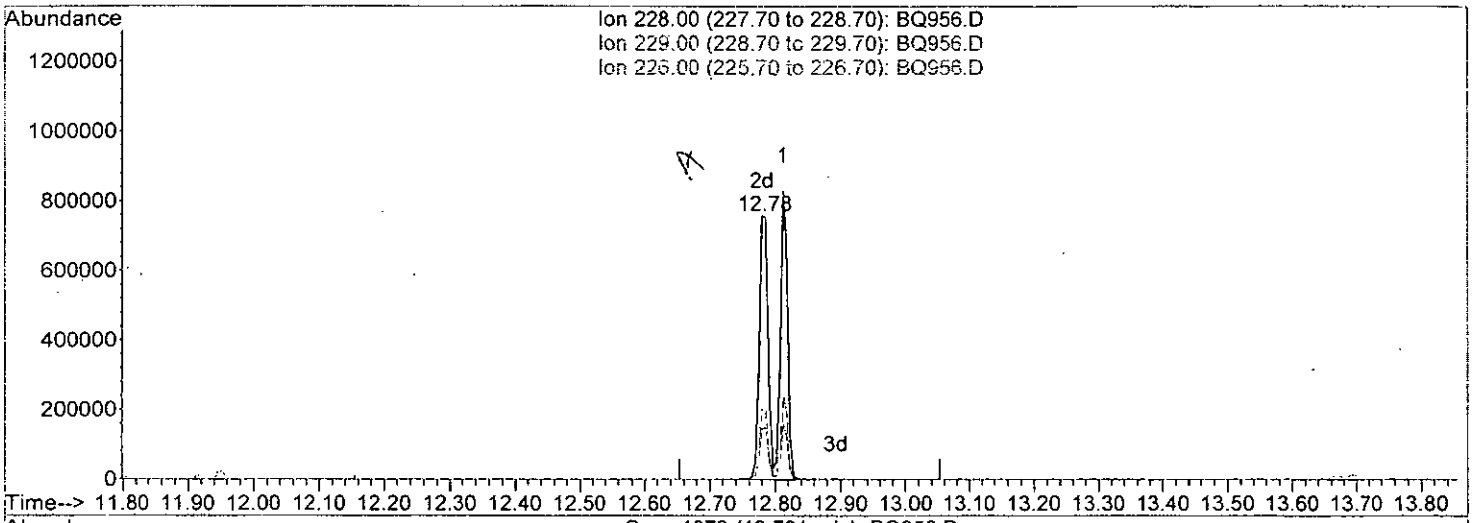
response 641046

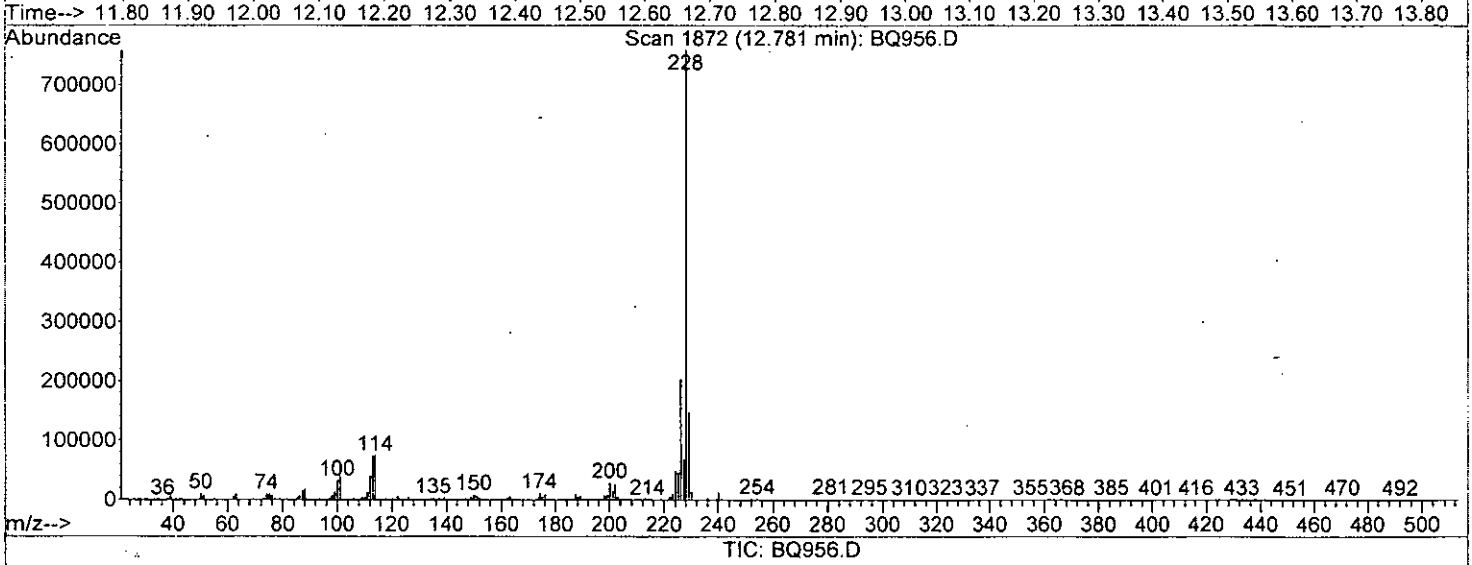
Ion	Exp%	Act%
228.00	100	100
229.00	19.30	19.17
226.00	27.40	28.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:07 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BQ956.D

(47) Benzo(a)anthracene (TM)

12.78min 4.87ppm m

response 693785

Ion	Exp%	Act%
228.00	100	100
229.00	19.30	19.43
226.00	27.40	26.82
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Oct 16 10:52:15 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	99	0.00	
2	T	1,4-Dioxane	0.732	0.638	12.8	98	0.00	
3	S	SURR1,2-FLUOROPHENOL	1.263	1.244	1.5	101	0.00	
4	S	SURR2,PHENOL-D6	1.470	1.675	-13.9	113	0.00	
5	TMC	Phenol	1.779	1.722	3.2	103	0.00	
6	TM	2-Chlorophenol	1.289	1.261	2.2	100	0.00	
7	TM	2-Methylphenol	1.175	1.311	-11.6	120	0.00	
8	TM	3+4-Methylphenol	1.276	1.347	-5.6	114	0.00	
9	IR	d8-Naphthalene	1.000	1.000	0.0	100	0.00	
10	S	SURR4,NITROBENZENE-D5	0.390	0.468	-20.0#	127	0.00	
11	TM	Nitrobenzene	0.377	0.479	-27.1#	133	0.00	NT
12	TCM	2-Nitrophenol	0.198	0.209	-5.6	110	0.00	
13	TM	2,4-Dimethylphenol	0.379	0.432	-14.0	123	0.00	
14	TCM	2,4-Dichlorophenol	0.303	0.343	-13.2	110	0.00	
15	TM	1,2,4-Trichlorobenzene	0.369	0.368	0.3	105	0.00	
16	TM	Naphthalene	1.027	1.015	1.2	104	0.00	
17	TMC	4-Chloro-3-methylphenol	0.285	0.316	-10.9	131	0.00	
18	TM	2-Methylnaphthalene	0.636	0.676	-6.3	108	0.00	
19	TM	1-Methylnaphthalene	0.654	0.661	-1.1	105	0.00	
20	IR	d10-Acenaphthene	1.000	1.000	0.0	121	0.00	
21	TCM	2,4,6-Trichlorophenol	0.387	0.337	12.9	110	0.00	
22	TM	2,4,5-Trichlorophenol	0.432	0.364	15.7	107	0.00	
23	S	SURR5,2-FLUOROBIPHENYL	1.461	1.288	11.8	106	0.00	
24	TM	2-Chloronaphthalene	1.205	1.061	12.0	108	0.00	
25	TM	Acenaphthylene	1.752	1.619	7.6	112	0.00	
26	TM	Dimethyl phthalate	1.281	1.269	0.9	111	0.00	
27	TMC	Acenaphthene	1.124	1.035	7.9	112	0.00	
28	TPM	2,4-Dinitrophenol	0.135	0.129	12.3 ~~4.4~~	106	0.00	Q
29	TM	Dibenzofuran	1.644	1.493	9.2	116	0.00	
30	TMP	4-Nitrophenol	0.180	0.216	-20.0#	136	0.00	
31	TM	Fluorene	1.280	1.236	3.4	118	0.00	
32	TM	Diethylphthalate	1.285	1.294	-0.7	116	0.00	
33	S	SURR3,2,4,6-TRIBROMOPHENOL	0.263	0.257	2.3	113	0.00	
34	IR	d10-Phenanthrene	1.000	1.000	0.0	114	0.00	
35	TM	4,6-Dinitro-2-methylphenol	0.133	0.127	4.5	99	0.00	
36	TM	Hexachlorobenzene	0.316	0.340	-7.6	122	0.00	
37	TCM	Pentachlorophenol	0.139	0.107	23.0	75	0.00	NT
38	TM	Phenanthrene	1.098	1.058	3.6	114	0.00	
39	TM	Anthracene	1.145	1.149	-0.3	113	0.00	
40	TM	Carbazole	1.051	1.052	-0.1	115	0.00	
41	TM	Di-n-butylphthalate	1.229	1.316	-7.1	116	0.00	
42	TCM	Fluoranthene	1.298	1.329	-2.4	115	0.00	
43	IR	d12-Chrysene	1.000	1.000	0.0	117	0.00	
44	TM	Pyrene	1.151	1.205	-4.7	113	0.00	
45	S	SURR6,TERPHENYL-D14	0.896	0.951	-6.1	121	0.00	
46	TM	Butyl benzyl phthalate	0.463	0.541	-16.8	124	0.00	

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D
Acq On : 15 Oct 2015 10:37 am
Sample : CCV
Misc : 5.0 ppm STD 820D
MS Integration Params: RTEINT.P

Vial: 3
Operator: JMisiurewicz
Inst : 5973C
Multiplr: 1.00

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Oct 16 10:52:15 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	TM	Benzo(a)anthracene	1.192	1.197	-0.4	113	0.00
48	TM	Chrysene	1.067	1.063	0.4	112	0.00
49	TM	bis(2-Ethylhexyl)phthalate	0.674	0.711	-5.5	122	0.00
50	IR	d12-Perylene	1.000	1.000	0.0	122	0.00
51	TCM	Di-n-octyl phthalate	1.110	1.105	0.5	121	0.00
52	TM	Benzo(b)Fluoranthene	1.171	1.077	8.0	117	0.00
53	TM	Benzo(k)fluoranthene	1.099	1.079	1.8	122	0.00
54	TCM	Benzo(a)pyrene	1.114	1.049	5.8	121	0.00
55	TM	Indeno(1,2,3-cd)Pyrene	1.289	1.295	-0.5	126	0.00
56	TM	Dibenz(a,h)anthracene	1.063	1.045	1.7	129	0.00
57	TM	Benzo(g,h,i)perylene	1.034	0.998	3.5	128	0.00

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:51 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.06	152	19265	1.00	ppm	-0.031
9) d8-Naphthalene	8.31	136	69657	1.00	ppm	-0.023
20) d10-Acenaphthene	9.70	164	46548	1.00	ppm	-0.021
34) d10-Phenanthrene	10.78	188	79902	1.00	ppm	-0.025
43) d12-Chrysene	12.78	240	90291m	1.00	ppm	-0.082
50) d12-Perylene	14.01	264	96235	1.00	ppm	-0.097
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.25	112	119796	4.92	ppm	-0.04
Spiked Amount 4.000	Range 10 - 104		Recovery = 123.00%#			
4) SURR2,PHENOL-D6	6.70	99	161365	5.70	ppm	-0.01
Spiked Amount 4.000	Range 11 - 63		Recovery = 142.50%#			
10) SURR4,NITROBENZENE-D5	7.65	82	163002	6.00	ppm	-0.02
Spiked Amount 2.000	Range 31 - 167		Recovery = 300.00%#			
23) SURR5,2-FLUOROBIPHENYL	9.19	172	299848	4.41	ppm	-0.02
Spiked Amount 2.000	Range 27 - 133		Recovery = 220.50%#			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.28	330	59704	4.88	ppm	-0.02
Spiked Amount 4.000	Range 10 - 212		Recovery = 122.00%			
45) SURR6,TERPHENYL-D14	11.94	244	429421	5.31	ppm	-0.06
Spiked Amount 2.000	Range 38 - 166		Recovery = 265.50%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.92	88	61445m	4.356	ppm	
5) Phenol	6.71	94	165912m	4.841	ppm	
6) 2-Chlorophenol	6.82	128	121427	4.889	ppm	95
7) 2-Methylphenol	7.39	108	126241	5.578	ppm	91
8) 3+4-Methylphenol	7.55	108	129723	5.276	ppm	93
11) Nitrobenzene	7.67	77	166662	6.343	ppm	97
12) 2-Nitrophenol	7.98	139	72842	5.295	ppm	93
13) 2,4-Dimethylphenol	8.05	107	150564	5.697	ppm	94
14) 2,4-Dichlorophenol	8.21	162	119556	5.661	ppm	92
15) 1,2,4-Trichlorobenzene	8.27	180	128213	4.993	ppm	95
16) Naphthalene	8.33	128	353670	4.946	ppm	97
17) 4-Chloro-3-methylphenol	8.82	107	110192	5.560	ppm	87
18) 2-Methylnaphthalene	8.90	142	235463	5.316	ppm	94
19) 1-Methylnaphthalene	8.98	142	230381	5.061	ppm	96
21) 2,4,6-Trichlorophenol	9.14	196	78322	4.344	ppm	98
22) 2,4,5-Trichlorophenol	9.18	196	84684	4.207	ppm	94
24) 2-Chloronaphthalene	9.28	162	246869	4.401	ppm	94
25) Acenaphthylene	9.60	152	376704	4.618	ppm	98
26) Dimethyl phthalate	9.49	163	295321	4.953	ppm	99
27) Acenaphthene	9.72	153	240906	4.605	ppm	96
28) 2,4-Dinitrophenol	9.77	184	30108	4.384	ppm	64
29) Dibenzofuran	9.85	168	347377	4.539	ppm	91
30) 4-Nitrophenol	9.82	65	50366	6.018	ppm	86
31) Fluorene	10.10	166	287584	4.827	ppm	97
32) Diethylphthalate	10.01	149	301145	5.034	ppm	97
35) 4,6-Dinitro-2-methylphenol	10.15	198	50636	4.762	ppm #	76
36) Hexachlorobenzene	10.50	284	136025	5.388	ppm	99
37) Pentachlorophenol	10.65	266	42842	3.865	ppm	85
38) Phenanthrene	10.80	178	422844	4.820	ppm	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:51 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

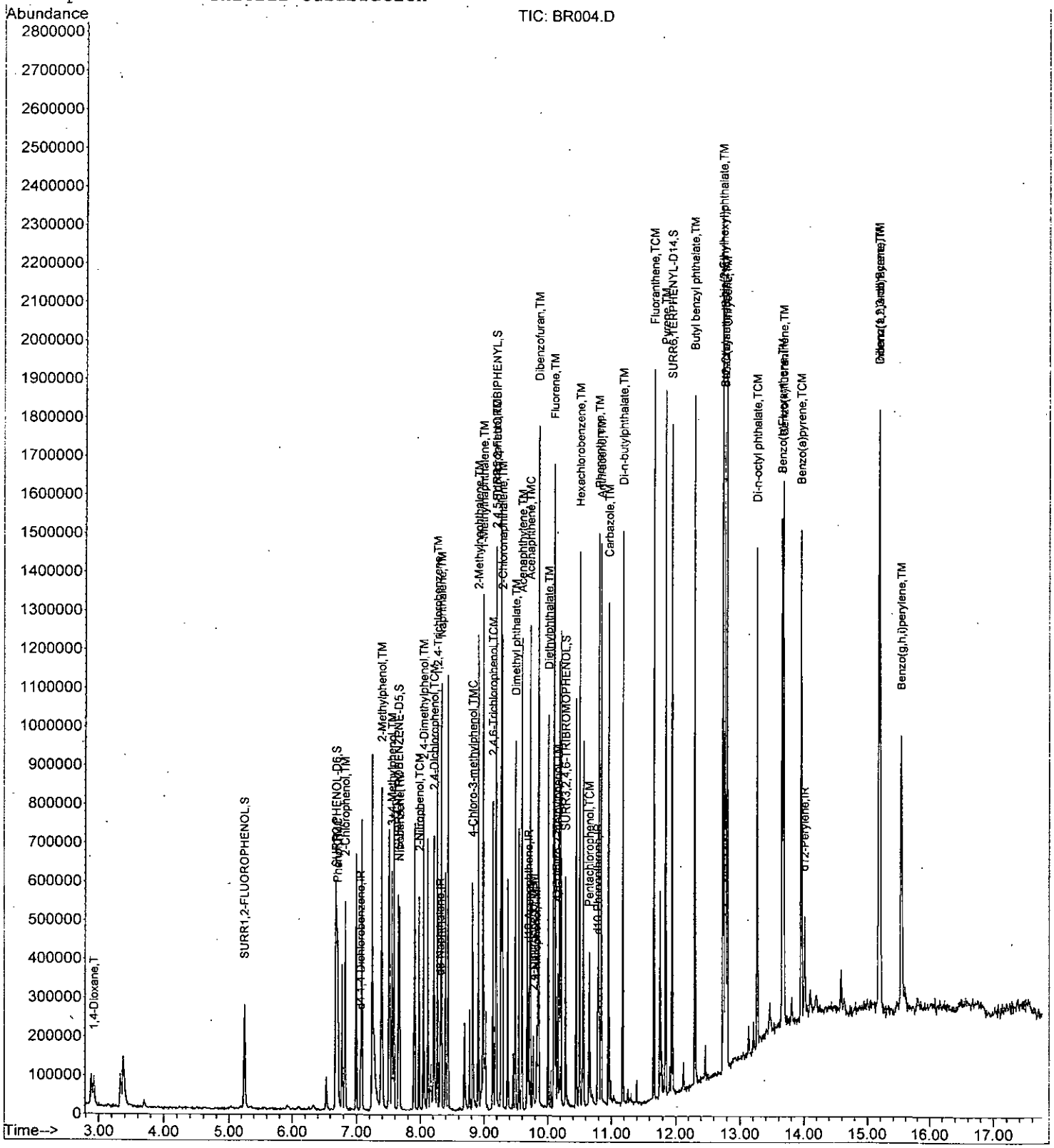
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Anthracene	10.84	178	459176	5.020	ppm	99
40)	Carbazole	10.96	167	420098	5.004	ppm	100
41)	Di-n-butylphthalate	11.18	149	525740	5.353	ppm	99
42)	Fluoranthene	11.67	202	530755m	5.118	ppm	
44)	Pyrene	11.84	202	544185m	5.238	ppm	
46)	Butyl benzyl phthalate	12.30	149	244233m	5.841	ppm	
47)	Benzo(a)anthracene	12.78	228	540394m	5.019	ppm	
48)	Chrysene	12.80	228	479976m	4.982	ppm	
49)	bis(2-Ethylhexyl)phthalate	12.74	149	320977	5.276	ppm	97
51)	Di-n-octyl phthalate	13.26	149	531472	4.977	ppm	84
52)	Benzo(b)Fluoranthene	13.66	252	518360	4.602	ppm	94
53)	Benzo(k)fluoranthene	13.68	252	519342	4.913	ppm	96
54)	Benzo(a)pyrene	13.96	252	504767	4.707	ppm	93
55)	Indeno(1,2,3-cd)Pyrene	15.19	276	622953	5.023	ppm	83
56)	Dibenz(a,h)anthracene	15.20	278	503024	4.916	ppm	91
57)	Benzo(g,h,i)perylene	15.54	276	480345	4.829	ppm	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:51 2015 Quant Results File: PAH090815.RES

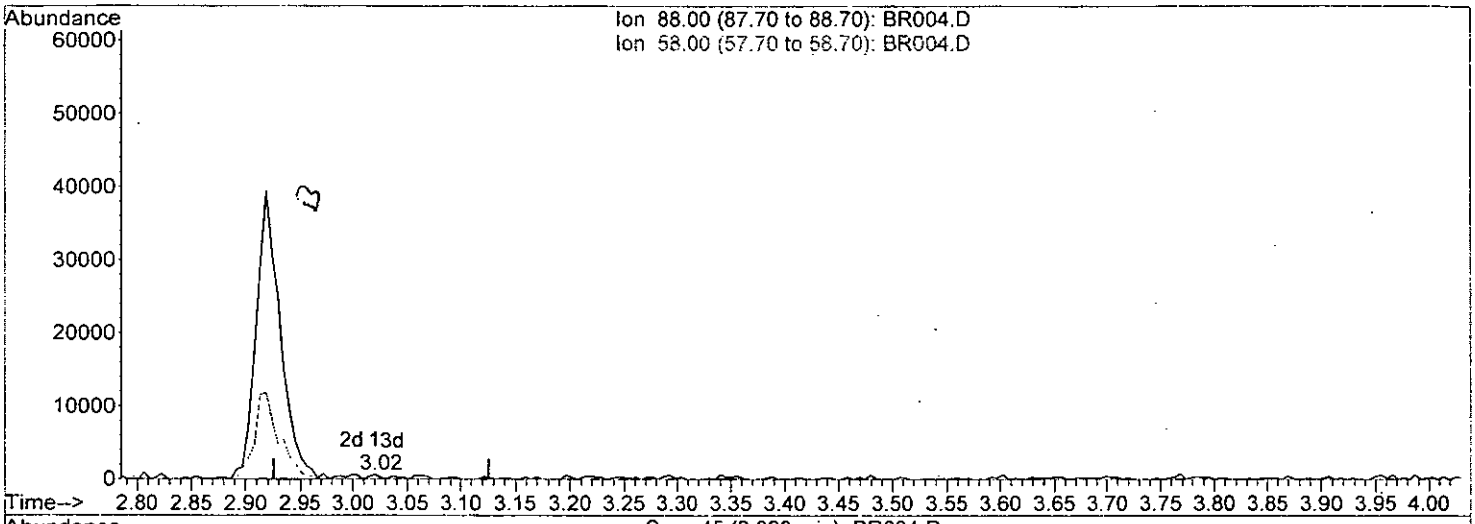
Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Initial Calibration

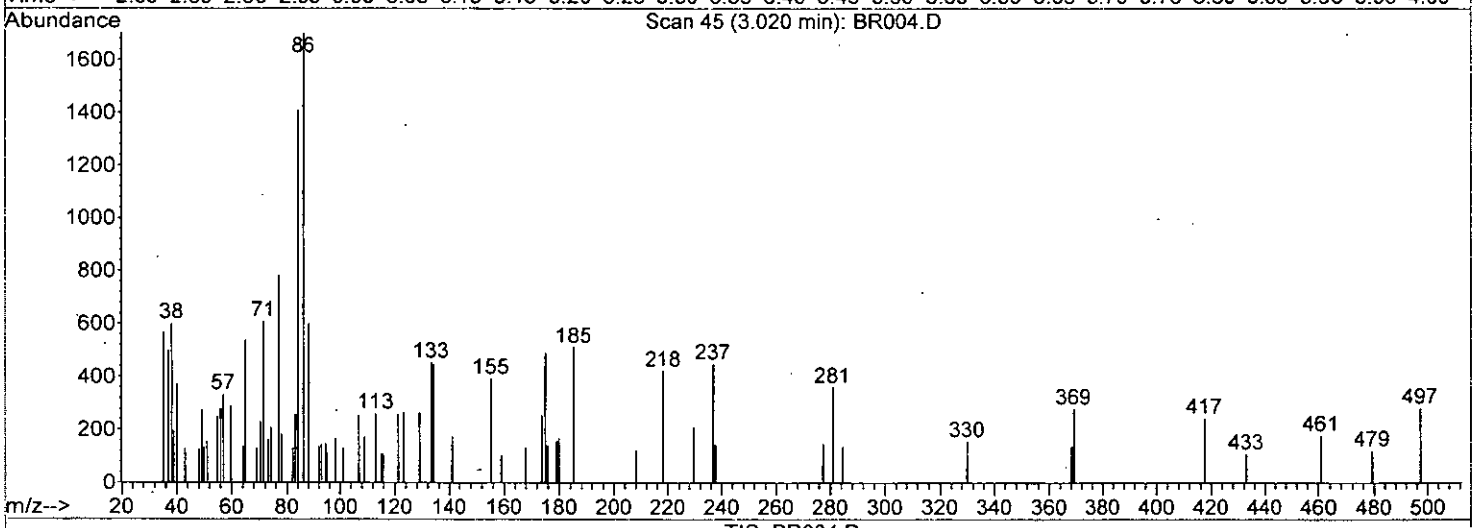


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:49 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Single Level Calibration





TIC: BR004.D

(2) 1,4-Dioxane (T)

3.02min 0.03ppm

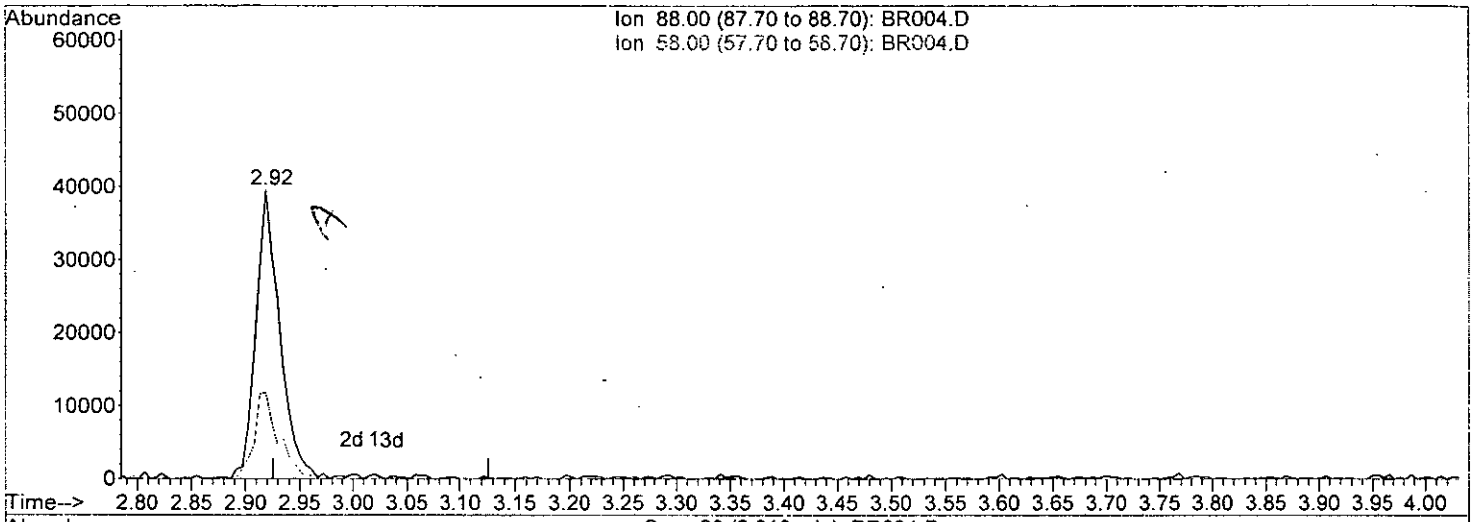
response 386

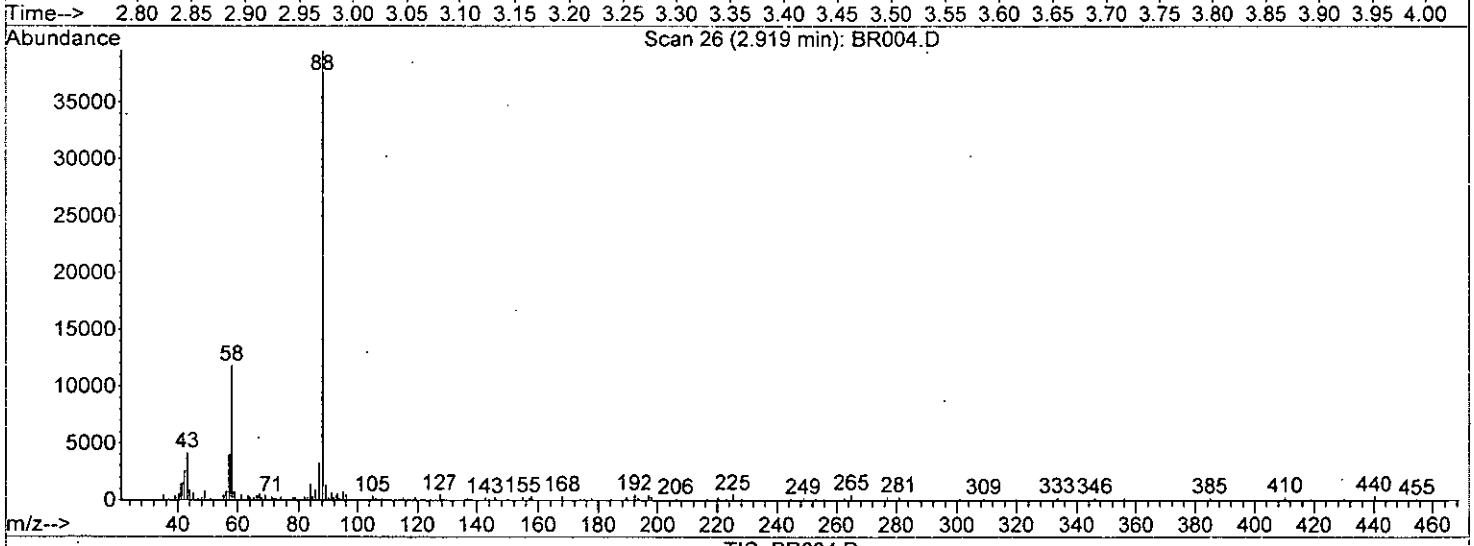
Ion	Exp%	Act%
88.00	100	100
58.00	79.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:49 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Single Level Calibration





TIC: BR004.D

(2) 1,4-Dioxane (T)

2.92min 4.36ppm m

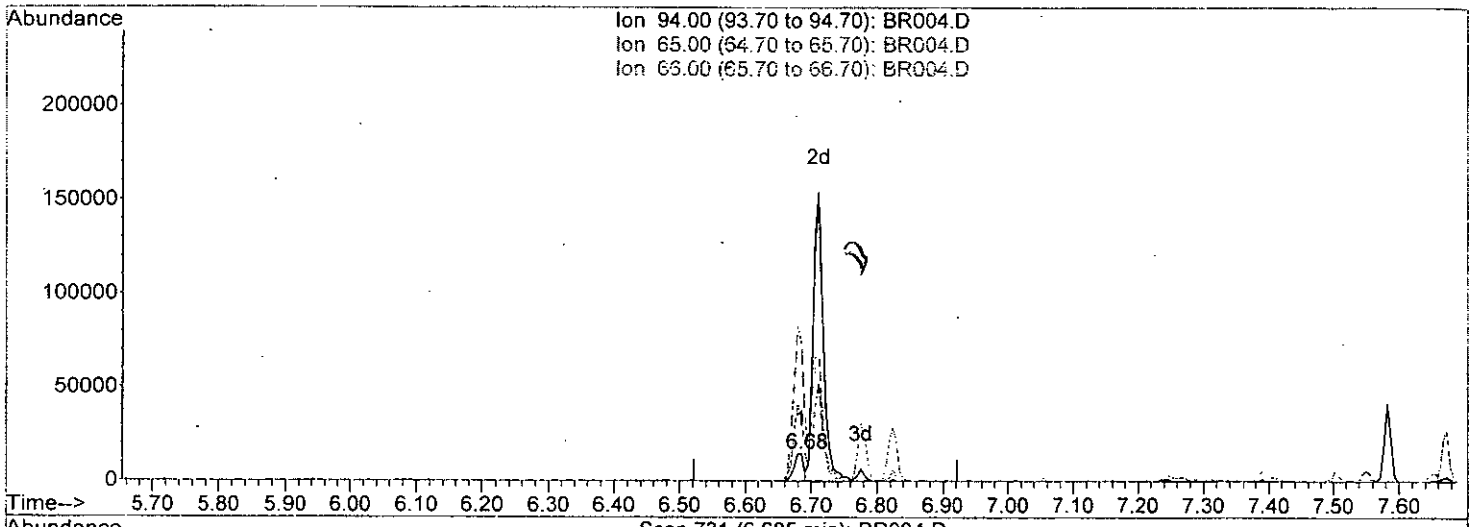
response 61445

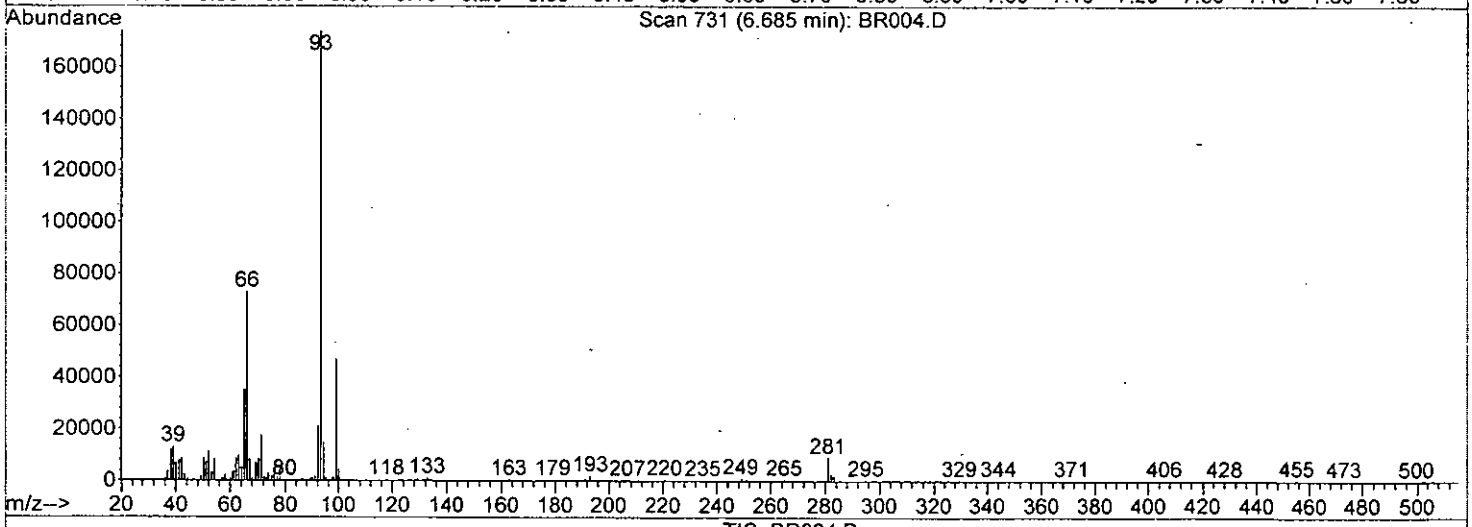
Ion	Exp%	Act%
88.00	100	100
58.00	79.20	29.90#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:49 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(5) Phenol (TMC)

6.68min 0.42ppm

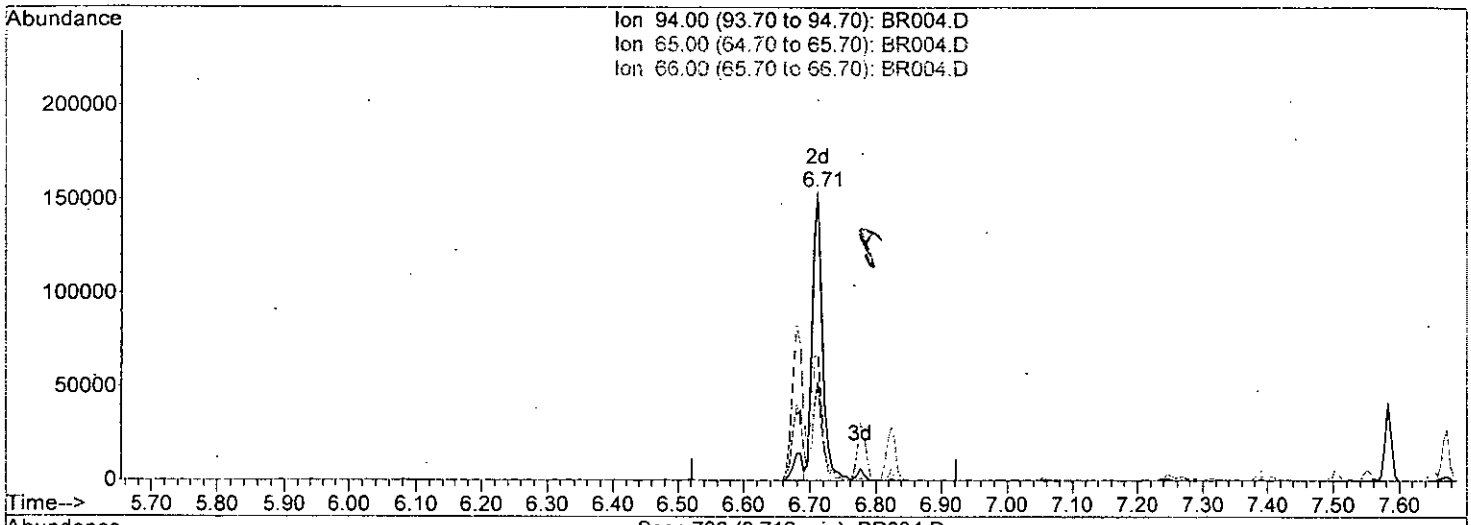
response 14373

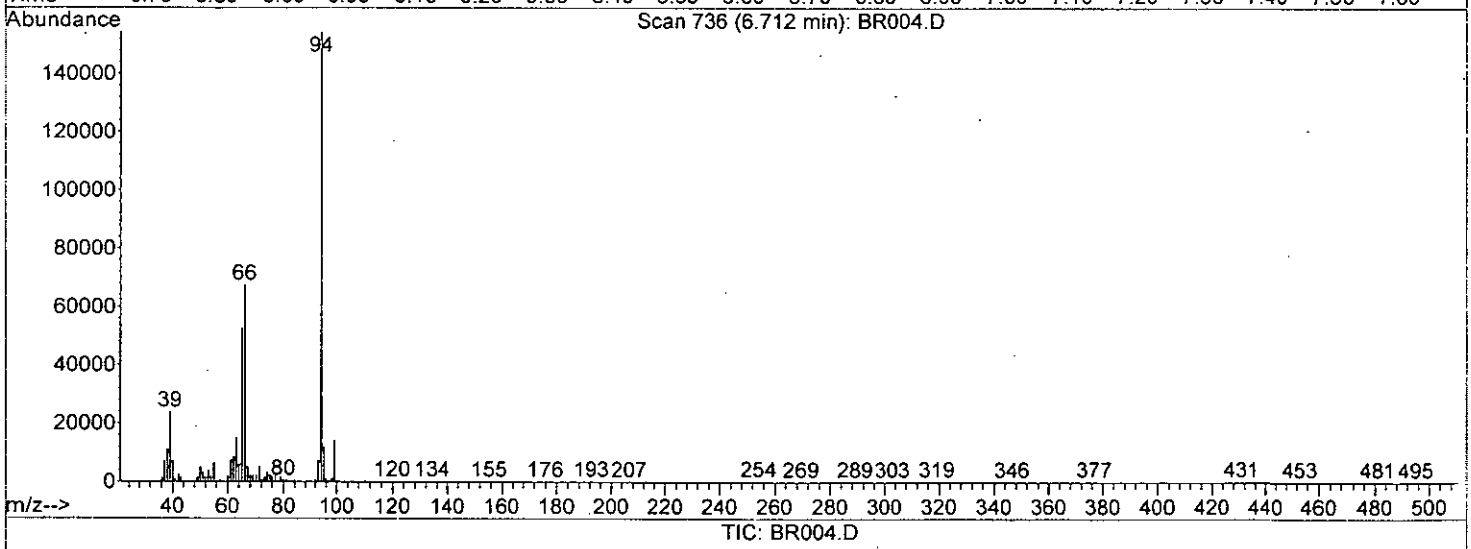
Ion	Exp%	Act%
94.00	100	100
65.00	58.10	221.44#
66.00	96.00	452.65#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:49 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(5) Phenol (TMC)

6.71min 4.84ppm m

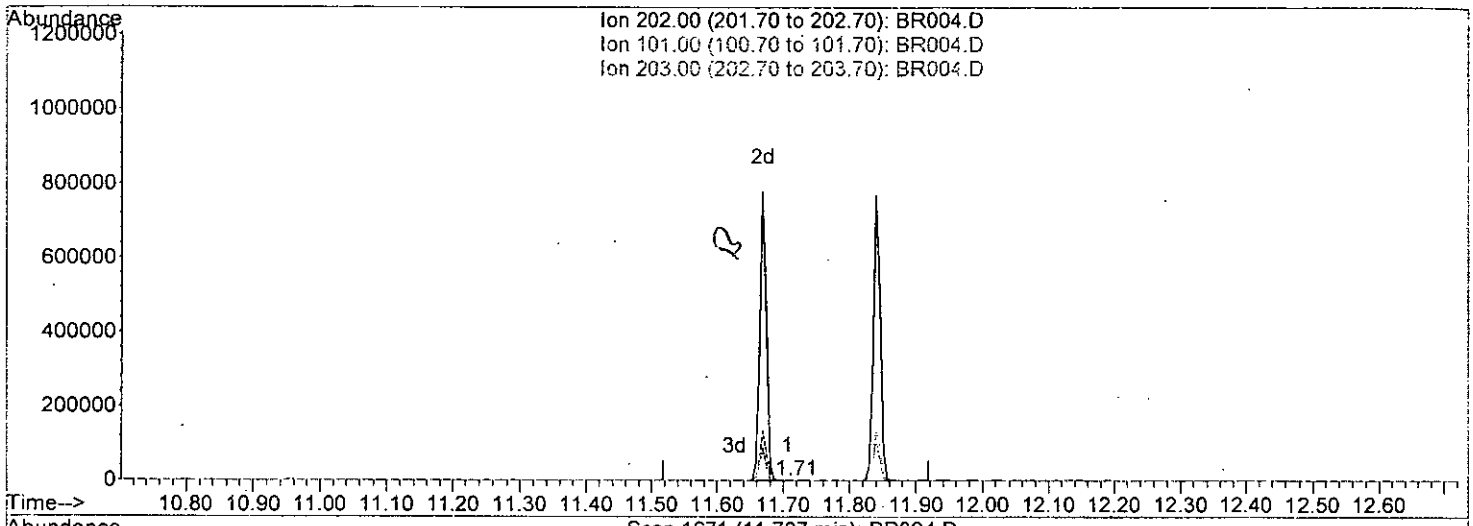
response 165912

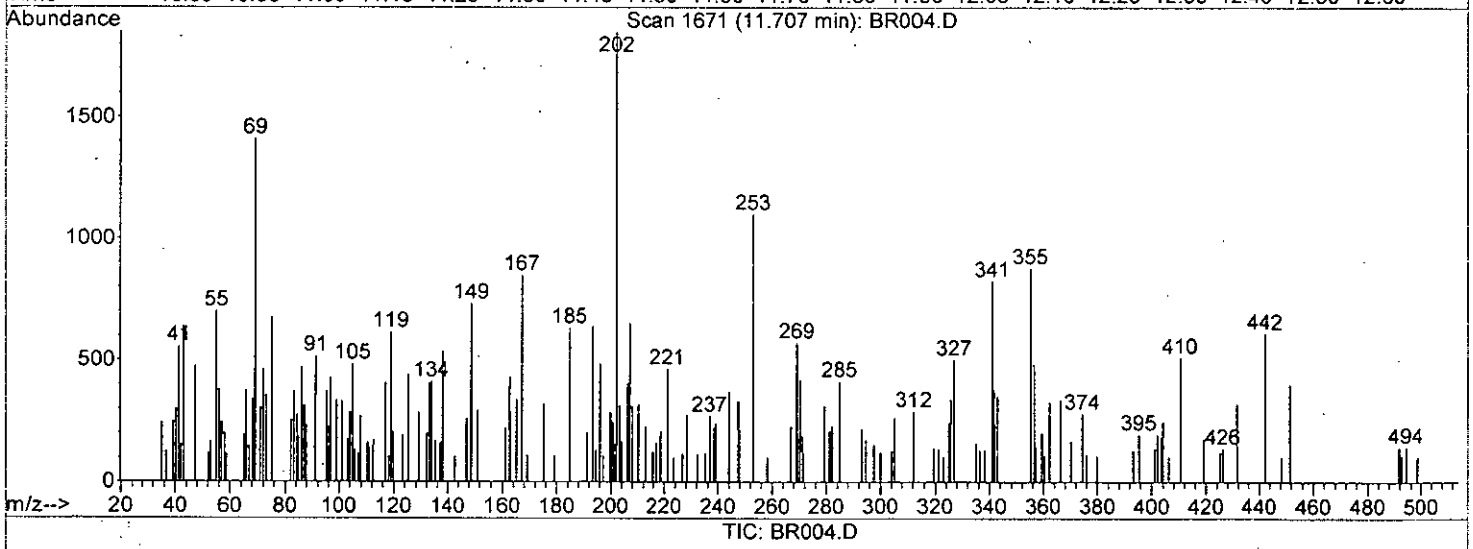
Ion	Exp%	Act%
94.00	100	100
65.00	58.10	34.10
66.00	96.00	43.74#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:49 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(42) Fluoranthene (TCM)

11.71min 0.01ppm

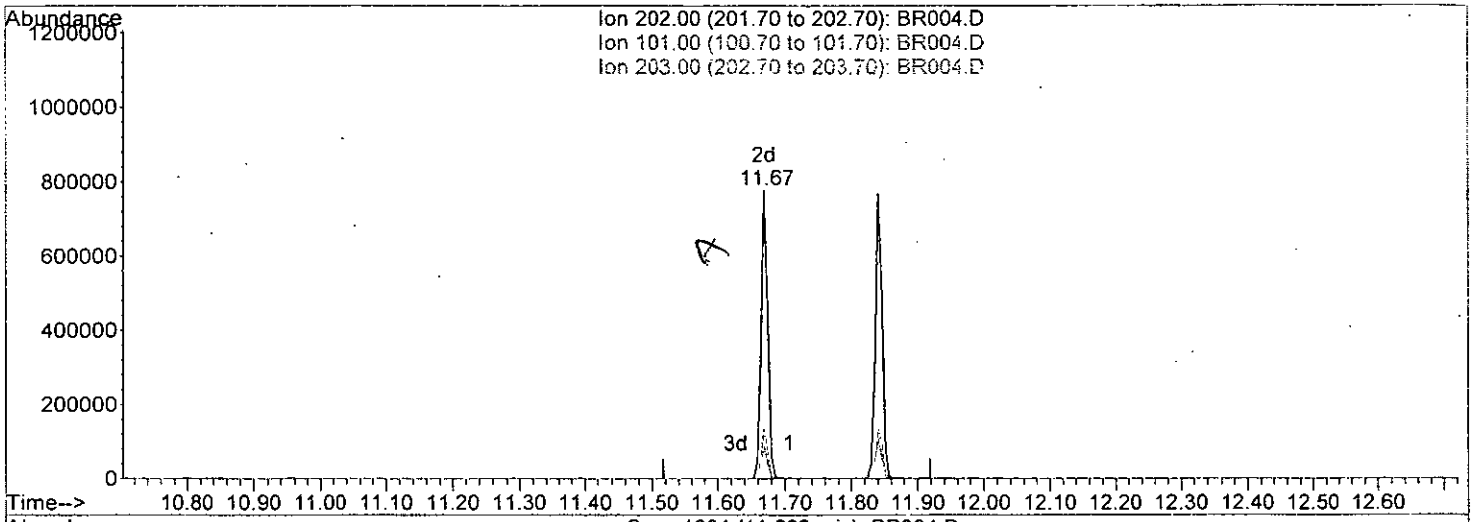
response 946

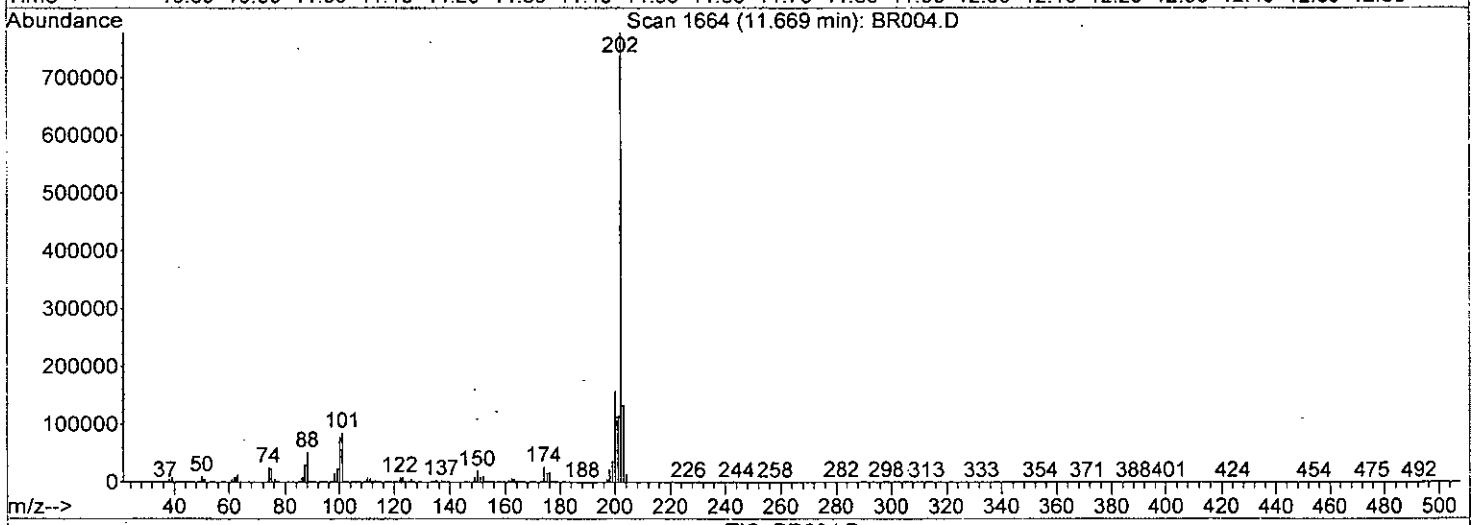
Ion	Exp%	Act%
202.00	100	100
101.00	12.40	16.97
203.00	16.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(42) Fluoranthene (TCM)

11.67min 5.12ppm m

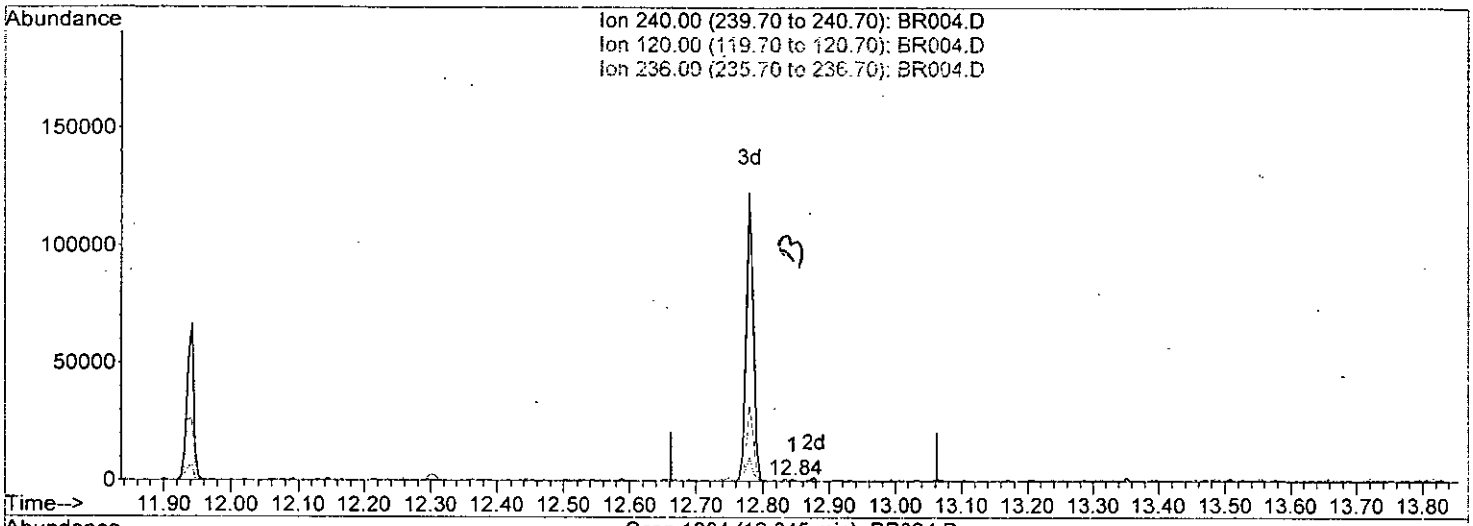
response 530755

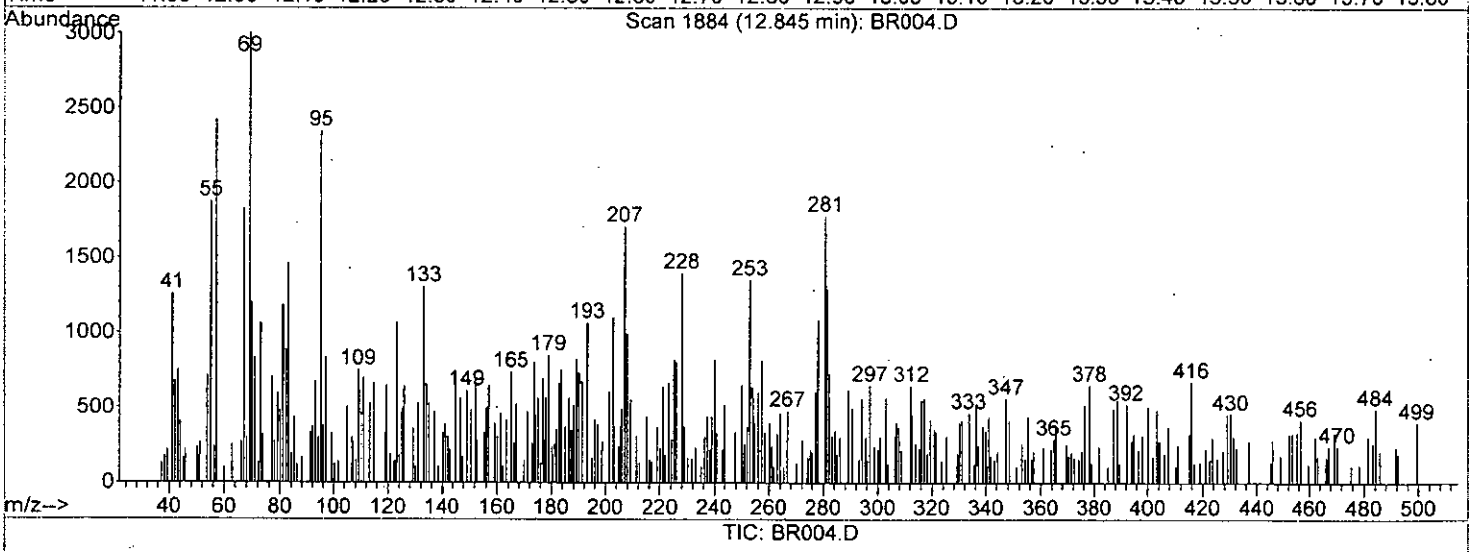
Ion	Exp%	Act%
202.00	100	100
101.00	12.40	11.00
203.00	16.80	17.15
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(43) d12-Chrysene (IR)

12.84min 1.00ppm

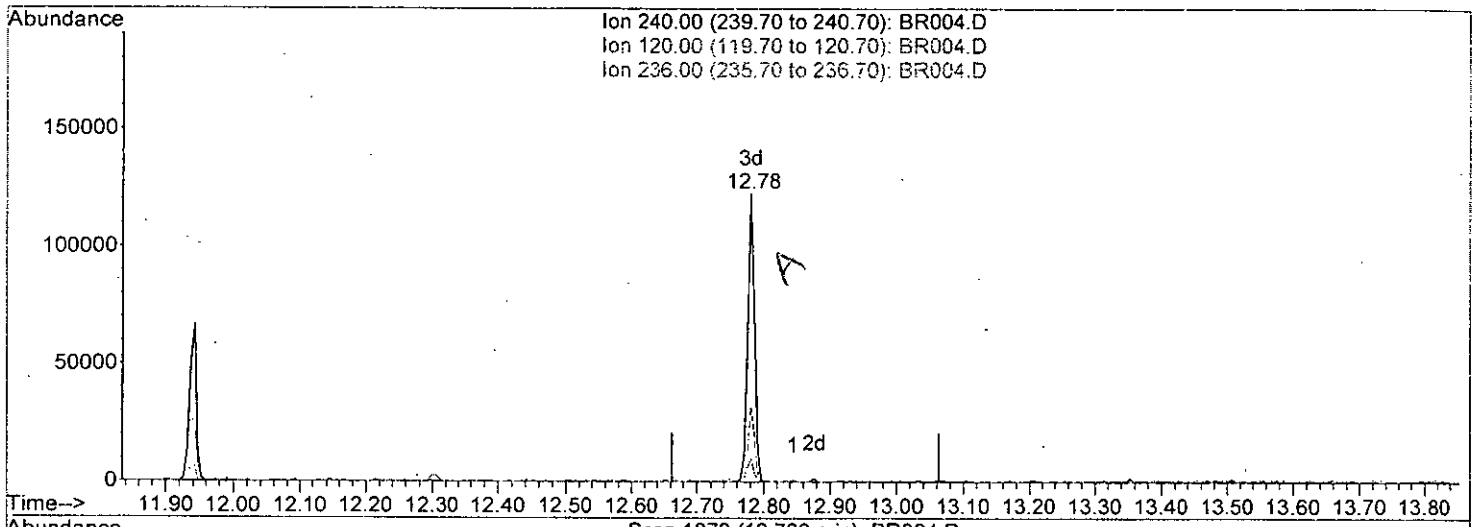
response 309

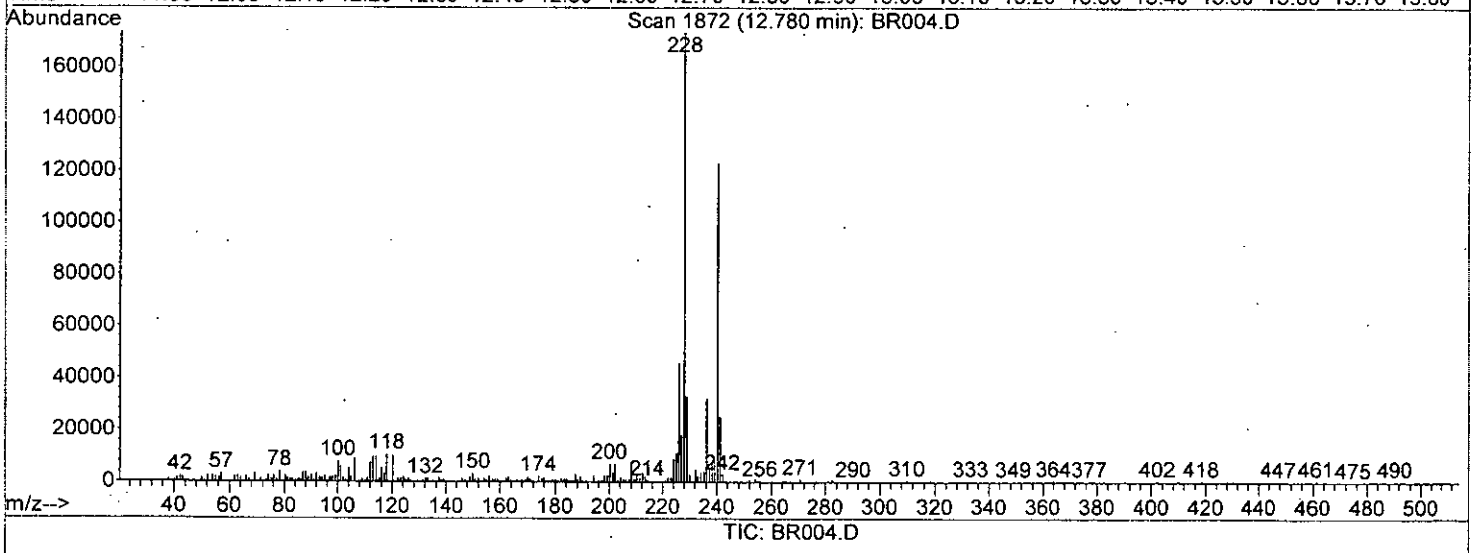
Ion	Exp%	Act%
240.00	100	100
120.00	13.30	0.00
236.00	27.20	29.76
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(43) d12-Chrysene (IR)

12.78min 1.00ppm m

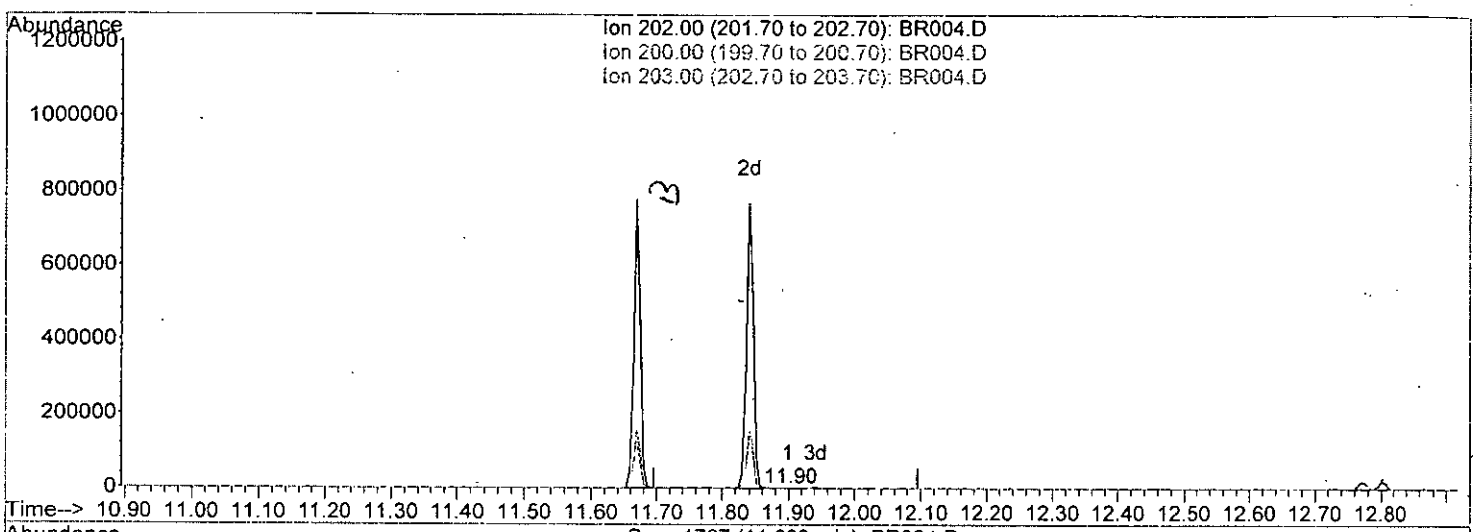
response 90291

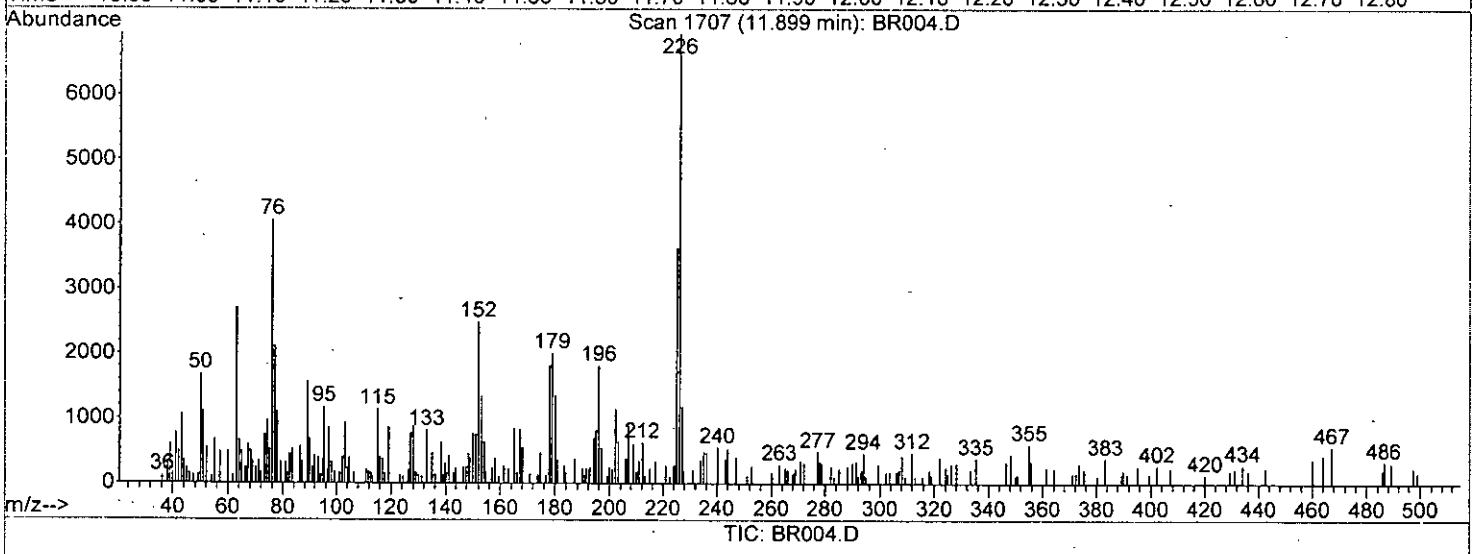
Ion	Exp%	Act%
240.00	100	100
120.00	13.30	8.23
236.00	27.20	26.24
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(44) Pyrene (TM)

11.90min 0.01ppm

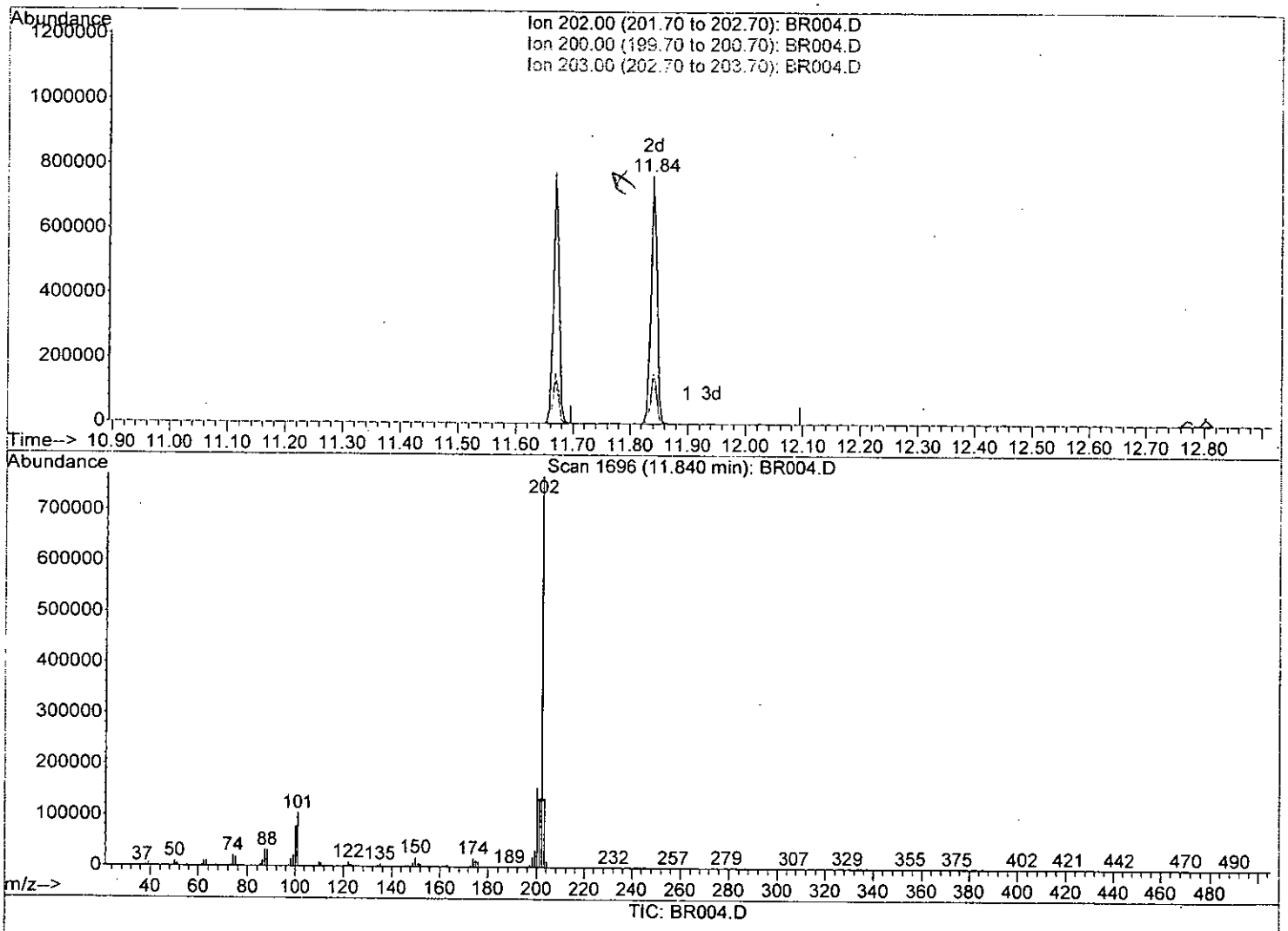
response 1038

Ion	Exp%	Act%
202.00	100	100
200.00	20.50	34.28
203.00	17.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration



(44) Pyrene (TM)

11.84min 5.24ppm m

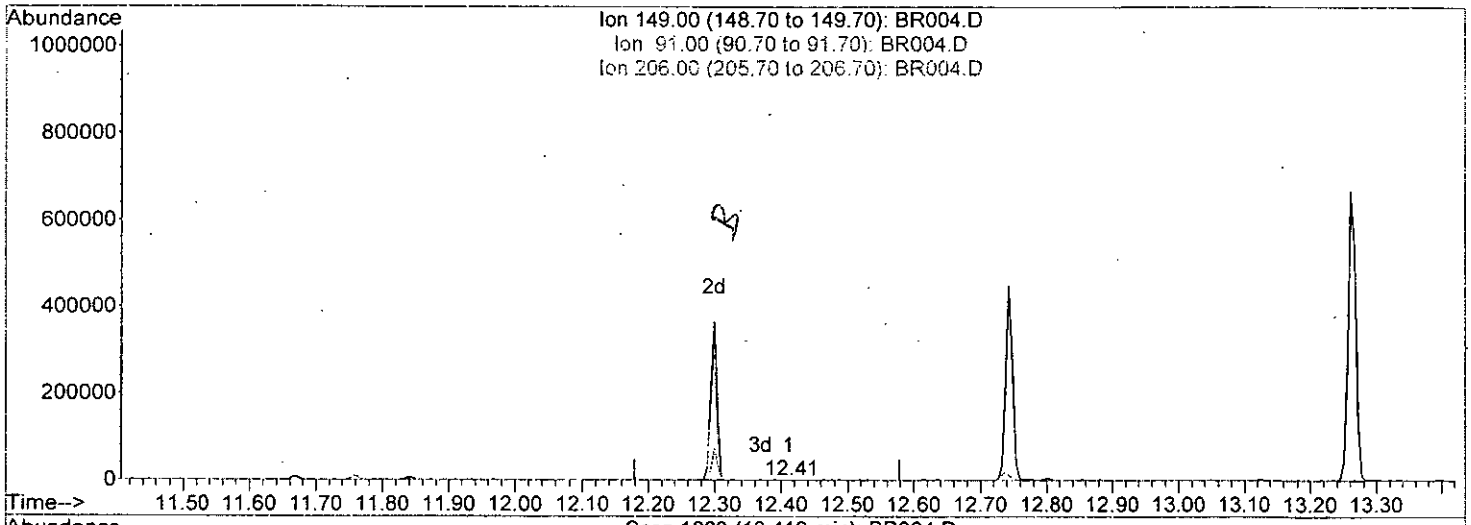
response 544185

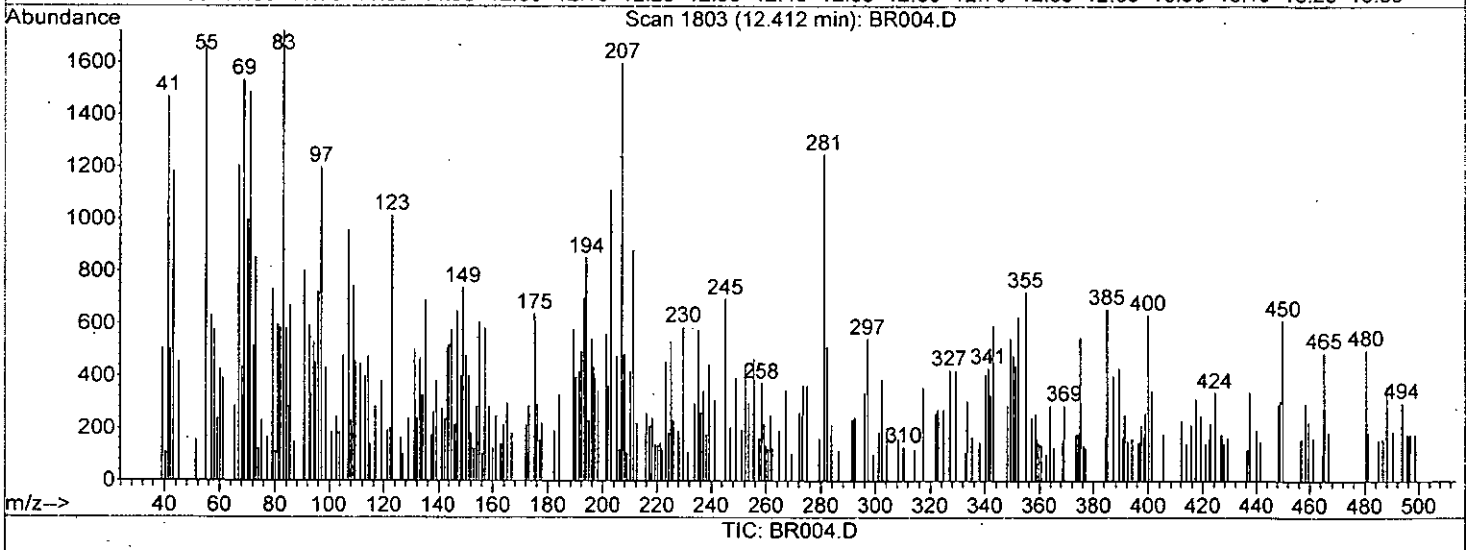
Ion	Exp%	Act%
202.00	100	100
200.00	20.50	20.31
203.00	17.30	17.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





(46) Butyl benzyl phthalate (TM)

12.41min 0.01ppm

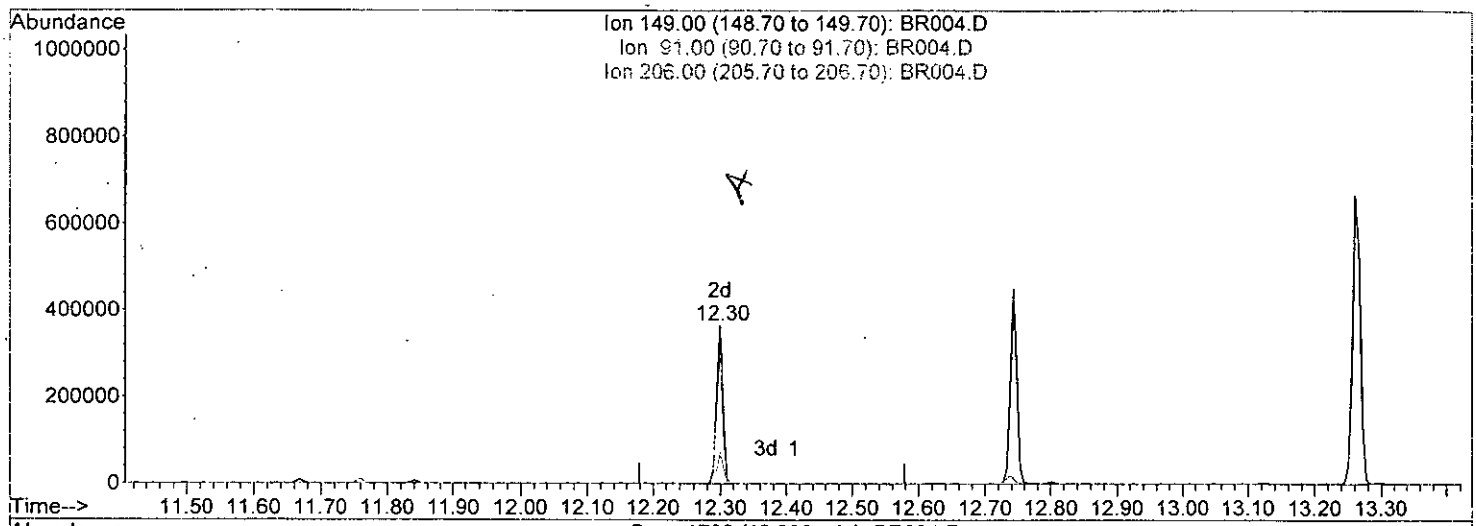
response 275

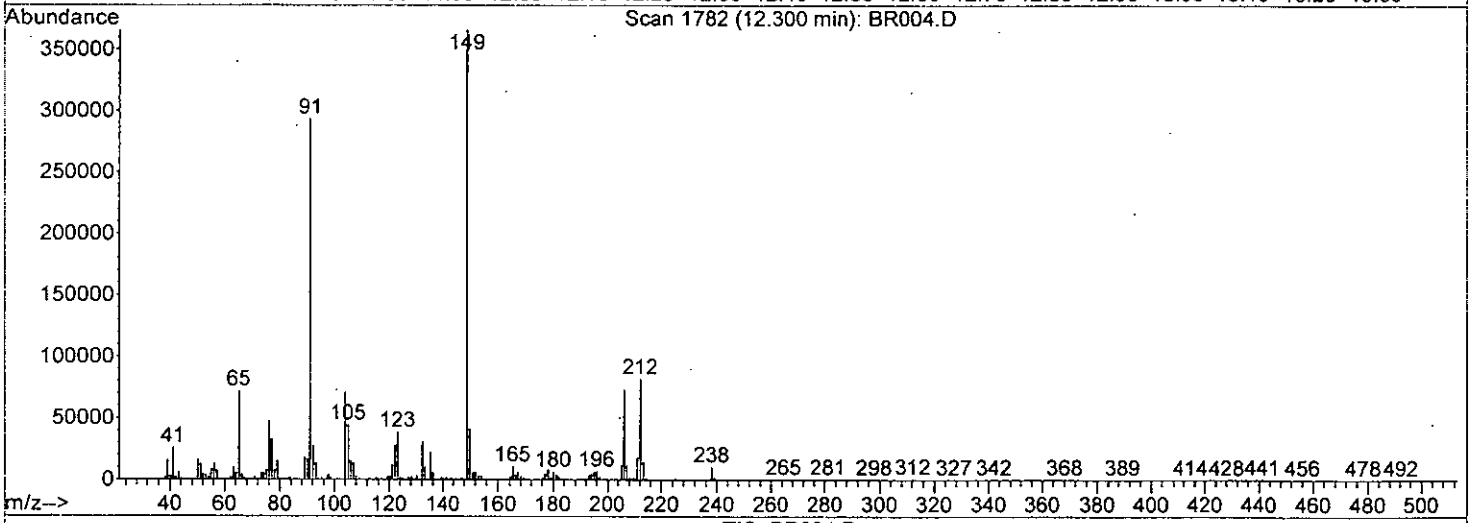
Ion	Exp%	Act%
149.00	100	100
91.00	79.60	74.33
206.00	17.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:51 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(46) Butyl benzyl phthalate (TM)

12.30min 5.84ppm m

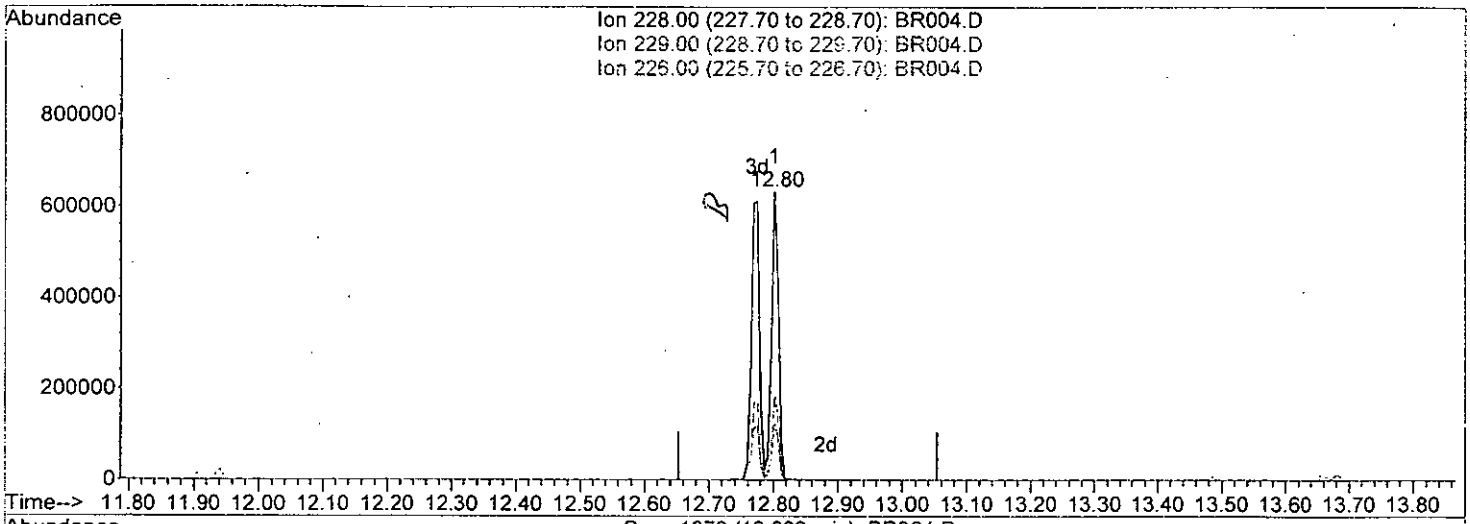
response 244233

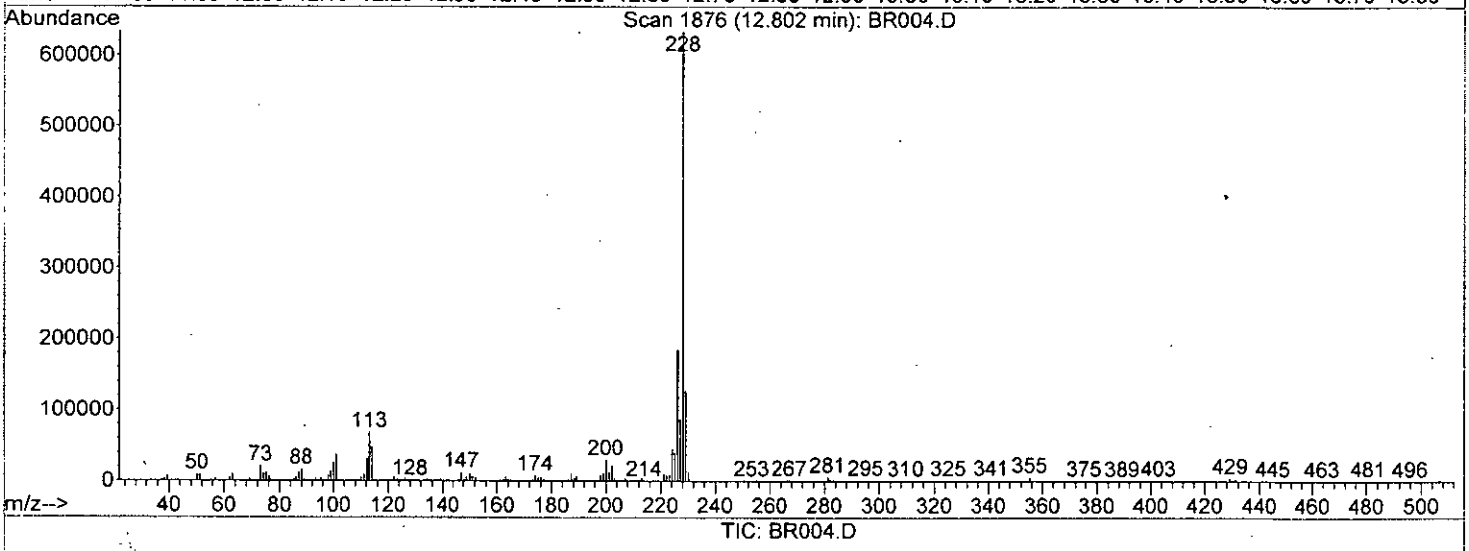
Ion	Exp%	Act%
149.00	100	100
91.00	79.60	80.18
206.00	17.80	19.92
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:51 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





(47) Benzo(a)anthracene (TM)

12.80min 4.47ppm

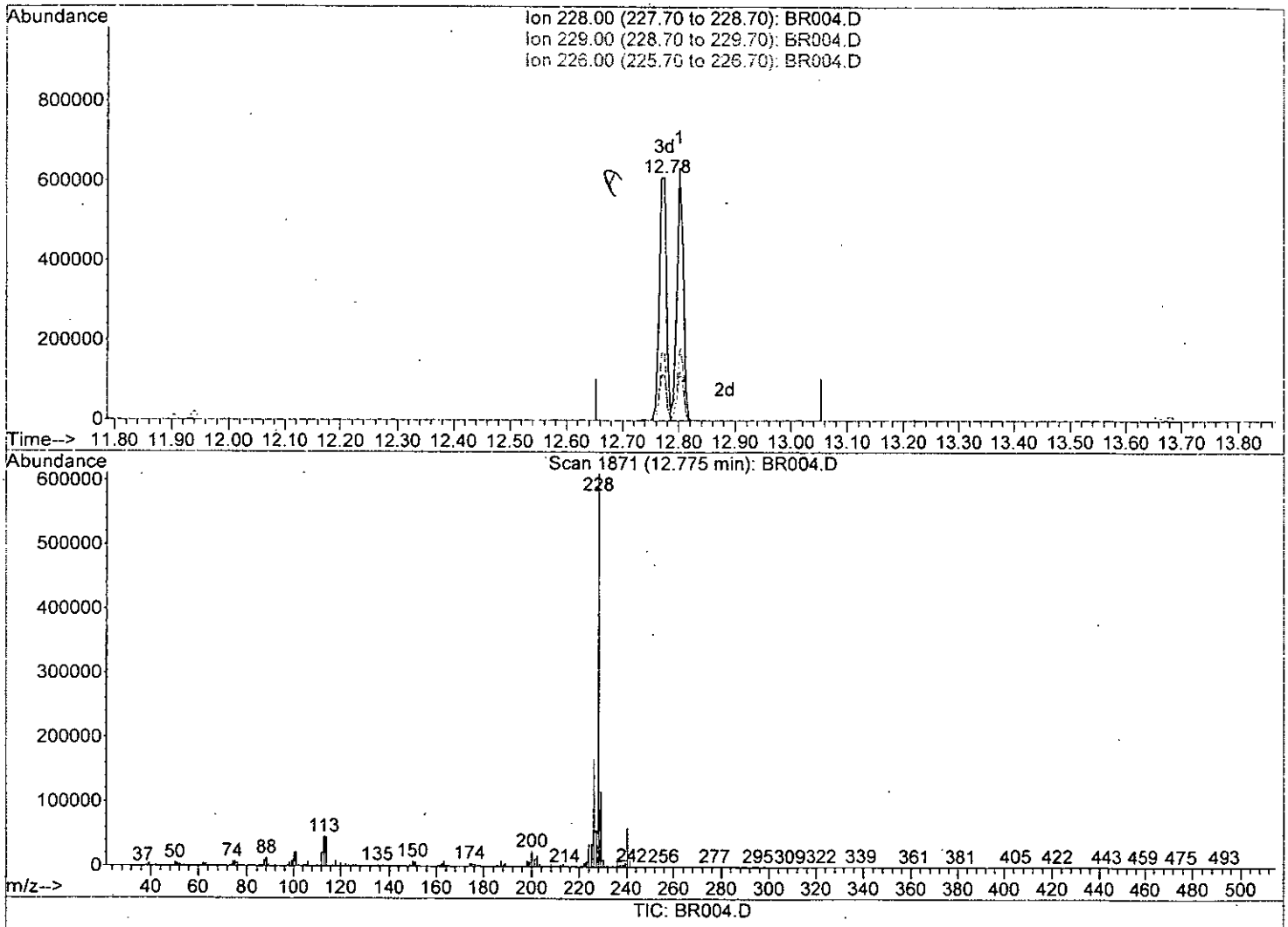
response 481217

Ion	Exp%	Act%
228.00	100	100
229.00	19.30	19.87
226.00	27.40	29.15
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:51 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration



(47) Benzo(a)anthracene (TM)

12.78min 5.02ppm m

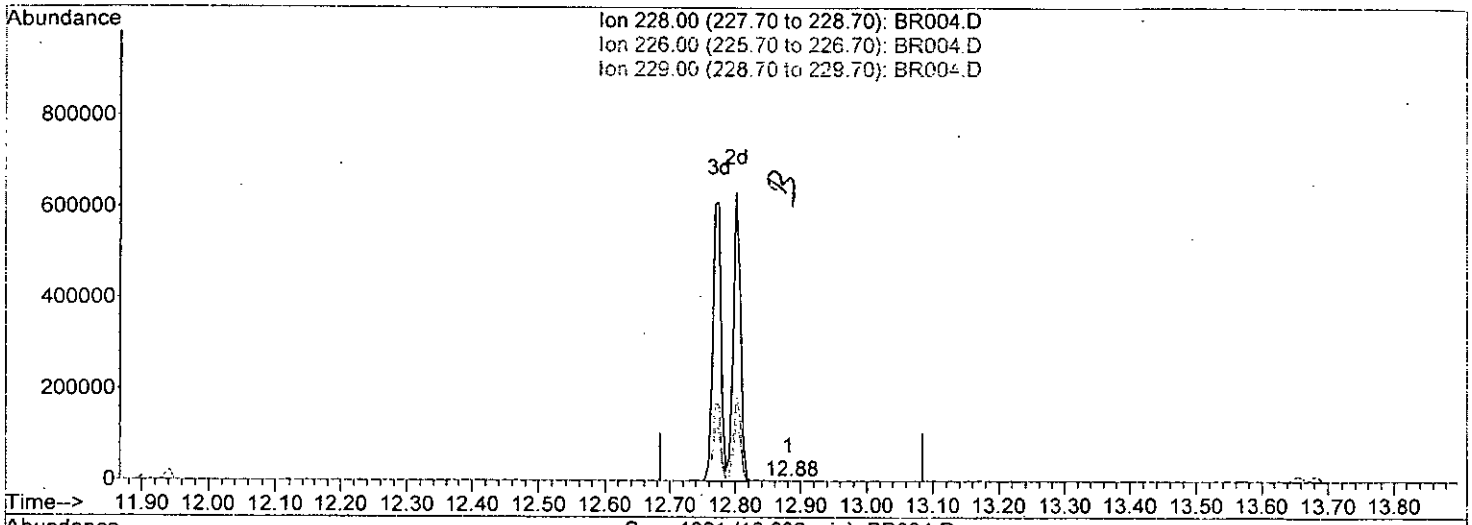
response 540394

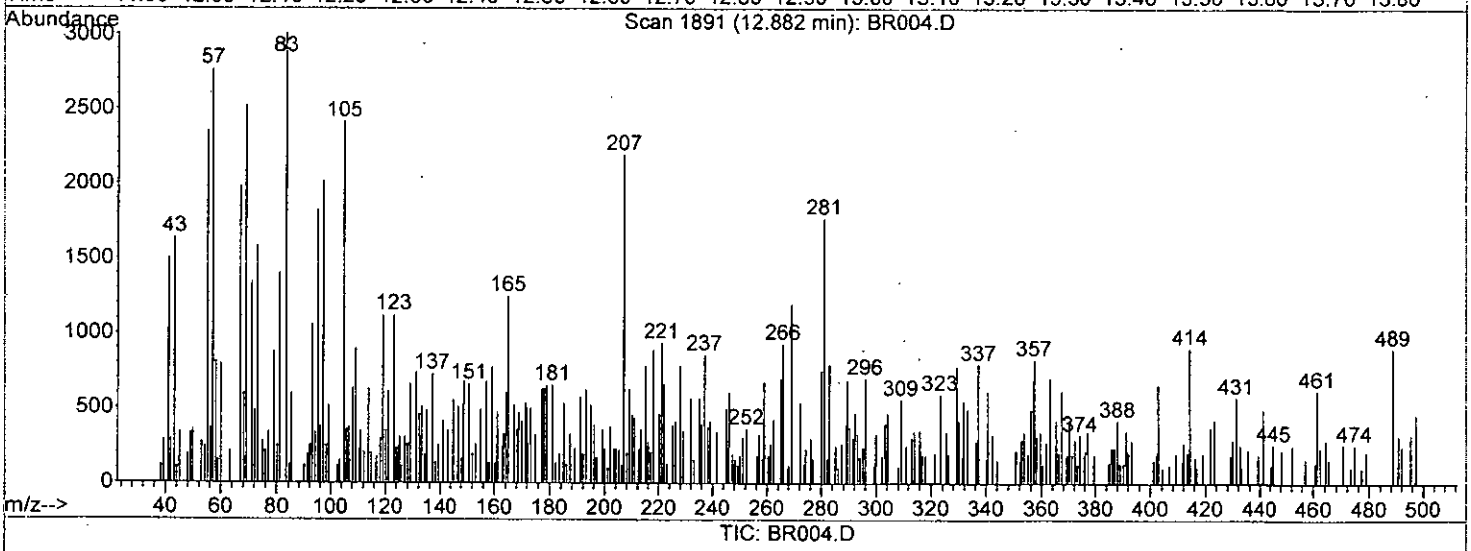
Ion	Exp%	Act%
228.00	100	100
229.00	19.30	19.14
226.00	27.40	27.35
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:51 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(48) Chrysene (TM)

12.88min 0.01ppm

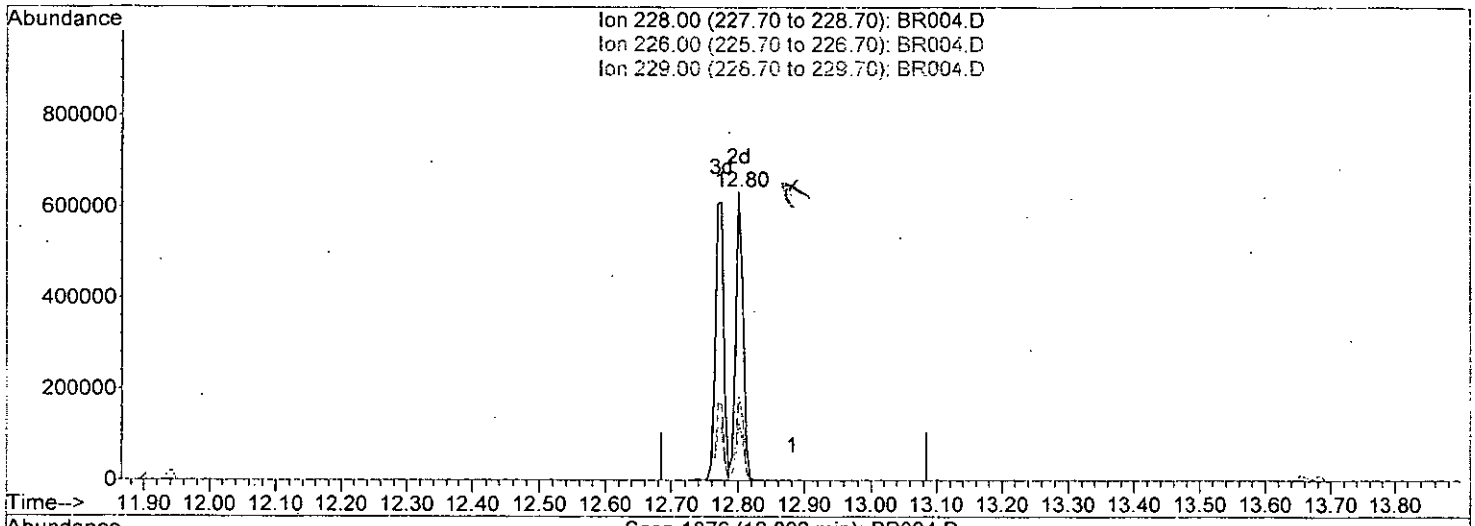
response 814

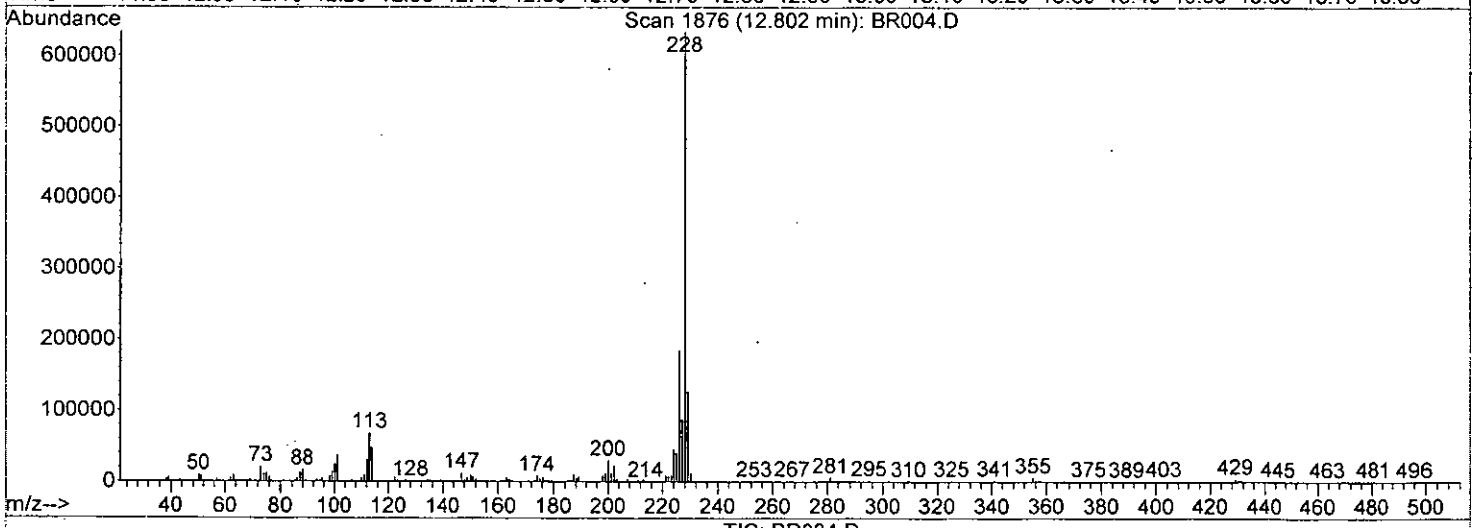
Ion	Exp%	Act%
228.00	100	100
226.00	30.10	47.22
229.00	19.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR004.D Vial: 3
Acq On : 15 Oct 2015 10:37 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 820D Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 16 10:51 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration





TIC: BR004.D

(48) Chrysene (TM)

12.80min 4.98ppm m

response 479976

Ion	Exp%	Act%
228.00	100	100
226.00	30.10	29.20
229.00	19.30	19.91
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ715.D Vial: 1
Acq On : 8 Sep 2015 2:41 pm Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:58 2015 Quant Results File: DFTPPD.RES

Quant Method : I:\ACQUDATA\5...\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Initial Calibration
DataAcq Meth : DFTPPD

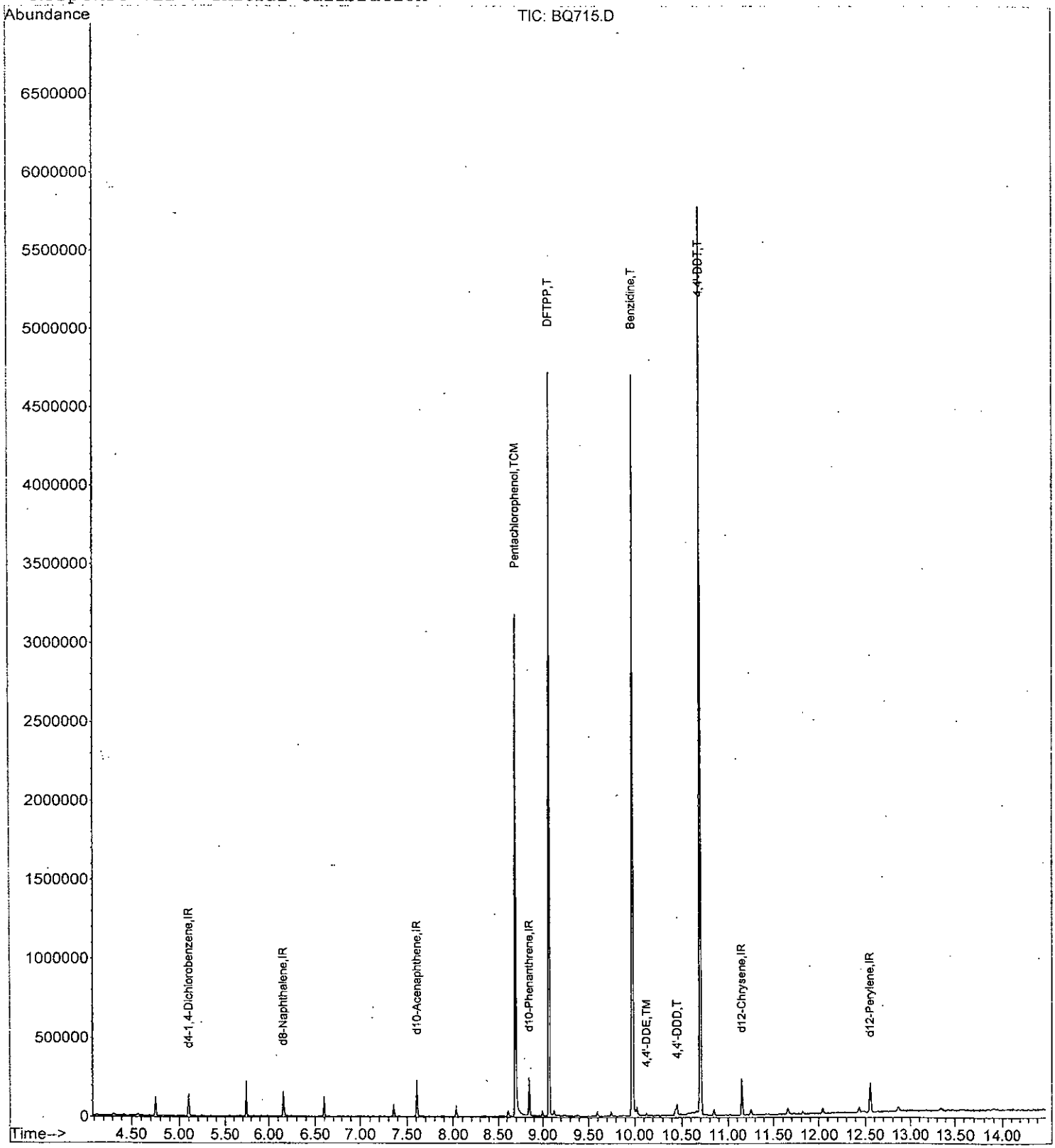
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) d4-1,4-Dichlorobenzene	5.10	152	17113	1.00	ppm		0.000
2) d8-Naphthalene	6.16	136	63719	1.00	ppm		0.000
3) d10-Acenaphthene	7.61	164	36967	1.00	ppm		0.000
4) d10-Phenanthrene	8.84	188	70127	1.00	ppm		0.000
7) d12-Chrysene	11.15	240	77243	1.00	ppm		0.000
12) d12-Perylene	12.55	264	76565	1.00	ppm		0.000
Target Compounds							Qvalue
5) Pentachlorophenol	8.70	266	389365	50.000	ppm		97
6) DFTPP	9.07	198	300436	50.000	ppm	#	56
8) Benzidine	9.98	184	1595178	50.000	ppm		99
9) 4,4'-DDE	10.13	246	1102	0.062	ppm		69
10) 4,4'-DDD	10.45	235	8233	0.461	ppm		89
11) 4,4'-DDT	10.70	235	892051	50.000	ppm		95

(#) = qualifier out of range (m) = manual integration
BQ715.D DFTPPD.M Wed Sep 09 07:06:02 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ715.D Vial: 1
Acq On : 8 Sep 2015 2:41 pm Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:58 2015 Quant Results File: DFTPPD.RES

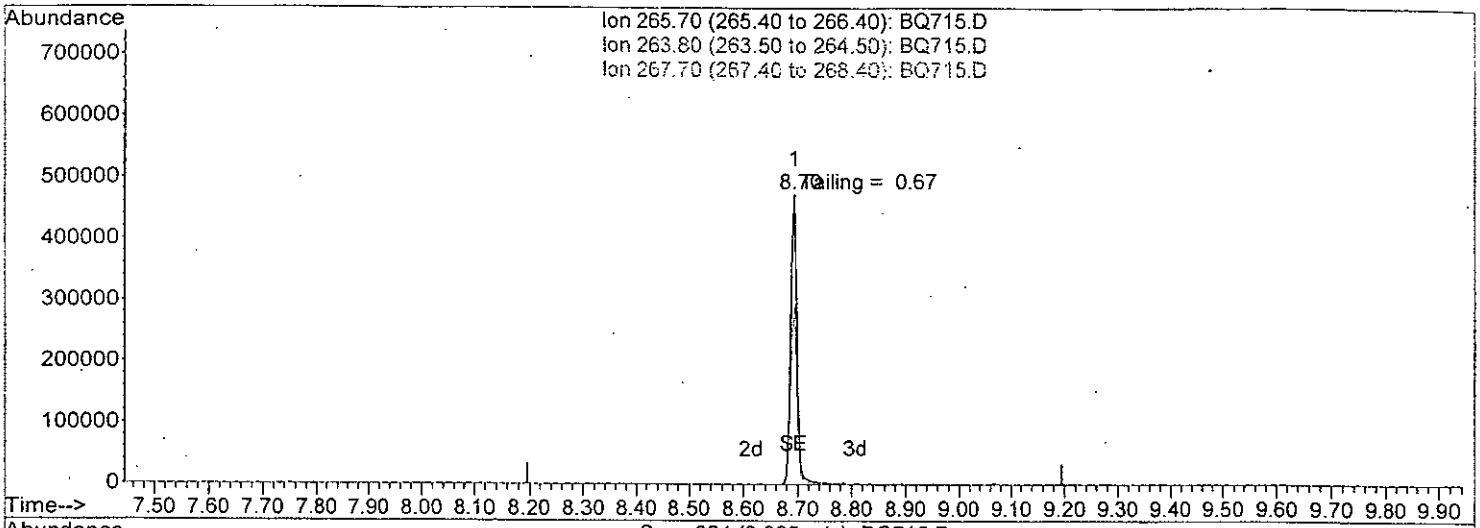
Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Initial Calibration

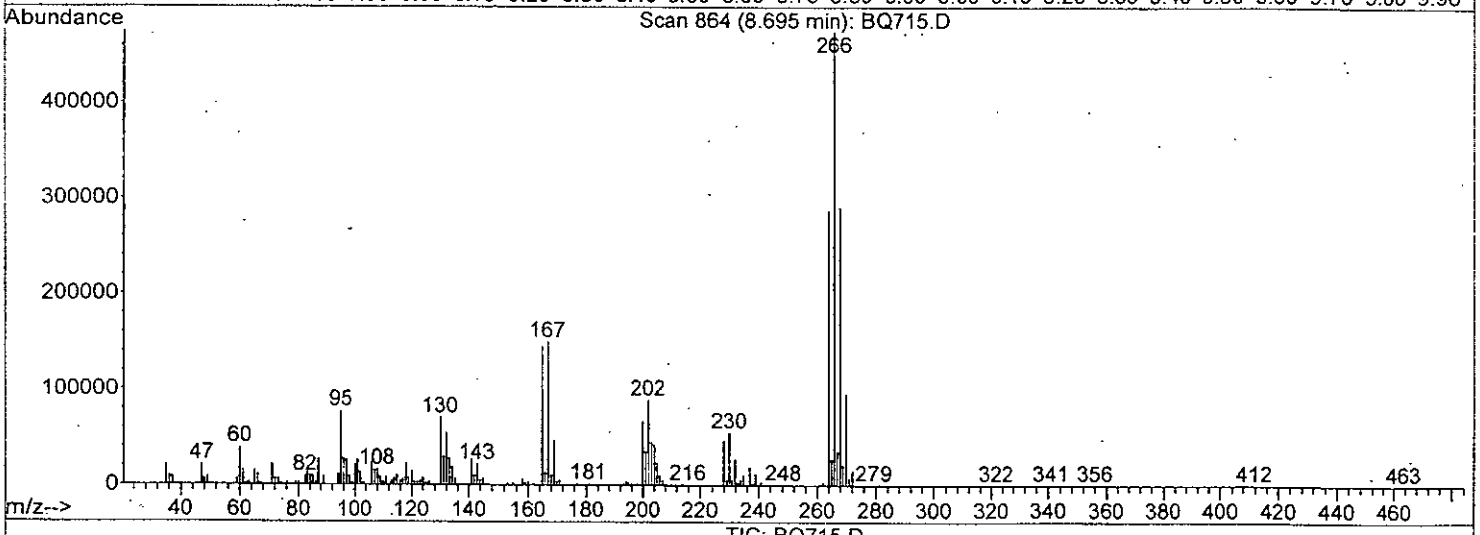


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ715.D Vial: 1
Acq On : 8 Sep 2015 2:41 pm Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:58 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Single Level Calibration





TIC: BQ715.D

(5) Pentachlorophenol (TCM)

8.70min 50.00ppm

response 389365

Ion	Exp%	Act%
265.70	100	100
263.80	62.20	60.51
267.70	63.40	61.20
0.00	0.00	0.00

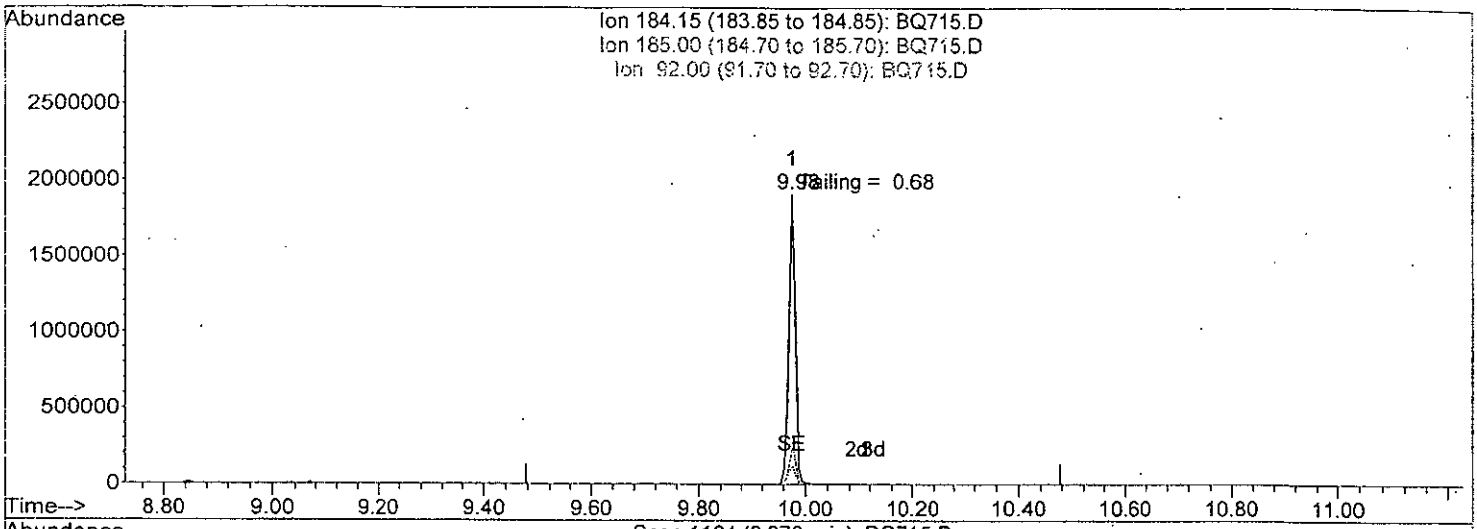
DM 9/9/15

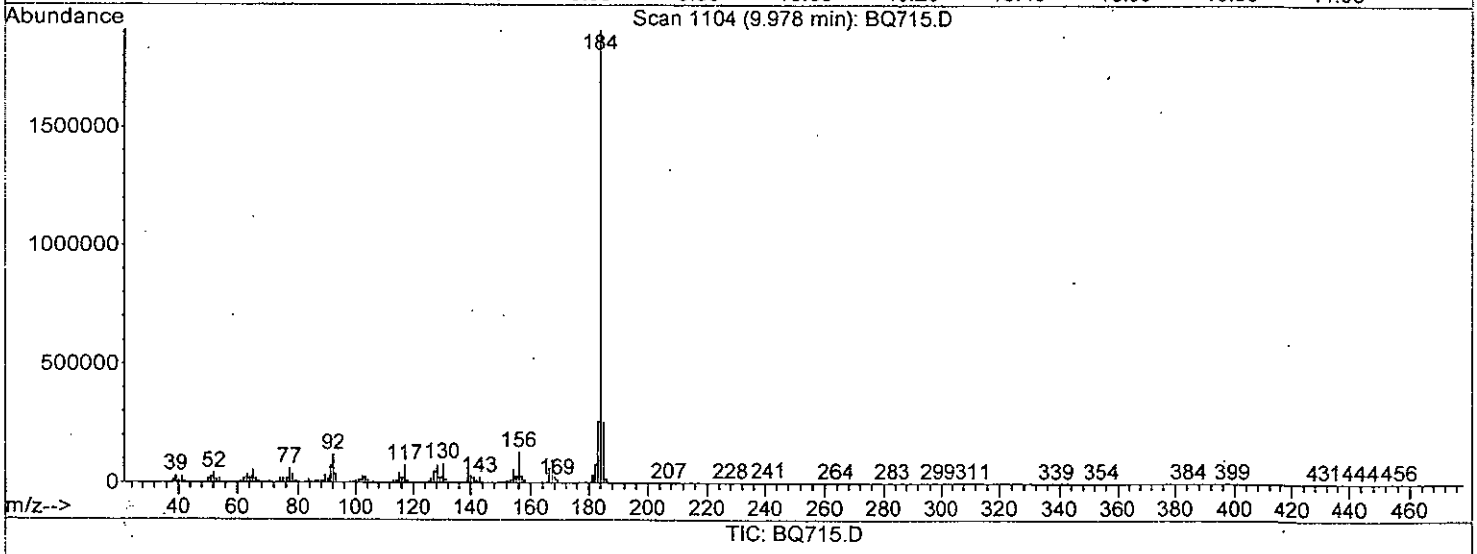
MW

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ715.D Vial: 1
Acq On : 8 Sep 2015 2:41 pm Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 9 6:58 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Single Level Calibration





TIC: BQ715.D

(8) Benzidine (T)

9.98min 50.00ppm

response 1595178

Ion	Exp%	Act%
184.15	100	100
185.00	13.00	13.25
92.00	6.90	6.15
0.00	0.00	0.00

9/9/15

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ955.D Vial: 2
Acq On : 13 Oct 2015 8:22 am Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 13 8:37 2015 Quant Results File: DFTPPD.RES

Quant Method : I:\ACQUDATA\5...\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Initial Calibration
DataAcq Meth : DFTPPD

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	5.08	152	26351	1.00	ppm	-0.016
2) d8-Naphthalene	6.15	136	86650	1.00	ppm	-0.010
3) d10-Acenaphthene	7.60	164	59657	1.00	ppm	-0.010
4) d10-Phenanthrene	8.84	188	111776	1.00	ppm	0.000
7) d12-Chrysene	11.15	240	128238	1.00	ppm	0.000
12) d12-Perylene	12.55	264	137036	1.00	ppm	0.000
Target Compounds						Qvalue
5) Pentachlorophenol	8.69	266	486919	39.229	ppm	99
6) DFTPP	9.12	198	1917	0.200	ppm	73
8) Benzidine	9.97	184	2350483	44.377	ppm	99
9) 4,4'-DDE	10.12	246	2317	0.078	ppm	89
10) 4,4'-DDD	10.44	235	19140	0.646	ppm	94
11) 4,4'-DDT	10.69	235	1202578	40.601	ppm	99

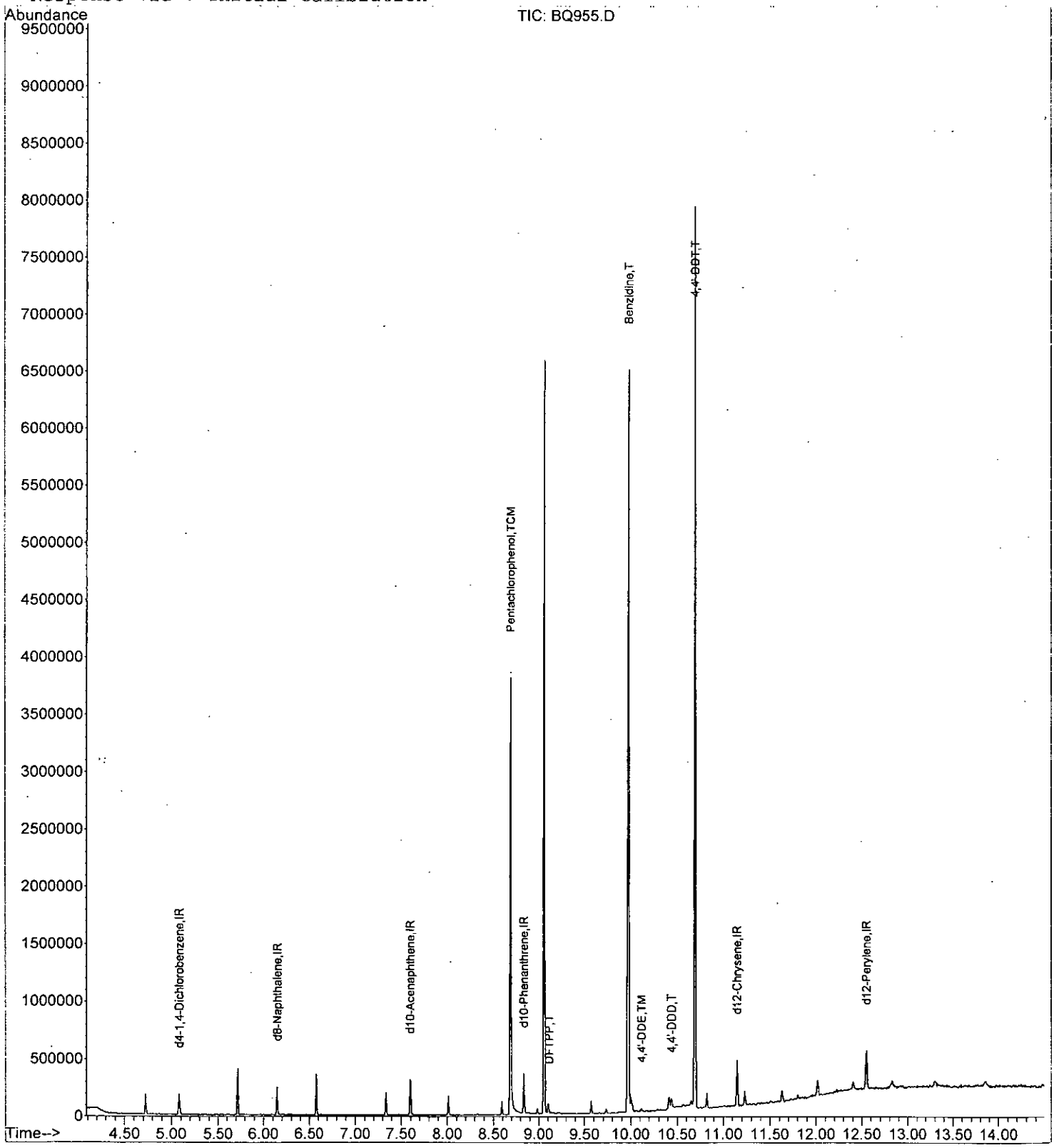
DM 10/15/15

(#) = qualifier out of range (m) = manual integration
BQ955.D DFTPPD.M Thu Oct 15 09:04:00 2015 00132 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ955.D Vial: 2
Acq On : 13 Oct 2015 8:22 am Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 13 8:37 2015 Quant Results File: DFTPPD.RES

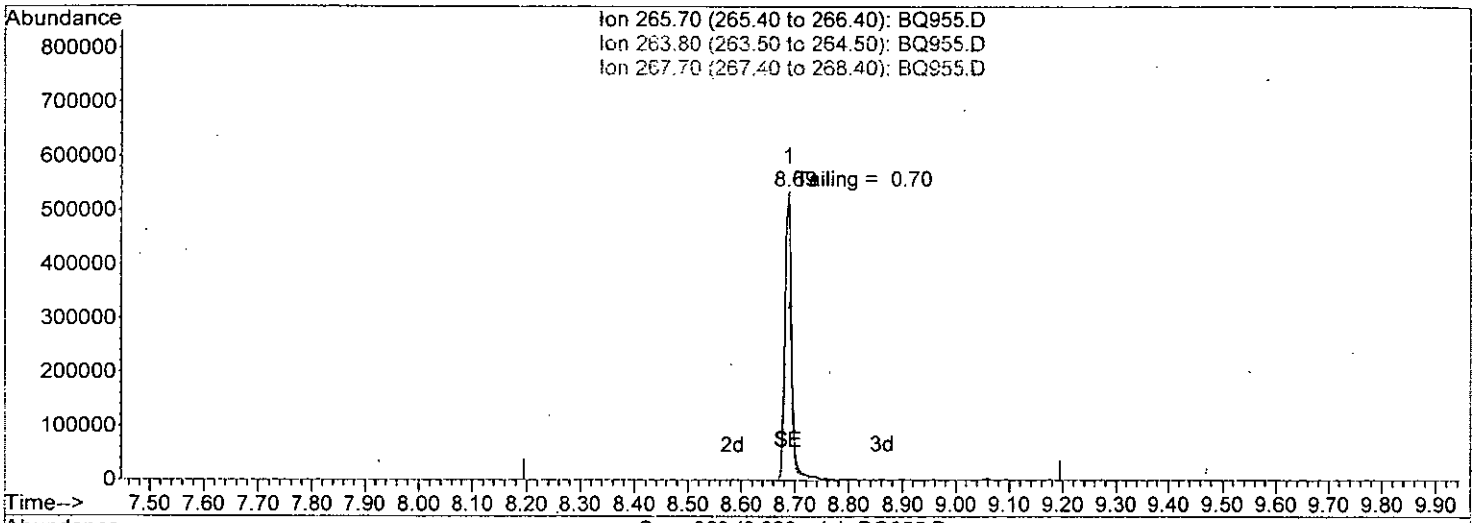
Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Initial Calibration

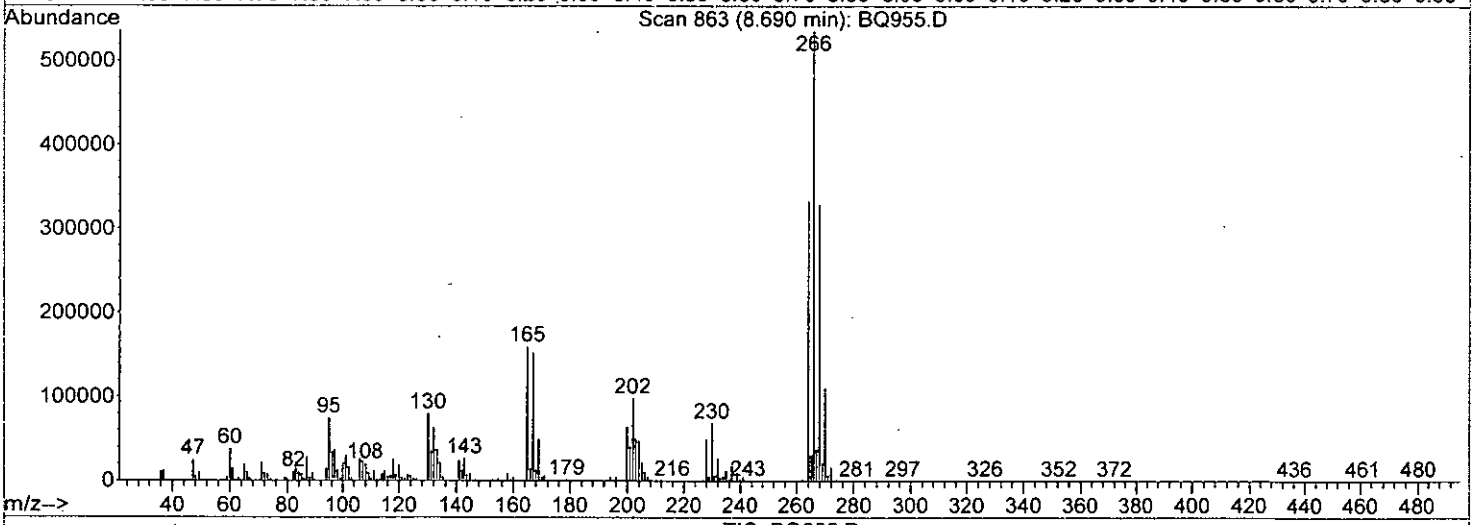


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ955.D Vial: 2
Acq On : 13 Oct 2015 8:22 am Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 13 8:37 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Single Level Calibration





TIC: BQ955.D

(5) Pentachlorophenol (TCM)

8.69min 39.23ppm

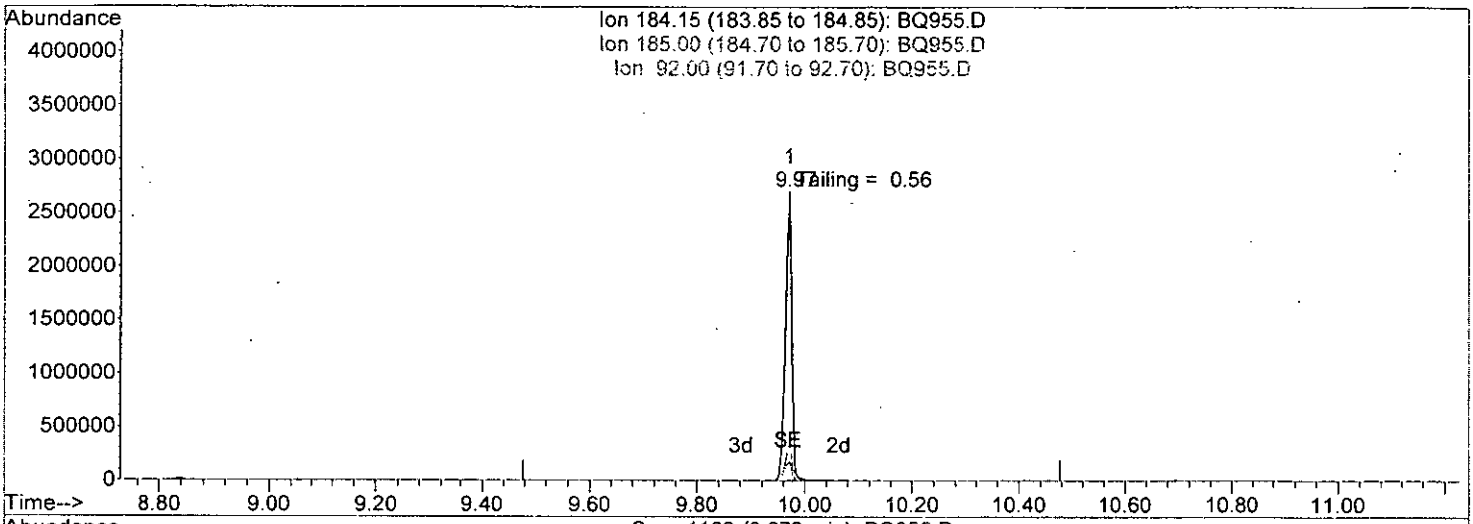
response 486919

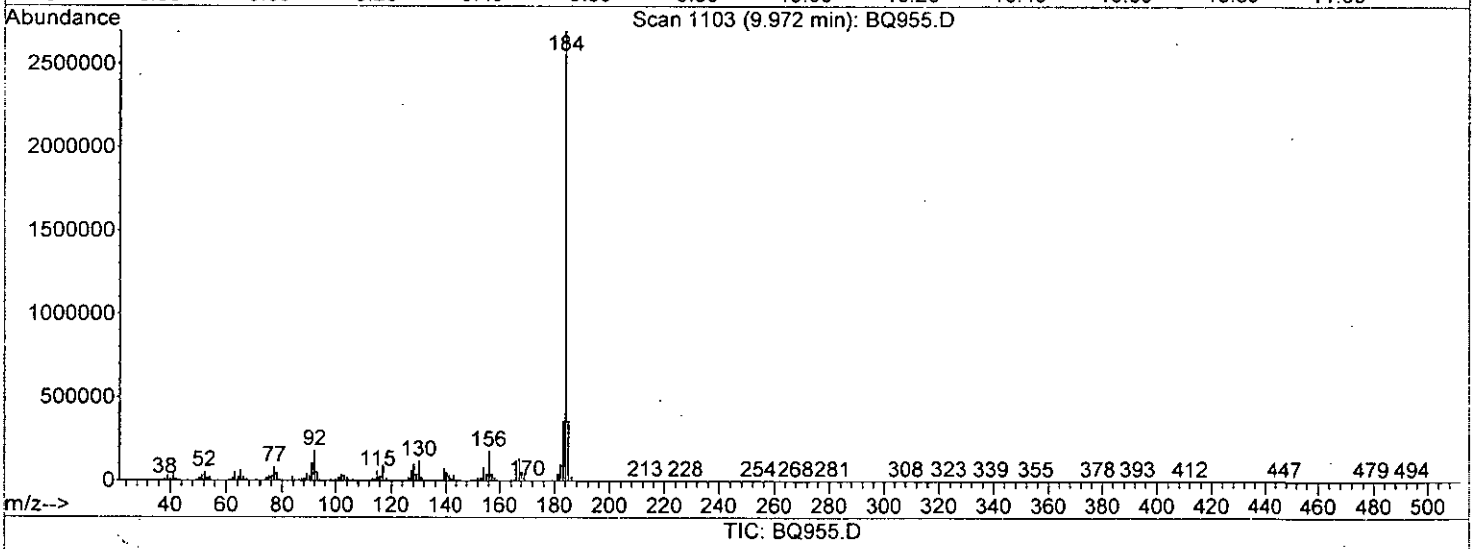
Ion	Exp%	Act%
265.70	100	100
263.80	62.20	62.13
267.70	63.40	61.28
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ955.D Vial: 2
Acq On : 13 Oct 2015 8:22 am Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 13 8:37 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Single Level Calibration





TIC: BQ955.D

(8) Benzidine (T)

9.97min 44.38ppm

response 2350483

Ion	Exp%	Act%
184.15	100	100
185.00	13.00	13.34
92.00	6.90	6.70
0.00	0.00	0.00

DM 3/15/16

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	113	-0.02
2	T	1,4-Dioxane	0.732	0.637	13.0	111	-0.09
3	S	SURR1,2-FLUOROPHENOL	1.263	1.361	-7.8	126	-0.02
4	S	SURR2,PHENOL-D6	1.470	1.586	-7.9	121	0.00
5	TMC	Phenol	1.779	1.727	2.9	118	0.00
6	TM	2-Chlorophenol	1.289	1.326	-2.9	120	-0.01
7	TM	2-Methylphenol	1.175	1.238	-5.4	129	0.00
8	TM	3+4-Methylphenol	1.276	1.307	-2.4	126	0.00
9	IR	d8-Naphthalene	1.000	1.000	0.0	123	-0.01
10	S	SURR4,NITROBENZENE-D5	0.390	0.376	3.6	126	-0.01
11	TM	Nitrobenzene	0.377	0.377	0.0	130	-0.02
12	TCM	2-Nitrophenol	0.198	0.189	4.5	123	-0.01
13	TM	2,4-Dimethylphenol	0.379	0.374	1.3	131	0.00
14	TCM	2,4-Dichlorophenol	0.303	0.336	-10.9	133	0.00
15	TM	1,2,4-Trichlorobenzene	0.369	0.353	4.3	125	-0.01
16	TM	Naphthalene	1.027	0.980	4.6	125	-0.02
17	TMC	4-Chloro-3-methylphenol	0.285	0.274	3.9	140	0.00
18	TM	2-Methylnaphthalene	0.636	0.666	-4.7	132	-0.01
19	TM	1-Methylnaphthalene	0.654	0.656	-0.3	129	-0.01
20	IR	d10-Acenaphthene	1.000	1.000	0.0	138	-0.01
21	TCM	2,4,6-Trichlorophenol	0.387	0.368	4.9	136	0.00
22	TM	2,4,5-Trichlorophenol	0.432	0.382	11.6	128	0.00
23	S	SURR5,2-FLUOROBIPHENYL	1.461	1.365	6.6	128	-0.01
24	TM	2-Chloronaphthalene	1.205	1.130	6.2	131	-0.01
25	TM	Acenaphthylene	1.752	1.663	5.1	131	0.00
26	TM	Dimethyl phthalate	1.281	1.351	-5.5	134	-0.01
27	TMC	Acenaphthene	1.124	1.031	8.3	127	0.00
28	TPM	2,4-Dinitrophenol	0.135	0.139	-3.0	130	0.00
29	TM	Dibenzofuran	1.644	1.529	7.0	136	0.00
30	TMP	4-Nitrophenol	0.180	0.209	-16.1	149	0.00
31	TM	Fluorene	1.280	1.261	1.5	137	0.00
32	TM	Diethylphthalate	1.285	1.356	-5.5	138	-0.01
33	S	SURR3,2,4,6-TRIBROMOPHENOL	0.263	0.287	-9.1	144	0.00
34	IR	d10-Phenanthrene	1.000	1.000	0.0	143	-0.01
35	TM	4,6-Dinitro-2-methylphenol	0.133	0.127	4.5	124	0.00
36	TM	Hexachlorobenzene	0.316	0.323	-2.2	145	0.00
37	TCM	Pentachlorophenol	0.139	0.117	15.8	103	0.00
38	TM	Phenanthrene	1.098	1.041	5.2	141	-0.01
39	TM	Anthracene	1.145	1.111	3.0	138	-0.01
40	TM	Carbazole	1.051	1.011	3.8	139	-0.01
41	TM	Di-n-butylphthalate	1.229	1.327	-8.0	147	-0.02
42	TCM	Fluoranthene	1.298	1.291	0.5	140	-0.04
43	IR	d12-Chrysene	1.000	1.000	0.0	154	-0.07
44	TM	Pyrene	1.151	1.126	2.2	140	-0.04
45	S	SURR6,TERPHENYL-D14	0.896	0.891	0.6	150	-0.05
46	TM	Butyl benzyl phthalate	0.463	0.515	-11.2	156	-0.07

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ956.D Vial: 3
Acq On : 13 Oct 2015 8:49 am Operator: JMisiurewicz
Sample : CCV Inst : 5973C
Misc : 5.0 ppm STD 8270D LL Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Wed Sep 09 06:50:11 2015
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47	TM	Benzo(a)anthracene	1.192	1.162	2.5	145	-0.07
48	TM	Chrysene	1.067	1.074	-0.7	149	-0.07
49	TM	bis(2-Ethylhexyl)phthalate	0.674	0.701	-4.0	159	-0.09
50	IR	d12-Perylene	1.000	1.000	0.0	151	-0.08
51	TCM	Di-n-octyl phthalate	1.110	1.130	-1.8	154	-0.10
52	TM	Benzo(b)Fluoranthene	1.171	1.175	-0.3	158	-0.08
53	TM	Benzo(k)fluoranthene	1.099	1.028	6.5	144	-0.08
54	TCM	Benzo(a)pyrene	1.114	1.044	6.3	149	-0.09
55	TM	Indeno(1,2,3-cd)Pyrene	1.289	1.253	2.8	151	-0.07
56	TM	Dibenz(a,h)anthracene	1.063	1.032	2.9	158	-0.08
57	TM	Benzo(g,h,i)perylene	1.034	0.962	7.0	153	-0.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR003.D
Acq On : 15 Oct 2015 10:12 am
Sample : TUNE
Misc : 50 ng DFTPP
MS Integration Params: RTEINT.P
Quant Time: Oct 15 10:27 2015

Vial: 2
Operator: JMisiurewicz
Inst : 5973C
Multiplr: 1.00

Quant Results File: DFTPPD.RES

Quant Method : I:\ACQUDATA\5...\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Initial Calibration
DataAcq Meth : DFTPPD

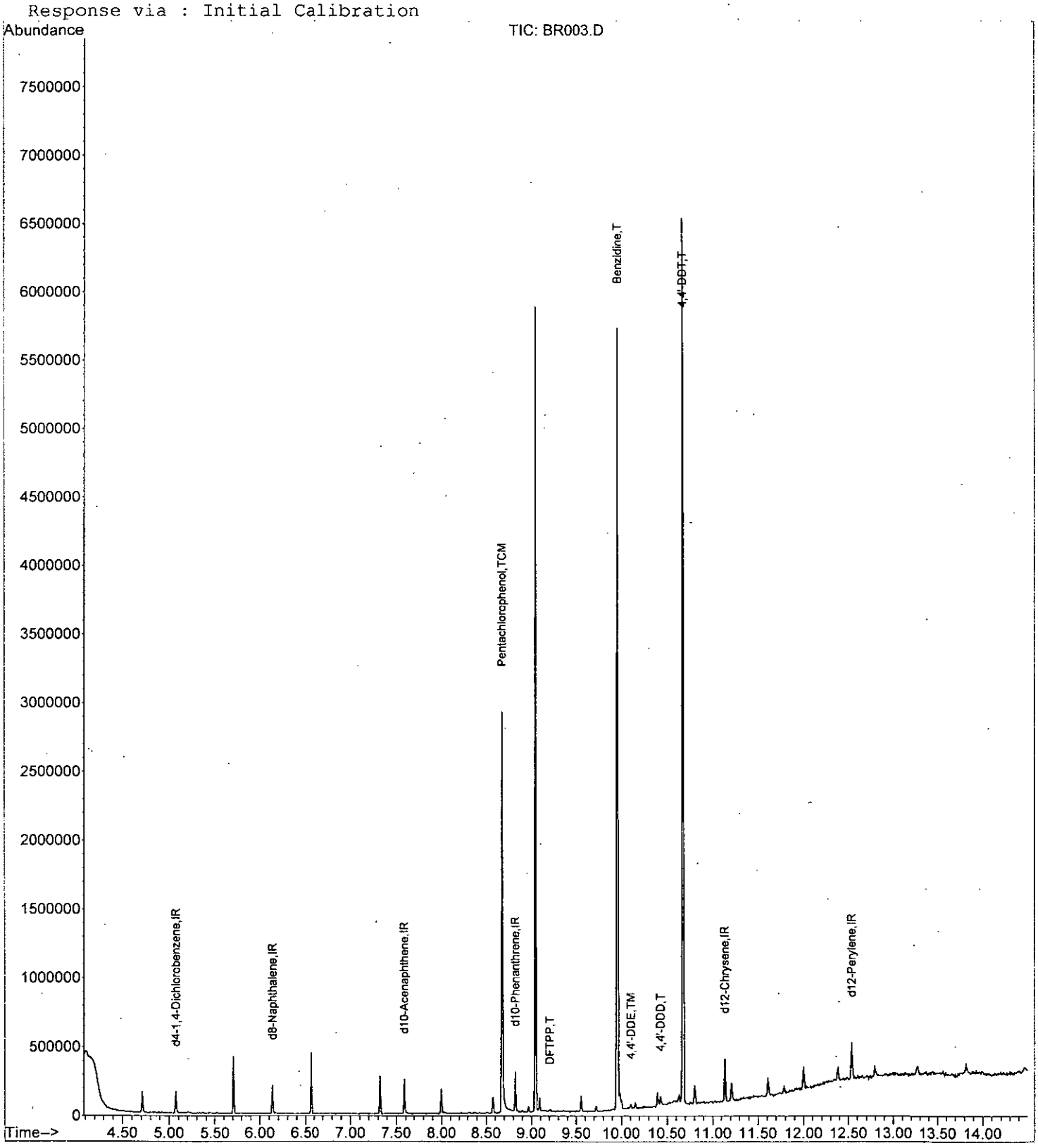
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) d4-1,4-Dichlorobenzene	5.07	152	20786	1.00	ppm		-0.027
2) d8-Naphthalene	6.14	136	64308	1.00	ppm		-0.021
3) d10-Acenaphthene	7.59	164	45546	1.00	ppm		-0.021
4) d10-Phenanthrene	8.82	188	80490	1.00	ppm		-0.021
7) d12-Chrysene	11.14	240	98753	1.00	ppm		-0.016
12) d12-Perylene	12.54	264	104964	1.00	ppm		-0.016
Target Compounds							Qvalue
5) Pentachlorophenol	8.68	266	340558	38.102	ppm		98
6) DFTPP	9.20	198	374	0.054	ppm		88
8) Benzidine	9.96	184	1875640	45.985	ppm		99
9) 4,4'-DDE	10.11	246	2061	0.090	ppm	#	43
10) 4,4'-DDD	10.43	235	14384	0.631	ppm		82
11) 4,4'-DDT	10.68	235	956893	41.952	ppm		94

(#) = qualifier out of range (m) = manual integration
BR003.D DFTPPD.M Fri Oct 16 10:48:21 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR003.D Vial: 2
Acq On : 15 Oct 2015 10:12 am Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 10:27 2015 Quant Results File: DFTPPD.RES

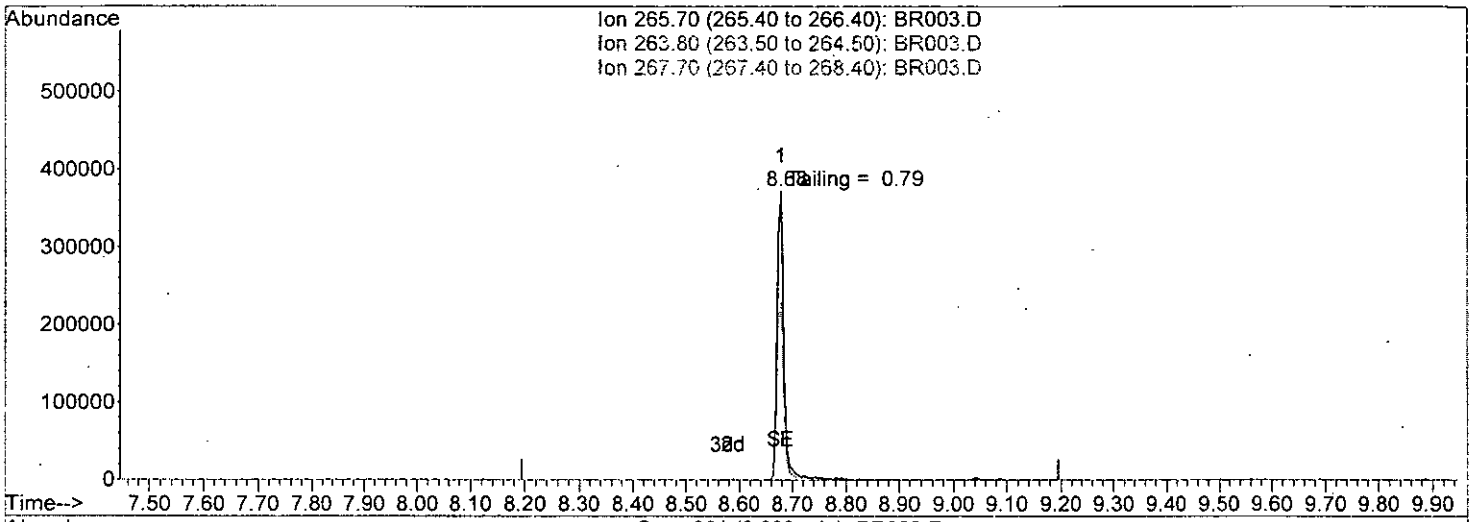
Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Initial Calibration

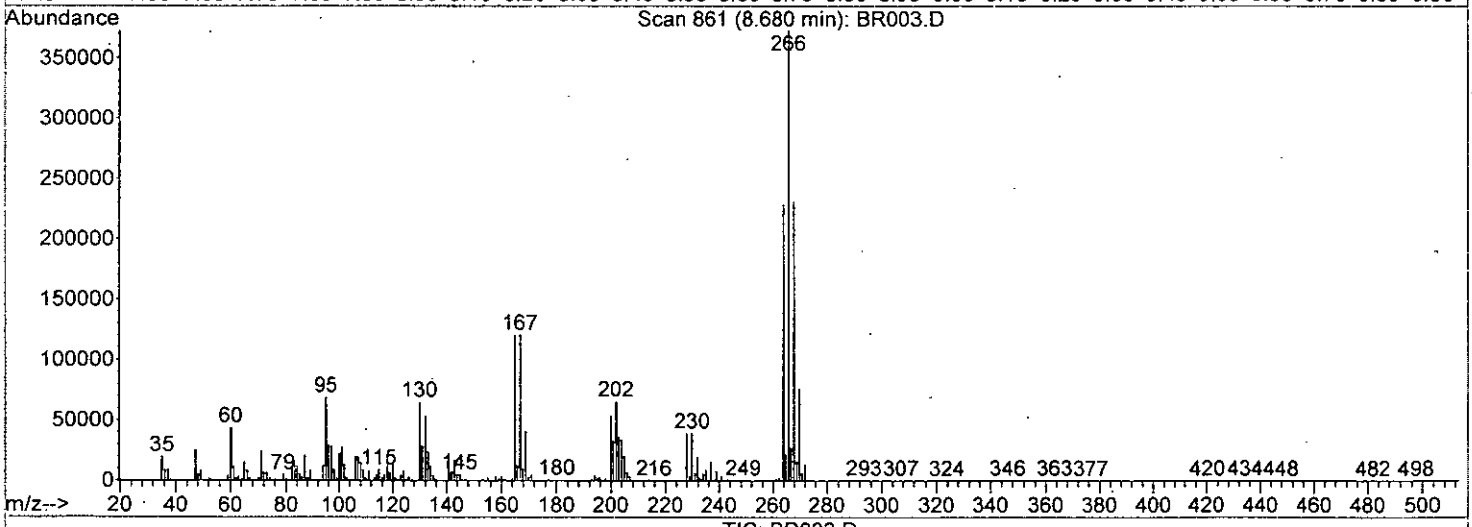


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR003.D Vial: 2
Acq On : 15 Oct 2015 10:12 am Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 10:27 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Single Level Calibration





TIC: BR003.D

(5) Pentachlorophenol (TCM)

8.68min 38.10ppm

response 340558

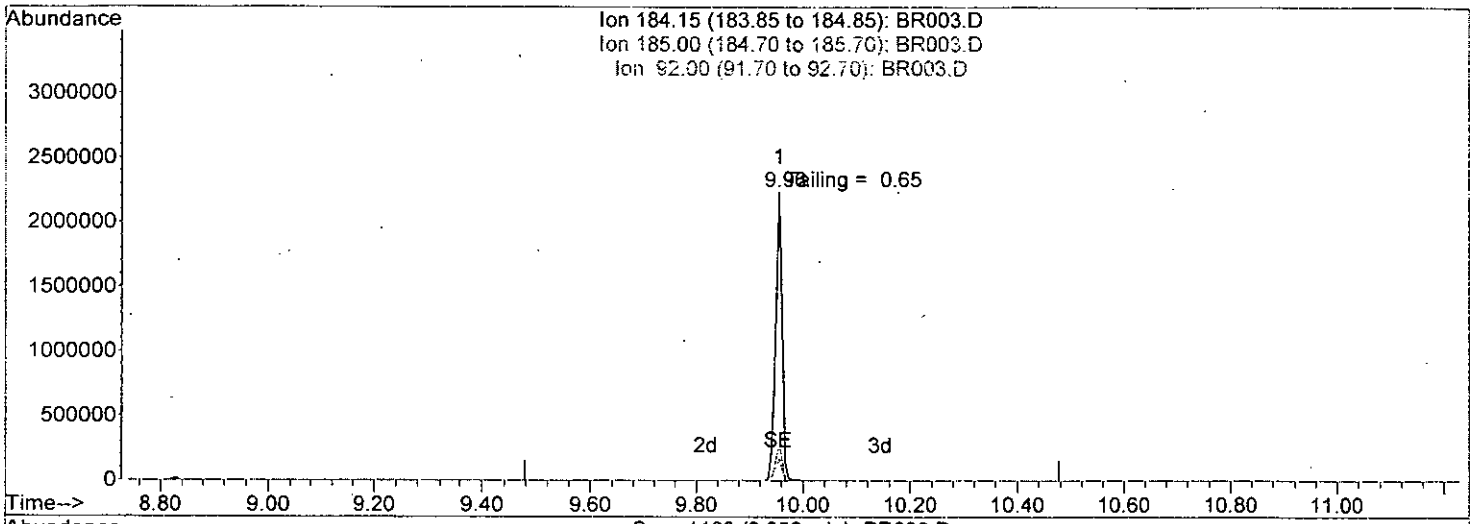
Ion	Exp%	Act%
265.70	100	100
263.80	62.20	61.38
267.70	63.40	61.85
0.00	0.00	0.00

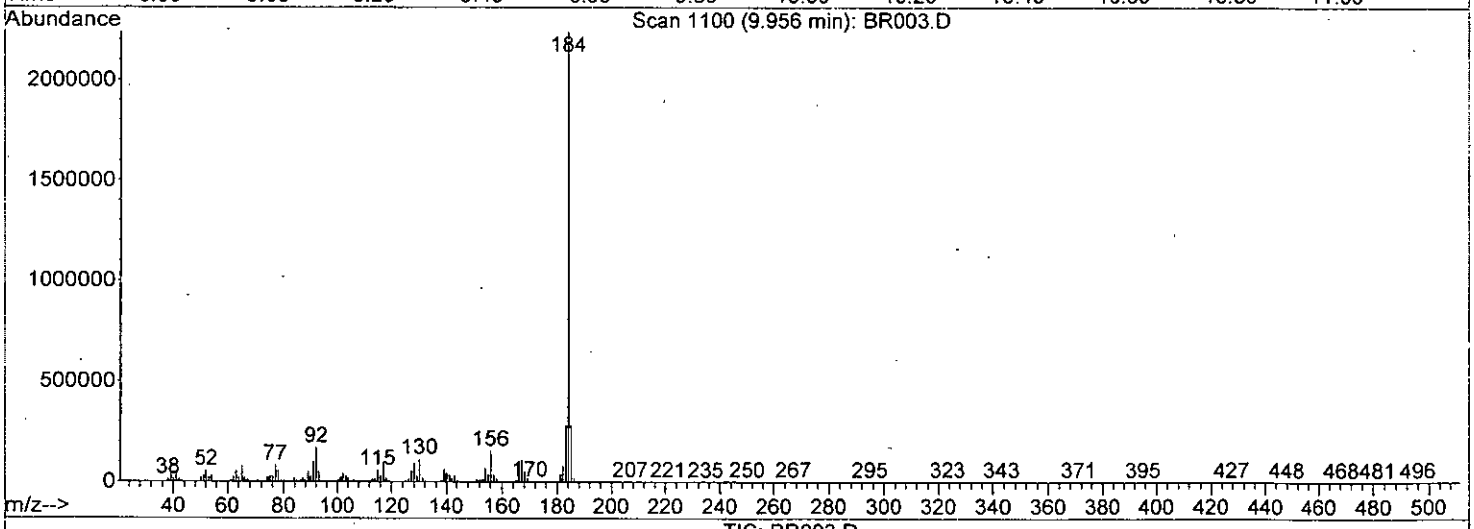
DM 10/16/15

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101515\BR003.D Vial: 2
Acq On : 15 Oct 2015 10:12 am Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 10:27 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Wed Sep 09 06:58:36 2015
Response via : Single Level Calibration





TIC: BR003.D

(8) Benzidine (T)

9.96min 45.99ppm

response 1875640

Ion	Exp%	Act%
184.15	100	100
185.00	13.00	12.58
92.00	6.90	7.53
0.00	0.00	0.00

10/14/15

ALS Environmental

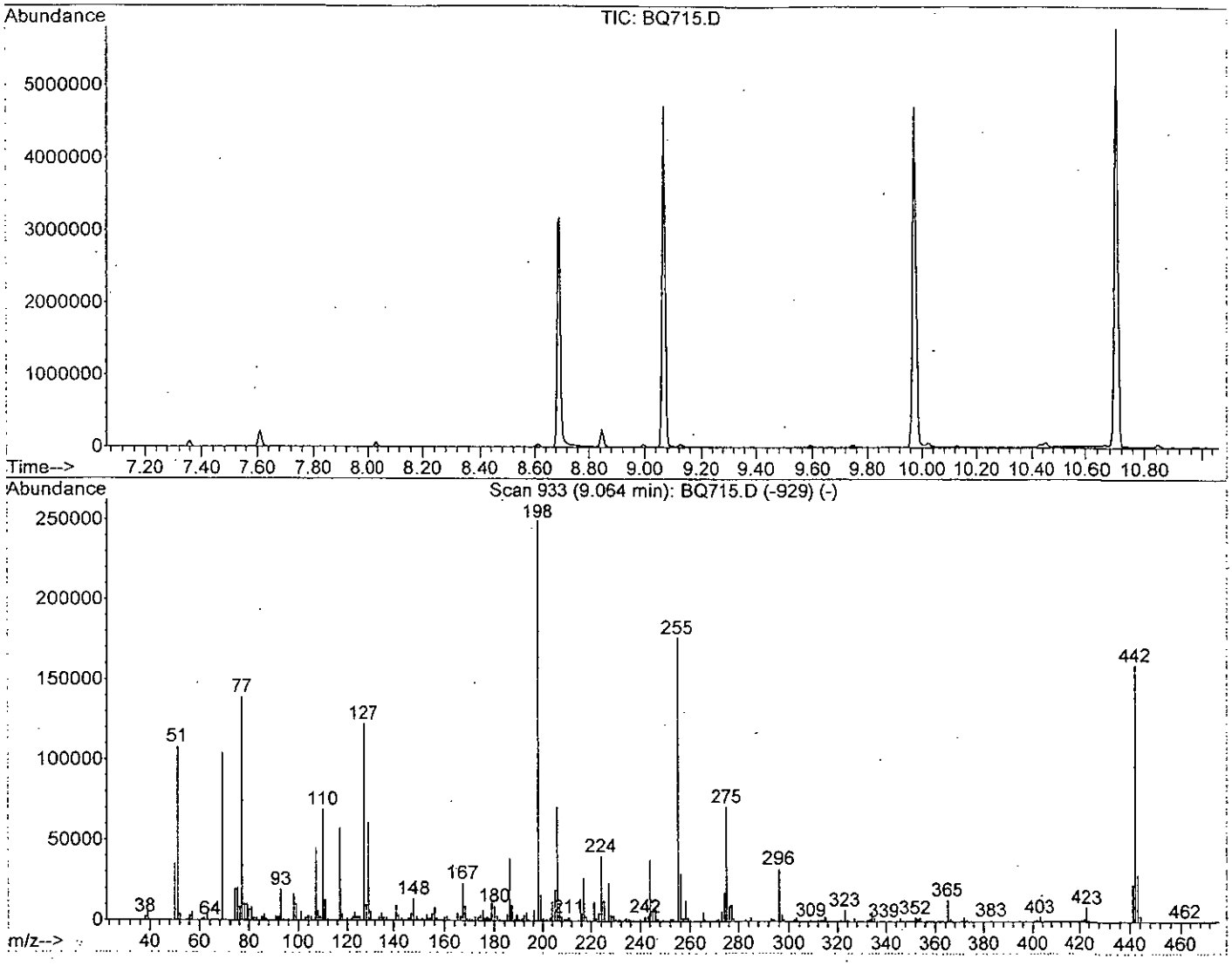
SEMI-VOLATILE ORGANICS
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

DFTPPD

Data File : I:\ACQUDATA\5973C\DATA\090815\BQ715.D Vial: 1
Acq On : 8 Sep 2015 2:41 pm Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK



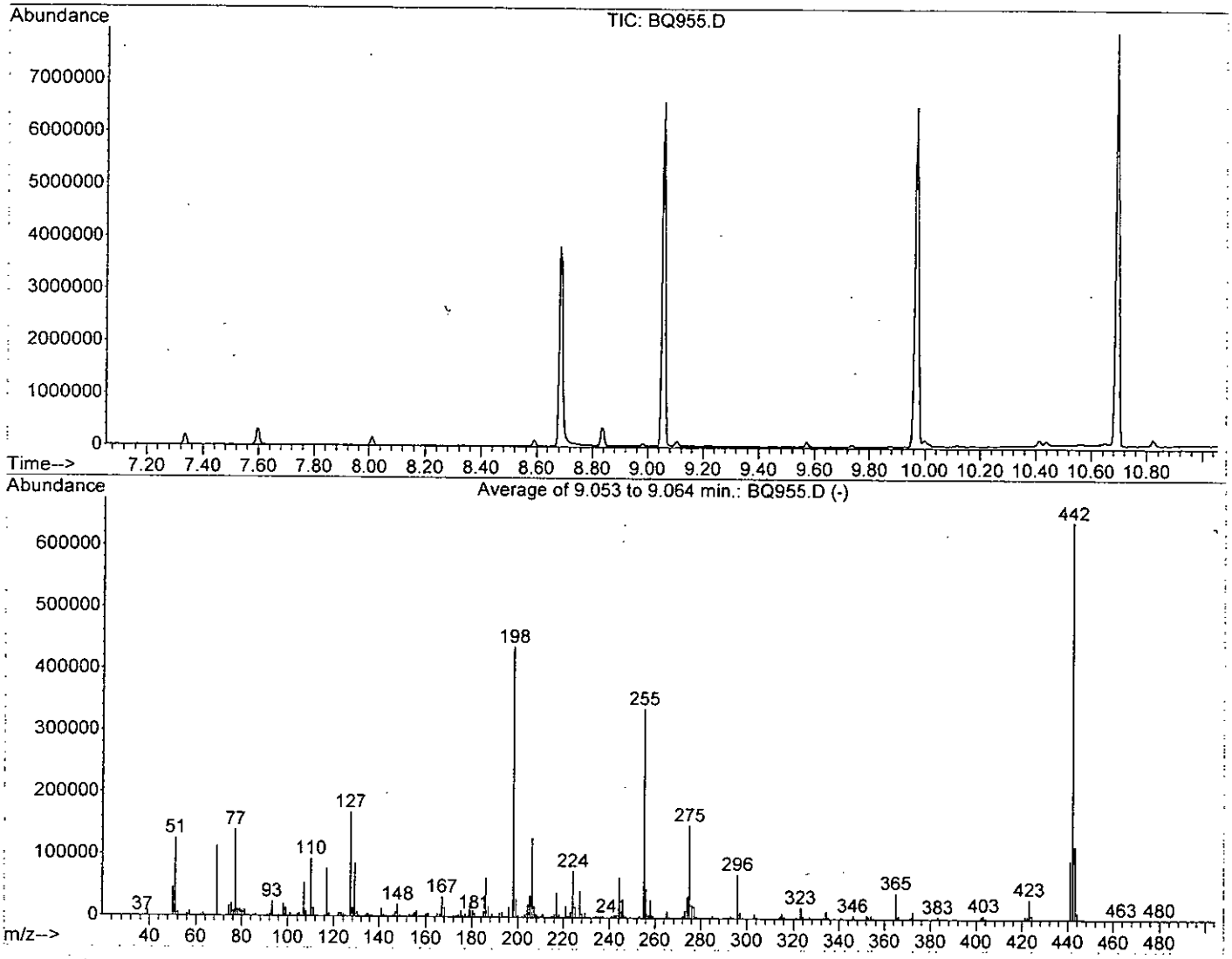
Spectrum Information: Scan 933

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	43.2	107840	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	358	PASS
127	198	10	80	49.1	122448	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	249472	PASS
199	198	5	9	6.6	16472	PASS
275	198	10	60	28.5	71008	PASS
365	198	1	100	5.4	13396	PASS
441	442	0.01	24	14.4	23016	PASS
442	442	100	100	100.0	159552	PASS
443	442	15	24	18.2	29024	PASS

BQ715.D DFTPPD.M Wed Sep 09 07:07:22 2015

DFTPPD

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ955.D Vial: 2
Acq On : 13 Oct 2015 8:22 am Operator: JMisiurewicz
Sample : TUNE Inst : 5973C
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK



AutoFind: Scans 931, 932, 933; Background Corrected with Scan 925

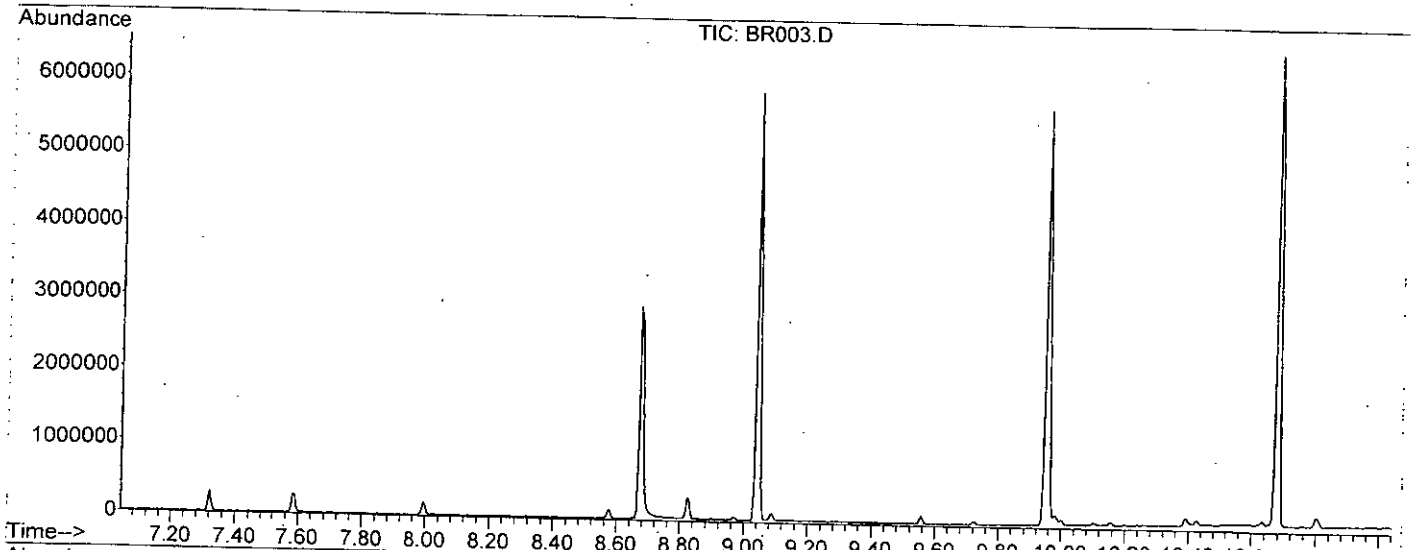
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.7	125342	PASS
68	69	0.00	2	0.2	204	PASS
70	69	0.00	2	0.3	305	PASS
127	198	10	80	38.4	167842	PASS
197	198	0.00	2	0.1	550	PASS
198	198	100	100	100.0	436672	PASS
199	198	5	9	6.9	30204	PASS
275	198	10	60	34.3	149754	PASS
365	198	1	100	9.5	41589	PASS
441	442	0.01	24	14.6	94181	PASS
442	442	100	100	100.0	643029	PASS
443	442	15	24	18.2	117122	PASS

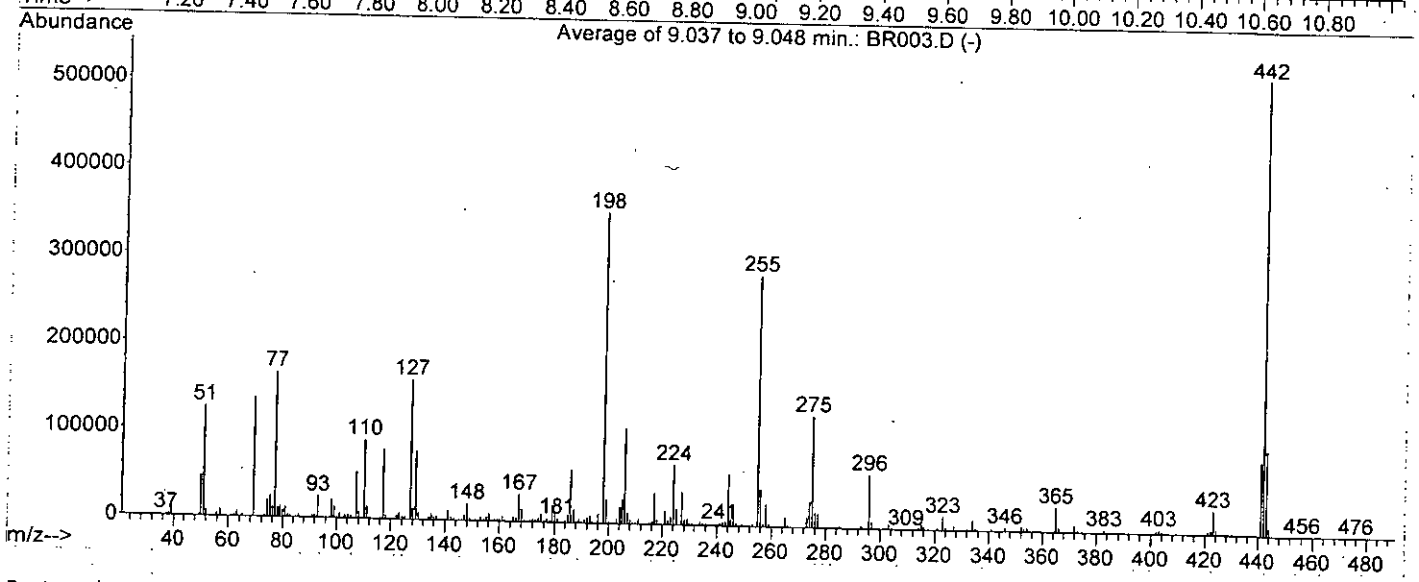
BQ955.D DFTPPD.M Thu Oct 15 09:05:03 2015

DFTPPD

Data File : I:\ACQUDATA\5973C\DATA\101515\BR003.D
Acq On : 15 Oct 2015 10:12 am
Sample : TUNE
Misc : 50 ng DFTPP
MS Integration Params: RTEINT.P
Method : I:\ACQUDATA\5973C\METHODS\DFTPPD.M (RTE Integrator)
Title : TUNE CHECK

Vial: 2
Operator: JMisiurewicz
Inst : 5973C
Multiplr: 1.00





AutoFind: Scans 928, 929, 930; Background Corrected with Scan 923

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	35.4	125560	PASS
68	69	0.00	2	0.3	473	PASS
70	69	0.00	2	0.6	824	PASS
127	198	10	80	44.8	158864	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	354245	PASS
199	198	5	9	7.7	27288	PASS
275	198	10	60	35.7	126602	PASS
365	198	1	100	7.9	27831	PASS
441	442	0.01	24	16.0	83197	PASS
442	442	100	100	100.0	519765	PASS
443	442	15	24	18.5	96080	PASS

DM 10/16/15

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	10/12/15
		Date Analyzed:	10/13/15 09:25
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1512132-01	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	467126
Prep Method:	EPA 3541	**Extraction Lot:**	246886
Data File Name:	I:\ACQUDATA\5973C\DATA\101315\BQ957.D\	**Instrument Name:**	R-MS-53
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
83-32-9	Acenaphthene	ND	U	6.6	3.3	2.8	
208-96-8	Acenaphthylene	ND	U	6.6	3.3	1.7	
120-12-7	Anthracene	ND	U	6.6	3.3	2.0	
56-55-3	Benz(a)anthracene	ND	U	6.6	3.3	1.9	
205-99-2	Benzo(b)fluoranthene	ND	U	6.6	3.3	2.1	
207-08-9	Benzo(k)fluoranthene	ND	U	6.6	3.3	1.7	
191-24-2	Benzo(g,h,i)perylene	ND	U	6.6	3.3	2.2	
50-32-8	Benzo(a)pyrene	ND	U	6.6	3.3	1.7	
218-01-9	Chrysene	ND	U	6.6	3.3	1.7	
53-70-3	Dibenz(a,h)anthracene	ND	U	6.6	3.3	2.2	
206-44-0	Fluoranthene	ND	U	6.6	3.3	2.0	
86-73-7	Fluorene	ND	U	6.6	3.3	3.0	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U	6.6	3.3	1.7	
91-20-3	Naphthalene	ND	U	6.6	3.3	2.0	
85-01-8	Phenanthrene	ND	U	6.6	4.3	4.3	
129-00-0	Pyrene	ND	U	6.6	3.3	2.5	
91-57-6	2-Methylnaphthalene	ND	U	6.6	3.3	3.2	
90-12-0	1-Methylnaphthalene	ND	U	6.6	3.3	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	78	29-135	10/13/15 09:25	
Nitrobenzene-d5	80	35-113	10/13/15 09:25	
p-Terphenyl-d14	109	42-165	10/13/15 09:25	

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ957.D Vial: 4
Acq On : 13 Oct 2015 9:25 am Operator: JMisiurewicz
Sample : RQ1512132-01 Inst : 5973C
Misc : 246886 8270D LL SOIL BLK Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:13 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

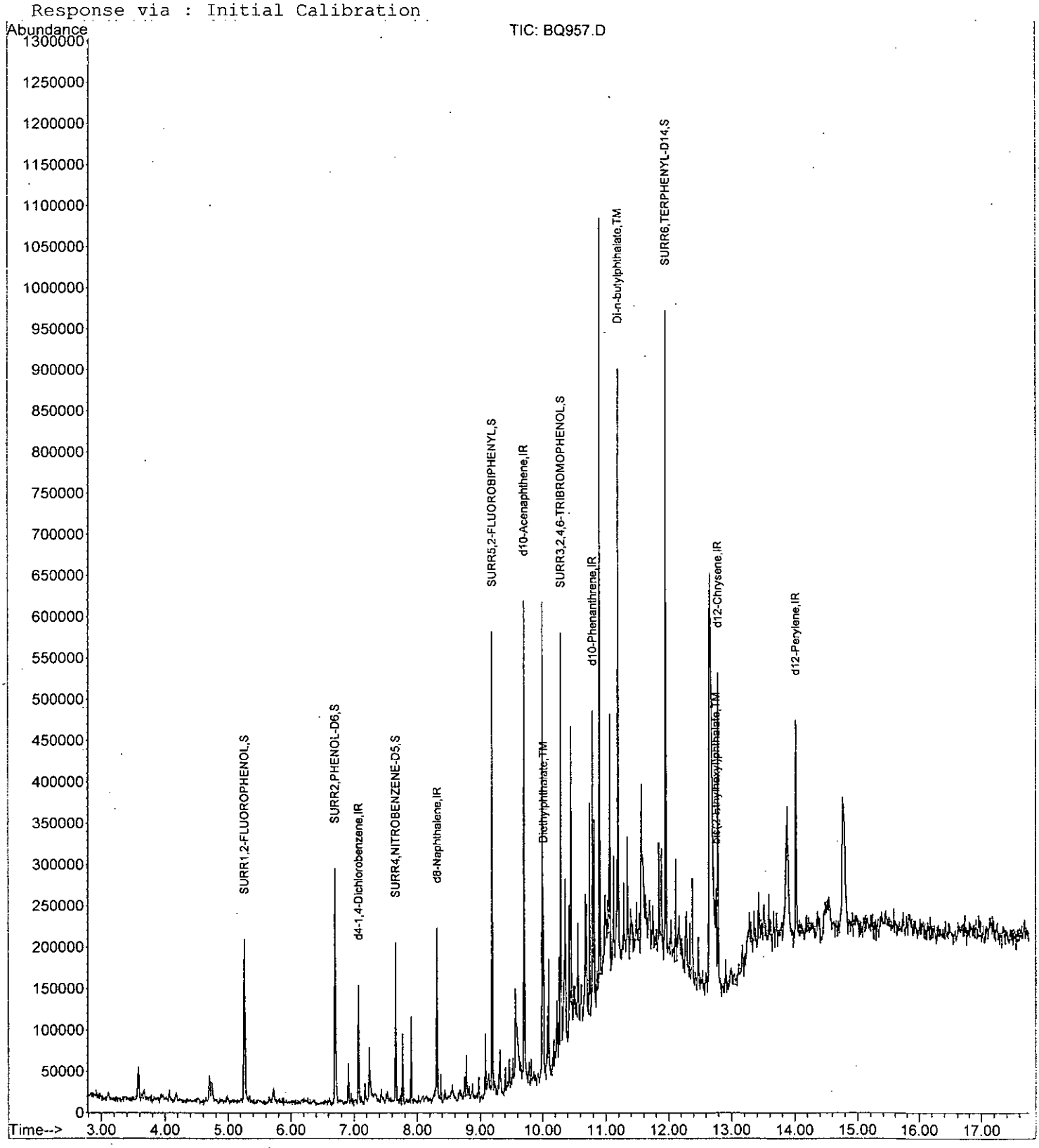
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.07	152	20394	1.00	ppm	0.000
9) d8-Naphthalene	8.32	136	79634	1.00	ppm	0.000
20) d10-Acenaphthene	9.71	164	52670	1.00	ppm	0.000
34) d10-Phenanthrene	10.79	188	91542	1.00	ppm	0.000
43) d12-Chrysene	12.80	240	100529	1.00	ppm	0.000
50) d12-Perylene	14.03	264	104715	1.00	ppm	0.000
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.26	112	89060	3.46	ppm	0.00
Spiked Amount 4.000	Range 11 - 131		Recovery = 86.50%			
4) SURR2,PHENOL-D6	6.70	99	115664	3.86	ppm	0.00
Spiked Amount 4.000	Range 17 - 135		Recovery = 96.50%			
10) SURR4,NITROBENZENE-D5	7.66	82	49287	1.59	ppm	0.00
Spiked Amount 2.000	Range 16 - 161		Recovery = 79.50%			
23) SURR5,2-FLUOROBIPHENYL	9.20	172	119304	1.55	ppm	0.00
Spiked Amount 2.000	Range 17 - 141		Recovery = 77.50%			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.29	330	51977	3.76	ppm	0.00
Spiked Amount 4.000	Range 35 - 157		Recovery = 94.00%			
45) SURR6,TERPHENYL-D14	11.96	244	196475	2.18	ppm	0.01
Spiked Amount 2.000	Range 13 - 167		Recovery = 109.00%			
Target Compounds						Qvalue
32) Diethylphthalate	10.01	149	41813	0.618	ppm	97
41) Di-n-butylphthalate	11.19	149	289518	2.573	ppm	98
49) bis(2-Ethylhexyl)phthalate	12.76	149	26038	0.384	ppm	88

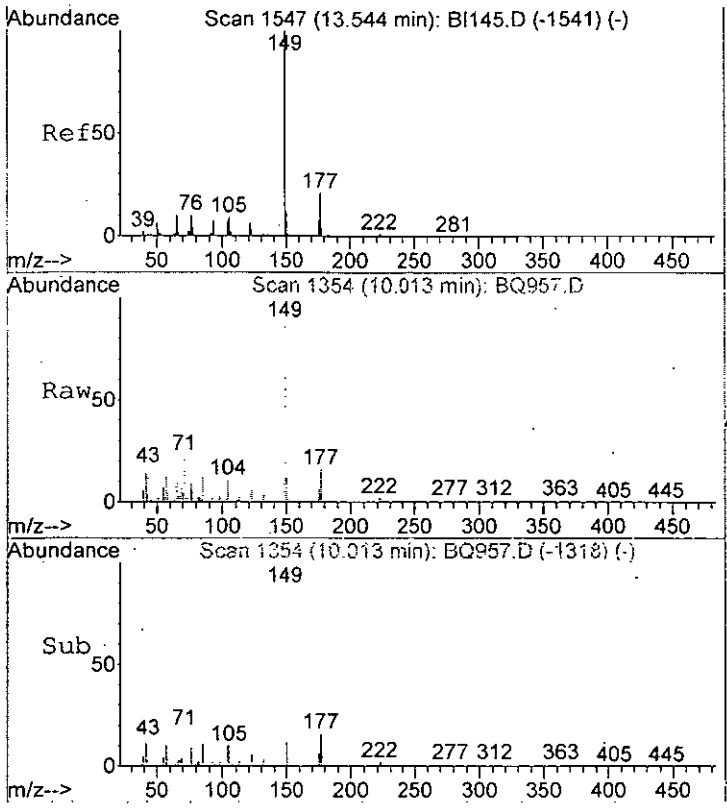
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ957.D Vial: 4
Acq On : 13 Oct 2015 9:25 am Operator: JMisiurewicz
Sample : RQ1512132-01 Inst : 5973C
Misc : 246886 8270D LL SOIL BLK Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:13 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Initial Calibration

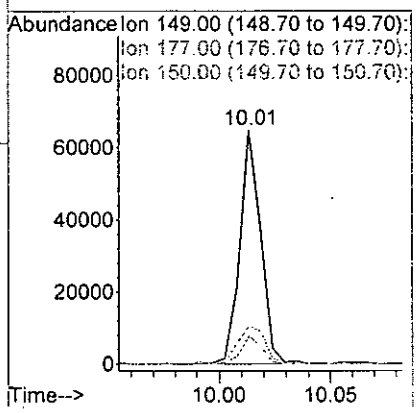


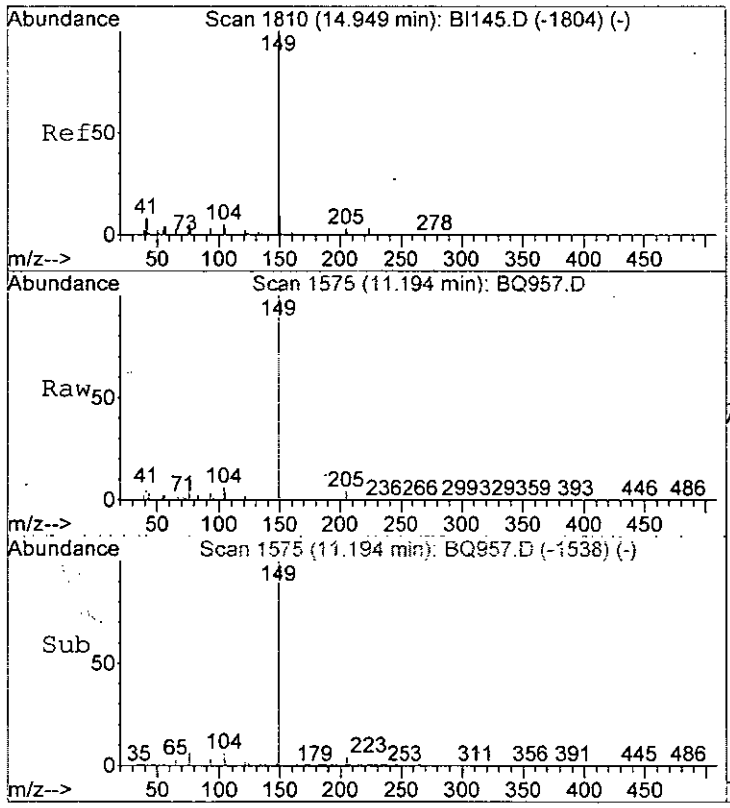


#32
Diethylphthalate
Concen: 0.62 ppm
RT: 10.01 min Scan# 1354
Delta R.T. -0.01 min
Lab File: BQ957.D
Acq: 13 Oct 2015 9:25 am

Tgt Ion:149 Resp: 41813

Ion	Ratio	Lower	Upper
149	100		
177	16.2	0.0	38.5
150	11.8	0.0	31.9

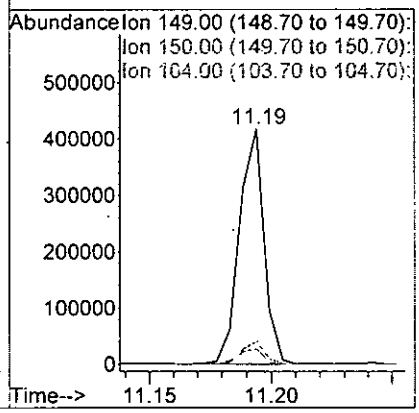


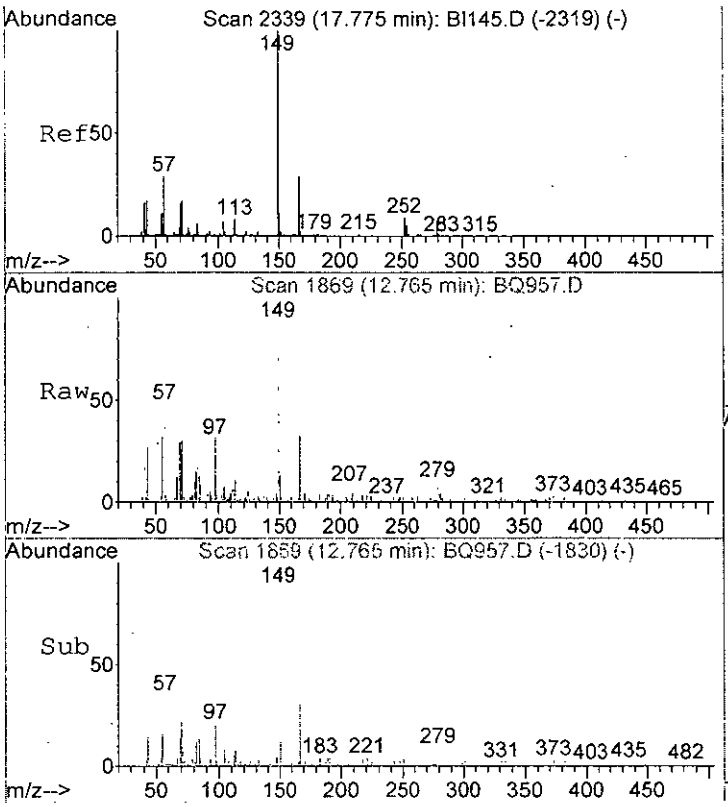


#41
Di-n-butylphthalate
Concen: 2.57 ppm
RT: 11.19 min Scan# 1575
Delta R.T. 0.00 min
Lab File: BQ957.D
Acq: 13 Oct 2015 9:25 am

Tgt Ion:149 Resp: 289518

Ion	Ratio	Lower	Upper
149	100		
150	9.7	0.0	29.0
104	6.3	0.0	25.5

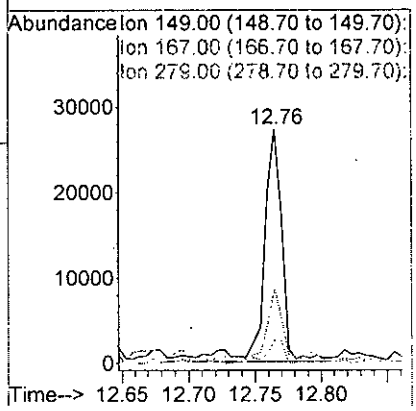




#49
bis(2-Ethylhexyl)phthalate
Concen: 0.38 ppm
RT: 12.76 min Scan# 1869
Delta R.T. 0.01 min
Lab File: BQ957.D
Acq: 13 Oct 2015 9:25 am

Tgt Ion:149 Resp: 26038

Ion	Ratio	Lower	Upper
149	100		
167	31.2	5.2	45.2
279	8.9	0.0	25.6



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	10/12/15
		Date Analyzed:	10/13/15 09:53
Sample Name:	Lab Control Sample	**Units:**	µg/Kg
Lab Code:	RQ1512132-02	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	467126
Prep Method:	EPA 3541	**Extraction Lot:**	246886
Data File Name:	I:\ACQUDATA\5973C\DATA\101315\BQ958.D\	**Instrument Name:**	R-MS-53
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
83-32-9	Acenaphthene	**115**		6.6	3.3	2.8	
208-96-8	Acenaphthylene	**113**		6.6	3.3	1.7	
120-12-7	Anthracene	**132**		6.6	3.3	2.0	
56-55-3	Benz(a)anthracene	**125**		6.6	3.3	1.9	
205-99-2	Benzo(b)fluoranthene	**118**		6.6	3.3	2.1	
207-08-9	Benzo(k)fluoranthene	**104**		6.6	3.3	1.7	
191-24-2	Benzo(g,h,i)perylene	**120**		6.6	3.3	2.2	
50-32-8	Benzo(a)pyrene	**118**		6.6	3.3	1.7	
218-01-9	Chrysene	**135**		6.6	3.3	1.7	
53-70-3	Dibenz(a,h)anthracene	**124**		6.6	3.3	2.2	
206-44-0	Fluoranthene	**141**		6.6	3.3	2.0	
86-73-7	Fluorene	**115**		6.6	3.3	3.0	
193-39-5	Indeno(1,2,3-cd)pyrene	**123**		6.6	3.3	1.7	
91-20-3	Naphthalene	**115**		6.6	3.3	2.0	
85-01-8	Phenanthrene	**136**		6.6	4.3	4.3	
129-00-0	Pyrene	**136**		6.6	3.3	2.5	
91-57-6	2-Methylnaphthalene	**135**		6.6	3.3	3.2	
90-12-0	1-Methylnaphthalene	**127**		6.6	3.3	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	76	29-135	10/13/15 09:53	
Nitrobenzene-d5	94	35-113	10/13/15 09:53	
p-Terphenyl-d14	107	42-165	10/13/15 09:53	

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ958.D Vial: 5
Acq On : 13 Oct 2015 9:53 am Operator: JMisiurewicz
Sample : RQ1512132-02 Inst : 5973C
Misc : 246886 8270D LL SOIL LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:10 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.07	152	20276	1.00	ppm	0.000
9) d8-Naphthalene	8.32	136	79731	1.00	ppm	0.000
20) d10-Acenaphthene	9.71	164	56799	1.00	ppm	0.000
34) d10-Phenanthrene	10.79	188	83633	1.00	ppm	0.000
43) d12-Chrysene	12.79	240	102552	1.00	ppm	0.000
50) d12-Perylene	14.02	264	109177	1.00	ppm	0.000
System Monitoring Compounds						
3) SURR1,2-FLUOROPHENOL	5.27	112	94972	3.71	ppm	0.00
Spiked Amount 4.000	Range 11 - 131		Recovery = 92.75%			
4) SURR2,PHENOL-D6	6.70	99	120684	4.05	ppm	0.00
Spiked Amount 4.000	Range 17 - 135		Recovery = 101.25%			
10) SURR4,NITROBENZENE-D5	7.66	82	58626	1.89	ppm	0.00
Spiked Amount 2.000	Range 16 - 161		Recovery = 94.50%			
23) SURR5,2-FLUOROBIPHENYL	9.20	172	127224	1.53	ppm	0.00
Spiked Amount 2.000	Range 17 - 141		Recovery = 76.50%			
33) SURR3,2,4,6-TRIBROMOPHENOL	10.29	330	51897	3.48	ppm	0.00
Spiked Amount 4.000	Range 35 - 157		Recovery = 87.00%			
45) SURR6,TERPHENYL-D14	11.95	244	196746	2.14	ppm	0.00
Spiked Amount 2.000	Range 13 - 167		Recovery = 107.00%			
Target Compounds						Qvalue
5) Phenol	6.72	94	133329	3.696	ppm	# 42
6) 2-Chlorophenol	6.83	128	101718	3.891	ppm	88
7) 2-Methylphenol	7.40	108	94113	3.951	ppm	91
8) 3+4-Methylphenol	7.56	108	202342	7.819	ppm	# 80
11) Nitrobenzene	7.68	77	107033	3.559	ppm	91
12) 2-Nitrophenol	7.98	139	54743	3.476	ppm	96
13) 2,4-Dimethylphenol	8.06	107	102975	3.404	ppm	90
14) 2,4-Dichlorophenol	8.22	162	94643	3.915	ppm	87
15) 1,2,4-Trichlorobenzene	8.27	180	101281	3.446	ppm	98
16) Naphthalene	8.34	128	282647	3.453	ppm	98
17) 4-Chloro-3-methylphenol	8.82	107	92316	4.069	ppm	96
18) 2-Methylnaphthalene	8.91	142	205826	4.060	ppm	98
19) 1-Methylnaphthalene	8.99	142	198425	3.808	ppm	88
21) 2,4,6-Trichlorophenol	9.15	196	73108	3.323	ppm	91
22) 2,4,5-Trichlorophenol	9.18	196	77068	3.138	ppm	96
24) 2-Chloronaphthalene	9.29	162	208189	3.041	ppm	97
25) Acenaphthylene	9.61	152	338714	3.403	ppm	98
26) Dimethyl phthalate	9.51	163	255249	3.508	ppm	99
27) Acenaphthene	9.73	153	220083	3.447	ppm	98
28) 2,4-Dinitrophenol	9.77	184	5480	1.118	ppm	# 45
29) Dibenzofuran	9.86	168	310044	3.320	ppm	91
30) 4-Nitrophenol	9.84	65	36693	3.593	ppm	82
31) Fluorene	10.11	166	251518	3.460	ppm	99
32) Diethylphthalate	10.02	149	298393	4.088	ppm	93
35) 4,6-Dinitro-2-methylphenol	10.16	198	30719	2.760	ppm	# 64
36) Hexachlorobenzene	10.52	284	111939	4.236	ppm	90
37) Pentachlorophenol	10.66	266	19779	1.705	ppm	90
38) Phenanthrene	10.81	178	374579	4.079	ppm	98
39) Anthracene	10.85	178	377966	3.948	ppm	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ958.D Vial: 5
Acq On : 13 Oct 2015 9:53 am Operator: JMisiurewicz
Sample : RQ1512132-02 Inst : 5973C
Misc : 246886 8270D LL SOIL LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:10 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

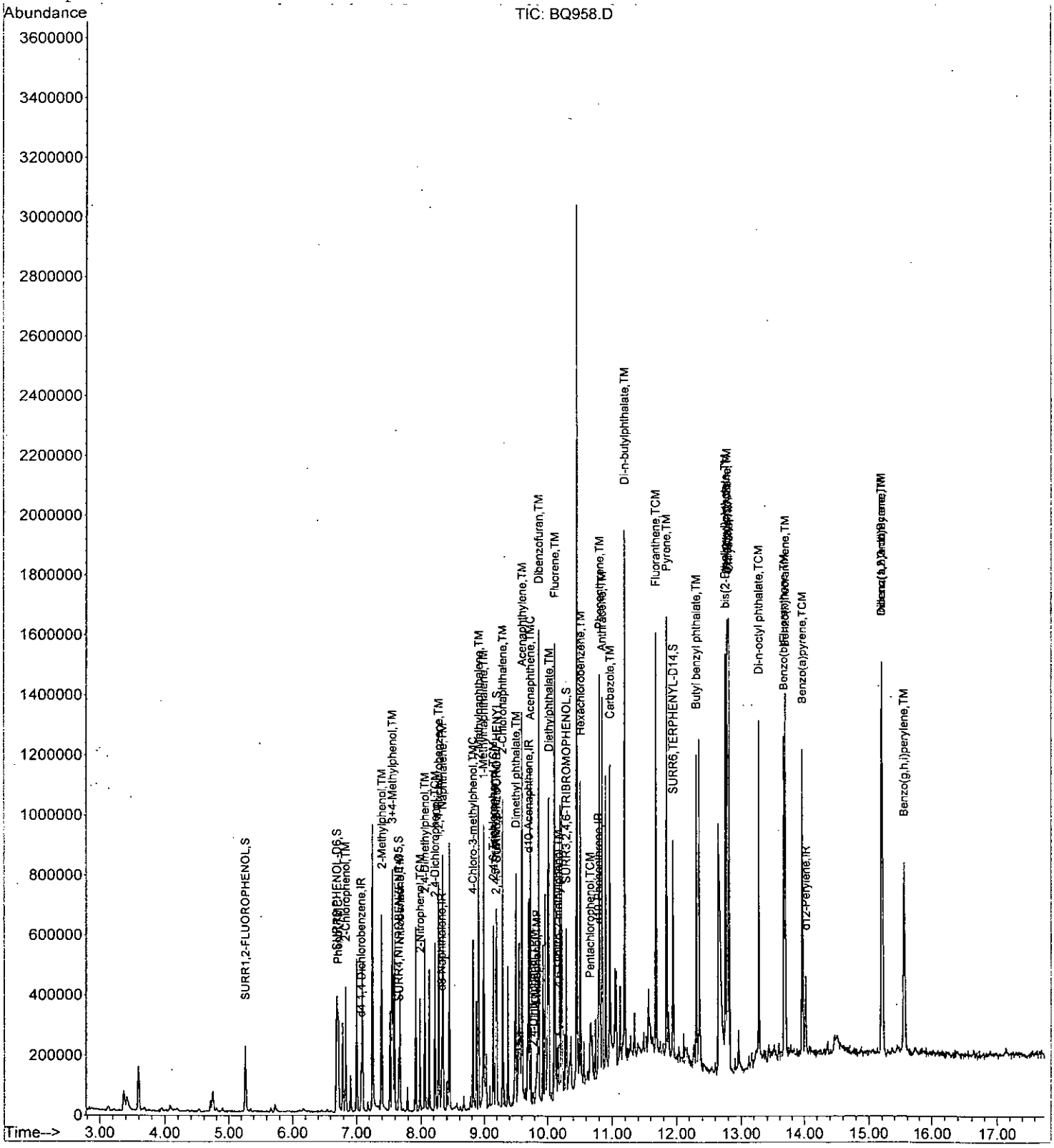
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40)	Carbazole	10.97	167	348594	3.967	ppm	98
41)	Di-n-butylphthalate	11.19	149	773535	7.524	ppm	99
42)	Fluoranthene	11.68	202	458444	4.224	ppm	98
44)	Pyrene	11.85	202	481690	4.082	ppm	97
46)	Butyl benzyl phthalate	12.32	149	209232	4.405	ppm	84
47)	Benzo(a)anthracene	12.79	228	458884	3.752	ppm	98
48)	Chrysene	12.81	228	442855	4.047	ppm	98
49)	bis(2-Ethylhexyl)phthalate	12.76	149	318228	4.606	ppm	95
51)	Di-n-octyl phthalate	13.28	149	477997	3.946	ppm	83
52)	Benzo(b)Fluoranthene	13.67	252	452824	3.543	ppm	95
53)	Benzo(k)fluoranthene	13.69	252	374834	3.125	ppm	97
54)	Benzo(a)pyrene	13.97	252	429662	3.532	ppm	94
55)	Indeno(1,2,3-cd)Pyrene	15.21	276	518697	3.687	ppm	86
56)	Dibenz(a,h)anthracene	15.21	278	432324	3.724	ppm	95
57)	Benzo(g,h,i)perylene	15.55	276	407143	3.608	ppm	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ958.D Vial: 5
Acq On : 13 Oct 2015 9:53 am Operator: JMisiurewicz
Sample : RQ1512132-02 Inst : 5973C
Misc : 246886 8270D LL SOIL LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:10 2015 Quant Results File: PAH090815.RES

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Initial Calibration



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	10/12/15
		Date Analyzed:	10/13/15 10:21
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/Kg
Lab Code:	RQ1512132-03	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	467126
Prep Method:	EPA 3541	**Extraction Lot:**	246886
Data File Name:	I:\ACQUDATA\5973C\DATA\101315\BQ959.D\	**Instrument Name:**	R-MS-53
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
83-32-9	Acenaphthene	**108**		6.6	3.3	2.8	
208-96-8	Acenaphthylene	**108**		6.6	3.3	1.7	
120-12-7	Anthracene	**117**		6.6	3.3	2.0	
56-55-3	Benz(a)anthracene	**117**		6.6	3.3	1.9	
205-99-2	Benzo(b)fluoranthene	**110**		6.6	3.3	2.1	
207-08-9	Benzo(k)fluoranthene	**119**		6.6	3.3	1.7	
191-24-2	Benzo(g,h,i)perylene	**121**		6.6	3.3	2.2	
50-32-8	Benzo(a)pyrene	**118**		6.6	3.3	1.7	
218-01-9	Chrysene	**124**		6.6	3.3	1.7	
53-70-3	Dibenz(a,h)anthracene	**124**		6.6	3.3	2.2	
206-44-0	Fluoranthene	**123**		6.6	3.3	2.0	
86-73-7	Fluorene	**113**		6.6	3.3	3.0	
193-39-5	Indeno(1,2,3-cd)pyrene	**120**		6.6	3.3	1.7	
91-20-3	Naphthalene	**104**		6.6	3.3	2.0	
85-01-8	Phenanthrene	**120**		6.6	4.3	4.3	
129-00-0	Pyrene	**126**		6.6	3.3	2.5	
91-57-6	2-Methylnaphthalene	**126**		6.6	3.3	3.2	
90-12-0	1-Methylnaphthalene	**112**		6.6	3.3	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	77	29-135	10/13/15 10:21	
Nitrobenzene-d5	86	35-113	10/13/15 10:21	
p-Terphenyl-d14	99	42-165	10/13/15 10:21	

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ959.D Vial: 6
Acq On : 13 Oct 2015 10:21 am Operator: JMisiurewicz
Sample : RQ1512132-03 Inst : 5973C
Misc : 246886 8270D LL SOIL LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:15 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	7.07	152	20990	1.00 ppm	0.000
9) d8-Naphthalene	8.32	136	81076	1.00 ppm	0.000
20) d10-Acenaphthene	9.71	164	56844	1.00 ppm	0.000
34) d10-Phenanthrene	10.79	188	91870	1.00 ppm	0.000
43) d12-Chrysene	12.80	240	105810	1.00 ppm	0.011
50) d12-Perylene	14.03	264	103779	1.00 ppm	0.000
System Monitoring Compounds					
3) SURR1,2-FLUOROPHENOL	5.27	112	94310	3.56 ppm	0.01
Spiked Amount 4.000	Range 11 - 131		Recovery = 89.00%		
4) SURR2,PHENOL-D6	6.71	99	116361	3.77 ppm	0.00
Spiked Amount 4.000	Range 17 - 135		Recovery = 94.25%		
10) SURR4,NITROBENZENE-D5	7.66	82	53944	1.71 ppm	0.00
Spiked Amount 2.000	Range 16 - 161		Recovery = 85.50%		
23) SURR5,2-FLUOROBIPHENYL	9.20	172	127865	1.54 ppm	0.00
Spiked Amount 2.000	Range 17 - 141		Recovery = 77.00%		
33) SURR3,2,4,6-TRIBROMOPHENOL	10.29	330	49185	3.29 ppm	0.00
Spiked Amount 4.000	Range 35 - 157		Recovery = 82.25%		
45) SURR6,TERPHENYL-D14	11.96	244	188083	1.98 ppm	0.02
Spiked Amount 2.000	Range 13 - 167		Recovery = 99.00%		
Target Compounds					Qvalue
5) Phenol	6.72	94	129535	3.469 ppm #	45
6) 2-Chlorophenol	6.83	128	93194	3.444 ppm	96
7) 2-Methylphenol	7.40	108	86726	3.517 ppm	94
8) 3+4-Methylphenol	7.56	108	197062	7.356 ppm	86
11) Nitrobenzene	7.68	77	104185	3.407 ppm	96
12) 2-Nitrophenol	7.99	139	53639	3.350 ppm	83
13) 2,4-Dimethylphenol	8.06	107	102683	3.338 ppm	97
14) 2,4-Dichlorophenol	8.22	162	88957	3.619 ppm	92
15) 1,2,4-Trichlorobenzene	8.27	180	93910	3.142 ppm	97
16) Naphthalene	8.34	128	258606	3.107 ppm	97
17) 4-Chloro-3-methylphenol	8.82	107	91656	3.973 ppm	92
18) 2-Methylnaphthalene	8.91	142	194286	3.769 ppm	96
19) 1-Methylnaphthalene	8.99	142	178745	3.373 ppm	97
21) 2,4,6-Trichlorophenol	9.15	196	69342	3.149 ppm	94
22) 2,4,5-Trichlorophenol	9.19	196	73886	3.006 ppm	93
24) 2-Chloronaphthalene	9.29	162	203460	2.970 ppm	98
25) Acenaphthylene	9.60	152	322546	3.238 ppm	99
26) Dimethyl phthalate	9.51	163	261548	3.592 ppm	99
27) Acenaphthene	9.73	153	206199	3.227 ppm	97
28) 2,4-Dinitrophenol	9.78	184	1456	0.556 ppm	87
29) Dibenzofuran	9.86	168	286850	3.069 ppm	99
30) 4-Nitrophenol	9.84	65	25191	2.465 ppm #	35
31) Fluorene	10.11	166	247325	3.399 ppm	98
32) Diethylphthalate	10.02	149	291600	3.992 ppm	96
35) 4,6-Dinitro-2-methylphenol	10.16	198	17035m	1.393 ppm	
36) Hexachlorobenzene	10.52	284	105328	3.629 ppm	94
37) Pentachlorophenol	10.66	266	14286	1.121 ppm	82
38) Phenanthrene	10.81	178	363903	3.608 ppm	100
39) Anthracene	10.85	178	367607	3.495 ppm	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ959.D Vial: 6
Acq On : 13 Oct 2015 10:21 am Operator: JMisiurewicz
Sample : RQ1512132-03 Inst : 5973C
Misc : 246886 8270D LL SOIL LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:15 2015 Quant Results File: PAH090815.RES

Quant Method : I:\ACQUDATA\5...\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Initial Calibration
DataAcq Meth : LVI8270B

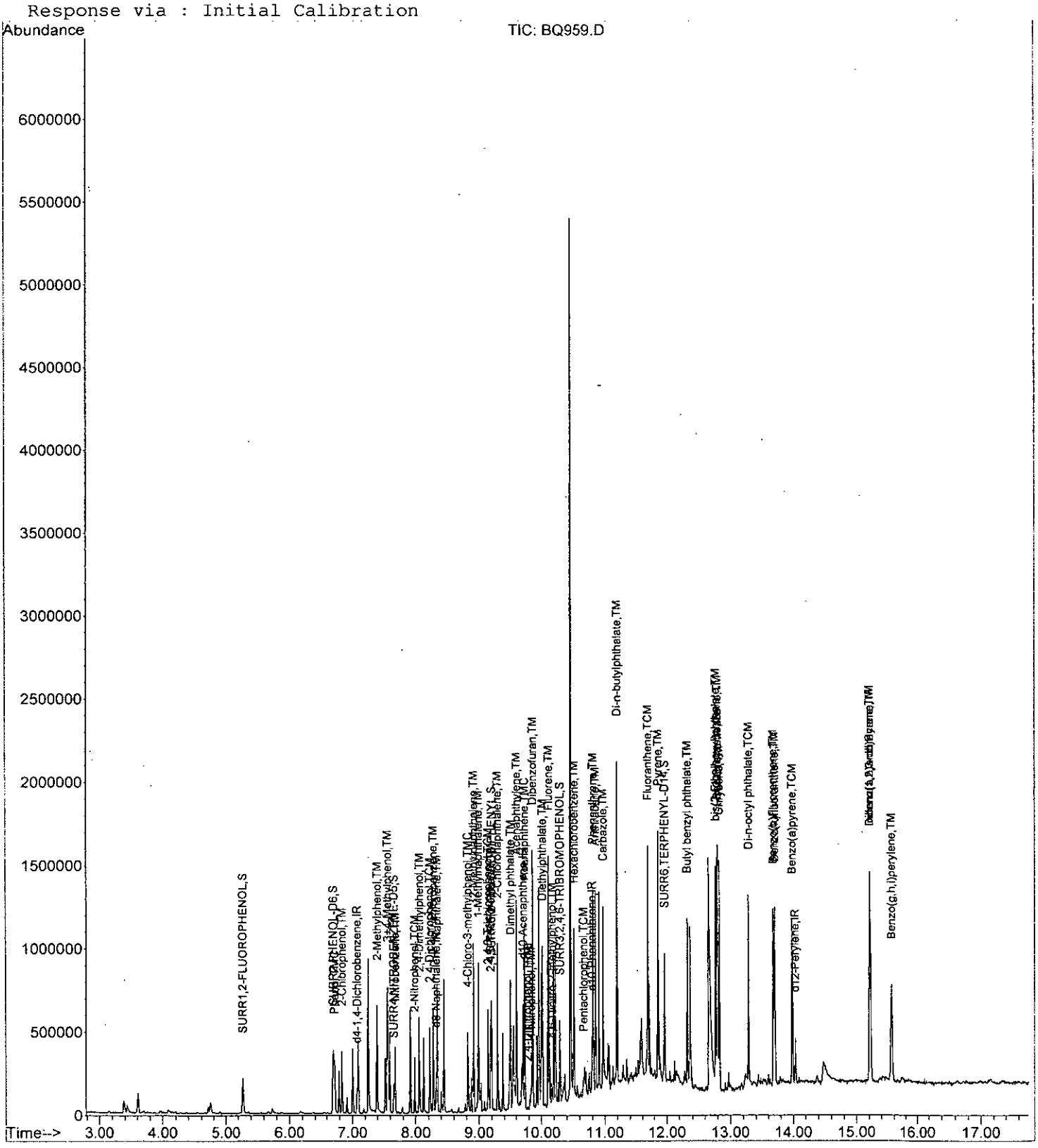
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40)	Carbazole	10.97	167	335191	3.473	ppm	99
41)	Di-n-butylphthalate	11.19	149	749135	6.634	ppm	99
42)	Fluoranthene	11.69	202	440140	3.692	ppm	98
44)	Pyrene	11.86	202	458929	3.770	ppm	100
46)	Butyl benzyl phthalate	12.33	149	204531	4.174	ppm	87
47)	Benzo(a)anthracene	12.80	228	443346	3.514	ppm	98
48)	Chrysene	12.82	228	418397	3.706	ppm	98
49)	bis(2-Ethylhexyl)phthalate	12.77	149	299791	4.205	ppm	99
51)	Di-n-octyl phthalate	13.29	149	457948	3.977	ppm	82
52)	Benzo(b)Fluoranthene	13.68	252	400323	3.296	ppm	95
53)	Benzo(k)fluoranthene	13.70	252	408395	3.582	ppm	96
54)	Benzo(a)pyrene	13.98	252	408798	3.535	ppm	94
55)	Indeno(1,2,3-cd)Pyrene	15.22	276	480085	3.590	ppm	85
56)	Dibenz(a,h)anthracene	15.22	278	410619	3.721	ppm	95
57)	Benzo(g,h,i)perylene	15.56	276	390330	3.639	ppm	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ959.D Vial: 6
Acq On : 13 Oct 2015 10:21 am Operator: JMisiurewicz
Sample : RQ1512132-03 Inst : 5973C
Misc : 246886 8270D LL SOIL LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:15 2015 Quant Results File: PAH090815.RES

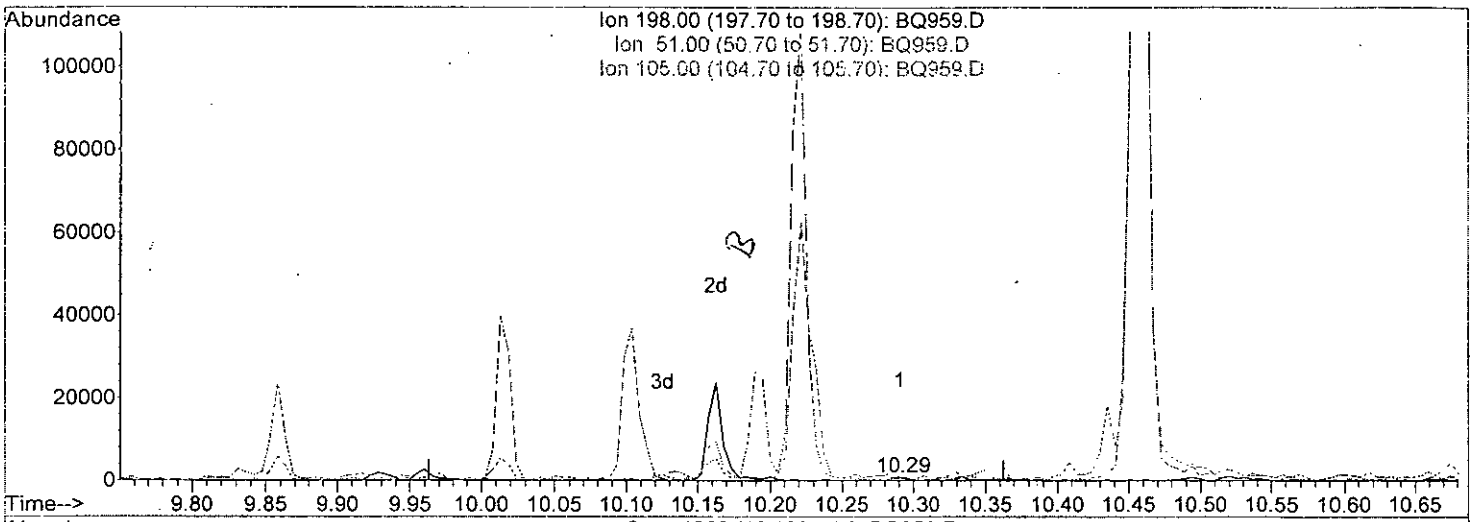
Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Initial Calibration

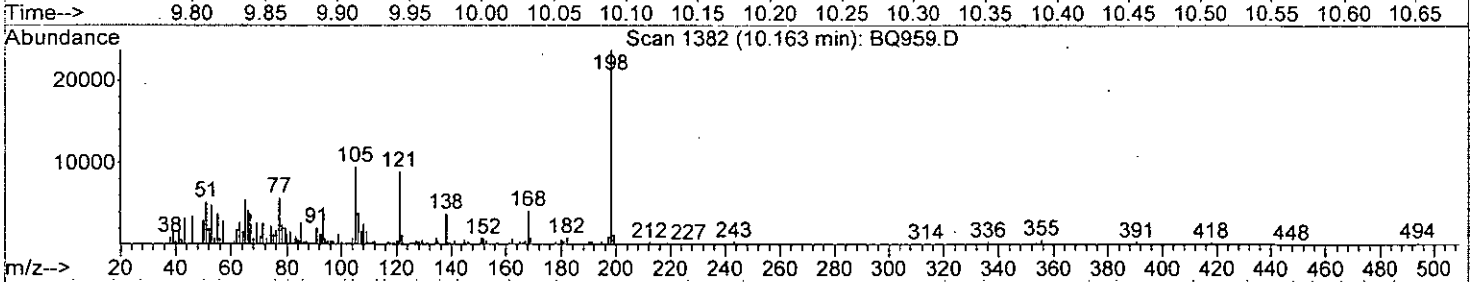


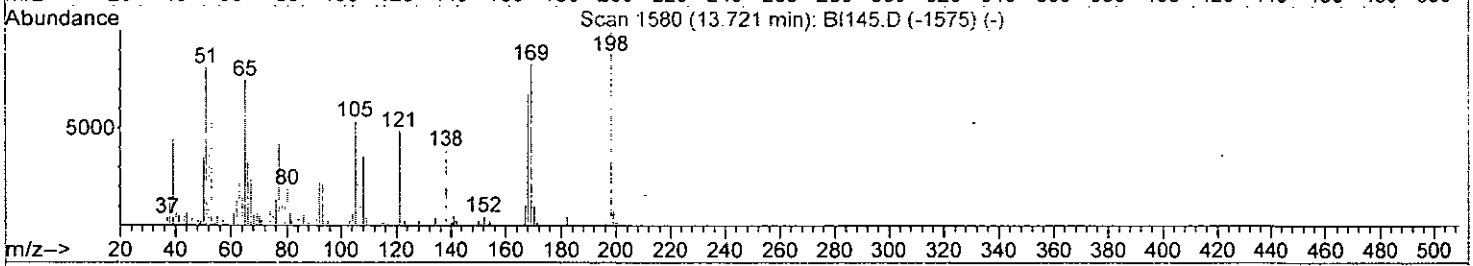
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ959.D Vial: 6
Acq On : 13 Oct 2015 10:21 am Operator: JMisiurewicz
Sample : RQ1512132-03 Inst : 5973C
Misc : 246886 8270D LL SOIL LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:10 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Single Level Calibration







TIC: BQ959.D

(35) 4,6-Dinitro-2-methylphenol (TM)

10.29min 0.05ppm

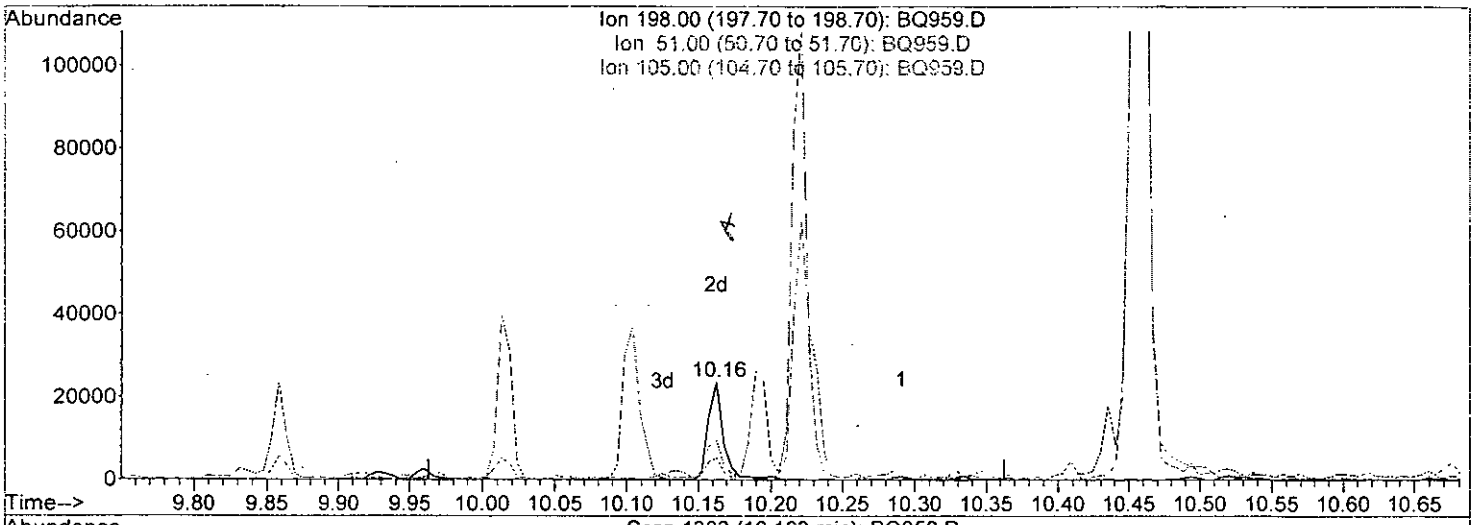
response 582

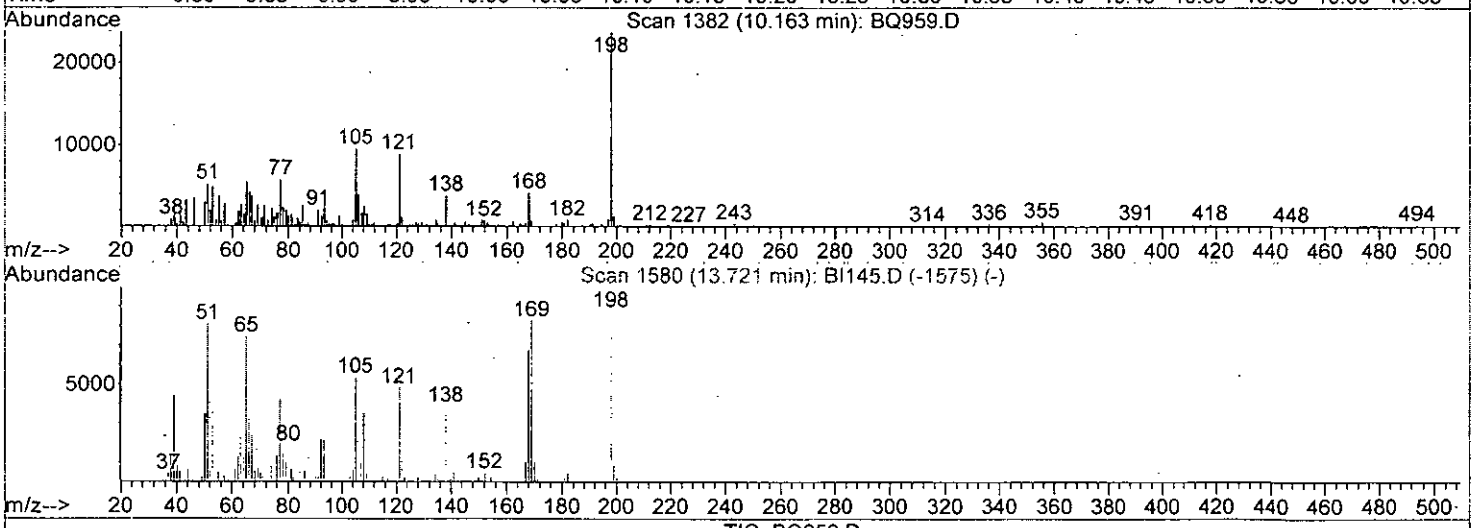
Ion	Exp%	Act%
198.00	100	100
51.00	63.90	47.56
105.00	48.00	57.69
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973C\DATA\101315\BQ959.D Vial: 6
Acq On : 13 Oct 2015 10:21 am Operator: JMisiurewicz
Sample : RQ1512132-03 Inst : 5973C
Misc : 246886 8270D LL SOIL LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 15 9:15 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973C\METHODS\PAH090815.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Thu Oct 15 09:10:27 2015
Response via : Single Level Calibration





TIC: BQ959.D

(35) 4,6-Dinitro-2-methylphenol (TM)

10.16min 1.39ppm m

response 17035

Ion	Exp%	Act%
198.00	100	100
51.00	63.90	22.02#
105.00	48.00	40.06
0.00	0.00	0.00

Preparation Information Benchsheet

Prep Run#: 246886
Team: Semivoa GCMS/EBRUEN

Prep WorkFlow: OrgExtLLS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/12/15 11:26 AM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1512132-01	MB		30.0g	8270D/SVO LL				1.00mL		1.0000 mL/84763	
2	RQ1512132-02	LCS		30.0g	8270D/SVO LL				1.00mL		1.0000 mL/84705; 1.0000 mL/84763	
3	RQ1512132-03	DLCS		30.0g	8270D/SVO LL				1.00mL		1.0000 mL/84705; 1.0000 mL/84763	
4	R1508577-001	Building 1203-North Wall	.01	29.8700g	8270D/SVO LL				1.00mL	green/orange/black, fine	1.0000 mL/84763	
5	R1508577-002	Building 1203-East Wall	.01	30.0200g	8270D/SVO LL				1.00mL	green/black, fine	1.0000 mL/84763	
6	R1508456-007	FTMM-57-SS-11-7.0-7.5	.01	29.9200g	8270D/SVO LL				1.00mL	brown, fine	1.0000 mL/84763	
7	RQ1512132-04	R1508456-007 MS	.01	30.0700g	8270D/SVO LL				1.00mL		1.0000 mL/84763; 1.0000 mL/84705	
8	RQ1512132-05	R1508456-007 DMS	.01	30.0600g	8270D/SVO LL				1.00mL		1.0000 mL/84763; 1.0000 mL/84705	
9	R1508466-008	FTMM-57-SS-17-0.0-0.5	.01	30.0800g	8270D/SVO LL				10.00mL	black, coarse	1.0000 mL/84763	
10	R1508466-009	FTMM-57-SS-17-3.0-3.5	.01	29.9300g	8270D/SVO LL				1.00mL	bright orange, medium	1.0000 mL/84763	
11	R1508466-010	FTMM-57-SS-21-0.0-0.5	.01	29.9900g	8270D/SVO LL				5.00mL	brown, coarse	1.0000 mL/84763	
12	R1508466-011	FTMM-57-SS-21-3.0-3.5	.01	30.0200g	8270D/SVO LL				1.00mL	reddish brown, medium	1.0000 mL/84763	
13	R1508466-012	FTMM-57-SS-21-6.5-7.0	.01	29.9200g	8270D/SVO LL				1.00mL	tan/brown, fine	1.0000 mL/84763	
14	RQ1512132-06	R1508466-012 MS	.01	30.1000g	8270D/SVO LL				1.00mL		1.0000 mL/84763; 1.0000 mL/84705	
15	RQ1512132-07	R1508466-012 DMS	.01	29.9700g	8270D/SVO LL				1.00mL		1.0000 mL/84763; 1.0000 mL/84705	
16	R1508466-013	FTMM-57-SS-22-0.0-0.5	.01	30.1400g	8270D/SVO LL				1.00mL	dark brown, medium, roots	1.0000 mL/84763	
17	R1508466-014	FTMM-57-SS-22-3.0-3.5	.01	29.9400g	8270D/SVO LL				1.00mL	orange, medium with rocks	1.0000 mL/84763	
18	R1508466-015	FTMM-57-SS-22-7.0-7.5	.01	30.0400g	8270D/SVO LL				1.00mL	tan, sandy, medium	1.0000 mL/84763	
19	R1508466-017	FTMM-57-SS-23-3.0-3.5	.02	30.0200g	8270D/SVO LL				1.00mL	brown/gray, medium	1.0000 mL/84763	
20	R1508466-016	FTMM-57-SS-23-0.0-0.5	.02	30.0500g	8270D/SVO LL				1.00mL	dark brown, medium, roots	1.0000 mL/84763	
21	R1508466-018	FTMM-57-SS-23-8.0-8.5	.02	30.0100g	8270D/SVO LL				1.00mL	brown, medium	1.0000 mL/84763	
22	R1508466-019	FTMM-57-SS-24-0.0-0.5	.01	29.9100g	8270D/SVO LL				1.00mL	brown, medium, roots	1.0000 mL/84763	
23	R1508466-020	FTMM-57-SS-24-3.0-3.5	.02	29.9600g	8270D/SVO LL				1.00mL	black/tan, coarse	1.0000 mL/84763	
24	R1508466-021	FTMM-57-SS-24-8.5-9.0	.02	29.9700g	8270D/SVO LL				1.00mL	gray/brown, fine	1.0000 mL/84763	

Spiking Solutions

Name: 8270 LVI LCS Spike 4ppm Inventory ID 84705 Logbook Ref: Expires On: 02/28/2016

Name: 8270 LVI Surrogate 2/4 ug/mL Inventory ID 84763 Logbook Ref: Expires On: 04/04/2016

Preparation Materials

Boiling Stones PTFE M5280042W (77535)
2ml Graduated Vials (84782)
Sand Reagent Grade (83719)

Eppendorf Pipette Repeater EXT #14 (61350)
Dichloromethane (Methylene Chloride) 99.9% MeCl2 canister (84553)

Extraction Thimbles 25 x 90 mm (1573)
Prepared Sodium Sulfate Na2SO4 (84116)

Preparation Information Benchsheet

Prep Run#: 246886
Team: Semivoa GCMS/EBRUEN

Prep WorkFlow: OrgExtLLS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/12/15 11:26 AM

Preparation Steps

Step:	Extraction	Step:	Concentration	Step:	Final Volume
Started:	10/12/15 11:26	Started:	10/12/15 14:21	Started:	10/12/15 19:49
Finished:	10/12/15 13:56	Finished:	10/12/15 15:32	Finished:	10/12/15 19:49
By:	EBRUEN	By:	CPSCHIERER	By:	CPSCHIERER
Comments		Comments		Comments	

Comments: _____

Reviewed By: _____ Date: 10/13

Spike Witness: MPEDRO Date: _____

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analysis: 625/8270LL Analyst: DMS/Brewer Run Method: LV1827OB

Date: 9/8/15 Instr. 5973C Quant Method: PAH090815.m

LIMS Run#:

Pos.	Sample	Dil'n.	Stds. ID	File#	OK?	Comments
1	Dfltune		82156	BQ714	N	NOT for 625
1	Tune		"	15	Y	
2	Blk			16	Y	
3	5STD001		84045	17	Y	
4	002		46	18	Y	
5	005		47	19	Y	
6	010		48	20	Y	
7	030		49	21	Y	
8	050		50	22	Y	
9	080		51	23	Y	
10	100		52	24	Y	
11	ICV #1		79580	25	Y	
12	ICV #2		82327	26	Y	

DM 9/8/15

All samples = _____mL + _____uL Combined IS/Surr.;

Primary :_____ exp: Secondary :_____ exp:

Primary:_____ exp: Secondary :_____ exp:

Runlog GCEXT r1 12/5/12

Analysis: 8270D_LL Analyst: DMSUMMERLL Run Method: LVI 8270S

Date: 10/13/15 Instr. 5973C Quant Method: PAH090515.M

LIMS Run#: 457126

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
1	Blk			BQ052	Y	
2	Tune			53	(N)	out for bkg - change liner
2	Tune			54	(N)	↓ trim column
2	Tune		82156	55	YT	8270 only 8:22
3	CCV		84050	56	YCC	
4	RQ1512132-01	Blk	246886 S	57	Y	
5	↓ -02	LCS		58	Y	
6	↓ -03	LCSD		59	Y	
7	R1508577-001			60	(N)	IV RPT 1/100
8	↓ -002			61	(N)	RPT 1/10
9	R1508456-007			62	Y	IV
10	RQ1512132-04			63	Y	
11	↓ -05			64	Y	
12	R1508424-002	100	246704	65	(N)	I RPT 1/25
13	↓ -003	20		66	(N)	RPT 1/5
14	RQ1512053-01	Blk	246505	67	Y	
15	↓ -02	LCS		68	Y	
16	↓ -03	LCSD		69	Y	
17	R1508456-001			70	(N)	IV RPT 1/2
18	↓ -002			71	Y	
19	↓ -003			72	Y	
20	↓ -004			73	(N)	RPT 1/2
21	RQ1512053-04			74	Y	
22	↓ -05			75	Y	
23	R1508456-005			76	Y	
24	↓ -006			77	Y	
25	R1508459-013		246704	78	Y	IV
26	↓ -004			79	Y	
27	↓ -005			80	Y	8:11

DM 10/13/15

All samples = 1 mL + 10 uL Combined IS/Surr.; 82000

Primary: _____ exp: Secondary: _____ exp:

Primary: _____ exp: Secondary: _____ exp:

Runlog GCEXT r1 12/5/12

Analysis: 8270LL Analyst: MJSURVILLE Run Method: LV1527.08

Date: 10/15/15 Instr. 5973C Quant Method: PAH0908 15.m

LIMS Run#: 467393

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
1	BLK			BQ999	Y	
2	Tune			BR001	(N)	not inj
2	Tune			02	(N)	change liner
2	Tune		82156	03	YT	
3	CCV		84050	04	YCC	
4	BLK			05	Y	
5	R1508474-002	25		06	~~(N)~~	~~RPT 1/500~~ DM 10/16/15
6	-003	5.0		07	Y	
7	-002	50		08	(N)	Report 1/25
8	R1508456-001	2.0		09	Y	DM 10/16/15
9	-004	2.0		10	Y	~~1/10 prep~~
10	-008	10		11	Y	~~1/5 prep~~ 1/5
11	-011	2.0		12	Y	1/5 prep
12	-014	2.0		13	Y	1/5
13	R1508577-001	100		14	Y	
14	-002	10		15	Y	
15	R1508456-009			16	(N)	re-run ISTD
16	-010			17	Y	

DM 10/16/15

All samples = 1 mL + 10 uL Combined IS/Surr.; 82000

Primary : _____ exp: Secondary : _____ exp:

Primary: _____ exp: Secondary : _____ exp:

Runlog GCEXT r1 12/5/12

ALS Environmental

GENERAL CHEMISTRY DATA

ALS Environmental · Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508577
Project:	Fort Monmouth Building 1203/748810-06032	**Date Collected:**	10/ 6/15 1505
Sample Matrix:	Soil	**Date Received:**	10/ 9/15
Sample Name:	Building 1203-North Wall		
Lab Code:	R1508577-001	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	81.4		Percent		1	NA	10/12/15 13:14	

Client: Parsons Engineering Science
Project: Fort Monmouth Building 1203/748810-06032
Sample Matrix: Soil

Service Request: R1508577
Date Collected: 10/ 6/15 1515
Date Received: 10/ 9/15

Sample Name: Building 1203-East Wall
Lab Code: R1508577-002

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Total Solids	ALS SOP	79.8		Percent		1	NA	10/12/15 13:14	

Analytical Results Summary

Instrument Name: R-Balance-17 **Analyst:** KWONG **Analysis Lot:** 466498 **Method/Testcode:** ALS SOP/Total Solids

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
R1508563-001	Total Solids	N/A		Soil	85.30 Percent		85.3 Percent	1					10/12/15 13:14	N	II
R1508563-002	Total Solids	N/A		Soil	88.53 Percent		88.5 Percent	1					10/12/15 13:14	N	II
R1508563-003	Total Solids	N/A		Soil	84.20 Percent		84.2 Percent	1					10/12/15 13:14	N	II
R1508577-001	Total Solids	N/A		Soil	81.43 Percent		81.4 Percent	1					10/12/15 13:14	N	IV
R1508577-002	Total Solids	N/A		Soil	79.76 Percent		79.8 Percent	1					10/12/15 13:14	N	IV
RQ1512221-01	Total Solids	DUP	R1508577-002	Soil	79.98 Percent		80.0 Percent	1				<1	10/12/15 13:14	N	IV
R1508504-001	Total Solids	N/A		Sludge, Solid	3.84 Percent		3.84 Percent	1					10/12/15 13:14	N	II
R1508512-016	Total Solids	N/A		Soil	90.03 Percent		90.0 Percent	1					10/12/15 13:14	N	IV
RQ1512221-02	Total Solids	DUP	R1508512-016	Soil	90.05 Percent		90.0 Percent	1				<1	10/12/15 13:14	N	IV
R1508512-017	Total Solids	N/A		Soil	90.22 Percent		90.2 Percent	1					10/12/15 13:14	N	IV
R1508512-018	Total Solids	N/A		Soil	90.09 Percent		90.1 Percent	1					10/12/15 13:14	N	IV
R1508512-019	Total Solids	N/A		Soil	89.81 Percent		89.8 Percent	1					10/12/15 13:14	N	IV
R1508512-020	Total Solids	N/A		Soil	92.64 Percent		92.6 Percent	1					10/12/15 13:14	N	IV
R1508512-021	Total Solids	N/A		Soil	90.54 Percent		90.5 Percent	1					10/12/15 13:14	N	IV
R1508512-022	Total Solids	N/A		Soil	73.07 Percent		73.1 Percent	1					10/12/15 13:14	N	IV
R1508513-008	Total Solids	N/A		Soil	84.04 Percent		84.0 Percent	1					10/12/15 13:14	N	IV
R1508513-011	Total Solids	N/A		Soil	88.26 Percent		88.3 Percent	1					10/12/15 13:14	N	IV
R1508607-001	Total Solids	N/A		Soil	86.62 Percent		86.6 Percent	1					10/12/15 13:14	N	IV
R1508607-002	Total Solids	N/A		Soil	90.56 Percent		90.6 Percent	1					10/12/15 13:14	N	IV
R1508607-003	Total Solids	N/A		Soil	72.64 Percent		72.6 Percent	1					10/12/15 13:14	N	IV
R1508607-004	Total Solids	N/A		Soil	71.46 Percent		71.5 Percent	1					10/12/15 13:14	N	IV
R1508607-005	Total Solids	N/A		Soil	93.60 Percent		93.6 Percent	1					10/12/15 13:14	N	IV

Reviewed & Approved
By:
Date: 10/13/15

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analyte: % Volatile Solids
Method: SM20 2540G
Analytes: Dry Weight % Solid
Method : EPA-600 160.3

Analyst: KAW Date: 10/12/15
Pipet: NA Time: 13:14
Thermolyne F48025-6048000 Muffle Furnace
Balance ID R-BALANCE-17 **Oven ID** 2
Class 1 Weight Initial: 10.00 Final: 10.00

% Volatile Solids:
% VS = (A - D) / (A - B) * 100

% Solids:
% Solid = (A - B) / (C - B) * 100

Where: A = wgt (g) of dried residue + dish
B = wgt (g) of tared dish
C = wgt (g) of wet sample + dish
D = wgt (g) of residue + dish after ign. @550 C.

	Misc.	Order #	Dish ID	Before Ignition / Wet Weight (g)		After Ignition / Dry Weight (g)		% Volatile Solids	% Solids
1		MB	26	C)		Dry wgt (A):	1.2900		1.00
				B)	1.2900	550 wgt (D):			
2		R1508563-001	35	C)	11.6600	Dry wgt (A):	10.1400		85.30
				B)	1.3200	550 wgt (D):			
3		R1508563-002	36	C)	11.5100	Dry wgt (A):	10.3400		88.53
				B)	1.3100	550 wgt (D):			
4		R1508563-003	37	C)	12.1200	Dry wgt (A):	10.4100		84.20
				B)	1.3000	550 wgt (D):			
5		R1508577-001	38	C)	11.4800	Dry wgt (A):	9.5900		81.43
				B)	1.3000	550 wgt (D):			
6		R1508577-002	39	C)	11.3900	Dry wgt (A):	9.3500		79.76
				B)	1.3100	550 wgt (D):			
7	0.2736	R1508577-002 DUP	40	C)	11.5600	Dry wgt (A):	9.5100		79.98
				B)	1.3200	550 wgt (D):			
8		R1508504-001	42	C)	11.4600	Dry wgt (A):	1.6900		3.84
				B)	1.3000	550 wgt (D):			
9		R1508512-016	44	C)	11.5100	Dry wgt (A):	10.4900		90.03
				B)	1.2800	550 wgt (D):			
10	0.0211	R1508512-016 DUP	46	C)	11.6400	Dry wgt (A):	10.6100		90.05
				B)	1.2900	550 wgt (D):			
11		R1508512-017	49	C)	11.6300	Dry wgt (A):	10.6200		90.22
				B)	1.3000	550 wgt (D):			
12		R1508512-018	50	C)	11.4300	Dry wgt (A):	10.4300		90.09
				B)	1.3400	550 wgt (D):			
13		R1508512-019	51	C)	11.3400	Dry wgt (A):	10.3200		89.81
				B)	1.3300	550 wgt (D):			
14		R1508512-020	61	C)	11.3700	Dry wgt (A):	10.6300		92.64
				B)	1.3100	550 wgt (D):			
15		R1508512-021	62	C)	11.3200	Dry wgt (A):	10.3700		90.54
				B)	1.2800	550 wgt (D):			
16		R1508512-022	63	C)	11.6800	Dry wgt (A):	8.8900		73.07
				B)	1.3200	550 wgt (D):			
17		R1508513-008	64	C)	11.4500	Dry wgt (A):	9.8300		84.04
				B)	1.3000	550 wgt (D):			
18		R1508513-011	65	C)	11.6200	Dry wgt (A):	10.4100		88.26
				B)	1.3100	550 wgt (D):			
19		R1508607-001	66	C)	11.7000	Dry wgt (A):	10.3100		86.62
				B)	1.3100	550 wgt (D):			
20		R1508607-002	90	C)	11.3500	Dry wgt (A):	10.4000		90.56
				B)	1.2900	550 wgt (D):			

Analyte: % Volatile Solids
Method: SM20 2540G
Analytes: Dry Weight % Solid
Method : EPA-600 160.3

Analyst: KAW
Pipet: NA
Thermolyne F48025-6048000 Muffle Furnace
Balance ID R-BALANCE-17
Class 1 Weight Initial: 10.00

Date: 10/12/15
Time: 13:14
Oven ID 2
Final: 10.00

% Volatile Solids:
% VS = (A - D) / (A - B) * 100

% Solids:
% Solid = (A - B) / (C - B) * 100

Where: A = wgt (g) of dried residue + dish
B = wgt (g) of tared dish
C = wgt (g) of wet sample + dish
D = wgt (g) of residue + dish after ign. @550 C.

	Misc.	Order #	Dish ID	Before Ignition / Wet Weight (g)		After Ignition / Dry Weight (g)		% Volatile Solids	% Solids
21		R1508607-003	93	C)	11.6000	Dry wgt (A):	8.7900		72.64
				B)	1.3300	550 wgt (D):			
22		R1508607-004	94	C)	11.4000	Dry wgt (A):	8.5200		71.46
				B)	1.3100	550 wgt (D):			
23		R1508607-005	95	C)	11.7700	Dry wgt (A):	11.1000		93.60
				B)	1.3000	550 wgt (D):			
24		MB	ARWAR	C)		Dry wgt (A):	2.5700		1.00
				B)	2.5600	550 wgt (D):			
25		R1508456-001	ARWAS	C)	12.8900	Dry wgt (A):	11.7800		89.25
				B)	2.5600	550 wgt (D):			
26		R1508456-002	ARWAT	C)	12.7100	Dry wgt (A):	10.1900		75.15
				B)	2.5700	550 wgt (D):			
27		R1508456-003	ARWAU	C)	12.9700	Dry wgt (A):	10.3700		75.10
				B)	2.5300	550 wgt (D):			
28		R1508456-004	ARWAV	C)	12.7500	Dry wgt (A):	11.9500		92.13
				B)	2.5800	550 wgt (D):			
29	0.3939	R1508456-004 DUP	ARWAW	C)	12.8900	Dry wgt (A):	12.0400		91.77
				B)	2.5600	550 wgt (D):			
30		R1508456-005	ARWAX	C)	12.6300	Dry wgt (A):	11.2400		86.22
				B)	2.5400	550 wgt (D):			
31		R1508456-006	ARWAY	C)	12.8300	Dry wgt (A):	11.5800		87.82
				B)	2.5700	550 wgt (D):			
32		R1508456-007	ARWAZ	C)	12.6000	Dry wgt (A):	10.2200		76.20
				B)	2.6000	550 wgt (D):			
33	0.2733	R1508456-007 DUP	ARWB0	C)	12.6000	Dry wgt (A):	10.1800		75.99
				B)	2.5200	550 wgt (D):			
34		R1508456-008	ARWB1	C)	12.8700	Dry wgt (A):	11.7300		88.90
				B)	2.6000	550 wgt (D):			
35		R1508456-009	ARWB2	C)	12.8300	Dry wgt (A):	12.1600		93.45
				B)	2.6000	550 wgt (D):			
36		R1508456-010	ARWB3	C)	12.7700	Dry wgt (A):	11.3000		85.56
				B)	2.5900	550 wgt (D):			
37		R1508456-011	ARWB4	C)	12.7900	Dry wgt (A):	11.5900		88.27
				B)	2.5600	550 wgt (D):			
38		R1508456-014	ARWPQ	C)	12.9800	Dry wgt (A):	11.7300		87.99
				B)	2.5700	550 wgt (D):			
39		R1508466-029	ARWPR	C)	12.7000	Dry wgt (A):	11.0200		83.38
				B)	2.5900	550 wgt (D):			
40		R1508513-001	ARWPS	C)	12.9300	Dry wgt (A):	10.9100		80.45
				B)	2.6000	550 wgt (D):			

Analyte: % Volatile Solids
Method: SM20 2540G
Analytes: Dry Weight % Solid
Method : EPA-600 160.3

Analyst: KAW Date: 10/12/15
Pipet: NA Time: 13:14
Thermolyne F48025-6048000 Muffle Furnace
Balance ID R-BALANCE-17 **Oven ID** 2
Class 1 Weight Initial: 10.00 Final: 10.00

% Volatile Solids:
% VS = (A - D) / (A - B) * 100

% Solids:
% Solid = (A - B) / (C - B) * 100

Where: A = wgt (g) of dried residue + dish
B = wgt (g) of tared dish
C = wgt (g) of wet sample + dish
D = wgt (g) of residue + dish after ign. @550 C.

	Misc.	Order #	Dish ID	Before Ignition / Wet Weight (g)		After Ignition / Dry Weight (g)		% Volatile Solids	% Solids
41		R1508513-002	ARWPT	C)	12.7500	Dry wgt (A):	9.0600		63.82
				B)	2.5500	550 wgt (D):			
42		R1508513-003	ARWPU	C)	12.9100	Dry wgt (A):	11.6000		87.34
				B)	2.5600	550 wgt (D):			
43		R1508513-004	ARWPV	C)	12.6800	Dry wgt (A):	10.9500		82.89
				B)	2.5700	550 wgt (D):			
44		R1508513-005	ARWQ0	C)	12.7000	Dry wgt (A):	11.7100		90.24
				B)	2.5600	550 wgt (D):			
45		R1508513-006	ARWQ1	C)	13.0500	Dry wgt (A):	11.6500		86.62
				B)	2.5900	550 wgt (D):			
46		R1508513-007	ARWQ2	C)	12.7000	Dry wgt (A):	11.4400		87.50
				B)	2.6200	550 wgt (D):			

ALS Environmental
1565 Jefferson Rd., Rochester, NY 14623

General Chemistry Analytical Run Cover Sheet

Analyst: KAC Date: 10/12/15

Analysis: % Solids Instrument: OHAUS Toploading Balance

Quality Control:

	Log Book #	Log Book Date	Log Book Page #	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:							
b) I/CCV Preparation:							
c) LCS Preparation:							
d) Matrix Spike Prep.:							

Instrument log filled in? (Y) (N)

Comments:

Production (optional):

	Start Time	End Time	Total (minutes)
Preparation Time :			
Analytical Time:			
Finish Time:			

# of Samples (including Mtx QC): _____
Repeats due to Sample: _____
Repeats due to Error: _____

p:\L\123\greg\forms\cover\dwps.xls

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

October 05, 2015

Analytical Report for Service Request No: R1507525

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Bldg 1203/748810-1006032

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on September 9, 2015. For your reference, these analyses have been assigned our service request number **R1507525**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

Parsons, Inc.
R1507525

TABLE OF CONTENTS

SECTION	***PAGE***
Case Narrative	00002
Sample Data	00007
Chains of Custody	00033

ALS Environmental

Client:	Parsons Inc
Service Request No.:	R1507525
Project:	FTMM Bldg 1203
Date Received:	9/09/15
Sample Matrix:	Soil
Project/Case No.:	

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Control Sample (LCS).

Sample Receipt

Samples were received for analysis at ALS Environmental on 9/09/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Inorganics

Samples were analyzed for a site specific list of inorganics. Please see attached report pages for method numbers.

All LCS recoveries were within limits.

Site specific QC was not requested on these samples.

All Method blanks were free of contamination.

No other analytical or QC problems were encountered.

Metals

Samples were analyzed for a site specific list of Metals. Please see attached report pages for method numbers.

All LCS recoveries were within limits.

Site specific QC was not requested on these samples.

All Method blanks were free of contamination except low level detections for Antimony, Copper, Selenium, Silver and Zinc. All affected data has been flagged with a "B".

No other analytical or QC problems were encountered.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5035A/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes. All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Bromomethane and Chloromethane on the 09/15/15 CCV. All samples with positive detections for these compounds that associated with these CCV's should be considered as estimated.

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination.

No other analytical or QC problems were encountered.

Semi-Volatile Organics

Samples were analyzed for a site list of Semi-Volatile Organics by Method 8270D from SW-846.

All Tuning criteria for DFTPP were within QC limits.

All the initial calibration criteria were met for all analytes. All CCV standards were within 20% D except 2,6-Dinitrotoluene, 2,4-Dintrotoluene, 2-Nitrophenol, 2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol on the 09/15/15 CCV. No data was affected.

All Internal Standard Areas were within QC limits.

All surrogate standard recoveries were within limits.

Various Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries and RPD's were outside limits. No data was affected.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination except for a low level detection for Benzyl alcohol. No data was affected.

No other analytical or QC problems were encountered.

PCB's

Samples were analyzed for PCB's by Method 8082A from SW-846.

All the initial and continuing calibration criteria were met for all analytes.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was performed on CB-45 (1-5) as requested. All MS/MSD recoveries and RPD's were acceptable.

The Method Blanks associated with these samples were free of contamination.

No other analytical or QC problems were encountered.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1507525

Lab ID	Client ID
R1507525-001	BLDG1203-20150908-WC1

Samples have been subcontracted to the following laboratory(ies). The subcontractor's analytical report is attached:

ALS Laboratory Group
Middletown, PA

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-20150908-WC1		
Lab Code:	R1507525-001	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Flash Point	ASTM D92-05a	>100		deg C			1	NA	9/18/15 08:30	
Free Liquid	9095B	Absent		NONE			1	NA	9/15/15 08:10	
pH	9045D	7.14		pH Units			1	NA	9/15/15 21:27	
Total Solids	ALS SOP	82.1		Percent			1	NA	9/10/15 13:54	

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-20150908-WC1		
Lab Code:	R1507525-001	**Basis:**	Dry
		Percent Solids:	82.1

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Cyanide, Reactive	9014	ND	U	mg/Kg	23		1	9/23/15	9/23/15 15:32	
Sulfide, Reactive	9034 Modified	ND	U	mg/Kg	120		1	9/23/15	9/23/15 09:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
Sample Name:	BLDG1203-20150908-WC1		
Lab Code:	R1507525-001	**Basis:**	Dry
		Percent Solids:	82.1

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total	6010C	**1.4**	BJ	mg/Kg	7.0	3.5	0.5	1	9/23/15	9/25/15 19:45	
Arsenic, Total	6010C	**13.8**		mg/Kg	1.2	0.6	0.4	1	9/23/15	10/1/15 13:42	
Barium, Total	6010C	**27.9**		mg/Kg	2.3	1.2	0.2	1	9/23/15	9/25/15 19:45	
Beryllium, Total	6010C	**1.02**		mg/Kg	0.58	0.29	0.02	1	9/23/15	9/25/15 19:45	
Cadmium, Total	6010C	**0.45**	J	mg/Kg	0.58	0.29	0.04	1	9/23/15	9/25/15 19:45	
Chromium, Total	6010C	**91.1**		mg/Kg	1.2	0.6	0.2	1	9/23/15	9/25/15 19:45	
Copper, Total	6010C	**14.8**		mg/Kg	2.3	1.2	0.3	1	9/23/15	9/25/15 19:45	
Lead, Total	6010C	**13.0**		mg/Kg	5.8	2.9	0.4	1	9/23/15	10/1/15 13:42	
Mercury, Total	7471B	**0.017**	J	mg/Kg	0.038	0.019	0.003	1	9/22/15	9/22/15 14:50	
Nickel, Total	6010C	**5.6**		mg/Kg	4.6	2.3	0.2	1	9/23/15	9/25/15 19:45	
Selenium, Total	6010C	ND	U	mg/Kg	1.2	1.2	0.5	1	9/23/15	10/1/15 13:42	
Silver, Total	6010C	**0.3**	BJ	mg/Kg	1.2	0.6	0.08	1	9/23/15	9/25/15 19:45	
Thallium, Total	6010C	ND	U	mg/Kg	1.2	1.2	0.4	1	9/23/15	10/1/15 23:39	
Zinc, Total	6010C	**180**		mg/Kg	2.3	1.2	0.2	1	9/23/15	9/25/15 19:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Analyzed:	9/15/15 12:05
Sample Name:	BLDG1203-20150908-WC1	**Units:**	µg/Kg
Lab Code:	R1507525-001	**Basis:**	Dry
		Percent Solids:	82.1

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	462297
Prep Method:	EPA 5035A		
Data File Name:	I:\ACQUDATA\MSVOA14\Data\091515\B3114.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	.44

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	2.7	1.3	0.45	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	2.7	1.3	0.40	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	2.7	1.3	0.44	
79-00-5	1,1,2-Trichloroethane	ND	U	2.7	1.3	0.40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	2.7	1.3	0.67	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	2.7	1.3	0.69	
563-58-6	1,1-Dichloropropene	ND	U	2.7	1.3	0.57	
87-61-6	1,2,3-Trichlorobenzene	ND	U	2.7	1.3	0.34	
96-18-4	1,2,3-Trichloropropane	ND	U	2.7	1.3	0.71	
120-82-1	1,2,4-Trichlorobenzene	ND	U	2.7	1.3	0.32	
95-63-6	1,2,4-Trimethylbenzene	ND	U	2.7	1.3	0.29	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	2.7	1.3	1.1	
106-93-4	1,2-Dibromoethane	ND	U	2.7	1.3	0.65	
95-50-1	1,2-Dichlorobenzene	ND	U	2.7	1.3	0.33	
107-06-2	1,2-Dichloroethane	ND	U	2.7	1.3	0.33	
78-87-5	1,2-Dichloropropane	ND	U	2.7	1.3	0.52	
108-67-8	1,3,5-Trimethylbenzene	ND	U	2.7	1.3	0.43	
541-73-1	1,3-Dichlorobenzene	ND	U	2.7	1.3	0.34	
142-28-9	1,3-Dichloropropane	ND	U	2.7	1.3	0.22	
106-46-7	1,4-Dichlorobenzene	ND	U	2.7	1.3	0.31	
594-20-7	2,2-Dichloropropane	ND	U	2.7	1.3	0.59	
78-93-3	2-Butanone (MEK)	ND	U	2.7	1.3	1.3	
95-49-8	2-Chlorotoluene	ND	U	2.7	1.3	0.33	
591-78-6	2-Hexanone	ND	U	2.7	1.3	0.65	
75-65-0	tert-Butyl Alcohol	ND	U	54	27	14	
106-43-4	4-Chlorotoluene	ND	U	2.7	1.3	0.30	
99-87-6	p-Isopropyltoluene	ND	U	2.7	1.3	0.47	
108-10-1	4-Methyl-2-pentanone	ND	U	2.7	1.3	0.53	
67-64-1	Acetone	**32**		2.7	2.7	1.6	
71-43-2	Benzene	ND	U	2.7	1.3	0.16	
108-86-1	Bromobenzene	ND	U	2.7	1.3	0.51	
74-97-5	Bromochloromethane	ND	U	2.7	1.3	0.73	
75-27-4	Bromodichloromethane	ND	U	2.7	1.3	0.33	
75-25-2	Bromoform	ND	U	2.7	1.3	0.50	
74-83-9	Bromomethane	ND	U	2.7	1.3	0.74	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Analyzed:	9/15/15 12:05
Sample Name:	BLDG1203-20150908-WC1	**Units:**	µg/Kg
Lab Code:	R1507525-001	**Basis:**	Dry
		Percent Solids:	82.1

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	462297
Prep Method:	EPA 5035A		
Data File Name:	I:\ACQUDATA\MSVOA14\Data\091515\B3114.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	.44

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	ND	U	2.7	1.3	0.50	
108-90-7	Chlorobenzene	ND	U	2.7	1.3	0.16	
75-00-3	Chloroethane	ND	U	2.7	2.7	1.6	
67-66-3	Chloroform	ND	U	2.7	1.3	0.68	
74-87-3	Chloromethane	ND	U	2.7	1.3	0.22	
124-48-1	Dibromochloromethane	ND	U	2.7	1.3	0.40	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	U	2.7	1.3	1.1	
75-09-2	Methylene Chloride	ND	U	2.7	1.3	0.31	
100-41-4	Ethylbenzene	ND	U	2.7	1.3	0.13	
87-68-3	Hexachlorobutadiene	ND	U	2.7	1.3	0.50	
98-82-8	Isopropylbenzene (Cumene)	ND	U	2.7	1.3	0.36	
1634-04-4	Methyl tert-Butyl Ether	ND	U	2.7	1.3	0.51	
91-20-3	Naphthalene	ND	U	2.7	1.3	0.28	
100-42-5	Styrene	ND	U	2.7	1.3	0.17	
127-18-4	Tetrachloroethene (PCE)	ND	U	2.7	1.3	0.48	
108-88-3	Toluene	ND	U	2.7	1.3	0.54	
79-01-6	Trichloroethene (TCE)	ND	U	2.7	1.3	0.55	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	U	2.7	1.3	0.36	
75-01-4	Vinyl Chloride	ND	U	2.7	1.3	0.99	
156-59-2	cis-1,2-Dichloroethene	ND	U	2.7	1.3	0.51	
10061-01-5	cis-1,3-Dichloropropene	ND	U	2.7	1.3	0.49	
179601-23-1	m,p-Xylenes	ND	U	5.4	2.7	0.59	
104-51-8	n-Butylbenzene	ND	U	2.7	1.3	0.53	
103-65-1	n-Propylbenzene	ND	U	2.7	1.3	0.42	
95-47-6	o-Xylene	ND	U	2.7	1.3	0.26	
135-98-8	sec-Butylbenzene	ND	U	2.7	1.3	0.39	
98-06-6	tert-Butylbenzene	ND	U	2.7	1.3	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	U	2.7	1.3	0.47	
10061-02-6	trans-1,3-Dichloropropene	ND	U	2.7	1.3	0.11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Analyzed:	9/15/15 12:05
Sample Name:	BLDG1203-20150908-WC1	**Units:**	Percent
Lab Code:	R1507525-001	**Basis:**	Dry
		Percent Solids:	82.1

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	462297
Prep Method:	EPA 5035A		
Data File Name:	I:\ACQUDATA\MSVOA14\Data\091515\B3114.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	.44

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	85-120	9/15/15 12:05	
Dibromofluoromethane	95	63-138	9/15/15 12:05	
Toluene-d8	97	85-115	9/15/15 12:05	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/15/15
		Date Analyzed:	9/15/15 17:46
Sample Name:	BLDG1203-20150908-WC1	**Units:**	µg/Kg
Lab Code:	R1507525-001	**Basis:**	Dry
		Percent Solids:	82.1

Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	462580
Prep Method:	EPA 3541	**Extraction Lot:**	244797
Data File Name:	I:\ACQUDATA\5973D\Data\091515\BD318.D\	**Instrument Name:**	R-MS-54
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	ND	U	400	200	52	
95-50-1	1,2-Dichlorobenzene	ND	U	400	200	44	
122-66-7	1,2-Diphenylhydrazine	ND	U	400	200	62	
541-73-1	1,3-Dichlorobenzene	ND	U	400	200	50	
106-46-7	1,4-Dichlorobenzene	ND	U	400	200	44	
95-95-4	2,4,5-Trichlorophenol	ND	U	400	200	73	
88-06-2	2,4,6-Trichlorophenol	ND	U	400	200	48	
120-83-2	2,4-Dichlorophenol	ND	U	400	200	71	
105-67-9	2,4-Dimethylphenol	ND	U	400	200	74	
51-28-5	2,4-Dinitrophenol	ND	U	2100	1000	310	
121-14-2	2,4-Dinitrotoluene	ND	U	400	200	77	
606-20-2	2,6-Dinitrotoluene	ND	U	400	200	110	
91-58-7	2-Chloronaphthalene	ND	U	400	200	63	
95-57-8	2-Chlorophenol	ND	U	400	200	53	
91-57-6	2-Methylnaphthalene	ND	U	400	200	66	
95-48-7	2-Methylphenol	ND	U	400	250	84	
88-74-4	2-Nitroaniline	ND	U	2100	1000	270	
88-75-5	2-Nitrophenol	ND	U	400	200	56	
91-94-1	3,3'-Dichlorobenzidine	ND	U	400	200	79	
	3- and 4-Methylphenol Coelution	ND	U	410	410	150	
99-09-2	3-Nitroaniline	ND	U	2100	1000	410	
534-52-1	4,6-Dinitro-2-methylphenol	ND	U	2100	1000	420	
101-55-3	4-Bromophenyl Phenyl Ether	ND	U	400	200	77	
59-50-7	4-Chloro-3-methylphenol	ND	U	400	200	64	
106-47-8	4-Chloroaniline	ND	U	400	200	78	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	U	400	200	71	
100-01-6	4-Nitroaniline	ND	U	2100	1000	300	
100-02-7	4-Nitrophenol	ND	U	2100	1000	260	
83-32-9	Acenaphthene	ND	U	400	200	68	
208-96-8	Acenaphthylene	ND	U	400	200	67	
120-12-7	Anthracene	ND	U	400	200	75	
56-55-3	Benz(a)anthracene	**150**	J	400	200	60	
92-87-5	Benzidine	ND	U	4000	4000	1400	
50-32-8	Benzo(a)pyrene	**150**	J	400	200	70	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/15/15
		Date Analyzed:	9/15/15 17:46
Sample Name:	BLDG1203-20150908-WC1	**Units:**	µg/Kg
Lab Code:	R1507525-001	**Basis:**	Dry
		Percent Solids:	82.1

Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	462580
Prep Method:	EPA 3541	**Extraction Lot:**	244797
Data File Name:	I:\ACQUDATA\5973D\Data\091515\BD318.D\	**Instrument Name:**	R-MS-54
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
205-99-2	Benzo(b)fluoranthene	**190**	J	400	200	60	
191-24-2	Benzo(g,h,i)perylene	**110**	J	400	200	65	
207-08-9	Benzo(k)fluoranthene	ND	U	400	200	67	
65-85-0	Benzoic Acid	ND	U	2100	1000	480	
100-51-6	Benzyl Alcohol	**87**	J	400	200	64	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	U	400	200	71	
111-91-1	Bis(2-chloroethoxy)methane	ND	U	400	200	47	
111-44-4	Bis(2-chloroethyl) Ether	ND	U	400	200	74	
117-81-7	Bis(2-ethylhexyl) Phthalate	**320**	J	400	200	59	
85-68-7	Butyl Benzyl Phthalate	ND	U	400	200	79	
86-74-8	Carbazole	ND	U	400	200	69	
218-01-9	Chrysene	**150**	J	400	200	63	
84-74-2	Di-n-butyl Phthalate	ND	U	400	200	98	
117-84-0	Di-n-octyl Phthalate	ND	U	400	200	76	
53-70-3	Dibenz(a,h)anthracene	ND	U	400	200	61	
132-64-9	Dibenzofuran	ND	U	400	200	69	
84-66-2	Diethyl Phthalate	ND	U	400	200	78	
131-11-3	Dimethyl Phthalate	ND	U	400	200	74	
206-44-0	Fluoranthene	**270**	J	400	200	83	
86-73-7	Fluorene	ND	U	400	200	65	
118-74-1	Hexachlorobenzene	ND	U	400	200	74	
87-68-3	Hexachlorobutadiene	ND	U	400	200	44	
77-47-4	Hexachlorocyclopentadiene	ND	U	400	200	89	
67-72-1	Hexachloroethane	ND	U	400	200	53	
193-39-5	Indeno(1,2,3-cd)pyrene	**120**	J	400	200	67	
78-59-1	Isophorone	ND	U	400	200	63	
621-64-7	N-Nitrosodi-n-propylamine	ND	U	400	200	91	
62-75-9	N-Nitrosodimethylamine	ND	U	400	200	47	
86-30-6	N-Nitrosodiphenylamine	ND	U	400	200	70	
91-20-3	Naphthalene	ND	U	400	200	57	
98-95-3	Nitrobenzene	ND	U	400	200	61	
87-86-5	Pentachlorophenol (PCP)	ND	U	2100	1000	330	
85-01-8	Phenanthrene	**180**	J	400	200	84	
108-95-2	Phenol	ND	U	400	200	150	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/15/15
		Date Analyzed:	9/15/15 17:46
Sample Name:	BLDG1203-20150908-WC1	**Units:**	µg/Kg
Lab Code:	R1507525-001	**Basis:**	Dry
		Percent Solids:	82.1

Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	462580
Prep Method:	EPA 3541	**Extraction Lot:**	244797
Data File Name:	I:\ACQUDATA\5973D\Data\091515\BD318.D\	**Instrument Name:**	R-MS-54
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
129-00-0	Pyrene	270	J	400	200	86	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	90	35-125	9/15/15 17:46	
2-Fluorobiphenyl	61	45-105	9/15/15 17:46	
2-Fluorophenol	42	35-105	9/15/15 17:46	
Nitrobenzene-d5	45	35-100	9/15/15 17:46	
Phenol-d6	44	10-145	9/15/15 17:46	
p-Terphenyl-d14	72	30-125	9/15/15 17:46	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 19:50
Sample Name:	BLDG1203-20150908-WC1	**Units:**	µg/Kg
Lab Code:	R1507525-001	**Basis:**	Dry
		Percent Solids:	82.1

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB351.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	40	21	21	
11104-28-2	Aroclor 1221	ND	U	82	42	42	
11141-16-5	Aroclor 1232	ND	U	40	21	21	
53469-21-9	Aroclor 1242	ND	U	40	21	21	
12672-29-6	Aroclor 1248	ND	U	40	21	21	
11097-69-1	Aroclor 1254	ND	U	40	24	24	
11096-82-5	Aroclor 1260	ND	U	40	21	21	
11100-14-4	Aroclor 1268	ND	U	40	22	22	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	84	60-125	9/14/15 19:50	
Tetrachloro-m-xylene	60	27-134	9/14/15 19:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1507525-MB	**Basis:**	As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Free Liquid	9095B	Absent		NONE			1	NA	9/15/15 08:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1507525-MB	**Basis:**	Dry

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	Dilution Factor	Date Extracted	Date Analyzed	Note
Cyanide, Reactive	9014	ND	U	mg/Kg	20		1	9/23/15	9/23/15 15:26	
Sulfide, Reactive	9034 Modified	ND	U	mg/Kg	100		1	9/23/15	9/23/15 09:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1507525-MB	**Basis:**	Dry

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total	6010C	**0.9**	J	mg/Kg	6.0	3.0	0.5	1	9/23/15	9/25/15 16:45	
Arsenic, Total	6010C	ND	U	mg/Kg	1.0	0.5	0.3	1	9/23/15	10/1/15 12:34	
Barium, Total	6010C	ND	U	mg/Kg	2.0	1.0	0.2	1	9/23/15	9/25/15 16:45	
Beryllium, Total	6010C	ND	U	mg/Kg	0.50	0.25	0.02	1	9/23/15	9/25/15 16:45	
Cadmium, Total	6010C	ND	U	mg/Kg	0.50	0.25	0.04	1	9/23/15	9/25/15 16:45	
Chromium, Total	6010C	ND	U	mg/Kg	1.0	0.5	0.2	1	9/23/15	9/25/15 16:45	
Copper, Total	6010C	**0.3**	J	mg/Kg	2.0	1.0	0.3	1	9/23/15	9/25/15 16:45	
Lead, Total	6010C	ND	U	mg/Kg	5.0	2.5	0.3	1	9/23/15	10/1/15 12:34	
Mercury, Total	7471B	ND	U	mg/Kg	0.033	0.017	0.002	1	9/22/15	9/22/15 14:40	
Nickel, Total	6010C	ND	U	mg/Kg	4.0	2.0	0.2	1	9/23/15	9/25/15 16:45	
Selenium, Total	6010C	**0.4**	J	mg/Kg	1.0	1.0	0.4	1	9/23/15	10/1/15 12:34	
Silver, Total	6010C	**0.1**	J	mg/Kg	1.0	0.5	0.07	1	9/23/15	9/25/15 16:45	
Thallium, Total	6010C	ND	U	mg/Kg	1.0	1.0	0.3	1	9/23/15	10/1/15 22:49	
Zinc, Total	6010C	**0.4**	J	mg/Kg	2.0	1.0	0.2	1	9/23/15	9/25/15 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Analyzed:	9/15/15 10:31
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1510888-04	**Basis:**	Dry

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	462297
Prep Method:	EPA 5035A		
Data File Name:	I:\ACQUDATA\MSVOA14\Data\091515\B3111.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	5.0	2.5	0.83	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	5.0	2.5	0.73	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	5.0	2.5	0.81	
79-00-5	1,1,2-Trichloroethane	ND	U	5.0	2.5	0.73	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	2.5	1.3	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	2.5	1.3	
563-58-6	1,1-Dichloropropene	ND	U	5.0	2.5	1.1	
87-61-6	1,2,3-Trichlorobenzene	ND	U	5.0	2.5	0.62	
96-18-4	1,2,3-Trichloropropane	ND	U	5.0	2.5	1.4	
120-82-1	1,2,4-Trichlorobenzene	ND	U	5.0	2.5	0.59	
95-63-6	1,2,4-Trimethylbenzene	ND	U	5.0	2.5	0.54	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	2.5	1.9	
106-93-4	1,2-Dibromoethane	ND	U	5.0	2.5	1.3	
95-50-1	1,2-Dichlorobenzene	ND	U	5.0	2.5	0.61	
107-06-2	1,2-Dichloroethane	ND	U	5.0	2.5	0.61	
78-87-5	1,2-Dichloropropane	ND	U	5.0	2.5	0.97	
108-67-8	1,3,5-Trimethylbenzene	ND	U	5.0	2.5	0.79	
541-73-1	1,3-Dichlorobenzene	ND	U	5.0	2.5	0.63	
142-28-9	1,3-Dichloropropane	ND	U	5.0	2.5	0.40	
106-46-7	1,4-Dichlorobenzene	ND	U	5.0	2.5	0.56	
594-20-7	2,2-Dichloropropane	ND	U	5.0	2.5	1.1	
78-93-3	2-Butanone (MEK)	ND	U	5.0	2.5	2.3	
95-49-8	2-Chlorotoluene	ND	U	5.0	2.5	0.61	
591-78-6	2-Hexanone	ND	U	5.0	2.5	1.3	
75-65-0	tert-Butyl Alcohol	ND	U	100	50	26	
106-43-4	4-Chlorotoluene	ND	U	5.0	2.5	0.55	
99-87-6	p-Isopropyltoluene	ND	U	5.0	2.5	0.87	
108-10-1	4-Methyl-2-pentanone	ND	U	5.0	2.5	0.98	
67-64-1	Acetone	ND	U	5.0	5.0	2.9	
71-43-2	Benzene	ND	U	5.0	2.5	0.29	
108-86-1	Bromobenzene	ND	U	5.0	2.5	0.95	
74-97-5	Bromochloromethane	ND	U	5.0	2.5	1.4	
75-27-4	Bromodichloromethane	ND	U	5.0	2.5	0.61	
75-25-2	Bromoform	ND	U	5.0	2.5	0.93	
74-83-9	Bromomethane	ND	U	5.0	2.5	1.4	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Analyzed:	9/15/15 10:31
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1510888-04	**Basis:**	Dry

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	462297
Prep Method:	EPA 5035A		
Data File Name:	I:\ACQUDATA\MSVOA14\Data\091515\B3111.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	ND	U	5.0	2.5	0.92	
108-90-7	Chlorobenzene	ND	U	5.0	2.5	0.29	
75-00-3	Chloroethane	ND	U	5.0	5.0	2.9	
67-66-3	Chloroform	ND	U	5.0	2.5	1.3	
74-87-3	Chloromethane	ND	U	5.0	2.5	0.40	
124-48-1	Dibromochloromethane	ND	U	5.0	2.5	0.73	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	U	5.0	2.5	1.9	
75-09-2	Methylene Chloride	ND	U	5.0	2.5	0.57	
100-41-4	Ethylbenzene	ND	U	5.0	2.5	0.23	
87-68-3	Hexachlorobutadiene	ND	U	5.0	2.5	0.92	
98-82-8	Isopropylbenzene (Cumene)	ND	U	5.0	2.5	0.67	
1634-04-4	Methyl tert-Butyl Ether	ND	U	5.0	2.5	0.94	
91-20-3	Naphthalene	ND	U	5.0	2.5	0.51	
100-42-5	Styrene	ND	U	5.0	2.5	0.30	
127-18-4	Tetrachloroethene (PCE)	ND	U	5.0	2.5	0.88	
108-88-3	Toluene	ND	U	5.0	2.5	1.0	
79-01-6	Trichloroethene (TCE)	ND	U	5.0	2.5	1.1	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	U	5.0	2.5	0.66	
75-01-4	Vinyl Chloride	ND	U	5.0	2.5	1.9	
156-59-2	cis-1,2-Dichloroethene	ND	U	5.0	2.5	0.95	
10061-01-5	cis-1,3-Dichloropropene	ND	U	5.0	2.5	0.90	
179601-23-1	m,p-Xylenes	ND	U	10	5.0	1.1	
104-51-8	n-Butylbenzene	ND	U	5.0	2.5	0.98	
103-65-1	n-Propylbenzene	ND	U	5.0	2.5	0.78	
95-47-6	o-Xylene	ND	U	5.0	2.5	0.48	
135-98-8	sec-Butylbenzene	ND	U	5.0	2.5	0.72	
98-06-6	tert-Butylbenzene	ND	U	5.0	2.5	0.58	
156-60-5	trans-1,2-Dichloroethene	ND	U	5.0	2.5	0.86	
10061-02-6	trans-1,3-Dichloropropene	ND	U	5.0	2.5	0.20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Analyzed:	9/15/15 10:31
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1510888-04	**Basis:**	Dry

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	462297
Prep Method:	EPA 5035A		
Data File Name:	I:\ACQUDATA\MSVOA14\Data\091515\B3111.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85-120	9/15/15 10:31	
Dibromofluoromethane	94	63-138	9/15/15 10:31	
Toluene-d8	100	85-115	9/15/15 10:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/15/15
		Date Analyzed:	9/15/15 16:29
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1510756-01	**Basis:**	Dry

Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	462580
Prep Method:	EPA 3541	**Extraction Lot:**	244797
Data File Name:	I:\ACQUDATA\5973D\Data\091515\BD315.D\	**Instrument Name:**	R-MS-54
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	ND	U	330	170	42	
95-50-1	1,2-Dichlorobenzene	ND	U	330	170	36	
122-66-7	1,2-Diphenylhydrazine	ND	U	330	170	51	
541-73-1	1,3-Dichlorobenzene	ND	U	330	170	41	
106-46-7	1,4-Dichlorobenzene	ND	U	330	170	36	
95-95-4	2,4,5-Trichlorophenol	ND	U	330	170	60	
88-06-2	2,4,6-Trichlorophenol	ND	U	330	170	39	
120-83-2	2,4-Dichlorophenol	ND	U	330	170	58	
105-67-9	2,4-Dimethylphenol	ND	U	330	170	61	
51-28-5	2,4-Dinitrophenol	ND	U	1700	830	260	
121-14-2	2,4-Dinitrotoluene	ND	U	330	170	63	
606-20-2	2,6-Dinitrotoluene	ND	U	330	170	83	
91-58-7	2-Chloronaphthalene	ND	U	330	170	52	
95-57-8	2-Chlorophenol	ND	U	330	170	43	
91-57-6	2-Methylnaphthalene	ND	U	330	170	54	
95-48-7	2-Methylphenol	ND	U	330	210	69	
88-74-4	2-Nitroaniline	ND	U	1700	830	220	
88-75-5	2-Nitrophenol	ND	U	330	170	46	
91-94-1	3,3'-Dichlorobenzidine	ND	U	330	170	65	
	3- and 4-Methylphenol Coelution	ND	U	330	330	130	
99-09-2	3-Nitroaniline	ND	U	1700	830	330	
534-52-1	4,6-Dinitro-2-methylphenol	ND	U	1700	830	340	
101-55-3	4-Bromophenyl Phenyl Ether	ND	U	330	170	63	
59-50-7	4-Chloro-3-methylphenol	ND	U	330	170	52	
106-47-8	4-Chloroaniline	ND	U	330	170	64	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	U	330	170	58	
100-01-6	4-Nitroaniline	ND	U	1700	830	250	
100-02-7	4-Nitrophenol	ND	U	1700	830	210	
83-32-9	Acenaphthene	ND	U	330	170	56	
208-96-8	Acenaphthylene	ND	U	330	170	55	
120-12-7	Anthracene	ND	U	330	170	62	
56-55-3	Benz(a)anthracene	ND	U	330	170	49	
92-87-5	Benzidine	ND	U	3300	3300	1200	
50-32-8	Benzo(a)pyrene	ND	U	330	170	57	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/15/15
		Date Analyzed:	9/15/15 16:29
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1510756-01	**Basis:**	Dry

Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	462580
Prep Method:	EPA 3541	**Extraction Lot:**	244797
Data File Name:	I:\ACQUDATA\5973D\Data\091515\BD315.D\	**Instrument Name:**	R-MS-54
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
205-99-2	Benzo(b)fluoranthene	ND	U	330	170	50	
191-24-2	Benzo(g,h,i)perylene	ND	U	330	170	53	
207-08-9	Benzo(k)fluoranthene	ND	U	330	170	55	
65-85-0	Benzoic Acid	ND	U	1700	830	390	
100-51-6	Benzyl Alcohol	**100**	J	330	170	53	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	U	330	170	59	
111-91-1	Bis(2-chloroethoxy)methane	ND	U	330	170	39	
111-44-4	Bis(2-chloroethyl) Ether	ND	U	330	170	61	
117-81-7	Bis(2-ethylhexyl) Phthalate	ND	U	330	170	49	
85-68-7	Butyl Benzyl Phthalate	ND	U	330	170	65	
86-74-8	Carbazole	ND	U	330	170	57	
218-01-9	Chrysene	ND	U	330	170	51	
84-74-2	Di-n-butyl Phthalate	ND	U	330	170	80	
117-84-0	Di-n-octyl Phthalate	ND	U	330	170	63	
53-70-3	Dibenz(a,h)anthracene	ND	U	330	170	50	
132-64-9	Dibenzofuran	ND	U	330	170	57	
84-66-2	Diethyl Phthalate	ND	U	330	170	64	
131-11-3	Dimethyl Phthalate	ND	U	330	170	60	
206-44-0	Fluoranthene	ND	U	330	170	69	
86-73-7	Fluorene	ND	U	330	170	53	
118-74-1	Hexachlorobenzene	ND	U	330	170	61	
87-68-3	Hexachlorobutadiene	ND	U	330	170	36	
77-47-4	Hexachlorocyclopentadiene	ND	U	330	170	73	
67-72-1	Hexachloroethane	ND	U	330	170	44	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U	330	170	55	
78-59-1	Isophorone	ND	U	330	170	52	
621-64-7	N-Nitrosodi-n-propylamine	ND	U	330	170	75	
62-75-9	N-Nitrosodimethylamine	ND	U	330	170	39	
86-30-6	N-Nitrosodiphenylamine	ND	U	330	170	57	
91-20-3	Naphthalene	ND	U	330	170	47	
98-95-3	Nitrobenzene	ND	U	330	170	50	
87-86-5	Pentachlorophenol (PCP)	ND	U	1700	830	270	
85-01-8	Phenanthrene	ND	U	330	170	69	
108-95-2	Phenol	ND	U	330	170	120	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/15/15
		Date Analyzed:	9/15/15 16:29
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1510756-01	**Basis:**	Dry

Semivolatile Organic Compounds by GC/MS

Analytical Method:	8270D	**Analysis Lot:**	462580
Prep Method:	EPA 3541	**Extraction Lot:**	244797
Data File Name:	I:\ACQUDATA\5973D\Data\091515\BD315.D\	**Instrument Name:**	R-MS-54
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
129-00-0	Pyrene	ND	U	330	170	70	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	78	35-125	9/15/15 16:29	
2-Fluorobiphenyl	60	45-105	9/15/15 16:29	
2-Fluorophenol	59	35-105	9/15/15 16:29	
Nitrobenzene-d5	67	35-100	9/15/15 16:29	
Phenol-d6	59	10-145	9/15/15 16:29	
p-Terphenyl-d14	87	30-125	9/15/15 16:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507525
Project:	FTMM Bldg 1203/748810-1006032	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	9/11/15
		Date Analyzed:	9/14/15 13:33
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1510616-01	**Basis:**	Dry

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method:	8082A	**Analysis Lot:**	462295
Prep Method:	EPA 3541	**Extraction Lot:**	244583
Data File Name:	I:\ACQUDATA\6890G\DATA\091415\BB336.D\	**Instrument Name:**	R-GC-58
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
12674-11-2	Aroclor 1016	ND	U	33	17	17	
11104-28-2	Aroclor 1221	ND	U	67	34	34	
11141-16-5	Aroclor 1232	ND	U	33	17	17	
53469-21-9	Aroclor 1242	ND	U	33	17	17	
12672-29-6	Aroclor 1248	ND	U	33	17	17	
11097-69-1	Aroclor 1254	ND	U	33	19	19	
11096-82-5	Aroclor 1260	ND	U	33	17	17	
11100-14-4	Aroclor 1268	ND	U	33	18	18	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	76	60-125	9/14/15 13:33	
Tetrachloro-m-xylene	82	27-134	9/14/15 13:33	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Bldg 1203/748810-1006032
Sample Matrix: Soil

Service Request: R1507525
Date Analyzed: 9/23/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/Kg
Basis: Dry

		Lab Control Sample R1507525-LCS			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Cyanide, Reactive	9014	6.43	209	3	1 - 100
Sulfide, Reactive	9034 Modified	109	130	83	21 - 118

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Bldg 1203/748810-1006032
Sample Matrix: Soil

Service Request: R1507525
Date Analyzed: 9/22/15 - 10/ 1/15

Lab Control Sample Summary
Inorganic Parameters

Units: mg/Kg
Basis: Dry

Analyte Name	Method	Lab Control Sample R1507525-LCS Result	Spike Amount	% Rec	% Rec Limits
Antimony, Total	6010C	47.2	50.0	94	80 - 120
Arsenic, Total	6010C	3.25	4.0	81	80 - 120
Barium, Total	6010C	196	200	98	80 - 120
Beryllium, Total	6010C	4.79	5.00	96	80 - 120
Cadmium, Total	6010C	4.96	5.00	99	80 - 120
Chromium, Total	6010C	19.9	20.0	99	80 - 120
Copper, Total	6010C	24.8	25.0	99	80 - 120
Lead, Total	6010C	47.6	50.0	95	80 - 120
Mercury, Total	7471B	0.165	0.167	99	80 - 120
Nickel, Total	6010C	47.9	50.0	96	80 - 120
Selenium, Total	6010C	91.3	101	90	80 - 120
Silver, Total	6010C	4.94	5.0	99	75 - 120
Thallium, Total	6010C	171	200	85	80 - 120
Zinc, Total	6010C	49.1	50.0	98	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Bldg 1203/748810-1006032
Sample Matrix: Soil

Service Request: R1507525
Date Analyzed: 9/15/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/Kg
Basis: Dry

Analysis Lot: 462297

Analyte Name	Lab Control Sample RQ1510888-03 Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	17.8	20.0	89	75 - 125
1,1,1-Trichloroethane (TCA)	17.8	20.0	89	70 - 135
1,1,2,2-Tetrachloroethane	19.7	20.0	99	55 - 130
1,1,2-Trichloroethane	18.5	20.0	93	60 - 125
1,1-Dichloroethane (1,1-DCA)	19.6	20.0	98	75 - 125
1,1-Dichloroethene (1,1-DCE)	18.8	20.0	94	65 - 135
1,1-Dichloropropene	17.4	20.0	87	70 - 135
1,2,3-Trichlorobenzene	17.8	20.0	89	60 - 135
1,2,3-Trichloropropane	19.2	20.0	96	65 - 130
1,2,4-Trichlorobenzene	17.9	20.0	90	65 - 130
1,2,4-Trimethylbenzene	18.4	20.0	92	65 - 135
1,2-Dibromo-3-chloropropane (DBCP)	16.7	20.0	84	40 - 135
1,2-Dibromoethane	18.5	20.0	92	70 - 125
1,2-Dichlorobenzene	18.8	20.0	94	75 - 120
1,2-Dichloroethane	17.1	20.0	85	70 - 135
1,2-Dichloropropane	19.8	20.0	99	70 - 120
1,3,5-Trimethylbenzene	18.5	20.0	92	65 - 135
1,3-Dichlorobenzene	18.7	20.0	93	70 - 125
1,3-Dichloropropane	19.3	20.0	96	75 - 125
1,4-Dichlorobenzene	18.7	20.0	94	70 - 125
2,2-Dichloropropane	16.8	20.0	84	65 - 135
2-Butanone (MEK)	17.6	20.0	88	30 - 160
2-Chlorotoluene	18.8	20.0	94	70 - 130
2-Hexanone	17.4	20.0	87	45 - 145
tert-Butyl Alcohol	291	400	73	50 - 150
4-Chlorotoluene	18.9	20.0	95	75 - 125
p-Isopropyltoluene	17.8	20.0	89	75 - 135
4-Methyl-2-pentanone	16.6	20.0	83	45 - 145
Acetone	19.4	20.0	97	20 - 160
Benzene	19.6	20.0	98	75 - 125
Bromobenzene	19.1	20.0	95	65 - 120
Bromochloromethane	19.9	20.0	100	70 - 125
Bromodichloromethane	17.5	20.0	88	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Bldg 1203/748810-1006032
Sample Matrix: Soil

Service Request: R1507525
Date Analyzed: 9/15/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/Kg
Basis: Dry

Analysis Lot: 462297

Analyte Name	Lab Control Sample RQ1510888-03 Result	Spike Amount	% Rec	% Rec Limits
Bromoform	15.8	20.0	79	55 - 135
Bromomethane	13.1	20.0	65	30 - 160
Carbon Tetrachloride	16.5	20.0	83	65 - 135
Chlorobenzene	18.9	20.0	95	75 - 125
Chloroethane	16.9	20.0	84	40 - 155
Chloroform	19.1	20.0	96	70 - 125
Chloromethane	13.6	20.0	68	50 - 130
Dibromochloromethane	17.4	20.0	87	65 - 130
Dichlorodifluoromethane (CFC 12)	17.3	20.0	87	35 - 135
Methylene Chloride	19.6	20.0	98	55 - 140
Ethylbenzene	16.7	20.0	84	75 - 125
Hexachlorobutadiene	15.6	20.0	78	55 - 140
Isopropylbenzene (Cumene)	17.8	20.0	89	75 - 130
Methyl tert-Butyl Ether	18.1	20.0	91	70 - 130
Naphthalene	17.8	20.0	89	40 - 125
Styrene	18.1	20.0	91	75 - 125
Tetrachloroethene (PCE)	18.4	20.0	92	65 - 140
Toluene	18.4	20.0	92	70 - 125
Trichloroethene (TCE)	17.4	20.0	87	75 - 125
Trichlorofluoromethane (CFC 11)	15.9	20.0	80	25 - 185
Vinyl Chloride	17.2	20.0	86	60 - 125
cis-1,2-Dichloroethene	20.0	20.0	100	65 - 125
cis-1,3-Dichloropropene	17.2	20.0	86	70 - 125
m,p-Xylenes	36.8	40.0	92	80 - 125
n-Butylbenzene	17.2	20.0	86	65 - 140
n-Propylbenzene	18.4	20.0	92	65 - 135
o-Xylene	18.9	20.0	94	75 - 125
sec-Butylbenzene	17.7	20.0	88	65 - 130
tert-Butylbenzene	18.3	20.0	92	65 - 130
trans-1,2-Dichloroethene	19.1	20.0	95	65 - 135
trans-1,3-Dichloropropene	16.1	20.0	80	65 - 125

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Bldg 1203/748810-1006032
Sample Matrix: Soil

Service Request: R1507525
Date Analyzed: 9/15/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3541

Units: µg/Kg
Basis: Dry

Extraction Lot: 244797

	Lab Control Sample RQ1510756-02			Duplicate Lab Control Sample RQ1510756-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,2,4-Trichlorobenzene	1710	3330	51	1500	3330	45	45 - 110	13	30
1,2-Dichlorobenzene	1480	3330	45	1400	3330	42 *	45 - 100	6	30
1,2-Diphenylhydrazine	2200	3330	66	2000	3330	60	10 - 136	9	30
1,3-Dichlorobenzene	1380	3330	41	1320	3330	40	40 - 100	4	30
1,4-Dichlorobenzene	1430	3330	43	1360	3330	41	35 - 105	5	30
2,4,5-Trichlorophenol	2410	3330	72	2130	3330	64	50 - 110	12	30
2,4,6-Trichlorophenol	2170	3330	65	1950	3330	59	45 - 110	11	30
2,4-Dichlorophenol	1950	3330	58	1730	3330	52	45 - 110	12	30
2,4-Dimethylphenol	1720	3330	52	1530	3330	46	30 - 105	12	30
2,4-Dinitrophenol	1760	3330	53	1290	3330	39	15 - 130	31 *	30
2,4-Dinitrotoluene	3700	3330	111	3410	3330	102	50 - 115	8	30
2,6-Dinitrotoluene	3370	3330	101	3160	3330	95	50 - 110	6	30
2-Chloronaphthalene	1900	3330	57	1740	3330	52	45 - 105	9	30
2-Chlorophenol	1750	3330	53	1640	3330	49	45 - 105	6	30
2-Methylnaphthalene	1830	3330	55	1600	3330	48	45 - 105	13	30
2-Methylphenol	1760	3330	53	1650	3330	50	40 - 105	7	30
2-Nitroaniline	2690	3330	81	2440	3330	73	45 - 120	10	30
2-Nitrophenol	2400	3330	72	2130	3330	64	40 - 110	12	30
3,3'-Dichlorobenzidine	3010	3330	90	2560	3330	77	10 - 130	16	30
3- and 4-Methylphenol Coelution	3570	6670	54	3470	6670	52	40 - 105	3	30
3-Nitroaniline	2890	3330	87	2480	3330	74	25 - 110	15	30
4,6-Dinitro-2-methylphenol	2490	3330	75	1600	3330	48	30 - 135	43 *	30
4-Bromophenyl Phenyl Ether	2490	3330	75	2180	3330	65	45 - 115	13	30
4-Chloro-3-methylphenol	2110	3330	63	1820	3330	54	45 - 115	15	30
4-Chloroaniline	1610	3330	48	1420	3330	43	10 - 100	13	30
4-Chlorophenyl Phenyl Ether	2250	3330	67	2020	3330	61	45 - 110	11	30
4-Nitroaniline	3130	3330	94	2810	3330	84	35 - 115	11	30
4-Nitrophenol	3110	3330	93	2590	3330	78	15 - 140	18	30
Acenaphthene	1970	3330	59	1810	3330	54	45 - 110	8	30
Acenaphthylene	2010	3330	60	1880	3330	56	45 - 105	7	30
Anthracene	2750	3330	83	2350	3330	71	55 - 105	16	30
Benz(a)anthracene	2920	3330	88	2570	3330	77	50 - 110	13	30
Benzo(a)pyrene	3020	3330	91	2600	3330	78	50 - 110	15	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Bldg 1203/748810-1006032
Sample Matrix: Soil

Service Request: R1507525
Date Analyzed: 9/15/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3541

Units: µg/Kg
Basis: Dry

Extraction Lot: 244797

	Lab Control Sample RQ1510756-02			Duplicate Lab Control Sample RQ1510756-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Benzo(b)fluoranthene	2830	3330	85	2450	3330	73	45 - 115	15	30
Benzo(g,h,i)perylene	3090	3330	93	2720	3330	82	40 - 125	13	30
Benzo(k)fluoranthene	2710	3330	81	2340	3330	70	45 - 125	15	30
Benzoic Acid	697	3330	21	ND	3330	0	0 - 110	NC	30
Benzyl Alcohol	1910	3330	57	1770	3330	53	20 - 125	8	30
2,2'-Oxybis(1-chloropropane)	1680	3330	51	1620	3330	49	20 - 115	4	30
Bis(2-chloroethoxy)methane	1730	3330	52	1520	3330	46	45 - 110	13	30
Bis(2-chloroethyl) Ether	1580	3330	47	1490	3330	45	40 - 105	6	30
Bis(2-ethylhexyl) Phthalate	2690	3330	81	2320	3330	70	45 - 125	15	30
Butyl Benzyl Phthalate	2770	3330	83	2390	3330	72	50 - 125	15	30
Carbazole	2970	3330	89	2610	3330	78	45 - 115	13	30
Chrysene	3000	3330	90	2540	3330	76	55 - 110	17	30
Di-n-butyl Phthalate	2850	3330	86	2500	3330	75	55 - 110	13	30
Di-n-octyl Phthalate	2780	3330	83	2430	3330	73	40 - 130	13	30
Dibenz(a,h)anthracene	3090	3330	93	2660	3330	80	40 - 125	15	30
Dibenzofuran	2000	3330	60	1850	3330	56	50 - 105	8	30
Diethyl Phthalate	2730	3330	82	2340	3330	70	50 - 115	16	30
Dimethyl Phthalate	2480	3330	74	2180	3330	66	50 - 110	13	30
Fluoranthene	3130	3330	94	2750	3330	82	55 - 115	13	30
Fluorene	2280	3330	68	2070	3330	62	50 - 110	10	30
Hexachlorobenzene	2670	3330	80	2350	3330	71	45 - 120	12	30
Hexachlorobutadiene	1660	3330	50	1430	3330	43	40 - 115	15	30
Hexachlorocyclopentadiene	1510	3330	45	1320	3330	39	9 - 102	14	30
Hexachloroethane	1420	3330	42	1320	3330	40	35 - 110	7	30
Indeno(1,2,3-cd)pyrene	3150	3330	95	2660	3330	80	40 - 120	17	30
Isophorone	1780	3330	54	1610	3330	48	45 - 110	10	30
N-Nitrosodi-n-propylamine	1660	3330	50	1530	3330	46	40 - 115	8	30
N-Nitrosodimethylamine	1460	3330	44	1390	3330	42	20 - 115	5	30
N-Nitrosodiphenylamine	2740	3330	82	2410	3330	72	50 - 115	13	30
Naphthalene	1690	3330	51	1500	3330	45	40 - 105	11	30
Nitrobenzene	1950	3330	58	1740	3330	52	40 - 115	11	30
Pentachlorophenol (PCP)	2470	3330	74	1710	3330	51	25 - 120	36 *	30
Phenanthrene	2760	3330	83	2380	3330	71	50 - 110	15	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Bldg 1203/748810-1006032
Sample Matrix: Soil

Service Request: R1507525
Date Analyzed: 9/15/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3541

Units: µg/Kg
Basis: Dry

Extraction Lot: 244797

	Lab Control Sample RQ1510756-02			Duplicate Lab Control Sample RQ1510756-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Phenol	1730	3330	52	1640	3330	49	40 - 100	6	30
Pyrene	3270	3330	98	2770	3330	83	45 - 125	16	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Bldg 1203/748810-1006032
Sample Matrix: Soil

Service Request: R1507525
Date Analyzed: 9/14/15

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3541

Units: µg/Kg
Basis: Dry

Extraction Lot: 244583

Analyte Name	Lab Control Sample RQ1510616-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1510616-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	125	167	75	125	167	75	40 - 140	<1	30
Aroclor 1260	125	167	75	125	167	75	60 - 130	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30669

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: FTMM - Bldg 1203	Project Number: 749810.R0032
Project Manager:	Report CC: Julia Kibert
Company/Address: Cris Grill / Parsons 100 High Street 4th Floor Boston, MA 02110	
Phone #: 617-449-1583	Email: Cris.Grill@Parsons.com
Sampler's Signature: Rebecca McDonald	Sampler's Printed Name: Rebecca McDonald

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 8/8/9 | | | | 0 | 0 | 0 | 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (PP) (List in comments below)	METALS, DISSOLVED TCLP (List in comments below)	8270/EPH/PCB/PPT	TCLP 8260	
BLDG1203-20150908-WC1		090815	1320	Soil		3					1	1	1	1	

Preservative Key
0. NONE (ice)
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other DI/STR
9. methanol

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals
"PP Metals" + Ba(6010) + Mercury(7140)
"TCLP Metals" + Cu/Zn/Ni(1311/6010)

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: Excavated Soils (pile) / New Jersey

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Rebecca McDonald					
Printed Name: Rebecca McDonald	Signature:	Signature	Signature	Signature	Signature
Firm: PARSONS	Printed Name: J Sawyer	Printed Name	Printed Name	Printed Name	Printed Name
Date/Time: 090815 / 1600	Firm: ALS	Firm	Firm	Firm	Firm
	Date/Time: 9/9/15 1010	Date/Time	Date/Time	Date/Time	Date/Time

R1507525 5
Parsons, Inc.
FTMM Baseline

Distribution: White - Lab Copy; Yellow - Return to Originator

© 2012 by ALS Group

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number 1IRIS-7525

Cooler received on 9/9/15 by: JD

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk, or Sulfide have sig* **bubbles**?	Y	N	(NA)
6	Where did the bottles originate?	(ALS/ROC)	CLIENT	
7	Soil VOA received as:	(Bulk)	Encore	5035set NA

8. Temperature Readings Date: 9/9/15 Time: 1025 ID: IR#3 (IR#5) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.1						
Correction Factor (°C)	-1.2						
Corrected Temp (°C)	2.9						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: ROOM by JD on 9/9/15 at 1037
5035 samples placed in storage location: LO-9 by JD on 9/9/15 at 1037

PC Secondary Review: JMW 9/10/15

Cooler Breakdown: Date: 9/9/15 Time: 1729 by: DW

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 0608154 BNS

Other Comments:

PC Secondary Review: JMW 9/10/15

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

September 22, 2015

Ms. Janice Jaeger
ALS Environmental-Rochester NY
1565 Jefferson Road, Bldg. 300
Suite 360
Rochester, NY 14623

Certificate of Analysis

Project Name:	**NJ EPH**	Workorder:	**2095063**
Purchase Order:	**58R1507525**	Workorder ID:	**AER121|BLDG1203-20150908-WC1**

Dear Ms. Jaeger:

Enclosed are the analytical results for samples received by the laboratory on Thursday, September 10, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mr. Brad W Kintzer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Joni Janson

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Brad W. Kintzer

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2095063 AER121|BLDG1203-20150908-WC1

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2095063001	BLDG1203-20150908-WC1	Solid	9/8/2015 13:20	9/10/2015 09:31	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PROJECT SUMMARY

Workorder: 2095063 AER121|BLDG1203-20150908-WC1

Sample Comments

Lab ID: 2095063001 **Sample ID:** BLDG1203-20150908-WC1 **Sample Type:** SAMPLE

The LCS and LCS Dup exhibited an overall low bias in the NJ EPH fractionated aromatic analysis.

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2095063 AER121|BLDG1203-20150908-WC1

Lab ID: **2095063001** Date Collected: 9/8/2015 13:20 Matrix: Solid

Sample ID: **BLDG1203-20150908-WC1** Date Received: 9/10/2015 09:31

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
AROMATIC PETROLEUM HC's												
C10 TO C12	1.21		mg/kg	1.2	1.2	0.52	NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
C12 TO C16	2.3		mg/kg	1.2	1.2	0.21	NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
C16 TO C21	144		mg/kg	11.6	11.6	2.0	NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
C21 TO C36	129		mg/kg	11.6	11.6	2.8	NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
Total EPH Aromatic	276		mg/kg				NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
Total EPH (Aliphatic+Aromatic)	2370		mg/kg				NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Bromonaphthalene (S)	50.2		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
2-Bromonaphthalene (S)	64.3		%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
2-Fluorobiphenyl (S)	27.1	1	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
2-Fluorobiphenyl (S)	18.5		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
o-Terphenyl (S)	75.7		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
o-Terphenyl (S)	47.5		%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
ALIPHATIC PETROLEUM HC's												
C9 TO C12	1.1J	J	mg/kg	1.2	1.2	0.14	NJEPH	9/16/15	KAC	9/18/15 14:34	KJH	B
C12 TO C16	391		mg/kg	57.8	57.8	24.9	NJEPH	9/16/15	KAC	9/21/15 11:00	KJH	B
C16 TO C21	1200		mg/kg	57.8	57.8	24.3	NJEPH	9/16/15	KAC	9/21/15 11:00	KJH	B
C21 TO C40	504		mg/kg	57.8	57.8	28.3	NJEPH	9/16/15	KAC	9/21/15 11:00	KJH	B
Total EPH Aliphatic	2100		mg/kg				NJEPH	9/16/15	KAC	9/18/15 14:34	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1-Chlorooctadecane (S)	62.7		%	40 - 140			NJEPH	9/16/15	KAC	9/18/15 14:34	KJH	B
WET CHEMISTRY												
Moisture	14.1		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A
Total Solids	85.9		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2095063001	1	BLDG1203-20150908-WC1	NJEPH	2-Fluorobiphenyl

The surrogate 2-Fluorobiphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 27.1 and the control limits were 40 to 140. This result was reported at a dilution of 1.

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

2095063

263

Project Number: R1507525
Project Manager: Janice Jaeger

1650 9/01/15
Jessica Smith

Lab Code	Sample ID	# of Cont.	Matrix	Date Sample	Time	Lab ID	Misc Out Name EDD
R1507525-001	BLDG1203-20150908-WC1	1	Soil	9/8/15	1320	Middletown ALS	X

9/9/15

	Y	N	Initials
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?	✓		JS
COC/Lbls Complete	✓		
Cont in Good Cond?	✓		
Correct Containers?	✓		
Correct Samp Vol?	✓		
Correct Preservation?	✓		
Headspace/Volatiles?		✓	

Cooler Temp: 2 °C
Cooler #:
Therm ID: ~~FA-209~~
Ship Carrier: FedEx UPS DHL
Tracking #: 1Z9E 7E00 9060

Folder Comments:
DoD reporting

Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
H - Test is On Hold P - Test is Authorized for Prep Only	____RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ____ STANDARD Requested FAX Date: _____ Requested Report Date: 09/23/15	____ I. Results Only ____ II. Results + QC Summaries ____ III. Results + QC and Calibration Summaries ____ IV. Data Validation Report with Raw Data PQL/MDL/J N EDD Y	PO# 58R1507525 Bill to

Relinquished By: [signature] 9/9/15/1649
Received By: [signature] 9/10/15 0931
Airbill Number:

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Janice Jaeger

Project Number: R1507525
Project Manager: Janice Jaeger

R1507525

____ **Ship To: Middletown ALS**
ALS Laboratory Group
34 Dogwood Lane
Middletown, PA 17057

PC _____ Date _____

SMO _____ Date _____

Instructions:

Ice _____
Dry Ice _____
No Ice _____

Shipping:

Overnight _____
2nd Day _____
Ground _____

Bill to Client Account _____

Comments:

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

September 24, 2015

Analytical Report for Service Request No: R1507524

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Baseline/748810-03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on September 9, 2015. For your reference, these analyses have been assigned our service request number **R1507524**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1507524

Lab ID	Client ID
R1507524-001	BLDG1203-20150908-WC1

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications.

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507524
Project:	FTMM Baseline/748810-03000	**Date Collected:**	9/ 8/15 1320
Sample Matrix:	Soil	**Date Received:**	9/ 9/15
		Pre-Prep Date:	9/19/15
Sample Name:	BLDG1203-20150908-WC1		
Lab Code:	R1507524-001	**Basis:**	As Received

Toxicity Characteristics Leachate Procedure (TCLP)
Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/21/15	9/22/15 10:04	
Barium	6010C	1.0	U	mg/L	1.0	1	9/21/15	9/22/15 10:04	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 10:04	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 10:04	
Copper	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 10:04	
Lead	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 10:04	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/23/15	9/23/15 13:52	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 10:04	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/21/15	9/22/15 10:04	
Silver	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 10:04	
Zinc	6010C	**1.83**	B	mg/L	0.10	1	9/21/15	9/22/15 10:04	

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507524
Date Collected: 9/ 8/15 1320
Date Received: 9/ 9/15
Pre-Prep Date: 9/19/15
Date Analyzed: 9/22/15 03:03

Sample Name: BLDG1203-20150908-WC1
Lab Code: R1507524-001

Units: µg/L
Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)
TCLP Volatile Organics by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C
Pre-Prep Method: EPA 1311
Data File Name: I:\ACQUDATA\msvoa10\data\092115\F2252.D\

Analysis Lot: 463154

Instrument Name: R-MS-10
Dilution Factor: 10

CAS No.	Analyte Name	Result	Q	MRL	Note
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	
107-06-2	1,2-Dichloroethane	50	U	50	
78-93-3	2-Butanone (MEK)	100	U	100	
71-43-2	Benzene	50	U	50	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
67-66-3	Chloroform	50	U	50	
127-18-4	Tetrachloroethene (PCE)	50	U	50	
79-01-6	Trichloroethene (TCE)	50	U	50	
75-01-4	Vinyl Chloride	50	U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	9/22/15 03:03	
Dibromofluoromethane	100	89-119	9/22/15 03:03	
Toluene-d8	106	87-121	9/22/15 03:03	

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507524
Date Collected: NA
Date Received: NA
Pre-Prep Date: 9/19/15

Sample Name: Method Blank
Lab Code: R1507524-MB1

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)
Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/21/15	9/22/15 09:53	
Barium	6010C	1.0	U	mg/L	1.0	1	9/21/15	9/22/15 09:53	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:53	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:53	
Copper	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:53	
Lead	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:53	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/23/15	9/23/15 13:48	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:53	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/21/15	9/22/15 09:53	
Silver	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:53	
Zinc	6010C	**0.21**		mg/L	0.10	1	9/21/15	9/22/15 09:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507524
Date Collected: NA
Date Received: NA
Pre-Prep Date: 9/19/15

Sample Name: Method Blank
Lab Code: R1507524-MB2

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)
Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/21/15	9/22/15 09:58	
Barium	6010C	1.0	U	mg/L	1.0	1	9/21/15	9/22/15 09:58	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:58	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:58	
Copper	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:58	
Lead	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:58	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/23/15	9/23/15 13:50	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:58	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/21/15	9/22/15 09:58	
Silver	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:58	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:58	

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507524
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: R1507524-MB3

Basis: As Received

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/21/15	9/22/15 09:36	
Barium	6010C	1.0	U	mg/L	1.0	1	9/21/15	9/22/15 09:36	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:36	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:36	
Copper	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:36	
Lead	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:36	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/23/15	9/23/15 13:42	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:36	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/21/15	9/22/15 09:36	
Silver	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:36	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/21/15	9/22/15 09:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507524
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Analyzed:	9/22/15 02:14
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1511147-07	**Basis:**	As Received

TCLP Volatile Organics by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	463154
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\092115\F2250.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85-122	9/22/15 02:14	
Dibromofluoromethane	95	89-119	9/22/15 02:14	
Toluene-d8	103	87-121	9/22/15 02:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1507524
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Pre-Prep Date:	9/19/15
		Date Analyzed:	9/22/15 02:38
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1511030-01	**Basis:**	As Received

Toxicity Characteristics Leachate Procedure (TCLP)
TCLP Volatile Organics by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	463154
Prep Method:	EPA 5030C		
Pre-Prep Method:	EPA 1311		
Data File Name:	I:\ACQUDATA\msvoa10\data\092115\F2251.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	9/22/15 02:38	
Dibromofluoromethane	101	89-119	9/22/15 02:38	
Toluene-d8	107	87-121	9/22/15 02:38	

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507524
Date Analyzed: 9/22/15

Lab Control Sample Summary
Inorganic Parameters

Units: mg/L
Basis: As Received

Analyte Name	Method	Lab Control Sample R1507524-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	4.43	5.0	89	80 - 120
Barium	6010C	5.09	5.0	102	80 - 120
Cadmium	6010C	0.992	1.00	99	80 - 120
Chromium	6010C	5.08	5.00	102	80 - 120
Copper	6010C	0.934	1.00	93	80 - 120
Lead	6010C	5.33	5.00	107	80 - 120
Nickel	6010C	1.01	1.00	101	80 - 120
Selenium	6010C	0.865	1.00	86	80 - 120
Silver	6010C	5.18	5.00	104	80 - 120
Zinc	6010C	0.993	1.00	99	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507524
Date Analyzed: 9/23/15

Lab Control Sample Summary
Inorganic Parameters

Units: mg/L
Basis: As Received

Analyte Name	Method	Lab Control Sample R1507524-LCS2 Result	Spike Amount	% Rec	Duplicate Lab Control Sample R1507524-DLCS2 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Mercury	7470A	0.00109	0.00100	109	0.000906	0.00100	91	80 - 120	19	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Soil

Service Request: R1507524
Date Analyzed: 9/22/15

Lab Control Sample Summary
TCLP Volatile Organics by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: As Received

Analysis Lot: 463154

Analyte Name	Lab Control Sample RQ1511147-08 Result	Spike Amount	% Rec	% Rec Limits
1,1-Dichloroethene (1,1-DCE)	19.4	20.0	97	74 - 135
1,2-Dichloroethane	21.8	20.0	109	71 - 127
2-Butanone (MEK)	24.7	20.0	124	61 - 137
Benzene	20.7	20.0	104	76 - 118
Carbon Tetrachloride	18.4	20.0	92	68 - 125
Chlorobenzene	20.3	20.0	101	80 - 121
Chloroform	20.1	20.0	101	76 - 120
Tetrachloroethene (PCE)	19.6	20.0	98	78 - 124
Trichloroethene (TCE)	20.4	20.0	102	78 - 123
Vinyl Chloride	22.8	20.0	114	69 - 133

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30669

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: FTMM - Bldg 1203	Project Number: 749010.000312
Project Manager:	Report CC: Julia Kibert
Company/Address: Cris Grill / Parsons 100 High Street 4th Floor Boston, MA 02110	
Phone #: 617-449-1583	Email: Cris.Grill@Parsons.com
Sampler's Signature: Rebecca McDonald	Sampler's Printed Name: Rebecca McDonald

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 8/8/9 | 0 | 0 | 0 | 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GCAMS VOAs ○ 8260 ○ 624 ○ CLP	GCAMS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (PP) (List in comments below)	METALS, DISSOLVED TCLP (List in comments below)	8270 (EPH/PCB/PPT)	Ignitability/Reactivity	TCLP 8260					
BLDG1203-20150908-PP-SOIL-1		090815	1320	Soil	3						1	1	1	1						
9/9/15																				

Preservative Key: 0. NONE (ice) 1. HCL 2. HNO_3 3. H_2SO_4 4. NaOH 5. Zn. Acetate 6. MeOH 7. $NaHSO_4$ 8. Other DI/STR 9. methanol

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS

Metals

"PP Metals" + Ba(6010) + Mercury(7140)

"TCLP Metals" + Cu/Zn/Ni(1311/6010)

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: Excavated Soils (P16) / New Jersey

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 1 day ____ 2 day ____ 3 day

____ 4 day ____ 5 day

REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS

____ I. Results Only

____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

Edata ____ Yes ____ No

INVOICE INFORMATION

PO #:

BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Rebecca McDonald	Signature:	Signature:	Signature:	Signature:	
Printed Name: Parsons	Printed Name:	Printed Name:	Printed Name:	Printed Name:	
Firm: 090815 / 1600	Firm:	Firm:	Firm:	Firm:	
Date/Time:	Date/Time: 9/9/15 1010	Date/Time:	Date/Time:	Date/Time:	

R1507524 5

Parsons, Inc.
FTMM Baseline

Distribution: White - Lab Copy; Yellow - Return to Originator

© 2012 by ALS Group

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number R15-7524

Cooler received on 9/9/15 by: JM

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N
2	**Custody papers** properly completed (ink, signed)?	(Y) N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N
4	Circle: **Wet Ice Dry Ice Gel packs** present?	(Y) N

5a	**Perchlorate** samples have required headspace?	Y N (NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N (NA)
6	Where did the bottles originate?	(ALS/ROC) CLIENT
7	Soil VOA received as:	(Bulk) Encore (5035set) NA

8. Temperature Readings Date: ~~9/9/15~~ 9/9/15 Time: 1025 ID: IR#3 (IR#5) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.1						
Correction Factor (°C)	-1.2						
Corrected Temp (°C)	2.9						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: ROC by JM on 9/9/15 at 1037

5035 samples placed in storage location: ROC by JM on 9/9/15 at 1037

PC Secondary Review: VMM 9/10/15

Cooler Breakdown: Date: 9/9/15 Time: 1728 by: DM

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 071315-1BM

Other Comments:

PC Secondary Review: VMM 9/10/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in diameter

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

September 22, 2015

Ms. Joni Janson
ALS Environmental-Rochester
1565 Jefferson Road
Building 300
Rochester, NY 14623

Certificate of Analysis

Project Name:	**NJ EPH**	Workorder:	**2095063**
Purchase Order:	**58R1507525**	Workorder ID:	**AER121|BLDG1203-20150908-WC1**

Dear Ms. Janson:

Enclosed are the analytical results for samples received by the laboratory on Thursday, September 10, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mr. Brad W Kintzer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Janice Jaeger

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2095063 AER121|BLDG1203-20150908-WC1

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2095063001	BLDG1203-20150908-WC1	Solid	9/8/2015 13:20	9/10/2015 09:31	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PROJECT SUMMARY

Workorder: 2095063 AER121|BLDG1203-20150908-WC1

Sample Comments

Lab ID: 2095063001 **Sample ID:** BLDG1203-20150908-WC1 **Sample Type:** SAMPLE

The LCS and LCS Dup exhibited an overall low bias in the NJ EPH fractionated aromatic analysis.

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2095063 AER121|BLDG1203-20150908-WC1

Lab ID: **2095063001** Date Collected: 9/8/2015 13:20 Matrix: Solid

Sample ID: **BLDG1203-20150908-WC1** Date Received: 9/10/2015 09:31

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
AROMATIC PETROLEUM HC's												
C10 TO C12	1.21		mg/kg	1.2	1.2	0.52	NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
C12 TO C16	2.3		mg/kg	1.2	1.2	0.21	NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
C16 TO C21	144		mg/kg	11.6	11.6	2.0	NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
C21 TO C36	129		mg/kg	11.6	11.6	2.8	NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
Total EPH Aromatic	276		mg/kg				NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
Total EPH (Aliphatic+Aromatic)	2370		mg/kg				NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2-Bromonaphthalene (S)	50.2		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
2-Bromonaphthalene (S)	64.3		%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
2-Fluorobiphenyl (S)	27.1	1	%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
2-Fluorobiphenyl (S)	18.5		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
o-Terphenyl (S)	75.7		%	40 - 140			NJEPH	9/16/15	KAC	9/21/15 20:45	KJH	B
o-Terphenyl (S)	47.5		%	40 - 140			NJEPH	9/16/15	KAC	9/19/15 01:18	KJH	B
ALIPHATIC PETROLEUM HC's												
C9 TO C12	1.1J	J	mg/kg	1.2	1.2	0.14	NJEPH	9/16/15	KAC	9/18/15 14:34	KJH	B
C12 TO C16	391		mg/kg	57.8	57.8	24.9	NJEPH	9/16/15	KAC	9/21/15 11:00	KJH	B
C16 TO C21	1200		mg/kg	57.8	57.8	24.3	NJEPH	9/16/15	KAC	9/21/15 11:00	KJH	B
C21 TO C40	504		mg/kg	57.8	57.8	28.3	NJEPH	9/16/15	KAC	9/21/15 11:00	KJH	B
Total EPH Aliphatic	2100		mg/kg				NJEPH	9/16/15	KAC	9/18/15 14:34	KJH	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1-Chlorooctadecane (S)	62.7		%	40 - 140			NJEPH	9/16/15	KAC	9/18/15 14:34	KJH	B
WET CHEMISTRY												
Moisture	14.1		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A
Total Solids	85.9		%	0.1	0.1	0.01	S2540G-11			9/17/15 09:00	EMW	A

Mr. Brad W Kintzer
Project Coordinator

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2095063001	1	BLDG1203-20150908-WC1	NJEPH	2-Fluorobiphenyl

The surrogate 2-Fluorobiphenyl for method NJEPH was outside of control limits. The % Recovery was reported as 27.1 and the control limits were 40 to 140. This result was reported at a dilution of 1.

Tuesday, September 22, 2015 7:01:35 PM
Page 6 of 7

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

2095063

263

Project Number: R1507525
Project Manager: Janice Jaeger

1650 9/01/15
Jessica Smith

Lab Code	Sample ID	# of Cont.	Matrix	Date Sample	Time	Lab ID	Misc Out Name EDD
R1507525-001	BLDG1203-20150908-WC1	1	Soil	9/8/15	1320	Middletown ALS	X

9/11/15

	Y	N	Initials
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?	✓		JS
COC/Lbls Complete	✓		
Cont in Good Cond?	✓		
Correct Containers?	✓		
Correct Samp Vol?	✓		
Correct Preservation?	✓		
Headspace/Volatiles?		✓	

Cooler Temp: 2 °C
Cooler #:
Therm ID: ~~FA-209~~
Ship Carrier: FedEx UPS DHL
Tracking #: 1Z9E 7E00 9060

Folder Comments:
DoD reporting

Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
H - Test is On Hold P - Test is Authorized for Prep Only	____RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ____ STANDARD Requested FAX Date: _____ Requested Report Date: 09/23/15	____ I. Results Only ____ II. Results + QC Summaries ____ III. Results + QC and Calibration Summaries ____ IV. Data Validation Report with Raw Data PQL/MDL/J N EDD Y	PO# 58R1507525 Bill to

Relinquished By: [signature] 9/9/15/1649
Received By: [signature] 9/10/15 0931
Airbill Number:

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Janice Jaeger

Project Number: R1507525
Project Manager: Janice Jaeger

R1507525

____ **Ship To: Middletown ALS**
ALS Laboratory Group
34 Dogwood Lane
Middletown, PA 17057

PC _____ Date _____

SMO _____ Date _____

Instructions:

Ice _____
Dry Ice _____
No Ice _____

Shipping:

Overnight _____
2nd Day _____
Ground _____

Bill to Client Account _____

Comments:

Attachment C

Recycling Documentation for Transformers

Lorco Petroleum Services
450 South Front St.
Elizabeth, NJ 07202
(908) 820-8800
(800) 734-0910
FAX: (908) 820-8412

LORCO PETROLEUM SERVICES

www.lorcopetroleum.com

THIS IS NOT AN INVOICE

STANDARD COLLECTION ORDER FORM

1123152

SALES ORDER #

GENERATOR/LOCATION

NAME

INFORMATION/ATTENTION LINE | ACCOUNT APPROVAL CODE

DELIVERY ADDRESS

CITY | STATE | ZIP

PHONE NUMBER | PURCHASE ORDER NUMBER

TIME IN | TIME OUT

BILL TO (IF DIFFERENT FROM LOCATION)

NAME

INFORMATION/ATTENTION LINE | ACCOUNT APPROVAL CODE

DELIVERY ADDRESS

CITY | STATE | ZIP

PHONE NUMBER | PURCHASE ORDER NUMBER

MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the below named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	SALES REPRESENTATIVE

SERVICE SECTION

ITEM #	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	TAX	LINE TOTAL
40500	USED OIL REMOVAL						
40300	ANTIFREEZE REMOVAL						
40400	OILY WATER DISPOSAL						
41100	SLUDGE DISPOSAL						
41000	GASOLINE/WATER						
40900	DRUM DISPOSAL						
40611	NEW 55 GAL DRUMS / 17H						
40515	OIL WATER SEPARATOR SERVICE						
41513	TANK WASHER						
41507	TANK ENTRY						
41500	TRANSPORTATION						
41508	TRUCK AND OPERATOR						
41514	ADDITIONAL LABOR						
				TOTAL			

PARTS WASHER SERVICE INTERVAL _____ DAYS.
USED OIL CUSTOMER SERVICED EVERY 30 DAYS UNLESS OTHERWISE INDICATED.
USED OIL SERVICE INTERVAL _____ DAYS.

GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED LORCO HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261, GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

Generator certifies that the waste is ☐ used oil ☐ used antifreeze ☐ oily water ☐ oil filter ☐ parts washer solvent

☐ Other _____
Description

In accordance the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

X FRANK MORSE
Print Name | Title

X
Signature | Date

GENERATOR/CUSTOMER

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C F R 261, and does not accumulate more than 1,000 kilograms of such waste during the month

X
GENERATOR'S SIGNATURE

NON CONDITIONALLY EXEMPT LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT
TEST RESULTS

X _____ PPM

CUSTOMER

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION. INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1½% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES. INITIAL _____

$

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

In accordance with NJAC7:26-6.7b + 40CFR PART 279 LORCO has notified the US EPA of its location and used oil management activities.

X
Print Name

X
Signature | Date

LORCO REPRESENTATIVE

Lorco Petroleum Services
450 South Front St.
Elizabeth, NJ 07202
(908) 820-8800
(800) 734-0910
FAX: (908) 820-8412

LORCO PETROLEUM SERVICES

www.lorcopetroleum.com

THIS IS NOT AN INVOICE

STANDARD COLLECTION ORDER FORM

1130866

SALES ORDER #

GENERATOR/LOCATION

NAME

INFORMATION/ATTENTION LINE | ACCOUNT APPROVAL CODE

DELIVERY ADDRESS

CITY | STATE | ZIP

PHONE NUMBER | PURCHASE ORDER NUMBER

TIME IN | TIME OUT

BILL TO (IF DIFFERENT FROM LOCATION)

NAME

INFORMATION/ATTENTION LINE | ACCOUNT APPROVAL CODE

DELIVERY ADDRESS

CITY | STATE | ZIP

PHONE NUMBER | PURCHASE ORDER NUMBER

MANIFEST NUMBER

SHIPPING INFORMATION

This is to certify that the below named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

NO.	TYPE	QTY.	UNIT	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	SALES REPRESENTATIVE

SERVICE SECTION

ITEM #	DESCRIPTION	WASTE CODE	QUANTITY	UNIT PRICE	PRICE	TAX	LINE TOTAL
40500	USED OIL REMOVAL						
40300	ANTIFREEZE REMOVAL						
40400	OILY WATER DISPOSAL						
41100	SLUDGE DISPOSAL						
41000	GASOLINE/WATER						
40900	DRUM DISPOSAL						
40611	NEW 55 GAL DRUMS / 17H						
40515	OIL WATER SEPARATOR SERVICE						
41513	TANK WASHER						
41507	TANK ENTRY						
41500	TRANSPORTATION						
41508	TRUCK AND OPERATOR						
41514	ADDITIONAL LABOR						
				TOTAL			

PARTS WASHER SERVICE INTERVAL _____ DAYS.
USED OIL CUSTOMER SERVICED EVERY 30 DAYS
UNLESS OTHERWISE INDICATED.
USED OIL SERVICE INTERVAL _____ DAYS.

GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED LORCO HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261, GENERATOR AGREES TO INDEMNIFY AND HOLD LORCO HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

Generator certifies that the waste is ☐ used oil ☐ used antifreeze ☐ oily water ☐ oil filter ☐ parts washer solvent

☐ Other _____
Description

In accordance the N.J.A.C. 7:26-12.1 et seq, LORCO has the required permits to accept the above described waste.

X _____
Print Name | Title

X _____
Signature | Date

GENERATOR/CUSTOMER

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR CERTIFICATION

I certify that this generator generates less than 100 kilograms of hazardous waste per month, as defined at 40 C F R 261, and does not accumulate more than 1,000 kilograms of such waste during the month

X _____
GENERATOR'S SIGNATURE

NON CONDITIONALLY EXEMPT LARGE QUANTITY GENERATOR CERTIFICATION

DEXSIL CDT
TEST RESULTS

X _____ PPM

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT SECTION. INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1½% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, LORCO SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES. INITIAL _____

$

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED
CHECK NUMBER	

In accordance with NJAC7:26-6.7b + 40CFR PART 279 LORCO has notified the US EPA of its location and used oil management activities.

X _____
Print Name

X _____
Signature | Date

LORCO REPRESENTATIVE

CUSTOMER

MONMOUTH WIRE & COMPUTER RECYCLING
3250 SHAFTO ROAD
TINTON FALLS, NEW JERSEY 07753
Tel. # 732-922-3320 Fax. # 732-922-9932
E-Mail: salmassaro@computerreclamation.com

FT. MONMOUTH - BLOG. 1203 - TRANSFORMERS
SCRAP RECEIPT

Buffalo MTE, LLC
PO Box 148
Oceanport, NJ 07757

July 30, 2015

Enclosed is check # 16508 in the amount of $422.00 for scrap electronics received on July 29, 2015.

Thank you for your business.

Sal Massaro

ORIGINAL DOCUMENT PRINTED ON CHEMICAL REACTIVE PAPER WITH MICROPRINTED BORDER - SEE REVERSE SIDE FOR COMPLETE SECURITY FEATURES

MONMOUTH WIRE RECYCLING INC.
3250 SHAFTO ROAD
TINTON FALLS, NJ 07753

EXPLANATION	AMOUNT

55-2/212

16508

PAY AMOUNT OF Four hundred twenty-two 00/100 DOLLARS

CHECK AMOUNT

DATE	TO THE ORDER OF	DESCRIPTION	CHECK NUMBER	
1/30/15	Buffalo Mtg, LLC	Elec Scrap	16508	$ 422.00

Shield

WELLS FARGO BANK

SAFEGUARD SECURE

THIS DOCUMENT CONTAINS HEAT SENSITIVE INK - TOUCH OR PRESS HERE AND IMAGE DISAPPEARS WITH HEAT

⑈016508⑈ ⑆021200025⑆ 2002005749948⑈

Attachment D

EPH Soil Remediation Criteria Calculation Sheets

Attachment D - EPH Soil Remediation Criteria Calculation Sheets
Building 1203 Interim Removal Measure
FTMM - Fort Monmouth, New Jersey

COMPOSITION-SPECIFIC EXTRACTABLE PETROLEUM HYDROCARBON (EPH) SOIL REMEDIATION CRITERION (SRC) CALCULATOR FOR NON-#2 FUEL OIL/DIESEL OIL PETROLEUM HYDRCARBON MIXTURES (Version 2.0, August 9, 2010)

DATA ENTRY CELLS

ENTER ALL CONCENTRATIONS AS MILLIGRAMS/KILOGRAM (mg/kg)
FOR NON DETECT VALUES, ENTER "0" or "ND" (without the quotation marks)
REMEMBER TO ENTER ACTUAL SAMPLE IDENTIFICATION IN PLACE OF "SAMPLE 1", ETC.
REMEMBER TO INDICATE WHETHER THE SAMPLE IS "RESIDENTIAL" (R) OR "NON-RESIDENTIAL" (N) [OR USE DROP-DOWN LIST]
ALL DATA MUST BE ENTERED FOR EACH SAMPLE FOR THE EPH CRITERION TO BE CALCULATED
CLICK ON THE "CALCULATE EPH SRC" BUTTON TO CALCULATE THE SAMPLE-SPECIFIC EPH SOIL REMEDIATION CRITERION
IF YOU CHANGE ANY INPUT DATA, YOU MUST CLICK ON "CALCULATE EPH SRC" AGAIN TO RECALCULATE THE SOIL REMEDIATION CRITERION
IF THE RESULTS FROM THE GC ANALYSIS INDICATE AN EPH CONCENTRATION LESS THAN 1,700 mg/kg, IT IS NOT NECESSARY TO USE THIS CALCULATOR

EC* RANGE / SAMPLE ID		BLDG1203-SS-EX1-01(N)-30-36	BLDG1203-SS-EX1-02(E)-29-35	BLDG1203-SS-EX1-03(S)-28-34	BLDG1203-SS-EX1-04(W)-32-38	BLDG1203-SS-EX1-05(B)-34-40
Enter Residential or Non-Residential		Non-Residential	Non-Residential	Non-Residential	Non-Residential	Non-Residential
ALIPHATICS	EC9-EC12	7.3	9.1	0.6	0.8	50.0
	EC12-EC16	1,970.0	2,280.0	62.8	124.0	53.4
	EC16-EC21	5,990.0	6,340.0	269.0	376.0	74.5
	EC21-EC40	2,870.0	3,070.0	159.0	202.0	101.0
AROMATICS	EC10-EC12	1.2	1.2	1.2	1.1	1.2
	EC12-EC16	7.7	7.6	0.6	0.6	23.0
	EC16-EC21	198.0	163.0	13.8	8.8	632.0
	EC21-EC36	214.0	166.0	34.0	15.8	364.0
Total Concentration (mg/kg)		**11,258.2**	**12,036.9**	**541.0**	**729.1**	**1,299.1**

Calculated EPH SRC# (mg/kg)	**190,000**	**210,000**	**140,000**	**200,000**	**23,000**
Allowable% EPH SRC (mg/kg)	**17,000^**	**17,000^**	**17,000^**	**17,000^**	**17,000^**
ABOVE/BELOW ALLOWABLE EPH SRC (i.e., PASS or FAIL)	**BELOW (PASS)**	**BELOW (PASS)**	**BELOW (PASS)**	**BELOW (PASS)**	**BELOW (PASS)**

* = Equivalent Carbon
\# = Soil Remediation Criterion
% = Accounts for residual product
17,000^ = Default maximum value for all non-#2 fuel oil/diesel oil petroleum hydrocarbon mixtures

Calculate EPH SRC | Print Results | Intro Message
Reset Data | Instructions | *Run Date = 09/28/2015*

Attachment D - EPH Soil Remediation Criteria Calculation Sheets
Building 1203 Interim Removal Measure
FTMM - Fort Monmouth, New Jersey

COMPOSITION-SPECIFIC EXTRACTABLE PETROLEUM HYDROCARBON (EPH) SOIL REMEDIATION CRITERION (SRC) CALCULATOR FOR NON-#2 FUEL OIL/DIESEL OIL PETROLEUM HYDRCARBON MIXTURES (Version 2.0, August 9, 2010)

DATA ENTRY CELLS

ENTER ALL CONCENTRATIONS AS MILLIGRAMS/KILOGRAM (mg/kg)
FOR NON DETECT VALUES, ENTER "0" or "ND" (without the quotation marks)
REMEMBER TO ENTER ACTUAL SAMPLE IDENTIFICATION IN PLACE OF "SAMPLE 1", ETC.
REMEMBER TO INDICATE WHETHER THE SAMPLE IS "RESIDENTIAL" (R) OR "NON-RESIDENTIAL" (N) [OR USE DROP-DOWN LIST]
ALL DATA MUST BE ENTERED FOR EACH SAMPLE FOR THE EPH CRITERION TO BE CALCULATED
CLICK ON THE "CALCULATE EPH SRC" BUTTON TO CALCULATE THE SAMPLE-SPECIFIC EPH SOIL REMEDIATION CRITERION
IF YOU CHANGE ANY INPUT DATA, YOU MUST CLICK ON "CALCULATE EPH SRC" AGAIN TO RECALCULATE THE SOIL REMEDIATION CRITERION
IF THE RESULTS FROM THE GC ANALYSIS INDICATE AN EPH CONCENTRATION LESS THAN 1,700 mg/kg, IT IS NOT NECESSARY TO USE THIS CALCULATOR

EC* RANGE / SAMPLE ID		BLDG1203-SS-EX1-01(N)-30-36	BLDG1203-SS-EX1-02(E)-29-35	BLDG1203-SS-EX1-03(S)-28-34	BLDG1203-SS-EX1-04(W)-32-38	BLDG1203-SS-EX1-05(B)-34-40
Enter Residential or Non-Residential		Residential	Residential	Residential	Residential	Residential
ALIPHATICS	EC9-EC12	7.3	9.1	0.6	0.8	50.0
	EC12-EC16	1,970.0	2,280.0	62.8	124.0	53.4
	EC16-EC21	5,990.0	6,340.0	269.0	376.0	74.5
	EC21-EC40	2,870.0	3,070.0	159.0	202.0	101.0
AROMATICS	EC10-EC12	1.2	1.2	1.2	1.1	1.2
	EC12-EC16	7.7	7.6	0.6	0.6	23.0
	EC16-EC21	198.0	163.0	13.8	8.8	632.0
	EC21-EC36	214.0	166.0	34.0	15.8	364.0
Total Concentration (mg/kg)		**11,258.2**	**12,036.9**	**541.0**	**729.1**	**1,299.1**

Calculated EPH SRC# (mg/kg)	**18,000**	**19,000**	**13,000**	**18,000**	**2,100**
Allowable% EPH SRC (mg/kg)	**17,000^**	**17,000^**	**13,000**	**17,000^**	**2,100**
ABOVE/BELOW ALLOWABLE EPH SRC (i.e., PASS or FAIL)	**BELOW (PASS)**	**BELOW (PASS)**	**BELOW (PASS)**	**BELOW (PASS)**	**BELOW (PASS)**

* = Equivalent Carbon
\# = Soil Remediation Criterion
% = Accounts for residual product
17,000^ = Default maximum value for all non-#2 fuel oil/diesel oil petroleum hydrocarbon mixtures

Calculate EPH SRC | Print Results | Intro Message
Reset Data | Instructions | *Run Date = 09/28/2015*

Attachment E

Clean Fill Analysis

Accredited Analytical Resources, LLC.

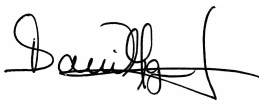
15 January 2015 AAR Work Order: 1500040

Bill Maddox
MADDOX MATERIALS
323 Main Street
Spotswood, NJ 08884

RE: TRAP Rock - Kingston Quarry

Enclosed are the results of analyses for samples received by the laboratory on 01/08/2015 14:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Daniel Miguel
Technical Director

New Jersey Certification Number 12007

Accredited Analytical Resources, LLC.

MADDOX MATERIALS		
323 Main Street	Project: TRAP Rock - Kingston Quarry	**Reported:**
Spotswood NJ, 08884	Project Manager: Bill Maddox	01/15/2015 16:35

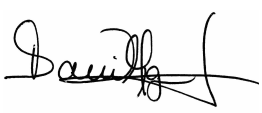
Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S1	1500040-01	Soil	01/08/2015 13:00	01/08/2015 14:00

Notes and Definitions

U	Analyte included in the analysis, but not detected
B	Indicates compound found in associated blank
ND	Indicates compound analyzed for but not detected
U	Indicates compound analyzed for but not detected
dry	Sample results reported on a dry weight basis
RL	Reporting Limit
MDL	Method Detection Limit

Accredited Analytical Resources LLC



Daniel Miguel, Technical Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Accredited Analytical Resources, LLC.

MADDOX MATERIALS		
323 Main Street	Project: TRAP Rock - Kingston Quarry	**Reported:**
Spotswood NJ, 08884	Project Manager: Bill Maddox	01/15/2015 16:35

Methodology Summary

EPA 6010B

A 1-5 gram portion of soil is digested with nitric acid and hydrogen peroxide. The digestate is then refluxed with either nitric acid or hydrochloric acid. The basis of ICAP method is the measurement of atomic emission by an optical spectroscope technique. The ICAP technique is specified in Method 6010B.

EPA 7471A

The mercury in the sample is reduced to the elemental state and detected by the cold vapor technique in a closed system. The analytical procedure associated with the Cold Vapor technique is derived from EPA Method 7470A.

EPA 8081/8082

A 30g portion of soil is mixed with anhydrous sodium sulfate and is serially extracted with 1:1 methylene chloride and acetone. The extract is dried and solvent/exchanged to hexane during concentration. A measured amount is injected onto a GC and the analytes are detected by an electron capture detector.

EPA 8260

An inert gas is purged through a 5g sample by EPA Method 5035. Alternatively the soil is extracted with methanol. A portion of extract is spiked into a purging vessel and purged by an inert gas. The vapor is swept through a sorbent column where the purgeables are trapped. The sorbent column is heated and back-flushed with the inert gas to desorb the purgeables onto a GC capillary column. The GC is temperature programmed to separate the purgeables which are then detected with a mass spectrometer

EPA 8270

A 30g portion of soil is mixed with anhydrous sodium sulfate and is extracted with 1:1 methylene chloride and acetone mixture. The methylene chloride extract is dried and concentrated and a measured amount is injected onto a GC and the analytes are detected with a mass spectrometer.

EPA 9014

A representative portion of sample is weighed and placed into a cyanide distillation apparatus. The cyanide as hydrocyanic acid is released from cyanide complexes by means of a reflux-distillation operation and absorbed in a scrubber containing sodium hydroxide solution. The cyanide ion in the absorbing solution is then determined colorimetrically.

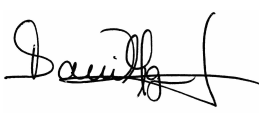
NJDEP EPH

Approximately 15 grams of sample is extracted with Methylene Chloride by Pressurized Fluid Extraction technique. The extract is then dried with sodium sulfate, concentrated and analyzed by GC-FID.

SM 2540 G

A representative 5-10 grams of solid sample is placed in a preweighed weighing dish. The sample is dried in an oven at 103-105oC for 12-24 hrs. Alternatively the constant weight of dried sample is attained for the drying period less than 12 hrs. The remaining weight of sample after drying to the original weight expressed in percentage is determined as percent solid.

Accredited Analytical Resources LLC



Daniel Miguel, Technical Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Accredited Analytical Resources, LLC.

MADDOX MATERIALS		
323 Main Street	Project: TRAP Rock - Kingston Quarry	**Reported:**
Spotswood NJ, 08884	Project Manager: Bill Maddox	01/15/2015 16:35

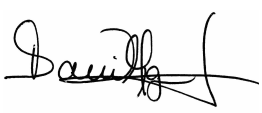
Client ID: S1

Lab ID: 1500040-01 (Soil)

CAS #	Analyte	Result	MDL	RL	Units	Dilution	Prepared Date	Analyzed Date/By	Method	Notes
Accredited Analytical Resources LLC										
Volatile Organic Compounds EPA Method SW846 8260										
Sample Prepared by Method:EPA 5035A										
107-02-8	Acrolein	ND	6.31	10.5	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
107-13-1	Acrylonitrile	ND	2.10	10.5	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
67-64-1	**Acetone**	**3.92**	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	
75-71-8	Dichlorodifluoromethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
74-87-3	Chloromethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-01-4	Vinyl chloride	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
74-83-9	Bromomethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-00-3	Chloroethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-69-4	Trichlorofluoromethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
76-13-1	Freon 113	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-35-4	1,1-Dichloroethene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-15-0	Carbon disulfide	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
79-20-9	Methyl Acetate	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-09-2	Methylene Chloride	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
156-60-5	trans-1,2-Dichloroethene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-34-3	1,1-Dichloroethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
78-93-3	2-Butanone	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
156-59-4	cis-1,2-Dichloroethene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
67-66-3	Chloroform	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
74-97-5	Bromochloromethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
110-82-7	Cyclohexane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
71-55-6	1,1,1-Trichloroethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-65-0	t-Butyl alcohol	ND	5.26	21.0	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
56-23-5	Carbon Tetrachloride	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
107-06-2	1,2-Dichloroethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
71-43-2	Benzene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
79-01-6	Trichloroethene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U

Accredited Analytical Resources LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Daniel Miguel, Technical Director

Accredited Analytical Resources, LLC.

MADDOX MATERIALS		
323 Main Street	Project: TRAP Rock - Kingston Quarry	**Reported:**
Spotswood NJ, 08884	Project Manager: Bill Maddox	01/15/2015 16:35

Client ID: S1

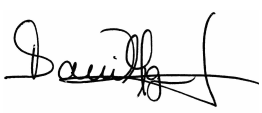
Lab ID: 1500040-01 (Soil)

Accredited Analytical Resources LLC

Volatile Organic Compounds EPA Method SW846 8260

CAS #	Analyte	Result	MDL	RL	Units	Dilution	Prepared Date	Analyzed Date/By	Method	Notes
108-87-2	Methylcyclohexane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
78-87-5	1,2-Dichloropropane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-27-4	Bromodichloromethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
10061-01-5	cis-1,3-Dichloropropene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
108-88-3	Toluene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
10061-02-6	trans-1,3-Dichloropropene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
79-00-5	1,1,2-Trichloroethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
108-10-1	4-Methyl-2-pentanone	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
106-93-4	1,2-Dibromoethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
591-78-6	2-Hexanone	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
127-18-4	Tetrachloroethene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
124-48-1	Dibromochloromethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
100-41-4	Ethylbenzene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
108-90-7	Chlorobenzene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
108-38-3/106-4	m,p-Xylenes	ND	2.10	4.21	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
95-47-6	o-Xylene	ND	2.10	4.21	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
100-42-5	Styrene	ND	1.05	4.21	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
75-25-2	Bromoform	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
98-82-8	Isopropylbenzene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
541-73-1	1,3-Dichlorobenzene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
106-46-7	1,4-Dichlorobenzene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
95-50-1	1,2-Dichlorobenzene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
120-82-1	1,2,4-Trichlorobenzene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
87-61-6	1,2,3-Trichlorobenzene	ND	1.05	2.10	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
1634-04-4	Methyl tert-Butyl Ether	ND	2.10	4.21	ug/kg dry	1	01/13/15 14:24	01/13/15 14:24/SCS	EPA 8260B	U
Surrogate: 1,2-Dichloroethane-d4				*98 %*	*70-121*		*01/13/15 14:24*	*01/13/15 14:24/SCS*	*EPA 8260B*	

Accredited Analytical Resources LLC



Daniel Miguel, Technical Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Accredited Analytical Resources, LLC.

MADDOX MATERIALS		
323 Main Street	Project: TRAP Rock - Kingston Quarry	**Reported:**
Spotswood NJ, 08884	Project Manager: Bill Maddox	01/15/2015 16:35

Client ID: S1

Lab ID: 1500040-01 (Soil)

CAS #	Analyte	Result	MDL	RL	Units	Dilution	Prepared Date	Analyzed Date/By	Method	Notes
	Accredited Analytical Resources LLC									
Volatile Organic Compounds EPA Method SW846 8260										
Surrogate: Toluene-d8		*101 %*		*81-117*			*01/13/15 14:24*	*01/13/15 14:24/SCS*	*EPA 8260B*	
Surrogate: Bromofluorobenzene		*98 %*		*74-121*			*01/13/15 14:24*	*01/13/15 14:24/SCS*	*EPA 8260B*	
Semivolatile Organic Compounds EPA Method SW846 8270										
Sample Prepared by Method:EPA 3550B GCMS										
62-75-9	N-Nitrosodimethylamine	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
100-52-7	Benzaldehyde	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
108-95-2	Phenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
111-44-4	bis(2-chloroethyl)ether	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
95-57-8	2-Chlorophenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
95-48-7	2-Methylphenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
98-86-2	Acetophenone	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
106-44-5	3 & 4-Methylphenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
621-64-7	N-Nitroso-di-n-propylamine	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
67-72-1	Hexachloroethane	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
98-95-3	Nitrobenzene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
78-59-1	Isophorone	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
88-75-5	2-Nitrophenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
105-67-9	2,4-Dimethylphenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
111-91-1	bis(2-chloroethoxy)methane	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
120-83-2	2,4-Dichlorophenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
91-20-3	Naphthalene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
106-47-8	4-Chloroaniline	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
87-68-3	Hexachlorobutadiene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
105-60-2	Caprolactam	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
59-50-7	4-Chloro-3-methylphenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
91-57-6	2-Methylnaphthylene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U

Accredited Analytical Resources LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Daniel Miguel, Technical Director

Accredited Analytical Resources, LLC.

MADDOX MATERIALS
323 Main Street
Spotswood NJ, 08884

Project: TRAP Rock - Kingston Quarry
Project Manager: Bill Maddox

Reported:
01/15/2015 16:35

Client ID: S1

Lab ID: 1500040-01 (Soil)

Accredited Analytical Resources LLC

Semivolatile Organic Compounds EPA Method SW846 8270

CAS #	Analyte	Result	MDL	RL	Units	Dilution	Prepared Date	Analyzed Date/By	Method	Notes
77-47-4	Hexachlorocyclopentadiene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
88-06-2	2,4,6-Trichlorophenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
95-95-4	2,4,5-Trichlorophenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
91-58-7	2-Chloronaphthalene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
92-52-4	1,1-Biphenyl	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
88-74-4	2-Nitroaniline	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
131-11-3	Dimethylphthalate	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
208-96-8	Acenaphthylene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
99-09-2	3-Nitroaniline	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
83-32-9	Acenaphthene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
51-28-5	2,4-Dinitrophenol	ND	35.0	350	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
100-02-7	4-Nitrophenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
132-64-9	Dibenzofuran	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
606-20-2	2,6-Dinitrotoluene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
121-14-2	2,4-Dinitrotoluene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
58-90-2	2,3,4,6-Tetrachlorophenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
84-66-2	Diethyl phthalate	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
7005-72-3	4-Chlorophenyl-phenylether	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
86-73-7	Fluorene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
100-01-6	4-Nitroaniline	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
86-74-8	Carbazole	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
86-30-6	N-Nitrosodiphenylamine	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
122-66-7	1,2-Diphenylhydrazine	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
101-55-3	4-Bromophenyl-phenylether	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
1912-24-9	Atrazine	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
118-74-1	Hexachlorobenzene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
87-86-5	Pentachlorophenol	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
85-01-8	Phenanthrene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U

Accredited Analytical Resources LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Daniel Miguel, Technical Director

Accredited Analytical Resources, LLC.

MADDOX MATERIALS
323 Main Street
Spotswood NJ, 08884

Project: TRAP Rock - Kingston Quarry
Project Manager: Bill Maddox

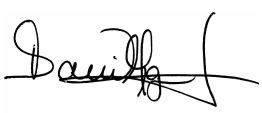
Reported:
01/15/2015 16:35

Client ID: S1

Lab ID: 1500040-01 (Soil)

CAS #	Analyte	Result	MDL	RL	Units	Dilution	Prepared Date	Analyzed Date/By	Method	Notes
Accredited Analytical Resources LLC										
Semivolatile Organic Compounds EPA Method SW846 8270										
120-12-7	Anthracene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
84-74-2	Di-n-butyl phthalate	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
206-44-0	Fluoranthene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
92-87-5	Benzidine	ND	87.3	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
129-00-0	Pyrene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
85-68-7	Butylbenzylphthalate	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
91-94-1	3,3'-Dichlorobenzidine	ND	87.3	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
56-55-3	Benzo[a]anthracene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
218-01-9	Chrysene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
117-84-0	Di-n-octyl phthalate	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
205-99-2	Benzo[b]fluoranthene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
207-08-9	Benzo[k]fluoranthene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
50-32-8	Benzo[a]pyrene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
53-70-3	Dibenzo(a,h)anthracene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
191-24-2	Benzo[ghi]perylene	ND	35.0	176	ug/kg dry	1	01/12/15 06:02	01/14/15 02:46/JMM	EPA 8270C	U
Surrogate: 2-Fluorophenol				*71 %*	*25-121*		*01/12/15 06:02*	*01/14/15 02:46/JMM*	*EPA 8270C*	
Surrogate: Phenol-d5				*79 %*	*24-113*		*01/12/15 06:02*	*01/14/15 02:46/JMM*	*EPA 8270C*	
Surrogate: Nitrobenzene-d5				*67 %*	*23-120*		*01/12/15 06:02*	*01/14/15 02:46/JMM*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl				*84 %*	*30-115*		*01/12/15 06:02*	*01/14/15 02:46/JMM*	*EPA 8270C*	
Surrogate: 2,4,6-Tribromophenol				*103 %*	*19-122*		*01/12/15 06:02*	*01/14/15 02:46/JMM*	*EPA 8270C*	
Surrogate: Terphenyl-d14				*93 %*	*18-137*		*01/12/15 06:02*	*01/14/15 02:46/JMM*	*EPA 8270C*	
EPA Method SW846 8081/8082										
Sample Prepared by Method:EPA 3550B										
319-84-6	alpha-BHC	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
319-85-7	beta-BHC	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
319-86-8	delta-BHC	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U

Accredited Analytical Resources LLC



Daniel Miguel, Technical Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Accredited Analytical Resources, LLC.

MADDOX MATERIALS		
323 Main Street	Project: TRAP Rock - Kingston Quarry	**Reported:**
Spotswood NJ, 08884	Project Manager: Bill Maddox	01/15/2015 16:35

Client ID: S1

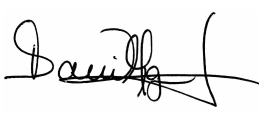
Lab ID: 1500040-01 (Soil)

Accredited Analytical Resources LLC

EPA Method SW846 8081/8082

CAS #	Analyte	Result	MDL	RL	Units	Dilution	Prepared Date	Analyzed Date/By	Method	Notes
58-89-9	gamma-BHC [Lindane]	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
76-44-8	Heptachlor	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
309-00-2	Aldrin	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
1024-57-3	Heptachlor Epoxide	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
959-98-8	Endosulfan I	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
60-57-1	Dieldrin	ND	1.40	1.40	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
72-55-9	4,4'-DDE	ND	1.40	1.40	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
72-20-8	Endrin	ND	1.40	1.40	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
33213-65-9	Endosulfan II	ND	1.40	1.40	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
72-54-8	4,4'-DDD	ND	1.40	1.40	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
1031-07-8	Endosulfan sulfate	ND	1.40	1.40	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
50-29-3	4,4'-DDT	ND	1.40	1.40	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
72-43-5	Methoxychlor	ND	7.00	7.00	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
53494-70-5	Endrin ketone	ND	1.40	1.40	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
7421-93-4	Endrin aldehyde	ND	1.40	1.40	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
5103-71-9	alpha-Chlordane	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
5566-34-7	gamma-Chlordane	ND	0.694	0.694	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
8001-35-2	Toxaphene	ND	35.0	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
12674-11-2	Aroclor-1016	ND	17.5	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
11104-28-2	Aroclor-1221	ND	17.5	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
11141-16-5	Aroclor-1232	ND	17.5	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
53469-21-9	Aroclor-1242	ND	17.5	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
12672-29-6	Aroclor-1248	ND	17.5	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
11097-69-1	Aroclor-1254	ND	17.5	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
11096-82-5	Aroclor-1260	ND	17.5	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
37324-23-5	Aroclor-1262	ND	17.5	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
11100-14-4	Aroclor-1268	ND	17.5	35.0	ug/kg dry	1	01/12/15 05:54	01/14/15 12:59/JAM	EPA 8081A/8082	U
Surrogate: Tetrachloro-m-xylene				*74.6 %*	*30-150*		*01/12/15 05:54*	*01/14/15 12:59/JAM*	*EPA 8081A/8082*	

Accredited Analytical Resources LLC



Daniel Miguel, Technical Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Accredited Analytical Resources, LLC.

MADDOX MATERIALS		
323 Main Street	Project: TRAP Rock - Kingston Quarry	**Reported:**
Spotswood NJ, 08884	Project Manager: Bill Maddox	01/15/2015 16:35

Client ID: S1

Lab ID: 1500040-01 (Soil)

CAS #	Analyte	Result	MDL	RL	Units	Dilution	Prepared Date	Analyzed Date/By	Method	Notes

Accredited Analytical Resources LLC

EPA Method SW846 8081/8082

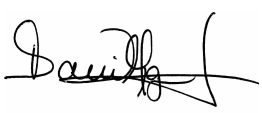
Surrogate: Tetrachloro-m-xylene			*80.6 %*	*30-150*		*01/12/15 05:54*	*01/14/15 12:59/JAM*	*EPA 8081A/8082*	
Surrogate: Decachlorobiphenyl			*86.7 %*	*30-150*		*01/12/15 05:54*	*01/14/15 12:59/JAM*	*EPA 8081A/8082*	
Surrogate: Decachlorobiphenyl			*71.9 %*	*30-150*		*01/12/15 05:54*	*01/14/15 12:59/JAM*	*EPA 8081A/8082*	

Total Metals by EPA Method SW846 6010B

Sample Prepared by Method:EPA 3050B

7429-90-5	**Aluminum**	**11400**	21.0	21.0	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7440-36-0	Antimony	ND	4.21	4.21	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	U
7440-38-2	Arsenic	ND	1.05	1.05	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	U
7440-39-3	Barium	ND	21.0	21.0	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	U
7440-41-7	Beryllium	ND	0.526	0.526	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	U
7440-43-9	Cadmium	ND	0.526	0.526	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	U
7440-70-2	**Calcium**	**7620**	26.3	26.3	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7440-47-3	**Chromium**	**28.7**	2.10	2.10	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7440-48-4	**Cobalt**	**7.56**	5.26	5.26	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7440-50-8	**Copper**	**72.9**	3.15	3.15	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7439-89-6	**Iron**	**9500**	26.3	26.3	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7439-92-1	**Lead**	**1.25**	1.05	1.05	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7439-95-4	**Magnesium**	**5240**	52.6	52.6	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7439-96-5	**Manganese**	**86.4**	2.10	2.10	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7440-02-0	**Nickel**	**18.7**	4.21	4.21	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7440-09-7	**Potassium**	**933**	52.6	52.6	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7782-49-2	Selenium	ND	4.21	4.21	mg/kg dry	1	01/09/15 07:29	01/15/15 14:05/LIT	EPA 6010B	U
7440-22-4	Silver	ND	1.05	1.05	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	U
7440-23-5	**Sodium**	**1460**	52.6	52.6	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7440-28-0	Thallium	ND	1.58	3.15	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	U
7440-62-2	**Vanadium**	**36.0**	5.26	5.26	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	
7440-66-6	**Zinc**	**13.5**	6.31	6.31	mg/kg dry	1	01/09/15 07:29	01/09/15 18:57/LIT	EPA 6010B	

Accredited Analytical Resources LLC



Daniel Miguel, Technical Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Accredited Analytical Resources, LLC.

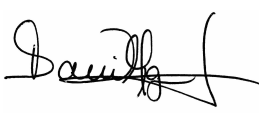
MADDOX MATERIALS		
323 Main Street	Project: TRAP Rock - Kingston Quarry	**Reported:**
Spotswood NJ, 08884	Project Manager: Bill Maddox	01/15/2015 16:35

Client ID: S1

Lab ID: 1500040-01 (Soil)

CAS #	Analyte	Result	MDL	RL	Units	Dilution	Prepared Date	Analyzed Date/By	Method	Notes
				Accredited Analytical Resources LLC						
Total Mercury by SW846 7471										
Sample Prepared by Method:EPA 7471A										
7439-97-6	Mercury	ND	0.0789	0.0789	mg/kg dry	1	01/09/15 06:53	01/09/15 11:37/STM	EPA 7471A	
Wet Chemistry										
Sample Prepared by Method:EPA 9010C										
NA	Cyanide (total)	ND	1.05	1.05	mg/kg dry	1	01/12/15 09:23	01/12/15 16:41/NNM	EPA 9014	
Sample Prepared by Method:Percent Solids										
NA	**Percent Solids**	**95.1**	0.100	0.100	%	1	01/09/15 10:30	01/09/15 14:38/CLD	SM 2540 G	
Extractable Petroleum Hydrocarbons by NJ EPH										
Sample Prepared by Method:EPA 3545A										
NA	**Extractable Petroleum Hydrocarbons (I**	**82.2**	16.8	16.8	mg/kg dry	1	01/09/15 09:02	01/09/15 14:56/MS	NJDEP EPH	
Surrogate: o-Terphenyl				*76.8 %*	*40-140*		*01/09/15 09:02*	*01/09/15 14:56/MS*	*NJDEP EPH*	
Surrogate: 1-Chlorooctadecane				*80.4 %*	*40-140*		*01/09/15 09:02*	*01/09/15 14:56/MS*	*NJDEP EPH*	

Accredited Analytical Resources LLC



Daniel Miguel, Technical Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

ACCREDITED ANALYTICAL RESOURCES, LLC
20 PERSHING AVENUE
CARTERET, NEW JERSEY 07008
PHONE (732) 969-6112 FAX (732) 541-1383
accreditedanalytical.com

Page _____ of _____

CHAIN OF CUSTODY FORM

STATE AGENCY NJ NY PA CT DE OTHER _____

CLIENT	Maddox Materials llc
ADDRESS	323 Main Street
CITY	Spotswood
STATE	NJ ZIP 08884
PROJECT	TRAP Rock - Kingston Quarry
CONTACT	Bill Maddox
PHONE	732 251 0054
FAX	
E-MAIL	jrmadd@verizon.net

LABORATORY SAMPLE #	CLIENT FIELD ID	# OF CONTAINERS	MATRIX	PRESERVATIVE	DATE / TIME SAMPLED	SAMPLE DESCRIPTION GRAB	COMPOSITE	DEPTH	ANALYSIS
1500040-01	S1	2	S		1/8/15 1:00	✓			TCL/TAL SAS/NJSCC+EPH

** M = MATRIX CODE: S=SOIL G=SLUDGE O=OIL F=FILTER K=SOLID X=OTHER
GW=GROUND WATER WW=WASTE WATER SW=SURFACE WATER P=POTABLE WATER

TURNAROUND TIME: 5 days Spreadsheet (IF BLANK, STD. 3 WEEKS)

RECIEVED W/ ICE? YES ☒ NO ☐ TEMPERATURE: 4°C NJSCC + EPGW

QA/QC DELIVERABLES (circle one): STD (NJ REDUCED) NJ FULL OTHER : NYASP Cat. A NYASP Cat. B

PRESERVATIVE CODE: 1=HCL 2=HNO_3 3=H_2SO_4 4=$Na_2S_2O_3$ 5=NaOH 6=MeOH 7=OTHER

RELINQUISHED BY: PRINT	RELINQUISHED BY: SIGN	RECEIVED BY: PRINT	RECEIVED BY: SIGN	ORGANIZATION	DATE	TIME	REASON
William Maddox		K. Muniz	K. Muniz	AAR	1/8/15	1400	Analysis

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: William Maddox SIGN:

COMMENTS	
AAR QUOTE #	
AAR CASE #	1500040
P.O. #	

See Reverse for Instructions