November 28, 2012

Tradebe Environmental Services, LLC
1301 West 22nd Street, Suite 500
Oak Brook, IL 60523

ATTN: Mr. Steve Katz, Esq.

Re: Phase II Environmental Site Assessment
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey
URS Corporation Project No. 19999423

Dear Mr. Katz:

URS Corporation (URS) is pleased to present Tradebe Environmental Services, LLC (Client) with the findings of the Phase II Environmental Site Assessment (ESA) performed at 3137 Chammings Court and 3209 North Mills Road, City of Vineland, Cumberland County, New Jersey (subject property). This letter report includes a summary of field activities, analytical results, and conclusions.

1.0 BACKGROUND

URS performed a facility visit on June 6, 2012 to obtain site information to use for the preparation of a Phase I ESA and Phase II ESA. On June 25, 2012, URS conducted a Phase I ESA of the facility. The subject property consists of two parcels, totaling approximately 20.2-acres, comprised of open property, nine buildings, and contained treatment units used for waste handling activities, stock piles, loading/unloading areas and undeveloped woodlands. The nine buildings consisted of a laboratory/office building, a wastewater treatment building, office trailer, stabilization building, maintenance building, office building, scale house, pre-processed soil drop building, and an operations office building. According to aerial photograph and historic topographic map review the subject buildings were constructed between 1981 and 2002. A stormwater retention basin is located in the center of the subject property and two detention ponds are located in the eastern portion of the subject property.

The facility was developed from two separate businesses which were purchased, Mid Atlantic Recycling (3137 Chammings Court) and Cassie Ecology Oil Salvage, Inc. (3209 North Mills Road), and combined to form one facility consisting of both non-hazardous and hazardous operations, Pure Earth Recycling of New Jersey. The Phase I ESA identified the following Recognized Environmental Conditions (RECs) associated with the subject property;

- The subject property has been utilized as a waste management facility providing transportation, treatment, and disposal of solid and liquid wastes since approximately 1981. Based on the current regulatory status (e.g. outstanding violations) of the NJ Release, SPILLS, and RCRA databases, these violations represent a REC to the subject property. Due to the large amount of releases and violations that have been reported to NJDEP but not investigated by NJDEP, URS recommended a limited subsurface investigation be performed at the subject property to identify potential contamination. In addition, URS recommended that Tradebe follow up with USEPA and NJDEP to determine the status of the active RCRA violations.

- Two large piles of soil were observed in the pre-processed soil storage/screening area and eight large piles were observed in the recycled soil storage area. Fragments of wood and roll-off liners were observed in all of the piles, which are not anticipated to be present if the soils were processed. A strong chemical odor and discharge was observed from the pre-processed pile located to the northeast. URS recommended that the soil piles be disposed of properly. In addition, URS recommended a limited subsurface investigation be conducted in the area of the soil piles to access potential impacts.
- URS observed two approximately 8,000-gallon diesel fuel ASTs with associated dispensers located south of the maintenance building. Staining was observed on the concrete pad in the vicinity of the dispensers. URS recommended a limited subsurface investigation in the vicinity of the diesel ASTs and dispensers to assess potential contamination from former fueling activities. In addition, good housecleaning practices should be followed to clean up the spills in a timely manner and avoid future spills.
- An oily sheen was observed when the sediment in the retention pond, located southeast of the SRS unit, was disturbed. URS recommended that the sediment and water within the retention pond be analyzed to identify potential impacts.

Based on the findings of this facility visit and Phase I ESA report, URS was contracted by the Client to conduct a Phase II ESA throughout the subject property.

2.0 SCOPE OF WORK

On June 26, June 27, June 29, and July 2, of 2012, URS visited the subject property to perform the Phase II ESA. URS performed five point composite hand augering samples of ten soil piles, two surface water samples from retention ponds, two sediment samples from a retention pond and stormwater detention pond, and oversaw soil borings advanced at 25 locations, as identified on Table 1. Eleven soil boring locations were used as temporary groundwater monitoring wells, with groundwater samples were collected from. Per New Jersey Department of Environmental Protection (NJDEP) requirements the temporary wells were sampled and closed within 48 hours of drilling. Figure 1 illustrates the sample locations and analyses conducted.

TABLE 1. SAMPLE LOCATION AND ANALYTICAL PARAMETERS

LOCATION	DESCRIPTION/ OBJECTIVE	NUMBER OF BORINGS/SAMPLES	COCS/ANALYTICAL
Site Perimeter	Overall conditions, migration potential, depth to groundwater	6 borings (A1, A2, A4, A5, A6, and A7) – one soil sample per borings. Temporary wells at all 4 locations (A1, A2, A6 and A7).	Soil – TPH, PAH, Metals. GW – VOCs, SVOCs, metals, TPH, Pesticides, Herbicides
Oil Processing Area	Impact from oil activities; soils around tanks, process units, and other equipment.	2 borings (B1 and B3) – one soil sample per boring. Temporary well at one location (B3).	Soil – VOCs, SVOCs, TPH, Metals, PCBs. GW – VOCs, SVOCs, TPH, Metals

TABLE 1. SAMPLE LOCATION AND ANALYTICAL PARAMETERS			
LOCATION	DESCRIPTION/ OBJECTIVE	NUMBER OF BORINGS/SAMPLES	COCS/ANALYTICAL
Stabilization Building	Impact from activities	2 borings (C1 and C2) – one sample per boring. 1 of the proposed 6 perimeter wells (A1) will provide data for this location. 2 soil piles (C1 and C2) inside building.	Metals, TPH Hazardous Waste Characteristics
Pre-Processed Soil Drop Building (Soil screening and feed building)	Impact from activities	3 borings (D1, D2, and D3) – one sample per boring. 1 of the proposed perimeter wells (A7) will provide data for this location.	TPH, PAH and Metals
Sarex SRS unit	Impacts from processing of refinery sludge	3 borings (E1, E2, and E3) – one soil sample per boring. Temporary wells at all 3 boring locations.	Soil - TPH, PAH and Metals GW – TPH, PAH and Metals.
Soil Processing Thermal Unit	Impacts from soil activities	2 borings (F1 and F2) – one soil sample per boring.	TPH, PAH and Metals
Soil Piles in the Recycled Soil Storage Area	Composition and volume of soil pile and acceptability to landfill	Sampling at 8 soil piles (G1 through G8) using five point composite hand auger sampling technique.	TPH, PAH, total Metals, Hazardous Waste Characteristics
Soil Pile Area between the Recycled Soil Storage Area and Pre-Processed Soil Area	Impacts outside soil pile liner	3 borings (H1, H2, and H3) – one soil sample per boring. Temporary wells at all 3 locations.	Soil – TPH, PAH and Metals GW – TPH, PAH and Metals
Ponds (two sediment ponds and one stormwater detention pond)	Impacts from soil pile runoff.	1 sediment and surface water sample per pond (I1, I2, and I3) 1 boring (I4) adjacent to stormwater detention pond and drainage pipe. Temporary well 1 location (I4).	Soil and Sediment – TPH, Metals, Pesticides, Herbicides Surface & Ground Water – TPH, Metals, Pesticides, Herbicides.

TABLE 1. SAMPLE LOCATION AND ANALYTICAL PARAMETERS			
LOCATION	DESCRIPTION/ OBJECTIVE	NUMBER OF BORINGS/SAMPLES	COCS/ANALYTICAL
Laboratory/Office Building	Impacts form Lab Operations	2 borings (J1 and J2) – one soil sample per boring.	Soil – SVOCs, metals., PCBs
Fueling tank/pump at Maintenance building – identified during Phase I ESA	Impacts from fueling practices	1 boring (K1) - one soil sample	VOCs, SVOCs, TPH, and Metals

TPH – Total Petroleum Hydrocarbon
PAH – Polycyclic Aromatic Hydrocarbon
GW - Groundwater
VOC – Volatile Organic Compound
SVOC – Semi-Volatile Organic Compounds
PCB – Polychlorinated biphenyl

The borings were advanced by Talon Drilling Company of Trenton, New Jersey using Geoprobe drilling methods. The borings extended from ground surface to groundwater, refusal, or 20 feet below ground surface, whichever was first encountered. Each boring was continuously field screened (visual/olfactory/photo-ionization detector) for evidence of impact. Soil samples were collected from the interval showing greatest evidence of impact, from approximately one foot above the soil groundwater interface, or from the bottom of the boring, depending on each boring situation. Soil cuttings were placed back into the boring holes. URS collected field data from each temporary well prior to sampling. Boring logs are attached in Appendix A. Table 2 provides detail on photo-ionization detector (PID) readings and sample depth of each boring.

TABLE 2. SAMPLE DETAILS AND FIELD SCREENING					
SAMPLE	**HIGHEST PID READING (PPM)**	**SAMPLE DEPTH (FEET)**	**SOIL/ SEDIMENT SAMPLED**	**GROUND WATER/ SURFACE WATER SAMPLED**	**GROUND WATER DEPTH (FEET)**
A1	4	12-13	X	X	13
A2	49	4-5	X	X	14
A4	0	10.5-11.5	X		Not encountered
A5	0	9-10	X		Not encountered
A6	93.6	4-5	X	X	10
A7	524	2-3	X	X	10
B1	135	4-5	X		14
B3	2.6	16-17	X		17
C1 (pile)	9.4	Composite	X		NA
C2 (pile)	2.8	Composite	X		NA
C1	3.4	12.5-13.5	X		13.5
C2	0	11-12	X		12
D1	0	9-10	X		10
D2	0	9-10	X		10
D3	57.9	4-5	X		Not encountered
E1	49.8	6.5-7.5	X	X	12

TABLE 2. SAMPLE DETAILS AND FIELD SCREENING					
SAMPLE	**HIGHEST PID READING (PPM)**	**SAMPLE DEPTH (FEET)**	**SOIL/ SEDIMENT SAMPLED**	**GROUND WATER/ SURFACE WATER SAMPLED**	**GROUND WATER DEPTH (FEET)**
E2	0	11-12	X	X	12
E3	0	7-8	X		Not encountered
F1	0	9-10	X		10
F2	0	9-10	X		8
G1	13	Composite	X		NA
G2	5.7	Composite	X		NA
G3	29.4	Composite	X		NA
G4	45.8	Composite	X		NA
G5	28.2	Composite	X		NA
G6	147	Composite	X		NA
G7	1.7	Composite	X		NA
G8	4.5	Composite	X		NA
H1	0	11-12	X	X	12
H2	51.6	9.5-10.5	X	X	13
H3	0	9-10	X	X	10
I1	NA	NA	X	X	NA
I2	NA	NA		X	NA
I3	NA	NA	X		NA
I4	0	9-10	X	X	10
J1	0	9-10	X		10
J2	0	9-10	X		10
K1	0	9-10	X		10

ppm – parts per million

Soil and groundwater samples were submitted under chain of custody to Integrated Analytical Laboratories, LLC located in Randolph, New Jersey to conduct analyses for the required parameters. Specific parameters for each sample area are identified in Table 1.

3.0 RESULTS

Soil analytical results were compared to the most stringent value of the NJDEP Residential and Non-Residential Soil Remediation Standards (SRS) and NJDEP Default Impact to Groundwater (IGW) Screening Level. Groundwater analytical results were compared to NJDEP Class II Groundwater quality criteria, which is the higher of Practical Quantitation Levels (PQLs) and Groundwater Quality Standards (GWQS). In addition the groundwater analytical results were compared to the Vapor Intrusion Groundwater Screening Level for borings located within 30 feet of a structure on the subject property. See Tables 3 and 4 for the soil and groundwater analytical results and exceedances per standard.

Review of the analytical results of the soil piles located within the recycled soil stockpiled area and within the stabilization building indicated that the following SVOCs, metals, a VOC, and a pesticide were present above applicable standards in the following samples:

VOCs

- Benzene
  - sample G3-062612 at 0.020 mg/kg

SVOCs

- Acetophenone
  - sample G5-062612 at 12.5 mg/kg
- Naphthalene
  - sample C1-062612 at 11.7 mg/kg
  - sample C2-062612 at 29.9 mg/kg
  - sample G1-062612 at 16.6 mg/kg
  - sample G2-062612 at 9.35 mg/kg
  - sample G3-062612 at 147 mg/kg
  - sample G4-4062612 at 85.7 mg/kg
  - sample G5-062612 at 15.0 mg/kg
  - sample G6-062612 at 7.33 mg/kg
- 2-Methylnaphthalene
  - sample C1-062612 at 11.5 mg/kg
  - sample G3-062612 at 5.38 mg/kg,
  - sample G4-062612 at 10.3 mg/kg
- Benzo(a)anthracene
  - sample G2-062612 at 2.92 mg/kg
  - sample G3-062612 at 3.74 mg/kg
  - sample G5-062612 at 3.42 mg/kg
  - sample G6-062612 at 2.18 mg/kg
  - sample G7-062612 at 2.85 mg/kg
  - sample G8-062612 at 0.780 mg/kg
- Benzo(b)fluoranthene
  - sample G2-062612 at 2.45 mg/kg
  - sample G5-062612 at 3.08 mg/kg
  - sample G6-062612 at 2.30 mg/kg
  - sample G7-062612 at 2.70 mg/kg
  - sample G8-062612 at 0.962 mg/kg
- Benzo(a)pyrene
  - sample G2-062612 at 3.93 mg/kg
  - sample G5-062612 at 3.84 mg/kg
  - sample G6-062612 at 3.81 mg/kg
  - sample G7-062612 at 3.62 mg/kg
  - sample G8-062612 at 1.77 mg/kg
- Indeno(1,2,3-cd)pyrene
  - sample G2-062612 at 1.17 mg/kg
  - sample G5-062612 at 1.01 mg/kg
  - sample G6-062612 at 1.68 mg/kg
  - sample G7-062612 at 1.60 mg/kg
  - sample G8-062612 at 1.23 mg/kg
- Dibenz(a,h)anthracene
  - sample G2-062612 at 0.832 mg/kg
  - sample G5-062612 at 0.480 mg/kg
  - sample G6-062612 at 0.707 mg/kg
  - sample G7-062612 at 0.920 mg/kg
  - sample G8-062612 at 0.380 mg/kg

Pesticides

- Dieldrin
  - sample G1-062612 at 0.00517 mg/kg
  - sample G2-062612 at 0.00589 mg/kg
  - sample G3-062612 at 0.00376 mg/kg
  - sample G4-062612 at 0.0096 mg/kg

Metals

- Aluminum
  - sample C1-062612 at 7,020 mg/kg
  - sample C2-062612 at 33,300 mg/kg
  - sample G1-062612 at 10,400 mg/kg
  - sample G2-062612 at 12,400 mg/kg
  - sample G3-062612 at 16,300 mg/kg
  - sample G4-062612 at 12,900 mg/kg
  - sample G5-062612 at 10,300 mg/kg
  - sample G6-062612 at 6,390 mg/kg
  - sample G7-062612 at 9,790 mg/kg
  - sample G8-062612 at 4,210 mg/kg
  -
- Antimony
  - sample C1-062612 at 18.9 mg/kg
- Arsenic
  - sample G1-062612 at 48.8 mg/kg
  - sample G2-062612 at 47.8 mg/kg
  - sample G3-062612 at 49.1 mg/kg
  - sample G4-062612 at 24.5 mg/kg
  - sample G5-062612 at 48.4 mg/kg
- Beryllium
  - sample G1-062612 at 0.515 mg/kg
  - sample G2-062612 at 0.530 mg/kg
  - sample G4-062612 at 0.764 mg/kg
  - sample G5-062612 at 0.508 mg/kg
- Cadmium
  - sample C1-062612 at 19.9 mg/kg
  - sample G1-062612 at 1.40 mg/kg
  - sample G2-062612 at 2.66 mg/kg
  - sample G3-062612 at 2.16 mg/kg
  - sample G4-062612 at 2.14 mg/kg
- Lead
  - sample C1-062612 at 116 mg/kg
  - sample G1-062612 at 534 mg/kg
  - sample G2-062612 at 332 mg/kg
  - sample G3-062612 at 263 mg/kg
  - sample G4-062612 at 463 mg/kg
  - sample G5-062612 at 558 mg/kg
  - sample G6-062612 at 122 mg/kg
  - sample G7-062612 at 169 mg/kg

- Manganese
    - sample C1-062612 at 639 mg/kg
    - sample G1-062612 at 357 mg/kg
    - sample G2-062612 at 333 mg/kg
    - sample G3-062612 at 422 mg/kg
    - sample G4-062612 at 319 mg/kg
    - sample G5-062612 at 301 mg/kg
    - sample G6-062612 at 85.7 mg/kg
    - sample G7-062612 at 218 mg/kg
- Mercury
    - sample C1-062612 at 0.997 mg/kg
    - sample G1-062612 at 1.38 mg/kg
    - sample G2-062612 at 1.36 mg/kg
    - sample G3-062612 at 0.840 mg/kg
    - sample G4-062612 at 0.839 mg/kg
    - sample G5-062612 at 1.17 mg/kg
    - sample G6-062612 at 2.69 mg/kg
    - sample G7-062612 at 0.981 mg/kg
    - sample G8-062612 at 0.183 mg/kg
- Nickel
    - sample C1-062612 at 124 mg/kg
    - sample G1-062612 at 41.4 mg/kg
    - sample G2-062612 at 101 mg/kg
    - sample G3-062612 at 62.9 mg/kg
    - sample G4-062612 at 78.5 mg/kg
    - sample G5-062612 at 46.2 mg/kg
- Selenium
    - sample C1-062612 at 7.13 mg/kg
- Silver
    - sample G1-062612 at 1.50 mg/kg
- Thallium
    - sample C1-062612 at 12.2 mg/kg
    - sample G2-062612 at 3.04 mg/kg
    - sample G3-062612 at 3.08 mg/kg
- Vanadium
    - sample C1-062612 at 570 mg/kg
    - sample G1-062612 at 269 mg/kg
    - sample G2-062612 at 320 mg/kg
    - sample G3-062612 at 523 mg/kg
    - sample G4-062612 at 299 mg/kg
    - sample G5-062612 at 138 mg/kg
    - sample G6-062612 at 111 mg/kg
    - sample G7-062612 at 85.2 mg/kg
- Zinc
    - sample C1-062612 at 6,710 mg/kg
    - sample G1-062612 at 691 mg/kg
    - sample G2-062612 at 928 mg/kg
    - sample G3-062612 at 1,180 mg/kg

- sample G4-062612 at 959 mg/kg

Review of the analytical results of the sediment within the detention pond and the stormwater retention basin indicated that the following SVOCs and metals, were present above applicable standards in the following samples:

SVOCs

- Naphthalene
  - sample I3SED-062612 at 6.72 mg/kg
- Benzo(a)anthracene
  - sample I1-062712-SED at 1.54 mg/kg
  - sample I3SED-062612 at 3 mg/kg
- Benzo(b)fluoranthene
  - sample I1-062712-SED at 0.970 mg/kg
  - sample I3SED-062612 at 1.88 mg/kg
- Benzo(a)pyrene
  - sample I1-062712-SED at 1.52 mg/kg
  - sample I3SED-062612 at 3.44 mg/kg

Metals

- Aluminum
  - sample I1-062712-SED at 4,670 mg/kg
  - sample I3SED-062612 at 34,100 mg/kg
- Antimony
  - sample I3SED-062612 at 20.7 mg/kg
- Beryllium
  - sample I3SED-062612 at 0.704 mg/kg
- Cadmium
  - sample I3SED-062612 at 2.15 mg/kg
- Lead
  - sample I1-062712-SED at 155 mg/kg
  - sample I3SED-062612 at 808 mg/kg
- Manganese
  - sample I1-062712-SED at 157 mg/kg
  - sample I3SED-062612 at 328 mg/kg
- Mercury
  - sample I1-062712-SED at 1.48 mg/kg
  - sample I3SED-062612 at 1.13 mg/kg
- Nickel
  - sample I3SED-062612 at 221 mg/kg
- Selenium
  - sample I3SED-062612 at 12.6 mg/kg
- Thallium
  - sample I3SED-062612 at 17.6 mg/kg
- Vanadium
  - sample I1-062712-SED at 146 mg/kg
  - sample I3SED-062612 at 268 mg/kg
- Zinc
  - sample I3SED-062612 at 1,050 mg/kg

According to the analytical results of the soil borings collected to the north of the soil processing thermal unit (F1(9-10)-062912 and F2(9-10)-062912), metals and extractable petroleum hydrocarbons (EPH) were detected in the samples below applicable standards. Additionally, the analytical results of the soil boring collected in the vicinity of the laboratory office building (J1(9-10)-090212 and J2(9-10)-070212) and in the vicinity of the two approximately 8,000-gallon diesel fuel ASTs with associated dispensers located south of the maintenance building (K1(9-10)-070212), metals were detected in the samples below applicable standards. Review of the analytical results of the soil borings indicated that the following SVOCs and metals, were present above applicable standards in the following samples:

SVOCs

- Benzo(a)anthracene
  - sample H2(9.5-10.5)-070212 at 1.03 mg/kg
- Benzo(b)fluoranthene
  - sample H2(9.5-10.5)-070212 at 0.873 mg/kg
- Benzo(a)pyrene
  - sample H2(9.5-10.5)-070212 at 1.23 mg/kg
- Indeno(1,2,3-cd)pyrene
  - sample H2(9.5-10.5)-070212 at 0.662 mg/kg
- Dibenz(a,h)anthracene
  - sample H2(9.5-10.5)-070212 at 0.274 mg/kg

Metals

- Aluminum
  - sample A4(10.5-11.5)-062912 at 22,800 mg/kg
  - sample A7(2-3)-062712 at 4,420 mg/kg
  - sample D3(4-5)-062912 at 4,650 mg/kg
  - sample H2(9.5-10.5)-070212 at 8,780 mg/kg
- Beryllium
  - sample A4(10.5-11.5)-062912 at 1.03 mg/kg
  - sample H2(9.5-10.5)-070212 at 2.90 mg/kg
- Lead
  - sample A4(10.5-11.5)-062912 at 172 mg/kg
  - sample H2(9.5-10.5)-070212 at 294 mg/kg
- Manganese
  - sample A4(10.5-11.5)-062912 at 381 mg/kg
  - sample B1(4-5)-062712 at 141 mg/kg
  - sample H2(9.5-10.5)-070212 at 361 mg/kg
- Mercury
  - sample A4(10.5-11.5)-062912 at 0.273 mg/kg
  - sample H2(9.5-10.5)-070212 at 0.164 mg/kg
- Nickel
  - sample A4(10.5-11.5)-062912 at 79.9 mg/kg
  - sample H2(9.5-10.5)-070212 at 222 mg/kg
- Zinc
  - sample H2(9.5-10.5)-070212 at 1,170 mg/kg

No groundwater or surface water results were identified above the Vapor Intrusion Groundwater Screening Level. Review of the groundwater analytical results indicated that following metals were above the NJDEP PQLs/ GWQS for the following samples;

Metals

- Aluminum
  - sample A2-062712-WATER at 232 ug/L
  - sample A7-062912-WATER at 784 ug/L
  - sample I4-070212-WATER at 803 ug/L
- Arsenic
  - sample H1-070212-WATER at 99.3 ug/L
- Iron
  - sample A1-062712-WATER at 1,300 ug/L
  - sample A2-062712-WATER at 3,240 ug/L
  - sample A6-062912-WATER at 1,400 ug/L
  - sample A7-062912-WATER at 1,070 ug/L
  - sample E1-062912-WATER at 13,500 ug/L
  - sample E2-062912-WATER at 95,800 ug/L
  - sample H1-070212-WATER at 1,070 ug/L
  - sample H2-070212-WATER at 5,410 ug/L
  - sample H3-070212-WATER at 2,970 ug/L
  - sample I4-070212-WATER at 2,090 ug/L
- Manganese
  - sample A1-062712-WATER at 67.4 ug/L
  - sample A2-062712-WATER at 180 ug/L
  - sample A6-062912-WATER at 113 ug/L
  - sample A7-062912-WATER at 181 ug/L
  - sample B3-062712-WATER at 807 ug/L
  - sample E1-062912-WATER at 395 ug/L
  - sample E2-062912-WATER at 748 ug/L
  - sample H1-070212-WATER at 77.4 ug/L
  - sample H2-070212-WATER at 787 ug/L
  - sample H3-070212-WATER at 718 ug/L
  - sample I4-070212-WATER at 350 ug/L
- Sodium
  - sample B3-062712-WATER at 189,000 ug/L
  - sample E2-062912-WATER at 58,300 ug/L
  - sample H1-070212-WATER at 346,000 ug/L
  - sample H2-070212-WATER at 229,000 ug/L

Review of the surface water analytical results indicated that following metals were above the NJDEP PQLs/ GWQS for the following samples;

Metals

- Aluminum
  - sample I2-062612-WATER at 207 ug/L
- Antimony
  - sample I1-062612-WATER 8.95 ug/L
  - sample I2-062612-WATER 8.95 ug/L

- Arsenic
  - sample I1-062612-WATER at 32.1 ug/L
  - sample I2-062612-WATER at 30.4 ug/L
- Sodium
  - sample I1-062612-WATER at 293,000 ug/L
  - sample I2-062612-WATER at 314,000 ug/L

The laboratory analytical results are included in Appendix B.

3.0 CONCLUSIONS

Based on the soil pile analytical results, the soil piles have exceedances above the NJDEP Residential SRS, Non-Residential SRS, and/or the Default IGW Screening Level for SVOCs including; acetophenone, naphthalene, 2-methylnaphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenz(a,h)anthracene and metals including; aluminum, arsenic, beryllium, cadmium, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, and zinc. Samples G1-062612, G2-062612, G3-062612, and G1-062612 collected from soil piles located in the recycled soil stockpile area identified dieldrin above the Default IGW Screening Level. In addition, benzene was identified in sample G3-062612, above the NJDEP Residential SRS. URS recommends that if Tradebe is successful in their acquisition of the subject property that these soil piles be treated and disposed of properly. Once the soil piles are removed from the recycled soil stockpile area, URS recommends that the presence and integrity of an assumed liner be inspected and confirmatory samples be collected to assess the impact to the subsurface soil.

Based on the sediment analytical results, SVOCs including; naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, and benzo(a)pyrene and metals including; aluminum, antimony, beryllium, cadmium, lead, manganese, mercury, nickel, selenium, thallium, vanadium, and zinc are above the above the NJDEP Residential SRS, Non-Residential SRS, and/or the Default IGW Screening Level. According to the surface water analytical results, metals including; aluminum, antimony, arsenic, and sodium are elevated above the NJDEP PQLs/ GWQS. URS recommends that the surface water within the retention ponds be treated for the metal contamination. In addition, URS recommends that the sediment in the retention ponds and sediment basin be excavated and disposed of properly.

Based on the soil boring analytical results, metals including aluminum, beryllium, lead, manganese, mercury, and nickel were identified above the NJDEP Residential SRS, Non-Residential SRS, and/or the Default IGW Screening Level in samples A4(10.5-11.5)-062912, A7(2-3)-062712, B1(4-5)-062712, and D3(4-5)-062912. Based on the groundwater analytical results, metals; including aluminum, arsenic, iron, manganese, and sodium were identified above the NJDEP PQLs/GWQS in sample A1-062712-WATER, A2-062712-WATER, A6-062912-WATER, A7-062912-WATER, B3-062712-WATER, E1-062912-WATER, H1-070212-WATER, E2-062912-WATER, I4-070212-WATER. These results indicated that metal contaminated soil and groundwater is present in the vicinity of the oil processing area, the Pad B storage area, the soil processing thermal unit and the SRS unit. URS recommends conducting additional sampling in these areas to further delineate the vertical and horizontal extent of metal impacts.

Based on the soil boring analytical results, SVOCs including benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenz(a,h)anthracene and metals including; aluminum, beryllium, lead, manganese, mercury, nickel, and zinc were identified in sample H2(9.5-10.5)-070212 above the NJDEP Residential SRS, Non-Residential SRS, and/or the Default IGW Screening Level. The groundwater analytical results indicated metals including; iron, manganese, and sodium are elevated above the NJDEP PQLs/GWQS in sample H2-070212-WATER. The H2 boring/temporary well was

installed between the recycled soil stockpile area and the pre-processed soil storage/screening area. URS was unable to sample the soil piles observed within the pre-processed soil storage/screening area, due to field screening (visual/olfactory/photo-ionization detector) which indicated that additional personal protective equipment would be required. The elevated levels of SVOCs and metals indicate that the pre-processed soil storage/screening area piles may be impacting the soil and groundwater. URS recommends that these soil piles be treated and disposed of properly. Once the soil piles are removed from the pre-processed soil storage/screening area, URS recommends that the presence and integrity of an assumed liner be inspected and confirmatory samples be collected to assess the impact to the soil and groundwater.

URS was unable to sample four soil piles located within the Pre-Processed Soil building, which was flooded with a brown liquid. A strong chemical odor was observed within the Pre-Processed Soil building. URS recommends that the soil piles and liquid be disposed of properly.

Based on the soil boring analytical results of the sample collected in the vicinity of the two approximately 8,000-gallon diesel fuel ASTs with associated dispensers located south of the maintenance building (K1(9-10)-070212), no additional sampling is recommended. However, good housecleaning practices should be followed to clean up the spills in a timely manner and avoid future spills.

If you have any questions or comments regarding this report, please contact George Keil at (215) 367-2426 or Jessica Malone at (215) 390-2161.

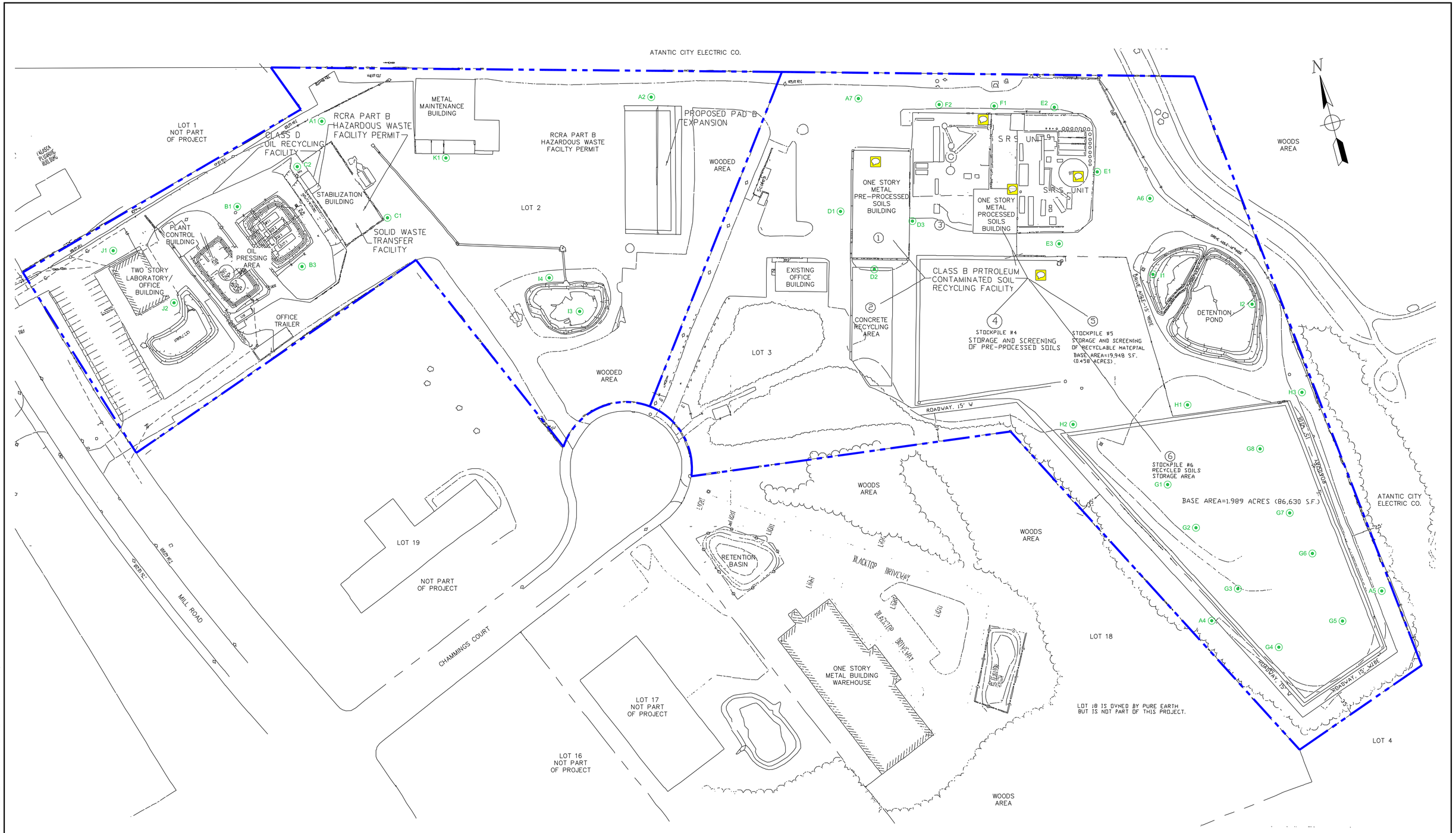
Very truly yours,

Jessica B. Malone
Senior Environmental Scientist

George Keil, CEM
Principal Geoscientist

Attachments:
Figure 1 – Sample Location Map
Table 3 – Soil Analytical Results
Table 4 – Groundwater/Surface Water Analytical Results
Appendix A – Boring Logs
Appendix B – Laboratory Analytical Results
Appendix C – Resumes

FIGURE



REV. NO.	DATE	DESCRIPTION	DRWN. BY	DESN. BY	CHKD. BY	APPRV BY

0 30 60 120
SCALE: 1 INCH = 60 FEET

URS
335 COMMERCE DRIVE, SUITE 300
FT. WASHINGTON, PA 19034
(215) 367-2500 FAX (215) 367-1000

BOUNDARY OF PURE EARTH RECYCLING (NJ), INC.
BLOCK 603, LOTS 2 & 3
N. MILL ROAD/CHAMMINGS COURT
CITY OF VINELAND CUMBERLAND COUNTY, NEW JERSEY

SITE PAN
WITH SAMPLE LOCATIONS

JOB NO. 19999423.00003
REVISION
DRAWING NO. FIGURE 1
SHEET:

Drawn By: & Date/Time: Joseph_Shell Jul 26, 2012 - 10:05am
Drawing Location & Name: S:\Projects\Private-Sector\Trodebe_Env_Srvc\19999423_Phsl_II\CAD\Site Plan.dwg

TABLES

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			A1 (12-13) -062712				A2 (4-5) -062712				A4(10.5-11.5)-062912				A5(9-10)-062912				A6(4-5)-062912				A7 (2-3) -062712				B1 (4-5) -062712			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-004				06466-006				06545-003				06545-002				06545-001				06466-007				06466-001			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/29/2012				06/29/2012				06/29/2012				06/27/2012				06/27/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Volatiles (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	75-71-8	490	230000	25	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.00068
Chloromethane	74-87-3	4	12	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000697
Vinyl chloride	75-01-4	0.7	2	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000816
Bromomethane	74-83-9	25	59	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000595
Chloroethane	75-00-3	220	1100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000765
Trichlorofluoromethane	75-69-4	23000	340000	22	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000697
Acrolein	107-02-8	0.5	1	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1-Dichloroethene	75-35-4	11	150	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.00085
Acetone	67-64-1	70000	NS	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0085	0.00119
Carbon disulfide	75-15-0	7800	110000	4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000578
Methylene chloride	75-09-2	34	97	0.007	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0034	0.00337
Acrylonitrile	107-13-1	0.9	3	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
tert-Butyl alcohol (TBA)	75-65-0	1400	11000	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
trans-1,2-Dichloroethene	156-60-5	300	720	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000731
Methyl tert-butyl ether (MTBE)	1634-04-4	110	320	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000391
1,1-Dichloroethane	75-34-3	8	24	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000459
cis-1,2-Dichloroethene	156-59-2	230	560	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000527
2-Butanone (MEK)	78-93-3	3100	44000	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0085	0.000629
Bromochloromethane	74-97-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000408
Chloroform	67-66-3	0.6	2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000493
1,1,1-Trichloroethane	71-55-6	290	4200	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000561
Carbon tetrachloride	56-23-5	0.6	2	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000697
1,2-Dichloroethane (EDC)	107-06-2	0.9	3	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000357
Benzene	71-43-2	2	5	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000408
Trichloroethene	79-01-6	7	20	0.007	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000544
1,2-Dichloropropane	78-87-5	2	5	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000374
1,4-Dioxane	123-91-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.340	0.026
Bromodichloromethane	75-27-4	1	3	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000544
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000442
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000408
Toluene	108-88-3	6300	91000	4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000425
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000442
1,1,2-Trichloroethane	79-00-5	2	6	0.01	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.00034
Tetrachloroethene	127-18-4	2	5	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000442
2-Hexanone	591-78-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0034	0.000612
Dibromochloromethane	124-48-1	3	8	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0034	0.000374
1,2-Dibromoethane (EDB)	106-93-4	0.008	0.04	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000357
Chlorobenzene	108-90-7	510	7400	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000374
Ethylbenzene	100-41-4	7800	110000	8	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000527
Total Xylenes	1330-20-7	12000	170000	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0034	0.0018
Styrene	100-42-5	90	260	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.00051
Bromoform	75-25-2	81	280	0.02	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000544
Isopropylbenzene	98-82-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000697
1,1,2,2-Tetrachloroethane	79-34-5	1	3	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000391
1,3-Dichlorobenzene	541-73-1	5300	59000	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000527
1,4-Dichlorobenzene	106-46-7	5	13	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000527
1,2-Dichlorobenzene	95-50-1	5300	59000	11	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000612
1,2-Dibromo-3-chloropropane	96-12-8	0.08	0.2	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.00085
1,2,4-Trichlorobenzene	120-82-1	73	820	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000884
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000816
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000935
Methyl acetate	79-20-9	78000	NS	14	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0085	9.860001E-04
Cyclohexane	110-82-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0034	0.000714
Methylcyclohexane	108-87-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.00085
1,3-Dichloropropene (cis- and trans-)	542-75-6	2	7	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.0017	0.000442
TOTAL VO's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		~	NA
TOTAL TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		~	NA
TOTAL VO's & TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		~	NA

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			A1 (12-13) -062712				A2 (4-5) -062712				A4(10.5-11.5)-062912				A5(9-10)-062912				A6(4-5)-062912				A7 (2-3) -062712				B1 (4-5) -062712			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-004				06466-006				06545-003				06545-002				06545-001				06466-007				06466-001			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/29/2012				06/29/2012				06/29/2012				06/27/2012				06/27/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Semivolatiles - PAH (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Naphthalene	91-20-3	6	17	16	~		~	~	~		~	~	0.089		0.045	0.013	ND		0.040	0.012	ND		0.042	0.012	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	230	2400	5	ND		0.035	0.029	ND		0.034	0.028	0.076		0.045	0.019	ND		0.040	0.017	ND		0.042	0.018	ND		0.034	0.028	ND		0.041	0.034
Acenaphthylene	208-96-8	NS	300000	NS	ND		0.035	0.024	ND		0.034	0.024	ND		0.045	0.018	ND		0.040	0.017	ND		0.042	0.017	ND		0.034	0.024	ND		0.041	0.029
Acenaphthene	83-32-9	3400	37000	74	ND		0.035	0.028	ND		0.034	0.027	0.019	J	0.045	0.013	ND		0.040	0.012	ND		0.042	0.012	ND		0.034	0.027	ND		0.041	0.033
Fluorene	86-73-7	2300	24000	110	ND		0.035	0.019	ND		0.034	0.018	0.032	J	0.045	0.013	ND		0.040	0.012	ND		0.042	0.013	ND		0.034	0.019	ND		0.041	0.022
Phenanthrene	85-01-8	NS	300000	NS	ND		0.035	0.023	ND		0.034	0.023	0.323		0.045	0.014	ND		0.040	0.012	ND		0.042	0.013	ND		0.034	0.023	ND		0.041	0.027
Anthracene	120-12-7	17000	30000	1500	ND		0.035	0.034	ND		0.034	0.033	0.082		0.045	0.019	ND		0.040	0.017	ND		0.042	0.017	ND		0.034	0.033	ND		0.041	0.039
Fluoranthene	206-44-0	2300	24000	840	ND		0.035	0.014	ND		0.034	0.014	0.227		0.045	0.016	ND		0.040	0.014	ND		0.042	0.015	ND		0.034	0.014	ND		0.041	0.016
Pyrene	129-00-0	1700	18000	550	ND		0.035	0.026	ND		0.034	0.025	0.309		0.045	0.014	ND		0.040	0.013	ND		0.042	0.014	ND		0.034	0.025	ND		0.041	0.030
Benzo[a]anthracene	56-55-3	0.6	2	0.5	ND		0.035	0.034	ND		0.034	0.033	0.138		0.045	0.020	ND		0.040	0.018	ND		0.042	0.019	ND		0.034	0.033	ND		0.041	0.039
Chrysene	218-01-9	62	230	52	ND		0.035	0.024	ND		0.034	0.023	0.190		0.045	0.017	ND		0.040	0.015	ND		0.042	0.016	ND		0.034	0.023	ND		0.041	0.028
Benzo[b]fluoranthene	205-99-2	0.6	2	2	ND		0.035	0.018	ND		0.034	0.018	0.140		0.045	0.023	ND		0.040	0.021	ND		0.042	0.021	ND		0.034	0.018	ND		0.041	0.021
Benzo[k]fluoranthene	207-08-9	6	23	16	ND		0.035	0.013	ND		0.034	0.012	0.140		0.045	0.023	ND		0.040	0.021	ND		0.042	0.022	ND		0.034	0.012	ND		0.041	0.015
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	ND		0.035	0.019	ND		0.034	0.019	0.146		0.045	0.020	ND		0.040	0.018	ND		0.042	0.019	ND		0.034	0.019	ND		0.041	0.023
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	ND		0.035	0.018	ND		0.034	0.017	0.103		0.045	0.013	ND		0.040	0.012	ND		0.042	0.012	ND		0.034	0.017	ND		0.041	0.020
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	ND		0.035	0.021	ND		0.034	0.021	0.030	J	0.045	0.014	ND		0.040	0.013	ND		0.042	0.013	ND		0.034	0.021	ND		0.041	0.024
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	ND		0.035	0.011	ND		0.034	0.011	0.153		0.045	0.019	ND		0.040	0.017	ND		0.042	0.018	ND		0.034	0.011	ND		0.041	0.013
Semivolatiles - BNA (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
N-Nitrosodimethylamine	62-75-9	0.7	0.7	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzaldehyde	100-52-7	6100	68000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Phenol	108-95-2	18000	210000	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroethyl) ether	111-44-4	0.4	2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Chlorophenol	95-57-8	310	2200	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylphenol	95-48-7	310	3400	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroisopropyl) ether	108-60-1	23	67	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Methylphenol	106-44-5	31	340	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
N-Nitrosodi-n-propylamine	621-64-7	0.2	0.3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acetophenone	98-86-2	2	5	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachloroethane	67-72-1	35	140	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Nitrobenzene	98-95-3	31	340	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Isophorone	78-59-1	510	2000	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Nitrophenol	88-75-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dimethylphenol	105-67-9	1200	14000	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroethoxy) methane	111-91-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dichlorophenol	120-83-2	180	2100	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Naphthalene	91-20-3	6	17	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Chloroaniline	106-47-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobutadiene	87-68-3	6	25	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Caprolactam	105-60-2	31000	340000	8	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Chloro-3-methylphenol	59-50-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	230	2400	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorocyclopentadiene	77-47-4	45	110	210	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,6-Trichlorophenol	88-06-2	19	74	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-Trichlorophenol	95-95-4	6100	68000	44	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1'-Biphenyl	92-52-4	3100	34000	90	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Chloronaphthalene	91-58-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Nitroaniline	88-74-4	39	23000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dimethyl phthalate	131-11-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,6-Dinitrotoluene	606-20-2	0.7	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthylene	208-96-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
3-Nitroaniline	99-09-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthene	83-32-9	3400	37000	74	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dinitrophenol	51-28-5	120	1400	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Nitrophenol	100-02-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dinitrotoluene	121-14-2	0.7	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibenzofuran	132-64-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Diethyl phthalate	84-66-2	49000	550000	57	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Fluorene	86-73-7	2300	24000	110	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Chlorophenyl phenyl ether	7005-72-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Nitroaniline	100-01-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,3,4,6-Tetrachlorophenol	58-90-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,6-Dinitro-2-methylphenol	534-52-1	6	68	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
N-Nitrosodiphenylamine	86-30-6	99	390	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Diphenylhydrazine	122-66-7	0.7	2	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Bromophenyl phenyl ether	101-55-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobenzene	118-74-1	0.3	1	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Atrazine	1912-24-9	210	2400	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			A1 (12-13) -062712				A2 (4-5) -062712				A4(10.5-11.5)-062912				A5(9-10)-062912				A6(4-5)-062912				A7 (2-3) -062712				B1 (4-5) -062712			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-004				06466-006				06545-003				06545-002				06545-001				06466-007				06466-001			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/29/2012				06/29/2012				06/29/2012				06/27/2012				06/27/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pentachlorophenol	87-86-5	3	10	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Phenanthrene	85-01-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Anthracene	120-12-7	17000	30000	1500	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Carbazole	86-74-8	24	96	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Di-n-butyl phthalate	84-74-2	6100	68000	620	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Fluoranthene	206-44-0	2300	24000	840	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzidine	92-87-5	0.7	0.7	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Pyrene	129-00-0	1700	18000	550	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Butyl benzyl phthalate	85-68-7	1200	14000	150	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
3,3'-Dichlorobenzidine	91-94-1	1	4	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]anthracene	56-55-3	0.6	2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chrysene	218-01-9	62	230	52	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-ethylhexyl) phthalate	117-81-7	35	140	790	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Di-n-octyl phthalate	117-84-0	2400	27000	3300	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[b]fluoranthene	205-99-2	0.6	2	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[k]fluoranthene	207-08-9	6	23	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	0.7	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL BN'S:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL BN'S & TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
PCB's (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
Aroclor-1221	11104-28-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
Aroclor-1232	11141-16-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
Aroclor-1242	53469-21-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
Aroclor-1248	12672-29-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
Aroclor-1254	11097-69-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
Aroclor-1260	11096-82-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
Aroclor-1262	37324-23-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
Aroclor-1268	11100-14-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
PCBs	1336-36-3	0.2	1	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.042	0.017
Pesticides (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			A1 (12-13) -062712				A2 (4-5) -062712				A4(10.5-11.5)-062912				A5(9-10)-062912				A6(4-5)-062912				A7 (2-3) -062712				B1 (4-5) -062712			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-004				06466-006				06545-003				06545-002				06545-001				06466-007				06466-001			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/29/2012				06/29/2012				06/29/2012				06/27/2012				06/27/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pesticides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Herbicides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dalapon	75-99-0	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dicamba	1918-00-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-D	94-75-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-TP (Silvex)	93-72-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-T	93-76-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-DB	94-82-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dinoseb	88-85-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
NJ-EPH-Fractionated (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
C9-C12 Aliphatics	IALC9ALI	NS	NS	NS	ND		12.0	2.00	ND		11.8	1.96	ND		15.8	2.63	ND		13.6	2.27	ND		14.7	2.45	ND		12.3	2.05	ND		13.7	2.28
C12-C16 Aliphatics	IALC12ALI	NS	NS	NS	ND		7.99	2.00	ND		7.84	1.96	ND		10.5	2.63	ND		9.08	2.27	ND		9.81	2.45	ND		8.21	2.05	ND		9.11	2.28
C16-C21 Aliphatics	IALC16ALI	NS	NS	NS	ND		12.0	2.00	ND		11.8	1.96	8.52	J	15.8	2.63	ND		13.6	2.27	ND		14.7	2.45	ND		12.3	2.05	ND		13.7	2.28
C21-C40 Aliphatics	IALC21ALI	NS	NS	NS	ND		40.0	9.99	ND		39.2	9.80	54.2		52.6	13.2	ND		45.4	11.3	ND		49.0	12.3	ND		41.1	10.3	ND		45.5	11.4
Total Aliphatics	IALTALI	NS	NS	NS	0		40.0	9.99	0		39.2	9.80	62.7		52.6	13.2	0		45.4	11.3	0		49.0	12.3	0		41.1	10.3	0		45.5	11.4
C10-C12 Aromatics	IALC10ARO	NS	NS	NS	ND		7.99	4.00	ND		7.84	3.92	ND		10.5	5.26	ND		9.08	4.54	ND		9.81	4.90	ND		8.21	4.11	ND		9.11	4.55
C12-C16 Aromatics	IALC12ARO	NS	NS	NS	ND		12.0	4.00	ND		11.8	3.92	ND		15.8	5.26	ND		13.6	4.54	ND		14.7	4.90	ND		12.3	4.11	ND		13.7	4.55
C16-C21 Aromatics	IALC16ARO	NS	NS	NS	ND		20.0	4.00	ND		19.6	3.92	24.2	J	26.3	5.26	ND		22.7	4.54	ND		24.5	4.90	ND		20.5	4.11	ND		22.8	4.55
C21-C36 Aromatics	IALC21ARO	NS	NS	NS	ND		32.0	7.99	ND		31.4	7.84	53.7		42.1	10.5	ND		36.3	9.08	ND		39.2	9.81	ND		32.8	8.21	ND		36.4	9.11
Total Aromatics	IALTARO	NS	NS	NS	0		32.0	7.99	0		31.4	7.84	77.9		42.1	10.5	0		36.3	9.08	0		39.2	9.81	0		32.8	8.21	0		36.4	9.11
Total NJ-EPH	IALTEPH	NS	NS	NS	0		40.0	9.99	0		39.2	9.80	141		52.6	13.2	0		45.4	11.3	0		49.0	12.3	0		41.1	10.3	0		45.5	11.4
Metals (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Aluminum	7429-90-5	78000	NS	3900	560		11.4	5.68	1480		11.3	5.63	**22800**		14.5	7.25	3560		13.0	6.49	2260		12.6	6.32	**4420**		11.6	5.78	2870		12.4	6.20
Antimony	7440-36-0	31	450	6	ND		1.14	0.284	ND		1.13	0.281	0.901	J	1.45	0.363	ND		1.30	0.324	ND		1.26	0.316	ND		1.16	0.289	ND		1.24	0.310
Arsenic	7440-38-2	19	19	19	ND		0.568	0.284	ND		0.563	0.281	10.1		0.725	0.363	0.886		0.649	0.324	0.607	J	0.632	0.316	0.718		0.578	0.289	2.13		0.620	0.310
Barium	7440-39-3	16000	59000	1300	ND		11.4	2.84	4.25	J	11.3	2.81	186		14.5	3.63	14.0		13.0	3.24	10.4	J	12.6	3.16	15.0		11.6	2.89	13.5		12.4	3.10
Beryllium	7440-41-7	16	140	0.5	ND		**0.568**	0.227	ND		**0.563**	0.225	**1.03**		**0.725**	0.290	ND		**0.649**	0.259	ND		**0.632**	0.253	ND		**0.578**	0.231	ND		**0.620**	0.248
Cadmium	7440-43-9	78	78	1	ND		0.568	0.142	ND		0.563	0.141	0.815		0.725	0.181	ND		0.649	0.162	ND		0.632	0.158	ND		0.578	0.144	ND		0.620	0.155
Calcium	7440-70-2	NS	NS	NS	ND		56.8	28.4	ND		56.3	28.1	12600		72.5	36.3	357		64.9	32.4	465		63.2	31.6	62.3		57.8	28.9	187		62.0	31.0
Chromium	7440-47-3	NS	NS	NS	1.75	J	2.27	0.568	3.00		2.25	0.563	57.5		2.90	0.725	4.76		2.59	0.649	3.26		2.53	0.632	4.52		2.31	0.578	4.55		2.48	0.620
Cobalt	7440-48-4	1600	590	59	ND		2.27	0.568	ND		2.25	0.563	16.0		2.90	0.725	0.711	J	2.59	0.649	ND		2.53	0.632	0.584	J	2.31	0.578	ND		2.48	0.620
Copper	7440-50-8	3100	45000	7300	ND		2.27	0.568	0.570	J	2.25	0.563	114		2.90	0.725	1.12	J	2.59	0.649	1.82	J	2.53	0.632	1.11	J	2.31	0.578	2.54		2.48	0.620
Iron	7439-89-6	NS	NS	NS	742		28.4	14.2	1520		28.1	14.1	26300		36.3	18.1	3500		32.4	16.2	1440		31.6	15.8	3430		28.9	14.4	4140		31.0	15.5
Lead	7439-92-1	400	800	59	0.556	J	0.568	0.142	1.45		0.563	0.141	**172**		0.725	0.181	2.83		0.649	0.162	9.10		0.632	0.158	2.20		0.578	0.144	15.8		0.620	0.155
Magnesium	7439-95-4	NS	NS	NS	32.5	J	56.8	14.2	106		56.3	14.1	5310		72.5	18.1	303		64.9	16.2	181		63.2	15.8	282		57.8	14.4	192		62.0	15.5
Manganese	7439-96-5	11000	5900	42	1.91		1.14	0.284	6.19		1.13	0.281	**381**		1.45	0.363	14.0		1.30	0.324	16.1		1.26	0.316	14.6		1.16	0.289	**141**		1.24	0.310
Mercury	7439-97-6	23	65	0.1	ND		0.012	0.00594	ND		0.013	0.00606	**0.273**		0.017	0.00838	0.021		0.013	0.00642	0.023		0.014	0.00693	0.026		0.013	0.00612	0.039		0.014	0.00683
Nickel	7440-02-0	1600	23000	31	ND		1.14	0.568	0.873	J	1.13	0.563	**79.9**		1.45	0.725	1.84		1.30	0.649	1.52		1.26	0.632	1.88		1.16	0.578	1.20	J	1.24	0.620
Potassium	7440-09-7	NS	NS	NS	38.9	J	56.8	14.2	72.1		56.3	14.1	3480		72.5	18.1	166		64.9	16.2	106		63.2	15.8	98.1		57.8	14.4	93.8		62.0	15.5
Selenium	7782-49-2	390	5700	7	ND		2.27	1.14	ND		2.25	1.13	1.78	J	2.90	1.45	ND		2.59	1.30	ND		2.53	1.26	ND		2.31	1.16	ND		2.48	1.24
Silver	7440-22-4	390	5700	1	ND		0.568	0.142	ND		0.563	0.141	0.520	J	0.725	0.181	ND		0.649	0.162	ND		0.632	0.158	ND		0.578	0.144	ND		0.620	0.155
Sodium	7440-23-5	NS	NS	NS	30.7	J	114	28.4	ND		113	28.1	1340		145	36.3	99.2	J	130	32.4	72.7	J	126	31.6	ND		116	28.9	ND		124	31.0
Thallium	7440-28-0	5	79	3	ND		0.568	0.142	ND		0.563	0.141	0.298	J	0.725	0.181	ND		0.649	0.162	ND		0.632	0.158	ND		0.578	0.144	ND		0.620	0.155
Vanadium	7440-62-2	78	1100	NS	1.08	J	2.27	0.568	2.45		2.25	0.563	65.0		2.90	0.725	6.86		2.59	0.649	4.80		2.53	0.632	6.88		2.31	0.578	7.54		2.48	0.620
Zinc	7440-66-6	23000	110000	600	ND		2.27	2.27	2.34		2.25	2.25	253		2.90	2.90	5.84		2.59	2.59	6.10		2.53	2.53	7.79		2.31	2.31	7.44		2.48	2.48

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			A1 (12-13) -062712				A2 (4-5) -062712				A4(10.5-11.5)-062912				A5(9-10)-062912				A6(4-5)-062912				A7 (2-3) -062712				B1 (4-5) -062712			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-004				06466-006				06545-003				06545-002				06545-001				06466-007				06466-001			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/29/2012				06/29/2012				06/29/2012				06/27/2012				06/27/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
General Analytical					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Hexavalent Chromium-mg/Kg	18540-29-9	**240**	**20**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Cyanide, Total-mg/Kg	57-12-5	**1600**	**23000**	**13**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Petroleum Hydrocarbons-mg/Kg	SRP 124	**NS**	**NS**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trivalent (III) Chromium	16065-83-1	**120000**	**NS**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

NJDEP Soil Remediation Standards: Remediation Standards N.J.A.C. 7:26D, June 2008

BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS.
BOLD Conc	Indicates a concentration that exceeds NDDEP Non-Residential SRS.
BOLD Conc	Indicates a concentration that exceeds Default IGW Screening Level criteria.
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Non-Residential SRS.
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Default IGW Screening Level Criteria.
BOLD RL	Indicates RL that exceeds applicable criteria.
BOLD MDL	Indicates MDL that exceeds applicable criteria.

NS = No Standard Available
~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			B3 (16-17) -062712				C1 (12.5-13.5) -062712				C1-062612				C2 (11-12) -062712				C2-062612				D1(9-10)-062912				D2(9-10)-062912			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Pile				Soil Boring				Soil Pile				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-002				06466-003				06385-012				06466-005				06385-013				06545-005				06545-006			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/26/2012				06/27/2012				06/26/2012				06/29/2012				06/29/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Volatiles (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	75-71-8	490	230000	25	ND		0.00107	0.000428	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloromethane	74-87-3	4	12	NS	ND		0.00107	0.000439	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Vinyl chloride	75-01-4	0.7	2	0.005	ND		0.00107	0.000514	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromomethane	74-83-9	25	59	0.03	ND		0.00107	0.000375	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloroethane	75-00-3	220	1100	NS	ND		0.00107	0.000482	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trichlorofluoromethane	75-69-4	23000	340000	22	ND		0.00107	0.000439	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acrolein	107-02-8	0.5	1	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1-Dichloroethene	75-35-4	11	150	0.005	ND		0.00107	0.000535	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acetone	67-64-1	70000	NS	12	ND		0.00535	0.000749	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Carbon disulfide	75-15-0	7800	110000	4	ND		0.00107	0.000364	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methylene chloride	75-09-2	34	97	0.007	ND		0.00214	0.00212	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acrylonitrile	107-13-1	0.9	3	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
tert-Butyl alcohol (TBA)	75-65-0	1400	11000	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
trans-1,2-Dichloroethene	156-60-5	300	720	0.4	ND		0.00107	0.00046	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methyl tert-butyl ether (MTBE)	1634-04-4	110	320	0.2	ND		0.00107	0.000246	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1-Dichloroethane	75-34-3	8	24	0.2	ND		0.00107	0.000289	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
cis-1,2-Dichloroethene	156-59-2	230	560	0.2	ND		0.00107	0.000332	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Butanone (MEK)	78-93-3	3100	44000	0.6	ND		0.00535	0.000396	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromochloromethane	74-97-5	NS	NS	NS	ND		0.00107	0.000257	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloroform	67-66-3	0.6	2	0.2	ND		0.00107	0.00031	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,1-Trichloroethane	71-55-6	290	4200	0.2	ND		0.00107	0.000353	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Carbon tetrachloride	56-23-5	0.6	2	0.005	ND		0.00107	0.000439	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dichloroethane (EDC)	107-06-2	0.9	3	0.005	ND		0.00107	0.000225	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzene	71-43-2	2	5	0.005	ND		0.00107	0.000257	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trichloroethene	79-01-6	7	20	0.007	ND		0.00107	0.000342	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dichloropropane	78-87-5	2	5	0.005	ND		0.00107	0.000235	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,4-Dioxane	123-91-1	NS	NS	NS	ND		0.214	0.017	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromodichloromethane	75-27-4	1	3	0.005	ND		0.00107	0.000342	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	ND		0.00107	0.000278	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	NS	NS	ND		0.00107	0.000257	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toluene	108-88-3	6300	91000	4	ND		0.00107	0.000268	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	ND		0.00107	0.000278	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2-Trichloroethane	79-00-5	2	6	0.01	ND		0.00107	0.000214	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Tetrachloroethene	127-18-4	2	5	0.005	ND		0.00107	0.000278	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Hexanone	591-78-6	NS	NS	NS	ND		0.00214	0.000385	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibromochloromethane	124-48-1	3	8	0.005	ND		0.00214	0.000235	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dibromoethane (EDB)	106-93-4	0.008	0.04	0.005	ND		0.00107	0.000225	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlorobenzene	108-90-7	510	7400	0.4	ND		0.00107	0.000235	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Ethylbenzene	100-41-4	7800	110000	8	ND		0.00107	0.000332	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Xylenes	1330-20-7	12000	170000	12	ND		0.00214	0.00113	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Styrene	100-42-5	90	260	2	ND		0.00107	0.000321	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromoform	75-25-2	81	280	0.02	ND		0.00107	0.000342	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Isopropylbenzene	98-82-8	NS	NS	NS	ND		0.00107	0.000439	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2,2-Tetrachloroethane	79-34-5	1	3	0.005	ND		0.00107	0.000246	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,3-Dichlorobenzene	541-73-1	5300	59000	12	ND		0.00107	0.000332	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,4-Dichlorobenzene	106-46-7	5	13	1	ND		0.00107	0.000332	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dichlorobenzene	95-50-1	5300	59000	11	ND		0.00107	0.000385	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dibromo-3-chloropropane	96-12-8	0.08	0.2	0.005	ND		0.00107	0.000535	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,4-Trichlorobenzene	120-82-1	73	820	0.4	ND		0.00107	0.000556	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	ND		0.00107	0.000514	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	NS	NS	ND		0.00107	0.000589	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methyl acetate	79-20-9	78000	NS	14	ND		0.00535	0.000621	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Cyclohexane	110-82-7	NS	NS	NS	ND		0.00214	0.000449	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methylcyclohexane	108-87-2	NS	NS	NS	ND		0.00107	0.000535	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,3-Dichloropropene (cis- and trans-)	542-75-6	2	7	0.005	ND		0.00107	0.000278	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL VO's:		NS	NS	NS	ND		~	NA	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL TIC's:		NS	NS	NS	ND		~	NA	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL VO's & TIC's:		NS	NS	NS	ND		~	NA	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			B3 (16-17) -062712				C1 (12.5-13.5) -062712				C1-062612				C2 (11-12) -062712				C2-062612				D1(9-10)-062912				D2(9-10)-062912			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Pile				Soil Boring				Soil Pile				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-002				06466-003				06385-012				06466-005				06385-013				06545-005				06545-006			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/26/2012				06/27/2012				06/26/2012				06/29/2012				06/29/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Semivolatiles - PAH (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Naphthalene	91-20-3	6	17	16	~		~	~	~		~	~	11.7		0.191	0.145	~		~	~	29.9		12.3	9.42	ND		0.034	0.00978	ND		0.039	0.011
2-Methylnaphthalene	91-57-6	230	2400	5	ND		0.041	0.034	ND		0.039	0.032	11.5		0.191	0.157	ND		0.036	0.030	ND		12.3	10.2	ND		0.034	0.015	ND		0.039	0.017
Acenaphthylene	208-96-8	NS	300000	NS	ND		0.041	0.029	ND		0.039	0.027	0.413		0.191	0.133	ND		0.036	0.025	ND		12.3	8.61	ND		0.034	0.014	ND		0.039	0.016
Acenaphthene	83-32-9	3400	37000	74	ND		0.041	0.033	ND		0.039	0.031	1.56		0.191	0.152	ND		0.036	0.029	ND		12.3	9.85	ND		0.034	0.00999	ND		0.039	0.011
Fluorene	86-73-7	2300	24000	110	ND		0.041	0.022	ND		0.039	0.021	1.42		0.191	0.103	ND		0.036	0.020	ND		12.3	6.65	ND		0.034	0.010	ND		0.039	0.012
Phenanthrene	85-01-8	NS	300000	NS	ND		0.041	0.027	ND		0.039	0.026	ND		0.191	0.125	ND		0.036	0.024	ND		12.3	8.12	ND		0.034	0.010	ND		0.039	0.012
Anthracene	120-12-7	17000	30000	1500	ND		0.041	0.040	ND		0.039	0.038	ND		0.191	0.183	ND		0.036	0.035	ND		12.3	11.9	ND		0.034	0.014	ND		0.039	0.016
Fluoranthene	206-44-0	2300	24000	840	ND		0.041	0.016	ND		0.039	0.016	ND		0.191	0.076	ND		0.036	0.014	ND		12.3	4.92	ND		0.034	0.012	ND		0.039	0.014
Pyrene	129-00-0	1700	18000	550	ND		0.041	0.030	ND		0.039	0.029	ND		0.191	0.141	ND		0.036	0.027	ND		12.3	9.11	ND		0.034	0.011	ND		0.039	0.012
Benzo[a]anthracene	56-55-3	0.6	2	0.5	ND		0.041	0.040	ND		0.039	0.038	ND		0.191	0.183	ND		0.036	0.035	ND		12.3	11.8	ND		0.034	0.015	ND		0.039	0.017
Chrysene	218-01-9	62	230	52	ND		0.041	0.028	ND		0.039	0.026	ND		0.191	0.129	ND		0.036	0.025	ND		12.3	8.37	ND		0.034	0.013	ND		0.039	0.014
Benzo[b]fluoranthene	205-99-2	0.6	2	2	ND		0.041	0.021	ND		0.039	0.020	ND		0.191	0.099	ND		0.036	0.019	ND		12.3	6.42	ND		0.034	0.017	ND		0.039	0.020
Benzo[k]fluoranthene	207-08-9	6	23	16	ND		0.041	0.015	ND		0.039	0.014	ND		0.191	0.069	ND		0.036	0.013	ND		12.3	4.44	ND		0.034	0.018	ND		0.039	0.020
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	ND		0.041	0.023	ND		0.039	0.022	ND		0.191	0.105	ND		0.036	0.020	ND		12.3	6.79	ND		0.034	0.015	ND		0.039	0.017
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	ND		0.041	0.021	ND		0.039	0.020	ND		0.191	0.095	ND		0.036	0.018	ND		12.3	6.17	ND		0.034	0.00992	ND		0.039	0.011
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	ND		0.041	0.025	ND		0.039	0.023	ND		0.191	0.114	ND		0.036	0.022	ND		12.3	7.40	ND		0.034	0.011	ND		0.039	0.012
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	ND		0.041	0.013	ND		0.039	0.013	ND		0.191	0.061	ND		0.036	0.012	ND		12.3	3.94	ND		0.034	0.014	ND		0.039	0.016
Semivolatiles - BNA (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
N-Nitrosodimethylamine	62-75-9	0.7	0.7	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzaldehyde	100-52-7	6100	68000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Phenol	108-95-2	18000	210000	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroethyl) ether	111-44-4	0.4	2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Chlorophenol	95-57-8	310	2200	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylphenol	95-48-7	310	3400	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroisopropyl) ether	108-60-1	23	67	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Methylphenol	106-44-5	31	340	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
N-Nitrosodi-n-propylamine	621-64-7	0.2	0.3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acetophenone	98-86-2	2	5	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachloroethane	67-72-1	35	140	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Nitrobenzene	98-95-3	31	340	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Isophorone	78-59-1	510	2000	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Nitrophenol	88-75-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dimethylphenol	105-67-9	1200	14000	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroethoxy) methane	111-91-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dichlorophenol	120-83-2	180	2100	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Naphthalene	91-20-3	6	17	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Chloroaniline	106-47-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobutadiene	87-68-3	6	25	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Caprolactam	105-60-2	31000	340000	8	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Chloro-3-methylphenol	59-50-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	230	2400	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorocyclopentadiene	77-47-4	45	110	210	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,6-Trichlorophenol	88-06-2	19	74	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-Trichlorophenol	95-95-4	6100	68000	44	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1'-Biphenyl	92-52-4	3100	34000	90	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Chloronaphthalene	91-58-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Nitroaniline	88-74-4	39	23000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dimethyl phthalate	131-11-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,6-Dinitrotoluene	606-20-2	0.7	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthylene	208-96-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
3-Nitroaniline	99-09-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthene	83-32-9	3400	37000	74	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dinitrophenol	51-28-5	120	1400	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Nitrophenol	100-02-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dinitrotoluene	121-14-2	0.7	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibenzofuran	132-64-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Diethyl phthalate	84-66-2	49000	550000	57	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Fluorene	86-73-7	2300	24000	110	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Chlorophenyl phenyl ether	7005-72-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Nitroaniline	100-01-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,3,4,6-Tetrachlorophenol	58-90-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,6-Dinitro-2-methylphenol	534-52-1	6	68	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
N-Nitrosodiphenylamine	86-30-6	99	390	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Diphenylhydrazine	122-66-7	0.7	2	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Bromophenyl phenyl ether	101-55-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobenzene	118-74-1	0.3	1	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Atrazine	1912-24-9	210	2400	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			B3 (16-17) -062712				C1 (12.5-13.5) -062712				C1-062612				C2 (11-12) -062712				C2-062612				D1(9-10)-062912				D2(9-10)-062912			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Pile				Soil Boring				Soil Pile				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-002				06466-003				06385-012				06466-005				06385-013				06545-005				06545-006			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/26/2012				06/27/2012				06/26/2012				06/29/2012				06/29/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pentachlorophenol	87-86-5	3	10	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Phenanthrene	85-01-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Anthracene	120-12-7	17000	30000	1500	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Carbazole	86-74-8	24	96	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Di-n-butyl phthalate	84-74-2	6100	68000	620	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Fluoranthene	206-44-0	2300	24000	840	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzidine	92-87-5	0.7	0.7	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Pyrene	129-00-0	1700	18000	550	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Butyl benzyl phthalate	85-68-7	1200	14000	150	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
3,3'-Dichlorobenzidine	91-94-1	1	4	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]anthracene	56-55-3	0.6	2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chrysene	218-01-9	62	230	52	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-ethylhexyl) phthalate	117-81-7	35	140	790	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Di-n-octyl phthalate	117-84-0	2400	27000	3300	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[b]fluoranthene	205-99-2	0.6	2	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[k]fluoranthene	207-08-9	6	23	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	0.7	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL BN'S:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL BN'S & TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
PCB's (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	NS	NS	NS	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1221	11104-28-2	NS	NS	NS	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1232	11141-16-5	NS	NS	NS	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1242	53469-21-9	NS	NS	NS	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1248	12672-29-6	NS	NS	NS	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1254	11097-69-1	NS	NS	NS	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1260	11096-82-5	NS	NS	NS	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1262	37324-23-5	NS	NS	NS	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1268	11100-14-4	NS	NS	NS	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
PCBs	1336-36-3	0.2	1	0.2	ND		0.046	0.018	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Pesticides (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			B3 (16-17) -062712				C1 (12.5-13.5) -062712				C1-062612				C2 (11-12) -062712				C2-062612				D1(9-10)-062912				D2(9-10)-062912			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Pile				Soil Boring				Soil Pile				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-002				06466-003				06385-012				06466-005				06385-013				06545-005				06545-006			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/26/2012				06/27/2012				06/26/2012				06/29/2012				06/29/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pesticides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Herbicides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dalapon	75-99-0	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dicamba	1918-00-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-D	94-75-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-TP (Silvex)	93-72-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-T	93-76-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-DB	94-82-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dinoseb	88-85-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
NJ-EPH-Fractionated (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
C9-C12 Aliphatics	IALC9ALI	NS	NS	NS	ND		13.9	2.32	ND		14.2	2.37	289		84.9	14.1	ND		12.4	2.07	ND		62.1	10.4	ND		12.2	2.03	ND		12.9	2.15
C12-C16 Aliphatics	IALC12ALI	NS	NS	NS	ND		9.30	2.32	ND		9.47	2.37	1430		56.6	14.1	ND		8.28	2.07	67.1		41.4	10.4	ND		8.12	2.03	ND		8.58	2.15
C16-C21 Aliphatics	IALC16ALI	NS	NS	NS	ND		13.9	2.32	ND		14.2	2.37	1980		84.9	14.1	ND		12.4	2.07	44.1	J	62.1	10.4	ND		12.2	2.03	ND		12.9	2.15
C21-C40 Aliphatics	IALC21ALI	NS	NS	NS	ND		46.5	11.6	ND		47.4	11.8	8840		283	70.7	ND		41.4	10.3	ND		207	51.8	ND		40.6	10.2	ND		42.9	10.7
Total Aliphatics	IALTALI	NS	NS	NS	0		46.5	11.6	0		47.4	11.8	12500		283	70.7	0		41.4	10.3	111		207	51.8	0		40.6	10.2	0		42.9	10.7
C10-C12 Aromatics	IALC10ARO	NS	NS	NS	ND		9.30	4.65	ND		9.47	4.74	177		11.3	5.66	ND		8.28	4.14	ND		207	104	ND		8.12	4.06	ND		8.58	4.29
C12-C16 Aromatics	IALC12ARO	NS	NS	NS	ND		13.9	4.65	ND		14.2	4.74	1210		17.0	5.66	ND		12.4	4.14	ND		311	104	ND		12.2	4.06	ND		12.9	4.29
C16-C21 Aromatics	IALC16ARO	NS	NS	NS	ND		23.2	4.65	ND		23.7	4.74	1600		28.3	5.66	ND		20.7	4.14	ND		518	104	ND		20.3	4.06	ND		21.5	4.29
C21-C36 Aromatics	IALC21ARO	NS	NS	NS	ND		37.2	9.30	ND		37.9	9.47	1910		45.3	11.3	ND		33.1	8.28	93400		828	207	ND		32.5	8.12	ND		34.3	8.58
Total Aromatics	IALTARO	NS	NS	NS	0		37.2	9.30	0		37.9	9.47	4900		45.3	11.3	0		33.1	8.28	93400		828	207	0		32.5	8.12	0		34.3	8.58
Total NJ-EPH	IALTEPH	NS	NS	NS	0		46.5	11.6	0		47.4	11.8	17400		283	70.7	0		41.4	10.3	93500		828	207	0		40.6	10.2	0		42.9	10.7
Metals (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Aluminum	7429-90-5	78000	NS	3900	617		13.4	6.68	262		12.7	6.36	7020		15.7	7.84	864		11.0	5.50	33300		11.4	5.70	613		10.4	5.20	591		12.0	5.99
Antimony	7440-36-0	31	450	6	ND		1.34	0.334	ND		1.27	0.318	18.9		1.57	0.392	ND		1.10	0.275	0.328	J	1.14	0.285	ND		1.04	0.260	ND		1.20	0.300
Arsenic	7440-38-2	19	19	19	ND		0.668	0.334	ND		0.636	0.318	13.0		0.784	0.392	0.357	J	0.550	0.275	0.529	J	0.570	0.285	ND		0.520	0.260	ND		0.599	0.300
Barium	7440-39-3	16000	59000	1300	ND		13.4	3.34	ND		12.7	3.18	141		15.7	3.92	2.80	J	11.0	2.75	16.7		11.4	2.85	3.11	J	10.4	2.60	ND		12.0	3.00
Beryllium	7440-41-7	16	140	0.5	ND		**0.668**	0.267	ND		**0.636**	0.254	0.458	J	**0.784**	0.314	ND		**0.550**	0.220	ND		**0.570**	0.228	ND		**0.520**	0.208	ND		**0.599**	0.240
Cadmium	7440-43-9	78	78	1	ND		0.668	0.167	ND		0.636	0.159	19.9		0.784	0.196	ND		0.550	0.138	0.494	J	0.570	0.143	ND		0.520	0.130	ND		0.599	0.150
Calcium	7440-70-2	NS	NS	NS	64.5	J	66.8	33.4	ND		63.6	31.8	123000		78.4	39.2	ND		55.0	27.5	6710		57.0	28.5	ND		52.0	26.0	ND		59.9	30.0
Chromium	7440-47-3	NS	NS	NS	4.60		2.67	0.668	1.32	J	2.54	0.636	141		3.14	0.784	2.08	J	2.20	0.550	12.0		2.28	0.570	1.30	J	2.08	0.520	1.63	J	2.40	0.599
Cobalt	7440-48-4	1600	590	59	ND		2.67	0.668	ND		2.54	0.636	17.5		3.14	0.784	ND		2.20	0.550	0.825	J	2.28	0.570	ND		2.08	0.520	ND		2.40	0.599
Copper	7440-50-8	3100	45000	7300	0.786	J	2.67	0.668	ND		2.54	0.636	521		3.14	0.784	ND		2.20	0.550	13.2		2.28	0.570	ND		2.08	0.520	ND		2.40	0.599
Iron	7439-89-6	NS	NS	NS	1140		33.4	16.7	550		31.8	15.9	90600		39.2	19.6	1080		27.5	13.8	2740		28.5	14.3	633		26.0	13.0	624		30.0	15.0
Lead	7439-92-1	400	800	59	0.676		0.668	0.167	0.303	J	0.636	0.159	116		0.784	0.196	0.689		0.550	0.138	6.19		0.570	0.143	0.407	J	0.520	0.130	0.596	J	0.599	0.150
Magnesium	7439-95-4	NS	NS	NS	50.7	J	66.8	16.7	ND		63.6	15.9	3710		78.4	19.6	56.2		55.0	13.8	1670		57.0	14.3	40.8	J	52.0	13.0	41.8	J	59.9	15.0
Manganese	7439-96-5	11000	5900	42	3.20		1.34	0.334	1.75		1.27	0.318	639		1.57	0.392	5.26		1.10	0.275	30.0		1.14	0.285	2.42		1.04	0.260	3.01		1.20	0.300
Mercury	7439-97-6	23	65	0.1	ND		0.015	0.00729	ND		0.015	0.00721	0.997		0.018	0.00841	ND		0.014	0.0066	ND		0.012	0.00594	ND		0.013	0.00624	ND		0.015	0.00703
Nickel	7440-02-0	1600	23000	31	ND		1.34	0.668	ND		1.27	0.636	124		1.57	0.784	0.784	J	1.10	0.550	5.73		1.14	0.570	ND		1.04	0.520	ND		1.20	0.599
Potassium	7440-09-7	NS	NS	NS	59.6	J	66.8	16.7	18.9	J	63.6	15.9	5700		78.4	19.6	71.8		55.0	13.8	574		57.0	14.3	45.4	J	52.0	13.0	39.9	J	59.9	15.0
Selenium	7782-49-2	390	5700	7	ND		2.67	1.34	ND		2.54	1.27	7.13		3.14	1.57	ND		2.20	1.10	ND		2.28	1.14	ND		2.08	1.04	ND		2.40	1.20
Silver	7440-22-4	390	5700	1	ND		0.668	0.167	ND		0.636	0.159	0.999		0.784	0.196	ND		0.550	0.138	ND		0.570	0.143	ND		0.520	0.130	ND		0.599	0.150
Sodium	7440-23-5	NS	NS	NS	ND		134	33.4	52.8	J	127	31.8	65700		157	39.2	43.0	J	110	27.5	13100		114	28.5	ND		104	26.0	ND		120	30.0
Thallium	7440-28-0	5	79	3	ND		0.668	0.167	ND		0.636	0.159	12.2		0.784	0.196	ND		0.550	0.138	0.277	J	0.570	0.143	ND		0.520	0.130	ND		0.599	0.150
Vanadium	7440-62-2	78	1100	NS	1.54	J	2.67	0.668	0.929	J	2.54	0.636	570		3.14	0.784	2.18	J	2.20	0.550	16.8		2.28	0.570	1.38	J	2.08	0.520	1.44	J	2.40	0.599
Zinc	7440-66-6	23000	110000	600	ND		2.67	2.67	ND		2.54	2.54	6710		3.14	3.14	ND		2.20	2.20	148		2.28	2.28	ND		2.08	2.08	ND		2.40	2.40

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			B3 (16-17) -062712				C1 (12.5-13.5) -062712				C1-062612				C2 (11-12) -062712				C2-062612				D1(9-10)-062912				D2(9-10)-062912			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Pile				Soil Boring				Soil Pile				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06466-002				06466-003				06385-012				06466-005				06385-013				06545-005				06545-006			
Date Sampled:		SRS	SRS	Screening	06/27/2012				06/27/2012				06/26/2012				06/27/2012				06/26/2012				06/29/2012				06/29/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
General Analytical					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Hexavalent Chromium-mg/Kg	18540-29-9	**240**	**20**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Cyanide, Total-mg/Kg	57-12-5	**1600**	**23000**	**13**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Petroleum Hydrocarbons-mg/Kg	SRP 124	**NS**	**NS**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trivalent (III) Chromium	16065-83-1	**120000**	**NS**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

NJDEP Soil Remediation Standards: Remediation Standards N.J.A.C. 7:26D, June 2008

BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS.
BOLD Conc	Indicates a concentration that exceeds NDDEP Non-Residential SRS.
BOLD Conc	Indicates a concentration that exceeds Default IGW Screening Level criteria.
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Non-Resident
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Default IGW S
BOLD RL	Indicates RL that exceeds applicable criteria.
BOLD MDL	Indicates MDL that exceeds applicable criteria.

NS = No Standard Available

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			D3(4-5)-062912				E1(6.5-7.5)-062912				E2 (11-12)-070212				E3 (7-8)-070212				F1(9-10)-062912				F2(9-10)-062912				G1-062612			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06545-007				06545-004				06640-004				06640-005				06545-008				06545-009				06385-001			
Date Sampled:		SRS	SRS	Screening	06/29/2012				06/29/2012				07/02/2012				07/02/2012				06/29/2012				06/29/2012				06/26/2012			
Depth(ft):				Level									11/12				7/8															
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Volatiles (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	75-71-8	490	230000	25	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00102
Chloromethane	74-87-3	4	12	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00105
Vinyl chloride	75-01-4	0.7	2	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00123
Bromomethane	74-83-9	25	59	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000896
Chloroethane	75-00-3	220	1100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00115
Trichlorofluoromethane	75-69-4	23000	340000	22	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00105
Acrolein	107-02-8	0.5	1	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.051	0.00366
1,1-Dichloroethene	75-35-4	11	150	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00128
Acetone	67-64-1	70000	NS	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.013	0.00179
Carbon disulfide	75-15-0	7800	110000	4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00087
Methylene chloride	75-09-2	34	97	0.007	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00512	0.00507
Acrylonitrile	107-13-1	0.9	3	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.051	0.00481
tert-Butyl alcohol (TBA)	75-65-0	1400	11000	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.038		0.010	0.00233
trans-1,2-Dichloroethene	156-60-5	300	720	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.0011
Methyl tert-butyl ether (MTBE)	1634-04-4	110	320	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000589
1,1-Dichloroethane	75-34-3	8	24	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000691
cis-1,2-Dichloroethene	156-59-2	230	560	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000794
2-Butanone (MEK)	78-93-3	3100	44000	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.013	0.000947
Bromochloromethane	74-97-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloroform	67-66-3	0.6	2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000742
1,1,1-Trichloroethane	71-55-6	290	4200	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000845
Carbon tetrachloride	56-23-5	0.6	2	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00105
1,2-Dichloroethane (EDC)	107-06-2	0.9	3	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000538
Benzene	71-43-2	2	5	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000614
Trichloroethene	79-01-6	7	20	0.007	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000819
1,2-Dichloropropane	78-87-5	2	5	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000563
1,4-Dioxane	123-91-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromodichloromethane	75-27-4	1	3	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000819
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000666
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toluene	108-88-3	6300	91000	4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00064
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000666
1,1,2-Trichloroethane	79-00-5	2	6	0.01	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000512
Tetrachloroethene	127-18-4	2	5	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000666
2-Hexanone	591-78-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibromochloromethane	124-48-1	3	8	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**0.00512**	0.000563
1,2-Dibromoethane (EDB)	106-93-4	0.008	0.04	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000538
Chlorobenzene	108-90-7	510	7400	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000563
Ethylbenzene	100-41-4	7800	110000	8	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000794
Total Xylenes	1330-20-7	12000	170000	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.00858		0.00512	0.00271
Styrene	100-42-5	90	260	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000768
Bromoform	75-25-2	81	280	0.02	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000819
Isopropylbenzene	98-82-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2,2-Tetrachloroethane	79-34-5	1	3	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000589
1,3-Dichlorobenzene	541-73-1	5300	59000	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000794
1,4-Dichlorobenzene	106-46-7	5	13	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000794
1,2-Dichlorobenzene	95-50-1	5300	59000	11	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000922
1,2-Dibromo-3-chloropropane	96-12-8	0.08	0.2	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00128
1,2,4-Trichlorobenzene	120-82-1	73	820	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.00133
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methyl acetate	79-20-9	78000	NS	14	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.013	0.00148
Cyclohexane	110-82-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methylcyclohexane	108-87-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,3-Dichloropropene (cis- and trans-)	542-75-6	2	7	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00256	0.000666
TOTAL VO's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.046		~	NA
TOTAL TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.794		~	NA
TOTAL VO's & TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.840		~	NA

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			D3(4-5)-062912				E1(6.5-7.5)-062912				E2 (11-12)-070212				E3 (7-8)-070212				F1(9-10)-062912				F2(9-10)-062912				G1-062612			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06545-007				06545-004				06640-004				06640-005				06545-008				06545-009				06385-001			
Date Sampled:		SRS	SRS	Screening	06/29/2012				06/29/2012				07/02/2012				07/02/2012				06/29/2012				06/29/2012				06/26/2012			
Depth(ft):				Level									11/12				7/8															
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Semivolatiles - PAH (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Naphthalene	91-20-3	6	17	16	0.183		0.037	0.010	ND		0.037	0.010	ND		0.038	0.011	ND		0.035	0.010	ND		0.037	0.011	ND		0.038	0.011	~		~	~
2-Methylnaphthalene	91-57-6	230	2400	5	0.269		0.037	0.016	ND		0.037	0.016	ND		0.038	0.016	ND		0.035	0.015	ND		0.037	0.016	ND		0.038	0.016	~		~	~
Acenaphthylene	208-96-8	NS	300000	NS	0.092		0.037	0.015	ND		0.037	0.015	ND		0.038	0.016	ND		0.035	0.014	ND		0.037	0.015	ND		0.038	0.015	~		~	~
Acenaphthene	83-32-9	3400	37000	74	0.491		0.037	0.011	ND		0.037	0.011	ND		0.038	0.011	ND		0.035	0.010	ND		0.037	0.011	ND		0.038	0.011	~		~	~
Fluorene	86-73-7	2300	24000	110	0.732		0.037	0.011	ND		0.037	0.011	ND		0.038	0.011	ND		0.035	0.010	ND		0.037	0.011	ND		0.038	0.011	~		~	~
Phenanthrene	85-01-8	NS	300000	NS	0.911		0.037	0.011	ND		0.037	0.011	ND		0.038	0.011	ND		0.035	0.011	ND		0.037	0.011	ND		0.038	0.011	~		~	~
Anthracene	120-12-7	17000	30000	1500	0.653		0.037	0.015	ND		0.037	0.015	ND		0.038	0.016	ND		0.035	0.014	ND		0.037	0.015	ND		0.038	0.016	~		~	~
Fluoranthene	206-44-0	2300	24000	840	0.141		0.037	0.013	ND		0.037	0.013	ND		0.038	0.014	ND		0.035	0.013	ND		0.037	0.013	ND		0.038	0.014	~		~	~
Pyrene	129-00-0	1700	18000	550	0.365		0.037	0.012	ND		0.037	0.012	ND		0.038	0.012	ND		0.035	0.011	ND		0.037	0.012	ND		0.038	0.012	~		~	~
Benzo[a]anthracene	56-55-3	0.6	2	0.5	ND		0.037	0.016	ND		0.037	0.016	ND		0.038	0.017	ND		0.035	0.015	ND		0.037	0.016	ND		0.038	0.017	~		~	~
Chrysene	218-01-9	62	230	52	0.032	J	0.037	0.014	ND		0.037	0.014	ND		0.038	0.014	ND		0.035	0.013	ND		0.037	0.014	ND		0.038	0.014	~		~	~
Benzo[b]fluoranthene	205-99-2	0.6	2	2	ND		0.037	0.019	ND		0.037	0.019	ND		0.038	0.019	ND		0.035	0.018	ND		0.037	0.019	ND		0.038	0.019	~		~	~
Benzo[k]fluoranthene	207-08-9	6	23	16	ND		0.037	0.019	ND		0.037	0.019	ND		0.038	0.020	ND		0.035	0.018	ND		0.037	0.019	ND		0.038	0.020	~		~	~
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	ND		0.037	0.016	ND		0.037	0.016	ND		0.038	0.017	ND		0.035	0.015	ND		0.037	0.016	ND		0.038	0.017	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	ND		0.037	0.011	ND		0.037	0.011	ND		0.038	0.011	ND		0.035	0.010	ND		0.037	0.011	ND		0.038	0.011	~		~	~
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	ND		0.037	0.011	ND		0.037	0.011	ND		0.038	0.012	ND		0.035	0.011	ND		0.037	0.012	ND		0.038	0.012	~		~	~
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	ND		0.037	0.015	ND		0.037	0.015	ND		0.038	0.016	ND		0.035	0.015	ND		0.037	0.016	ND		0.038	0.016	~		~	~
Semivolatiles - BNA (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
N-Nitrosodimethylamine	62-75-9	0.7	0.7	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.115
Benzaldehyde	100-52-7	6100	68000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.064
Phenol	108-95-2	18000	210000	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.075
Bis(2-chloroethyl) ether	111-44-4	0.4	2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.119
2-Chlorophenol	95-57-8	310	2200	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.071
2-Methylphenol	95-48-7	310	3400	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.136
Bis(2-chloroisopropyl) ether	108-60-1	23	67	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.061
4-Methylphenol	106-44-5	31	340	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.095
N-Nitrosodi-n-propylamine	621-64-7	0.2	0.3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.112
Acetophenone	98-86-2	2	5	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.058
Hexachloroethane	67-72-1	35	140	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.064
Nitrobenzene	98-95-3	31	340	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.149
Isophorone	78-59-1	510	2000	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.110
2-Nitrophenol	88-75-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dimethylphenol	105-67-9	1200	14000	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.132
Bis(2-chloroethoxy) methane	111-91-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dichlorophenol	120-83-2	180	2100	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.166
Naphthalene	91-20-3	6	17	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	16.6		0.169	0.129
4-Chloroaniline	106-47-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobutadiene	87-68-3	6	25	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.164
Caprolactam	105-60-2	31000	340000	8	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.108
4-Chloro-3-methylphenol	59-50-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	230	2400	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	2.46		0.169	0.140
Hexachlorocyclopentadiene	77-47-4	45	110	210	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.054
2,4,6-Trichlorophenol	88-06-2	19	74	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.054
2,4,5-Trichlorophenol	95-95-4	6100	68000	44	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.068
1,1'-Biphenyl	92-52-4	3100	34000	90	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.051
2-Chloronaphthalene	91-58-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Nitroaniline	88-74-4	39	23000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.102
Dimethyl phthalate	131-11-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,6-Dinitrotoluene	606-20-2	0.7	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.098
Acenaphthylene	208-96-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.252		0.169	0.118
3-Nitroaniline	99-09-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthene	83-32-9	3400	37000	74	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.889		0.169	0.135
2,4-Dinitrophenol	51-28-5	120	1400	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.064
4-Nitrophenol	100-02-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dinitrotoluene	121-14-2	0.7	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.147
Dibenzofuran	132-64-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Diethyl phthalate	84-66-2	49000	550000	57	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.125
Fluorene	86-73-7	2300	24000	110	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.968		0.169	0.091
4-Chlorophenyl phenyl ether	7005-72-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Nitroaniline	100-01-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,3,4,6-Tetrachlorophenol	58-90-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,6-Dinitro-2-methylphenol	534-52-1	6	68	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.097
N-Nitrosodiphenylamine	86-30-6	99	390	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.071
1,2-Diphenylhydrazine	122-66-7	0.7	2	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.156
4-Bromophenyl phenyl ether	101-55-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobenzene	118-74-1	0.3	1	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.120
Atrazine	1912-24-9	210	2400	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.119

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			D3(4-5)-062912				E1(6.5-7.5)-062912				E2 (11-12)-070212				E3 (7-8)-070212				F1(9-10)-062912				F2(9-10)-062912				G1-062612			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06545-007				06545-004				06640-004				06640-005				06545-008				06545-009				06385-001			
Date Sampled:		SRS	SRS	Screening	06/29/2012				06/29/2012				07/02/2012				07/02/2012				06/29/2012				06/29/2012				06/26/2012			
Depth(ft):				Level									11/12				7/8															
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pentachlorophenol	87-86-5	3	10	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.071
Phenanthrene	85-01-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	3.09		0.169	0.112
Anthracene	120-12-7	17000	30000	1500	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.931		0.169	0.163
Carbazole	86-74-8	24	96	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.098
Di-n-butyl phthalate	84-74-2	6100	68000	620	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.120
Fluoranthene	206-44-0	2300	24000	840	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	2.33		0.169	0.068
Benzidine	92-87-5	0.7	0.7	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.159
Pyrene	129-00-0	1700	18000	550	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	2.42		0.169	0.125
Butyl benzyl phthalate	85-68-7	1200	14000	150	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.108
3,3'-Dichlorobenzidine	91-94-1	1	4	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.119
Benzo[a]anthracene	56-55-3	0.6	2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.163
Chrysene	218-01-9	62	230	52	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.115
Bis(2-ethylhexyl) phthalate	117-81-7	35	140	790	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.081
Di-n-octyl phthalate	117-84-0	2400	27000	3300	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.068
Benzo[b]fluoranthene	205-99-2	0.6	2	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.088
Benzo[k]fluoranthene	207-08-9	6	23	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.061
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.093
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.085
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.102
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.054
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	0.7	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.169	0.147
TOTAL BN'S:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	29.9		~	NA
TOTAL TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	303		~	NA
TOTAL BN'S & TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	333		~	NA
PCB's (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
Aroclor-1221	11104-28-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
Aroclor-1232	11141-16-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
Aroclor-1242	53469-21-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
Aroclor-1248	12672-29-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
Aroclor-1254	11097-69-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
Aroclor-1260	11096-82-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
Aroclor-1262	37324-23-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
Aroclor-1268	11100-14-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
PCBs	1336-36-3	0.2	1	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.047	0.019
Pesticides (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**0.00213**	0.00107
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**0.00213**	0.00107
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**0.00213**	0.00107
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	**0.00517**		0.00213	0.00107
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	0.016		0.00213	0.00107
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.027	0.013
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.00213	0.00107

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			D3(4-5)-062912				E1(6.5-7.5)-062912				E2 (11-12)-070212				E3 (7-8)-070212				F1(9-10)-062912				F2(9-10)-062912				G1-062612			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06545-007				06545-004				06640-004				06640-005				06545-008				06545-009				06385-001			
Date Sampled:		SRS	SRS	Screening	06/29/2012				06/29/2012				07/02/2012				07/02/2012				06/29/2012				06/29/2012				06/26/2012			
Depth(ft):				Level									11/12				7/8															
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pesticides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Herbicides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dalapon	75-99-0	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dicamba	1918-00-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-D	94-75-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-TP (Silvex)	93-72-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-T	93-76-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-DB	94-82-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dinoseb	88-85-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
NJ-EPH-Fractionated (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
C9-C12 Aliphatics	IALC9ALI	NS	NS	NS	111		13.0	2.17	ND		12.3	2.04	ND		13.6	2.27	ND		12.0	1.99	ND		12.8	2.13	ND		13.2	2.21	~		~	~
C12-C16 Aliphatics	IALC12ALI	NS	NS	NS	431		8.69	2.17	ND		8.17	2.04	ND		9.09	2.27	ND		7.98	1.99	ND		8.53	2.13	ND		8.83	2.21	~		~	~
C16-C21 Aliphatics	IALC16ALI	NS	NS	NS	424		13.0	2.17	ND		12.3	2.04	ND		13.6	2.27	ND		12.0	1.99	ND		12.8	2.13	ND		13.2	2.21	~		~	~
C21-C40 Aliphatics	IALC21ALI	NS	NS	NS	91.8		43.5	10.9	ND		40.8	10.2	ND		45.5	11.4	ND		39.9	9.97	ND		42.6	10.7	ND		44.1	11.0	~		~	~
Total Aliphatics	IALTALI	NS	NS	NS	1060		43.5	10.9	0		40.8	10.2	0		45.5	11.4	0		39.9	9.97	0		42.6	10.7	0		44.1	11.0	~		~	~
C10-C12 Aromatics	IALC10ARO	NS	NS	NS	68.1		8.69	4.35	ND		8.17	4.08	ND		9.09	4.55	ND		7.98	3.99	ND		8.53	4.26	ND		8.83	4.41	~		~	~
C12-C16 Aromatics	IALC12ARO	NS	NS	NS	216		13.0	4.35	ND		12.3	4.08	ND		13.6	4.55	ND		12.0	3.99	ND		12.8	4.26	ND		13.2	4.41	~		~	~
C16-C21 Aromatics	IALC16ARO	NS	NS	NS	338		21.7	4.35	ND		20.4	4.08	ND		22.7	4.55	ND		19.9	3.99	ND		21.3	4.26	4.70	J	22.1	4.41	~		~	~
C21-C36 Aromatics	IALC21ARO	NS	NS	NS	51.3		34.8	8.69	ND		32.7	8.17	ND		36.4	9.09	ND		31.9	7.98	ND		34.1	8.53	62.6		35.3	8.83	~		~	~
Total Aromatics	IALTARO	NS	NS	NS	673		34.8	8.69	0		32.7	8.17	0		36.4	9.09	0		31.9	7.98	0		34.1	8.53	67.3		35.3	8.83	~		~	~
Total NJ-EPH	IALTEPH	NS	NS	NS	1730		43.5	10.9	0		40.8	10.2	0		45.5	11.4	0		39.9	9.97	0		42.6	10.7	67.3		44.1	11.0	~		~	~
Metals (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Aluminum	7429-90-5	78000	NS	3900	4650		11.7	5.85	3510		11.4	5.69	722		11.8	5.89	1980		11.3	5.66	1850		11.3	5.67	481		12.2	6.09	10400		14.0	7.02
Antimony	7440-36-0	31	450	6	ND		1.17	0.293	ND		1.14	0.284	ND		1.18	0.295	ND		1.13	0.283	ND		1.13	0.283	ND		1.22	0.304	0.723	J	1.40	0.351
Arsenic	7440-38-2	19	19	19	0.838		0.585	0.293	0.722		0.569	0.284	ND		0.589	0.295	ND		0.566	0.283	0.289	J	0.567	0.283	ND		0.609	0.304	48.8		0.702	0.351
Barium	7440-39-3	16000	59000	1300	21.3		11.7	2.93	11.5		11.4	2.84	3.15	J	11.8	2.95	6.67	J	11.3	2.83	5.58	J	11.3	2.83	ND		12.2	3.04	144		14.0	3.51
Beryllium	7440-41-7	16	140	0.5	ND		**0.585**	0.234	ND		**0.569**	0.227	ND		**0.589**	0.236	ND		**0.566**	0.226	ND		**0.567**	0.227	ND		**0.609**	0.244	0.515	J	**0.702**	0.281
Cadmium	7440-43-9	78	78	1	ND		0.585	0.146	ND		0.569	0.142	ND		0.589	0.147	ND		0.566	0.142	ND		0.567	0.142	ND		0.609	0.152	1.40		0.702	0.175
Calcium	7440-70-2	NS	NS	NS	6690		58.5	29.3	48.2	J	56.9	28.4	38.2	J	58.9	29.5	40.0	J	56.6	28.3	31.5	J	56.7	28.3	201		60.9	30.4	~		~	~
Chromium	7440-47-3	NS	NS	NS	5.13		2.34	0.585	4.66		2.27	0.569	1.63	J	2.36	0.589	2.19	J	2.26	0.566	3.26		2.27	0.567	1.27	J	2.44	0.609	56.7		2.81	0.702
Cobalt	7440-48-4	1600	590	59	ND		2.34	0.585	0.650	J	2.27	0.569	ND		2.36	0.589	ND		2.26	0.566	ND		2.27	0.567	ND		2.44	0.609	8.55		2.81	0.702
Copper	7440-50-8	3100	45000	7300	1.47	J	2.34	0.585	1.06	J	2.27	0.569	1.44	J	2.36	0.589	1.31	J	2.26	0.566	ND		2.27	0.567	ND		2.44	0.609	198		2.81	0.702
Iron	7439-89-6	NS	NS	NS	3680		29.3	14.6	3280		28.4	14.2	481		29.5	14.7	589		28.3	14.2	1110		28.3	14.2	411		30.4	15.2	~		~	~
Lead	7439-92-1	400	800	59	3.05		0.585	0.146	2.67		0.569	0.142	1.37		0.589	0.147	1.54		0.566	0.142	1.05		0.567	0.142	0.684		0.609	0.152	534		0.702	0.175
Magnesium	7439-95-4	NS	NS	NS	3670		58.5	14.6	228		56.9	14.2	57.6	J	58.9	14.7	119		56.6	14.2	106		56.7	14.2	56.9	J	60.9	15.2	~		~	~
Manganese	7439-96-5	11000	5900	42	17.8		1.17	0.293	13.5		1.14	0.284	2.76		1.18	0.295	4.34		1.13	0.283	4.94		1.13	0.283	1.60		1.22	0.304	357		1.40	0.351
Mercury	7439-97-6	23	65	0.1	0.028		0.014	0.0068	0.016		0.015	0.00701	ND		0.013	0.00645	0.00729	J	0.013	0.006	0.00658	J	0.014	0.00652	ND		0.015	0.00698	1.38		0.015	0.00718
Nickel	7440-02-0	1600	23000	31	1.76		1.17	0.585	1.59		1.14	0.569	1.21		1.18	0.589	1.53		1.13	0.566	0.974	J	1.13	0.567	ND		1.22	0.609	41.4		1.40	0.702
Potassium	7440-09-7	NS	NS	NS	138		58.5	14.6	128		56.9	14.2	49.3	J	58.9	14.7	51.1	J	56.6	14.2	70.8		56.7	14.2	39.4	J	60.9	15.2	~		~	~
Selenium	7782-49-2	390	5700	7	ND		2.34	1.17	ND		2.27	1.14	ND		2.36	1.18	ND		2.26	1.13	ND		2.27	1.13	ND		2.44	1.22	2.28	J	2.81	1.40
Silver	7440-22-4	390	5700	1	ND		0.585	0.146	ND		0.569	0.142	ND		0.589	0.147	ND		0.566	0.142	ND		0.567	0.142	ND		0.609	0.152	1.50		0.702	0.175
Sodium	7440-23-5	NS	NS	NS	74.4	J	117	29.3	44.7	J	114	28.4	ND		118	29.5	ND		113	28.3	ND		113	28.3	49.9	J	122	30.4	~		~	~
Thallium	7440-28-0	5	79	3	ND		0.585	0.146	ND		0.569	0.142	ND		0.589	0.147	ND		0.566	0.142	ND		0.567	0.142	ND		0.609	0.152	1.95		0.702	0.175
Vanadium	7440-62-2	78	1100	NS	8.09		2.34	0.585	6.75		2.27	0.569	1.14	J	2.36	0.589	2.71		2.26	0.566	3.60		2.27	0.567	1.59	J	2.44	0.609	269		2.81	0.702
Zinc	7440-66-6	23000	110000	600	12.0		2.34	2.34	5.20		2.27	2.27	3.04		2.36	2.36	3.90		2.26	2.26	ND		2.27	2.27	ND		2.44	2.44	691		2.81	2.81

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			D3(4-5)-062912				E1(6.5-7.5)-062912				E2 (11-12)-070212				E3 (7-8)-070212				F1(9-10)-062912				F2(9-10)-062912				G1-062612			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Boring				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06545-007				06545-004				06640-004				06640-005				06545-008				06545-009				06385-001			
Date Sampled:		SRS	SRS	Screening	06/29/2012				06/29/2012				07/02/2012				07/02/2012				06/29/2012				06/29/2012				06/26/2012			
Depth(ft):				Level									11/12				7/8															
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
General Analytical					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Hexavalent Chromium-mg/Kg	18540-29-9	**240**	**20**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.28	0.303
Cyanide, Total-mg/Kg	57-12-5	**1600**	**23000**	**13**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.28	0.897
Total Petroleum Hydrocarbons-mg/Kg	SRP 124	**NS**	**NS**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	626		25.6	25.6
Trivalent (III) Chromium	16065-83-1	**120000**	**NS**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	56.7		2.81	0.702

NJDEP Soil Remediation Standards: Remediation Standards N.J.A.C. 7:26D, June 2008

BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS.
BOLD Conc	Indicates a concentration that exceeds NDDEP Non-Residential SRS.
BOLD Conc	Indicates a concentration that exceeds Default IGW Screening Level criteria.
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Non-Resident
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Default IGW S
BOLD RL	Indicates RL that exceeds applicable criteria.
BOLD MDL	Indicates MDL that exceeds applicable criteria.

NS = No Standard Available
~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			G2-062612				G3-062612				G4-062612				G5-062612				G6-062612				G7-062612				G8-062612			
Matrix:		STANDARDS			Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06385-002				06385-007				06385-010				06385-009				06385-008				06385-006				06385-004			
Date Sampled:		SRS	SRS	Screening	06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Volatiles (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	75-71-8	490	230000	25	ND		0.00254	0.00102	ND		0.00242	0.000968	ND		0.00264	0.00106	ND		0.0024	0.00096	ND		0.00235	0.000794	ND		0.00244	0.000976	ND		0.00222	0.000888
Chloromethane	74-87-3	4	12	NS	ND		0.00254	0.00104	ND		0.00242	0.000992	ND		0.00264	0.00108	ND		0.0024	0.000984	ND		0.00235	0.000964	ND		0.00244	0.001	ND		0.00222	0.00091
Vinyl chloride	75-01-4	0.7	2	0.005	ND		0.00254	0.00122	ND		0.00242	0.00116	ND		0.00264	0.00127	ND		0.0024	0.00115	ND		0.00235	0.00113	ND		0.00244	0.00117	ND		0.00222	0.00107
Bromomethane	74-83-9	25	59	0.03	ND		0.00254	0.000889	ND		0.00242	0.000847	ND		0.00264	0.000924	ND		0.0024	0.00084	ND		0.00235	0.000823	ND		0.00244	0.000854	ND		0.00222	0.000777
Chloroethane	75-00-3	220	1100	NS	ND		0.00254	0.00114	ND		0.00242	0.00109	ND		0.00264	0.00119	ND		0.0024	0.00108	ND		0.00235	0.00106	ND		0.00244	0.0011	ND		0.00222	0.000999
Trichlorofluoromethane	75-69-4	23000	340000	22	ND		0.00254	0.00104	ND		0.00242	0.000992	ND		0.00264	0.00108	ND		0.0024	0.000984	ND		0.00235	0.000964	ND		0.00244	0.001	ND		0.00222	0.00091
Acrolein	107-02-8	0.5	1	0.5	ND		0.051	0.00363	ND		0.048	0.00346	ND		0.053	0.00378	ND		0.048	0.00343	ND		0.047	0.00336	ND		0.049	0.00349	ND		0.044	0.00317
1,1-Dichloroethene	75-35-4	11	150	0.005	ND		0.00254	0.00127	ND		0.00242	0.00121	ND		0.00264	0.00132	ND		0.0024	0.0012	ND		0.00235	0.00118	ND		0.00244	0.00122	ND		0.00222	0.00111
Acetone	67-64-1	70000	NS	12	ND		0.013	0.00178	ND		0.012	0.00169	ND		0.013	0.00185	ND		0.012	0.00168	ND		0.012	0.00165	ND		0.012	0.00171	ND		0.011	0.00155
Carbon disulfide	75-15-0	7800	110000	4	ND		0.00254	0.000864	ND		0.00242	0.000823	0.00685		0.00264	0.000898	ND		0.0024	0.000816	ND		0.00235	0.000799	ND		0.00244	0.00083	ND		0.00222	0.000755
Methylene chloride	75-09-2	34	97	0.007	ND		0.00508	0.00503	ND		0.00484	0.00479	ND		0.00528	0.00523	ND		0.0048	0.00475	ND		0.0047	0.00465	ND		0.00488	0.00483	ND		0.00444	0.0044
Acrylonitrile	107-13-1	0.9	3	0.5	ND		0.051	0.00478	ND		0.048	0.00455	ND		0.053	0.00496	ND		0.048	0.00451	ND		0.047	0.00442	ND		0.049	0.00459	ND		0.044	0.00417
tert-Butyl alcohol (TBA)	75-65-0	1400	11000	0.2	ND		0.010	0.00231	0.028		0.00968	0.0022	0.022		0.011	0.0024	ND		0.0096	0.00218	0.017		0.0094	0.00214	ND		0.00976	0.00222	ND		0.00888	0.00202
trans-1,2-Dichloroethene	156-60-5	300	720	0.4	ND		0.00254	0.00109	ND		0.00242	0.00104	ND		0.00264	0.00114	ND		0.0024	0.00103	ND		0.00235	0.00101	ND		0.00244	0.00105	ND		0.00222	0.000955
Methyl tert-butyl ether (MTBE)	1634-04-4	110	320	0.2	ND		0.00254	0.000584	ND		0.00242	0.000557	ND		0.00264	0.000607	ND		0.0024	0.000552	ND		0.00235	0.000541	ND		0.00244	0.000561	ND		0.00222	0.000511
1,1-Dichloroethane	75-34-3	8	24	0.2	ND		0.00254	0.000686	ND		0.00242	0.000653	ND		0.00264	0.000713	ND		0.0024	0.000648	ND		0.00235	0.000635	ND		0.00244	0.000659	ND		0.00222	0.000599
cis-1,2-Dichloroethene	156-59-2	230	560	0.2	ND		0.00254	0.000787	ND		0.00242	0.00075	ND		0.00264	0.000818	ND		0.0024	0.000744	ND		0.00235	0.000729	ND		0.00244	0.000756	ND		0.00222	0.000688
2-Butanone (MEK)	78-93-3	3100	44000	0.6	ND		0.013	0.00094	ND		0.012	0.000895	0.0074	J	0.013	0.000977	ND		0.012	0.000888	ND		0.012	0.00087	ND		0.012	0.000903	ND		0.011	0.000821
Bromochloromethane	74-97-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloroform	67-66-3	0.6	2	0.2	ND		0.00254	0.000737	ND		0.00242	0.000702	0.012		0.00264	0.000766	ND		0.0024	0.000696	ND		0.00235	0.000682	ND		0.00244	0.000708	ND		0.00222	0.000644
1,1,1-Trichloroethane	71-55-6	290	4200	0.2	ND		0.00254	0.000838	ND		0.00242	0.000799	ND		0.00264	0.000871	ND		0.0024	0.000792	ND		0.00235	0.000776	ND		0.00244	0.000805	ND		0.00222	0.000733
Carbon tetrachloride	56-23-5	0.6	2	0.005	ND		0.00254	0.00104	ND		0.00242	0.000992	ND		0.00264	0.00108	ND		0.0024	0.000984	ND		0.00235	0.000964	ND		0.00244	0.001	ND		0.00222	0.00091
1,2-Dichloroethane (EDC)	107-06-2	0.9	3	0.005	ND		0.00254	0.000533	ND		0.00242	0.000508	ND		0.00264	0.000554	ND		0.0024	0.000504	ND		0.00235	0.000494	ND		0.00244	0.000512	ND		0.00222	0.000466
Benzene	71-43-2	2	5	0.005	0.00179	J	0.00254	0.00061	**0.020**		0.00242	0.000581	0.00466		0.00264	0.000634	ND		0.0024	0.000576	ND		0.00235	0.000564	ND		0.00244	0.000586	ND		0.00222	0.000533
Trichloroethene	79-01-6	7	20	0.007	ND		0.00254	0.000813	ND		0.00242	0.000774	ND		0.00264	0.000845	ND		0.0024	0.000768	ND		0.00235	0.000752	ND		0.00244	0.000781	ND		0.00222	0.00071
1,2-Dichloropropane	78-87-5	2	5	0.005	ND		0.00254	0.000559	ND		0.00242	0.000532	ND		0.00264	0.000581	ND		0.0024	0.000528	ND		0.00235	0.000517	ND		0.00244	0.000537	ND		0.00222	0.000488
1,4-Dioxane	123-91-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromodichloromethane	75-27-4	1	3	0.005	ND		0.00254	0.000813	ND		0.00242	0.000774	ND		0.00264	0.000845	ND		0.0024	0.000768	ND		0.00235	0.000752	ND		0.00244	0.000781	ND		0.00222	0.00071
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	ND		0.00254	0.00066	ND		0.00242	0.000629	ND		0.00264	0.000686	ND		0.0024	0.000624	ND		0.00235	0.000611	ND		0.00244	0.000634	ND		0.00222	0.000577
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toluene	108-88-3	6300	91000	4	ND		0.00254	0.000635	0.077		0.00242	0.000605	0.074		0.00264	0.00066	ND		0.0024	0.0006	ND		0.00235	0.000588	ND		0.00244	0.00061	ND		0.00222	0.000555
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	ND		0.00254	0.00066	ND		0.00242	0.000629	ND		0.00264	0.000686	ND		0.0024	0.000624	ND		0.00235	0.000611	ND		0.00244	0.000634	ND		0.00222	0.000577
1,1,2-Trichloroethane	79-00-5	2	6	0.01	ND		0.00254	0.000508	ND		0.00242	0.000484	ND		0.00264	0.000528	ND		0.0024	0.00048	ND		0.00235	0.00047	ND		0.00244	0.000488	ND		0.00222	0.000444
Tetrachloroethene	127-18-4	2	5	0.005	ND		0.00254	0.00066	ND		0.00242	0.000629	ND		0.00264	0.000686	ND		0.0024	0.000624	ND		0.00235	0.000611	ND		0.00244	0.000634	ND		0.00222	0.000577
2-Hexanone	591-78-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibromochloromethane	124-48-1	3	8	0.005	ND		**0.00508**	0.000559	ND		0.00484	0.000532	ND		**0.00528**	0.000581	ND		0.0048	0.000528	ND		0.0047	0.000517	ND		0.00488	0.000537	ND		0.00444	0.000488
1,2-Dibromoethane (EDB)	106-93-4	0.008	0.04	0.005	ND		0.00254	0.000533	ND		0.00242	0.000508	ND		0.00264	0.000554	ND		0.0024	0.000504	ND		0.00235	0.000494	ND		0.00244	0.000512	ND		0.00222	0.000466
Chlorobenzene	108-90-7	510	7400	0.4	ND		0.00254	0.000559	0.012		0.00242	0.000532	0.0044		0.00264	0.000581	ND		0.0024	0.000528	ND		0.00235	0.000517	ND		0.00244	0.000537	ND		0.00222	0.000488
Ethylbenzene	100-41-4	7800	110000	8	ND		0.00254	0.000787	0.028		0.00242	0.00075	0.065		0.00264	0.000818	ND		0.0024	0.000744	ND		0.00235	0.000729	ND		0.00244	0.000756	ND		0.00222	0.000688
Total Xylenes	1330-20-7	12000	170000	12	ND		0.00508	0.00269	0.206		0.00484	0.00257	0.473		0.00528	0.0028	ND		0.0048	0.00254	ND		0.0047	0.00249	ND		0.00488	0.00259	ND		0.00444	0.00235
Styrene	100-42-5	90	260	2	ND		0.00254	0.000762	ND		0.00242	0.000726	ND		0.00264	0.000792	ND		0.0024	0.00072	ND		0.00235	0.000705	ND		0.00244	0.000732	ND		0.00222	0.000666
Bromoform	75-25-2	81	280	0.02	ND		0.00254	0.000813	ND		0.00242	0.000774	ND		0.00264	0.000845	ND		0.0024	0.000768	ND		0.00235	0.000752	ND		0.00244	0.000781	ND		0.00222	0.00071
Isopropylbenzene	98-82-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2,2-Tetrachloroethane	79-34-5	1	3	0.005	ND		0.00254	0.000584	ND		0.00242	0.000557	ND		0.00264	0.000607	ND		0.0024	0.000552	ND		0.00235	0.000541	ND		0.00244	0.000561	ND		0.00222	0.000511
1,3-Dichlorobenzene	541-73-1	5300	59000	12	ND		0.00254	0.000787	0.00248		0.00242	0.00075	ND		0.00264	0.000818	ND		0.0024	0.000744	ND		0.00235	0.000729	ND		0.00244	0.000756	ND		0.00222	0.000688
1,4-Dichlorobenzene	106-46-7	5	13	1	ND		0.00254	0.000787	0.00457		0.00242	0.00075	ND		0.00264	0.000818	ND		0.0024	0.000744	ND		0.00235	0.000729	ND		0.00244	0.000756	ND		0.00222	0.000688
1,2-Dichlorobenzene	95-50-1	5300	59000	11	ND		0.00254	0.000914	0.019		0.00242	0.000871	0.00313		0.00264	0.00095	ND		0.0024	0.000864	ND		0.00235	0.000846	ND		0.00244	0.000878	ND		0.00222	0.000799
1,2-Dibromo-3-chloropropane	96-12-8	0.08	0.2	0.005	ND		0.00254	0.00127	ND		0.00242	0.00121	ND		0.00264	0.00132	ND		0.0024	0.0012	ND		0.00235	0.00118	ND		0.00244	0.00122	ND		0.00222	0.00111
1,2,4-Trichlorobenzene	120-82-1	73	820	0.4	ND		0.00254	0.00132	ND		0.00242	0.00126	ND		0.00264	0.00137	ND		0.0024	0.00125	ND		0.00235	0.00122	ND		0.00244	0.00127	ND		0.00222	0.00115
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methyl acetate	79-20-9	78000	NS	14	ND		0.013	0.00147	ND		0.012	0.0014	ND		0.013	0.00153	ND		0.012	0.00139	ND		0.012	0.00136	ND		0.012	0.00142	ND		0.011	0.00129
Cyclohexane	110-82-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methylcyclohexane	108-87-2	NS	NS	NS	~		~	~	~		~	~	~		~	`	~		~	~	~		~	~	~		~	~	~		~	~
1,3-Dichloropropene (cis- and trans-)	542-75-6	2	7	0.005	ND		0.00254	0.00066	ND		0.00242	0.000629	ND		0.00264	0.000686	ND		0.0024	0.000624	ND		0.00235	0.000611	ND		0.00244	0.000634	ND		0.00222	0.000577
TOTAL VO's:		NS	NS	NS	0.00179	J	~	NA	0.397		~	NA	0.673	J	~	NA	ND		~	NA	0.017		~	NA	ND		~	NA	ND		~	NA
TOTAL TIC's:		NS	NS	NS	0.438		~	NA	5.05		~	NA	5.05		~	NA	0.639		~	NA	0.429		~	NA	0.189		~	NA	ND		~	NA
TOTAL VO's & TIC's:		NS	NS	NS	0.440	J	~	NA	5.45		~	NA	5.72	J	~	NA	0.639		~	NA	0.446		~	NA	0.189		~	NA	ND		~	NA

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			G2-062612				G3-062612				G4-062612				G5-062612				G6-062612				G7-062612				G8-062612			
Matrix:		STANDARDS			Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06385-002				06385-007				06385-010				06385-009				06385-008				06385-006				06385-004			
Date Sampled:		SRS	SRS	Screening	06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Semivolatiles - PAH (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Naphthalene	91-20-3	6	17	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	230	2400	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthylene	208-96-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthene	83-32-9	3400	37000	74	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Fluorene	86-73-7	2300	24000	110	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Phenanthrene	85-01-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Anthracene	120-12-7	17000	30000	1500	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Fluoranthene	206-44-0	2300	24000	840	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Pyrene	129-00-0	1700	18000	550	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]anthracene	56-55-3	0.6	2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chrysene	218-01-9	62	230	52	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[b]fluoranthene	205-99-2	0.6	2	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[k]fluoranthene	207-08-9	6	23	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Semivolatiles - BNA (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
N-Nitrosodimethylamine	62-75-9	0.7	0.7	0.7	ND		0.169	0.115	ND		1.61	1.10	ND		0.875	0.595	ND		0.158	0.108	ND		0.155	0.105	ND		0.162	0.110	ND		0.037	0.025
Benzaldehyde	100-52-7	6100	68000	NS	ND		0.169	0.064	ND		1.61	0.613	ND		0.875	0.332	ND		0.158	0.060	ND		0.155	0.059	ND		0.162	0.062	ND		0.037	0.014
Phenol	108-95-2	18000	210000	5	ND		0.169	0.074	ND		1.61	0.710	ND		0.875	0.385	ND		0.158	0.070	ND		0.155	0.068	ND		0.162	0.071	ND		0.037	0.016
Bis(2-chloroethyl) ether	111-44-4	0.4	2	0.2	ND		0.169	0.118	ND		1.61	1.13	ND		0.875	0.612	ND		0.158	0.111	ND		0.155	0.108	ND		0.162	0.113	ND		0.037	0.026
2-Chlorophenol	95-57-8	310	2200	0.5	ND		0.169	0.071	ND		1.61	0.677	ND		0.875	0.367	ND		0.158	0.067	ND		0.155	0.065	ND		0.162	0.068	ND		0.037	0.015
2-Methylphenol	95-48-7	310	3400	NS	ND		0.169	0.135	ND		1.61	1.29	ND		0.875	0.700	ND		0.158	0.127	ND		0.155	0.124	ND		0.162	0.130	ND		0.037	0.029
Bis(2-chloroisopropyl) ether	108-60-1	23	67	3	ND		0.169	0.061	ND		1.61	0.581	ND		0.875	0.315	ND		0.158	0.057	ND		0.155	0.056	ND		0.162	0.058	ND		0.037	0.013
4-Methylphenol	106-44-5	31	340	NS	ND		0.169	0.094	ND		1.61	0.903	ND		0.875	0.490	ND		0.158	0.089	ND		0.155	0.087	ND		0.162	0.091	ND		0.037	0.021
N-Nitrosodi-n-propylamine	621-64-7	0.2	0.3	0.2	ND		0.169	0.111	ND		1.61	1.06	ND		0.875	0.577	ND		0.158	0.105	ND		0.155	0.102	ND		0.162	0.107	ND		0.037	0.024
Acetophenone	98-86-2	2	5	2	ND		0.169	0.057	ND		1.61	0.548	ND		0.875	0.297	12.5		0.158	0.054	ND		0.155	0.053	ND		0.162	0.055	ND		0.037	0.013
Hexachloroethane	67-72-1	35	140	0.2	ND		0.169	0.064	ND		1.61	0.613	ND		0.875	0.332	ND		0.158	0.060	ND		0.155	0.059	ND		0.162	0.062	ND		0.037	0.014
Nitrobenzene	98-95-3	31	340	0.2	ND		0.169	0.148	ND		1.61	1.42	ND		0.875	0.770	ND		0.158	0.139	ND		0.155	0.136	ND		0.162	0.143	ND		0.037	0.032
Isophorone	78-59-1	510	2000	0.2	ND		0.169	0.110	ND		1.61	1.05	ND		0.875	0.569	ND		0.158	0.103	ND		0.155	0.101	ND		0.162	0.105	ND		0.037	0.024
2-Nitrophenol	88-75-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dimethylphenol	105-67-9	1200	14000	0.7	ND		0.169	0.132	ND		1.61	1.26	ND		0.875	0.682	ND		0.158	0.124	ND		0.155	0.121	ND		0.162	0.126	ND		0.037	0.029
Bis(2-chloroethoxy) methane	111-91-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dichlorophenol	120-83-2	180	2100	0.2	ND		0.169	0.165	ND		1.61	1.58	ND		0.875	0.857	ND		0.158	0.155	ND		0.155	0.152	ND		0.162	0.159	ND		0.037	0.036
Naphthalene	91-20-3	6	17	16	9.35		0.169	0.129	147		1.61	1.23	85.7		0.875	0.668	15.0		0.158	0.121	7.33		0.155	0.118	1.90		0.162	0.124	0.182		0.037	0.028
4-Chloroaniline	106-47-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	`	~		~	~
Hexachlorobutadiene	87-68-3	6	25	0.6	ND		0.169	0.164	ND		1.61	1.56	ND		0.875	0.849	ND		0.158	0.154	ND		0.155	0.150	ND		0.162	0.157	ND		0.037	0.036
Caprolactam	105-60-2	31000	340000	8	ND		0.169	0.108	ND		1.61	1.03	ND		0.875	0.560	ND		0.158	0.101	ND		0.155	0.099	ND		0.162	0.104	ND		0.037	0.023
4-Chloro-3-methylphenol	59-50-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	230	2400	5	3.54		0.169	0.139	5.38		1.61	1.33	10.3		0.875	0.723	3.92		0.158	0.131	3.13		0.155	0.128	0.773		0.162	0.134	0.053		0.037	0.030
Hexachlorocyclopentadiene	77-47-4	45	110	210	ND		0.169	0.054	ND		1.61	0.516	ND		0.875	0.280	ND		0.158	0.051	ND		0.155	0.049	ND		0.162	0.052	ND		0.037	0.012
2,4,6-Trichlorophenol	88-06-2	19	74	0.2	ND		0.169	0.054	ND		1.61	0.516	ND		0.875	0.280	ND		0.158	0.051	ND		0.155	0.049	ND		0.162	0.052	ND		0.037	0.012
2,4,5-Trichlorophenol	95-95-4	6100	68000	44	ND		0.169	0.068	ND		1.61	0.645	ND		0.875	0.350	ND		0.158	0.063	ND		0.155	0.062	ND		0.162	0.065	ND		0.037	0.015
1,1'-Biphenyl	92-52-4	3100	34000	90	0.577		0.169	0.051	ND		1.61	0.484	ND		0.875	0.262	ND		0.158	0.047	ND		0.155	0.047	ND		0.162	0.049	ND		0.037	0.011
2-Chloronaphthalene	91-58-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Nitroaniline	88-74-4	39	23000	NS	ND		0.169	0.101	ND		1.61	0.968	ND		0.875	0.525	ND		0.158	0.095	ND		0.155	0.093	ND		0.162	0.097	ND		0.037	0.022
Dimethyl phthalate	131-11-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,6-Dinitrotoluene	606-20-2	0.7	3	NS	ND		0.169	0.098	ND		1.61	0.936	ND		0.875	0.507	ND		0.158	0.092	ND		0.155	0.090	ND		0.162	0.094	ND		0.037	0.021
Acenaphthylene	208-96-8	NS	300000	NS	1.02		0.169	0.118	ND		1.61	1.13	ND		0.875	0.611	1.03		0.158	0.111	1.73		0.155	0.108	0.216		0.162	0.113	0.764		0.037	0.026
3-Nitroaniline	99-09-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthene	83-32-9	3400	37000	74	1.91		0.169	0.135	2.76		1.61	1.29	ND		0.875	0.698	2.64		0.158	0.126	0.306		0.155	0.124	0.647		0.162	0.129	ND		0.037	0.029
2,4-Dinitrophenol	51-28-5	120	1400	0.3	ND		0.169	0.064	ND		1.61	0.613	ND		0.875	0.332	ND		0.158	0.060	ND		0.155	0.059	ND		0.162	0.062	ND		0.037	0.014
4-Nitrophenol	100-02-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dinitrotoluene	121-14-2	0.7	3	NS	ND		0.169	0.147	ND		1.61	1.40	ND		0.875	0.761	ND		0.158	0.138	ND		0.155	0.135	ND		0.162	0.141	ND		0.037	0.032
Dibenzofuran	132-64-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Diethyl phthalate	84-66-2	49000	550000	57	ND		0.169	0.125	ND		1.61	1.19	ND		0.875	0.647	ND		0.158	0.117	ND		0.155	0.115	ND		0.162	0.120	ND		0.037	0.027
Fluorene	86-73-7	2300	24000	110	1.59		0.169	0.091	2.13		1.61	0.869	0.776	J	0.875	0.472	1.71		0.158	0.085	0.633		0.155	0.083	0.634		0.162	0.087	0.168		0.037	0.020
4-Chlorophenyl phenyl ether	7005-72-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Nitroaniline	100-01-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,3,4,6-Tetrachlorophenol	58-90-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,6-Dinitro-2-methylphenol	534-52-1	6	68	0.3	ND		0.169	0.096	ND		1.61	0.919	ND		0.875	0.499	ND		0.158	0.090	ND		0.155	0.088	ND		0.162	0.092	ND		0.037	0.021
N-Nitrosodiphenylamine	86-30-6	99	390	0.2	ND		0.169	0.071	ND		1.61	0.677	ND		0.875	0.367	ND		0.158	0.067	ND		0.155	0.065	ND		0.162	0.068	ND		0.037	0.015
1,2-Diphenylhydrazine	122-66-7	0.7	2	0.7	ND		0.169	0.155	ND		1.61	1.48	ND		0.875	0.805	ND		0.158	0.146	ND		0.155	0.142	ND		0.162	0.149	ND		0.037	0.034
4-Bromophenyl phenyl ether	101-55-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobenzene	118-74-1	0.3	1	0.2	ND		0.169	0.120	ND		1.61	1.15	ND		0.875	0.621	ND		0.158	0.113	ND		0.155	0.110	ND		0.162	0.115	ND		0.037	0.026
Atrazine	1912-24-9	210	2400	0.2	ND		0.169	0.118	ND		1.61	1.13	ND		0.875	0.612	ND		0.158	0.111	ND		0.155	0.108	ND		0.162	0.113	ND		0.037	0.026

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			G2-062612				G3-062612				G4-062612				G5-062612				G6-062612				G7-062612				G8-062612			
Matrix:		STANDARDS			Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06385-002				06385-007				06385-010				06385-009				06385-008				06385-006				06385-004			
Date Sampled:		SRS	SRS	Screening	06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pentachlorophenol	87-86-5	3	10	0.3	ND		0.169	0.071	ND		**1.61**	**0.677**	ND		**0.875**	**0.367**	ND		0.158	0.067	ND		0.155	0.065	ND		0.162	0.068	ND		0.037	0.015
Phenanthrene	85-01-8	NS	300000	NS	7.60		0.169	0.111	12.7		1.61	1.06	2.31		0.875	0.576	7.17		0.158	0.104	2.99		0.155	0.102	3.41		0.162	0.107	0.737		0.037	0.024
Anthracene	120-12-7	17000	30000	1500	2.68		0.169	0.162	4.02		1.61	1.55	1.38		0.875	0.841	2.00		0.158	0.152	1.40		0.155	0.149	1.15		0.162	0.156	0.532		0.037	0.035
Carbazole	86-74-8	24	96	NS	ND		0.169	0.098	ND		1.61	0.936	ND		0.875	0.507	ND		0.158	0.092	ND		0.155	0.090	ND		0.162	0.094	ND		0.037	0.021
Di-n-butyl phthalate	84-74-2	6100	68000	620	ND		0.169	0.120	ND		1.61	1.15	ND		0.875	0.621	ND		0.158	0.113	ND		0.155	0.110	0.364		0.162	0.115	ND		0.037	0.026
Fluoranthene	206-44-0	2300	24000	840	7.61		0.169	0.067	11.0		1.61	0.644	1.12		0.875	0.349	6.47		0.158	0.063	4.36		0.155	0.062	4.77		0.162	0.065	1.44		0.037	0.015
Benzidine	92-87-5	0.7	0.7	0.7	ND		0.169	0.159	ND		**1.61**	**1.52**	ND		**0.875**	**0.822**	ND		0.158	0.149	ND		0.155	0.146	ND		0.162	0.152	ND		0.037	0.034
Pyrene	129-00-0	1700	18000	550	6.66		0.169	0.125	11.6		1.61	1.19	1.47		0.875	0.646	6.76		0.158	0.117	6.51		0.155	0.114	4.80		0.162	0.120	2.27		0.037	0.027
Butyl benzyl phthalate	85-68-7	1200	14000	150	ND		0.169	0.108	ND		1.61	1.03	ND		0.875	0.560	ND		0.158	0.101	ND		0.155	0.099	ND		0.162	0.104	ND		0.037	0.023
3,3'-Dichlorobenzidine	91-94-1	1	4	0.2	ND		0.169	0.118	ND		**1.61**	**1.13**	ND		**0.875**	**0.612**	ND		0.158	0.111	ND		0.155	0.108	ND		0.162	0.113	ND		0.037	0.026
Benzo[a]anthracene	56-55-3	0.6	2	0.5	**2.92**		0.169	0.162	**3.74**		**1.61**	**1.55**	ND		**0.875**	**0.840**	**3.42**		0.158	0.152	**2.18**		0.155	0.149	**2.85**		0.162	0.155	**0.780**		0.037	0.035
Chrysene	218-01-9	62	230	52	3.91		0.169	0.114	4.45		1.61	1.09	ND		0.875	0.593	4.28		0.158	0.107	3.03		0.155	0.105	3.80		0.162	0.110	1.09		0.037	0.025
Bis(2-ethylhexyl) phthalate	117-81-7	35	140	790	3.12		0.169	0.081	ND		1.61	0.774	ND		0.875	0.420	ND		0.158	0.076	ND		0.155	0.074	0.933		0.162	0.078	ND		0.037	0.018
Di-n-octyl phthalate	117-84-0	2400	27000	3300	ND		0.169	0.068	ND		1.61	0.645	ND		0.875	0.350	ND		0.158	0.063	ND		0.155	0.062	ND		0.162	0.065	ND		0.037	0.015
Benzo[b]fluoranthene	205-99-2	0.6	2	2	**2.45**		0.169	0.088	ND		**1.61**	**0.839**	ND		**0.875**	0.455	**3.08**		0.158	0.082	**2.30**		0.155	0.080	**2.70**		0.162	0.084	**0.962**		0.037	0.019
Benzo[k]fluoranthene	207-08-9	6	23	16	2.32		0.169	0.061	ND		1.61	0.581	ND		0.875	0.315	1.72		0.158	0.057	2.20		0.155	0.056	2.16		0.162	0.058	0.774		0.037	0.013
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	**3.93**		0.169	0.093	ND		**1.61**	**0.887**	ND		**0.875**	**0.481**	**3.84**		0.158	0.087	**3.81**		0.155	0.085	**3.62**		0.162	0.089	**1.77**		0.037	0.020
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	**1.17**		0.169	0.084	ND		**1.61**	**0.806**	ND		**0.875**	0.437	**1.01**		0.158	0.079	**1.68**		0.155	0.077	**1.60**		0.162	0.081	**1.23**		0.037	0.018
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	**0.832**		0.169	0.101	ND		**1.61**	**0.968**	ND		**0.875**	**0.525**	**0.480**		0.158	0.095	**0.707**		0.155	0.093	**0.920**		0.162	0.097	**0.380**		0.037	0.022
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	1.48		0.169	0.054	ND		1.61	0.515	ND		0.875	0.279	1.02		0.158	0.051	2.10		0.155	0.049	1.64		0.162	0.052	1.65		0.037	0.012
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	0.7	3	0.2	ND		0.169	0.147	ND		**1.61**	**1.40**	ND		**0.875**	**0.761**	ND		0.158	0.138	ND		0.155	0.135	ND		0.162	0.141	ND		0.037	0.032
TOTAL BN'S:		NS	NS	NS	64.7		~	NA	205		~	NA	103	J	~	NA	78.1		~	NA	46.4		~	NA	38.9		~	NA	14.8		~	NA
TOTAL TIC's:		NS	NS	NS	372		~	NA	1490		~	NA	2380		~	NA	353		~	NA	378		~	NA	124		~	NA	18.4		~	NA
TOTAL BN'S & TIC's:		NS	NS	NS	437		~	NA	1700		~	NA	2480	J	~	NA	431		~	NA	424		~	NA	163		~	NA	33.2		~	NA
PCB's (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	NS	NS	NS	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
Aroclor-1221	11104-28-2	NS	NS	NS	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
Aroclor-1232	11141-16-5	NS	NS	NS	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
Aroclor-1242	53469-21-9	NS	NS	NS	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
Aroclor-1248	12672-29-6	NS	NS	NS	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
Aroclor-1254	11097-69-1	NS	NS	NS	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
Aroclor-1260	11096-82-5	NS	NS	NS	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
Aroclor-1262	37324-23-5	NS	NS	NS	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
Aroclor-1268	11100-14-4	NS	NS	NS	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
PCBs	1336-36-3	0.2	1	0.2	ND		0.046	0.019	ND		0.045	0.018	ND		0.049	0.019	ND		0.045	0.018	ND		0.041	0.017	ND		0.046	0.018	ND		0.040	0.016
Pesticides (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.1	0.5	0.002	ND		**0.00209**	0.00105	ND		0.00198	0.000989	ND		**0.00219**	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
beta-BHC	319-85-7	0.4	2	0.002	ND		**0.00209**	0.00105	ND		0.00198	0.000989	ND		**0.00219**	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	ND		**0.00209**	0.00105	ND		0.00198	0.000989	ND		**0.00219**	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
Aldrin	309-00-2	0.04	0.2	0.1	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
Endosulfan I	959-98-8	NS	NS	NS	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
4,4'-DDE	72-55-9	2	9	12	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	0.00156	J	0.00199	0.000996	ND		0.000366	0.000183
Dieldrin	60-57-1	0.04	0.2	0.003	**0.00589**		0.00209	0.00105	**0.00376**		0.00198	0.000989	**0.0096**		0.00219	0.00109	0.00249		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
Endrin	72-20-8	23	340	0.6	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
Endosulfan II	33213-65-9	NS	NS	NS	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
4,4'-DDD	72-54-8	3	13	3	0.018		0.00209	0.00105	0.013		0.00198	0.000989	0.023		0.00219	0.00109	0.00765		0.00195	0.000974	0.00352		0.00191	0.000954	0.00523		0.00199	0.000996	ND		0.000366	0.000183
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
4,4'-DDT	50-29-3	2	8	7	ND		0.00209	0.00105	ND		0.00198	0.000989	0.00312		0.00219	0.00109	0.0062		0.00195	0.000974	0.00494		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
alpha-Chlordane	5103-71-9	NS	NS	NS	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
gamma-Chlordane	5103-74-2	NS	NS	NS	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
Toxaphene	8001-35-2	0.6	3	0.2	ND		0.026	0.013	ND		0.025	0.012	ND		0.027	0.013	ND		0.024	0.012	ND		0.024	0.011	ND		0.025	0.012	ND		0.00458	0.0022
Endosulfan (I and II)	115-29-7	470	6800	2	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	ND		0.00209	0.00105	ND		0.00198	0.000989	ND		0.00219	0.00109	ND		0.00195	0.000974	ND		0.00191	0.000954	ND		0.00199	0.000996	ND		0.000366	0.000183

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			G2-062612				G3-062612				G4-062612				G5-062612				G6-062612				G7-062612				G8-062612			
Matrix:		STANDARDS			Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06385-002				06385-007				06385-010				06385-009				06385-008				06385-006				06385-004			
Date Sampled:		SRS	SRS	Screening	06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pesticides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Herbicides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dalapon	75-99-0	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dicamba	1918-00-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-D	94-75-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-TP (Silvex)	93-72-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-T	93-76-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-DB	94-82-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dinoseb	88-85-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
NJ-EPH-Fractionated (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
C9-C12 Aliphatics	IALC9ALI	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C12-C16 Aliphatics	IALC12ALI	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C16-C21 Aliphatics	IALC16ALI	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C21-C40 Aliphatics	IALC21ALI	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Aliphatics	IALTALI	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C10-C12 Aromatics	IALC10ARO	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C12-C16 Aromatics	IALC12ARO	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C16-C21 Aromatics	IALC16ARO	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C21-C36 Aromatics	IALC21ARO	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Aromatics	IALTARO	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total NJ-EPH	IALTEPH	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Metals (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Aluminum	7429-90-5	78000	NS	3900	12400		12.8	6.40	16300		13.3	6.63	12900		14.7	7.37	10300		12.3	6.17	6390		12.7	6.33	9790		13.3	6.63	4210		11.7	5.85
Antimony	7440-36-0	31	450	6	0.701	J	1.28	0.320	0.607	J	1.33	0.332	1.86		1.47	0.368	0.824	J	1.23	0.309	0.385	J	1.27	0.317	ND		1.33	0.332	ND		1.17	0.293
Arsenic	7440-38-2	19	19	19	47.8		0.640	0.320	49.1		0.663	0.332	24.5		0.737	0.368	48.4		0.617	0.309	9.46		0.633	0.317	12.5		0.663	0.332	4.56		0.585	0.293
Barium	7440-39-3	16000	59000	1300	154		12.8	3.20	141		13.3	3.32	175		14.7	3.68	219		12.3	3.09	54.7		12.7	3.17	72.5		13.3	3.32	13.3		11.7	2.93
Beryllium	7440-41-7	16	140	0.5	0.530	J	0.640	0.256	0.476	J	0.663	0.265	0.764		0.737	0.295	0.508	J	0.617	0.247	ND		0.633	0.253	0.454	J	0.663	0.265	ND		0.585	0.234
Cadmium	7440-43-9	78	78	1	2.66		0.640	0.160	2.16		0.663	0.166	2.14		0.737	0.184	0.864		0.617	0.154	0.335	J	0.633	0.158	0.310	J	0.663	0.166	ND		0.585	0.146
Calcium	7440-70-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chromium	7440-47-3	NS	NS	NS	61.8		2.56	0.640	77.7		2.65	0.663	57.8		2.95	0.737	45.0		2.47	0.617	19.9		2.53	0.633	29.0		2.65	0.663	9.71		2.34	0.585
Cobalt	7440-48-4	1600	590	59	10.5		2.56	0.640	11.5		2.65	0.663	14.6		2.95	0.737	11.4		2.47	0.617	3.04		2.53	0.633	7.41		2.65	0.663	1.01	J	2.34	0.585
Copper	7440-50-8	3100	45000	7300	140		2.56	0.640	155		2.65	0.663	183		2.95	0.737	172		2.47	0.617	70.5		2.53	0.633	51.3		2.65	0.663	10.8		2.34	0.585
Iron	7439-89-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Lead	7439-92-1	400	800	59	332		0.640	0.160	263		0.663	0.166	463		0.737	0.184	558		0.617	0.154	122		0.633	0.158	169		0.663	0.166	29.7		0.585	0.146
Magnesium	7439-95-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Manganese	7439-96-5	11000	5900	42	333		1.28	0.320	422		1.33	0.332	319		1.47	0.368	301		1.23	0.309	85.7		1.27	0.317	218		1.33	0.332	27.5		1.17	0.293
Mercury	7439-97-6	23	65	0.1	1.36		0.017	0.00794	0.840		0.015	0.00712	0.839		0.016	0.00762	1.17		0.015	0.0072	2.69		0.013	0.00644	0.981		0.014	0.00678	0.183		0.013	0.00622
Nickel	7440-02-0	1600	23000	31	101		1.28	0.640	62.9		1.33	0.663	78.5		1.47	0.737	46.2		1.23	0.617	15.1		1.27	0.633	28.8		1.33	0.663	6.20		1.17	0.585
Potassium	7440-09-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Selenium	7782-49-2	390	5700	7	2.50	J	2.56	1.28	3.17		2.65	1.33	2.34	J	2.95	1.47	2.45	J	2.47	1.23	ND		2.53	1.27	ND		2.65	1.33	ND		2.34	1.17
Silver	7440-22-4	390	5700	1	0.373	J	0.640	0.160	0.206	J	0.663	0.166	0.265	J	0.737	0.184	0.374	J	0.617	0.154	ND		0.633	0.158	ND		0.663	0.166	ND		0.585	0.146
Sodium	7440-23-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Thallium	7440-28-0	5	79	3	3.04		0.640	0.160	3.08		0.663	0.166	1.63		0.737	0.184	2.53		0.617	0.154	0.579	J	0.633	0.158	0.372	J	0.663	0.166	0.207	J	0.585	0.146
Vanadium	7440-62-2	78	1100	NS	320		2.56	0.640	523		2.65	0.663	299		2.95	0.737	138		2.47	0.617	111		2.53	0.633	85.2		2.65	0.663	25.3		2.34	0.585
Zinc	7440-66-6	23000	110000	600	928		2.56	2.56	1180		2.65	2.65	959		2.95	2.95	471		2.47	2.47	307		2.53	2.53	189		2.65	2.65	54.0		2.34	2.34

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			G2-062612				G3-062612				G4-062612				G5-062612				G6-062612				G7-062612				G8-062612			
Matrix:		STANDARDS			Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile				Soil Pile			
Lab ID:		Residential	Non-Res	Default IGW	06385-002				06385-007				06385-010				06385-009				06385-008				06385-006				06385-004			
Date Sampled:		SRS	SRS	Screening	06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012				06/26/2012			
Depth(ft):				Level																												
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
General Analytical					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Hexavalent Chromium-mg/Kg	18540-29-9	**240**	**20**	**NS**	ND		1.27	0.300	ND		1.21	0.286	ND		1.32	0.312	ND		1.20	0.284	ND		1.17	0.277	ND		1.22	0.288	ND		1.11	0.262
Cyanide, Total-mg/Kg	57-12-5	**1600**	**23000**	**13**	ND		1.27	0.891	ND		1.21	0.848	ND		1.32	0.925	0.903	J	1.20	0.841	ND		1.17	0.822	ND		1.22	0.855	ND		1.11	0.778
Total Petroleum Hydrocarbons-mg/Kg	SRP 124	**NS**	**NS**	**NS**	4040		204	204	2090		97.0	97.0	712		26.4	26.4	639		25.0	25.0	1230		117	117	714		25.0	25.0	62.6		25.0	25.0
Trivalent (III) Chromium	16065-83-1	**120000**	**NS**	**NS**	61.8		2.56	0.640	77.7		2.65	0.663	57.8		2.95	0.737	45.0		2.47	0.617	19.9		2.53	0.633	29.0		2.65	0.663	9.71		2.34	0.585

NJDEP Soil Remediation Standards: Remediation Standards N.J.A.C. 7:26D, June 2008

BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS.
BOLD Conc	Indicates a concentration that exceeds NDDEP Non-Residential SRS.
BOLD Conc	Indicates a concentration that exceeds Default IGW Screening Level criteria.
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Non-Resident
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Default IGW S
BOLD RL	Indicates RL that exceeds applicable criteria.
BOLD MDL	Indicates MDL that exceeds applicable criteria.

NS = No Standard Available
~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			H1 (11-12)-070212				H2 (9.5-10.5)-070212				H3 (9-10)-070212				I1-062712-SED				I3SED -062612				I4 (9-10)-070212				J1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Sediment				Sediment				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-001				06640-002				06640-003				06466-008				06385-011				06640-006				06640-008			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012				07/02/2012				06/27/2012				06/26/2012				07/02/2012				07/02/2012			
Depth(ft):				Level	11/12				9.5/10.5				9/10												9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Volatiles (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	75-71-8	490	230000	25	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloromethane	74-87-3	4	12	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Vinyl chloride	75-01-4	0.7	2	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromomethane	74-83-9	25	59	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloroethane	75-00-3	220	1100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trichlorofluoromethane	75-69-4	23000	340000	22	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acrolein	107-02-8	0.5	1	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1-Dichloroethene	75-35-4	11	150	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acetone	67-64-1	70000	NS	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Carbon disulfide	75-15-0	7800	110000	4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methylene chloride	75-09-2	34	97	0.007	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acrylonitrile	107-13-1	0.9	3	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
tert-Butyl alcohol (TBA)	75-65-0	1400	11000	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
trans-1,2-Dichloroethene	156-60-5	300	720	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methyl tert-butyl ether (MTBE)	1634-04-4	110	320	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1-Dichloroethane	75-34-3	8	24	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
cis-1,2-Dichloroethene	156-59-2	230	560	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Butanone (MEK)	78-93-3	3100	44000	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromochloromethane	74-97-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloroform	67-66-3	0.6	2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,1-Trichloroethane	71-55-6	290	4200	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Carbon tetrachloride	56-23-5	0.6	2	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dichloroethane (EDC)	107-06-2	0.9	3	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzene	71-43-2	2	5	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trichloroethene	79-01-6	7	20	0.007	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dichloropropane	78-87-5	2	5	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,4-Dioxane	123-91-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromodichloromethane	75-27-4	1	3	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toluene	108-88-3	6300	91000	4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2-Trichloroethane	79-00-5	2	6	0.01	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Tetrachloroethene	127-18-4	2	5	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Hexanone	591-78-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibromochloromethane	124-48-1	3	8	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dibromoethane (EDB)	106-93-4	0.008	0.04	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlorobenzene	108-90-7	510	7400	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Ethylbenzene	100-41-4	7800	110000	8	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Xylenes	1330-20-7	12000	170000	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Styrene	100-42-5	90	260	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromoform	75-25-2	81	280	0.02	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Isopropylbenzene	98-82-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2,2-Tetrachloroethane	79-34-5	1	3	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,3-Dichlorobenzene	541-73-1	5300	59000	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,4-Dichlorobenzene	106-46-7	5	13	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dichlorobenzene	95-50-1	5300	59000	11	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dibromo-3-chloropropane	96-12-8	0.08	0.2	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,4-Trichlorobenzene	120-82-1	73	820	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methyl acetate	79-20-9	78000	NS	14	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Cyclohexane	110-82-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methylcyclohexane	108-87-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,3-Dichloropropene (cis- and trans-)	542-75-6	2	7	0.005	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL VO's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL VO's & TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			H1 (11-12)-070212				H2 (9.5-10.5)-070212				H3 (9-10)-070212				I1-062712-SED				I3SED -062612				I4 (9-10)-070212				J1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Sediment				Sediment				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-001				06640-002				06640-003				06466-008				06385-011				06640-006				06640-008			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012				07/02/2012				06/27/2012				06/26/2012				07/02/2012				07/02/2012			
Depth(ft):				Level	11/12				9.5/10.5				9/10												9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Semivolatiles - PAH (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Naphthalene	91-20-3	6	17	16	ND		0.040	0.011	0.932		0.039	0.011	ND		0.038	0.011	~		~	~	6.72		0.197	0.150	ND		0.038	0.011	~		~	~
2-Methylnaphthalene	91-57-6	230	2400	5	ND		0.040	0.017	0.329		0.039	0.017	ND		0.038	0.016	0.799		0.040	0.033	2.57		0.197	0.162	ND		0.038	0.016	~		~	~
Acenaphthylene	208-96-8	NS	300000	NS	ND		0.040	0.016	0.072		0.039	0.016	ND		0.038	0.015	0.504		0.040	0.028	0.740		0.197	0.137	ND		0.038	0.016	~		~	~
Acenaphthene	83-32-9	3400	37000	74	ND		0.040	0.012	0.342		0.039	0.011	ND		0.038	0.011	0.187		0.040	0.032	0.513		0.197	0.157	ND		0.038	0.011	~		~	~
Fluorene	86-73-7	2300	24000	110	ND		0.040	0.012	0.324		0.039	0.012	ND		0.038	0.011	0.230		0.040	0.022	0.680		0.197	0.106	ND		0.038	0.011	~		~	~
Phenanthrene	85-01-8	NS	300000	NS	ND		0.040	0.012	1.56		0.039	0.012	ND		0.038	0.011	2.03		0.040	0.026	4.50		0.197	0.129	ND		0.038	0.012	~		~	~
Anthracene	120-12-7	17000	30000	1500	ND		0.040	0.017	0.688		0.039	0.016	ND		0.038	0.016	0.739		0.040	0.038	1.57		0.197	0.189	ND		0.038	0.016	~		~	~
Fluoranthene	206-44-0	2300	24000	840	ND		0.040	0.014	1.35		0.039	0.014	ND		0.038	0.014	3.39		0.040	0.016	2.86		0.197	0.078	ND		0.038	0.014	~		~	~
Pyrene	129-00-0	1700	18000	550	ND		0.040	0.013	1.26		0.039	0.013	ND		0.038	0.012	3.50		0.040	0.030	6.83		0.197	0.145	ND		0.038	0.012	~		~	~
Benzo[a]anthracene	56-55-3	0.6	2	0.5	ND		0.040	0.018	1.03		0.039	0.017	ND		0.038	0.016	1.54		0.040	0.038	3.00		0.197	0.189	ND		0.038	0.017	~		~	~
Chrysene	218-01-9	62	230	52	ND		0.040	0.015	1.13		0.039	0.015	ND		0.038	0.014	1.75		0.040	0.027	9.45		0.197	0.133	ND		0.038	0.014	~		~	~
Benzo[b]fluoranthene	205-99-2	0.6	2	2	ND		0.040	0.020	0.873		0.039	0.020	ND		0.038	0.019	0.970		0.040	0.021	1.88		0.197	0.102	ND		0.038	0.020	~		~	~
Benzo[k]fluoranthene	207-08-9	6	23	16	ND		0.040	0.021	0.839		0.039	0.020	ND		0.038	0.020	1.15		0.040	0.014	1.34		0.197	0.071	ND		0.038	0.020	~		~	~
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	ND		0.040	0.018	1.23		0.039	0.017	ND		0.038	0.016	1.52		0.040	0.022	3.44		0.197	0.108	ND		0.038	0.017	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	ND		0.040	0.012	0.662		0.039	0.011	ND		0.038	0.011	0.384		0.040	0.020	ND		0.197	0.098	ND		0.038	0.011	~		~	~
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	ND		0.040	0.012	0.274		0.039	0.012	ND		0.038	0.012	0.176		0.040	0.024	ND		0.197	0.118	ND		0.038	0.012	~		~	~
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	ND		0.040	0.017	0.741		0.039	0.016	ND		0.038	0.016	0.399		0.040	0.013	ND		0.197	0.063	ND		0.038	0.016	~		~	~
Semivolatiles - BNA (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
N-Nitrosodimethylamine	62-75-9	0.7	0.7	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzaldehyde	100-52-7	6100	68000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
Phenol	108-95-2	18000	210000	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
Bis(2-chloroethyl) ether	111-44-4	0.4	2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.015
2-Chlorophenol	95-57-8	310	2200	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
2-Methylphenol	95-48-7	310	3400	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
Bis(2-chloroisopropyl) ether	108-60-1	23	67	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.019
4-Methylphenol	106-44-5	31	340	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
N-Nitrosodi-n-propylamine	621-64-7	0.2	0.3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
Acetophenone	98-86-2	2	5	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.015
Hexachloroethane	67-72-1	35	140	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
Nitrobenzene	98-95-3	31	340	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
Isophorone	78-59-1	510	2000	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.019
2-Nitrophenol	88-75-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
2,4-Dimethylphenol	105-67-9	1200	14000	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
Bis(2-chloroethoxy) methane	111-91-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
2,4-Dichlorophenol	120-83-2	180	2100	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
Naphthalene	91-20-3	6	17	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
4-Chloroaniline	106-47-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
Hexachlorobutadiene	87-68-3	6	25	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
Caprolactam	105-60-2	31000	340000	8	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.020
4-Chloro-3-methylphenol	59-50-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
2-Methylnaphthalene	91-57-6	230	2400	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.017
Hexachlorocyclopentadiene	77-47-4	45	110	210	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
2,4,6-Trichlorophenol	88-06-2	19	74	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
2,4,5-Trichlorophenol	95-95-4	6100	68000	44	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
1,1'-Biphenyl	92-52-4	3100	34000	90	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
2-Chloronaphthalene	91-58-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
2-Nitroaniline	88-74-4	39	23000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.020
Dimethyl phthalate	131-11-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
2,6-Dinitrotoluene	606-20-2	0.7	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
Acenaphthylene	208-96-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.017
3-Nitroaniline	99-09-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.016
Acenaphthene	83-32-9	3400	37000	74	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
2,4-Dinitrophenol	51-28-5	120	1400	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.016
4-Nitrophenol	100-02-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.016
2,4-Dinitrotoluene	121-14-2	0.7	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
Dibenzofuran	132-64-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
Diethyl phthalate	84-66-2	49000	550000	57	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
Fluorene	86-73-7	2300	24000	110	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
4-Chlorophenyl phenyl ether	7005-72-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
4-Nitroaniline	100-01-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.016
2,3,4,6-Tetrachlorophenol	58-90-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.020
4,6-Dinitro-2-methylphenol	534-52-1	6	68	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
N-Nitrosodiphenylamine	86-30-6	99	390	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
1,2-Diphenylhydrazine	122-66-7	0.7	2	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Bromophenyl phenyl ether	101-55-3	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
Hexachlorobenzene	118-74-1	0.3	1	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.016
Atrazine	1912-24-9	210	2400	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			H1 (11-12)-070212				H2 (9.5-10.5)-070212				H3 (9-10)-070212				I1-062712-SED				I3SED -062612				I4 (9-10)-070212				J1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Sediment				Sediment				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-001				06640-002				06640-003				06466-008				06385-011				06640-006				06640-008			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012				07/02/2012				06/27/2012				06/26/2012				07/02/2012				07/02/2012			
Depth(ft):				Level	11/12				9.5/10.5				9/10												9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pentachlorophenol	87-86-5	3	10	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
Phenanthrene	85-01-8	NS	300000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
Anthracene	120-12-7	17000	30000	1500	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.017
Carbazole	86-74-8	24	96	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.016
Di-n-butyl phthalate	84-74-2	6100	68000	620	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
Fluoranthene	206-44-0	2300	24000	840	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
Benzidine	92-87-5	0.7	0.7	0.7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Pyrene	129-00-0	1700	18000	550	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
Butyl benzyl phthalate	85-68-7	1200	14000	150	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
3,3'-Dichlorobenzidine	91-94-1	1	4	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.014
Benzo[a]anthracene	56-55-3	0.6	2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.018
Chrysene	218-01-9	62	230	52	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.015
Bis(2-ethylhexyl) phthalate	117-81-7	35	140	790	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.020
Di-n-octyl phthalate	117-84-0	2400	27000	3300	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.015
Benzo[b]fluoranthene	205-99-2	0.6	2	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.021
Benzo[k]fluoranthene	207-08-9	6	23	16	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.021
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.018
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.012
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.017
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	0.7	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.040	0.013
TOTAL BN'S:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		~	NA
TOTAL TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		~	NA
TOTAL BN'S & TIC's:		NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		~	NA
PCB's (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
Aroclor-1221	11104-28-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
Aroclor-1232	11141-16-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
Aroclor-1242	53469-21-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
Aroclor-1248	12672-29-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	0.010		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
Aroclor-1254	11097-69-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
Aroclor-1260	11096-82-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	0.00866		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
Aroclor-1262	37324-23-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
Aroclor-1268	11100-14-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
PCBs	1336-36-3	0.2	1	0.2	~		~	~	~		~	~	~		~	~	0.019		0.00186	0.000744	~		~	~	ND		0.00189	0.000756	ND		0.046	0.018
Pesticides (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~	~		~	~	0.00327		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~	~		~	~	0.00281		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~	~		~	~	ND		0.00465	0.00223	~		~	~	ND		0.00473	0.00227	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~	~		~	~	ND		0.000372	0.000186	~		~	~	ND		0.000378	0.000189	~		~	~

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			H1 (11-12)-070212				H2 (9.5-10.5)-070212				H3 (9-10)-070212				I1-062712-SED				I3SED -062612				I4 (9-10)-070212				J1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Sediment				Sediment				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-001				06640-002				06640-003				06466-008				06385-011				06640-006				06640-008			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012				07/02/2012				06/27/2012				06/26/2012				07/02/2012				07/02/2012			
Depth(ft):				Level	11/12				9.5/10.5				9/10												9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
Pesticides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Herbicides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dalapon	75-99-0	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.054	0.022	~		~	~	ND		0.052	0.021	~		~	~
Dicamba	1918-00-9	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.054	0.022	~		~	~	ND		0.052	0.021	~		~	~
2,4-D	94-75-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.054	0.022	~		~	~	ND		0.052	0.021	~		~	~
2,4,5-TP (Silvex)	93-72-1	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.054	0.022	~		~	~	ND		0.052	0.021	~		~	~
2,4,5-T	93-76-5	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.054	0.022	~		~	~	ND		0.052	0.021	~		~	~
2,4-DB	94-82-6	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.054	0.022	~		~	~	ND		0.052	0.021	~		~	~
Dinoseb	88-85-7	NS	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.054	0.022	~		~	~	ND		0.052	0.021	~		~	~
NJ-EPH-Fractionated (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
C9-C12 Aliphatics	IALC9ALI	NS	NS	NS	ND		13.7	2.29	ND		14.1	2.35	ND		13.6	2.27	ND		13.7	2.28	ND		87.5	14.6	ND		13.2	2.21	~		~	~
C12-C16 Aliphatics	IALC12ALI	NS	NS	NS	ND		9.14	2.29	10.5		9.38	2.35	ND		9.06	2.27	14.9		9.13	2.28	338		58.3	14.6	ND		8.83	2.21	~		~	~
C16-C21 Aliphatics	IALC16ALI	NS	NS	NS	ND		13.7	2.29	16.5		14.1	2.35	ND		13.6	2.27	52.9		13.7	2.28	896		87.5	14.6	ND		13.2	2.21	~		~	~
C21-C40 Aliphatics	IALC21ALI	NS	NS	NS	ND		45.7	11.4	126		46.9	11.7	ND		45.3	11.3	435		45.6	11.4	6150		292	72.9	ND		44.2	11.0	~		~	~
Total Aliphatics	IALTALI	NS	NS	NS	0		45.7	11.4	153		46.9	11.7	0		45.3	11.3	503		45.6	11.4	7380		292	72.9	0		44.2	11.0	~		~	~
C10-C12 Aromatics	IALC10ARO	NS	NS	NS	ND		9.14	4.57	ND		9.38	4.69	ND		9.06	4.53	ND		9.13	4.56	21.9		11.7	5.83	ND		8.83	4.42	~		~	~
C12-C16 Aromatics	IALC12ARO	NS	NS	NS	ND		13.7	4.57	12.2	J	14.1	4.69	ND		13.6	4.53	9.72	J	13.7	4.56	135		17.5	5.83	ND		13.2	4.42	~		~	~
C16-C21 Aromatics	IALC16ARO	NS	NS	NS	ND		22.9	4.57	50.5		23.5	4.69	ND		22.7	4.53	50.7		22.8	4.56	1040		29.2	5.83	ND		22.1	4.42	~		~	~
C21-C36 Aromatics	IALC21ARO	NS	NS	NS	ND		36.6	9.14	182		37.5	9.38	ND		36.2	9.06	247		36.5	9.13	3720		46.6	11.7	ND		35.3	8.83	~		~	~
Total Aromatics	IALTARO	NS	NS	NS	0		36.6	9.14	245		37.5	9.38	0		36.2	9.06	307		36.5	9.13	4920		46.6	11.7	0		35.3	8.83	~		~	~
Total NJ-EPH	IALTEPH	NS	NS	NS	0		45.7	11.4	398		46.9	11.7	0		45.3	11.3	810		45.6	11.4	12300		292	72.9	0		44.2	11.0	~		~	~
Metals (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Aluminum	7429-90-5	78000	NS	3900	940		12.9	6.44	8780		13.2	6.58	1360		11.8	5.89	4670		12.9	6.47	34100		16.3	8.13	658		12.3	6.17	956		12.8	6.41
Antimony	7440-36-0	31	450	6	ND		1.29	0.322	0.568	J	1.32	0.329	ND		1.18	0.294	0.941	J	1.29	0.323	20.7		1.63	0.407	ND		1.23	0.308	ND		1.28	0.320
Arsenic	7440-38-2	19	19	19	ND		0.644	0.322	11.1		0.658	0.329	0.522	J	0.589	0.294	8.97		0.647	0.323	17.6		0.813	0.407	ND		0.617	0.308	0.381	J	0.641	0.320
Barium	7440-39-3	16000	59000	1300	3.79	J	12.9	3.22	289		13.2	3.29	12.4		11.8	2.94	60.3		12.9	3.23	190		16.3	4.07	ND		12.3	3.08	ND		12.8	3.20
Beryllium	7440-41-7	16	140	0.5	ND		**0.644**	0.257	2.90		**0.658**	0.263	ND		**0.589**	0.235	ND		**0.647**	0.259	0.704	J	**0.813**	0.325	ND		**0.617**	0.247	ND		**0.641**	0.256
Cadmium	7440-43-9	78	78	1	ND		0.644	0.161	0.711		0.658	0.165	ND		0.589	0.147	0.682		0.647	0.162	2.15		0.813	0.203	ND		0.617	0.154	ND		0.641	0.160
Calcium	7440-70-2	NS	NS	NS	101		64.4	32.2	23700		65.8	32.9	670		58.9	29.4	15300		64.7	32.3	162000		81.3	40.7	49.1	J	61.7	30.8	ND		64.1	32.0
Chromium	7440-47-3	NS	NS	NS	2.16	J	2.57	0.644	32.3		2.63	0.658	2.91		2.35	0.589	24.5		2.59	0.647	36.0		3.25	0.813	1.53	J	2.47	0.617	3.90		2.56	0.641
Cobalt	7440-48-4	1600	590	59	ND		2.57	0.644	13.9		2.63	0.658	0.794	J	2.35	0.589	4.18		2.59	0.647	40.7		3.25	0.813	ND		2.47	0.617	ND		2.56	0.641
Copper	7440-50-8	3100	45000	7300	1.74	J	2.57	0.644	182		2.63	0.658	6.32		2.35	0.589	55.2		2.59	0.647	117		3.25	0.813	1.23	J	2.47	0.617	2.13	J	2.56	0.641
Iron	7439-89-6	NS	NS	NS	865		32.2	16.1	21600		32.9	16.5	1880		29.4	14.7	13500		32.3	16.2	16900		40.7	20.3	518		30.8	15.4	2260		32.0	16.0
Lead	7439-92-1	400	800	59	1.07		0.644	0.161	294		0.658	0.165	9.57		0.589	0.147	155		0.647	0.162	808		0.813	0.203	0.638		0.617	0.154	1.53		0.641	0.160
Magnesium	7439-95-4	NS	NS	NS	93.9		64.4	16.1	4000		65.8	16.5	206		58.9	14.7	2340		64.7	16.2	8260		81.3	20.3	48.8	J	61.7	15.4	64.3		64.1	16.0
Manganese	7439-96-5	11000	5900	42	5.74		1.29	0.322	361		1.32	0.329	15.4		1.18	0.294	157		1.29	0.323	328		1.63	0.407	2.17		1.23	0.308	17.5		1.28	0.320
Mercury	7439-97-6	23	65	0.1	ND		0.015	0.00712	0.164		0.015	0.00714	ND		0.014	0.00652	1.48		0.015	0.00706	1.13		0.019	0.00922	ND		0.014	0.0069	ND		0.014	0.00679
Nickel	7440-02-0	1600	23000	31	1.39		1.29	0.644	222		1.32	0.658	7.34		1.18	0.589	18.1		1.29	0.647	221		1.63	0.813	0.848	J	1.23	0.617	1.33		1.28	0.641
Potassium	7440-09-7	NS	NS	NS	59.9	J	64.4	16.1	1880		65.8	16.5	130		58.9	14.7	959		64.7	16.2	2140		81.3	20.3	43.3	J	61.7	15.4	74.8		64.1	16.0
Selenium	7782-49-2	390	5700	7	ND		2.57	1.29	ND		2.63	1.32	ND		2.35	1.18	ND		2.59	1.29	12.6		3.25	1.63	ND		2.47	1.23	ND		2.56	1.28
Silver	7440-22-4	390	5700	1	ND		0.644	0.161	0.359	J	0.658	0.165	ND		0.589	0.147	ND		0.647	0.162	0.382	J	0.813	0.203	ND		0.617	0.154	ND		0.641	0.160
Sodium	7440-23-5	NS	NS	NS	ND		129	32.2	1190		132	32.9	ND		118	29.4	542		129	32.3	959		163	40.7	ND		123	30.8	ND		128	32.0
Thallium	7440-28-0	5	79	3	ND		0.644	0.161	0.221	J	0.658	0.165	ND		0.589	0.147	0.914		0.647	0.162	17.6		0.813	0.203	ND		0.617	0.154	ND		0.641	0.160
Vanadium	7440-62-2	78	1100	NS	2.10	J	2.57	0.644	33.3		2.63	0.658	3.28		2.35	0.589	146		2.59	0.647	268		3.25	0.813	1.35	J	2.47	0.617	2.82		2.56	0.641
Zinc	7440-66-6	23000	110000	600	ND		2.57	2.57	1170		2.63	2.63	31.3		2.35	2.35	229		2.59	2.59	1050		3.25	3.25	ND		2.47	2.47	ND		2.56	2.56

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			H1 (11-12)-070212				H2 (9.5-10.5)-070212				H3 (9-10)-070212				I1-062712-SED				I3SED -062612				I4 (9-10)-070212				J1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring				Soil Boring				Sediment				Sediment				Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-001				06640-002				06640-003				06466-008				06385-011				06640-006				06640-008			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012				07/02/2012				06/27/2012				06/26/2012				07/02/2012				07/02/2012			
Depth(ft):				Level	11/12				9.5/10.5				9/10												9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)																												
General Analytical					Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Hexavalent Chromium-mg/Kg	18540-29-9	**240**	**20**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Cyanide, Total-mg/Kg	57-12-5	**1600**	**23000**	**13**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Petroleum Hydrocarbons-mg/Kg	SRP 124	**NS**	**NS**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trivalent (III) Chromium	16065-83-1	**120000**	**NS**	**NS**	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

NJDEP Soil Remediation Standards: Remediation Standards N.J.A.C. 7:26D, June 2008

BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS.
BOLD Conc	Indicates a concentration that exceeds NDDEP Non-Residential SRS.
BOLD Conc	Indicates a concentration that exceeds Default IGW Screening Level criteria.
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Non-Resident
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Default IGW S
BOLD RL	Indicates RL that exceeds applicable criteria.
BOLD MDL	Indicates MDL that exceeds applicable criteria.

NS = No Standard Available
~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

Sample #:		NJDEP SOIL REMEDIATION			J2 (9-10)-070212				K1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-009				06640-007			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012			
Depth(ft):				Level	9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)								
Volatiles (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	75-71-8	490	230000	25	~		~	~	ND		0.00157	0.000628
Chloromethane	74-87-3	4	12	NS	~		~	~	ND		0.00157	0.000644
Vinyl chloride	75-01-4	0.7	2	0.005	~		~	~	ND		0.00157	0.000754
Bromomethane	74-83-9	25	59	0.03	~		~	~	ND		0.00157	0.00055
Chloroethane	75-00-3	220	1100	NS	~		~	~	ND		0.00157	0.000707
Trichlorofluoromethane	75-69-4	23000	340000	22	~		~	~	ND		0.00157	0.000644
Acrolein	107-02-8	0.5	1	0.5	~		~	~	~		~	~
1,1-Dichloroethene	75-35-4	11	150	0.005	~		~	~	ND		0.00157	0.000785
Acetone	67-64-1	70000	NS	12	~		~	~	ND		0.00785	0.0011
Carbon disulfide	75-15-0	7800	110000	4	~		~	~	ND		0.00157	0.000534
Methylene chloride	75-09-2	34	97	0.007	~		~	~	ND		0.00314	0.00311
Acrylonitrile	107-13-1	0.9	3	0.5	~		~	~	~		~	~
tert-Butyl alcohol (TBA)	75-65-0	1400	11000	0.2	~		~	~	~		~	~
trans-1,2-Dichloroethene	156-60-5	300	720	0.4	~		~	~	ND		0.00157	0.000675
Methyl tert-butyl ether (MTBE)	1634-04-4	110	320	0.2	~		~	~	ND		0.00157	0.000361
1,1-Dichloroethane	75-34-3	8	24	0.2	~		~	~	ND		0.00157	0.000424
cis-1,2-Dichloroethene	156-59-2	230	560	0.2	~		~	~	ND		0.00157	0.000487
2-Butanone (MEK)	78-93-3	3100	44000	0.6	~		~	~	ND		0.00785	0.000581
Bromochloromethane	74-97-5	NS	NS	NS	~		~	~	ND		0.00157	0.000377
Chloroform	67-66-3	0.6	2	0.2	~		~	~	ND		0.00157	0.000455
1,1,1-Trichloroethane	71-55-6	290	4200	0.2	~		~	~	ND		0.00157	0.000518
Carbon tetrachloride	56-23-5	0.6	2	0.005	~		~	~	ND		0.00157	0.000644
1,2-Dichloroethane (EDC)	107-06-2	0.9	3	0.005	~		~	~	ND		0.00157	0.00033
Benzene	71-43-2	2	5	0.005	~		~	~	ND		0.00157	0.000377
Trichloroethene	79-01-6	7	20	0.007	~		~	~	ND		0.00157	0.000502
1,2-Dichloropropane	78-87-5	2	5	0.005	~		~	~	ND		0.00157	0.000345
1,4-Dioxane	123-91-1	NS	NS	NS	~		~	~	ND		0.314	0.024
Bromodichloromethane	75-27-4	1	3	0.005	~		~	~	ND		0.00157	0.000502
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	~		~	~	ND		0.00157	0.000408
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	NS	NS	~		~	~	ND		0.00157	0.000377
Toluene	108-88-3	6300	91000	4	~		~	~	ND		0.00157	0.000393
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	~		~	~	ND		0.00157	0.000408
1,1,2-Trichloroethane	79-00-5	2	6	0.01	~		~	~	ND		0.00157	0.000314
Tetrachloroethene	127-18-4	2	5	0.005	~		~	~	ND		0.00157	0.000408
2-Hexanone	591-78-6	NS	NS	NS	~		~	~	ND		0.00314	0.000565
Dibromochloromethane	124-48-1	3	8	0.005	~		~	~	ND		0.00314	0.000345
1,2-Dibromoethane (EDB)	106-93-4	0.008	0.04	0.005	~		~	~	ND		0.00157	0.00033
Chlorobenzene	108-90-7	510	7400	0.4	~		~	~	ND		0.00157	0.000345
Ethylbenzene	100-41-4	7800	110000	8	~		~	~	ND		0.00157	0.000487
Total Xylenes	1330-20-7	12000	170000	12	~		~	~	ND		0.00314	0.00166
Styrene	100-42-5	90	260	2	~		~	~	ND		0.00157	0.000471
Bromoform	75-25-2	81	280	0.02	~		~	~	ND		0.00157	0.000502
Isopropylbenzene	98-82-8	NS	NS	NS	~		~	~	ND		0.00157	0.000644
1,1,2,2-Tetrachloroethane	79-34-5	1	3	0.005	~		~	~	ND		0.00157	0.000361
1,3-Dichlorobenzene	541-73-1	5300	59000	12	~		~	~	ND		0.00157	0.000487
1,4-Dichlorobenzene	106-46-7	5	13	1	~		~	~	ND		0.00157	0.000487
1,2-Dichlorobenzene	95-50-1	5300	59000	11	~		~	~	ND		0.00157	0.000565
1,2-Dibromo-3-chloropropane	96-12-8	0.08	0.2	0.005	~		~	~	ND		0.00157	0.000785
1,2,4-Trichlorobenzene	120-82-1	73	820	0.4	~		~	~	ND		0.00157	0.000816
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	~		~	~	ND		0.00157	0.000754
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	NS	NS	~		~	~	ND		0.00157	0.000864
Methyl acetate	79-20-9	78000	NS	14	~		~	~	ND		0.00785	0.000911
Cyclohexane	110-82-7	NS	NS	NS	~		~	~	ND		0.00314	0.000659
Methylcyclohexane	108-87-2	NS	NS	NS	~		~	~	ND		0.00157	0.000785
1,3-Dichloropropene (cis- and trans-)	542-75-6	2	7	0.005	~		~	~	ND		0.00157	0.000408
TOTAL VO's:		NS	NS	NS	~		~	~	ND		~	NA
TOTAL TIC's:		NS	NS	NS	~		~	~	ND		~	NA
TOTAL VO's & TIC's:		NS	NS	NS	~		~	~	ND		~	NA

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			J2 (9-10)-070212				K1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-009				06640-007			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012			
Depth(ft):				Level	9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)								
Semivolatiles - PAH (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL
Naphthalene	91-20-3	6	17	16	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	230	2400	5	~		~	~	~		~	~
Acenaphthylene	208-96-8	NS	300000	NS	~		~	~	~		~	~
Acenaphthene	83-32-9	3400	37000	74	~		~	~	~		~	~
Fluorene	86-73-7	2300	24000	110	~		~	~	~		~	~
Phenanthrene	85-01-8	NS	300000	NS	~		~	~	~		~	~
Anthracene	120-12-7	17000	30000	1500	~		~	~	~		~	~
Fluoranthene	206-44-0	2300	24000	840	~		~	~	~		~	~
Pyrene	129-00-0	1700	18000	550	~		~	~	~		~	~
Benzo[a]anthracene	56-55-3	0.6	2	0.5	~		~	~	~		~	~
Chrysene	218-01-9	62	230	52	~		~	~	~		~	~
Benzo[b]fluoranthene	205-99-2	0.6	2	2	~		~	~	~		~	~
Benzo[k]fluoranthene	207-08-9	6	23	16	~		~	~	~		~	~
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	~		~	~	~		~	~
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	~		~	~	~		~	~
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	~		~	~	~		~	~
Semivolatiles - BNA (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL
N-Nitrosodimethylamine	62-75-9	0.7	0.7	0.7	~		~	~	~		~	~
Benzaldehyde	100-52-7	6100	68000	NS	ND		0.038	0.012	ND		0.040	0.013
Phenol	108-95-2	18000	210000	5	ND		0.038	0.013	ND		0.040	0.014
Bis(2-chloroethyl) ether	111-44-4	0.4	2	0.2	ND		0.038	0.014	ND		0.040	0.015
2-Chlorophenol	95-57-8	310	2200	0.5	ND		0.038	0.012	ND		0.040	0.013
2-Methylphenol	95-48-7	310	3400	NS	ND		0.038	0.012	ND		0.040	0.013
Bis(2-chloroisopropyl) ether	108-60-1	23	67	3	ND		0.038	0.018	ND		0.040	0.019
4-Methylphenol	106-44-5	31	340	NS	ND		0.038	0.013	ND		0.040	0.014
N-Nitrosodi-n-propylamine	621-64-7	0.2	0.3	0.2	ND		0.038	0.014	ND		0.040	0.015
Acetophenone	98-86-2	2	5	2	ND		0.038	0.014	ND		0.040	0.015
Hexachloroethane	67-72-1	35	140	0.2	ND		0.038	0.011	ND		0.040	0.012
Nitrobenzene	98-95-3	31	340	0.2	ND		0.038	0.013	ND		0.040	0.014
Isophorone	78-59-1	510	2000	0.2	ND		0.038	0.018	ND		0.040	0.019
2-Nitrophenol	88-75-5	NS	NS	NS	ND		0.038	0.014	ND		0.040	0.015
2,4-Dimethylphenol	105-67-9	1200	14000	0.7	ND		0.038	0.012	ND		0.040	0.013
Bis(2-chloroethoxy) methane	111-91-1	NS	NS	NS	ND		0.038	0.012	ND		0.040	0.012
2,4-Dichlorophenol	120-83-2	180	2100	0.2	ND		0.038	0.012	ND		0.040	0.013
Naphthalene	91-20-3	6	17	16	ND		0.038	0.011	ND		0.040	0.012
4-Chloroaniline	106-47-8	NS	NS	NS	ND		0.038	0.012	ND		0.040	0.012
Hexachlorobutadiene	87-68-3	6	25	0.6	ND		0.038	0.012	ND		0.040	0.012
Caprolactam	105-60-2	31000	340000	8	ND		0.038	0.019	ND		0.040	0.020
4-Chloro-3-methylphenol	59-50-7	NS	NS	NS	ND		0.038	0.013	ND		0.040	0.014
2-Methylnaphthalene	91-57-6	230	2400	5	ND		0.038	0.016	ND		0.040	0.017
Hexachlorocyclopentadiene	77-47-4	45	110	210	ND		0.038	0.012	ND		0.040	0.012
2,4,6-Trichlorophenol	88-06-2	19	74	0.2	ND		0.038	0.013	ND		0.040	0.013
2,4,5-Trichlorophenol	95-95-4	6100	68000	44	ND		0.038	0.013	ND		0.040	0.014
1,1'-Biphenyl	92-52-4	3100	34000	90	ND		0.038	0.012	ND		0.040	0.013
2-Chloronaphthalene	91-58-7	NS	NS	NS	ND		0.038	0.013	ND		0.040	0.013
2-Nitroaniline	88-74-4	39	23000	NS	ND		0.038	0.019	ND		0.040	0.020
Dimethyl phthalate	131-11-3	NS	NS	NS	ND		0.038	0.014	ND		0.040	0.015
2,6-Dinitrotoluene	606-20-2	0.7	3	NS	ND		0.038	0.012	ND		0.040	0.013
Acenaphthylene	208-96-8	NS	300000	NS	ND		0.038	0.016	ND		0.040	0.017
3-Nitroaniline	99-09-2	NS	NS	NS	ND		0.038	0.015	ND		0.040	0.016
Acenaphthene	83-32-9	3400	37000	74	ND		0.038	0.011	ND		0.040	0.012
2,4-Dinitrophenol	51-28-5	120	1400	0.3	ND		0.038	0.016	ND		0.040	0.017
4-Nitrophenol	100-02-7	NS	NS	NS	ND		0.038	0.016	ND		0.040	0.017
2,4-Dinitrotoluene	121-14-2	0.7	3	NS	ND		0.038	0.012	ND		0.040	0.012
Dibenzofuran	132-64-9	NS	NS	NS	ND		0.038	0.012	ND		0.040	0.013
Diethyl phthalate	84-66-2	49000	550000	57	ND		0.038	0.012	ND		0.040	0.012
Fluorene	86-73-7	2300	24000	110	ND		0.038	0.011	ND		0.040	0.012
4-Chlorophenyl phenyl ether	7005-72-3	NS	NS	NS	ND		0.038	0.012	ND		0.040	0.013
4-Nitroaniline	100-01-6	NS	NS	NS	ND		0.038	0.012	ND		0.040	0.012
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	NS	ND		0.038	0.016	ND		0.040	0.017
2,3,4,6-Tetrachlorophenol	58-90-2	NS	NS	NS	ND		0.038	0.019	ND		0.040	0.020
4,6-Dinitro-2-methylphenol	534-52-1	6	68	0.3	ND		0.038	0.013	ND		0.040	0.014
N-Nitrosodiphenylamine	86-30-6	99	390	0.2	ND		0.038	0.012	ND		0.040	0.013
1,2-Diphenylhydrazine	122-66-7	0.7	2	0.7	~		~	~	~		~	~
4-Bromophenyl phenyl ether	101-55-3	NS	NS	NS	ND		0.038	0.013	ND		0.040	0.014
Hexachlorobenzene	118-74-1	0.3	1	0.2	ND		0.038	0.016	ND		0.040	0.017
Atrazine	1912-24-9	210	2400	0.2	ND		0.038	0.012	ND		0.040	0.013

Sample #:		NJDEP SOIL REMEDIATION			J2 (9-10)-070212				K1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-009				06640-007			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012			
Depth(ft):				Level	9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)								
Pentachlorophenol	87-86-5	3	10	0.3	ND		0.038	0.014	ND		0.040	0.015
Phenanthrene	85-01-8	NS	300000	NS	ND		0.038	0.012	ND		0.040	0.012
Anthracene	120-12-7	17000	30000	1500	ND		0.038	0.016	ND		0.040	0.017
Carbazole	86-74-8	24	96	NS	ND		0.038	0.015	ND		0.040	0.016
Di-n-butyl phthalate	84-74-2	6100	68000	620	ND		0.038	0.012	ND		0.040	0.013
Fluoranthene	206-44-0	2300	24000	840	ND		0.038	0.014	ND		0.040	0.014
Benzidine	92-87-5	0.7	0.7	0.7	~		~	~	~		~	~
Pyrene	129-00-0	1700	18000	550	ND		0.038	0.012	ND		0.040	0.013
Butyl benzyl phthalate	85-68-7	1200	14000	150	ND		0.038	0.011	ND		0.040	0.012
3,3'-Dichlorobenzidine	91-94-1	1	4	0.2	ND		0.038	0.013	ND		0.040	0.014
Benzo[a]anthracene	56-55-3	0.6	2	0.5	ND		0.038	0.017	ND		0.040	0.018
Chrysene	218-01-9	62	230	52	ND		0.038	0.014	ND		0.040	0.015
Bis(2-ethylhexyl) phthalate	117-81-7	35	140	790	ND		0.038	0.019	ND		0.040	0.020
Di-n-octyl phthalate	117-84-0	2400	27000	3300	ND		0.038	0.014	ND		0.040	0.015
Benzo[b]fluoranthene	205-99-2	0.6	2	2	ND		0.038	0.020	ND		0.040	0.021
Benzo[k]fluoranthene	207-08-9	6	23	16	ND		0.038	0.020	ND		0.040	0.021
Benzo[a]pyrene	50-32-8	0.2	0.2	0.2	ND		0.038	0.017	ND		0.040	0.018
Indeno[1,2,3-cd]pyrene	193-39-5	0.6	2	5	ND		0.038	0.011	ND		0.040	0.012
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	0.5	ND		0.038	0.012	ND		0.040	0.013
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	ND		0.038	0.016	ND		0.040	0.017
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	0.7	3	0.2	ND		0.038	0.012	ND		0.040	0.013
TOTAL BN'S:		NS	NS	NS	ND		~	NA	ND		~	NA
TOTAL TIC's:		NS	NS	NS	ND		~	NA	ND		~	NA
TOTAL BN'S & TIC's:		NS	NS	NS	ND		~	NA	ND		~	NA
PCB's (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	NS	NS	NS	ND		0.043	0.017	~		~	~
Aroclor-1221	11104-28-2	NS	NS	NS	ND		0.043	0.017	~		~	~
Aroclor-1232	11141-16-5	NS	NS	NS	ND		0.043	0.017	~		~	~
Aroclor-1242	53469-21-9	NS	NS	NS	ND		0.043	0.017	~		~	~
Aroclor-1248	12672-29-6	NS	NS	NS	ND		0.043	0.017	~		~	~
Aroclor-1254	11097-69-1	NS	NS	NS	ND		0.043	0.017	~		~	~
Aroclor-1260	11096-82-5	NS	NS	NS	ND		0.043	0.017	~		~	~
Aroclor-1262	37324-23-5	NS	NS	NS	ND		0.043	0.017	~		~	~
Aroclor-1268	11100-14-4	NS	NS	NS	ND		0.043	0.017	~		~	~
PCBs	1336-36-3	0.2	1	0.2	ND		0.043	0.017	~		~	~
Pesticides (mg/Kg)					**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			J2 (9-10)-070212				K1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-009				06640-007			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012			
Depth(ft):				Level	9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)								
Pesticides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL
alpha-BHC	319-84-6	0.1	0.5	0.002	~		~	~	~		~	~
beta-BHC	319-85-7	0.4	2	0.002	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	NS	~		~	~	~		~	~
Heptachlor	76-44-8	0.1	0.7	0.3	~		~	~	~		~	~
Aldrin	309-00-2	0.04	0.2	0.1	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.07	0.3	0.009	~		~	~	~		~	~
Endosulfan I	959-98-8	NS	NS	NS	~		~	~	~		~	~
4,4'-DDE	72-55-9	2	9	12	~		~	~	~		~	~
Dieldrin	60-57-1	0.04	0.2	0.003	~		~	~	~		~	~
Endrin	72-20-8	23	340	0.6	~		~	~	~		~	~
Endosulfan II	33213-65-9	NS	NS	NS	~		~	~	~		~	~
4,4'-DDD	72-54-8	3	13	3	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	NS	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	470	6800	1	~		~	~	~		~	~
4,4'-DDT	50-29-3	2	8	7	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	NS	~		~	~	~		~	~
Methoxychlor	72-43-5	390	5700	100	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	NS	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	NS	~		~	~	~		~	~
Toxaphene	8001-35-2	0.6	3	0.2	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	470	6800	2	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.03	~		~	~	~		~	~
Herbicides (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dalapon	75-99-0	NS	NS	NS	~		~	~	~		~	~
Dicamba	1918-00-9	NS	NS	NS	~		~	~	~		~	~
2,4-D	94-75-7	NS	NS	NS	~		~	~	~		~	~
2,4,5-TP (Silvex)	93-72-1	NS	NS	NS	~		~	~	~		~	~
2,4,5-T	93-76-5	NS	NS	NS	~		~	~	~		~	~
2,4-DB	94-82-6	NS	NS	NS	~		~	~	~		~	~
Dinoseb	88-85-7	NS	NS	NS	~		~	~	~		~	~
NJ-EPH-Fractionated (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL
C9-C12 Aliphatics	IALC9ALI	NS	NS	NS	~		~	~	ND		14.1	2.35
C12-C16 Aliphatics	IALC12ALI	NS	NS	NS	~		~	~	ND		9.38	2.35
C16-C21 Aliphatics	IALC16ALI	NS	NS	NS	~		~	~	ND		14.1	2.35
C21-C40 Aliphatics	IALC21ALI	NS	NS	NS	~		~	~	ND		46.9	11.7
Total Aliphatics	IALTALI	NS	NS	NS	~		~	~	0		46.9	11.7
C10-C12 Aromatics	IALC10ARO	NS	NS	NS	~		~	~	ND		9.38	4.69
C12-C16 Aromatics	IALC12ARO	NS	NS	NS	~		~	~	ND		14.1	4.69
C16-C21 Aromatics	IALC16ARO	NS	NS	NS	~		~	~	ND		23.5	4.69
C21-C36 Aromatics	IALC21ARO	NS	NS	NS	~		~	~	ND		37.5	9.38
Total Aromatics	IALTARO	NS	NS	NS	~		~	~	0		37.5	9.38
Total NJ-EPH	IALTEPH	NS	NS	NS	~		~	~	0		46.9	11.7
Metals (mg/Kg)					Conc	Q	RL	MDL	Conc	Q	RL	MDL
Aluminum	7429-90-5	78000	NS	3900	1050		12.5	6.25	558		13.4	6.71
Antimony	7440-36-0	31	450	6	ND		1.25	0.313	ND		1.34	0.336
Arsenic	7440-38-2	19	19	19	0.978		0.625	0.313	ND		0.671	0.336
Barium	7440-39-3	16000	59000	1300	ND		12.5	3.13	ND		13.4	3.36
Beryllium	7440-41-7	16	140	0.5	ND		**0.625**	0.250	ND		**0.671**	0.269
Cadmium	7440-43-9	78	78	1	ND		0.625	0.156	ND		0.671	0.168
Calcium	7440-70-2	NS	NS	NS	ND		62.5	31.3	ND		67.1	33.6
Chromium	7440-47-3	NS	NS	NS	3.61		2.50	0.625	1.80	J	2.69	0.671
Cobalt	7440-48-4	1600	590	59	ND		2.50	0.625	ND		2.69	0.671
Copper	7440-50-8	3100	45000	7300	1.59	J	2.50	0.625	1.30	J	2.69	0.671
Iron	7439-89-6	NS	NS	NS	2210		31.3	15.6	888		33.6	16.8
Lead	7439-92-1	400	800	59	1.01		0.625	0.156	0.682		0.671	0.168
Magnesium	7439-95-4	NS	NS	NS	51.8	J	62.5	15.6	39.7	J	67.1	16.8
Manganese	7439-96-5	11000	5900	42	3.40		1.25	0.313	3.88		1.34	0.336
Mercury	7439-97-6	23	65	0.1	ND		0.015	0.00703	ND		0.015	0.00696
Nickel	7440-02-0	1600	23000	31	0.973	J	1.25	0.625	0.785	J	1.34	0.671
Potassium	7440-09-7	NS	NS	NS	49.5	J	62.5	15.6	29.2	J	67.1	16.8
Selenium	7782-49-2	390	5700	7	ND		2.50	1.25	ND		2.69	1.34
Silver	7440-22-4	390	5700	1	ND		0.625	0.156	ND		0.671	0.168
Sodium	7440-23-5	NS	NS	NS	ND		125	31.3	ND		134	33.6
Thallium	7440-28-0	5	79	3	ND		0.625	0.156	ND		0.671	0.168
Vanadium	7440-62-2	78	1100	NS	4.69		2.50	0.625	1.80	J	2.69	0.671
Zinc	7440-66-6	23000	110000	600	ND		2.50	2.50	ND		2.69	2.69

Table 3 - Soil Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		NJDEP SOIL REMEDIATION			J2 (9-10)-070212				K1 (9-10)-070212			
Matrix:		STANDARDS			Soil Boring				Soil Boring			
Lab ID:		Residential	Non-Res	Default IGW	06640-009				06640-007			
Date Sampled:		SRS	SRS	Screening	07/02/2012				07/02/2012			
Depth(ft):				Level	9/10				9/10			
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)								
General Analytical					Conc	Q	RL	MDL	Conc	Q	RL	MDL
Hexavalent Chromium-mg/Kg	18540-29-9	**240**	**20**	**NS**	~		~	~	~		~	~
Cyanide, Total-mg/Kg	57-12-5	**1600**	**23000**	**13**	~		~	~	~		~	~
Total Petroleum Hydrocarbons-mg/Kg	SRP 124	**NS**	**NS**	**NS**	~		~	~	~		~	~
Trivalent (III) Chromium	16065-83-1	**120000**	**NS**	**NS**	~		~	~	~		~	~

NJDEP Soil Remediation Standards: Remediation Standards N.J.A.C. 7:26D, June 2008

BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS.
BOLD Conc	Indicates a concentration that exceeds NDDEP Non-Residential SRS.
BOLD Conc	Indicates a concentration that exceeds Default IGW Screening Level criteria.
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Non-Resident
BOLD Conc	Indicates a concentration that exceeds NDDEP Residential SRS and Default IGW S
BOLD RL	Indicates RL that exceeds applicable criteria.
BOLD MDL	Indicates MDL that exceeds applicable criteria.

NS = No Standard Available
~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

Table 4 - Groundwater Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		HIGHER OF	Table 1	A1-062712-WATER				A2-062712-WATER				A6-062912 -WATER				A7-062712-WATER				B3-062712-WATER				E1-062912 -WATER				E2-070212- WATER			
Matrix:		PQLs	Vapor Intrusion	Groundwater				Groundwater				Groundwater				Groundwater				Groundwater				Groundwater				Groundwater			
Lab ID:		and	GW	06466-010				06466-011				06546-001				06466-012				06466-009				06546-002				06658-004			
Date Sampled:		GWQC	Screening	06/27/2012				06/27/2012				06/29/2012				06/27/2012				06/27/2012				06/29/2012				07/02/2012			
Depth(ft):		(ug/L)	Levels																												
	CAS		(ug/L)																												
Volatiles (ug/L)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Dichlorodifluoromethane	75-71-8	1000	1000	ND		1.00	0.260	ND		1.00	0.260	ND		1.00	0.260	ND		1.00	0.260	ND		1.00	0.260	~		~	~	~		~	~
Chloromethane	74-87-3	NS	240	ND		1.00	0.360	ND		1.00	0.360	ND		1.00	0.360	ND		1.00	0.360	ND		1.00	0.360	~		~	~	~		~	~
Vinyl chloride	75-01-4	1	1	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	~		~	~	~		~	~
Bromomethane	74-83-9	10	29	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	~		~	~	~		~	~
Chloroethane	75-00-3	5	4	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	~		~	~	~		~	~
Trichlorofluoromethane	75-69-4	2000	2000	ND		1.00	0.340	ND		1.00	0.340	ND		1.00	0.340	ND		1.00	0.340	ND		1.00	0.340	~		~	~	~		~	~
Acrolein	107-02-8	5	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1-Dichloroethene	75-35-4	1	250	ND		1.00	0.310	ND		1.00	0.310	ND		1.00	0.310	ND		1.00	0.310	ND		1.00	0.310	~		~	~	~		~	~
Acetone	67-64-1	6000	1900000	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	~		~	~	~		~	~
Carbon disulfide	75-15-0	700	710	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	~		~	~	~		~	~
Methylene chloride	75-09-2	3	53	ND		2.00	1.98	ND		2.00	1.98	ND		2.00	1.98	ND		2.00	1.98	ND		2.00	1.98	~		~	~	~		~	~
Acrylonitrile	107-13-1	2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
tert-Butyl alcohol (TBA)	75-65-0	100	170000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
trans-1,2-Dichloroethene	156-60-5	100	300	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	ND		1.00	0.370	~		~	~	~		~	~
Methyl tert-butyl ether (MTBE)	1634-04-4	70	78	ND		1.00	0.300	ND		1.00	0.300	ND		1.00	0.300	ND		1.00	0.300	ND		1.00	0.300	~		~	~	~		~	~
1,1-Dichloroethane	75-34-3	50	3600	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	~		~	~	~		~	~
cis-1,2-Dichloroethene	156-59-2	70	350	ND		1.00	0.340	ND		1.00	0.340	ND		1.00	0.340	ND		1.00	0.340	ND		1.00	0.340	~		~	~	~		~	~
2-Butanone (MEK)	78-93-3	300	2700000	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	~		~	~	~		~	~
Bromochloromethane	74-97-5	NS	NS	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	~		~	~	~		~	~
Chloroform	67-66-3	70	70	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	~		~	~	~		~	~
1,1,1-Trichloroethane	71-55-6	30	2300	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	~		~	~	~		~	~
Carbon tetrachloride	56-23-5	1	1	ND		1.00	0.270	ND		1.00	0.270	ND		1.00	0.270	ND		1.00	0.270	ND		1.00	0.270	~		~	~	~		~	~
1,2-Dichloroethane (EDC)	107-06-2	2	2	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	ND		1.00	0.400	~		~	~	~		~	~
Benzene	71-43-2	1	15	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	~		~	~	~		~	~
Trichloroethene	79-01-6	1	1	ND		1.00	0.280	ND		1.00	0.280	ND		1.00	0.280	ND		1.00	0.280	ND		1.00	0.280	~		~	~	~		~	~
1,2-Dichloropropane	78-87-5	1	1	ND		1.00	0.290	ND		1.00	0.290	ND		1.00	0.290	ND		1.00	0.290	ND		1.00	0.290	~		~	~	~		~	~
1,4-Dioxane	123-91-1	10	NS	ND		**200**	**39.1**	ND		**200**	**39.1**	ND		**200**	**39.1**	ND		**200**	**39.1**	ND		**200**	**39.1**	~		~	~	~		~	~
Bromodichloromethane	75-27-4	1	5	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	~		~	~	~		~	~
cis-1,3-Dichloropropene	10061-01-5	NS	NS	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	~		~	~	~		~	~
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	880000	ND		1.00	0.290	ND		1.00	0.290	ND		1.00	0.290	ND		1.00	0.290	ND		1.00	0.290	~		~	~	~		~	~
Toluene	108-88-3	600	310000	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	~		~	~	~		~	~
trans-1,3-Dichloropropene	10061-02-6	NS	NS	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	~		~	~	~		~	~
1,1,2-Trichloroethane	79-00-5	3	5	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	~		~	~	~		~	~
Tetrachloroethene	127-18-4	1	1	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	~		~	~	~		~	~
2-Hexanone	591-78-6	300	NS	ND		1.00	0.390	ND		1.00	0.390	ND		1.00	0.390	ND		1.00	0.390	ND		1.00	0.390	~		~	~	~		~	~
Dibromochloromethane	124-48-1	1	9	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	~		~	~	~		~	~
1,2-Dibromoethane (EDB)	106-93-4	0.03	0.4	ND		**1.00**	**0.260**	ND		**1.00**	**0.260**	ND		**1.00**	**0.260**	ND		**1.00**	**0.260**	ND		**1.00**	**0.260**	~		~	~	~		~	~
Chlorobenzene	108-90-7	50	640	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	~		~	~	~		~	~
Ethylbenzene	100-41-4	700	61000	ND		1.00	0.290	ND		1.00	0.290	ND		1.00	0.290	ND		1.00	0.290	ND		1.00	0.290	~		~	~	~		~	~
Total Xylenes	1330-20-7	1000	7000	ND		2.00	0.680	ND		2.00	0.680	ND		2.00	0.680	ND		2.00	0.680	ND		2.00	0.680	~		~	~	~		~	~
Styrene	100-42-5	100	18000	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	~		~	~	~		~	~
Bromoform	75-25-2	4	370	ND		1.00	0.260	ND		1.00	0.260	ND		1.00	0.260	ND		1.00	0.260	ND		1.00	0.260	~		~	~	~		~	~
Isopropylbenzene	98-82-8	700	NS	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	~		~	~	~		~	~
1,1,2,2-Tetrachloroethane	79-34-5	1	4	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	ND		1.00	0.330	~		~	~	~		~	~
1,3-Dichlorobenzene	541-73-1	600	600	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	ND		1.00	0.250	~		~	~	~		~	~
1,4-Dichlorobenzene	106-46-7	75	75	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	ND		1.00	0.220	~		~	~	~		~	~
1,2-Dichlorobenzene	95-50-1	600	5900	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	ND		1.00	0.240	~		~	~	~		~	~
1,2-Dibromo-3-chloropropane	96-12-8	0.02	NS	ND		**1.00**	**0.220**	ND		**1.00**	**0.220**	ND		**1.00**	**0.220**	ND		**1.00**	**0.220**	ND		**1.00**	**0.220**	~		~	~	~		~	~
1,2,4-Trichlorobenzene	120-82-1	9	2800	ND		1.00	0.270	ND		1.00	0.270	ND		1.00	0.270	ND		1.00	0.270	ND		1.00	0.270	~		~	~	~		~	~
1,2,3-Trichlorobenzene	87-61-6	NS	NS	ND		1.00	0.480	ND		1.00	0.480	ND		1.00	0.480	ND		1.00	0.480	ND		1.00	0.480	~		~	~	~		~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	2400	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	~		~	~	~		~	~
Methyl acetate	79-20-9	7000	NS	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	ND		1.00	0.210	~		~	~	~		~	~
Cyclohexane	110-82-7	NS	1200	ND		2.00	0.360	ND		2.00	0.360	ND		2.00	0.360	ND		2.00	0.360	ND		2.00	0.360	~		~	~	~		~	~
Methylcyclohexane	108-87-2	NS	NS	ND		1.00	0.600	ND		1.00	0.600	ND		1.00	0.600	ND		1.00	0.600	ND		1.00	0.600	~		~	~	~		~	~
1,3-Dichloropropene (cis- and trans-)	542-75-6	1	NS	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	ND		1.00	0.230	~		~	~	~		~	~
TOTAL VO's:		NS	NS	ND		~	NA	ND		~	NA	ND		~	NA	ND		~	NA	ND		~	NA	~		~	~	~		~	~
TOTAL TIC's:		NS	NS	ND		~	NA	ND		~	NA	ND		~	NA	ND		~	NA	ND		~	NA	~		~	~	~		~	~
TOTAL VO's & TIC's:		NS	NS	ND		~	NA	ND		~	NA	ND		~	NA	ND		~	NA	ND		~	NA	~		~	~	~		~	~
Semivolatiles - PAH (ug/L)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Naphthalene	91-20-3	300	NS	~		~	~	~		~	~	~		~	~	**~**		**~**	**~**	~		~	~	ND		1.00	0.104	ND		1.00	0.175
2-Methylnaphthalene	91-57-6	30	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.142	ND		1.00	0.109
Acenaphthylene	208-96-8	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.100	ND		1.00	0.113
Acenaphthene	83-32-9	400	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.112	ND		1.00	0.100
Fluorene	86-73-7	300	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.126	ND		1.00	0.145
Phenanthrene	85-01-8	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.187	ND		1.00	0.112
Anthracene	120-12-7	2000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.218	ND		1.00	0.124
Fluoranthene	206-44-0	300	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.174	ND		1.00	0.141
Pyrene	129-00-0	200	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.103	ND		1.00	0.744
Benzo[a]anthracene	56-55-3	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**1.00**	**0.200**	ND		**1.00**	**0.800**
Chrysene	218-01-9	5	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.120	ND		1.00	0.263
Benzo[b]fluoranthene	205-99-2	0.2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**1.00**	**0.260**	ND		**1.00**	**0.240**
Benzo[k]fluoranthene	207-08-9	0.5	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**1.00**	0.240	ND		**1.00**	0.290
Benzo[a]pyrene	50-32-8	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**1.00**	**0.210**	ND		**1.00**	**0.160**
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**1.00**	0.170	ND		**1.00**	0.120
Dibenz[a,h]anthracene	53-70-3	0.3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		**1.00**	0.230	ND		**1.00**	0.190
Benzo[g,h,i]perylene	191-24-2	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		1.00	0.122	ND		1.00	0.216

Table 4 - Groundwater Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		HIGHER OF	Table 1	A1-062712-WATER				A2-062712-WATER				A6-062912 -WATER				A7-062712-WATER				B3-062712-WATER				E1-062912 -WATER				E2-070212- WATER			
Matrix:		PQLs	Vapor Intrusion	Groundwater				Groundwater				Groundwater				Groundwater				Groundwater				Groundwater				Groundwater			
Lab ID:		and	GW	06466-010				06466-011				06546-001				06466-012				06466-009				06546-002				06658-004			
Date Sampled:		GWQC	Screening	06/27/2012				06/27/2012				06/29/2012				06/27/2012				06/27/2012				06/29/2012				07/02/2012			
Depth(ft):		(ug/L)	Levels																												
	CAS		(ug/L)																												
Semivolatiles - BN (ug/L)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
N-Nitrosodimethylamine	62-75-9	0.8	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzaldehyde	100-52-7	NS	NS	ND		1.00	0.880	ND		1.00	0.880	ND		1.00	0.420	ND		1.00	0.880	ND		1.00	0.880	~		~	~	~		~	~
Phenol	108-95-2	2000	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.100	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
Bis(2-chloroethyl) ether	111-44-4	7	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.080	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
2-Chlorophenol	95-57-8	40	NS	ND		1.00	0.130	ND		1.00	0.130	ND		1.00	0.150	ND		1.00	0.130	ND		1.00	0.130	~		~	~	~		~	~
2-Methylphenol	95-48-7	NS	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.120	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
Bis(2-chloroisopropyl) ether	108-60-1	300	NS	ND		1.00	0.140	ND		1.00	0.140	ND		1.00	0.100	ND		1.00	0.140	ND		1.00	0.140	~		~	~	~		~	~
4-Methylphenol	106-44-5	NS	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.140	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
N-Nitrosodi-n-propylamine	621-64-7	10	NS	ND		1.00	0.150	ND		1.00	0.150	ND		1.00	0.160	ND		1.00	0.150	ND		1.00	0.150	~		~	~	~		~	~
Acetophenone	98-86-2	700	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.110	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
Hexachloroethane	67-72-1	7	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.140	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
Nitrobenzene	98-95-3	6	NS	ND		1.00	0.120	ND		1.00	0.120	ND		1.00	0.130	ND		1.00	0.120	ND		1.00	0.120	~		~	~	~		~	~
Isophorone	78-59-1	40	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
2-Nitrophenol	88-75-5	NS	NS	ND		1.00	0.090	ND		1.00	0.090	ND		1.00	0.310	ND		1.00	0.090	ND		1.00	0.090	~		~	~	~		~	~
2,4-Dimethylphenol	105-67-9	100	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.170	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
Bis(2-chloroethoxy) methane	111-91-1	NS	NS	ND		1.00	0.080	ND		1.00	0.080	ND		1.00	0.110	ND		1.00	0.080	ND		1.00	0.080	~		~	~	~		~	~
2,4-Dichlorophenol	120-83-2	20	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.150	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
Naphthalene	91-20-3	300	NS	ND		1.00	0.175	ND		1.00	0.175	ND		1.00	0.104	ND		1.00	0.175	ND		1.00	0.175	~		~	~	~		~	~
4-Chloroaniline	106-47-8	30	NS	ND		1.00	0.150	ND		1.00	0.150	ND		1.00	0.140	ND		1.00	0.150	ND		1.00	0.150	~		~	~	~		~	~
Hexachlorobutadiene	87-68-3	1	1	ND		1.00	0.120	ND		1.00	0.120	ND		1.00	0.140	ND		1.00	0.120	ND		1.00	0.120	~		~	~	~		~	~
Caprolactam	105-60-2	5000	NS	ND		1.00	0.170	ND		1.00	0.170	ND		1.00	0.250	ND		1.00	0.170	ND		1.00	0.170	~		~	~	~		~	~
4-Chloro-3-methylphenol	59-50-7	100	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	30	NS	ND		1.00	0.109	ND		1.00	0.109	ND		1.00	0.142	ND		1.00	0.109	ND		1.00	0.109	~		~	~	~		~	~
Hexachlorocyclopentadiene	77-47-4	40	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.200	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
2,4,6-Trichlorophenol	88-06-2	20	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
2,4,5-Trichlorophenol	95-95-4	700	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
1,1'-Biphenyl	92-52-4	400	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.110	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
2-Chloronaphthalene	91-58-7	600	NS	ND		1.00	0.090	ND		1.00	0.090	ND		1.00	0.110	ND		1.00	0.090	ND		1.00	0.090	~		~	~	~		~	~
2-Nitroaniline	88-74-4	NS	NS	ND		1.00	0.130	ND		1.00	0.130	ND		1.00	0.140	ND		1.00	0.130	ND		1.00	0.130	~		~	~	~		~	~
Dimethyl phthalate	131-11-3	100	NS	ND		1.00	0.120	ND		1.00	0.120	ND		1.00	0.100	ND		1.00	0.120	ND		1.00	0.120	~		~	~	~		~	~
2,6-Dinitrotoluene	606-20-2	NS	NS	ND		1.00	0.120	ND		1.00	0.120	ND		1.00	0.190	ND		1.00	0.120	ND		1.00	0.120	~		~	~	~		~	~
Acenaphthylene	208-96-8	100	NS	ND		1.00	0.113	ND		1.00	0.113	ND		1.00	0.100	ND		1.00	0.113	ND		1.00	0.113	~		~	~	~		~	~
3-Nitroaniline	99-09-2	NS	NS	ND		1.00	0.130	ND		1.00	0.130	ND		1.00	0.170	ND		1.00	0.130	ND		1.00	0.130	~		~	~	~		~	~
Acenaphthene	83-32-9	400	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.112	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
2,4-Dinitrophenol	51-28-5	40	NS	ND		1.00	0.120	ND		1.00	0.120	ND		1.00	0.270	ND		1.00	0.120	ND		1.00	0.120	~		~	~	~		~	~
4-Nitrophenol	100-02-7	NS	NS	ND		1.00	0.380	ND		1.00	0.380	ND		1.00	0.250	ND		1.00	0.380	ND		1.00	0.380	~		~	~	~		~	~
2,4-Dinitrotoluene	121-14-2	NS	NS	ND		1.00	0.180	ND		1.00	0.180	ND		1.00	0.160	ND		1.00	0.180	ND		1.00	0.180	~		~	~	~		~	~
Dibenzofuran	132-64-9	NS	NS	ND		1.00	0.130	ND		1.00	0.130	ND		1.00	0.100	ND		1.00	0.130	ND		1.00	0.130	~		~	~	~		~	~
Diethyl phthalate	84-66-2	6000	NS	ND		1.00	0.190	ND		1.00	0.190	ND		1.00	0.130	ND		1.00	0.190	ND		1.00	0.190	~		~	~	~		~	~
Fluorene	86-73-7	300	NS	ND		1.00	0.145	ND		1.00	0.145	ND		1.00	0.126	ND		1.00	0.145	ND		1.00	0.145	~		~	~	~		~	~
4-Chlorophenyl phenyl ether	7005-72-3	NS	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.130	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
4-Nitroaniline	100-01-6	NS	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.160	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.150	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
2,3,4,6-Tetrachlorophenol	58-90-2	200	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.260	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
4,6-Dinitro-2-methylphenol	534-52-1	1	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.130	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
N-Nitrosodiphenylamine	86-30-6	10	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.180	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
4-Bromophenyl phenyl ether	101-55-3	NS	NS	ND		1.00	0.110	ND		1.00	0.110	ND		1.00	0.210	ND		1.00	0.110	ND		1.00	0.110	~		~	~	~		~	~
1,2-Diphenylhydrazine	122-66-7	20	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobenzene	118-74-1	0.02	NS	ND		**1.00**	**0.130**	ND		**1.00**	**0.130**	ND		**1.00**	**0.150**	ND		**1.00**	**0.130**	ND		**1.00**	**0.130**	~		~	~	~		~	~
Atrazine	1912-24-9	3	NS	ND		1.00	0.170	ND		1.00	0.170	ND		1.00	0.210	ND		1.00	0.170	ND		1.00	0.170	~		~	~	~		~	~
Pentachlorophenol	87-86-5	0.3	NS	ND		**1.00**	0.110	ND		**1.00**	0.110	ND		**1.00**	0.140	ND		**1.00**	0.110	ND		**1.00**	0.110	~		~	~	~		~	~
Phenanthrene	85-01-8	100	NS	ND		1.00	0.112	ND		1.00	0.112	ND		1.00	0.187	ND		1.00	0.112	ND		1.00	0.112	~		~	~	~		~	~
Anthracene	120-12-7	2000	NS	ND		1.00	0.124	ND		1.00	0.124	ND		1.00	0.218	ND		1.00	0.124	ND		1.00	0.124	~		~	~	~		~	~
Carbazole	86-74-8	NS	NS	ND		1.00	0.160	ND		1.00	0.160	ND		1.00	0.180	ND		1.00	0.160	ND		1.00	0.160	~		~	~	~		~	~
Di-n-butyl phthalate	84-74-2	700	NS	ND		1.00	0.140	ND		1.00	0.140	ND		1.00	0.120	ND		1.00	0.140	ND		1.00	0.140	~		~	~	~		~	~
Fluoranthene	206-44-0	300	NS	ND		1.00	0.141	ND		1.00	0.141	ND		1.00	0.174	ND		1.00	0.141	ND		1.00	0.141	~		~	~	~		~	~
Benzidine	92-87-5	20	NS	~		~	~	~		~	~					~		~	~	~		~	~	~		~	~	~		~	~
Pyrene	129-00-0	200	NS	ND		1.00	0.744	ND		1.00	0.744	ND		1.00	0.103	ND		1.00	0.744	ND		1.00	0.744	~		~	~	~		~	~
Butyl benzyl phthalate	85-68-7	100	NS	ND		1.00	0.100	ND		1.00	0.100	ND		1.00	0.180	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~
3,3'-Dichlorobenzidine	91-94-1	30	NS	ND		1.00	0.170	ND		1.00	0.170	ND		1.00	0.230	ND		1.00	0.170	ND		1.00	0.170	~		~	~	~		~	~
Benzo[a]anthracene	56-55-3	0.1	NS	ND		**1.00**	**0.800**	ND		**1.00**	**0.800**	ND		**1.00**	**0.200**	ND		**1.00**	**0.800**	ND		**1.00**	**0.800**	~		~	~	~		~	~
Chrysene	218-01-9	5	NS	ND		1.00	0.263	ND		1.00	0.263	ND		1.00	0.120	ND		1.00	0.263	ND		1.00	0.263	~		~	~	~		~	~
Bis(2-ethylhexyl) phthalate	117-81-7	3	NS	ND		1.00	0.120	ND		1.00	0.120	ND		1.00	0.210	ND		1.00	0.120	ND		1.00	0.120	~		~	~	~		~	~
Di-n-octyl phthalate	117-84-0	100	NS	ND		1.00	0.090	ND		1.00	0.090	ND		1.00	0.310	ND		1.00	0.090	ND		1.00	0.090	~		~	~	~		~	~
Benzo[b]fluoranthene	205-99-2	0.2	NS	ND		**1.00**	**0.240**	ND		**1.00**	**0.240**	ND		**1.00**	**0.260**	ND		**1.00**	**0.240**	ND		**1.00**	**0.240**	~		~	~	~		~	~
Benzo[k]fluoranthene	207-08-9	0.5	NS	ND		**1.00**	0.290	ND		**1.00**	0.290	ND		**1.00**	0.240	ND		**1.00**	0.290	ND		**1.00**	0.290	~		~	~	~		~	~
Benzo[a]pyrene	50-32-8	0.1	NS	ND		**1.00**	**0.160**	ND		**1.00**	**0.160**	ND		**1.00**	**0.210**	ND		**1.00**	**0.160**	ND		**1.00**	**0.160**	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	NS	ND		**1.00**	0.120	ND		**1.00**	0.120	ND		**1.00**	0.170	ND		**1.00**	0.120	ND		**1.00**	0.120	~		~	~	~		~	~
Dibenz[a,h]anthracene	53-70-3	0.3	NS	ND		**1.00**	0.190	ND		**1.00**	0.190	ND		**1.00**	0.230	ND		**1.00**	0.190	ND		**1.00**	0.190	~		~	~	~		~	~
Benzo[g,h,i]perylene	191-24-2	100	NS	ND		1.00	0.216	ND		1.00	0.216	ND		1.00	0.122	ND		1.00	0.216	ND		1.00	0.216	~		~	~	~		~	~
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	10	NS	ND		1.00	0.180	ND		1.00	0.180	ND		1.00	0.190	ND		1.00	0.180	ND		1.00	0.180	~		~	~	~		~	~
TOTAL BN'S:		NS	NS	ND		~	NA	ND		~	NA	ND		~	NA	ND		~	NA	ND		~	NA	~		~	~	~		~	~
TOTAL TIC's:		NS	NS	ND		~	NA	ND		~	NA	102		~	NA	ND		~	NA	ND		~	NA	~		~	~	~		~	~
TOTAL BN'S & TIC's:		NS	NS	ND		~	NA	ND		~	NA	102		~	NA	ND		~	NA	ND		~	NA	~		~	~	~		~	~

Table 4 - Groundwater Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		HIGHER OF	Table 1	A1-062712-WATER				A2-062712-WATER				A6-062912 -WATER				A7-062712-WATER				B3-062712-WATER				E1-062912 -WATER				E2-070212- WATER			
Matrix:		PQLs	Vapor Intrusion	Groundwater				Groundwater				Groundwater				Groundwater				Groundwater				Groundwater				Groundwater			
Lab ID:		and	GW	06466-010				06466-011				06546-001				06466-012				06466-009				06546-002				06658-004			
Date Sampled:		GWQC	Screening	06/27/2012				06/27/2012				06/29/2012				06/27/2012				06/27/2012				06/29/2012				07/02/2012			
Depth(ft):		(ug/L)	Levels																												
	CAS		(ug/L)																												
PCB's (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1221	11104-28-2	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1232	11141-16-5	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1242	53469-21-9	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1248	12672-29-6	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1254	11097-69-1	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1260	11096-82-5	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1262	37324-23-5	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aroclor-1268	11100-14-4	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
PCBs	1336-36-3	0.5	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Pesticides (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.02	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
beta-BHC	319-85-7	0.04	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.03	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.05	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Aldrin	309-00-2	0.04	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.2	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Endosulfan I	959-98-8	40	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
4,4'-DDE	72-55-9	0.1	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Dieldrin	60-57-1	0.03	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Endrin	72-20-8	2	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Endosulfan II	33213-65-9	40	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
4,4'-DDD	72-54-8	0.1	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	40	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
4,4'-DDT	50-29-3	0.1	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	40	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Toxaphene	8001-35-2	2	NS	ND		0.125	0.060	ND		0.125	0.060	ND		0.125	0.060	ND		0.125	0.060	~		~	~	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	40	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.5	NS	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	ND		0.010	0.005	~		~	~	~		~	~	~		~	~
Pesticides (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.02	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
beta-BHC	319-85-7	0.04	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-BHC (Lindane)	58-89-9	0.03	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
delta-BHC	319-86-8	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor	76-44-8	0.05	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Aldrin	309-00-2	0.04	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Heptachlor epoxide	1024-57-3	0.2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan I	959-98-8	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDE	72-55-9	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dieldrin	60-57-1	0.03	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin	72-20-8	2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan II	33213-65-9	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDD	72-54-8	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan sulfate	1031-07-8	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,4'-DDT	50-29-3	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endrin ketone	53494-70-5	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methoxychlor	72-43-5	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toxaphene	8001-35-2	2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Endosulfan (I and II)	115-29-7	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.5	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Herbicides (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dalapon	75-99-0	200	NS	ND		0.500	0.200	ND		0.500	0.200	ND		0.250	0.100	ND		0.250	0.100	~		~	~	~		~	~	~		~	~
Dicamba	1918-00-9	NS	NS	ND		0.500	0.200	ND		0.500	0.200	ND		0.250	0.100	ND		0.250	0.100	~		~	~	~		~	~	~		~	~
2,4-D	94-75-7	70	NS	ND		0.500	0.200	ND		0.500	0.200	ND		0.250	0.100	ND		0.250	0.100	~		~	~	~		~	~	~		~	~
2,4,5-TP (Silvex)	93-72-1	60	NS	ND		0.500	0.200	ND		0.500	0.200	ND		0.250	0.100	ND		0.250	0.100	~		~	~	~		~	~	~		~	~
2,4,5-T	93-76-5	NS	NS	ND		0.500	0.200	ND		0.500	0.200	ND		0.250	0.100	ND		0.250	0.100	~		~	~	~		~	~	~		~	~
2,4-DB	94-82-6	NS	NS	ND		0.500	0.200	ND		0.500	0.200	ND		0.250	0.100	ND		0.250	0.100	~		~	~	~		~	~	~		~	~
Dinoseb	88-85-7	7	NS	ND		0.500	0.200	ND		0.500	0.200	ND		0.250	0.100	ND		0.250	0.100	~		~	~	~		~	~	~		~	~
NJ-EPH-Fractionated (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C12 Aliphatics	IALC9ALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C12-C16 Aliphatics	IALC12ALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C16-C21 Aliphatics	IALC16ALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C21-C40 Aliphatics	IALC21ALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Aliphatics	IALTALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C10-C12 Aromatics	IALC10ARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C12-C16 Aromatics	IALC12ARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C16-C21 Aromatics	IALC16ARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C21-C36 Aromatics	IALC21ARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Aromatics	IALTARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total NJ-EPH	IALTEPH	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

Table 4 - Groundwater Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		HIGHER OF	Table 1	A1-062712-WATER				A2-062712-WATER				A6-062912 -WATER				A7-062712-WATER				B3-062712-WATER				E1-062912 -WATER				E2-070212- WATER			
Matrix:		PQLs	Vapor Intrusion	Groundwater				Groundwater				Groundwater				Groundwater				Groundwater				Groundwater				Groundwater			
Lab ID:		and	GW	06466-010				06466-011				06546-001				06466-012				06466-009				06546-002				06658-004			
Date Sampled:		GWQC	Screening	06/27/2012				06/27/2012				06/29/2012				06/27/2012				06/27/2012				06/29/2012				07/02/2012			
Depth(ft):		(ug/L)	Levels																												
	CAS		(ug/L)																												
Metals (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aluminum	7429-90-5	200	NS	ND		40.0	20.0	**232**		40.0	20.0	81.9		40.0	20.0	**784**		40.0	20.0	ND		40.0	20.0	ND		40.0	20.0	ND		40.0	20.0
Antimony	7440-36-0	6	NS	ND		4.00	1.00	ND		4.00	1.00	ND		4.00	1.00	ND		4.00	1.00	ND		4.00	1.00	1.19	J	4.00	1.00	ND		4.00	1.00
Arsenic	7440-38-2	3	NS	ND		2.00	1.00	ND		2.00	1.00	1.43	J	2.00	1.00	ND		2.00	1.00	ND		2.00	1.00	1.21	J	2.00	1.00	ND		2.00	1.00
Barium	7440-39-3	6000	NS	26.3	J	40.0	10.0	84.2		40.0	10.0	50.0		40.0	10.0	75.1		40.0	10.0	61.9		40.0	10.0	72.4		40.0	10.0	104		40.0	10.0
Beryllium	7440-41-7	1	NS	ND		**2.00**	1.00	ND		**2.00**	1.00	ND		**2.00**	1.00	ND		**2.00**	1.00	ND		**2.00**	1.00	ND		**2.00**	1.00	ND		**2.00**	1.00
Cadmium	7440-43-9	4	NS	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500
Calcium	7440-70-2	NS	NS	3180		200	100	3280		200	100	15900		200	100	4480		200	100	35200		200	100	29700		200	100	8260		200	100
Chromium	7440-47-3	70	NS	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00
Cobalt	7440-48-4	100	NS	2.04	J	8.00	2.00	5.86	J	8.00	2.00	ND		8.00	2.00	7.94	J	8.00	2.00	2.18	J	8.00	2.00	ND		8.00	2.00	5.00	J	8.00	2.00
Copper	7440-50-8	1300	NS	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00
Iron	7439-89-6	300	NS	**1300**		100	50.0	**3240**		100	50.0	**1400**		100	50.0	**1070**		100	50.0	ND		100	50.0	**13500**		100	50.0	**95800**		100	50.0
Lead	7439-92-1	5	NS	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500
Magnesium	7439-95-4	NS	NS	1620		200	50.0	1730		200	50.0	3240		200	50.0	1700		200	50.0	17000		200	50.0	5850		200	50.0	4940		200	50.0
Manganese	7439-96-5	50	NS	**67.4**		4.00	2.00	**180**		4.00	2.00	**113**		4.00	2.00	**181**		4.00	2.00	**807**		4.00	2.00	**395**		4.00	2.00	**748**		4.00	2.00
Mercury	7439-97-6	2	NS	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300
Nickel	7440-02-0	100	NS	2.89	J	4.00	1.00	4.42		4.00	1.00	ND		4.00	1.00	5.91		4.00	1.00	4.38		4.00	1.00	1.48	J	4.00	1.00	ND		4.00	1.00
Potassium	7440-09-7	NS	NS	1240		200	50.0	1810		200	50.0	3480		200	50.0	1870		200	50.0	24600		200	50.0	6440		200	50.0	1100		200	50.0
Selenium	7782-49-2	40	NS	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	5.29	J	8.00	4.00	ND		8.00	4.00	ND		8.00	4.00
Silver	7440-22-4	40	NS	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500
Sodium	7440-23-5	50000	NS	2480		400	100	3540		400	100	26000		400	100	3290		400	100	**189000**		400	100	36800		400	100	**58300**		400	100
Thallium	7440-28-0	2	NS	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500
Vanadium	7440-62-2	NS	NS	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00
Zinc	7440-66-6	2000	NS	47.2		8.00	4.00	107		8.00	4.00	11.0		8.00	4.00	11.2		8.00	4.00	7.65	J	8.00	4.00	10.7		8.00	4.00	14.6		8.00	4.00
General Analytical				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Hexavalent Chromium	18540-29-9	NS	NS	ND		510	510	ND		500	500	ND		500	500	ND		500	500	ND		500	500	609		500	500	2720		500	500
Cyanide, Total	57-12-5	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Petroleum Hydrocarbons-ug/L	SRP 124	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trivalent (III) Chromium	16065-83-1	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

NJDEP Class II-A Specific Ground Water Quality Criteria : Ground Water Quality Standards N.J.A.C. 7:9C, Nov 2005

BOLD Conc — Indicates a concentration that exceeds the the NJDEP PQLS/GWQC standard.
BOLD Conc — Indicates a concentration that exceeds the the NJDEP Vapor Intrusion GW Screening Levels.
BOLD RL — Indicates RL that exceeds applicable criteria.
BOLD MDL — Indicates MDL that exceeds applicable criteria.

NS = No Standard Available
~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

Table 4 - Groundwater Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		HIGHER OF	Table 1	H1-070212- WATER				H2-070212- WATER				H3-070212- WATER				I1-062612 -WATER				I2-062612- WATER				I4-070212- WATER			
Matrix:		PQLs	Vapor Intrusion	Groundwater				Groundwater				Groundwater				Surface Water				Surface Water				Groundwater			
Lab ID:		and	GW	06658-001				06658-002				06658-003				06385-005				06385-003				06658-005			
Date Sampled:		GWQC	Screening	07/02/2012				07/02/2012				07/02/2012				06/26/2012				06/26/2012				07/02/2012			
Depth(ft):		(ug/L)	Levels																								
	CAS		(ug/L)																								
Volatiles (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dichlorodifluoromethane	75-71-8	1000	1000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloromethane	74-87-3	NS	240	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Vinyl chloride	75-01-4	1	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromomethane	74-83-9	10	29	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloroethane	75-00-3	5	4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trichlorofluoromethane	75-69-4	2000	2000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acrolein	107-02-8	5	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1-Dichloroethene	75-35-4	1	250	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acetone	67-64-1	6000	1900000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Carbon disulfide	75-15-0	700	710	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methylene chloride	75-09-2	3	53	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acrylonitrile	107-13-1	2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
tert-Butyl alcohol (TBA)	75-65-0	100	170000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
trans-1,2-Dichloroethene	156-60-5	100	300	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methyl tert-butyl ether (MTBE)	1634-04-4	70	78	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1-Dichloroethane	75-34-3	50	3600	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
cis-1,2-Dichloroethene	156-59-2	70	350	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Butanone (MEK)	78-93-3	300	2700000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromochloromethane	74-97-5	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chloroform	67-66-3	70	70	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,1-Trichloroethane	71-55-6	30	2300	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Carbon tetrachloride	56-23-5	1	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dichloroethane (EDC)	107-06-2	2	2	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzene	71-43-2	1	15	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Trichloroethene	79-01-6	1	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dichloropropane	78-87-5	1	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,4-Dioxane	123-91-1	10	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromodichloromethane	75-27-4	1	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
cis-1,3-Dichloropropene	10061-01-5	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	880000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Toluene	108-88-3	600	310000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
trans-1,3-Dichloropropene	10061-02-6	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2-Trichloroethane	79-00-5	3	5	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Tetrachloroethene	127-18-4	1	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Hexanone	591-78-6	300	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibromochloromethane	124-48-1	1	9	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dibromoethane (EDB)	106-93-4	0.03	0.4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chlorobenzene	108-90-7	50	640	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Ethylbenzene	100-41-4	700	61000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Xylenes	1330-20-7	1000	7000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Styrene	100-42-5	100	18000	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bromoform	75-25-2	4	370	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Isopropylbenzene	98-82-8	700	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2,2-Tetrachloroethane	79-34-5	1	4	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,3-Dichlorobenzene	541-73-1	600	600	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,4-Dichlorobenzene	106-46-7	75	75	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dichlorobenzene	95-50-1	600	5900	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Dibromo-3-chloropropane	96-12-8	0.02	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,4-Trichlorobenzene	120-82-1	9	2800	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,3-Trichlorobenzene	87-61-6	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	2400	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methyl acetate	79-20-9	7000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Cyclohexane	110-82-7	NS	1200	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Methylcyclohexane	108-87-2	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,3-Dichloropropene (cis- and trans-)	542-75-6	1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL VO's:		NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL TIC's:		NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL VO's & TIC's:		NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Semivolatiles - PAH (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Naphthalene	91-20-3	300	NS	0.866	J	1.00	0.175	ND		1.00	0.175	ND		1.00	0.175	~		~	~	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	30	NS	ND		1.00	0.109	ND		1.00	0.109	ND		1.00	0.109	~		~	~	~		~	~	~		~	~
Acenaphthylene	208-96-8	100	NS	ND		1.00	0.113	ND		1.00	0.113	ND		1.00	0.113	~		~	~	~		~	~	~		~	~
Acenaphthene	83-32-9	400	NS	0.460	J	1.00	0.100	ND		1.00	0.100	ND		1.00	0.100	~		~	~	~		~	~	~		~	~
Fluorene	86-73-7	300	NS	ND		1.00	0.145	ND		1.00	0.145	ND		1.00	0.145	~		~	~	~		~	~	~		~	~
Phenanthrene	85-01-8	100	NS	0.490	J	1.00	0.112	ND		1.00	0.112	ND		1.00	0.112	~		~	~	~		~	~	~		~	~
Anthracene	120-12-7	2000	NS	ND		1.00	0.124	ND		1.00	0.124	ND		1.00	0.124	~		~	~	~		~	~	~		~	~
Fluoranthene	206-44-0	300	NS	ND		1.00	0.141	ND		1.00	0.141	ND		1.00	0.141	~		~	~	~		~	~	~		~	~
Pyrene	129-00-0	200	NS	ND		1.00	0.744	ND		1.00	0.744	ND		1.00	0.744	~		~	~	~		~	~	~		~	~
Benzo[a]anthracene	56-55-3	0.1	NS	ND		**1.00**	**0.800**	ND		**1.00**	**0.800**	ND		**1.00**	**0.800**	~		~	~	~		~	~	~		~	~
Chrysene	218-01-9	5	NS	ND		1.00	0.263	ND		1.00	0.263	ND		1.00	0.263	~		~	~	~		~	~	~		~	~
Benzo[b]fluoranthene	205-99-2	0.2	NS	ND		**1.00**	**0.240**	ND		**1.00**	**0.240**	ND		**1.00**	**0.240**	~		~	~	~		~	~	~		~	~
Benzo[k]fluoranthene	207-08-9	0.5	NS	ND		**1.00**	0.290	ND		**1.00**	0.290	ND		**1.00**	0.290	~		~	~	~		~	~	~		~	~
Benzo[a]pyrene	50-32-8	0.1	NS	ND		**1.00**	**0.160**	ND		**1.00**	**0.160**	ND		**1.00**	**0.160**	~		~	~	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	NS	ND		**1.00**	0.120	ND		**1.00**	0.120	ND		**1.00**	0.120	~		~	~	~		~	~	~		~	~
Dibenz[a,h]anthracene	53-70-3	0.3	NS	ND		**1.00**	0.190	ND		**1.00**	0.190	ND		**1.00**	0.190	~		~	~	~		~	~	~		~	~
Benzo[g,h,i]perylene	191-24-2	100	NS	ND		1.00	0.216	ND		1.00	0.216	ND		1.00	0.216	~		~	~	~		~	~	~		~	~

Table 4 - Groundwater Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		HIGHER OF	Table 1	H1-070212- WATER				H2-070212- WATER				H3-070212- WATER				I1-062612 -WATER				I2-062612- WATER				I4-070212- WATER			
Matrix:		PQLs	Vapor Intrusion	Groundwater				Groundwater				Groundwater				Surface Water				Surface Water				Groundwater			
Lab ID:		and	GW	06658-001				06658-002				06658-003				06385-005				06385-003				06658-005			
Date Sampled:		GWQC	Screening	07/02/2012				07/02/2012				07/02/2012				06/26/2012				06/26/2012				07/02/2012			
Depth(ft):		(ug/L)	Levels																								
	CAS		(ug/L)																								
Semivolatiles - BN (ug/L)				Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
N-Nitrosodimethylamine	62-75-9	0.8	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzaldehyde	100-52-7	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Phenol	108-95-2	2000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroethyl) ether	111-44-4	7	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Chlorophenol	95-57-8	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylphenol	95-48-7	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroisopropyl) ether	108-60-1	300	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Methylphenol	106-44-5	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
N-Nitrosodi-n-propylamine	621-64-7	10	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acetophenone	98-86-2	700	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachloroethane	67-72-1	7	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Nitrobenzene	98-95-3	6	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Isophorone	78-59-1	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Nitrophenol	88-75-5	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dimethylphenol	105-67-9	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-chloroethoxy) methane	111-91-1	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dichlorophenol	120-83-2	20	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Naphthalene	91-20-3	300	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Chloroaniline	106-47-8	30	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobutadiene	87-68-3	1	1	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Caprolactam	105-60-2	5000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Chloro-3-methylphenol	59-50-7	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Methylnaphthalene	91-57-6	30	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorocyclopentadiene	77-47-4	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,6-Trichlorophenol	88-06-2	20	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4,5-Trichlorophenol	95-95-4	700	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,1'-Biphenyl	92-52-4	400	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Chloronaphthalene	91-58-7	600	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2-Nitroaniline	88-74-4	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dimethyl phthalate	131-11-3	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,6-Dinitrotoluene	606-20-2	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthylene	208-96-8	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
3-Nitroaniline	99-09-2	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Acenaphthene	83-32-9	400	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dinitrophenol	51-28-5	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Nitrophenol	100-02-7	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,4-Dinitrotoluene	121-14-2	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibenzofuran	132-64-9	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Diethyl phthalate	84-66-2	6000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Fluorene	86-73-7	300	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Chlorophenyl phenyl ether	7005-72-3	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Nitroaniline	100-01-6	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
2,3,4,6-Tetrachlorophenol	58-90-2	200	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4,6-Dinitro-2-methylphenol	534-52-1	1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
N-Nitrosodiphenylamine	86-30-6	10	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
4-Bromophenyl phenyl ether	101-55-3	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
1,2-Diphenylhydrazine	122-66-7	20	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Hexachlorobenzene	118-74-1	0.02	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Atrazine	1912-24-9	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Pentachlorophenol	87-86-5	0.3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Phenanthrene	85-01-8	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Anthracene	120-12-7	2000	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Carbazole	86-74-8	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Di-n-butyl phthalate	84-74-2	700	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Fluoranthene	206-44-0	300	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzidine	92-87-5	20	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Pyrene	129-00-0	200	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Butyl benzyl phthalate	85-68-7	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
3,3'-Dichlorobenzidine	91-94-1	30	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]anthracene	56-55-3	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Chrysene	218-01-9	5	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Bis(2-ethylhexyl) phthalate	117-81-7	3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Di-n-octyl phthalate	117-84-0	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[b]fluoranthene	205-99-2	0.2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[k]fluoranthene	207-08-9	0.5	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[a]pyrene	50-32-8	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dibenz[a,h]anthracene	53-70-3	0.3	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Benzo[g,h,i]perylene	191-24-2	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	10	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL BN'S:		NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL TIC's:		NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
TOTAL BN'S & TIC's:		NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

Table 4 - Groundwater Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		HIGHER OF	Table 1	H1-070212- WATER				H2-070212- WATER				H3-070212- WATER				I1-062612 -WATER				I2-062612- WATER				I4-070212- WATER			
Matrix:		PQLs	Vapor Intrusion	Groundwater				Groundwater				Groundwater				Surface Water				Surface Water				Groundwater			
Lab ID:		and	GW	06658-001				06658-002				06658-003				06385-005				06385-003				06658-005			
Date Sampled:		GWQC	Screening	07/02/2012				07/02/2012				07/02/2012				06/26/2012				06/26/2012				07/02/2012			
Depth(ft):		(ug/L)	Levels																								
	CAS		(ug/L)																								
PCB's (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aroclor-1016	12674-11-2	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
Aroclor-1221	11104-28-2	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
Aroclor-1232	11141-16-5	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
Aroclor-1242	53469-21-9	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
Aroclor-1248	12672-29-6	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
Aroclor-1254	11097-69-1	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
Aroclor-1260	11096-82-5	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
Aroclor-1262	37324-23-5	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
Aroclor-1268	11100-14-4	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
PCBs	1336-36-3	0.5	NS	~		~	~	~		~	~	~		~	~	ND		0.050	0.020	ND		0.050	0.020	ND		0.050	0.020
Pesticides (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.02	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
beta-BHC	319-85-7	0.04	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
gamma-BHC (Lindane)	58-89-9	0.03	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
delta-BHC	319-86-8	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Heptachlor	76-44-8	0.05	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Aldrin	309-00-2	0.04	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Heptachlor epoxide	1024-57-3	0.2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Endosulfan I	959-98-8	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
4,4'-DDE	72-55-9	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Dieldrin	60-57-1	0.03	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Endrin	72-20-8	2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Endosulfan II	33213-65-9	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
4,4'-DDD	72-54-8	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Endrin aldehyde	7421-93-4	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Endosulfan sulfate	1031-07-8	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
4,4'-DDT	50-29-3	0.1	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Endrin ketone	53494-70-5	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Methoxychlor	72-43-5	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
alpha-Chlordane	5103-71-9	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
gamma-Chlordane	5103-74-2	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Toxaphene	8001-35-2	2	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.125	0.060
Endosulfan (I and II)	115-29-7	40	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Chlordane (alpha and gamma)	57-74-9	0.5	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	ND		0.010	0.005
Pesticides (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
alpha-BHC	319-84-6	0.02	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
beta-BHC	319-85-7	0.04	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
gamma-BHC (Lindane)	58-89-9	0.03	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
delta-BHC	319-86-8	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Heptachlor	76-44-8	0.05	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Aldrin	309-00-2	0.04	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Heptachlor epoxide	1024-57-3	0.2	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Endosulfan I	959-98-8	40	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
4,4'-DDE	72-55-9	0.1	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Dieldrin	60-57-1	0.03	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Endrin	72-20-8	2	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Endosulfan II	33213-65-9	40	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
4,4'-DDD	72-54-8	0.1	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Endrin aldehyde	7421-93-4	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Endosulfan sulfate	1031-07-8	40	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
4,4'-DDT	50-29-3	0.1	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Endrin ketone	53494-70-5	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Methoxychlor	72-43-5	40	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
alpha-Chlordane	5103-71-9	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
gamma-Chlordane	5103-74-2	NS	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Toxaphene	8001-35-2	2	NS	~		~	~	~		~	~	~		~	~	ND		0.125	0.060	ND		0.125	0.060	~		~	~
Endosulfan (I and II)	115-29-7	40	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Chlordane (alpha and gamma)	57-74-9	0.5	NS	~		~	~	~		~	~	~		~	~	ND		0.010	0.005	ND		0.010	0.005	~		~	~
Herbicides (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Dalapon	75-99-0	200	NS	~		~	~	~		~	~	~		~	~	ND		12.5	5.00	ND		12.5	5.00	ND		0.500	0.200
Dicamba	1918-00-9	NS	NS	~		~	~	~		~	~	~		~	~	ND		12.5	5.00	ND		12.5	5.00	ND		0.500	0.200
2,4-D	94-75-7	70	NS	~		~	~	~		~	~	~		~	~	ND		12.5	5.00	ND		12.5	5.00	ND		0.500	0.200
2,4,5-TP (Silvex)	93-72-1	60	NS	~		~	~	~		~	~	~		~	~	ND		12.5	5.00	ND		12.5	5.00	ND		0.500	0.200
2,4,5-T	93-76-5	NS	NS	~		~	~	~		~	~	~		~	~	ND		12.5	5.00	ND		12.5	5.00	ND		0.500	0.200
2,4-DB	94-82-6	NS	NS	~		~	~	~		~	~	~		~	~	ND		12.5	5.00	ND		12.5	5.00	ND		0.500	0.200
Dinoseb	88-85-7	7	NS	~		~	~	~		~	~	~		~	~	ND		**12.5**	5.00	ND		**12.5**	5.00	ND		0.500	0.200
NJ-EPH-Fractionated (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
C9-C12 Aliphatics	IALC9ALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C12-C16 Aliphatics	IALC12ALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C16-C21 Aliphatics	IALC16ALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C21-C40 Aliphatics	IALC21ALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Aliphatics	IALTALI	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C10-C12 Aromatics	IALC10ARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C12-C16 Aromatics	IALC12ARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C16-C21 Aromatics	IALC16ARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
C21-C36 Aromatics	IALC21ARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Aromatics	IALTARO	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total NJ-EPH	IALTEPH	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

Table 4 - Groundwater Analytical Results
3137 Chammings Court and 3209 North Mills Road
City of Vineland, Cumberland County, New Jersey

Sample #:		HIGHER OF	Table 1	H1-070212- WATER				H2-070212- WATER				H3-070212- WATER				I1-062612 -WATER				I2-062612- WATER				I4-070212- WATER			
Matrix:		PQLs	Vapor Intrusion	Groundwater				Groundwater				Groundwater				Surface Water				Surface Water				Groundwater			
Lab ID:		and	GW	06658-001				06658-002				06658-003				06385-005				06385-003				06658-005			
Date Sampled:		GWQC	Screening	07/02/2012				07/02/2012				07/02/2012				06/26/2012				06/26/2012				07/02/2012			
Depth(ft):		(ug/L)	Levels																								
	CAS		(ug/L)																								
Metals (ug/L)				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Aluminum	7429-90-5	200	NS	ND		40.0	20.0	ND		40.0	20.0	ND		40.0	20.0	133		40.0	20.0	**207**		40.0	20.0	**803**		40.0	20.0
Antimony	7440-36-0	6	NS	3.28	J	4.00	1.00	ND		4.00	1.00	ND		4.00	1.00	**8.95**		4.00	1.00	**8.95**		4.00	1.00	ND		4.00	1.00
Arsenic	7440-38-2	3	NS	**99.3**		2.00	1.00	1.74	J	2.00	1.00	ND		2.00	1.00	**32.1**		2.00	1.00	**30.4**		2.00	1.00	ND		2.00	1.00
Barium	7440-39-3	6000	NS	23.6	J	40.0	10.0	22.9	J	40.0	10.0	22.8	J	40.0	10.0	ND		40.0	10.0	ND		40.0	10.0	153		40.0	10.0
Beryllium	7440-41-7	1	NS	ND		**2.00**	1.00	ND		**2.00**	1.00	ND		**2.00**	1.00	ND		**2.00**	1.00	ND		**2.00**	1.00	ND		**2.00**	1.00
Cadmium	7440-43-9	4	NS	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500
Calcium	7440-70-2	NS	NS	19400		200	100	85300		200	100	100000		200	100	25300		200	100	25500		200	100	8310		200	100
Chromium	7440-47-3	70	NS	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	ND		8.00	2.00
Cobalt	7440-48-4	100	NS	ND		8.00	2.00	3.08	J	8.00	2.00	7.27	J	8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	10.0		8.00	2.00
Copper	7440-50-8	1300	NS	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00
Iron	7439-89-6	300	NS	**1070**		100	50.0	**5410**		100	50.0	**2970**		100	50.0	287		100	50.0	81.0	J	100	50.0	**2090**		100	50.0
Lead	7439-92-1	5	NS	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	0.901	J	2.00	0.500	1.81	J	2.00	0.500	ND		2.00	0.500
Magnesium	7439-95-4	NS	NS	1560		200	50.0	12600		200	50.0	10800		200	50.0	8240		200	50.0	8320		200	50.0	4090		200	50.0
Manganese	7439-96-5	50	NS	**77.4**		4.00	2.00	**787**		4.00	2.00	**718**		4.00	2.00	12.8		4.00	2.00	3.18	J	4.00	2.00	**350**		4.00	2.00
Mercury	7439-97-6	2	NS	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300	ND		0.500	0.300
Nickel	7440-02-0	100	NS	4.09		4.00	1.00	3.93	J	4.00	1.00	7.37		4.00	1.00	9.79		4.00	1.00	6.80		4.00	1.00	4.03		4.00	1.00
Potassium	7440-09-7	NS	NS	15500		200	50.0	11500		200	50.0	5870		200	50.0	37300		200	50.0	36300		200	50.0	4470		200	50.0
Selenium	7782-49-2	40	NS	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00	ND		8.00	4.00
Silver	7440-22-4	40	NS	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500
Sodium	7440-23-5	50000	NS	**346000**		400	100	**229000**		400	100	44300		400	100	**293000**		400	100	**314000**		400	100	6530		400	100
Thallium	7440-28-0	2	NS	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500	ND		2.00	0.500
Vanadium	7440-62-2	NS	NS	4.72	J	8.00	2.00	ND		8.00	2.00	ND		8.00	2.00	216		8.00	2.00	194		8.00	2.00	ND		8.00	2.00
Zinc	7440-66-6	2000	NS	5.61	J	8.00	4.00	16.2		8.00	4.00	16.9		8.00	4.00	~		~	~	8.49		8.00	4.00	11.8		8.00	4.00
General Analytical				**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
Hexavalent Chromium	18540-29-9	NS	NS	ND		500	500	1870		500	500	723		500	500	~		~	~	~		~	~	ND		500	500
Cyanide, Total	57-12-5	100	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~
Total Petroleum Hydrocarbons-ug/L	SRP 124	NS	NS	~		~	~	~		~	~	~		~	~	ND		500	500	ND		500	500	~		~	~
Trivalent (III) Chromium	16065-83-1	NS	NS	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~	~		~	~

NJDEP Class II-A Specific Ground Water Quality Criteria : Ground Water Quality Standards N.J.A.C. 7:9C, N

BOLD Conc indicates a concentration that exceeds the the NJDEP PQLS/G\

BOLD Conc indicates a concentration that exceeds the the NJDEP Vapor Int

BOLD RL Indicates RL that exceeds applicable criteria.

BOLD MDL Indicates MDL that exceeds applicable criteria.

NS = No Standard Available

~ = Sample not analyzed for

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

APPENDIX A

BORING LOGS

Project: Tradebe
Project Location: Vineland, New Jersey
Project Number: 19999423

Log of Soil Boring A1

Sheet 1 of 1

Date(s) Drilled	6/27/2012	Logged By	N. Laird	Checked By	
Drilling Method	Direct Push	Drill Bit Size/Type	2" Macrocore	Total Depth of Borehole	20 feet
Drill Rig Type	GeoProbe	Drilling Contractor	Talon Drilling	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	Discrete Sampling - Acetate Liner	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					COBBLES/ASPHALT/GRAVEL/FILL.	All PID readings are 0.0 ppm, unless otherwise noted.
						Orange brown SILTY SAND with Gravel, dry.	
	5			3.1			
				1.2		Dark brown SILTY SAND, dry.	
				0.4			
				0.1		Orange brown SAND, dry.	
				2.1		Light tan SAND, dry.	
	10			1.8			
				4.0			
			A1(12-13)-062712	0.6		Light tan SAND, damp. Wet at 13 feet bgs.	
	15					Orange brown SAND, wet.	
	20					End of boring at 20 feet bgs.	

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URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring A2** Sheet 1 of 1

Date(s) Drilled	**6/27/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					GRAVEL/ROCK.	
				7.4		Orange brown SILT loam with Gravel, dry.	All PID readings are 0.0 ppm, unless otherwise noted.
				5.3			
				10.3		Orange brown SILT loam, dry.	
				7.5			
			A2(4-5)-062712	49.0		Orange coarse SAND, dry.	
	5			11.2			
				10.2			
				4.5			
						Whitish tan fine SAND, dry.	
				7.6			
	10			1.6		Whitish tan fine SAND, damp.	
						Orange tan fine SAND, damp.	
				2.2			
				6.3			
				7.2			
				6.6		Orange tan fine SAND, wet.	
	15			3.6			
				3.2			
						End of boring at 16 feet bgs.	
	20						

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URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring A4** Sheet 1 of 1

Date(s) Drilled	**6/29/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Dark brown SILTY SAND with Brick, Concrete Cobbles, Gravel - Fill.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
	5					Dark brown SILTY CLAY with Brick Fragments. ___-plastic liner?	All PID readings are 0.0 ppm, unless otherwise noted.
	10		A4(10.5-11.5)-062912			Dark brown SILTY CLAY with Brick Fragments, moist.	
	15					Tan fine to medium SILTY SAND, moist.	
	20					End of boring at 16 feet bgs.	

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URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring A5** Sheet 1 of 1

Date(s) Drilled	**6/29/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Dark brown SILTY SAND with Clay, Brick, Concrete Fragments, Cobbles, Gravel, damp to moist - Fill.	Hand auger attempt to 4 feet bgs.
	5					Dark brown SILTY CLAY with Sand, Brick Fragments, moist.	All PID readings are 0.0 ppm, unless otherwise noted.
	10		A5(9-10)-062912			Orange tan fine to medium SILTY SAND, trace Clay, moist.	
	15						
						End of boring at 16 feet bgs.	
	20						

MOTIVA SB INSTALLATION.GPJ FAGWGN01.GDT 7/25/12

URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring A6** Sheet 1 of 1

Date(s) Drilled	**6/29/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Brown SILTY SAND with Gravel, Cobbles.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
			A6(4-5)-062912	137		Dark brown fine to medium SILTY SAND, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
	5			93.6		Tan SILTY SAND, moist.	
				85.6			
				25.8			
				84.8		Tan/gray fine to coarse SILTY SAND, moist. Wet at 10 feet bgs.	
				17.5			
				3.4			
				8.5			
	10			4.2			
				8.4			
				3.9		Tan/orange fine to coarse SILTY SAND, trace subangular Gravel, wet.	
				4.0			
				5.9			
	15			7.2			
				5.5			
						End of boring at 16 feet bgs.	
	20						

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Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring A7** Sheet 1 of 1

Date(s) Drilled	**6/27/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					ASPHALT/FILL.	
			A7(2.0-3.0)-062712	524		Brown fine SILT loam, dry.	All PID readings are 0.0 ppm, unless otherwise noted.
				8.5			
				49.3		Tan SILTY SAND.	
				29.8			
				155		Light tan SAND, dry.	
	5			83.6			
				2.8			
				1.5		Light tan SAND, damp.	
				7.3			
	10			3.2		Orange brown coarse SAND, wet.	
				1.7			
				2.4			
				4.1			
				3.1			
	15			1.3			
						End of boring at 16 feet bgs.	
	20						

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Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring B1** Sheet 1 of 1

Date(s) Drilled	**6/27/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Coarse GRAVEL, brown Silty Sand - Fill.	Hand augered to 4 feet bgs.
			B1(4-5)-062712	135		Brown SILTY SAND with subangular Gravel, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
	5			2.8			
				4.4		Dark brown SILTY SAND with some CLAY, damp.	
				1.9		Orange brown fine to medium SILTY SAND, trace Clay, damp. Wet at 14 feet bgs.	
				2.3			
				5.3			
				1.2			
				4.8			
	10			1.1			
				3.6			
				3.3			
				4.2			
				0.2			
				1.3			
	15						
				1.8			
						End of boring at 16 feet bgs.	
	20						

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Project: Tradebe
Project Location: Vineland, New Jersey
Project Number: 19999423

Log of Soil Boring B3

Sheet 1 of 1

Date(s) Drilled	6/27/2012	Logged By	N. Laird	Checked By	
Drilling Method	Direct Push	Drill Bit Size/Type	2" Macrocore	Total Depth of Borehole	20 feet
Drill Rig Type	GeoProbe	Drilling Contractor	Talon Drilling	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	Discrete Sampling - Acetate Liner	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Light brown SILTY SAND with Gravel and Cobbles.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
				0.7		Tan fine SILTY SAND, trace Clay, dry.	All PID readings are 0.0 ppm, unless otherwise noted.
				1.6			
	5			1.0		Dark brown fine to medium SILTY SAND, damp.	
				0.6		Orange brown fine to medium SILTY SAND, damp.	
				1.0			
				0.8			
				0.9			
				0.4			
				1.0			
				0.4			
	10						
				0.7			
				0.1			
				1.0			
				2.0		Brown SILTY SAND, damp.	
				0.2			
				0.3			
	15			2.6			
		B3(16-17)-062712		0.6		Orange brown fine to medium SILTY SAND, wet at 17 feet bgs.	
				0.2			
				0.9			
				1.0			
	20					End of boring at 20 feet bgs.	

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Project: Tradebe
Project Location: Vineland, New Jersey
Project Number: 19999423

Log of Soil Boring C1

Date(s) Drilled	6/27/2012	Logged By	N. Laird	Checked By	
Drilling Method	Direct Push	Drill Bit Size/Type	2" Macrocore	Total Depth of Borehole	16 feet
Drill Rig Type	GeoProbe	Drilling Contractor	Talon Drilling	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	Discrete Sampling - Acetate Liner	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					FILL, COBBLE, coarse GRAVEL.	All PID readings are 0.0 ppm, unless otherwise noted.
				3.4		Brown SILTY SAND with reddish fine Gravel, dry.	
				1.2			
	5			0.4		Brown SILTY SAND, dry.	
						Light tan SAND, dry.	
						Orange brown SAND, moist. Wet at 13.5 feet bgs.	
	10						
			C1(12.5-13.5)-062712				
	15						
						End of boring at 16 feet bgs.	
	20						

URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring C2** Sheet 1 of 1

Date(s) Drilled	**6/27/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					COBBLES/GRAVEL/FILL with orange brown Silty Sand.	All PID readings are 0.0 ppm, unless otherwise noted.
	5					Orange brown SILTY SAND, dry.	
						Light orange brown SILTY SAND, dry.	
	10	C2(11-12)-062712				Light orange tan SILTY SAND, damp.	
	15					Orange brown SAND, wet.	
						End of boring at 16 feet bgs.	
	20						

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Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring D1** Sheet 1 of 1

Date(s) Drilled	**6/29/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**12 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Dark brown SILTY SAND with Cobbles.	
						Orange brown fine to medium SILTY SAND, damp.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles. All PID readings are 0.0 ppm, unless otherwise noted.
	5						
			D1(9-10)-062912			Orange brown fine to medium SILTY SAND, moist. Becomes wet at 10 feet bgs.	
	10						
						End of boring at 12 feet bgs.	
	15						
	20						

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Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring D2** Sheet 1 of 1

Date(s) Drilled	**6/29/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**12 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Dark brown SILTY SAND with Cobbles and Gravel, damp.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
	5					Brown SANDY SILTY CLAY, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
						Orange brown fine to medium SILTY SAND, damp.	
	10		D2(9-10)-062912			Tan/orange fine to medium SILTY SAND, moist to wet starting at 10 feet bgs.	
	15					End of boring at 12 feet bgs.	
	20						

URS

Project: Tradebe **Project Location: Vineland, New Jersey** **Project Number: 19999423**	**Log of Soil Boring D3** Sheet 1 of 1

Date(s) Drilled	**6/29/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**12 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Dark brown SILTY SAND, Brick, Gravel, Cobbles.	
						Orange brown fine to medium SILTY SAND, damp.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
			D3(4-5)-062912	147 57.9 7.0			All PID readings are 0.0 ppm, unless otherwise noted.
	5						
						Limited recovery - sampler blocked by cobble.	
	10						
						End of boring at 12 feet bgs.	
	15						
	20						

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URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring E1** Sheet 1 of 1

Date(s) Drilled	**6/29/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Dark brown SILTY SAND with Cobbles, Gravel - Fill.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
				38.3 26.3 0.4 0.9 0.0		Orange brown fine to medium SILTY SAND, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
	5						
			E1(6.5-7.5)-062912	49.8 18.0 0.9 1.5		Gray tan fine to medium SILTY SAND, damp. Wood fragments observed from 6.5 to 7.0 feet.	
	10						
						Gray tan fine to medium SILTY SAND, wet.	
	15						
						End of boring at 16 feet bgs.	
	20						

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Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring E2** Sheet 1 of 1

Date(s) Drilled	**7/2/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Asphalt.	
						Orange brown SILTY SAND with Cobbles, Gravel - Fill.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
	5					Brown fine to medium SANDY SILT, trace Clay, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
						Gray fine to medium SANDY SILT with some Clay, damp.	
	10	E2(11-12)-070212				Tan fine to medium SILTY SAND, moist.	
	15					Tan fine to medium SILTY SAND, trace subangular to subrounded Gravel, moist to wet.	
						End of boring at 16 feet bgs.	
	20						

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Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring E3** Sheet 1 of 1

Date(s) Drilled	**7/2/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**8 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Brown SILTY SAND with Cobbles/Gravel - Fill.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
	5		E3(7-8)-070212			Tan fine to medium SILTY SAND. Limited recovery, encountered possible plastic liner at 6-7 feet.	All PID readings are 0.0 ppm, unless otherwise noted.
						End of boring at 8 feet bgs.	
	10						
	15						
	20						

URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring F1** Sheet 1 of 1

Date(s) Drilled	**6/29/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**12 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Asphalt.	
						Brown SILTY SAND with Cobbles, Gravel - Fill.	Hand augered to 4 feet bgs.
	5					Tan fine to medium SILTY SAND, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
			F1(9-10)-062912				
	10					Tan fine to coarse SILTY SAND, moist to wet.	
						End of boring at 12 feet bgs.	
	15						
	20						

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Project: Tradebe **Project Location: Vineland, New Jersey** **Project Number: 19999423**	**Log of Soil Boring F2** Sheet 1 of 1

Date(s) Drilled	**6/29/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**12 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Brown COBBLES, GRAVEL.	Hand augered to 4 feet bgs.
	5					Tan fine to medium SILTY SAND, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
	10		F2(9-10)-062912			Tan fine to coarse SILTY SAND, moist.	
	15					End of boring at 12 feet bgs.	
	20						

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Project: Tradebe **Project Location: Vineland, New Jersey** **Project Number: 19999423**	**Log of Soil Boring H1** Sheet 1 of 1

Date(s) Drilled	**7/2/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Dark brown SILTY SAND with Brick fragments, Cobbles, Gravel - Fill.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
	5					Tan orange fine to medium SILTY SAND, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
	10	H1(11-12)-070212				Tan orange fine to medium SILTY SAND, moist.	
						Tan orange fine to medium SILTY SAND, moist to wet.	
	15					Tan/gray fine to medium SILTY SAND, moist to wet.	
						End of boring at 16 feet bgs.	
	20						

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Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring H2** Sheet 1 of 1

Date(s) Drilled	**7/2/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Dark brown SILTY SAND with Brick, Cobbles, and Concrete fragments - Fill.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
				51.6		Dark brown SILTY SAND with Brick, Cobbles, and Concrete fragments, some Clay, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
				32.7			
	5			11.9			
				118			
				36.6			
				7.5			
				41.5		Brown SILTY SAND, damp.	
				6.3			
						Orange tan fine to medium SILTY SAND, damp.	
	10	H2(9.5-10.5)-070212					
						Orange tan fine to medium SILTY SAND, moist to wet.	
	15						
						End of boring at 16 feet bgs.	
	20						

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Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring H3** Sheet 1 of 1

Date(s) Drilled	**7/2/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Dark brown SILTY SAND with Cobbles, Gravel, Bricks - Fill.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
	5					Orange/tan fine to medium SILTY SAND, trace Clay, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
		H3(9-10)-070212					
	10					Orange/tan fine to medium SILTY SAND, trace Clay, moist to wet.	
						Orange tan fine to coarse SILTY SAND, wet.	
	15						
						End of boring at 16 feet bgs.	
	20						

URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring I4** Sheet 1 of 1

Date(s) Drilled	**7/2/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**16 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Brown SILTY SAND with Cobbles/Gravel - Fill.	Hand auger attempt to 4 feet bgs. Used the geoprobe to break up the cobbles.
	5					Orange tan fine to medium SILTY SAND with trace Clay, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
			I4(9-10)-070212				
	10					Orange tan fine to coarse SILTY SAND with trace Clay, moist to wet.	
	15						
						End of boring at16 feet bgs.	
	20						

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Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring J1** Sheet 1 of 1

Date(s) Drilled	**7/2/2012**	Logged By	**N. Laird**	Checked By	
Drilling Method	**Direct Push**	Drill Bit Size/Type	**2" Macrocore**	Total Depth of Borehole	**12 feet**
Drill Rig Type	**GeoProbe**	Drilling Contractor	**Talon Drilling**	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	**Discrete Sampling - Acetate Liner**	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Asphalt.	
						Orange brown COBBLES, GRAVEL, SILTY SAND - Fill.	Hand auger attempt to 4 feet bgs.
	5					Orange tan fine to medium SILTY SAND, trace Clay, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
	10		J1(9-10)-070212			Orange brown fine to medium SILTY SAND. Moist to wet at 10 feet bgs.	
	15					End of boring at 12 feet bgs.	
	20						

MOTIVA SB INSTALLATION.GPJ FAGWGN01.GDT 7/25/12

URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring J2** Sheet 1 of 1

Date(s) Drilled	7/2/2012	Logged By	N. Laird	Checked By	
Drilling Method	Direct Push	Drill Bit Size/Type	2" Macrocore	Total Depth of Borehole	12 feet
Drill Rig Type	GeoProbe	Drilling Contractor	Talon Drilling	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	Discrete Sampling - Acetate Liner	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Orange brown SILTY SAND, some Organic matter.	Hand auger attempt to 4 feet bgs.
	5					Orange tan SILTY SAND, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
						Orange tan SILTY SAND, moist.	
			J2(9-10)-070212			Orange brown fine to medium SILTY SAND, moist.	
	10					Tan orange fine to medium SILTY SAND, trace coarse Sand, moist to wet.	
						End of boring at 12 feet bgs.	
	15						
	20						

MOTIVA SB INSTALLATION.GPJ FAGWGN01.GDT 7/25/12

URS

Project: Tradebe **Project Location:** Vineland, New Jersey **Project Number:** 19999423	**Log of Soil Boring K1** Sheet 1 of 1

Date(s) Drilled	7/2/2012	Logged By	N. Laird	Checked By	
Drilling Method	Direct Push	Drill Bit Size/Type	2" Macrocore	Total Depth of Borehole	12 feet
Drill Rig Type	GeoProbe	Drilling Contractor	Talon Drilling	Surface Elevation	
Groundwater Level(s)		Sampling Method(s)	Discrete Sampling - Acetate Liner	Hammer Data	
Location		Borehole Completion			

Elevation, feet	Depth, feet	SAMPLES: Core Interval Lab Samples	SAMPLES: Lab ID Number	SAMPLES: Headspace HNu, ppm	Graphic Log	MATERIAL DESCRIPTION	FIELD NOTES
	0					Asphalt.	
						Orange brown SILTY SAND with Cobbles/Gravel Fill, Brick Fragments.	Hand auger to 4 feet bgs. Used the geoprobe to break up the cobbles.
	5					Orange tan fine to medium SILTY SAND, damp.	All PID readings are 0.0 ppm, unless otherwise noted.
		K1(9-10)-070212					
	10					Orange tan fine to medium SILTY SAND, wet.	
						End of boring at 12 feet bgs.	
	15						
	20						

MOTIVA SB INSTALLATION.GPJ FAGWGN01.GDT 7/25/12

URS

APPENDIX B

LABORATORY ANALYTICAL RESULTS

Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

URS Corporation - Ft. Washington
335 Commerce Dr.
Suite 300
Fort Washington, PA 19034

Project Name: **VINELAND - PHASE II - VENDOR #1168636**
IAL Case Number: **E12-06385**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E12-06385

Client URS Corporation - Ft. Washington

Project VINELAND - PHASE II - VENDOR #1168636

Received On 6/27/2012@17:17

Lab ID	Client Sample ID	Depth Top/Bottom	Sampling Time	Matrix	# of Container
06385-001	G1-062612	n/a	6/26/2012@09:45	Soil	1
06385-002	G2-062612	n/a	6/26/2012@10:10	Soil	1
06385-003	I2-062612-WATER	n/a	6/26/2012@10:15	Aqueous	6
06385-004	G8-062612	n/a	6/26/2012@10:35	Soil	1
06385-005	I1-062612-WATER	n/a	6/26/2012@10:40	Aqueous	6
06385-006	G7-062612	n/a	6/26/2012@11:05	Soil	1
06385-007	G3-062612	n/a	6/26/2012@11:25	Soil	1
06385-008	G6-062612	n/a	6/26/2012@11:45	Soil	1
06385-009	G5-062612	n/a	6/26/2012@12:05	Soil	1
06385-010	G4-062612	n/a	6/26/2012@12:20	Soil	1
06385-011	I3SED-062612	n/a	6/26/2012@12:40	Soil	1
06385-012	C1-062612	n/a	6/26/2012@12:50	Soil	1
06385-013	C2-062612	n/a	6/26/2012@13:00	Soil	1
06385-014	I2-062612-WATER FILT	n/a	6/26/2012	Aqueous	
06385-015	I1-062612-WATER FILT	n/a	6/26/2012	Aqueous	

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received two (2) aqueous and eleven (11) soil sample(s) from URS Corporation - Ft. Washington (IAL SDG # E12-06385, Project: VINELAND - PHASE II - VENDOR #1168636) on June 27, 2012 for the analysis of:

(8) SRS VO + 10
(8) SRS BNA + 25
(3) TCL/PAH
(10) TCL PCB
(2) TCL Pesticides
(8) SRS Pesticides
(2) Herbicides
(3) NJ-EPH-Fractionated
(5) TAL Metals
(8) Metal - SRS Metals
(8) Cr-VI (Hexavalent Chromium)
(8) Cr-VI re-run(Hexavalent Chromium)
(8) Trivalent (III) Chromium
(8) Cyanide, Total
(10) TPHC

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

7/16/12
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06385

Volatiles By 8260B

Batch ID: 120710

QC

- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate met criteria.

E12-06385

- All samples were analyzed within holding time.

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06385

Semivolatiles By **8270C/625**

Batch ID: 120709-03	**Matrix:** Soil

QC

- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E12-06385

- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.
- E12-06385-001 performed 2x dilution because of matrix interference; E12-06385-010 performed 10x dilution because of high target compounds; E12-06385-011 performed 2x dilution because of matrix interference; E12-06385-012 performed 2x dilution because of matrix interference; E12-06385-013 performed 30x dilution because of high target compounds; E12-06385-002 performed 2x dilution because of matrix interference; E12-06385-006 performed 2x dilution because of matrix interference; E 12-06385-007 performed 20x dilution because of high target compounds; E12-06385-008 performed 2x dilution because of matrix interference; E12-06385-009 performed 2x dilution because of matrix interference;

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S

Lab Case Number: E12 - 06385

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07-12-12
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S

Lab Case Number: E12 - 06385

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07-05-12
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PESTICIDES

Lab Case Number: E12 - 06385

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. Standards Summary submitted.		✓
3. Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7. Retention Time Shift Meet Criteria (if applicable).		✓
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/10/12
Date

rev 01/12

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06385

Herbicide By 8151A

Batch ID: 122906-08

QC
- Calibration Curve met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate met criteria.

E12-06385
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - NJ EPH - FRACTIONATED

Lab Case Number: E12 - 6385

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike (MS)/Matrix Spike Duplicate (MSD) (as needed) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7a.	Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7b.	n-Nonane LCS/LCSD % Recoveries were found to be less than 40% but within the acceptance range of 25 - 140%.	✓	
8.	Retention Time Shift Meets Criteria (if applicable).		✓
9.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
10.	Fractionation Holding Time Met. If not met, list number of days exceeded for each sample:		✓
11.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/09/2012
Date

E12-06385 0010

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06385

METAL By Method 6020

Matrix: SOIL	Batch ID: 270A

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06385
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06385

METAL By Method 6020

Matrix: AQUEOUS	Batch ID: 276A

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06385
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES

CONFORMANCE/NONCONFORMANCE SUMMARY

PHC ANALYSIS

SDG #: E12-06385

		No	Yes
1.	Blank Contamination If yes, list the sample and the concentration in each blanks:		
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the samples and corresponding recovery which falls outside the acceptable range)		
3.	IR spectra submitted for all standards, blanks & samples. Comments: Integrated Analytical Laboratories (IAL) generates TPHC results on a fixed wavelength IR Spectrophotometer. Like all fixed wavelength IR Spectrophotometers, IAL's cannot generate spectra. However, the instrument used is approved both under the apparatus section of EPA 418.1 for TPHC and by the Office of Quality Assurance of the NJDEP for generating TPHC results.		
4.	Chromatograms submitted for all standards, blanks & samples if GC fingerprinting was conducted.		
5.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		

Additional Comments:

Dept. Supervisor

6/29/2012
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-003			06385-005			06385-014			06385-015		
Client ID:	I2-062612-			I1-062612			I2-062612			I1-062612		
Client ID Cont.:	WATER			-WATER			-WATER FILT			-WATER FILT		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Aroclor-1016	ND		0.020	ND		0.020	~		~	~		~
Aroclor-1221	ND		0.020	ND		0.020	~		~	~		~
Aroclor-1232	ND		0.020	ND		0.020	~		~	~		~
Aroclor-1242	ND		0.020	ND		0.020	~		~	~		~
Aroclor-1248	ND		0.020	ND		0.020	~		~	~		~
Aroclor-1254	ND		0.020	ND		0.020	~		~	~		~
Aroclor-1260	ND		0.020	ND		0.020	~		~	~		~
Aroclor-1262	ND		0.020	ND		0.020	~		~	~		~
Aroclor-1268	ND		0.020	ND		0.020	~		~	~		~
PCBs	ND		0.020	ND		0.020	~		~	~		~
Pesticides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
alpha-BHC	ND		0.005	ND		0.005	~		~	~		~
beta-BHC	ND		0.005	ND		0.005	~		~	~		~
gamma-BHC (Lindane)	ND		0.005	ND		0.005	~		~	~		~
delta-BHC	ND		0.005	ND		0.005	~		~	~		~
Heptachlor	ND		0.005	ND		0.005	~		~	~		~
Aldrin	ND		0.005	ND		0.005	~		~	~		~
Heptachlor epoxide	ND		0.005	ND		0.005	~		~	~		~
Endosulfan I	ND		0.005	ND		0.005	~		~	~		~
4,4'-DDE	ND		0.005	ND		0.005	~		~	~		~
Dieldrin	ND		0.005	ND		0.005	~		~	~		~
Endrin	ND		0.005	ND		0.005	~		~	~		~
Endosulfan II	ND		0.005	ND		0.005	~		~	~		~
4,4'-DDD	ND		0.005	ND		0.005	~		~	~		~
Endrin aldehyde	ND		0.005	ND		0.005	~		~	~		~
Endosulfan sulfate	ND		0.005	ND		0.005	~		~	~		~
4,4'-DDT	ND		0.005	ND		0.005	~		~	~		~
Endrin ketone	ND		0.005	ND		0.005	~		~	~		~
Methoxychlor	ND		0.005	ND		0.005	~		~	~		~
alpha-Chlordane	ND		0.005	ND		0.005	~		~	~		~
gamma-Chlordane	ND		0.005	ND		0.005	~		~	~		~
Toxaphene	ND		0.060	ND		0.060	~		~	~		~
Endosulfan (I and II)	ND		0.005	ND		0.005	~		~	~		~
Chlordane (alpha and gamma)	ND		0.005	ND		0.005	~		~	~		~
Herbicides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Dalapon	ND		5.00	ND		5.00	~		~	~		~
Dicamba	ND		5.00	ND		5.00	~		~	~		~
2,4-D	ND		5.00	ND		5.00	~		~	~		~
2,4,5-TP (Silvex)	ND		5.00	ND		5.00	~		~	~		~
2,4,5-T	ND		5.00	ND		5.00	~		~	~		~
2,4-DB	ND		5.00	ND		5.00	~		~	~		~
Dinoseb	ND		5.00	ND		5.00	~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-003			06385-005			06385-014			06385-015		
Client ID:	I2-062612-			I1-062612			I2-062612			I1-062612		
Client ID Cont.:	WATER			-WATER			-WATER FILT			-WATER FILT		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Aluminum	~		~	~		~	207		20.0	133		20.0
Antimony	~		~	~		~	8.95		1.00	8.95		1.00
Arsenic	~		~	~		~	30.4		1.00	32.1		1.00
Barium	~		~	~		~	ND		10.0	ND		10.0
Beryllium	~		~	~		~	ND		1.00	ND		1.00
Cadmium	~		~	~		~	ND		0.500	ND		0.500
Calcium	~		~	~		~	25500		100	25300		100
Chromium	~		~	~		~	ND		2.00	ND		2.00
Cobalt	~		~	~		~	ND		2.00	ND		2.00
Copper	~		~	~		~	ND		4.00	ND		4.00
Iron	~		~	~		~	81.0	J	50.0	287		50.0
Lead	~		~	~		~	1.81	J	0.500	0.901	J	0.500
Magnesium	~		~	~		~	8320		50.0	8240		50.0
Manganese	~		~	~		~	3.18	J	2.00	12.8		2.00
Mercury	~		~	~		~	ND		0.300	ND		0.300
Nickel	~		~	~		~	6.80		1.00	9.79		1.00
Potassium	~		~	~		~	36300		50.0	37300		50.0
Selenium	~		~	~		~	ND		4.00	ND		4.00
Silver	~		~	~		~	ND		0.500	ND		0.500
Sodium	~		~	~		~	314000		100	293000		100
Thallium	~		~	~		~	ND		0.500	ND		0.500
Vanadium	~		~	~		~	194		2.00	216		2.00
Zinc	~		~	~		~	8.49		4.00	14.2		4.00
General Analytical (Units)												
Total Petroleum Hydrocarbons(ug/L)	ND		500	ND		500	~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-001			06385-002			06385-004			06385-006		
Client ID:	G1-062612			G2-062612			G8-062612			G7-062612		
Client ID Cont.:	G1-062612											
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Dichlorodifluoromethane	ND		0.00102	ND		0.00102	ND		0.000888	ND		0.000976
Chloromethane	ND		0.00105	ND		0.00104	ND		0.00091	ND		0.001
Vinyl chloride	ND		0.00123	ND		0.00122	ND		0.00107	ND		0.00117
Bromomethane	ND		0.000896	ND		0.000889	ND		0.000777	ND		0.000854
Chloroethane	ND		0.00115	ND		0.00114	ND		0.000999	ND		0.0011
Trichlorofluoromethane	ND		0.00105	ND		0.00104	ND		0.00091	ND		0.001
Acrolein	ND		0.00366	ND		0.00363	ND		0.00317	ND		0.00349
1,1-Dichloroethene	ND		0.00128	ND		0.00127	ND		0.00111	ND		0.00122
Acetone	ND		0.00179	ND		0.00178	ND		0.00155	ND		0.00171
Carbon disulfide	ND		0.00087	ND		0.000864	ND		0.000755	ND		0.00083
Methylene chloride	ND		0.00507	ND		0.00503	ND		0.0044	ND		0.00483
Acrylonitrile	ND		0.00481	ND		0.00478	ND		0.00417	ND		0.00459
tert-Butyl alcohol (TBA)	0.038		0.00233	ND		0.00231	ND		0.00202	ND		0.00222
trans-1,2-Dichloroethene	ND		0.0011	ND		0.00109	ND		0.000955	ND		0.00105
Methyl tert-butyl ether (MTBE)	ND		0.000589	ND		0.000584	ND		0.000511	ND		0.000561
1,1-Dichloroethane	ND		0.000691	ND		0.000686	ND		0.000599	ND		0.000659
cis-1,2-Dichloroethene	ND		0.000794	ND		0.000787	ND		0.000688	ND		0.000756
2-Butanone (MEK)	ND		0.000947	ND		0.00094	ND		0.000821	ND		0.000903
Chloroform	ND		0.000742	ND		0.000737	ND		0.000644	ND		0.000708
1,1,1-Trichloroethane	ND		0.000845	ND		0.000838	ND		0.000733	ND		0.000805
Carbon tetrachloride	ND		0.00105	ND		0.00104	ND		0.00091	ND		0.001
1,2-Dichloroethane (EDC)	ND		0.000538	ND		0.000533	ND		0.000466	ND		0.000512
Benzene	ND		0.000614	0.00179	J	0.00061	ND		0.000533	ND		0.000586
Trichloroethene	ND		0.000819	ND		0.000813	ND		0.00071	ND		0.000781
1,2-Dichloropropane	ND		0.000563	ND		0.000559	ND		0.000488	ND		0.000537
Bromodichloromethane	ND		0.000819	ND		0.000813	ND		0.00071	ND		0.000781
cis-1,3-Dichloropropene	ND		0.000666	ND		0.00066	ND		0.000577	ND		0.000634
Toluene	ND		0.00064	ND		0.000635	ND		0.000555	ND		0.00061
trans-1,3-Dichloropropene	ND		0.000666	ND		0.00066	ND		0.000577	ND		0.000634
1,1,2-Trichloroethane	ND		0.000512	ND		0.000508	ND		0.000444	ND		0.000488
Tetrachloroethene	ND		0.000666	ND		0.00066	ND		0.000577	ND		0.000634
Dibromochloromethane	ND		0.000563	ND		0.000559	ND		0.000488	ND		0.000537
1,2-Dibromoethane (EDB)	ND		0.000538	ND		0.000533	ND		0.000466	ND		0.000512
Chlorobenzene	ND		0.000563	ND		0.000559	ND		0.000488	ND		0.000537
Ethylbenzene	ND		0.000794	ND		0.000787	ND		0.000688	ND		0.000756
Total Xylenes	0.00858		0.00271	ND		0.00269	ND		0.00235	ND		0.00259
Styrene	ND		0.000768	ND		0.000762	ND		0.000666	ND		0.000732
Bromoform	ND		0.000819	ND		0.000813	ND		0.00071	ND		0.000781
1,1,2,2-Tetrachloroethane	ND		0.000589	ND		0.000584	ND		0.000511	ND		0.000561
1,3-Dichlorobenzene	ND		0.000794	ND		0.000787	ND		0.000688	ND		0.000756
1,4-Dichlorobenzene	ND		0.000794	ND		0.000787	ND		0.000688	ND		0.000756
1,2-Dichlorobenzene	ND		0.000922	ND		0.000914	ND		0.000799	ND		0.000878
1,2-Dibromo-3-chloropropane	ND		0.00128	ND		0.00127	ND		0.00111	ND		0.00122
1,2,4-Trichlorobenzene	ND		0.00133	ND		0.00132	ND		0.00115	ND		0.00127
Methyl acetate	ND		0.00148	ND		0.00147	ND		0.00129	ND		0.00142
1,3-Dichloropropene (cis- and trans-)	ND		0.000666	ND		0.00066	ND		0.000577	ND		0.000634
TOTAL VO's:	0.046			0.00179	J		ND			ND		
TOTAL TIC's:	0.794			0.438			ND			0.189		
TOTAL VO's & TIC's:	0.840			0.440	J		ND			0.189		

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-001			06385-002			06385-004			06385-006		
Client ID:	G1-062612			G2-062612			G8-062612			G7-062612		
Client ID Cont.:	G1-062612											
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
N-Nitrosodimethylamine	ND		0.115	ND		0.115	ND		0.025	ND		0.110
Benzaldehyde	ND		0.064	ND		0.064	ND		0.014	ND		0.062
Phenol	ND		0.075	ND		0.074	ND		0.016	ND		0.071
Bis(2-chloroethyl) ether	ND		0.119	ND		0.118	ND		0.026	ND		0.113
2-Chlorophenol	ND		0.071	ND		0.071	ND		0.015	ND		0.068
2-Methylphenol	ND		0.136	ND		0.135	ND		0.029	ND		0.130
Bis(2-chloroisopropyl) ether	ND		0.061	ND		0.061	ND		0.013	ND		0.058
4-Methylphenol	ND		0.095	ND		0.094	ND		0.021	ND		0.091
N-Nitrosodi-n-propylamine	ND		0.112	ND		0.111	ND		0.024	ND		0.107
Acetophenone	ND		0.058	ND		0.057	ND		0.013	ND		0.055
Hexachloroethane	ND		0.064	ND		0.064	ND		0.014	ND		0.062
Nitrobenzene	ND		0.149	ND		0.148	ND		0.032	ND		0.143
Isophorone	ND		0.110	ND		0.110	ND		0.024	ND		0.105
2,4-Dimethylphenol	ND		0.132	ND		0.132	ND		0.029	ND		0.126
2,4-Dichlorophenol	ND		0.166	ND		0.165	ND		0.036	ND		0.159
Naphthalene	16.6		0.129	9.35		0.129	0.182		0.028	1.90		0.124
Hexachlorobutadiene	ND		0.164	ND		0.164	ND		0.036	ND		0.157
Caprolactam	ND		0.108	ND		0.108	ND		0.023	ND		0.104
2-Methylnaphthalene	2.46		0.140	3.54		0.139	0.053		0.030	0.773		0.134
Hexachlorocyclopentadiene	ND		0.054	ND		0.054	ND		0.012	ND		0.052
2,4,6-Trichlorophenol	ND		0.054	ND		0.054	ND		0.012	ND		0.052
2,4,5-Trichlorophenol	ND		0.068	ND		0.068	ND		0.015	ND		0.065
1,1'-Biphenyl	ND		0.051	0.577		0.051	ND		0.011	ND		0.049
2-Nitroaniline	ND		0.102	ND		0.101	ND		0.022	ND		0.097
2,6-Dinitrotoluene	ND		0.098	ND		0.098	ND		0.021	ND		0.094
Acenaphthylene	0.252		0.118	1.02		0.118	0.764		0.026	0.216		0.113
Acenaphthene	0.889		0.135	1.91		0.135	ND		0.029	0.647		0.129
2,4-Dinitrophenol	ND		0.064	ND		0.064	ND		0.014	ND		0.062
2,4-Dinitrotoluene	ND		0.147	ND		0.147	ND		0.032	ND		0.141
Diethyl phthalate	ND		0.125	ND		0.125	ND		0.027	ND		0.120
Fluorene	0.968		0.091	1.59		0.091	0.168		0.020	0.634		0.087
4,6-Dinitro-2-methylphenol	ND		0.097	ND		0.096	ND		0.021	ND		0.092
N-Nitrosodiphenylamine	ND		0.071	ND		0.071	ND		0.015	ND		0.068
1,2-Diphenylhydrazine	ND		0.156	ND		0.155	ND		0.034	ND		0.149
Hexachlorobenzene	ND		0.120	ND		0.120	ND		0.026	ND		0.115
Atrazine	ND		0.119	ND		0.118	ND		0.026	ND		0.113
Pentachlorophenol	ND		0.071	ND		0.071	ND		0.015	ND		0.068
Phenanthrene	3.09		0.112	7.60		0.111	0.737		0.024	3.41		0.107
Anthracene	0.931		0.163	2.68		0.162	0.532		0.035	1.15		0.156
Carbazole	ND		0.098	ND		0.098	ND		0.021	ND		0.094
Di-n-butyl phthalate	ND		0.120	ND		0.120	ND		0.026	0.364		0.115
Fluoranthene	2.33		0.068	7.61		0.067	1.44		0.015	4.77		0.065
Benzidine	ND		0.159	ND		0.159	ND		0.034	ND		0.152
Pyrene	2.42		0.125	6.66		0.125	2.27		0.027	4.80		0.120
Butyl benzyl phthalate	ND		0.108	ND		0.108	ND		0.023	ND		0.104

ND = Analyzed for but Not Detected at the MDL

Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-001			06385-002			06385-004			06385-006		
Client ID:	G1-062612			G2-062612			G8-062612			G7-062612		
Client ID Cont.:	G1-062612											
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
3,3'-Dichlorobenzidine	ND		0.119	ND		0.118	ND		0.026	ND		0.113
Benzo[a]anthracene	ND		0.163	2.92		0.162	0.780		0.035	2.85		0.155
Chrysene	ND		0.115	3.91		0.114	1.09		0.025	3.80		0.110
Bis(2-ethylhexyl) phthalate	ND		0.081	3.12		0.081	ND		0.018	0.933		0.078
Di-n-octyl phthalate	ND		0.068	ND		0.068	ND		0.015	ND		0.065
Benzo[b]fluoranthene	ND		0.088	2.45		0.088	0.962		0.019	2.70		0.084
Benzo[k]fluoranthene	ND		0.061	2.32		0.061	0.774		0.013	2.16		0.058
Benzo[a]pyrene	ND		0.093	3.93		0.093	1.77		0.020	3.62		0.089
Indeno[1,2,3-cd]pyrene	ND		0.085	1.17		0.084	1.23		0.018	1.60		0.081
Dibenz[a,h]anthracene	ND		0.102	0.832		0.101	0.380		0.022	0.920		0.097
Benzo[g,h,i]perylene	ND		0.054	1.48		0.054	1.65		0.012	1.64		0.052
Dinitrotoluene (2,4- and 2,6-)	ND		0.147	ND		0.147	ND		0.032	ND		0.141
TOTAL BN'S:	29.9			64.7			14.8			38.9		
TOTAL TIC's:	303			372			18.4			124		
TOTAL BN'S & TIC's:	333			437			33.2			163		
PCB's (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	ND		0.019	ND		0.019	ND		0.016	ND		0.018
Aroclor-1221	ND		0.019	ND		0.019	ND		0.016	ND		0.018
Aroclor-1232	ND		0.019	ND		0.019	ND		0.016	ND		0.018
Aroclor-1242	ND		0.019	ND		0.019	ND		0.016	ND		0.018
Aroclor-1248	ND		0.019	ND		0.019	ND		0.016	ND		0.018
Aroclor-1254	ND		0.019	ND		0.019	ND		0.016	ND		0.018
Aroclor-1260	ND		0.019	ND		0.019	ND		0.016	ND		0.018
Aroclor-1262	ND		0.019	ND		0.019	ND		0.016	ND		0.018
Aroclor-1268	ND		0.019	ND		0.019	ND		0.016	ND		0.018
PCBs	ND		0.019	ND		0.019	ND		0.016	ND		0.018
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
beta-BHC	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
gamma-BHC (Lindane)	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
Heptachlor	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
Aldrin	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
Heptachlor epoxide	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
Endosulfan I	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
4,4'-DDE	ND		0.00107	ND		0.00105	ND		0.000183	0.00156	J	0.000996
Dieldrin	0.00517		0.00107	0.00589		0.00105	ND		0.000183	ND		0.000996
Endrin	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
Endosulfan II	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
4,4'-DDD	0.016		0.00107	0.018		0.00105	ND		0.000183	0.00523		0.000996
Endosulfan sulfate	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
4,4'-DDT	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
Methoxychlor	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
alpha-Chlordane	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
gamma-Chlordane	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
Toxaphene	ND		0.013	ND		0.013	ND		0.0022	ND		0.012
Endosulfan (I and II)	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996
Chlordane (alpha and gamma)	ND		0.00107	ND		0.00105	ND		0.000183	ND		0.000996

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-001			06385-002			06385-004			06385-006		
Client ID:	G1-062612			G2-062612			G8-062612			G7-062612		
Client ID Cont.:	G1-062612											
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	10400		7.02	12400		6.40	4210		5.85	9790		6.63
Antimony	0.723	J	0.351	0.701	J	0.320	ND		0.293	ND		0.332
Arsenic	48.8		0.351	47.8		0.320	4.56		0.293	12.5		0.332
Barium	144		3.51	154		3.20	13.3		2.93	72.5		3.32
Beryllium	0.515	J	0.281	0.530	J	0.256	ND		0.234	0.454	J	0.265
Cadmium	1.40		0.175	2.66		0.160	ND		0.146	0.310	J	0.166
Chromium	56.7		0.702	61.8		0.640	9.71		0.585	29.0		0.663
Cobalt	8.55		0.702	10.5		0.640	1.01	J	0.585	7.41		0.663
Copper	198		0.702	140		0.640	10.8		0.585	51.3		0.663
Lead	534		0.175	332		0.160	29.7		0.146	169		0.166
Manganese	357		0.351	333		0.320	27.5		0.293	218		0.332
Mercury	1.38		0.00718	1.36		0.00794	0.183		0.00622	0.981		0.00678
Nickel	41.4		0.702	101		0.640	6.20		0.585	28.8		0.663
Selenium	2.28	J	1.40	2.50	J	1.28	ND		1.17	ND		1.33
Silver	1.50		0.175	0.373	J	0.160	ND		0.146	ND		0.166
Thallium	1.95		0.175	3.04		0.160	0.207	J	0.146	0.372	J	0.166
Vanadium	269		0.702	320		0.640	25.3		0.585	85.2		0.663
Zinc	691		2.81	928		2.56	54.0		2.34	189		2.65
General Analytical (Units)												
Hexavalent Chromium(mg/Kg-ppm)	ND		0.303	ND		0.300	ND		0.262	ND		0.288
Cyanide, Total(mg/Kg-ppm)	ND		0.897	ND		0.891	ND		0.778	ND		0.855
Total Petroleum Hydrocarbons(mg/Kg-ppm)	626		25.6	4040		204	62.6		25.0	714		25.0
Trivalent (III) Chromium(mg/Kg-ppm)	56.7		0.702	61.8		0.640	9.71		0.585	29.0		0.663

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-007			06385-008			06385-009			06385-010		
Client ID:	G3-062612			G6-062612			G5-062612			G4-062612		
Client ID Cont.:												
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Dichlorodifluoromethane	ND		0.000968	ND		0.00094	ND		0.00096	ND		0.00106
Chloromethane	ND		0.000992	ND		0.000964	ND		0.000984	ND		0.00108
Vinyl chloride	ND		0.00116	ND		0.00113	ND		0.00115	ND		0.00127
Bromomethane	ND		0.000847	ND		0.000823	ND		0.00084	ND		0.000924
Chloroethane	ND		0.00109	ND		0.00106	ND		0.00108	ND		0.00119
Trichlorofluoromethane	ND		0.000992	ND		0.000964	ND		0.000984	ND		0.00108
Acrolein	ND		0.00346	ND		0.00336	ND		0.00343	ND		0.00378
1,1-Dichloroethene	ND		0.00121	ND		0.00118	ND		0.0012	ND		0.00132
Acetone	ND		0.00169	ND		0.00165	ND		0.00168	ND		0.00185
Carbon disulfide	ND		0.000823	ND		0.000799	ND		0.000816	0.00685		0.000898
Methylene chloride	ND		0.00479	ND		0.00465	ND		0.00475	ND		0.00523
Acrylonitrile	ND		0.00455	ND		0.00442	ND		0.00451	ND		0.00496
tert-Butyl alcohol (TBA)	0.028		0.0022	0.017		0.00214	ND		0.00218	0.022		0.0024
trans-1,2-Dichloroethene	ND		0.00104	ND		0.00101	ND		0.00103	ND		0.00114
Methyl tert-butyl ether (MTBE)	ND		0.000557	ND		0.000541	ND		0.000552	ND		0.000607
1,1-Dichloroethane	ND		0.000653	ND		0.000635	ND		0.000648	ND		0.000713
cis-1,2-Dichloroethene	ND		0.00075	ND		0.000729	ND		0.000744	ND		0.000818
2-Butanone (MEK)	ND		0.000895	ND		0.00087	ND		0.000888	0.0074	J	0.000977
Chloroform	ND		0.000702	ND		0.000682	ND		0.000696	0.012		0.000766
1,1,1-Trichloroethane	ND		0.000799	ND		0.000776	ND		0.000792	ND		0.000871
Carbon tetrachloride	ND		0.000992	ND		0.000964	ND		0.000984	ND		0.00108
1,2-Dichloroethane (EDC)	ND		0.000508	ND		0.000494	ND		0.000504	ND		0.000554
Benzene	0.020		0.000581	ND		0.000564	ND		0.000576	0.00466		0.000634
Trichloroethene	ND		0.000774	ND		0.000752	ND		0.000768	ND		0.000845
1,2-Dichloropropane	ND		0.000532	ND		0.000517	ND		0.000528	ND		0.000581
Bromodichloromethane	ND		0.000774	ND		0.000752	ND		0.000768	ND		0.000845
cis-1,3-Dichloropropene	ND		0.000629	ND		0.000611	ND		0.000624	ND		0.000686
Toluene	0.077		0.000605	ND		0.000588	ND		0.0006	0.074		0.00066
trans-1,3-Dichloropropene	ND		0.000629	ND		0.000611	ND		0.000624	ND		0.000686
1,1,2-Trichloroethane	ND		0.000484	ND		0.00047	ND		0.00048	ND		0.000528
Tetrachloroethene	ND		0.000629	ND		0.000611	ND		0.000624	ND		0.000686
Dibromochloromethane	ND		0.000532	ND		0.000517	ND		0.000528	ND		0.000581
1,2-Dibromoethane (EDB)	ND		0.000508	ND		0.000494	ND		0.000504	ND		0.000554
Chlorobenzene	0.012		0.000532	ND		0.000517	ND		0.000528	0.0044		0.000581
Ethylbenzene	0.028		0.00075	ND		0.000729	ND		0.000744	0.065		0.000818
Total Xylenes	0.206		0.00257	ND		0.00249	ND		0.00254	0.473		0.0028
Styrene	ND		0.000726	ND		0.000705	ND		0.00072	ND		0.000792
Bromoform	ND		0.000774	ND		0.000752	ND		0.000768	ND		0.000845
1,1,2,2-Tetrachloroethane	ND		0.000557	ND		0.000541	ND		0.000552	ND		0.000607
1,3-Dichlorobenzene	0.00248		0.00075	ND		0.000729	ND		0.000744	ND		0.000818
1,4-Dichlorobenzene	0.00457		0.00075	ND		0.000729	ND		0.000744	ND		0.000818
1,2-Dichlorobenzene	0.019		0.000871	ND		0.000846	ND		0.000864	0.00313		0.00095
1,2-Dibromo-3-chloropropane	ND		0.00121	ND		0.00118	ND		0.0012	ND		0.00132
1,2,4-Trichlorobenzene	ND		0.00126	ND		0.00122	ND		0.00125	ND		0.00137
Methyl acetate	ND		0.0014	ND		0.00136	ND		0.00139	ND		0.00153
1,3-Dichloropropene (cis- and trans-)	ND		0.000629	ND		0.000611	ND		0.000624	ND		0.000686
TOTAL VO's:	0.397			0.017			ND			0.673	J	
TOTAL TIC's:	5.05			0.429			0.639			5.05		
TOTAL VO's & TIC's:	5.45			0.446			0.639			5.72	J	

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-007			06385-008			06385-009			06385-010		
Client ID:	G3-062612			G6-062612			G5-062612			G4-062612		
Client ID Cont.:												
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
N-Nitrosodimethylamine	ND		1.10	ND		0.105	ND		0.108	ND		0.595
Benzaldehyde	ND		0.613	ND		0.059	ND		0.060	ND		0.332
Phenol	ND		0.710	ND		0.068	ND		0.070	ND		0.385
Bis(2-chloroethyl) ether	ND		1.13	ND		0.108	ND		0.111	ND		0.612
2-Chlorophenol	ND		0.677	ND		0.065	ND		0.067	ND		0.367
2-Methylphenol	ND		1.29	ND		0.124	ND		0.127	ND		0.700
Bis(2-chloroisopropyl) ether	ND		0.581	ND		0.056	ND		0.057	ND		0.315
4-Methylphenol	ND		0.903	ND		0.087	ND		0.089	ND		0.490
N-Nitrosodi-n-propylamine	ND		1.06	ND		0.102	ND		0.105	ND		0.577
Acetophenone	ND		0.548	ND		0.053	12.5		0.054	ND		0.297
Hexachloroethane	ND		0.613	ND		0.059	ND		0.060	ND		0.332
Nitrobenzene	ND		1.42	ND		0.136	ND		0.139	ND		0.770
Isophorone	ND		1.05	ND		0.101	ND		0.103	ND		0.569
2,4-Dimethylphenol	ND		1.26	ND		0.121	ND		0.124	ND		0.682
2,4-Dichlorophenol	ND		1.58	ND		0.152	ND		0.155	ND		0.857
Naphthalene	147		1.23	7.33		0.118	15.0		0.121	85.7		0.668
Hexachlorobutadiene	ND		1.56	ND		0.150	ND		0.154	ND		0.849
Caprolactam	ND		1.03	ND		0.099	ND		0.101	ND		0.560
2-Methylnaphthalene	5.38		1.33	3.13		0.128	3.92		0.131	10.3		0.723
Hexachlorocyclopentadiene	ND		0.516	ND		0.049	ND		0.051	ND		0.280
2,4,6-Trichlorophenol	ND		0.516	ND		0.049	ND		0.051	ND		0.280
2,4,5-Trichlorophenol	ND		0.645	ND		0.062	ND		0.063	ND		0.350
1,1'-Biphenyl	ND		0.484	ND		0.047	ND		0.047	ND		0.262
2-Nitroaniline	ND		0.968	ND		0.093	ND		0.095	ND		0.525
2,6-Dinitrotoluene	ND		0.936	ND		0.090	ND		0.092	ND		0.507
Acenaphthylene	ND		1.13	1.73		0.108	1.03		0.111	ND		0.611
Acenaphthene	2.76		1.29	0.306		0.124	2.64		0.126	ND		0.698
2,4-Dinitrophenol	ND		0.613	ND		0.059	ND		0.060	ND		0.332
2,4-Dinitrotoluene	ND		1.40	ND		0.135	ND		0.138	ND		0.761
Diethyl phthalate	ND		1.19	ND		0.115	ND		0.117	ND		0.647
Fluorene	2.13		0.869	0.633		0.083	1.71		0.085	0.776	J	0.472
4,6-Dinitro-2-methylphenol	ND		0.919	ND		0.088	ND		0.090	ND		0.499
N-Nitrosodiphenylamine	ND		0.677	ND		0.065	ND		0.067	ND		0.367
1,2-Diphenylhydrazine	ND		1.48	ND		0.142	ND		0.146	ND		0.805
Hexachlorobenzene	ND		1.15	ND		0.110	ND		0.113	ND		0.621
Atrazine	ND		1.13	ND		0.108	ND		0.111	ND		0.612
Pentachlorophenol	ND		0.677	ND		0.065	ND		0.067	ND		0.367
Phenanthrene	12.7		1.06	2.99		0.102	7.17		0.104	2.31		0.576
Anthracene	4.02		1.55	1.40		0.149	2.00		0.152	1.38		0.841
Carbazole	ND		0.936	ND		0.090	ND		0.092	ND		0.507
Di-n-butyl phthalate	ND		1.15	ND		0.110	ND		0.113	ND		0.621
Fluoranthene	11.0		0.644	4.36		0.062	6.47		0.063	1.12		0.349
Benzidine	ND		1.52	ND		0.146	ND		0.149	ND		0.822
Pyrene	11.6		1.19	6.51		0.114	6.76		0.117	1.47		0.646
Butyl benzyl phthalate	ND		1.03	ND		0.099	ND		0.101	ND		0.560

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-007			06385-008			06385-009			06385-010		
Client ID:	G3-062612			G6-062612			G5-062612			G4-062612		
Client ID Cont.:												
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - BN (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
3,3'-Dichlorobenzidine	ND		1.13	ND		0.108	ND		0.111	ND		0.612
Benzo[a]anthracene	3.74		1.55	2.18		0.149	3.42		0.152	ND		0.840
Chrysene	4.45		1.09	3.03		0.105	4.28		0.107	ND		0.593
Bis(2-ethylhexyl) phthalate	ND		0.774	ND		0.074	ND		0.076	ND		0.420
Di-n-octyl phthalate	ND		0.645	ND		0.062	ND		0.063	ND		0.350
Benzo[b]fluoranthene	ND		0.839	2.30		0.080	3.08		0.082	ND		0.455
Benzo[k]fluoranthene	ND		0.581	2.20		0.056	1.72		0.057	ND		0.315
Benzo[a]pyrene	ND		0.887	3.81		0.085	3.84		0.087	ND		0.481
Indeno[1,2,3-cd]pyrene	ND		0.806	1.68		0.077	1.01		0.079	ND		0.437
Dibenz[a,h]anthracene	ND		0.968	0.707		0.093	0.480		0.095	ND		0.525
Benzo[g,h,i]perylene	ND		0.515	2.10		0.049	1.02		0.051	ND		0.279
Dinitrotoluene (2,4- and 2,6-)	ND		1.40	ND		0.135	ND		0.138	ND		0.761
TOTAL BN'S:	205			46.4			78.1			103	J	
TOTAL TIC's:	1490			378			353			2380		
TOTAL BN'S & TIC's:	1700			424			431			2480	J	
PCB's (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	ND		0.018	ND		0.017	ND		0.018	ND		0.019
Aroclor-1221	ND		0.018	ND		0.017	ND		0.018	ND		0.019
Aroclor-1232	ND		0.018	ND		0.017	ND		0.018	ND		0.019
Aroclor-1242	ND		0.018	ND		0.017	ND		0.018	ND		0.019
Aroclor-1248	ND		0.018	ND		0.017	ND		0.018	ND		0.019
Aroclor-1254	ND		0.018	ND		0.017	ND		0.018	ND		0.019
Aroclor-1260	ND		0.018	ND		0.017	ND		0.018	ND		0.019
Aroclor-1262	ND		0.018	ND		0.017	ND		0.018	ND		0.019
Aroclor-1268	ND		0.018	ND		0.017	ND		0.018	ND		0.019
PCBs	ND		0.018	ND		0.017	ND		0.018	ND		0.019
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
beta-BHC	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
gamma-BHC (Lindane)	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
Heptachlor	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
Aldrin	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
Heptachlor epoxide	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
Endosulfan I	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
4,4'-DDE	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
Dieldrin	0.00376		0.000989	ND		0.000954	0.00249		0.000974	0.0096		0.00109
Endrin	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
Endosulfan II	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
4,4'-DDD	0.013		0.000989	0.00352		0.000954	0.00765		0.000974	0.023		0.00109
Endosulfan sulfate	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
4,4'-DDT	ND		0.000989	0.00494		0.000954	0.0062		0.000974	0.00312		0.00109
Methoxychlor	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
alpha-Chlordane	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
gamma-Chlordane	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
Toxaphene	ND		0.012	ND		0.011	ND		0.012	ND		0.013
Endosulfan (I and II)	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109
Chlordane (alpha and gamma)	ND		0.000989	ND		0.000954	ND		0.000974	ND		0.00109

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT

Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-007			06385-008			06385-009			06385-010		
Client ID:	G3-062612			G6-062612			G5-062612			G4-062612		
Client ID Cont.:												
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	16300		6.63	6390		6.33	10300		6.17	12900		7.37
Antimony	0.607	J	0.332	0.385	J	0.317	0.824	J	0.309	1.86		0.368
Arsenic	49.1		0.332	9.46		0.317	48.4		0.309	24.5		0.368
Barium	141		3.32	54.7		3.17	219		3.09	175		3.68
Beryllium	0.476	J	0.265	ND		0.253	0.508	J	0.247	0.764		0.295
Cadmium	2.16		0.166	0.335	J	0.158	0.864		0.154	2.14		0.184
Chromium	77.7		0.663	19.9		0.633	45.0		0.617	57.8		0.737
Cobalt	11.5		0.663	3.04		0.633	11.4		0.617	14.6		0.737
Copper	155		0.663	70.5		0.633	172		0.617	183		0.737
Lead	263		0.166	122		0.158	558		0.154	463		0.184
Manganese	422		0.332	85.7		0.317	301		0.309	319		0.368
Mercury	0.840		0.00712	2.69		0.00644	1.17		0.0072	0.839		0.00762
Nickel	62.9		0.663	15.1		0.633	46.2		0.617	78.5		0.737
Selenium	3.17		1.33	ND		1.27	2.45	J	1.23	2.34	J	1.47
Silver	0.206	J	0.166	ND		0.158	0.374	J	0.154	0.265	J	0.184
Thallium	3.08		0.166	0.579	J	0.158	2.53		0.154	1.63		0.184
Vanadium	523		0.663	111		0.633	138		0.617	299		0.737
Zinc	1180		2.65	307		2.53	471		2.47	959		2.95
General Analytical (Units)												
Hexavalent Chromium(mg/Kg-ppm)	ND		0.286	ND		0.277	ND		0.284	ND		0.312
Cyanide, Total(mg/Kg-ppm)	ND		0.848	ND		0.822	0.903	J	0.841	ND		0.925
Total Petroleum Hydrocarbons(mg/Kg-ppm)	2090		97.0	1230		117	639		25.0	712		26.4
Trivalent (III) Chromium(mg/Kg-ppm)	77.7		0.663	19.9		0.633	45.0		0.617	57.8		0.737

Lab ID:	06385-011			06385-012			06385-013		
Client ID:	I3SED			C1-062612			C2-062612		
Client ID Cont.:	-062612								
Matrix:	Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Naphthalene	6.72		0.150	11.7		0.145	29.9		9.42
2-Methylnaphthalene	2.57		0.162	11.5		0.157	ND		10.2
Acenaphthylene	0.740		0.137	0.413		0.133	ND		8.61
Acenaphthene	0.513		0.157	1.56		0.152	ND		9.85
Fluorene	0.680		0.106	1.42		0.103	ND		6.65
Phenanthrene	4.50		0.129	ND		0.125	ND		8.12
Anthracene	1.57		0.189	ND		0.183	ND		11.9
Fluoranthene	2.86		0.078	ND		0.076	ND		4.92
Pyrene	6.83		0.145	ND		0.141	ND		9.11
Benzo[a]anthracene	3.00		0.189	ND		0.183	ND		11.8
Chrysene	9.45		0.133	ND		0.129	ND		8.37
Benzo[b]fluoranthene	1.88		0.102	ND		0.099	ND		6.42
Benzo[k]fluoranthene	1.34		0.071	ND		0.069	ND		4.44
Benzo[a]pyrene	3.44		0.108	ND		0.105	ND		6.79
Indeno[1,2,3-cd]pyrene	ND		0.098	ND		0.095	ND		6.17
Dibenz[a,h]anthracene	ND		0.118	ND		0.114	ND		7.40
Benzo[g,h,i]perylene	ND		0.063	ND		0.061	ND		3.94

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: VINELAND - PHASE II - VENDOR #1168636
Lab Case No.: E12-06385

Lab ID:	06385-011			06385-012			06385-013		
Client ID:	I3SED			C1-062612			C2-062612		
Client ID Cont.:	-062612								
Matrix:	Soil			Soil			Soil		
Sampled Date	6/26/12			6/26/12			6/26/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	ND		14.6	289		14.1	ND		10.4
C12-C16 Aliphatics	338		14.6	1430		14.1	67.1		10.4
C16-C21 Aliphatics	896		14.6	1980		14.1	44.1	J	10.4
C21-C40 Aliphatics	6150		72.9	8840		70.7	ND		51.8
Total Aliphatics	7380		72.9	12500		70.7	111		51.8
C10-C12 Aromatics	21.9		5.83	177		5.66	ND		104
C12-C16 Aromatics	135		5.83	1210		5.66	ND		104
C16-C21 Aromatics	1040		5.83	1600		5.66	ND		104
C21-C36 Aromatics	3720		11.7	1910		11.3	93400		207
Total Aromatics	4920		11.7	4900		11.3	93400		207
Total NJ-EPH	12300		72.9	17400		70.7	93500		207
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	34100		8.13	7020		7.84	33300		5.70
Antimony	20.7		0.407	18.9		0.392	0.328	J	0.285
Arsenic	17.6		0.407	13.0		0.392	0.529	J	0.285
Barium	190		4.07	141		3.92	16.7		2.85
Beryllium	0.704	J	0.325	0.458	J	0.314	ND		0.228
Cadmium	2.15		0.203	19.9		0.196	0.494	J	0.143
Calcium	162000		40.7	123000		39.2	6710		28.5
Chromium	36.0		0.813	141		0.784	12.0		0.570
Cobalt	40.7		0.813	17.5		0.784	0.825	J	0.570
Copper	117		0.813	521		0.784	13.2		0.570
Iron	16900		20.3	90600		19.6	2740		14.3
Lead	808		0.203	116		0.196	6.19		0.143
Magnesium	8260		20.3	3710		19.6	1670		14.3
Manganese	328		0.407	639		0.392	30.0		0.285
Mercury	1.13		0.00922	0.997		0.00841	ND		0.00594
Nickel	221		0.813	124		0.784	5.73		0.570
Potassium	2140		20.3	5700		19.6	574		14.3
Selenium	12.6		1.63	7.13		1.57	ND		1.14
Silver	0.382	J	0.203	0.999		0.196	ND		0.143
Sodium	959		40.7	65700		39.2	13100		28.5
Thallium	17.6		0.203	12.2		0.196	0.277	J	0.143
Vanadium	268		0.813	570		0.784	16.8		0.570
Zinc	1050		3.25	6710		3.14	148		2.28

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-001
Client ID: G1-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6831.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 22.0

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00256	0.00102
Chloromethane	ND		0.00256	0.00105
Vinyl chloride	ND		0.00256	0.00123
Bromomethane	ND		0.00256	0.000896
Chloroethane	ND		0.00256	0.00115
Trichlorofluoromethane	ND		0.00256	0.00105
Acrolein	ND		0.051	0.00366
1,1-Dichloroethene	ND		0.00256	0.00128
Acetone	ND		0.013	0.00179
Carbon disulfide	ND		0.00256	0.00087
Methylene chloride	ND		0.00512	0.00507
Acrylonitrile	ND		0.051	0.00481
tert-Butyl alcohol (TBA)	0.038		0.010	0.00233
trans-1,2-Dichloroethene	ND		0.00256	0.0011
Methyl tert-butyl ether (MTBE)	ND		0.00256	0.000589
1,1-Dichloroethane	ND		0.00256	0.000691
cis-1,2-Dichloroethene	ND		0.00256	0.000794
2-Butanone (MEK)	ND		0.013	0.000947
Chloroform	ND		0.00256	0.000742
1,1,1-Trichloroethane	ND		0.00256	0.000845
Carbon tetrachloride	ND		0.00256	0.00105
1,2-Dichloroethane (EDC)	ND		0.00256	0.000538
Benzene	ND		0.00256	0.000614
Trichloroethene	ND		0.00256	0.000819
1,2-Dichloropropane	ND		0.00256	0.000563
Bromodichloromethane	ND		0.00256	0.000819
cis-1,3-Dichloropropene	ND		0.00256	0.000666

E12-06385 0027

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-001
Client ID: G1-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6831.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 22.0

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00256	0.00064
trans-1,3-Dichloropropene	ND		0.00256	0.000666
1,1,2-Trichloroethane	ND		0.00256	0.000512
Tetrachloroethene	ND		0.00256	0.000666
Dibromochloromethane	ND		0.00512	0.000563
1,2-Dibromoethane (EDB)	ND		0.00256	0.000538
Chlorobenzene	ND		0.00256	0.000563
Ethylbenzene	ND		0.00256	0.000794
Total Xylenes	0.00858		0.00512	0.00271
Styrene	ND		0.00256	0.000768
Bromoform	ND		0.00256	0.000819
1,1,2,2-Tetrachloroethane	ND		0.00256	0.000589
1,3-Dichlorobenzene	ND		0.00256	0.000794
1,4-Dichlorobenzene	ND		0.00256	0.000794
1,2-Dichlorobenzene	ND		0.00256	0.000922
1,2-Dibromo-3-chloropropane	ND		0.00256	0.00128
1,2,4-Trichlorobenzene	ND		0.00256	0.00133
Methyl acetate	ND		0.013	0.00148
1,3-Dichloropropene (cis- and trans-)	ND		0.00256	0.000666

Total Target Compounds (46): 0.046

E12-06385 0028

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06385-001
Client ID: G1-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Date File: F6831.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 22.0

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Aromatic	0.071	13.53
	Unknown Hydrocarbon	0.084	13.68
	Unknown Aromatic	0.073	13.92
	Unknown Aromatic	0.079	14.55
	Unknown Hydrocarbon	0.070	14.98
	Unknown Aromatic	0.083	15.03
	Unknown Hydrocarbon	0.089	16.78
	Unknown Hydrocarbon	0.081	16.98
	Unknown Hydrocarbon	0.090	17.64
	Unknown Hydrocarbon	0.073	18.61

Total TICs = 0.794

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-002
Client ID: G2-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6827.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 21.4

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00254	0.00102
Chloromethane	ND		0.00254	0.00104
Vinyl chloride	ND		0.00254	0.00122
Bromomethane	ND		0.00254	0.000889
Chloroethane	ND		0.00254	0.00114
Trichlorofluoromethane	ND		0.00254	0.00104
Acrolein	ND		0.051	0.00363
1,1-Dichloroethene	ND		0.00254	0.00127
Acetone	ND		0.013	0.00178
Carbon disulfide	ND		0.00254	0.000864
Methylene chloride	ND		0.00508	0.00503
Acrylonitrile	ND		0.051	0.00478
tert-Butyl alcohol (TBA)	ND		0.010	0.00231
trans-1,2-Dichloroethene	ND		0.00254	0.00109
Methyl tert-butyl ether (MTBE)	ND		0.00254	0.000584
1,1-Dichloroethane	ND		0.00254	0.000686
cis-1,2-Dichloroethene	ND		0.00254	0.000787
2-Butanone (MEK)	ND		0.013	0.00094
Chloroform	ND		0.00254	0.000737
1,1,1-Trichloroethane	ND		0.00254	0.000838
Carbon tetrachloride	ND		0.00254	0.00104
1,2-Dichloroethane (EDC)	ND		0.00254	0.000533
Benzene	0.00179	J	0.00254	0.00061
Trichloroethene	ND		0.00254	0.000813
1,2-Dichloropropane	ND		0.00254	0.000559
Bromodichloromethane	ND		0.00254	0.000813
cis-1,3-Dichloropropene	ND		0.00254	0.00066

E12-06385 0030

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-002
Client ID: G2-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6827.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 21.4

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00254	0.000635
trans-1,3-Dichloropropene	ND		0.00254	0.00066
1,1,2-Trichloroethane	ND		0.00254	0.000508
Tetrachloroethene	ND		0.00254	0.00066
Dibromochloromethane	ND		0.00508	0.000559
1,2-Dibromoethane (EDB)	ND		0.00254	0.000533
Chlorobenzene	ND		0.00254	0.000559
Ethylbenzene	ND		0.00254	0.000787
Total Xylenes	ND		0.00508	0.00269
Styrene	ND		0.00254	0.000762
Bromoform	ND		0.00254	0.000813
1,1,2,2-Tetrachloroethane	ND		0.00254	0.000584
1,3-Dichlorobenzene	ND		0.00254	0.000787
1,4-Dichlorobenzene	ND		0.00254	0.000787
1,2-Dichlorobenzene	ND		0.00254	0.000914
1,2-Dibromo-3-chloropropane	ND		0.00254	0.00127
1,2,4-Trichlorobenzene	ND		0.00254	0.00132
Methyl acetate	ND		0.013	0.00147
1,3-Dichloropropene (cis- and trans-)	ND		0.00254	0.00066

Total Target Compounds (46): 0.00179 J

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06385-002
Client ID: G2-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Date File: F6827.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 21.4

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	0.028	13.28
	Unknown Hydrocarbon	0.088	13.68
	Unknown Hydrocarbon	0.040	13.77
	Unknown Hydrocarbon	0.062	13.92
	Unknown Hydrocarbon	0.032	14.02
	Unknown VOA	0.047	14.32
	Unknown Hydrocarbon	0.050	14.41
	Unknown VOA	0.034	14.57
	Unknown Hydrocarbon	0.028	15.02
	Unknown Hydrocarbon	0.029	16.84

Total TICs = 0.438

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-004
Client ID: G8-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6824.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 10.0

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00222	0.000888
Chloromethane	ND		0.00222	0.00091
Vinyl chloride	ND		0.00222	0.00107
Bromomethane	ND		0.00222	0.000777
Chloroethane	ND		0.00222	0.000999
Trichlorofluoromethane	ND		0.00222	0.00091
Acrolein	ND		0.044	0.00317
1,1-Dichloroethene	ND		0.00222	0.00111
Acetone	ND		0.011	0.00155
Carbon disulfide	ND		0.00222	0.000755
Methylene chloride	ND		0.00444	0.0044
Acrylonitrile	ND		0.044	0.00417
tert-Butyl alcohol (TBA)	ND		0.00888	0.00202
trans-1,2-Dichloroethene	ND		0.00222	0.000955
Methyl tert-butyl ether (MTBE)	ND		0.00222	0.000511
1,1-Dichloroethane	ND		0.00222	0.000599
cis-1,2-Dichloroethene	ND		0.00222	0.000688
2-Butanone (MEK)	ND		0.011	0.000821
Chloroform	ND		0.00222	0.000644
1,1,1-Trichloroethane	ND		0.00222	0.000733
Carbon tetrachloride	ND		0.00222	0.00091
1,2-Dichloroethane (EDC)	ND		0.00222	0.000466
Benzene	ND		0.00222	0.000533
Trichloroethene	ND		0.00222	0.00071
1,2-Dichloropropane	ND		0.00222	0.000488
Bromodichloromethane	ND		0.00222	0.00071
cis-1,3-Dichloropropene	ND		0.00222	0.000577

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-004
Client ID: G8-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6824.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 10.0

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00222	0.000555
trans-1,3-Dichloropropene	ND		0.00222	0.000577
1,1,2-Trichloroethane	ND		0.00222	0.000444
Tetrachloroethene	ND		0.00222	0.000577
Dibromochloromethane	ND		0.00444	0.000488
1,2-Dibromoethane (EDB)	ND		0.00222	0.000466
Chlorobenzene	ND		0.00222	0.000488
Ethylbenzene	ND		0.00222	0.000688
Total Xylenes	ND		0.00444	0.00235
Styrene	ND		0.00222	0.000666
Bromoform	ND		0.00222	0.00071
1,1,2,2-Tetrachloroethane	ND		0.00222	0.000511
1,3-Dichlorobenzene	ND		0.00222	0.000688
1,4-Dichlorobenzene	ND		0.00222	0.000688
1,2-Dichlorobenzene	ND		0.00222	0.000799
1,2-Dibromo-3-chloropropane	ND		0.00222	0.00111
1,2,4-Trichlorobenzene	ND		0.00222	0.00115
Methyl acetate	ND		0.011	0.00129
1,3-Dichloropropene (cis- and trans-)	ND		0.00222	0.000577

Total Target Compounds (46): 0

E12-06385 0034

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06385-004
Client ID: G8-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Date File: F6824.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 10.0

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-006
Client ID: G7-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6828.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 18.1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00244	0.000976
Chloromethane	ND		0.00244	0.001
Vinyl chloride	ND		0.00244	0.00117
Bromomethane	ND		0.00244	0.000854
Chloroethane	ND		0.00244	0.0011
Trichlorofluoromethane	ND		0.00244	0.001
Acrolein	ND		0.049	0.00349
1,1-Dichloroethene	ND		0.00244	0.00122
Acetone	ND		0.012	0.00171
Carbon disulfide	ND		0.00244	0.00083
Methylene chloride	ND		0.00488	0.00483
Acrylonitrile	ND		0.049	0.00459
tert-Butyl alcohol (TBA)	ND		0.00976	0.00222
trans-1,2-Dichloroethene	ND		0.00244	0.00105
Methyl tert-butyl ether (MTBE)	ND		0.00244	0.000561
1,1-Dichloroethane	ND		0.00244	0.000659
cis-1,2-Dichloroethene	ND		0.00244	0.000756
2-Butanone (MEK)	ND		0.012	0.000903
Chloroform	ND		0.00244	0.000708
1,1,1-Trichloroethane	ND		0.00244	0.000805
Carbon tetrachloride	ND		0.00244	0.001
1,2-Dichloroethane (EDC)	ND		0.00244	0.000512
Benzene	ND		0.00244	0.000586
Trichloroethene	ND		0.00244	0.000781
1,2-Dichloropropane	ND		0.00244	0.000537
Bromodichloromethane	ND		0.00244	0.000781
cis-1,3-Dichloropropene	ND		0.00244	0.000634

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-006
Client ID: G7-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6828.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 18.1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00244	0.00061
trans-1,3-Dichloropropene	ND		0.00244	0.000634
1,1,2-Trichloroethane	ND		0.00244	0.000488
Tetrachloroethene	ND		0.00244	0.000634
Dibromochloromethane	ND		0.00488	0.000537
1,2-Dibromoethane (EDB)	ND		0.00244	0.000512
Chlorobenzene	ND		0.00244	0.000537
Ethylbenzene	ND		0.00244	0.000756
Total Xylenes	ND		0.00488	0.00259
Styrene	ND		0.00244	0.000732
Bromoform	ND		0.00244	0.000781
1,1,2,2-Tetrachloroethane	ND		0.00244	0.000561
1,3-Dichlorobenzene	ND		0.00244	0.000756
1,4-Dichlorobenzene	ND		0.00244	0.000756
1,2-Dichlorobenzene	ND		0.00244	0.000878
1,2-Dibromo-3-chloropropane	ND		0.00244	0.00122
1,2,4-Trichlorobenzene	ND		0.00244	0.00127
Methyl acetate	ND		0.012	0.00142
1,3-Dichloropropene (cis- and trans-)	ND		0.00244	0.000634

Total Target Compounds (46): 0

E12-06385 0037

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06385-006
Client ID: G7-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Date File: F6828.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 18.1

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	0.030	6.58
	Unknown Hydrocarbon	0.025	7.90
	Unknown Hydrocarbon	0.040	8.03
	Unknown Hydrocarbon	0.014	13.21
	Unknown Aromatic	0.013	13.52
	Unknown Aromatic	0.011	14.66
	Unknown Aromatic	0.012	15.43
	Unknown Aromatic	0.013	15.97
	Unknown Aromatic	0.015	16.27
	Unknown Aromatic	0.016	17.64

Total TICs = 0.189

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-007
Client ID: G3-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6832.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 17.5

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00242	0.000968
Chloromethane	ND		0.00242	0.000992
Vinyl chloride	ND		0.00242	0.00116
Bromomethane	ND		0.00242	0.000847
Chloroethane	ND		0.00242	0.00109
Trichlorofluoromethane	ND		0.00242	0.000992
Acrolein	ND		0.048	0.00346
1,1-Dichloroethene	ND		0.00242	0.00121
Acetone	ND		0.012	0.00169
Carbon disulfide	ND		0.00242	0.000823
Methylene chloride	ND		0.00484	0.00479
Acrylonitrile	ND		0.048	0.00455
tert-Butyl alcohol (TBA)	0.028		0.00968	0.0022
trans-1,2-Dichloroethene	ND		0.00242	0.00104
Methyl tert-butyl ether (MTBE)	ND		0.00242	0.000557
1,1-Dichloroethane	ND		0.00242	0.000653
cis-1,2-Dichloroethene	ND		0.00242	0.00075
2-Butanone (MEK)	ND		0.012	0.000895
Chloroform	ND		0.00242	0.000702
1,1,1-Trichloroethane	ND		0.00242	0.000799
Carbon tetrachloride	ND		0.00242	0.000992
1,2-Dichloroethane (EDC)	ND		0.00242	0.000508
Benzene	0.020		0.00242	0.000581
Trichloroethene	ND		0.00242	0.000774
1,2-Dichloropropane	ND		0.00242	0.000532
Bromodichloromethane	ND		0.00242	0.000774
cis-1,3-Dichloropropene	ND		0.00242	0.000629

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-007
Client ID: G3-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6832.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 17.5

Compound	Concentration	Q	RL	MDL
Toluene	0.077		0.00242	0.000605
trans-1,3-Dichloropropene	ND		0.00242	0.000629
1,1,2-Trichloroethane	ND		0.00242	0.000484
Tetrachloroethene	ND		0.00242	0.000629
Dibromochloromethane	ND		0.00484	0.000532
1,2-Dibromoethane (EDB)	ND		0.00242	0.000508
Chlorobenzene	0.012		0.00242	0.000532
Ethylbenzene	0.028		0.00242	0.00075
Total Xylenes	0.206		0.00484	0.00257
Styrene	ND		0.00242	0.000726
Bromoform	ND		0.00242	0.000774
1,1,2,2-Tetrachloroethane	ND		0.00242	0.000557
1,3-Dichlorobenzene	0.00248		0.00242	0.00075
1,4-Dichlorobenzene	0.00457		0.00242	0.00075
1,2-Dichlorobenzene	0.019		0.00242	0.000871
1,2-Dibromo-3-chloropropane	ND		0.00242	0.00121
1,2,4-Trichlorobenzene	ND		0.00242	0.00126
Methyl acetate	ND		0.012	0.0014
1,3-Dichloropropene (cis- and trans-)	ND		0.00242	0.000629

Total Target Compounds (46): 0.397

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06385-007
Client ID: G3-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Date File: F6832.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 17.5

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Aromatic	0.166	12.09
	Unknown Aromatic	0.234	12.20
	Unknown Aromatic	0.207	12.66
	Unknown Aromatic	0.166	13.53
	Unknown Hydrocarbon	0.758	13.68
	Unknown Hydrocarbon	0.290	13.92
	Unknown Hydrocarbon	0.190	14.42
	Unknown Aromatic	0.251	14.54
	Unknown Hydrocarbon	0.391	14.98
	Unknown PAH	2.40	15.72

Total TICs = 5.05

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-008
Client ID: G6-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6826.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 14.8

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00235	0.00094
Chloromethane	ND		0.00235	0.000964
Vinyl chloride	ND		0.00235	0.00113
Bromomethane	ND		0.00235	0.000823
Chloroethane	ND		0.00235	0.00106
Trichlorofluoromethane	ND		0.00235	0.000964
Acrolein	ND		0.047	0.00336
1,1-Dichloroethene	ND		0.00235	0.00118
Acetone	ND		0.012	0.00165
Carbon disulfide	ND		0.00235	0.000799
Methylene chloride	ND		0.0047	0.00465
Acrylonitrile	ND		0.047	0.00442
tert-Butyl alcohol (TBA)	0.017		0.0094	0.00214
trans-1,2-Dichloroethene	ND		0.00235	0.00101
Methyl tert-butyl ether (MTBE)	ND		0.00235	0.000541
1,1-Dichloroethane	ND		0.00235	0.000635
cis-1,2-Dichloroethene	ND		0.00235	0.000729
2-Butanone (MEK)	ND		0.012	0.00087
Chloroform	ND		0.00235	0.000682
1,1,1-Trichloroethane	ND		0.00235	0.000776
Carbon tetrachloride	ND		0.00235	0.000964
1,2-Dichloroethane (EDC)	ND		0.00235	0.000494
Benzene	ND		0.00235	0.000564
Trichloroethene	ND		0.00235	0.000752
1,2-Dichloropropane	ND		0.00235	0.000517
Bromodichloromethane	ND		0.00235	0.000752
cis-1,3-Dichloropropene	ND		0.00235	0.000611

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-008
Client ID: G6-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6826.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 14.8

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00235	0.000588
trans-1,3-Dichloropropene	ND		0.00235	0.000611
1,1,2-Trichloroethane	ND		0.00235	0.00047
Tetrachloroethene	ND		0.00235	0.000611
Dibromochloromethane	ND		0.0047	0.000517
1,2-Dibromoethane (EDB)	ND		0.00235	0.000494
Chlorobenzene	ND		0.00235	0.000517
Ethylbenzene	ND		0.00235	0.000729
Total Xylenes	ND		0.0047	0.00249
Styrene	ND		0.00235	0.000705
Bromoform	ND		0.00235	0.000752
1,1,2,2-Tetrachloroethane	ND		0.00235	0.000541
1,3-Dichlorobenzene	ND		0.00235	0.000729
1,4-Dichlorobenzene	ND		0.00235	0.000729
1,2-Dichlorobenzene	ND		0.00235	0.000846
1,2-Dibromo-3-chloropropane	ND		0.00235	0.00118
1,2,4-Trichlorobenzene	ND		0.00235	0.00122
Methyl acetate	ND		0.012	0.00136
1,3-Dichloropropene (cis- and trans-)	ND		0.00235	0.000611

Total Target Compounds (46): 0.017

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06385-008
Client ID: G6-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Date File: F6826.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 14.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown PAH	0.066	13.52
	Unknown Hydrocarbon	0.050	13.68
	Unknown Hydrocarbon	0.040	13.92
	Unknown VOA	0.049	14.32
	Unknown Hydrocarbon	0.038	14.41
	Unknown VOA	0.054	14.57
	Unknown Hydrocarbon	0.029	14.97
	Unknown VOA	0.032	15.02
	Unknown Hydrocarbon	0.033	16.03
	Unknown VOA	0.038	17.30

Total TICs = 0.429

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-009
Client ID: G5-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6829.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 16.8

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.0024	0.00096
Chloromethane	ND		0.0024	0.000984
Vinyl chloride	ND		0.0024	0.00115
Bromomethane	ND		0.0024	0.00084
Chloroethane	ND		0.0024	0.00108
Trichlorofluoromethane	ND		0.0024	0.000984
Acrolein	ND		0.048	0.00343
1,1-Dichloroethene	ND		0.0024	0.0012
Acetone	ND		0.012	0.00168
Carbon disulfide	ND		0.0024	0.000816
Methylene chloride	ND		0.0048	0.00475
Acrylonitrile	ND		0.048	0.00451
tert-Butyl alcohol (TBA)	ND		0.0096	0.00218
trans-1,2-Dichloroethene	ND		0.0024	0.00103
Methyl tert-butyl ether (MTBE)	ND		0.0024	0.000552
1,1-Dichloroethane	ND		0.0024	0.000648
cis-1,2-Dichloroethene	ND		0.0024	0.000744
2-Butanone (MEK)	ND		0.012	0.000888
Chloroform	ND		0.0024	0.000696
1,1,1-Trichloroethane	ND		0.0024	0.000792
Carbon tetrachloride	ND		0.0024	0.000984
1,2-Dichloroethane (EDC)	ND		0.0024	0.000504
Benzene	ND		0.0024	0.000576
Trichloroethene	ND		0.0024	0.000768
1,2-Dichloropropane	ND		0.0024	0.000528
Bromodichloromethane	ND		0.0024	0.000768
cis-1,3-Dichloropropene	ND		0.0024	0.000624

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-009
Client ID: G5-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6829.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 16.8

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.0024	0.0006
trans-1,3-Dichloropropene	ND		0.0024	0.000624
1,1,2-Trichloroethane	ND		0.0024	0.00048
Tetrachloroethene	ND		0.0024	0.000624
Dibromochloromethane	ND		0.0048	0.000528
1,2-Dibromoethane (EDB)	ND		0.0024	0.000504
Chlorobenzene	ND		0.0024	0.000528
Ethylbenzene	ND		0.0024	0.000744
Total Xylenes	ND		0.0048	0.00254
Styrene	ND		0.0024	0.00072
Bromoform	ND		0.0024	0.000768
1,1,2,2-Tetrachloroethane	ND		0.0024	0.000552
1,3-Dichlorobenzene	ND		0.0024	0.000744
1,4-Dichlorobenzene	ND		0.0024	0.000744
1,2-Dichlorobenzene	ND		0.0024	0.000864
1,2-Dibromo-3-chloropropane	ND		0.0024	0.0012
1,2,4-Trichlorobenzene	ND		0.0024	0.00125
Methyl acetate	ND		0.012	0.00139
1,3-Dichloropropene (cis- and trans-)	ND		0.0024	0.000624

Total Target Compounds (46): 0

E12-06385 0046

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06385-009
Client ID: G5-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Date File: F6829.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 16.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	0.057	12.20
	Unknown Aromatic	0.057	13.53
	Unknown Hydrocarbon	0.106	13.68
	Unknown Hydrocarbon	0.054	13.92
	Unknown Aromatic	0.065	14.55
	Unknown Hydrocarbon	0.072	14.98
	Unknown Aromatic	0.051	15.02
	Unknown Hydrocarbon	0.052	16.03
	Unknown Hydrocarbon	0.072	16.78
	Unknown Hydrocarbon	0.055	17.64

Total TICs = 0.639

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-010
Client ID: G4-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6830.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 24.3

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00264	0.00106
Chloromethane	ND		0.00264	0.00108
Vinyl chloride	ND		0.00264	0.00127
Bromomethane	ND		0.00264	0.000924
Chloroethane	ND		0.00264	0.00119
Trichlorofluoromethane	ND		0.00264	0.00108
Acrolein	ND		0.053	0.00378
1,1-Dichloroethene	ND		0.00264	0.00132
Acetone	ND		0.013	0.00185
Carbon disulfide	0.00685		0.00264	0.000898
Methylene chloride	ND		0.00528	0.00523
Acrylonitrile	ND		0.053	0.00496
tert-Butyl alcohol (TBA)	0.022		0.011	0.0024
trans-1,2-Dichloroethene	ND		0.00264	0.00114
Methyl tert-butyl ether (MTBE)	ND		0.00264	0.000607
1,1-Dichloroethane	ND		0.00264	0.000713
cis-1,2-Dichloroethene	ND		0.00264	0.000818
2-Butanone (MEK)	0.0074	J	0.013	0.000977
Chloroform	0.012		0.00264	0.000766
1,1,1-Trichloroethane	ND		0.00264	0.000871
Carbon tetrachloride	ND		0.00264	0.00108
1,2-Dichloroethane (EDC)	ND		0.00264	0.000554
Benzene	0.00466		0.00264	0.000634
Trichloroethene	ND		0.00264	0.000845
1,2-Dichloropropane	ND		0.00264	0.000581
Bromodichloromethane	ND		0.00264	0.000845
cis-1,3-Dichloropropene	ND		0.00264	0.000686

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06385-010
Client ID: G4-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Data file: F6830.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 24.3

Compound	Concentration	Q	RL	MDL
Toluene	0.074		0.00264	0.00066
trans-1,3-Dichloropropene	ND		0.00264	0.000686
1,1,2-Trichloroethane	ND		0.00264	0.000528
Tetrachloroethene	ND		0.00264	0.000686
Dibromochloromethane	ND		0.00528	0.000581
1,2-Dibromoethane (EDB)	ND		0.00264	0.000554
Chlorobenzene	0.0044		0.00264	0.000581
Ethylbenzene	0.065		0.00264	0.000818
Total Xylenes	0.473		0.00528	0.0028
Styrene	ND		0.00264	0.000792
Bromoform	ND		0.00264	0.000845
1,1,2,2-Tetrachloroethane	ND		0.00264	0.000607
1,3-Dichlorobenzene	ND		0.00264	0.000818
1,4-Dichlorobenzene	ND		0.00264	0.000818
1,2-Dichlorobenzene	0.00313		0.00264	0.00095
1,2-Dibromo-3-chloropropane	ND		0.00264	0.00132
1,2,4-Trichlorobenzene	ND		0.00264	0.00137
Methyl acetate	ND		0.013	0.00153
1,3-Dichloropropene (cis- and trans-)	ND		0.00264	0.000686
Total Target Compounds (46):	0.673	J		

E12-06385 0049

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06385-010
Client ID: G4-062612
Date Received: 06/27/2012
Date Analyzed: 07/10/2012
Date File: F6830.D

GC/MS Column: DB-624
Sample wt/vol: 2.5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 24.3

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Aromatic	0.480	12.09
	Unknown Aromatic	0.648	12.20
	Unknown Aromatic	0.653	12.66
	Unknown Aromatic	0.436	13.53
	Unknown Hydrocarbon	0.616	13.68
	Unknown Aromatic	0.406	13.91
	Unknown Hydrocarbon	0.588	14.98
	Unknown Aromatic	0.380	15.03
	Unknown PAH	0.404	15.72
	Unknown VOA	0.440	16.03

Total TICs = 5.05

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-001
Client ID: G1-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7739.D

GC/MS Column: DB-5
Sample wt/vol: 15.13g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 22.0

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.169	0.115
Benzaldehyde	ND		0.169	0.064
Phenol	ND		0.169	0.075
Bis(2-chloroethyl) ether	ND		0.169	0.119
2-Chlorophenol	ND		0.169	0.071
2-Methylphenol	ND		0.169	0.136
Bis(2-chloroisopropyl) ether	ND		0.169	0.061
4-Methylphenol **	ND		0.169	0.095
N-Nitrosodi-n-propylamine	ND		0.169	0.112
Acetophenone	ND		0.169	0.058
Hexachloroethane	ND		0.169	0.064
Nitrobenzene	ND		0.169	0.149
Isophorone	ND		0.169	0.110
2,4-Dimethylphenol	ND		0.169	0.132
2,4-Dichlorophenol	ND		0.169	0.166
Naphthalene	16.6		0.169	0.129
Hexachlorobutadiene	ND		0.169	0.164
Caprolactam	ND		0.169	0.108
2-Methylnaphthalene	2.46		0.169	0.140
Hexachlorocyclopentadiene	ND		0.169	0.054
2,4,6-Trichlorophenol	ND		0.169	0.054
2,4,5-Trichlorophenol	ND		0.169	0.068
1,1'-Biphenyl	ND		0.169	0.051
2-Nitroaniline	ND		0.169	0.102

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-001
Client ID: G1-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7739.D

GC/MS Column: DB-5
Sample wt/vol: 15.13g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 22.0

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.169	0.098
Acenaphthylene	0.252		0.169	0.118
Acenaphthene	0.889		0.169	0.135
2,4-Dinitrophenol	ND		0.169	0.064
2,4-Dinitrotoluene	ND		0.169	0.147
Diethyl phthalate	ND		0.169	0.125
Fluorene	0.968		0.169	0.091
4,6-Dinitro-2-methylphenol	ND		0.169	0.097
N-Nitrosodiphenylamine	ND		0.169	0.071
1,2-Diphenylhydrazine	ND		0.169	0.156
Hexachlorobenzene	ND		0.169	0.120
Atrazine	ND		0.169	0.119
Pentachlorophenol	ND		0.169	0.071
Phenanthrene	3.09		0.169	0.112
Anthracene	0.931		0.169	0.163
Carbazole	ND		0.169	0.098
Di-n-butyl phthalate	ND		0.169	0.120
Fluoranthene	2.33		0.169	0.068
Benzidine	ND		0.169	0.159
Pyrene	2.42		0.169	0.125
Butyl benzyl phthalate	ND		0.169	0.108
3,3'-Dichlorobenzidine	ND		0.169	0.119
Benzo[a]anthracene	ND		0.169	0.163
Chrysene	ND		0.169	0.115
Bis(2-ethylhexyl) phthalate	ND		0.169	0.081
Di-n-octyl phthalate	ND		0.169	0.068
Benzo[b]fluoranthene	ND		0.169	0.088
Benzo[k]fluoranthene	ND		0.169	0.061
Benzo[a]pyrene	ND		0.169	0.093
Indeno[1,2,3-cd]pyrene	ND		0.169	0.085
Dibenz[a,h]anthracene	ND		0.169	0.102
Benzo[g,h,i]perylene	ND		0.169	0.054
Dinitrotoluene (2,4- and 2,6-)	ND		0.169	0.147

Total Target Compounds (57): 29.9

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06385-001
Client ID: G1-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Date File: C7739.D

GC/MS Column: DB-5
Sample wt/vol: 15.13g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 22.0

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	5.36	2.67
	Unknown PAH	5.54	3.74
	Unknown Hydrocarbon	6.63	4.05
	Unknown Hydrocarbon	6.93	4.55
	Unknown SV	11.0	4.89
	Unknown Hydrocarbon	5.51	4.98
	Unknown Hydrocarbon	7.71	5.20
	Unknown Hydrocarbon	4.86	5.69
	Unknown Hydrocarbon	4.95	5.99
	Unknown Hydrocarbon	4.90	6.24
	Unknown SV	10.7	6.58
	Unknown SV	6.37	6.61
	Unknown SV	7.86	6.65
	Unknown SV	25.0	6.71
	Unknown SV	18.7	6.74
	Unknown SV	14.9	6.78
	Unknown SV	13.4	6.85
	Unknown SV	18.5	6.89
	Unknown SV	20.4	6.98
	Unknown Hydrocarbon	5.27	7.08
	Unknown SV	34.2	7.13
	Unknown SV	38.8	7.19
	Unknown Hydrocarbon	8.54	7.41
	Unknown Hydrocarbon	6.78	7.83
	Unknown Hydrocarbon	9.73	8.32
	Total TICs =	303	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-002
Client ID: G2-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7740.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 21.4

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.169	0.115
Benzaldehyde	ND		0.169	0.064
Phenol	ND		0.169	0.074
Bis(2-chloroethyl) ether	ND		0.169	0.118
2-Chlorophenol	ND		0.169	0.071
2-Methylphenol	ND		0.169	0.135
Bis(2-chloroisopropyl) ether	ND		0.169	0.061
4-Methylphenol **	ND		0.169	0.094
N-Nitrosodi-n-propylamine	ND		0.169	0.111
Acetophenone	ND		0.169	0.057
Hexachloroethane	ND		0.169	0.064
Nitrobenzene	ND		0.169	0.148
Isophorone	ND		0.169	0.110
2,4-Dimethylphenol	ND		0.169	0.132
2,4-Dichlorophenol	ND		0.169	0.165
Naphthalene	9.35		0.169	0.129
Hexachlorobutadiene	ND		0.169	0.164
Caprolactam	ND		0.169	0.108
2-Methylnaphthalene	3.54		0.169	0.139
Hexachlorocyclopentadiene	ND		0.169	0.054
2,4,6-Trichlorophenol	ND		0.169	0.054
2,4,5-Trichlorophenol	ND		0.169	0.068
1,1'-Biphenyl	0.577		0.169	0.051
2-Nitroaniline	ND		0.169	0.101

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-002
Client ID: G2-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7740.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 21.4

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.169	0.098
Acenaphthylene	1.02		0.169	0.118
Acenaphthene	1.91		0.169	0.135
2,4-Dinitrophenol	ND		0.169	0.064
2,4-Dinitrotoluene	ND		0.169	0.147
Diethyl phthalate	ND		0.169	0.125
Fluorene	1.59		0.169	0.091
4,6-Dinitro-2-methylphenol	ND		0.169	0.096
N-Nitrosodiphenylamine	ND		0.169	0.071
1,2-Diphenylhydrazine	ND		0.169	0.155
Hexachlorobenzene	ND		0.169	0.120
Atrazine	ND		0.169	0.118
Pentachlorophenol	ND		0.169	0.071
Phenanthrene	7.60		0.169	0.111
Anthracene	2.68		0.169	0.162
Carbazole	ND		0.169	0.098
Di-n-butyl phthalate	ND		0.169	0.120
Fluoranthene	7.61		0.169	0.067
Benzidine	ND		0.169	0.159
Pyrene	6.66		0.169	0.125
Butyl benzyl phthalate	ND		0.169	0.108
3,3'-Dichlorobenzidine	ND		0.169	0.118
Benzo[a]anthracene	2.92		0.169	0.162
Chrysene	3.91		0.169	0.114
Bis(2-ethylhexyl) phthalate	3.12		0.169	0.081
Di-n-octyl phthalate	ND		0.169	0.068
Benzo[b]fluoranthene	2.45		0.169	0.088
Benzo[k]fluoranthene	2.32		0.169	0.061
Benzo[a]pyrene	3.93		0.169	0.093
Indeno[1,2,3-cd]pyrene	1.17		0.169	0.084
Dibenz[a,h]anthracene	0.832		0.169	0.101
Benzo[g,h,i]perylene	1.48		0.169	0.054
Dinitrotoluene (2,4- and 2,6-)	ND		0.169	0.147

Total Target Compounds (57): 64.7

** - represents the total of 3+4-Methylphenol

E12-06385 0055

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06385-002
Client ID: G2-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Date File: C7740.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 21.4

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	5.64	2.68
	Unknown SV	3.66	2.73
	Unknown Hydrocarbon	6.94	3.04
	Unknown Hydrocarbon	6.90	3.30
	Unknown Hydrocarbon	15.3	3.50
	Unknown Hydrocarbon	9.38	3.71
	Unknown SV	5.38	3.76
	Unknown Hydrocarbon	9.38	3.97
	Unknown Hydrocarbon	23.2	4.04
	Unknown Hydrocarbon	3.97	4.38
	Unknown SV	5.59	4.46
	Unknown Hydrocarbon	6.56	4.50
	Unknown Hydrocarbon	12.3	4.53
	Unknown SV	14.0	4.86
	Unknown Hydrocarbon	11.3	4.95
	Unknown Hydrocarbon	8.34	5.17
	Unknown SV	7.10	5.25
	Unknown SV	4.07	5.97
	Unknown SV	16.5	6.57
	Unknown SV	9.47	6.65
	Unknown SV	26.4	6.72
	Unknown SV	24.8	6.87
	Unknown SV	27.2	6.99
	Unknown SV	53.3	7.14
	Unknown SV	55.2	7.23
	Total TICs =	372	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-004
Client ID: G8-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7741.D

GC/MS Column: DB-5
Sample wt/vol: 15.13g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 10.0

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.037	0.025
Benzaldehyde	ND		0.037	0.014
Phenol	ND		0.037	0.016
Bis(2-chloroethyl) ether	ND		0.037	0.026
2-Chlorophenol	ND		0.037	0.015
2-Methylphenol	ND		0.037	0.029
Bis(2-chloroisopropyl) ether	ND		0.037	0.013
4-Methylphenol **	ND		0.037	0.021
N-Nitrosodi-n-propylamine	ND		0.037	0.024
Acetophenone	ND		0.037	0.013
Hexachloroethane	ND		0.037	0.014
Nitrobenzene	ND		0.037	0.032
Isophorone	ND		0.037	0.024
2,4-Dimethylphenol	ND		0.037	0.029
2,4-Dichlorophenol	ND		0.037	0.036
Naphthalene	0.182		0.037	0.028
Hexachlorobutadiene	ND		0.037	0.036
Caprolactam	ND		0.037	0.023
2-Methylnaphthalene	0.053		0.037	0.030
Hexachlorocyclopentadiene	ND		0.037	0.012
2,4,6-Trichlorophenol	ND		0.037	0.012
2,4,5-Trichlorophenol	ND		0.037	0.015
1,1'-Biphenyl	ND		0.037	0.011
2-Nitroaniline	ND		0.037	0.022

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-004
Client ID: G8-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7741.D

GC/MS Column: DB-5
Sample wt/vol: 15.13g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 10.0

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.037	0.021
Acenaphthylene	0.764		0.037	0.026
Acenaphthene	ND		0.037	0.029
2,4-Dinitrophenol	ND		0.037	0.014
2,4-Dinitrotoluene	ND		0.037	0.032
Diethyl phthalate	ND		0.037	0.027
Fluorene	0.168		0.037	0.020
4,6-Dinitro-2-methylphenol	ND		0.037	0.021
N-Nitrosodiphenylamine	ND		0.037	0.015
1,2-Diphenylhydrazine	ND		0.037	0.034
Hexachlorobenzene	ND		0.037	0.026
Atrazine	ND		0.037	0.026
Pentachlorophenol	ND		0.037	0.015
Phenanthrene	0.737		0.037	0.024
Anthracene	0.532		0.037	0.035
Carbazole	ND		0.037	0.021
Di-n-butyl phthalate	ND		0.037	0.026
Fluoranthene	1.44		0.037	0.015
Benzidine	ND		0.037	0.034
Pyrene	2.27		0.037	0.027
Butyl benzyl phthalate	ND		0.037	0.023
3,3'-Dichlorobenzidine	ND		0.037	0.026
Benzo[a]anthracene	0.780		0.037	0.035
Chrysene	1.09		0.037	0.025
Bis(2-ethylhexyl) phthalate	ND		0.037	0.018
Di-n-octyl phthalate	ND		0.037	0.015
Benzo[b]fluoranthene	0.962		0.037	0.019
Benzo[k]fluoranthene	0.774		0.037	0.013
Benzo[a]pyrene	1.77		0.037	0.020
Indeno[1,2,3-cd]pyrene	1.23		0.037	0.018
Dibenz[a,h]anthracene	0.380		0.037	0.022
Benzo[g,h,i]perylene	1.65		0.037	0.012
Dinitrotoluene (2,4- and 2,6-)	ND		0.037	0.032

Total Target Compounds (57): 14.8

** - represents the total of 3+4-Methylphenol

E12-06385 0058

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06385-004
Client ID: G8-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Date File: C7741.D

GC/MS Column: DB-5
Sample wt/vol: 15.13g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 10.0

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	0.301	3.31
	Unknown PAH	0.176	3.76
	Unknown Hydrocarbon	0.771	4.05
	Unknown Hydrocarbon	0.151	4.39
	Unknown Hydrocarbon	0.830	4.52
	Unknown Hydrocarbon	0.364	4.54
	Unknown SV	0.191	4.62
	Unknown Hydrocarbon	0.856	4.97
	Unknown PAH	0.569	5.03
	Unknown Hydrocarbon	0.665	5.20
	Unknown PAH	0.367	5.44
	Unknown PAH	0.158	5.97
	Unknown SV	0.800	6.56
	Unknown SV	0.543	6.59
	Unknown SV	0.466	6.63
	Unknown SV	1.77	6.68
	Unknown SV	1.18	6.71
	Unknown PAH	0.716	6.75
	Unknown PAH	0.635	6.81
	Unknown SV	0.712	6.85
	Unknown SV	0.767	6.93
	Unknown SV	1.30	7.08
	Unknown SV	1.19	7.14
	Unknown PAH	2.93	7.84

Total TICs = 18.4

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-006
Client ID: G7-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7742.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 18.1

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.162	0.110
Benzaldehyde	ND		0.162	0.062
Phenol	ND		0.162	0.071
Bis(2-chloroethyl) ether	ND		0.162	0.113
2-Chlorophenol	ND		0.162	0.068
2-Methylphenol	ND		0.162	0.130
Bis(2-chloroisopropyl) ether	ND		0.162	0.058
4-Methylphenol **	ND		0.162	0.091
N-Nitrosodi-n-propylamine	ND		0.162	0.107
Acetophenone	ND		0.162	0.055
Hexachloroethane	ND		0.162	0.062
Nitrobenzene	ND		0.162	0.143
Isophorone	ND		0.162	0.105
2,4-Dimethylphenol	ND		0.162	0.126
2,4-Dichlorophenol	ND		0.162	0.159
Naphthalene	1.90		0.162	0.124
Hexachlorobutadiene	ND		0.162	0.157
Caprolactam	ND		0.162	0.104
2-Methylnaphthalene	0.773		0.162	0.134
Hexachlorocyclopentadiene	ND		0.162	0.052
2,4,6-Trichlorophenol	ND		0.162	0.052
2,4,5-Trichlorophenol	ND		0.162	0.065
1,1'-Biphenyl	ND		0.162	0.049
2-Nitroaniline	ND		0.162	0.097

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-006
Client ID: G7-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7742.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 18.1

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.162	0.094
Acenaphthylene	0.216		0.162	0.113
Acenaphthene	0.647		0.162	0.129
2,4-Dinitrophenol	ND		0.162	0.062
2,4-Dinitrotoluene	ND		0.162	0.141
Diethyl phthalate	ND		0.162	0.120
Fluorene	0.634		0.162	0.087
4,6-Dinitro-2-methylphenol	ND		0.162	0.092
N-Nitrosodiphenylamine	ND		0.162	0.068
1,2-Diphenylhydrazine	ND		0.162	0.149
Hexachlorobenzene	ND		0.162	0.115
Atrazine	ND		0.162	0.113
Pentachlorophenol	ND		0.162	0.068
Phenanthrene	3.41		0.162	0.107
Anthracene	1.15		0.162	0.156
Carbazole	ND		0.162	0.094
Di-n-butyl phthalate	0.364		0.162	0.115
Fluoranthene	4.77		0.162	0.065
Benzidine	ND		0.162	0.152
Pyrene	4.80		0.162	0.120
Butyl benzyl phthalate	ND		0.162	0.104
3,3'-Dichlorobenzidine	ND		0.162	0.113
Benzo[a]anthracene	2.85		0.162	0.155
Chrysene	3.80		0.162	0.110
Bis(2-ethylhexyl) phthalate	0.933		0.162	0.078
Di-n-octyl phthalate	ND		0.162	0.065
Benzo[b]fluoranthene	2.70		0.162	0.084
Benzo[k]fluoranthene	2.16		0.162	0.058
Benzo[a]pyrene	3.62		0.162	0.089
Indeno[1,2,3-cd]pyrene	1.60		0.162	0.081
Dibenz[a,h]anthracene	0.920		0.162	0.097
Benzo[g,h,i]perylene	1.64		0.162	0.052
Dinitrotoluene (2,4- and 2,6-)	ND		0.162	0.141

Total Target Compounds (57): 38.9

** - represents the total of 3+4-Methylphenol

E12-06385 0061

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06385-006
Client ID: G7-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Date File: C7742.D

GC/MS Column: DB-5
Sample wt/vol: 15.08g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 18.1

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Aromatic	2.74	2.67
	Unknown PAH	2.64	2.72
	Unknown Hydrocarbon	3.50	3.30
	Unknown PAH	3.38	3.47
	Unknown PAH	2.98	3.69
	Unknown Hydrocarbon	3.90	3.71
	Unknown PAH	6.07	3.73
	Unknown Hydrocarbon	7.40	4.04
	Unknown SV	2.93	4.47
	Unknown Hydrocarbon	4.91	4.51
	Unknown Hydrocarbon	5.62	4.53
	Unknown PAH	3.90	5.00
	Unknown Hydrocarbon	6.15	5.18
	Unknown PAH	4.23	5.26
	Unknown Hydrocarbon	2.90	5.95
	Unknown SV	3.92	6.55
	Unknown SV	7.43	6.67
	Unknown SV	3.82	6.69
	Unknown SV	4.10	6.72
	Unknown SV	4.16	6.80
	Unknown SV	4.68	6.84
	Unknown SV	5.73	6.92
	Unknown SV	10.0	7.07
	Unknown SV	9.98	7.12
	Unknown Hydrocarbon	6.48	7.36
	Total TICs =	124	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-007
Client ID: G3-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7743.D

GC/MS Column: DB-5
Sample wt/vol: 15.03g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 20
% Moisture: 17.5

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.61	1.10
Benzaldehyde	ND		1.61	0.613
Phenol	ND		1.61	0.710
Bis(2-chloroethyl) ether	ND		1.61	1.13
2-Chlorophenol	ND		1.61	0.677
2-Methylphenol	ND		1.61	1.29
Bis(2-chloroisopropyl) ether	ND		1.61	0.581
4-Methylphenol **	ND		1.61	0.903
N-Nitrosodi-n-propylamine	ND		1.61	1.06
Acetophenone	ND		1.61	0.548
Hexachloroethane	ND		1.61	0.613
Nitrobenzene	ND		1.61	1.42
Isophorone	ND		1.61	1.05
2,4-Dimethylphenol	ND		1.61	1.26
2,4-Dichlorophenol	ND		1.61	1.58
Naphthalene	147		1.61	1.23
Hexachlorobutadiene	ND		1.61	1.56
Caprolactam	ND		1.61	1.03
2-Methylnaphthalene	5.38		1.61	1.33
Hexachlorocyclopentadiene	ND		1.61	0.516
2,4,6-Trichlorophenol	ND		1.61	0.516
2,4,5-Trichlorophenol	ND		1.61	0.645
1,1'-Biphenyl	ND		1.61	0.484
2-Nitroaniline	ND		1.61	0.968

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-007
Client ID: G3-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7743.D

GC/MS Column: DB-5
Sample wt/vol: 15.03g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 20
% Moisture: 17.5

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.61	0.936
Acenaphthylene	ND		1.61	1.13
Acenaphthene	2.76		1.61	1.29
2,4-Dinitrophenol	ND		1.61	0.613
2,4-Dinitrotoluene	ND		1.61	1.40
Diethyl phthalate	ND		1.61	1.19
Fluorene	2.13		1.61	0.869
4,6-Dinitro-2-methylphenol	ND		1.61	0.919
N-Nitrosodiphenylamine	ND		1.61	0.677
1,2-Diphenylhydrazine	ND		1.61	1.48
Hexachlorobenzene	ND		1.61	1.15
Atrazine	ND		1.61	1.13
Pentachlorophenol	ND		1.61	0.677
Phenanthrene	12.7		1.61	1.06
Anthracene	4.02		1.61	1.55
Carbazole	ND		1.61	0.936
Di-n-butyl phthalate	ND		1.61	1.15
Fluoranthene	11.0		1.61	0.644
Benzidine	ND		1.61	1.52
Pyrene	11.6		1.61	1.19
Butyl benzyl phthalate	ND		1.61	1.03
3,3'-Dichlorobenzidine	ND		1.61	1.13
Benzo[a]anthracene	3.74		1.61	1.55
Chrysene	4.45		1.61	1.09
Bis(2-ethylhexyl) phthalate	ND		1.61	0.774
Di-n-octyl phthalate	ND		1.61	0.645
Benzo[b]fluoranthene	ND		1.61	0.839
Benzo[k]fluoranthene	ND		1.61	0.581
Benzo[a]pyrene	ND		1.61	0.887
Indeno[1,2,3-cd]pyrene	ND		1.61	0.806
Dibenz[a,h]anthracene	ND		1.61	0.968
Benzo[g,h,i]perylene	ND		1.61	0.515
Dinitrotoluene (2,4- and 2,6-)	ND		1.61	1.40

Total Target Compounds (57): 205

** - represents the total of 3+4-Methylphenol

E12-06385 0064

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06385-007
Client ID: G3-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Date File: C7743.D

GC/MS Column: DB-5
Sample wt/vol: 15.03g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 20
% Moisture: 17.5

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	21.3	2.65
	Unknown Hydrocarbon	15.5	3.81
	Unknown Hydrocarbon	23.7	4.06
	Unknown SV	13.4	5.18
	Unknown SV	58.7	6.59
	Unknown SV	34.8	6.62
	Unknown SV	42.6	6.66
	Unknown SV	128	6.70
	Unknown SV	103	6.73
	Unknown PAH	63.7	6.77
	Unknown PAH	67.6	6.84
	Unknown SV	96.1	6.88
	Unknown PAH	109	6.96
	Unknown SV	198	7.11
	Unknown SV	223	7.17
	Unknown Hydrocarbon	25.2	7.39
	Unknown SV	14.8	7.64
	Unknown Hydrocarbon	21.0	7.79
	Unknown SV	46.0	7.85
	Unknown SV	35.2	8.08
	Unknown SV	55.2	8.28
	Unknown SV	27.3	8.55
	Unknown SV	13.7	8.74
	Unknown SV	30.6	9.04
	Unknown SV	24.7	9.66
	Total TICs =	1490	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-008
Client ID: G6-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7744.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 14.8

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.155	0.105
Benzaldehyde	ND		0.155	0.059
Phenol	ND		0.155	0.068
Bis(2-chloroethyl) ether	ND		0.155	0.108
2-Chlorophenol	ND		0.155	0.065
2-Methylphenol	ND		0.155	0.124
Bis(2-chloroisopropyl) ether	ND		0.155	0.056
4-Methylphenol **	ND		0.155	0.087
N-Nitrosodi-n-propylamine	ND		0.155	0.102
Acetophenone	ND		0.155	0.053
Hexachloroethane	ND		0.155	0.059
Nitrobenzene	ND		0.155	0.136
Isophorone	ND		0.155	0.101
2,4-Dimethylphenol	ND		0.155	0.121
2,4-Dichlorophenol	ND		0.155	0.152
Naphthalene	7.33		0.155	0.118
Hexachlorobutadiene	ND		0.155	0.150
Caprolactam	ND		0.155	0.099
2-Methylnaphthalene	3.13		0.155	0.128
Hexachlorocyclopentadiene	ND		0.155	0.049
2,4,6-Trichlorophenol	ND		0.155	0.049
2,4,5-Trichlorophenol	ND		0.155	0.062
1,1'-Biphenyl	ND		0.155	0.047
2-Nitroaniline	ND		0.155	0.093

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-008
Client ID: G6-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7744.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 14.8

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.155	0.090
Acenaphthylene	1.73		0.155	0.108
Acenaphthene	0.306		0.155	0.124
2,4-Dinitrophenol	ND		0.155	0.059
2,4-Dinitrotoluene	ND		0.155	0.135
Diethyl phthalate	ND		0.155	0.115
Fluorene	0.633		0.155	0.083
4,6-Dinitro-2-methylphenol	ND		0.155	0.088
N-Nitrosodiphenylamine	ND		0.155	0.065
1,2-Diphenylhydrazine	ND		0.155	0.142
Hexachlorobenzene	ND		0.155	0.110
Atrazine	ND		0.155	0.108
Pentachlorophenol	ND		0.155	0.065
Phenanthrene	2.99		0.155	0.102
Anthracene	1.40		0.155	0.149
Carbazole	ND		0.155	0.090
Di-n-butyl phthalate	ND		0.155	0.110
Fluoranthene	4.36		0.155	0.062
Benzidine	ND		0.155	0.146
Pyrene	6.51		0.155	0.114
Butyl benzyl phthalate	ND		0.155	0.099
3,3'-Dichlorobenzidine	ND		0.155	0.108
Benzo[a]anthracene	2.18		0.155	0.149
Chrysene	3.03		0.155	0.105
Bis(2-ethylhexyl) phthalate	ND		0.155	0.074
Di-n-octyl phthalate	ND		0.155	0.062
Benzo[b]fluoranthene	2.30		0.155	0.080
Benzo[k]fluoranthene	2.20		0.155	0.056
Benzo[a]pyrene	3.81		0.155	0.085
Indeno[1,2,3-cd]pyrene	1.68		0.155	0.077
Dibenz[a,h]anthracene	0.707		0.155	0.093
Benzo[g,h,i]perylene	2.10		0.155	0.049
Dinitrotoluene (2,4- and 2,6-)	ND		0.155	0.135

Total Target Compounds (57): 46.4

** - represents the total of 3+4-Methylphenol

E12-06385 0067

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06385-008
Client ID: G6-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Date File: C7744.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 14.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	7.43	2.43
	Unknown Hydrocarbon	9.69	2.46
	Unknown Hydrocarbon	6.97	2.68
	Unknown PAH	7.54	2.72
	Unknown SV	7.25	2.92
	Unknown Hydrocarbon	16.4	3.05
	Unknown SV	6.78	3.24
	Unknown Hydrocarbon	15.0	3.32
	Unknown Hydrocarbon	9.34	4.53
	Unknown Hydrocarbon	6.52	4.56
	Unknown Hydrocarbon	8.97	4.99
	Unknown Hydrocarbon	9.03	5.21
	Unknown SV	14.0	6.59
	Unknown SV	9.17	6.62
	Unknown SV	11.2	6.67
	Unknown SV	28.6	6.71
	Unknown SV	20.9	6.75
	Unknown SV	14.9	6.79
	Unknown SV	15.6	6.86
	Unknown SV	23.9	6.90
	Unknown SV	23.3	6.99
	Unknown SV	43.0	7.15
	Unknown SV	47.7	7.21
	Unknown SV	8.19	7.89
	Unknown SV	6.19	8.12
	Total TICs =	378	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-009
Client ID: G5-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7745.D

GC/MS Column: DB-5
Sample wt/vol: 15.17g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 16.8

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.158	0.108
Benzaldehyde	ND		0.158	0.060
Phenol	ND		0.158	0.070
Bis(2-chloroethyl) ether	ND		0.158	0.111
2-Chlorophenol	ND		0.158	0.067
2-Methylphenol	ND		0.158	0.127
Bis(2-chloroisopropyl) ether	ND		0.158	0.057
4-Methylphenol **	ND		0.158	0.089
N-Nitrosodi-n-propylamine	ND		0.158	0.105
Acetophenone	12.5		0.158	0.054
Hexachloroethane	ND		0.158	0.060
Nitrobenzene	ND		0.158	0.139
Isophorone	ND		0.158	0.103
2,4-Dimethylphenol	ND		0.158	0.124
2,4-Dichlorophenol	ND		0.158	0.155
Naphthalene	15.0		0.158	0.121
Hexachlorobutadiene	ND		0.158	0.154
Caprolactam	ND		0.158	0.101
2-Methylnaphthalene	3.92		0.158	0.131
Hexachlorocyclopentadiene	ND		0.158	0.051
2,4,6-Trichlorophenol	ND		0.158	0.051
2,4,5-Trichlorophenol	ND		0.158	0.063
1,1'-Biphenyl	ND		0.158	0.047
2-Nitroaniline	ND		0.158	0.095

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-009
Client ID: G5-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7745.D

GC/MS Column: DB-5
Sample wt/vol: 15.17g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 16.8

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.158	0.092
Acenaphthylene	1.03		0.158	0.111
Acenaphthene	2.64		0.158	0.126
2,4-Dinitrophenol	ND		0.158	0.060
2,4-Dinitrotoluene	ND		0.158	0.138
Diethyl phthalate	ND		0.158	0.117
Fluorene	1.71		0.158	0.085
4,6-Dinitro-2-methylphenol	ND		0.158	0.090
N-Nitrosodiphenylamine	ND		0.158	0.067
1,2-Diphenylhydrazine	ND		0.158	0.146
Hexachlorobenzene	ND		0.158	0.113
Atrazine	ND		0.158	0.111
Pentachlorophenol	ND		0.158	0.067
Phenanthrene	7.17		0.158	0.104
Anthracene	2.00		0.158	0.152
Carbazole	ND		0.158	0.092
Di-n-butyl phthalate	ND		0.158	0.113
Fluoranthene	6.47		0.158	0.063
Benzidine	ND		0.158	0.149
Pyrene	6.76		0.158	0.117
Butyl benzyl phthalate	ND		0.158	0.101
3,3'-Dichlorobenzidine	ND		0.158	0.111
Benzo[a]anthracene	3.42		0.158	0.152
Chrysene	4.28		0.158	0.107
Bis(2-ethylhexyl) phthalate	ND		0.158	0.076
Di-n-octyl phthalate	ND		0.158	0.063
Benzo[b]fluoranthene	3.08		0.158	0.082
Benzo[k]fluoranthene	1.72		0.158	0.057
Benzo[a]pyrene	3.84		0.158	0.087
Indeno[1,2,3-cd]pyrene	1.01		0.158	0.079
Dibenz[a,h]anthracene	0.480		0.158	0.095
Benzo[g,h,i]perylene	1.02		0.158	0.051
Dinitrotoluene (2,4- and 2,6-)	ND		0.158	0.138

Total Target Compounds (57): 78.1

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06385-009
Client ID: G5-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Date File: C7745.D

GC/MS Column: DB-5
Sample wt/vol: 15.17g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 16.8

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	6.51	2.46
	Unknown Hydrocarbon	4.10	2.66
	Unknown Hydrocarbon	6.10	3.04
	Unknown Hydrocarbon	6.78	3.31
	Unknown Hydrocarbon	4.79	4.06
	Unknown Hydrocarbon	5.59	4.39
	Unknown SV	5.28	4.49
	Unknown Hydrocarbon	14.2	4.52
	Unknown Hydrocarbon	13.8	4.56
	Unknown Hydrocarbon	16.9	4.98
	Unknown PAH	4.20	5.03
	Unknown SV	18.7	5.16
	Unknown Hydrocarbon	18.7	5.21
	Unknown PAH	12.8	5.29
	Unknown SV	12.8	6.60
	Unknown SV	7.88	6.62
	Unknown SV	8.29	6.67
	Unknown SV	23.7	6.73
	Unknown PAH	11.9	6.80
	Unknown PAH	18.2	6.88
	Unknown SV	18.5	6.92
	Unknown SV	24.1	7.01
	Unknown SV	41.5	7.17
	Unknown SV	41.2	7.25
	Unknown Hydrocarbon	6.34	7.44
	Total TICs =	353	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-010
Client ID: G4-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7746.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 10
% Moisture: 24.3

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.875	0.595
Benzaldehyde	ND		0.875	0.332
Phenol	ND		0.875	0.385
Bis(2-chloroethyl) ether	ND		0.875	0.612
2-Chlorophenol	ND		0.875	0.367
2-Methylphenol	ND		0.875	0.700
Bis(2-chloroisopropyl) ether	ND		0.875	0.315
4-Methylphenol **	ND		0.875	0.490
N-Nitrosodi-n-propylamine	ND		0.875	0.577
Acetophenone	ND		0.875	0.297
Hexachloroethane	ND		0.875	0.332
Nitrobenzene	ND		0.875	0.770
Isophorone	ND		0.875	0.569
2,4-Dimethylphenol	ND		0.875	0.682
2,4-Dichlorophenol	ND		0.875	0.857
Naphthalene	85.7		0.875	0.668
Hexachlorobutadiene	ND		0.875	0.849
Caprolactam	ND		0.875	0.560
2-Methylnaphthalene	10.3		0.875	0.723
Hexachlorocyclopentadiene	ND		0.875	0.280
2,4,6-Trichlorophenol	ND		0.875	0.280
2,4,5-Trichlorophenol	ND		0.875	0.350
1,1'-Biphenyl	ND		0.875	0.262
2-Nitroaniline	ND		0.875	0.525

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-010
Client ID: G4-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7746.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 10
% Moisture: 24.3

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.875	0.507
Acenaphthylene	ND		0.875	0.611
Acenaphthene	ND		0.875	0.698
2,4-Dinitrophenol	ND		0.875	0.332
2,4-Dinitrotoluene	ND		0.875	0.761
Diethyl phthalate	ND		0.875	0.647
Fluorene	0.776	J	0.875	0.472
4,6-Dinitro-2-methylphenol	ND		0.875	0.499
N-Nitrosodiphenylamine	ND		0.875	0.367
1,2-Diphenylhydrazine	ND		0.875	0.805
Hexachlorobenzene	ND		0.875	0.621
Atrazine	ND		0.875	0.612
Pentachlorophenol	ND		0.875	0.367
Phenanthrene	2.31		0.875	0.576
Anthracene	1.38		0.875	0.841
Carbazole	ND		0.875	0.507
Di-n-butyl phthalate	ND		0.875	0.621
Fluoranthene	1.12		0.875	0.349
Benzidine	ND		0.875	0.822
Pyrene	1.47		0.875	0.646
Butyl benzyl phthalate	ND		0.875	0.560
3,3'-Dichlorobenzidine	ND		0.875	0.612
Benzo[a]anthracene	ND		0.875	0.840
Chrysene	ND		0.875	0.593
Bis(2-ethylhexyl) phthalate	ND		0.875	0.420
Di-n-octyl phthalate	ND		0.875	0.350
Benzo[b]fluoranthene	ND		0.875	0.455
Benzo[k]fluoranthene	ND		0.875	0.315
Benzo[a]pyrene	ND		0.875	0.481
Indeno[1,2,3-cd]pyrene	ND		0.875	0.437
Dibenz[a,h]anthracene	ND		0.875	0.525
Benzo[g,h,i]perylene	ND		0.875	0.279
Dinitrotoluene (2,4- and 2,6-)	ND		0.875	0.761
Total Target Compounds (57):	103	J		

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06385-010
Client ID: G4-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Date File: C7746.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 10
% Moisture: 24.3

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown Hydrocarbon	30.9	3.82
	Unknown SV	46.1	6.61
	Unknown SV	37.6	6.69
	Unknown SV	98.0	6.73
	Unknown SV	75.9	6.76
	Unknown SV	46.9	6.80
	Unknown PAH	52.2	6.87
	Unknown SV	78.2	6.91
	Unknown SV	84.8	6.99
	Unknown SV	161	7.14
	Unknown SV	195	7.20
	Unknown SV	109	7.34
	Unknown SV	50.1	7.38
	Unknown SV	54.0	7.54
	Unknown SV	40.2	7.68
	Unknown SV	130	7.89
	Unknown SV	126	8.11
	Unknown SV	110	8.33
	Unknown SV	193	8.60
	Unknown SV	61.9	8.78
	Unknown SV	116	9.09
	Unknown SV	48.3	9.36
	Unknown SV	41.4	9.46
	Unknown SV	95.7	9.73
	Unknown SV	299	9.87
	Total TICs =	2380	

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-011
Client ID: I3SED-06
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7747.D

GC/MS Column: DB-5
Sample wt/vol: 15.19g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 33.0

Compound	Concentration	Q	RL	MDL
Naphthalene	6.72		0.197	0.150
2-Methylnaphthalene	2.57		0.197	0.162
Acenaphthylene	0.740		0.197	0.137
Acenaphthene	0.513		0.197	0.157
Fluorene	0.680		0.197	0.106
Phenanthrene	4.50		0.197	0.129
Anthracene	1.57		0.197	0.189
Fluoranthene	2.86		0.197	0.078
Pyrene	6.83		0.197	0.145
Benzo[a]anthracene	3.00		0.197	0.189
Chrysene	9.45		0.197	0.133
Benzo[b]fluoranthene	1.88		0.197	0.102
Benzo[k]fluoranthene	1.34		0.197	0.071
Benzo[a]pyrene	3.44		0.197	0.108
Indeno[1,2,3-cd]pyrene	ND		0.197	0.098
Dibenz[a,h]anthracene	ND		0.197	0.118
Benzo[g,h,i]perylene	ND		0.197	0.063

Total Target Compounds (17): 46.1

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-012
Client ID: C1-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7748.D

GC/MS Column: DB-5
Sample wt/vol: 15.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 2
% Moisture: 30.3

Compound	Concentration	Q	RL	MDL
Naphthalene	11.7		0.191	0.145
2-Methylnaphthalene	11.5		0.191	0.157
Acenaphthylene	0.413		0.191	0.133
Acenaphthene	1.56		0.191	0.152
Fluorene	1.42		0.191	0.103
Phenanthrene	ND		0.191	0.125
Anthracene	ND		0.191	0.183
Fluoranthene	ND		0.191	0.076
Pyrene	ND		0.191	0.141
Benzo[a]anthracene	ND		0.191	0.183
Chrysene	ND		0.191	0.129
Benzo[b]fluoranthene	ND		0.191	0.099
Benzo[k]fluoranthene	ND		0.191	0.069
Benzo[a]pyrene	ND		0.191	0.105
Indeno[1,2,3-cd]pyrene	ND		0.191	0.095
Dibenz[a,h]anthracene	ND		0.191	0.114
Benzo[g,h,i]perylene	ND		0.191	0.061

Total Target Compounds (17): 26.6

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06385-013
Client ID: C2-06261
Date Received: 06/27/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7749.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 30
% Moisture: 3.40

Compound	Concentration	Q	RL	MDL
Naphthalene	29.9		12.3	9.42
2-Methylnaphthalene	ND		12.3	10.2
Acenaphthylene	ND		12.3	8.61
Acenaphthene	ND		12.3	9.85
Fluorene	ND		12.3	6.65
Phenanthrene	ND		12.3	8.12
Anthracene	ND		12.3	11.9
Fluoranthene	ND		12.3	4.92
Pyrene	ND		12.3	9.11
Benzo[a]anthracene	ND		12.3	11.8
Chrysene	ND		12.3	8.37
Benzo[b]fluoranthene	ND		12.3	6.42
Benzo[k]fluoranthene	ND		12.3	4.44
Benzo[a]pyrene	ND		12.3	6.79
Indeno[1,2,3-cd]pyrene	ND		12.3	6.17
Dibenz[a,h]anthracene	ND		12.3	7.40
Benzo[g,h,i]perylene	ND		12.3	3.94

Total Target Compounds (17): 29.9

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-001
Client ID: G1-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/11/2012
Data file: Y6551.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.48g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 22.0

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.047	0.019
Aroclor-1221	ND		0.047	0.019
Aroclor-1232	ND		0.047	0.019
Aroclor-1242	ND		0.047	0.019
Aroclor-1248	ND		0.047	0.019
Aroclor-1254	ND		0.047	0.019
Aroclor-1260	ND		0.047	0.019
Aroclor-1262	ND		0.047	0.019
Aroclor-1268	ND		0.047	0.019
PCBs	ND		0.047	0.019

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-002
Client ID: G2-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/11/2012
Data file: Y6552.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.51g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 21.4

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.046	0.019
Aroclor-1221	ND		0.046	0.019
Aroclor-1232	ND		0.046	0.019
Aroclor-1242	ND		0.046	0.019
Aroclor-1248	ND		0.046	0.019
Aroclor-1254	ND		0.046	0.019
Aroclor-1260	ND		0.046	0.019
Aroclor-1262	ND		0.046	0.019
Aroclor-1268	ND		0.046	0.019
PCBs	ND		0.046	0.019

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-003
Client ID: I2-062612-
Date Received: 06/27/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/04/2012
Data file: Y6128.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-004
Client ID: G8-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/11/2012
Data file: Y6553.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.58g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 10.0

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-005
Client ID: I1-062612-
Date Received: 06/27/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/04/2012
Data file: Y6129.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-006
Client ID: G7-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/11/2012
Data file: Y6554.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.36g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.1

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.046	0.018
Aroclor-1221	ND		0.046	0.018
Aroclor-1232	ND		0.046	0.018
Aroclor-1242	ND		0.046	0.018
Aroclor-1248	ND		0.046	0.018
Aroclor-1254	ND		0.046	0.018
Aroclor-1260	ND		0.046	0.018
Aroclor-1262	ND		0.046	0.018
Aroclor-1268	ND		0.046	0.018
PCBs	ND		0.046	0.018

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-007
Client ID: G3-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/11/2012
Data file: Y6555.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.42g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.5

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.045	0.018
Aroclor-1221	ND		0.045	0.018
Aroclor-1232	ND		0.045	0.018
Aroclor-1242	ND		0.045	0.018
Aroclor-1248	ND		0.045	0.018
Aroclor-1254	ND		0.045	0.018
Aroclor-1260	ND		0.045	0.018
Aroclor-1262	ND		0.045	0.018
Aroclor-1268	ND		0.045	0.018
PCBs	ND		0.045	0.018

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-008
Client ID: G6-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/11/2012
Data file: Y6556.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.66g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.8

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.041	0.017
Aroclor-1221	ND		0.041	0.017
Aroclor-1232	ND		0.041	0.017
Aroclor-1242	ND		0.041	0.017
Aroclor-1248	ND		0.041	0.017
Aroclor-1254	ND		0.041	0.017
Aroclor-1260	ND		0.041	0.017
Aroclor-1262	ND		0.041	0.017
Aroclor-1268	ND		0.041	0.017
PCBs	ND		0.041	0.017

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-009
Client ID: G5-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/11/2012
Data file: Y6557.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.38g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 16.8

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.045	0.018
Aroclor-1221	ND		0.045	0.018
Aroclor-1232	ND		0.045	0.018
Aroclor-1242	ND		0.045	0.018
Aroclor-1248	ND		0.045	0.018
Aroclor-1254	ND		0.045	0.018
Aroclor-1260	ND		0.045	0.018
Aroclor-1262	ND		0.045	0.018
Aroclor-1268	ND		0.045	0.018
PCBs	ND		0.045	0.018

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06385-010
Client ID: G4-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/11/2012
Data file: Y6558.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.44g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 24.3

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.049	0.019
Aroclor-1221	ND		0.049	0.019
Aroclor-1232	ND		0.049	0.019
Aroclor-1242	ND		0.049	0.019
Aroclor-1248	ND		0.049	0.019
Aroclor-1254	ND		0.049	0.019
Aroclor-1260	ND		0.049	0.019
Aroclor-1262	ND		0.049	0.019
Aroclor-1268	ND		0.049	0.019
PCBs	ND		0.049	0.019

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-001
Client ID: G1-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/10/2012
Data file: V8250.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.09g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 22.0

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00213	0.00107
beta-BHC	ND		0.00213	0.00107
gamma-BHC (Lindane)	ND		0.00213	0.00107
Heptachlor	ND		0.00213	0.00107
Aldrin	ND		0.00213	0.00107
Heptachlor epoxide	ND		0.00213	0.00107
Endosulfan I	ND		0.00213	0.00107
4,4'-DDE	ND		0.00213	0.00107
Dieldrin	0.00517		0.00213	0.00107
Endrin	ND		0.00213	0.00107
Endosulfan II	ND		0.00213	0.00107
4,4'-DDD	0.016		0.00213	0.00107
Endosulfan sulfate	ND		0.00213	0.00107
4,4'-DDT	ND		0.00213	0.00107
Methoxychlor	ND		0.00213	0.00107
alpha-Chlordane	ND		0.00213	0.00107
gamma-Chlordane	ND		0.00213	0.00107
Toxaphene	ND		0.027	0.013
Endosulfan (I and II)	ND		0.00213	0.00107
Chlordane (alpha and gamma)	ND		0.00213	0.00107

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-002
Client ID: G2-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/10/2012
Data file: V8251.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.45g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 21.4

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00209	0.00105
beta-BHC	ND		0.00209	0.00105
gamma-BHC (Lindane)	ND		0.00209	0.00105
Heptachlor	ND		0.00209	0.00105
Aldrin	ND		0.00209	0.00105
Heptachlor epoxide	ND		0.00209	0.00105
Endosulfan I	ND		0.00209	0.00105
4,4'-DDE	ND		0.00209	0.00105
Dieldrin	0.00589		0.00209	0.00105
Endrin	ND		0.00209	0.00105
Endosulfan II	ND		0.00209	0.00105
4,4'-DDD	0.018		0.00209	0.00105
Endosulfan sulfate	ND		0.00209	0.00105
4,4'-DDT	ND		0.00209	0.00105
Methoxychlor	ND		0.00209	0.00105
alpha-Chlordane	ND		0.00209	0.00105
gamma-Chlordane	ND		0.00209	0.00105
Toxaphene	ND		0.026	0.013
Endosulfan (I and II)	ND		0.00209	0.00105
Chlordane (alpha and gamma)	ND		0.00209	0.00105

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-003
Client ID: I2-062612-
Date Received: 06/27/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
Data file: O9517.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-004
Client ID: G8-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/09/2012
Data file: V8238.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.34g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 10.0

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000366	0.000183
beta-BHC	ND		0.000366	0.000183
gamma-BHC (Lindane)	ND		0.000366	0.000183
Heptachlor	ND		0.000366	0.000183
Aldrin	ND		0.000366	0.000183
Heptachlor epoxide	ND		0.000366	0.000183
Endosulfan I	ND		0.000366	0.000183
4,4'-DDE	ND		0.000366	0.000183
Dieldrin	ND		0.000366	0.000183
Endrin	ND		0.000366	0.000183
Endosulfan II	ND		0.000366	0.000183
4,4'-DDD	ND		0.000366	0.000183
Endosulfan sulfate	ND		0.000366	0.000183
4,4'-DDT	ND		0.000366	0.000183
Methoxychlor	ND		0.000366	0.000183
alpha-Chlordane	ND		0.000366	0.000183
gamma-Chlordane	ND		0.000366	0.000183
Toxaphene	ND		0.00458	0.0022
Endosulfan (I and II)	ND		0.000366	0.000183
Chlordane (alpha and gamma)	ND		0.000366	0.000183

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-005
Client ID: I1-062612-
Date Received: 06/27/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
Data file: O9518.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-006
Client ID: G7-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/10/2012
Data file: V8252.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.64g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 18.1

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00199	0.000996
beta-BHC	ND		0.00199	0.000996
gamma-BHC (Lindane)	ND		0.00199	0.000996
Heptachlor	ND		0.00199	0.000996
Aldrin	ND		0.00199	0.000996
Heptachlor epoxide	ND		0.00199	0.000996
Endosulfan I	ND		0.00199	0.000996
4,4'-DDE	0.00156	J	0.00199	0.000996
Dieldrin	ND		0.00199	0.000996
Endrin	ND		0.00199	0.000996
Endosulfan II	ND		0.00199	0.000996
4,4'-DDD	0.00523		0.00199	0.000996
Endosulfan sulfate	ND		0.00199	0.000996
4,4'-DDT	ND		0.00199	0.000996
Methoxychlor	ND		0.00199	0.000996
alpha-Chlordane	ND		0.00199	0.000996
gamma-Chlordane	ND		0.00199	0.000996
Toxaphene	ND		0.025	0.012
Endosulfan (I and II)	ND		0.00199	0.000996
Chlordane (alpha and gamma)	ND		0.00199	0.000996

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-007
Client ID: G3-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/10/2012
Data file: V8253.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.64g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 17.5

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00198	0.000989
beta-BHC	ND		0.00198	0.000989
gamma-BHC (Lindane)	ND		0.00198	0.000989
Heptachlor	ND		0.00198	0.000989
Aldrin	ND		0.00198	0.000989
Heptachlor epoxide	ND		0.00198	0.000989
Endosulfan I	ND		0.00198	0.000989
4,4'-DDE	ND		0.00198	0.000989
Dieldrin	0.00376		0.00198	0.000989
Endrin	ND		0.00198	0.000989
Endosulfan II	ND		0.00198	0.000989
4,4'-DDD	0.013		0.00198	0.000989
Endosulfan sulfate	ND		0.00198	0.000989
4,4'-DDT	ND		0.00198	0.000989
Methoxychlor	ND		0.00198	0.000989
alpha-Chlordane	ND		0.00198	0.000989
gamma-Chlordane	ND		0.00198	0.000989
Toxaphene	ND		0.025	0.012
Endosulfan (I and II)	ND		0.00198	0.000989
Chlordane (alpha and gamma)	ND		0.00198	0.000989

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-008
Client ID: G6-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/10/2012
Data file: V8254.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.77g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 14.8

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00191	0.000954
beta-BHC	ND		0.00191	0.000954
gamma-BHC (Lindane)	ND		0.00191	0.000954
Heptachlor	ND		0.00191	0.000954
Aldrin	ND		0.00191	0.000954
Heptachlor epoxide	ND		0.00191	0.000954
Endosulfan I	ND		0.00191	0.000954
4,4'-DDE	ND		0.00191	0.000954
Dieldrin	ND		0.00191	0.000954
Endrin	ND		0.00191	0.000954
Endosulfan II	ND		0.00191	0.000954
4,4'-DDD	0.00352		0.00191	0.000954
Endosulfan sulfate	ND		0.00191	0.000954
4,4'-DDT	0.00494		0.00191	0.000954
Methoxychlor	ND		0.00191	0.000954
alpha-Chlordane	ND		0.00191	0.000954
gamma-Chlordane	ND		0.00191	0.000954
Toxaphene	ND		0.024	0.011
Endosulfan (I and II)	ND		0.00191	0.000954
Chlordane (alpha and gamma)	ND		0.00191	0.000954

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-009
Client ID: G5-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/10/2012
Data file: V8255.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.86g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 16.8

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00195	0.000974
beta-BHC	ND		0.00195	0.000974
gamma-BHC (Lindane)	ND		0.00195	0.000974
Heptachlor	ND		0.00195	0.000974
Aldrin	ND		0.00195	0.000974
Heptachlor epoxide	ND		0.00195	0.000974
Endosulfan I	ND		0.00195	0.000974
4,4'-DDE	ND		0.00195	0.000974
Dieldrin	0.00249		0.00195	0.000974
Endrin	ND		0.00195	0.000974
Endosulfan II	ND		0.00195	0.000974
4,4'-DDD	0.00765		0.00195	0.000974
Endosulfan sulfate	ND		0.00195	0.000974
4,4'-DDT	0.0062		0.00195	0.000974
Methoxychlor	ND		0.00195	0.000974
alpha-Chlordane	ND		0.00195	0.000974
gamma-Chlordane	ND		0.00195	0.000974
Toxaphene	ND		0.024	0.012
Endosulfan (I and II)	ND		0.00195	0.000974
Chlordane (alpha and gamma)	ND		0.00195	0.000974

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06385-010
Client ID: G4-062612
Date Received: 06/27/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/10/2012
Data file: V8256.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.18g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 5
% Moisture: 24.3

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.00219	0.00109
beta-BHC	ND		0.00219	0.00109
gamma-BHC (Lindane)	ND		0.00219	0.00109
Heptachlor	ND		0.00219	0.00109
Aldrin	ND		0.00219	0.00109
Heptachlor epoxide	ND		0.00219	0.00109
Endosulfan I	ND		0.00219	0.00109
4,4'-DDE	ND		0.00219	0.00109
Dieldrin	0.0096		0.00219	0.00109
Endrin	ND		0.00219	0.00109
Endosulfan II	ND		0.00219	0.00109
4,4'-DDD	0.023		0.00219	0.00109
Endosulfan sulfate	ND		0.00219	0.00109
4,4'-DDT	0.00312		0.00219	0.00109
Methoxychlor	ND		0.00219	0.00109
alpha-Chlordane	ND		0.00219	0.00109
gamma-Chlordane	ND		0.00219	0.00109
Toxaphene	ND		0.027	0.013
Endosulfan (I and II)	ND		0.00219	0.00109
Chlordane (alpha and gamma)	ND		0.00219	0.00109

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 06385-003
Client ID: I2-062612-
Date Received: 06/27/2012
Date Extracted: 06/29/2012
Date Analyzed: 07/02/2012
Data file: W7048.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 50
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		12.5	5.00
Dicamba	ND		12.5	5.00
2,4-D	ND		12.5	5.00
2,4,5-TP (Silvex)	ND		12.5	5.00
2,4,5-T	ND		12.5	5.00
2,4-DB	ND		12.5	5.00
Dinoseb	ND		12.5	5.00

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 06385-005
Client ID: I1-062612-
Date Received: 06/27/2012
Date Extracted: 06/29/2012
Date Analyzed: 07/02/2012
Data file: W7049.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 50
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		12.5	5.00
Dicamba	ND		12.5	5.00
2,4-D	ND		12.5	5.00
2,4,5-TP (Silvex)	ND		12.5	5.00
2,4,5-T	ND		12.5	5.00
2,4-DB	ND		12.5	5.00
Dinoseb	ND		12.5	5.00

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06385-011
Client ID: I3SED-06
Date Received: 06/27/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1634.D
Data file: NB1267.D

GC Column: DB-5
Sample wt/vol: 5.12g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 33.0

Dilution Factor: 5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		87.5	14.6
C12-C16 Aliphatics	338		58.3	14.6
C16-C21 Aliphatics	896		87.5	14.6
C21-C40 Aliphatics	6150		292	72.9
Total Aliphatics	7380		292	72.9
C10-C12 Aromatics	21.9		11.7	5.83
C12-C16 Aromatics	135		17.5	5.83
C16-C21 Aromatics	1040		29.2	5.83
C21-C36 Aromatics	3720		46.6	11.7
Total Aromatics	4920		46.6	11.7
Total NJ-EPH	12300		292	72.9

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06385-012
Client ID: C1-06261
Date Received: 06/27/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1635.D
Data file: NB1268.D

GC Column: DB-5
Sample wt/vol: 5.07g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 30.3

Dilution Factor: 5
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	289		84.9	14.1
C12-C16 Aliphatics	1430		56.6	14.1
C16-C21 Aliphatics	1980		84.9	14.1
C21-C40 Aliphatics	8840		283	70.7
Total Aliphatics	12500		283	70.7
C10-C12 Aromatics	177		11.3	5.66
C12-C16 Aromatics	1210		17.0	5.66
C16-C21 Aromatics	1600		28.3	5.66
C21-C36 Aromatics	1910		45.3	11.3
Total Aromatics	4900		45.3	11.3
Total NJ-EPH	17400		283	70.7

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06385-013
Client ID: C2-06261
Date Received: 06/27/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1636.D
Data file: NB1269.D

GC Column: DB-5
Sample wt/vol: 1.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 3.40

Dilution Factor: 1
Dilution Factor: 5

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		62.1	10.4
C12-C16 Aliphatics	67.1		41.4	10.4
C16-C21 Aliphatics	44.1	J	62.1	10.4
C21-C40 Aliphatics	ND		207	51.8
Total Aliphatics	111		207	51.8
C10-C12 Aromatics	ND		207	104
C12-C16 Aromatics	ND		311	104
C16-C21 Aromatics	ND		518	104
C21-C36 Aromatics	93400		828	207
Total Aromatics	93400		828	207
Total NJ-EPH	93500		828	207

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-001
Client ID: G1-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 22.0
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	10400		1	14.0	7.02	07/02/12	6020
Antimony	0.723	J	1	1.40	0.351	07/02/12	6020
Arsenic	48.8		1	0.702	0.351	07/02/12	6020
Barium	144		1	14.0	3.51	07/02/12	6020
Beryllium	0.515	J	1	0.702	0.281	07/02/12	6020
Cadmium	1.40		1	0.702	0.175	07/02/12	6020
Chromium	56.7		1	2.81	0.702	07/02/12	6020
Cobalt	8.55		1	2.81	0.702	07/02/12	6020
Copper	198		1	2.81	0.702	07/02/12	6020
Lead	534		1	0.702	0.175	07/02/12	6020
Manganese	357		1	1.40	0.351	07/02/12	6020
Mercury	1.38		1	0.015	0.00718	06/28/12	7471A
Nickel	41.4		1	1.40	0.702	07/02/12	6020
Selenium	2.28	J	1	2.81	1.40	07/02/12	6020
Silver	1.50		1	0.702	0.175	07/02/12	6020
Thallium	1.95		1	0.702	0.175	07/02/12	6020
Vanadium	269		1	2.81	0.702	07/02/12	6020
Zinc	691		1	2.81	2.81	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-002
Client ID: G2-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 21.4
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	12400		1	12.8	6.40	07/02/12	6020
Antimony	0.701	J	1	1.28	0.320	07/02/12	6020
Arsenic	47.8		1	0.640	0.320	07/02/12	6020
Barium	154		1	12.8	3.20	07/02/12	6020
Beryllium	0.530	J	1	0.640	0.256	07/02/12	6020
Cadmium	2.66		1	0.640	0.160	07/02/12	6020
Chromium	61.8		1	2.56	0.640	07/02/12	6020
Cobalt	10.5		1	2.56	0.640	07/02/12	6020
Copper	140		1	2.56	0.640	07/02/12	6020
Lead	332		1	0.640	0.160	07/02/12	6020
Manganese	333		1	1.28	0.320	07/02/12	6020
Mercury	1.36		1	0.017	0.00794	06/28/12	7471A
Nickel	101		1	1.28	0.640	07/02/12	6020
Selenium	2.50	J	1	2.56	1.28	07/02/12	6020
Silver	0.373	J	1	0.640	0.160	07/02/12	6020
Thallium	3.04		1	0.640	0.160	07/02/12	6020
Vanadium	320		1	2.56	0.640	07/02/12	6020
Zinc	928		1	2.56	2.56	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-004
Client ID: G8-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 10.0
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	4210		1	11.7	5.85	07/02/12	6020
Antimony	ND		1	1.17	0.293	07/02/12	6020
Arsenic	4.56		1	0.585	0.293	07/02/12	6020
Barium	13.3		1	11.7	2.93	07/02/12	6020
Beryllium	ND		1	0.585	0.234	07/02/12	6020
Cadmium	ND		1	0.585	0.146	07/02/12	6020
Chromium	9.71		1	2.34	0.585	07/02/12	6020
Cobalt	1.01	J	1	2.34	0.585	07/02/12	6020
Copper	10.8		1	2.34	0.585	07/02/12	6020
Lead	29.7		1	0.585	0.146	07/02/12	6020
Manganese	27.5		1	1.17	0.293	07/02/12	6020
Mercury	0.183		1	0.013	0.00622	06/28/12	7471A
Nickel	6.20		1	1.17	0.585	07/02/12	6020
Selenium	ND		1	2.34	1.17	07/02/12	6020
Silver	ND		1	0.585	0.146	07/02/12	6020
Thallium	0.207	J	1	0.585	0.146	07/02/12	6020
Vanadium	25.3		1	2.34	0.585	07/02/12	6020
Zinc	54.0		1	2.34	2.34	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-006
Client ID: G7-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 18.1
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	9790		1	13.3	6.63	07/02/12	6020
Antimony	ND		1	1.33	0.332	07/02/12	6020
Arsenic	12.5		1	0.663	0.332	07/02/12	6020
Barium	72.5		1	13.3	3.32	07/02/12	6020
Beryllium	0.454	J	1	0.663	0.265	07/02/12	6020
Cadmium	0.310	J	1	0.663	0.166	07/02/12	6020
Chromium	29.0		1	2.65	0.663	07/02/12	6020
Cobalt	7.41		1	2.65	0.663	07/02/12	6020
Copper	51.3		1	2.65	0.663	07/02/12	6020
Lead	169		1	0.663	0.166	07/02/12	6020
Manganese	218		1	1.33	0.332	07/02/12	6020
Mercury	0.981		1	0.014	0.00678	06/28/12	7471A
Nickel	28.8		1	1.33	0.663	07/02/12	6020
Selenium	ND		1	2.65	1.33	07/02/12	6020
Silver	ND		1	0.663	0.166	07/02/12	6020
Thallium	0.372	J	1	0.663	0.166	07/02/12	6020
Vanadium	85.2		1	2.65	0.663	07/02/12	6020
Zinc	189		1	2.65	2.65	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-007
Client ID: G3-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.5
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	16300		1	13.3	6.63	07/02/12	6020
Antimony	0.607	J	1	1.33	0.332	07/02/12	6020
Arsenic	49.1		1	0.663	0.332	07/02/12	6020
Barium	141		1	13.3	3.32	07/02/12	6020
Beryllium	0.476	J	1	0.663	0.265	07/02/12	6020
Cadmium	2.16		1	0.663	0.166	07/02/12	6020
Chromium	77.7		1	2.65	0.663	07/02/12	6020
Cobalt	11.5		1	2.65	0.663	07/02/12	6020
Copper	155		1	2.65	0.663	07/02/12	6020
Lead	263		1	0.663	0.166	07/02/12	6020
Manganese	422		1	1.33	0.332	07/02/12	6020
Mercury	0.840		1	0.015	0.00712	06/28/12	7471A
Nickel	62.9		1	1.33	0.663	07/02/12	6020
Selenium	3.17		1	2.65	1.33	07/02/12	6020
Silver	0.206	J	1	0.663	0.166	07/02/12	6020
Thallium	3.08		1	0.663	0.166	07/02/12	6020
Vanadium	523		1	2.65	0.663	07/02/12	6020
Zinc	1180		1	2.65	2.65	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-008
Client ID: G6-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 14.8
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	6390		1	12.7	6.33	07/02/12	6020
Antimony	0.385	J	1	1.27	0.317	07/02/12	6020
Arsenic	9.46		1	0.633	0.317	07/02/12	6020
Barium	54.7		1	12.7	3.17	07/02/12	6020
Beryllium	ND		1	0.633	0.253	07/02/12	6020
Cadmium	0.335	J	1	0.633	0.158	07/02/12	6020
Chromium	19.9		1	2.53	0.633	07/02/12	6020
Cobalt	3.04		1	2.53	0.633	07/02/12	6020
Copper	70.5		1	2.53	0.633	07/02/12	6020
Lead	122		1	0.633	0.158	07/02/12	6020
Manganese	85.7		1	1.27	0.317	07/02/12	6020
Mercury	2.69		1	0.013	0.00644	06/28/12	7471A
Nickel	15.1		1	1.27	0.633	07/02/12	6020
Selenium	ND		1	2.53	1.27	07/02/12	6020
Silver	ND		1	0.633	0.158	07/02/12	6020
Thallium	0.579	J	1	0.633	0.158	07/02/12	6020
Vanadium	111		1	2.53	0.633	07/02/12	6020
Zinc	307		1	2.53	2.53	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-009
Client ID: G5-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 16.8
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	10300		1	12.3	6.17	07/02/12	6020
Antimony	0.824	J	1	1.23	0.309	07/02/12	6020
Arsenic	48.4		1	0.617	0.309	07/02/12	6020
Barium	219		1	12.3	3.09	07/02/12	6020
Beryllium	0.508	J	1	0.617	0.247	07/02/12	6020
Cadmium	0.864		1	0.617	0.154	07/02/12	6020
Chromium	45.0		1	2.47	0.617	07/02/12	6020
Cobalt	11.4		1	2.47	0.617	07/02/12	6020
Copper	172		1	2.47	0.617	07/02/12	6020
Lead	558		1	0.617	0.154	07/02/12	6020
Manganese	301		1	1.23	0.309	07/02/12	6020
Mercury	1.17		1	0.015	0.0072	06/28/12	7471A
Nickel	46.2		1	1.23	0.617	07/02/12	6020
Selenium	2.45	J	1	2.47	1.23	07/02/12	6020
Silver	0.374	J	1	0.617	0.154	07/02/12	6020
Thallium	2.53		1	0.617	0.154	07/02/12	6020
Vanadium	138		1	2.47	0.617	07/02/12	6020
Zinc	471		1	2.47	2.47	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-010
Client ID: G4-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 24.3
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	12900		1	14.7	7.37	07/02/12	6020
Antimony	1.86		1	1.47	0.368	07/02/12	6020
Arsenic	24.5		1	0.737	0.368	07/02/12	6020
Barium	175		1	14.7	3.68	07/02/12	6020
Beryllium	0.764		1	0.737	0.295	07/02/12	6020
Cadmium	2.14		1	0.737	0.184	07/02/12	6020
Chromium	57.8		1	2.95	0.737	07/02/12	6020
Cobalt	14.6		1	2.95	0.737	07/02/12	6020
Copper	183		1	2.95	0.737	07/02/12	6020
Lead	463		1	0.737	0.184	07/02/12	6020
Manganese	319		1	1.47	0.368	07/02/12	6020
Mercury	0.839		1	0.016	0.00762	06/28/12	7471A
Nickel	78.5		1	1.47	0.737	07/02/12	6020
Selenium	2.34	J	1	2.95	1.47	07/02/12	6020
Silver	0.265	J	1	0.737	0.184	07/02/12	6020
Thallium	1.63		1	0.737	0.184	07/02/12	6020
Vanadium	299		1	2.95	0.737	07/02/12	6020
Zinc	959		1	2.95	2.95	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-011
Client ID: I3SED-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 33.0
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	34100		1	16.3	8.13	07/02/12	6020
Antimony	20.7		1	1.63	0.407	07/02/12	6020
Arsenic	17.6		1	0.813	0.407	07/02/12	6020
Barium	190		1	16.3	4.07	07/02/12	6020
Beryllium	0.704	J	1	0.813	0.325	07/02/12	6020
Cadmium	2.15		1	0.813	0.203	07/02/12	6020
Calcium	162000		1	81.3	40.7	07/02/12	6020
Chromium	36.0		1	3.25	0.813	07/02/12	6020
Cobalt	40.7		1	3.25	0.813	07/02/12	6020
Copper	117		1	3.25	0.813	07/02/12	6020
Iron	16900		1	40.7	20.3	07/02/12	6020
Lead	808		1	0.813	0.203	07/02/12	6020
Magnesium	8260		1	81.3	20.3	07/02/12	6020
Manganese	328		1	1.63	0.407	07/02/12	6020
Mercury	1.13		1	0.019	0.00922	06/28/12	7471A
Nickel	221		1	1.63	0.813	07/02/12	6020
Potassium	2140		1	81.3	20.3	07/02/12	6020
Selenium	12.6		1	3.25	1.63	07/02/12	6020
Silver	0.382	J	1	0.813	0.203	07/02/12	6020
Sodium	959		1	163	40.7	07/02/12	6020
Thallium	17.6		1	0.813	0.203	07/02/12	6020
Vanadium	268		1	3.25	0.813	07/02/12	6020
Zinc	1050		1	3.25	3.25	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-012
Client ID: C1-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 30.3
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	7020		1	15.7	7.84	07/02/12	6020
Antimony	18.9		1	1.57	0.392	07/02/12	6020
Arsenic	13.0		1	0.784	0.392	07/02/12	6020
Barium	141		1	15.7	3.92	07/02/12	6020
Beryllium	0.458	J	1	0.784	0.314	07/02/12	6020
Cadmium	19.9		1	0.784	0.196	07/02/12	6020
Calcium	123000		1	78.4	39.2	07/02/12	6020
Chromium	141		1	3.14	0.784	07/02/12	6020
Cobalt	17.5		1	3.14	0.784	07/02/12	6020
Copper	521		1	3.14	0.784	07/02/12	6020
Iron	90600		1	39.2	19.6	07/02/12	6020
Lead	116		1	0.784	0.196	07/02/12	6020
Magnesium	3710		1	78.4	19.6	07/02/12	6020
Manganese	639		1	1.57	0.392	07/02/12	6020
Mercury	0.997		1	0.018	0.00841	06/28/12	7471A
Nickel	124		1	1.57	0.784	07/02/12	6020
Potassium	5700		1	78.4	19.6	07/02/12	6020
Selenium	7.13		1	3.14	1.57	07/02/12	6020
Silver	0.999		1	0.784	0.196	07/02/12	6020
Sodium	65700		1	157	39.2	07/02/12	6020
Thallium	12.2		1	0.784	0.196	07/02/12	6020
Vanadium	570		1	3.14	0.784	07/02/12	6020
Zinc	6710		1	3.14	3.14	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-013
Client ID: C2-062612
Date Received: 6/27/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 3.40
Batch #: 270

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	33300		1	11.4	5.70	07/01/12	6020
Antimony	0.328	J	1	1.14	0.285	07/02/12	6020
Arsenic	0.529	J	1	0.570	0.285	07/02/12	6020
Barium	16.7		1	11.4	2.85	07/02/12	6020
Beryllium	ND		1	0.570	0.228	07/02/12	6020
Cadmium	0.494	J	1	0.570	0.143	07/02/12	6020
Calcium	6710		1	57.0	28.5	07/02/12	6020
Chromium	12.0		1	2.28	0.570	07/02/12	6020
Cobalt	0.825	J	1	2.28	0.570	07/02/12	6020
Copper	13.2		1	2.28	0.570	07/02/12	6020
Iron	2740		1	28.5	14.3	07/02/12	6020
Lead	6.19		1	0.570	0.143	07/02/12	6020
Magnesium	1670		1	57.0	14.3	07/02/12	6020
Manganese	30.0		1	1.14	0.285	07/02/12	6020
Mercury	ND		1	0.012	0.00594	06/28/12	7471A
Nickel	5.73		1	1.14	0.570	07/02/12	6020
Potassium	574		1	57.0	14.3	07/02/12	6020
Selenium	ND		1	2.28	1.14	07/02/12	6020
Silver	ND		1	0.570	0.143	07/02/12	6020
Sodium	13100		1	114	28.5	07/02/12	6020
Thallium	0.277	J	1	0.570	0.143	07/02/12	6020
Vanadium	16.8		1	2.28	0.570	07/02/12	6020
Zinc	148		1	2.28	2.28	07/02/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-014
Client ID: I2-062612-WATER FILT
Date Received: 6/27/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 276

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	207		1	40.0	20.0	07/03/12	6020
Antimony	8.95		1	4.00	1.00	07/03/12	6020
Arsenic	30.4		1	2.00	1.00	07/03/12	6020
Barium	ND		1	40.0	10.0	07/03/12	6020
Beryllium	ND		1	2.00	1.00	07/03/12	6020
Cadmium	ND		1	2.00	0.500	07/03/12	6020
Calcium	25500		1	200	100	07/03/12	6020
Chromium	ND		1	8.00	2.00	07/03/12	6020
Cobalt	ND		1	8.00	2.00	07/03/12	6020
Copper	ND		1	8.00	4.00	07/03/12	6020
Iron	81.0	J	1	100	50.0	07/03/12	6020
Lead	1.81	J	1	2.00	0.500	07/03/12	6020
Magnesium	8320		1	200	50.0	07/03/12	6020
Manganese	3.18	J	1	4.00	2.00	07/03/12	6020
Mercury	ND		1	0.500	0.300	07/03/12	7470A
Nickel	6.80		1	4.00	1.00	07/03/12	6020
Potassium	36300		1	200	50.0	07/03/12	6020
Selenium	ND		1	8.00	4.00	07/03/12	6020
Silver	ND		1	2.00	0.500	07/03/12	6020
Sodium	314000		1	400	100	07/03/12	6020
Thallium	ND		1	2.00	0.500	07/03/12	6020
Vanadium	194		1	8.00	2.00	07/03/12	6020
Zinc	8.49		1	8.00	4.00	07/03/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Lab ID: E12-06385-015
Client ID: I1-062612-WATER FILT
Date Received: 6/27/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 276

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	133		1	40.0	20.0	07/03/12	6020
Antimony	8.95		1	4.00	1.00	07/03/12	6020
Arsenic	32.1		1	2.00	1.00	07/03/12	6020
Barium	ND		1	40.0	10.0	07/03/12	6020
Beryllium	ND		1	2.00	1.00	07/03/12	6020
Cadmium	ND		1	2.00	0.500	07/03/12	6020
Calcium	25300		1	200	100	07/03/12	6020
Chromium	ND		1	8.00	2.00	07/03/12	6020
Cobalt	ND		1	8.00	2.00	07/03/12	6020
Copper	ND		1	8.00	4.00	07/03/12	6020
Iron	287		1	100	50.0	07/03/12	6020
Lead	0.901	J	1	2.00	0.500	07/03/12	6020
Magnesium	8240		1	200	50.0	07/03/12	6020
Manganese	12.8		1	4.00	2.00	07/03/12	6020
Mercury	ND		1	0.500	0.300	07/03/12	7470A
Nickel	9.79		1	4.00	1.00	07/03/12	6020
Potassium	37300		1	200	50.0	07/03/12	6020
Selenium	ND		1	8.00	4.00	07/03/12	6020
Silver	ND		1	2.00	0.500	07/03/12	6020
Sodium	293000		1	400	100	07/03/12	6020
Thallium	ND		1	2.00	0.500	07/03/12	6020
Vanadium	216		1	8.00	2.00	07/03/12	6020
Zinc	14.2		1	8.00	4.00	07/03/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Cyanide, Total

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Date Received: 06/27/12 17:17

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	RL	% Solid	Date Analyzed
06385-001	G1-062612	ND		1	Soil-mg/Kg	0.897	1.28	78.0	07/05/12 12:23
06385-002	G2-062612	ND		1	Soil-mg/Kg	0.891	1.27	78.6	07/05/12 12:23
06385-004	G8-062612	ND		1	Soil-mg/Kg	0.778	1.11	90.0	07/05/12 12:23
06385-006	G7-062612	ND		1	Soil-mg/Kg	0.855	1.22	81.9	07/05/12 12:23

J = The concentration was detected at a value below the RL above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

Cyanide, Total

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Date Received: 06/27/12 17:17

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	RL	% Solid	Date Analyzed
06385-007	G3-062612	ND		1	Soil-mg/Kg	0.848	1.21	82.5	07/06/12 15:03
06385-008	G6-062612	ND		1	Soil-mg/Kg	0.822	1.17	85.2	07/06/12 15:03
06385-009	G5-062612	0.903	J	1	Soil-mg/Kg	0.841	1.20	83.2	07/06/12 15:03
06385-010	G4-062612	ND		1	Soil-mg/Kg	0.925	1.32	75.7	07/06/12 15:03

J = The concentration was detected at a value below the RL above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TOTAL PETROLEUM HYDROCARBONS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Date Received: 06/27/12 17:17
Batch ID: AP040-0056

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	RL	% Solid	Date Analyzed
E12-06385-001	G1-062612	626		1	Soil-mg/Kg	25.6	25.6	78.0	07/09/12 12:00
E12-06385-002	G2-062612	4040		8	Soil-mg/Kg	204	204	78.6	07/09/12 12:00
E12-06385-004	G8-062612	62.6		1	Soil-mg/Kg	25.0	25.0	90.0	07/09/12 12:00
E12-06385-006	G7-062612	714		1	Soil-mg/Kg	25.0	25.0	81.9	07/09/12 12:00
E12-06385-007	G3-062612	2090		4	Soil-mg/Kg	97.0	97.0	82.5	07/09/12 12:00
E12-06385-008	G6-062612	1230		5	Soil-mg/Kg	117	117	85.2	07/09/12 12:00
E12-06385-009	G5-062612	639		1	Soil-mg/Kg	25.0	25.0	83.2	07/09/12 12:00
E12-06385-010	G4-062612	712		1	Soil-mg/Kg	26.4	26.4	75.7	07/09/12 12:00

J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TOTAL PETROLEUM HYDROCARBONS

Client/Project: URS-FTWASH/VINELAND - PHASE II - VENDOR #1168636

Date Received: 06/27/12 17:17
Batch ID: AP040-0055

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	RL	% Solid	Date Analyzed
E12-06385-003	I2-062612-WATER	ND		1	Aqueous-ug/L	500	500	0	07/03/12 16:30
E12-06385-005	I1-062612-WATER	ND		1	Aqueous-ug/L	500	500	0	07/03/12 16:30

J = The concentration was detected at a value below the RL and above the MDL

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS120710-01	SOIL	F6822.D	60	82	89
06385-004	SOIL	F6824.D	72	80	90
06413-004	SOIL	F6825.D	90	84	91
06385-008	SOIL	F6826.D	66	82	91
06385-002	SOIL	F6827.D	70	81	91
06385-006	SOIL	F6828.D	63	80	91
06385-009	SOIL	F6829.D	64	83	91
06385-010	SOIL	F6830.D	62	86	89
06385-001	SOIL	F6831.D	60	83	92
06385-007	SOIL	F6832.D	62	87	85
LCSD120710-01	SOIL	F6833.D	100	83	92
06385-004MS	SOIL	F6834.D	107	83	95
06385-004MSD	SOIL	F6835.D	97	84	94
06699-001	SOIL	F6836.D	53	86	90
06633-002	SOIL	F6839.D	56	81	87
06673-002	SOIL	F6840.D	54	81	86
06705-001	SOIL	F6841.D	58	84	87

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	55-153	39-165
SMC2 = Toluene-d8	50 ppb	56-151	45-162
SMC3 = Bromofluorobenzene	50 ppb	67-140	40-152

Column to be used to flag recovery values

FORM 2

INTEGRATED ANALYTICAL LABORATORIES

8260LCS

LCS ACCURACY REPORT

Lab ID: LCSD120710-01
Date Received:
Date Analyzed: 07/10/2012
LCS Data file: F6833.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.
Dichlorodifluoromethane	50.0	0.00	35.1	70
Chloromethane	50.0	0.00	39.4	79
Vinyl chloride	50.0	0.00	40.5	81
Bromomethane	50.0	0.00	37.3	75
Chloroethane	50.0	0.00	39.8	80
Trichlorofluoromethane	50.0	0.00	37.1	74
Acrolein	150	0.00	121.5	81
1,1-Dichloroethene	50.0	0.00	44.0	88
Acetone	50.0	0.00	54.4	109
Carbon disulfide	50.0	0.00	44.8	90
Vinyl acetate	50.0	0.00	51.1	102
Methylene chloride	50.0	0.00	50.3	101
Acrylonitrile	150.0	0.00	186.4	124
tert-Butyl alcohol (TBA)	100.0	0.00	123.0	123
trans-1,2-Dichloroethene	50.0	0.00	47.6	95
Methyl tert-butyl ether (MTBE)	50.0	0.00	56.4	113
1,1-Dichloroethane	50.0	0.00	48.0	96
Diisopropyl ether (DIPE)	50.0	0.00	49.3	99
cis-1,2-Dichloroethene	50.0	0.00	50.4	101
2,2-Dichloropropane	50.0	0.00	43.7	87
2-Butanone (MEK)	50.0	0.00	63.2	126
Bromochloromethane	50.0	0.00	58.9	118
Chloroform	50.0	0.00	46.3	93
1,1,1-Trichloroethane	50.0	0.00	36.5	73
Carbon tetrachloride	50.0	0.00	37.3	75
1,1-Dichloropropene	50.0	0.00	46.5	93
1,2-Dichloroethane (EDC)	50.0	0.00	51.8	104
Benzene	50.0	0.00	50.4	101
Trichloroethene	50.0	0.00	46.0	92
1,2-Dichloropropane	50.0	0.00	48.4	97
Dibromomethane	50.0	0.00	60.0	120
1,4-Dioxane	1500	0.00	1823	122
Bromodichloromethane	50.0	0.00	49.3	99
2-Chloroethyl vinyl ether	50.0	0.00	56.7	113
cis-1,3-Dichloropropene	50.0	0.00	51.4	103
4-Methyl-2-pentanone (MIBK)	50.0	0.00	57.7	115
Toluene	50.0	0.00	44.2	88
trans-1,3-Dichloropropene	50.0	0.00	49.9	100
1,1,2-Trichloroethane	50.0	0.00	56.3	113
Tetrachloroethene	50.0	0.00	40.1	80

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSD120710-01
Date Received:
Date Analyzed: 07/10/2012
LCS Data file: F6833.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.
1,3-Dichloropropane	50.0	0.00	52.4	105
2-Hexanone	50.0	0.00	53.2	106
Dibromochloromethane	50.0	0.00	52.7	105
1,2-Dibromoethane (EDB)	50.0	0.00	57.1	114
Chlorobenzene	50.0	0.00	46.9	94
1,1,1,2-Tetrachloroethane	50.0	0.00	49.9	100
Ethylbenzene	50.0	0.00	44.4	89
m,p-Xylene	100	0.00	89.4	89
Styrene	50.0	0.00	47.3	95
Bromoform	50.0	0.00	61.7	123
Isopropylbenzene	50.0	0.00	44.0	88
1,1,2,2-Tetrachloroethane	50.0	0.00	50.1	100
Bromobenzene	50.0	0.00	48.2	96
1,2,3-Trichloropropane	50.0	0.00	63.0	126
n-Propylbenzene	50.0	0.00	43.4	87
2-Chlorotoluene	50.0	0.00	43.2	86
1,3,5-Trimethylbenzene	50.0	0.00	43.6	87
4-Chlorotoluene	50.0	0.00	42.9	86
tert-Butylbenzene	50.0	0.00	44.9	90
1,2,4-Trimethylbenzene	50.0	0.00	42.9	86
sec-Butylbenzene	50.0	0.00	43.7	87
1,3-Dichlorobenzene	50.0	0.00	44.9	90
4-Isopropyltoluene	50.0	0.00	43.1	86
1,4-Dichlorobenzene	50.0	0.00	45.9	92
n-Butylbenzene	50.0	0.00	42.9	86
1,2-Dichlorobenzene	50.0	0.00	49.5	99
1,2-Dibromo-3-chloropropane	50.0	0.00	61.9	124
1,2,4-Trichlorobenzene	50.0	0.00	47.6	95
Hexachlorobutadiene	50.0	0.00	41.3	83
Naphthalene	50.0	0.00	63.0	126
1,2,3-Trichlorobenzene	50.0	0.00	52.2	104
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.00	41.8	84
Methyl acetate	50.0	0.00	62.7	125
Cyclohexane	50.0	0.00	41.4	83
Methylcyclohexane	50.0	0.00	40.4	81

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

* Values outside of QC limits

Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD **MS/MSD SPIKE REPORT**

Lab ID: 06385-004
Client ID: G8-062612
Date Received:
Date Analyzed: 07/11/2012
MS Data file: F6834.D
MSD Data file: F6835.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	35.1	70		35.2	70		0	
Chloromethane	50	0.0	38.3	77		37.4	75		2	
Vinyl chloride	50	0.0	40.0	80		40.4	81		1	
Bromomethane	50	0.0	37.8	76		37.1	74		2	
Chloroethane	50	0.0	39.2	78		38.8	78		1	
Trichlorofluoromethane	50	0.0	35.8	72		35.7	71		0	
Acrolein	150	0.0	147	98		131	87		12	
1,1-Dichloroethene	50	0.0	42.9	86		43.0	86		0	
Acetone	50	0.0	55.9	112		55.6	111		1	
Carbon disulfide	50	0.0	43.4	87		42.7	85		2	
Vinyl acetate	50	0.0	50.9	102		47.6	95		7	
Methylene chloride	50	0.0	50.6	101		48.0	96		5	
Acrylonitrile	150	0.0	188	125		190	127		1	
tert-Butyl alcohol (TBA)	100	0.0	124.9	125		123.1	123		1	
trans-1,2-Dichloroethene	50	0.0	46.1	92		45.1	90		2	
Methyl tert-butyl ether (MTE	50	0.0	55.4	111		53.9	108		3	
1,1-Dichloroethane	50	0.0	47.1	94		45.7	91		3	
Diisopropyl ether (DIPE)	50	0.0	49.0	98		46.6	93		5	
cis-1,2-Dichloroethene	50	0.0	49.0	98		46.4	93		5	
2,2-Dichloropropane	50	0.0	42.3	85		40.8	82		4	
2-Butanone (MEK)	50	0.0	63.3	127		62.8	126		1	
Bromochloromethane	50	0.0	59.3	119		55.8	112		6	
Chloroform	50	0.0	46.3	93		43.3	87		7	
1,1,1-Trichloroethane	50	0.0	35.8	72		35.1	70		2	
Carbon tetrachloride	50	0.0	36.3	73		36.3	73		0	
1,1-Dichloropropene	50	0.0	45.5	91		44.2	88		3	
1,2-Dichloroethane (EDC)	50	0.0	51.9	104		49.5	99		5	
Benzene	50	0.0	46.1	92		48.6	97		5	
Trichloroethene	50	0.0	42.3	85		44.5	89		5	
1,2-Dichloropropane	50	0.0	45.2	90		47.7	95		5	
Dibromomethane	50	0.0	56.5	113		57.0	114		1	
1,4-Dioxane	1,500	0.0	1835	122		1750	117		5	
Bromodichloromethane	50	0.0	45.8	92		47.7	95		4	
2-Chloroethyl vinyl ether	50	0.0	54.7	109		61.7	123		12	
cis-1,3-Dichloropropene	50	0.0	49.0	98		51.3	103		5	
4-Methyl-2-pentanone (MIBI	50	0.0	53.8	108		58.8	118		9	
Toluene	50	0.0	41.1	82		44.2	88		7	
trans-1,3-Dichloropropene	50	0.0	48.5	97		51.9	104		7	
1,1,2-Trichloroethane	50	0.0	53.1	106		56.2	112		6	
Tetrachloroethene	50	0.0	36.8	74		40.3	81		9	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06385-004
Client ID: G8-062612
Date Received:
Date Analyzed: 07/11/2012
MS Data file: F6834.D
MSD Data file: F6835.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
1,3-Dichloropropane	50	0.00	50.5	101		55.2	110		9	
2-Hexanone	50	0.00	50.2	100		57.4	115		13	
Dibromochloromethane	50	0.00	50.9	102		54.3	109		6	
1,2-Dibromoethane (EDB)	50	0.00	54.4	109		59.7	119		9	
Chlorobenzene	50	0.00	43.8	88		46.5	93		6	
1,1,1,2-Tetrachloroethane	50	0.00	45.7	91		47.8	96		4	
Ethylbenzene	50	0.00	41.1	82		43.8	88		6	
m,p-Xylene	100	0.00	83.3	83		88.8	89		6	
Styrene	50	0.00	44.5	89		46.9	94		5	
Bromoform	50	0.00	58.7	117		61.7	123		5	
Isopropylbenzene	50	0.00	40.4	81		42.9	86		6	
1,1,2,2-Tetrachloroethane	50	0.00	47.1	94		49.6	99		5	
Bromobenzene	50	0.00	44.9	90		47.3	95		5	
1,2,3-Trichloropropane	50	0.00	59.6	119		63.2	126		6	
n-Propylbenzene	50	0.00	40.3	81		43.0	86		6	
2-Chlorotoluene	50	0.00	40.0	80		41.7	83		4	
1,3,5-Trimethylbenzene	50	0.00	40.2	80		42.2	84		5	
4-Chlorotoluene	50	0.00	40.3	81		42.1	84		4	
tert-Butylbenzene	50	0.00	41.7	83		43.6	87		4	
1,2,4-Trimethylbenzene	50	0.00	39.7	79		41.7	83		5	
sec-Butylbenzene	50	0.00	40.3	81		42.9	86		6	
1,3-Dichlorobenzene	50	0.00	42.2	84		43.6	87		3	
4-Isopropyltoluene	50	0.00	39.4	79		41.8	84		6	
1,4-Dichlorobenzene	50	0.00	43.1	86		44.5	89		3	
n-Butylbenzene	50	0.00	39.6	79		41.7	83		5	
1,2-Dichlorobenzene	50	0.00	45.8	92		47.3	95		3	
1,2-Dibromo-3-chloropropan	50	0.00	56.5	113		58.5	117		3	
1,2,4-Trichlorobenzene	50	0.00	43.2	86		43.4	87		0	
Hexachlorobutadiene	50	0.00	37.2	74		39.9	80		7	
Naphthalene	50	0.00	63.4	127		64.6	129		2	
1,2,3-Trichlorobenzene	50	0.00	46.3	93		47.2	94		2	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	37.3	75		39.2	78		5	
Methyl acetate	50	0.00	61.2	122		64.0	128		4	
Cyclohexane	50	0.00	36.9	74		39.4	79		7	
Methylcyclohexane	50	0.00	36.0	72		38.7	77		7	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F6822.D

Instrument ID: MSD_F

Date Analyzed: 07/10/2012

Time Analyzed: 17:57

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
G8-062612	06385-004	07/10/2012	19:06
T-4/4.5-5	06413-004	07/10/2012	19:36
G6-062612	06385-008	07/10/2012	20:06
G2-062612	06385-002	07/10/2012	20:36
G7-062612	06385-006	07/10/2012	21:06
G5-062612	06385-009	07/10/2012	21:36
G4-062612	06385-010	07/10/2012	22:06
G1-062612	06385-001	07/10/2012	22:36
G3-062612	06385-007	07/10/2012	23:06
LCS-50PPB	LCSD120710-01	07/10/2012	23:36
MS	06385-004MS	07/11/2012	0:06
MSD	06385-004MSD	07/11/2012	0:36
1-COMP-1-10	06699-001	07/11/2012	1:06
SB-2/13.5-14	06633-002	07/11/2012	2:36
SS-2	06673-002	07/11/2012	3:06
803_N1-SP-1	06705-001	07/11/2012	3:36

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F6026.D BFB Injection Date: 06/18/2012

Inst ID: MSD_F BFB Injection Time: 9:18

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	22.6			
75	30.0 - 60.0% of mass 95	47.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.8			
173	Less than 2.0% of mass 174	0.5	(	0.7	)1
174	Great than 50.0% of mass 95	69.5			
175	5.0 - 9.0% of mass 174	5.5	(	7.9	)1
176	95.0 - 101.0% of mass 174	66.2	(	95.3	)1
177	5.0 - 9.0% of mass 176	4.3	(	6.5	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC1	ICC1	F6027.D	06/18/2012	10:03
ICC2	ICC2	F6029.D	06/18/2012	11:44
ICC5	ICC5	F6030.D	06/18/2012	12:16
ICC20	ICC20	F6033.D	06/18/2012	13:53
ICC100	ICC100	F6034.D	06/18/2012	14:27
ICC200	ICC200	F6035.D	06/18/2012	14:57
ICC150	ICC150	F6036.D	06/18/2012	15:27
ICV100	ICV100	F6038.D	06/18/2012	16:26

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F6818.D BFB Injection Date: 07/10/2012

Inst ID: MSD_F BFB Injection Time: 15:55

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.5			
75	30.0 - 60.0% of mass 95	46.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	5.7			
173	Less than 2.0% of mass 174	0.9	(	1.1	)1
174	Great than 50.0% of mass 95	84.3			
175	5.0 - 9.0% of mass 174	5.9	(	7.0	)1
176	95.0 - 101.0% of mass 174	80.2	(	95.1	)1
177	5.0 - 9.0% of mass 176	4.7	(	5.9	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	F6820.D	07/10/2012	16:55
BLKS120710-01	BLKS120710-01	F6822.D	07/10/2012	17:57
G8-062612	06385-004	F6824.D	07/10/2012	19:06
T-4/4.5-5	06413-004	F6825.D	07/10/2012	19:36
G6-062612	06385-008	F6826.D	07/10/2012	20:06
G2-062612	06385-002	F6827.D	07/10/2012	20:36
G7-062612	06385-006	F6828.D	07/10/2012	21:06
G5-062612	06385-009	F6829.D	07/10/2012	21:36
G4-062612	06385-010	F6830.D	07/10/2012	22:06
G1-062612	06385-001	F6831.D	07/10/2012	22:36
G3-062612	06385-007	F6832.D	07/10/2012	23:06
LCS-50PPB	LCSD120710-01	F6833.D	07/10/2012	23:36
MS	06385-004MS	F6834.D	07/11/2012	0:06
MSD	06385-004MSD	F6835.D	07/11/2012	0:36
1-COMP-1-10	06699-001	F6836.D	07/11/2012	1:06
SB-2/13.5-14	06633-002	F6839.D	07/11/2012	2:36
SS-2	06673-002	F6840.D	07/11/2012	3:06
803_N1-SP-1	06705-001	F6841.D	07/11/2012	3:36

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Mon Jun 18 17:00:12 2012
Response Via : Initial Calibration

Calibration Files
1 =F6027.D 2 =F6029.D 5 =F6030.D
20 =F6033.D 100 =F6034.D 200 =F6035.D 150 =F6036.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.647	0.664		0.828	0.871	0.837	0.886	0.789	13.38
3)	P	Chloromethane	0.964	0.969	0.844	0.937	0.895	0.907	1.006	0.932	5.81
4)	C	Vinyl chloride	0.793	0.758	0.690	0.857	0.834	0.836	0.882	0.807	8.18
5)	T	Bromomethane	0.505	0.448	0.444	0.448	0.419	0.416	0.428	0.444	6.71
6)	T	Chloroethane	0.412	0.395	0.403	0.434	0.409	0.409	0.431	0.413	3.47
7)	T	Trichlorofluorome	1.111	1.014		1.306	1.263	1.251	1.300	1.208	9.79
8)	T	Acrolein	0.051	0.044	0.044	0.046	0.037	0.038	0.054	0.045	13.59
9)	MC	1,1-Dichloroethen	0.551	0.522	0.493	0.624	0.599	0.616	0.646	0.579	9.88
10)	T	Acetone			0.143	0.143	0.116	0.116	0.125	0.129	10.54
11)	T	Carbon disulfide	1.719	1.476	1.439	1.817	1.869	1.908	2.013	1.749	12.47
12)	T	Vinyl acetate	1.802	1.841	1.865	1.778	1.734	1.738	1.823	1.797	2.79
13)	T	Methylene chlorid		0.545	0.504	0.480	0.492	0.465	0.453	0.490	6.65
14)	T	Acrylonitrile	0.127	0.115	0.118	0.126	0.103	0.109	0.150	0.121	12.63
15)	T	tert-Butyl alcoho		0.046	0.046	0.040	0.037	0.035	0.038	0.040	10.72
16)	T	trans-1,2-Dichlor	0.621	0.624	0.601	0.694	0.658	0.670	0.722	0.656	6.63
17)	T	Methyl tert-butyl	1.415	1.415	1.289	1.217	1.164	1.174	1.271	1.278	8.16
18)	P	1,1-Dichloroethan	1.208	1.097	1.140	1.199	1.146	1.185	1.253	1.175	4.39
19)	T	Diisopropyl ether	2.559	2.489	2.471	2.443	2.337	2.383	2.501	2.455	3.05
20)	T	cis-1,2-Dichloroe	0.725	0.615	0.629	0.612	0.594	0.613	0.658	0.635	7.00
21)	T	2,2-Dichloropropa	1.044	0.928	0.913	1.119	1.154	1.177	1.204	1.077	10.98
22)	T	2-Butanone (MEK)			0.181	0.226	0.185	0.180	0.194	0.193	10.01
23)	T	Bromochloromethan	0.279	0.252	0.252	0.248	0.240	0.244	0.263	0.254	5.23
25)	C	Chloroform	1.299	1.078	1.040	1.061	1.018	1.045	1.089	1.090	8.76
26)	T	1,1,1-Trichloroet	1.282	1.585	1.251	1.353	1.350	1.397	1.442	1.380	8.04
27)	T	Carbon tetrachlor	1.047			1.250	1.370	1.428	1.457	1.310	12.76
28)	T	1,1-Dichloroprope	0.799	0.771	0.736	0.901	0.935	0.947	0.944	0.862	10.47
29)	T	1,2-Dichloroethan	0.792	0.834	0.786	0.753	0.736	0.746	0.763	0.773	4.40
30)	S	1,2-Dichloroethan	0.466	0.452	0.449	0.434	0.418	0.416	0.428	0.437	4.28
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.327	1.099	1.348	1.416	1.458	1.514	1.527	1.384	10.62
33)	M	Trichloroethene	0.427	0.432	0.422	0.470	0.494	0.510	0.509	0.466	8.41
34)	C	1,2-Dichloropropa	0.426	0.382	0.368	0.360	0.372	0.385	0.400	0.385	5.79
35)	T	Dibromomethane	0.144	0.145	0.173	0.153	0.155	0.157	0.166	0.156	6.77
36)	T	1,4-Dioxane	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	9.74
37)	T	Bromodichlorometh	0.473	0.445	0.434	0.431	0.472	0.492	0.500	0.464	5.92
38)	T	2-Chloroethyl vin	0.126		0.170	0.157	0.141	0.144	0.154	0.149	10.32
39)	T	cis-1,3-Dichlorop	0.402	0.438	0.435	0.460	0.482	0.501	0.520	0.463	8.89
40)	T	4-Methyl-2-pentan	0.329	0.277	0.264	0.273	0.268	0.271	0.292	0.282	8.05
41)	S	Toluene-d8	1.014	1.035	1.041	1.067	1.102	1.076	1.137	1.067	3.94
42)	MC	Toluene	0.900	0.977	0.998	1.038	1.101	1.120	1.176	1.044	9.08
43)	T	trans-1,3-Dichlor	0.369	0.387	0.363	0.379	0.424	0.439	0.472	0.405	10.12
44)	T	1,1,2-Trichloroet	0.178	0.170	0.159	0.157	0.161	0.167	0.177	0.167	5.07
45)	T	Tetrachloroethene	0.455	0.447	0.439	0.536	0.565	0.575	0.593	0.516	12.89
46)	T	1,3-Dichloropropa	0.365	0.353	0.368	0.338	0.362	0.370	0.394	0.364	4.69
47)	T	2-Hexanone		0.205	0.211	0.214	0.217	0.219	0.240	0.218	5.57
48)	T	Dibromochlorometh		0.282	0.300	0.304	0.347	0.368	0.390	0.332	12.96
49)	T	1,2-Dibromoethane	0.202	0.197	0.212	0.207	0.220	0.227	0.243	0.216	7.40
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	1.273	1.199	1.245	1.271	1.273	1.290	1.288	1.263	2.52
52)	T	1,1,1,2-Tetrachlo	0.468	0.431	0.447	0.448	0.457	0.469	0.454	0.45	

3)	C	Ethylbenzene	2.110	2.049	2.123	2.374	2.455	2.504	2.468	2.297	8.51
4)	T	m,p-Xylene	0.777	0.792	0.826	0.881	0.930	0.957	0.944	0.872	8.54
5)	T	o-Xylene	0.746	0.853	0.785	0.838	0.829	0.846	0.832	0.818	4.71
6)	T	Styrene	1.242	1.217	1.250	1.259	1.315	1.385	1.372	1.291	5.15
7)	P	Bromoform	0.142	0.174	0.162	0.131	0.154	0.163	0.165	0.156	9.41
8)	T	Isopropylbenzene	2.259	2.203	2.210	2.610	2.640	2.632	2.587	2.449	8.64
9)	S	Bromofluorobenzen	0.501	0.482	0.469	0.472	0.471	0.478	0.495	0.481	2.62
0)	P	1,1,2,2-Tetrachlo	0.305		0.338	0.288	0.304	0.292	0.292	0.303	6.11
1)	T	Bromobenzene	0.533	0.484	0.489	0.433	0.459	0.478	0.483	0.480	6.35
2)	T	1,2,3-Trichloropr	0.218	0.182	0.201	0.191	0.176	0.169	0.181	0.188	8.84
3)	T	n-Propylbenzene	2.390	2.440	2.424	2.772	2.905	2.929	2.889	2.678	9.29
4)	T	2-Chlorotoluene	1.700	1.600	1.646	1.594	1.635	1.678	1.646	1.643	2.34
5)	T	1,3,5-Trimethylbe	1.869	1.970	1.960	2.170	2.215	2.217	2.189	2.084	7.01
6)	T	4-Chlorotoluene	1.968	1.845	1.864	1.820	1.898	1.973	1.963	1.904	3.35
7)	T	tert-Butylbenzene	1.622	1.741	1.788	2.107	2.069	2.041	1.990	1.908	9.90
8)	T	1,2,4-Trimethylbe	2.068	1.936	2.090	2.103	2.149	2.169	2.156	2.096	3.81
9)	T	sec-Butylbenzene	2.231	2.230	2.330	2.895	2.935	2.880	2.846	2.621	12.84
0)	T	1,3-Dichlorobenze	1.164	1.043	1.055	0.944	0.948	0.984	0.981	1.017	7.64
1)	T	4-Isopropyltoluen	2.171	2.100	2.230	2.571	2.694	2.692	2.652	2.444	10.85
2)	T	1,4-Dichlorobenze	1.174	1.108	0.993	0.910	0.923	0.960	0.964	1.005	9.83
3)	T	n-Butylbenzene	0.981	0.929	0.960	1.140	1.181	1.186	1.154	1.076	10.55
4)	T	1,2-Dichlorobenze	1.010	0.887	0.943	0.832	0.838	0.852	0.864	0.890	7.31
5)	T	1,2-Dibromo-3-chl	0.057	0.053	0.048	0.046	0.048	0.047	0.049	0.050	7.67
6)	T	1,2,4-Trichlorobe	0.669	0.605	0.582	0.537	0.533	0.524	0.522	0.567	9.65
7)	T	Hexachlorobutadie	0.306	0.304	0.301	0.371	0.359	0.359	0.351	0.336	9.09
8)	T	Naphthalene		1.070	1.072	1.021	1.061	1.044	1.084	1.058	2.14
9)	T	1,2,3-Trichlorobe	0.565	0.464	0.521	0.449	0.454	0.433	0.447	0.476	10.10
0)	T	1,1,2-Trichloro-1	0.481	0.439		0.606	0.549	0.543	0.532	0.525	11.05
1)	T	Methyl acetate			0.173	0.166	0.141	0.136	0.141	0.151	11.04
2)	T	Cyclohexane		1.374	1.034	1.404	1.321	1.324	1.286	1.291	10.27
3)	T	Methylcyclohexane	0.945			1.136	1.103	1.094	1.061	1.068	6.90

(#) = Out of Range ### Number of calibration levels exceeded format ###

SO0618.M Tue Jun 19 10:04:10 2012 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6820.D
Acq On : 10 Jul 2012 16:55
Operator : XING
Sample : CCV100,CCV100,S,5g,0
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 12 10:25:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 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	I	Pentafluorobenzene	1.000	1.000	0.0	113	0.00
2	T	Dichlorodifluoromethane	0.789	0.648	17.9	84	0.00
3	P	Chloromethane	0.932	0.756	18.9	95	0.01
4	C	Vinyl chloride	0.807	0.651	19.3	88	0.01
5	T	Bromomethane	0.444	0.363	18.2	98	0.01
6	T	Chloroethane	0.413	0.345	16.5	95	0.02
7	T	Trichlorofluoromethane	1.208	0.995	17.6	89	0.01
8	T	Acrolein	0.045	0.036	20.0	112	0.00
9	MC	1,1-Dichloroethene	0.579	0.485	16.2	92	0.00
10	T	Acetone	0.129	0.144	-11.6	140	0.00
11	T	Carbon disulfide	1.749	1.463	16.4	88	0.01
12	T	Vinyl acetate	1.797	2.156	-20.0	140	0.00
13	T	Methylene chloride	0.490	0.426	13.1	98	0.00
14	T	Acrylonitrile	0.121	0.142	-17.4	155	0.00
15	T	tert-Butyl alcohol (TBA)	0.040	0.046	-15.0	141	0.01
16	T	trans-1,2-Dichloroethene	0.656	0.591	9.9	101	0.00
17	T	Methyl tert-butyl ether (MT	1.278	1.399	-9.5	136	0.00
18	P	1,1-Dichloroethane	1.175	1.110	5.5	109	0.00
19	T	Diisopropyl ether (DIPE)	2.455	2.507	-2.1	121	0.00
20	T	cis-1,2-Dichloroethene	0.635	0.607	4.4	116	0.00
21	T	2,2-Dichloropropane	1.077	1.028	4.5	101	0.00
22	T	2-Butanone (MEK)	0.193	0.216	-11.9	132	0.00
23	T	Bromochloromethane	0.254	0.291	-14.6	137	0.00
25	C	Chloroform	1.090	1.036	5.0	115	0.00
26	T	1,1,1-Trichloroethane	1.380	1.106	19.9	93	0.00
27	T	Carbon tetrachloride	1.310	1.122	14.4	93	0.01
28	T	1,1-Dichloropropene	0.862	0.803	6.8	97	0.00
29	T	1,2-Dichloroethane (EDC)	0.773	0.904	-16.9	139	0.00
30	S	1,2-Dichloroethane-d4	0.437	0.503	-15.1	136	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	119	0.00
32	M	Benzene	1.384	1.312	5.2	107	0.00
33	M	Trichloroethene	0.466	0.419	10.1	101	0.00
34	C	1,2-Dichloropropane	0.385	0.369	4.2	118	0.00
35	T	Dibromomethane	0.156	0.187	-19.9	144	0.00
36	T	1,4-Dioxane	0.002	0.002	0.0	124	0.00
37	T	Bromodichloromethane	0.464	0.490	-5.6	123	0.00
38	T	2-Chloroethyl vinyl ether	0.149	0.168	-12.8	142	0.00
39	T	cis-1,3-Dichloropropene	0.463	0.496	-7.1	122	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.282	0.318	-12.8	141	0.00
41	S	Toluene-d8	1.067	0.889	16.7	96	0.00
42	MC	Toluene	1.044	0.920	11.9	99	0.00
43	T	trans-1,3-Dichloropropene	0.405	0.459	-13.3	129	0.00
44	T	1,1,2-Trichloroethane	0.167	0.188	-12.6	139	0.00
45	T	Tetrachloroethene	0.516	0.427	17.2	90	0.00
46	T	1,3-Dichloropropane	0.364	0.405	-11.3	133	0.00

47	T	2-Hexanone	0.218	0.258	-18.3	141	0.00
48	T	Dibromochloromethane	0.332	0.398	-19.9	136	0.00
49	T	1,2-Dibromoethane (EDB)	0.216	0.255	-18.1	138	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00
51	MP	Chlorobenzene	1.263	1.209	4.3	106	0.00
52	T	1,1,1,2-Tetrachloroethane	0.454	0.481	-5.9	117	0.00
53	C	Ethylbenzene	2.297	2.119	7.7	96	0.00
54	T	m,p-Xylene	0.872	0.817	6.3	98	0.00
55	T	o-Xylene	0.818	0.773	5.5	104	0.00
56	T	Styrene	1.291	1.295	-0.3	110	0.00
57	P	Bromoform	0.156	0.162	-3.8	117	0.00
58	T	Isopropylbenzene	2.449	2.220	9.4	94	0.00
59	S	Bromofluorobenzene	0.481	0.462	4.0	109	0.00
60	P	1,1,2,2-Tetrachloroethane	0.303	0.329	-8.6	120	0.00
61	T	Bromobenzene	0.480	0.490	-2.1	119	-0.01
62	T	1,2,3-Trichloropropane	0.188	0.218	-16.0	138	0.00
63	T	n-Propylbenzene	2.678	2.437	9.0	93	0.00
64	T	2-Chlorotoluene	1.643	1.491	9.3	101	0.00
65	T	1,3,5-Trimethylbenzene	2.084	1.915	8.1	96	0.00
66	T	4-Chlorotoluene	1.904	1.785	6.3	105	0.00
67	T	tert-Butylbenzene	1.908	1.786	6.4	96	0.00
68	T	1,2,4-Trimethylbenzene	2.096	1.917	8.5	99	0.00
69	T	sec-Butylbenzene	2.621	2.385	9.0	90	0.00
70	T	1,3-Dichlorobenzene	1.017	0.975	4.1	114	0.00
71	T	4-Isopropyltoluene	2.444	2.235	8.6	92	0.00
72	T	1,4-Dichlorobenzene	1.005	0.995	1.0	120	0.00
73	T	n-Butylbenzene	1.076	0.973	9.6	92	0.00
74	T	1,2-Dichlorobenzene	0.890	0.929	-4.4	123	0.00
75	T	1,2-Dibromo-3-chloropropane	0.050	0.059	-18.0	135	0.01
76	T	1,2,4-Trichlorobenzene	0.567	0.581	-2.5	121	0.00
77	T	Hexachlorobutadiene	0.336	0.290	13.7	90	0.00
78	T	Naphthalene	1.058	1.253	-18.4	131	0.00
79	T	1,2,3-Trichlorobenzene	0.476	0.518	-8.8	127	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.525	0.421	19.8	85	0.01
81	T	Methyl acetate	0.151	0.159	-5.3	125	0.00
82	T	Cyclohexane	1.291	1.050	18.7	88	0.01
83	T	Methylcyclohexane	1.068	0.881	17.5	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO0618.M Thu Jul 12 10:26:05 2012 RPl

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F6034.D

Date Analyzed: 06/18/2012

Instrument ID: MSD_F

Time Analyzed: 14:27

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	82964	6.11	121160	6.94	117988	10.28
	UPPER LIMIT	165928	6.61	242320	7.44	235976	10.78
	LOWER LIMIT	41482	5.61	60580	6.44	58994	9.78
	LAB SAMPLE ID						
01	ICC1	72530	6.11	107271	6.94	94917	10.28
02	ICC2	78227	6.11	121220	6.94	105298	10.28
03	ICC5	77751	6.11	119932	6.94	103524	10.27
04	ICC20	76048	6.11	114958	6.94	104107	10.28
05	ICC200	90561	6.11	129735	6.94	129760	10.28
06	ICC150	84656	6.11	121265	6.94	128416	10.28
07	ICV100	87791	6.11	131067	6.94	126852	10.28
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F6820.D

Date Analyzed: 07/10/2012

Instrument ID: MSD_F

Time Analyzed: 16:55

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	93735	6.11	144037	6.94	131208	10.28
	UPPER LIMIT	187470	6.61	288074	7.44	262416	10.78
	LOWER LIMIT	46867.5	5.61	72018.5	6.44	65604	9.78
	LAB SAMPLE ID						
01	BLKS120710-01	83354	6.11	115047	6.94	96256	10.28
02	06385-004	81046	6.11	115706	6.94	96248	10.28
03	06413-004	84523	6.11	125674	6.94	114397	10.28
04	06385-008	76800	6.11	110034	6.94	92794	10.28
05	06385-002	84263	6.11	120694	6.94	99400	10.28
06	06385-006	89710	6.11	126485	6.94	102145	10.28
07	06385-009	92589	6.11	128660	6.94	106393	10.28
08	06385-010	91315	6.11	129645	6.94	110100	10.28
09	06385-001	87948	6.11	120942	6.94	100113	10.28
10	06385-007	94415	6.11	132295	6.94	109669	10.28
11	LCSD120710-01	118021	6.11	178181	6.94	159921	10.28
12	06385-004MS	113013	6.11	185399	6.94	167256	10.28
13	06385-004MSD	124039	6.11	188167	6.94	171863	10.28
14	06699-001	102185	6.11	140833	6.94	116267	10.28
15	06633-002	102892	6.11	142334	6.94	116628	10.28
16	06673-002	99736	6.11	137587	6.94	109111	10.28
17	06705-001	108193	6.11	154856	6.94	126819	10.28
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 12 11:57:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

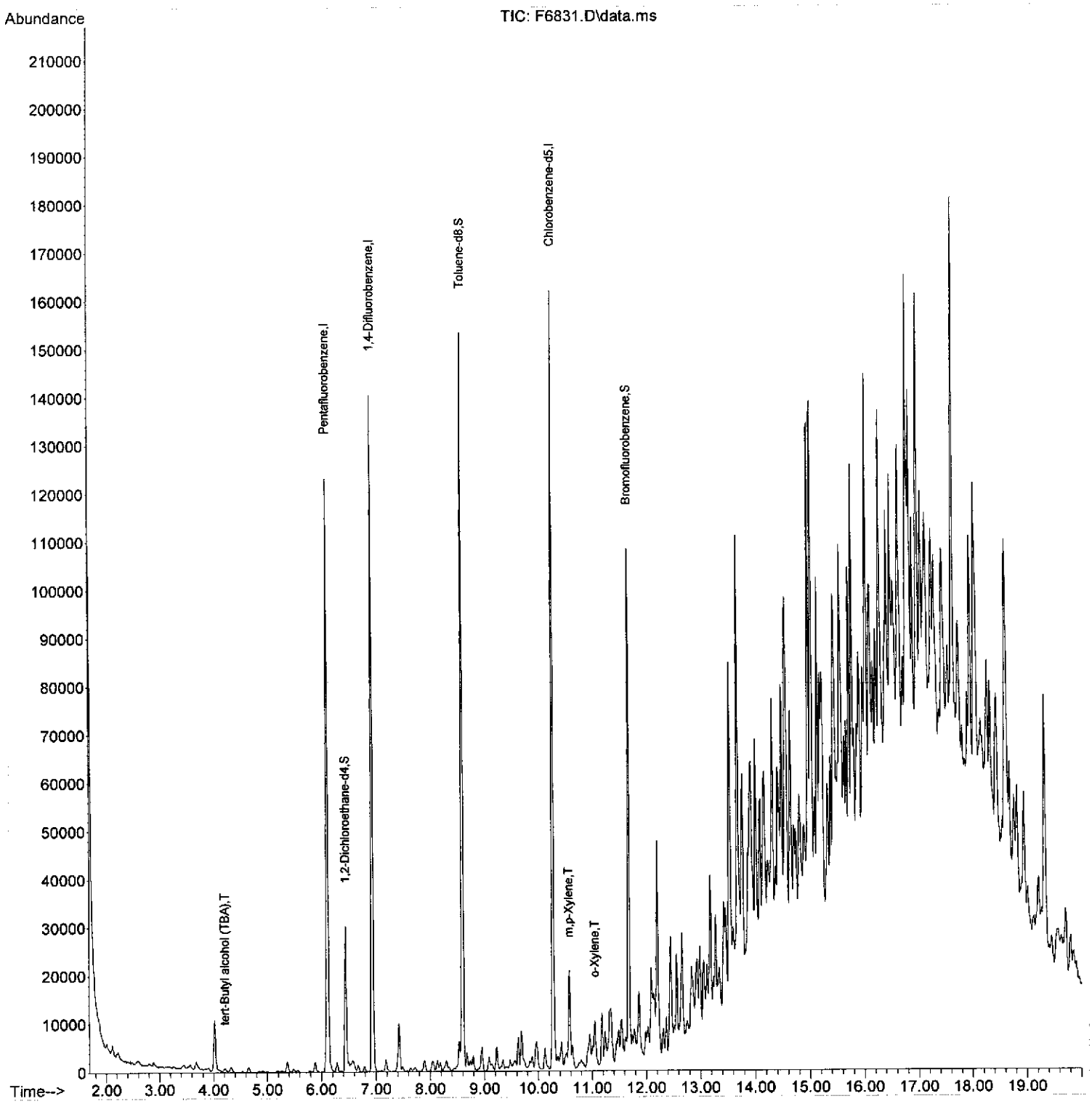
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	87948	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.935	114	120942	50.00	UG	0.00
50) Chlorobenzene-d5	10.275	117	100113	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.448	65	22931	29.80	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 59.60%			
41) Toluene-d8	8.600	98	107103	41.49	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 82.98%			
59) Bromofluorobenzene	11.676	95	44395	46.08	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 92.16%			
Target Compounds						Qvalue
15) tert-Butyl alcohol (TBA)	4.215	59	1044m	14.71	UG	
54) m,p-Xylene	10.570	106	3446	1.97	UG	94
55) o-Xylene	11.047	106	2262	1.38	UG	98

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 12 11:57:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6831.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	224	231	245	rVB	10580	28188	9.26%	0.367%
2	6.113	429	437	448	rBV	123201	266457	87.49%	3.473%
3	6.448	464	470	477	rVV	30116	65589	21.54%	0.855%
4	6.570	479	482	488	rVV2	2269	8340	2.74%	0.109%
5	6.935	511	518	530	rBV	140479	277535	91.13%	3.617%
6	7.179	537	542	551	rVB4	2545	6328	2.08%	0.082%
7	7.422	557	566	571	rBV	9889	25205	8.28%	0.328%
8	7.900	600	613	618	rBV3	2191	6572	2.16%	0.086%
9	8.042	621	627	632	rBV4	2175	6923	2.27%	0.090%
10	8.296	645	652	655	rBV4	2152	6423	2.11%	0.084%
11	8.529	668	675	677	rBV2	5793	13040	4.28%	0.170%
12	8.600	677	682	687	rVV	152868	292756	96.12%	3.815%
13	8.793	698	701	707	rVB3	3076	6532	2.14%	0.085%
14	8.955	707	717	722	rVB	4867	13440	4.41%	0.175%
15	9.087	722	730	733	rBV3	2934	7693	2.53%	0.100%
16	9.229	739	744	749	rBV	4783	11011	3.62%	0.144%
17	9.625	780	783	786	rVV2	6106	11504	3.78%	0.150%
18	9.686	786	789	799	rVB	7506	19702	6.47%	0.257%
19	9.879	800	808	812	rBV3	2251	6674	2.19%	0.087%
20	9.960	812	816	825	rVB3	5700	18814	6.18%	0.245%
21	10.123	827	832	840	rBV2	4367	10995	3.61%	0.143%
22	10.275	840	847	853	rBV	161607	304561	100.00%	3.969%
23	10.427	858	862	866	rVB2	4716	10887	3.57%	0.142%
24	10.519	866	871	873	rBV5	2422	7090	2.33%	0.092%
25	10.580	873	877	881	rBV2	18061	37743	12.39%	0.492%
26	10.793	890	898	906	rBV9	1594	7680	2.52%	0.100%
27	10.955	906	914	917	rBV4	6824	24409	8.01%	0.318%
28	11.047	917	923	930	rVB4	9121	29085	9.55%	0.379%
29	11.179	932	936	939	rBV2	10586	21504	7.06%	0.280%
30	11.240	939	942	945	rBV2	5166	9595	3.15%	0.125%
31	11.351	946	953	958	rVB2	10954	43958	14.43%	0.573%
32	11.483	958	966	968	rBV3	6529	21434	7.04%	0.279%
33	11.544	968	972	976	rVB3	6652	16660	5.47%	0.217%
34	11.676	981	985	990	rBV	102415	184818	60.68%	2.409%
35	11.869	999	1004	1012	rVB3	13229	35194	11.56%	0.459%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	11.991	1012	1016	1017	rBV	4902	9461	3.11%	0.123%
37	12.092	1022	1026	1034	rBV4	15586	63130	20.73%	0.823%
38	12.204	1034	1037	1044	rVB	44184	97305	31.95%	1.268%
39	12.316	1044	1048	1051	rBV4	5075	10955	3.60%	0.143%
40	12.377	1051	1054	1056	rVB	6953	11934	3.92%	0.156%
41	12.448	1056	1061	1066	rBV3	23734	65053	21.36%	0.848%
42	12.559	1069	1072	1076	rBV2	15803	26897	8.83%	0.351%
43	12.661	1076	1082	1087	rVB	21043	48227	15.83%	0.629%
44	12.833	1095	1099	1105	rBV3	13125	45571	14.96%	0.594%
45	12.935	1105	1109	1112	rBV4	10335	25817	8.48%	0.336%
46	12.986	1112	1114	1118	rVB3	15257	31240	10.26%	0.407%
47	13.057	1118	1121	1124	rBV3	12315	29233	9.60%	0.381%
48	13.118	1125	1127	1130	rBV2	6844	9908	3.25%	0.129%
49	13.179	1130	1133	1137	rVB	25548	47277	15.52%	0.616%
50	13.280	1137	1143	1146	rBV4	17243	37429	12.29%	0.488%
51	13.422	1153	1157	1159	rBV2	21582	46629	15.31%	0.608%
52	13.534	1164	1168	1173	rVV2	67896	169946	55.80%	2.215%
53	13.676	1177	1182	1187	rVV	90449	199045	65.35%	2.594%
54	13.767	1187	1191	1195	rVB4	38369	91571	30.07%	1.193%
55	13.920	1197	1206	1211	rBV6	39222	174770	57.38%	2.278%
56	14.001	1211	1214	1219	rVV3	38564	83630	27.46%	1.090%
57	14.092	1219	1223	1225	rVV4	25152	47131	15.48%	0.614%
58	14.163	1225	1230	1234	rVV3	27886	83767	27.50%	1.092%
59	14.316	1241	1245	1248	rVB5	41894	86480	28.39%	1.127%
60	14.407	1252	1254	1259	rVV4	24890	71373	23.43%	0.930%
61	14.478	1259	1261	1264	rVV2	40452	62224	20.43%	0.811%
62	14.549	1264	1268	1274	rVB3	63651	187818	61.67%	2.448%
63	14.640	1274	1277	1281	rBV3	39966	90507	29.72%	1.180%
64	14.701	1281	1283	1285	rBV	13447	23639	7.76%	0.308%
65	14.803	1290	1293	1299	rBV4	21810	63579	20.88%	0.829%
66	14.975	1305	1310	1312	rBV	91173	167217	54.90%	2.179%
67	15.026	1312	1315	1319	rVB3	94646	196745	64.60%	2.564%
68	15.138	1323	1326	1328	rBV	57422	86325	28.34%	1.125%
69	15.189	1329	1331	1332	rBV2	19229	27045	8.88%	0.352%
70	15.321	1340	1344	1347	rBV4	23675	55015	18.06%	0.717%
71	15.382	1348	1350	1352	rVV	23435	35559	11.68%	0.463%
72	15.432	1352	1355	1361	rVV3	53784	162449	53.34%	2.117%
73	15.554	1364	1367	1372	rVB3	53330	137448	45.13%	1.791%
74	15.717	1381	1383	1386	rBV2	51781	89866	29.51%	1.171%
75	15.777	1386	1389	1395	rVB2	73805	151205	49.65%	1.971%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	15.909	1395	1402	1405	rBV4	34900	112450	36.92%	1.466%
77	15.970	1405	1408	1410	rBV3	31173	61340	20.14%	0.799%
78	16.031	1411	1414	1417	rVB3	79292	139522	45.81%	1.818%
79	16.102	1418	1421	1425	rVV4	31279	77137	25.33%	1.005%
80	16.214	1430	1432	1435	rBV2	23750	45071	14.80%	0.587%
81	16.285	1435	1439	1446	rVB2	69062	164701	54.08%	2.147%
82	16.417	1446	1452	1456	rBV3	48167	141013	46.30%	1.838%
83	16.488	1456	1459	1463	rBV2	43757	82101	26.96%	1.070%
84	16.640	1470	1474	1479	rVB5	58417	147497	48.43%	1.922%
85	16.782	1484	1488	1492	rBV3	86782	211873	69.57%	2.761%
86	16.894	1497	1499	1503	rVB2	39967	63889	20.98%	0.833%
87	16.986	1503	1508	1511	rBV2	86527	192515	63.21%	2.509%
88	17.057	1511	1515	1517	rBV3	35236	75215	24.70%	0.980%
89	17.249	1531	1534	1536	rBV2	28859	56563	18.57%	0.737%
90	17.442	1550	1553	1559	rVB	33389	92624	30.41%	1.207%
91	17.635	1568	1572	1578	rVB	108065	214183	70.33%	2.791%
92	17.960	1601	1604	1608	rVB2	45515	86096	28.27%	1.122%
93	18.041	1608	1612	1619	rBV2	56482	163588	53.71%	2.132%
94	18.275	1632	1635	1637	rVB3	21217	39685	13.03%	0.517%
95	18.437	1647	1651	1659	rVB5	30274	92625	30.41%	1.207%
96	18.610	1663	1668	1673	rBV2	60051	174619	57.33%	2.276%
97	18.762	1681	1683	1686	rBV	10734	17343	5.69%	0.226%
98	18.945	1698	1701	1705	rVB	23122	49698	16.32%	0.648%
99	19.320	1734	1738	1745	rVB2	52383	141790	46.56%	1.848%
100	19.798	1782	1785	1788	rBV2	6624	14990	4.92%	0.195%

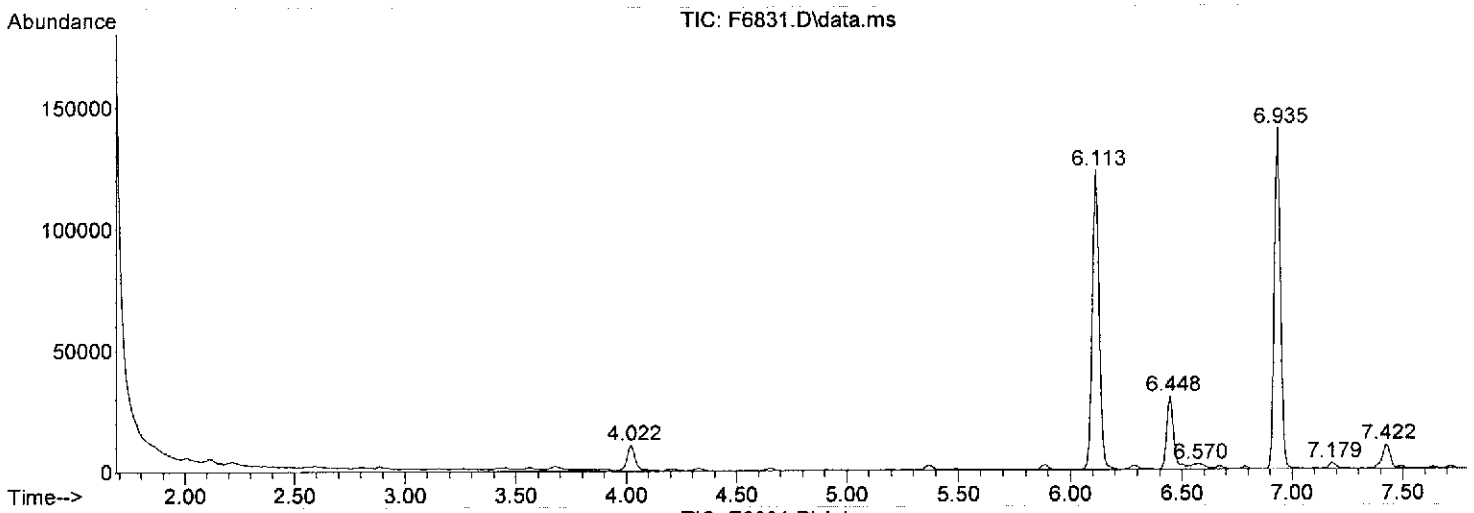
Sum of corrected areas: 7672887

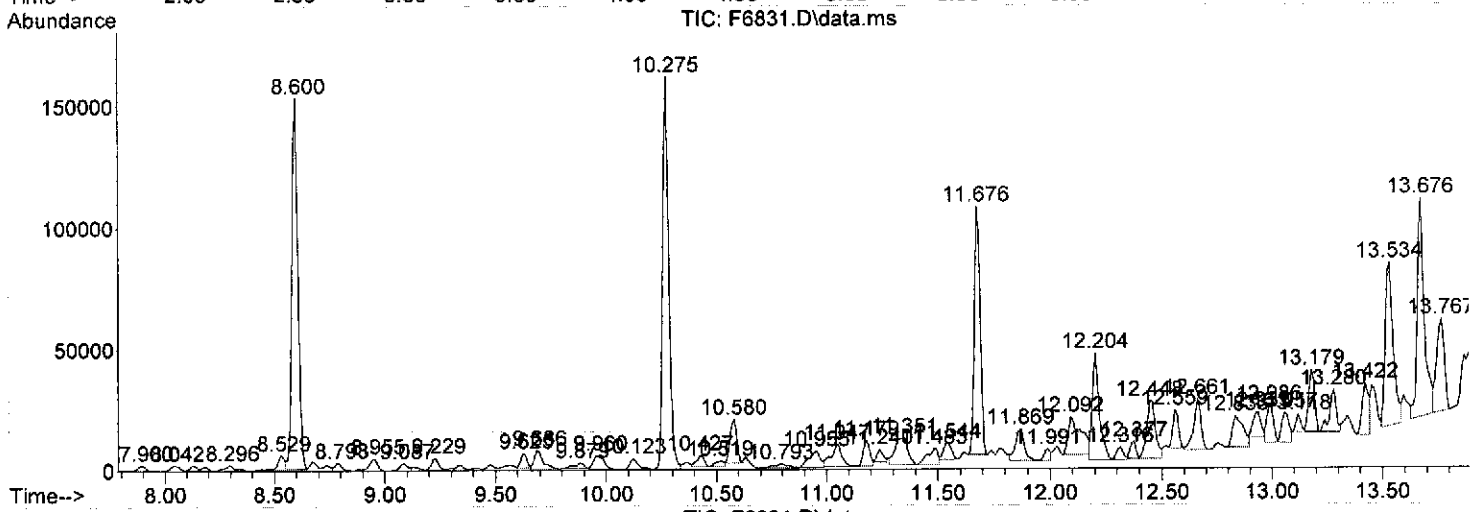
LSC Report - Integrated Chromatogram

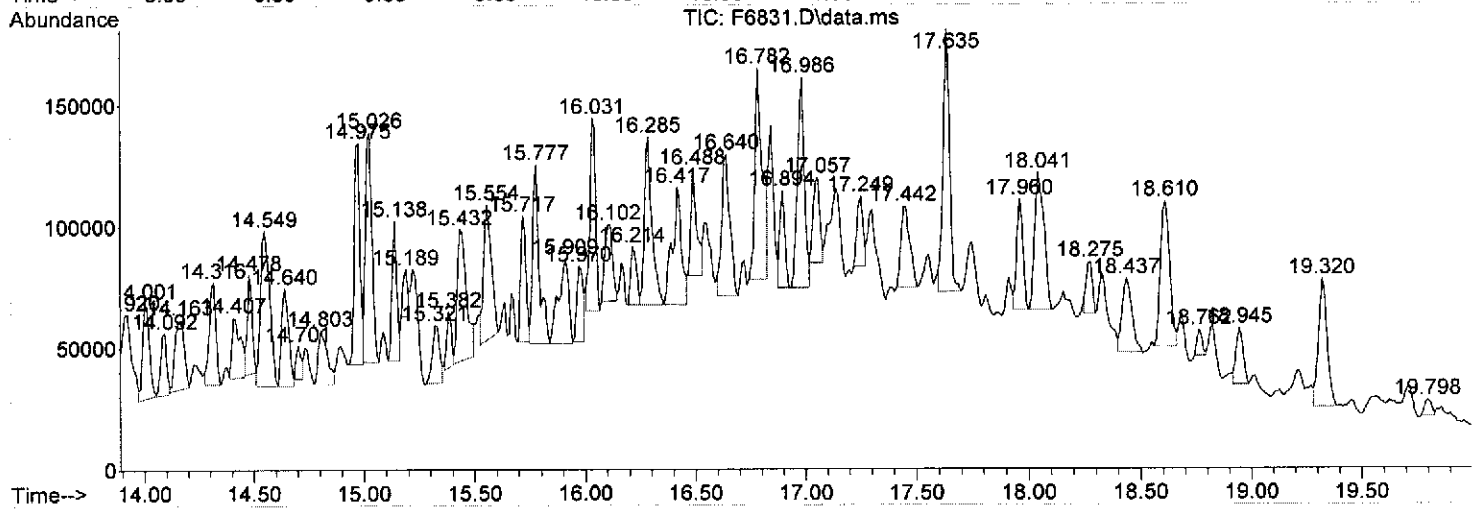
Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

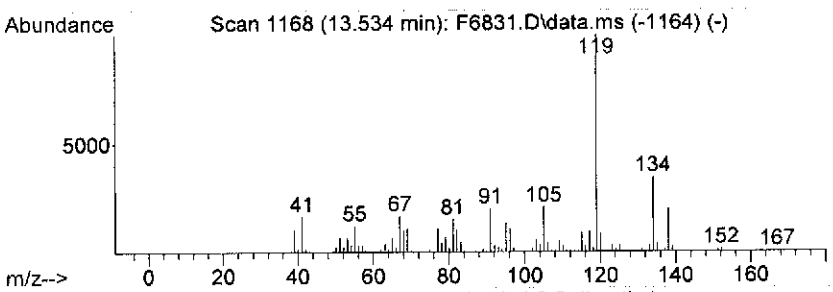
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

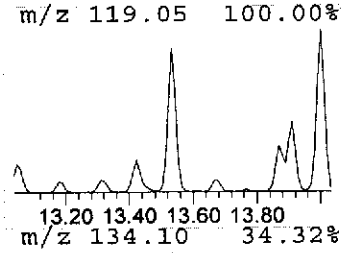
****

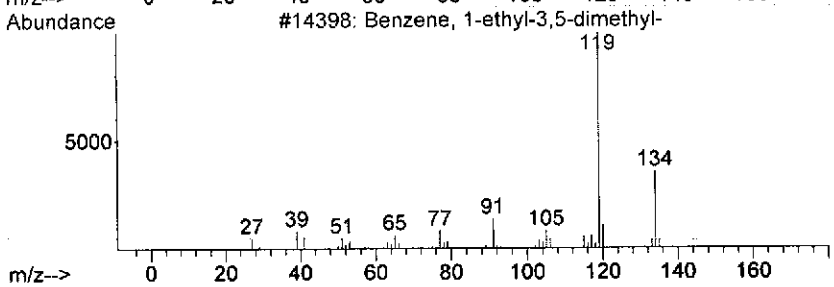
Peak Number 1 Unknown Aromatic Concentration Rank 9

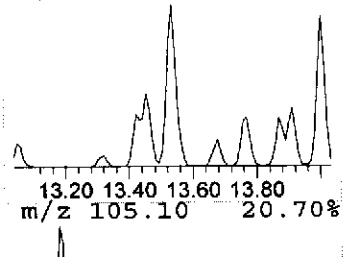
R.T.	EstConc	Area	Relative to ISTD	R.T.
13.53	27.90 UG	169946	Chlorobenzene-d5	10.28

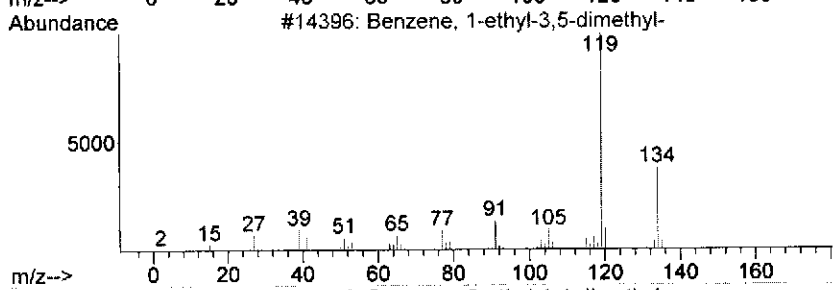
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	92
2	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	92
3	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	92
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	92
5	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	92

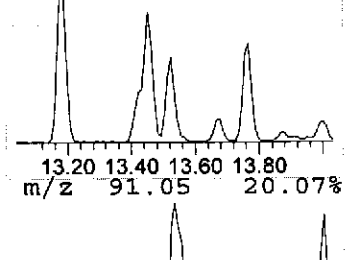


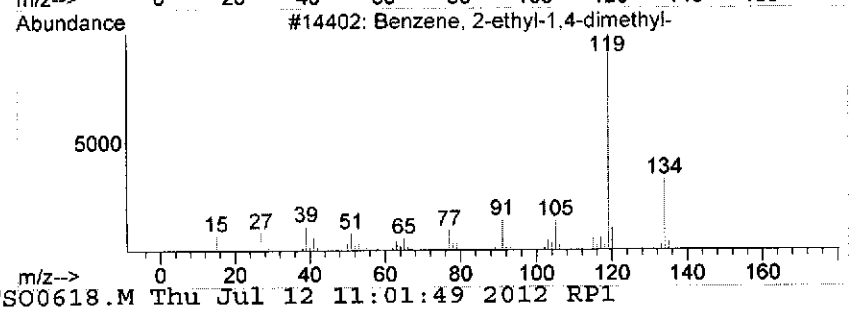


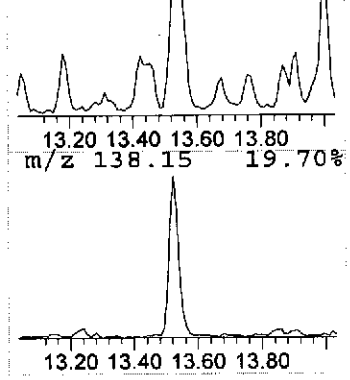












Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

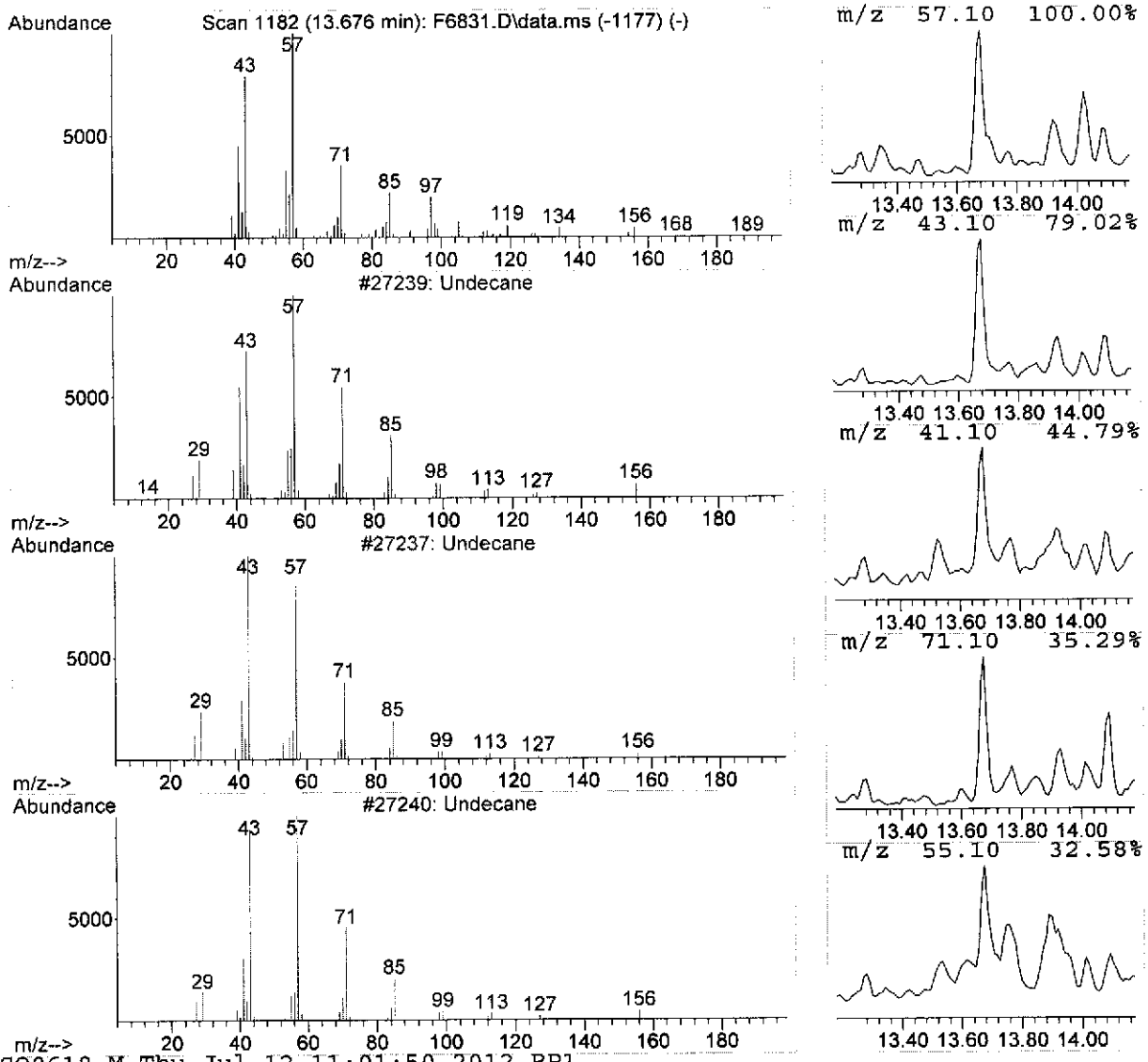
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.68	32.68 UG	199045	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane	156	C11H24	001120-21-4	92
2	Undecane	156	C11H24	001120-21-4	64
3	Undecane	156	C11H24	001120-21-4	64
4	Undecane	156	C11H24	001120-21-4	60
5	Undecane	156	C11H24	001120-21-4	60



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

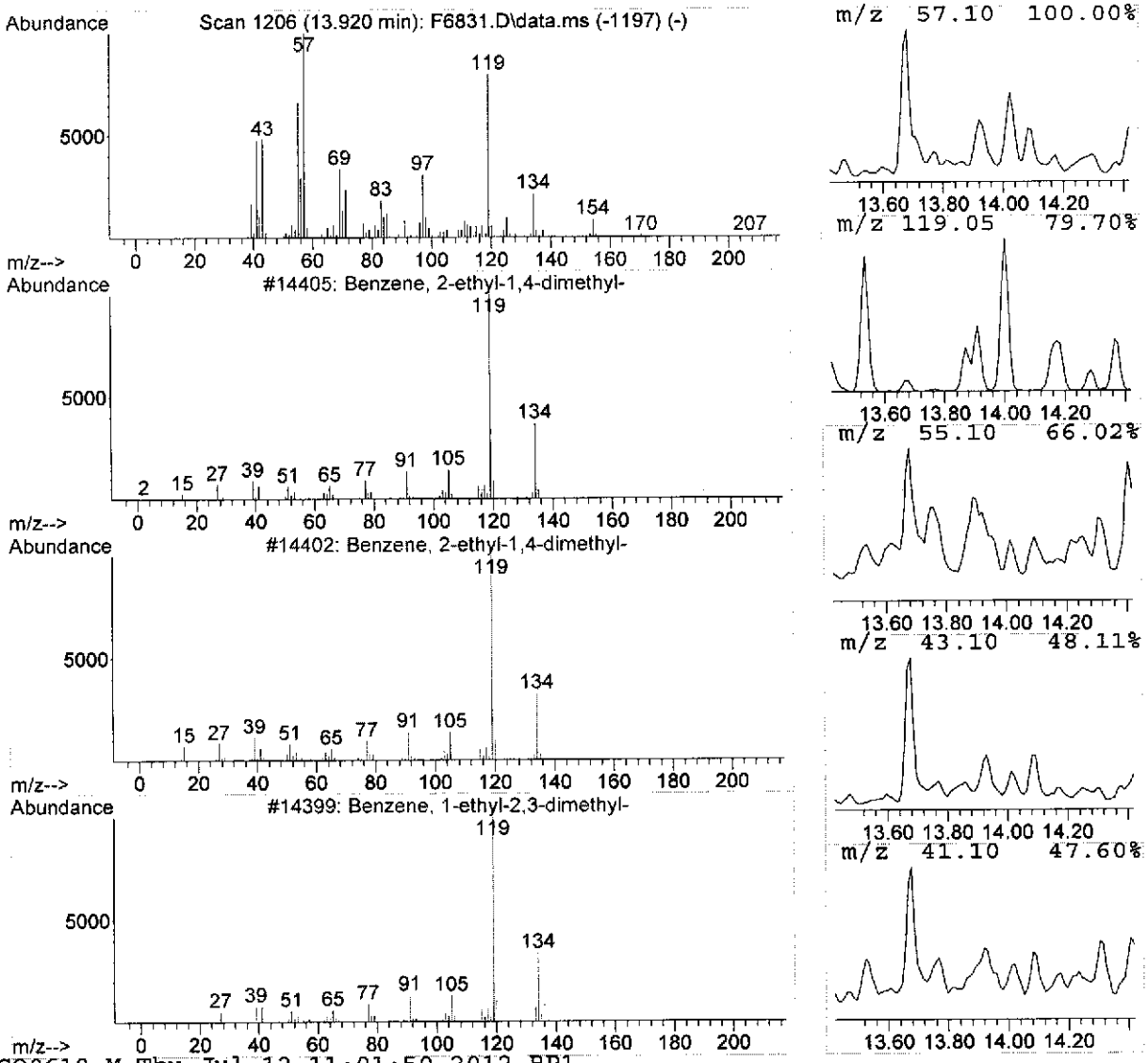
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Unknown Aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.92	28.69 UG	174770	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	60
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	60
3	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	46
4	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	46
5	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	46



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

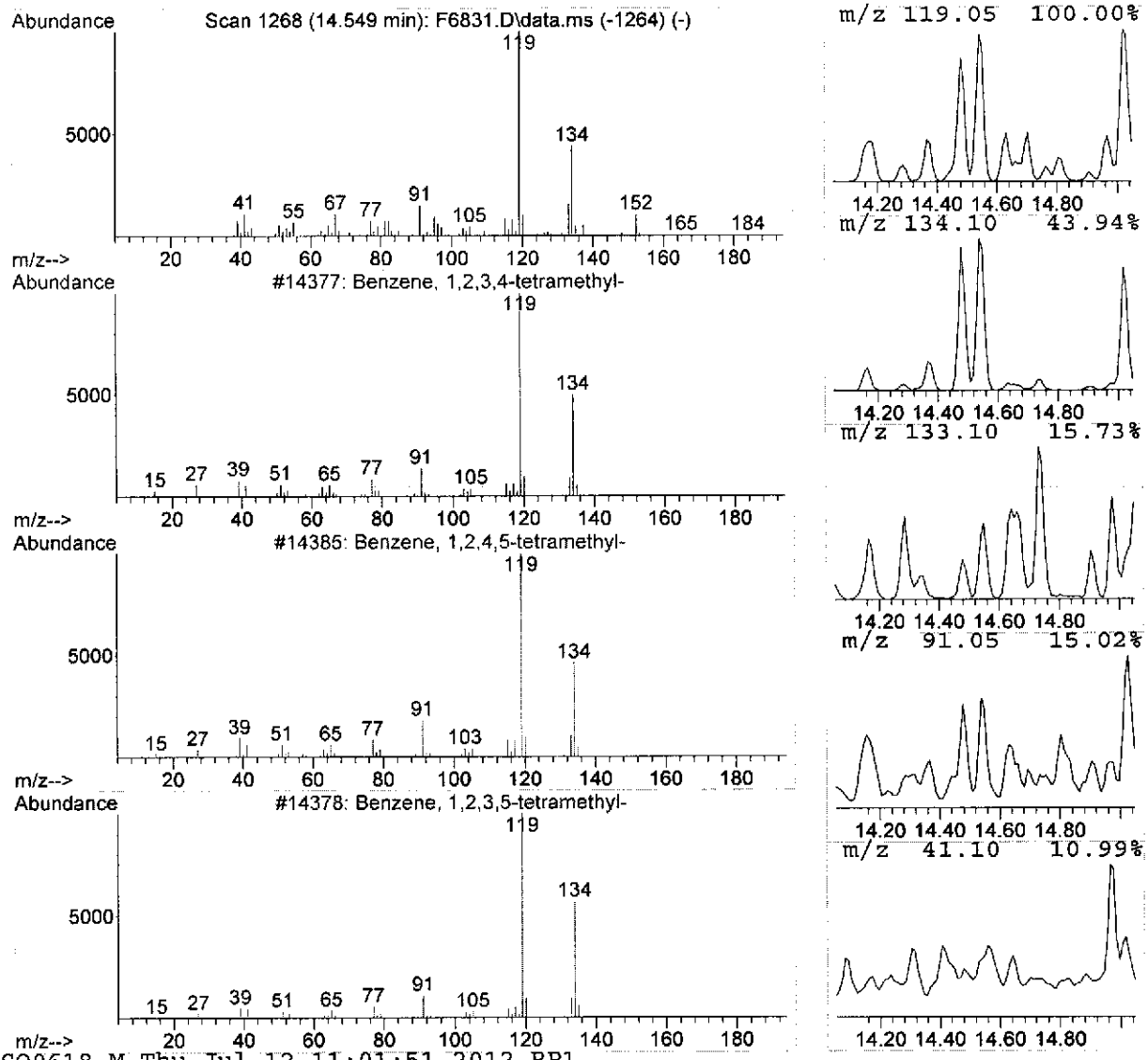
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 4 Unknown Aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.55	30.83 UG	187818	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	94
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	93
4	1,3-Cyclopentadiene, 1,2,3,4-tet...	134	C10H14	076089-59-3	93
5	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	90



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

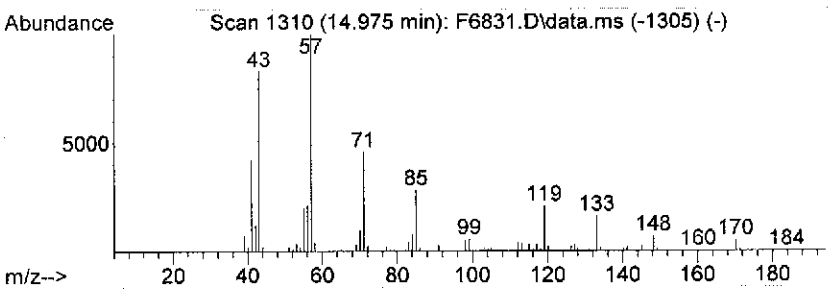
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

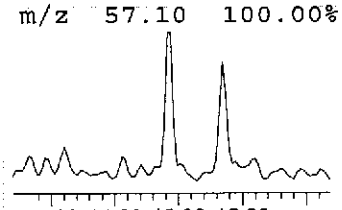
****

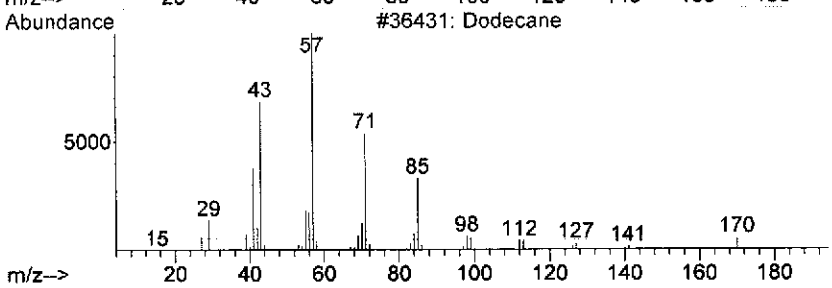
Peak Number 5 Unknown Hydrocarbon Concentration Rank 10

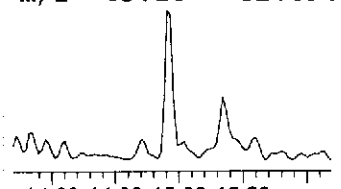
R.T.	EstConc	Area	Relative to ISTD	R.T.
14.98	27.45 UG	167217	Chlorobenzene-d5	10.28

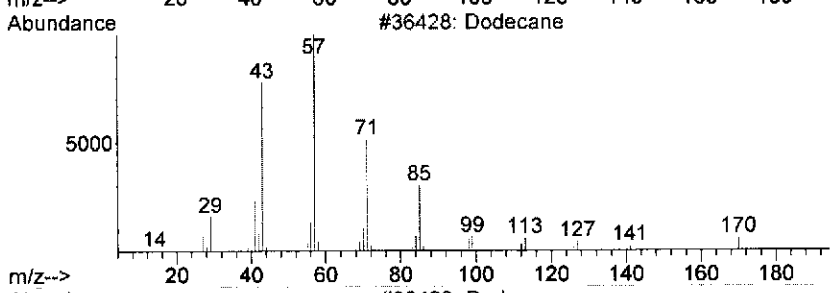
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	95
2	Dodecane	170	C12H26	000112-40-3	60
3	Dodecane	170	C12H26	000112-40-3	60
4	Dodecane	170	C12H26	000112-40-3	60
5	Nonane, 3,7-dimethyl-	156	C11H24	017302-32-8	58

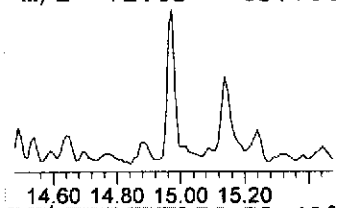


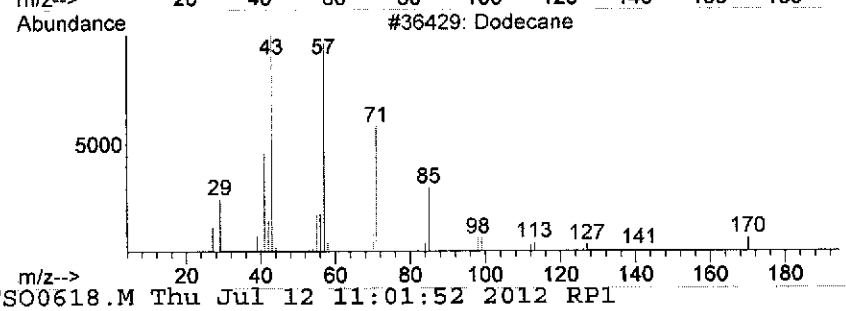


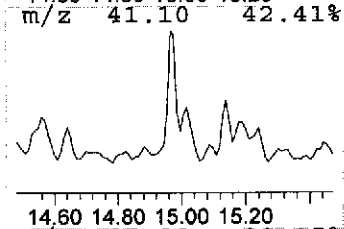


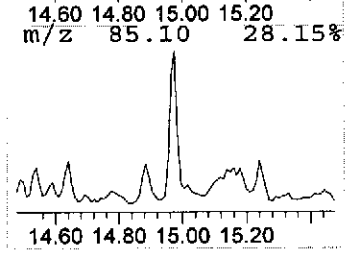












Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

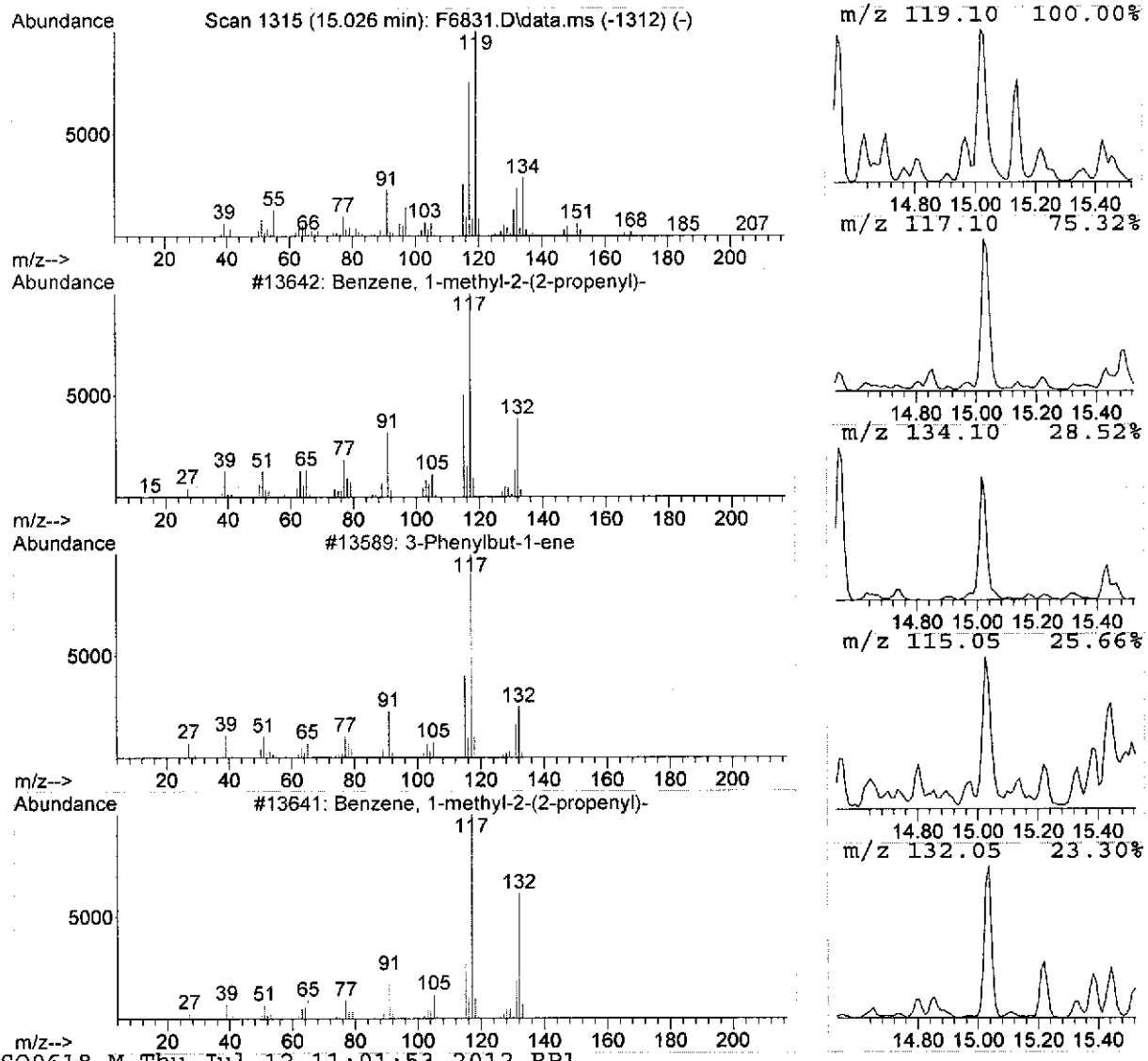
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 6 Unknown Aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.03	32.30 UG	196745	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	90
2	3-Phenylbut-1-ene	132	C10H12	000934-10-1	64
3	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	50
4	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	50
5	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	50



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

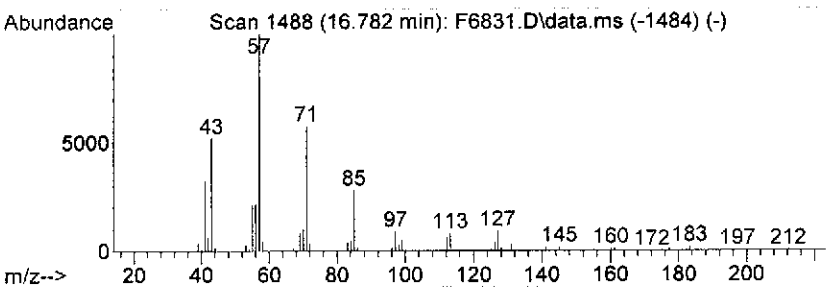
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

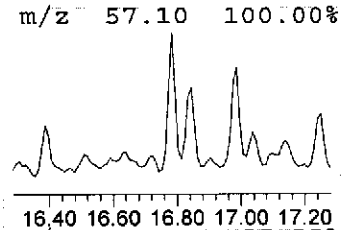
****

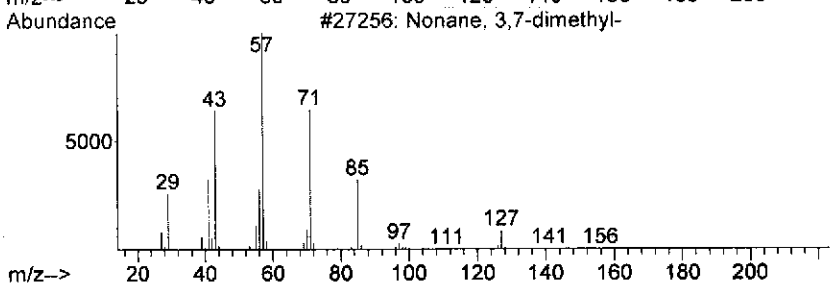
Peak Number 7 Unknown Hydrocarbon Concentration Rank 2

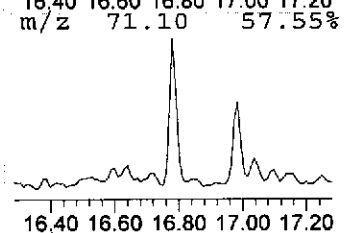
R.T.	EstConc	Area	Relative to ISTD	R.T.
16.78	34.78 UG	211873	Chlorobenzene-d5	10.28

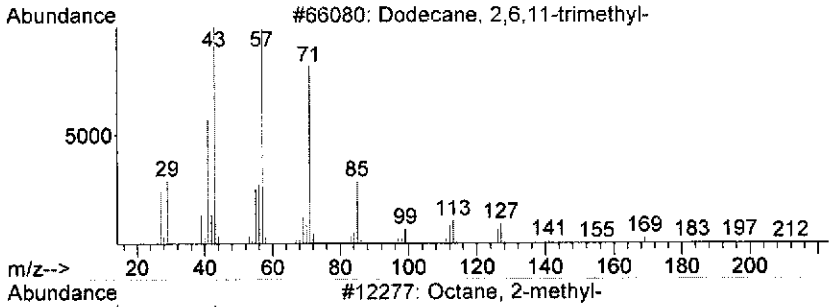
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonane, 3,7-dimethyl-	156	C11H24	017302-32-8	87
2	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	76
3	Octane, 2-methyl-	128	C9H20	003221-61-2	64
4	Dodecane, 2,6,10-trimethyl-	212	C15H32	003891-98-3	64
5	Bacchotricuneatin c	342	C20H22O5	066563-30-2	62

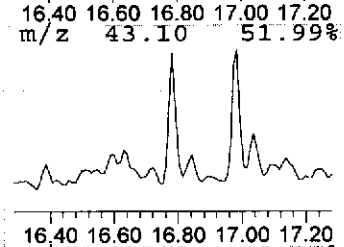


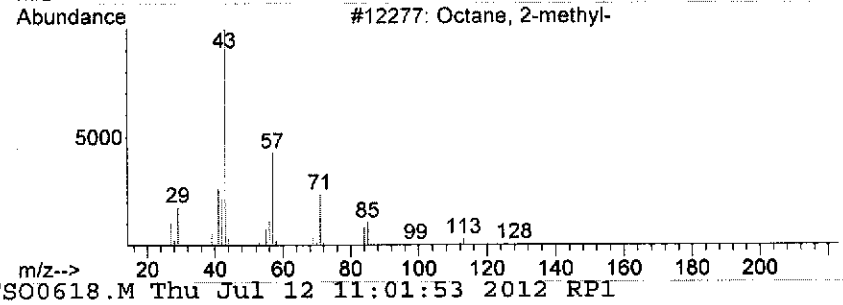


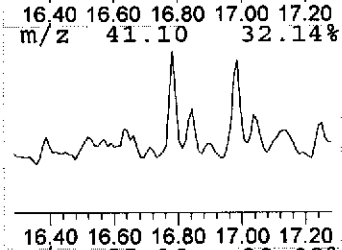


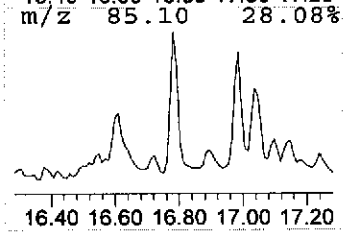












Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

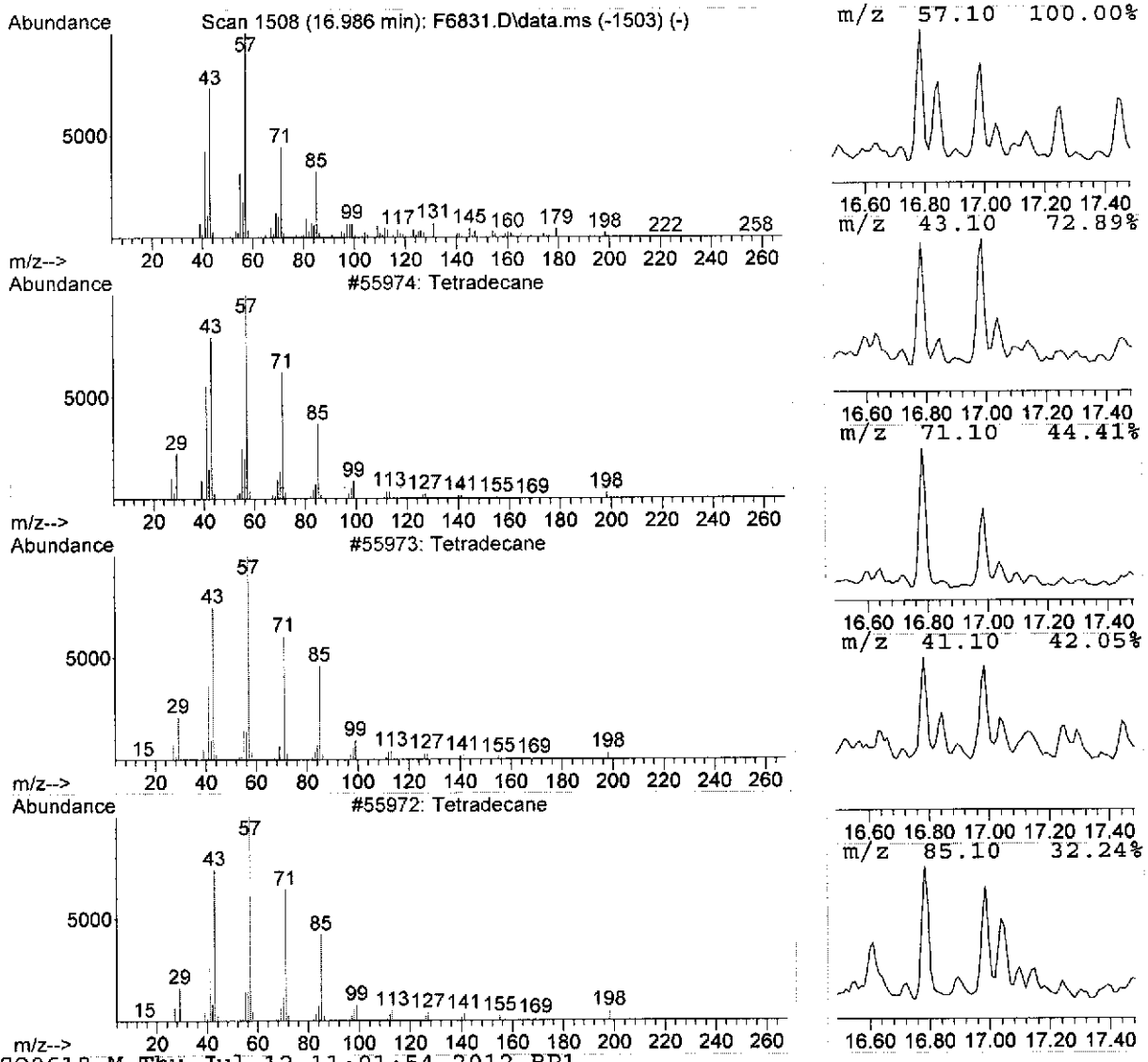
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 8 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.98	31.61 UG	192515	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetradecane	198	C14H30	000629-59-4	97
2	Tetradecane	198	C14H30	000629-59-4	96
3	Tetradecane	198	C14H30	000629-59-4	89
4	Tetradecane	198	C14H30	000629-59-4	76
5	Dodecane, 2-methyl-	184	C13H28	001560-97-0	70



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

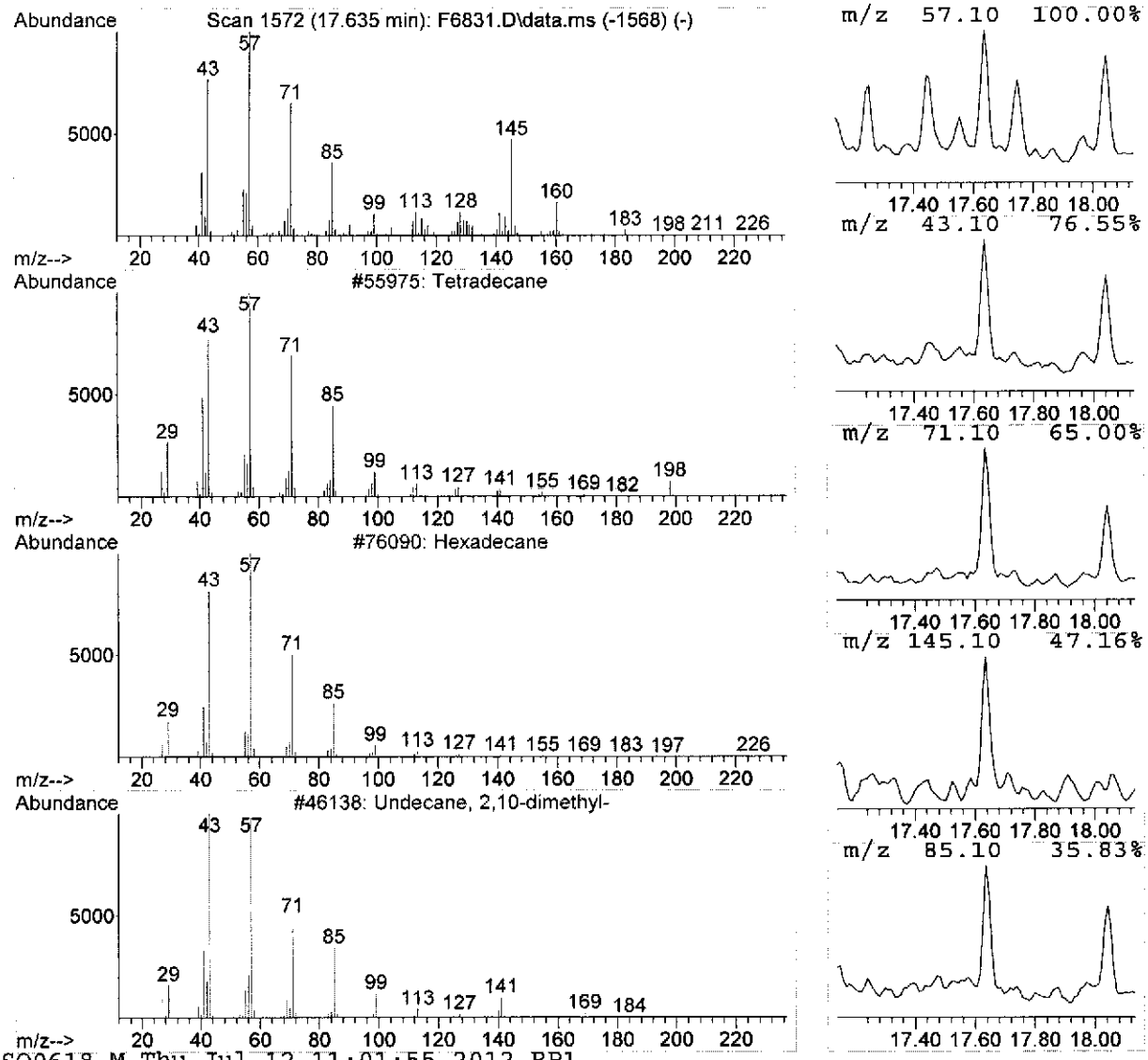
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 9 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.64	35.16 UG	214183	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetradecane	198	C14H30	000629-59-4	87
2	Hexadecane	226	C16H34	000544-76-3	86
3	Undecane, 2,10-dimethyl-	184	C13H28	017301-27-8	49
4	Dodecane, 4,6-dimethyl-	198	C14H30	061141-72-8	46
5	Dodecane, 1-iodo-	296	C12H25I	004292-19-7	46



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6831.D
Acq On : 10 Jul 2012 22:36
Operator : XING
Sample : G1-062612,06385-001,S,2.5g,22.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

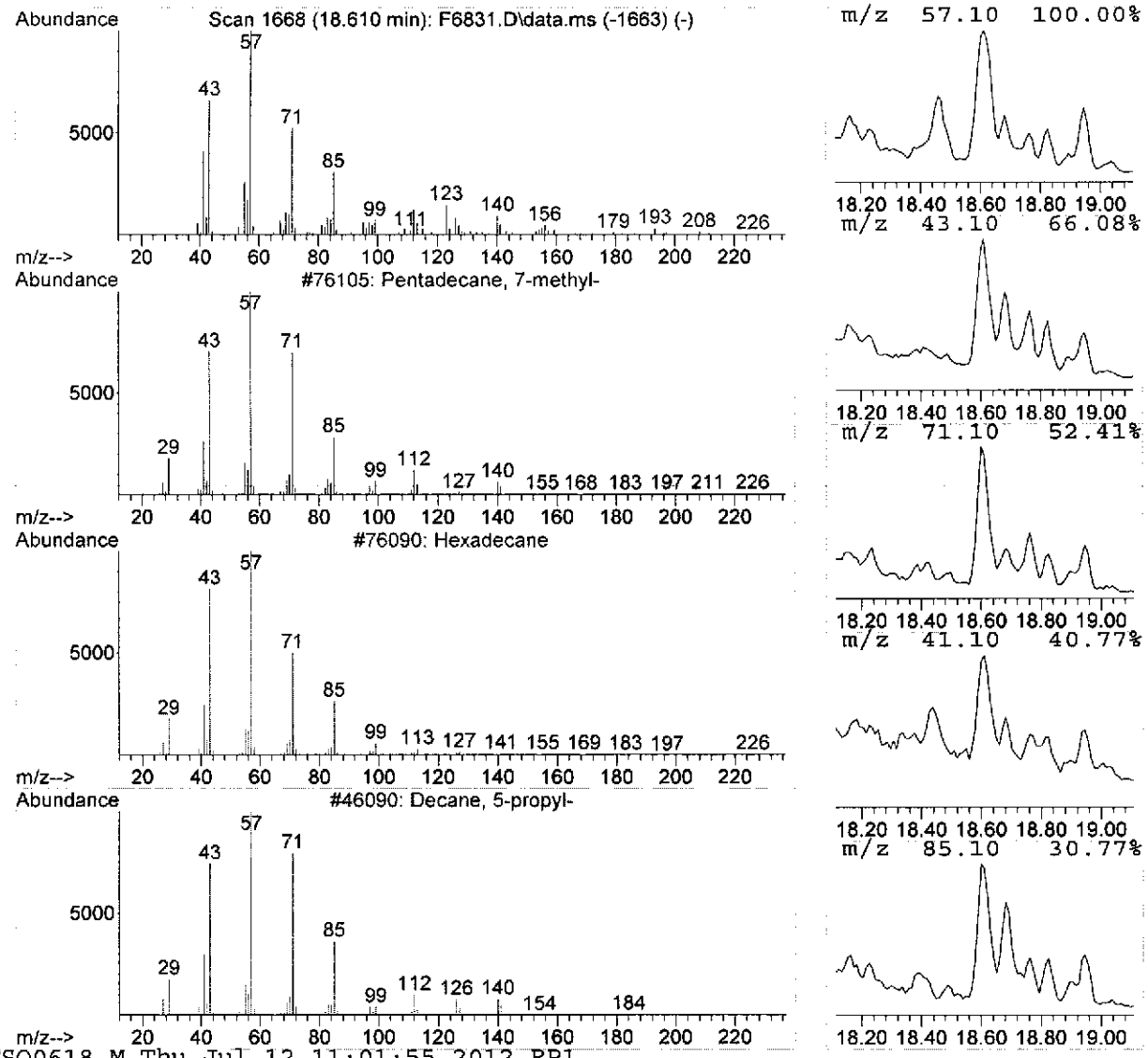
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 10 Unknown Hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.61	28.67 UG	174619	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentadecane, 7-methyl-	226	C16H34	006165-40-8	96
2	Hexadecane	226	C16H34	000544-76-3	83
3	Decane, 5-propyl-	184	C13H28	017312-62-8	76
4	Undecane	156	C11H24	001120-21-4	70
5	Undecane	156	C11H24	001120-21-4	62



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 12 10:43:05 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

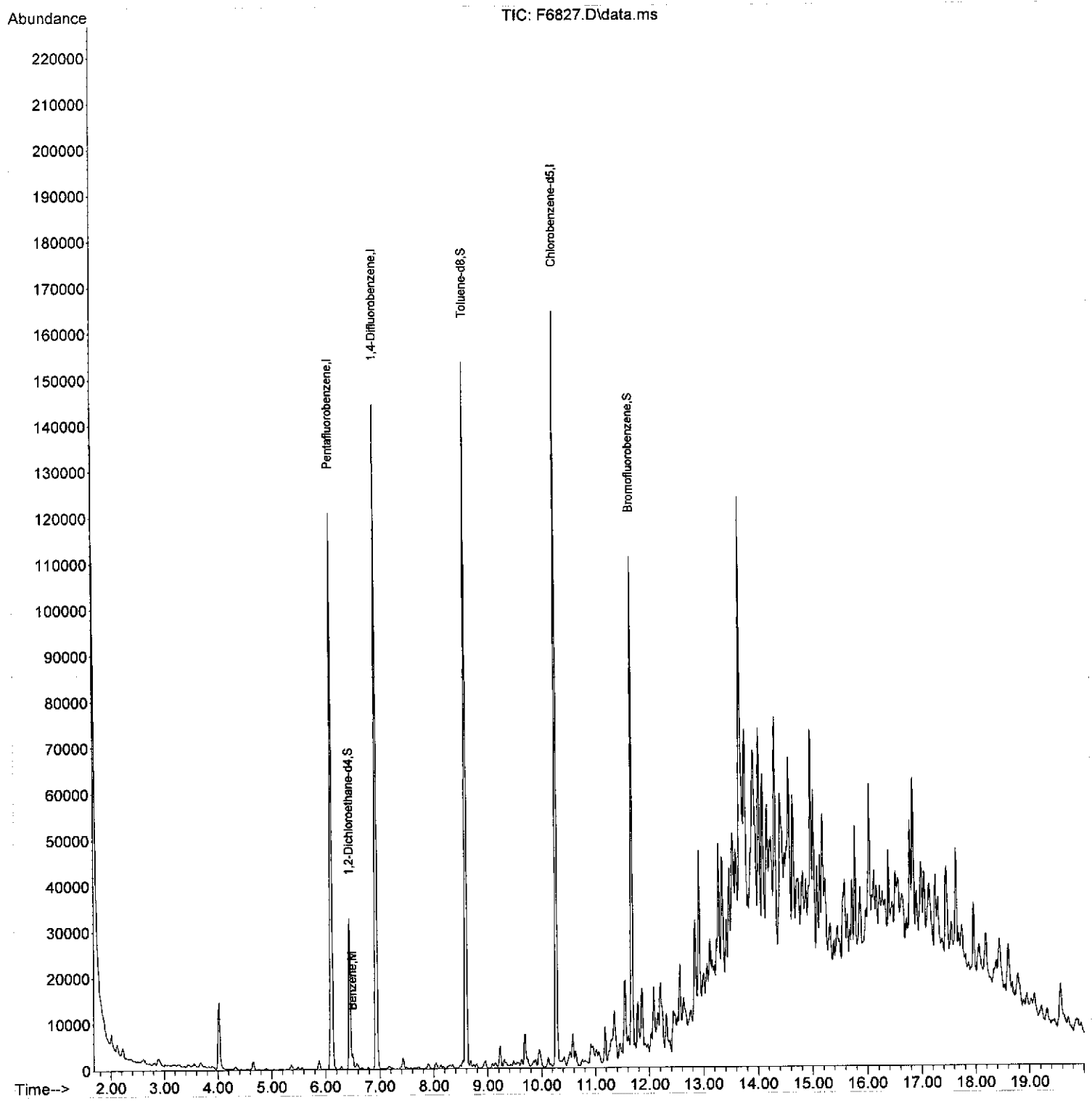
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	84263	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	120694	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	99400	50.00 UG	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d4	6.448	65	25711	34.87 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 69.74%		
41) Toluene-d8	8.600	98	103879	40.32 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 80.64%		
59) Bromofluorobenzene	11.676	95	43709	45.70 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 91.40%		
Target Compounds					Qvalue
32) Benzene	6.499	78	2352	0.70 UG	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 12 10:43:05 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6827.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.012	31	33	40	rVB2	3699	8721	2.85%	0.200%
2	2.113	41	43	50	rVV2	2447	6025	1.97%	0.138%
3	2.225	50	54	64	rVB3	2514	7804	2.55%	0.179%
4	2.895	115	120	130	rVB5	1647	6770	2.22%	0.155%
5	3.676	193	197	208	rVB2	1024	3852	1.26%	0.088%
6	4.022	226	231	246	rVB	14508	37409	12.24%	0.858%
7	4.661	287	294	299	rVB3	1840	4716	1.54%	0.108%
8	5.372	350	364	370	rBV4	1038	3206	1.05%	0.074%
9	5.879	409	414	422	rVB3	1847	4641	1.52%	0.106%
10	6.113	427	437	447	rBV	120864	256563	83.95%	5.884%
11	6.448	464	470	479	rBV	32706	75565	24.73%	1.733%
12	6.570	479	482	489	rVB	1125	3448	1.13%	0.079%
13	6.935	508	518	530	rBV	144439	278940	91.27%	6.398%
14	7.422	558	566	571	rBV2	2248	6063	1.98%	0.139%
15	8.042	620	627	631	rBV3	1299	3767	1.23%	0.086%
16	8.600	667	682	687	rBV	153498	294181	96.26%	6.747%
17	8.955	708	717	722	rBV4	1642	4980	1.63%	0.114%
18	9.229	740	744	748	rBV	4421	8985	2.94%	0.206%
19	9.301	748	751	760	rBV3	1592	4966	1.62%	0.114%
20	9.625	780	783	786	rBV4	1528	3058	1.00%	0.070%
21	9.686	786	789	799	rVB	6948	19380	6.34%	0.444%
22	9.950	811	815	825	rVB4	3809	13339	4.36%	0.306%
23	10.123	825	832	840	rBV2	2153	6295	2.06%	0.144%
24	10.275	840	847	854	rBV	164184	305615	100.00%	7.009%
25	10.417	858	861	865	rVB4	1839	4300	1.41%	0.099%
26	10.529	865	872	874	rBV3	2997	9776	3.20%	0.224%
27	10.580	874	877	880	rVV2	6294	12357	4.04%	0.283%
28	10.630	880	882	888	rVB4	3107	6477	2.12%	0.149%
29	10.915	906	910	917	rBV6	4153	18237	5.97%	0.418%
30	11.016	917	920	922	rVV4	1453	3375	1.10%	0.077%
31	11.179	931	936	939	rBV2	7740	14933	4.89%	0.342%
32	11.351	940	953	959	rBV3	10740	48326	15.81%	1.108%
33	11.453	959	963	967	rBV7	3291	9800	3.21%	0.225%
34	11.554	968	973	977	rVV3	15853	43396	14.20%	0.995%
35	11.676	981	985	992	rVB	107153	199972	65.43%	4.586%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	11.788	992	996	1000	rBV3	10195	23995	7.85%	0.550%
37	11.859	1000	1003	1008	rVB3	12269	27407	8.97%	0.629%
38	12.031	1016	1020	1022	rBV2	4033	9215	3.02%	0.211%
39	12.082	1022	1025	1028	rVV	13500	29252	9.57%	0.671%
40	12.153	1029	1032	1034	rVV4	7291	17444	5.71%	0.400%
41	12.204	1034	1037	1044	rVB4	14148	44905	14.69%	1.030%
42	12.316	1044	1048	1056	rVB4	8215	24149	7.90%	0.554%
43	12.437	1056	1060	1066	rBV7	8796	38949	12.74%	0.893%
44	12.559	1069	1072	1076	rVV	14362	30164	9.87%	0.692%
45	12.630	1076	1079	1086	rVB8	6209	21398	7.00%	0.491%
46	12.844	1095	1100	1104	rBV	22018	57580	18.84%	1.321%
47	12.915	1104	1107	1112	rVV	33355	65048	21.28%	1.492%
48	12.996	1112	1115	1118	rBV5	4990	11338	3.71%	0.260%
49	13.067	1119	1122	1124	rBV2	6284	12799	4.19%	0.294%
50	13.118	1124	1127	1130	rBV3	9204	19526	6.39%	0.448%
51	13.280	1137	1143	1146	rBV2	28742	66659	21.81%	1.529%
52	13.341	1146	1149	1154	rVB	25148	53821	17.61%	1.234%
53	13.422	1154	1157	1159	rBV3	11473	21553	7.05%	0.494%
54	13.473	1159	1162	1165	rBV	19361	37776	12.36%	0.866%
55	13.534	1165	1168	1172	rBV4	21332	61712	20.19%	1.415%
56	13.676	1178	1182	1188	rBV	87790	212625	69.57%	4.877%
57	13.767	1188	1191	1198	rVB4	39017	95324	31.19%	2.186%
58	13.920	1198	1206	1212	rBV6	34285	148868	48.71%	3.414%
59	14.021	1212	1216	1220	rVB	40850	78309	25.62%	1.796%
60	14.092	1220	1223	1227	rVB2	31531	63987	20.94%	1.468%
61	14.173	1227	1231	1234	rBV4	24860	64249	21.02%	1.474%
62	14.316	1241	1245	1249	rVB4	49355	113093	37.01%	2.594%
63	14.407	1250	1254	1260	rBV4	31186	119857	39.22%	2.749%
64	14.569	1267	1270	1274	rVB3	35208	82635	27.04%	1.895%
65	14.640	1274	1277	1281	rBV3	26965	54739	17.91%	1.255%
66	14.823	1291	1295	1298	rBV2	10493	26356	8.62%	0.604%
67	14.965	1307	1309	1312	rBV	34171	51713	16.92%	1.186%
68	15.016	1312	1314	1318	rVB3	34418	68377	22.37%	1.568%
69	15.087	1318	1321	1324	rBV	17831	33231	10.87%	0.762%
70	15.138	1324	1326	1328	rBV	15962	22263	7.28%	0.511%
71	15.189	1328	1331	1334	rBV3	21542	41259	13.50%	0.946%
72	15.585	1364	1370	1373	rBV4	17203	56309	18.42%	1.291%
73	15.727	1381	1384	1386	rBV3	13316	22102	7.23%	0.507%
74	15.777	1386	1389	1393	rVB	25710	42548	13.92%	0.976%
75	15.869	1395	1398	1402	rVB5	12019	22404	7.33%	0.514%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	16.041	1411	1415	1418	rBV3	27744	51952	17.00%	1.192%
77	16.387	1446	1449	1452	rBV	16671	25367	8.30%	0.582%
78	16.519	1459	1462	1464	rBV3	10999	25485	8.34%	0.585%
79	16.782	1485	1488	1490	rBV	23107	37388	12.23%	0.858%
80	16.843	1490	1494	1497	rVB2	32051	68750	22.50%	1.577%
81	16.985	1504	1508	1511	rBV5	13944	33947	11.11%	0.779%
82	17.249	1531	1534	1536	rBV	15547	31820	10.41%	0.730%
83	17.453	1550	1554	1559	rBV2	18585	52482	17.17%	1.204%
84	17.635	1568	1572	1576	rBV	20538	37067	12.13%	0.850%
85	17.960	1600	1604	1609	rVB2	15118	31270	10.23%	0.717%
86	18.183	1623	1626	1638	rVB4	10677	36303	11.88%	0.833%
87	18.437	1648	1651	1660	rVB2	10631	34918	11.43%	0.801%
88	18.610	1664	1668	1673	rVB3	9568	26075	8.53%	0.598%
89	19.574	1757	1763	1774	rBV3	8934	33032	10.81%	0.758%

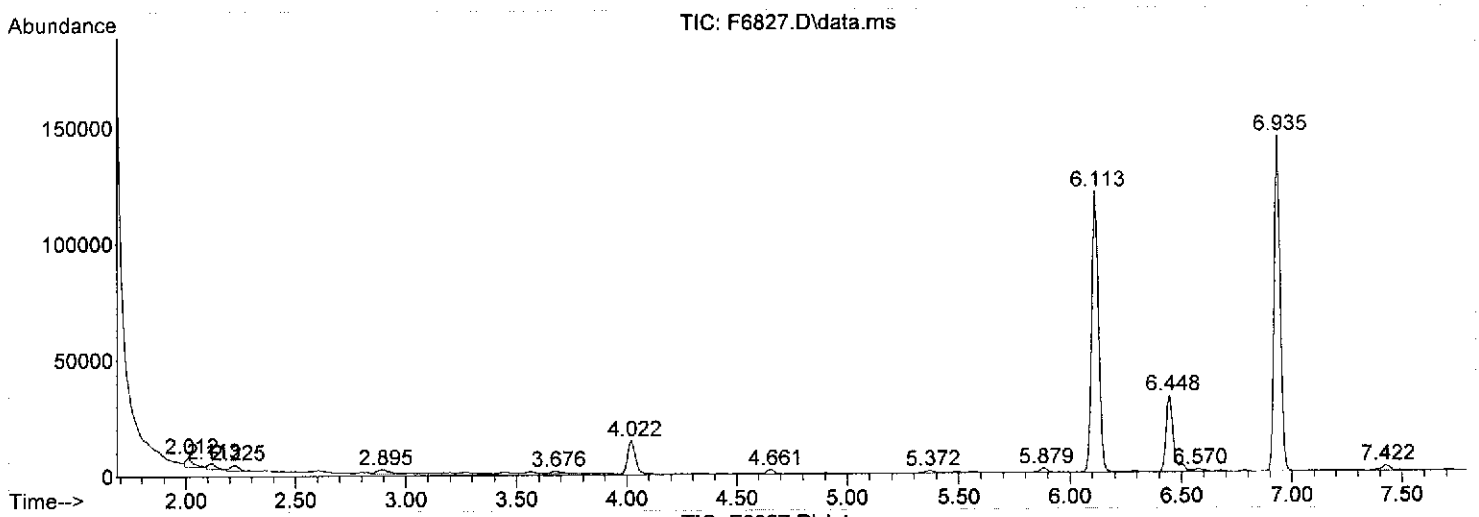
Sum of corrected areas: 4360032

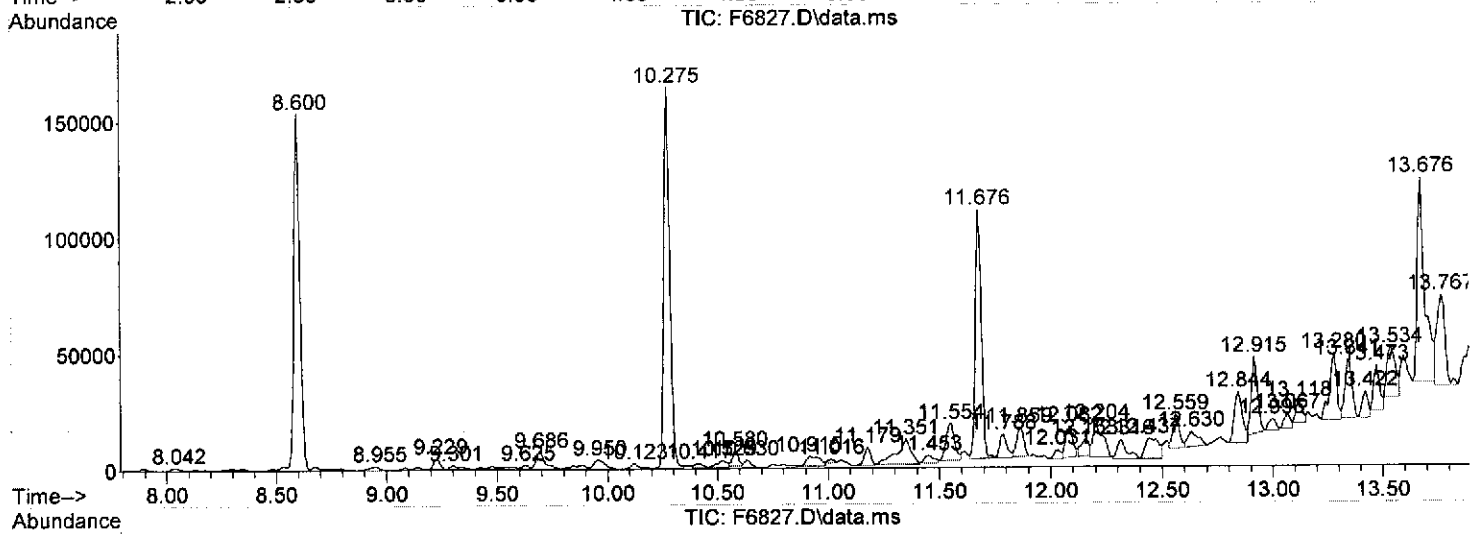
LSC Report - Integrated Chromatogram

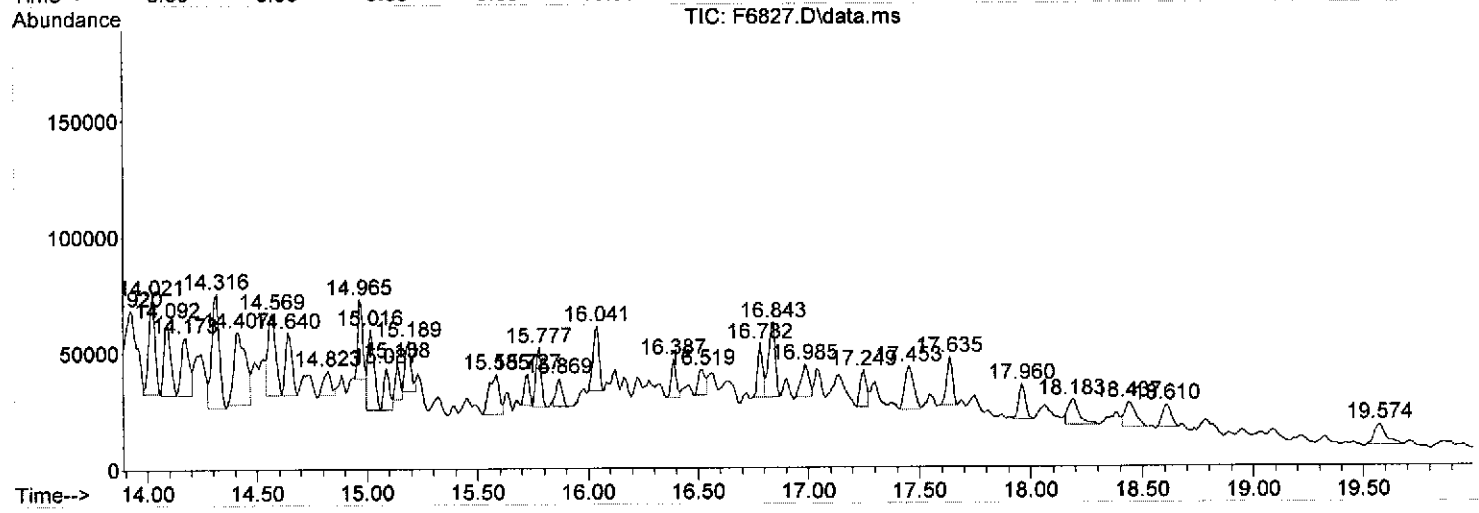
Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

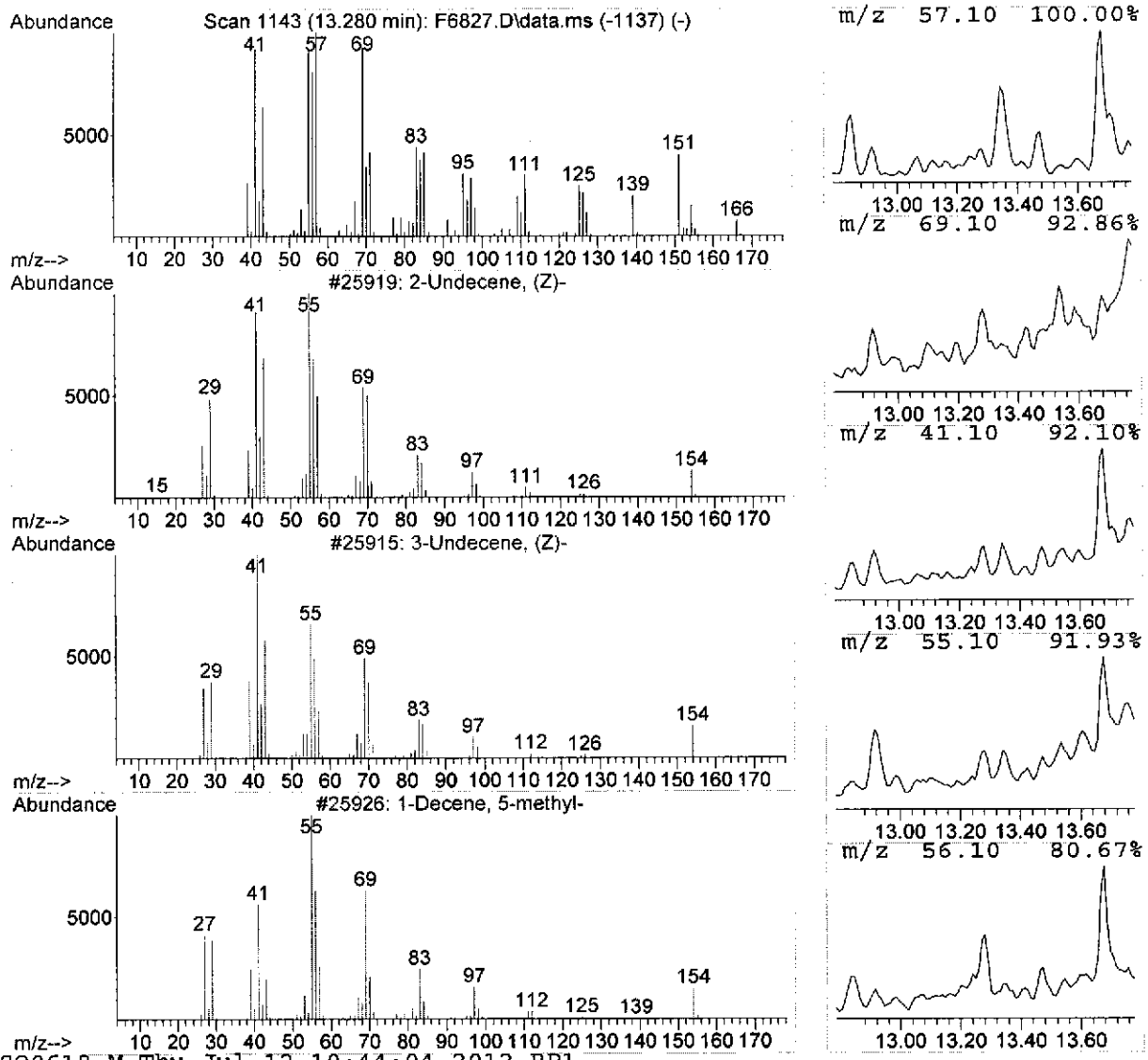
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.28	10.91 UG	66659	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Undecene, (Z)-	154	C11H22	000821-96-5	50
2	3-Undecene, (Z)-	154	C11H22	000821-97-6	50
3	1-Decene, 5-methyl-	154	C11H22	054244-79-0	50
4	5-Undecene	154	C11H22	004941-53-1	49
5	3-Undecene, (E)-	154	C11H22	001002-68-2	46



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

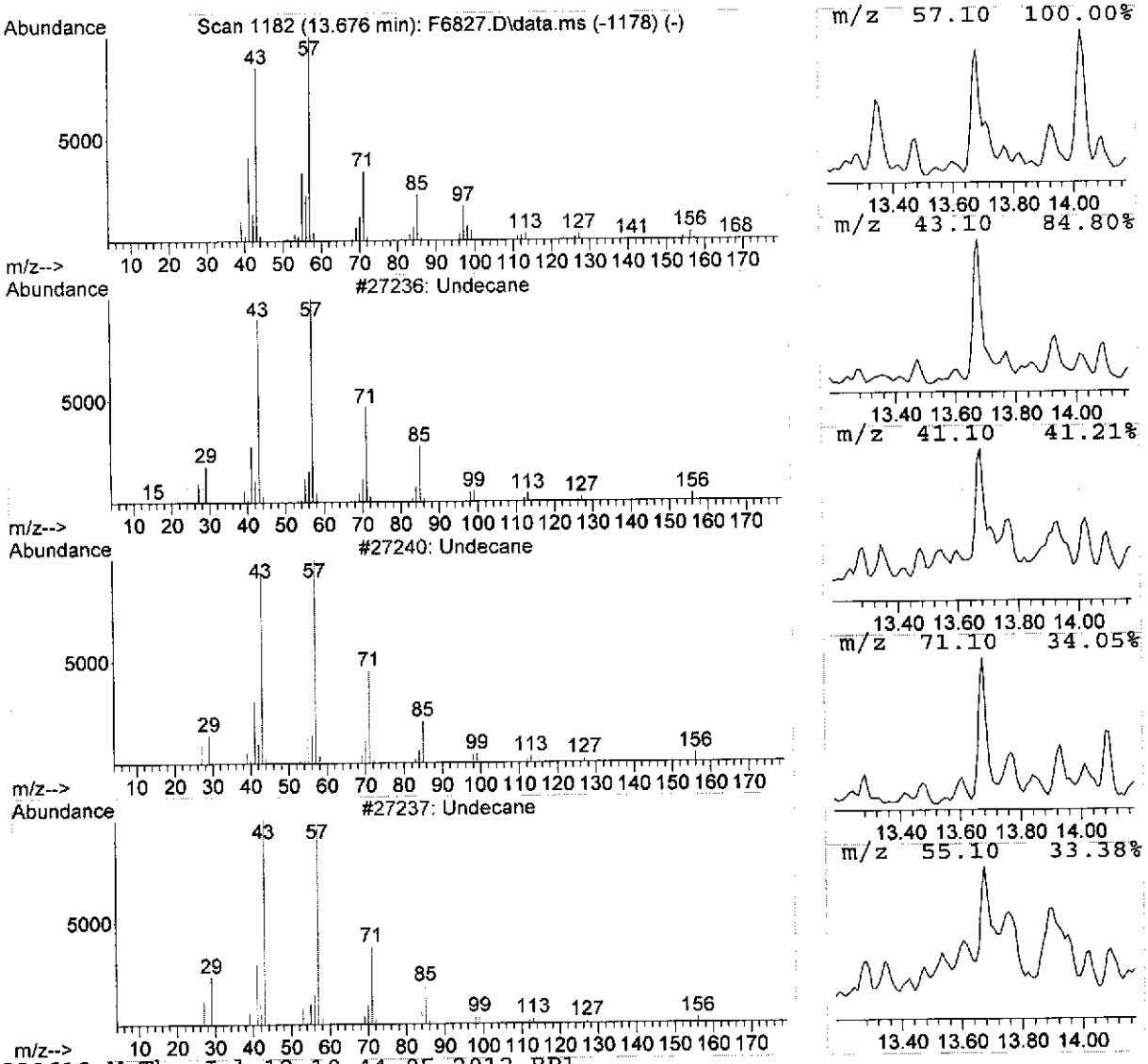
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.68	34.79 UG	212625	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane	156	C11H24	001120-21-4	94
2	Undecane	156	C11H24	001120-21-4	76
3	Undecane	156	C11H24	001120-21-4	70
4	Undecane	156	C11H24	001120-21-4	70
5	Undecane	156	C11H24	001120-21-4	62



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

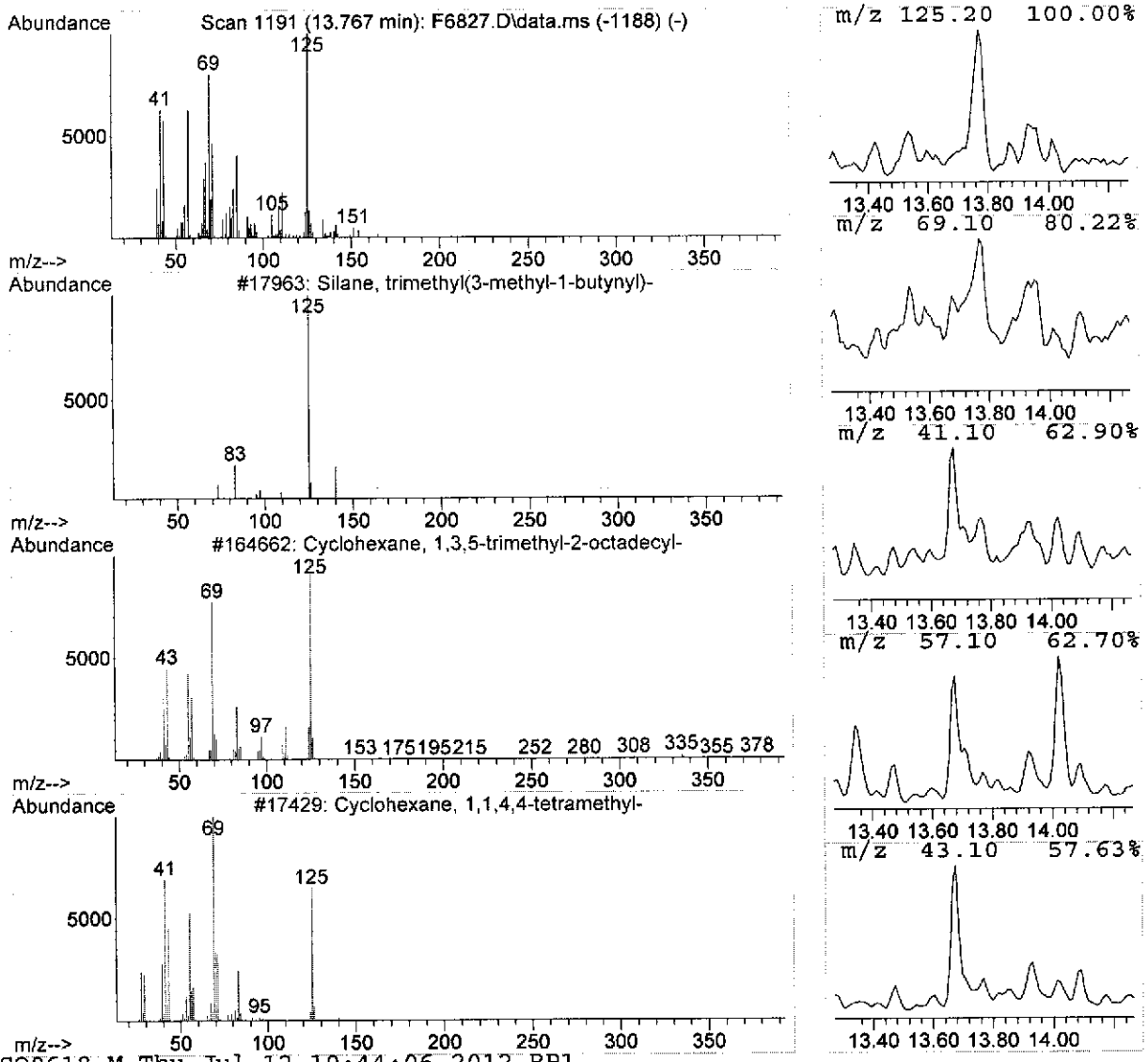
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.77	15.60 UG	95324	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, trimethyl(3-methyl-1-but...	140	C8H16Si	018388-07-3	47
2	Cyclohexane, 1,3,5-trimethyl-2-o...	378	C27H54	055282-34-3	43
3	Cyclohexane, 1,1,4,4-tetramethyl-	140	C10H20	002223-52-1	22
4	4N-Methylcytosine	125	C5H7N3O	006220-47-9	14
5	Cyclohexanone, 3,5-dimethyl-, cis-	126	C8H14O	007214-52-0	14



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

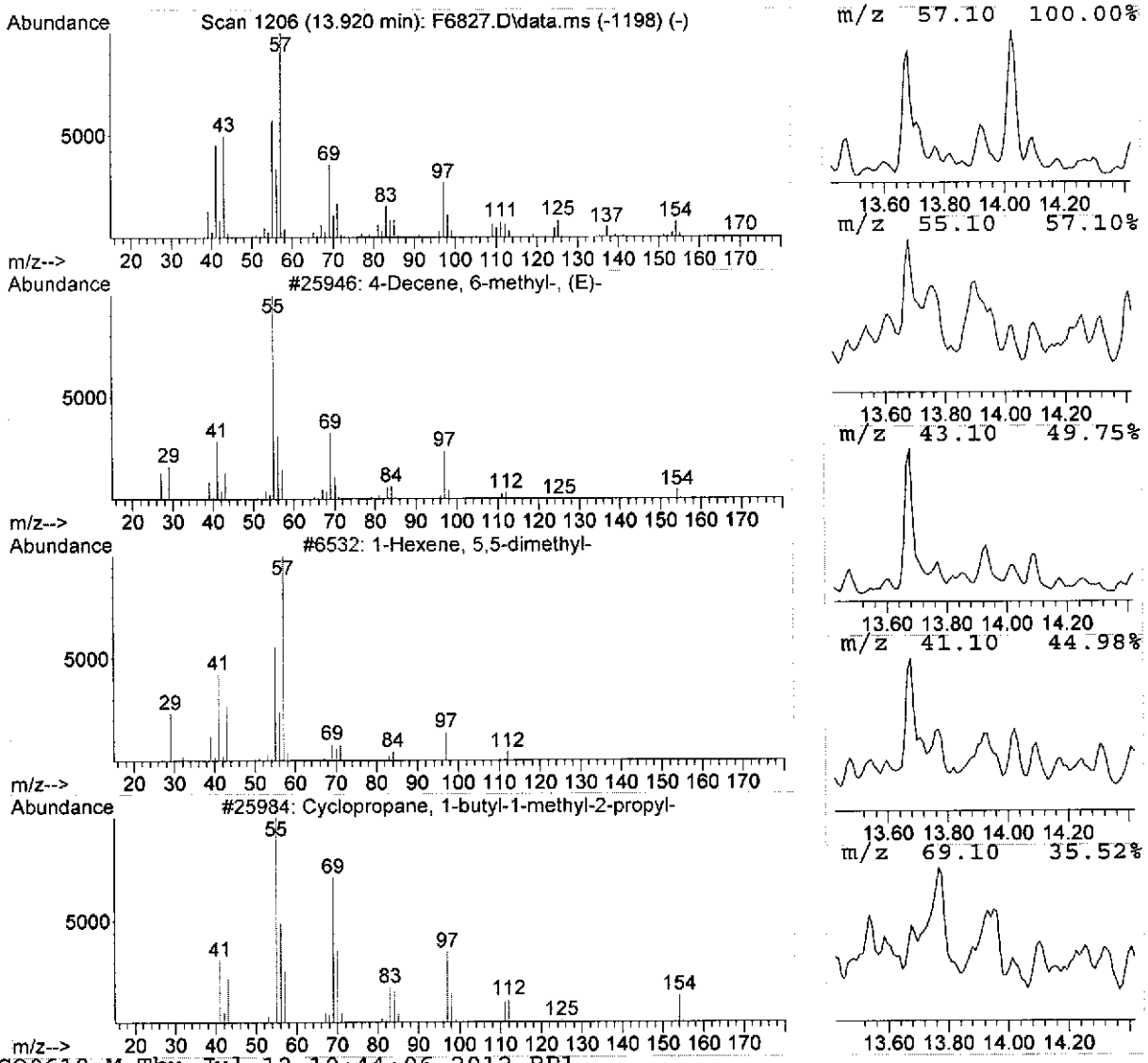
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 4 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.92	24.36 UG	148868	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Decene, 6-methyl-, (E)-	154	C11H22	036229-57-9	52
2	1-Hexene, 5,5-dimethyl-	112	C8H16	007116-86-1	46
3	Cyclopropane, 1-butyl-1-methyl-2...	154	C11H22	041977-34-8	46
4	4-Undecene, 6-methyl-	168	C12H24	1000061-85-4	43
5	Carbonic acid, isobutyl tetradec...	314	C19H38O3	1000314-61-1	43



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

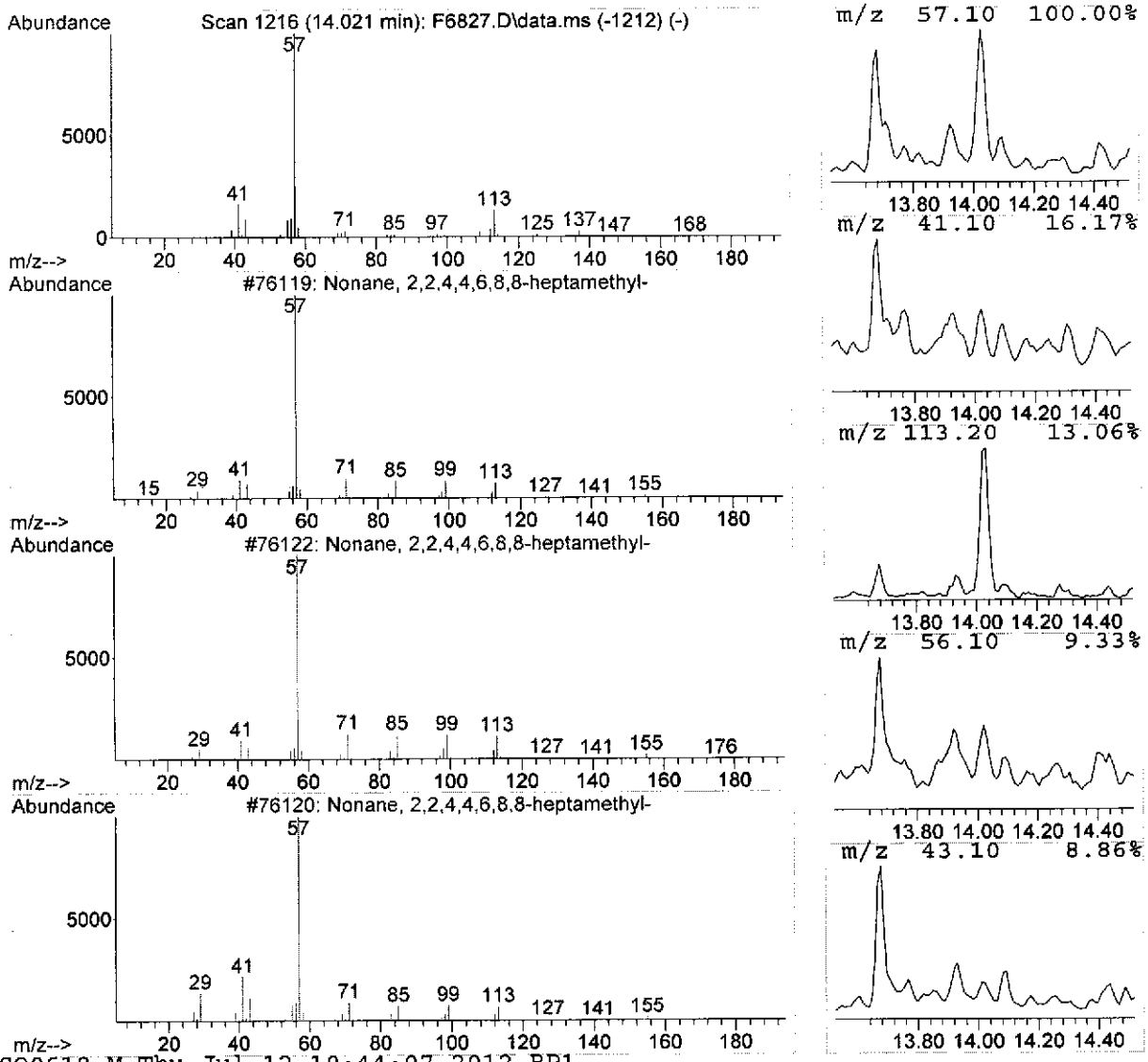
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 5 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.02	12.81 UG	78309	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonane, 2,2,4,4,6,8,8-heptamethyl-	226	C16H34	004390-04-9	64
2	Nonane, 2,2,4,4,6,8,8-heptamethyl-	226	C16H34	004390-04-9	64
3	Nonane, 2,2,4,4,6,8,8-heptamethyl-	226	C16H34	004390-04-9	53
4	Disulfide, bis(1,1,3,3-tetrameth...	290	C16H34S2	029956-99-8	50
5	2,2,4,4,5,5,7,7-Octamethyloctane	226	C16H34	005171-85-7	43



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

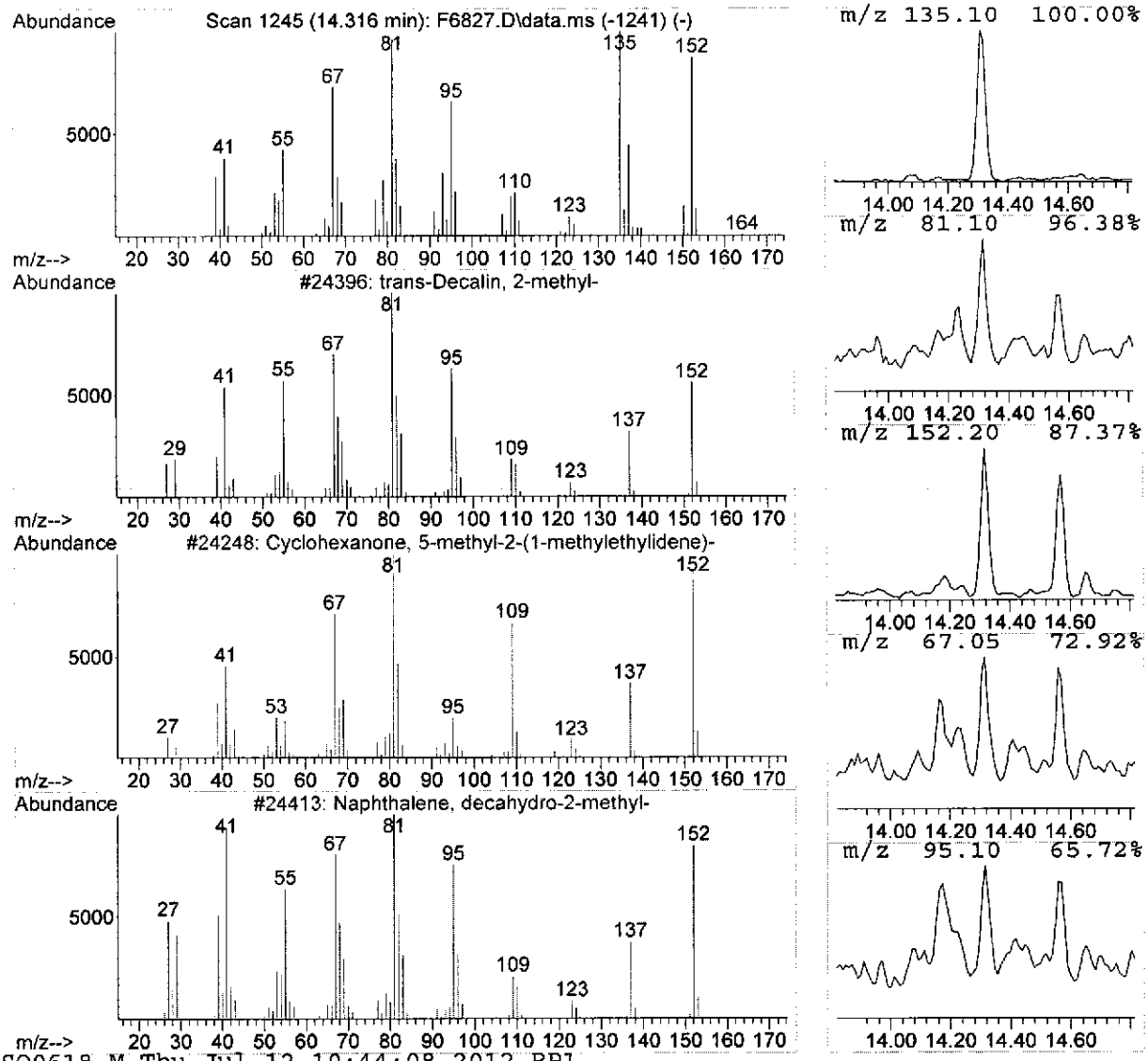
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 6 Unknown VOA Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.32	18.50 UG	113093	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-Decalin, 2-methyl-	152	C11H20	1000152-47-3	90
2	Cyclohexanone, 5-methyl-2-(1-met...	152	C10H16O	015932-80-6	83
3	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	70
4	cis-Decalin, 2-syn-methyl-	152	C11H20	1000155-85-6	58
5	Pulegone	152	C10H16O	000089-82-7	49



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

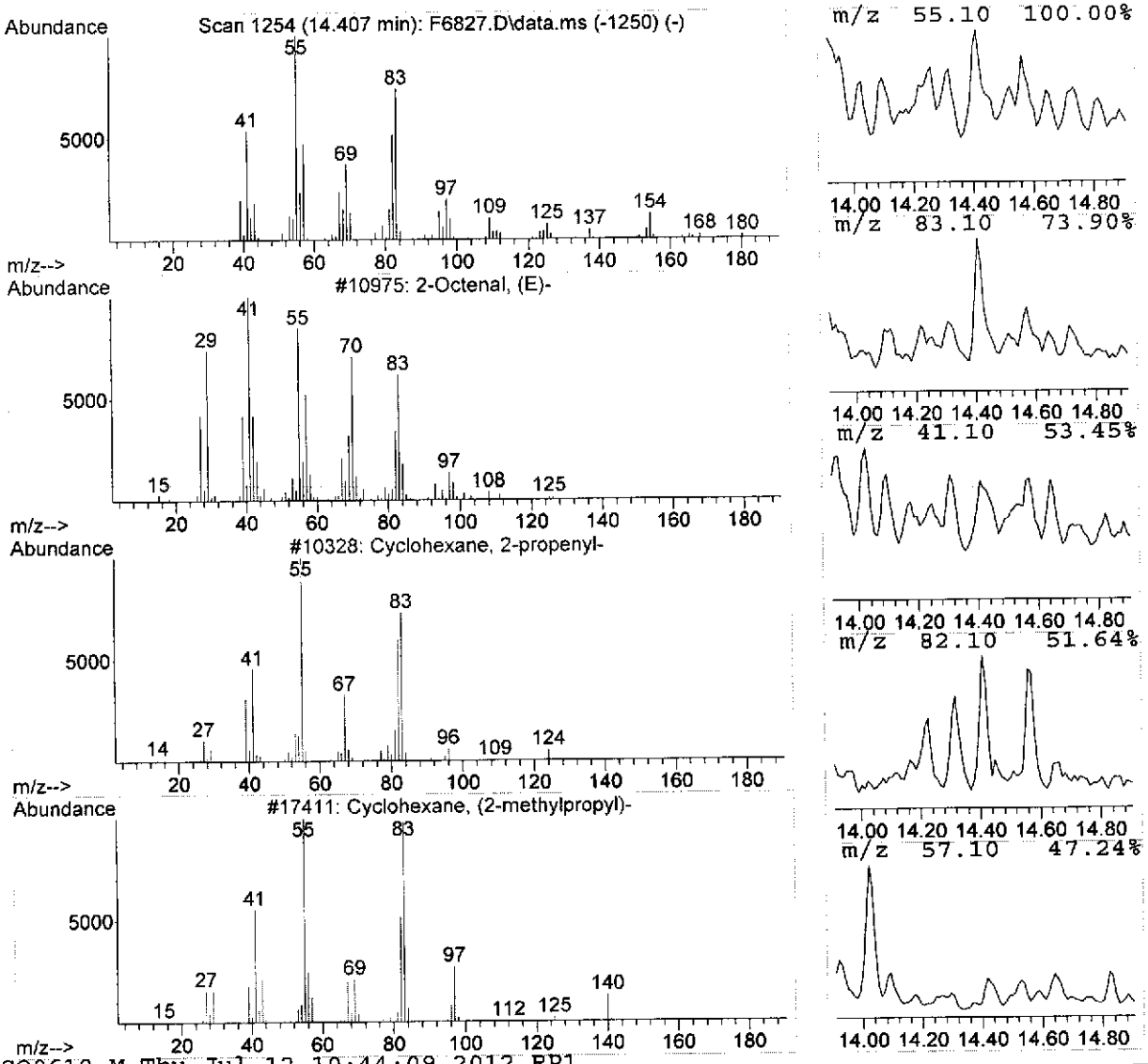
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 7 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.41	19.61 UG	119857	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Octenal, (E)-	126	C8H14O	002548-87-0	72
2	Cyclohexane, 2-propenyl-	124	C9H16	002114-42-3	64
3	Cyclohexane, (2-methylpropyl)-	140	C10H20	001678-98-4	53
4	Cyclohexane, pentyl-	154	C11H22	004292-92-6	53
5	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	53



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

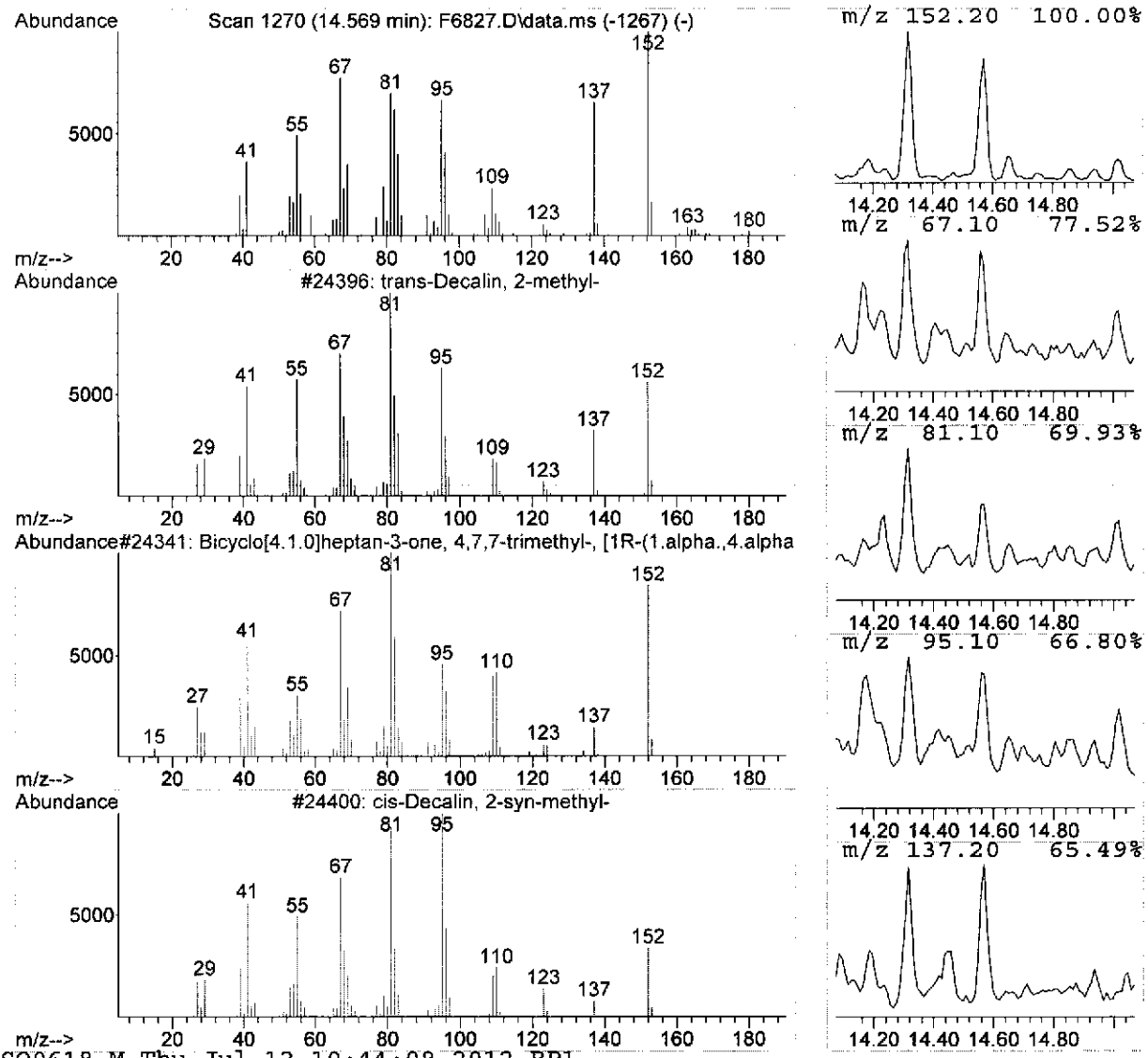
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 8 Unknown VOA Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.57	13.52 UG	82635	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-Decalin, 2-methyl-	152	C11H20	1000152-47-3	91
2	Bicyclo[4.1.0]heptan-3-one, 4,7,...	152	C10H16O	004176-04-9	68
3	cis-Decalin, 2-syn-methyl-	152	C11H20	1000155-85-6	68
4	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	52
5	Bicyclo[2.2.1]heptan-2-one, 1,7,...	152	C10H16O	000464-48-2	52



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

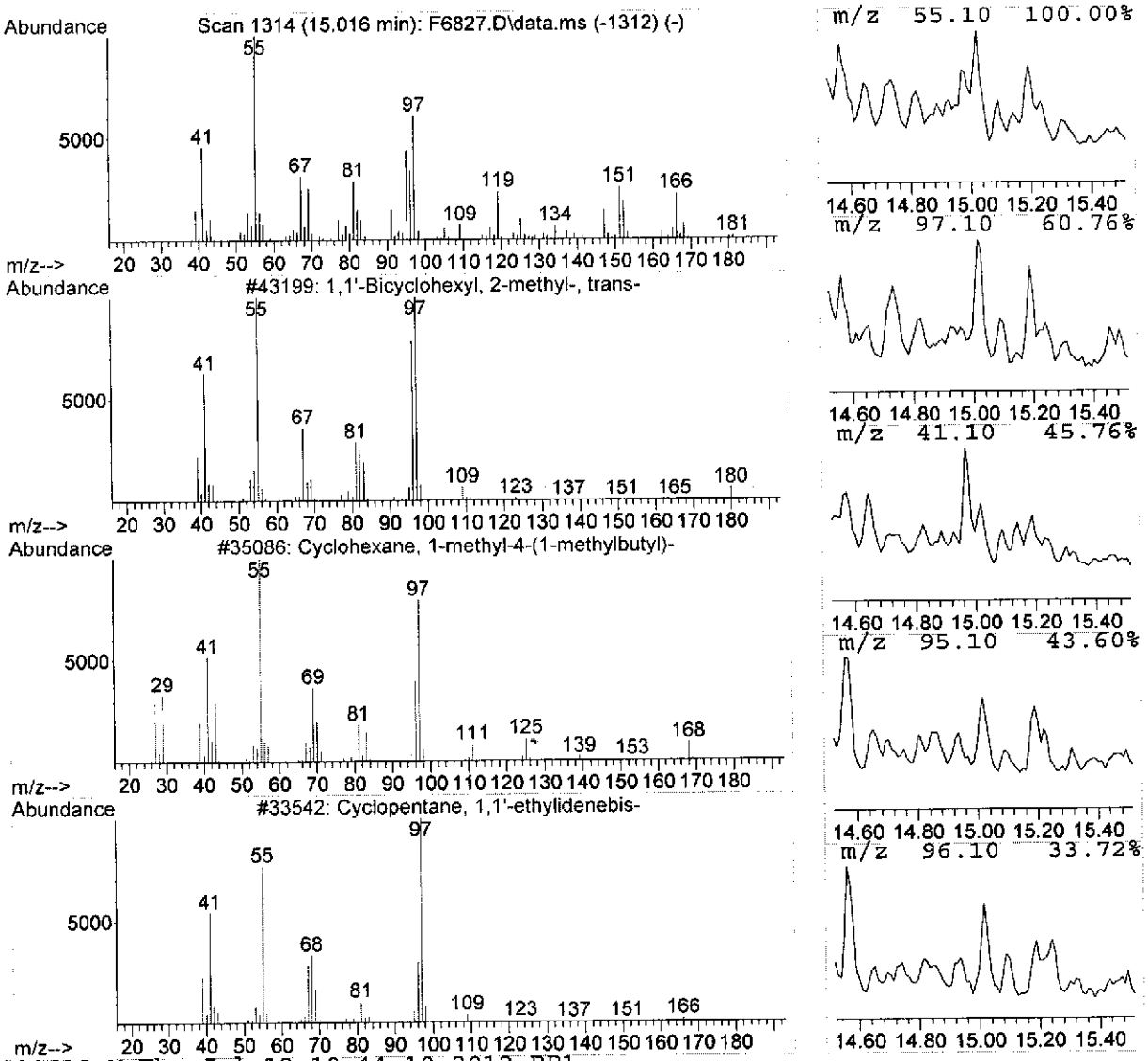
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.02	11.19 UG	68377	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,1'-Bicyclohexyl, 2-methyl-, tr...	180	C13H24	050991-09-8	27
2	Cyclohexane, 1-methyl-4-(1-methy...	168	C12H24	054411-00-6	25
3	Cyclopentane, 1,1'-ethylidenebis-	166	C12H22	004413-21-2	14
4	1-Azabicyclo[2.2.2]octan-3-one	125	C7H11NO	003731-38-2	14
5	Cyclohexane, 1-methyl-4-(1-methy...	140	C10H20	001678-82-6	14



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6827.D
Acq On : 10 Jul 2012 20:36
Operator : XING
Sample : G2-062612,06385-002,S,2.5g,21.4
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

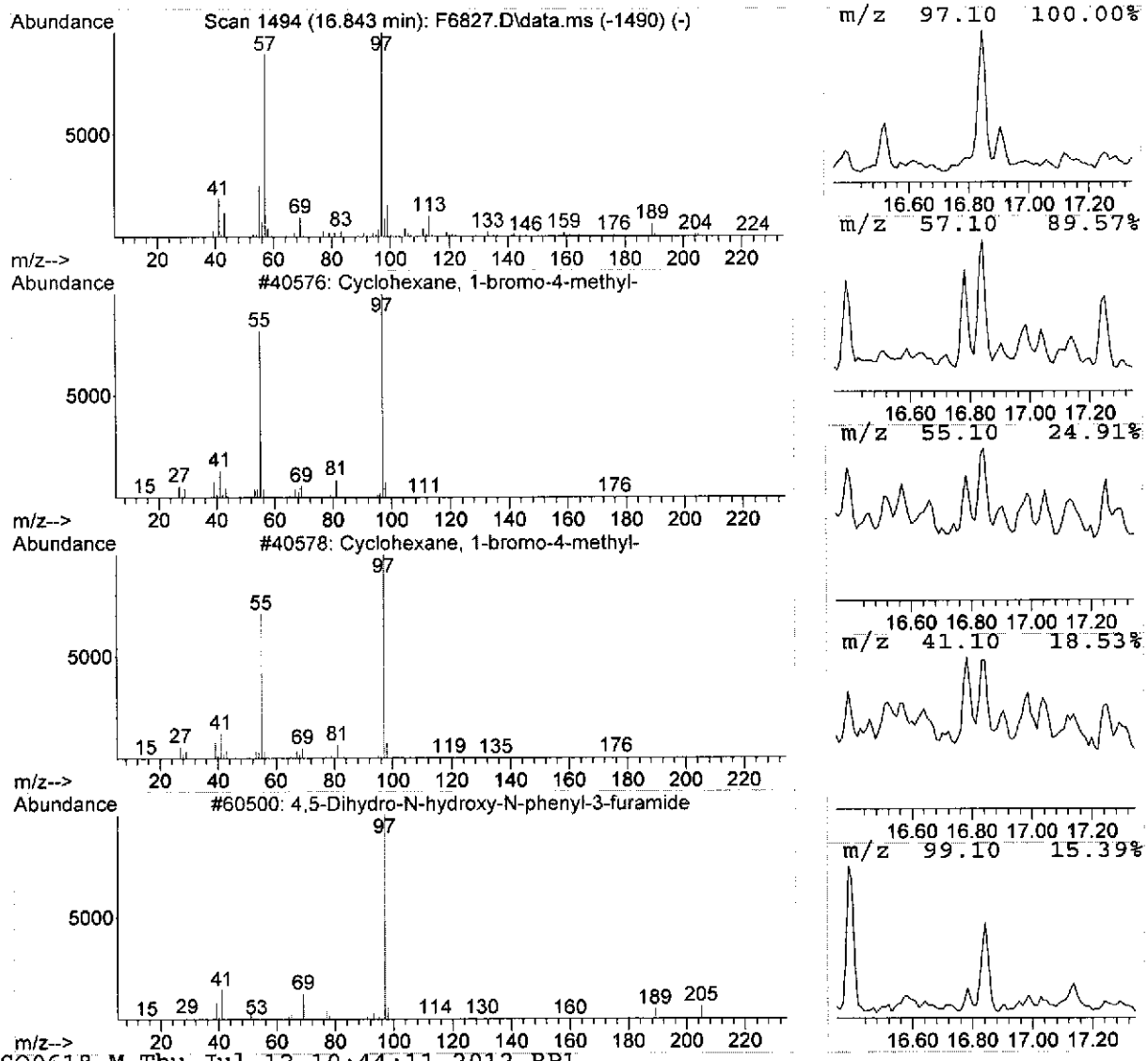
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 10 Unknown Hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.84	11.25 UG	68750	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1-bromo-4-methyl-	176	C7H13Br	006294-40-2	47
2	Cyclohexane, 1-bromo-4-methyl-	176	C7H13Br	006294-40-2	43
3	4,5-Dihydro-N-hydroxy-N-phenyl-3...	205	C11H11NO3	1000243-32-3	40
4	Cyclohexane, 1-bromo-3-methyl-	176	C7H13Br	013905-48-1	38
5	Sulfurous acid, cyclohexylmethyl...	430	C25H50O3S	1000309-22-6	36



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6824.D
Acq On : 10 Jul 2012 19:06
Operator : XING
Sample : G8-062612,06385-004,S,2.5g,10.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 12 10:33:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	81046	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.935	114	115706	50.00	UG	0.00
50) Chlorobenzene-d5	10.275	117	96248	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.448	65	25520	35.99	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 71.98%			
41) Toluene-d8	8.600	98	98196	39.76	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 79.52%			
59) Bromofluorobenzene	11.676	95	41665	44.98	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 89.96%			

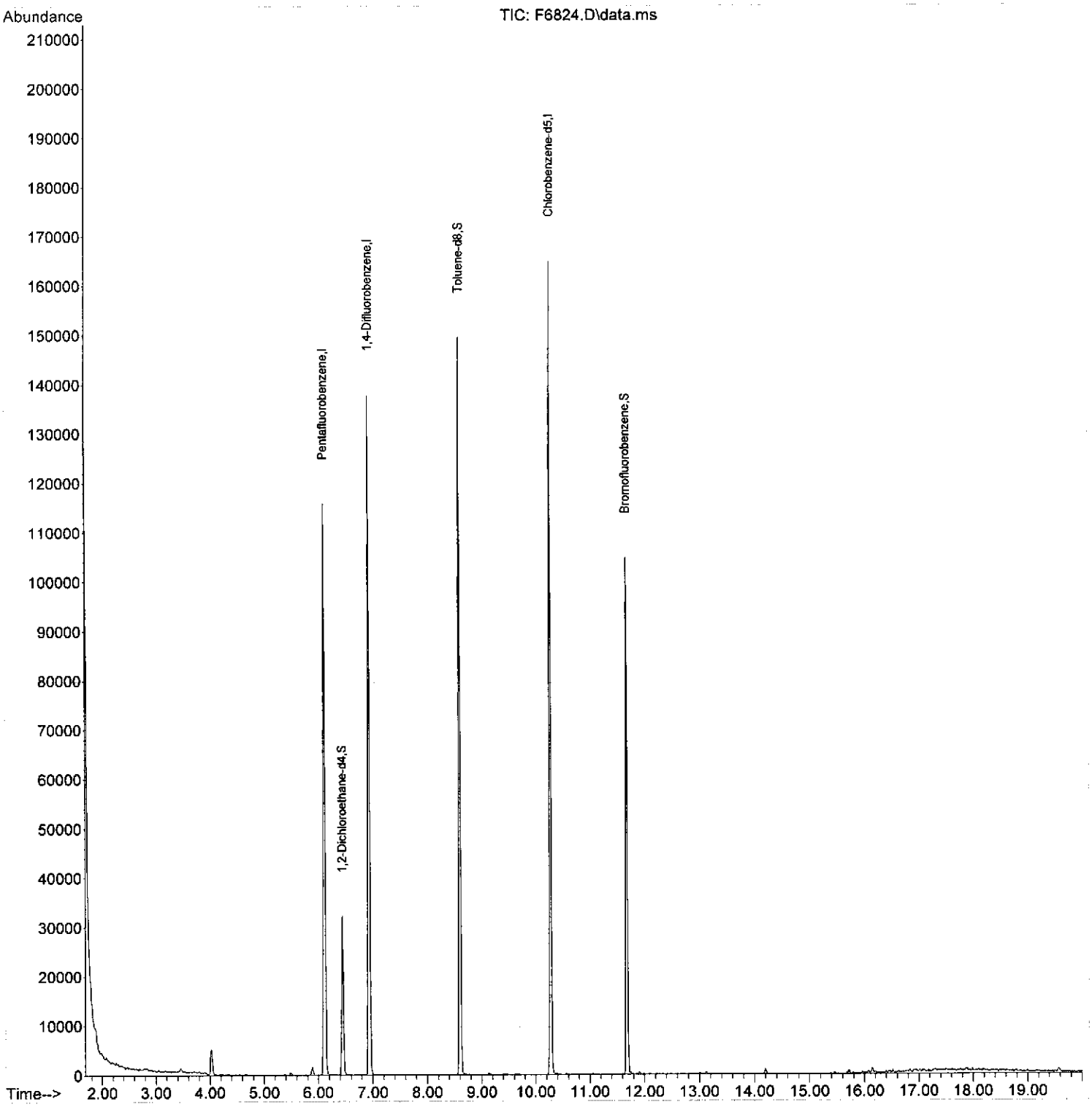
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6824.D
Acq On : 10 Jul 2012 19:06
Operator : XING
Sample : G8-062612,06385-004,S,2.5g,10.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 12 10:33:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6824.D
Acq On : 10 Jul 2012 19:06
Operator : XING
Sample : G8-062612,06385-004,S,2.5g,10.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6824.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	225	231	243	rVB	5099	13403	4.54%	0.979%
2	5.889	407	415	420	rBV	1581	3516	1.19%	0.257%
3	6.113	428	437	448	rBV	115791	245330	83.11%	17.919%
4	6.448	461	470	480	rBV	32115	67022	22.70%	4.895%
5	6.935	512	518	531	rBV	137813	268811	91.06%	19.634%
6	8.600	673	682	695	rBV	149559	278456	94.33%	20.338%
7	10.275	839	847	856	rBV	164871	295193	100.00%	21.561%
8	11.676	978	985	1000	rVB	104738	197380	66.86%	14.417%

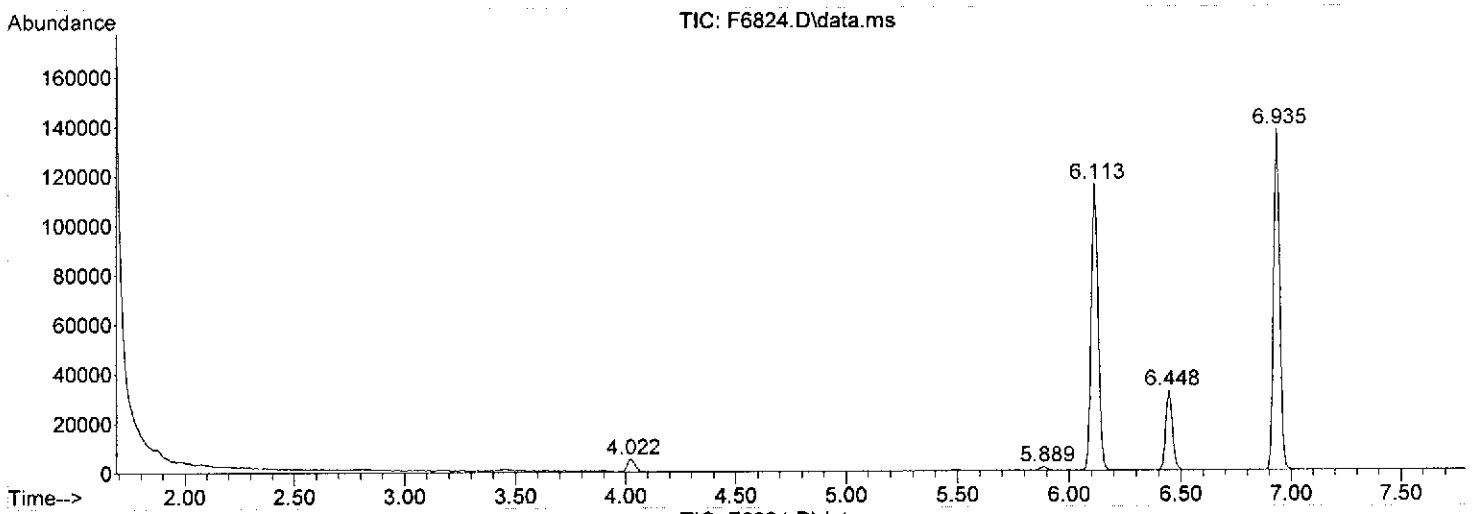
Sum of corrected areas: 1369111

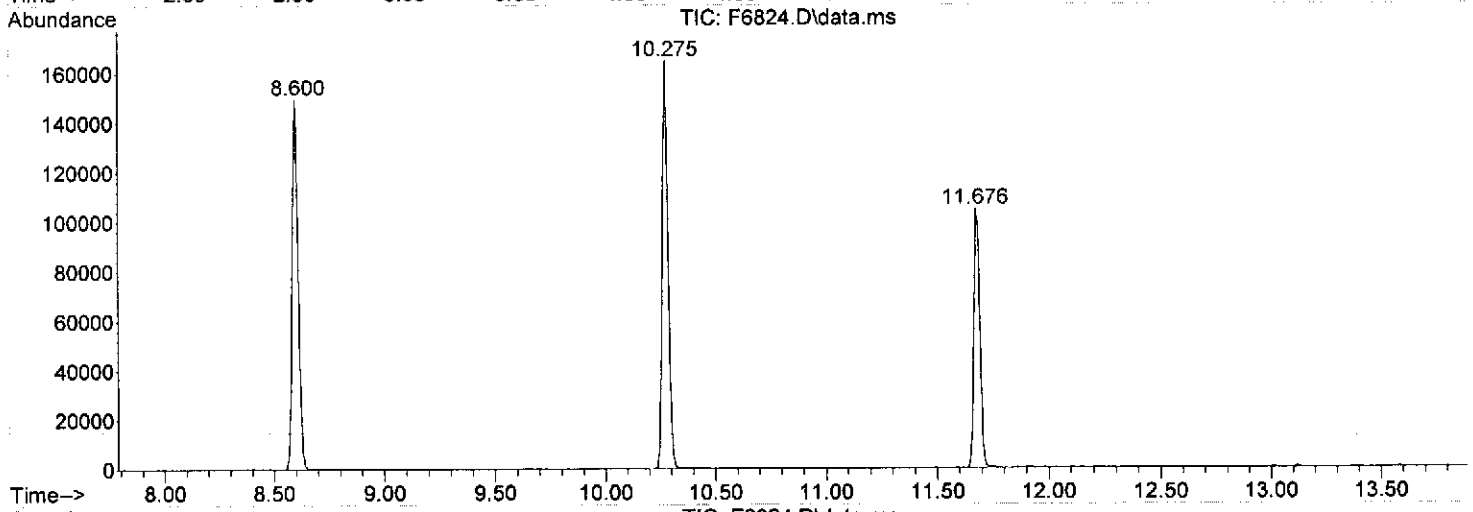
LSC Report - Integrated Chromatogram

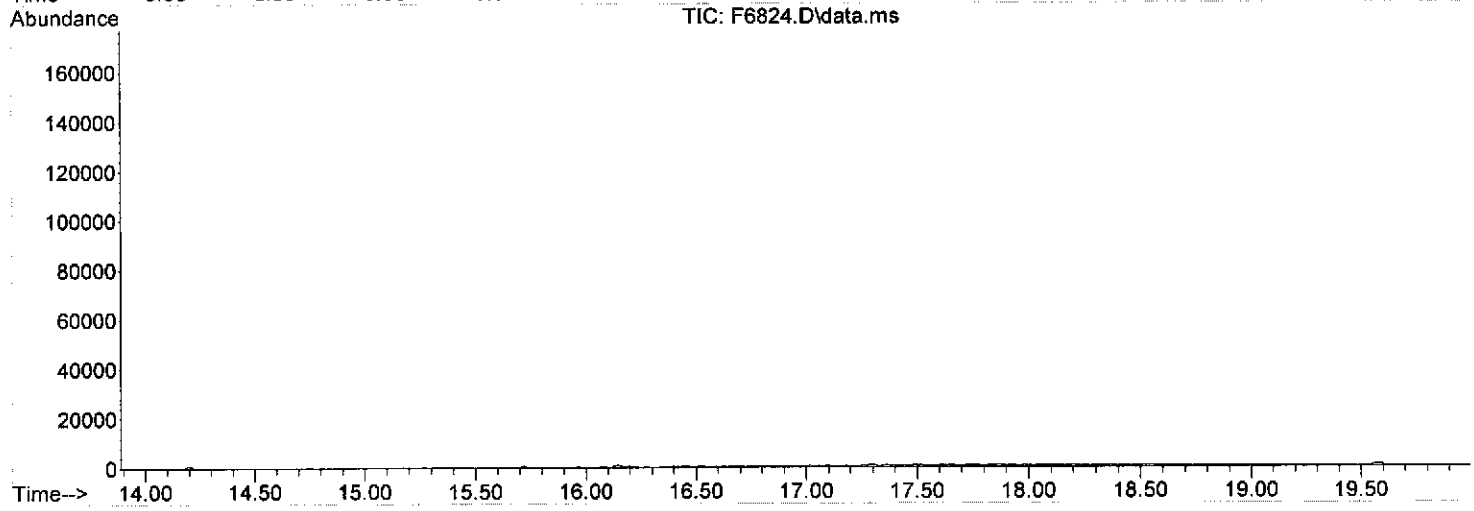
Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6824.D
Acq On : 10 Jul 2012 19:06
Operator : XING
Sample : G8-062612,06385-004,S,2.5g,10.0
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 12 10:44:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	89710	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	126485	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	102145	50.00 UG	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d4	6.448	65	24718	31.49 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 62.98%		
41) Toluene-d8	8.600	98	108383	40.15 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 80.30%		
59) Bromofluorobenzene	11.676	95	44612	45.39 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 90.78%		

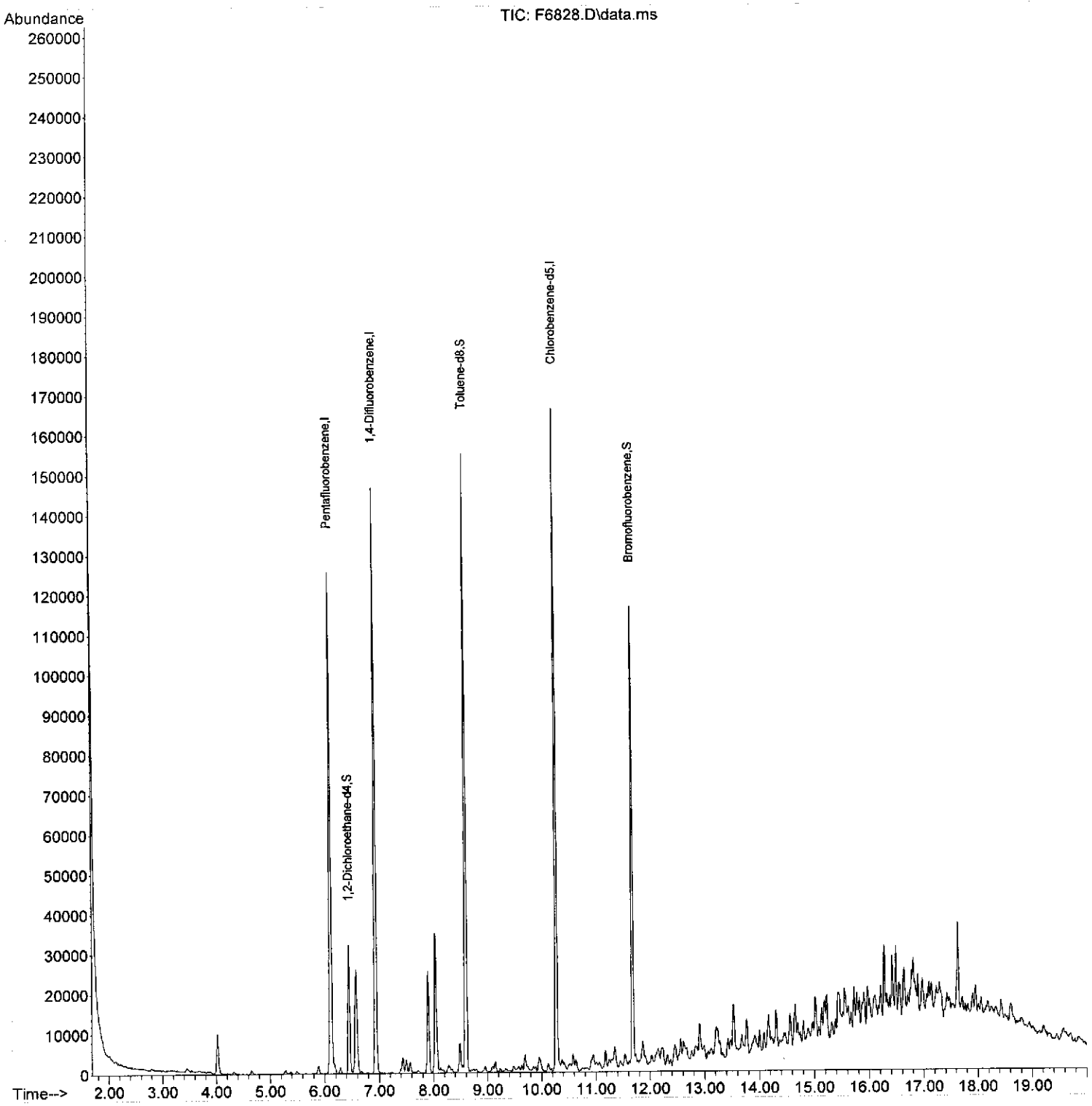
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 12 10:44:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6828.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.880	211	217	224	rVB	676	3218	1.02%	0.115%
2	4.022	224	231	239	rBV	9853	23302	7.41%	0.834%
3	5.890	409	415	423	rVB	2022	4664	1.48%	0.167%
4	6.113	428	437	450	rBV	125659	273354	86.89%	9.784%
5	6.448	463	470	476	rBV	32160	66533	21.15%	2.381%
6	6.580	476	483	490	rBV	25552	70106	22.28%	2.509%
7	6.935	512	518	528	rBV	146833	287293	91.32%	10.283%
8	7.433	559	567	570	rBV2	3801	10146	3.23%	0.363%
9	7.494	570	573	577	rVV	3196	7064	2.25%	0.253%
10	7.565	577	580	585	rVB	2547	5879	1.87%	0.210%
11	7.900	606	613	620	rBV	25476	58852	18.71%	2.106%
12	8.032	620	626	633	rBV	34849	93392	29.69%	3.343%
13	8.275	645	650	655	rBV3	1915	6346	2.02%	0.227%
14	8.488	660	671	674	rBV	7295	18182	5.78%	0.651%
15	8.600	677	682	688	rVB	154855	296621	94.29%	10.617%
16	8.955	707	717	721	rVB3	1417	3807	1.21%	0.136%
17	9.087	726	730	732	rVV3	1430	3538	1.12%	0.127%
18	9.138	732	735	739	rVB2	2601	5410	1.72%	0.194%
19	9.697	786	790	801	rVB2	3997	11435	3.63%	0.409%
20	9.950	811	815	826	rVB6	3499	12217	3.88%	0.437%
21	10.123	828	832	836	rBV	1921	4553	1.45%	0.163%
22	10.275	840	847	854	rBV	166144	314596	100.00%	11.260%
23	10.377	854	857	865	rVV4	2854	11545	3.67%	0.413%
24	10.519	865	871	874	rVV5	1727	6906	2.20%	0.247%
25	10.580	874	877	880	rVV2	4185	8972	2.85%	0.321%
26	10.631	880	882	887	rVB3	2729	5473	1.74%	0.196%
27	10.955	906	914	917	rBV3	3757	14725	4.68%	0.527%
28	11.057	922	924	930	rVB5	1628	3853	1.22%	0.138%
29	11.179	930	936	939	rBV2	4602	9652	3.07%	0.345%
30	11.240	939	942	945	rVV3	1857	4314	1.37%	0.154%
31	11.351	949	953	958	rVB5	5017	13075	4.16%	0.468%
32	11.443	959	962	968	rBV6	1428	3946	1.25%	0.141%
33	11.534	968	971	976	rBV4	2961	7909	2.51%	0.283%
34	11.676	977	985	996	rBV	114752	223062	70.90%	7.984%
35	11.869	997	1004	1013	rVB4	5780	20709	6.58%	0.741%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	12.031	1013	1020	1024	rBV5	2427	6985	2.22%	0.250%
37	12.153	1024	1032	1035	rBV6	3254	13036	4.14%	0.467%
38	12.224	1035	1039	1044	rVB5	4374	15401	4.90%	0.551%
39	12.316	1044	1048	1051	rBV4	2648	5694	1.81%	0.204%
40	12.458	1056	1062	1066	rBV5	5249	19185	6.10%	0.687%
41	12.559	1066	1072	1075	rBV3	5342	13527	4.30%	0.484%
42	12.610	1075	1077	1088	rVB4	4412	17438	5.54%	0.624%
43	12.762	1088	1092	1095	rBV2	2123	4487	1.43%	0.161%
44	12.823	1095	1098	1103	rBV5	2522	8333	2.65%	0.298%
45	12.905	1103	1106	1111	rBV2	6752	13790	4.38%	0.494%
46	13.067	1118	1122	1123	rBV3	2063	4232	1.35%	0.151%
47	13.108	1124	1126	1130	rVV5	2469	6599	2.10%	0.236%
48	13.209	1132	1136	1146	rVB5	7328	36315	11.54%	1.300%
49	13.422	1153	1157	1159	rBV3	4618	9579	3.04%	0.343%
50	13.473	1160	1162	1164	rVV3	3924	7748	2.46%	0.277%
51	13.524	1164	1167	1176	rVV2	12393	33222	10.56%	1.189%
52	13.676	1179	1182	1187	rVV4	3980	9222	2.93%	0.330%
53	13.767	1187	1191	1196	rVB4	8624	20961	6.66%	0.750%
54	13.920	1197	1206	1212	rBV4	3969	18512	5.88%	0.663%
55	14.001	1212	1214	1218	rVB	4987	8485	2.70%	0.304%
56	14.082	1219	1222	1226	rBV4	4419	8851	2.81%	0.317%
57	14.174	1226	1231	1235	rBV6	8184	23883	7.59%	0.855%
58	14.305	1240	1244	1248	rVB3	8945	20574	6.54%	0.736%
59	14.559	1265	1269	1273	rVB3	8116	19102	6.07%	0.684%
60	14.661	1273	1279	1281	rBV3	10352	28438	9.04%	1.018%
61	14.803	1290	1293	1297	rBV3	5399	9779	3.11%	0.350%
62	15.026	1312	1315	1319	rVB3	10022	22789	7.24%	0.816%
63	15.087	1319	1321	1323	rBV3	2580	4235	1.35%	0.152%
64	15.138	1323	1326	1328	rBV	6814	11528	3.66%	0.413%
65	15.189	1328	1331	1333	rVV4	7388	16457	5.23%	0.589%
66	15.229	1333	1335	1340	rVB3	10994	21001	6.68%	0.752%
67	15.321	1340	1344	1347	rBV5	3998	9971	3.17%	0.357%
68	15.392	1348	1351	1352	rBV2	3670	5745	1.83%	0.206%
69	15.432	1352	1355	1362	rBV6	8973	32366	10.29%	1.158%
70	15.554	1365	1367	1372	rVV5	6756	15035	4.78%	0.538%
71	15.727	1381	1384	1386	rBV2	10080	18417	5.85%	0.659%
72	15.777	1387	1389	1391	rVV	5360	7958	2.53%	0.285%
73	15.899	1396	1401	1405	rVB3	7799	25067	7.97%	0.897%
74	15.970	1405	1408	1416	rBV6	9525	32570	10.35%	1.166%
75	16.102	1417	1421	1426	rVB7	4816	15853	5.04%	0.567%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	16.214	1429	1432	1435	rVB2	7773	14083	4.48%	0.504%
77	16.275	1435	1438	1442	rBV2	17804	37718	11.99%	1.350%
78	16.417	1450	1452	1456	rBV3	13075	22615	7.19%	0.809%
79	16.488	1456	1459	1462	rVB	16264	24231	7.70%	0.867%
80	16.549	1462	1465	1469	rVB3	8205	20986	6.67%	0.751%
81	16.640	1470	1474	1478	rBV4	10991	26675	8.48%	0.955%
82	16.975	1503	1507	1512	rVB6	7765	20138	6.40%	0.721%
83	17.635	1567	1572	1576	rBV2	21349	42316	13.45%	1.515%
84	17.909	1596	1599	1601	rBV4	3572	6525	2.07%	0.234%
85	17.960	1602	1604	1607	rVB3	6518	11315	3.60%	0.405%
86	18.427	1648	1650	1655	rVB5	4488	9572	3.04%	0.343%
87	18.620	1665	1669	1677	rVB8	5261	20756	6.60%	0.743%

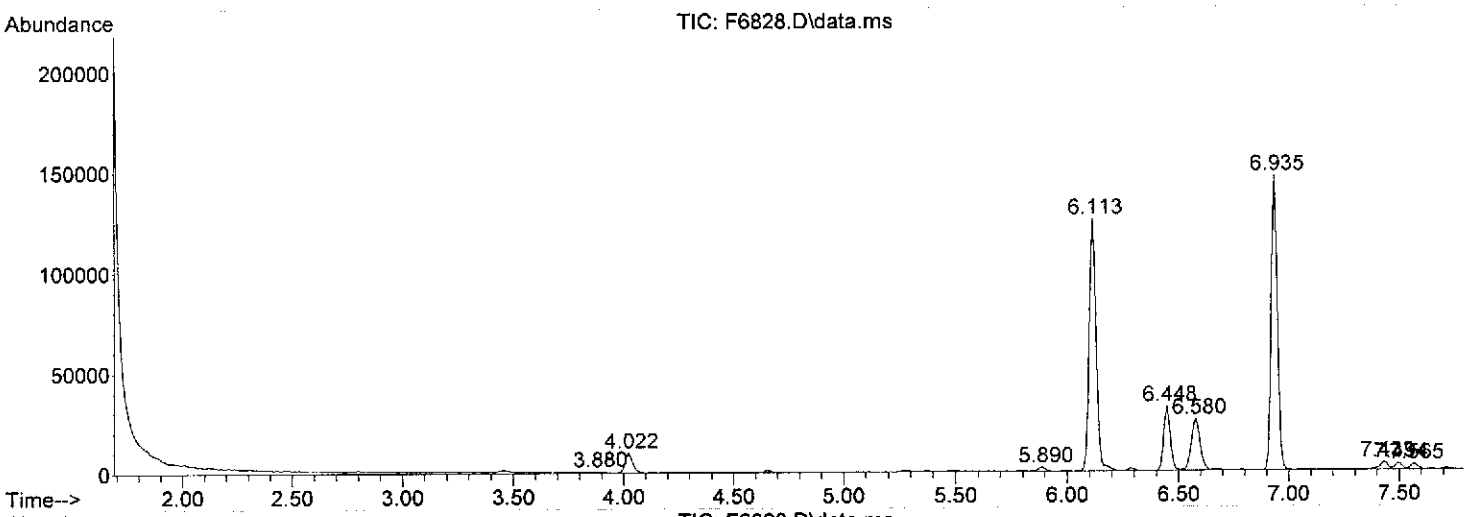
Sum of corrected areas: 2793949

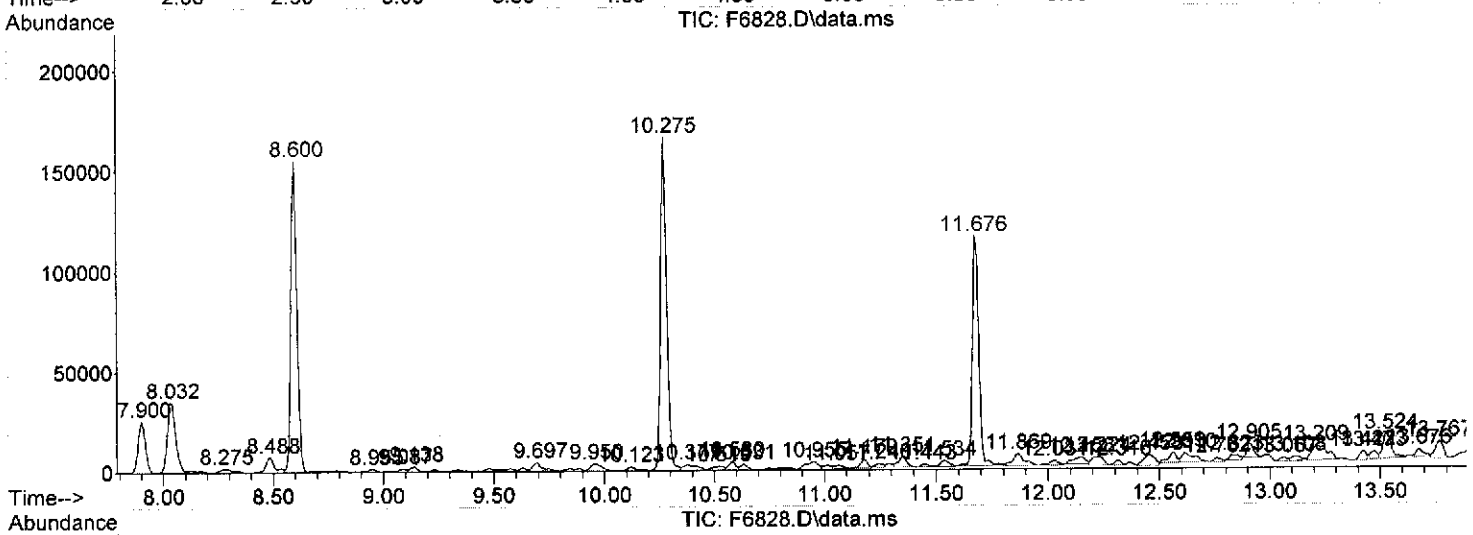
LSC Report - Integrated Chromatogram

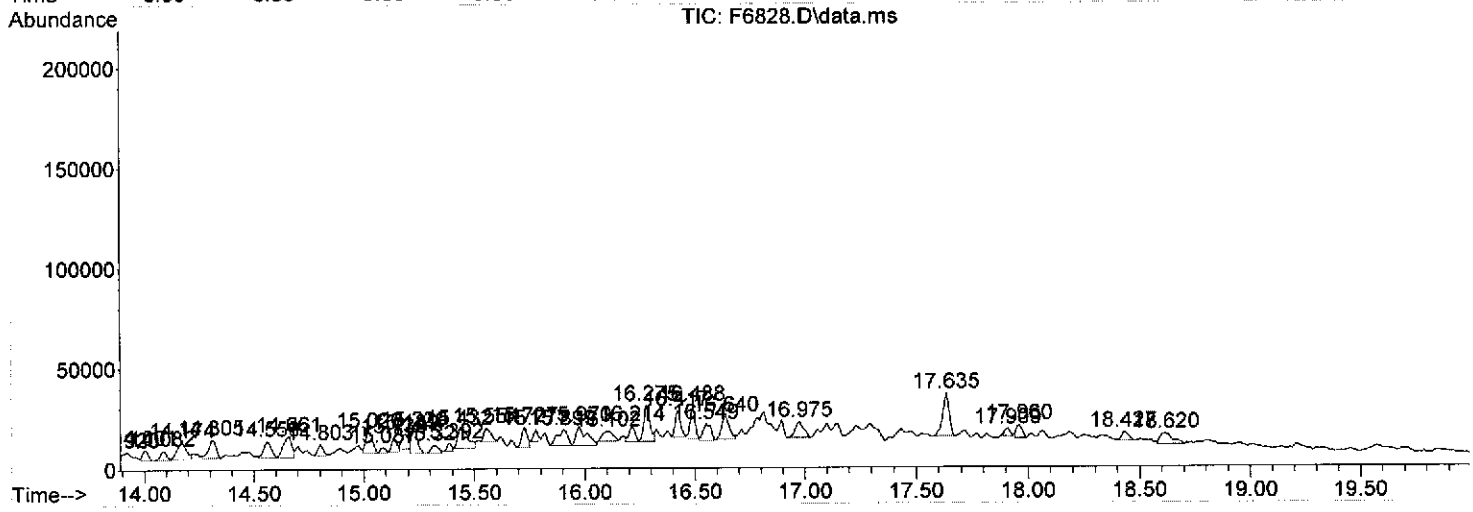
Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

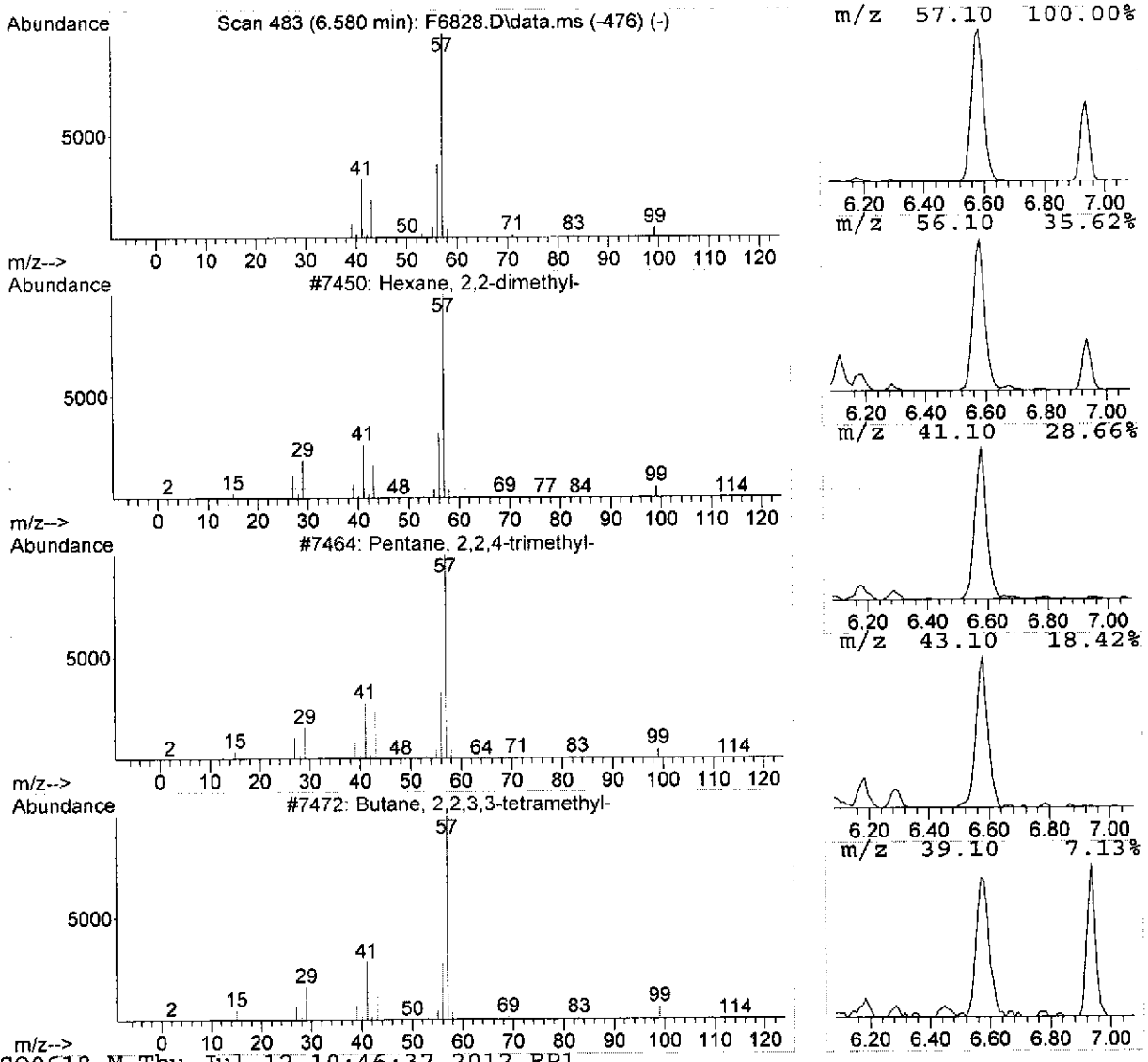
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.58	12.20 UG	70106	1,4-Difluorobenzene	6.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane, 2,2-dimethyl-	114	C8H18	000590-73-8	72
2	Pentane, 2,2,4-trimethyl-	114	C8H18	000540-84-1	72
3	Butane, 2,2,3,3-tetramethyl-	114	C8H18	000594-82-1	72
4	Pentane, 2,2,4-trimethyl-	114	C8H18	000540-84-1	72
5	Pentane, 2,2,4-trimethyl-	114	C8H18	000540-84-1	64



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

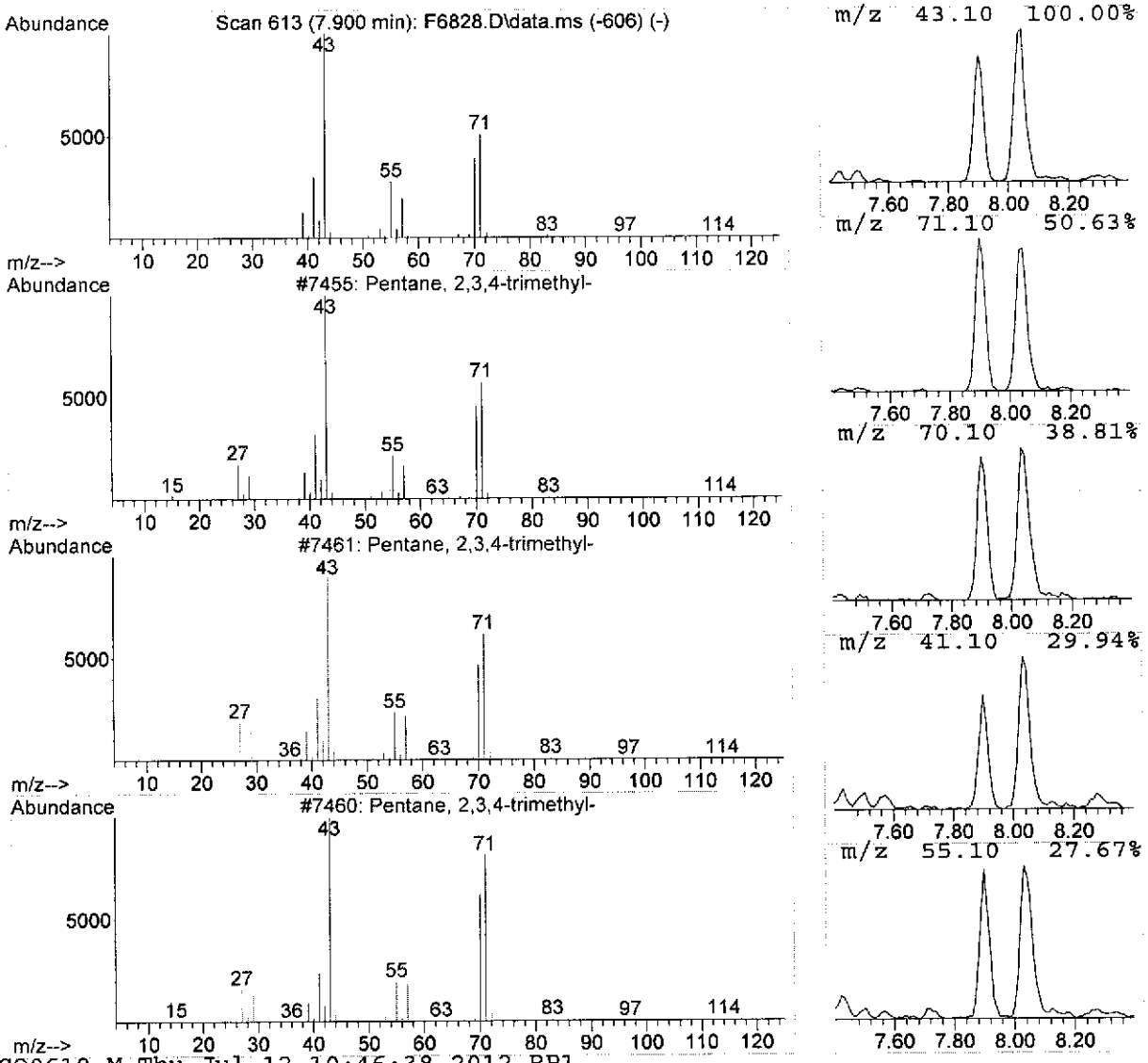
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.90	10.24 UG	58852	1,4-Difluorobenzene	6.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	91
2	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	83
3	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	83
4	Pentane, 3-ethyl-	100	C7H16	000617-78-7	74
5	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	74



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

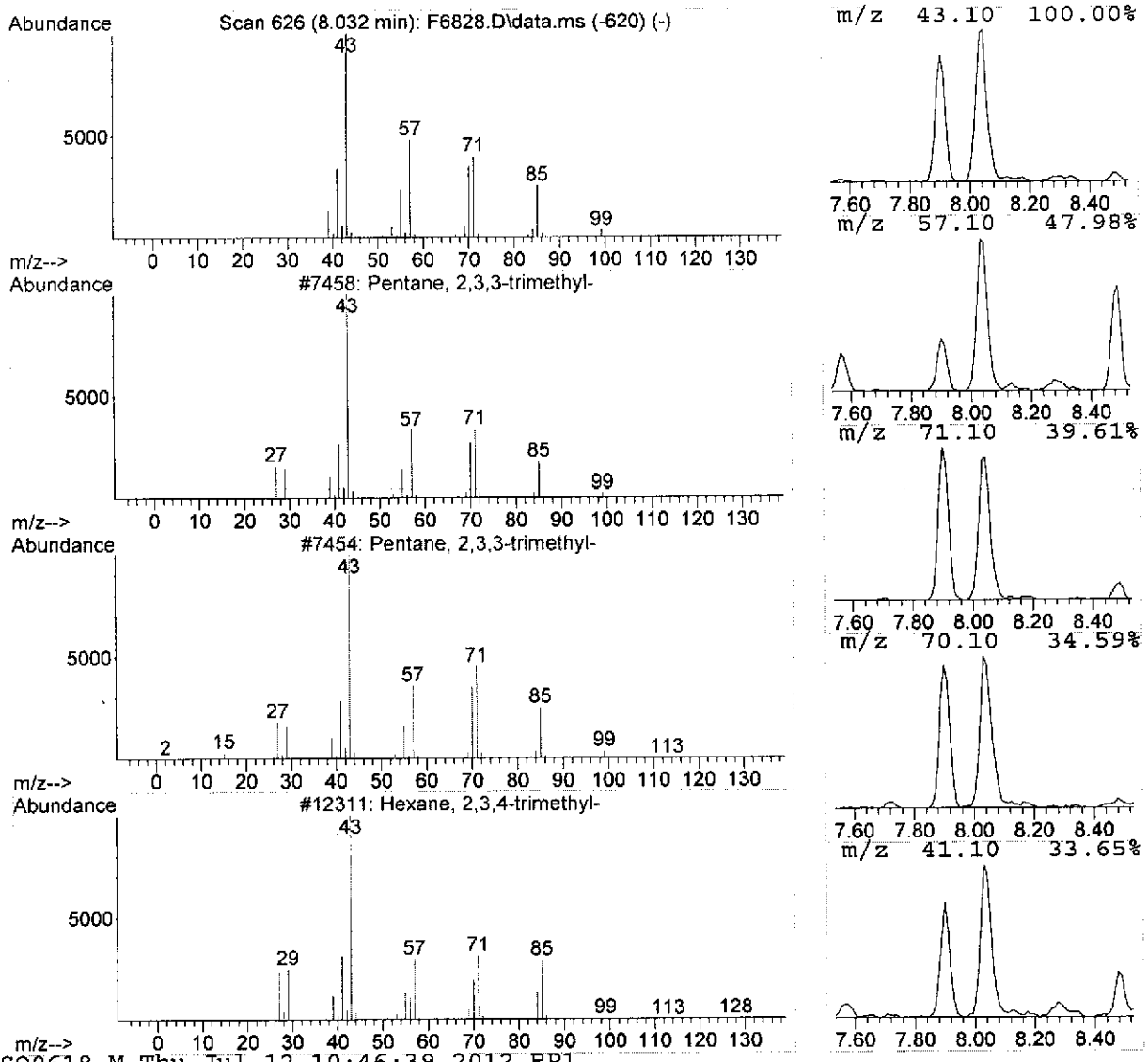
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 3 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.03	16.25 UG	93392	1,4-Difluorobenzene	6.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3,3-trimethyl-	114	C8H18	000560-21-4	83
2	Pentane, 2,3,3-trimethyl-	114	C8H18	000560-21-4	83
3	Hexane, 2,3,4-trimethyl-	128	C9H20	000921-47-1	72
4	Hexane, 2,3,4-trimethyl-	128	C9H20	000921-47-1	59
5	Hexane, 3,3-dimethyl-	114	C8H18	000563-16-6	59



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

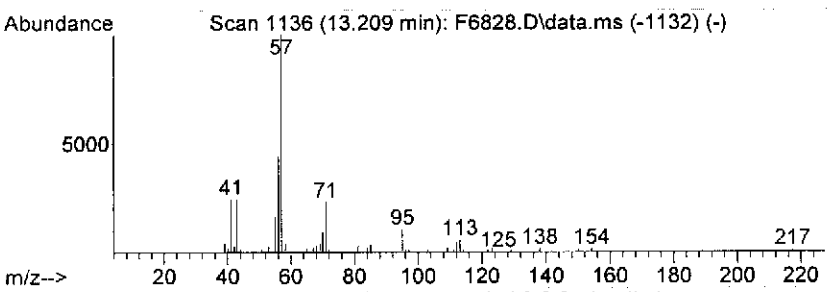
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

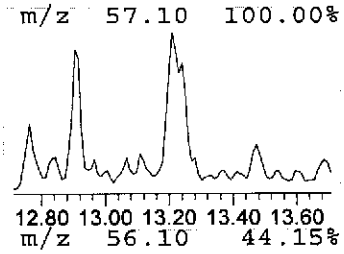
****

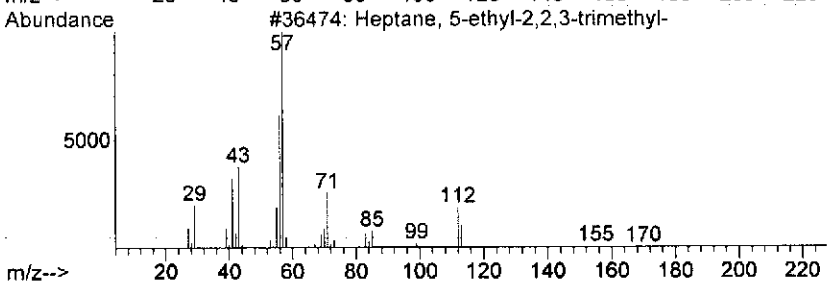
Peak Number 4 Unknown Hydrocarbon Concentration Rank 6

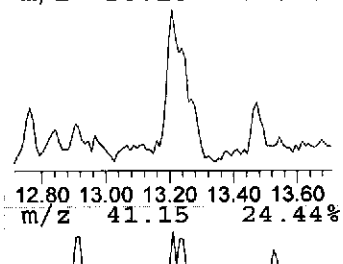
R.T.	EstConc	Area	Relative to ISTD	R.T.
13.21	5.77 UG	36315	Chlorobenzene-d5	10.28

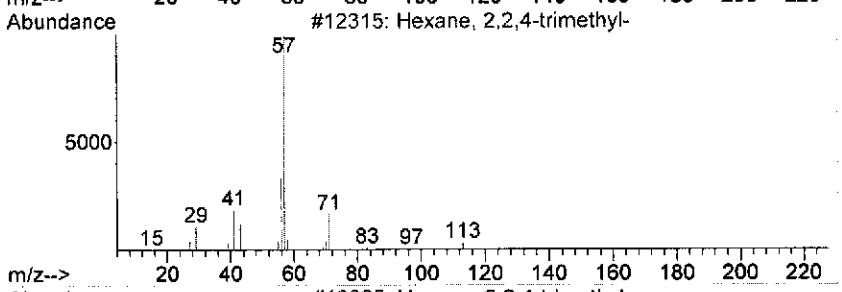
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane, 5-ethyl-2,2,3-trimethyl-	170	C12H26	062199-06-8	64
2	Hexane, 2,2,4-trimethyl-	128	C9H20	016747-26-5	64
3	Hexane, 2,2,4-trimethyl-	128	C9H20	016747-26-5	64
4	Hexane, 2,2,5-trimethyl-	128	C9H20	003522-94-9	59
5	Hexane, 2,2,3-trimethyl-	128	C9H20	016747-25-4	59

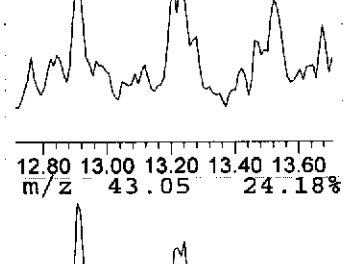


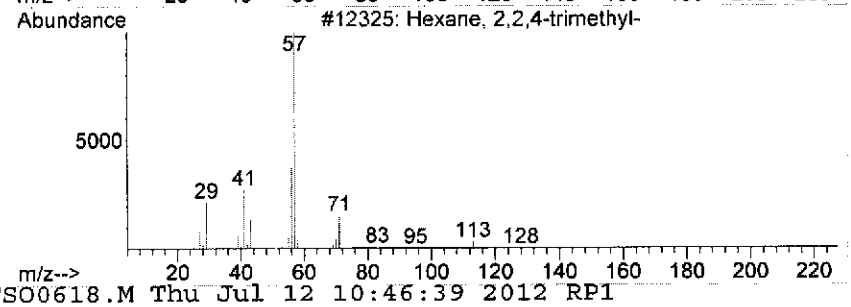


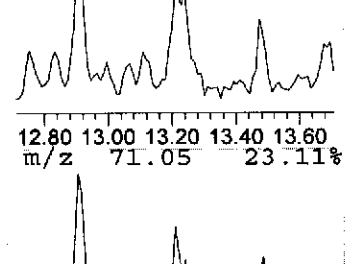












Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

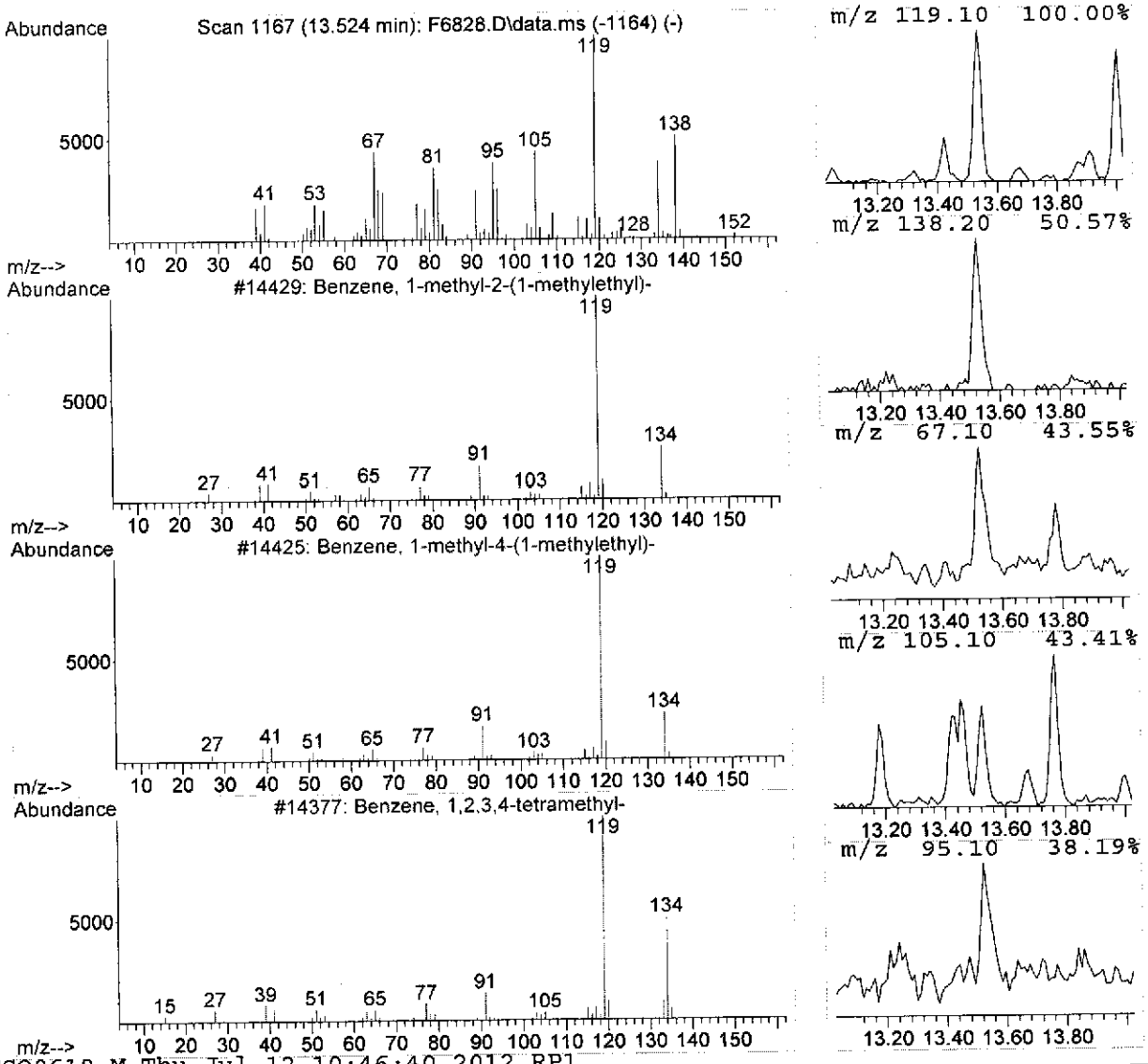
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 5 Unknown Aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.52	5.28 UG	33222	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	86
2	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	46
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	46
4	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	46
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	46



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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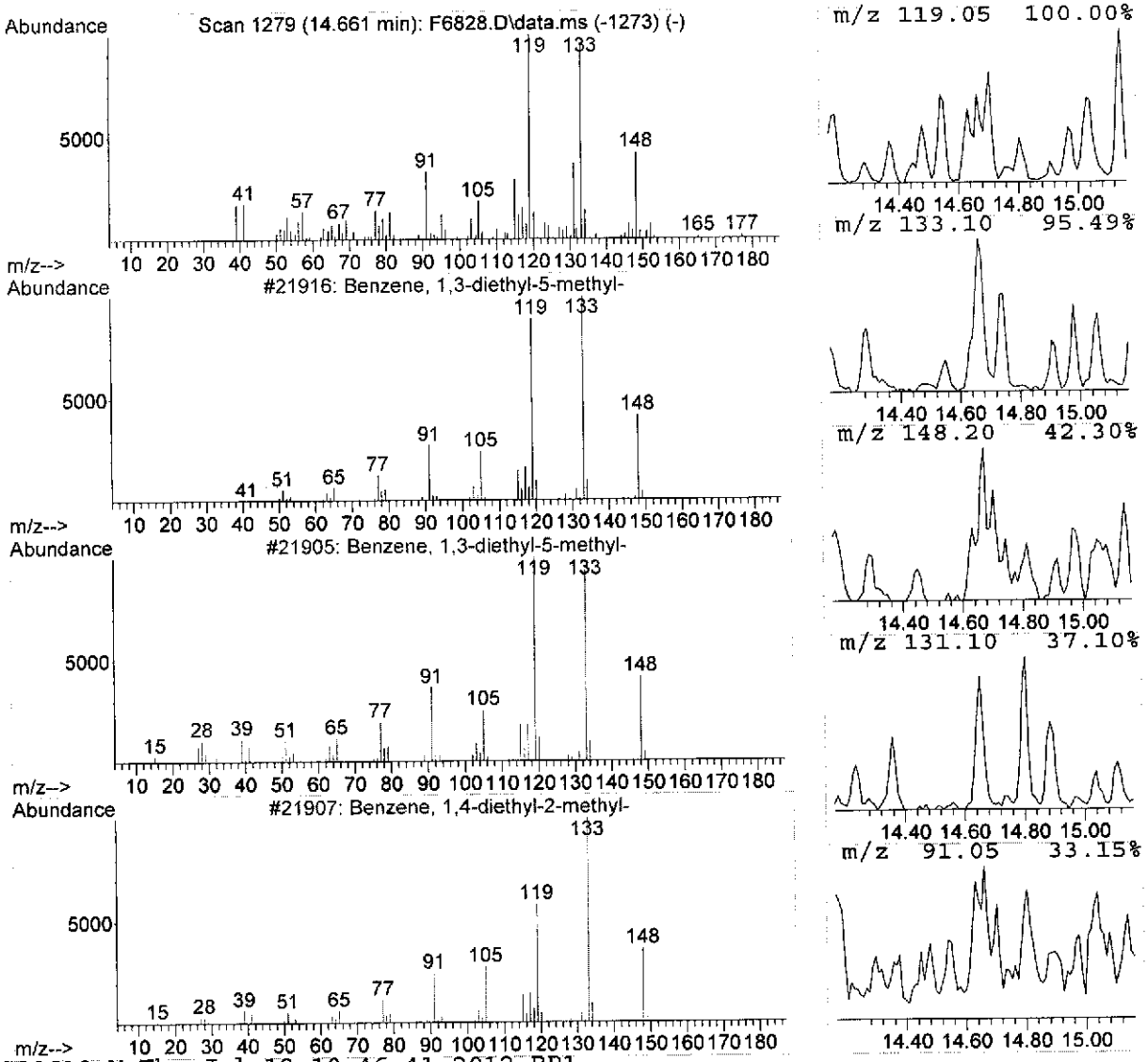
Peak Number 6 Unknown Aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.66	4.52 UG	28438	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-diethyl-5-methyl-	148	C11H16	002050-24-0	94
2	Benzene, 1,3-diethyl-5-methyl-	148	C11H16	002050-24-0	83
3	Benzene, 1,4-diethyl-2-methyl-	148	C11H16	013632-94-5	68
4	Benzene, 2,4-diethyl-1-methyl-	148	C11H16	001758-85-6	64
5	Disiloxane, 1,1,3,3-tetramethyl-	134	C4H14OSi2	003277-26-7	52



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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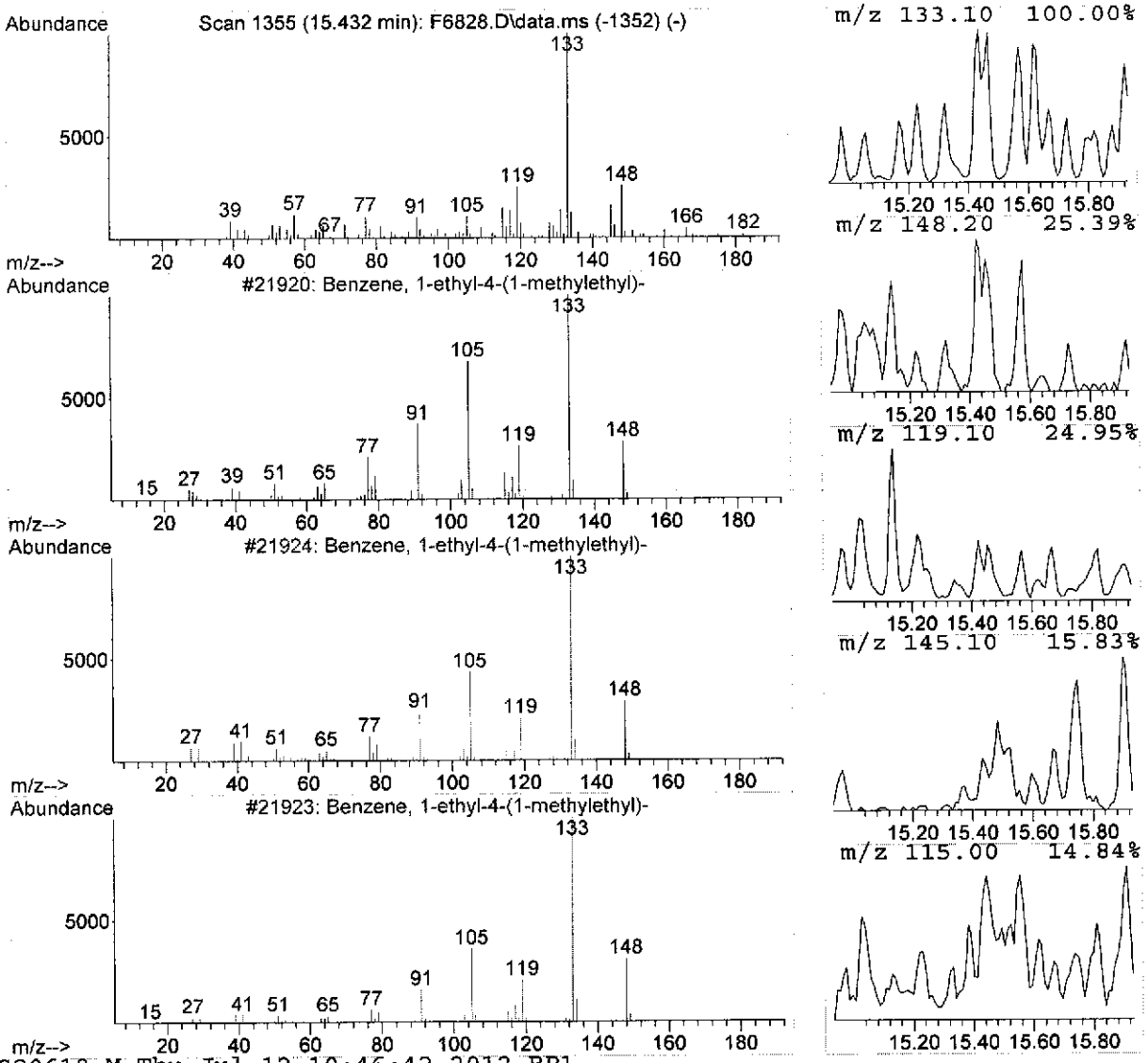
Peak Number 7 Unknown Aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.43	5.14 UG	32366	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8	72
2	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8	72
3	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8	72
4	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8	72
5	Benzene, 1,4-diethyl-2-methyl-	148	C11H16	013632-94-5	70



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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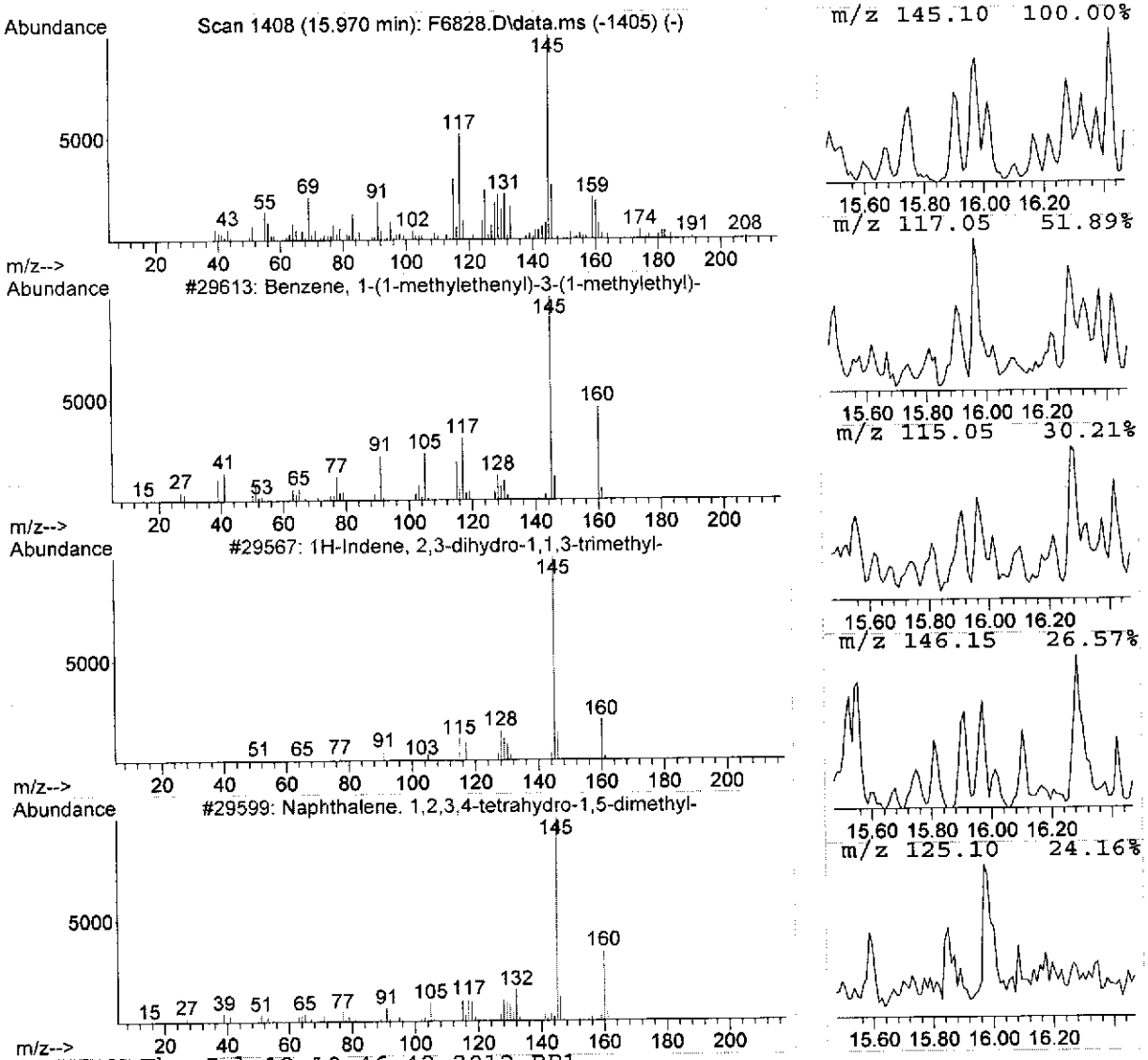
Peak Number 8 Unknown Aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.97	5.18 UG	32570	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-(1-methylethenyl)-3-(...	160	C12H16	001129-29-9	64
2	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	52
3	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	021564-91-0	49
4	Benzene, 1-(1-methylethenyl)-2-(...	160	C12H16	005557-93-7	49
5	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	001985-59-7	46



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

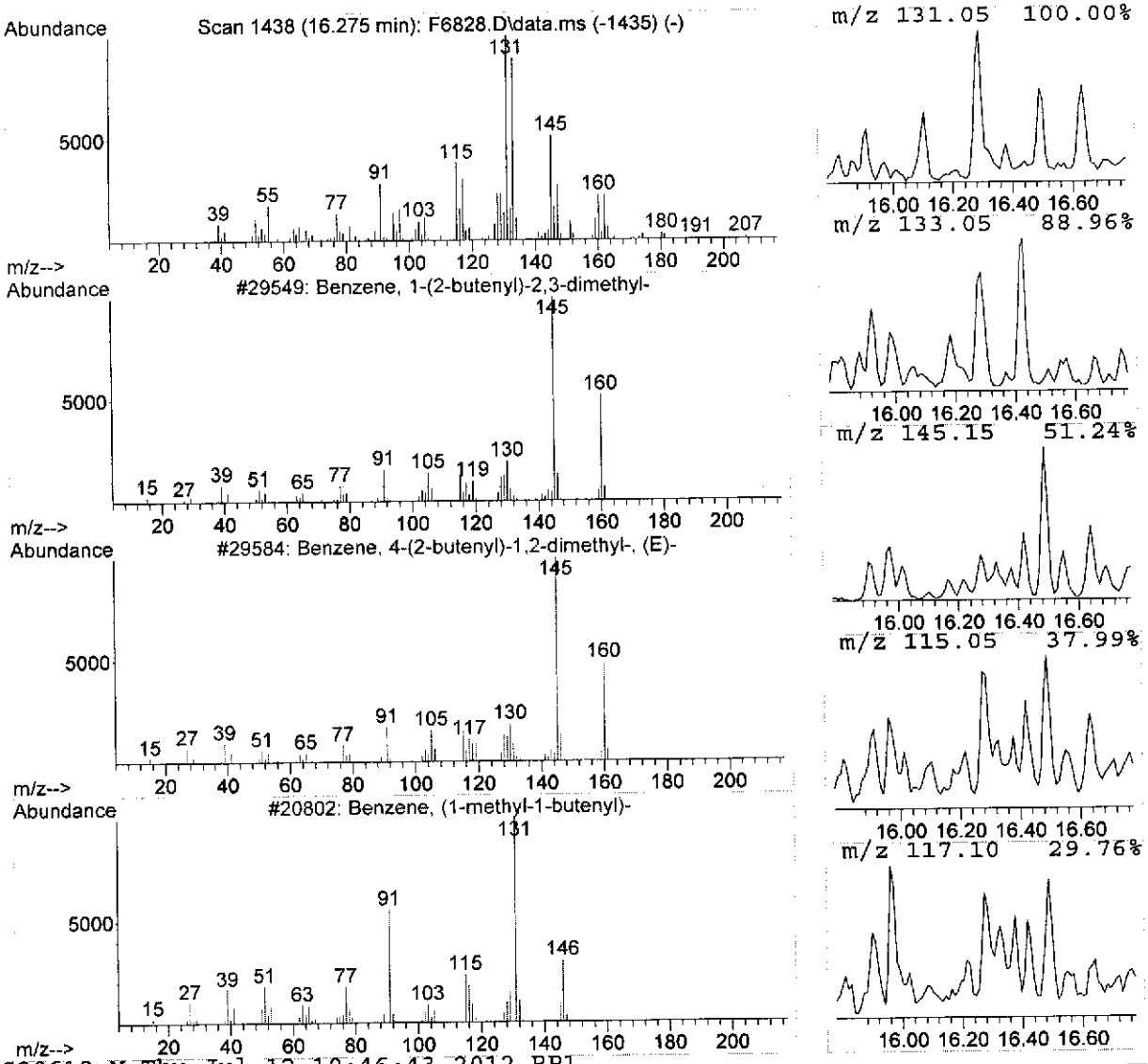
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 9 Unknown Aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.27	5.99 UG	37718	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-(2-butenyl)-2,3-dimet...	160	C12H16	054340-85-1	50
2	Benzene, 4-(2-butenyl)-1,2-dimet...	160	C12H16	054340-86-2	38
3	Benzene, (1-methyl-1-butenyl)-	146	C11H14	053172-84-2	30
4	1H-Indene, 2,3-dihydro-4-propyl-	160	C12H16	092013-16-6	30
5	Benzene, 1,3,5-trimethyl-2-(1-me...	160	C12H16	014679-13-1	25



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6828.D
Acq On : 10 Jul 2012 21:06
Operator : XING
Sample : G7-062612,06385-006,S,2.5g,18.1
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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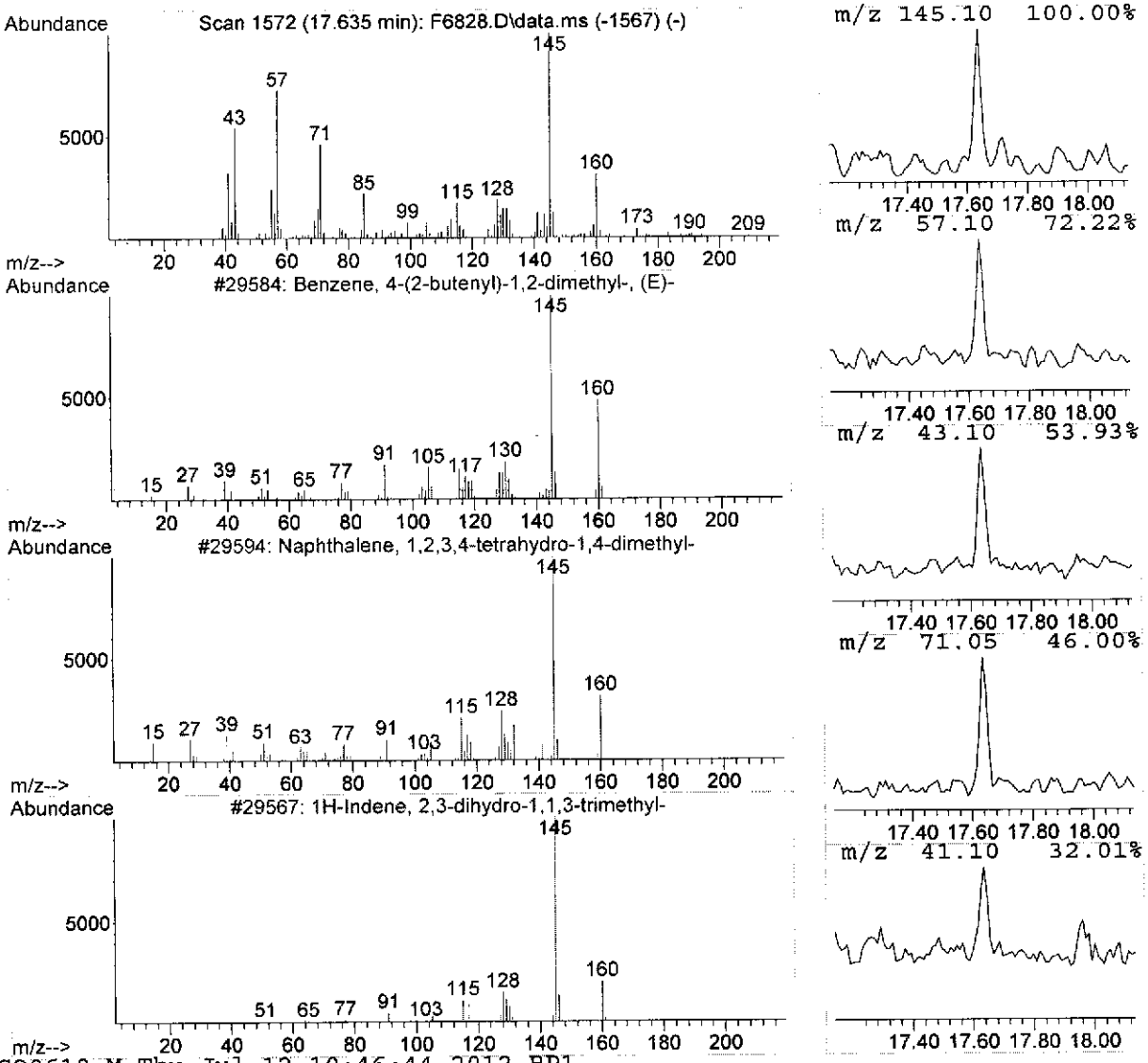
Peak Number 10 Unknown Aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.64	6.73 UG	42316	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 4-(2-butenyl)-1,2-dimet...	160	C12H16	054340-86-2	64
2	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	004175-54-6	64
3	1H-Indene, 2,3-dihydro-1,1,3-tri...	160	C12H16	002613-76-5	60
4	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	001076-61-5	60
5	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	020027-77-4	53



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 12 11:53:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	94415	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	132295	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	109669	50.00 UG	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d4	6.448	65	25658	31.06 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 62.12%		
41) Toluene-d8	8.600	98	122229	43.29 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 86.58%		
59) Bromofluorobenzene	11.676	95	44627	42.29 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 84.58%		

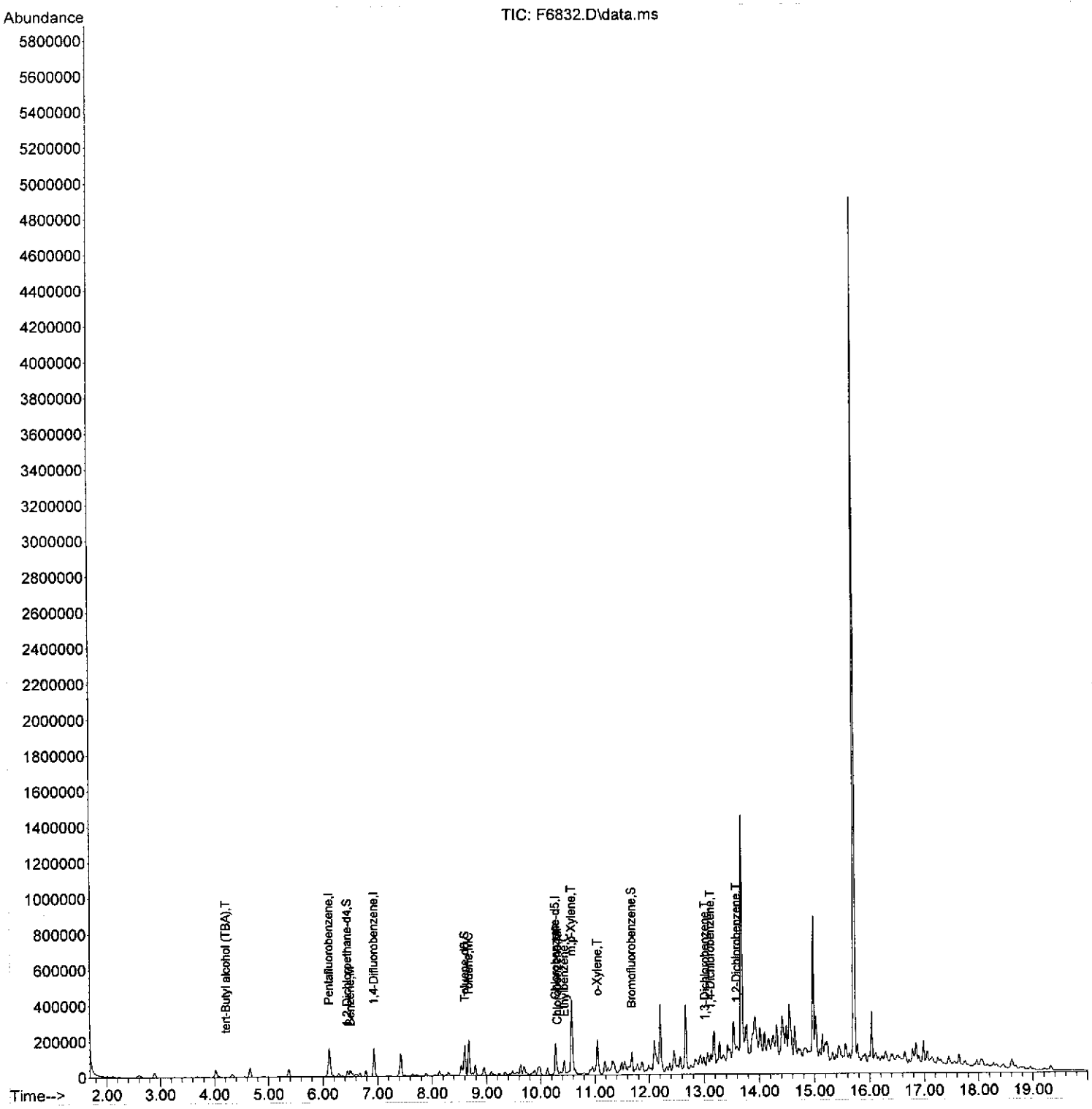
Target Compounds						Qvalue
15) tert-Butyl alcohol (TBA)	4.214	59	888m	11.65 UG		
32) Benzene	6.499	78	29685	8.11 UG		100
42) Toluene	8.671	92	88282	31.95 UG		98
51) Chlorobenzene	10.306	112	13576	4.90 UG	#	100
53) Ethylbenzene	10.438	91	58780	11.66 UG		99
54) m,p-Xylene	10.570	106	107249	56.06 UG		98
55) o-Xylene	11.047	106	52495	29.25 UG		99
70) 1,3-Dichlorobenzene	13.016	146	2286	1.02 UG	#	99
72) 1,4-Dichlorobenzene	13.118	146	4163	1.89 UG		99
74) 1,2-Dichlorobenzene	13.585	146	14877	7.62 UG	#	100

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 12 11:53:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6832.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	222	231	246	rVB2	40822	125797	1.66%	0.410%
2	4.651	288	293	301	rVB	49073	115837	1.53%	0.378%
3	5.372	358	364	372	rVB	42641	105311	1.39%	0.343%
4	6.113	425	437	449	rBV2	156043	441889	5.84%	1.441%
5	6.499	472	475	482	rVB2	30455	83824	1.11%	0.273%
6	6.935	512	518	527	rBV	155683	307049	4.06%	1.001%
7	7.422	557	566	571	rBV	125496	313513	4.14%	1.022%
8	8.529	669	675	678	rBV	56706	141782	1.87%	0.462%
9	8.600	678	682	686	rVV	166191	344220	4.55%	1.122%
10	8.671	686	689	694	rVV	195665	375003	4.96%	1.223%
11	8.793	698	701	708	rVB	57934	106799	1.41%	0.348%
12	8.945	708	716	724	rVB	44600	117434	1.55%	0.383%
13	9.625	780	783	786	rBV	51211	90932	1.20%	0.297%
14	9.686	786	789	800	rVB	44141	120370	1.59%	0.393%
15	9.981	811	818	827	rVB2	47759	181790	2.40%	0.593%
16	10.123	827	832	840	rBV	38289	85613	1.13%	0.279%
17	10.275	840	847	853	rBV	175519	381905	5.05%	1.245%
18	10.427	858	862	866	rVV	78676	173348	2.29%	0.565%
19	10.570	866	876	888	rVB2	416737	1045004	13.81%	3.408%
20	10.955	906	914	917	rBV4	39024	146637	1.94%	0.478%
21	11.047	917	923	930	rVB	190535	432580	5.72%	1.411%
22	11.179	931	936	940	rBV3	69349	158282	2.09%	0.516%
23	11.321	945	950	959	rVB3	65423	260937	3.45%	0.851%
24	11.483	959	966	969	rBV	59439	153776	2.03%	0.501%
25	11.544	969	972	976	rVB2	48240	106978	1.41%	0.349%
26	11.676	981	985	989	rVB2	109331	230048	3.04%	0.750%
27	11.778	989	995	999	rBV4	43967	121767	1.61%	0.397%
28	11.869	999	1004	1008	rVB3	52810	129345	1.71%	0.422%
29	12.092	1022	1026	1033	rVV2	165353	524290	6.93%	1.710%
30	12.204	1034	1037	1044	rVB	378320	738180	9.76%	2.407%
31	12.448	1056	1061	1066	rBV	113453	307851	4.07%	1.004%
32	12.559	1070	1072	1076	rVV	69508	131295	1.74%	0.428%
33	12.661	1077	1082	1088	rVB	355574	652527	8.63%	2.128%
34	12.833	1095	1099	1105	rBV2	47281	164444	2.17%	0.536%
35	12.935	1105	1109	1112	rVV2	59037	145148	1.92%	0.473%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	12.996	1112	1115	1118	rVB2	50923	101849	1.35%	0.332%
37	13.067	1118	1122	1125	rBV2	75254	177198	2.34%	0.578%
38	13.179	1129	1133	1137	rVB2	180592	399760	5.28%	1.304%
39	13.280	1137	1143	1146	rBV	123750	273563	3.62%	0.892%
40	13.422	1154	1157	1164	rBV3	91112	319420	4.22%	1.042%
41	13.534	1164	1168	1172	rBV3	202649	523065	6.91%	1.706%
42	13.676	1178	1182	1187	rBV	1315941	2393792	31.64%	7.806%
43	13.767	1187	1191	1195	rVB4	164698	428775	5.67%	1.398%
44	13.920	1197	1206	1212	rBV6	205149	914674	12.09%	2.983%
45	14.011	1212	1215	1219	rVV3	134816	308161	4.07%	1.005%
46	14.092	1219	1223	1226	rVV2	112924	211123	2.79%	0.688%
47	14.163	1226	1230	1234	rVV4	77076	230538	3.05%	0.752%
48	14.244	1234	1238	1241	rVV5	99029	275319	3.64%	0.898%
49	14.316	1241	1245	1249	rVB4	168420	374048	4.94%	1.220%
50	14.417	1250	1255	1259	rVV4	207677	599196	7.92%	1.954%
51	14.488	1259	1262	1264	rVV2	157882	296131	3.91%	0.966%
52	14.539	1264	1267	1274	rVB2	281522	791098	10.46%	2.580%
53	14.640	1274	1277	1281	rBV3	159669	307572	4.07%	1.003%
54	14.823	1291	1295	1300	rBV4	46861	189678	2.51%	0.619%
55	14.975	1306	1310	1313	rBV	757281	1233255	16.30%	4.021%
56	15.016	1313	1314	1319	rVB2	220000	386138	5.10%	1.259%
57	15.138	1323	1326	1328	rBV	118234	167357	2.21%	0.546%
58	15.189	1329	1331	1333	rBV3	47507	91395	1.21%	0.298%
59	15.321	1340	1344	1348	rBV6	43591	94569	1.25%	0.308%
60	15.432	1353	1355	1364	rVV4	73980	227460	3.01%	0.742%
61	15.554	1365	1367	1372	rVB4	77342	179061	2.37%	0.584%
62	15.716	1377	1383	1387	rBV	4819511	7565378	100.00%	24.670%
63	15.980	1406	1409	1411	rBV3	36379	87162	1.15%	0.284%
64	16.031	1411	1414	1418	rVV2	274232	469173	6.20%	1.530%
65	16.102	1418	1421	1425	rVB5	33646	89444	1.18%	0.292%
66	16.285	1436	1439	1446	rVB2	54467	154370	2.04%	0.503%
67	16.387	1446	1449	1451	rBV	39279	76033	1.01%	0.248%
68	16.508	1457	1461	1468	rBV6	28453	130698	1.73%	0.426%
69	16.630	1470	1473	1479	rVB6	62766	170058	2.25%	0.555%
70	16.782	1484	1488	1491	rBV	71669	150380	1.99%	0.490%
71	16.843	1491	1494	1497	rVB2	92173	172461	2.28%	0.562%
72	16.985	1503	1508	1511	rBV	119453	234025	3.09%	0.763%
73	17.057	1511	1515	1518	rVV4	54974	119387	1.58%	0.389%
74	17.442	1549	1553	1559	rVB	41389	103232	1.36%	0.337%
75	17.635	1568	1572	1578	rVB	58540	117639	1.55%	0.384%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	17.747	1579	1583	1596	rVB2	30298	109704	1.45%	0.358%
77	17.960	1597	1604	1608	rBV4	33127	94899	1.25%	0.309%
78	18.041	1608	1612	1619	rVB2	36406	126145	1.67%	0.411%
79	18.610	1662	1668	1673	rBV	45699	140702	1.86%	0.459%

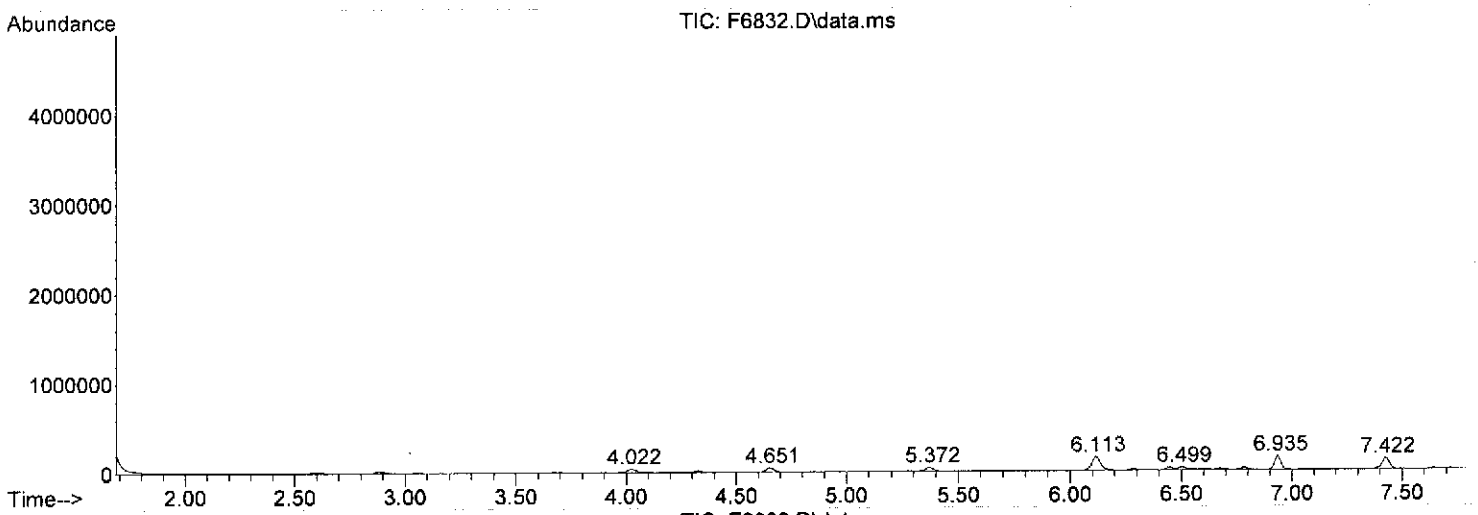
Sum of corrected areas: 30666590

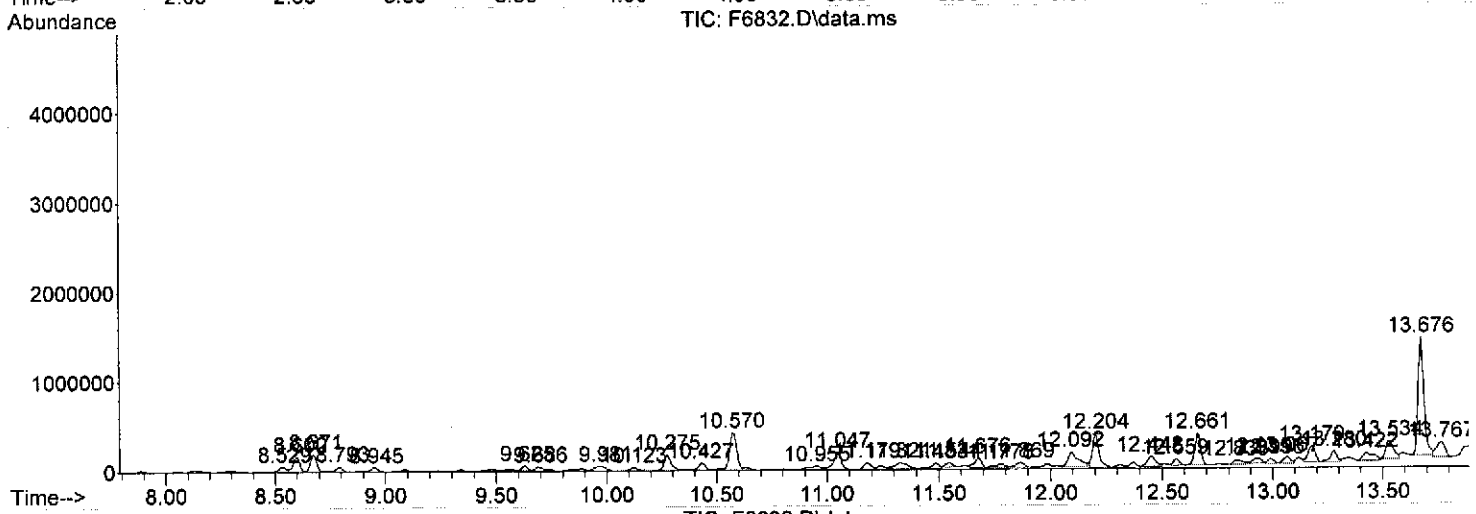
LSC Report - Integrated Chromatogram

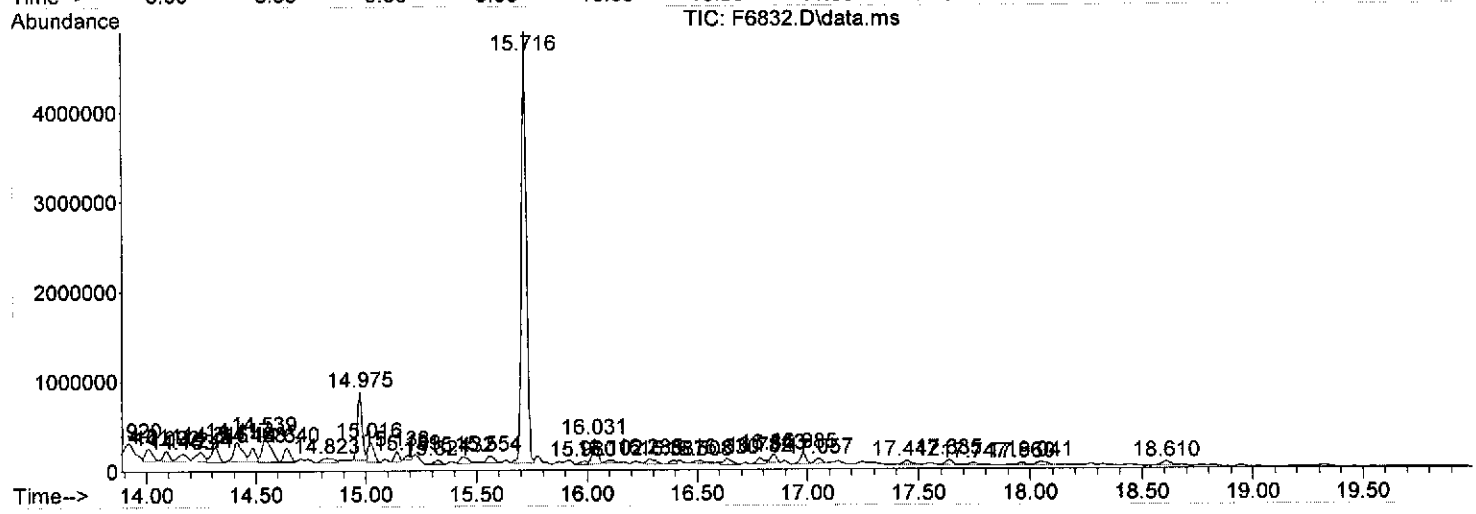
Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

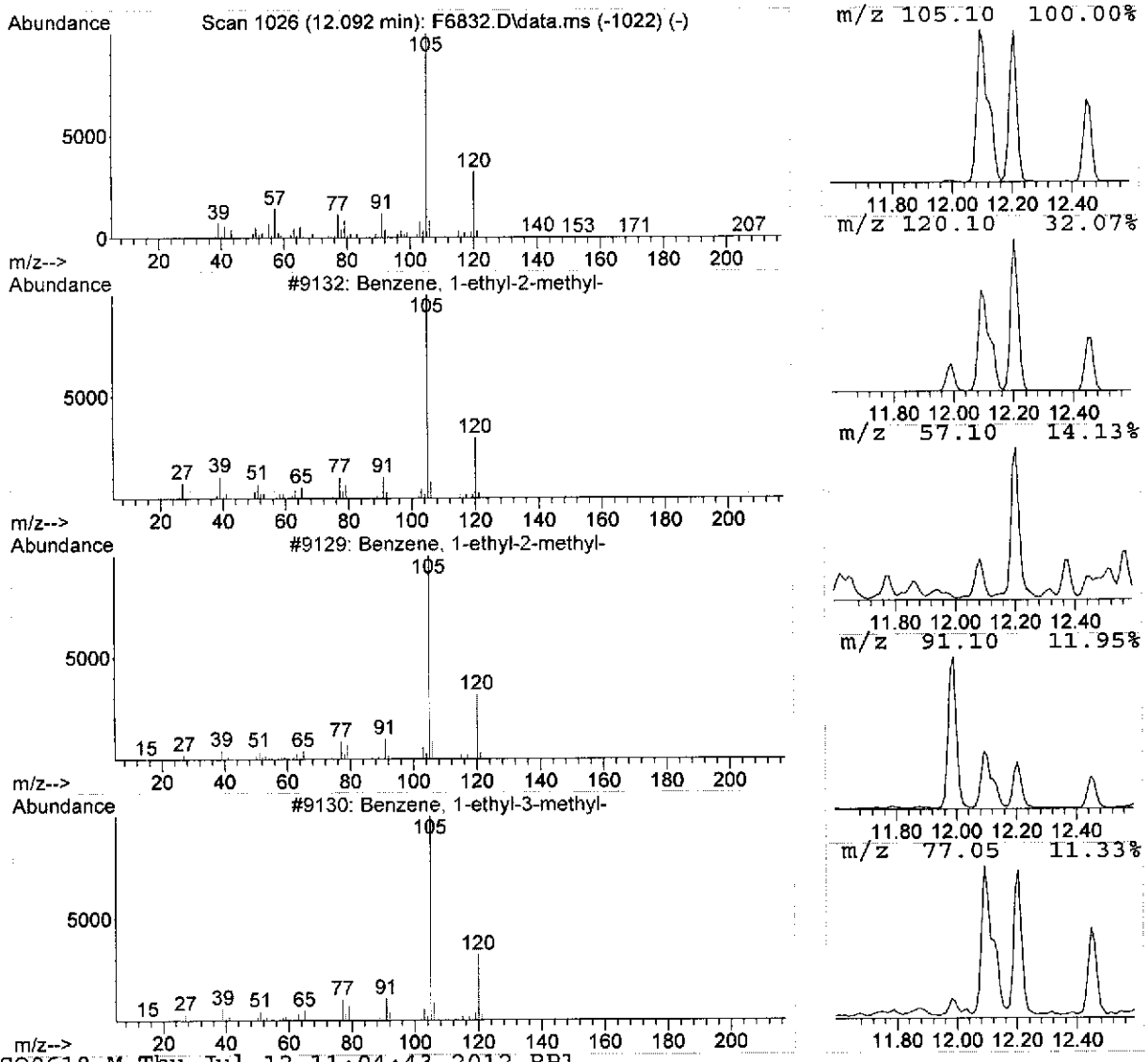
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Unknown Aromatic Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.09	68.64 UG	524290	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
3	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
4	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	93
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	87



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

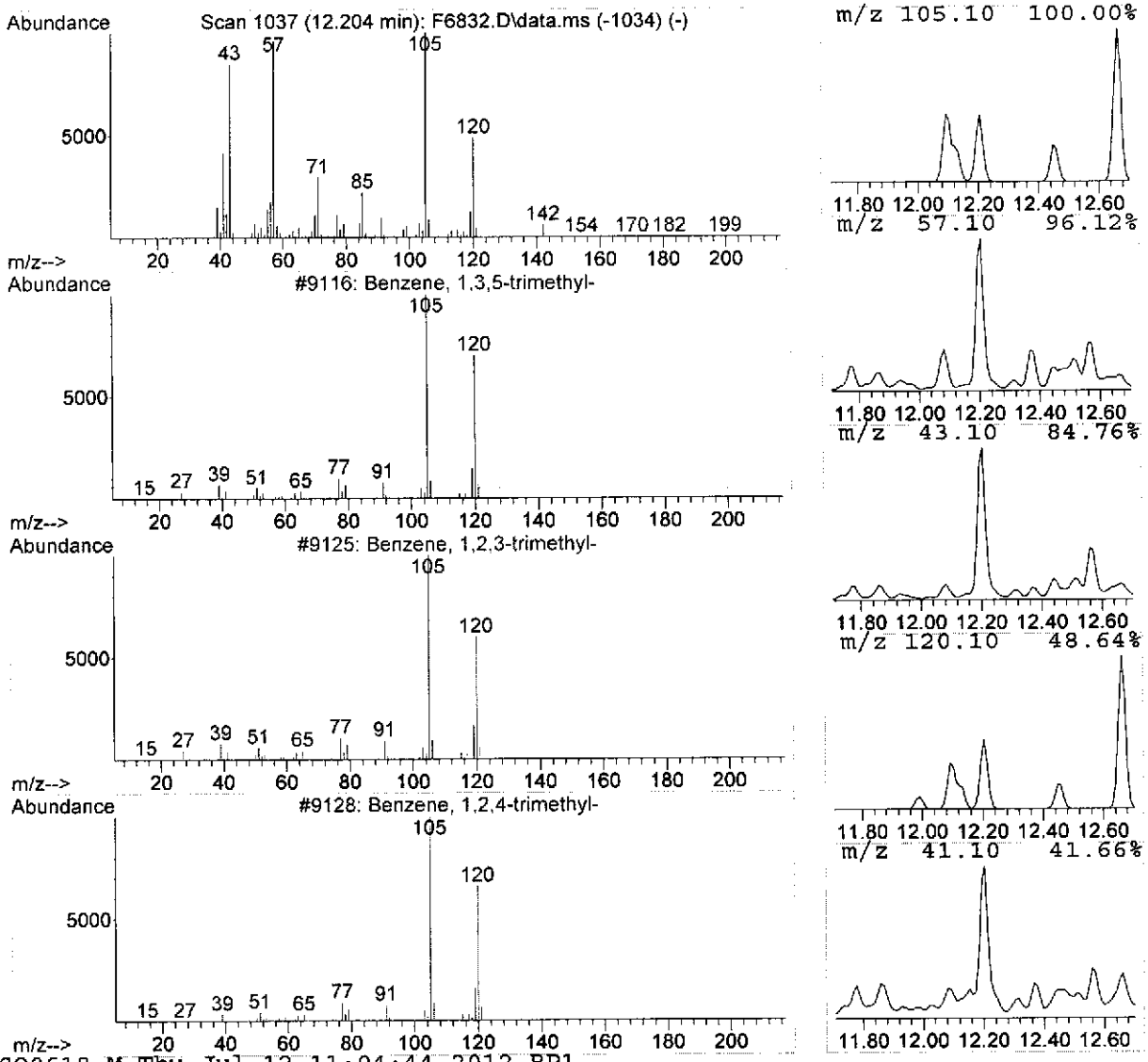
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown Aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.20	96.64 UG	738180	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	91
3	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	90
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	89
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	86



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

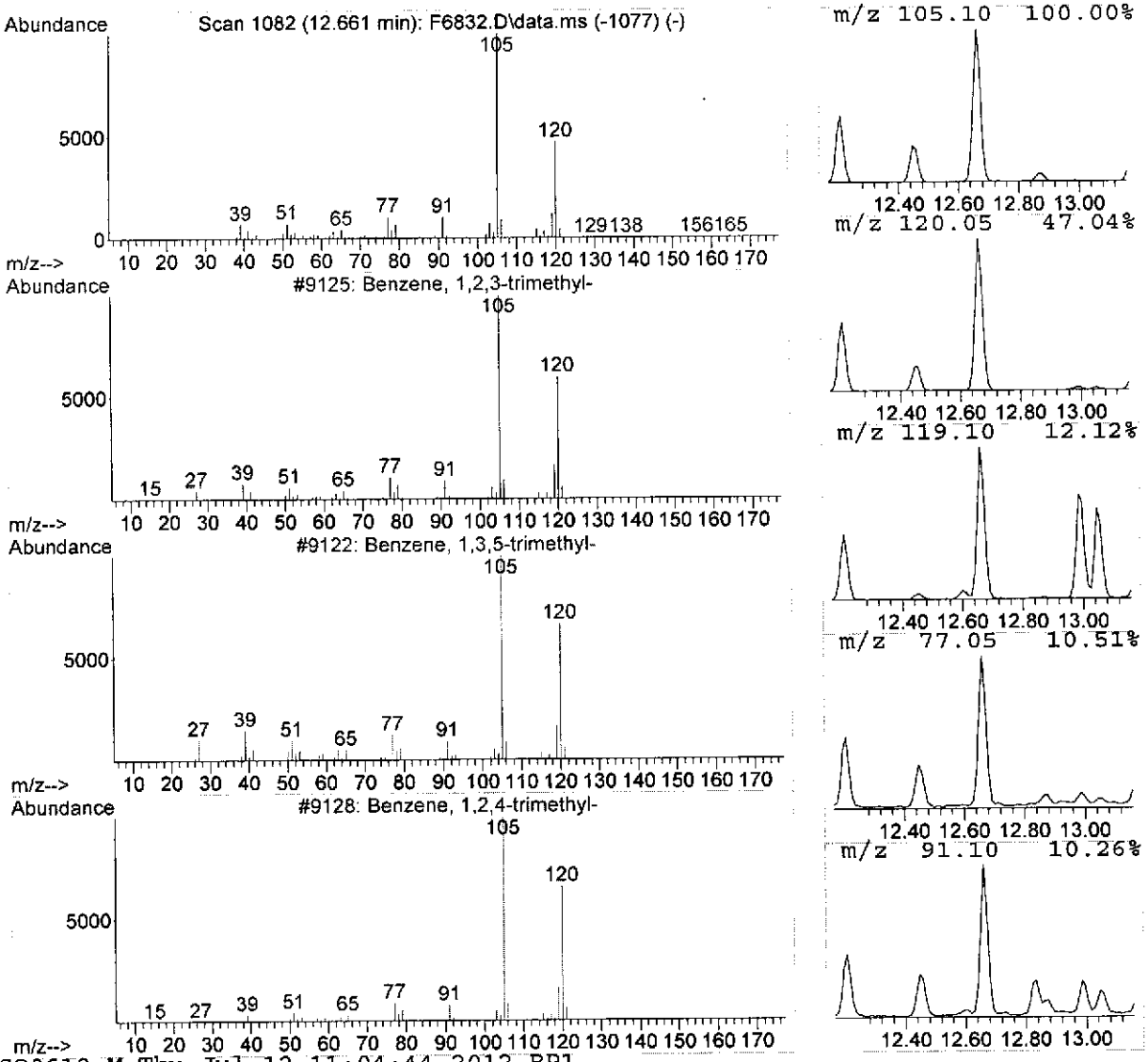
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Unknown Aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.66	85.43 UG	652527	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	95
3	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
4	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

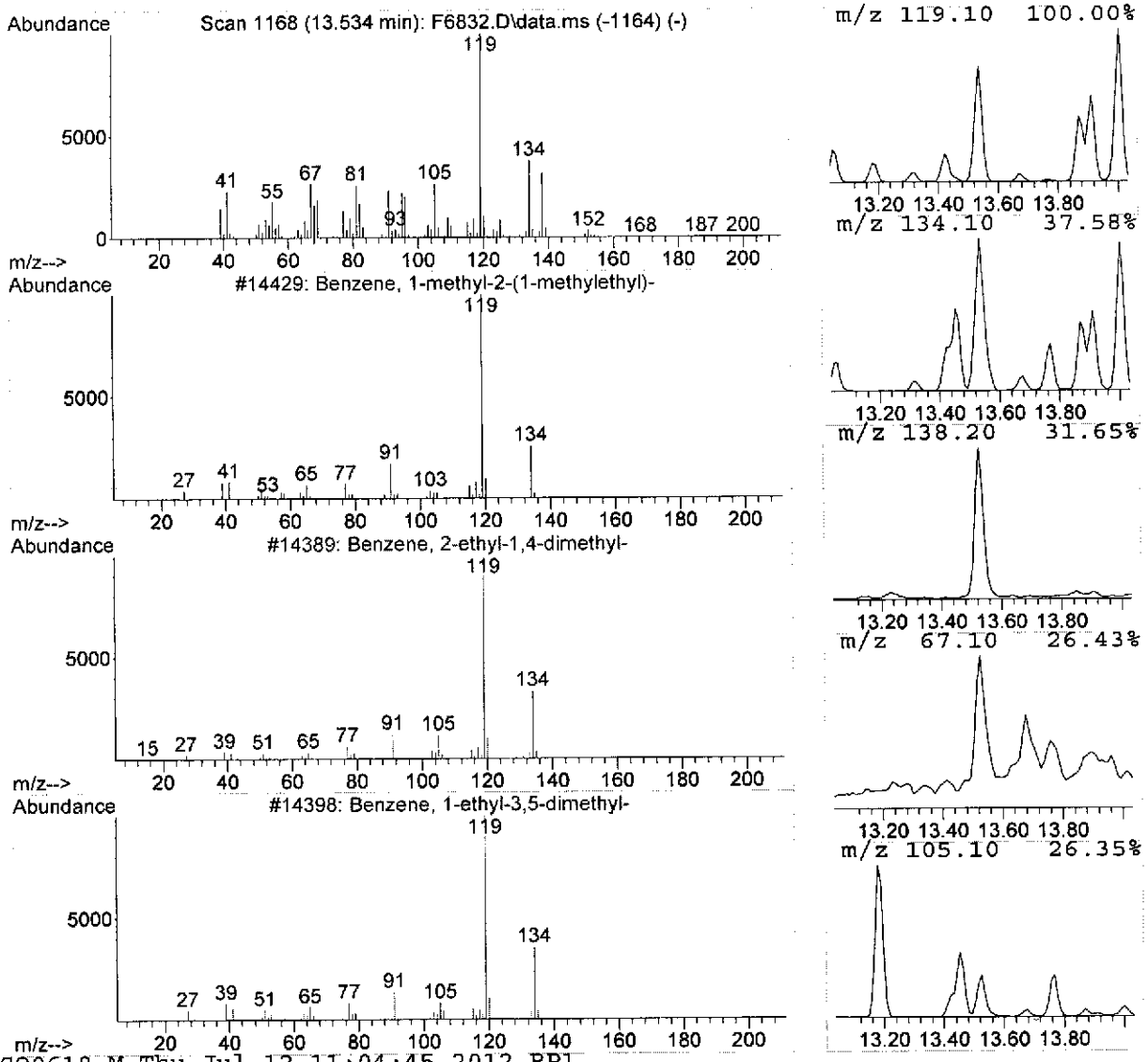
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 4 Unknown Aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.53	68.48 UG	523065	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	90
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	90
3	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	90
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	89
5	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	89



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

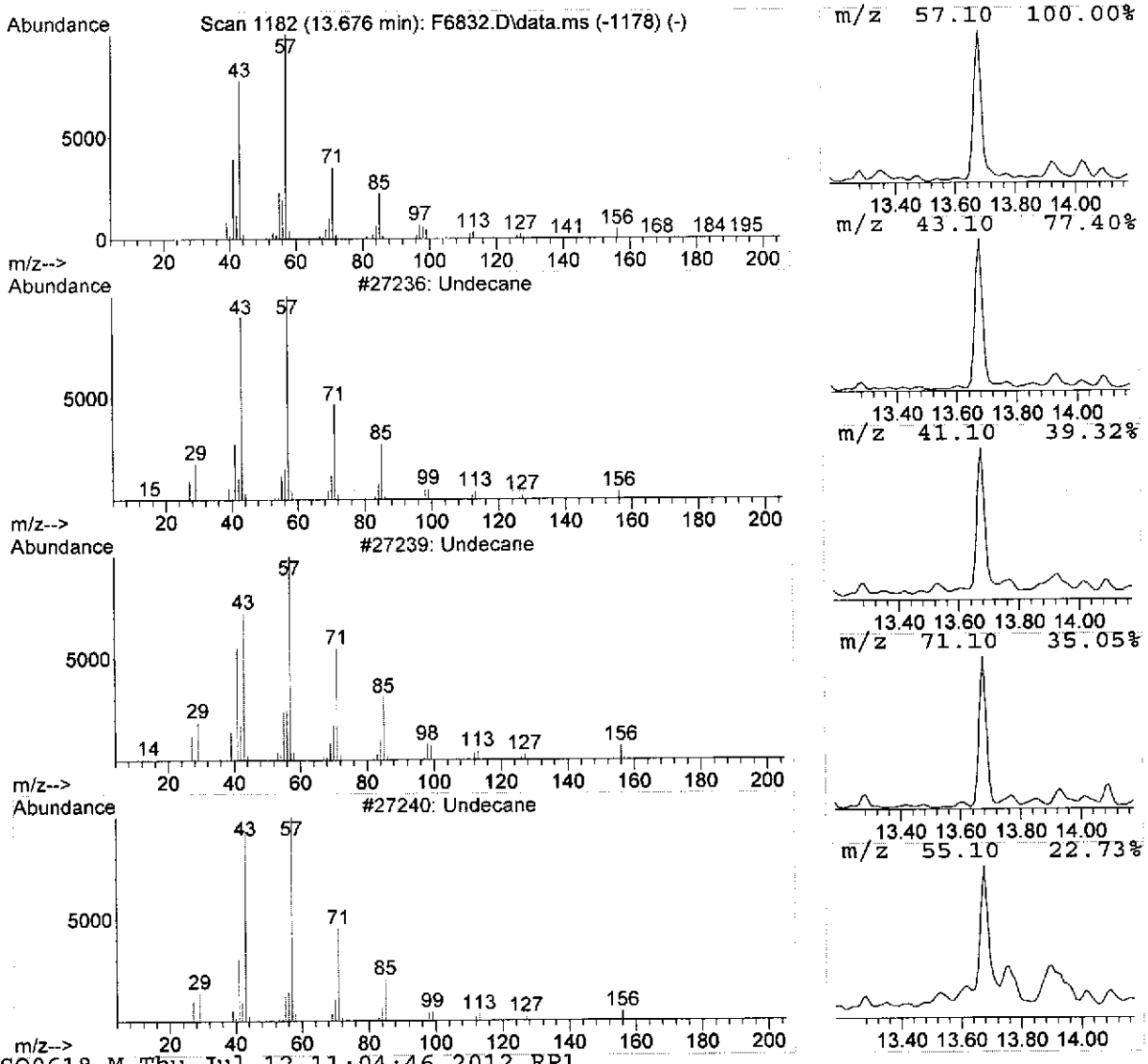
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 5 Unknown Hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.68	313.40 UG	2393790	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane	156	C11H24	001120-21-4	94
2	Undecane	156	C11H24	001120-21-4	94
3	Undecane	156	C11H24	001120-21-4	93
4	Decane	142	C10H22	000124-18-5	86
5	Undecane	156	C11H24	001120-21-4	76



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

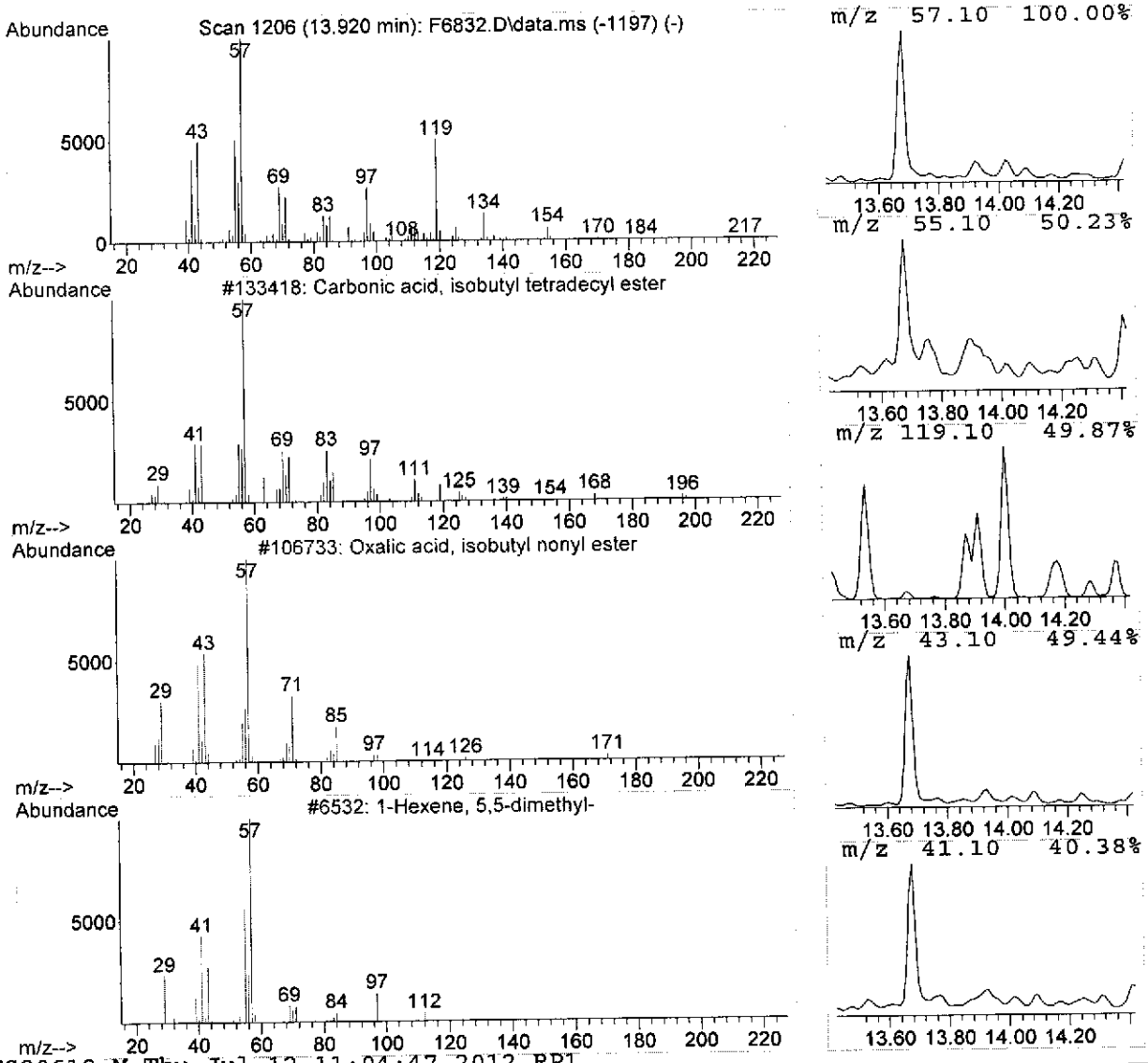
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 6 Unknown Hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.92	119.75 UG	914674	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbonic acid, isobutyl tetradec...	314	C19H38O3	1000314-61-1	38
2	Oxalic acid, isobutyl nonyl ester	272	C15H28O4	1000309-37-4	27
3	1-Hexene, 5,5-dimethyl-	112	C8H16	007116-86-1	25
4	4-Decene, 6-methyl-, (E)-	154	C11H22	036229-57-9	22
5	Propanoic acid, 2,2-dimethyl-, 2...	214	C13H26O2	016387-18-1	22



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

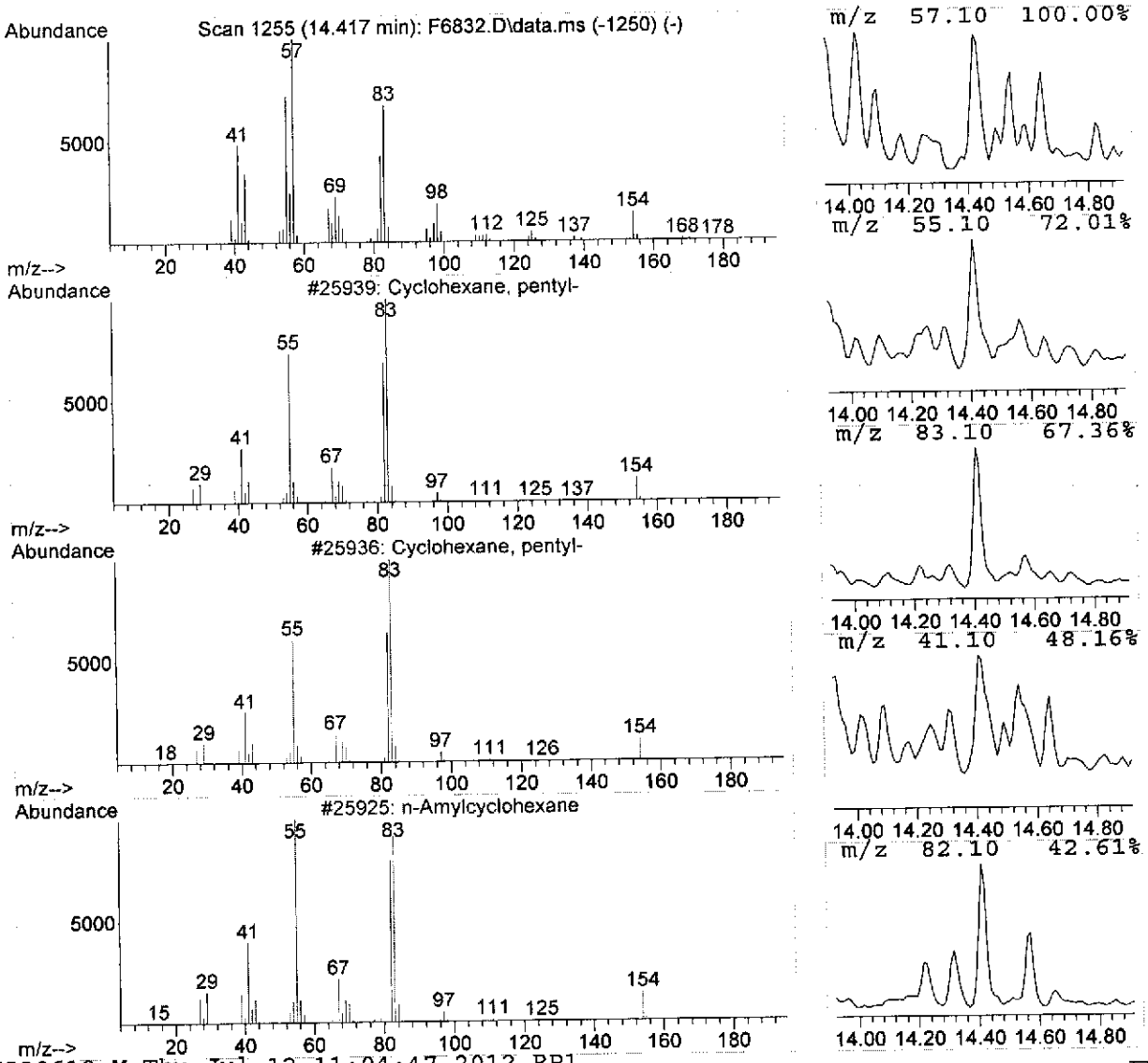
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 7 Unknown Hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.42	78.45 UG	599196	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, pentyl-	154	C11H22	004292-92-6	53
2	Cyclohexane, pentyl-	154	C11H22	004292-92-6	52
3	n-Amylcyclohexane	154	C11H22	029949-27-7	49
4	Cyclohexane, pentyl-	154	C11H22	004292-92-6	49
5	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	43



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

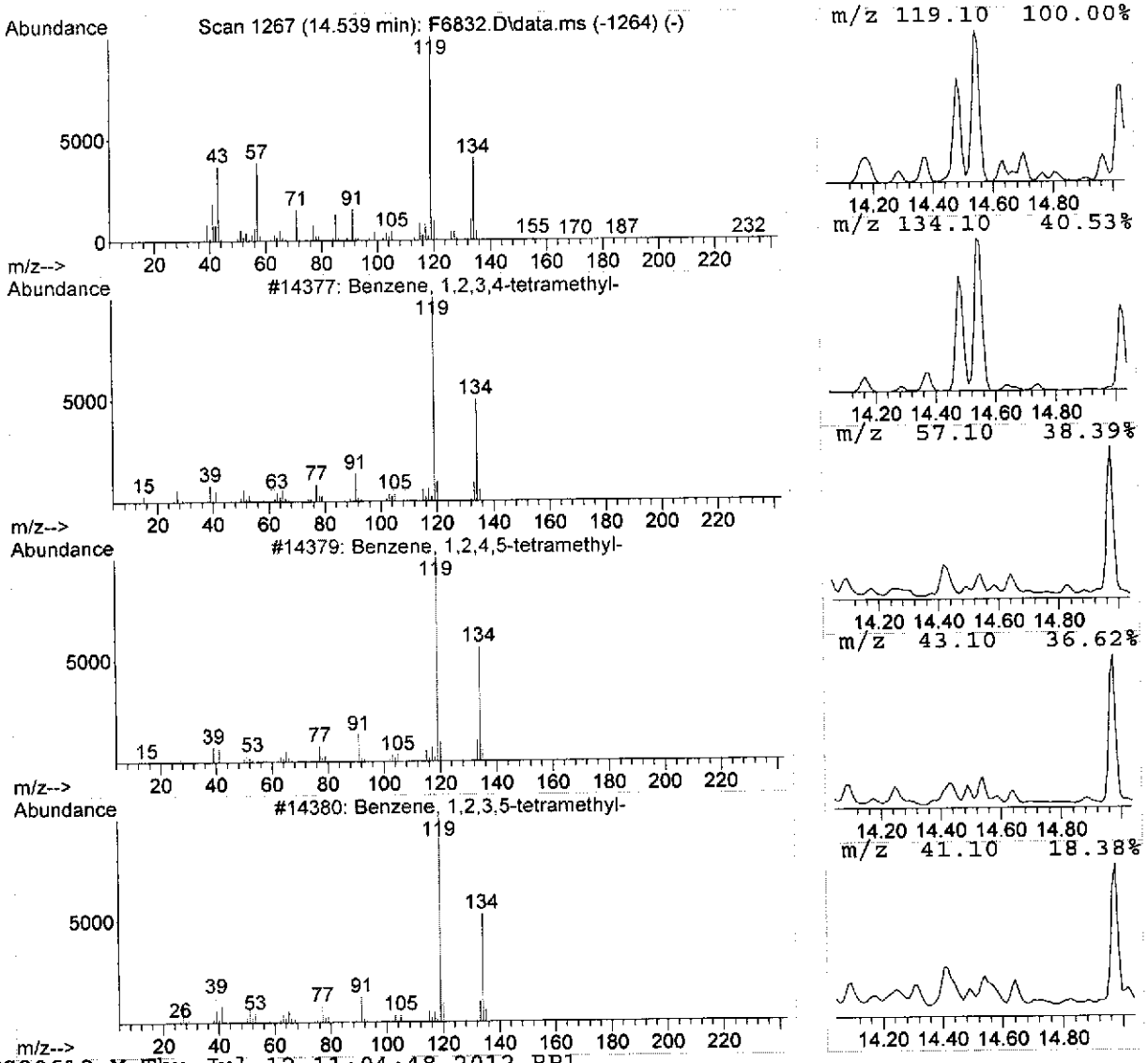
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 8 Unknown Aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.54	103.57 UG	791098	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	94
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
4	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
5	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	94



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

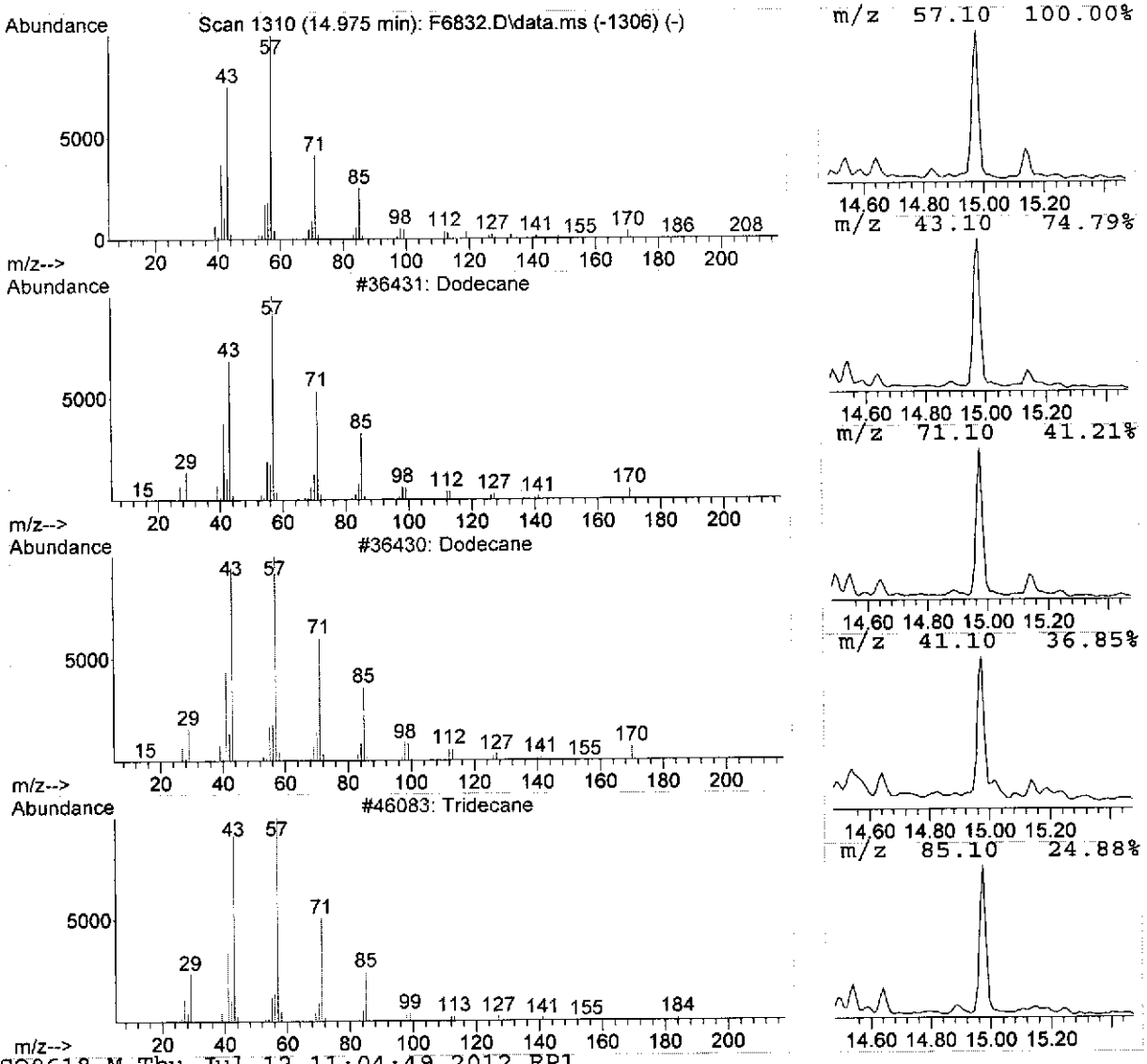
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.98	161.46 UG	1233260	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	96
2	Dodecane	170	C12H26	000112-40-3	93
3	Tridecane	184	C13H28	000629-50-5	86
4	Tridecane	184	C13H28	000629-50-5	86
5	Undecane	156	C11H24	001120-21-4	80



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6832.D
Acq On : 10 Jul 2012 23:06
Operator : XING
Sample : G3-062612,06385-007,S,2.5g,17.5
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

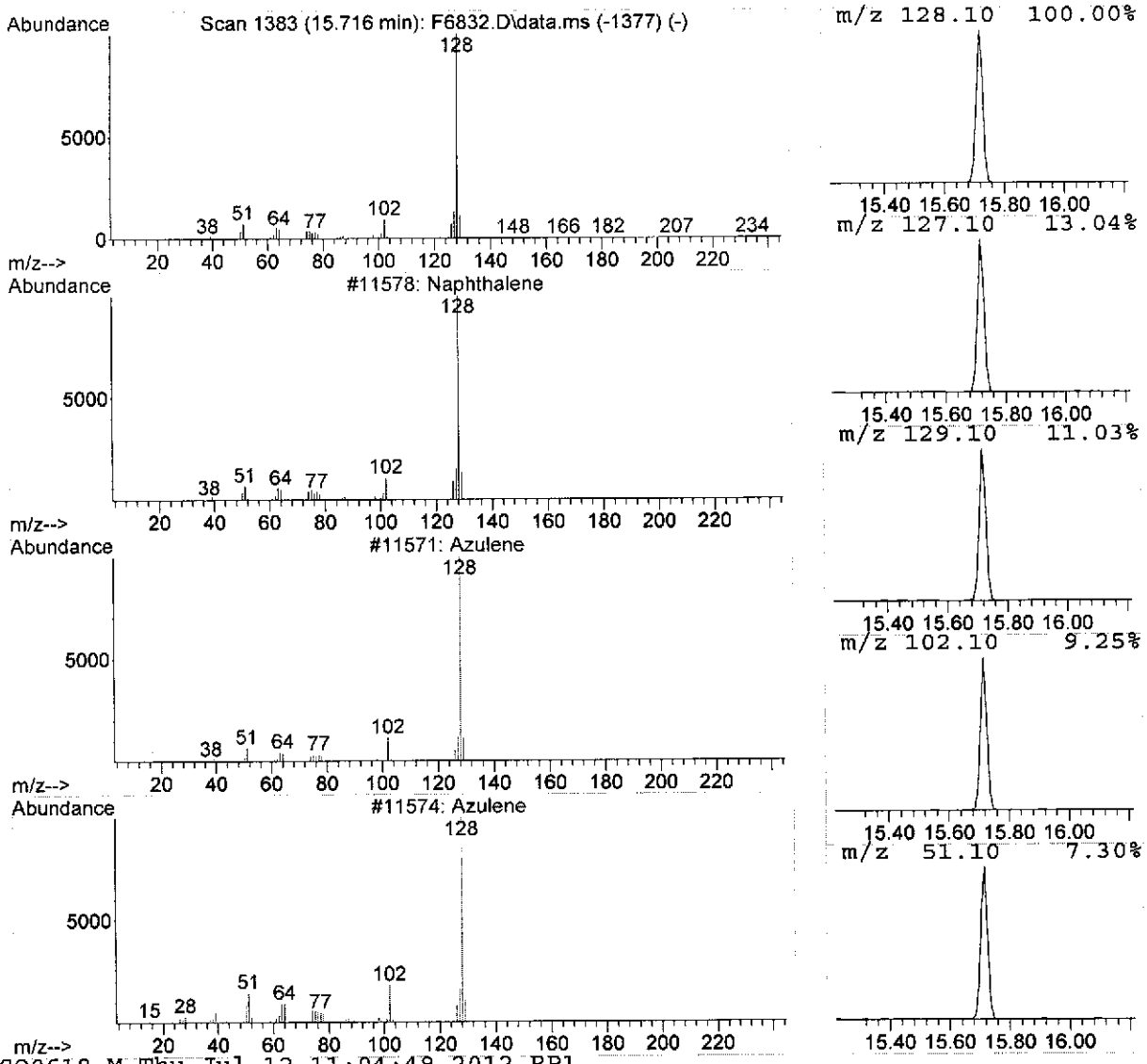
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 10 Unknown PAH Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.72	990.48 UG	7565380	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	97
2	Azulene	128	C10H8	000275-51-4	95
3	Azulene	128	C10H8	000275-51-4	94
4	Naphthalene	128	C10H8	000091-20-3	93
5	Naphthalene	128	C10H8	000091-20-3	91



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 12 11:54:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

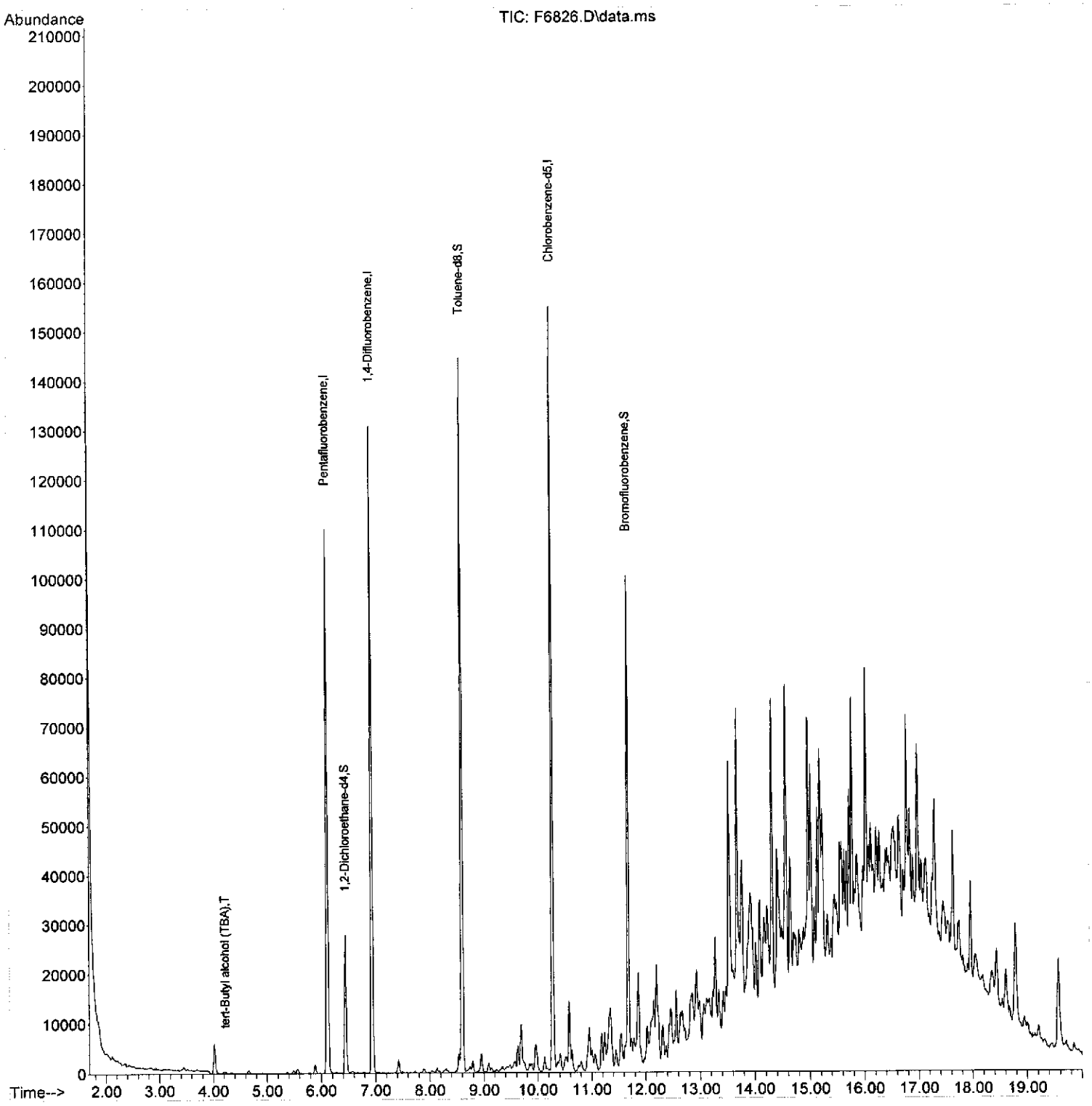
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	76800	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.935	114	110034	50.00	UG	0.00
50) Chlorobenzene-d5	10.275	117	92794	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.448	65	22329	33.23	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 66.46%			
41) Toluene-d8	8.600	98	96881	41.25	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 82.50%			
59) Bromofluorobenzene	11.676	95	40569	45.43	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 90.86%			
Target Compounds						Qvalue
15) tert-Butyl alcohol (TBA)	4.225	59	450m	7.26	UG	

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 12 11:54:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6826.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	226	231	243	rBV	5849	14454	5.07%	0.340%
2	5.879	410	414	421	rBV	1694	3549	1.25%	0.083%
3	6.113	426	437	448	rBV	109988	232517	81.60%	5.462%
4	6.448	464	470	478	rBV	27737	58651	20.58%	1.378%
5	6.935	511	518	527	rBV	130773	255102	89.53%	5.993%
6	7.422	558	566	571	rBV	2633	6434	2.26%	0.151%
7	8.295	643	652	661	rVB4	824	3251	1.14%	0.076%
8	8.529	661	675	677	rBV3	3753	9214	3.23%	0.216%
9	8.600	677	682	688	rVV	144334	272552	95.66%	6.402%
10	8.793	698	701	705	rVB	2363	4460	1.57%	0.105%
11	8.955	707	717	723	rBV2	3762	10037	3.52%	0.236%
12	9.087	725	730	733	rBV2	1784	4001	1.40%	0.094%
13	9.341	748	755	759	rBV2	945	3234	1.14%	0.076%
14	9.575	772	778	780	rBV6	1211	3036	1.07%	0.071%
15	9.625	780	783	786	rVV	4296	7958	2.79%	0.187%
16	9.686	786	789	800	rVB	9258	25946	9.11%	0.609%
17	9.960	812	816	825	rVB2	5443	17246	6.05%	0.405%
18	10.123	827	832	841	rBV	2856	7464	2.62%	0.175%
19	10.275	841	847	853	rBV	154468	284931	100.00%	6.693%
20	10.407	853	860	865	rVB6	3254	11210	3.93%	0.263%
21	10.529	865	872	874	rBV4	2565	9316	3.27%	0.219%
22	10.580	874	877	881	rBV	12164	23428	8.22%	0.550%
23	10.793	896	898	906	rVB3	1852	4514	1.58%	0.106%
24	10.955	906	914	917	rBV3	8699	27936	9.80%	0.656%
25	11.057	922	924	930	rVB6	3222	7971	2.80%	0.187%
26	11.179	930	936	939	rBV2	7430	16864	5.92%	0.396%
27	11.240	939	942	945	rBV	5496	10500	3.69%	0.247%
28	11.351	945	953	958	rVB5	11512	48177	16.91%	1.132%
29	11.443	958	962	967	rVB4	3272	7184	2.52%	0.169%
30	11.544	967	972	976	rBV4	6592	19702	6.91%	0.463%
31	11.676	976	985	993	rBV	97710	199027	69.85%	4.675%
32	11.778	993	995	998	rBV3	2653	5312	1.86%	0.125%
33	11.869	998	1004	1012	rVB4	18065	52079	18.28%	1.223%
34	12.031	1012	1020	1022	rBV4	7294	18939	6.65%	0.445%
35	12.153	1023	1032	1034	rBV6	8713	30778	10.80%	0.723%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	12.204	1034	1037	1044	rVB3	18942	52372	18.38%	1.230%
37	12.316	1044	1048	1051	rBV3	6701	15473	5.43%	0.363%
38	12.366	1052	1053	1056	rVB	2259	2885	1.01%	0.068%
39	12.458	1056	1062	1067	rBV7	9785	39885	14.00%	0.937%
40	12.559	1069	1072	1076	rVB2	10488	18040	6.33%	0.424%
41	12.671	1076	1083	1091	rBV10	6521	33011	11.59%	0.775%
42	12.854	1093	1101	1105	rBV6	9156	40355	14.16%	0.948%
43	12.935	1105	1109	1112	rBV3	10197	24387	8.56%	0.573%
44	13.067	1118	1122	1124	rBV2	7051	18094	6.35%	0.425%
45	13.280	1136	1143	1146	rBV3	16192	39476	13.85%	0.927%
46	13.341	1147	1149	1153	rVB	7737	13209	4.64%	0.310%
47	13.422	1153	1157	1159	rBV4	7262	16131	5.66%	0.379%
48	13.524	1159	1167	1176	rBV2	50650	160940	56.48%	3.781%
49	13.676	1178	1182	1187	rVV2	56528	120941	42.45%	2.841%
50	13.767	1187	1191	1195	rVB4	26699	68528	24.05%	1.610%
51	13.920	1198	1206	1213	rVB8	19524	96991	34.04%	2.278%
52	14.011	1213	1215	1219	rVB3	11080	21550	7.56%	0.506%
53	14.092	1219	1223	1226	rBV3	19657	45005	15.80%	1.057%
54	14.173	1227	1231	1234	rBV5	11965	34178	12.00%	0.803%
55	14.224	1234	1236	1241	rVB6	11821	24822	8.71%	0.583%
56	14.316	1241	1245	1249	rVB4	58355	119213	41.84%	2.800%
57	14.407	1250	1254	1260	rBV4	27459	92207	32.36%	2.166%
58	14.569	1265	1270	1274	rVB2	58252	131030	45.99%	3.078%
59	14.640	1274	1277	1281	rBV3	23581	50617	17.76%	1.189%
60	14.701	1281	1283	1290	rVB5	6666	23867	8.38%	0.561%
61	14.803	1291	1293	1297	rBV3	7187	17163	6.02%	0.403%
62	14.965	1306	1309	1312	rBV	41159	70351	24.69%	1.653%
63	15.016	1312	1314	1318	rVB2	40138	76723	26.93%	1.802%
64	15.087	1319	1321	1323	rBV2	10438	16760	5.88%	0.394%
65	15.138	1323	1326	1328	rBV	27535	40889	14.35%	0.961%
66	15.189	1328	1331	1333	rBV3	33093	58202	20.43%	1.367%
67	15.321	1341	1344	1348	rVB4	8065	14980	5.26%	0.352%
68	15.453	1353	1357	1359	rBV4	11977	34523	12.12%	0.811%
69	15.585	1364	1370	1372	rBV5	18892	60817	21.34%	1.429%
70	15.676	1377	1379	1381	rVB2	15181	20679	7.26%	0.486%
71	15.727	1381	1384	1386	rBV2	27771	43432	15.24%	1.020%
72	15.777	1386	1389	1392	rVB	41882	65145	22.86%	1.530%
73	15.980	1406	1409	1410	rBV2	13110	24457	8.58%	0.575%
74	16.031	1411	1414	1417	rVB2	44733	79653	27.96%	1.871%
75	16.224	1430	1433	1436	rBV4	12975	26244	9.21%	0.616%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	16.275	1436	1438	1442	rVB3	11662	20104	7.06%	0.472%
77	16.640	1471	1474	1479	rVB5	20544	56847	19.95%	1.335%
78	16.711	1479	1481	1483	rBV2	9510	16548	5.81%	0.389%
79	16.782	1484	1488	1492	rBV	35091	65586	23.02%	1.541%
80	16.985	1504	1508	1512	rBV3	30371	56873	19.96%	1.336%
81	17.300	1531	1539	1545	rVB5	27288	92512	32.47%	2.173%
82	17.635	1568	1572	1577	rVB	24176	50621	17.77%	1.189%
83	17.960	1601	1604	1608	rVB2	19354	36840	12.93%	0.865%
84	18.437	1648	1651	1658	rVB3	11574	29903	10.49%	0.702%
85	18.610	1664	1668	1673	rVB2	8739	24091	8.46%	0.566%
86	18.782	1680	1685	1698	rVB	20791	68222	23.94%	1.603%
87	19.219	1725	1728	1735	rVB8	3460	9207	3.23%	0.216%
88	19.574	1757	1763	1771	rBV2	17623	55317	19.41%	1.299%
89	19.848	1787	1790	1797	rBV8	1705	4148	1.46%	0.097%

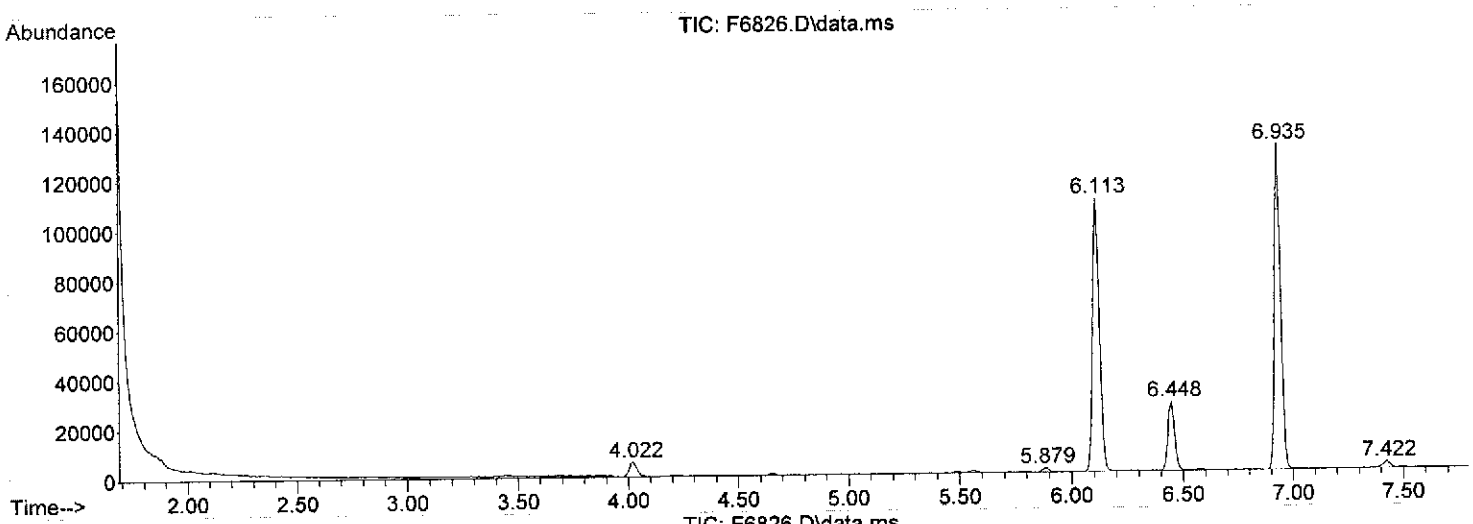
Sum of corrected areas: 4257018

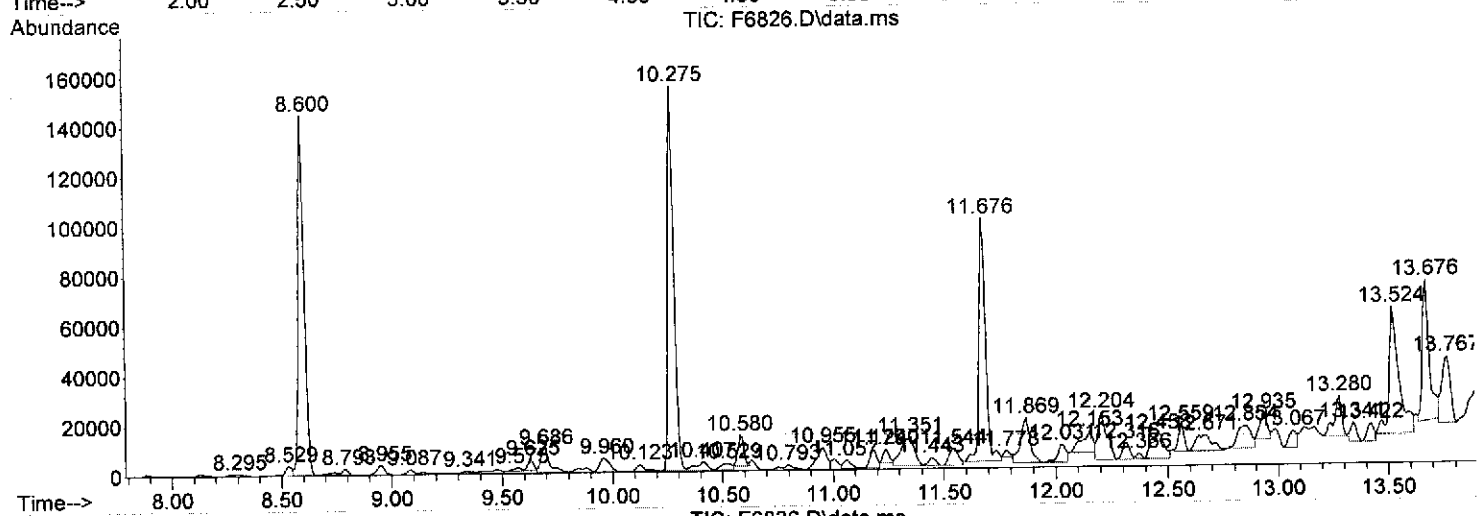
LSC Report - Integrated Chromatogram

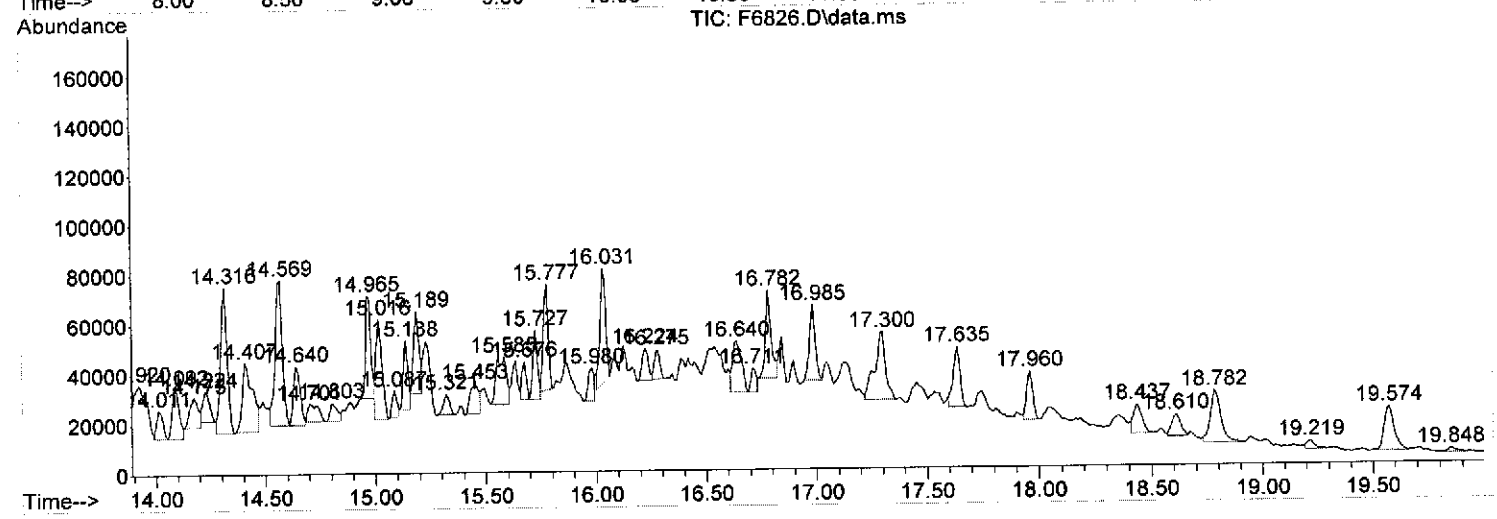
Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

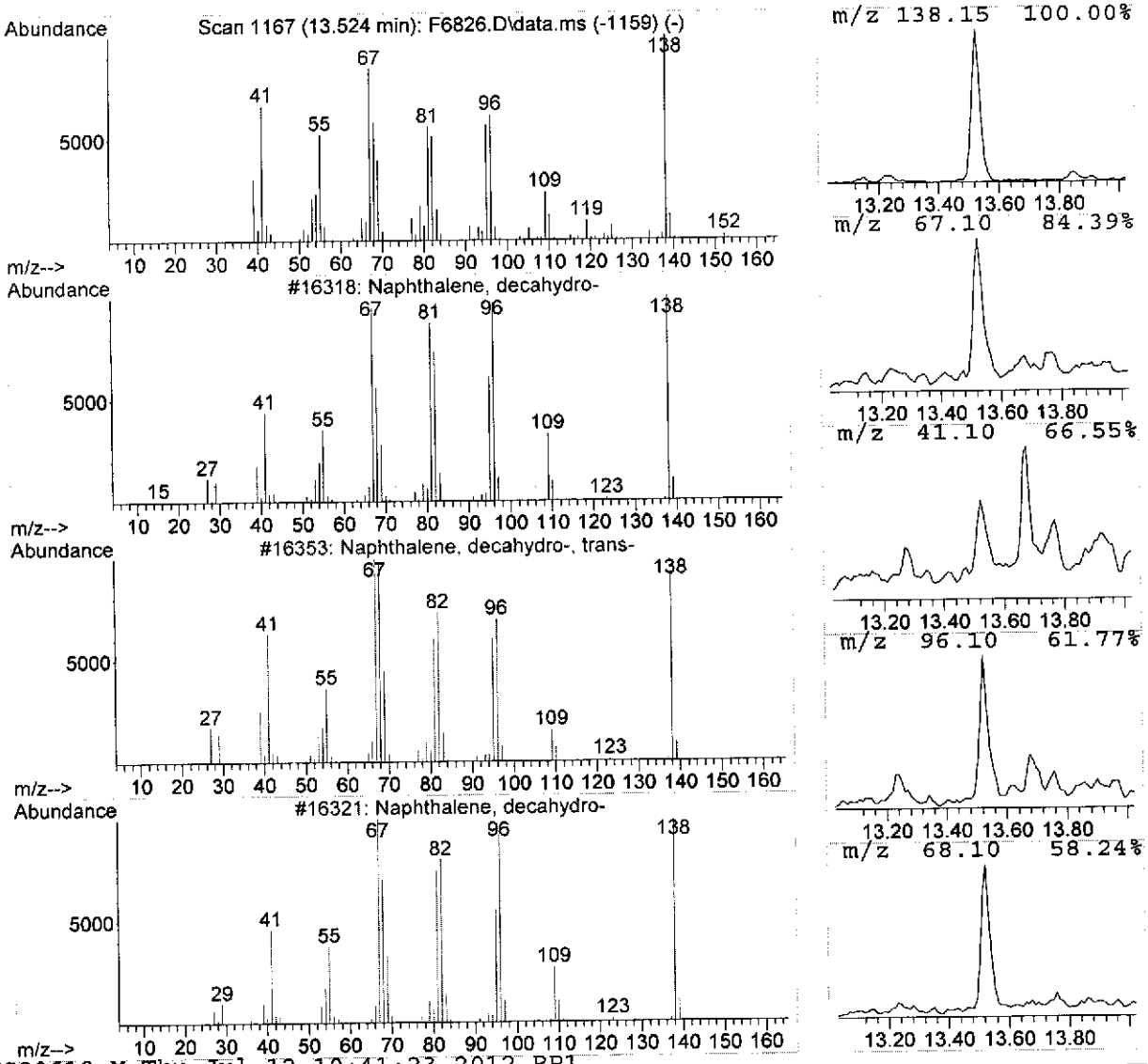
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown PAH Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.52	28.24 UG	160940	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-	138	C10H18	000091-17-8	95
2	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	94
3	Naphthalene, decahydro-	138	C10H18	000091-17-8	94
4	Naphthalene, decahydro-	138	C10H18	000091-17-8	94
5	Naphthalene, decahydro-, cis-	138	C10H18	000493-01-6	93



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

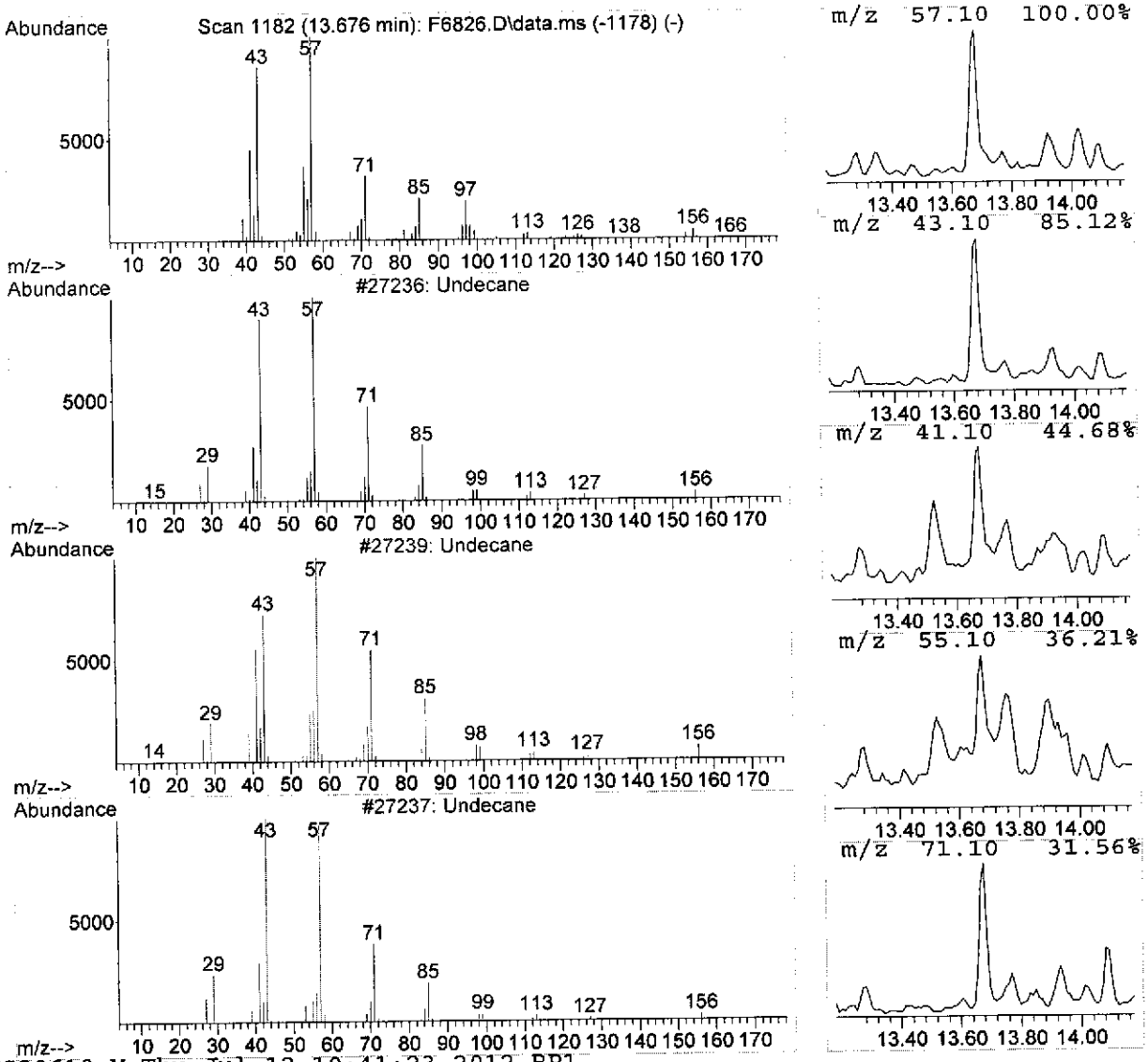
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.68	21.22 UG	120941	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane	156	C11H24	001120-21-4	93
2	Undecane	156	C11H24	001120-21-4	92
3	Undecane	156	C11H24	001120-21-4	70
4	Undecane	156	C11H24	001120-21-4	70
5	Undecane	156	C11H24	001120-21-4	60



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

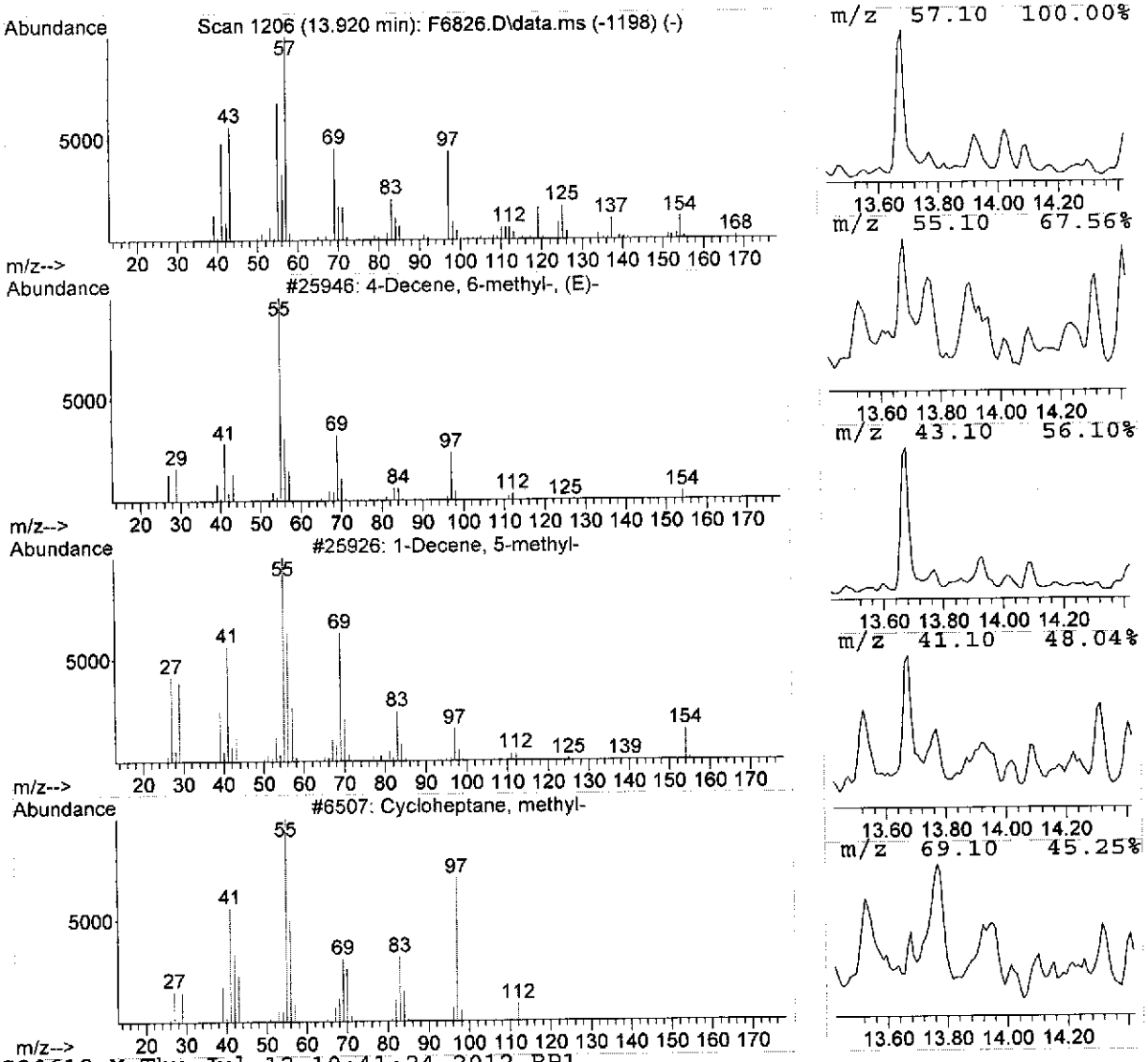
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.92	17.02 UG	96991	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Decene, 6-methyl-, (E)-	154	C11H22	036229-57-9	53
2	1-Decene, 5-methyl-	154	C11H22	054244-79-0	46
3	Cycloheptane, methyl-	112	C8H16	004126-78-7	43
4	Cyclopentane, 2-isopropyl-1,3-di...	140	C10H20	032281-85-9	43
5	5-Undecene, (E)-	154	C11H22	000764-97-6	38



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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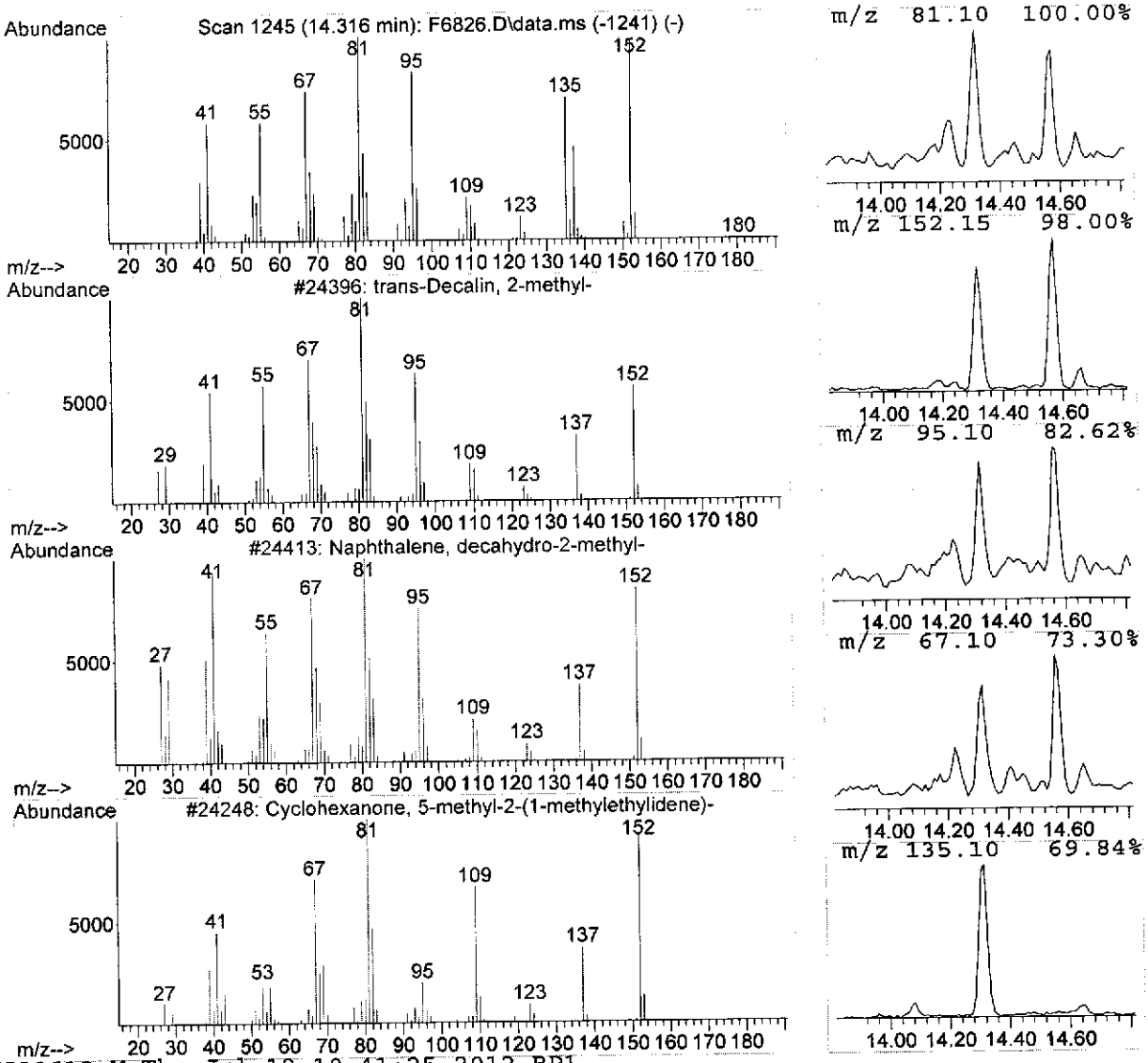
Peak Number 4 Unknown VOA Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.32	20.92 UG	119213	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-Decalin, 2-methyl-	152	C11H20	1000152-47-3	95
2	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	93
3	Cyclohexanone, 5-methyl-2-(1-met...	152	C10H16O	015932-80-6	86
4	Cyclohexanone, 5-methyl-2-(1-met...	152	C10H16O	015932-80-6	70
5	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	60



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

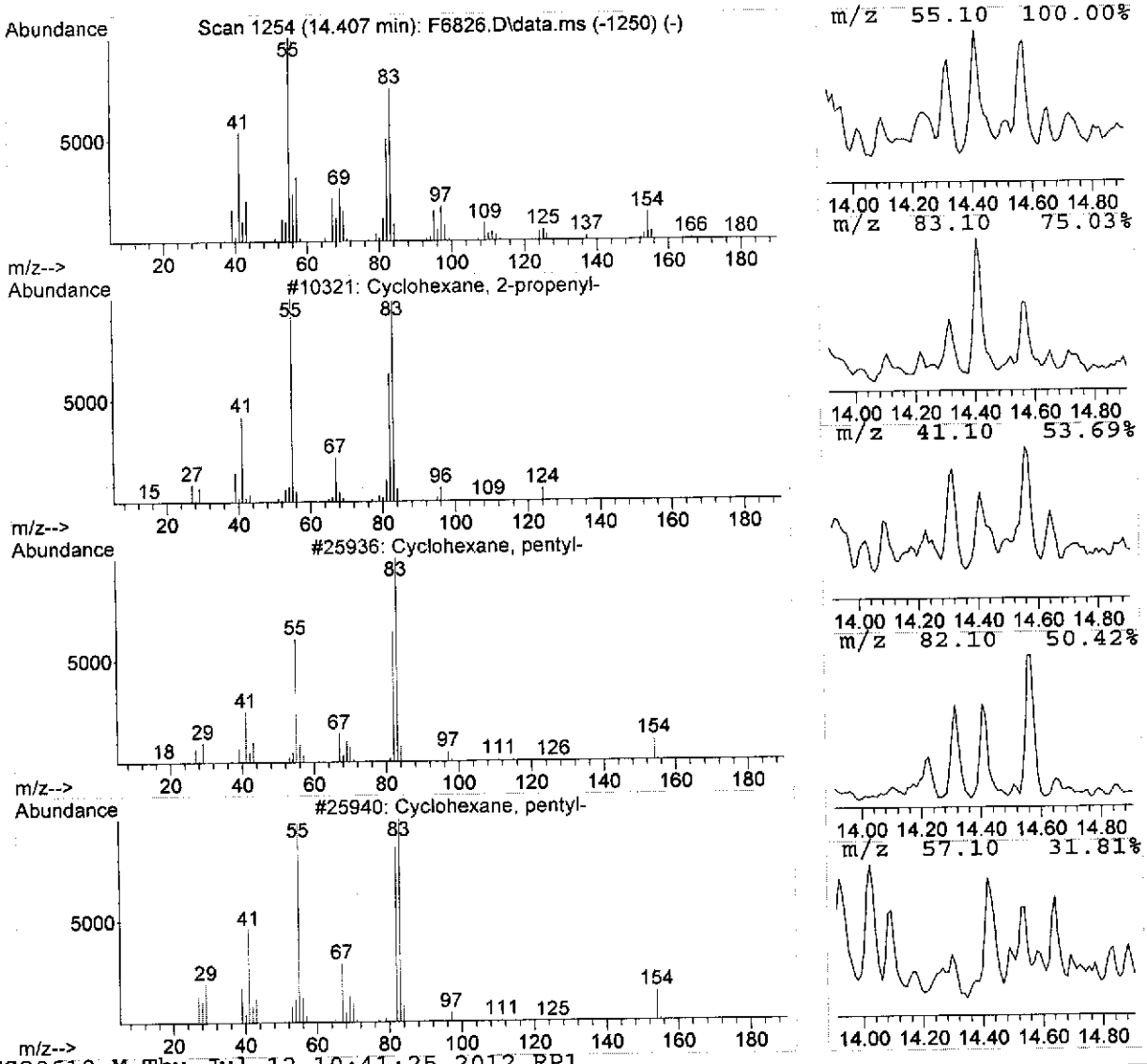
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 5 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.41	16.18 UG	92207	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 2-propenyl-	124	C9H16	002114-42-3	76
2	Cyclohexane, pentyl-	154	C11H22	004292-92-6	72
3	Cyclohexane, pentyl-	154	C11H22	004292-92-6	64
4	Cyclohexane, 2-propenyl-	124	C9H16	002114-42-3	62
5	Cyclohexane, (1-methylethyl)-	126	C9H18	000696-29-7	59



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

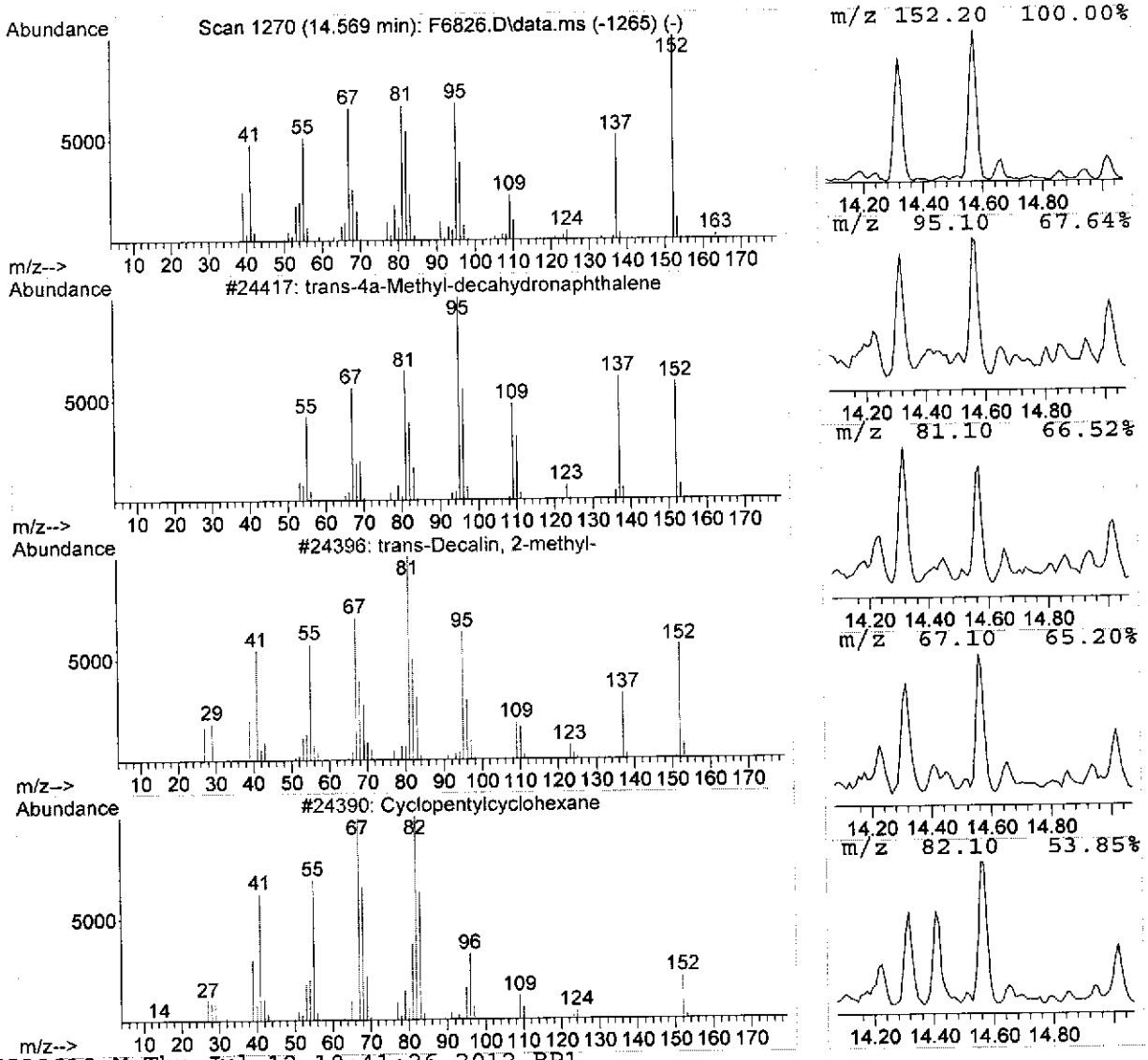
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 6 Unknown VOA Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.57	22.99 UG	131030	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-4a-Methyl-decahydronaphtha...	152	C11H20	002547-27-5	87
2	trans-Decalin, 2-methyl-	152	C11H20	1000152-47-3	83
3	Cyclopentylcyclohexane	152	C11H20	001606-08-2	70
4	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	64
5	cis-Decalin, 2-syn-methyl-	152	C11H20	1000155-85-6	62



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

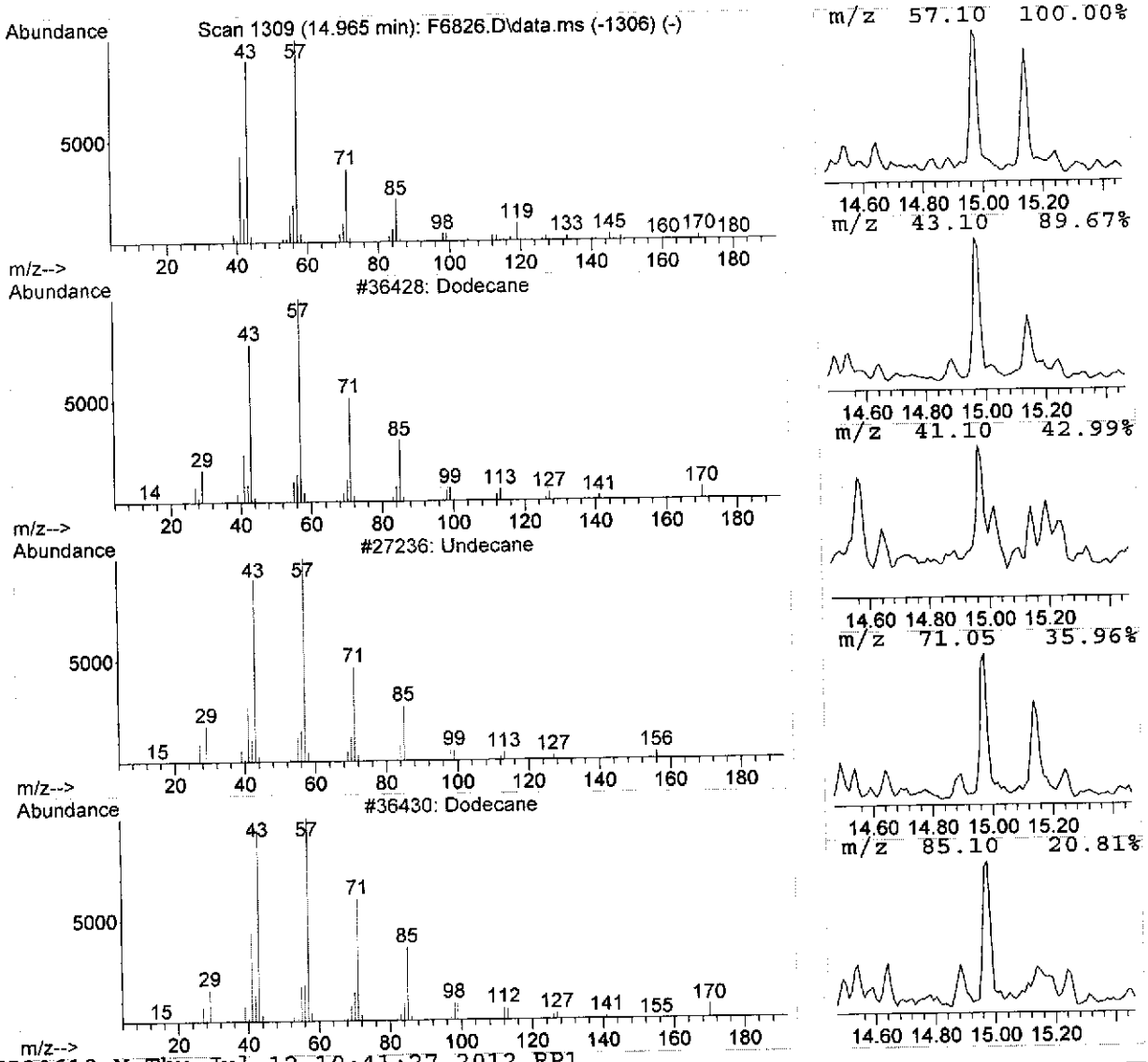
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 7 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.97	12.35 UG	70351	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	91
2	Undecane	156	C11H24	001120-21-4	86
3	Dodecane	170	C12H26	000112-40-3	86
4	Undecane	156	C11H24	001120-21-4	86
5	Decane	142	C10H22	000124-18-5	86



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
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Acq On : 10 Jul 2012 20:06
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Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

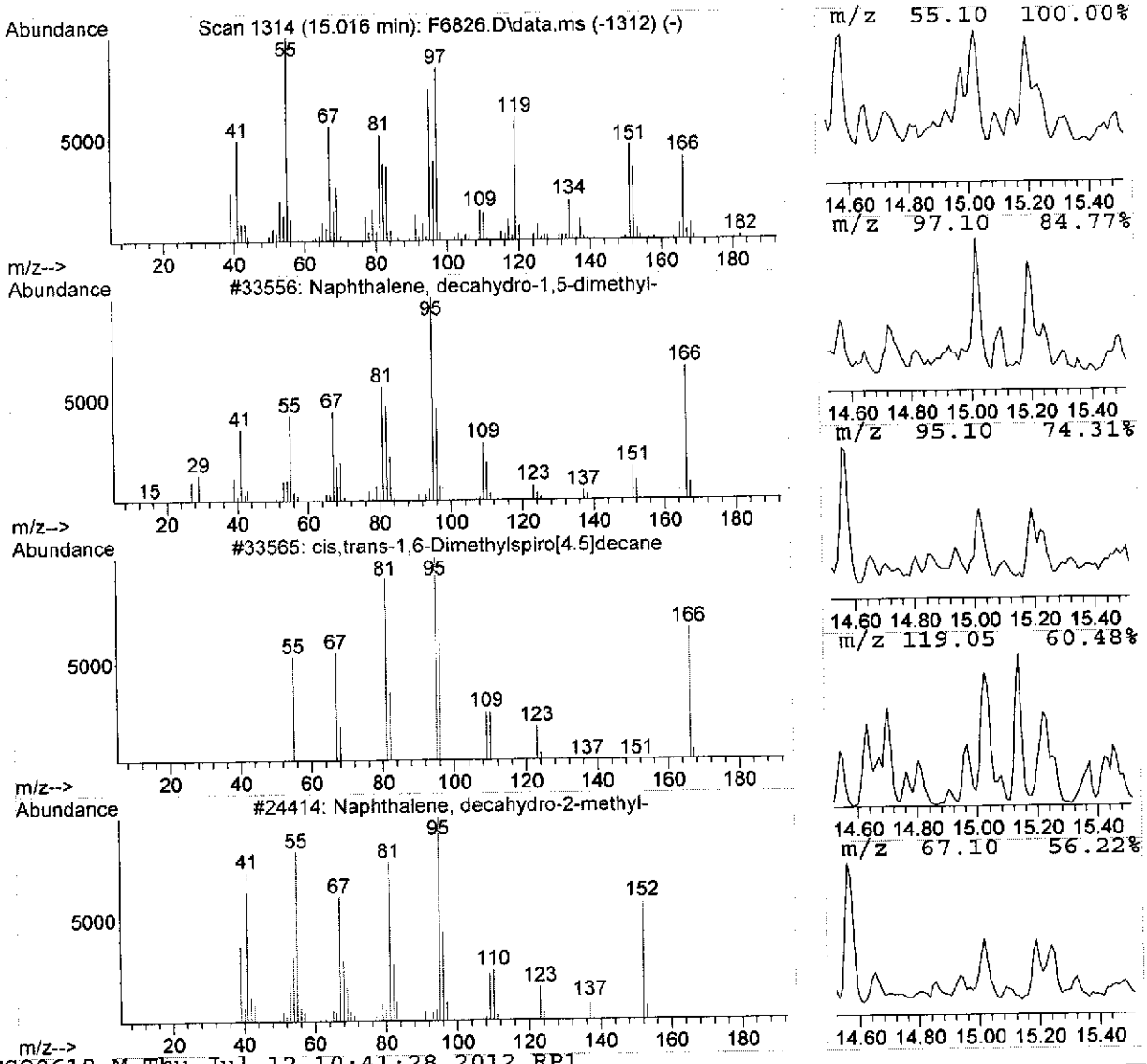
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 8 Unknown VOA Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.02	13.46 UG	76723	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-1,5-dimet...	166	C12H22	066552-62-3	50
2	cis,trans-1,6-Dimethylspiro[4.5]...	166	C12H22	1000111-72-3	41
3	Naphthalene, decahydro-2-methyl-	152	C11H20	002958-76-1	38
4	Cyclohexene,1-hexyl-	166	C12H22	003964-66-7	35
5	4,4-Dimethyl-2-propenylcyclopent...	152	C10H16O	068261-88-1	30



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

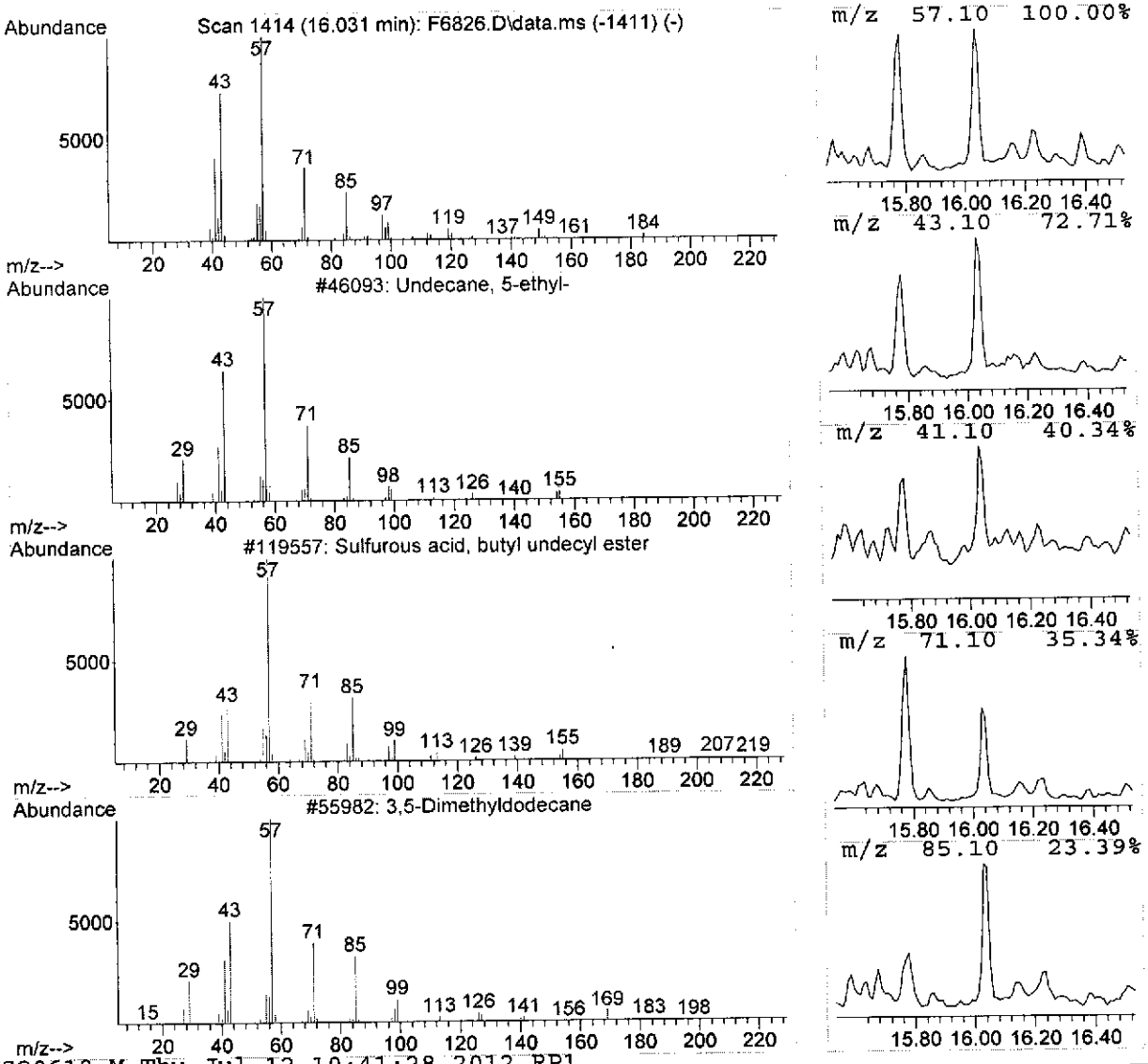
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Unknown Hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.03	13.98 UG	79653	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane, 5-ethyl-	184	C13H28	017453-94-0	64
2	Sulfurous acid, butyl undecyl ester	292	C15H32O3S	1000309-17-8	64
3	3,5-Dimethyldodecane	198	C14H30	107770-99-0	64
4	Hexadecane	226	C16H34	000544-76-3	59
5	Undecane, 2,5-dimethyl-	184	C13H28	017301-22-3	58



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6826.D
Acq On : 10 Jul 2012 20:06
Operator : XING
Sample : G6-062612,06385-008,S,2.5g,14.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 9 Sample Multiplier: 1

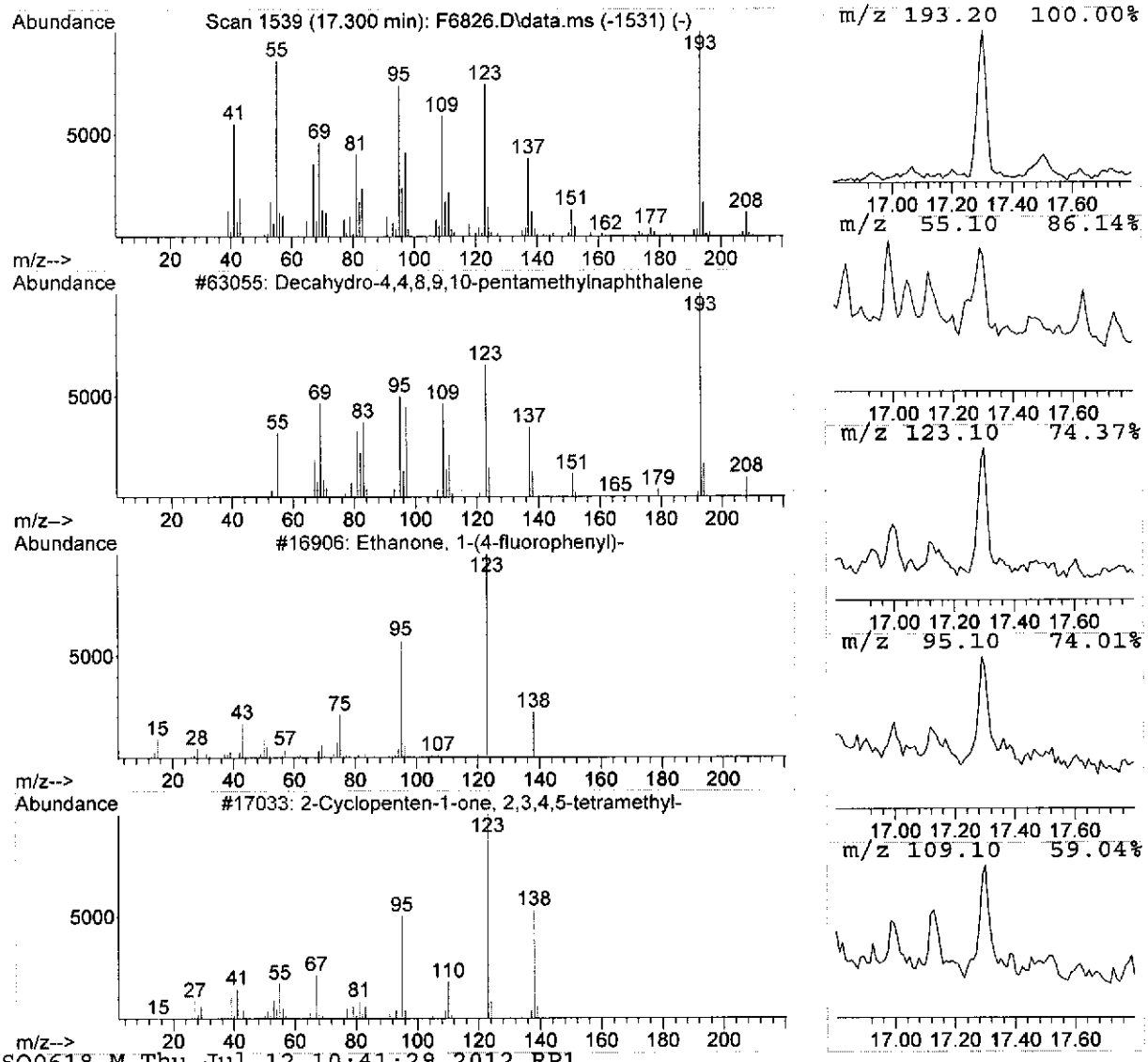
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 10 Unknown VOA Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.30	16.23 UG	92512	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decahydro-4,4,8,9,10-pentamethyl...	208	C15H28	080655-44-3	60
2	Ethanone, 1-(4-fluorophenyl)-	138	C8H7FO	000403-42-9	30
3	2-Cyclopenten-1-one, 2,3,4,5-tet...	138	C9H14O	054458-61-6	27
4	2(1H)-Pyridinone, 1-propyl-	137	C8H11NO	019006-63-4	25
5	3-Ethyl-4-(3-methyl-3H-imidazol-...	208	C11H16N2O2	004354-74-9	18



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 12 11:55:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	92589	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.935	114	128660	50.00	UG	0.00
50) Chlorobenzene-d5	10.275	117	106393	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.448	65	26106	32.23	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 64.46%			
41) Toluene-d8	8.600	98	113956	41.50	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 83.00%			
59) Bromofluorobenzene	11.676	95	46441	45.36	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 90.72%			

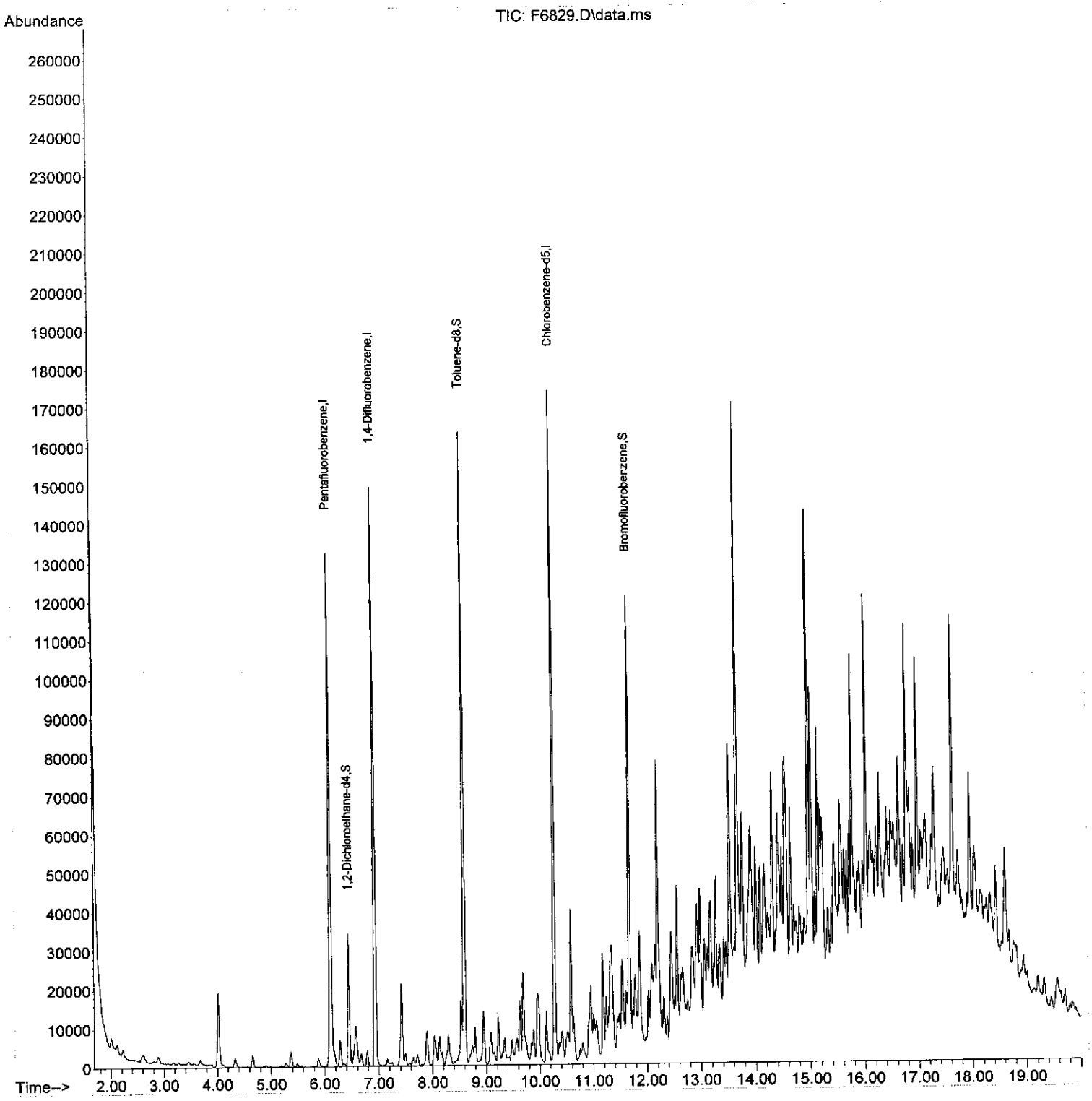
Target Compounds Qvalue

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 12 11:55:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6829.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	222	231	247	rVB2	18933	49567	15.35%	0.665%
2	6.113	424	437	449	rBV	132384	301343	93.34%	4.045%
3	6.448	465	470	475	rBV	33928	70033	21.69%	0.940%
4	6.580	475	483	489	rVV	10233	38496	11.92%	0.517%
5	6.935	512	518	527	rBV	149321	294341	91.17%	3.951%
6	7.423	555	566	571	rBV	21096	57160	17.71%	0.767%
7	7.900	605	613	618	rBV2	8705	22449	6.95%	0.301%
8	8.042	618	627	632	rBV3	7653	24955	7.73%	0.335%
9	8.133	632	636	644	rVB2	7235	21428	6.64%	0.288%
10	8.296	644	652	660	rBV2	7721	25824	8.00%	0.347%
11	8.529	660	675	678	rBV2	16353	47689	14.77%	0.640%
12	8.600	678	682	688	rVB	162615	313832	97.21%	4.212%
13	8.793	698	701	708	rVB	9055	17389	5.39%	0.233%
14	8.945	708	716	723	rVB	13492	36803	11.40%	0.494%
15	9.087	723	730	733	rBV	8056	20892	6.47%	0.280%
16	9.230	739	744	748	rBV	11129	25298	7.84%	0.340%
17	9.626	780	783	786	rVV	14020	24368	7.55%	0.327%
18	9.686	786	789	800	rVB	22111	61153	18.94%	0.821%
19	9.879	800	808	812	rBV2	7657	23321	7.22%	0.313%
20	9.961	812	816	827	rVB2	17546	62334	19.31%	0.837%
21	10.123	827	832	840	rBV	13003	31926	9.89%	0.429%
22	10.275	840	847	853	rBV	172729	322831	100.00%	4.333%
23	10.417	858	861	865	rVB2	6808	16485	5.11%	0.221%
24	10.519	865	871	874	rBV5	6709	26057	8.07%	0.350%
25	10.580	874	877	881	rBV2	34180	66807	20.69%	0.897%
26	10.955	906	914	917	rBV3	18417	65759	20.37%	0.883%
27	11.179	931	936	939	rBV2	25846	52762	16.34%	0.708%
28	11.240	939	942	945	rVV2	14135	32010	9.92%	0.430%
29	11.351	945	953	959	rVB4	26942	116648	36.13%	1.566%
30	11.483	959	966	968	rBV3	8897	34351	10.64%	0.461%
31	11.544	968	972	976	rVV3	21669	58556	18.14%	0.786%
32	11.615	976	979	981	rVV2	12897	28040	8.69%	0.376%
33	11.676	981	985	989	rVV	114326	225448	69.83%	3.026%
34	11.778	992	995	1000	rVV3	15805	41781	12.94%	0.561%
35	11.869	1000	1004	1012	rVB5	28449	74489	23.07%	1.000%

LSC Area Percent Report

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Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	12.032	1016	1020	1022	rBV2	12722	27528	8.53%	0.369%
37	12.092	1022	1026	1028	rVV3	16511	42184	13.07%	0.566%
38	12.153	1029	1032	1034	rVV	20882	49233	15.25%	0.661%
39	12.204	1034	1037	1044	rVB	69248	152165	47.13%	2.042%
40	12.316	1044	1048	1051	rVB3	10262	20029	6.20%	0.269%
41	12.458	1056	1062	1066	rBV4	27858	93474	28.95%	1.255%
42	12.559	1069	1072	1076	rVB	33361	58616	18.16%	0.787%
43	12.661	1076	1082	1089	rBV9	12208	49930	15.47%	0.670%
44	12.844	1095	1100	1104	rBV3	15917	54402	16.85%	0.730%
45	12.935	1104	1109	1112	rVV3	25167	72689	22.52%	0.976%
46	12.986	1112	1114	1118	rVB3	31820	61788	19.14%	0.829%
47	13.067	1118	1122	1125	rBV2	18657	45940	14.23%	0.617%
48	13.118	1125	1127	1129	rVV2	10682	19043	5.90%	0.256%
49	13.179	1129	1133	1136	rVB2	22178	52999	16.42%	0.711%
50	13.280	1137	1143	1146	rVB2	28936	59438	18.41%	0.798%
51	13.341	1146	1149	1153	rVB	14504	32349	10.02%	0.434%
52	13.422	1153	1157	1159	rBV2	16077	33916	10.51%	0.455%
53	13.534	1164	1168	1173	rBV2	60437	152033	47.09%	2.041%
54	13.676	1178	1182	1187	rVV	144965	284794	88.22%	3.823%
55	13.767	1187	1191	1195	rVB3	40064	98353	30.47%	1.320%
56	13.920	1197	1206	1212	rBV4	34172	144891	44.88%	1.945%
57	14.011	1212	1215	1219	rVB3	30452	67760	20.99%	0.910%
58	14.092	1219	1223	1226	rBV3	25083	49245	15.25%	0.661%
59	14.163	1226	1230	1234	rBV6	23527	67843	21.02%	0.911%
60	14.316	1240	1245	1248	rVB2	46663	97554	30.22%	1.309%
61	14.417	1252	1255	1259	rVV3	34174	93572	28.98%	1.256%
62	14.488	1259	1262	1264	rVV2	24574	45485	14.09%	0.611%
63	14.549	1264	1268	1274	rVB2	51711	174201	53.96%	2.338%
64	14.641	1274	1277	1281	rBV3	38610	80806	25.03%	1.085%
65	14.701	1281	1283	1285	rBV	10505	17066	5.29%	0.229%
66	14.803	1291	1293	1299	rBV4	11094	27450	8.50%	0.368%
67	14.976	1306	1310	1312	rBV	108984	192693	59.69%	2.586%
68	15.016	1312	1314	1319	rVB3	66162	138261	42.83%	1.856%
69	15.087	1319	1321	1323	rBV2	13467	20478	6.34%	0.275%
70	15.138	1323	1326	1328	rBV	53924	79942	24.76%	1.073%
71	15.189	1329	1331	1333	rBV2	20285	31558	9.78%	0.424%
72	15.321	1341	1344	1348	rVB5	11487	22649	7.02%	0.304%
73	15.382	1348	1350	1352	rBV	11513	17749	5.50%	0.238%
74	15.443	1352	1356	1362	rVV4	26489	90173	27.93%	1.210%
75	15.554	1364	1367	1372	rVV3	34409	100447	31.11%	1.348%

LSC Area Percent Report

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Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	15.635	1372	1375	1377	rVV3	20502	39744	12.31%	0.533%
77	15.676	1377	1379	1381	rVB3	21343	28899	8.95%	0.388%
78	15.727	1381	1384	1386	rBV3	29157	52414	16.24%	0.704%
79	15.778	1386	1389	1395	rVB2	66867	127855	39.60%	1.716%
80	15.970	1405	1408	1410	rBV3	17480	32224	9.98%	0.433%
81	16.031	1410	1414	1418	rVV2	79599	139284	43.14%	1.870%
82	16.113	1418	1422	1425	rVV4	13200	41315	12.80%	0.555%
83	16.224	1430	1433	1435	rVV2	20762	43396	13.44%	0.582%
84	16.285	1436	1439	1446	rVB4	32663	82809	25.65%	1.111%
85	16.488	1457	1459	1463	rBV3	17066	42792	13.26%	0.574%
86	16.640	1470	1474	1479	rVB5	37709	95250	29.50%	1.278%
87	16.722	1479	1482	1484	rBV	14963	26587	8.24%	0.357%
88	16.783	1484	1488	1497	rVB3	69023	193259	59.86%	2.594%
89	16.894	1497	1499	1502	rVB3	15748	24161	7.48%	0.324%
90	16.986	1503	1508	1511	rBV2	61080	122389	37.91%	1.643%
91	17.250	1531	1534	1536	rBV2	13739	32983	10.22%	0.443%
92	17.300	1536	1539	1545	rVB4	36491	88420	27.39%	1.187%
93	17.635	1567	1572	1579	rVV	72458	147033	45.54%	1.974%
94	17.737	1579	1582	1587	rVB2	14328	37872	11.73%	0.508%
95	17.960	1601	1604	1608	rVB2	35478	68647	21.26%	0.921%
96	18.041	1609	1612	1620	rVB3	16637	50801	15.74%	0.682%
97	18.437	1647	1651	1659	rVB4	22030	59955	18.57%	0.805%
98	18.610	1664	1668	1673	rVV	24888	65246	20.21%	0.876%
99	19.321	1736	1738	1746	rVB6	7597	21735	6.73%	0.292%
100	19.564	1757	1762	1772	rBV6	6734	31817	9.86%	0.427%

Sum of corrected areas: 7450238

LSC Report - Integrated Chromatogram

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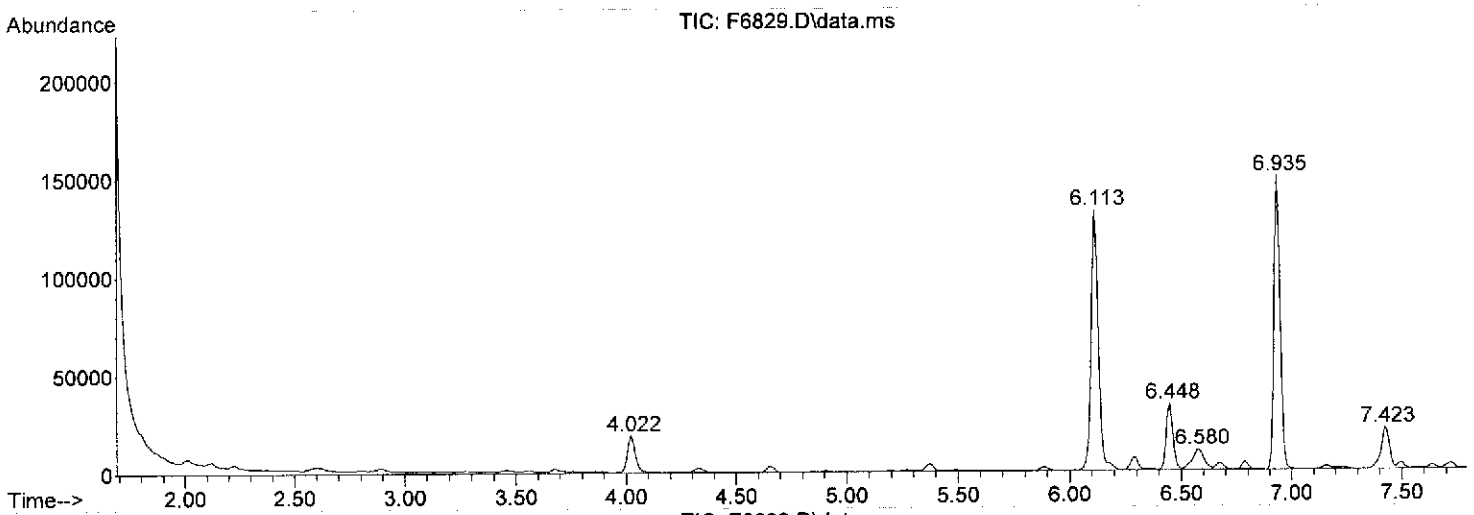
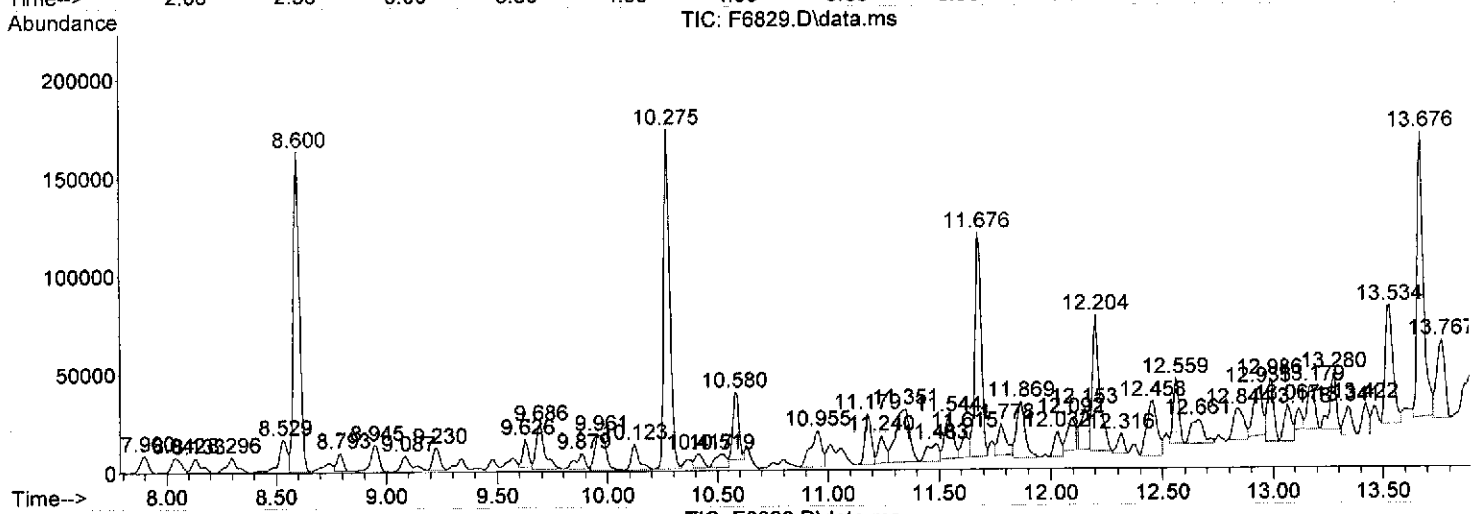
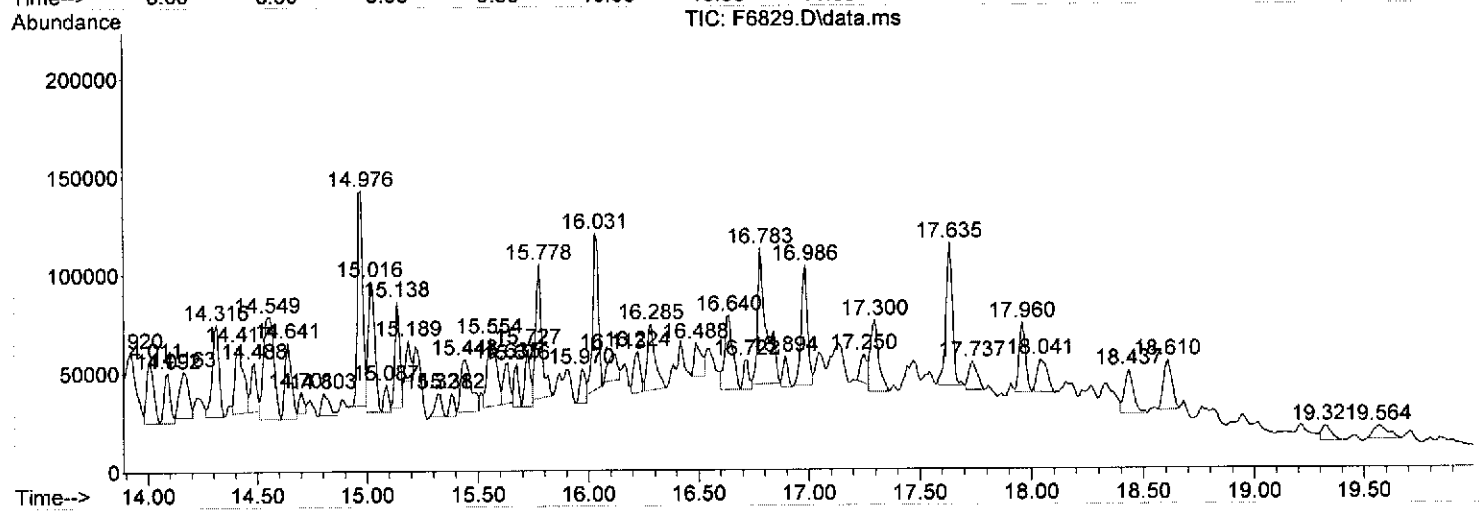
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

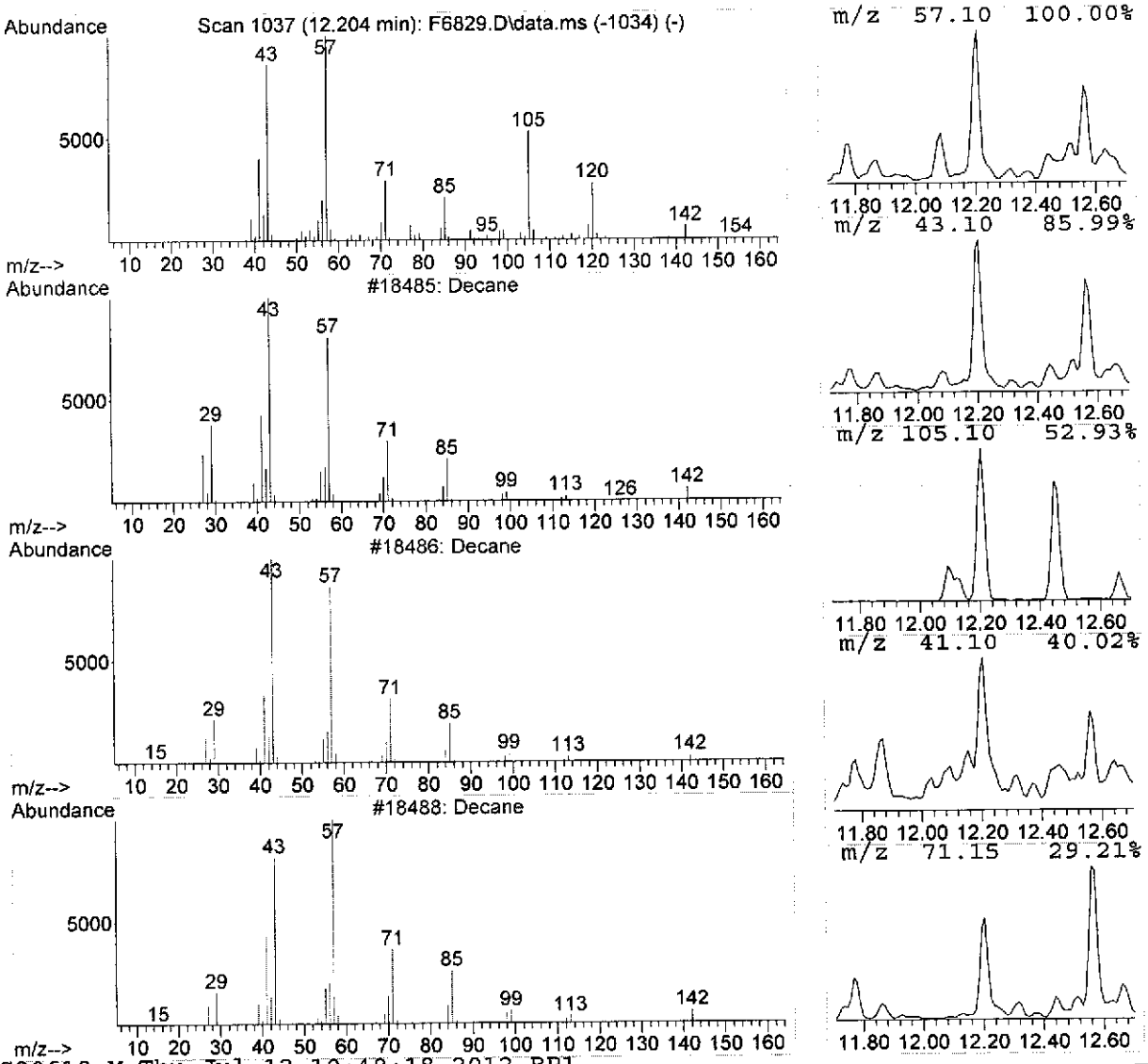
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.20	23.57 UG	152165	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane	142	C10H22	000124-18-5	50
2	Decane	142	C10H22	000124-18-5	49
3	Decane	142	C10H22	000124-18-5	45
4	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	38
5	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	38



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

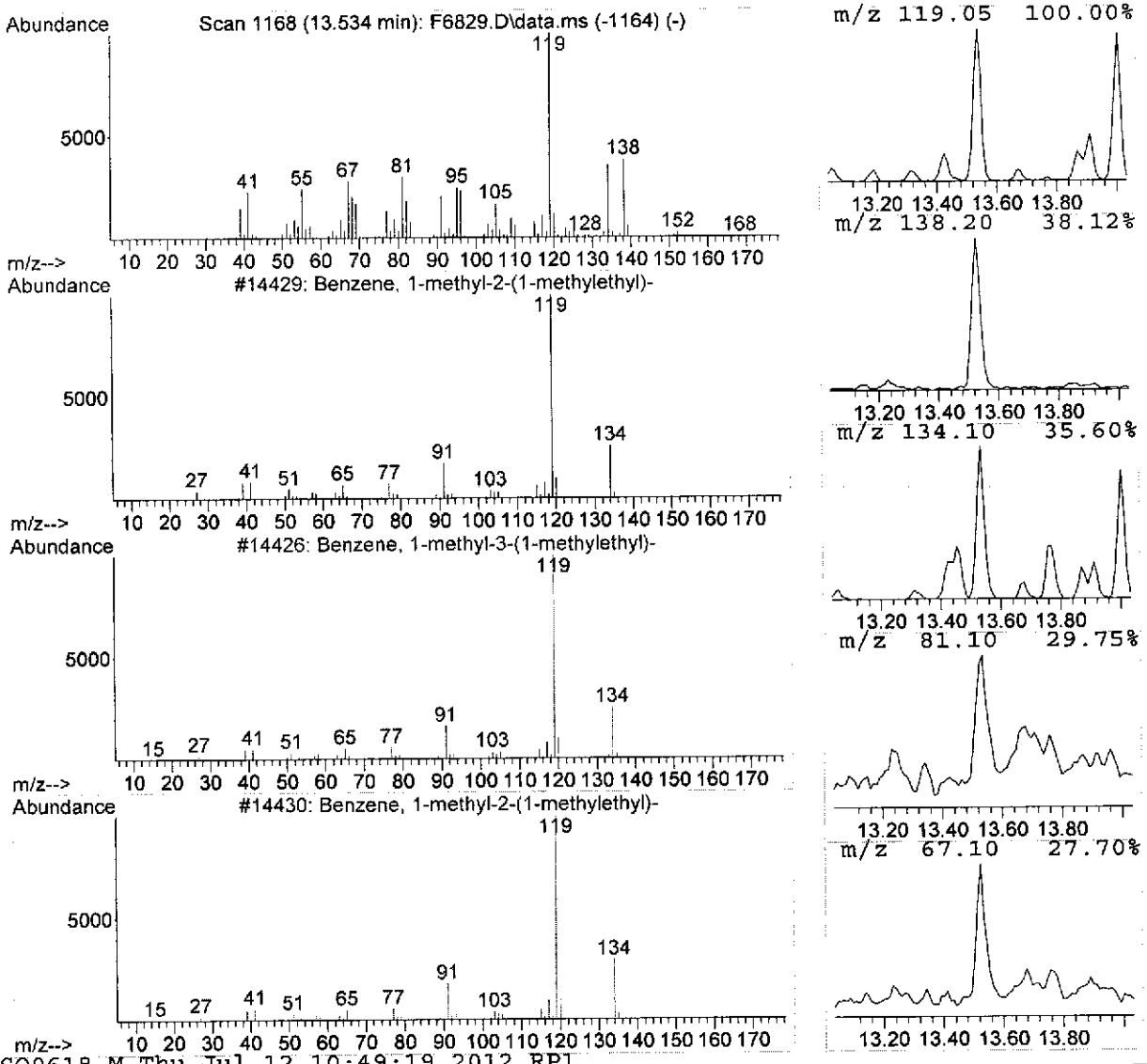
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 2 Unknown Aromatic Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.53	23.55 UG	152033	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	86
2	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	86
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	86
4	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	86
5	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	83



Library Search Compound Report

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Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

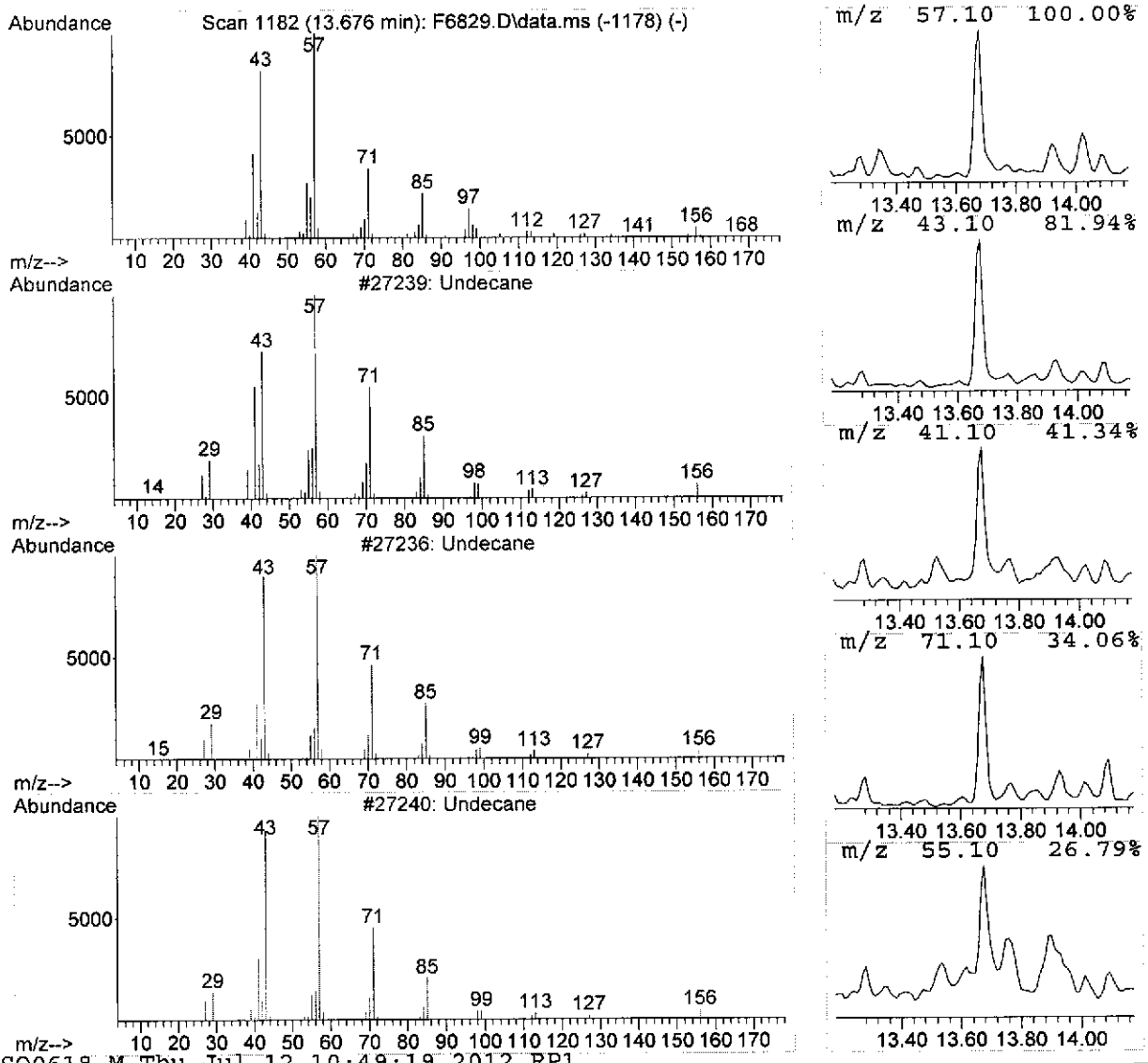
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Unknown Hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.68	44.11 UG	284794	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane	156	C11H24	001120-21-4	94
2	Undecane	156	C11H24	001120-21-4	94
3	Undecane	156	C11H24	001120-21-4	93
4	Undecane	156	C11H24	001120-21-4	76
5	Decane	142	C10H22	000124-18-5	72



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

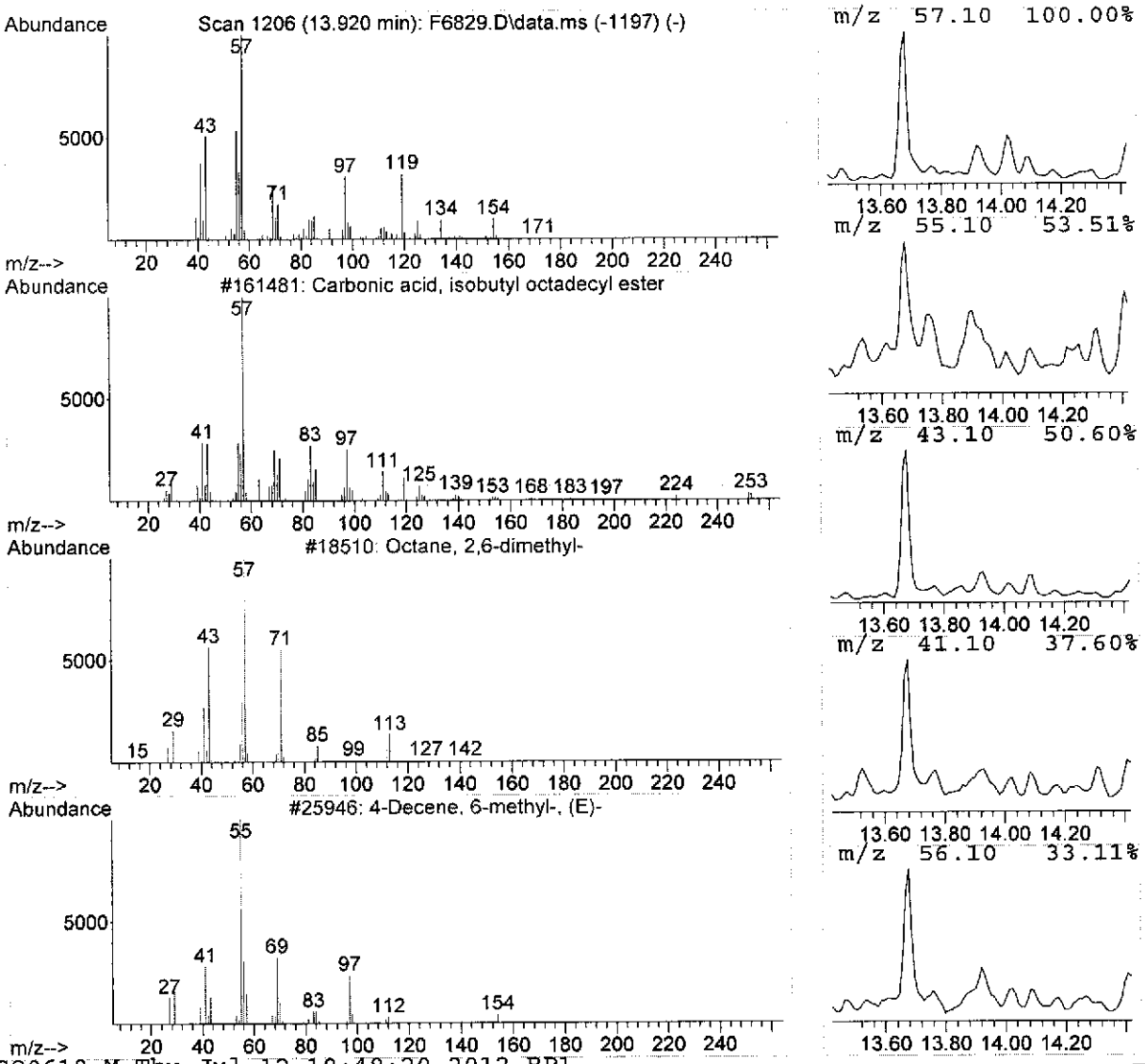
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 4 Unknown Hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.92	22.44 UG	144891	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbonic acid, isobutyl octadecy...	370	C23H46O3	1000314-61-5	43
2	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	27
3	4-Decene, 6-methyl-, (E)-	154	C11H22	036229-57-9	27
4	Cyclopropane, 1-butyl-1-methyl-2...	154	C11H22	041977-34-8	25
5	Pentane, 2,2-dimethyl-	100	C7H16	000590-35-2	22



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

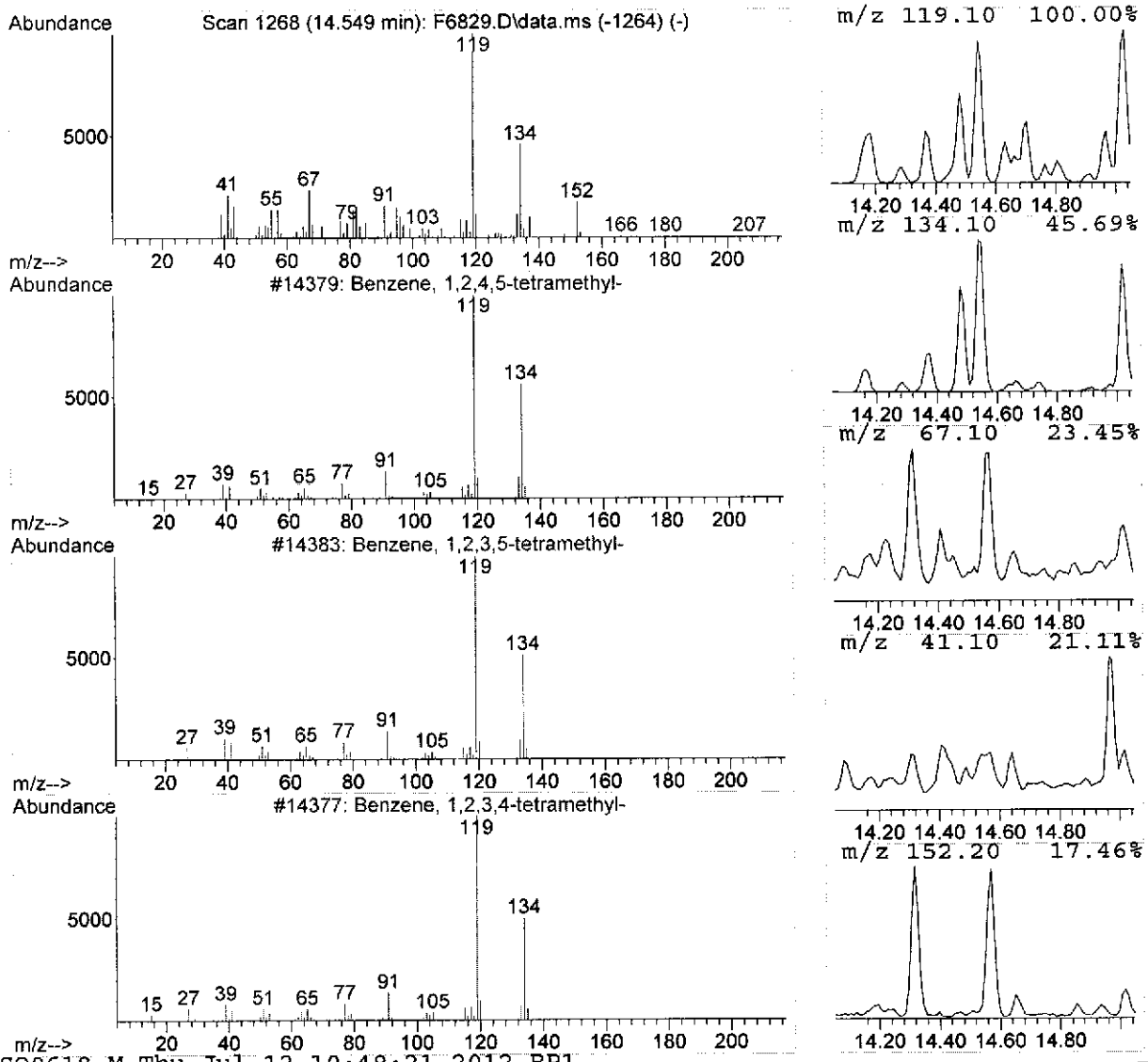
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 5 Unknown Aromatic Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.55	26.98 UG	174201	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	95
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	93
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	93
4	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	92
5	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	91



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

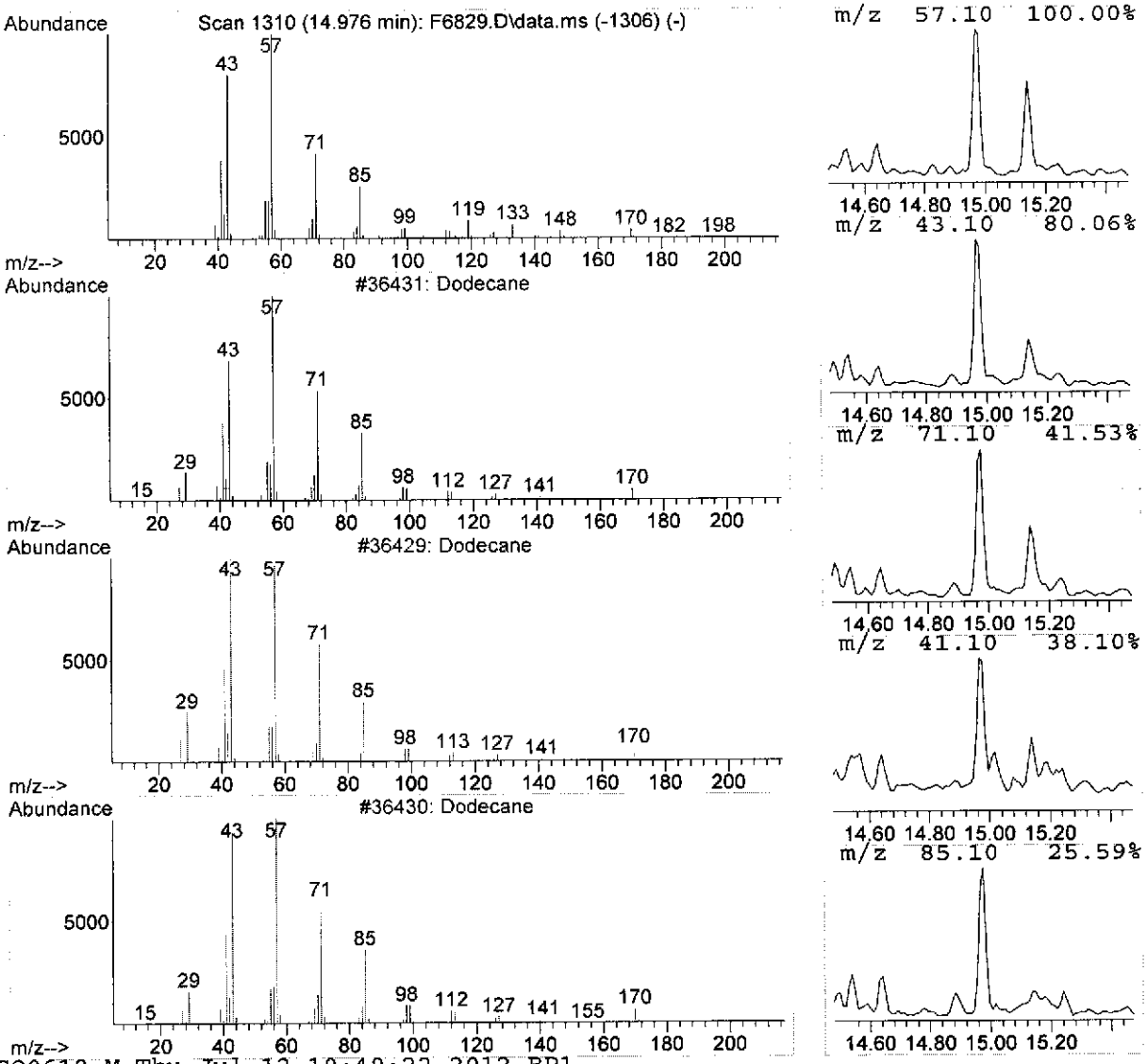
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 6 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.98	29.84 UG	192693	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	96
2	Dodecane	170	C12H26	000112-40-3	93
3	Dodecane	170	C12H26	000112-40-3	76
4	Dodecane	170	C12H26	000112-40-3	76
5	Undecane	156	C11H24	001120-21-4	72



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

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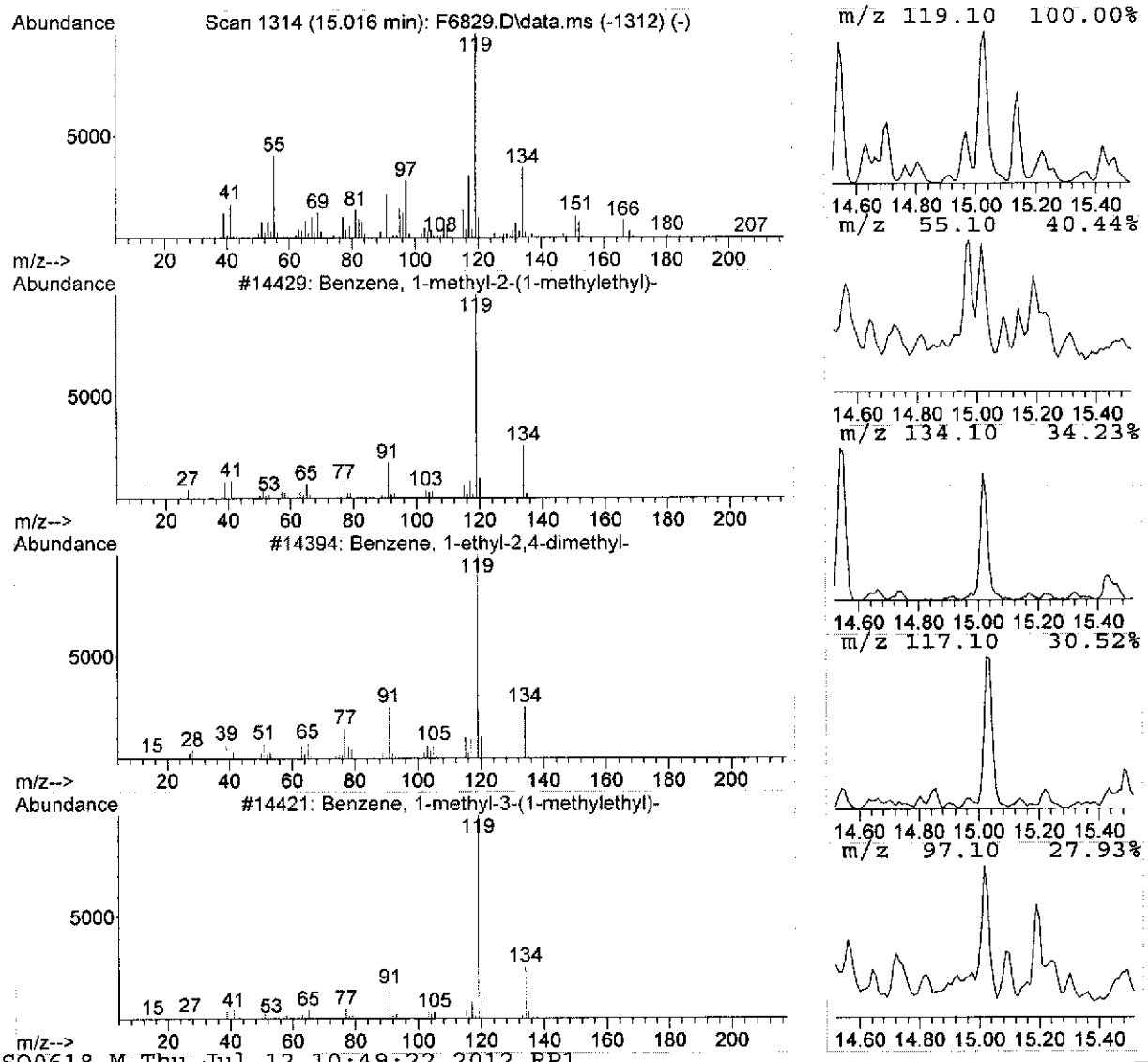
Peak Number 7 Unknown Aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.02	21.41 UG	138261	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	90
2	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	90
3	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	60
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	60
5	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	60



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

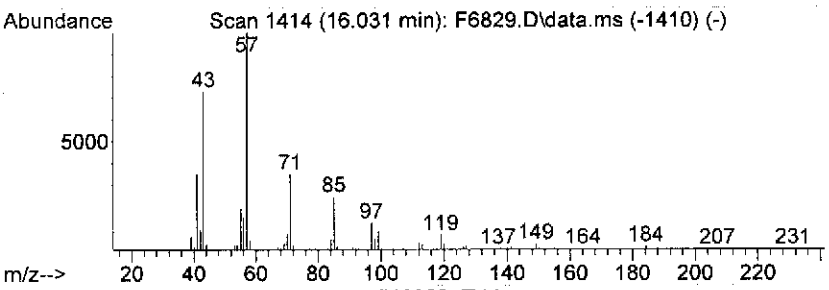
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

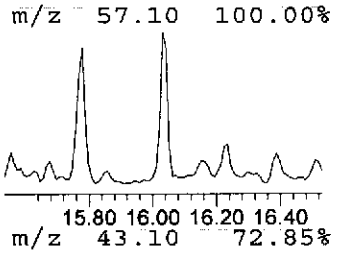
****

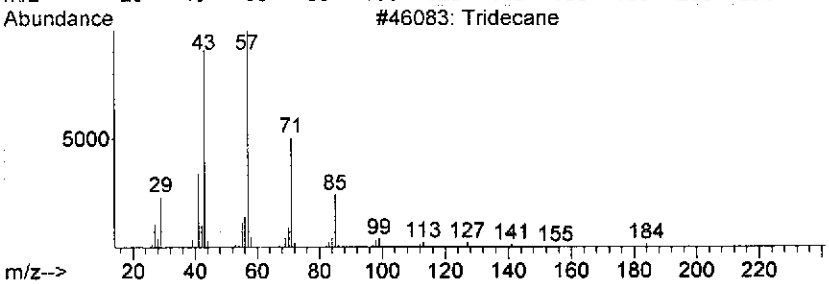
Peak Number 8 Unknown Hydrocarbon Concentration Rank 9

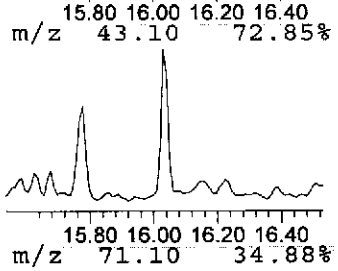
R.T.	EstConc	Area	Relative to ISTD	R.T.
16.03	21.57 UG	139284	Chlorobenzene-d5	10.28

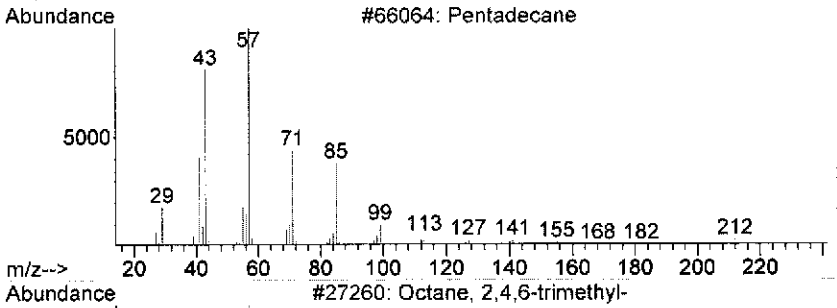
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	000629-50-5	76
2	Pentadecane	212	C15H32	000629-62-9	72
3	Octane, 2,4,6-trimethyl-	156	C11H24	062016-37-9	72
4	3,5-Dimethyldodecane	198	C14H30	107770-99-0	64
5	Sulfurous acid, 2-propyl tridecy...	306	C16H34O3S	1000309-12-4	64

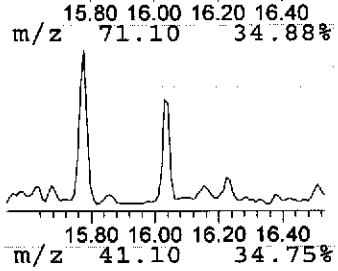


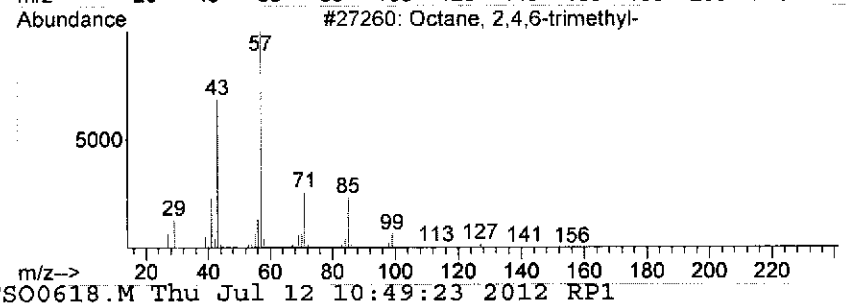


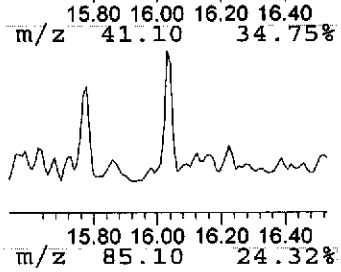


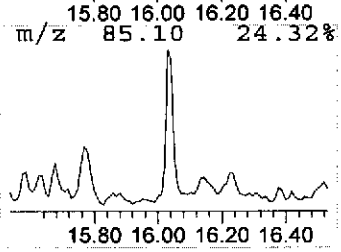












Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

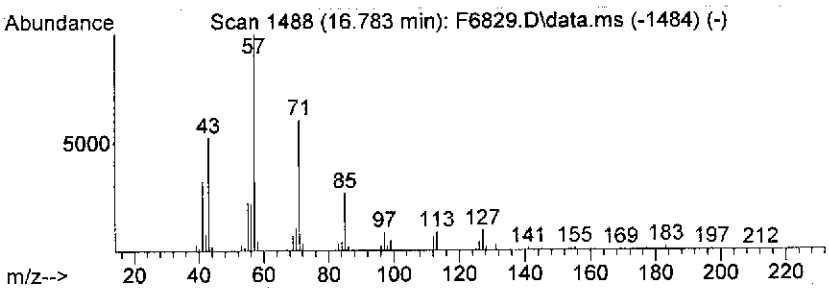
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

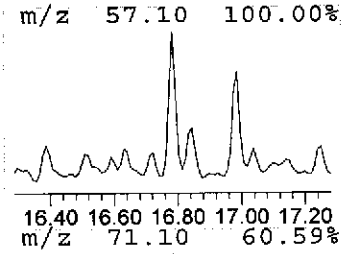
****

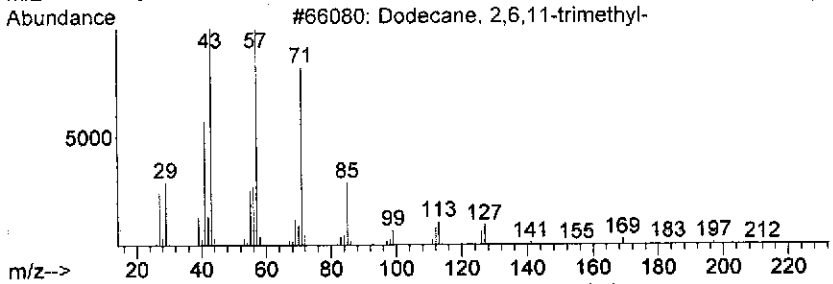
Peak Number 9 Unknown Hydrocarbon Concentration Rank 2

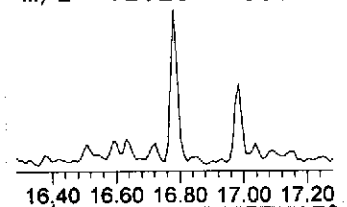
R.T.	EstConc	Area	Relative to ISTD	R.T.
16.78	29.93 UG	193259	Chlorobenzene-d5	10.28

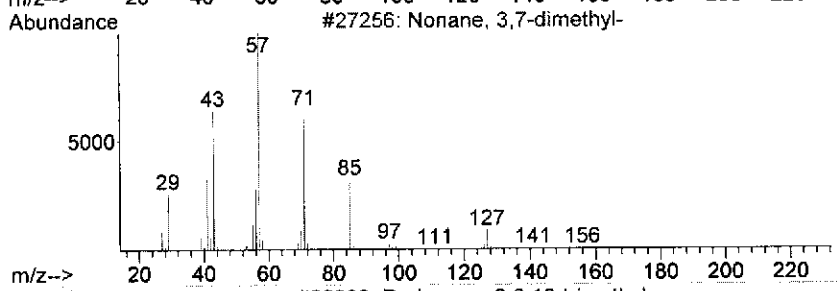
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	93
2	Nonane, 3,7-dimethyl-	156	C11H24	017302-32-8	87
3	Dodecane, 2,6,10-trimethyl-	212	C15H32	003891-98-3	80
4	Dodecane, 2,7,10-trimethyl-	212	C15H32	074645-98-0	80
5	Octane, 2-methyl-	128	C9H20	003221-61-2	64

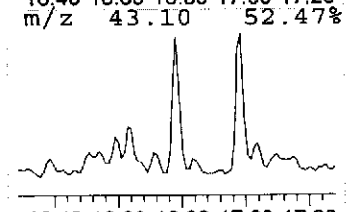


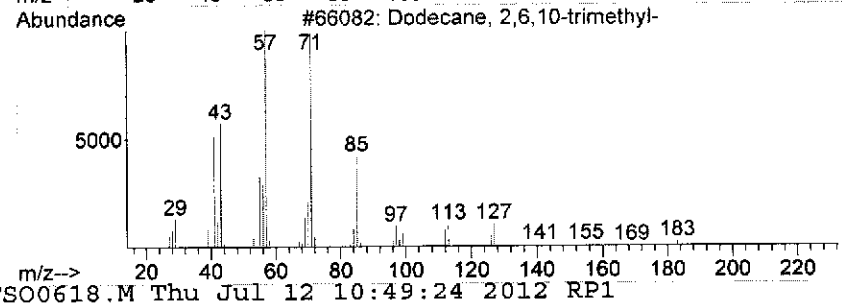


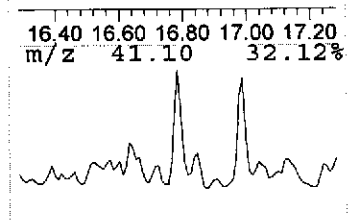


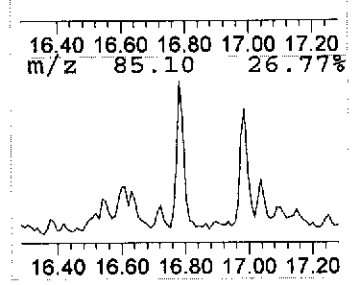












Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6829.D
Acq On : 10 Jul 2012 21:36
Operator : XING
Sample : G5-062612,06385-009,S,2.5g,16.8
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

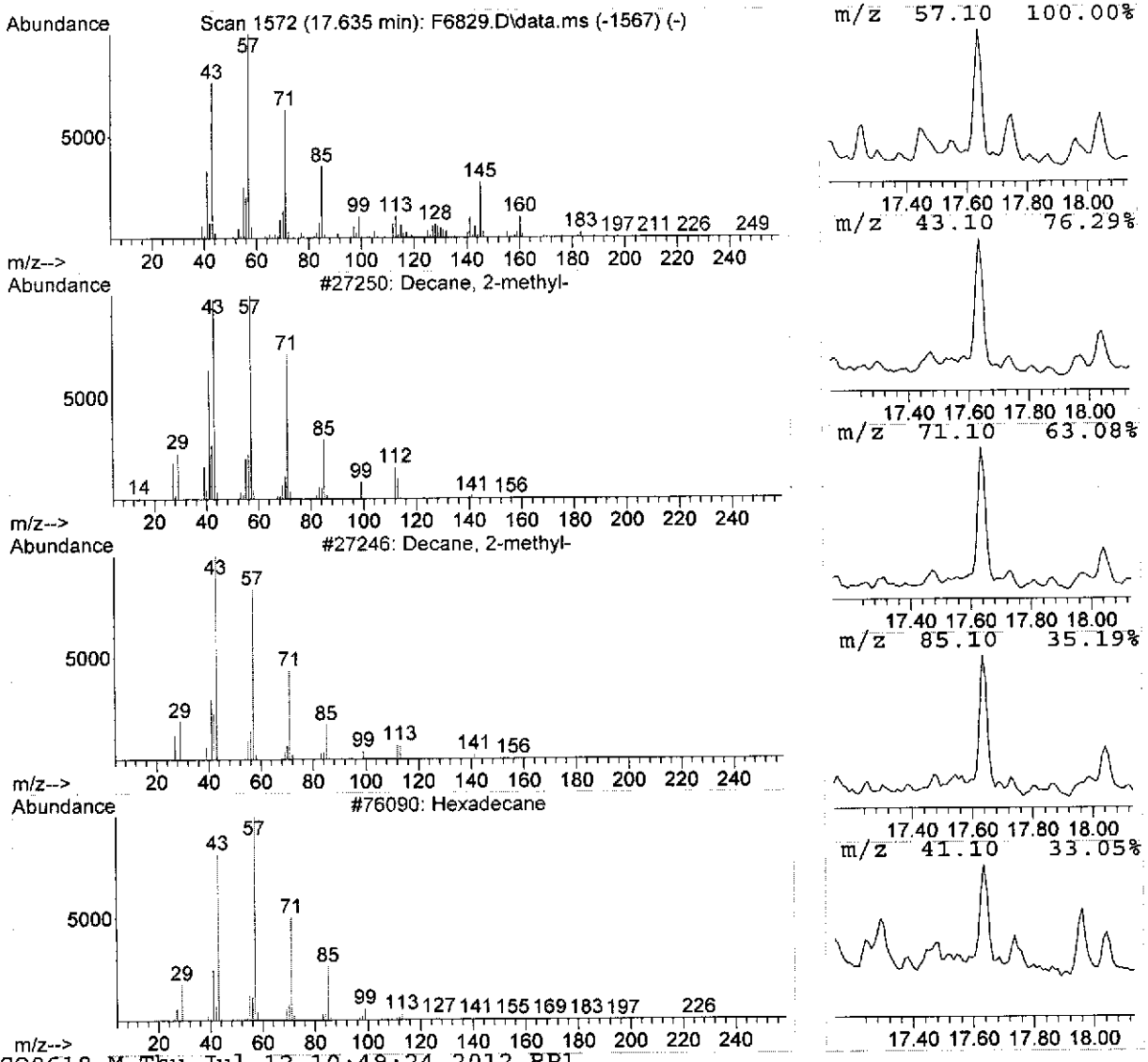
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 10 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.64	22.77 UG	147033	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 2-methyl-	156	C11H24	006975-98-0	76
2	Decane, 2-methyl-	156	C11H24	006975-98-0	68
3	Hexadecane	226	C16H34	000544-76-3	60
4	Tridecane, 5-propyl-	226	C16H34	055045-11-9	58
5	Nonane, 3-methyl-	142	C10H22	005911-04-6	55



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 12 11:56:42 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	91315	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	129645	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	110100	50.00 UG	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d4	6.448	65	24886	31.15 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 62.30%		
41) Toluene-d8	8.600	98	118499	42.82 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 85.64%		
59) Bromofluorobenzene	11.676	95	47036	44.39 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 88.78%		

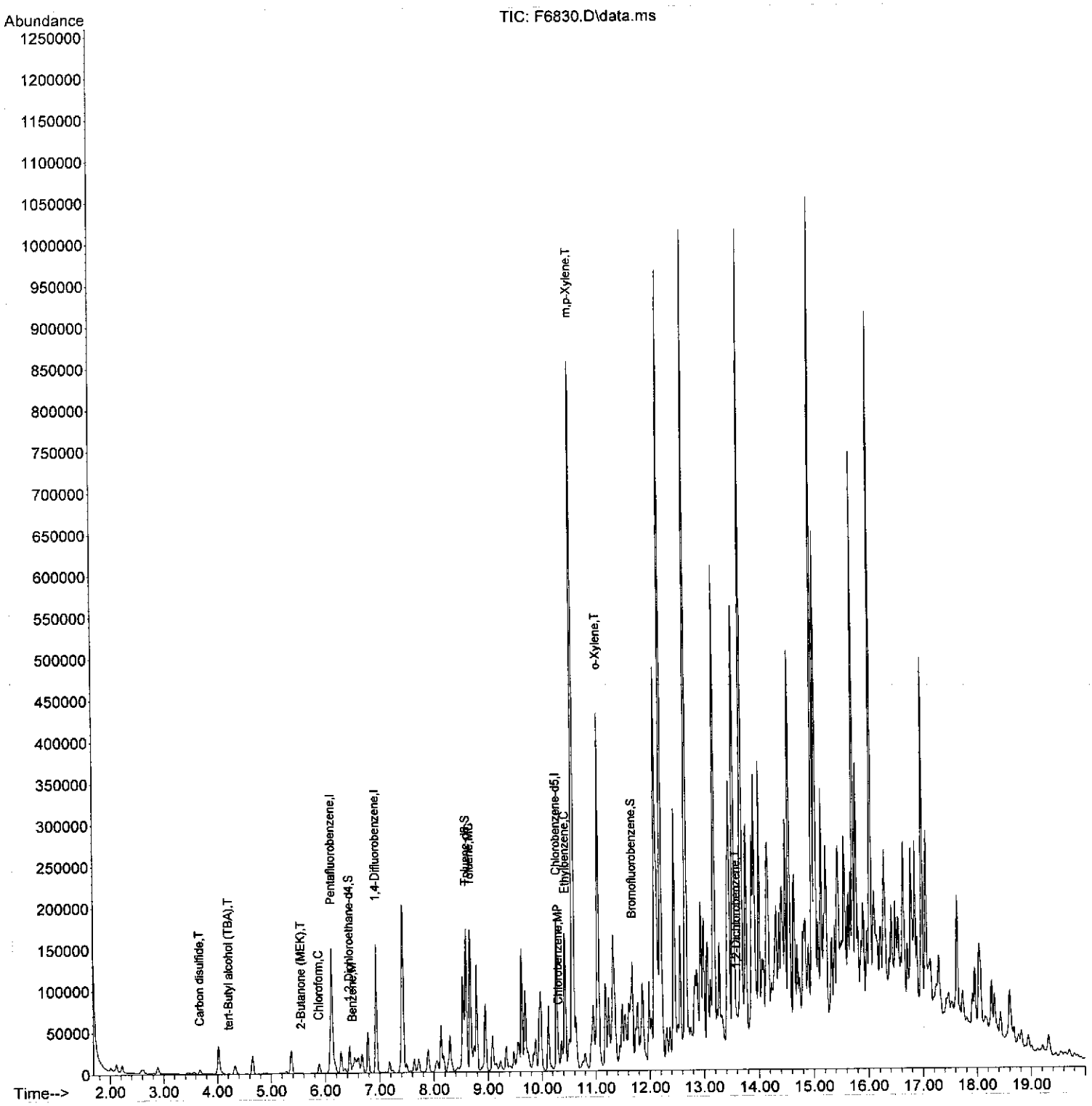
Target Compounds						Qvalue
11) Carbon disulfide	3.676	76	8286	2.59 UG		100
15) tert-Butyl alcohol (TBA)	4.215	59	602m	8.17 UG		
22) 2-Butanone (MEK)	5.555	43	989	2.80 UG		99
25) Chloroform	5.879	83	9266	4.65 UG		97
32) Benzene	6.499	78	6333	1.76 UG		99
42) Toluene	8.671	92	75850	28.01 UG		99
51) Chlorobenzene	10.306	112	4636	1.67 UG	#	99
53) Ethylbenzene	10.438	91	125352	24.78 UG		100
54) m,p-Xylene	10.570	106	218432	113.72 UG		97
55) o-Xylene	11.047	106	118023	65.49 UG		99
74) 1,2-Dichlorobenzene	13.585	146	2326	1.19 UG	#	99

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 12 11:56:42 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6830.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	223	231	245	rVB2	33407	96918	4.48%	0.227%
2	6.113	426	437	449	rVV3	149984	432664	20.01%	1.015%
3	6.783	498	503	511	rVV	49082	100165	4.63%	0.235%
4	6.935	511	518	527	rVV	153654	300275	13.89%	0.704%
5	7.422	557	566	571	rBV	202038	507959	23.50%	1.192%
6	7.889	601	612	621	rBV2	27495	71270	3.30%	0.167%
7	8.133	632	636	644	rVB2	54601	148359	6.86%	0.348%
8	8.296	644	652	660	rVB	42815	124087	5.74%	0.291%
9	8.529	668	675	678	rBV	110347	272938	12.63%	0.640%
10	8.600	678	682	686	rVV	165957	364638	16.87%	0.855%
11	8.671	686	689	693	rVV	164556	321839	14.89%	0.755%
12	8.793	694	701	706	rVB	126153	292867	13.55%	0.687%
13	8.955	706	717	724	rVB	80091	198996	9.21%	0.467%
14	9.087	724	730	734	rBV	42003	103550	4.79%	0.243%
15	9.565	772	777	780	rVV3	30705	97408	4.51%	0.229%
16	9.625	780	783	786	rVV	141821	271724	12.57%	0.637%
17	9.686	786	789	800	rVB	92368	252067	11.66%	0.591%
18	9.879	800	808	811	rBV2	34225	99110	4.58%	0.233%
19	9.981	811	818	826	rVB2	94872	307830	14.24%	0.722%
20	10.123	826	832	840	rBV	77466	160769	7.44%	0.377%
21	10.275	840	847	853	rBV	180513	368082	17.03%	0.863%
22	10.427	858	862	866	rVB	154209	316838	14.66%	0.743%
23	10.570	866	876	888	rVB2	851691	2161724	100.00%	5.071%
24	10.955	906	914	917	rBV3	75357	256293	11.86%	0.601%
25	11.047	917	923	930	rVB	423589	885290	40.95%	2.077%
26	11.179	931	936	939	rBV2	97585	207090	9.58%	0.486%
27	11.240	939	942	945	rVV	62325	115898	5.36%	0.272%
28	11.321	945	950	958	rVB2	152335	522338	24.16%	1.225%
29	11.483	958	966	969	rBV	68695	185984	8.60%	0.436%
30	11.544	969	972	976	rVV3	38715	96626	4.47%	0.227%
31	11.676	976	985	988	rVB3	109839	402784	18.63%	0.945%
32	11.778	989	995	998	rBV3	57840	157727	7.30%	0.370%
33	11.869	999	1004	1012	rVB3	91818	268411	12.42%	0.630%
34	11.991	1012	1016	1022	rBV2	93650	285919	13.23%	0.671%
35	12.092	1022	1026	1033	rVV	450566	1337555	61.87%	3.138%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

36	12.204	1034	1037	1044	rVB	949127	1807177	83.60%	4.240%
37	12.316	1044	1048	1051	rBV3	35660	80075	3.70%	0.188%
38	12.448	1056	1061	1066	rBV	293400	705109	32.62%	1.654%
39	12.559	1069	1072	1076	rVB	136258	243973	11.29%	0.572%
40	12.661	1076	1082	1089	rBV	976137	1820949	84.24%	4.272%
41	12.833	1095	1099	1100	rBV2	72283	148179	6.85%	0.348%
42	12.935	1106	1109	1112	rBV	142829	274300	12.69%	0.643%
43	12.986	1112	1114	1118	rVB	144364	266461	12.33%	0.625%
44	13.057	1118	1121	1125	rBV2	114633	285523	13.21%	0.670%
45	13.179	1129	1133	1138	rVV	543155	1047156	48.44%	2.457%
46	13.280	1140	1143	1153	rVB2	116696	289117	13.37%	0.678%
47	13.453	1153	1160	1163	rBV3	312260	933145	43.17%	2.189%
48	13.534	1163	1168	1176	rBV3	498223	1216810	56.29%	2.855%
49	13.676	1176	1182	1187	rBV	950290	1716714	79.41%	4.027%
50	13.767	1187	1191	1195	rVB2	247470	536929	24.84%	1.260%
51	13.910	1196	1205	1211	rBV2	301406	1131358	52.34%	2.654%
52	14.001	1211	1214	1217	rVV	289600	482381	22.31%	1.132%
53	14.062	1218	1220	1225	rVB2	58376	168622	7.80%	0.396%
54	14.153	1225	1229	1235	rBV4	199237	627805	29.04%	1.473%
55	14.316	1239	1245	1247	rVV4	108835	269152	12.45%	0.631%
56	14.366	1248	1250	1252	rVV2	98825	161716	7.48%	0.379%
57	14.417	1252	1255	1259	rVV4	129093	355783	16.46%	0.835%
58	14.478	1259	1261	1264	rVV2	209357	357738	16.55%	0.839%
59	14.539	1264	1267	1273	rVB	435551	960504	44.43%	2.253%
60	14.640	1273	1277	1281	rBV4	166388	391038	18.09%	0.917%
61	14.701	1281	1283	1285	rBV	59438	79836	3.69%	0.187%
62	14.843	1290	1297	1300	rBV3	108451	431351	19.95%	1.012%
63	14.904	1300	1303	1306	rVB2	61428	110520	5.11%	0.259%
64	14.975	1306	1310	1312	rBV2	961747	1639506	75.84%	3.846%
65	15.026	1312	1315	1319	rVV2	538830	1058605	48.97%	2.483%
66	15.087	1319	1321	1323	rVB2	68085	92332	4.27%	0.217%
67	15.138	1323	1326	1329	rBV	228995	344098	15.92%	0.807%
68	15.219	1329	1334	1339	rVB5	201967	640037	29.61%	1.501%
69	15.331	1340	1345	1347	rBV3	88347	185355	8.57%	0.435%
70	15.382	1347	1350	1352	rBV	83523	136338	6.31%	0.320%
71	15.442	1352	1356	1360	rBV3	165282	448476	20.75%	1.052%
72	15.554	1364	1367	1372	rVV4	157634	363447	16.81%	0.853%
73	15.635	1372	1375	1377	rVV3	88328	154341	7.14%	0.362%
74	15.717	1377	1383	1386	rVV	617495	1125603	52.07%	2.641%
75	15.777	1386	1389	1395	rVB2	264380	574785	26.59%	1.348%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

76	15.899	1396	1401	1405	rVB5	106535	330800	15.30%	0.776%
77	15.970	1405	1408	1410	rBV2	72366	128434	5.94%	0.301%
78	16.031	1410	1414	1418	rBV	785883	1226128	56.72%	2.876%
79	16.102	1418	1421	1429	rVB8	95730	324367	15.01%	0.761%
80	16.214	1430	1432	1435	rBV2	52403	101538	4.70%	0.238%
81	16.285	1435	1439	1446	rVB3	157815	417063	19.29%	0.978%
82	16.417	1450	1452	1457	rVB2	76272	123179	5.70%	0.289%
83	16.488	1457	1459	1462	rBV2	80964	143584	6.64%	0.337%
84	16.640	1471	1474	1479	rVB4	181560	411560	19.04%	0.965%
85	16.722	1479	1482	1484	rBV	58152	104494	4.83%	0.245%
86	16.782	1484	1488	1492	rVV3	163994	384279	17.78%	0.901%
87	16.854	1492	1495	1502	rVB2	189390	465445	21.53%	1.092%
88	16.986	1503	1508	1511	rBV	407158	717503	33.19%	1.683%
89	17.057	1511	1515	1519	rBV2	190730	383599	17.75%	0.900%
90	17.290	1536	1538	1546	rVB4	70083	179713	8.31%	0.422%
91	17.635	1567	1572	1579	rVV	141048	302601	14.00%	0.710%
92	17.737	1579	1582	1587	rVB4	36124	85982	3.98%	0.202%
93	17.919	1596	1600	1602	rBV3	36255	86413	4.00%	0.203%
94	17.960	1602	1604	1608	rVV2	67480	127481	5.90%	0.299%
95	18.041	1608	1612	1619	rVB2	94742	317462	14.69%	0.745%
96	18.275	1630	1635	1637	rBV	52659	112766	5.22%	0.265%
97	18.326	1638	1640	1647	rVB	45970	101670	4.70%	0.239%
98	18.437	1647	1651	1659	rVB4	30784	79476	3.68%	0.186%
99	18.610	1663	1668	1673	rBV2	51560	140439	6.50%	0.329%
100	19.320	1734	1738	1747	rVB3	24262	74683	3.45%	0.175%

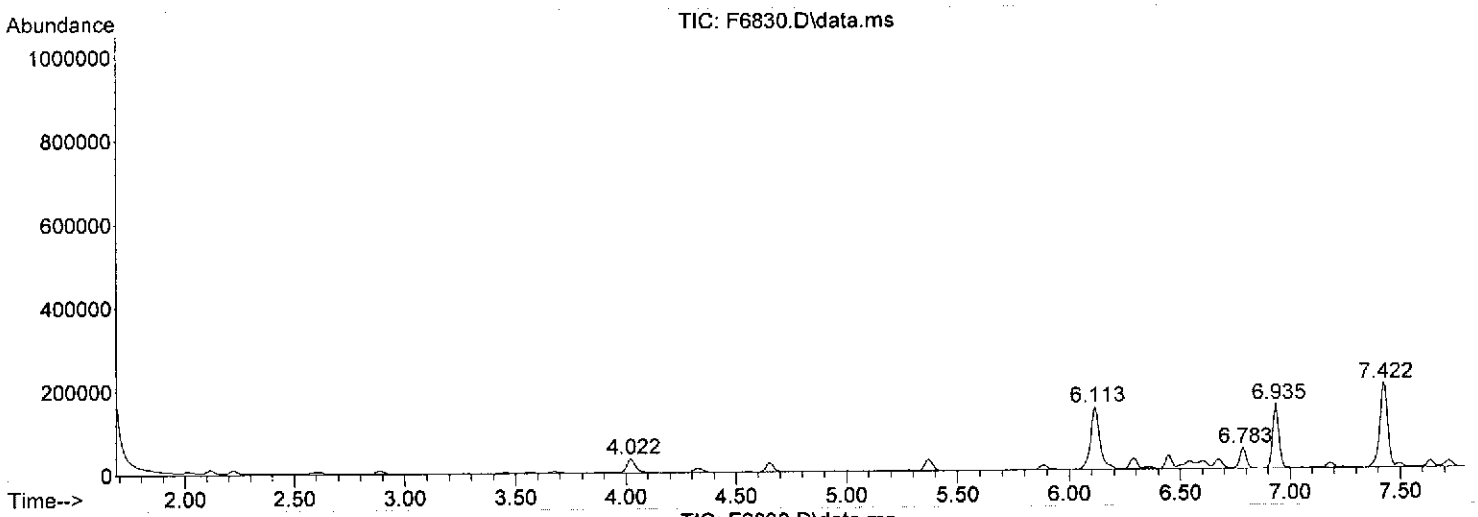
Sum of corrected areas: 42626995

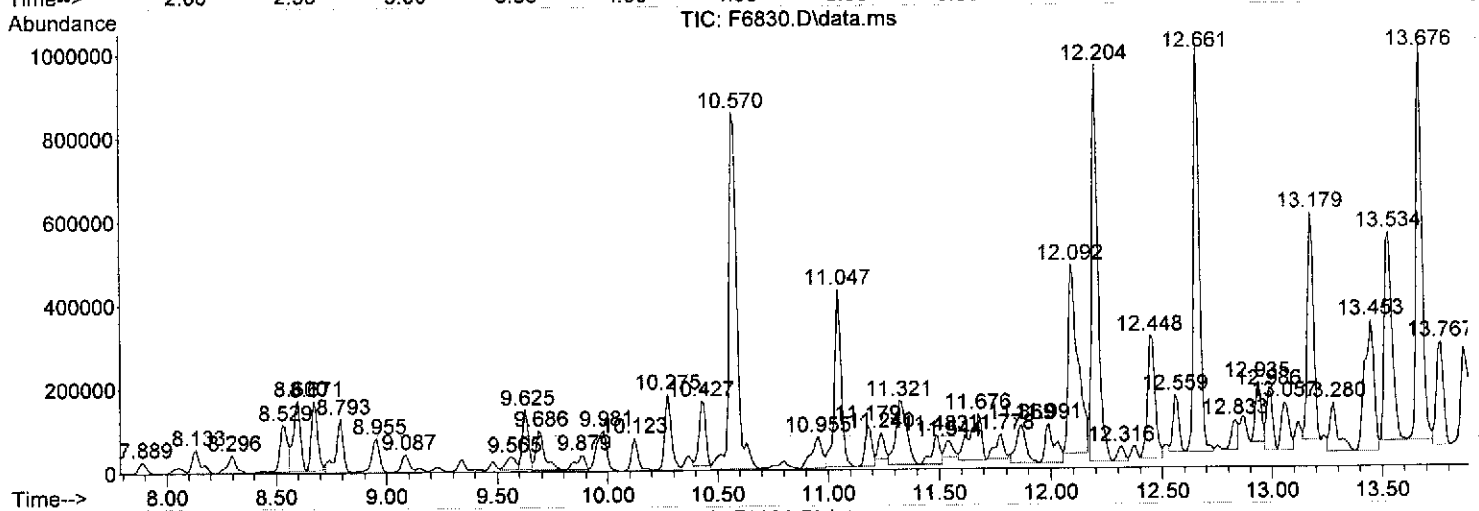
LSC Report - Integrated Chromatogram

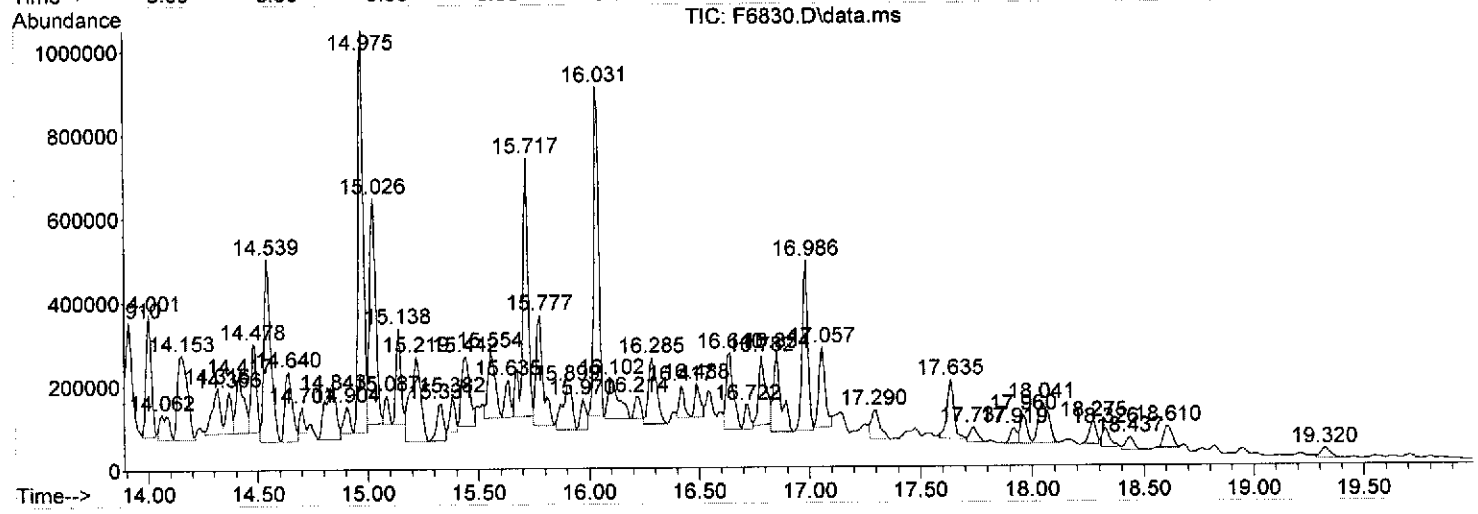
Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

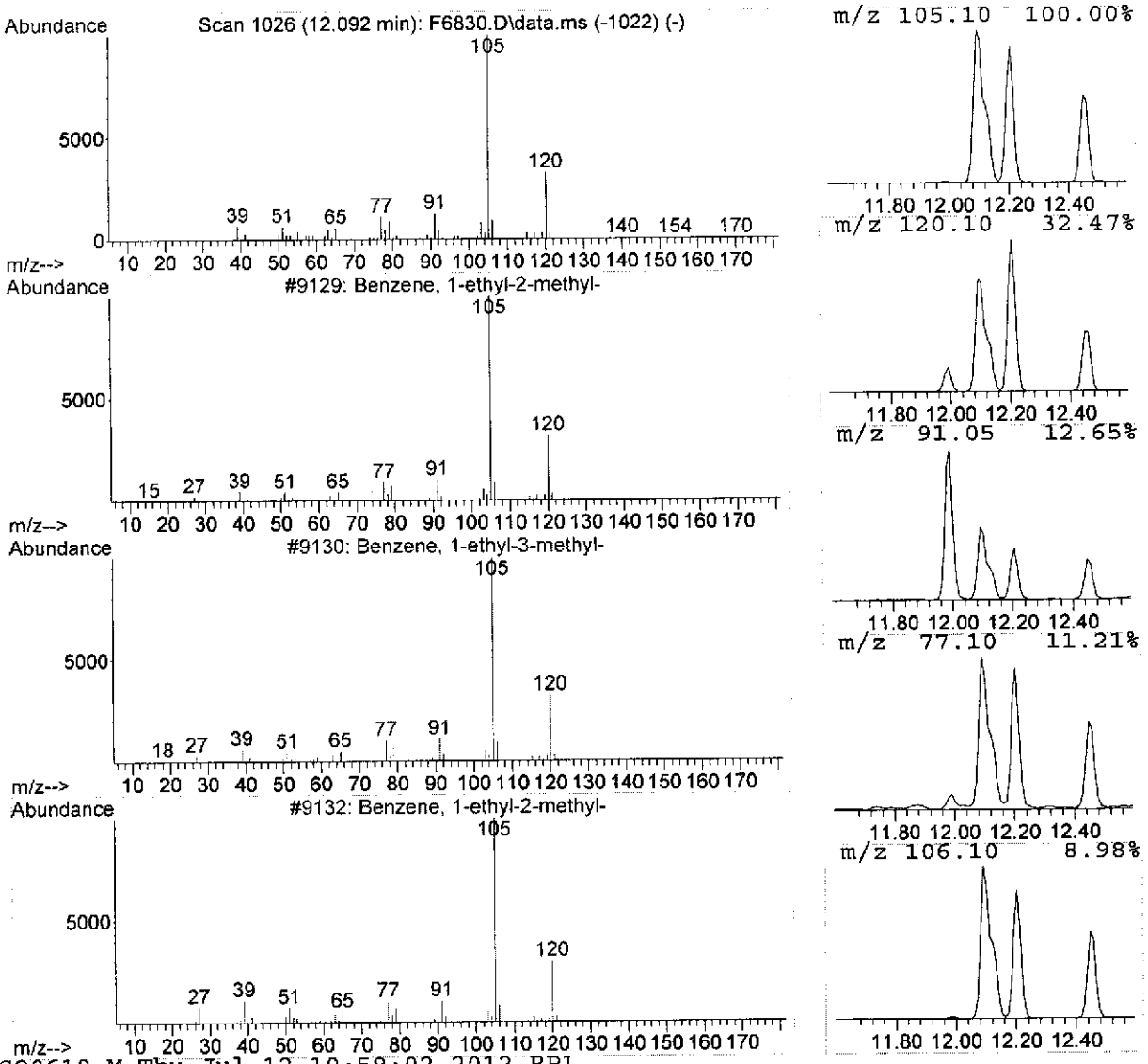
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 1 Unknown Aromatic Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.09	181.69 UG	1337560	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	95
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
4	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	94
5	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	91



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

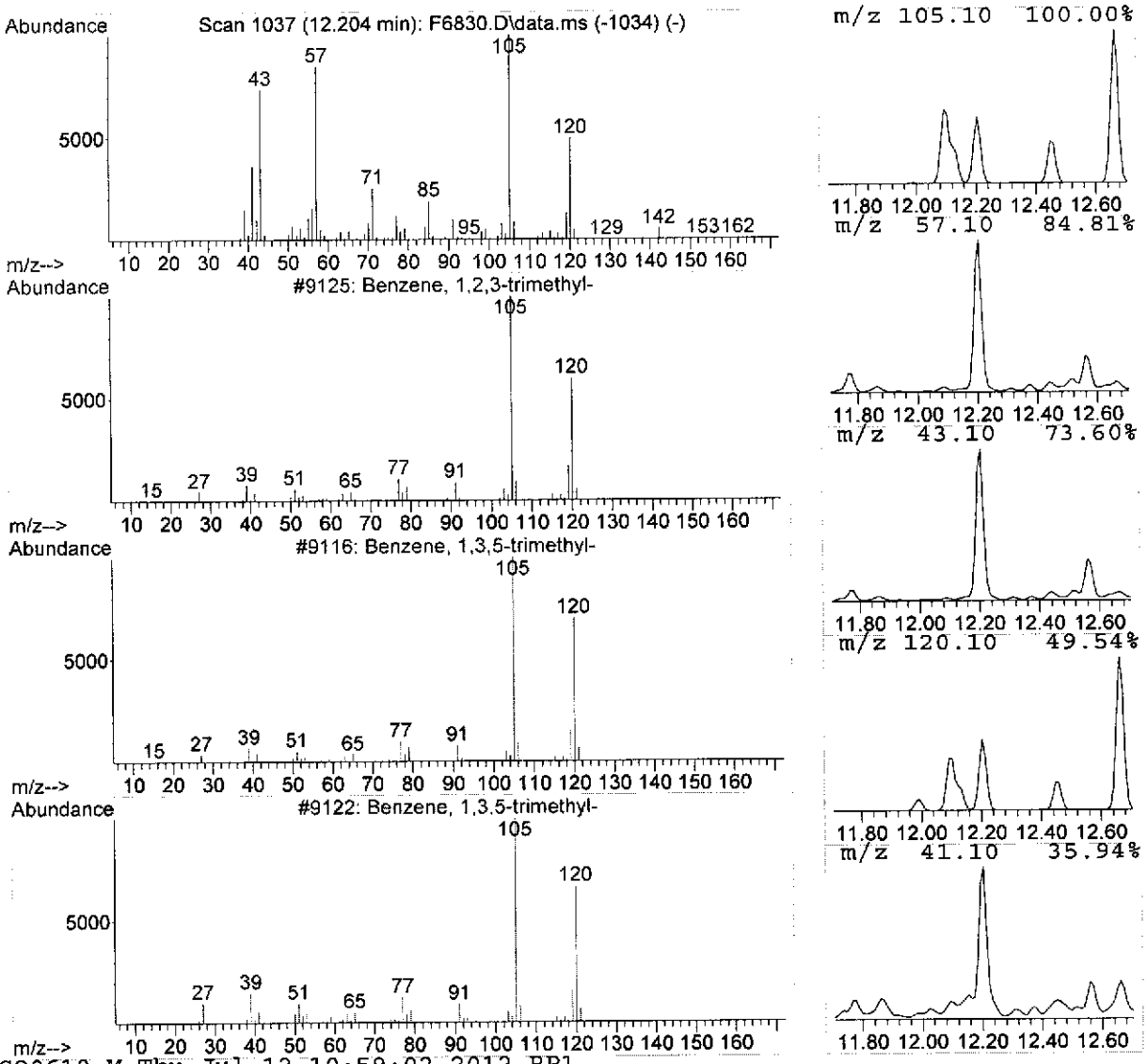
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Unknown Aromatic Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.20	245.49 UG	1807180	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	92
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	92
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91
4	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	91
5	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	87



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

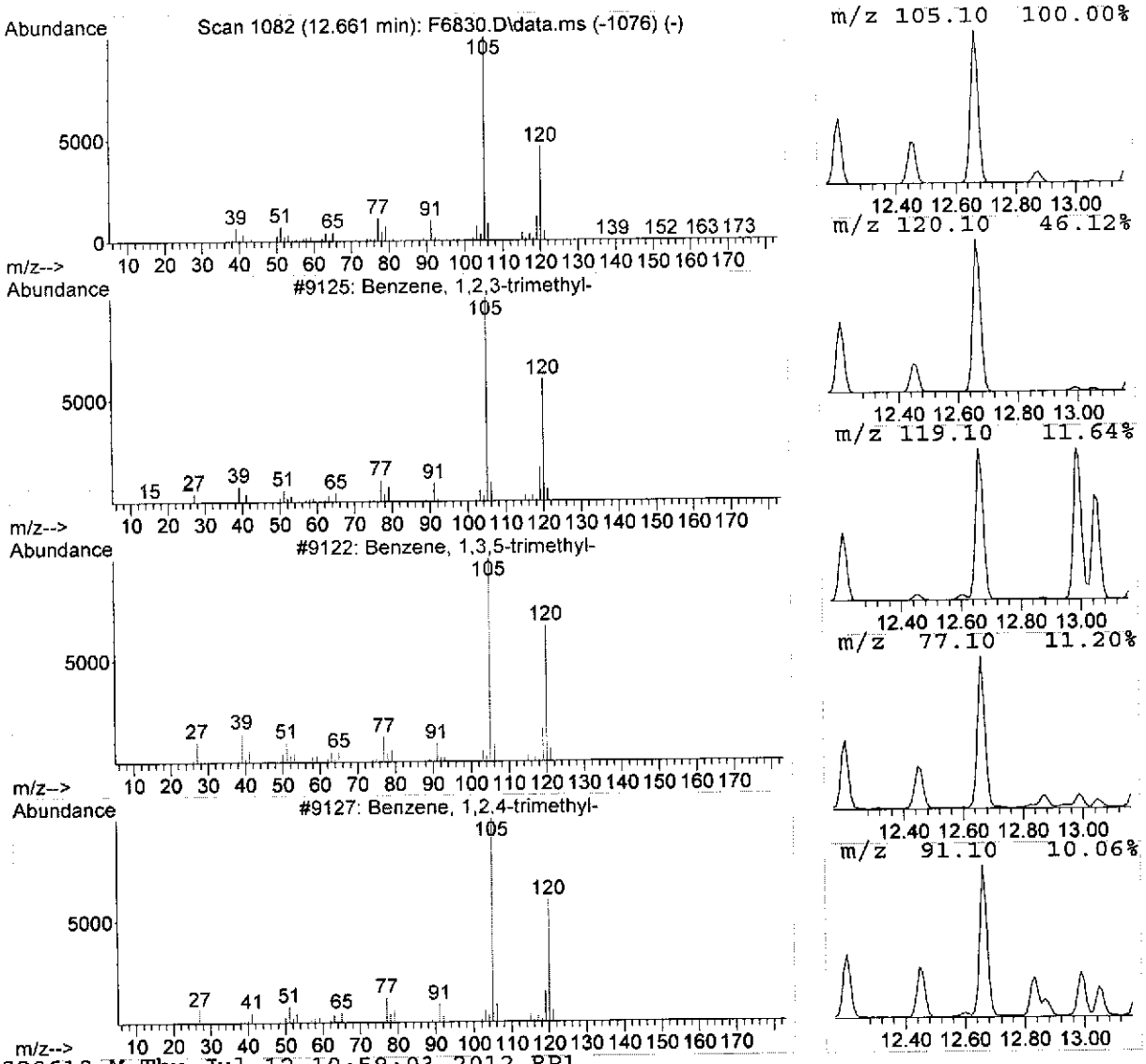
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 3 Unknown Aromatic Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.66	247.36 UG	1820950	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	95
3	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	95
4	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	94
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	94



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

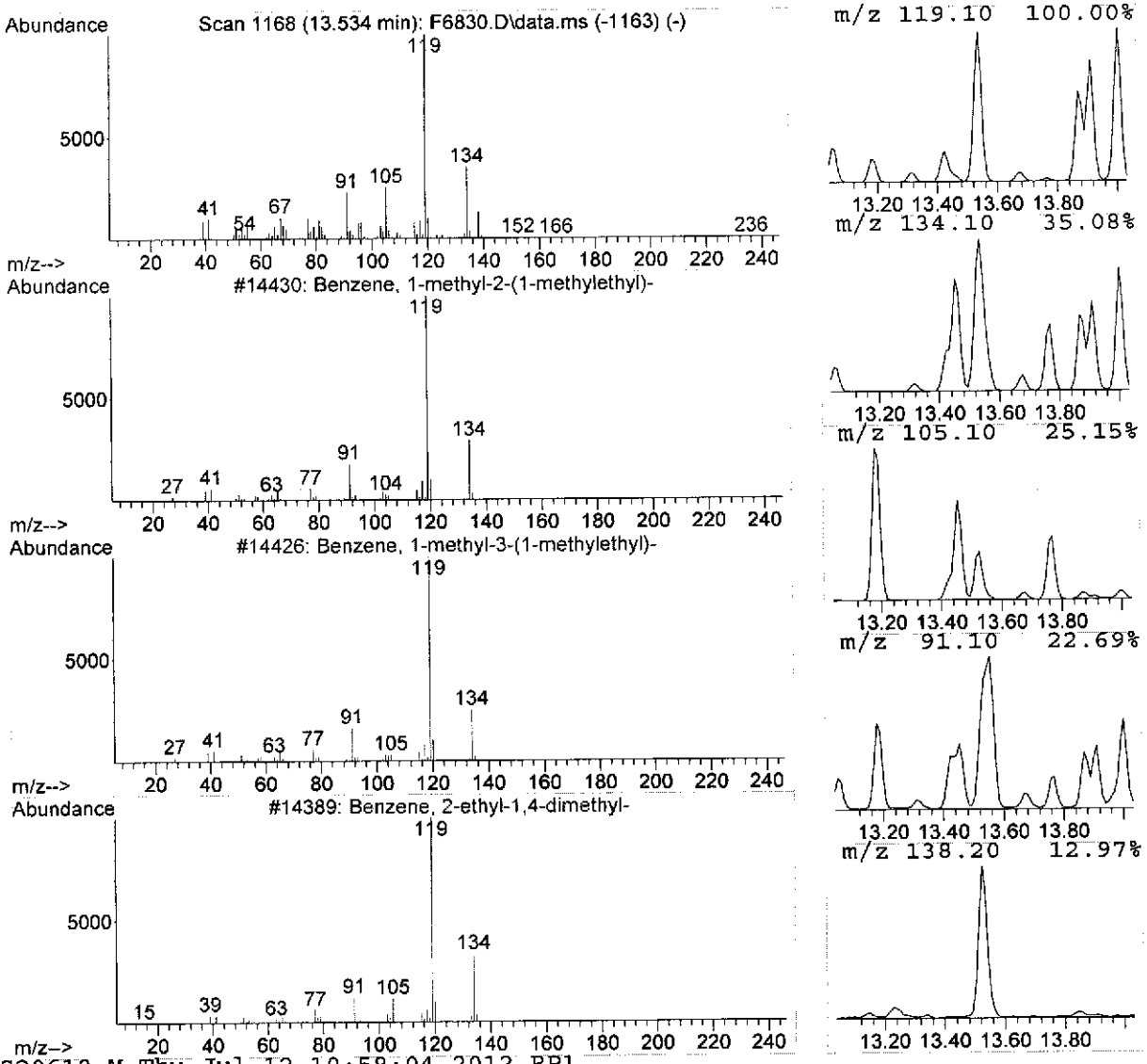
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 4 Unknown Aromatic Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.53	165.29 UG	1216810	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95
2	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	94
3	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	94
4	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	93
5	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	93



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

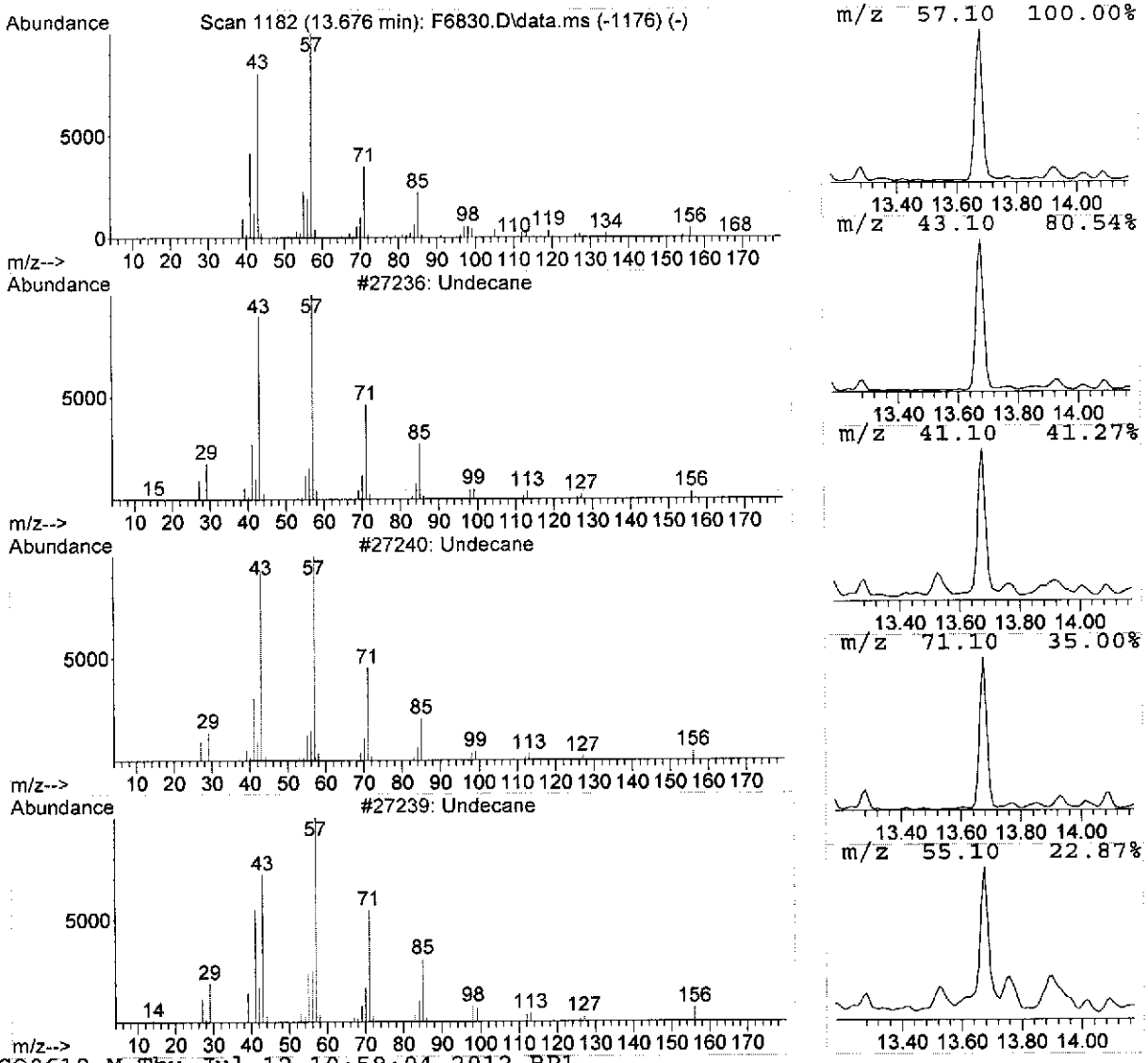
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 5 Unknown Hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.68	233.20 UG	1716710	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane	156	C11H24	001120-21-4	95
2	Undecane	156	C11H24	001120-21-4	94
3	Undecane	156	C11H24	001120-21-4	94
4	Undecane	156	C11H24	001120-21-4	91
5	Undecane	156	C11H24	001120-21-4	87



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

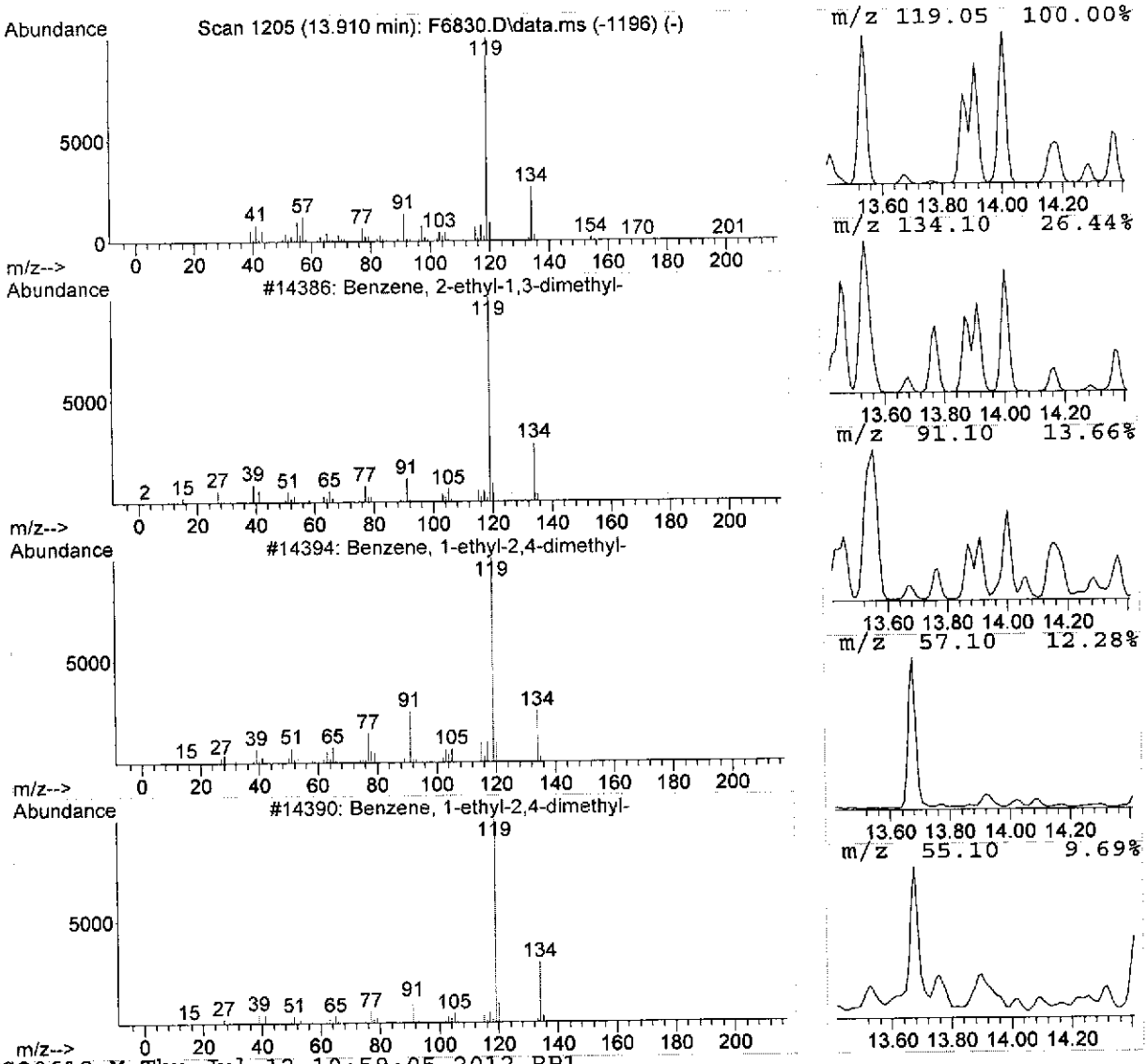
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 6 Unknown Aromatic Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.91	153.68 UG	1131360	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	94
2	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	94
3	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	93
4	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	93
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	91



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

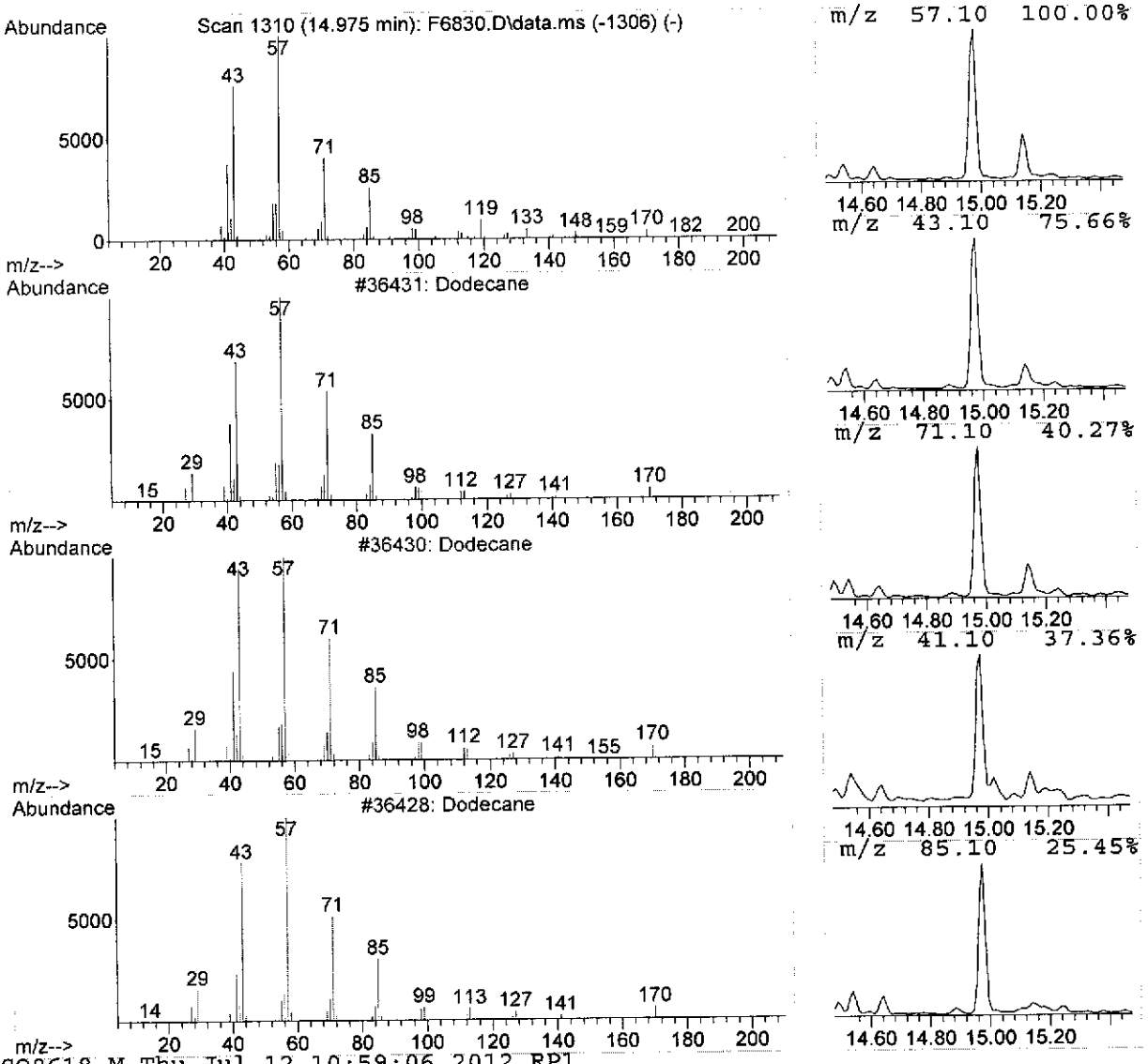
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 7 Unknown Hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.98	222.71 UG	1639510	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	96
2	Dodecane	170	C12H26	000112-40-3	93
3	Dodecane	170	C12H26	000112-40-3	81
4	Tridecane	184	C13H28	000629-50-5	72
5	Undecane	156	C11H24	001120-21-4	72



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

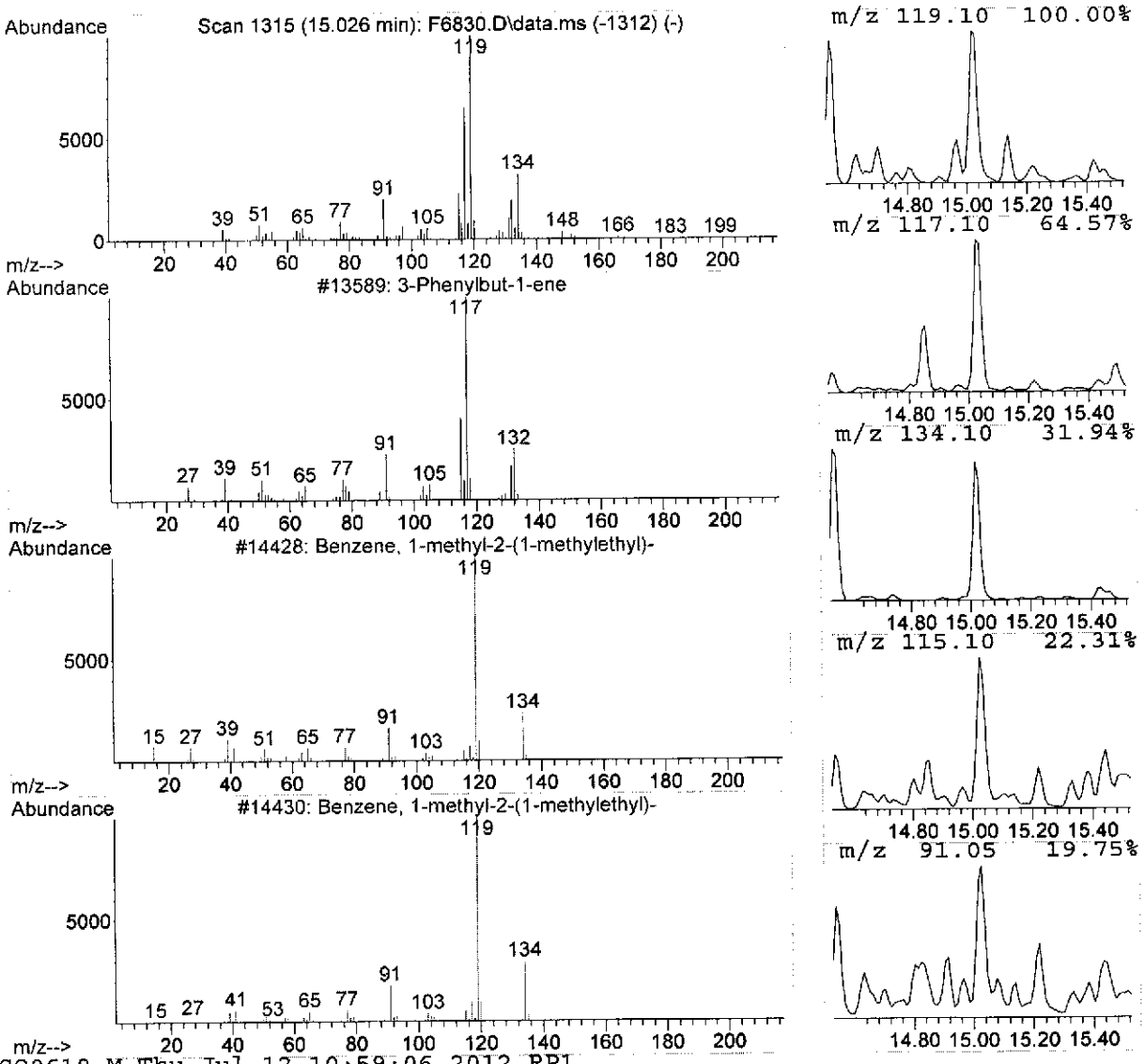
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 8 Unknown Aromatic Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.03	143.80 UG	1058610	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Phenylbut-1-ene	132	C10H12	000934-10-1	80
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	60
3	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	60
4	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	60
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	60



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

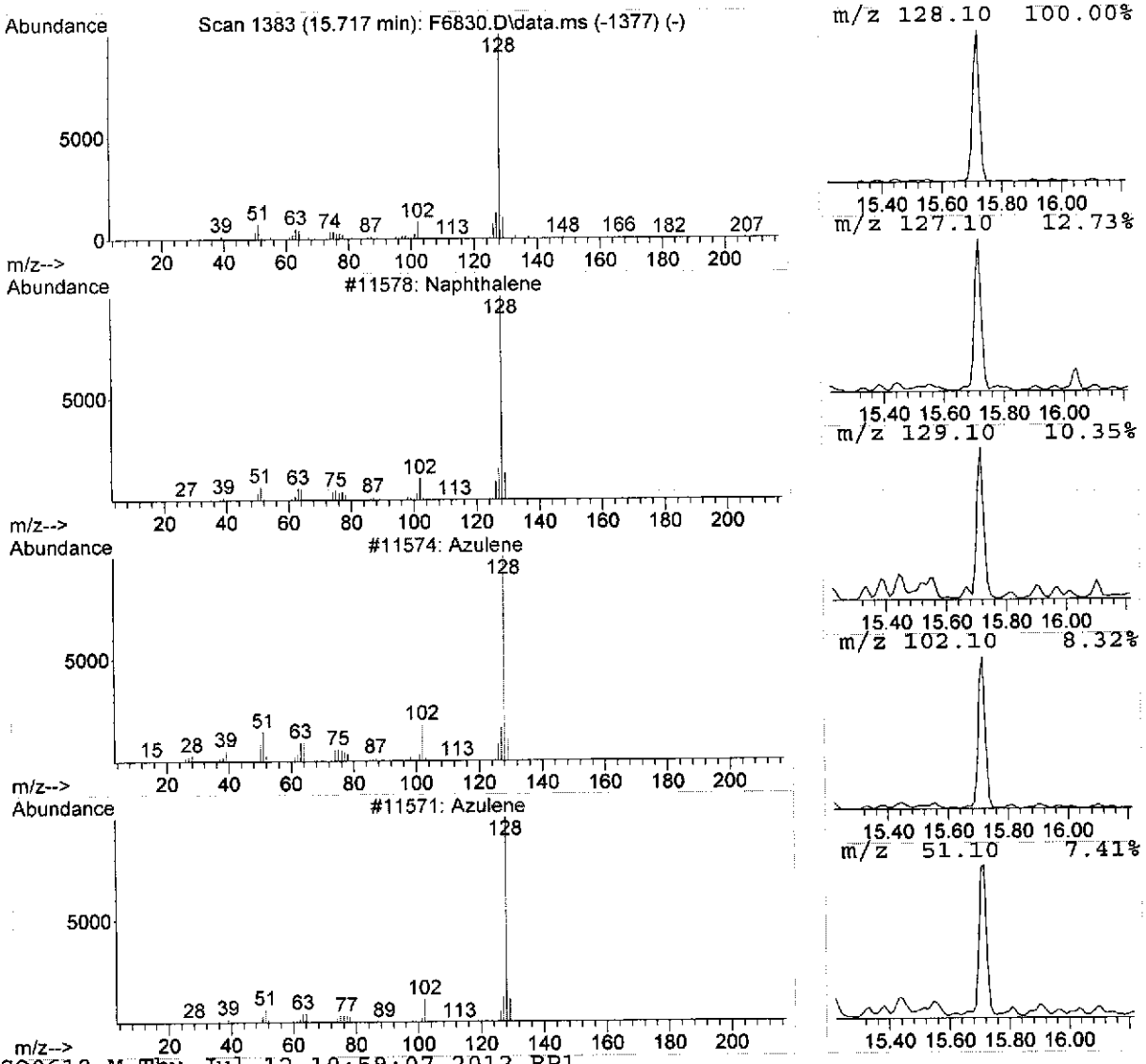
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 9 Unknown PAH Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.72	152.90 UG	1125600	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene	128	C10H8	000091-20-3	97
2	Azulene	128	C10H8	000275-51-4	94
3	Azulene	128	C10H8	000275-51-4	93
4	Naphthalene	128	C10H8	000091-20-3	93
5	Naphthalene	128	C10H8	000091-20-3	91



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6830.D
Acq On : 10 Jul 2012 22:06
Operator : XING
Sample : G4-062612,06385-010,S,2.5g,24.3
Misc : URS-FTWASH/VINELAN,06/26/12,06/27/12,
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

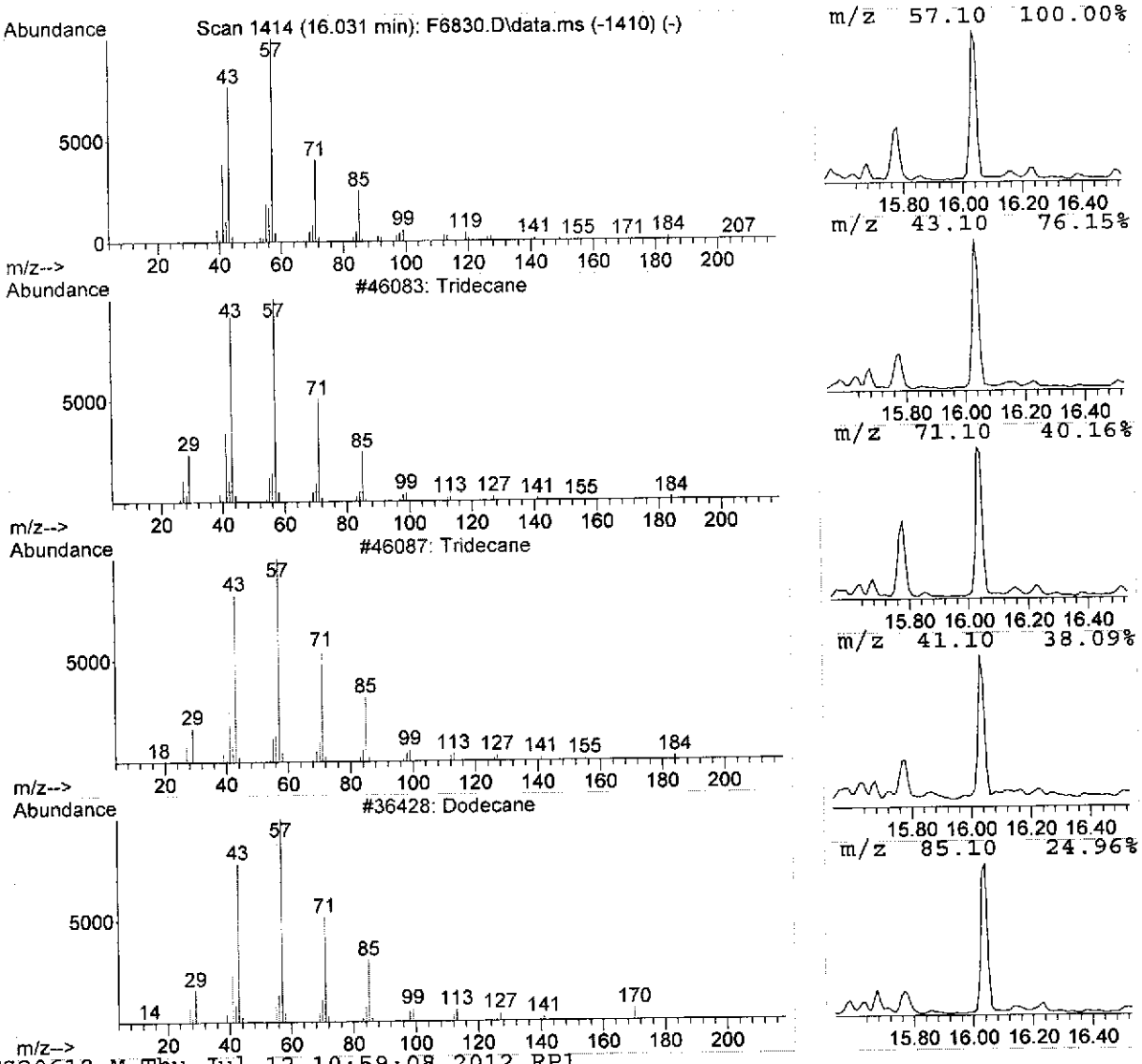
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

****

Peak Number 10 Unknown VOA Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.03	166.56 UG	1226130	Chlorobenzene-d5	10.28

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	000629-50-5	97
2	Tridecane	184	C13H28	000629-50-5	96
3	Dodecane	170	C12H26	000112-40-3	91
4	Pentadecane	212	C15H32	000629-62-9	90
5	Dodecane	170	C12H26	000112-40-3	87



INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS120710-01
Client ID: BLKS120710-01
Date Received:
Date Analyzed: 07/10/2012
Data file: F6822.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.0004
Chloromethane	ND		0.001	0.00041
Vinyl chloride	ND		0.001	0.00048
Bromomethane	ND		0.001	0.00035
Chloroethane	ND		0.001	0.00045
Trichlorofluoromethane	ND		0.001	0.00041
Acrolein	ND		0.020	0.00143
1,1-Dichloroethene	ND		0.001	0.0005
Acetone	ND		0.005	0.0007
Carbon disulfide	ND		0.001	0.00034
Methylene chloride	ND		0.002	0.00198
Acrylonitrile	ND		0.020	0.00188
tert-Butyl alcohol (TBA)	ND		0.004	0.00091
trans-1,2-Dichloroethene	ND		0.001	0.00043
Methyl tert-butyl ether (MTBE)	ND		0.001	0.00023
1,1-Dichloroethane	ND		0.001	0.00027
cis-1,2-Dichloroethene	ND		0.001	0.00031
2-Butanone (MEK)	ND		0.005	0.00037
Chloroform	ND		0.001	0.00029
1,1,1-Trichloroethane	ND		0.001	0.00033
Carbon tetrachloride	ND		0.001	0.00041
1,2-Dichloroethane (EDC)	ND		0.001	0.00021
Benzene	ND		0.001	0.00024
Trichloroethene	ND		0.001	0.00032
1,2-Dichloropropane	ND		0.001	0.00022
Bromodichloromethane	ND		0.001	0.00032
cis-1,3-Dichloropropene	ND		0.001	0.00026

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS120710-01
Client ID: BLKS120710-01
Date Received:
Date Analyzed: 07/10/2012
Data file: F6822.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.00025
trans-1,3-Dichloropropene	ND		0.001	0.00026
1,1,2-Trichloroethane	ND		0.001	0.0002
Tetrachloroethene	ND		0.001	0.00026
Dibromochloromethane	ND		0.002	0.00022
1,2-Dibromoethane (EDB)	ND		0.001	0.00021
Chlorobenzene	ND		0.001	0.00022
Ethylbenzene	ND		0.001	0.00031
Total Xylenes	ND		0.002	0.00106
Styrene	ND		0.001	0.0003
Bromoform	ND		0.001	0.00032
1,1,2,2-Tetrachloroethane	ND		0.001	0.00023
1,3-Dichlorobenzene	ND		0.001	0.00031
1,4-Dichlorobenzene	ND		0.001	0.00031
1,2-Dichlorobenzene	ND		0.001	0.00036
1,2-Dibromo-3-chloropropane	ND		0.001	0.0005
1,2,4-Trichlorobenzene	ND		0.001	0.00052
Methyl acetate	ND		0.005	0.00058
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.00026

Total Target Compounds (46): 0

E12-06385 0254

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Lab ID: BLKS120710-01
Client ID: BLKS120710-01
Date Received:
Date Analyzed: 07/10/2012
Data file: F6822.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6822.D
Acq On : 10 Jul 2012 17:57
Operator : XING
Sample : BLKS120710-01,BLKS120710-01,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 12 10:30:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	83354	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	115047	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	96256	50.00 UG	0.00

System Monitoring Compounds					
30) 1,2-Dichloroethane-d4	6.448	65	21747	29.82 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 59.64%		
41) Toluene-d8	8.600	98	100783	41.04 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 82.08%		
59) Bromofluorobenzene	11.676	95	41007	44.27 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 88.54%		

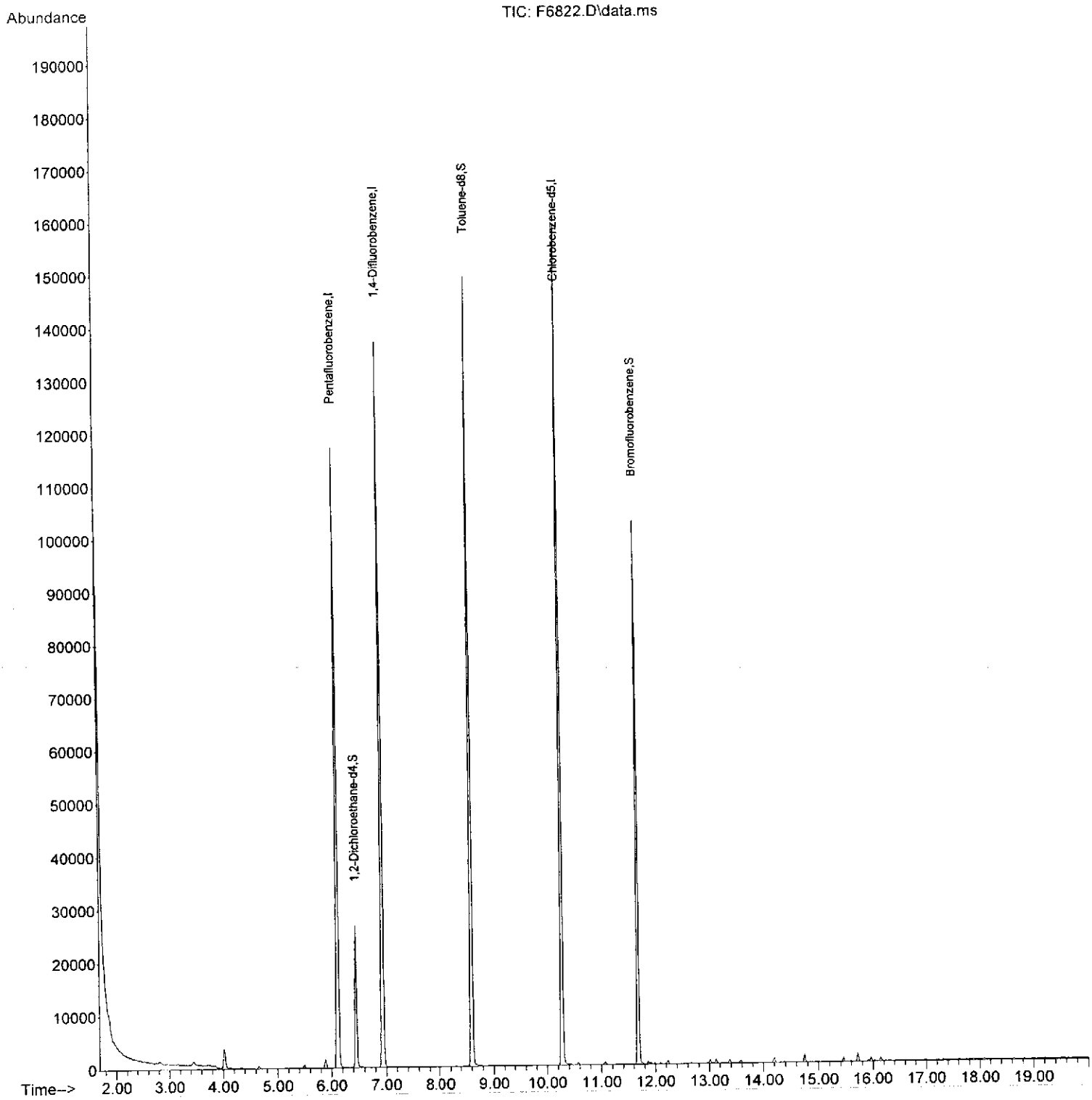
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6822.D
Acq On : 10 Jul 2012 17:57
Operator : XING
Sample : BLKS120710-01,BLKS120710-01,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 12 10:30:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6822.D
Acq On : 10 Jul 2012 17:57
Operator : XING
Sample : BLKS120710-01,BLKS120710-01,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6822.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.463	169	176	183	rBV5	797	3155	1.07%	0.232%
2	4.022	226	231	238	rVB	3732	9202	3.12%	0.676%
3	5.890	410	415	421	rBV2	1597	3673	1.24%	0.270%
4	6.113	431	437	447	rBV	117334	250408	84.82%	18.383%
5	6.448	462	470	481	rBV	26778	56804	19.24%	4.170%
6	6.935	511	518	529	rBV	137286	266091	90.13%	19.534%
7	8.600	671	682	706	rVB	149389	282880	95.82%	20.766%
8	10.275	841	847	860	rBV	159144	295218	100.00%	21.672%
9	11.676	976	985	998	rBV	102792	194767	65.97%	14.298%

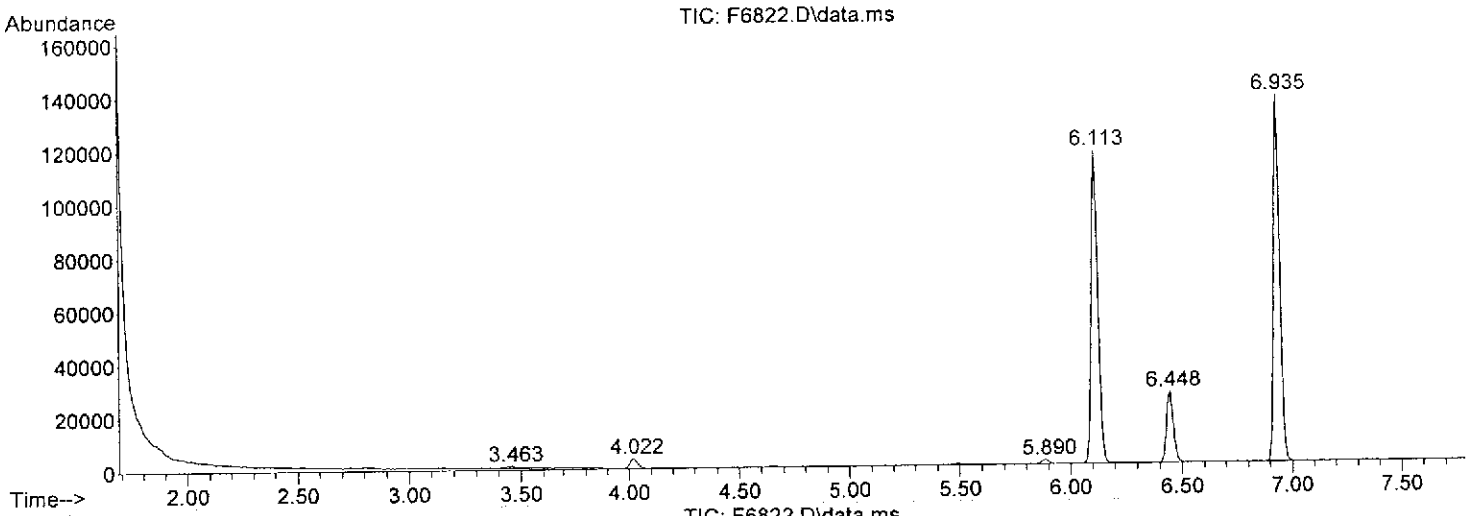
Sum of corrected areas: 1362198

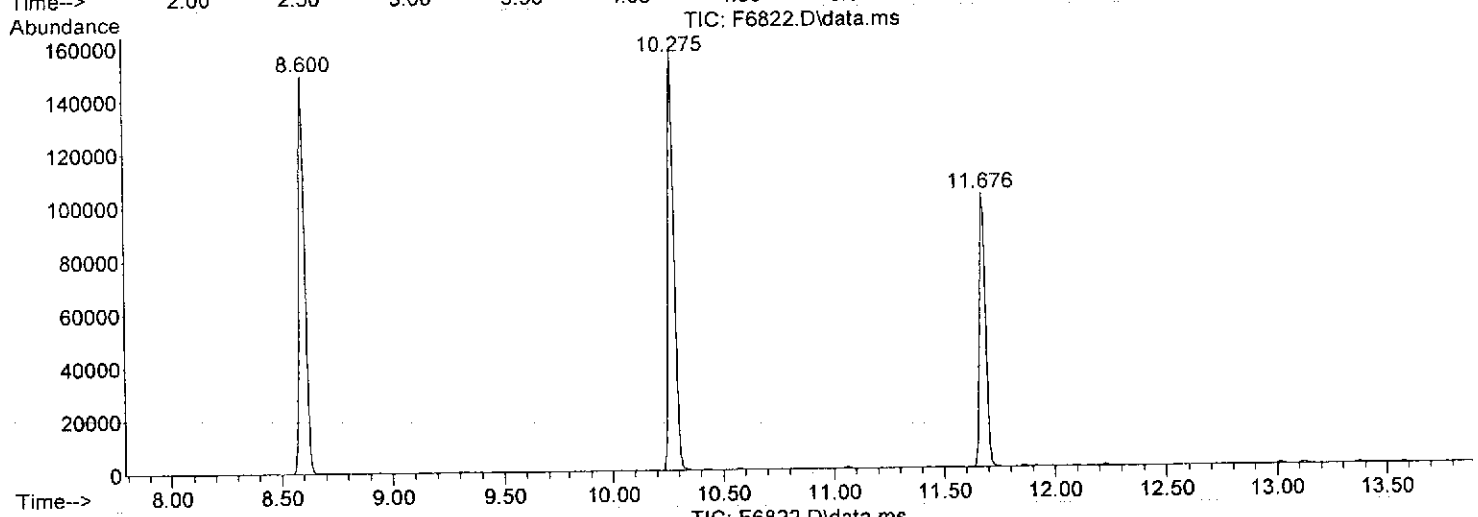
LSC Report - Integrated Chromatogram

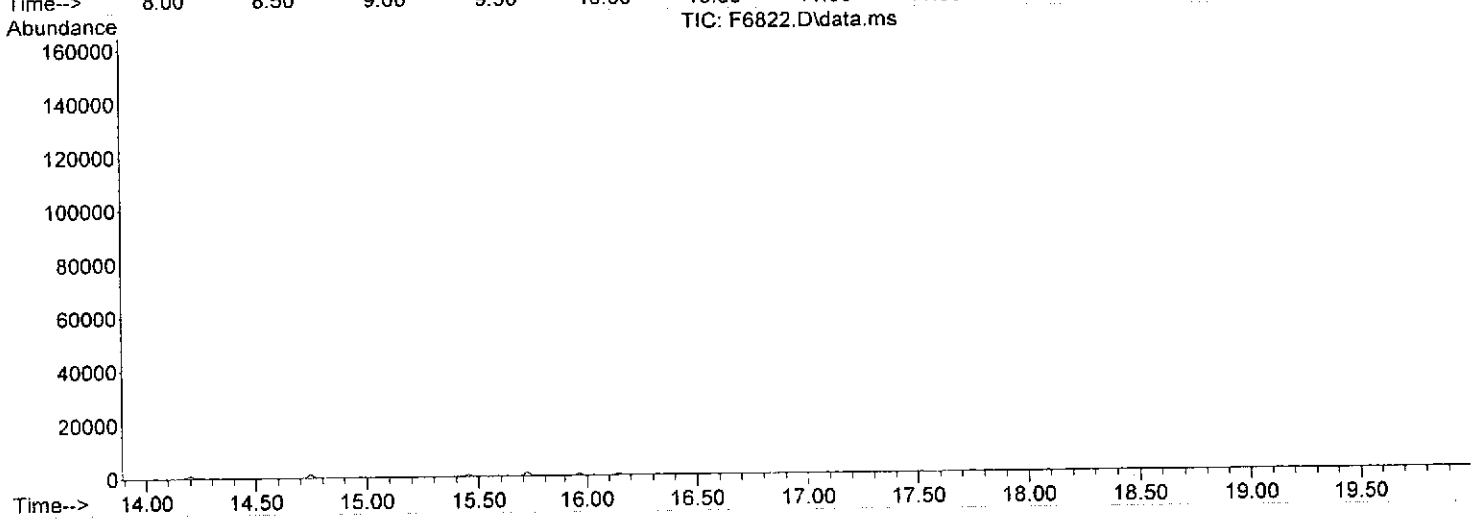
Data Path : C:\msdchem\1\DATA\07-10-12\
Data File : F6822.D
Acq On : 10 Jul 2012 17:57
Operator : XING
Sample : BLKS120710-01,BLKS120710-01,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
BLKS120709-03	SOIL	C7735.D	66	66	63	70	70	74
LCSS120709-03	SOIL	C7736.D	47	48	43	43	50	53
E12-06466-002MS	SOIL	C7737.D	63	71	47	58	113	101
E12-06466-002MSD	SOIL	C7738.D	63	70	48	57	111	102
E12-06385-001	SOIL	C7739.D	92	96	80	72	104	48
E12-06385-002	SOIL	C7740.D	52	50	42	44	82	34
E12-06385-004	SOIL	C7741.D	63	71	34	52	113	63
E12-06385-006	SOIL	C7742.D	60	64	44	62	96	64
E12-06385-007	SOIL	C7743.D	60	60	40	40	80	40
E12-06385-008	SOIL	C7744.D	62	64	78	60	100	62
E12-06385-009	SOIL	C7745.D	94	100	64	52	110	46
E12-06385-010	SOIL	C7746.D	50	50	30	80	80	50
E12-06385-011	SOIL	C7747.D	N/A	N/A	38	52	N/A	48
E12-06385-012	SOIL	C7748.D	N/A	N/A	30	48	NA	48
E12-06385-013	SOIL	C7749.D	N/A	N/A	60	60	N/A	30
E12-06466-001	SOIL	C7750.D	67	77	56	59	97	89
E12-06466-002	SOIL	C7751.D	65	71	46	52	63	89
E12-06466-003	SOIL	C7752.D	N/A	N/A	37	42	N/A	66
E12-06466-004	SOIL	C7753.D	N/A	N/A	43	60	N/A	64
E12-06466-005	SOIL	C7754.D	N/A	N/A	39	52	N/A	56
E12-06466-006	SOIL	C7755.D	N/A	N/A	40	51	N/A	59

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
E12-06466-007	SOIL	C7756.D	N/A	N/A	41	54	N/A	60
E12-06466-008	SOIL	C7757.D	N/A	N/A	43	71	N/A	57
E12-06413-004	SOIL	C7758.D	N/A	N/A	39	57	N/A	65

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120709-03
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7736.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	50.0	26.3	53		40 - 140
Pyridine	50.0	15.7	31		20 - 120
Benzaldehyde	50.0	27.8	56		10 - 110
Phenol	50.0	33.1	66		30 - 140
Aniline	50.0	25.5	51		40 - 140
Bis(2-chloroethyl) ether	50.0	29.2	58		40 - 140
2-Chlorophenol	50.0	34.6	69		30 - 140
1,3-Dichlorobenzene	50.0	35.3	71		40 - 140
1,4-Dichlorobenzene	50.0	34.2	68		40 - 140
Benzyl alcohol	50.0	23.1	46		40 - 140
1,2-Dichlorobenzene	50.0	34.9	70		40 - 140
2-Methylphenol	50.0	35.3	71		30 - 140
Bis(2-chloroisopropyl) ether	50.0	29.9	60		40 - 140
4-Methylphenol	50.0	30.4	61		30 - 140
N-Nitrosodi-n-propylamine	50.0	33.6	67		40 - 140
Acetophenone	50.0	33.5	67		40 - 140
3-Methylphenol	50.0	30.4	61		30 - 140
Hexachloroethane	50.0	32.7	65		40 - 140
Nitrobenzene	50.0	31.9	64		40 - 140
Isophorone	50.0	30.4	61		40 - 140
2-Nitrophenol	50.0	36.9	74		30 - 140
2,4-Dimethylphenol	50.0	34.9	70		30 - 140
Bis(2-chloroethoxy) methane	50.0	32.1	64		40 - 140
Benzoic acid	50.0	39.5	79		30 - 140
2,4-Dimethylaniline	50.0	35.8	72		40 - 140
2,4-Dichlorophenol	50.0	36.7	73		30 - 140
1,2,4-Trichlorobenzene	50.0	36.0	72		40 - 140
Naphthalene	50.0	30.8	62		40 - 140
4-Chloroaniline	50.0	28.7	57		40 - 140
Hexachlorobutadiene	50.0	36.1	72		40 - 140
Caprolactam	50.0	32.7	65		40 - 140
4-Chloro-3-methylphenol	50.0	36.5	73		30 - 140
2-Methylnaphthalene	50.0	31.1	62		40 - 140
Hexachlorocyclopentadiene	50.0	2.7	5		5 - 105
2,4,6-Trichlorophenol	50.0	38.6	77		30 - 140
2,4,5-Trichlorophenol	50.0	30.1	60		30 - 140
1,1'-Biphenyl	50.0	34.3	69		40 - 140
2-Chloronaphthalene	50.0	35.4	71		40 - 140
2-Nitroaniline	50.0	27.2	54		40 - 140
Dimethyl phthalate	50.0	35.8	72		40 - 140
2,6-Dinitrotoluene	50.0	40.2	80		40 - 140
Acenaphthylene	50.0	33.5	67		40 - 140
3-Nitroaniline	50.0	32.0	64		40 - 140
Acenaphthene	50.0	33.3	67		40 - 140
2,4-Dinitrophenol	50.0	12.9	26		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120709-03
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7736.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	50.0	30.5	61		30 - 140
2,4-Dinitrotoluene	50.0	40.0	80		40 - 140
Dibenzofuran	50.0	29.8	60		40 - 140
Diethyl phthalate	50.0	36.1	72		40 - 140
Fluorene	50.0	34.6	69		40 - 140
4-Chlorophenyl phenyl ether	50.0	38.2	76		40 - 140
4-Nitroaniline	50.0	31.4	63		40 - 140
1,2,4,5-Tetrachlorobenzene	50.0	23.9	48		40 - 140
2,3,4,6-Tetrachlorophenol	50.0	64.4	129		40 - 140
4,6-Dinitro-2-methylphenol	50.0	21.2	42		10 - 110
N-Nitrosodiphenylamine	50.0	33.4	67		40 - 140
1,2-Diphenylhydrazine	50.0	28.9	58		40 - 140
4-Bromophenyl phenyl ether	50.0	37.8	76		40 - 140
Hexachlorobenzene	50.0	37.7	75		40 - 140
Atrazine	50.0	18.9	38		20 - 120
Pentachlorophenol	50.0	32.7	65		30 - 140
Phenanthrene	50.0	33.3	67		40 - 140
Anthracene	50.0	33.1	66		40 - 140
Carbazole	50.0	35.1	70		40 - 140
Di-n-butyl phthalate	50.0	35.2	70		40 - 140
Fluoranthene	50.0	37.1	74		40 - 140
Benzidine	50.0	11.1	22		5 - 105
Pyrene	50.0	37.8	76		40 - 140
3,3'-Dimethylbenzidine	50.0	14.8	30		5 - 105
Butyl benzyl phthalate	50.0	36.3	73		40 - 140
3,3'-Dichlorobenzidine	50.0	34.7	69		40 - 140
Benzo[a]anthracene	50.0	32.3	65		40 - 140
Chrysene	50.0	30.4	61		40 - 140
Bis(2-ethylhexyl) phthalate	50.0	34.7	69		40 - 140
Di-n-octyl phthalate	50.0	43.2	86		40 - 140
Benzo[b]fluoranthene	50.0	31.9	64		40 - 140
Benzo[k]fluoranthene	50.0	41.5	83		40 - 140
Benzo[a]pyrene	50.0	41.9	84		40 - 140
Indeno[1,2,3-cd]pyrene	50.0	36.9	74		40 - 140
Dibenz[a,h]anthracene	50.0	35.9	72		40 - 140
Benzo[g,h,i]perylene	50.0	33.0	66		40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06466-002
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
MS Data file: C7737.D
MSD Data file: C7738.D

GC/MS Column: DB-5
Sample wt/vol: 15.09g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.6
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	50.0	0.00	21.00	42		20.50	41		2		40-140/30
Pyridine	50.0	0.00	11.70	23		11.90	24		2		20-120/30
Benzaldehyde	50.0	0.00	8.50	17		8.50	17		0		10-110/30
Phenol	50.0	0.00	27.70	55		28.10	56		1		30-140/30
Aniline	50.0	0.00	21.00	42		21.00	42		0		40-140/30
Bis(2-chloroethyl) ether	50.0	0.00	22.80	46		22.70	45		0		40-140/30
2-Chlorophenol	50.0	0.00	27.70	55		27.20	54		2		30-140/30
1,3-Dichlorobenzene	50.0	0.00	26.20	52		26.00	52		1		40-140/30
1,4-Dichlorobenzene	50.0	0.00	26.30	53		26.10	52		1		40-140/30
Benzyl alcohol	50.0	0.00	21.90	44		22.70	45		4		40-140/30
1,2-Dichlorobenzene	50.0	0.00	26.90	54		27.00	54		0		40-140/30
2-Methylphenol	50.0	0.00	29.50	59		29.30	59		1		30-140/30
Bis(2-chloroisopropyl) ether	50.0	0.00	23.20	46		23.20	46		0		40-140/30
4-Methylphenol	50.0	0.00	27.00	54		27.60	55		2		30-140/30
N-Nitrosodi-n-propylamine	50.0	0.00	29.20	58		29.40	59		1		40-140/30
Acetophenone	50.0	0.00	29.10	58		29.30	59		1		40-140/30
3-Methylphenol	50.0	0.00	27.00	54		27.60	55		2		30-140/30
Hexachloroethane	50.0	0.00	23.80	48		23.90	48		0		40-140/30
Nitrobenzene	50.0	0.00	26.40	53		26.80	54		2		40-140/30
Isophorone	50.0	0.00	29.50	59		29.60	59		0		40-140/30
2-Nitrophenol	50.0	0.00	32.10	64		32.60	65		2		30-140/30
2,4-Dimethylphenol	50.0	0.00	33.10	66		32.90	66		1		30-140/30
Bis(2-chloroethoxy) methane	50.0	0.00	29.20	58		28.80	58		1		40-140/30
Benzoic acid	50.0	0.00	36.35	73		30.63	61		17		30-140/30
2,4-Dimethylaniline	50.0	0.00	34.00	68		34.20	68		1		40-140/30
2,4-Dichlorophenol	50.0	0.00	34.90	70		35.20	70		1		30-140/30
1,2,4-Trichlorobenzene	50.0	0.00	29.70	59		30.10	60		1		40-140/30
Naphthalene	50.0	0.00	27.10	54		27.10	54		0		40-140/30
4-Chloroaniline	50.0	0.00	28.10	56		28.40	57		1		40-140/30
Hexachlorobutadiene	50.0	0.00	29.30	59		29.10	58		1		40-140/30
Caprolactam	50.0	0.00	40.10	80		41.20	82		3		40-140/30
4-Chloro-3-methylphenol	50.0	0.00	40.90	82		41.00	82		0		30-140/30
2-Methylnaphthalene	50.0	0.00	29.00	58		29.10	58		0		40-140/30
Hexachlorocyclopentadiene	50.0	0.00	2.50	5		2.85	6		13		5-105/30
2,4,6-Trichlorophenol	50.0	0.00	40.00	80		44.10	88		10		30-140/30
2,4,5-Trichlorophenol	50.0	0.00	35.70	71		34.40	69		4		30-140/30
1,1'-Biphenyl	50.0	0.00	35.20	70		34.30	69		3		40-140/30
2-Chloronaphthalene	50.0	0.00	35.50	71		35.10	70		1		40-140/30
2-Nitroaniline	50.0	0.00	32.00	64		31.60	63		1		40-140/30
Dimethyl phthalate	50.0	0.00	42.50	85		42.70	85		0		40-140/30
2,6-Dinitrotoluene	50.0	0.00	46.40	93		46.90	94		1		40-140/30
Acenaphthylene	50.0	0.00	35.80	72		36.00	72		1		40-140/30
3-Nitroaniline	50.0	0.00	39.50	79		39.30	79		1		40-140/30
Acenaphthene	50.0	0.00	36.40	73		35.70	71		2		40-140/30
2,4-Dinitrophenol	50.0	0.00	22.80	46		26.40	53		15		5-105/30

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06466-002
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
MS Data file: C7737.D
MSD Data file: C7738.D

GC/MS Column: DB-5
Sample wt/vol: 15.09g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.6
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	50.0	0.00	43.10	86		43.10	86		0		30-140/30
2,4-Dinitrotoluene	50.0	0.00	51.60	103		51.90	104		1		40-140/30
Dibenzofuran	50.0	0.00	33.80	68		33.20	66		2		40-140/30
Diethyl phthalate	50.0	0.00	43.70	87		43.30	87		1		40-140/30
Fluorene	50.0	0.00	39.40	79		40.00	80		2		40-140/30
4-Chlorophenyl phenyl ether	50.0	0.00	44.80	90		43.70	87		2		40-140/30
4-Nitroaniline	50.0	0.00	32.10	64		33.30	67		4		40-140/30
1,2,4,5-Tetrachlorobenzene	50.0	0.00	23.00	46		22.40	45		3		40-140/30
2,3,4,6-Tetrachlorophenol	50.0	0.00	65.00	130		68.78	138		6		40-140/30
4,6-Dinitro-2-methylphenol	50.0	0.00	36.90	74		40.20	80		9		10-110/30
N-Nitrosodiphenylamine	50.0	0.00	42.40	85		41.60	83		2		40-140/30
1,2-Diphenylhydrazine	50.0	0.00	34.70	69		34.10	68		2		40-140/30
4-Bromophenyl phenyl ether	50.0	0.00	45.10	90		44.00	88		2		40-140/30
Hexachlorobenzene	50.0	0.00	47.40	95		48.50	97		2		40-140/30
Atrazine	50.0	0.00	27.10	54		27.40	55		1		20-120/30
Pentachlorophenol	50.0	0.00	48.00	96		49.90	100		4		30-140/30
Phenanthrene	50.0	0.00	41.90	84		42.40	85		1		40-140/30
Anthracene	50.0	0.00	42.40	85		43.70	87		3		40-140/30
Carbazole	50.0	0.00	47.50	95		49.30	99		4		40-140/30
Di-n-butyl phthalate	50.0	0.00	48.10	96		48.90	98		2		40-140/30
Fluoranthene	50.0	0.00	49.40	99		50.50	101		2		40-140/30
Benzidine	50.0	0.00	4.90	10		5.50	11		12		5-105/30
Pyrene	50.0	0.00	53.60	107		54.00	108		1		40-140/30
3,3'-Dimethylbenzidine	50.0	0.00	15.20	30		15.50	31		2		5-105/30
Butyl benzyl phthalate	50.0	0.00	51.80	104		52.90	106		2		40-140/30
3,3'-Dichlorobenzidine	50.0	0.00	48.00	96		47.50	95		1		40-140/30
Benzo[a]anthracene	50.0	0.00	45.40	91		46.90	94		3		40-140/30
Chrysene	50.0	0.00	42.80	86		41.90	84		2		40-140/30
Bis(2-ethylhexyl) phthalate	50.0	0.00	51.30	103		51.50	103		0		40-140/30
Di-n-octyl phthalate	50.0	0.00	58.70	117		63.10	126		7		40-140/30
Benzo[b]fluoranthene	50.0	0.00	44.90	90		47.80	96		6		40-140/30
Benzo[k]fluoranthene	50.0	0.00	59.10	118		57.30	115		3		40-140/30
Benzo[a]pyrene	50.0	0.00	59.40	119		60.80	122		2		40-140/30
Indeno[1,2,3-cd]pyrene	50.0	0.00	52.70	105		51.40	103		2		40-140/30
Dibenz[a,h]anthracene	50.0	0.00	51.80	104		51.10	102		1		40-140/30
Benzo[g,h,i]perylene	50.0	0.00	44.60	89		45.80	92		3		40-140/30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C7739.D Instrument ID: MSDC

Date Extracted: 07/09/12 Matrix: SOIL

Date Analyzed: 07/10/2012 Time Analyzed: 16:57

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSS120709-03	07/10/2012	16:08
.	E12-06466-002MS	07/10/2012	16:24
.	E12-06466-002MSD	07/10/2012	16:40
G1-06261	E12-06385-001	07/10/2012	16:57
G2-06261	E12-06385-002	07/10/2012	17:13
G8-06261	E12-06385-004	07/10/2012	17:30
G7-06261	E12-06385-006	07/10/2012	17:46
G3-06261	E12-06385-007	07/10/2012	18:03
G6-06261	E12-06385-008	07/10/2012	18:19
G5-06261	E12-06385-009	07/10/2012	18:36
G4-06261	E12-06385-010	07/10/2012	18:53
I3SED-06	E12-06385-011	07/10/2012	19:09
C1-06261	E12-06385-012	07/10/2012	19:26
C2-06261	E12-06385-013	07/10/2012	19:42
B1_(4-5)	E12-06466-001	07/10/2012	19:59
B3_(16-1	E12-06466-002	07/10/2012	20:16
C1_(12.5	E12-06466-003	07/10/2012	20:32
A1_(12-1	E12-06466-004	07/10/2012	20:49
C2_(11-1	E12-06466-005	07/10/2012	21:06
A2_(4-5)	E12-06466-006	07/10/2012	21:22
A7_(2-3)	E12-06466-007	07/10/2012	21:39
I1-06271	E12-06466-008	07/10/2012	21:55
T-4/4.5-	E12-06413-004	07/10/2012	22:12

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7494.D DFTPP Injection Date : 07/02/2012

Inst ID: MSDC DFTPP Injection Time: 11:00

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	47.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	49.9	
70	Less than 2.0% of mass 69	0.4	(0.8)1
127	40.0 - 60.0% of mass 198	56.4	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.4	
275	10.0 - 30.0% of mass 198	23.8	
365	Greater than 1.0% of mass 198	2.6	
441	Present, but less than mass 443	10.61	(82.1)3
442	40.0 - 100.0% of mass 198	66.3	
443	17.0 - 23.0% of mass 442	12.9	(19.5)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN073.12	ICC001BNA1	C7497.D	07/02/2012	11:43
ABN075.12	ICC010BNA1	C7498.D	07/02/2012	12:00
ABN076.12	ICC020BNA1	C7499.D	07/02/2012	12:16
ABN077.12	ICC040BNA1	C7500.D	07/02/2012	12:32
ABN078.12	ICC080BNA1	C7501.D	07/02/2012	12:48
ABN079.12	ICC120BNA1	C7502.D	07/02/2012	13:05
ABN088.12	ICV040BNA1	C7503.D	07/02/2012	13:21
ABN086.12	ICC120BNA2	C7504.D	07/02/2012	13:37
ABN085.12	ICC080BNA2	C7505.D	07/02/2012	13:54
ABN084.12	ICC040BNA2	C7506.D	07/02/2012	14:12
ABN083.12	ICC020BNA2	C7507.D	07/02/2012	14:29
ABN082.12	ICC010BNA2	C7508.D	07/02/2012	14:45
ABN080.12	ICC001BNA2	C7509.D	07/02/2012	15:02
ABN089.12	ICV040BNA2	C7510.D	07/02/2012	15:18

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7716.D DFTPP Injection Date : 07/10/2012

Inst ID: MSDC DFTPP Injection Time: 10:46

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	44.6	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	49.6	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	40.0 - 60.0% of mass 198	58.8	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.1	
275	10.0 - 30.0% of mass 198	25.8	
365	Greater than 1.0% of mass 198	2.8	
441	Present, but less than mass 443	11.74	(74.1)3
442	40.0 - 100.0% of mass 198	76.9	
443	17.0 - 23.0% of mass 442	15.8	(20.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN088.12	CCV040BNA1	C7717.D	07/10/2012	10:57
ABN089.12	CCV040BNA2	C7718.D	07/10/2012	11:13
.	E12-06389-001MS	C7719.D	07/10/2012	11:29
.	E12-06389-001MSD	C7720.D	07/10/2012	11:46
SAMPLE_7	E12-06389-001	C7721.D	07/10/2012	12:02
SAMPLE_7	E12-06389-002	C7722.D	07/10/2012	12:18
SAMPLE_7	E12-06389-003	C7723.D	07/10/2012	12:35
SAMPLE_7	E12-06389-004	C7724.D	07/10/2012	12:51
GPEC-SB-	E12-06507-005	C7725.D	07/10/2012	13:07
GPEC-SB-	E12-06507-003	C7726.D	07/10/2012	13:24
GPEC-SB-	E12-06507-004	C7727.D	07/10/2012	13:40
GPEC-SB-	E12-06507-006	C7728.D	07/10/2012	13:56
GPEC-SB-	E12-06507-011	C7729.D	07/10/2012	14:13
GPEC-SB-	E12-06507-013	C7730.D	07/10/2012	14:29
GPEC-SB-	E12-06507-014	C7731.D	07/10/2012	14:45
GPEC-SB-	E12-06507-004	C7732.D	07/10/2012	15:02
GPEC-SB-	E12-06507-006	C7733.D	07/10/2012	15:18
GPEC-SB-	E12-06507-013	C7734.D	07/10/2012	15:35
.	BLKS120709-03	C7735.D	07/10/2012	15:51
.	LCSS120709-03	C7736.D	07/10/2012	16:08
.	E12-06466-002MS	C7737.D	07/10/2012	16:24
.	E12-06466-002MSD	C7738.D	07/10/2012	16:40
G1-06261	E12-06385-001	C7739.D	07/10/2012	16:57

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7716.D DFTPP Injection Date : 07/10/2012

Inst ID: MSDC DFTPP Injection Time: 10:46

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	44.6	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	49.6	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	40.0 - 60.0% of mass 198	58.8	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.1	
275	10.0 - 30.0% of mass 198	25.8	
365	Greater than 1.0% of mass 198	2.8	
441	Present, but less than mass 443	11.74	(74.1)3
442	40.0 - 100.0% of mass 198	76.9	
443	17.0 - 23.0% of mass 442	15.8	(20.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
G2-06261	E12-06385-002	C7740.D	07/10/2012	17:13
G8-06261	E12-06385-004	C7741.D	07/10/2012	17:30
G7-06261	E12-06385-006	C7742.D	07/10/2012	17:46
G3-06261	E12-06385-007	C7743.D	07/10/2012	18:03
G6-06261	E12-06385-008	C7744.D	07/10/2012	18:19
G5-06261	E12-06385-009	C7745.D	07/10/2012	18:36
G4-06261	E12-06385-010	C7746.D	07/10/2012	18:53
I3SED-06	E12-06385-011	C7747.D	07/10/2012	19:09
C1-06261	E12-06385-012	C7748.D	07/10/2012	19:26
C2-06261	E12-06385-013	C7749.D	07/10/2012	19:42
B1_(4-5)	E12-06466-001	C7750.D	07/10/2012	19:59
B3_(16-1	E12-06466-002	C7751.D	07/10/2012	20:16
C1_(12.5	E12-06466-003	C7752.D	07/10/2012	20:32
A1_(12-1	E12-06466-004	C7753.D	07/10/2012	20:49
C2_(11-1	E12-06466-005	C7754.D	07/10/2012	21:06
A2_(4-5)	E12-06466-006	C7755.D	07/10/2012	21:22
A7_(2-3)	E12-06466-007	C7756.D	07/10/2012	21:39
I1-06271	E12-06466-008	C7757.D	07/10/2012	21:55
T-4/4.5-	E12-06413-004	C7758.D	07/10/2012	22:12

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS1212.M
Title : BNA CALIBRATION METHOD
Last Update : Thu Jul 05 10:52:35 2012
Response Via : Initial Calibration

Calibration Files
1 =C7497.D 10 =C7498.D 20 =C7499.D
40 =C7500.D 80 =C7501.D 120 =C7502.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	1.193	1.035	1.120	1.103	1.040	0.987	1.080	6.83
3)	T	Pyridine	1.529	1.789	1.939	1.544	2.126	1.683	1.768	13.19
4)	S	2-Fluorophenol	1.382	1.378	1.381	1.337	1.405	1.401	1.381	1.74
5)	T	Benzaldehyde	0.953	1.080	1.143	1.075	0.835	1.011	1.016	10.82
6)	S	Phenol-d5	1.837	1.897	1.896	1.878	1.898	1.880	1.881	1.23
7)	MC	Phenol	2.514	1.762	1.942	1.954	1.964	1.885	2.003	13.02
8)	T	Aniline	1.199	1.031	1.100	0.936	1.024	0.872	1.027	11.31
9)	T	Bis(2-chloroethyl	1.448	1.186	1.307	1.216	1.202	1.180	1.256	8.31
10)	M	2-Chlorophenol	1.921	1.366	1.531	1.534	1.439	1.531	1.554	12.39
11)	T	1,3-Dichlorobenze	1.727	1.398	1.556	1.619	1.569	1.639	1.585	6.93
12)	MC	1,4-Dichlorobenze	1.779	1.378	1.557	1.508	1.499	1.634	1.559	8.75
13)	T	Benzyl alcohol	0.924	0.983	1.109	0.958	1.135	0.867	0.996	10.57
14)	T	1,2-Dichlorobenze	1.671	1.325	1.490	1.488	1.493	1.615	1.514	7.93
15)	T	2-Methylphenol	1.701	1.621	1.747	1.512	1.643	1.420	1.607	7.57
16)	T	Bis(2-chloroisopr	2.411	1.983	2.138	2.048	1.893	1.904	2.063	9.39
17)	T	4-Methylphenol	1.991	1.568	1.746	1.493	1.721	1.432	1.658	12.33
18)	MP	N-Nitrosodi-n-pro	1.081	1.053	1.218	1.230	1.147	1.080	1.135	6.68
19)	T	Acetophenone	2.614	1.958	2.169	2.125	2.002	2.160	2.171	10.75
20)	T	3-Methylphenol	1.991	1.568	1.768	1.513	1.742	1.445	1.671	12.07
21)	T	Hexachloroethane	0.736	0.540	0.598	0.593	0.586	0.606	0.610	10.82
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.372	0.359	0.377	0.403	0.405	0.450	0.394	8.28
25)	T	Nitrobenzene	0.426	0.365	0.407	0.392	0.384	0.413	0.398	5.52
26)	T	Isophorone	0.685	0.655	0.766	0.679	0.708	0.632	0.687	6.76
27)	TC	2-Nitrophenol	0.193	0.160	0.194	0.196	0.189	0.215	0.191	9.34
28)	T	2,4-Dimethylpheno	0.404	0.303	0.351	0.360	0.350	0.396	0.361	10.15
29)	T	Bis(2-chloroethox	0.585	0.421	0.481	0.493	0.472	0.477	0.488	10.94
30)	T	Benzoic acid	0.075	0.084	0.089	0.075	0.089	0.077	0.081	7.92
31)	T	2,4-Dimethylanili	0.208	0.156	0.180	0.184	0.182	0.209	0.187	10.67
32)	TC	2,4-Dichloropheno	0.307	0.233	0.274	0.277	0.276	0.302	0.278	9.46
33)	M	1,2,4-Trichlorobe	0.317	0.247	0.289	0.300	0.308	0.336	0.300	10.05
34)	T	Naphthalene	1.301	0.945	1.142	1.141	1.160	1.172	1.143	9.98
35)	T	4-Chloroaniline	0.768	0.587	0.696	0.645	0.699	0.638	0.672	9.34
36)	T	4-Aminotoluene	1.368	1.505	1.189	1.643	1.198	1.164	1.345	14.66
37)	TC	Hexachlorobutadie	0.195	0.130	0.155	0.161	0.157	0.175	0.162	13.32
38)	T	Caprolactam	0.195	0.131	0.153	0.155	0.137	0.148	0.153	14.62
39)	T	2-Aminotoluene	1.368	1.505	1.189	1.643	1.198	1.164	1.345	14.66
40)	MC	4-Chloro-3-methyl	0.352	0.247	0.293	0.291	0.282	0.305	0.295	11.53
41)	T	2-Methylnaphthale	0.885	0.692	0.800	0.767	0.810	0.731	0.781	8.61
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.090	0.070	0.065	0.074	0.090	0.092	0.080	14.74
45)	TC	2,4,6-Trichloroph	0.322	0.259	0.300	0.324	0.323	0.392	0.320	13.51
46)	T	2,4,5-Trichloroph	0.418	0.390	0.428	0.393	0.438	0.394	0.410	4.98
47)	S	2-Fluorobiphenyl	1.206	1.241	1.218	1.252	1.247	1.447	1.269	7.01
48)	T	1,1'-Biphenyl	1.707	1.282	1.461	1.533	1.484	1.764	1.539	11.41
49)	T	2-Chloronaphthale	1.154	0.946	1.054	1.080	1.105	1.224	1.094	8.62
50)	T	2-Nitroaniline	0.464	0.382	0.426	0.382	0.420	0.337	0.402	[illegible]
51)	T	Dimethyl phthalat	1.325	1.003	1.145	1.188	1.197	1.280	1.190	9.46

52)	T	2,6-Dinitrotoluen	0.262	0.218	0.253	0.255	0.261	0.284	0.255	8.39
53)	T	Acenaphthylene	1.991	1.540	1.741	1.713	1.728	1.847	1.760	8.53
54)	T	3-Nitroaniline	0.384	0.326	0.364	0.337	0.364	0.307	0.347	8.27
55)	MC	Acenaphthene	1.279	0.965	1.107	1.106	1.119	1.214	1.132	9.49
56)	TP	2,4-Dinitrophenol	0.065	0.064	0.063	0.073	0.087	0.084	0.073	14.49
57)	MP	4-Nitrophenol	0.189	0.176	0.208	0.220	0.207	0.220	0.203	8.58
58)	M	2,4-Dinitrotoluen	0.364	0.269	0.321	0.334	0.335	0.338	0.327	9.66
59)	T	Dibenzofuran	2.052	1.619	1.830	1.649	1.837	1.556	1.757	10.49
60)	T	Diethyl phthalate	1.284	1.025	1.168	1.165	1.202	1.180	1.171	7.16
61)	T	Fluorene	1.364	1.058	1.197	1.204	1.298	1.290	1.235	8.68
62)	T	4-Chlorophenyl ph	0.635	0.476	0.541	0.564	0.586	0.614	0.569	9.98
63)	T	4-Nitroaniline	0.422	0.327	0.370	0.341	0.403	0.336	0.366	10.63
64)		1,2,4,5-Tetrachlo	0.780	0.787	0.913	0.681	0.691	0.616	0.745	14.05
65)	T	2,3,4,6-Tetrachlo	0.331	0.283	0.364	0.364	0.250	0.356	0.325	14.71
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.060	0.065	0.065	0.086	0.078	0.081	0.073	14.33
68)	TC	N-Nitrosodiphenyl	0.646	0.516	0.602	0.620	0.628	0.760	0.629	12.56
69)	T	1,2-Diphenylhydra	0.996	0.862	0.990	0.989	0.952	1.105	0.983	7.98
70)	S	2,4,6-Tribromophe	0.123	0.142	0.151	0.145	0.151	0.156	0.145	8.07
71)	T	4-Bromophenyl phe	0.220	0.194	0.221	0.230	0.235	0.284	0.231	12.89
72)	T	Hexachlorobenzene	0.252	0.211	0.249	0.253	0.267	0.309	0.257	12.32
73)	T	Atrazine	0.198	0.166	0.186	0.159	0.170	0.215	0.182	11.63
74)	MC	Pentachlorophenol	0.101	0.090	0.091	0.110	0.117	0.095	0.101	10.79
75)	T	Phenanthrene	1.165	0.920	1.068	1.099	1.128	1.242	1.104	9.80
76)	T	Anthracene	1.246	0.958	1.111	1.121	1.160	1.281	1.146	9.99
77)	T	Carbazole	1.086	0.835	0.979	0.997	1.002	1.138	1.006	10.29
78)	T	Di-n-butyl phthal	1.394	1.098	1.313	1.340	1.353	1.431	1.321	8.86
79)	TC	Fluoranthene	1.095	0.806	0.957	0.978	1.030	1.063	0.988	10.42
80)	T	Benzidine	0.453	0.496	0.506	0.557	0.581	0.669	0.544	14.02
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.328	1.152	1.251	1.276	1.187	1.322	1.253	5.70
84)	S	Terphenyl-d14	0.877	0.912	0.854	0.916	0.796	0.838	0.865	5.30
85)	T	3,3'-Dimethylbenz	0.610	0.718	0.752	0.840	0.781	0.879	0.763	12.47
86)	T	Butyl benzyl phth	0.695	0.559	0.608	0.631	0.578	0.651	0.621	8.02
87)	T	3,3'-Dichlorobenz	0.414	0.330	0.375	0.402	0.376	0.398	0.382	7.84
88)	T	Benzo[a]anthracen	1.211	0.927	1.019	1.057	1.015	1.146	1.063	9.56
89)	T	Chrysene	1.037	0.867	0.972	1.028	0.986	1.028	0.986	6.49
90)	T	Bis(2-ethylhexyl)	0.970	0.780	0.867	0.922	0.873	0.965	0.896	8.01
91)	T	3,3'-Dimethoxyben							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.917	1.699	1.812	2.201	1.540	2.120	1.882	13.33
94)	T	Benzo[b]fluoranth	1.548	1.231	1.374	1.547	1.294	1.794	1.465	14.14
95)	T	Benzo[k]fluoranth	1.325	1.210	1.240	1.674	1.271	1.629	1.391	14.76
96)	TC	Benzo[a]pyrene	1.051	1.156	1.168	1.190	1.092	1.351	1.168	8.87
97)	T	Indeno[1,2,3-cd]p	1.359	1.461	1.650	1.589	1.610	1.995	1.611	13.47
98)	T	Dibenz[a,h]anthra	1.158	1.269	1.374	1.455	1.330	1.668	1.376	12.69
99)	T	Benzo[g,h,i]peryl	1.367	1.219	1.375	1.671	1.290	1.616	1.423	12.70

(#) = Out of Range

CS1212.M Thu Jul 05 10:52:42 2012 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7717.D
Acq On : 10 Jul 2012 10:57
Operator : EDM
Sample : ABN088.12,CCV040BNA1,S,30.00g,0,1
Misc : NA,07/10/12,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Jul 10 11:30:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Min. RRF : 0.000 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	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	76	0.00
2	T	N-Nitrosodimethylamine	1.080	0.912	15.6	63	0.00
3	T	Pyridine	1.768	1.453	17.8	72	0.00
4	S	2-Fluorophenol	1.381	1.385	-0.3	79	0.00
5	T	Benzaldehyde	1.016	0.877	13.7	66	0.00
6	S	Phenol-d5	1.881	1.831	2.7	74	0.00
7	MC	Phenol	2.003	1.829	8.7	71	0.00
8	T	Aniline	1.027	0.982	4.4	80	0.00
9	T	Bis(2-chloroethyl) ether	1.256	1.100	12.4	69	0.00
10	M	2-Chlorophenol	1.554	1.417	8.8	71	0.00
11	T	1,3-Dichlorobenzene	1.585	1.445	8.8	68	0.00
12	MC	1,4-Dichlorobenzene	1.559	1.472	5.6	74	-0.01
13	T	Benzyl alcohol	0.996	0.981	1.5	78	0.00
14	T	1,2-Dichlorobenzene	1.514	1.401	7.5	72	0.00
15	T	2-Methylphenol	1.607	1.871	-16.4	94	-0.01
16	T	Bis(2-chloroisopropyl) ethe	2.063	1.739	15.7	65	0.00
17	T	4-Methylphenol	1.658	1.793	-8.1	92	-0.01
18	MP	N-Nitrosodi-n-propylamine	1.135	0.989	12.9	61	-0.02
19	T	Acetophenone	2.171	1.908	12.1	68	-0.01
20	T	3-Methylphenol	1.671	1.801	-7.8	91	-0.01
21	T	Hexachloroethane	0.610	0.548	10.2	71	-0.01
22	T	2,6-Dimethylphenol	0.000	0.000	0.0	60	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	75	-0.02
24	S	Nitrobenzene-d5	0.394	0.363	7.9	68	-0.01
25	T	Nitrobenzene	0.398	0.349	12.3	67	-0.01
26	T	Isophorone	0.687	0.663	3.5	74	-0.02
27	TC	2-Nitrophenol	0.191	0.193	-1.0	74	-0.01
28	T	2,4-Dimethylphenol	0.361	0.331	8.3	69	-0.01
29	T	Bis(2-chloroethoxy) methane	0.488	0.428	12.3	65	-0.02
30	T	Benzoic acid	0.081	0.093	-14.8	93	-0.02
31	T	2,4-Dimethylaniline	0.187	0.172	8.0	70	-0.01
32	TC	2,4-Dichlorophenol	0.278	0.272	2.2	74	-0.01
33	M	1,2,4-Trichlorobenzene	0.300	0.284	5.3	71	-0.02
34	T	Naphthalene	1.143	1.055	7.7	70	-0.02
35	T	4-Chloroaniline	0.672	0.679	-1.0	79	-0.01
36	T	4-Aminotoluene	1.345	1.114	17.2	51	-0.01
37	TC	Hexachlorobutadiene	0.162	0.158	2.5	74	-0.01
38	T	Caprolactam	0.153	0.128	16.3	62	-0.03
39	T	2-Aminotoluene	1.345	1.114	17.2	51	0.00
40	MC	4-Chloro-3-methylphenol	0.295	0.281	4.7	73	-0.02
41	T	2-Methylnaphthalene	0.781	0.840	-7.6	83	-0.02
42	T	2,5-Dimethylphenol	0.000	0.000	0.0	60	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	75	-0.03
44	TP	Hexachlorocyclopentadiene	0.080	0.072	10.0	73	-0.02

45	TC	2,4,6-Trichlorophenol	0.320	0.304	5.0	70	-0.05
46	T	2,4,5-Trichlorophenol	0.410	0.453	-10.5	86	-0.02
47	S	2-Fluorobiphenyl	1.269	1.291	-1.7	77	-0.02
48	T	1,1'-Biphenyl	1.539	1.453	5.6	71	-0.03
49	T	2-Chloronaphthalene	1.094	1.061	3.0	73	-0.02
50	T	2-Nitroaniline	0.402	0.424	-5.5	83	-0.02
51	T	Dimethyl phthalate	1.190	1.148	3.5	72	-0.03
52	T	2,6-Dinitrotoluene	0.255	0.258	-1.2	76	-0.03
53	T	Acenaphthylene	1.760	1.733	1.5	76	-0.03
54	T	3-Nitroaniline	0.347	0.407	-17.3	90	-0.03
55	MC	Acenaphthene	1.132	1.070	5.5	72	-0.03
56	TP	2,4-Dinitrophenol	0.073	0.081	-11.0	83	0.00
57	MP	4-Nitrophenol	0.203	0.196	3.4	67	-0.03
58	M	2,4-Dinitrotoluene	0.327	0.336	-2.8	75	-0.03
59	T	Dibenzofuran	1.757	1.965	-11.8	89	-0.03
60	T	Diethyl phthalate	1.171	1.127	3.8	72	-0.04
61	T	Fluorene	1.235	1.207	2.3	75	-0.04
62	T	4-Chlorophenyl phenyl ether	0.569	0.562	1.2	74	-0.04
63	T	4-Nitroaniline	0.366	0.413	-12.8	91	-0.04
64		1,2,4,5-Tetrachlorobenzene	0.745	0.611	18.0	67	-0.02
65	T	2,3,4,6-Tetrachlorophenol	0.325	0.271	16.6	56	-0.04
66	I	Phenanthrene-d10	1.000	1.000	0.0	81	-0.05
67	T	4,6-Dinitro-2-methylphenol	0.073	0.068	6.8	63	-0.04
68	TC	N-Nitrosodiphenylamine	0.629	0.555	11.8	72	-0.04
69	T	1,2-Diphenylhydrazine	0.983	0.797	18.9	65	-0.04
70	S	2,4,6-Tribromophenol	0.145	0.154	-6.2	85	-0.04
71	T	4-Bromophenyl phenyl ether	0.231	0.223	3.5	78	-0.04
72	T	Hexachlorobenzene	0.257	0.251	2.3	80	-0.05
73	T	Atrazine	0.182	0.159	12.6	81	-0.05
74	MC	Pentachlorophenol	0.101	0.109	-7.9	80	-0.04
75	T	Phenanthrene	1.104	0.983	11.0	72	-0.05
76	T	Anthracene	1.146	1.050	8.4	75	-0.05
77	T	Carbazole	1.006	0.905	10.0	73	-0.05
78	T	Di-n-butyl phthalate	1.321	1.203	8.9	72	-0.06
79	TC	Fluoranthene	0.988	0.984	0.4	81	-0.08
80	T	Benzidine	0.544	0.446	18.0	75	0.00
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	90	-0.07
83	M	Pyrene	1.253	1.197	4.5	85	-0.09
84	S	Terphenyl-d14	0.865	0.913	-5.5	90	-0.09
85	T	3,3'-Dimethylbenzidine	0.763	0.640	16.1	77	0.00
86	T	Butyl benzyl phthalate	0.621	0.546	12.1	78	-0.07
87	T	3,3'-Dichlorobenzidine	0.382	0.354	7.3	79	-0.06
88	T	Benzo[a]anthracene	1.063	0.929	12.6	79	-0.07
89	T	Chrysene	0.986	0.931	5.6	82	-0.07
90	T	Bis(2-ethylhexyl) phthalate	0.896	0.773	13.7	76	-0.07
91	T	3,3'-Dimethoxybenzidine	0.000	0.000	0.0	0#	-0.01
92	I	Perylene-d12	1.000	1.000	0.0	95	-0.06
93	TC	Di-n-octyl phthalate	1.882	1.776	5.6	77	-0.08
94	T	Benzo[b]fluoranthene	1.465	1.312	10.4	81	-0.08
95	T	Benzo[k]fluoranthene	1.391	1.398	-0.5	80	-0.09
96	TC	Benzo[a]pyrene	1.168	1.151	1.5	92	-0.08
97	T	Indeno[1,2,3-cd]pyrene	1.611	1.581	1.9	95	-0.11
98	T	Dibenz[a,h]anthracene	1.376	1.321	4.0	87	-0.11
99	T	Benzo[g,h,i]perylene	1.423	1.241	12.8	71	-0.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS1212.M Tue Jul 10 11:30:58 2012 RPT1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7497.D Date Analyzed: 07/02/2012

Instrument ID: MSDC Time Analyzed: 11:43

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	392961	4.73	308331	6.54	204397	8.03
	UPPER LIMIT	785922	5.23	616662	7.04	408794	8.53
	LOWER LIMIT	196481	4.23	154166	6.04	102199	7.53
	LAB SAMPLE ID						
01	ICC010BNA1	427764	4.75	292877	6.57	198191	8.06
02	ICC020BNA1	381413	4.76	289950	6.59	202850	8.08
03	ICC040BNA1	371457	4.75	279290	6.57	172612	8.06
04	ICC080BNA1	339281	4.77	285644	6.60	227839	8.09
05	ICC120BNA1	309386	4.78	253336	6.62	177206	8.11
06	ICV040BNA1	403131	4.76	312820	6.59	192243	8.08
07	ICC120BNA2	407992	4.75	303005	6.56	181054	8.05
08	ICC080BNA2	404793	4.73	330894	6.55	234861	8.04
09	ICC040BNA2	491356	4.76	367280	6.58	238748	8.06
10	ICC020BNA2	487062	4.75	350506	6.57	228062	8.05
11	ICC010BNA2	514931	4.72	354359	6.52	231556	8.01
12	ICC001BNA2	495472	4.70	348417	6.50	224104	7.98
13	ICV040BNA2	546254	4.72	377200	6.52	237132	8.01
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7497.D

Date Analyzed: 07/02/2012

Instrument ID: MSDC

Time Analyzed: 11:43

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	107050	2.55	439014	3.10	253584	3.94
	UPPER LIMIT	214100	3.05	878028	3.60	507168	4.44
	LOWER LIMIT	53525	2.05	219507	2.60	126792	3.44
	LAB SAMPLE ID						
01	ICC010BNA1	129421	2.55	550672	3.11	302809	3.95
02	ICC020BNA1	118742	2.55	481201	3.11	274238	3.96
03	ICC040BNA1	118760	2.55	476075	3.11	264484	3.95
04	ICC080BNA1	116950	2.55	456455	3.11	247038	3.96
05	ICC120BNA1	123503	2.55	470706	3.12	243557	3.97
06	ICV040BNA1	128459	2.55	511349	3.11	285161	3.96
07	ICC120BNA2	109203	2.55	451543	3.11	256576	3.95
08	ICC080BNA2	108620	2.55	454598	3.10	263735	3.94
09	ICC040BNA2	124879	2.55	524567	3.11	313223	3.96
10	ICC020BNA2	127865	2.55	547714	3.11	322798	3.95
11	ICC010BNA2	133466	2.55	555394	3.10	334465	3.93
12	ICC001BNA2	126572	2.55	532954	3.10	320051	3.92
13	ICV040BNA2	145089	2.55	600107	3.10	353836	3.93
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7717.D

Date Analyzed: 07/10/2012

Instrument ID: MSDC

Time Analyzed: 10:57

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	90599	2.55	358624	3.10	197480	3.94
	UPPER LIMIT	181198	3.05	717248	3.60	394960	4.44
	LOWER LIMIT	45300	2.05	179312	2.60	98740	3.44
	LAB SAMPLE ID						
01	CCV040BNA2	96131	2.55	394250	3.11	225346	3.95
02	E12-06389-001MS	112899	2.55	464208	3.10	269488	3.93
03	E12-06389-001MSD	113793	2.55	459318	3.10	264582	3.94
04	E12-06389-001	117453	2.55	499779	3.11	283805	3.94
05	E12-06389-002	117527	2.55	491581	3.11	281006	3.94
06	E12-06389-003	128966	2.55	542835	3.11	313001	3.94
07	E12-06389-004	116453	2.55	487750	3.11	284841	3.95
08	E12-06507-005	115761	2.55	476946	3.11	268426	3.95
09	E12-06507-003	130851	2.55	582360	3.10	312414	3.94
10	E12-06507-004	127766	2.56	546119	3.10	304457	3.94
11	E12-06507-006	124644	2.55	533917	3.11	300435	3.95
12	E12-06507-011	123976	2.56	538231	3.10	303711	3.95
13	E12-06507-013	142712	2.55	572152	3.10	317665	3.93
14	E12-06507-014	127001	2.55	524148	3.11	297096	3.92
15	E12-06507-004	122359	2.56	521584	3.10	294775	3.93
16	E12-06507-006	127811	2.56	550049	3.10	306002	3.92
17	E12-06507-013	150907	2.55	632619	3.10	354896	3.92
18	BLKS120709-03	108721	2.55	442815	3.11	249810	3.92
19	LCSS120709-03	137349	2.55	582496	3.10	345565	3.94
20	E12-06466-002MS	138092	2.55	573151	3.10	336422	3.92
21	E12-06466-002MSD	138117	2.55	573251	3.10	347819	3.92
22	E12-06385-001	140275	2.55	538061	3.10	273505	3.91

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7717.D

Date Analyzed: 07/10/2012

Instrument ID: MSDC

Time Analyzed: 10:57

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	299067	4.74	251704	6.55	164485	8.05
	UPPER LIMIT	598134	5.24	503408	7.05	328970	8.55
	LOWER LIMIT	149534	4.24	125852	6.05	82243	7.55
	LAB SAMPLE ID						
01	CCV040BNA2	346473	4.75	282646	6.56	196842	8.05
02	E12-06389-001MS	397281	4.71	324331	6.52	230677	8.01
03	E12-06389-001MSD	392112	4.72	316480	6.53	230977	8.02
04	E12-06389-001	426406	4.72	360013	6.54	258247	8.03
05	E12-06389-002	411162	4.74	353201	6.56	250199	8.05
06	E12-06389-003	457181	4.73	389568	6.55	282514	8.04
07	E12-06389-004	421677	4.75	351719	6.57	253450	8.06
08	E12-06507-005	385687	4.75	321603	6.57	231863	8.06
09	E12-06507-003	453332	4.73	365848	6.55	269219	8.03
10	E12-06507-004	439298	4.74	361239	6.55	258344	8.05
11	E12-06507-006	440096	4.76	363995	6.59	262586	8.08
12	E12-06507-011	460948	4.75	379926	6.57	269109	8.06
13	E12-06507-013	5441*	4.74	444955	6.52	342101*	8.01
14	E12-06507-014	423479	4.70	384591	6.51	288708	7.99
15	E12-06507-004	425280	4.71	376418	6.50	279034	8.01
16	E12-06507-006	448094	4.70	392110	6.50	286747	8.00
17	E12-06507-013	502420	4.70	452819	6.50	327788	7.99
18	BLKS120709-03	359959	4.69	314168	6.49	219831	7.98
19	LCSS120709-03	542291	4.72	435740	6.53	248811	8.02
20	E12-06466-002MS	518112	4.70	399947	6.50	233463	8.00
21	E12-06466-002MSD	535125	4.69	420955	6.49	232984	7.99
22	E12-06385-001	364153	4.68	366122	6.48	274285	8.02

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7717.D

Date Analyzed: 07/10/2012

Instrument ID: MSDC

Time Analyzed: 10:57

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	90599	2.55	358624	3.10	197480	3.94
	UPPER LIMIT	181198	3.05	717248	3.60	394960	4.44
	LOWER LIMIT	45300	2.05	179312	2.60	98740	3.44
	LAB SAMPLE ID						
01	E12-06385-002	151643	2.55	583301	3.10	295871	3.9
02	E12-06385-004	135534	2.55	542749	3.1	294409	3.91
03	E12-06385-006	128990	2.55	500789	3.1	259629	3.91
04	E12-06385-007	156174	2.55	657016	3.1	390704	3.92
05	E12-06385-008	144785	2.55	557584	3.1	281601	3.92
06	E12-06385-009	147157	2.55	542508	3.1	262793	3.92
07	E12-06385-010	155138	2.55	637531	3.1	201572	3.93
08	E12-06385-011	138176	2.55	503493	3.1	237799	3.94
09	E12-06385-012	127507	2.55	446302	3.1	224054	3.95
10	E12-06385-013	162761	2.55	633294	3.1	327688	3.93
11	E12-06466-001	159000	2.55	592012	3.11	378442	3.95
12	E12-06466-002	94659	2.55	403118	3.1	238975	3.92
13	E12-06466-003	92010	2.56	397393	3.1	235756	3.92
14	E12-06466-004	124336	2.56	501492	3.11	259226	3.92
15	E12-06466-005	119804	2.56	483230	3.11	247321	3.91
16	E12-06466-006	121161	2.56	483903	3.11	251372	3.92
17	E12-06466-007	99619	2.56	411274	3.11	218841	3.91
18	E12-06466-008	133170	2.55	519226	3.1	196401	3.9
19	E12-06413-004	135126	2.56	533957	3.1	266725	3.91
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7717.D

Date Analyzed: 07/10/2012

Instrument ID: MSDC

Time Analyzed: 10:57

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	299067	4.74	251704	6.55	164485	8.05
	UPPER LIMIT	598134	5.24	503408	7.05	328970	8.55
	LOWER LIMIT	149534	4.24	125852	6.05	82243	7.55
	LAB SAMPLE ID						
01	E12-06385-002	401246	4.66	435572	6.47	323035	8.04
02	E12-06385-004	393570	4.68	374476	6.47	290611	7.98
03	E12-06385-006	344334	4.67	335877	6.46	264912	7.96
04	E12-06385-007	578826	4.70	423541	6.50	300755	8
05	E12-06385-008	366242	4.69	403861	6.49	308216	8.04
06	E12-06385-009	351434	4.68	436409	6.49	306582	8.06
07	E12-06385-010	292107	4.72	228961	6.53	164497	8.03
08	E12-06385-011	317762	4.73	380324	6.55	281647	8.12
09	E12-06385-012	317539	4.73	356375	6.55	263069	8.11
10	E12-06385-013	443921	4.72	426698	6.54	256590	8.11
11	E12-06466-001	574133	4.76	423958	6.57	239640	8.08
12	E12-06466-002	373800	4.69	286906	6.49	150782	7.99
13	E12-06466-003	378955	4.70	304119	6.51	160498	8.01
14	E12-06466-004	345721	4.69	371235	6.48	274899	7.98
15	E12-06466-005	326375	4.67	346796	6.45	255594	7.96
16	E12-06466-006	326252	4.70	354040	6.49	262261	8.01
17	E12-06466-007	303561	4.67	341552	6.45	251932	7.96
18	E12-06466-008	319662	4.66	355352	6.45	266402	7.98
19	E12-06413-004	339205	4.68	351389	6.47	263280	7.98
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 11 12:23:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

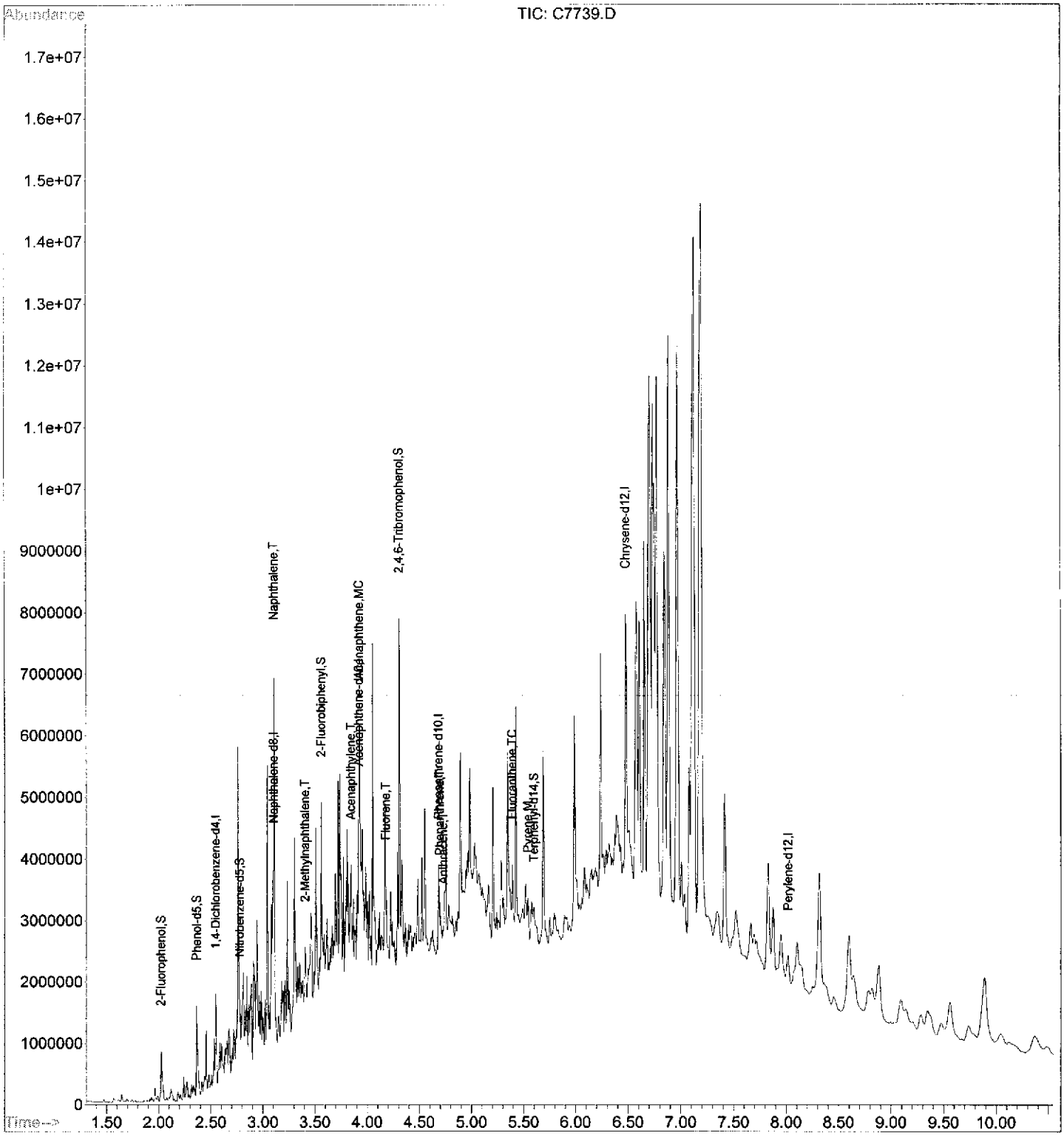
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	140275	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	538061	40.00	UG	-0.02
43) Acenaphthene-d10	3.91	164	273505	40.00	UG	-0.06
66) Phenanthrene-d10	4.68	188	364153	40.00	UG	-0.10
82) Chrysene-d12	6.48	240	366122	40.00	UG	-0.14
92) Perylene-d12	8.02	264	274285	40.00	UG	-0.10
System Monitoring Compounds						
4) 2-Fluorophenol	2.03	112	224893	46.44	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 46.44%			
6) Phenol-d5	2.36	99	319332	48.41	UG	-0.01
Spiked Amount 100.000	Range 25 - 108		Recovery = 48.41%			
24) Nitrobenzene-d5	2.78	82	103954m	19.59	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 39.18%			
47) 2-Fluorobiphenyl	3.57	172	156858m	18.08	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 36.16%			
70) 2,4,6-Tribromophenol	4.31	330	67957m	51.58	UG	-0.08
Spiked Amount 100.000	Range 37 - 115		Recovery = 51.58%			
84) Terphenyl-d14	5.60	244	96316m	12.16	UG	-0.20
Spiked Amount 50.000	Range 15 - 122		Recovery = 24.32%			
Target Compounds						Qvalue
34) Naphthalene	3.11	128	1505725	97.89	UG	# 55
41) 2-Methylnaphthalene	3.41	142	152166	14.49	UG	100
53) Acenaphthylene	3.84	152	17908	1.49	UG	# 1
55) Acenaphthene	3.93	153	40606	5.25	UG	# 59
61) Fluorene	4.18	166	48252	5.71	UG	85
75) Phenanthrene	4.69	178	183359	18.25	UG	# 84
76) Anthracene	4.72	178	57300	5.49	UG	# 19
79) Fluoranthene	5.39	202	123827m	13.76	UG	
83) Pyrene	5.54	202	163786m	14.28	UG	

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 11 12:23:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.023	134	136	145	rVB2	796014	835722	3.73%	0.359%
2	2.269	179	182	185	rVB3	271448	269361	1.20%	0.116%
3	2.365	198	200	207	rBV2	1468570	1254404	5.60%	0.540%
4	2.439	211	214	216	rBV3	253514	299860	1.34%	0.129%
5	2.456	216	217	219	rVB	932536	368810	1.65%	0.159%
6	2.530	228	231	232	rBV	768507	439752	1.96%	0.189%
7	2.546	232	234	237	rVB	1446663	898194	4.01%	0.386%
8	2.600	243	244	249	rVB4	476461	356152	1.59%	0.153%
9	2.637	249	251	252	rBV	426139	338559	1.51%	0.146%
10	2.653	252	254	256	rVB3	399780	293956	1.31%	0.126%
11	2.675	256	258	261	rVB2	733146	709672	3.17%	0.305%
12	2.707	261	264	265	rBV	418627	322255	1.44%	0.139%
13	2.717	265	266	269	rBV3	496471	379099	1.69%	0.163%
14	2.744	269	271	272	rBV2	488756	366158	1.64%	0.157%
15	2.760	272	274	279	rVB2	4793483	2831247	12.65%	1.218%
16	2.813	279	284	285	rBV3	1145674	1121172	5.01%	0.482%
17	2.846	288	290	292	rVB	1145490	589929	2.64%	0.254%
18	2.867	292	294	295	rBV2	688859	470994	2.10%	0.203%
19	2.888	295	298	300	rVB2	1238500	1097493	4.90%	0.472%
20	2.910	300	302	305	rBV3	1610772	1738451	7.77%	0.748%
21	2.942	305	308	311	rBV4	1777128	1266467	5.66%	0.545%
22	2.963	311	312	314	rVB2	646048	278762	1.25%	0.120%
23	2.979	314	315	317	rVB2	799450	471032	2.10%	0.203%
24	2.995	317	318	321	rVB2	458528	338210	1.51%	0.145%
25	3.022	321	323	325	rBV2	741355	500288	2.23%	0.215%
26	3.043	325	327	330	rBV2	4456870	2577052	11.51%	1.108%
27	3.081	332	334	335	rBV	2034374	1223159	5.46%	0.526%
28	3.107	335	339	345	rVB2	6131324	5398391	24.12%	2.322%
29	3.150	345	347	350	rBV3	431062	432574	1.93%	0.186%
30	3.182	350	353	354	rBV3	929522	661337	2.95%	0.284%
31	3.198	354	356	357	rVB	671133	399996	1.79%	0.172%
32	3.214	357	359	361	rBV2	837964	703804	3.14%	0.303%
33	3.236	361	363	365	rBV	2332966	1235032	5.52%	0.531%
34	3.257	365	367	369	rVB3	661258	469492	2.10%	0.202%
35	3.305	369	376	380	rBV4	3163253	3165000	14.14%	1.361%
36	3.337	380	382	384	rBV3	606439	460421	2.06%	0.198%
37	3.353	384	385	387	rVB2	587269	349627	1.56%	0.150%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

38	3.406	394	395	398	rVB2	825974	513050	2.29%	0.221%
39	3.433	398	400	401	rBV2	482866	326401	1.46%	0.140%
40	3.460	403	405	409	rVB2	1394613	1306827	5.84%	0.562%
41	3.508	412	414	419	rVB2	2622853	1797161	8.03%	0.773%
42	3.545	419	421	422	rBV2	531385	364947	1.63%	0.157%
43	3.561	422	424	426	rBV2	2754232	1451660	6.49%	0.624%
44	3.615	430	434	436	rVB4	852438	695719	3.11%	0.299%
45	3.663	441	443	445	rBV2	617010	443184	1.98%	0.191%
46	3.695	448	449	452	rBV	1184636	659447	2.95%	0.284%
47	3.722	452	454	455	rVB	2792204	1307134	5.84%	0.562%
48	3.738	455	457	461	rVB2	3016747	2517522	11.25%	1.083%
49	3.770	461	463	465	rVB2	1874072	928195	4.15%	0.399%
50	3.796	465	468	469	rBV3	1451964	1208131	5.40%	0.520%
51	3.807	469	470	473	rVB	1838136	1016489	4.54%	0.437%
52	3.845	473	477	479	rBV2	1260162	1055391	4.71%	0.454%
53	3.866	479	481	482	rVB2	940943	415819	1.86%	0.179%
54	3.882	482	484	486	rVB2	483883	445150	1.99%	0.191%
55	3.903	486	488	489	rBV2	1106736	910337	4.07%	0.392%
56	3.925	489	492	495	rVV3	3107984	3079931	13.76%	1.325%
57	3.951	495	497	500	rVB2	1648263	1215758	5.43%	0.523%
58	3.983	501	503	505	rVB3	1162325	742777	3.32%	0.319%
59	4.021	508	510	511	rBV	1132817	734646	3.28%	0.316%
60	4.053	514	516	518	rBV	5223770	3009620	13.44%	1.295%
61	4.170	535	538	542	rBV2	2362146	1814888	8.11%	0.781%
62	4.224	546	548	550	rBV2	1094765	854415	3.82%	0.368%
63	4.288	558	560	562	rBV	1839188	1135379	5.07%	0.488%
64	4.309	562	564	566	rVV2	5504386	3380851	15.10%	1.454%
65	4.331	566	568	572	rVB2	1457329	1186962	5.30%	0.511%
66	4.395	578	580	581	rBV	448830	304589	1.36%	0.131%
67	4.486	594	597	599	rBV2	1063850	682561	3.05%	0.294%
68	4.523	602	604	605	rBV	1377041	681521	3.04%	0.293%
69	4.550	607	609	611	rVB	2105275	1452502	6.49%	0.625%
70	4.683	632	634	638	rBV2	1375219	1419262	6.34%	0.610%
71	4.742	642	645	646	rVV3	701848	711531	3.18%	0.306%
72	4.753	646	647	649	rVB	1494383	523601	2.34%	0.225%
73	4.892	670	673	676	rBV3	2698267	2309742	10.32%	0.994%
74	4.982	687	690	692	rBV2	1673839	1155001	5.16%	0.497%
75	5.201	729	731	734	rBV	2320907	1613824	7.21%	0.694%
76	5.282	744	746	748	rBV2	1095536	858033	3.83%	0.369%
77	5.346	755	758	764	rBV3	2653085	2380962	10.64%	1.024%
78	5.388	764	766	770	rVB	933025	638765	2.85%	0.275%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

79	5.426	770	773	775	rBV	3492606	2078790	9.29%	0.894%
80	5.688	819	822	831	rVB	3120838	2808363	12.55%	1.208%
81	5.987	875	878	881	rBV	3189971	2853295	12.75%	1.227%
82	6.238	922	925	928	rBV2	3655124	2822824	12.61%	1.214%
83	6.478	967	970	973	rBV	3976681	3908947	17.46%	1.681%
84	6.580	984	989	992	rBV2	4318646	6160780	27.52%	2.650%
85	6.606	992	994	998	rVB	4068978	3676188	16.42%	1.581%
86	6.655	999	1003	1006	rBV	5370620	4534278	20.26%	1.950%
87	6.708	1006	1013	1016	rBV	8040946	14427703	64.45%	6.206%
88	6.740	1016	1019	1022	rVV2	7473887	10761017	48.07%	4.629%
89	6.777	1022	1026	1029	rVB	7897713	8623111	38.52%	3.709%
90	6.847	1034	1039	1042	rVV	5527687	7725013	34.51%	3.323%
91	6.890	1042	1047	1052	rVB	9178440	10640054	47.53%	4.577%
92	6.975	1056	1063	1066	rVV	9229424	11749400	52.49%	5.054%
93	7.002	1066	1068	1072	rVB	750453	666808	2.98%	0.287%
94	7.077	1078	1082	1084	rBV	2692894	3036667	13.57%	1.306%
95	7.130	1084	1092	1095	rVV	11215336	19744286	88.20%	8.493%
96	7.194	1095	1104	1112	rVB2	11608174	22384886	100.00%	9.629%
97	7.413	1141	1145	1150	rBV	2310127	2821025	12.60%	1.213%
98	7.830	1218	1223	1227	rBV	1560323	2237511	10.00%	0.962%
99	8.316	1309	1314	1321	rVB2	1815924	3209734	14.34%	1.381%
100	8.594	1362	1366	1372	rBV4	794867	1449298	6.47%	0.623%

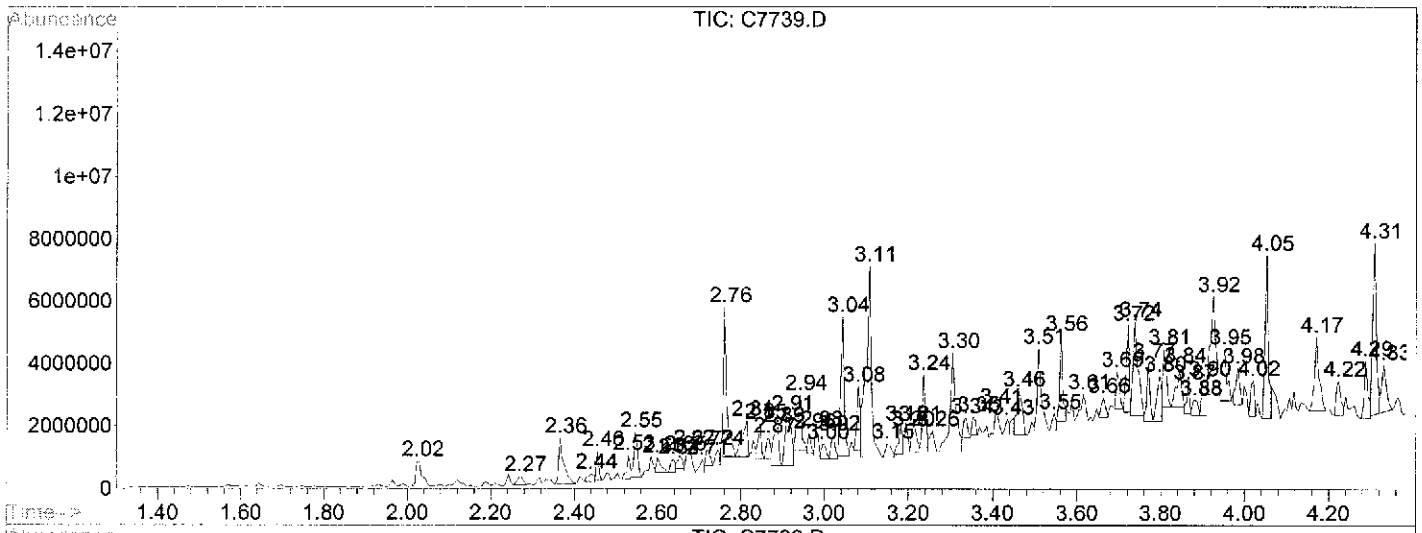
Sum of corrected areas: 232481547

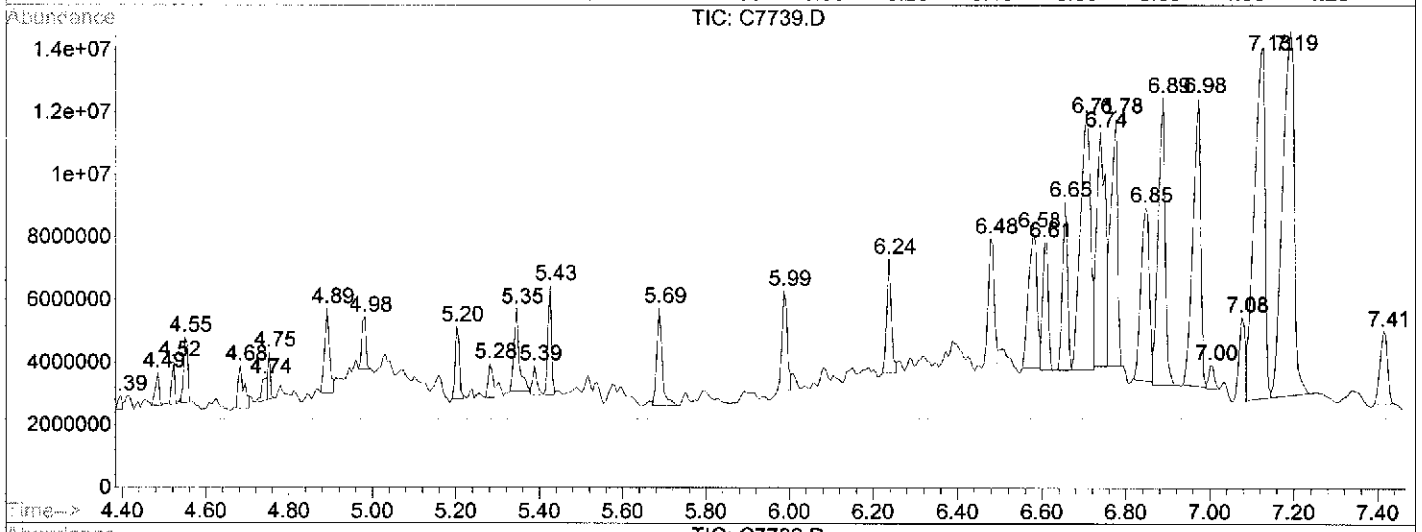
LSC Report - Integrated Chromatogram

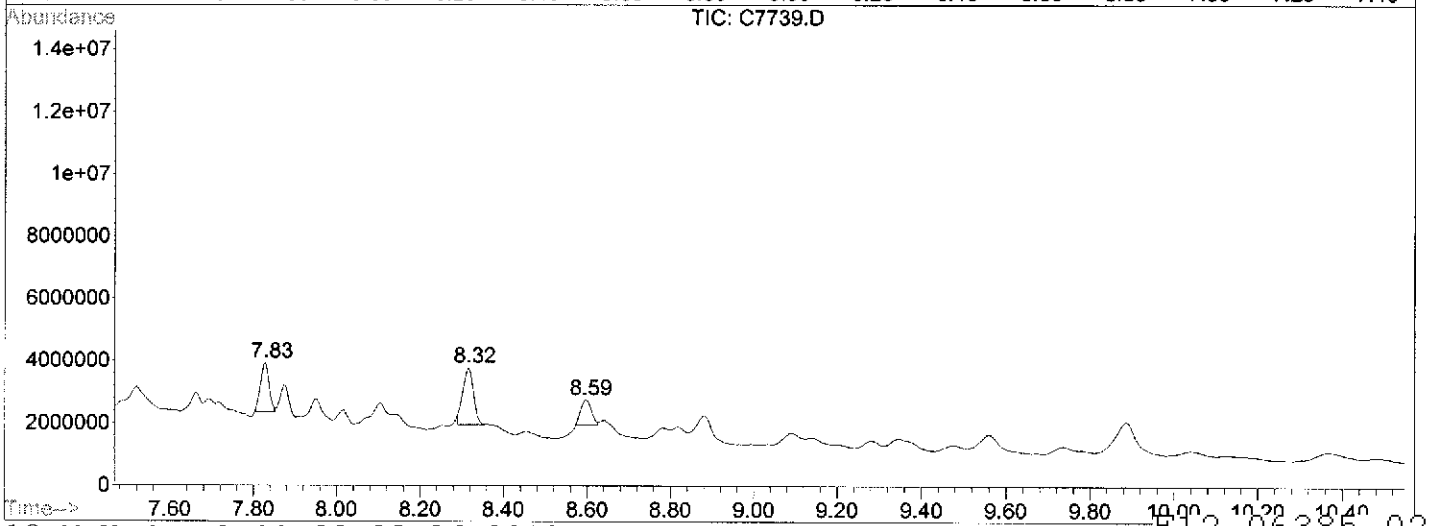
Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

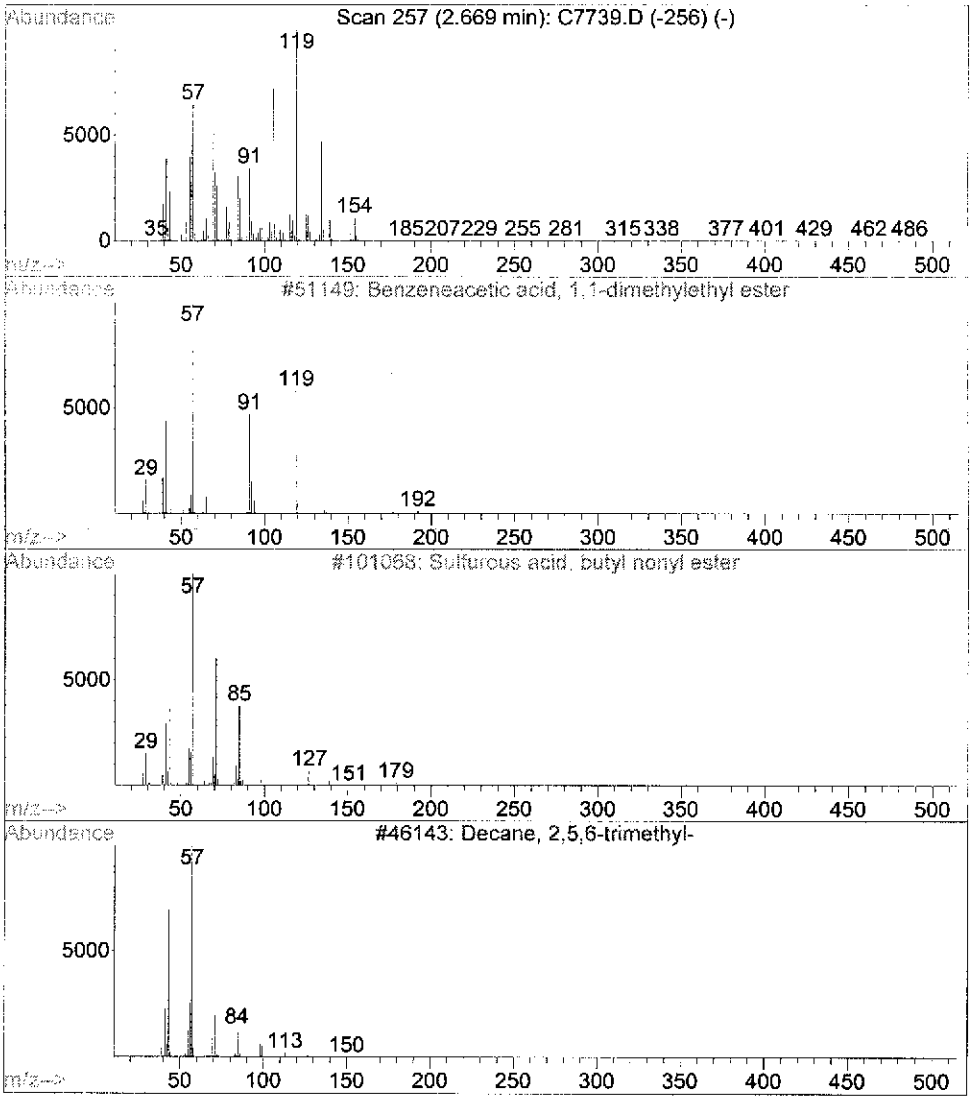
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

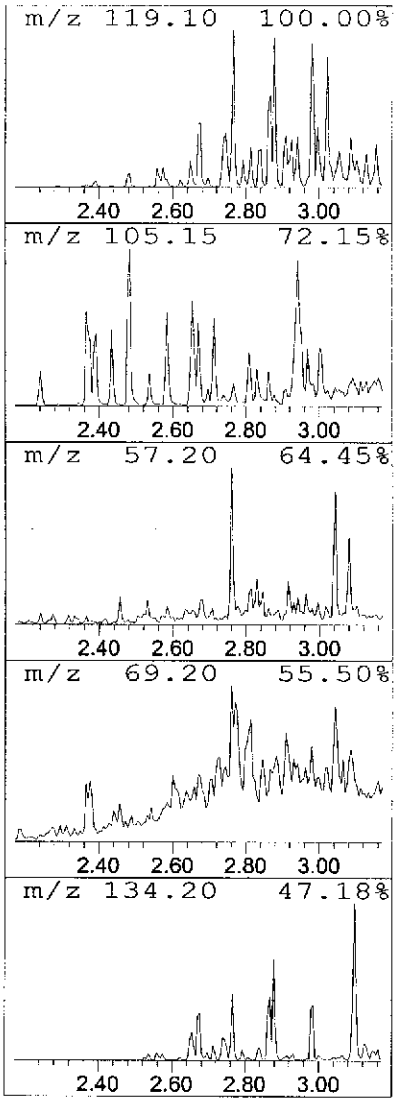
****

Peak Number 1 Unknown SV Concentration Rank 21

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.67	31.60 UG	709672	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneacetic acid, 1,1-dimethyl...	192	C12H16O2	016537-09-0	25
2	Sulfurous acid, butyl nonyl ester	264	C13H28O3S	1000309-17-6	12
3	Decane, 2,5,6-trimethyl-	184	C13H28	062108-23-0	12
4	1-Pentene, 2,4,4-trimethyl-	112	C8H16	000107-39-1	10
5	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	10





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

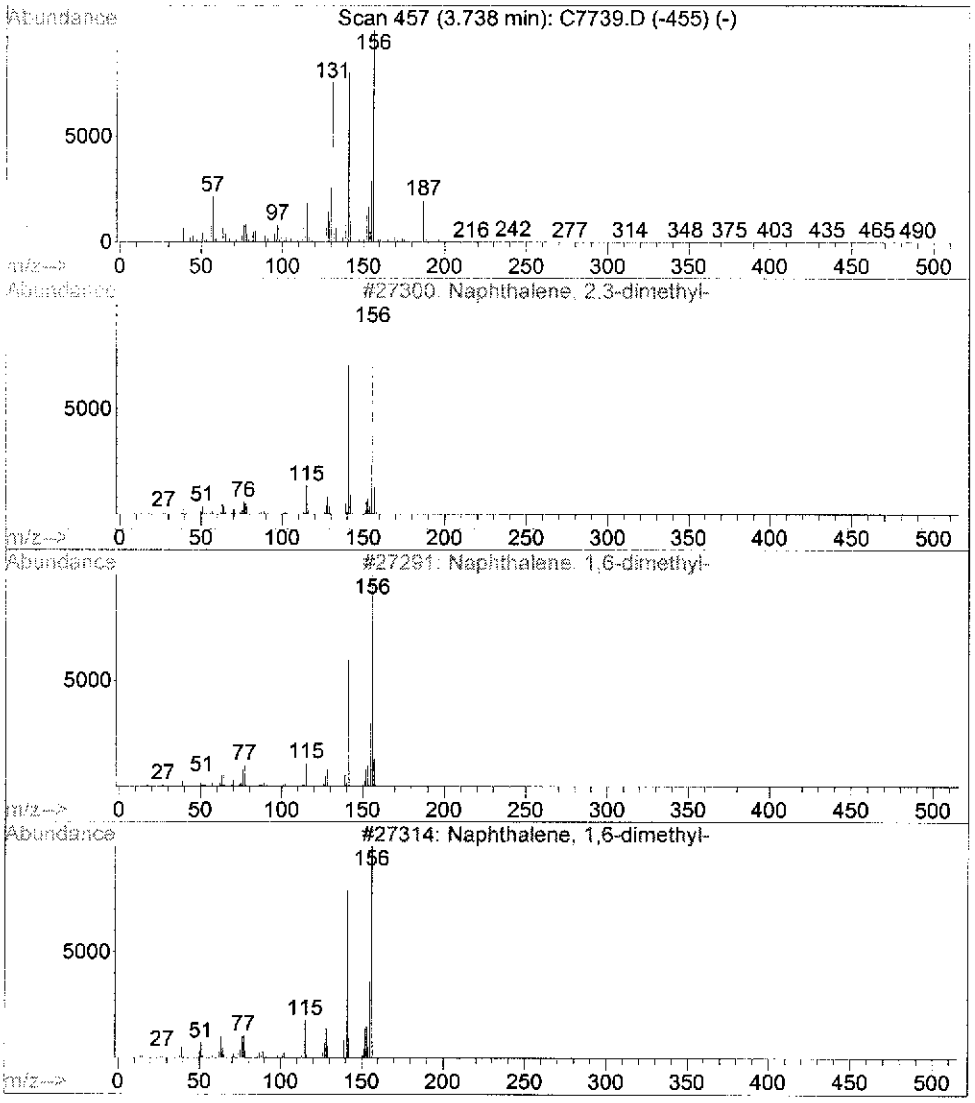
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

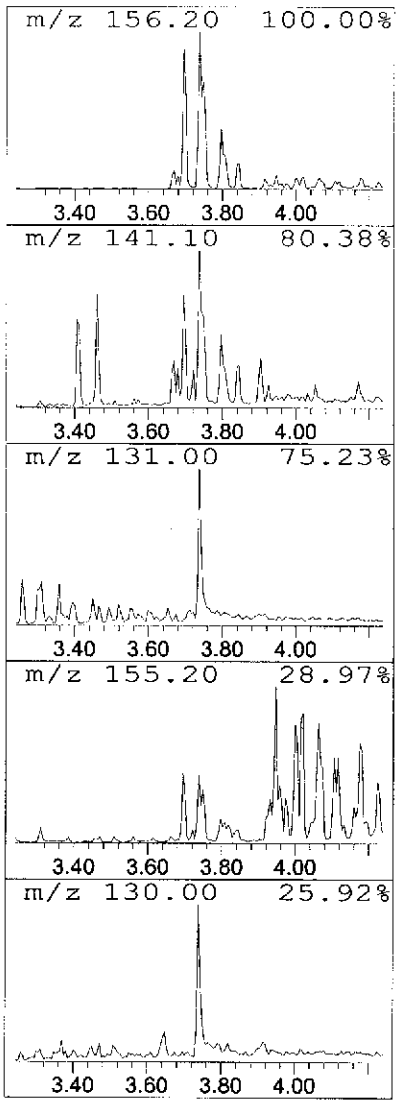
****

Peak Number 2 Unknown PAH Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.74	32.70 UG	2517520	Acenaphthene-d10	3.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	96
2	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	95
3	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	95
4	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	95
5	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	95





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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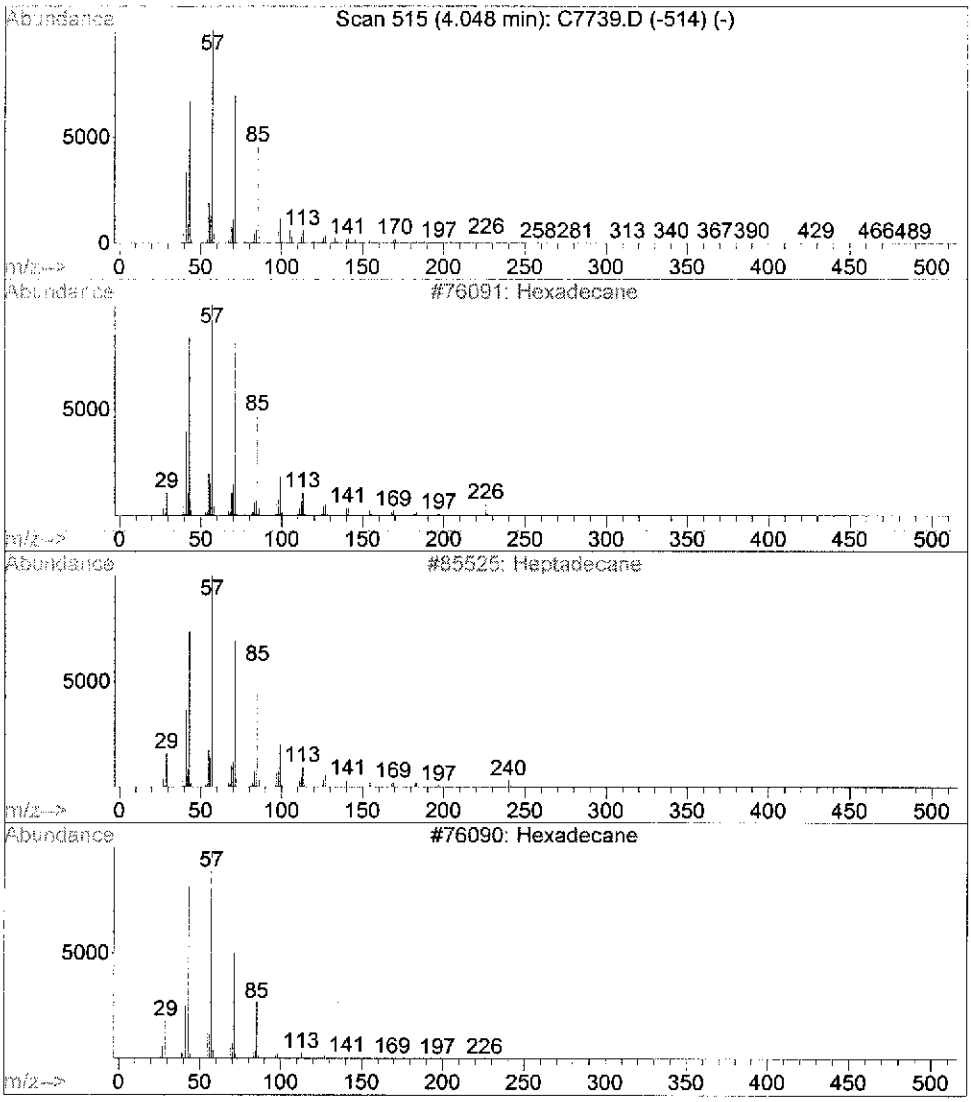
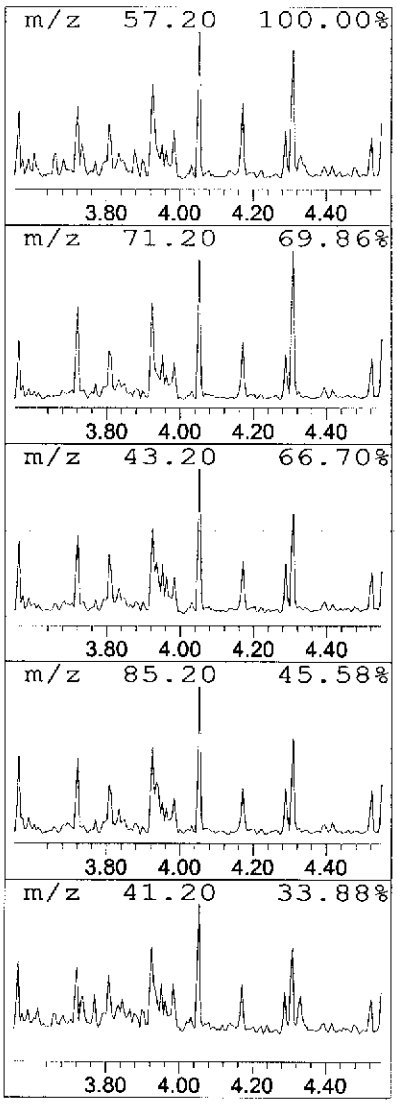
Peak Number 3 Unknown Hydrocarbon Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.05	39.09 UG	3009620	Acenaphthene-d10	3.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	98
2	Heptadecane	240	C17H36	000629-78-7	97
3	Hexadecane	226	C16H34	000544-76-3	97
4	Hexadecane	226	C16H34	000544-76-3	95
5	Hexadecane	226	C16H34	000544-76-3	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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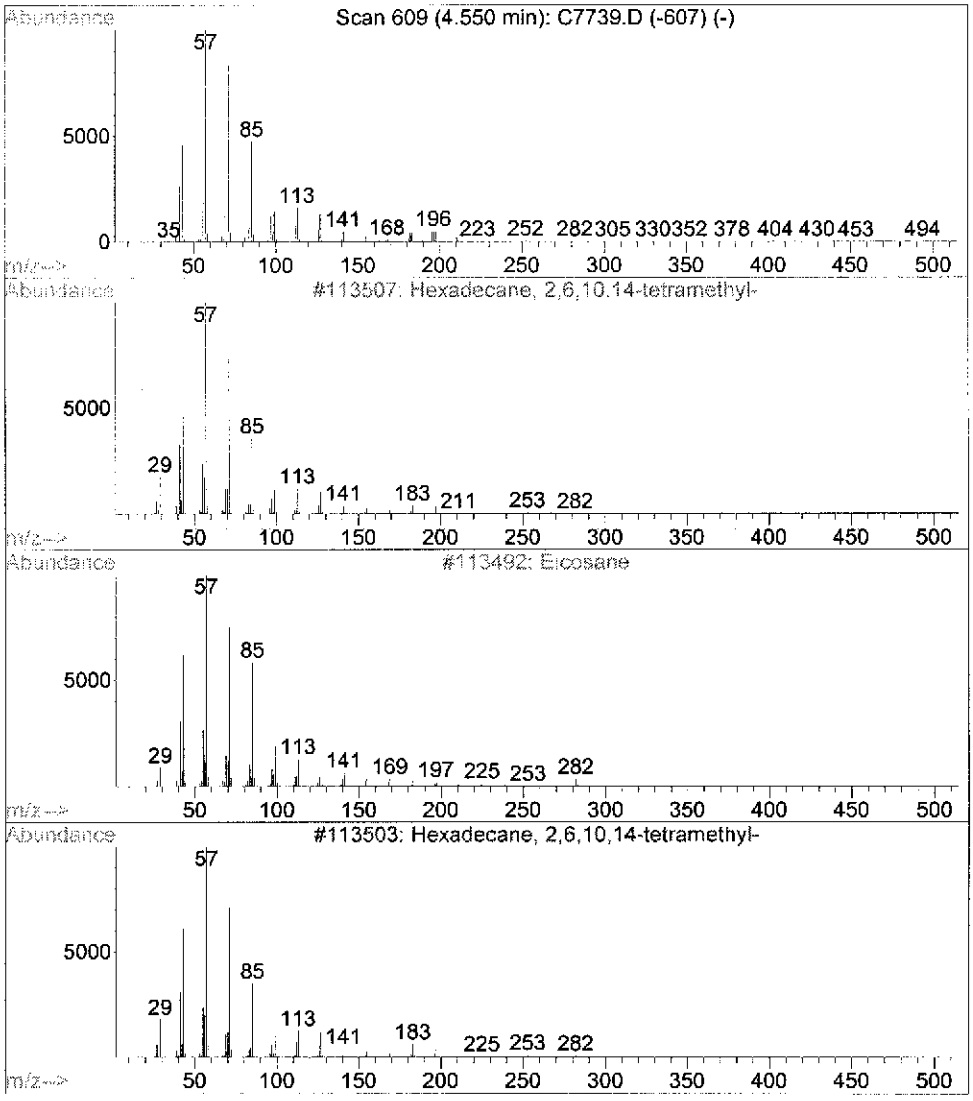
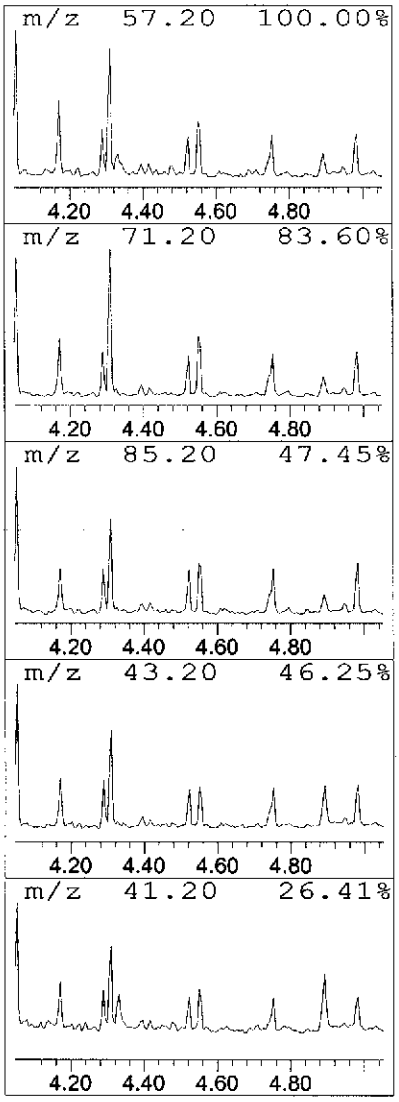
Peak Number 4 Unknown Hydrocarbon Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.55	40.94 UG	1452500	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	98
2	Eicosane	282	C20H42	000112-95-8	93
3	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	91
4	Heptadecane, 2,6-dimethyl-	268	C19H40	054105-67-8	90
5	Octadecane, 2,6-dimethyl-	282	C20H42	075163-97-2	90





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

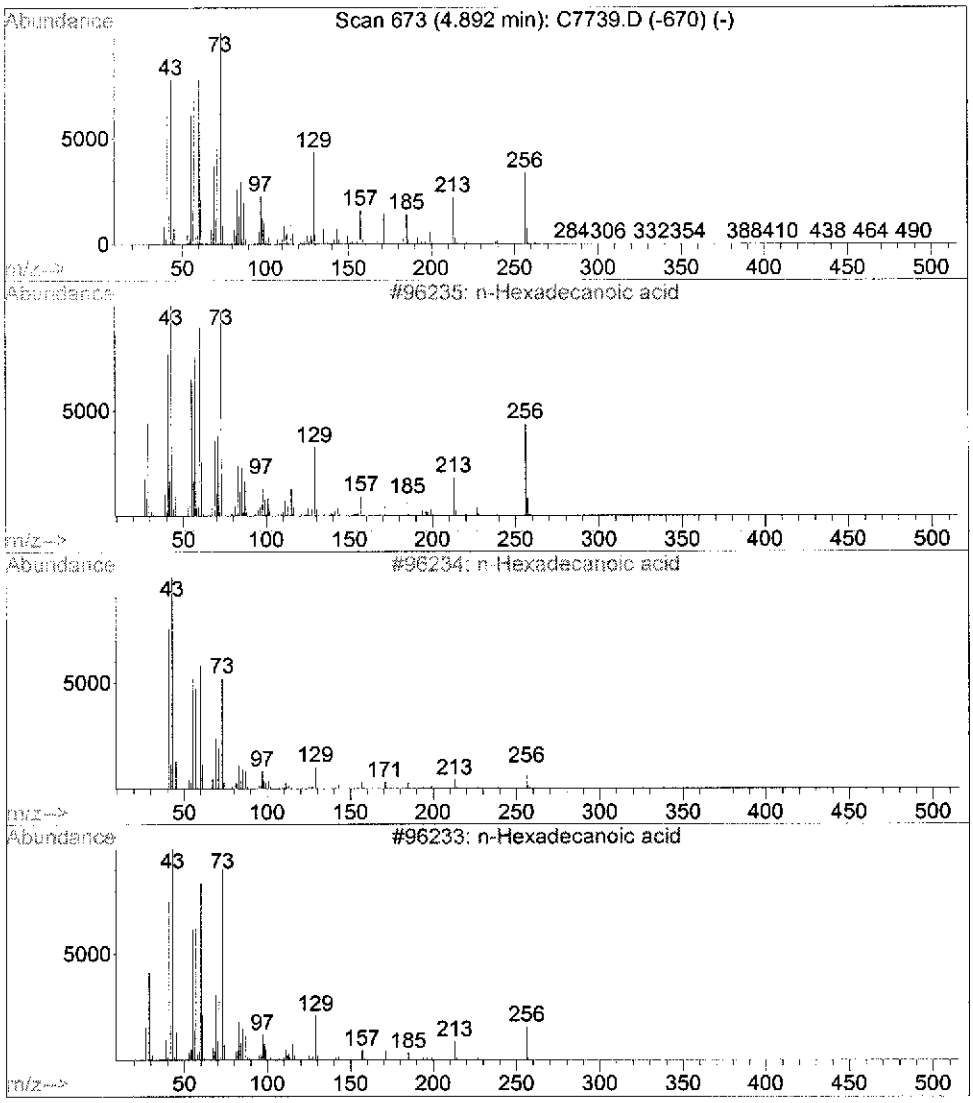
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

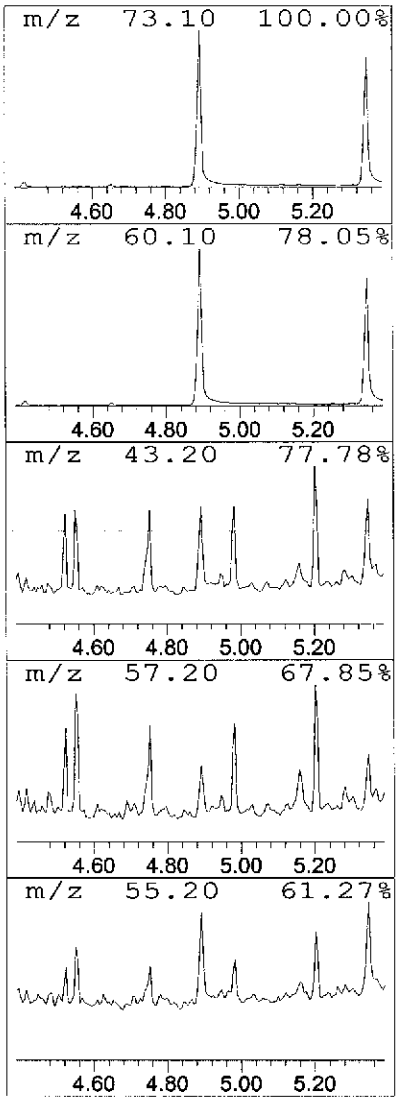
****

Peak Number 5 Unknown SV Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.89	65.10 UG	2309740	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	99
2	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	96
3	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	95
4	Tridecanoic acid	214	C13H26O2	000638-53-9	76
5	Tetradecanoic acid	228	C14H28O2	000544-63-8	72





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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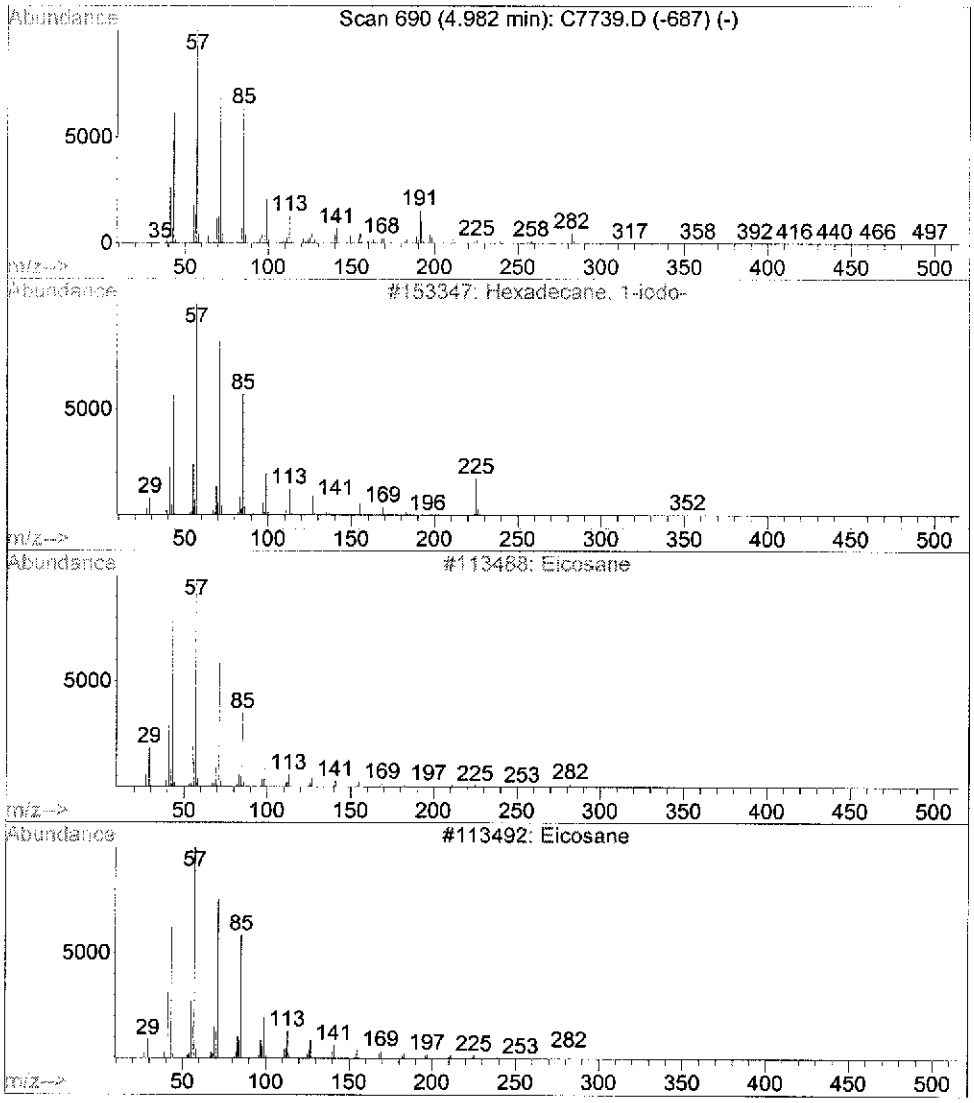
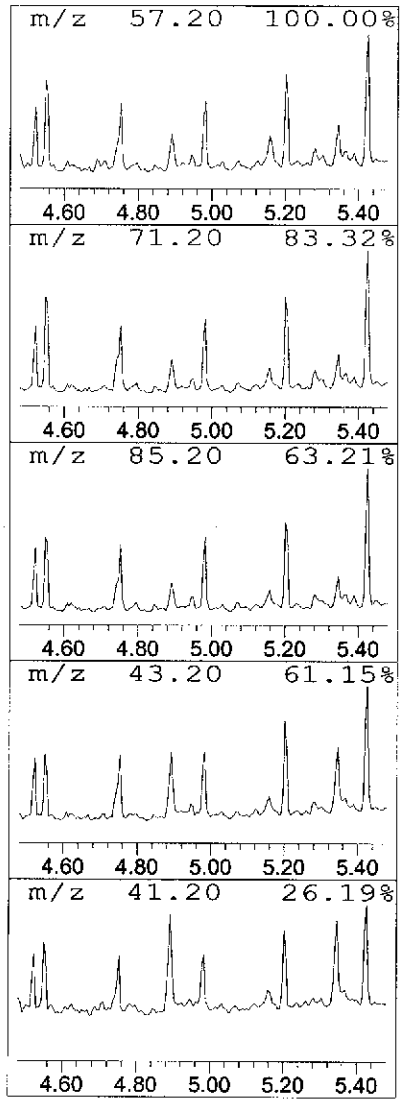
Peak Number 6 Unknown Hydrocarbon Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.98	32.55 UG	1155000	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	95
2	Eicosane	282	C20H42	000112-95-8	93
3	Eicosane	282	C20H42	000112-95-8	93
4	Eicosane	282	C20H42	000112-95-8	91
5	Heptadecane, 9-octyl-	352	C25H52	007225-64-1	91





Library Search Compound Report

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Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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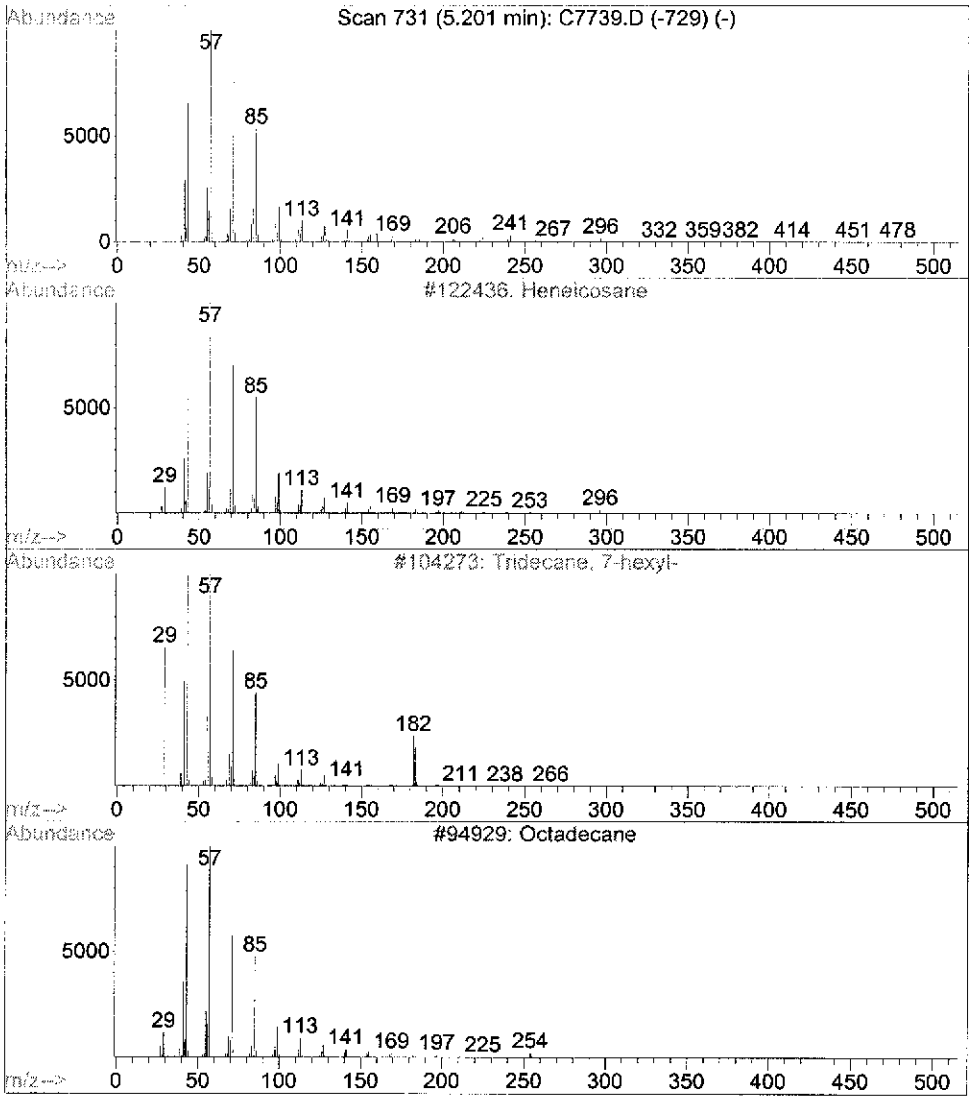
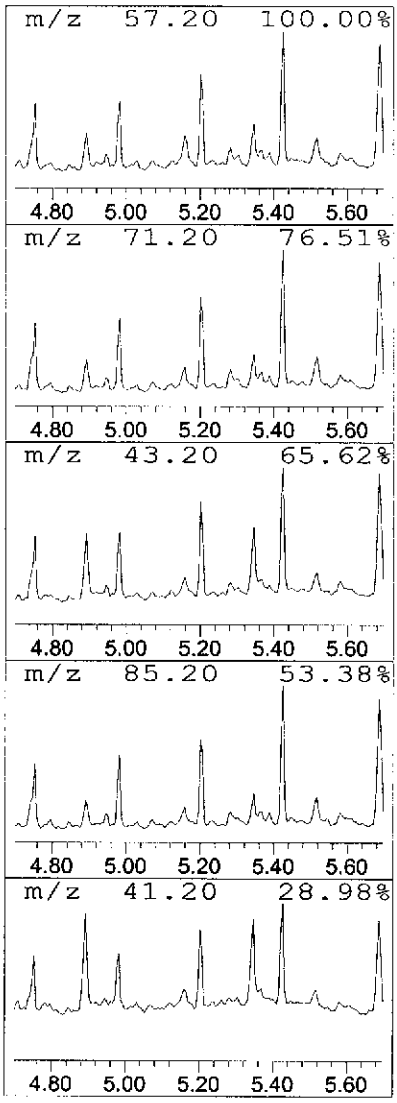
Peak Number 7 Unknown Hydrocarbon Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.20	45.48 UG	1613820	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	99
2	Tridecane, 7-hexyl-	268	C19H40	007225-66-3	90
3	Octadecane	254	C18H38	000593-45-3	90
4	Eicosane	282	C20H42	000112-95-8	90
5	Nonadecane	268	C19H40	000629-92-5	87





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ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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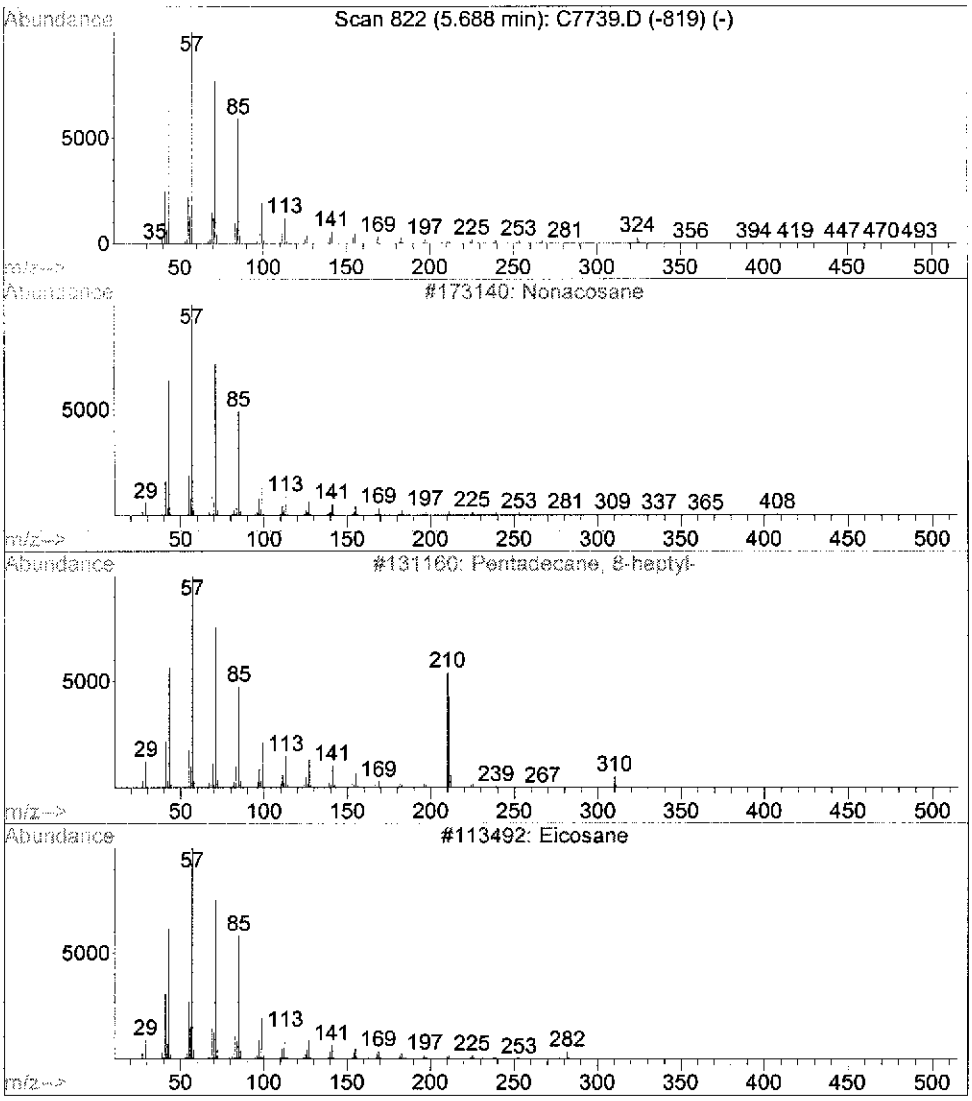
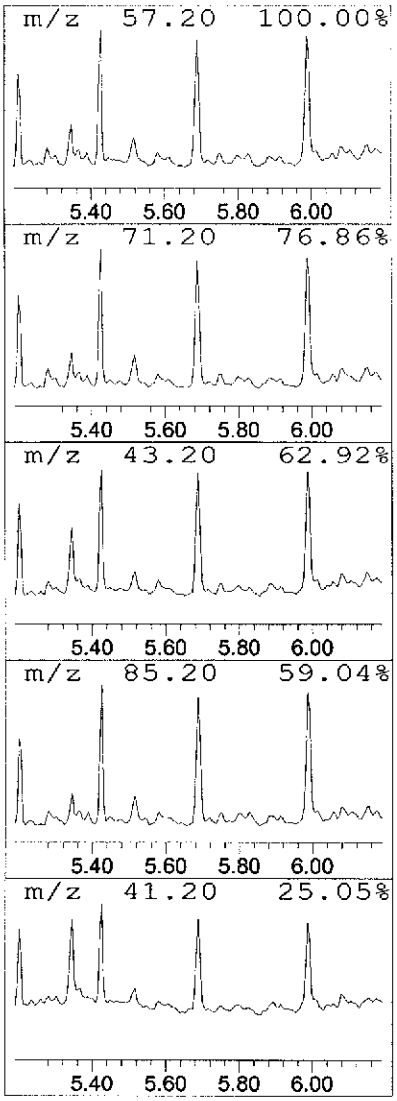
Peak Number 8 Unknown Hydrocarbon Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.69	28.74 UG	2808360	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonacosane	408	C29H60	000630-03-5	97
2	Pentadecane, 8-heptyl-	310	C22H46	071005-15-7	97
3	Eicosane	282	C20H42	000112-95-8	97
4	Heptadecane	240	C17H36	000629-78-7	95
5	Heptadecane	240	C17H36	000629-78-7	95





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ALS Vial : 5 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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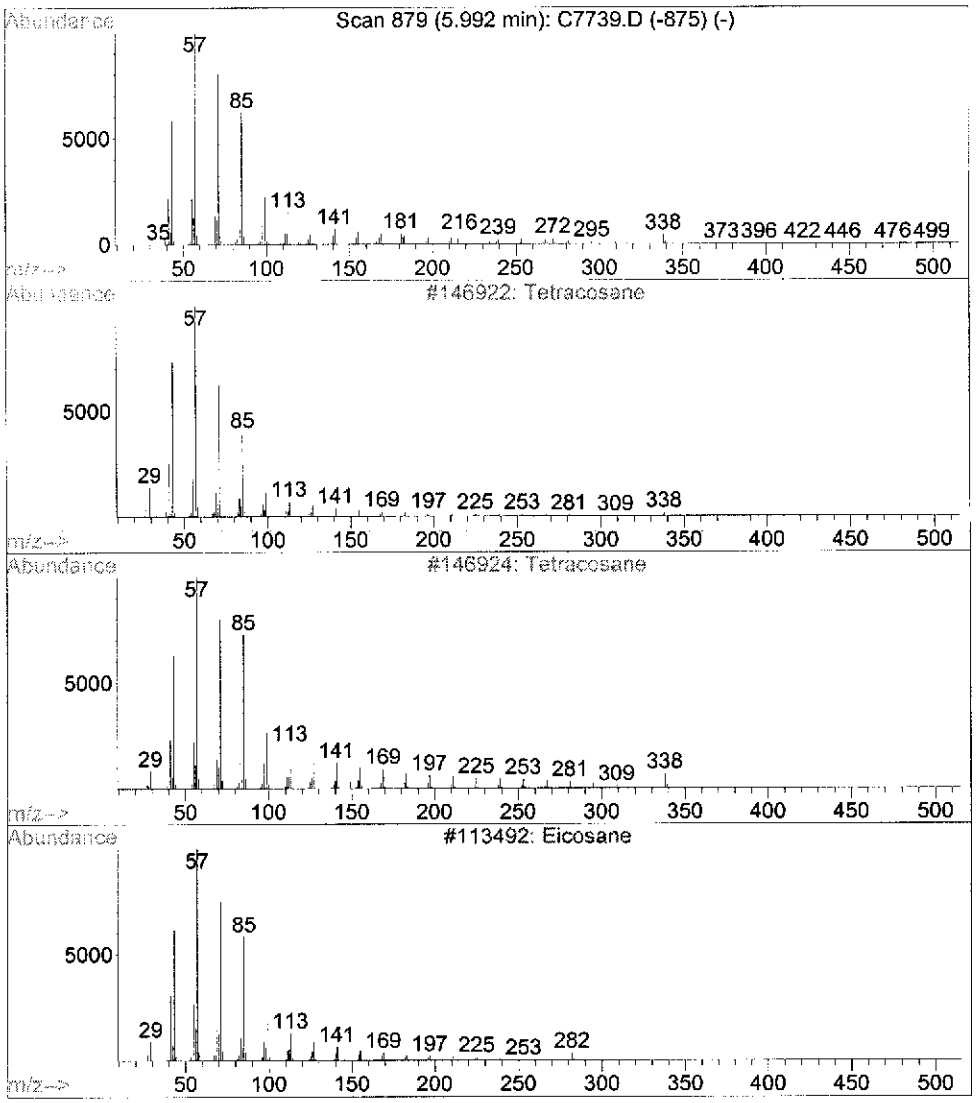
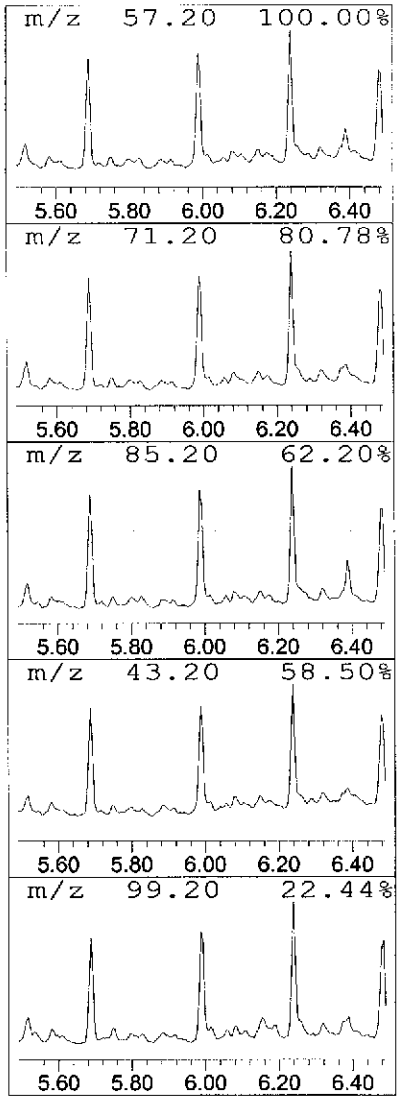
Peak Number 9 Unknown Hydrocarbon Concentration Rank 23

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.99	29.20 UG	2853300	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	98
2	Tetracosane	338	C24H50	000646-31-1	97
3	Eicosane	282	C20H42	000112-95-8	97
4	Hexacosane	366	C26H54	000630-01-3	97
5	Triacontane	422	C30H62	000638-68-6	96





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ALS Vial : 5 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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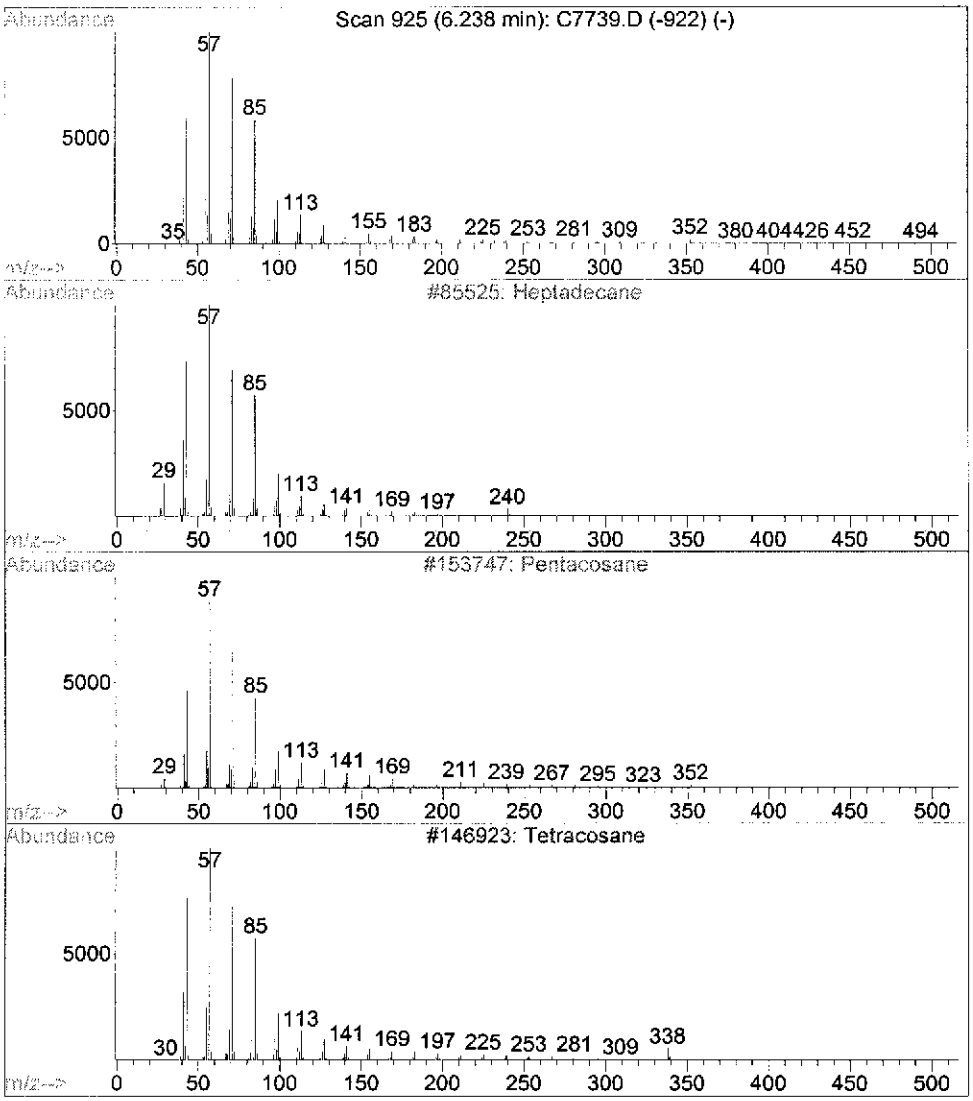
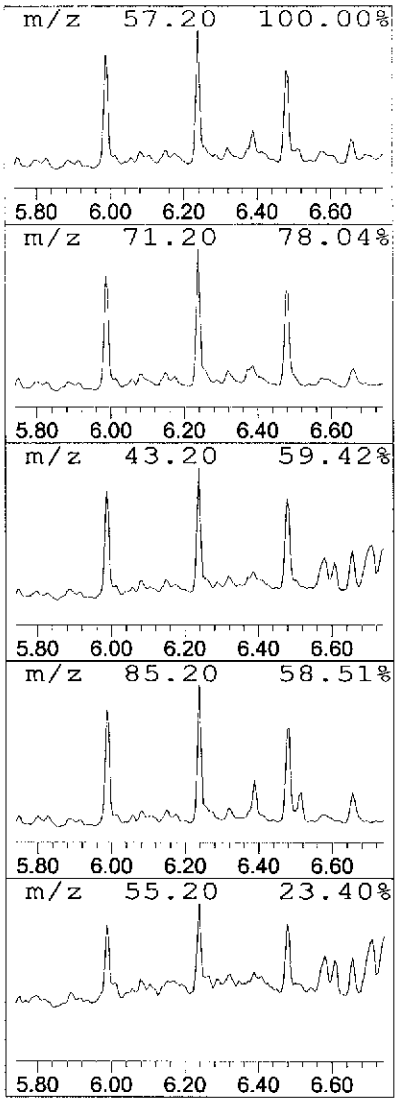
Peak Number 10 Unknown Hydrocarbon Concentration Rank 24

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.24	28.89 UG	2822820	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecane	240	C17H36	000629-78-7	96
2	Pentacosane	352	C25H52	000629-99-2	95
3	Tetracosane	338	C24H50	000646-31-1	94
4	Heptadecane, 3-methyl-	254	C18H38	006418-44-6	94
5	Nonadecane	268	C19H40	000629-92-5	94





Library Search Compound Report

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ALS Vial : 5 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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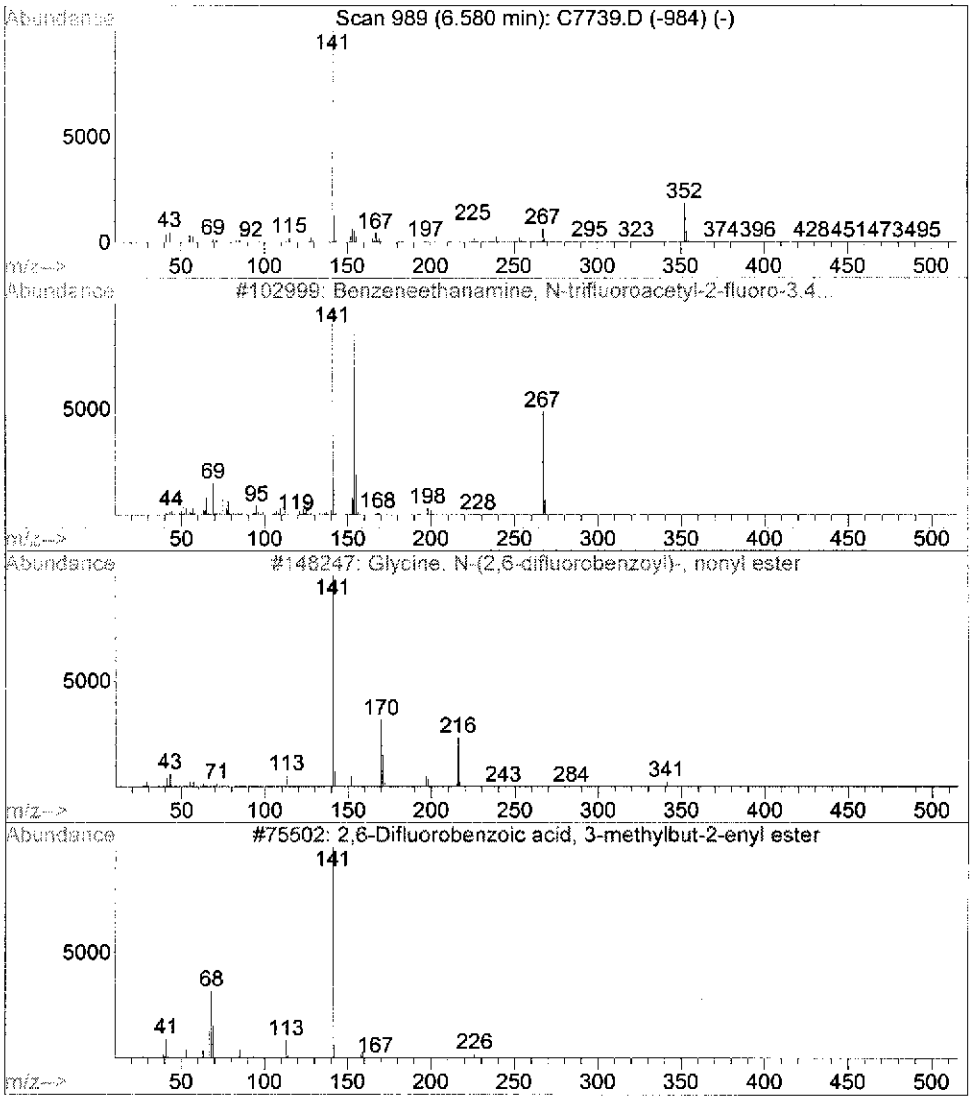
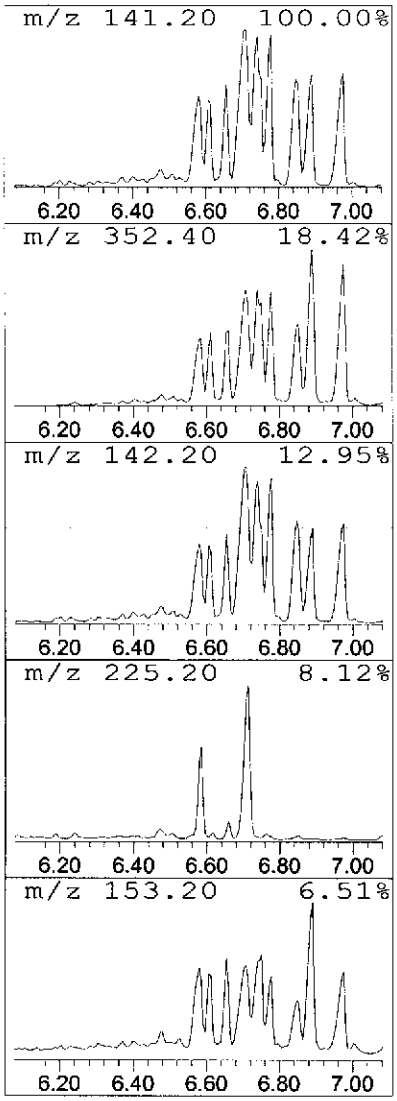
Peak Number 11 Unknown SV Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.58	63.04 UG	6160780	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-trifluoroac...	267	C10H9F4NO3	059043-77-5	36
2	Glycine, N-(2,6-difluorobenzoyl)...	341	C18H25F2NO3	1000314-44-6	33
3	2,6-Difluorobenzoic acid, 3-meth...	226	C12H12F2O2	1000292-58-2	9
4	E-2-Octenoic acid, 3-iodo-	268	C8H13IO2	1000308-87-5	9
5	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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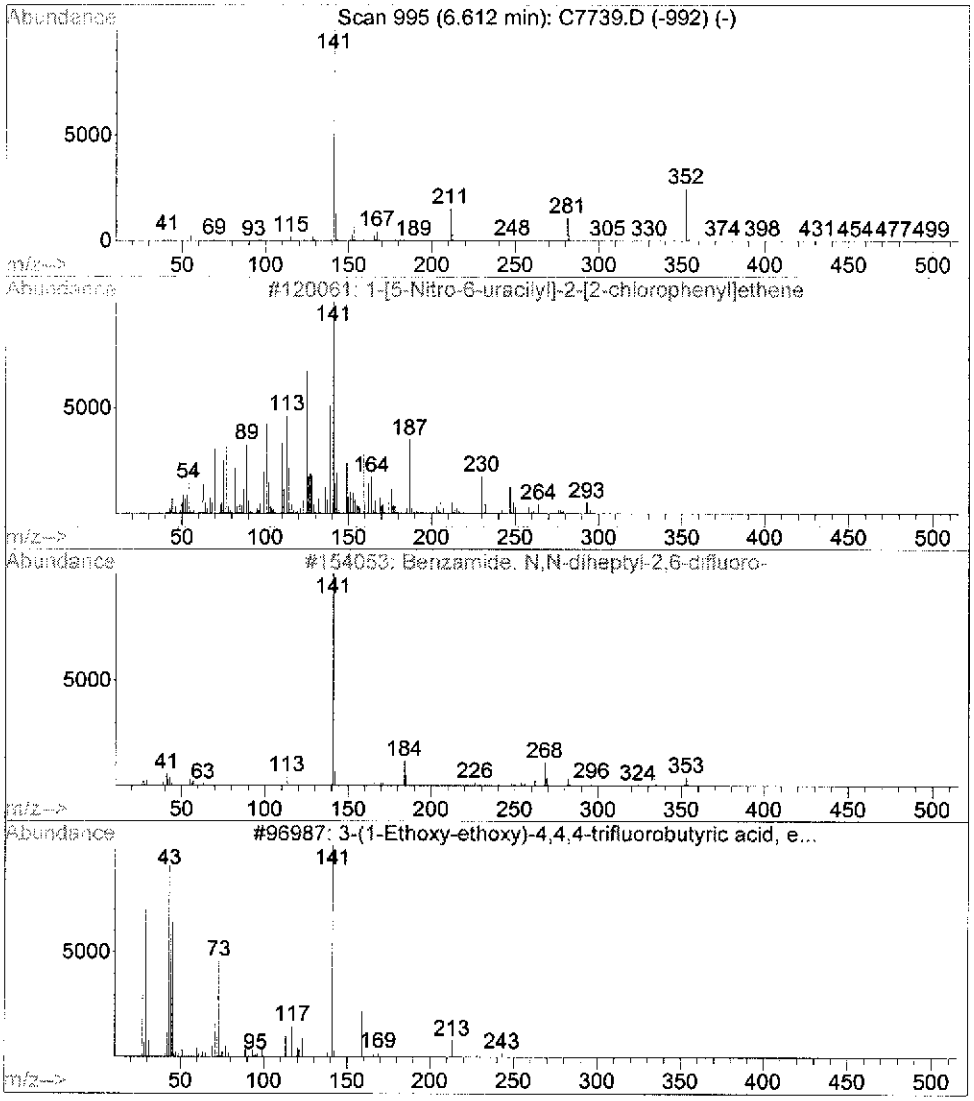
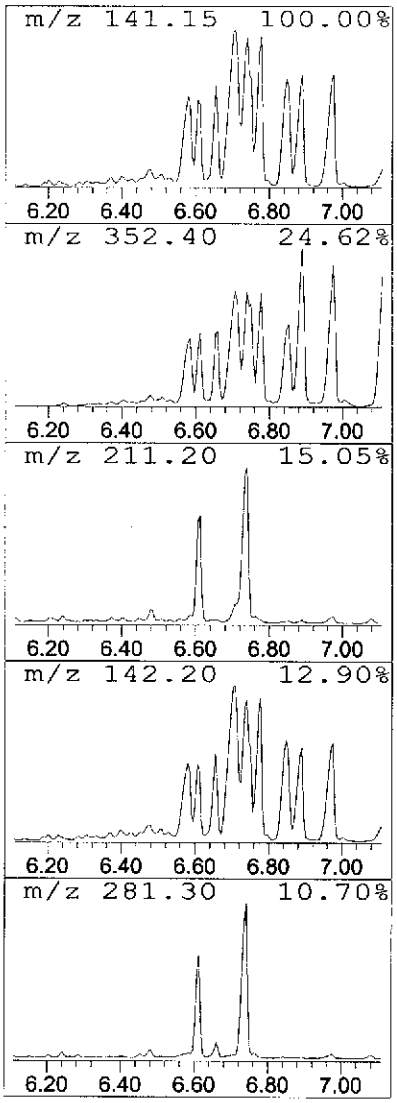
Peak Number 12 Unknown SV Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.61	37.62 UG	3676190	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	28
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
3	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	9
4	Naphthalene, 2-hexyl-	212	C16H20	002876-46-2	9
5	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	9





Library Search Compound Report

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ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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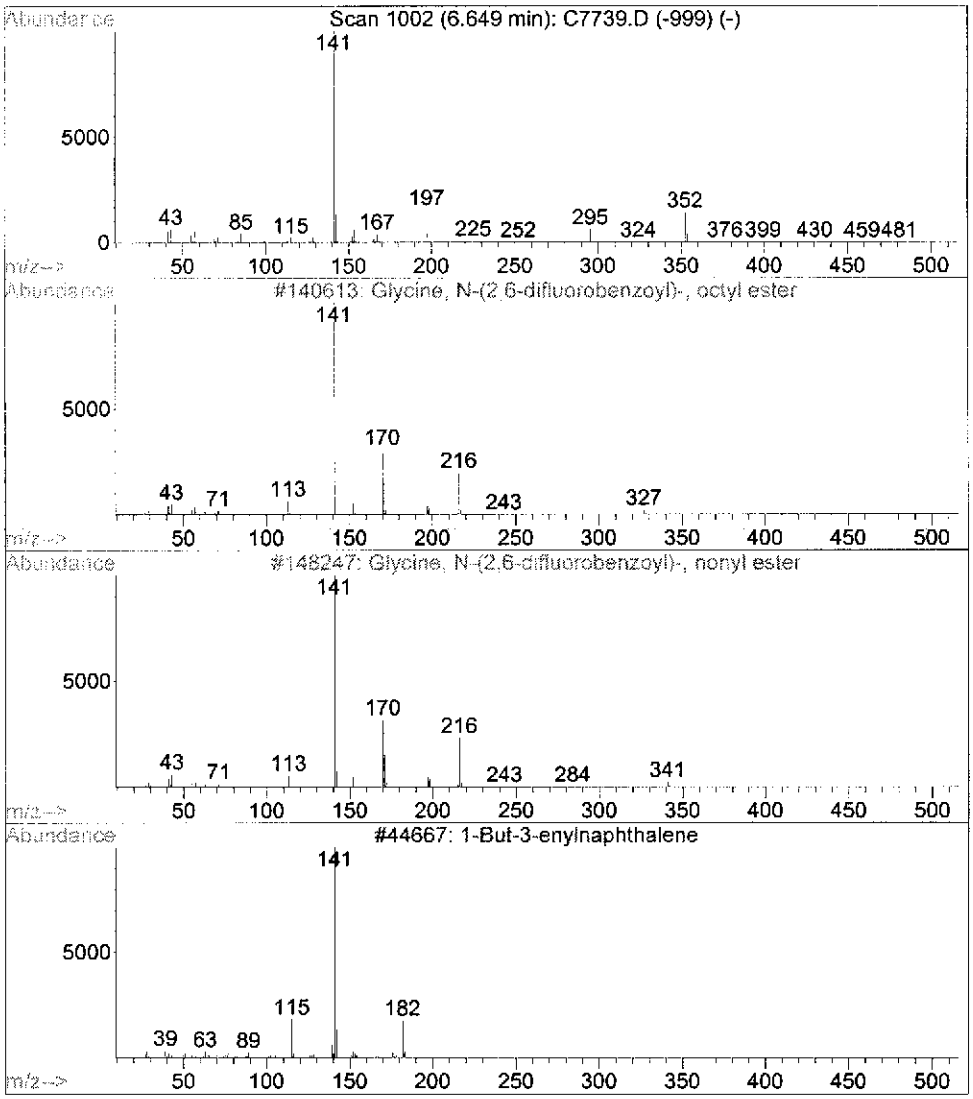
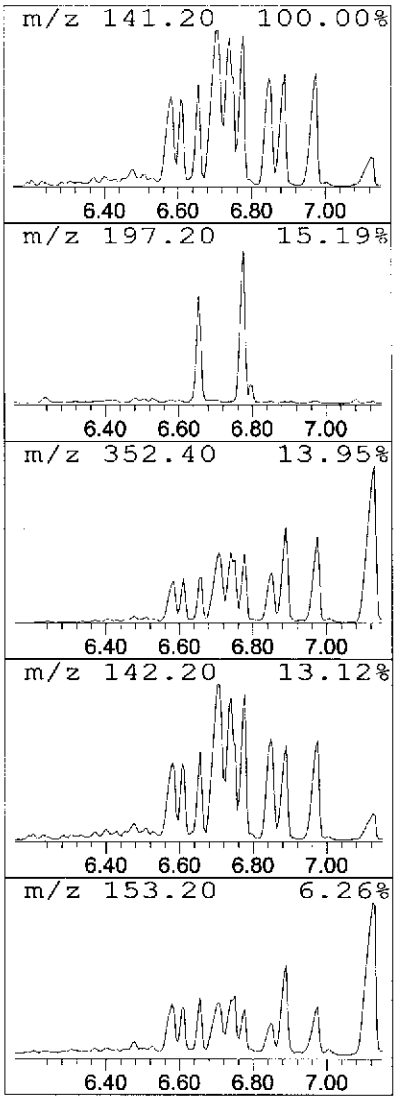
Peak Number 13 Unknown SV Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.65	46.40 UG	4534280	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Glycine, N-(2,6-difluorobenzoyl)...	327	C17H23F2NO3	1000314-44-5	36
2	Glycine, N-(2,6-difluorobenzoyl)...	341	C18H25F2NO3	1000314-44-6	36
3	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	33
4	Pyrazol-4-amine, 3,5-dimethyl-1-...	251	C16H17N3	1000273-77-6	33
5	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	33





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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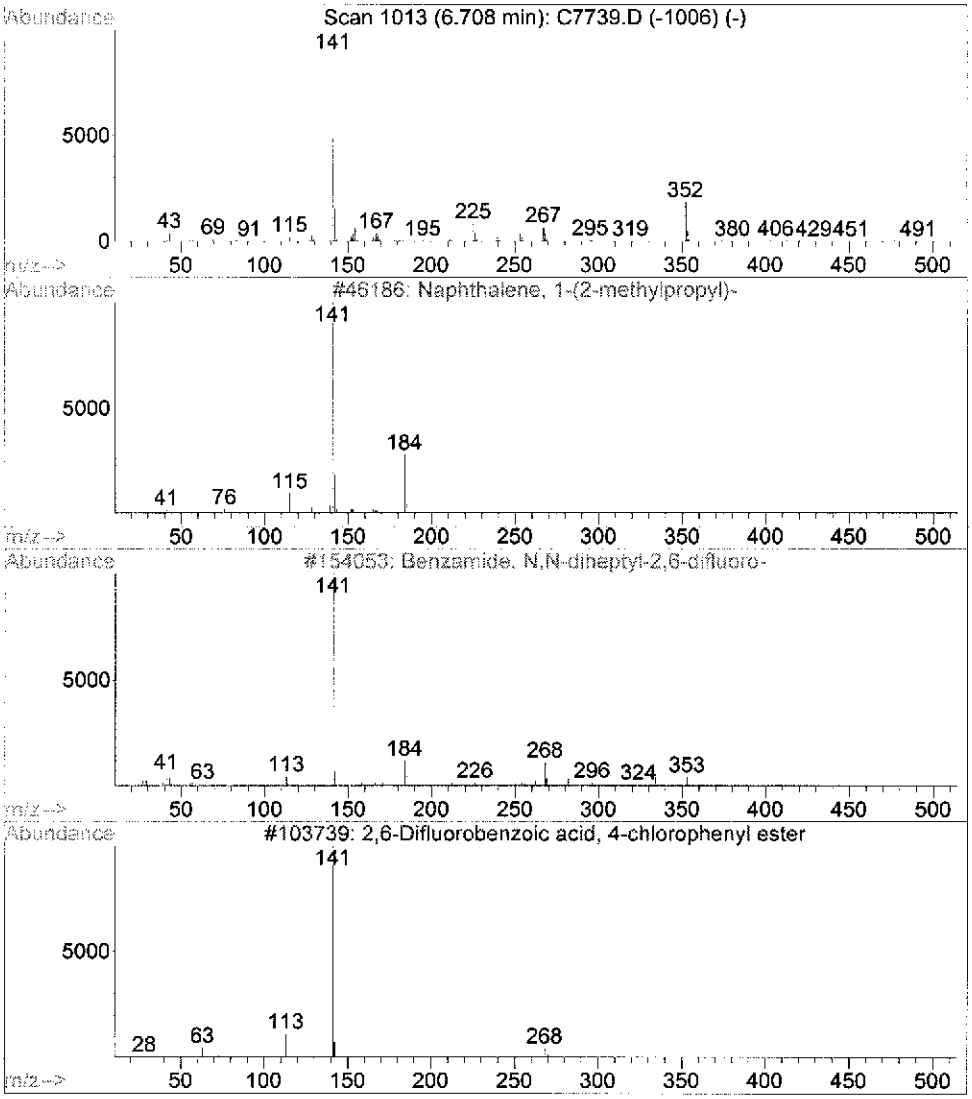
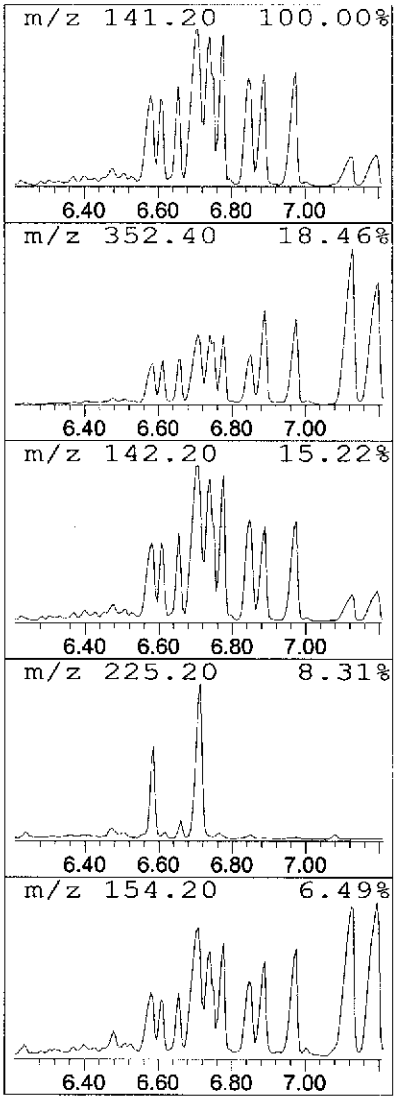
Peak Number 14 Unknown SV Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.71	147.64 UG	14427700	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	42
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
3	2,6-Difluorobenzoic acid, 4-chlo...	268	C13H7ClF2O2	1000307-55-7	9
4	Cyclohexanone, O-(1-naphthalenyl...	253	C17H19NO	055045-02-8	9
5	Thiophene-3-carboxamide, N-(2-ch...	267	C12H10ClNO2S	1000268-70-7	9





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ALS Vial : 5 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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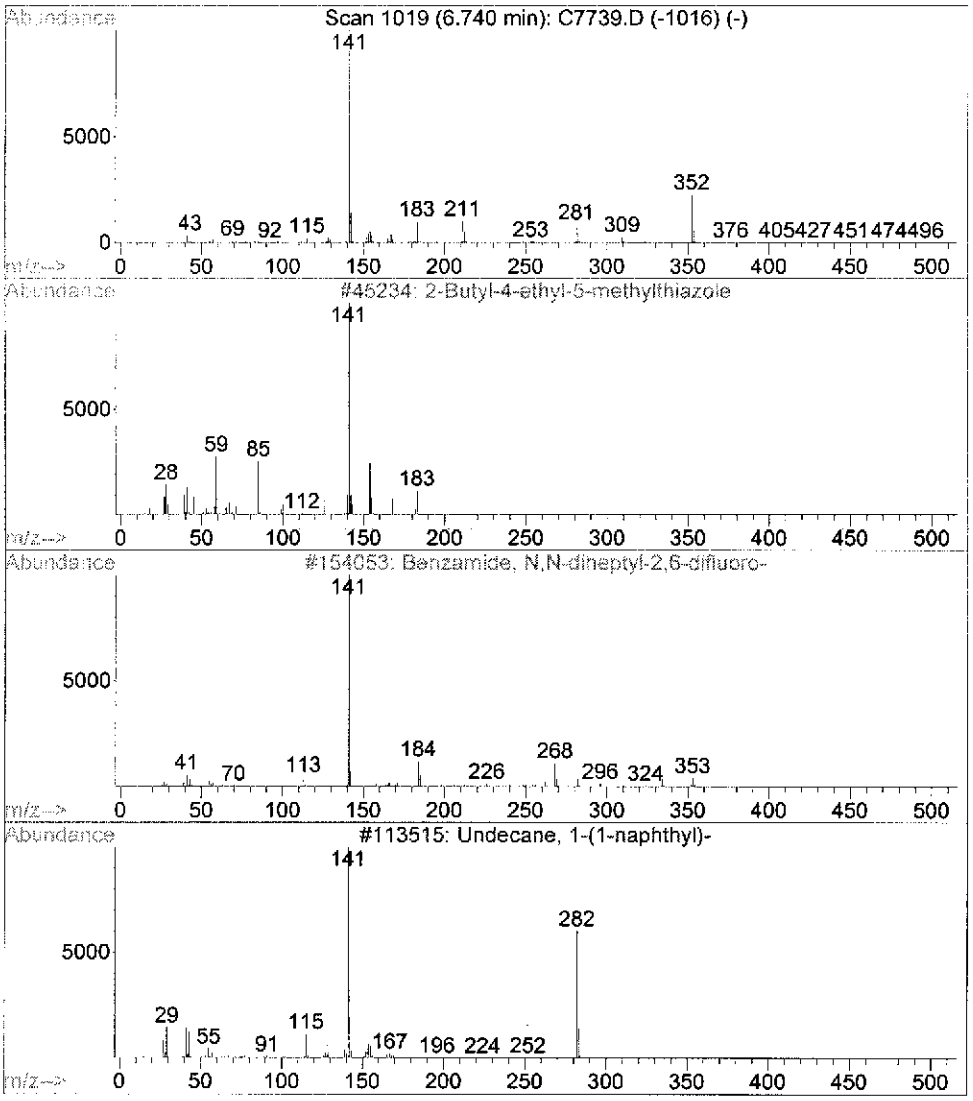
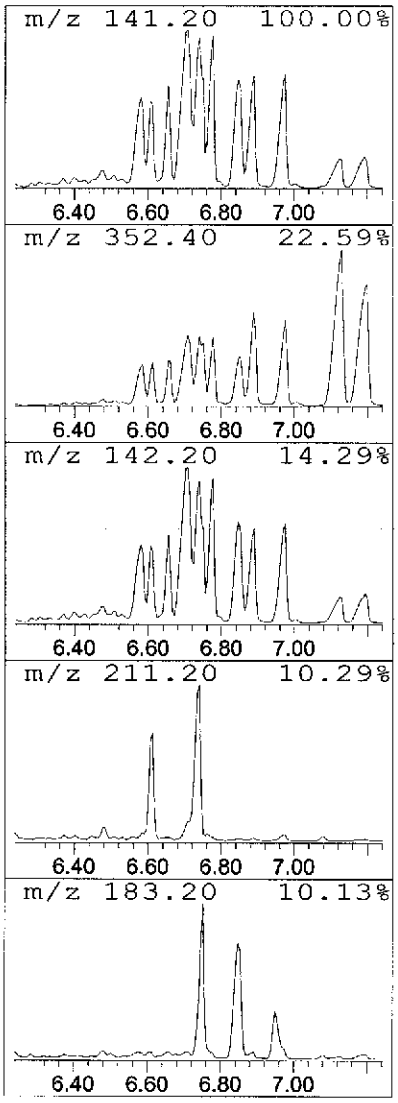
Peak Number 15 Unknown SV Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.74	110.12 UG	10761000	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Butyl-4-ethyl-5-methylthiazole	183	C10H17NS	052414-88-7	33
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	33
3	Undecane, 1-(1-naphthyl)-	282	C21H30	007225-71-0	25
4	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	23
5	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	9





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ALS Vial : 5 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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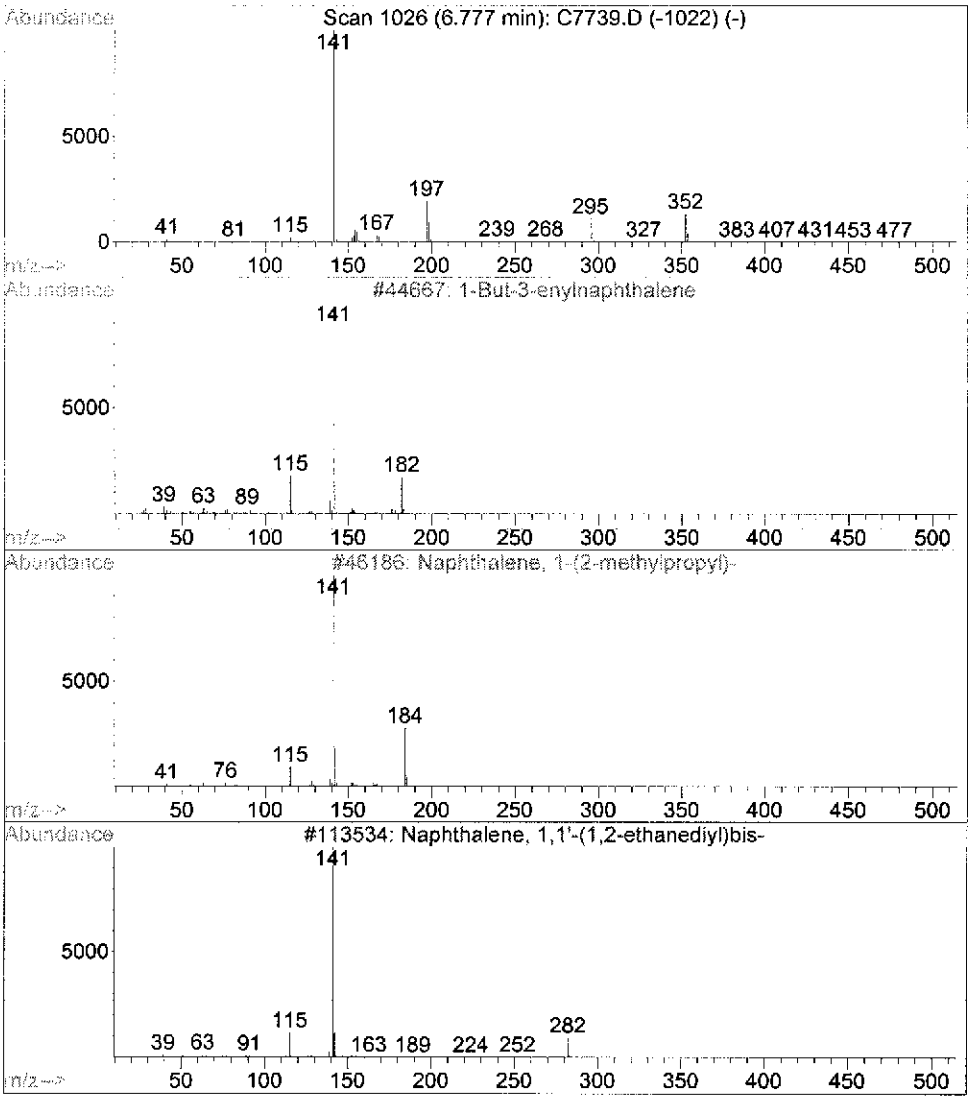
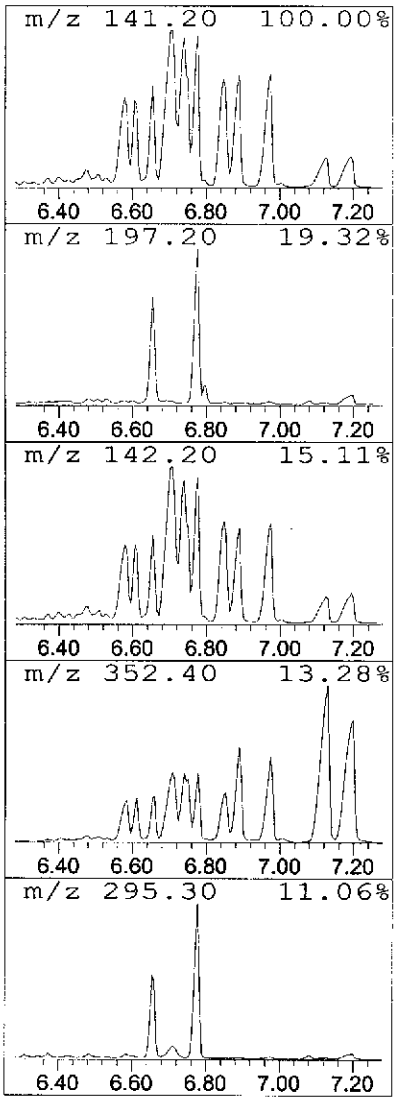
Peak Number 16 Unknown SV Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.78	88.24 UG	8623110	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	37
2	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	28
3	Naphthalene, 1,1'-(1,2-ethanediy...	282	C22H18	015374-45-5	25
4	Naphthalene, 2-pyrrolidino-	197	C14H15N	013672-14-5	12
5	Phosphonous acid, phenyl-, dieth...	198	C10H15O2P	001638-86-4	9





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ALS Vial : 5 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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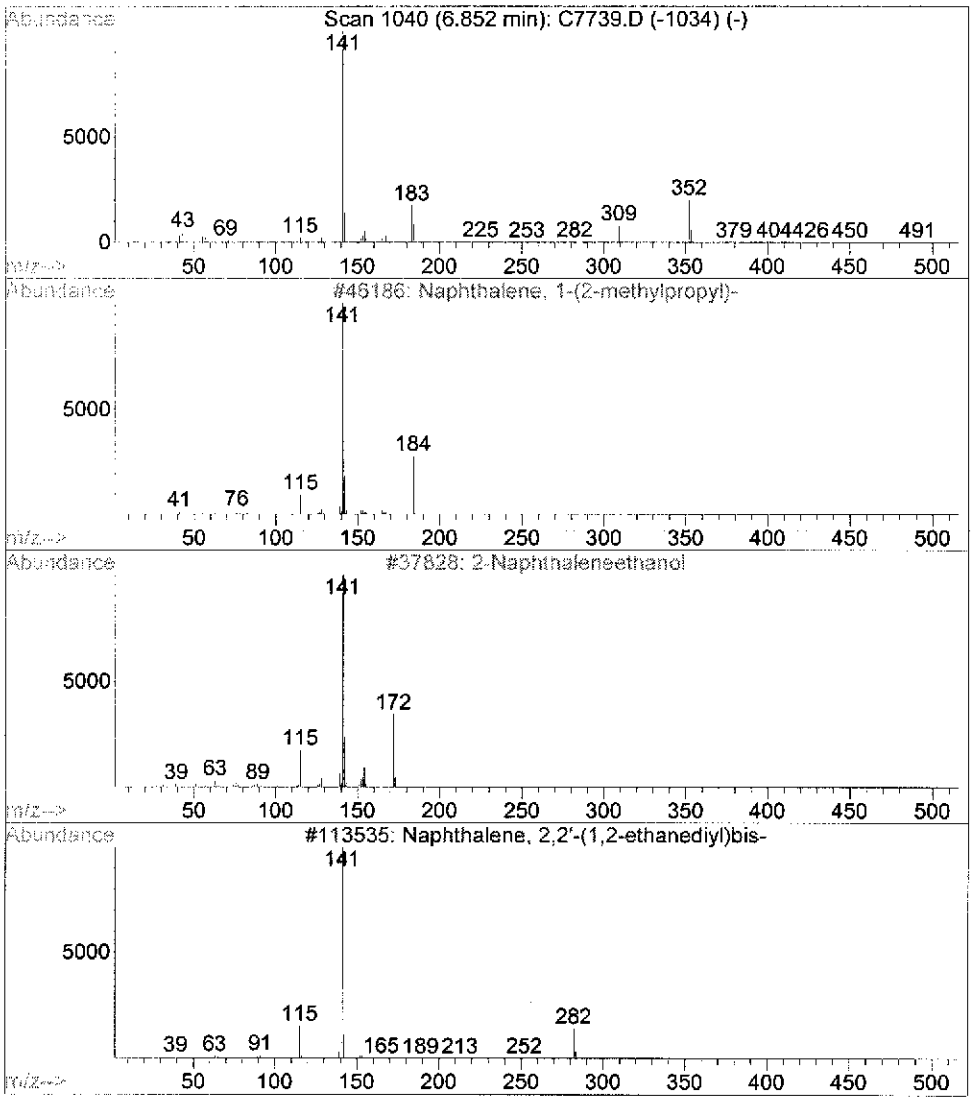
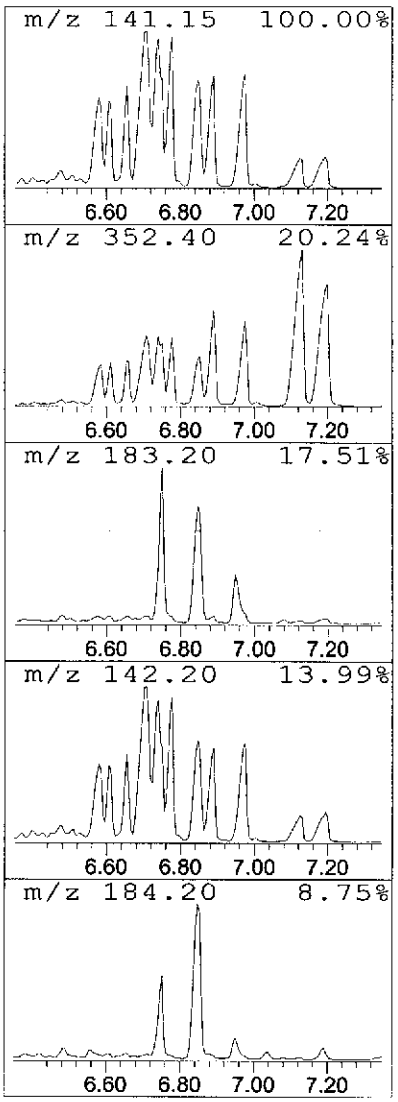
Peak Number 17 Unknown SV Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.85	79.05 UG	7725010	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	58
2	2-Naphthaleneethanol	172	C12H12O	001485-07-0	12
3	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	10
4	Naphthalene, 2-butyl-	184	C14H16	001134-62-9	9
5	Methyl 8-oxo-cis-2-nonenoate	184	C10H16O3	028297-04-3	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

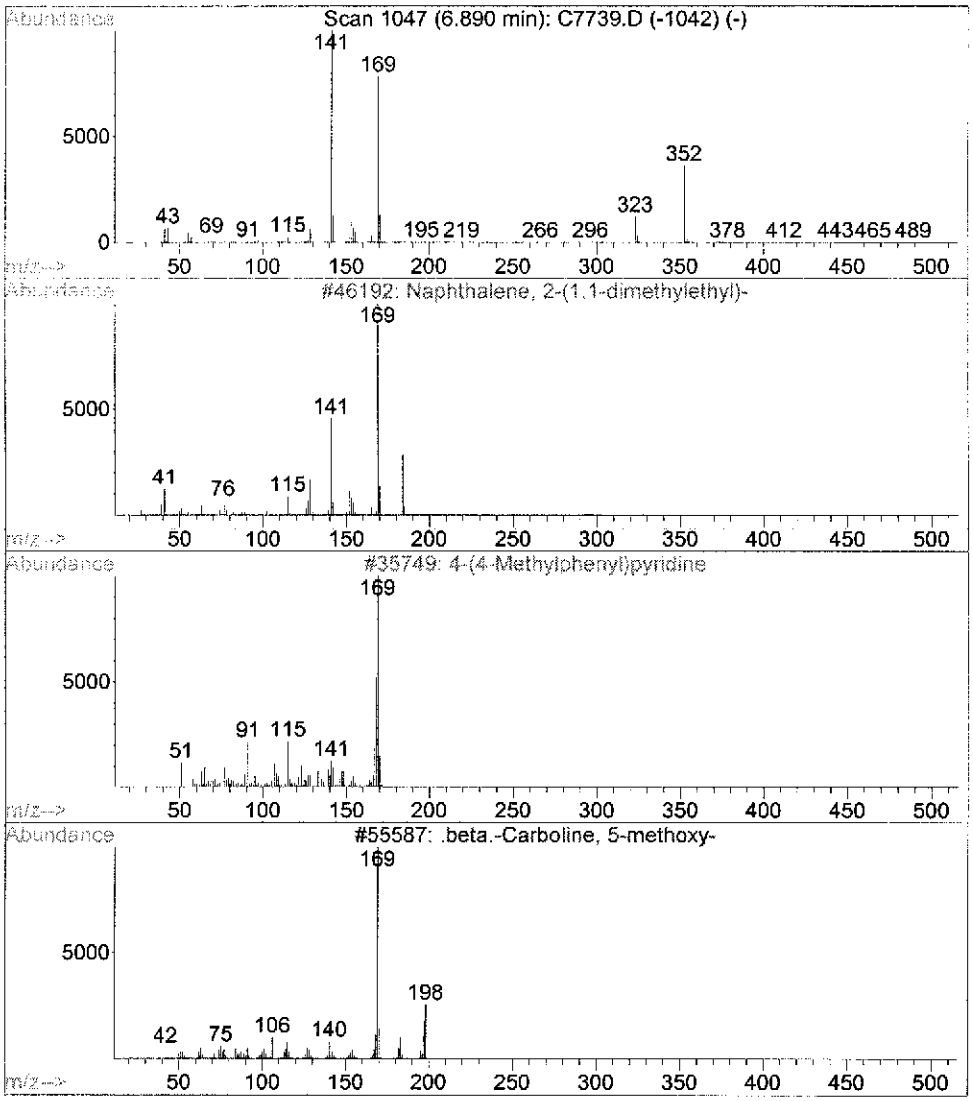
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

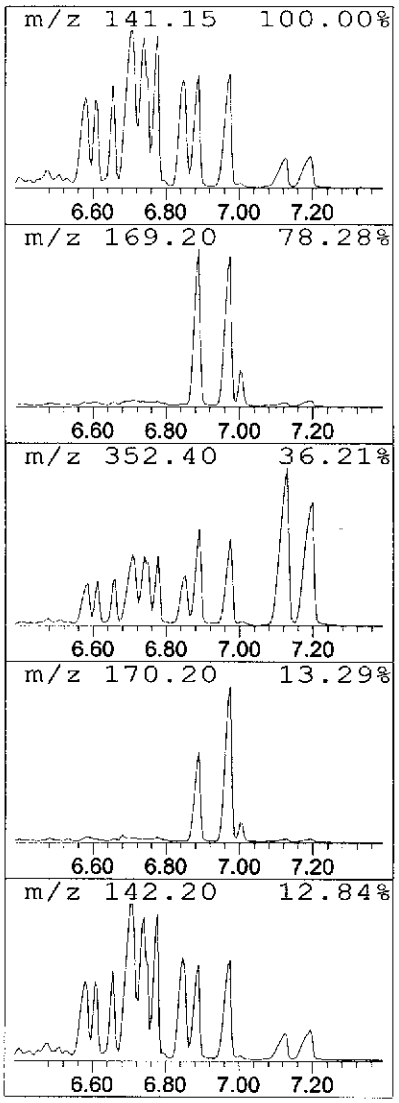
****

Peak Number 18 Unknown SV Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.89	108.88 UG	10640100	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-(1,1-dimethylethyl)-	184	C14H16	002876-35-9	47
2	4-(4-Methylphenyl)pyridine	169	C12H11N	004423-10-3	35
3	.beta.-Carboline, 5-methoxy-	198	C12H10N2O	1000117-57-6	30
4	Bicyclo[2.2.1]hept-2-ene, 1,7,7-...	212	C16H20	007070-09-9	25
5	4-Methyl-10-(1-phenyl-ethylidene...	283	C16H17N3O2	1000194-88-9	25





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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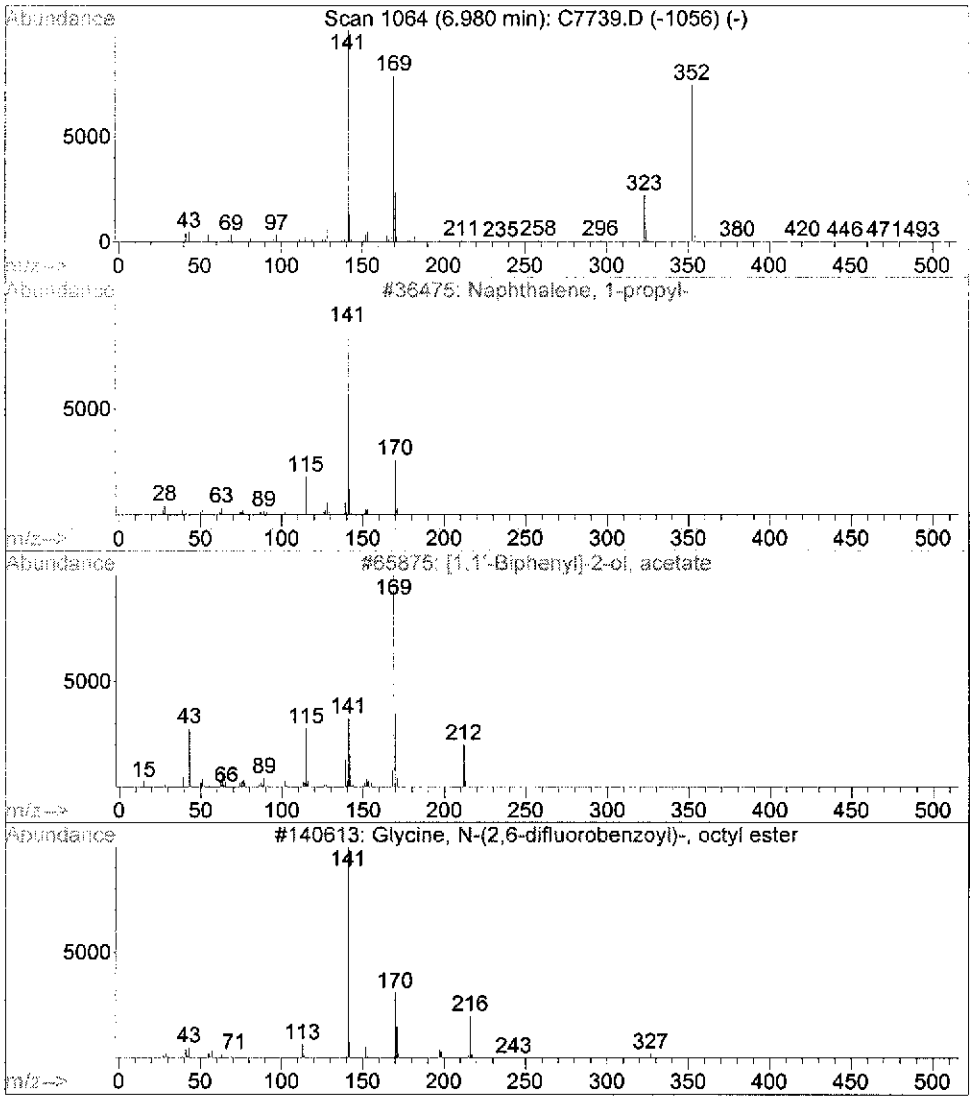
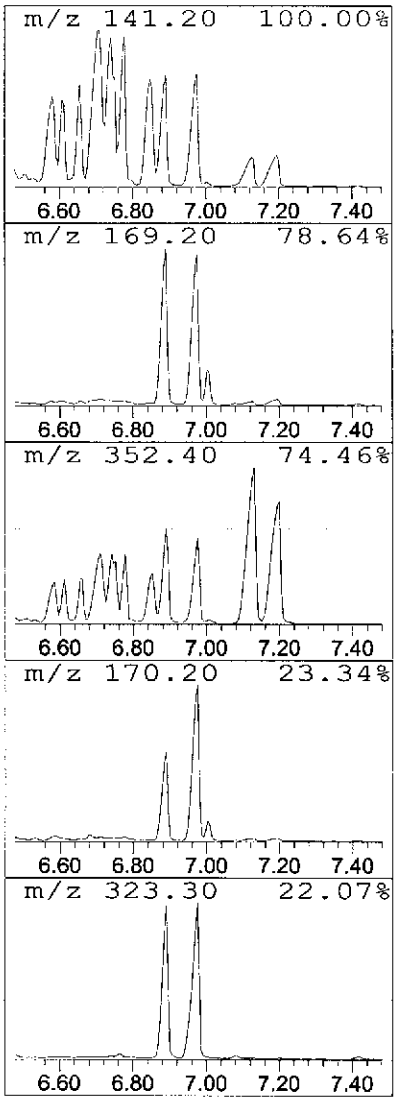
Peak Number 19 Unknown SV Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.98	120.23 UG	11749400	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	43
2	[1,1'-Biphenyl]-2-ol, acetate	212	C14H12O2	003271-80-5	25
3	Glycine, N-(2,6-difluorobenzoyl)...	327	C17H23F2NO3	1000314-44-5	25
4	Butane, 2,3-dimethyl-2,3-di-(2,2...	338	C26H26	1000150-93-8	25
5	Glycine, N-(2,6-difluorobenzoyl)...	285	C14H17F2NO3	1000314-44-1	25





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

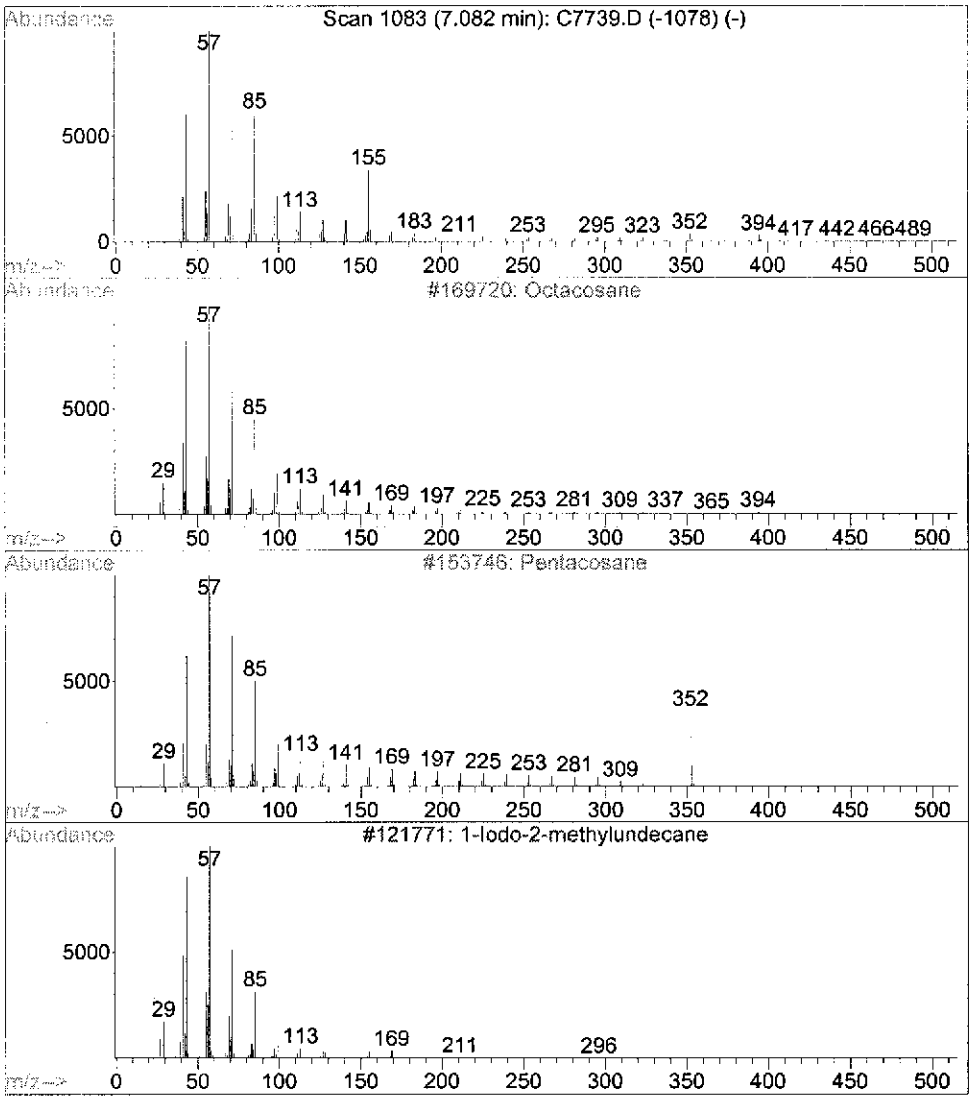
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

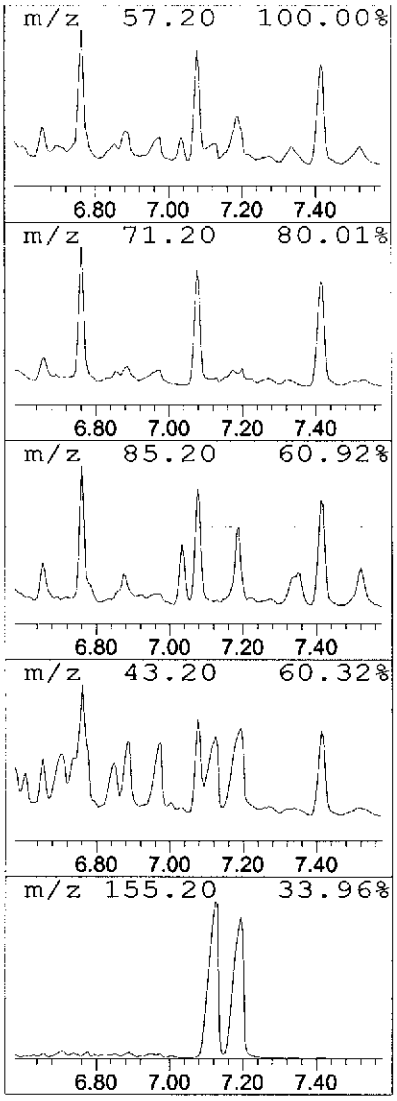
****

Peak Number 20 Unknown Hydrocarbon Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.08	31.07 UG	3036670	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octacosane	394	C28H58	000630-02-4	96
2	Pentacosane	352	C25H52	000629-99-2	94
3	1-Iodo-2-methylundecane	296	C12H25I	073105-67-6	94
4	Pentatriacontane	493	C35H72	000630-07-9	91
5	Heptadecane, 9-octyl-	352	C25H52	007225-64-1	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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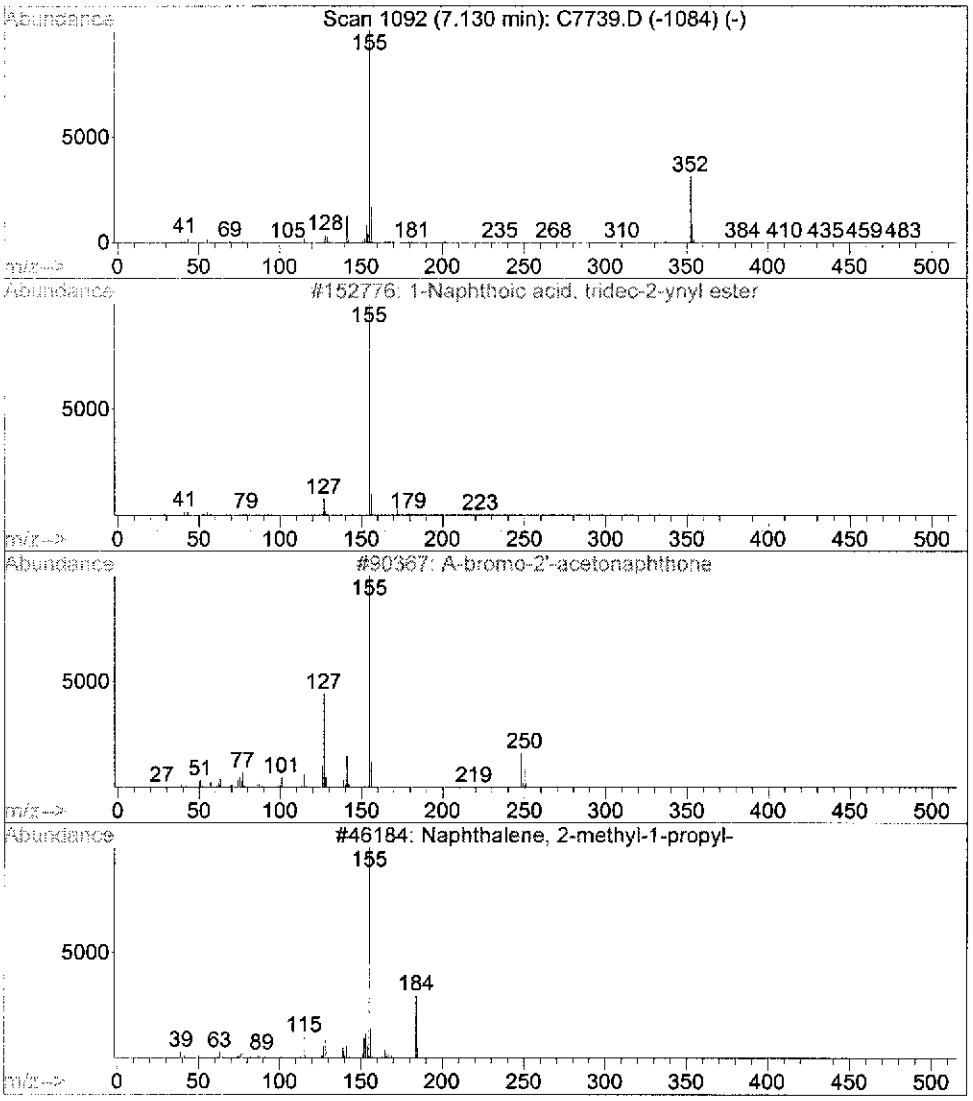
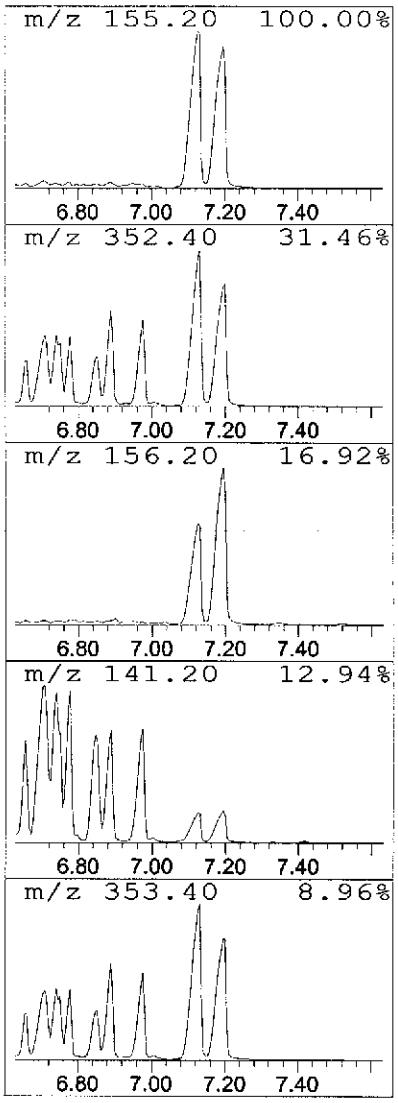
Peak Number 21 Unknown SV Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.13	202.04 UG	19744300	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Naphthoic acid, tridec-2-ynyl ...	350	C24H30O2	1000308-82-7	40
2	A-bromo-2'-acetonaphthone	248	C12H9BrO	000613-54-7	36
3	Naphthalene, 2-methyl-1-propyl-	184	C14H16	054774-89-9	36
4	Phenylpropionic acid, .alpha.-am...	229	C10H12FNO4	1000126-07-3	28
5	2H-Furo[3,2-b]pyran-2-one, hexah...	262	C11H18O7	050392-34-2	25





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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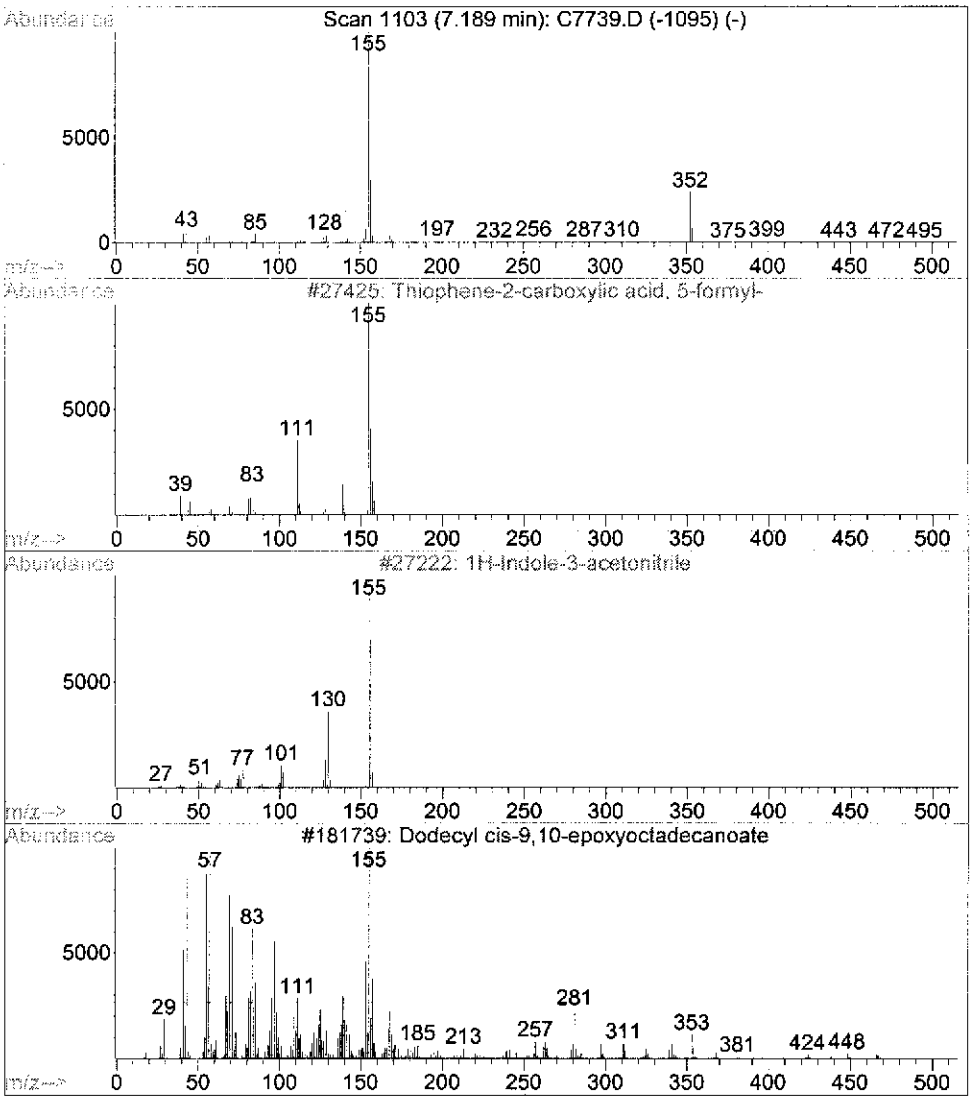
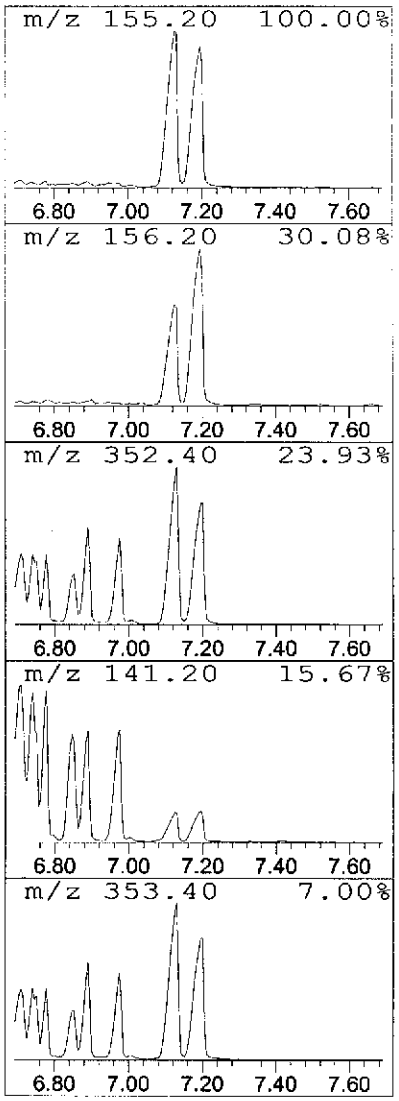
Peak Number 22 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.19	229.06 UG	22384900	Chrysene-d12	6.48

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiophene-2-carboxylic acid, 5-f...	156	C6H4O3S	1000306-77-9	42
2	1H-Indole-3-acetonitrile	156	C10H8N2	000771-51-7	10
3	Dodecyl cis-9,10-epoxyoctadecanoate	466	C30H58O3	092332-53-1	10
4	Mandelamide, N-(1-naphthylethyl)-	305	C20H19NO2	344875-77-0	10
5	6-Amino-1,3-dimethyluracil	155	C6H9N3O2	006642-31-5	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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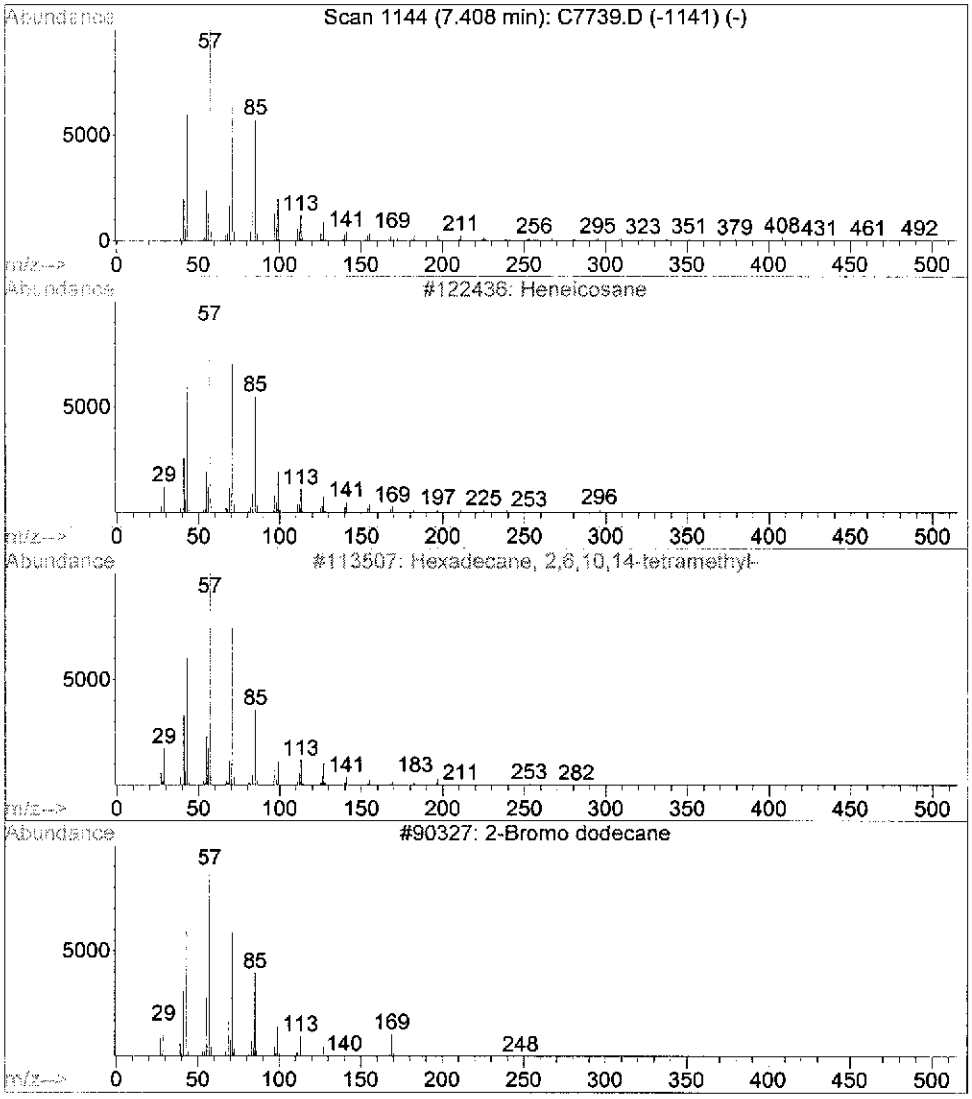
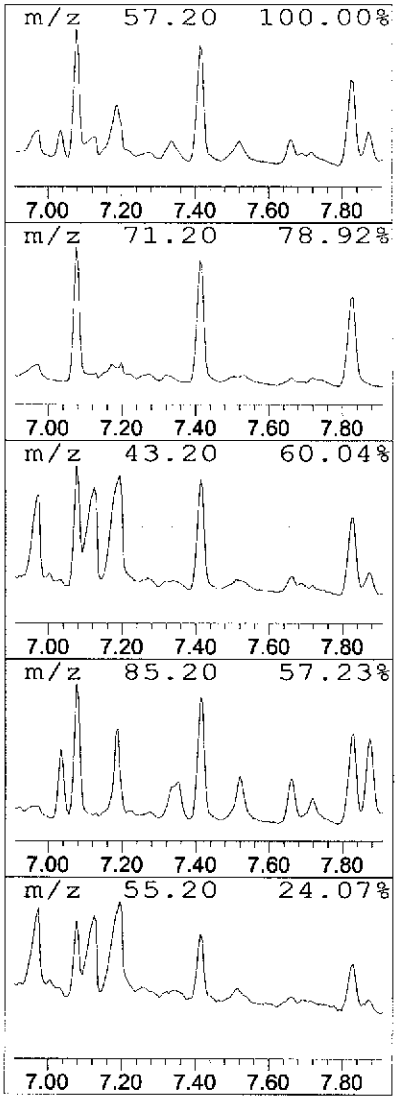
Peak Number 23 Unknown Hydrocarbon Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.41	50.43 UG	2821030	Perylene-d12	8.02

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	98
2	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	96
3	2-Bromo dodecane	248	C12H25Br	013187-99-0	94
4	Tetratriacontane	479	C34H70	014167-59-0	94
5	Eicosane	282	C20H42	000112-95-8	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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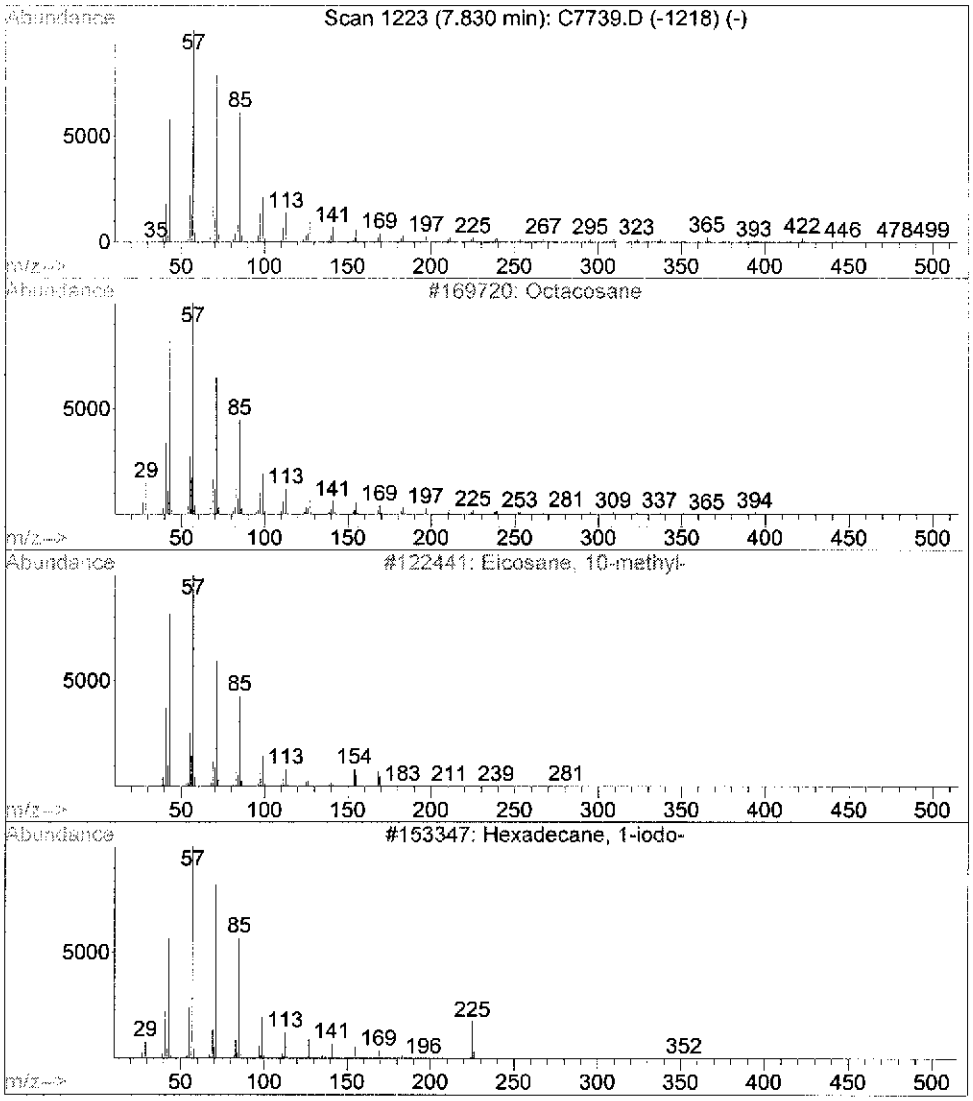
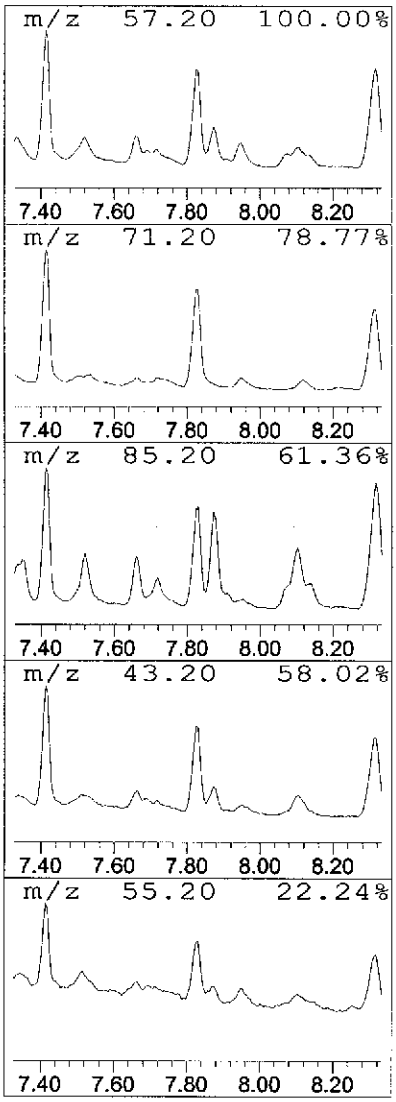
Peak Number 24 Unknown Hydrocarbon Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.83	40.00 UG	2237510	Perylene-d12	8.02

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octacosane	394	C28H58	000630-02-4	94
2	Eicosane, 10-methyl-	296	C21H44	054833-23-7	93
3	Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	93
4	Docosane, 7-hexyl-	394	C28H58	055373-86-9	93
5	Eicosane	282	C20H42	000112-95-8	91





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7739.D
Acq On : 10 Jul 2012 16:57
Operator : EDM
Sample : G1-06261,E12-06385-001,S,15.13g,22.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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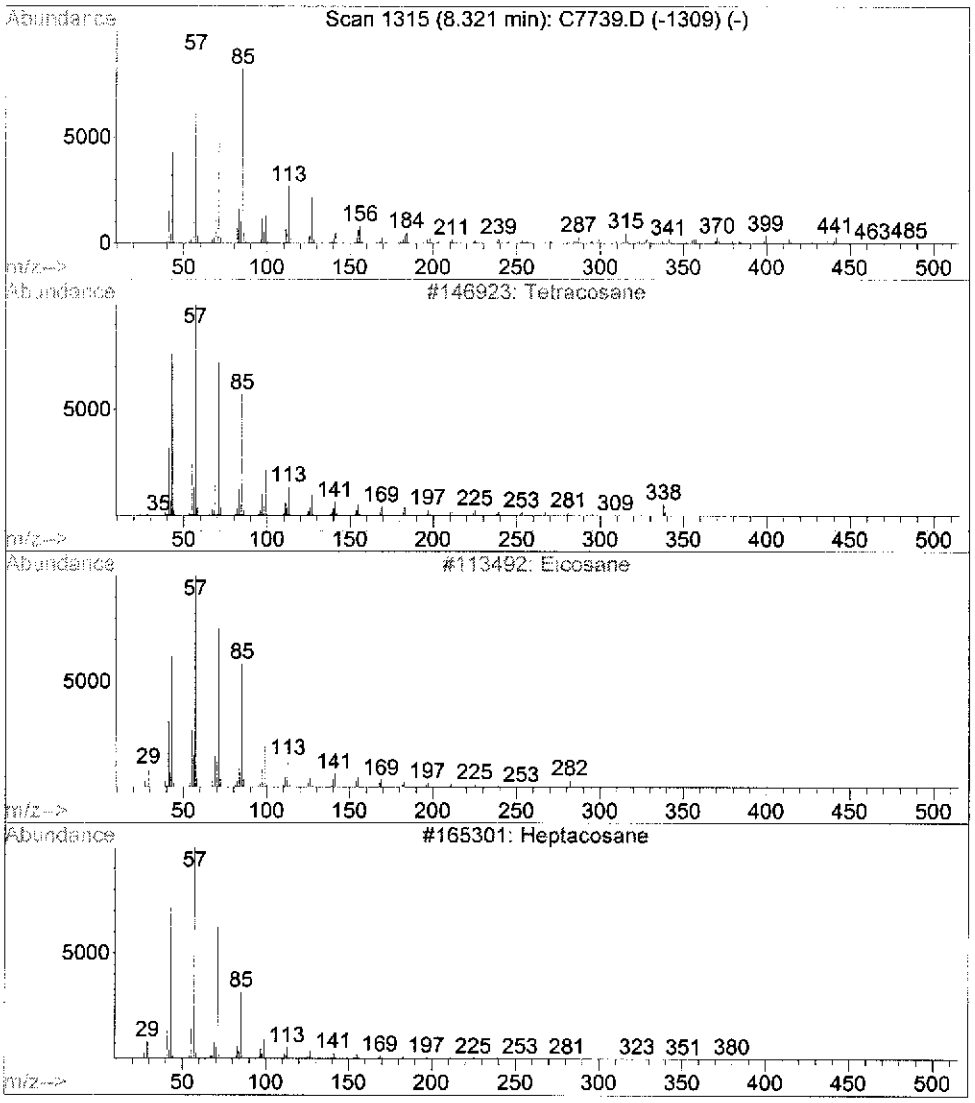
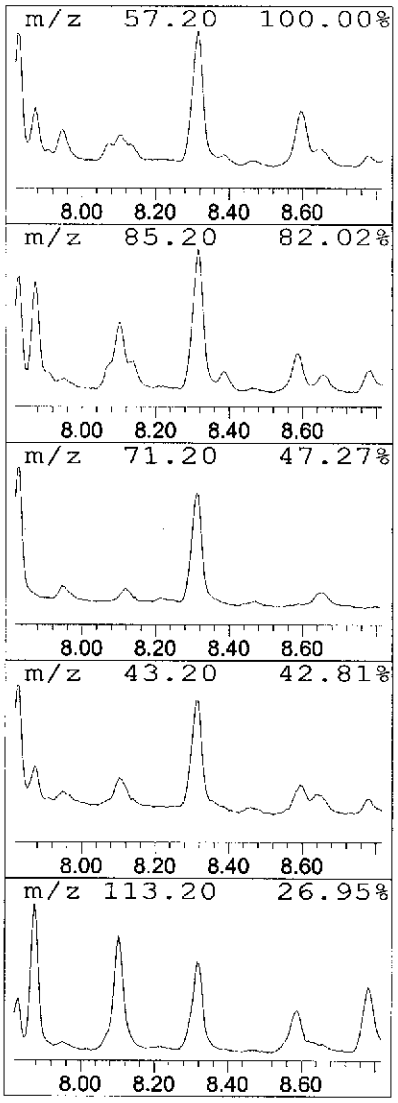
Peak Number 25 Unknown Hydrocarbon Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.32	57.38 UG	3209730	Perylene-d12	8.02

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	83
2	Eicosane	282	C20H42	000112-95-8	49
3	Heptacosane	380	C27H56	000593-49-7	45
4	Tetracosane	338	C24H50	000646-31-1	45
5	Heptadecane	240	C17H36	000629-78-7	43





Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 11 12:19:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	151643	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	583301	40.00	UG	-0.02
43) Acenaphthene-d10	3.90	164	295871	40.00	UG	-0.07
66) Phenanthrene-d10	4.66	188	401246m	40.00	UG	-0.12
82) Chrysene-d12	6.47	240	435572m	40.00	UG	-0.16
92) Perylene-d12	8.04	264	323035m	40.00	UG	-0.07
System Monitoring Compounds						
4) 2-Fluorophenol	2.03	112	138276	26.42	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 26.42%			
6) Phenol-d5	2.37	99	180420	25.30	UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 25.30%			
24) Nitrobenzene-d5	2.78	82	60594	10.53	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 21.06%#			
47) 2-Fluorobiphenyl	3.56	172	104985	11.19	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 22.38%#			
70) 2,4,6-Tribromophenol	4.30	330	59088	40.70	UG	-0.10
Spiked Amount 100.000	Range 37 - 115		Recovery = 40.70%			
84) Terphenyl-d14	5.56	244	102850m	10.91	UG	-0.24
Spiked Amount 50.000	Range 15 - 122		Recovery = 21.82%			

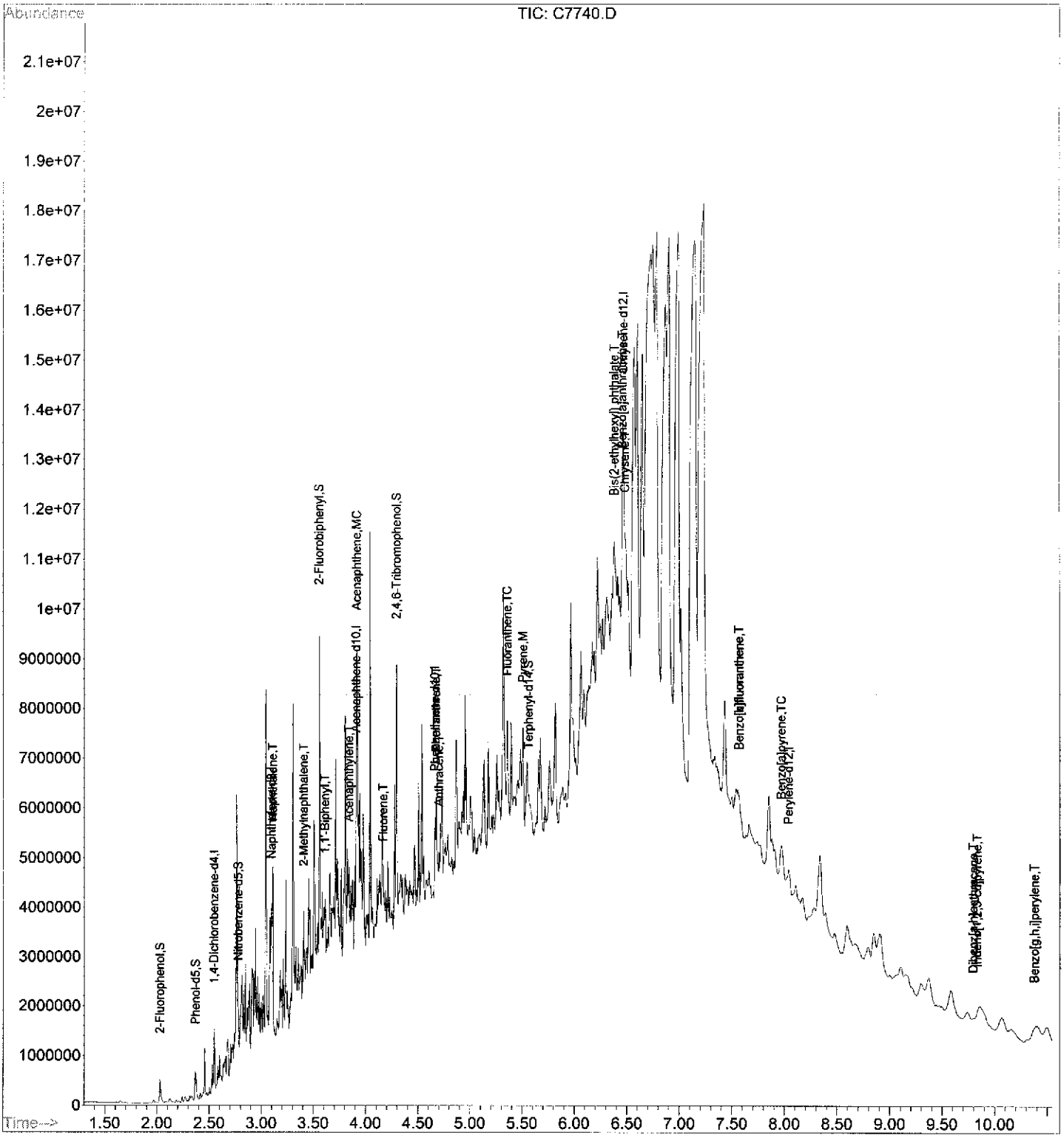
Target Compounds						Qvalue
34) Naphthalene	3.11	128	923737	55.40	UG	# 55
41) 2-Methylnaphthalene	3.41	142	239096	21.00	UG	99
48) 1,1'-Biphenyl	3.61	154	38919	3.42	UG	89
53) Acenaphthylene	3.84	152	78988	6.07	UG	# 85
55) Acenaphthene	3.92	153	94901	11.34	UG	88
61) Fluorene	4.17	166	86282	9.44	UG	96
75) Phenanthrene	4.67	178	498988m	45.07	UG	
76) Anthracene	4.70	178	182459m	15.87	UG	
79) Fluoranthene	5.36	202	446942m	45.09	UG	
83) Pyrene	5.51	202	674242m	49.43	UG	
88) Benzo[a]anthracene	6.45	228	250833m	21.68	UG	
89) Chrysene	6.49	228	311990m	29.05	UG	
90) Bis(2-ethylhexyl) phthalat	6.38	149	225805m	23.14	UG	
94) Benzo[b]fluoranthene	7.57	252	180450m	15.26	UG	
95) Benzo[k]fluoranthene	7.57	252	162127m	14.43	UG	
96) Benzo[a]pyrene	7.97	252	230664	24.45	UG	# 86
97) Indeno[1,2,3-cd]pyrene	9.83	276	94404	7.26	UG	# 76
98) Dibenz[a,h]anthracene	9.79	278	57555	5.18	UG	# 88
99) Benzo[g,h,i]perylene	10.37	276	105557m	9.19	UG	

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 11 12:19:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709~03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.028	133	137	145	rBV2	485947	473214	1.13%	0.167%
2	2.370	198	201	208	rBV3	609630	672800	1.61%	0.237%
3	2.546	232	234	237	rVB	1248016	829213	1.98%	0.293%
4	2.680	256	259	261	rVB	748415	692349	1.66%	0.244%
5	2.728	265	268	269	rVV2	475914	449382	1.08%	0.159%
6	2.744	269	271	272	rVV2	658247	471411	1.13%	0.166%
7	2.760	272	274	277	rVV	5421691	3906305	9.35%	1.379%
8	2.813	279	284	285	rVV2	1666433	1741310	4.17%	0.614%
9	2.829	285	287	288	rVV	1283912	700644	1.68%	0.247%
10	2.845	288	290	292	rVV2	1772206	960158	2.30%	0.339%
11	2.867	292	294	295	rVV2	846574	569985	1.36%	0.201%
12	2.888	295	298	300	rVB2	1334718	1089263	2.61%	0.384%
13	2.910	300	302	305	rBV3	1640011	1862062	4.46%	0.657%
14	2.942	305	308	311	rVV3	2255794	1819563	4.36%	0.642%
15	2.963	311	312	314	rVV	1221192	610127	1.46%	0.215%
16	3.016	321	322	325	rBV2	751584	506822	1.21%	0.179%
17	3.043	325	327	330	rVV	6828696	3859767	9.24%	1.362%
18	3.081	332	334	335	rBV	2188766	1430340	3.42%	0.505%
19	3.107	335	339	345	rVB2	3414241	3760030	9.00%	1.327%
20	3.182	349	353	354	rBV2	1216617	858729	2.06%	0.303%
21	3.209	357	358	361	rBV3	1409415	854367	2.05%	0.302%
22	3.235	361	363	365	rBV	2841493	1462215	3.50%	0.516%
23	3.252	365	366	369	rVB3	773331	454905	1.09%	0.161%
24	3.284	369	372	373	rBV3	645664	637250	1.53%	0.225%
25	3.305	373	376	378	rBV2	6004733	3845671	9.21%	1.357%
26	3.332	379	381	383	rVB2	906509	418253	1.00%	0.148%
27	3.380	387	390	392	rVB2	714178	718608	1.72%	0.254%
28	3.406	392	395	398	rBV2	1797333	1552189	3.72%	0.548%
29	3.438	398	401	402	rBV2	640314	599339	1.43%	0.212%
30	3.455	402	404	407	rVB2	1945889	1606658	3.85%	0.567%
31	3.503	411	413	418	rVV2	3004670	2708439	6.48%	0.956%
32	3.540	418	420	421	rVV2	821522	460262	1.10%	0.162%
33	3.556	421	423	426	rVV2	6636602	3624579	8.68%	1.279%
34	3.583	426	428	429	rVV2	1322642	749353	1.79%	0.264%
35	3.609	429	433	435	rVB3	1103550	1270168	3.04%	0.448%
36	3.658	440	442	444	rBV2	1487303	1119178	2.68%	0.395%
37	3.674	444	445	447	rBV	596522	513029	1.23%	0.181%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

38	3.711	451	452	454	rBV	3425301	1657622	3.97%	0.585%
39	3.764	460	462	463	rVB	1782484	949638	2.27%	0.335%
40	3.802	463	469	471	rBV	4857339	3903927	9.35%	1.378%
41	3.823	471	473	474	rVV	2223812	1414991	3.39%	0.499%
42	3.839	474	476	478	rVV3	1683124	1388677	3.32%	0.490%
43	3.855	478	479	480	rVV	1276753	586204	1.40%	0.207%
44	3.871	480	482	484	rVB	1414337	1022296	2.45%	0.361%
45	3.893	484	486	487	rBV	1700056	1192451	2.85%	0.421%
46	3.914	487	490	494	rVV4	5811195	6951799	16.64%	2.453%
47	3.941	494	495	496	rVV	2993660	1348530	3.23%	0.476%
48	3.973	499	501	503	rVV2	2533176	1657110	3.97%	0.585%
49	4.005	506	507	509	rBV2	637533	511455	1.22%	0.180%
50	4.042	511	514	516	rBV	8179157	4093325	9.80%	1.445%
51	4.058	516	517	520	rVB2	634565	437580	1.05%	0.154%
52	4.106	524	526	527	rVV	1001337	470500	1.13%	0.166%
53	4.133	527	531	533	rVV4	1061586	1434383	3.43%	0.506%
54	4.154	533	535	540	rVV4	2261395	2104764	5.04%	0.743%
55	4.208	543	545	547	rBV2	1235973	609687	1.46%	0.215%
56	4.272	555	557	559	rBV	2910988	1732056	4.15%	0.611%
57	4.293	559	561	563	rVB	4897810	2856078	6.84%	1.008%
58	4.379	574	577	578	rBV3	828779	741357	1.77%	0.262%
59	4.464	590	593	595	rVB2	1237723	1043977	2.50%	0.368%
60	4.502	598	600	602	rVB	2418255	1224965	2.93%	0.432%
61	4.534	603	606	608	rVV	3551509	2294214	5.49%	0.810%
62	4.662	628	630	631	rBV	1643340	1259539	3.02%	0.444%
63	4.726	638	642	644	rVB	1658723	1636829	3.92%	0.578%
64	4.865	665	668	671	rBV4	2599447	2605438	6.24%	0.919%
65	4.950	682	684	689	rVB3	2816191	2109792	5.05%	0.745%
66	5.169	723	725	728	rBV2	2069990	1556015	3.72%	0.549%
67	5.255	738	741	743	rBV	1426856	1324669	3.17%	0.467%
68	5.319	749	753	757	rBV2	4250998	3973285	9.51%	1.402%
69	5.356	758	760	764	rVB	1903889	1424362	3.41%	0.503%
70	5.388	764	766	769	rBV	1882196	1434238	3.43%	0.506%
71	5.650	813	815	817	rBV	1311017	1116721	2.67%	0.394%
72	5.672	817	819	825	rVB2	1879876	1709574	4.09%	0.603%
73	5.816	843	846	851	rVB	2418835	2502259	5.99%	0.883%
74	5.965	871	874	876	rBV2	3335291	3069820	7.35%	1.083%
75	6.468	965	968	975	rVB3	3544570	5104968	12.22%	1.802%
76	6.569	981	987	990	rBV	6363237	12455680	29.82%	4.396%
77	6.649	998	1002	1005	rBV	5538631	7156836	17.13%	2.526%
78	6.724	1005	1016	1018	rBV	6109989	19998696	47.87%	7.057%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

79	6.868	1034	1043	1045	rBV2	7608348	18776340	44.95%	6.626%
80	6.991	1057	1066	1069	rBV	9139546	20574049	49.25%	7.260%
81	7.141	1082	1094	1099	rBV2	10897737	40320635	96.52%	14.229%
82	7.231	1099	1111	1127	rVB	11355658	41775449	100.00%	14.742%

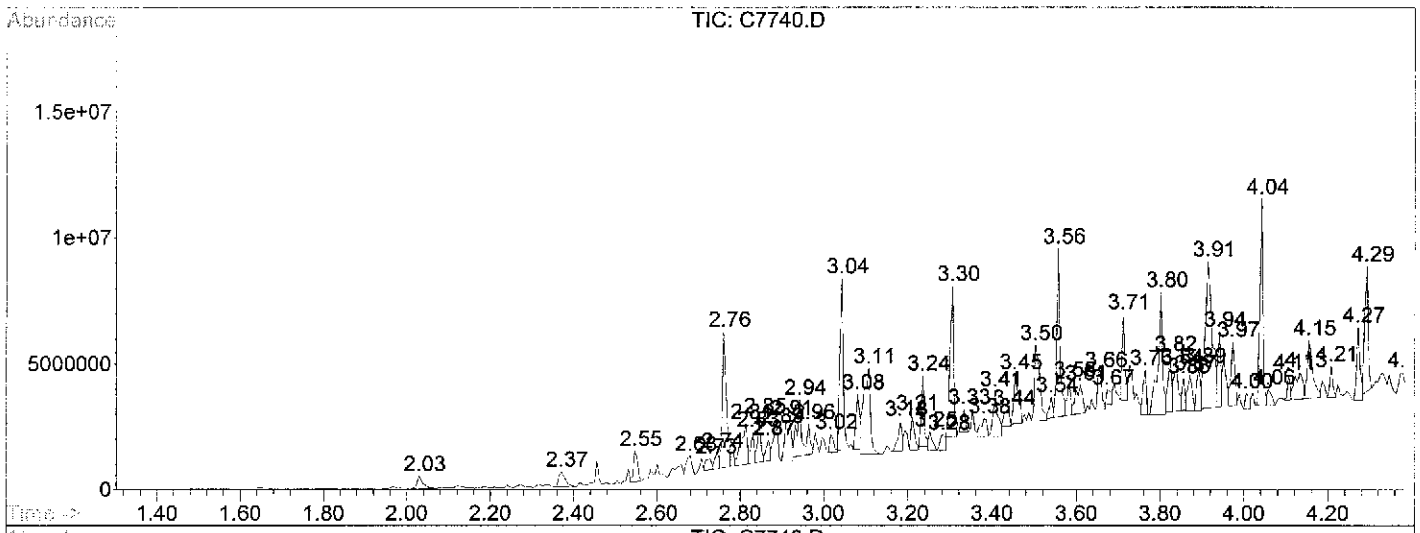
Sum of corrected areas: 283370717

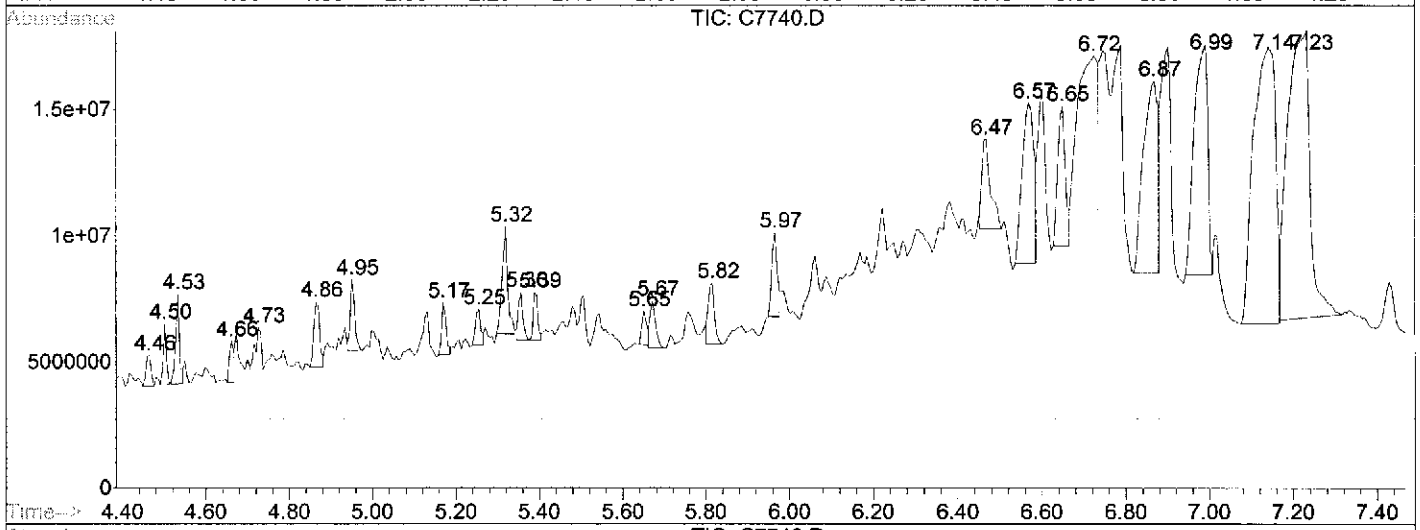
LSC Report - Integrated Chromatogram

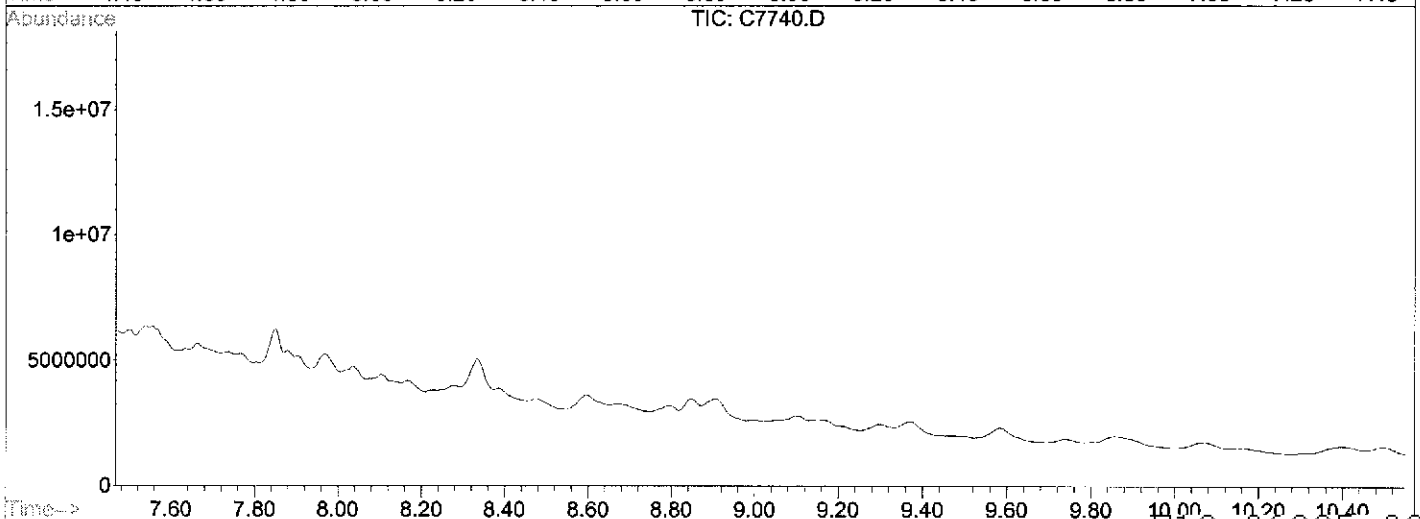
Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

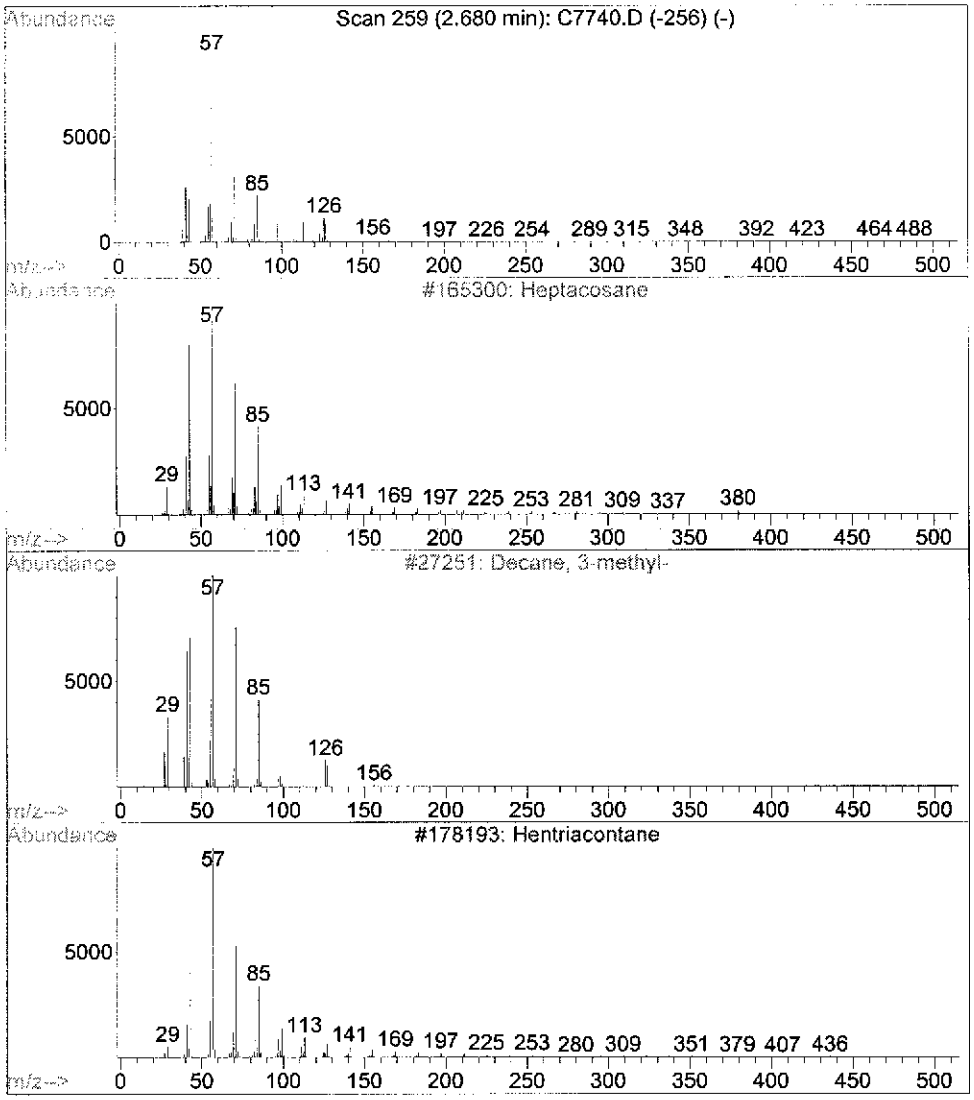
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

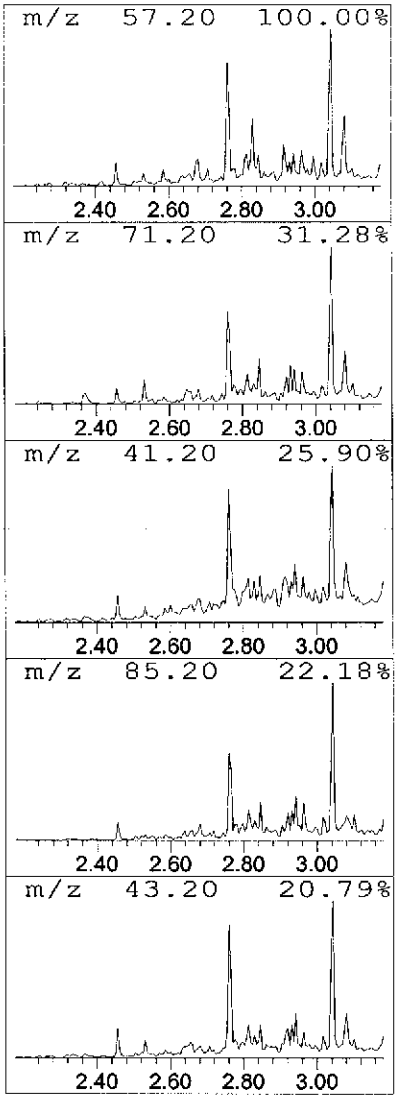
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Unknown Hydrocarbon Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.68	33.40 UG	692349	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptacosane	380	C27H56	000593-49-7	53
2	Decane, 3-methyl-	156	C11H24	013151-34-3	52
3	Hentriacontane	437	C31H64	000630-04-6	50
4	Tetradecane, 2,5-dimethyl-	226	C16H34	056292-69-4	47
5	Sulfurous acid, butyl decyl ester	278	C14H30O3S	1000309-17-7	47





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

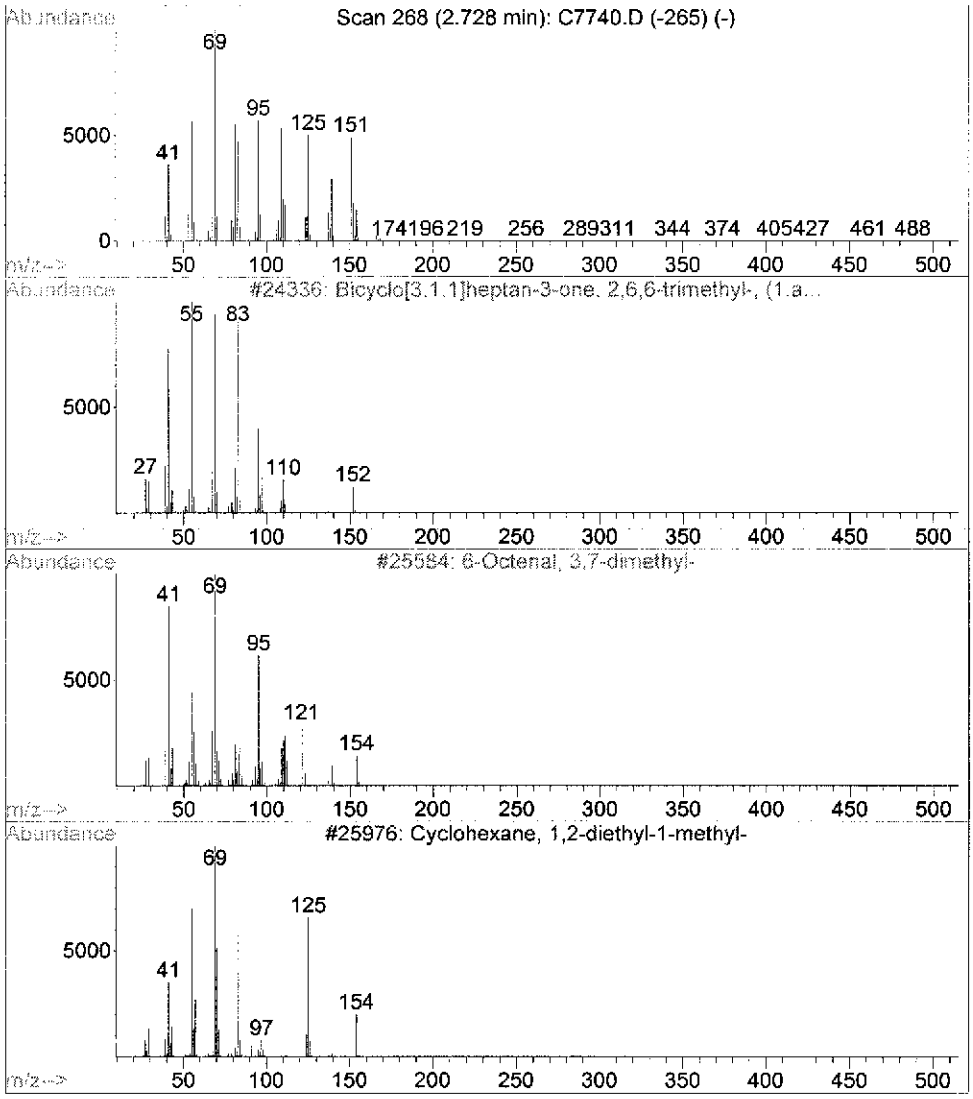
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

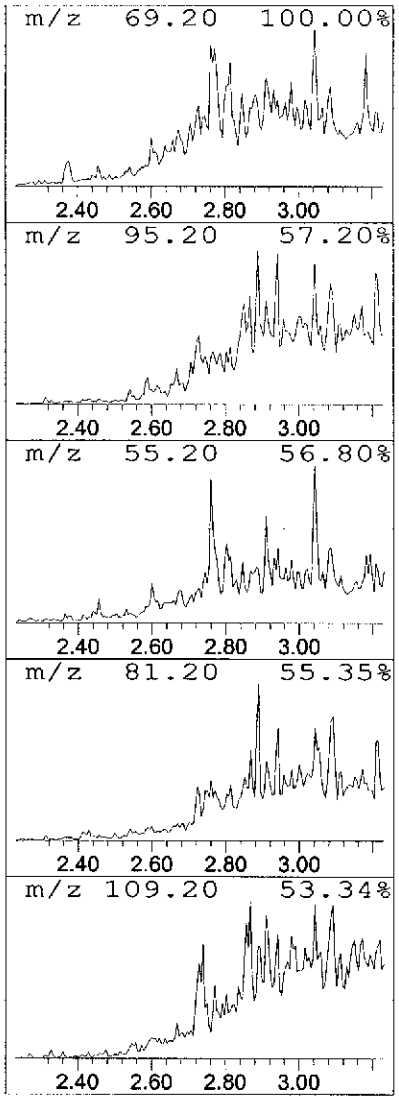
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Unknown SV Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.73	21.68 UG	449382	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[3.1.1]heptan-3-one, 2,6,...	152	C10H16O	000547-60-4	46
2	6-Octenal, 3,7-dimethyl-	154	C10H18O	000106-23-0	43
3	Cyclohexane, 1,2-diethyl-1-methyl-	154	C11H22	061141-79-5	43
4	5-Trifluoromethyl-1,6-diazabicyc...	152	C5H7F3N2	108602-77-3	43
5	Cyclohexane, 2,4-diethyl-1-methyl-	154	C11H22	061142-70-9	38





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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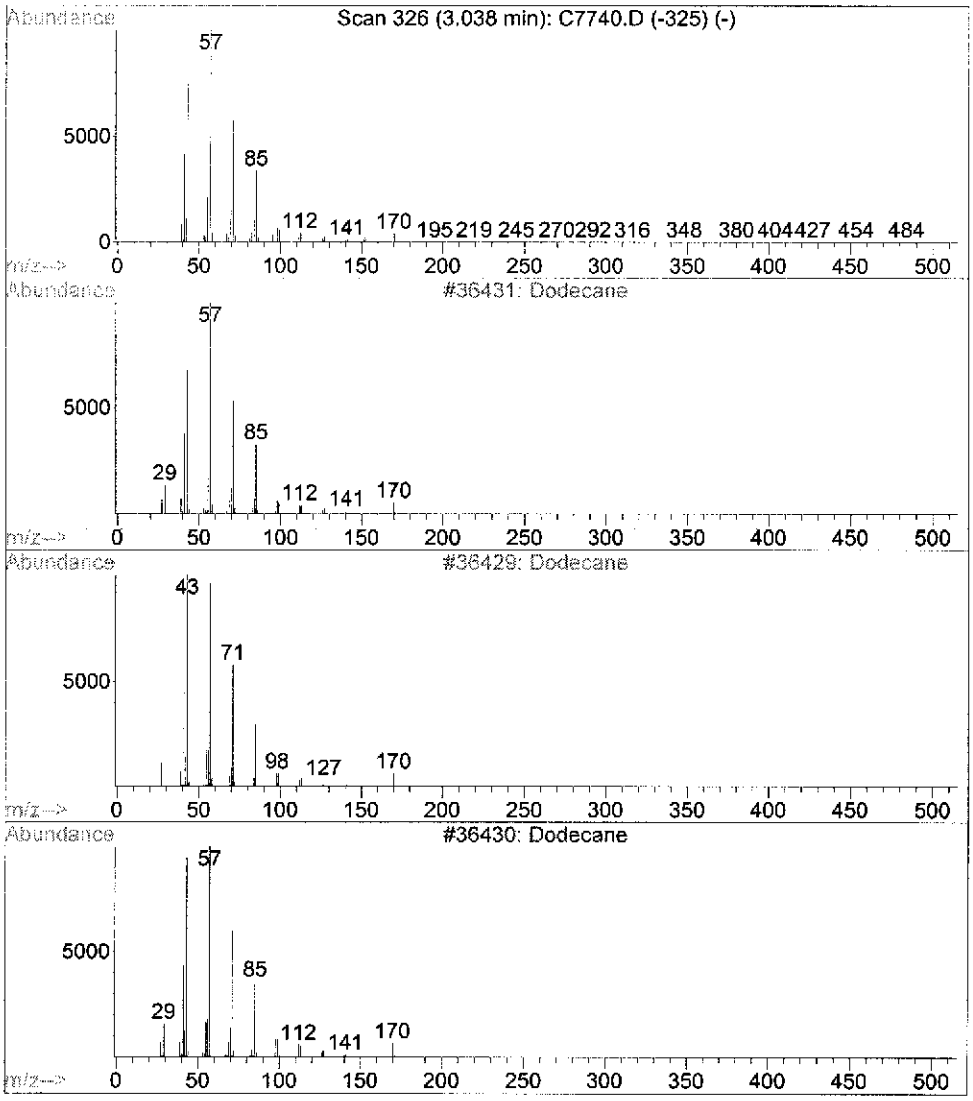
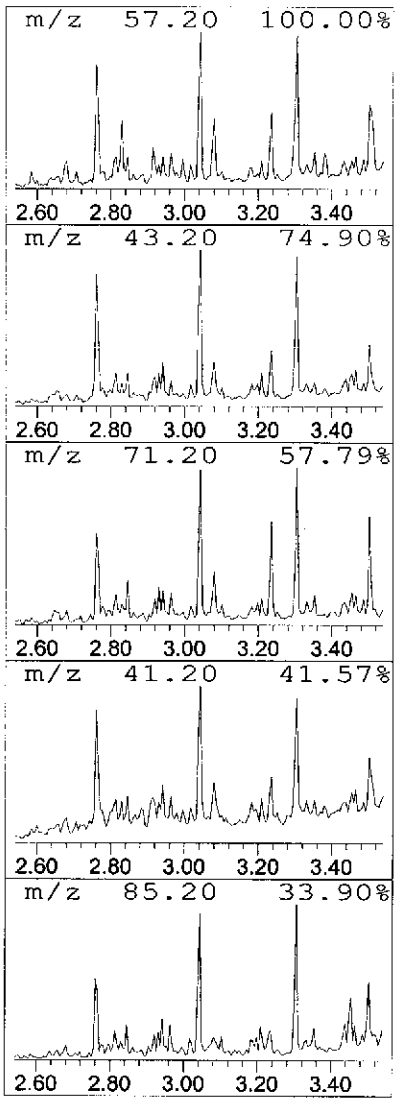
Peak Number 3 Unknown Hydrocarbon Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.04	41.06 UG	3859770	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	96
2	Dodecane	170	C12H26	000112-40-3	95
3	Dodecane	170	C12H26	000112-40-3	95
4	Undecane	156	C11H24	001120-21-4	90
5	Undecane, 3,5-dimethyl-	184	C13H28	017312-81-1	87





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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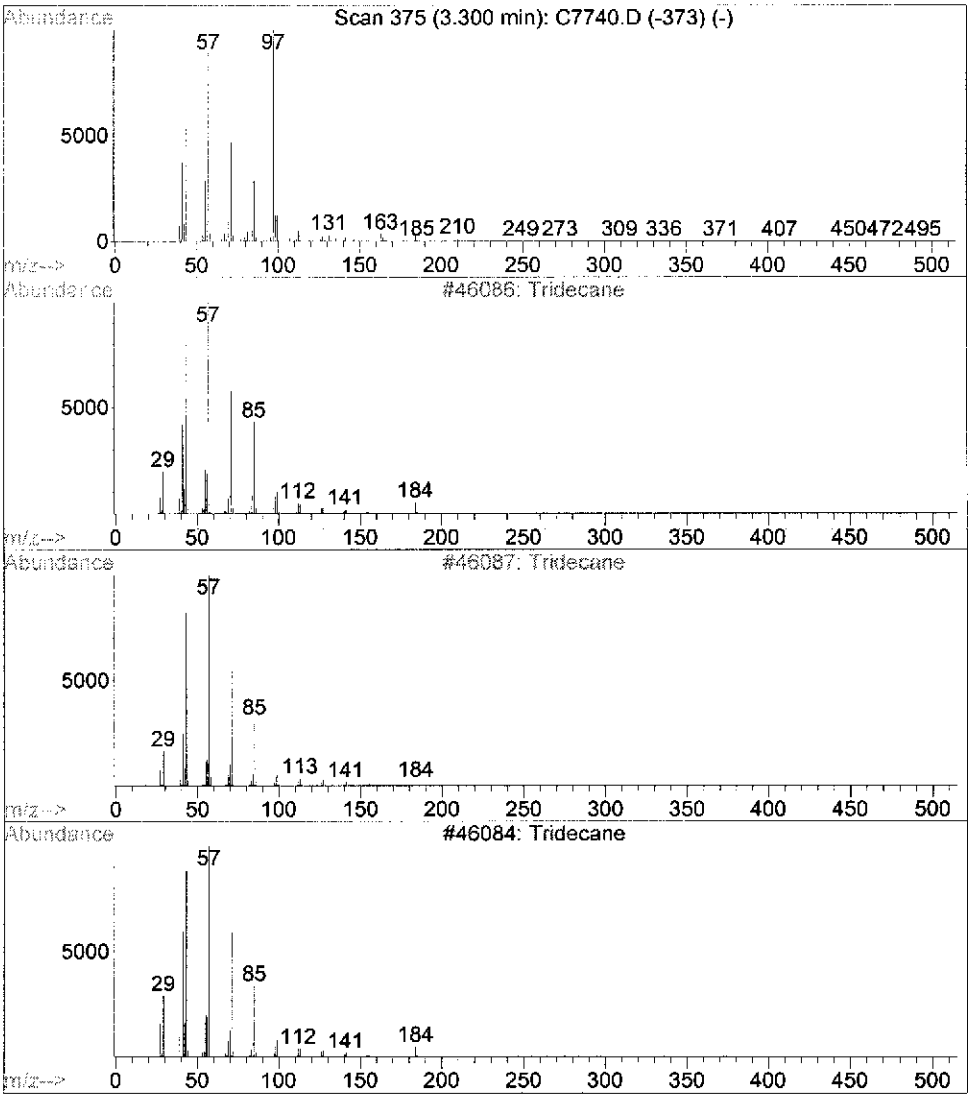
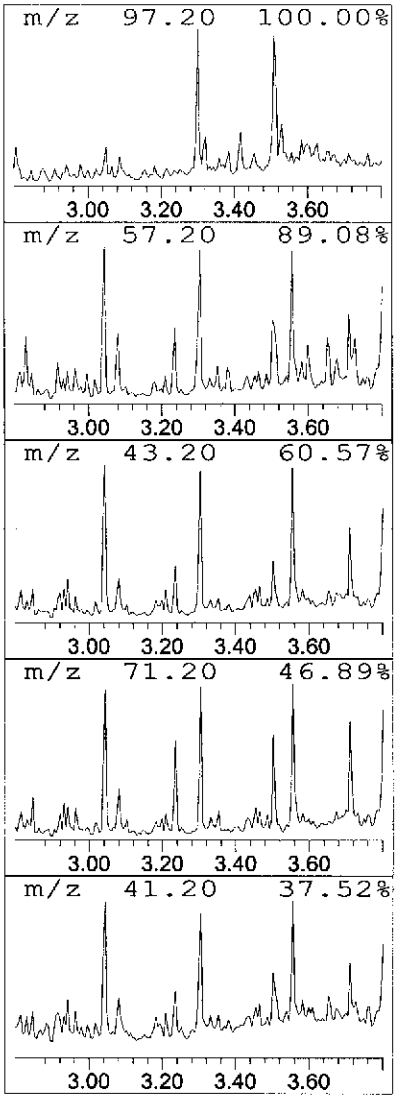
Peak Number 4 Unknown Hydrocarbon Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.30	40.91 UG	3845670	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	000629-50-5	98
2	Tridecane	184	C13H28	000629-50-5	95
3	Tridecane	184	C13H28	000629-50-5	95
4	Pentadecane	212	C15H32	000629-62-9	93
5	Tridecane	184	C13H28	000629-50-5	93





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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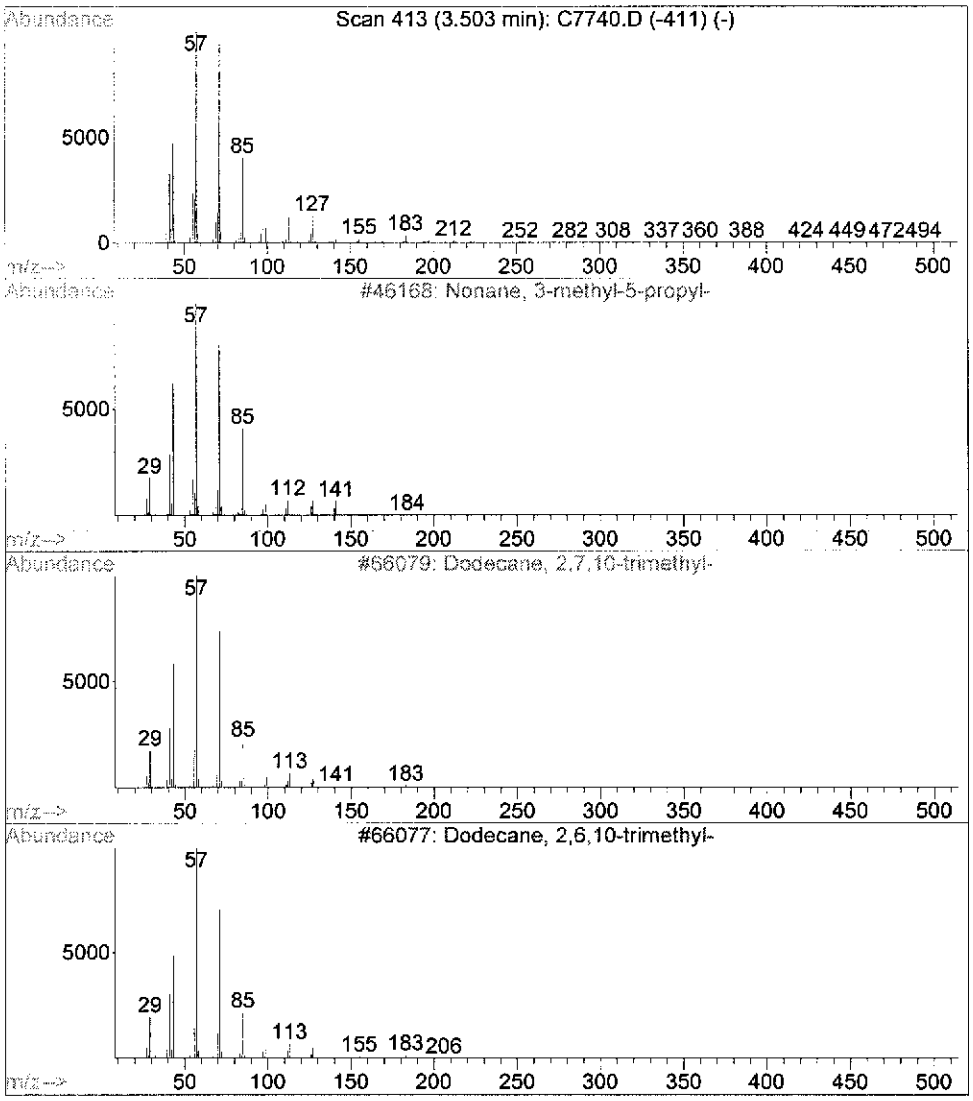
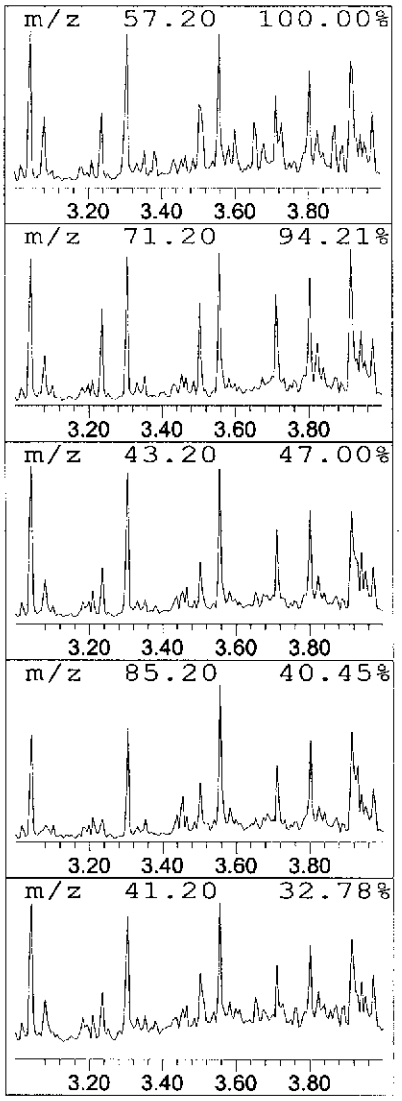
Peak Number 5 Unknown Hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.50	90.85 UG	2708440	Acenaphthene-d10	3.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonane, 3-methyl-5-propyl-	184	C13H28	031081-18-2	64
2	Dodecane, 2,7,10-trimethyl-	212	C15H32	074645-98-0	64
3	Dodecane, 2,6,10-trimethyl-	212	C15H32	003891-98-3	59
4	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	59
5	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	58





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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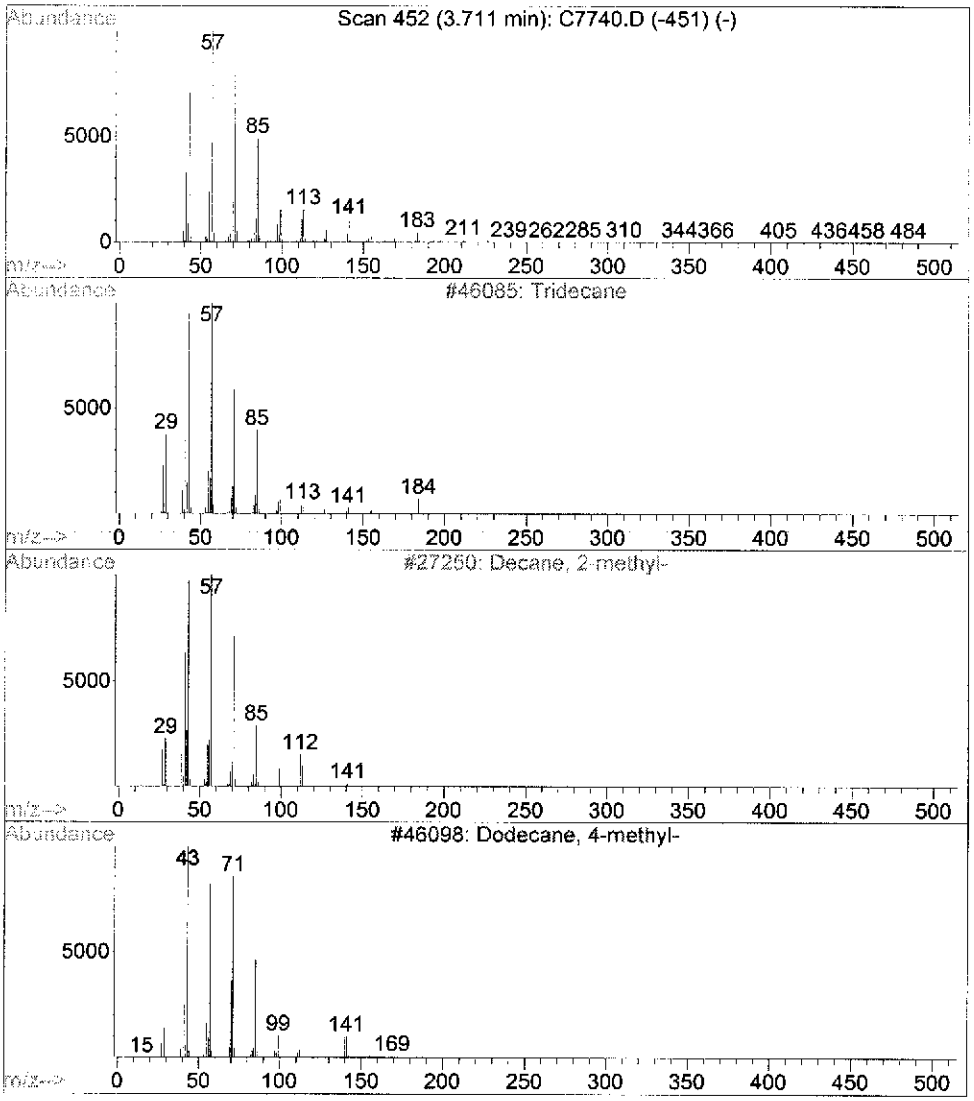
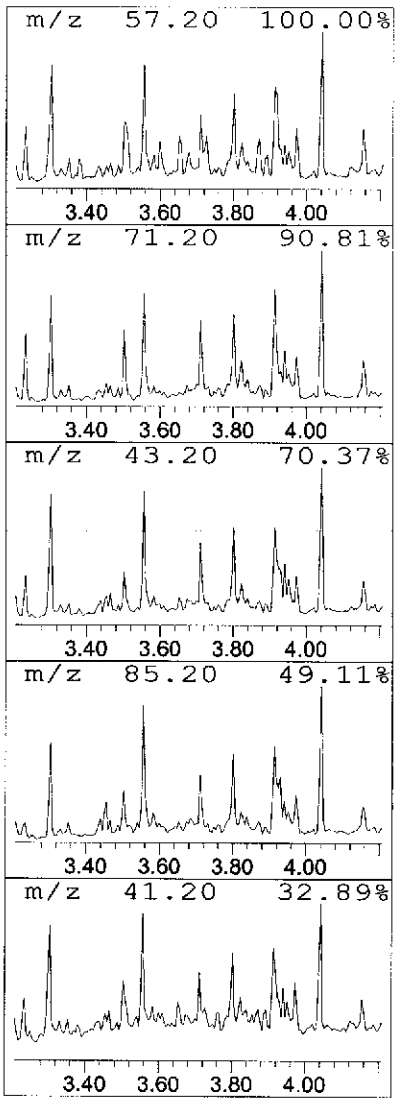
Peak Number 6 Unknown Hydrocarbon Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.71	55.60 UG	1657620	Acenaphthene-d10	3.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	000629-50-5	93
2	Decane, 2-methyl-	156	C11H24	006975-98-0	90
3	Dodecane, 4-methyl-	184	C13H28	006117-97-1	87
4	Pentadecane	212	C15H32	000629-62-9	83
5	Pentadecane, 4-methyl-	226	C16H34	002801-87-8	80





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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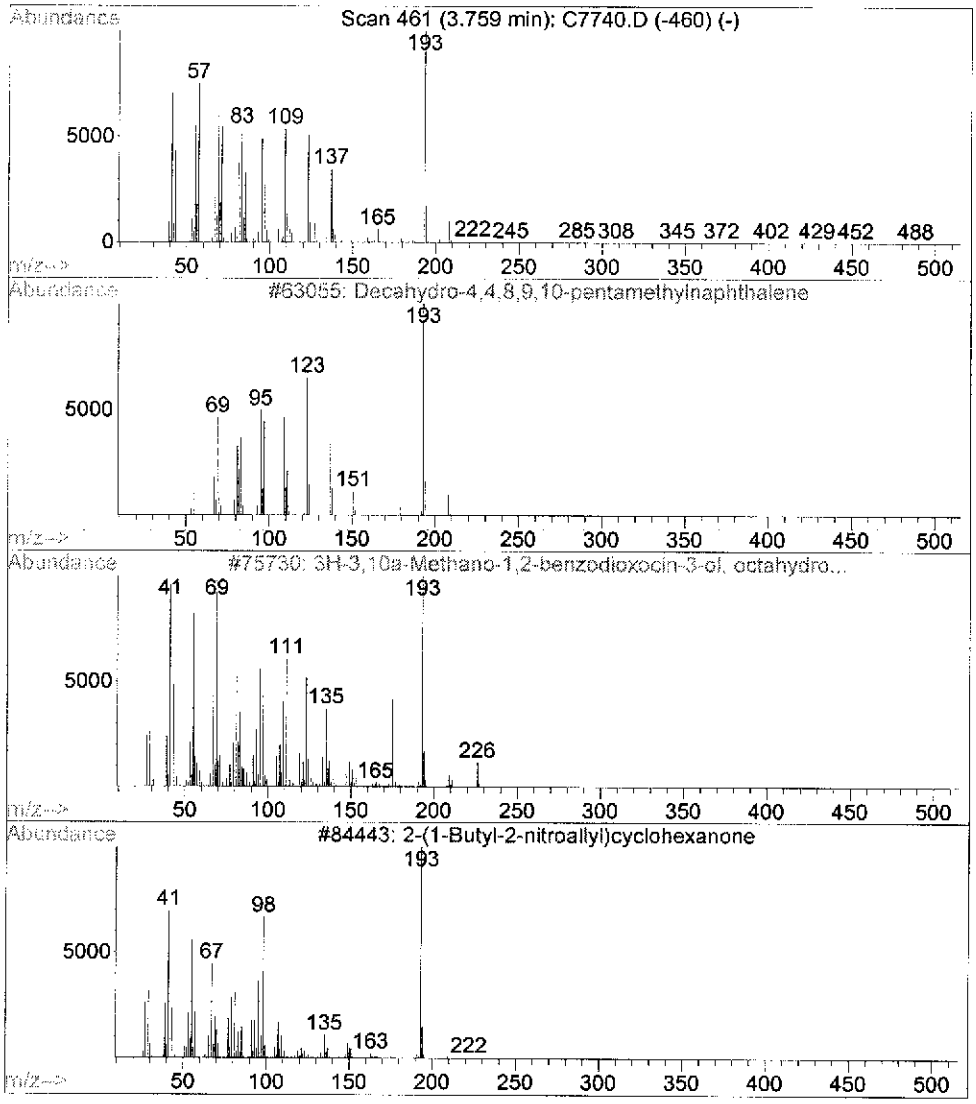
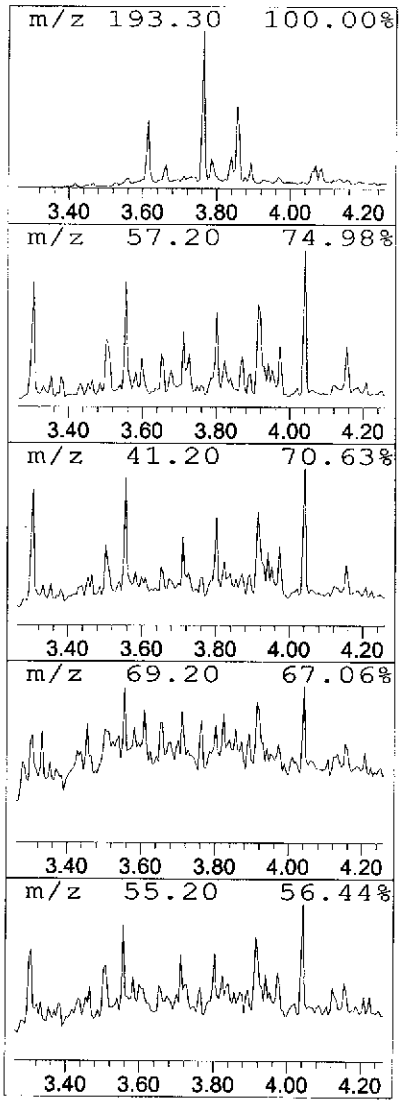
Peak Number 7 Unknown SV Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.76	31.86 UG	949638	Acenaphthene-d10	3.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decahydro-4,4,8,9,10-pentamethyl...	208	C15H28	080655-44-3	70
2	3H-3,10a-Methano-1,2-benzodioxoc...	226	C13H22O3	095906-83-5	40
3	2-(1-Butyl-2-nitroallyl)cyclohex...	239	C13H21NO3	1000192-05-9	37
4	2-Anthracenamine	193	C14H11N	000613-13-8	35
5	2-Anthracenamine	193	C14H11N	000613-13-8	35





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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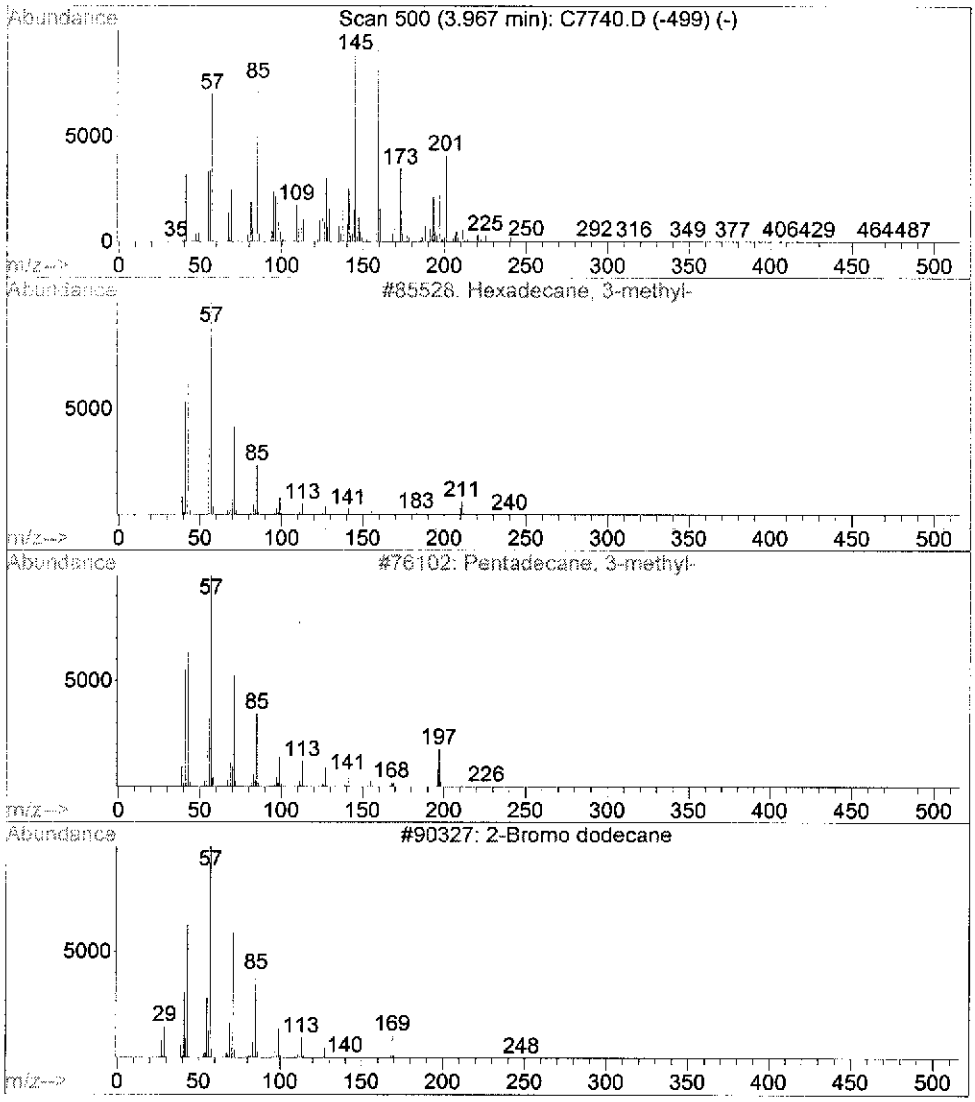
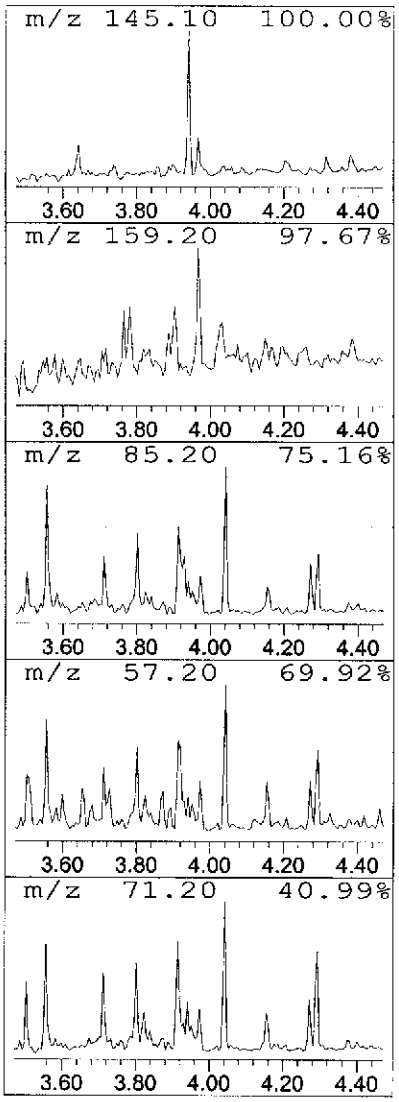
Peak Number 8 Unknown Hydrocarbon Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.97	55.59 UG	1657110	Acenaphthene-d10	3.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 3-methyl-	240	C17H36	006418-43-5	83
2	Pentadecane, 3-methyl-	226	C16H34	002882-96-4	60
3	2-Bromo dodecane	248	C12H25Br	013187-99-0	59
4	Undecane, 3-methyl-	170	C12H26	001002-43-3	59
5	Tridecane, 3-methyl-	198	C14H30	006418-41-3	59





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Acq On : 10 Jul 2012 17:13
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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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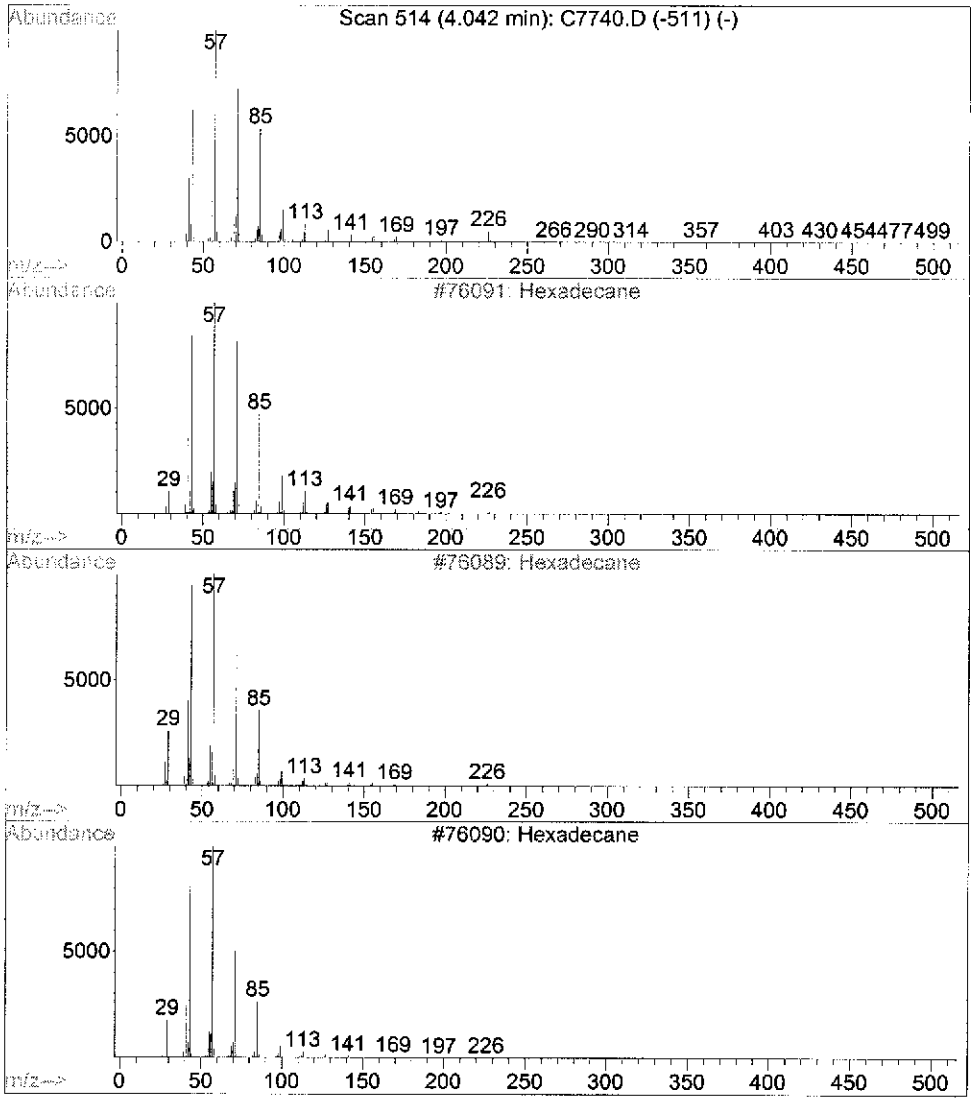
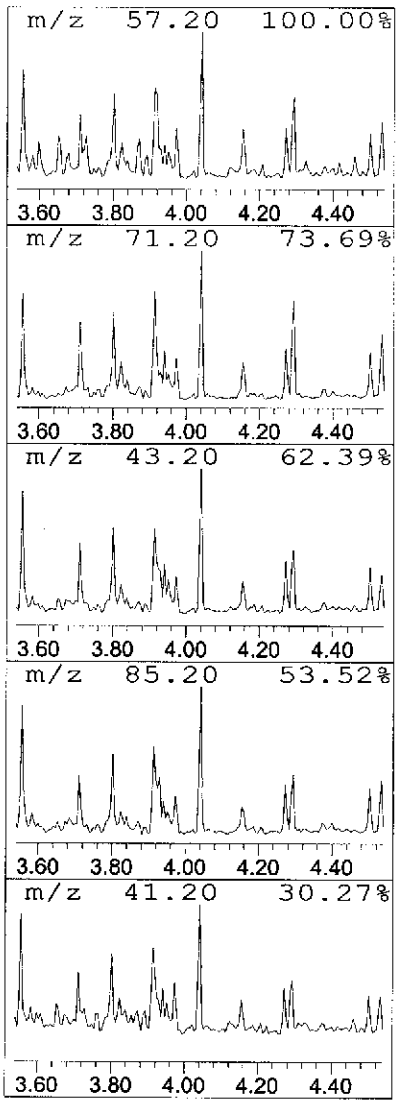
Peak Number 9 Unknown Hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.04	137.31 UG	4093330	Acenaphthene-d10	3.90

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	98
2	Hexadecane	226	C16H34	000544-76-3	97
3	Hexadecane	226	C16H34	000544-76-3	97
4	Bacchotricuneatin c	342	C20H22O5	066563-30-2	96
5	Pentadecane	212	C15H32	000629-62-9	95





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ALS Vial : 6 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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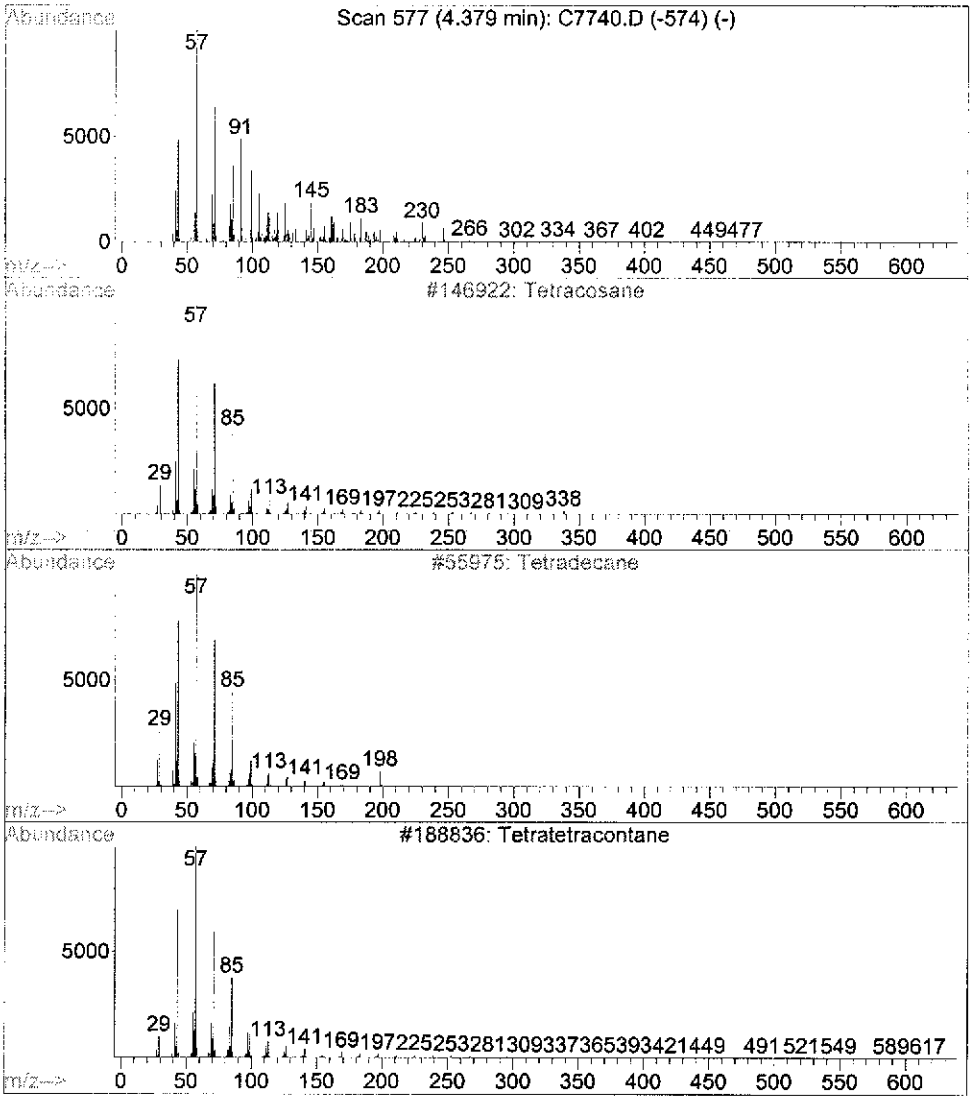
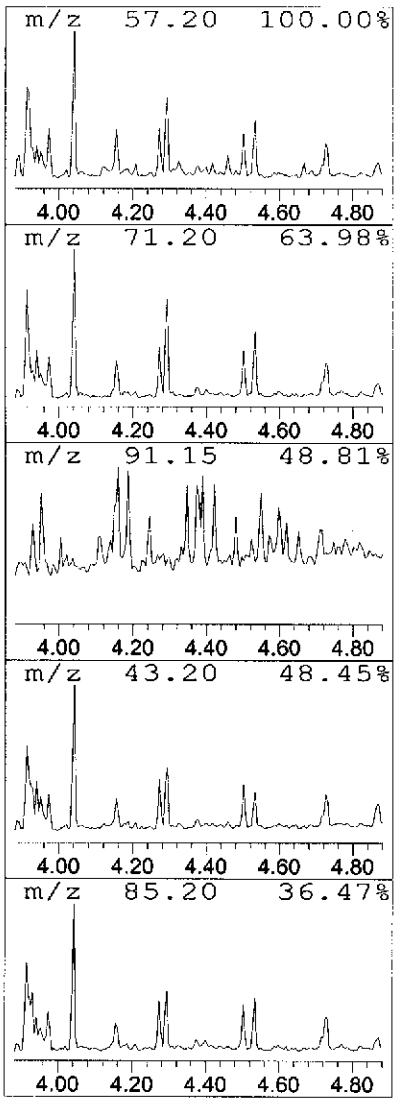
Peak Number 10 Unknown Hydrocarbon Concentration Rank 24

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.38	23.54 UG	741357	Phenanthrene-d10	4.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	50
2	Tetradecane	198	C14H30	000629-59-4	50
3	Tetratetracontane	619	C44H90	007098-22-8	45
4	Dodecane, 2-methyl-8-propyl-	226	C16H34	055045-07-3	45
5	Octadecane	254	C18H38	000593-45-3	43





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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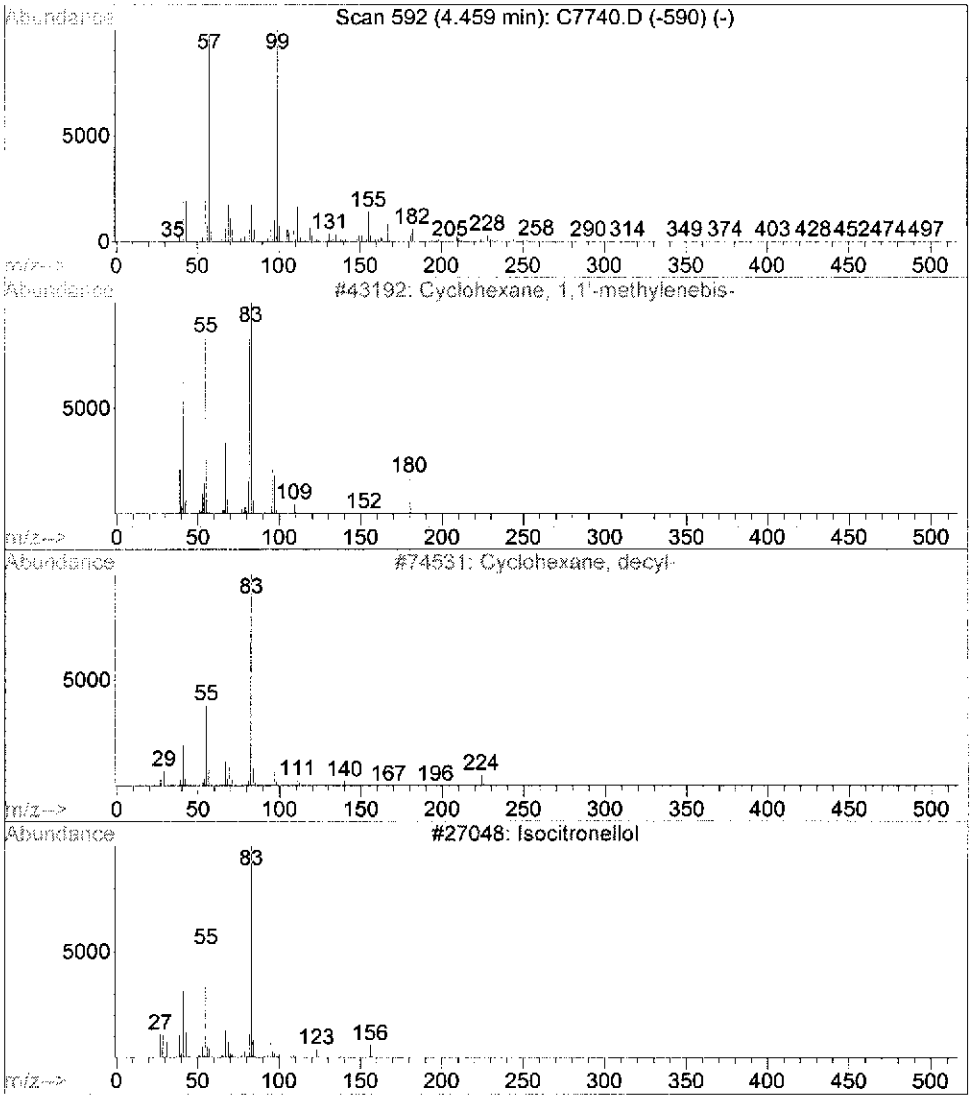
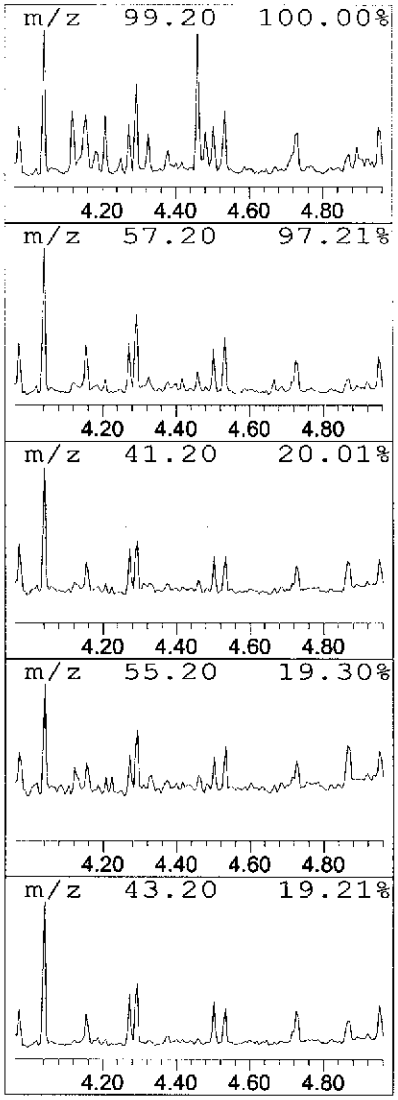
Peak Number 11 Unknown SV Concentration Rank 21

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.46	33.15 UG	1043980	Phenanthrene-d10	4.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,1'-methylenebis-	180	C13H24	003178-23-2	25
2	Cyclohexane, decyl-	224	C16H32	001795-16-0	25
3	Isocitronellol	156	C10H20O	018479-52-2	25
4	Cyclohexane, undecyl-	238	C17H34	054105-66-7	22
5	Cyclohexane, decyl-	224	C16H32	001795-16-0	22





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ALS Vial : 6 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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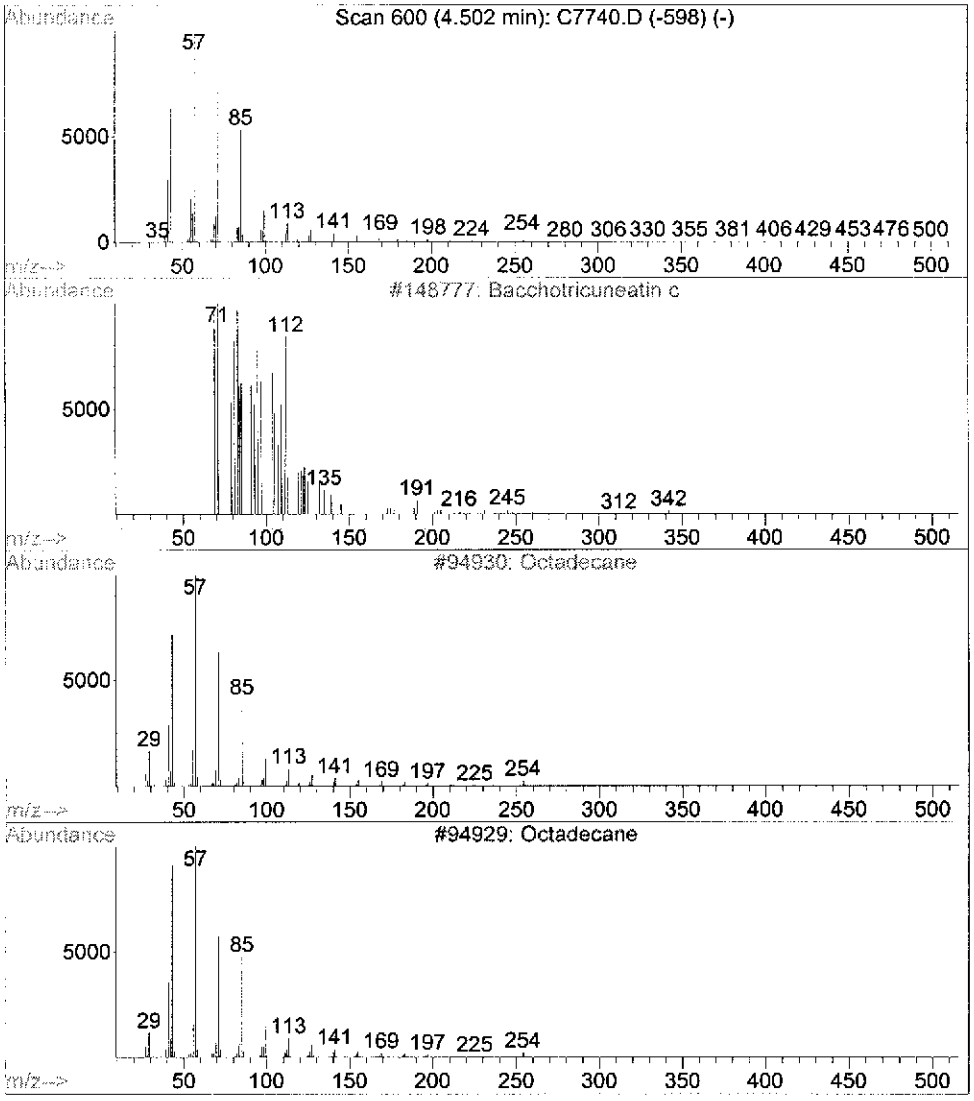
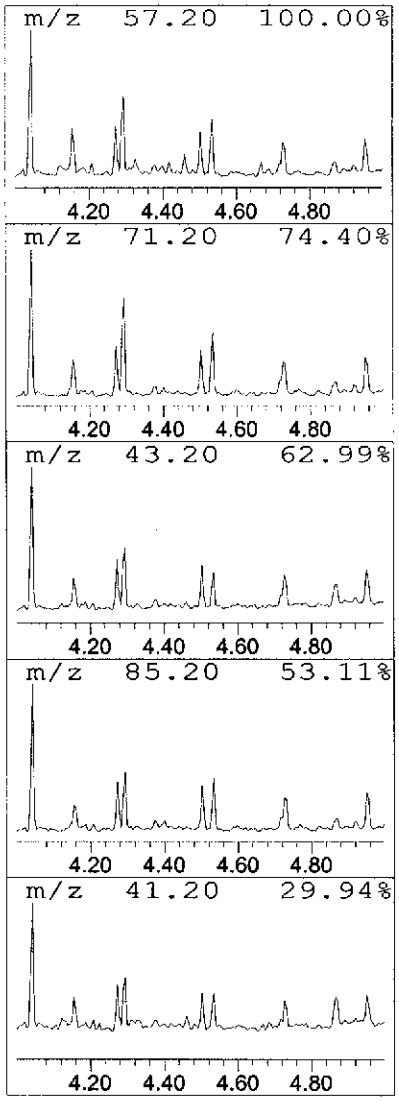
Peak Number 12 Unknown Hydrocarbon Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.50	38.90 UG	1224970	Phenanthrene-d10	4.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bacchotricuneatin c	342	C20H22O5	066563-30-2	98
2	Octadecane	254	C18H38	000593-45-3	98
3	Octadecane	254	C18H38	000593-45-3	95
4	Tetradecane	198	C14H30	000629-59-4	94
5	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	93





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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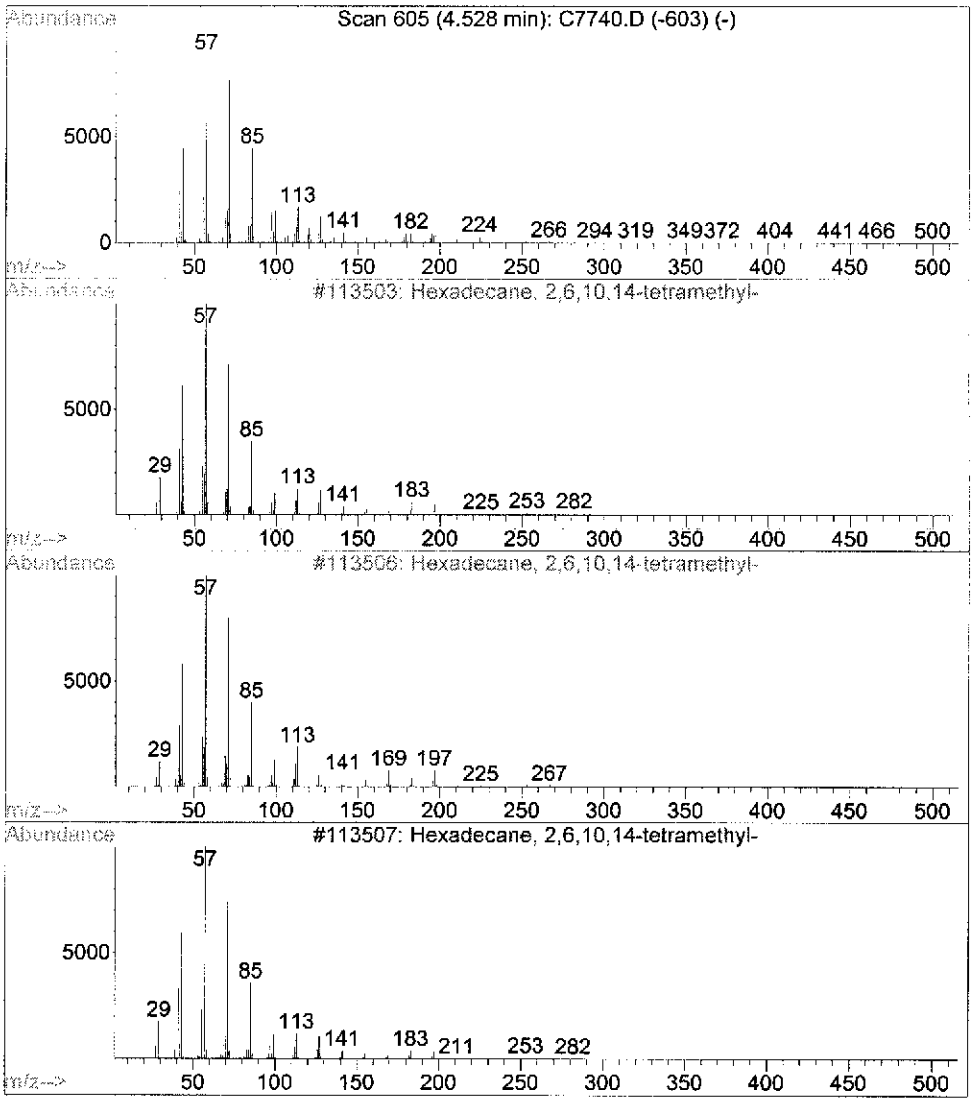
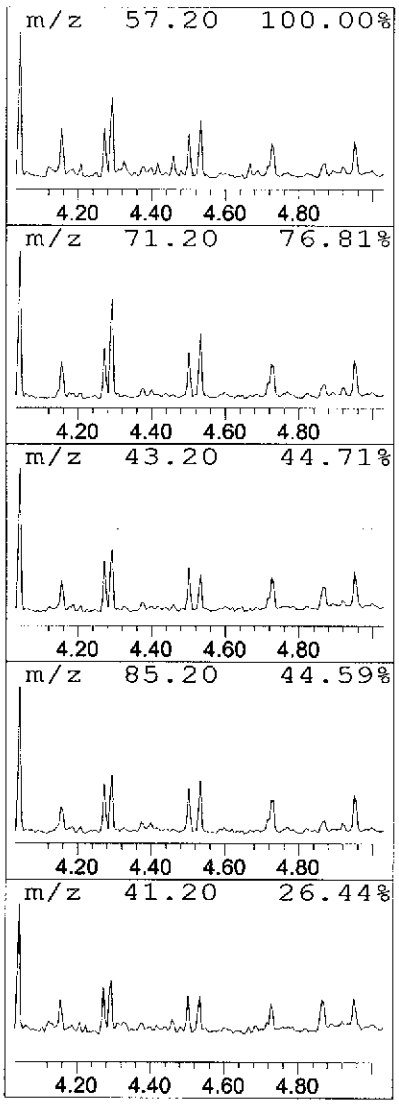
Peak Number 13 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.53	72.86 UG	2294210	Phenanthrene-d10	4.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	96
2	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	93
3	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	93
4	Squalane	422	C30H62	000111-01-3	91
5	Triacontane	422	C30H62	000638-68-6	91





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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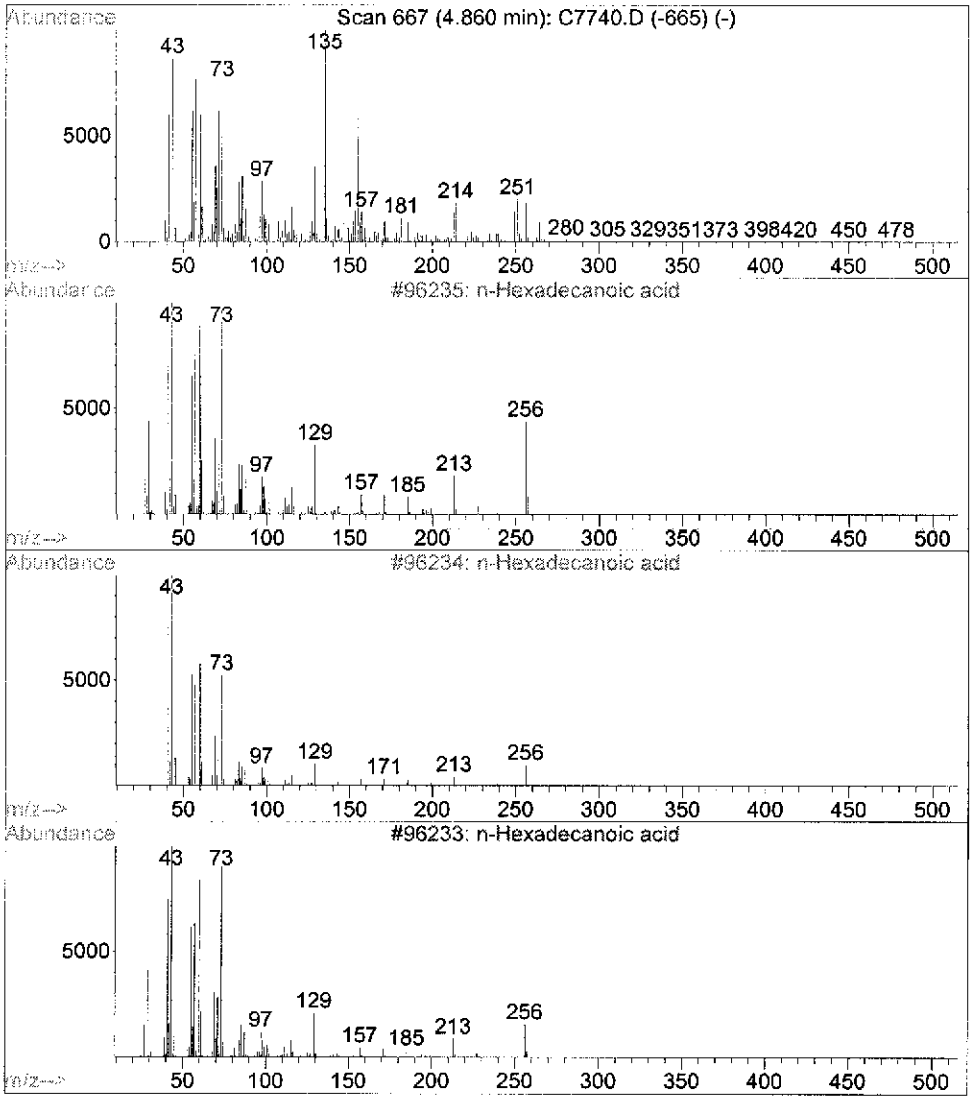
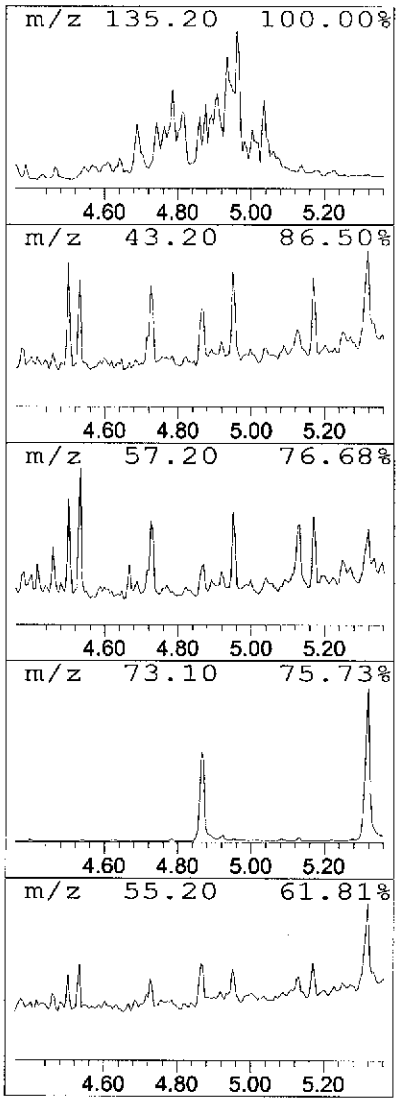
Peak Number 14 Unknown SV Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.86	82.74 UG	2605440	Phenanthrene-d10	4.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	97
2	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	94
3	n-Hexadecanoic acid	256	C16H32O2	000057-10-3	89
4	Tridecanoic acid	214	C13H26O2	000638-53-9	78
5	Tridecanoic acid	214	C13H26O2	000638-53-9	60





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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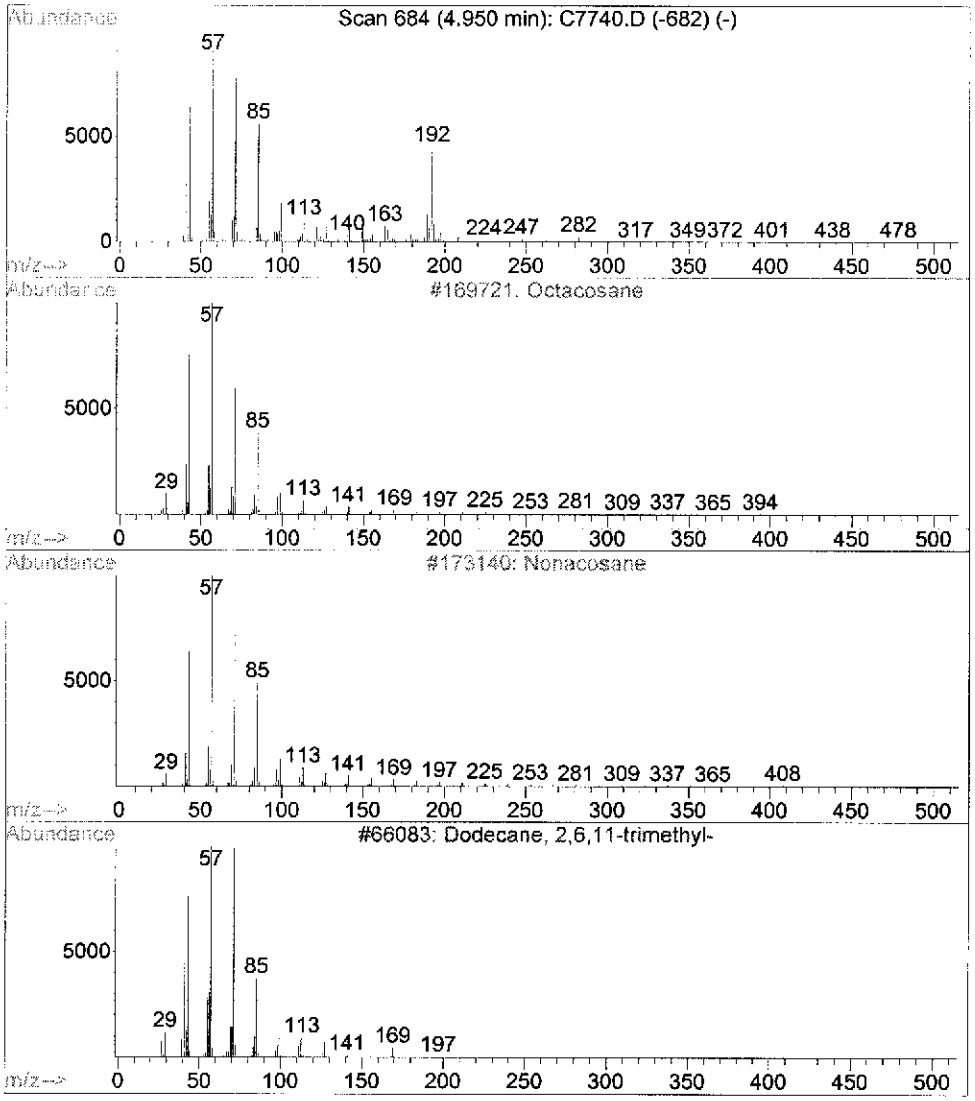
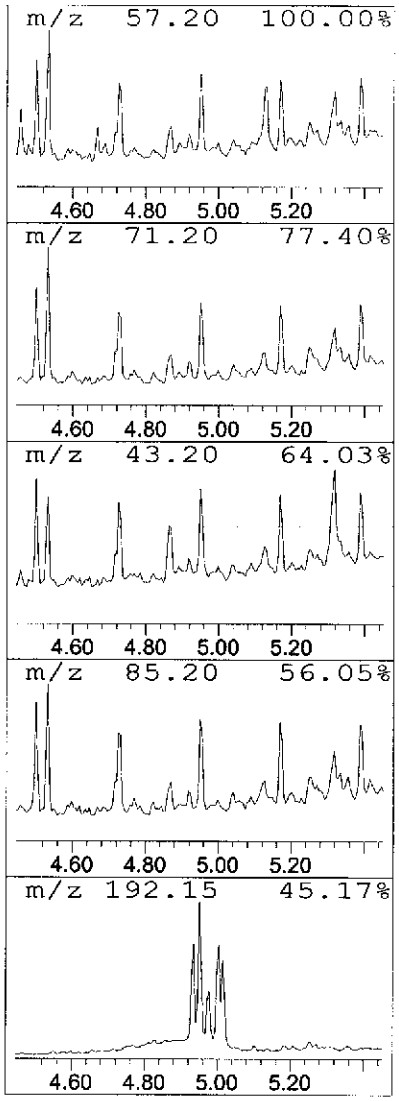
Peak Number 15 Unknown Hydrocarbon Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.95	67.00 UG	2109790	Phenanthrene-d10	4.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octacosane	394	C28H58	000630-02-4	83
2	Nonacosane	408	C29H60	000630-03-5	83
3	Dodecane, 2,6,11-trimethyl-	212	C15H32	031295-56-4	70
4	Tetradecane	198	C14H30	000629-59-4	64
5	Tetracosane	338	C24H50	000646-31-1	58





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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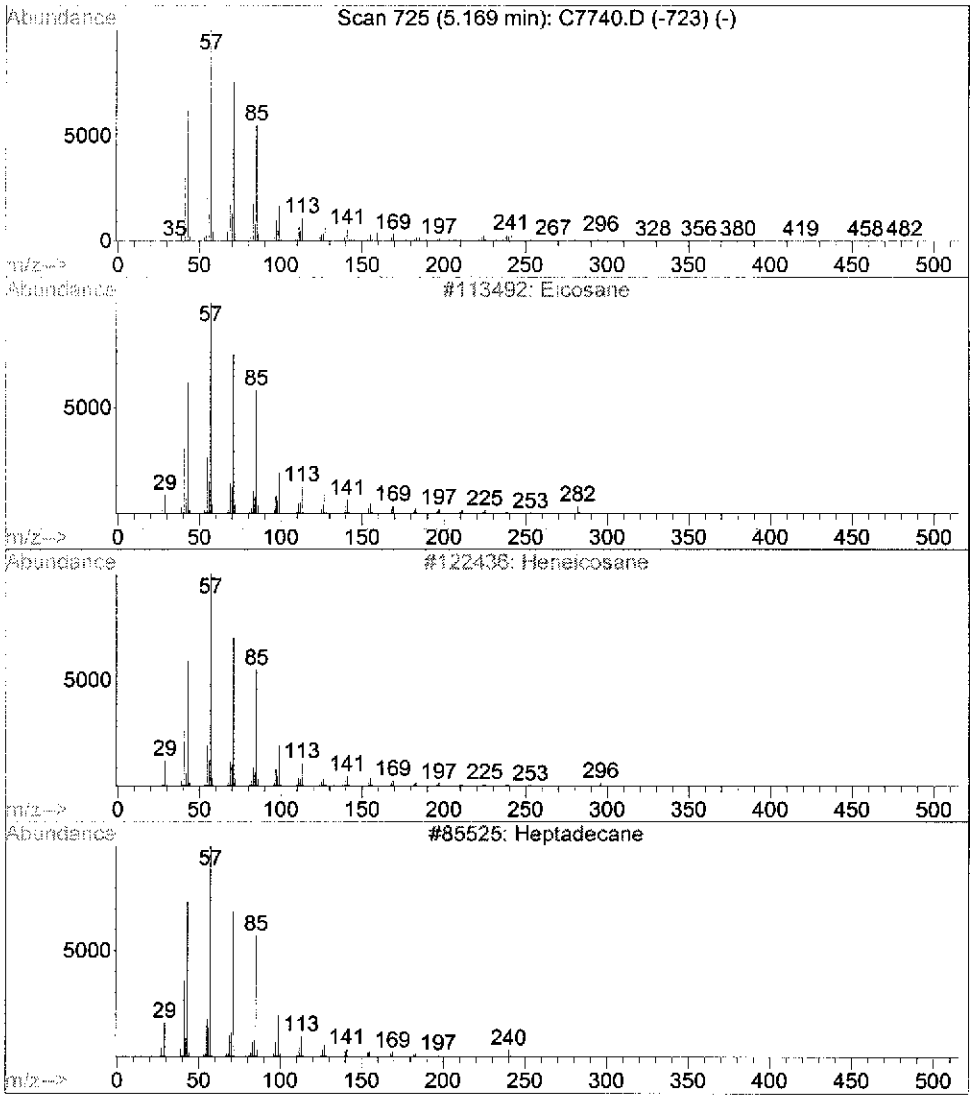
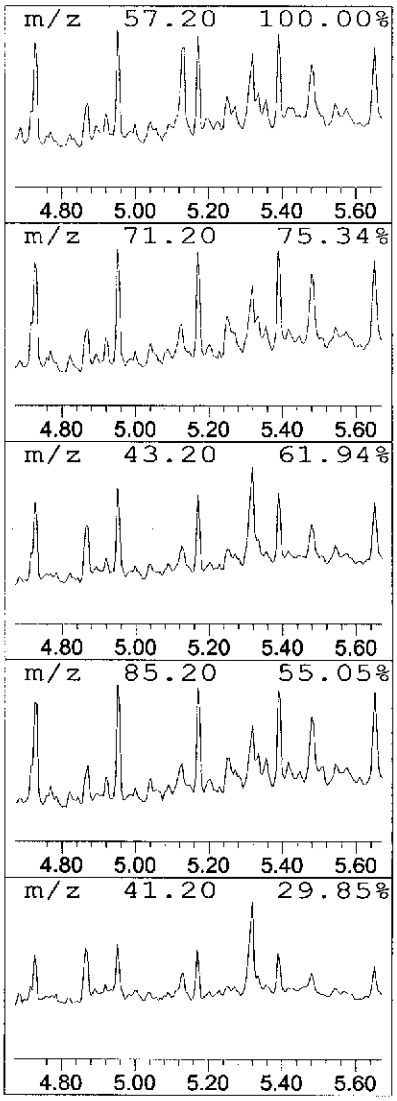
Peak Number 16 Unknown Hydrocarbon Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.17	49.42 UG	1556020	Phenanthrene-d10	4.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Eicosane	282	C20H42	000112-95-8	98
2	Heneicosane	296	C21H44	000629-94-7	98
3	Heptadecane	240	C17H36	000629-78-7	96
4	Tetracosane	338	C24H50	000646-31-1	94
5	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44	054833-48-6	93





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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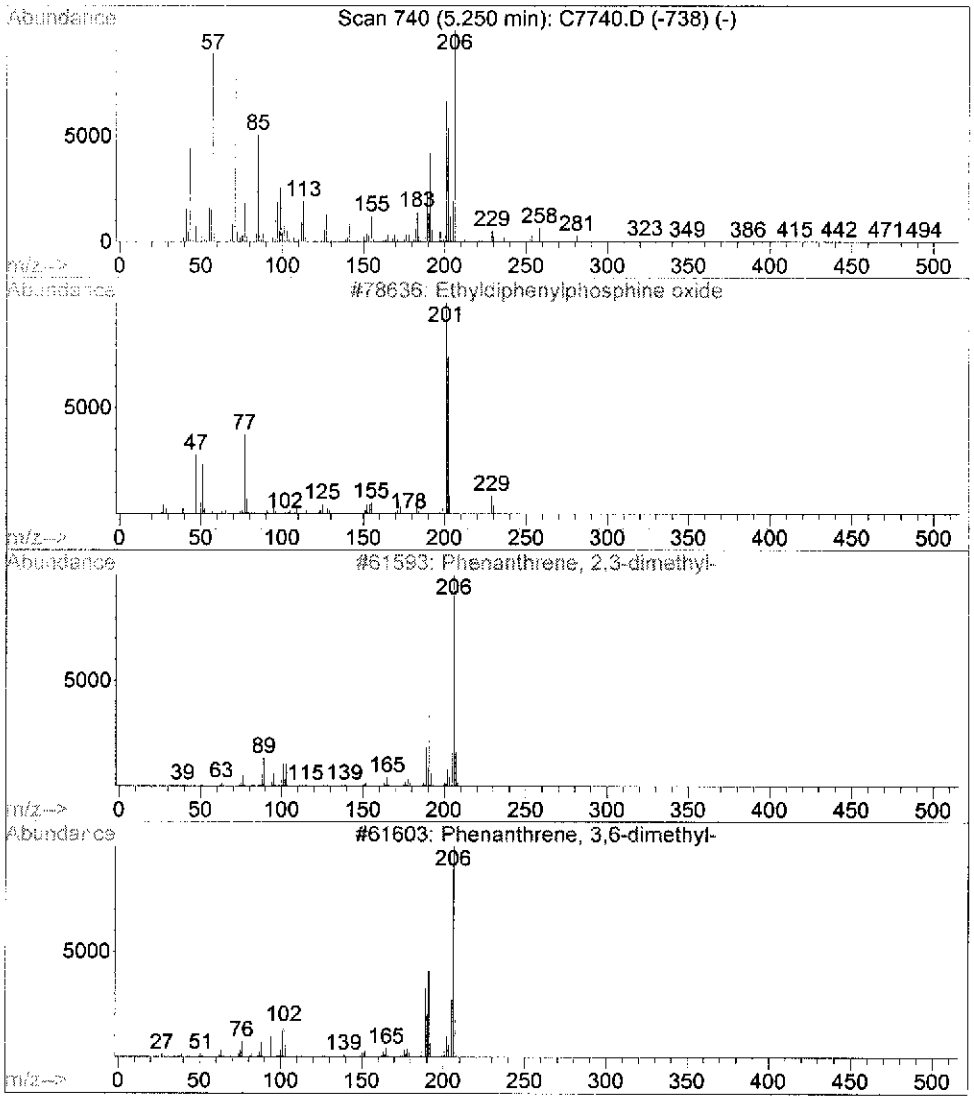
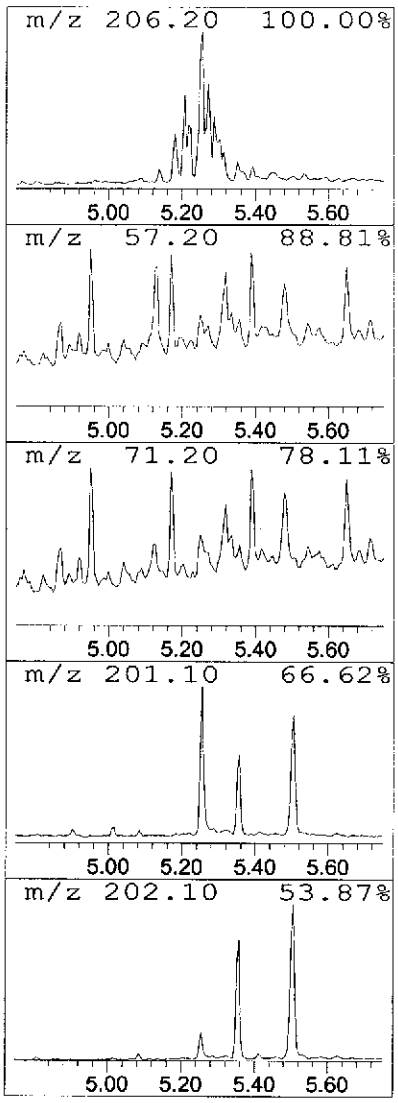
Peak Number 17 Unknown SV Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.25	42.07 UG	1324670	Phenanthrene-d10	4.66

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethyldiphenylphosphine oxide	230	C14H15OP	001733-57-9	83
2	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	38
3	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	35
4	Anthracene, 1,4-dimethyl-	206	C16H14	000781-92-0	30
5	Methanol, (diphenylphosphinyl)-	232	C13H13O2P	000884-74-2	27





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ALS Vial : 6 Sample Multiplier: 1

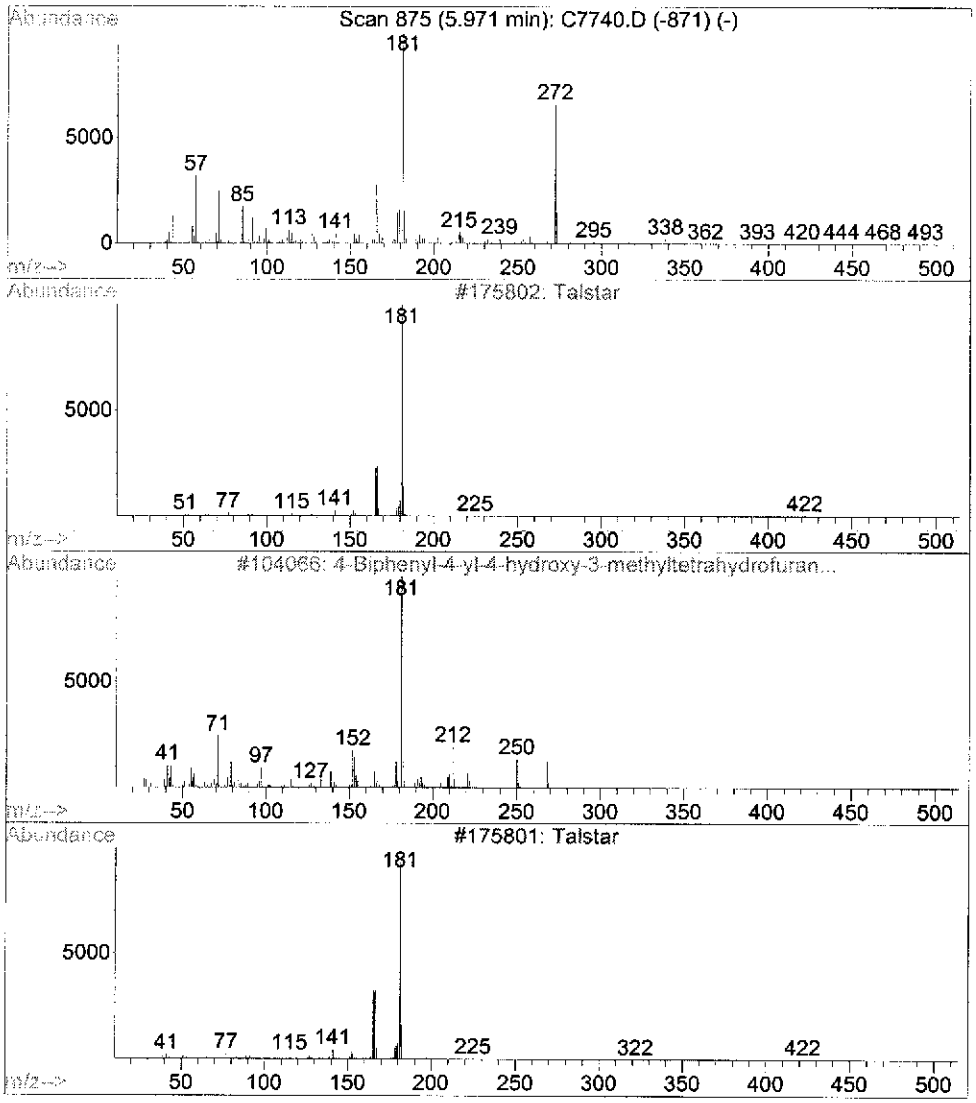
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

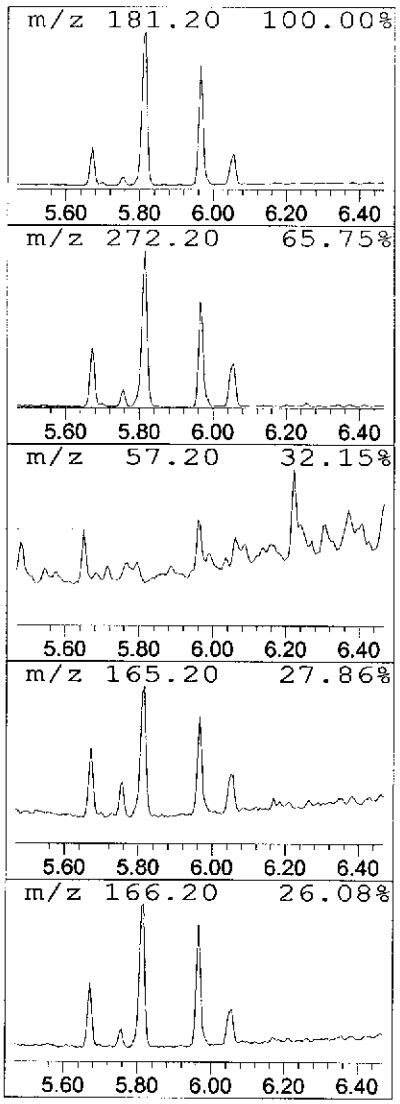
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 18 Unknown SV Concentration Rank 23

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.97	24.05 UG	3069820	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Talstar	422	C23H22ClF3O2	082657-04-3	38
2	4-Biphenyl-4-yl-4-hydroxy-3-meth...	268	C17H16O3	1000192-67-0	38
3	Talstar	422	C23H22ClF3O2	082657-04-3	38
4	Benzene, 1,1'-(1-methylethyliden...	196	C15H16	000778-22-3	35
5	Hydroxylamine, O-[(pentafluoroph...	213	C7H4F5NO	072915-12-9	25





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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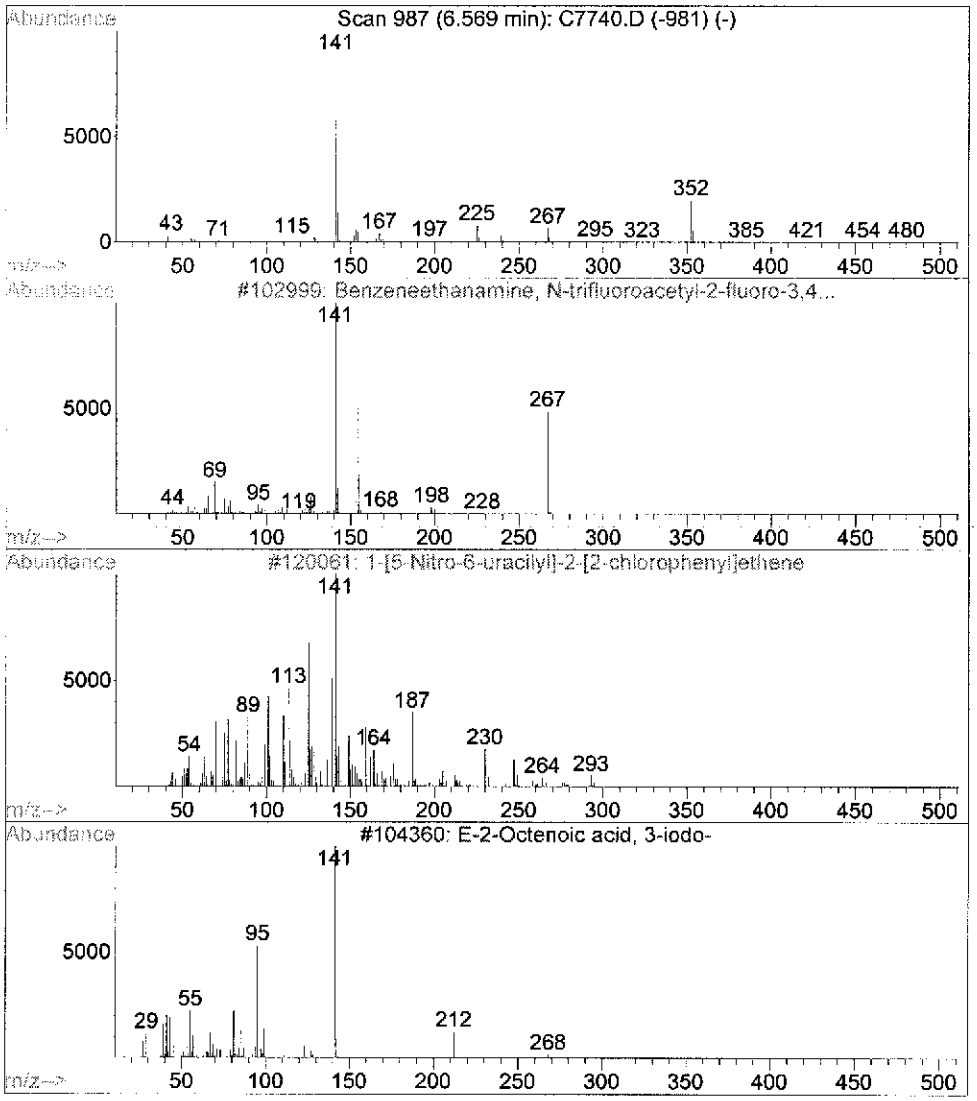
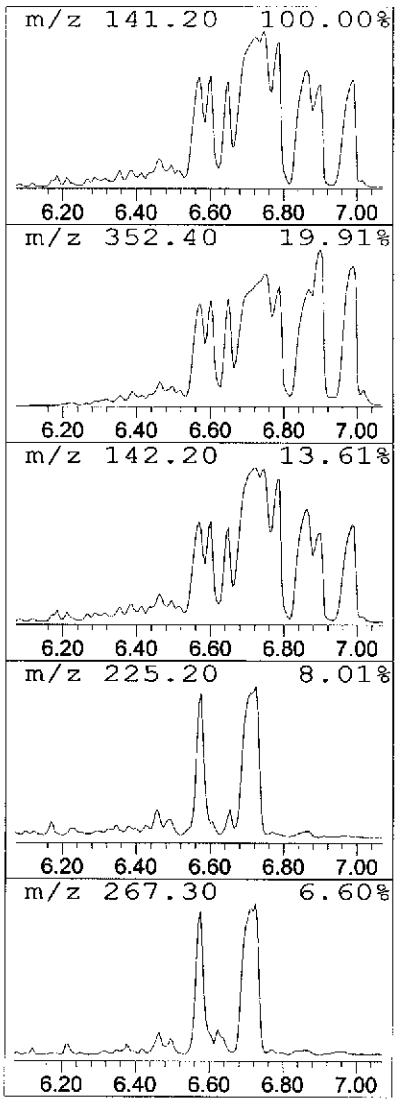
Peak Number 19 Unknown SV Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.57	97.60 UG	12455700	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-trifluoroac...	267	C10H9F4NO3	059043-77-5	42
2	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	25
3	E-2-Octenoic acid, 3-iodo-	268	C8H13IO2	1000308-87-5	9
4	2,6-Difluorobenzoic acid, 2-chlo...	268	C13H7ClF2O2	1000292-62-4	9
5	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

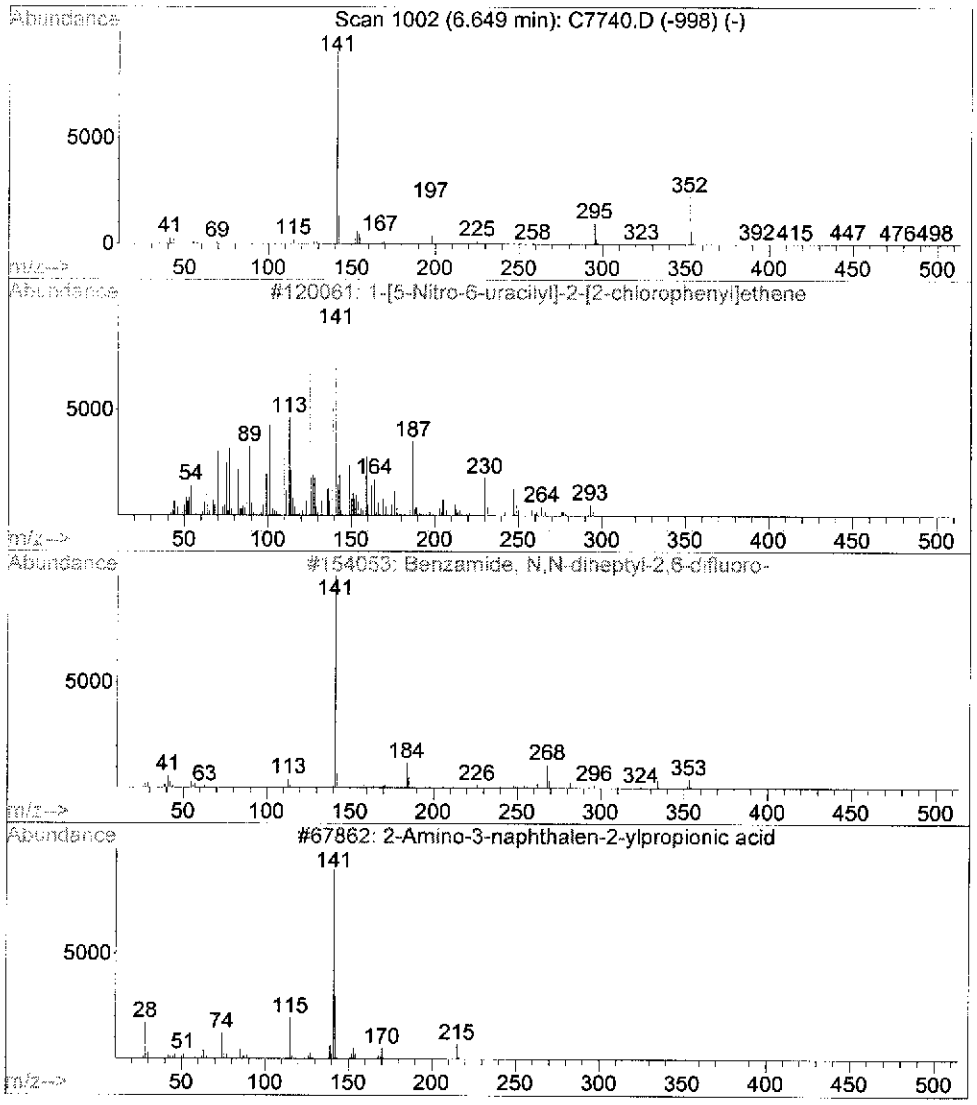
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

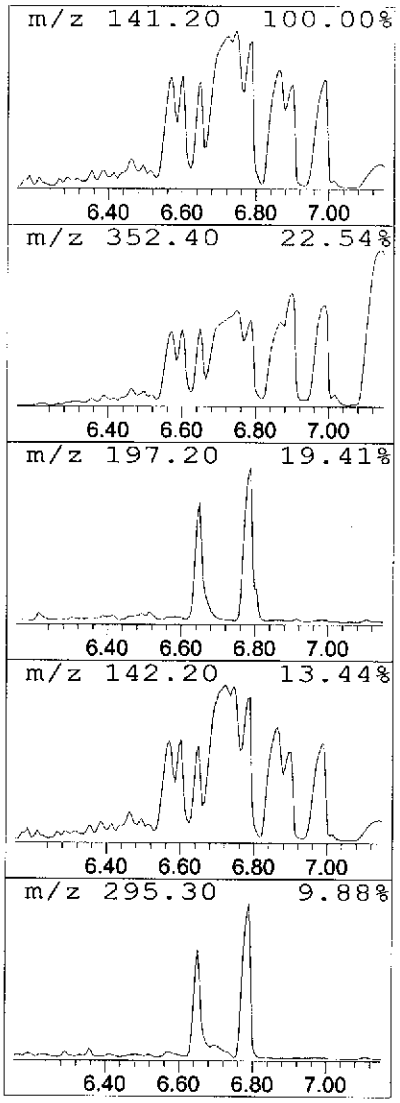
****

Peak Number 20 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.65	56.08 UG	7156840	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	23
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
3	2-Amino-3-naphthalen-2-ylpropion...	215	C13H13NO2	099631-78-4	9
4	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9
5	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

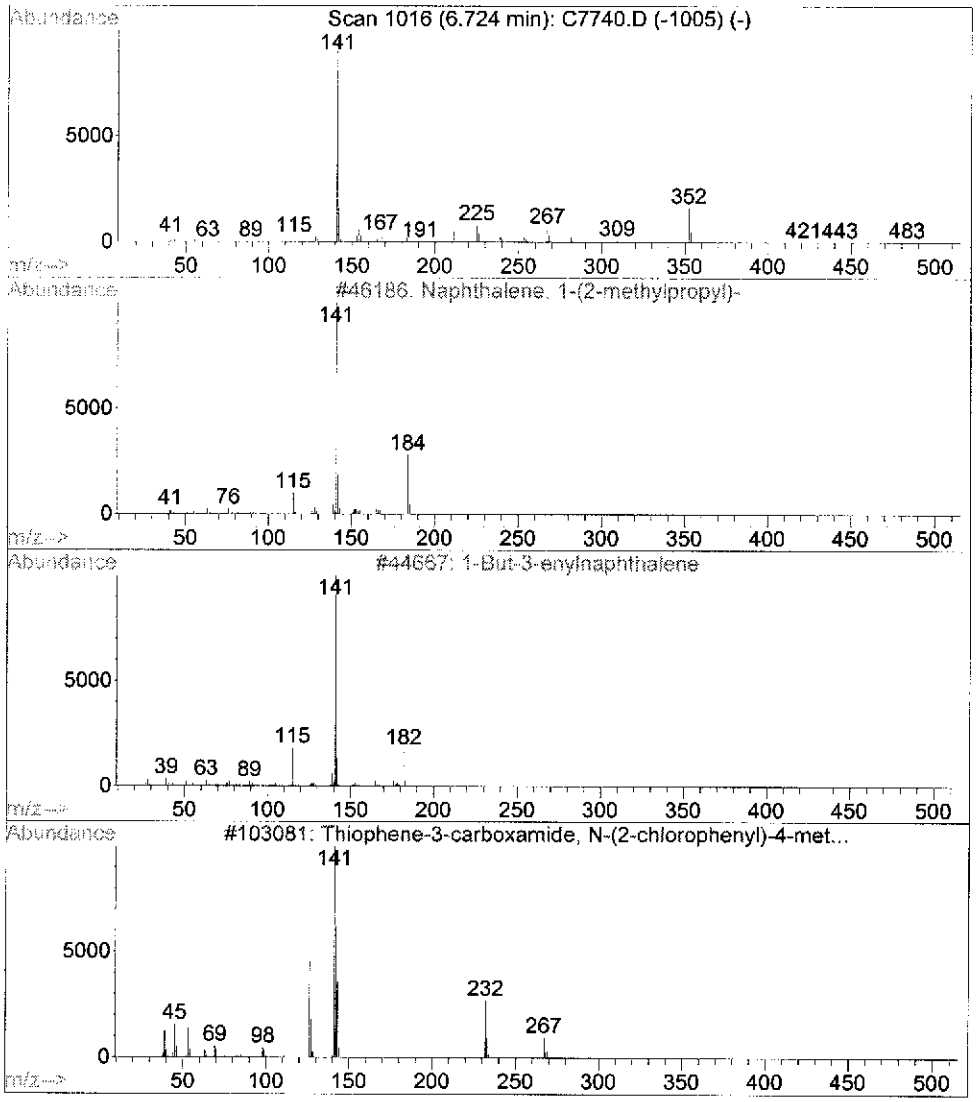
****

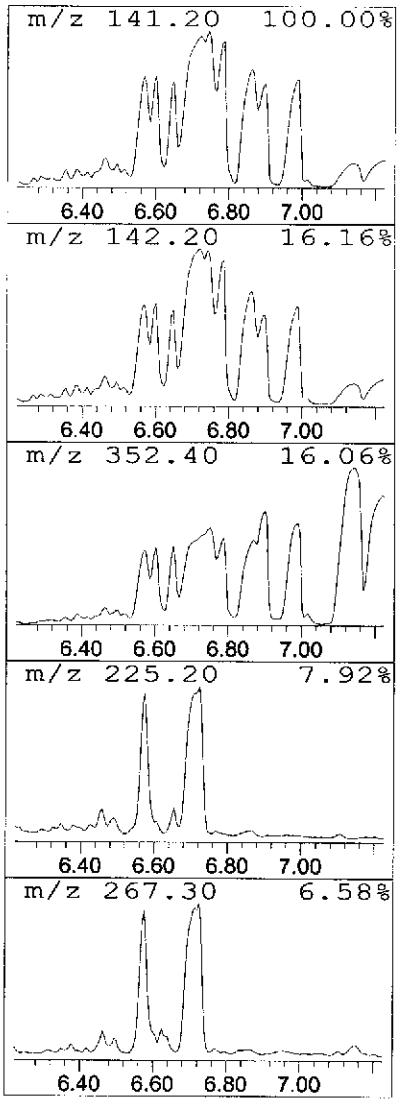
Peak Number 21 Naphthalene, 1-(2-methylpro... Concentration Rank 4

unknown SV edm.

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.72	156.70 UG	19998700	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	53
2	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	36
3	Thiophene-3-carboxamide, N-(2-ch...	267	C12H10ClNO2S	1000268-70-7	9
4	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
5	Undecane, 1-(1-naphthyl)-	282	C21H30	007225-71-0	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

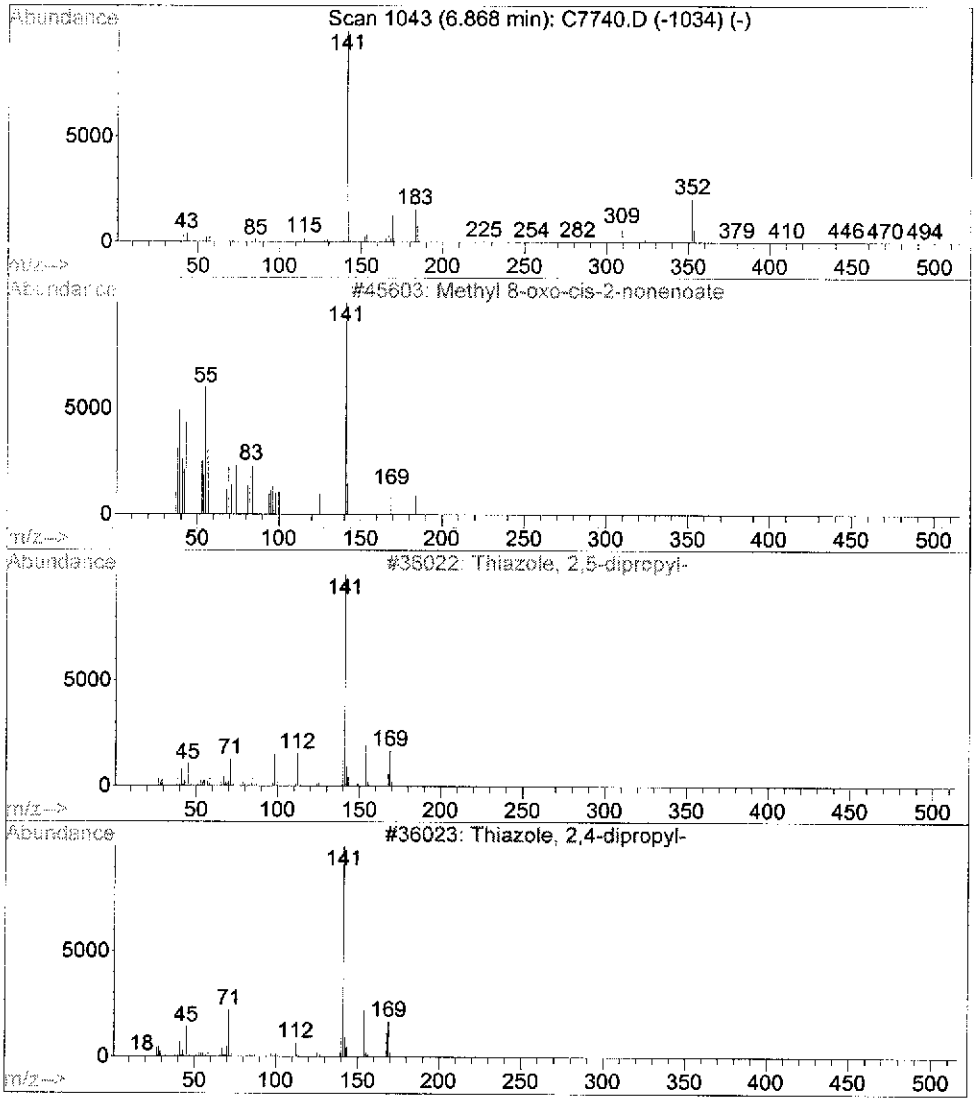
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

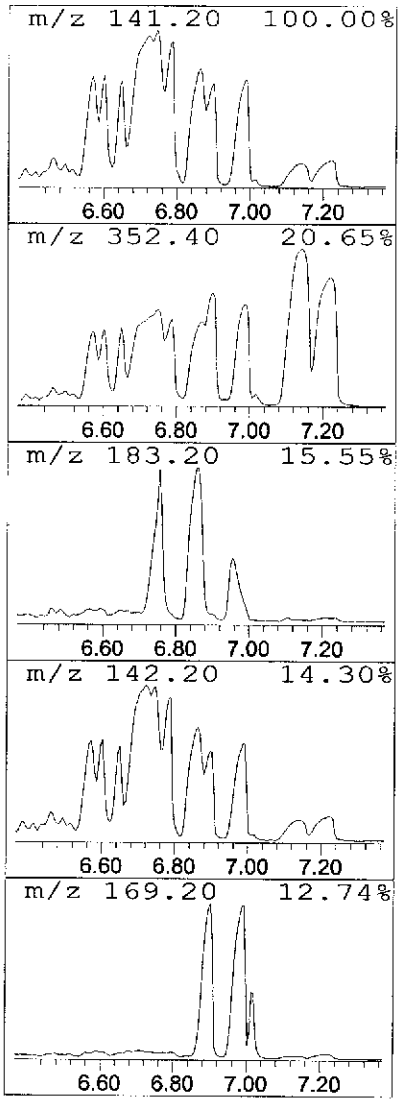
****
Peak Number 22 Methyl 8-oxo-cis-2-nonenoate Concentration Rank 5

unknown SV edm.

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.87	147.12 UG	18776300	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methyl 8-oxo-cis-2-nonenoate	184	C10H16O3	028297-04-3	40
2	Thiazole, 2,5-dipropyl-	169	C9H15NS	041981-73-1	33
3	Thiazole, 2,4-dipropyl-	169	C9H15NS	041981-74-2	33
4	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	25
5	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	23





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

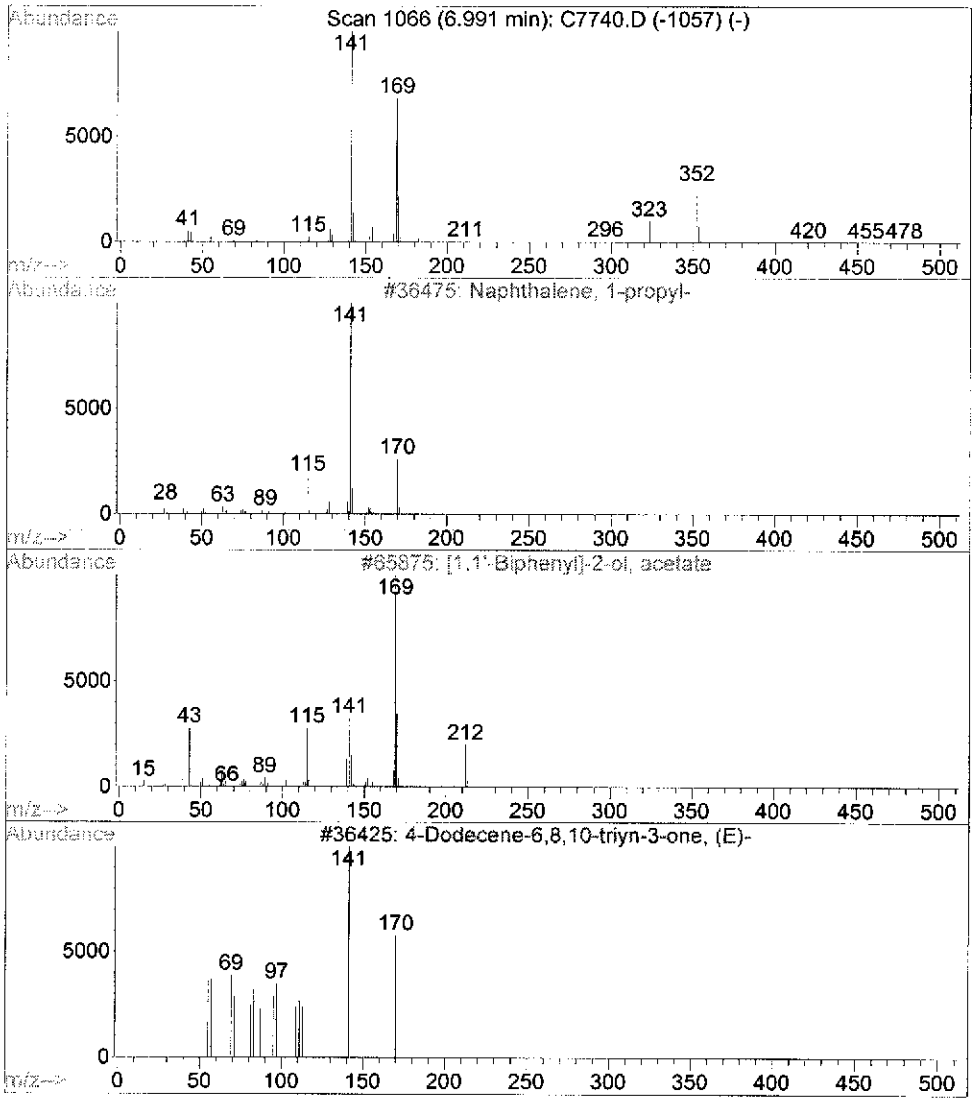
****

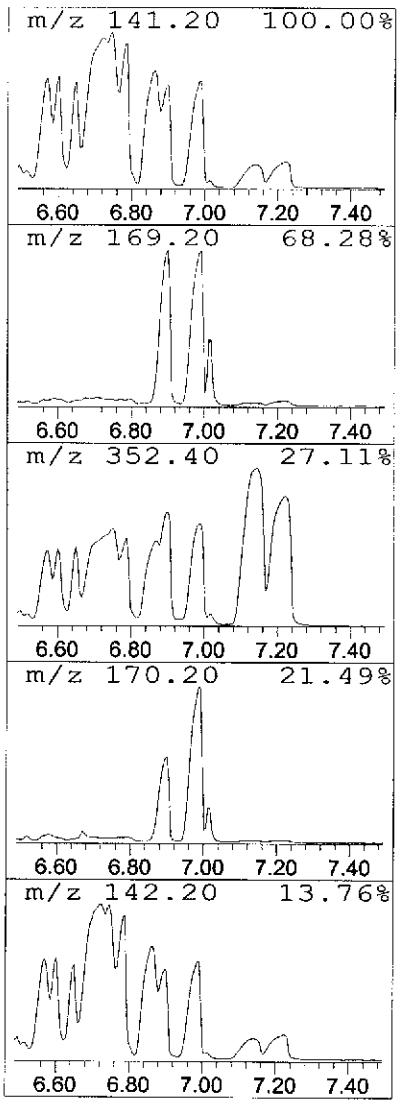
Peak Number 23 Naphthalene, 1-propyl- Concentration Rank 3

unknown SV edm.

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.99	161.21 UG	20574000	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	43
2	[1,1'-Biphenyl]-2-ol, acetate	212	C14H12O2	003271-80-5	35
3	4-Dodecene-6,8,10-triyn-3-one, (E)-	170	C12H10O	069698-50-6	27
4	2-(1-Naphthyl)ethyl bromide	234	C12H11Br	013686-49-2	17
5	1-Naphthalenepropionic acid	200	C13H12O2	003243-42-3	17





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

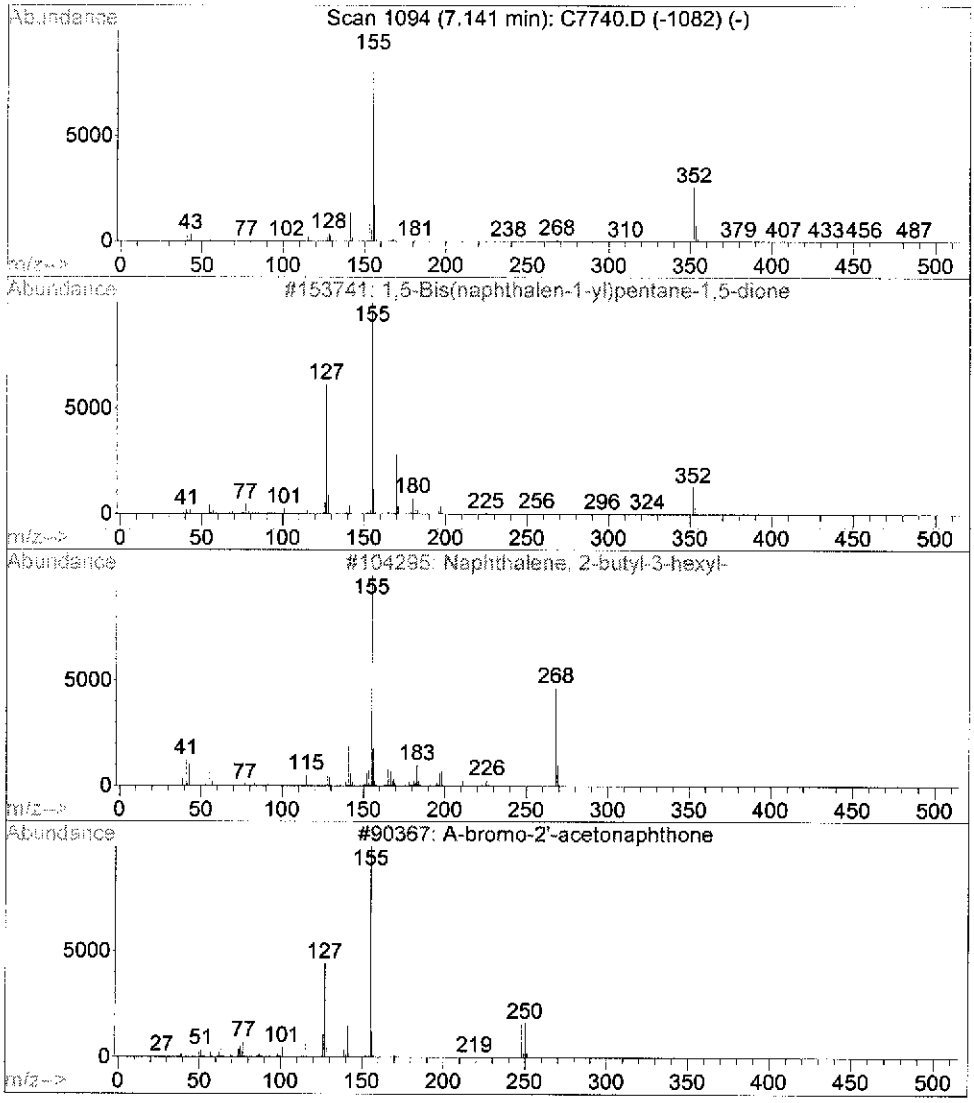
****

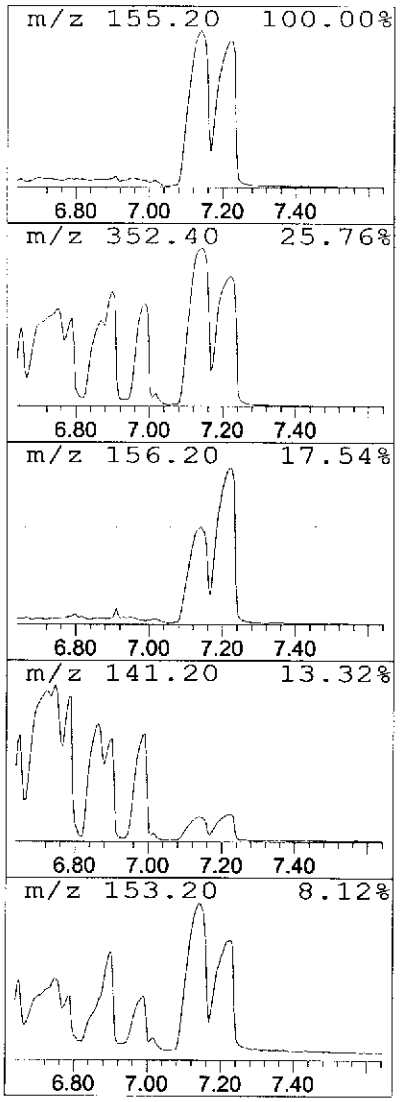
Peak Number 24 1,5-Bis(naphthalen-1-yl)pen... Concentration Rank 2

unknown SV edm.

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.14	315.93 UG	40320600	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,5-Bis(naphthalen-1-yl)pentane-...	352	C25H20O2	1000210-52-9	72
2	Naphthalene, 2-butyl-3-hexyl-	268	C20H28	055000-56-1	39
3	A-bromo-2'-acetonaphthone	248	C12H9BrO	000613-54-7	36
4	Pyridine, 3-phenyl-	155	C11H9N	001008-88-4	9
5	6-Amino-1,3-dimethyluracil	155	C6H9N3O2	006642-31-5	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7740.D
Acq On : 10 Jul 2012 17:13
Operator : EDM
Sample : G2-06261,E12-06385-002,S,15.08g,21.4,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

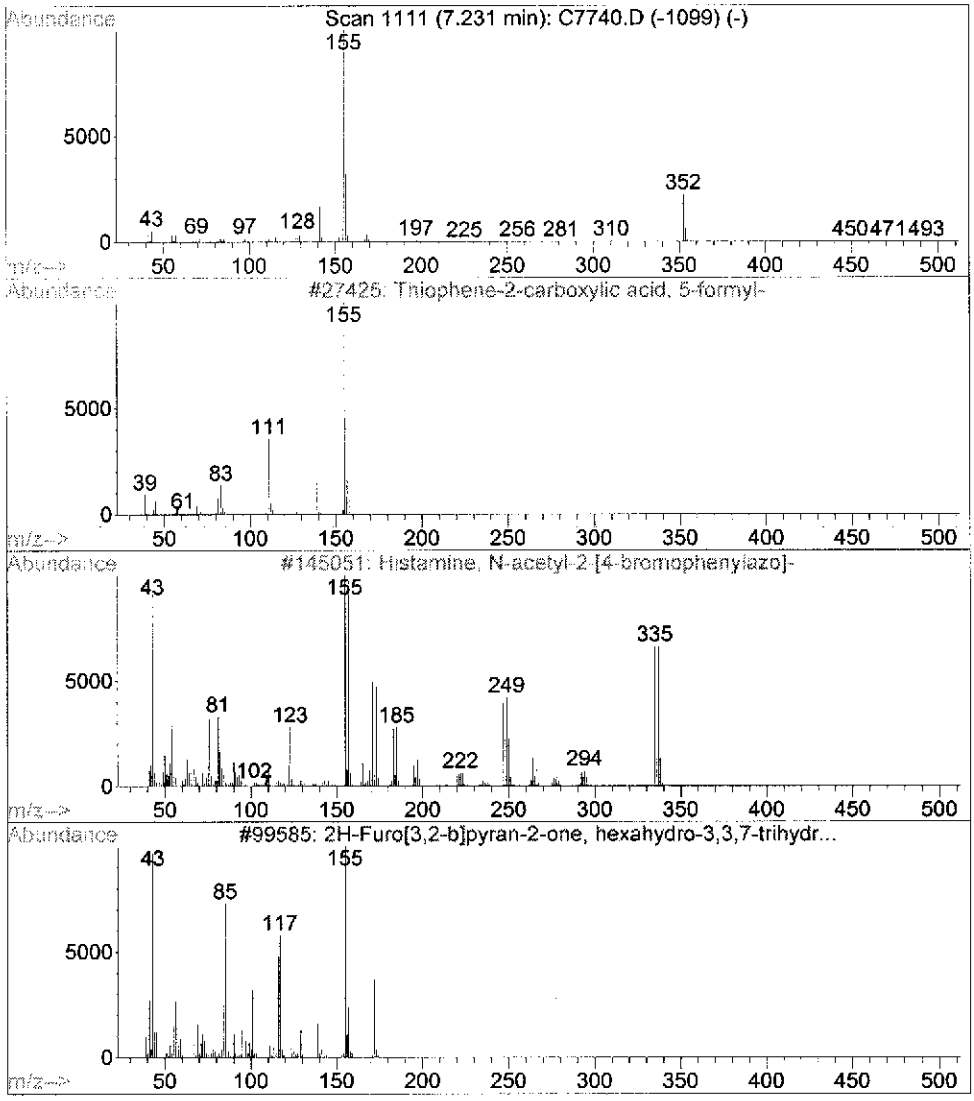
****

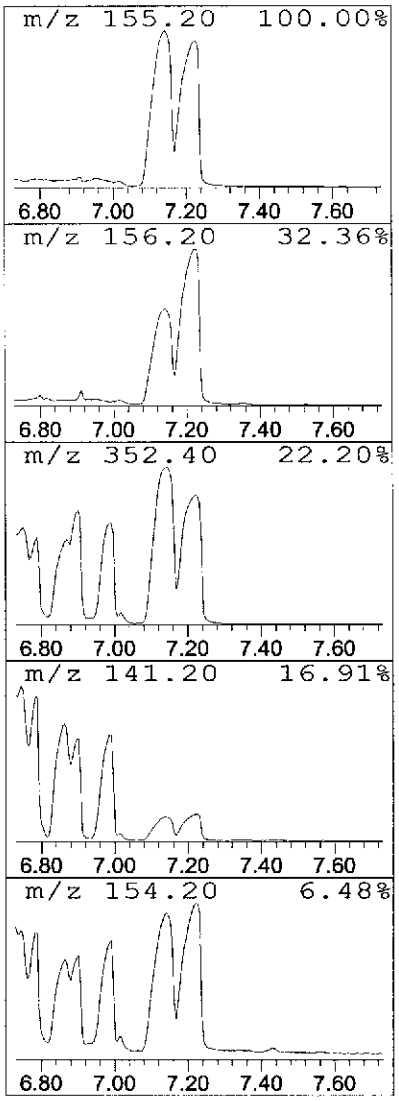
Peak Number 25 Thiophene-2-carboxylic acid... Concentration Rank 1

unknown SV edm.

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.23	327.33 UG	41775400	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiophene-2-carboxylic acid, 5-f...	156	C6H4O3S	1000306-77-9	50
2	Histamine, N-acetyl-2-[4-bromoph...	335	C13H14BrN5O	039050-08-3	38
3	2H-Furo[3,2-b]pyran-2-one, hexah...	262	C11H18O7	050392-34-2	23
4	Mandelamide, N-(1-naphthylethyl)-	305	C20H19NO2	344875-77-0	16
5	Propanedioic acid, (1-ethylbutyl...	214	C11H18O4	092747-24-5	14





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7741.D
Acq On : 10 Jul 2012 17:30
Operator : EDM
Sample : G8-06261,E12-06385-004,S,15.13g,10.0,0.5
Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 11 09:09:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	135534	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	542749	40.00	UG	-0.02
43) Acenaphthene-d10	3.91	164	294409	40.00	UG	-0.06
66) Phenanthrene-d10	4.68	188	393570	40.00	UG	-0.11
82) Chrysene-d12	6.47	240	374476	40.00	UG	-0.15
92) Perylene-d12	7.98	264	290611	40.00	UG	-0.13
System Monitoring Compounds						
4) 2-Fluorophenol	2.03	112	296481	63.37	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 63.37%			
6) Phenol-d5	2.37	99	452627	71.01	UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 71.01%			
24) Nitrobenzene-d5	2.79	82	91338	17.07	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 34.14%			
47) 2-Fluorobiphenyl	3.57	172	240879	25.80	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 51.60%			
70) 2,4,6-Tribromophenol	4.31	330	161398m	113.35	UG	-0.09
Spiked Amount 100.000	Range 37 - 115		Recovery = 113.35%			
84) Terphenyl-d14	5.59	244	256658m	31.68	UG	-0.21
Spiked Amount 50.000	Range 15 - 122		Recovery = 63.36%			

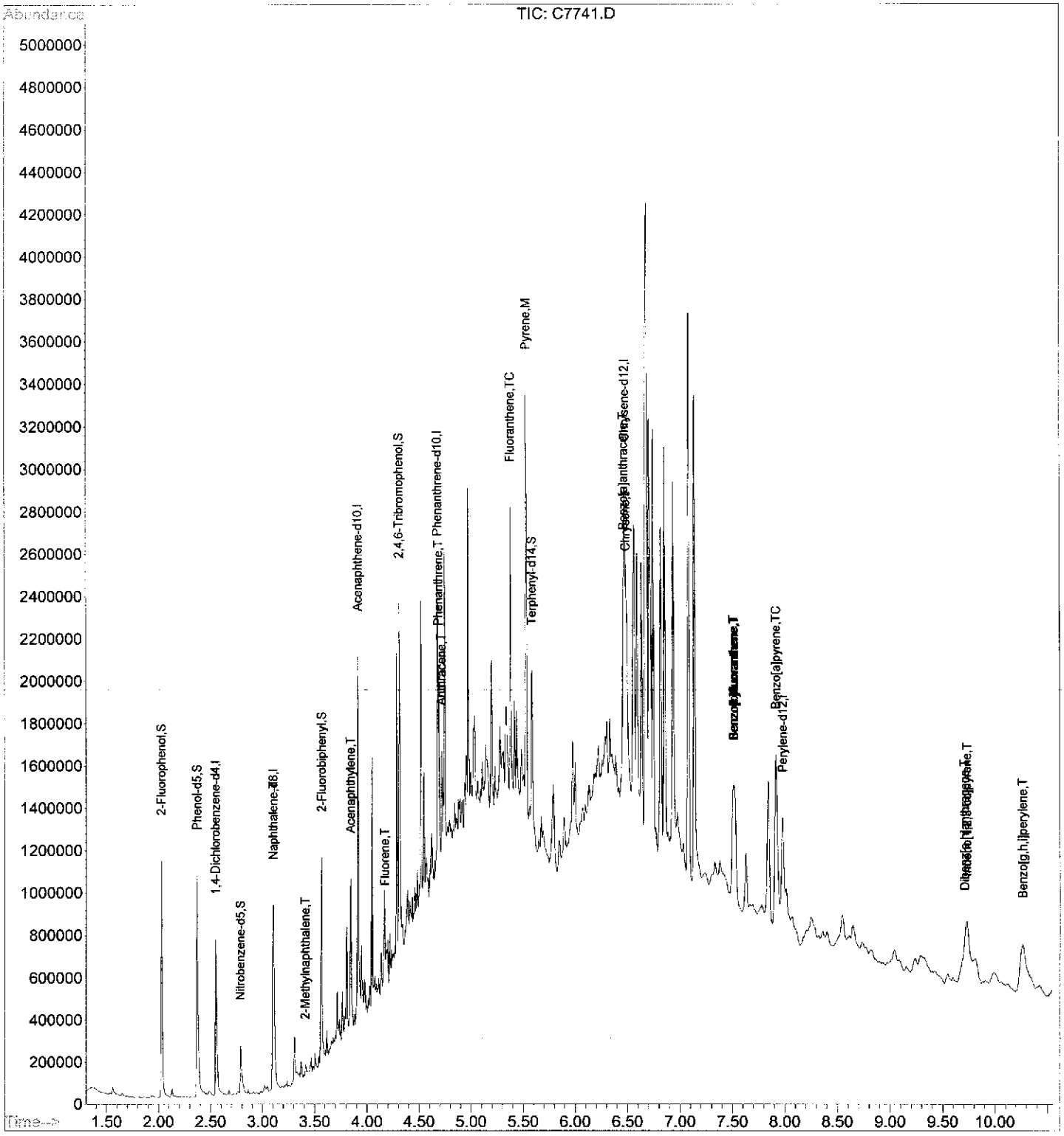
Target Compounds							Qvalue
34) Naphthalene	3.11	128	76881	4.96	UG	#	57
41) 2-Methylnaphthalene	3.41	142	15297	1.44	UG		99
53) Acenaphthylene	3.84	152	269406	20.80	UG		98
61) Fluorene	4.18	166	41493	4.56	UG	#	79
75) Phenanthrene	4.69	178	217918	20.06	UG		97
76) Anthracene	4.72	178	163433	14.49	UG		98
79) Fluoranthene	5.38	202	380949m	39.18	UG		
83) Pyrene	5.53	202	725219m	61.84	UG		
88) Benzo[a]anthracene	6.46	228	211202	21.23	UG	#	93
89) Chrysene	6.49	228	273646m	29.63	UG		
94) Benzo[b]fluoranthene	7.50	252	278789m	26.20	UG		
95) Benzo[k]fluoranthene	7.52	252	213136m	21.08	UG		
96) Benzo[a]pyrene	7.91	252	409298	48.23	UG	#	96
97) Indeno[1,2,3-cd]pyrene	9.73	276	391015	33.42	UG	#	52
98) Dibenz[a,h]anthracene	9.71	278	103497	10.35	UG	#	60
99) Benzo[g,h,i]perylene	10.26	276	465303	45.01	UG	#	54

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7741.D
Acq On : 10 Jul 2012 17:30
Operator : EDM
Sample : G8-06261,E12-06385-004,S,15.13g,10.0,0.5
Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 11 09:09:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7741.D
Acq On : 10 Jul 2012 17:30
Operator : EDM
Sample : G8-06261,E12-06385-004,S,15.13g,10.0,0.5
Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.001
Stop Thrs : 0

Filtering: 5
Min Area: 100 Area counts
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.028	134	137	152	rVB	1119019	895805	23.15%	1.726%
2	2.370	198	201	211	rBV	1050715	1039126	26.85%	2.002%
3	2.482	219	222	232	rVB3	25519	45382	1.17%	0.087%
4	2.546	232	234	250	rBV	737974	766822	19.81%	1.477%
5	2.787	277	279	291	rVB	226638	240962	6.23%	0.464%
6	3.102	335	338	351	rBV2	872083	1185274	30.63%	2.283%
7	3.305	370	376	379	rBV2	234266	241453	6.24%	0.465%
8	3.369	386	388	392	rBV	78100	64740	1.67%	0.125%
9	3.465	403	406	408	rVB2	71941	49851	1.29%	0.096%
10	3.503	412	413	418	rBV2	77312	56675	1.46%	0.109%
11	3.567	421	425	432	rBV2	974494	868896	22.45%	1.674%
12	3.615	432	434	437	rVV	120853	79599	2.06%	0.153%
13	3.716	451	453	454	rBV	224759	105435	2.72%	0.203%
14	3.738	454	457	460	rVB2	102248	92725	2.40%	0.179%
15	3.764	460	462	464	rBV	233415	155633	4.02%	0.300%
16	3.786	464	466	468	rVV3	75911	71549	1.85%	0.138%
17	3.807	468	470	473	rVV	488798	353252	9.13%	0.680%
18	3.845	474	477	482	rVB	698327	613658	15.86%	1.182%
19	3.914	487	490	495	rVV	1662007	1296155	33.49%	2.497%
20	3.946	495	496	499	rVB2	273034	160485	4.15%	0.309%
21	3.978	500	502	504	rVB3	149381	103472	2.67%	0.199%
22	4.016	507	509	510	rBV	69520	44358	1.15%	0.085%
23	4.048	513	515	517	rBV	1177747	680376	17.58%	1.311%
24	4.133	529	531	533	rBV	199519	139432	3.60%	0.269%
25	4.165	533	537	539	rBV	455615	388115	10.03%	0.748%
26	4.219	545	547	549	rBV2	236135	149210	3.86%	0.287%
27	4.283	557	559	561	rBV	1418685	688367	17.79%	1.326%
28	4.309	561	564	568	rVV2	1597422	1354700	35.00%	2.609%
29	4.389	576	579	581	rBV3	161692	131370	3.39%	0.253%
30	4.480	594	596	598	rBV2	180819	86375	2.23%	0.166%
31	4.518	601	603	605	rVV	1382036	716823	18.52%	1.381%
32	4.544	606	608	610	rVV	544311	313798	8.11%	0.604%
33	4.619	620	622	624	rVB3	212957	164151	4.24%	0.316%
34	4.678	630	633	638	rVB2	1279167	1268291	32.77%	2.443%
35	4.715	638	640	642	rBV2	477969	323501	8.36%	0.623%
36	4.747	644	646	648	rVB	1324006	689688	17.82%	1.328%
37	4.972	686	688	690	rVB	1453616	739223	19.10%	1.424%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7741.D
Acq On : 10 Jul 2012 17:30
Operator : EDM
Sample : G8-06261,E12-06385-004,S,15.13g,10.0,0.5
Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

38	5.031	695	699	703	rVB3	395920	490349	12.67%	0.945%
39	5.196	727	730	734	rVB2	685557	572606	14.79%	1.103%
40	5.335	753	756	761	rVB5	393896	534070	13.80%	1.029%
41	5.378	761	764	769	rVV	1344763	883114	22.82%	1.701%
42	5.415	769	771	773	rVV	438128	285248	7.37%	0.549%
43	5.437	773	775	780	rVB	400660	316384	8.17%	0.609%
44	5.527	789	792	796	rVB	2000732	1577117	40.75%	3.038%
45	5.586	800	803	812	rVB	858082	941214	24.32%	1.813%
46	5.971	873	875	878	rBV	381801	347822	8.99%	0.670%
47	6.473	963	969	980	rVB4	1440273	3220885	83.22%	6.204%
48	6.564	981	986	988	rVV	1326437	1758532	45.44%	3.387%
49	6.590	988	991	996	rVV	1217439	1195123	30.88%	2.302%
50	6.633	996	999	1002	rVB	1237371	1021502	26.39%	1.968%
51	6.681	1002	1008	1010	rBV	2933103	3870269	100.00%	7.455%
52	6.708	1010	1013	1017	rVV2	1927535	2576749	66.58%	4.963%
53	6.745	1017	1020	1023	rVB	1899560	1573472	40.66%	3.031%
54	6.815	1029	1033	1036	rVB	1572718	1395883	36.07%	2.689%
55	6.852	1036	1040	1044	rVB	1840909	1561543	40.35%	3.008%
56	6.932	1051	1055	1060	rBV	1646100	1681837	43.46%	3.240%
57	7.082	1078	1083	1088	rVB	2676728	2838520	73.34%	5.468%
58	7.135	1089	1093	1105	rVV	2282077	2618487	67.66%	5.044%
59	7.509	1158	1163	1178	rVB3	601128	1558501	40.27%	3.002%
60	7.841	1221	1225	1232	rVB	676621	987597	25.52%	1.902%
61	7.915	1234	1239	1246	rBV2	749664	1249478	32.28%	2.407%
62	7.979	1247	1251	1255	rVV	376925	494454	12.78%	0.952%

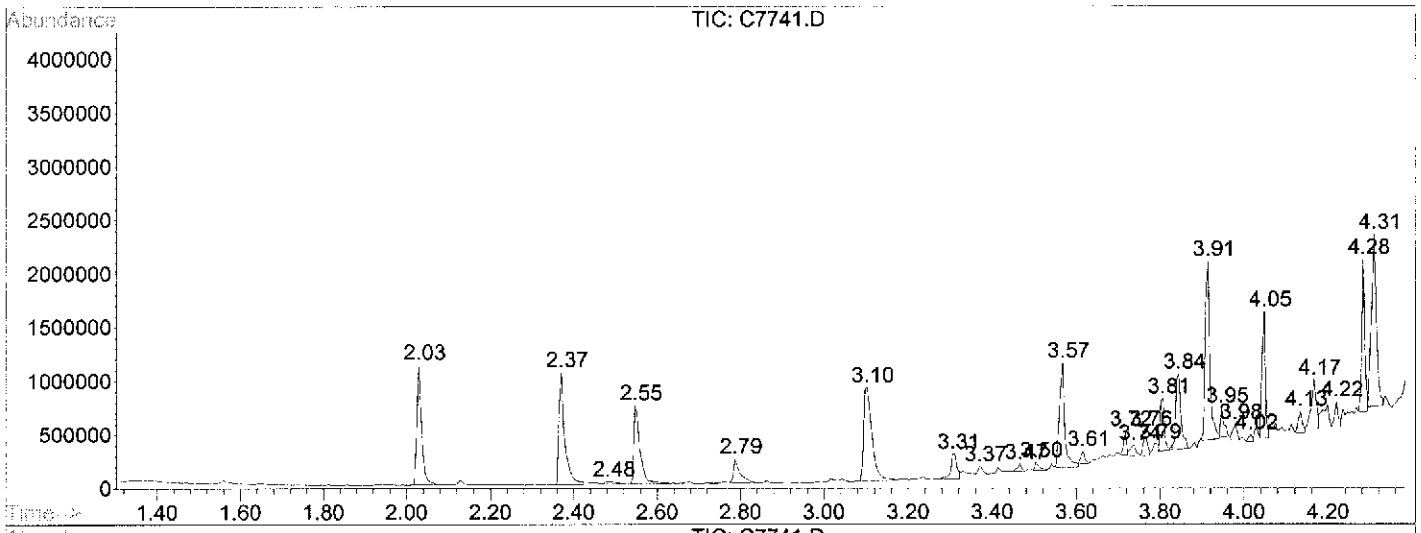
Sum of corrected areas: 51915483

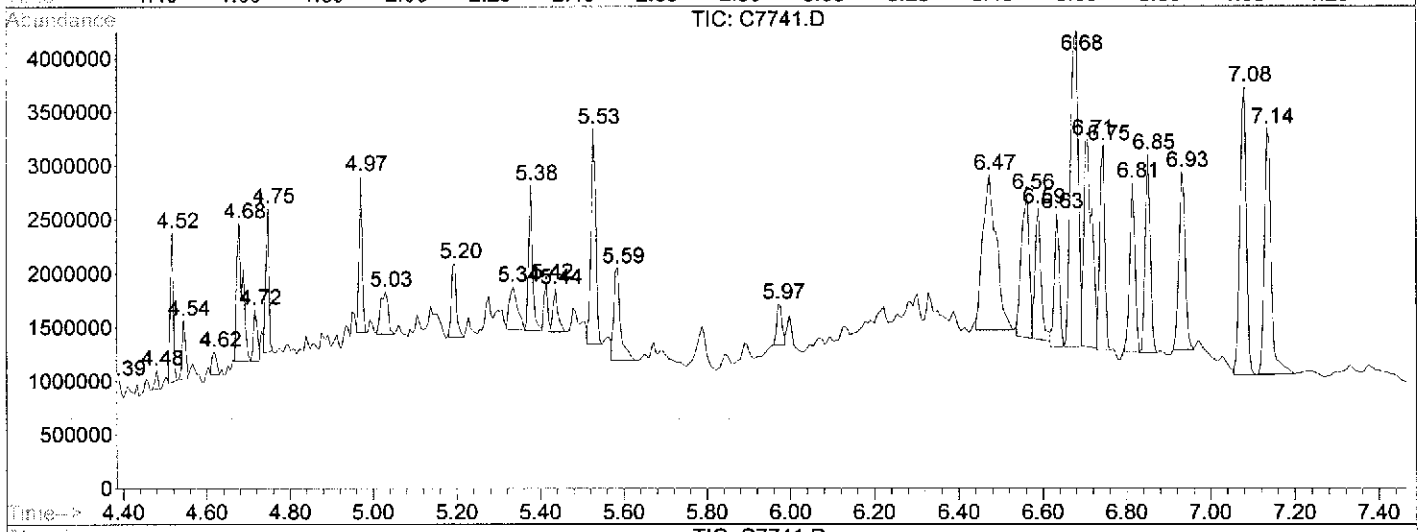
LSC Report - Integrated Chromatogram

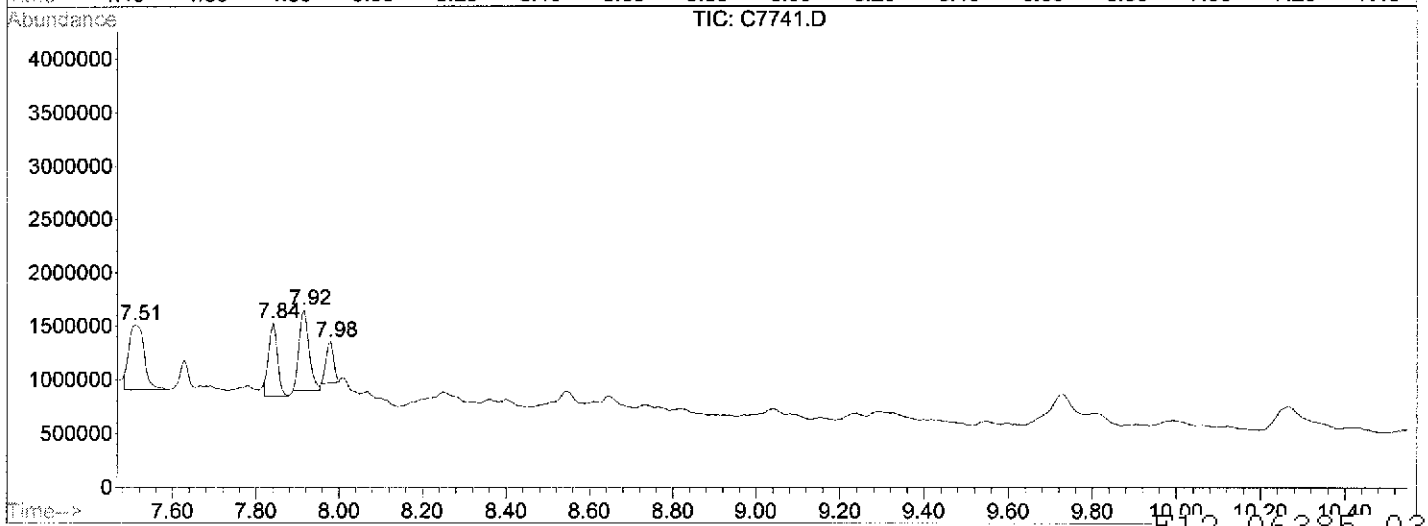
Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7741.D
Acq On : 10 Jul 2012 17:30
Operator : EDM
Sample : G8-06261,E12-06385-004,S,15.13g,10.0,0.5
Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

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Data File : C7741.D
Acq On : 10 Jul 2012 17:30
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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

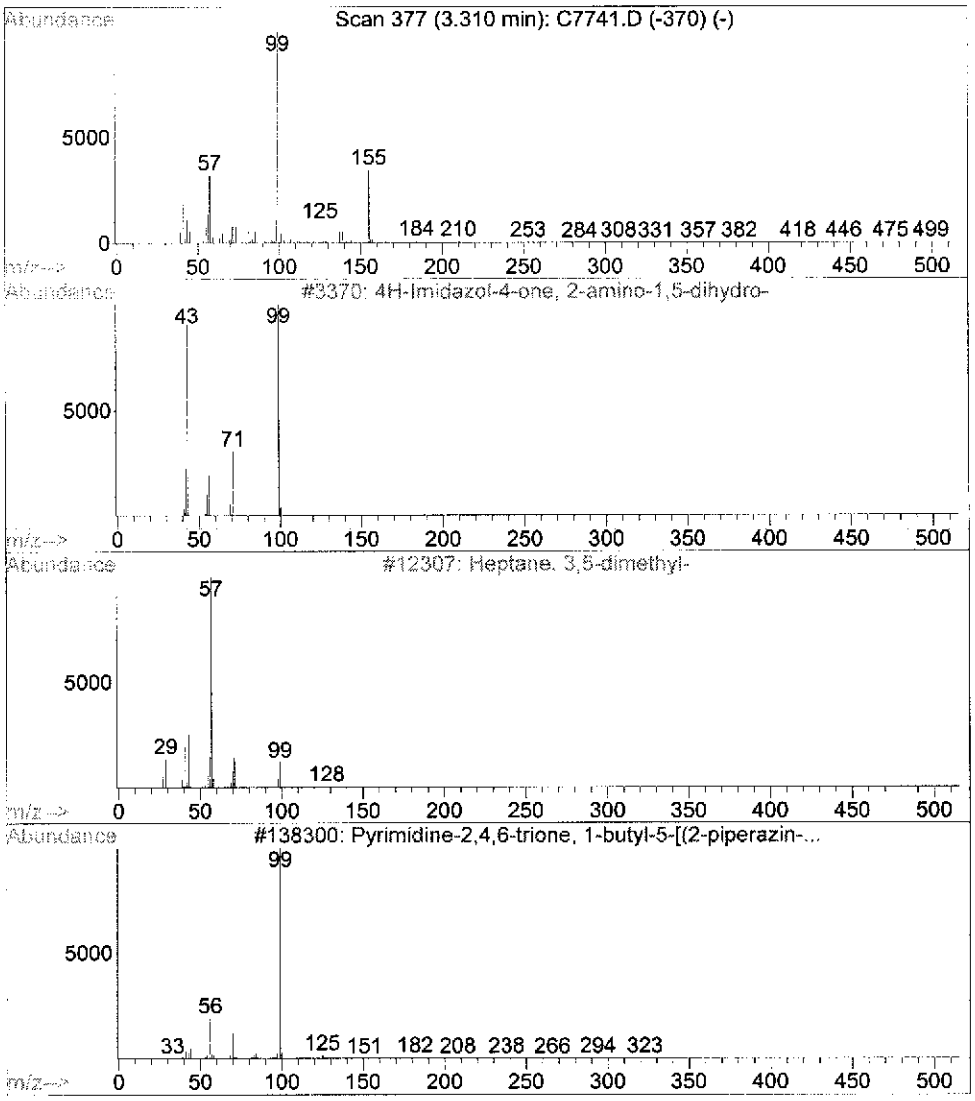
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

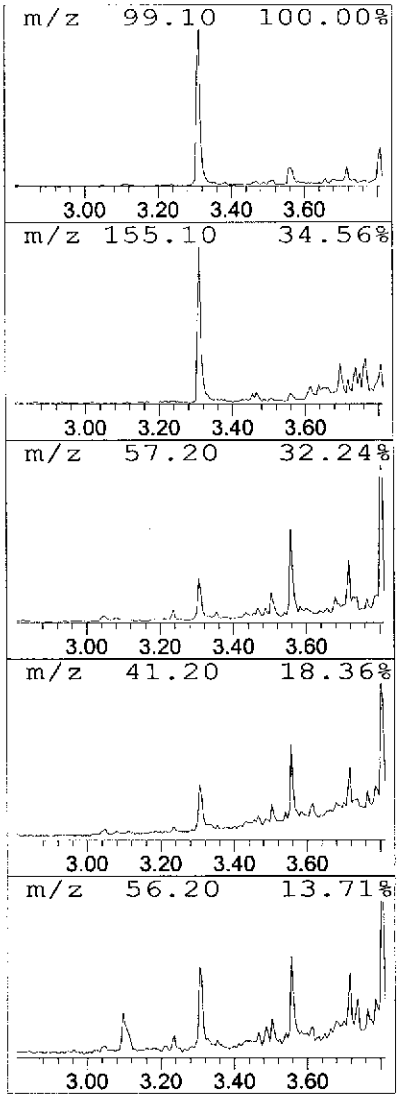
****

Peak Number 1 Unknown SV Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.31	8.15 UG	241453	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-Imidazol-4-one, 2-amino-1,5-d...	99	C3H5N3O	000503-86-6	49
2	Heptane, 3,5-dimethyl-	128	C9H20	000926-82-9	47
3	Pyrimidine-2,4,6-trione, 1-butyl...	323	C15H25N5O3	1000304-28-1	43
4	Hexanoic acid, anhydride	214	C12H22O3	002051-49-2	38
5	4-Methyl-1-pentyl methylphosphon...	182	C7H16FO2P	1000216-68-2	38





Library Search Compound Report

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Acq On : 10 Jul 2012 17:30
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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

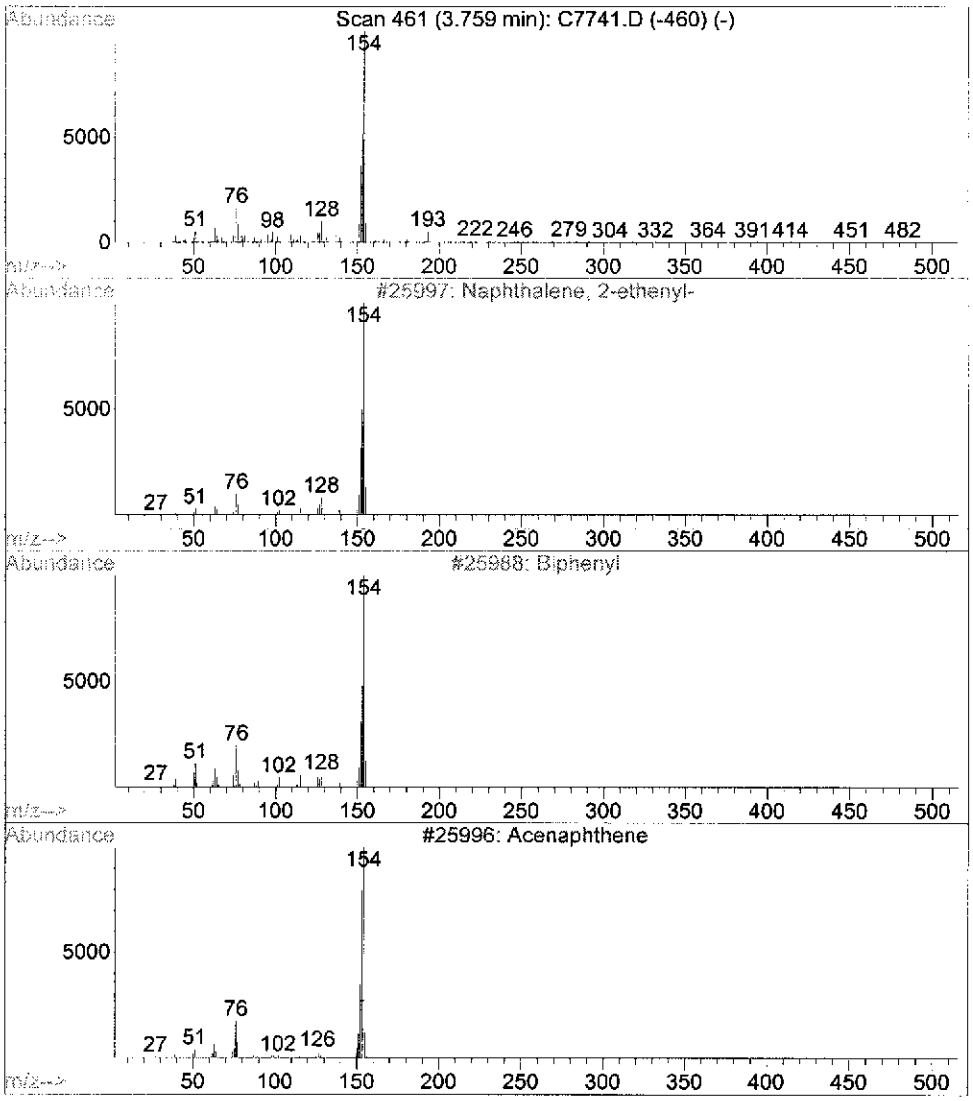
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

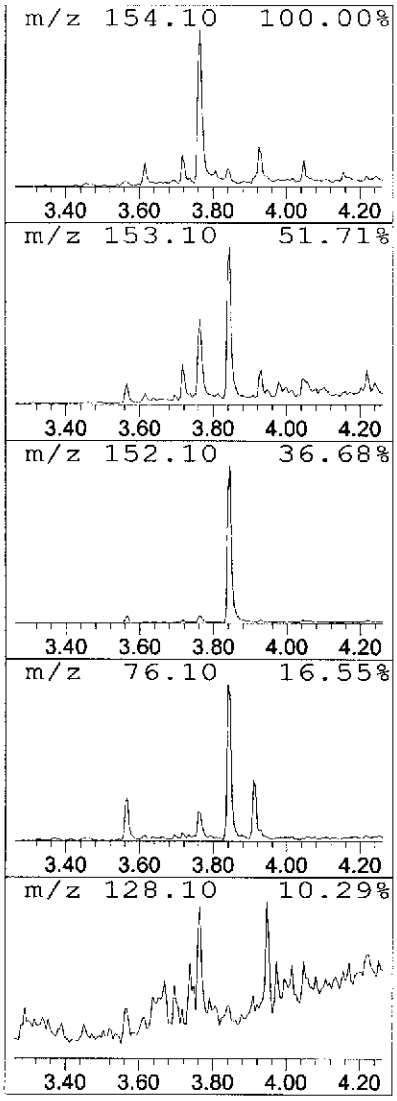
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Unknown PAH Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.76	4.80 UG	155633	Acenaphthene-d10	3.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-ethenyl-	154	C12H10	000827-54-3	92
2	Biphenyl	154	C12H10	000092-52-4	70
3	Acenaphthene	154	C12H10	000083-32-9	64
4	Biphenyl	154	C12H10	000092-52-4	60
5	Biphenyl	154	C12H10	000092-52-4	60





Library Search Compound Report

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Data File : C7741.D
Acq On : 10 Jul 2012 17:30
Operator : EDM
Sample : G8-06261,E12-06385-004,S,15.13g,10.0,0.5
Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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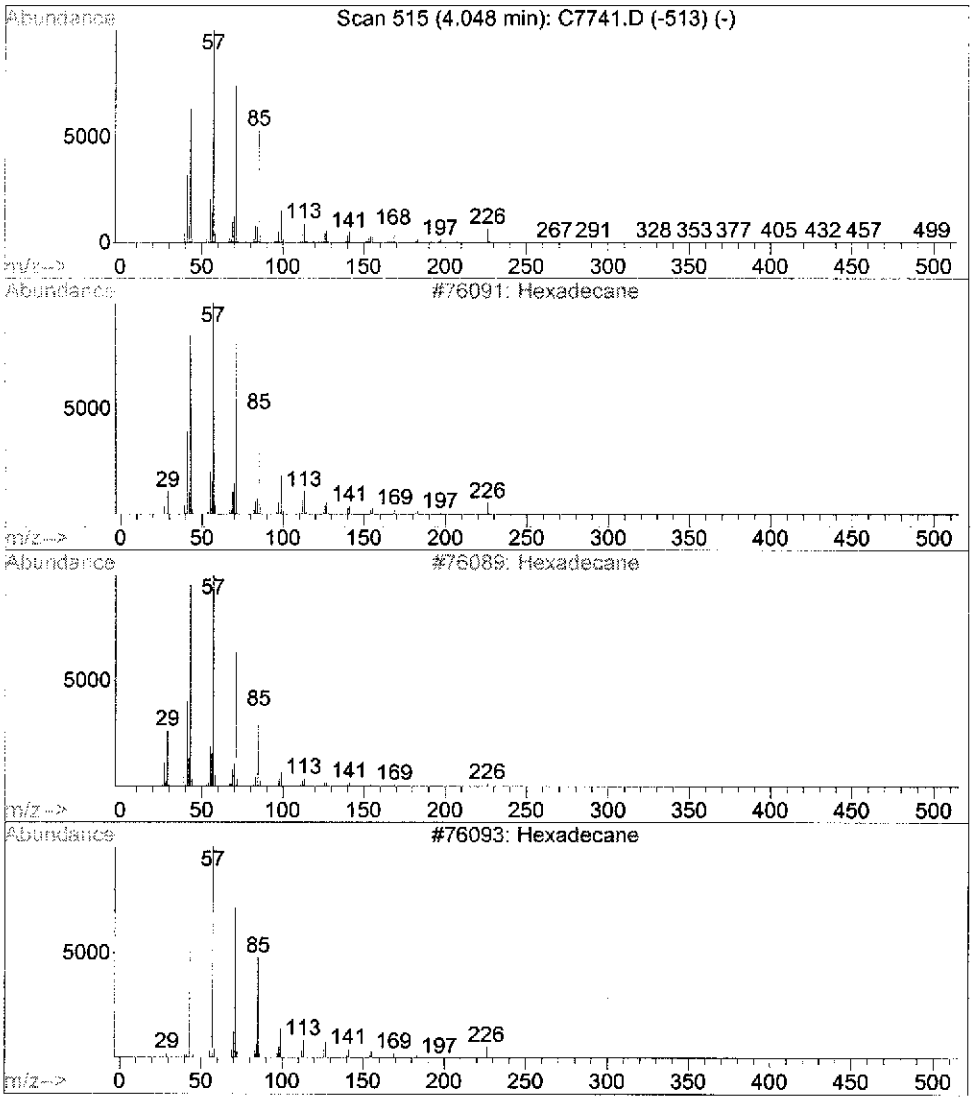
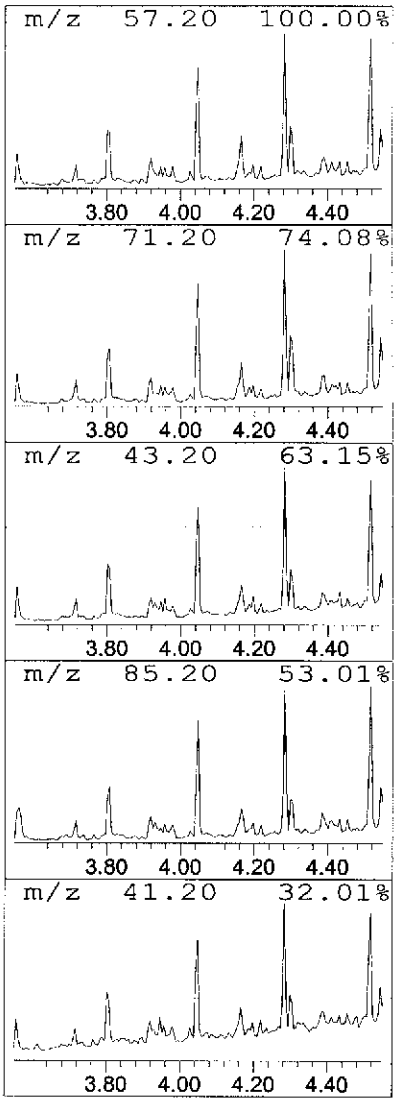
Peak Number 3 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.05	21.00 UG	680376	Acenaphthene-d10	3.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	99
2	Hexadecane	226	C16H34	000544-76-3	97
3	Hexadecane	226	C16H34	000544-76-3	96
4	Hexadecane	226	C16H34	000544-76-3	95
5	Pentadecane	212	C15H32	000629-62-9	94





Library Search Compound Report

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Data File : C7741.D
Acq On : 10 Jul 2012 17:30
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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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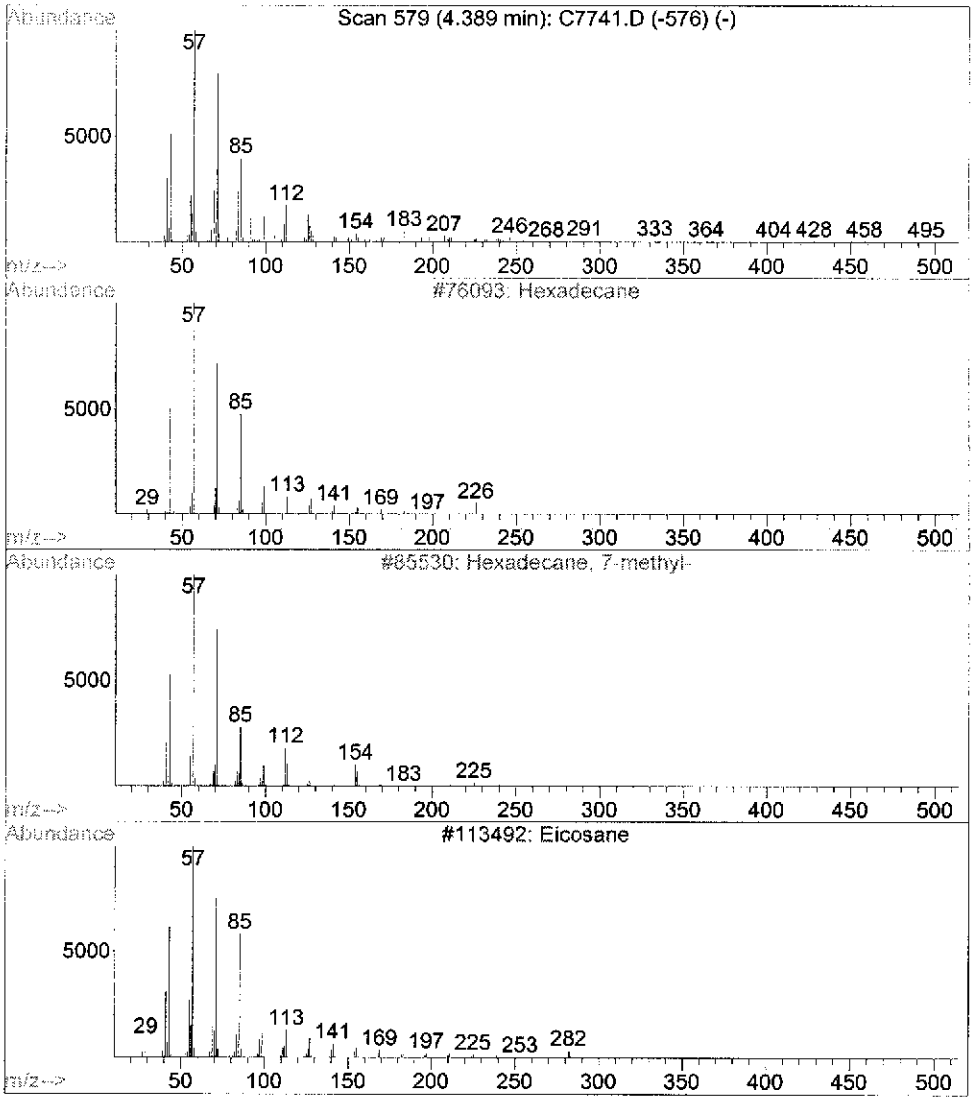
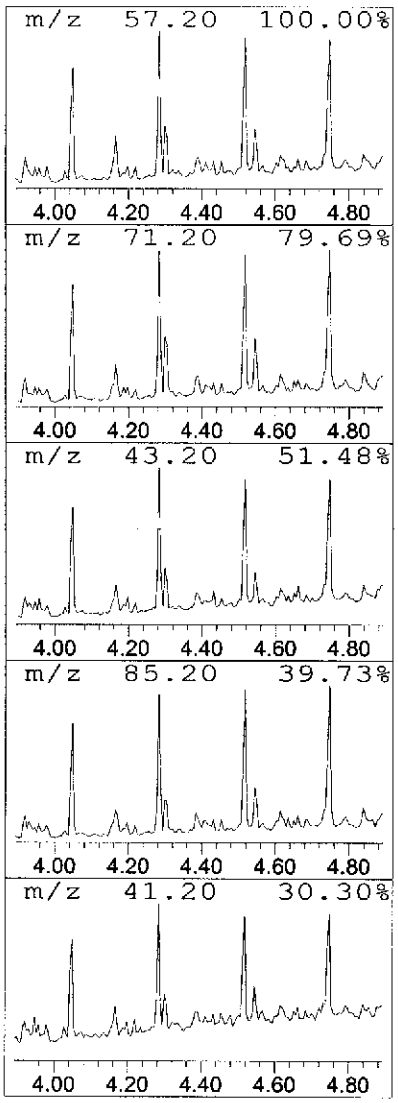
Peak Number 4 Unknown Hydrocarbon Concentration Rank 24

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.39	4.14 UG	131370	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	76
2	Hexadecane, 7-methyl-	240	C17H36	026730-20-1	76
3	Eicosane	282	C20H42	000112-95-8	72
4	Heptadecane, 9-hexyl-	324	C23H48	055124-79-3	72
5	Heptacosane	380	C27H56	000593-49-7	72





Library Search Compound Report

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Data File : C7741.D
Acq On : 10 Jul 2012 17:30
Operator : EDM
Sample : G8-06261,E12-06385-004,S,15.13g,10.0,0.5
Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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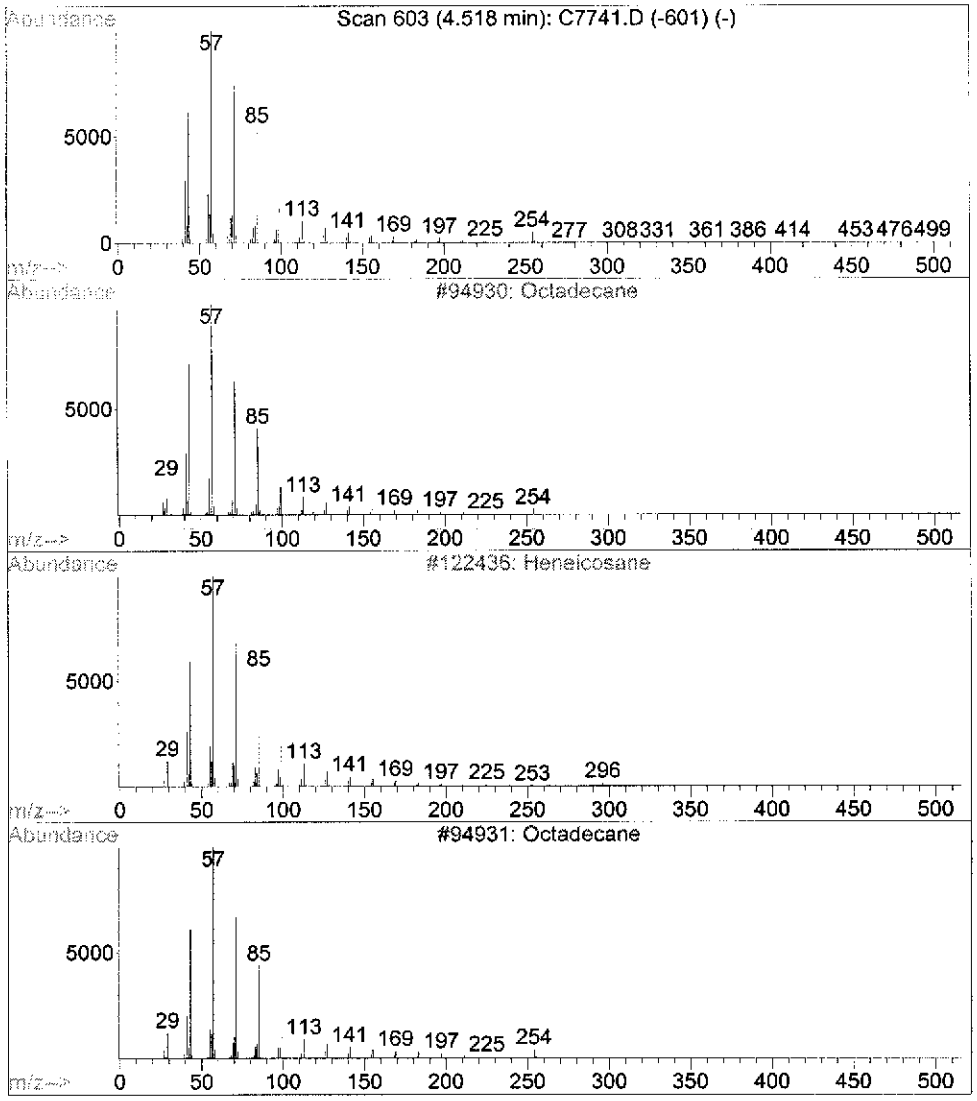
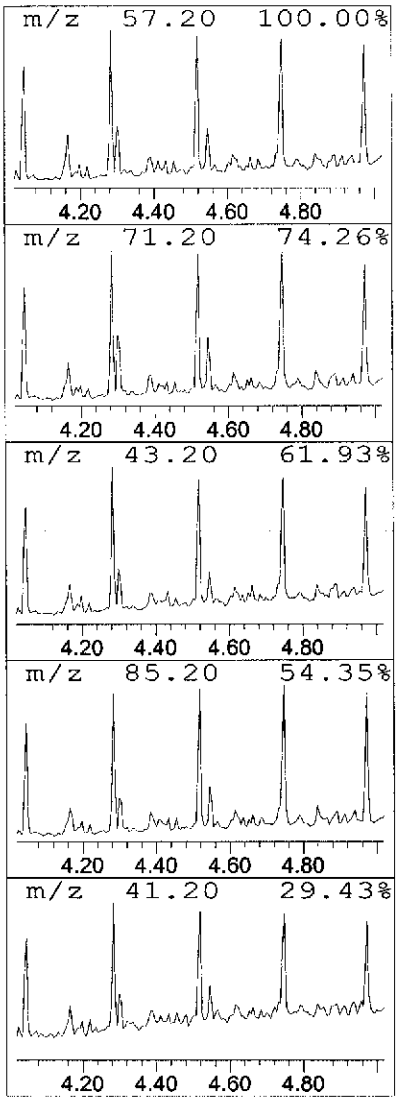
Peak Number 5 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.52	22.61 UG	716823	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane	254	C18H38	000593-45-3	98
2	Heneicosane	296	C21H44	000629-94-7	97
3	Octadecane	254	C18H38	000593-45-3	95
4	Octadecane	254	C18H38	000593-45-3	93
5	Octadecane	254	C18H38	000593-45-3	93





Library Search Compound Report

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Acq On : 10 Jul 2012 17:30
Operator : EDM
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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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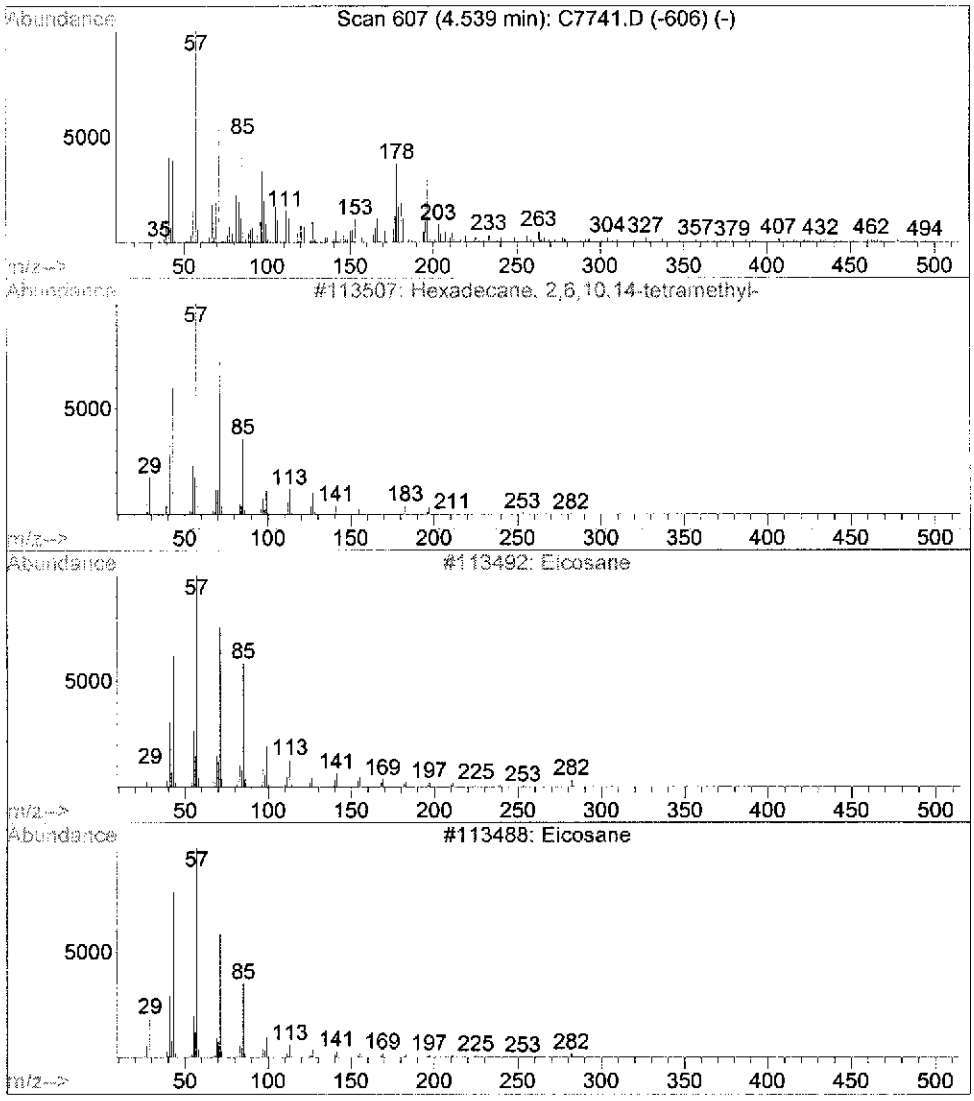
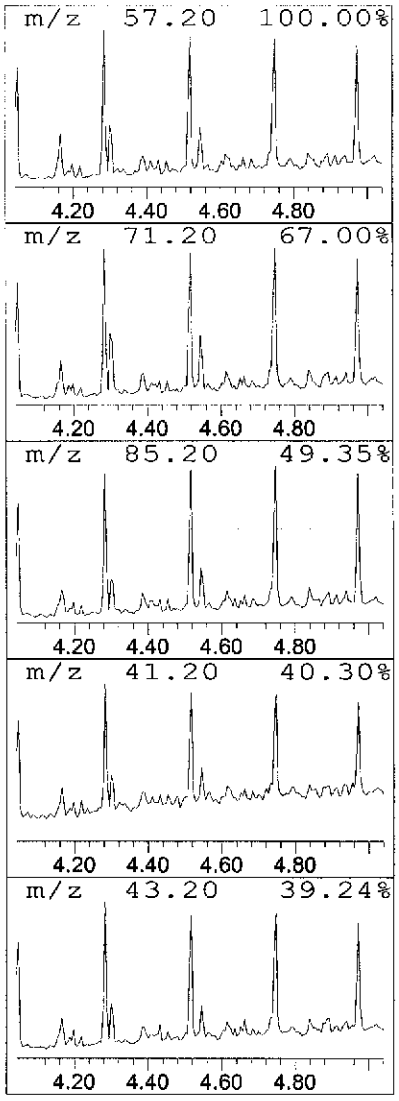
Peak Number 6 Unknown Hydrocarbon Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.54	9.90 UG	313798	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	98
2	Eicosane	282	C20H42	000112-95-8	86
3	Eicosane	282	C20H42	000112-95-8	68
4	Hexacosane	366	C26H54	000630-01-3	64
5	Docosane, 7-hexyl-	394	C28H58	055373-86-9	64





Library Search Compound Report

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Data File : C7741.D
Acq On : 10 Jul 2012 17:30
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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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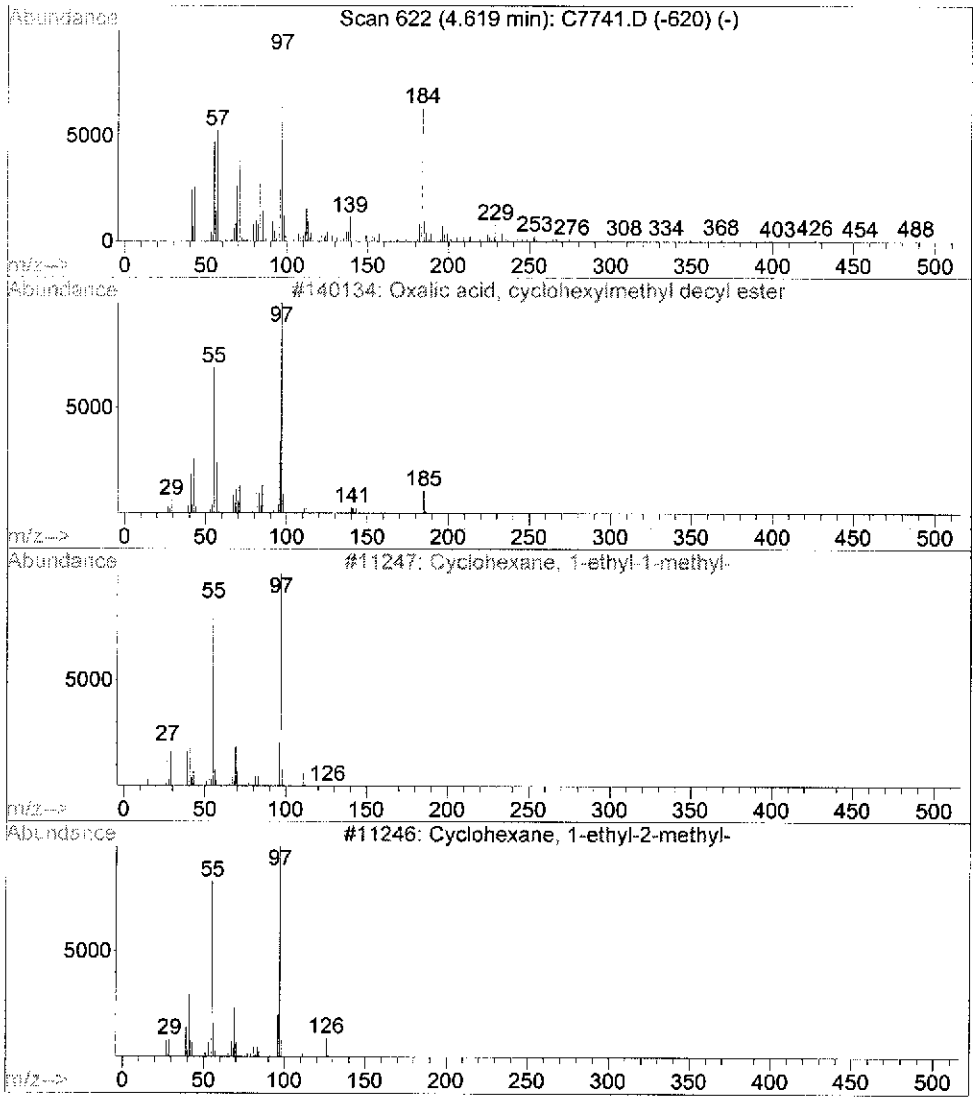
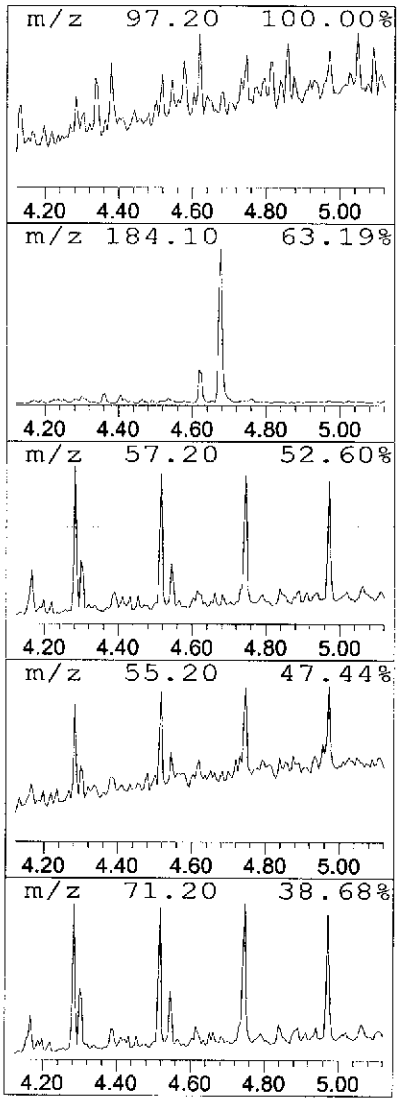
Peak Number 7 Unknown SV Concentration Rank 21

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.62	5.18 UG	164151	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Oxalic acid, cyclohexylmethyl de...	326	C19H34O4	1000309-68-7	43
2	Cyclohexane, 1-ethyl-1-methyl-	126	C9H18	004926-90-3	38
3	Cyclohexane, 1-ethyl-2-methyl-	126	C9H18	003728-54-9	38
4	Cyclohexane, 1-ethyl-1-methyl-	126	C9H18	004926-90-3	38
5	3-Cyclopent-1-enyl-3-hydroxy-2-m...	170	C9H14O3	1000191-19-7	35





Library Search Compound Report

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ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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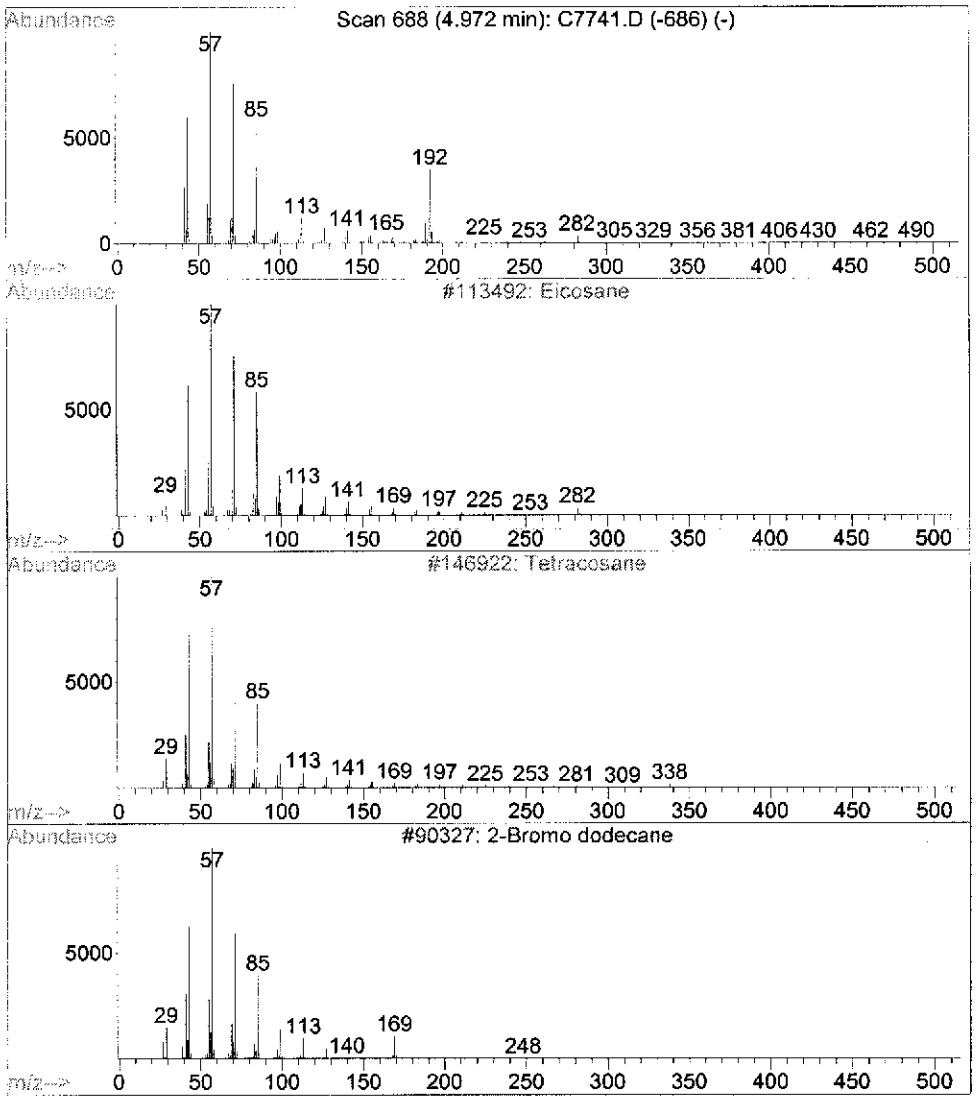
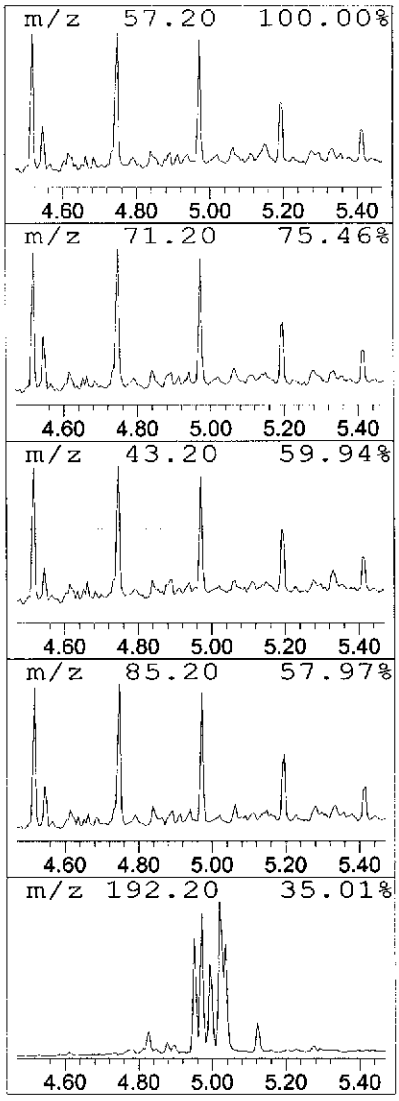
Peak Number 8 Unknown Hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.97	23.31 UG	739223	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Eicosane	282	C20H42	000112-95-8	94
2	Tetracosane	338	C24H50	000646-31-1	93
3	2-Bromo dodecane	248	C12H25Br	013187-99-0	93
4	Heptacosane	380	C27H56	000593-49-7	89
5	Eicosane	282	C20H42	000112-95-8	83





Library Search Compound Report

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Data File : C7741.D
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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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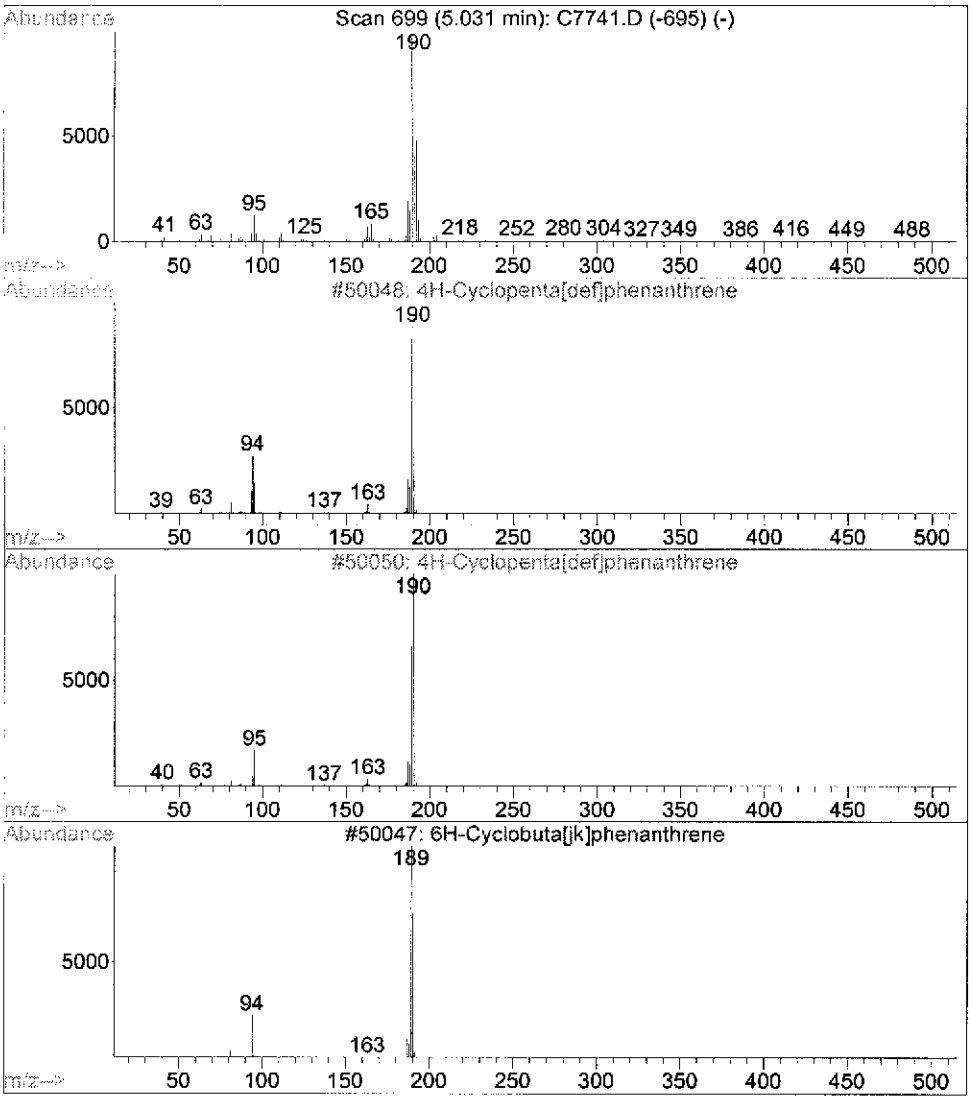
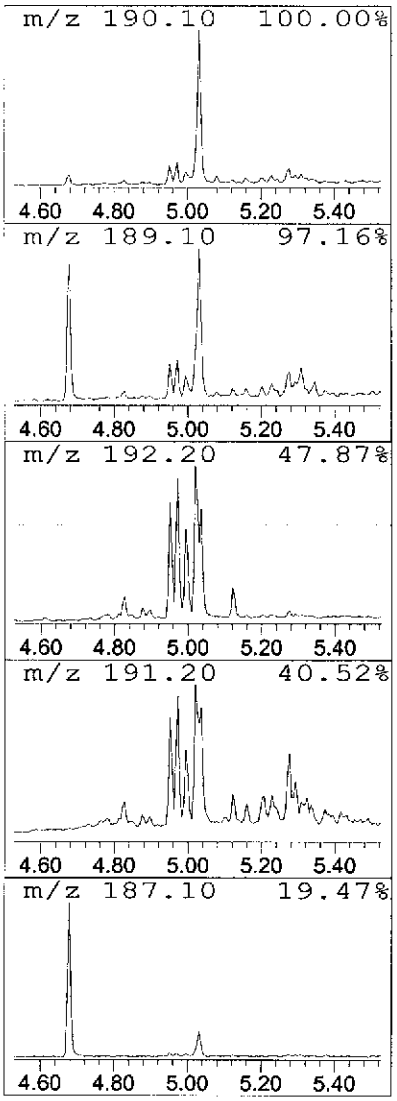
Peak Number 9 Unknown PAH Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.03	15.46 UG	490349	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4H-Cyclopenta[def]phenanthrene	190	C15H10	000203-64-5	86
2	4H-Cyclopenta[def]phenanthrene	190	C15H10	000203-64-5	64
3	6H-Cyclobuta[jk]phenanthrene	190	C15H10	083469-43-6	53
4	Benzaldehyde, 3,5-dichloro-2-hyd...	190	C7H4Cl2O2	000090-60-8	53
5	4H-Cyclopenta[def]phenanthrene	190	C15H10	000203-64-5	49





Library Search Compound Report

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ALS Vial : 7 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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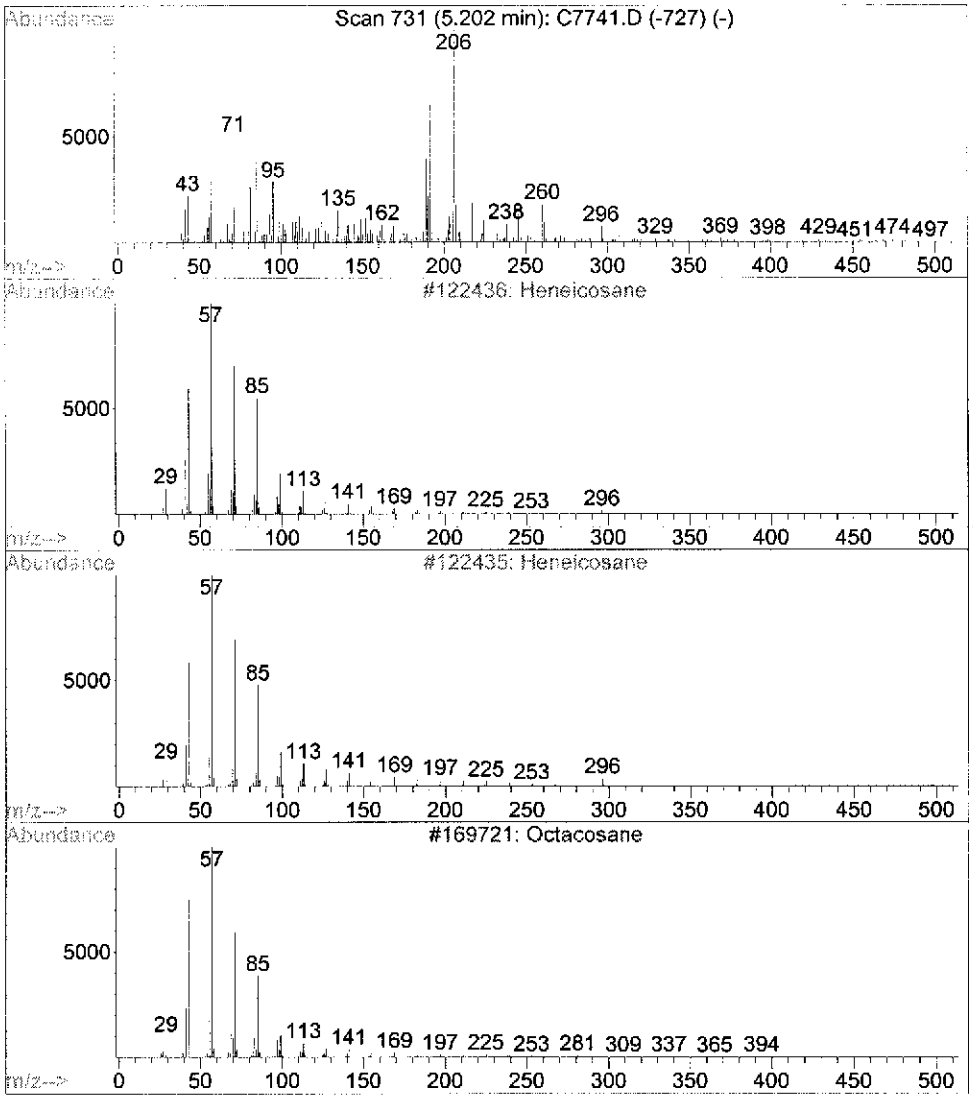
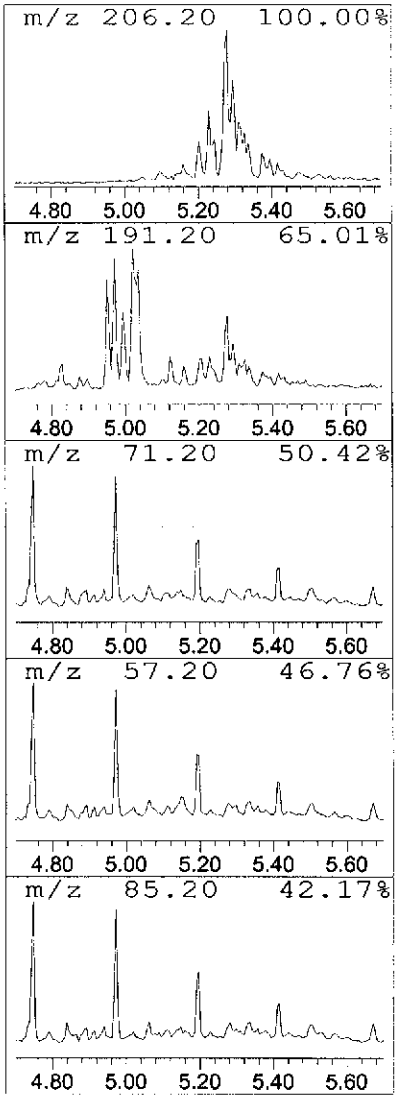
Peak Number 10 Unknown Hydrocarbon Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.20	18.06 UG	572606	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	98
2	Heneicosane	296	C21H44	000629-94-7	94
3	Octacosane	394	C28H58	000630-02-4	93
4	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44	054833-48-6	93
5	Tetracosane	338	C24H50	000646-31-1	93





Library Search Compound Report

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Acq On : 10 Jul 2012 17:30
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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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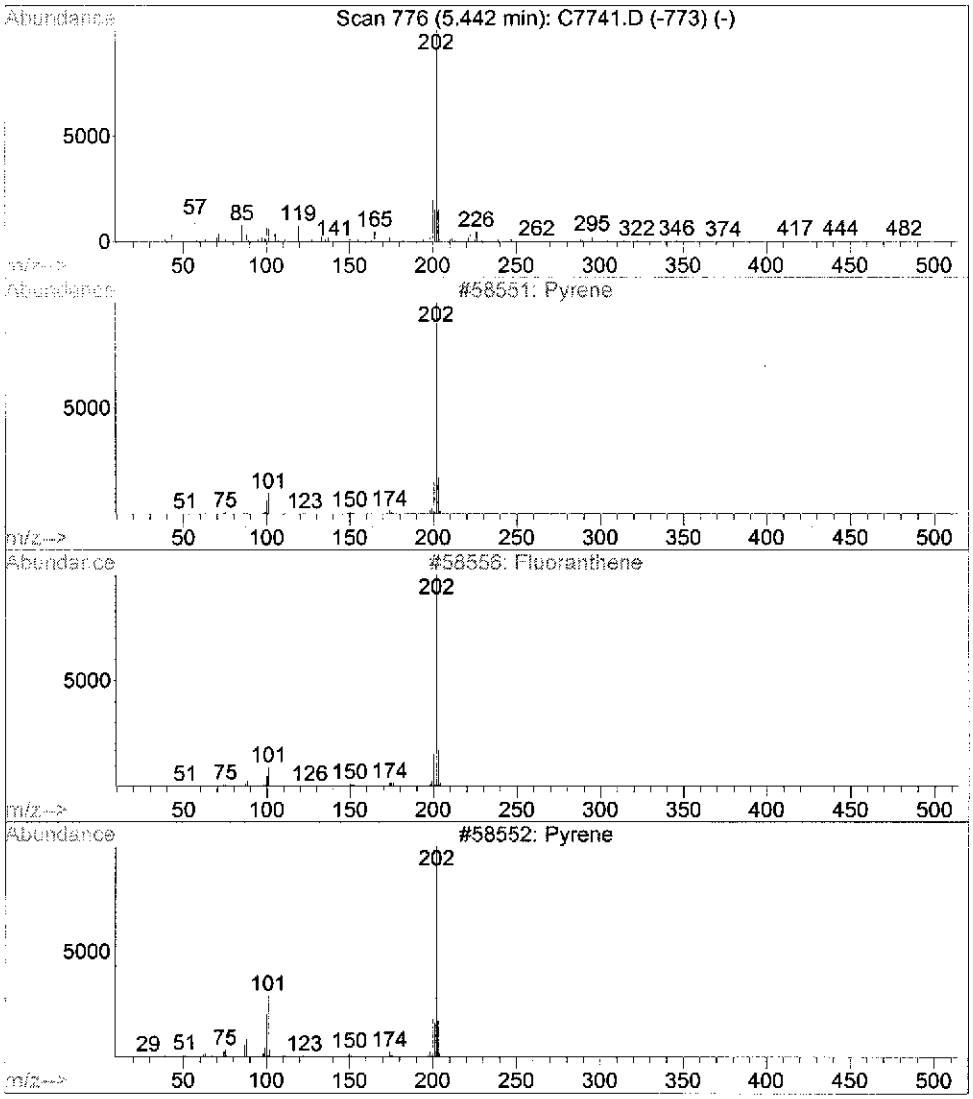
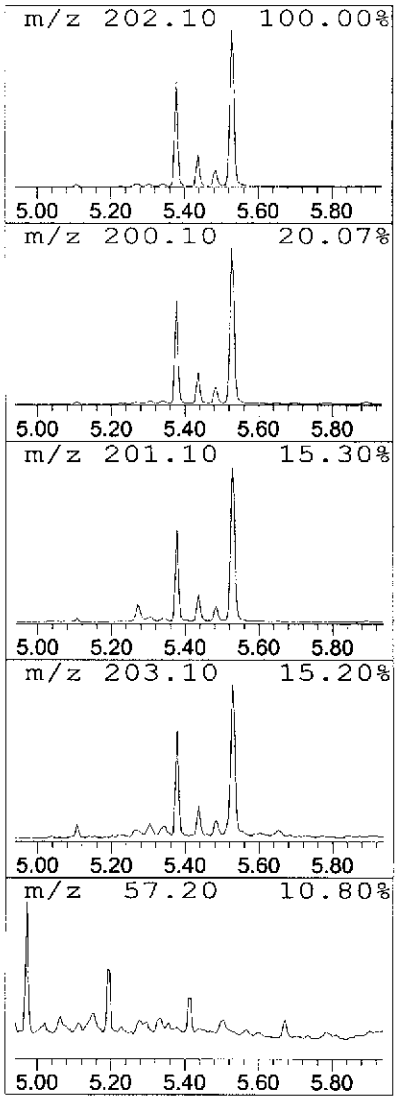
Peak Number 11 Unknown PAH Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.44	9.98 UG	316384	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrene	202	C16H10	000129-00-0	93
2	Fluoranthene	202	C16H10	000206-44-0	90
3	Pyrene	202	C16H10	000129-00-0	81
4	Pyrene	202	C16H10	000129-00-0	81
5	Benzene, 1,1'-(1,3-butadiyne-1,4...	202	C16H10	000886-66-8	64





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ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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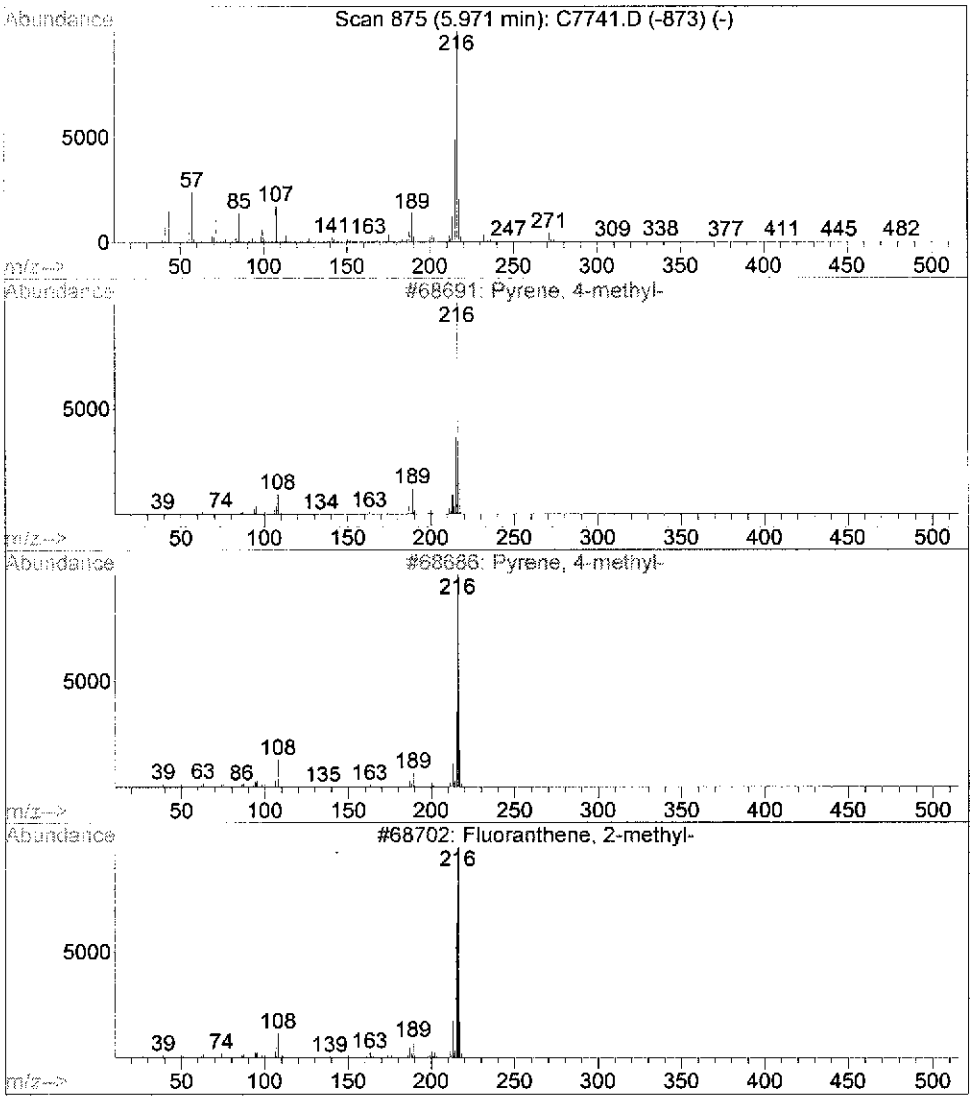
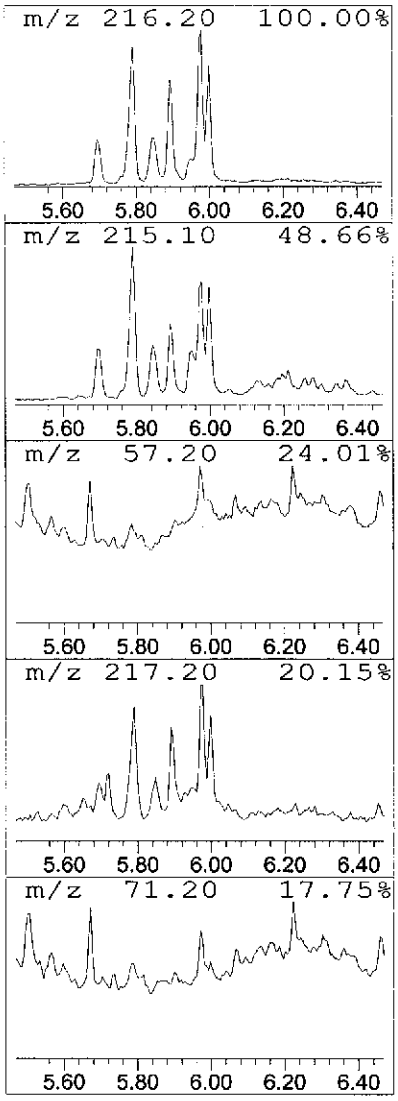
Peak Number 12 Unknown PAH Concentration Rank 23

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.97	4.32 UG	347822	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrene, 4-methyl-	216	C17H12	003353-12-6	93
2	Pyrene, 4-methyl-	216	C17H12	003353-12-6	93
3	Fluoranthene, 2-methyl-	216	C17H12	033543-31-6	93
4	Pyrene, 2-methyl-	216	C17H12	003442-78-2	93
5	Pyrene, 2-methyl-	216	C17H12	003442-78-2	93





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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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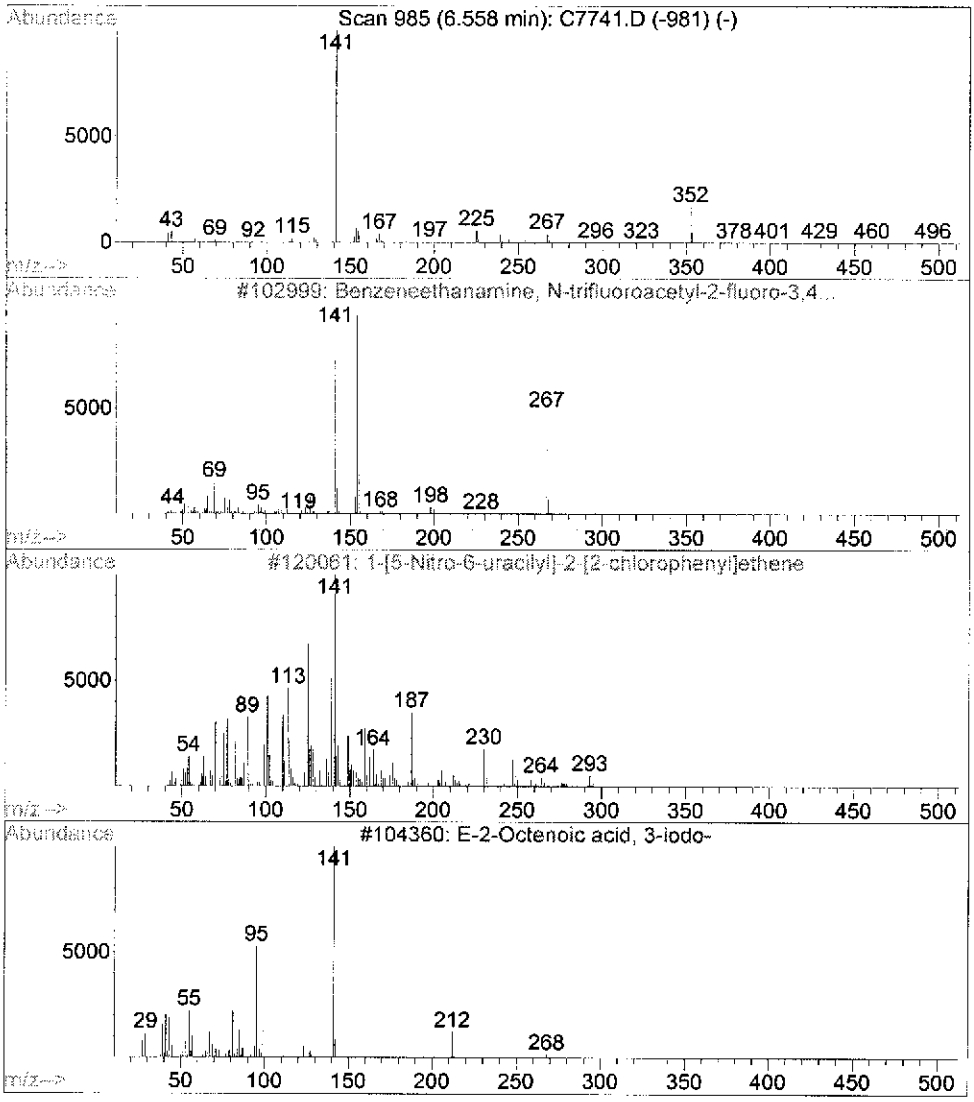
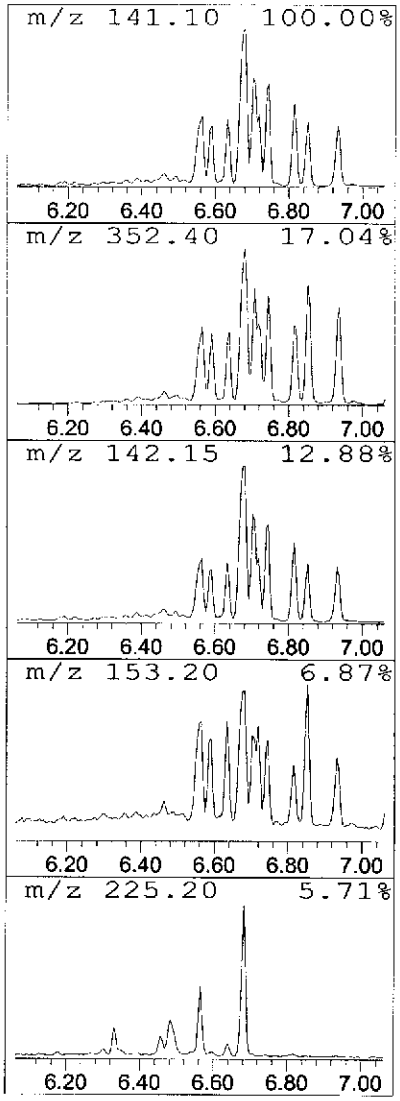
Peak Number 13 Unknown SV Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.56	21.84 UG	1758530	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-trifluoroac...	267	C10H9F4NO3	059043-77-5	28
2	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	25
3	E-2-Octenoic acid, 3-iodo-	268	C8H13IO2	1000308-87-5	9
4	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
5	Benzamide, N-(3-chlorophenyl)-2,...	267	C13H8ClF2NO	1000307-42-9	9





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ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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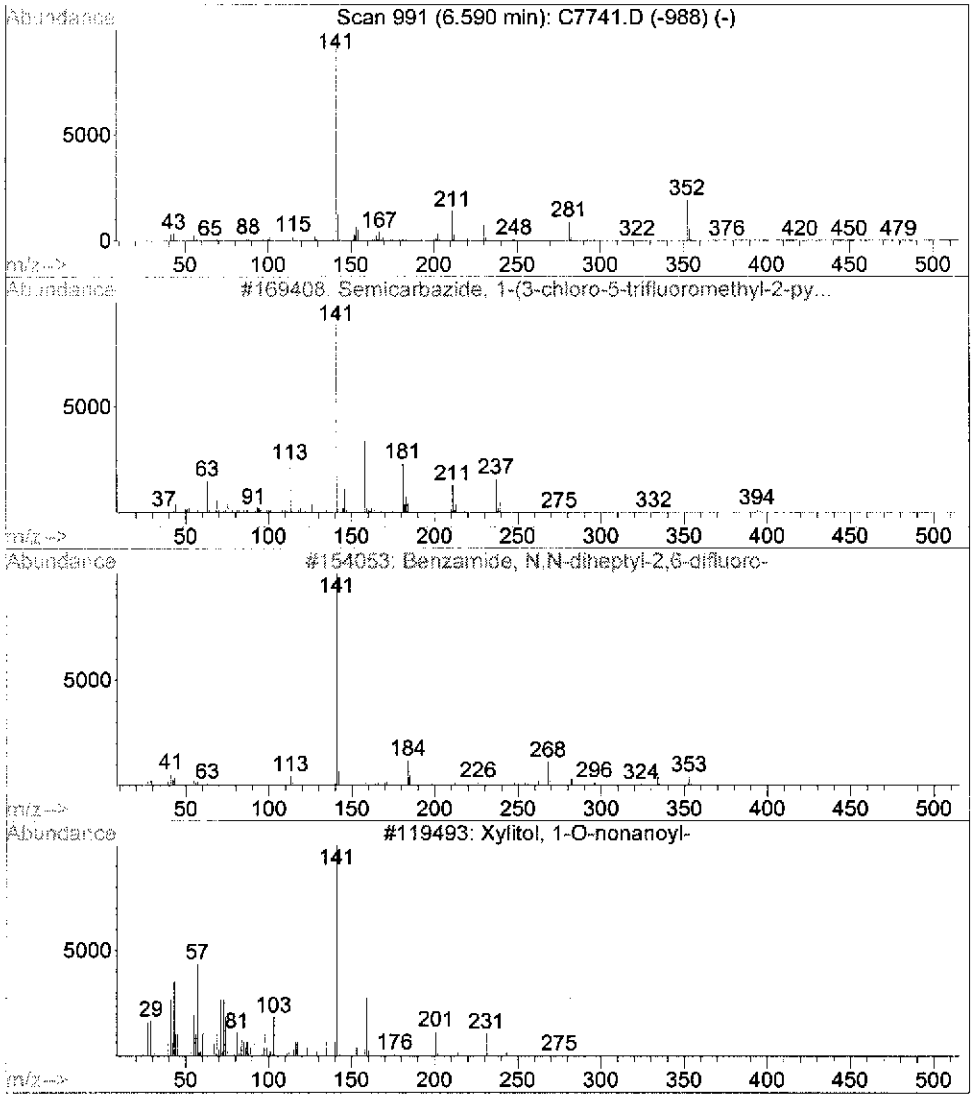
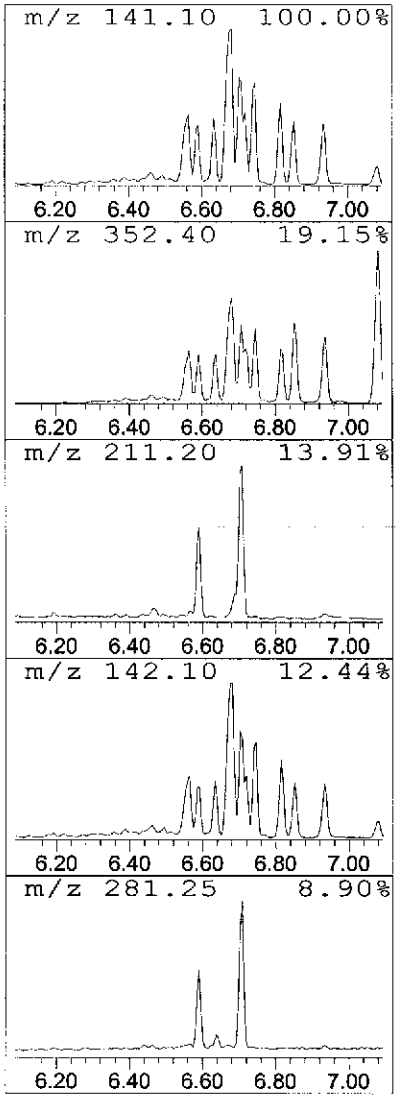
Peak Number 14 Unknown SV Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.59	14.84 UG	1195120	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Semicarbazide, 1-(3-chloro-5-tri...	394	C14H8ClF5N4O2	1000301-39-2	36
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
3	Xylitol, 1-O-nonanoyl-	292	C14H28O6	1000155-78-2	9
4	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9
5	Pyrazol-4-amine, 3,5-dimethyl-1-...	251	C16H17N3	1000273-77-6	9





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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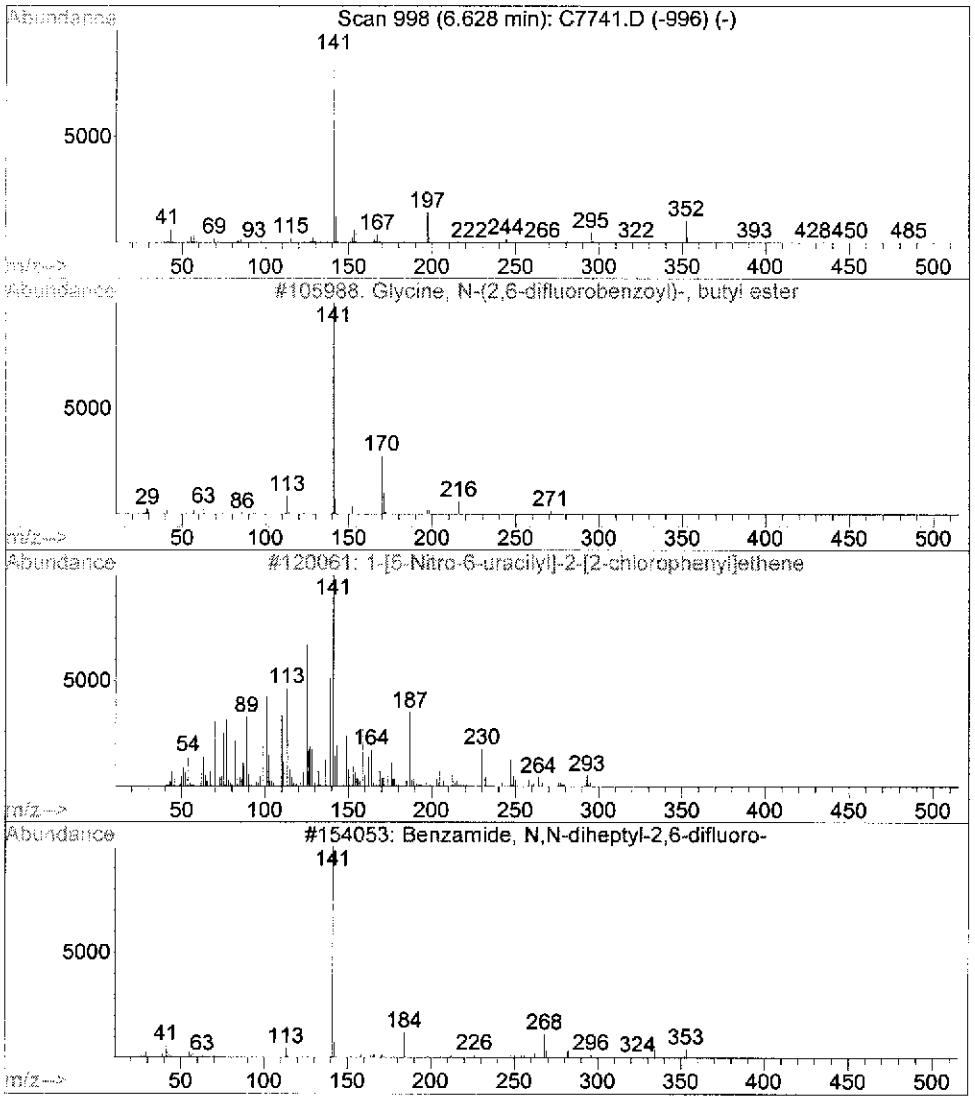
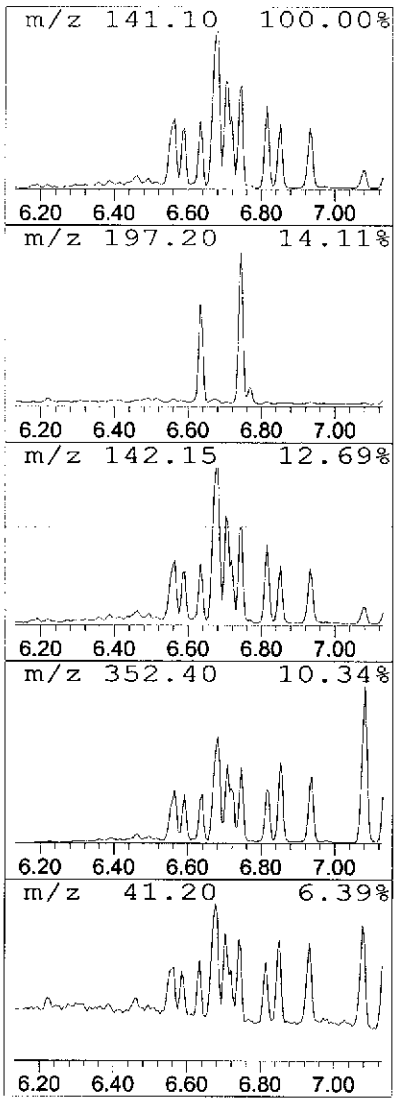
Peak Number 15 Unknown SV Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.63	12.69 UG	1021500	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Glycine, N-(2,6-difluorobenzoyl)...	271	C13H15F2NO3	1000314-44-0	36
2	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	28
3	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
4	2-Naphthaleneethanol	172	C12H12O	001485-07-0	9
5	Glycine, N-(2,6-difluorobenzoyl)...	313	C16H21F2NO3	1000314-44-4	9





Library Search Compound Report

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ALS Vial : 7 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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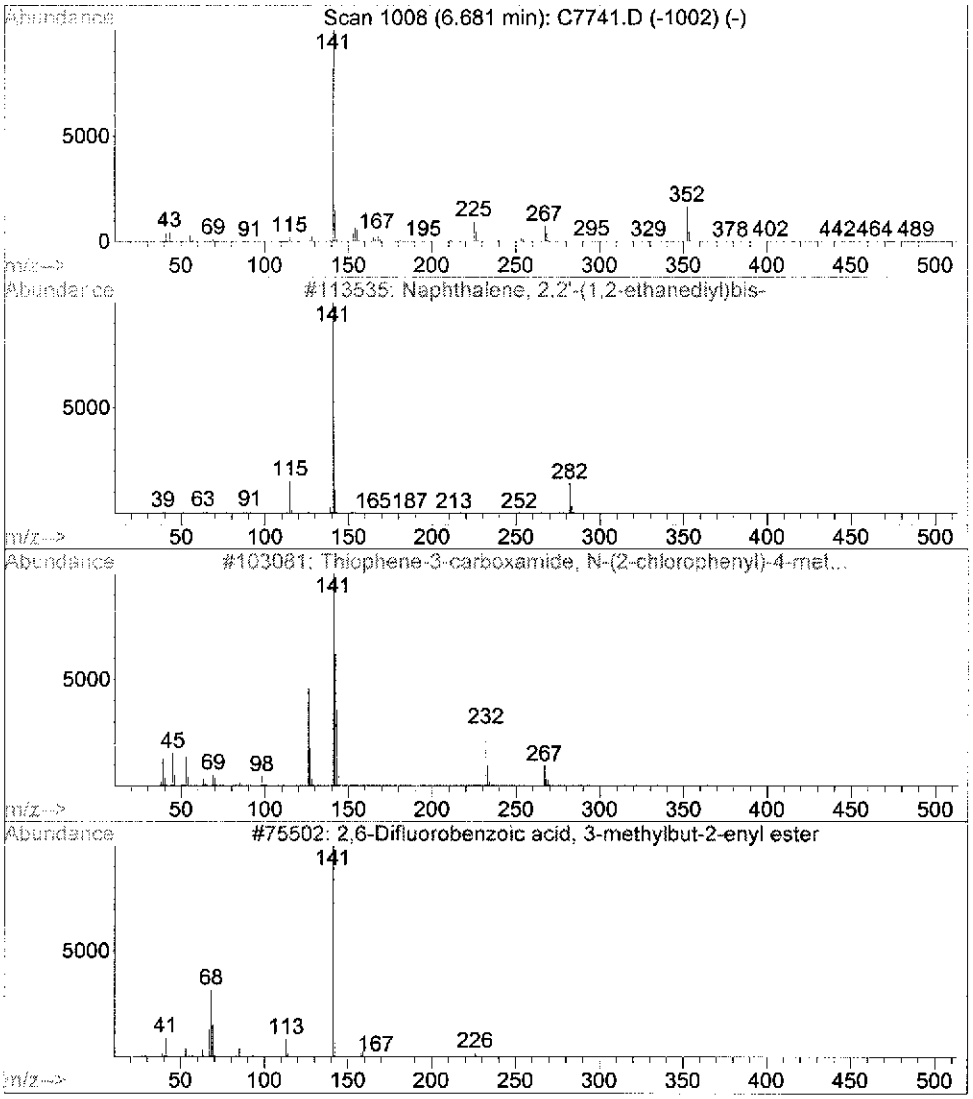
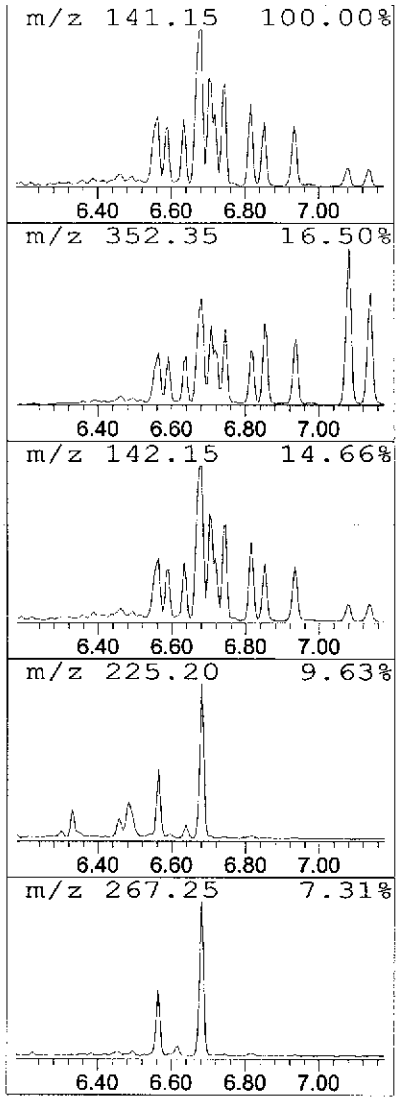
Peak Number 16 Unknown SV Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.68	48.06 UG	3870270	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	40
2	Thiophene-3-carboxamide, N-(2-ch...	267	C12H10ClNO2S	1000268-70-7	9
3	2,6-Difluorobenzoic acid, 3-meth...	226	C12H12F2O2	1000292-58-2	9
4	2,6-Difluorobenzoic acid, 4-chlo...	268	C13H7ClF2O2	1000307-55-7	9
5	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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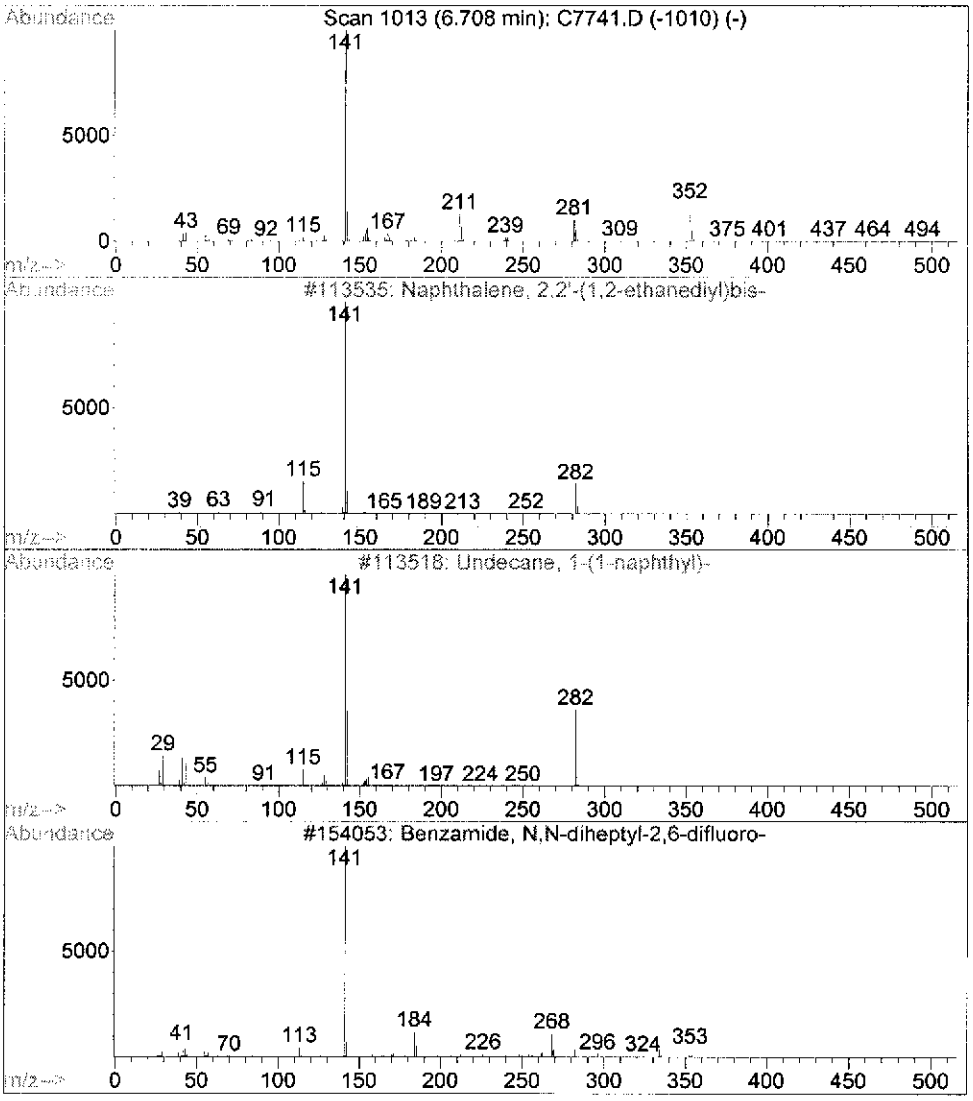
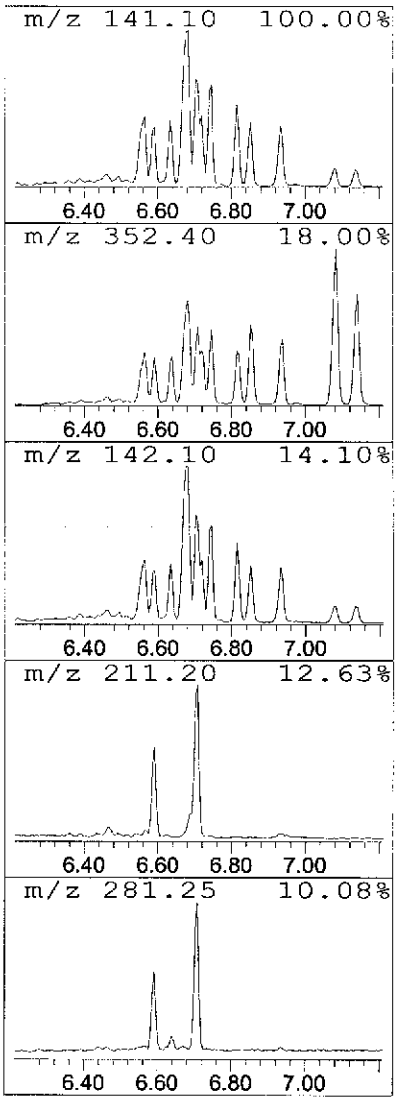
Peak Number 17 Unknown SV Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.71	32.00 UG	2576750	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	50
2	Undecane, 1-(1-naphthyl)-	282	C21H30	007225-71-0	38
3	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	36
4	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	28
5	Undecane, 1-(1-naphthyl)-	282	C21H30	007225-71-0	12





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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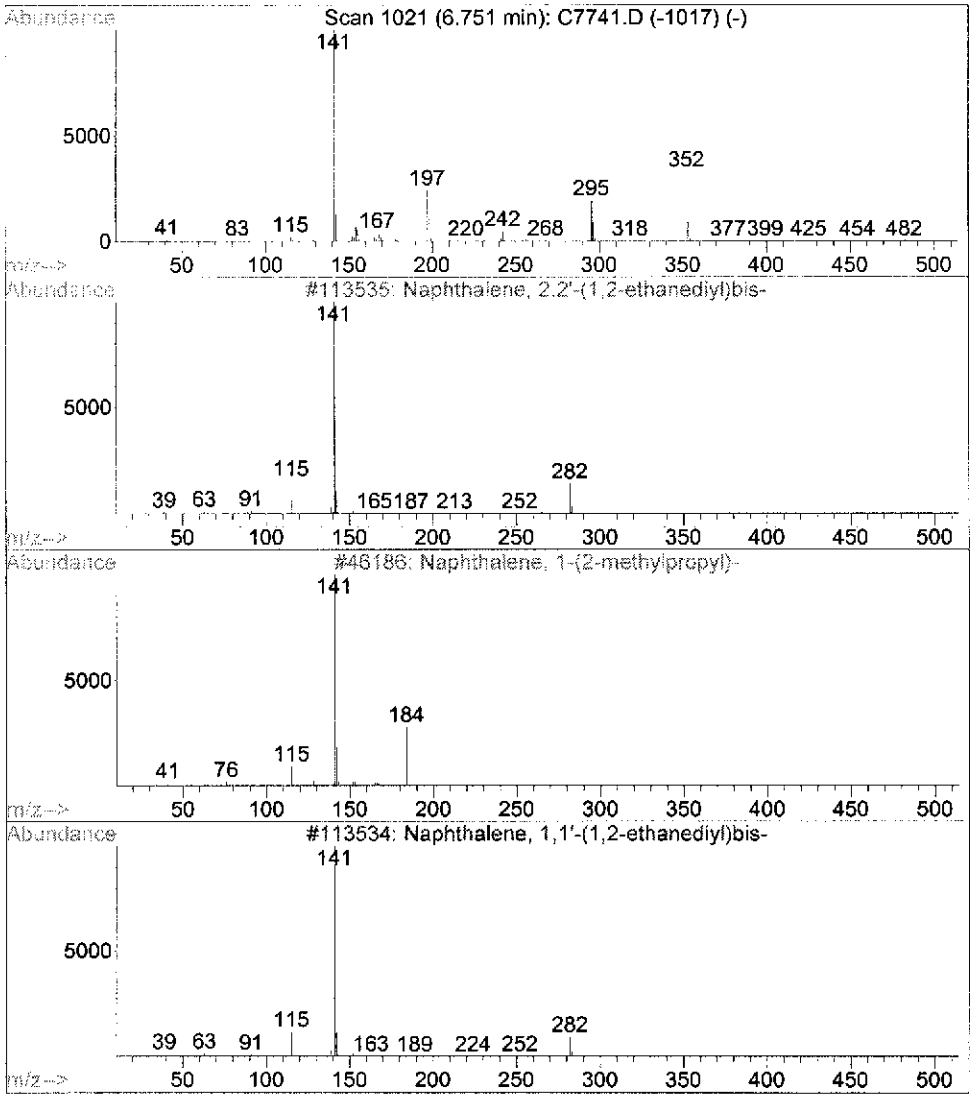
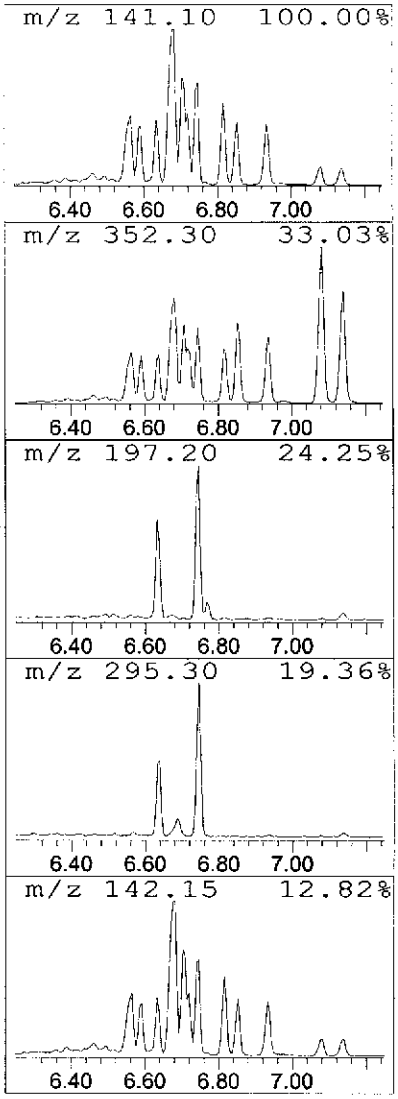
Peak Number 18 Unknown PAH Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.75	19.54 UG	1573470	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	38
2	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	38
3	Naphthalene, 1,1'-(1,2-ethanediy...	282	C22H18	015374-45-5	9
4	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9
5	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	9





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ALS Vial : 7 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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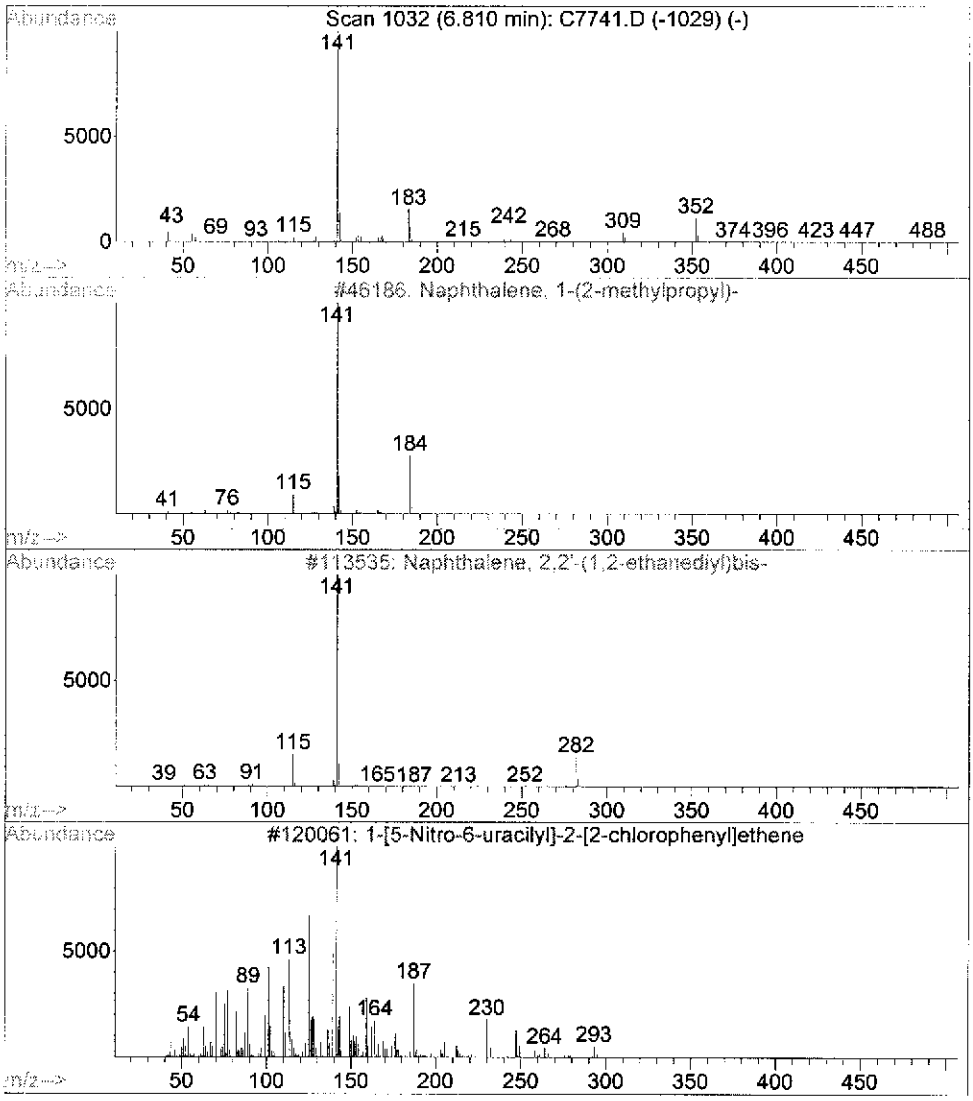
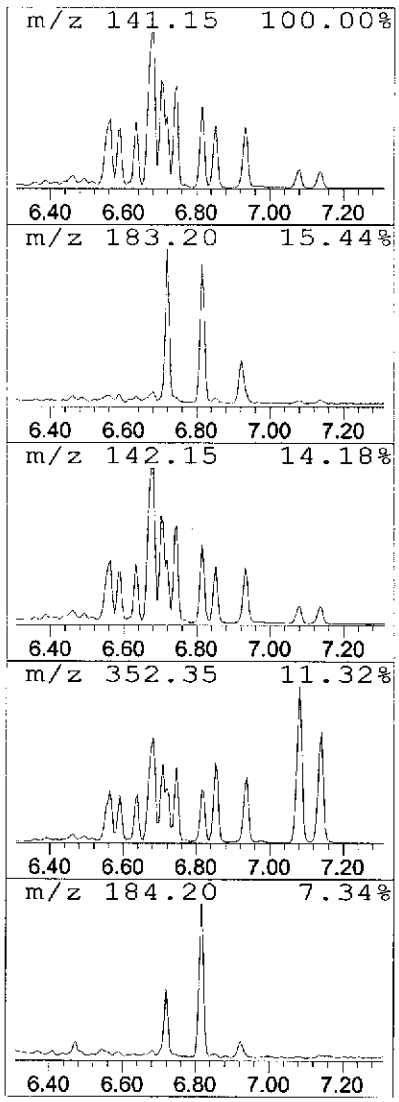
Peak Number 19 Unknown PAH Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.81	17.34 UG	1395880	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	62
2	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	50
3	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	25
4	Naphthalene, 1,1'-(1,4-butanediy...	310	C24H22	029571-17-3	12
5	Naphthalene, 2-butyl-	184	C14H16	001134-62-9	12





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ALS Vial : 7 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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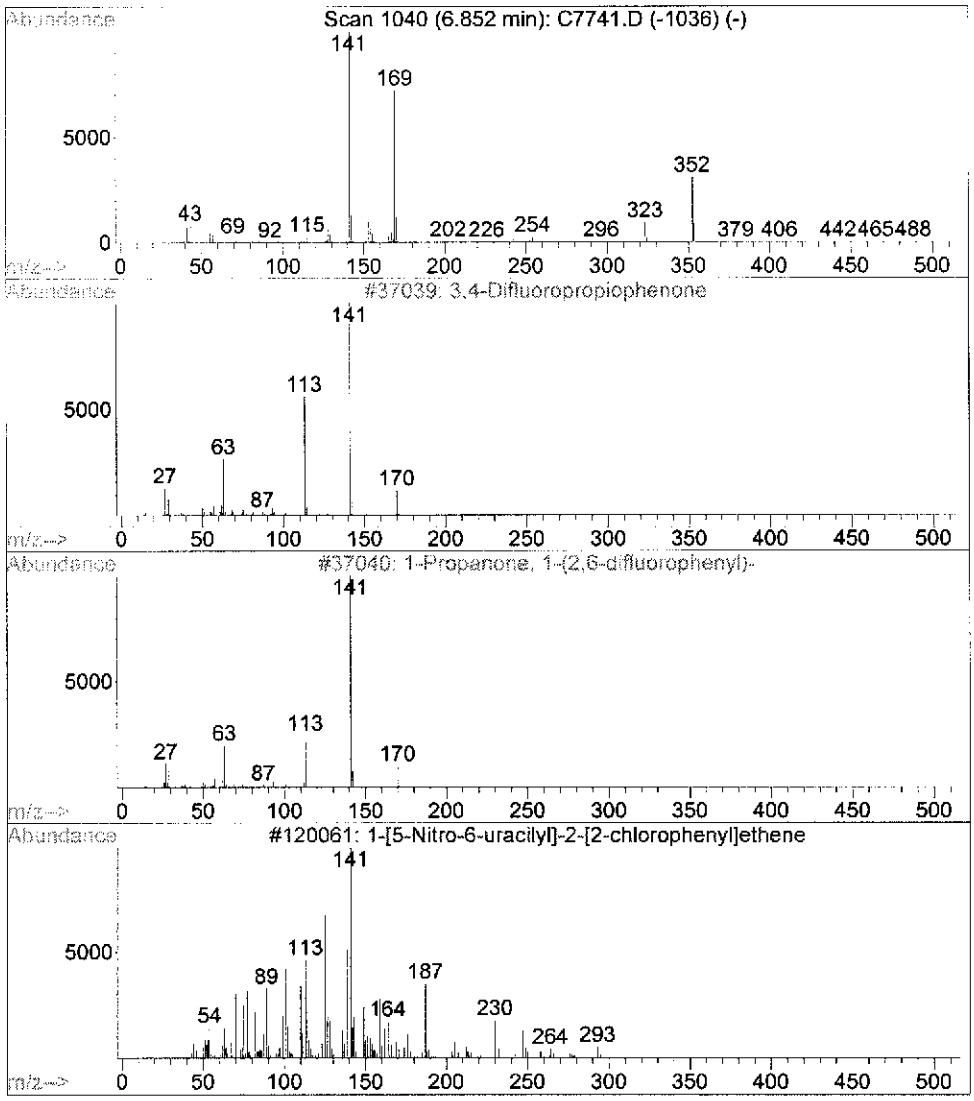
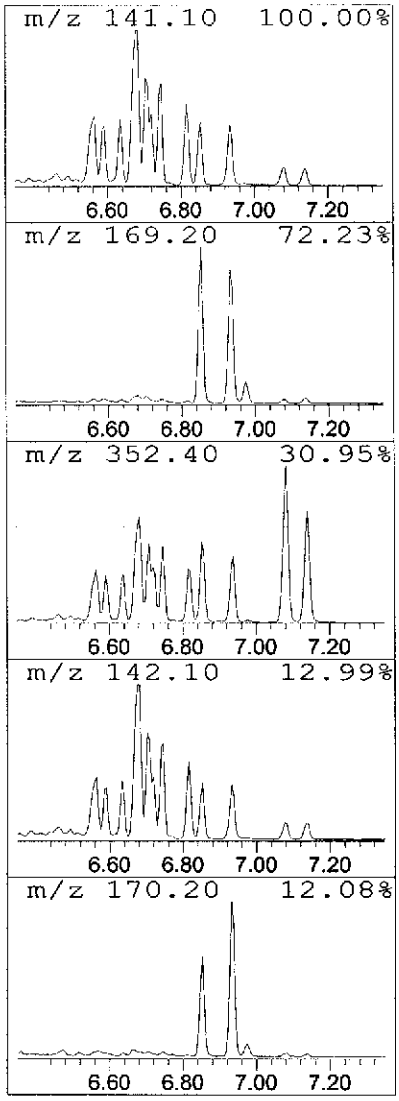
Peak Number 20 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.85	19.39 UG	1561540	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,4-Difluoropropiophenone	170	C9H8F2O	023384-72-7	32
2	1-Propanone, 1-(2,6-difluorophen...	170	C9H8F2O	085068-31-1	32
3	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	27
4	4-(4-Methylphenyl)pyridine	169	C12H11N	004423-10-3	22
5	Naphthalene, 1-hexyl-	212	C16H20	002876-53-1	17





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ALS Vial : 7 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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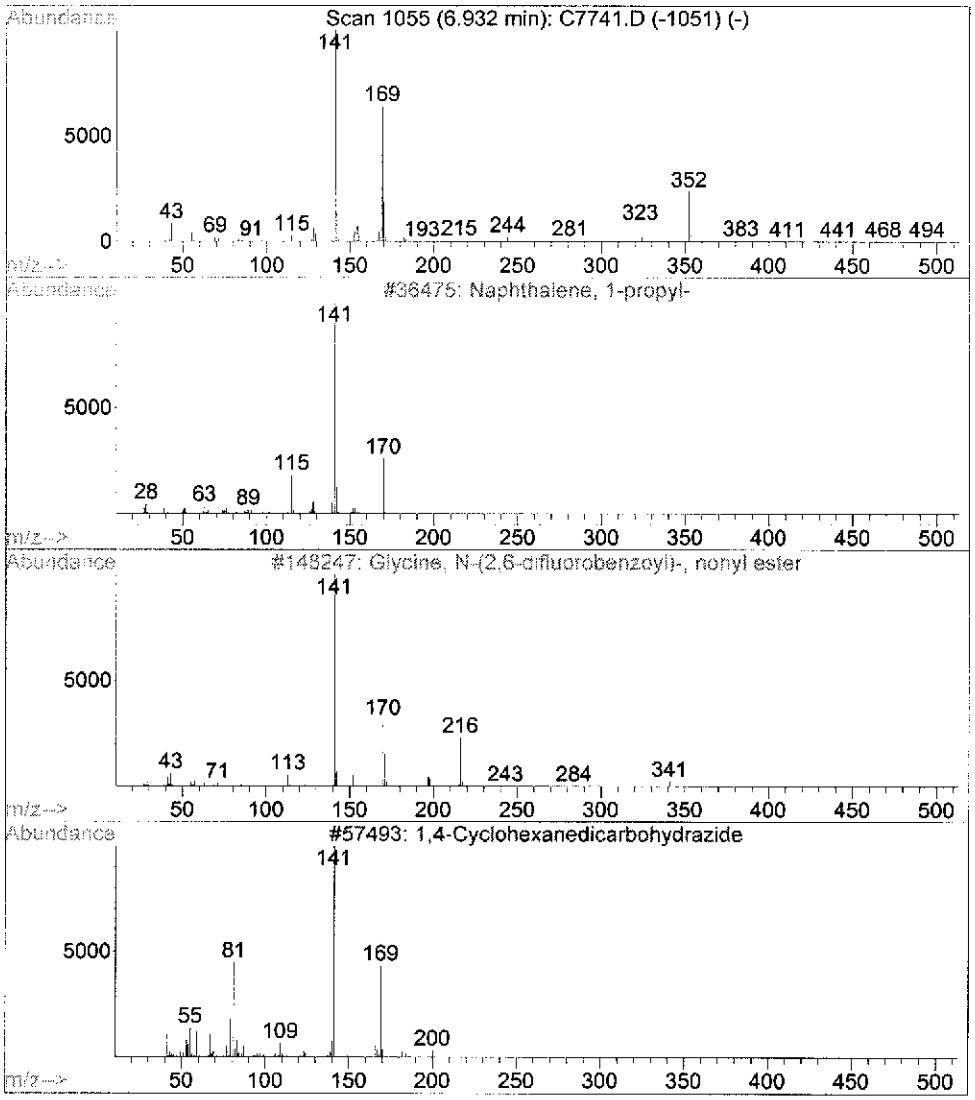
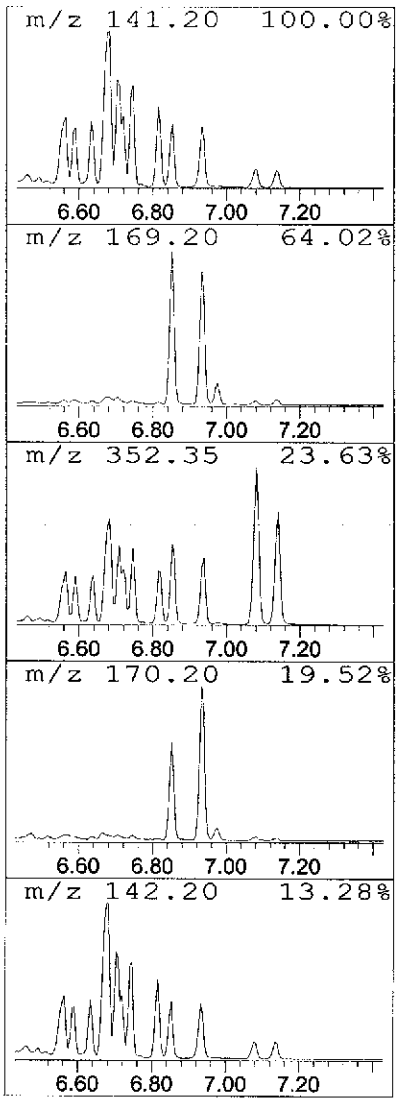
Peak Number 21 Unknown SV Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.93	20.89 UG	1681840	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	43
2	Glycine, N-(2,6-difluorobenzoyl)...	341	C18H25F2NO3	1000314-44-6	37
3	1,4-Cyclohexanedicarbohydrazide	200	C8H16N4O2	1000212-83-8	36
4	Naphthalene, 2-(1,1-dimethylethyl)-	184	C14H16	002876-35-9	32
5	4-tert-Butylphthalonitrile	184	C12H12N2	032703-80-3	23





Library Search Compound Report

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Data File : C7741.D
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Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

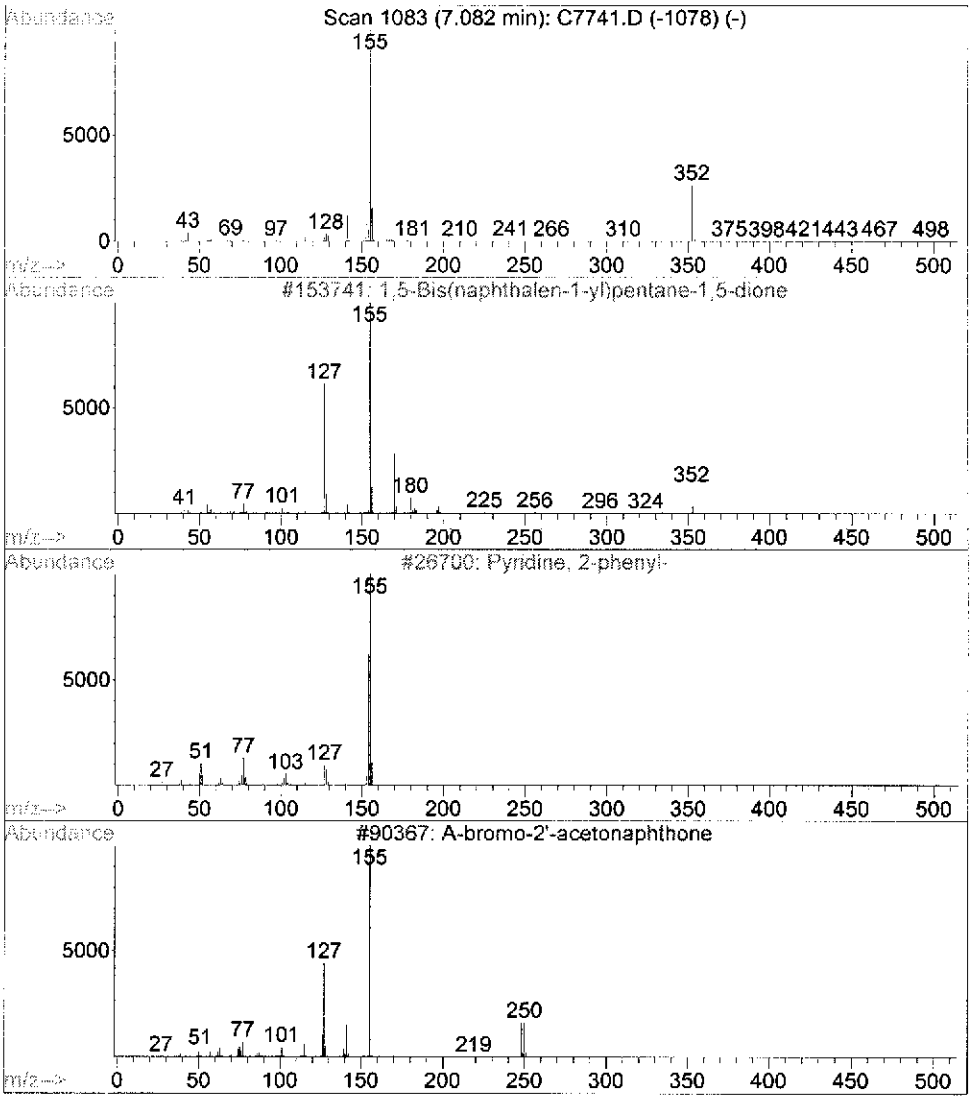
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

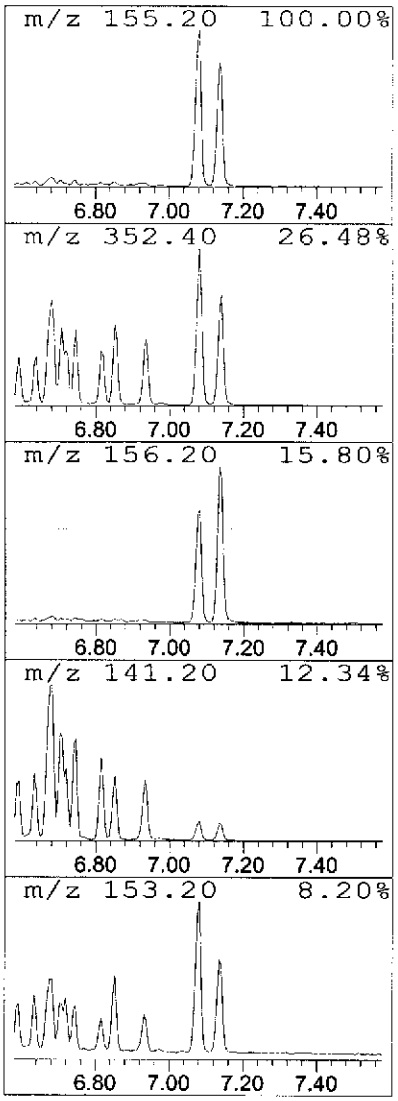
****

Peak Number 22 Unknown SV Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.08	35.25 UG	2838520	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,5-Bis(naphthalen-1-yl)pentane-...	352	C25H20O2	1000210-52-9	72
2	Pyridine, 2-phenyl-	155	C11H9N	001008-89-5	50
3	A-bromo-2'-acetonaphthone	248	C12H9BrO	000613-54-7	36
4	Phenylpropionic acid, .alpha.-am...	229	C10H12FNO4	1000126-07-3	33
5	1-Naphthoic acid, tridec-2-ynyl ...	350	C24H30O2	1000308-82-7	33





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7741.D
Acq On : 10 Jul 2012 17:30
Operator : EDM
Sample : G8-06261,E12-06385-004,S,15.13g,10.0,0.5
Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

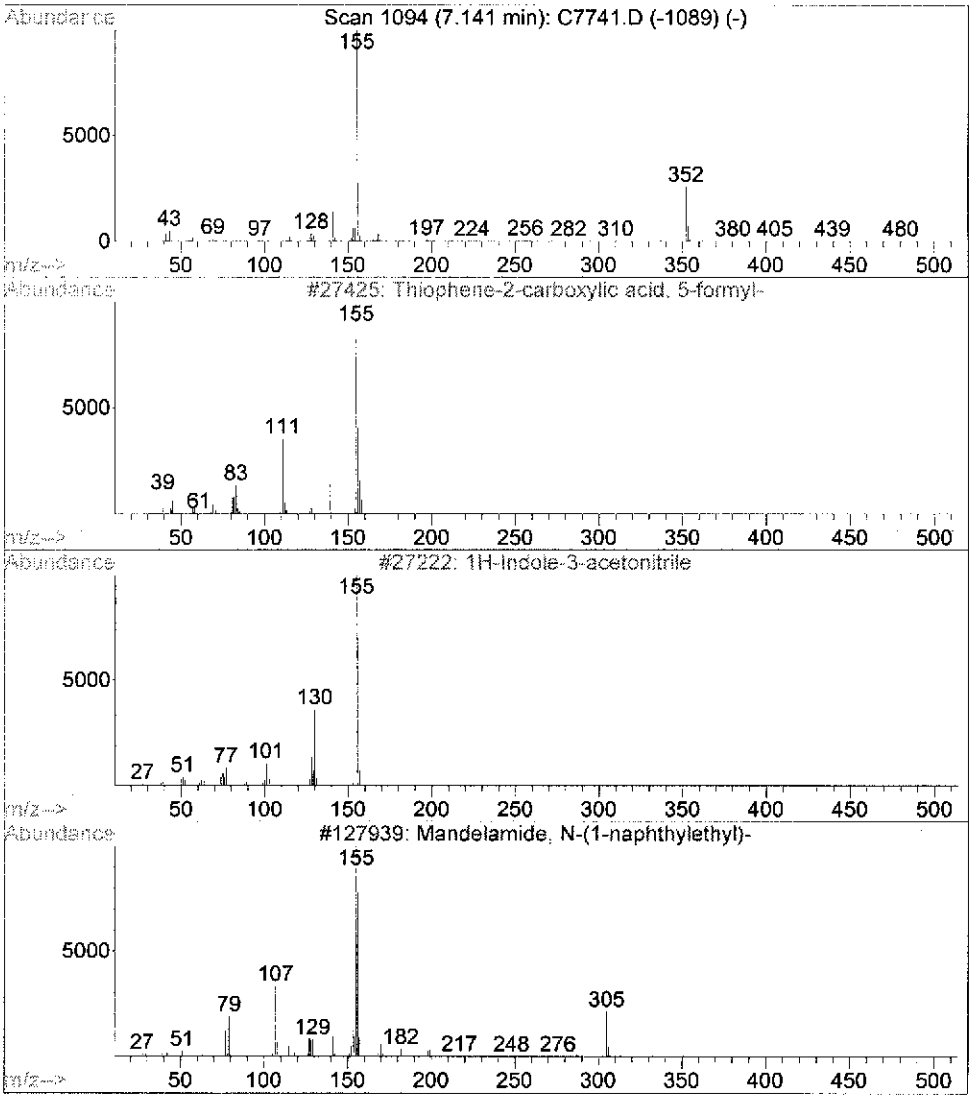
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

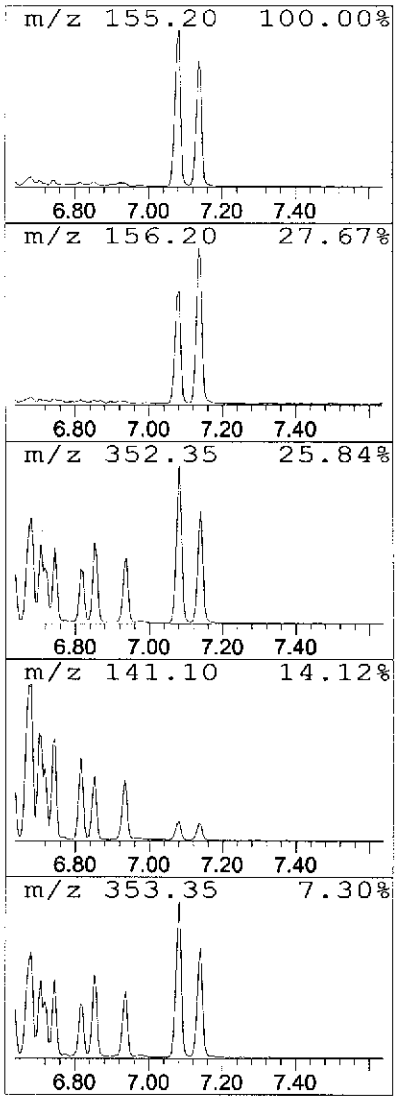
****

Peak Number 23 Unknown SV Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.14	32.52 UG	2618490	Chrysene-d12	6.47

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiophene-2-carboxylic acid, 5-f...	156	C6H4O3S	1000306-77-9	36
2	1H-Indole-3-acetonitrile	156	C10H8N2	000771-51-7	10
3	Mandelamide, N-(1-naphthylethyl)-	305	C20H19NO2	344875-77-0	10
4	1-Azabicyclo[2.2.2]octane-2-carb...	183	C9H13NO3	030740-21-7	9
5	6-Amino-1,3-dimethyluracil	155	C6H9N3O2	006642-31-5	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7741.D
Acq On : 10 Jul 2012 17:30
Operator : EDM
Sample : G8-06261,E12-06385-004,S,15.13g,10.0,0.5
Misc : 120709-03,07/09/12,06/27/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

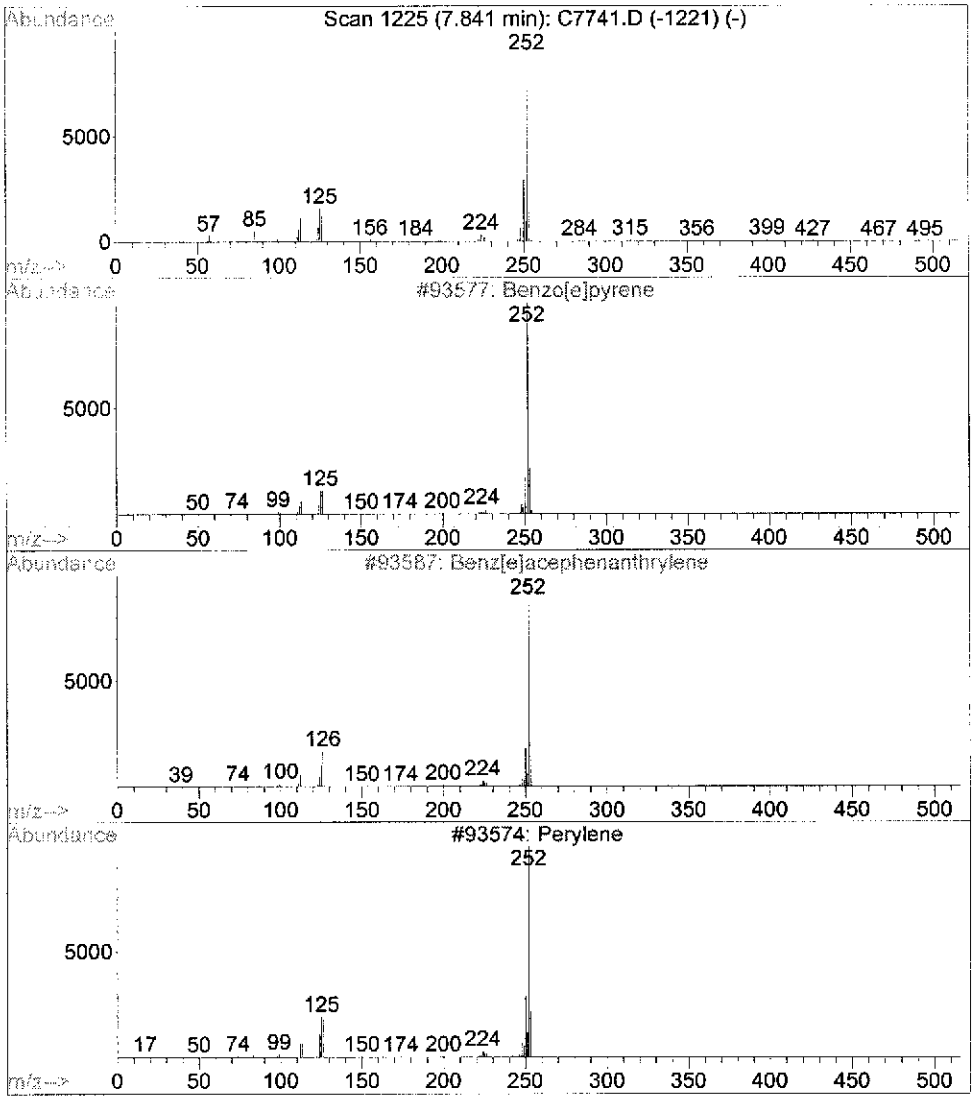
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

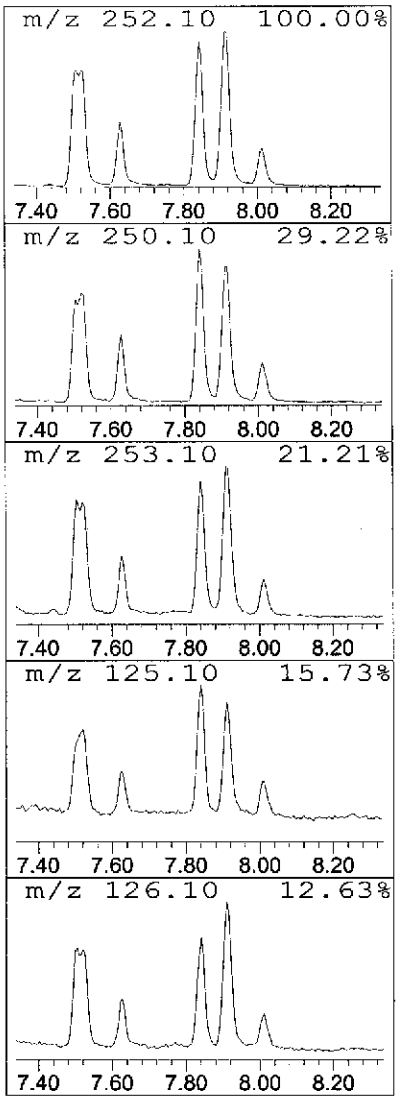
****

Peak Number 24 Unknown PAH Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.84	79.89 UG	987597	Perylene-d12	7.98

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzo[e]pyrene	252	C20H12	000192-97-2	98
2	Benz[e]acephenanthrylene	252	C20H12	000205-99-2	97
3	Perylene	252	C20H12	000198-55-0	97
4	Benzo[a]pyrene	252	C20H12	000050-32-8	96
5	Benzo[k]fluoranthene	252	C20H12	000207-08-9	93





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7742.D
Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 11 09:13:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

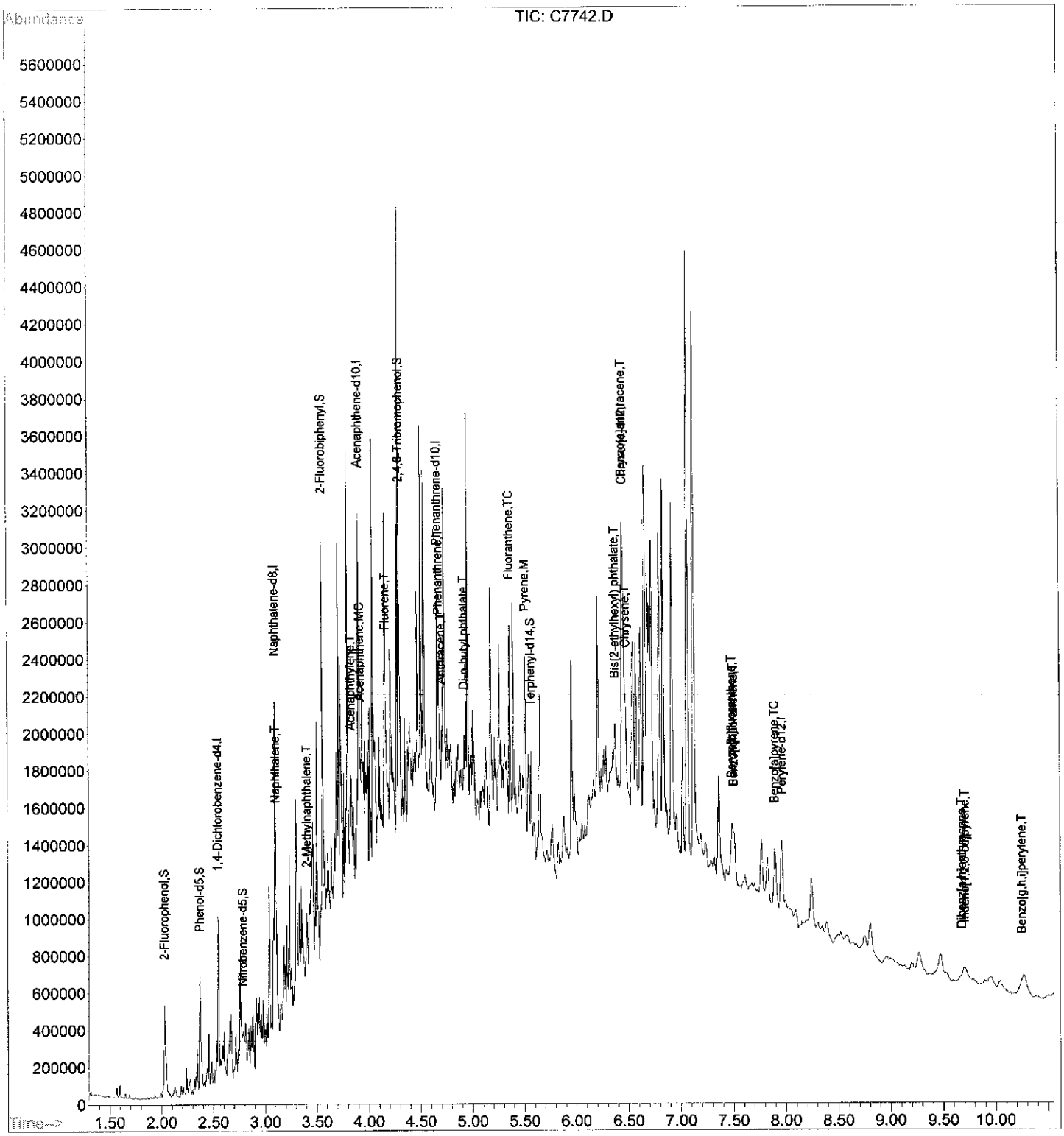
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	128990	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	500789	40.00	UG	-0.02
43) Acenaphthene-d10	3.91	164	259629	40.00	UG	-0.06
66) Phenanthrene-d10	4.67	188	344334	40.00	UG	-0.12
82) Chrysene-d12	6.46	240	335877	40.00	UG	-0.17
92) Perylene-d12	7.96	264	264912	40.00	UG	-0.15
System Monitoring Compounds						
4) 2-Fluorophenol	2.03	112	135403	30.41	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 30.41%			
6) Phenol-d5	2.37	99	195990	32.31	UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 32.31%			
24) Nitrobenzene-d5	2.79	82	55374	11.21	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 22.42%#			
47) 2-Fluorobiphenyl	3.56	172	125920	15.29	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 30.58%#			
70) 2,4,6-Tribromophenol	4.30	330	60051	48.20	UG	-0.09
Spiked Amount 100.000	Range 37 - 115		Recovery = 48.20%			
84) Terphenyl-d14	5.56	244	115315m	15.87	UG	-0.23
Spiked Amount 50.000	Range 15 - 122		Recovery = 31.74%			
Target Compounds						Qvalue
34) Naphthalene	3.11	128	167681	11.71	UG	# 62
41) 2-Methylnaphthalene	3.41	142	46670	4.77	UG	97
53) Acenaphthylene	3.84	152	15205	1.33	UG	# 51
55) Acenaphthene	3.92	153	29351	4.00	UG	# 52
61) Fluorene	4.17	166	31380	3.91	UG	87
75) Phenanthrene	4.68	178	200111	21.06	UG	# 95
76) Anthracene	4.70	178	69802	7.07	UG	# 33
78) Di-n-butyl phthalate	4.92	149	25545m	2.25	UG	
79) Fluoranthene	5.36	202	250454m	29.44	UG	
83) Pyrene	5.51	202	311526m	29.62	UG	
88) Benzo[a]anthracene	6.45	228	156921	17.59	UG	# 79
89) Chrysene	6.48	228	194532	23.49	UG	# 84
90) Bis(2-ethylhexyl) phthalat	6.37	149	43330	5.76	UG	# 85
94) Benzo[b]fluoranthene	7.49	252	161866m	16.69	UG	
95) Benzo[k]fluoranthene	7.51	252	122790m	13.32	UG	
96) Benzo[a]pyrene	7.89	252	173058	22.37	UG	# 94
97) Indeno[1,2,3-cd]pyrene	9.71	276	105573	9.90	UG	# 40
98) Dibenz[a,h]anthracene	9.67	278	51783	5.68	UG	# 78
99) Benzo[g,h,i]perylene	10.24	276	95583m	10.14	UG	

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7742.D
Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 11 09:13:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7742.D
Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.028	133	137	145	rBV2	498261	550326	16.80%	0.814%
2	2.343	192	196	199	rBV2	223079	151562	4.63%	0.224%
3	2.370	199	201	208	rBV	604794	626099	19.11%	0.926%
4	2.439	211	214	216	rBV3	99004	105618	3.22%	0.156%
5	2.456	216	217	219	rVB	273004	116225	3.55%	0.172%
6	2.530	228	231	232	rBV	238416	155505	4.75%	0.230%
7	2.546	232	234	237	rVB	807406	590473	18.02%	0.873%
8	2.600	242	244	249	rVB3	249164	170759	5.21%	0.253%
9	2.637	249	251	252	rBV2	120516	103852	3.17%	0.154%
10	2.669	256	257	261	rVB2	358895	249303	7.61%	0.369%
11	2.717	261	266	269	rBV4	240284	240459	7.34%	0.356%
12	2.744	269	271	272	rBV	126086	94840	2.89%	0.140%
13	2.760	272	274	278	rBV3	552773	412684	12.60%	0.610%
14	2.808	282	283	285	rVB	201736	123036	3.76%	0.182%
15	2.840	285	289	292	rVB4	189495	182954	5.58%	0.271%
16	2.862	292	293	295	rBV2	206886	140411	4.29%	0.208%
17	2.883	295	297	300	rVB2	285718	247215	7.55%	0.366%
18	2.915	300	303	305	rBV4	386009	415909	12.69%	0.615%
19	2.942	305	308	311	rBV5	226272	180477	5.51%	0.267%
20	2.979	314	315	317	rVB2	237947	140435	4.29%	0.208%
21	3.016	321	322	324	rBV2	176284	112903	3.45%	0.167%
22	3.038	324	326	329	rBV	821482	513141	15.66%	0.759%
23	3.081	332	334	335	rBV2	600780	473036	14.44%	0.700%
24	3.097	335	337	345	rVB2	1780314	1641301	50.09%	2.428%
25	3.150	345	347	350	rBV3	146329	173511	5.30%	0.257%
26	3.182	350	353	354	rBV2	403073	285528	8.71%	0.422%
27	3.209	357	358	361	rBV3	412473	243266	7.42%	0.360%
28	3.235	361	363	365	rBV	731545	399924	12.21%	0.592%
29	3.252	365	366	369	rVB2	207914	150648	4.60%	0.223%
30	3.284	369	372	373	rBV3	119670	109931	3.36%	0.163%
31	3.300	373	375	379	rBV4	1004423	884076	26.98%	1.308%
32	3.332	379	381	383	rBV2	345738	180911	5.52%	0.268%
33	3.353	383	385	386	rBV	404827	210555	6.43%	0.311%
34	3.406	391	395	397	rBV4	347083	342922	10.47%	0.507%
35	3.428	397	399	400	rBV	329765	205611	6.28%	0.304%
36	3.465	400	406	408	rVB5	696407	855767	26.12%	1.266%
37	3.487	408	410	411	rBV2	319135	191419	5.84%	0.283%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7742.D
Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.001
Stop Thrs : 0

Filtering: 5
Min Area: 100 Area counts
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

38	3.503	411	413	414	rBV	1104091	403332	12.31%	0.597%
39	3.513	414	415	418	rVB	298940	228981	6.99%	0.339%
40	3.540	418	420	421	rBV2	303000	250142	7.63%	0.370%
41	3.556	421	423	426	rBV2	1999648	1231249	37.58%	1.821%
42	3.583	426	428	429	rVB2	287591	141864	4.33%	0.210%
43	3.609	432	433	437	rVB4	299869	185437	5.66%	0.274%
44	3.641	437	439	442	rBV2	343431	226114	6.90%	0.334%
45	3.674	443	445	446	rBV2	243709	100053	3.05%	0.148%
46	3.690	446	448	451	rBV	640372	536506	16.37%	0.794%
47	3.711	451	452	454	rVB	1683215	703563	21.47%	1.041%
48	3.732	454	456	460	rVB3	1256230	1094469	33.40%	1.619%
49	3.764	460	462	464	rBV2	671123	383169	11.69%	0.567%
50	3.802	464	469	471	rBV2	2350736	1533787	46.81%	2.269%
51	3.834	472	475	477	rBV3	477768	505515	15.43%	0.748%
52	3.855	477	479	481	rVB3	387512	247348	7.55%	0.366%
53	3.877	481	483	484	rBV	273442	123552	3.77%	0.183%
54	3.893	484	486	487	rBV	485753	356096	10.87%	0.527%
55	3.909	487	489	493	rBV2	1546182	1168965	35.68%	1.729%
56	3.935	493	494	498	rVB2	773437	623084	19.02%	0.922%
57	3.967	498	500	503	rBV3	462049	393046	12.00%	0.581%
58	3.989	503	504	506	rVB	591426	371307	11.33%	0.549%
59	4.010	506	508	509	rBV	828117	470943	14.37%	0.697%
60	4.042	512	514	515	rBV	2249208	1334728	40.74%	1.974%
61	4.160	532	536	540	rBV4	1689050	1591553	48.57%	2.354%
62	4.208	543	545	548	rBV3	924045	750191	22.90%	1.110%
63	4.277	555	558	559	rBV	1870139	1117666	34.11%	1.653%
64	4.293	559	561	565	rVB2	3280238	2150744	65.64%	3.181%
65	4.352	569	572	574	rVB2	561370	332762	10.16%	0.492%
66	4.379	575	577	579	rBV	405589	354918	10.83%	0.525%
67	4.470	592	594	597	rBV2	976016	503994	15.38%	0.745%
68	4.507	599	601	602	rVB	1785715	841363	25.68%	1.244%
69	4.534	604	606	608	rVB	1480224	964826	29.45%	1.427%
70	4.667	629	631	636	rVB2	1022926	1112389	33.95%	1.645%
71	4.705	636	638	639	rBV	278451	145055	4.43%	0.215%
72	4.731	639	643	645	rVB	1521330	1208013	36.87%	1.787%
73	4.940	680	682	683	rBV	374246	199673	6.09%	0.295%
74	4.956	683	685	688	rVB	2054965	1156594	35.30%	1.711%
75	5.004	692	694	700	rVB2	566516	671647	20.50%	0.993%
76	5.180	724	727	731	rBV2	1214164	1055704	32.22%	1.561%
77	5.212	731	733	735	rBV	357136	226200	6.90%	0.335%
78	5.260	739	742	744	rBV	882112	726193	22.16%	1.074%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7742.D
Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

79	5.362	758	761	765	rVB	1011407	761995	23.26%	1.127%
80	5.394	765	767	770	rBV	1131157	729702	22.27%	1.079%
81	5.511	786	789	791	rVB	944431	822470	25.10%	1.216%
82	5.538	791	794	797	rVV	431554	392437	11.98%	0.580%
83	5.565	797	799	802	rVB	459966	311077	9.49%	0.460%
84	5.650	812	815	818	rBV	771282	508392	15.52%	0.752%
85	5.955	869	872	875	rBV	1034935	951234	29.03%	1.407%
86	6.211	918	920	924	rVB2	1059611	747681	22.82%	1.106%
87	6.446	961	964	969	rBV2	1377172	2121758	64.76%	3.138%
88	6.548	978	983	986	rBV2	883966	1282813	39.15%	1.897%
89	6.574	986	988	992	rVV	882870	752539	22.97%	1.113%
90	6.622	994	997	999	rVV	973230	844867	25.79%	1.250%
91	6.665	1000	1005	1007	rVV	1838599	2431891	74.22%	3.597%
92	6.687	1007	1009	1011	rVV	1268397	1254189	38.28%	1.855%
93	6.724	1014	1016	1019	rVB	1449601	1342396	40.97%	1.985%
94	6.799	1027	1030	1034	rVB	1497915	1362499	41.58%	2.015%
95	6.836	1034	1037	1040	rVB	1793879	1533918	46.82%	2.269%
96	6.922	1048	1053	1058	rVB	1760533	1876511	57.27%	2.775%
97	7.018	1068	1071	1075	rBV	570139	506357	15.45%	0.749%
98	7.066	1075	1080	1084	rVV	3230464	3276502	100.00%	4.846%
99	7.125	1086	1091	1101	rBV	2921429	3269298	99.78%	4.835%
100	7.360	1132	1135	1146	rVB2	564687	834653	25.47%	1.235%

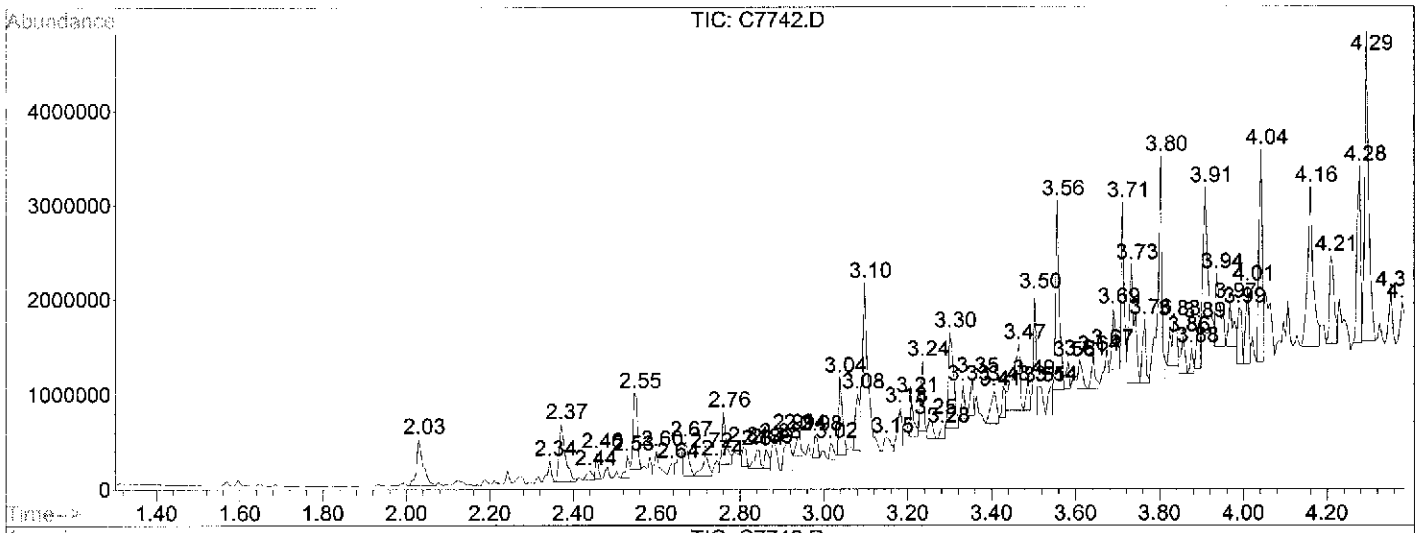
Sum of corrected areas: 67610506

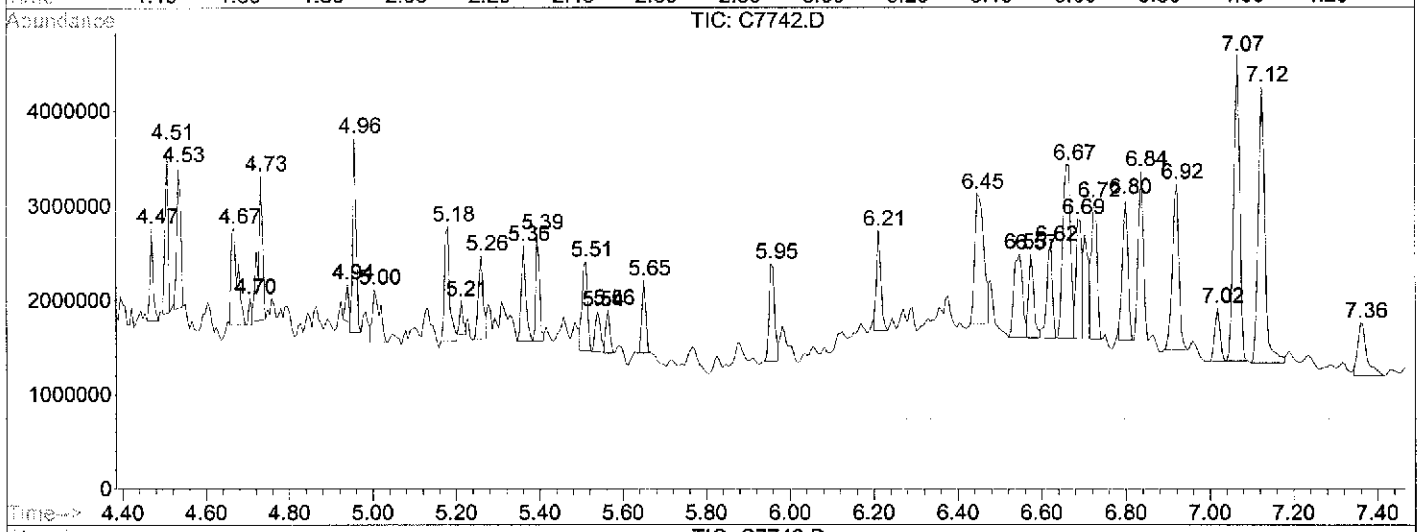
LSC Report - Integrated Chromatogram

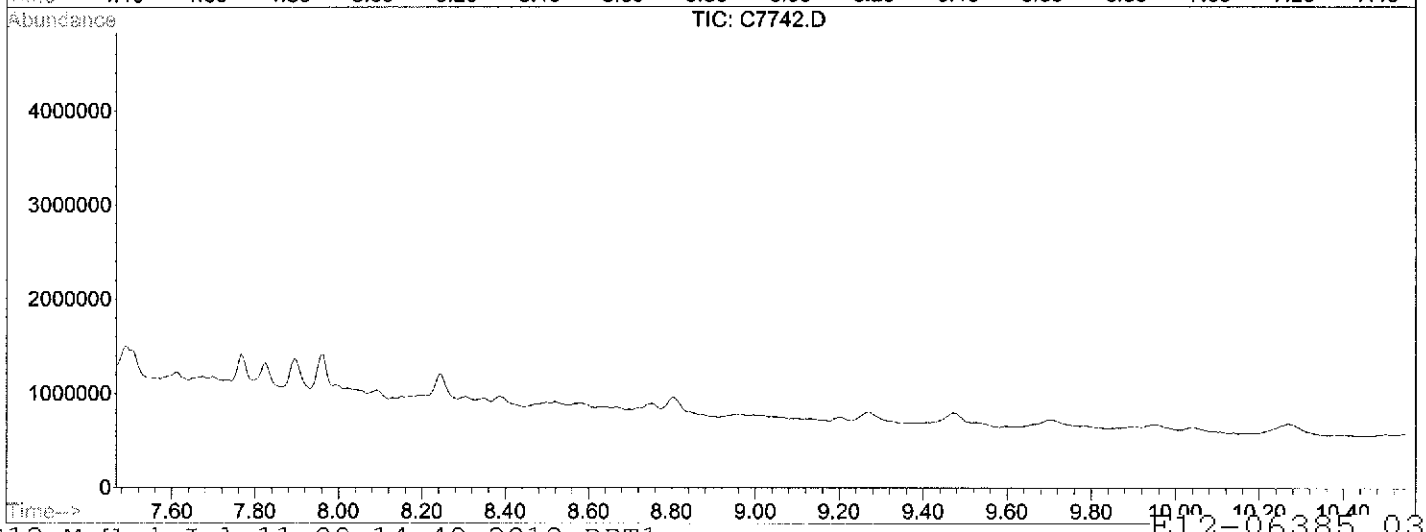
Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7742.D
Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

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Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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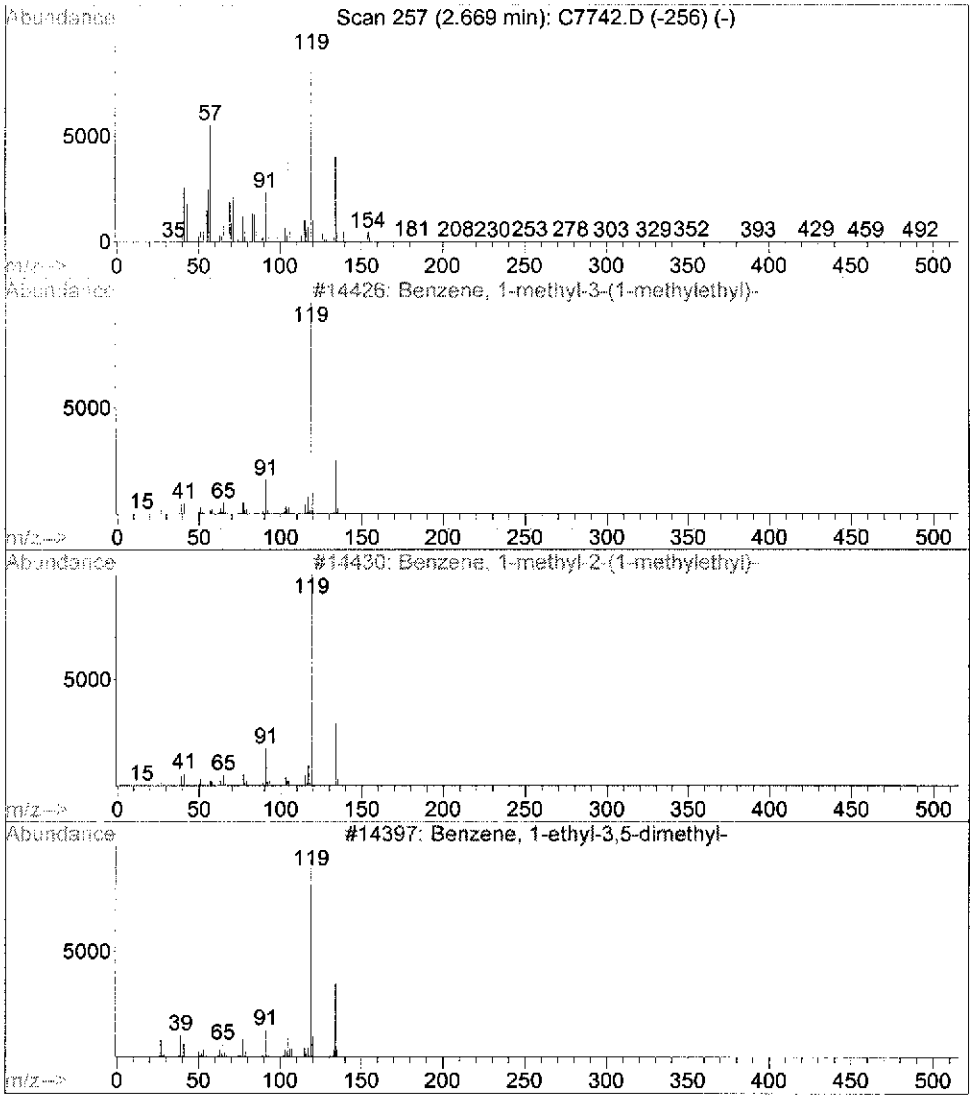
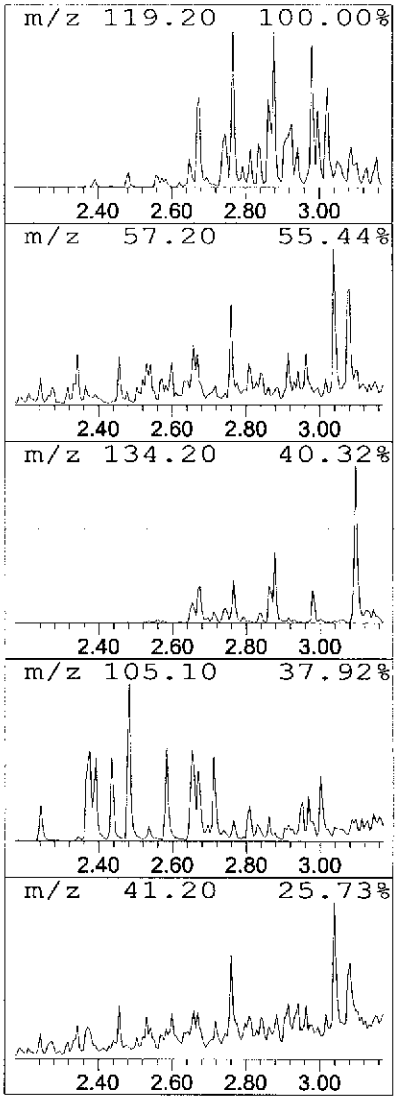
Peak Number 1 Unknown Aromatic Concentration Rank 24

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.67	16.89 UG	249303	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	90
2	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	78
3	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	60
4	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	60
5	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	60





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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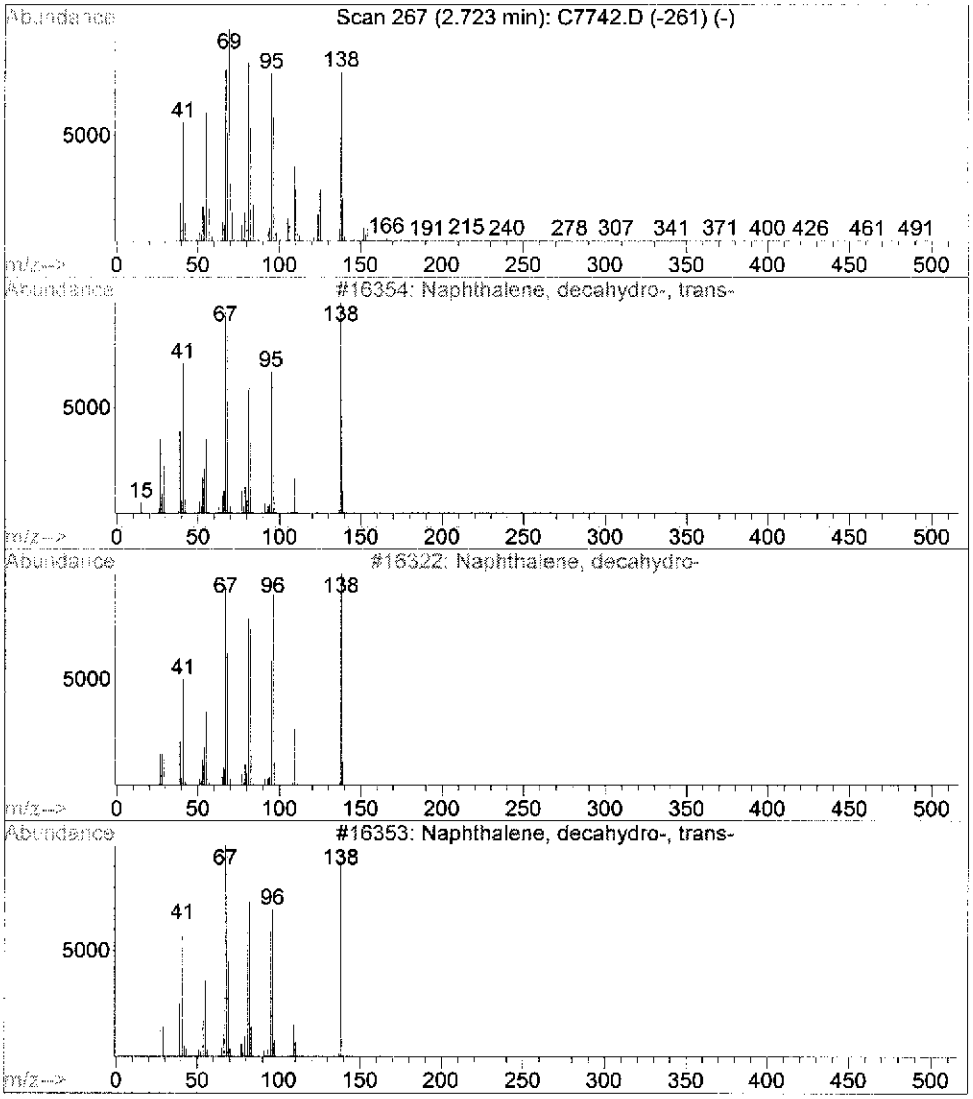
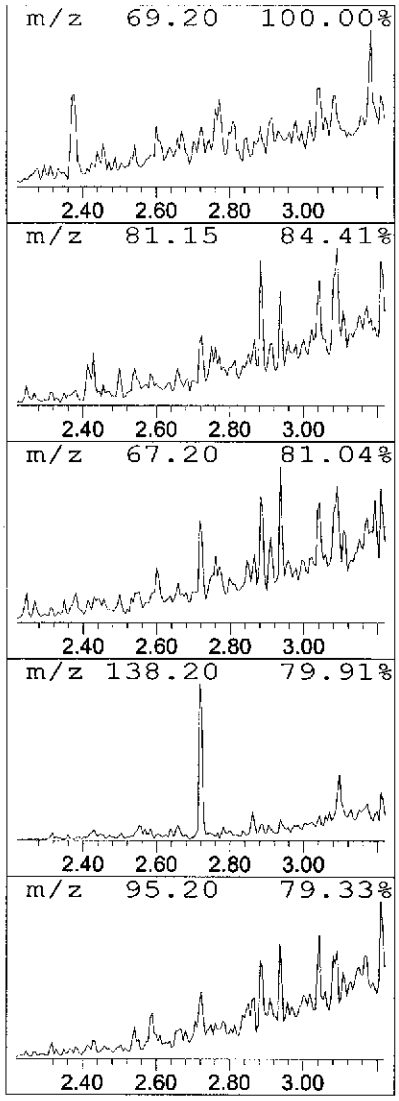
Peak Number 2 Unknown PAH Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.72	16.29 UG	240459	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	95
2	Naphthalene, decahydro-	138	C10H18	000091-17-8	95
3	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	95
4	Naphthalene, decahydro-	138	C10H18	000091-17-8	95
5	Naphthalene, decahydro-	138	C10H18	000091-17-8	83





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ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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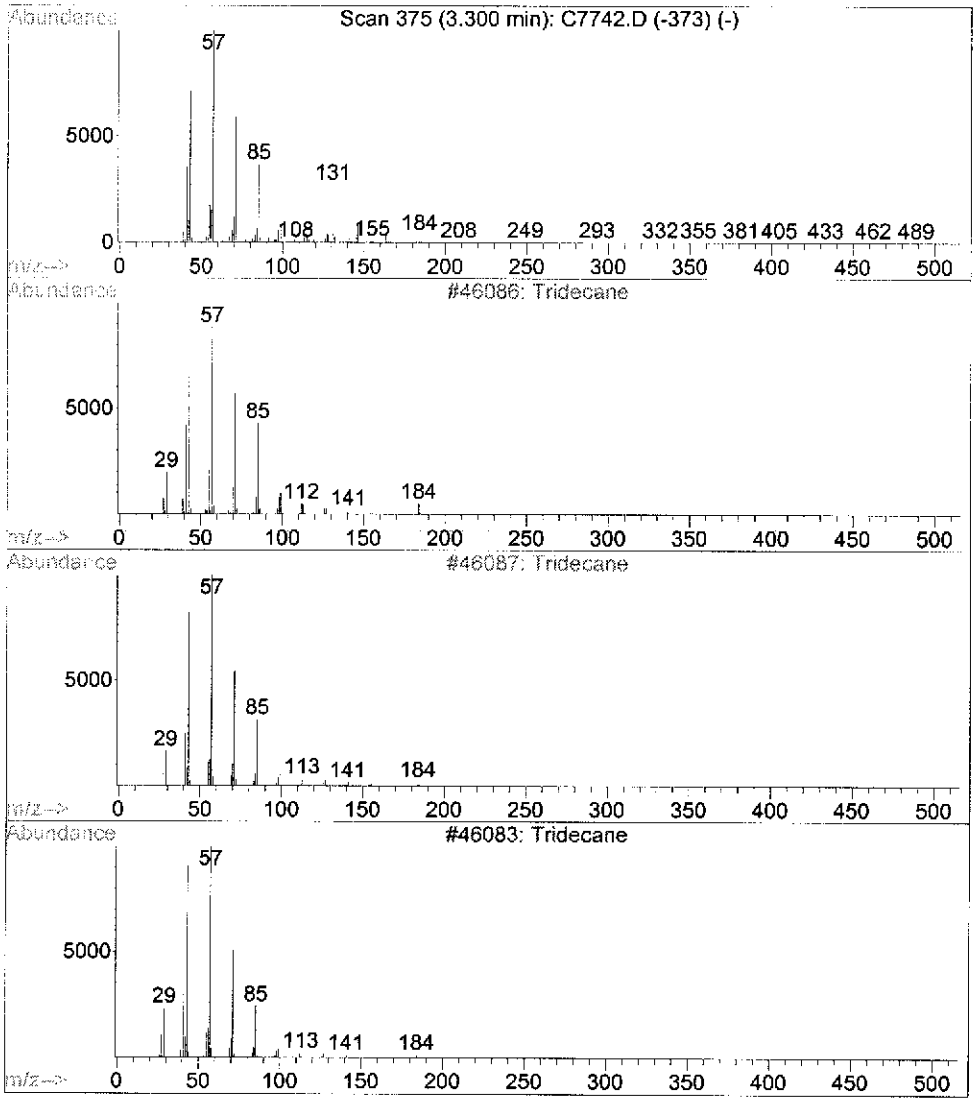
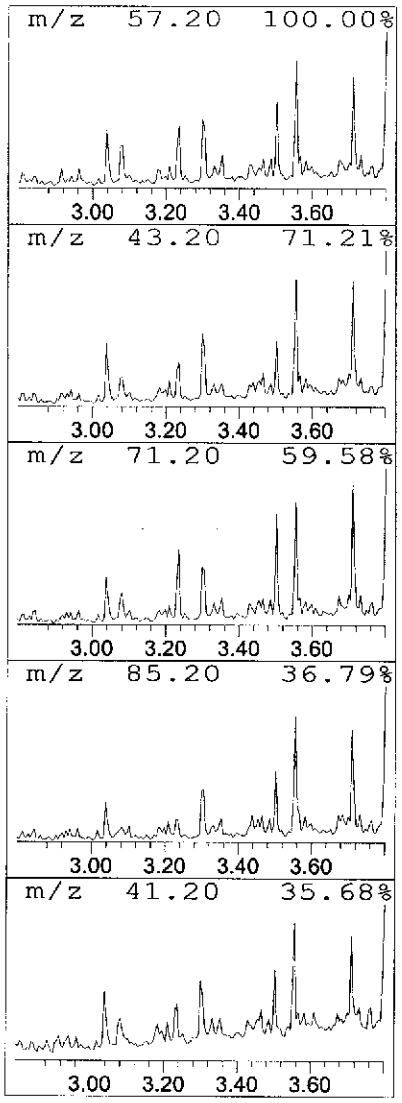
Peak Number 3 Unknown Hydrocarbon Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.30	21.55 UG	884076	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	000629-50-5	98
2	Tridecane	184	C13H28	000629-50-5	96
3	Tridecane	184	C13H28	000629-50-5	83
4	Nonadecane	268	C19H40	000629-92-5	78
5	Tridecane	184	C13H28	000629-50-5	60





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ALS Vial : 8 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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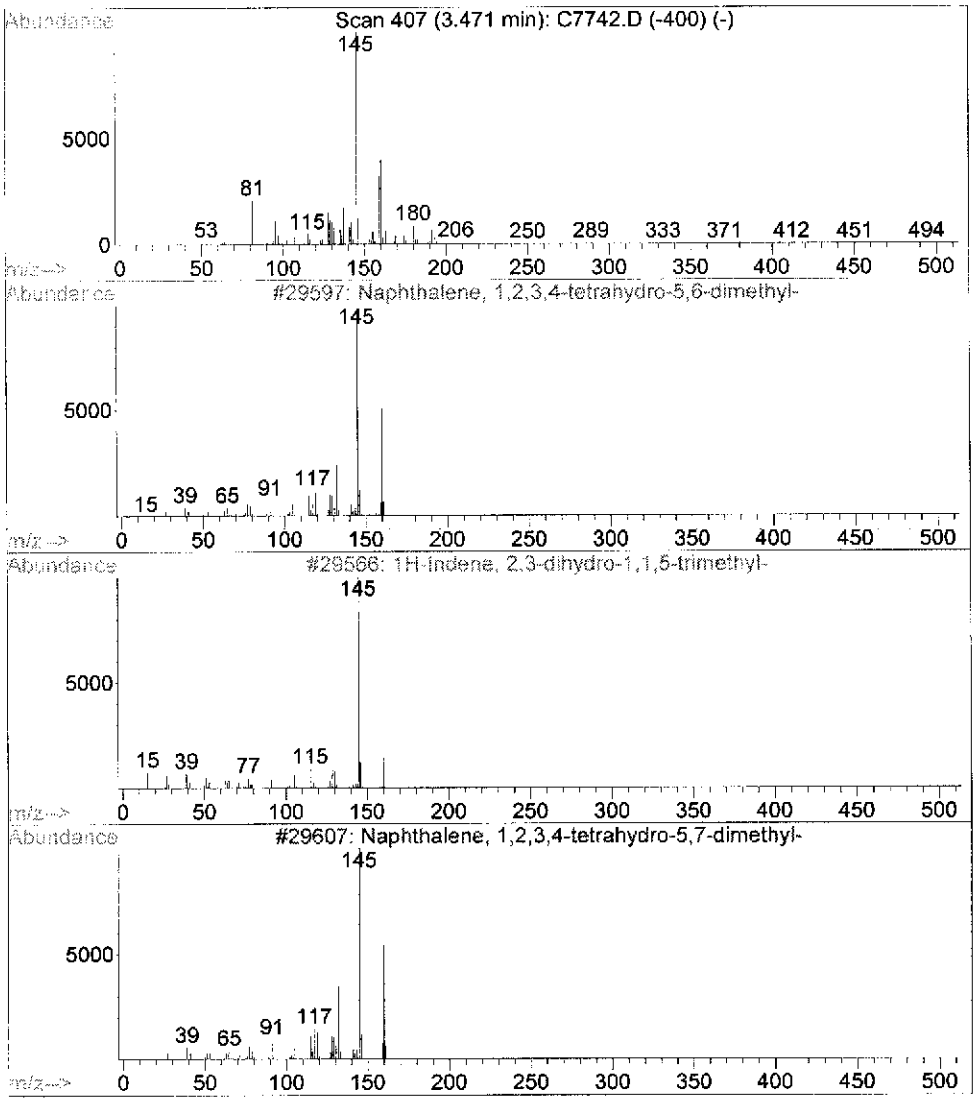
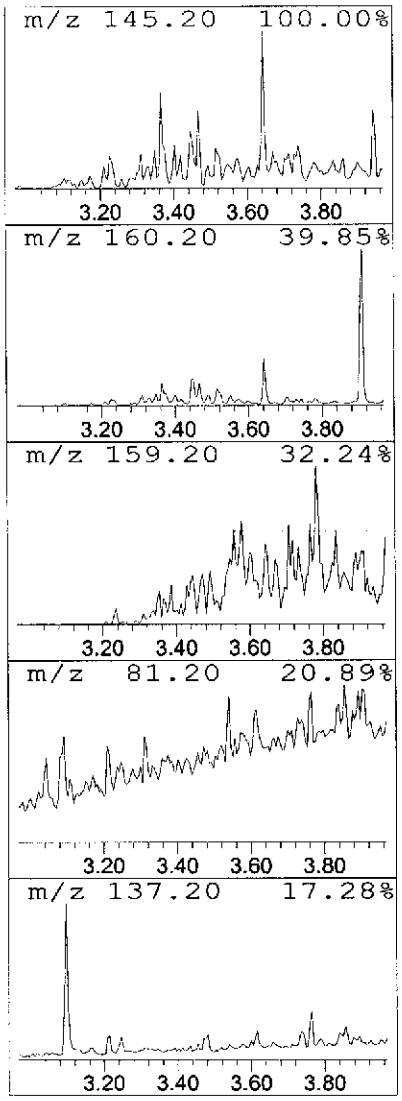
Peak Number 4 Unknown PAH Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.47	20.86 UG	855767	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	020027-77-4	42
2	1H-Indene, 2,3-dihydro-1,1,5-tri...	160	C12H16	040650-41-7	38
3	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	021693-54-9	38
4	1H-Pyrrolo[2,3-b]pyridine, 2-(1-...	160	C10H12N2	027257-18-7	38
5	Naphthalene, 1,2,3,4-tetrahydro-...	160	C12H16	021564-91-0	38





Library Search Compound Report

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ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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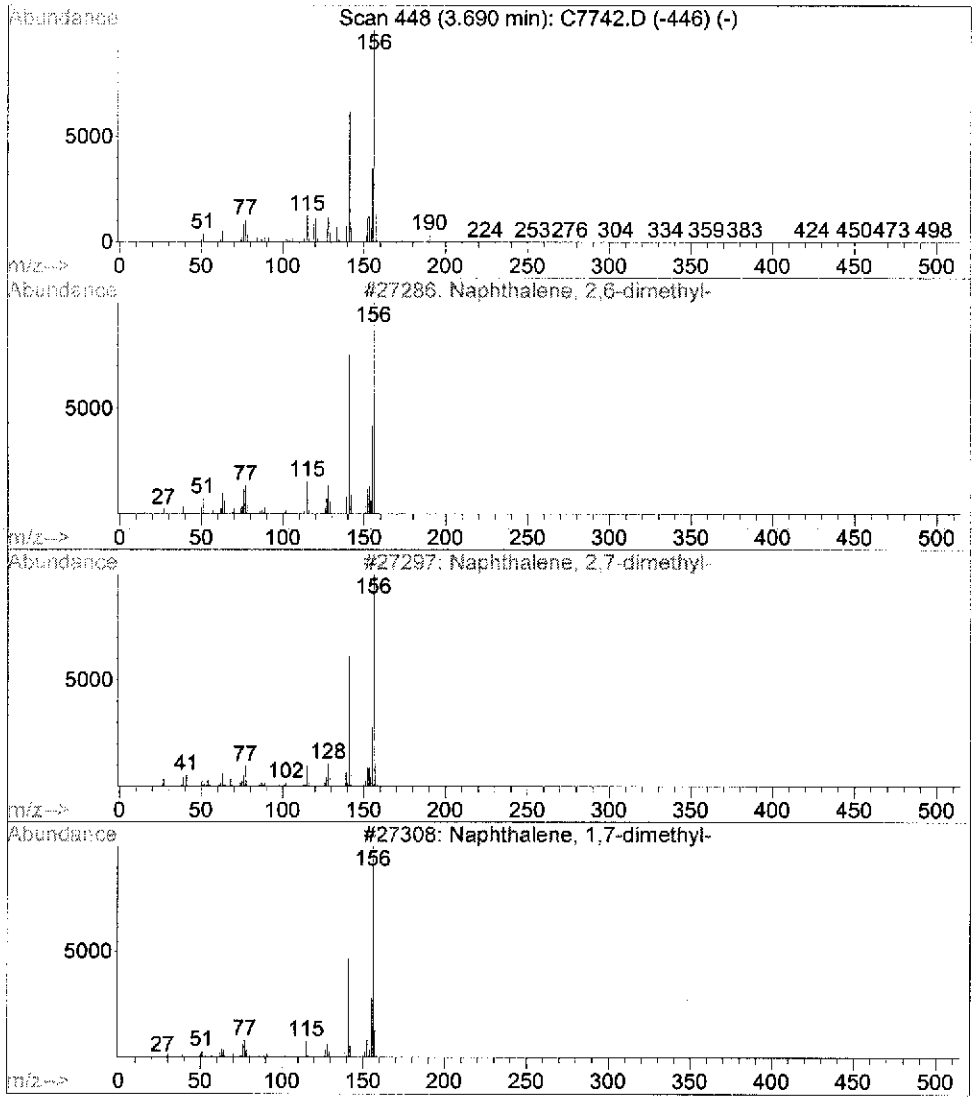
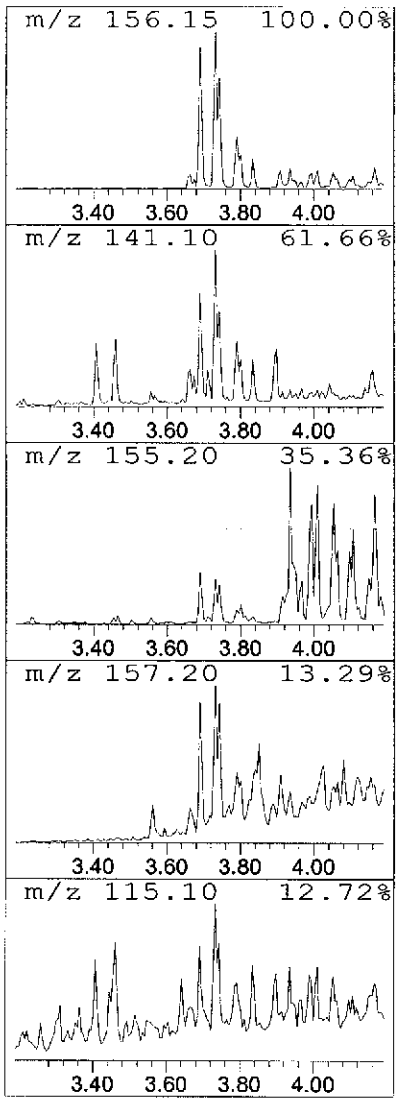
Peak Number 5 Unknown PAH Concentration Rank 21

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.69	18.36 UG	536506	Acenaphthene-d10	3.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,6-dimethyl-	156	C12H12	000581-42-0	98
2	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
3	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	96
4	Naphthalene, 1,8-dimethyl-	156	C12H12	000569-41-5	96
5	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	95





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ALS Vial : 8 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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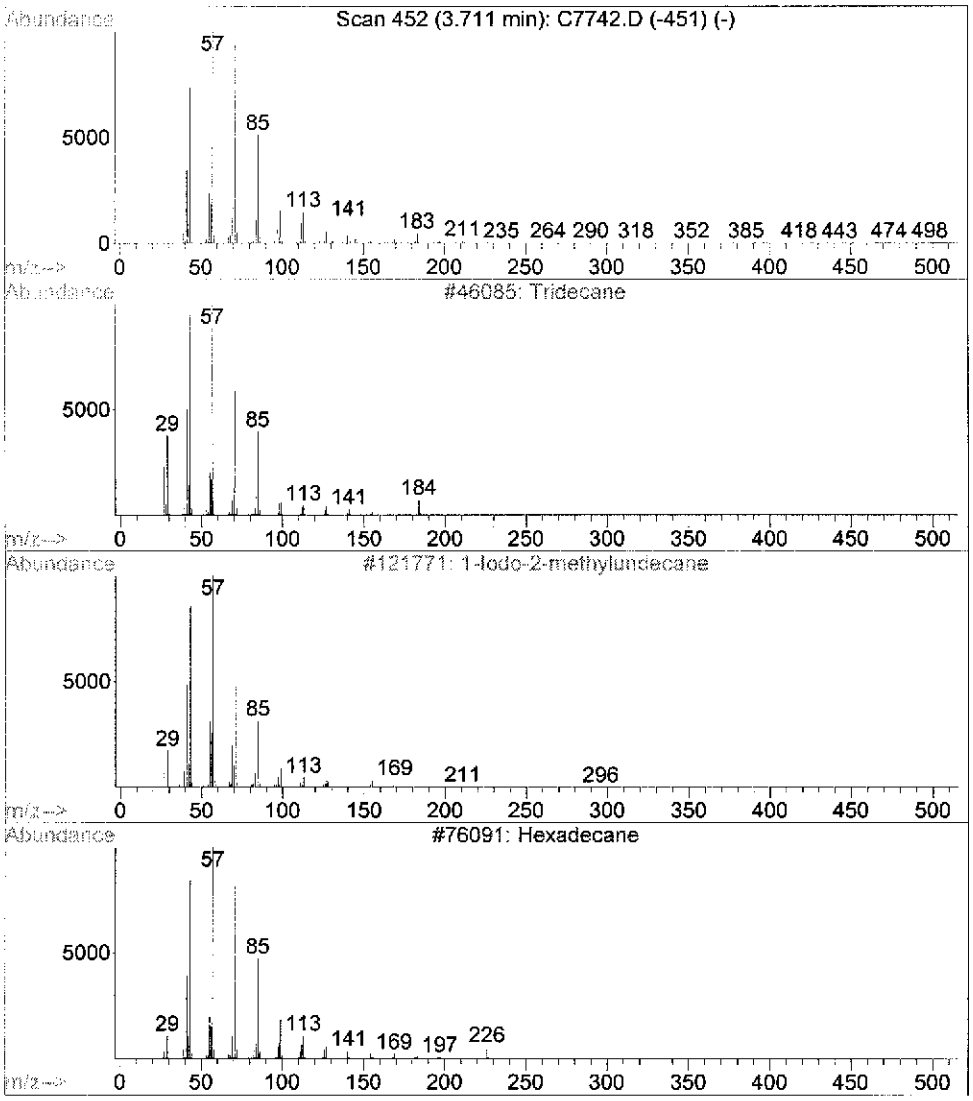
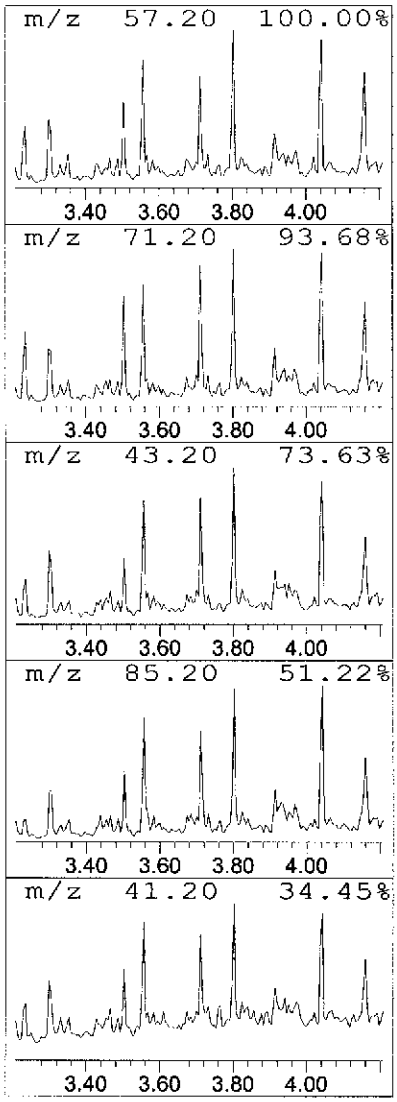
Peak Number 6 Unknown Hydrocarbon Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.71	24.07 UG	703563	Acenaphthene-d10	3.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	000629-50-5	93
2	1-Iodo-2-methylundecane	296	C12H25I	073105-67-6	90
3	Hexadecane	226	C16H34	000544-76-3	90
4	Pentadecane, 7-methyl-	226	C16H34	006165-40-8	90
5	Tridecane, 7-hexyl-	268	C19H40	007225-66-3	87





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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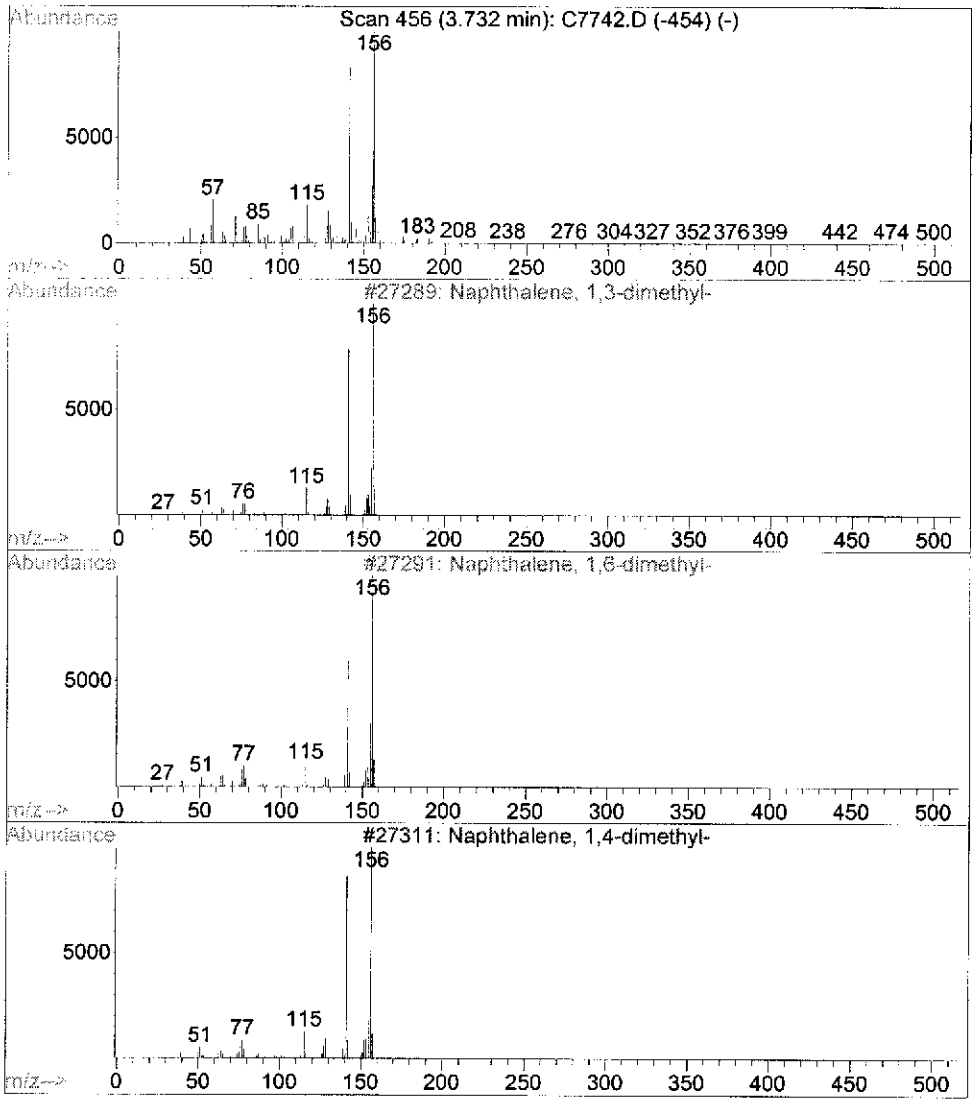
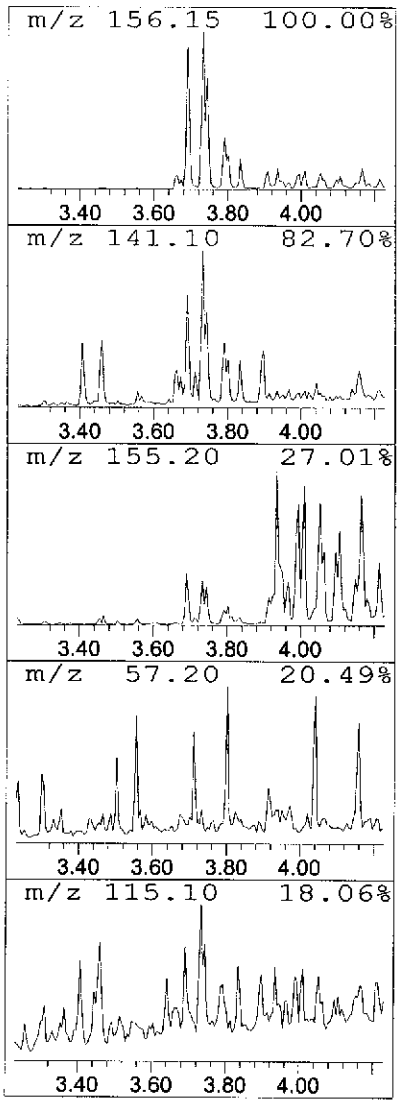
Peak Number 7 Unknown PAH Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.73	37.45 UG	1094470	Acenaphthene-d10	3.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,3-dimethyl-	156	C12H12	000575-41-7	97
2	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	97
3	Naphthalene, 1,4-dimethyl-	156	C12H12	000571-58-4	96
4	Naphthalene, 1,4-dimethyl-	156	C12H12	000571-58-4	96
5	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	96





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ALS Vial : 8 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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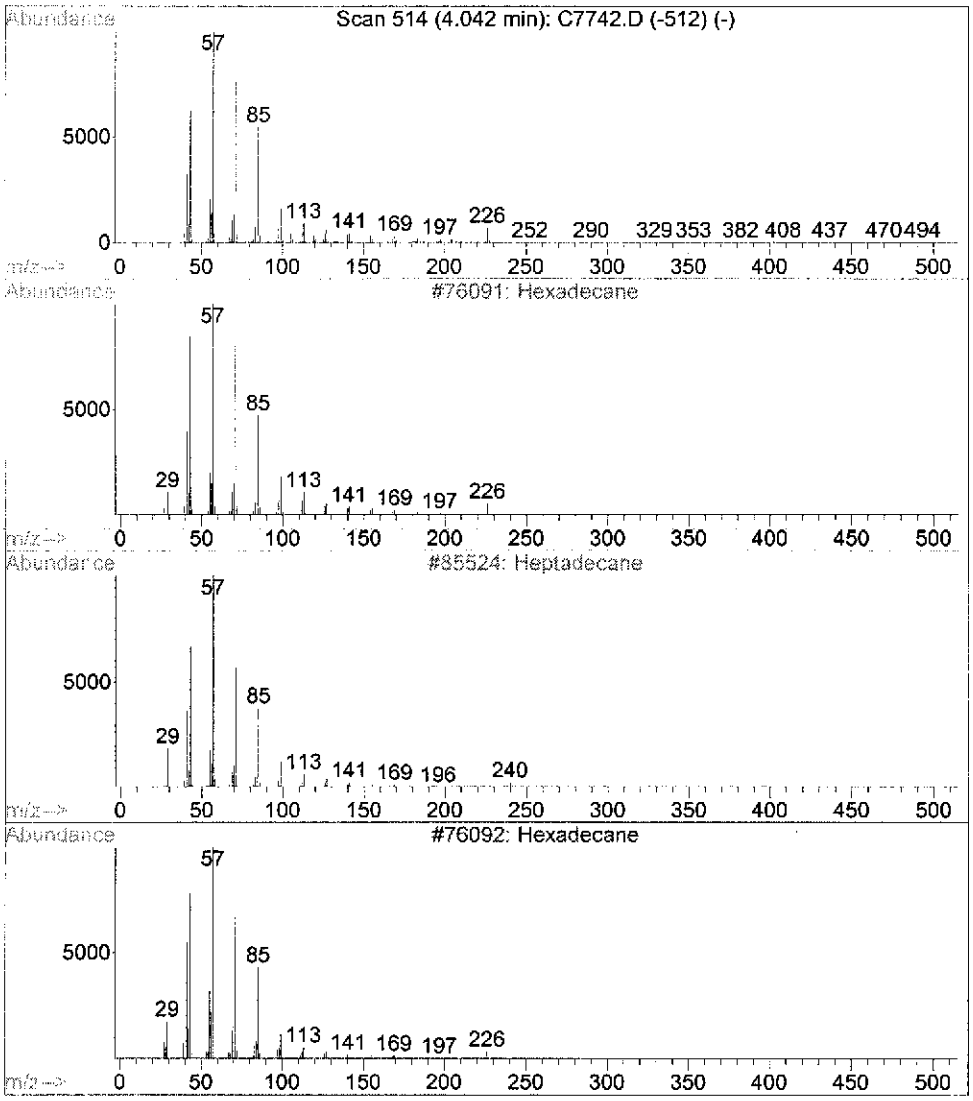
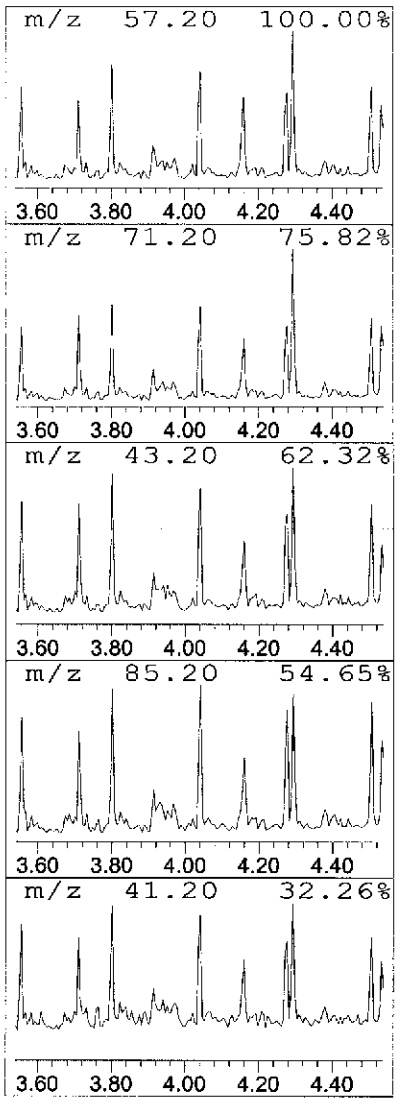
Peak Number 8 Unknown Hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.04	45.67 UG	1334730	Acenaphthene-d10	3.91

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	98
2	Heptadecane	240	C17H36	000629-78-7	97
3	Hexadecane	226	C16H34	000544-76-3	96
4	Heptadecane	240	C17H36	000629-78-7	96
5	Hexadecane	226	C16H34	000544-76-3	94





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ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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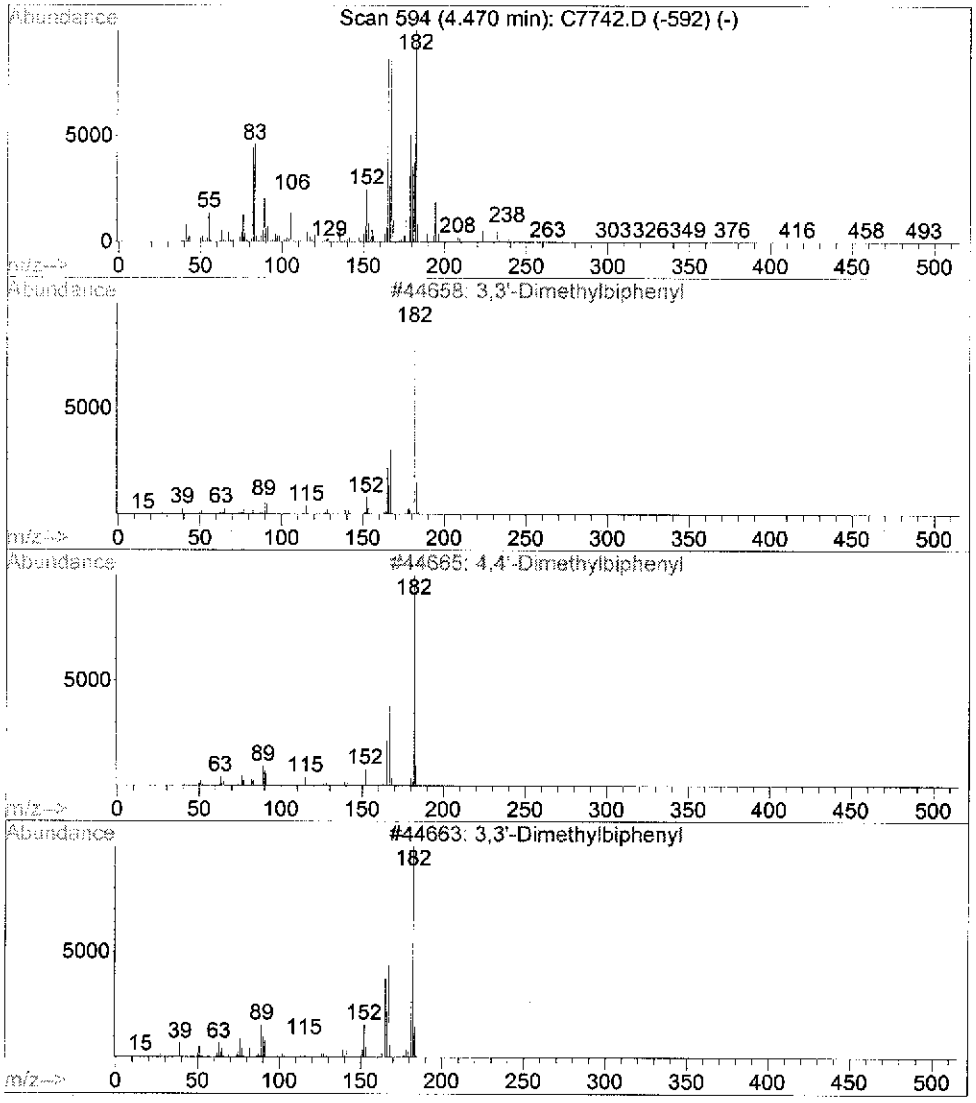
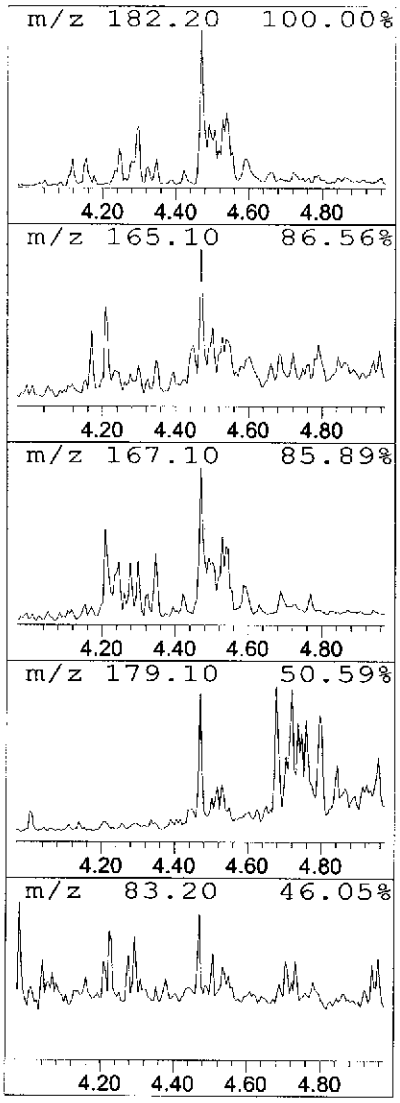
Peak Number 9 Unknown SV Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.47	18.12 UG	503994	Phenanthrene-d10	4.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,3'-Dimethylbiphenyl	182	C14H14	000612-75-9	64
2	4,4'-Dimethylbiphenyl	182	C14H14	000613-33-2	46
3	3,3'-Dimethylbiphenyl	182	C14H14	000612-75-9	45
4	4,4'-Dimethylbiphenyl	182	C14H14	000613-33-2	43
5	Pentacyclo[6.4.0.1(1,8).1(2,7)]t...	180	C14H12	086120-84-5	42





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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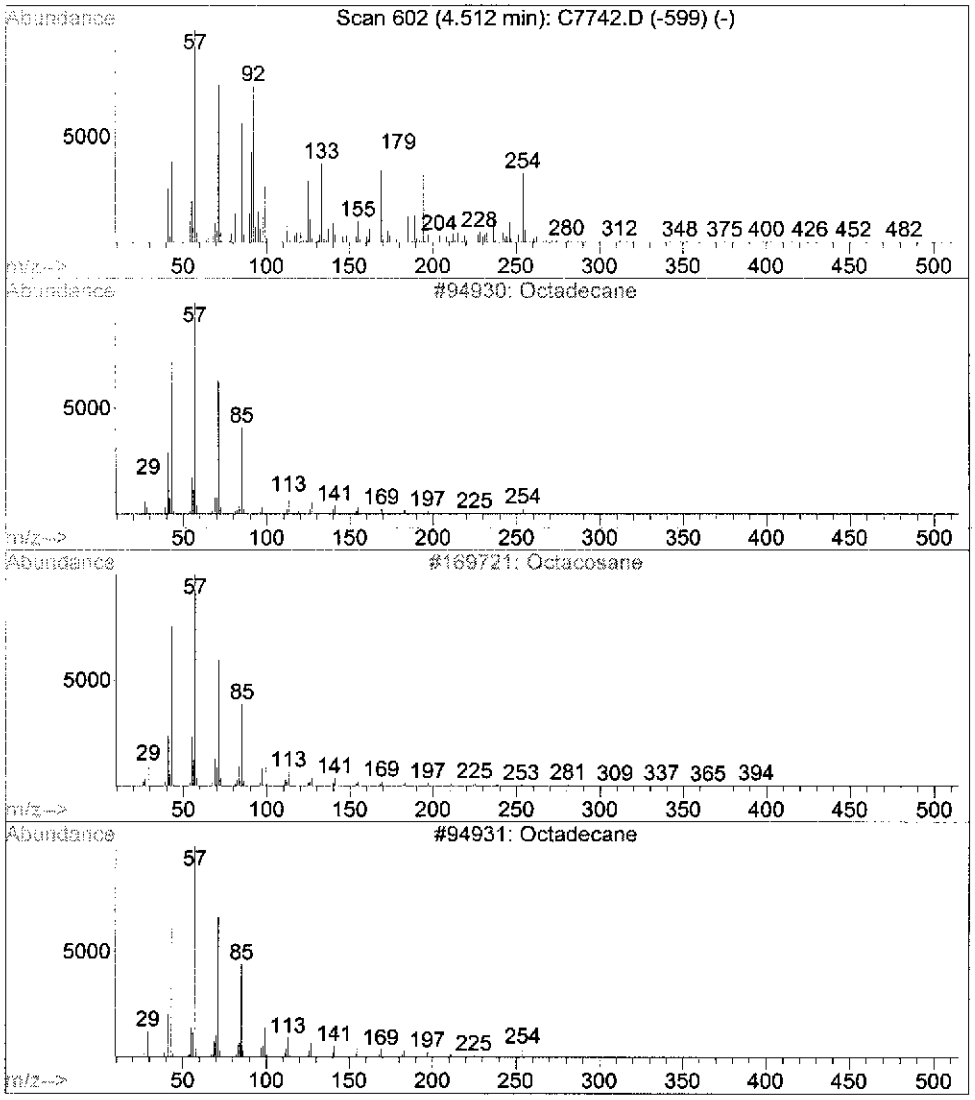
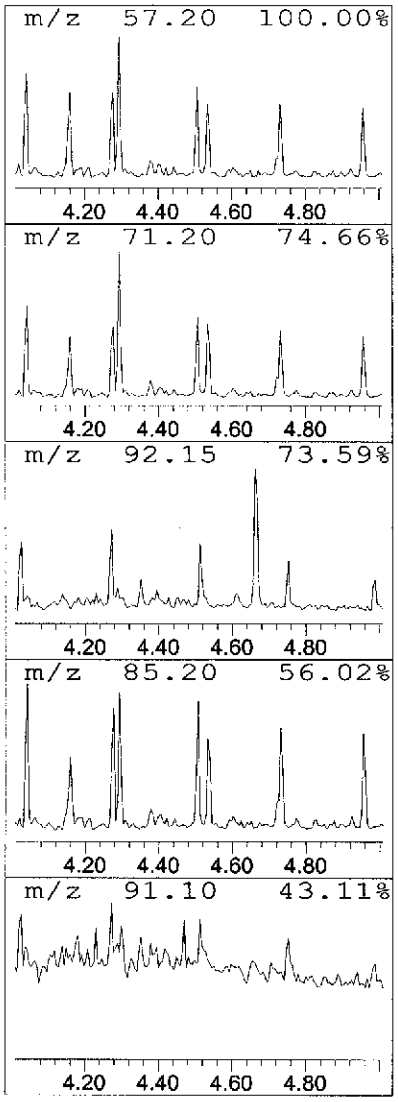
Peak Number 10 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.51	30.25 UG	841363	Phenanthrene-d10	4.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane	254	C18H38	000593-45-3	96
2	Octacosane	394	C28H58	000630-02-4	94
3	Octadecane	254	C18H38	000593-45-3	93
4	Octadecane	254	C18H38	000593-45-3	93
5	Tetracosane	338	C24H50	000646-31-1	93





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ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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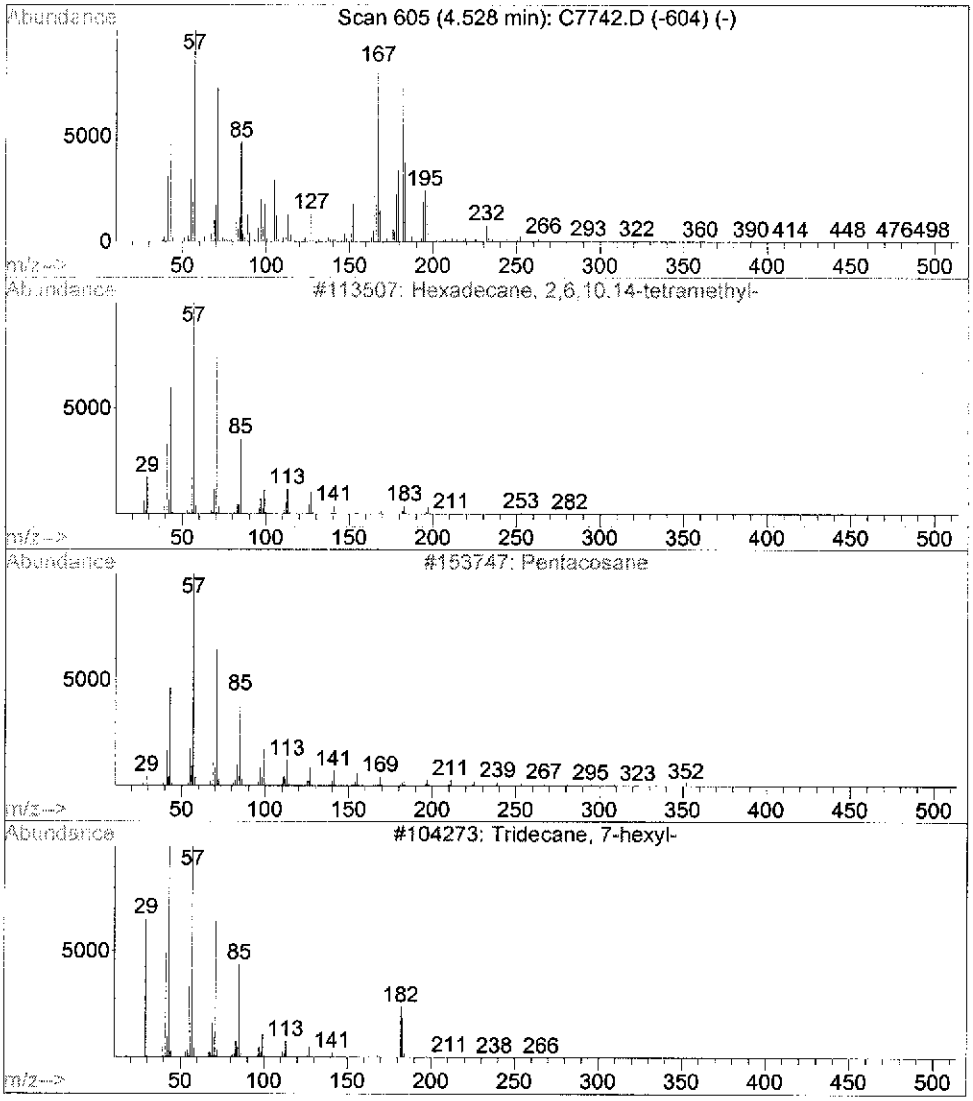
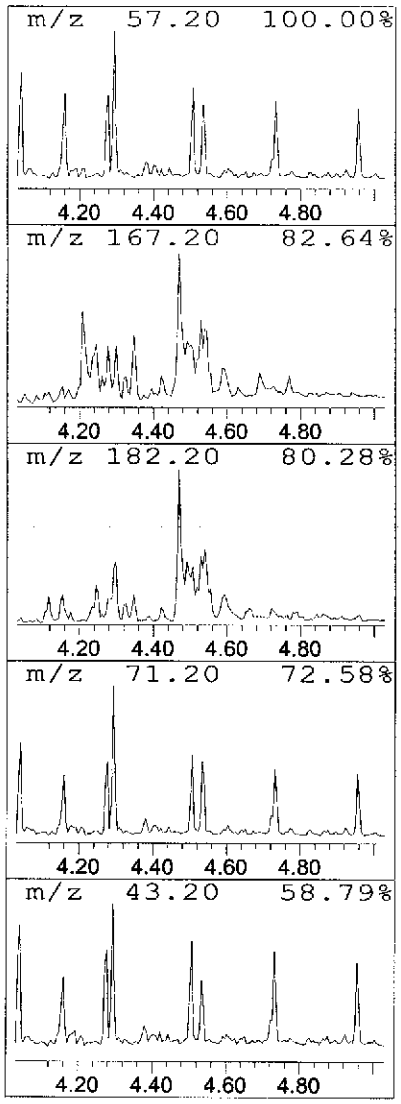
Peak Number 11 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.53	34.69 UG	964826	Phenanthrene-d10	4.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	98
2	Pentacosane	352	C25H52	000629-99-2	90
3	Tridecane, 7-hexyl-	268	C19H40	007225-66-3	87
4	Hexacosane	366	C26H54	000630-01-3	87
5	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44	054833-48-6	86





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ALS Vial : 8 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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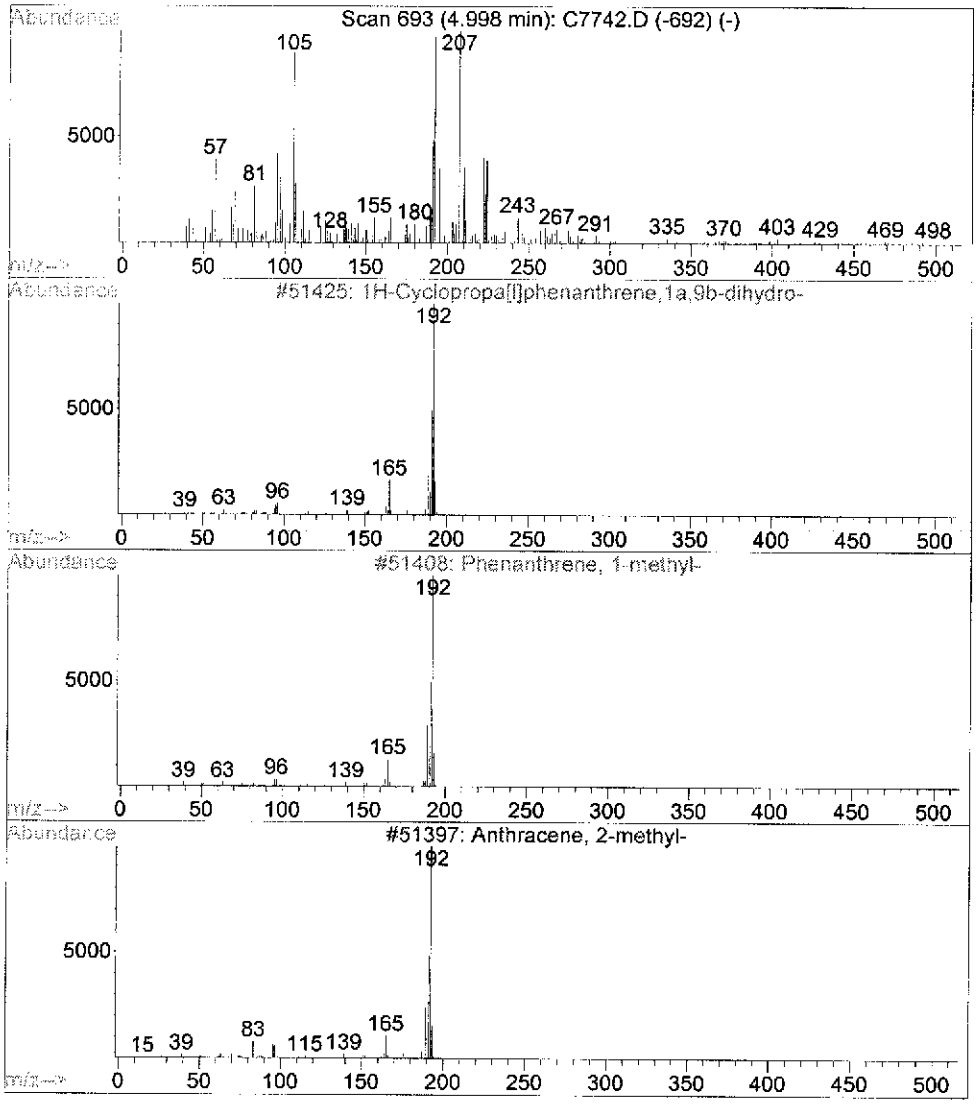
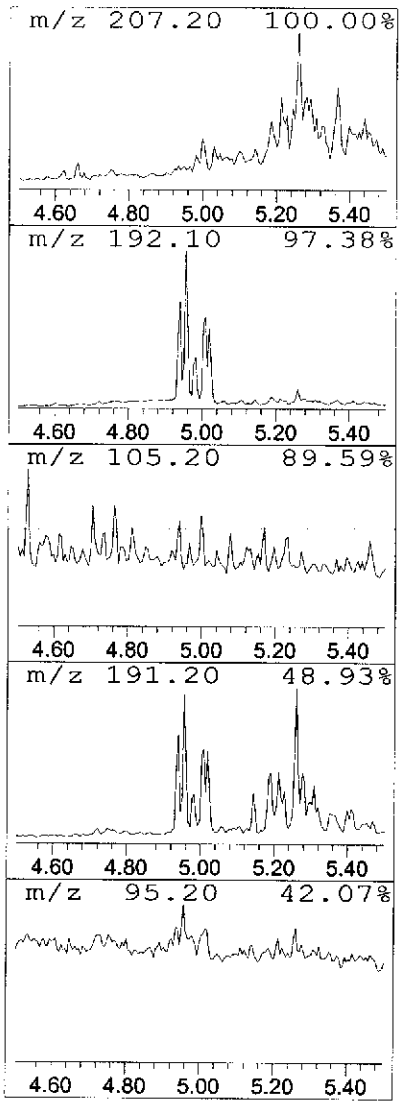
Peak Number 12 Unknown PAH Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.00	24.15 UG	671647	Phenanthrene-d10	4.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Cyclopropa[l]phenanthrene,1a,...	192	C15H12	000949-41-7	96
2	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	96
3	Anthracene, 2-methyl-	192	C15H12	000613-12-7	95
4	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	94
5	Phenanthrene, 2-methyl-	192	C15H12	002531-84-2	89





Library Search Compound Report

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Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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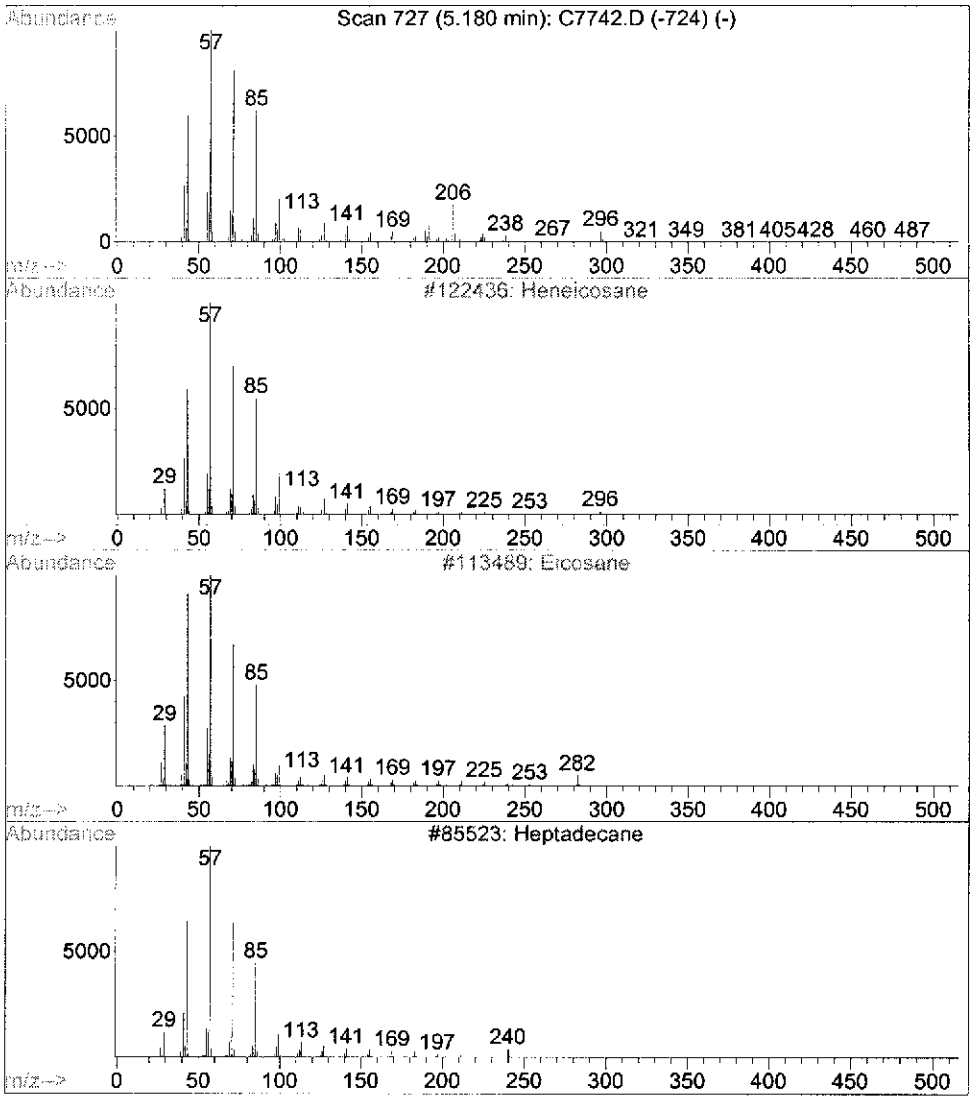
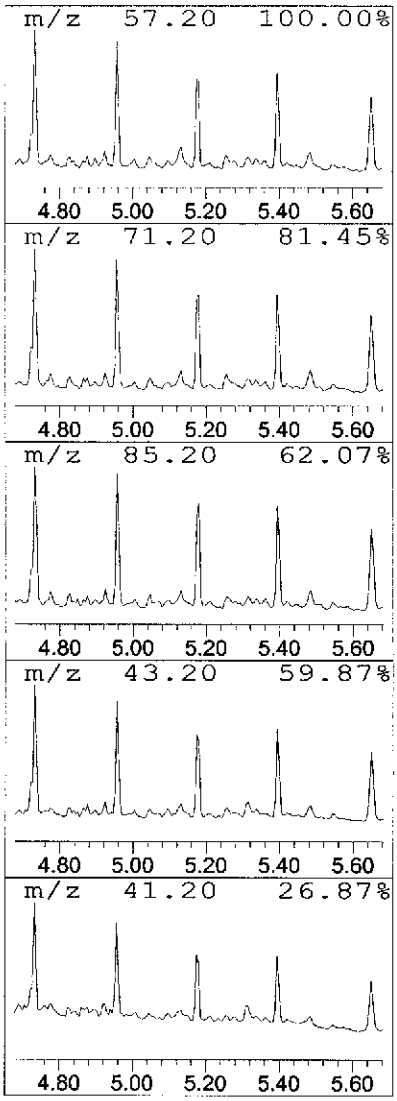
Peak Number 13 Unknown Hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.18	37.96 UG	1055700	Phenanthrene-d10	4.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	98
2	Eicosane	282	C20H42	000112-95-8	97
3	Heptadecane	240	C17H36	000629-78-7	95
4	Heneicosane	296	C21H44	000629-94-7	95
5	Nonadecane	268	C19H40	000629-92-5	94





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ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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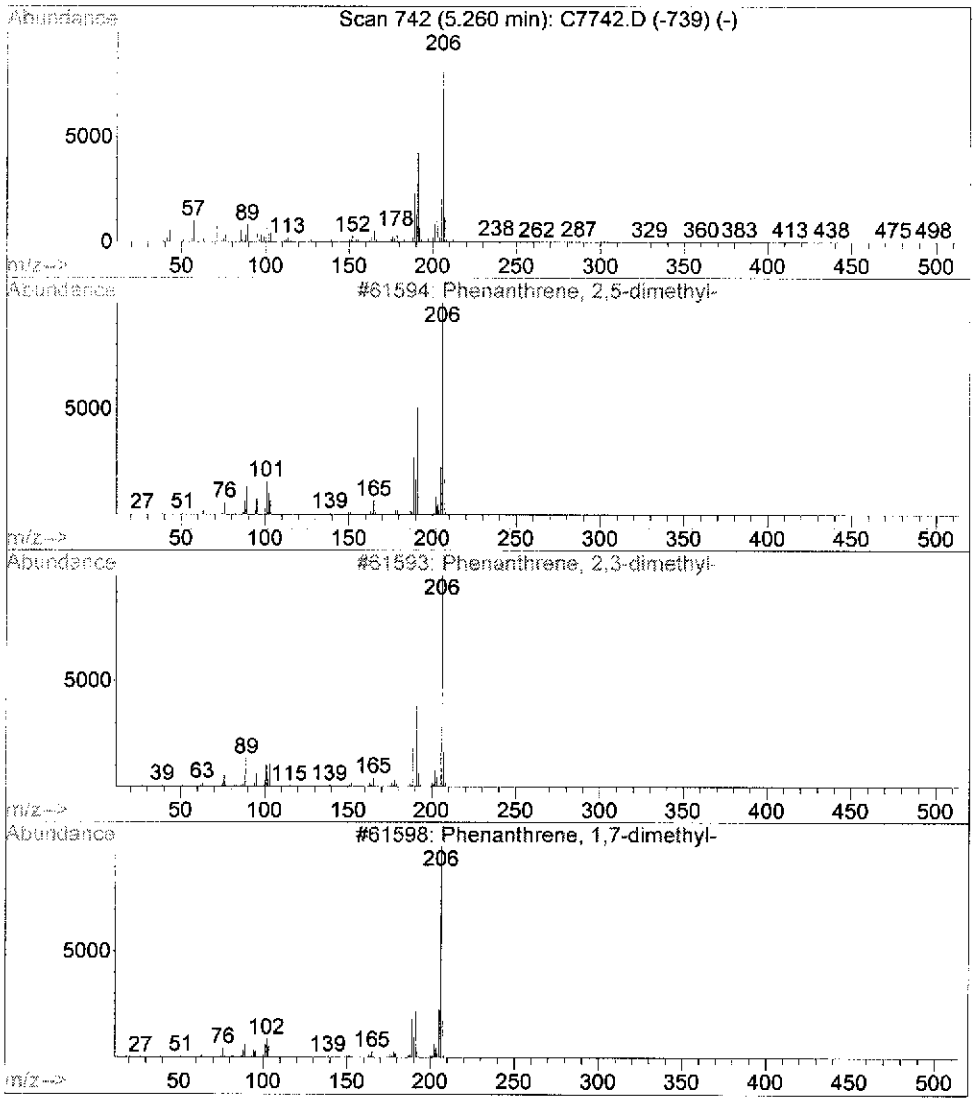
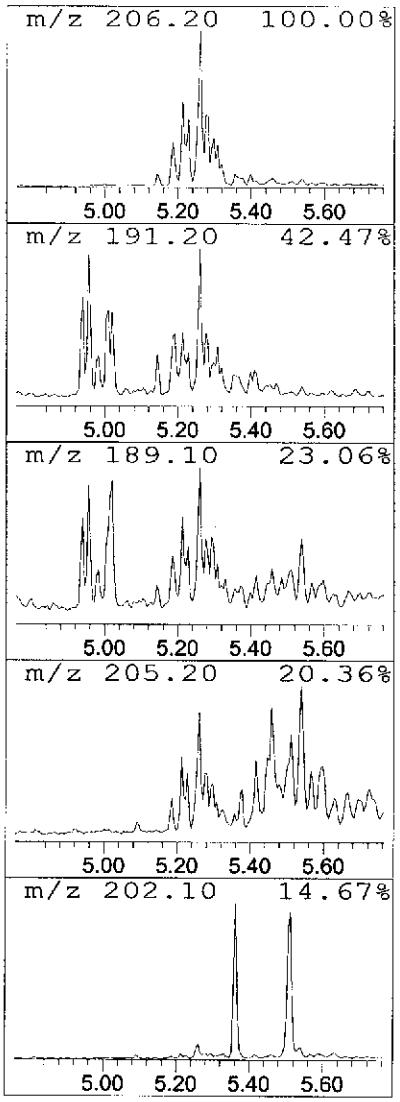
Peak Number 14 Unknown PAH Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.26	26.11 UG	726193	Phenanthrene-d10	4.67

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	95
2	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	83
3	Phenanthrene, 1,7-dimethyl-	206	C16H14	000483-87-4	83
4	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	81
5	Anthracene, 1,4-dimethyl-	206	C16H14	000781-92-0	74





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ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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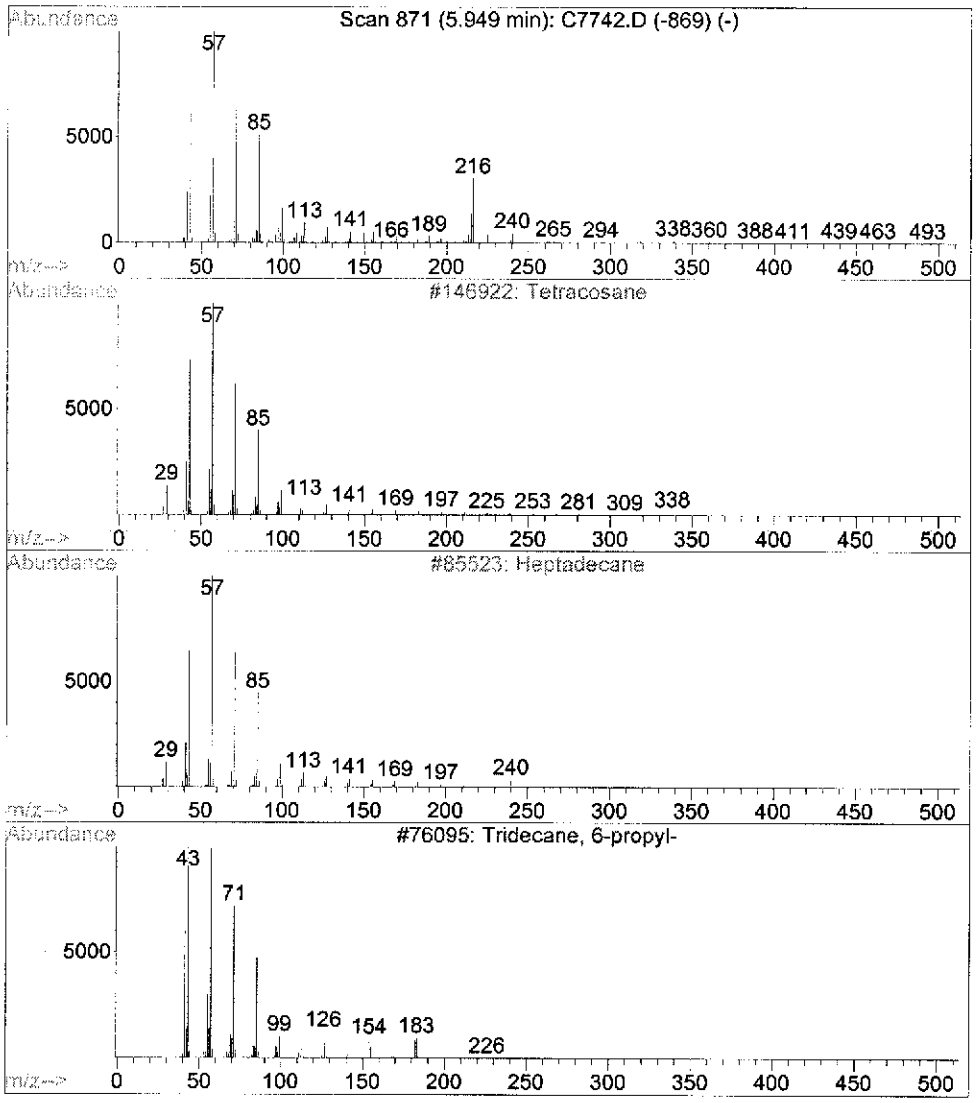
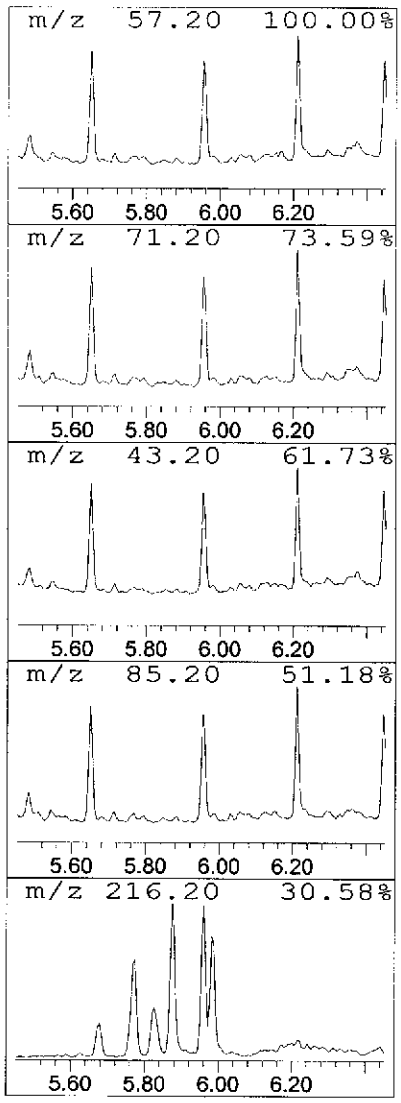
Peak Number 15 Unknown Hydrocarbon Concentration Rank 23

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.95	17.93 UG	951234	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetracosane	338	C24H50	000646-31-1	96
2	Heptadecane	240	C17H36	000629-78-7	93
3	Tridecane, 6-propyl-	226	C16H34	055045-10-8	86
4	Tetracosane	338	C24H50	000646-31-1	86
5	Octacosane	394	C28H58	000630-02-4	70





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ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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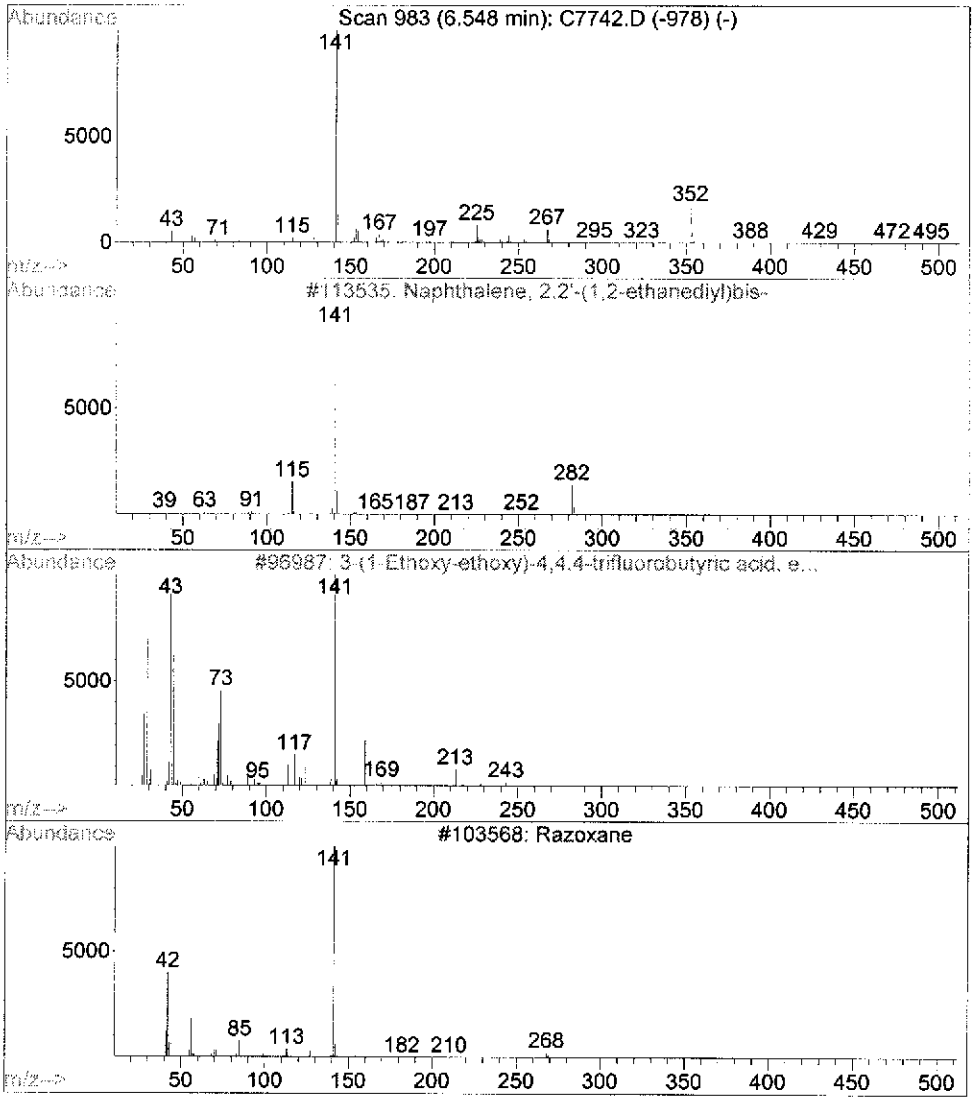
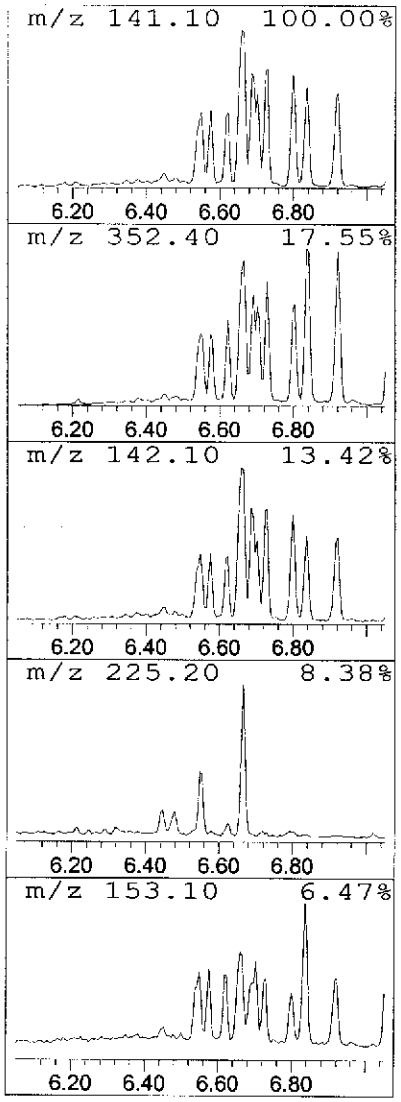
Peak Number 16 Unknown SV Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.55	24.18 UG	1282810	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	53
2	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	47
3	Razoxane	268	C11H16N4O4	021416-87-5	33
4	E-2-Octenoic acid, 3-iodo-	268	C8H13IO2	1000308-87-5	9
5	2,6-Difluorobenzoic acid, 3-meth...	226	C12H12F2O2	1000292-58-2	9





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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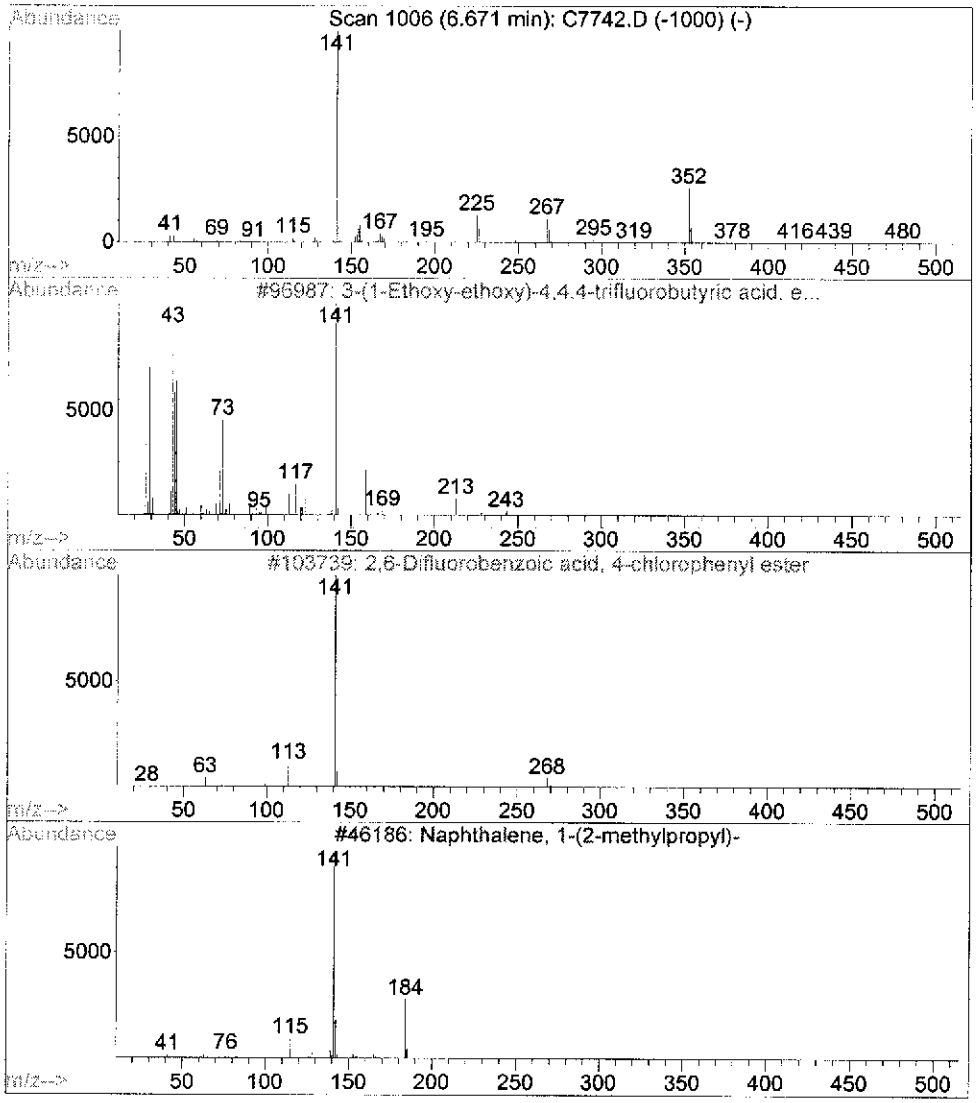
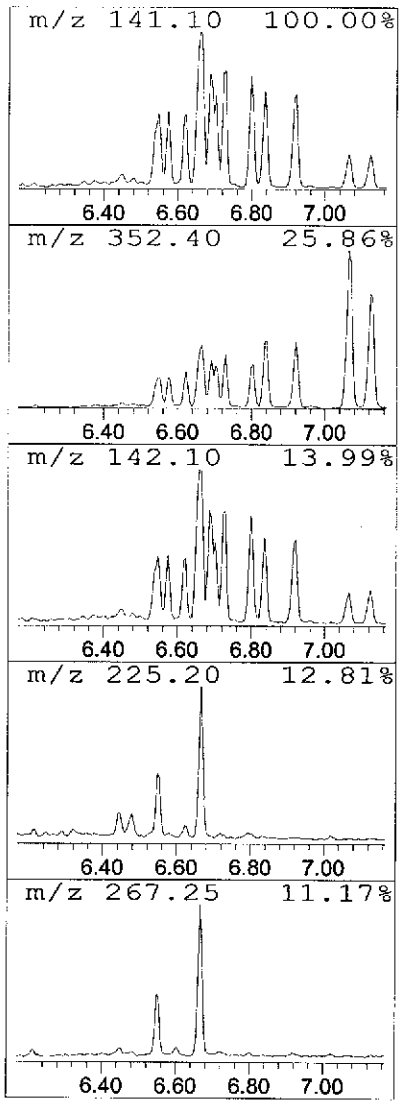
Peak Number 17 Unknown SV Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.67	45.85 UG	2431890	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	43
2	2,6-Difluorobenzoic acid, 4-chlo...	268	C13H7ClF2O2	1000307-55-7	40
3	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	33
4	2,6-Difluorobenzoic acid, 3-meth...	226	C12H12F2O2	1000292-58-2	9
5	Thiophene-3-carboxamide, N-(2-ch...	267	C12H10ClNO2S	1000268-70-7	9





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ALS Vial : 8 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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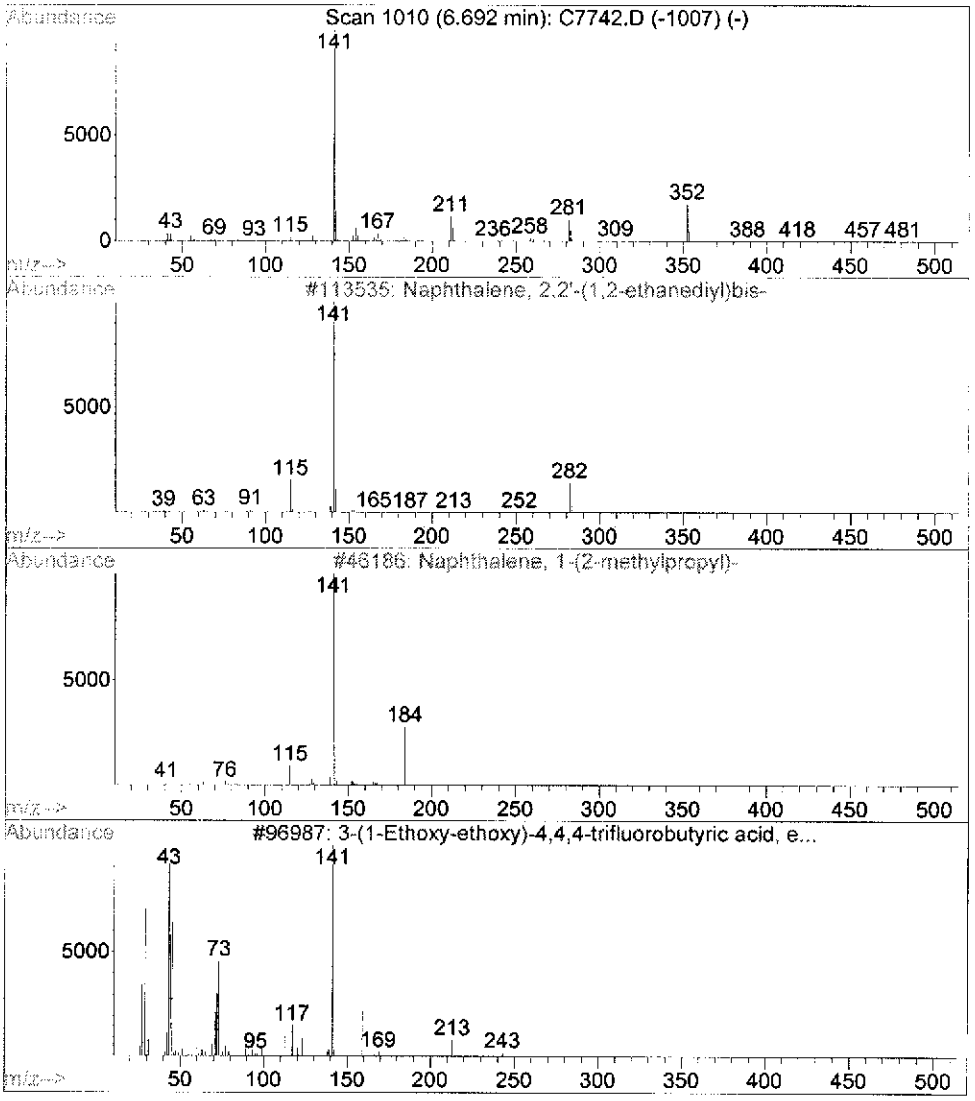
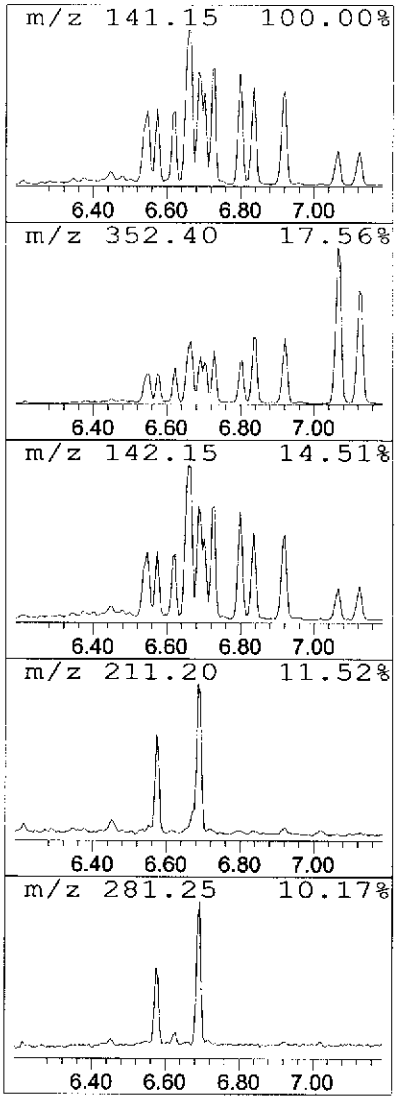
Peak Number 18 Unknown SV Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.69	23.64 UG	1254190	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	53
2	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	50
3	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	28
4	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	28
5	Undecane, 1-(1-naphthyl)-	282	C21H30	007225-71-0	16





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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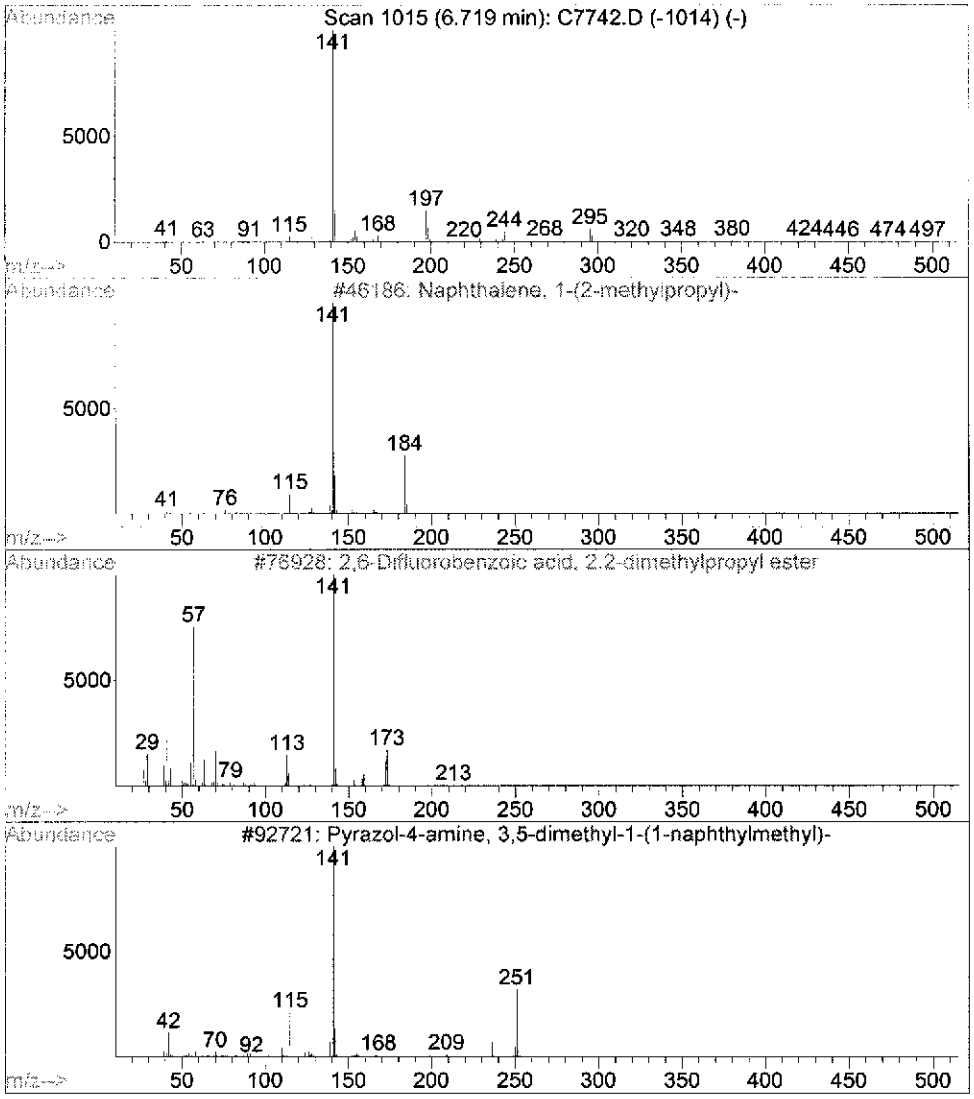
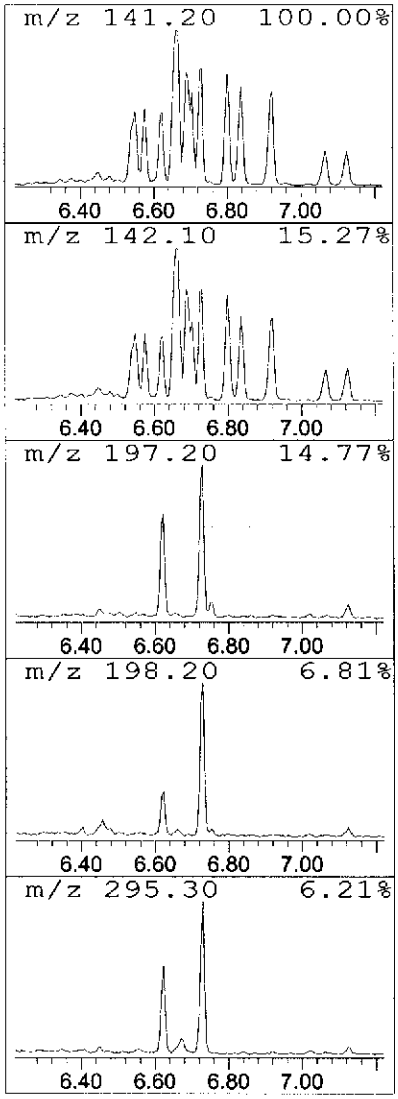
Peak Number 19 Unknown SV Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.72	25.31 UG	1342400	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	36
2	2,6-Difluorobenzoic acid, 2,2-di...	228	C12H14F2O2	1000293-47-6	9
3	Pyrazol-4-amine, 3,5-dimethyl-1-...	251	C16H17N3	1000273-77-6	9
4	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	9
5	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9





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ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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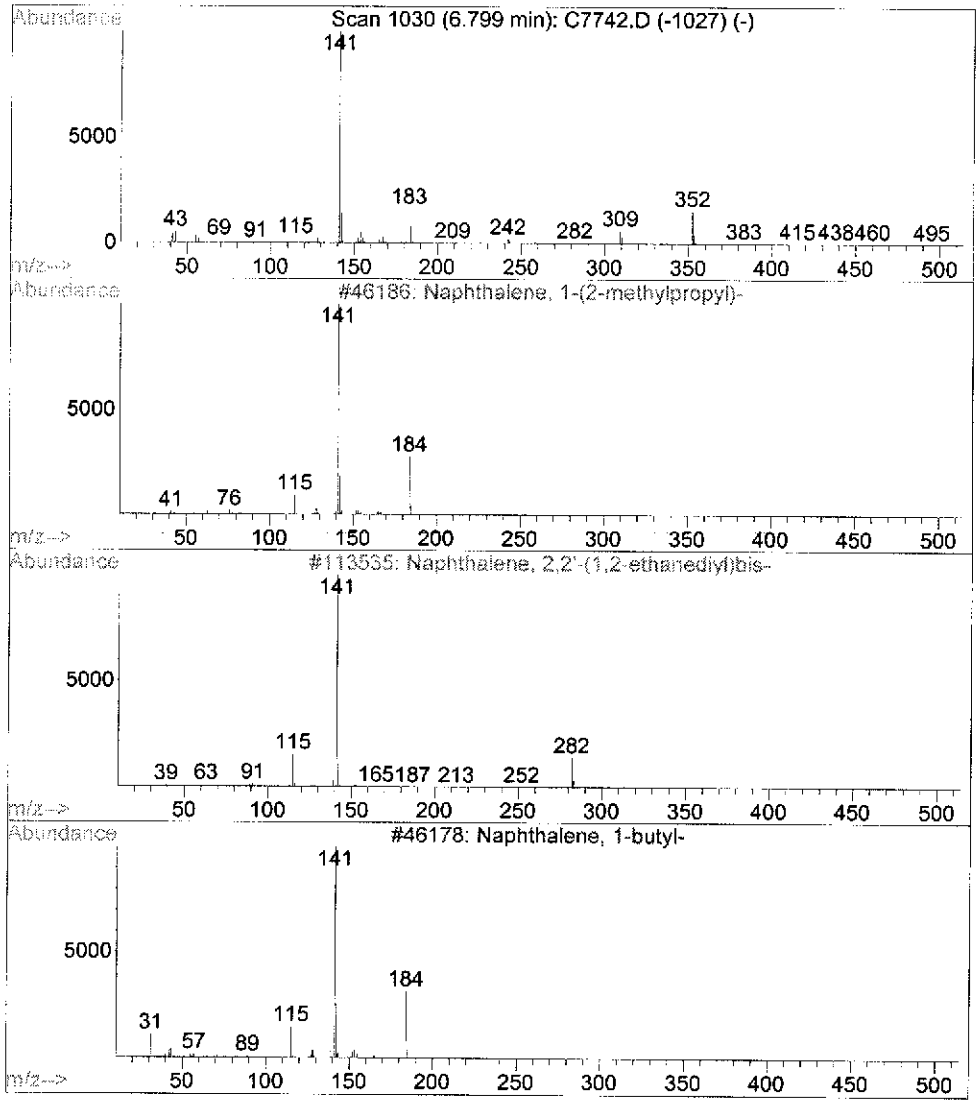
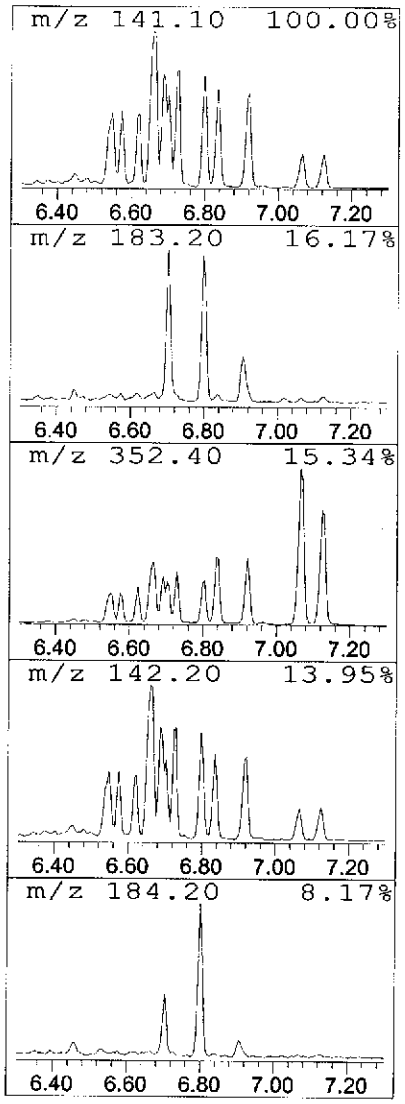
Peak Number 20 Unknown SV Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.80	25.69 UG	1362500	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	53
2	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	52
3	Naphthalene, 1-butyl-	184	C14H16	001634-09-9	16
4	Cyclohexanone, 5-methyl-2-(1-met...	183	C11H21NO	057396-81-3	9
5	2-Butyl-4-ethyl-5-methylthiazole	183	C10H17NS	052414-88-7	9





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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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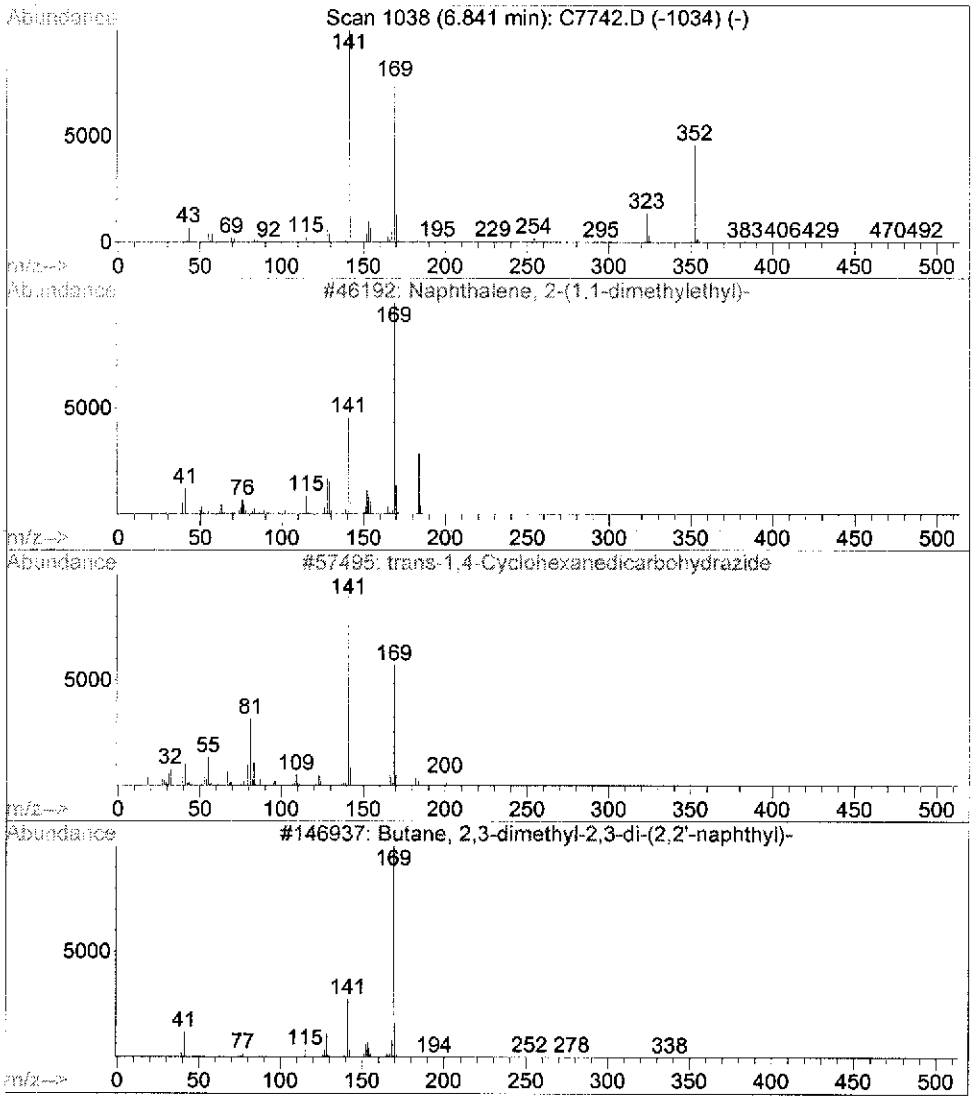
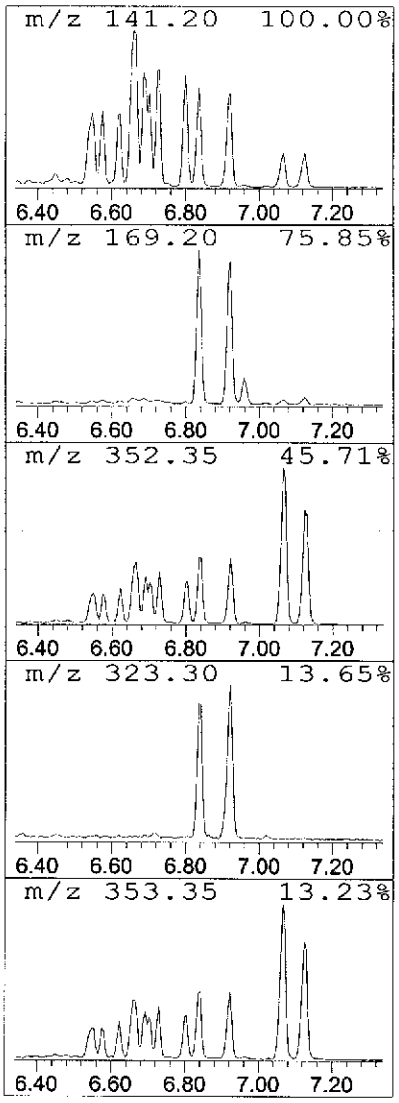
Peak Number 21 Unknown SV Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.84	28.92 UG	1533920	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-(1,1-dimethylethyl)-	184	C14H16	002876-35-9	38
2	trans-1,4-Cyclohexanedicarbohydr...	200	C8H16N4O2	025655-25-8	38
3	Butane, 2,3-dimethyl-2,3-di-(2,2...	338	C26H26	1000150-93-8	38
4	3,4-Difluoropropiophenone	170	C9H8F2O	023384-72-7	37
5	(4-Chloro-2-chloromethyl-phenoxy...	234	C9H8Cl2O3	004286-99-1	30





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ALS Vial : 8 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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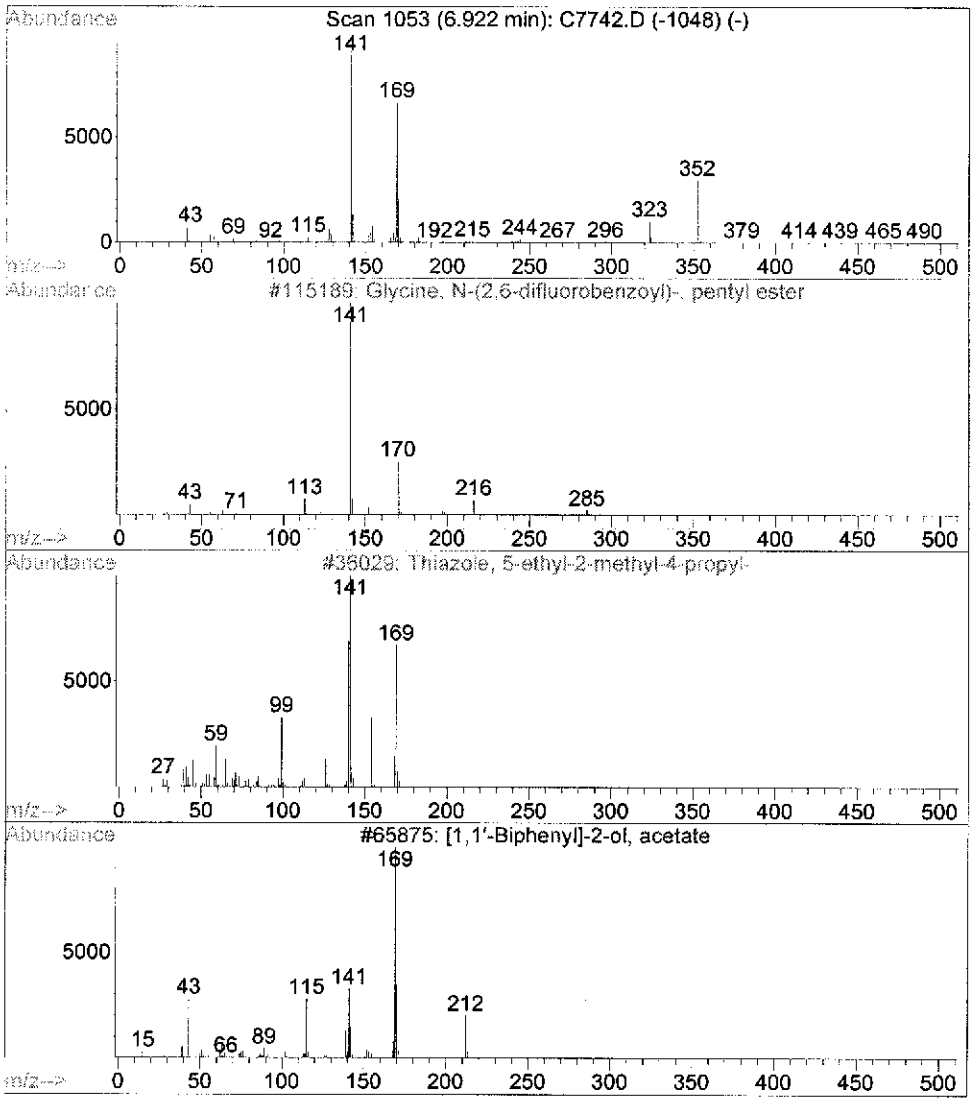
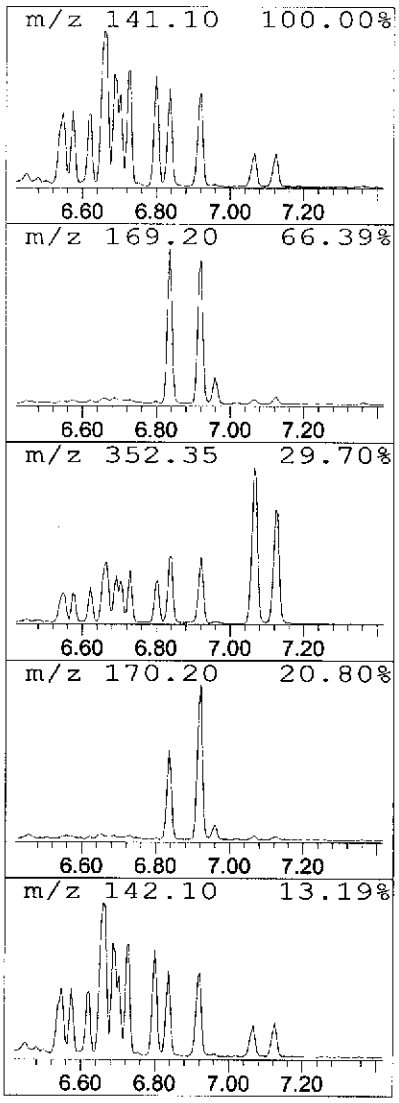
Peak Number 22 Unknown SV Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.92	35.38 UG	1876510	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Glycine, N-(2,6-difluorobenzoyl)...	285	C14H17F2NO3	1000314-44-1	37
2	Thiazole, 5-ethyl-2-methyl-4-pro...	169	C9H15NS	004276-67-9	36
3	[1,1'-Biphenyl]-2-ol, acetate	212	C14H12O2	003271-80-5	35
4	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	22
5	Butane, 2,3-dimethyl-2,3-di-(2,2...	338	C26H26	1000150-93-8	20





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ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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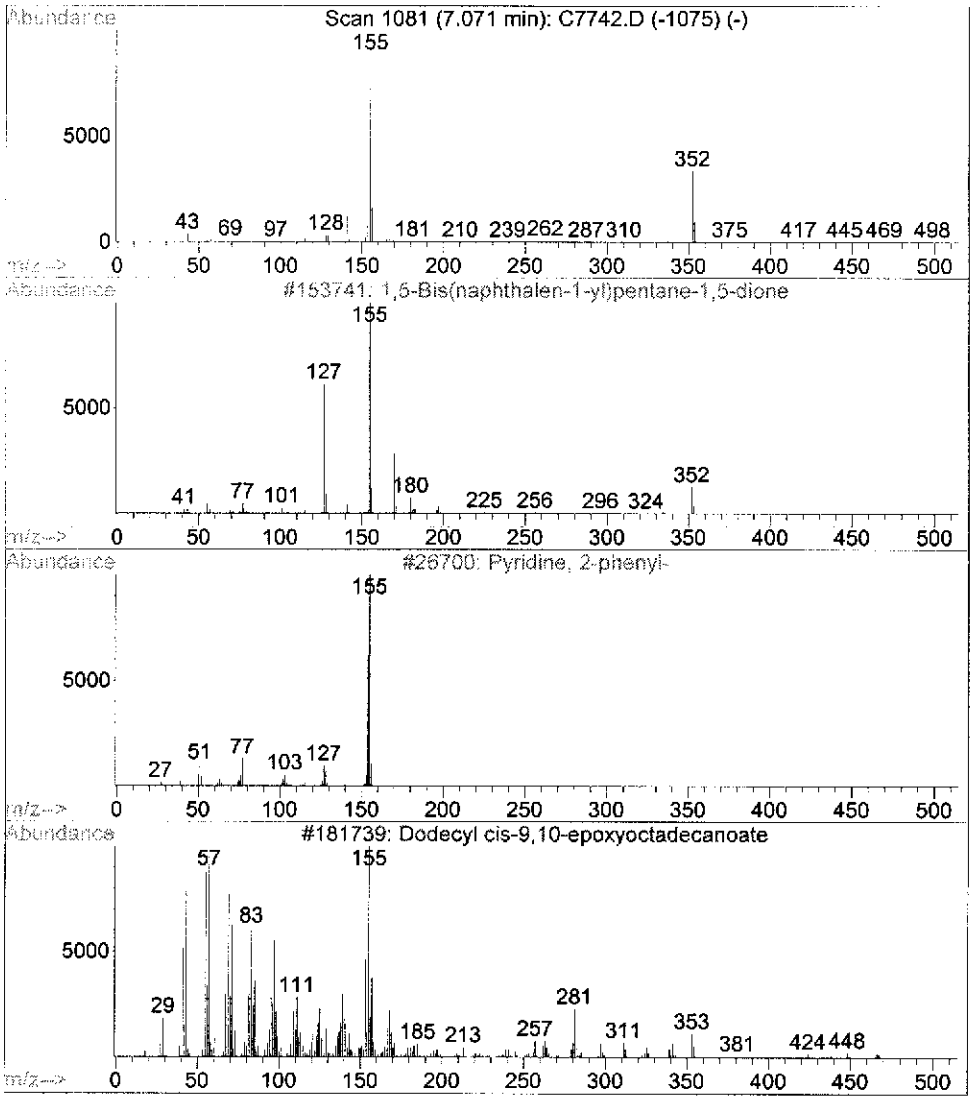
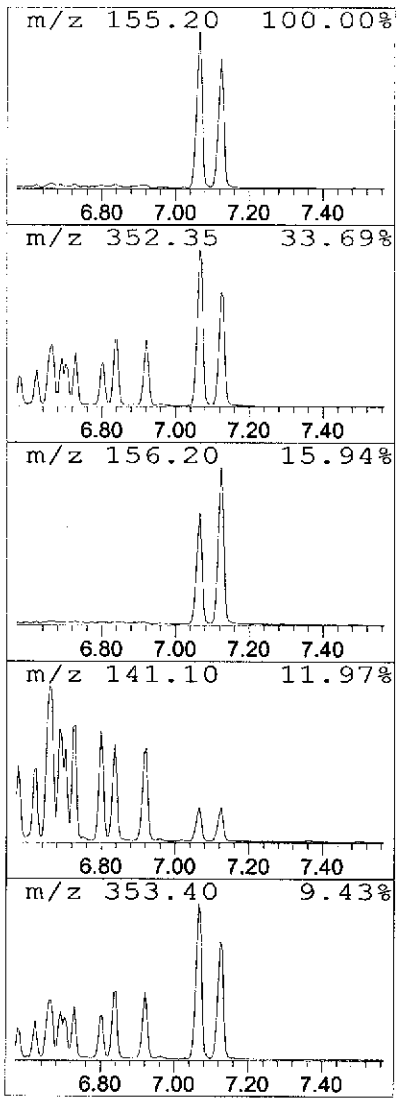
Peak Number 23 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.07	61.77 UG	3276500	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,5-Bis(naphthalen-1-yl)pentane-...	352	C25H20O2	1000210-52-9	72
2	Pyridine, 2-phenyl-	155	C11H9N	001008-89-5	50
3	Dodecyl cis-9,10-epoxyoctadecanoate	466	C30H58O3	092332-53-1	47
4	1-Naphthoic acid, tridec-2-ynyl ...	350	C24H30O2	1000308-82-7	33
5	Phenylpropionic acid, .alpha.-am...	229	C10H12FNO4	1000126-07-3	28





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7742.D
Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

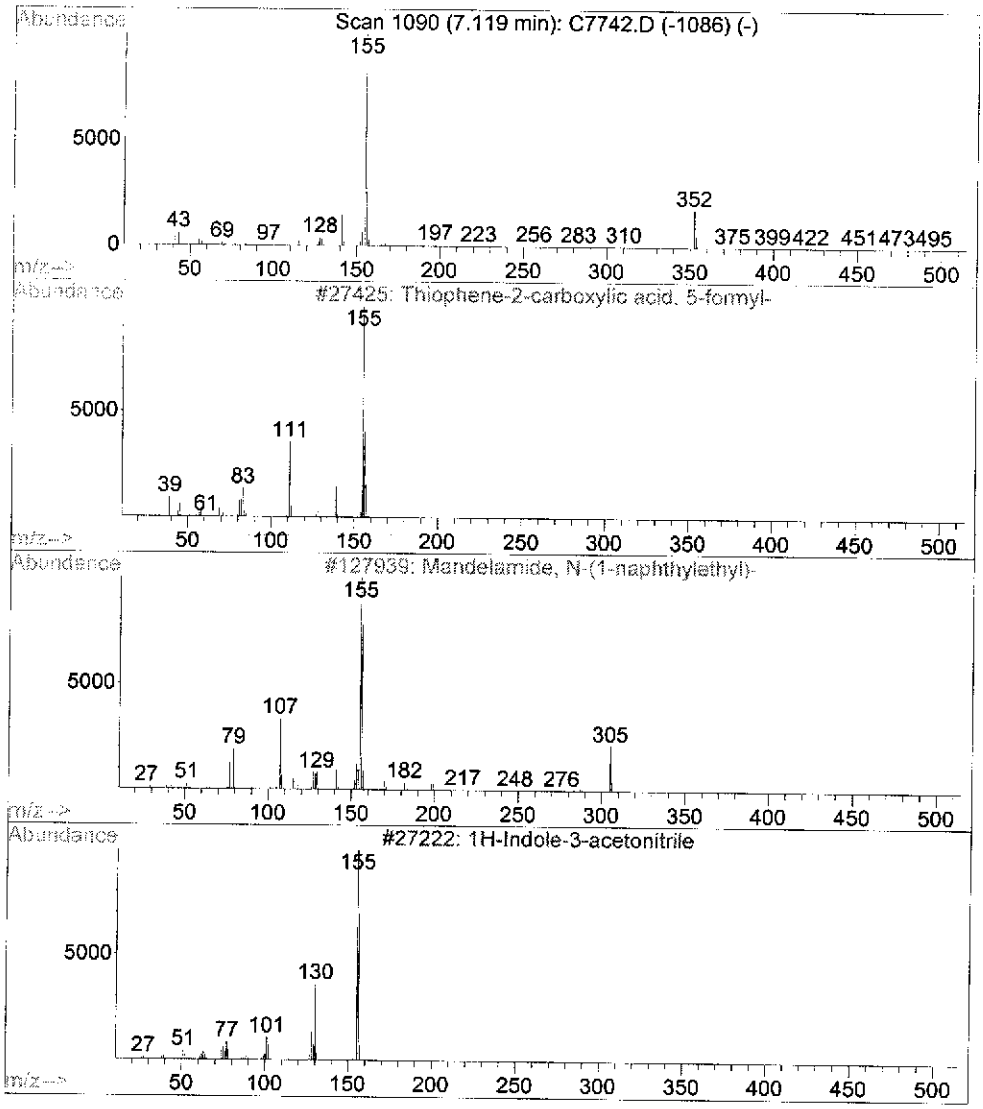
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

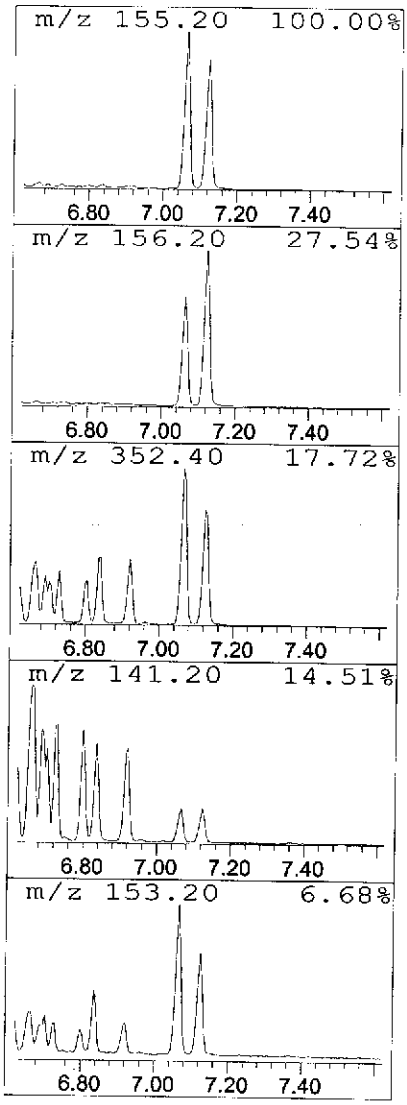
****

Peak Number 24 Unknown SV Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.12	61.63 UG	3269300	Chrysene-d12	6.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiophene-2-carboxylic acid, 5-f...	156	C6H4O3S	1000306-77-9	36
2	Mandelamide, N-(1-naphthylethyl)-	305	C20H19NO2	344875-77-0	10
3	1H-Indole-3-acetonitrile	156	C10H8N2	000771-51-7	10
4	1-Azabicyclo[2.2.2]octane-2-carb...	183	C9H13NO3	030740-21-7	9
5	Pyridine, 2-phenyl-	155	C11H9N	001008-89-5	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7742.D
Acq On : 10 Jul 2012 17:46
Operator : EDM
Sample : G7-06261,E12-06385-006,S,15.08g,18.1,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

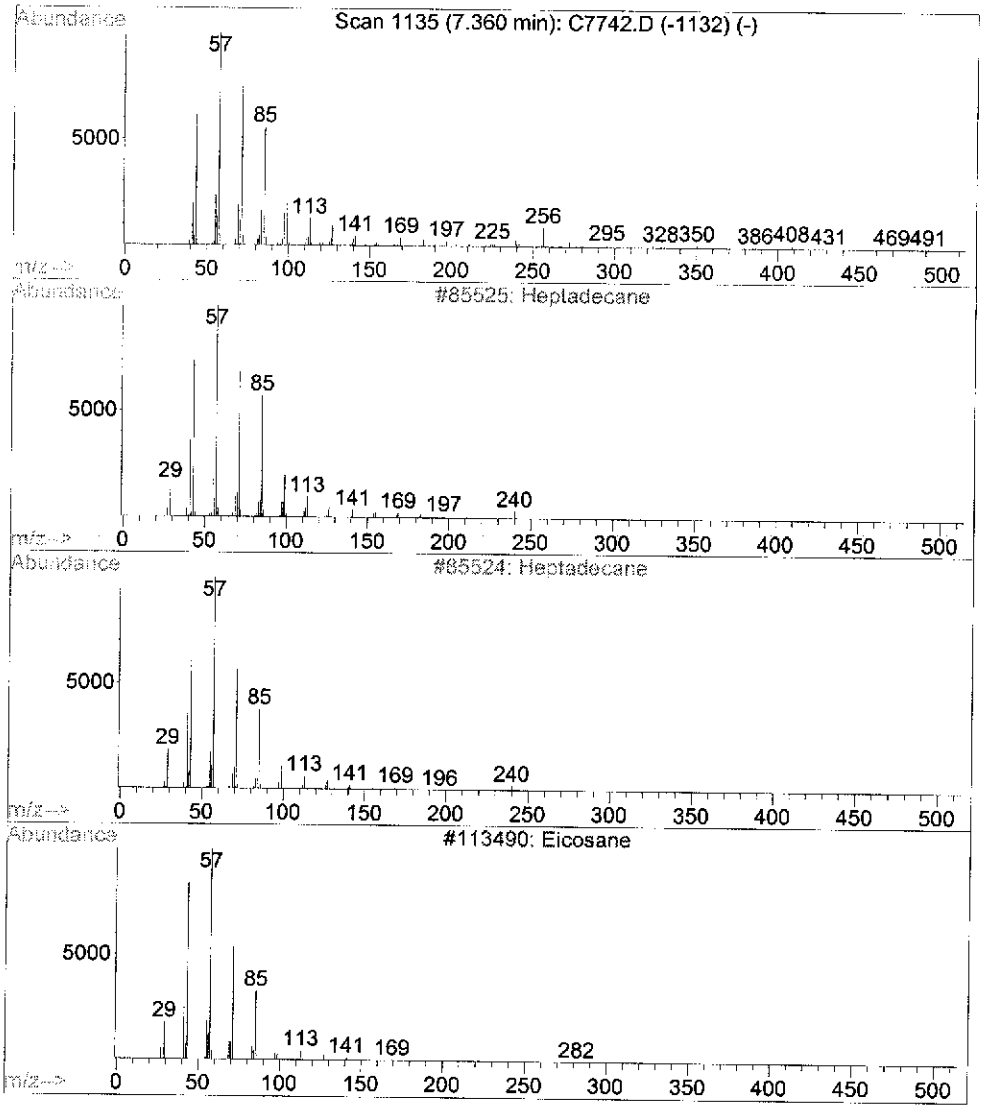
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

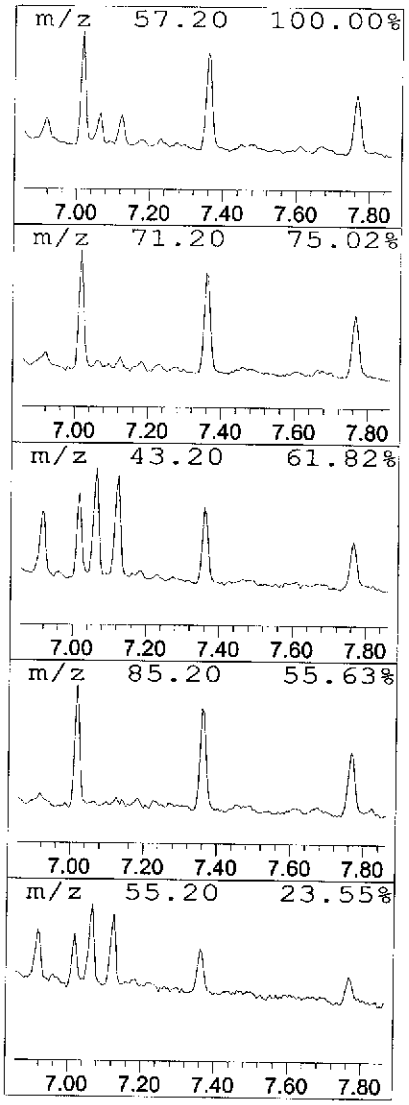
****

Peak Number 25 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.36	40.00 UG	834653	Perylene-d12	7.96

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptadecane	240	C17H36	000629-78-7	94
2	Heptadecane	240	C17H36	000629-78-7	94
3	Eicosane	282	C20H42	000112-95-8	94
4	Heneicosane, 11-decyl-	437	C31H64	055320-06-4	93
5	Tetracosane	338	C24H50	000646-31-1	93





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7743.D
Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 10 18:52:35 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

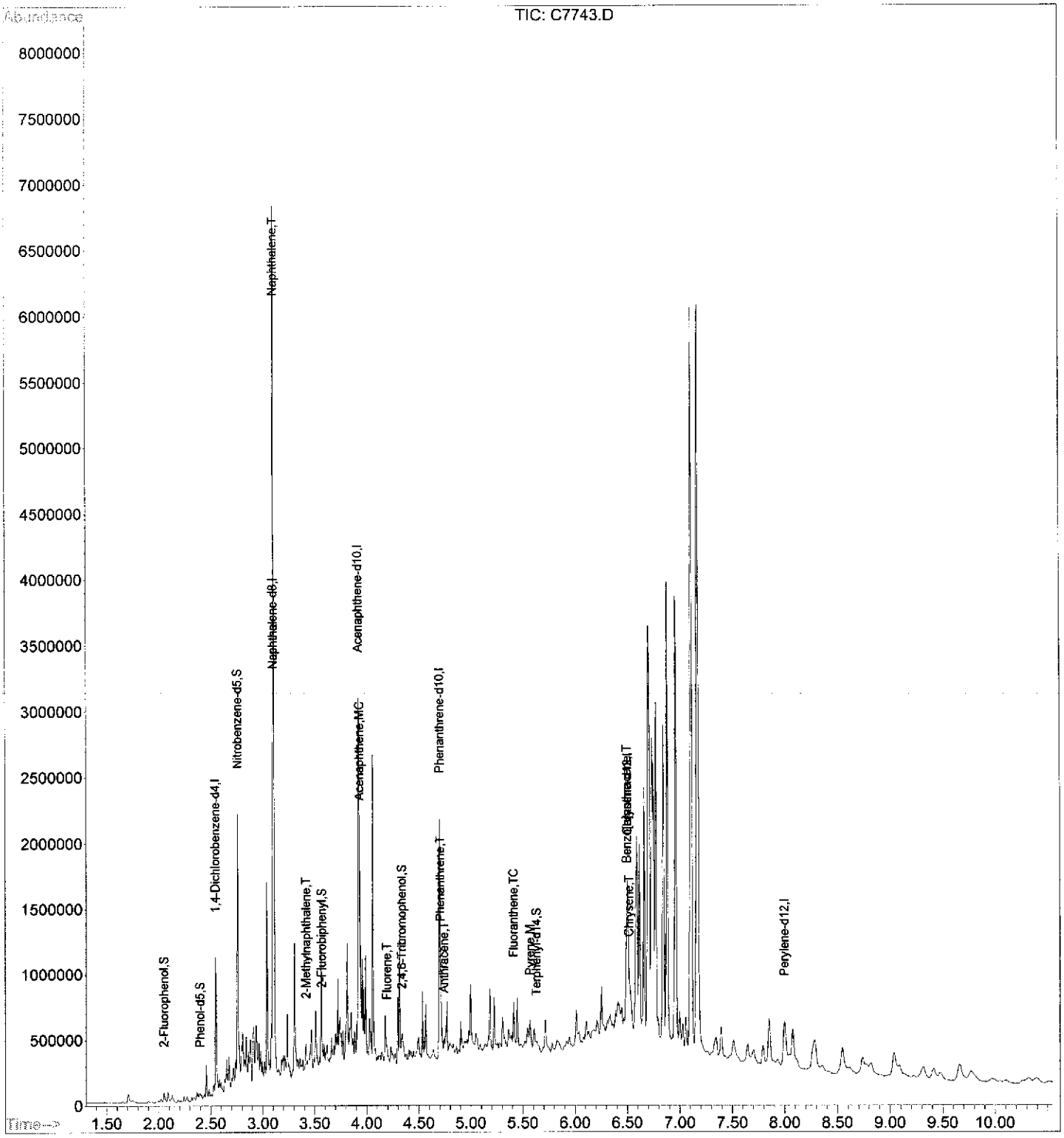
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	156174	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	657016	40.00	UG	-0.02
43) Acenaphthene-d10	3.92	164	390704	40.00	UG	-0.05
66) Phenanthrene-d10	4.70	188	578826	40.00	UG	-0.09
82) Chrysene-d12	6.50	240	423541	40.00	UG	-0.12
92) Perylene-d12	8.00	264	300755	40.00	UG	-0.12
System Monitoring Compounds						
4) 2-Fluorophenol	2.05	112	15972	2.96	UG	0.02
Spiked Amount 100.000	Range 25 - 100		Recovery	=	2.96%#	
6) Phenol-d5	2.40	99	25259	3.44	UG	0.02
Spiked Amount 100.000	Range 25 - 108		Recovery	=	3.44%#	
24) Nitrobenzene-d5	2.76	82	7854	1.21	UG	-0.03
Spiked Amount 50.000	Range 24 - 91		Recovery	=	2.42%#	
47) 2-Fluorobiphenyl	3.57	172	10834	0.87	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery	=	1.74%#	
70) 2,4,6-Tribromophenol	4.33	330	8220	3.93	UG	-0.06
Spiked Amount 100.000	Range 37 - 115		Recovery	=	3.93%#	
84) Terphenyl-d14	5.63	244	10495m	1.15	UG	-0.17
Spiked Amount 50.000	Range 15 - 122		Recovery	=	2.30%#	
Target Compounds						Qvalue
34) Naphthalene	3.11	128	1715353	91.33	UG	# 54
41) 2-Methylnaphthalene	3.42	142	42779	3.34	UG	97
55) Acenaphthene	3.94	153	18944	1.71	UG	# 75
61) Fluorene	4.19	166	15900	1.32	UG	91
75) Phenanthrene	4.71	178	125674	7.87	UG	98
76) Anthracene	4.74	178	41352m	2.49	UG	
79) Fluoranthene	5.41	202	97637m	6.83	UG	
83) Pyrene	5.57	202	95477m	7.20	UG	
88) Benzo[a]anthracene	6.49	228	26117	2.32	UG	# 84
89) Chrysene	6.52	228	28798	2.76	UG	# 93

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7743.D
Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 10 18:52:35 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7743.D
Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.001
Stop Thrs : 0

Filtering: 5
Min Area: 100 Area counts
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.702	73	76	81	rBV	69247	85993	1.19%	0.121%
2	2.456	215	217	220	rBV	240477	124878	1.73%	0.175%
3	2.530	227	231	232	rBV2	90202	78257	1.08%	0.110%
4	2.546	232	234	239	rVV	1043975	833476	11.52%	1.170%
5	2.653	248	254	256	rBV4	246431	274005	3.79%	0.385%
6	2.675	256	258	261	rVB2	233892	155874	2.15%	0.219%
7	2.739	268	270	272	rBV3	163460	125518	1.73%	0.176%
8	2.760	272	274	276	rVV	2024878	1272623	17.59%	1.786%
9	2.808	278	283	285	rVV3	382397	435877	6.02%	0.612%
10	2.840	288	289	292	rVV	310687	182409	2.52%	0.256%
11	2.862	292	293	295	rVV2	212087	143214	1.98%	0.201%
12	2.883	295	297	299	rVB2	318121	224324	3.10%	0.315%
13	2.915	299	303	304	rBV2	414684	414561	5.73%	0.582%
14	2.936	304	307	310	rVV4	389204	428929	5.93%	0.602%
15	2.963	310	312	313	rVV	247405	140389	1.94%	0.197%
16	2.979	313	315	317	rVV3	183499	121763	1.68%	0.171%
17	3.038	324	326	330	rVV	1464688	979873	13.54%	1.376%
18	3.081	332	334	335	rVV	340942	254993	3.52%	0.358%
19	3.107	335	339	345	rVB2	6585038	4734337	65.42%	6.646%
20	3.214	357	359	361	rBV2	120813	100582	1.39%	0.141%
21	3.236	361	363	365	rVV	409884	191649	2.65%	0.269%
22	3.305	370	376	380	rBV2	1022741	786946	10.87%	1.105%
23	3.417	394	397	399	rBV	198061	151226	2.09%	0.212%
24	3.471	403	407	409	rVB3	292873	278392	3.85%	0.391%
25	3.508	412	414	419	rVB2	415243	309423	4.28%	0.434%
26	3.561	422	424	428	rBV	884965	496958	6.87%	0.698%
27	3.620	433	435	439	rVV4	144134	110827	1.53%	0.156%
28	3.663	441	443	445	rVV	191805	126465	1.75%	0.178%
29	3.700	448	450	452	rVV	212558	193112	2.67%	0.271%
30	3.722	452	454	455	rVV	628905	312958	4.32%	0.439%
31	3.743	455	458	462	rVV2	323460	402848	5.57%	0.566%
32	3.770	462	463	465	rVB2	220293	120637	1.67%	0.169%
33	3.812	465	471	474	rBV2	889222	764969	10.57%	1.074%
34	3.834	474	475	476	rVV	227695	138384	1.91%	0.194%
35	3.850	476	478	480	rVV	339711	257827	3.56%	0.362%
36	3.882	483	484	487	rVV2	191528	128112	1.77%	0.180%
37	3.919	487	491	497	rVV2	2715710	3181279	43.96%	4.466%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7743.D
Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

38	3.957	497	498	499	rVV	723860	288695	3.99%	0.405%
39	3.989	502	504	506	rVB	751258	386136	5.34%	0.542%
40	4.026	509	511	515	rBV3	277670	251977	3.48%	0.354%
41	4.058	515	517	520	rBV	2276807	1171369	16.19%	1.644%
42	4.176	537	539	547	rVB3	352924	365148	5.05%	0.513%
43	4.229	547	549	551	rBV2	120751	95228	1.32%	0.134%
44	4.299	559	562	563	rBV	507810	291617	4.03%	0.409%
45	4.315	563	565	567	rVV	966672	530133	7.33%	0.744%
46	4.341	567	570	575	rVB4	190769	259945	3.59%	0.365%
47	4.496	596	599	604	rVB5	154584	161536	2.23%	0.227%
48	4.534	604	606	608	rBV	502602	250804	3.47%	0.352%
49	4.566	609	612	614	rVB	381680	241769	3.34%	0.339%
50	4.699	633	637	643	rBV2	1820205	1791746	24.76%	2.515%
51	4.769	648	650	652	rVB	374887	210359	2.91%	0.295%
52	4.902	673	675	679	rBV	242153	196252	2.71%	0.275%
53	4.977	688	689	691	rBV2	105101	79816	1.10%	0.112%
54	4.998	691	693	700	rVB2	464809	333753	4.61%	0.469%
55	5.180	725	727	732	rVB	470739	371507	5.13%	0.522%
56	5.223	732	735	737	rBV	407628	258855	3.58%	0.363%
57	5.303	748	750	753	rBV	228749	213614	2.95%	0.300%
58	5.362	759	761	764	rBV3	123446	132404	1.83%	0.186%
59	5.410	768	770	774	rVV	329991	256669	3.55%	0.360%
60	5.447	774	777	780	rVB	365347	229393	3.17%	0.322%
61	5.543	793	795	797	rBV	108508	94806	1.31%	0.133%
62	5.570	797	800	803	rVB	203692	196284	2.71%	0.276%
63	5.714	824	827	832	rBV2	217057	190193	2.63%	0.267%
64	6.008	880	882	885	rBV	232433	196429	2.71%	0.276%
65	6.110	898	901	903	rBV2	129318	130677	1.81%	0.183%
66	6.254	925	928	931	rBV2	348773	287800	3.98%	0.404%
67	6.387	951	953	955	rBV	123251	105501	1.46%	0.148%
68	6.500	969	974	985	rVB3	1137032	2092746	28.92%	2.938%
69	6.590	985	991	993	rBV	1474473	1905064	26.32%	2.674%
70	6.617	993	996	999	rVV	1388701	1130857	15.63%	1.587%
71	6.660	1001	1004	1007	rVB	1825148	1381775	19.09%	1.940%
72	6.703	1007	1012	1015	rBV	3043307	4158117	57.46%	5.837%
73	6.735	1015	1018	1022	rVV2	2169272	3355812	46.37%	4.711%
74	6.772	1022	1025	1028	rVB	2432141	2065647	28.54%	2.900%
75	6.842	1034	1038	1041	rBV	2362719	2189945	30.26%	3.074%
76	6.879	1041	1045	1052	rVV	3479202	3120609	43.12%	4.381%
77	6.959	1055	1060	1065	rVV	3375560	3540394	48.92%	4.970%
78	6.996	1065	1067	1070	rVV	234312	195118	2.70%	0.274%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7743.D
Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

79	7.029	1070	1073	1075	rVB	174572	162411	2.24%	0.228%
80	7.055	1075	1078	1082	rBV	221304	188047	2.60%	0.264%
81	7.109	1082	1088	1093	rVV	5623112	6424922	88.78%	9.019%
82	7.173	1093	1100	1114	rVB	5678238	7236933	100.00%	10.159%
83	7.392	1138	1141	1147	rVB	219864	242311	3.35%	0.340%
84	7.643	1185	1188	1193	rBV2	110151	143324	1.98%	0.201%
85	7.792	1212	1216	1221	rBV	141462	201820	2.79%	0.283%
86	7.851	1223	1227	1233	rVB	320847	444181	6.14%	0.624%
87	7.995	1249	1254	1261	rBV2	323954	622827	8.61%	0.874%
88	8.076	1265	1269	1274	rVB2	232439	338663	4.68%	0.475%
89	8.284	1300	1308	1317	rVB5	206126	532371	7.36%	0.747%
90	8.546	1353	1357	1365	rVB2	154171	262431	3.63%	0.368%
91	8.738	1389	1393	1397	rBV	81905	131744	1.82%	0.185%
92	9.037	1444	1449	1456	rBV3	137091	295654	4.09%	0.415%
93	9.662	1560	1566	1576	rVB2	99140	237574	3.28%	0.334%

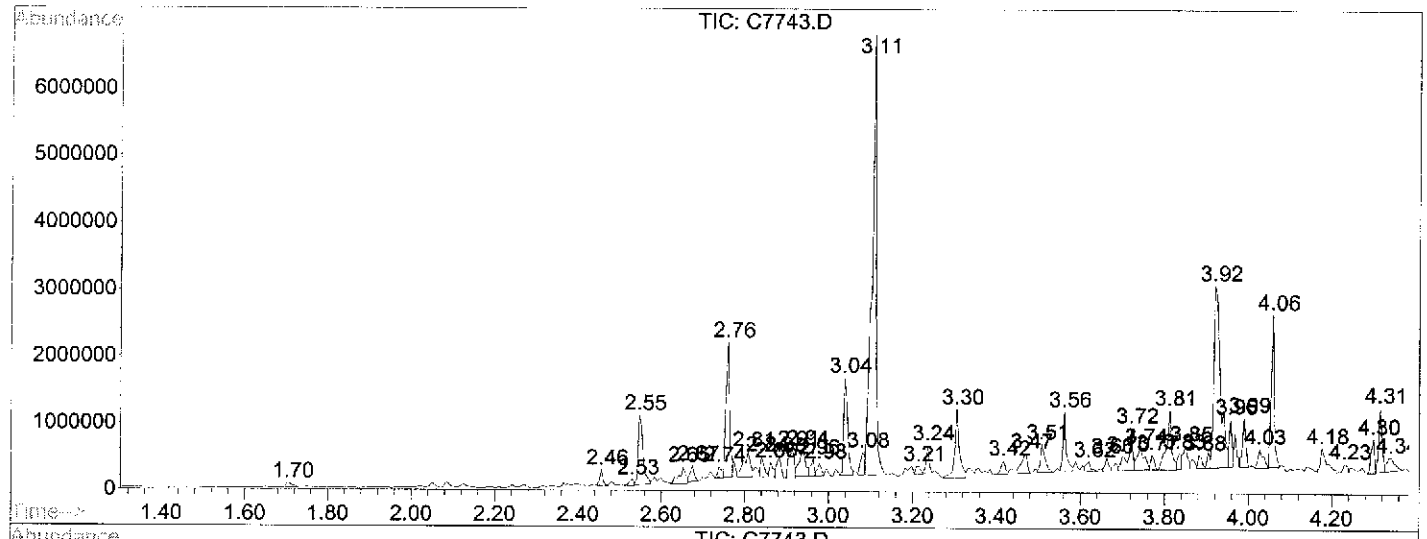
Sum of corrected areas: 71235599

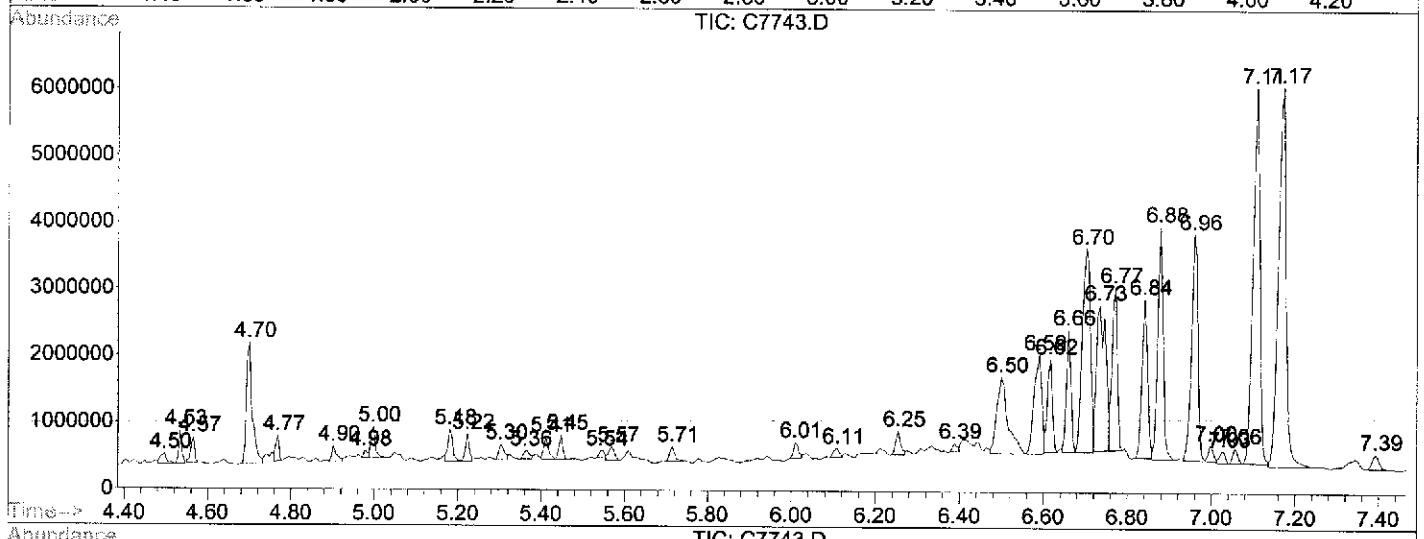
LSC Report - Integrated Chromatogram

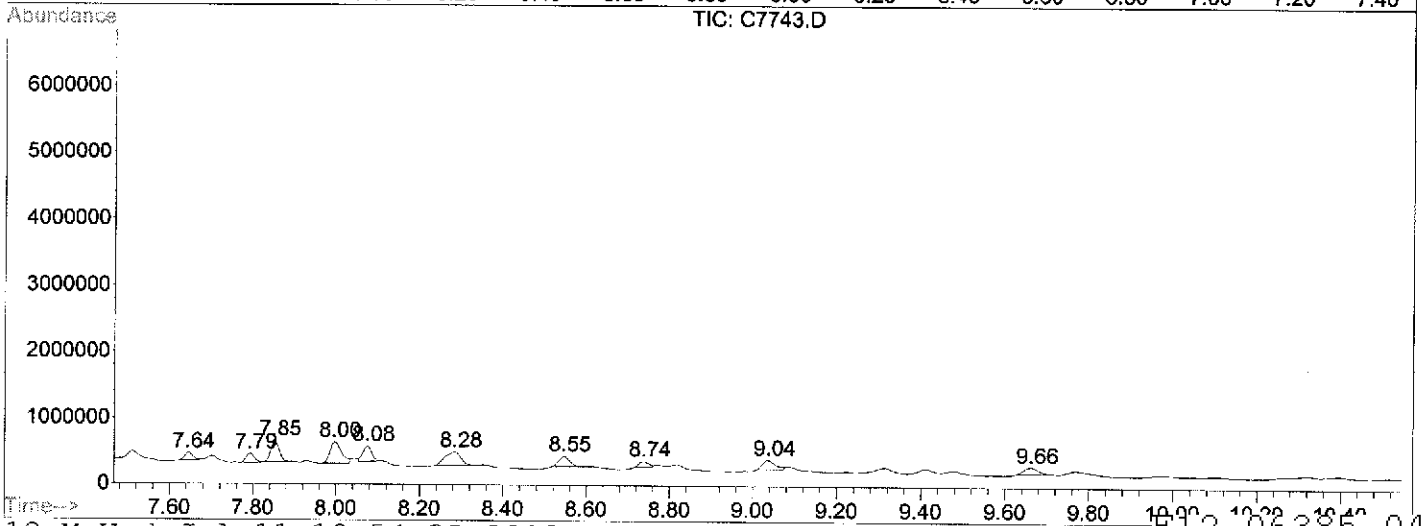
Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7743.D
Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7743.D
Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

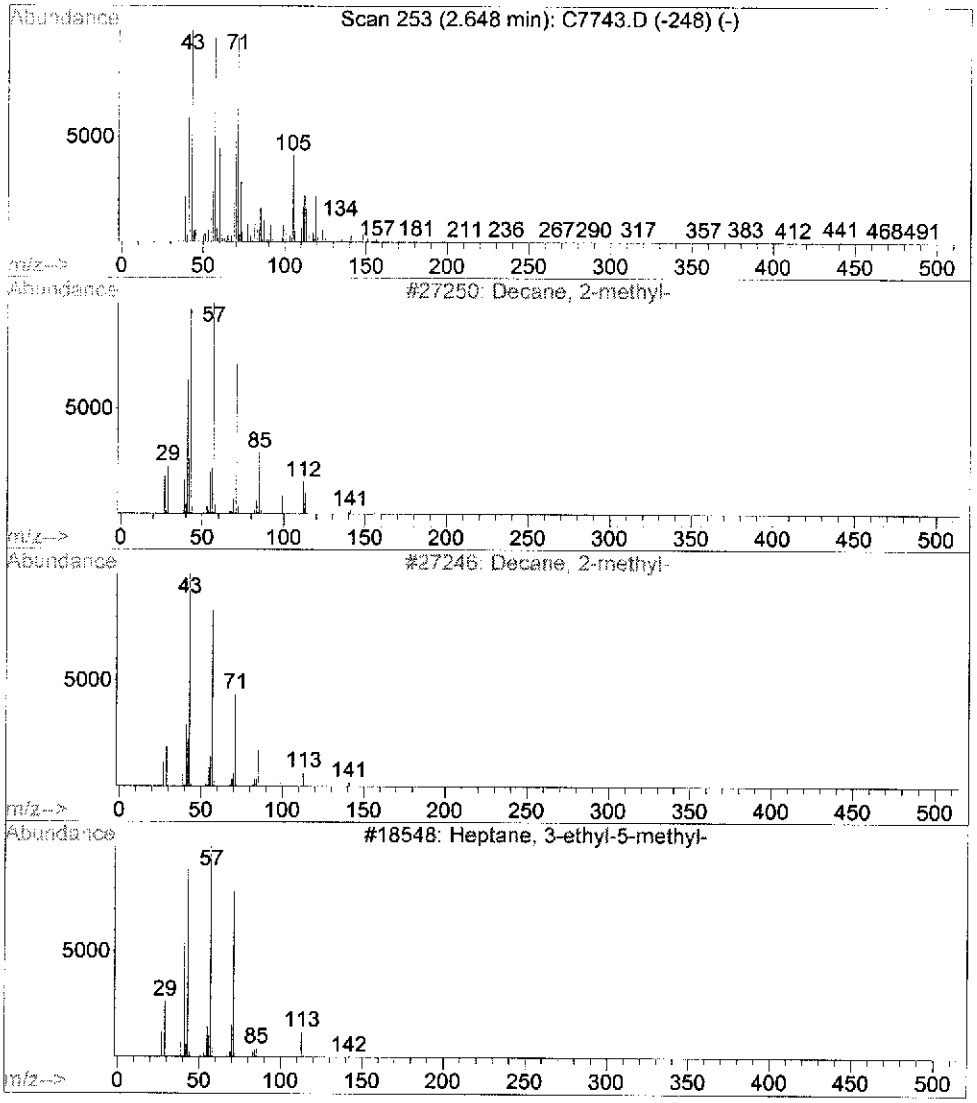
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

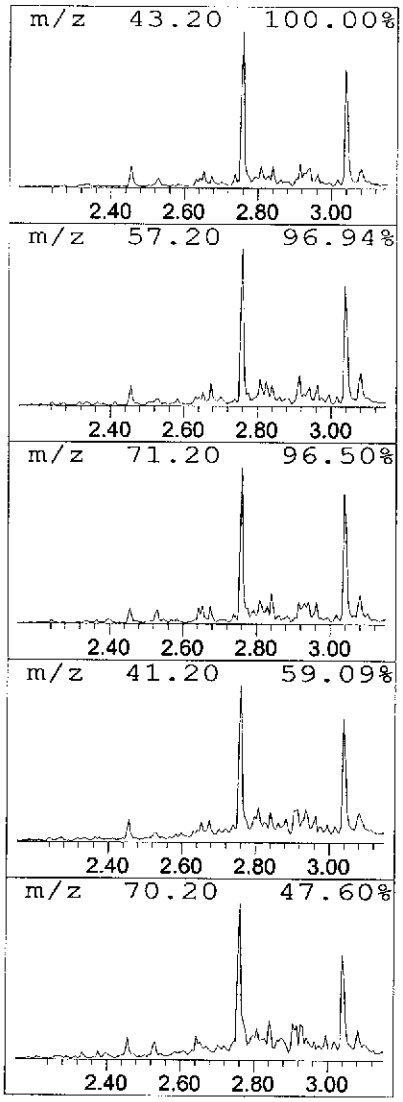
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Unknown Hydrocarbon Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.65	13.15 UG	274005	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 2-methyl-	156	C11H24	006975-98-0	94
2	Decane, 2-methyl-	156	C11H24	006975-98-0	70
3	Heptane, 3-ethyl-5-methyl-	142	C10H22	052896-90-9	60
4	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	58
5	Hexadecane, 7-methyl-	240	C17H36	026730-20-1	53





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7743.D
Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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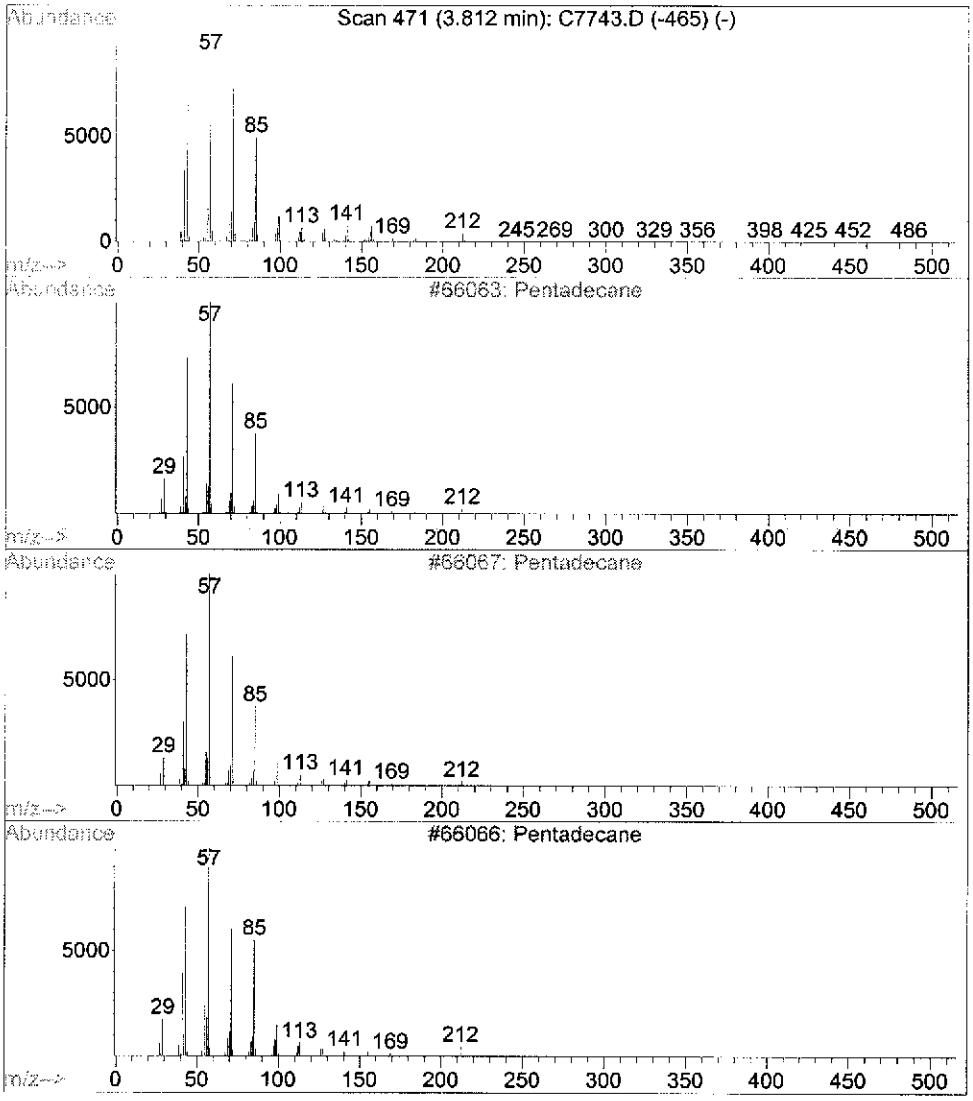
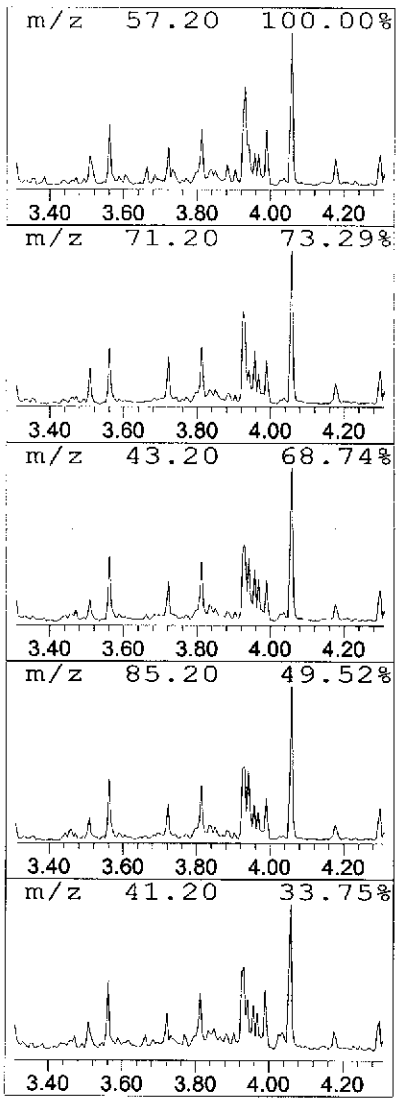
Peak Number 2 Unknown Hydrocarbon Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.81	9.62 UG	764969	Acenaphthene-d10	3.92

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentadecane	212	C15H32	000629-62-9	97
2	Pentadecane	212	C15H32	000629-62-9	96
3	Pentadecane	212	C15H32	000629-62-9	96
4	Hexadecane	226	C16H34	000544-76-3	93
5	Pentadecane	212	C15H32	000629-62-9	93





Library Search Compound Report

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Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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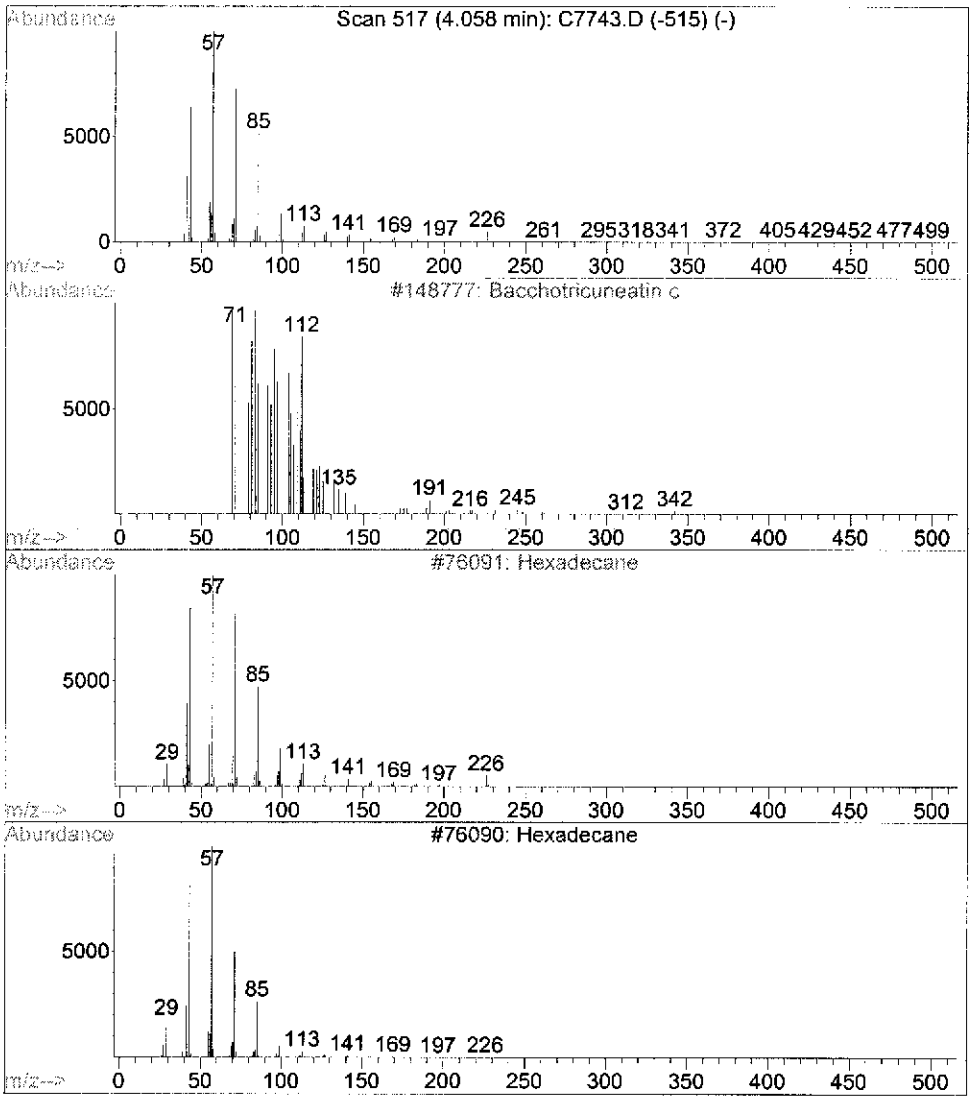
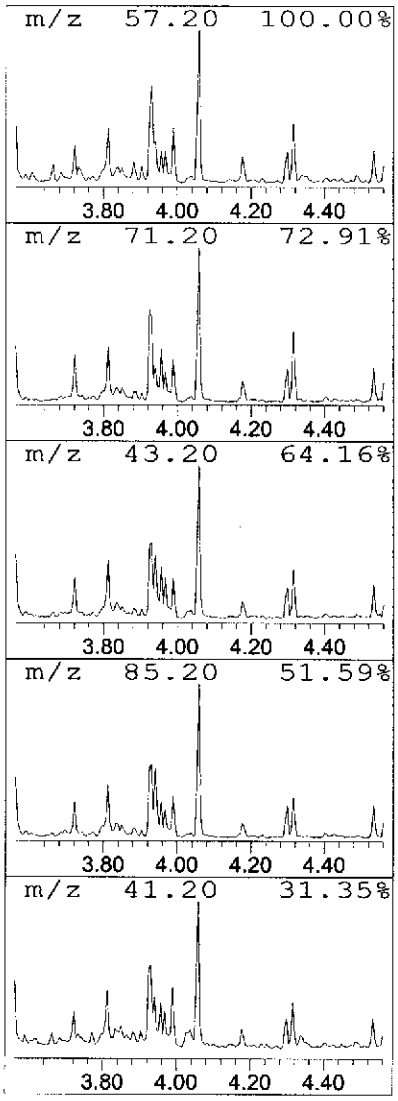
Peak Number 3 Unknown Hydrocarbon Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.06	14.73 UG	1171370	Acenaphthene-d10	3.92

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bacchotricuneatin c	342	C20H22O5	066563-30-2	97
2	Hexadecane	226	C16H34	000544-76-3	97
3	Hexadecane	226	C16H34	000544-76-3	97
4	Hexadecane	226	C16H34	000544-76-3	94
5	Hexadecane	226	C16H34	000544-76-3	93





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ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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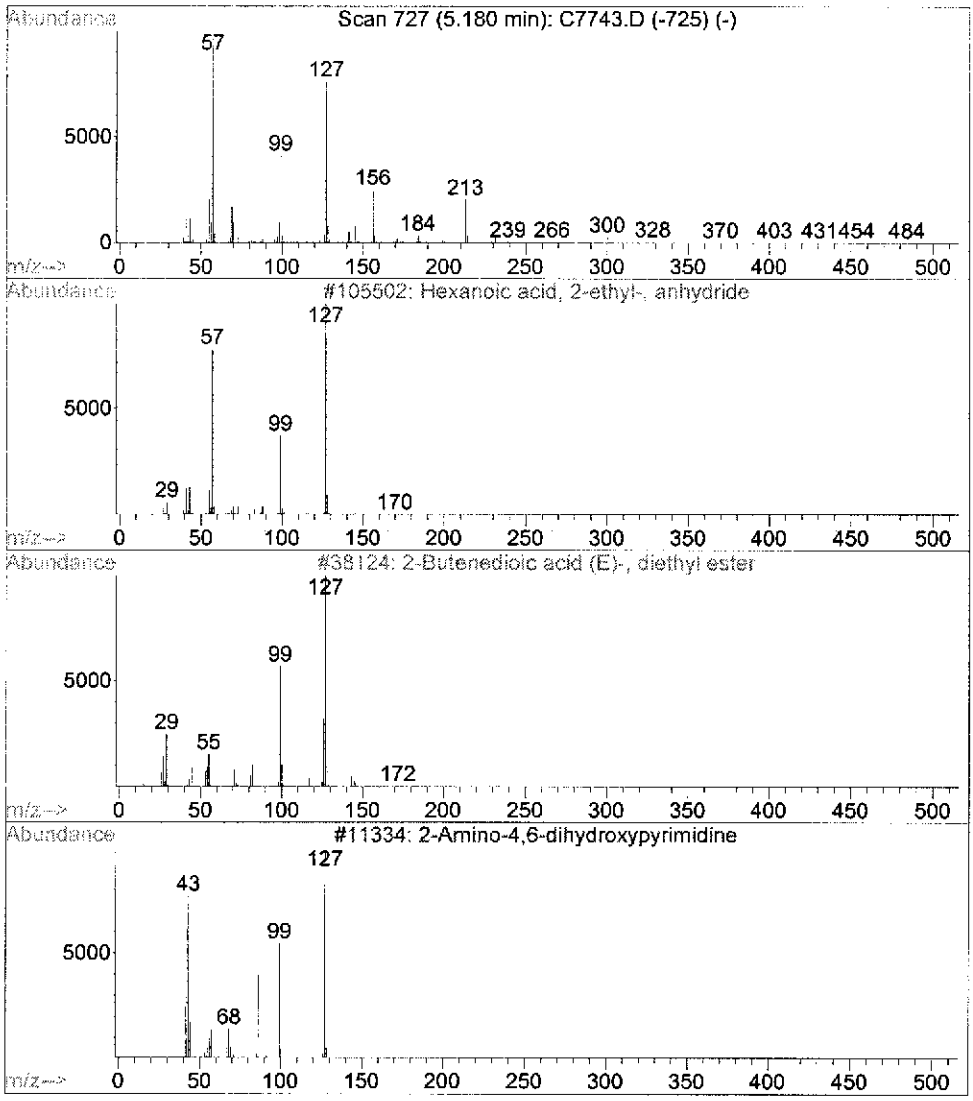
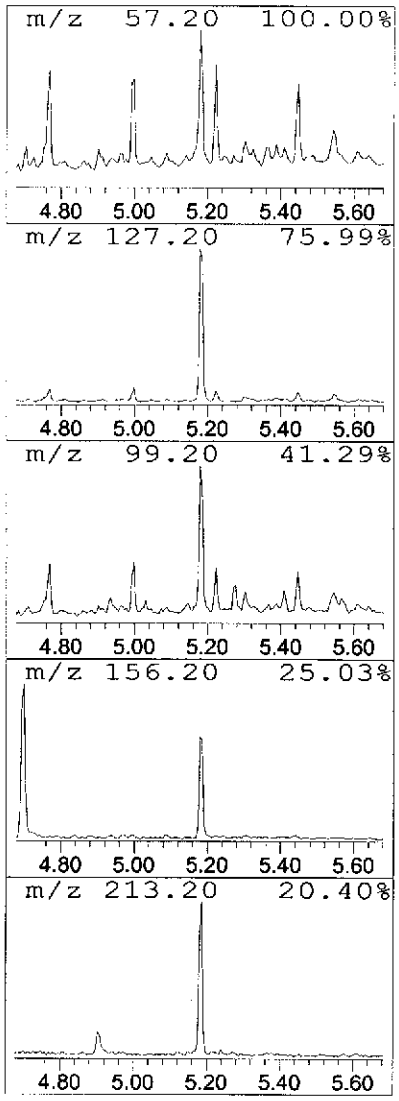
Peak Number 4 Unknown SV Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.18	8.29 UG	371507	Phenanthrene-d10	4.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanoic acid, 2-ethyl-, anhydride	270	C16H30O3	036765-89-6	53
2	2-Butenedioic acid (E)-, diethyl...	172	C8H12O4	000623-91-6	47
3	2-Amino-4,6-dihydroxypyrimidine	127	C4H5N3O2	000056-09-7	38
4	2-Amino-4,6-dihydroxypyrimidine	127	C4H5N3O2	000056-09-7	38
5	Octanethioic acid, S-hexyl ester	244	C14H28OS	055590-85-7	38





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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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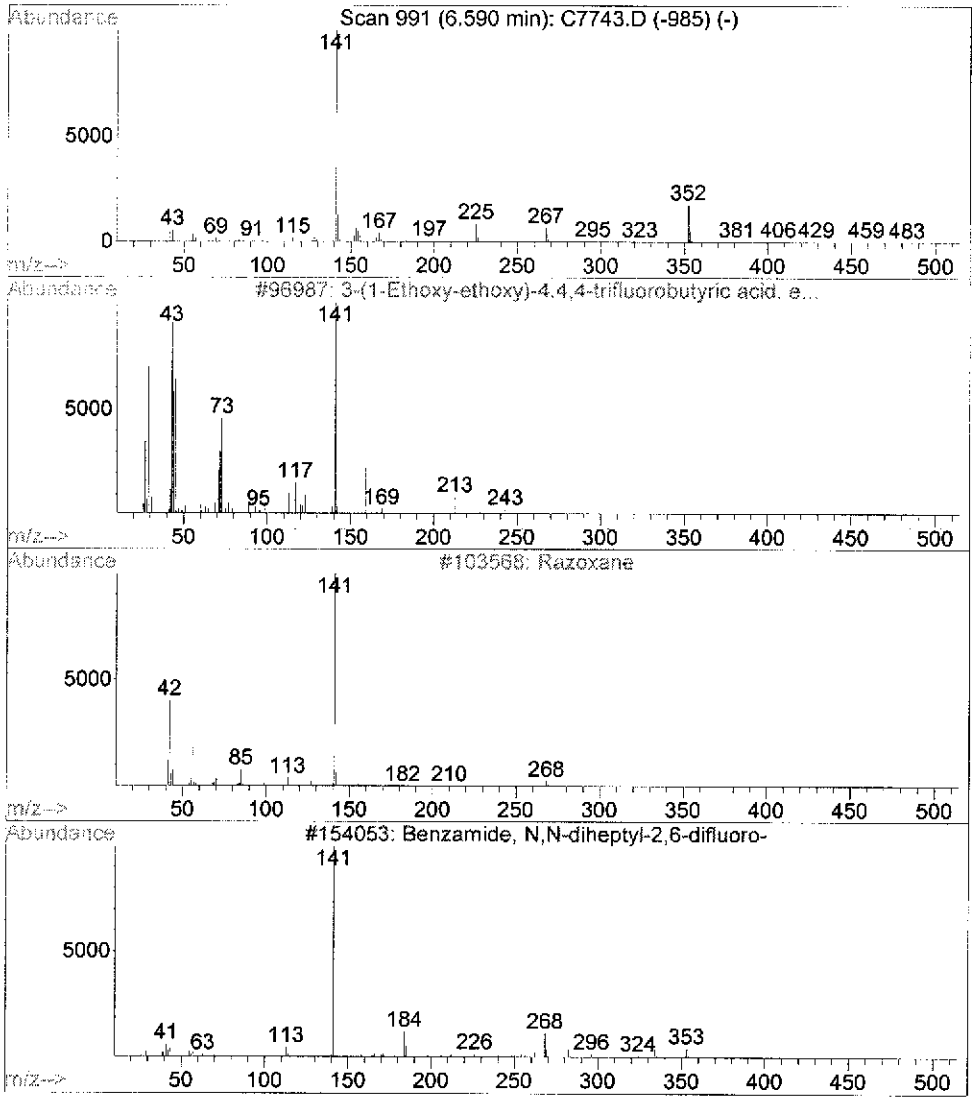
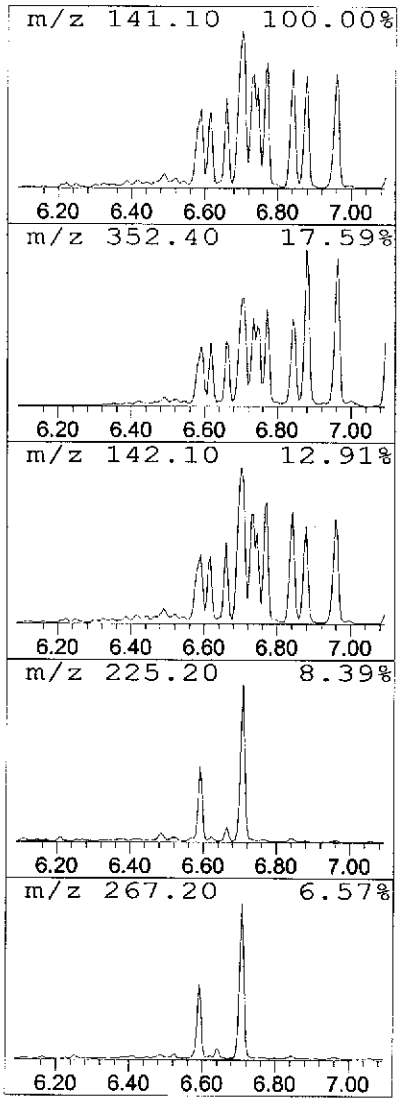
Peak Number 5 Unknown SV Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.59	36.41 UG	1905060	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	40
2	Razoxane	268	C11H16N4O4	021416-87-5	9
3	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
4	E-2-Octenoic acid, 3-iodo-	268	C8H13IO2	1000308-87-5	9
5	2,6-Difluorobenzoic acid, 3-meth...	226	C12H12F2O2	1000292-58-2	9





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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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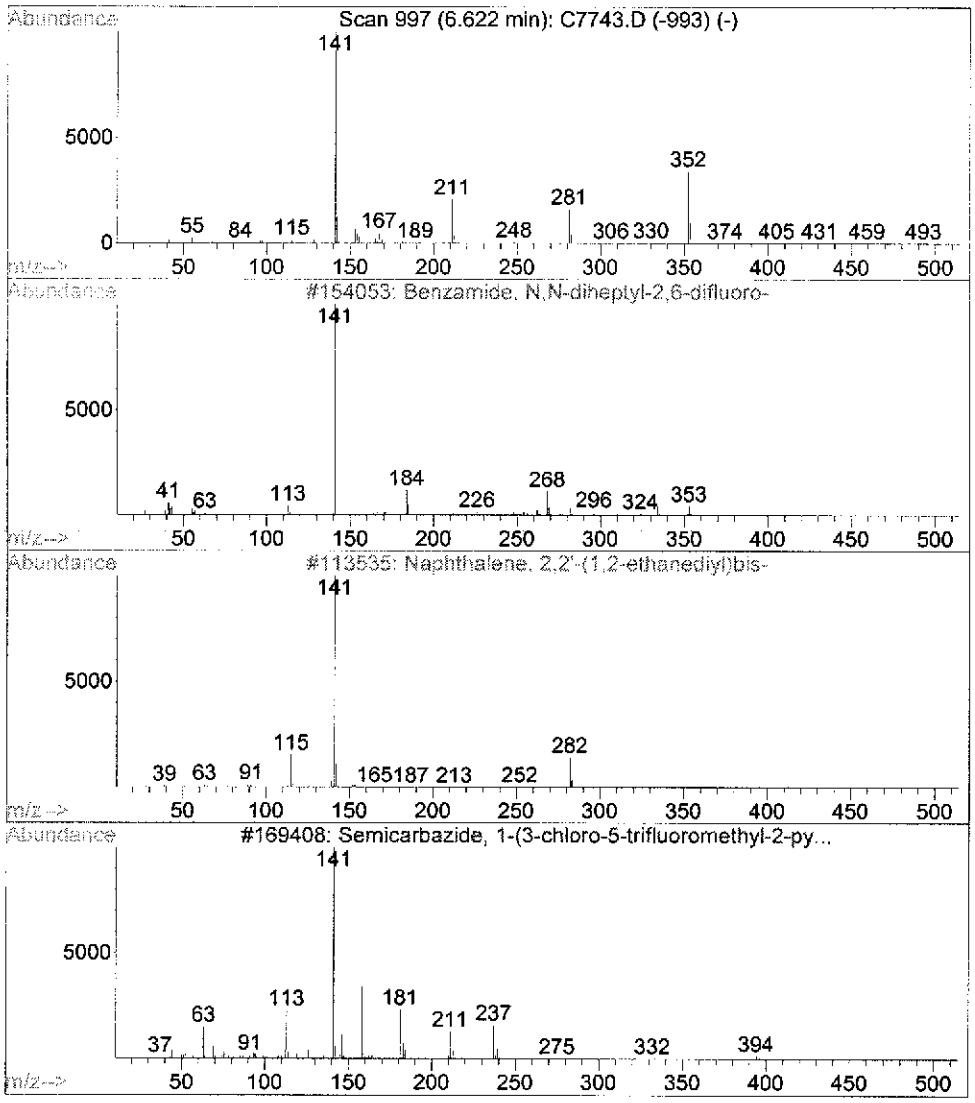
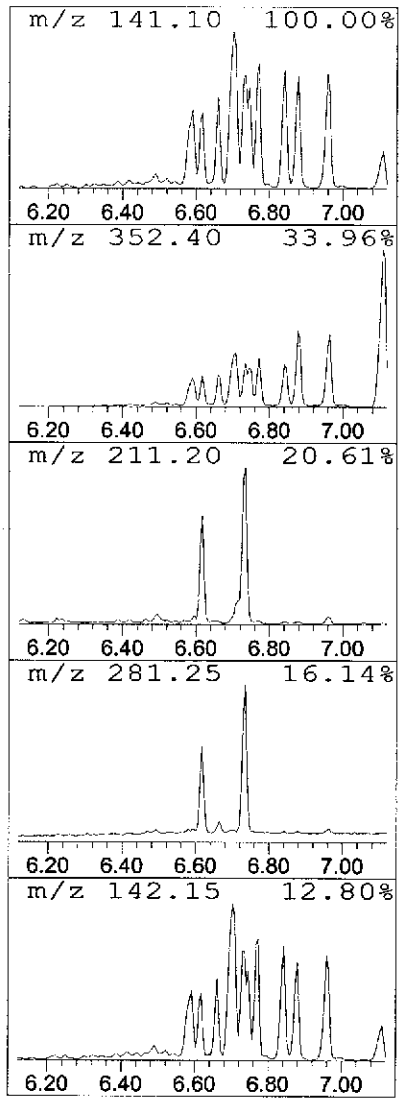
Peak Number 6 Unknown SV Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.62	21.61 UG	1130860	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
2	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	9
3	Semicarbazide, 1-(3-chloro-5-tri...	394	C14H8ClF5N4O2	1000301-39-2	9
4	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9
5	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	8





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ALS Vial : 9 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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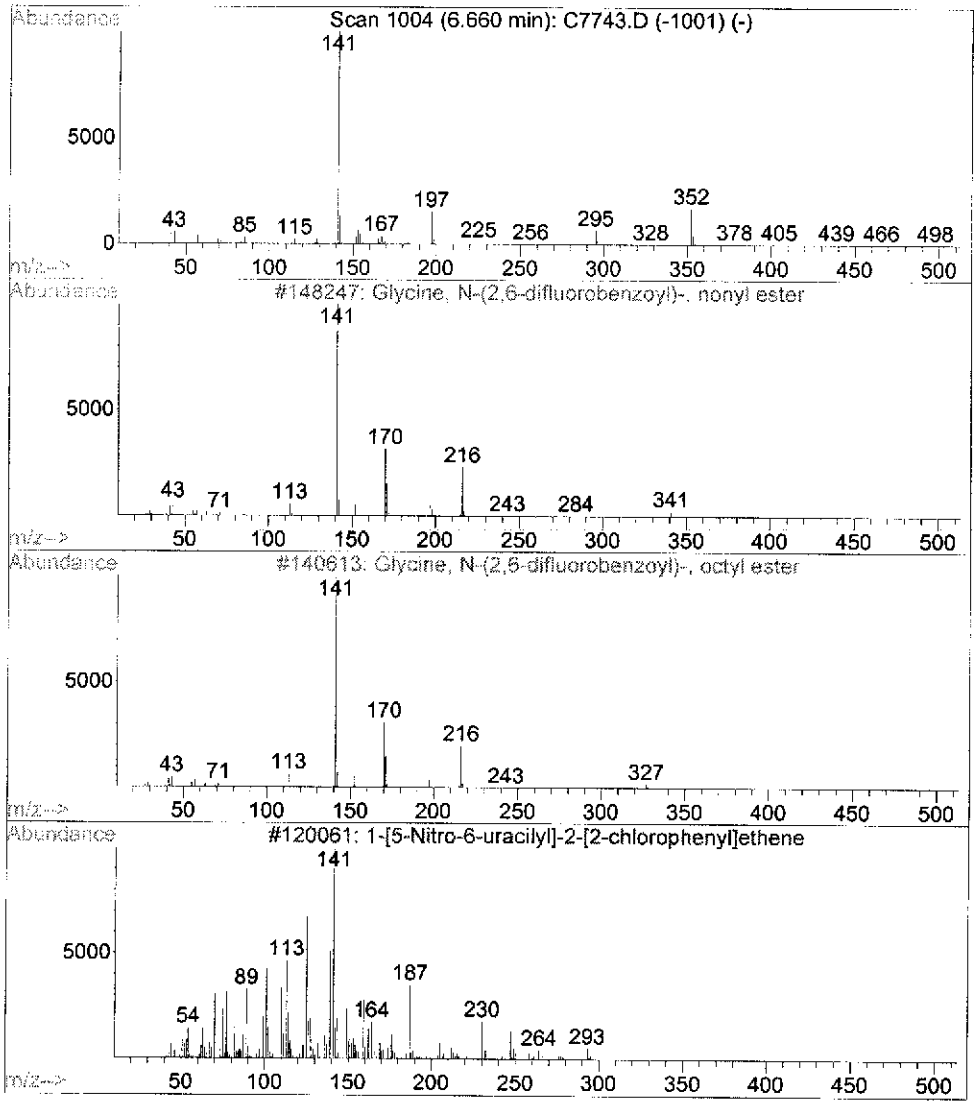
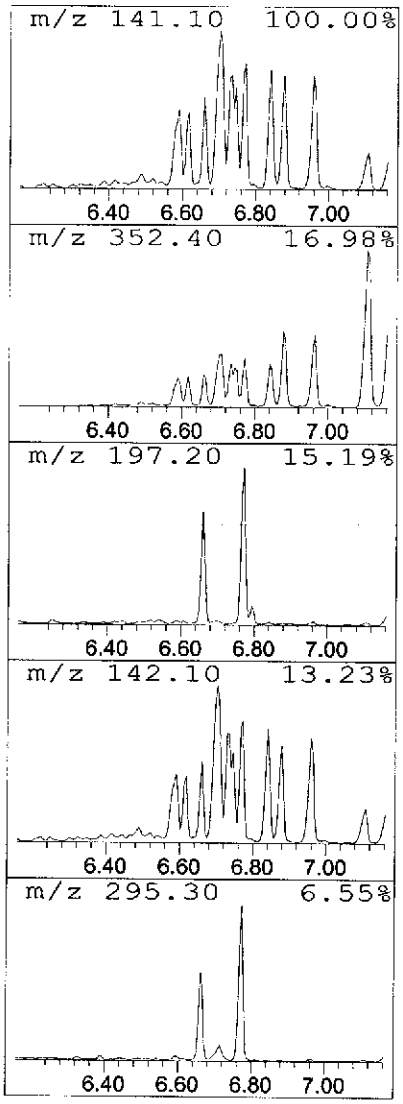
Peak Number 7 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.66	26.41 UG	1381780	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Glycine, N-(2,6-difluorobenzoyl)...	341	C18H25F2NO3	1000314-44-6	36
2	Glycine, N-(2,6-difluorobenzoyl)...	327	C17H23F2NO3	1000314-44-5	36
3	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	28
4	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
5	2-Amino-3-naphthalen-2-ylpropion...	215	C13H13NO2	099631-78-4	9





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ALS Vial : 9 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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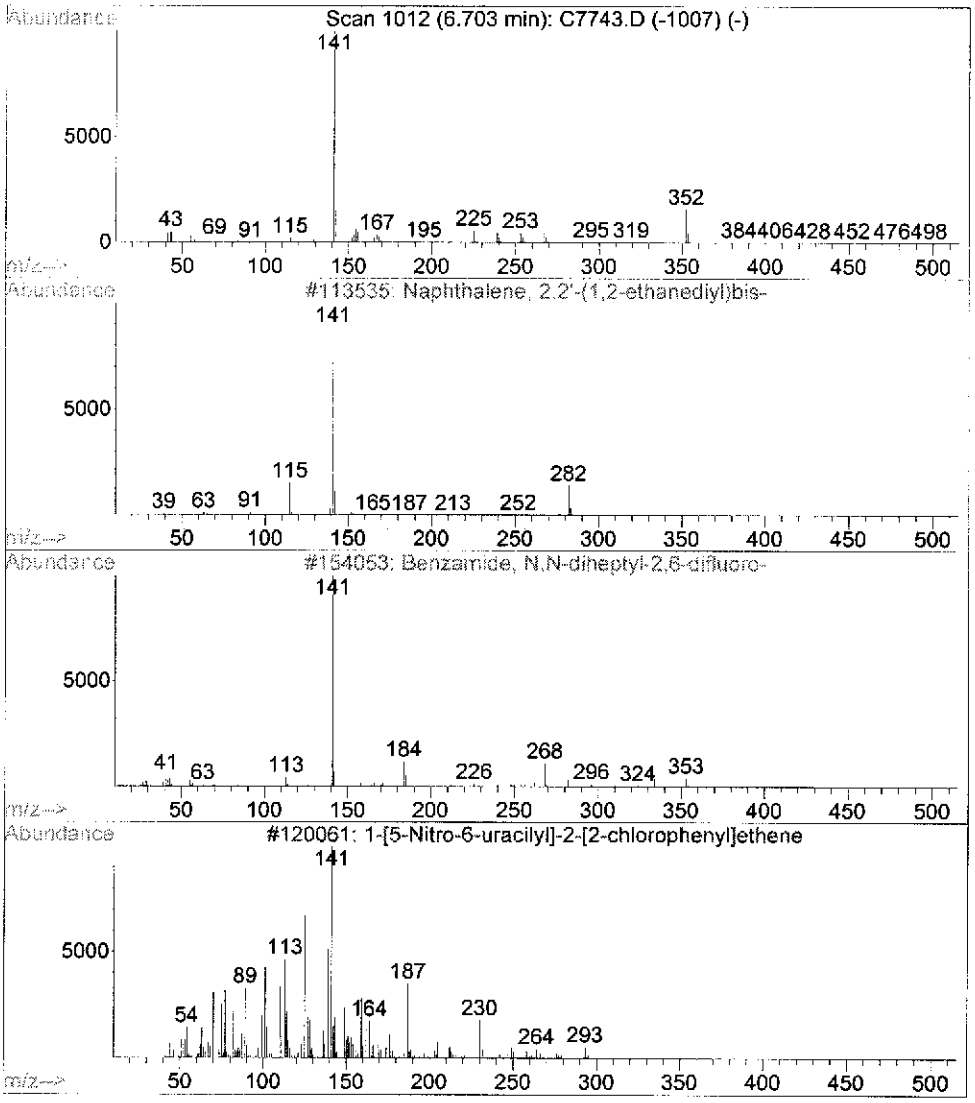
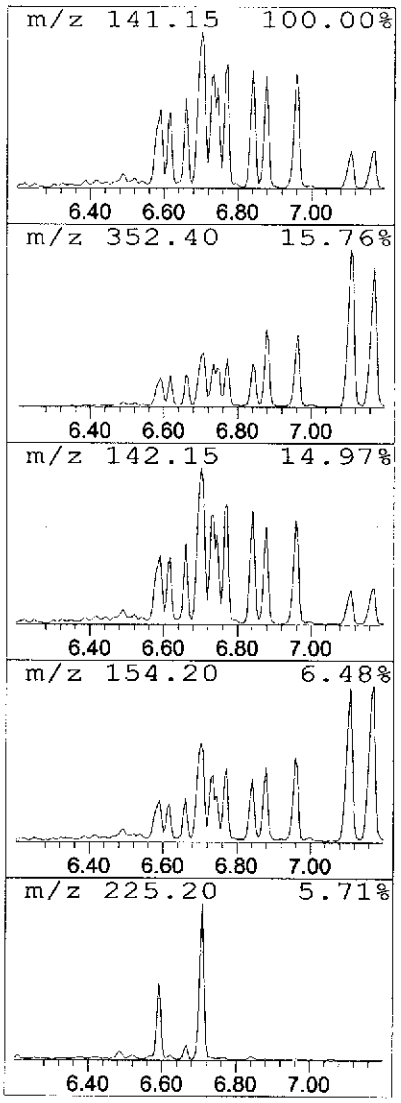
Peak Number 8 Unknown SV Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.70	79.48 UG	4158120	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	42
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	38
3	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	28
4	Cyclohexanone, O-(1-naphthalenyl...	253	C17H19NO	055045-02-8	9
5	2,6-Difluorobenzoic acid, 3-meth...	226	C12H12F2O2	1000292-58-2	9





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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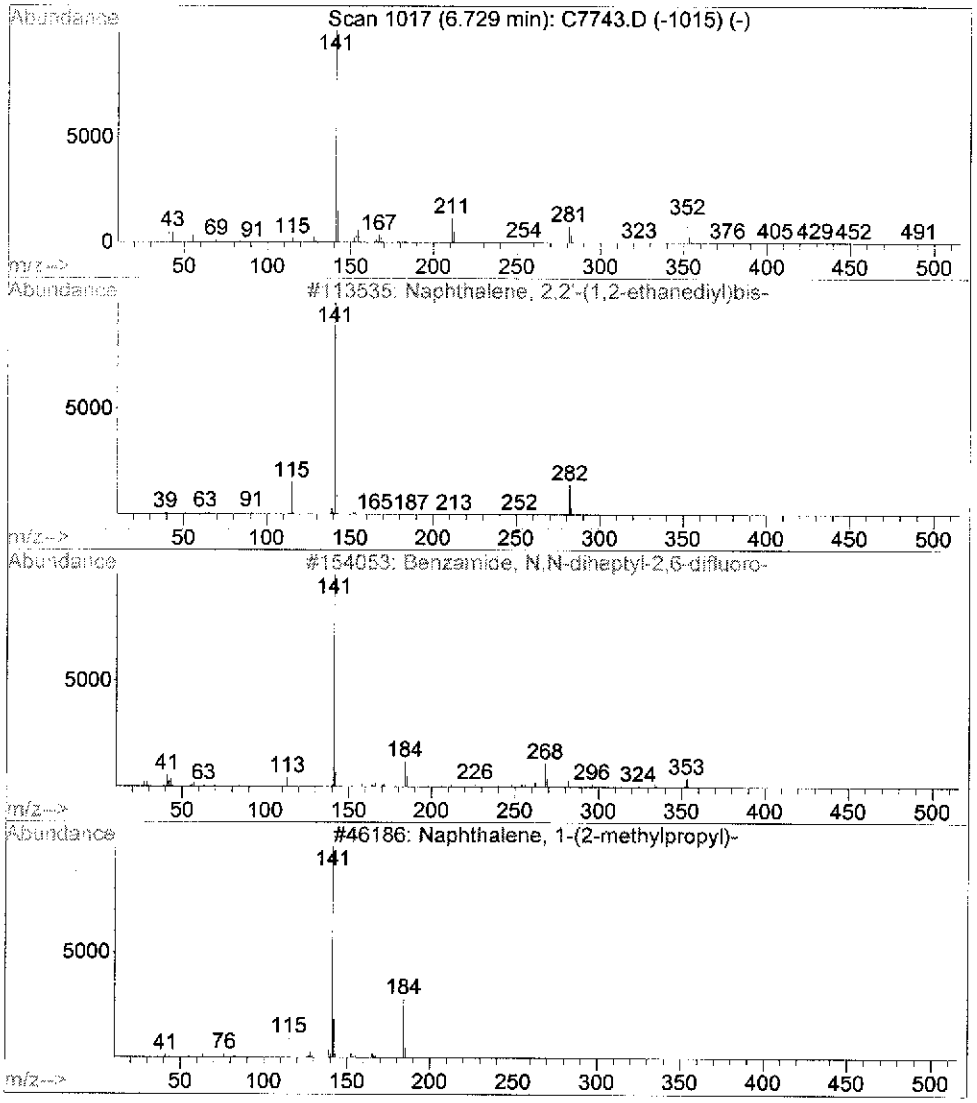
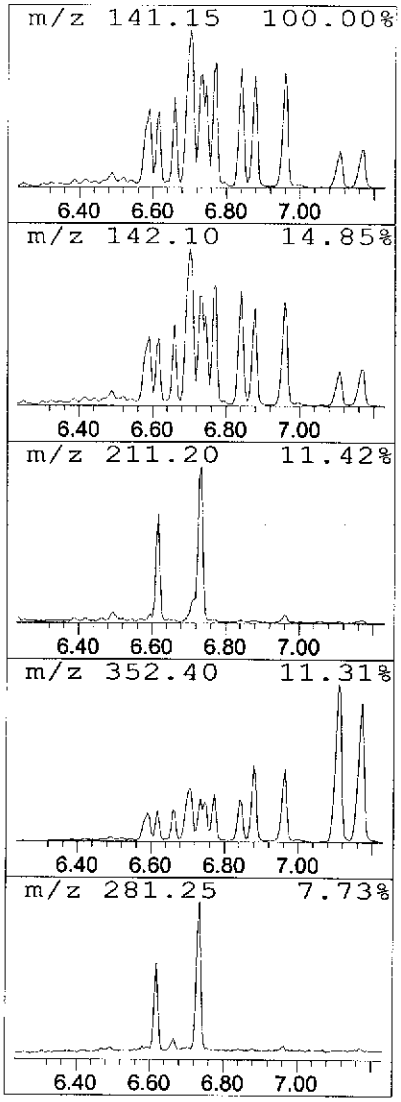
Peak Number 9 Unknown SV Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.73	64.14 UG	3355810	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	50
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	36
3	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	22
4	Undecane, 1-(1-naphthyl)-	282	C21H30	007225-71-0	10
5	Naphthalene, 1-hexyl-	212	C16H20	002876-53-1	9





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ALS Vial : 9 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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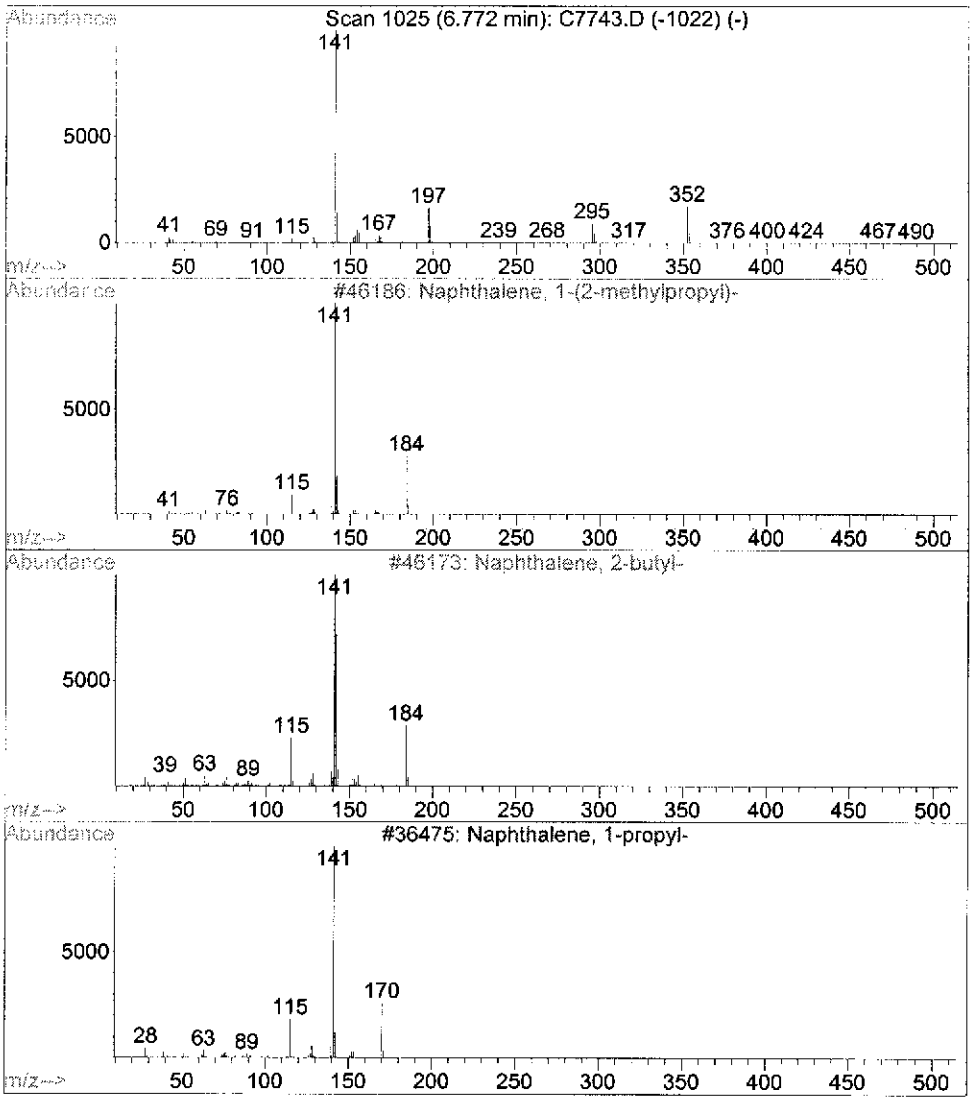
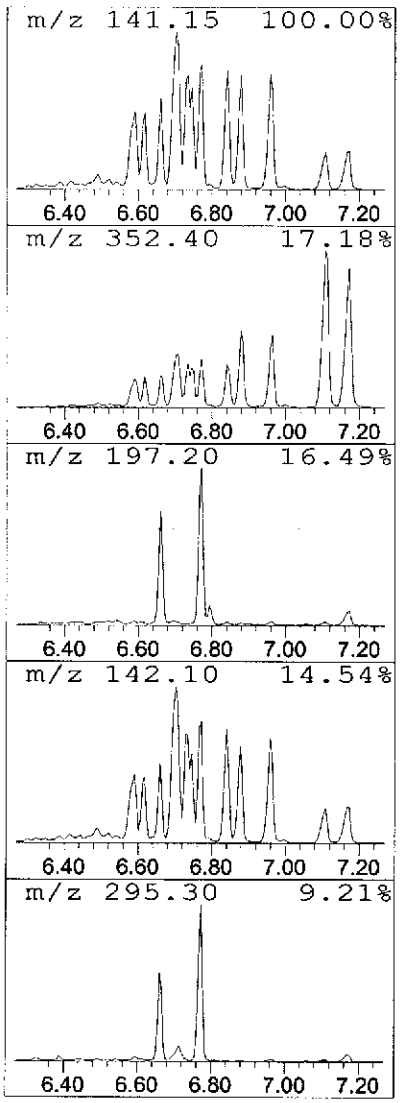
Peak Number 10 Unknown PAH Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.77	39.48 UG	2065650	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	33
2	Naphthalene, 2-butyl-	184	C14H16	001134-62-9	9
3	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	9
4	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9
5	Naphthalene, 1,1'-(1,2-ethanediy...	282	C22H18	015374-45-5	9





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ALS Vial : 9 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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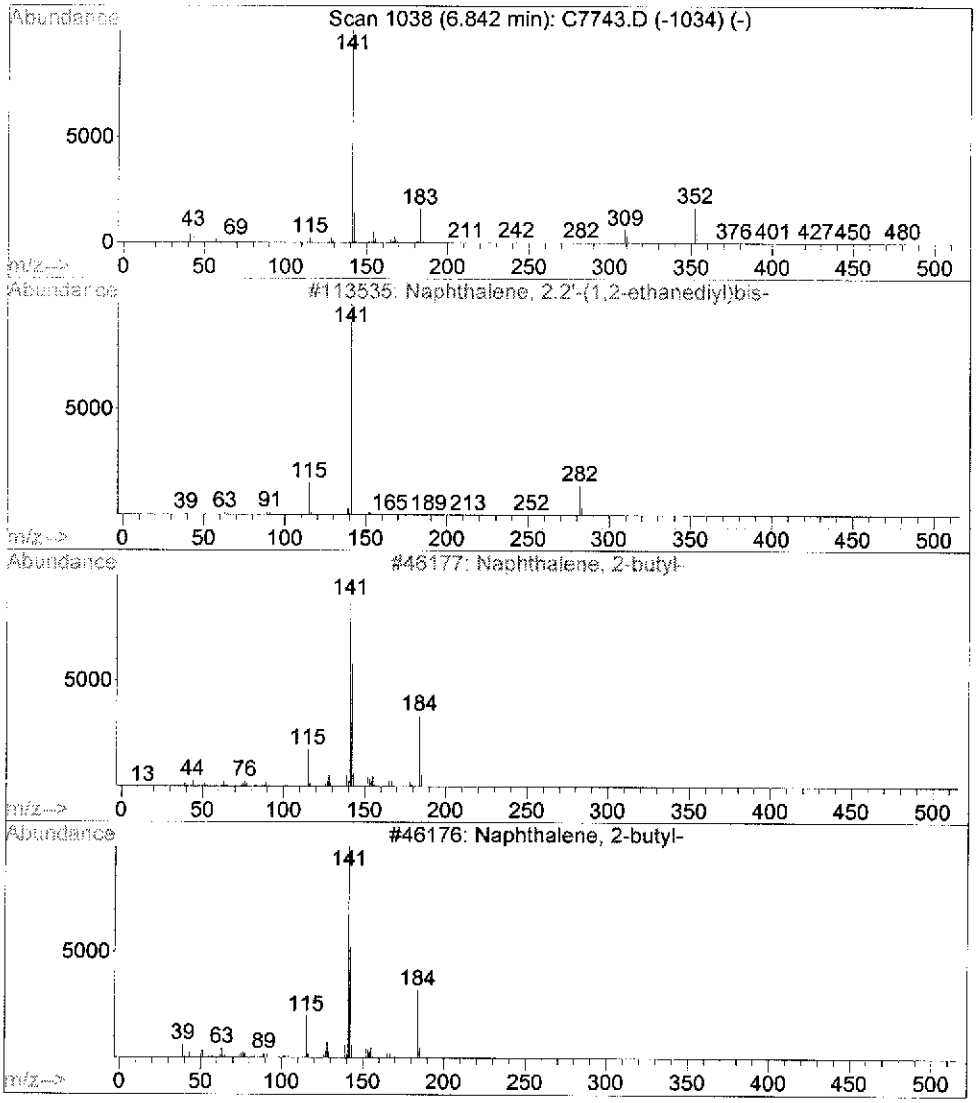
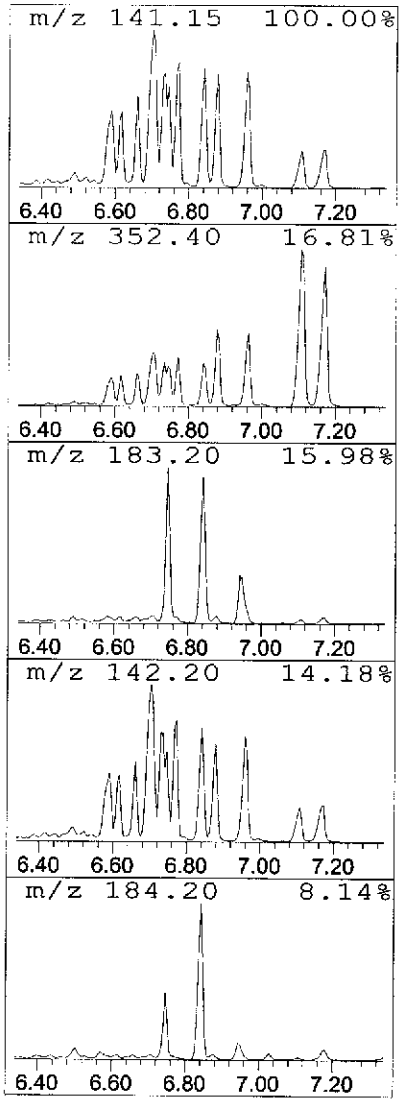
Peak Number 11 Unknown PAH Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.84	41.86 UG	2189950	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	40
2	Naphthalene, 2-butyl-	184	C14H16	001134-62-9	40
3	Naphthalene, 2-butyl-	184	C14H16	001134-62-9	33
4	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	27
5	Methyl 8-oxo-cis-2-nonenoate	184	C10H16O3	028297-04-3	9





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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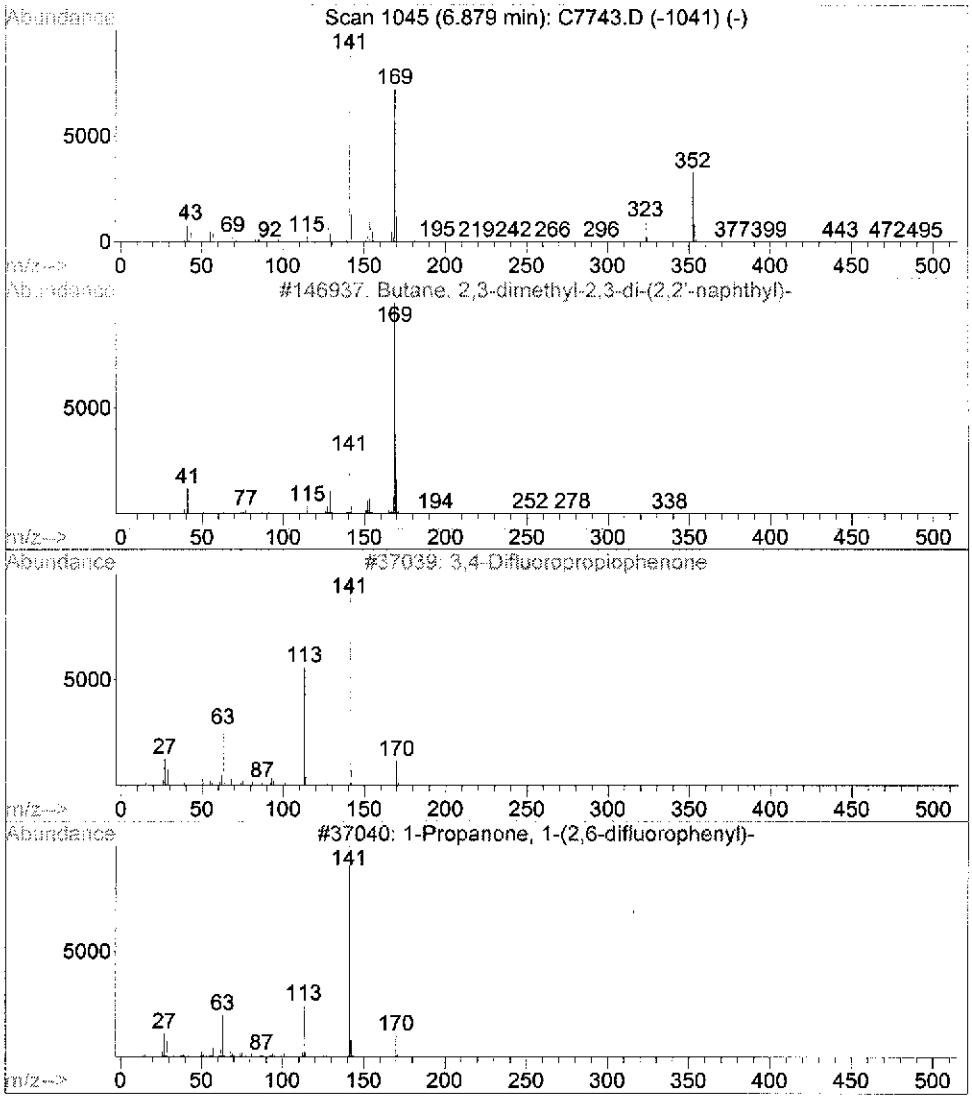
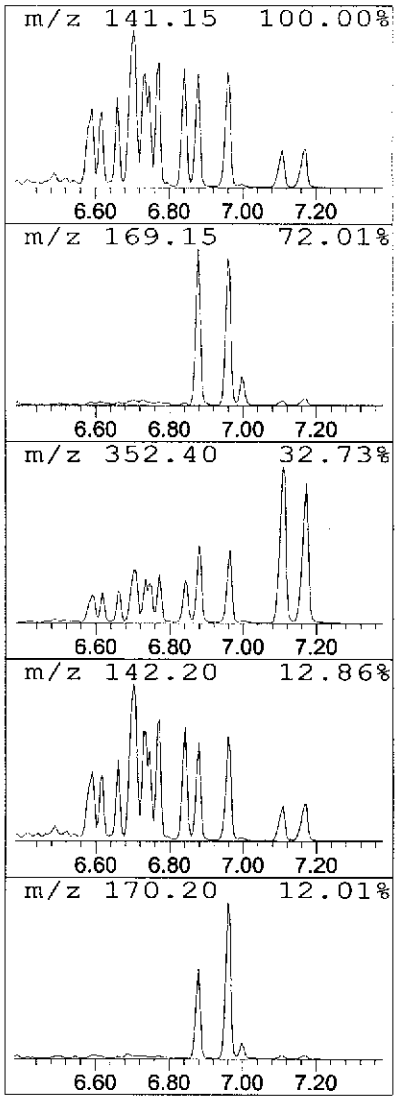
Peak Number 12 Unknown SV Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.88	59.65 UG	3120610	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2,3-dimethyl-2,3-di-(2,2...	338	C26H26	1000150-93-8	36
2	3,4-Difluoropropiophenone	170	C9H8F2O	023384-72-7	32
3	1-Propanone, 1-(2,6-difluorophen...	170	C9H8F2O	085068-31-1	32
4	4-(4-Methylphenyl)pyridine	169	C12H11N	004423-10-3	22
5	Glycine, N-(2,6-difluorobenzoyl)...	327	C17H23F2NO3	1000314-44-5	17





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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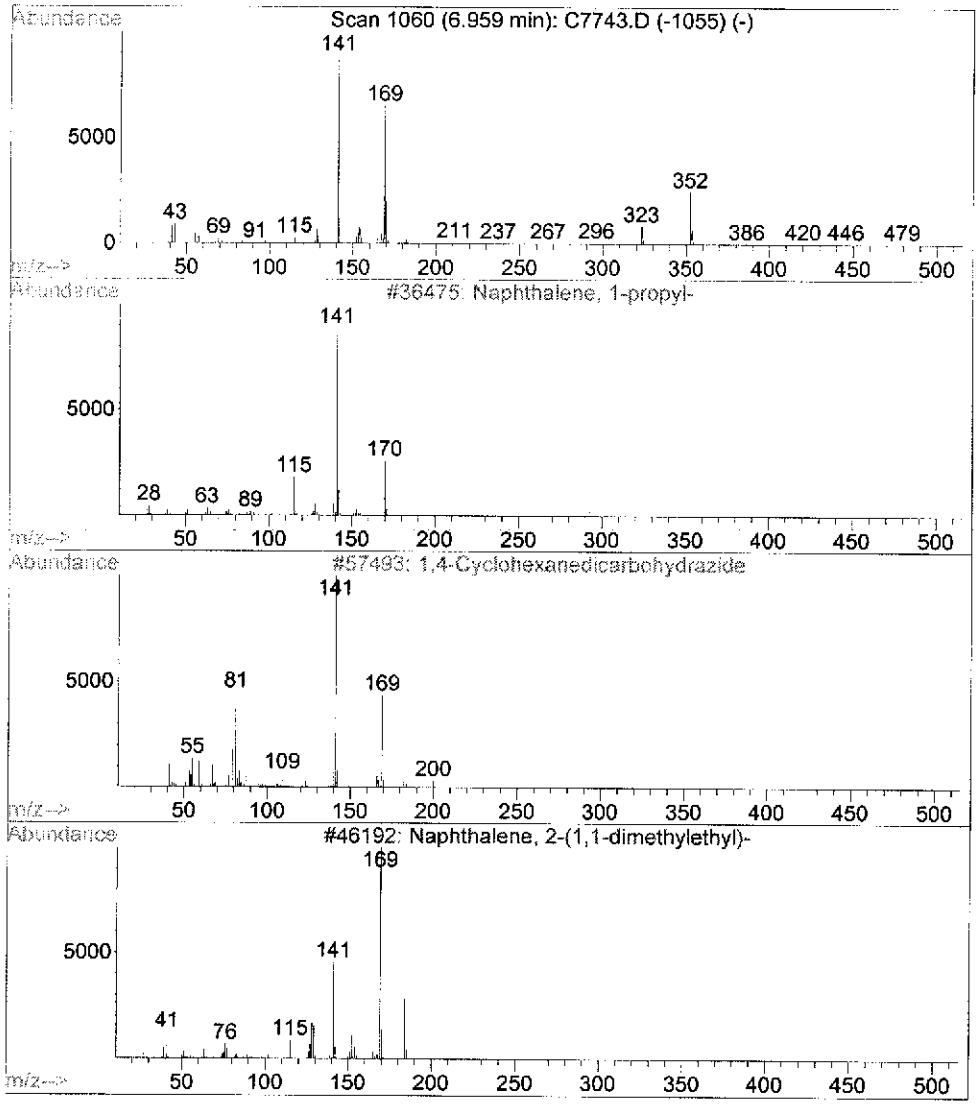
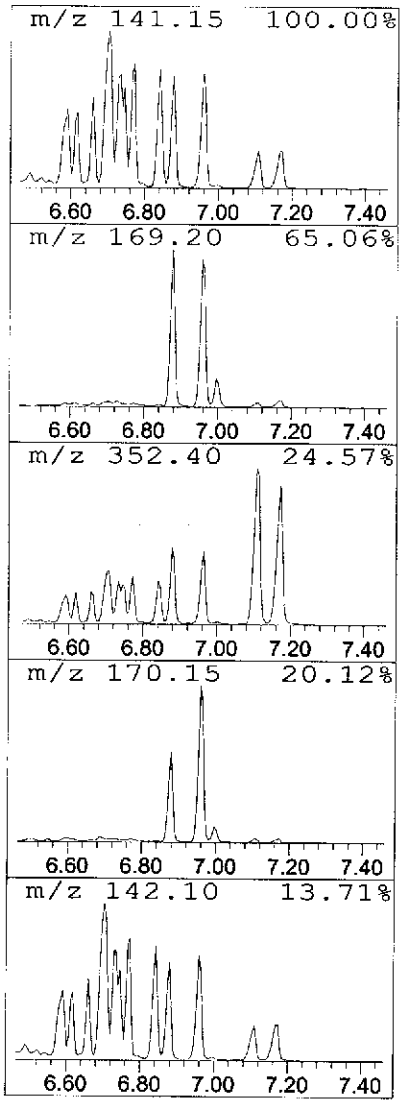
Peak Number 13 Unknown PAH Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.96	67.67 UG	3540390	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	43
2	1,4-Cyclohexanedicarbohydrazide	200	C8H16N4O2	1000212-83-8	36
3	Naphthalene, 2-(1,1-dimethylethyl)-	184	C14H16	002876-35-9	32
4	4-tert-Butylphthalonitrile	184	C12H12N2	032703-80-3	23
5	1-Naphthalenepropionic acid	200	C13H12O2	003243-42-3	17





Library Search Compound Report

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Data File : C7743.D
Acq On : 10 Jul 2012 18:03
Operator : EDM
Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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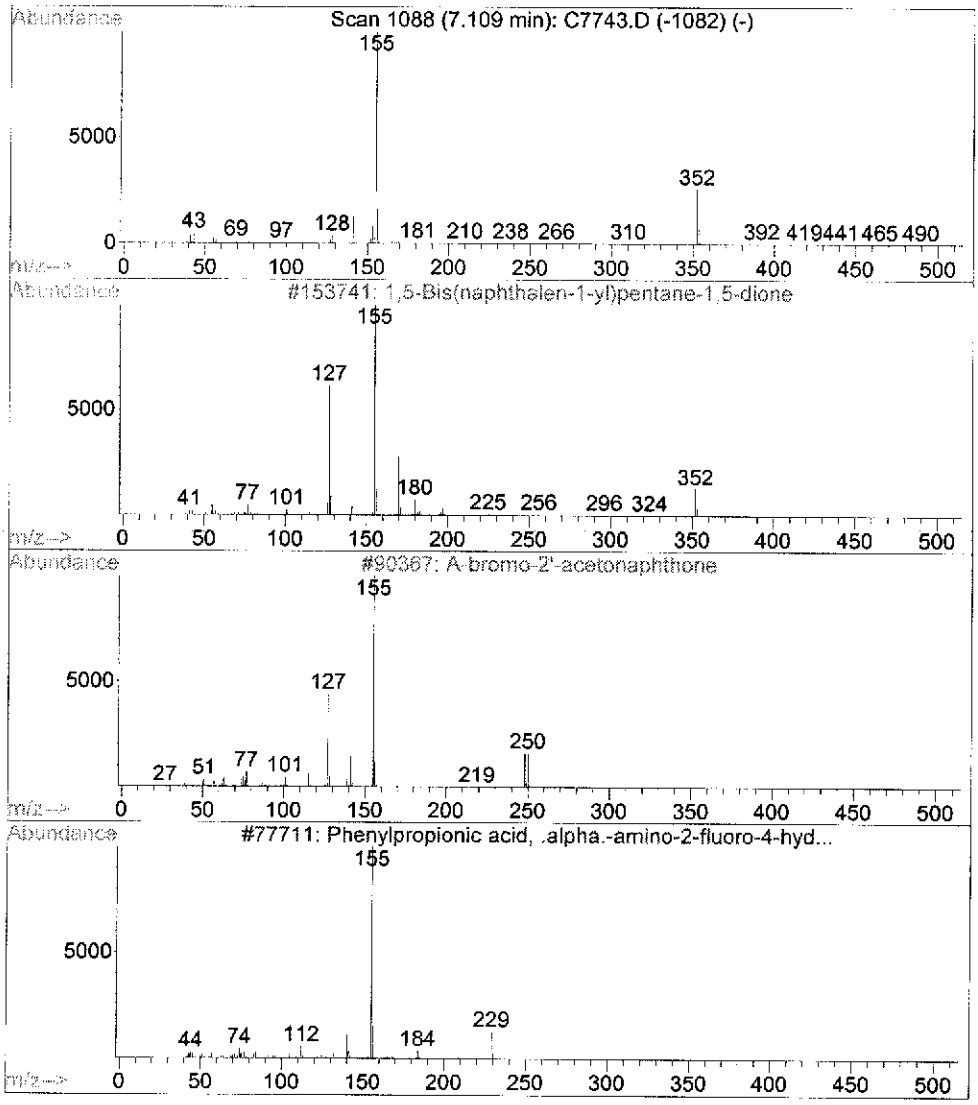
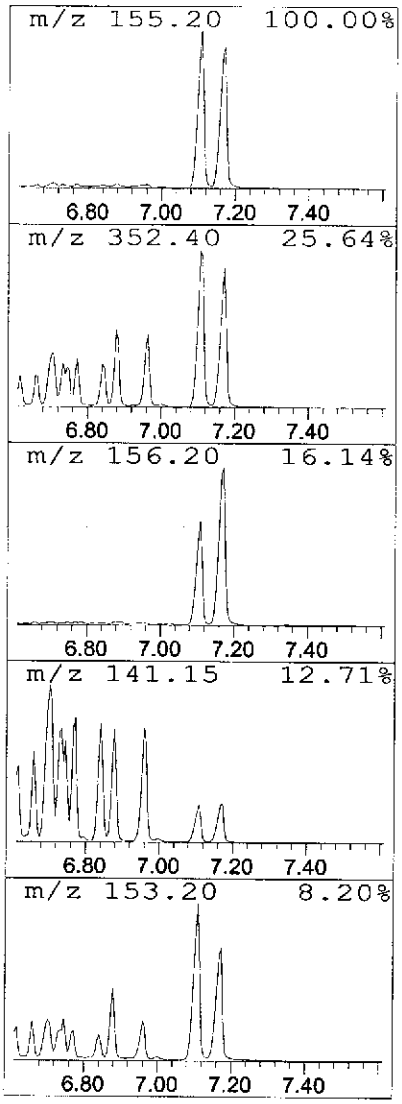
Peak Number 14 Unknown SV Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.11	122.80 UG	6424920	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,5-Bis(naphthalen-1-yl)pentane-...	352	C25H20O2	1000210-52-9	56
2	A-bromo-2'-acetonaphthone	248	C12H9BrO	000613-54-7	40
3	Phenylpropionic acid, .alpha.-am...	229	C10H12FNO4	1000126-07-3	33
4	1-Naphthoic acid, tridec-2-ynyl ...	350	C24H30O2	1000308-82-7	33
5	Naphthalene, 2-methyl-1-propyl-	184	C14H16	054774-89-9	12





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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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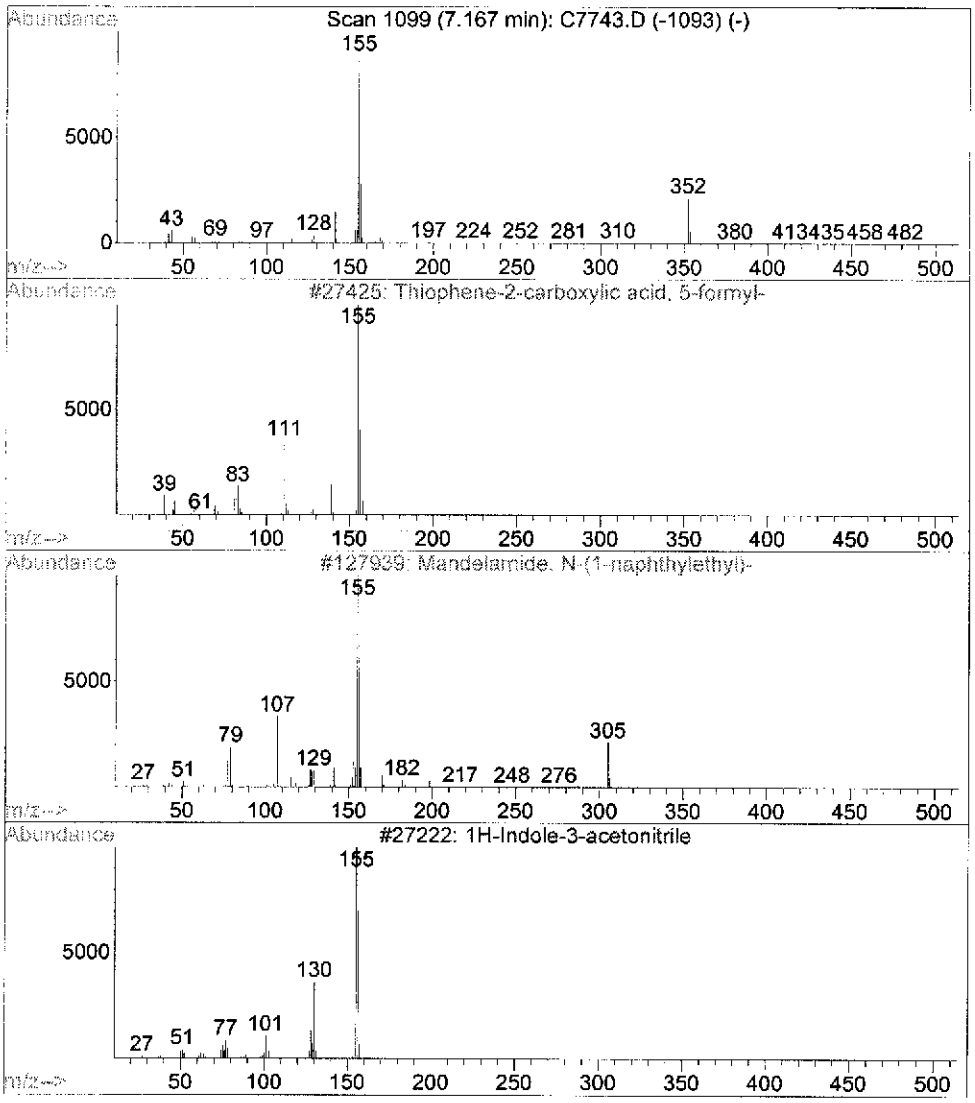
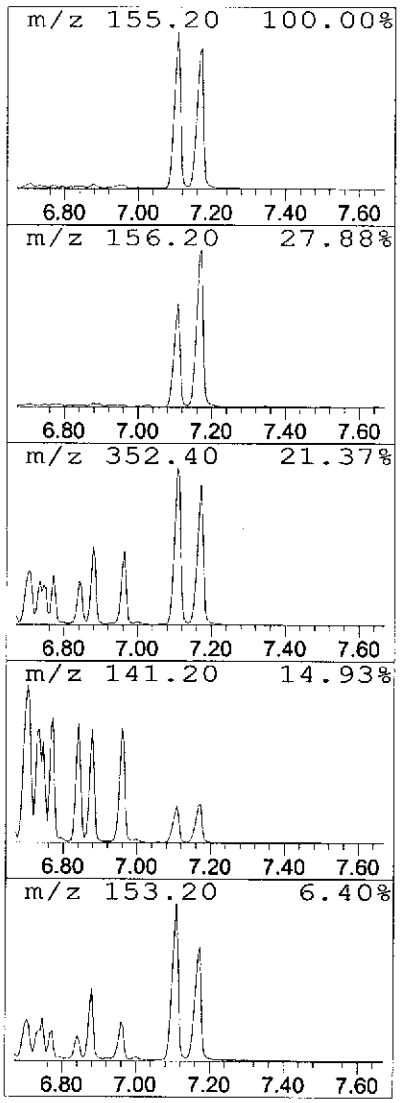
Peak Number 15 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.17	138.32 UG	7236930	Chrysene-d12	6.50

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiophene-2-carboxylic acid, 5-f...	156	C6H4O3S	1000306-77-9	42
2	Mandelamide, N-(1-naphthylethyl)-	305	C20H19NO2	344875-77-0	10
3	1H-Indole-3-acetonitrile	156	C10H8N2	000771-51-7	10
4	2,4-Diethyl-5-methylthiazole	155	C8H13NS	052414-89-8	9
5	Pyridine, 2-phenyl-	155	C11H9N	001008-89-5	9





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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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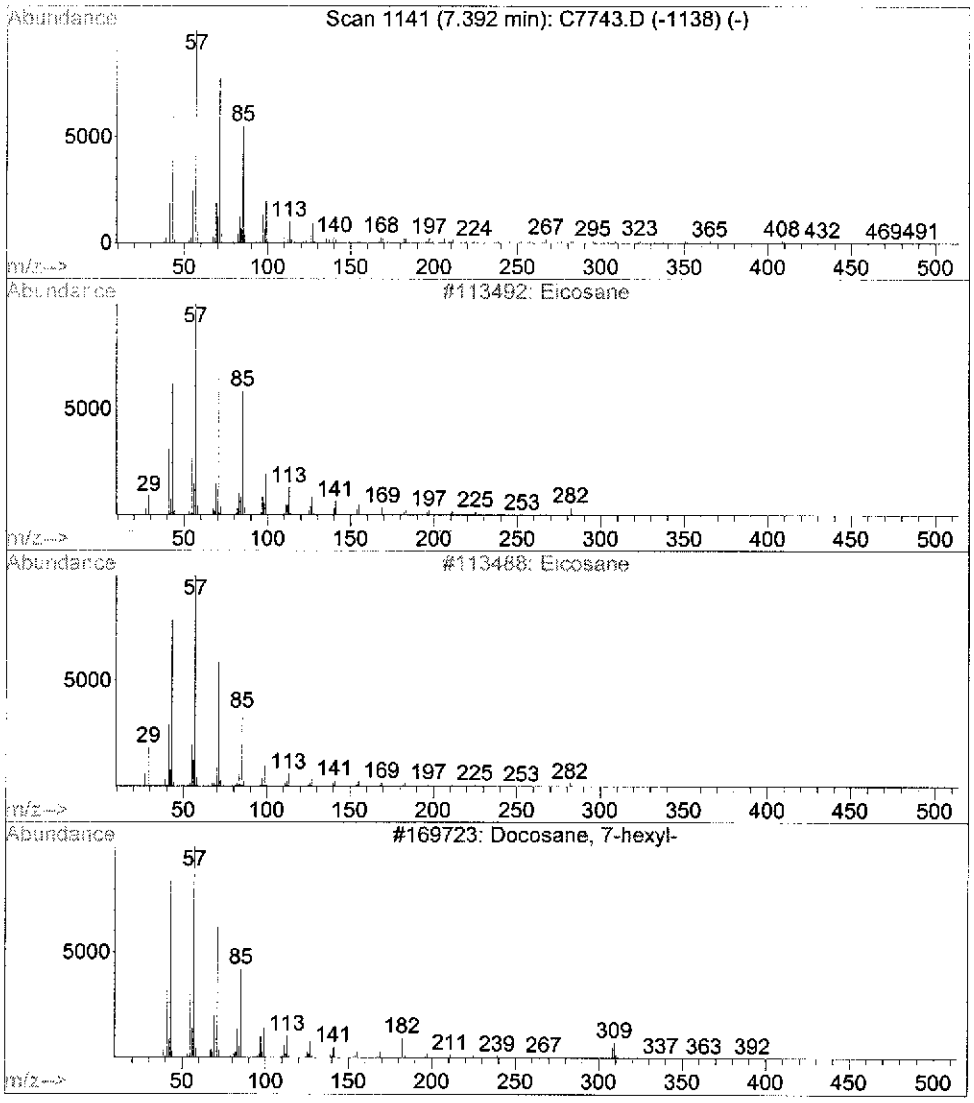
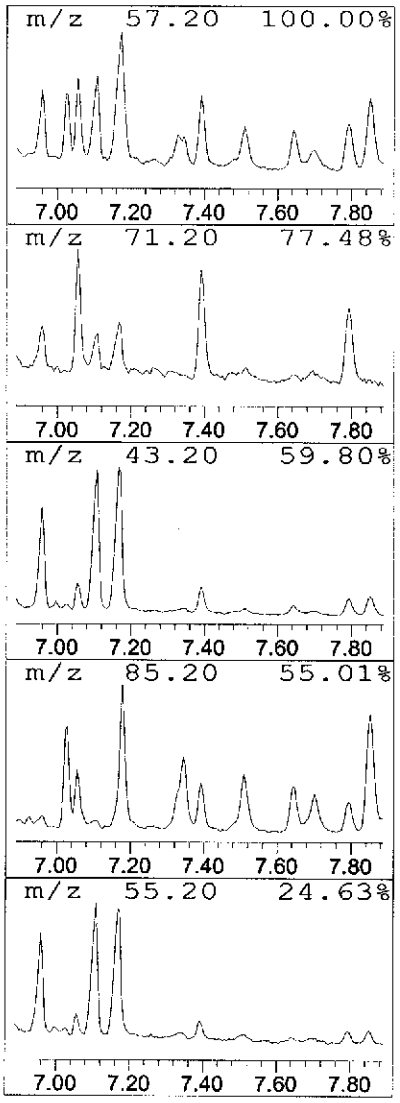
Peak Number 16 Unknown Hydrocarbon Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.39	15.56 UG	242311	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Eicosane	282	C20H42	000112-95-8	95
2	Eicosane	282	C20H42	000112-95-8	93
3	Docosane, 7-hexyl-	394	C28H58	055373-86-9	93
4	Nonacosane	408	C29H60	000630-03-5	93
5	Heneicosane, 11-decyl-	437	C31H64	055320-06-4	93





Library Search Compound Report

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Acq On : 10 Jul 2012 18:03
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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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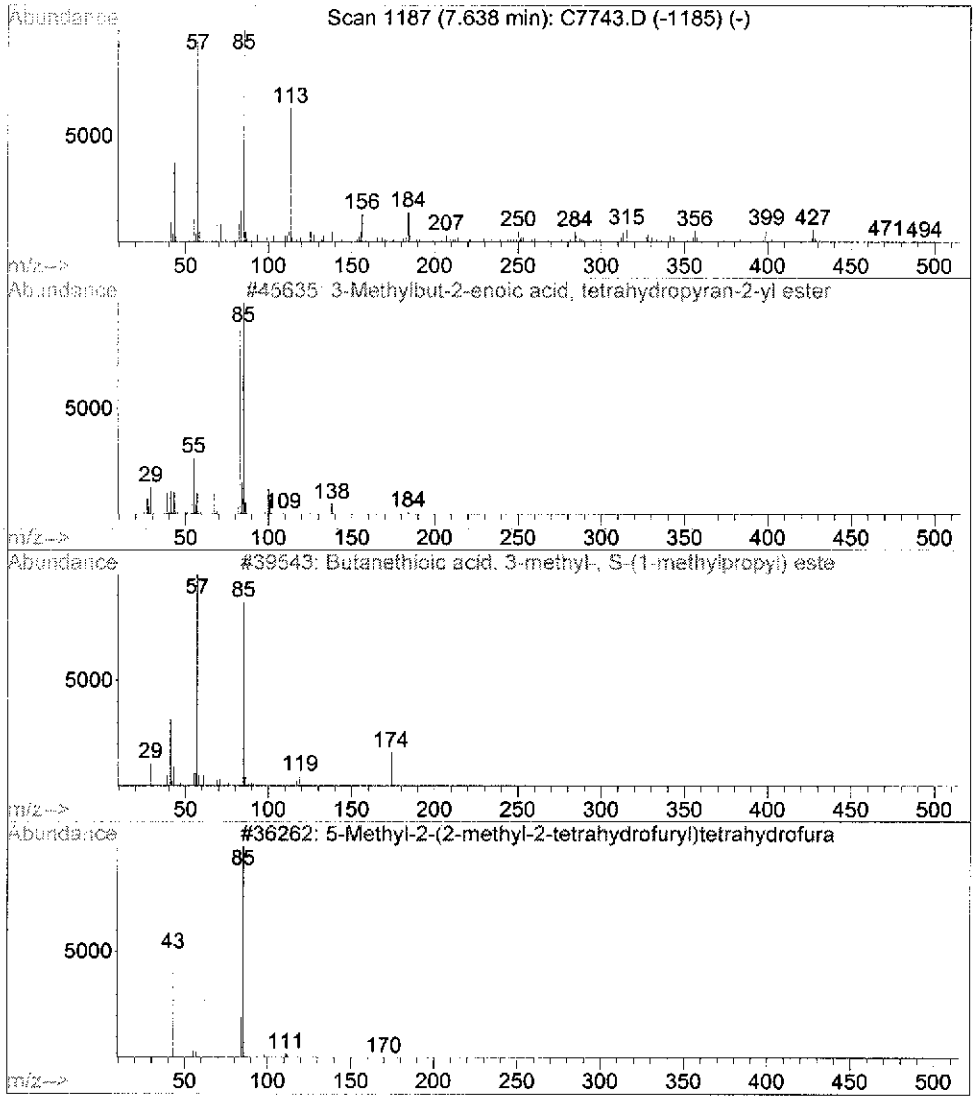
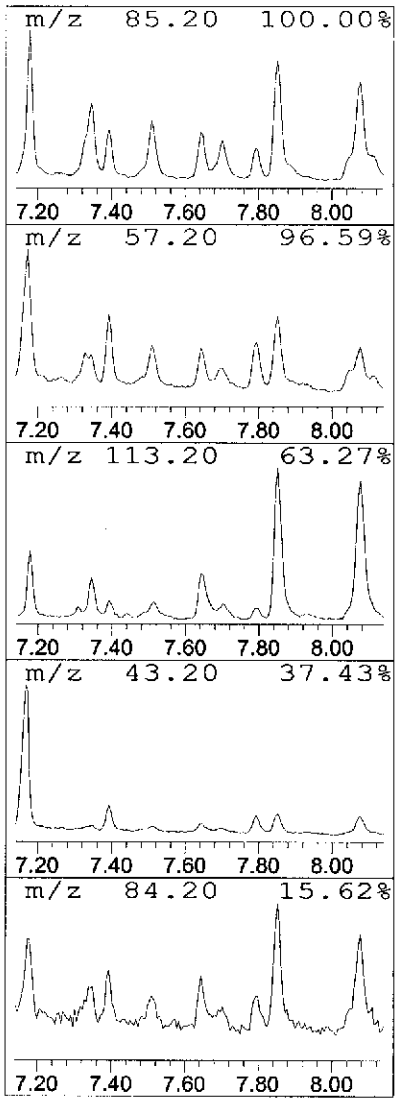
Peak Number 17 Unknown SV Concentration Rank 23

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.64	9.20 UG	143324	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Methylbut-2-enoic acid, tetrah...	184	C10H16O3	1000187-32-6	38
2	Butanethioic acid, 3-methyl-, S-...	174	C9H18OS	002432-91-9	38
3	5-Methyl-2-(2-methyl-2-tetrahydr...	170	C10H18O2	1000112-56-4	38
4	5,6-Decanedione	170	C10H18O2	005579-73-7	35
5	Tetrahydropyran 12-tetradecyn-1-...	294	C19H34O2	096249-40-0	35





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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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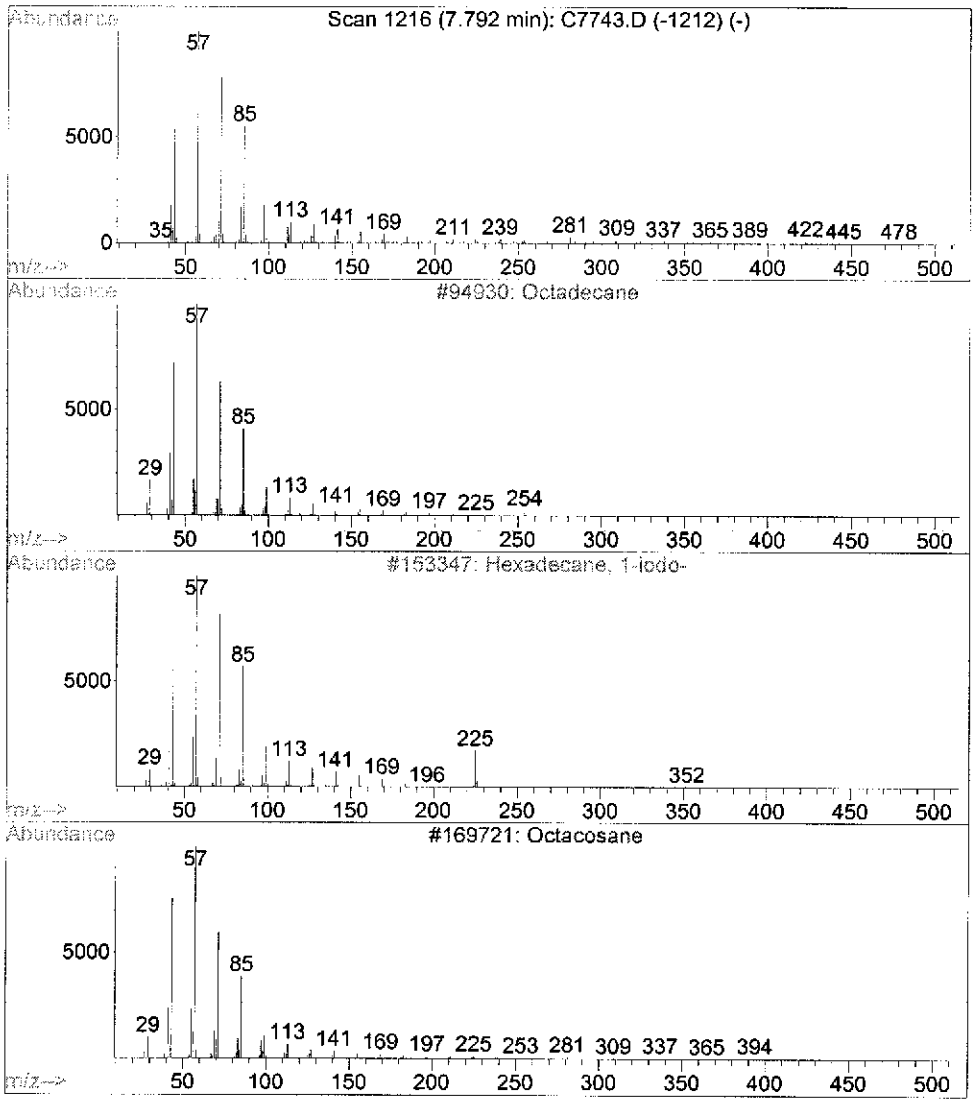
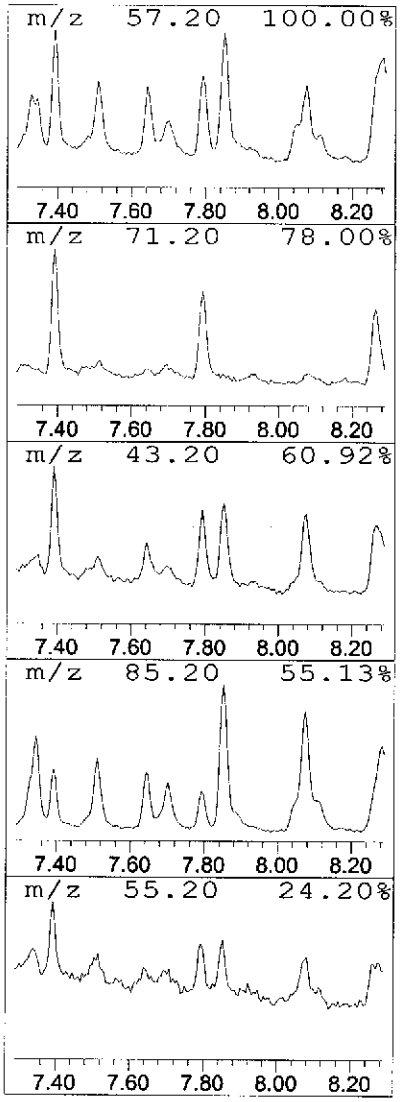
Peak Number 18 Unknown Hydrocarbon Concentration Rank 21

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.79	12.96 UG	201820	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane	254	C18H38	000593-45-3	97
2	Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	94
3	Octacosane	394	C28H58	000630-02-4	94
4	Nonacosane	408	C29H60	000630-03-5	93
5	1-Iodo-2-methylundecane	296	C12H25I	073105-67-6	91





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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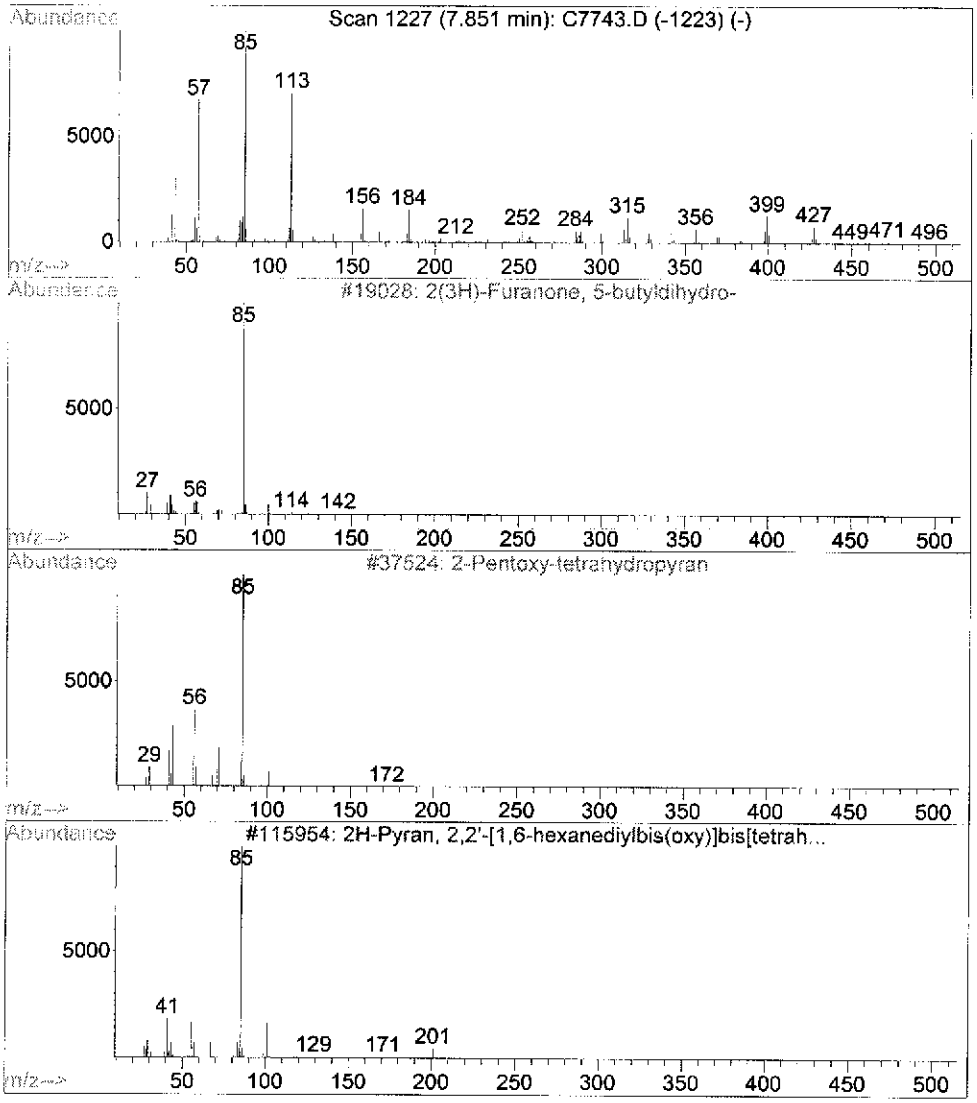
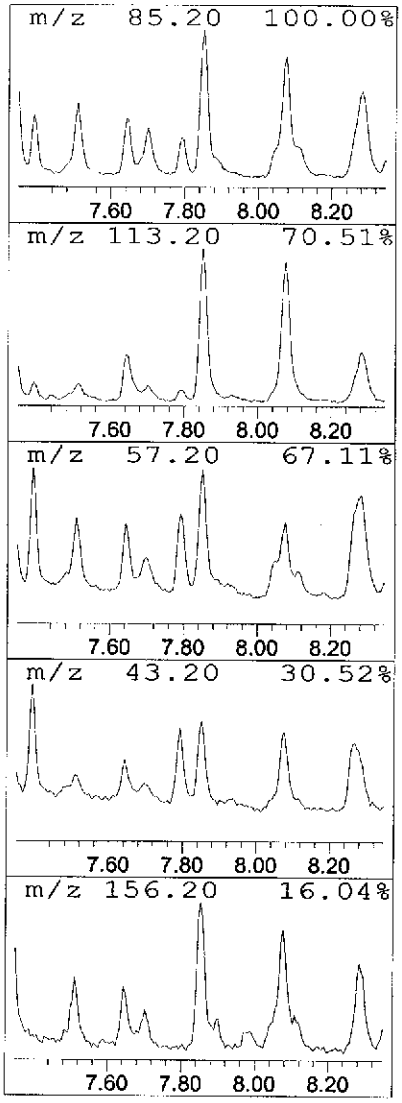
Peak Number 19 Unknown SV Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.85	28.53 UG	444181	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2(3H)-Furanone, 5-butyldihydro-	142	C8H14O2	000104-50-7	35
2	2-Pentoxy-tetrahydropyran	172	C10H20O2	032767-70-7	35
3	2H-Pyran, 2,2'-[1,6-hexanediylbi...	286	C16H30O4	015057-15-5	35
4	Valeric acid, but-3-yn-2-yl ester	154	C9H14O2	1000292-48-4	35
5	Valeric acid, 4-cyanophenyl ester	203	C12H13NO2	1000307-98-7	25





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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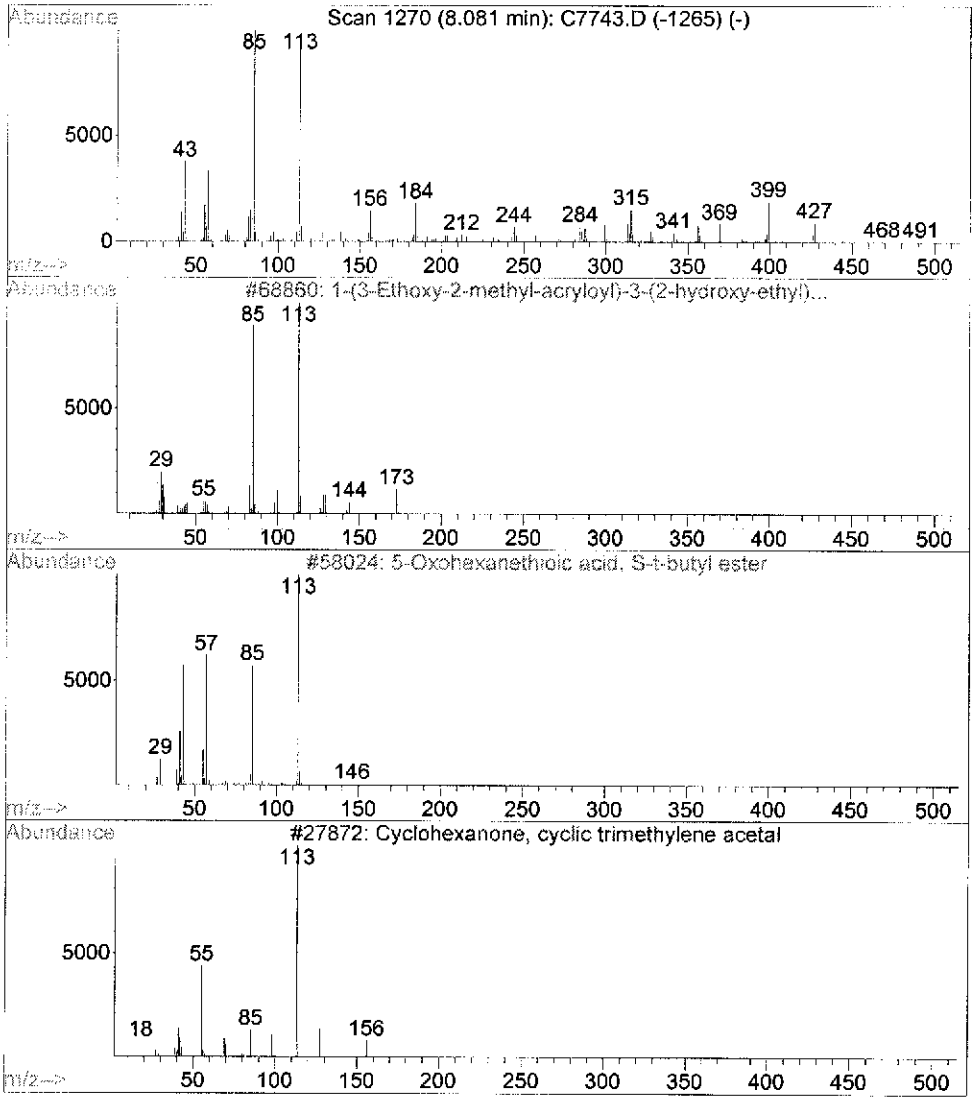
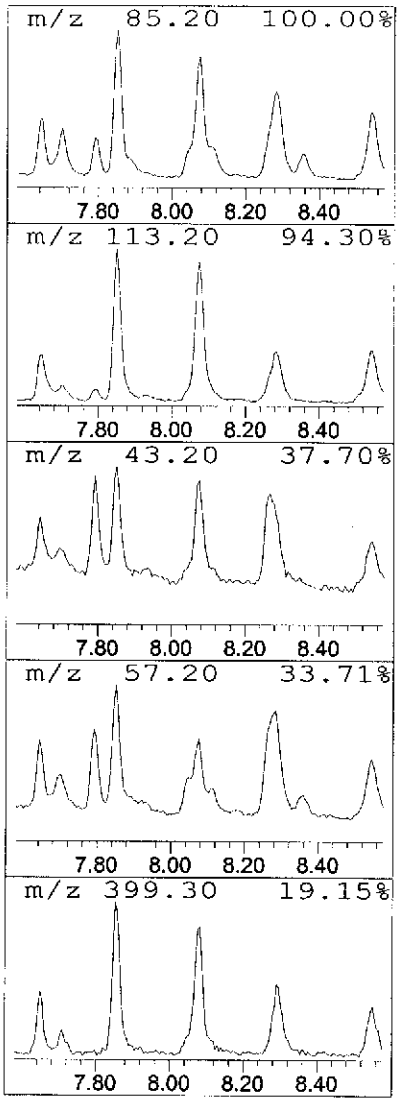
Peak Number 20 Unknown SV Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.08	21.75 UG	338663	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-(3-Ethoxy-2-methyl-acryloyl)-3...	216	C9H16N2O4	1000188-24-4	59
2	5-Oxohexanethioic acid, S-t-buty...	202	C10H18O2S	1000194-60-8	59
3	Cyclohexanone, cyclic trimethyle...	156	C9H16O2	000180-93-8	35
4	9-(Tetrahydropyran-2-yloxy)-4,6-...	268	C14H20O5	1000191-93-4	27
5	3,5-Heptanedione, 2,6-dimethyl-	156	C9H16O2	018362-64-6	27





Library Search Compound Report

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Acq On : 10 Jul 2012 18:03
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Sample : G3-06261,E12-06385-007,S,15.03g,17.5,1
Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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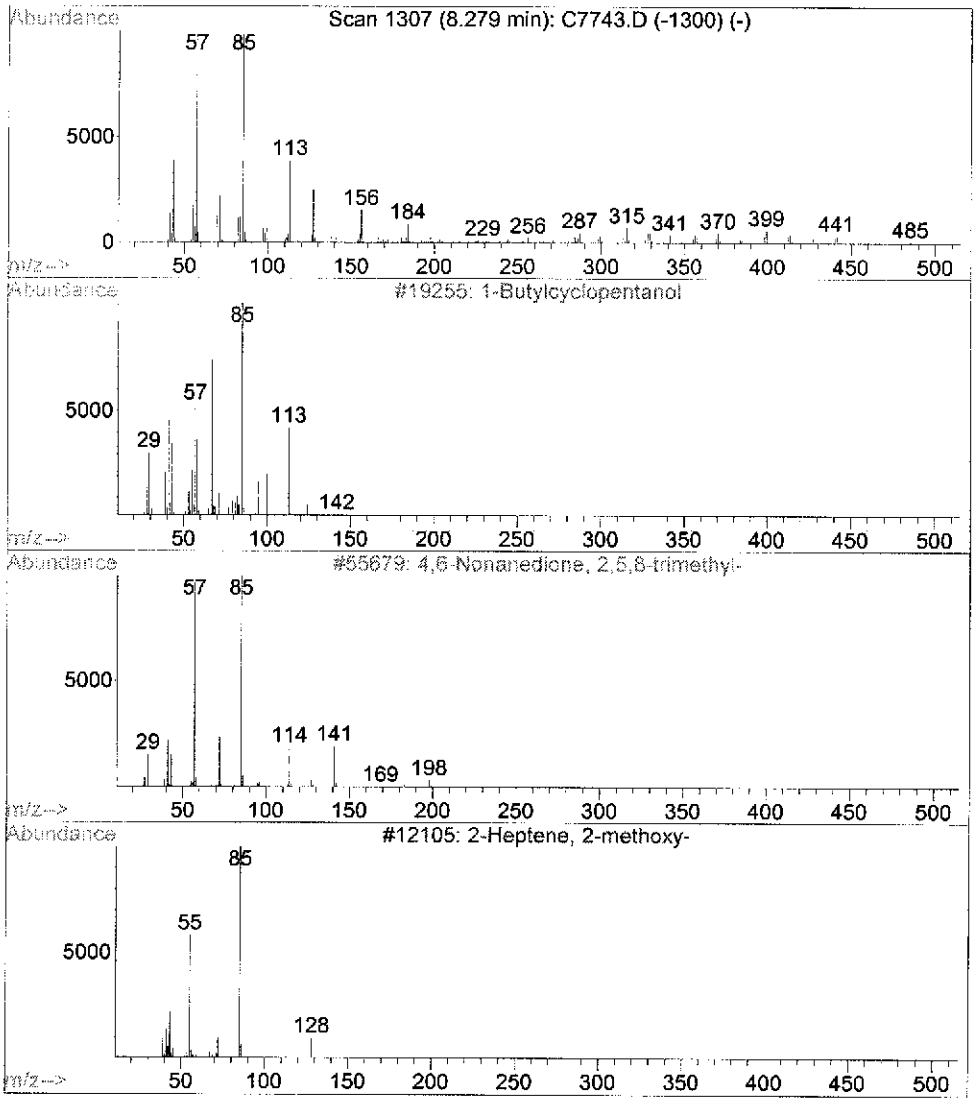
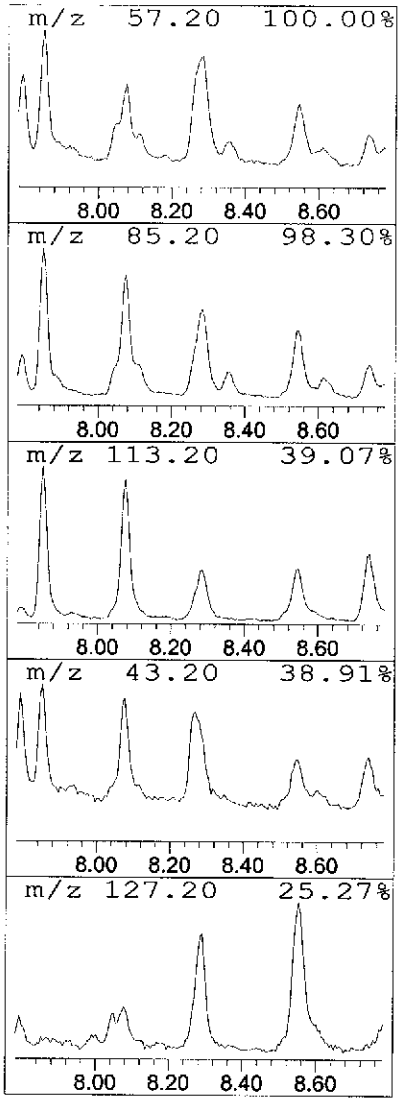
Peak Number 21 Unknown SV Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.28	34.19 UG	532371	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butylcyclopentanol	142	C9H18O	001462-97-1	40
2	4,6-Nonanedione, 2,5,8-trimethyl-	198	C12H22O2	1000162-14-3	38
3	2-Heptene, 2-methoxy-	128	C8H16O	061142-43-6	30
4	2-Propyltetrahydropyran	128	C8H16O	003857-17-8	27
5	Valeric acid, pent-2-en-4-ynyl e...	166	C10H14O2	1000292-48-6	27





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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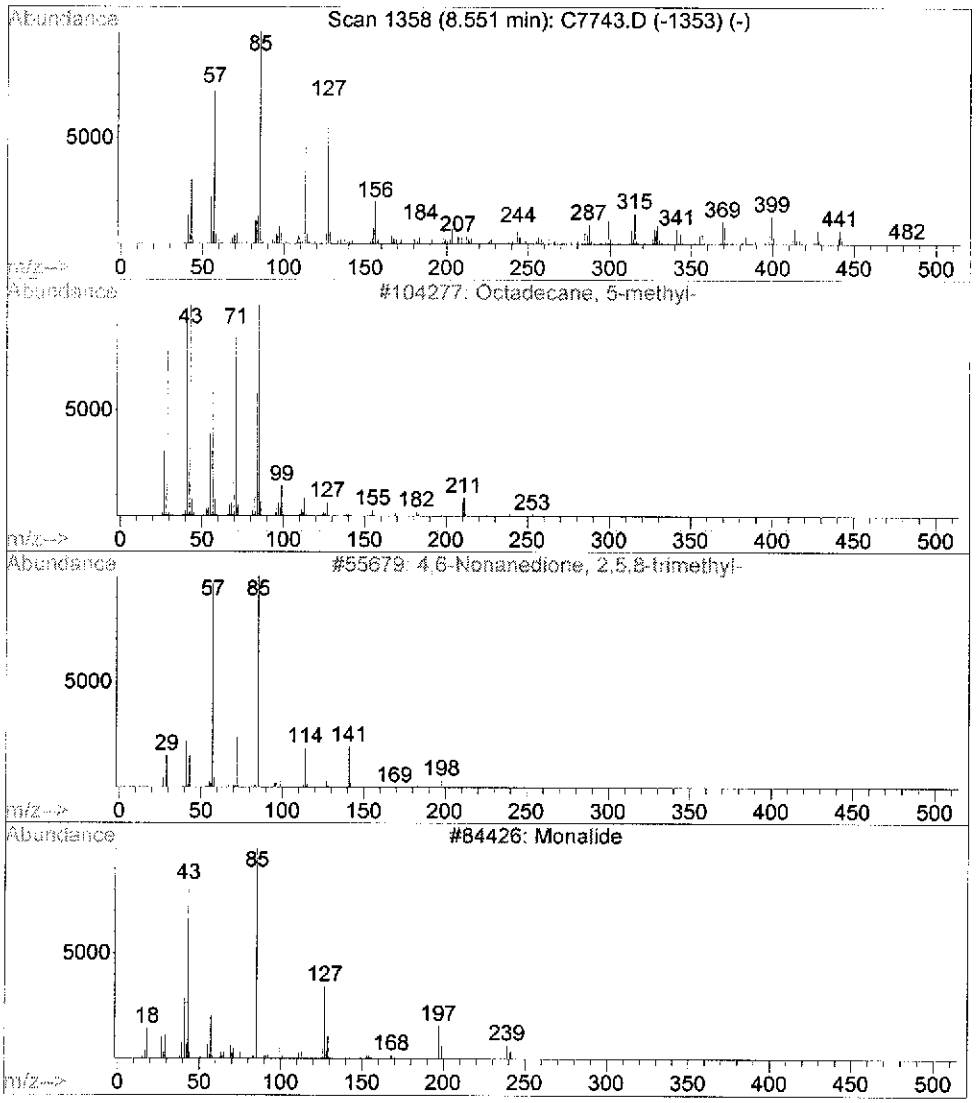
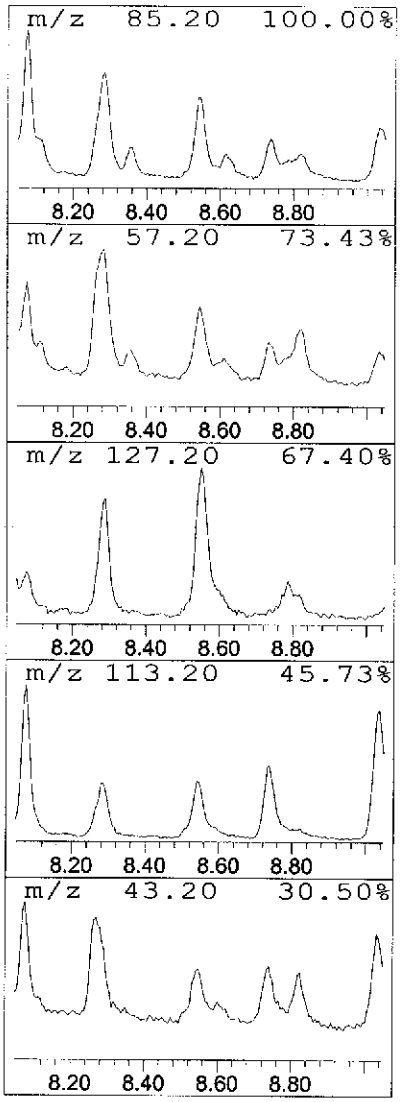
Peak Number 22 Unknown SV Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.55	16.85 UG	262431	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane, 5-methyl-	268	C19H40	025117-35-5	27
2	4,6-Nonanedione, 2,5,8-trimethyl-	198	C12H22O2	1000162-14-3	27
3	Monalide	239	C13H18ClNO	007287-36-7	25
4	Sulfurous acid, decyl hexyl ester	306	C16H34O3S	1000309-13-2	22
5	Valeric acid, pent-2-en-4-ynyl e...	166	C10H14O2	1000292-48-6	22





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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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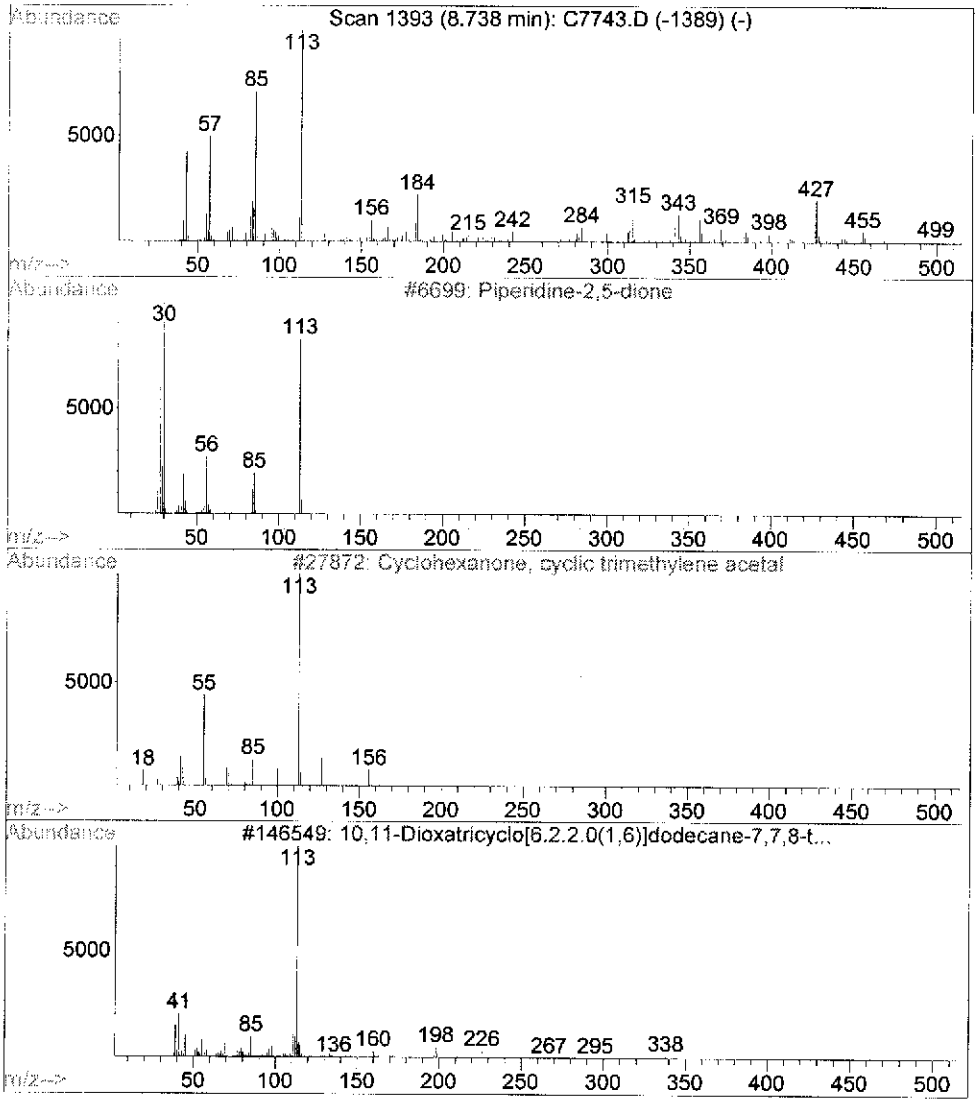
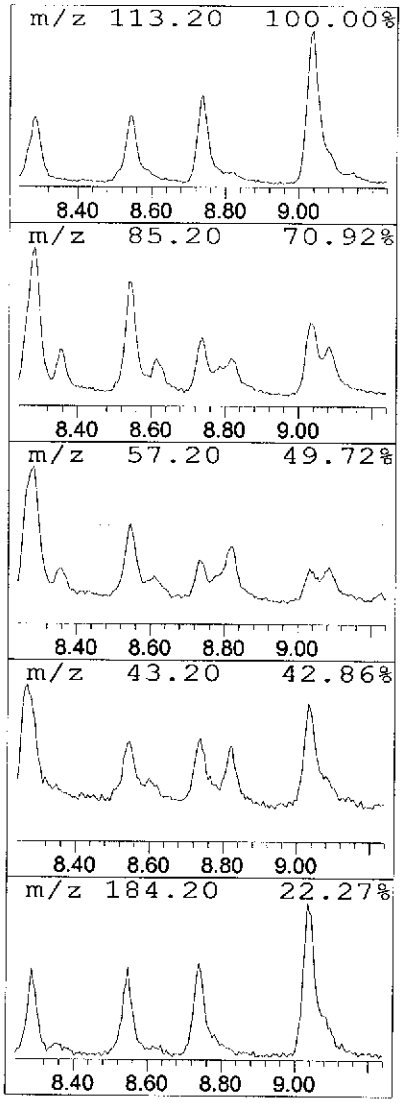
Peak Number 23 Unknown SV Concentration Rank 24

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.74	8.46 UG	131744	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Piperidine-2,5-dione	113	C5H7NO2	052065-78-8	38
2	Cyclohexanone, cyclic trimethyle...	156	C9H16O2	000180-93-8	35
3	10,11-Dioxatricyclo[6.2.2.0(1,6)...	338	C17H14N4O2S	1000277-11-5	30
4	3,5-Heptanedione, 2,6-dimethyl-	156	C9H16O2	018362-64-6	27
5	1-Ethyl-2-methylpropyl ethylphos...	196	C8H18FO2P	1000298-32-1	27





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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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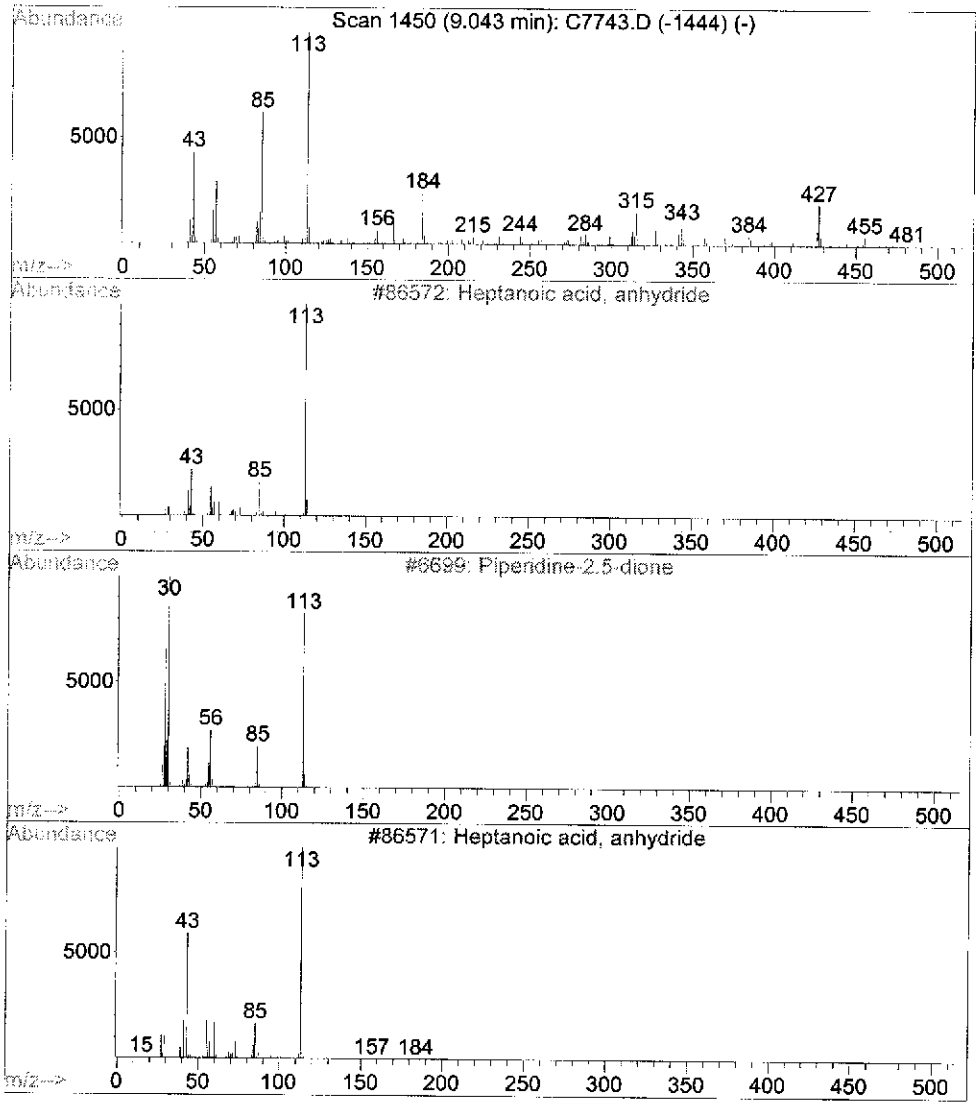
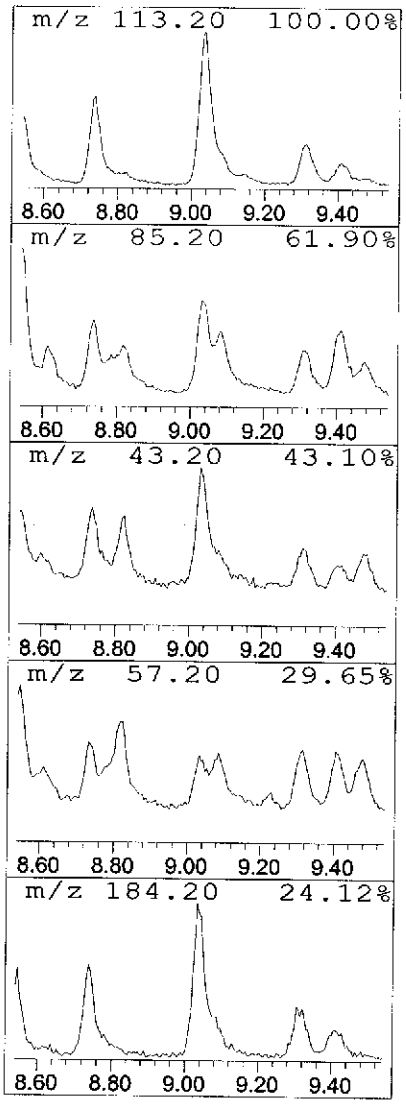
Peak Number 24 Unknown SV Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.04	18.99 UG	295654	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanoic acid, anhydride	242	C14H26O3	000626-27-7	53
2	Piperidine-2,5-dione	113	C5H7NO2	052065-78-8	47
3	Heptanoic acid, anhydride	242	C14H26O3	000626-27-7	43
4	5-Oxohexanethioic acid, S-t-buty...	202	C10H18O2S	1000194-60-8	42
5	N-[Carboxymethyl]maleamic acid d...	201	C8H11NO5	014109-64-9	38





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Misc : 120709-03,07/09/12,06/27/12,20
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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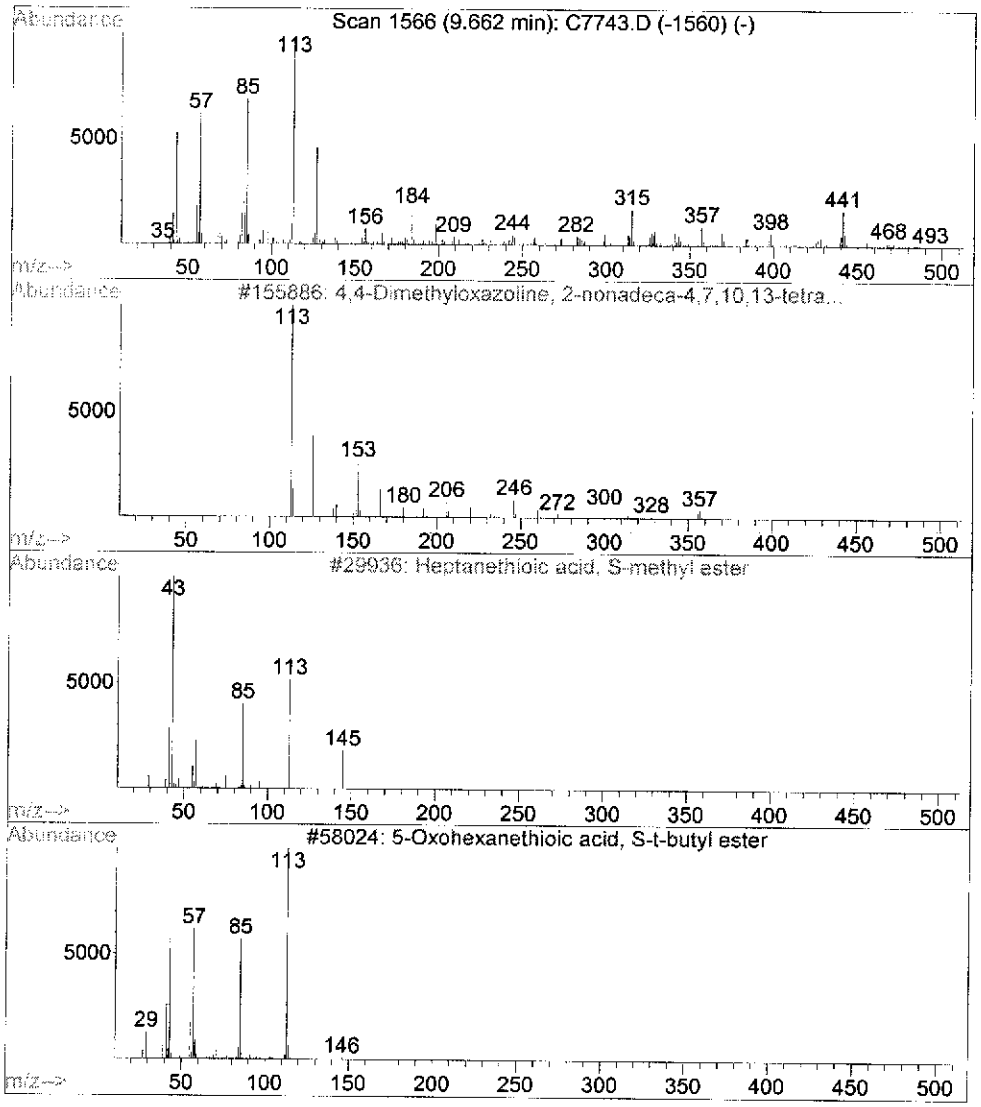
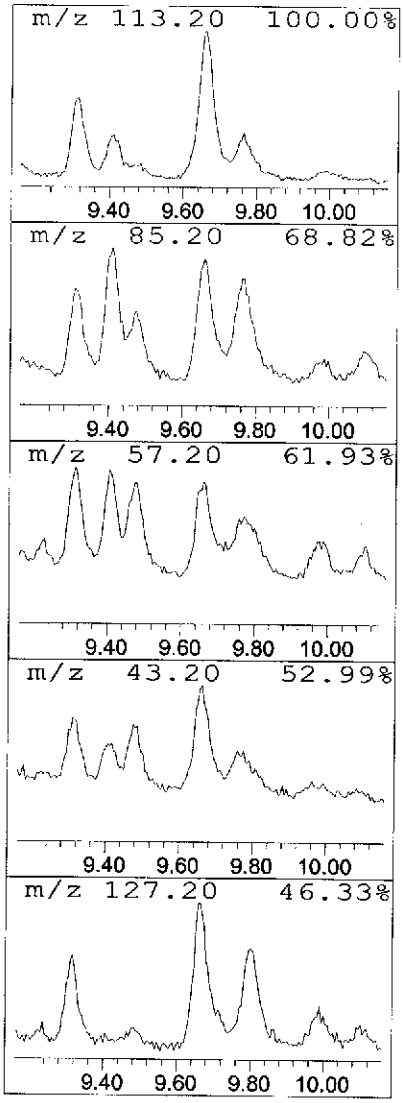
Peak Number 25 Unknown SV Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.66	15.26 UG	237574	Perylene-d12	8.00

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4,4-Dimethyloxazoline, 2-nonadec...	357	C24H39NO	1000314-41-5	46
2	Heptanethioic acid, S-methyl ester	160	C8H16OS	002432-82-8	37
3	5-Oxohexanethioic acid, S-t-buty...	202	C10H18O2S	1000194-60-8	37
4	2H-Pyrrol-2-one, 1,5-dihydro-4-m...	113	C5H7NO2	069778-83-2	35
5	Silane, dichlorodecylmethyl-	254	C11H24Cl2Si	018051-88-2	27





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 11 09:18:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

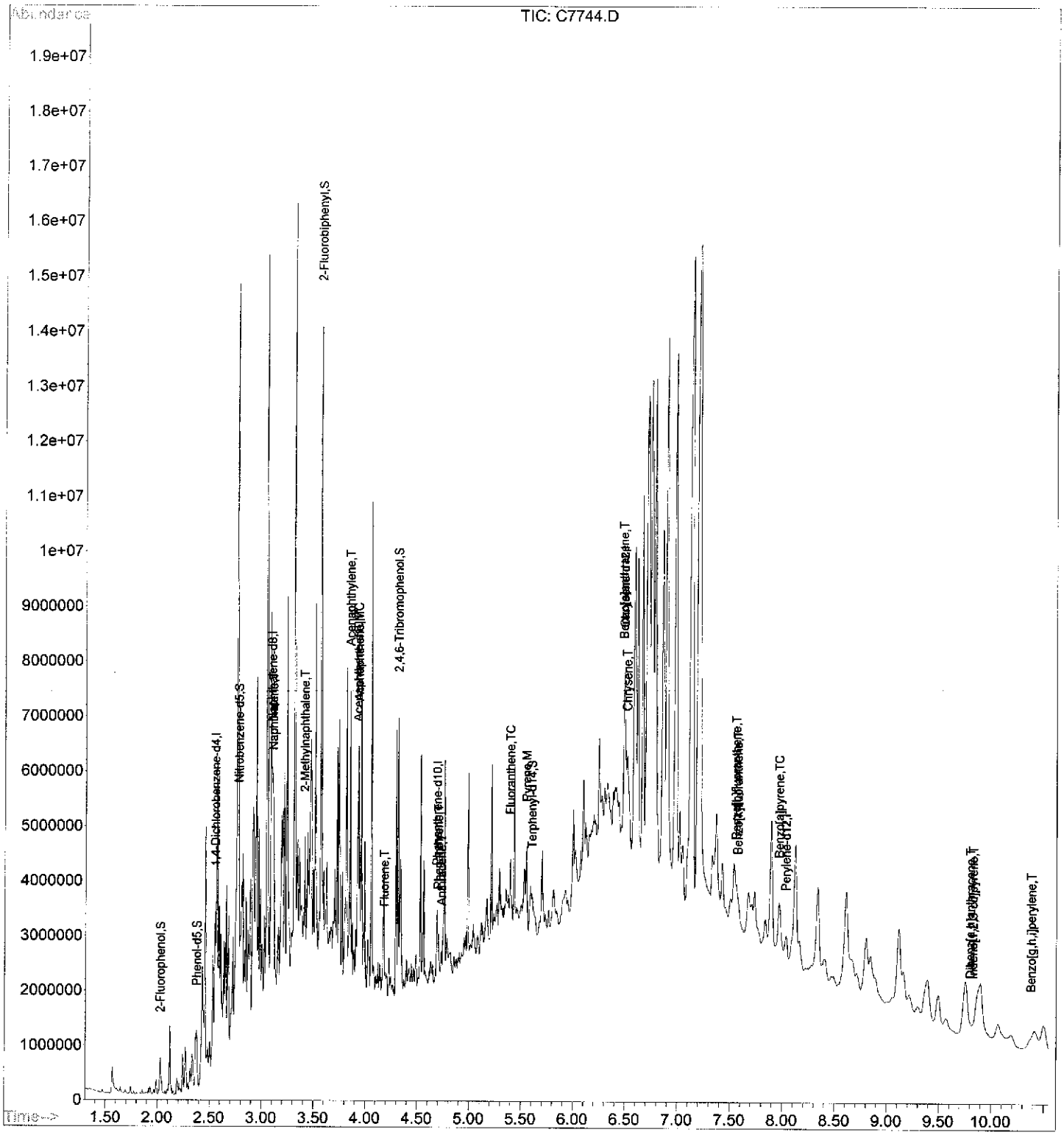
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	144785	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	557584	40.00	UG	-0.02
43) Acenaphthene-d10	3.92	164	281601	40.00	UG	-0.05
66) Phenanthrene-d10	4.69	188	366242	40.00	UG	-0.10
82) Chrysene-d12	6.49	240	403861	40.00	UG	-0.13
92) Perylene-d12	8.04	264	308216	40.00	UG	-0.07
System Monitoring Compounds						
4) 2-Fluorophenol	2.03	112	155297	31.07	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 31.07%			
6) Phenol-d5	2.37	99	220095	32.32	UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 32.32%			
24) Nitrobenzene-d5	2.78	82	107862m	19.62	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 39.24%			
47) 2-Fluorobiphenyl	3.57	172	134851	15.10	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 30.20%#			
70) 2,4,6-Tribromophenol	4.32	330	66397	50.11	UG	-0.07
Spiked Amount 100.000	Range 37 - 115		Recovery = 50.11%			
84) Terphenyl-d14	5.60	244	134677m	15.41	UG	-0.19
Spiked Amount 50.000	Range 15 - 122		Recovery = 30.82%			
Target Compounds						Qvalue
34) Naphthalene	3.11	128	754817	47.35	UG	# 60
41) 2-Methylnaphthalene	3.41	142	219765	20.19	UG	99
53) Acenaphthylene	3.85	152	138782	11.20	UG	# 38
55) Acenaphthene	3.94	153	15765	1.98	UG	# 1
61) Fluorene	4.19	166	35575	4.09	UG	# 72
75) Phenanthrene	4.70	178	195241	19.32	UG	96
76) Anthracene	4.73	178	94847	9.04	UG	# 93
79) Fluoranthene	5.39	202	255005m	28.18	UG	
83) Pyrene	5.55	202	531387m	42.01	UG	
88) Benzo[a]anthracene	6.48	228	150791	14.05	UG	# 82
89) Chrysene	6.51	228	194809	19.56	UG	# 79
94) Benzo[b]fluoranthene	7.56	252	167914m	14.88	UG	
95) Benzo[k]fluoranthene	7.58	252	152417m	14.22	UG	
96) Benzo[a]pyrene	7.97	252	221430	24.60	UG	# 88
97) Indeno[1,2,3-cd]pyrene	9.82	276	134828	10.86	UG	# 29
98) Dibenz[a,h]anthracene	9.81	278	48406	4.57	UG	# 88
99) Benzo[g,h,i]perylene	10.38	276	148538m	13.55	UG	

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 11 09:18:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.569	48	51	58	rBV	468033	520267	1.97%	0.161%
2	2.028	133	137	142	rBV3	672557	663834	2.52%	0.206%
3	2.119	152	154	159	rVB3	1250783	779825	2.96%	0.241%
4	2.242	175	177	179	rBV2	690002	401378	1.52%	0.124%
5	2.269	179	182	185	rBV3	741195	628062	2.38%	0.194%
6	2.333	192	194	198	rVB4	589108	556498	2.11%	0.172%
7	2.376	198	202	207	rVB3	1020348	1361269	5.16%	0.421%
8	2.429	207	212	213	rBV	2184428	1796256	6.81%	0.556%
9	2.456	216	217	220	rVB	4252302	2340898	8.88%	0.725%
10	2.530	228	231	233	rBV	2057701	1517427	5.75%	0.470%
11	2.552	233	235	236	rBV2	2034270	1496055	5.67%	0.463%
12	2.568	236	238	240	rVB	3751944	2182933	8.28%	0.676%
13	2.589	240	242	243	rVB2	1319709	541599	2.05%	0.168%
14	2.605	243	245	246	rVB2	1285663	566403	2.15%	0.175%
15	2.637	249	251	252	rBV	1387307	661082	2.51%	0.205%
16	2.659	254	255	256	rVB	2423008	776574	2.94%	0.240%
17	2.680	256	259	262	rVB3	2264749	1681219	6.38%	0.521%
18	2.723	262	267	269	rBV4	1881331	1820637	6.90%	0.564%
19	2.771	269	276	279	rBV2	13311001	14192327	53.82%	4.394%
20	2.814	280	284	286	rVB4	2377847	2682265	10.17%	0.830%
21	2.846	289	290	293	rVB	1728261	936753	3.55%	0.290%
22	2.867	293	294	296	rBV2	1132933	825023	3.13%	0.255%
23	2.894	296	299	300	rVB2	2472354	1932860	7.33%	0.598%
24	2.915	300	303	306	rBV3	3712027	4516056	17.12%	1.398%
25	2.947	306	309	311	rVB3	4984066	3146141	11.93%	0.974%
26	2.969	311	313	314	rVB	2559435	951190	3.61%	0.294%
27	2.985	314	316	318	rVB2	1711621	872518	3.31%	0.270%
28	3.001	318	319	321	rVB2	860763	510069	1.93%	0.158%
29	3.022	321	323	325	rBV2	1385376	853926	3.24%	0.264%
30	3.049	325	328	331	rBV	13084373	10218413	38.75%	3.164%
31	3.086	333	335	336	rBV	6486180	3861673	14.64%	1.196%
32	3.156	346	348	351	rBV3	1064080	1000089	3.79%	0.310%
33	3.188	351	354	355	rVV3	2947073	2375541	9.01%	0.735%
34	3.204	355	357	358	rVV2	2927087	1923027	7.29%	0.595%
35	3.214	358	359	362	rVV3	3480516	2318088	8.79%	0.718%
36	3.241	362	364	366	rVV	6571084	4230642	16.04%	1.310%
37	3.284	370	372	374	rBV3	616591	574134	2.18%	0.178%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

38	3.316	374	378	381	rVV	13354413	9340638	35.42%	2.892%
39	3.342	381	383	385	rVB3	1516524	975119	3.70%	0.302%
40	3.358	385	386	388	rBV2	1334777	769377	2.92%	0.238%
41	3.412	395	396	399	rVB2	1878869	923943	3.50%	0.286%
42	3.439	399	401	404	rVV2	1971416	1896726	7.19%	0.587%
43	3.471	404	407	410	rVV3	3687616	3841718	14.57%	1.189%
44	3.492	410	411	413	rVV2	1336375	900666	3.42%	0.279%
45	3.513	413	415	420	rVB2	6303250	3663730	13.89%	1.134%
46	3.551	420	422	423	rBV	691587	516761	1.96%	0.160%
47	3.572	423	426	428	rVV	11229071	8431473	31.97%	2.610%
48	3.594	428	430	431	rVV2	1330659	730969	2.77%	0.226%
49	3.626	434	436	439	rVB3	1504888	1014407	3.85%	0.314%
50	3.700	448	450	453	rVB	1218165	635866	2.41%	0.197%
51	3.727	453	455	456	rVB	3560323	2023054	7.67%	0.626%
52	3.743	456	458	462	rVB2	4480764	3524614	13.37%	1.091%
53	3.775	462	464	466	rVB2	1899310	979949	3.72%	0.303%
54	3.813	469	471	474	rVB	5259525	3380568	12.82%	1.047%
55	3.850	474	478	481	rBV	4859215	2741123	10.39%	0.849%
56	3.882	483	484	487	rBV3	444790	306966	1.16%	0.095%
57	3.903	487	488	490	rBV2	789042	564129	2.14%	0.175%
58	3.930	490	493	496	rVV3	4056352	4647651	17.62%	1.439%
59	3.957	496	498	501	rVV	5180449	3228340	12.24%	1.000%
60	3.989	503	504	506	rVB2	2514184	950548	3.60%	0.294%
61	4.021	508	510	514	rBV4	884100	888631	3.37%	0.275%
62	4.058	514	517	519	rBV	8850827	4626560	17.54%	1.432%
63	4.074	519	520	523	rVB2	459440	362958	1.38%	0.112%
64	4.138	530	532	535	rVB2	511036	385533	1.46%	0.119%
65	4.176	536	539	543	rVV2	2296021	1778494	6.74%	0.551%
66	4.229	546	549	550	rBV2	698951	493613	1.87%	0.153%
67	4.293	559	561	563	rBV	4854142	2564336	9.72%	0.794%
68	4.315	563	565	567	rVV	5019926	3353722	12.72%	1.038%
69	4.336	567	569	574	rVB2	2388404	2257617	8.56%	0.699%
70	4.395	578	580	582	rBV2	511664	407120	1.54%	0.126%
71	4.491	595	598	599	rVB2	580604	469360	1.78%	0.145%
72	4.528	603	605	607	rBV	4093941	2012312	7.63%	0.623%
73	4.555	608	610	612	rVB	2094453	1405110	5.33%	0.435%
74	4.689	633	635	641	rBV2	1208532	1335959	5.07%	0.414%
75	4.758	644	648	650	rVV	3727667	2314508	8.78%	0.717%
76	4.988	688	691	693	rBV2	3242322	1934827	7.34%	0.599%
77	5.212	730	733	735	rBV2	3186271	1947947	7.39%	0.603%
78	5.287	745	747	750	rBV	1044021	978191	3.71%	0.303%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

79	5.394	765	767	771	rVB	1125540	870775	3.30%	0.270%
80	5.431	771	774	777	rBV	2813416	1697138	6.44%	0.525%
81	5.549	793	796	799	rVB	1541593	1419162	5.38%	0.439%
82	5.698	821	824	828	rBV2	1317904	1151732	4.37%	0.357%
83	5.998	877	880	882	rBV2	1441149	1239161	4.70%	0.384%
84	6.094	895	898	900	rBV2	1653104	1513117	5.74%	0.468%
85	6.243	924	926	929	rBV2	1618352	1437241	5.45%	0.445%
86	6.489	968	972	975	rBV3	2681726	3423585	12.98%	1.060%
87	6.591	985	991	993	rBV	5386660	7754238	29.40%	2.401%
88	6.617	993	996	1001	rVB	5264012	5063569	19.20%	1.568%
89	6.665	1001	1005	1008	rBV	6412370	6190105	23.47%	1.917%
90	6.713	1008	1014	1018	rVV	7856501	15814304	59.97%	4.896%
91	6.751	1018	1021	1024	rVV2	8115917	11546043	43.78%	3.575%
92	6.788	1024	1028	1031	rVB	7999855	8227466	31.20%	2.547%
93	6.858	1036	1041	1044	rBV	5934352	8610009	32.65%	2.666%
94	6.900	1044	1049	1057	rVB	9663693	13233841	50.18%	4.097%
95	6.986	1058	1065	1068	rVV	9249818	12868006	48.79%	3.984%
96	7.018	1068	1071	1074	rVB	949682	765628	2.90%	0.237%
97	7.146	1082	1095	1098	rBV	11605915	23785136	90.19%	7.364%
98	7.210	1098	1107	1126	rVB	11829994	26371680	100.00%	8.165%
99	7.894	1230	1235	1242	rVB2	2289598	3580867	13.58%	1.109%
100	8.124	1273	1278	1283	rVB	1798401	2707362	10.27%	0.838%

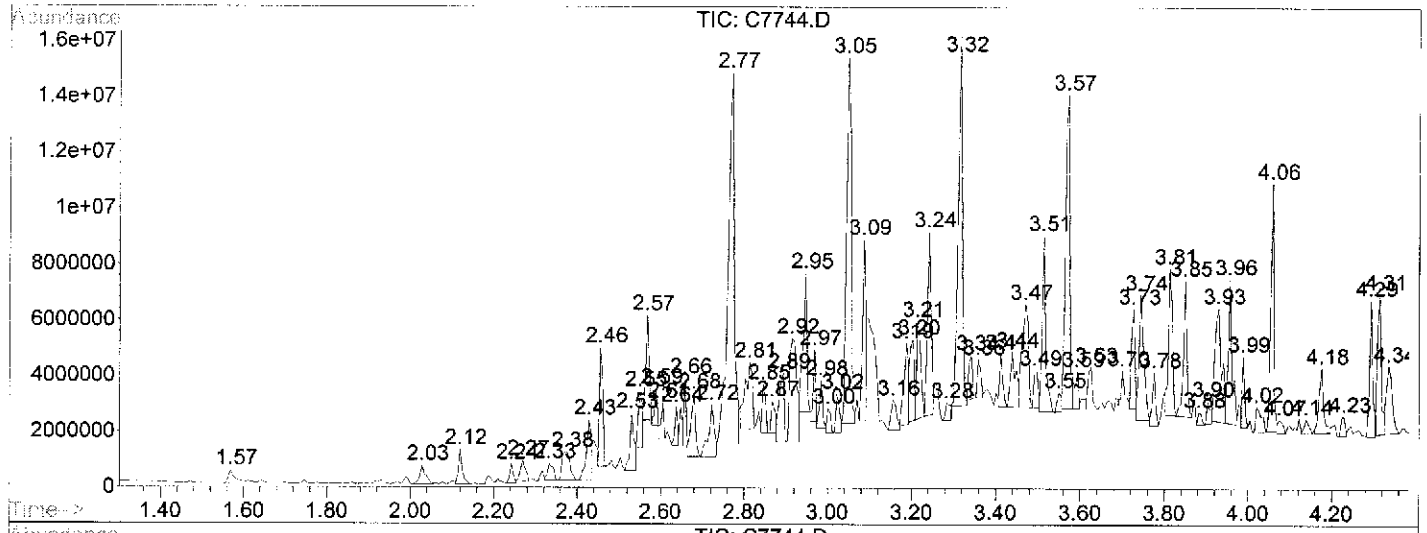
Sum of corrected areas: 322988249

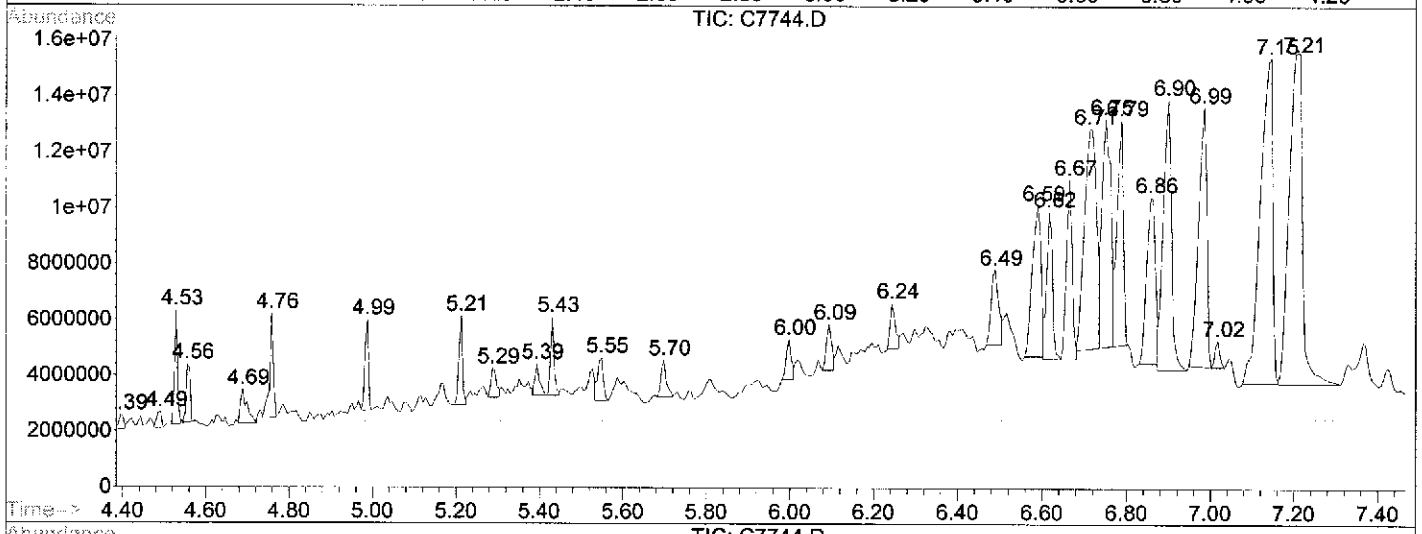
LSC Report - Integrated Chromatogram

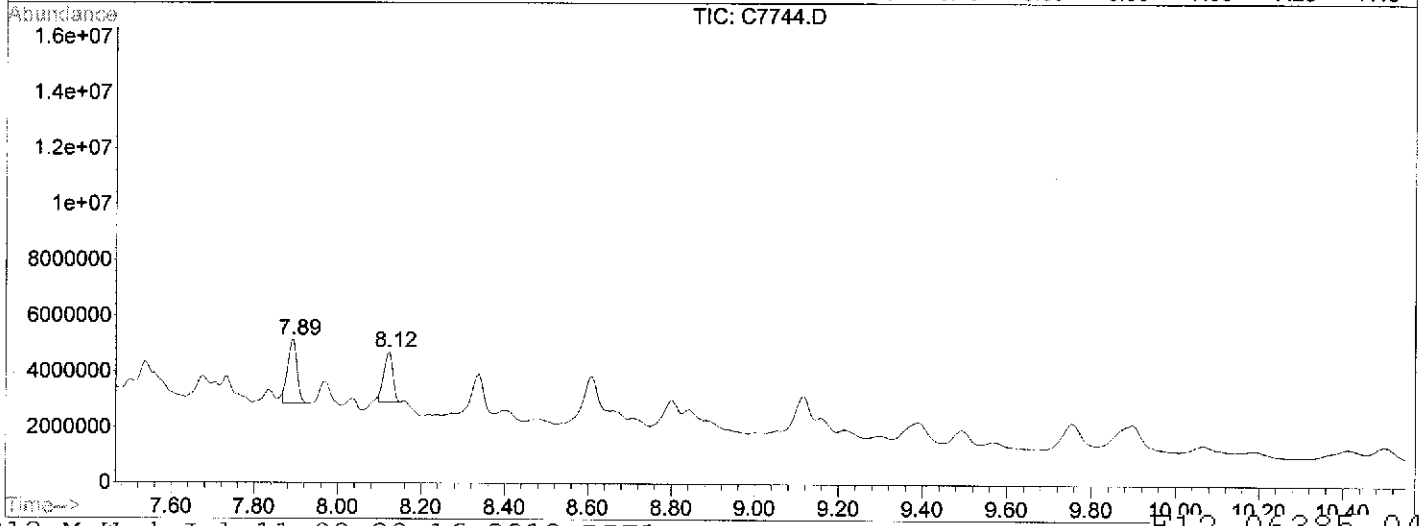
Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

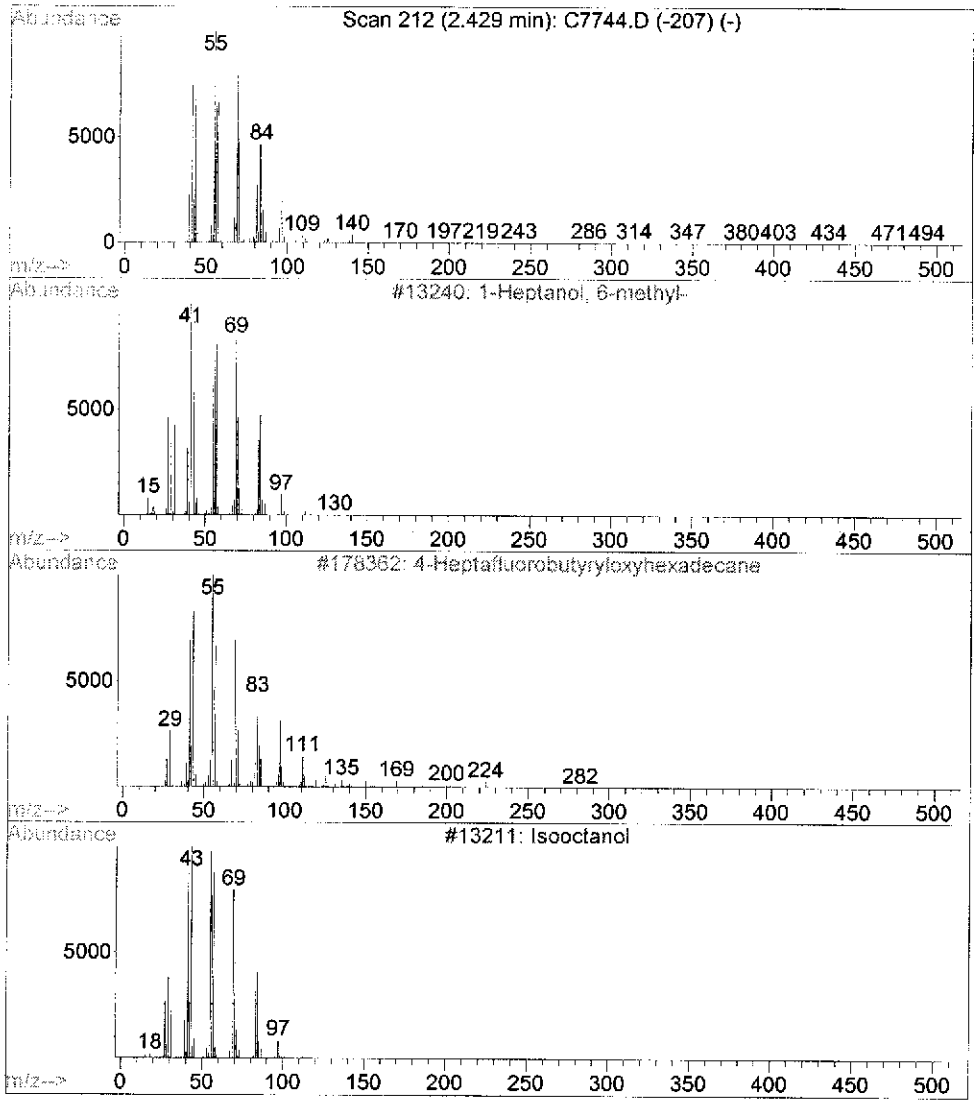
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

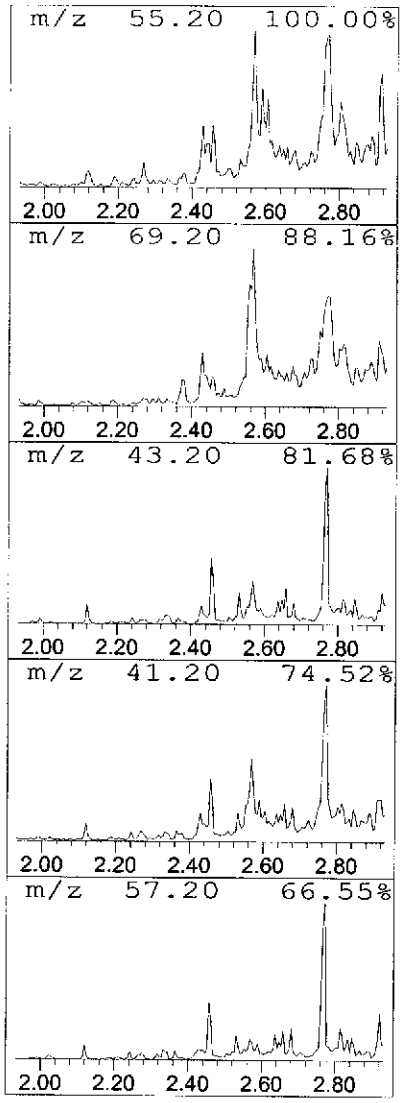
****

Peak Number 1 Unknown SV Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.43	48.03 UG	1796260	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Heptanol, 6-methyl-	130	C8H18O	001653-40-3	80
2	4-Heptafluorobutyryloxyhexadecane	438	C20H33F7O2	1000282-97-2	78
3	Isooctanol	130	C8H18O	026952-21-6	72
4	1-Hexadecene	224	C16H32	000629-73-2	52
5	1-Hexadecanol	242	C16H34O	036653-82-4	50





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

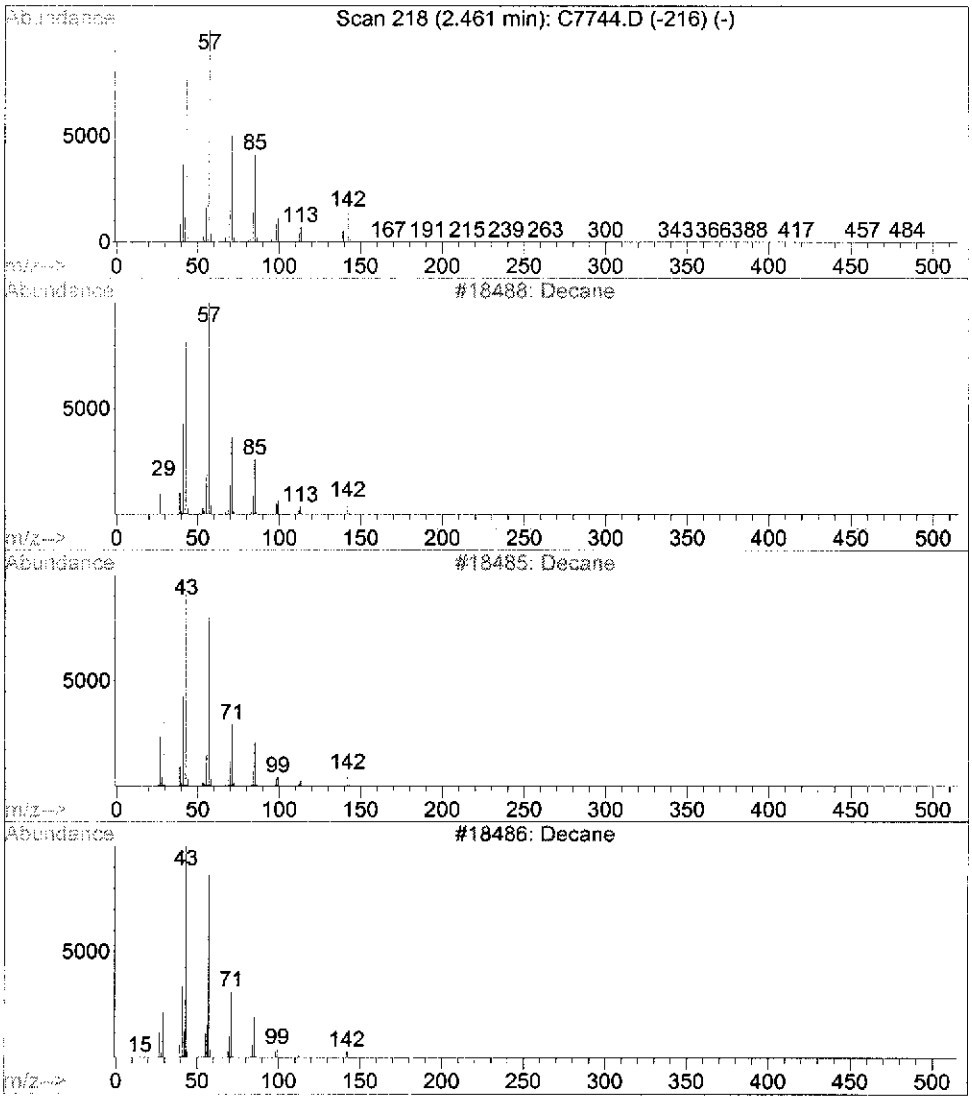
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

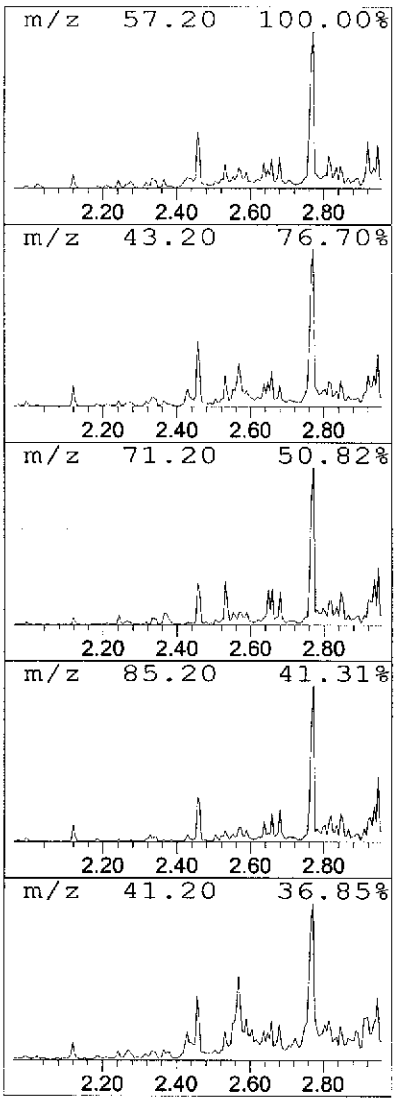
****

Peak Number 2 Unknown Hydrocarbon Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.46	62.59 UG	2340900	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane	142	C10H22	000124-18-5	97
2	Decane	142	C10H22	000124-18-5	95
3	Decane	142	C10H22	000124-18-5	91
4	Decane, 3,6-dimethyl-	170	C12H26	017312-53-7	72
5	Eicosane	282	C20H42	000112-95-8	72





Library Search Compound Report

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Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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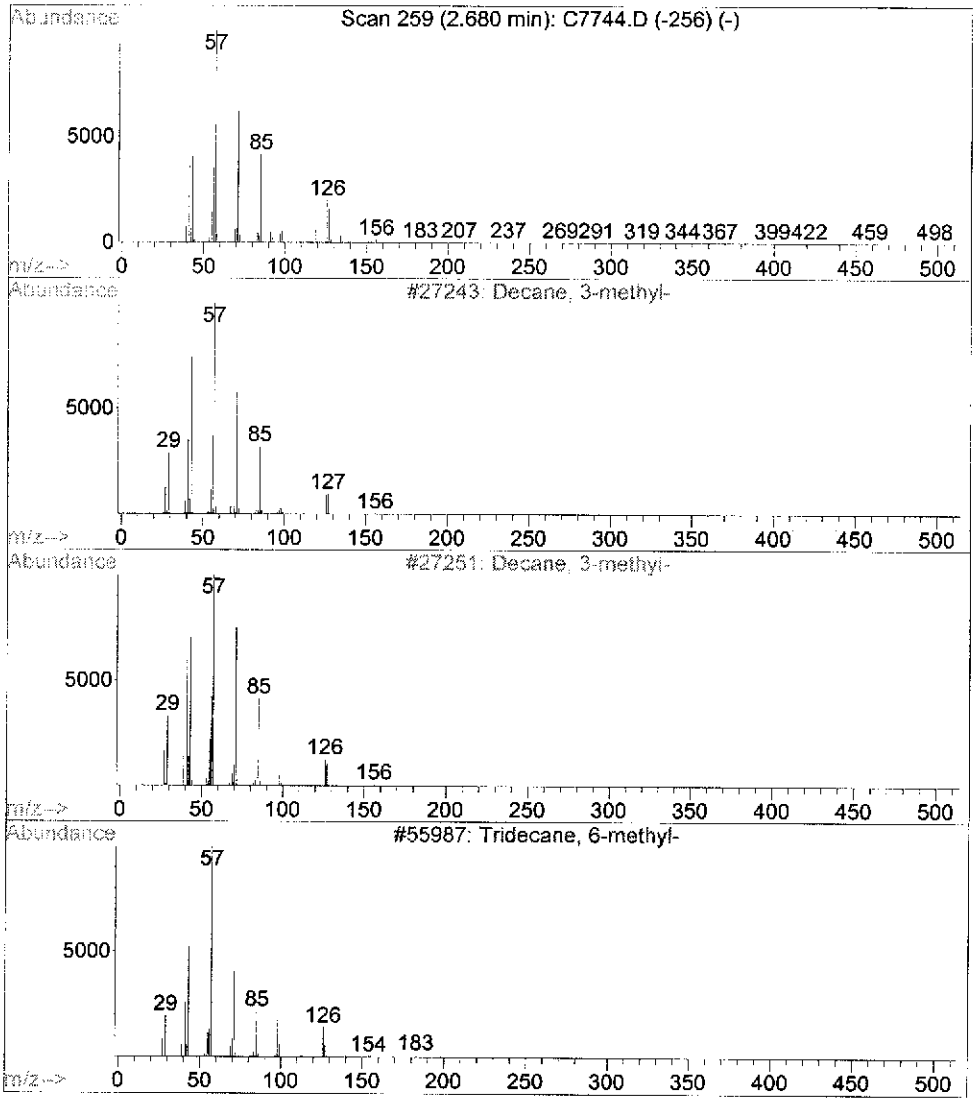
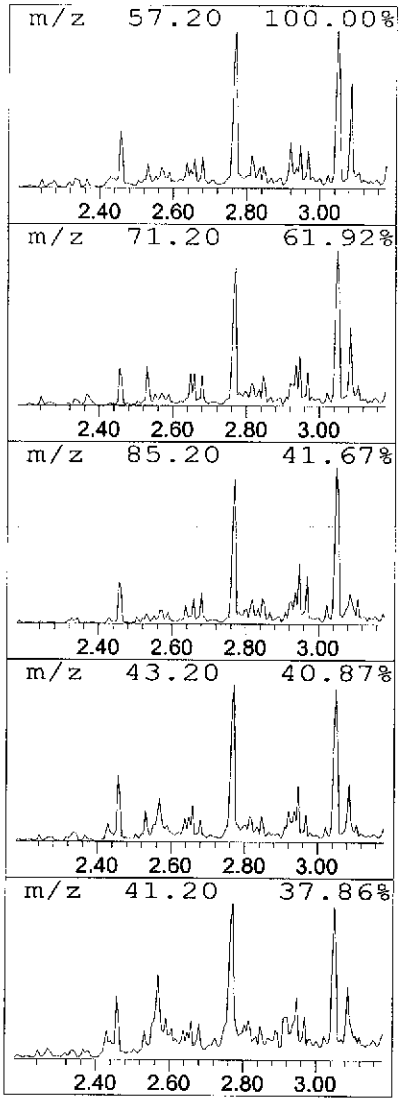
Peak Number 3 Unknown Hydrocarbon Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.68	44.95 UG	1681220	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 3-methyl-	156	C11H24	013151-34-3	90
2	Decane, 3-methyl-	156	C11H24	013151-34-3	87
3	Tridecane, 6-methyl-	198	C14H30	013287-21-3	64
4	Undecane, 3-methyl-	170	C12H26	001002-43-3	59
5	Undecane, 3-methyl-	170	C12H26	001002-43-3	53





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ALS Vial : 10 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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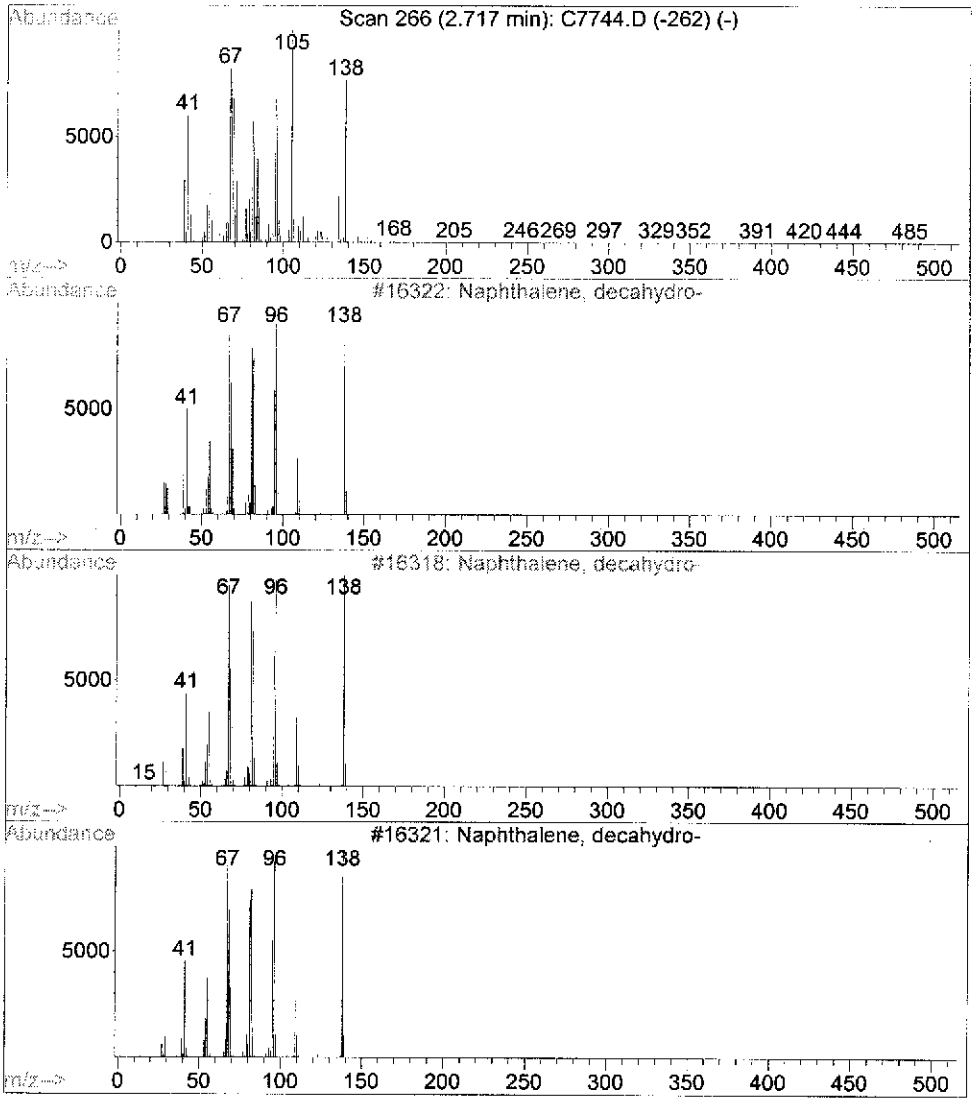
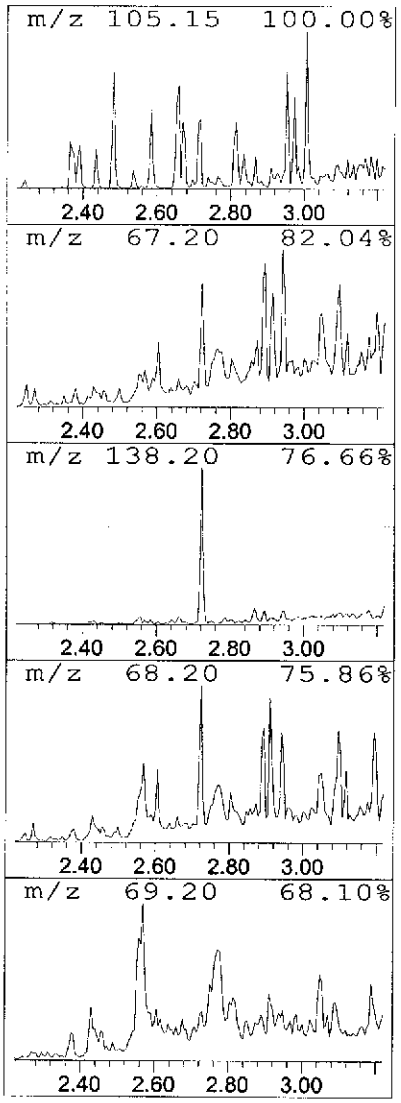
Peak Number 4 Unknown PAH Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.72	48.68 UG	1820640	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, decahydro-	138	C10H18	000091-17-8	98
2	Naphthalene, decahydro-	138	C10H18	000091-17-8	98
3	Naphthalene, decahydro-	138	C10H18	000091-17-8	97
4	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	95
5	Naphthalene, decahydro-, trans-	138	C10H18	000493-02-7	95





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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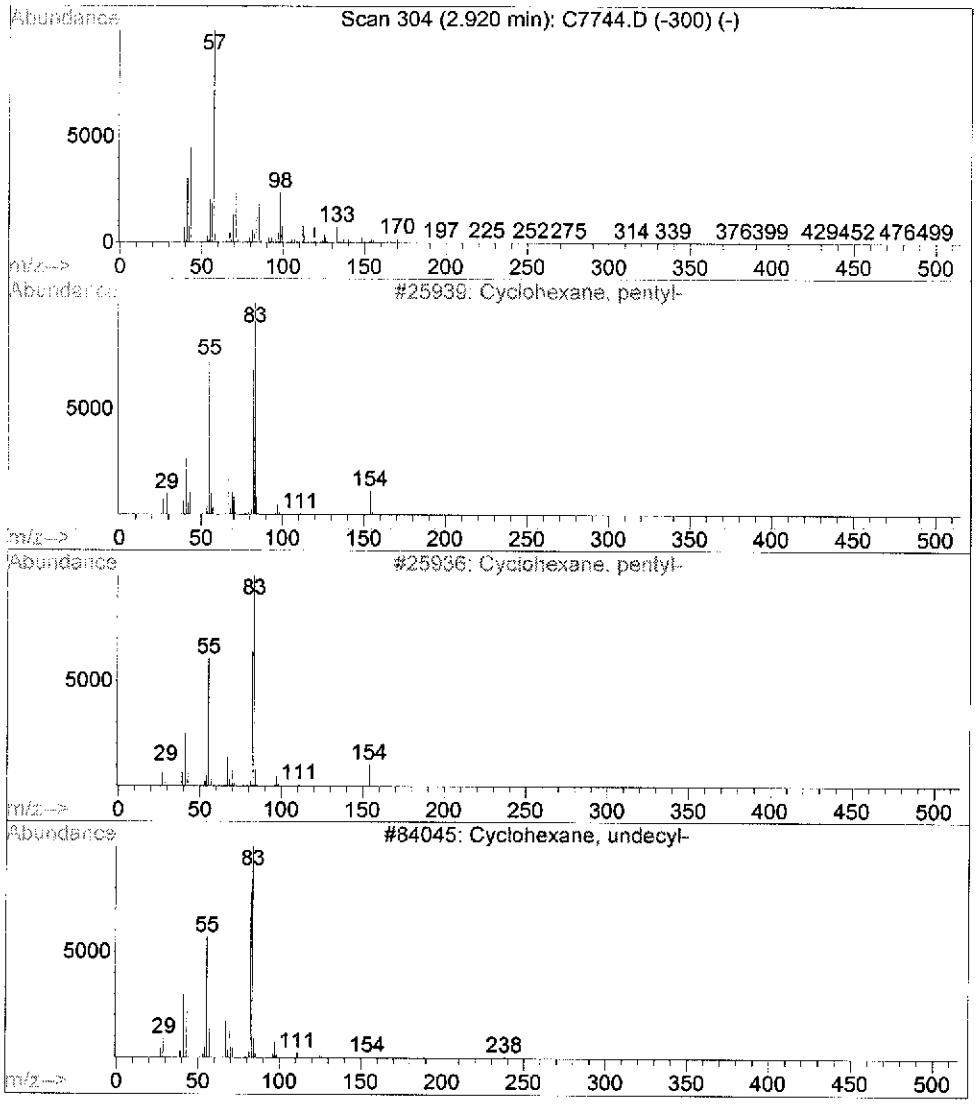
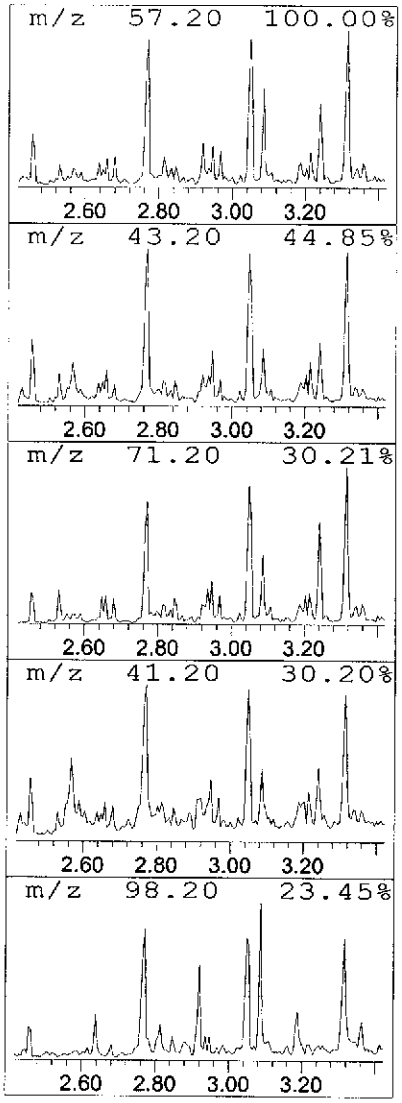
Peak Number 5 Unknown SV Concentration Rank 21

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.92	46.78 UG	4516060	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, pentyl-	154	C11H22	004292-92-6	83
2	Cyclohexane, pentyl-	154	C11H22	004292-92-6	83
3	Cyclohexane, undecyl-	238	C17H34	054105-66-7	76
4	n-Amylcyclohexane	154	C11H22	029949-27-7	72
5	Cyclohexane, pentyl-	154	C11H22	004292-92-6	72





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ALS Vial : 10 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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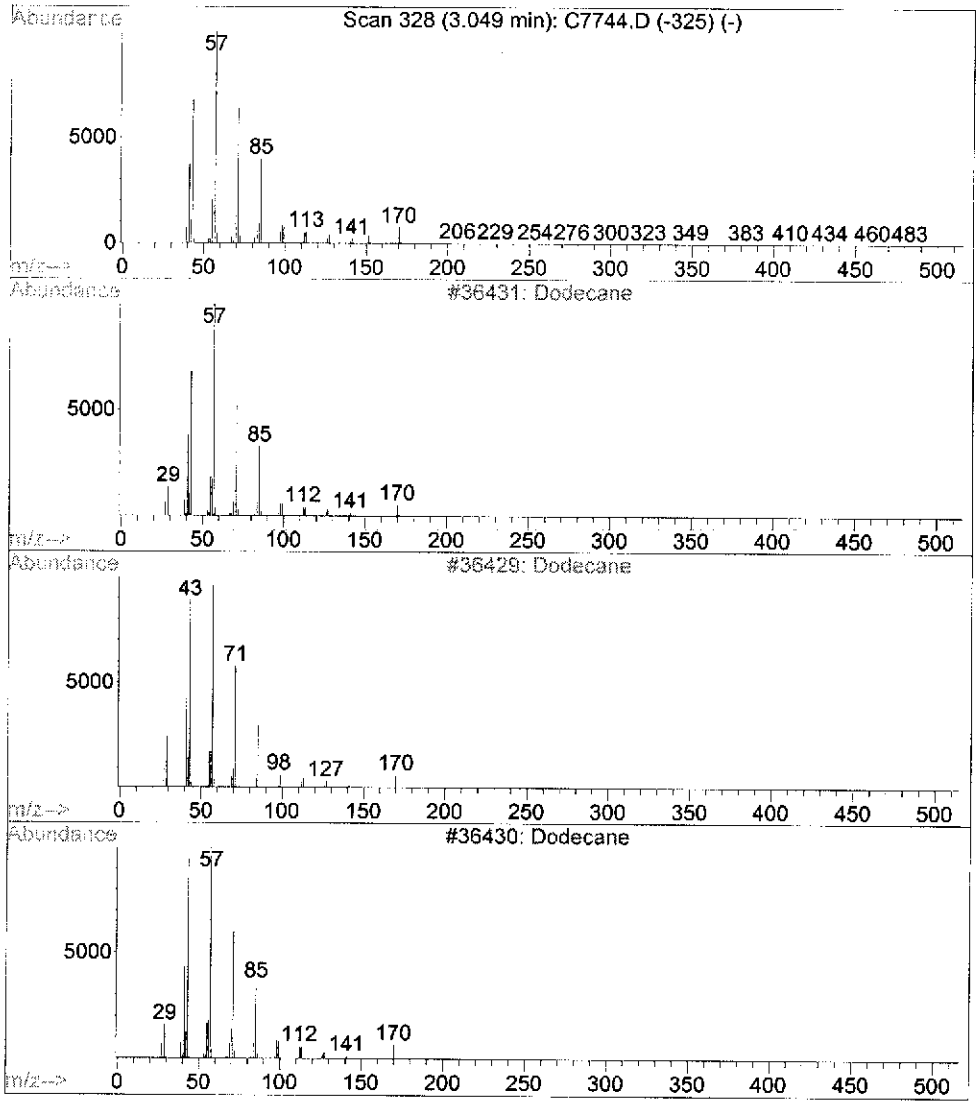
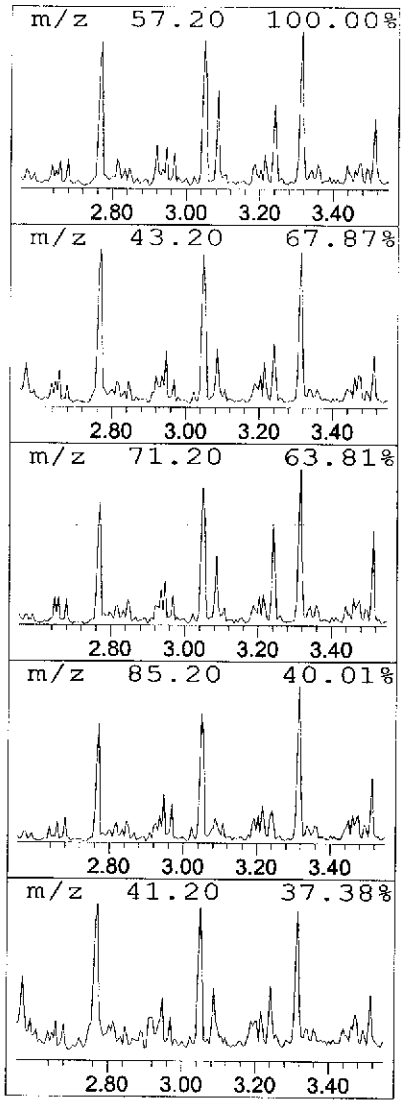
Peak Number 6 Unknown Hydrocarbon Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.05	105.84 UG	10218400	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	96
2	Dodecane	170	C12H26	000112-40-3	95
3	Dodecane	170	C12H26	000112-40-3	94
4	Hexadecane	226	C16H34	000544-76-3	87
5	Tetradecane	198	C14H30	000629-59-4	87





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ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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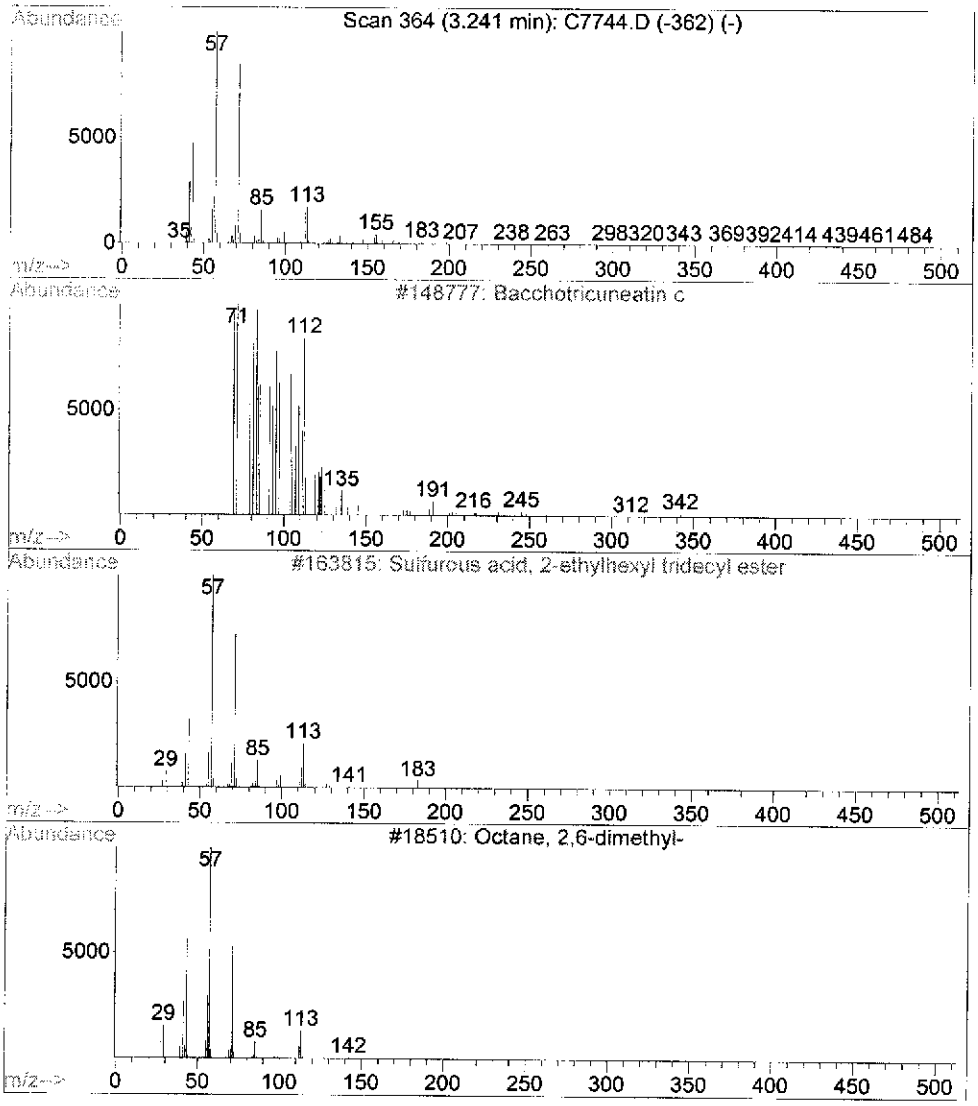
Peak Number 7 Unknown SV Concentration Rank 23

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.24	43.82 UG	4230640	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bacchotricuneatin c	342	C20H22O5	066563-30-2	97
2	Sulfurous acid, 2-ethylhexyl tri...	376	C21H44O3S	1000309-19-6	80
3	Octane, 2,6-dimethyl-	142	C10H22	002051-30-1	78
4	Sulfurous acid, dodecyl 2-ethylh...	362	C20H42O3S	1000309-19-5	72
5	Tridecane, 7-methyl-	198	C14H30	026730-14-3	64



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ALS Vial : 10 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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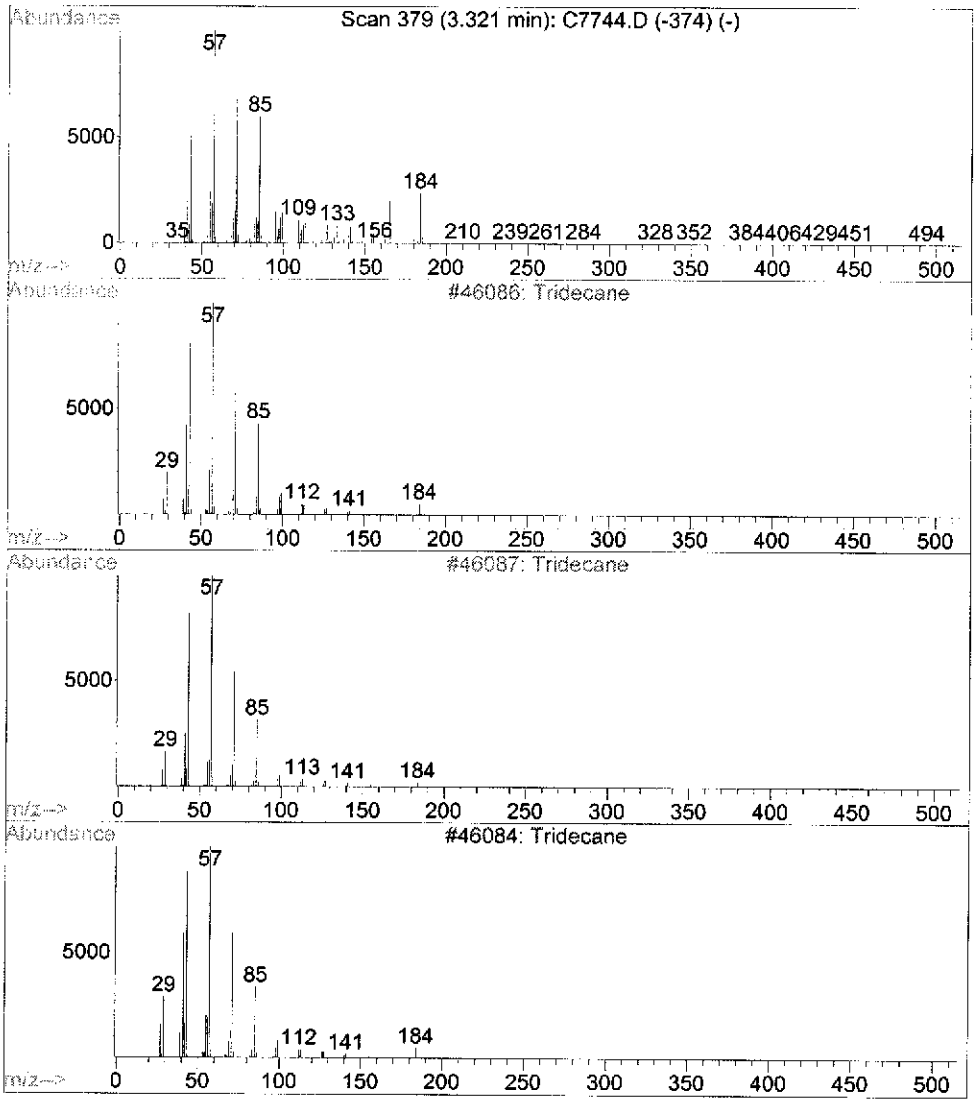
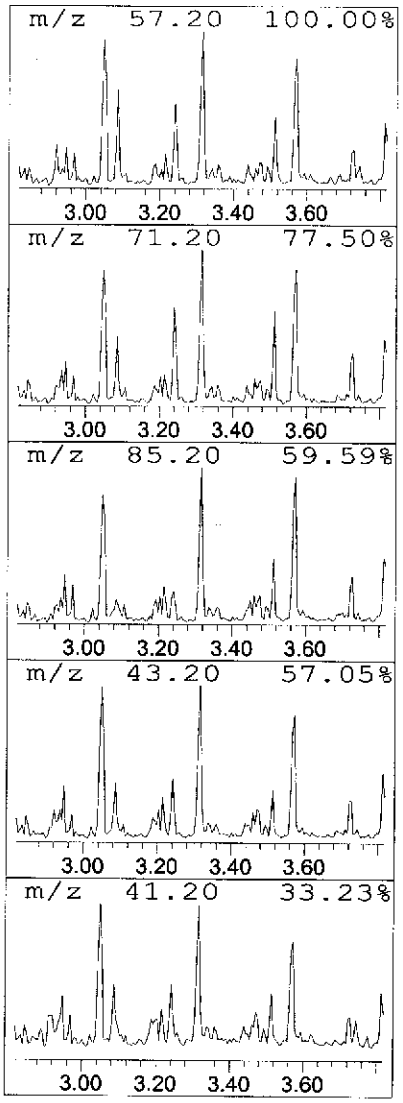
Peak Number 8 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.32	96.75 UG	9340640	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	000629-50-5	97
2	Tridecane	184	C13H28	000629-50-5	95
3	Tridecane	184	C13H28	000629-50-5	95
4	Tridecane	184	C13H28	000629-50-5	94
5	Pentadecane	212	C15H32	000629-62-9	90





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ALS Vial : 10 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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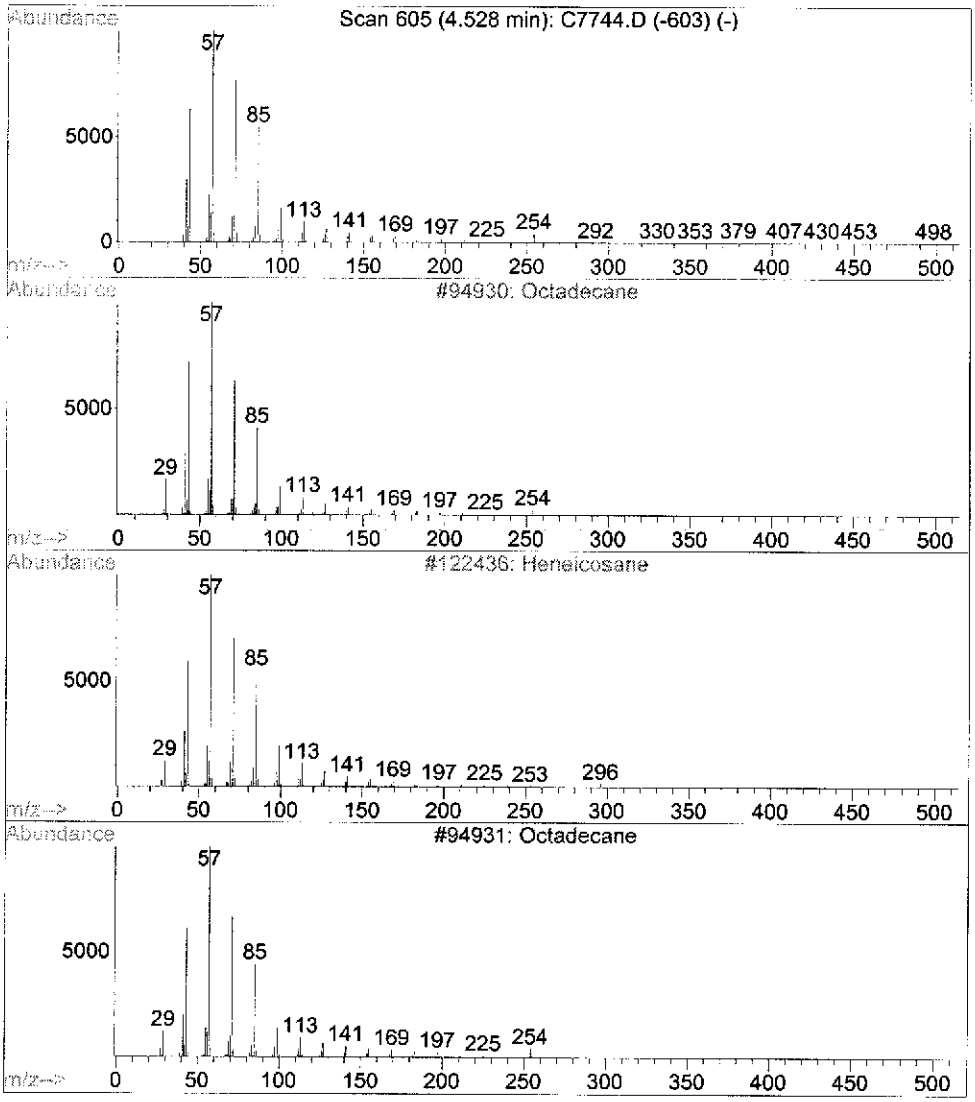
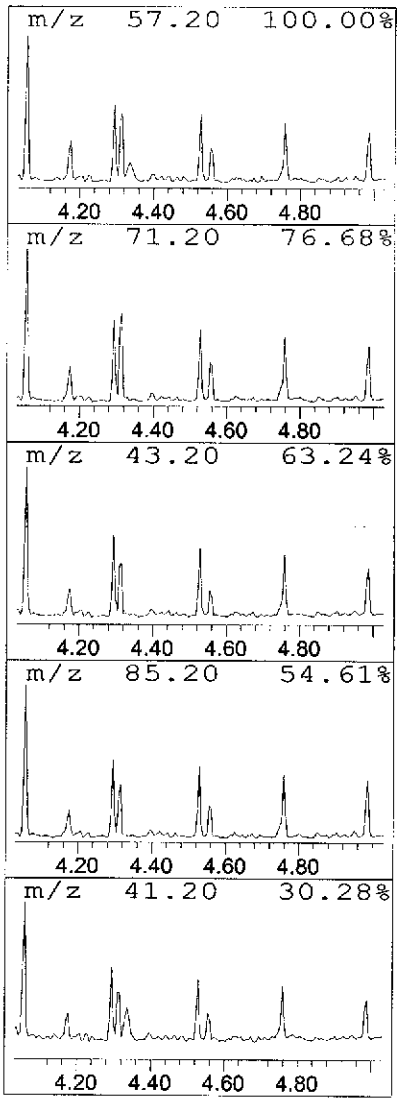
Peak Number 9 Unknown Hydrocarbon Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.53	60.25 UG	2012310	Phenanthrene-d10	4.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Octadecane	254	C18H38	000593-45-3	98
2	Heneicosane	296	C21H44	000629-94-7	97
3	Octadecane	254	C18H38	000593-45-3	96
4	Octadecane	254	C18H38	000593-45-3	94
5	Tetracosane	338	C24H50	000646-31-1	93





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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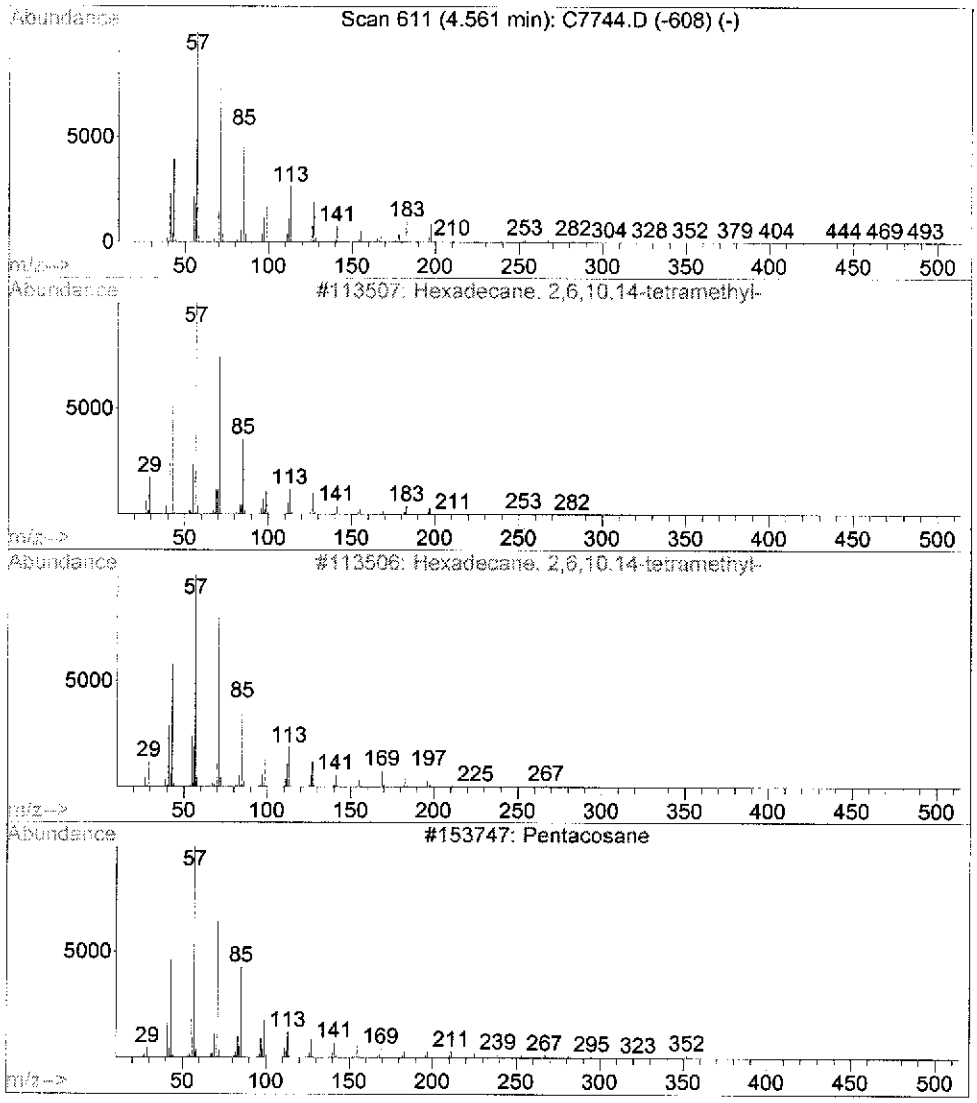
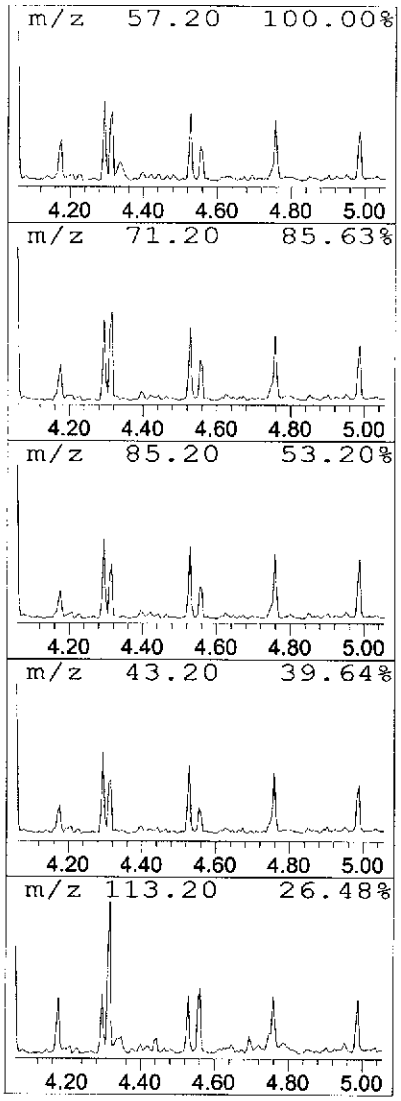
Peak Number 10 Unknown Hydrocarbon Concentration Rank 24

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.56	42.07 UG	1405110	Phenanthrene-d10	4.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	99
2	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	94
3	Pentacosane	352	C25H52	000629-99-2	90
4	Silane, trichlorooctadecyl-	386	C18H37Cl3Si	000112-04-9	90
5	Heptacosane	380	C27H56	000593-49-7	86





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ALS Vial : 10 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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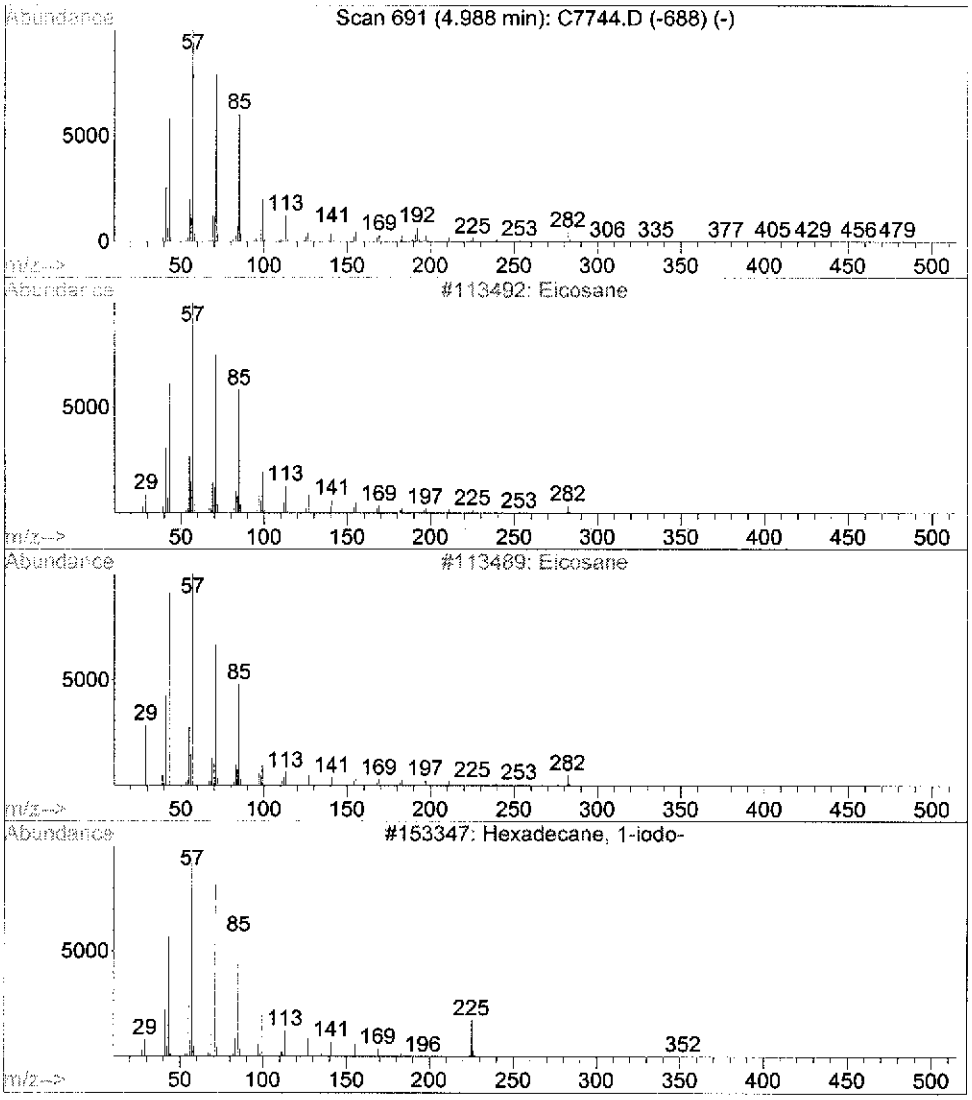
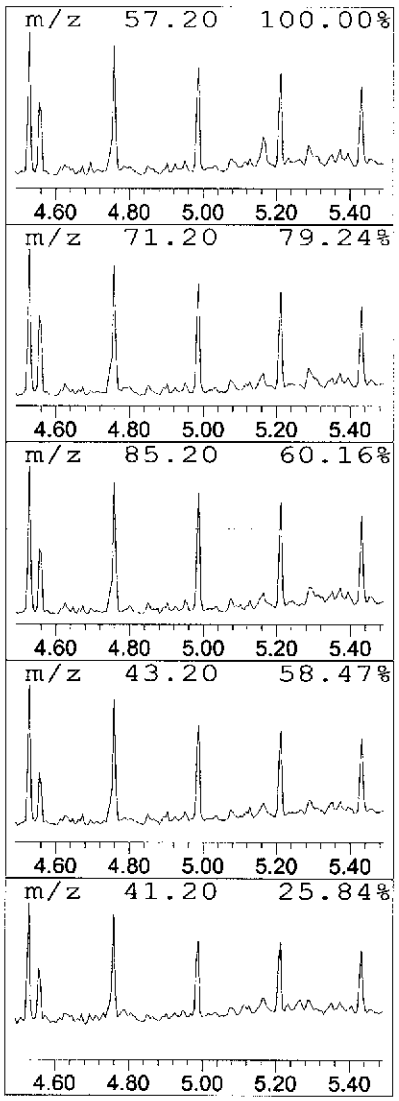
Peak Number 11 Unknown Hydrocarbon Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.99	57.93 UG	1934830	Phenanthrene-d10	4.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Eicosane	282	C20H42	000112-95-8	95
2	Eicosane	282	C20H42	000112-95-8	93
3	Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	93
4	Eicosane	282	C20H42	000112-95-8	93
5	Octacosane	394	C28H58	000630-02-4	93





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ALS Vial : 10 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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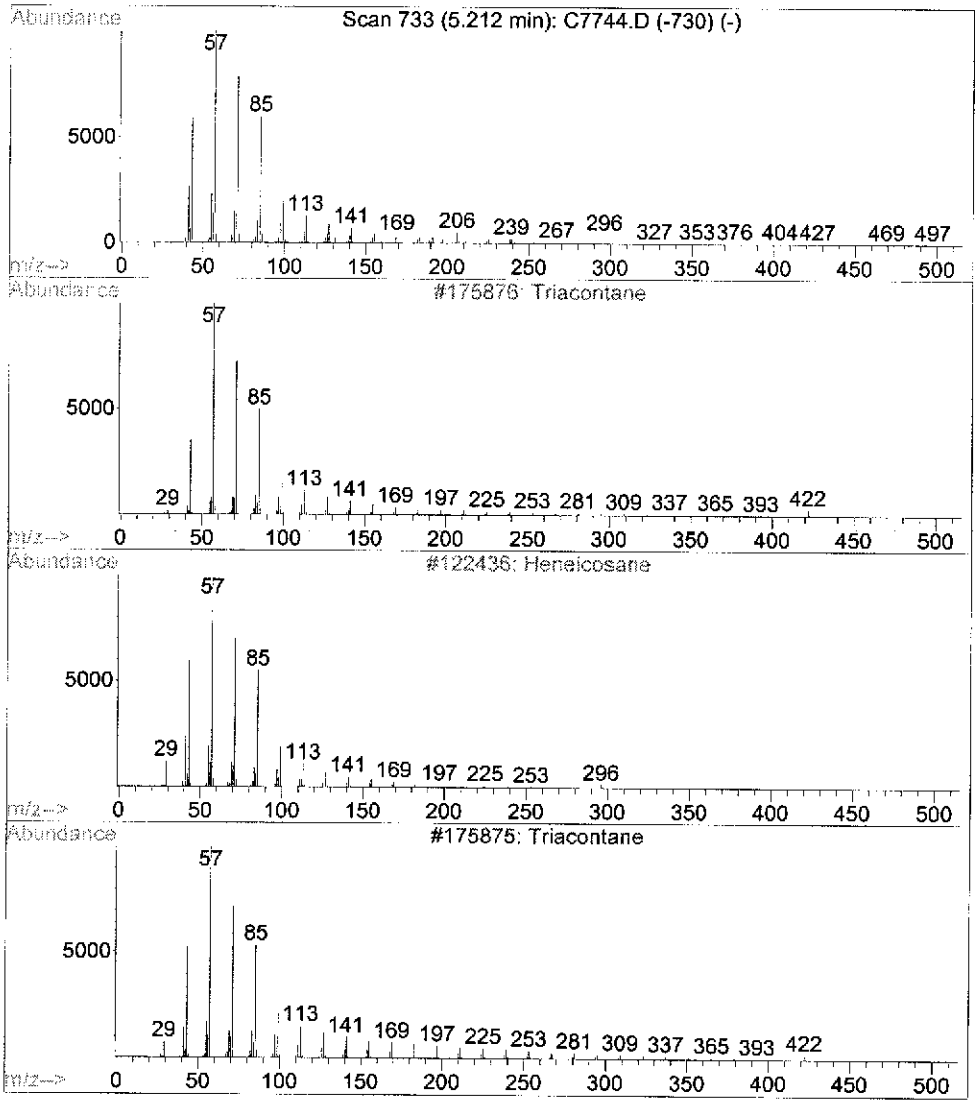
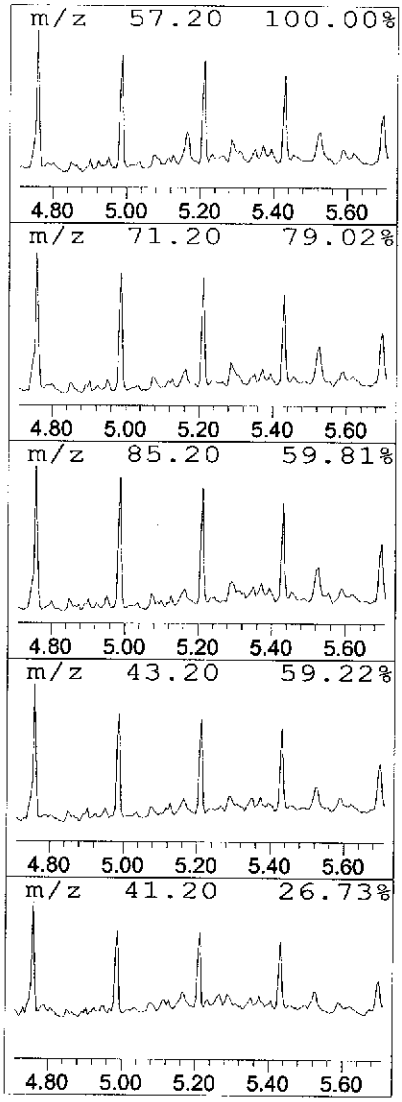
Peak Number 12 Unknown Hydrocarbon Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.21	58.32 UG	1947950	Phenanthrene-d10	4.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Triacontane	422	C30H62	000638-68-6	94
2	Heneicosane	296	C21H44	000629-94-7	93
3	Triacontane	422	C30H62	000638-68-6	93
4	Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	93
5	Tetratriacontane	479	C34H70	014167-59-0	91





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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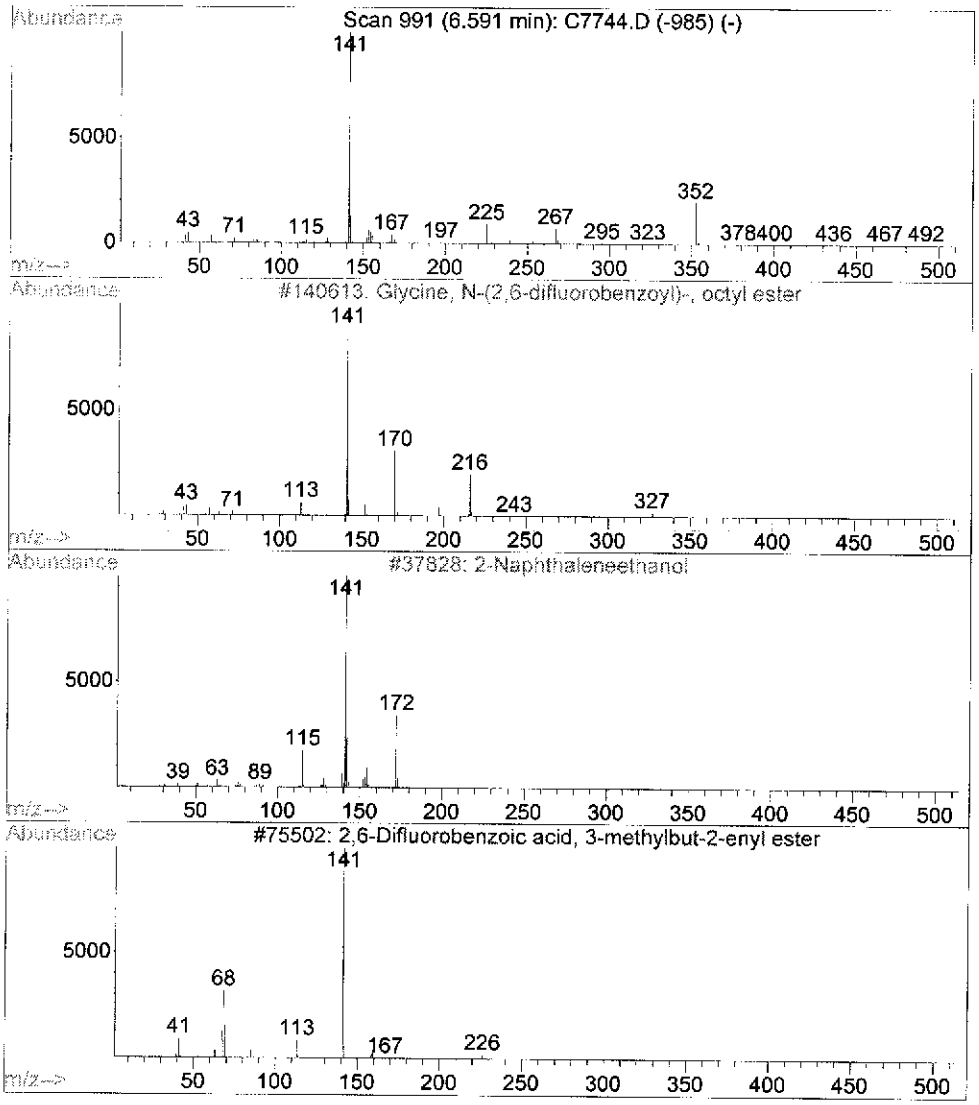
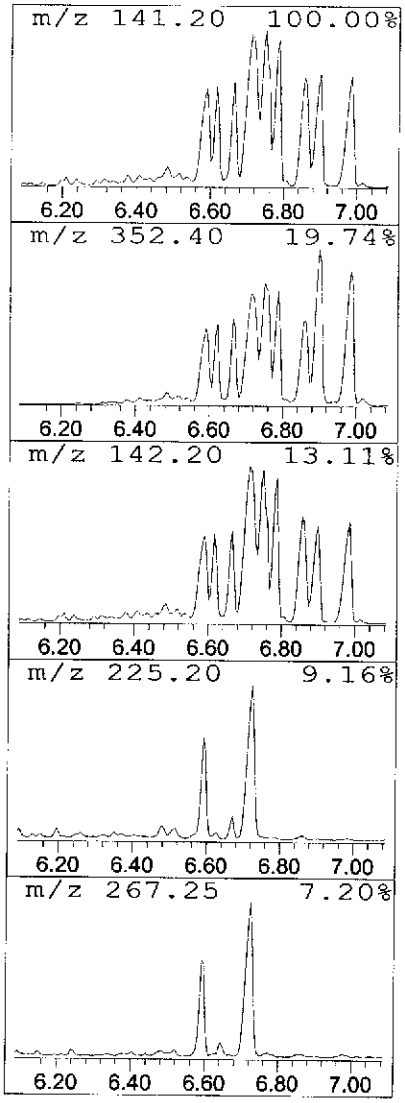
Peak Number 13 Unknown SV Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.59	90.60 UG	7754240	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Glycine, N-(2,6-difluorobenzoyl)...	327	C17H23F2NO3	1000314-44-5	28
2	2-Naphthaleneethanol	172	C12H12O	001485-07-0	10
3	2,6-Difluorobenzoic acid, 3-meth...	226	C12H12F2O2	1000292-58-2	9
4	1-Naphthalenepropionic acid	200	C13H12O2	003243-42-3	9
5	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	9





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ALS Vial : 10 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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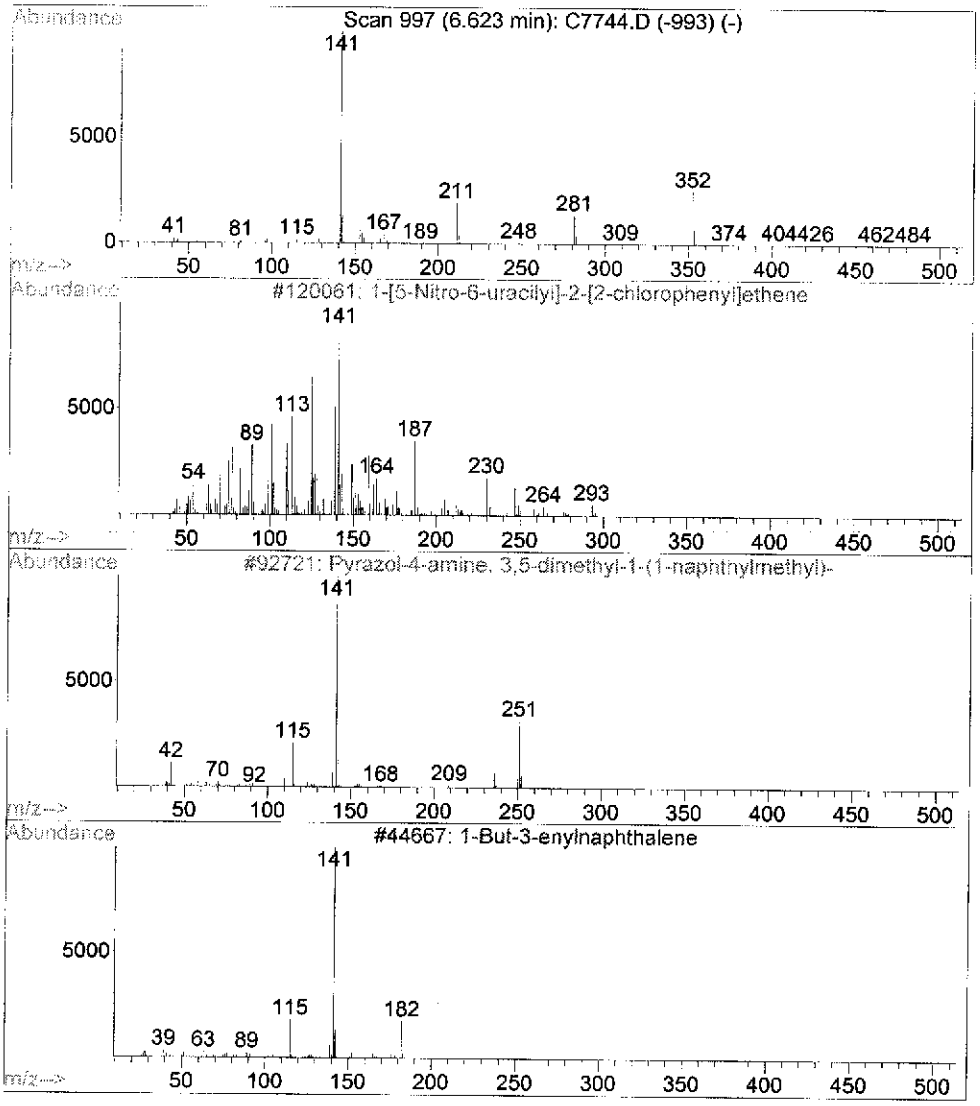
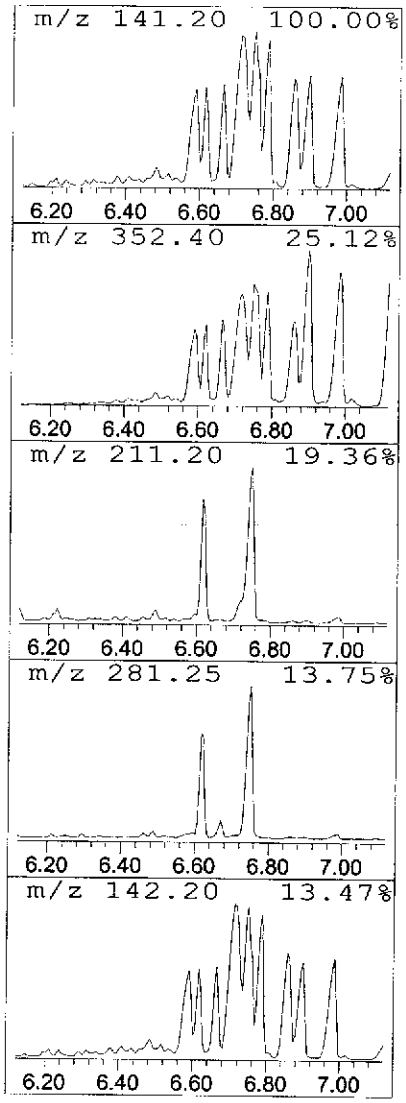
Peak Number 14 Unknown SV Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.62	59.16 UG	5063570	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	25
2	Pyrazol-4-amine, 3,5-dimethyl-1-...	251	C16H17N3	1000273-77-6	9
3	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9
4	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	9
5	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	9





Library Search Compound Report

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Data File : C7744.D
Acq On : 10 Jul 2012 18:19
Operator : EDM
Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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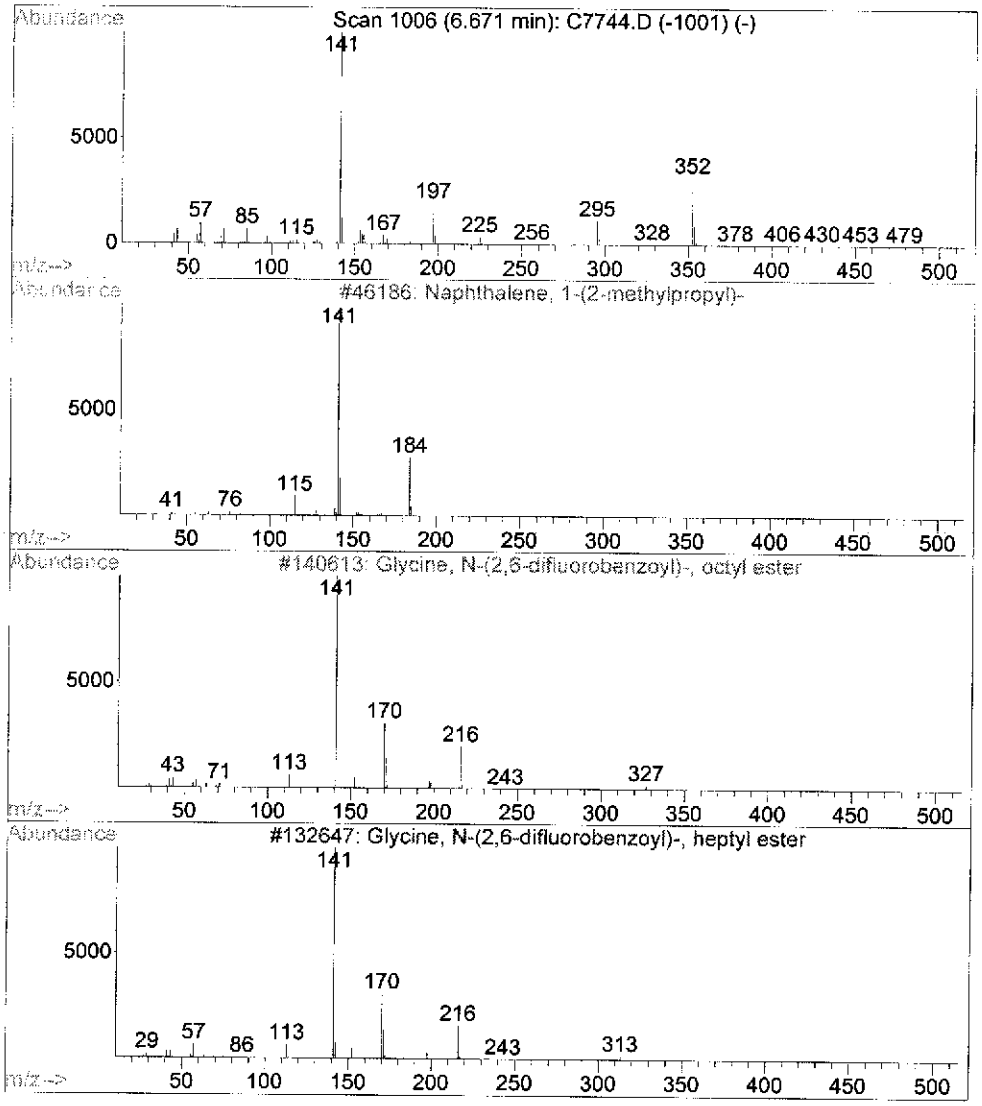
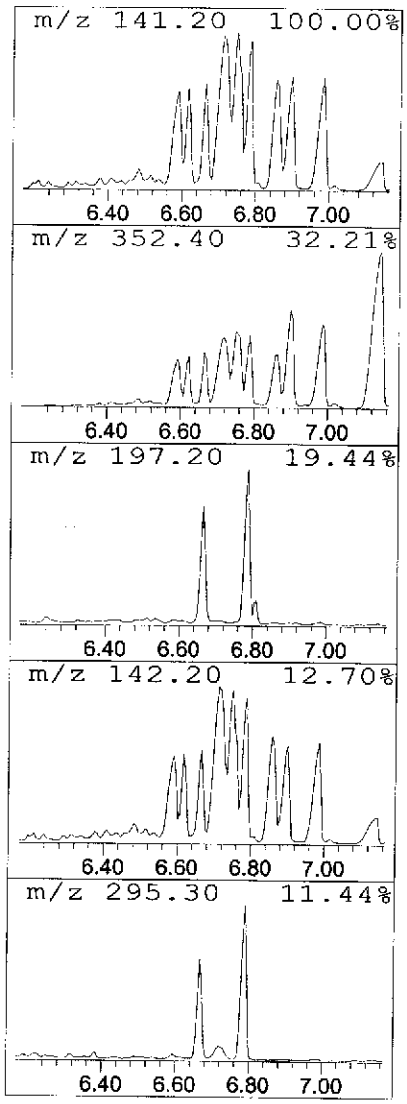
Peak Number 15 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.67	72.32 UG	6190110	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	47
2	Glycine, N-(2,6-difluorobenzoyl)...	327	C17H23F2NO3	1000314-44-5	33
3	Glycine, N-(2,6-difluorobenzoyl)...	313	C16H21F2NO3	1000314-44-4	33
4	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	28
5	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	25





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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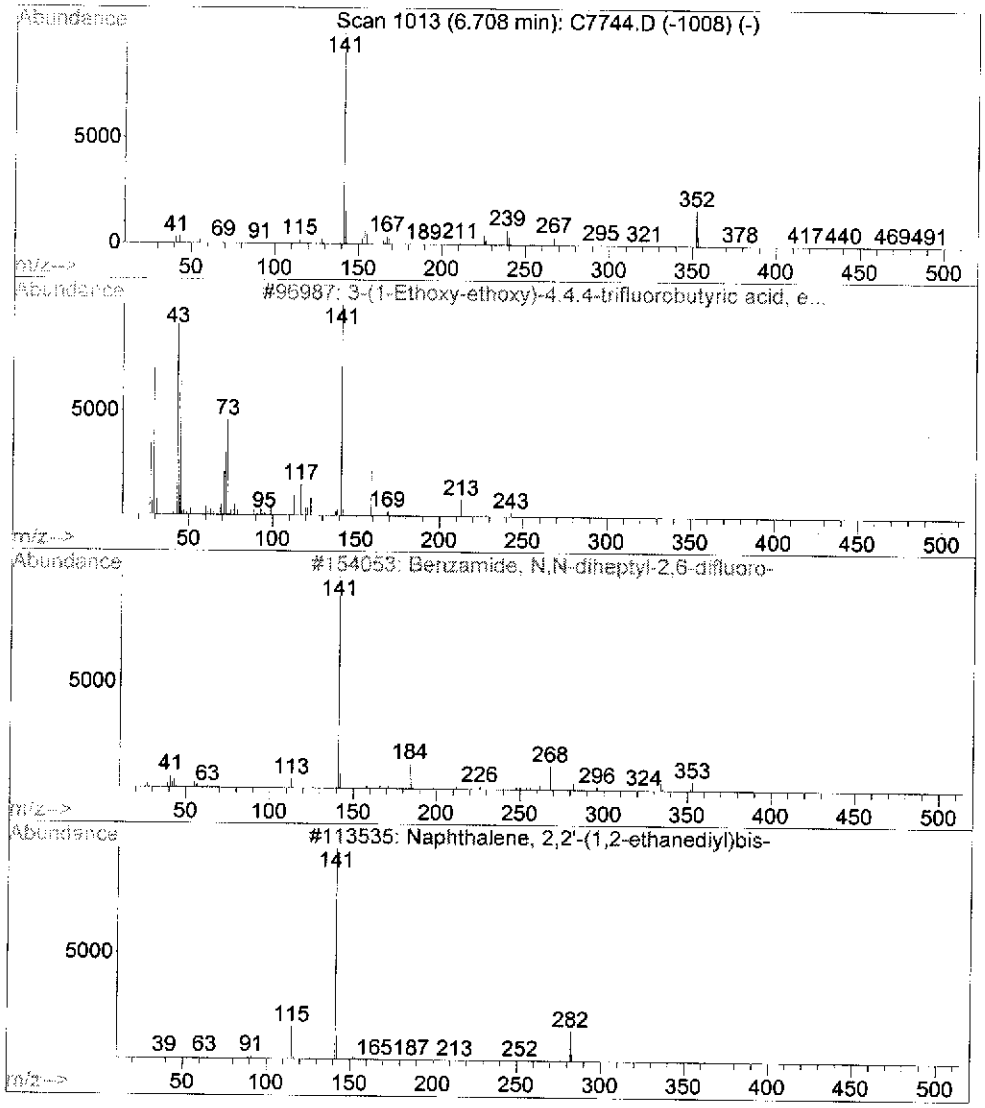
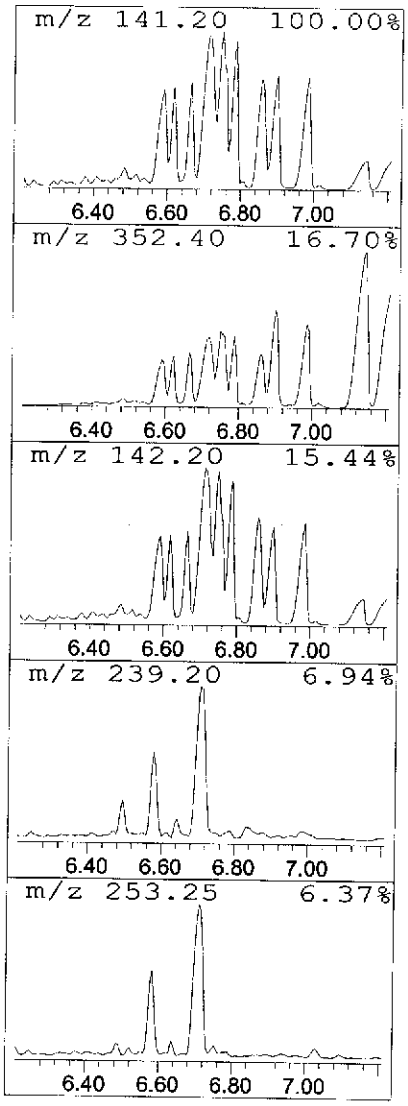
Peak Number 16 Unknown SV Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.71	184.77 UG	15814300	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	47
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	38
3	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	36
4	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	16
5	Cyclohexanone, O-(1-naphthalenyl...	253	C17H19NO	055045-02-8	9





Library Search Compound Report

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Data File : C7744.D
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ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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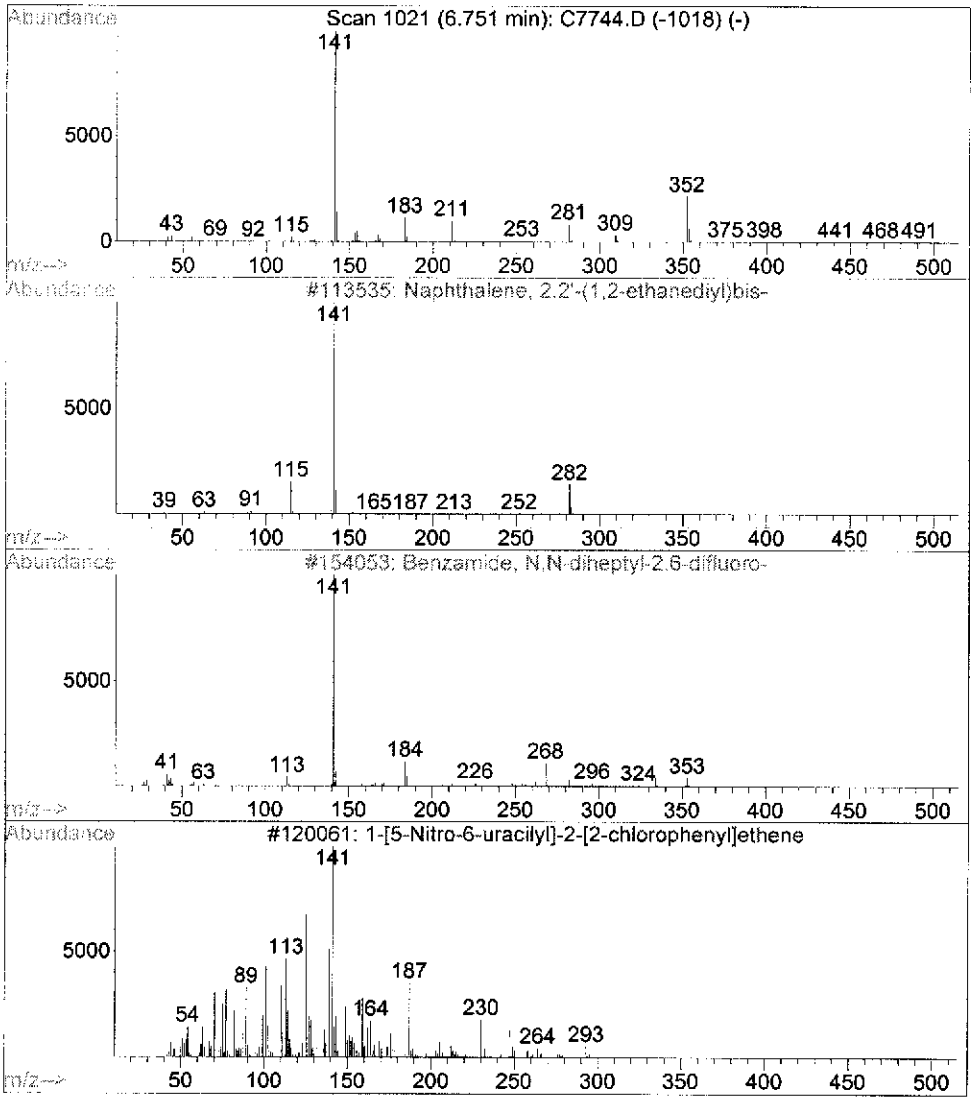
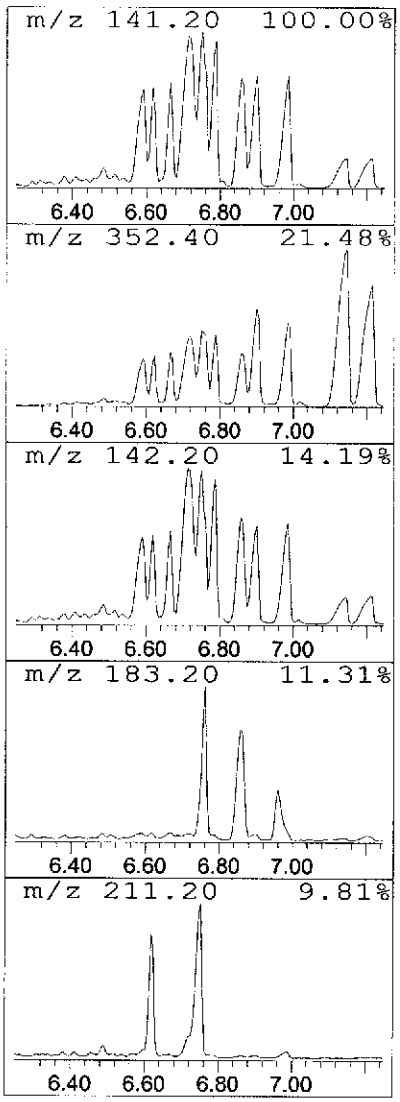
Peak Number 17 Unknown SV Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.75	134.90 UG	11546000	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	47
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	33
3	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	23
4	Pyrazol-4-amine, 3,5-dimethyl-1-...	251	C16H17N3	1000273-77-6	9
5	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	9





Library Search Compound Report

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Acq On : 10 Jul 2012 18:19
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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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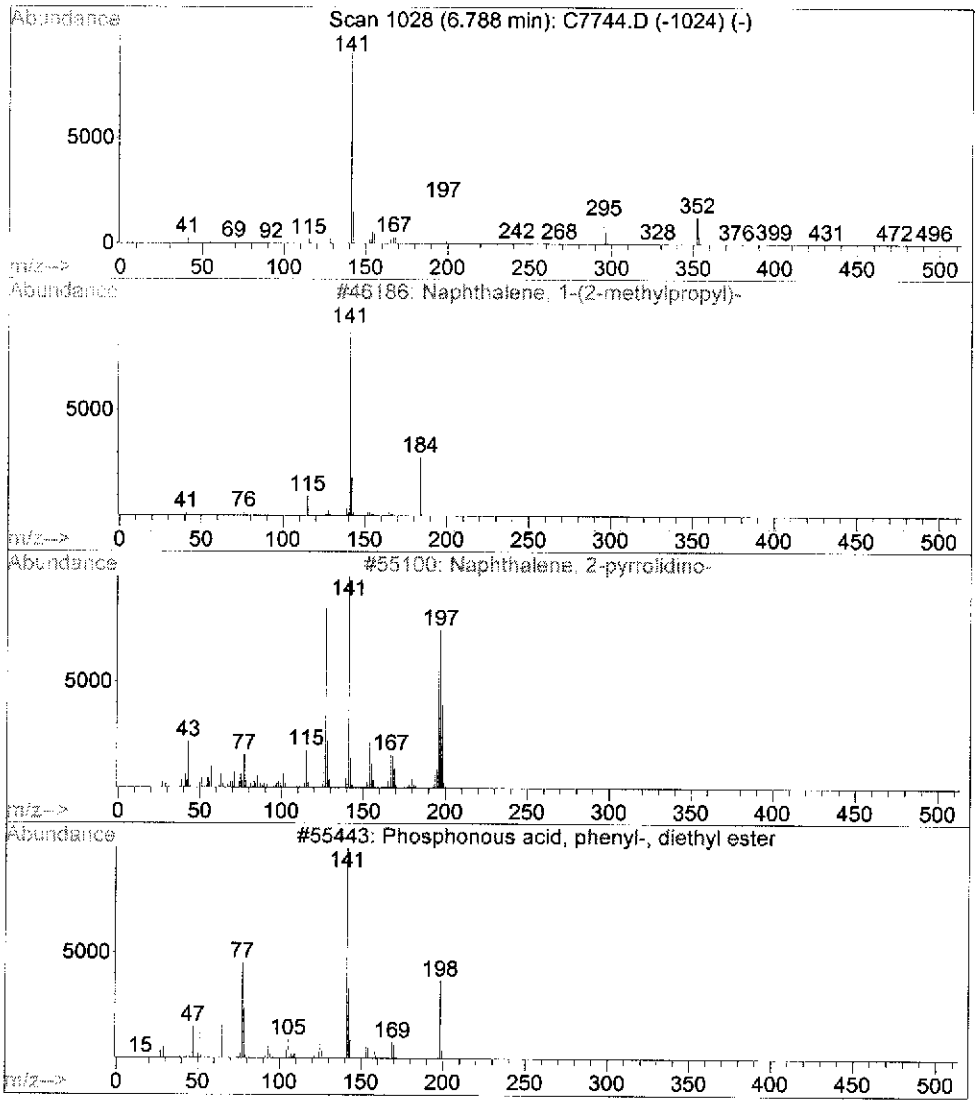
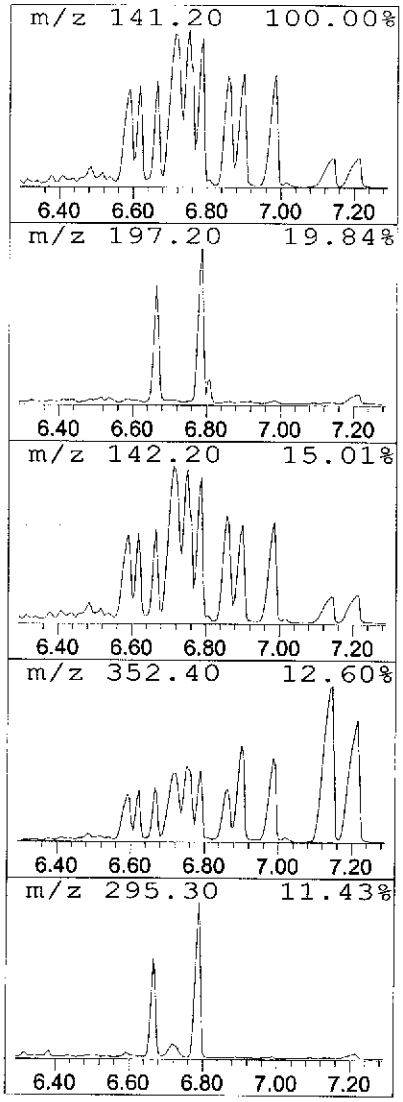
Peak Number 18 Unknown SV Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.79	96.13 UG	8227470	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	28
2	Naphthalene, 2-pyrrolidino-	197	C14H15N	013672-14-5	12
3	Phosphonous acid, phenyl-, dieth...	198	C10H15O2P	001638-86-4	9
4	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	9
5	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	9





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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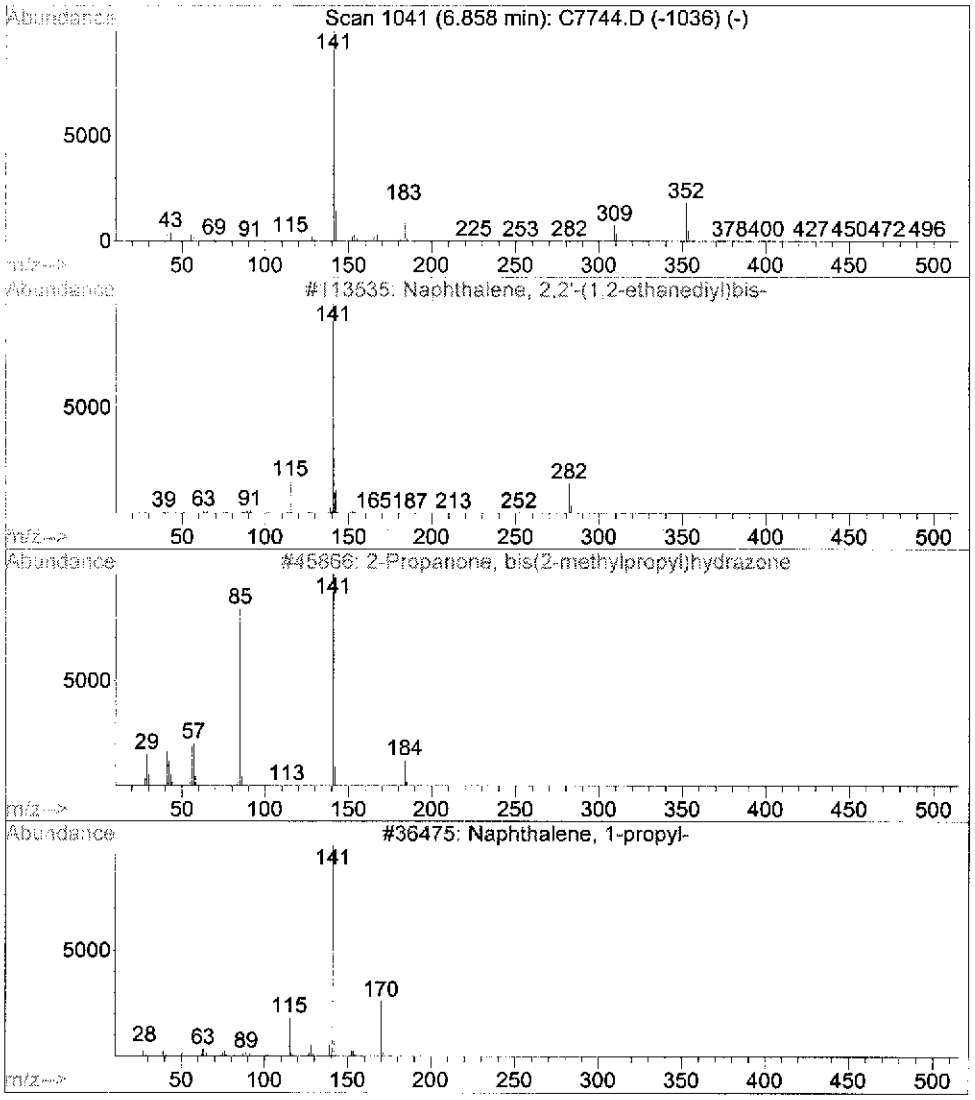
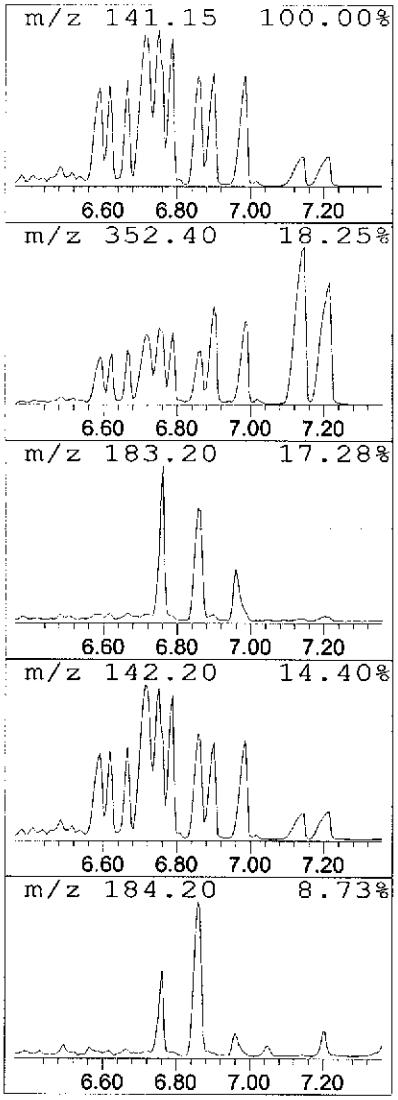
Peak Number 19 Unknown SV Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.86	100.60 UG	8610010	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	50
2	2-Propanone, bis(2-methylpropyl)...	184	C11H24N2	052835-12-8	42
3	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	33
4	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	27
5	2-Naphthaleneethanol	172	C12H12O	001485-07-0	12





Library Search Compound Report

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Acq On : 10 Jul 2012 18:19
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Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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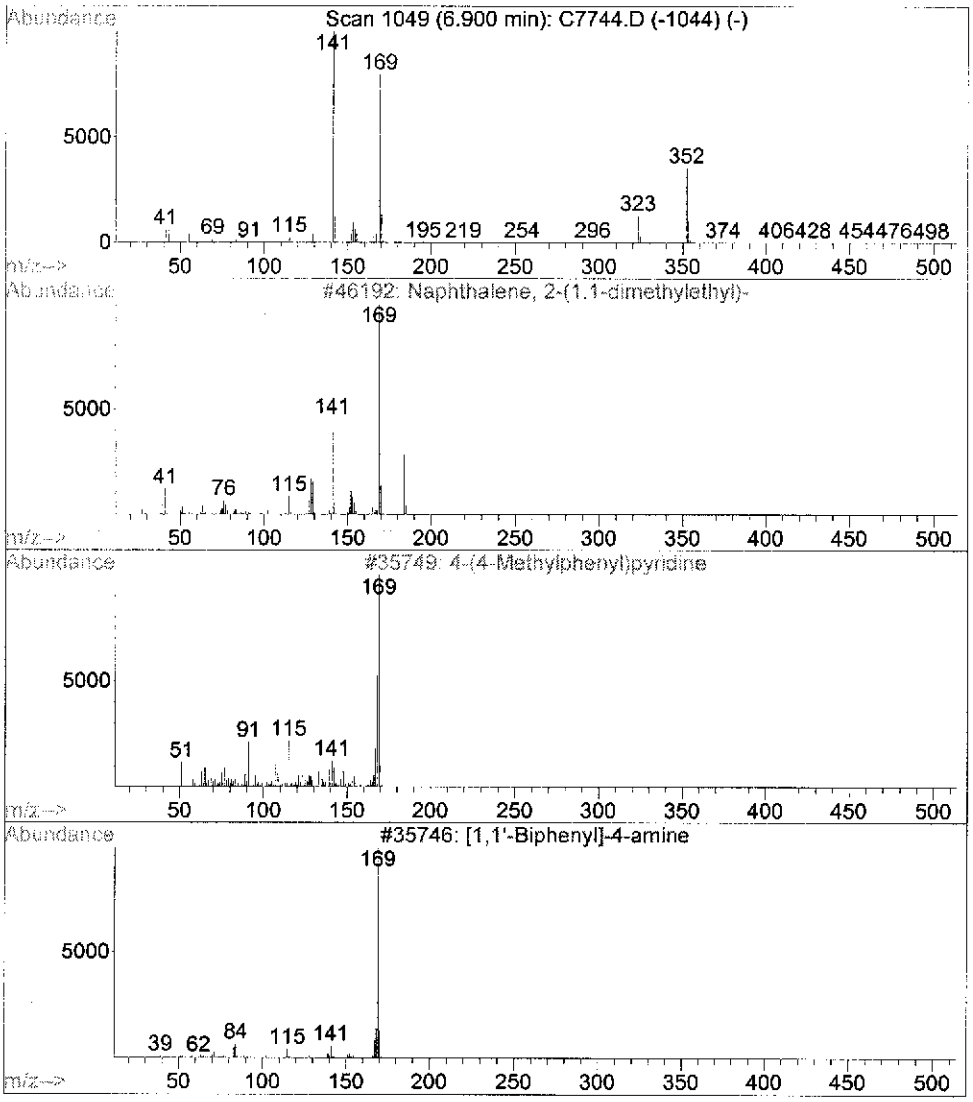
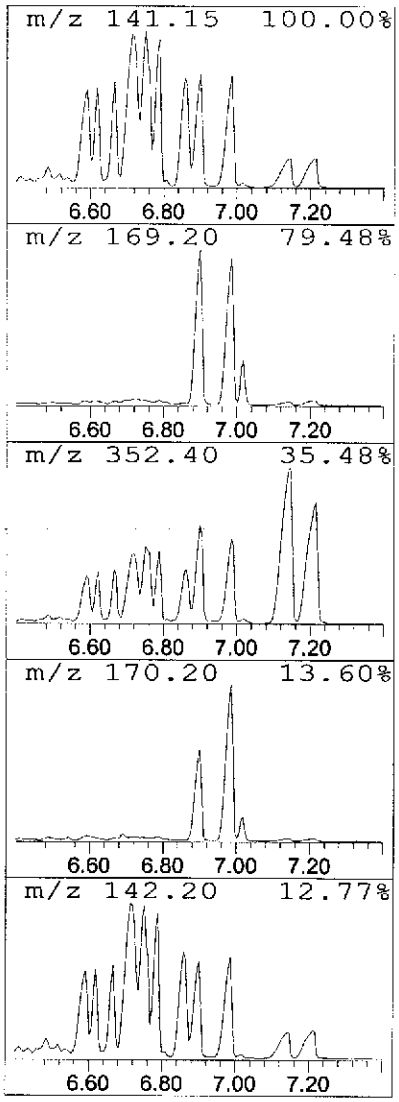
Peak Number 20 Unknown SV Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.90	154.62 UG	13233800	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-(1,1-dimethylethyl)-	184	C14H16	002876-35-9	47
2	4-(4-Methylphenyl)pyridine	169	C12H11N	004423-10-3	35
3	[1,1'-Biphenyl]-4-amine	169	C12H11N	000092-67-1	27
4	3,4-Difluoropropiophenone	170	C9H8F2O	023384-72-7	27
5	Bicyclo[2.2.1]hept-2-ene, 1,7,7-...	212	C16H20	007070-09-9	25





Library Search Compound Report

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Acq On : 10 Jul 2012 18:19
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Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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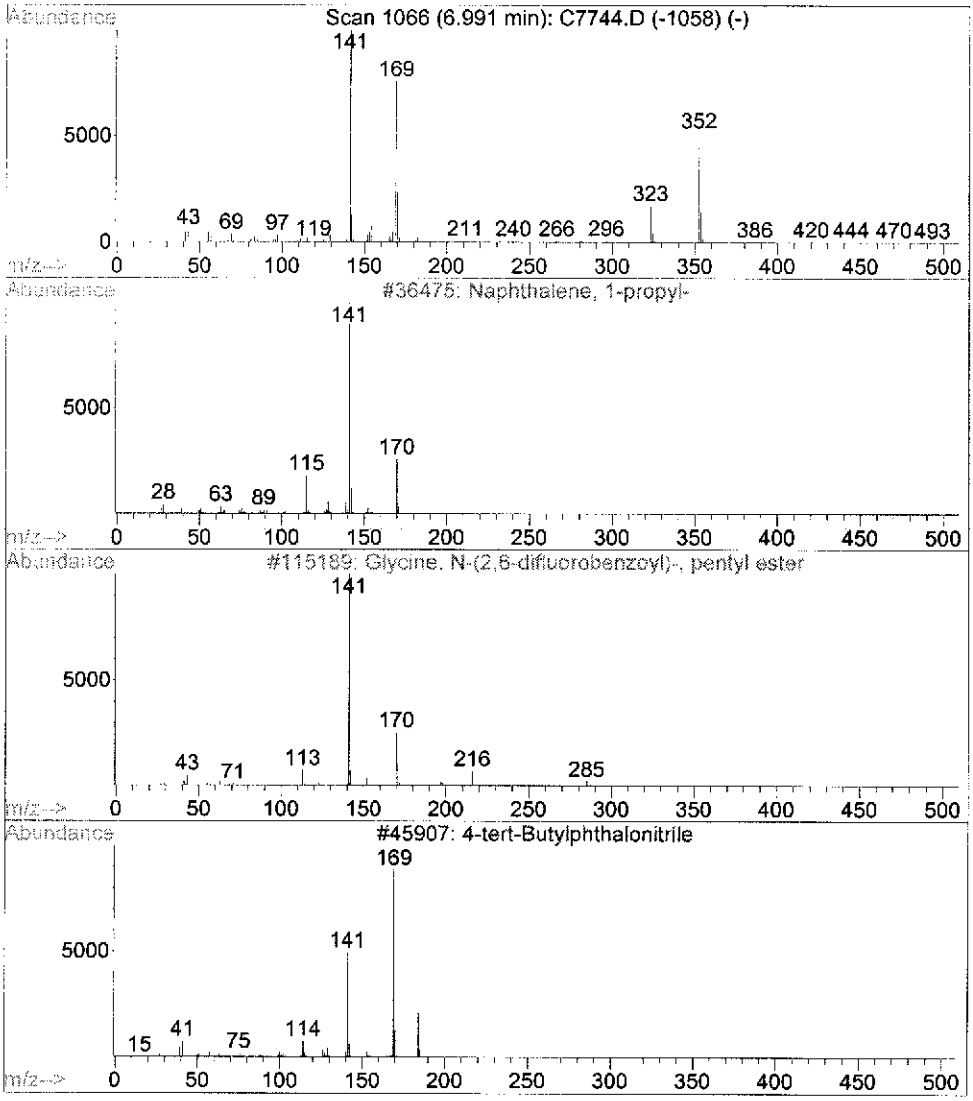
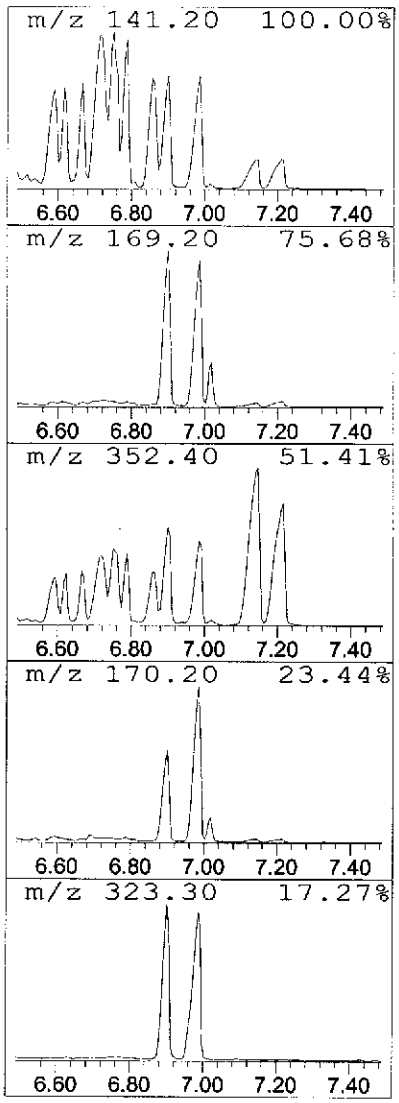
Peak Number 21 Unknown SV Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.99	150.35 UG	12868000	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	43
2	Glycine, N-(2,6-difluorobenzoyl)...	285	C14H17F2NO3	1000314-44-1	25
3	4-tert-Butylphthalonitrile	184	C12H12N2	032703-80-3	23
4	2-(1-Naphthyl)ethyl bromide	234	C12H11Br	013686-49-2	17
5	[1,1'-Biphenyl]-2-ol, acetate	212	C14H12O2	003271-80-5	12





Library Search Compound Report

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Acq On : 10 Jul 2012 18:19
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Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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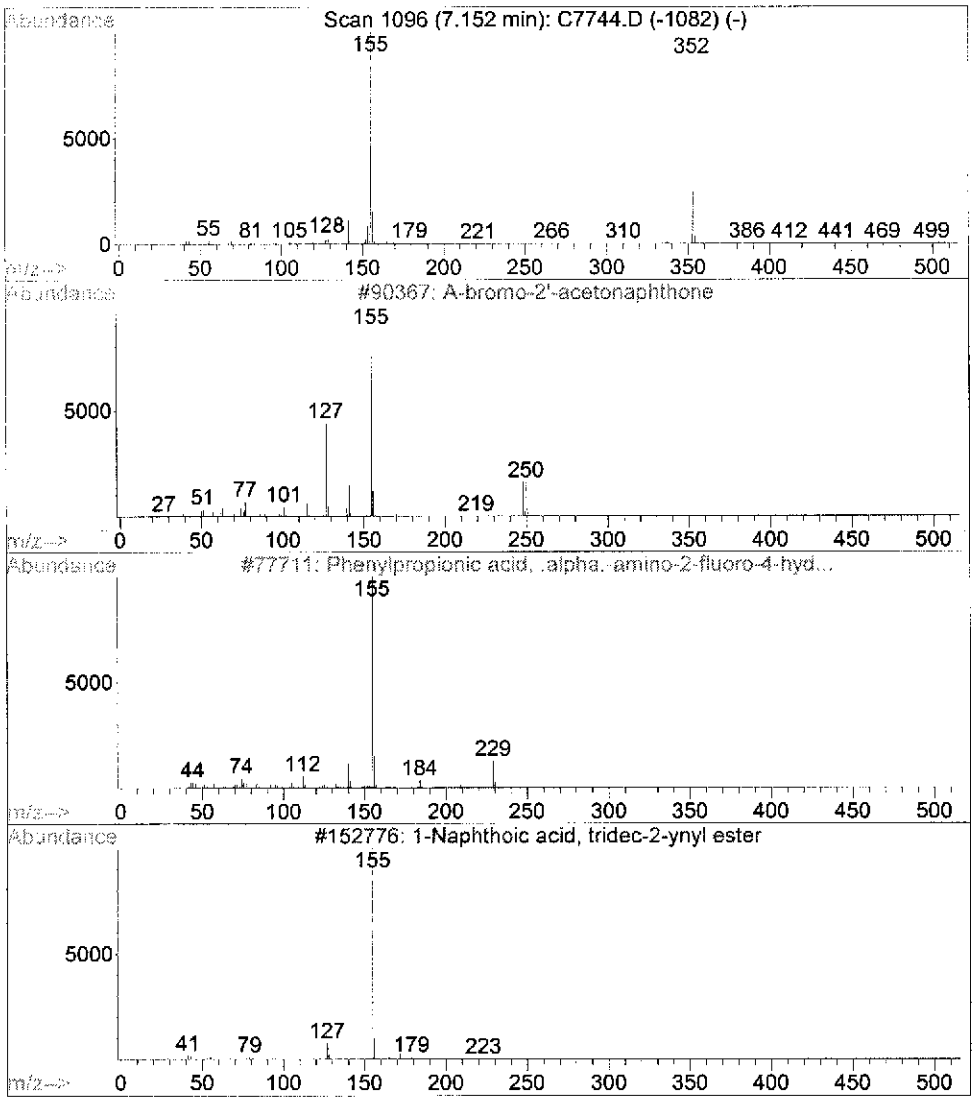
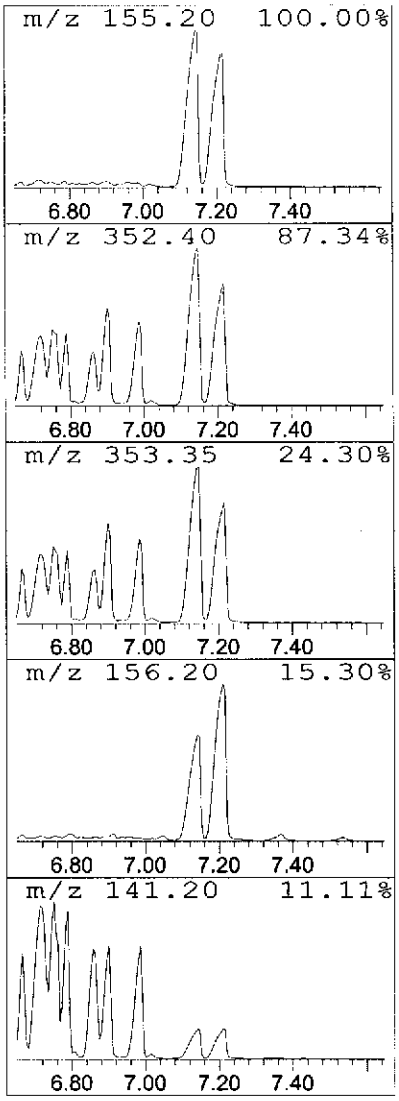
Peak Number 22 Unknown SV Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.15	277.90 UG	23785100	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	A-bromo-2'-acetonaphthone	248	C12H9BrO	000613-54-7	36
2	Phenylpropionic acid, .alpha.-am...	229	C10H12FNO4	1000126-07-3	33
3	1-Naphthoic acid, tridec-2-ynyl ...	350	C24H30O2	1000308-82-7	33
4	Naphthalene, 2-methyl-1-propyl-	184	C14H16	054774-89-9	17
5	Dodecyl cis-9,10-epoxyoctadecanoate	466	C30H58O3	092332-53-1	12





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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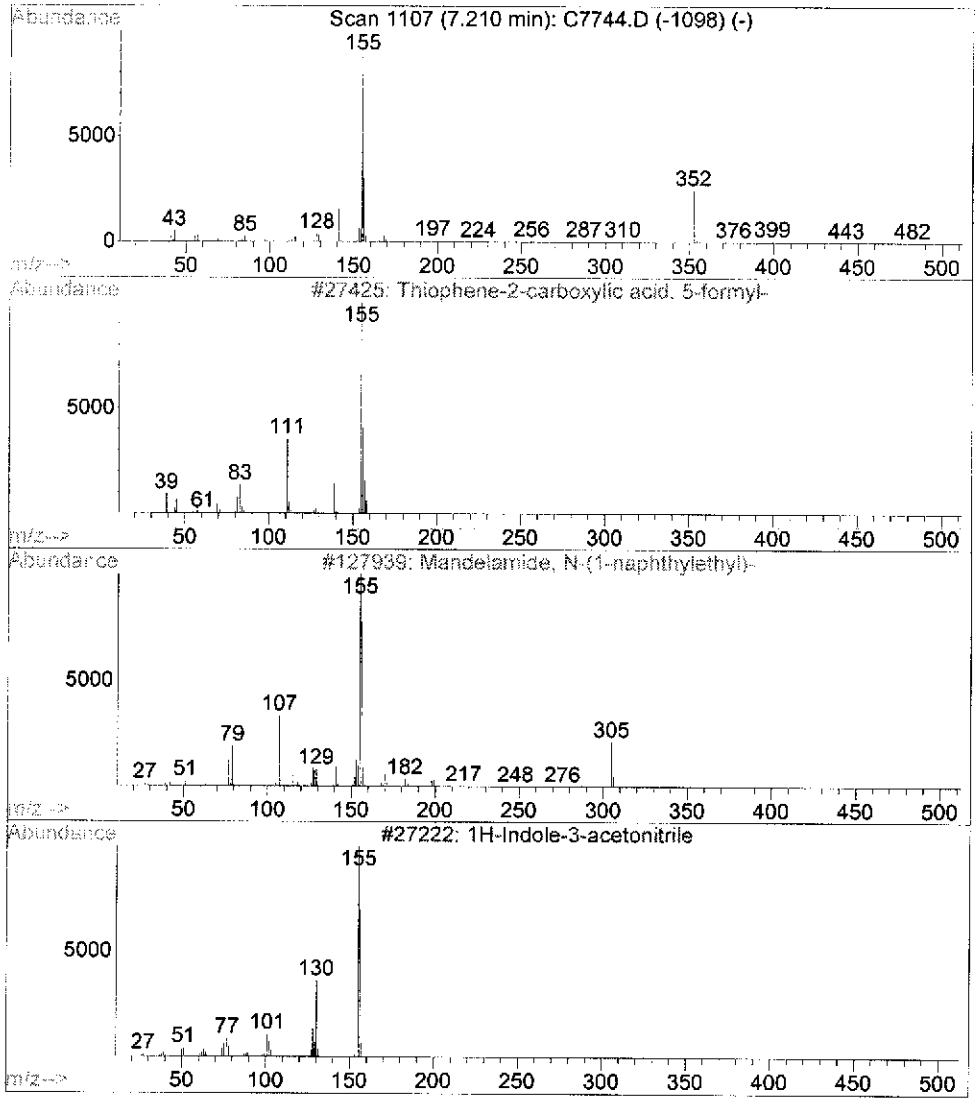
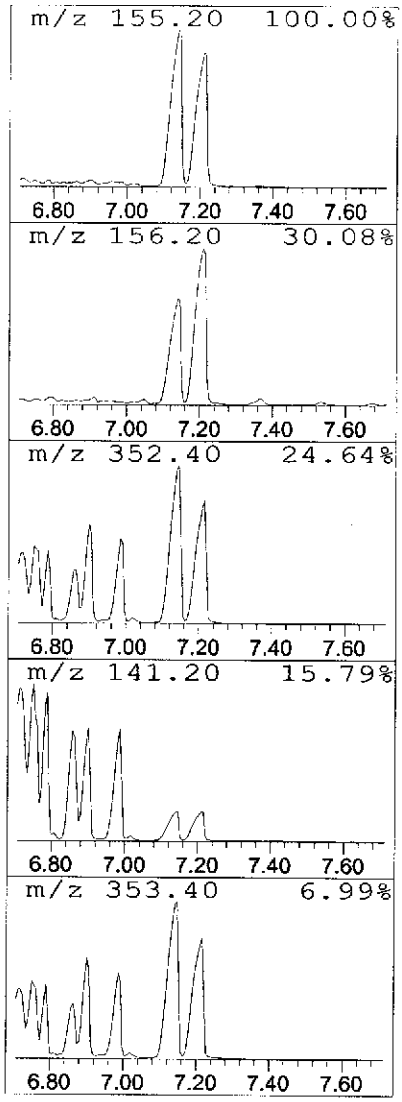
Peak Number 23 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.21	308.12 UG	26371700	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiophene-2-carboxylic acid, 5-f...	156	C6H4O3S	1000306-77-9	42
2	Mandelamide, N-(1-naphthylethyl)-	305	C20H19NO2	344875-77-0	10
3	1H-Indole-3-acetonitrile	156	C10H8N2	000771-51-7	10
4	2,4-Diethyl-5-methylthiazole	155	C8H13NS	052414-89-8	9
5	6-Amino-1,3-dimethyluracil	155	C6H9N3O2	006642-31-5	9





Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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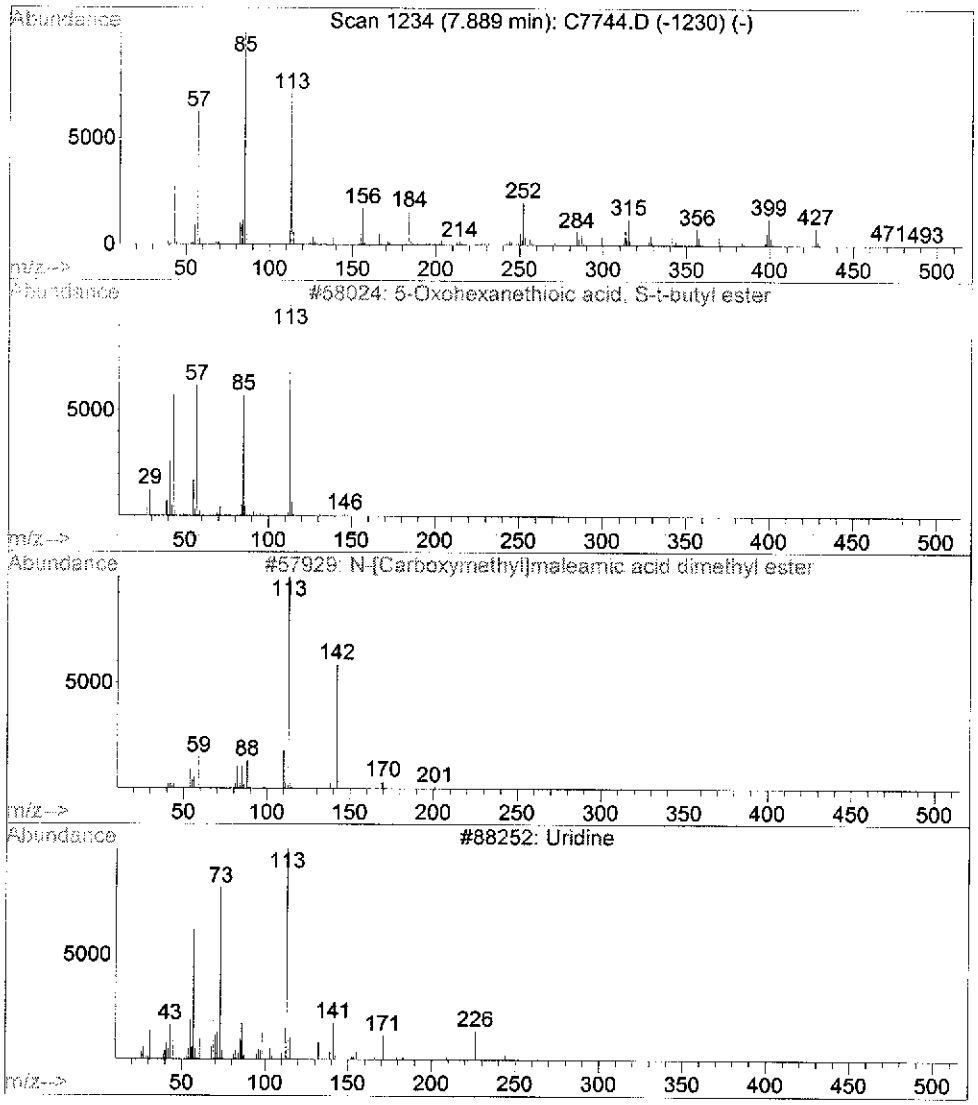
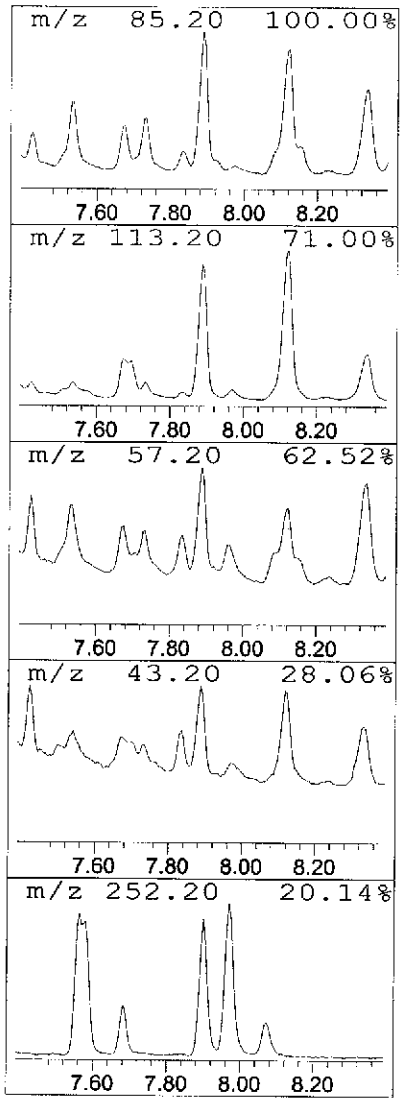
Peak Number 24 Unknown SV Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.89	52.91 UG	3580870	Perylene-d12	8.04

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5-Oxohexanethioic acid, S-t-buty...	202	C10H18O2S	1000194-60-8	40
2	N-[Carboxymethyl]maleamic acid d...	201	C8H11NO5	014109-64-9	22
3	Uridine	244	C9H12N2O6	000058-96-8	22
4	Pyrrolidine, 1-(1-oxo-5-octadece...	335	C22H41NO	056599-67-8	22
5	Valeric acid, 4-cyanophenyl ester	203	C12H13NO2	1000307-98-7	18





Library Search Compound Report

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Data File : C7744.D
Acq On : 10 Jul 2012 18:19
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Sample : G6-06261,E12-06385-008,S,15.16g,14.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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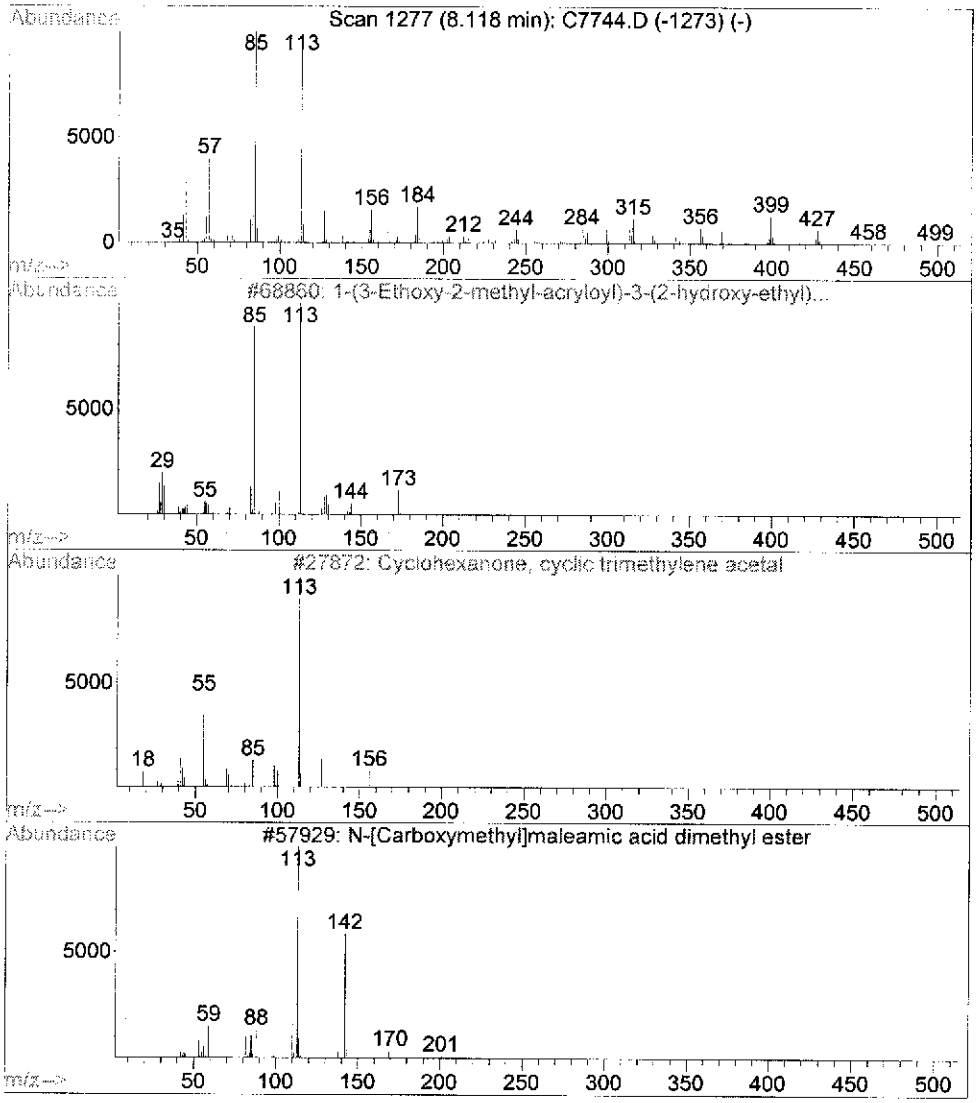
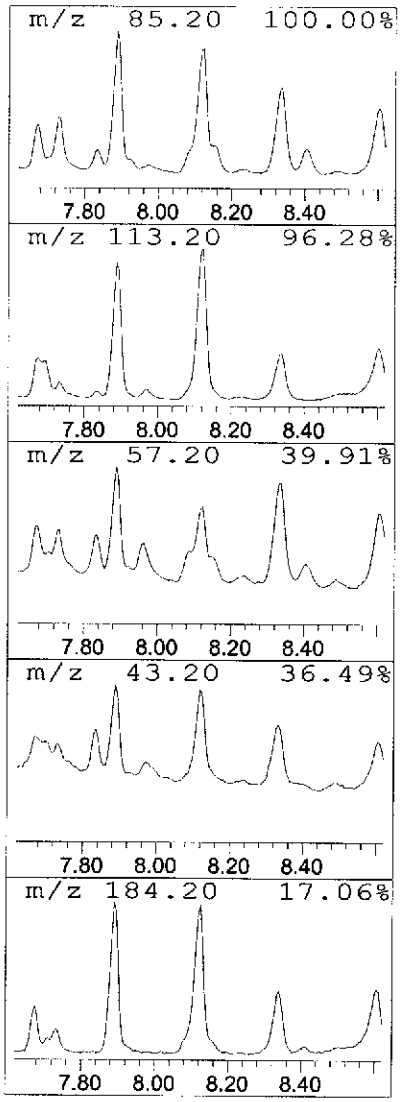
Peak Number 25 Unknown SV Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.12	40.00 UG	2707360	Perylene-d12	8.04

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-(3-Ethoxy-2-methyl-acryloyl)-3...	216	C9H16N2O4	1000188-24-4	45
2	Cyclohexanone, cyclic trimethyle...	156	C9H16O2	000180-93-8	35
3	N-[Carboxymethyl]maleamic acid d...	201	C8H11NO5	014109-64-9	27
4	Piperidine-2,5-dione	113	C5H7NO2	052065-78-8	25
5	2(3H)-Furanone, dihydro-5-propyl-	128	C7H12O2	000105-21-5	25





Quantitation Report (QT/LSC Reviewed)

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Data File : C7745.D
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Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 11 09:24:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	147157	40.00 UG	0.00
23) Naphthalene-d8	3.10	136	542508	40.00 UG	-0.02
43) Acenaphthene-d10	3.92	164	262793	40.00 UG	-0.05
66) Phenanthrene-d10	4.68	188	351434m	40.00 UG	-0.10
82) Chrysene-d12	6.49	240	436409m	40.00 UG	-0.13
92) Perylene-d12	8.06	264	306582	40.00 UG	-0.05
System Monitoring Compounds					
4) 2-Fluorophenol	2.03	112	238567	46.96 UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 46.96%		
6) Phenol-d5	2.37	99	344782	49.82 UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 49.82%		
24) Nitrobenzene-d5	2.78	82	85261	15.94 UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 31.88%		
47) 2-Fluorobiphenyl	3.57	172	107299	12.87 UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 25.74%#		
70) 2,4,6-Tribromophenol	4.31	330	69775m	54.88 UG	-0.08
Spiked Amount 100.000	Range 37 - 115		Recovery = 54.88%		
84) Terphenyl-d14	5.60	244	110043m	11.65 UG	-0.20
Spiked Amount 50.000	Range 15 - 122		Recovery = 23.30%		

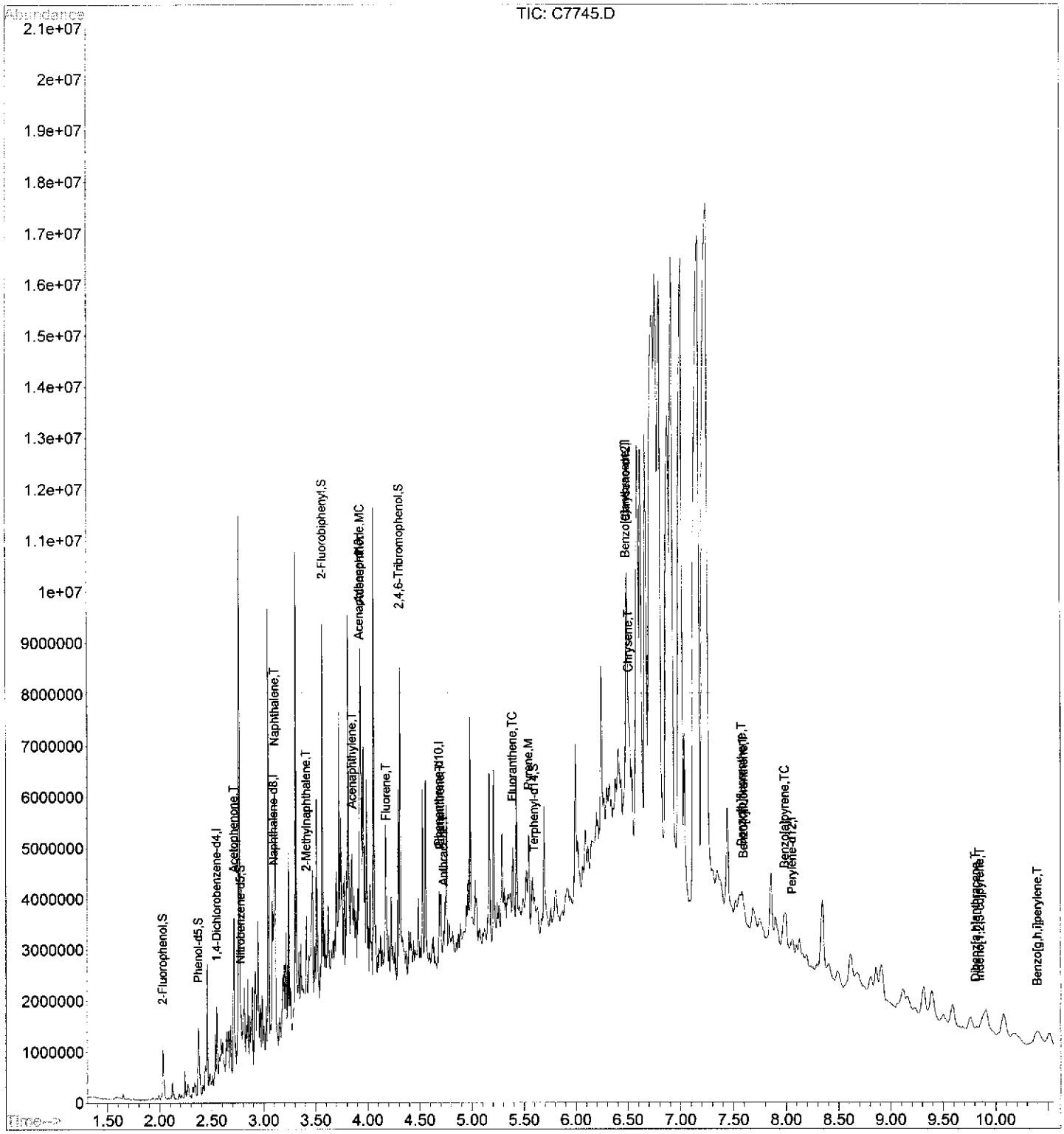
Target Compounds					Qvalue
19) Acetophenone	2.71	105	628938m	78.74 UG	
34) Naphthalene	3.11	128	1463654	94.38 UG	# 56
41) 2-Methylnaphthalene	3.41	142	261927	24.73 UG	100
53) Acenaphthylene	3.85	152	74937	6.48 UG	# 64
55) Acenaphthene	3.94	153	123964	16.67 UG	87
61) Fluorene	4.18	166	87407	10.77 UG	86
75) Phenanthrene	4.70	178	438588m	45.22 UG	
76) Anthracene	4.72	178	127213m	12.63 UG	
79) Fluoranthene	5.39	202	354748m	40.86 UG	
83) Pyrene	5.54	202	582851m	42.64 UG	
88) Benzo[a]anthracene	6.48	228	249938m	21.56 UG	
89) Chrysene	6.51	228	290955m	27.04 UG	
94) Benzo[b]fluoranthene	7.58	252	217861m	19.41 UG	
95) Benzo[k]fluoranthene	7.60	252	115964m	10.87 UG	
96) Benzo[a]pyrene	7.99	252	216782	24.22 UG	# 82
97) Indeno[1,2,3-cd]pyrene	9.84	276	78630	6.37 UG	# 57
98) Dibenz[a,h]anthracene	9.80	278	31933	3.03 UG	# 70
99) Benzo[g,h,i]perylene	10.39	276	70507m	6.46 UG	

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 11 09:24:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.028	135	137	145	rVB2	975136	830399	2.00%	0.228%
2	2.370	198	201	207	rBV2	1326004	1332549	3.20%	0.366%
3	2.434	211	213	215	rBV3	510906	499017	1.20%	0.137%
4	2.456	215	217	219	rVB	2382922	1060778	2.55%	0.291%
5	2.530	228	231	232	rBV	1017689	531477	1.28%	0.146%
6	2.546	232	234	237	rVV	1510601	1032598	2.48%	0.283%
7	2.584	240	241	243	rVV2	800690	589342	1.42%	0.162%
8	2.600	243	244	249	rVV2	680379	612876	1.47%	0.168%
9	2.637	249	251	252	rVV	855211	520012	1.25%	0.143%
10	2.659	252	255	256	rVV2	798276	667635	1.60%	0.183%
11	2.680	256	259	262	rVB3	920177	779125	1.87%	0.214%
12	2.712	262	265	269	rBV	3026754	2371985	5.70%	0.651%
13	2.765	269	275	277	rBV	10730680	8925318	21.45%	2.449%
14	2.813	279	284	286	rVB4	1316859	1292524	3.11%	0.355%
15	2.846	288	290	292	rVB2	1473149	700781	1.68%	0.192%
16	2.867	292	294	295	rBV2	755344	417986	1.00%	0.115%
17	2.888	295	298	300	rVB3	1523093	1155559	2.78%	0.317%
18	2.910	300	302	305	rBV2	1865966	2009556	4.83%	0.551%
19	2.942	307	308	311	rVB2	2294754	1105591	2.66%	0.303%
20	2.963	311	312	314	rVB	831507	496096	1.19%	0.136%
21	2.984	314	316	317	rBV2	1012082	600384	1.44%	0.165%
22	3.022	321	323	325	rBV2	850038	515396	1.24%	0.141%
23	3.043	325	327	330	rBV	8465491	4674864	11.24%	1.283%
24	3.081	332	334	335	rBV	2528963	1430084	3.44%	0.392%
25	3.107	335	339	343	rVB2	4714400	4859661	11.68%	1.333%
26	3.155	345	348	350	rBV2	567766	564262	1.36%	0.155%
27	3.187	350	354	355	rBV2	1244225	1313788	3.16%	0.360%
28	3.214	357	359	361	rVB3	1710257	874824	2.10%	0.240%
29	3.241	361	364	366	rBV	3265993	2058979	4.95%	0.565%
30	3.257	366	367	370	rVB3	828414	419503	1.01%	0.115%
31	3.310	373	377	380	rBV	8946250	5194928	12.49%	1.425%
32	3.337	380	382	384	rVB2	917882	461329	1.11%	0.127%
33	3.358	384	386	387	rBV	1095224	551342	1.33%	0.151%
34	3.412	394	396	399	rBV2	1526740	804495	1.93%	0.221%
35	3.433	399	400	401	rBV	744455	447714	1.08%	0.123%
36	3.471	403	407	409	rVB3	2427056	2336382	5.62%	0.641%
37	3.492	409	411	413	rBV3	927518	585622	1.41%	0.161%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

38	3.508	413	414	419	rVB2	3909793	2460445	5.91%	0.675%
39	3.545	419	421	422	rBV2	681632	449402	1.08%	0.123%
40	3.567	422	425	426	rVV	6889890	4285829	10.30%	1.176%
41	3.588	426	429	431	rVV3	859408	755173	1.82%	0.207%
42	3.620	433	435	438	rVB2	1383208	904861	2.17%	0.248%
43	3.700	448	450	452	rVV	1761820	1488093	3.58%	0.408%
44	3.722	452	454	456	rVV	5105364	2614580	6.28%	0.717%
45	3.743	456	458	462	rVV2	2837153	2673167	6.43%	0.733%
46	3.770	462	463	465	rVB2	1771232	1050202	2.52%	0.288%
47	3.812	465	471	474	rBV	6849680	5633100	13.54%	1.546%
48	3.850	474	478	480	rVV2	2191291	2782634	6.69%	0.764%
49	3.866	480	481	483	rVV	1374180	855072	2.06%	0.235%
50	3.887	483	485	486	rVV	1078979	672351	1.62%	0.184%
51	3.903	486	488	489	rVV	1545167	1064208	2.56%	0.292%
52	3.930	489	493	496	rVV3	6244292	7748613	18.62%	2.126%
53	3.957	496	498	501	rVV2	4354778	3791585	9.11%	1.040%
54	3.989	501	504	505	rVV	3736008	2312003	5.56%	0.634%
55	4.005	505	507	508	rVB	899378	454821	1.09%	0.125%
56	4.021	508	510	511	rBV	1712460	902205	2.17%	0.248%
57	4.058	514	517	519	rBV	9563543	5845089	14.05%	1.604%
58	4.074	519	520	523	rVB2	937611	479639	1.15%	0.132%
59	4.170	535	538	543	rVB2	2679531	2203974	5.30%	0.605%
60	4.224	546	548	550	rBV2	1469999	842415	2.02%	0.231%
61	4.261	553	555	557	rVB2	733883	440574	1.06%	0.121%
62	4.293	558	561	562	rBV	3717928	2390829	5.75%	0.656%
63	4.309	562	564	567	rBV	5920845	3573942	8.59%	0.981%
64	4.395	578	580	582	rBV	924097	710507	1.71%	0.195%
65	4.486	595	597	599	rVV2	1217073	669842	1.61%	0.184%
66	4.523	602	604	606	rBV	3317438	1809098	4.35%	0.496%
67	4.555	607	610	612	rVB	3330137	1752810	4.21%	0.481%
68	4.683	632	634	635	rBV	1408102	805802	1.94%	0.221%
69	4.694	635	636	640	rVV	1267926	991013	2.38%	0.272%
70	4.742	643	645	646	rVV	1039969	727114	1.75%	0.200%
71	4.753	646	647	649	rVB	2769897	1449997	3.49%	0.398%
72	4.886	670	672	675	rBV3	499199	429455	1.03%	0.118%
73	4.982	688	690	693	rVB	3932130	2146941	5.16%	0.589%
74	5.031	697	699	700	rBV	892521	534363	1.28%	0.147%
75	5.164	722	724	728	rVB	3316993	2371080	5.70%	0.651%
76	5.207	729	732	736	rBV2	3325020	2382318	5.73%	0.654%
77	5.287	744	747	749	rBV2	1839354	1625322	3.91%	0.446%
78	5.388	764	766	771	rVB	1402203	1205441	2.90%	0.331%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

79	5.426	771	773	776	rBV	2774217	1838075	4.42%	0.504%
80	5.543	793	795	798	rVB	1770754	1428618	3.43%	0.392%
81	5.693	820	823	825	rBV	2255543	1662174	4.00%	0.456%
82	5.992	876	879	882	rBV	2945322	2872027	6.90%	0.788%
83	6.243	923	926	929	rBV2	3121198	2793411	6.71%	0.766%
84	6.489	968	972	979	rBV3	4259987	6346370	15.25%	1.741%
85	6.596	985	992	994	rBV	7511201	12825556	30.83%	3.519%
86	6.622	994	997	1002	rVB	6977943	7883657	18.95%	2.163%
87	6.671	1002	1006	1009	rBV	7291675	8291450	19.93%	2.275%
88	6.735	1009	1018	1021	rBV2	8391892	23734543	57.05%	6.512%
89	6.804	1028	1031	1034	rVB	9853030	11865312	28.52%	3.256%
90	6.884	1038	1046	1048	rBV2	8178158	18220856	43.80%	5.000%
91	6.922	1048	1053	1060	rVB	11559864	18489458	44.44%	5.073%
92	7.012	1060	1070	1072	rBV	11542199	24115923	57.96%	6.617%
93	7.034	1072	1074	1082	rVB	3296798	3446526	8.28%	0.946%
94	7.167	1086	1099	1102	rBV2	12982806	41604507	100.00%	11.416%
95	7.248	1102	1114	1122	rVB	13044091	41282748	99.23%	11.327%
96	7.440	1147	1150	1161	rVB	2039333	2837285	6.82%	0.779%

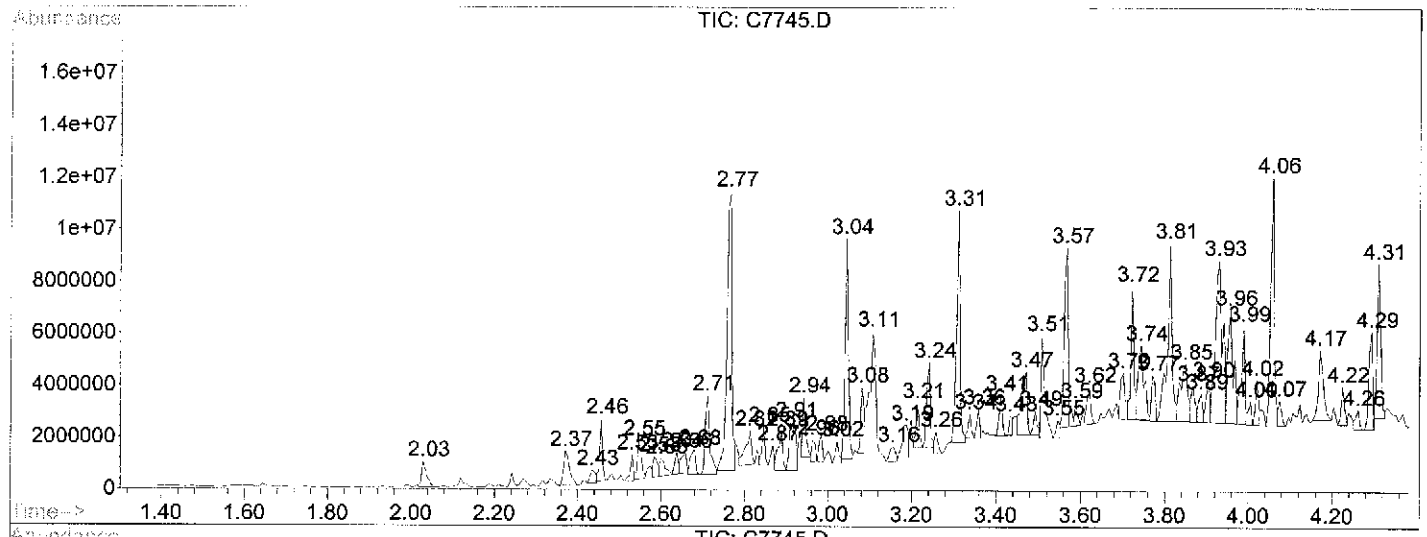
Sum of corrected areas: 364449166

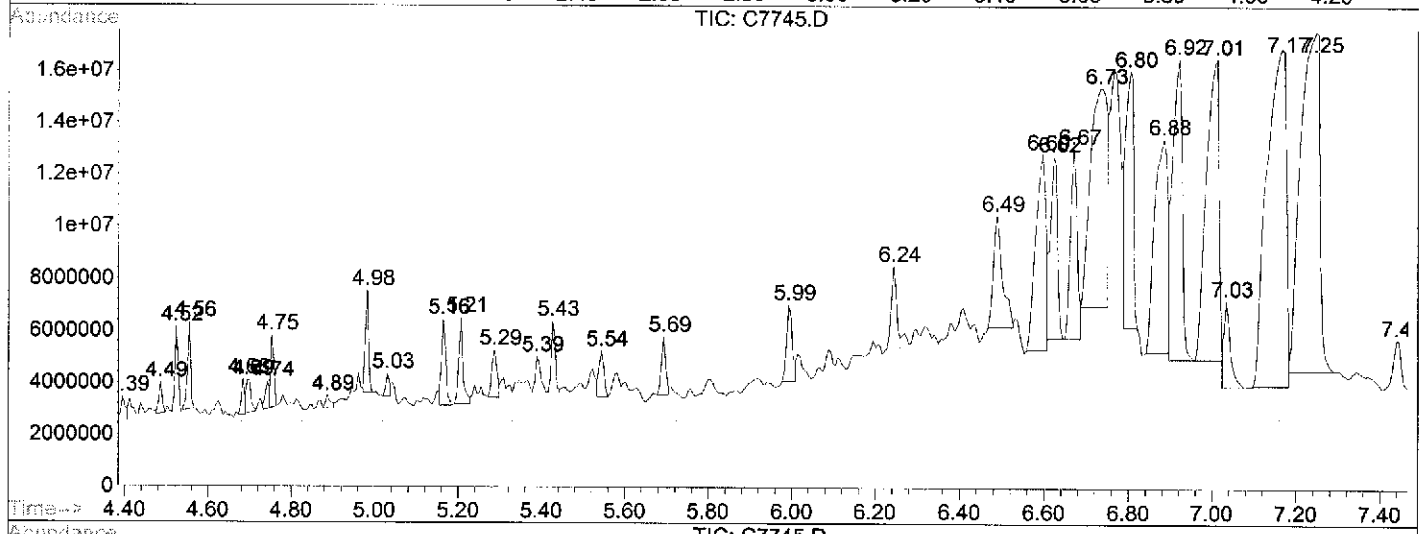
LSC Report - Integrated Chromatogram

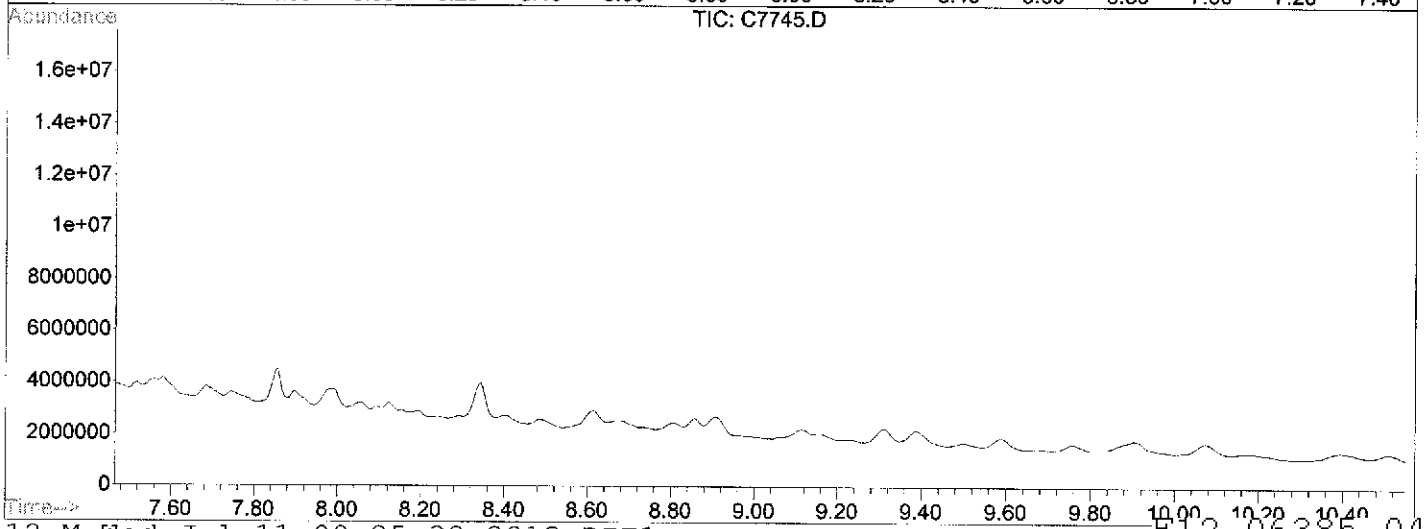
Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

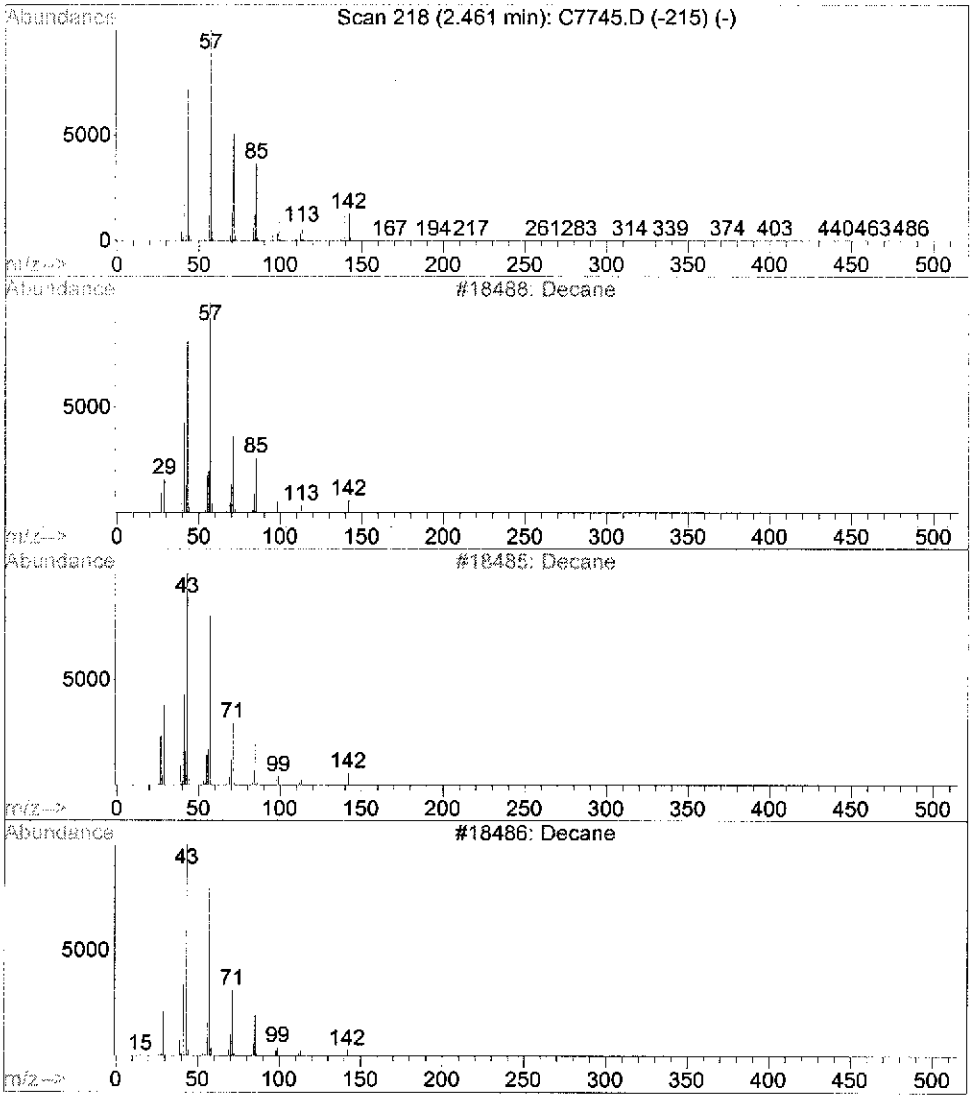
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

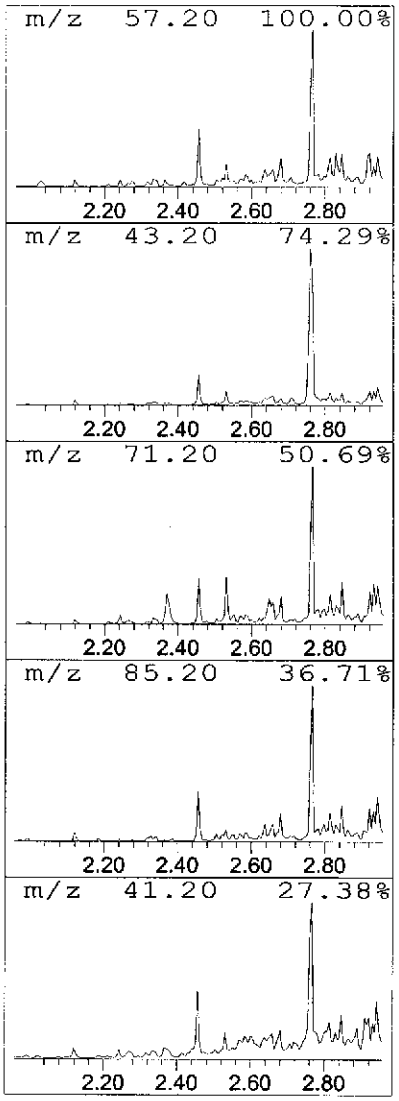
****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.46	41.09 UG	1060780	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane	142	C10H22	000124-18-5	97
2	Decane	142	C10H22	000124-18-5	95
3	Decane	142	C10H22	000124-18-5	91
4	Undecane	156	C11H24	001120-21-4	83
5	1-Iodo-2-methylundecane	296	C12H25I	073105-67-6	80





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

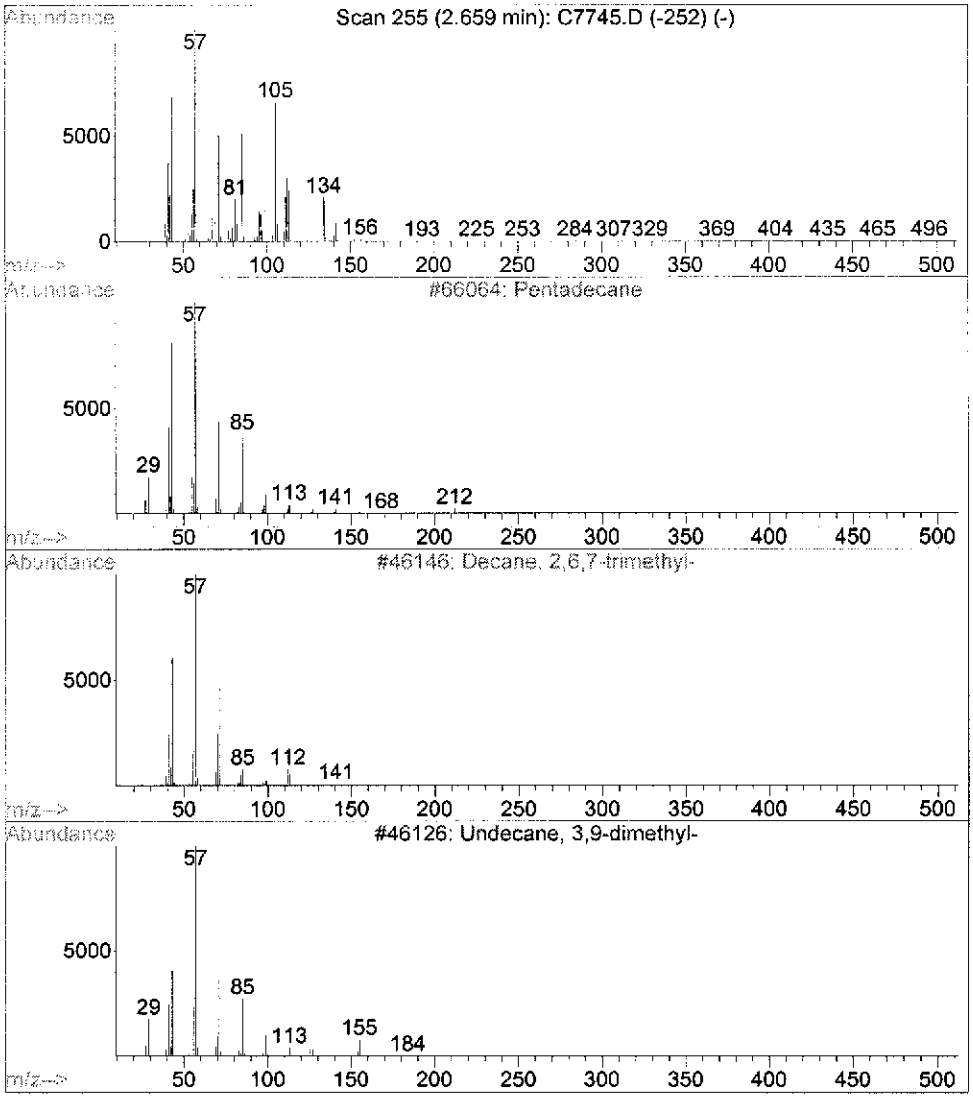
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

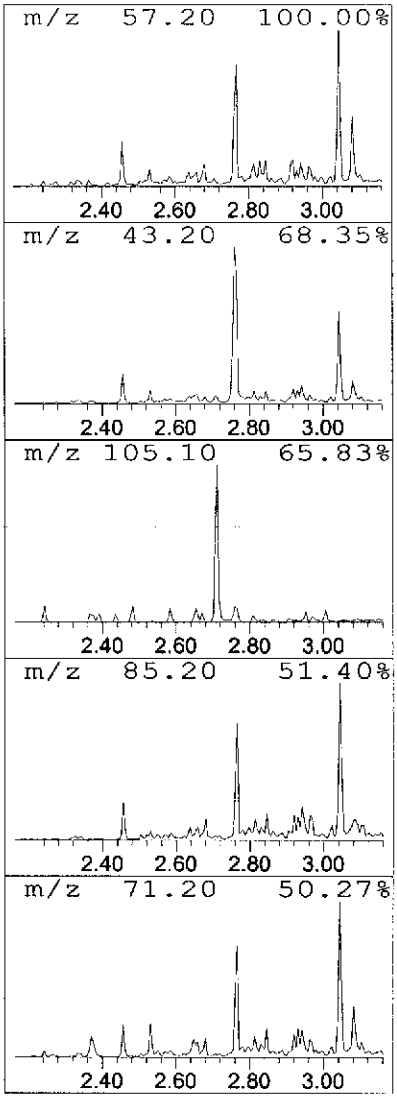
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Unknown Hydrocarbon Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.66	25.86 UG	667635	1,4-Dichlorobenzene-d4	2.55

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentadecane	212	C15H32	000629-62-9	43
2	Decane, 2,6,7-trimethyl-	184	C13H28	062108-25-2	43
3	Undecane, 3,9-dimethyl-	184	C13H28	017301-31-4	43
4	Nonane, 4,5-dimethyl-	156	C11H24	017302-23-7	38
5	Nonane, 3-methyl-	142	C10H22	005911-04-6	38





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

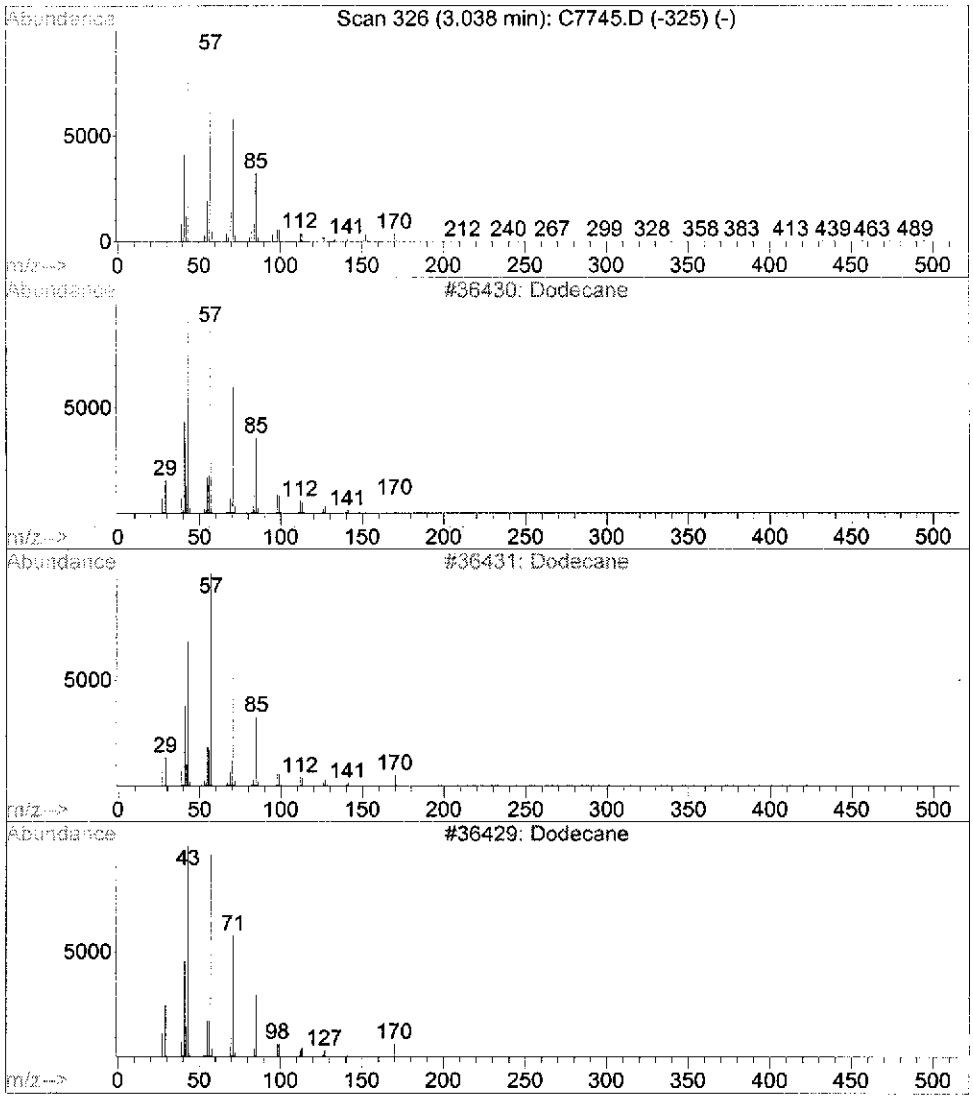
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

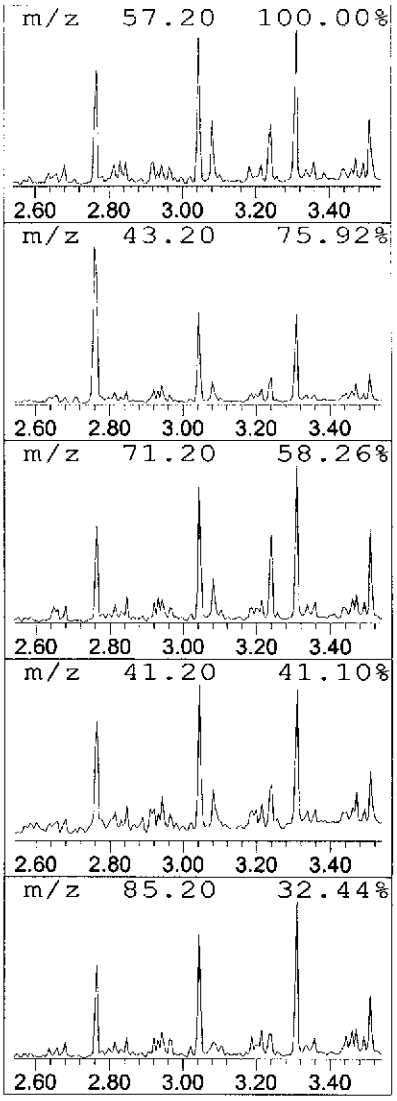
****

Peak Number 3 Unknown Hydrocarbon Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.04	38.48 UG	4674860	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dodecane	170	C12H26	000112-40-3	96
2	Dodecane	170	C12H26	000112-40-3	96
3	Dodecane	170	C12H26	000112-40-3	95
4	Dodecane	170	C12H26	000112-40-3	94
5	Undecane	156	C11H24	001120-21-4	91





Library Search Compound Report

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Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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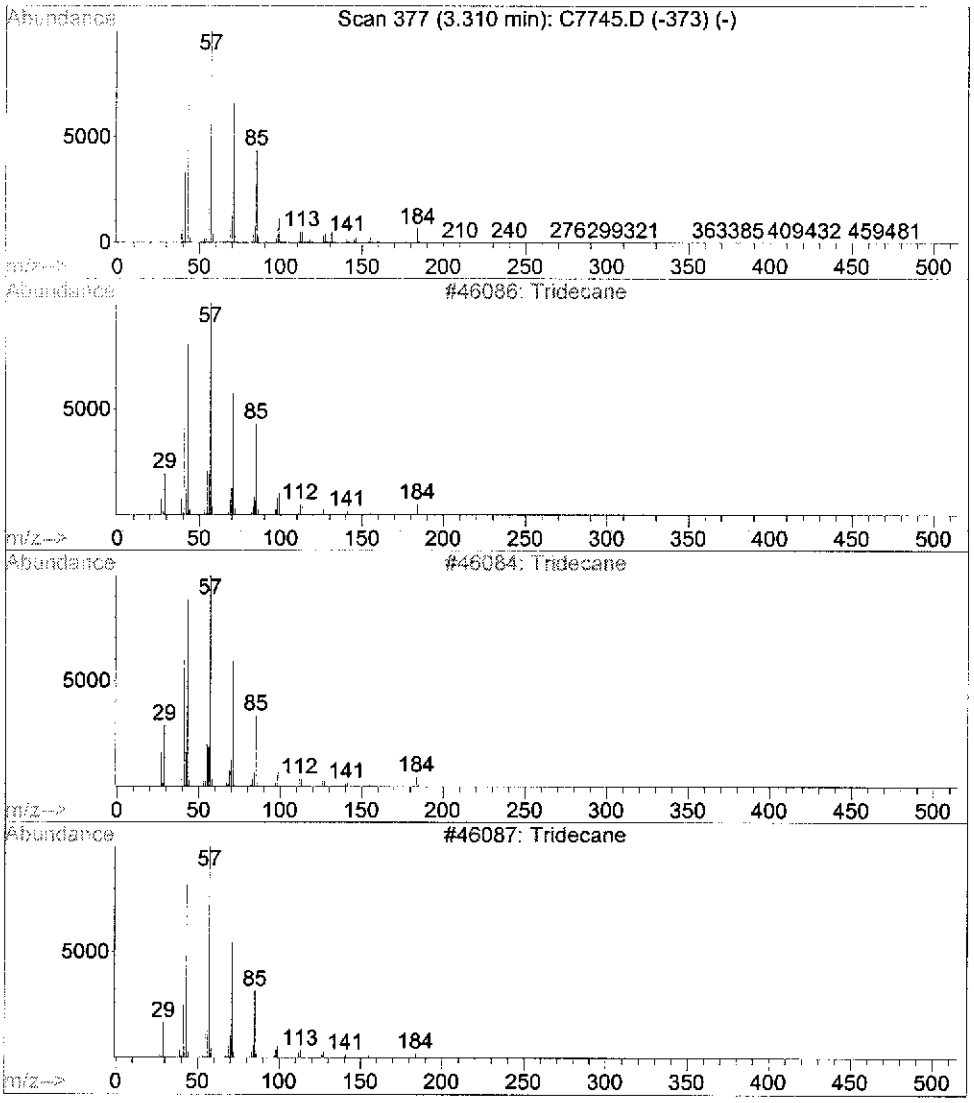
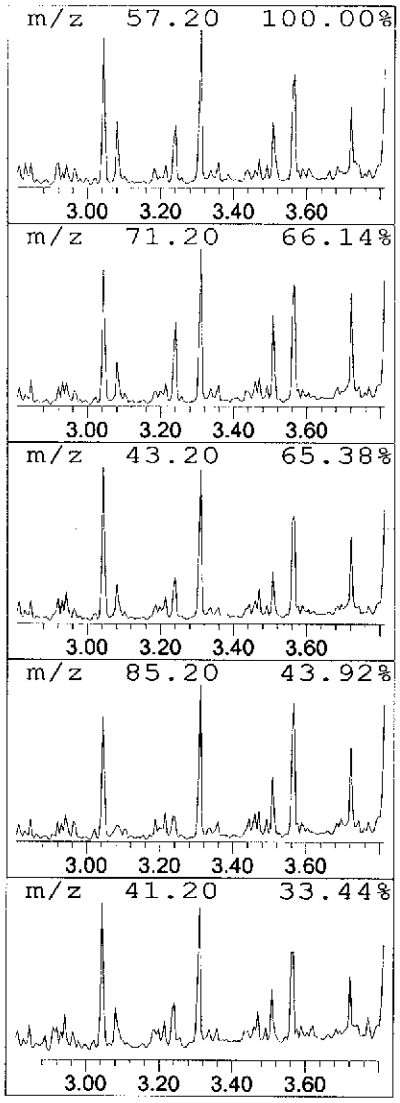
Peak Number 4 Unknown Hydrocarbon Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.31	42.76 UG	5194930	Naphthalene-d8	3.10

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	000629-50-5	98
2	Tridecane	184	C13H28	000629-50-5	95
3	Tridecane	184	C13H28	000629-50-5	94
4	Tridecane	184	C13H28	000629-50-5	94
5	Tridecane	184	C13H28	000629-50-5	94





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ALS Vial : 11 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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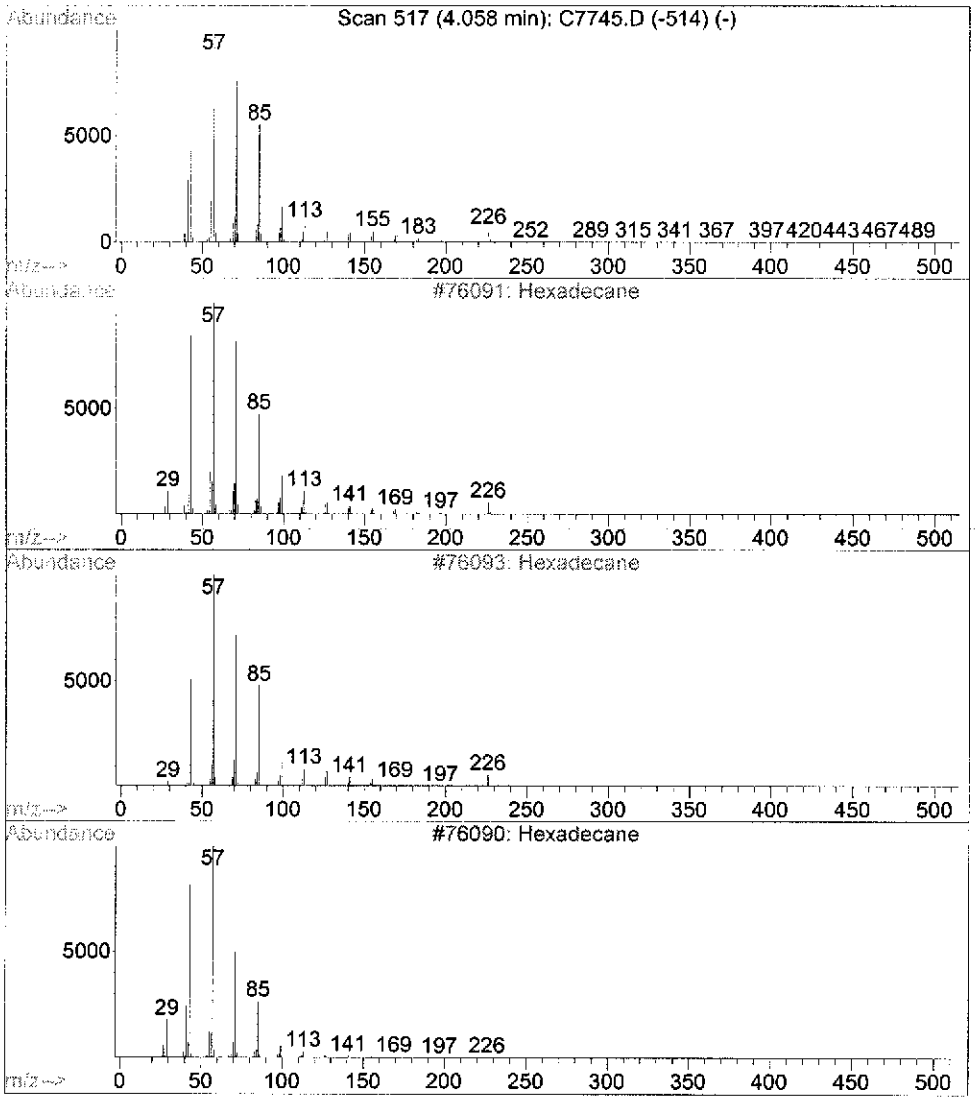
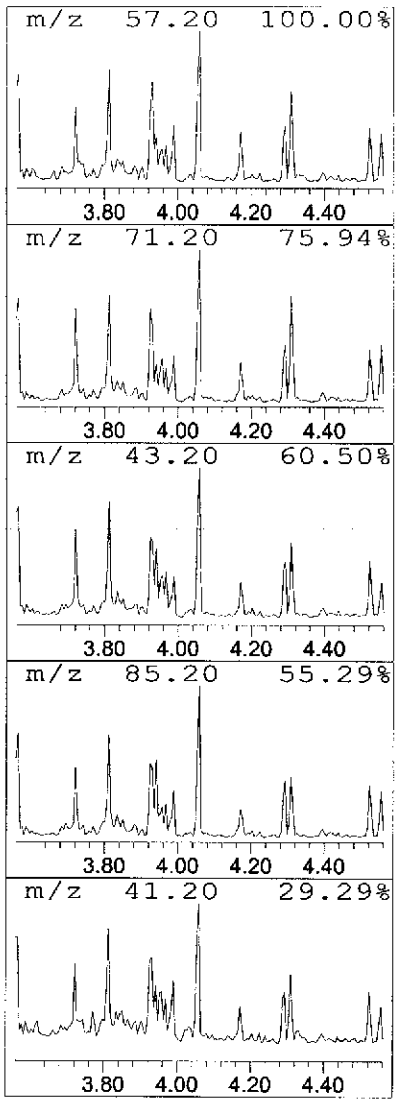
Peak Number 5 Unknown Hydrocarbon Concentration Rank 23

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.06	30.17 UG	5845090	Acenaphthene-d10	3.92

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane	226	C16H34	000544-76-3	98
2	Hexadecane	226	C16H34	000544-76-3	98
3	Hexadecane	226	C16H34	000544-76-3	96
4	Hexadecane	226	C16H34	000544-76-3	95
5	Hexadecane	226	C16H34	000544-76-3	94





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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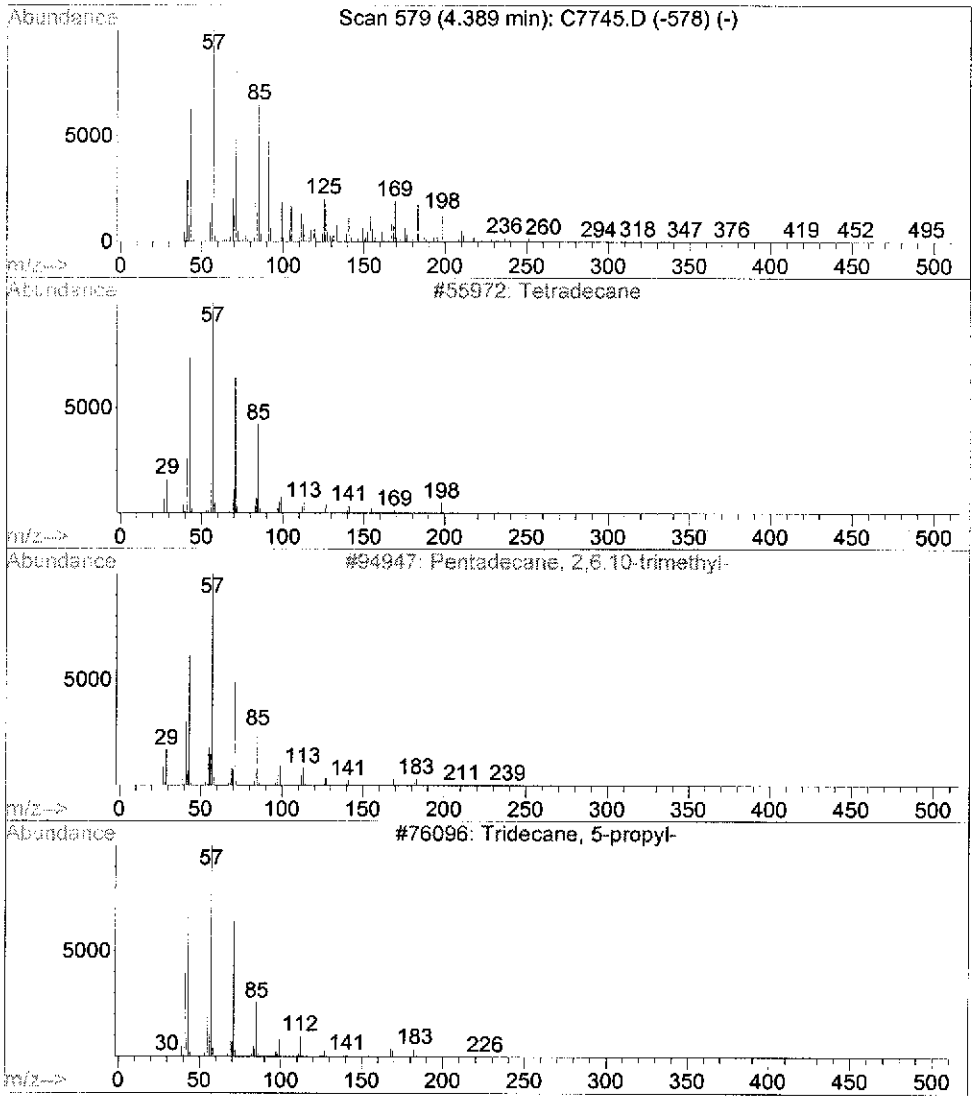
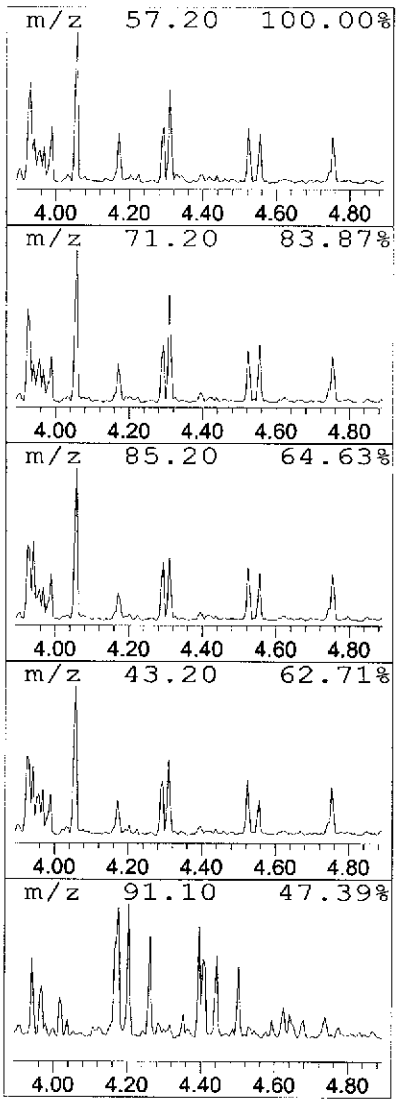
Peak Number 6 Unknown Hydrocarbon Concentration Rank 21

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.39	35.27 UG	710507	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetradecane	198	C14H30	000629-59-4	78
2	Pentadecane, 2,6,10-trimethyl-	254	C18H38	003892-00-0	68
3	Tridecane, 5-propyl-	226	C16H34	055045-11-9	60
4	Heptadecane, 8-methyl-	254	C18H38	013287-23-5	50
5	Tetradecane	198	C14H30	000629-59-4	49





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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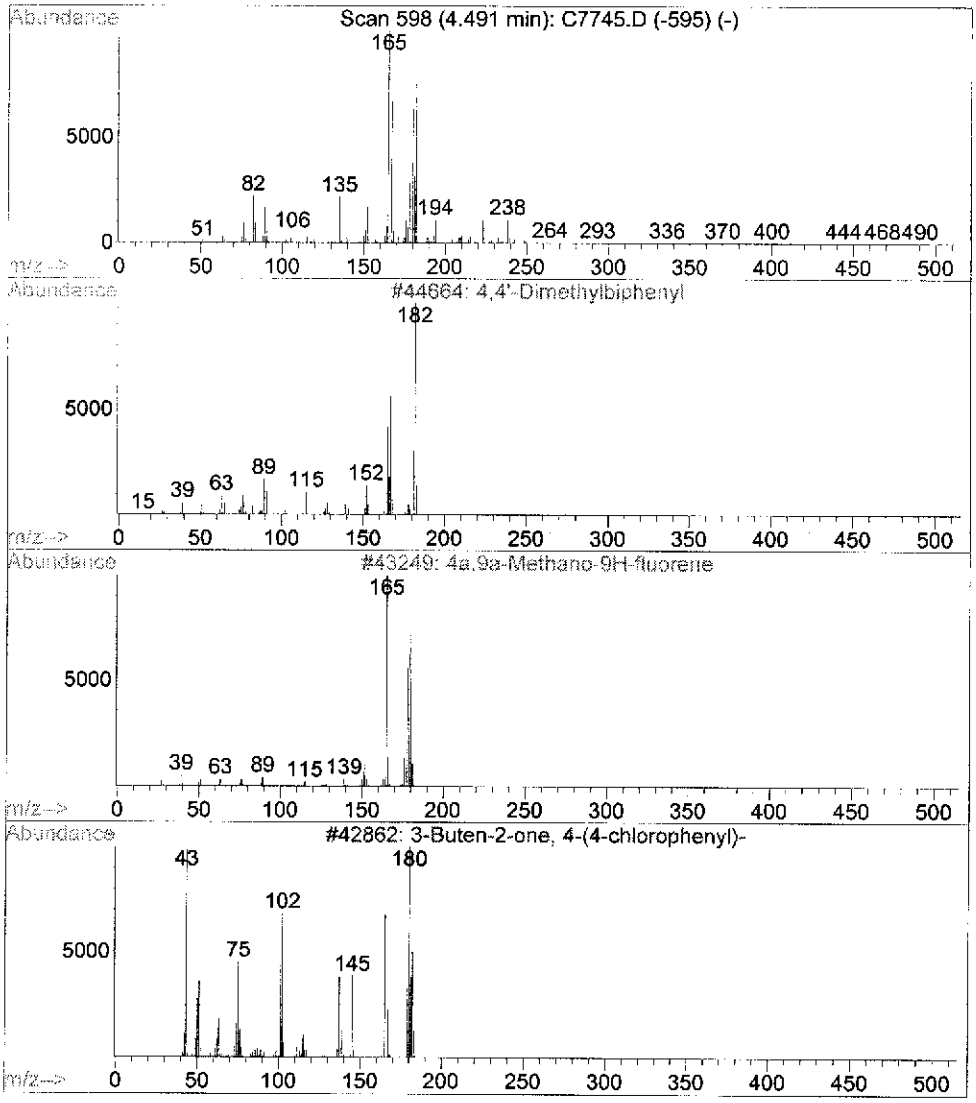
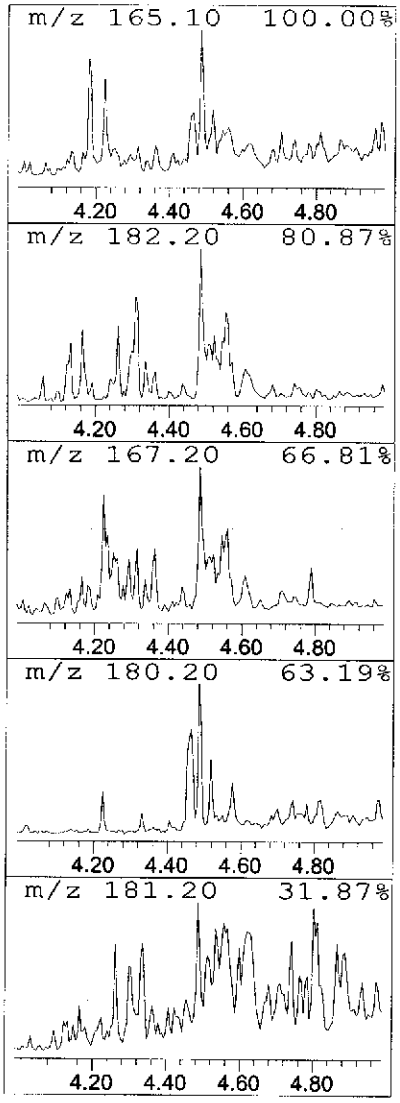
Peak Number 7 Unknown SV Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.49	33.25 UG	669842	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4,4'-Dimethylbiphenyl	182	C14H14	000613-33-2	60
2	4a,9a-Methano-9H-fluorene	180	C14H12	019540-84-2	50
3	3-Buten-2-one, 4-(4-chlorophenyl)-	180	C10H9ClO	003160-40-5	49
4	9H-Fluorene, 2-methyl-	180	C14H12	001430-97-3	46
5	Ethylene, 1,1-diphenyl-	180	C14H12	000530-48-3	45





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ALS Vial : 11 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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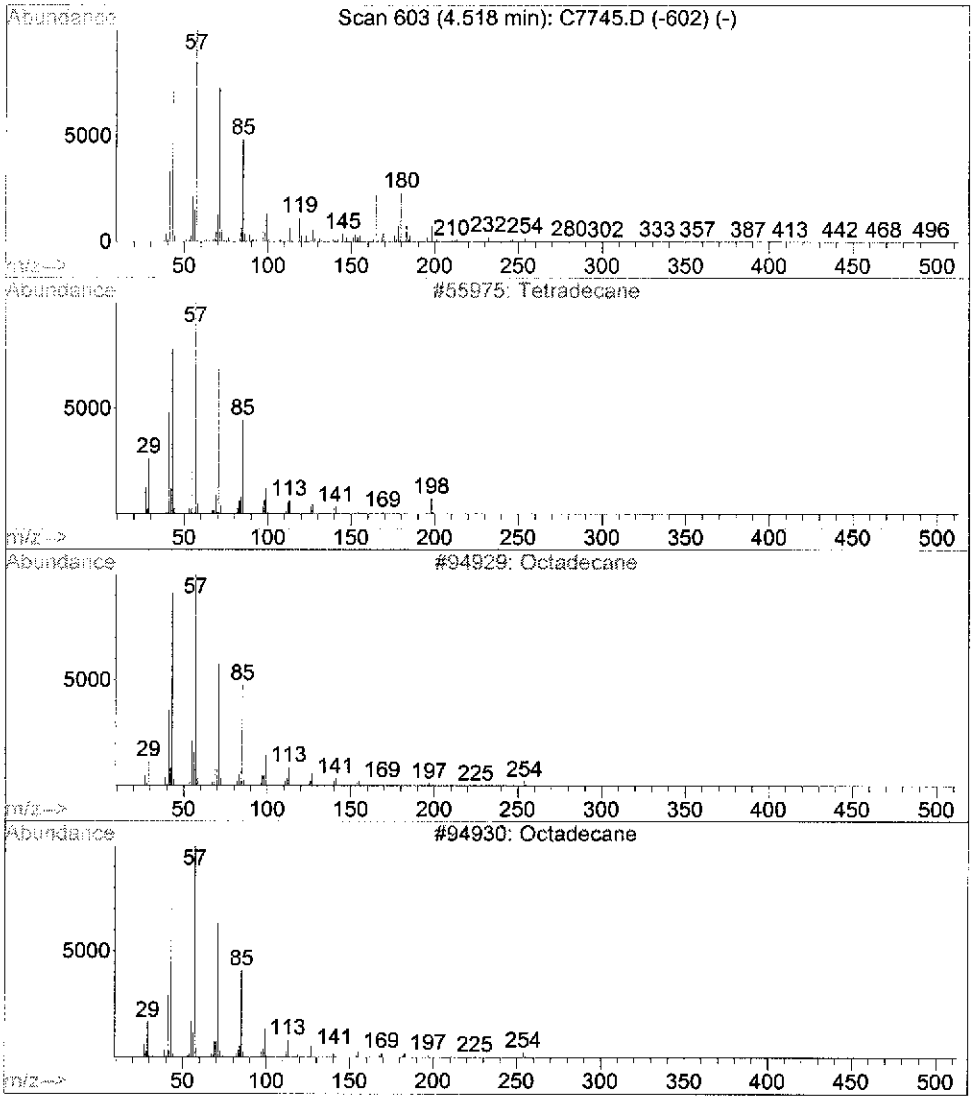
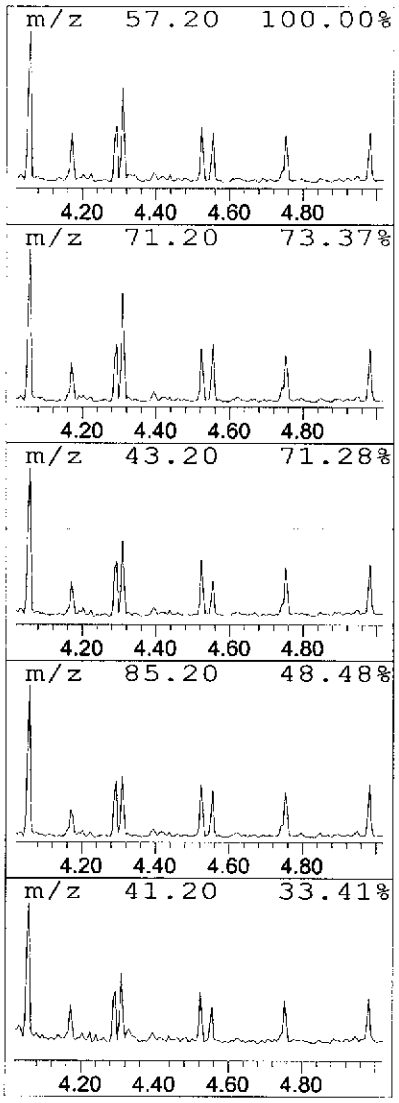
Peak Number 8 Unknown Hydrocarbon Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.52	89.80 UG	1809100	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetradecane	198	C14H30	000629-59-4	95
2	Octadecane	254	C18H38	000593-45-3	95
3	Octadecane	254	C18H38	000593-45-3	95
4	Hexacosane	366	C26H54	000630-01-3	94
5	Nonacosane	408	C29H60	000630-03-5	94





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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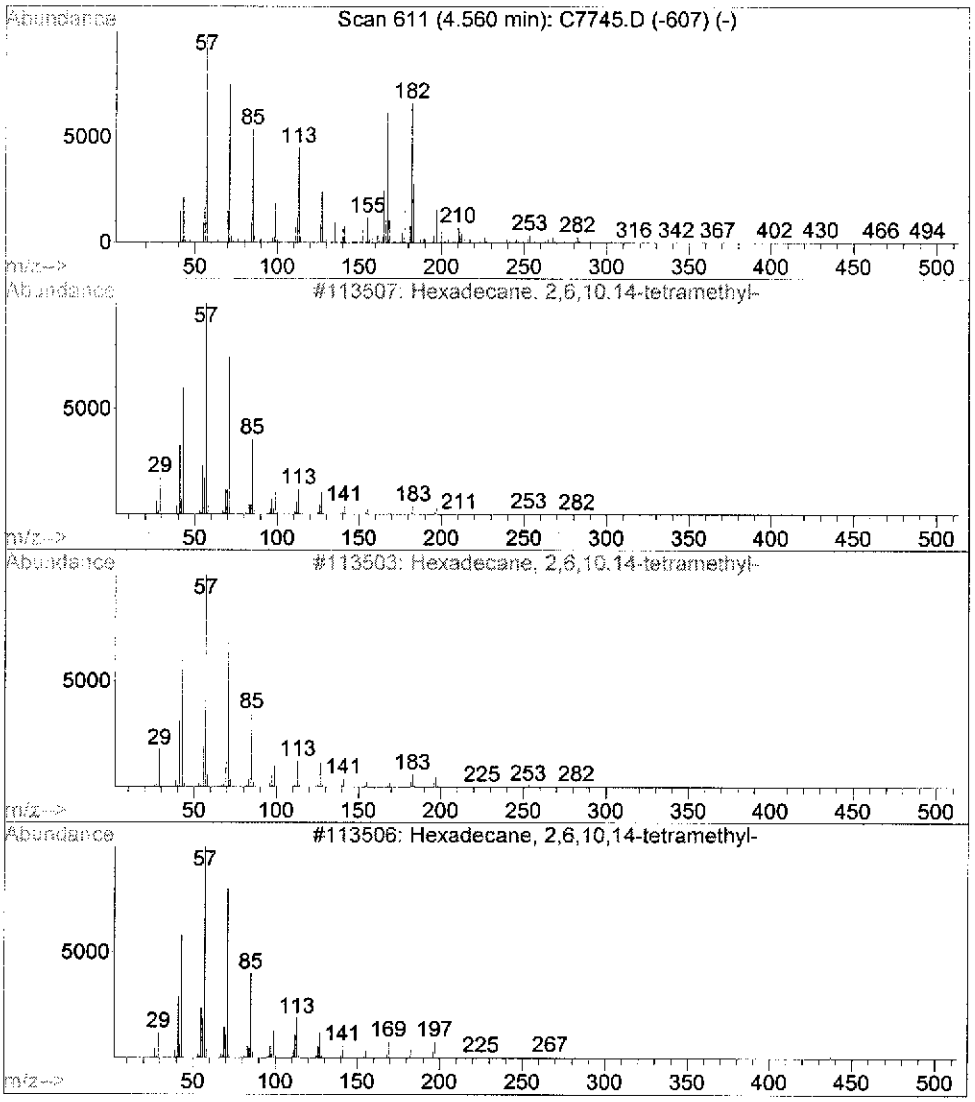
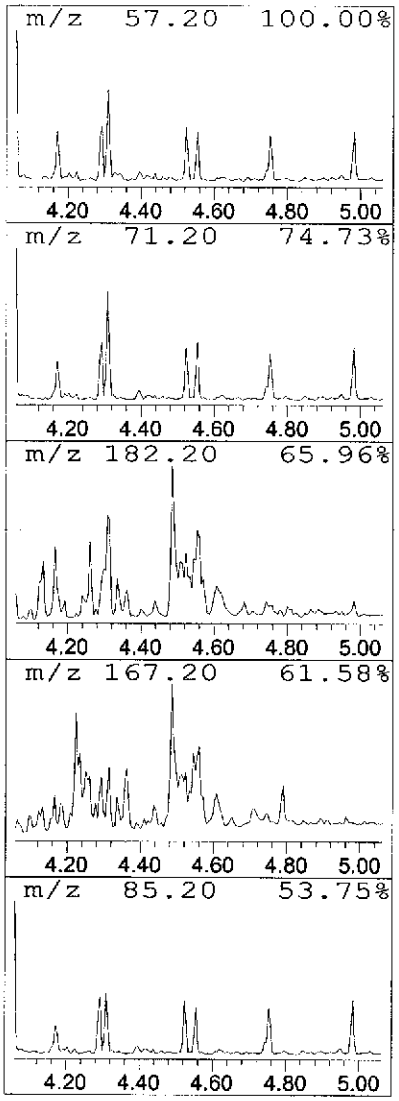
Peak Number 9 Unknown Hydrocarbon Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.56	87.01 UG	1752810	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	97
2	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	96
3	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42	000638-36-8	90
4	Hexacosane	366	C26H54	000630-01-3	90
5	Hexadecane	226	C16H34	000544-76-3	87





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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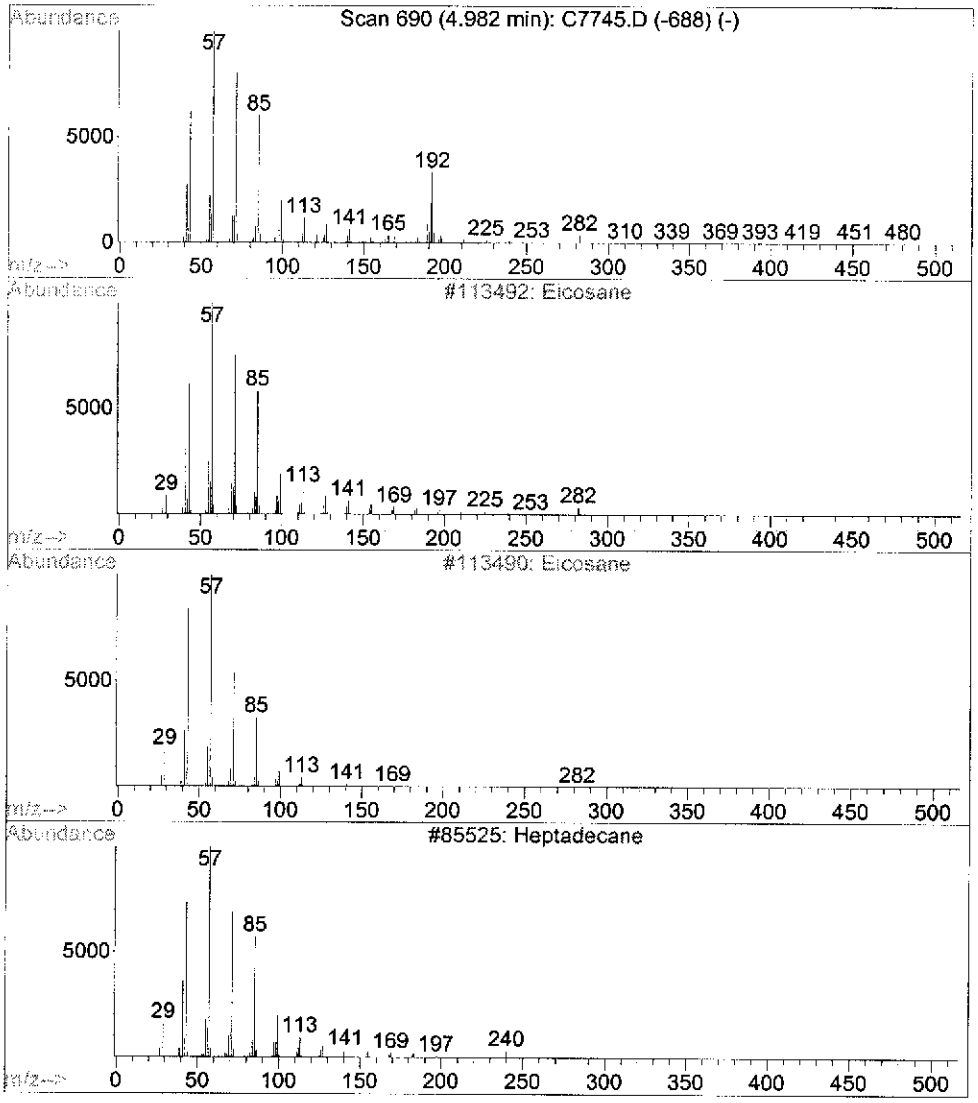
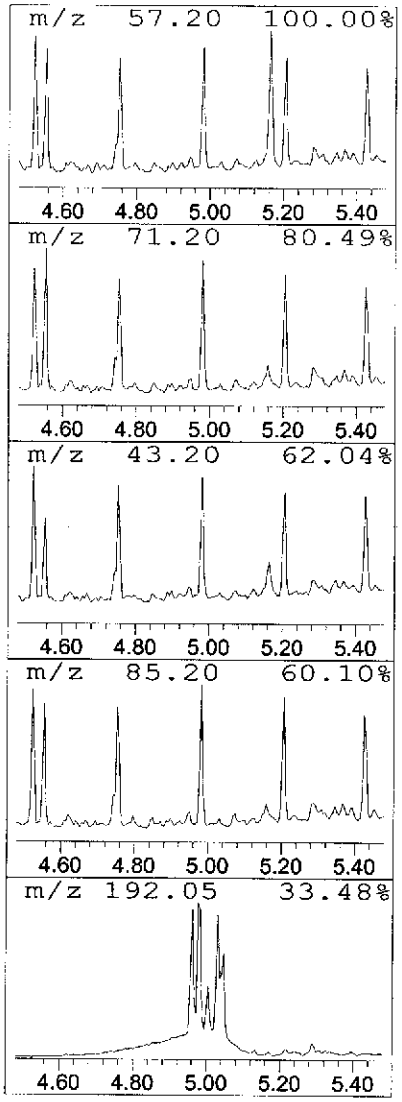
Peak Number 10 Unknown Hydrocarbon Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.98	106.57 UG	2146940	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Eicosane	282	C20H42	000112-95-8	93
2	Eicosane	282	C20H42	000112-95-8	81
3	Heptadecane	240	C17H36	000629-78-7	76
4	Hexadecane	226	C16H34	000544-76-3	76
5	Heneicosane	296	C21H44	000629-94-7	76





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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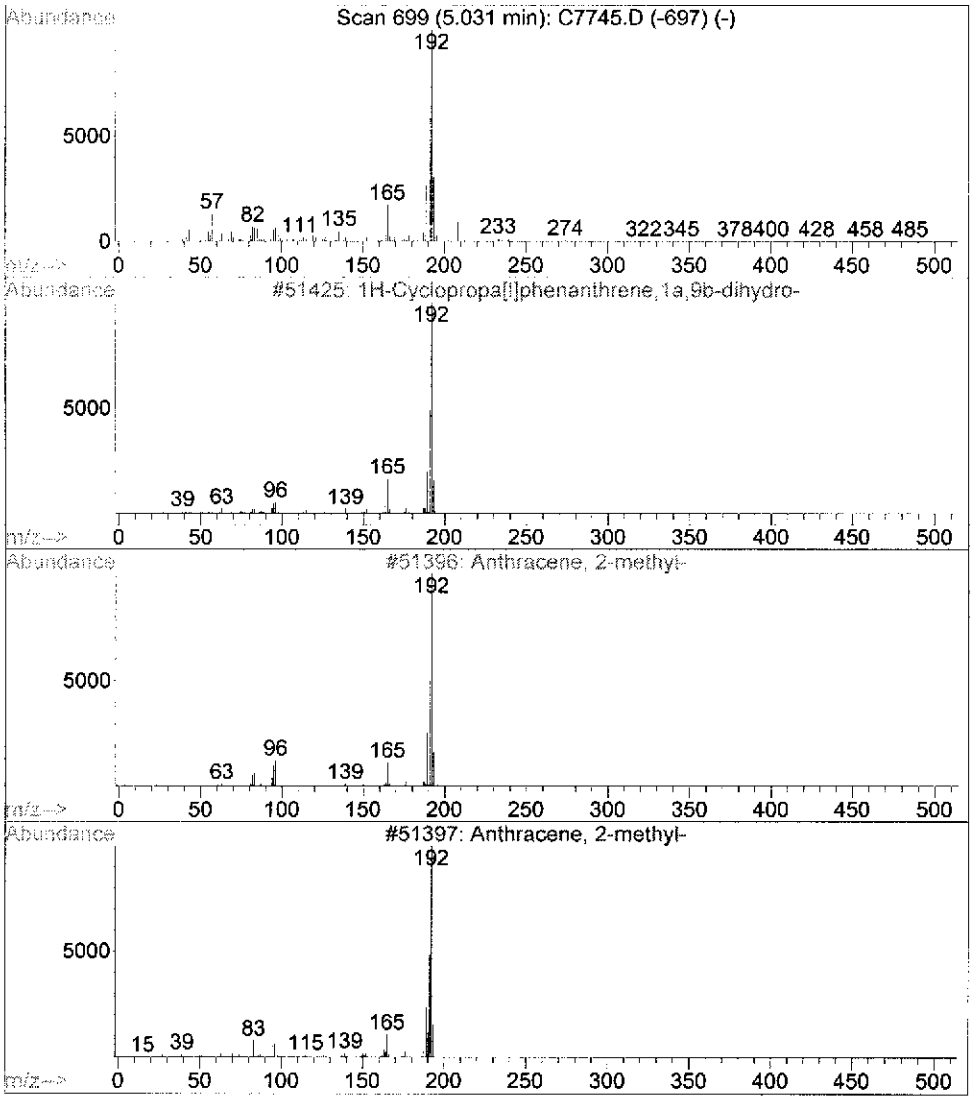
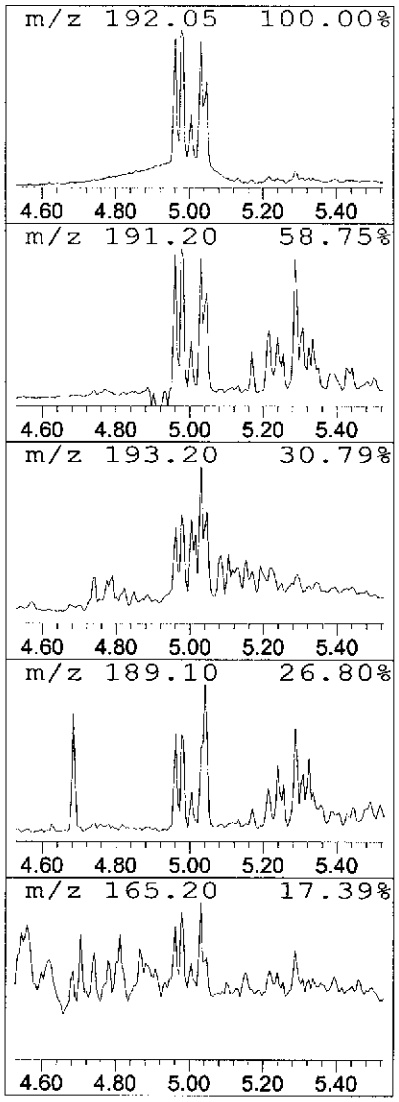
Peak Number 11 Unknown PAH Concentration Rank 24

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.03	26.53 UG	534363	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Cyclopropa[l]phenanthrene,1a,...	192	C15H12	000949-41-7	95
2	Anthracene, 2-methyl-	192	C15H12	000613-12-7	93
3	Anthracene, 2-methyl-	192	C15H12	000613-12-7	89
4	Phenanthrene, 1-methyl-	192	C15H12	000832-69-9	89
5	Naphtho[2,3-b]norbornadiene	192	C15H12	107426-38-0	89





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ALS Vial : 11 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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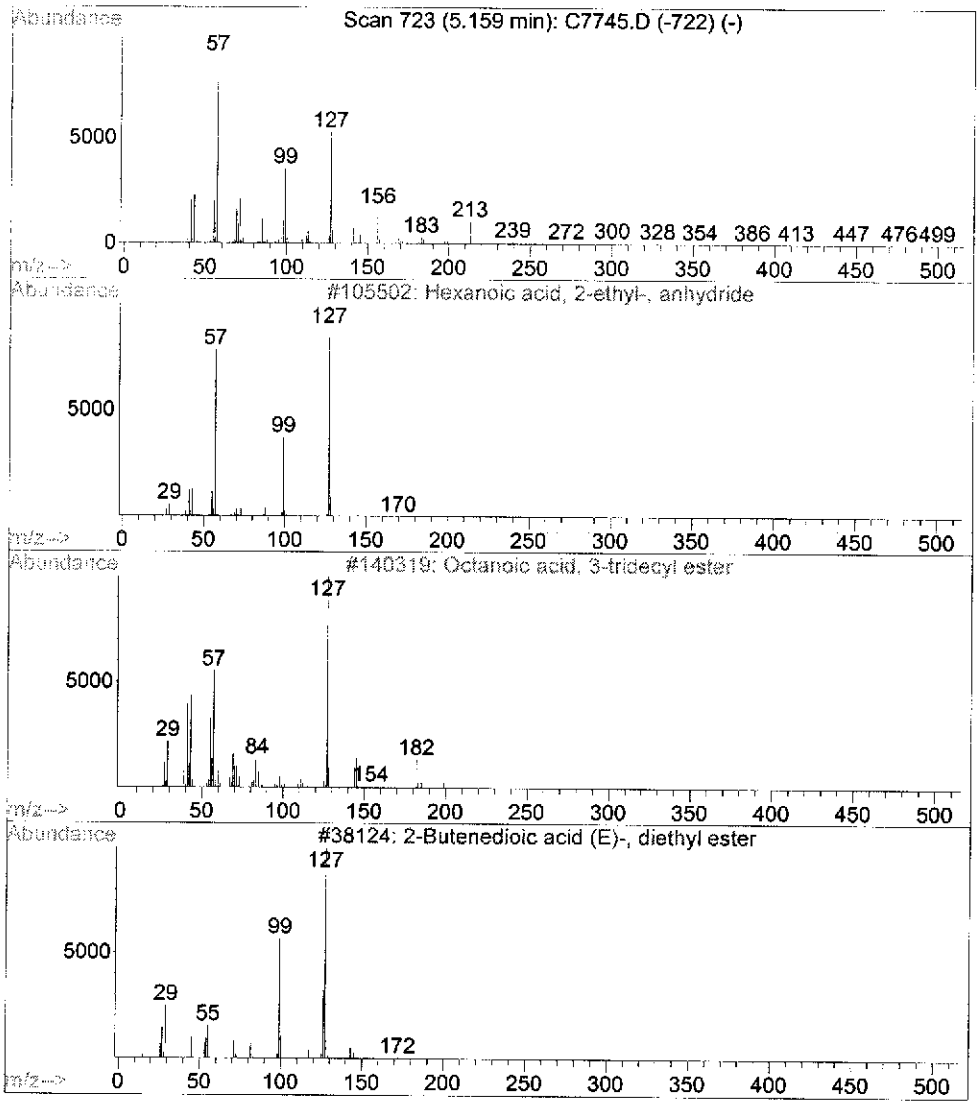
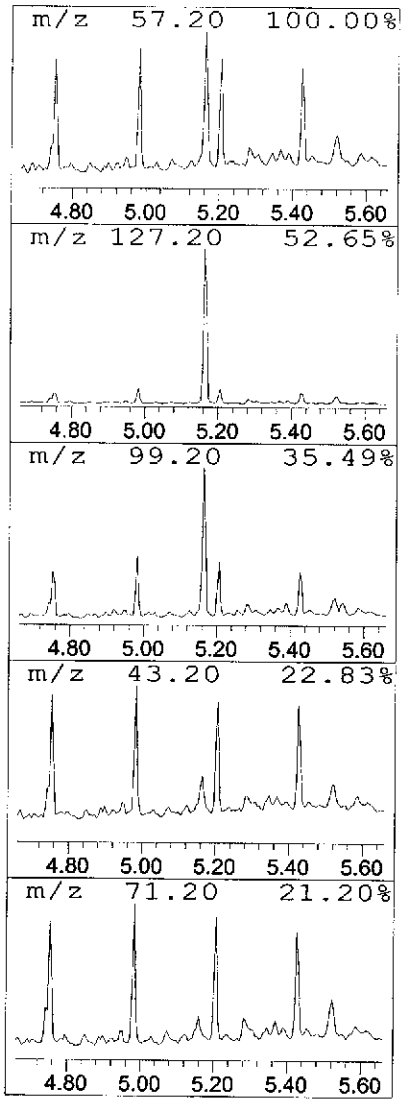
Peak Number 12 Unknown SV Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.16	117.70 UG	2371080	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanoic acid, 2-ethyl-, anhydride	270	C16H30O3	036765-89-6	40
2	Octanoic acid, 3-tridecyl ester	326	C21H42O2	1000280-62-5	38
3	2-Butenedioic acid (E)-, diethyl...	172	C8H12O4	000623-91-6	38
4	Succinic acid, mercapto-, diethy...	330	C10H19O6PS2	003344-12-5	37
5	3,5-Heptanedione, 2,2,6,6-tetram...	184	C11H20O2	001118-71-4	35





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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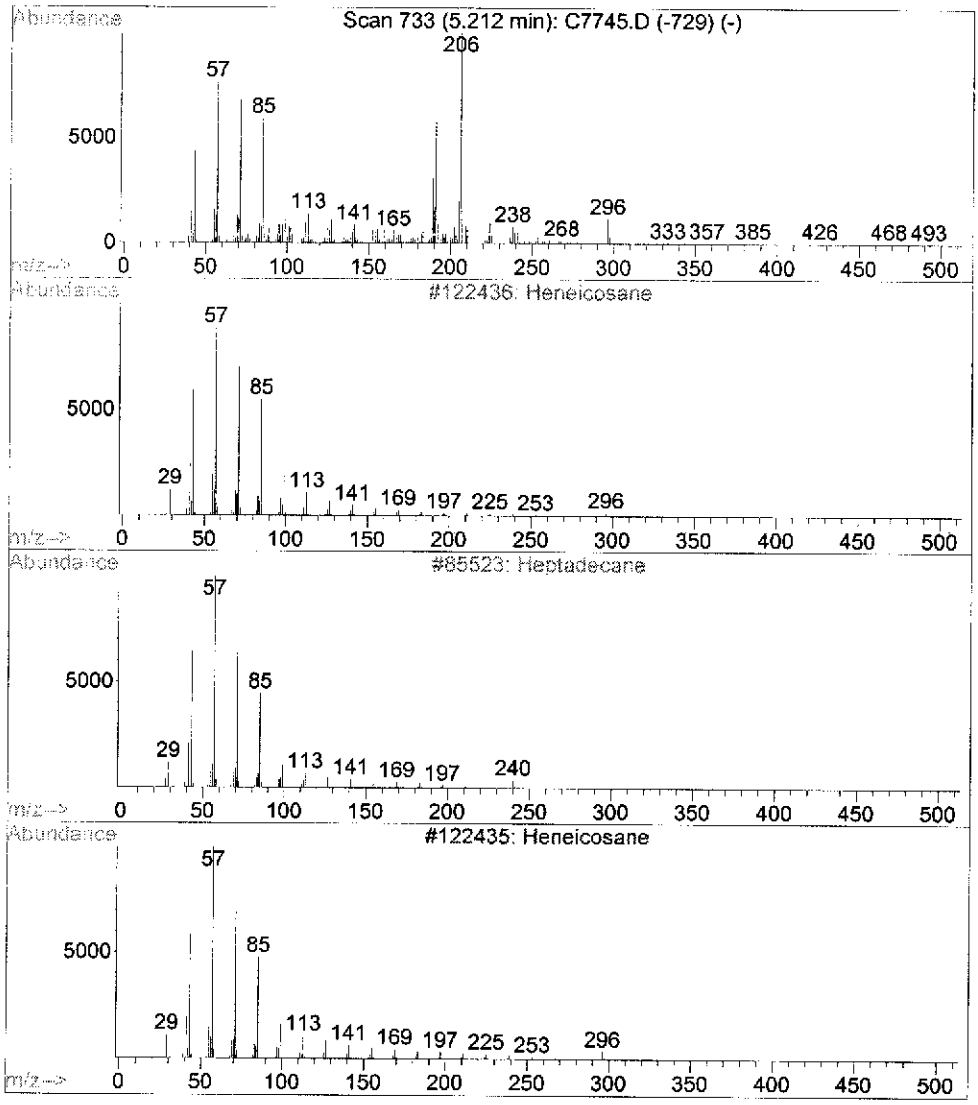
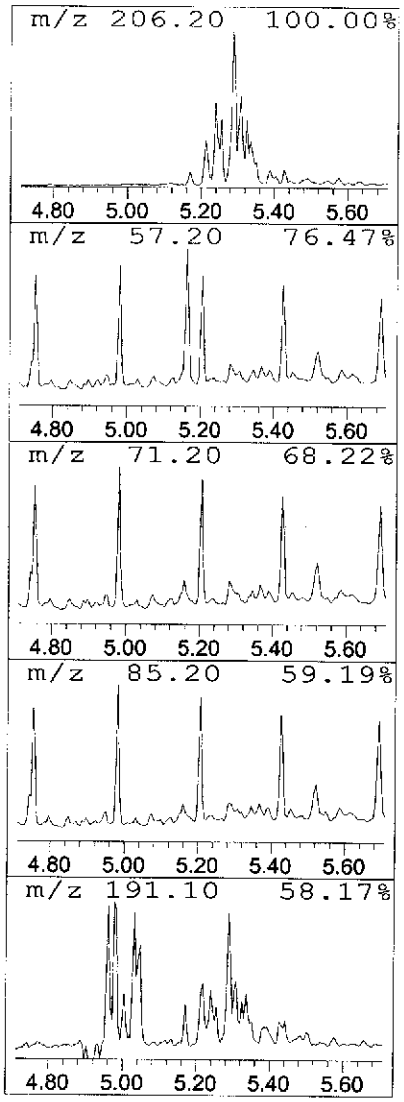
Peak Number 13 Unknown Hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.21	118.26 UG	2382320	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heneicosane	296	C21H44	000629-94-7	98
2	Heptadecane	240	C17H36	000629-78-7	97
3	Heneicosane	296	C21H44	000629-94-7	95
4	Nonadecane	268	C19H40	000629-92-5	94
5	Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	93





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ALS Vial : 11 Sample Multiplier: 1

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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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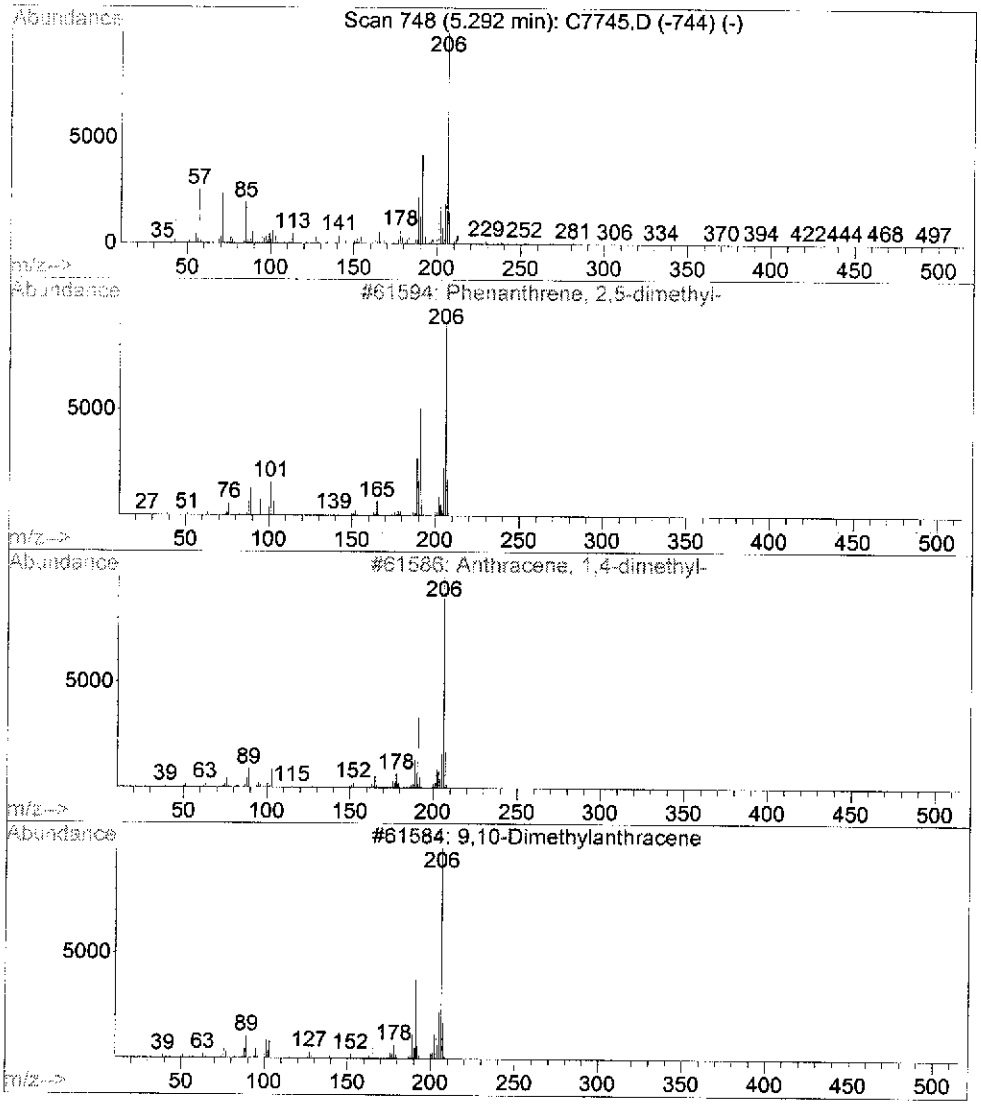
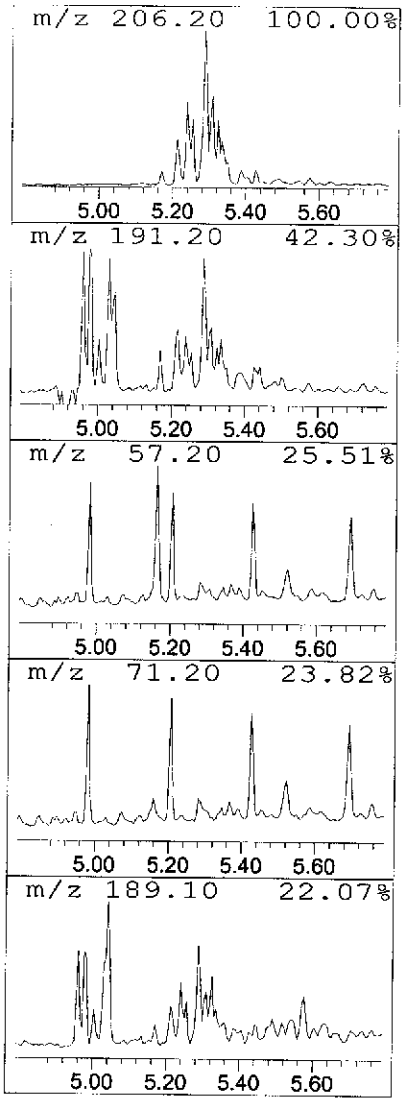
Peak Number 14 Unknown PAH Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.29	80.68 UG	1625320	Phenanthrene-d10	4.68

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenanthrene, 2,5-dimethyl-	206	C16H14	003674-66-6	86
2	Anthracene, 1,4-dimethyl-	206	C16H14	000781-92-0	83
3	9,10-Dimethylanthracene	206	C16H14	000781-43-1	83
4	Phenanthrene, 2,3-dimethyl-	206	C16H14	003674-65-5	70
5	Phenanthrene, 3,6-dimethyl-	206	C16H14	001576-67-6	64





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Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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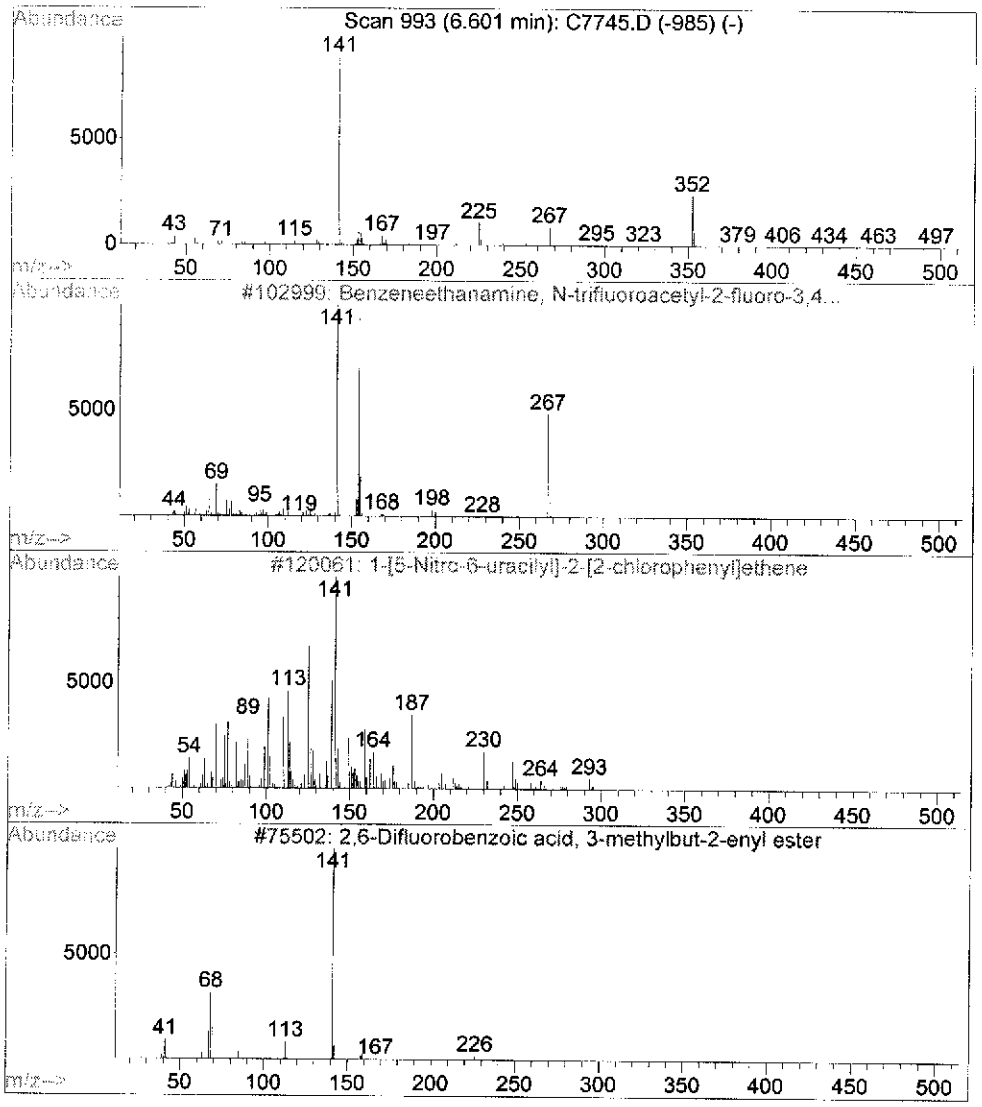
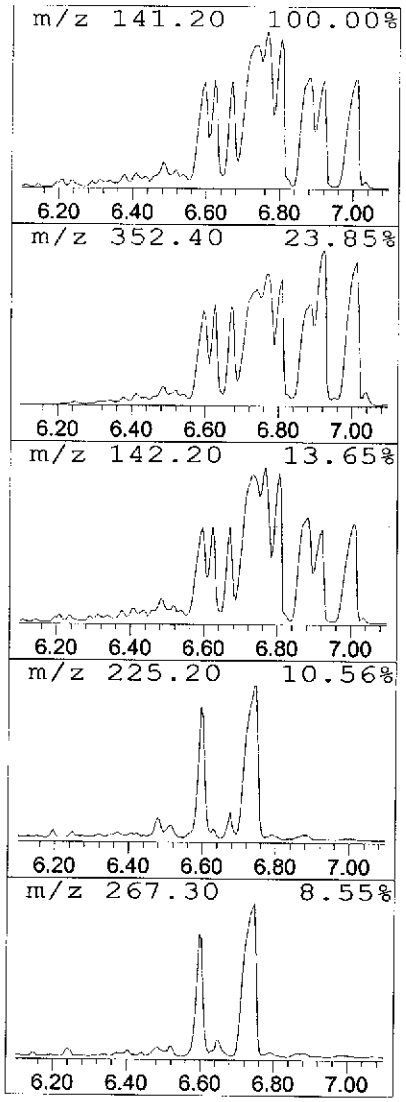
Peak Number 15 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.60	80.84 UG	12825600	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-trifluoroac...	267	C10H9F4NO3	059043-77-5	40
2	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	25
3	2,6-Difluorobenzoic acid, 3-meth...	226	C12H12F2O2	1000292-58-2	9
4	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
5	E-2-Octenoic acid, 3-iodo-	268	C8H13IO2	1000308-87-5	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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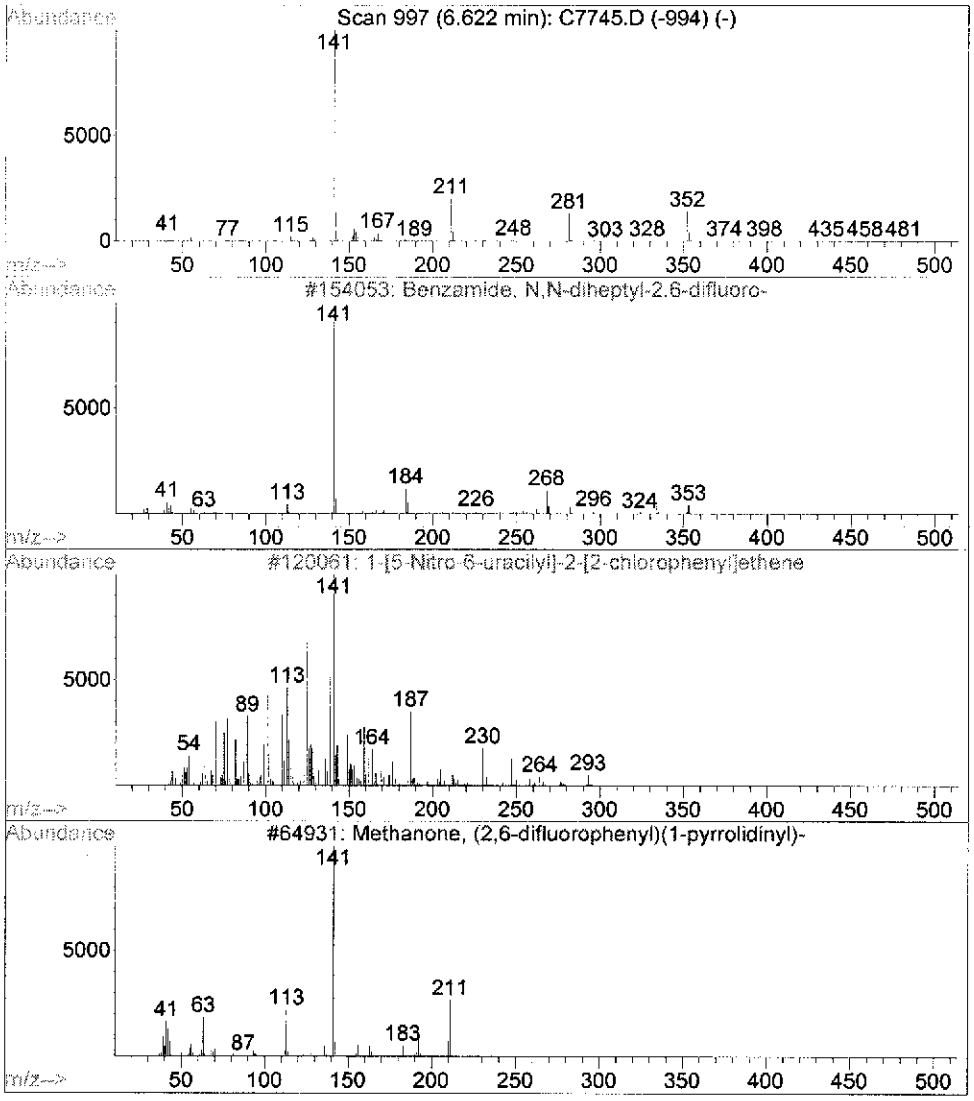
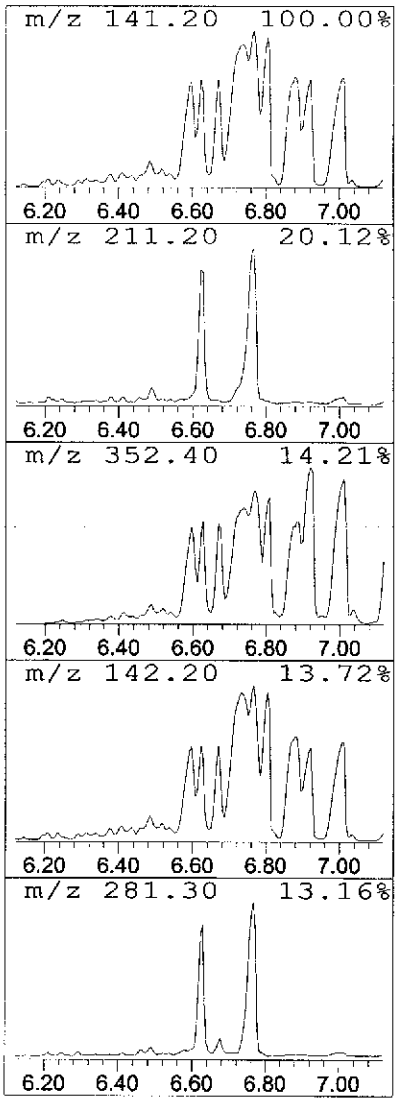
Peak Number 16 Unknown SV Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.62	49.69 UG	7883660	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	33
2	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	23
3	Methanone, (2,6-difluorophenyl)(...	211	C11H11F2NO	084044-77-9	9
4	Methanone, (2,3-difluorophenyl)(...	211	C11H11F2NO	1000277-54-8	9
5	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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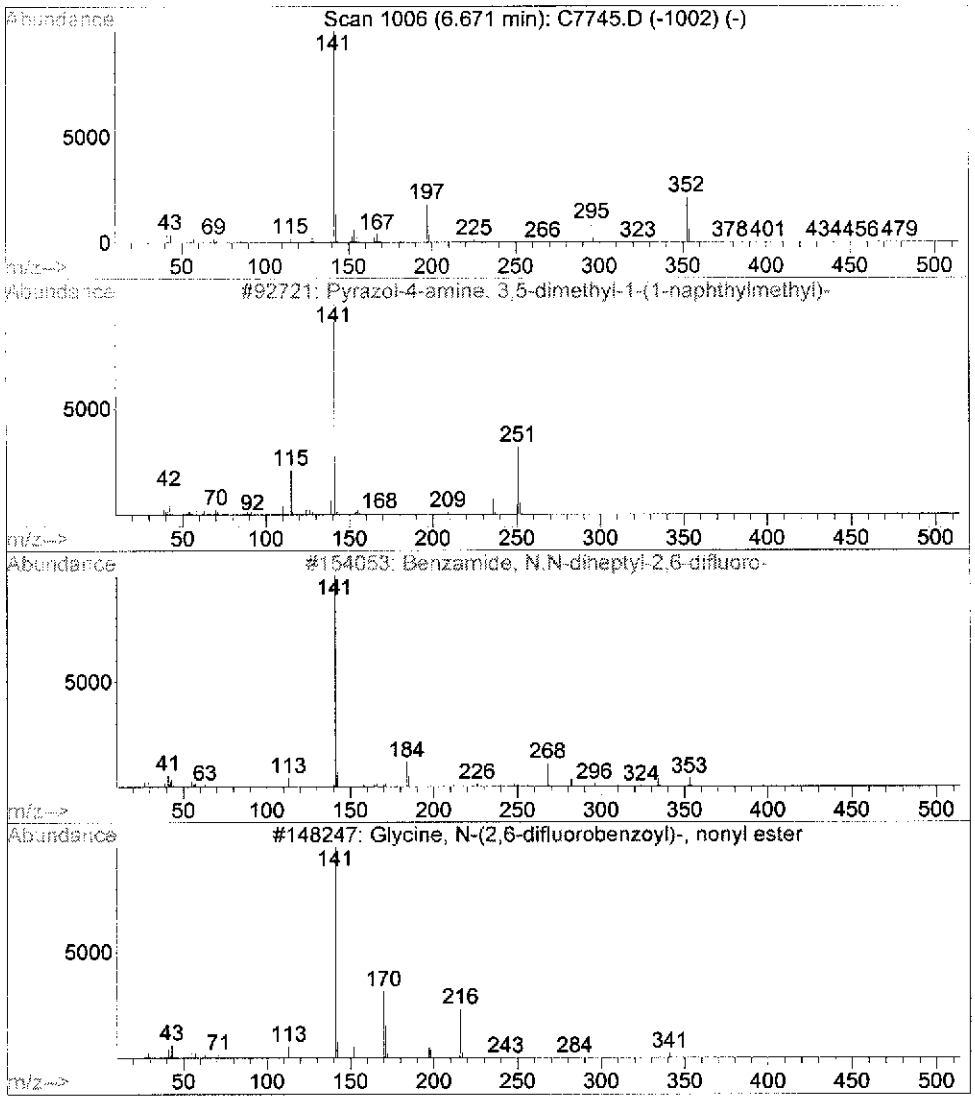
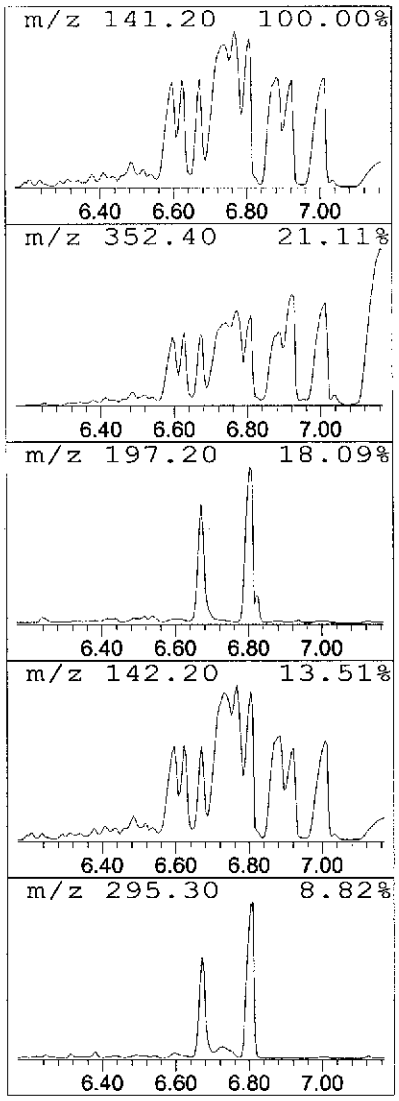
Peak Number 17 Unknown SV Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.67	52.26 UG	8291450	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrazol-4-amine, 3,5-dimethyl-1-...	251	C16H17N3	1000273-77-6	28
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
3	Glycine, N-(2,6-difluorobenzoyl)...	341	C18H25F2NO3	1000314-44-6	9
4	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9
5	2-Amino-3-naphthalen-2-ylpropion...	215	C13H13NO2	099631-78-4	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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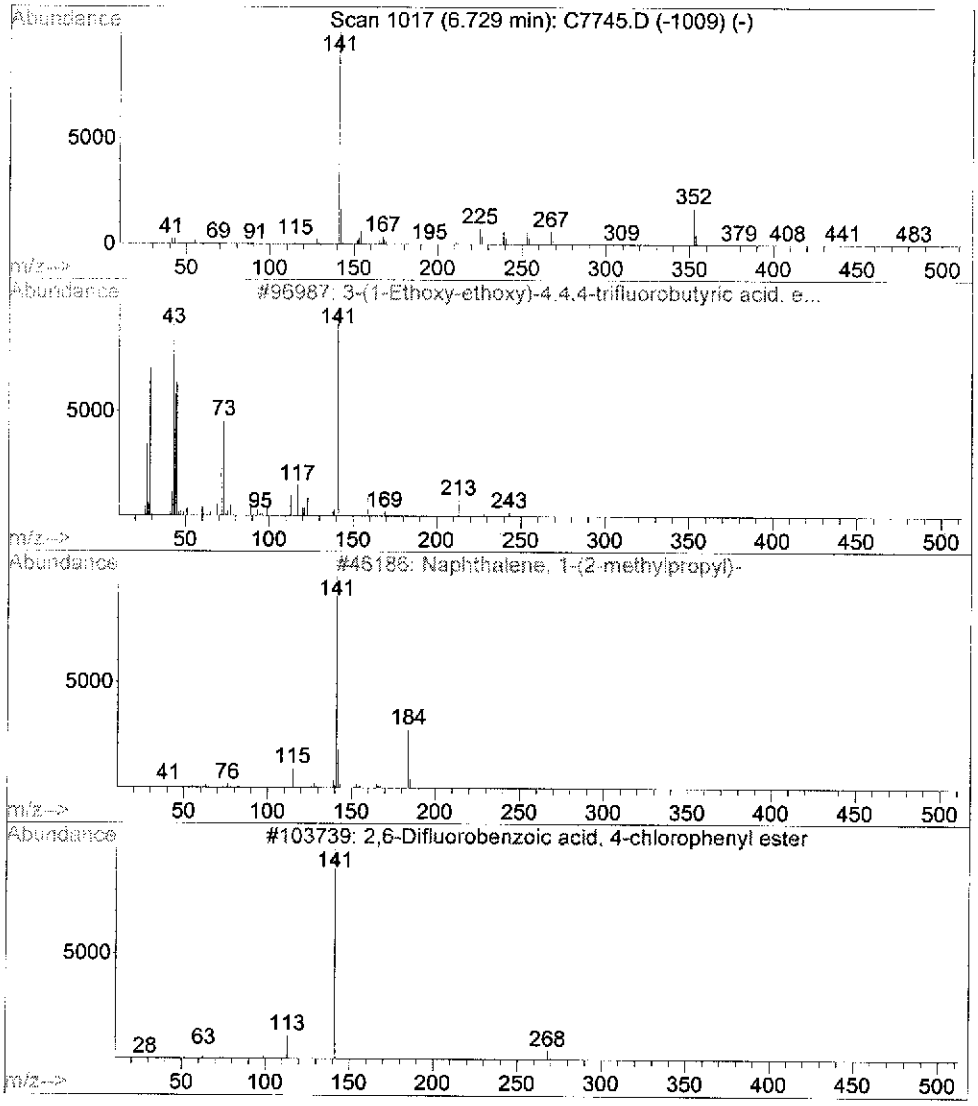
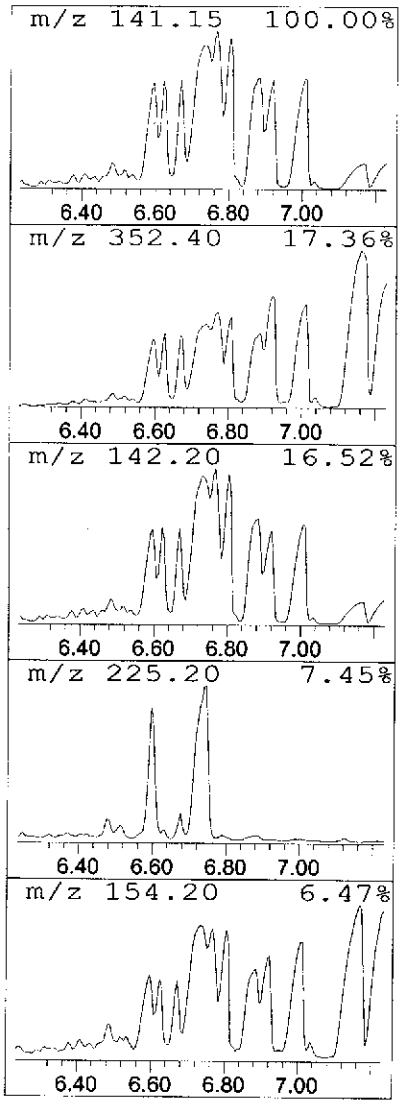
Peak Number 18 Unknown SV Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.73	149.59 UG	23734500	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	47
2	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	42
3	2,6-Difluorobenzoic acid, 4-chlo...	268	C13H7ClF2O2	1000307-55-7	9
4	Cyclohexanone, O-(1-naphthalenyl...	253	C17H19NO	055045-02-8	9
5	Thiophene-3-carboxamide, N-(2-ch...	267	C12H10ClNO2S	1000268-70-7	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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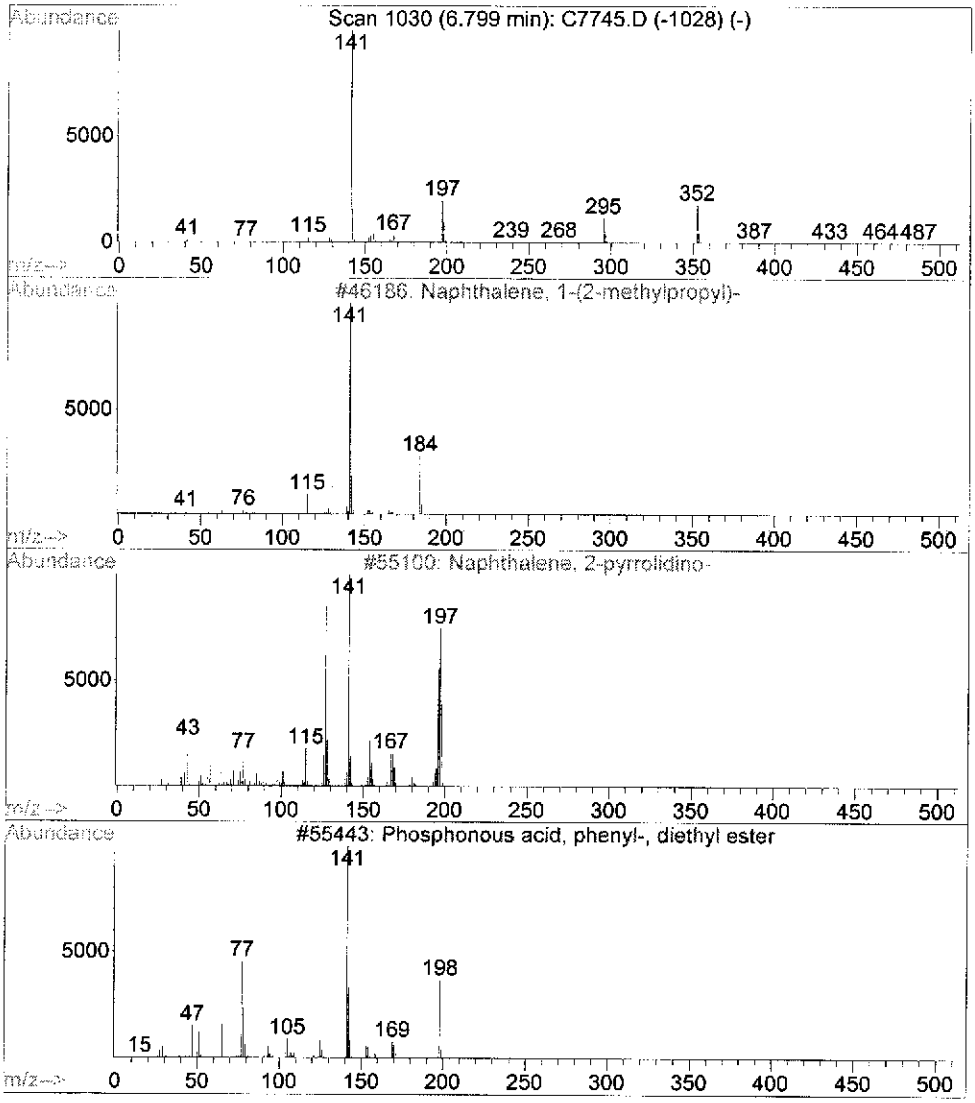
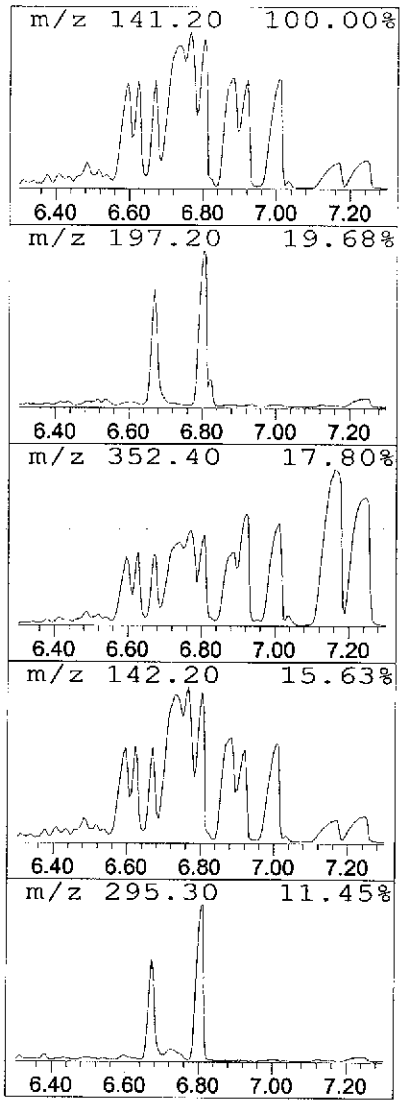
Peak Number 19 Unknown PAH Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.80	74.78 UG	11865300	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	25
2	Naphthalene, 2-pyrrolidino-	197	C14H15N	013672-14-5	12
3	Phosphonous acid, phenyl-, dieth...	198	C10H15O2P	001638-86-4	9
4	Phosphonous acid, phenyl-, dieth...	198	C10H15O2P	001638-86-4	9
5	Naphthalene, 2-butyl-	184	C14H16	001134-62-9	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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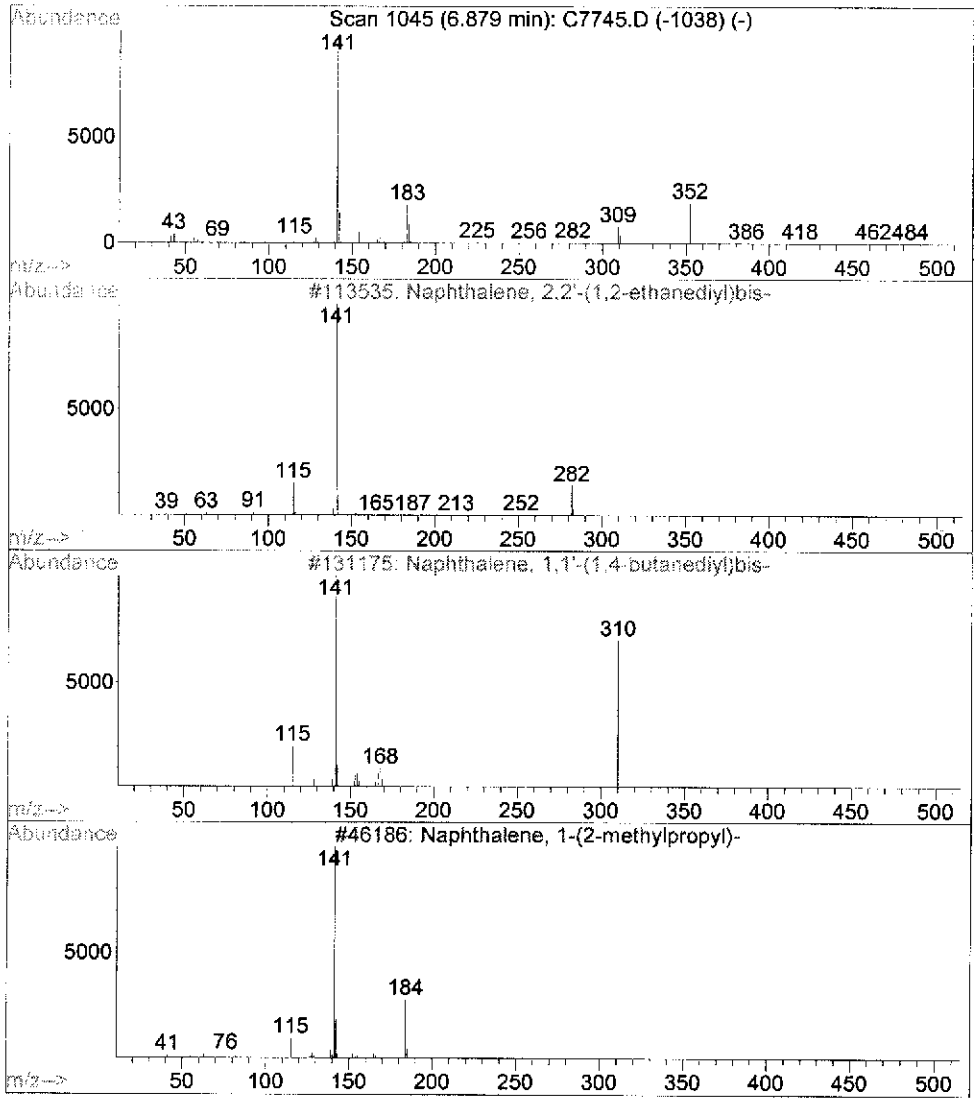
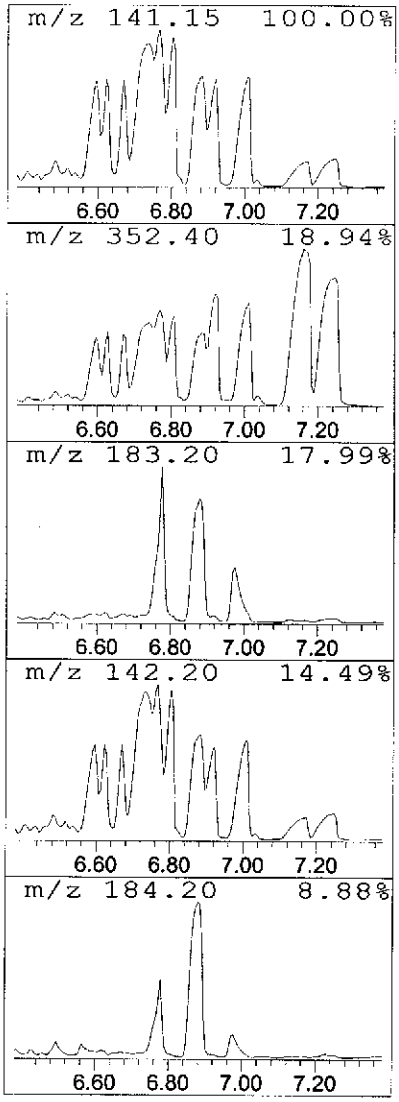
Peak Number 20 Unknown PAH Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.88	114.84 UG	18220900	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	49
2	Naphthalene, 1,1'-(1,4-butanediy...	310	C24H22	029571-17-3	38
3	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	25
4	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
5	2,6-Difluorobutyrophenone	184	C10H10F2O	095727-77-8	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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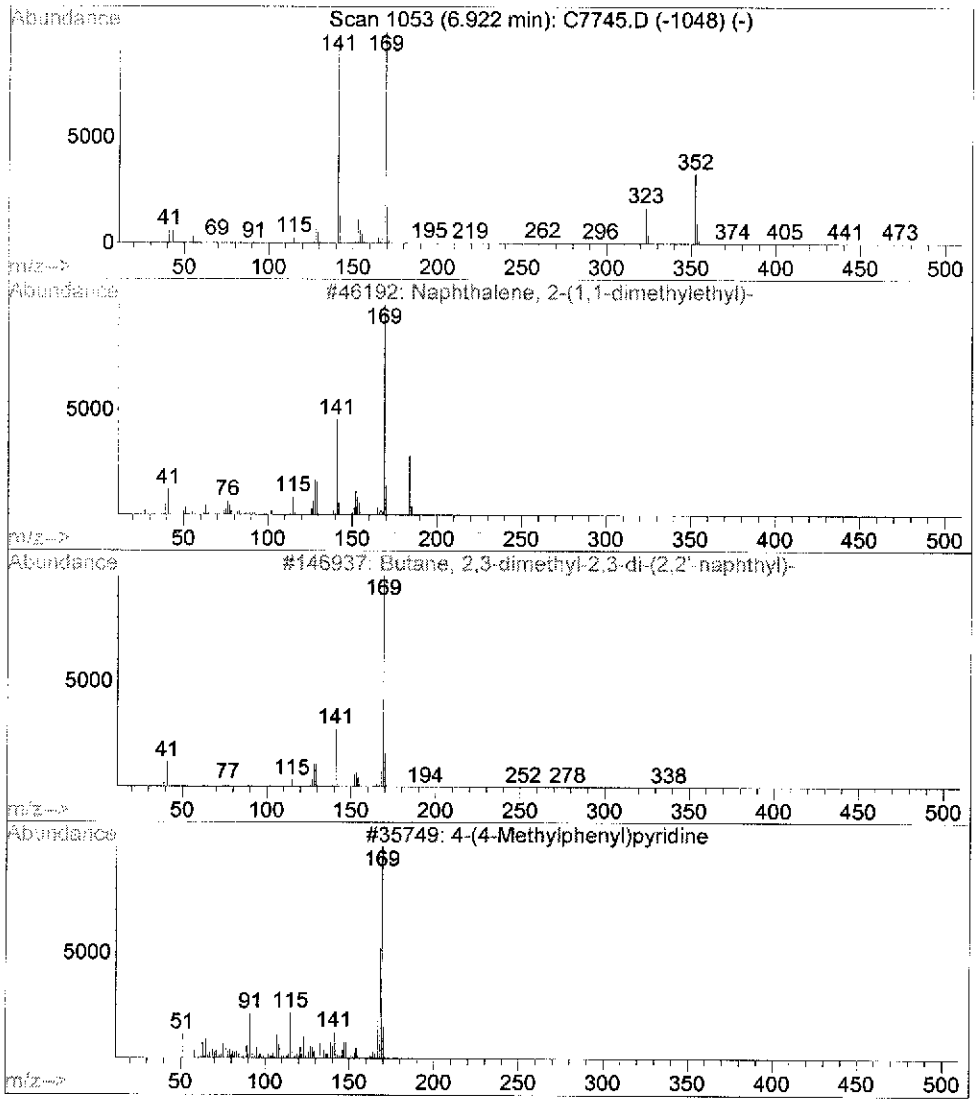
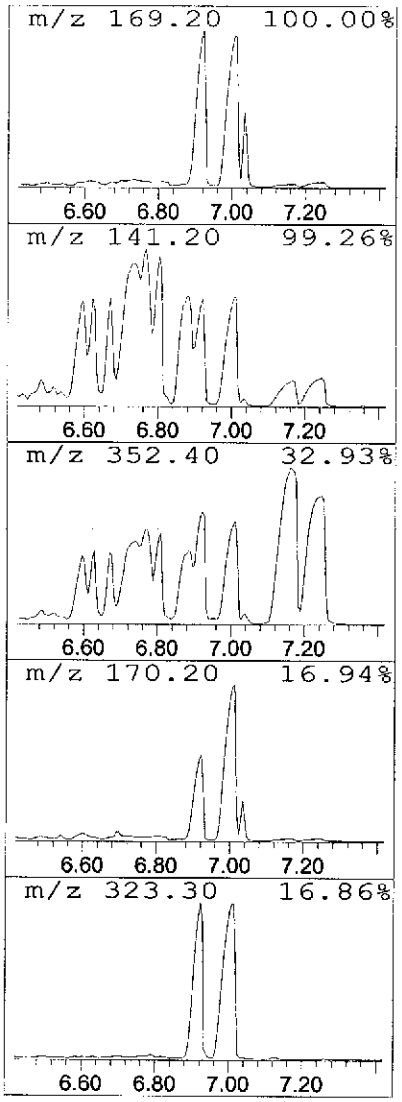
Peak Number 21 Unknown SV Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.92	116.54 UG	18489500	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-(1,1-dimethylethyl)-	184	C14H16	002876-35-9	38
2	Butane, 2,3-dimethyl-2,3-di-(2,2...	338	C26H26	1000150-93-8	32
3	4-(4-Methylphenyl)pyridine	169	C12H11N	004423-10-3	25
4	Bicyclo[2.2.1]hept-2-ene, 1,7,7-...	212	C16H20	007070-09-9	25
5	1-(5,6-Dihydro-4H-benzo(6,7)cycl...	385	C23H19N3OS	023265-21-6	23





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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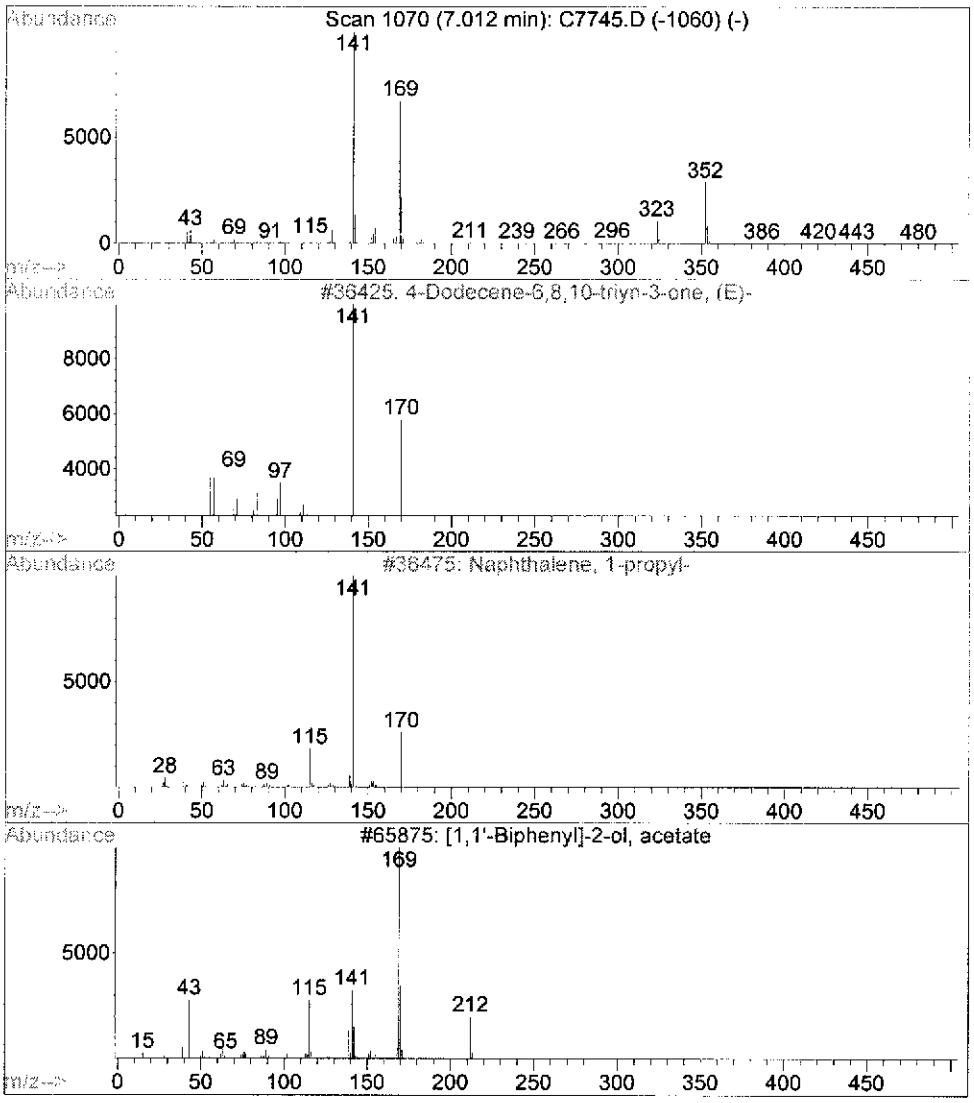
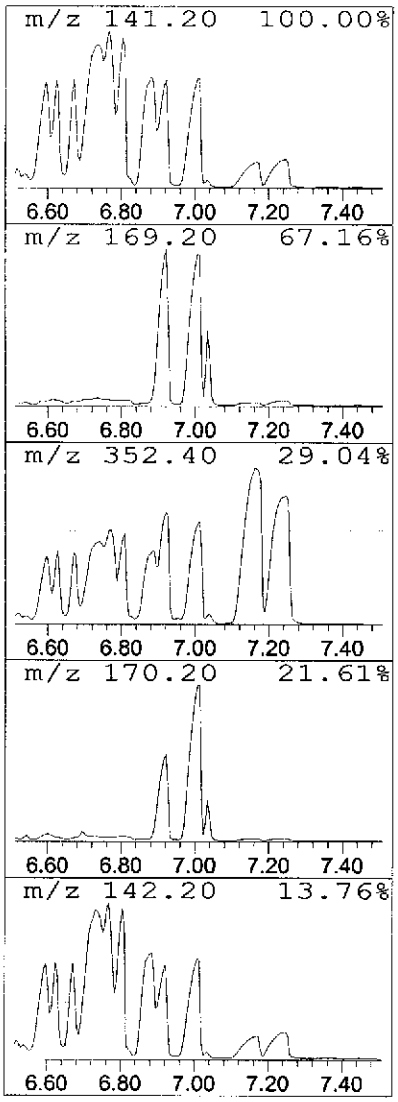
Peak Number 22 Unknown SV Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.01	152.00 UG	24115900	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Dodecene-6,8,10-triyn-3-one, (E)-	170	C12H10O	069698-50-6	43
2	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	43
3	[1,1'-Biphenyl]-2-ol, acetate	212	C14H12O2	003271-80-5	35
4	Glycine, N-(2,6-difluorobenzoyl)...	285	C14H17F2NO3	1000314-44-1	25
5	1-Naphthalenepropionic acid	200	C13H12O2	003243-42-3	17





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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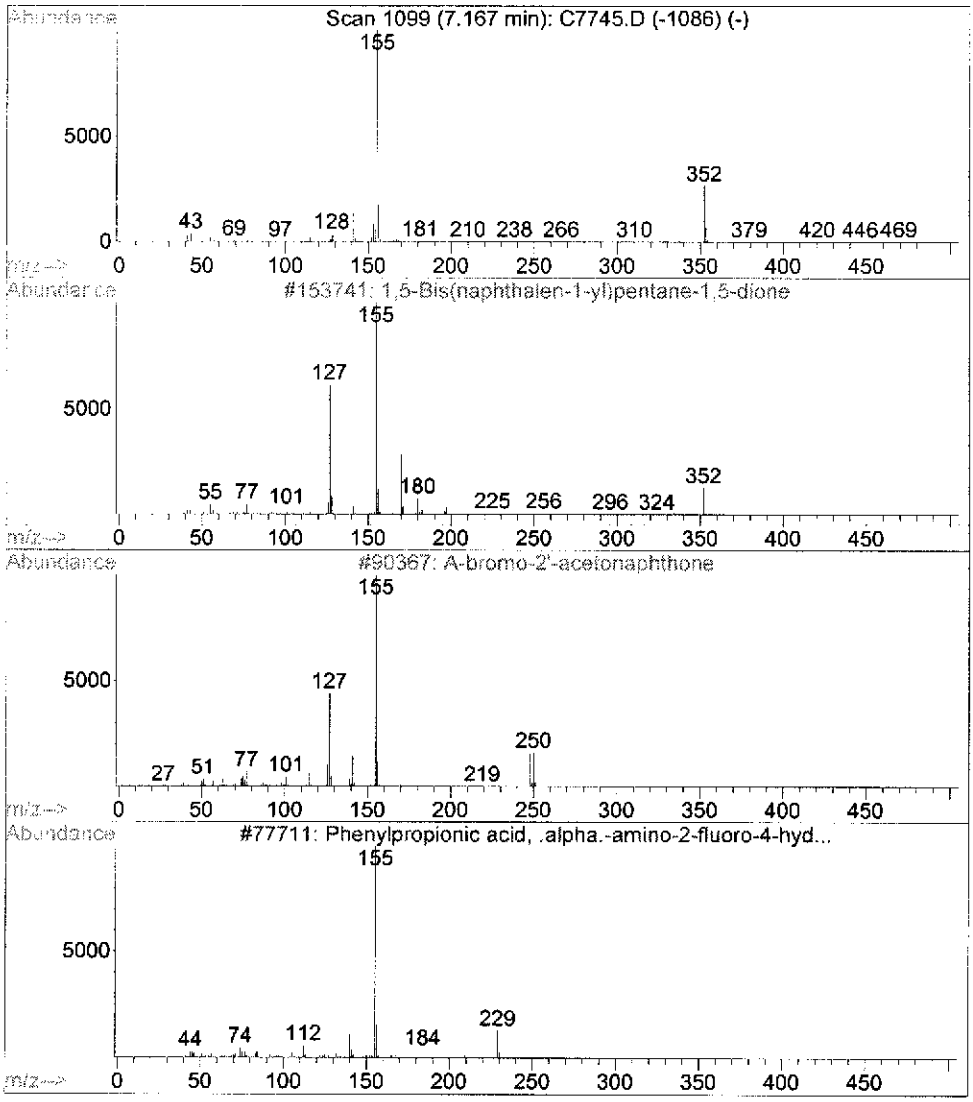
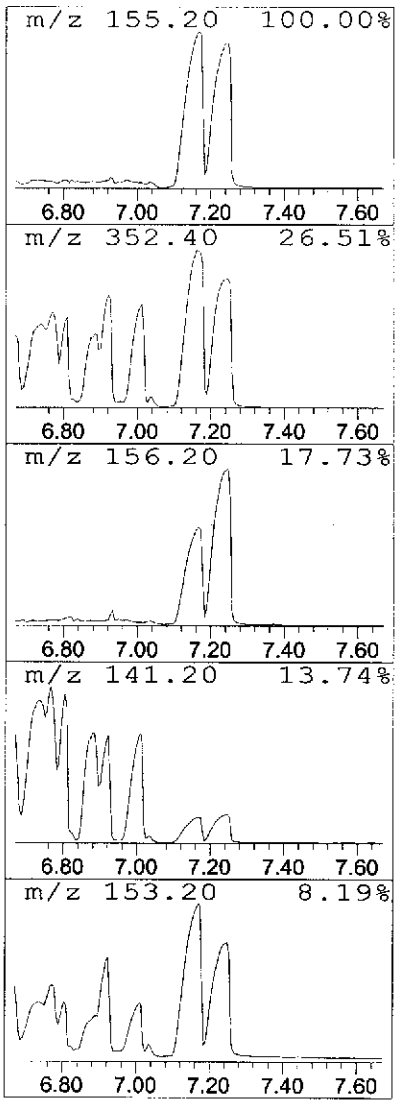
Peak Number 23 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.17	262.23 UG	41604500	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,5-Bis(naphthalen-1-yl)pentane-...	352	C25H20O2	1000210-52-9	56
2	A-bromo-2'-acetonaphthone	248	C12H9BrO	000613-54-7	36
3	Phenylpropionic acid, .alpha.-am...	229	C10H12FNO4	1000126-07-3	28
4	Pyridine, 3-phenyl-	155	C11H9N	001008-88-4	9
5	Pyridine, 2-phenyl-	155	C11H9N	001008-89-5	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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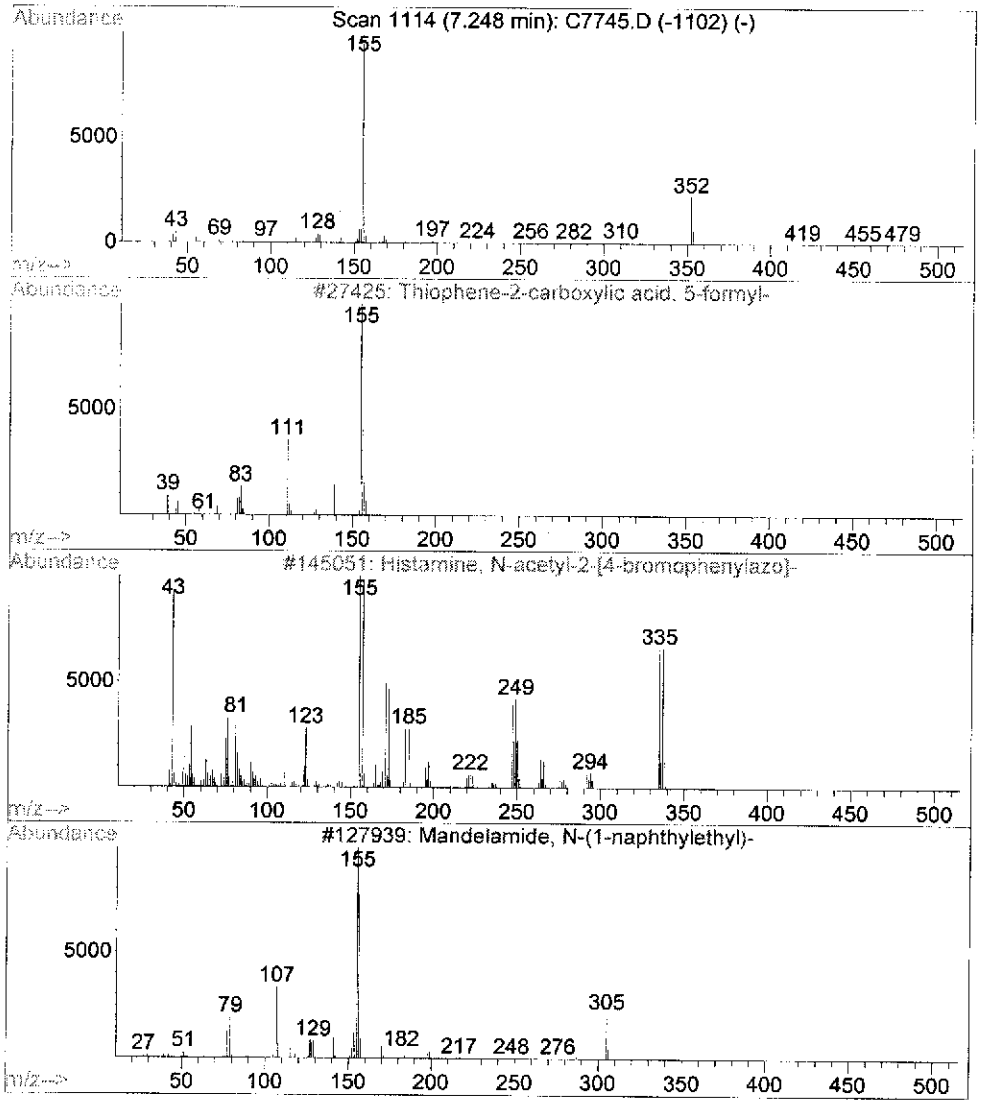
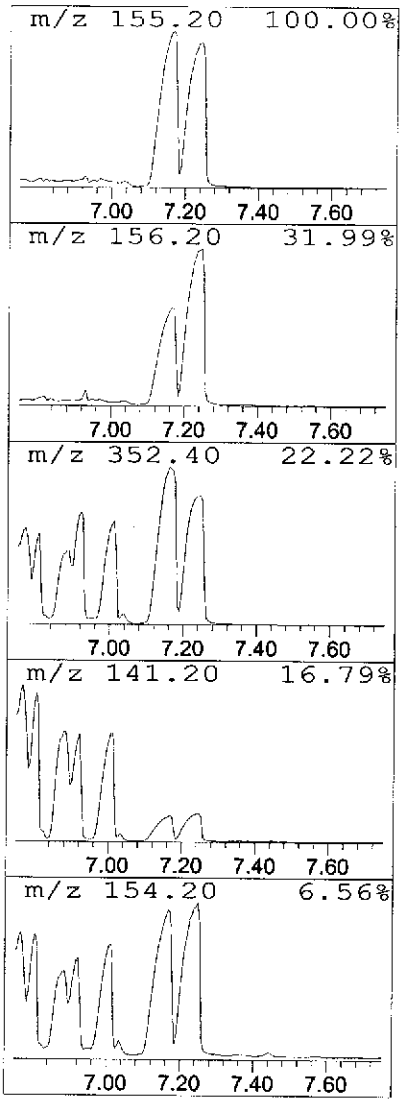
Peak Number 24 Unknown SV Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.25	260.20 UG	41282700	Chrysene-d12	6.49

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiophene-2-carboxylic acid, 5-f...	156	C6H4O3S	1000306-77-9	40
2	Histamine, N-acetyl-2-[4-bromoph...	335	C13H14BrN5O	039050-08-3	32
3	Mandelamide, N-(1-naphthylethyl)-	305	C20H19NO2	344875-77-0	10
4	1H-Indole-3-acetonitrile	156	C10H8N2	000771-51-7	10
5	1-Azabicyclo[2.2.2]octane-2-carb...	183	C9H13NO3	030740-21-7	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7745.D
Acq On : 10 Jul 2012 18:36
Operator : EDM
Sample : G5-06261,E12-06385-009,S,15.17g,16.8,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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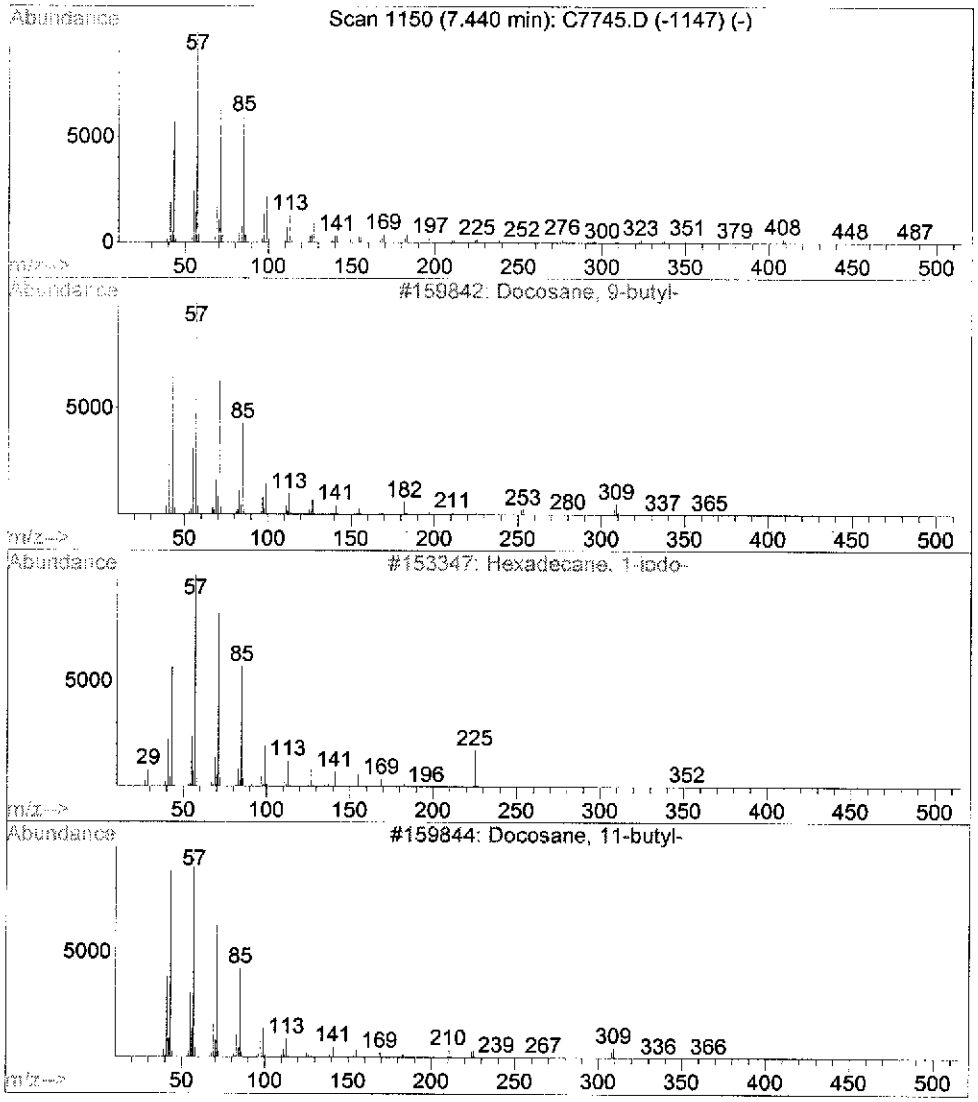
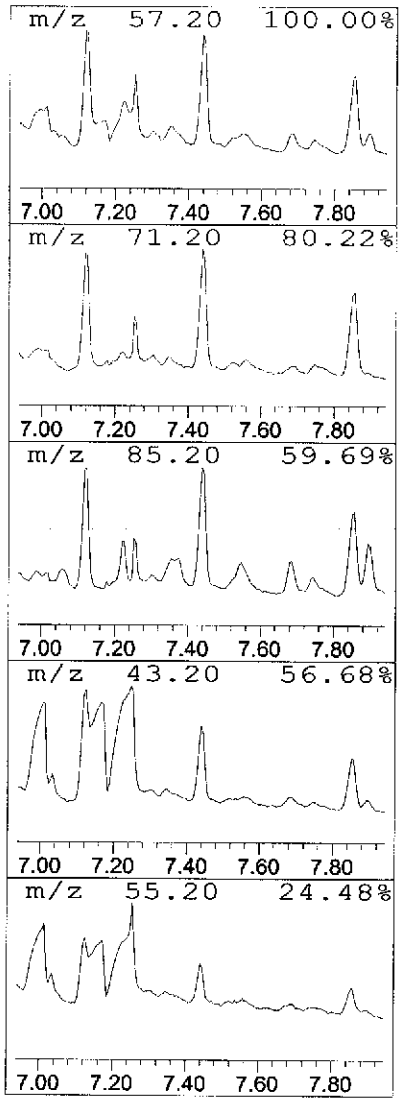
Peak Number 25 Unknown Hydrocarbon Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.44	40.00 UG	2837290	Perylene-d12	8.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Docosane, 9-butyl-	366	C26H54	055282-14-9	93
2	Hexadecane, 1-iodo-	352	C16H33I	000544-77-4	93
3	Docosane, 11-butyl-	366	C26H54	013475-76-8	93
4	Tetratriacontane	479	C34H70	014167-59-0	91
5	Heptadecane	240	C17H36	000629-78-7	91





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 11 12:03:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

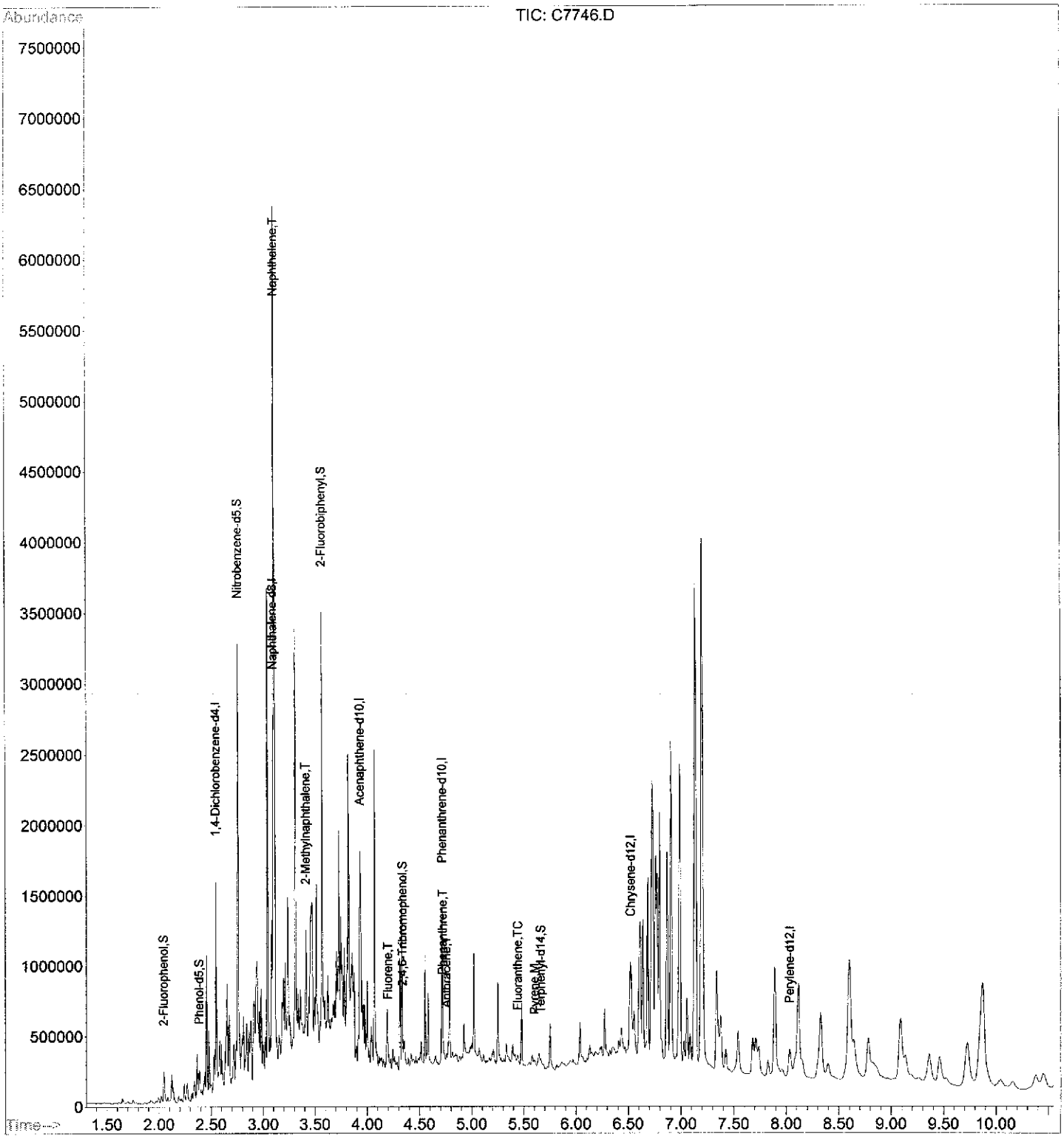
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	155138	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	637531	40.00	UG	-0.02
43) Acenaphthene-d10	3.93	164	201572	40.00	UG	-0.04
66) Phenanthrene-d10	4.72	188	292107	40.00	UG	-0.07
82) Chrysene-d12	6.53	240	228961	40.00	UG	-0.10
92) Perylene-d12	8.03	264	164497	40.00	UG	-0.08
System Monitoring Compounds						
4) 2-Fluorophenol	2.05	112	26375	4.93	UG	0.02
Spiked Amount 100.000	Range 25 - 100		Recovery = 4.93%#			
6) Phenol-d5	2.39	99	39174	5.37	UG	0.02
Spiked Amount 100.000	Range 25 - 108		Recovery = 5.37%#			
24) Nitrobenzene-d5	2.76	82	9995	1.59	UG	-0.03
Spiked Amount 50.000	Range 24 - 91		Recovery = 3.18%#			
47) 2-Fluorobiphenyl	3.57	172	25793	4.03	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 8.06%#			
70) 2,4,6-Tribromophenol	4.34	330	8238	7.79	UG	-0.05
Spiked Amount 100.000	Range 37 - 115		Recovery = 7.79%#			
84) Terphenyl-d14	5.66	244	11894	2.40	UG	-0.13
Spiked Amount 50.000	Range 15 - 122		Recovery = 4.80%#			
Target Compounds						Qvalue
34) Naphthalene	3.11	128	1784638	97.92	UG	# 54
41) 2-Methylnaphthalene	3.41	142	146771	11.79	UG	97
61) Fluorene	4.20	166	5523	0.89	UG	# 67
75) Phenanthrene	4.73	178	21239	2.63	UG	# 93
76) Anthracene	4.75	178	13210	1.58	UG	# 65
79) Fluoranthene	5.44	202	9262m	1.28	UG	
83) Pyrene	5.60	202	12079m	1.68	UG	

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 11 12:03:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.044	138	140	145	rBV2	216155	178327	3.38%	0.219%
2	2.365	198	200	203	rBV2	312830	237289	4.50%	0.292%
3	2.456	215	217	219	rVB	952922	520041	9.85%	0.639%
4	2.477	219	221	223	rBV	424200	223960	4.24%	0.275%
5	2.530	227	231	232	rBV	267687	239069	4.53%	0.294%
6	2.546	232	234	237	rVV	1428004	778192	14.74%	0.956%
7	2.584	239	241	243	rVV	284619	175337	3.32%	0.215%
8	2.600	243	244	248	rVB	288025	149586	2.83%	0.184%
9	2.653	248	254	256	rBV4	716113	687252	13.02%	0.844%
10	2.675	256	258	261	rVB2	488533	338323	6.41%	0.416%
11	2.717	263	266	268	rVB2	248082	169547	3.21%	0.208%
12	2.744	268	271	272	rBV2	273183	273511	5.18%	0.336%
13	2.760	272	274	276	rVV	3004441	1769050	33.52%	2.173%
14	2.798	278	281	282	rBV3	214604	203931	3.86%	0.251%
15	2.808	282	283	285	rVB2	385081	197625	3.74%	0.243%
16	2.840	285	289	292	rVB4	340218	254329	4.82%	0.312%
17	2.862	292	293	295	rBV	301735	182846	3.46%	0.225%
18	2.883	295	297	300	rVB2	420163	332521	6.30%	0.409%
19	2.915	300	303	304	rBV2	559293	621336	11.77%	0.763%
20	2.942	304	308	311	rVV6	673036	872367	16.53%	1.072%
21	2.979	314	315	317	rVB	533381	285201	5.40%	0.350%
22	3.022	321	323	325	rBV3	226168	187254	3.55%	0.230%
23	3.043	325	327	330	rBV	3322213	1967210	37.27%	2.417%
24	3.081	332	334	335	rBV	928310	521881	9.89%	0.641%
25	3.107	335	339	342	rVV2	5930046	4938736	93.57%	6.068%
26	3.150	345	347	350	rBV2	173399	157812	2.99%	0.194%
27	3.182	350	353	354	rBV2	371122	281367	5.33%	0.346%
28	3.198	354	356	357	rVV2	421588	228274	4.32%	0.280%
29	3.214	357	359	361	rVV3	522679	287130	5.44%	0.353%
30	3.236	361	363	366	rVV	971169	611230	11.58%	0.751%
31	3.310	374	377	381	rBV	2912299	2027679	38.42%	2.491%
32	3.358	384	386	389	rBV3	287209	167168	3.17%	0.205%
33	3.412	394	396	399	rVB	760005	467320	8.85%	0.574%
34	3.439	399	401	402	rBV2	279634	183851	3.48%	0.226%
35	3.471	402	407	410	rVB4	917682	1394658	26.42%	1.713%
36	3.513	413	415	417	rBV2	1003482	492062	9.32%	0.605%
37	3.567	423	425	429	rBV	2933964	1436329	27.21%	1.765%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

38	3.626	434	436	439	rVV	635571	646485	12.25%	0.794%
39	3.674	443	445	447	rVV2	422509	461466	8.74%	0.567%
40	3.706	449	451	454	rVV	794529	920844	17.45%	1.131%
41	3.727	454	455	457	rVV	1647752	917214	17.38%	1.127%
42	3.748	457	459	463	rVV2	1032555	1250671	23.70%	1.537%
43	3.780	463	465	467	rVV2	808052	621506	11.78%	0.764%
44	3.807	467	470	471	rVV2	684294	722115	13.68%	0.887%
45	3.818	471	472	475	rVV	2170432	1545740	29.29%	1.899%
46	3.855	475	479	482	rVV3	756957	1280579	24.26%	1.573%
47	3.877	482	483	484	rVV	609326	198007	3.75%	0.243%
48	3.914	488	490	491	rBV	183082	143924	2.73%	0.177%
49	3.930	491	493	498	rVV2	1463623	1750025	33.16%	2.150%
50	3.967	498	500	503	rVV2	406506	379003	7.18%	0.466%
51	4.000	505	506	508	rVB2	546845	218416	4.14%	0.268%
52	4.037	511	513	517	rBV4	250579	254198	4.82%	0.312%
53	4.069	517	519	522	rBV	2203440	1079151	20.45%	1.326%
54	4.192	539	542	546	rVB2	383690	293078	5.55%	0.360%
55	4.309	562	564	566	rBV	791483	492401	9.33%	0.605%
56	4.331	566	568	570	rVV	1199996	661332	12.53%	0.812%
57	4.352	570	572	576	rVB4	171985	160121	3.03%	0.197%
58	4.550	607	609	611	rBV	764558	400942	7.60%	0.493%
59	4.582	612	615	617	rVB	474619	265539	5.03%	0.326%
60	4.715	637	640	646	rVB	1078042	728925	13.81%	0.896%
61	4.785	649	653	656	rVV	582468	416871	7.90%	0.512%
62	4.924	677	679	683	rBV	240600	193197	3.66%	0.237%
63	5.020	695	697	700	rVB	706368	360126	6.82%	0.442%
64	5.250	737	740	742	rBV	578728	353018	6.69%	0.434%
65	5.479	780	783	786	rVB	437996	289712	5.49%	0.356%
66	5.752	831	834	843	rVB	325162	293087	5.55%	0.360%
67	6.035	884	887	891	rBV	284068	256982	4.87%	0.316%
68	6.275	929	932	935	rBV2	329856	243772	4.62%	0.299%
69	6.430	959	961	966	rVB2	158685	167150	3.17%	0.205%
70	6.521	973	978	982	rBV3	625160	945808	17.92%	1.162%
71	6.553	982	984	989	rVB2	304388	315561	5.98%	0.388%
72	6.612	990	995	998	rBV2	923270	1245482	23.60%	1.530%
73	6.639	998	1000	1003	rVB	916004	698006	13.22%	0.858%
74	6.687	1005	1009	1012	rVB	1225552	1015567	19.24%	1.248%
75	6.729	1012	1017	1020	rBV	1911070	2647111	50.15%	3.252%
76	6.761	1020	1023	1027	rVV2	1315365	2051885	38.88%	2.521%
77	6.799	1027	1030	1033	rVB	1615596	1267520	24.02%	1.557%
78	6.868	1039	1043	1046	rBV	1465704	1412154	26.76%	1.735%

LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 100 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\CS1212.M
Title : BNA CALIBRATION METHOD

79	6.906	1046	1050	1056	rVV	2257747	2114537	40.06%	2.598%
80	6.991	1060	1066	1070	rVV	2107284	2290930	43.41%	2.815%
81	7.055	1075	1078	1081	rVV	455554	432082	8.19%	0.531%
82	7.087	1081	1084	1087	rVV	217029	206988	3.92%	0.254%
83	7.141	1087	1094	1097	rVV	3405914	4353105	82.48%	5.348%
84	7.205	1099	1106	1126	rVB	3754181	5278013	100.00%	6.484%
85	7.338	1127	1131	1135	rVV	698331	932214	17.66%	1.145%
86	7.376	1136	1138	1143	rVV	385349	428256	8.11%	0.526%
87	7.424	1144	1147	1158	rVB	160790	216667	4.11%	0.266%
88	7.541	1165	1169	1183	rVB	302719	461424	8.74%	0.567%
89	7.680	1191	1195	1198	rBV	244179	343955	6.52%	0.423%
90	7.889	1229	1234	1244	rVV2	743252	1112059	21.07%	1.366%
91	8.033	1256	1261	1266	rBV2	179371	298990	5.66%	0.367%
92	8.113	1267	1276	1282	rBV2	602334	1073340	20.34%	1.319%
93	8.327	1307	1316	1324	rBV2	450887	935580	17.73%	1.149%
94	8.599	1360	1367	1373	rBV4	764940	1648737	31.24%	2.026%
95	8.781	1395	1401	1407	rBV	253602	528417	10.01%	0.649%
96	9.091	1451	1459	1465	rBV	413993	994564	18.84%	1.222%
97	9.363	1505	1510	1521	rVB2	184732	412756	7.82%	0.507%
98	9.459	1522	1528	1537	rBV	161336	353278	6.69%	0.434%
99	9.726	1569	1578	1590	rBV2	282042	817952	15.50%	1.005%
100	9.871	1592	1605	1627	rVB3	728815	2556868	48.44%	3.141%

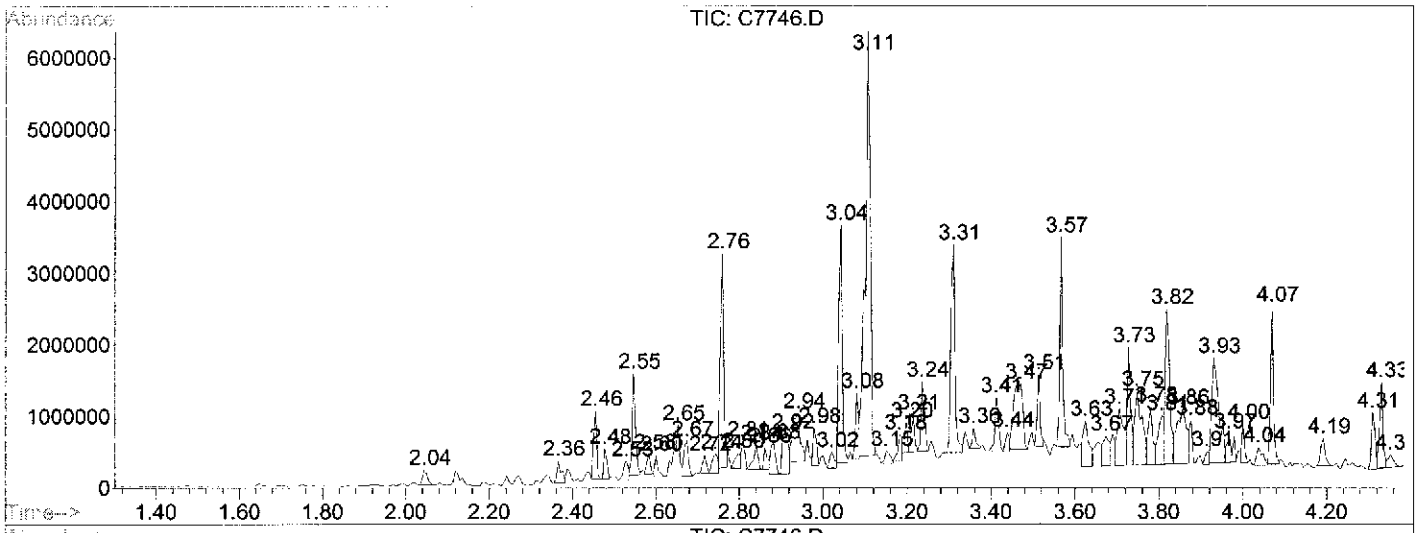
Sum of corrected areas: 81395004

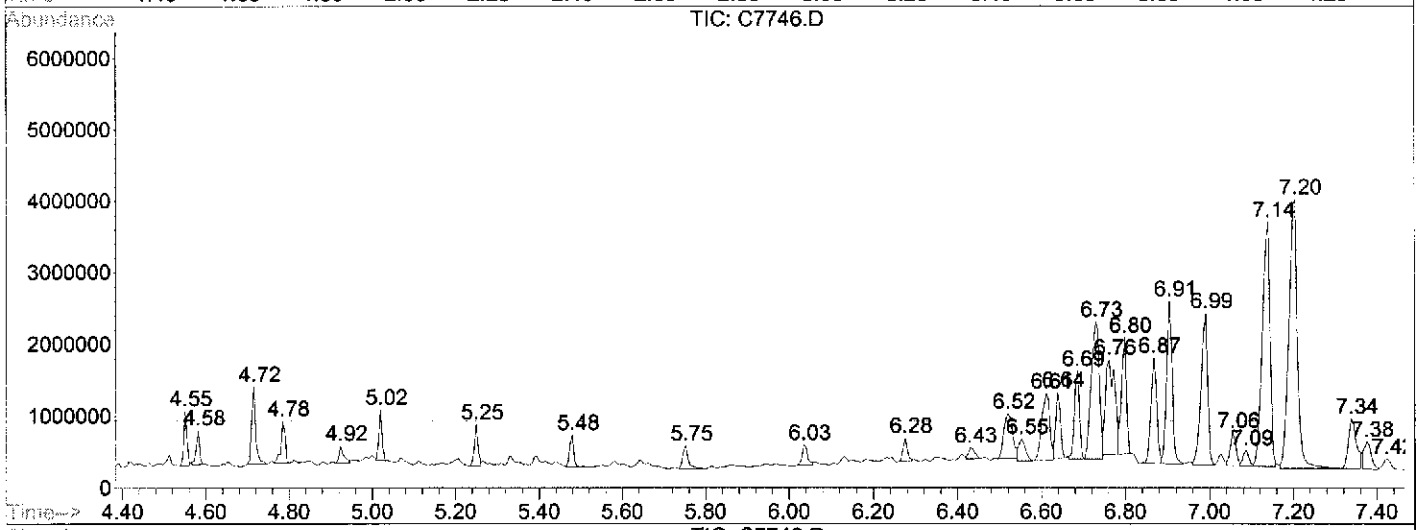
LSC Report - Integrated Chromatogram

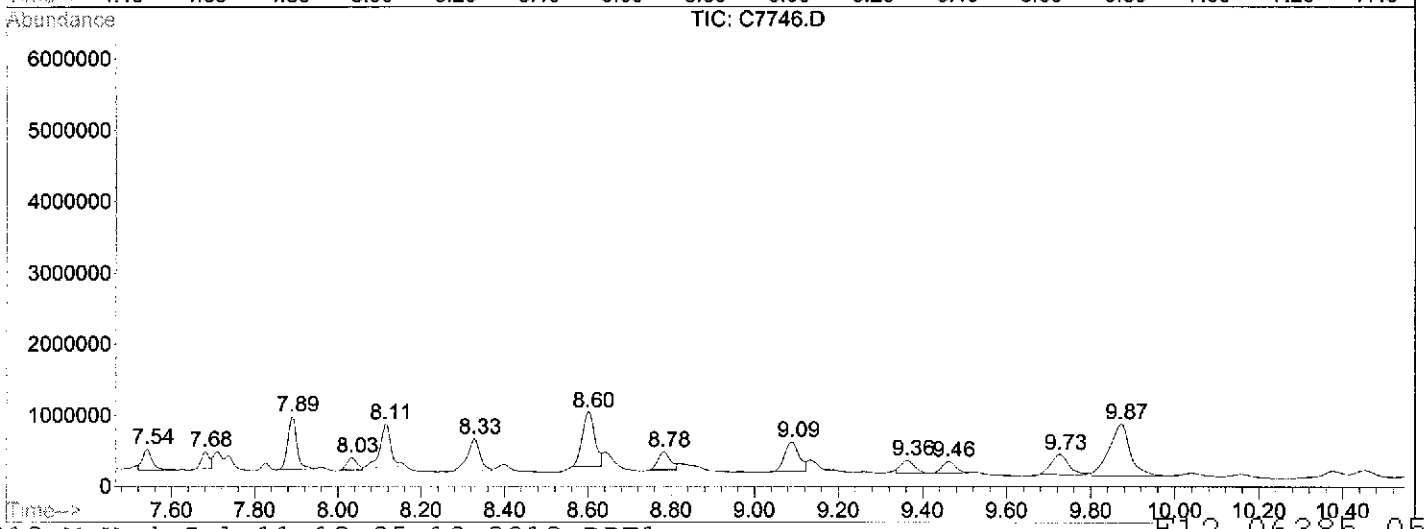
Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

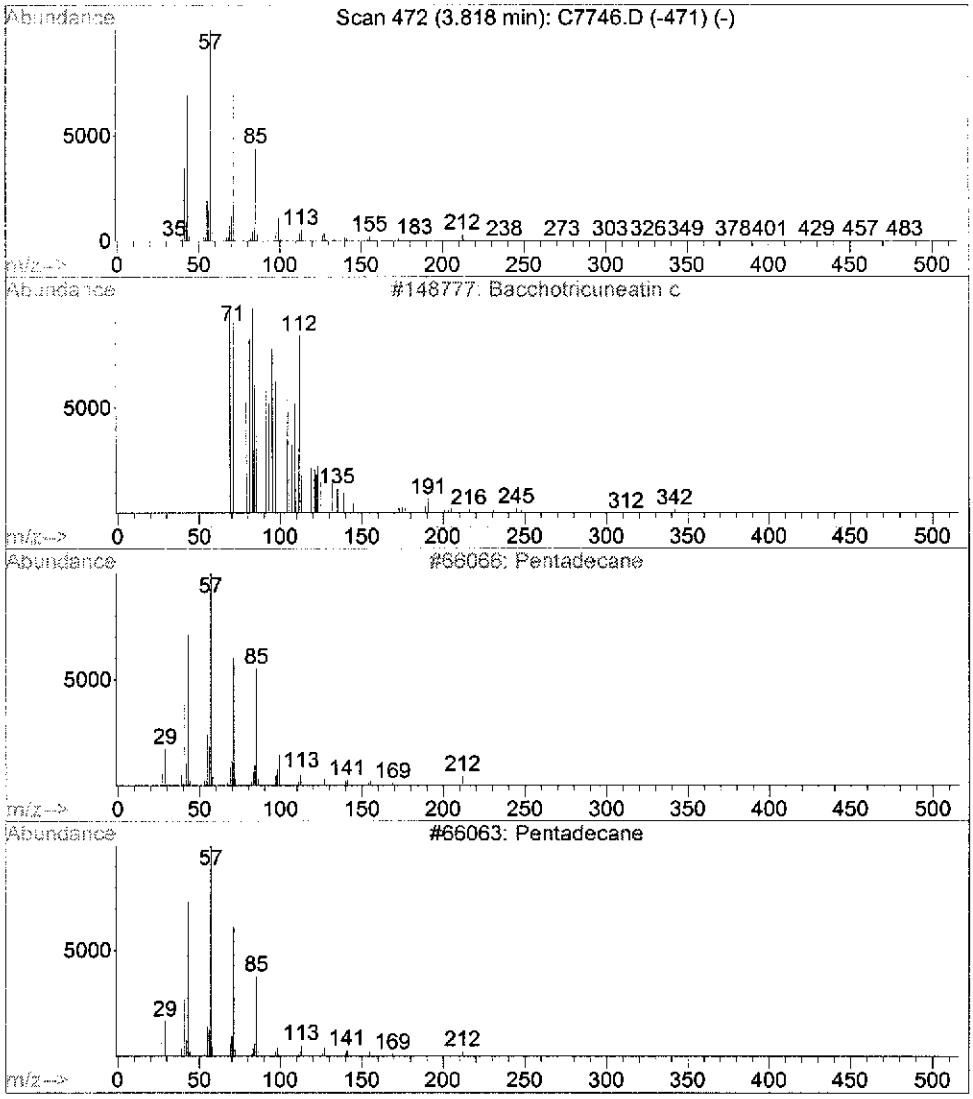
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

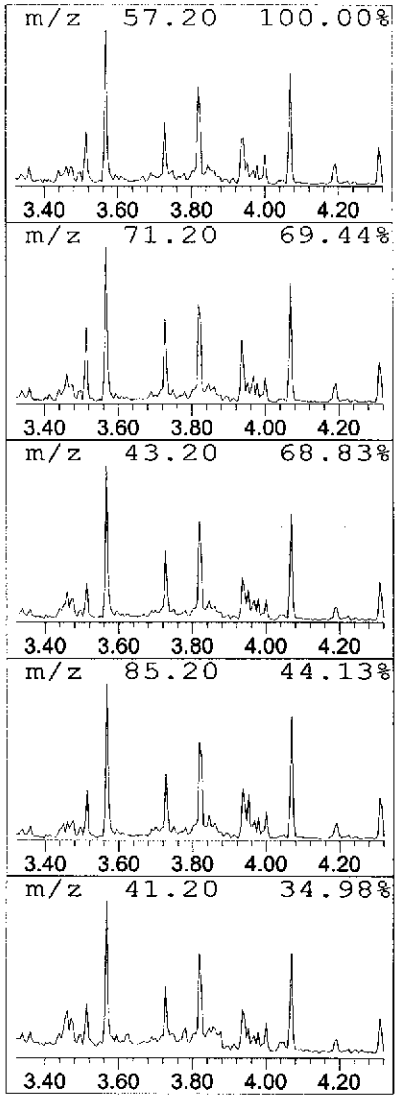
****

Peak Number 1 Unknown Hydrocarbon Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.82	35.33 UG	1545740	Acenaphthene-d10	3.93

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bacchotricuneatin c	342	C20H22O5	066563-30-2	97
2	Pentadecane	212	C15H32	000629-62-9	96
3	Pentadecane	212	C15H32	000629-62-9	96
4	Pentadecane	212	C15H32	000629-62-9	95
5	Pentadecane	212	C15H32	000629-62-9	94





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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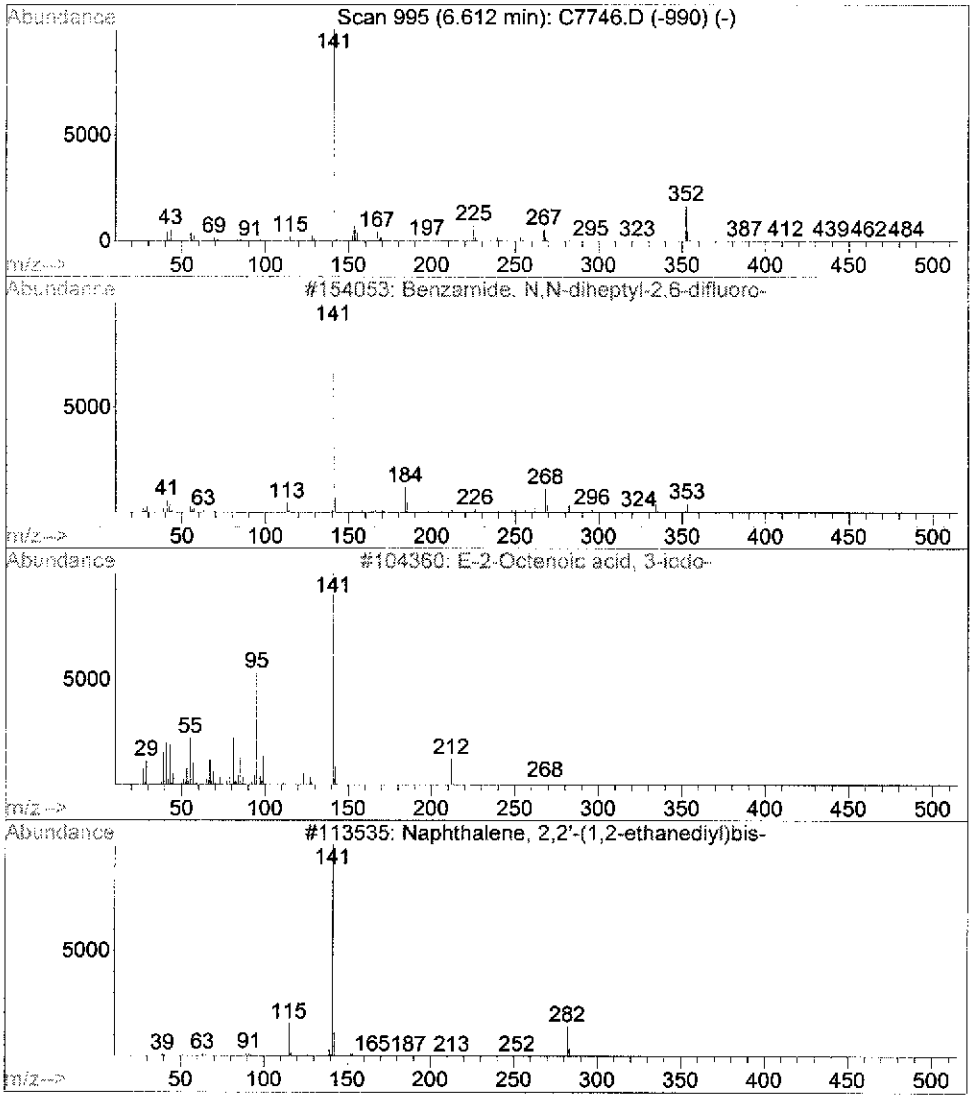
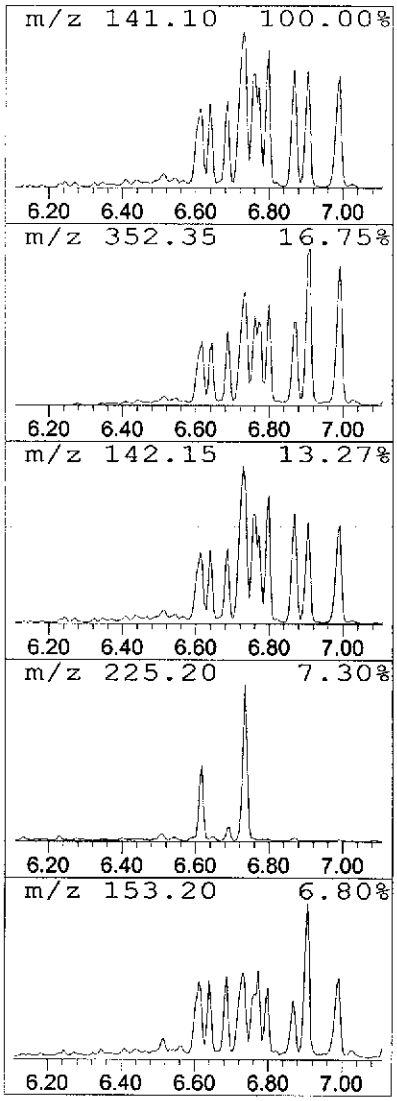
Peak Number 2 Unknown SV Concentration Rank 21

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.61	52.67 UG	1245480	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	9
2	E-2-Octenoic acid, 3-iodo-	268	C8H13IO2	1000308-87-5	9
3	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	9
4	Benzeneethanamine, N-trifluoroac...	267	C10H9F4NO3	059043-77-5	9
5	2,4,6(1H,3H,5H)-Pyrimidinetrione...	184	C8H12N2O3	001953-33-9	9





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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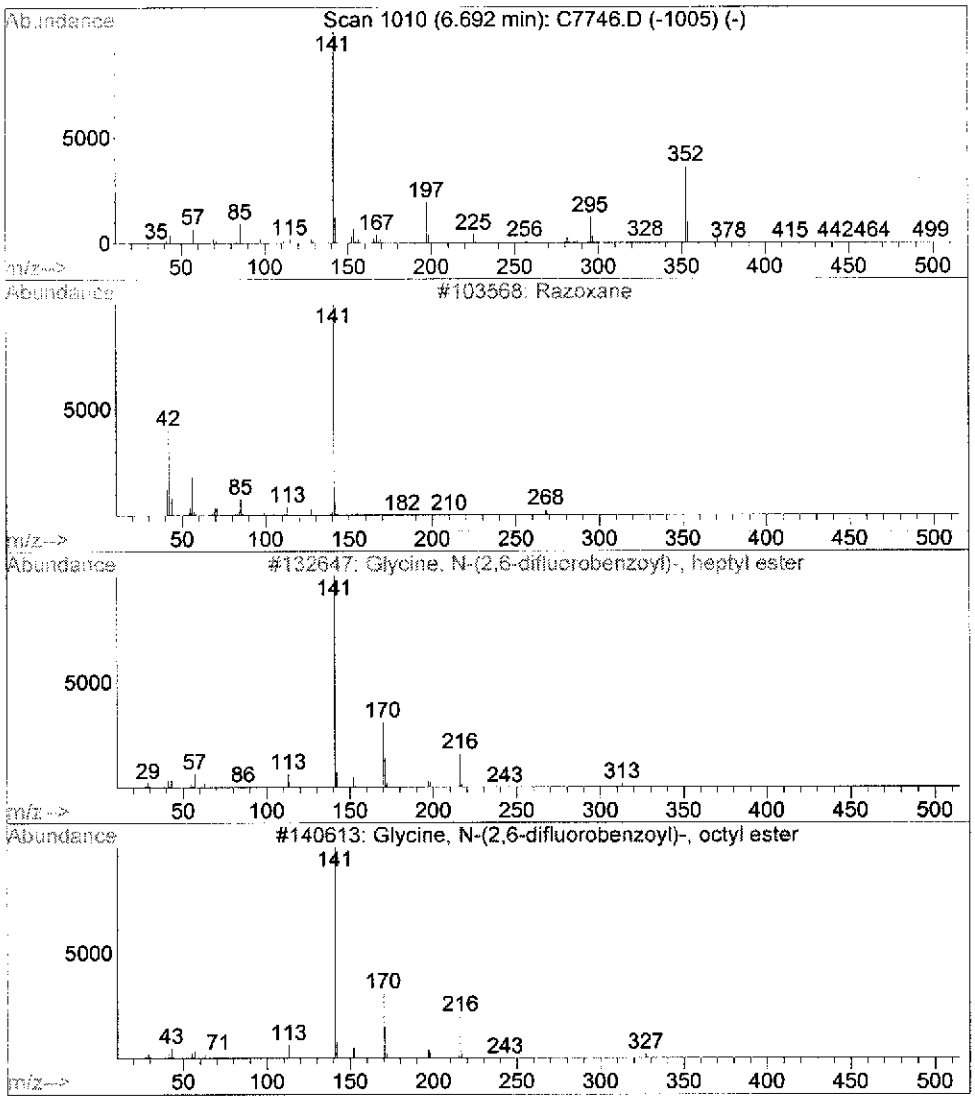
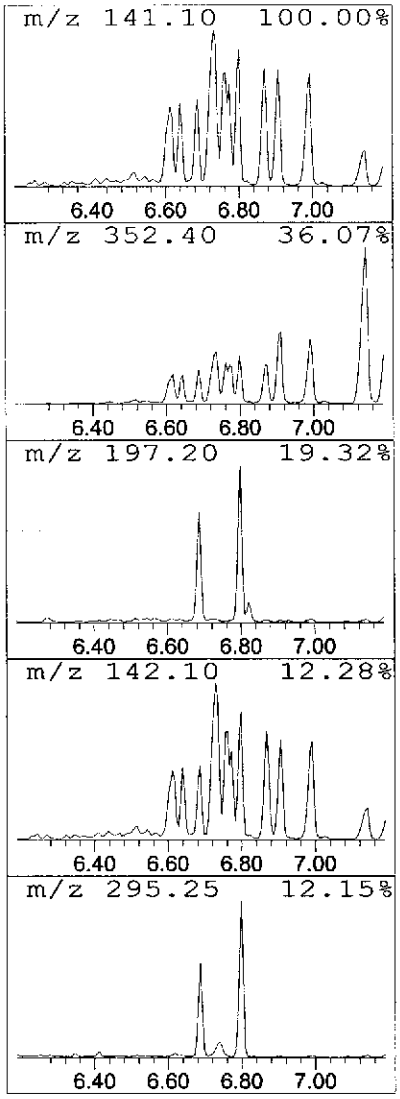
Peak Number 3 Unknown SV Concentration Rank 24

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.69	42.95 UG	1015570	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Razoxane	268	C11H16N4O4	021416-87-5	33
2	Glycine, N-(2,6-difluorobenzoyl)...	313	C16H21F2NO3	1000314-44-4	33
3	Glycine, N-(2,6-difluorobenzoyl)...	327	C17H23F2NO3	1000314-44-5	33
4	E-2-Octenoic acid, 3-iodo-	268	C8H13IO2	1000308-87-5	33
5	1-[5-Nitro-6-uracilyl]-2-[2-chlo...	293	C12H8ClN3O4	296798-53-3	25





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

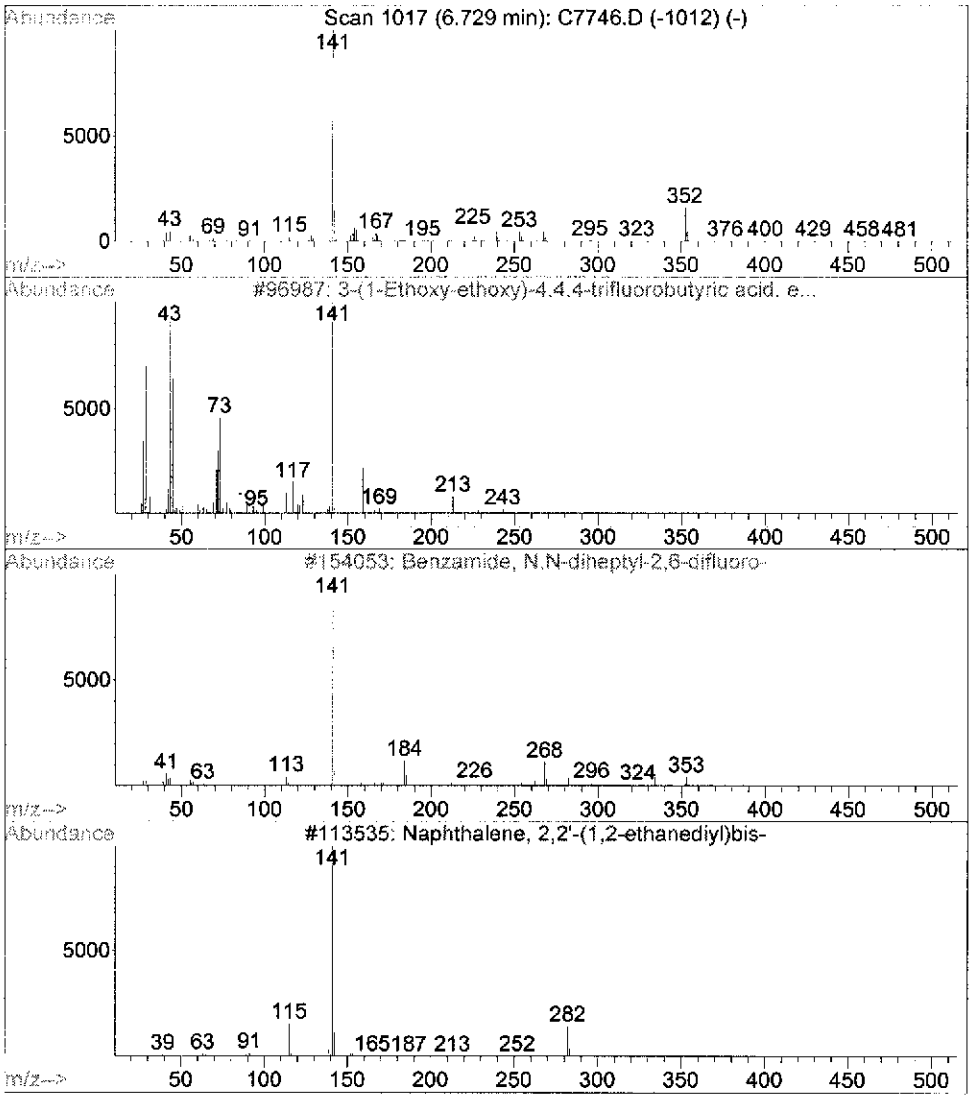
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

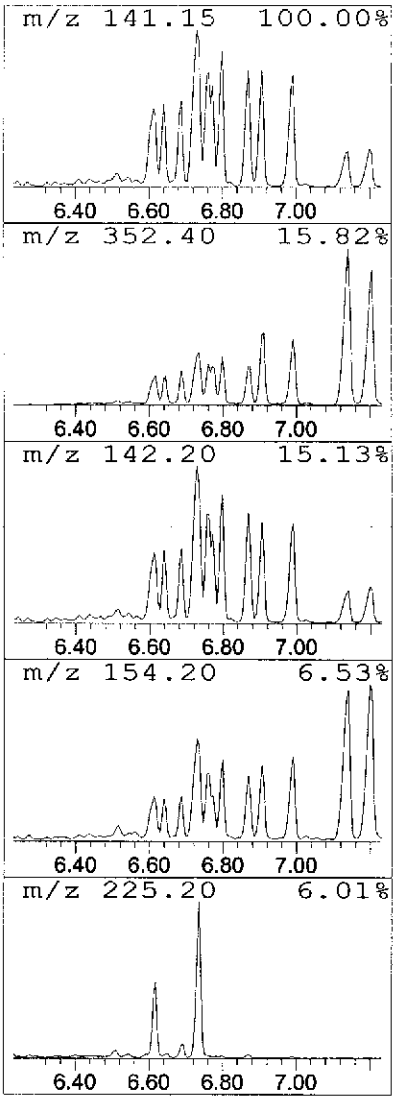
****

Peak Number 4 Unknown SV Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.73	111.95 UG	2647110	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-(1-Ethoxy-ethoxy)-4,4,4-triflu...	258	C10H17F3O4	095605-52-0	47
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	38
3	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	36
4	Cyclohexanone, O-(1-naphthalenyl...	253	C17H19NO	055045-02-8	9
5	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	9





Library Search Compound Report

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Data File : C7746.D
Acq On : 10 Jul 2012 18:53
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Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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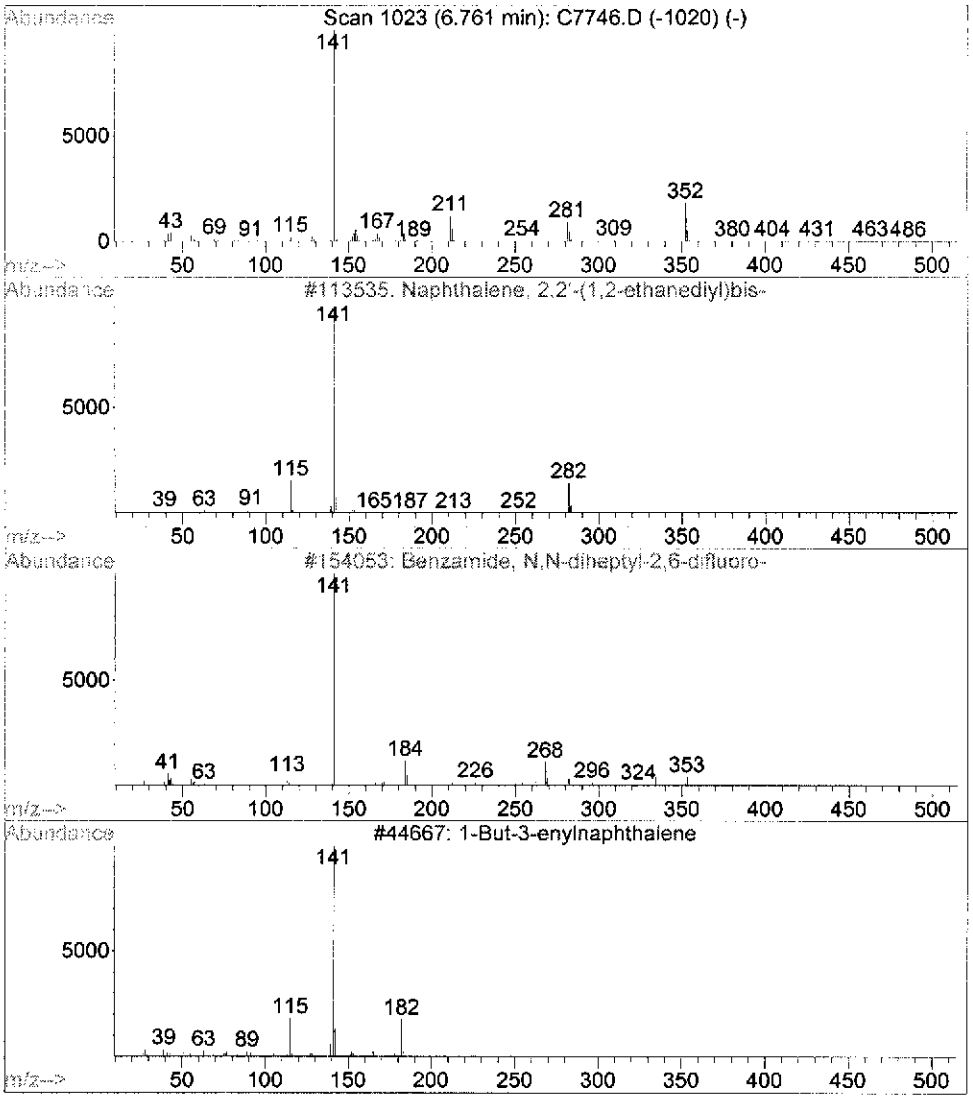
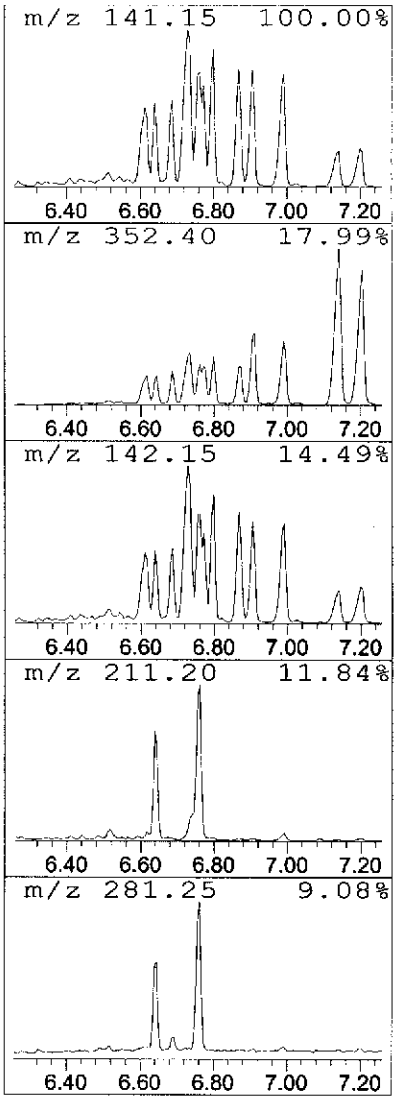
Peak Number 5 Unknown SV Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.76	86.78 UG	2051890	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	50
2	Benzamide, N,N-diheptyl-2,6-difl...	353	C21H33F2NO	1000308-66-8	36
3	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	33
4	Undecane, 1-(1-naphthyl)-	282	C21H30	007225-71-0	25
5	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	22





Library Search Compound Report

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ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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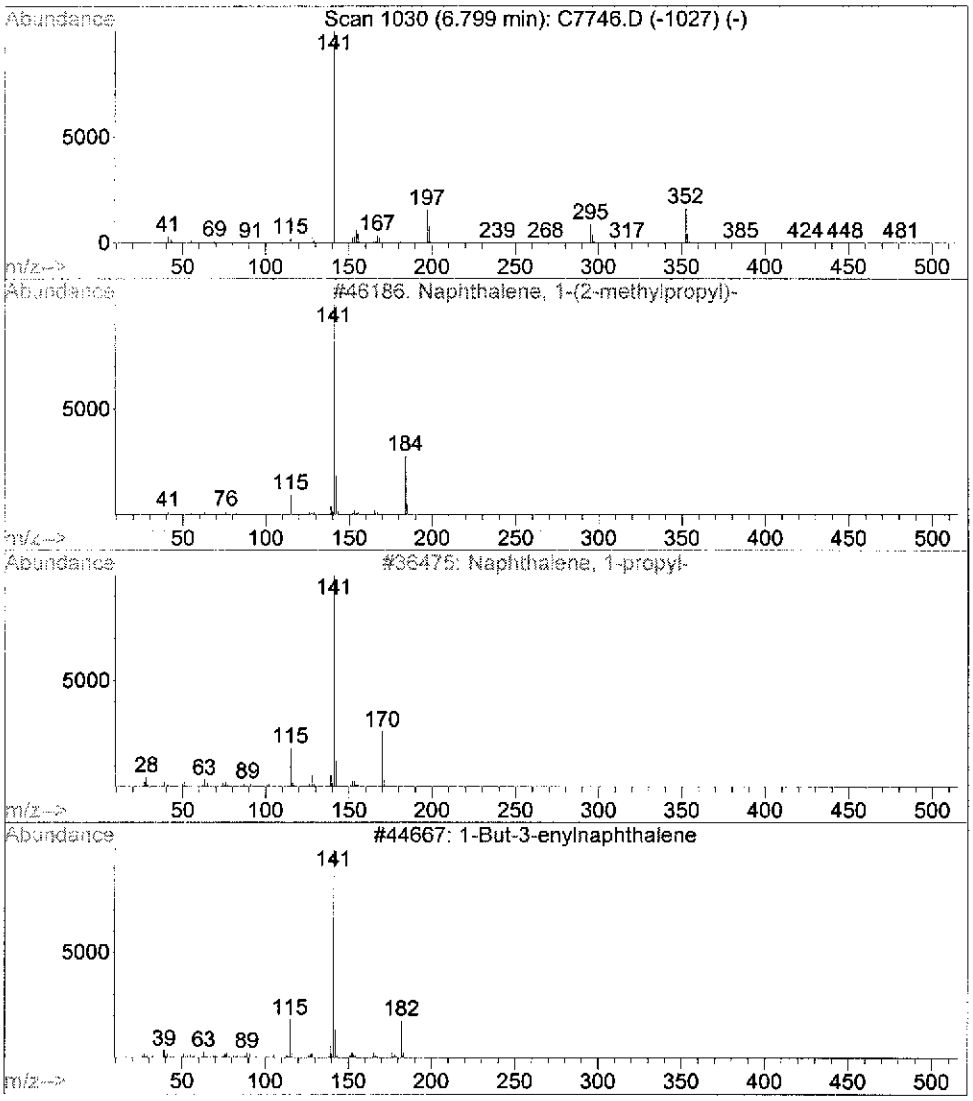
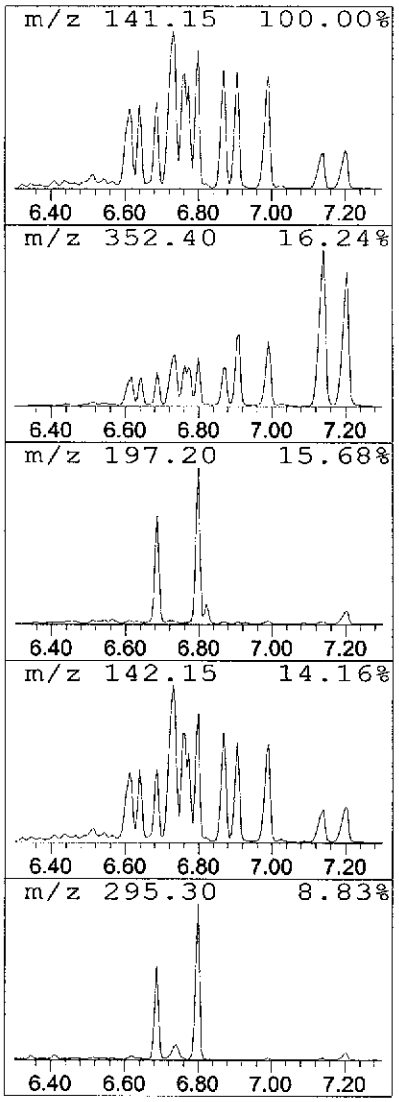
Peak Number 6 Unknown SV Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.80	53.61 UG	1267520	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	40
2	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	9
3	1-But-3-enylnaphthalene	182	C14H14	002489-88-5	9
4	2-Naphthaleneethanol	172	C12H12O	001485-07-0	9
5	Pentanamide, N-(3-chloro-4-methy...	239	C13H18ClNO	002307-68-8	9





Library Search Compound Report

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ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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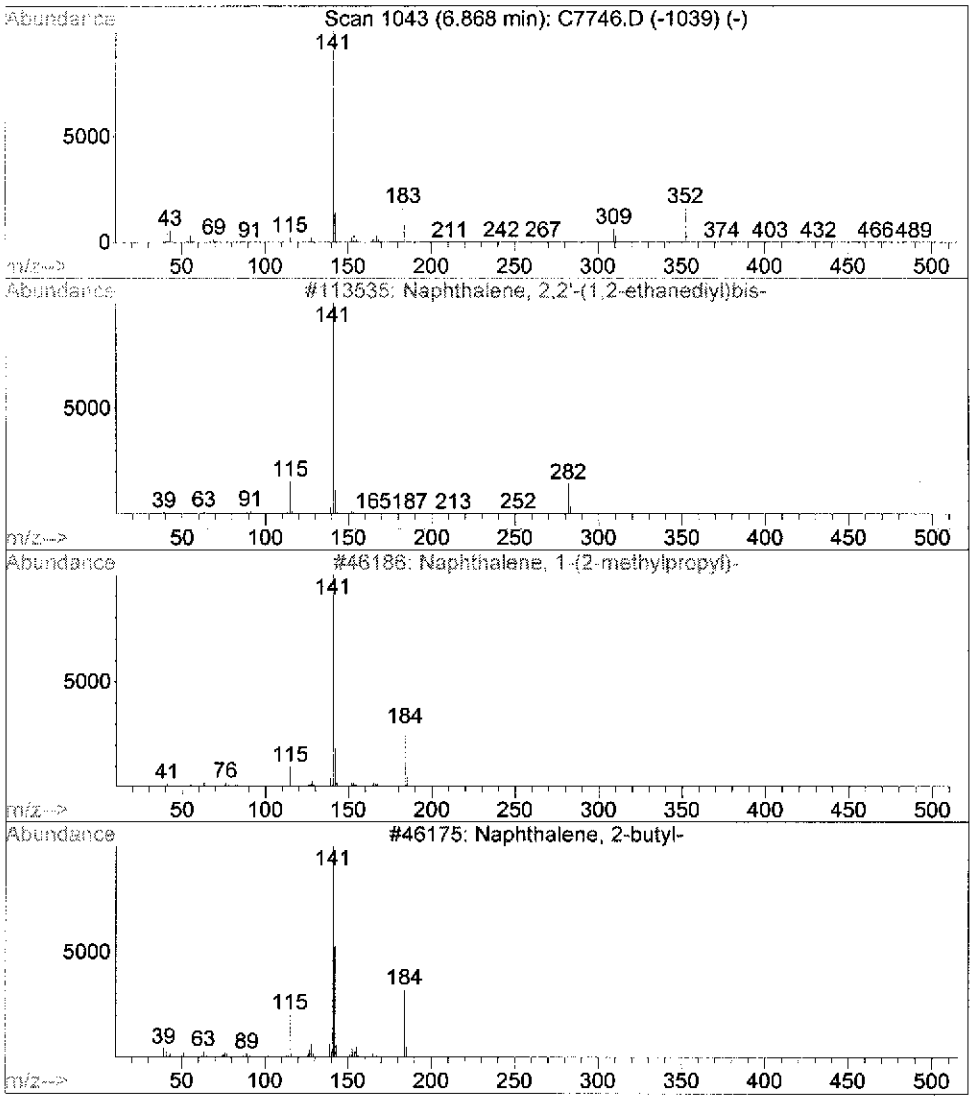
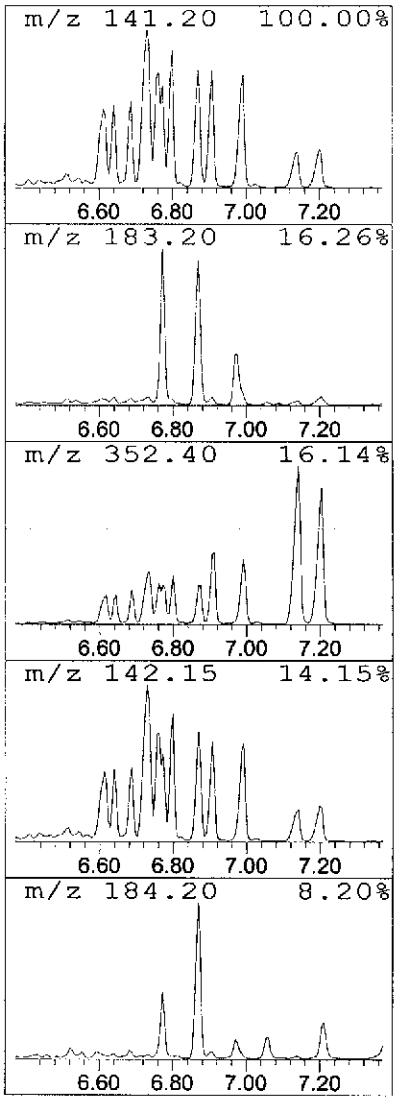
Peak Number 7 Unknown PAH Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.87	59.72 UG	1412150	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,2'-(1,2-ethanediy...	282	C22H18	021969-45-9	52
2	Naphthalene, 1-(2-methylpropyl)-	184	C14H16	016727-91-6	27
3	Naphthalene, 2-butyl-	184	C14H16	001134-62-9	12
4	Naphthalene, 1-butyl-	184	C14H16	001634-09-9	10
5	Methyl 8-oxo-cis-2-nonenoate	184	C10H16O3	028297-04-3	9





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Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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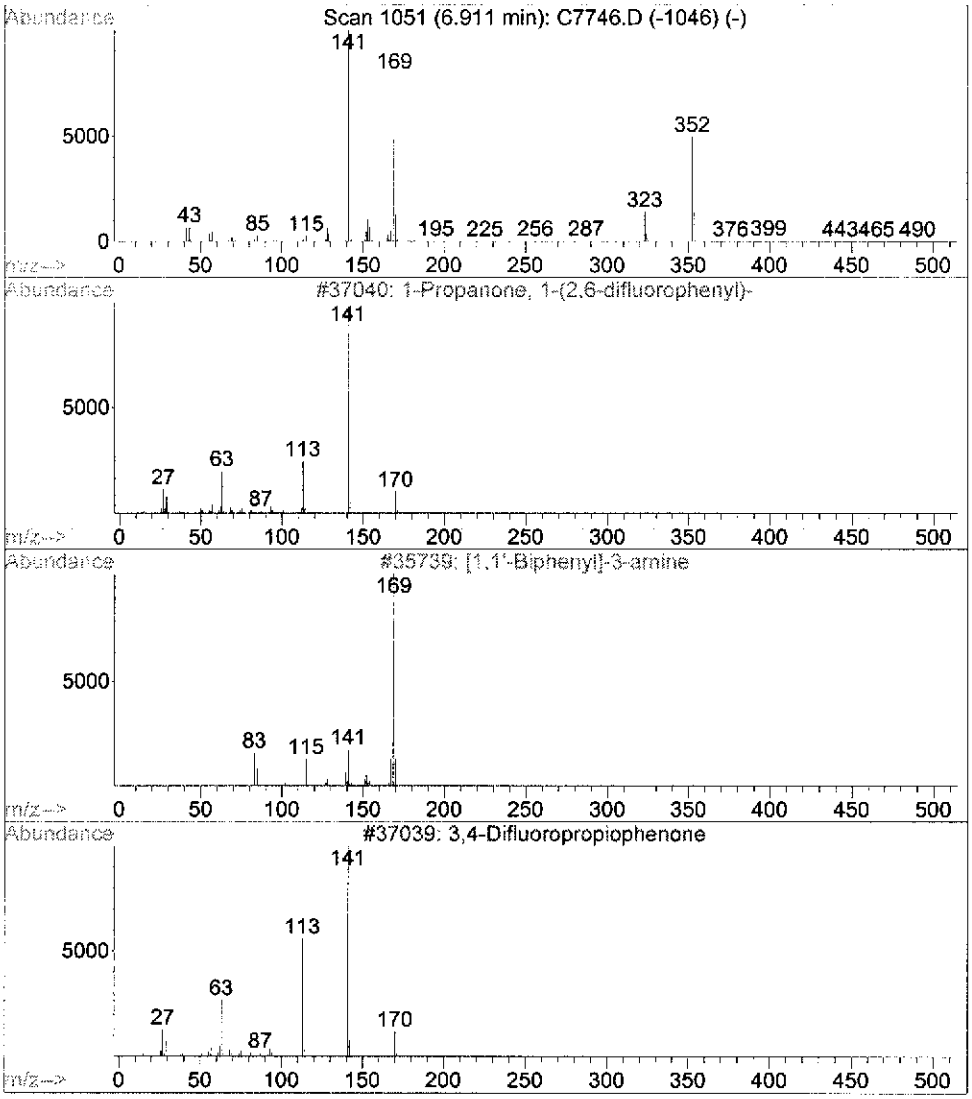
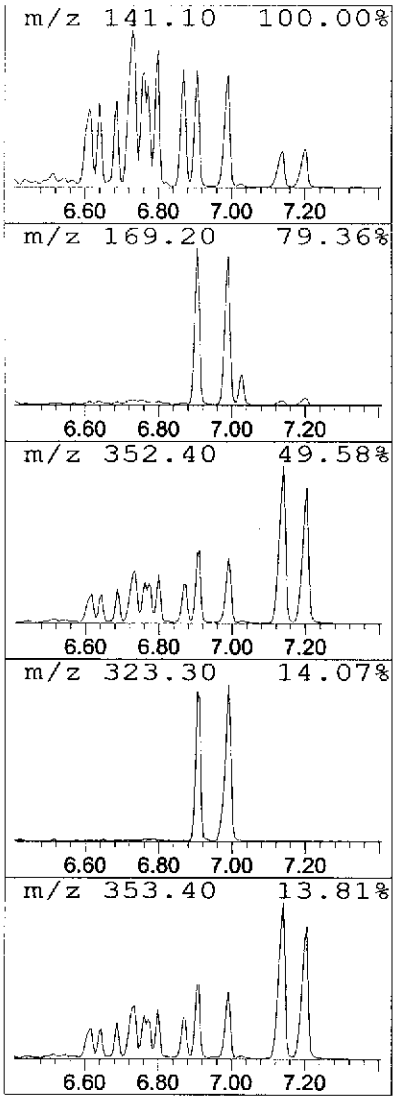
Peak Number 8 Unknown SV Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.91	89.43 UG	2114540	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propanone, 1-(2,6-difluorophen...	170	C9H8F2O	085068-31-1	32
2	[1,1'-Biphenyl]-3-amine	169	C12H11N	002243-47-2	32
3	3,4-Difluoropropiophenone	170	C9H8F2O	023384-72-7	32
4	(4-Chloro-2-chloromethyl-phenoxy...	234	C9H8Cl2O3	004286-99-1	30
5	Naphthalene, 2-(1,1-dimethylethyl)-	184	C14H16	002876-35-9	25





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Acq On : 10 Jul 2012 18:53
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Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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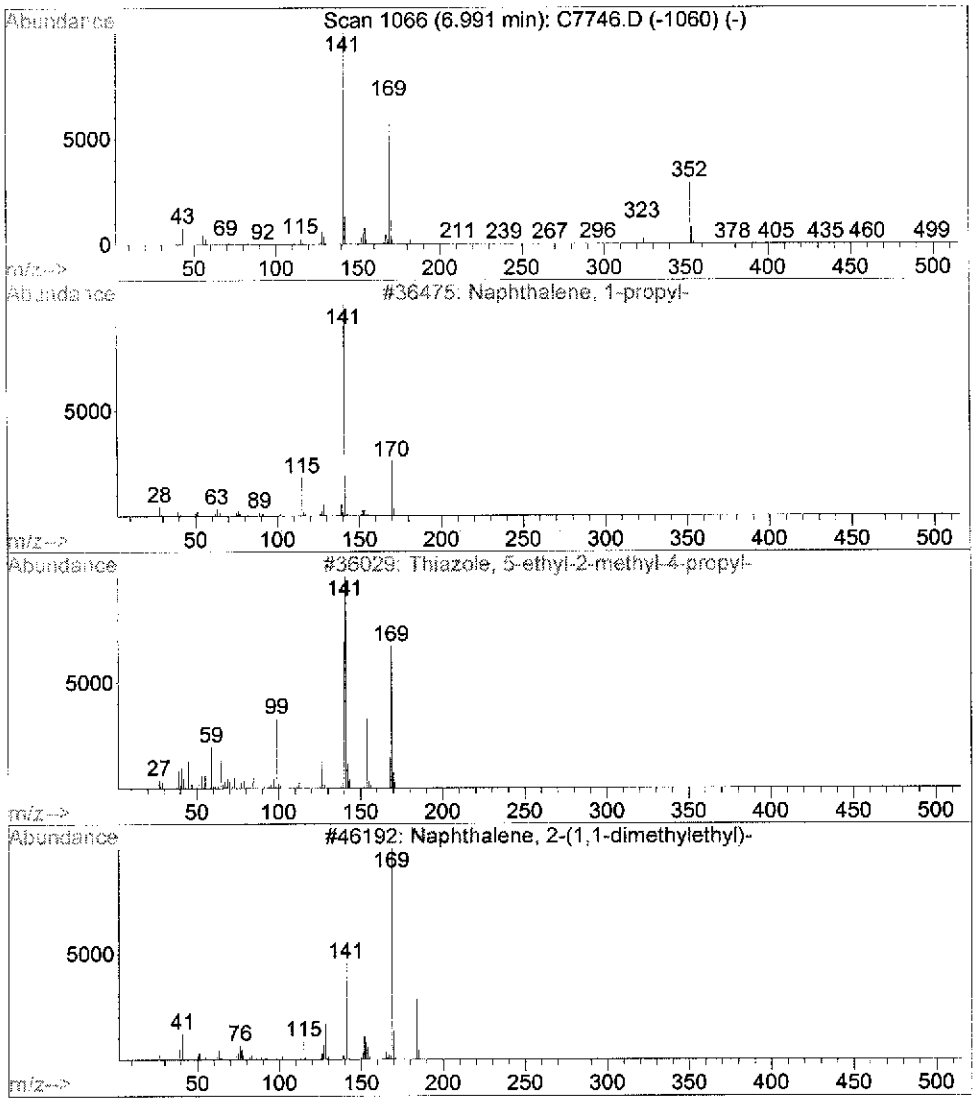
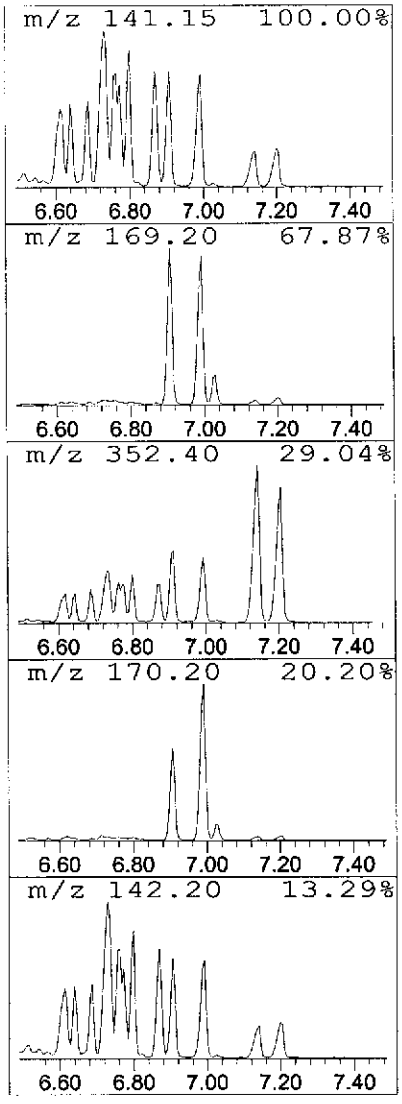
Peak Number 9 Unknown SV Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.99	96.89 UG	2290930	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-propyl-	170	C13H14	002765-18-6	43
2	Thiazole, 5-ethyl-2-methyl-4-pro...	169	C9H15NS	004276-67-9	36
3	Naphthalene, 2-(1,1-dimethylethyl)-	184	C14H16	002876-35-9	32
4	4-tert-Butylphthalonitrile	184	C12H12N2	032703-80-3	23
5	1-Naphthalenepropionic acid	200	C13H12O2	003243-42-3	17





Library Search Compound Report

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Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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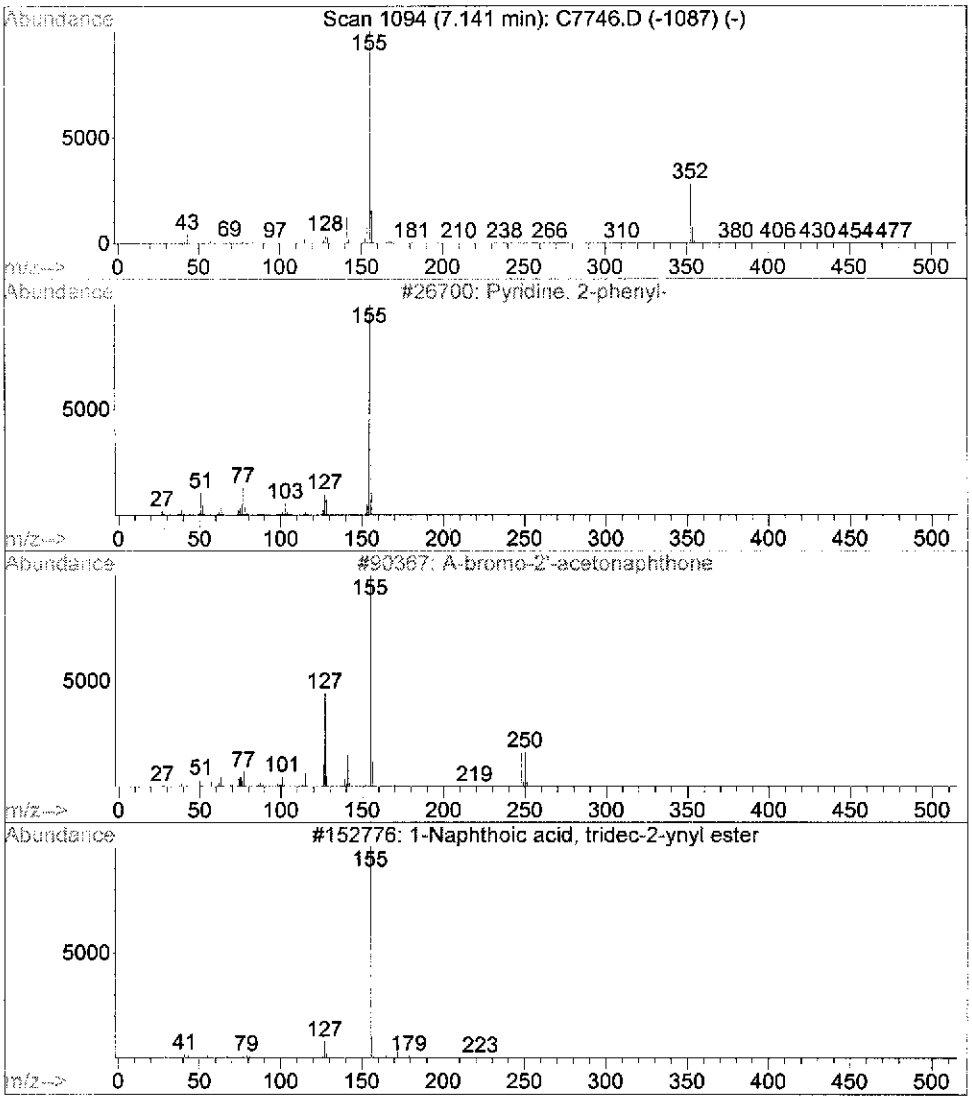
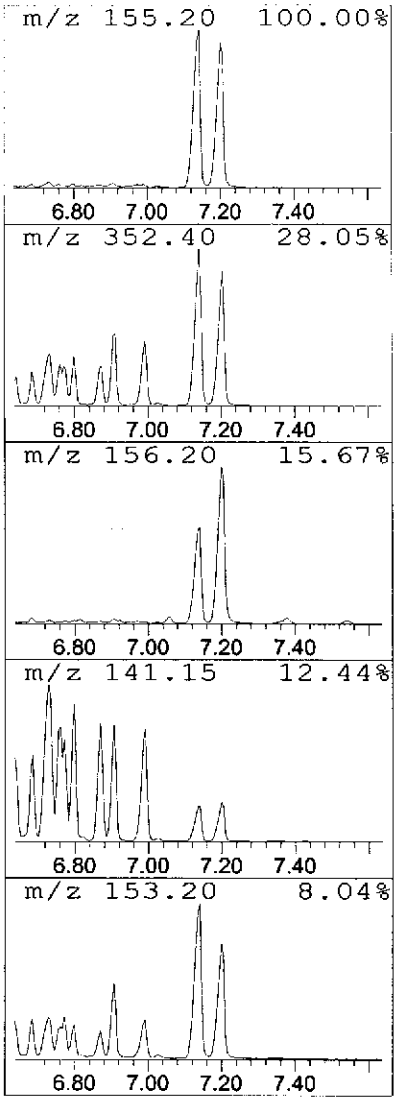
Peak Number 10 Unknown SV Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.14	184.10 UG	4353110	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyridine, 2-phenyl-	155	C11H9N	001008-89-5	50
2	A-bromo-2'-acetonaphthone	248	C12H9BrO	000613-54-7	36
3	1-Naphthoic acid, tridec-2-ynyl ...	350	C24H30O2	1000308-82-7	33
4	Phenylpropionic acid, .alpha.-am...	229	C10H12FNO4	1000126-07-3	33
5	Dodecyl cis-9,10-epoxyoctadecanoate	466	C30H58O3	092332-53-1	12





Library Search Compound Report

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Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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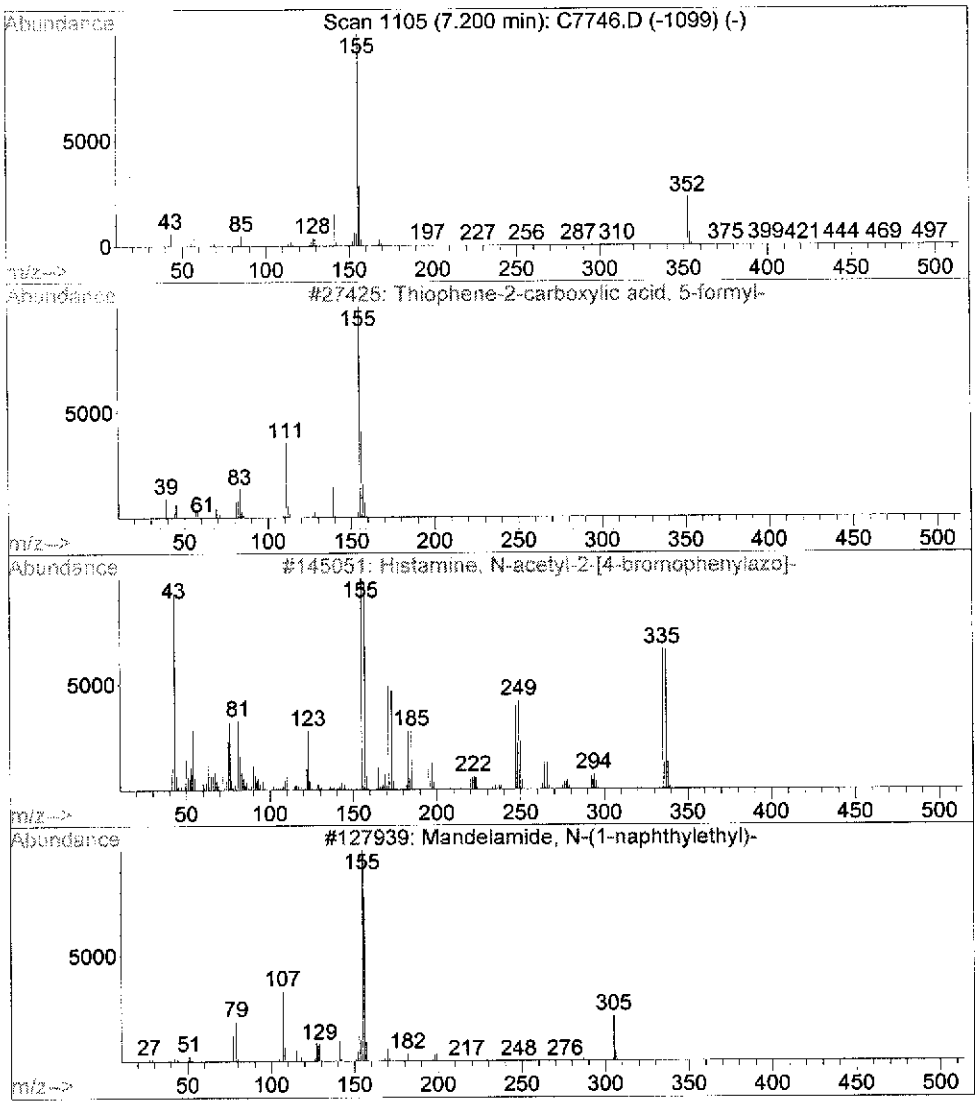
Peak Number 11 Unknown SV Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.20	223.22 UG	5278010	Chrysene-d12	6.53

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiophene-2-carboxylic acid, 5-f...	156	C6H4O3S	1000306-77-9	40
2	Histamine, N-acetyl-2-[4-bromoph...	335	C13H14BrN5O	039050-08-3	38
3	Mandelamide, N-(1-naphthylethyl)-	305	C20H19NO2	344875-77-0	22
4	Dodecyl cis-9,10-epoxyoctadecanoate	466	C30H58O3	092332-53-1	11
5	Pyridine, 2-phenyl-	155	C11H9N	001008-89-5	9



Library Search Compound Report

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Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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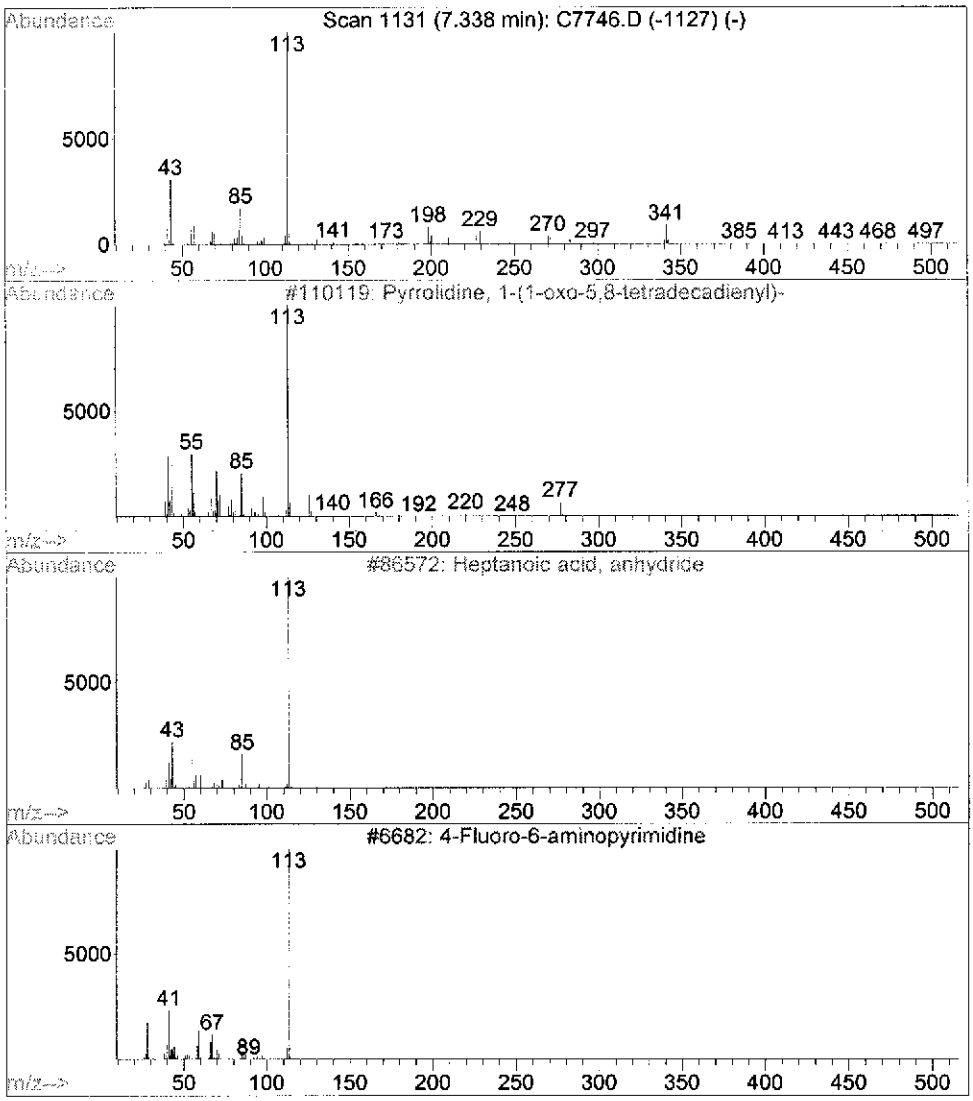
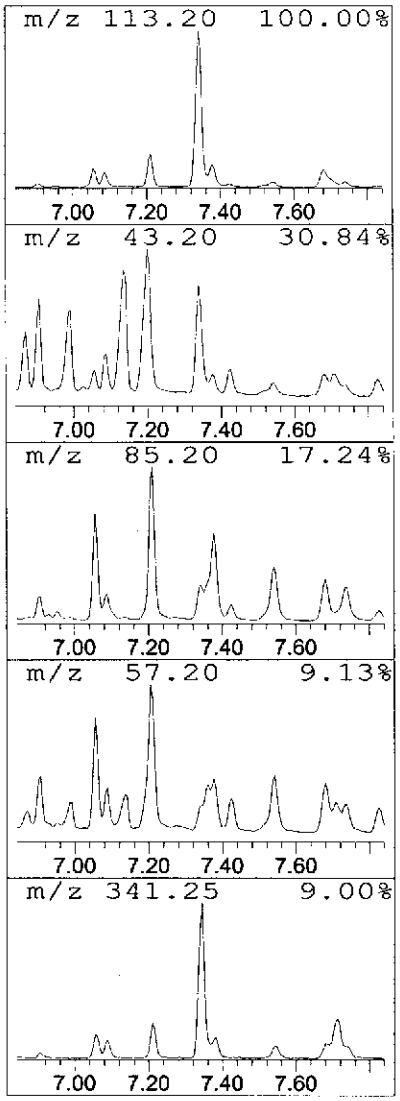
Peak Number 12 Unknown SV Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.34	124.72 UG	932214	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pyrrolidine, 1-(1-oxo-5,8-tetrad...	277	C18H31NO	056666-40-1	59
2	Heptanoic acid, anhydride	242	C14H26O3	000626-27-7	59
3	4-Fluoro-6-aminopyrimidine	113	C4H4FN3	051421-96-6	58
4	2-Allylpent-4-enoic acid, methyl...	154	C9H14O2	054385-33-0	52
5	Heptanoic acid, 3-nitrophenyl ester	251	C13H17NO4	056052-18-7	45





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Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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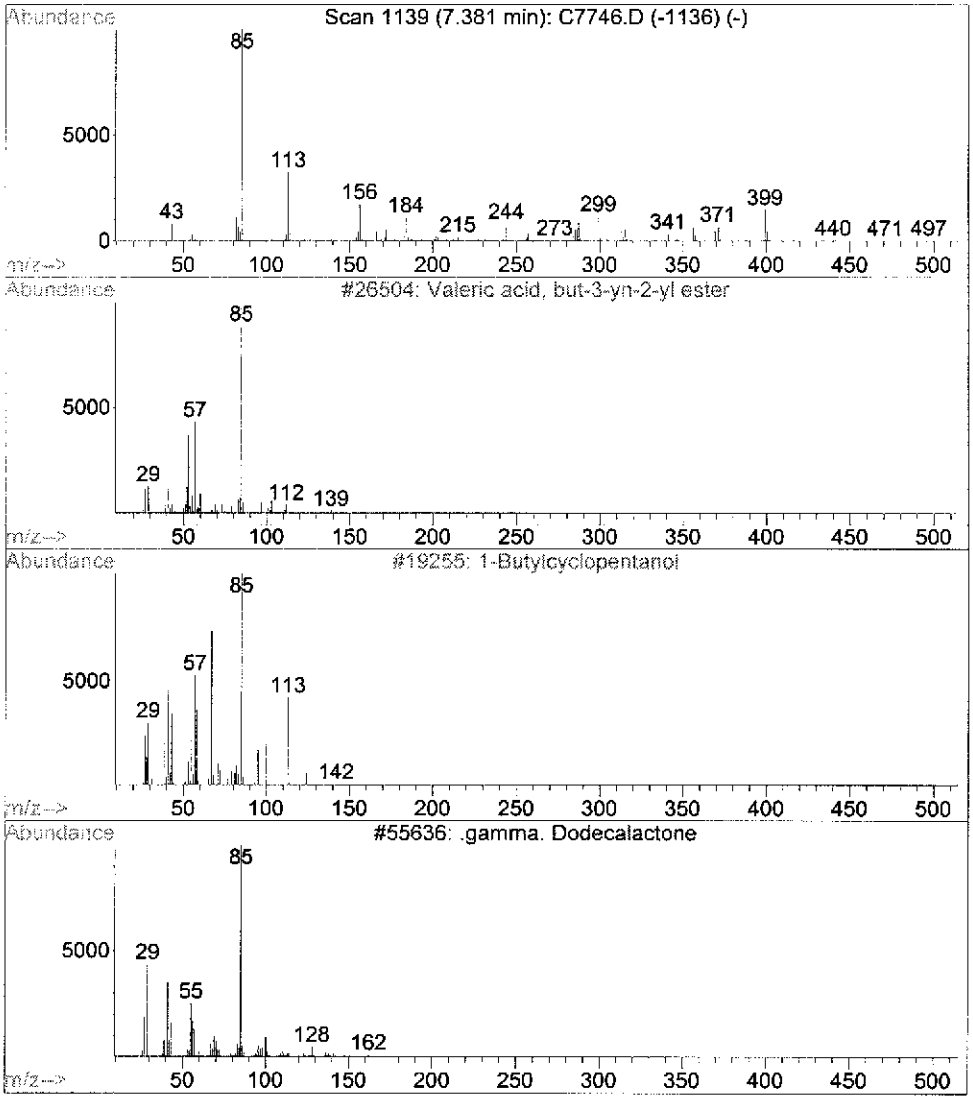
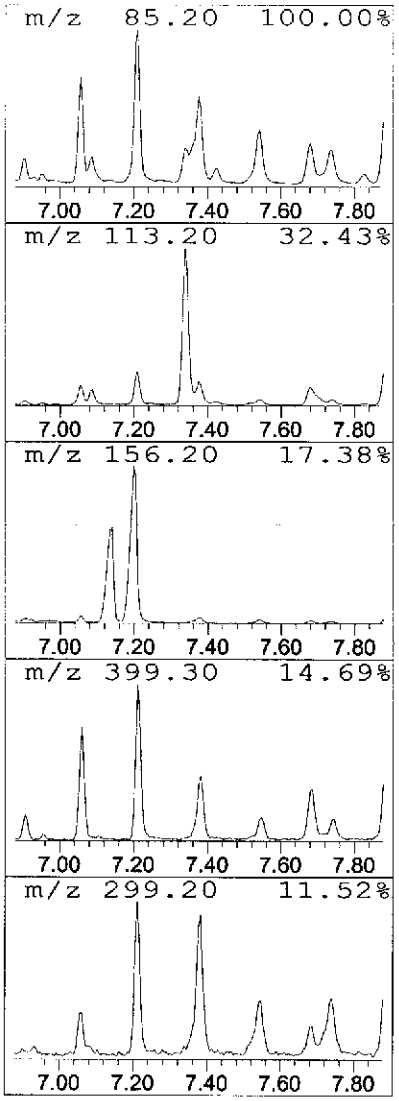
Peak Number 13 Unknown SV Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.38	57.29 UG	428256	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Valeric acid, but-3-yn-2-yl ester	154	C9H14O2	1000292-48-4	37
2	1-Butylcyclopentanol	142	C9H18O	001462-97-1	33
3	.gamma. Dodecalactone	198	C12H22O2	002305-05-7	25
4	2-Octyn-1-ol, 7-[(tetrahydro-2H-...	226	C13H22O3	077758-37-3	25
5	Valeric acid, 4-cyanophenyl ester	203	C12H13NO2	1000307-98-7	25





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Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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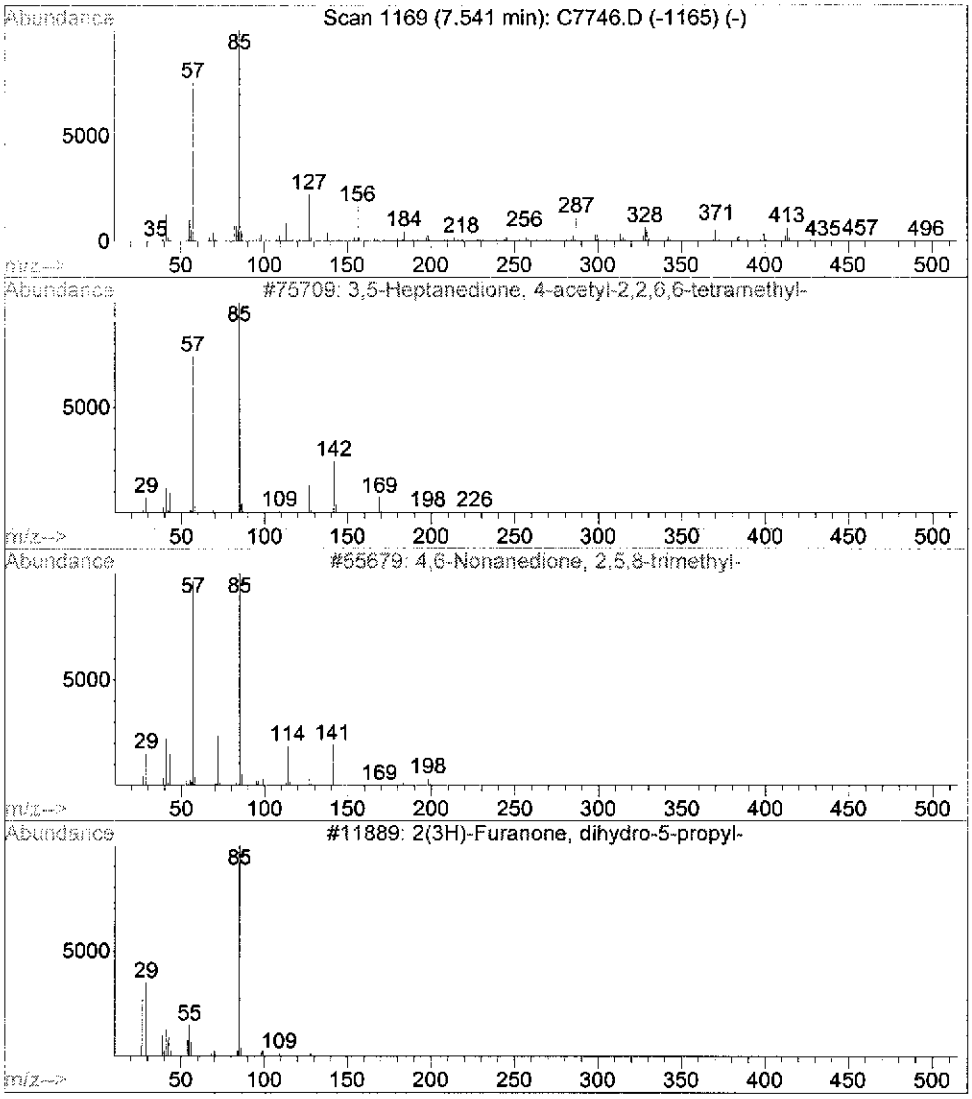
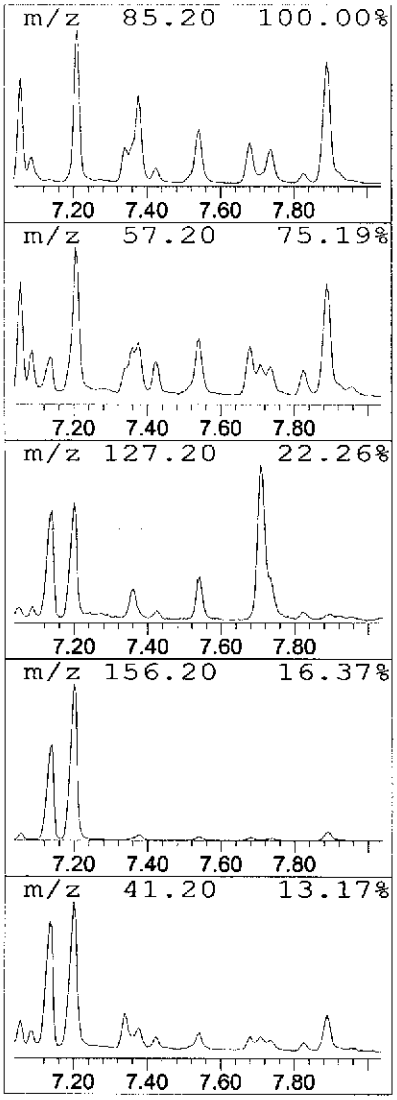
Peak Number 14 Unknown SV Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.54	61.73 UG	461424	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,5-Heptanedione, 4-acetyl-2,2,6...	226	C13H22O3	1000161-42-4	47
2	4,6-Nonanedione, 2,5,8-trimethyl-	198	C12H22O2	1000162-14-3	43
3	2(3H)-Furanone, dihydro-5-propyl-	128	C7H12O2	000105-21-5	43
4	Valeric acid, 4-cyanophenyl ester	203	C12H13NO2	1000307-98-7	43
5	Sulfurous acid, butyl isohexyl e...	222	C10H22O3S	1000309-17-2	43





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Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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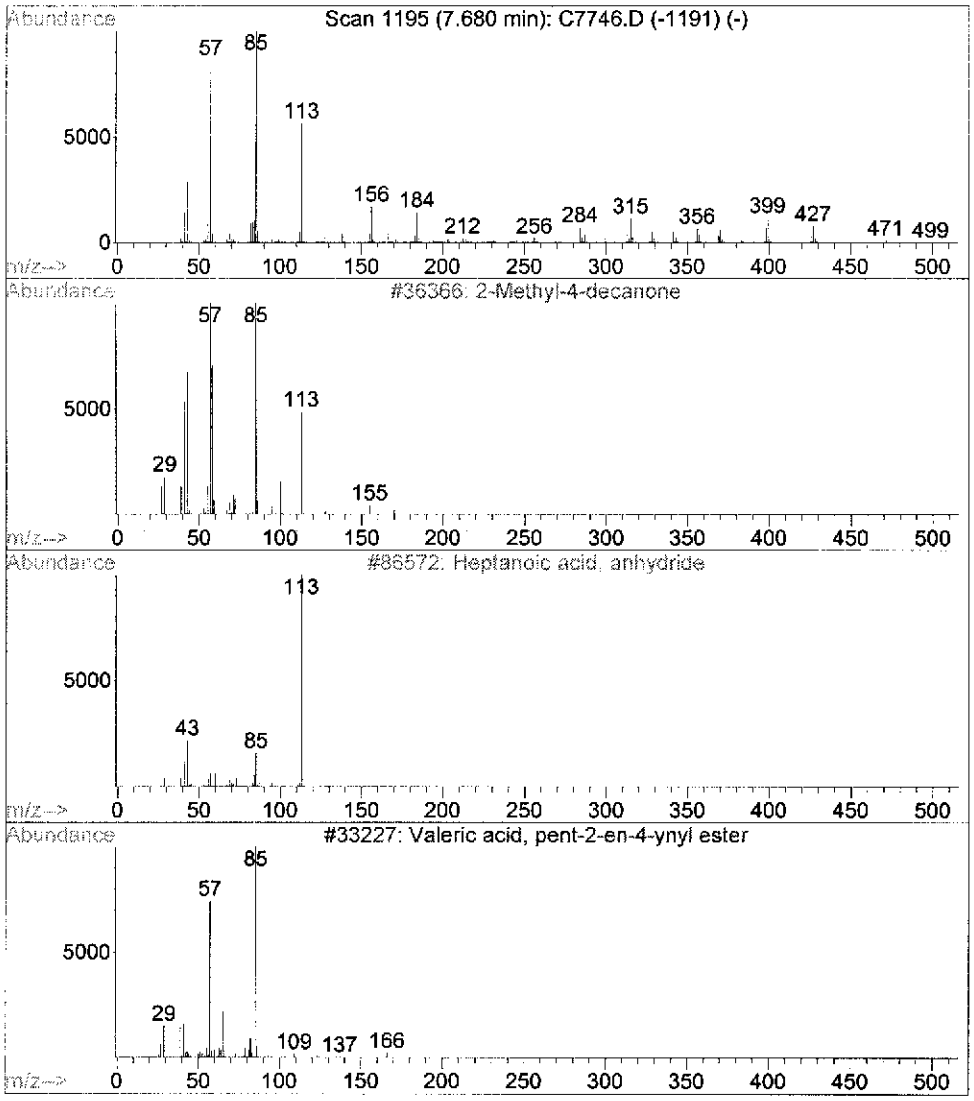
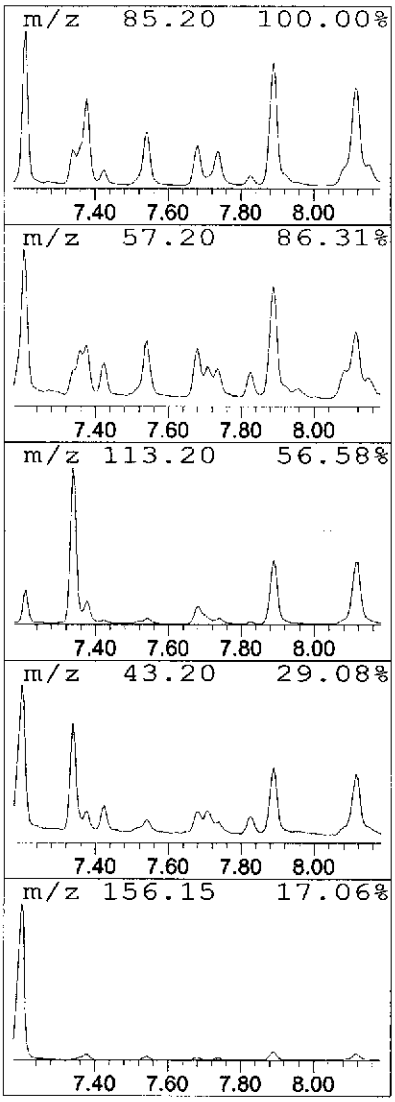
Peak Number 15 Unknown SV Concentration Rank 23

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.68	46.02 UG	343955	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Methyl-4-decanone	170	C11H22O	006628-25-7	42
2	Heptanoic acid, anhydride	242	C14H26O3	000626-27-7	42
3	Valeric acid, pent-2-en-4-ynyl e...	166	C10H14O2	1000292-48-6	35
4	Valeric acid, 3-pentadecyl ester	312	C20H40O2	1000281-99-3	35
5	4-Methyl-1,6-heptadien-4-ol	126	C8H14O	025201-40-5	35





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ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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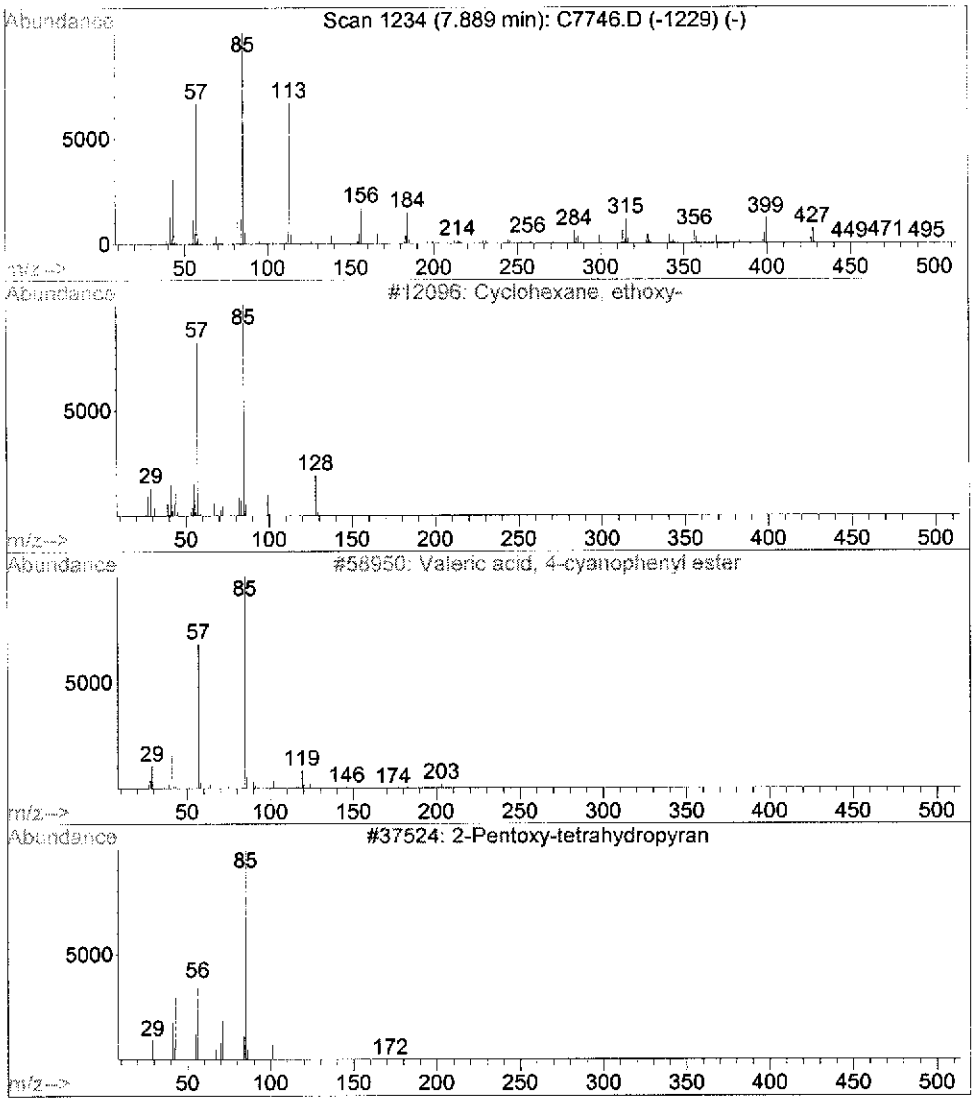
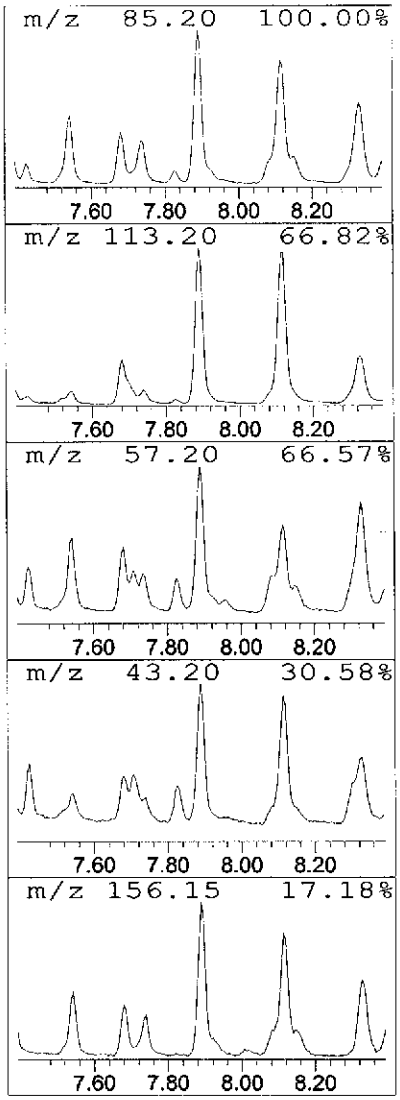
Peak Number 16 Unknown SV Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.89	148.78 UG	1112060	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, ethoxy-	128	C8H16O	000932-92-3	35
2	Valeric acid, 4-cyanophenyl ester	203	C12H13NO2	1000307-98-7	35
3	2-Pentoxy-tetrahydropyran	172	C10H20O2	032767-70-7	35
4	Sulfurous acid, butyl hexyl ester	222	C10H22O3S	1000309-17-3	35
5	4,7,7-Trimethyl-5-(tetrahydropyr...	252	C15H24O3	097500-29-3	25





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

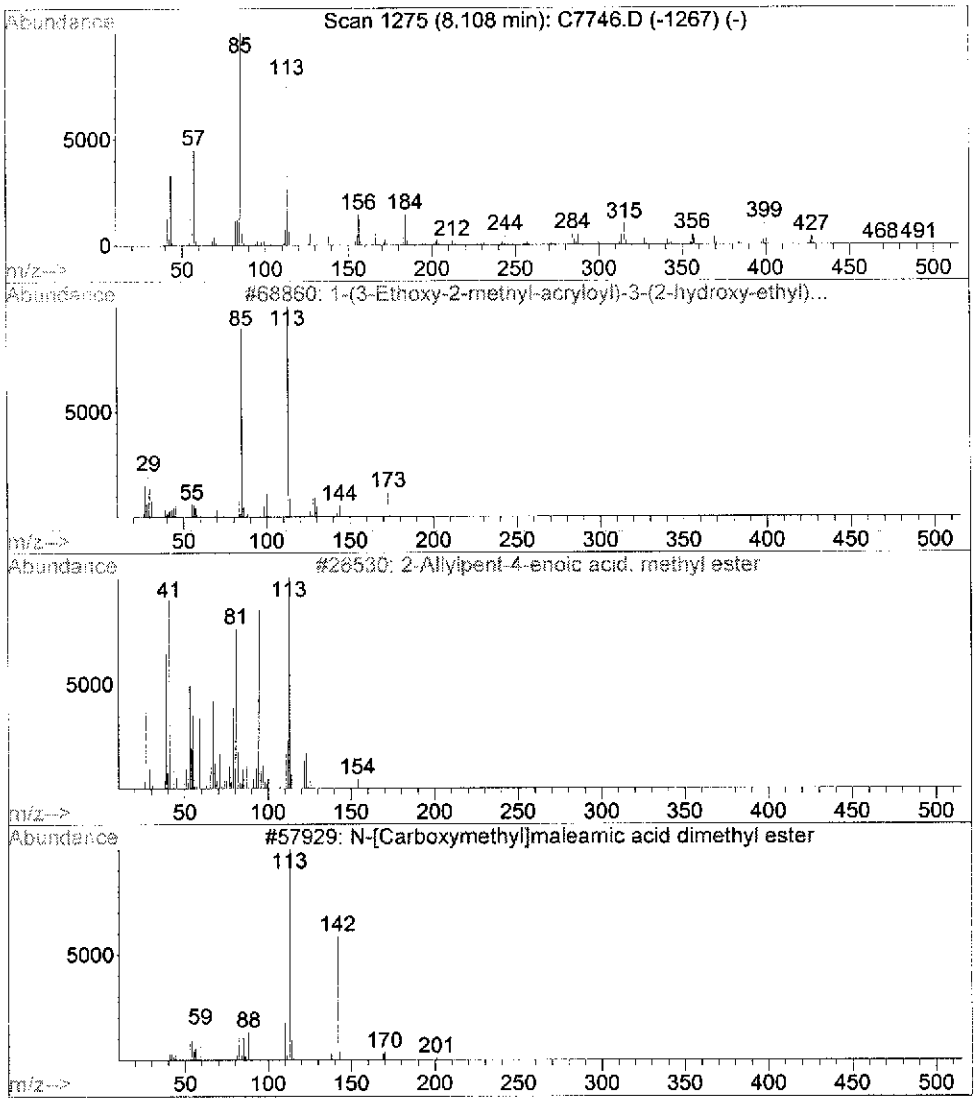
TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

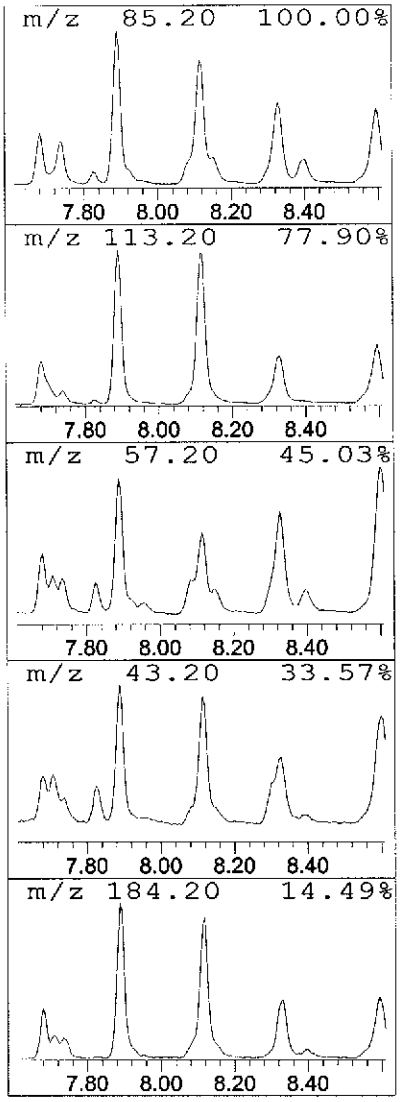
****

Peak Number 17 Unknown SV Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.11	143.60 UG	1073340	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-(3-Ethoxy-2-methyl-acryloyl)-3...	216	C9H16N2O4	1000188-24-4	45
2	2-Allylpent-4-enoic acid, methyl...	154	C9H14O2	054385-33-0	38
3	N-[Carboxymethyl]maleamic acid d...	201	C8H11NO5	014109-64-9	27
4	3,5-Heptanedione, 2,6-dimethyl-	156	C9H16O2	018362-64-6	25
5	5-Oxohexanethioic acid, S-t-buty...	202	C10H18O2S	1000194-60-8	25





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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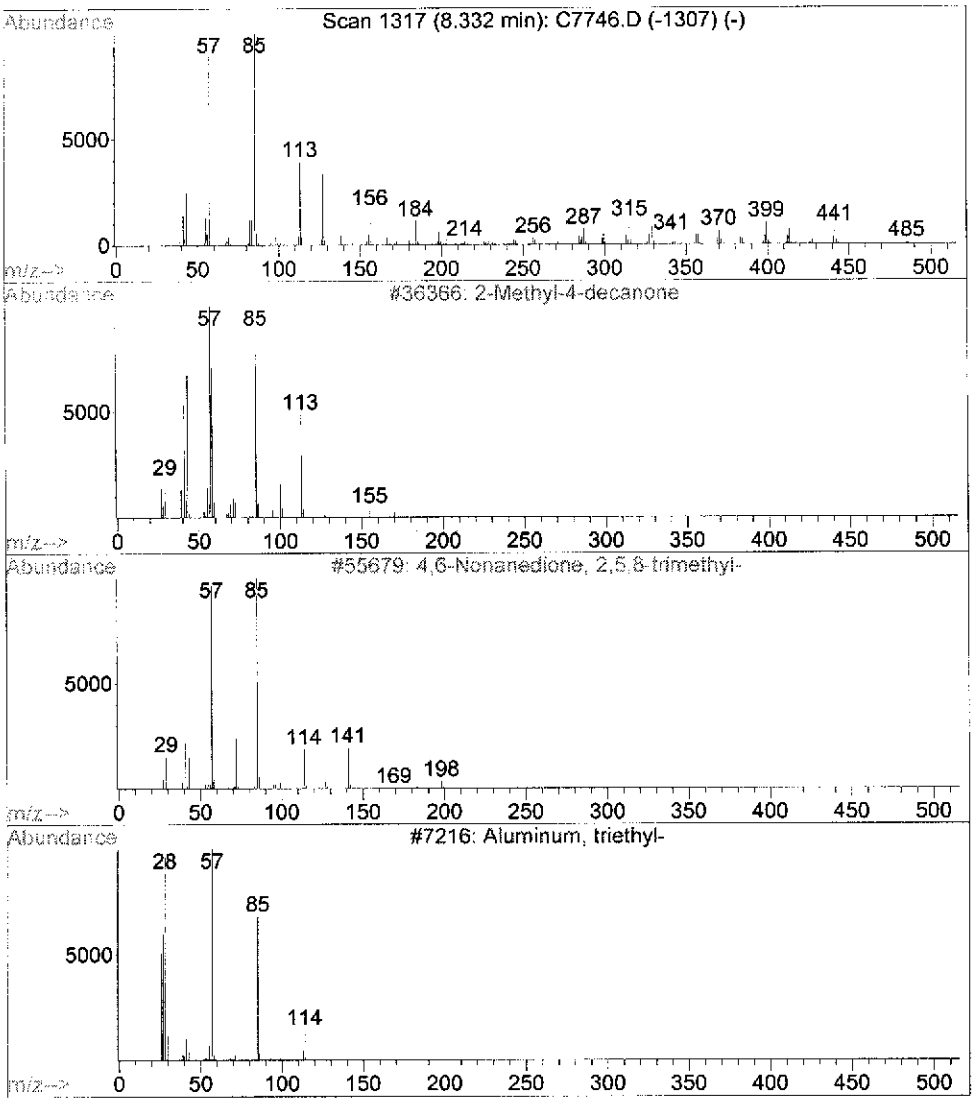
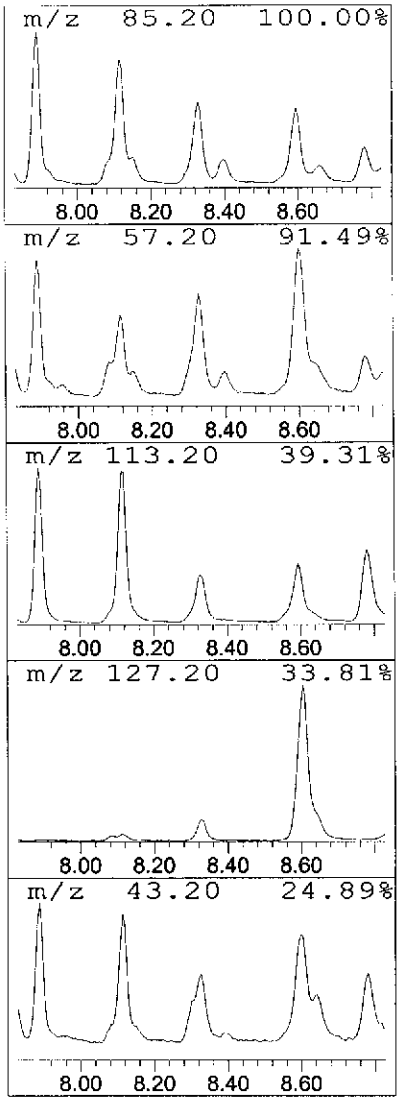
Peak Number 18 Unknown SV Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.33	125.17 UG	935580	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Methyl-4-decanone	170	C11H22O	006628-25-7	40
2	4,6-Nonanedione, 2,5,8-trimethyl-	198	C12H22O2	1000162-14-3	35
3	Aluminum, triethyl-	114	C6H15Al	000097-93-8	35
4	2-Pentoxy-tetrahydropyran	172	C10H20O2	032767-70-7	27
5	Sulfurous acid, butyl isohexyl e...	222	C10H22O3S	1000309-17-2	27





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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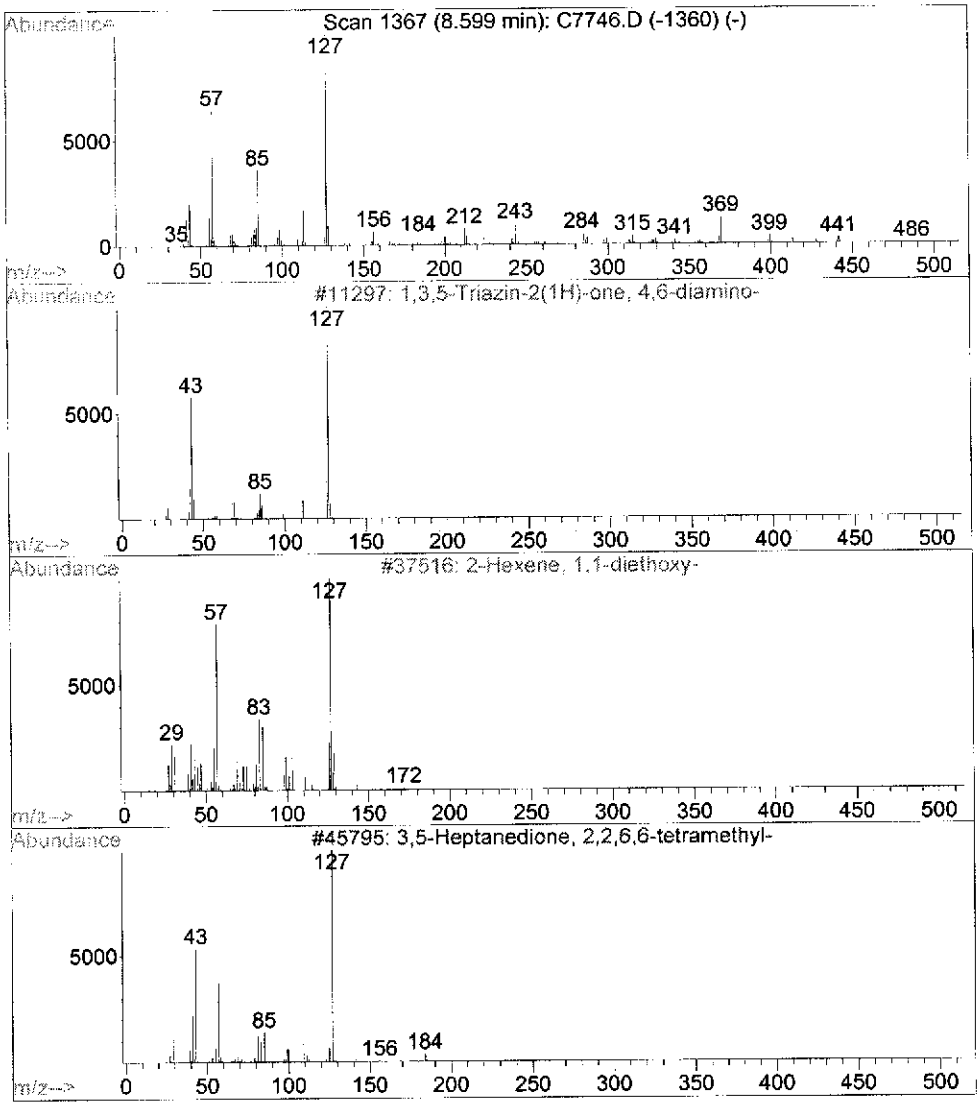
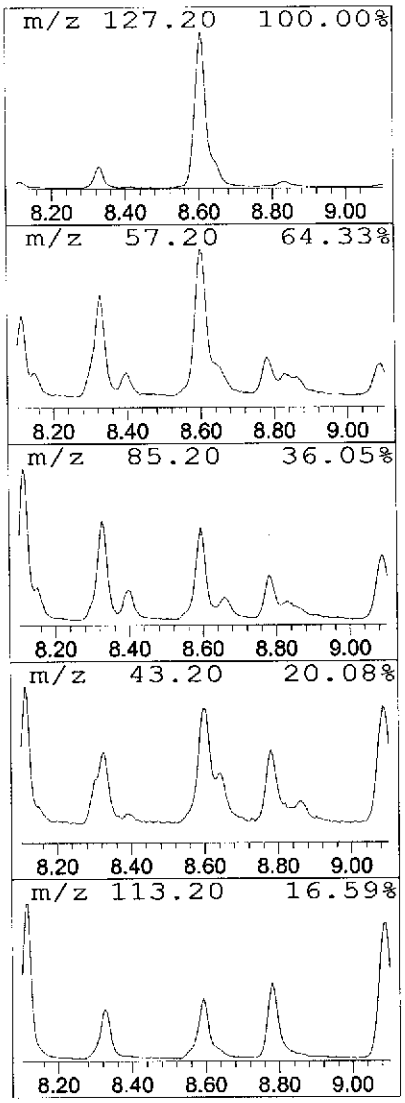
Peak Number 19 Unknown SV Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.60	220.57 UG	1648740	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,5-Triazin-2(1H)-one, 4,6-dia...	127	C3H5N5O	000645-92-1	58
2	2-Hexene, 1,1-diethoxy-	172	C10H20O2	054306-00-2	53
3	3,5-Heptanedione, 2,2,6,6-tetram...	184	C11H20O2	001118-71-4	50
4	1-Ethylhexyl propylphosphonofluo...	238	C11H24FO2P	1000298-40-8	43
5	Piperidine-4-carboxamide, 1-(2,5...	328	C14H20N2O5S	1000303-84-8	43





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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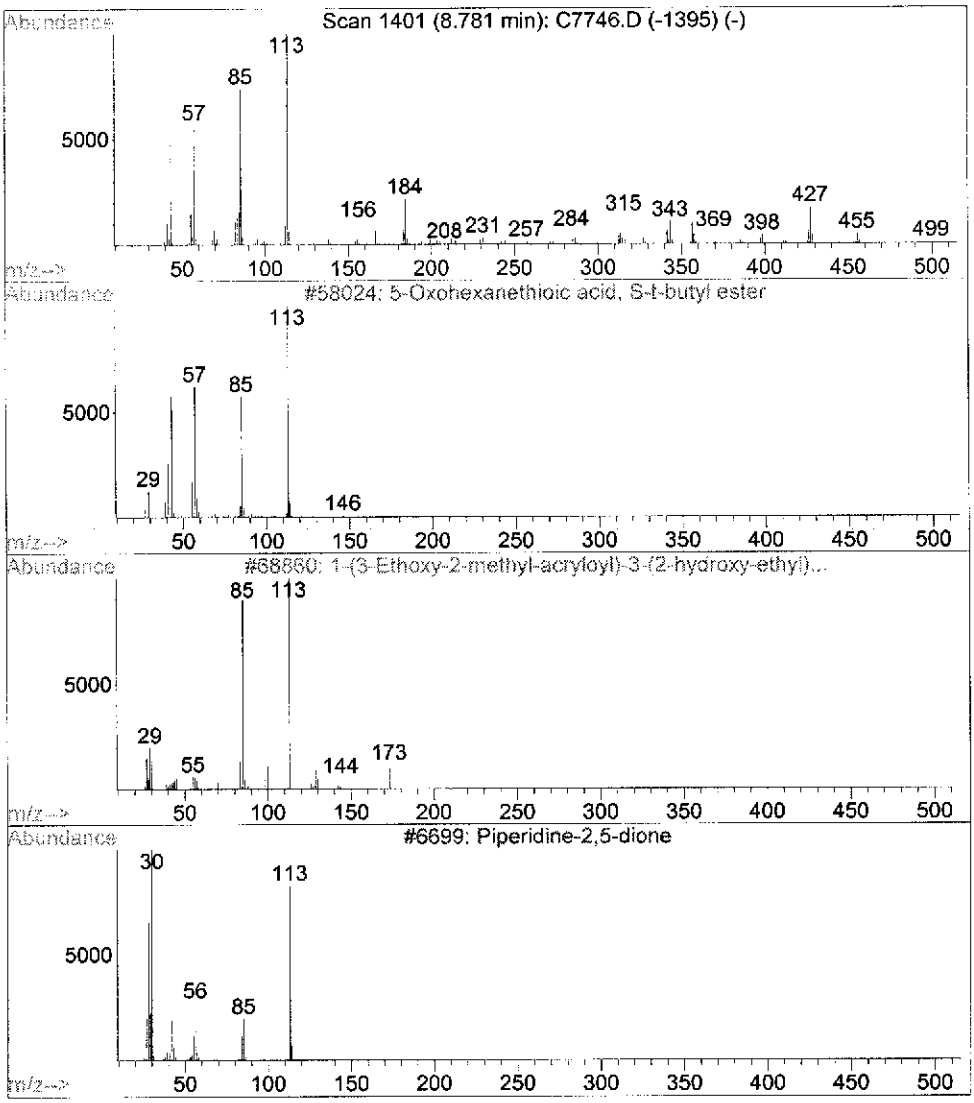
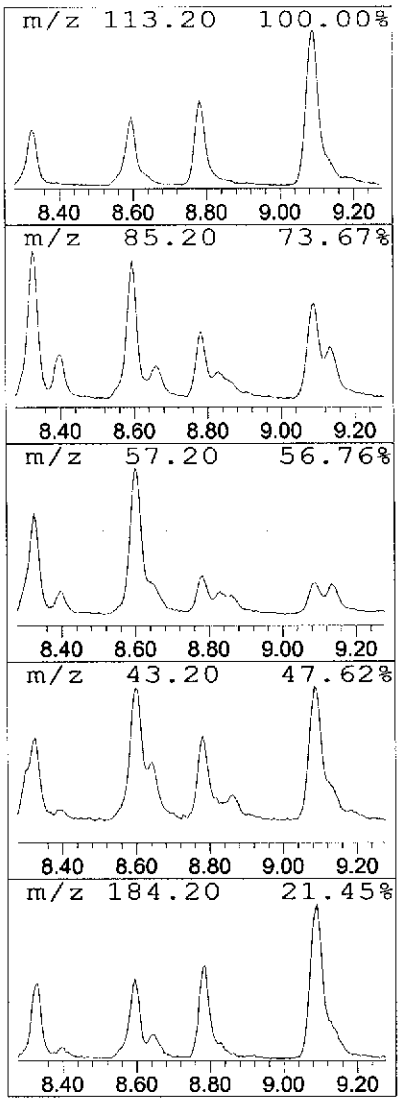
Peak Number 20 Unknown SV Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.78	70.69 UG	528417	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5-Oxohexanethioic acid, S-t-buty...	202	C10H18O2S	1000194-60-8	40
2	1-(3-Ethoxy-2-methyl-acryloyl)-3...	216	C9H16N2O4	1000188-24-4	40
3	Piperidine-2,5-dione	113	C5H7NO2	052065-78-8	27
4	Propanedioic acid, 2-propenyl-, ...	172	C8H12O4	040637-56-7	22
5	2H-Pyran, 2,2'-[1,6-hexanediylbi...	286	C16H30O4	015057-15-5	22





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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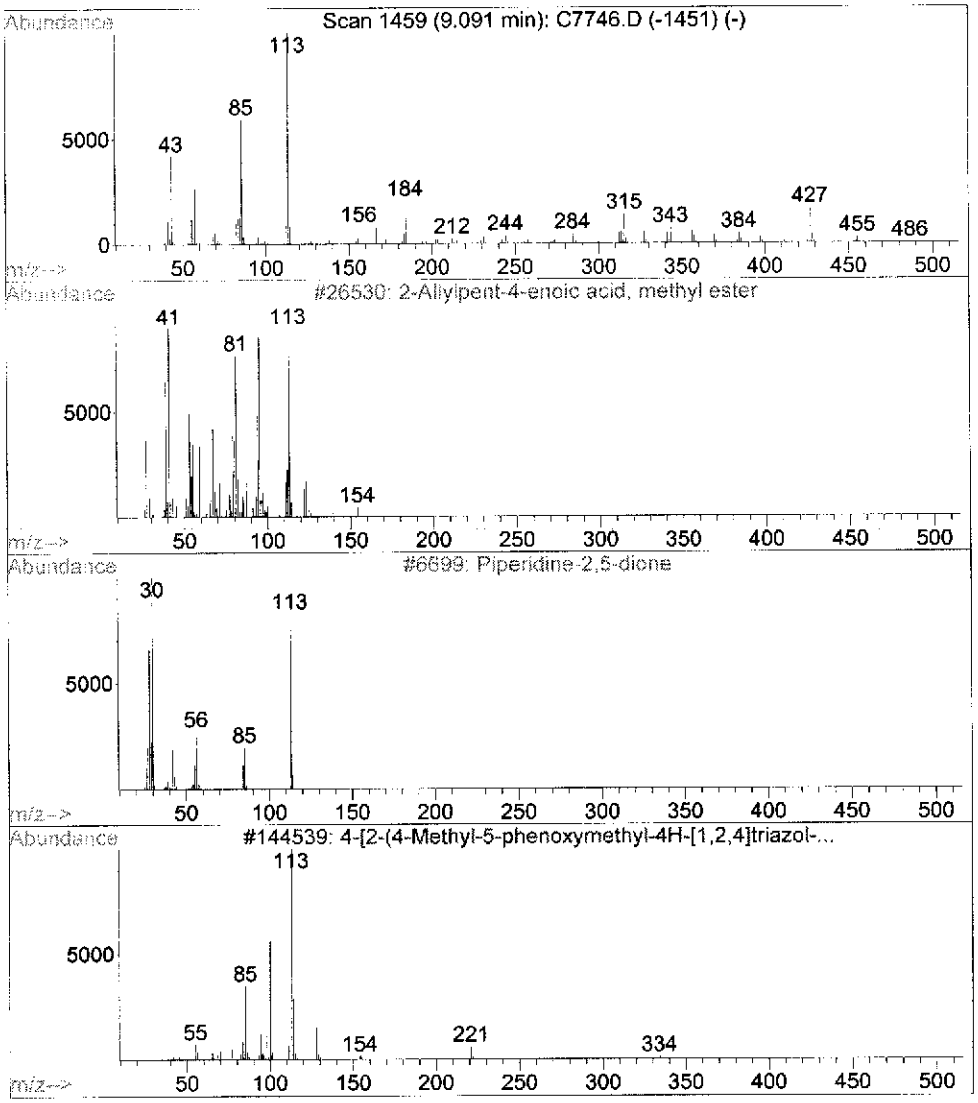
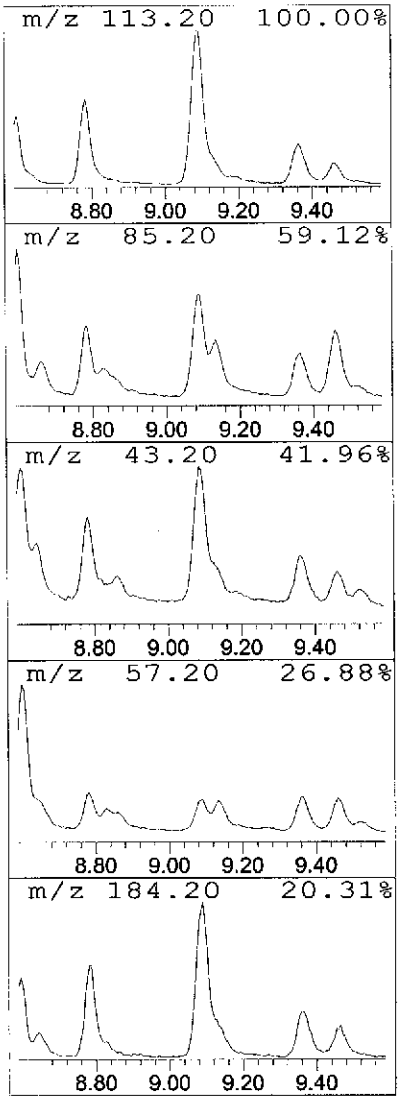
Peak Number 21 Unknown SV Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.09	133.06 UG	994564	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Allylpent-4-enoic acid, methyl...	154	C9H14O2	054385-33-0	46
2	Piperidine-2,5-dione	113	C5H7NO2	052065-78-8	43
3	4-[2-(4-Methyl-5-phenoxymethyl-4...	334	C16H22N4O2S	1000311-56-3	37
4	3,5-Heptanedione, 2,6-dimethyl-	156	C9H16O2	018362-64-6	35
5	Phosphonofluoridic acid, ethyl-,...	252	C12H26FO2P	333416-08-3	35





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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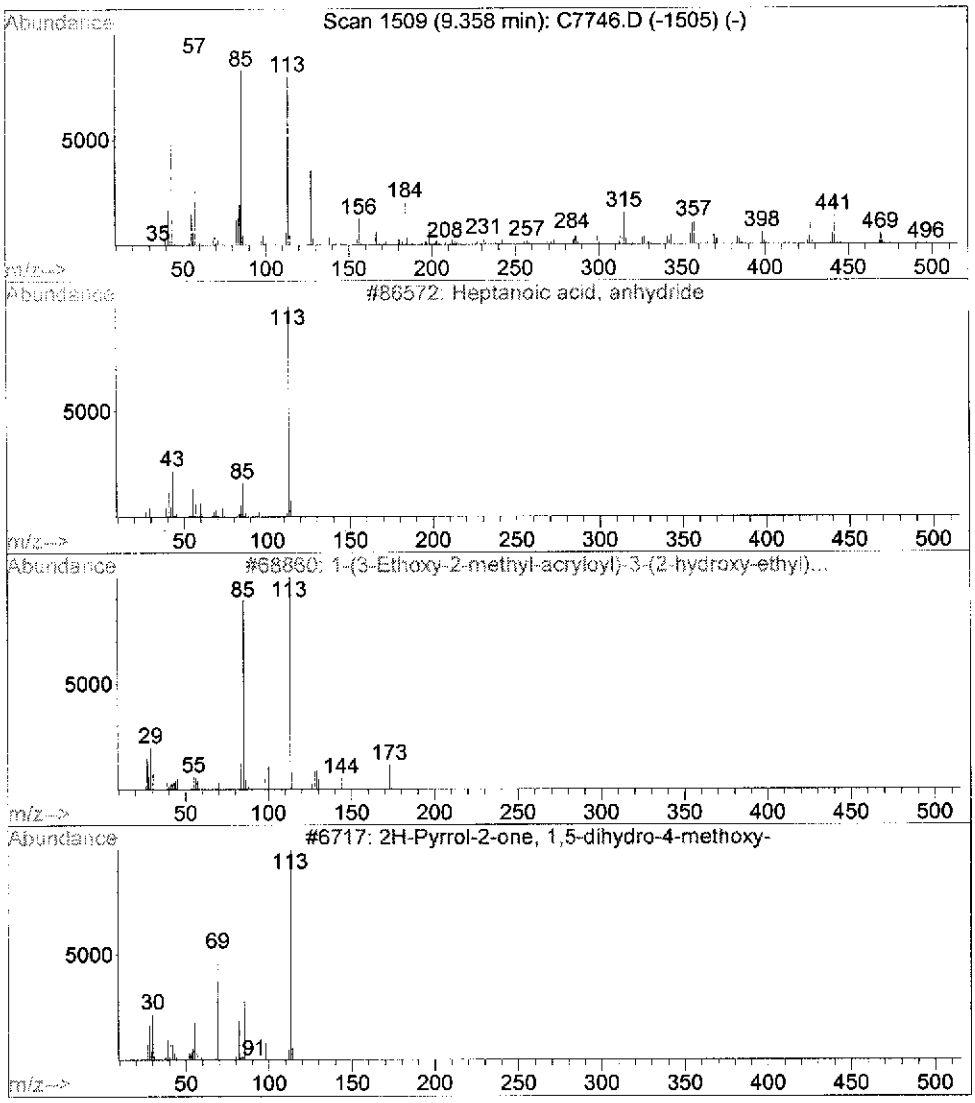
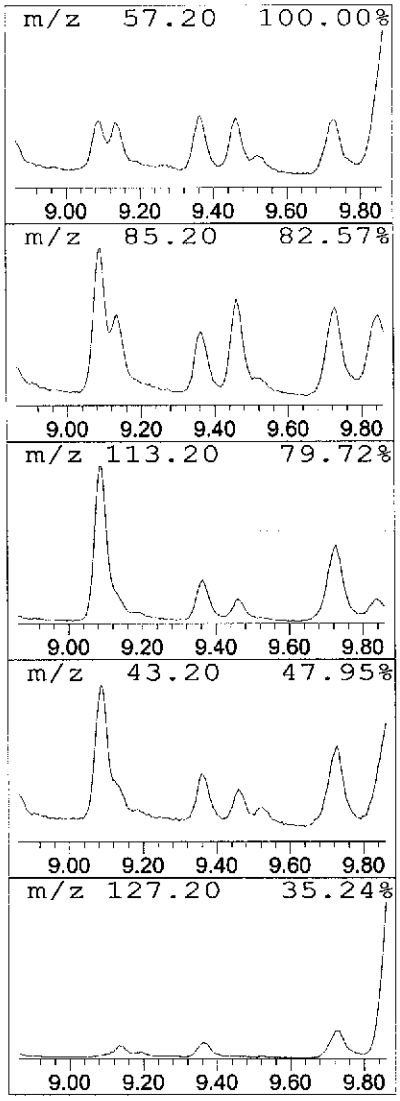
Peak Number 22 Unknown SV Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.36	55.22 UG	412756	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptanoic acid, anhydride	242	C14H26O3	000626-27-7	38
2	1-(3-Ethoxy-2-methyl-acryloyl)-3...	216	C9H16N2O4	1000188-24-4	38
3	2H-Pyrrol-2-one, 1,5-dihydro-4-m...	113	C5H7NO2	069778-83-2	25
4	Monalide	239	C13H18ClNO	007287-36-7	25
5	2-Allylpent-4-enoic acid, methyl...	154	C9H14O2	054385-33-0	18





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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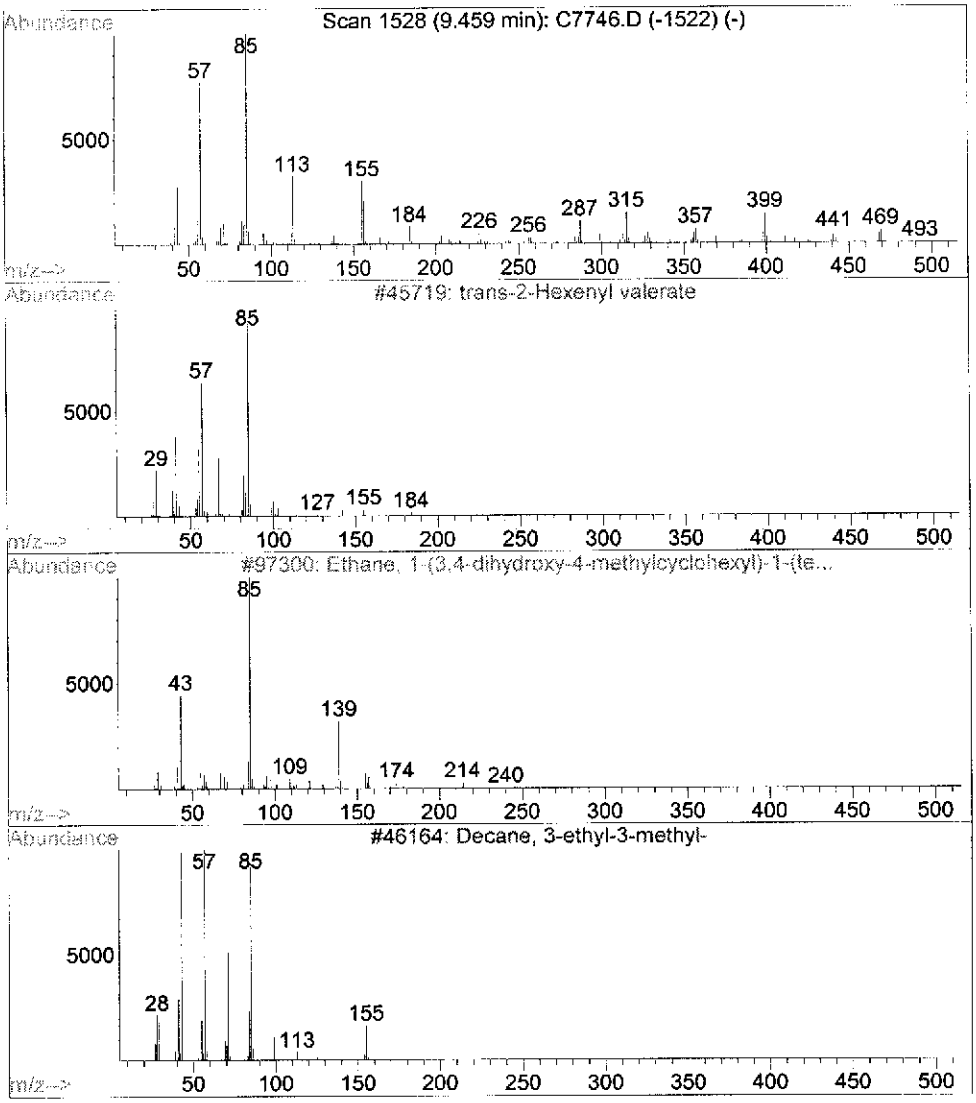
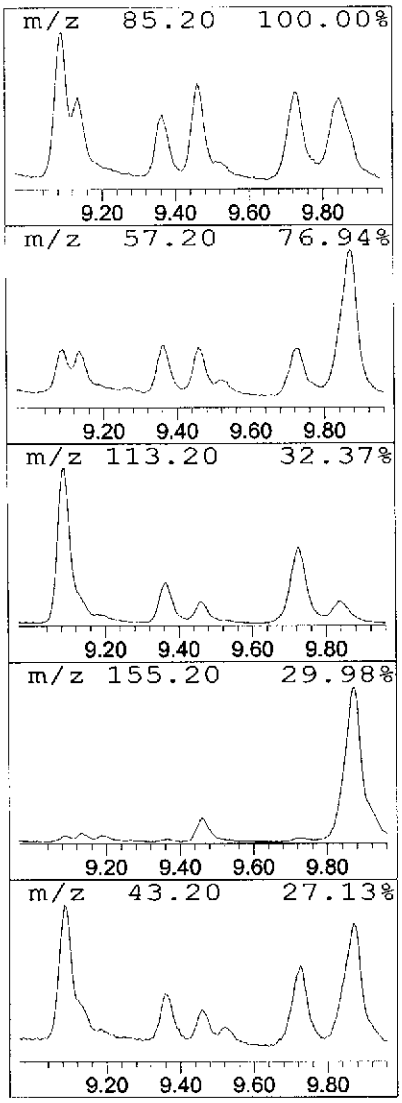
Peak Number 23 Unknown SV Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.46	47.26 UG	353278	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-2-Hexenyl valerate	184	C11H20O2	056922-74-8	43
2	Ethane, 1-(3,4-dihydroxy-4-methy...	258	C14H26O4	1000162-77-3	38
3	Decane, 3-ethyl-3-methyl-	184	C13H28	017312-66-2	37
4	Butanoic acid, 3-methyl-, 2-prop...	142	C8H14O2	002835-39-4	35
5	Sulfurous acid, butyl isohexyl e...	222	C10H22O3S	1000309-17-2	35





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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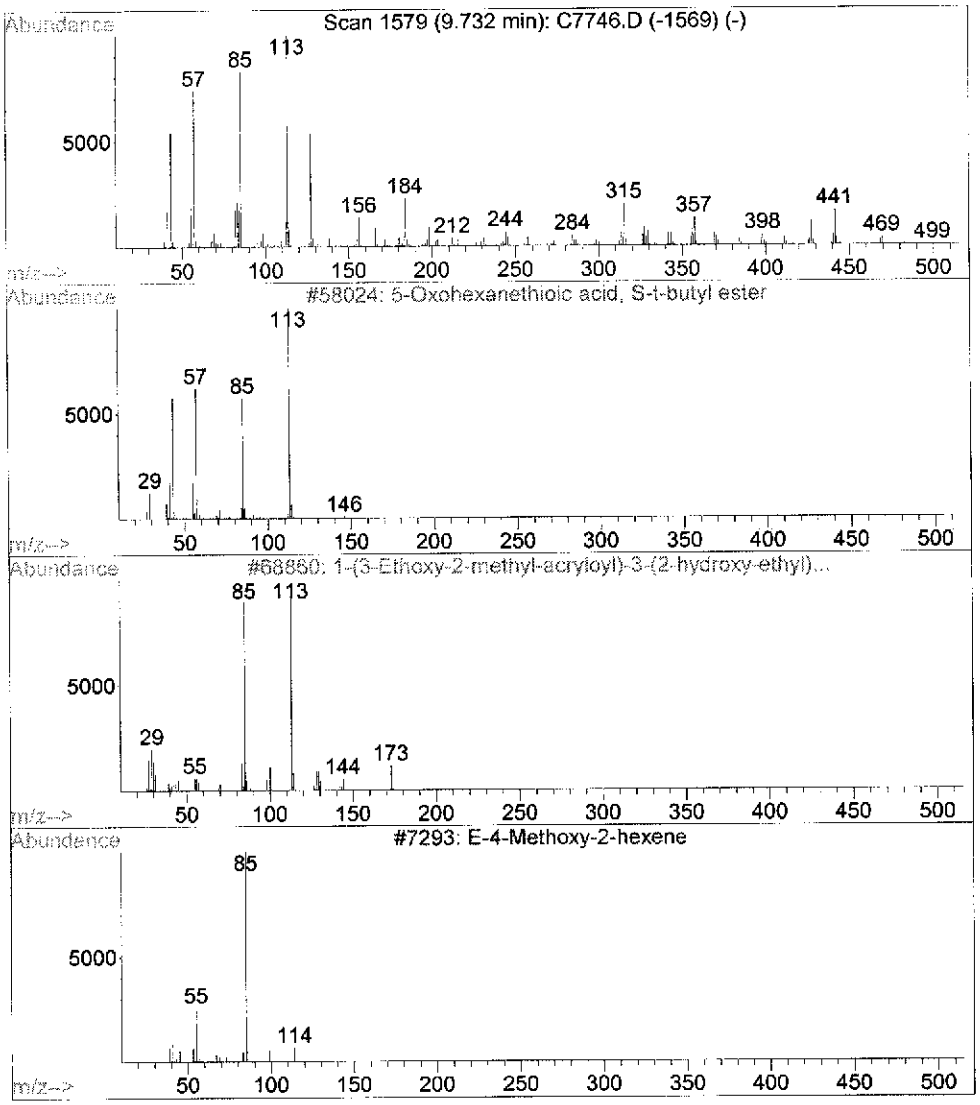
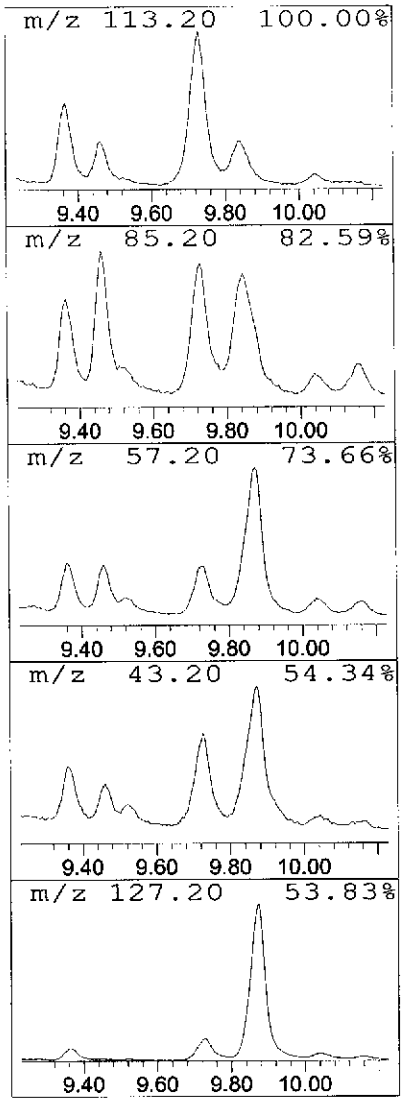
Peak Number 24 Unknown SV Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.73	109.43 UG	817952	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	5-Oxohexanethioic acid, S-t-buty...	202	C10H18O2S	1000194-60-8	47
2	1-(3-Ethoxy-2-methyl-acryloyl)-3...	216	C9H16N2O4	1000188-24-4	38
3	E-4-Methoxy-2-hexene	114	C7H14O	1000279-61-2	18
4	3,5-Heptanedione, 2,6-dimethyl-	156	C9H16O2	018362-64-6	18
5	Tetrahydropyran 12-tetradecyn-1-...	294	C19H34O2	096249-40-0	18





Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7746.D
Acq On : 10 Jul 2012 18:53
Operator : EDM
Sample : G4-06261,E12-06385-010,S,15.10g,24.3,1
Misc : 120709-03,07/09/12,06/27/12,10
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

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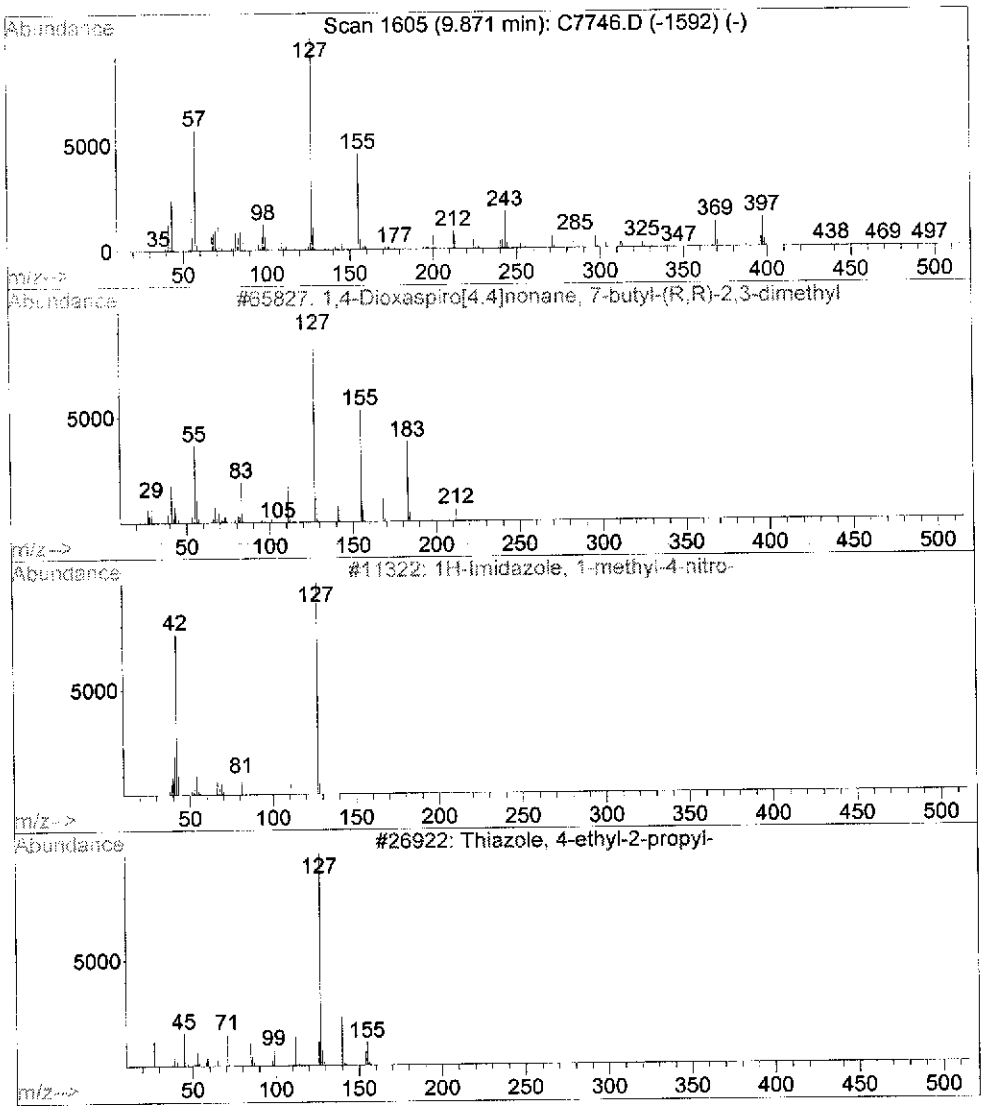
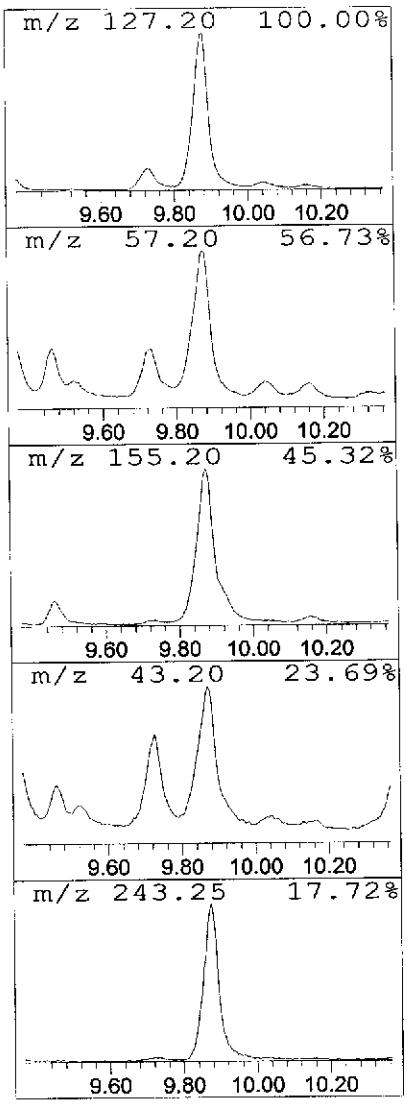
Peak Number 25 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.87	342.07 UG	2556870	Perylene-d12	8.03

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dioxaspiro[4.4]nonane, 7-but...	212	C13H24O2	104807-77-4	50
2	1H-Imidazole, 1-methyl-4-nitro-	127	C4H5N3O2	003034-41-1	38
3	Thiazole, 4-ethyl-2-propyl-	155	C8H13NS	041981-68-4	38
4	Isopropylphoshonic acid, fluoroa...	222	C10H20FO2P	1000273-48-8	35
5	Hexanoic acid, 2-ethyl-, anhydride	270	C16H30O3	036765-89-6	35





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7747.D
Acq On : 10 Jul 2012 19:09
Operator : EDM
Sample : I3SED-06,E12-06385-011,S,15.19g,33.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 11 09:28:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	138176	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	503493	40.00	UG	-0.02
43) Acenaphthene-d10	3.94	164	237799	40.00	UG	-0.04
66) Phenanthrene-d10	4.73	188	317762	40.00	UG	-0.06
82) Chrysene-d12	6.55	240	380324	40.00	UG	-0.07
92) Perylene-d12	8.12	264	281647	40.00	UG	0.01
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery	=	0.00%#	
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery	=	0.00%#	
24) Nitrobenzene-d5	2.79	82	46631	9.39	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery	=	18.78%#	
47) 2-Fluorobiphenyl	3.58	172	97060	12.87	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery	=	25.74%#	
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery	=	0.00%#	
84) Terphenyl-d14	5.68	244	100114m	12.17	UG	-0.11
Spiked Amount 50.000	Range 15 - 122		Recovery	=	24.34%	

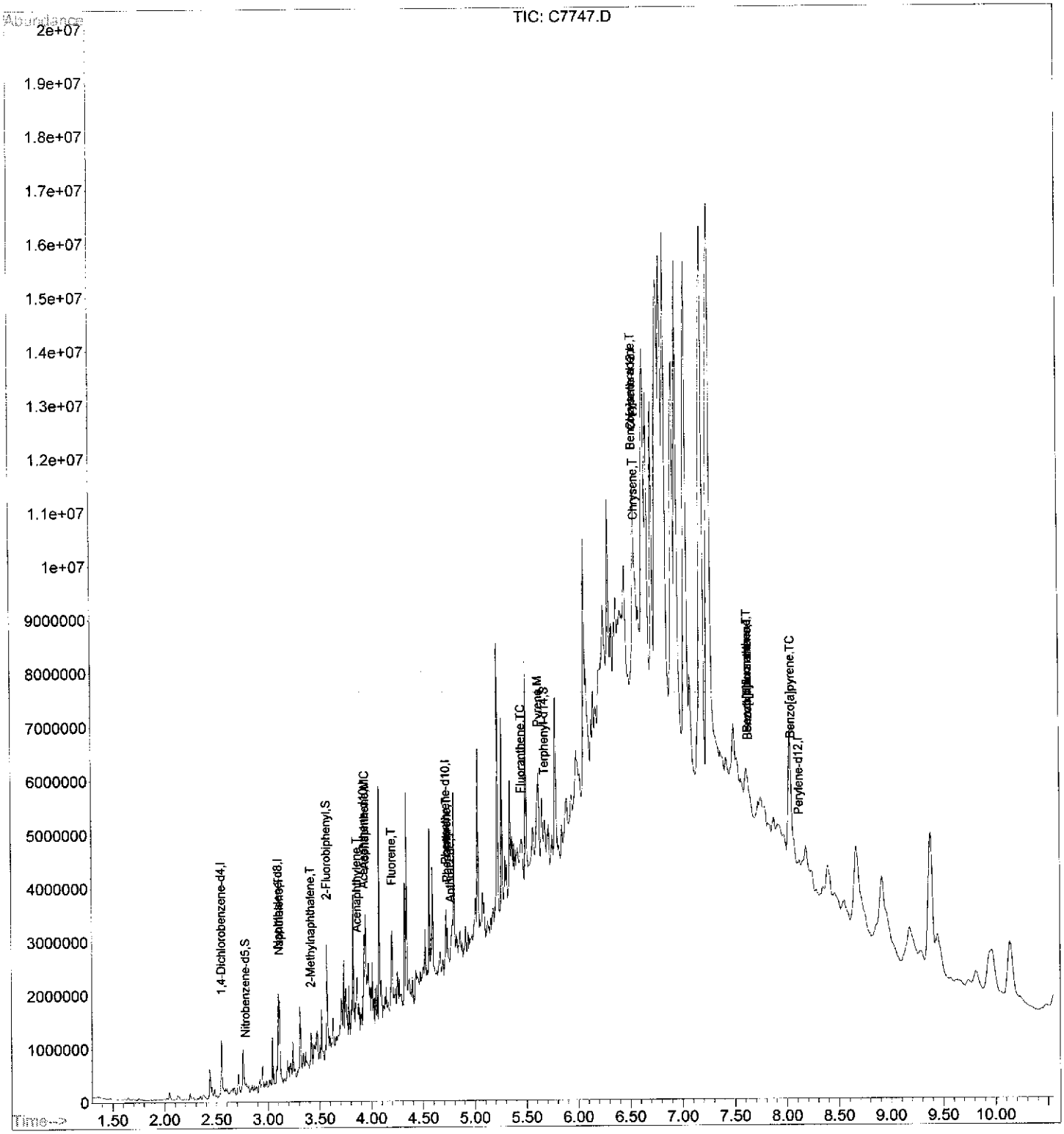
Target Compounds						Qvalue
34) Naphthalene	3.11	128	492225	34.20	UG	# 54
41) 2-Methylnaphthalene	3.42	142	128343	13.06	UG	100
53) Acenaphthylene	3.87	152	39406	3.77	UG	# 65
55) Acenaphthene	3.95	153	17560	2.61	UG	# 53
61) Fluorene	4.21	166	25425	3.46	UG	# 66
75) Phenanthrene	4.74	178	200794	22.90	UG	# 95
76) Anthracene	4.76	178	72808	8.00	UG	# 30
79) Fluoranthene	5.45	202	114267	14.56	UG	# 68
83) Pyrene	5.62	202	414189m	34.77	UG	
88) Benzo[a]anthracene	6.54	228	154044	15.25	UG	# 68
89) Chrysene	6.57	228	451030	48.09	UG	# 59
94) Benzo[b]fluoranthene	7.64	252	98456m	9.55	UG	
95) Benzo[k]fluoranthene	7.64	252	66944m	6.83	UG	
96) Benzo[a]pyrene	8.05	252	143784	17.48	UG	# 44

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7747.D
Acq On : 10 Jul 2012 19:09
Operator : EDM
Sample : I3SED-06,E12-06385-011,S,15.19g,33.0,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 11 09:28:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7748.D
Acq On : 10 Jul 2012 19:26
Operator : EDM
Sample : C1-06261,E12-06385-012,S,15.05g,30.3,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 11 09:33:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

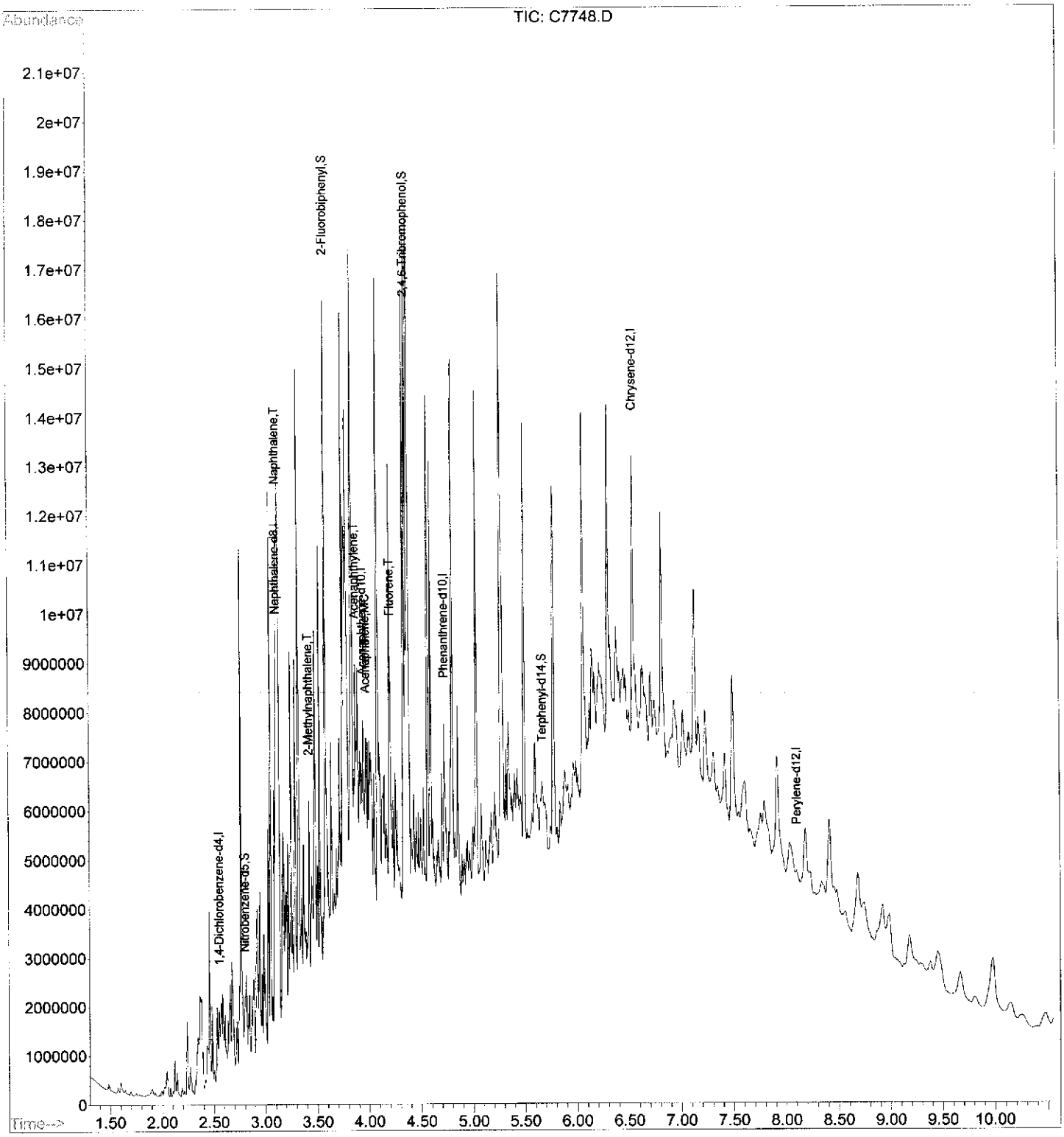
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	127507	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	446302m	40.00	UG	-0.02
43) Acenaphthene-d10	3.95	164	224054	40.00	UG	-0.03
66) Phenanthrene-d10	4.73	188	317539	40.00	UG	-0.06
82) Chrysene-d12	6.55	240	356375	40.00	UG	-0.07
92) Perylene-d12	8.11	264	263069	40.00	UG	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.80	82	33347	7.58	UG	0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 15.16%#			
47) 2-Fluorobiphenyl	3.58	172	84934	11.95	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 23.90%#			
70) 2,4,6-Tribromophenol	4.36	330	713	0.62	UG	-0.04
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.62%#			
84) Terphenyl-d14	5.68	244	91519m	11.87	UG	-0.12
Spiked Amount 50.000	Range 15 - 122		Recovery = 23.74%			
Target Compounds						Qvalue
34) Naphthalene	3.11	128	780245m	61.16	UG	
41) 2-Methylnaphthalene	3.42	142	523545m	60.09	UG	
53) Acenaphthylene	3.87	152	21353	2.17	UG	# 1
55) Acenaphthene	3.97	153	51995	8.20	UG	# 57
61) Fluorene	4.21	166	51501	7.44	UG	# 63

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7748.D
Acq On : 10 Jul 2012 19:26
Operator : EDM
Sample : C1-06261,E12-06385-012,S,15.05g,30.3,1
Misc : 120709-03,07/09/12,06/27/12,2
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 11 09:33:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7749.D
Acq On : 10 Jul 2012 19:42
Operator : EDM
Sample : C2-06261,E12-06385-013,S,15.10g,3.40,6
Misc : 120709-03,07/09/12,06/27/12,30
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 11 12:08:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	162761	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	633294	40.00	UG	-0.02
43) Acenaphthene-d10	3.93	164	327688	40.00	UG	-0.04
66) Phenanthrene-d10	4.72	188	443921	40.00	UG	-0.07
82) Chrysene-d12	6.54	240	426698	40.00	UG	-0.09
92) Perylene-d12	8.11	264	256590	40.00	UG	0.00

System Monitoring Compounds						
4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery	=	0.00%#	
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery	=	0.00%#	
24) Nitrobenzene-d5	2.79	82	5903m	0.95	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery	=	1.90%#	
47) 2-Fluorobiphenyl	3.58	172	10657m	1.03	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery	=	2.06%#	
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery	=	0.00%#	
84) Terphenyl-d14	5.70	244	5998m	0.65	UG	-0.10
Spiked Amount 50.000	Range 15 - 122		Recovery	=	1.30%#	

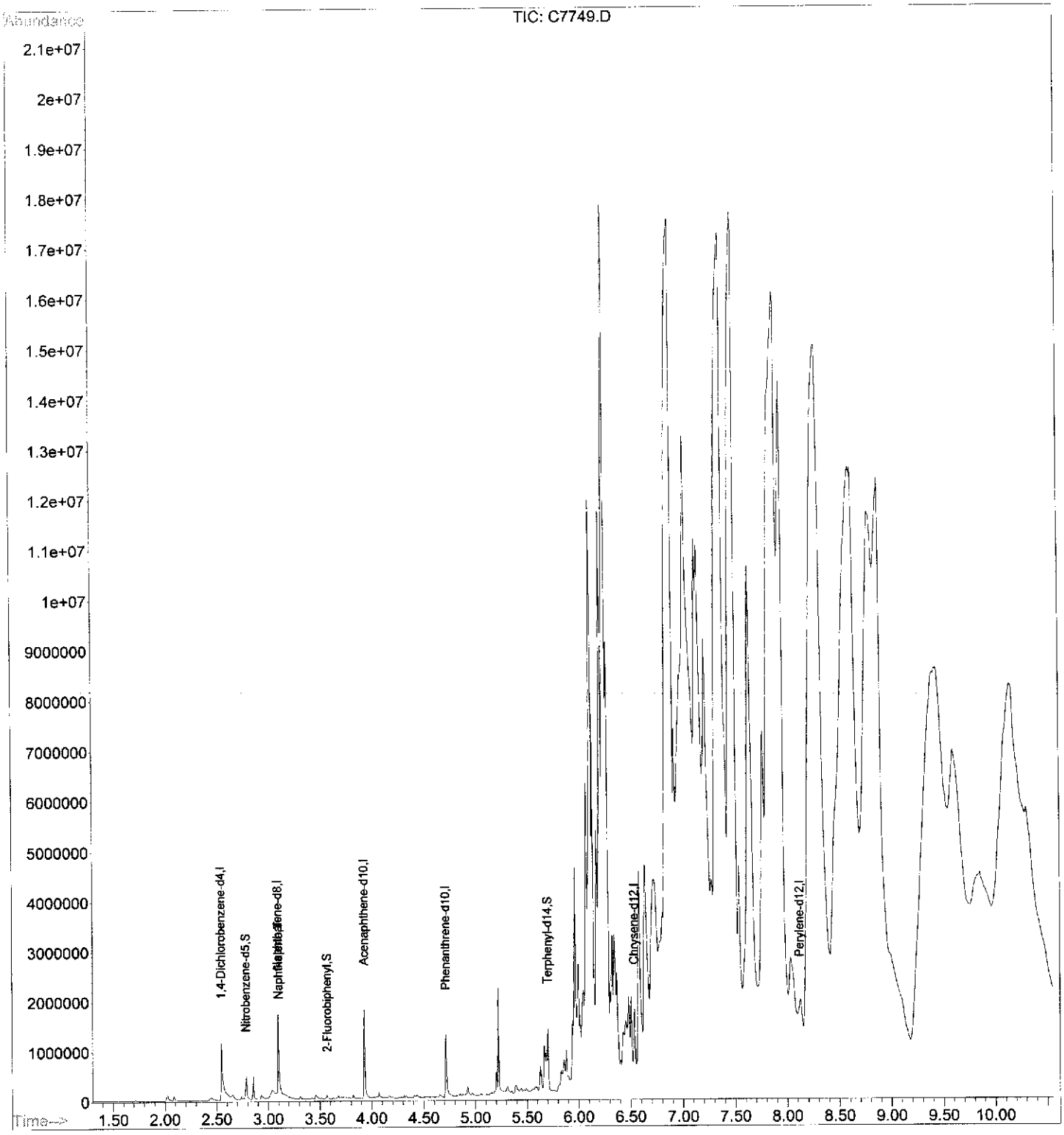
Target Compounds						Qvalue
34) Naphthalene	3.11	128	43824	2.42	UG #	55

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7749.D
Acq On : 10 Jul 2012 19:42
Operator : EDM
Sample : C2-06261,E12-06385-013,S,15.10g,3.40,6
Misc : 120709-03,07/09/12,06/27/12,30
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 11 12:08:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS120709-03
Client ID: .
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7735.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.023
Pyridine	ND		0.033	0.011
Benzaldehyde	ND		0.033	0.013
Phenol	ND		0.033	0.015
Aniline	ND		0.033	0.026
Bis(2-chloroethyl) ether	ND		0.033	0.023
2-Chlorophenol	ND		0.033	0.014
1,3-Dichlorobenzene	ND		0.033	0.015
1,4-Dichlorobenzene	ND		0.033	0.013
Benzyl alcohol	ND		0.033	0.021
1,2-Dichlorobenzene	ND		0.033	0.013
2-Methylphenol	ND		0.033	0.027
Bis(2-chloroisopropyl) ether	ND		0.033	0.012
4-Methylphenol **	ND		0.033	0.019
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.011
3-Methylphenol	ND		0.033	0.013
Hexachloroethane	ND		0.033	0.013
Nitrobenzene	ND		0.033	0.029
Isophorone	ND		0.033	0.022
2-Nitrophenol	ND		0.033	0.025
2,4-Dimethylphenol	ND		0.033	0.026
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.025
2,4-Dichlorophenol	ND		0.033	0.033
1,2,4-Trichlorobenzene	ND		0.033	0.026
Naphthalene	ND		0.033	0.025
4-Chloroaniline	ND		0.033	0.031
4-Aminotoluene	ND		0.033	0.028
Hexachlorobutadiene	ND		0.033	0.032
Caprolactam	ND		0.033	0.021
2-Aminotoluene	ND		0.033	0.028
4-Chloro-3-methylphenol	ND		0.033	0.030
2-Methylnaphthalene	ND		0.033	0.027
Hexachlorocyclopentadiene	ND		0.033	0.011
2,4,6-Trichlorophenol	ND		0.033	0.011
2,4,5-Trichlorophenol	ND		0.033	0.013
1,1'-Biphenyl	ND		0.033	0.010
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.010

E12-06385 0535

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS120709-03
Client ID: .
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7735.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.019
Acenaphthylene	ND		0.033	0.023
3-Nitroaniline	ND		0.033	0.010
Acenaphthene	ND		0.033	0.027
2,4-Dinitrophenol	ND		0.033	0.013
4-Nitrophenol	ND		0.033	0.025
2,4-Dinitrotoluene	ND		0.033	0.029
Dibenzofuran	ND		0.033	0.011
Diethyl phthalate	ND		0.033	0.025
Fluorene	ND		0.033	0.018
4-Chlorophenyl phenyl ether	ND		0.033	0.015
4-Nitroaniline	ND		0.033	0.021
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.010
2,3,4,6-Tetrachlorophenol	ND		0.033	0.014
4,6-Dinitro-2-methylphenol	ND		0.033	0.019
N-Nitrosodiphenylamine	ND		0.033	0.014
1,2-Diphenylhydrazine	ND		0.033	0.031
4-Bromophenyl phenyl ether	ND		0.033	0.019
Hexachlorobenzene	ND		0.033	0.024
Atrazine	ND		0.033	0.023
Pentachlorophenol	ND		0.033	0.014
Phenanthrene	ND		0.033	0.022
Anthracene	ND		0.033	0.032
Carbazole	ND		0.033	0.019
Di-n-butyl phthalate	ND		0.033	0.024
Fluoranthene	ND		0.033	0.013
Benzidine	ND		0.033	0.031
Pyrene	ND		0.033	0.025
3,3'-Dimethylbenzidine	ND		0.033	0.011
Butyl benzyl phthalate	ND		0.033	0.021
3,3'-Dichlorobenzidine	ND		0.033	0.023
Benzo[a]anthracene	ND		0.033	0.032
Chrysene	ND		0.033	0.023
Bis(2-ethylhexyl) phthalate	ND		0.033	0.016
Di-n-octyl phthalate	ND		0.033	0.013
Benzo[b]fluoranthene	ND		0.033	0.017
Benzo[k]fluoranthene	ND		0.033	0.012
Benzo[a]pyrene	ND		0.033	0.018
Indeno[1,2,3-cd]pyrene	ND		0.033	0.017
Dibenz[a,h]anthracene	ND		0.033	0.020
Benzo[g,h,i]perylene	ND		0.033	0.011

Total Target Compounds (83): 0

** - represents the total of 3+4-Methylphenol

E12-06385 0536

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS120709-03
Client ID: .
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7735.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7735.D
Acq On : 10 Jul 2012 15:51
Operator : EDM
Sample : .,BLKS120709-03,S,15.00g,0,0.5
Misc : 120709-03,07/09/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 16:06:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	108721	40.00	UG	0.00
23) Naphthalene-d8	3.11	136	442815	40.00	UG	0.00
43) Acenaphthene-d10	3.92	164	249810	40.00	UG	-0.05
66) Phenanthrene-d10	4.69	188	359959	40.00	UG	-0.09
82) Chrysene-d12	6.49	240	314168	40.00	UG	-0.13
92) Perylene-d12	7.98	264	219831	40.00	UG	-0.13

System Monitoring Compounds						
4) 2-Fluorophenol	2.03	112	247996	66.08	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 66.08%			
6) Phenol-d5	2.37	99	337115	65.93	UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 65.93%			
24) Nitrobenzene-d5	2.80	82	137077	31.39	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 62.78%			
47) 2-Fluorobiphenyl	3.58	172	276561	34.91	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 69.82%			
70) 2,4,6-Tribromophenol	4.33	330	91343	70.14	UG	-0.07
Spiked Amount 100.000	Range 37 - 115		Recovery = 70.14%			
84) Terphenyl-d14	5.62	244	251645	37.02	UG	-0.18
Spiked Amount 50.000	Range 15 - 122		Recovery = 74.04%			

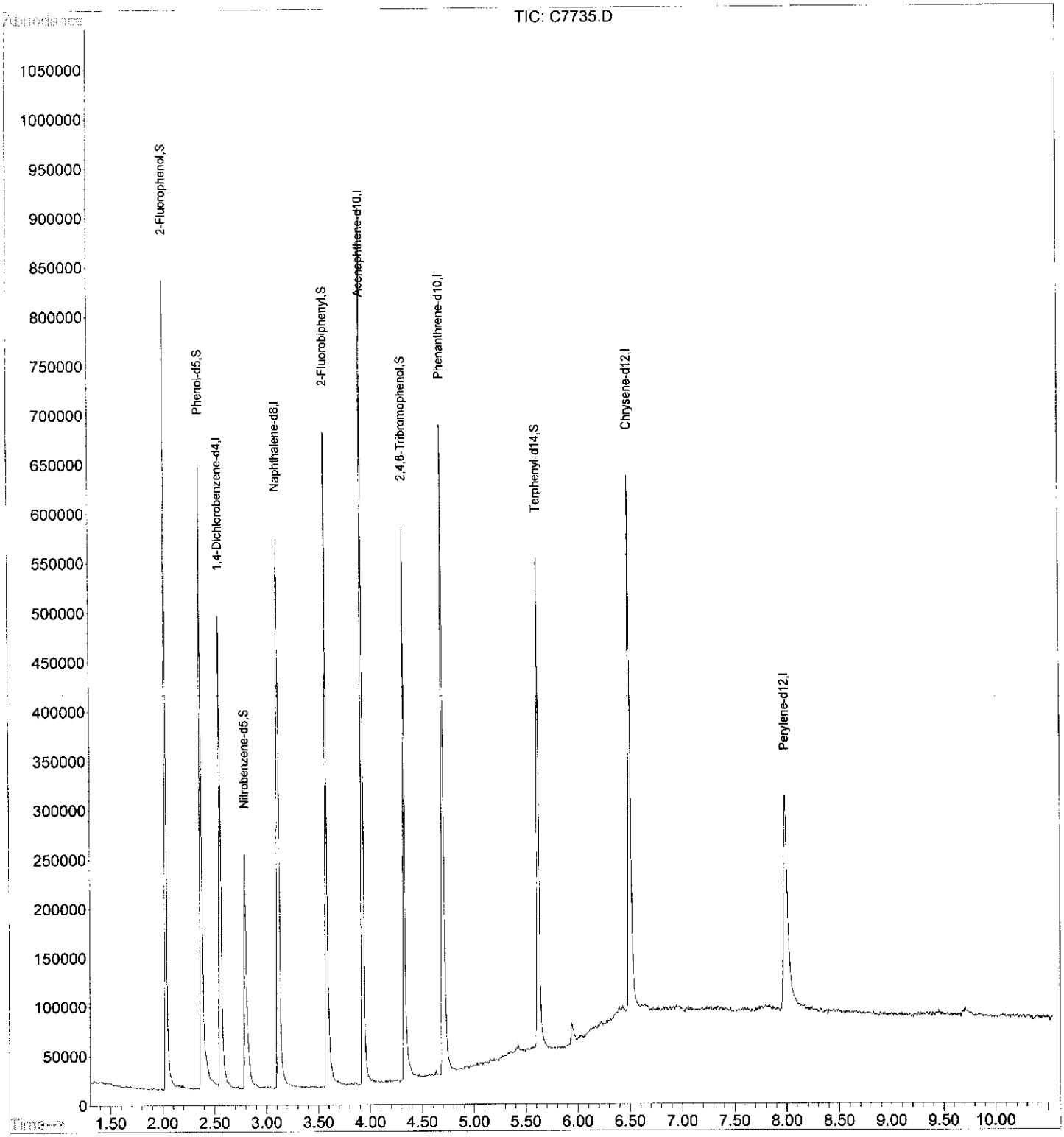
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7735.D
Acq On : 10 Jul 2012 15:51
Operator : EDM
Sample : .,BLKS120709-03,S,15.00g,0,0.5
Misc : 120709-03,07/09/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 16:06:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7735.D
Acq On : 10 Jul 2012 15:51
Operator : EDM
Sample : .,BLKS120709-03,S,15.00g,0,0.5
Misc : 120709-03,07/09/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1212.M Tue Jul 10 16:06:43 2012 RPT1

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/04/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
ORD-V12-17	06490-001	AQUEOUS	75		75		78		84	
FIELD_BLAN	06388-022	AQUEOUS	69		64		71		73	
I2-062612-	06385-003	AQUEOUS	43		82		60		92	
I1-062612-	06385-005	AQUEOUS	52		65		62		75	
SS-7/0-5	06438-001	AQUEOUS	53		43		65		67	
FB-1	06456-044	AQUEOUS	65		46		71		64	
TW-1/8	06503-006	AQUEOUS	55		51		61		65	
TW-17/11	06503-007	AQUEOUS	67		55		69		76	
FB-2	06456-104	AQUEOUS	75		58		81		72	
GPECFB0628	06507-016	AQUEOUS	73		59		77		69	
PCB	06503-006MS	AQUEOUS	62		67		66		73	
PCB	06503-006MSD	AQUEOUS	58		74		62		77	
PCB	LCSA120702-12	AQUEOUS	44		33		44		39	
PCB	BLKA120702-12	AQUEOUS	61		52		63		56	
AUD-1626B_	06415-003	AQUEOUS	D		D		D		D	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/11/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS120705-16	SOIL	93		53		94		69	
T-18/0.5-1	06607-001	SOIL	93		39		94		46	
T-18A/10-1	06607-002	SOIL	93		50		95		65	
T-18B/29-3	06607-003	SOIL	88		49		93		60	
T-19/0.5-1	06607-004	SOIL	91		52		94		63	
T-19A/10-1	06607-005	SOIL	93		54		96		66	
T-19B/19-2	06607-006	SOIL	88		50		91		62	
SUMP-1/1.5	06225-018	SOIL	97		40		96		50	
G1-062612	06385-001	SOIL	54		56		100		57	
G2-062612	06385-002	SOIL	52		46		70		59	
G8-062612	06385-004	SOIL	73		47		85		67	
G7-062612	06385-006	SOIL	50		46		74		79	
G3-062612	06385-007	SOIL	54		55		72		59	
G6-062612	06385-008	SOIL	67		51		82		57	
G5-062612	06385-009	SOIL	51		43		69		66	
G4-062612	06385-010	SOIL	52		40		87		73	
SAMPLE_73/	06389-001	SOIL	93		52		100		64	
SAMPLE_74/	06389-002	SOIL	87		49		90		59	
SAMPLE_75/	06389-003	SOIL	85		50		90		62	
SAMPLE_76/	06389-004	SOIL	88		50		93		62	
PCB	03689-004MS	SOIL	97		55		102		69	
PCB	03689-004MSD	SOIL	88		50		93		64	
PCB	LCSS120705-16	SOIL	90		55		95		64	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

AQUEOUS PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSA120702-12

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	454.0	91	70 - 130
Aroclor-1260	500.0	0.0	470.2	94	70 - 130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSS120705-16

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	390.9	78	70 - 130
Aroclor-1260	500.0	0.0	417.5	84	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

AQUEOUS PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06503-006MSD

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	361.5	72	40 - 140
Aroclor-1260	500.0	0.0	376.9	75	40 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	#	MSD % REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	338.0		68	6	50	40 - 140
Aroclor-1260	0.0	382.6		77	3	50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 03689-004MSD

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	456.1	91	40 - 140
Aroclor-1260	500.0	0.0	407.5	82	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	466.2	93	2	50	40 - 140
Aroclor-1260	0.0	381.5	76	8	50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

PCB METHOD BLANK SUMMARY

Lab File ID:	Y6192.D	Instrument ID:	GC-Y
Date Extracted:	07/02/2012	Matrix:	AQUEOUS
Date Analyzed:	07/05/2012	Time Analyzed:	11:41

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ORD-V12-17	06490-001	07/04/2012	14:20
FIELD_BLAN	06388-022	07/04/2012	14:37
I2-062612-	06385-003	07/04/2012	14:55
I1-062612-	06385-005	07/04/2012	15:12
SS-7/0-5	06438-001	07/04/2012	15:46
FB-1	06456-044	07/04/2012	16:03
TW-1/8	06503-006	07/04/2012	16:20
TW-17/11	06503-007	07/04/2012	16:38
FB-2	06456-104	07/04/2012	16:55
GPECFB0628	06507-016	07/04/2012	17:12
PCB	06503-006MS	07/04/2012	17:29
PCB	06503-006MSD	07/04/2012	17:46
PCB	LCSA120702-12	07/04/2012	18:04
AUD-1626B_	06415-003	07/05/2012	11:58

PCB METHOD BLANK SUMMARY

Lab File ID: Y6543.D

Instrument ID: GC-Y

Date Extracted: 07/05/2012

Matrix: SOIL

Date Analyzed: 07/11/2012

Time Analyzed: 15:14

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
T-18/0.5-1	06607-001	07/11/2012	15:39
T-18A/10-1	06607-002	07/11/2012	15:56
T-18B/29-3	06607-003	07/11/2012	16:13
T-19/0.5-1	06607-004	07/11/2012	16:30
T-19A/10-1	06607-005	07/11/2012	16:47
T-19B/19-2	06607-006	07/11/2012	17:05
SUMP-1/1.5	06225-018	07/11/2012	18:41
G1-062612	06385-001	07/11/2012	18:58
G2-062612	06385-002	07/11/2012	19:15
G8-062612	06385-004	07/11/2012	19:32
G7-062612	06385-006	07/11/2012	19:50
G3-062612	06385-007	07/11/2012	20:07
G6-062612	06385-008	07/11/2012	20:24
G5-062612	06385-009	07/11/2012	20:41
G4-062612	06385-010	07/11/2012	20:58
SAMPLE_73/	06389-001	07/11/2012	21:16
SAMPLE_74/	06389-002	07/11/2012	21:33
SAMPLE_75/	06389-003	07/11/2012	21:50
SAMPLE_76/	06389-004	07/11/2012	22:07
PCB	03689-004MS	07/11/2012	22:24
PCB	03689-004MSD	07/11/2012	22:41
PCB	LCSS120705-16	07/11/2012	22:59

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1016	3.27	3.28	3.28	3.28	3.28	3.28	3.21	3.35
Aroclor-1016 {2}	4.11	4.10	4.11	4.11	4.11	4.11	4.04	4.18
Aroclor-1016 {3}	4.65	4.66	4.65	4.65	4.65	4.65	4.58	4.72
Aroclor-1016 {4}	5.16	5.16	5.16	5.16	5.16	5.16	5.09	5.23
Aroclor-1016 {5}	5.55	5.55	5.55	5.55	5.55	5.55	5.48	5.62
Aroclor-1221			2.17				2.10	2.24
Aroclor-1221 {2}			3.07				3.00	3.14
Aroclor-1221 {3}			3.19				3.12	3.26
Aroclor-1221 {4}			3.27				3.20	3.34
Aroclor-1221 {5}			3.86				3.79	3.93
Aroclor-1232			3.27				3.20	3.34
Aroclor-1232 {2}			4.10				4.03	4.17
Aroclor-1232 {3}			4.76				4.69	4.83
Aroclor-1232 {4}			5.35				5.28	5.42
Aroclor-1232 {5}			5.55				5.48	5.62
Aroclor-1242			4.11				4.04	4.18
Aroclor-1242 {2}			5.04				4.97	5.11
Aroclor-1242 {3}			5.36				5.29	5.43
Aroclor-1242 {4}			6.05				5.98	6.12
Aroclor-1242 {5}			6.32				6.25	6.39
Aroclor-1248			4.50				4.42	4.58
Aroclor-1248 {2}			5.04				4.96	5.12
Aroclor-1248 {3}			5.36				5.28	5.44
Aroclor-1248 {4}			6.06				5.98	6.14
Aroclor-1248 {5}			6.33				6.25	6.41
Aroclor-1254			6.45				6.37	6.53
Aroclor-1254 {2}			6.88				6.80	6.96
Aroclor-1254 {3}			7.05				6.96	7.14
Aroclor-1254 {4}			7.48				7.39	7.57
Aroclor-1254 {5}			8.33				8.24	8.42
Aroclor-1260	8.32	8.32	8.32	8.33	8.32	8.32	7.42	9.22
Aroclor-1260 {2}	9.00	9.00	9.00	9.00	9.00	9.00	8.10	9.90
Aroclor-1260 {3}	9.47	9.47	9.47	9.47	9.47	9.47	8.57	10.37
Aroclor-1260 {4}	9.95	9.95	9.95	9.95	9.95	9.95	9.05	10.85
Aroclor-1260 {5}	11.01	11.01	11.01	11.01	11.01	11.01	10.11	11.91

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	2158526	1576000	1698131	1764462	1711954	1781815	12.44
Aroclor-1016 {2}	2402575	2200752	2357394	2475021	2422935	2371736	4.41
Aroclor-1016 {3}	3011949	2882239	3177441	3334621	3218928	3125036	5.71
Aroclor-1016 {4}	1681635	1432658	1450872	1515174	1485014	1513071	6.57
Aroclor-1016 {5}	2597064	2368911	2578717	2724853	2708544	2595618	5.49
Aroclor-1221			828520				
Aroclor-1221 {2}			1275655				
Aroclor-1221 {3}			857847				
Aroclor-1221 {4}			2894853				
Aroclor-1221 {5}			670112				
Aroclor-1232			2063367				
Aroclor-1232 {2}			1131048				
Aroclor-1232 {3}			1055895				
Aroclor-1232 {4}			1126126				
Aroclor-1232 {5}			1450731				
Aroclor-1242			2034139				
Aroclor-1242 {2}			1293898				
Aroclor-1242 {3}			1881596				
Aroclor-1242 {4}			2805290				
Aroclor-1242 {5}			2579945				
Aroclor-1248			4238052				
Aroclor-1248 {2}			2416821				
Aroclor-1248 {3}			3236060				
Aroclor-1248 {4}			5160666				
Aroclor-1248 {5}			4144900				
Aroclor-1254			4674394				
Aroclor-1254 {2}			3742416				
Aroclor-1254 {3}			7049491				
Aroclor-1254 {4}			7076508				
Aroclor-1254 {5}			6604307				
Aroclor-1260	6883885	6422839	7458788	7740786	7175397	7136339	7.16
Aroclor-1260 {2}	3543900	3011968	3350316	3459291	3428078	3358711	6.13
Aroclor-1260 {3}	8936763	7244082	8370413	8710148	8431730	8338627	7.83
Aroclor-1260 {4}	4086888	4169347	4220226	4362104	4255205	4218754	2.42
Aroclor-1260 {5}	1823349	1628762	1601873	1633329	1570813	1651625	6.01
						Average %RSD	6.41

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (2nd): RTX-CLP2

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.82	3.81	3.82	3.82	3.82	3.82	3.75	3.89
Aroclor-1016 {2}	4.42	4.42	4.42	4.42	4.42	4.42	4.35	4.49
Aroclor-1016 {3}	5.17	5.17	5.17	5.17	5.17	5.17	5.10	5.24
Aroclor-1016 {4}	5.38	5.38	5.38	5.38	5.38	5.38	5.31	5.45
Aroclor-1016 {5}	5.56	5.56	5.56	5.56	5.56	5.56	5.49	5.63
Aroclor-1221			2.49				2.42	2.56
Aroclor-1221 {2}			3.50				3.43	3.57
Aroclor-1221 {3}			3.73				3.66	3.80
Aroclor-1221 {4}			3.83				3.76	3.90
Aroclor-1221 {5}			5.18				5.11	5.25
Aroclor-1232			3.83				3.76	3.90
Aroclor-1232 {2}			4.82				4.75	4.89
Aroclor-1232 {3}			5.39				5.32	5.46
Aroclor-1232 {4}			5.57				5.50	5.64
Aroclor-1232 {5}			6.17				6.10	6.24
Aroclor-1242			4.81				4.74	4.88
Aroclor-1242 {2}			5.56				5.49	5.63
Aroclor-1242 {3}			6.16				6.09	6.23
Aroclor-1242 {4}			6.32				6.25	6.39
Aroclor-1242 {5}			6.85				6.78	6.92
Aroclor-1248			5.17				5.09	5.25
Aroclor-1248 {2}			5.76				5.68	5.84
Aroclor-1248 {3}			6.16				6.08	6.24
Aroclor-1248 {4}			6.31				6.23	6.39
Aroclor-1248 {5}			6.66				6.58	6.74
Aroclor-1254			7.16				7.08	7.24
Aroclor-1254 {2}			7.75				7.67	7.83
Aroclor-1254 {3}			8.36				8.27	8.45
Aroclor-1254 {4}			8.59				8.50	8.68
Aroclor-1254 {5}			9.18				9.09	9.27
Aroclor-1260	7.93	7.93	7.93	7.93	7.93	7.93	7.03	8.83
Aroclor-1260 {2}	8.18	8.18	8.18	8.18	8.18	8.18	7.28	9.08
Aroclor-1260 {3}	9.78	9.78	9.78	9.78	9.78	9.78	8.88	10.68
Aroclor-1260 {4}	10.28	10.28	10.28	10.28	10.28	10.28	9.38	11.18
Aroclor-1260 {5}	10.87	10.87	10.87	10.87	10.87	10.87	9.97	11.77

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (2nd): RTX-CLP2

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	639129	556083	544610	543480	516688	559998	8.31
Aroclor-1016 {2}	1365709	1182903	1092201	1079621	1029700	1150027	11.53
Aroclor-1016 {3}	2992384	2496318	2480225	2496406	2421461	2577359	9.08
Aroclor-1016 {4}	1105095	1106203	1048532	1040620	999297	1059949	4.31
Aroclor-1016 {5}	1169612	852192	813028	812368	784228	886286	18.08
Aroclor-1221			258324				
Aroclor-1221 {2}			355681				
Aroclor-1221 {3}			235125				
Aroclor-1221 {4}			860404				
Aroclor-1221 {5}			159575				
Aroclor-1232			657366				
Aroclor-1232 {2}			243462				
Aroclor-1232 {3}			535109				
Aroclor-1232 {4}			410759				
Aroclor-1232 {5}			569667				
Aroclor-1242			407951				
Aroclor-1242 {2}			694356				
Aroclor-1242 {3}			923104				
Aroclor-1242 {4}			770055				
Aroclor-1242 {5}			1481229				
Aroclor-1248			1317451				
Aroclor-1248 {2}			1948855				
Aroclor-1248 {3}			1413456				
Aroclor-1248 {4}			1205391				
Aroclor-1248 {5}			660352				
Aroclor-1254			1777649				
Aroclor-1254 {2}			1317035				
Aroclor-1254 {3}			1340827				
Aroclor-1254 {4}			737293				
Aroclor-1254 {5}			1811680				
Aroclor-1260	917650	964102	906415	900990	871776	912187	3.68
Aroclor-1260 {2}	1607423	1384418	1296595	1285273	1245243	1363790	10.66
Aroclor-1260 {3}	1232724	1193984	1095226	1068774	1055784	1129299	7.02
Aroclor-1260 {4}	2390638	2154327	2351228	2354437	2330183	2316162	4.02
Aroclor-1260 {5}	1690329	1459572	1755368	1697742	1795274	1679657	7.76
						Average %RSD	8.45

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1262			8.62				7.72	7.72
Aroclor-1262 {2}			9.47				8.57	8.57
Aroclor-1262 {3}			10.10				9.20	9.20
Aroclor-1262 {4}			10.19				9.19	9.19
Aroclor-1262 {5}			11.01				10.01	10.01
Aroclor-1268			10.10				9.10	9.10
Aroclor-1268 {2}			10.19				9.09	9.09
Aroclor-1268 {3}			10.66				9.56	9.56
Aroclor-1268 {4}			10.79				9.69	9.69
Aroclor-1268 {5}			11.61				10.51	10.51

GC Column (2nd): DB-1701P

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1262			9.78				8.88	8.88
Aroclor-1262 {2}			10.28				9.38	9.38
Aroclor-1262 {3}			10.78				9.88	9.88
Aroclor-1262 {4}			10.87				9.87	9.87
Aroclor-1262 {5}			11.47				10.47	10.47
Aroclor-1268			10.78				9.78	9.78
Aroclor-1268 {2}			10.86				9.76	9.76
Aroclor-1268 {3}			11.12				10.02	10.02
Aroclor-1268 {4}			11.26				10.16	10.16
Aroclor-1268 {5}			12.34				11.24	11.24

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y

GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			7073891				
Aroclor-1262 {2}			13053876				
Aroclor-1262 {3}			3301435				
Aroclor-1262 {4}			4436742				
Aroclor-1262 {5}			3777047				
Aroclor-1268			11864453				
Aroclor-1268 {2}			12465549				
Aroclor-1268 {3}			7914907				
Aroclor-1268 {4}			2259144				
Aroclor-1268 {5}			29144624				

GC Column (2nd): DB-1701P

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			1362153				
Aroclor-1262 {2}			3461876				
Aroclor-1262 {3}			1183328				
Aroclor-1262 {4}			2333360				
Aroclor-1262 {5}			429177				
Aroclor-1268			3479624				
Aroclor-1268 {2}			3499079				
Aroclor-1268 {3}			2918320				
Aroclor-1268 {4}			824937				
Aroclor-1268 {5}			9305585				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/04/2012 **Instrument ID:** GC-Y

Data File: Y6124.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1577121	11.49
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2161919	8.85
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2967813	5.03
Aroclor-1016 {4}	5.16	5.09	5.23	1513071	1382204	8.65
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2408561	7.21
Aroclor-1260	8.33	7.42	9.22	7136339	7427333	4.08
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	3189067	5.05
Aroclor-1260 {3}	9.47	8.57	10.37	8338627	8300347	0.46
Aroclor-1260 {4}	9.95	9.05	10.85	4218754	4188895	0.71
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1714970	3.84
					Average %D	5.54

Data File: Y6124.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.81	3.75	3.89	559998	544993	2.68
Aroclor-1016 {2}	4.41	4.35	4.49	1150027	1103392	4.06
Aroclor-1016 {3}	5.16	5.10	5.24	2577359	2543136	1.33
Aroclor-1016 {4}	5.37	5.31	5.45	1059949	1073838	1.31
Aroclor-1016 {5}	5.55	5.49	5.63	886286	833762	5.93
Aroclor-1260	7.92	7.03	8.83	912187	993460	8.91
Aroclor-1260 {2}	8.17	7.28	9.08	1363790	1435864	5.28
Aroclor-1260 {3}	9.76	8.88	10.68	1129299	1228619	8.79
Aroclor-1260 {4}	10.27	9.38	11.18	2316162	2626466	13.40
Aroclor-1260 {5}	10.86	9.97	11.77	1679657	1881525	12.02
					Average %D	6.37

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/04/2012 **Instrument ID:** GC-Y

Data File: Y6140.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1513172	15.08
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2110139	11.03
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2892149	7.45
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1341018	11.37
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2357715	9.17
Aroclor-1260	8.33	7.42	9.22	7136339	7191370	0.77
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	3158629	5.96
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	7843936	5.93
Aroclor-1260 {4}	9.95	9.05	10.85	4218754	3951756	6.33
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1479678	10.41
					Average %D	8.35

Data File: Y6140.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.81	3.75	3.89	559998	549841	1.81
Aroclor-1016 {2}	4.41	4.35	4.49	1150027	1111886	3.32
Aroclor-1016 {3}	5.16	5.10	5.24	2577359	2567222	0.39
Aroclor-1016 {4}	5.37	5.31	5.45	1059949	1087864	2.63
Aroclor-1016 {5}	5.55	5.49	5.63	886286	847077	4.42
Aroclor-1260	7.92	7.03	8.83	912187	1008341	10.54
Aroclor-1260 {2}	8.17	7.28	9.08	1363790	1462887	7.27
Aroclor-1260 {3}	9.76	8.88	10.68	1129299	1283806	13.68
Aroclor-1260 {4}	10.27	9.38	11.18	2316162	2622810	13.24
Aroclor-1260 {5}	10.86	9.97	11.77	1679657	1935941	15.26
					Average %D	7.26

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/05/2012 **Instrument ID:** GC-Y

Data File: Y6191.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1514178	15.02
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2097956	11.54
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2861176	8.44
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1301085	14.01
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2312299	10.92
Aroclor-1260	8.33	7.42	9.22	7136339	7066490	0.98
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	3089849	8.00
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	7615114	8.68
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	3844231	8.88
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1389485	15.87
					Average %D	10.23

Data File: Y6191.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.81	3.75	3.89	559998	524913	6.27
Aroclor-1016 {2}	4.41	4.35	4.49	1150027	1071361	6.84
Aroclor-1016 {3}	5.17	5.10	5.24	2577359	2494231	3.23
Aroclor-1016 {4}	5.38	5.31	5.45	1059949	1066162	0.59
Aroclor-1016 {5}	5.55	5.49	5.63	886286	820123	7.47
Aroclor-1260	7.92	7.03	8.83	912187	985236	8.01
Aroclor-1260 {2}	8.17	7.28	9.08	1363790	1428830	4.77
Aroclor-1260 {3}	9.76	8.88	10.68	1129299	1233412	9.22
Aroclor-1260 {4}	10.27	9.38	11.18	2316162	2567331	10.84
Aroclor-1260 {5}	10.86	9.97	11.77	1679657	1840699	9.59
					Average %D	6.68

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/05/2012 **Instrument ID:** GC-Y

Data File: Y6194.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1528530	14.21
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2107880	11.12
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2874513	8.02
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1337785	11.58
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2318635	10.67
Aroclor-1260	8.33	7.42	9.22	7136339	7149474	0.18
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	3139558	6.52
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	7747468	7.09
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	3944413	6.50
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1515865	8.22
					Average %D	8.41

Data File: Y6194.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.81	3.75	3.89	559998	529433	5.46
Aroclor-1016 {2}	4.41	4.35	4.49	1150027	1080836	6.02
Aroclor-1016 {3}	5.17	5.10	5.24	2577359	2517853	2.31
Aroclor-1016 {4}	5.38	5.31	5.45	1059949	1074159	1.34
Aroclor-1016 {5}	5.55	5.49	5.63	886286	826846	6.71
Aroclor-1260	7.92	7.03	8.83	912187	994916	9.07
Aroclor-1260 {2}	8.17	7.28	9.08	1363790	1441006	5.66
Aroclor-1260 {3}	9.76	8.88	10.68	1129299	1247622	10.48
Aroclor-1260 {4}	10.27	9.38	11.18	2316162	2619721	13.11
Aroclor-1260 {5}	10.86	9.97	11.77	1679657	1875515	11.66
					Average %D	7.18

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-Y

Data File: Y6542.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1804626	1.28
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2389989	0.77
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	3294124	5.41
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1516894	0.25
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2581364	0.55
Aroclor-1260	8.34	7.42	9.22	7136339	6938647	2.77
Aroclor-1260 {2}	9.01	8.10	9.90	3358711	3777845	12.48
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	7234109	13.25
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	4196021	0.54
Aroclor-1260 {5}	11.02	10.11	11.91	1651625	1827800	10.67
					Average %D	4.80

Data File: Y6542.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.82	3.75	3.89	559998	619198	10.57
Aroclor-1016 {2}	4.42	4.35	4.49	1150027	1217529	5.87
Aroclor-1016 {3}	5.17	5.10	5.24	2577359	2823586	9.55
Aroclor-1016 {4}	5.38	5.31	5.45	1059949	1162541	9.68
Aroclor-1016 {5}	5.56	5.49	5.63	886286	901672	1.74
Aroclor-1260	7.92	7.03	8.83	912187	934461	2.44
Aroclor-1260 {2}	8.17	7.28	9.08	1363790	1387156	1.71
Aroclor-1260 {3}	9.76	8.88	10.68	1129299	1208247	6.99
Aroclor-1260 {4}	10.27	9.38	11.18	2316162	2084890	9.99
Aroclor-1260 {5}	10.86	9.97	11.77	1679657	1548249	7.82
					Average %D	6.64

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-Y

Data File: Y6566.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.29	3.21	3.35	1781815	1731681	2.81
Aroclor-1016 {2}	4.12	4.04	4.18	2371736	2340126	1.33
Aroclor-1016 {3}	4.67	4.58	4.72	3125036	3227430	3.28
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1478969	2.25
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2549729	1.77
Aroclor-1260	8.34	7.42	9.22	7136339	7388234	3.53
Aroclor-1260 {2}	9.01	8.10	9.90	3358711	3055902	9.02
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	7369653	11.62
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	3625077	14.07
Aroclor-1260 {5}	11.02	10.11	11.91	1651625	1759102	6.51
					Average %D	5.62

Data File: Y6566.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.81	3.75	3.89	559998	625131	11.63
Aroclor-1016 {2}	4.41	4.35	4.49	1150027	1238307	7.68
Aroclor-1016 {3}	5.16	5.10	5.24	2577359	2877897	11.66
Aroclor-1016 {4}	5.37	5.31	5.45	1059949	1200723	13.28
Aroclor-1016 {5}	5.54	5.49	5.63	886286	935758	5.58
Aroclor-1260	7.91	7.03	8.83	912187	1040865	14.11
Aroclor-1260 {2}	8.16	7.28	9.08	1363790	1495796	9.68
Aroclor-1260 {3}	9.75	8.88	10.68	1129299	1165552	3.21
Aroclor-1260 {4}	10.26	9.38	11.18	2316162	2523400	8.95
Aroclor-1260 {5}	10.85	9.97	11.77	1679657	2009867	19.66
					Average %D	10.54

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.82 **DCB 1** 12.10 **TCMX 2** 2.92 **DCB 2** 12.54

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
ORD-V12-17	06490-001	07/04/2012	14:20	2.82		12.10		2.92		12.54	
FIELD_BLAN	06388-022	07/04/2012	14:37	2.82		12.10		2.92		12.54	
I2-062612-	06385-003	07/04/2012	14:55	2.82		12.10		2.92		12.54	
I1-062612-	06385-005	07/04/2012	15:12	2.82		12.10		2.92		12.54	
SS-7/0-5	06438-001	07/04/2012	15:46	2.82		12.10		2.92		12.54	
FB-1	06456-044	07/04/2012	16:03	2.82		12.11		2.92		12.54	
TW-1/8	06503-006	07/04/2012	16:20	2.82		12.10		2.92		12.54	
TW-17/11	06503-007	07/04/2012	16:38	2.82		12.10		2.92		12.54	
FB-2	06456-104	07/04/2012	16:55	2.82		12.10		2.92		12.54	
GPECFB0628	06507-016	07/04/2012	17:12	2.82		12.10		2.92		12.54	
PCB	06503-006MS	07/04/2012	17:29	2.82		12.10		2.92		12.54	
PCB	06503-006MSD	07/04/2012	17:46	2.82		12.10		2.93		12.55	
PCB	LCSA120702-12	07/04/2012	18:04	2.82		12.10		2.92		12.54	
PCB	BLKA120702-12	07/05/2012	11:41	2.82		12.10		2.93		12.54	
AUD-1626B_	06415-003	07/05/2012	11:58	D		D		D		D	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 **2.82** **DCB 1** **12.11** **TCMX 2** **2.93** **DCB 2** **12.53**

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS120705-16	07/11/2012	15:14	2.82		12.11		2.93		12.53	
T-18/0.5-1	06607-001	07/11/2012	15:39	2.82		12.11		2.93		12.54	
T-18A/10-1	06607-002	07/11/2012	15:56	2.83		12.11		2.93		12.53	
T-18B/29-3	06607-003	07/11/2012	16:13	2.83		12.11		2.93		12.53	
T-19/0.5-1	06607-004	07/11/2012	16:30	2.83		12.11		2.93		12.53	
T-19A/10-1	06607-005	07/11/2012	16:47	2.83		12.11		2.93		12.53	
T-19B/19-2	06607-006	07/11/2012	17:05	2.83		12.10		2.93		12.53	
SUMP-1/1.5	06225-018	07/11/2012	18:41	2.82		12.11		2.94		12.54	
G1-062612	06385-001	07/11/2012	18:58	2.82		12.11		2.93		12.53	
G2-062612	06385-002	07/11/2012	19:15	2.83		12.11		2.93		12.53	
G8-062612	06385-004	07/11/2012	19:32	2.83		12.11		2.93		12.53	
G7-062612	06385-006	07/11/2012	19:50	2.83		12.11		2.93		12.53	
G3-062612	06385-007	07/11/2012	20:07	2.83		12.11		2.93		12.53	
G6-062612	06385-008	07/11/2012	20:24	2.83		12.11		2.93		12.53	
G5-062612	06385-009	07/11/2012	20:41	2.82		12.11		2.92		12.53	
G4-062612	06385-010	07/11/2012	20:58	2.82		12.10		2.92		12.53	
SAMPLE_73/	06389-001	07/11/2012	21:16	2.82		12.11		2.92		12.53	
SAMPLE_74/	06389-002	07/11/2012	21:33	2.82		12.11		2.92		12.53	
SAMPLE_75/	06389-003	07/11/2012	21:50	2.82		12.11		2.92		12.53	
SAMPLE_76/	06389-004	07/11/2012	22:07	2.82		12.11		2.93		12.53	
PCB	03689-004MS	07/11/2012	22:24	2.82		12.11		2.92		12.53	
PCB	03689-004MSD	07/11/2012	22:41	2.83		12.11		2.92		12.53	
PCB	LCSS120705-16	07/11/2012	22:59	2.82		12.11		2.92		12.53	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6551.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 18:58
Operator : YG
Sample : G1-062612,06385-001,S,5.48g,22.0,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:04:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.93	11401.1E6	6913.8E6	108.400	199.443 #
Spiked Amount 200.000			Recovery	=	54.20%	99.72%
2) S DCB	12.11	12.53	2659.7E6	1020.3E6	112.683	114.041m
Spiked Amount 200.000			Recovery	=	56.34%	57.02%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

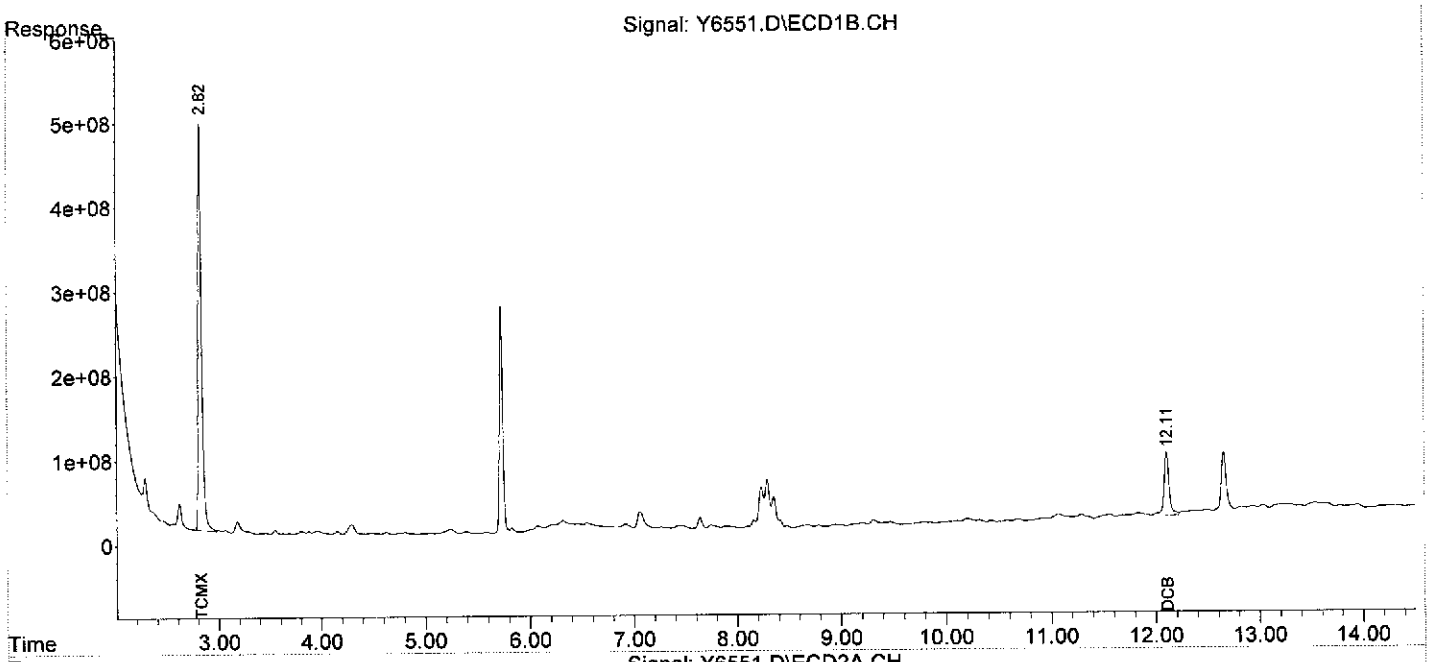
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

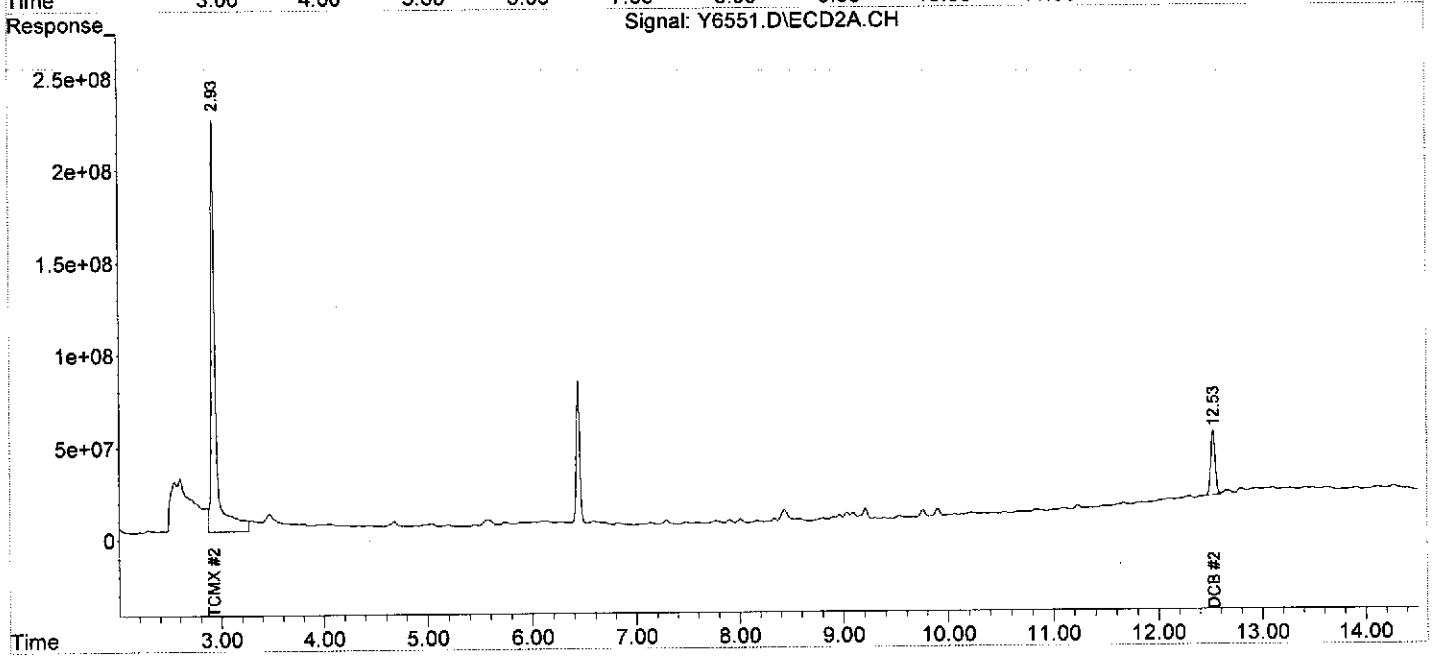
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6551.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 18:58
Operator : YG
Sample : G1-062612,06385-001,S,5.48g,22.0,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:04:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6552.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 19:15
Operator : YG
Sample : G2-062612,06385-002,S,5.51g,21.4,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:05:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.83	2.93	10830.5E6	4868.7E6	102.974	140.446 #
Spiked Amount 200.000			Recovery	=	51.49%	70.22%
2) S DCB	12.11	12.53	2173.5E6	1051.7E6	92.083	117.558m#
Spiked Amount 200.000			Recovery	=	46.04%	58.78%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

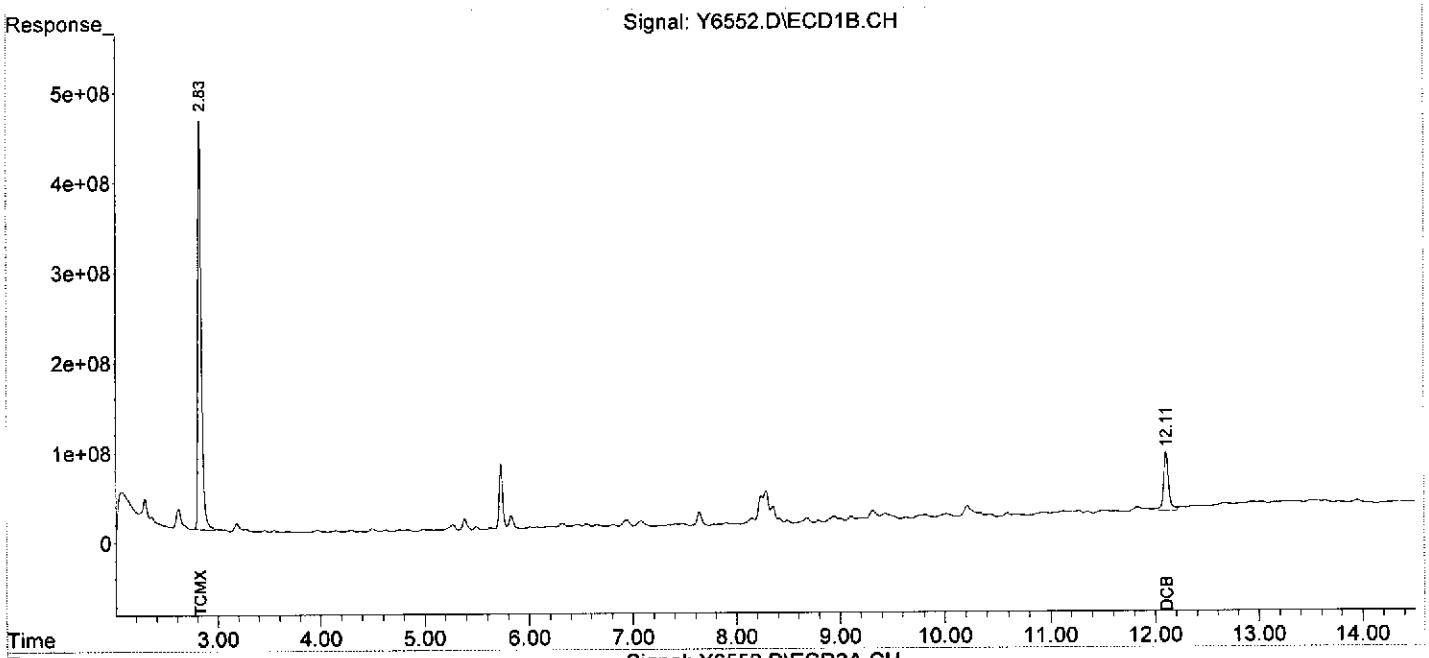
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

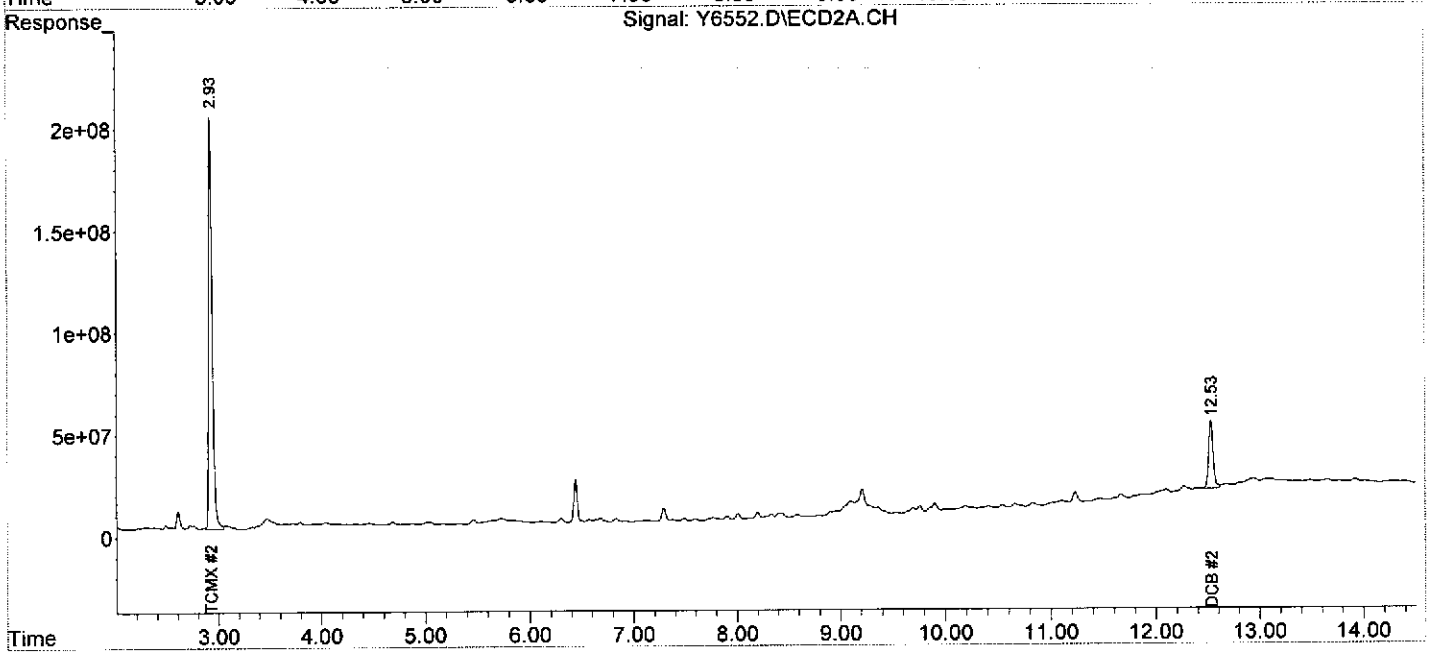
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6552.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 19:15
Operator : YG
Sample : G2-062612,06385-002,S,5.51g,21.4,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:05:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : Y6128.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 14:55
Operator : YG
Sample : I2-062612-,06385-003,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/26/12,06/27/12,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:23:26 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	9079.3E6	4176.2E6	86.324	120.470 #
Spiked Amount 200.000			Recovery	=	43.16%	60.23%
2) S DCB	12.10	12.54	3867.3E6	1643.0E6	163.845	183.651
Spiked Amount 200.000			Recovery	=	81.92%	91.83%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

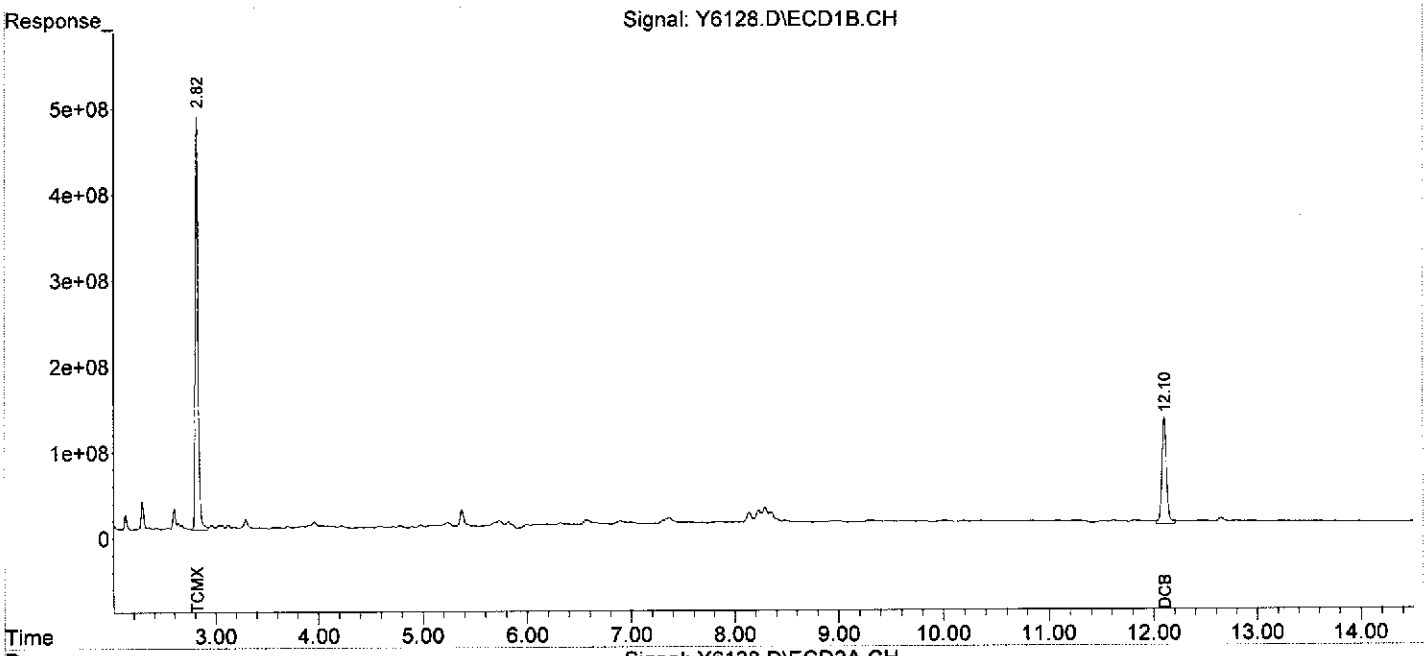
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

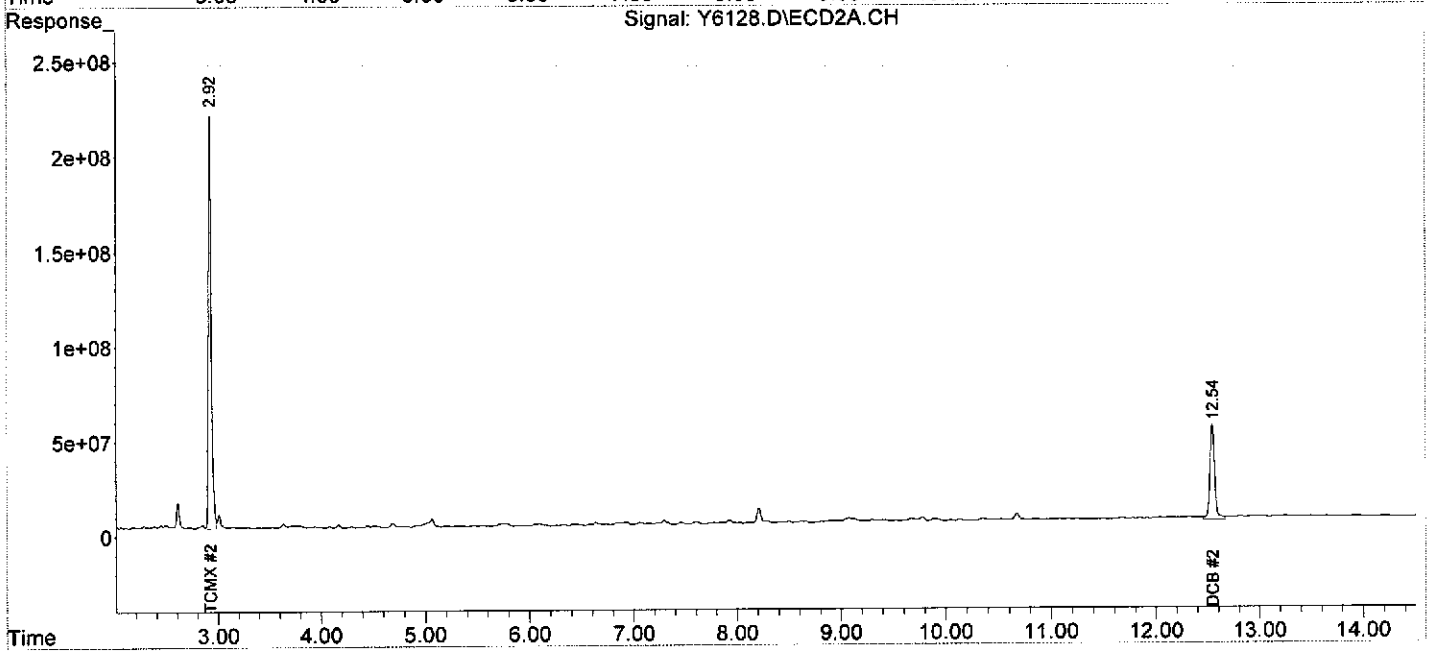
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : Y6128.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 14:55
Operator : YG
Sample : I2-062612-,06385-003,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/26/12,06/27/12,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:23:26 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6553.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 19:32
Operator : YG
Sample : G8-062612,06385-004,S,5.58g,10.0,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:06:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.83	2.93	15339.0E6	5885.0E6	145.840	169.764
Spiked Amount 200.000			Recovery	=	72.92%	84.88%
2) S DCB	12.11	12.53	2233.8E6	1199.8E6	94.638m	134.103m#
Spiked Amount 200.000			Recovery	=	47.32%	67.05%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

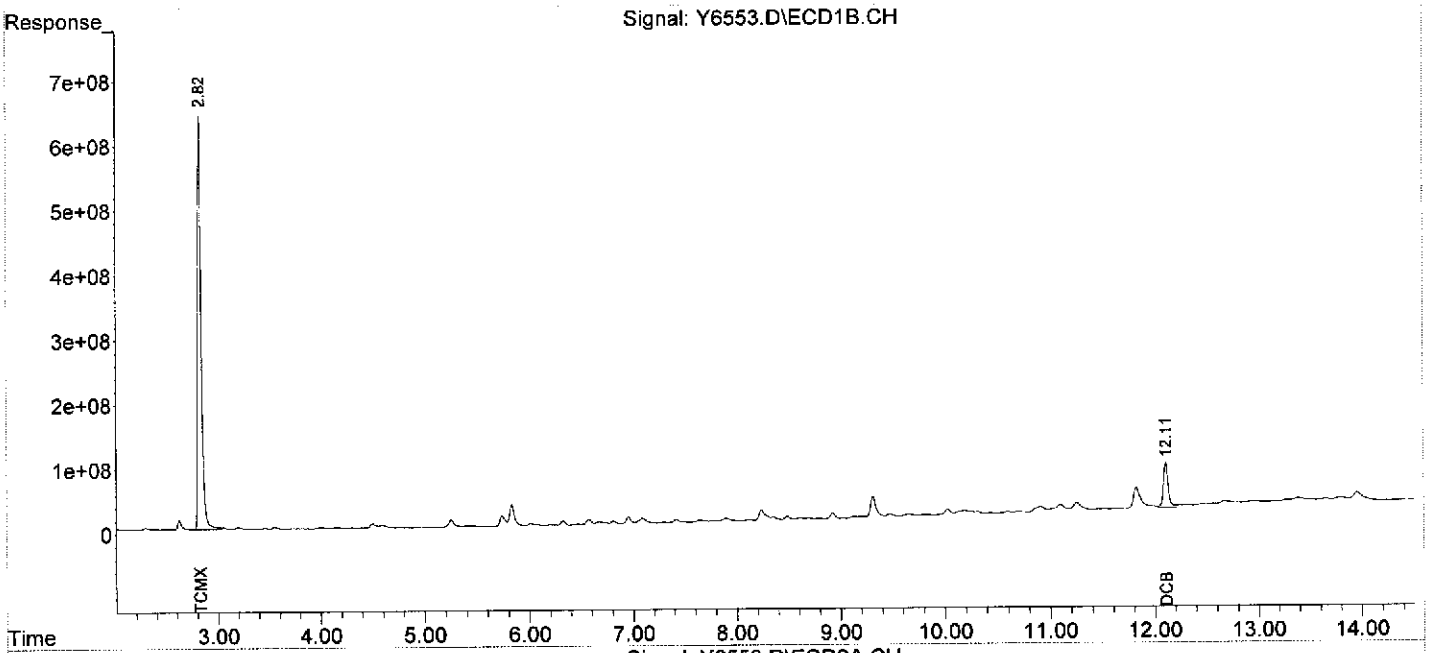
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

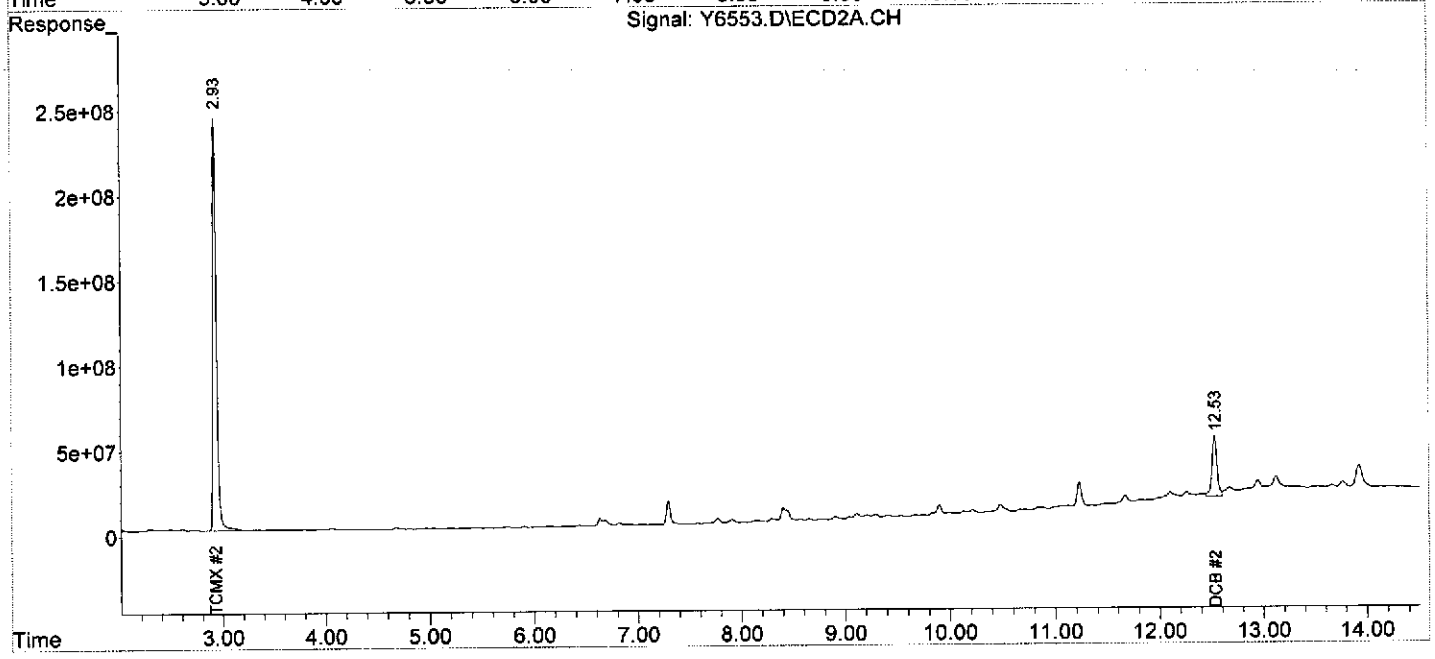
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6553.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 19:32
Operator : YG
Sample : G8-062612,06385-004,S,5.58g,10.0,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:06:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : Y6129.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 15:12
Operator : YG
Sample : I1-062612-,06385-005,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/26/12,06/27/12,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:23:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	10925.9E6	4267.6E6	103.882	123.108
Spiked Amount 200.000			Recovery	=	51.94%	61.55%
2) S DCB	12.10	12.54	3053.3E6	1338.5E6	129.358m	149.608m
Spiked Amount 200.000			Recovery	=	64.68%	74.80%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

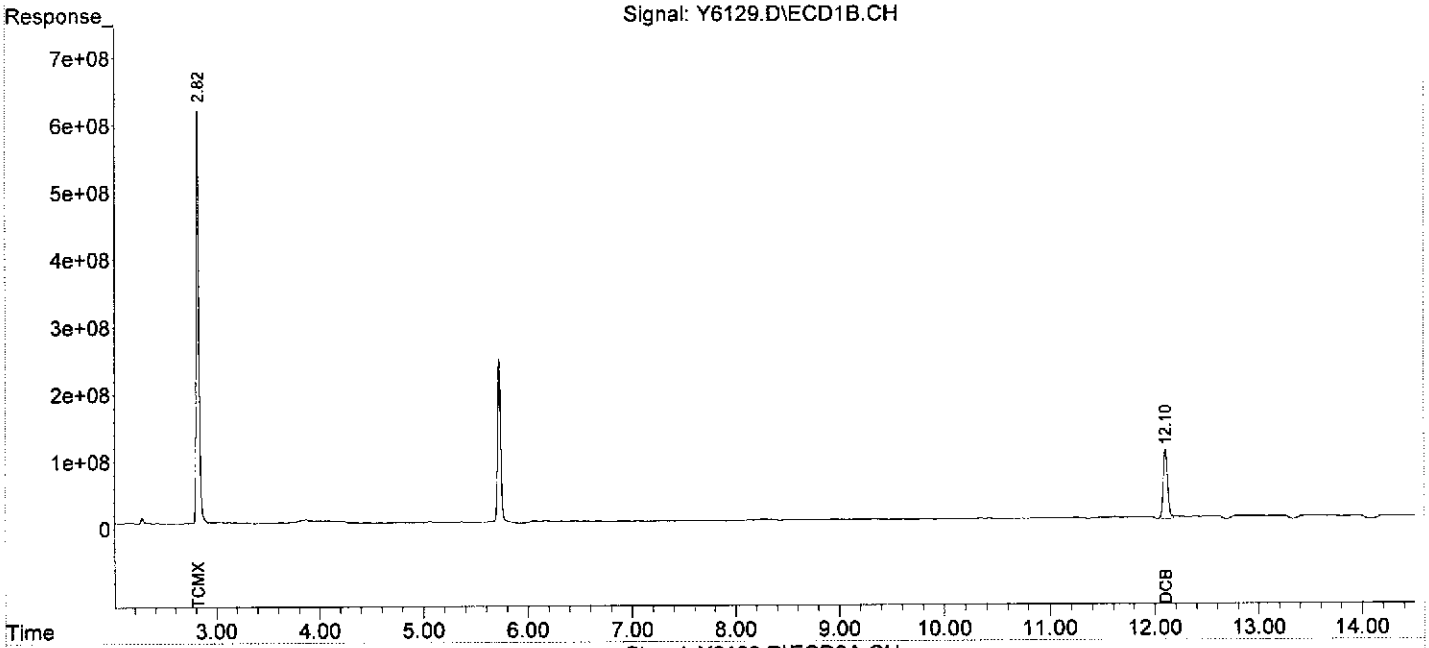
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

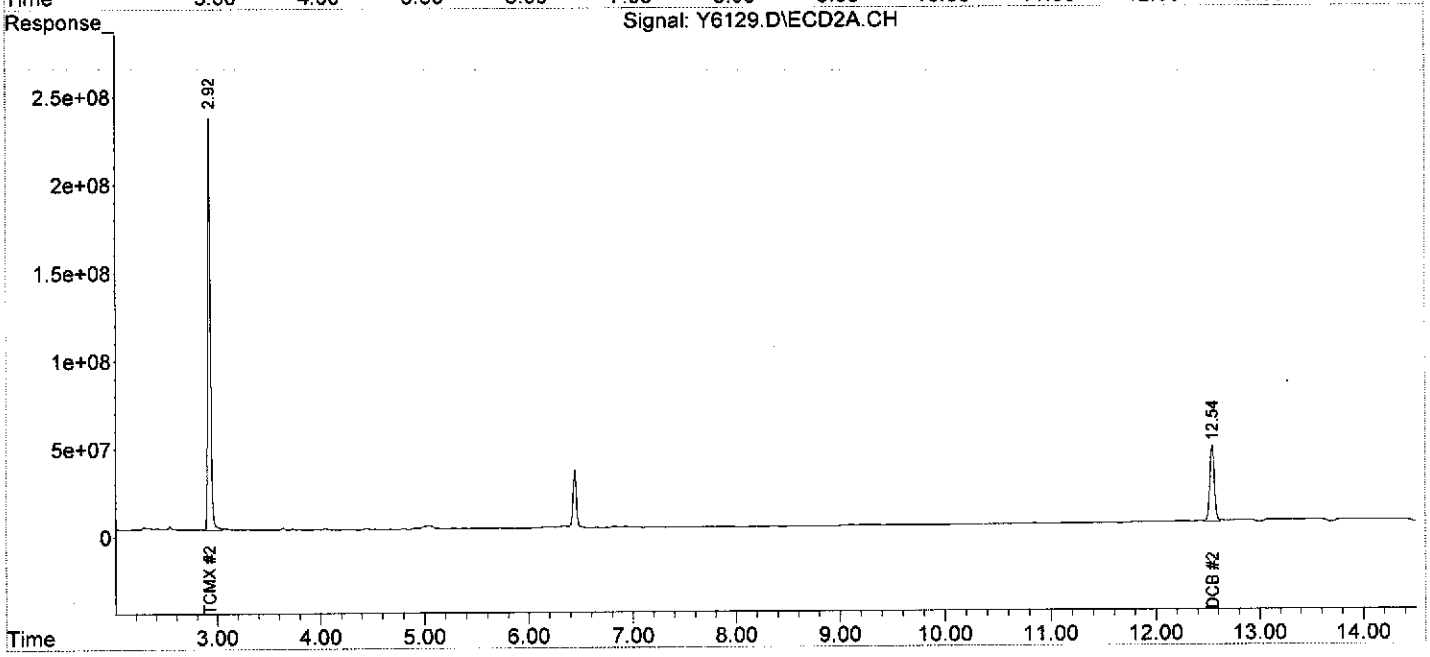
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : Y6129.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 15:12
Operator : YG
Sample : I1-062612-,06385-005,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/26/12,06/27/12,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:23:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6554.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 19:50
Operator : YG
Sample : G7-062612,06385-006,S,5.36g,18.1,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:06:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.83	2.93	10426.3E6	5132.8E6	99.131	148.066 #
Spiked Amount 200.000			Recovery	=	49.57%	74.03%
2) S DCB	12.11	12.53	2157.0E6	1409.0E6	91.385m	157.492m#
Spiked Amount 200.000			Recovery	=	45.69%	78.75%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

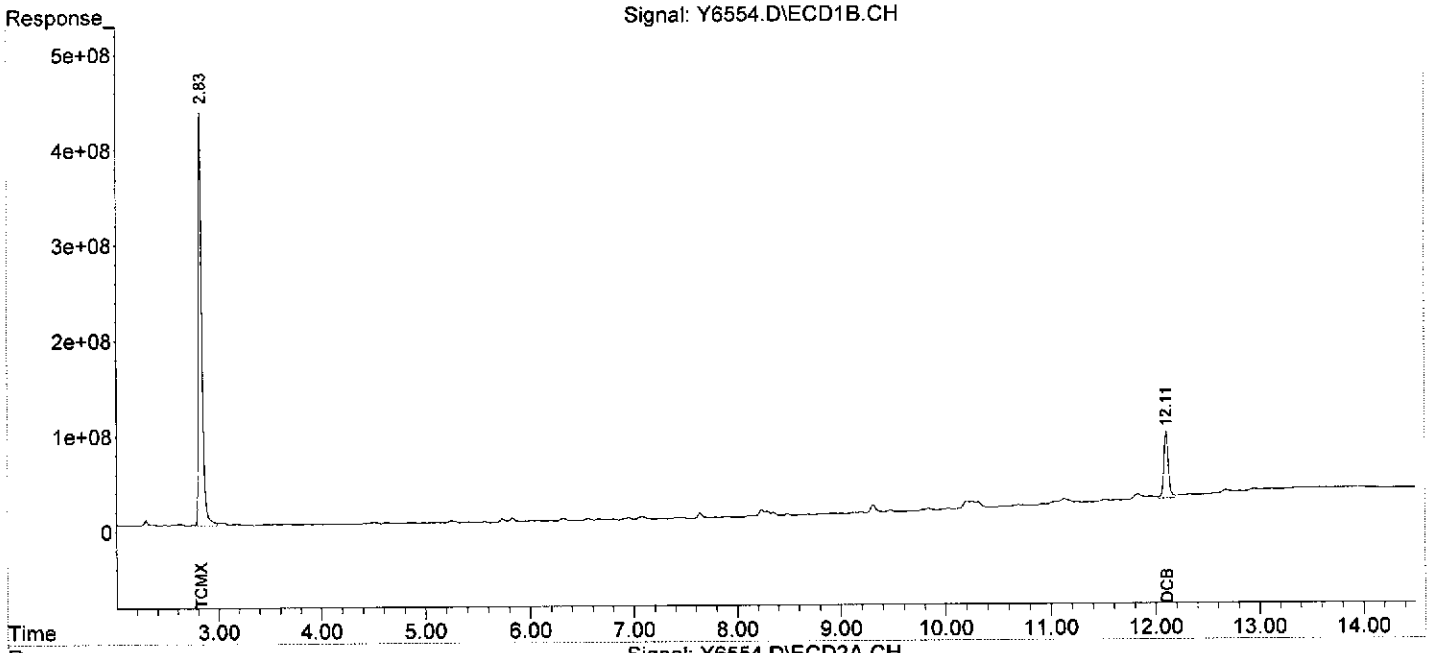
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

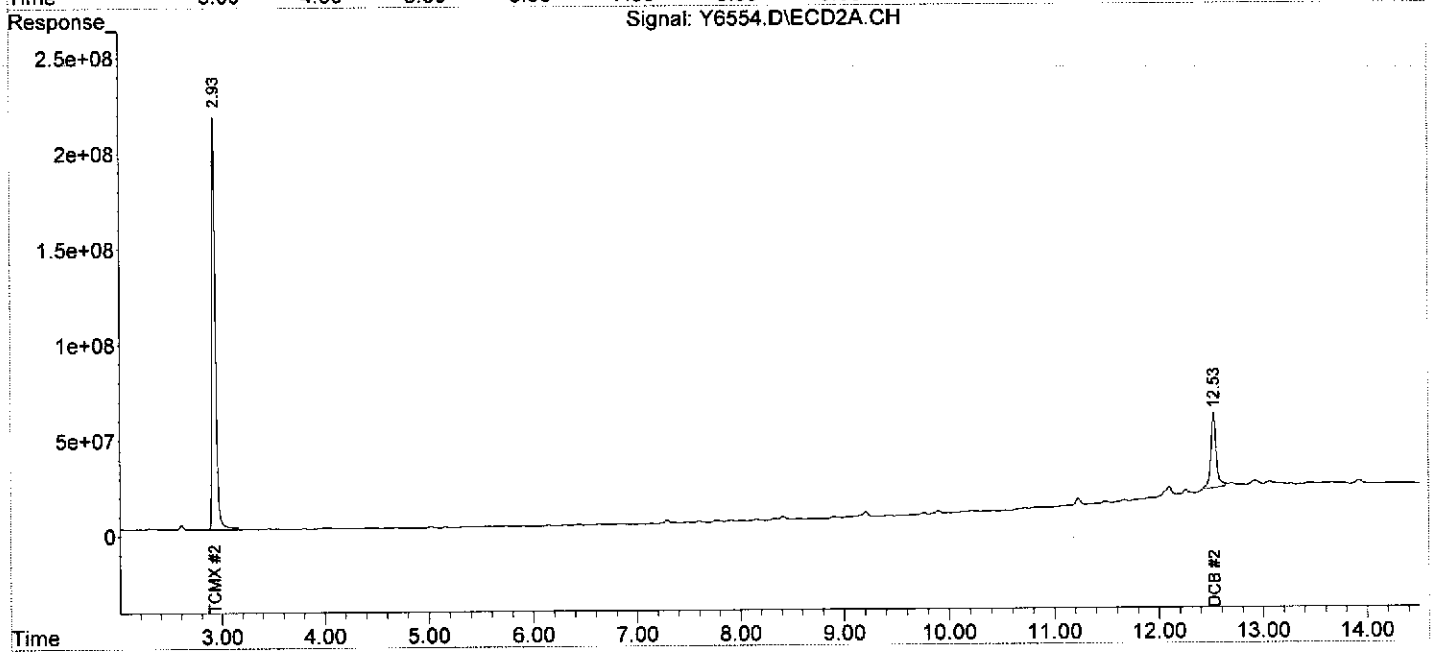
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6554.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 19:50
Operator : YG
Sample : G7-062612,06385-006,S,5.36g,18.1,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:06:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6555.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 20:07
Operator : YG
Sample : G3-062612,06385-007,S,5.42g,17.5,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:07:06 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.83	2.93	11277.2E6	5007.1E6	107.222	144.439m#
Spiked Amount 200.000			Recovery	=	53.61%	72.22%
2) S DCB	12.11	12.53	2592.8E6	1049.9E6	109.848	117.347m
Spiked Amount 200.000			Recovery	=	54.92%	58.67%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

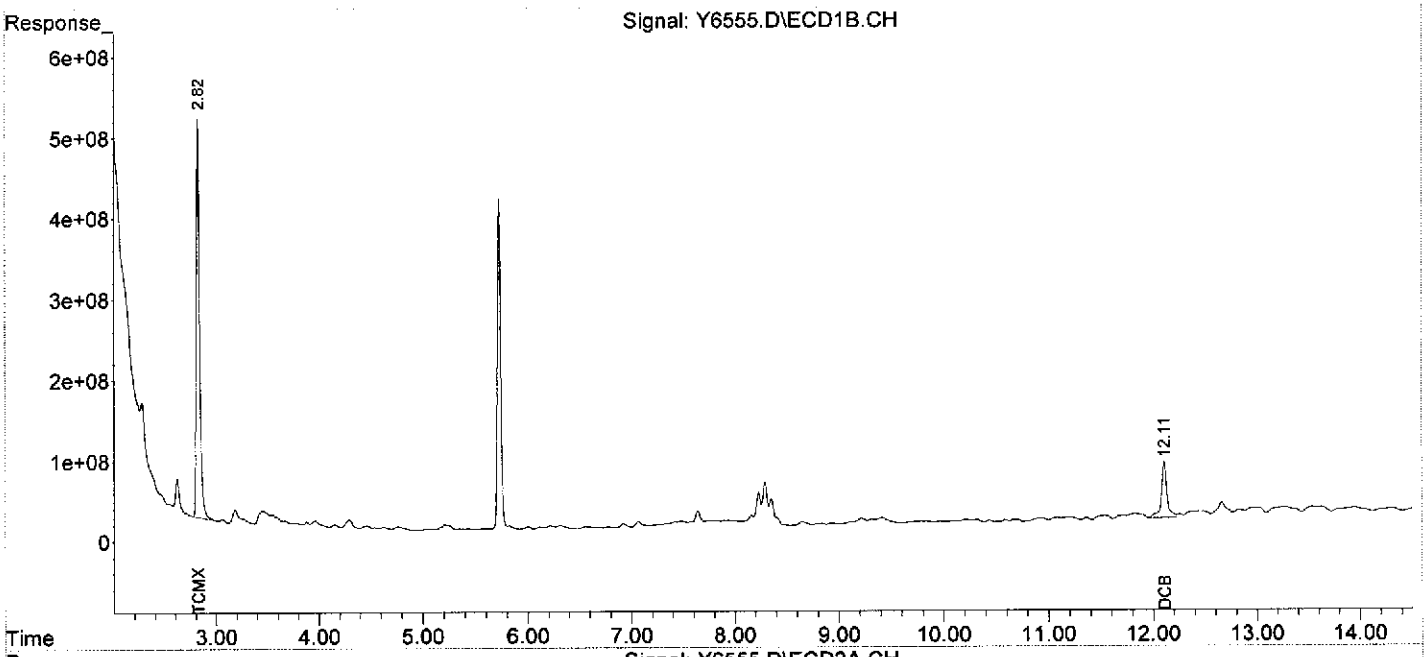
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

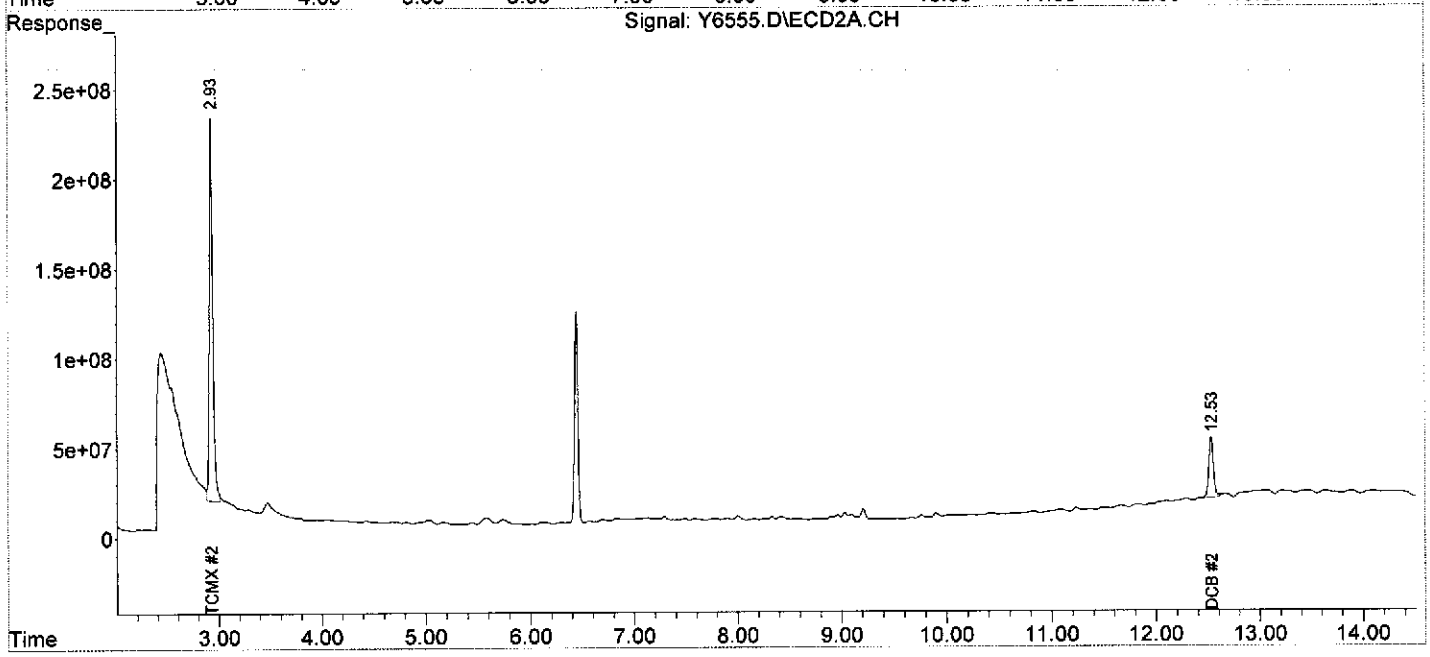
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6555.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 20:07
Operator : YG
Sample : G3-062612,06385-007,S,5.42g,17.5,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:07:06 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6556.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 20:24
Operator : YG
Sample : G6-062612,06385-008,S,5.66g,14.8,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:07:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.83	2.93	13986.3E6	5700.9E6	132.980	164.454
Spiked Amount 200.000			Recovery	=	66.49%	82.23%
2) S DCB	12.11	12.53	2427.6E6	1019.1E6	102.849	113.912m
Spiked Amount 200.000			Recovery	=	51.42%	56.96%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

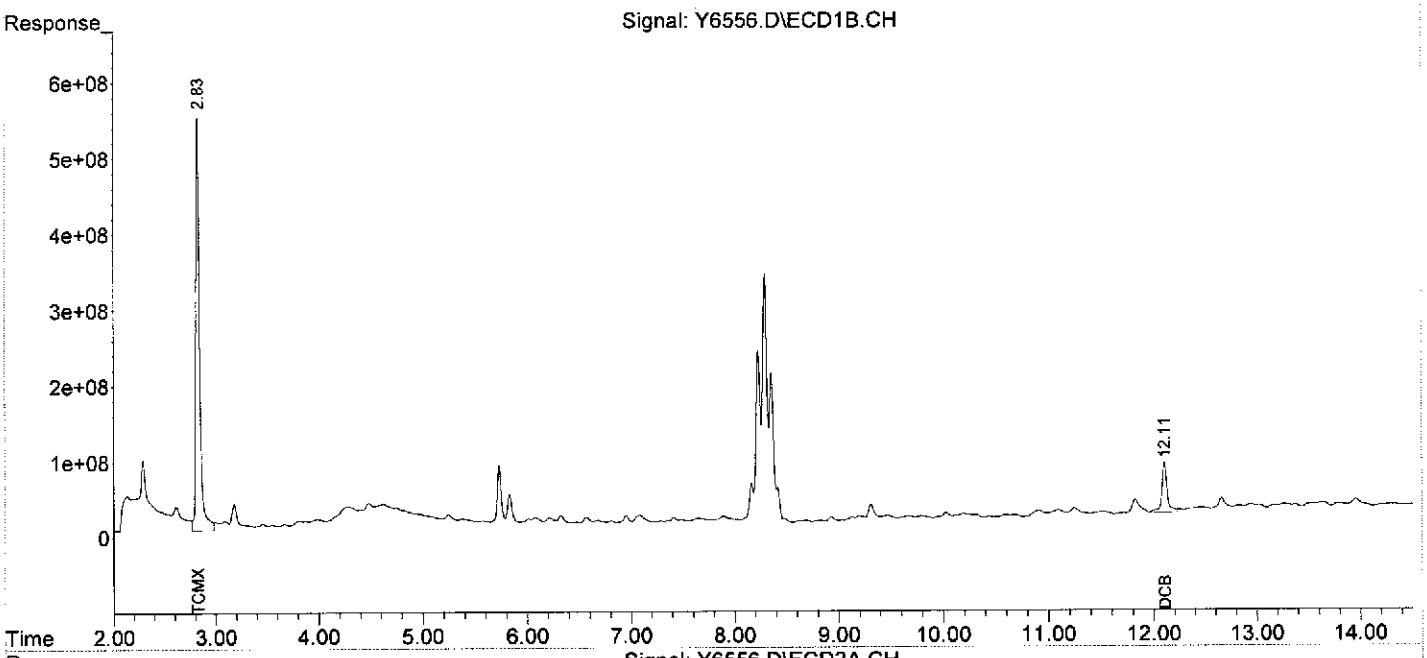
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

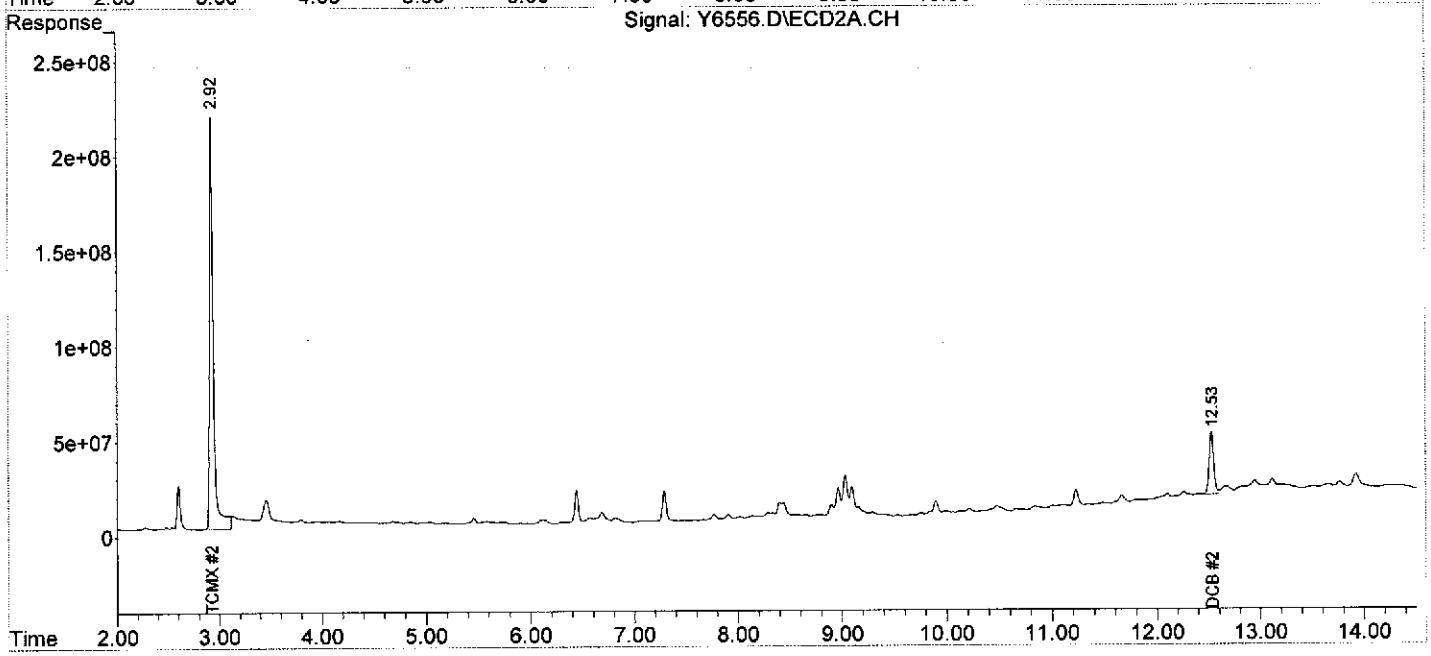
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6556.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 20:24
Operator : YG
Sample : G6-062612,06385-008,S,5.66g,14.8,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:07:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6557.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 20:41
Operator : YG
Sample : G5-062612,06385-009,S,5.38g,16.8,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:07:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	10632.3E6	4809.1E6	101.091	138.729 #
Spiked Amount 200.000			Recovery	=	50.55%	69.36%
2) S DCB	12.11	12.53	2034.2E6	1178.9E6	86.183m	131.773m#
Spiked Amount 200.000			Recovery	=	43.09%	65.89%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

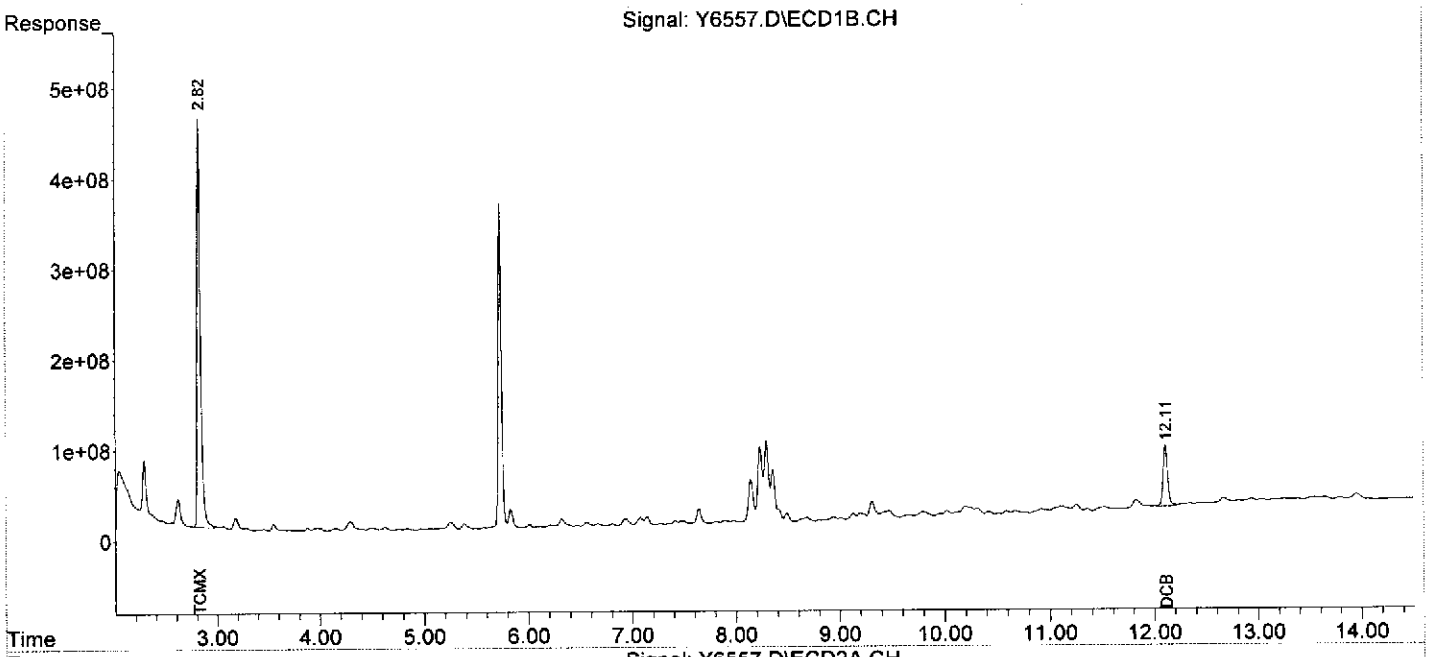
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

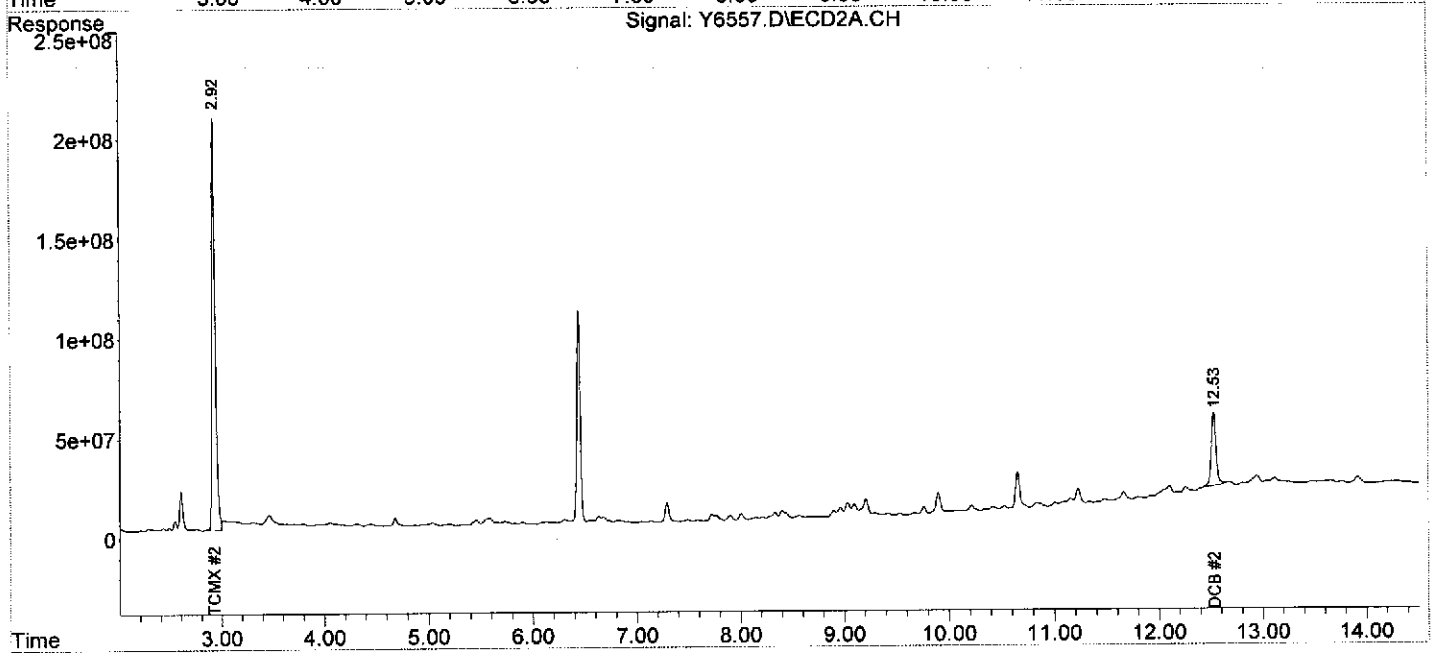
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6557.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 20:41
Operator : YG
Sample : G5-062612,06385-009,S,5.38g,16.8,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:07:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6558.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 20:58
Operator : YG
Sample : G4-062612,06385-010,S,5.44g,24.3,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:08:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	10864.5E6	6024.2E6	103.298	173.780 #
Spiked Amount 200.000			Recovery	=	51.65%	86.89%
2) S DCB	12.10	12.53	1879.3E6	1302.0E6	79.621	145.526m#
Spiked Amount 200.000			Recovery	=	39.81%	72.76%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

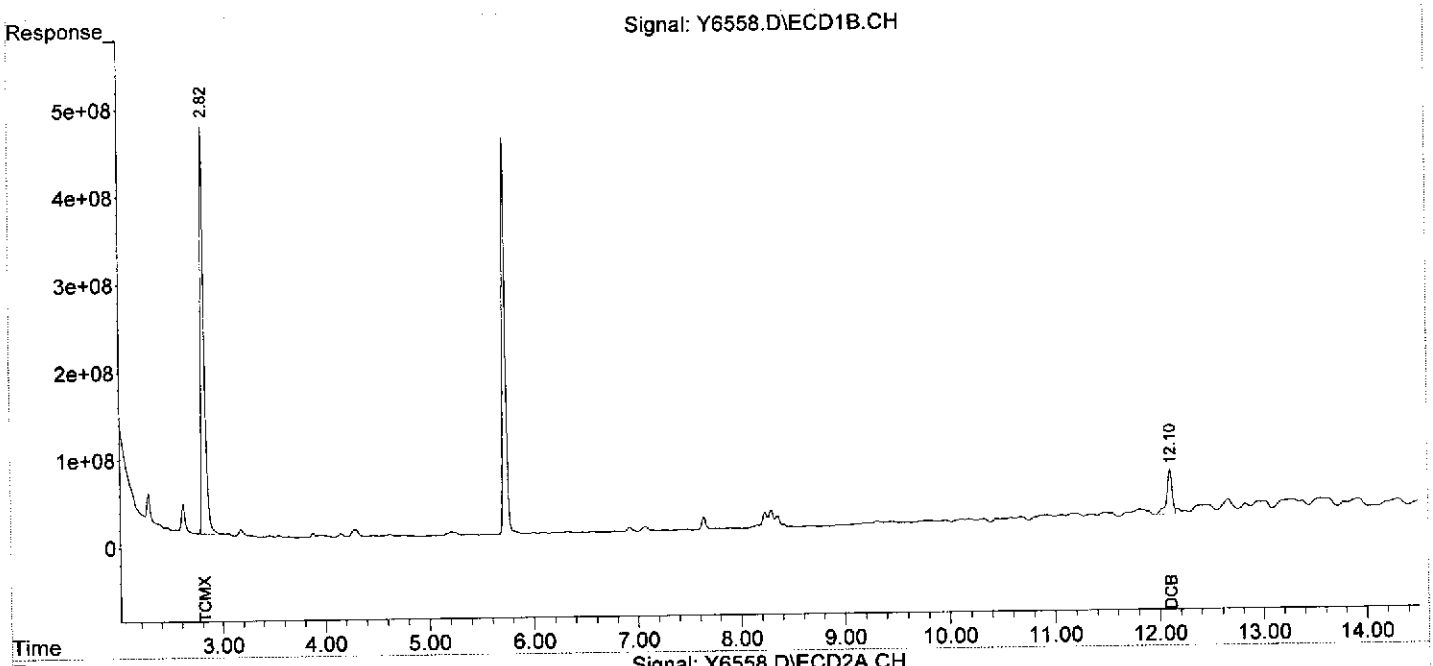
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

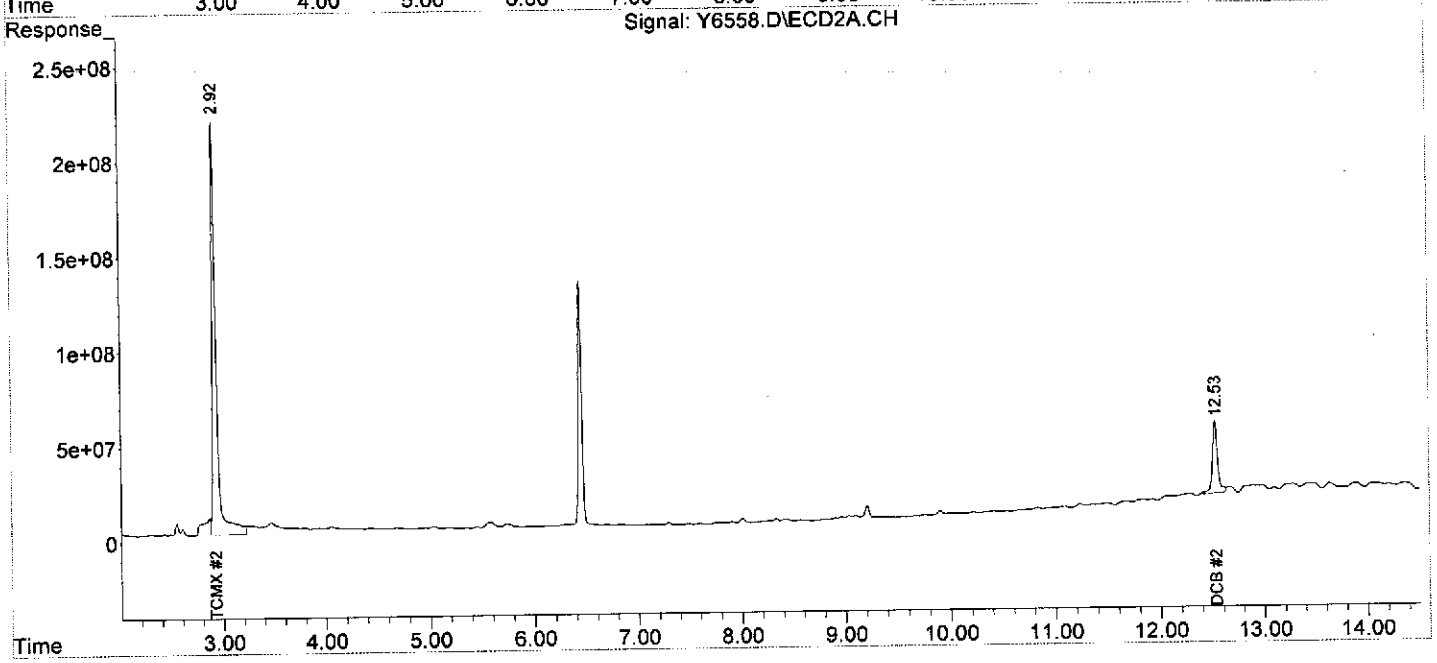
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6558.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 20:58
Operator : YG
Sample : G4-062612,06385-010,S,5.44g,24.3,07/05/12,4
Misc : 120705-16,06/26/12,06/27/12,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 09:08:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKA120702-12
Client ID: PCB
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/05/2012
Data file: Y6192.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-05-12\
Data File : Y6192.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2012 11:41
Operator : YG
Sample : PCB,BLKA120702-12,A,1000ml,100,07/02/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:38:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.93	12895.0E6	4369.4E6	122.604	126.044
Spiked Amount 200.000			Recovery	=	61.30%	63.02%
2) S DCB	12.10	12.54	2455.8E6	1002.7E6	104.042m	112.079
Spiked Amount 200.000			Recovery	=	52.02%	56.04%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

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

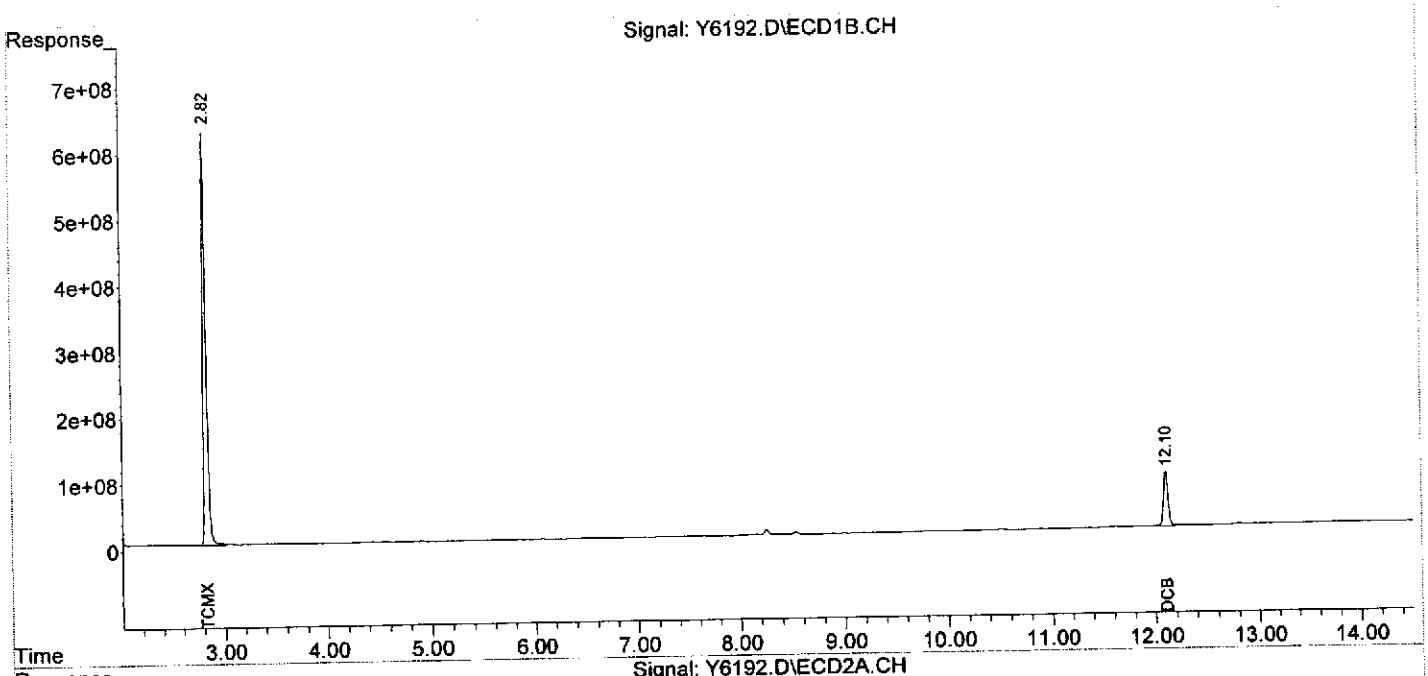
Quantitation Report (QT Reviewed)

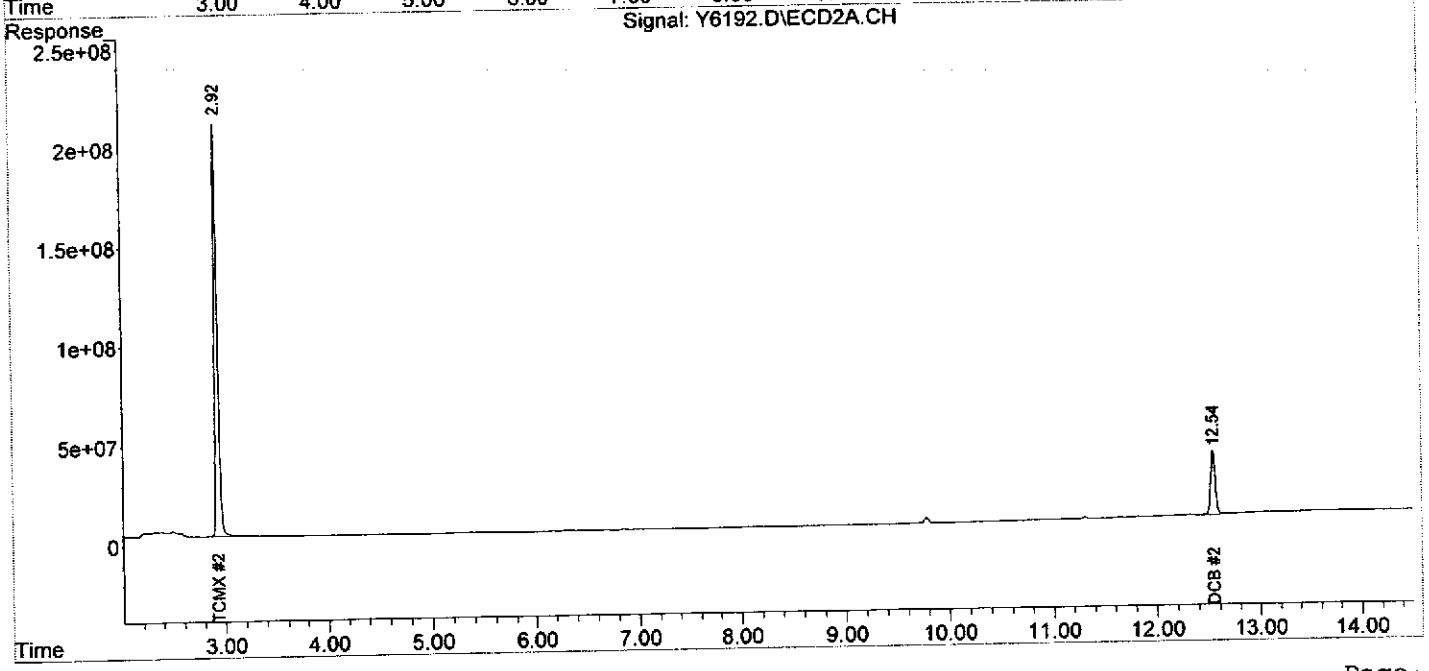
Data Path : C:\MSDCHEM\1\DATA\07-05-12\
Data File : Y6192.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2012 11:41
Operator : YG
Sample : PCB,BLKA120702-12,A,1000ml,100,07/02/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:38:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Signal #2 Phase:
Signal #2 Info :





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS120705-16
Client ID: PCB
Date Received: NA
Date Extracted: 07/05/2012
Date Analyzed: 07/11/2012
Data file: Y6543.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

E12-06385 0589

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6543.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 15:14
Operator : YG
Sample : PCB,BLKS120705-16,S,5.00g,0,07/05/12,4
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 08:57:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.93	19549.7E6	6495.7E6	185.875	187.381
Spiked Amount 200.000			Recovery	=	92.94%	93.69%
2) S DCB	12.11	12.53	2498.5E6	1226.4E6	105.853m	137.078m#
Spiked Amount 200.000			Recovery	=	52.93%	68.54%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

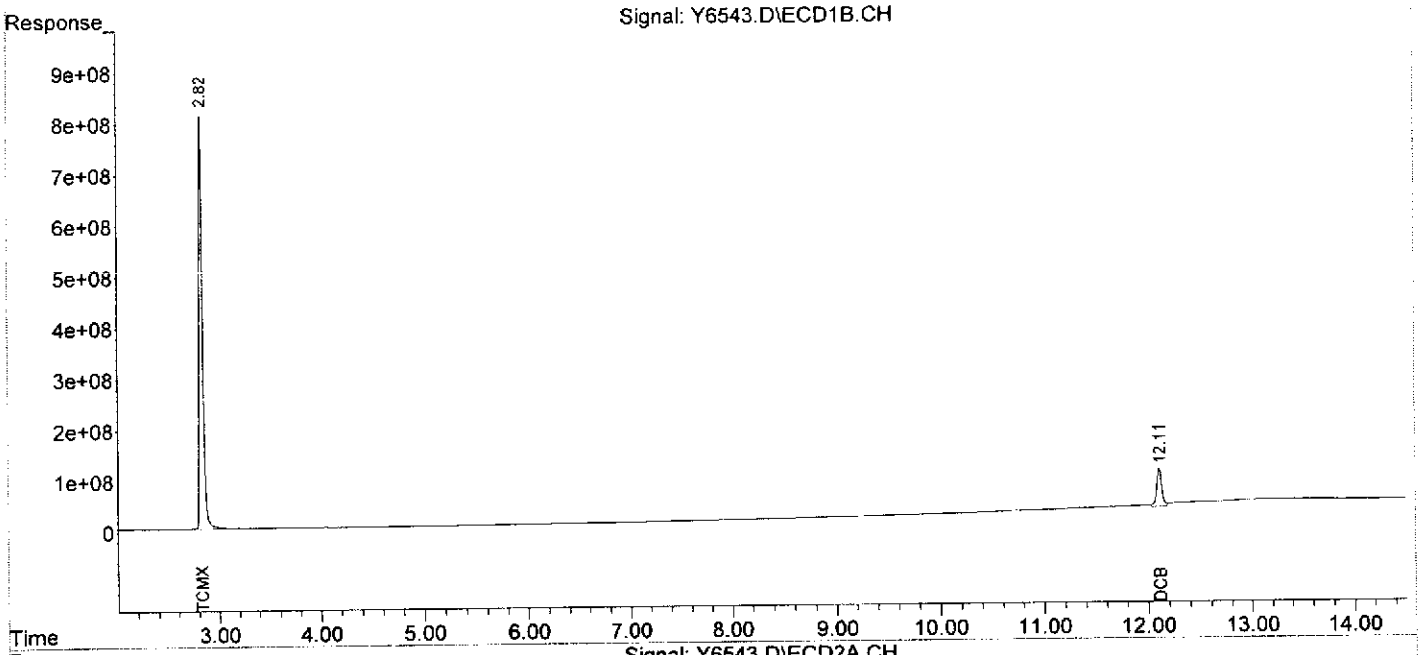
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

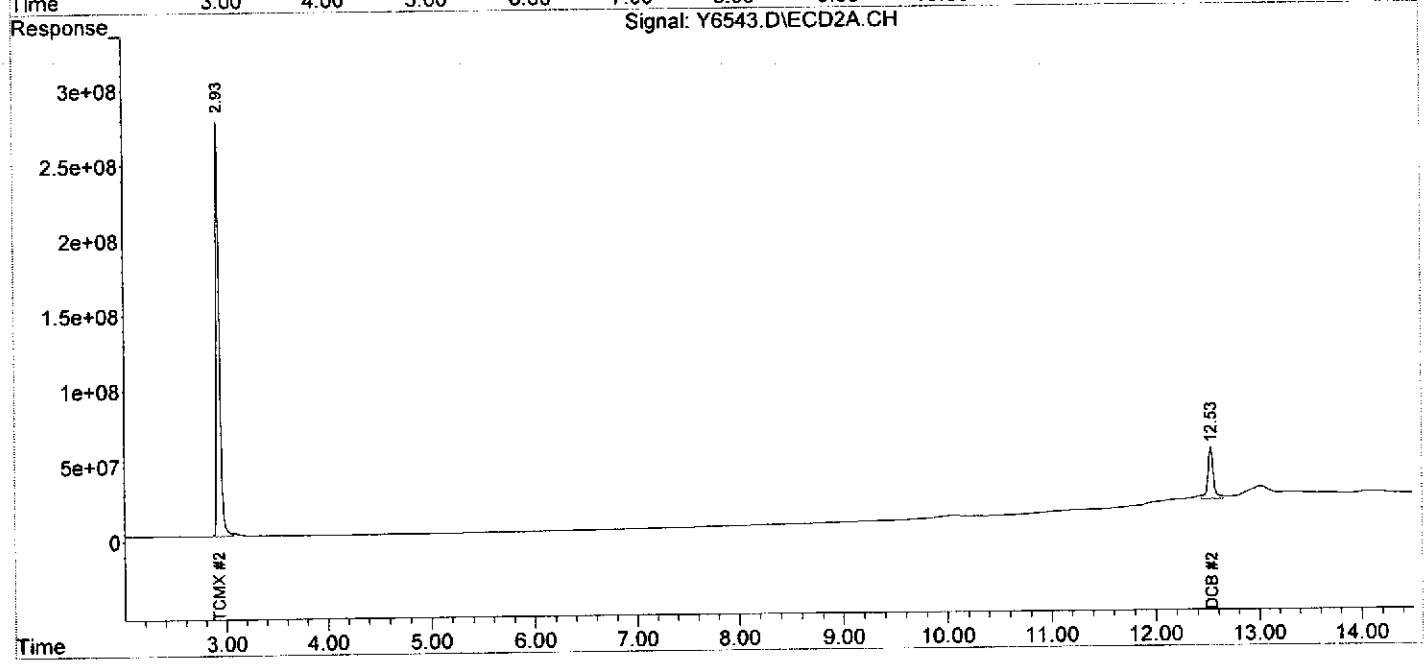
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : Y6543.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 15:14
Operator : YG
Sample : PCB,BLKS120705-16,S,5.00g,0,07/05/12,4
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 12 08:57:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/03/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKA021207-12	AQUEOUS	50		52		46		51	
ORD-V12-17	06490-001	AQUEOUS	59		69		53		92	
FIELD_BLAN	06388-022	AQUEOUS	57		64		52		63	
I2-062612-	06385-003	AQUEOUS	49		72		42		87	
I1-062612-	06385-005	AQUEOUS	50		79		38		79	
SS-7/0-5	06438-001	AQUEOUS	55		69		53		76	
A2-062712-	06466-011	AQUEOUS	50		75		46		76	
A7-062712-	06466-012	AQUEOUS	57		73		52		83	
GPECFB0628	06507-016	AQUEOUS	67		73		60		69	
Pest	06466-011MS	AQUEOUS	49		74		45		62	
Pest	06466-011MSD	AQUEOUS	59		69		53		90	
Pest	LCSA021207-12	AQUEOUS	36		53		34		52	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/09/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS120705-13	SOIL	64		67		67		62	
SUMP-1/1.5	06225-018	SOIL	44		55		46		53	
T-18/0.5-1	06607-001	SOIL	37		45		39		42	
T-18A/10-1	06607-002	SOIL	39		51		41		47	
T-18B/29-3	06607-003	SOIL	26		35		31		33	
T-19/0.5-1	06607-004	SOIL	40		48		42		47	
T-19A/10-1	06607-005	SOIL	39		46		41		41	
T-19B/19-2	06607-006	SOIL	45		52		49		53	
G8-062612	06385-004	SOIL	70		51		25		134	
Pest	06389-004MS	SOIL	37		62		38		61	
Pest	06389-004MSD	SOIL	47		79		54		61	
Pest	LCSS120705-13	SOIL	82		82		88		77	
G1-062612	06385-001	SOIL	29		60		24		53	
G2-062612	06385-002	SOIL	37		48		24		65	
G7-062612	06385-006	SOIL	27		37		22		78	
G3-062612	06385-007	SOIL	82		37		27		34	
G6-062612	06385-008	SOIL	55		42		24		88	
G5-062612	06385-009	SOIL	27		51		26		90	
G4-062612	06385-010	SOIL	26		42		23		47	
SAMPLE_73/	06389-001	SOIL	36		61		40		61	
SAMPLE_75/	06389-003	SOIL	42		60		43		44	
SAMPLE_76/	06389-004	SOIL	56		77		56		60	
SAMPLE_74/	06389-002	SOIL	33		35		37		46	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA021207-12
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
Data file: O9525.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	77.41	77
beta-BHC	100.0	0.00	71.94	72
gamma-BHC (Lindane)	100.0	0.00	80.30	80
delta-BHC	100.0	0.00	40.25	40
Heptachlor	100.0	0.00	89.45	89
Aldrin	100.0	0.00	93.29	93
Heptachlor epoxide	100.0	0.00	92.13	92
Endosulfan I	100.0	0.00	95.77	96
4,4'-DDE	100.0	0.00	100.33	100
Dieldrin	100.0	0.00	85.72	86
Endrin	100.0	0.00	98.57	99
Endosulfan II	100.0	0.00	96.42	96
4,4'-DDD	100.0	0.00	107.19	107
Endrin aldehyde	100.0	0.00	89.33	89
Endosulfan sulfate	100.0	0.00	80.53	81
4,4'-DDT	100.0	0.00	61.47	61
Endrin ketone	100.0	0.00	91.94	92
Methoxychlor	100.0	0.00	70.16	70
alpha-Chlordane	100.0	0.00	94.30	94
gamma-Chlordane	100.0	0.00	94.63	95

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120705-13
Date Received: NA
Date Extracted: 07/05/2012
Date Analyzed: 07/09/2012
Data file: V8244.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	86.47	86
beta-BHC	100.0	0.00	80.00	80
gamma-BHC (Lindane)	100.0	0.00	82.69	83
delta-BHC	100.0	0.00	79.97	80
Heptachlor	100.0	0.00	90.15	90
Aldrin	100.0	0.00	92.91	93
Heptachlor epoxide	100.0	0.00	90.27	90
Endosulfan I	100.0	0.00	96.43	96
4,4'-DDE	100.0	0.00	90.07	90
Dieldrin	100.0	0.00	74.26	74
Endrin	100.0	0.00	92.42	92
Endosulfan II	100.0	0.00	86.87	87
4,4'-DDD	100.0	0.00	82.36	82
Endrin aldehyde	100.0	0.00	70.67	71
Endosulfan sulfate	100.0	0.00	81.18	81
4,4'-DDT	100.0	0.00	93.82	94
Endrin ketone	100.0	0.00	74.57	75
Methoxychlor	100.0	0.00	91.86	92
alpha-Chlordane	100.0	0.00	91.27	91
gamma-Chlordane	100.0	0.00	93.67	94

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06466-011
Date Received: 06/28/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
MS Data file: O9523.D
MSD Data file: O9524.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	55.13	55		58.17	58	5
beta-BHC	100.00	0.00	49.45	49		52.73	53	6
gamma-BHC (Lindane)	100.00	0.00	54.51	55		56.41	56	3
delta-BHC	100.00	0.00	55.19	55		56.22	56	2
Heptachlor	100.00	0.00	60.89	61		64.46	64	6
Aldrin	100.00	0.00	64.50	65		66.08	66	2
Heptachlor epoxide	100.00	0.00	64.49	64		65.70	66	2
Endosulfan I	100.00	0.00	67.02	67		68.20	68	2
4,4'-DDE	100.00	0.00	70.82	71		70.89	71	0
Dieldrin	100.00	0.00	61.12	61		61.62	62	1
Endrin	100.00	0.00	71.44	71		72.31	72	1
Endosulfan II	100.00	0.00	67.50	68		69.00	69	2
4,4'-DDD	100.00	0.00	69.45	69		70.05	70	1
Endrin aldehyde	100.00	0.00	62.38	62		64.49	64	3
Endosulfan sulfate	100.00	0.00	64.84	65		67.46	67	4
4,4'-DDT	100.00	0.00	74.17	74		76.03	76	2
Endrin ketone	100.00	0.00	68.77	69		72.17	72	5
Methoxychlor	100.00	0.00	76.51	77		78.20	78	2
alpha-Chlordane	100.00	0.00	67.58	68		68.10	68	1
gamma-Chlordane	100.00	0.00	67.43	67		67.87	68	1

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06389-004
Date Received: 06/26/2012
Date Extracted: 07/05/2012
Date Analyzed: 07/10/2012
MS Data file: V8242.D
MSD Data file: V8243.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.23g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 12.5
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	45.31	45		58.55	59	25
beta-BHC	100.00	0.00	40.00	40		53.53	54	29
gamma-BHC (Lindane)	100.00	0.00	45.77	46		58.16	58	24
delta-BHC	100.00	0.00	42.14	42		54.40	54	25
Heptachlor	100.00	0.00	47.23	47		60.90	61	25
Aldrin	100.00	0.00	46.67	47		62.40	62	29
Heptachlor epoxide	100.00	0.00	46.01	46		61.74	62	29
Endosulfan I	100.00	0.00	51.05	51		64.34	64	23
4,4'-DDE	100.00	28.62	71.12	43		92.94	64	27
Dieldrin	100.00	0.00	42.32	42		53.23	53	23
Endrin	100.00	0.00	52.77	53		66.82	67	23
Endosulfan II	100.00	0.00	50.62	51		58.50	59	14
4,4'-DDD	100.00	7.47	51.69	44		64.03	57	21
Endrin aldehyde	100.00	0.00	40.91	41		50.01	50	20
Endosulfan sulfate	100.00	0.00	45.84	46		57.58	58	23
4,4'-DDT	100.00	58.40	142.29	84		119.45	61	17
Endrin ketone	100.00	0.00	58.75	59		56.05	56	5
Methoxychlor	100.00	0.00	69.83	70		79.10	79	12
alpha-Chlordane	100.00	0.00	47.33	47		63.14	63	29
gamma-Chlordane	100.00	0.00	47.27	47		63.15	63	29

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	O9514.D	Instrument ID:	GC-O
Date Extracted:	07/02/2012	Matrix:	AQUEOUS
Date Analyzed:	07/03/2012	Time Analyzed:	12:47

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ORD-V12-17	06490-001	07/03/2012	13:00
FIELD_BLAN	06388-022	07/03/2012	13:12
I2-062612-	06385-003	07/03/2012	13:24
I1-062612-	06385-005	07/03/2012	13:36
SS-7/0-5	06438-001	07/03/2012	13:48
A2-062712-	06466-011	07/03/2012	14:00
A7-062712-	06466-012	07/03/2012	14:12
GPECFB0628	06507-016	07/03/2012	14:24
Pest	06466-011MS	07/03/2012	14:36
Pest	06466-011MSD	07/03/2012	14:48
Pest	LCSA021207-12	07/03/2012	15:00

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V8228.D | Instrument ID: GC-V

Date Extracted: 07/05/2012 | Matrix: SOIL

Date Analyzed: 07/09/2012 | Time Analyzed: 17:12

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SUMP-1/1.5	06225-018	07/09/2012	17:25
T-18/0.5-1	06607-001	07/09/2012	17:37
T-18A/10-1	06607-002	07/09/2012	17:49
T-18B/29-3	06607-003	07/09/2012	18:01
T-19/0.5-1	06607-004	07/09/2012	18:13
T-19A/10-1	06607-005	07/09/2012	18:26
T-19B/19-2	06607-006	07/09/2012	18:38
G8-062612	06385-004	07/09/2012	19:15
Pest	06389-004MS	07/09/2012	20:04
Pest	06389-004MSD	07/09/2012	20:16
Pest	LCSS120705-13	07/09/2012	20:28
G1-062612	06385-001	07/10/2012	10:24
G2-062612	06385-002	07/10/2012	10:37
G7-062612	06385-006	07/10/2012	10:49
G3-062612	06385-007	07/10/2012	11:01
G6-062612	06385-008	07/10/2012	11:13
G5-062612	06385-009	07/10/2012	11:25
G4-062612	06385-010	07/10/2012	11:38
SAMPLE_73/	06389-001	07/10/2012	11:50
SAMPLE_75/	06389-003	07/10/2012	12:14
SAMPLE_76/	06389-004	07/10/2012	12:26
SAMPLE_74/	06389-002	07/10/2012	12:39

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (1st): RTX-CLP1

Data File: V7799.D V7798.D V7797.D V7796.D V7795.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.45	2.45	2.45	2.45	2.45	2.45	2.39	2.51
beta-BHC	2.77	2.77	2.77	2.77	2.77	2.77	2.71	2.83
gamma-BHC	2.70	2.70	2.70	2.70	2.70	2.70	2.64	2.76
delta-BHC	2.93	2.93	2.93	2.93	2.93	2.93	2.87	2.99
Heptachlor	3.13	3.13	3.13	3.13	3.13	3.13	3.05	3.21
Aldrin	3.43	3.43	3.43	3.43	3.43	3.43	3.35	3.51
Heptachlor epoxide	4.08	4.08	4.08	4.08	4.08	4.08	4.00	4.16
Endosulfan I	4.54	4.54	4.54	4.54	4.54	4.54	4.46	4.62
4,4'-DDE	4.49	4.49	4.49	4.49	4.49	4.49	4.39	4.59
Dieldrin	4.84	4.84	4.84	4.84	4.84	4.84	4.74	4.94
Endrin	5.13	5.13	5.13	5.13	5.13	5.13	5.03	5.23
Endosulfan II	5.42	5.43	5.43	5.43	5.43	5.43	5.33	5.53
4,4'-DDD	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Endrin aldehyde	6.00	6.00	6.00	6.00	6.00	6.00	5.88	6.12
Endosulfan sulfate	6.62	6.62	6.62	6.62	6.62	6.62	6.50	6.74
4,4'-DDT	5.63	5.63	5.63	5.63	5.63	5.63	5.51	5.75
Endrin ketone	6.96	6.96	6.97	6.97	6.96	6.96	6.84	7.08
Methoxychlor	6.35	6.35	6.35	6.35	6.35	6.35	6.23	6.47
alpha-Chlordane	4.38	4.38	4.38	4.38	4.38	4.38	4.30	4.46
gamma-Chlordane	4.22	4.22	4.22	4.22	4.22	4.22	4.14	4.30
Chlordane 500 ppb			3.05				2.97	3.13
Chlordane {2}			3.56				3.48	3.64
Chlordane {3}			4.22				4.14	4.30
Chlordane {4}			4.37				4.29	4.45
Chlordane {5}			5.34				5.26	5.42
Toxaphene 500 ppb			5.07				4.99	5.15
Toxaphene {2}			5.51				5.43	5.59
Toxaphene {3}			5.98				5.90	6.06
Toxaphene {4}			6.48				6.40	6.56
Toxaphene {5}			6.94				6.86	7.02

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V

GC Column (1st): RTX-CLP1

Data File: V7799.D V7798.D V7797.D V7796.D V7795.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	231257	224713	233984	262339	261262	242711	7.31
beta-BHC	109613	90446	95659	99560	102234	99502	7.22
gamma-BHC	212959	199262	198894	229202	224154	212894	6.54
delta-BHC	227496	206922	213329	240121	238274	225228	6.56
Heptachlor	215343	195409	196407	223896	224617	211134	6.81
Aldrin	223963	200931	204098	226660	224024	215935	5.72
Heptachlor epoxide	204500	183395	184454	203707	199651	195141	5.33
Endosulfan I	186050	181746	193857	206959	205778	194878	5.83
4,4'-DDE	178468	167967	163108	188044	185631	176644	6.15
Dieldrin	231518	191987	190323	211310	209343	206896	8.12
Endrin	183964	166275	162213	186269	185600	176864	6.58
Endosulfan II	178338	151279	157070	173756	170270	166142	6.91
4,4'-DDD	176633	155301	157262	173138	170373	166541	5.79
Endrin aldehyde	142886	125626	120437	133897	132434	131056	6.52
Endosulfan sulfate	167693	141243	140887	153474	151651	150990	7.28
4,4'-DDT	101400	113961	110956	140542	144942	122360	15.72
Endrin ketone	215131	166019	157428	177875	176108	178512	12.36
Methoxychlor	63950	61329	56207	68844	69859	64038	8.75
alpha-Chlordane	196078	178126	178171	199409	197991	189955	5.71
gamma-Chlordane	193667	184170	186513	208671	207100	196024	5.81
Chlordane 500 ppb			6481				
Chlordane {2}			8087				
Chlordane {3}			23855				
Chlordane {4}			38345				
Chlordane {5}			6951				
Toxaphene 500 ppb			3975				
Toxaphene {2}			4642				
Toxaphene {3}			5316				
Toxaphene {4}			4811				
Toxaphene {5}			5234				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (2nd): RTX-CLP2

Data File: V7799.C V7798.C V7797.C V7796.C V7795.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.92	2.93	2.93	2.93	2.93	2.93	2.87	2.99
beta-BHC	3.37	3.37	3.37	3.37	3.37	3.37	3.31	3.43
gamma-BHC	3.29	3.29	3.29	3.29	3.29	3.29	3.23	3.35
delta-BHC	3.70	3.70	3.70	3.70	3.70	3.70	3.64	3.76
Heptachlor	3.79	3.79	3.79	3.79	3.79	3.79	3.71	3.87
Aldrin	4.18	4.18	4.18	4.18	4.18	4.18	4.10	4.26
Heptachlor epoxide	4.91	4.91	4.91	4.91	4.91	4.91	4.83	4.99
Endosulfan I	5.44	5.45	5.45	5.45	5.45	5.45	5.37	5.53
4,4'-DDE	5.61	5.61	5.61	5.61	5.61	5.61	5.51	5.71
Dieldrin	5.83	5.83	5.83	5.83	5.83	5.83	5.73	5.93
Endrin	6.27	6.27	6.27	6.27	6.27	6.27	6.17	6.37
Endosulfan II	6.58	6.58	6.59	6.58	6.58	6.58	6.48	6.68
4,4'-DDD	6.46	6.46	6.46	6.46	6.46	6.46	6.36	6.56
Endrin aldehyde	7.02	7.02	7.02	7.02	7.02	7.02	6.90	7.14
Endosulfan sulfate	7.33	7.33	7.33	7.33	7.33	7.33	7.21	7.45
4,4'-DDT	6.89	6.89	6.89	6.89	6.89	6.89	6.77	7.01
Endrin ketone	7.82	7.82	7.82	7.82	7.82	7.82	7.70	7.94
Methoxychlor	7.62	7.63	7.63	7.63	7.63	7.63	7.51	7.75
alpha-Chlordane	5.37	5.37	5.37	5.37	5.37	5.37	5.29	5.45
gamma-Chlordane	5.17	5.17	5.17	5.17	5.17	5.17	5.09	5.25
Chlordane 500 ppb			3.62				3.54	3.70
Chlordane {2}			4.36				4.28	4.44
Chlordane {3}			5.17				5.09	5.25
Chlordane {4}			5.30				5.22	5.38
Chlordane {5}			5.37				5.29	5.45
Toxaphene 500 ppb			5.81				5.73	5.89
Toxaphene {2}			6.71				6.63	6.79
Toxaphene {3}			7.04				6.96	7.12
Toxaphene {4}			7.56				7.48	7.64
Toxaphene {5}			7.91				7.83	7.99

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (2nd): RTX-CLP2

Data File: V7799.C V7798.C V7797.C V7796.C V7795.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	927502	941410	939496	1039724	1014689	972564	5.24
beta-BHC	427467	367667	376083	391013	384833	389412	5.92
gamma-BHC	879655	817425	816519	907696	878974	860054	4.77
delta-BHC	894047	813212	802437	894320	872503	855304	5.19
Heptachlor	775100	704353	756685	829336	819647	777024	6.52
Aldrin	873438	793667	803657	872346	844923	837606	4.48
Heptachlor epoxide	802324	696235	700811	743842	716805	732003	5.94
Endosulfan I	746347	648298	657649	691608	671267	683034	5.70
4,4'-DDE	677119	629315	628820	690561	679161	660995	4.48
Dieldrin	729603	661697	668051	722851	710324	698505	4.52
Endrin	638171	563265	546674	612208	599171	591898	6.25
Endosulfan II	673950	555015	569034	602930	579308	596047	7.87
4,4'-DDD	615161	442912	513004	564334	538359	534754	11.92
Endrin aldehyde	536928	386134	375670	403181	392237	418830	15.94
Endosulfan sulfate	539628	421514	405756	449247	437864	450802	11.60
4,4'-DDT	258826	310532	295971	377756	385037	325624	16.69
Endrin ketone	483538	427357	425080	460223	452540	449748	5.41
Methoxychlor	142042	151615	141819	173624	175892	156998	10.64
alpha-Chlordane	778212	662617	643791	704907	688797	695665	7.44
gamma-Chlordane	769490	700071	700700	755251	737736	732650	4.30
Chlordane 500 ppb			28296				
Chlordane {2}			32811				
Chlordane {3}			86013				
Chlordane {4}			75409				
Chlordane {5}			73806				
Toxaphene 500 ppb			8036				
Toxaphene {2}			20026				
Toxaphene {3}			19206				
Toxaphene {4}			12858				
Toxaphene {5}			6023				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/02/2012

Instrument ID: GC-O
GC Column (1st): RTX-CLP1

Data File: O9481.D O9480.D O9479.D O9478.D O9477.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.30	2.30	2.30	2.30	2.30	2.30	2.24	2.36
beta-BHC	2.59	2.59	2.59	2.59	2.59	2.59	2.53	2.65
gamma-BHC	2.53	2.53	2.53	2.53	2.53	2.53	2.47	2.59
delta-BHC	2.73	2.73	2.73	2.73	2.73	2.73	2.67	2.79
Heptachlor	2.89	2.89	2.89	2.89	2.89	2.89	2.81	2.97
Aldrin	3.14	3.14	3.14	3.14	3.14	3.14	3.06	3.22
Heptachlor epoxide	3.67	3.67	3.67	3.67	3.67	3.67	3.59	3.75
Endosulfan I	4.03	4.03	4.03	4.03	4.03	4.03	3.95	4.11
4,4'-DDE	3.98	3.98	3.98	3.98	3.98	3.98	3.88	4.08
Dieldrin	4.26	4.26	4.26	4.26	4.26	4.26	4.16	4.36
Endrin	4.48	4.49	4.48	4.49	4.48	4.49	4.39	4.59
Endosulfan II	4.71	4.71	4.71	4.71	4.71	4.71	4.61	4.81
4,4'-DDD	4.56	4.56	4.56	4.56	4.56	4.56	4.46	4.66
Endrin aldehyde	5.14	5.14	5.14	5.14	5.14	5.14	5.02	5.26
Endosulfan sulfate	5.66	5.66	5.66	5.66	5.66	5.66	5.54	5.78
4,4'-DDT	4.84	4.84	4.84	4.84	4.84	4.84	4.72	4.96
Endrin ketone	6.03	6.03	6.03	6.03	6.03	6.03	5.91	6.15
Methoxychlor	5.39	5.39	5.39	5.39	5.39	5.39	5.27	5.51
alpha-Chlordane	3.91	3.91	3.91	3.91	3.91	3.91	3.83	3.99
gamma-Chlordane	3.78	3.78	3.78	3.78	3.78	3.78	3.70	3.86
Chlordane 500 ppb			2.83				2.75	2.91
Chlordane {2}			3.26				3.18	3.34
Chlordane {3}			3.78				3.70	3.86
Chlordane {4}			3.90				3.82	3.98
Chlordane {5}			4.64				4.56	4.72
Toxaphene 500 ppb			4.42				4.34	4.50
Toxaphene {2}			4.77				4.69	4.85
Toxaphene {3}			5.11				5.03	5.19
Toxaphene {4}			5.53				5.45	5.61
Toxaphene {5}			6.22				6.14	6.30

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/02/2012

Instrument ID: GC-O
GC Column (1st): RTX-CLP1

Data File: O9481.D O9480.D O9479.D O9478.D O9477.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	138432	144923	162651	180776	164280	158213	10.64
beta-BHC	83612	65635	69843	72961	70102	72431	9.35
gamma-BHC	124012	123829	138258	155095	137975	135834	9.49
delta-BHC	130503	130250	148084	163133	149015	144197	9.68
Heptachlor	136949	128652	141092	157084	142510	141258	7.34
Aldrin	126684	124401	136176	153625	138559	135889	8.54
Heptachlor epoxide	128554	114669	123793	137948	124412	125875	6.71
Endosulfan I	125942	112157	121244	134653	121998	123199	6.62
4,4'-DDE	99060	98973	111391	127669	116772	110773	11.04
Dieldrin	121325	112308	123075	139853	126335	124579	8.03
Endrin	115094	101233	111959	125746	113735	113554	7.69
Endosulfan II	115307	95521	103182	115119	104406	106707	7.95
4,4'-DDD	102702	89135	97227	109102	99688	99571	7.36
Endrin aldehyde	103406	76009	80704	88316	77310	85149	13.24
Endosulfan sulfate	114632	89873	95801	105122	93328	99751	10.08
4,4'-DDT	86078	75101	87973	100423	94420	88799	10.72
Endrin ketone	128056	105106	113692	124827	113512	117039	7.97
Methoxychlor	51068	41196	43943	47844	42951	45401	8.80
alpha-Chlordane	128240	113062	121936	135983	123019	124448	6.79
gamma-Chlordane	129553	115409	125340	141295	127880	127895	7.26
Chlordane 500 ppb			3694				
Chlordane {2}			5043				
Chlordane {3}			14409				
Chlordane {4}			23022				
Chlordane {5}			3713				
Toxaphene 500 ppb			2951				
Toxaphene {2}			2619				
Toxaphene {3}			3332				
Toxaphene {4}			3535				
Toxaphene {5}			1645				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/02/2012

Instrument ID: GC-O
GC Column (2nd): RTX-CLP2

Data File: O9481.C O9480.C O9479.C O9478.C O9477.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.77	2.78	2.77	2.77	2.78	2.77	2.71	2.83
beta-BHC	3.15	3.15	3.15	3.15	3.15	3.15	3.09	3.21
gamma-BHC	3.09	3.09	3.09	3.09	3.09	3.09	3.03	3.15
delta-BHC	3.43	3.43	3.43	3.43	3.43	3.43	3.37	3.49
Heptachlor	3.51	3.51	3.51	3.51	3.51	3.51	3.43	3.59
Aldrin	3.83	3.83	3.83	3.83	3.83	3.83	3.75	3.91
Heptachlor epoxide	4.39	4.39	4.39	4.39	4.39	4.39	4.31	4.47
Endosulfan I	4.80	4.80	4.80	4.80	4.80	4.80	4.72	4.88
4,4'-DDE	4.91	4.91	4.91	4.91	4.91	4.91	4.81	5.01
Dieldrin	5.09	5.10	5.10	5.10	5.10	5.10	5.00	5.20
Endrin	5.46	5.46	5.46	5.46	5.46	5.46	5.36	5.56
Endosulfan II	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
4,4'-DDD	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Endrin aldehyde	6.20	6.20	6.20	6.20	6.21	6.20	6.08	6.32
Endosulfan sulfate	6.58	6.58	6.58	6.58	6.58	6.58	6.46	6.70
4,4'-DDT	6.04	6.04	6.04	6.04	6.04	6.04	5.92	6.16
Endrin ketone	7.25	7.25	7.25	7.25	7.25	7.25	7.13	7.37
Methoxychlor	6.97	6.97	6.97	6.97	6.97	6.97	6.85	7.09
alpha-Chlordane	4.74	4.74	4.74	4.74	4.74	4.74	4.66	4.82
gamma-Chlordane	4.59	4.59	4.59	4.59	4.59	4.59	4.51	4.67
Chlordane 500 ppb			3.37				3.29	3.45
Chlordane {2}			3.97				3.89	4.05
Chlordane {3}			4.59				4.51	4.67
Chlordane {4}			4.69				4.61	4.77
Chlordane {5}			4.74				4.66	4.82
Toxaphene 500 ppb			5.08				5.00	5.16
Toxaphene {2}			5.85				5.77	5.93
Toxaphene {3}			6.22				6.14	6.30
Toxaphene {4}			6.90				6.82	6.98
Toxaphene {5}			7.38				7.30	7.46

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/02/2012

Instrument ID: GC-O
GC Column (2nd): RTX-CLP2

Data File: O9481.C O9480.C O9479.C O9478.C O9477.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	333080	315653	336831	365668	329289	336104	5.46
beta-BHC	172966	124948	128347	131634	120109	135601	15.72
gamma-BHC	299740	271904	286028	314258	284423	291271	5.56
delta-BHC	300773	271701	289103	312990	286231	292160	5.33
Heptachlor	299550	257172	268113	298560	269448	278569	6.93
Aldrin	309121	265482	278432	302352	272196	285517	6.71
Heptachlor epoxide	276277	234241	244100	262071	235471	250432	7.28
Endosulfan I	247703	210677	218907	235339	212947	225115	7.06
4,4'-DDE	223524	209804	224665	244644	222943	225116	5.54
Dieldrin	252922	223757	236372	255533	230719	239861	5.79
Endrin	228673	197756	209809	225642	204045	213185	6.33
Endosulfan II	227821	195368	202345	214425	193249	206642	6.99
4,4'-DDD	197549	179825	187661	201658	182505	189840	4.98
Endrin aldehyde	183381	143813	151037	160776	144336	156668	10.49
Endosulfan sulfate	207148	162819	173254	186430	169880	179906	9.71
4,4'-DDT	147943	125563	145919	163650	152250	147065	9.41
Endrin ketone	214574	180208	190395	205174	187456	195561	7.15
Methoxychlor	81267	68751	76034	82466	75648	76833	7.09
alpha-Chlordane	266512	222044	231692	250751	226432	239486	7.79
gamma-Chlordane	270362	233310	245218	266746	241122	251352	6.50
Chlordane 500 ppb			8821				
Chlordane {2}			9098				
Chlordane {3}			27530				
Chlordane {4}			21789				
Chlordane {5}			22632				
Toxaphene 500 ppb			2458				
Toxaphene {2}			4603				
Toxaphene {3}			4454				
Toxaphene {4}			4868				
Toxaphene {5}			3847				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/03/2012 **Instrument ID:** GC-O

Data File: O9503.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.30	2.24	2.36	158213	132596	16.19
beta-BHC	2.58	2.53	2.65	72431	68207	5.83
gamma-BHC	2.52	2.47	2.59	135834	114629	15.61
delta-BHC	2.73	2.67	2.79	144197	125595	12.90
Heptachlor	2.89	2.81	2.97	141258	123914	12.28
Aldrin	3.14	3.06	3.22	135889	124243	8.57
Heptachlor epoxide	3.67	3.59	3.75	125875	116333	7.58
Endosulfan I	4.03	3.95	4.11	123199	120179	2.45
4,4'-DDE	3.98	3.88	4.08	110773	111959	1.07
Dieldrin	4.26	4.16	4.36	124579	116093	6.81
Endrin	4.49	4.39	4.59	113554	105977	6.67
Endosulfan II	4.71	4.61	4.81	106707	101972	4.44
4,4'-DDD	4.56	4.46	4.66	99571	102069	2.51
Endrin aldehyde	5.14	5.02	5.26	85149	80493	5.47
Endosulfan sulfate	5.66	5.54	5.78	99751	91472	8.30
4,4'-DDT	4.84	4.72	4.96	88799	78617	11.47
Endrin ketone	6.04	5.91	6.15	117039	113646	2.90
Methoxychlor	5.39	5.27	5.51	45401	39635	12.70
alpha-Chlordane	3.91	3.83	3.99	124448	115324	7.33
gamma-Chlordane	3.78	3.70	3.86	127895	128735	0.66
Chlordane 500 ppb	2.83	2.75	2.91	3694	3693	0.03
Chlordane {2}	3.26	3.18	3.34	5043	5151	2.13
Chlordane {3}	3.79	3.70	3.86	14409	14867	3.18
Chlordane {4}	3.90	3.82	3.98	23022	23948	4.02
Chlordane {5}	4.64	4.56	4.72	3713	3672	1.09
Toxaphene 500 ppb	4.42	4.34	4.50	2951	3325	12.70
Toxaphene {2}	4.77	4.69	4.85	2619	2573	1.73
Toxaphene {3}	5.11	5.03	5.19	3332	3438	3.17
Toxaphene {4}	5.53	5.45	5.61	3535	3560	0.71
Toxaphene {5}	6.22	6.14	6.30	1645	1529	7.00

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/03/2012 **Instrument ID:** GC-O

Data File: O9503.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.78	2.71	2.83	336104	328558	2.25
beta-BHC	3.16	3.09	3.21	135601	131157	3.28
gamma-BHC	3.09	3.03	3.15	291271	284007	2.49
delta-BHC	3.44	3.37	3.49	292160	292644	0.17
Heptachlor	3.52	3.43	3.59	278569	251172	9.83
Aldrin	3.83	3.75	3.91	285517	287297	0.62
Heptachlor epoxide	4.40	4.31	4.47	250432	251656	0.49
Endosulfan I	4.81	4.72	4.88	225115	219939	2.30
4,4'-DDE	4.92	4.81	5.01	225116	248529	10.40
Dieldrin	5.10	5.00	5.20	239861	247747	3.29
Endrin	5.47	5.36	5.56	213185	214856	0.78
Endosulfan II	5.74	5.63	5.83	206642	211570	2.38
4,4'-DDD	5.61	5.50	5.70	189840	209084	10.14
Endrin aldehyde	6.21	6.08	6.32	156668	156000	0.43
Endosulfan sulfate	6.59	6.46	6.70	179906	159013	11.61
4,4'-DDT	6.05	5.92	6.16	147065	153557	4.41
Endrin ketone	7.26	7.13	7.37	195561	198217	1.36
Methoxychlor	6.98	6.85	7.09	76833	70216	8.61
alpha-Chlordane	4.75	4.66	4.82	239486	234417	2.12
gamma-Chlordane	4.60	4.51	4.67	251352	254090	1.09
Chlordane 500 ppb	3.37	3.29	3.45	8821	8137	7.75
Chlordane {2}	3.97	3.89	4.05	9098	8941	1.72
Chlordane {3}	4.59	4.51	4.67	27530	28559	3.74
Chlordane {4}	4.69	4.61	4.77	21789	22254	2.14
Chlordane {5}	4.74	4.66	4.82	22632	23871	5.47
Toxaphene 500 ppb	5.08	5.00	5.16	2458	2852	16.00
Toxaphene {2}	5.85	5.77	5.93	4603	5236	13.76
Toxaphene {3}	6.22	6.14	6.30	4454	5182	16.34
Toxaphene {4}	6.90	6.82	6.98	4868	5089	4.53
Toxaphene {5}	7.39	7.30	7.46	3847	4177	8.59

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/03/2012 **Instrument ID:** GC-O

Data File: O9531.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.30	2.24	2.36	158213	141523	10.55
beta-BHC	2.59	2.53	2.65	72431	65737	9.24
gamma-BHC	2.53	2.47	2.59	135834	120230	11.49
delta-BHC	2.73	2.67	2.79	144197	131836	8.57
Heptachlor	2.89	2.81	2.97	141258	130310	7.75
Aldrin	3.14	3.06	3.22	135889	132865	2.23
Heptachlor epoxide	3.67	3.59	3.75	125875	124690	0.94
Endosulfan I	4.04	3.95	4.11	123199	125024	1.48
4,4'-DDE	3.98	3.88	4.08	110773	119452	7.83
Dieldrin	4.26	4.16	4.36	124579	125055	0.38
Endrin	4.49	4.39	4.59	113554	116921	2.97
Endosulfan II	4.71	4.61	4.81	106707	106777	0.07
4,4'-DDD	4.56	4.46	4.66	99571	117652	18.16
Endrin aldehyde	5.14	5.02	5.26	85149	83562	1.86
Endosulfan sulfate	5.66	5.54	5.78	99751	96796	2.96
4,4'-DDT	4.84	4.72	4.96	88799	73433	17.30
Endrin ketone	6.04	5.91	6.15	117039	119852	2.40
Methoxychlor	5.39	5.27	5.51	45401	39646	12.67
alpha-Chlordane	3.91	3.83	3.99	124448	122994	1.17
gamma-Chlordane	3.79	3.70	3.86	127895	137337	7.38

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/03/2012 **Instrument ID:** GC-O

Data File: O9531.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.77	2.71	2.83	336104	287888	14.35
beta-BHC	3.15	3.09	3.21	135601	111470	17.79
gamma-BHC	3.09	3.03	3.15	291271	253070	13.12
delta-BHC	3.43	3.37	3.49	292160	261152	10.61
Heptachlor	3.51	3.43	3.59	278569	227422	18.36
Aldrin	3.83	3.75	3.91	285517	256078	10.31
Heptachlor epoxide	4.40	4.31	4.47	250432	226751	9.46
Endosulfan I	4.80	4.72	4.88	225115	199733	11.27
4,4'-DDE	4.91	4.81	5.01	225116	224836	0.12
Dieldrin	5.10	5.00	5.20	239861	226380	5.62
Endrin	5.46	5.36	5.56	213185	202411	5.05
Endosulfan II	5.74	5.63	5.83	206642	194903	5.68
4,4'-DDD	5.60	5.50	5.70	189840	209691	10.46
Endrin aldehyde	6.20	6.08	6.32	156668	142867	8.81
Endosulfan sulfate	6.58	6.46	6.70	179906	164765	8.42
4,4'-DDT	6.04	5.92	6.16	147065	119358	18.84
Endrin ketone	7.25	7.13	7.37	195561	190781	2.44
Methoxychlor	6.97	6.85	7.09	76833	63313	17.60
alpha-Chlordane	4.74	4.66	4.82	239486	213007	11.06
gamma-Chlordane	4.59	4.51	4.67	251352	229825	8.56

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8207.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	237261	2.25
beta-BHC	2.76	2.71	2.83	99502	99852	0.35
gamma-BHC	2.69	2.64	2.76	212894	196795	7.56
delta-BHC	2.92	2.87	2.99	225228	210981	6.33
Heptachlor	3.12	3.05	3.21	211134	208738	1.14
Aldrin	3.42	3.35	3.51	215935	203661	5.68
Heptachlor epoxide	4.07	4.00	4.16	195141	184906	5.25
Endosulfan I	4.53	4.46	4.62	194878	198170	1.69
4,4'-DDE	4.48	4.39	4.59	176644	160841	8.95
Dieldrin	4.83	4.74	4.94	206896	189570	8.37
Endrin	5.12	5.03	5.23	176864	165026	6.69
Endosulfan II	5.42	5.33	5.53	166142	151913	8.56
4,4'-DDD	5.24	5.15	5.35	166541	151613	8.96
Endrin aldehyde	6.00	5.88	6.12	131056	122070	6.86
Endosulfan sulfate	6.61	6.50	6.74	150990	138281	8.42
4,4'-DDT	5.62	5.51	5.75	122360	123907	1.26
Endrin ketone	6.96	6.84	7.08	178512	157031	12.03
Methoxychlor	6.34	6.23	6.47	64038	64091	0.08
alpha-Chlordane	4.37	4.30	4.46	189955	178615	5.97
gamma-Chlordane	4.22	4.14	4.30	196024	189771	3.19
Chlordane 500 ppb	3.05	2.97	3.13	6481	5883	9.23
Chlordane {2}	3.56	3.48	3.64	8087	7703	4.76
Chlordane {3}	4.22	4.14	4.30	23855	24322	1.96
Chlordane {4}	4.37	4.29	4.45	38345	40913	6.70
Chlordane {5}	5.33	5.26	5.42	6951	6750	2.89
Toxaphene 500 ppb	5.07	4.99	5.15	3975	3836	3.51
Toxaphene {2}	5.51	5.43	5.59	4642	4433	4.50
Toxaphene {3}	5.97	5.90	6.06	5316	5359	0.81
Toxaphene {4}	6.47	6.40	6.56	4811	4741	1.47
Toxaphene {5}	6.94	6.86	7.02	5234	6056	15.71

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8207.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	1009581	3.81
beta-BHC	3.37	3.31	3.43	389412	390331	0.24
gamma-BHC	3.29	3.23	3.35	860054	851250	1.02
delta-BHC	3.70	3.64	3.76	855304	809424	5.36
Heptachlor	3.79	3.71	3.87	777024	826756	6.40
Aldrin	4.18	4.10	4.26	837606	783312	6.48
Heptachlor epoxide	4.91	4.83	4.99	732003	688217	5.98
Endosulfan I	5.45	5.37	5.53	683034	654132	4.23
4,4'-DDE	5.62	5.51	5.71	660995	616168	6.78
Dieldrin	5.83	5.73	5.93	698505	651365	6.75
Endrin	6.27	6.17	6.37	591898	543843	8.12
Endosulfan II	6.58	6.48	6.68	596047	515884	13.45
4,4'-DDD	6.46	6.36	6.56	534754	485101	9.29
Endrin aldehyde	7.02	6.90	7.14	418830	361503	13.69
Endosulfan sulfate	7.33	7.21	7.45	450802	391099	13.24
4,4'-DDT	6.89	6.77	7.01	325624	343607	5.52
Endrin ketone	7.82	7.70	7.94	449748	390716	13.13
Methoxychlor	7.63	7.51	7.75	156998	148344	5.51
alpha-Chlordane	5.37	5.29	5.45	695665	630779	9.33
gamma-Chlordane	5.17	5.09	5.25	732650	691478	5.62
Chlordane 500 ppb	3.62	3.54	3.70	28296	27163	4.01
Chlordane {2}	4.35	4.28	4.44	32811	29973	8.65
Chlordane {3}	5.16	5.09	5.25	86013	82538	4.04
Chlordane {4}	5.29	5.22	5.38	75409	69012	8.48
Chlordane {5}	5.36	5.29	5.45	73806	71737	2.80
Toxaphene 500 ppb	5.81	5.73	5.89	8036	7243	9.86
Toxaphene {2}	6.71	6.63	6.79	20026	17927	10.48
Toxaphene {3}	7.04	6.96	7.12	19206	17499	8.89
Toxaphene {4}	7.56	7.48	7.64	12858	11788	8.32
Toxaphene {5}	7.91	7.83	7.99	6023	5584	7.29

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8245.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	245498	1.15
beta-BHC	2.76	2.71	2.83	99502	116847	17.43
gamma-BHC	2.70	2.64	2.76	212894	193609	9.06
delta-BHC	2.92	2.87	2.99	225228	226248	0.45
Heptachlor	3.12	3.05	3.21	211134	207618	1.67
Aldrin	3.42	3.35	3.51	215935	212596	1.55
Heptachlor epoxide	4.07	4.00	4.16	195141	193961	0.60
Endosulfan I	4.53	4.46	4.62	194878	204939	5.16
4,4'-DDE	4.48	4.39	4.59	176644	169331	4.14
Dieldrin	4.83	4.74	4.94	206896	199482	3.58
Endrin	5.13	5.03	5.23	176864	176694	0.10
Endosulfan II	5.42	5.33	5.53	166142	160333	3.50
4,4'-DDD	5.25	5.15	5.35	166541	164724	1.09
Endrin aldehyde	6.00	5.88	6.12	131056	124115	5.30
Endosulfan sulfate	6.62	6.50	6.74	150990	142240	5.80
4,4'-DDT	5.62	5.51	5.75	122360	116318	4.94
Endrin ketone	6.96	6.84	7.08	178512	160315	10.19
Methoxychlor	6.34	6.23	6.47	64038	60991	4.76
alpha-Chlordane	4.37	4.30	4.46	189955	186480	1.83
gamma-Chlordane	4.22	4.14	4.30	196024	199251	1.65

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8245.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	1099077	13.01
beta-BHC	3.36	3.31	3.43	389412	457477	17.48
gamma-BHC	3.28	3.23	3.35	860054	935663	8.79
delta-BHC	3.69	3.64	3.76	855304	939906	9.89
Heptachlor	3.78	3.71	3.87	777024	817784	5.25
Aldrin	4.17	4.10	4.26	837606	926692	10.64
Heptachlor epoxide	4.90	4.83	4.99	732003	808704	10.48
Endosulfan I	5.44	5.37	5.53	683034	755920	10.67
4,4'-DDE	5.60	5.51	5.71	660995	723789	9.50
Dieldrin	5.82	5.73	5.93	698505	772777	10.63
Endrin	6.26	6.17	6.37	591898	659798	11.47
Endosulfan II	6.57	6.48	6.68	596047	606019	1.67
4,4'-DDD	6.45	6.36	6.56	534754	543214	1.58
Endrin aldehyde	7.01	6.90	7.14	418830	405035	3.29
Endosulfan sulfate	7.32	7.21	7.45	450802	445578	1.16
4,4'-DDT	6.89	6.77	7.01	325624	343026	5.34
Endrin ketone	7.81	7.70	7.94	449748	469823	4.46
Methoxychlor	7.62	7.51	7.75	156998	138911	11.52
alpha-Chlordane	5.36	5.29	5.45	695665	744387	7.00
gamma-Chlordane	5.16	5.09	5.25	732650	805789	9.98

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/10/2012 **Instrument ID:** GC-V

Data File: V8247.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	251105	3.46
beta-BHC	2.76	2.71	2.83	99502	113464	14.03
gamma-BHC	2.70	2.64	2.76	212894	204665	3.87
delta-BHC	2.92	2.87	2.99	225228	229870	2.06
Heptachlor	3.12	3.05	3.21	211134	213908	1.31
Aldrin	3.42	3.35	3.51	215935	218680	1.27
Heptachlor epoxide	4.07	4.00	4.16	195141	200925	2.96
Endosulfan I	4.54	4.46	4.62	194878	220208	13.00
4,4'-DDE	4.48	4.39	4.59	176644	171528	2.90
Dieldrin	4.83	4.74	4.94	206896	204728	1.05
Endrin	5.13	5.03	5.23	176864	179383	1.42
Endosulfan II	5.42	5.33	5.53	166142	168474	1.40
4,4'-DDD	5.25	5.15	5.35	166541	174076	4.52
Endrin aldehyde	6.00	5.88	6.12	131056	130720	0.26
Endosulfan sulfate	6.62	6.50	6.74	150990	154407	2.26
4,4'-DDT	5.63	5.51	5.75	122360	124249	1.54
Endrin ketone	6.96	6.84	7.08	178512	172387	3.43
Methoxychlor	6.35	6.23	6.47	64038	63548	0.77
alpha-Chlordane	4.38	4.30	4.46	189955	193095	1.65
gamma-Chlordane	4.22	4.14	4.30	196024	205422	4.79
Chlordane 500 ppb	3.05	2.97	3.13	6481	6509	0.43
Chlordane {2}	3.56	3.48	3.64	8087	9331	15.38
Chlordane {3}	4.22	4.14	4.30	23855	26498	11.08
Chlordane {4}	4.37	4.29	4.45	38345	43098	12.39
Chlordane {5}	5.33	5.26	5.42	6951	6918	0.47
Toxaphene 500 ppb	5.06	4.99	5.15	3975	4296	8.06
Toxaphene {2}	5.51	5.43	5.59	4642	4432	4.53
Toxaphene {3}	5.97	5.90	6.06	5316	5092	4.22
Toxaphene {4}	6.47	6.40	6.56	4811	4350	9.59
Toxaphene {5}	6.94	6.86	7.02	5234	5642	7.80

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/10/2012 **Instrument ID:** GC-V

Data File: V8247.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	1110591	14.19
beta-BHC	3.37	3.31	3.43	389412	446626	14.69
gamma-BHC	3.29	3.23	3.35	860054	950161	10.48
delta-BHC	3.70	3.64	3.76	855304	942874	10.24
Heptachlor	3.79	3.71	3.87	777024	853281	9.81
Aldrin	4.18	4.10	4.26	837606	917633	9.55
Heptachlor epoxide	4.91	4.83	4.99	732003	798664	9.11
Endosulfan I	5.45	5.37	5.53	683034	764710	11.96
4,4'-DDE	5.62	5.51	5.71	660995	730876	10.57
Dieldrin	5.83	5.73	5.93	698505	772782	10.63
Endrin	6.27	6.17	6.37	591898	648309	9.53
Endosulfan II	6.59	6.48	6.68	596047	625163	4.88
4,4'-DDD	6.46	6.36	6.56	534754	610507	14.17
Endrin aldehyde	7.02	6.90	7.14	418830	418852	0.01
Endosulfan sulfate	7.33	7.21	7.45	450802	452720	0.43
4,4'-DDT	6.90	6.77	7.01	325624	364189	11.84
Endrin ketone	7.82	7.70	7.94	449748	449895	0.03
Methoxychlor	7.63	7.51	7.75	156998	144923	7.69
alpha-Chlordane	5.37	5.29	5.45	695665	737049	5.95
gamma-Chlordane	5.17	5.09	5.25	732650	802069	9.48
Chlordane 500 ppb	3.62	3.54	3.70	28296	30161	6.59
Chlordane {2}	4.35	4.28	4.44	32811	34538	5.26
Chlordane {3}	5.16	5.09	5.25	86013	98694	14.74
Chlordane {4}	5.29	5.22	5.38	75409	82137	8.92
Chlordane {5}	5.36	5.29	5.45	73806	84700	14.76
Toxaphene 500 ppb	5.80	5.73	5.89	8036	8892	10.66
Toxaphene {2}	6.70	6.63	6.79	20026	20340	1.57
Toxaphene {3}	7.03	6.96	7.12	19206	18875	1.73
Toxaphene {4}	7.56	7.48	7.64	12858	11272	12.33
Toxaphene {5}	7.91	7.83	7.99	6023	6557	8.87

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/10/2012 **Instrument ID:** GC-V

Data File: V8262.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	257187	5.96
beta-BHC	2.76	2.71	2.83	99502	116884	17.47
gamma-BHC	2.70	2.64	2.76	212894	206780	2.87
delta-BHC	2.93	2.87	2.99	225228	231381	2.73
Heptachlor	3.12	3.05	3.21	211134	199486	5.52
Aldrin	3.42	3.35	3.51	215935	219675	1.73
Heptachlor epoxide	4.07	4.00	4.16	195141	199101	2.03
Endosulfan I	4.54	4.46	4.62	194878	217588	11.65
4,4'-DDE	4.49	4.39	4.59	176644	170433	3.52
Dieldrin	4.83	4.74	4.94	206896	201906	2.41
Endrin	5.13	5.03	5.23	176864	178844	1.12
Endosulfan II	5.42	5.33	5.53	166142	167779	0.98
4,4'-DDD	5.25	5.15	5.35	166541	174987	5.07
Endrin aldehyde	6.00	5.88	6.12	131056	129347	1.30
Endosulfan sulfate	6.62	6.50	6.74	150990	152012	0.68
4,4'-DDT	5.63	5.51	5.75	122360	112804	7.81
Endrin ketone	6.96	6.84	7.08	178512	168747	5.47
Methoxychlor	6.35	6.23	6.47	64038	58613	8.47
alpha-Chlordane	4.38	4.30	4.46	189955	190263	0.16
gamma-Chlordane	4.22	4.14	4.30	196024	202300	3.20

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/10/2012 **Instrument ID:** GC-V

Data File: V8262.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	RT WI NDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	1111684	14.30
beta-BHC	3.36	3.31	3.43	389412	434685	11.63
gamma-BHC	3.28	3.23	3.35	860054	943267	9.68
delta-BHC	3.70	3.64	3.76	855304	921409	7.73
Heptachlor	3.79	3.71	3.87	777024	826376	6.35
Aldrin	4.18	4.10	4.26	837606	921176	9.98
Heptachlor epoxide	4.91	4.83	4.99	732003	793227	8.36
Endosulfan I	5.44	5.37	5.53	683034	745084	9.08
4,4'-DDE	5.61	5.51	5.71	660995	717999	8.62
Dieldrin	5.83	5.73	5.93	698505	755568	8.17
Endrin	6.27	6.17	6.37	591898	656765	10.96
Endosulfan II	6.58	6.48	6.68	596047	617882	3.66
4,4'-DDD	6.46	6.36	6.56	534754	621554	16.23
Endrin aldehyde	7.02	6.90	7.14	418830	396994	5.21
Endosulfan sulfate	7.32	7.21	7.45	450802	442914	1.75
4,4'-DDT	6.89	6.77	7.01	325624	330918	1.63
Endrin ketone	7.82	7.70	7.94	449748	470532	4.62
Methoxychlor	7.62	7.51	7.75	156998	143706	8.47
alpha-Chlordane	5.36	5.29	5.45	695665	719823	3.47
gamma-Chlordane	5.16	5.09	5.25	732650	792770	8.21

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-O **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.94 **DCB 1** 7.36 **TCMX 2** 2.29 **DCB 2** 8.82

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKA021207-12	07/03/2012	12:47	1.94		7.36		2.29		8.82	
ORD-V12-17	06490-001	07/03/2012	13:00	1.94		7.35		2.29		8.82	
FIELD_BLAN	06388-022	07/03/2012	13:12	1.94		7.35		2.29		8.82	
I2-062612-	06385-003	07/03/2012	13:24	1.94		7.35		2.29		8.82	
I1-062612-	06385-005	07/03/2012	13:36	1.94		7.35		2.29		8.82	
SS-7/0-5	06438-001	07/03/2012	13:48	1.94		7.35		2.29		8.82	
A2-062712-	06466-011	07/03/2012	14:00	1.94		7.35		2.29		8.82	
A7-062712-	06466-012	07/03/2012	14:12	1.94		7.35		2.29		8.82	
GPECFB0628	06507-016	07/03/2012	14:24	1.94		7.35		2.29		8.82	
Pest	06466-011MS	07/03/2012	14:36	1.94		7.35		2.29		8.82	
Pest	06466-011MSD	07/03/2012	14:48	1.94		7.36		2.29		8.82	
Pest	LCSA021207-12	07/03/2012	15:00	1.94		7.35		2.29		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 2.05 **DCB 1** 7.95 **TCMX 2** 2.38 **DCB 2** 8.86

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS120705-13	07/09/2012	17:12	2.05		7.95		2.38		8.86	
SUMP-1/1.5	06225-018	07/09/2012	17:25	2.05		7.95		2.38		8.86	
T-18/0.5-1	06607-001	07/09/2012	17:37	2.05		7.95		2.38		8.86	
T-18A/10-1	06607-002	07/09/2012	17:49	2.05		7.94		2.38		8.86	
T-18B/29-3	06607-003	07/09/2012	18:01	2.05		7.94		2.38		8.86	
T-19/0.5-1	06607-004	07/09/2012	18:13	2.05		7.94		2.38		8.86	
T-19A/10-1	06607-005	07/09/2012	18:26	2.05		7.95		2.38		8.86	
T-19B/19-2	06607-006	07/09/2012	18:38	2.05		7.95		2.38		8.86	
G8-062612	06385-004	07/09/2012	19:15	2.04		7.94		2.38		8.86	
Pest	06389-004MS	07/09/2012	20:04	2.05		7.95		2.38		8.86	
Pest	06389-004MSD	07/09/2012	20:16	2.05		7.94		2.38		8.86	
Pest	LCSS120705-13	07/09/2012	20:28	2.05		7.94		2.38		8.86	
G1-062612	06385-001	07/10/2012	10:24	2.05		7.96		2.38		8.86	
G2-062612	06385-002	07/10/2012	10:37	2.05		7.95		2.38		8.86	
G7-062612	06385-006	07/10/2012	10:49	2.05		7.95		2.38		8.86	
G3-062612	06385-007	07/10/2012	11:01	2.04		7.95		2.37		8.86	
G6-062612	06385-008	07/10/2012	11:13	2.04		7.96		2.38		8.86	
G5-062612	06385-009	07/10/2012	11:25	2.04		7.95		2.38		8.86	
G4-062612	06385-010	07/10/2012	11:38	2.04		7.95		2.37		8.86	
SAMPLE_73/	06389-001	07/10/2012	11:50	2.05		7.95		2.38		8.86	
SAMPLE_75/	06389-003	07/10/2012	12:14	2.05		7.95		2.38		8.86	
SAMPLE_76/	06389-004	07/10/2012	12:26	2.05		7.95		2.38		8.86	
SAMPLE_74/	06389-002	07/10/2012	12:39	2.04		7.95		2.37		8.86	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 07/03/2012

Data file: O9502.D Tue Jul 03 09:08:21 2012

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	6897827	Endrin (1)	9043874	9.36	5.68
DDD	551041	Endrin ketone	544558		
DDE	160863	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	15020906	Endrin (2)	20691229	12.09	3.20
DDD	1653658	Endrin ketone	683291		
DDE	412658	Endrin aldehyde	0		

Date Analyzed: 07/09/2012

Data file: V8206.D Mon Jul 09 09:50:29 2012

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	11518016	Endrin (1)	14115776	5.38	1.96
DDD	391256	Endrin ketone	281683		
DDE	263591	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	28289293	Endrin (2)	46803655	7.93	1.69
DDD	1270571	Endrin ketone	804183		
DDE	1164361	Endrin aldehyde	0		

Date Analyzed: 07/10/2012

Data file: V8246.D Tue Jul 10 09:24:15 2012

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	12157460	Endrin (1)	16655124	11.06	2.70
DDD	1192757	Endrin ketone	461651		
DDE	318851	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	38264440	Endrin (2)	64884894	11.99	1.82
DDD	3794320	Endrin ketone	1205045		
DDE	1417431	Endrin aldehyde	0		

PESTICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8250.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 10:24
Operator : IB
Sample : G1-062612,06385-001,S,30.09g,22.0,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:14:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	1839044	6265052	11.451	9.453m
Spiked Amount 200.000			Recovery	=	5.73%	4.73%
2) S DCB	7.96	8.86	1321482	3306792	24.065m	21.166m
Spiked Amount 200.000			Recovery	=	12.03%	10.58%
Target Compounds						
12) T Dieldrin	4.83	5.82	1131442	3390144	5.518m	4.853m
15) T 4,4'-DDD	5.24	6.45	3007251	8305104	18.094m	15.531m
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

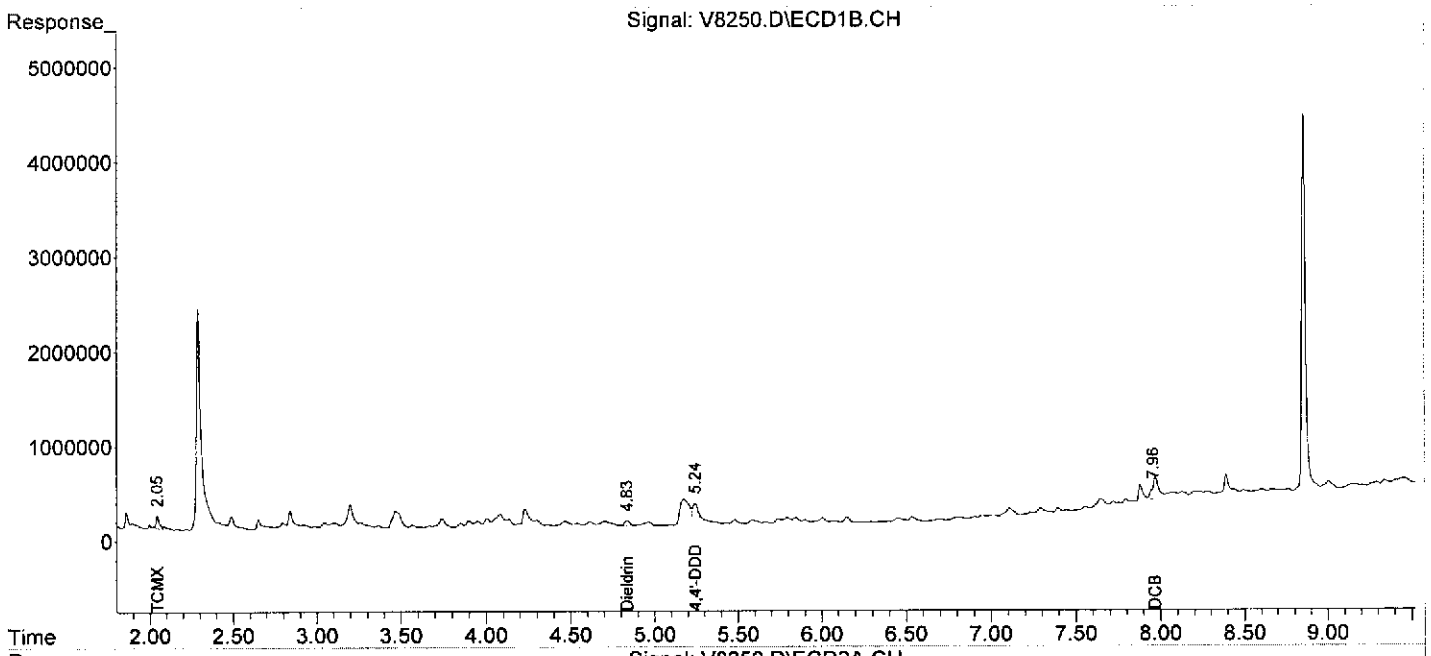
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

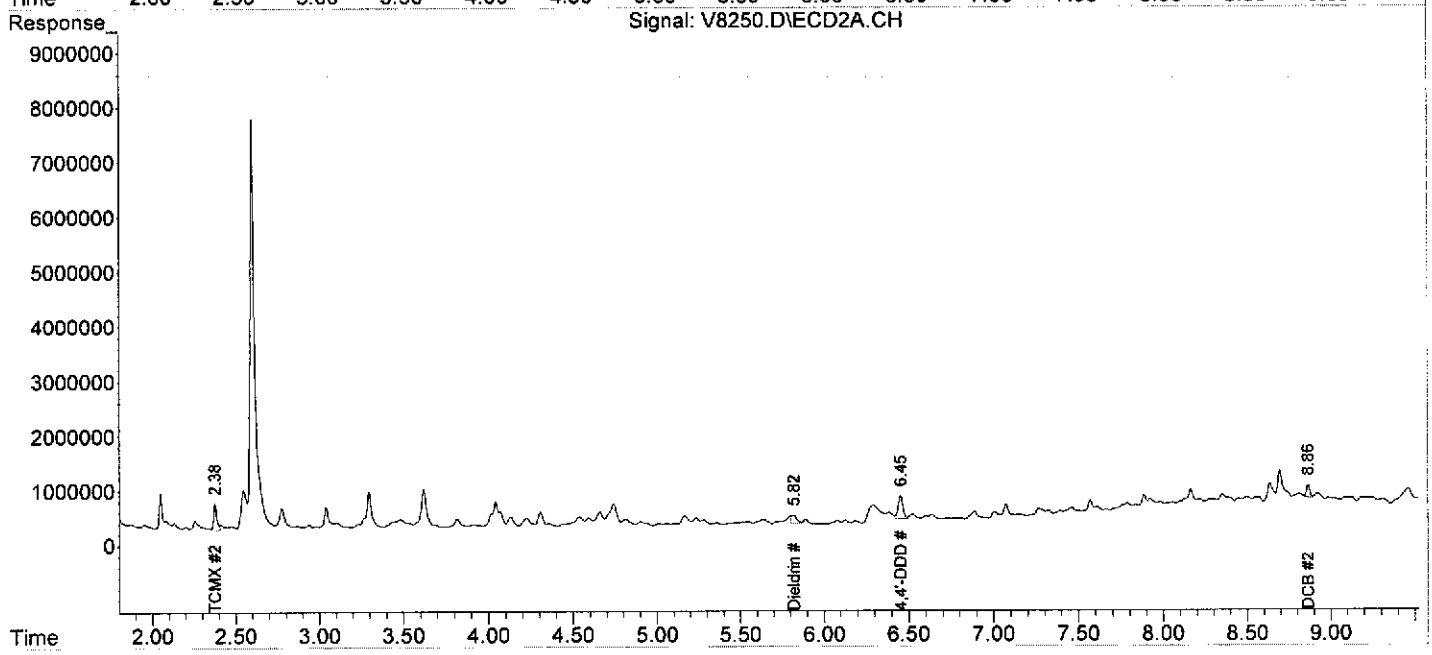
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8250.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 10:24
Operator : IB
Sample : G1-062612,06385-001,S,30.09g,22.0,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:14:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8251.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 10:37
Operator : IB
Sample : G2-062612,06385-002,S,30.45g,21.4,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:16:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	2346158	6176380	14.609	9.319m#
Spiked Amount 200.000			Recovery	=	7.30%	4.66%
2) S DCB	7.95	8.86	1053384	4045377	19.183m	25.893m#
Spiked Amount 200.000			Recovery	=	9.59%	12.95%
Target Compounds						
12) T Dieldrin	4.83	5.82	1175603	3933977	5.733m	5.632m
15) T 4,4'-DDD	5.25	6.45	3156596	9107585	18.992m	17.031
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

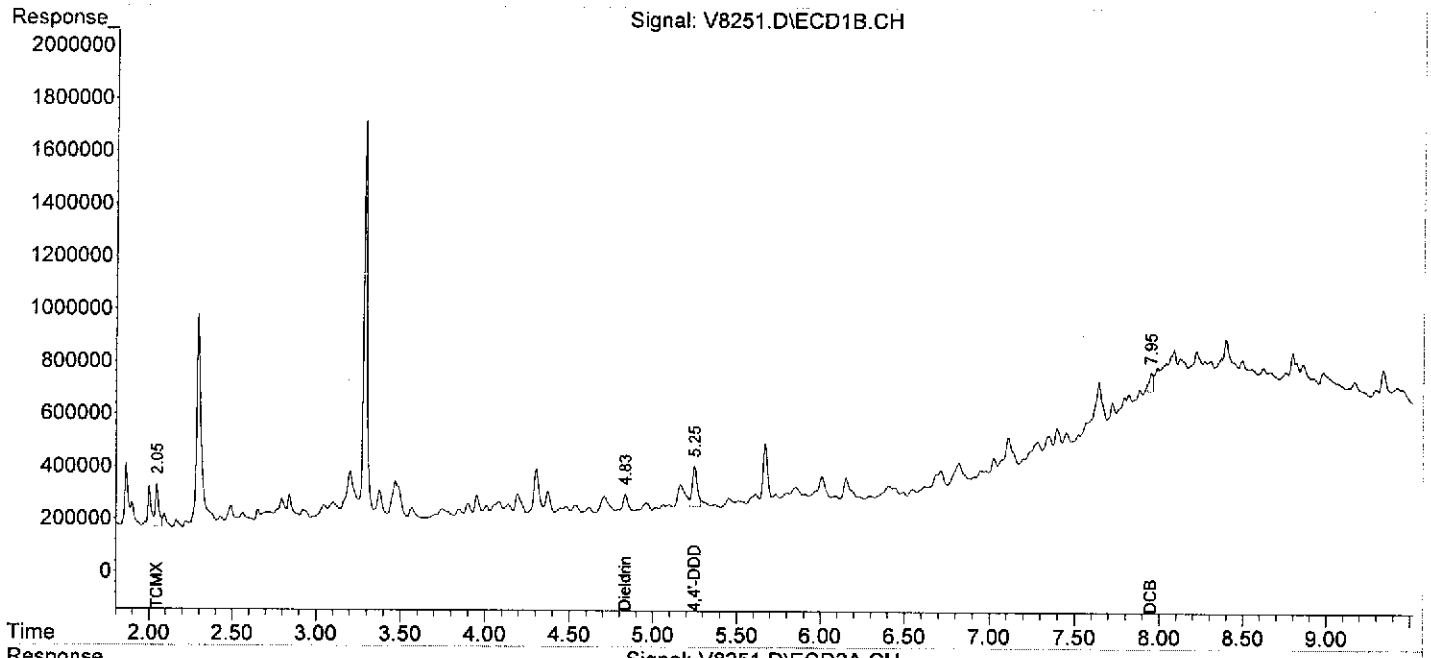
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

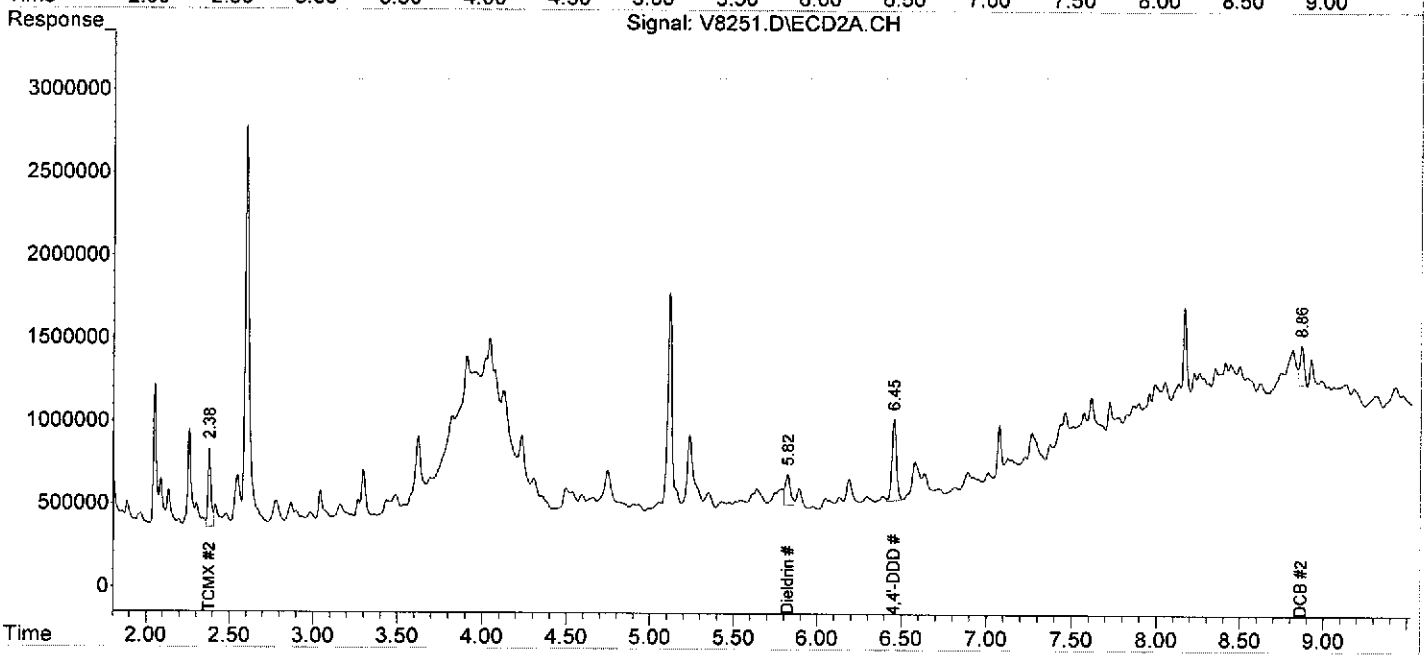
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8251.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 10:37
Operator : IB
Sample : G2-062612,06385-002,S,30.45g,21.4,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:16:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : O9517.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 13:24
Operator : IB
Sample : I2-062612-,06385-003,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/26/12,06/27/12,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:36:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.94	2.29	11434997	19420667	98.612	83.628
Spiked Amount 200.000	Range 10 - 180		Recovery =		49.31%	41.81%
2) S DCB	7.35	8.82	6191808	10631833	144.225	174.223
Spiked Amount 200.000	Range 10 - 180		Recovery =		72.11%	87.11%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

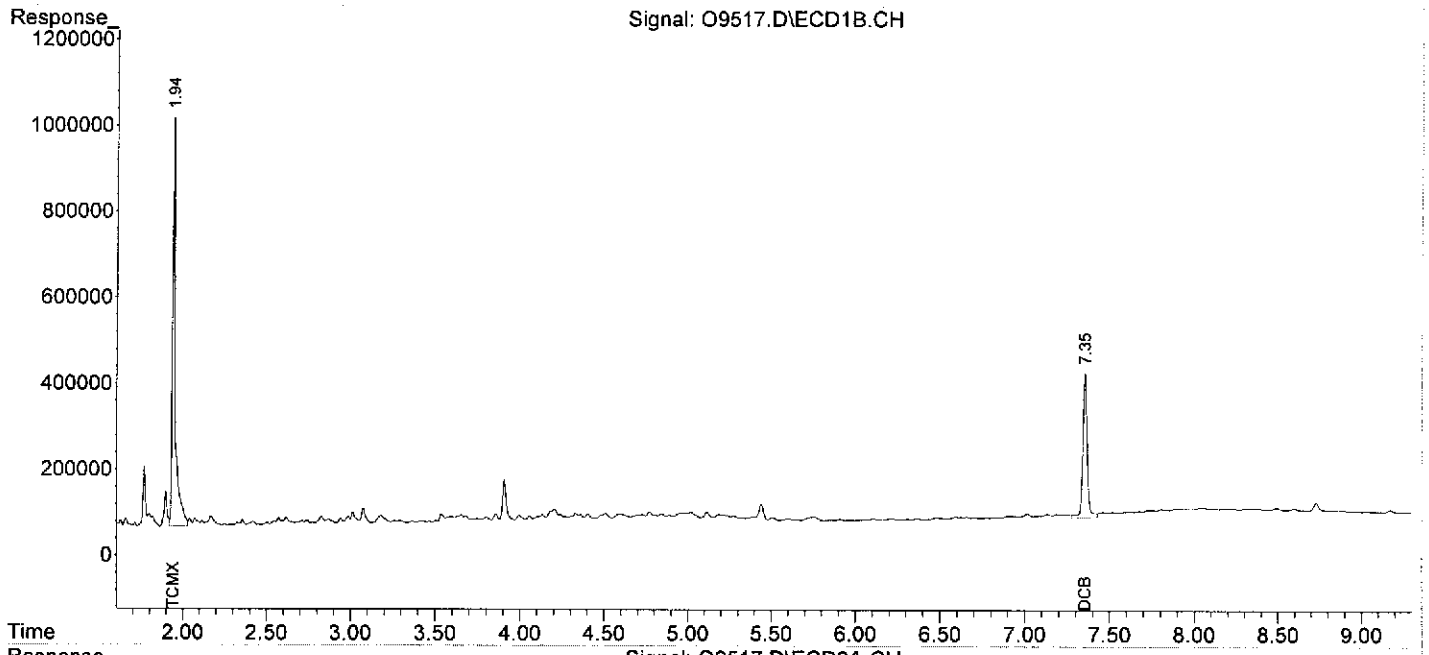
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

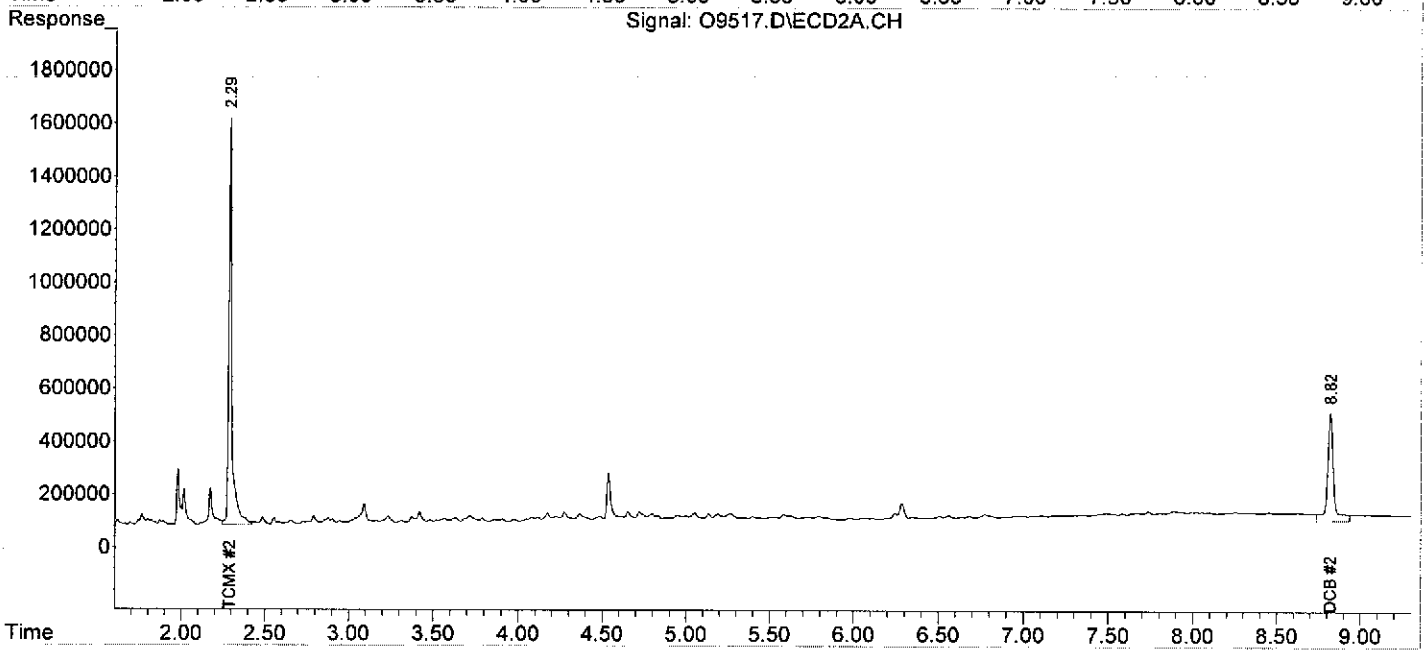
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : O9517.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 13:24
Operator : IB
Sample : I2-062612-,06385-003,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/26/12,06/27/12,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:36:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8238.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 19:15
Operator : IB
Sample : G8-062612,06385-004,S,30.34g,10.0,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,1
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 09:22:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.04	2.38	22534273	33243599	140.317	50.161m#
Spiked Amount 200.000			Recovery	=	70.16%	25.08%
2) S DCB	7.94	8.86	5602224	41744058	102.019m	267.192m#
Spiked Amount 200.000			Recovery	=	51.01%	133.60%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

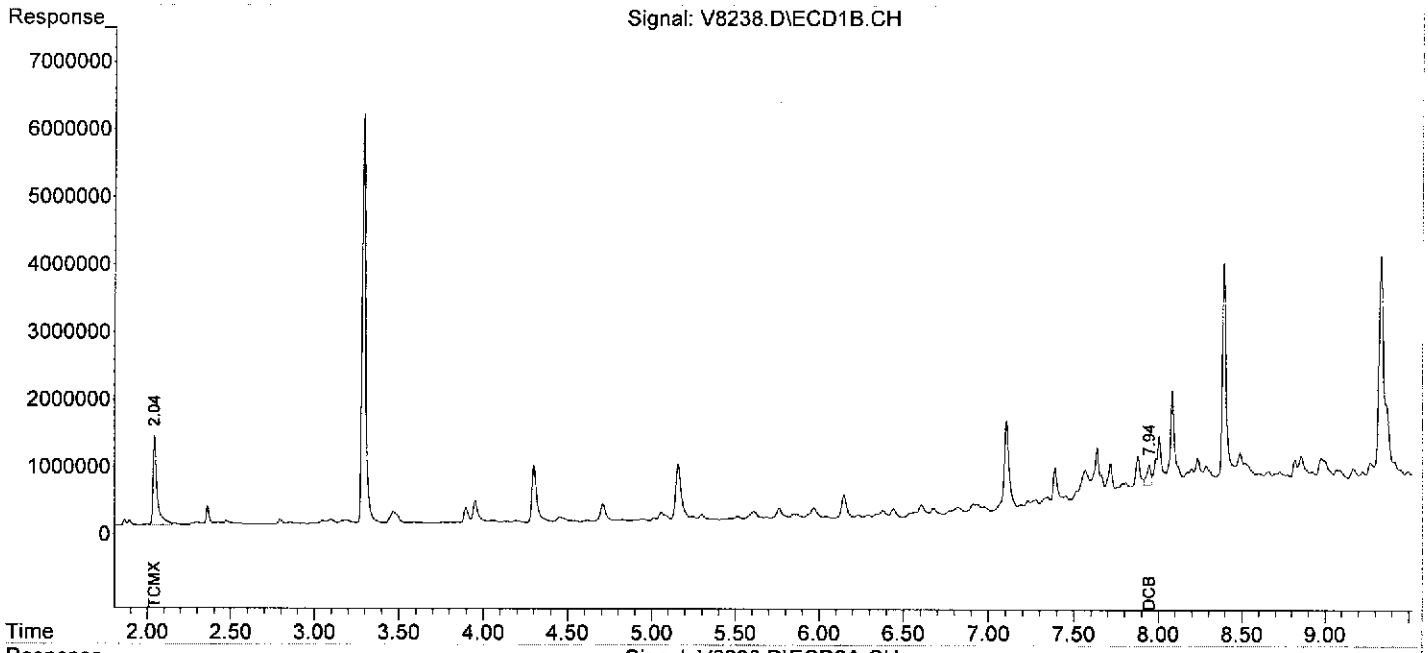
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

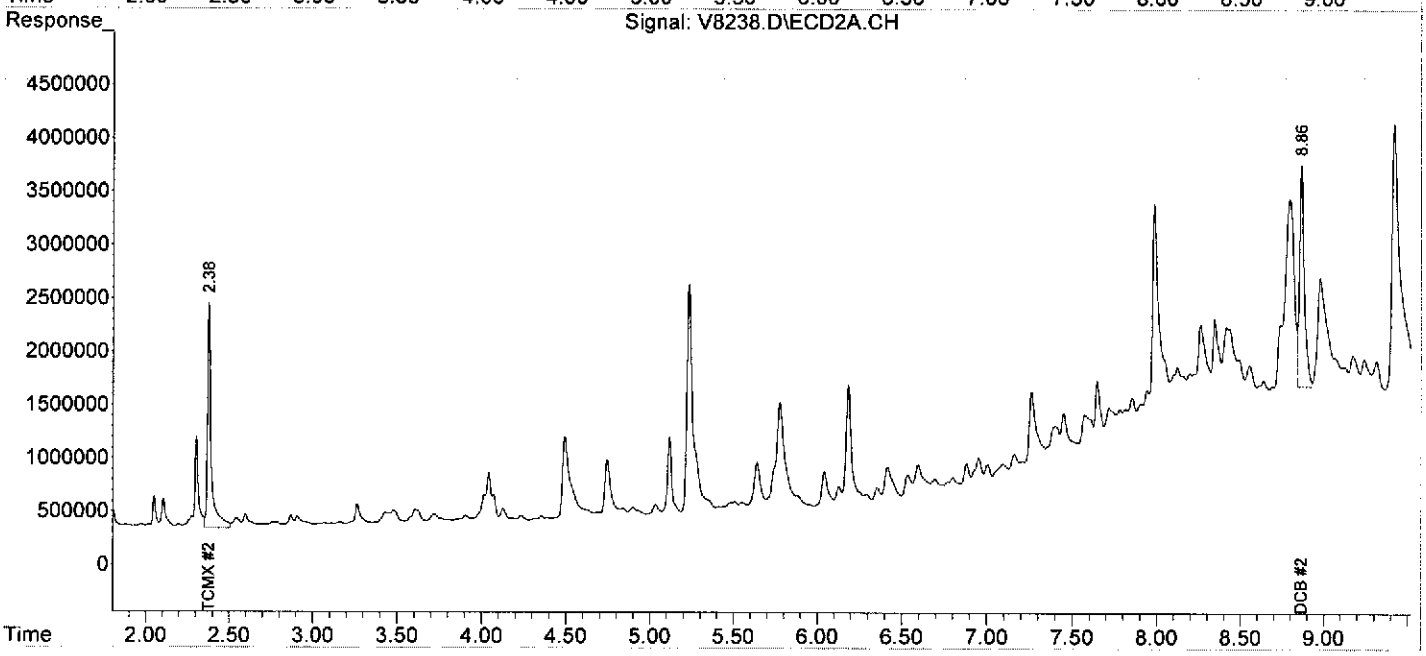
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8238.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 19:15
Operator : IB
Sample : G8-062612,06385-004,S,30.34g,10.0,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,1
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 09:22:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : O9518.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 13:36
Operator : IB
Sample : I1-062612-,06385-005,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/26/12,06/27/12,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:37:35 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.94	2.29	11612637	17496272	100.144m	75.341m
Spiked Amount	200.000	Range	10 - 180	Recovery	= 50.07%	37.67%
2) S DCB	7.35	8.82	6765599	9688696	157.590	158.768
Spiked Amount	200.000	Range	10 - 180	Recovery	= 78.80%	79.38%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

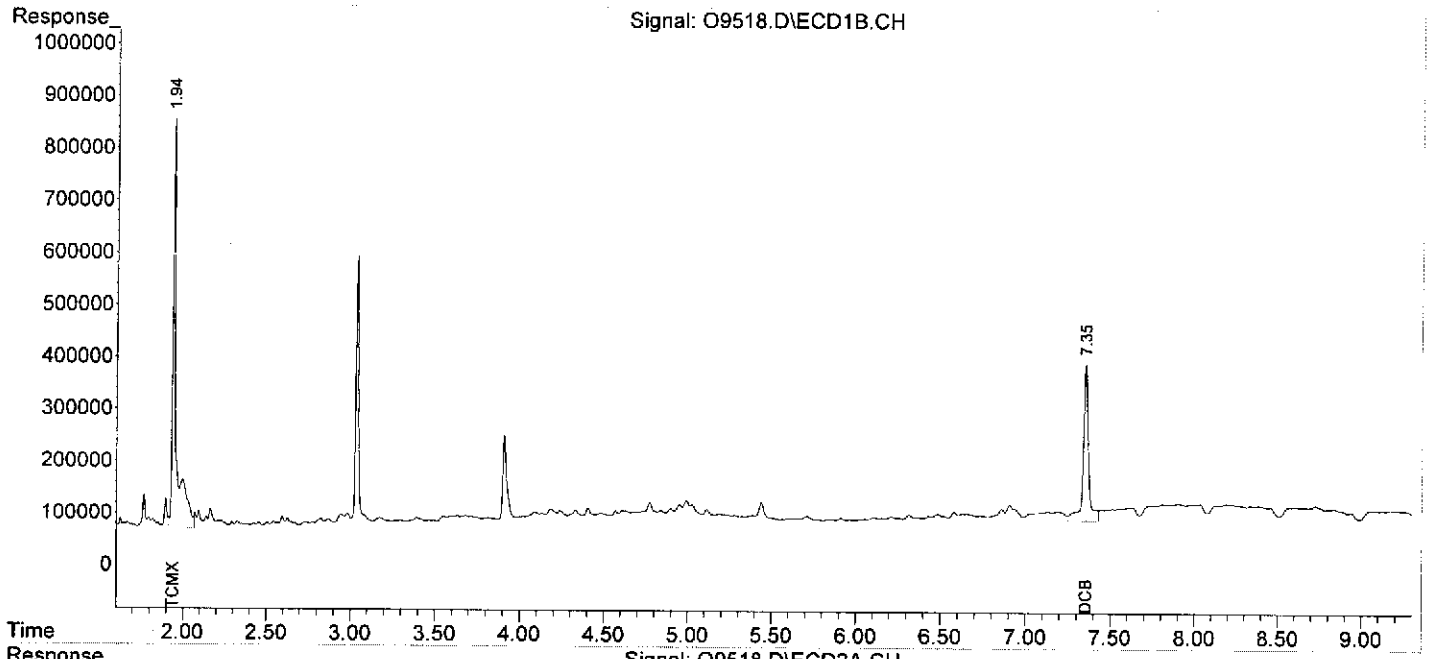
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

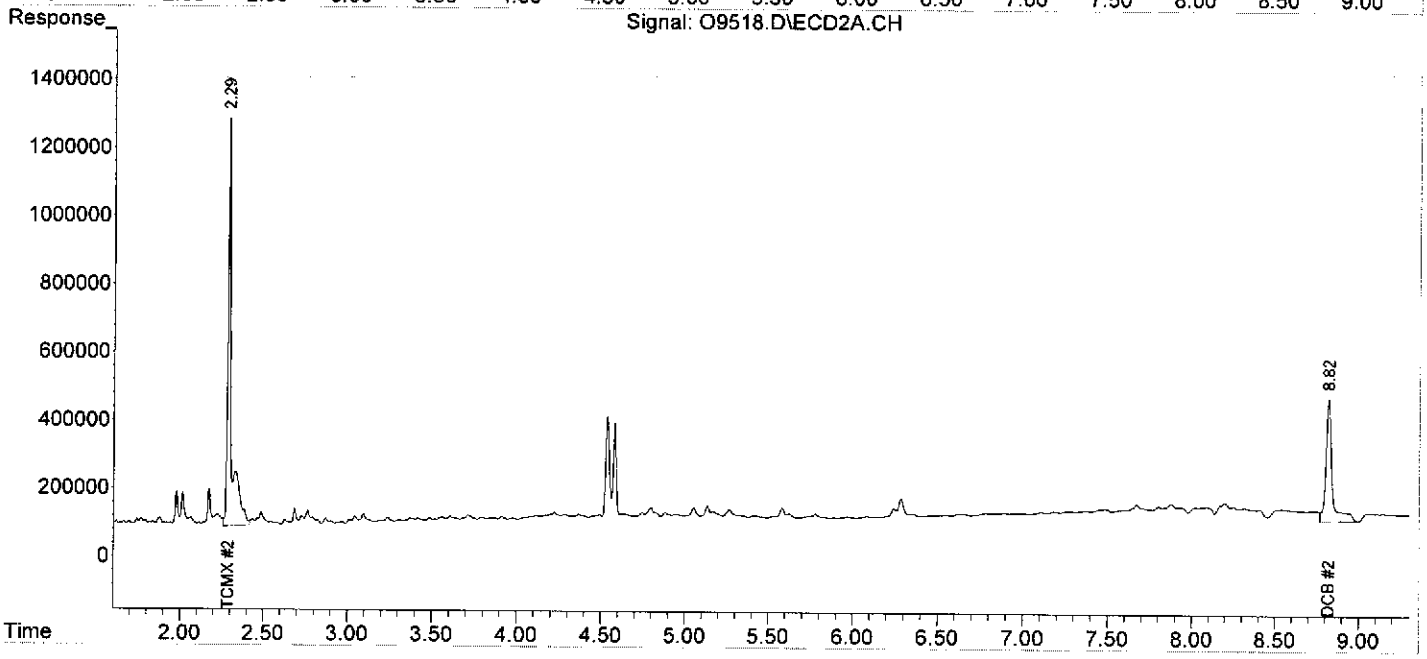
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : O9518.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 13:36
Operator : IB
Sample : I1-062612-,06385-005,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/26/12,06/27/12,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:37:35 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8252.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 10:49
Operator : IB
Sample : G7-062612,06385-006,S,30.64g,18.1,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:20:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	1726164	5809484	10.749	8.766m
Spiked Amount 200.000			Recovery	=	5.37%	4.38%
2) S DCB	7.95	8.86	811456	4865425	14.777m	31.142m#
Spiked Amount 200.000			Recovery	=	7.39%	15.57%
Target Compounds						
11) T 4,4'-DDE	4.48	5.64	288128	1036313	1.631m	1.568
15) T 4,4'-DDD	5.25	6.45	873304	3007122	5.254	5.623
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

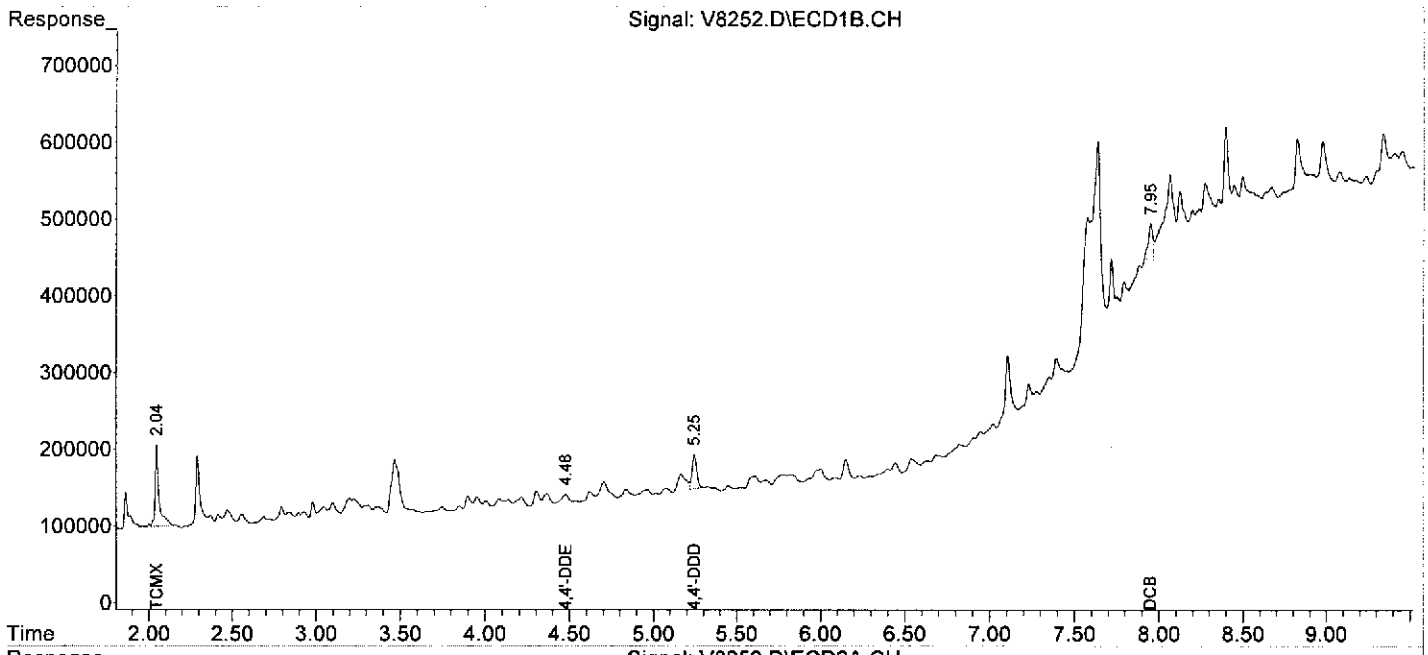
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

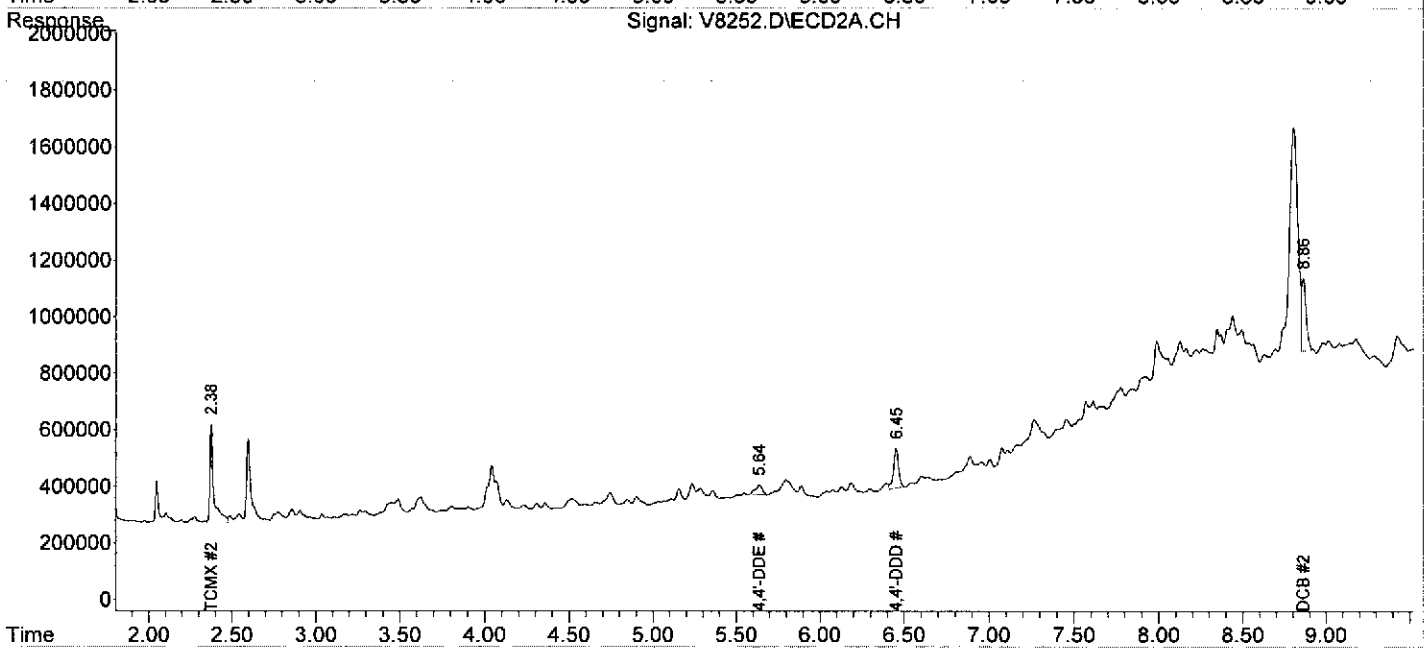
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8252.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 10:49
Operator : IB
Sample : G7-062612,06385-006,S,30.64g,18.1,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:20:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8253.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 11:01
Operator : IB
Sample : G3-062612,06385-007,S,30.64g,17.5,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:21:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.04	2.37	5251529	7071655	32.700m	10.670m#
Spiked Amount 200.000			Recovery	=	16.35%	5.34%
2) S DCB	7.95	8.86	806533	2089860	14.687m	13.377m
Spiked Amount 200.000			Recovery	=	7.34%	6.69%
Target Compounds						
12) T Dieldrin	4.84	5.82	779018	2668059	3.799m	3.820m
15) T 4,4'-DDD	5.25	6.45	2585612	7041270	15.557m	13.167
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

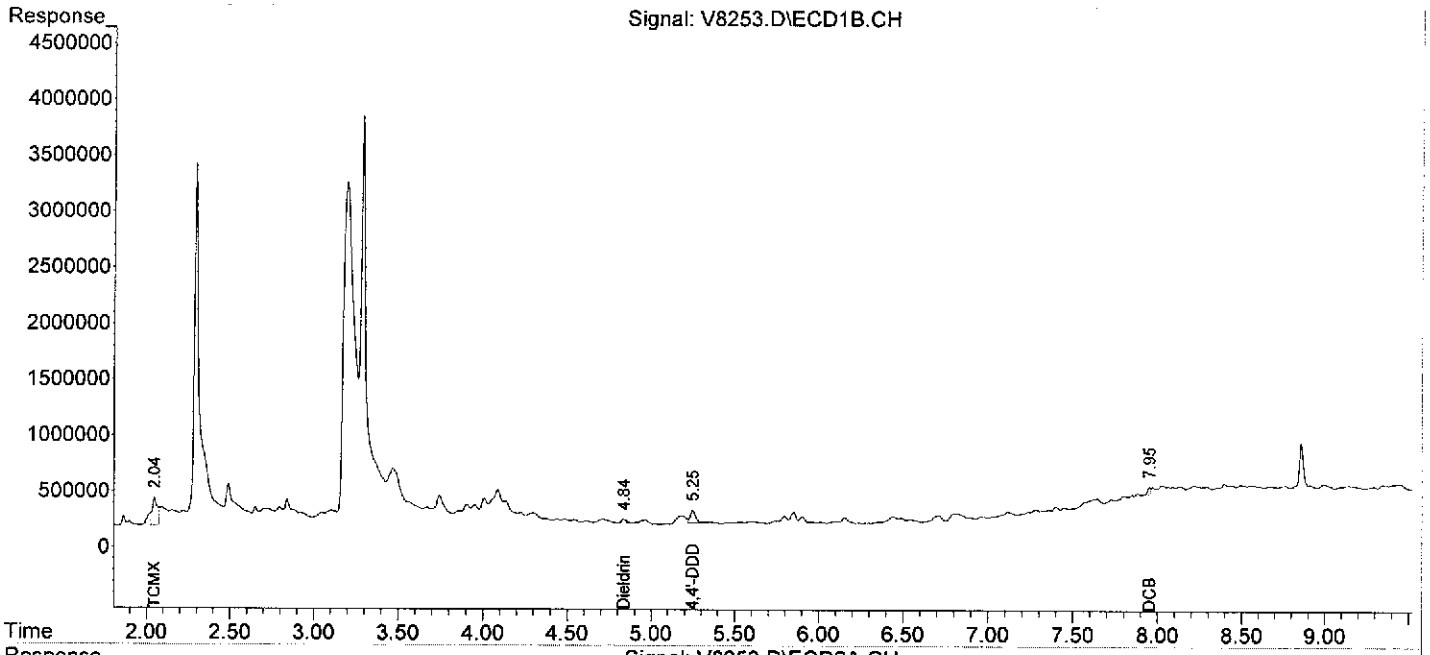
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

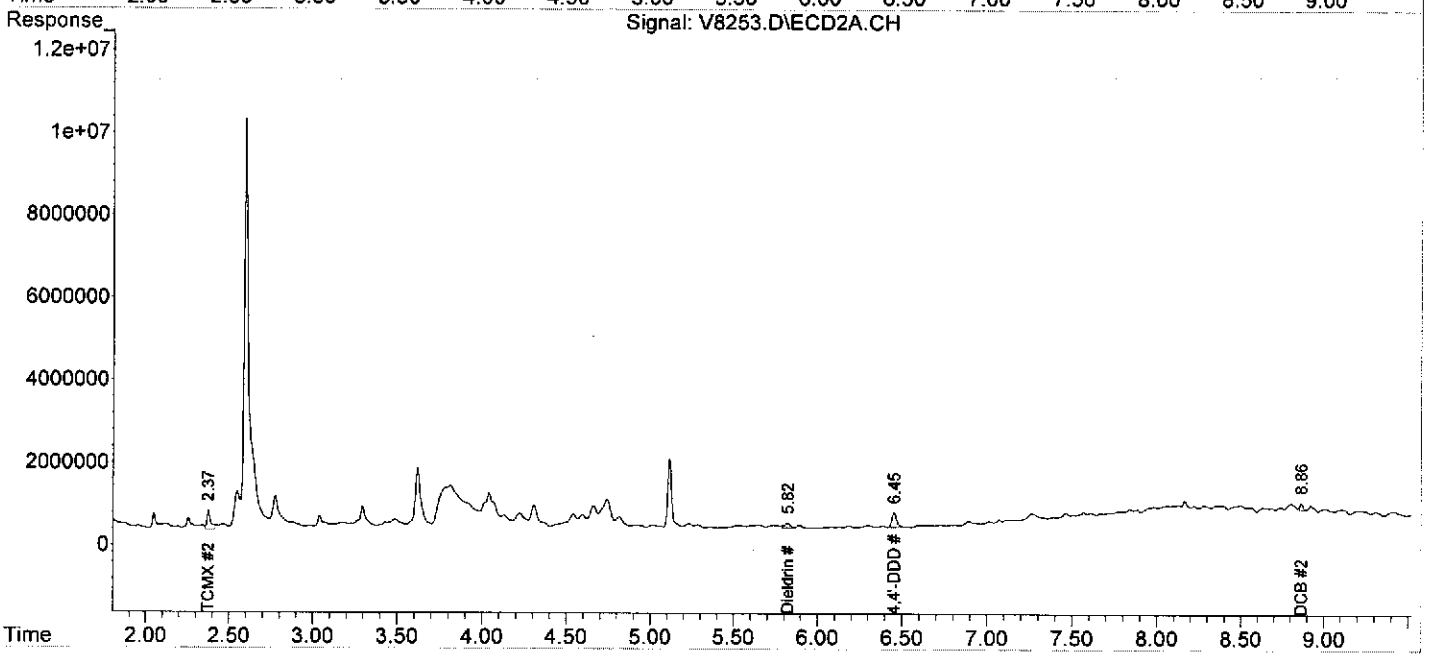
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8253.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 11:01
Operator : IB
Sample : G3-062612,06385-007,S,30.64g,17.5,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:21:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8254.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 11:13
Operator : IB
Sample : G6-062612,06385-008,S,30.77g,14.8,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:25:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
	System Monitoring Compounds						
1) S	TCMX	2.04	2.38	3548730	6381518	22.097m	9.629 #
Spiked Amount	200.000			Recovery	=	11.05%	4.81%
2) S	DCB	7.96	8.86	920503	5460336	16.763m	34.950m#
Spiked Amount	200.000			Recovery	=	8.38%	17.48%
	Target Compounds						
15) T	4,4'-DDD	5.25	6.45	616282	1970391	3.708m	3.685
18) T	4,4'-DDT	5.61	6.88	631908	1932840	5.178m	5.936m
	Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane						0.000	0.000
	Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene						0.000	0.000

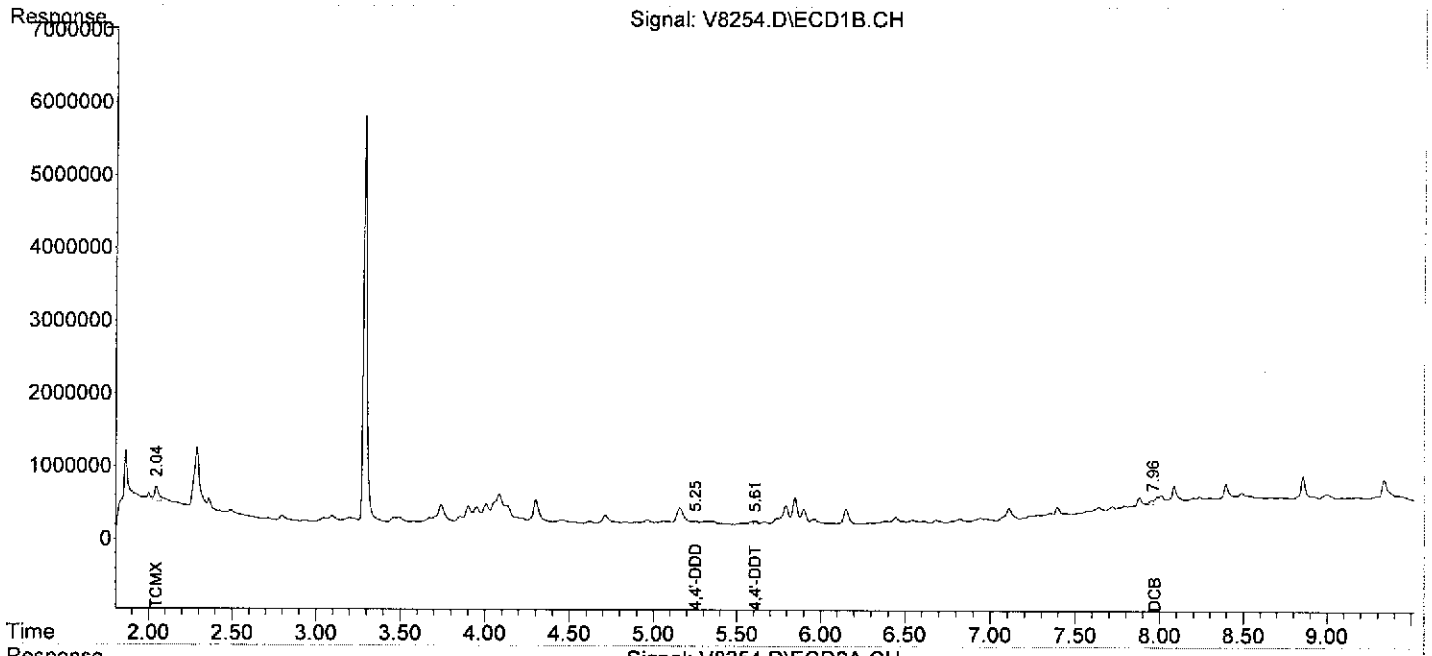
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

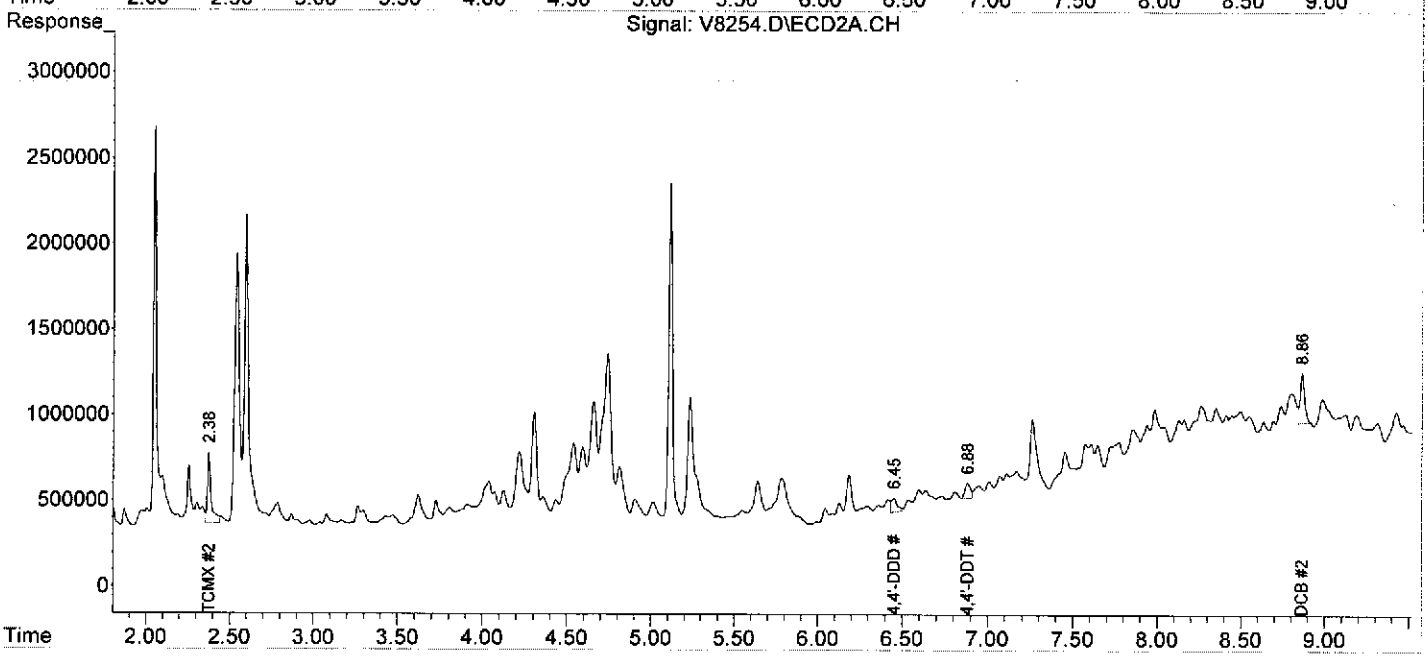
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8254.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 11:13
Operator : IB
Sample : G6-062612,06385-008,S,30.77g,14.8,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 11:25:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8255.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 11:25
Operator : IB
Sample : G5-062612,06385-009,S,30.86g,16.8,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 35 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 12:29:16 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.04	2.38	1740039	6856496	10.835m	10.346m
Spiked Amount 200.000			Recovery	=	5.42%	5.17%
2) S DCB	7.95	8.86	1117355	5616643	20.348m	35.951m#
Spiked Amount 200.000			Recovery	=	10.17%	17.98%
Target Compounds						
12) T Dieldrin	4.84	5.82	615066	1783839	2.999	2.554m
15) T 4,4'-DDD	5.25	6.45	1342509	4197785	8.077m	7.850
18) T 4,4'-DDT	5.61	6.89	846470	2072221	6.936m	6.364m
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

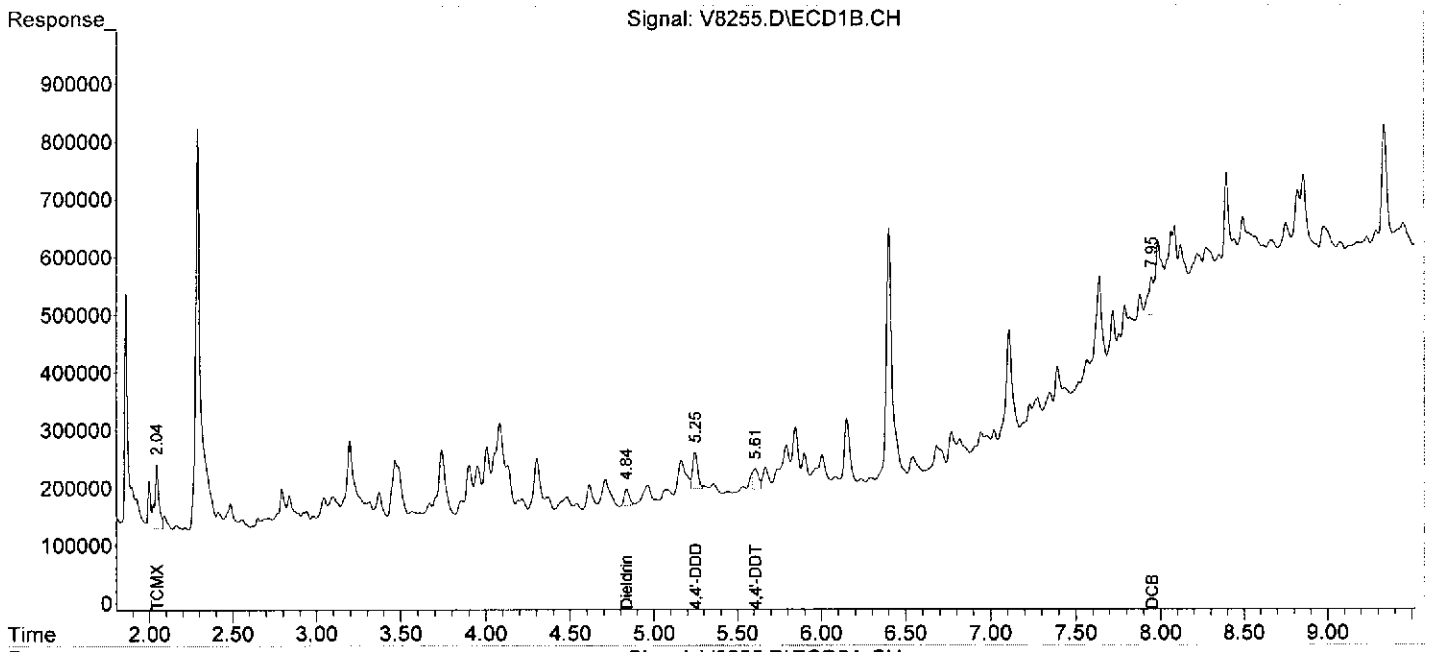
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

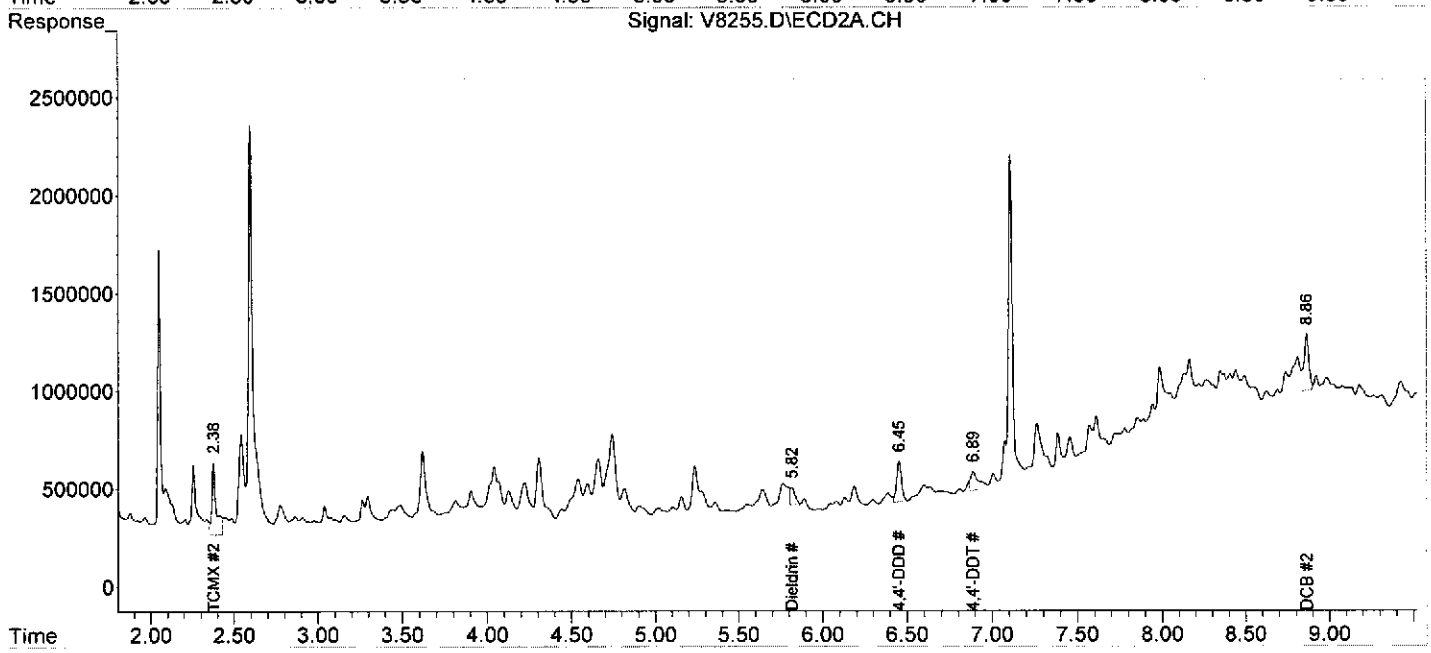
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8255.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 11:25
Operator : IB
Sample : G5-062612,06385-009,S,30.86g,16.8,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 35 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 12:29:16 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8256.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 11:38
Operator : IB
Sample : G4-062612,06385-010,S,30.18g,24.3,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 13:49:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.04	2.37	1660209	5969685	10.338m	9.008m
Spiked Amount 200.000			Recovery	=	5.17%	4.50%
2) S DCB	7.95	8.86	913506	2913287	16.635m	18.647m
Spiked Amount 200.000			Recovery	=	8.32%	9.32%
Target Compounds						
12) T Dieldrin	4.83	5.82	1966774	6130610	9.591	8.777m
15) T 4,4'-DDD	5.25	6.45	3945990	11289041	23.742	21.111
18) T 4,4'-DDT	5.61	6.89	348118	1035178	2.852m	3.179m
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

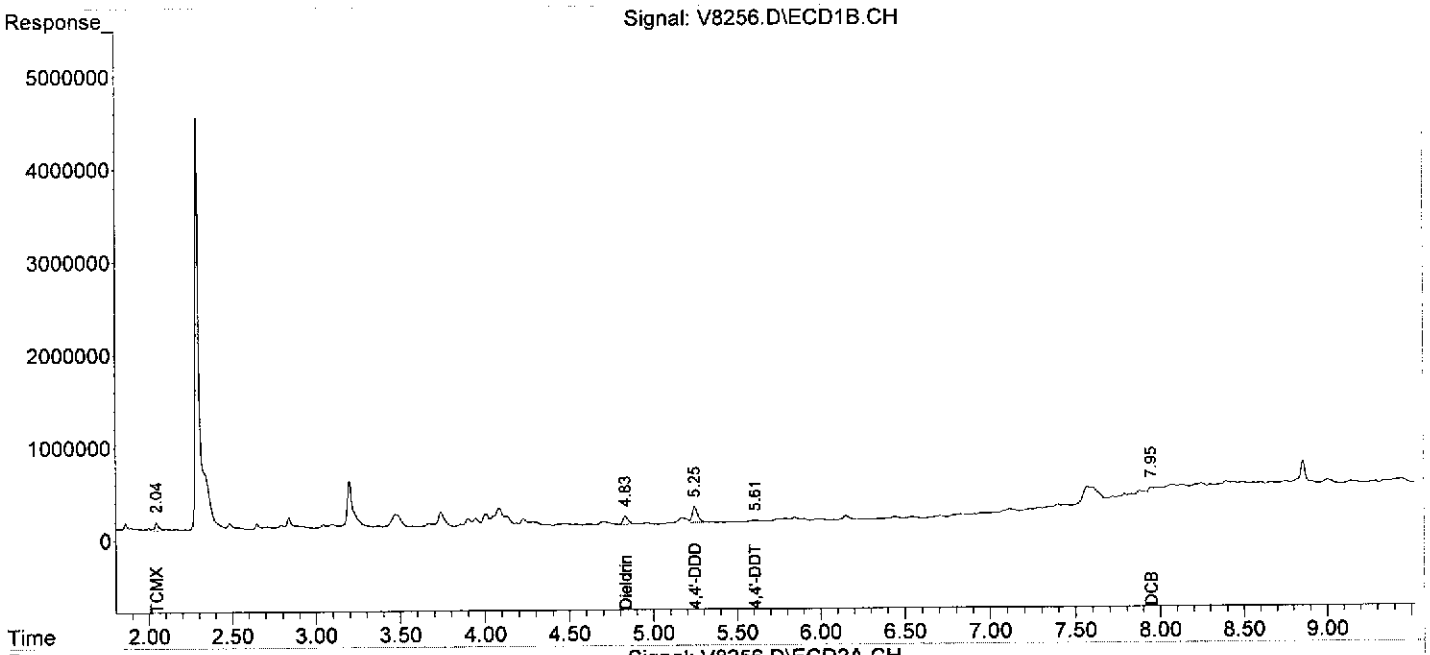
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

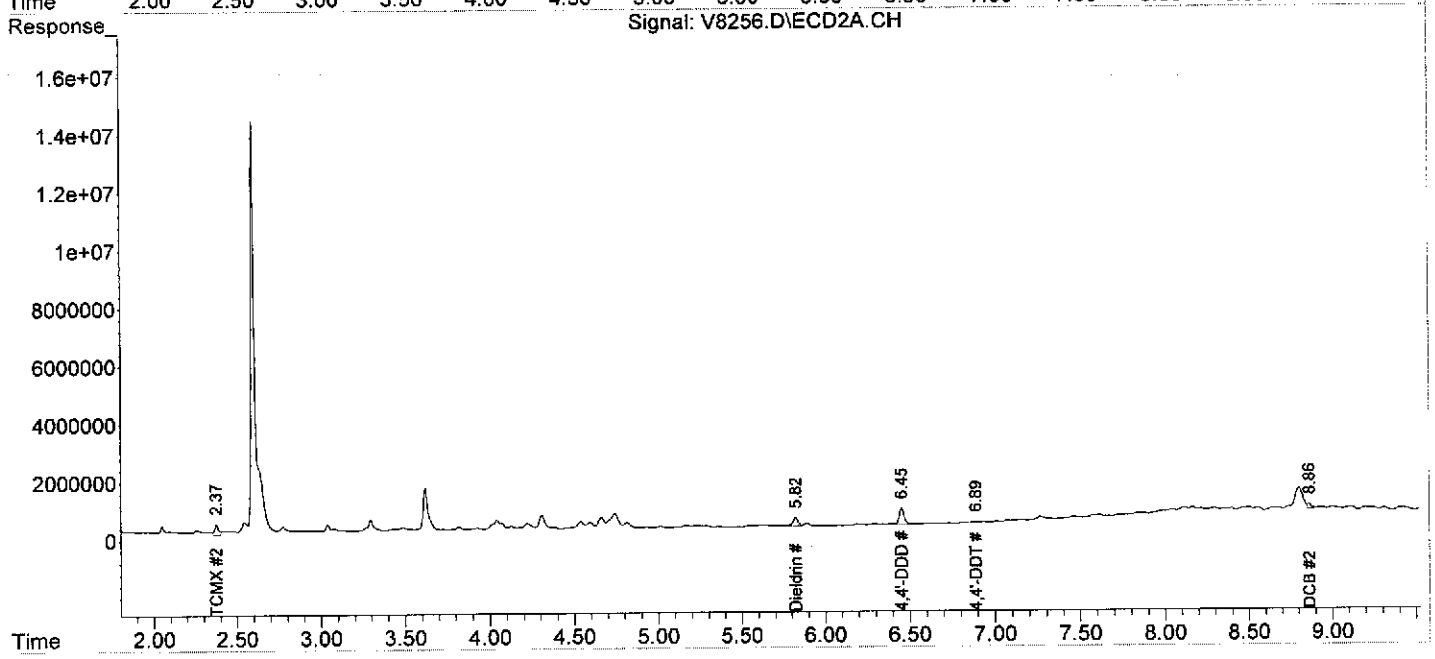
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8256.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 11:38
Operator : IB
Sample : G4-062612,06385-010,S,30.18g,24.3,07/05/12,1
Misc : 120705-13,06/26/12,06/27/12,5
ALS Vial : 36 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 13:49:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS120705-13
Client ID: Pest
Date Received: NA
Date Extracted: 07/05/2012
Date Analyzed: 07/09/2012
Data file: V8228.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000334	0.000167
beta-BHC	ND		0.000334	0.000167
gamma-BHC (Lindane)	ND		0.000334	0.000167
delta-BHC	ND		0.000334	0.000167
Heptachlor	ND		0.000334	0.000167
Aldrin	ND		0.000334	0.000167
Heptachlor epoxide	ND		0.000334	0.000167
Endosulfan I	ND		0.000334	0.000167
4,4'-DDE	ND		0.000334	0.000167
Dieldrin	ND		0.000334	0.000167
Endrin	ND		0.000334	0.000167
Endosulfan II	ND		0.000334	0.000167
4,4'-DDD	ND		0.000334	0.000167
Endrin aldehyde	ND		0.000334	0.000167
Endosulfan sulfate	ND		0.000334	0.000167
4,4'-DDT	ND		0.000334	0.000167
Endrin ketone	ND		0.000334	0.000167
Methoxychlor	ND		0.000334	0.000167
alpha-Chlordane	ND		0.000334	0.000167
gamma-Chlordane	ND		0.000334	0.000167
Chlordane	ND		0.00418	0.002
Toxaphene	ND		0.00418	0.002
Endosulfan (I and II)	ND		0.000334	0.000167
Chlordane (alpha and gamma)	ND		0.000334	0.000167

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8228.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 17:12
Operator : IB
Sample : Pest,BLKS120705-13,S,30.00g,0,07/05/12,1
Misc : NA,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 08:51:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	20471294	88385819	127.471	133.364
Spiked Amount 200.000			Recovery	=	63.74%	66.68%
2) S DCB	7.95	8.86	7316835	19396033	133.243	124.148
Spiked Amount 200.000			Recovery	=	66.62%	62.07%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

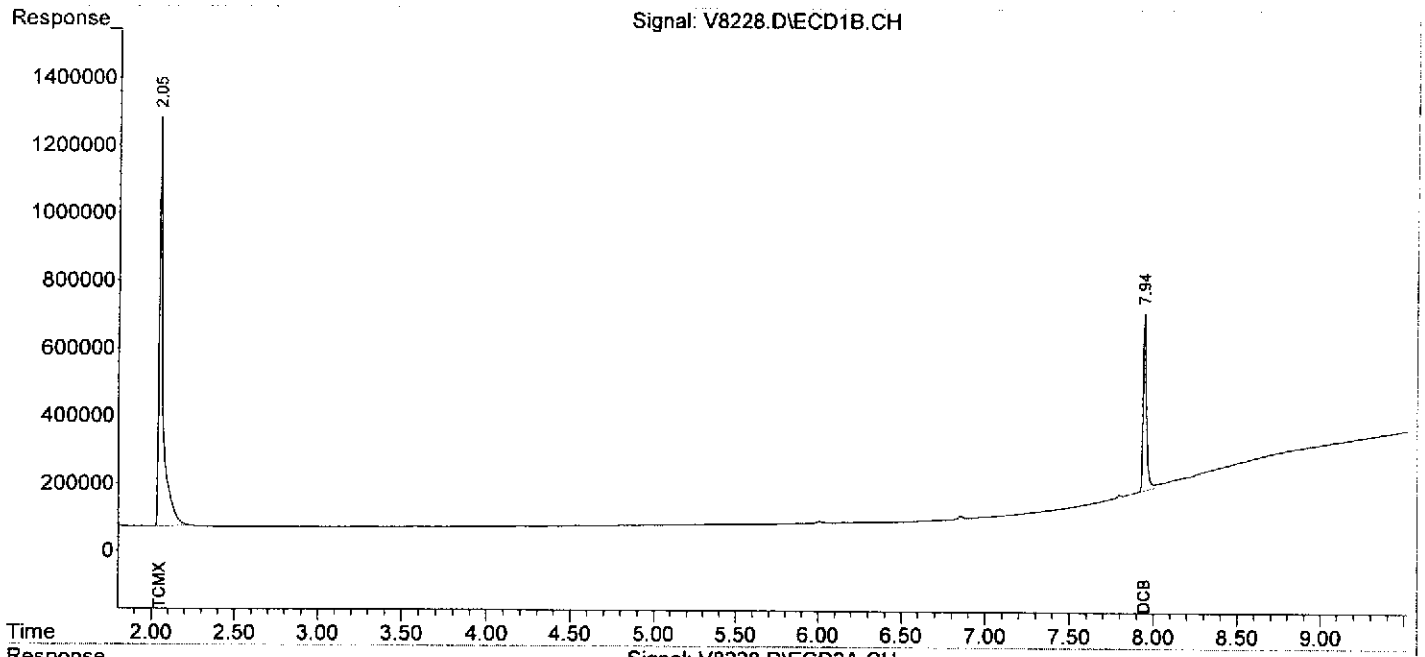
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

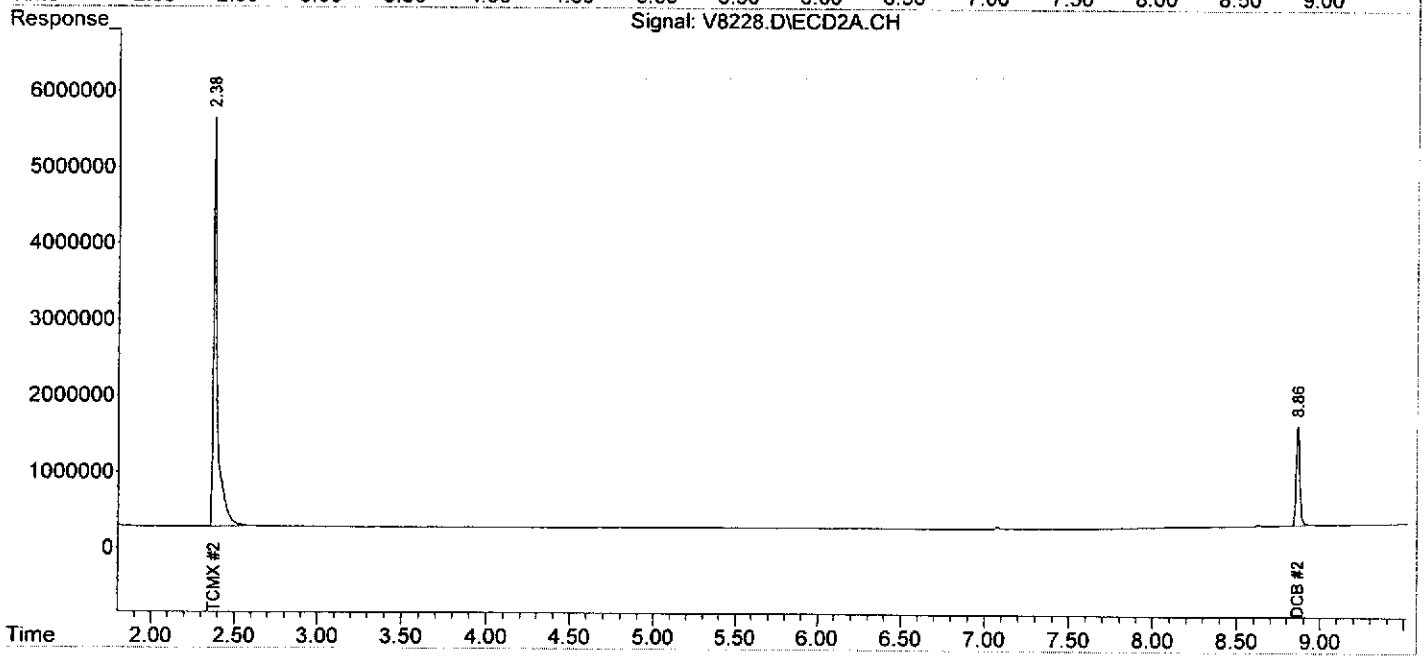
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8228.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 17:12
Operator : IB
Sample : Pest,BLKS120705-13,S,30.00g,0,07/05/12,1
Misc : NA,NA,NA,1
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 08:51:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKA021207-12
Client ID: Pest
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
Data file: O9514.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Chlordane	ND		0.125	0.060
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : 09514.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 12:47
Operator : IB
Sample : Pest,BLKA021207-12,A,1000ml,100,07/02/12,1
Misc : NA,NA,NA,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:34:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.94	2.29	11687165	21364708	100.787m	91.999m
Spiked Amount 200.000	Range	10 - 180	Recovery	=	50.39%	46.00%
2) S DCB	7.36	8.82	4489319	6191870	104.569	101.466
Spiked Amount 200.000	Range	10 - 180	Recovery	=	52.28%	50.73%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

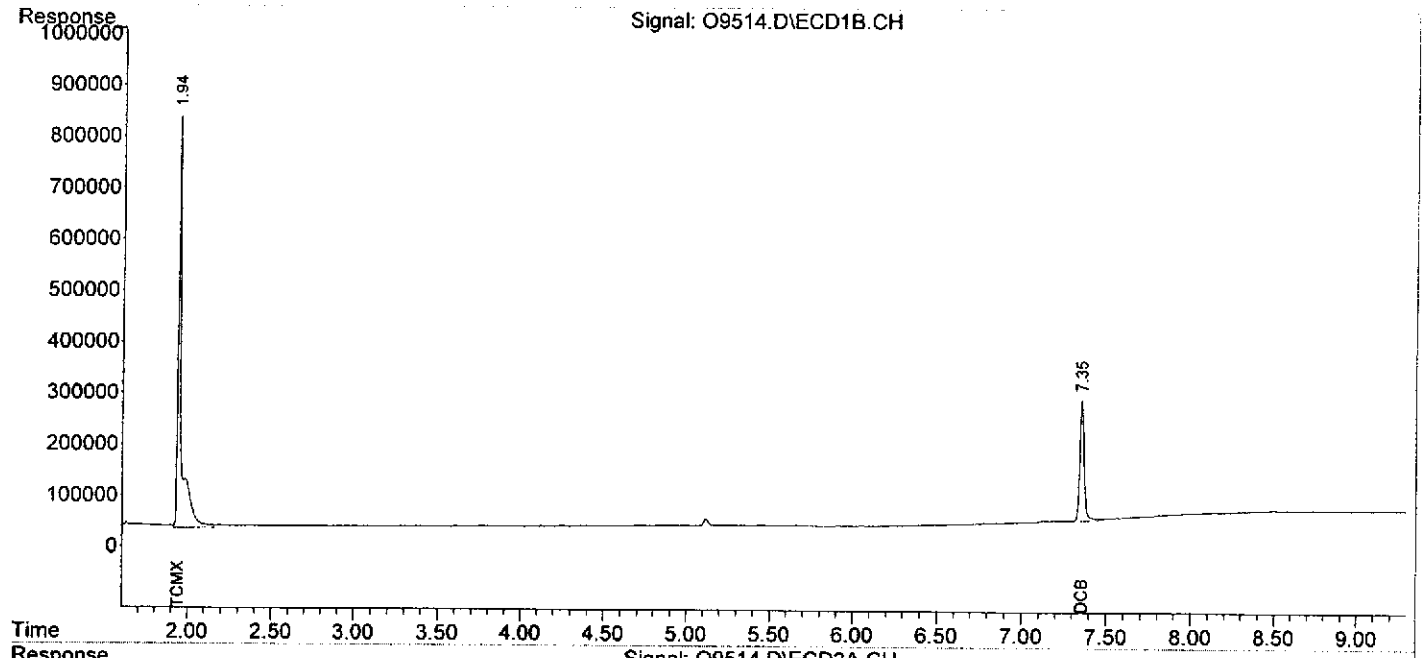
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

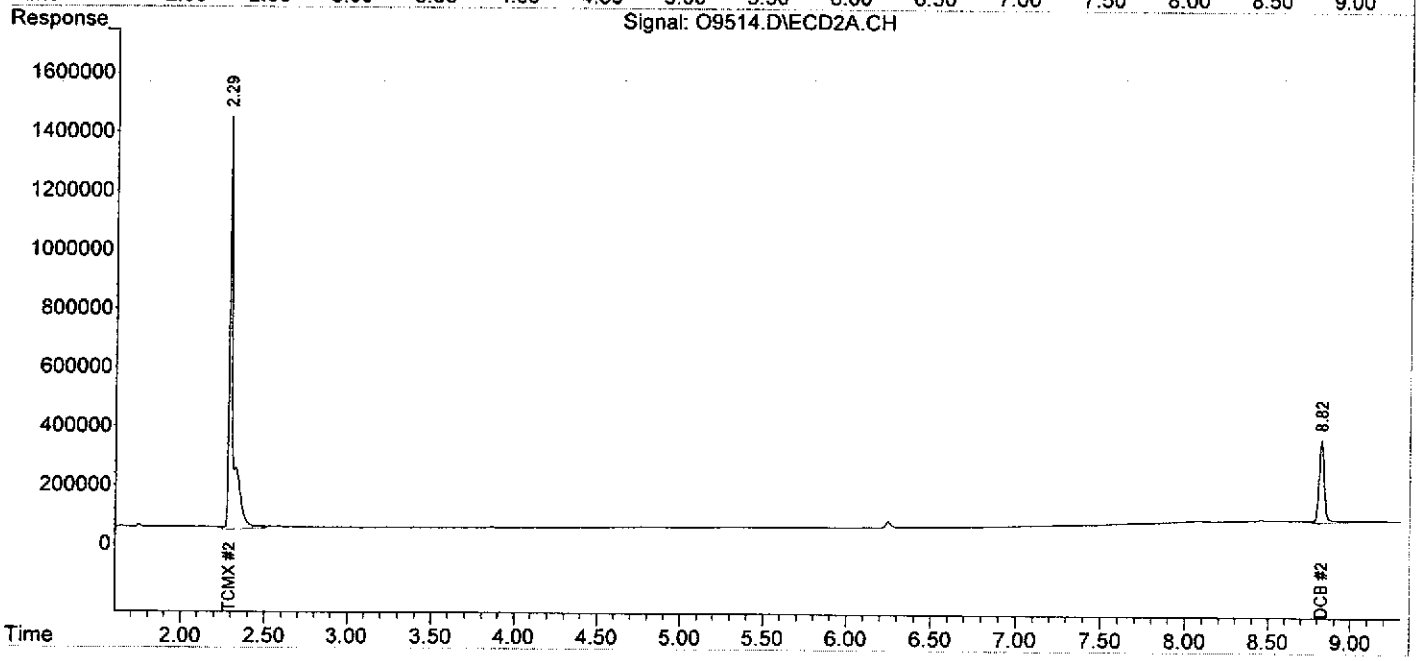
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : O9514.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 12:47
Operator : IB
Sample : Pest,BLKA021207-12,A,1000ml,100,07/02/12,1
Misc : NA,NA,NA,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:34:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





HERBICIDE DATA

HERBICIDE QC SUMMARY

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/02/2012

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKA291206-08	AQUEOUS	64		71	
MW-2-06221	06295-001	AQUEOUS	53		63	
Herb	LCSA291206-08	AQUEOUS	124		114	
I2-062612-	06385-003	AQUEOUS	D		D	
I1-062612-	06385-005	AQUEOUS	D		D	
Herb	06295-001MS	AQUEOUS	71		56	
Herb	06295-001MSD	AQUEOUS	30		30	

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	28-187	28-187
	28-187	28-187

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

AQUEOUS HERBICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSA291206-08

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
2,4-D	200.0	0.0	225.7	113	70 - 130
2,4,5-TP (Silvex)	200.0	0.0	220.2	110	70 - 130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

AQUEOUS HERBICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06295-001MSD

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
2,4-D	200.0	0.0	183.9	92	40 - 140
2,4,5-TP (Silvex)	200.0	0.0	232.5	116	40 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	#	MSD % REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	0.0	189.0		95	3	30	40 - 140
2,4,5-TP (Silvex)	0.0	182.2		91	24	30	40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W7040.D	Instrument ID:	GC-W
Date Extracted:	06/29/2012	Matrix:	AQUEOUS
Date Analyzed:	07/02/2012	Time Analyzed:	11:27

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-2-06221	06295-001	07/02/2012	11:41
Herb	LCSA291206-08	07/02/2012	15:19
I2-062612-	06385-003	07/02/2012	17:22
I1-062612-	06385-005	07/02/2012	17:36
Herb	06295-001MS	07/02/2012	17:51
Herb	06295-001MSD	07/02/2012	18:06

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	50	100	200	250	400	RT	FROM	TO
Dalapon	2.25	2.25	2.25	2.25	2.25	2.25	2.18	2.32
Dicamba	4.83	4.83	4.83	4.83	4.83	4.83	4.76	4.90
2,4-D	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.71	5.71	5.71	5.71	5.71	5.62	5.80
2,4,5-T	5.86	5.86	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.16	6.16	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.90	6.90	6.90	6.90	6.90	6.90	6.81	6.99

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	50	100	200	250	400	RT	FROM	TO
Dalapon	2.22	2.22	2.22	2.22	2.22	2.22	2.15	2.29
Dicamba	5.05	5.05	5.05	5.05	5.05	5.05	4.98	5.12
2,4-D	5.57	5.57	5.57	5.57	5.57	5.57	5.49	5.65
2,4,5-TP (Silvex)	6.03	6.03	6.03	6.03	6.03	6.03	5.94	6.12
2,4,5-T	6.26	6.26	6.26	6.26	6.26	6.26	6.17	6.35
2,4-DB	6.60	6.60	6.60	6.60	6.60	6.60	6.51	6.69
Dinoseb	6.85	6.85	6.85	6.85	6.85	6.85	6.76	6.94

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: E GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	544629	516909	587161	593365	592777	566968	6.09
Dicamba	1566067	1483926	1703827	1725758	1784211	1652758	7.49
2,4-D	732699	593094	607561	587862	573382	618920	10.46
2,4,5-TP (Silvex)	2764514	2539588	2884094	2964481	3076025	2845741	7.22
2,4,5-T	2721247	2545426	2799059	2811924	2893447	2754221	4.78
2,4-DB	526806	369714	505885	464867	435362	460527	13.45
Dinoseb	2134374	1946223	2155301	2067354	2096146	2079880	3.95
			Average %RSD				7.64

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	72214	66210	75805	76517	78181	73785	6.45
Dicamba	198580	186187	209675	212355	212325	203824	5.58
2,4-D	79995	65353	74252	72372	72026	72800	7.21
2,4,5-TP (Silvex)	349332	320514	368049	366443	374046	355677	6.10
2,4,5-T	333377	298305	351814	348173	345577	335449	6.52
2,4-DB	52239	36291	50263	49819	49769	47676	13.52
Dinoseb	233458	205681	247545	250958	256622	238853	8.55
			Average %RSD				7.70

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/02/2012 **Instrument ID:** GC-W

Data File: W7039.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	586687	3.48
Dicamba	4.83	4.76	4.90	1652758	1612690	2.42
2,4-D	5.28	5.20	5.36	618920	612623	1.02
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	2875094	1.03
2,4,5-T	5.86	5.77	5.95	2754221	2775399	0.77
2,4-DB	6.16	6.07	6.25	460527	406989	11.63
Dinoseb	6.90	6.81	6.99	2079880	2092401	0.60

GC Column (2nd): DB-1701P

Data File: W7039.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.22	2.15	2.29	73785	72792	1.35
Dicamba	5.05	4.98	5.12	203824	186945	8.28
2,4-D	5.57	5.49	5.65	72800	62870	13.64
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	330636	7.04
2,4,5-T	6.26	6.17	6.35	335449	307897	8.21
2,4-DB	6.60	6.51	6.69	47676	51306	7.61
Dinoseb	6.85	6.76	6.94	238853	216384	9.41

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/02/2012 **Instrument ID:** GC-W

Data File: W7052.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	656456	15.78
Dicamba	4.83	4.76	4.90	1652758	1806429	9.30
2,4-D	5.28	5.20	5.36	618920	635026	2.60
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3284409	15.41
2,4,5-T	5.86	5.77	5.95	2754221	2974647	8.00
2,4-DB	6.16	6.07	6.25	460527	400330	13.07
Dinoseb	6.90	6.81	6.99	2079880	2315367	11.32

GC Column (2nd): DB-1701P

Data File: W7052.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.22	2.15	2.29	73785	79214	7.36
Dicamba	5.05	4.98	5.12	203824	215635	5.79
2,4-D	5.57	5.49	5.65	72800	83549	14.77
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	398757	12.11
2,4,5-T	6.26	6.17	6.35	335449	376071	12.11
2,4-DB	6.60	6.51	6.69	47676	40895	14.22
Dinoseb	6.85	6.76	6.94	238853	268589	12.45

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 **4.74** **DCPA 2** **4.96**

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKA291206-08	07/02/2012	11:27	4.74		4.96	
MW-2-06221	06295-001	07/02/2012	11:41	4.74		4.96	
Herb	LCSA291206-08	07/02/2012	15:19	4.74		4.96	
I2-062612-	06385-003	07/02/2012	17:22	D		D	
I1-062612-	06385-005	07/02/2012	17:36	D		D	
Herb	06295-001MS	07/02/2012	17:51	4.74		4.96	
Herb	06295-001MSD	07/02/2012	18:06	4.74		4.96	

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SAMPLE DATA

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-02-12\
Data File : W7048.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 02 Jul 2012 17:22
Operator : YG
Sample : I2-062612-,06385-003,A,1000ml,100,06/29/12,1
Misc : 120629-08,06/26/12,06/27/12,50
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 03 09:40:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
Target Compounds						
2) T ~~Dalapon~~	~~0.00~~	~~2.24~~	~~0~~	~~14801~~	~~N.D.~~	~~<MDL~~

7/16/12 -ad

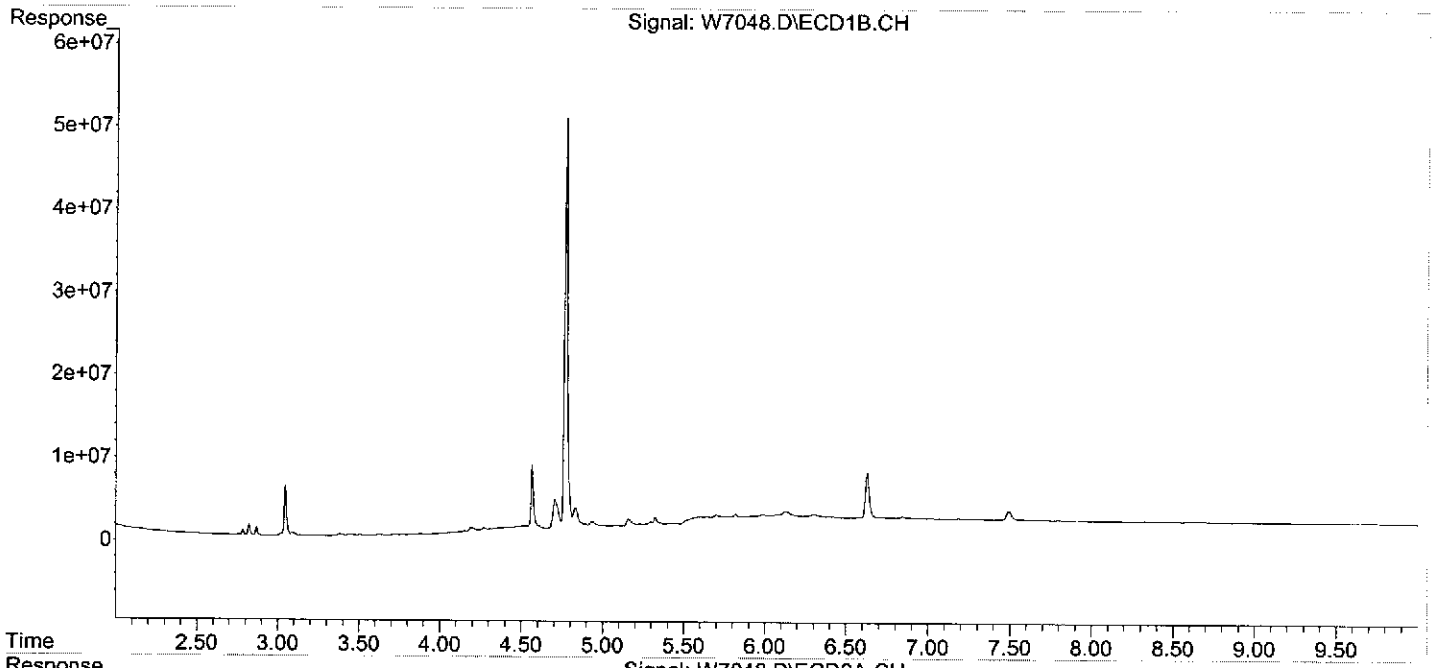
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

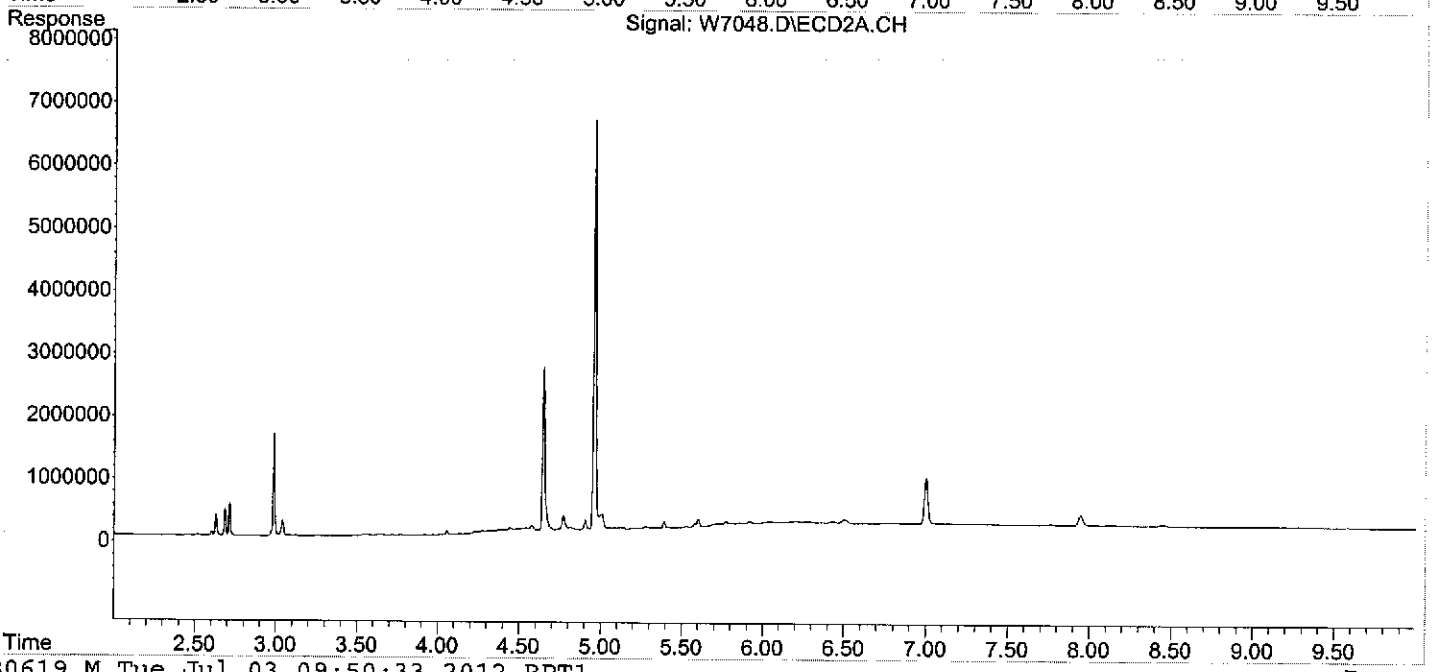
Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-02-12\
Data File : W7048.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 02 Jul 2012 17:22
Operator : YG
Sample : I2-062612-,06385-003,A,1000ml,100,06/29/12,1
Misc : 120629-08,06/26/12,06/27/12,50
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 03 09:40:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-02-12\
Data File : W7049.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 02 Jul 2012 17:36
Operator : YG
Sample : I1-062612-,06385-005,A,1000ml,100,06/29/12,1
Misc : 120629-08,06/26/12,06/27/12,50
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 03 09:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

System Monitoring Compounds

Target Compounds

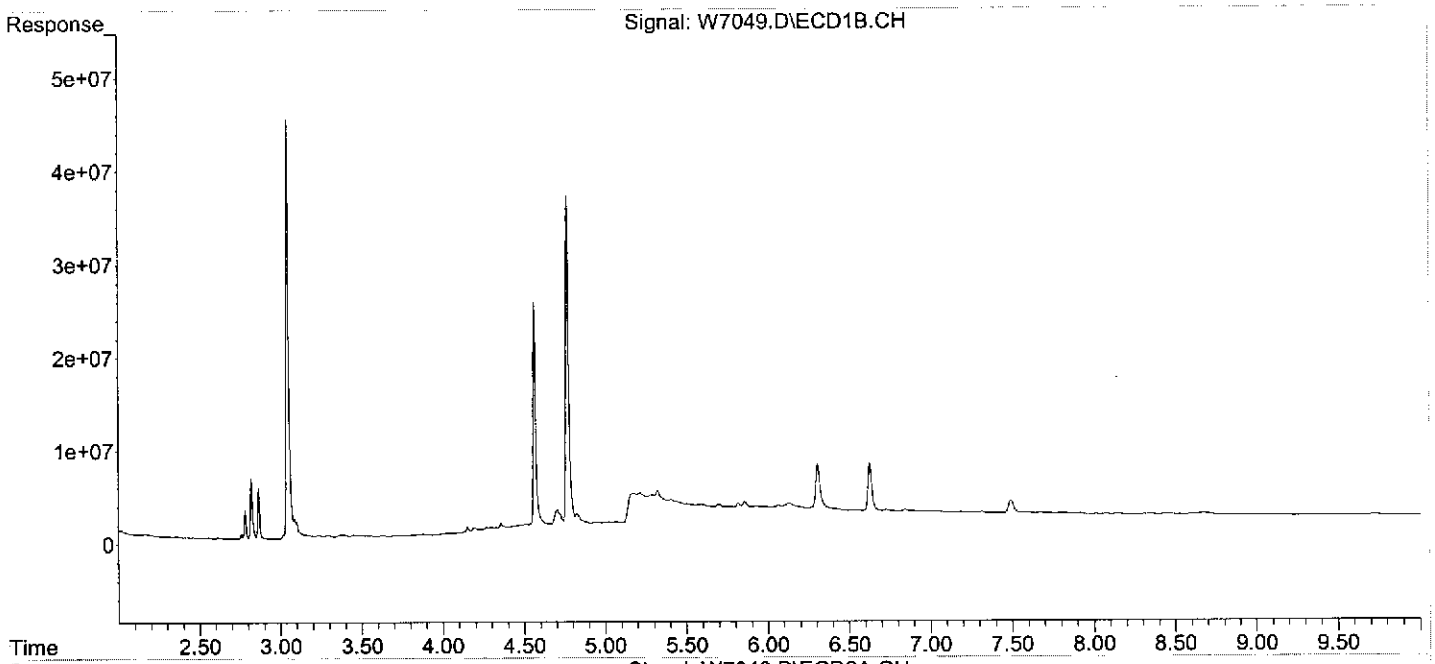
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

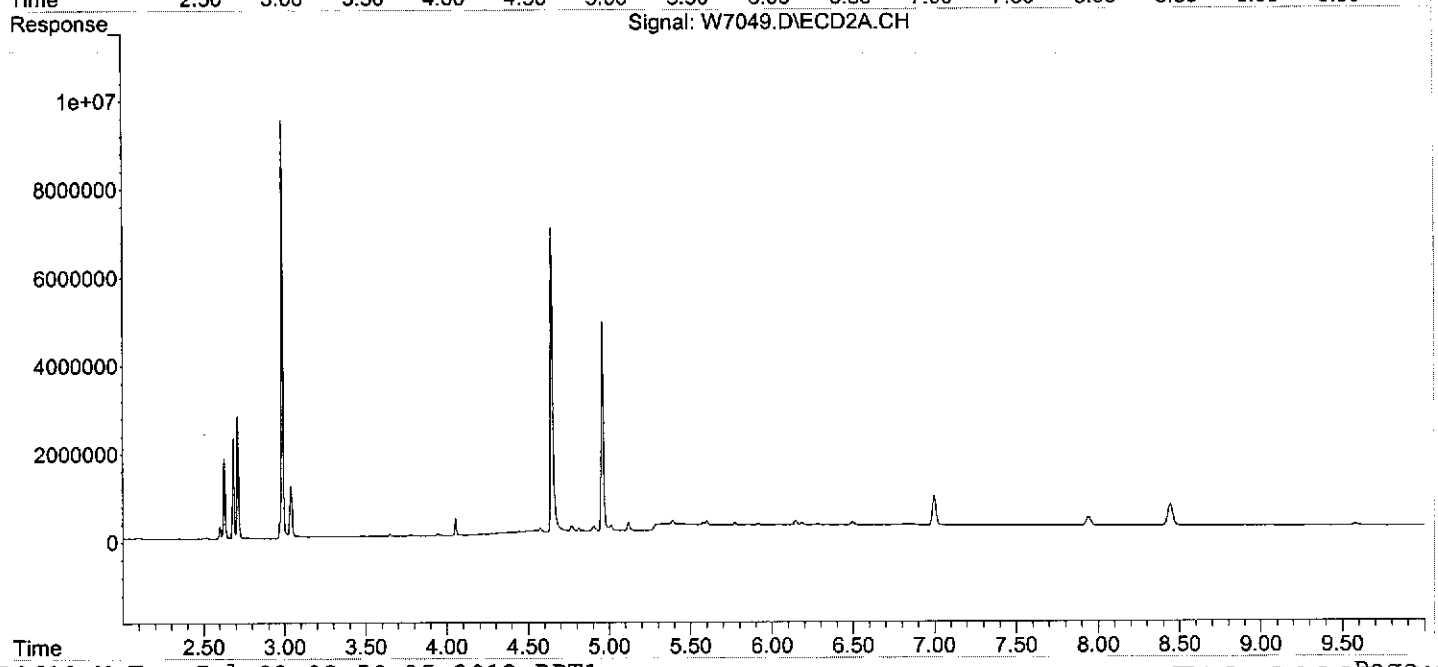
Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-02-12\
Data File : W7049.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 02 Jul 2012 17:36
Operator : YG
Sample : I1-062612-,06385-005,A,1000ml,100,06/29/12,1
Misc : 120629-08,06/26/12,06/27/12,50
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 03 09:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKA291206-08
Client ID: Herb
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 07/02/2012
Data file: W7040.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-02-12\
Data File : W7040.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 02 Jul 2012 11:27
Operator : YG
Sample : Herb,BLKA291206-08,A,1000ml,100,06/29/12,1
Misc : NA,NA,NA,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 03 09:38:24 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	132.9E6	18160376	63.789	70.585
Spiked Amount 100.000			Recovery	=	63.79%	70.58%

Target Compounds

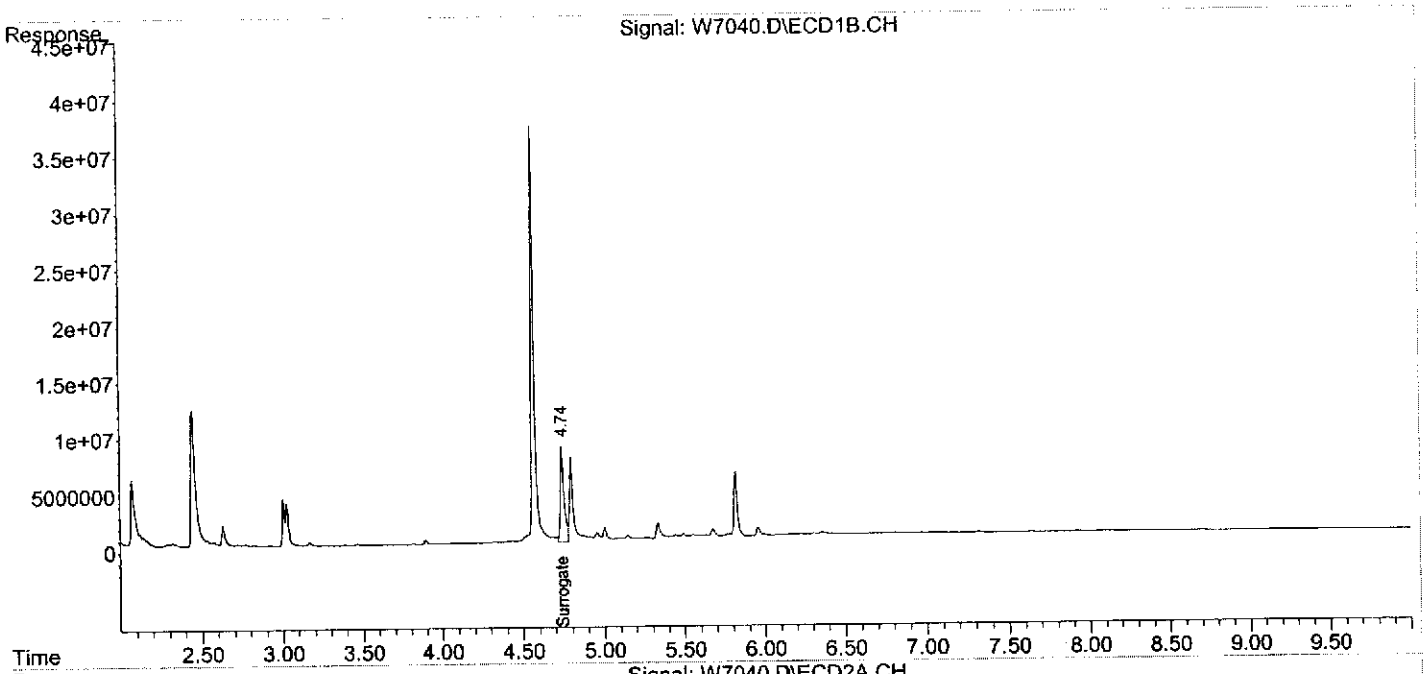
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

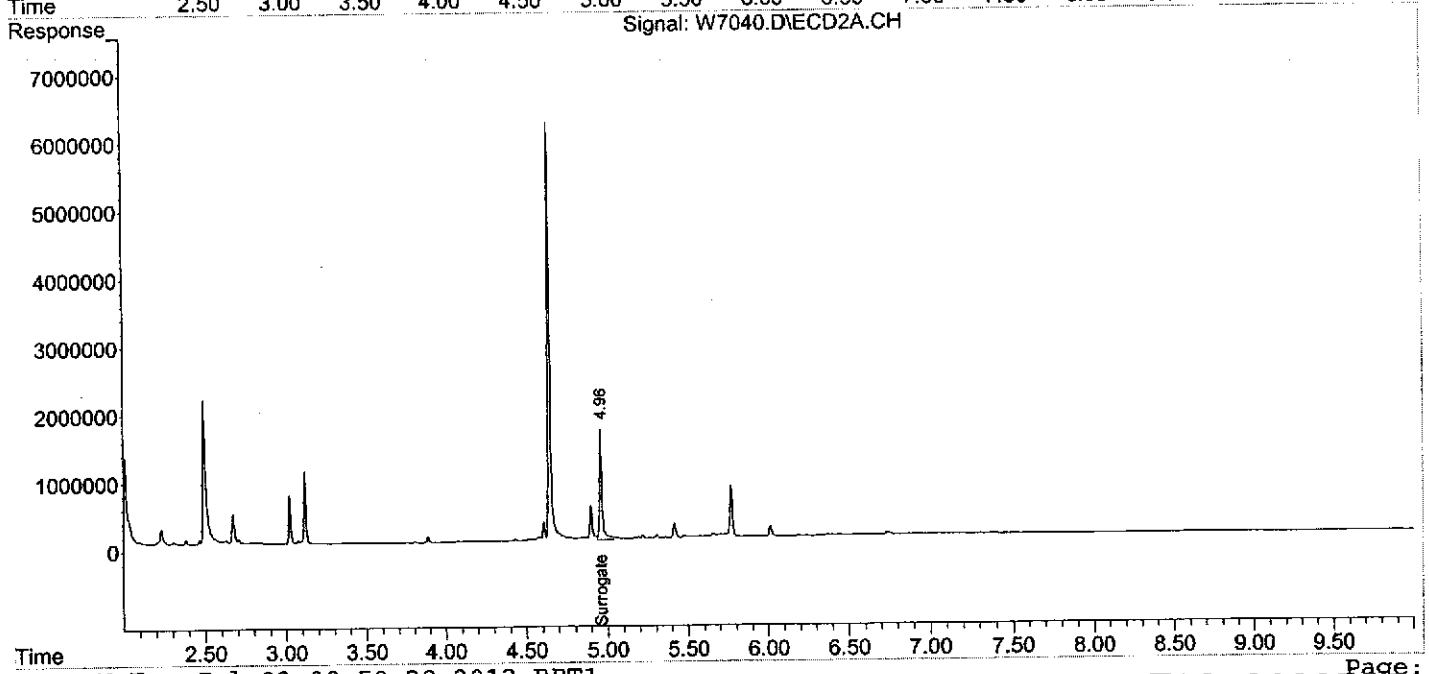
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-02-12\
Data File : W7040.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 02 Jul 2012 11:27
Operator : YG
Sample : Herb,BLKA291206-08,A,1000ml,100,06/29/12,1
Misc : NA,NA,NA,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 03 09:38:24 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON

FRACTIOANTED
EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/06/2012

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	BLKS120703-07	SOIL	62	
ALI	LCSS120703-07	SOIL	63	
ALI	LCSDS120703-07	SOIL	58	
PET-GP-1	06499-001	SOIL	45	
PET-GP-2	06499-002	SOIL	46	
PET-GP-3	06499-003	SOIL	41	
PET-GP-4	06499-004	SOIL	42	
PET-GP-6	06499-005	SOIL	56	
PET-GP-7	06499-006	SOIL	50	
PET-GP-8	06499-007	SOIL	43	
PET-GP-8	06499-008	SOIL	46	
PET-GP-9	06499-009	SOIL	48	
PET-GP-1	06499-010	SOIL	40	
I3SED-06	06385-011	SOIL	49	
C1-06261	06385-012	SOIL	69	
C2-06261	06385-013	SOIL	66	
A7_(2-3)	06466-007	SOIL	44	
I1-06271	06466-008	SOIL	65	
PET-GP-1	06499-10D	SOIL	58	
ALI	06499-010MS	SOIL	60	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/06/2012

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	BLKS120703-07	SOIL	73		80		100	
ARO	LCSS120703-07	SOIL	91		96		113	
ARO	LCSDS120703-07	SOIL	76		83		104	
PET-GP-1	06499-001	SOIL	82		92		98	
PET-GP-2	06499-002	SOIL	80		90		88	
PET-GP-3	06499-003	SOIL	92		101		93	
PET-GP-4	06499-004	SOIL	79		87		78	
PET-GP-6	06499-005	SOIL	88		95		110	
PET-GP-7	06499-006	SOIL	74		80		103	
PET-GP-8	06499-007	SOIL	78		85		90	
PET-GP-8	06499-008	SOIL	76		81		80	
PET-GP-9	06499-009	SOIL	78		83		85	
PET-GP-1	06499-010	SOIL	91		93		79	
I3SED-06	06385-011	SOIL	55		51		95	
C1-06261	06385-012	SOIL	76		69		96	
C2-06261	06385-013	SOIL	62		45		92	
A7_(2-3)	06466-007	SOIL	54		59		79	
I1-06271	06466-008	SOIL	61		73		99	
PET-GP-1	06499-10D	SOIL	50		53		81	
ARO	06499-010MS	SOIL	57		57		81	

Surrogate QC Limits	Soil	Aqueous
FBP = 2-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120703-07
Client ID: ALI
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1623.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	50	0.00	23	46	20	40	14
n-Decane (C10)	50	0.00	27	54	24	48	12
n-Dodecane (C12)	50	0.00	34	68	30	60	13
n-Tetradecane (C14)	50	0.00	38	76	34	68	11
n-Hexadecane (C16)	50	0.00	41	82	36	72	13
n-Octadecane (C18)	50	0.00	42	84	37	74	13
n-Eicosane (C20)	50	0.00	42	84	38	76	10
n-Heneicosane (C21)	50	0.00	47	94	43	86	9
n-Docosane (C22)	50	0.00	44	88	40	80	10
n-Tetracosane (C24)	50	0.00	39	78	36	72	8
n-Hexacosane (C26)	50	0.00	39	78	36	72	8
n-Octacosane (C28)	50	0.00	40	80	37	74	8
n-Triacontane (C30)	50	0.00	41	82	38	76	8
n-Dotriacontane (C32)	50	0.00	42	84	39	78	7
n-Tetratriacontane (C34)	50	0.00	43	86	40	80	7
n-Hexatriacontane (C36)	50	0.00	41	82	38	76	8
n-Octatriacontane (C38)	50	0.00	38	76	35	70	8
n-Tetracontane (40)	50	0.00	34	68	31	62	9
C9-C12	150	0.00	99	66	79	53	22
C12-C16	100	0.00	91	91	78	78	15
C16-C21	150	0.00	146	97	132	88	10
C21-C40	500	0.00	453	91	423	85	7

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120703-07
Client ID: ARO
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: NB1256.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	34	68	27	54	23
Napthalene	50	0.00	41	82	33	66	22
2-Methylnaphthalene	50	0.00	43	86	36	72	18
Acenaphthylene	50	0.00	48	96	41	82	16
Acenaphthene	50	0.00	49	98	42	84	15
Fluorene	50	0.00	48	96	42	84	13
Phenanthrene	50	0.00	48	96	44	88	9
Anthracene	50	0.00	45	90	42	84	7
Fluoroanthene	50	0.00	43	86	40	80	7
Pyrene	50	0.00	42	84	39	78	7
Benzo[a]anthracene	50	0.00	41	82	36	72	13
Chrysene	50	0.00	41	82	38	76	8
Benzo[b]fluoranthene	50	0.00	41	82	37	74	10
Benzo[k]fluoranthene	50	0.00	41	82	37	74	10
Benzo[a]pyrene	50	0.00	37	74	34	68	8
Indeno[1,2,3-cd]pyrene	50	0.00	40	80	36	72	11
Dibenz[a,h]anthracene	50	0.00	40	80	36	72	11
Benzo[g,h,i]perylene	50	0.00	39	78	35	70	11
C10-C12	100	0.00	81	81	69	69	16
C12-C16	150	0.00	152	101	130	87	16
C16-C21	250	0.00	264	106	241	96	9
C21-C36	400	0.00	369	92	336	84	9

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 06499-010MS
Client ID: ALI
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1640.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C9-C12	150	0	69	46
C12-C16	100	0	70	70
C16-C21	150	0	117	78
C21-C40	500	0	370	74

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 06499-010MS
Client ID: ARO
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/09/2012
Data file: NB1306.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C10-C12	100	0	54	54
C12-C16	150	0	100	67
C16-C21	250	0	169	68
C21-C36	400	0	321	80

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: PET-GP-1
Date Received: 06/29/2012
Date Extracted: 07/03/2012
Lab ID: 06499-010
Sample wt/vol: 5.27g
Date Analyzed: 07/06/2012
Aliphatics Sample Data file: N1633.D
Dilution Factor: 1
Date Analyzed: 07/06/2012
Aromatics Sample Data file: NB1266.D
Dilution Factor: 1

GC Column: DB-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 8.10
Lab ID: 06499-10D
Sample wt/vol: 5.00g
Date Analyzed: 07/06/2012
Aliphatics Sample Dup Data file: N1639.D
Dilution Factor: 1
Date Analyzed: 07/09/2012
Aromatics Sample Dup Data file: NB1305.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C12 Aliphatics	ND	ND	NA
C12-C16 Aliphatics	ND	ND	NA
C16-C21 Aliphatics	ND	ND	NA
C21-C40 Aliphatics	ND	ND	NA
Total Aliphatics	0	0	NA
C10-C12 Aromatics	ND	ND	NA
C12-C16 Aromatics	ND	ND	NA
C16-C21 Aromatics	ND	ND	NA
C21-C36 Aromatics	ND	ND	NA
Total Aromatics	0	0	NA
Total NJ-EPH	0	0	NA

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NA --- Not Applied

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID:	N1621.D	Instrument ID:	GC-N
Date Extracted:	07/03/2012	Matrix:	SOIL
Date Analyzed:	07/06/2012	Time Analyzed:	12:09

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS120703-07	07/06/2012	12:44
ALI	LCSDS120703-07	07/06/2012	13:18
PET-GP-1	06499-001	07/06/2012	13:52
PET-GP-2	06499-002	07/06/2012	14:26
PET-GP-3	06499-003	07/06/2012	15:00
PET-GP-4	06499-004	07/06/2012	15:42
PET-GP-6	06499-005	07/06/2012	16:16
PET-GP-7	06499-006	07/06/2012	16:50
PET-GP-8	06499-007	07/06/2012	17:24
PET-GP-8	06499-008	07/06/2012	17:59
PET-GP-9	06499-009	07/06/2012	18:33
PET-GP-1	06499-010	07/06/2012	19:07
13SED-06	06385-011	07/06/2012	19:42
C1-06261	06385-012	07/06/2012	20:16
C2-06261	06385-013	07/06/2012	20:50
A7_(2-3)	06466-007	07/06/2012	21:24
I1-06271	06466-008	07/06/2012	21:59
PET-GP-1	06499-10D	07/06/2012	22:33
ALI	06499-010MS	07/06/2012	23:07

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID:	NB1254.D	Instrument ID:	GC-N
Date Extracted:	07/03/2012	Matrix:	SOIL
Date Analyzed:	07/06/2012	Time Analyzed:	12:09

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS120703-07	07/06/2012	12:44
ARO	LCSDS120703-07	07/06/2012	13:18
PET-GP-1	06499-001	07/06/2012	13:52
PET-GP-2	06499-002	07/06/2012	14:26
PET-GP-3	06499-003	07/06/2012	15:00
PET-GP-4	06499-004	07/06/2012	15:42
PET-GP-6	06499-005	07/06/2012	16:16
PET-GP-7	06499-006	07/06/2012	16:50
PET-GP-8	06499-007	07/06/2012	17:24
PET-GP-8	06499-008	07/06/2012	17:59
PET-GP-9	06499-009	07/06/2012	18:33
PET-GP-1	06499-010	07/06/2012	19:07
I3SED-06	06385-011	07/06/2012	19:42
C1-06261	06385-012	07/06/2012	20:16
C2-06261	06385-013	07/06/2012	20:50
A7_(2-3)	06466-007	07/06/2012	21:24
I1-06271	06466-008	07/06/2012	21:59
PET-GP-1	06499-10D	07/09/2012	09:04
ARO	06499-010MS	07/09/2012	09:39

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

COD 12.15

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	BLKS120703-07	07/06/2012	12:09	12.15	
ALI	LCSS120703-07	07/06/2012	12:44	12.15	
ALI	LCSDS120703-07	07/06/2012	13:18	12.15	
PET-GP-1	06499-001	07/06/2012	13:52	12.15	
PET-GP-2	06499-002	07/06/2012	14:26	12.15	
PET-GP-3	06499-003	07/06/2012	15:00	12.15	
PET-GP-4	06499-004	07/06/2012	15:42	12.15	
PET-GP-6	06499-005	07/06/2012	16:16	12.15	
PET-GP-7	06499-006	07/06/2012	16:50	12.15	
PET-GP-8	06499-007	07/06/2012	17:24	12.15	
PET-GP-8	06499-008	07/06/2012	17:59	12.15	
PET-GP-9	06499-009	07/06/2012	18:33	12.15	
PET-GP-1	06499-010	07/06/2012	19:07	12.14	
I3SED-06	06385-011	07/06/2012	19:42	12.15	
C1-06261	06385-012	07/06/2012	20:16	12.15	
C2-06261	06385-013	07/06/2012	20:50	12.15	
A7_(2-3)	06466-007	07/06/2012	21:24	12.15	
I1-06271	06466-008	07/06/2012	21:59	12.15	
PET-GP-1	06499-10D	07/06/2012	22:33	12.15	
ALI	06499-010MS	07/06/2012	23:07	12.15	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

FBP 4.58 **BNP** 5.61 **OTP** 9.97

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	BLKS120703-07	07/06/2012	12:09	4.58		5.61		9.97	
ARO	LCSS120703-07	07/06/2012	12:44	4.58		5.61		9.98	
ARO	LCSDS120703-07	07/06/2012	13:18	4.58		5.61		9.98	
PET-GP-1	06499-001	07/06/2012	13:52	4.58		5.61		9.97	
PET-GP-2	06499-002	07/06/2012	14:26	4.58		5.61		9.97	
PET-GP-3	06499-003	07/06/2012	15:00	4.58		5.61		9.97	
PET-GP-4	06499-004	07/06/2012	15:42	4.57		5.61		9.97	
PET-GP-6	06499-005	07/06/2012	16:16	4.58		5.61		9.97	
PET-GP-7	06499-006	07/06/2012	16:50	4.58		5.61		9.97	
PET-GP-8	06499-007	07/06/2012	17:24	4.58		5.61		9.97	
PET-GP-8	06499-008	07/06/2012	17:59	4.58		5.61		9.97	
PET-GP-9	06499-009	07/06/2012	18:33	4.58		5.61		9.97	
PET-GP-1	06499-010	07/06/2012	19:07	4.58		5.61		9.97	
I3SED-06	06385-011	07/06/2012	19:42	4.58		5.61		9.99	
C1-06261	06385-012	07/06/2012	20:16	4.58		5.68		9.99	
C2-06261	06385-013	07/06/2012	20:50	4.58		5.62		9.97	
A7_(2-3)	06466-007	07/06/2012	21:24	4.58		5.62		9.97	
I1-06271	06466-008	07/06/2012	21:59	4.58		5.61		9.98	
PET-GP-1	06499-10D	07/09/2012	09:04	4.58		5.61		9.97	
ARO	06499-010MS	07/09/2012	09:39	4.57		5.61		9.97	

Surrogate QC Limits

FBP = 2-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH Naphthalene & 2-Methylnaphthalene BREAKTHROUGH REPORT

	Fraction Data file:	Fraction Data file:
Lab ID: LCSS120703-07	Aliphatic N1622.D	Aromatic NB1255.D
Lab ID: LCSDS120703-07	Aliphatic N1623.D	Aromatic NB1256.D

Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Matrix-Units: Soil-mg/Kg (ppm)

	LCS			LCSD			
Compound	Aromatic	Aliphatic	% BT	Aromatic	Aliphatic	% BT	
Naphthalene	41.3	0.0	0.0	33.4	0.0	0.0	Pass
2-Methylnaphthalene	43.3	0.0	0.0	35.7	0.0	0.0	Pass

Total Naphthalene & 2-Methylnaphthalene in the aliphatic fraction < 5%
% BT ---- % Breakthrough

FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1634.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 19:42
Operator : DK
Sample : I3SED-06,06385-011,S,5.12g,33.0,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,5
ALS Vial : 16 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:05:24 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	4669327	4.831 ng
Spiked Amount 50.000		Recovery =	9.66%
Target Compounds			
21) H C12-C16	5.40	246609901	231.594 ng
22) H C16-C21	9.95	647401231	615.034 ng
23) H C21-C40	18.95	3864392752	4219.884 ng

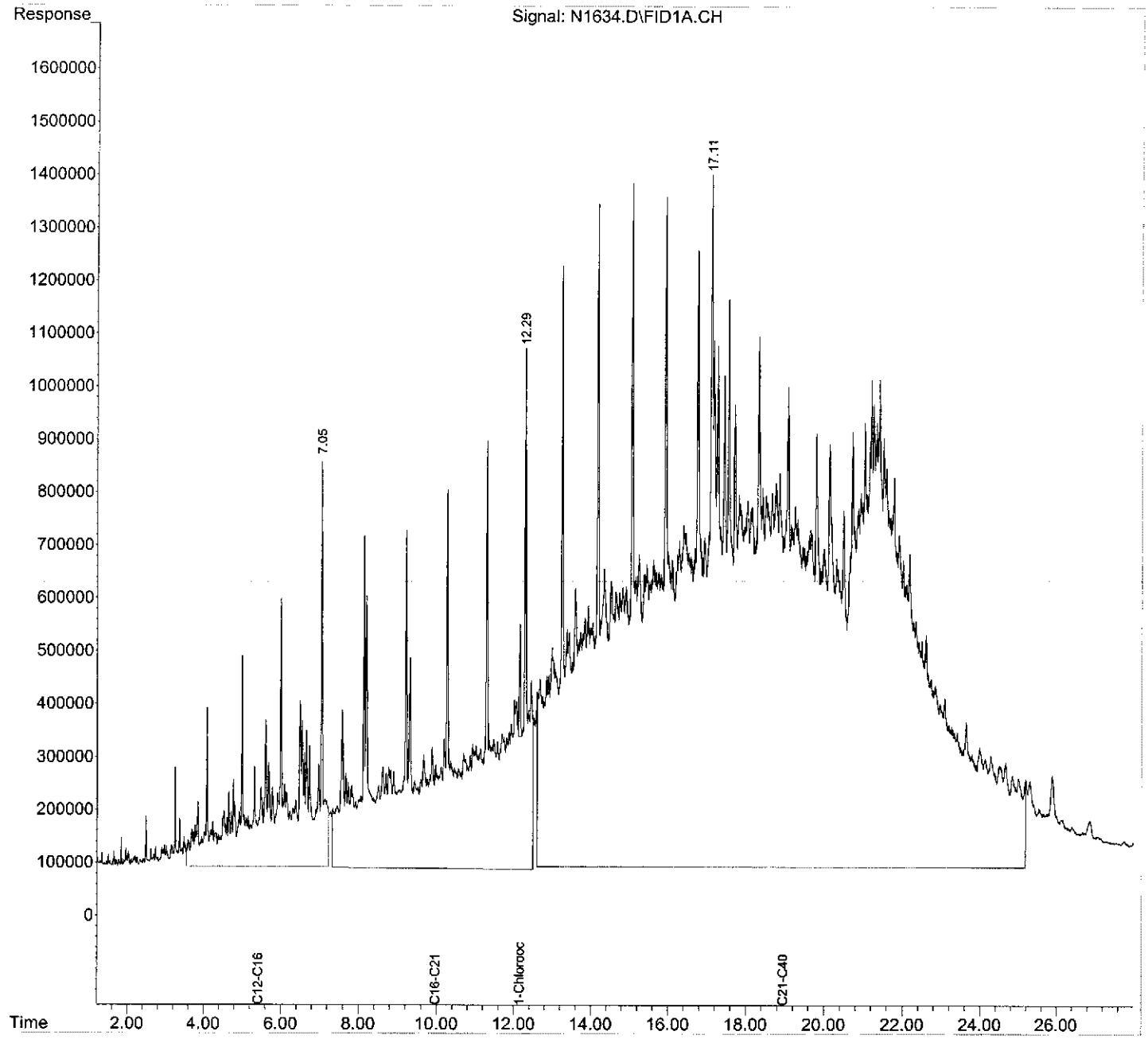
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1634.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 19:42
Operator : DK
Sample : I3SED-06,06385-011,S,5.12g,33.0,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,5
ALS Vial : 16 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:05:24 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1267.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 19:42
Operator : DK
Sample : I3SED-06,06385-011,S,5.12g,33.0,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,1
ALS Vial : 66 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:25:09 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.58	19699733	27.451 ng	m
Spiked Amount 50.000		Recovery =	54.90%	
2) S 2-Bromonaphthalene	5.61	12859452	25.707 ng	m
Spiked Amount 50.000		Recovery =	51.41%	
3) S o-Terphenyl	9.99	44138532	47.708 ng	m
Spiked Amount 50.000		Recovery =	95.42%	
Target Compounds				
22) H C10-C12	2.70	48103095	75.003 ng	
23) H C12-C16	4.95	327321273	462.341 ng	
24) H C16-C21	9.60	2817401309	3576.267 ng	
25) H C21-C36	17.20	11403390723	12762.937 ng	

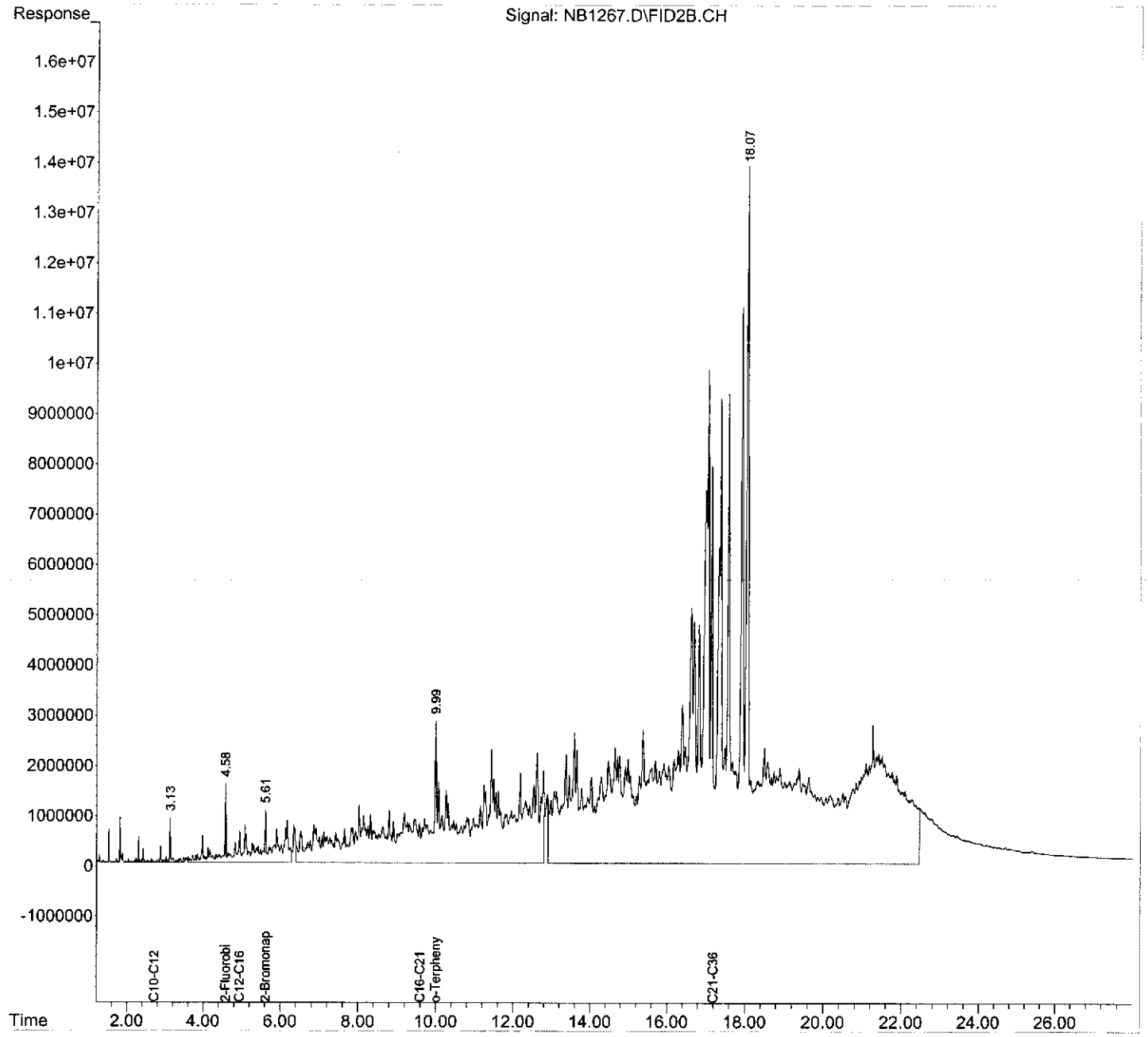
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1267.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 19:42
Operator : DK
Sample : I3SED-06,06385-011,S,5.12g,33.0,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,1
ALS Vial : 66 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:25:09 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1635.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 20:16
Operator : DK
Sample : C1-06261,06385-012,S,5.07g,30.3,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,5
ALS Vial : 17 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:07:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	6632847	6.863 ng
Spiked Amount 50.000		Recovery =	13.73%
Target Compounds			
20) H C9-C12	2.36	208648221	204.538 ng
21) H C12-C16	5.40	1074852178	1009.406 ng
22) H C16-C21	9.95	1474007276	1400.314 ng
23) H C21-C40	18.95	5719493627	6245.639 ng

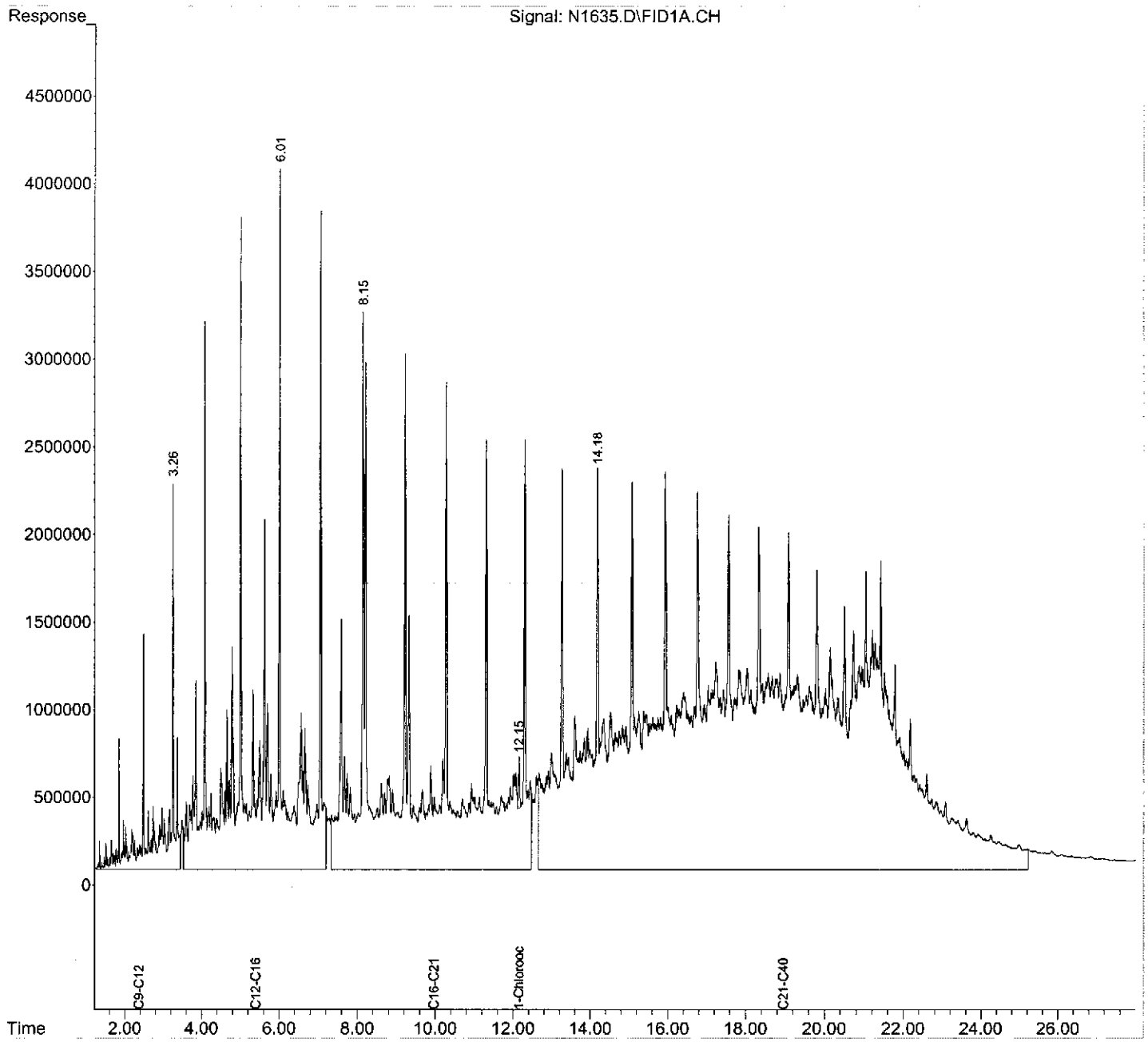
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1635.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 20:16
Operator : DK
Sample : C1-06261,06385-012,S,5.07g,30.3,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,5
ALS Vial : 17 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:07:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1268.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 20:16
Operator : DK
Sample : C1-06261,06385-012,S,5.07g,30.3,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:26:57 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.58	27423217	38.213 ng	m
Spiked Amount 50.000		Recovery =	76.43%	
2) S 2-Bromonaphthalene	5.68	17283734	34.551 ng	m
Spiked Amount 50.000		Recovery =	69.10%	
3) S o-Terphenyl	9.99	44182831	47.755 ng	m
Spiked Amount 50.000		Recovery =	95.51%	
Target Compounds				
22) H C10-C12	2.70	400436374	624.368 ng	
23) H C12-C16	4.95	3033059162	4284.198 ng	
24) H C16-C21	9.60	4466346397	5669.355 ng	
25) H C21-C36	17.20	6029466569	6748.318 ng	

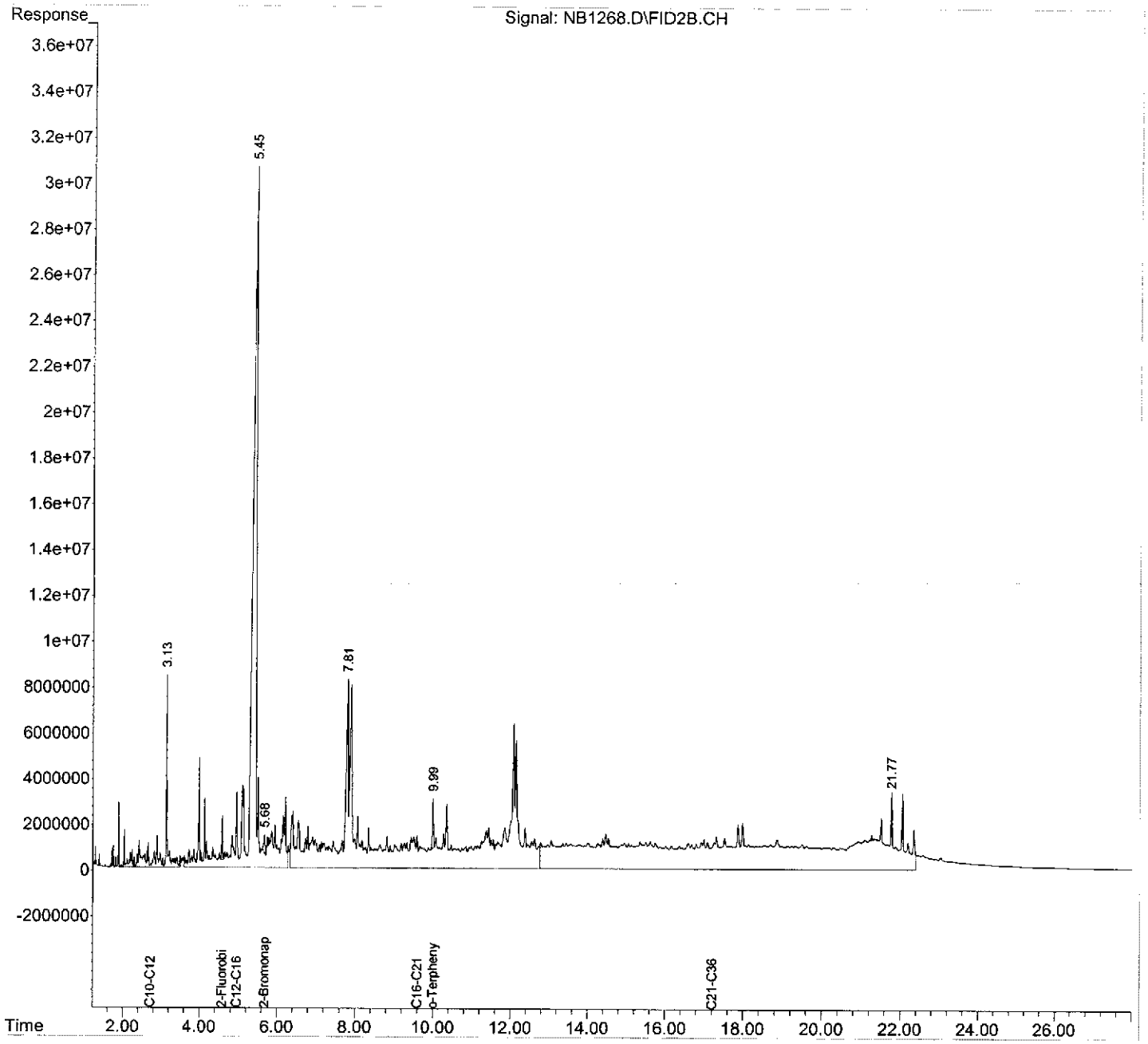
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1268.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 20:16
Operator : DK
Sample : C1-06261,06385-012,S,5.07g,30.3,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,1
ALS Vial : 67 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:26:57 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Mon Jul 09 07:41:00 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1636.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 20:50
Operator : DK
Sample : C2-06261,06385-013,S,1.00g,3.40,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:10:55 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	31735891	32.838 ng
Spiked Amount 50.000		Recovery =	65.68%
Target Compounds			
21) H C12-C16	5.40	69053414	64.849 ng
22) H C16-C21	9.95	44806870	42.567 ng

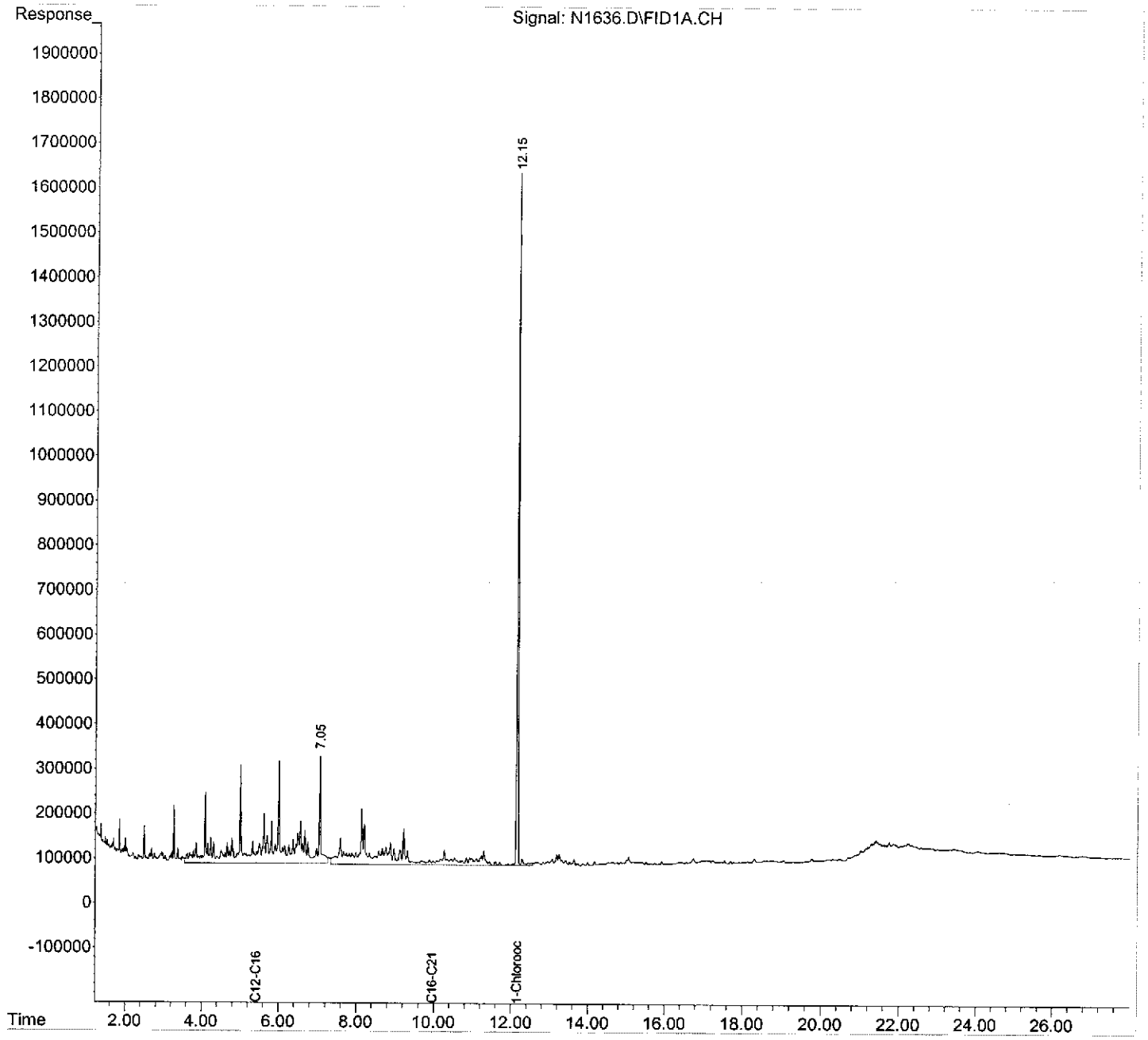
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1636.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 20:50
Operator : DK
Sample : C2-06261,06385-013,S,1.00g,3.40,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:10:55 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Mon Jul 09 07:11:07 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1269.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 20:50
Operator : DK
Sample : C2-06261,06385-013,S,1.00g,3.40,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,5
ALS Vial : 68 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:28:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.58	4410926	6.146 ng	
Spiked Amount 50.000		Recovery =	12.29%	
2) S 2-Bromonaphthalene	5.62	2261855	4.522 ng	m
Spiked Amount 50.000		Recovery =	9.04%	
3) S o-Terphenyl	9.97	8483210	9.169 ng	
Spiked Amount 50.000		Recovery =	18.34%	
Target Compounds				
25) H C21-C36	17.20	16124214384	18046.592 ng	

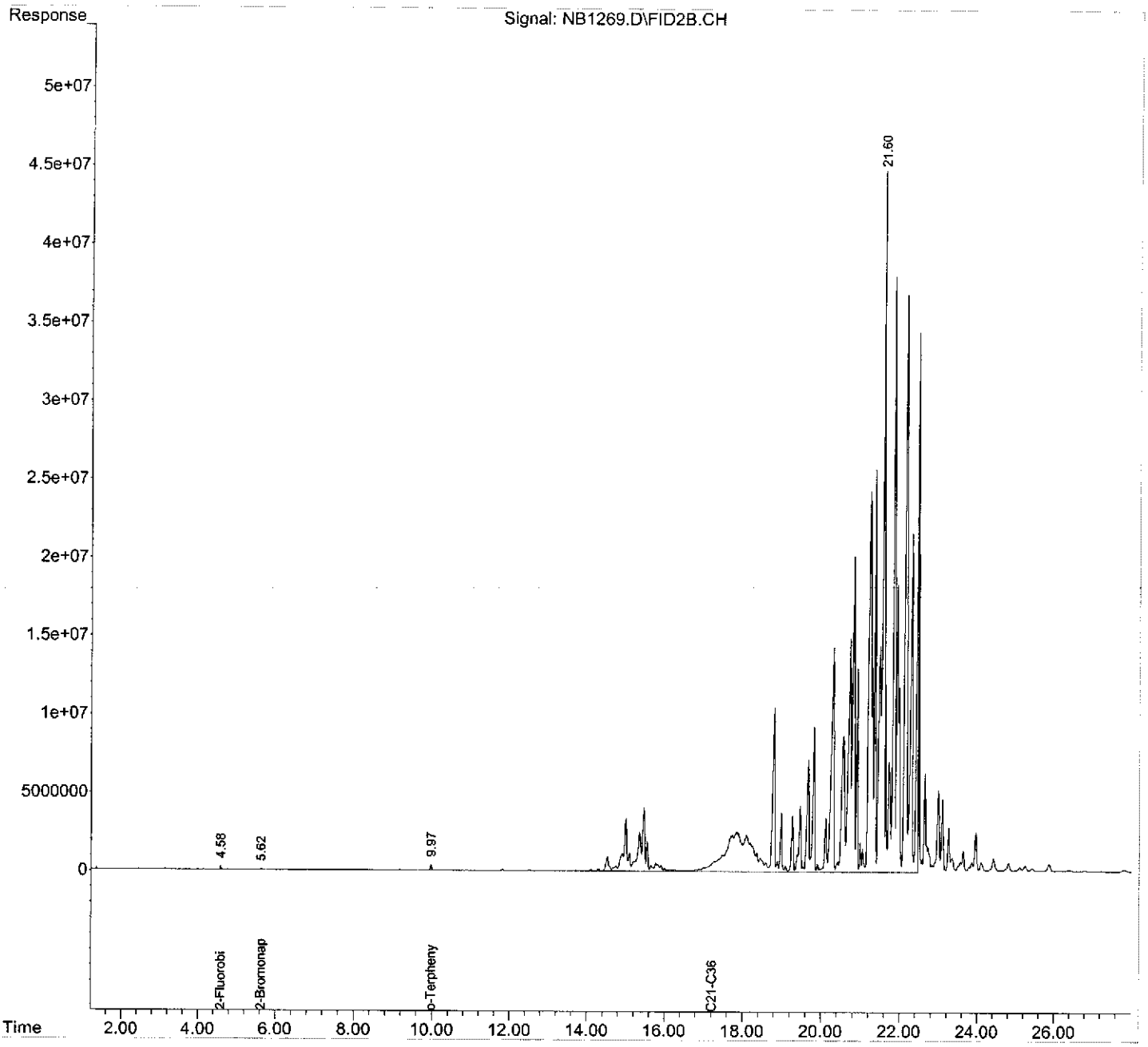
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1269.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 20:50
Operator : DK
Sample : C2-06261,06385-013,S,1.00g,3.40,07/03/12,1
Misc : 120703-07,06/26/12,06/27/12,5
ALS Vial : 68 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:28:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/22/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: N1490.D N1489.D N1488.D N1486.D N1487.D

Compound	RT OF STANDARDS 20	100	250	500	1000	MEAN RT	RT WI NDOW FROM	TO
n-Nonane (C9)	1.34	1.34	1.34	1.35	1.35	1.35	1.28	1.42
n-Decane (C10)	1.84	1.84	1.85	1.85	1.86	1.85	1.78	1.92
n-Dodecane (C12)	3.25	3.26	3.27	3.28	3.30	3.27	3.20	3.34
n-Tetradecane (C14)	4.99	5.00	5.02	5.03	5.05	5.02	4.95	5.09
n-Hexadecane (C16)	7.05	7.06	7.08	7.10	7.13	7.08	7.00	7.16
n-Octadecane (C18)	9.21	9.22	9.24	9.26	9.30	9.25	9.17	9.33
n-Eicosane (C20)	11.29	11.31	11.33	11.35	11.39	11.33	11.25	11.41
n-Heneicosane (C21)	12.28	12.30	12.33	12.35	12.40	12.33	12.25	12.41
n-Docosane (C22)	13.24	13.26	13.28	13.30	13.35	13.29	13.20	13.38
n-Tetracosane (C24)	15.05	15.07	15.09	15.11	15.15	15.10	15.01	15.19
n-Hexacosane (C26)	16.74	16.75	16.78	16.80	16.84	16.78	16.69	16.87
n_Octacosane (C28)	18.31	18.32	18.34	18.36	18.41	18.35	18.26	18.44
n-Triacontane (C30)	19.78	19.79	19.82	19.83	19.88	19.82	19.72	19.92
n-Dotriacontane (C32)	21.03	21.04	21.05	21.07	21.11	21.06	20.96	21.16
n-Tetratriacontane (C34)	21.78	21.79	21.80	21.83	21.87	21.81	21.71	21.91
n-Hexatriacontane (C36)	22.60	22.61	22.63	22.66	22.72	22.64	22.49	22.79
n-Octatriacontane (C38)	23.63	23.65	23.67	23.71	23.78	23.69	23.54	23.84
n-Tetracontane (40)	25.00	25.02	25.06	25.11	25.20	25.08	24.93	25.23
C9-C12	2.36	2.36	2.36	2.36	2.36	2.36	2.26	2.46
C12-C16	5.40	5.40	5.40	5.40	5.40	5.40	5.30	5.50
C16-C21	9.95	9.95	9.95	9.95	9.95	9.95	9.84	10.06
C21-C40	18.95	18.95	18.95	18.95	18.95	18.95	18.84	19.06

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/22/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: N1490.D N1489.D N1488.D N1486.D N1487.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	1056805	891634	975928	819917	896807	928218	9.77
n-Decane (C10)	1124663	921218	1008835	844795	931890	966280	10.96
n-Dodecane (C12)	1130526	923061	1036440	864213	880246	966897	11.74
n-Tetradecane (C14)	1120378	929655	1070244	908130	1016433	1008968	8.96
n-Hexadecane (C16)	1141099	948829	1089217	915226	1024466	1023767	9.20
n-Octadecane (C18)	1176703	981397	1113961	915644	1016727	1040886	10.03
n-Eicosane (C20)	1202215	1023920	1105285	847190	924693	1020661	13.81
n-Heneicosane (C21)	1202549	1022631	1046656	839247	897103	1001637	14.13
n-Docosane (C22)	1198871	1029836	1026716	818258	877227	990182	15.05
n-Tetracosane (C24)	1176665	994574	990199	772419	817715	950314	16.97
n-Hexacosane (C26)	1175685	962848	934164	714213	779084	913199	19.69
n_Octacosane (C28)	1144812	913533	844953	667131	765637	867213	20.79
n-Triacontane (C30)	1106307	846023	783890	653803	777735	833552	20.11
n-Dotriacontane (C32)	1022998	761800	748196	661498	784839	795866	17.00
n-Tetratriacontane (C34)	976894	721694	773345	699887	809643	796293	13.78
n-Hexatriacontane (C36)	892844	695883	785710	700488	804329	775851	10.52
n-Octatriacontane (C38)	836551	698308	790208	693010	793553	762326	8.34
n-Tetracontane (40)	815086	705645	784387	697256	789142	758303	7.03
C9-C12	4177087	2838351	3046781	2559957	2679217	3060279	21.25
C12-C16	2596682	1928429	2197959	1853403	2071890	2129672	13.75
C16-C21	3684858	3062757	3375255	2706290	2960232	3157878	12.03
C21-C40	12631355	8917290	8810193	7283801	8145262	9157580	22.37

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1487.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:34
Operator : MJ
Sample : ALI_L5_IAS_4193,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:07:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 1-Chlorooctadecane	12.25	901865645	933.182 ng	
Spiked Amount 50.000		Recovery	= 1866.36%	
24) S o-Terphenyl	10.31	1312358658	1065.940 ng	
Spiked Amount 50.000		Recovery	= 2131.88%	
25) S Naphthalene	3.24	1186981560	1079.121 ng	
Spiked Amount 50.000		Recovery	= 2158.24%	
26) S 2-Methylnaphthalene	4.17	1083245046	990.198 ng	
Spiked Amount 50.000		Recovery	= 1980.40%	
Target Compounds				
2) T n-Nonane (C9)	1.35	896806526	966.159 ng	
3) T n-Decane (C10)	1.86	931890101	964.410 ng	
4) T n-Dodecane (C12)	3.30	880245609	918.472 ng	m
5) T n-Tetradecane (C14)	5.05	1016433253	1007.399 ng	
6) T n-Hexadecane (C16)	7.13	1024466497	1000.683 ng	
7) T n-Octadecane (C18)	9.30	1016727354	976.790 ng	
8) T n-Eicosane (C20)	11.39	924692864	905.975 ng	
9) T n-Heneicosane (C21)	12.40	897102987	895.637 ng	
10) T n-Docosane (C22)	13.35	877227123	885.926 ng	
11) T n-Tetracosane (C24)	15.15	817714522	860.468 ng	
12) T n-Hexacosane (C26)	16.84	779084355	853.138 ng	
13) T n-Octacosane (C28)	18.41	765637044	882.871 ng	
14) T n-Triacontane (C30)	19.88	777735127	933.038 ng	
15) T n-Dotriacontane (C32)	21.11	784838907	986.145 ng	
16) T n-Tetratriacontane (C34)	21.87	809642867	1016.765 ng	
17) T n-Hexatriacontane (C36)	22.72	804329402	1036.706 ng	
18) T n-Octatriacontane (C38)	23.78	793553122	1040.963 ng	
19) T n-Tetracontane (40)	25.20	789141690	1040.668 ng	
20) H C9-C12	2.36	2679217194	2722.372 ng	
21) H C12-C16	5.40	2071889969	1945.736 ng	
22) H C16-C21	9.95	2960231594	2812.235 ng	
23) H C21-C40	18.95	8145261846	8894.557 ng	

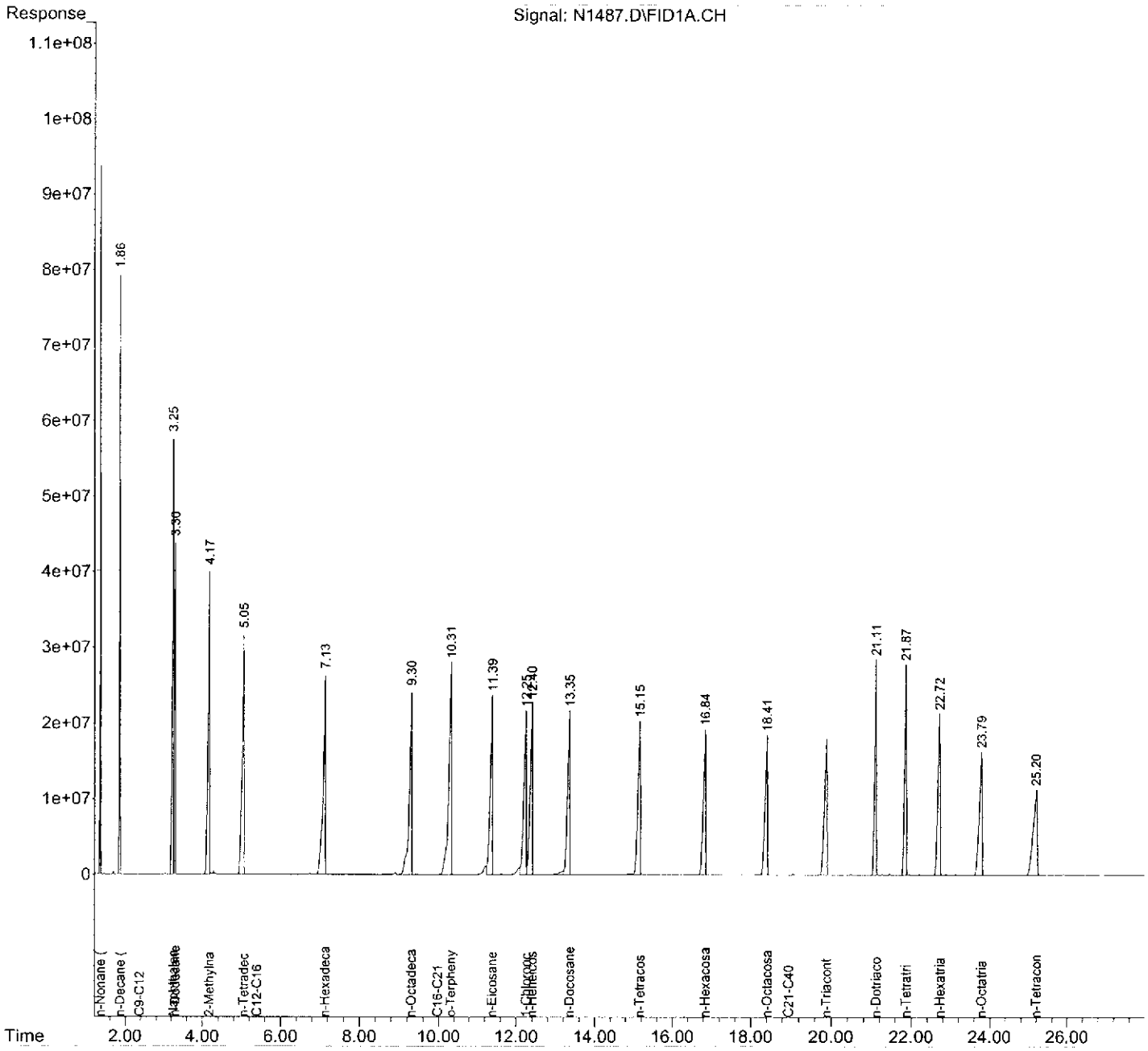
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1487.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:34
Operator : MJ
Sample : ALI_L5_IAS_4193,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:07:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-22-12\
Data File : N1486.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:00
Operator : MJ
Sample : ALI_L4_IAS_4194,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.20	413595231	427.957 ng
Spiked Amount 50.000		Recovery	= 855.91%
24) S o-Terphenyl	10.26	593093550	481.730 ng
Spiked Amount 50.000		Recovery	= 963.46%
25) S Naphthalene	3.22	478920714	435.401 ng
Spiked Amount 50.000		Recovery	= 870.80%
26) S 2-Methylnaphthalene	4.15	486821315	445.005 ng
Spiked Amount 50.000		Recovery	= 890.01%
Target Compounds			
2) T n-Nonane (C9)	1.35	409958476	441.662 ng
3) T n-Decane (C10)	1.85	422397697	437.138 ng
4) T n-Dodecane (C12)	3.28	432106401	450.871 ng
5) T n-Tetradecane (C14)	5.03	454065244	450.029 ng
6) T n-Hexadecane (C16)	7.10	457613093	446.989 ng
7) T n-Octadecane (C18)	9.26	457822090	439.839 ng
8) T n-Eicosane (C20)	11.35	423595047	415.020 ng
9) T n-Heneicosane (C21)	12.35	419623251	418.937 ng
10) T n-Docosane (C22)	13.30	409128933	413.186 ng
11) T n-Tetracosane (C24)	15.11	386209372	406.402 ng
12) T n-Hexacosane (C26)	16.80	357106565	391.050 ng
13) T n-Octacosane (C28)	18.36	333565449	384.641 ng
14) T n-Triacontane (C30)	19.83	326901325	392.179 ng
15) T n-Dotriacontane (C32)	21.07	330749070	415.584 ng
16) T n-Tetratriacontane (C34)	21.83	349943748	439.466 ng
17) T n-Hexatriacontane (C36)	22.66	350243795	451.432 ng
18) T n-Octatriacontane (C38)	23.71	346504896	454.536 ng
19) T n-Tetracontane (40)	25.11	348627951	459.748 ng
20) H C9-C12	2.36	1279978670	1300.596 ng
21) H C12-C16	5.40	926701353	870.276 ng
22) H C16-C21	9.95	1353144756	1285.494 ng
23) H C21-C40	18.95	3641900267	3976.924 ng

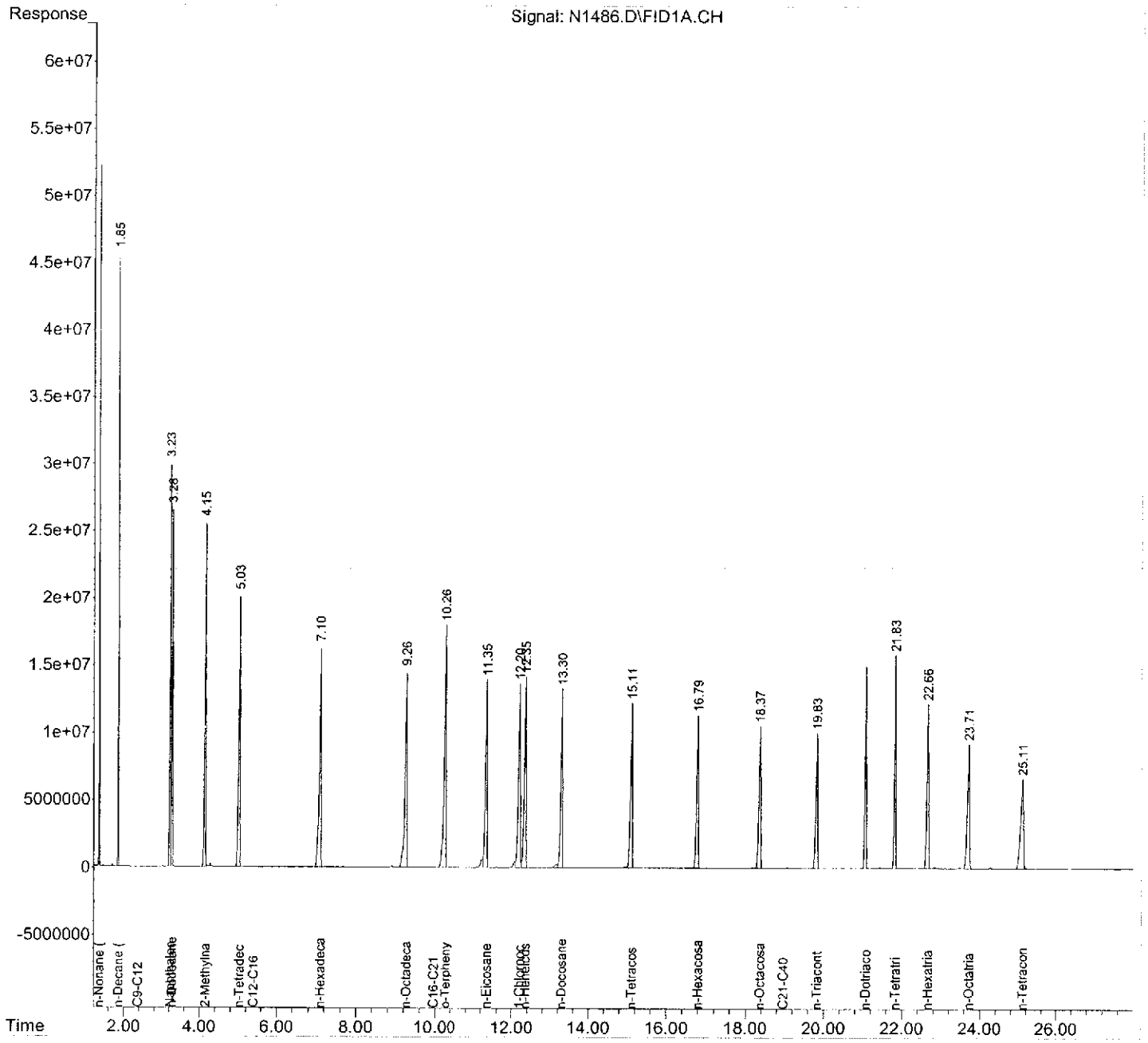
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-22-12\
Data File : N1486.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:00
Operator : MJ
Sample : ALI_L4_IAS_4194,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1488.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:08
Operator : MJ
Sample : ALI_L3_IAS_4195,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.19	268148070	277.459 ng
Spiked Amount	50.000		Recovery	= 554.92%
24) S	o-Terphenyl	10.24	291937292	237.121 ng
Spiked Amount	50.000		Recovery	= 474.24%
25) S	Naphthalene	3.21	280824974	255.306 ng
Spiked Amount	50.000		Recovery	= 510.61%
26) S	2-Methylnaphthalene	4.13	287905108	263.175 ng
Spiked Amount	50.000		Recovery	= 526.35%
Target Compounds				
2) T	n-Nonane (C9)	1.34	243981962	262.850 ng
3) T	n-Decane (C10)	1.85	252208814	261.010 ng
4) T	n-Dodecane (C12)	3.27	259109996	270.362 ng
5) T	n-Tetradecane (C14)	5.02	267561052	265.183 ng
6) T	n-Hexadecane (C16)	7.08	272304146	265.982 ng
7) T	n-Octadecane (C18)	9.24	278490293	267.551 ng
8) T	n-Eicosane (C20)	11.33	276321282	270.728 ng
9) T	n-Heneicosane (C21)	12.33	261664109	261.236 ng
10) T	n-Docosane (C22)	13.28	256678960	259.224 ng
11) T	n-Tetracosane (C24)	15.09	247549821	260.493 ng
12) T	n-Hexacosane (C26)	16.78	233541027	255.739 ng
13) T	n-Octacosane (C28)	18.34	211238145	243.583 ng
14) T	n-Triacontane (C30)	19.82	195972411	235.105 ng
15) T	n-Dotriacontane (C32)	21.05	187048929	235.026 ng
16) T	n-Tetratriacontane (C34)	21.80	193336319	242.796 ng
17) T	n-Hexatriacontane (C36)	22.63	196427595	253.177 ng
18) T	n-Octatriacontane (C38)	23.67	197551966	259.144 ng
19) T	n-Tetracontane (40)	25.06	196096755	258.599 ng
20) H	C9-C12	2.36	761695270	773.964 ng
21) H	C12-C16	5.40	549489698	516.032 ng
22) H	C16-C21	9.95	843813757	801.627 ng
23) H	C21-C40	18.95	2202548138	2405.164 ng

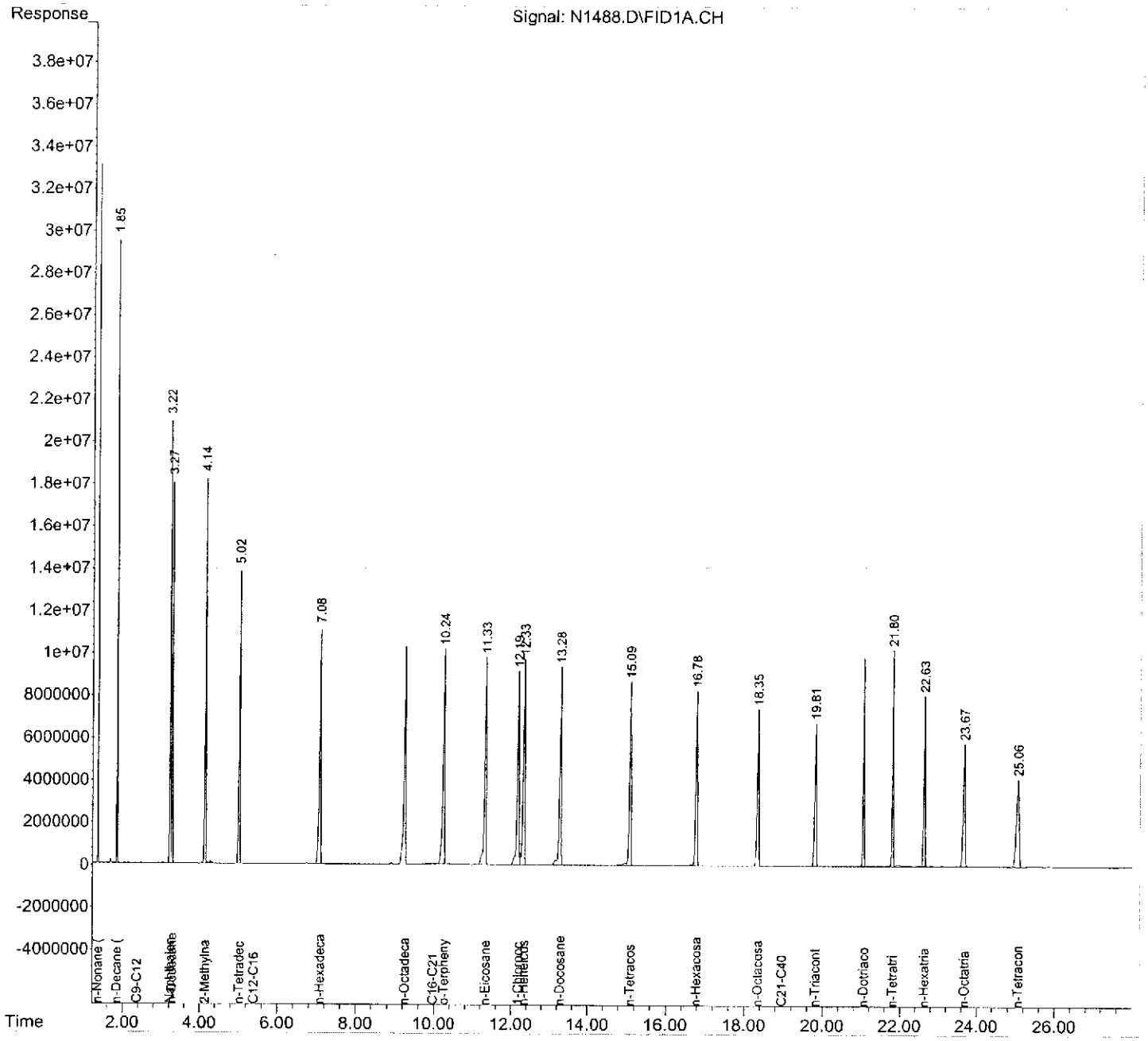
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1488.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:08
Operator : MJ
Sample : ALI_L3_IAS_4195,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1489.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:42
Operator : MJ
Sample : ALI_L2_IAS_4196,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	93056671	96.288 ng
Spiked Amount 50.000		Recovery =	192.58%
24) S o-Terphenyl	10.21	113147262	91.902 ng
Spiked Amount 50.000		Recovery =	183.80%
25) S Naphthalene	3.20	101515095	92.290 ng
Spiked Amount 50.000		Recovery =	184.58%
26) S 2-Methylnaphthalene	4.12	102977318	94.132 ng
Spiked Amount 50.000		Recovery =	188.26%
Target Compounds			
2) T n-Nonane (C9)	1.34	89163394	96.059 ng
3) T n-Decane (C10)	1.84	92121788	95.336 ng
4) T n-Dodecane (C12)	3.26	92306107	96.315 ng
5) T n-Tetradecane (C14)	5.00	92965464	92.139 ng
6) T n-Hexadecane (C16)	7.06	94882872	92.680 ng
7) T n-Octadecane (C18)	9.22	98139677	94.285 ng
8) T n-Eicosane (C20)	11.31	102392010	100.319 ng
9) T n-Heneicosane (C21)	12.30	102263149	102.096 ng
10) T n-Docosane (C22)	13.26	102983603	104.005 ng
11) T n-Tetracosane (C24)	15.07	99457350	104.657 ng
12) T n-Hexacosane (C26)	16.75	96284832	105.437 ng
13) T n-Octacosane (C28)	18.32	91353260	105.341 ng
14) T n-Triacontane (C30)	19.79	84602338	101.496 ng
15) T n-Dotriacontane (C32)	21.04	76179956	95.720 ng
16) T n-Tetratriacontane (C34)	21.79	72169384	90.632 ng
17) T n-Hexatriacontane (C36)	22.61	69588290	89.693 ng
18) T n-Octatriacontane (C38)	23.65	69830815	91.602 ng
19) T n-Tetracontane (40)	25.02	70564464	93.056 ng
20) H C9-C12	2.36	283835084	288.407 ng
21) H C12-C16	5.40	192842871	181.101 ng
22) H C16-C21	9.95	306275685	290.963 ng
23) H C21-C40	18.95	891729022	973.761 ng

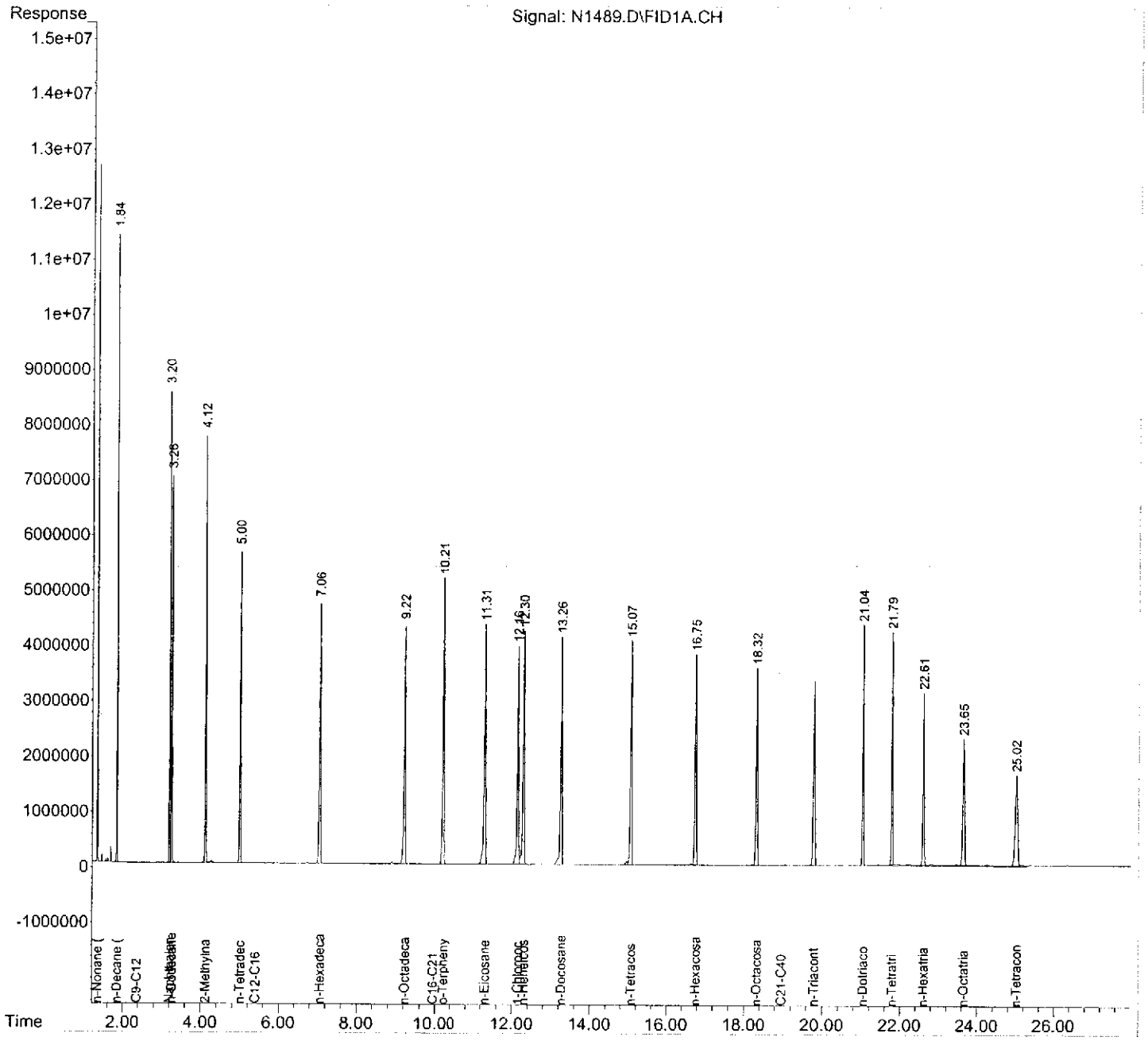
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1489.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:42
Operator : MJ
Sample : ALI_L2_IAS_4196,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1490.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 16:17
Operator : MJ
Sample : ALI_L1_IAS_4197,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:20:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.14	21999807	22.764 ng
Spiked Amount 50.000		Recovery =	45.53%
24) S o-Terphenyl	10.20	27162177	22.062 ng
Spiked Amount 50.000		Recovery =	44.12%
25) S Naphthalene	3.20	24329780	22.119 ng
Spiked Amount 50.000		Recovery =	44.24%
26) S 2-Methylnaphthalene	4.11	24631217	22.515 ng
Spiked Amount 50.000		Recovery =	45.03%
Target Compounds			
2) T n-Nonane (C9)	1.34	21136105	22.771 ng
3) T n-Decane (C10)	1.84	22493269	23.278 ng
4) T n-Dodecane (C12)	3.25	22610510	23.592 ng
5) T n-Tetradecane (C14)	4.99	22407559	22.208 ng
6) T n-Hexadecane (C16)	7.05	22821989	22.292 ng
7) T n-Octadecane (C18)	9.21	23534055	22.610 ng
8) T n-Eicosane (C20)	11.29	24044291	23.558 ng
9) T n-Heneicosane (C21)	12.28	24050973	24.012 ng
10) T n-Docosane (C22)	13.24	23977417	24.215 ng
11) T n-Tetracosane (C24)	15.05	23533303	24.764 ng
12) T n-Hexacosane (C26)	16.74	23513693	25.749 ng
13) T n-Octacosane (C28)	18.31	22896249	26.402 ng
14) T n-Triacontane (C30)	19.78	22126135	26.544 ng
15) T n-Dotriacontane (C32)	21.03	20459954	25.708 ng
16) T n-Tetratriacontane (C34)	21.78	19537878	24.536 ng
17) T n-Hexatriacontane (C36)	22.60	17856889	23.016 ng
18) T n-Octatriacontane (C38)	23.63	16731027	21.947 ng
19) T n-Tetracontane (40)	25.00	16301713	21.498 ng
20) H C9-C12	2.36	83541734	84.887 ng
21) H C12-C16	5.40	51933633	48.771 ng
22) H C16-C21	9.95	73697151	70.013 ng
23) H C21-C40	18.95	252627091	275.867 ng

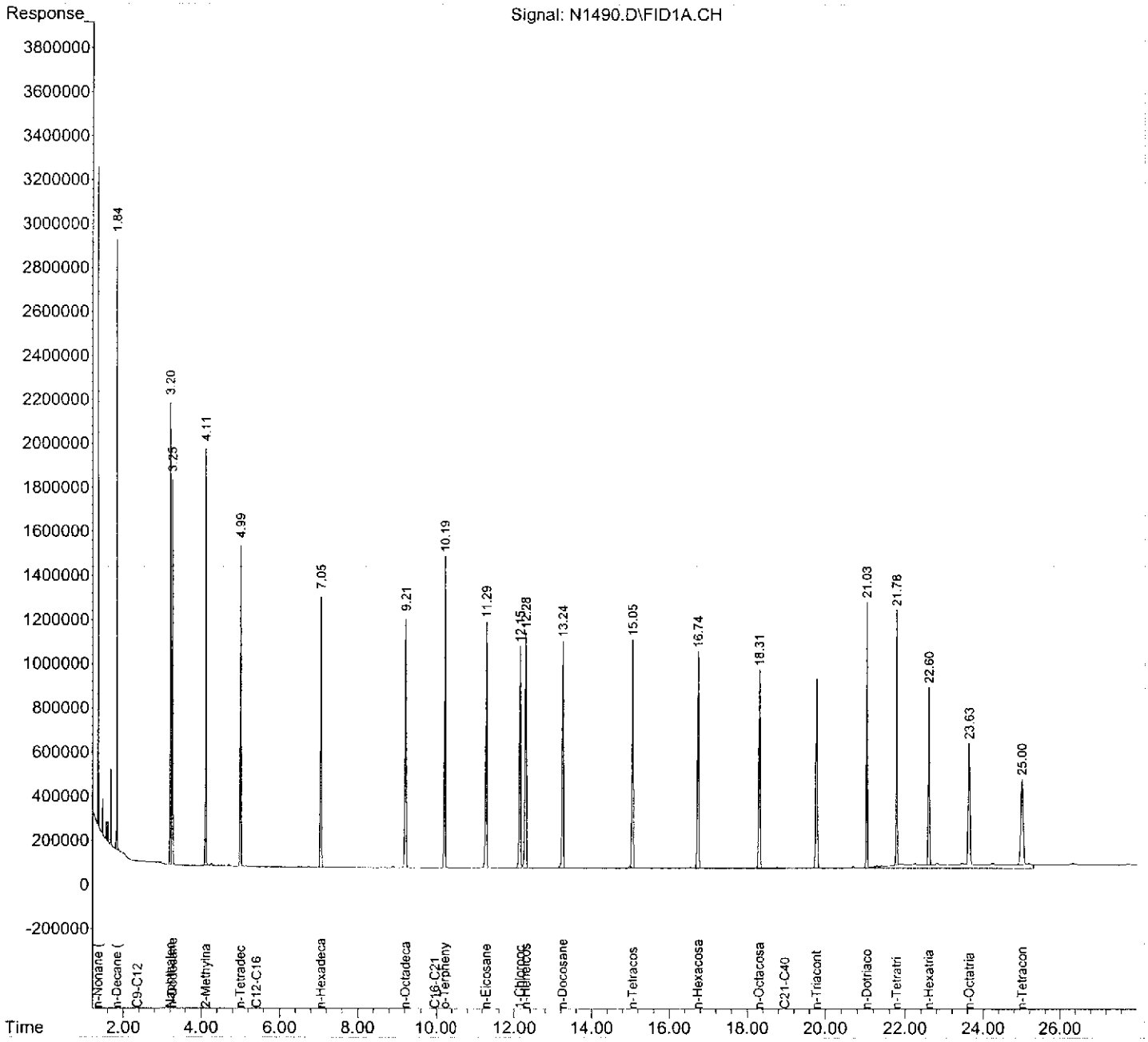
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1490.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 16:17
Operator : MJ
Sample : ALI_L1_IAS_4197,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:20:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: NB1129.D NB1128.D NB1127.D NB1126.D NB1125.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
1,2,3-Trimethylbenzene	2.03	2.03	2.03	2.04	2.04	2.04	1.92	2.16
Napthalene	3.14	3.14	3.14	3.15	3.16	3.14	3.02	3.26
2-Methylnaphthalene	3.98	3.99	3.99	4.00	4.02	4.00	3.88	4.12
Acenaphthylene	5.38	5.39	5.40	5.42	5.44	5.40	5.28	5.52
Acenaphthene	5.73	5.74	5.75	5.77	5.80	5.76	5.64	5.88
Fluorene	6.73	6.74	6.75	6.77	6.80	6.76	6.64	6.88
Phenanthrene	8.80	8.81	8.83	8.86	8.89	8.84	8.72	8.96
Anthracene	8.90	8.92	8.95	8.98	9.03	8.96	8.84	9.08
Fluoroanthene	11.66	11.68	11.70	11.74	11.77	11.71	11.59	11.83
Pyrene	12.16	12.19	12.21	12.25	12.29	12.22	12.10	12.34
Benzo[a]anthracene	15.24	15.27	15.29	15.34	15.38	15.30	15.18	15.42
Chrysene	15.33	15.37	15.41	15.46	15.53	15.42	15.30	15.54
Benzo[b]fluoranthene	17.86	17.93	17.97	18.02	18.10	17.98	17.86	18.10
Benzo[k]fluoranthene	17.86	17.93	17.97	18.02	18.10	17.98	17.86	18.10
Benzo[a]pyrene	18.48	18.52	18.55	18.61	18.68	18.57	18.45	18.69
Indeno[1,2,3-cd]pyrene	20.72	20.84	20.87	20.92	20.99	20.87	20.75	20.99
Dibenz[a,h]anthracene	20.72	20.84	20.87	20.92	20.99	20.87	20.75	20.99
Benzo[g,h,i]perylene	21.05	21.09	21.13	21.18	21.25	21.14	21.02	21.26
C10-C12	2.70	2.70	2.70	2.70	2.70	2.70	2.58	2.82
C12-C16	4.95	4.95	4.95	4.95	4.95	4.95	4.83	5.07
C16-C21	9.60	9.60	9.60	9.60	9.60	9.60	9.48	9.72
C21-C36	17.20	17.20	17.20	17.20	17.20	17.20	17.08	17.32

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: NB1129.D NB1128.D NB1127.D NB1126.D NB1125.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
1,2,3-Trimethylbenzene	580224	705113	597648	572374	557451	602562	9.81
Napthalene	611787	760658	662737	633446	607027	655131	9.61
2-Methylnaphthalene	640827	773063	690177	661863	625313	678249	8.60
Acenaphthylene	662203	797722	711519	691098	636899	699888	8.80
Acenaphthene	700870	818468	727270	707021	649483	720622	8.57
Fluorene	688910	828035	744285	731261	659798	730458	8.77
Phenanthrene	688338	859473	767476	771510	681455	753650	9.66
Anthracene	732289	859253	773610	768509	677053	762143	8.74
Fluoroanthene	766763	932468	814938	818305	704258	807346	10.38
Pyrene	793710	951679	836120	839704	722692	828781	10.05
Benzo[a]anthracene	797379	980452	812346	828112	739839	831625	10.78
Chrysene	852327	990789	811367	808283	712089	834971	12.12
Benzo[b]fluoranthene	1742568	2020232	1595569	1614831	1449764	1684593	12.73
Benzo[k]fluoranthene	1742568	2020666	1595768	1614831	1449764	1684720	12.74
Benzo[a]pyrene	862974	989857	783386	794905	717779	829780	12.44
Indeno[1,2,3-cd]pyrene	1690742	1930812	1514654	1545561	1424426	1621239	12.20
Dibenz[a,h]anthracene	1688559	1933848	1514654	1545561	1424426	1621409	12.26
Benzo[g,h,i]perylene	839672	955710	760725	778940	717520	810513	11.38
C10-C12	1269321	1490949	1270978	1209795	1172426	1282694	9.64
C12-C16	2065469	2416993	2143437	2071842	1921724	2123893	8.59
C16-C21	3789640	4496883	3978432	3965670	3464500	3939025	9.51
C21-C36	8643688	8301317	6483514	6495559	5815001	7147816	17.43

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1125.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 11:47
Operator : MJ
Sample : ARO_L5_IAS_4187,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.62	701398746	977.367 ng	
Spiked Amount 50.000		Recovery	= 1954.73%	
2) S 2-Bromonaphthalene	5.68	488635076	976.801 ng	
Spiked Amount 50.000		Recovery	= 1953.60%	
3) S o-Terphenyl	10.07	848437453	917.042 ng	
Spiked Amount 50.000		Recovery	= 1834.08%	
Target Compounds				
4) T 1,2,3-Trimethylbenzene	2.04	557450854	925.135 ng	
5) T Napthalene	3.16	607027159	926.574 ng	
6) T 2-Methylnaphthalene	4.02	625313278	921.953 ng	
7) T Acenaphthylene	5.44	636899066	910.001 ng	
8) T Acenaphthene	5.80	649483454	900.907 ng	
9) T Fluorene	6.80	659798167	903.267 ng	
10) T Phenanthrene	8.89	681454798	904.206 ng	
11) T Anthracene	9.03	677052615	887.329 ng	m
12) T Fluoroanthene	11.77	704258402	872.313 ng	
13) T Pyrene	12.29	722692269	871.994 ng	
14) T Benzo[a]anthracene	15.38	739838628	890.735 ng	
15) T Chrysene	15.53	712089022	852.425 ng	m
16) T Benzo[b]fluoranthene	18.10	1449764235	860.510 ng	
17) T Benzo[k]fluoranthene	18.10	1449764235	860.511 ng	
18) T Benzo[a]pyrene	18.68	717779399	865.024 ng	
19) T Indeno[1,2,3-cd]pyrene	20.99	1424425631	879.350 ng	
20) T Dibenz[a,h]anthracene	20.99	1424425631	878.495 ng	
21) T Benzo[g,h,i]perylene	21.25	717520360	884.327 ng	
22) H C10-C12	2.70	1172426414	1828.069 ng	
23) H C12-C16	4.95	1921723592	2714.436 ng	
24) H C16-C21	9.60	3464499978	4397.662 ng	
25) H C21-C36	17.20	5815001353	6508.283 ng	

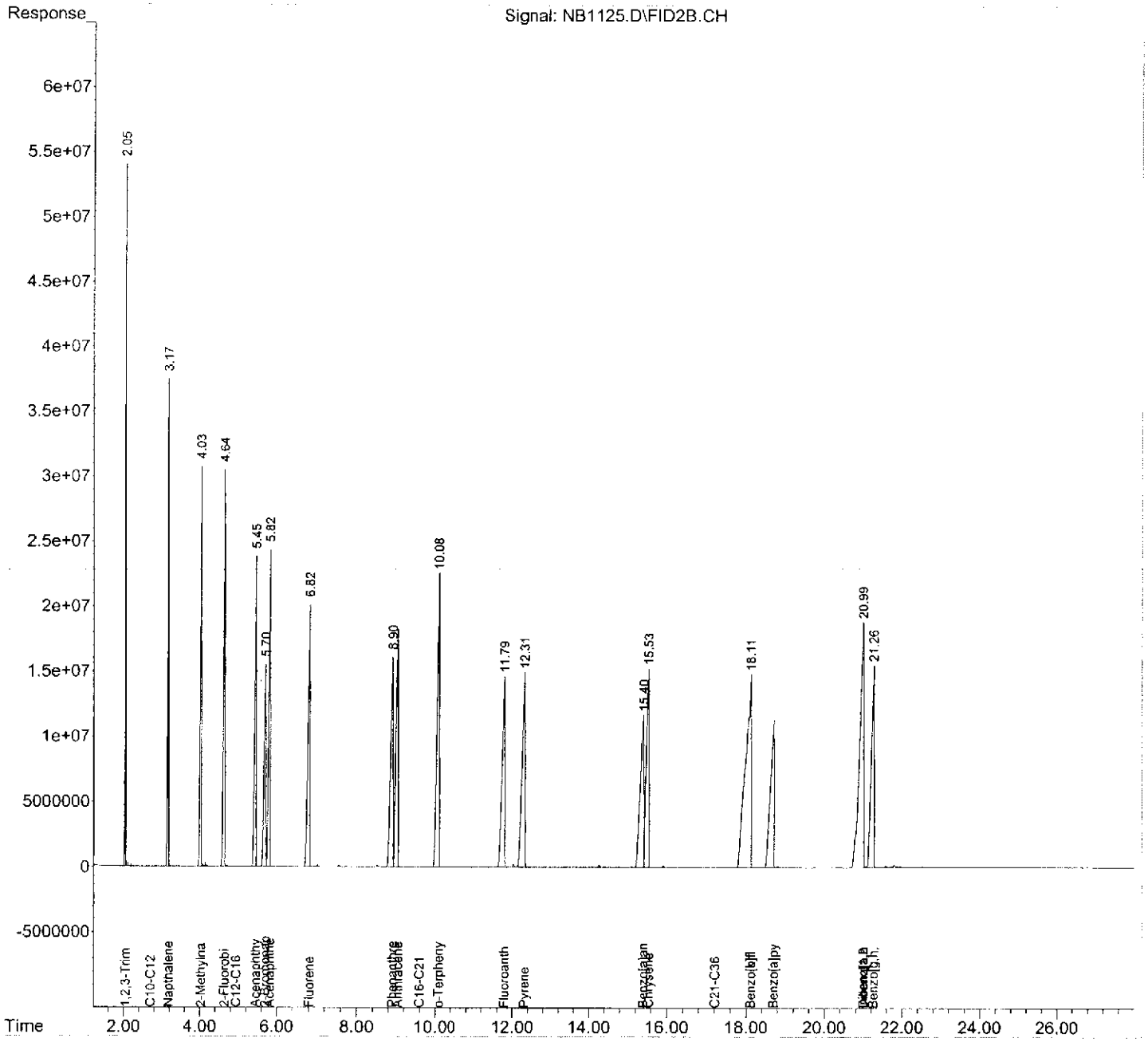
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1125.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 11:47
Operator : MJ
Sample : ARO_L5_IAS_4187,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1126.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:21
Operator : MJ
Sample : ARO_L4_IAS_4188,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	2-Fluorobiphenyl	4.61	373384494	520.294 ng
Spiked Amount	50.000		Recovery	= 1040.59%
2) S	2-Bromonaphthalene	5.66	265893453	531.532 ng
Spiked Amount	50.000		Recovery	= 1063.06%
3) S	o-Terphenyl	10.04	482663145	521.691 ng
Spiked Amount	50.000		Recovery	= 1043.38%
Target Compounds				
4) T	1,2,3-Trimethylbenzene	2.04	286186898	474.950 ng
5) T	Napthalene	3.15	316722774	483.449 ng
6) T	2-Methylnaphthalene	4.00	330931573	487.921 ng
7) T	Acenaphthylene	5.42	345549061	493.720 ng
8) T	Acenaphthene	5.77	353510516	490.359 ng
9) T	Fluorene	6.77	365630258	500.550 ng
10) T	Phenanthrene	8.86	385754870	511.849 ng
11) T	Anthracene	8.98	384254252	503.594 ng
12) T	Fluoroanthene	11.74	409152490	506.787 ng
13) T	Pyrene	12.25	419851818	506.590 ng
14) T	Benzo[a]anthracene	15.34	414056020	498.506 ng
15) T	Chrysene	15.46	404141395	483.788 ng
16) T	Benzo[b]fluoranthene	18.02	807415654	479.243 ng
17) T	Benzo[k]fluoranthene	18.02	807415654	479.243 ng
18) T	Benzo[a]pyrene	18.61	397452636	478.985 ng
19) T	Indeno[1,2,3-cd]pyrene	20.92	772780261	477.066 ng
20) T	Dibenz[a,h]anthracene	20.92	772780261	476.602 ng
21) T	Benzo[g,h,i]perylene	21.18	389470210	480.013 ng
22) H	C10-C12	2.70	604897451	943.167 ng
23) H	C12-C16	4.95	1035920831	1463.239 ng
24) H	C16-C21	9.60	1982834764	2516.911 ng
25) H	C21-C36	17.20	3247779561	3634.990 ng

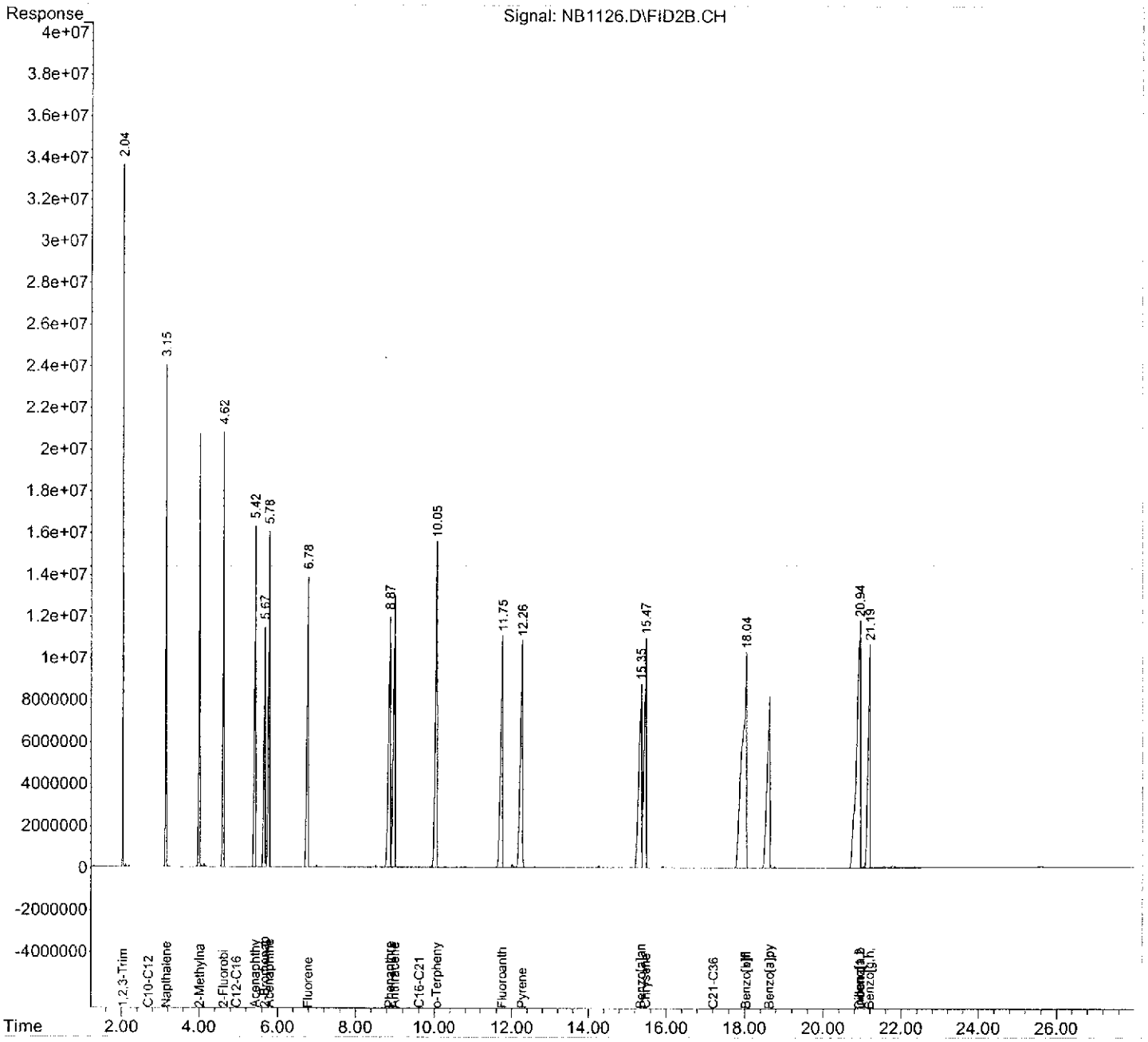
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1126.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:21
Operator : MJ
Sample : ARO_L4_IAS_4188,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1127.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:55
Operator : MJ
Sample : ARO_L3_IAS_4189,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:42:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.60	194830709	271.488	ng	
Spiked Amount	50.000		Recovery	= 542.98%		
2) S	2-Bromonaphthalene	5.64	136763207	273.395	ng	
Spiked Amount	50.000		Recovery	= 546.79%		
3) S	o-Terphenyl	10.01	243366307	263.045	ng	
Spiked Amount	50.000		Recovery	= 526.09%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	149411986	247.961	ng	
5) T	Napthalene	3.14	165684219	252.902	ng	
6) T	2-Methylnaphthalene	3.99	172544241	254.397	ng	
7) T	Acenaphthylene	5.40	177879861	254.155	ng	
8) T	Acenaphthene	5.75	181817513	252.201	ng	
9) T	Fluorene	6.75	186071177	254.732	ng	
10) T	Phenanthrene	8.83	191869066	254.586	ng	
11) T	Anthracene	8.95	193402590	253.469	ng	
12) T	Fluoroanthene	11.70	203734434	252.351	ng	
13) T	Pyrene	12.21	209030082	252.214	ng	
14) T	Benzo[a]anthracene	15.29	203086538	244.508	ng	
15) T	Chrysene	15.41	202841674	242.817	ng	
16) T	Benzo[b]fluoranthene	17.97	398892195	236.763	ng	m
17) T	Benzo[k]fluoranthene	17.97	398941912	236.793	ng	m
18) T	Benzo[a]pyrene	18.55	195846385	236.022	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.87	378663417	233.763	ng	
20) T	Dibenz[a,h]anthracene	20.87	378663417	233.536	ng	
21) T	Benzo[g,h,i]perylene	21.13	190181177	234.394	ng	
22) H	C10-C12	2.70	317744378	495.433	ng	
23) H	C12-C16	4.95	535859326	756.902	ng	
24) H	C16-C21	9.60	994607917	1262.505	ng	
25) H	C21-C36	17.20	1620878598	1814.125	ng	

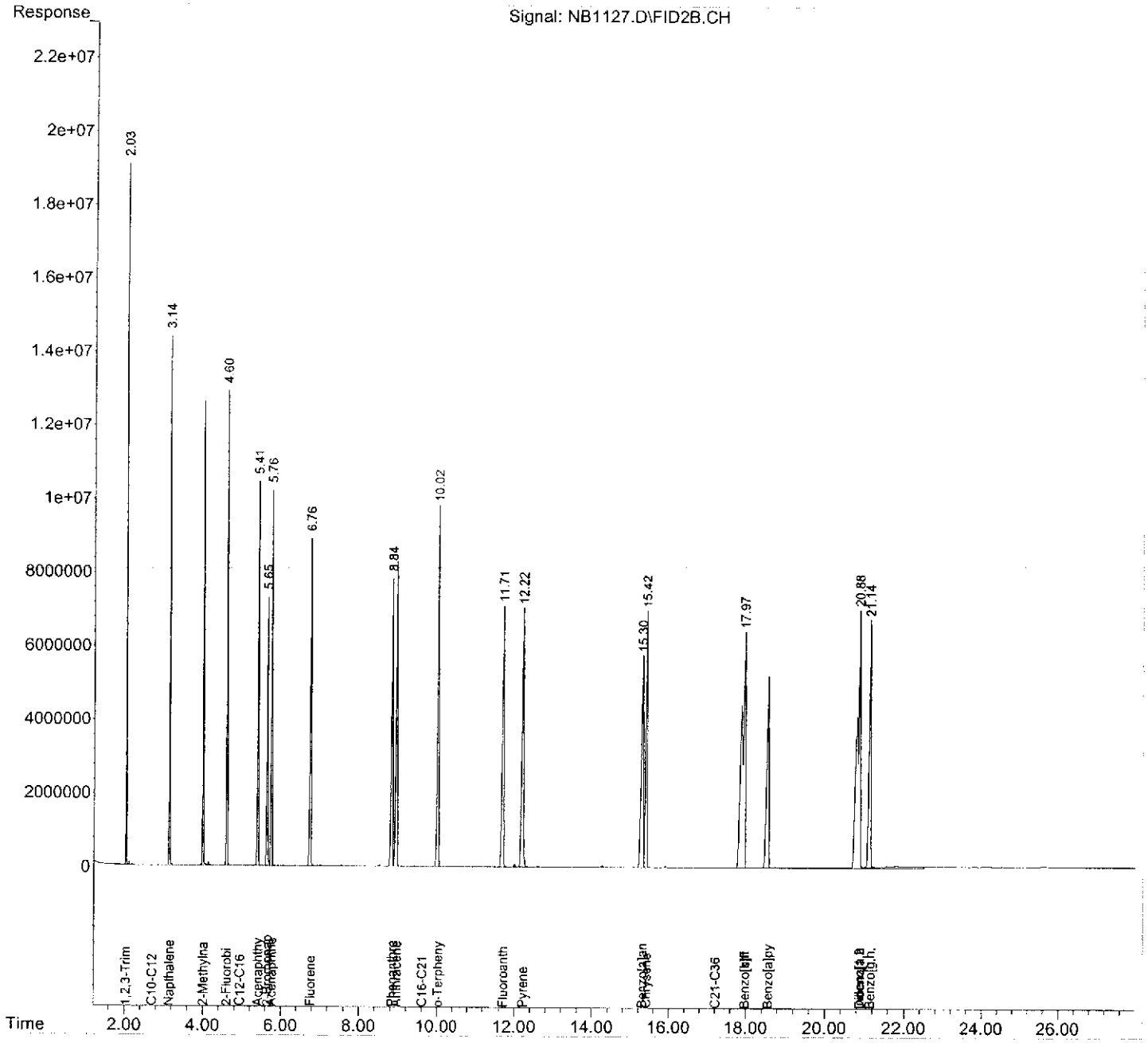
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1127.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:55
Operator : MJ
Sample : ARO_L3_IAS_4189,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:42:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1128.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 13:29
Operator : MJ
Sample : ARO_L2_IAS_4190,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.59	64132072	89.365 ng	
Spiked Amount	50.000		Recovery	= 178.73%	
2) S	2-Bromonaphthalene	5.62	44573835	89.105 ng	
Spiked Amount	50.000		Recovery	= 178.21%	
3) S	o-Terphenyl	9.99	92621995	100.111 ng	
Spiked Amount	50.000		Recovery	= 200.22%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	70511283	117.019 ng	
5) T	Napthalene	3.14	76065845	116.108 ng	
6) T	2-Methylnaphthalene	3.99	77306294	113.979 ng	
7) T	Acenaphthylene	5.39	79772197	113.978 ng	
8) T	Acenaphthene	5.74	81846752	113.531 ng	
9) T	Fluorene	6.74	82803478	113.358 ng	
10) T	Phenanthrene	8.81	85947257	114.041 ng	
11) T	Anthracene	8.92	85925335	112.612 ng	
12) T	Fluoroanthene	11.68	93246803	115.498 ng	
13) T	Pyrene	12.19	95167853	114.829 ng	
14) T	Benzo[a]anthracene	15.27	98045169	118.042 ng	
15) T	Chrysene	15.37	99078853	118.605 ng	
16) T	Benzo[b]fluoranthene	17.93	202023215	119.911 ng	m
17) T	Benzo[k]fluoranthene	17.93	202066642	119.937 ng	m
18) T	Benzo[a]pyrene	18.52	98985712	119.291 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.84	193081204	119.196 ng	m
20) T	Dibenz[a,h]anthracene	20.84	193384839	119.268 ng	m
21) T	Benzo[g,h,i]perylene	21.09	95571046	117.789 ng	
22) H	C10-C12	2.70	149094880	232.472 ng	
23) H	C12-C16	4.95	241699343	341.400 ng	
24) H	C16-C21	9.60	449688328	570.812 ng	
25) H	C21-C36	17.20	830131702	929.102 ng	

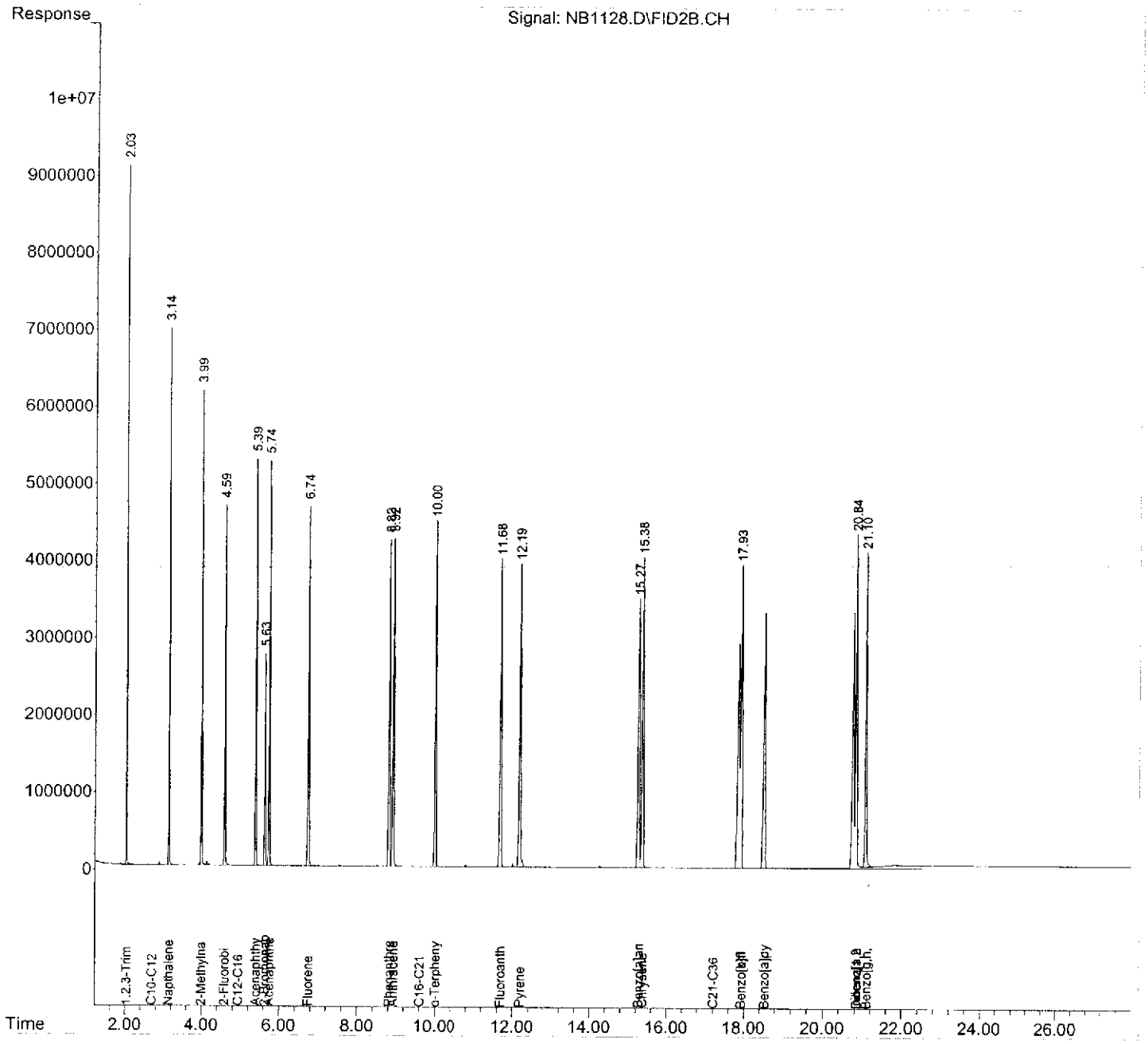
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1128.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 13:29
Operator : MJ
Sample : ARO_L2_IAS_4190,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1129.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 14:02
Operator : MJ
Sample : ARO_L1_IAS_4191,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:44:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.58	14387894	20.049 ng	
Spiked Amount 50.000		Recovery =	40.10%	
2) S 2-Bromonaphthalene	5.62	9759727	19.510 ng	
Spiked Amount 50.000		Recovery =	39.02%	
3) S o-Terphenyl	9.98	18249947	19.726 ng	
Spiked Amount 50.000		Recovery =	39.45%	
Target Compounds				
4) T 1,2,3-Trimethylbenzene	2.03	11604486	19.259 ng	
5) T Napthalene	3.14	12235744	18.677 ng	
6) T 2-Methylnaphthalene	3.98	12816538	18.897 ng	
7) T Acenaphthylene	5.38	13244051	18.923 ng	
8) T Acenaphthene	5.73	14017409	19.444 ng	
9) T Fluorene	6.73	13778210	18.862 ng	
10) T Phenanthrene	8.80	13766761	18.267 ng	
11) T Anthracene	8.90	14645781	19.194 ng	
12) T Fluoroanthene	11.66	15335262	18.995 ng	
13) T Pyrene	12.16	15874192	19.154 ng	
14) T Benzo[a]anthracene	15.24	15947577	19.200 ng	m
15) T Chrysene	15.33	17046540	20.406 ng	
16) T Benzo[b]fluoranthene	17.86	34851367	20.686 ng	
17) T Benzo[k]fluoranthene	17.86	34851367	20.686 ng	
18) T Benzo[a]pyrene	18.48	17259475	20.800 ng	
19) T Indeno[1,2,3-cd]pyrene	20.72	33814840	20.875 ng	m
20) T Dibenz[a,h]anthracene	20.72	33771184	20.828 ng	m
21) T Benzo[g,h,i]perylene	21.05	16793431	20.698 ng	
22) H C10-C12	2.70	25386428	39.583 ng	
23) H C12-C16	4.95	41309388	58.350 ng	
24) H C16-C21	9.60	75792800	96.208 ng	
25) H C21-C36	17.20	172873759	193.484 ng	

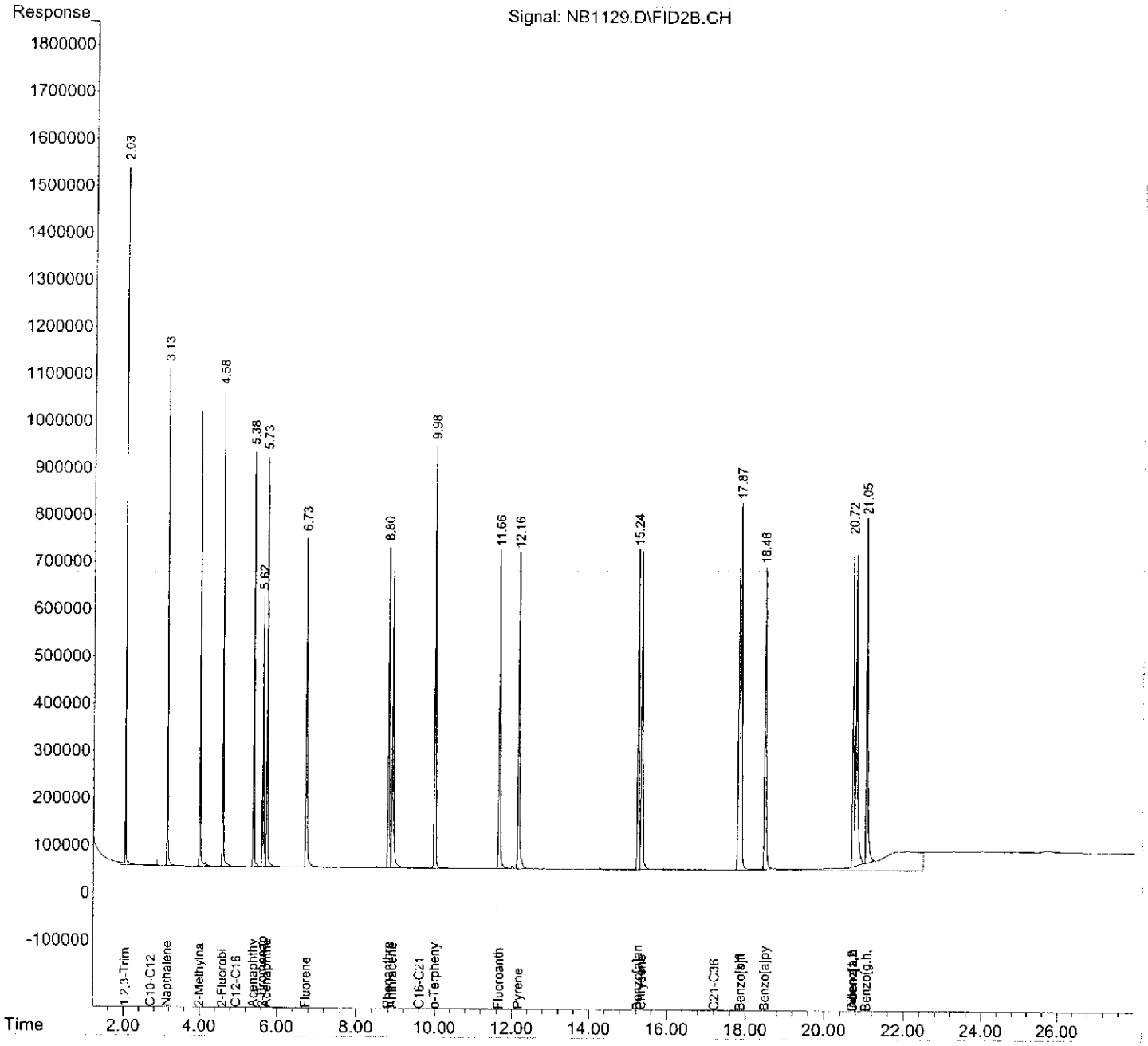
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1129.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 14:02
Operator : MJ
Sample : ARO_L1_IAS_4191,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:44:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2012 **Instrument ID:** GC-N

Data File: N1620.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.34	1.28	1.42	928218	980017	5.58
n-Decane (C10)	1.85	1.78	1.92	966280	1043607	8.00
n-Dodecane (C12)	3.27	3.20	3.34	966897	1075392	11.22
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	1110283	10.04
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	1112899	8.71
n-Octadecane (C18)	9.25	9.17	9.33	1040886	1101037	5.78
n-Eicosane (C20)	11.34	11.25	11.41	1020661	1059382	3.79
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	981269	2.03
n-Docosane (C22)	13.29	13.20	13.38	990182	950010	4.06
n-Tetracosane (C24)	15.09	15.01	15.19	950314	908359	4.41
n-Hexacosane (C26)	16.78	16.69	16.87	913199	884088	3.19
n_Octacosane (C28)	18.35	18.26	18.44	867213	872771	0.64
n-Triacontane (C30)	19.82	19.72	19.92	833552	871526	4.56
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	863180	8.46
n-Tetratriacontane (C34)	21.81	21.71	21.91	796293	890269	11.80
n-Hexatriacontane (C36)	22.65	22.49	22.79	775851	884773	14.04
n-Octatriacontane (C38)	23.69	23.54	23.84	762326	843834	10.69
n-Tetracontane (40)	25.07	24.93	25.23	758303	748482	1.30
C9-C12	2.36	2.26	2.46	3060279	3136956	2.51
C12-C16	5.40	5.30	5.50	2129672	2264050	6.31
C16-C21	9.95	9.84	10.06	3157878	3164455	0.21
C21-C40	18.95	18.84	19.06	9157580	9011981	1.59

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2012 **Instrument ID:** GC-N

Data File: N1641.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.34	1.28	1.42	928218	992429	6.92
n-Decane (C10)	1.85	1.78	1.92	966280	1049130	8.57
n-Dodecane (C12)	3.27	3.20	3.34	966897	1072717	10.94
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	1110215	10.03
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	1118668	9.27
n-Octadecane (C18)	9.25	9.17	9.33	1040886	1112036	6.84
n-Eicosane (C20)	11.33	11.25	11.41	1020661	1075926	5.41
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	996298	0.53
n-Docosane (C22)	13.29	13.20	13.38	990182	968143	2.23
n-Tetracosane (C24)	15.09	15.01	15.19	950314	946659	0.38
n-Hexacosane (C26)	16.78	16.69	16.87	913199	937397	2.65
n_Octacosane (C28)	18.35	18.26	18.44	867213	932651	7.55
n-Triacontane (C30)	19.82	19.72	19.92	833552	932371	11.86
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	922397	15.90
n-Tetratriacontane (C34)	21.80	21.71	21.91	796293	949919	19.29
n-Hexatriacontane (C36)	22.63	22.49	22.79	775851	935786	20.61
n-Octatriacontane (C38)	23.67	23.54	23.84	762326	871721	14.35
n-Tetracontane (40)	25.05	24.93	25.23	758303	734480	3.14
C9-C12	2.36	2.26	2.46	3060279	3141287	2.65
C12-C16	5.40	5.30	5.50	2129672	2268047	6.50
C16-C21	9.95	9.84	10.06	3157878	3207507	1.57
C21-C40	18.95	18.84	19.06	9157580	9465103	3.36

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1620.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 11:35
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 06 12:04:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	249406152	258.067 ng
Spiked Amount 50.000		Recovery	= 516.13%
24) S o-Terphenyl	10.25	346104898	281.117 ng
Spiked Amount 50.000		Recovery	= 562.23%
25) S Naphthalene	3.22	294452596	267.696 ng
Spiked Amount 50.000		Recovery	= 535.39%
26) S 2-Methylnaphthalene	4.14	300626955	274.804 ng
Spiked Amount 50.000		Recovery	= 549.61%
Target Compounds			
2) T n-Nonane (C9)	1.34	245004323	263.951 ng
3) T n-Decane (C10)	1.85	260901875	270.006 ng
4) T n-Dodecane (C12)	3.27	268847901	278.052 ng
5) T n-Tetradecane (C14)	5.02	277570768	275.104 ng
6) T n-Hexadecane (C16)	7.09	278224688	271.766 ng
7) T n-Octadecane (C18)	9.25	275259144	264.447 ng
8) T n-Eicosane (C20)	11.34	264845460	259.484 ng
9) T n-Heneicosane (C21)	12.33	245317217	244.916 ng
10) T n-Docosane (C22)	13.29	237502506	239.858 ng
11) T n-Tetracosane (C24)	15.09	227089665	238.963 ng
12) T n-Hexacosane (C26)	16.78	221022056	242.031 ng
13) T n-Octacosane (C28)	18.35	218192858	251.602 ng
14) T n-Triacontane (C30)	19.82	217881494	261.389 ng
15) T n-Dotriacontane (C32)	21.06	215795049	271.145 ng
16) T n-Tetratriacontane (C34)	21.81	222567287	279.504 ng
17) T n-Hexatriacontane (C36)	22.65	221193236	285.098 ng
18) T n-Octatriacontane (C38)	23.69	210958417	276.730 ng
19) T n-Tetracontane (40)	25.07	187120553	246.762 ng
20) H C9-C12	2.36	784238907	768.792 ng
21) H C12-C16	5.40	566012575	531.549 ng
22) H C16-C21	9.95	791113806	751.562 ng
23) H C21-C40	18.95	2252995271	2460.252 ng

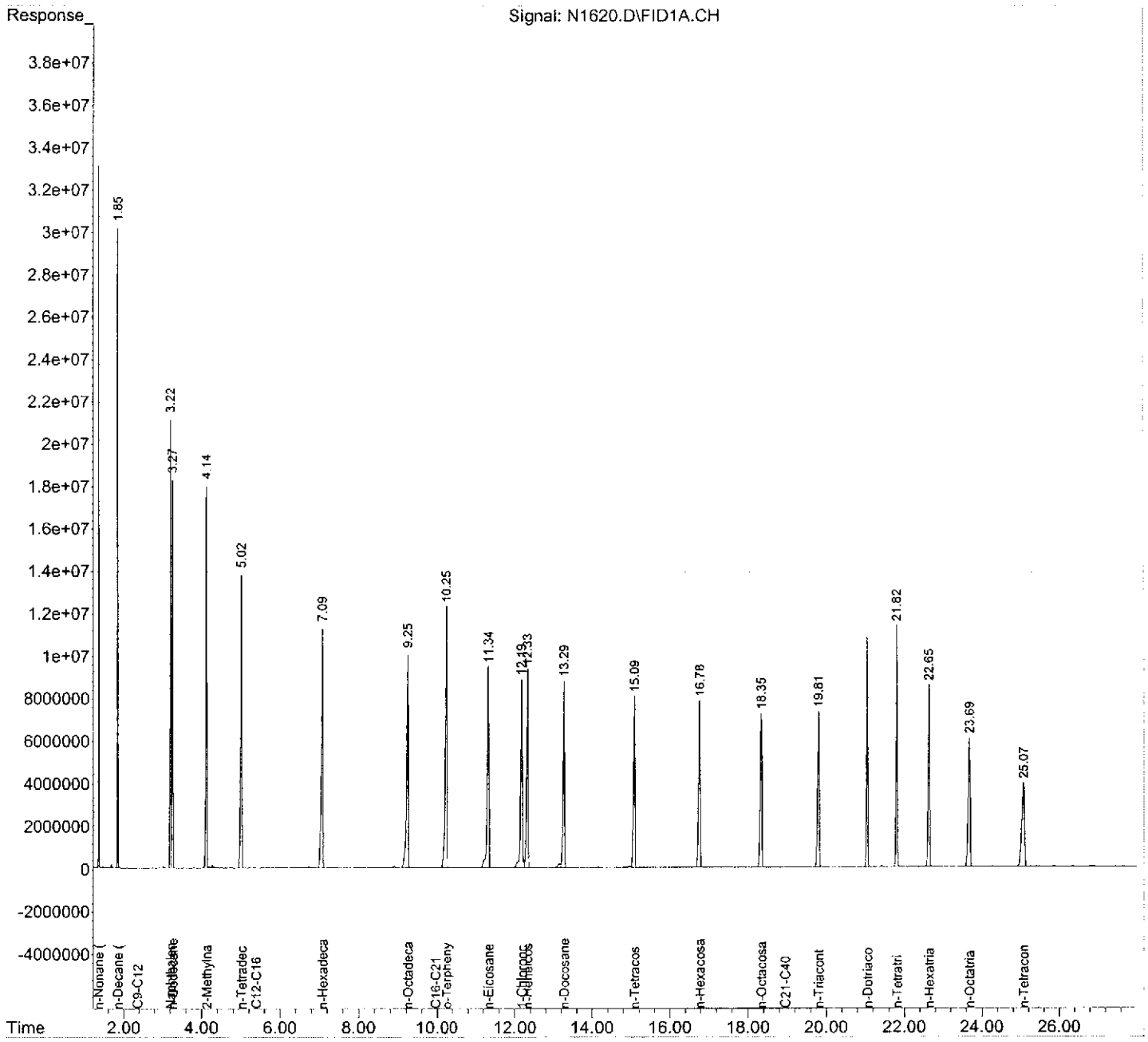
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1620.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 11:35
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 06 12:04:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1641.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 23:41
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 07 00:09:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.19	255492554	264.364 ng
Spiked Amount	50.000		Recovery	= 528.73%
24) S	o-Terphenyl	10.24	350810732	284.940 ng
Spiked Amount	50.000		Recovery	= 569.88%
25) S	Naphthalene	3.22	294280435	267.539 ng
Spiked Amount	50.000		Recovery	= 535.08%
26) S	2-Methylnaphthalene	4.14	300189318	274.404 ng
Spiked Amount	50.000		Recovery	= 548.81%
Target Compounds				
2) T	n-Nonane (C9)	1.34	248107181	267.294 ng
3) T	n-Decane (C10)	1.85	262282614	271.435 ng
4) T	n-Dodecane (C12)	3.27	268179156	277.361 ng
5) T	n-Tetradecane (C14)	5.02	277553814	275.087 ng
6) T	n-Hexadecane (C16)	7.09	279667004	273.174 ng
7) T	n-Octadecane (C18)	9.25	278009016	267.089 ng
8) T	n-Eicosane (C20)	11.33	268981509	263.537 ng
9) T	n-Heneicosane (C21)	12.33	249074453	248.667 ng
10) T	n-Docosane (C22)	13.29	242035678	244.436 ng
11) T	n-Tetracosane (C24)	15.09	236664654	249.038 ng
12) T	n-Hexacosane (C26)	16.78	234349301	256.625 ng
13) T	n-Octacosane (C28)	18.35	233162867	268.865 ng
14) T	n-Triacontane (C30)	19.82	233092759	279.638 ng
15) T	n-Dotriacontane (C32)	21.06	230599296	289.746 ng
16) T	n-Tetratriacontane (C34)	21.80	237479845	298.232 ng
17) T	n-Hexatriacontane (C36)	22.63	233946417	301.535 ng
18) T	n-Octatriacontane (C38)	23.67	217930172	285.875 ng
19) T	n-Tetracontane (40)	25.05	183620075	242.146 ng
20) H	C9-C12	2.36	785321802	769.853 ng
21) H	C12-C16	5.40	567011654	532.487 ng
22) H	C16-C21	9.95	801876831	761.787 ng
23) H	C21-C40	18.95	2366275671	2583.953 ng

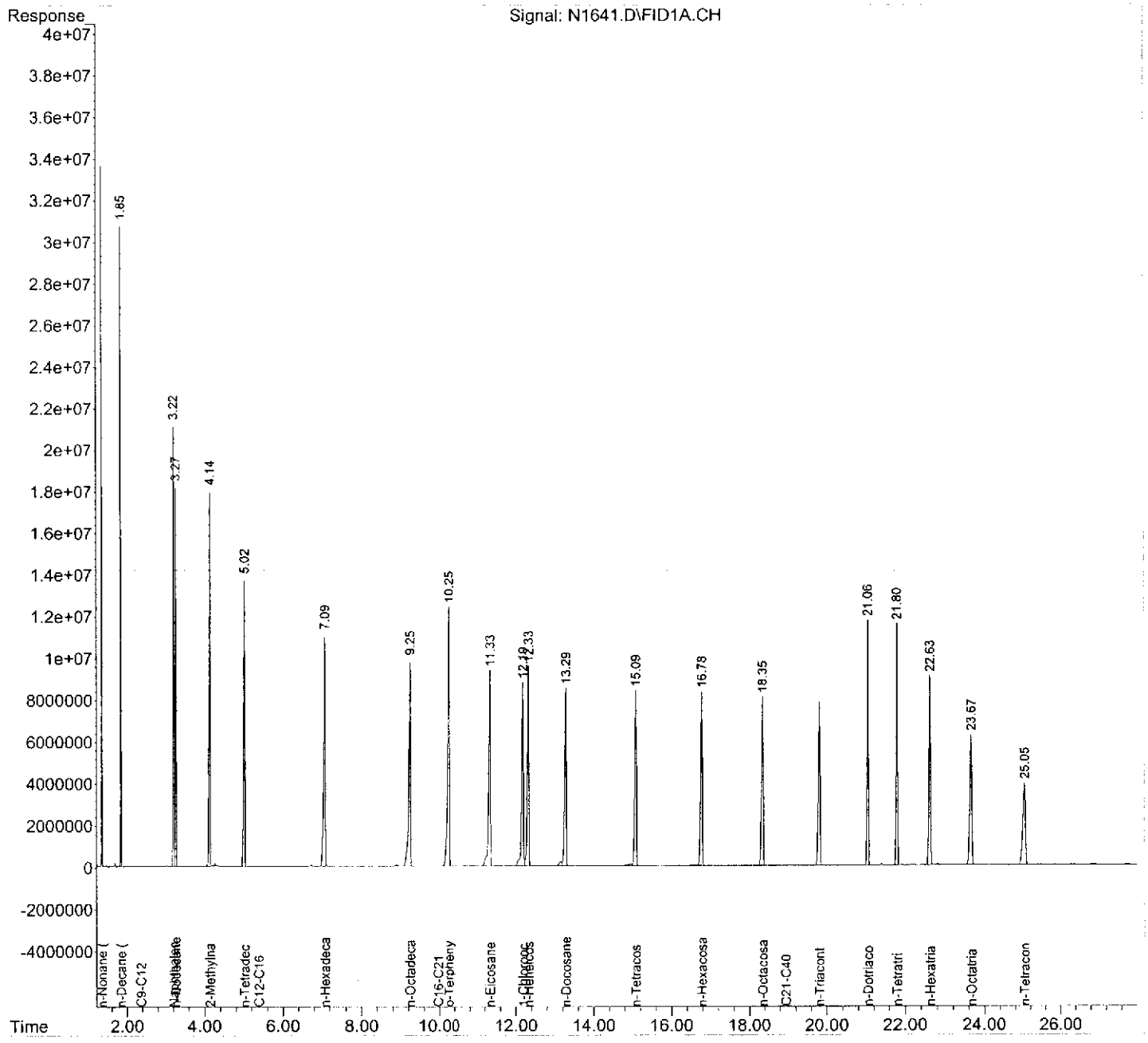
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1641.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 23:41
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 07 00:09:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2012 **Instrument ID:** GC-N

Data File: NB1253.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	639907	6.20
Napthalene	3.14	3.02	3.26	655131	771539	17.77
2-Methylnaphthalene	3.99	3.88	4.12	678249	833666	22.91
Acenaphthylene	5.40	5.28	5.52	699888	898558	28.39
Acenaphthene	5.75	5.64	5.88	720622	924413	28.28
Fluorene	6.76	6.64	6.88	730458	946525	29.58
Phenanthrene	8.84	8.72	8.96	753650	976137	29.52
Anthracene	8.95	8.84	9.08	762143	981554	28.79
Fluoroanthene	11.70	11.59	11.83	807346	964320	19.44
Pyrene	12.21	12.10	12.34	828781	963918	16.31
Benzo[a]anthracene	15.29	15.18	15.42	831625	859937	3.40
Chrysene	15.40	15.30	15.54	834971	858571	2.83
Benzo[b]fluoranthene	17.96	17.86	18.10	1684593	1699857	0.91
Benzo[k]fluoranthene	17.96	17.86	18.10	1684720	1699857	0.90
Benzo[a]pyrene	18.55	18.45	18.69	829780	839327	1.15
Indeno[1,2,3-cd]pyrene	20.87	20.75	20.99	1621239	1615555	0.35
Dibenz[a,h]anthracene	20.87	20.75	20.99	1621409	1615555	0.36
Benzo[g,h,i]perylene	21.13	21.02	21.26	810513	795977	1.79
C10-C12	2.70	2.58	2.82	1282694	1417045	10.47
C12-C16	4.95	4.83	5.07	2123893	2628469	23.76
C16-C21	9.60	9.48	9.72	3939025	4915757	24.80
C21-C36	17.20	17.08	17.32	7147816	6884734	3.68

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2012 **Instrument ID:** GC-N

Data File: NB1274.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	531502	11.79
Napthalene	3.14	3.02	3.26	655131	643569	1.76
2-Methylnaphthalene	3.99	3.88	4.12	678249	694798	2.44
Acenaphthylene	5.39	5.28	5.52	699888	745874	6.57
Acenaphthene	5.75	5.64	5.88	720622	767146	6.46
Fluorene	6.75	6.64	6.88	730458	791780	8.40
Phenanthrene	8.83	8.72	8.96	753650	797233	5.78
Anthracene	8.94	8.84	9.08	762143	790832	3.76
Fluoroanthene	11.69	11.59	11.83	807346	765574	5.17
Pyrene	12.20	12.10	12.34	828781	764928	7.70
Benzo[a]anthracene	15.28	15.18	15.42	831625	695343	16.39
Chrysene	15.39	15.30	15.54	834971	691339	17.20
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1393392	17.29
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1394046	17.25
Benzo[a]pyrene	18.54	18.45	18.69	829780	686680	17.25
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1316174	18.82
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1318806	18.66
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	637951	21.29
C10-C12	2.70	2.58	2.82	1282694	1182293	7.83
C12-C16	4.95	4.83	5.07	2123893	2222740	4.65
C16-C21	9.60	9.48	9.72	3939025	3972934	0.86
C21-C36	17.20	17.08	17.32	7147816	5737704	19.73

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 **Instrument ID:** GC-N

Data File: NB1304.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	618993	2.73
Napthalene	3.13	3.02	3.26	655131	733529	11.97
2-Methylnaphthalene	3.99	3.88	4.12	678249	780786	15.12
Acenaphthylene	5.39	5.28	5.52	699888	823393	17.65
Acenaphthene	5.75	5.64	5.88	720622	841554	16.78
Fluorene	6.75	6.64	6.88	730458	859625	17.68
Phenanthrene	8.83	8.72	8.96	753650	855317	13.49
Anthracene	8.95	8.84	9.08	762143	857994	12.58
Fluoroanthene	11.70	11.59	11.83	807346	824289	2.10
Pyrene	12.21	12.10	12.34	828781	825759	0.36
Benzo[a]anthracene	15.29	15.18	15.42	831625	768058	7.64
Chrysene	15.40	15.30	15.54	834971	762915	8.63
Benzo[b]fluoranthene	17.96	17.86	18.10	1684593	720117	57.25
Benzo[k]fluoranthene	17.96	17.86	18.10	1684720	720117	57.26
Benzo[a]pyrene	18.56	18.45	18.69	829780	745461	10.16
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1231428	24.04
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1231428	24.05
Benzo[g,h,i]perylene	21.12	21.02	21.26	810513	574082	29.17
C10-C12	2.70	2.58	2.82	1282694	1357189	5.81
C12-C16	4.95	4.83	5.07	2123893	2462432	15.94
C16-C21	9.60	9.48	9.72	3939025	4270724	8.42
C21-C36	17.20	17.08	17.32	7147816	6056989	15.26

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 Instrument ID: GC-N

Data File: NB1313.D GC Column : DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	684077	13.53
Napthalene	3.14	3.02	3.26	655131	798425	21.87
2-Methylnaphthalene	3.99	3.88	4.12	678249	842975	24.29
Acenaphthylene	5.40	5.28	5.52	699888	875136	25.04
Acenaphthene	5.75	5.64	5.88	720622	893069	23.93
Fluorene	6.75	6.64	6.88	730458	902290	23.52
Phenanthrene	8.83	8.72	8.96	753650	873832	15.95
Anthracene	8.94	8.84	9.08	762143	875247	14.84
Fluoroanthene	11.70	11.59	11.83	807346	829126	2.70
Pyrene	12.20	12.10	12.34	828781	832044	0.39
Benzo[a]anthracene	15.28	15.18	15.42	831625	781805	5.99
Chrysene	15.39	15.30	15.54	834971	780727	6.50
Benzo[b]fluoranthene	17.96	17.86	18.10	1684593	1567647	6.94
Benzo[k]fluoranthene	17.96	17.86	18.10	1684720	1568867	6.88
Benzo[a]pyrene	18.55	18.45	18.69	829780	763485	7.99
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1269197	21.71
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1269197	21.72
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	585276	27.79
C10-C12	2.70	2.58	2.82	1282694	1486871	15.92
C12-C16	4.95	4.83	5.07	2123893	2629167	23.79
C16-C21	9.60	9.48	9.72	3939025	4365509	10.83
C21-C36	17.20	17.08	17.32	7147816	6070755	15.07

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1253.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 11:35
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:35:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.59	223263522	311.107 ng	
Spiked Amount	50.000		Recovery	= 622.21%	
2) S	2-Bromonaphthalene	5.64	163804552	327.452 ng	
Spiked Amount	50.000		Recovery	= 654.90%	
3) S	o-Terphenyl	10.01	311890698	337.110 ng	
Spiked Amount	50.000		Recovery	= 674.22%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	159976831	265.494 ng	
5) T	Napthalene	3.14	192884680	294.422 ng	
6) T	2-Methylnaphthalene	3.99	208416456	307.286 ng	
7) T	Acenaphthylene	5.40	224639397	320.965 ng	
8) T	Acenaphthene	5.75	231103318	320.566 ng	
9) T	Fluorene	6.76	236631228	323.949 ng	m
10) T	Phenanthrene	8.84	244034359	323.803 ng	m
11) T	Anthracene	8.95	245388471	321.600 ng	
12) T	Fluoroanthene	11.70	241080048	298.608 ng	
13) T	Pyrene	12.21	240979561	290.764 ng	
14) T	Benzo[a]anthracene	15.29	214984210	258.832 ng	
15) T	Chrysene	15.40	214642716	256.944 ng	
16) T	Benzo[b]fluoranthene	17.96	424964236	252.238 ng	
17) T	Benzo[k]fluoranthene	17.96	424964236	252.238 ng	
18) T	Benzo[a]pyrene	18.55	209831802	252.876 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.87	403888835	249.335 ng	
20) T	Dibenz[a,h]anthracene	20.87	403888835	249.093 ng	
21) T	Benzo[g,h,i]perylene	21.13	198994257	245.256 ng	
22) H	C10-C12	2.70	354261168	552.371 ng	
23) H	C12-C16	4.95	657117346	928.179 ng	
24) H	C16-C21	9.60	1228939149	1559.954 ng	
25) H	C21-C36	17.20	1721183406	1926.388 ng	

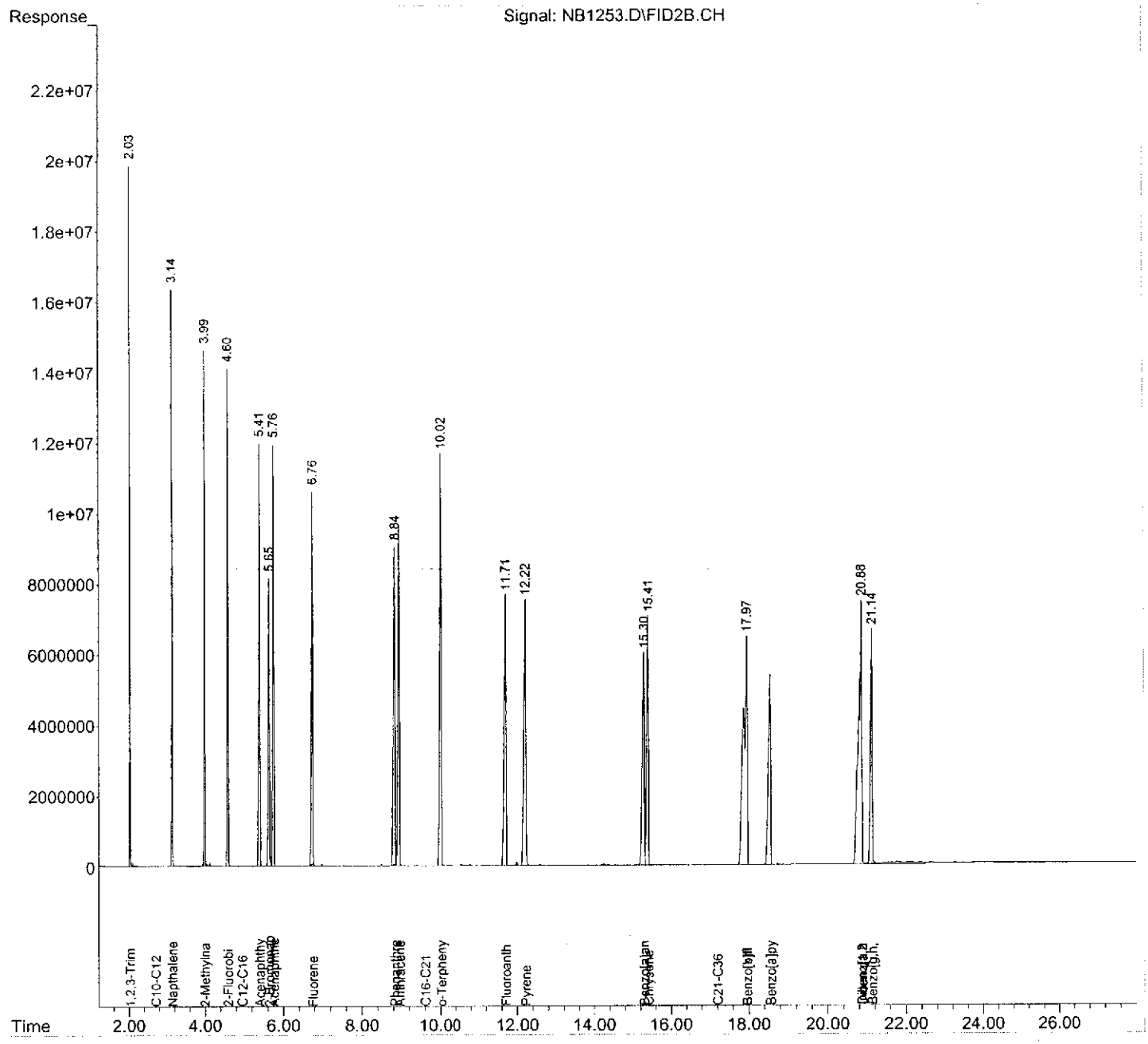
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1253.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 11:35
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:35:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1274.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 23:41
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 73 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:31:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.59	185933459	259.090	ng	
Spiked Amount	50.000		Recovery	= 518.18%		
2) S	2-Bromonaphthalene	5.63	135669543	271.209	ng	
Spiked Amount	50.000		Recovery	= 542.42%		
3) S	o-Terphenyl	10.01	254372728	274.941	ng	
Spiked Amount	50.000		Recovery	= 549.88%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	132875516	220.518	ng	
5) T	Napthalene	3.14	160892284	245.588	ng	
6) T	2-Methylnaphthalene	3.99	173699467	256.100	ng	
7) T	Acenaphthylene	5.39	186468390	266.426	ng	
8) T	Acenaphthene	5.75	191786509	266.029	ng	
9) T	Fluorene	6.75	197945054	270.988	ng	
10) T	Phenanthrene	8.83	199308159	264.457	ng	
11) T	Anthracene	8.94	197708020	259.111	ng	
12) T	Fluoroanthene	11.69	191393588	237.065	ng	
13) T	Pyrene	12.20	191232110	230.739	ng	
14) T	Benzo[a]anthracene	15.28	173835690	209.291	ng	
15) T	Chrysene	15.39	172834797	206.896	ng	
16) T	Benzo[b]fluoranthene	17.95	348347944	206.763	ng	m
17) T	Benzo[k]fluoranthene	17.95	348511561	206.860	ng	m
18) T	Benzo[a]pyrene	18.54	171670043	206.886	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	329043543	203.131	ng	m
20) T	Dibenz[a,h]anthracene	20.86	329701541	203.339	ng	m
21) T	Benzo[g,h,i]perylene	21.11	159487780	196.565	ng	
22) H	C10-C12	2.70	295573141	460.863	ng	
23) H	C12-C16	4.95	555685050	784.905	ng	
24) H	C16-C21	9.60	993233581	1260.761	ng	
25) H	C21-C36	17.20	1434426057	1605.443	ng	

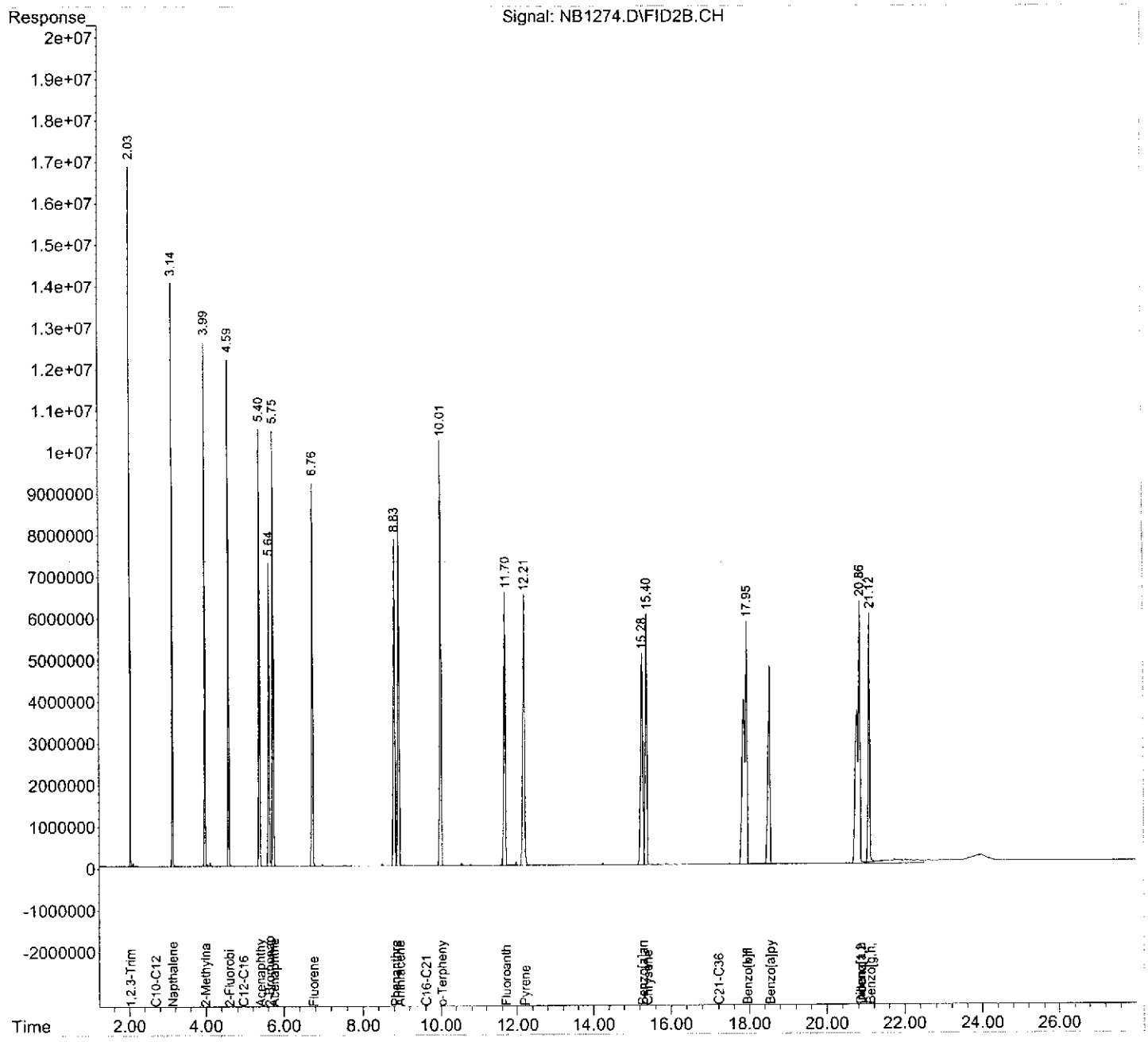
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1274.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 23:41
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 73 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:31:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Mon Jul 09 07:41:44 2012 RPT1

E12-06385_0738

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1313.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 15:20
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:49:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.59	237132199	330.433 ng	
Spiked Amount	50.000		Recovery	= 660.87%	
2) S	2-Bromonaphthalene	5.64	167355371	334.550 ng	
Spiked Amount	50.000		Recovery	= 669.10%	
3) S	o-Terphenyl	10.01	279908044	302.541 ng	
Spiked Amount	50.000		Recovery	= 605.08%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	171019265	283.820 ng	
5) T	Napthalene	3.14	199606325	304.682 ng	
6) T	2-Methylnaphthalene	3.99	210743641	310.717 ng	
7) T	Acenaphthylene	5.40	218784023	312.599 ng	
8) T	Acenaphthene	5.75	223267275	309.697 ng	
9) T	Fluorene	6.75	225572487	308.810 ng	
10) T	Phenanthrene	8.83	218457909	289.866 ng	
11) T	Anthracene	8.94	218811780	286.769 ng	
12) T	Fluoroanthene	11.70	207281595	256.744 ng	
13) T	Pyrene	12.20	208010923	250.984 ng	
14) T	Benzo[a]anthracene	15.28	195451340	235.315 ng	
15) T	Chrysene	15.39	195181635	233.647 ng	
16) T	Benzo[b]fluoranthene	17.96	391911800	232.620 ng	m
17) T	Benzo[k]fluoranthene	17.96	392216721	232.801 ng	m
18) T	Benzo[a]pyrene	18.55	190871341	230.026 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	317299285	195.880 ng	
20) T	Dibenz[a,h]anthracene	20.86	317299285	195.690 ng	
21) T	Benzo[g,h,i]perylene	21.11	146318892	180.335 ng	
22) H	C10-C12	2.70	371717830	579.589 ng	
23) H	C12-C16	4.95	657291718	928.425 ng	
24) H	C16-C21	9.60	1091377285	1385.339 ng	
25) H	C21-C36	17.20	1517688735	1698.632 ng	

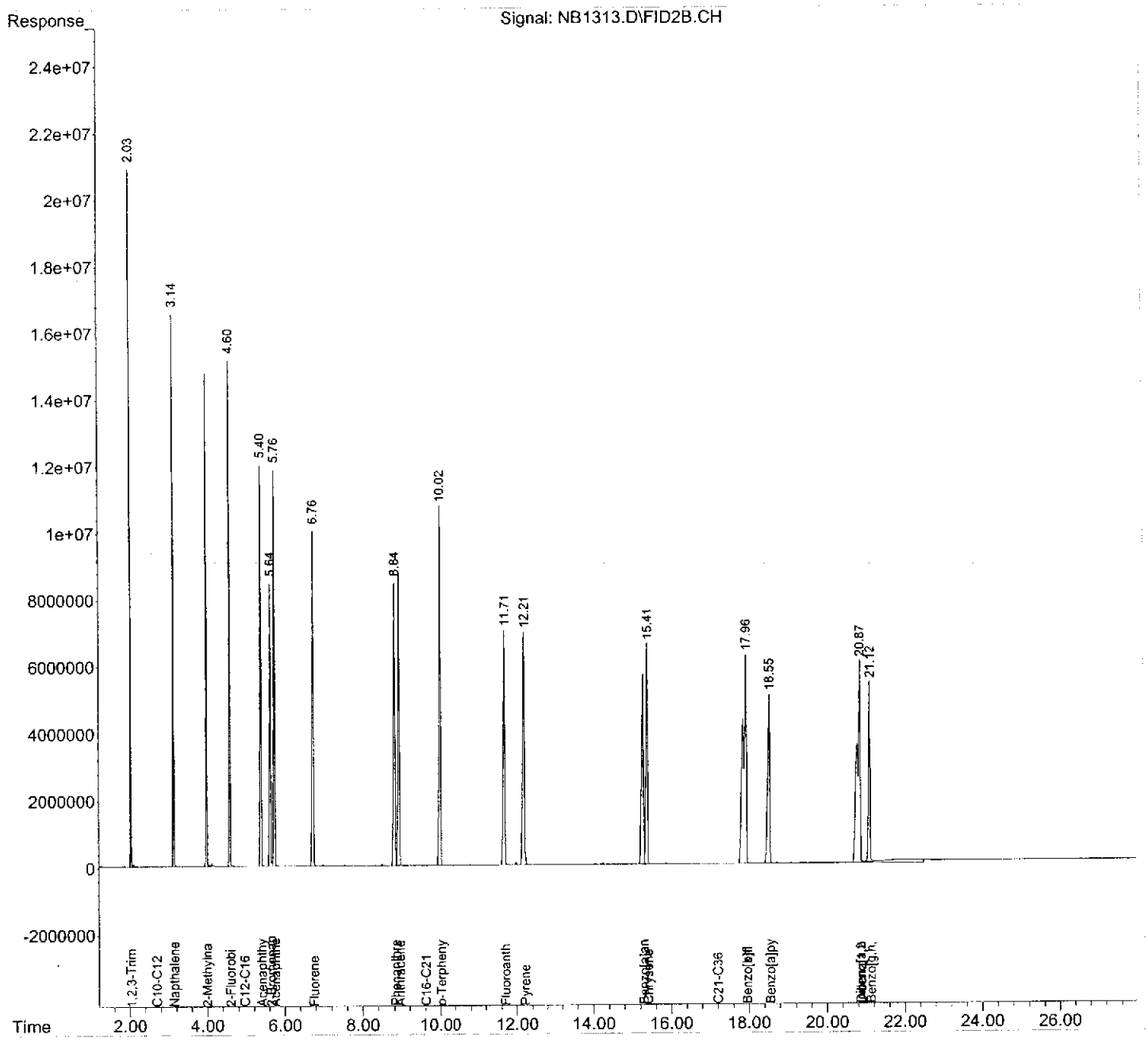
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1313.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 15:20
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:49:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Mon Jul 09 15:56:26 2012 RPT1

E12-06385_0740

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1304.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 8:30
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:57:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.59	220106534	306.708 ng	
Spiked Amount	50.000		Recovery	= 613.42%	
2) S	2-Bromonaphthalene	5.64	157978626	315.806 ng	
Spiked Amount	50.000		Recovery	= 631.61%	
3) S	o-Terphenyl	10.01	271458943	293.409 ng	
Spiked Amount	50.000		Recovery	= 586.82%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	154748272	256.817 ng	
5) T	Napthalene	3.13	183382303	279.917 ng	
6) T	2-Methylnaphthalene	3.99	195196425	287.795 ng	
7) T	Acenaphthylene	5.39	205848220	294.116 ng	
8) T	Acenaphthene	5.75	210388418	291.832 ng	
9) T	Fluorene	6.75	214906274	294.208 ng	
10) T	Phenanthrene	8.83	213829309	283.725 ng	
11) T	Anthracene	8.95	214498435	281.117 ng	
12) T	Fluoroanthene	11.70	206072369	255.247 ng	
13) T	Pyrene	12.21	206439675	249.088 ng	
14) T	Benzo[a]anthracene	15.29	192014471	231.177 ng	
15) T	Chrysene	15.40	190728806	228.317 ng	
16) T	Benzo[b]fluoranthene	17.97	383130557	227.408 ng	m
17) T	Benzo[k]fluoranthene	17.97	383061531	227.367 ng	m
18) T	Benzo[a]pyrene	18.56	186365263	224.596 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	307856928	190.051 ng	
20) T	Dibenz[a,h]anthracene	20.86	307856928	189.867 ng	
21) T	Benzo[g,h,i]perylene	21.12	143520466	176.886 ng	
22) H	C10-C12	2.70	339297341	529.039 ng	
23) H	C12-C16	4.95	615608047	869.547 ng	
24) H	C16-C21	9.60	1067680883	1355.260 ng	
25) H	C21-C36	17.20	1514247312	1694.780 ng	

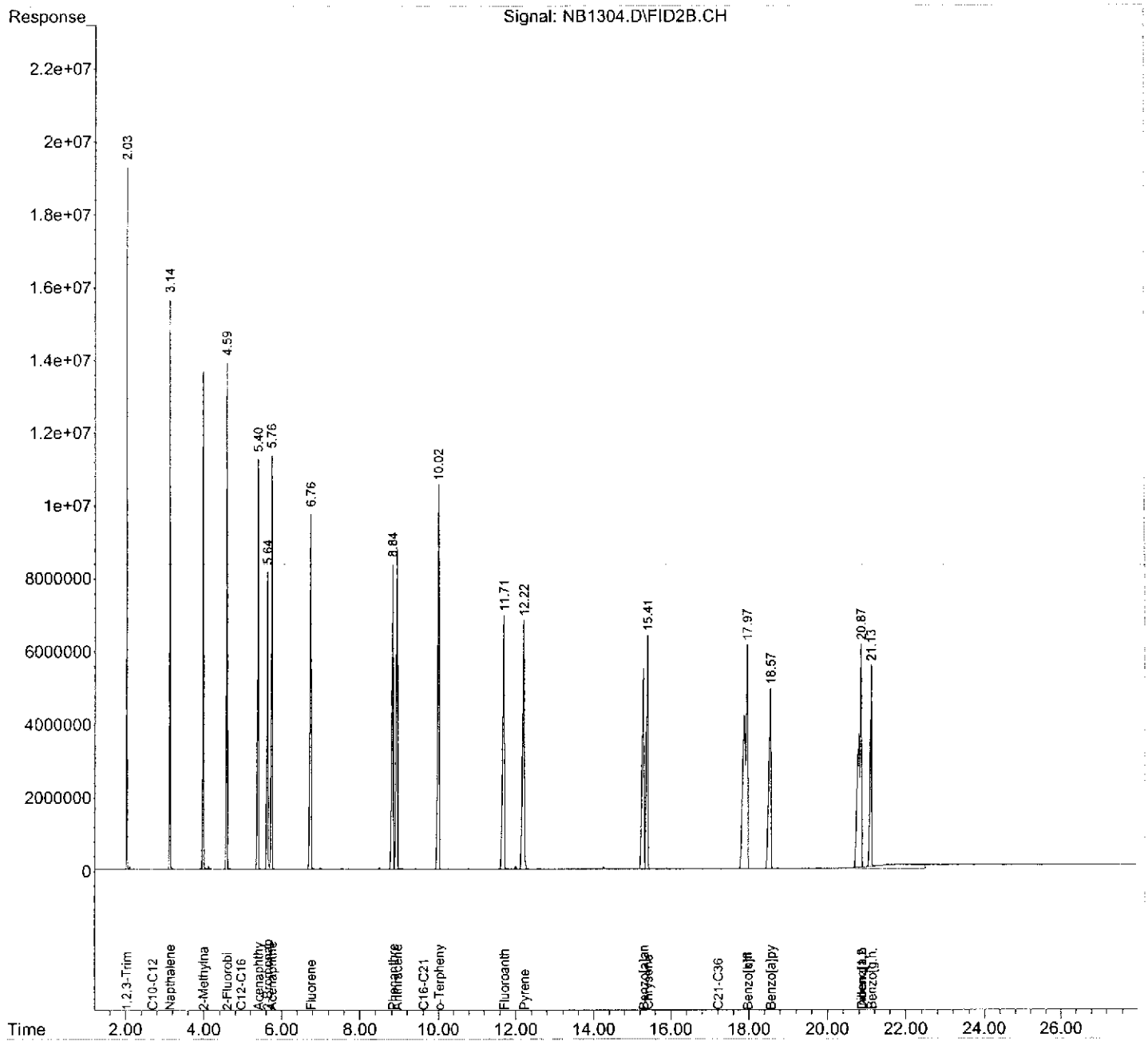
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1304.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 8:30
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:57:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1622.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 12:44
Operator : DK
Sample : ALI,LCSS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:08:05 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc Units
System Monitoring Compounds					
1)	S	1-Chlorooctadecane	12.15	30448917	31.506 ng
Spiked Amount		50.000		Recovery =	63.01%
Target Compounds					
2)	T	n-Nonane (C9)	1.34	20985194	22.608 ng
3)	T	n-Decane (C10)	1.84	26189497	27.103 ng
4)	T	n-Dodecane (C12)	3.26	32651244	33.769 ng
5)	T	n-Tetradecane (C14)	5.00	38605442	38.262 ng
6)	T	n-Hexadecane (C16)	7.06	42089051	41.112 ng
7)	T	n-Octadecane (C18)	9.22	43411888	41.707 ng
8)	T	n-Eicosane (C20)	11.30	42859428	41.992 ng
9)	T	n-Heneicosane (C21)	12.29	47570232	47.492 ng
10)	T	n-Docosane (C22)	13.25	43462779	43.894 ng
11)	T	n-Tetracosane (C24)	15.06	36661360	38.578 ng
12)	T	n-Hexacosane (C26)	16.74	35400286	38.765 ng
13)	T	n-Octacosane (C28)	18.31	34475665	39.755 ng
14)	T	n-Triacontane (C30)	19.78	34228858	41.064 ng
15)	T	n-Dotriacontane (C32)	21.04	33189783	41.703 ng
16)	T	n-Tetratriacontane (C34)	21.80	34348896	43.136 ng
17)	T	n-Hexatriacontane (C36)	22.62	32102960	41.378 ng
18)	T	n-Octatriacontane (C38)	23.66	29345316	38.494 ng
19)	T	n-Tetracontane (40)	25.03	25773021	33.988 ng
20)	H	C9-C12	2.36	100865512	98.879 ng
21)	H	C12-C16	5.40	96763817	90.872 ng
22)	H	C16-C21	9.95	154035457	146.334 ng
23)	H	C21-C40	18.95	414508487	452.640 ng

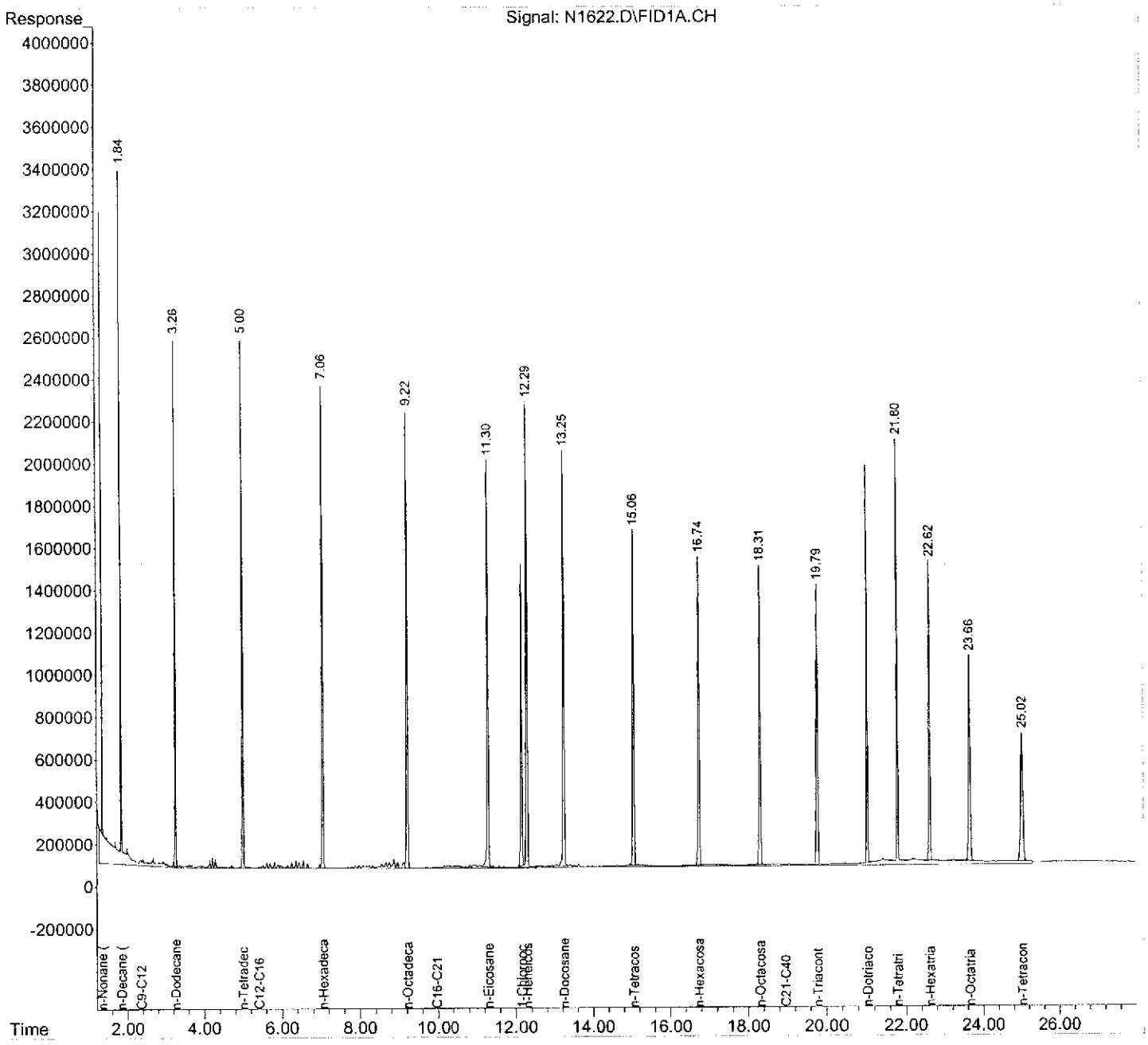
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1622.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 12:44
Operator : DK
Sample : ALI,LCSS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:08:05 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Mon Jul 09 06:50:30 2012 RPT1

E12-06385_0745

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1623.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 13:18
Operator : DK
Sample : ALI,LCSDS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:16:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	1-Chlorooctadecane	12.15	27892302	28.861 ng	
Spiked Amount	50.000		Recovery =	57.72%	
Target Compounds					
2) T	n-Nonane (C9)	1.34	18644298	20.086 ng	m
3) T	n-Decane (C10)	1.84	22908906	23.708 ng	
4) T	n-Dodecane (C12)	3.26	28568945	29.547 ng	
5) T	n-Tetradecane (C14)	5.00	33974033	33.672 ng	
6) T	n-Hexadecane (C16)	7.06	37233121	36.369 ng	
7) T	n-Octadecane (C18)	9.21	38764242	37.242 ng	
8) T	n-Eicosane (C20)	11.30	38704454	37.921 ng	
9) T	n-Heneicosane (C21)	12.29	43542463	43.471 ng	
10) T	n-Docosane (C22)	13.25	39517474	39.909 ng	
11) T	n-Tetracosane (C24)	15.06	33731817	35.495 ng	
12) T	n-Hexacosane (C26)	16.74	32921282	36.051 ng	
13) T	n-Octacosane (C28)	18.31	32157989	37.082 ng	
14) T	n-Triacontane (C30)	19.78	31848808	38.209 ng	
15) T	n-Dotriacontane (C32)	21.03	30817117	38.721 ng	
16) T	n-Tetratriacontane (C34)	21.78	31814300	39.953 ng	
17) T	n-Hexatriacontane (C36)	22.61	29721412	38.308 ng	
18) T	n-Octatriacontane (C38)	23.64	27044167	35.476 ng	
19) T	n-Tetracontane (40)	25.01	23542361	31.046 ng	
20) H	C9-C12	2.36	80928829	79.335 ng	
21) H	C12-C16	5.40	82711989	77.676 ng	
22) H	C16-C21	9.95	138990732	132.042 ng	
23) H	C21-C40	18.95	387182263	422.800 ng	

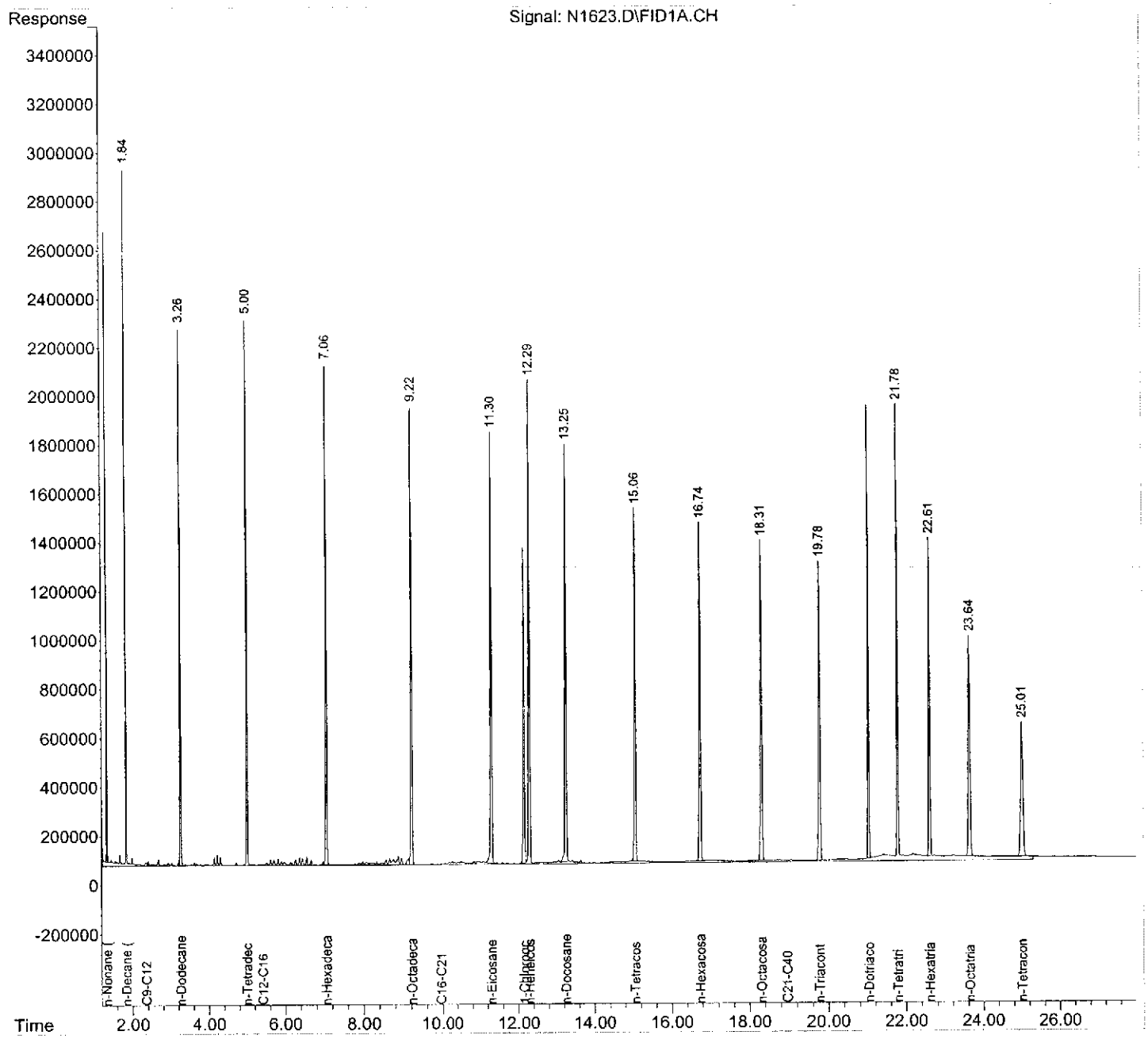
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1623.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 13:18
Operator : DK
Sample : ALI,LCSDS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:16:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1255.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 12:44
Operator : DK
Sample : ARO,LCSS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:19:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.58	32759071	45.648	ng	
Spiked Amount	50.000		Recovery	= 91.30%		
2) S	2-Bromonaphthalene	5.61	24085321	48.148	ng	
Spiked Amount	50.000		Recovery	= 96.30%		
3) S	o-Terphenyl	9.98	52401208	56.638	ng	
Spiked Amount	50.000		Recovery	= 113.28%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	20627359	34.233	ng	
5) T	Napthalene	3.13	27020682	41.245	ng	
6) T	2-Methylnaphthalene	3.98	29338876	43.257	ng	
7) T	Acenaphthylene	5.38	33529418	47.907	ng	
8) T	Acenaphthene	5.72	35370934	49.063	ng	
9) T	Fluorene	6.72	35018776	47.941	ng	
10) T	Phenanthrene	8.79	35881939	47.611	ng	
11) T	Anthracene	8.90	34104284	44.696	ng	
12) T	Fluoroanthene	11.65	34862104	43.181	ng	
13) T	Pyrene	12.16	35055028	42.297	ng	
14) T	Benzo[a]anthracene	15.24	33713005	40.589	ng	m
15) T	Chrysene	15.33	34457430	41.248	ng	
16) T	Benzo[b]fluoranthene	17.87	68980563	40.944	ng	
17) T	Benzo[k]fluoranthene	17.87	68980563	40.944	ng	
18) T	Benzo[a]pyrene	18.47	31043067	37.411	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.80	64959850	40.102	ng	m
20) T	Dibenz[a,h]anthracene	20.80	65151761	40.181	ng	m
21) T	Benzo[g,h,i]perylene	21.06	31724134	39.099	ng	
22) H	C10-C12	2.70	51854920	80.853	ng	
23) H	C12-C16	4.95	107424405	151.737	ng	
24) H	C16-C21	9.60	207831616	263.811	ng	
25) H	C21-C36	17.20	329443748	368.721	ng	

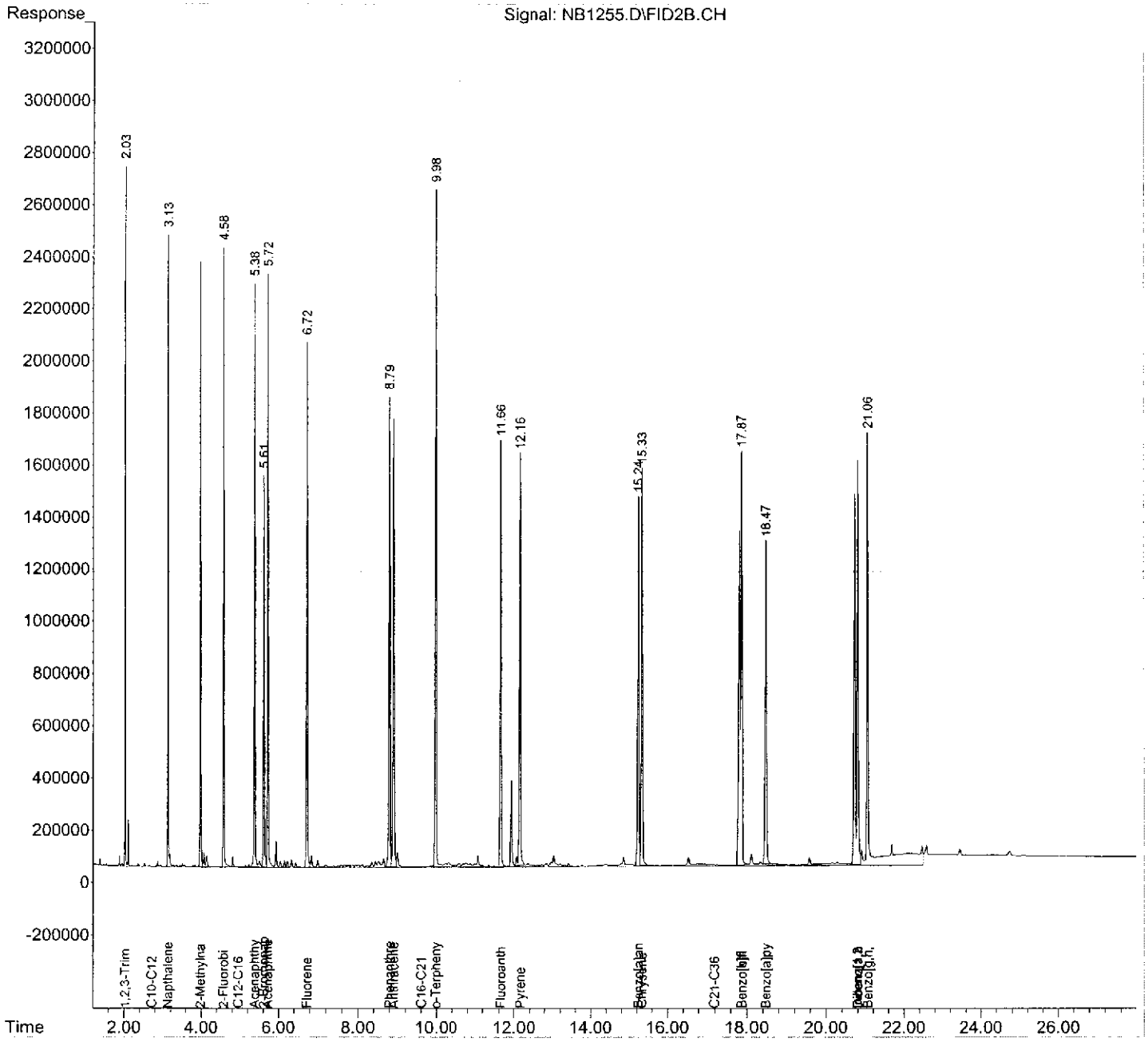
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1255.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 12:44
Operator : DK
Sample : ARO,LCSS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:19:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1256.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 13:18
Operator : DK
Sample : ARO,LCSDS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:20:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.58	27132170	37.807 ng	
Spiked Amount 50.000		Recovery =	75.61%	
2) S 2-Bromonaphthalene	5.61	20776977	41.534 ng	
Spiked Amount 50.000		Recovery =	83.07%	
3) S o-Terphenyl	9.98	48293938	52.199 ng	
Spiked Amount 50.000		Recovery =	104.40%	
Target Compounds				
4) T 1,2,3-Trimethylbenzene	2.03	16226957	26.930 ng	
5) T Napthalene	3.13	21878698	33.396 ng	
6) T 2-Methylnaphthalene	3.98	24188876	35.664 ng	
7) T Acenaphthylene	5.37	28591614	40.852 ng	
8) T Acenaphthene	5.72	30562053	42.393 ng	
9) T Fluorene	6.72	30935007	42.350 ng	
10) T Phenanthrene	8.79	33118766	43.944 ng	
11) T Anthracene	8.90	31915673	41.828 ng	m
12) T Fluoroanthene	11.65	32585862	40.362 ng	
13) T Pyrene	12.16	32547996	39.272 ng	
14) T Benzo[a]anthracene	15.23	30301535	36.482 ng	m
15) T Chrysene	15.33	31597748	37.825 ng	
16) T Benzo[b]fluoranthene	17.87	61552379	36.535 ng	
17) T Benzo[k]fluoranthene	17.87	61552379	36.535 ng	
18) T Benzo[a]pyrene	18.47	27813370	33.519 ng	
19) T Indeno[1,2,3-cd]pyrene	20.80	58199580	35.929 ng	m
20) T Dibenz[a,h]anthracene	20.80	58633672	36.162 ng	m
21) T Benzo[g,h,i]perylene	21.05	28369161	34.964 ng	
22) H C10-C12	2.70	44154592	68.847 ng	
23) H C12-C16	4.95	91952283	129.883 ng	
24) H C16-C21	9.60	189814756	240.941 ng	
25) H C21-C36	17.20	299873914	335.626 ng	

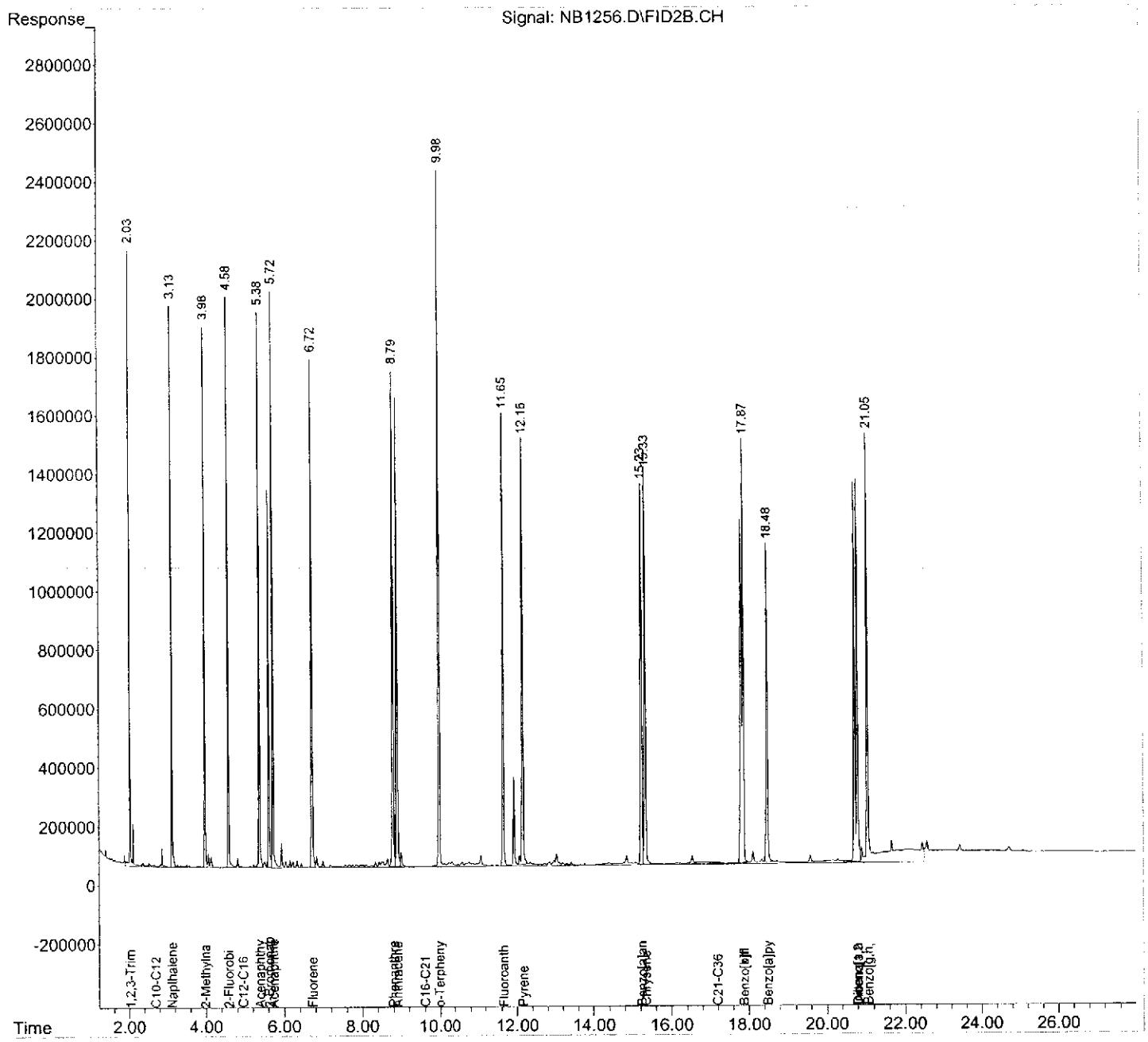
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1256.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 13:18
Operator : DK
Sample : ARO,LCSDS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:20:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1640.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 23:07
Operator : DK
Sample : ALI,06499-010MS,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:59:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	28897091	29.901 ng
Spiked Amount 50.000		Recovery =	59.80%
Target Compounds			
20) H C9-C12	2.36	70507010	69.118 ng
21) H C12-C16	5.40	74898035	70.338 ng
22) H C16-C21	9.95	123652345	117.470 ng
23) H C21-C40	18.95	338971165	370.154 ng

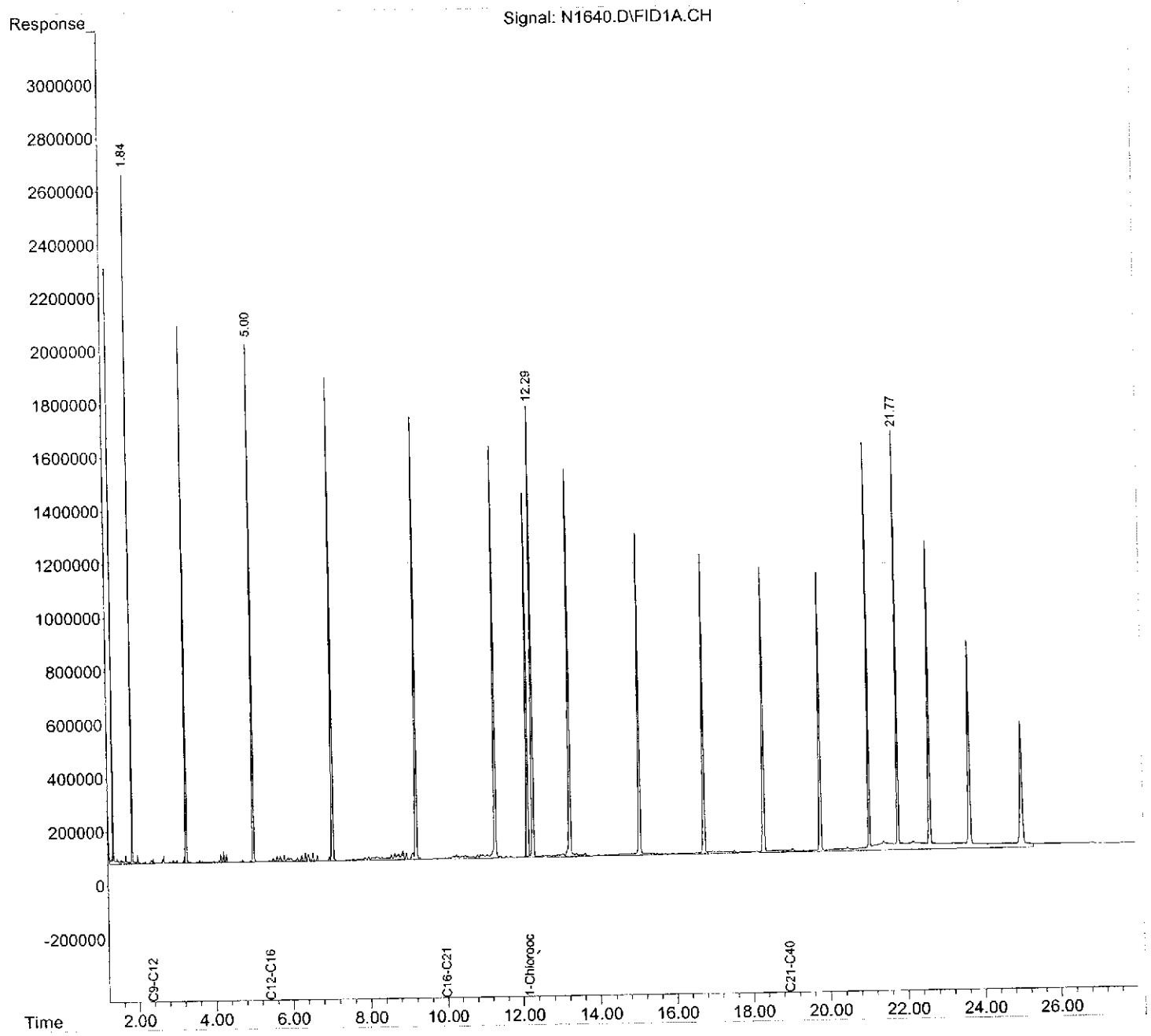
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1640.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 23:07
Operator : DK
Sample : ALI,06499-010MS,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:59:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1306.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 9:39
Operator : MJ
Sample : ARO,06499-010MS,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 13:58:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	20280768	28.260 ng
Spiked Amount 50.000		Recovery =	56.52%
2) S 2-Bromonaphthalene	5.61	14276069	28.538 ng
Spiked Amount 50.000		Recovery =	57.08%
3) S o-Terphenyl	9.97	37239052	40.250 ng
Spiked Amount 50.000		Recovery =	80.50%
Target Compounds			
22) H C10-C12	2.70	34755149	54.191 ng
23) H C12-C16	4.95	71089959	100.415 ng
24) H C16-C21	9.60	132765510	168.526 ng
25) H C21-C36	17.20	286661703	320.838 ng

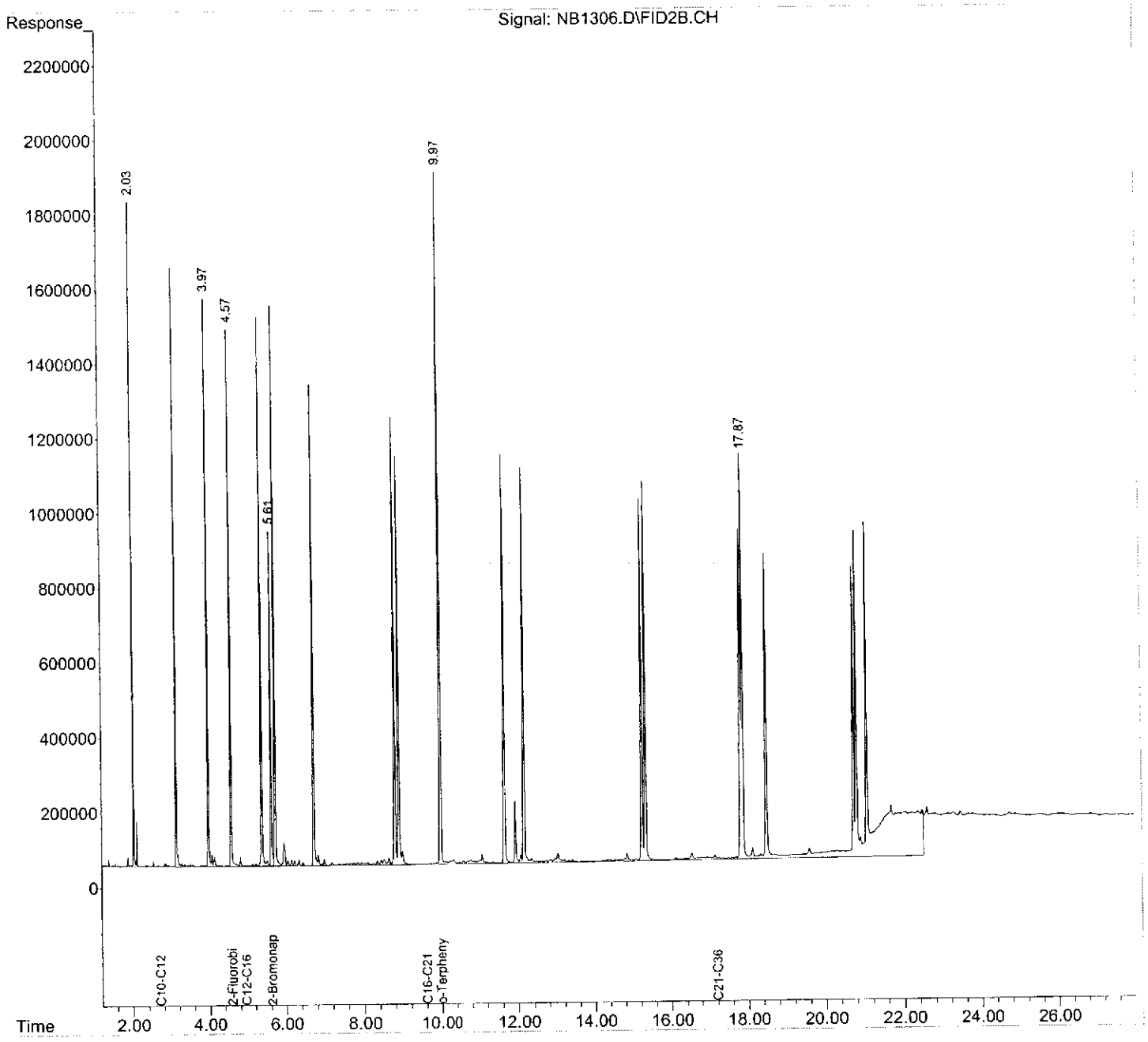
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1306.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 9:39
Operator : MJ
Sample : ARO,06499-010MS,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 13:58:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1639.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 22:33
Operator : DK
Sample : PET-GP-1,06499-10D,S,5.00g,8.10,07/03/12,1
Misc : 120703-07,06/29/12,06/29/12,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:18:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	28050961	29.025 ng
Spiked Amount 50.000		Recovery =	58.05%
Target Compounds			

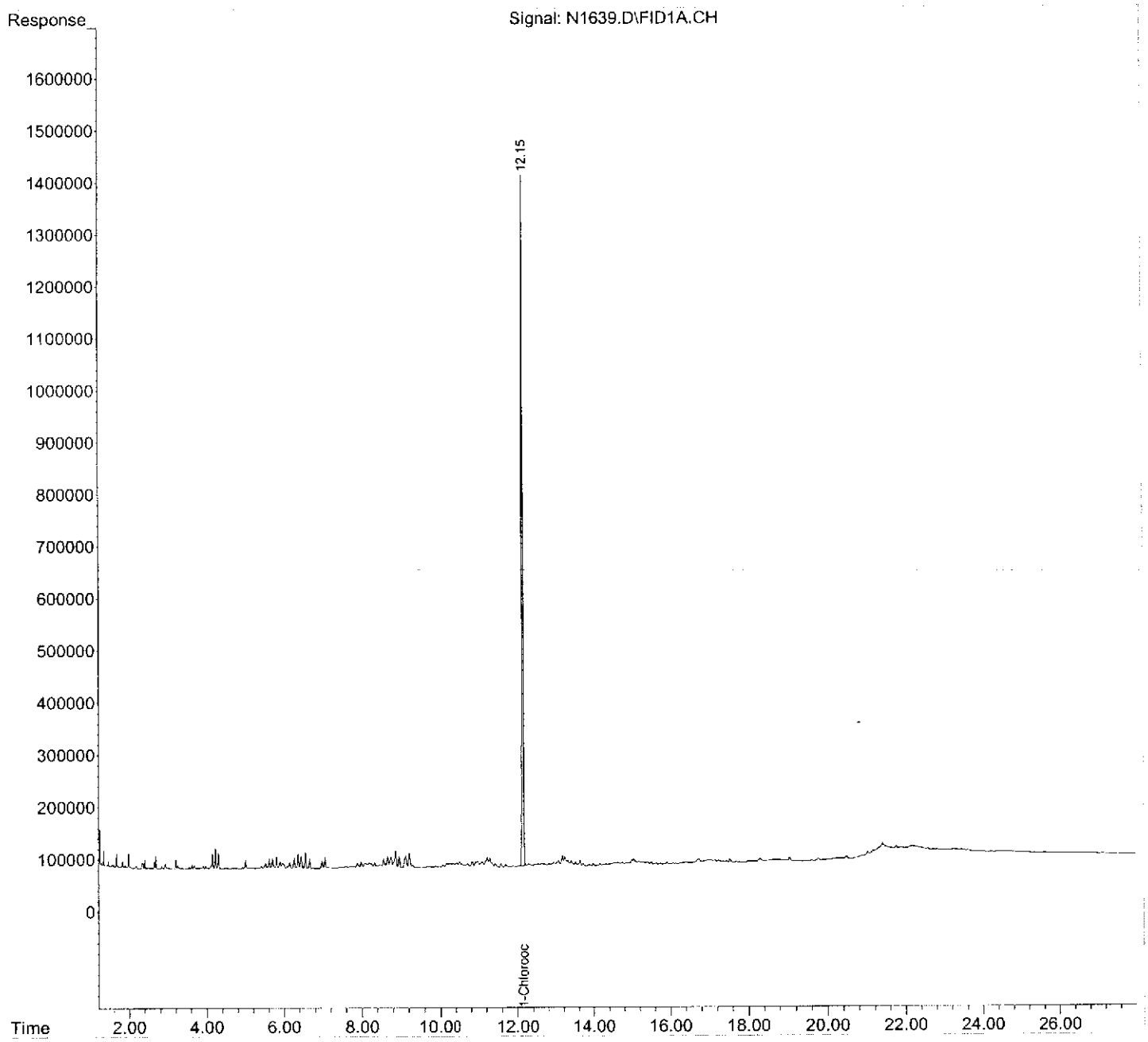
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1639.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 22:33
Operator : DK
Sample : PET-GP-1,06499-10D,S,5.00g,8.10,07/03/12,1
Misc : 120703-07,06/29/12,06/29/12,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:18:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1305.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 9:04
Operator : MJ
Sample : PET-GP-1,06499-10D,S,5.00g,8.10,07/03/12,1
Misc : 120703-07,06/29/12,06/29/12,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 13:57:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	18073365	25.184 ng
Spiked Amount 50.000		Recovery =	50.37%
2) S 2-Bromonaphthalene	5.61	13348977	26.685 ng
Spiked Amount 50.000		Recovery =	53.37%
3) S o-Terphenyl	9.97	37492559	40.524 ng
Spiked Amount 50.000		Recovery =	81.05%
Target Compounds			

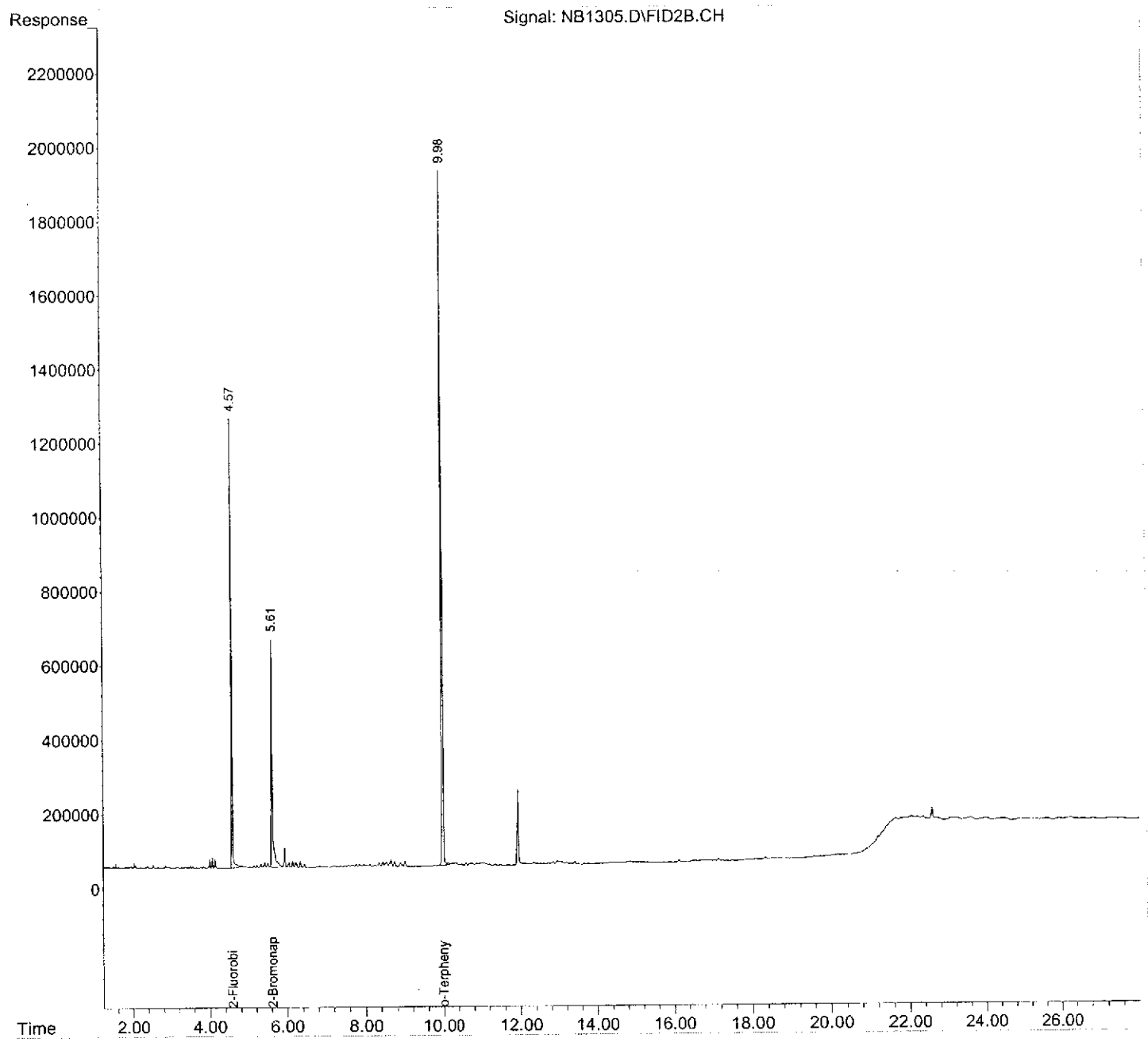
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1305.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 9:04
Operator : MJ
Sample : PET-GP-1,06499-10D,S,5.00g,8.10,07/03/12,1
Misc : 120703-07,06/29/12,06/29/12,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 13:57:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS120703-07
Client ID: ARO
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1621.D
Data file: NB1254.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	2.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	2.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0		40.0	10.0
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0		32.0	8.00
Total NJ-EPH	0		40.0	10.0

E12-06385 0760

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1621.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 12:09
Operator : DK
Sample : ALI,BLKS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:07:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	29745414	30.778 ng
Spiked Amount 50.000		Recovery =	61.56%
Target Compounds			

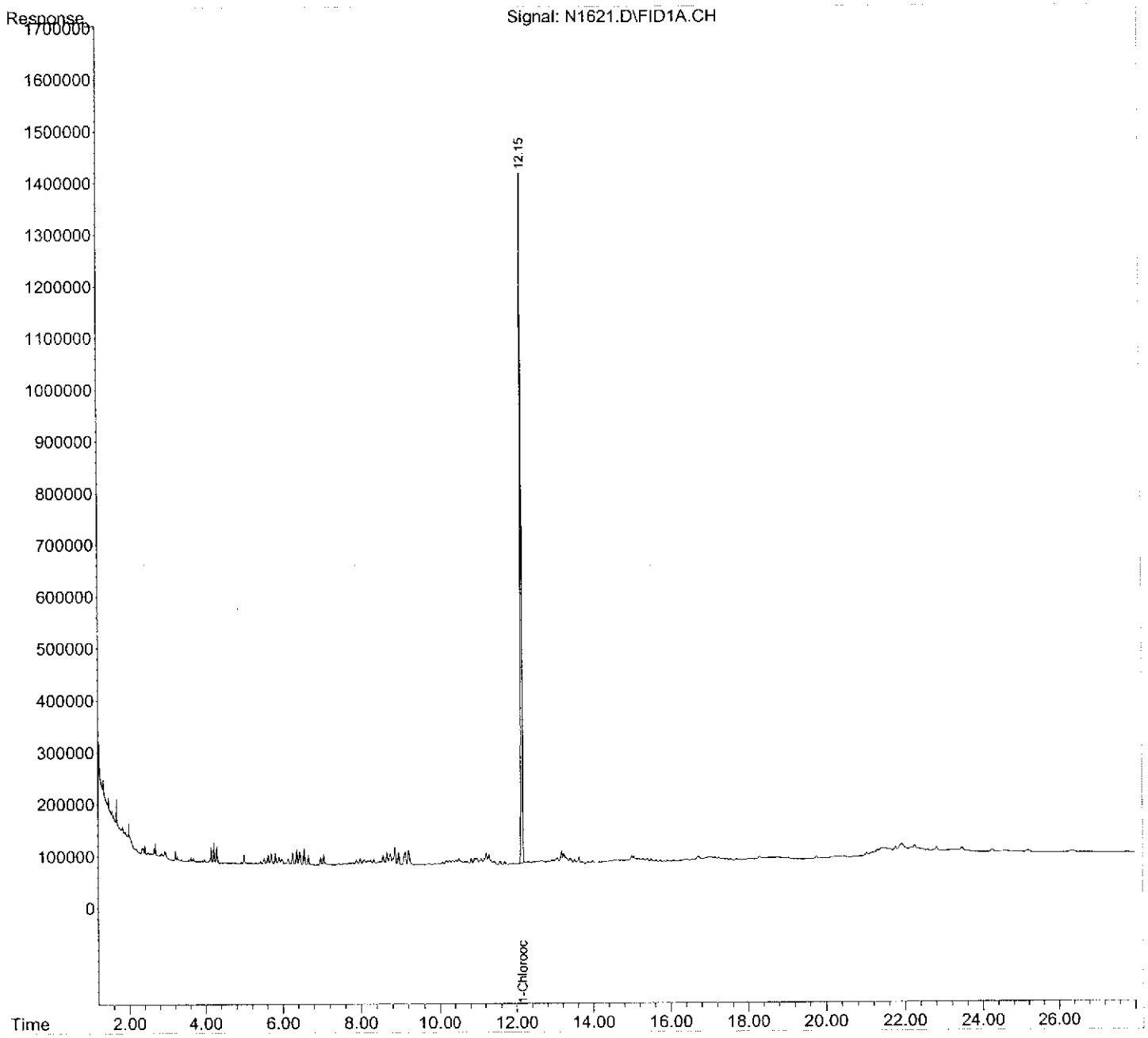
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1621.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 12:09
Operator : DK
Sample : ALI,BLKS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:07:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1254.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 12:09
Operator : DK
Sample : ARO,BLKS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:18:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	26117090	36.393 ng
Spiked Amount 50.000		Recovery =	72.79%
2) S 2-Bromonaphthalene	5.61	19977961	39.937 ng
Spiked Amount 50.000		Recovery =	79.87%
3) S o-Terphenyl	9.97	46048042	49.771 ng
Spiked Amount 50.000		Recovery =	99.54%
Target Compounds			

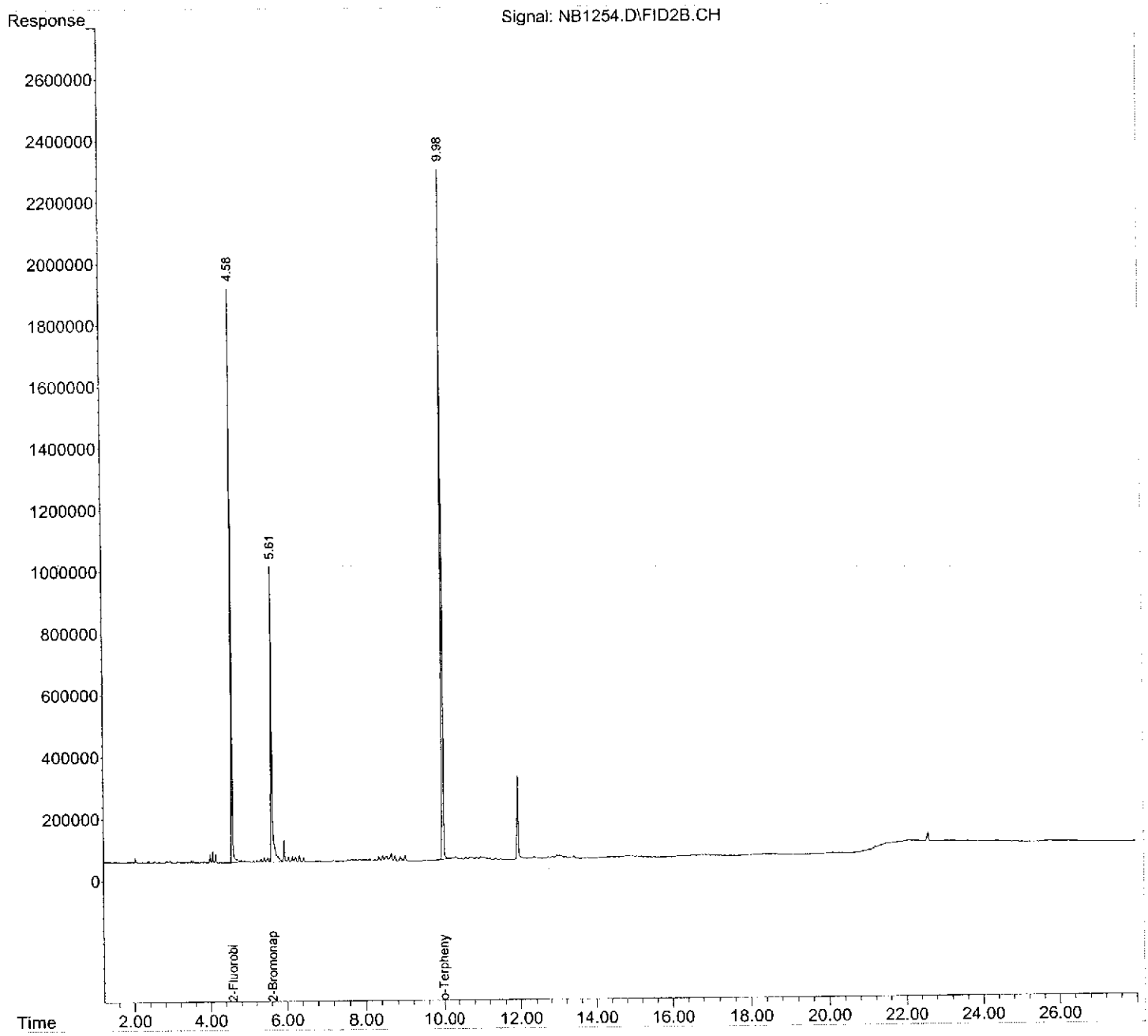
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1254.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 12:09
Operator : DK
Sample : ARO,BLKS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:18:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS

METALS QC SUMMARY

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 270
SDG #: 06392, 05876, 06385

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	48.9	97.8	51.4	103	52.1	104	51.0	102
Antimony	0.250	50.0	50.3	101	51.0	102	53.2	106	52.1	104
Arsenic	0.250	50.0	46.7	93.4	46.8	93.6	48.3	96.6	51.9	104
Barium	2.50	50.0	49.7	99.4	50.4	101	52.0	104	51.8	104
Beryllium	0.200	50.0	49.7	99.4	51.2	102	52.6	105	50.8	102
Cadmium	0.125	50.0	45.1	90.2	45.7	91.4	46.7	93.4	45.9	91.8
Calcium	25.0	500	493	98.6	494	98.8	520	104	546	109
Chromium	0.500	50.0	47.3	94.6	47.7	95.4	48.8	97.6	52.8	106
Cobalt	0.500	50.0	47.0	94.0	47.1	94.2	48.8	97.6	52.3	105
Copper	0.500	50.0	47.2	94.4	47.8	95.6	49.1	98.2	52.7	105
Iron	12.5	500	491	98.2	533	107	505	101	499	99.8
Lead	0.125	50.0	50.1	100	51.2	102	53.4	107	52.3	105
Magnesium	12.5	500	489	97.8	500	100	509	102	542	108
Manganese	0.250	50.0	47.2	94.4	47.3	94.6	48.9	97.8	52.8	106
Mercury	0.120	5.00	5.28	106	5.50	110	5.61	112	5.60	112
Nickel	0.500	50.0	47.4	94.8	46.8	93.6	48.1	96.2	52.5	105
Potassium	12.5	500	482	96.4	486	97.2	490	98.0	511	102
Selenium	1.00	50.0	47.0	94.0	47.9	95.8	49.2	98.4	52.2	104
Silver	0.125	10.0	9.46	94.6	9.41	94.1	9.62	96.2	9.30	93.0
Sodium	25.0	500	501	100	475	95.0	480	96.0	497	99.4
Thallium	0.125	50.0	45.6	91.2	46.2	92.4	48.2	96.4	47.1	94.2
Vanadium	0.500	50.0	46.9	93.8	47.2	94.4	48.4	96.8	52.0	104
Zinc	2.00	50.0	48.1	96.2	48.3	96.6	49.8	99.6	53.8	108

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 276

SDG #: 06385, 06507, 06385, 06438, 06490, 06503, 06112, 05115, 06354, 06384, 06474, 06354
06384, 06399, 06474, 06475, 06487, 06551

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	50.9	102	48.6	97.2	51.9	104	51.9	104
Antimony	0.250	50.0	50.8	102	50.3	101	51.8	104	50.4	101
Arsenic	0.250	50.0	50.0	100	46.4	92.8	47.5	95.0	46.9	93.8
Barium	2.50	50.0	50.2	100	49.5	99.0	51.5	103	50.3	101
Beryllium	0.250	50.0	49.5	99.0	49.1	98.2	51.4	103	50.6	101
Cadmium	0.125	50.0	50.9	102	48.9	97.8	50.5	101	50.3	101
Calcium	25.0	500	508	102	487	97.4	506	101	511	102
Chromium	0.500	50.0	51.2	102	47.9	95.8	49.4	98.8	48.9	97.8
Cobalt	0.500	50.0	51.6	103	47.5	95.0	49.6	99.2	49.2	98.4
Copper	1.00	50.0	51.4	103	47.1	94.2	48.3	96.6	48.5	97.0
Iron	12.5	500	523	105	485	97.0	503	101	511	102
Lead	0.125	50.0	49.9	99.8	49.1	98.2	50.4	101	50.2	100
Magnesium	12.5	500	526	105	502	100	537	107	532	106
Manganese	0.500	50.0	50.3	101	46.6	93.2	48.4	96.8	47.6	95.2
Mercury	0.150	5.00	5.18	104	5.37	107	5.31	106		
Nickel	0.250	50.0	51.3	103	46.8	93.6	48.7	97.4	48.6	97.2
Potassium	12.5	500	547	109	523	105	542	108	530	106
Selenium	1.00	50.0	49.9	99.8	45.8	91.6	47.9	95.8	47.8	95.6
Silver	0.125	10.0	10.1	101	9.94	99.4	9.98	99.8	9.95	99.5
Sodium	25.0	500	507	101	502	100	511	102	465	93.0
Thallium	0.125	50.0	50.7	101	49.3	98.6	52.1	104	52.1	104
Vanadium	0.500	50.0	50.2	100	47.2	94.4	48.9	97.8	48.3	96.6
Zinc	1.00	50.0	51.4	103	46.5	93.0	48.0	96.0	48.1	96.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 276
SDG #: 06385, 06507, 06385, 06438, 06490, 06503, 06112, 05115, 06354, 06384, 06474, 06354
06384, 06399, 06474, 06475, 06487, 06551

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	FOUND	% R
Aluminum	5.00	50.0	51.0	102	52.3	105	48.3	96.6		
Antimony	0.250	50.0	49.5	99.0	50.4	101	51.3	103		
Arsenic	0.250	50.0	49.1	98.2	50.0	100	45.6	91.2		
Barium	2.50	50.0	50.4	101	51.8	104	53.0	106		
Beryllium	0.250	50.0	49.8	99.6	52.4	105	54.8	110		
Cadmium	0.125	50.0	48.3	96.6	50.1	100	51.4	103		
Calcium	25.0	500	509	102	497	99.4	455	91.0		
Chromium	0.500	50.0	51.1	102	52.2	104	47.9	95.8		
Cobalt	0.500	50.0	50.8	102	52.4	105	48.4	96.8		
Copper	1.00	50.0	50.4	101	51.2	102	46.6	93.2		
Iron	12.5	500	511	102	518	104	495	99.0		
Lead	0.125	50.0	49.6	99.2	51.0	102	52.6	105		
Magnesium	12.5	500	508	102	522	104	475	95.0		
Manganese	0.500	50.0	50.2	100	50.6	101	46.6	93.2		
Nickel	0.250	50.0	50.6	101	51.8	104	48.2	96.4		
Potassium	12.5	500	493	98.6	483	96.6	518	104		
Selenium	1.00	50.0	49.1	98.2	51.0	102	47.0	94.0		
Silver	0.125	10.0	9.80	98.0	9.91	99.1	10.1	101		
Sodium	25.0	500	511	102	515	103	493	98.6		
Thallium	0.125	50.0	51.1	102	52.1	104	53.2	106		
Vanadium	0.500	50.0	51.7	103	52.6	105	48.0	96.0		
Zinc	1.00	50.0	48.9	97.8	49.0	98.0	50.0	100		

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 270
SDG #: 06392, 05876, 06385

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB		
Aluminum	0.005	ND	ND	ND	ND		
Antimony	0.00025	ND	ND	ND	ND		
Arsenic	0.00025	ND	ND	ND	ND		
Barium	0.0025	ND	ND	ND	ND		
Beryllium	0.0002	ND	ND	ND	ND		
Cadmium	0.000125	ND	ND	ND	ND		
Calcium	0.025	ND	ND	ND	ND		
Chromium	0.0005	ND	ND	ND	ND		
Cobalt	0.0005	ND	ND	ND	ND		
Copper	0.0005	ND	ND	ND	ND		
Iron	0.013	ND	ND	ND	ND		
Lead	0.000125	ND	ND	ND	ND		
Magnesium	0.013	ND	ND	ND	ND		
Manganese	0.00025	ND	ND	ND	ND		
Mercury	0.00012	ND	ND	ND	ND		
Nickel	0.0005	ND	ND	ND	ND		
Potassium	0.013	ND	ND	ND	ND		
Selenium	0.001	ND	ND	ND	ND		
Silver	0.000125	ND	ND	ND	ND		
Sodium	0.025	ND	ND	ND	ND		
Thallium	0.000125	ND	ND	ND	ND		
Vanadium	0.0005	ND	ND	ND	ND		
Zinc	0.002	ND	ND	ND	ND		

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 276
SDG #: 06385, 06507, 06385, 06438, 06490, 06503, 06112, 05115, 06354, 06384, 06474, 06354
06384, 06399, 06474, 06475, 06487, 06551

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	5.00	ND	ND	ND	ND	ND	ND
Antimony	0.250	ND	ND	ND	ND	ND	ND
Arsenic	0.250	ND	ND	ND	ND	ND	ND
Barium	2.50	ND	ND	ND	ND	ND	ND
Beryllium	0.250	ND	ND	ND	ND	ND	ND
Cadmium	0.125	ND	ND	ND	ND	ND	ND
Calcium	25.0	ND	ND	ND	ND	ND	ND
Chromium	0.500	ND	ND	ND	ND	ND	ND
Cobalt	0.500	ND	ND	ND	ND	ND	ND
Copper	1.00	ND	ND	ND	ND	ND	ND
Iron	12.5	ND	ND	ND	ND	ND	ND
Lead	0.125	ND	ND	ND	ND	ND	ND
Magnesium	12.5	ND	ND	ND	ND	ND	ND
Manganese	0.500	ND	ND	ND	ND	ND	ND
Mercury	0.150	ND	ND	ND			
Nickel	0.250	ND	ND	ND	ND	ND	ND
Potassium	12.5	ND	ND	ND	ND	ND	ND
Selenium	1.00	ND	ND	ND	ND	ND	ND
Silver	0.125	ND	ND	ND	ND	ND	ND
Sodium	25.0	ND	ND	ND	ND	ND	ND
Thallium	0.125	ND	ND	ND	ND	ND	ND
Vanadium	0.500	ND	ND	ND	ND	ND	ND
Zinc	1.00	ND	ND	ND	ND	ND	ND

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 276

SDG #: 06385, 06507, 06385, 06438, 06490, 06503, 06112, 05115, 06354, 06384, 06474, 06354
06384, 06399, 06474, 06475, 06487, 06551

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	CCB					
Aluminum	5.00	ND					
Antimony	0.250	ND					
Arsenic	0.250	ND					
Barium	2.50	ND					
Beryllium	0.250	ND					
Cadmium	0.125	ND					
Calcium	25.0	ND					
Chromium	0.500	ND					
Cobalt	0.500	ND					
Copper	1.00	ND					
Iron	12.5	ND					
Lead	0.125	ND					
Magnesium	12.5	ND					
Manganese	0.500	ND					
Nickel	0.250	ND					
Potassium	12.5	ND					
Selenium	1.00	ND					
Silver	0.125	ND					
Sodium	25.0	ND					
Thallium	0.125	ND					
Vanadium	0.500	ND					
Zinc	1.00	ND					

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 270
Associated Lab Case for Blank 1: 05876, 06385, 06392

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	5.00	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	2.50	ND
Beryllium	0.200	ND
Cadmium	0.125	ND
Calcium	25.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	12.5	ND
Lead	0.125	ND
Magnesium	12.5	ND
Manganese	0.250	ND
Mercury	0.006	ND
Nickel	0.500	ND
Potassium	12.5	ND
Selenium	1.00	ND
Silver	0.125	ND
Sodium	25.0	ND
Thallium	0.125	ND
Vanadium	0.500	ND
Zinc	2.00	ND

Associated Sample for Blank 1:
05876-001,003~004; 06385-001~002,004,006~013
06392-001~006

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 276
Associated Lab Case for Blank 1: 05115, 06112, 06385, 06438, 06503, 06507

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	20.0	ND
Antimony	1.00	ND
Arsenic	1.00	ND
Barium	10.0	ND
Beryllium	1.00	ND
Cadmium	0.500	ND
Calcium	100	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	4.00	ND
Iron	50.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	2.00	ND
Mercury	0.300	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	4.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.500	ND
Vanadium	2.00	ND
Zinc	4.00	ND

Associated Sample for Blank 1:

05115-001~002,004~005,010~011,024,026,029
06112-004~005,007~008; 06385-014~015; 06438-001
06503-006~007; 06507-016

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 270
SDG #: 06392, 05876, 06385

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	86000	91100	91.1	NA
Iron	100000	-	86400	90900	90.9	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2060	1960	98.0	NA
Titanium	2000	-	1810	1900	95.0	NA
Silver	-	20.0	-	16.2	81.0	80-120
Arsenic	-	20.0	-	19.8	99.0	80-120
Cadmium	-	20.0	-	17.5	87.5	80-120
Cobalt	-	20.0	-	17.6	88.0	80-120
Chromium	-	20.0	-	19.3	96.5	80-120
Copper	-	20.0	-	17.2	86.0	80-120
Manganese	-	20.0	-	18.6	93.0	80-120
Nickel	-	20.0	-	17.1	85.5	80-120
Zinc	-	20.0	-	19.8	99.0	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 276
SDG #: 06385, 06507, 06385, 06438, 06490, 06503, 06112, 05115, 06354, 06384, 06474, 06354
06384, 06399, 06474, 06475, 06487, 06551

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	90200	88000	88.0	NA
Iron	100000	-	88700	85700	85.7	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	1970	2040	102	NA
Titanium	2000	-	1980	1900	95.0	NA
Silver	-	20.0	-	21.5	108	80-120
Arsenic	-	20.0	-	18.3	91.5	80-120
Cadmium	-	20.0	-	16.8	84.0	80-120
Cobalt	-	20.0	-	17.1	85.5	80-120
Chromium	-	20.0	-	17.9	89.5	80-120
Copper	-	20.0	-	16.2	81.0	80-120
Manganese	-	20.0	-	17.4	87.0	80-120
Nickel	-	20.0	-	16.4	82.0	80-120
Zinc	-	20.0	-	18.2	91.0	80-120

%R = Percent Recovery

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 270
SDG #: 05876, 06385, 06392

Matrix: Soil

Unit: ppm (mg/kg)

ANALYTE	BSS1			BSS2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	177	88.5			
Antimony	40.0	34.8	87.0			
Arsenic	40.0	35.9	89.8			
Barium	40.0	35.8	89.5			
Beryllium	40.0	34.0	85.0			
Cadmium	40.0	35.6	89.0			
Calcium	200	180	90.0			
Chromium	40.0	36.3	90.8			
Cobalt	40.0	35.2	88.0			
Copper	40.0	37.0	92.5			
Iron	200	182	91.0			
Lead	40.0	35.9	89.8			
Magnesium	200	178	89.0			
Manganese	40.0	34.7	86.8			
Mercury	0.250	0.265	106			
Nickel	40.0	36.6	91.5			
Potassium	200	173	86.5			
Selenium	40.0	35.9	89.8			
Silver	40.0	42.7	107			
Sodium	200	181	90.5			
Thallium	40.0	35.9	89.8			
Vanadium	40.0	35.2	88.0			
Zinc	40.0	35.8	89.5			

(1) Control Limits % Recovery = 85-115%

BSS1

05876-001,003~004; 06385-001~002,004,006~013
06392-001~006

BSS2

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 276
SDG #: 05115, 06112, 06385, 06438, 06503, 06507, 06354, 06384, 06474, 06475
06551

Matrix: Aqueous Unit: ppb (µg/L)

ANALYTE	BSW1			BSW2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	400	379	94.8			
Antimony	400	361	90.3			
Arsenic	400	384	96.0			
Barium	400	368	92.0			
Beryllium	400	366	91.5			
Cadmium	400	368	92.0			
Calcium	8000	7460	93.3			
Chromium	400	387	96.8			
Cobalt	400	381	95.3			
Copper	400	376	94.0			
Iron	8000	7410	92.6	8000	8910	111
Lead	400	375	93.8	400	424	106
Magnesium	8000	7560	94.5			
Manganese	400	376	94.0			
Mercury	10.0	8.98	89.8			
Nickel	400	383	95.8			
Potassium	8000	7530	94.1			
Selenium	400	387	96.8			
Silver	400	411	103			
Sodium	8000	7500	93.8	8000	8470	106
Thallium	400	383	95.8			
Vanadium	400	388	97.0			
Zinc	400	383	95.8			

(1) Control Limits % Recovery = 85-115%

BSW1	BSW2
05115-001~002,004~005,010~011,024,026,029	06354-001,003,006; 06384-003,006; 06474-002,006
06112-004~005,007~008; 06385-014~015; 06438-001	06475-001; 06551-001~003
06503-006~007; 06507-016	

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 270
SDG #: 05876, 06385, 06392

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	7920	7820	NC	222					75-125
Antimony	38.2	ND	86.0	44.4					75-125
Arsenic	43.1	4.77	86.3	44.4					75-125
Barium	65.3	26.7	86.9	44.4					75-125
Beryllium	38.7	0.302	86.5	44.4					75-125
Cadmium	38.1	ND	85.8	44.4					75-125
Calcium	2100	1940	NC	222					75-125
Chromium	51.1	10.9	90.5	44.4					75-125
Cobalt	42.2	4.52	84.9	44.4					75-125
Copper	49.7	11.2	86.7	44.4					75-125
Iron	11200	11000	90.1	222					75-125
Lead	50.8	11.0	89.6	44.4					75-125
Magnesium	2610	2410	90.1	222					75-125
Manganese	255	216	87.8	44.4					75-125
Mercury	0.400	0.108	105	0.278					75-125
Nickel	48.5	9.71	87.4	44.4					75-125
Potassium	933	726	93.2	222					75-125
Selenium	39.6	ND	89.2	44.4					75-125
Silver	36.3	0.402	80.9	44.4					75-125
Sodium	287	84.7	91.1	222					75-125
Thallium	40.6	ND	91.4	44.4					75-125
Vanadium	55.5	16.9	86.9	44.4					75-125
Zinc	63.9	25.9	85.6	44.4					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 06392-001
QC Sample 1 for following samples:
05876-001,003~004; 06385-001~002,004,006~013
06392-001~006

QC Sample 2 _____
QC Sample 2 for following samples:

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 276
SDG #: 05115, 06112, 06385, 06438, 06503, 06507, 06354, 06384, 06474, 06475
06551

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	574	207	91.8	400					75-125
Antimony	395	8.95	96.5	400					75-125
Arsenic	440	30.4	102	400					75-125
Barium	394	ND	98.5	400					75-125
Beryllium	379	ND	94.8	400					75-125
Cadmium	362	ND	90.5	400					75-125
Calcium	34200	25500	109	8000					75-125
Chromium	395	ND	98.8	400					75-125
Cobalt	384	ND	96.0	400					75-125
Copper	385	ND	96.3	400					75-125
Iron	7610	80.8	94.1	8000	8120	ND	102	8000	75-125
Lead	390	1.81	97.0	400	421	ND	105	400	75-125
Magnesium	16200	8320	98.5	8000					75-125
Manganese	384	3.18	95.2	400					75-125
Mercury	8.33	ND	83.3	10.0					75-125
Nickel	389	6.80	95.6	400					75-125
Potassium	45700	36300	118	8000					75-125
Selenium	391	ND	97.8	400					75-125
Silver	405	ND	101	400					75-125
Sodium	333000	314000	NC	8000	2700000	1110000	NC	8000	75-125
Thallium	397	ND	99.3	400					75-125
Vanadium	614	194	105	400					75-125
Zinc	397	8.49	97.1	400					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 06385-014
QC Sample 1 for following samples:
05115-001~002,004~005,010~011,024,026,029
06112-004~005,007~008; 06385-014~015; 06438-001
06503-006~007; 06507-016

QC Sample 2 06354-001
QC Sample 2 for following samples:
06354-001,003,006; 06384-003,006; 06474-002,006
06475-001; 06551-001~003

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 270
SDG #: 05876, 06385, 06392

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	7820	7920	1.27				
Antimony	NA	ND	ND	NC				
Arsenic	20	4.77	4.65	2.55				
Barium	20	26.7	27.3	2.22				
Beryllium	20	0.302	0.306	1.32				
Cadmium	NA	ND	ND	NC				
Calcium	20	1940	1980	2.04				
Chromium	20	10.9	11.1	1.82				
Cobalt	20	4.52	4.56	0.881				
Copper	20	11.2	11.2	0				
Iron	20	11000	11300	2.69				
Lead	20	11.0	10.9	0.913				
Magnesium	20	2410	2460	2.05				
Manganese	20	216	222	2.74				
Mercury	20	0.108	0.109	0.922				
Nickel	20	9.71	9.48	2.40				
Potassium	20	726	722	0.552				
Selenium	NA	ND	ND	NC				
Silver	20	0.402	0.343	15.8				
Sodium	20	84.7	80.1	5.58				
Thallium	NA	ND	ND	NC				
Vanadium	20	16.9	17.1	1.18				
Zinc	20	25.9	25.6	1.17				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 06392-001
QC Sample 1 for following samples:
05876-001,003~004; 06385-001~002,004,006~013
06392-001~006

QC Sample 2 _____
QC Sample 2 for following samples:

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 276
SDG #: 05115, 06112, 06385, 06438, 06503, 06507, 06354, 06384, 06474, 06475
06551

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	207	201	2.94				
Antimony	20	8.95	7.95	11.8				
Arsenic	20	30.4	30.9	1.63				
Barium	NA	ND	ND	NC				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	25500	26100	2.33				
Chromium	NA	ND	ND	NC				
Cobalt	NA	ND	ND	NC				
Copper	NA	ND	ND	NC				
Iron	20	80.8	90.0	10.8	NA	ND	ND	NC
Lead	20	1.81	1.70	6.27	NA	ND	ND	NC
Magnesium	20	8320	8410	1.08				
Manganese	20	3.18	3.16	0.631				
Mercury	NA	ND	ND	NC				
Nickel	20	6.80	7.45	9.12				
Potassium	20	36300	37300	2.72				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	314000	317000	0.951	20	1110000	1160000	4.41
Thallium	NA	ND	ND	NC				
Vanadium	20	194	199	2.54				
Zinc	20	8.49	7.24	15.9				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 06385-014
QC Sample 1 for following samples:
05115-001~002,004~005,010~011,024,026,029
06112-004~005,007~008; 06385-014~015; 06438-001
06503-006~007; 06507-016

QC Sample 2 06354-001
QC Sample 2 for following samples:
06354-001,003,006; 06384-003,006; 06474-002,006
06475-001; 06551-001~003

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 270
SDG #: 05876, 06385, 06392

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	7820	7800	0.256			
Antimony	ND			39.3	44.4	88.5
Arsenic	4.77			45.4	44.4	91.5
Barium	26.7			71.2	44.4	100.0
Beryllium	0.302			40.6	44.4	90.8
Cadmium	ND			39.0	44.4	87.8
Calcium	1940	2000	3.05			
Chromium	10.9	11.4	4.48			
Cobalt	4.52			44.1	44.4	89.1
Copper	11.2	11.9	6.06			
Iron	11000	11800	7.02			
Lead	11.0	10.2	7.55			
Magnesium	2410	2560	6.04			
Manganese	216	227	4.97			
Nickel	9.71			49.8	44.4	90.3
Potassium	726	760	4.58			
Selenium	ND			41.8	44.4	94.1
Silver	0.402			36.3	44.4	80.9
Sodium	84.7			1020	888	105.0
Thallium	ND			43.4	44.4	97.7
Vanadium	16.9	17.4	2.92			
Zinc	25.9			69.3	44.4	97.7

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 06392-001
QC Sample 1 for following samples:
05876-001,003~004; 06385-001~002,004,006~013
06392-001~006

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 276
SDG #: 05115, 06112, 06385, 06438, 06503, 06507

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	207			677	400	118.0
Antimony	8.95			450	400	110.0
Arsenic	30.4	28.1	7.86			
Barium	ND			439	400	110
Beryllium	ND			423	400	106
Cadmium	ND			400	400	100
Calcium	25500	24000	6.06			
Chromium	ND			437	400	109
Cobalt	ND			430	400	108
Copper	ND			422	400	106
Iron	80.8			8540	8000	106.0
Lead	1.81			438	400	109.0
Magnesium	8320	7940	4.67			
Manganese	3.18			424	400	105.0
Nickel	6.80			434	400	107.0
Potassium	36300	35800	1.39			
Selenium	ND			438	400	110
Silver	ND			427	400	107
Sodium	314000	300000	4.56			
Thallium	ND			444	400	111
Vanadium	194	181	6.93			
Zinc	8.49			432	400	106.0

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 06385-014
QC Sample 1 for following samples:
05115-001~002,004~005,010~011,024,026,029
06112-004~005,007~008; 06385-014~015; 06438-001
06503-006~007; 06507-016

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG276
July 3, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**932475**	**64177**	**221150**	**1422725**	**2624835**	**1744965**	
	Sample Lower Limit	**279742**	**19253**	**66345**	**426818**	**787450**	**523490**	
	QC Lower Limit	**652732**	**44924**	**154805**	**995907**	**1837384**	**1221476**	
	Sample & QC Upper Limit	**1118970**	**77012**	**265380**	**1707270**	**3149802**	**2093958**	
003CALS.D	STD1	951673	64952	224597	1436356	2619251	1764488	
004CALS.D	STD2	935472	62839	218690	1403292	2594026	1738568	
005CALS.D	STD3	935305	63792	215861	1404782	2611481	1742339	
006CALS.D	STD4	851586	62156	197793	1262282	2383999	1585168	
008_ICV.D	ICV	930101	58496	213168	1379112	2563802	1753064	
009_ICB.D	ICB	931336	59291	220028	1428999	2604677	1739248	
010SMPL.D	BMW1	951195	64758	231085	1482896	2739143	1829454	
011SMPL.D	BSW1	922006	64664	216108	1377027	2591160	1713890	
012SMPL.D	06385-014	877416	60935	209693	1265760	2430386	1498132	
013SMPL.D	06385-014R	898370	57803	210482	1260580	2440595	1498942	
014SMPL.D	06385-014SD	903029	62903	212083	1290448	2405984	1539031	
015SMPL.D	06385-014RS	876812	60358	204686	1232335	2332140	1449187	
016SMPL.D	06385-014PS	843974	58231	195853	1177864	2223199	1359835	
017SMPL.D	06507-016 FB	901975	59943	203204	1307528	2332320	1549847	
0186CCV.D	CCV	969829	61753	216940	1364783	2533878	1671312	
0196CCB.D	CCB	988243	64110	219501	1398873	2511967	1665864	
020SMPL.D	06385-015	940386	60317	219015	1308383	2497066	1537254	
021SMPL.D	06438-001	941212	62411	219781	1324833	2453318	1597121	
022SMPL.D	06490-001	859561	58236	200033	1155436	2224386	1327316	
023SMPL.D	06503-006	897873	58263	202283	1212491	2271146	1435260	
024SMPL.D	06503-007	898035	56986	206434	1206016	2408357	1393758	
025SMPL.D	06112-004	990297	64252	219945	1364253	2473124	1597765	
026SMPL.D	06112-005	1039605	65754	228732	1453284	2623715	1718582	
027SMPL.D	06112-007	1023384	63633	225035	1402236	2552328	1689466	
028SMPL.D	06112-008	1021164	65841	222820	1411200	2567593	1716367	
029SMPL.D	05115-001	1019675	64989	222777	1375263	2537636	1649588	
0306CCV.D	CCV	1029718	63502	220924	1416083	2584004	1744685	
0316CCB.D	CCB	1040612	65183	226104	1436933	2624089	1763002	
032SMPL.D	05115-002	1052741	67108	230540	1426129	2647929	1747919	
033SMPL.D	05115-004	1030441	66236	228234	1409275	2600903	1725033	
034SMPL.D	05115-005	1033930	58462	223861	1414226	2603916	1735041	
035SMPL.D	05115-010	1043973	65651	226294	1417832	2618318	1752552	
036SMPL.D	05115-011	1012946	65156	224172	1396464	2651221	1728305	
037SMPL.D	05115-024	1019394	64897	223480	1389308	2593747	1722405	
038SMPL.D	05115-026	1054963	65243	232026	1431135	2709396	1812293	
039SMPL.D	05115-029	1024579	65280	224057	1381008	2610378	1709347	
040SMPL.D	BMW2	1045766	64272	226948	1452835	2674770	1786381	
041SMPL.D	BSW2	1060782	66487	226370	1426897	2681001	1792073	
0426CCV.D	CCV	1075385	64937	226678	1465388	2720319	1819263	
0436CCB.D	CCB	1096513	66225	230430	1509898	2704950	1855464	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG276
July 3, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**932475**	**64177**	**221150**	**1422725**	**2624835**	**1744965**	
	Sample Lower Limit	**279742**	**19253**	**66345**	**426818**	**787450**	**523490**	
	QC Lower Limit	**652732**	**44924**	**154805**	**995907**	**1837384**	**1221476**	
	Sample & QC Upper Limit	**1118970**	**77012**	**265380**	**1707270**	**3149802**	**2093958**	
044SMPL.D	06354-001	536158	52967	131284	770395	1532016	884742	
045SMPL.D	06354-001R	684299	48366	167089	976876	1940486	1122591	
046SMPL.D	06354-001SD	915336	58276	207509	1216159	2312620	1390104	
047SMPL.D	06354-001RS	753279	51054	178079	1063773	1994961	1157061	
048SMPL.D	06354-001PS	802032	51750	189228	1133872	2150850	1249304	
049SMPL.D	06354-006 FB	1058438	71112	240316	1511017	2612972	1735806	
050SMPL.D	06384-006 FB	1046047	71455	255630	1636748	2857467	1898876	
051SMPL.D	06474-006 FB	1031736	71857	245005	1540001	2727846	1794607	
052SMPL.D	06354-003	1026394	67143	236071	1405514	2628689	1633788	
053SMPL.D	06384-003	654120	41735	149986	903294	1834430	1049496	
0546CCV.D	CCV	1083995	76741	243765	1705360	3068078	1964354	
0556CCB.D	CCB	1092400	72740	233162	1612571	3094730	1982607	
056SMPL.D	06399-001	1015825	75245	256793	1659022	3062427	1984571	
057SMPL.D	06399-002	1003772	76071	262073	1629405	2985431	1952413	
058SMPL.D	06399-003	1090015	75412	259516	1606272	2918566	1920585	
059SMPL.D	06399-004	1088006	72186	261282	1624211	2974600	1964355	
060SMPL.D	06474-002	1096394	75654	261017	1606299	2962572	1973290	
061SMPL.D	06475-001	1098558	74538	263393	1640730	3028565	2020809	
062SMPL.D	06487-002	1031567	74117	262431	1677864	3004259	2048986	
063SMPL.D	06487-004	1034800	74745	262319	1706295	3006738	2051497	
064SMPL.D	06487-005	1053058	73659	259967	1655339	3114787	1918986	
065SMPL.D	06487-006	1012774	73318	259275	1674403	3005611	2031463	
0666CCV.D	CCV	1049345	75396	260146	1696782	3041482	2070026	
0676CCB.D	CCB	1089273	74806	250552	1689823	3022941	1901620	
068SMPL.D	06551-001	1065152	71812	253000	1699202	3061162	1906582	
069SMPL.D	06551-002	1099274	71072	240116	1664041	3084386	1884694	
070SMPL.D	06551-003	1091339	70280	235310	1621568	3005556	1919395	
0716CCV.D	FINAL CCV	1044309	74280	263560	1623032	3119703	1915463	
0726CCB.D	FINAL CCB	1008351	73186	242165	1641155	3000646	1930871	
073ICSA.D	ICSA	1060310	75643	252749	1328792	2632513	1604821	
074ICSB.D	ICSAB	984323	74318	253218	1227887	2461977	1454110	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

GENERAL ANALYTICAL CHEMISTRY

E12-06385 0787

GENERAL ANALYTICAL CHEMISTRY QC SUMMARY

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

Cyanide, Total

Matrix: Soil
Unit: mg/Kg

Batch: AP013-0107
Method: 9012B

Date: 07/06/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	PBS-0706	< 0.710	NA	NA	NA	NA	NA
LCS	ICVS-0706	12.7	12.5	NA	NA	102	85-115
SAMPLE	E12-06385-008	< 0.822	NA	NA	NA	NA	NA
DUP	E12-06385-008D	< 0.822	NA	NC	20	NA	NA
MS	E12-06385-008S	14.8	14.7	NA	NA	101	75-125
MSD	E12-06385-008SD	14.9	14.7	1	20	101	75-125

The above blank result applies to the follow samples:

E12-06385-008
E12-06225-018
E12-06385-007
E12-06385-009
E12-06385-010

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

Cyanide, Total

Matrix: Soil
Unit: mg/Kg

Batch: AP013-0106
Method: 9012B

Date: 07/05/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	PBS-0705	< 0.710	NA	NA	NA	NA	NA
LCS	ICVS-0705	13.0	12.5	NA	NA	104	85-115
SAMPLE	E12-06225-020	< 0.813	NA	NA	NA	NA	NA
DUP	E12-06225-020D	< 0.813	NA	NC	20	NA	NA
MS	E12-06225-020S	15.2	14.5	NA	NA	105	75-125
MSD	E12-06225-020SD	15.2	14.5	0	20	105	75-125

The above blank result applies to the follow samples:

E12-06225-020
E12-06225-016
E12-06503-001
E12-06503-002
E12-06503-003
E12-06503-004
E12-06503-005
E12-06389-001
E12-06389-002
E12-06389-003
E12-06389-004
E12-06385-001
E12-06385-002
E12-06385-004
E12-06385-006

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

TPHC

Matrix: Soil
Unit: mg/Kg

Batch: AP040-0056
Method: 418.1 M

Date: 07/09/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	TBS-001-0709	< 25.0	NA	NA	NA	NA	NA
LCS	LCS-001-0709	486	500	NA	NA	97.2	90-110
SAMPLE	E12-06643-001	< 25.0	NA	NA	NA	NA	NA
DUP	E12-06643-001D	< 25.0	NA	NC	20	NA	NA
MS	E12-06643-001S	560	579	NA	NA	96.8	75-125

The above blank result applies to the follow samples:

E12-06643-001
E12-06644-001
E12-06645-001
E12-06645-002
E12-06645-003
E12-06645-004
E12-06680-001
E12-06687-001
E12-06687-002
E12-06687-003
E12-06688-001
E12-06385-001
E12-06385-002
E12-06385-004
E12-06385-006
E12-06385-007
E12-06385-008
E12-06385-009
E12-06385-010

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

TPHC

Matrix: Aqueous
Unit: mg/L

Batch: AP040-0055
Method: 418.1M

Date: 07/03/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	TBW-001-0705	< 0.500	NA	NA	NA	NA	NA
LCS	LCW-001-0705	3.98	4	NA	NA	99.5	90-110
MS	TBW-001S-0705	3.98	4	NA	NA	99.5	75-125
MSD	TBW-001SD-0705	4.04	4	1.5	NA	101	75-125

The above blank result applies to the follow samples:

E12-06385-003
E12-06385-005
E12-06466-009
E12-06466-010
E12-06466-011
E12-06466-012
E12-06546-001
E12-06546-002

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

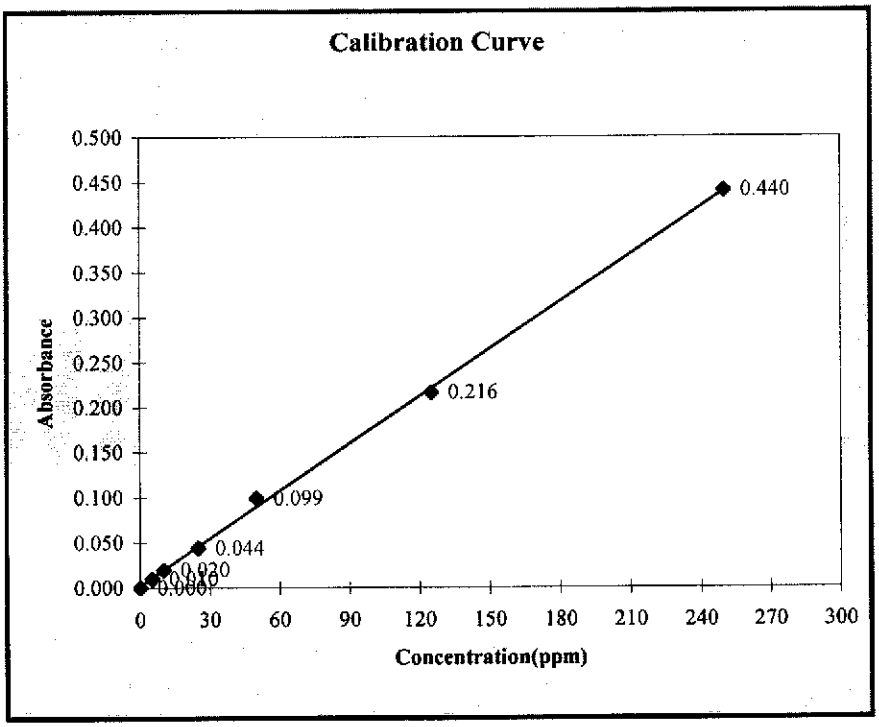
Integrated Analytical Laboratories

TPH

Date:	11-May-12
Method:	418.1
Matrix:	S/A
Analyst:	ED

Conc.	Abs.
0.000	0.000
5.000	0.010
10.000	0.020
25.000	0.044
50.000	0.099
125.000	0.216
250.000	0.440

R^2=	0.999609709
Slope=	0.00175
Intercept=	0.00234



Comments:

y = 0.00175x + .00234

E12-06385 0793

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

Ignitability

Matrix: Soil
Unit: Yes/No

Batch: AP068-0018
Method: 1030

Date: 06/29/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
SAMPLE	E12-06492-006	NO	NA	NA	NA	NA	NA
DUP	E12-06492-006D	NO	NA	NC	NC	NA	NA

The above blank result applies to the follow samples:

E12-06492-006
E12-06385-001
E12-06385-002
E12-06385-004
E12-06385-006
E12-06385-007
E12-06385-008
E12-06385-009
E12-06385-010
E12-06385-012
E12-06385-013

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

Sulfide, Reactive

Matrix: Soil
Unit: mg/Kg

Batch: AP044-0015
Method: 7.3.4.2

Date: 06/29/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	PBS-0629	< 16.0	NA	NA	NA	NA	NA
LCS	ICV-0629	448	500	NA	NA	89.6	NA
SAMPLE	E12-06385-001	< 20.5	NA	NA	NA	NA	NA
DUP	E12-06385-001D	< 20.5	NA	NC	NC	NA	NA

The above blank result applies to the follow samples:

E12-06385-001
E12-06364-001
E12-06364-002
E12-06385-002
E12-06385-008
E12-06385-004
E12-06385-006
E12-06385-007
E12-06385-009
E12-06385-010
E12-06385-012
E12-06385-013
E12-06450-001

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

Cyanide, Reactive

Matrix: Soil
Unit: mg/Kg

Batch: AP045-0016
Method: 7.3.3.2

Date: 06/29/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	PBS-0629	< 10.0	NA	NA	NA	NA	NA
LCS	ICV-0629	22.0	250	NA	NA	8.80	NA
SAMPLE	E12-06385-001	< 12.8	NA	NA	NA	NA	NA
DUP	E12-06385-001D	< 12.8	NA	NC	NC	NA	NA

The above blank result applies to the follow samples:

E12-06385-001
E12-06364-001
E12-06364-002
E12-06385-002
E12-06385-004
E12-06385-006
E12-06385-007
E12-06385-008
E12-06385-009
E12-06385-010
E12-06385-012
E12-06385-013
E12-06450-001

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO	REPORTING INFO
Company: URS	REPORT TO: Neil Laird
Address: 335 Commerce Dr.	Address: Same
Ft. Washington, PA 19034	
Telephone #: 215-367-2500	Attn:
Fax #: 215-367-1000	FAX #
Project Manager: George Keil	INVOICE TO: George Keil URS
EMAIL Address: george.keil@urs.com	Address: Same
Sampler: Neil Laird	
Project Name: Vineland, Phase II	
Project Location (State): NJ	Attn:
Bottle Order #:	PO #
Quote # :	

Turnaround Time *(starts the following day* ***if samples rec'd at lab > 5PM)***

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) — NJ EPH Fractionated (5 day TAT)
NJ EPH - C40 (5 day TAT)
DRO-8015 (3-5 day TAT) — QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified
24 hr** 48 hr** 72 hr** 96 hr** 1 wk**
Other** (specify):

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **	Report Format	EDDs
24 hr - 100%....	Results Only	NJ SRP format
48 hr - 75%....	Reduced	NYSDEC
72 hr - 50%....	Regulatory - 15% Surcharge applies	lab approved custom EDD
96 hr - 35%....	Other (describe)	NO EDD/CD REQ'D
5 day - 25%....		
6-9 day 10%		

Cooler Temp 4 °C

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION — **ANALYTICAL PARAMETERS** — ***# BOTTLES & PRESERVATIVES***

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	TPH	PAH	TOTAL METALS	TCLP	RCRA - REACTIVITY, IGNITABILITY, CORROSIVITY	PESTICIDES / HERBICIDES				HCL	HNO3	MeOH	NaOH	H2SO4	Other	None	Encore
G1-062612		6/26/12	0945	S	1	1	X	X	X	X	X											1	
G2-062612		6/26/12	1010	S	1	2	X	X	X	X	X					2						4	
I2-062612-water		6/26/12	1015	AQ	6	3	X		X			X										1	
G8-062612		6/26/12	1035	S	1	4	X	X	X	X	X											1	
I1-062612-water		6/26/12	1040	AQ	6	5	X		X			X				2						4	
G7-062612		6/26/12	1105	S	1	6	X	X	X	X	X											1	
G3-062612		6/26/12	1125	S	1	7	X	X	X	X	X											1	
G6-062612		6/26/12	1145	S	1	8	X	X	X	X	X											1	

Known Hazard: Yes or No Describe: — Conc. Expected: Low Med High — MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): ✓ IAL Courier Client Courier FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: James B McCan	6/27/12	0950	Received by: Frank Lowell / IAL	6/27/12	0950
Relinquished by: Frank Lowell/IAL	6/27/12	1717	Received by:	6/27/12	1717
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 06385

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IAL Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO	REPORTING INFO
Company: URS	REPORT TO: Neil Laird
Address: 335 Commerce Dr.	Address: Same
Ft. Washington, PA 19034	
Telephone #: 215-367-2500	Attn:
Fax #: 215-367-1000	FAX #
Project Manager: George Keil	INVOICE TO: George Keil
EMAIL Address: george.keil@urs.com	Address: Same
Sampler: Neil Laird	
Project Name: Vineland Phase II	
Project Location (State): NJ	Attn:
Bottle Order #:	PO #
Quote # :	

Turnaround Time *(starts the following day if samples rec'd at lab > 5PM)*

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) NJ EPH Fractionated (5 day TAT)

NJ EPH - C40 (5 day TAT)

DRO-8015 (3-5 day TAT) QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified

24 hr** 48 hr** 72 hr** 96 hr** 1 wk**

Other** (specify):

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **	Report Format	EDDs
24 hr - 100%....	Results Only	NJ SRP format
48 hr - 75%....	Reduced	NYSDEC
72 hr - 50%....	Regulatory - 15% Surcharge applies	lab approved custom EDD
96 hr - 35%....	Other (describe)	NO EDD/CD REQ'D
5 day - 25%....		
6-9 day 10%		

Cooler Temp 4 °C

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS / ***# BOTTLES & PRESERVATIVES***

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	TPH	PAH	Total Metals	Full TCLP	RCRA Reactivity Ignitability Corrosivity	Restricted Herbicides				HCL	HNO3	MeOH	NaOH	H2SO4	Other	None	Encore
G5-062612		6/26/12	1265	S	1	9	X	X	X	X	X											1	
G4-062612		6/26/12	1230	S	1	10	X	X	X	X	X											1	
I3sed-062612	6/26/12	1240	1240	SOT	1	11	X		X			X										1	
C1-062612		6/26/12	1250	S	1	12	X		X	X	X											1	
C2-062612		6/26/12	1300	S	1	13	X		X	X	X											1	

Known Hazard: Yes or No Describe: Conc. Expected: Low Med High MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): ✓ IAL Courier Client Courier FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: Joanne B Nelson/URS	6/27/12	0850	Received by: Frank Lowell/IAL	6/27/12	0950
Relinquished by: Frank Lowell/IAL	6/27/12	1715	Received by:	6/27/12	1717
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 06385

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PROJECT INFORMATION

E12-06385

Case No. E12-06385 **Project** VINELAND - PHASE II - VENDOR #1168636

Customer	URS Corporation - Ft. Washington	**P.O. #**	
Contact	George Keil	**Received**	6/27/2012 17:17
EMail	George_Keil@URSCorp.com ☑ EMail EDDs	**Verbal Due**	7/13/2012
Phone	(215) 367-2500 **Fax** 1(215) 367-1000	**Report Due**	7/20/2012

Report To

335 Commerce Dr.
Suite 300
Fort Washington, PA 19034
Attn: George Keil

Bill To

PO Box 203970
Austin, TX 78720
Attn: George Keil

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
06385-001	G1-062612	n/a	6/26/2012@09:45	Soil	mg/Kg	1
06385-002	G2-062612	n/a	6/26/2012@10:10	Soil	mg/Kg	1
06385-003	I2-062612-WATER	n/a	6/26/2012@10:15	Aqueous	ug/L	6
06385-004	G8-062612	n/a	6/26/2012@10:35	Soil	mg/Kg	1
06385-005	I1-062612-WATER	n/a	6/26/2012@10:40	Aqueous	ug/L	6
06385-006	G7-062612	n/a	6/26/2012@11:05	Soil	mg/Kg	1
06385-007	G3-062612	n/a	6/26/2012@11:25	Soil	mg/Kg	1
06385-008	G6-062612	n/a	6/26/2012@11:45	Soil	mg/Kg	1
06385-009	G5-062612	n/a	6/26/2012@12:05	Soil	mg/Kg	1
06385-010	G4-062612	n/a	6/26/2012@12:20	Soil	mg/Kg	1
06385-011	I3SED-062612	n/a	6/26/2012@12:40	Soil	mg/Kg	1
06385-012	C1-062612	n/a	6/26/2012@12:50	Soil	mg/Kg	1
06385-013	C2-062612	n/a	6/26/2012@13:00	Soil	mg/Kg	1
06385-014	I2-062612-WATER FILT	n/a	6/26/2012	Aqueous	ug/L	
06385-015	I1-062612-WATER FILT	n/a	6/26/2012	Aqueous	ug/L	

Sample #	Tests	Status	QA Method
001	SRS VO + 10	Complete	8260B
"	TCLP VO	Cancel	1311/8260B
"	SRS BNA + 25	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	SRS Pesticides	Complete	8081A
"	TCL PCB	Complete	8082
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	SRS Metals	In Process	6020/7471A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cr-VI (Hexavalent Chromium)	Run	3060A/7196A
"	Cyanide, Reactive	Cancel	7.3.3.2
"	Cyanide, Total	Complete	9012B
"	Ignitability	Cancel	1030

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July 12, 2012

E12-06385 0800

PROJECT INFORMATION

E12-06385

Case No. E12-06385 **Project** VINELAND - PHASE II - VENDOR #1168636

Sample #	Tests	Status	QA Method
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2
"	TPHC	Complete	418.1
"	Trivalent (III) Chromium	Run	
002	SRS VO + 10	Complete	8260B
"	TCLP VO	Cancel	1311/8260B
"	SRS BNA + 25	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	SRS Pesticides	Complete	8081A
"	TCL PCB	Complete	8082
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	SRS Metals	In Process	6020/7471A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cr-VI (Hexavalent Chromium)	Run	3060A/7196A
"	Cyanide, Reactive	Cancel	7.3.3.2
"	Cyanide, Total	Complete	9012B
"	Ignitability	Cancel	1030
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2
"	TPHC	Complete	418.1
"	Trivalent (III) Chromium	Run	
003	Herbicides	Complete	8151A
"	TCL PCB	Complete	8082
"	TCL Pesticides	Complete	8081A
"	Metals Filtration	Complete	
"	TPHC	Complete	418.1
004	SRS VO + 10	Complete	8260B
"	TCLP VO	Cancel	1311/8260B
"	SRS BNA + 25	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	SRS Pesticides	Complete	8081A
"	TCL PCB	Complete	8082
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	SRS Metals	In Process	6020/7471A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cr-VI (Hexavalent Chromium)	Run	3060A/7196A
"	Cyanide, Reactive	Cancel	7.3.3.2
"	Cyanide, Total	Complete	9012B
"	Ignitability	Cancel	1030
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2
"	TPHC	Complete	418.1
"	Trivalent (III) Chromium	Run	
005	Herbicides	Complete	8151A
"	TCL PCB	Complete	8082
"	TCL Pesticides	Complete	8081A
"	Metals Filtration	Complete	
"	TPHC	Complete	418.1
006	SRS VO + 10	Complete	8260B

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PROJECT INFORMATION

E12-06385

Case No. E12-06385 **Project** VINELAND - PHASE II - VENDOR #1168636

Sample #	Tests	Status	QA Method
"	TCLP VO	Cancel	1311/8260B
"	SRS BNA + 25	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	SRS Pesticides	Complete	8081A
"	TCL PCB	Complete	8082
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	SRS Metals	In Process	6020/7471A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cr-VI (Hexavalent Chromium)	Run	3060A/7196A
"	Cyanide, Reactive	Cancel	7.3.3.2
"	Cyanide, Total	Complete	9012B
"	Ignitability	Cancel	1030
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2
"	TPHC	Complete	418.1
"	Trivalent (III) Chromium	Run	
007	SRS VO + 10	Complete	8260B
"	TCLP VO	Cancel	1311/8260B
"	SRS BNA + 25	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	SRS Pesticides	Complete	8081A
"	TCL PCB	Complete	8082
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	SRS Metals	In Process	6020/7471A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cr-VI (Hexavalent Chromium)	Run	3060A/7196A
"	Cyanide, Reactive	Cancel	7.3.3.2
"	Cyanide, Total	Complete	9012B
"	Ignitability	Cancel	1030
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2
"	TPHC	Complete	418.1
"	Trivalent (III) Chromium	Run	
008	SRS VO + 10	Complete	8260B
"	TCLP VO	Cancel	1311/8260B
"	SRS BNA + 25	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	SRS Pesticides	Complete	8081A
"	TCL PCB	Complete	8082
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	SRS Metals	In Process	6020/7471A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cr-VI (Hexavalent Chromium)	Run	3060A/7196A
"	Cyanide, Reactive	Cancel	7.3.3.2
"	Cyanide, Total	Complete	9012B
"	Ignitability	Cancel	1030
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2

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PROJECT INFORMATION

E12-06385

Case No. E12-06385 **Project** VINELAND - PHASE II - VENDOR #1168636

Sample #	Tests	Status	QA Method
"	TPHC	Complete	418.1
"	Trivalent (III) Chromium	Run	
009	SRS VO + 10	Complete	8260B
"	TCLP VO	Cancel	1311/8260B
"	SRS BNA + 25	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	SRS Pesticides	Complete	8081A
"	TCL PCB	Complete	8082
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	SRS Metals	In Process	6020/7471A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cr-VI (Hexavalent Chromium)	Run	3060A/7196A
"	Cyanide, Reactive	Cancel	7.3.3.2
"	Cyanide, Total	Complete	9012B
"	Ignitability	Cancel	1030
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2
"	TPHC	Complete	418.1
"	Trivalent (III) Chromium	Run	
010	SRS VO + 10	Complete	8260B
"	TCLP VO	Cancel	1311/8260B
"	SRS BNA + 25	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	SRS Pesticides	Complete	8081A
"	TCL PCB	Complete	8082
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	SRS Metals	In Process	6020/7471A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cr-VI (Hexavalent Chromium)	Run	3060A/7196A
"	Cyanide, Reactive	Cancel	7.3.3.2
"	Cyanide, Total	Complete	9012B
"	Ignitability	Cancel	1030
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2
"	TPHC	Complete	418.1
"	Trivalent (III) Chromium	Run	
011	TCL/PAH	Complete	8270C
"	NJ-EPH-Fractionated	Complete	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7470A
"	TPHC	Cancel	418.1
012	TCLP VO	Cancel	1311/8260B
"	TCL/PAH	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	NJ-EPH-Fractionated	Complete	Method 10.08 Rev 3
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	TAL Metals	In Process	6020/7470A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cyanide, Reactive	Cancel	7.3.3.2

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PROJECT INFORMATION

E12-06385

Case No. E12-06385 **Project** VINELAND - PHASE II - VENDOR #1168636

Sample #	Tests	Status	QA Method
"	Ignitability	Cancel	1030
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2
013	TCLP VO	Cancel	1311/8260B
"	TCL/PAH	Complete	8270C
"	TCLP BNA	Cancel	1311/8270C
"	NJ-EPH-Fractionated	Complete	Method 10.08 Rev 3
"	TCLP Herbicides	Cancel	1311/8151A
"	TCLP Pesticides	Cancel	1311/8081A
"	TAL Metals	In Process	6020/7470A
"	TCLP Metals	Cancel	1311/6020/7470A
"	Cyanide, Reactive	Cancel	7.3.3.2
"	Ignitability	Cancel	1030
"	pH/Corrosivity	Cancel	9045C
"	Sulfide, Reactive	Cancel	7.3.4.2
014	TAL Metals	Complete	6020/7470A
015	TAL Metals	Complete	6020/7470A

06/29/2012 08:05 by kim - NOTE 2

PER GEORGE KEIL, ANALYZE SOILS FOR FULL TCLP AND RCRA CHARACTERISTICS ONLY.

ANALYZE WATERS AND SEDIMENT FOR TPH BY METHOD 418.1, DISSOLVED TAL METALS, TCL PESTICIDES AND HERBICIDES.

07/02/2012 11:22 by Mark - REV 1

PER JACKIE & SHERRY, ANALYZE ALL SAMPLES FOR TPHC-418.1

07/02/2012 11:58 by Mark - REV 2

PER GEORGE KEIL & SHERRY, CANCEL TCLP ANALYSES ON SAMPLES #001, 002, 004, & 006 - 010.

07/03/2012 08:47 by Mark - REV 3

PER GEORGE KEIL & SHERRY ADAMS, FOR SAMPLES #001, 002, 004 & 006 -010, ANALYZE NJ SRS ANALYSES & TPH-418.1.

REACTIVE SULFIDE, REACTIVE CN, IGNITABILITY, TCLP VOA ANALYSES ALREADY COMPLETED, DO NOT REPORT.
TCLP METALS DIGESTED, DO NOT ANALYZE
ANALYZE SAMPLES #011 - 013 FOR FRACTIONATED PH, TAL METALS & PAH.

REACTIVE CN, REACTIVE SULFIDE & IGNITABILITY ALREADY ANALYZED ON SAMPLES #012 & 013, DO NOT REPORT

07/03/2012 09:30 by Mark - PKNOTE 1

See Attachment A192 for required lists & limits.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 12** **06385** CLIENT: URS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

COC: (COMPLETE) / INCOMPLETE

Comments

KEY

✓ = YES/NA
✗ = NO

No metals bottles

✓	Bottles Intact
✓	no-Missing Bottles
✓	no-Extra Bottles
✓	Sufficient Sample Volume
✓	no-headspace/bubbles in VOs
✓	Labels intact/correct
✓	pH Check (exclude VOs)[1]
✓	Correct bottles/preservative
✓	Sufficient Holding/Prep Time[1]
	Sample to be Subcontracted
✓	**Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [illegible] DATE 6/27/12

CORRECTIVE ACTION REQUIRED: **YES** (SEE BELOW) **NO**

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES Date/ Time: NO

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [illegible] DATE 6/29/12

E12-06385 0805

REV 03/2009

Laboratory Custody Chronicle

IAL Case No.

E12-06385

Client URS Corporation - Ft. Washington

Project VINELAND - PHASE II - VENDOR #1168636

Received On 6/27/2012@17:17

Department: Volatiles			Prep. Date	Analyst	Analysis Date	Analyst
SRS VO + 10	06385-001	Soil	n/a	n/a	7/10/12	Xing
"	-002	"	n/a	n/a	7/10/12	Xing
"	-004	"	n/a	n/a	7/10/12	Xing
"	-006	"	n/a	n/a	7/10/12	Xing
"	-007	"	n/a	n/a	7/10/12	Xing
"	-008	"	n/a	n/a	7/10/12	Xing
"	-009	"	n/a	n/a	7/10/12	Xing
"	-010	"	n/a	n/a	7/10/12	Xing

Department: Semivolatiles			Prep. Date	Analyst	Analysis Date	Analyst
SRS BNA + 25	-001	Soil	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-002	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-004	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-006	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-007	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-008	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-009	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-010	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
TCL/PAH	-011	Soil	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-012	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-013	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor

Department: GC			Prep. Date	Analyst	Analysis Date	Analyst
Herbicides	-003	Aqueous	6/29/12	Archimede	7/ 2/12	Julia
"	-005	"	6/29/12	Archimede	7/ 2/12	Julia
NJ-EPH-Fractionated	-011	Soil	7/ 3/12	Archimede	7/ 6/12	Margaret
"	-012	"	7/ 3/12	Archimede	7/ 6/12	Margaret
"	-013	"	7/ 3/12	Archimede	7/ 6/12	Margaret
SRS Pesticides	-001	Soil	7/ 5/12	Archimede	7/10/12	Iwona
"	-002	"	7/ 5/12	Archimede	7/10/12	Iwona
"	-004	"	7/ 5/12	Archimede	7/10/12	Iwona
"	-006	"	7/ 5/12	Archimede	7/10/12	Iwona
"	-007	"	7/ 5/12	Archimede	7/10/12	Iwona
"	-008	"	7/ 5/12	Archimede	7/10/12	Iwona
"	-009	"	7/ 5/12	Archimede	7/10/12	Iwona
"	-010	"	7/ 5/12	Archimede	7/10/12	Iwona
TCL PCB	-001	Soil	7/ 5/12	Archimede	7/11/12	Julia
"	-002	"	7/ 5/12	Archimede	7/11/12	Julia
"	-003	Aqueous	7/ 2/12	Archimede	7/ 4/12	Julia
"	-004	Soil	7/ 5/12	Archimede	7/11/12	Julia
"	-005	Aqueous	7/ 2/12	Archimede	7/ 4/12	Julia
"	-006	Soil	7/ 5/12	Archimede	7/11/12	Julia
"	-007	"	7/ 5/12	Archimede	7/11/12	Julia
"	-008	"	7/ 5/12	Archimede	7/11/12	Julia
"	-009	"	7/ 5/12	Archimede	7/11/12	Julia

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IAL Case No. E12-06385

Client URS Corporation - Ft. Washington

Project VINELAND - PHASE II - VENDOR #1168636

Received On 6/27/2012@17:17

"	-010	"	7/ 5/12	Archimede	7/11/12	Julia
TCL Pesticides	-003	Aqueous	7/ 2/12	Archimede	7/ 3/12	Iwona
"	-005	"	7/ 2/12	Archimede	7/ 3/12	Iwona

Department: Metals

			Prep. Date	Analyst	Analysis Date	Analyst
SRS Metals	-001	Soil	6/28/12	Lisa	7/ 2/12	En
"	-002	"	6/28/12	Lisa	7/ 2/12	En
"	-004	"	6/28/12	Lisa	7/ 2/12	En
"	-006	"	6/28/12	Lisa	7/ 2/12	En
"	-007	"	6/28/12	Lisa	7/ 2/12	En
"	-008	"	6/28/12	Lisa	7/ 2/12	En
"	-009	"	6/28/12	Lisa	7/ 2/12	En
"	-010	"	6/28/12	Lisa	7/ 2/12	En
TAL Metals	-011	Soil	6/28/12	Lisa	7/ 2/12	En
"	-012	"	6/28/12	Lisa	7/ 2/12	RPittenger
"	-013	"	6/28/12	Lisa	7/ 1/12	RPittenger
"	-014	Aqueous	7/ 3/12	Lisa	7/ 3/12	En
"	-015	"	7/ 3/12	Lisa	7/ 3/12	En

Department: Wet Chemistry

			Prep. Date	Analyst	Analysis Date	Analyst
Cr-Vl (Hexavalent Chromium)	-001	Soil	n/a	n/a	7/ 9/12	Robert
"	-002	"	n/a	n/a	7/ 9/12	Robert
"	-004	"	n/a	n/a	7/ 9/12	Robert
"	-006	"	n/a	n/a	7/ 9/12	Robert
"	-007	"	n/a	n/a	7/ 9/12	Robert
"	-008	"	n/a	n/a	7/ 9/12	Robert
"	-009	"	n/a	n/a	7/ 9/12	Robert
"	-010	"	n/a	n/a	7/ 9/12	Robert
Cr-Vl re-run(Hexavalent Chromium)	-001	Soil	n/a	n/a	7/10/12	Robert
"	-002	"	n/a	n/a	7/10/12	Robert
"	-004	"	n/a	n/a	7/10/12	Robert
"	-006	"	n/a	n/a	7/10/12	Robert
"	-007	"	n/a	n/a	7/10/12	Robert
"	-008	"	n/a	n/a	7/10/12	Robert
"	-009	"	n/a	n/a	7/10/12	Robert
"	-010	"	n/a	n/a	7/10/12	Robert
Cyanide, Total	-001	Soil	n/a	n/a	7/ 5/12	Robert
"	-002	"	n/a	n/a	7/ 5/12	Robert
"	-004	"	n/a	n/a	7/ 5/12	Robert
"	-006	"	n/a	n/a	7/ 5/12	Robert
"	-007	"	n/a	n/a	7/ 6/12	Robert
"	-008	"	n/a	n/a	7/ 6/12	Robert
"	-009	"	n/a	n/a	7/ 6/12	Robert
"	-010	"	n/a	n/a	7/ 6/12	Robert
TPHC	-001	Soil	n/a	n/a	7/ 9/12	Elma
"	-002	"	n/a	n/a	7/ 9/12	Elma
"	-003	Aqueous	n/a	n/a	7/ 3/12	Elma

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IAL Case No.
E12-06385

Client URS Corporation - Ft. Washington

Project VINELAND - PHASE II - VENDOR #1168636

Received On 6/27/2012@17:17

"	-004	Soil	n/a	n/a	7/ 9/12	Elma
"	-005	Aqueous	n/a	n/a	7/ 3/12	Elma
"	-006	Soil	n/a	n/a	7/ 9/12	Elma
"	-007	"	n/a	n/a	7/ 9/12	Elma
"	-008	"	n/a	n/a	7/ 9/12	Elma
"	-009	"	n/a	n/a	7/ 9/12	Elma
"	-010	"	n/a	n/a	7/ 9/12	Elma
Trivalent (III) Chromium	-001	Soil	n/a	n/a	n/a	n/a
"	-002	"	n/a	n/a	n/a	n/a
"	-004	"	n/a	n/a	n/a	n/a
"	-006	"	n/a	n/a	n/a	n/a
"	-007	"	n/a	n/a	n/a	n/a
"	-008	"	n/a	n/a	n/a	n/a
"	-009	"	n/a	n/a	n/a	n/a
"	-010	"	n/a	n/a	n/a	n/a

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Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

URS Corporation - Ft. Washington
335 Commerce Dr.
Suite 300
Fort Washington, PA 19034

Project Name: **VINELAND PHASE II - VENDOR #1168636**
IAL Case Number: **E12-06466**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

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IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E12-06466

Client URS Corporation - Ft. Washington

Project VINELAND PHASE II - VENDOR #1168636

Received On 6/28/2012@19:30

Lab ID	Client Sample ID	Depth Top/Bottom	Sampling Time	Matrix	# of Container
06466-001	B1 (4-5) -062712	n/a	6/27/2012@11:15	Soil	5
06466-002	B3 (16-17) -062712	n/a	6/27/2012@12:25	Soil	5
06466-003	C1 (12.5-13.5) -062712	n/a	6/27/2012@13:40	Soil	2
06466-004	A1 (12-13) -062712	n/a	6/27/2012@14:15	Soil	1
06466-005	C2 (11-12) -062712	n/a	6/27/2012@14:50	Soil	3
06466-006	A2 (4-5) -062712	n/a	6/27/2012@15:30	Soil	1
06466-007	A7 (2-3) -062712	n/a	6/27/2012@16:00	Soil	1
06466-008	I1-062712-SED	n/a	6/27/2012@10:15	Soil	1
06466-009	B3-062712-WATER	n/a	6/27/2012@13:55	Aqueous	8
06466-010	A1-062712-WATER	n/a	6/27/2012@15:10	Aqueous	11
06466-011	A2-062712-WATER	n/a	6/27/2012@15:55	Aqueous	11
06466-012	A7-062712-WATER	n/a	6/27/2012@16:40	Aqueous	11
06466-013	B3-062712-WATER FILT.	n/a	6/27/2012@13:55	Aqueous	1
06466-014	A1-062712-WATER FILT.	n/a	6/27/2012@15:10	Aqueous	1
06466-015	A2-062712-WATER FILT.	n/a	6/27/2012@15:55	Aqueous	1
06466-016	A7-062712-WATER FILT.	n/a	6/27/2012@16:40	Aqueous	1

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received eight (8) aqueous and eight (8) soil sample(s) from URS Corporation - Ft. Washington (IAL SDG # E12-06466, Project: VINELAND PHASE II - VENDOR #1168636) on June 28, 2012 for the analysis of:

(6) TCL VO + 15
(6) TCL BNA + 15
(6) TCL/PAH
(3) TCL PCB
(4) TCL Pesticides
(4) Herbicides
(8) NJ-EPH-Fractionated
(12) TAL Metals
(4) TPHC

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

7/16/12
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06466

Volatiles By 8260B

Batch ID: 120703,120705

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate met criteria.

E12-06466
- Analysis holding time met requirement for each sample.

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06466

Volatiles By 8260B

Batch ID: 120709

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate met criteria.

E12-06466
- Analysis holding time met requirement for each sample.

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06466

Semivolatiles By **8270C/625**

Batch ID: 120709-03	**Matrix:** Soil

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E12-06466
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06466

Semivolatiles By **8270C/625**

Batch ID: 120703-08	**Matrix:** Aqueous

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E12-06466
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S

Lab Case Number: E12 - 06466

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. Standards Summary submitted.		✓
3. Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7. Retention Time Shift Meet Criteria (if applicable).		✓
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments: please see next page

Organic Manager

07-13-12
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S, PESTICIDES, HERBICIDES

Additional comments for GC analytical results

Client/ Project: URS-FTWASH/VINELAND Phase II-VENDOR # 1168636

IAL Case Number: E12 - 06466

GC Analysis: PCB'S [X]

PESTICIDES [ ]

HERBICIDES [ ]

(check box for correct analysis)

As per EPA Method SW-846 8000C Section 11.10.4, the following samples are being reported with compound results that are significantly higher (> 40%) difference between primary and secondary column quantitations:

06466 # 008

This exceedence is caused by sample matrix interference in the analytical run.

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PESTICIDES

Lab Case Number: E12-06466

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/11/12
Date

rev 01/12

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - HERBICIDES

Lab Case Number: E12 - 06466

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07-11-12
Date

rev 01/12

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - HERBICIDES

Lab Case Number: E12 - 06466

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range: MS, MSD failed criteria due to matrix interference	✓	
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/13/12
Date

rev 01/12

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - NJ EPH - FRACTIONATED

Lab Case Number: E12 - 06466

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike (MS)/Matrix Spike Duplicate (MSD) (as needed) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7a.	Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7b.	n-Nonane LCS/LCSD % Recoveries were found to be less than 40% but within the acceptance range of 25 - 140%.		✓
8.	Retention Time Shift Meets Criteria (if applicable).		✓
9.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
10.	Fractionation Holding Time Met. If not met, list number of days exceeded for each sample:		✓
11.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/11/20 Date

rev 01/12

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06466

METAL By Method 6020

Matrix: SOIL	Batch ID: 278A

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06466
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06466

METAL By Method 6020

Matrix: SOIL	Batch ID: 275A

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06466
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06466

METAL By Method 6020

Matrix: AQUEOUS	Batch ID: 283A

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06466
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES

CONFORMANCE/NONCONFORMANCE SUMMARY

PHC ANALYSIS

SDG #: E12-06466

		No	Yes
1.	Blank Contamination If yes, list the sample and the concentration in each blanks:	____	____
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the samples and corresponding recovery which falls outside the acceptable range)	____	____
3.	IR spectra submitted for all standards, blanks & samples. Comments: Integrated Analytical Laboratories (IAL) generates TPHC results on a fixed wavelength IR Spectrophotometer. Like all fixed wavelength IR Spectrophotometers, IAL's cannot generate spectra. However, the instrument used is approved both under the apparatus section of EPA 418.1 for TPHC and by the Office of Quality Assurance of the NJDEP for generating TPHC results.	____	____
4.	Chromatograms submitted for all standards, blanks & samples if GC fingerprinting was conducted.	____	____
5.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:	____	____
6.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:	____	____

Additional Comments:

Dept. Supervisor

7/5/2012
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: VINELAND PHASE II - VENDOR #1168636
Lab Case No.: E12-06466

Lab ID:	06466-009			06466-010			06466-011			06466-012		
Client ID:	B3-062712-WATER			A1-062712-WATER			A2-062712-WATER			A7-062712-WATER		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	6/27/12			6/27/12			6/27/12			6/27/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
TOTAL VO's:	ND			ND			ND			ND		
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL VO's & TIC's:	ND			ND			ND			ND		
Semivolatiles - BNA (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
TOTAL BNA'S:	ND			ND			ND			ND		
TOTAL TIC's:	ND			ND			ND			ND		
TOTAL BNA'S & TIC's:	ND			ND			ND			ND		
Pesticides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
alpha-BHC	~		~	ND		0.005	ND		0.005	ND		0.005
beta-BHC	~		~	ND		0.005	ND		0.005	ND		0.005
gamma-BHC (Lindane)	~		~	ND		0.005	ND		0.005	ND		0.005
delta-BHC	~		~	ND		0.005	ND		0.005	ND		0.005
Heptachlor	~		~	ND		0.005	ND		0.005	ND		0.005
Aldrin	~		~	ND		0.005	ND		0.005	ND		0.005
Heptachlor epoxide	~		~	ND		0.005	ND		0.005	ND		0.005
Endosulfan I	~		~	ND		0.005	ND		0.005	ND		0.005
4,4'-DDE	~		~	ND		0.005	ND		0.005	ND		0.005
Dieldrin	~		~	ND		0.005	ND		0.005	ND		0.005
Endrin	~		~	ND		0.005	ND		0.005	ND		0.005
Endosulfan II	~		~	ND		0.005	ND		0.005	ND		0.005
4,4'-DDD	~		~	ND		0.005	ND		0.005	ND		0.005
Endrin aldehyde	~		~	ND		0.005	ND		0.005	ND		0.005
Endosulfan sulfate	~		~	ND		0.005	ND		0.005	ND		0.005
4,4'-DDT	~		~	ND		0.005	ND		0.005	ND		0.005
Endrin ketone	~		~	ND		0.005	ND		0.005	ND		0.005
Methoxychlor	~		~	ND		0.005	ND		0.005	ND		0.005
alpha-Chlordane	~		~	ND		0.005	ND		0.005	ND		0.005
gamma-Chlordane	~		~	ND		0.005	ND		0.005	ND		0.005
Toxaphene	~		~	ND		0.060	ND		0.060	ND		0.060
Endosulfan (I and II)	~		~	ND		0.005	ND		0.005	ND		0.005
Chlordane (alpha and gamma)	~		~	ND		0.005	ND		0.005	ND		0.005
Herbicides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Dalapon	~		~	ND		0.200	ND		0.200	ND		0.100
Dicamba	~		~	ND		0.200	ND		0.200	ND		0.100
2,4-D	~		~	ND		0.200	ND		0.200	ND		0.100
2,4,5-TP (Silvex)	~		~	ND		0.200	ND		0.200	ND		0.100
2,4,5-T	~		~	ND		0.200	ND		0.200	ND		0.100
2,4-DB	~		~	ND		0.200	ND		0.200	ND		0.100
Dinoseb	~		~	ND		0.200	ND		0.200	ND		0.100

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: VINELAND PHASE II - VENDOR #1168636
Lab Case No.: E12-06466

Lab ID:	06466-009			06466-010			06466-011			06466-012		
Client ID:	B3-062712-WATER			A1-062712-WATER			A2-062712-WATER			A7-062712-WATER		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	6/27/12			6/27/12			6/27/12			6/27/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
General Analytical (Units)												
Total Petroleum Hydrocarbons(ug/L)	ND		500	ND		510	ND		500	ND		500

Lab ID:	06466-013			06466-014			06466-015			06466-016		
Client ID:	B3-062712-WATER FILT.			A1-062712-WATER FILT.			A2-062712-WATER FILT.			A7-062712-WATER FILT.		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	6/27/12			6/27/12			6/27/12			6/27/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Aluminum	ND		20.0	ND		20.0	232		20.0	784		20.0
Antimony	ND		1.00	ND		1.00	ND		1.00	ND		1.00
Arsenic	ND		1.00	ND		1.00	ND		1.00	ND		1.00
Barium	61.9		10.0	26.3	J	10.0	84.2		10.0	75.1		10.0
Beryllium	ND		1.00	ND		1.00	ND		1.00	ND		1.00
Cadmium	ND		0.500	ND		0.500	ND		0.500	ND		0.500
Calcium	35200		100	3180		100	3280		100	4480		100
Chromium	ND		2.00	ND		2.00	ND		2.00	ND		2.00
Cobalt	2.18	J	2.00	2.04	J	2.00	5.86	J	2.00	7.94	J	2.00
Copper	ND		4.00	ND		4.00	ND		4.00	ND		4.00
Iron	ND		50.0	1300		50.0	3240		50.0	1070		50.0
Lead	ND		0.500	ND		0.500	ND		0.500	ND		0.500
Magnesium	17000		50.0	1620		50.0	1730		50.0	1700		50.0
Manganese	807		2.00	67.4		2.00	180		2.00	181		2.00
Mercury	ND		0.300	ND		0.300	ND		0.300	ND		0.300
Nickel	4.38		1.00	2.89	J	1.00	4.42		1.00	5.91		1.00
Potassium	24600		50.0	1240		50.0	1810		50.0	1870		50.0
Selenium	5.29	J	4.00	ND		4.00	ND		4.00	ND		4.00
Silver	ND		0.500	ND		0.500	ND		0.500	ND		0.500
Sodium	189000		100	2480		100	3540		100	3290		100
Thallium	ND		0.500	ND		0.500	ND		0.500	ND		0.500
Vanadium	ND		2.00	ND		2.00	ND		2.00	ND		2.00
Zinc	7.65	J	4.00	47.2		4.00	107		4.00	11.2		4.00

Lab ID:	06466-001			06466-002			06466-003			06466-004		
Client ID:	B1 (4-5) -062712			B3 (16-17) -062712			C1 (12.5-13.5) -062712			A1 (12-13) -062712		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/27/12			6/27/12			6/27/12			6/27/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TOTAL VO's:	ND			ND			~		~	~		~
TOTAL TIC's:	ND			ND			~		~	~		~
TOTAL VO's & TIC's:	ND			ND			~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: VINELAND PHASE II - VENDOR #1168636
Lab Case No.: E12-06466

Lab ID:	06466-001			06466-002			06466-003			06466-004		
Client ID:	B1 (4-5) -062712			B3 (16-17) -062712			C1 (12.5-13.5) -062712			A1 (12-13) -062712		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/27/12			6/27/12			6/27/12			6/27/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
2-Methylnaphthalene	ND		0.034	ND		0.034	ND		0.032	ND		0.029
Acenaphthylene	ND		0.029	ND		0.029	ND		0.027	ND		0.024
Acenaphthene	ND		0.033	ND		0.033	ND		0.031	ND		0.028
Fluorene	ND		0.022	ND		0.022	ND		0.021	ND		0.019
Phenanthrene	ND		0.027	ND		0.027	ND		0.026	ND		0.023
Anthracene	ND		0.039	ND		0.040	ND		0.038	ND		0.034
Fluoranthene	ND		0.016	ND		0.016	ND		0.016	ND		0.014
Pyrene	ND		0.030	ND		0.030	ND		0.029	ND		0.026
Benzo[a]anthracene	ND		0.039	ND		0.040	ND		0.038	ND		0.034
Chrysene	ND		0.028	ND		0.028	ND		0.026	ND		0.024
Benzo[b]fluoranthene	ND		0.021	ND		0.021	ND		0.020	ND		0.018
Benzo[k]fluoranthene	ND		0.015	ND		0.015	ND		0.014	ND		0.013
Benzo[a]pyrene	ND		0.023	ND		0.023	ND		0.022	ND		0.019
Indeno[1,2,3-cd]pyrene	ND		0.020	ND		0.021	ND		0.020	ND		0.018
Dibenz[a,h]anthracene	ND		0.024	ND		0.025	ND		0.023	ND		0.021
Benzo[g,h,i]perylene	ND		0.013	ND		0.013	ND		0.013	ND		0.011
PCB's (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	ND		0.017	ND		0.018	~		~	~		~
Aroclor-1221	ND		0.017	ND		0.018	~		~	~		~
Aroclor-1232	ND		0.017	ND		0.018	~		~	~		~
Aroclor-1242	ND		0.017	ND		0.018	~		~	~		~
Aroclor-1248	ND		0.017	ND		0.018	~		~	~		~
Aroclor-1254	ND		0.017	ND		0.018	~		~	~		~
Aroclor-1260	ND		0.017	ND		0.018	~		~	~		~
Aroclor-1262	ND		0.017	ND		0.018	~		~	~		~
Aroclor-1268	ND		0.017	ND		0.018	~		~	~		~
PCBs	ND		0.017	ND		0.018	~		~	~		~
NJ-EPH-Fractionated (Units	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	ND		2.28	ND		2.32	ND		2.37	ND		2.00
C12-C16 Aliphatics	ND		2.28	ND		2.32	ND		2.37	ND		2.00
C16-C21 Aliphatics	ND		2.28	ND		2.32	ND		2.37	ND		2.00
C21-C40 Aliphatics	ND		11.4	ND		11.6	ND		11.8	ND		9.99
Total Aliphatics	0		11.4	0		11.6	0		11.8	0		9.99
C10-C12 Aromatics	ND		4.55	ND		4.65	ND		4.74	ND		4.00
C12-C16 Aromatics	ND		4.55	ND		4.65	ND		4.74	ND		4.00
C16-C21 Aromatics	ND		4.55	ND		4.65	ND		4.74	ND		4.00
C21-C36 Aromatics	ND		9.11	ND		9.30	ND		9.47	ND		7.99
Total Aromatics	0		9.11	0		9.30	0		9.47	0		7.99
Total NJ-EPH	0		11.4	0		11.6	0		11.8	0		9.99

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: VINELAND PHASE II - VENDOR #1168636
Lab Case No.: E12-06466

Lab ID:	06466-001			06466-002			06466-003			06466-004		
Client ID:	B1 (4-5) -062712			B3 (16-17) -062712			C1 (12.5-13.5) -062712			A1 (12-13) -062712		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/27/12			6/27/12			6/27/12			6/27/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	2870		6.20	617		6.68	262		6.36	560		5.68
Antimony	ND		0.310	ND		0.334	ND		0.318	ND		0.284
Arsenic	2.13		0.310	ND		0.334	ND		0.318	ND		0.284
Barium	13.5		3.10	ND		3.34	ND		3.18	ND		2.84
Beryllium	ND		0.248	ND		0.267	ND		0.254	ND		0.227
Cadmium	ND		0.155	ND		0.167	ND		0.159	ND		0.142
Calcium	187		31.0	64.5	J	33.4	ND		31.8	ND		28.4
Chromium	4.55		0.620	4.60		0.668	1.32	J	0.636	1.75	J	0.568
Cobalt	ND		0.620	ND		0.668	ND		0.636	ND		0.568
Copper	2.54		0.620	0.786	J	0.668	ND		0.636	ND		0.568
Iron	4140		15.5	1140		16.7	550		15.9	742		14.2
Lead	15.8		0.155	0.676		0.167	0.303	J	0.159	0.556	J	0.142
Magnesium	192		15.5	50.7	J	16.7	ND		15.9	32.5	J	14.2
Manganese	141		0.310	3.20		0.334	1.75		0.318	1.91		0.284
Mercury	0.039		0.00683	ND		0.00729	ND		0.00721	ND		0.00594
Nickel	1.20	J	0.620	ND		0.668	ND		0.636	ND		0.568
Potassium	93.8		15.5	59.6	J	16.7	18.9	J	15.9	38.9	J	14.2
Selenium	ND		1.24	ND		1.34	ND		1.27	ND		1.14
Silver	ND		0.155	ND		0.167	ND		0.159	ND		0.142
Sodium	ND		31.0	ND		33.4	52.8	J	31.8	30.7	J	28.4
Thallium	ND		0.155	ND		0.167	ND		0.159	ND		0.142
Vanadium	7.54		0.620	1.54	J	0.668	0.929	J	0.636	1.08	J	0.568
Zinc	7.44		2.48	ND		2.67	ND		2.54	ND		2.27

Lab ID:	06466-005			06466-006			06466-007			06466-008		
Client ID:	C2 (11-12) -062712			A2 (4-5) -062712			A7 (2-3) -062712			I1-062712-SED		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/27/12			6/27/12			6/27/12			6/27/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
2-Methylnaphthalene	ND		0.030	ND		0.028	ND		0.028	0.799		0.033
Acenaphthylene	ND		0.025	ND		0.024	ND		0.024	0.504		0.028
Acenaphthene	ND		0.029	ND		0.027	ND		0.027	0.187		0.032
Fluorene	ND		0.020	ND		0.018	ND		0.019	0.230		0.022
Phenanthrene	ND		0.024	ND		0.023	ND		0.023	2.03		0.026
Anthracene	ND		0.035	ND		0.033	ND		0.033	0.739		0.038
Fluoranthene	ND		0.014	ND		0.014	ND		0.014	3.39		0.016
Pyrene	ND		0.027	ND		0.025	ND		0.025	3.50		0.030
Benzo[a]anthracene	ND		0.035	ND		0.033	ND		0.033	1.54		0.038
Chrysene	ND		0.025	ND		0.023	ND		0.023	1.75		0.027
Benzo[b]fluoranthene	ND		0.019	ND		0.018	ND		0.018	0.970		0.021
Benzo[k]fluoranthene	ND		0.013	ND		0.012	ND		0.012	1.15		0.014
Benzo[a]pyrene	ND		0.020	ND		0.019	ND		0.019	1.52		0.022
Indeno[1,2,3-cd]pyrene	ND		0.018	ND		0.017	ND		0.017	0.384		0.020
Dibenz[a,h]anthracene	ND		0.022	ND		0.021	ND		0.021	0.176		0.024
Benzo[g,h,i]perylene	ND		0.012	ND		0.011	ND		0.011	0.399		0.013

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: VINELAND PHASE II - VENDOR #1168636
Lab Case No.: E12-06466

Lab ID:	06466-005			06466-006			06466-007			06466-008		
Client ID:	C2 (11-12) -062712			A2 (4-5) -062712			A7 (2-3) -062712			I1-062712-SED		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/27/12			6/27/12			6/27/12			6/27/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	~		~	~		~	~		~	ND		0.000744
Aroclor-1221	~		~	~		~	~		~	ND		0.000744
Aroclor-1232	~		~	~		~	~		~	ND		0.000744
Aroclor-1242	~		~	~		~	~		~	ND		0.000744
Aroclor-1248	~		~	~		~	~		~	0.010		0.000744
Aroclor-1254	~		~	~		~	~		~	ND		0.000744
Aroclor-1260	~		~	~		~	~		~	0.00866		0.000744
Aroclor-1262	~		~	~		~	~		~	ND		0.000744
Aroclor-1268	~		~	~		~	~		~	ND		0.000744
PCBs	~		~	~		~	~		~	0.019		0.000744
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	~		~	~		~	~		~	ND		0.000186
beta-BHC	~		~	~		~	~		~	ND		0.000186
gamma-BHC (Lindane)	~		~	~		~	~		~	ND		0.000186
delta-BHC	~		~	~		~	~		~	ND		0.000186
Heptachlor	~		~	~		~	~		~	ND		0.000186
Aldrin	~		~	~		~	~		~	ND		0.000186
Heptachlor epoxide	~		~	~		~	~		~	ND		0.000186
Endosulfan I	~		~	~		~	~		~	ND		0.000186
4,4'-DDE	~		~	~		~	~		~	ND		0.000186
Dieldrin	~		~	~		~	~		~	ND		0.000186
Endrin	~		~	~		~	~		~	ND		0.000186
Endosulfan II	~		~	~		~	~		~	ND		0.000186
4,4'-DDD	~		~	~		~	~		~	0.00327		0.000186
Endrin aldehyde	~		~	~		~	~		~	ND		0.000186
Endosulfan sulfate	~		~	~		~	~		~	ND		0.000186
4,4'-DDT	~		~	~		~	~		~	0.00281		0.000186
Endrin ketone	~		~	~		~	~		~	ND		0.000186
Methoxychlor	~		~	~		~	~		~	ND		0.000186
alpha-Chlordane	~		~	~		~	~		~	ND		0.000186
gamma-Chlordane	~		~	~		~	~		~	ND		0.000186
Toxaphene	~		~	~		~	~		~	ND		0.00223
Endosulfan (I and II)	~		~	~		~	~		~	ND		0.000186
Chlordane (alpha and gamma)	~		~	~		~	~		~	ND		0.000186
Herbicides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Dalapon	~		~	~		~	~		~	ND		0.022
Dicamba	~		~	~		~	~		~	ND		0.022
2,4-D	~		~	~		~	~		~	ND		0.022
2,4,5-TP (Silvex)	~		~	~		~	~		~	ND		0.022
2,4,5-T	~		~	~		~	~		~	ND		0.022
2,4-DB	~		~	~		~	~		~	ND		0.022
Dinoseb	~		~	~		~	~		~	ND		0.022

ND = Analyzed for but Not Detected at the MDL
~ = Sample not analyzed for

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: VINELAND PHASE II - VENDOR #1168636
Lab Case No.: E12-06466

Lab ID:	06466-005			06466-006			06466-007			06466-008		
Client ID:	C2 (11-12) -062712			A2 (4-5) -062712			A7 (2-3) -062712			I1-062712-SED		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/27/12			6/27/12			6/27/12			6/27/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
NJ-EPH-Fractionated (Units	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	ND		2.07	ND		1.96	ND		2.05	ND		2.28
C12-C16 Aliphatics	ND		2.07	ND		1.96	ND		2.05	14.9		2.28
C16-C21 Aliphatics	ND		2.07	ND		1.96	ND		2.05	52.9		2.28
C21-C40 Aliphatics	ND		10.3	ND		9.80	ND		10.3	435		11.4
Total Aliphatics	0		10.3	0		9.80	0		10.3	503		11.4
C10-C12 Aromatics	ND		4.14	ND		3.92	ND		4.11	ND		4.56
C12-C16 Aromatics	ND		4.14	ND		3.92	ND		4.11	9.72	J	4.56
C16-C21 Aromatics	ND		4.14	ND		3.92	ND		4.11	50.7		4.56
C21-C36 Aromatics	ND		8.28	ND		7.84	ND		8.21	247		9.13
Total Aromatics	0		8.28	0		7.84	0		8.21	307		9.13
Total NJ-EPH	0		10.3	0		9.80	0		10.3	810		11.4
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	864		5.50	1480		5.63	4420		5.78	4670		6.47
Antimony	ND		0.275	ND		0.281	ND		0.289	0.941	J	0.323
Arsenic	0.357	J	0.275	ND		0.281	0.718		0.289	8.97		0.323
Barium	2.80	J	2.75	4.25	J	2.81	15.0		2.89	60.3		3.23
Beryllium	ND		0.220	ND		0.225	ND		0.231	ND		0.259
Cadmium	ND		0.138	ND		0.141	ND		0.144	0.682		0.162
Calcium	ND		27.5	ND		28.1	62.3		28.9	15300		32.3
Chromium	2.08	J	0.550	3.00		0.563	4.52		0.578	24.5		0.647
Cobalt	ND		0.550	ND		0.563	0.584	J	0.578	4.18		0.647
Copper	ND		0.550	0.570	J	0.563	1.11	J	0.578	55.2		0.647
Iron	1080		13.8	1520		14.1	3430		14.4	13500		16.2
Lead	0.689		0.138	1.45		0.141	2.20		0.144	155		0.162
Magnesium	56.2		13.8	106		14.1	282		14.4	2340		16.2
Manganese	5.26		0.275	6.19		0.281	14.6		0.289	157		0.323
Mercury	ND		0.0066	ND		0.00606	0.026		0.00612	1.48		0.00706
Nickel	0.784	J	0.550	0.873	J	0.563	1.88		0.578	18.1		0.647
Potassium	71.8		13.8	72.1		14.1	98.1		14.4	959		16.2
Selenium	ND		1.10	ND		1.13	ND		1.16	ND		1.29
Silver	ND		0.138	ND		0.141	ND		0.144	ND		0.162
Sodium	43.0	J	27.5	ND		28.1	ND		28.9	542		32.3
Thallium	ND		0.138	ND		0.141	ND		0.144	0.914		0.162
Vanadium	2.18	J	0.550	2.45		0.563	6.88		0.578	146		0.647
Zinc	ND		2.20	2.34		2.25	7.79		2.31	229		2.59

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-001
Client ID: B1_(4-5)_-0627
Date Received: 06/28/2012
Date Analyzed: 07/06/2012
Data file: F6663.D

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.4
% Moisture: 18.5

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.0017	0.00068
Chloromethane	ND		0.0017	0.000697
Vinyl chloride	ND		0.0017	0.000816
Bromomethane	ND		0.0017	0.000595
Chloroethane	ND		0.0017	0.000765
Trichlorofluoromethane	ND		0.0017	0.000697
1,1-Dichloroethene	ND		0.0017	0.00085
Acetone	ND		0.0085	0.00119
Carbon disulfide	ND		0.0017	0.000578
Methylene chloride	ND		0.0034	0.00337
trans-1,2-Dichloroethene	ND		0.0017	0.000731
Methyl tert-butyl ether (MTBE)	ND		0.0017	0.000391
1,1-Dichloroethane	ND		0.0017	0.000459
cis-1,2-Dichloroethene	ND		0.0017	0.000527
2-Butanone (MEK)	ND		0.0085	0.000629
Bromochloromethane	ND		0.0017	0.000408
Chloroform	ND		0.0017	0.000493
1,1,1-Trichloroethane	ND		0.0017	0.000561
Carbon tetrachloride	ND		0.0017	0.000697
1,2-Dichloroethane (EDC)	ND		0.0017	0.000357
Benzene	ND		0.0017	0.000408
Trichloroethene	ND		0.0017	0.000544
1,2-Dichloropropane	ND		0.0017	0.000374
1,4-Dioxane	ND		0.340	0.026
Bromodichloromethane	ND		0.0017	0.000544
cis-1,3-Dichloropropene	ND		0.0017	0.000442
4-Methyl-2-pentanone (MIBK)	ND		0.0017	0.000408

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-001
Client ID: B1_(4-5)_-0627
Date Received: 06/28/2012
Date Analyzed: 07/06/2012
Data file: F6663.D

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.4
% Moisture: 18.5

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.0017	0.000425
trans-1,3-Dichloropropene	ND		0.0017	0.000442
1,1,2-Trichloroethane	ND		0.0017	0.00034
Tetrachloroethene	ND		0.0017	0.000442
2-Hexanone	ND		0.0034	0.000612
Dibromochloromethane	ND		0.0034	0.000374
1,2-Dibromoethane (EDB)	ND		0.0017	0.000357
Chlorobenzene	ND		0.0017	0.000374
Ethylbenzene	ND		0.0017	0.000527
Total Xylenes	ND		0.0034	0.0018
Styrene	ND		0.0017	0.00051
Bromoform	ND		0.0017	0.000544
Isopropylbenzene	ND		0.0017	0.000697
1,1,2,2-Tetrachloroethane	ND		0.0017	0.000391
1,3-Dichlorobenzene	ND		0.0017	0.000527
1,4-Dichlorobenzene	ND		0.0017	0.000527
1,2-Dichlorobenzene	ND		0.0017	0.000612
1,2-Dibromo-3-chloropropane	ND		0.0017	0.00085
1,2,4-Trichlorobenzene	ND		0.0017	0.000884
1,2,3-Trichlorobenzene	ND		0.0017	0.000816
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0017	0.000935
Methyl acetate	ND		0.0085	9.860001E-04
Cyclohexane	ND		0.0034	0.000714
Methylcyclohexane	ND		0.0017	0.00085
1,3-Dichloropropene (cis- and trans-)	ND		0.0017	0.000442

Total Target Compounds (52): 0

E12-06466 0027

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06466-001
Client ID: B1_(4-5)_-0627
Date Received: 06/28/2012
Date Analyzed: 07/06/2012
Data file: F6663.D

GC/MS Column: DB-624
Sample wt/vol: 3.6g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.4
% Moisture: 18.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-002
Client ID: B3_(16-17)_-06
Date Received: 06/28/2012
Date Analyzed: 07/04/2012
Data file: F6587.D

GC/MS Column: DB-624
Sample wt/vol: 5.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.9
% Moisture: 19.6

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00107	0.000428
Chloromethane	ND		0.00107	0.000439
Vinyl chloride	ND		0.00107	0.000514
Bromomethane	ND		0.00107	0.000375
Chloroethane	ND		0.00107	0.000482
Trichlorofluoromethane	ND		0.00107	0.000439
1,1-Dichloroethene	ND		0.00107	0.000535
Acetone	ND		0.00535	0.000749
Carbon disulfide	ND		0.00107	0.000364
Methylene chloride	ND		0.00214	0.00212
trans-1,2-Dichloroethene	ND		0.00107	0.00046
Methyl tert-butyl ether (MTBE)	ND		0.00107	0.000246
1,1-Dichloroethane	ND		0.00107	0.000289
cis-1,2-Dichloroethene	ND		0.00107	0.000332
2-Butanone (MEK)	ND		0.00535	0.000396
Bromochloromethane	ND		0.00107	0.000257
Chloroform	ND		0.00107	0.00031
1,1,1-Trichloroethane	ND		0.00107	0.000353
Carbon tetrachloride	ND		0.00107	0.000439
1,2-Dichloroethane (EDC)	ND		0.00107	0.000225
Benzene	ND		0.00107	0.000257
Trichloroethene	ND		0.00107	0.000342
1,2-Dichloropropane	ND		0.00107	0.000235
1,4-Dioxane	ND		0.214	0.017
Bromodichloromethane	ND		0.00107	0.000342
cis-1,3-Dichloropropene	ND		0.00107	0.000278
4-Methyl-2-pentanone (MIBK)	ND		0.00107	0.000257

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-002
Client ID: B3_(16-17)_-06
Date Received: 06/28/2012
Date Analyzed: 07/04/2012
Data file: F6587.D

GC/MS Column: DB-624
Sample wt/vol: 5.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.9
% Moisture: 19.6

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00107	0.000268
trans-1,3-Dichloropropene	ND		0.00107	0.000278
1,1,2-Trichloroethane	ND		0.00107	0.000214
Tetrachloroethene	ND		0.00107	0.000278
2-Hexanone	ND		0.00214	0.000385
Dibromochloromethane	ND		0.00214	0.000235
1,2-Dibromoethane (EDB)	ND		0.00107	0.000225
Chlorobenzene	ND		0.00107	0.000235
Ethylbenzene	ND		0.00107	0.000332
Total Xylenes	ND		0.00214	0.00113
Styrene	ND		0.00107	0.000321
Bromoform	ND		0.00107	0.000342
Isopropylbenzene	ND		0.00107	0.000439
1,1,2,2-Tetrachloroethane	ND		0.00107	0.000246
1,3-Dichlorobenzene	ND		0.00107	0.000332
1,4-Dichlorobenzene	ND		0.00107	0.000332
1,2-Dichlorobenzene	ND		0.00107	0.000385
1,2-Dibromo-3-chloropropane	ND		0.00107	0.000535
1,2,4-Trichlorobenzene	ND		0.00107	0.000556
1,2,3-Trichlorobenzene	ND		0.00107	0.000514
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00107	0.000589
Methyl acetate	ND		0.00535	0.000621
Cyclohexane	ND		0.00214	0.000449
Methylcyclohexane	ND		0.00107	0.000535
1,3-Dichloropropene (cis- and trans-)	ND		0.00107	0.000278

Total Target Compounds (52): 0

E12-06466 0030

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06466-002
Client ID: B3_(16-17)_-06
Date Received: 06/28/2012
Date Analyzed: 07/04/2012
Data file: F6587.D

GC/MS Column: DB-624
Sample wt/vol: 5.8g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 0.9
% Moisture: 19.6

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-009
Client ID: B3-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Data file: L1469.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.260
Chloromethane	ND		1.00	0.360
Vinyl chloride	ND		1.00	0.330
Bromomethane	ND		1.00	0.400
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.340
1,1-Dichloroethene	ND		1.00	0.310
Acetone	ND		1.00	0.330
Carbon disulfide	ND		1.00	0.230
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.370
Methyl tert-butyl ether (MTBE)	ND		1.00	0.300
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.340
2-Butanone (MEK)	ND		1.00	0.240
Bromochloromethane	ND		1.00	0.250
Chloroform	ND		1.00	0.240
1,1,1-Trichloroethane	ND		1.00	0.330
Carbon tetrachloride	ND		1.00	0.270
1,2-Dichloroethane (EDC)	ND		1.00	0.400
Benzene	ND		1.00	0.210
Trichloroethene	ND		1.00	0.280
1,2-Dichloropropane	ND		1.00	0.290
1,4-Dioxane	ND		200	39.1
Bromodichloromethane	ND		1.00	0.330
cis-1,3-Dichloropropene	ND		1.00	0.220
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.290

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-009
Client ID: B3-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Data file: L1469.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.230
trans-1,3-Dichloropropene	ND		1.00	0.230
1,1,2-Trichloroethane	ND		1.00	0.210
Tetrachloroethene	ND		1.00	0.220
2-Hexanone	ND		1.00	0.390
Dibromochloromethane	ND		1.00	0.250
1,2-Dibromoethane (EDB)	ND		1.00	0.260
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.290
Total Xylenes	ND		2.00	0.680
Styrene	ND		1.00	0.240
Bromoform	ND		1.00	0.260
Isopropylbenzene	ND		1.00	0.210
1,1,2,2-Tetrachloroethane	ND		1.00	0.330
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.220
1,2-Dichlorobenzene	ND		1.00	0.240
1,2-Dibromo-3-chloropropane	ND		1.00	0.220
1,2,4-Trichlorobenzene	ND		1.00	0.270
1,2,3-Trichlorobenzene	ND		1.00	0.480
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.210
Methyl acetate	ND		1.00	0.210
Cyclohexane	ND		2.00	0.360
Methylcyclohexane	ND		1.00	0.600
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.230

Total Target Compounds (52): 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06466-009
Client ID: B3-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Date File: L1469.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-010
Client ID: A1-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Data file: L1470.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.260
Chloromethane	ND		1.00	0.360
Vinyl chloride	ND		1.00	0.330
Bromomethane	ND		1.00	0.400
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.340
1,1-Dichloroethene	ND		1.00	0.310
Acetone	ND		1.00	0.330
Carbon disulfide	ND		1.00	0.230
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.370
Methyl tert-butyl ether (MTBE)	ND		1.00	0.300
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.340
2-Butanone (MEK)	ND		1.00	0.240
Bromochloromethane	ND		1.00	0.250
Chloroform	ND		1.00	0.240
1,1,1-Trichloroethane	ND		1.00	0.330
Carbon tetrachloride	ND		1.00	0.270
1,2-Dichloroethane (EDC)	ND		1.00	0.400
Benzene	ND		1.00	0.210
Trichloroethene	ND		1.00	0.280
1,2-Dichloropropane	ND		1.00	0.290
1,4-Dioxane	ND		200	39.1
Bromodichloromethane	ND		1.00	0.330
cis-1,3-Dichloropropene	ND		1.00	0.220
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.290

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-010
Client ID: A1-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Data file: L1470.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.230
trans-1,3-Dichloropropene	ND		1.00	0.230
1,1,2-Trichloroethane	ND		1.00	0.210
Tetrachloroethene	ND		1.00	0.220
2-Hexanone	ND		1.00	0.390
Dibromochloromethane	ND		1.00	0.250
1,2-Dibromoethane (EDB)	ND		1.00	0.260
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.290
Total Xylenes	ND		2.00	0.680
Styrene	ND		1.00	0.240
Bromoform	ND		1.00	0.260
Isopropylbenzene	ND		1.00	0.210
1,1,2,2-Tetrachloroethane	ND		1.00	0.330
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.220
1,2-Dichlorobenzene	ND		1.00	0.240
1,2-Dibromo-3-chloropropane	ND		1.00	0.220
1,2,4-Trichlorobenzene	ND		1.00	0.270
1,2,3-Trichlorobenzene	ND		1.00	0.480
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.210
Methyl acetate	ND		1.00	0.210
Cyclohexane	ND		2.00	0.360
Methylcyclohexane	ND		1.00	0.600
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.230

Total Target Compounds (52): 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06466-010
Client ID: A1-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Date File: L1470.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-011
Client ID: A2-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Data file: L1471.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.260
Chloromethane	ND		1.00	0.360
Vinyl chloride	ND		1.00	0.330
Bromomethane	ND		1.00	0.400
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.340
1,1-Dichloroethene	ND		1.00	0.310
Acetone	ND		1.00	0.330
Carbon disulfide	ND		1.00	0.230
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.370
Methyl tert-butyl ether (MTBE)	ND		1.00	0.300
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.340
2-Butanone (MEK)	ND		1.00	0.240
Bromochloromethane	ND		1.00	0.250
Chloroform	ND		1.00	0.240
1,1,1-Trichloroethane	ND		1.00	0.330
Carbon tetrachloride	ND		1.00	0.270
1,2-Dichloroethane (EDC)	ND		1.00	0.400
Benzene	ND		1.00	0.210
Trichloroethene	ND		1.00	0.280
1,2-Dichloropropane	ND		1.00	0.290
1,4-Dioxane	ND		200	39.1
Bromodichloromethane	ND		1.00	0.330
cis-1,3-Dichloropropene	ND		1.00	0.220
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.290

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-011
Client ID: A2-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Data file: L1471.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.230
trans-1,3-Dichloropropene	ND		1.00	0.230
1,1,2-Trichloroethane	ND		1.00	0.210
Tetrachloroethene	ND		1.00	0.220
2-Hexanone	ND		1.00	0.390
Dibromochloromethane	ND		1.00	0.250
1,2-Dibromoethane (EDB)	ND		1.00	0.260
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.290
Total Xylenes	ND		2.00	0.680
Styrene	ND		1.00	0.240
Bromoform	ND		1.00	0.260
Isopropylbenzene	ND		1.00	0.210
1,1,2,2-Tetrachloroethane	ND		1.00	0.330
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.220
1,2-Dichlorobenzene	ND		1.00	0.240
1,2-Dibromo-3-chloropropane	ND		1.00	0.220
1,2,4-Trichlorobenzene	ND		1.00	0.270
1,2,3-Trichlorobenzene	ND		1.00	0.480
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.210
Methyl acetate	ND		1.00	0.210
Cyclohexane	ND		2.00	0.360
Methylcyclohexane	ND		1.00	0.600
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.230

Total Target Compounds (52): 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06466-011
Client ID: A2-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Date File: L1471.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-012
Client ID: A7-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Data file: L1472.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.260
Chloromethane	ND		1.00	0.360
Vinyl chloride	ND		1.00	0.330
Bromomethane	ND		1.00	0.400
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.340
1,1-Dichloroethene	ND		1.00	0.310
Acetone	ND		1.00	0.330
Carbon disulfide	ND		1.00	0.230
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.370
Methyl tert-butyl ether (MTBE)	ND		1.00	0.300
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.340
2-Butanone (MEK)	ND		1.00	0.240
Bromochloromethane	ND		1.00	0.250
Chloroform	ND		1.00	0.240
1,1,1-Trichloroethane	ND		1.00	0.330
Carbon tetrachloride	ND		1.00	0.270
1,2-Dichloroethane (EDC)	ND		1.00	0.400
Benzene	ND		1.00	0.210
Trichloroethene	ND		1.00	0.280
1,2-Dichloropropane	ND		1.00	0.290
1,4-Dioxane	ND		200	39.1
Bromodichloromethane	ND		1.00	0.330
cis-1,3-Dichloropropene	ND		1.00	0.220
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.290

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06466-012
Client ID: A7-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Data file: L1472.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.230
trans-1,3-Dichloropropene	ND		1.00	0.230
1,1,2-Trichloroethane	ND		1.00	0.210
Tetrachloroethene	ND		1.00	0.220
2-Hexanone	ND		1.00	0.390
Dibromochloromethane	ND		1.00	0.250
1,2-Dibromoethane (EDB)	ND		1.00	0.260
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.290
Total Xylenes	ND		2.00	0.680
Styrene	ND		1.00	0.240
Bromoform	ND		1.00	0.260
Isopropylbenzene	ND		1.00	0.210
1,1,2,2-Tetrachloroethane	ND		1.00	0.330
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.220
1,2-Dichlorobenzene	ND		1.00	0.240
1,2-Dibromo-3-chloropropane	ND		1.00	0.220
1,2,4-Trichlorobenzene	ND		1.00	0.270
1,2,3-Trichlorobenzene	ND		1.00	0.480
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.210
Methyl acetate	ND		1.00	0.210
Cyclohexane	ND		2.00	0.360
Methylcyclohexane	ND		1.00	0.600
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.230

Total Target Compounds (52): 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06466-012
Client ID: A7-062712-WATE
Date Received: 06/28/2012
Date Analyzed: 07/10/2012
Date File: L1472.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-001
Client ID: B1_(4-5)
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7750.D

GC/MS Column: DB-5
Sample wt/vol: 15.03g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.5

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.041	0.031
2-Methylnaphthalene	ND		0.041	0.034
Acenaphthylene	ND		0.041	0.029
Acenaphthene	ND		0.041	0.033
Fluorene	ND		0.041	0.022
Phenanthrene	ND		0.041	0.027
Anthracene	ND		0.041	0.039
Fluoranthene	ND		0.041	0.016
Pyrene	ND		0.041	0.030
Benzo[a]anthracene	ND		0.041	0.039
Chrysene	ND		0.041	0.028
Benzo[b]fluoranthene	ND		0.041	0.021
Benzo[k]fluoranthene	ND		0.041	0.015
Benzo[a]pyrene	ND		0.041	0.023
Indeno[1,2,3-cd]pyrene	ND		0.041	0.020
Dibenz[a,h]anthracene	ND		0.041	0.024
Benzo[g,h,i]perylene	ND		0.041	0.013

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-002
Client ID: B3_(16-1
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7751.D

GC/MS Column: DB-5
Sample wt/vol: 15.09g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.6

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.041	0.031
2-Methylnaphthalene	ND		0.041	0.034
Acenaphthylene	ND		0.041	0.029
Acenaphthene	ND		0.041	0.033
Fluorene	ND		0.041	0.022
Phenanthrene	ND		0.041	0.027
Anthracene	ND		0.041	0.040
Fluoranthene	ND		0.041	0.016
Pyrene	ND		0.041	0.030
Benzo[a]anthracene	ND		0.041	0.040
Chrysene	ND		0.041	0.028
Benzo[b]fluoranthene	ND		0.041	0.021
Benzo[k]fluoranthene	ND		0.041	0.015
Benzo[a]pyrene	ND		0.041	0.023
Indeno[1,2,3-cd]pyrene	ND		0.041	0.021
Dibenz[a,h]anthracene	ND		0.041	0.025
Benzo[g,h,i]perylene	ND		0.041	0.013

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-003
Client ID: C1_(12.5
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7752.D

GC/MS Column: DB-5
Sample wt/vol: 15.17g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 15.7

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.039	0.030
2-Methylnaphthalene	ND		0.039	0.032
Acenaphthylene	ND		0.039	0.027
Acenaphthene	ND		0.039	0.031
Fluorene	ND		0.039	0.021
Phenanthrene	ND		0.039	0.026
Anthracene	ND		0.039	0.038
Fluoranthene	ND		0.039	0.016
Pyrene	ND		0.039	0.029
Benzo[a]anthracene	ND		0.039	0.038
Chrysene	ND		0.039	0.026
Benzo[b]fluoranthene	ND		0.039	0.020
Benzo[k]fluoranthene	ND		0.039	0.014
Benzo[a]pyrene	ND		0.039	0.022
Indeno[1,2,3-cd]pyrene	ND		0.039	0.020
Dibenz[a,h]anthracene	ND		0.039	0.023
Benzo[g,h,i]perylene	ND		0.039	0.013

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-004
Client ID: A1_(12-1
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7753.D

GC/MS Column: DB-5
Sample wt/vol: 15.02g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 4.70

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.035	0.027
2-Methylnaphthalene	ND		0.035	0.029
Acenaphthylene	ND		0.035	0.024
Acenaphthene	ND		0.035	0.028
Fluorene	ND		0.035	0.019
Phenanthrene	ND		0.035	0.023
Anthracene	ND		0.035	0.034
Fluoranthene	ND		0.035	0.014
Pyrene	ND		0.035	0.026
Benzo[a]anthracene	ND		0.035	0.034
Chrysene	ND		0.035	0.024
Benzo[b]fluoranthene	ND		0.035	0.018
Benzo[k]fluoranthene	ND		0.035	0.013
Benzo[a]pyrene	ND		0.035	0.019
Indeno[1,2,3-cd]pyrene	ND		0.035	0.018
Dibenz[a,h]anthracene	ND		0.035	0.021
Benzo[g,h,i]perylene	ND		0.035	0.011

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-005
Client ID: C2_(11-1
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7754.D

GC/MS Column: DB-5
Sample wt/vol: 15.17g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.00

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.036	0.028
2-Methylnaphthalene	ND		0.036	0.030
Acenaphthylene	ND		0.036	0.025
Acenaphthene	ND		0.036	0.029
Fluorene	ND		0.036	0.020
Phenanthrene	ND		0.036	0.024
Anthracene	ND		0.036	0.035
Fluoranthene	ND		0.036	0.014
Pyrene	ND		0.036	0.027
Benzo[a]anthracene	ND		0.036	0.035
Chrysene	ND		0.036	0.025
Benzo[b]fluoranthene	ND		0.036	0.019
Benzo[k]fluoranthene	ND		0.036	0.013
Benzo[a]pyrene	ND		0.036	0.020
Indeno[1,2,3-cd]pyrene	ND		0.036	0.018
Dibenz[a,h]anthracene	ND		0.036	0.022
Benzo[g,h,i]perylene	ND		0.036	0.012

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-006
Client ID: A2_(4-5)
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7755.D

GC/MS Column: DB-5
Sample wt/vol: 15.13g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 3.40

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.034	0.026
2-Methylnaphthalene	ND		0.034	0.028
Acenaphthylene	ND		0.034	0.024
Acenaphthene	ND		0.034	0.027
Fluorene	ND		0.034	0.018
Phenanthrene	ND		0.034	0.023
Anthracene	ND		0.034	0.033
Fluoranthene	ND		0.034	0.014
Pyrene	ND		0.034	0.025
Benzo[a]anthracene	ND		0.034	0.033
Chrysene	ND		0.034	0.023
Benzo[b]fluoranthene	ND		0.034	0.018
Benzo[k]fluoranthene	ND		0.034	0.012
Benzo[a]pyrene	ND		0.034	0.019
Indeno[1,2,3-cd]pyrene	ND		0.034	0.017
Dibenz[a,h]anthracene	ND		0.034	0.021
Benzo[g,h,i]perylene	ND		0.034	0.011

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-007
Client ID: A7_(2-3)
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7756.D

GC/MS Column: DB-5
Sample wt/vol: 15.18g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 4.30

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.034	0.026
2-Methylnaphthalene	ND		0.034	0.028
Acenaphthylene	ND		0.034	0.024
Acenaphthene	ND		0.034	0.027
Fluorene	ND		0.034	0.019
Phenanthrene	ND		0.034	0.023
Anthracene	ND		0.034	0.033
Fluoranthene	ND		0.034	0.014
Pyrene	ND		0.034	0.025
Benzo[a]anthracene	ND		0.034	0.033
Chrysene	ND		0.034	0.023
Benzo[b]fluoranthene	ND		0.034	0.018
Benzo[k]fluoranthene	ND		0.034	0.012
Benzo[a]pyrene	ND		0.034	0.019
Indeno[1,2,3-cd]pyrene	ND		0.034	0.017
Dibenz[a,h]anthracene	ND		0.034	0.021
Benzo[g,h,i]perylene	ND		0.034	0.011

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-008
Client ID: I1-06271
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7757.D

GC/MS Column: DB-5
Sample wt/vol: 15.05g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
Naphthalene	4.36		0.040	0.031
2-Methylnaphthalene	0.799		0.040	0.033
Acenaphthylene	0.504		0.040	0.028
Acenaphthene	0.187		0.040	0.032
Fluorene	0.230		0.040	0.022
Phenanthrene	2.03		0.040	0.026
Anthracene	0.739		0.040	0.038
Fluoranthene	3.39		0.040	0.016
Pyrene	3.50		0.040	0.030
Benzo[a]anthracene	1.54		0.040	0.038
Chrysene	1.75		0.040	0.027
Benzo[b]fluoranthene	0.970		0.040	0.021
Benzo[k]fluoranthene	1.15		0.040	0.014
Benzo[a]pyrene	1.52		0.040	0.022
Indeno[1,2,3-cd]pyrene	0.384		0.040	0.020
Dibenz[a,h]anthracene	0.176		0.040	0.024
Benzo[g,h,i]perylene	0.399		0.040	0.013

Total Target Compounds (17): 23.6

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-009
Client ID: B3-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8606.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.880
Phenol	ND		1.00	0.110
Bis(2-chloroethyl) ether	ND		1.00	0.100
2-Chlorophenol	ND		1.00	0.130
2-Methylphenol	ND		1.00	0.100
Bis(2-chloroisopropyl) ether	ND		1.00	0.140
4-Methylphenol **	ND		1.00	0.110
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.100
Hexachloroethane	ND		1.00	0.100
Nitrobenzene	ND		1.00	0.120
Isophorone	ND		1.00	0.110
2-Nitrophenol	ND		1.00	0.090
2,4-Dimethylphenol	ND		1.00	0.110
Bis(2-chloroethoxy) methane	ND		1.00	0.080
2,4-Dichlorophenol	ND		1.00	0.100
Naphthalene	ND		1.00	0.175
4-Chloroaniline	ND		1.00	0.150
Hexachlorobutadiene	ND		1.00	0.120
Caprolactam	ND		1.00	0.170
4-Chloro-3-methylphenol	ND		1.00	0.100
2-Methylnaphthalene	ND		1.00	0.109
Hexachlorocyclopentadiene	ND		1.00	0.100
2,4,6-Trichlorophenol	ND		1.00	0.100
2,4,5-Trichlorophenol	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.100
2-Chloronaphthalene	ND		1.00	0.090
2-Nitroaniline	ND		1.00	0.130
Dimethyl phthalate	ND		1.00	0.120

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-009
Client ID: B3-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8606.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.120
Acenaphthylene	ND		1.00	0.113
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.100
2,4-Dinitrophenol	ND		1.00	0.120
4-Nitrophenol	ND		1.00	0.380
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.190
Fluorene	ND		1.00	0.145
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.100
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
2,3,4,6-Tetrachlorophenol	ND		1.00	0.110
4,6-Dinitro-2-methylphenol	ND		1.00	0.110
N-Nitrosodiphenylamine	ND		1.00	0.110
4-Bromophenyl phenyl ether	ND		1.00	0.110
Hexachlorobenzene	ND		1.00	0.130
Atrazine	ND		1.00	0.170
Pentachlorophenol	ND		1.00	0.110
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Carbazole	ND		1.00	0.160
Di-n-butyl phthalate	ND		1.00	0.140
Fluoranthene	ND		1.00	0.141
Pyrene	ND		1.00	0.744
Butyl benzyl phthalate	ND		1.00	0.100
3,3'-Dichlorobenzidine	ND		1.00	0.170
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Bis(2-ethylhexyl) phthalate	ND		1.00	0.120
Di-n-octyl phthalate	ND		1.00	0.090
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.180

Total Target Compounds (68): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06466-009
Client ID: B3-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8606.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-010
Client ID: A1-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8607.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.880
Phenol	ND		1.00	0.110
Bis(2-chloroethyl) ether	ND		1.00	0.100
2-Chlorophenol	ND		1.00	0.130
2-Methylphenol	ND		1.00	0.100
Bis(2-chloroisopropyl) ether	ND		1.00	0.140
4-Methylphenol **	ND		1.00	0.110
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.100
Hexachloroethane	ND		1.00	0.100
Nitrobenzene	ND		1.00	0.120
Isophorone	ND		1.00	0.110
2-Nitrophenol	ND		1.00	0.090
2,4-Dimethylphenol	ND		1.00	0.110
Bis(2-chloroethoxy) methane	ND		1.00	0.080
2,4-Dichlorophenol	ND		1.00	0.100
Naphthalene	ND		1.00	0.175
4-Chloroaniline	ND		1.00	0.150
Hexachlorobutadiene	ND		1.00	0.120
Caprolactam	ND		1.00	0.170
4-Chloro-3-methylphenol	ND		1.00	0.100
2-Methylnaphthalene	ND		1.00	0.109
Hexachlorocyclopentadiene	ND		1.00	0.100
2,4,6-Trichlorophenol	ND		1.00	0.100
2,4,5-Trichlorophenol	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.100
2-Chloronaphthalene	ND		1.00	0.090
2-Nitroaniline	ND		1.00	0.130
Dimethyl phthalate	ND		1.00	0.120

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-010
Client ID: A1-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8607.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.120
Acenaphthylene	ND		1.00	0.113
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.100
2,4-Dinitrophenol	ND		1.00	0.120
4-Nitrophenol	ND		1.00	0.380
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.190
Fluorene	ND		1.00	0.145
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.100
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
2,3,4,6-Tetrachlorophenol	ND		1.00	0.110
4,6-Dinitro-2-methylphenol	ND		1.00	0.110
N-Nitrosodiphenylamine	ND		1.00	0.110
4-Bromophenyl phenyl ether	ND		1.00	0.110
Hexachlorobenzene	ND		1.00	0.130
Atrazine	ND		1.00	0.170
Pentachlorophenol	ND		1.00	0.110
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Carbazole	ND		1.00	0.160
Di-n-butyl phthalate	ND		1.00	0.140
Fluoranthene	ND		1.00	0.141
Pyrene	ND		1.00	0.744
Butyl benzyl phthalate	ND		1.00	0.100
3,3'-Dichlorobenzidine	ND		1.00	0.170
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Bis(2-ethylhexyl) phthalate	ND		1.00	0.120
Di-n-octyl phthalate	ND		1.00	0.090
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.180

Total Target Compounds (68): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06466-010
Client ID: A1-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8607.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-011
Client ID: A2-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8608.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.880
Phenol	ND		1.00	0.110
Bis(2-chloroethyl) ether	ND		1.00	0.100
2-Chlorophenol	ND		1.00	0.130
2-Methylphenol	ND		1.00	0.100
Bis(2-chloroisopropyl) ether	ND		1.00	0.140
4-Methylphenol **	ND		1.00	0.110
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.100
Hexachloroethane	ND		1.00	0.100
Nitrobenzene	ND		1.00	0.120
Isophorone	ND		1.00	0.110
2-Nitrophenol	ND		1.00	0.090
2,4-Dimethylphenol	ND		1.00	0.110
Bis(2-chloroethoxy) methane	ND		1.00	0.080
2,4-Dichlorophenol	ND		1.00	0.100
Naphthalene	ND		1.00	0.175
4-Chloroaniline	ND		1.00	0.150
Hexachlorobutadiene	ND		1.00	0.120
Caprolactam	ND		1.00	0.170
4-Chloro-3-methylphenol	ND		1.00	0.100
2-Methylnaphthalene	ND		1.00	0.109
Hexachlorocyclopentadiene	ND		1.00	0.100
2,4,6-Trichlorophenol	ND		1.00	0.100
2,4,5-Trichlorophenol	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.100
2-Chloronaphthalene	ND		1.00	0.090
2-Nitroaniline	ND		1.00	0.130
Dimethyl phthalate	ND		1.00	0.120

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-011
Client ID: A2-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8608.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.120
Acenaphthylene	ND		1.00	0.113
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.100
2,4-Dinitrophenol	ND		1.00	0.120
4-Nitrophenol	ND		1.00	0.380
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.190
Fluorene	ND		1.00	0.145
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.100
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
2,3,4,6-Tetrachlorophenol	ND		1.00	0.110
4,6-Dinitro-2-methylphenol	ND		1.00	0.110
N-Nitrosodiphenylamine	ND		1.00	0.110
4-Bromophenyl phenyl ether	ND		1.00	0.110
Hexachlorobenzene	ND		1.00	0.130
Atrazine	ND		1.00	0.170
Pentachlorophenol	ND		1.00	0.110
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Carbazole	ND		1.00	0.160
Di-n-butyl phthalate	ND		1.00	0.140
Fluoranthene	ND		1.00	0.141
Pyrene	ND		1.00	0.744
Butyl benzyl phthalate	ND		1.00	0.100
3,3'-Dichlorobenzidine	ND		1.00	0.170
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Bis(2-ethylhexyl) phthalate	ND		1.00	0.120
Di-n-octyl phthalate	ND		1.00	0.090
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.180

Total Target Compounds (68): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06466-011
Client ID: A2-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8608.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-012
Client ID: A7-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8609.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.880
Phenol	ND		1.00	0.110
Bis(2-chloroethyl) ether	ND		1.00	0.100
2-Chlorophenol	ND		1.00	0.130
2-Methylphenol	ND		1.00	0.100
Bis(2-chloroisopropyl) ether	ND		1.00	0.140
4-Methylphenol **	ND		1.00	0.110
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.100
Hexachloroethane	ND		1.00	0.100
Nitrobenzene	ND		1.00	0.120
Isophorone	ND		1.00	0.110
2-Nitrophenol	ND		1.00	0.090
2,4-Dimethylphenol	ND		1.00	0.110
Bis(2-chloroethoxy) methane	ND		1.00	0.080
2,4-Dichlorophenol	ND		1.00	0.100
Naphthalene	ND		1.00	0.175
4-Chloroaniline	ND		1.00	0.150
Hexachlorobutadiene	ND		1.00	0.120
Caprolactam	ND		1.00	0.170
4-Chloro-3-methylphenol	ND		1.00	0.100
2-Methylnaphthalene	ND		1.00	0.109
Hexachlorocyclopentadiene	ND		1.00	0.100
2,4,6-Trichlorophenol	ND		1.00	0.100
2,4,5-Trichlorophenol	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.100
2-Chloronaphthalene	ND		1.00	0.090
2-Nitroaniline	ND		1.00	0.130
Dimethyl phthalate	ND		1.00	0.120

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06466-012
Client ID: A7-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8609.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.120
Acenaphthylene	ND		1.00	0.113
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.100
2,4-Dinitrophenol	ND		1.00	0.120
4-Nitrophenol	ND		1.00	0.380
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.190
Fluorene	ND		1.00	0.145
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.100
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
2,3,4,6-Tetrachlorophenol	ND		1.00	0.110
4,6-Dinitro-2-methylphenol	ND		1.00	0.110
N-Nitrosodiphenylamine	ND		1.00	0.110
4-Bromophenyl phenyl ether	ND		1.00	0.110
Hexachlorobenzene	ND		1.00	0.130
Atrazine	ND		1.00	0.170
Pentachlorophenol	ND		1.00	0.110
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Carbazole	ND		1.00	0.160
Di-n-butyl phthalate	ND		1.00	0.140
Fluoranthene	ND		1.00	0.141
Pyrene	ND		1.00	0.744
Butyl benzyl phthalate	ND		1.00	0.100
3,3'-Dichlorobenzidine	ND		1.00	0.170
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Bis(2-ethylhexyl) phthalate	ND		1.00	0.120
Di-n-octyl phthalate	ND		1.00	0.090
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.180

Total Target Compounds (68): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06466-012
Client ID: A7-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: B8609.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06466-001
Client ID: B1_(4-5)_-
Date Received: 06/28/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/13/2012
Data file: Y6647.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.80g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.5

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.042	0.017
Aroclor-1221	ND		0.042	0.017
Aroclor-1232	ND		0.042	0.017
Aroclor-1242	ND		0.042	0.017
Aroclor-1248	ND		0.042	0.017
Aroclor-1254	ND		0.042	0.017
Aroclor-1260	ND		0.042	0.017
Aroclor-1262	ND		0.042	0.017
Aroclor-1268	ND		0.042	0.017
PCBs	ND		0.042	0.017

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06466-002
Client ID: B3_(16-17)
Date Received: 06/28/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/13/2012
Data file: Y6648.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.45g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 19.6

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.046	0.018
Aroclor-1221	ND		0.046	0.018
Aroclor-1232	ND		0.046	0.018
Aroclor-1242	ND		0.046	0.018
Aroclor-1248	ND		0.046	0.018
Aroclor-1254	ND		0.046	0.018
Aroclor-1260	ND		0.046	0.018
Aroclor-1262	ND		0.046	0.018
Aroclor-1268	ND		0.046	0.018
PCBs	ND		0.046	0.018

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06466-008
Client ID: I1-062712-
Date Received: 06/28/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/13/2012
Data file: Y6673.D

GC Column: DB-5/DB1701P
Sample wt/vol: 32.39g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00186	0.000744
Aroclor-1221	ND		0.00186	0.000744
Aroclor-1232	ND		0.00186	0.000744
Aroclor-1242	ND		0.00186	0.000744
Aroclor-1248	0.010		0.00186	0.000744
Aroclor-1254	ND		0.00186	0.000744
Aroclor-1260	0.00866		0.00186	0.000744
Aroclor-1262	ND		0.00186	0.000744
Aroclor-1268	ND		0.00186	0.000744
PCBs	0.019		0.00186	0.000744

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06466-008
Client ID: I1-062712-
Date Received: 06/28/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: V8264.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 32.39g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000372	0.000186
beta-BHC	ND		0.000372	0.000186
gamma-BHC (Lindane)	ND		0.000372	0.000186
delta-BHC	ND		0.000372	0.000186
Heptachlor	ND		0.000372	0.000186
Aldrin	ND		0.000372	0.000186
Heptachlor epoxide	ND		0.000372	0.000186
Endosulfan I	ND		0.000372	0.000186
4,4'-DDE	ND		0.000372	0.000186
Dieldrin	ND		0.000372	0.000186
Endrin	ND		0.000372	0.000186
Endosulfan II	ND		0.000372	0.000186
4,4'-DDD	0.00327		0.000372	0.000186
Endrin aldehyde	ND		0.000372	0.000186
Endosulfan sulfate	ND		0.000372	0.000186
4,4'-DDT	0.00281		0.000372	0.000186
Endrin ketone	ND		0.000372	0.000186
Methoxychlor	ND		0.000372	0.000186
alpha-Chlordane	ND		0.000372	0.000186
gamma-Chlordane	ND		0.000372	0.000186
Toxaphene	ND		0.00465	0.00223
Endosulfan (I and II)	ND		0.000372	0.000186
Chlordane (alpha and gamma)	ND		0.000372	0.000186

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06466-010
Client ID: A1-062712-
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/05/2012
Data file: V8174.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06466-011
Client ID: A2-062712-
Date Received: 06/28/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
Data file: O9520.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06466-012
Client ID: A7-062712-
Date Received: 06/28/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
Data file: O9521.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 06466-008
Client ID: I1-062712-
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/11/2012
Data file: W7096.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.59g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.0

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.054	0.022
Dicamba	ND		0.054	0.022
2,4-D	ND		0.054	0.022
2,4,5-TP (Silvex)	ND		0.054	0.022
2,4,5-T	ND		0.054	0.022
2,4-DB	ND		0.054	0.022
Dinoseb	ND		0.054	0.022

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 06466-010
Client ID: A1-062712-
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: W7056.D

GC Column: DB-5/DB1701P
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.500	0.200
Dicamba	ND		0.500	0.200
2,4-D	ND		0.500	0.200
2,4,5-TP (Silvex)	ND		0.500	0.200
2,4,5-T	ND		0.500	0.200
2,4-DB	ND		0.500	0.200
Dinoseb	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 06466-011
Client ID: A2-062712-
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: W7057.D

GC Column: DB-5/DB1701P
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.500	0.200
Dicamba	ND		0.500	0.200
2,4-D	ND		0.500	0.200
2,4,5-TP (Silvex)	ND		0.500	0.200
2,4,5-T	ND		0.500	0.200
2,4-DB	ND		0.500	0.200
Dinoseb	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 06466-012
Client ID: A7-062712-
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: W7058.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06466-001
Client ID: B1_(4-5)
Date Received: 06/28/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/09/2012
Data file: N1677.D
Data file: NB1309.D

GC Column: DB-5
Sample wt/vol: 5.39g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 18.5

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		13.7	2.28
C12-C16 Aliphatics	ND		9.11	2.28
C16-C21 Aliphatics	ND		13.7	2.28
C21-C40 Aliphatics	ND		45.5	11.4
Total Aliphatics	0		45.5	11.4
C10-C12 Aromatics	ND		9.11	4.55
C12-C16 Aromatics	ND		13.7	4.55
C16-C21 Aromatics	ND		22.8	4.55
C21-C36 Aromatics	ND		36.4	9.11
Total Aromatics	0		36.4	9.11
Total NJ-EPH	0		45.5	11.4

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06466-002
Client ID: B3_(16-1
Date Received: 06/28/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/09/2012
Data file: N1678.D
Data file: NB1310.D

GC Column: DB-5
Sample wt/vol: 5.35g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 19.6

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		13.9	2.32
C12-C16 Aliphatics	ND		9.30	2.32
C16-C21 Aliphatics	ND		13.9	2.32
C21-C40 Aliphatics	ND		46.5	11.6
Total Aliphatics	0		46.5	11.6
C10-C12 Aromatics	ND		9.30	4.65
C12-C16 Aromatics	ND		13.9	4.65
C16-C21 Aromatics	ND		23.2	4.65
C21-C36 Aromatics	ND		37.2	9.30
Total Aromatics	0		37.2	9.30
Total NJ-EPH	0		46.5	11.6

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06466-003
Client ID: C1_(12.5
Date Received: 06/28/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1713.D
Data file: NB1345.D

GC Column: DB-5
Sample wt/vol: 5.01g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 15.7

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		14.2	2.37
C12-C16 Aliphatics	ND		9.47	2.37
C16-C21 Aliphatics	ND		14.2	2.37
C21-C40 Aliphatics	ND		47.4	11.8
Total Aliphatics	0		47.4	11.8
C10-C12 Aromatics	ND		9.47	4.74
C12-C16 Aromatics	ND		14.2	4.74
C16-C21 Aromatics	ND		23.7	4.74
C21-C36 Aromatics	ND		37.9	9.47
Total Aromatics	0		37.9	9.47
Total NJ-EPH	0		47.4	11.8

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06466-004
Client ID: A1_(12-1
Date Received: 06/28/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/09/2012
Data file: N1679.D
Data file: NB1311.D

GC Column: DB-5
Sample wt/vol: 5.25g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 4.70

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	2.00
C12-C16 Aliphatics	ND		7.99	2.00
C16-C21 Aliphatics	ND		12.0	2.00
C21-C40 Aliphatics	ND		40.0	9.99
Total Aliphatics	0		40.0	9.99
C10-C12 Aromatics	ND		7.99	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	7.99
Total Aromatics	0		32.0	7.99
Total NJ-EPH	0		40.0	9.99

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06466-005
Client ID: C2_(11-1
Date Received: 06/28/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/11/2012
Data file: N1714.D
Data file: NB1360.D

GC Column: DB-5
Sample wt/vol: 5.31g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 9.00

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.4	2.07
C12-C16 Aliphatics	ND		8.28	2.07
C16-C21 Aliphatics	ND		12.4	2.07
C21-C40 Aliphatics	ND		41.4	10.3
Total Aliphatics	0		41.4	10.3
C10-C12 Aromatics	ND		8.28	4.14
C12-C16 Aromatics	ND		12.4	4.14
C16-C21 Aromatics	ND		20.7	4.14
C21-C36 Aromatics	ND		33.1	8.28
Total Aromatics	0		33.1	8.28
Total NJ-EPH	0		41.4	10.3

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06466-006
Client ID: A2_(4-5)
Date Received: 06/28/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/09/2012
Data file: N1680.D
Data file: NB1312.D

GC Column: DB-5
Sample wt/vol: 5.28g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 3.40

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		11.8	1.96
C12-C16 Aliphatics	ND		7.84	1.96
C16-C21 Aliphatics	ND		11.8	1.96
C21-C40 Aliphatics	ND		39.2	9.80
Total Aliphatics	0		39.2	9.80
C10-C12 Aromatics	ND		7.84	3.92
C12-C16 Aromatics	ND		11.8	3.92
C16-C21 Aromatics	ND		19.6	3.92
C21-C36 Aromatics	ND		31.4	7.84
Total Aromatics	0		31.4	7.84
Total NJ-EPH	0		39.2	9.80

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06466-007
Client ID: A7_(2-3)
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1637.D
Data file: NB1270.D

GC Column: DB-5
Sample wt/vol: 5.09g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 4.30

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.3	2.05
C12-C16 Aliphatics	ND		8.21	2.05
C16-C21 Aliphatics	ND		12.3	2.05
C21-C40 Aliphatics	ND		41.1	10.3
Total Aliphatics	0		41.1	10.3
C10-C12 Aromatics	ND		8.21	4.11
C12-C16 Aromatics	ND		12.3	4.11
C16-C21 Aromatics	ND		20.5	4.11
C21-C36 Aromatics	ND		32.8	8.21
Total Aromatics	0		32.8	8.21
Total NJ-EPH	0		41.1	10.3

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06466-008
Client ID: I1-06271
Date Received: 06/28/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1638.D
Data file: NB1271.D

GC Column: DB-5
Sample wt/vol: 5.28g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.0

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		13.7	2.28
C12-C16 Aliphatics	14.9		9.13	2.28
C16-C21 Aliphatics	52.9		13.7	2.28
C21-C40 Aliphatics	435		45.6	11.4
Total Aliphatics	503		45.6	11.4
C10-C12 Aromatics	ND		9.13	4.56
C12-C16 Aromatics	9.72	J	13.7	4.56
C16-C21 Aromatics	50.7		22.8	4.56
C21-C36 Aromatics	247		36.5	9.13
Total Aromatics	307		36.5	9.13
Total NJ-EPH	810		45.6	11.4

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-001
Client ID: B1 (4-5) -062712
Date Received: 6/28/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 18.5
Batch #: 275

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	2870		1	12.4	6.20	07/05/12	6020
Antimony	ND		1	1.24	0.310	07/05/12	6020
Arsenic	2.13		1	0.620	0.310	07/05/12	6020
Barium	13.5		1	12.4	3.10	07/05/12	6020
Beryllium	ND		1	0.620	0.248	07/05/12	6020
Cadmium	ND		1	0.620	0.155	07/05/12	6020
Calcium	187		1	62.0	31.0	07/05/12	6020
Chromium	4.55		1	2.48	0.620	07/05/12	6020
Cobalt	ND		1	2.48	0.620	07/05/12	6020
Copper	2.54		1	2.48	0.620	07/05/12	6020
Iron	4140		1	31.0	15.5	07/05/12	6020
Lead	15.8		1	0.620	0.155	07/05/12	6020
Magnesium	192		1	62.0	15.5	07/05/12	6020
Manganese	141		1	1.24	0.310	07/05/12	6020
Mercury	0.039		1	0.014	0.00683	07/05/12	7471A
Nickel	1.20	J	1	1.24	0.620	07/05/12	6020
Potassium	93.8		1	62.0	15.5	07/05/12	6020
Selenium	ND		1	2.48	1.24	07/05/12	6020
Silver	ND		1	0.620	0.155	07/05/12	6020
Sodium	ND		1	124	31.0	07/05/12	6020
Thallium	ND		1	0.620	0.155	07/05/12	6020
Vanadium	7.54		1	2.48	0.620	07/05/12	6020
Zinc	7.44		1	2.48	2.48	07/05/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-002
Client ID: B3 (16-17) -062712
Date Received: 6/28/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 19.6
Batch #: 275

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	617		1	13.4	6.68	07/05/12	6020
Antimony	ND		1	1.34	0.334	07/05/12	6020
Arsenic	ND		1	0.668	0.334	07/05/12	6020
Barium	ND		1	13.4	3.34	07/05/12	6020
Beryllium	ND		1	0.668	0.267	07/05/12	6020
Cadmium	ND		1	0.668	0.167	07/05/12	6020
Calcium	64.5	J	1	66.8	33.4	07/05/12	6020
Chromium	4.60		1	2.67	0.668	07/05/12	6020
Cobalt	ND		1	2.67	0.668	07/05/12	6020
Copper	0.786	J	1	2.67	0.668	07/05/12	6020
Iron	1140		1	33.4	16.7	07/05/12	6020
Lead	0.676		1	0.668	0.167	07/05/12	6020
Magnesium	50.7	J	1	66.8	16.7	07/05/12	6020
Manganese	3.20		1	1.34	0.334	07/05/12	6020
Mercury	ND		1	0.015	0.00729	07/05/12	7471A
Nickel	ND		1	1.34	0.668	07/05/12	6020
Potassium	59.6	J	1	66.8	16.7	07/05/12	6020
Selenium	ND		1	2.67	1.34	07/05/12	6020
Silver	ND		1	0.668	0.167	07/05/12	6020
Sodium	ND		1	134	33.4	07/05/12	6020
Thallium	ND		1	0.668	0.167	07/05/12	6020
Vanadium	1.54	J	1	2.67	0.668	07/05/12	6020
Zinc	ND		1	2.67	2.67	07/05/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-003
Client ID: C1 (12.5-13.5) -062712
Date Received: 6/28/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 15.7
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	262		1	12.7	6.36	07/09/12	6020
Antimony	ND		1	1.27	0.318	07/09/12	6020
Arsenic	ND		1	0.636	0.318	07/09/12	6020
Barium	ND		1	12.7	3.18	07/09/12	6020
Beryllium	ND		1	0.636	0.254	07/09/12	6020
Cadmium	ND		1	0.636	0.159	07/09/12	6020
Calcium	ND		1	63.6	31.8	07/09/12	6020
Chromium	1.32	J	1	2.54	0.636	07/09/12	6020
Cobalt	ND		1	2.54	0.636	07/09/12	6020
Copper	ND		1	2.54	0.636	07/09/12	6020
Iron	550		1	31.8	15.9	07/09/12	6020
Lead	0.303	J	1	0.636	0.159	07/09/12	6020
Magnesium	ND		1	63.6	15.9	07/09/12	6020
Manganese	1.75		1	1.27	0.318	07/09/12	6020
Mercury	ND		1	0.015	0.00721	07/06/12	7471A
Nickel	ND		1	1.27	0.636	07/09/12	6020
Potassium	18.9	J	1	63.6	15.9	07/09/12	6020
Selenium	ND		1	2.54	1.27	07/09/12	6020
Silver	ND		1	0.636	0.159	07/09/12	6020
Sodium	52.8	J	1	127	31.8	07/09/12	6020
Thallium	ND		1	0.636	0.159	07/09/12	6020
Vanadium	0.929	J	1	2.54	0.636	07/09/12	6020
Zinc	ND		1	2.54	2.54	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-004
Client ID: A1 (12-13) -062712
Date Received: 6/28/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 4.70
Batch #: 275

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	560		1	11.4	5.68	07/05/12	6020
Antimony	ND		1	1.14	0.284	07/05/12	6020
Arsenic	ND		1	0.568	0.284	07/05/12	6020
Barium	ND		1	11.4	2.84	07/05/12	6020
Beryllium	ND		1	0.568	0.227	07/05/12	6020
Cadmium	ND		1	0.568	0.142	07/05/12	6020
Calcium	ND		1	56.8	28.4	07/05/12	6020
Chromium	1.75	J	1	2.27	0.568	07/05/12	6020
Cobalt	ND		1	2.27	0.568	07/05/12	6020
Copper	ND		1	2.27	0.568	07/05/12	6020
Iron	742		1	28.4	14.2	07/05/12	6020
Lead	0.556	J	1	0.568	0.142	07/05/12	6020
Magnesium	32.5	J	1	56.8	14.2	07/05/12	6020
Manganese	1.91		1	1.14	0.284	07/05/12	6020
Mercury	ND		1	0.012	0.00594	07/05/12	7471A
Nickel	ND		1	1.14	0.568	07/05/12	6020
Potassium	38.9	J	1	56.8	14.2	07/05/12	6020
Selenium	ND		1	2.27	1.14	07/05/12	6020
Silver	ND		1	0.568	0.142	07/05/12	6020
Sodium	30.7	J	1	114	28.4	07/05/12	6020
Thallium	ND		1	0.568	0.142	07/05/12	6020
Vanadium	1.08	J	1	2.27	0.568	07/05/12	6020
Zinc	ND		1	2.27	2.27	07/05/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-005
Client ID: C2 (11-12) -062712
Date Received: 6/28/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 9.00
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	864		1	11.0	5.50	07/09/12	6020
Antimony	ND		1	1.10	0.275	07/09/12	6020
Arsenic	0.357	J	1	0.550	0.275	07/09/12	6020
Barium	2.80	J	1	11.0	2.75	07/09/12	6020
Beryllium	ND		1	0.550	0.220	07/09/12	6020
Cadmium	ND		1	0.550	0.138	07/09/12	6020
Calcium	ND		1	55.0	27.5	07/09/12	6020
Chromium	2.08	J	1	2.20	0.550	07/09/12	6020
Cobalt	ND		1	2.20	0.550	07/09/12	6020
Copper	ND		1	2.20	0.550	07/09/12	6020
Iron	1080		1	27.5	13.8	07/09/12	6020
Lead	0.689		1	0.550	0.138	07/09/12	6020
Magnesium	56.2		1	55.0	13.8	07/09/12	6020
Manganese	5.26		1	1.10	0.275	07/09/12	6020
Mercury	ND		1	0.014	0.0066	07/06/12	7471A
Nickel	0.784	J	1	1.10	0.550	07/09/12	6020
Potassium	71.8		1	55.0	13.8	07/09/12	6020
Selenium	ND		1	2.20	1.10	07/09/12	6020
Silver	ND		1	0.550	0.138	07/09/12	6020
Sodium	43.0	J	1	110	27.5	07/09/12	6020
Thallium	ND		1	0.550	0.138	07/09/12	6020
Vanadium	2.18	J	1	2.20	0.550	07/09/12	6020
Zinc	ND		1	2.20	2.20	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-006
Client ID: A2 (4-5) -062712
Date Received: 6/28/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 3.40
Batch #: 275

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	1480		1	11.3	5.63	07/05/12	6020
Antimony	ND		1	1.13	0.281	07/05/12	6020
Arsenic	ND		1	0.563	0.281	07/05/12	6020
Barium	4.25	J	1	11.3	2.81	07/05/12	6020
Beryllium	ND		1	0.563	0.225	07/05/12	6020
Cadmium	ND		1	0.563	0.141	07/05/12	6020
Calcium	ND		1	56.3	28.1	07/05/12	6020
Chromium	3.00		1	2.25	0.563	07/05/12	6020
Cobalt	ND		1	2.25	0.563	07/05/12	6020
Copper	0.570	J	1	2.25	0.563	07/05/12	6020
Iron	1520		1	28.1	14.1	07/05/12	6020
Lead	1.45		1	0.563	0.141	07/05/12	6020
Magnesium	106		1	56.3	14.1	07/05/12	6020
Manganese	6.19		1	1.13	0.281	07/05/12	6020
Mercury	ND		1	0.013	0.00606	07/05/12	7471A
Nickel	0.873	J	1	1.13	0.563	07/05/12	6020
Potassium	72.1		1	56.3	14.1	07/05/12	6020
Selenium	ND		1	2.25	1.13	07/05/12	6020
Silver	ND		1	0.563	0.141	07/05/12	6020
Sodium	ND		1	113	28.1	07/05/12	6020
Thallium	ND		1	0.563	0.141	07/05/12	6020
Vanadium	2.45		1	2.25	0.563	07/05/12	6020
Zinc	2.34		1	2.25	2.25	07/05/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-007
Client ID: A7 (2-3) -062712
Date Received: 6/28/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 4.30
Batch #: 275

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	4420		1	11.6	5.78	07/05/12	6020
Antimony	ND		1	1.16	0.289	07/05/12	6020
Arsenic	0.718		1	0.578	0.289	07/05/12	6020
Barium	15.0		1	11.6	2.89	07/05/12	6020
Beryllium	ND		1	0.578	0.231	07/05/12	6020
Cadmium	ND		1	0.578	0.144	07/05/12	6020
Calcium	62.3		1	57.8	28.9	07/05/12	6020
Chromium	4.52		1	2.31	0.578	07/05/12	6020
Cobalt	0.584	J	1	2.31	0.578	07/05/12	6020
Copper	1.11	J	1	2.31	0.578	07/05/12	6020
Iron	3430		1	28.9	14.4	07/05/12	6020
Lead	2.20		1	0.578	0.144	07/05/12	6020
Magnesium	282		1	57.8	14.4	07/05/12	6020
Manganese	14.6		1	1.16	0.289	07/05/12	6020
Mercury	0.026		1	0.013	0.00612	07/05/12	7471A
Nickel	1.88		1	1.16	0.578	07/05/12	6020
Potassium	98.1		1	57.8	14.4	07/05/12	6020
Selenium	ND		1	2.31	1.16	07/05/12	6020
Silver	ND		1	0.578	0.144	07/05/12	6020
Sodium	ND		1	116	28.9	07/05/12	6020
Thallium	ND		1	0.578	0.144	07/05/12	6020
Vanadium	6.88		1	2.31	0.578	07/05/12	6020
Zinc	7.79		1	2.31	2.31	07/05/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-008
Client ID: I1-062712-SED
Date Received: 6/28/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.0
Batch #: 275

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	4670		1	12.9	6.47	07/05/12	6020
Antimony	0.941	J	1	1.29	0.323	07/05/12	6020
Arsenic	8.97		1	0.647	0.323	07/05/12	6020
Barium	60.3		1	12.9	3.23	07/05/12	6020
Beryllium	ND		1	0.647	0.259	07/05/12	6020
Cadmium	0.682		1	0.647	0.162	07/05/12	6020
Calcium	15300		1	64.7	32.3	07/05/12	6020
Chromium	24.5		1	2.59	0.647	07/05/12	6020
Cobalt	4.18		1	2.59	0.647	07/05/12	6020
Copper	55.2		1	2.59	0.647	07/05/12	6020
Iron	13500		1	32.3	16.2	07/05/12	6020
Lead	155		1	0.647	0.162	07/05/12	6020
Magnesium	2340		1	64.7	16.2	07/05/12	6020
Manganese	157		1	1.29	0.323	07/05/12	6020
Mercury	1.48		1	0.015	0.00706	07/05/12	7471A
Nickel	18.1		1	1.29	0.647	07/05/12	6020
Potassium	959		1	64.7	16.2	07/05/12	6020
Selenium	ND		1	2.59	1.29	07/05/12	6020
Silver	ND		1	0.647	0.162	07/05/12	6020
Sodium	542		1	129	32.3	07/05/12	6020
Thallium	0.914		1	0.647	0.162	07/05/12	6020
Vanadium	146		1	2.59	0.647	07/05/12	6020
Zinc	229		1	2.59	2.59	07/05/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-013
Client ID: B3-062712-WATER FILT.
Date Received: 6/28/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 283

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	ND		1	40.0	20.0	07/09/12	6020
Antimony	ND		1	4.00	1.00	07/09/12	6020
Arsenic	ND		1	2.00	1.00	07/09/12	6020
Barium	61.9		1	40.0	10.0	07/09/12	6020
Beryllium	ND		1	2.00	1.00	07/09/12	6020
Cadmium	ND		1	2.00	0.500	07/09/12	6020
Calcium	35200		1	200	100	07/09/12	6020
Chromium	ND		1	8.00	2.00	07/09/12	6020
Cobalt	2.18	J	1	8.00	2.00	07/09/12	6020
Copper	ND		1	8.00	4.00	07/09/12	6020
Iron	ND		1	100	50.0	07/09/12	6020
Lead	ND		1	2.00	0.500	07/09/12	6020
Magnesium	17000		1	200	50.0	07/09/12	6020
Manganese	807		1	4.00	2.00	07/09/12	6020
Mercury	ND		1	0.500	0.300	07/09/12	7470A
Nickel	4.38		1	4.00	1.00	07/09/12	6020
Potassium	24600		1	200	50.0	07/09/12	6020
Selenium	5.29	J	1	8.00	4.00	07/09/12	6020
Silver	ND		1	2.00	0.500	07/09/12	6020
Sodium	189000		1	400	100	07/09/12	6020
Thallium	ND		1	2.00	0.500	07/09/12	6020
Vanadium	ND		1	8.00	2.00	07/09/12	6020
Zinc	7.65	J	1	8.00	4.00	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-014
Client ID: A1-062712-WATER FILT.
Date Received: 6/28/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 283

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	ND		1	40.0	20.0	07/09/12	6020
Antimony	ND		1	4.00	1.00	07/09/12	6020
Arsenic	ND		1	2.00	1.00	07/09/12	6020
Barium	26.3	J	1	40.0	10.0	07/09/12	6020
Beryllium	ND		1	2.00	1.00	07/09/12	6020
Cadmium	ND		1	2.00	0.500	07/09/12	6020
Calcium	3180		1	200	100	07/09/12	6020
Chromium	ND		1	8.00	2.00	07/09/12	6020
Cobalt	2.04	J	1	8.00	2.00	07/09/12	6020
Copper	ND		1	8.00	4.00	07/09/12	6020
Iron	1300		1	100	50.0	07/09/12	6020
Lead	ND		1	2.00	0.500	07/09/12	6020
Magnesium	1620		1	200	50.0	07/09/12	6020
Manganese	67.4		1	4.00	2.00	07/09/12	6020
Mercury	ND		1	0.500	0.300	07/09/12	7470A
Nickel	2.89	J	1	4.00	1.00	07/09/12	6020
Potassium	1240		1	200	50.0	07/09/12	6020
Selenium	ND		1	8.00	4.00	07/09/12	6020
Silver	ND		1	2.00	0.500	07/09/12	6020
Sodium	2480		1	400	100	07/09/12	6020
Thallium	ND		1	2.00	0.500	07/09/12	6020
Vanadium	ND		1	8.00	2.00	07/09/12	6020
Zinc	47.2		1	8.00	4.00	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-015
Client ID: A2-062712-WATER FILT.
Date Received: 6/28/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 283

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	232		1	40.0	20.0	07/09/12	6020
Antimony	ND		1	4.00	1.00	07/09/12	6020
Arsenic	ND		1	2.00	1.00	07/09/12	6020
Barium	84.2		1	40.0	10.0	07/09/12	6020
Beryllium	ND		1	2.00	1.00	07/09/12	6020
Cadmium	ND		1	2.00	0.500	07/09/12	6020
Calcium	3280		1	200	100	07/09/12	6020
Chromium	ND		1	8.00	2.00	07/09/12	6020
Cobalt	5.86	J	1	8.00	2.00	07/09/12	6020
Copper	ND		1	8.00	4.00	07/09/12	6020
Iron	3240		1	100	50.0	07/09/12	6020
Lead	ND		1	2.00	0.500	07/09/12	6020
Magnesium	1730		1	200	50.0	07/09/12	6020
Manganese	180		1	4.00	2.00	07/09/12	6020
Mercury	ND		1	0.500	0.300	07/09/12	7470A
Nickel	4.42		1	4.00	1.00	07/09/12	6020
Potassium	1810		1	200	50.0	07/09/12	6020
Selenium	ND		1	8.00	4.00	07/09/12	6020
Silver	ND		1	2.00	0.500	07/09/12	6020
Sodium	3540		1	400	100	07/09/12	6020
Thallium	ND		1	2.00	0.500	07/09/12	6020
Vanadium	ND		1	8.00	2.00	07/09/12	6020
Zinc	107		1	8.00	4.00	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Lab ID: E12-06466-016
Client ID: A7-062712-WATER FILT.
Date Received: 6/28/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 283

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	784		1	40.0	20.0	07/09/12	6020
Antimony	ND		1	4.00	1.00	07/09/12	6020
Arsenic	ND		1	2.00	1.00	07/09/12	6020
Barium	75.1		1	40.0	10.0	07/09/12	6020
Beryllium	ND		1	2.00	1.00	07/09/12	6020
Cadmium	ND		1	2.00	0.500	07/09/12	6020
Calcium	4480		1	200	100	07/09/12	6020
Chromium	ND		1	8.00	2.00	07/09/12	6020
Cobalt	7.94	J	1	8.00	2.00	07/09/12	6020
Copper	ND		1	8.00	4.00	07/09/12	6020
Iron	1070		1	100	50.0	07/09/12	6020
Lead	ND		1	2.00	0.500	07/09/12	6020
Magnesium	1700		1	200	50.0	07/09/12	6020
Manganese	181		1	4.00	2.00	07/09/12	6020
Mercury	ND		1	0.500	0.300	07/09/12	7470A
Nickel	5.91		1	4.00	1.00	07/09/12	6020
Potassium	1870		1	200	50.0	07/09/12	6020
Selenium	ND		1	8.00	4.00	07/09/12	6020
Silver	ND		1	2.00	0.500	07/09/12	6020
Sodium	3290		1	400	100	07/09/12	6020
Thallium	ND		1	2.00	0.500	07/09/12	6020
Vanadium	ND		1	8.00	2.00	07/09/12	6020
Zinc	11.2		1	8.00	4.00	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TOTAL PETROLEUM HYDROCARBONS

Client/Project: URS-FTWASH/VINELAND PHASE II - VENDOR #1168636

Date Received: 06/28/12 19:30
Batch ID: AP040-0055

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	RL	% Solid	Date Analyzed
E12-06466-009	B3-062712-WATER	ND		1	Aqueous-ug/L	500	500	0	07/03/12 16:30
E12-06466-010	A1-062712-WATER	ND		1	Aqueous-ug/L	510	510	0	07/03/12 16:30
E12-06466-011	A2-062712-WATER	ND		1	Aqueous-ug/L	500	500	0	07/03/12 16:30
E12-06466-012	A7-062712-WATER	ND		1	Aqueous-ug/L	500	500	0	07/03/12 16:30

J = The concentration was detected at a value below the RL and above the MDL

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/03/2012

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS120703-01	SOIL	F6571.D	69	91	91
06412-001	SOIL	F6572.D	68	92	93
06412-002	SOIL	F6573.D	76	91	94
06355-010	SOIL	F6575.D	61	92	91
06355-012	SOIL	F6576.D	61	92	87
06355-015	SOIL	F6577.D	67	92	91
06355-020	SOIL	F6578.D	66	91	91
LCSS120703-01	SOIL	F6579.D	109	92	99
LCSDS120703-01	SOIL	F6580.D	113	92	97
06428-007	SOIL	F6581.D	66	91	88
06369-001	SOIL	F6582.D	68	91	93
06389-003	SOIL	F6585.D	68	93	88
06466-002	SOIL	F6587.D	69	91	94
06433-006	SOIL	F6588.D	72	92	92
06433-007	SOIL	F6589.D	70	93	92

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	55-153	39-165
SMC2 = Toluene-d8	50 ppb	56-151	45-162
SMC3 = Bromofluorobenzene	50 ppb	67-140	40-152

Column to be used to flag recovery values

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/06/2012

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS120705-02	SOIL	F6645.D	72	91	93
06577-002	SOIL	F6647.D	72	92	89
06577-003	SOIL	F6648.D	63	90	88
06577-006	SOIL	F6651.D	61	91	89
06577-007	SOIL	F6652.D	68	90	90
06577-009	SOIL	F6654.D	70	93	91
06577-010	SOIL	F6655.D	71	90	91
LCSD120705-02	SOIL	F6656.D	120	93	100
LCSDSC120705-02	SOIL	F6657.D	122	92	101
06577-011	SOIL	F6658.D	69	91	92
06577-012	SOIL	F6659.D	74	91	92
06577-013	SOIL	F6660.D	72	90	92
06577-014	SOIL	F6661.D	65	90	92
06577-015	SOIL	F6662.D	66	89	90
06466-001	SOIL	F6663.D	73	90	92

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	55-153	39-165
SMC2 = Toluene-d8	50 ppb	56-151	45-162
SMC3 = Bromofluorobenzene	50 ppb	67-140	40-152

Column to be used to flag recovery values

FORM 2

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA120709	AQUEOUS	L1464.D	94	89	98
TCLP120709	AQUEOUS	L1465.D	95	89	97
06642-025	AQUEOUS	L1466.D	95	90	98
06605-001	AQUEOUS	L1467.D	93	89	98
06546-001	AQUEOUS	L1468.D	94	90	97
06466-009	AQUEOUS	L1469.D	94	90	96
06466-010	AQUEOUS	L1470.D	95	91	98
06466-011	AQUEOUS	L1471.D	95	90	98
06466-012	AQUEOUS	L1472.D	95	89	97
LCSA120709	AQUEOUS	L1473.D	94	91	99
06546-001MS	AQUEOUS	L1474.D	93	91	100
06546-001MSD	AQUEOUS	L1475.D	92	91	99
06212-018	AQUEOUS	L1476.D	93	88	98
06420-001	AQUEOUS	L1477.D	95	89	98
06677-001	AQUEOUS	L1478.D	96	89	99
06724-001	AQUEOUS	L1480.D	95	87	96
06699-001	AQUEOUS	L1481.D	95	86	95
06699-002	AQUEOUS	L1482.D	96	88	96
06699-003	AQUEOUS	L1483.D	97	87	96
06723-001	AQUEOUS	L1484.D	96	86	95

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	45-154	39-165
SMC2 = Toluene-d8	50 ppb	47-151	45-162
SMC3 = Bromofluorobenzene	50 ppb	48-149	40-152

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

8260LCS

LCS ACCURACY REPORT

Lab ID: LCSA120709
Date Received:
Date Analyzed: 07/10/2012
LCS Data file: L1473.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.
Dichlorodifluoromethane	50.0	0.00	45.0	90
Chloromethane	50.0	0.00	46.2	92
Vinyl chloride	50.0	0.00	56.0	112
Bromomethane	50.0	0.00	62.8	126
Chloroethane	50.0	0.00	59.0	118
Trichlorofluoromethane	50.0	0.00	53.7	107
Acrolein	150	0.00	107.8	72
1,1-Dichloroethene	50.0	0.00	56.8	114
Acetone	50.0	0.00	46.4	93
Carbon disulfide	50.0	0.00	53.0	106
Vinyl acetate	50.0	0.00	48.2	96
Methylene chloride	50.0	0.00	52.0	104
Acrylonitrile	150.0	0.00	187.8	125
tert-Butyl alcohol (TBA)	100.0	0.00	94.5	95
trans-1,2-Dichloroethene	50.0	0.00	53.2	106
Methyl tert-butyl ether (MTBE)	50.0	0.00	51.7	103
1,1-Dichloroethane	50.0	0.00	52.8	106
Diisopropyl ether (DIPE)	50.0	0.00	52.0	104
cis-1,2-Dichloroethene	50.0	0.00	51.7	103
2,2-Dichloropropane	50.0	0.00	49.7	99
2-Butanone (MEK)	50.0	0.00	48.0	96
Bromochloromethane	50.0	0.00	51.3	103
Chloroform	50.0	0.00	50.6	101
1,1,1-Trichloroethane	50.0	0.00	62.0	124
Carbon tetrachloride	50.0	0.00	57.5	115
1,1-Dichloropropene	50.0	0.00	53.0	106
1,2-Dichloroethane (EDC)	50.0	0.00	50.0	100
Benzene	50.0	0.00	50.8	102
Trichloroethene	50.0	0.00	51.6	103
1,2-Dichloropropane	50.0	0.00	49.8	100
Dibromomethane	50.0	0.00	49.9	100
1,4-Dioxane	1500	0.00	1850	123
Bromodichloromethane	50.0	0.00	45.8	92
2-Chloroethyl vinyl ether	50.0	0.00	61.5	123
cis-1,3-Dichloropropene	50.0	0.00	44.9	90
4-Methyl-2-pentanone (MIBK)	50.0	0.00	52.2	104
Toluene	50.0	0.00	48.3	97
trans-1,3-Dichloropropene	50.0	0.00	41.7	83
1,1,2-Trichloroethane	50.0	0.00	48.2	96
Tetrachloroethene	50.0	0.00	47.6	95

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120709
Date Received:
Date Analyzed: 07/10/2012
LCS Data file: L1473.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.
1,3-Dichloropropane	50.0	0.00	48.3	97
2-Hexanone	50.0	0.00	52.5	105
Dibromochloromethane	50.0	0.00	44.6	89
1,2-Dibromoethane (EDB)	50.0	0.00	48.9	98
Chlorobenzene	50.0	0.00	48.9	98
1,1,1,2-Tetrachloroethane	50.0	0.00	50.2	100
Ethylbenzene	50.0	0.00	49.5	99
m,p-Xylene	100	0.00	99.4	99
Styrene	50.0	0.00	49.9	100
Bromoform	50.0	0.00	51.9	104
Isopropylbenzene	50.0	0.00	51.5	103
1,1,2,2-Tetrachloroethane	50.0	0.00	49.6	99
Bromobenzene	50.0	0.00	48.9	98
1,2,3-Trichloropropane	50.0	0.00	50.6	101
n-Propylbenzene	50.0	0.00	48.4	97
2-Chlorotoluene	50.0	0.00	49.6	99
1,3,5-Trimethylbenzene	50.0	0.00	49.7	99
4-Chlorotoluene	50.0	0.00	48.2	96
tert-Butylbenzene	50.0	0.00	50.6	101
1,2,4-Trimethylbenzene	50.0	0.00	49.5	99
sec-Butylbenzene	50.0	0.00	49.2	98
1,3-Dichlorobenzene	50.0	0.00	47.4	95
4-Isopropyltoluene	50.0	0.00	48.6	97
1,4-Dichlorobenzene	50.0	0.00	47.7	95
n-Butylbenzene	50.0	0.00	46.2	92
1,2-Dichlorobenzene	50.0	0.00	50.3	101
1,2-Dibromo-3-chloropropane	50.0	0.00	51.1	102
1,2,4-Trichlorobenzene	50.0	0.00	46.7	93
Hexachlorobutadiene	50.0	0.00	44.7	89
Naphthalene	50.0	0.00	51.7	103
1,2,3-Trichlorobenzene	50.0	0.00	47.7	95
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.00	60.8	122
Methyl acetate	50.0	0.00	52.1	104
Cyclohexane	50.0	0.00	55.3	111
Methylcyclohexane	50.0	0.00	47.0	94

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

* Values outside of QC limits
Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD **MS/MSD SPIKE REPORT**

Lab ID: BLKS120703-01
Client ID: BLKS120703-01
Date Received:
Date Analyzed: 07/04/2012
MS Data file: F6579.D
MSD Data file: F6580.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	37.4	75		36.1	72		4	
Chloromethane	50	0.0	39.4	79		39.2	78		1	
Vinyl chloride	50	0.0	42.1	84		41.9	84		0	
Bromomethane	50	0.0	40.5	81		39.9	80		1	
Chloroethane	50	0.0	41.7	83		40.5	81		3	
Trichlorofluoromethane	50	0.0	39.7	79		37.8	76		5	
Acrolein	150	0.0	142	95		154	103		8	
1,1-Dichloroethene	50	0.0	45.5	91		44.0	88		3	
Acetone	50	0.0	60.2	120		64.3	129		7	
Carbon disulfide	50	0.0	45.5	91		44.3	89		3	
Vinyl acetate	50	0.0	50.6	101		45.9	92		10	
Methylene chloride	50	0.0	52.9	106		52.4	105		1	
Acrylonitrile	150	0.0	156	104		153	102		2	
tert-Butyl alcohol (TBA)	100	0.0	95.7	96		110.0	110		14	
trans-1,2-Dichloroethene	50	0.0	48.3	97		45.7	91		6	
Methyl tert-butyl ether (MTE	50	0.0	54.0	108		53.6	107		1	
1,1-Dichloroethane	50	0.0	48.7	97		47.1	94		3	
Diisopropyl ether (DIPE)	50	0.0	49.0	98		47.7	95		3	
cis-1,2-Dichloroethene	50	0.0	50.3	101		48.0	96		5	
2,2-Dichloropropane	50	0.0	35.5	71		35.2	70		1	
2-Butanone (MEK)	50	0.0	58.1	116		60.6	121		4	
Bromochloromethane	50	0.0	58.7	117		56.1	112		5	
Chloroform	50	0.0	48.6	97		45.9	92		6	
1,1,1-Trichloroethane	50	0.0	40.0	80		39.1	78		2	
Carbon tetrachloride	50	0.0	40.5	81		39.6	79		2	
1,1-Dichloropropene	50	0.0	47.2	94		45.9	92		3	
1,2-Dichloroethane (EDC)	50	0.0	53.1	106		52.2	104		2	
Benzene	50	0.0	49.8	100		47.7	95		4	
Trichloroethene	50	0.0	45.6	91		45.2	90		1	
1,2-Dichloropropane	50	0.0	46.7	93		44.8	90		4	
Dibromomethane	50	0.0	57.2	114		55.8	112		2	
1,4-Dioxane	1,500	0.0	1510	101		1534	102		2	
Bromodichloromethane	50	0.0	49.2	98		47.9	96		3	
2-Chloroethyl vinyl ether	50	0.0	49.7	99		50.0	100		1	
cis-1,3-Dichloropropene	50	0.0	47.7	95		46.6	93		2	
4-Methyl-2-pentanone (MIBI	50	0.0	49.5	99		52.9	106		7	
Toluene	50	0.0	43.5	87		41.8	84		4	
trans-1,3-Dichloropropene	50	0.0	47.5	95		45.4	91		5	
1,1,2-Trichloroethane	50	0.0	51.8	104		51.3	103		1	
Tetrachloroethene	50	0.0	40.8	82		38.9	78		5	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: BLKS120703-01
Client ID: BLKS120703-01
Date Received:
Date Analyzed: 07/04/2012
MS Data file: F6579.D
MSD Data file: F6580.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
1,3-Dichloropropane	50	0.00	49.7	99		48.4	97		3	
2-Hexanone	50	0.00	46.7	93		49.8	100		6	
Dibromochloromethane	50	0.00	51.5	103		50.1	100		3	
1,2-Dibromoethane (EDB)	50	0.00	54.5	109		53.9	108		1	
Chlorobenzene	50	0.00	43.0	86		40.6	81		6	
1,1,1,2-Tetrachloroethane	50	0.00	47.7	95		44.2	88		8	
Ethylbenzene	50	0.00	42.0	84		39.2	78		7	
m,p-Xylene	100	0.00	83.9	84		77.5	78		8	
Styrene	50	0.00	43.8	88		40.7	81		7	
Bromoform	50	0.00	53.7	107		53.1	106		1	
Isopropylbenzene	50	0.00	41.4	83		39.0	78		6	
1,1,2,2-Tetrachloroethane	50	0.00	42.6	85		41.0	82		4	
Bromobenzene	50	0.00	45.5	91		42.3	85		7	
1,2,3-Trichloropropane	50	0.00	53.8	108		53.6	107		0	
n-Propylbenzene	50	0.00	41.3	83		38.0	76		8	
2-Chlorotoluene	50	0.00	41.0	82		37.9	76		8	
1,3,5-Trimethylbenzene	50	0.00	40.8	82		38.0	76		7	
4-Chlorotoluene	50	0.00	40.9	82		37.8	76		8	
tert-Butylbenzene	50	0.00	42.7	85		39.8	80		7	
1,2,4-Trimethylbenzene	50	0.00	40.7	81		37.5	75		8	
sec-Butylbenzene	50	0.00	41.8	84		38.6	77		8	
1,3-Dichlorobenzene	50	0.00	41.8	84		38.8	78		7	
4-Isopropyltoluene	50	0.00	40.4	81		37.0	74		9	
1,4-Dichlorobenzene	50	0.00	42.3	85		38.9	78		8	
n-Butylbenzene	50	0.00	40.3	81		36.6	73		10	
1,2-Dichlorobenzene	50	0.00	45.0	90		41.7	83		8	
1,2-Dibromo-3-chloropropan	50	0.00	49.8	100		51.4	103		3	
1,2,4-Trichlorobenzene	50	0.00	42.2	84		38.4	77		9	
Hexachlorobutadiene	50	0.00	40.1	80		35.4	71		12	
Naphthalene	50	0.00	56.7	113		55.5	111		2	
1,2,3-Trichlorobenzene	50	0.00	46.3	93		42.3	85		9	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	41.6	83		40.2	80		3	
Methyl acetate	50	0.00	52.4	105		52.5	105		0	
Cyclohexane	50	0.00	40.1	80		38.1	76		5	
Methylcyclohexane	50	0.00	39.4	79		38.1	76		3	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

E12-06466 0104

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD

MS/MSD SPIKE REPORT

Lab ID: BLKS120705-02
Client ID: BLKS120705-02
Date Received:
Date Analyzed: 07/06/2012
MS Data file: F6656.D
MSD Data file: F6657.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	46.1	92		50.8	102		10	
Chloromethane	50	0.0	42.7	85		48.0	96		12	
Vinyl chloride	50	0.0	43.2	86		48.1	96		11	
Bromomethane	50	0.0	40.9	82		46.8	94		13	
Chloroethane	50	0.0	41.2	82		47.3	95		14	
Trichlorofluoromethane	50	0.0	43.5	87		47.8	96		9	
Acrolein	150	0.0	158	105		158	105		0	
1,1-Dichloroethene	50	0.0	45.8	92		50.8	102		10	
Acetone	50	0.0	61.4	123		59.4	119		3	
Carbon disulfide	50	0.0	46.3	93		50.9	102		9	
Vinyl acetate	50	0.0	47.9	96		51.2	102		7	
Methylene chloride	50	0.0	55.0	110		59.4	119		8	
Acrylonitrile	150	0.0	160	107		154	103		4	
tert-Butyl alcohol (TBA)	100	0.0	118.2	118		113.0	113		4	
trans-1,2-Dichloroethene	50	0.0	47.8	96		53.3	107		11	
Methyl tert-butyl ether (MTE	50	0.0	58.4	117		64.0	128		9	
1,1-Dichloroethane	50	0.0	51.8	104		56.2	112		8	
Diisopropyl ether (DIPE)	50	0.0	54.3	109		58.6	117		8	
cis-1,2-Dichloroethene	50	0.0	51.1	102		56.0	112		9	
2,2-Dichloropropane	50	0.0	36.0	72		39.5	79		9	
2-Butanone (MEK)	50	0.0	56.6	113		57.6	115		2	
Bromochloromethane	50	0.0	60.6	121		52.7	105		14	
Chloroform	50	0.0	51.1	102		55.6	111		8	
1,1,1-Trichloroethane	50	0.0	43.7	87		47.0	94		7	
Carbon tetrachloride	50	0.0	44.4	89		48.9	98		10	
1,1-Dichloropropene	50	0.0	49.4	99		53.3	107		8	
1,2-Dichloroethane (EDC)	50	0.0	60.4	121		65.1	130		7	
Benzene	50	0.0	50.4	101		54.7	109		8	
Trichloroethene	50	0.0	51.5	103		55.3	111		7	
1,2-Dichloropropane	50	0.0	48.9	98		53.0	106		8	
Dibromomethane	50	0.0	61.6	123		57.4	115		7	
1,4-Dioxane	1,500	0.0	1558	104		1610	107		3	
Bromodichloromethane	50	0.0	53.7	107		57.4	115		7	
2-Chloroethyl vinyl ether	50	0.0	56.0	112		59.2	118		6	
cis-1,3-Dichloropropene	50	0.0	48.8	98		53.2	106		9	
4-Methyl-2-pentanone (MIBI	50	0.0	59.9	120		62.1	124		4	
Toluene	50	0.0	45.4	91		47.8	96		5	
trans-1,3-Dichloropropene	50	0.0	49.2	98		53.0	106		7	
1,1,2-Trichloroethane	50	0.0	56.0	112		58.0	116		4	
Tetrachloroethene	50	0.0	42.1	84		45.2	90		7	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: BLKS120705-02
Client ID: BLKS120705-02
Date Received:
Date Analyzed: 07/06/2012
MS Data file: F6656.D
MSD Data file: F6657.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
1,3-Dichloropropane	50	0.00	51.9	104		57.2	114		10	
2-Hexanone	50	0.00	54.4	109		57.9	116		6	
Dibromochloromethane	50	0.00	55.8	112		60.5	121		8	
1,2-Dibromoethane (EDB)	50	0.00	59.1	118		62.7	125		6	
Chlorobenzene	50	0.00	43.1	86		46.5	93		8	
1,1,1,2-Tetrachloroethane	50	0.00	49.1	98		53.8	108		9	
Ethylbenzene	50	0.00	42.0	84		45.1	90		7	
m,p-Xylene	100	0.00	83.0	83		89.6	90		8	
Styrene	50	0.00	44.0	88		47.5	95		8	
Bromoform	50	0.00	57.9	116		62.7	125		8	
Isopropylbenzene	50	0.00	42.5	85		45.1	90		6	
1,1,2,2-Tetrachloroethane	50	0.00	40.9	82		42.9	86		5	
Bromobenzene	50	0.00	46.2	92		48.9	98		6	
1,2,3-Trichloropropane	50	0.00	58.0	116		62.2	124		7	
n-Propylbenzene	50	0.00	40.9	82		43.7	87		7	
2-Chlorotoluene	50	0.00	41.1	82		43.8	88		6	
1,3,5-Trimethylbenzene	50	0.00	41.5	83		44.7	89		7	
4-Chlorotoluene	50	0.00	40.8	82		43.6	87		7	
tert-Butylbenzene	50	0.00	44.1	88		47.7	95		8	
1,2,4-Trimethylbenzene	50	0.00	41.0	82		43.5	87		6	
sec-Butylbenzene	50	0.00	42.3	85		44.4	89		5	
1,3-Dichlorobenzene	50	0.00	41.7	83		44.3	89		6	
4-Isopropyltoluene	50	0.00	41.0	82		43.6	87		6	
1,4-Dichlorobenzene	50	0.00	41.2	82		45.1	90		9	
n-Butylbenzene	50	0.00	39.8	80		41.7	83		5	
1,2-Dichlorobenzene	50	0.00	45.8	92		48.7	97		6	
1,2-Dibromo-3-chloropropan	50	0.00	59.1	118		62.0	124		5	
1,2,4-Trichlorobenzene	50	0.00	40.0	80		42.1	84		5	
Hexachlorobutadiene	50	0.00	40.5	81		41.6	83		3	
Naphthalene	50	0.00	57.9	116		62.0	124		7	
1,2,3-Trichlorobenzene	50	0.00	45.1	90		48.6	97		7	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	42.2	84		45.6	91		8	
Methyl acetate	50	0.00	57.5	115		57.1	114		1	
Cyclohexane	50	0.00	41.0	82		44.6	89		8	
Methylcyclohexane	50	0.00	41.1	82		44.0	88		7	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD **MS/MSD SPIKE REPORT**

Lab ID: 06546-001
Client ID: A6-062912-WATE
Date Received:
Date Analyzed: 07/10/2012
MS Data file: L1474.D
MSD Data file: L1475.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	47.2	94		47.0	94		0	
Chloromethane	50	0.0	46.3	93		45.5	91		2	
Vinyl chloride	50	0.0	55.5	111		54.1	108		3	
Bromomethane	50	0.0	63.2	126		63.0	126		0	
Chloroethane	50	0.0	57.2	114		56.8	114		1	
Trichlorofluoromethane	50	0.0	54.6	109		54.7	109		0	
Acrolein	150	0.0	155	103		132	88		16	
1,1-Dichloroethene	50	0.0	55.8	112		54.7	109		2	
Acetone	50	0.0	47.3	95		45.0	90		5	
Carbon disulfide	50	0.0	52.1	104		51.9	104		0	
Vinyl acetate	50	0.0	47.6	95		47.9	96		1	
Methylene chloride	50	0.0	51.5	103		50.7	101		2	
Acrylonitrile	150	0.0	180	120		167	111		7	
tert-Butyl alcohol (TBA)	100	0.0	95.0	95		92.4	92		3	
trans-1,2-Dichloroethene	50	0.0	52.7	105		52.4	105		1	
Methyl tert-butyl ether (MTE	50	0.0	51.1	102		51.3	103		0	
1,1-Dichloroethane	50	0.0	52.5	105		52.1	104		1	
Diisopropyl ether (DIPE)	50	0.0	51.9	104		52.2	104		1	
cis-1,2-Dichloroethene	50	0.0	51.9	104		51.5	103		1	
2,2-Dichloropropane	50	0.0	51.1	102		54.0	108		6	
2-Butanone (MEK)	50	0.0	45.7	91		45.6	91		0	
Bromochloromethane	50	0.0	50.6	101		50.3	101		1	
Chloroform	50	0.0	50.0	100		49.8	100		0	
1,1,1-Trichloroethane	50	0.0	62.6	125		63.5	127		1	
Carbon tetrachloride	50	0.0	58.4	117		58.5	117		0	
1,1-Dichloropropene	50	0.0	51.9	104		52.9	106		2	
1,2-Dichloroethane (EDC)	50	0.0	49.7	99		49.9	100		0	
Benzene	50	0.0	50.4	101		50.8	102		1	
Trichloroethene	50	0.0	51.4	103		51.9	104		1	
1,2-Dichloropropane	50	0.0	49.8	100		50.4	101		1	
Dibromomethane	50	0.0	50.2	100		49.5	99		1	
1,4-Dioxane	1,500	0.0	1844	123		1771	118		4	
Bromodichloromethane	50	0.0	46.0	92		46.4	93		1	
2-Chloroethyl vinyl ether	50	0.0	59.3	119		63.3	127		7	
cis-1,3-Dichloropropene	50	0.0	44.9	90		45.9	92		2	
4-Methyl-2-pentanone (MIBI	50	0.0	51.4	103		51.6	103		0	
Toluene	50	0.0	48.2	96		48.7	97		1	
trans-1,3-Dichloropropene	50	0.0	41.2	82		42.7	85		4	
1,1,2-Trichloroethane	50	0.0	48.4	97		48.7	97		1	
Tetrachloroethene	50	0.0	46.7	93		48.1	96		3	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06546-001
Client ID: A6-062912-WATE
Date Received:
Date Analyzed: 07/10/2012
MS Data file: L1474.D
MSD Data file: L1475.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
1,3-Dichloropropane	50	0.00	47.6	95		48.3	97		1	
2-Hexanone	50	0.00	52.5	105		52.0	104		1	
Dibromochloromethane	50	0.00	45.7	91		45.9	92		0	
1,2-Dibromoethane (EDB)	50	0.00	48.9	98		48.8	98		0	
Chlorobenzene	50	0.00	49.4	99		50.0	100		1	
1,1,1,2-Tetrachloroethane	50	0.00	50.3	101		50.8	102		1	
Ethylbenzene	50	0.00	50.0	100		50.7	101		1	
m,p-Xylene	100	0.00	100.0	100		100.2	100		0	
Styrene	50	0.00	50.4	101		50.4	101		0	
Bromoform	50	0.00	57.3	115		53.3	107		7	
Isopropylbenzene	50	0.00	52.1	104		51.9	104		0	
1,1,2,2-Tetrachloroethane	50	0.00	49.4	99		49.2	98		0	
Bromobenzene	50	0.00	49.7	99		49.6	99		0	
1,2,3-Trichloropropane	50	0.00	50.9	102		50.0	100		2	
n-Propylbenzene	50	0.00	48.8	98		49.0	98		0	
2-Chlorotoluene	50	0.00	50.1	100		49.3	99		2	
1,3,5-Trimethylbenzene	50	0.00	50.3	101		50.1	100		0	
4-Chlorotoluene	50	0.00	48.9	98		48.5	97		1	
tert-Butylbenzene	50	0.00	50.9	102		51.3	103		1	
1,2,4-Trimethylbenzene	50	0.00	50.2	100		49.5	99		1	
sec-Butylbenzene	50	0.00	49.7	99		49.4	99		1	
1,3-Dichlorobenzene	50	0.00	47.9	96		47.6	95		1	
4-Isopropyltoluene	50	0.00	49.1	98		48.5	97		1	
1,4-Dichlorobenzene	50	0.00	48.6	97		47.5	95		2	
n-Butylbenzene	50	0.00	47.2	94		47.7	95		1	
1,2-Dichlorobenzene	50	0.00	50.9	102		50.1	100		2	
1,2-Dibromo-3-chloropropan	50	0.00	51.3	103		51.9	104		1	
1,2,4-Trichlorobenzene	50	0.00	48.2	96		48.4	97		0	
Hexachlorobutadiene	50	0.00	47.5	95		48.9	98		3	
Naphthalene	50	0.00	54.3	109		54.0	108		1	
1,2,3-Trichlorobenzene	50	0.00	49.1	98		49.8	100		1	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	61.9	124		60.0	120		3	
Methyl acetate	50	0.00	51.3	103		50.6	101		1	
Cyclohexane	50	0.00	58.3	117		57.5	115		1	
Methylcyclohexane	50	0.00	49.3	99		48.0	96		3	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F6571.D Instrument ID: MSD_F

Date Analyzed: 07/03/2012 Time Analyzed: 23:21

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
DISP-1/2.5-3	06412-001	07/03/2012	23:51
DISP-2/2.5-3	06412-002	07/04/2012	0:21
EXC-1S	06355-010	07/04/2012	1:21
EXC-3E	06355-012	07/04/2012	1:51
EXC-4S	06355-015	07/04/2012	2:21
EXC-5N	06355-020	07/04/2012	2:52
LCS-50PPB	LCSS120703-01	07/04/2012	3:22
LCSD-50PPB	LCSDS120703-01	07/04/2012	3:52
B-6/5.5-6	06428-007	07/04/2012	4:22
DC-SS-1A/1-1.5	06369-001	07/04/2012	4:52
SAMPLE_75/0.5	06389-003	07/04/2012	6:22
B3_(16-17)_-06	06466-002	07/04/2012	7:22
GT-3/6.5-7	06433-006	07/04/2012	7:52
GT-3Q/6.5-7	06433-007	07/04/2012	8:22

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F6645.D Instrument ID: MSD_F

Date Analyzed: 07/06/2012 Time Analyzed: 06:51

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
12-136-TP-2	06577-002	07/06/2012	7:51
12-136-TP-3	06577-003	07/06/2012	8:21
12-136-TP-6	06577-006	07/06/2012	9:51
12-136-TP-7	06577-007	07/06/2012	10:21
12-136-TP-9	06577-009	07/06/2012	11:21
12-136-TP-10	06577-010	07/06/2012	11:51
LCS-50PPB	LCSD120705-02	07/06/2012	12:21
LCSD-50PPB	LCSDSC120705-02	07/06/2012	12:51
12-136-TP-11	06577-011	07/06/2012	13:21
12-136-TP-12	06577-012	07/06/2012	13:51
12-136-TP-13	06577-013	07/06/2012	14:21
12-136-TP-14	06577-014	07/06/2012	14:51
12-136-TP-15	06577-015	07/06/2012	15:21
B1_(4-5)_-0627	06466-001	07/06/2012	15:51

FORM 4

VOLATILE METHOD BLANK SUMMARY

Lab File ID: L1464.D Instrument ID: MSD_L

Date Analyzed: 07/10/2012 Time Analyzed: 00:47

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TCLP120709	TCLP120709	07/10/2012	1:14
GPECTB070212	06642-025	07/10/2012	1:41
BLDG_710	06605-001	07/10/2012	2:09
A6-062912-WATE	06546-001	07/10/2012	2:36
B3-062712-WATE	06466-009	07/10/2012	3:04
A1-062712-WATE	06466-010	07/10/2012	3:32
A2-062712-WATE	06466-011	07/10/2012	4:00
A7-062712-WATE	06466-012	07/10/2012	4:27
LCS-50PPB	LCSA120709	07/10/2012	4:55
MS	06546-001MS	07/10/2012	5:22
MSD	06546-001MSD	07/10/2012	5:49
SAMPLE_18	06212-018	07/10/2012	6:16
BLDG_404_PIPE_	06420-001	07/10/2012	6:43
PLA-V12-1821	06677-001	07/10/2012	7:11
EO-V12-1826	06724-001	07/10/2012	8:04
1-COMP-1-10	06699-001	07/10/2012	8:31
2-COMP-11-20	06699-002	07/10/2012	8:59
3-COMP-21-31	06699-003	07/10/2012	9:27
HAR-V12-1832	06723-001	07/10/2012	9:55

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F6026.D BFB Injection Date: 06/18/2012

Inst ID: MSD_F BFB Injection Time: 9:18

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	22.6			
75	30.0 - 60.0% of mass 95	47.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.8			
173	Less than 2.0% of mass 174	0.5	(	0.7	)1
174	Great than 50.0% of mass 95	69.5			
175	5.0 - 9.0% of mass 174	5.5	(	7.9	)1
176	95.0 - 101.0% of mass 174	66.2	(	95.3	)1
177	5.0 - 9.0% of mass 176	4.3	(	6.5	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC1	ICC1	F6027.D	06/18/2012	10:03
ICC2	ICC2	F6029.D	06/18/2012	11:44
ICC5	ICC5	F6030.D	06/18/2012	12:16
ICC20	ICC20	F6033.D	06/18/2012	13:53
ICC100	ICC100	F6034.D	06/18/2012	14:27
ICC200	ICC200	F6035.D	06/18/2012	14:57
ICC150	ICC150	F6036.D	06/18/2012	15:27
ICV100	ICV100	F6038.D	06/18/2012	16:26

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F6567.D BFB Injection Date: 07/03/2012

Inst ID: MSD_F BFB Injection Time: 21:21

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	21.1			
75	30.0 - 60.0% of mass 95	45.9			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.2			
173	Less than 2.0% of mass 174	0.9	(	1.3	)1
174	Great than 50.0% of mass 95	65.6			
175	5.0 - 9.0% of mass 174	5.5	(	8.4	)1
176	95.0 - 101.0% of mass 174	62.6	(	95.5	)1
177	5.0 - 9.0% of mass 176	4.3	(	6.8	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	F6569.D	07/03/2012	22:21
BLKS120703-01	BLKS120703-01	F6571.D	07/03/2012	23:21
DISP-1/2.5-3	06412-001	F6572.D	07/03/2012	23:51
DISP-2/2.5-3	06412-002	F6573.D	07/04/2012	0:21
EXC-1S	06355-010	F6575.D	07/04/2012	1:21
EXC-3E	06355-012	F6576.D	07/04/2012	1:51
EXC-4S	06355-015	F6577.D	07/04/2012	2:21
EXC-5N	06355-020	F6578.D	07/04/2012	2:52
LCS-50PPB	LCSS120703-01	F6579.D	07/04/2012	3:22
LCSD-50PPB	LCSDS120703-01	F6580.D	07/04/2012	3:52
B-6/5.5-6	06428-007	F6581.D	07/04/2012	4:22
DC-SS-1A/1-1.5	06369-001	F6582.D	07/04/2012	4:52
SAMPLE_75/0.5	06389-003	F6585.D	07/04/2012	6:22
B3_(16-17)_-06	06466-002	F6587.D	07/04/2012	7:22
GT-3/6.5-7	06433-006	F6588.D	07/04/2012	7:52
GT-3Q/6.5-7	06433-007	F6589.D	07/04/2012	8:22

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F6641.D BFB Injection Date: 07/06/2012

Inst ID: MSD_F BFB Injection Time: 4:51

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	23.1			
75	30.0 - 60.0% of mass 95	46.6			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.7			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	64.4			
175	5.0 - 9.0% of mass 174	5.2	(	8.0	)1
176	95.0 - 101.0% of mass 174	62.1	(	96.4	)1
177	5.0 - 9.0% of mass 176	4.2	(	6.8	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	F6643.D	07/06/2012	5:51
BLKS120705-02	BLKS120705-02	F6645.D	07/06/2012	6:51
12-136-TP-2	06577-002	F6647.D	07/06/2012	7:51
12-136-TP-3	06577-003	F6648.D	07/06/2012	8:21
12-136-TP-6	06577-006	F6651.D	07/06/2012	9:51
12-136-TP-7	06577-007	F6652.D	07/06/2012	10:21
12-136-TP-9	06577-009	F6654.D	07/06/2012	11:21
12-136-TP-10	06577-010	F6655.D	07/06/2012	11:51
LCS-50PPB	LCSD120705-02	F6656.D	07/06/2012	12:21
LCSD-50PPB	LCSDSC120705-(	F6657.D	07/06/2012	12:51
12-136-TP-11	06577-011	F6658.D	07/06/2012	13:21
12-136-TP-12	06577-012	F6659.D	07/06/2012	13:51
12-136-TP-13	06577-013	F6660.D	07/06/2012	14:21
12-136-TP-14	06577-014	F6661.D	07/06/2012	14:51
12-136-TP-15	06577-015	F6662.D	07/06/2012	15:21
B1_(4-5)_-0627	06466-001	F6663.D	07/06/2012	15:51

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L0836.D BFB Injection Date: 06/19/2012

Inst ID: MSD_L BFB Injection Time: 8:56

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.9			
75	30.0 - 60.0% of mass 95	48.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.5			
173	Less than 2.0% of mass 174	0.7	(	0.9	)1
174	Great than 50.0% of mass 95	79.4			
175	5.0 - 9.0% of mass 174	5.8	(	7.3	)1
176	95.0 - 101.0% of mass 174	76.3	(	96.1	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.7	)2
	1-Value is % mass 174	2-Value is % mass 176			

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC20	ICC20	L0837.D	06/19/2012	11:05
ICC100	ICC100	L0838.D	06/19/2012	11:32
ICC150	ICC150	L0839.D	06/19/2012	11:59
ICC200	ICC200	L0840.D	06/19/2012	12:27
ICC2	ICC2	L0843.D	06/19/2012	13:49
ICC5	ICC5	L0845.D	06/19/2012	14:59
ICC1	ICC1	L0846.D	06/19/2012	15:49
ICV100	ICV100	L0847.D	06/19/2012	16:21

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L1459.D BFB Injection Date: 07/09/2012

Inst ID: MSD_L BFB Injection Time: 22:29

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.2			
75	30.0 - 60.0% of mass 95	46.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.7	(	0.9	)1
174	Great than 50.0% of mass 95	79.4			
175	5.0 - 9.0% of mass 174	5.6	(	7.1	)1
176	95.0 - 101.0% of mass 174	76.7	(	96.6	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.6	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	L1461.D	07/09/2012	23:23
BLKA120709	BLKA120709	L1464.D	07/10/2012	0:47
TCLP120709	TCLP120709	L1465.D	07/10/2012	1:14
GPECTB070212	06642-025	L1466.D	07/10/2012	1:41
BLDG_710	06605-001	L1467.D	07/10/2012	2:09
A6-062912-WATE	06546-001	L1468.D	07/10/2012	2:36
B3-062712-WATE	06466-009	L1469.D	07/10/2012	3:04
A1-062712-WATE	06466-010	L1470.D	07/10/2012	3:32
A2-062712-WATE	06466-011	L1471.D	07/10/2012	4:00
A7-062712-WATE	06466-012	L1472.D	07/10/2012	4:27
LCS-50PPB	LCSA120709	L1473.D	07/10/2012	4:55
MS	06546-001MS	L1474.D	07/10/2012	5:22
MSD	06546-001MSD	L1475.D	07/10/2012	5:49
SAMPLE_18	06212-018	L1476.D	07/10/2012	6:16
BLDG_404_PIPE_	06420-001	L1477.D	07/10/2012	6:43
PLA-V12-1821	06677-001	L1478.D	07/10/2012	7:11
EO-V12-1826	06724-001	L1480.D	07/10/2012	8:04
1-COMP-1-10	06699-001	L1481.D	07/10/2012	8:31
2-COMP-11-20	06699-002	L1482.D	07/10/2012	8:59
3-COMP-21-31	06699-003	L1483.D	07/10/2012	9:27

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L1459.D BFB Injection Date : 07/09/201

Inst ID: MSD_L BFB Injection Time: 22:29

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.2			
75	30.0 - 60.0% of mass 95	46.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.7	(	0.9	)1
174	Great than 50.0% of mass 95	79.4			
175	5.0 - 9.0% of mass 174	5.6	(	7.1	)1
176	95.0 - 101.0% of mass 174	76.7	(	96.6	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.6	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
HAR-V12-1832	06723-001	L1484.D	07/10/2012	9:55

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FS00618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Mon Jun 18 17:00:12 2012
Response Via : Initial Calibration

Calibration Files
1 =F6027.D 2 =F6029.D 5 =F6030.D
20 =F6033.D 100 =F6034.D 200 =F6035.D 150 =F6036.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.647	0.664		0.828	0.871	0.837	0.886	0.789	13.38
3)	P	Chloromethane	0.964	0.969	0.844	0.937	0.895	0.907	1.006	0.932	5.81
4)	C	Vinyl chloride	0.793	0.758	0.690	0.857	0.834	0.836	0.882	0.807	8.18
5)	T	Bromomethane	0.505	0.448	0.444	0.448	0.419	0.416	0.428	0.444	6.71
6)	T	Chloroethane	0.412	0.395	0.403	0.434	0.409	0.409	0.431	0.413	3.47
7)	T	Trichlorofluorome	1.111	1.014		1.306	1.263	1.251	1.300	1.208	9.79
8)	T	Acrolein	0.051	0.044	0.044	0.046	0.037	0.038	0.054	0.045	13.59
9)	MC	1,1-Dichloroethen	0.551	0.522	0.493	0.624	0.599	0.616	0.646	0.579	9.88
10)	T	Acetone			0.143	0.143	0.116	0.116	0.125	0.129	10.54
11)	T	Carbon disulfide	1.719	1.476	1.439	1.817	1.869	1.908	2.013	1.749	12.47
12)	T	Vinyl acetate	1.802	1.841	1.865	1.778	1.734	1.738	1.823	1.797	2.79
13)	T	Methylene chlorid		0.545	0.504	0.480	0.492	0.465	0.453	0.490	6.65
14)	T	Acrylonitrile	0.127	0.115	0.118	0.126	0.103	0.109	0.150	0.121	12.63
15)	T	tert-Butyl alcoho		0.046	0.046	0.040	0.037	0.035	0.038	0.040	10.72
16)	T	trans-1,2-Dichlor	0.621	0.624	0.601	0.694	0.658	0.670	0.722	0.656	6.63
17)	T	Methyl tert-butyl	1.415	1.415	1.289	1.217	1.164	1.174	1.271	1.278	8.16
18)	P	1,1-Dichloroethan	1.208	1.097	1.140	1.199	1.146	1.185	1.253	1.175	4.39
19)	T	Diisopropyl ether	2.559	2.489	2.471	2.443	2.337	2.383	2.501	2.455	3.05
20)	T	cis-1,2-Dichloroe	0.725	0.615	0.629	0.612	0.594	0.613	0.658	0.635	7.00
21)	T	2,2-Dichloropropa	1.044	0.928	0.913	1.119	1.154	1.177	1.204	1.077	10.98
22)	T	2-Butanone (MEK)			0.181	0.226	0.185	0.180	0.194	0.193	10.01
23)	T	Bromochloromethan	0.279	0.252	0.252	0.248	0.240	0.244	0.263	0.254	5.23
25)	C	Chloroform	1.299	1.078	1.040	1.061	1.018	1.045	1.089	1.090	8.76
26)	T	1,1,1-Trichloroet	1.282	1.585	1.251	1.353	1.350	1.397	1.442	1.380	8.04
27)	T	Carbon tetrachlor	1.047			1.250	1.370	1.428	1.457	1.310	12.76
28)	T	1,1-Dichloroprope	0.799	0.771	0.736	0.901	0.935	0.947	0.944	0.862	10.47
29)	T	1,2-Dichloroethan	0.792	0.834	0.786	0.753	0.736	0.746	0.763	0.773	4.40
30)	S	1,2-Dichloroethan	0.466	0.452	0.449	0.434	0.418	0.416	0.428	0.437	4.28
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.327	1.099	1.348	1.416	1.458	1.514	1.527	1.384	10.62
33)	M	Trichloroethene	0.427	0.432	0.422	0.470	0.494	0.510	0.509	0.466	8.41
34)	C	1,2-Dichloropropa	0.426	0.382	0.368	0.360	0.372	0.385	0.400	0.385	5.79
35)	T	Dibromomethane	0.144	0.145	0.173	0.153	0.155	0.157	0.166	0.156	6.77
36)	T	1,4-Dioxane	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	9.74
37)	T	Bromodichlorometh	0.473	0.445	0.434	0.431	0.472	0.492	0.500	0.464	5.92
38)	T	2-Chloroethyl vin	0.126		0.170	0.157	0.141	0.144	0.154	0.149	10.32
39)	T	cis-1,3-Dichlorop	0.402	0.438	0.435	0.460	0.482	0.501	0.520	0.463	8.89
40)	T	4-Methyl-2-pentan	0.329	0.277	0.264	0.273	0.268	0.271	0.292	0.282	8.05
41)	S	Toluene-d8	1.014	1.035	1.041	1.067	1.102	1.076	1.137	1.067	3.94
42)	MC	Toluene	0.900	0.977	0.998	1.038	1.101	1.120	1.176	1.044	9.08
43)	T	trans-1,3-Dichlor	0.369	0.387	0.363	0.379	0.424	0.439	0.472	0.405	10.12
44)	T	1,1,2-Trichloroet	0.178	0.170	0.159	0.157	0.161	0.167	0.177	0.167	5.07
45)	T	Tetrachloroethene	0.455	0.447	0.439	0.536	0.565	0.575	0.593	0.516	12.89
46)	T	1,3-Dichloropropa	0.365	0.353	0.368	0.338	0.362	0.370	0.394	0.364	4.69
47)	T	2-Hexanone		0.205	0.211	0.214	0.217	0.219	0.240	0.218	5.57
48)	T	Dibromochlorometh		0.282	0.300	0.304	0.347	0.368	0.390	0.332	12.96
49)	T	1,2-Dibromoethane	0.202	0.197	0.212	0.207	0.220	0.227	0.243	0.216	7.40
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	1.273	1.199	1.245	1.271	1.273	1.290	1.288	1.263	2.52
52)	T	1,1,1,2-Tetrachlo	0.468	0.431	0.447	0.448	0.457	0.469	0.454	0.454	2.92

53)	C	Ethylbenzene	2.110	2.049	2.123	2.374	2.455	2.504	2.468	2.297	8.51
54)	T	m,p-Xylene	0.777	0.792	0.826	0.881	0.930	0.957	0.944	0.872	8.54
55)	T	o-Xylene	0.746	0.853	0.785	0.838	0.829	0.846	0.832	0.818	4.71
56)	T	Styrene	1.242	1.217	1.250	1.259	1.315	1.385	1.372	1.291	5.15
57)	P	Bromoform	0.142	0.174	0.162	0.131	0.154	0.163	0.165	0.156	9.41
58)	T	Isopropylbenzene	2.259	2.203	2.210	2.610	2.640	2.632	2.587	2.449	8.64
59)	S	Bromofluorobenzen	0.501	0.482	0.469	0.472	0.471	0.478	0.495	0.481	2.62
60)	P	1,1,2,2-Tetrachlo	0.305		0.338	0.288	0.304	0.292	0.292	0.303	6.11
61)	T	Bromobenzene	0.533	0.484	0.489	0.433	0.459	0.478	0.483	0.480	6.35
62)	T	1,2,3-Trichloropr	0.218	0.182	0.201	0.191	0.176	0.169	0.181	0.188	8.84
63)	T	n-Propylbenzene	2.390	2.440	2.424	2.772	2.905	2.929	2.889	2.678	9.29
64)	T	2-Chlorotoluene	1.700	1.600	1.646	1.594	1.635	1.678	1.646	1.643	2.34
65)	T	1,3,5-Trimethylbe	1.869	1.970	1.960	2.170	2.215	2.217	2.189	2.084	7.01
66)	T	4-Chlorotoluene	1.968	1.845	1.864	1.820	1.898	1.973	1.963	1.904	3.35
67)	T	tert-Butylbenzene	1.622	1.741	1.788	2.107	2.069	2.041	1.990	1.908	9.90
68)	T	1,2,4-Trimethylbe	2.068	1.936	2.090	2.103	2.149	2.169	2.156	2.096	3.81
69)	T	sec-Butylbenzene	2.231	2.230	2.330	2.895	2.935	2.880	2.846	2.621	12.84
70)	T	1,3-Dichlorobenze	1.164	1.043	1.055	0.944	0.948	0.984	0.981	1.017	7.64
71)	T	4-Isopropyltoluen	2.171	2.100	2.230	2.571	2.694	2.692	2.652	2.444	10.85
72)	T	1,4-Dichlorobenze	1.174	1.108	0.993	0.910	0.923	0.960	0.964	1.005	9.83
73)	T	n-Butylbenzene	0.981	0.929	0.960	1.140	1.181	1.186	1.154	1.076	10.55
74)	T	1,2-Dichlorobenze	1.010	0.887	0.943	0.832	0.838	0.852	0.864	0.890	7.31
75)	T	1,2-Dibromo-3-chl	0.057	0.053	0.048	0.046	0.048	0.047	0.049	0.050	7.67
76)	T	1,2,4-Trichlorobe	0.669	0.605	0.582	0.537	0.533	0.524	0.522	0.567	9.65
77)	T	Hexachlorobutadie	0.306	0.304	0.301	0.371	0.359	0.359	0.351	0.336	9.09
78)	T	Naphthalene		1.070	1.072	1.021	1.061	1.044	1.084	1.058	2.14
79)	T	1,2,3-Trichlorobe	0.565	0.464	0.521	0.449	0.454	0.433	0.447	0.476	10.10
80)	T	1,1,2-Trichloro-1	0.481	0.439		0.606	0.549	0.543	0.532	0.525	11.05
81)	T	Methyl acetate			0.173	0.166	0.141	0.136	0.141	0.151	11.04
82)	T	Cyclohexane		1.374	1.034	1.404	1.321	1.324	1.286	1.291	10.27
83)	T	Methylcyclohexane	0.945			1.136	1.103	1.094	1.061	1.068	6.90

(#) = Out of Range ### Number of calibration levels exceeded format ###

FSO0618.M Tue Jun 19 10:04:10 2012 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\07-03-12\
Data File : F6569.D
Acq On : 3 Jul 2012 22:21
Operator : XING
Sample : CCV100,CCV100,S,5g,0
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 16:39:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 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	I	Pentafluorobenzene	1.000	1.000	0.0	117	0.00
2	T	Dichlorodifluoromethane	0.789	0.818	-3.7	109	0.00
3	P	Chloromethane	0.932	0.805	13.6	105	0.00
4	C	Vinyl chloride	0.807	0.663	17.8	93	0.00
5	T	Bromomethane	0.444	0.362	18.5	100	0.00
6	T	Chloroethane	0.413	0.335	18.9	96	0.00
7	T	Trichlorofluoromethane	1.208	0.967	20.0	89	0.00
8	T	Acrolein	0.045	0.040	11.1	126	0.00
9	MC	1,1-Dichloroethene	0.579	0.516	10.9	100	0.00
10	T	Acetone	0.129	0.125	3.1	125	0.00
11	T	Carbon disulfide	1.749	1.587	9.3	99	0.00
12	T	Vinyl acetate	1.797	1.765	1.8	119	0.00
13	T	Methylene chloride	0.490	0.472	3.7	112	0.00
14	T	Acrylonitrile	0.121	0.119	1.7	135	0.00
15	T	tert-Butyl alcohol (TBA)	0.040	0.040	0.0	127	0.00
16	T	trans-1,2-Dichloroethene	0.656	0.610	7.0	108	0.00
17	T	Methyl tert-butyl ether (MT	1.278	1.346	-5.3	135	0.00
18	P	1,1-Dichloroethane	1.175	1.095	6.8	111	0.00
19	T	Diisopropyl ether (DIPE)	2.455	2.259	8.0	113	0.00
20	T	cis-1,2-Dichloroethene	0.635	0.621	2.2	122	0.00
21	T	2,2-Dichloropropane	1.077	1.061	1.5	107	0.00
22	T	2-Butanone (MEK)	0.193	0.220	-14.0	138	0.00
23	T	Bromochloromethane	0.254	0.285	-12.2	138	0.00
25	C	Chloroform	1.090	1.008	7.5	115	0.00
26	T	1,1,1-Trichloroethane	1.380	1.265	8.3	109	0.00
27	T	Carbon tetrachloride	1.310	1.066	18.6	91	0.01
28	T	1,1-Dichloropropene	0.862	0.812	5.8	101	0.00
29	T	1,2-Dichloroethane (EDC)	0.773	0.793	-2.6	125	0.00
30	S	1,2-Dichloroethane-d4	0.437	0.489	-11.9	136	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	123	0.00
32	M	Benzene	1.384	1.354	2.2	114	0.00
33	M	Trichloroethene	0.466	0.420	9.9	104	0.00
34	C	1,2-Dichloropropane	0.385	0.364	5.5	120	0.00
35	T	Dibromomethane	0.156	0.173	-10.9	137	0.00
36	T	1,4-Dioxane	0.002	0.002	0.0	154	0.00
37	T	Bromodichloromethane	0.464	0.455	1.9	118	0.00
38	T	2-Chloroethyl vinyl ether	0.149	0.152	-2.0	132	0.00
39	T	cis-1,3-Dichloropropene	0.463	0.469	-1.3	119	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.282	0.279	1.1	128	0.00
41	S	Toluene-d8	1.067	0.985	7.7	110	0.00
42	MC	Toluene	1.044	0.914	12.5	102	0.00
43	T	trans-1,3-Dichloropropene	0.405	0.405	0.0	117	0.00
44	T	1,1,2-Trichloroethane	0.167	0.171	-2.4	130	0.00
45	T	Tetrachloroethene	0.516	0.425	17.6	92	E12-06466 0120
46	T	1,3-Dichloropropane	0.364	0.367	-0.8	124	0.00

47	T	2-Hexanone	0.218	0.204	6.4	115	0.00
48	T	Dibromochloromethane	0.332	0.348	-4.8	123	0.00
49	T	1,2-Dibromoethane (EDB)	0.216	0.233	-7.9	130	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	123	0.00
51	MP	Chlorobenzene	1.263	1.072	15.1	104	0.00
52	T	1,1,1,2-Tetrachloroethane	0.454	0.426	6.2	114	0.00
53	C	Ethylbenzene	2.297	1.916	16.6	96	0.00
54	T	m,p-Xylene	0.872	0.728	16.5	96	0.00
55	T	o-Xylene	0.818	0.689	15.8	102	0.00
56	T	Styrene	1.291	1.129	12.5	106	0.00
57	P	Bromoform	0.156	0.169	-8.3	135	0.00
58	T	Isopropylbenzene	2.449	2.025	17.3	94	0.00
59	S	Bromofluorobenzene	0.481	0.463	3.7	121	0.00
60	P	1,1,2,2-Tetrachloroethane	0.303	0.346	-14.2	140	0.00
61	T	Bromobenzene	0.480	0.424	11.7	114	0.00
62	T	1,2,3-Trichloropropane	0.188	0.196	-4.3	137	0.00
63	T	n-Propylbenzene	2.678	2.214	17.3	94	0.00
64	T	2-Chlorotoluene	1.643	1.341	18.4	101	0.00
65	T	1,3,5-Trimethylbenzene	2.084	1.739	16.6	97	0.00
66	T	4-Chlorotoluene	1.904	1.581	17.0	102	0.00
67	T	tert-Butylbenzene	1.908	1.645	13.8	98	0.00
68	T	1,2,4-Trimethylbenzene	2.096	1.734	17.3	99	0.00
69	T	sec-Butylbenzene	2.621	2.206	15.8	92	0.00
70	T	1,3-Dichlorobenzene	1.017	0.856	15.8	111	0.00
71	T	4-Isopropyltoluene	2.444	2.043	16.4	93	0.00
72	T	1,4-Dichlorobenzene	1.005	0.856	14.8	114	0.00
73	T	n-Butylbenzene	1.076	0.887	17.6	92	0.00
74	T	1,2-Dichlorobenzene	0.890	0.788	11.5	116	0.00
75	T	1,2-Dibromo-3-chloropropane	0.050	0.048	4.0	123	0.00
76	T	1,2,4-Trichlorobenzene	0.567	0.502	11.5	116	0.00
77	T	Hexachlorobutadiene	0.336	0.277	17.6	95	0.00
78	T	Naphthalene	1.058	1.194	-12.9	138	0.00
79	T	1,2,3-Trichlorobenzene	0.476	0.446	6.3	121	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.525	0.502	4.4	112	0.00
81	T	Methyl acetate	0.151	0.144	4.6	126	0.00
82	T	Cyclohexane	1.291	1.245	3.6	116	0.00
83	T	Methylcyclohexane	1.068	0.894	16.3	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

'SO0618.M Thu Jul 05 16:39:22 2012 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\07-05-12\
Data File : F6643.D
Acq On : 6 Jul 2012 5:51
Operator : XING
Sample : CCV100,CCV100,S,5g,0
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 08 08:20:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 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	I	Pentafluorobenzene	1.000	1.000	0.0	102	0.00
2	T	Dichlorodifluoromethane	0.789	0.717	9.1	84	0.00
3	P	Chloromethane	0.932	0.825	11.5	94	0.00
4	C	Vinyl chloride	0.807	0.750	7.1	92	0.00
5	T	Bromomethane	0.444	0.381	14.2	92	0.00
6	T	Chloroethane	0.413	0.365	11.6	91	0.00
7	T	Trichlorofluoromethane	1.208	1.009	16.5	81	0.00
8	T	Acrolein	0.045	0.038	15.6	106	0.00
9	MC	1,1-Dichloroethene	0.579	0.565	2.4	96	0.00
10	T	Acetone	0.129	0.138	-7.0	120	0.00
11	T	Carbon disulfide	1.749	1.758	-0.5	96	0.00
12	T	Vinyl acetate	1.797	1.939	-7.9	114	0.00
13	T	Methylene chloride	0.490	0.535	-9.2	111	0.00
14	T	Acrylonitrile	0.121	0.131	-8.3	129	0.00
15	T	tert-Butyl alcohol (TBA)	0.040	0.042	-5.0	117	0.00
16	T	trans-1,2-Dichloroethene	0.656	0.663	-1.1	102	0.00
17	T	Methyl tert-butyl ether (MT	1.278	1.502	-17.5	131	0.00
18	P	1,1-Dichloroethane	1.175	1.188	-1.1	106	0.00
19	T	Diisopropyl ether (DIPE)	2.455	2.519	-2.6	110	0.00
20	T	cis-1,2-Dichloroethene	0.635	0.662	-4.3	114	0.00
21	T	2,2-Dichloropropane	1.077	1.080	-0.3	95	0.00
22	T	2-Butanone (MEK)	0.193	0.207	-7.3	113	0.00
23	T	Bromochloromethane	0.254	0.286	-12.6	121	0.00
25	C	Chloroform	1.090	1.079	1.0	108	0.00
26	T	1,1,1-Trichloroethane	1.380	1.187	14.0	89	0.00
27	T	Carbon tetrachloride	1.310	1.182	9.8	88	0.01
28	T	1,1-Dichloropropene	0.862	0.847	1.7	92	0.00
29	T	1,2-Dichloroethane (EDC)	0.773	0.870	-12.5	120	0.00
30	S	1,2-Dichloroethane-d4	0.437	0.478	-9.4	117	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	110	0.00
32	M	Benzene	1.384	1.403	-1.4	106	0.00
33	M	Trichloroethene	0.466	0.437	6.2	97	0.00
34	C	1,2-Dichloropropane	0.385	0.391	-1.6	115	0.00
35	T	Dibromomethane	0.156	0.183	-17.3	130	0.00
36	T	1,4-Dioxane	0.002	0.002	0.0	126	0.00
37	T	Bromodichloromethane	0.464	0.495	-6.7	115	0.00
38	T	2-Chloroethyl vinyl ether	0.149	0.176	-18.1	137	0.00
39	T	cis-1,3-Dichloropropene	0.463	0.508	-9.7	116	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.282	0.324	-14.9	133	0.00
41	S	Toluene-d8	1.067	1.030	3.5	103	0.00
42	MC	Toluene	1.044	0.978	6.3	98	0.00
43	T	trans-1,3-Dichloropropene	0.405	0.454	-12.1	118	0.00
44	T	1,1,2-Trichloroethane	0.167	0.200	-19.8	136	0.00
45	T	Tetrachloroethene	0.516	0.458	11.2	89	0.00
46	T	1,3-Dichloropropane	0.364	0.430	-18.1	131	0.00

47	T	2-Hexanone	0.218	0.233	-6.9	118	0.00
48	T	Dibromochloromethane	0.332	0.398	-19.9	126	0.00
49	T	1,2-Dibromoethane (EDB)	0.216	0.241	-11.6	121	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00
51	MP	Chlorobenzene	1.263	1.267	-0.3	102	0.00
52	T	1,1,1,2-Tetrachloroethane	0.454	0.488	-7.5	110	0.00
53	C	Ethylbenzene	2.297	2.220	3.4	93	0.00
54	T	m,p-Xylene	0.872	0.840	3.7	93	0.00
55	T	o-Xylene	0.818	0.781	4.5	97	0.00
56	T	Styrene	1.291	1.289	0.2	101	0.00
57	P	Bromoform	0.156	0.184	-17.9	123	0.00
58	T	Isopropylbenzene	2.449	2.291	6.5	89	0.00
59	S	Bromofluorobenzene	0.481	0.539	-12.1	118	0.00
60	P	1,1,2,2-Tetrachloroethane	0.303	0.312	-3.0	106	0.00
61	T	Bromobenzene	0.480	0.489	-1.9	110	0.00
62	T	1,2,3-Trichloropropane	0.188	0.215	-14.4	125	0.00
63	T	n-Propylbenzene	2.678	2.485	7.2	88	0.00
64	T	2-Chlorotoluene	1.643	1.500	8.7	94	0.00
65	T	1,3,5-Trimethylbenzene	2.084	1.898	8.9	88	0.00
66	T	4-Chlorotoluene	1.904	1.737	8.8	94	0.00
67	T	tert-Butylbenzene	1.908	1.822	4.5	90	0.00
68	T	1,2,4-Trimethylbenzene	2.096	1.872	10.7	89	0.00
69	T	sec-Butylbenzene	2.621	2.460	6.1	86	0.00
70	T	1,3-Dichlorobenzene	1.017	0.947	6.9	103	0.00
71	T	4-Isopropyltoluene	2.444	2.262	7.4	86	0.00
72	T	1,4-Dichlorobenzene	1.005	0.945	6.0	105	0.00
73	T	n-Butylbenzene	1.076	0.963	10.5	84	0.00
74	T	1,2-Dichlorobenzene	0.890	0.905	-1.7	111	0.00
75	T	1,2-Dibromo-3-chloropropane	0.050	0.060	-20.0	127	0.00
76	T	1,2,4-Trichlorobenzene	0.567	0.503	11.3	97	0.00
77	T	Hexachlorobutadiene	0.336	0.299	11.0	86	0.00
78	T	Naphthalene	1.058	1.114	-5.3	108	0.00
79	T	1,2,3-Trichlorobenzene	0.476	0.472	0.8	107	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.525	0.479	8.8	90	0.00
81	T	Methyl acetate	0.151	0.179	-18.5	131	0.00
82	T	Cyclohexane	1.291	1.134	12.2	88	0.00
83	T	Methylcyclohexane	1.068	0.926	13.3	86	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO0618.M Sun Jul 08 08:20:39 2012 RP1

Response Factor Report MSD_L

Method Path : C:\MSDCHEM\1\METHODS\
Method File : LM061912.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Wed Jun 20 11:26:03 2012
Response Via : Initial Calibration

Calibration Files
1 =L0846.D 2 =L0843.D 5 =L0845.D
20 =L0837.D 100 =L0838.D 200 =L0840.D 150 =L0839.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.305	0.285	0.273	0.325	0.347	0.294	0.276	0.301	9.01
3)	TP	Chloromethane	0.848	0.777	0.695	0.693	0.709	0.690	0.667	0.726	8.81
4)	C	Vinyl chloride	0.606	0.550	0.472	0.568	0.581	0.538	0.520	0.548	7.97
5)	T	Bromomethane	0.308	0.244	0.257	0.232	0.276	0.204	0.272	0.256	13.14
6)	T	Chloroethane	0.283	0.310	0.286	0.288	0.255	0.223	0.205	0.264	14.39
7)	T	Trichlorofluorome	0.631	0.602	0.562	0.625	0.660	0.519	0.518	0.588	9.57
8)	T	Acrolein	0.080	0.084		0.088	0.079	0.084	0.084	0.083	4.11
9)	MC	1,1-Dichloroethen	0.427	0.426	0.375	0.473	0.490	0.457	0.442	0.441	8.47
10)	T	Acetone	0.313		0.318	0.269	0.268	0.234	0.244	0.274	12.63
11)	T	Carbon disulfide	1.598	1.555	1.236	1.488	1.560	1.474	1.440	1.479	8.14
12)	T	Vinyl acetate	1.620	1.807	1.710	1.799	2.066	2.068	2.052	1.875	9.93
13)	T	Methylene chlorid		0.646	0.587	0.564	0.573	0.532	0.542	0.574	7.02
14)	T	Acrylonitrile	0.196	0.201		0.206	0.187	0.186	0.195	0.195	3.92
15)	T	tert-Butyl alcoho	0.068	0.081	0.074	0.066	0.071	0.067	0.067	0.071	7.53
16)	T	trans-1,2-Dichlor	0.602	0.598	0.514	0.548	0.558	0.509	0.517	0.549	7.08
17)	T	Methyl tert-butyl	1.665	1.741	1.659	1.597	1.651	1.535	1.583	1.633	4.12
18)	TP	1,1-Dichloroethan	0.893	0.952	0.868	0.904	1.009	1.040	0.998	0.952	6.89
19)	T	Diisopropyl ether	1.861	2.024	1.863	1.940	2.184	2.201	2.144	2.031	7.27
20)	T	cis-1,2-Dichloroe	0.561	0.606	0.549	0.554	0.640	0.665	0.632	0.601	7.79
21)	T	2,2-Dichloropropa	0.244	0.270	0.241	0.282	0.284	0.283		0.267	7.46
22)	T	2-Butanone (MEK)	0.361	0.398	0.375	0.368	0.412	0.397	0.390	0.386	4.72
23)	T	Bromochloromethan	0.288	0.304	0.273	0.287	0.324	0.333	0.319	0.304	7.28
25)	C	Chloroform	1.102		0.936	0.928	1.034	1.067	1.023	1.015	6.87
26)	T	1,1,1-Trichloroet	0.490	0.537	0.460	0.549	0.635	0.644	0.622	0.563	12.99
27)	T	Carbon tetrachlor	0.484	0.427		0.445	0.579	0.593	0.554	0.514	13.85
28)	T	1,1-Dichloroprope	0.675	0.699	0.532	0.651	0.737	0.745	0.697	0.677	10.59
29)	T	1,2-Dichloroethan	0.793	0.850	0.780	0.785	0.887	0.907	0.884	0.841	6.44
30)	S	1,2-Dichloroethan	0.575	0.578	0.579	0.569	0.556	0.547	0.545	0.564	2.57
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.361	1.513	1.335	1.394	1.629	1.708	1.626	1.510	9.87
33)	M	Trichloroethene	0.376	0.389	0.329	0.348	0.403	0.426	0.403	0.382	8.92
34)	C	1,2-Dichloropropa	0.355	0.383	0.357	0.365	0.425	0.441	0.427	0.393	9.38
35)	T	Dibromomethane	0.234	0.254	0.244	0.246	0.288	0.299	0.289	0.265	9.93
36)	T	1,4-Dioxane	0.005	0.006	0.005	0.006	0.006	0.005	0.006	0.005	10.20
37)	T	Bromodichlorometh	0.535	0.533	0.496	0.551	0.555	0.583	0.562	0.545	5.03
38)	T	2-Chloroethyl vin	0.301		0.285	0.269	0.315	0.325	0.319	0.302	7.25
39)	T	cis-1,3-Dichlorop	0.517	0.573		0.489	0.648	0.687	0.664	0.597	13.75
40)	T	4-Methyl-2-pentan	0.376	0.443	0.422	0.438	0.521	0.511	0.506	0.460	11.82
41)	S	Toluene-d8	1.110	1.107	1.121	1.126	1.133	1.131	1.138	1.124	1.03
42)	MC	Toluene	0.907	0.960	0.822	0.862	1.050	1.112	1.042	0.965	11.11
43)	T	trans-1,3-Dichlor	0.468			0.575	0.594	0.640	0.615	0.578	11.47
44)	T	1,1,2-Trichloroet	0.274	0.299	0.284	0.292	0.339	0.351	0.340	0.311	10.02
45)	T	Tetrachloroethene	0.366	0.377	0.290	0.334	0.386	0.396	0.366	0.359	10.14
46)	T	1,3-Dichloropropa	0.559	0.595	0.563	0.564	0.663	0.680	0.658	0.612	8.70
47)	T	2-Hexanone	0.282	0.300	0.317	0.336	0.394	0.384	0.381	0.342	13.12
48)	T	Dibromochlorometh	0.450	0.377		0.348	0.460	0.486	0.466	0.431	12.82
49)	T	1,2-Dibromoethane	0.342	0.352	0.334	0.350	0.422	0.435	0.422	0.379	11.70
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	TP	Chlorobenzene	1.008	1.108	0.954	0.970	1.123	1.166	1.121	1.064	7.98
52)	T	1,1,1,2-Tetrachlo	0.294	0.400	0.381	0.287	0.381	0.399	0.381	0.[illegible]	

53)	C	Ethylbenzene	1.507	1.711	1.452	1.565	1.853	1.932	1.825	1.692	11.04
54)	T	m,p-Xylene	0.602	0.684	0.583	0.618	0.767	0.778	0.756	0.684	12.30
55)	T	o-Xylene	0.580	0.655	0.577	0.609	0.750	0.775	0.750	0.671	12.83
56)	T	Styrene	0.988	1.113	1.014	1.063	1.344	1.380	1.333	1.176	14.43
57)	TP	Bromoform	0.228	0.239		0.203	0.279	0.288	0.280	0.253	13.71
58)	T	Isopropylbenzene	1.338	1.510	1.246	1.403	1.699	1.764	1.664	1.518	13.04
59)	S	Bromofluorobenzen	0.472	0.472	0.484	0.486	0.490	0.488	0.484	0.483	1.50
60)	TP	1,1,2,2-Tetrachlo	0.503	0.526	0.473	0.479	0.578	0.575	0.576	0.530	8.76
61)	T	Bromobenzene	0.416	0.458	0.419	0.411	0.498	0.510	0.493	0.458	9.36
62)	T	1,2,3-Trichloropr	0.360	0.373	0.363	0.355	0.406	0.407	0.398	0.380	5.92
63)	T	n-Propylbenzene	1.746	1.874	1.513	1.664	1.985	2.055	1.940	1.825	10.57
64)	T	2-Chlorotoluene	1.097	1.228	1.034	1.070	1.269	1.327	1.254	1.183	9.61
65)	T	1,3,5-Trimethylbe	1.136	1.345	1.110	1.206	1.501	1.570	1.498	1.338	14.18
66)	T	4-Chlorotoluene	1.359	1.516	1.253	1.301	1.613	1.649	1.597	1.470	11.06
67)	T	tert-Butylbenzene	0.896	1.010	0.793	0.936	1.106	1.164	1.094	1.000	13.21
68)	T	1,2,4-Trimethylbe	1.219	1.397	1.173	1.250	1.534	1.613	1.552	1.391	12.89
69)	T	sec-Butylbenzene	1.336	1.457	1.111	1.318	1.551	1.635	1.521	1.418	12.49
70)	T	1,3-Dichlorobenze	0.819	0.881	0.739	0.749	0.890	0.913	0.886	0.840	8.53
71)	T	4-Isopropyltoluen	1.151	1.211	0.971	1.107	1.340	1.410	1.311	1.215	12.50
72)	T	1,4-Dichlorobenze	0.805	0.924	0.778	0.770	0.924	0.954	0.928	0.869	9.29
73)	T	n-Butylbenzene	0.608	0.631	0.501	0.543	0.688	0.712	0.682	0.624	12.65
74)	T	1,2-Dichlorobenze	0.755	0.836	0.715	0.748	0.907	0.930	0.907	0.828	10.73
75)	T	1,2-Dibromo-3-chl	0.085	0.087	0.068	0.069	0.091	0.094	0.091	0.084	12.75
76)	T	1,2,4-Trichlorobe	0.485	0.548	0.422	0.433	0.548	0.511		0.491	11.16
77)	T	Hexachlorobutadie	0.138		0.127	0.128	0.144	0.145		0.137	6.21
78)	T	Naphthalene	1.249	1.343	1.182	1.249	1.587	1.660	1.605	1.411	14.19
79)	T	1,2,3-Trichlorobe	0.434	0.489	0.400	0.401	0.484	0.465		0.445	8.99
80)	T	1,1,2-Trichloro-1	0.213	0.192		0.201	0.228	0.180	0.184	0.200	9.22
81)	T	Methyl acetate	0.380	0.392	0.340	0.312	0.309	0.285	0.292	0.330	12.76
82)	T	Cyclohexane		0.400	0.376	0.490	0.467	0.398	0.386	0.420	11.27
83)	T	Methylcyclohexane	0.323	0.308		0.308	0.305	0.258	0.248	0.292	10.58

(#) = Out of Range ### Number of calibration levels exceeded format ###

LM061912.M Wed Jun 20 11:26:08 2012 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1461.D
Acq On : 9 Jul 2012 23:23
Operator : XING
Sample : CCV100,CCV100,A,5ml,100
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 10 12:34:05 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration

Min. RRF : 0.000 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	I	Pentafluorobenzene	1.000	1.000	0.0	120	0.00
2	T	Dichlorodifluoromethane	0.301	0.316	-5.0	110	0.00
3	TP	Chloromethane	0.726	0.612	15.7	104	-0.02
4	C	Vinyl chloride	0.548	0.536	2.2	111	0.00
5	T	Bromomethane	0.256	0.218	14.8	95	-0.03
6	T	Chloroethane	0.264	0.214	18.9	101	-0.03
7	T	Trichlorofluoromethane	0.588	0.541	8.0	99	0.03
8	T	Acrolein	0.083	0.090	-8.4	137	-0.02
9	MC	1,1-Dichloroethene	0.441	0.428	2.9	105	0.00
10	T	Acetone	0.274	0.222	19.0	100	-0.01
11	T	Carbon disulfide	1.479	1.313	11.2	101	-0.01
12	T	Vinyl acetate	1.875	1.802	3.9	105	-0.01
13	T	Methylene chloride	0.574	0.490	14.6	103	0.00
14	T	Acrylonitrile	0.195	0.219	-12.3	141	-0.01
15	T	tert-Butyl alcohol (TBA)	0.071	0.059	16.9	100	-0.02
16	T	trans-1,2-Dichloroethene	0.549	0.477	13.1	103	0.00
17	T	Methyl tert-butyl ether (MT	1.633	1.425	12.7	104	-0.01
18	TP	1,1-Dichloroethane	0.952	0.959	-0.7	115	-0.01
19	T	Diisopropyl ether (DIPE)	2.031	2.019	0.6	111	-0.01
20	T	cis-1,2-Dichloroethene	0.601	0.606	-0.8	114	0.00
21	T	2,2-Dichloropropane	0.267	0.316	-18.4	134	0.00
22	T	2-Butanone (MEK)	0.386	0.324	16.1	95	-0.01
23	T	Bromochloromethane	0.304	0.301	1.0	112	-0.01
25	C	Chloroform	1.015	0.974	4.0	113	0.00
26	T	1,1,1-Trichloroethane	0.563	0.644	-14.4	122	0.00
27	T	Carbon tetrachloride	0.514	0.602	-17.1	125	0.00
28	T	1,1-Dichloropropene	0.677	0.693	-2.4	113	0.00
29	T	1,2-Dichloroethane (EDC)	0.841	0.795	5.5	108	-0.01
30	S	1,2-Dichloroethane-d4	0.564	0.515	8.7	111	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	123	-0.01
32	M	Benzene	1.510	1.471	2.6	111	-0.01
33	M	Trichloroethene	0.382	0.375	1.8	114	-0.01
34	C	1,2-Dichloropropane	0.393	0.381	3.1	110	0.00
35	T	Dibromomethane	0.265	0.251	5.3	107	0.00
36	T	1,4-Dioxane	0.005	0.006	-20.0	126	0.00
37	T	Bromodichloromethane	0.545	0.490	10.1	109	0.00
38	T	2-Chloroethyl vinyl ether	0.302	0.350	-15.9	137	0.00
39	T	cis-1,3-Dichloropropene	0.597	0.559	6.4	106	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.460	0.444	3.5	105	0.00
41	S	Toluene-d8	1.124	1.010	10.1	110	0.00
42	MC	Toluene	0.965	0.912	5.5	107	0.00
43	T	trans-1,3-Dichloropropene	0.578	0.508	12.1	105	-0.01
44	T	1,1,2-Trichloroethane	0.311	0.293	5.8	106	0.00
45	T	Tetrachloroethene	0.359	0.334	7.0	106	0.00
46	T	1,3-Dichloropropane	0.612	0.566	7.5	105	0.00

47	T	2-Hexanone	0.342	0.335	2.0	104	0.00
48	T	Dibromochloromethane	0.431	0.388	10.0	104	0.00
49	T	1,2-Dibromoethane (EDB)	0.379	0.361	4.7	105	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	116	0.00
51	TP	Chlorobenzene	1.064	1.022	3.9	105	0.00
52	T	1,1,1,2-Tetrachloroethane	0.360	0.356	1.1	108	0.00
53	C	Ethylbenzene	1.692	1.663	1.7	104	0.00
54	T	m,p-Xylene	0.684	0.674	1.5	102	0.00
55	T	o-Xylene	0.671	0.673	-0.3	104	0.00
56	T	Styrene	1.176	1.172	0.3	101	0.00
57	TP	Bromoform	0.253	0.253	0.0	105	0.00
58	T	Isopropylbenzene	1.518	1.508	0.7	103	0.00
59	S	Bromofluorobenzene	0.483	0.480	0.6	114	0.00
60	TP	1,1,2,2-Tetrachloroethane	0.530	0.501	5.5	101	0.00
61	T	Bromobenzene	0.458	0.436	4.8	101	0.00
62	T	1,2,3-Trichloropropane	0.380	0.360	5.3	103	0.00
63	T	n-Propylbenzene	1.825	1.701	6.8	99	0.00
64	T	2-Chlorotoluene	1.183	1.124	5.0	103	0.00
65	T	1,3,5-Trimethylbenzene	1.338	1.295	3.2	100	0.00
66	T	4-Chlorotoluene	1.470	1.383	5.9	99	0.00
67	T	tert-Butylbenzene	1.000	0.977	2.3	102	0.00
68	T	1,2,4-Trimethylbenzene	1.391	1.341	3.6	101	0.00
69	T	sec-Butylbenzene	1.418	1.364	3.8	102	0.00
70	T	1,3-Dichlorobenzene	0.840	0.763	9.2	99	0.00
71	T	4-Isopropyltoluene	1.215	1.150	5.3	99	0.00
72	T	1,4-Dichlorobenzene	0.869	0.792	8.9	99	0.00
73	T	n-Butylbenzene	0.624	0.572	8.3	96	0.00
74	T	1,2-Dichlorobenzene	0.828	0.783	5.4	100	0.00
75	T	1,2-Dibromo-3-chloropropane	0.084	0.081	3.6	104	-0.01
76	T	1,2,4-Trichlorobenzene	0.491	0.437	11.0	93	-0.01
77	T	Hexachlorobutadiene	0.137	0.128	6.6	103	0.00
78	T	Naphthalene	1.411	1.362	3.5	100	-0.01
79	T	1,2,3-Trichlorobenzene	0.445	0.390	12.4	93	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.200	0.234	-17.0	119	-0.01
81	T	Methyl acetate	0.330	0.286	13.3	107	-0.01
82	T	Cyclohexane	0.420	0.492	-17.1	122	0.00
83	T	Methylcyclohexane	0.292	0.318	-8.9	121	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LM061912.M Tue Jul 10 12:34:12 2012 RPT1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F6034.D

Date Analyzed: 06/18/2012

Instrument ID: MSD_F

Time Analyzed: 14:27

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	82964	6.11	121160	6.94	117988	10.28
	UPPER LIMIT	165928	6.61	242320	7.44	235976	10.78
	LOWER LIMIT	41482	5.61	60580	6.44	58994	9.78
	LAB SAMPLE ID						
01	ICC1	72530	6.11	107271	6.94	94917	10.28
02	ICC2	78227	6.11	121220	6.94	105298	10.28
03	ICC5	77751	6.11	119932	6.94	103524	10.27
04	ICC20	76048	6.11	114958	6.94	104107	10.28
05	ICC200	90561	6.11	129735	6.94	129760	10.28
06	ICC150	84656	6.11	121265	6.94	128416	10.28
07	ICV100	87791	6.11	131067	6.94	126852	10.28
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F6569.D

Date Analyzed: 07/03/2012

Instrument ID: MSD_F

Time Analyzed: 22:21

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	96658	6.11	148577	6.94	145089	10.28
	UPPER LIMIT	193316	6.61	297154	7.44	290178	10.78
	LOWER LIMIT	48329	5.61	74288.5	6.44	72544.5	9.78
	LAB SAMPLE ID						
01	BLKS120703-01	77531	6.11	111525	6.94	98116	10.28
02	06412-001	76463	6.11	108741	6.94	97374	10.28
03	06412-002	77017	6.11	113060	6.94	102803	10.28
04	06355-010	69864	6.11	96672	6.94	83809	10.28
05	06355-012	78288	6.11	111330	6.94	96983	10.28
06	06355-015	59868	6.11	88720	6.94	78305	10.28
07	06355-020	74558	6.11	107877	6.94	95098	10.28
08	LCSS120703-01	89263	6.11	136139	6.94	131143	10.28
09	LCSDS120703-01	86220	6.11	131327	6.94	127978	10.28
10	06428-007	74023	6.11	107840	6.94	93771	10.28
11	06369-001	69747	6.11	98867	6.94	86580	10.28
12	06389-003	77122	6.11	110151	6.94	97943	10.28
13	06466-002	70280	6.11	98149	6.94	88095	10.28
14	06433-006	71140	6.11	103267	6.94	93087	10.28
15	06433-007	68663	6.11	96778	6.94	87820	10.28
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F6643.D

Date Analyzed: 07/06/2012

Instrument ID: MSD_F

Time Analyzed: 5:51

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	84438		6.11		133165		6.94		121177		10.28	
	UPPER LIMIT	168876		6.61		266330		7.44		242354		10.78	
	LOWER LIMIT	42219		5.61		66582.5		6.44		60588.5		9.78	
	LAB SAMPLE ID												
01	BLKS120705-02	67905		6.11		98649		6.94		90414		10.28	
02	06577-002	72302		6.11		106806		6.94		99531		10.28	
03	06577-003	65052		6.11		92249		6.94		81989		10.28	
04	06577-006	63356		6.11		90632		6.94		79210		10.28	
05	06577-007	63122		6.11		90818		6.94		83094		10.28	
06	06577-009	56903		6.11		82498		6.94		75656		10.28	
07	06577-010	63352		6.11		92149		6.94		82248		10.28	
08	LCSD120705-02	73132		6.11		111277		6.94		110482		10.28	
09	LCSDSC120705-02	74931		6.11		115126		6.94		113718		10.28	
10	06577-011	62105		6.11		90004		6.94		81098		10.27	
11	06577-012	60438		6.11		88174		6.94		81054		10.28	
12	06577-013	60317		6.11		85381		6.94		77223		10.28	
13	06577-014	56562		6.11		80890		6.94		69318		10.28	
14	06577-015	58552		6.11		82473		6.94		73561		10.28	
15	06466-001	56469		6.11		82246		6.94		74833		10.28	
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L0838.D

Date Analyzed: 06/19/2012

Instrument ID: MSD_L

Time Analyzed: 11:32

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	234510	5.83	339300	6.64	361338	9.97
	UPPER LIMIT	469020	6.33	678600	7.14	722676	10.47
	LOWER LIMIT	117255	5.33	169650	6.14	180669	9.47
	LAB SAMPLE ID						
01	ICC20	223838	5.83	332939	6.64	344911	9.97
02	ICC150	249825	5.82	359373	6.64	386380	9.97
03	ICC200	262141	5.82	378605	6.64	406874	9.97
04	ICC2	224781	5.83	337019	6.64	348678	9.97
05	ICC5	217327	5.83	324443	6.64	332290	9.97
06	ICC1	210322	5.83	316137	6.64	324665	9.97
07	ICV100	227438	5.83	330403	6.64	354322	9.97
08							
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19							
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21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L1461.D

Date Analyzed: 07/09/2012

Instrument ID: MSD_L

Time Analyzed: 23:23

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	282471	5.82	417427	6.63	418893	9.97
	UPPER LIMIT	564942	6.32	834854	7.13	837786	10.47
	LOWER LIMIT	141235.5	5.32	208713.5	6.13	209446.5	9.47
	LAB SAMPLE ID						
01	BLKA120709	247702	5.82	366329	6.64	362507	9.97
02	TCLP120709	241200	5.82	365142	6.63	353635	9.97
03	06642-025	238755	5.82	358110	6.64	350190	9.97
04	06605-001	234506	5.82	352808	6.64	344943	9.97
05	06546-001	227956	5.82	341464	6.64	337597	9.97
06	06466-009	221439	5.82	328838	6.64	331852	9.97
07	06466-010	214742	5.82	320901	6.64	321631	9.97
08	06466-011	212524	5.82	317596	6.64	314344	9.97
09	06466-012	206481	5.82	309433	6.64	307933	9.97
10	LCSA120709	216087	5.82	317598	6.64	322862	9.97
11	06546-001MS	216911	5.82	317988	6.63	320693	9.97
12	06546-001MSD	219201	5.82	321186	6.64	325143	9.97
13	06212-018	213691	5.82	316614	6.64	305927	9.97
14	06420-001	199244	5.82	300611	6.64	298049	9.97
15	06677-001	196992	5.82	297697	6.64	294212	9.97
16	06724-001	187315	5.82	278459	6.64	261885	9.97
17	06699-001	184759	5.82	276676	6.64	261461	9.97
18	06699-002	180362	5.82	270012	6.63	259803	9.97
19	06699-003	179382	5.82	273118	6.64	260720	9.97
20	06723-001	174403	5.82	263260	6.64	249218	9.97
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-05-12\
Data File : F6663.D
Acq On : 6 Jul 2012 15:51
Operator : XING
Sample : B1_(4-5)_-0627,06466-001,S,3.6g,18.5
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jul 08 08:36:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	56469	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	82246	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	74833	50.00 UG	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d4	6.448	65	18022	36.48 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 72.96%		
41) Toluene-d8	8.600	98	78800	44.89 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 89.78%		
59) Bromofluorobenzene	11.676	95	33184	46.08 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 92.16%		

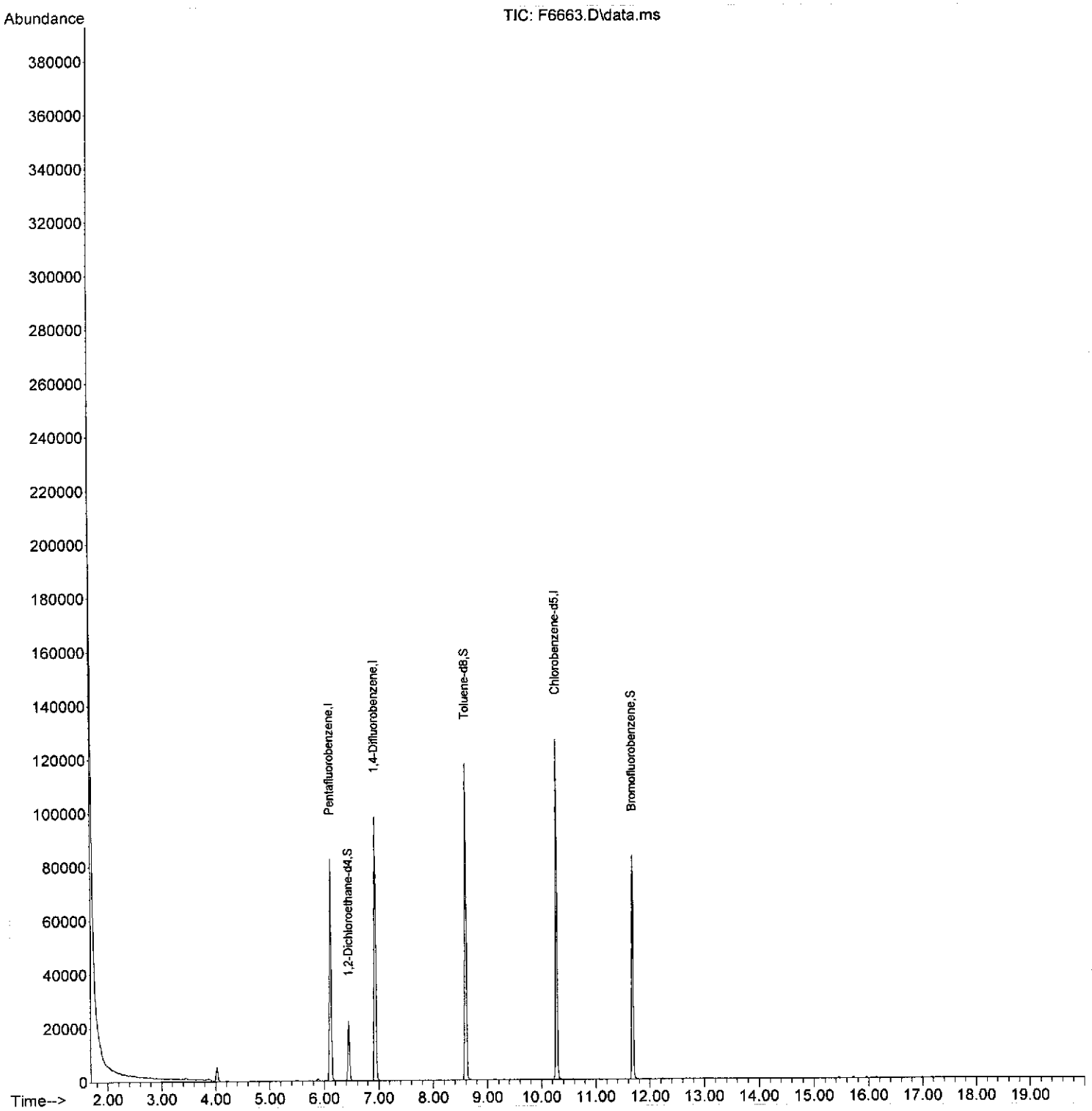
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-05-12\
Data File : F6663.D
Acq On : 6 Jul 2012 15:51
Operator : XING
Sample : B1_(4-5)_-0627,06466-001,S,3.6g,18.5
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jul 08 08:36:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-05-12\
Data File : F6663.D
Acq On : 6 Jul 2012 15:51
Operator : XING
Sample : B1_(4-5)_-0627,06466-001,S,3.6g,18.5
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 47 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6663.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	224	231	238	rVB	5222	12411	5.38%	1.200%
2	6.113	431	437	448	rBV	82505	173070	75.02%	16.738%
3	6.448	463	470	484	rVB	22402	46762	20.27%	4.522%
4	6.935	511	518	532	rBV	98080	191624	83.06%	18.532%
5	8.600	674	682	695	rVB	117853	221669	96.09%	21.438%
6	10.275	840	847	861	rBV	126917	230694	100.00%	22.311%
7	11.676	977	985	998	rBV	83255	157772	68.39%	15.258%

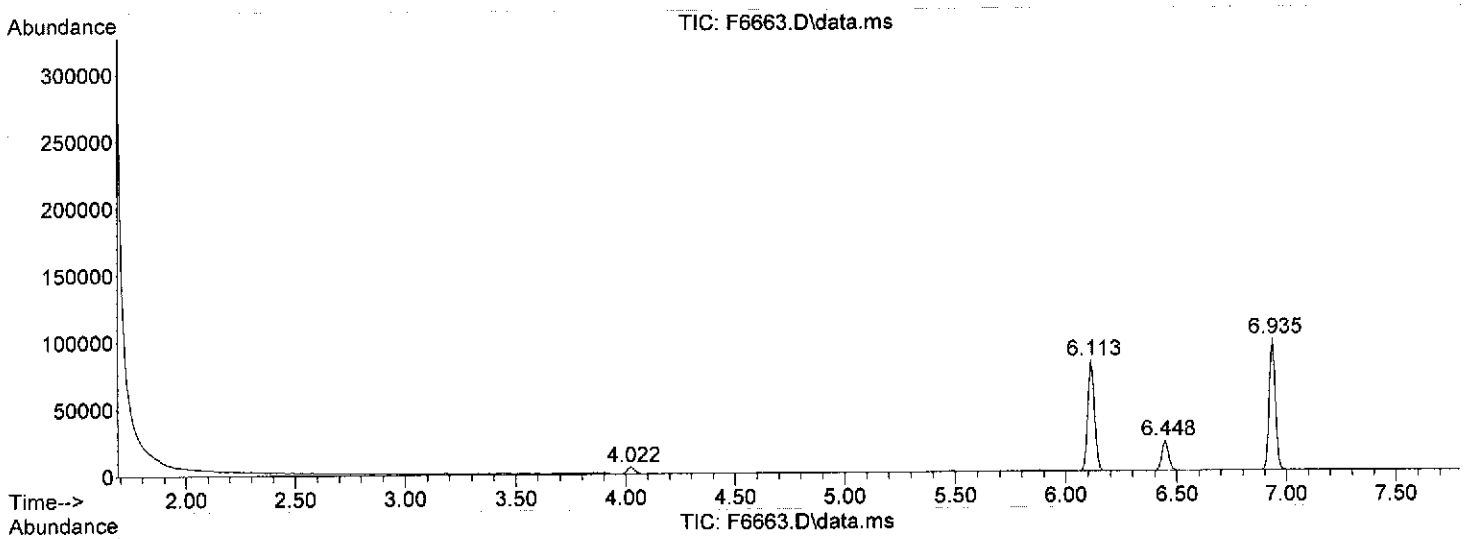
Sum of corrected areas: 1034002

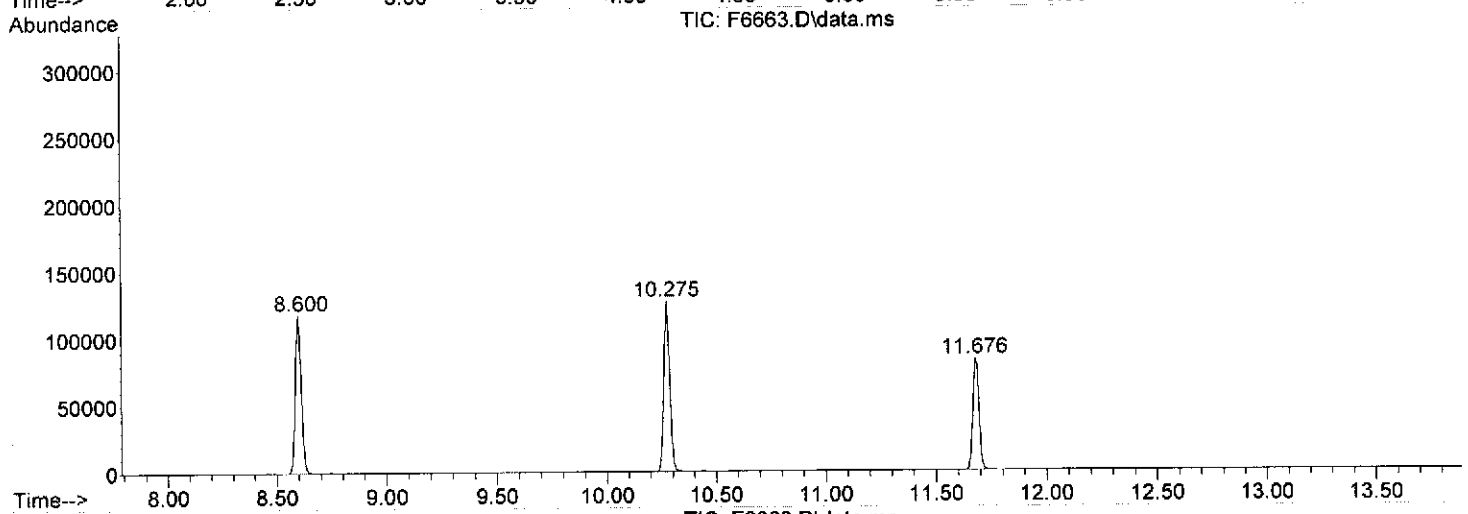
LSC Report - Integrated Chromatogram

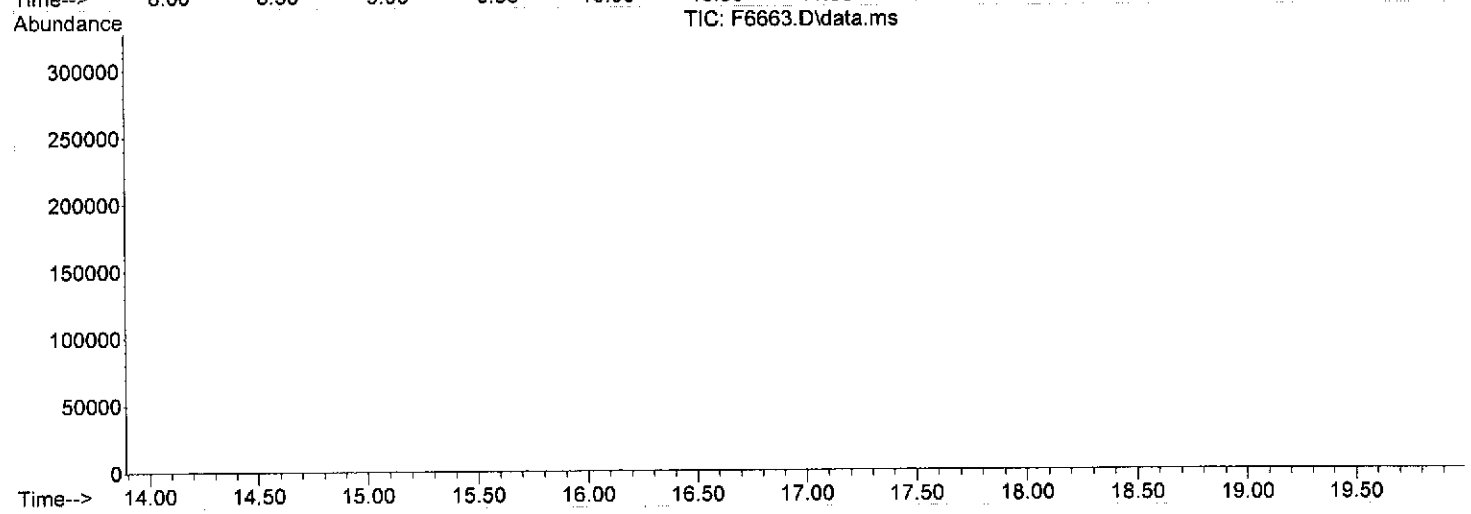
Data Path : C:\msdchem\1\DATA\07-05-12\
Data File : F6663.D
Acq On : 6 Jul 2012 15:51
Operator : XING
Sample : B1_(4-5)_-0627,06466-001,S,3.6g,18.5
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-03-12\
Data File : F6587.D
Acq On : 4 Jul 2012 7:22
Operator : XING
Sample : B3_(16-17)_-06,06466-002,S,5.8g,19.6
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 05 17:08:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	70280	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	98149	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	88095	50.00 UG	0.00
System Monitoring Compounds					
30) 1,2-Dichloroethane-d4	6.448	65	21271	34.59 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 69.18%		
41) Toluene-d8	8.600	98	95629	45.65 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 91.30%		
59) Bromofluorobenzene	11.676	95	39659	46.78 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 93.56%		

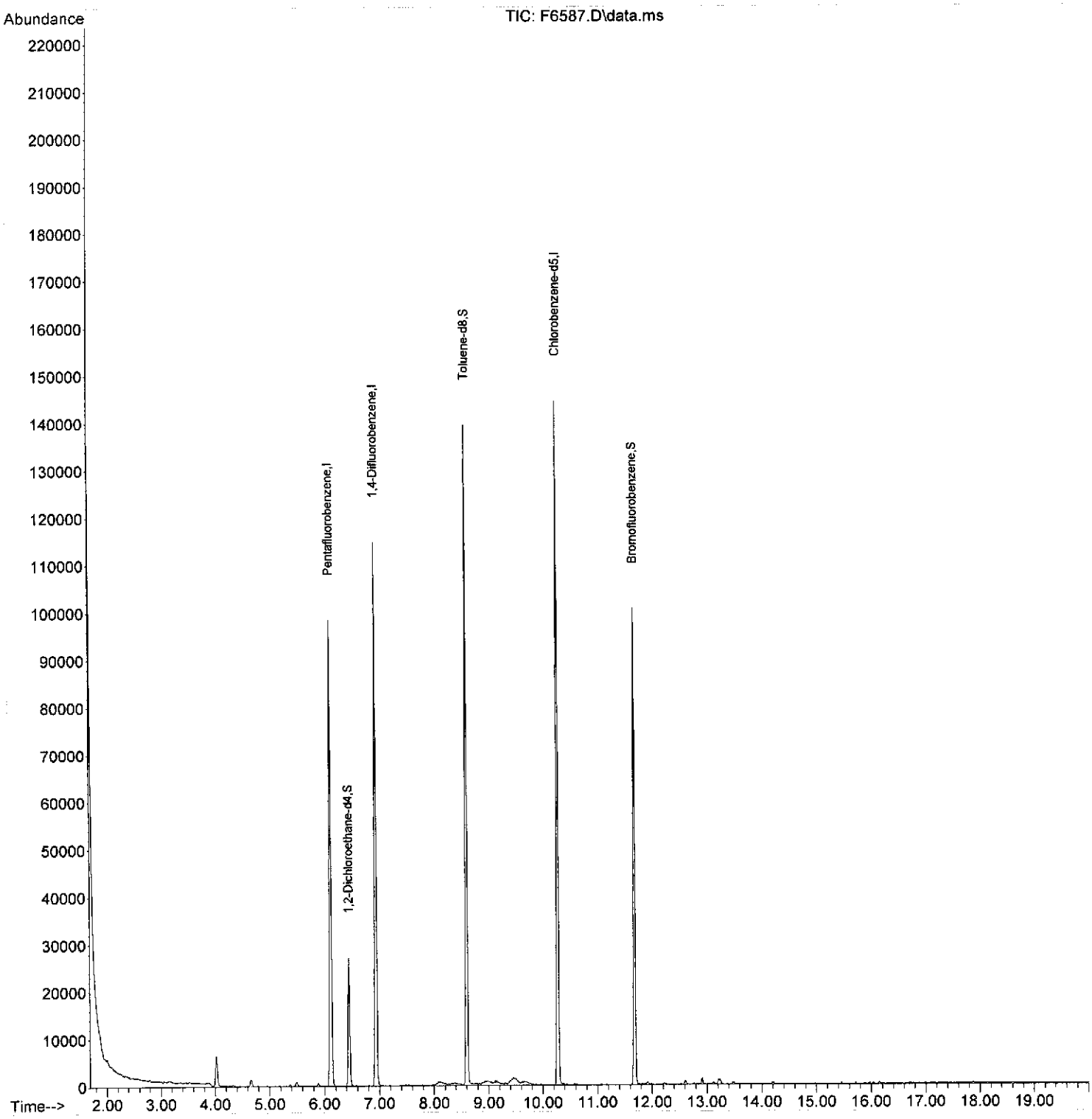
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-03-12\
Data File : F6587.D
Acq On : 4 Jul 2012 7:22
Operator : XING
Sample : B3_(16-17)_-06,06466-002,S,5.8g,19.6
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 05 17:08:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



FSO0618.M Thu Jul 05 17:08:50 2012 RP1

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-03-12\
Data File : F6587.D
Acq On : 4 Jul 2012 7:22
Operator : XING
Sample : B3_(16-17)_-06,06466-002,S,5.8g,19.6
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 21 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6587.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	225	231	239	rVB	6293	14717	5.59%	1.191%
2	4.651	289	293	303	rVB2	1482	3860	1.46%	0.312%
3	6.113	430	437	446	rBV	98443	207456	78.73%	16.783%
4	6.448	460	470	479	rBV	27125	56501	21.44%	4.571%
5	6.935	510	518	532	rBV	114810	225465	85.57%	18.240%
6	8.093	621	632	646	rBV4	841	6675	2.53%	0.540%
7	8.600	676	682	694	rBV	139349	263498	100.00%	21.317%
8	9.453	754	766	768	rBV4	1255	6054	2.30%	0.490%
9	10.275	840	847	856	rBV	144411	263330	99.94%	21.304%
10	11.676	979	985	996	rBV	100584	184676	70.09%	14.941%
11	13.209	1131	1136	1148	rVB2	1167	3840	1.46%	0.311%

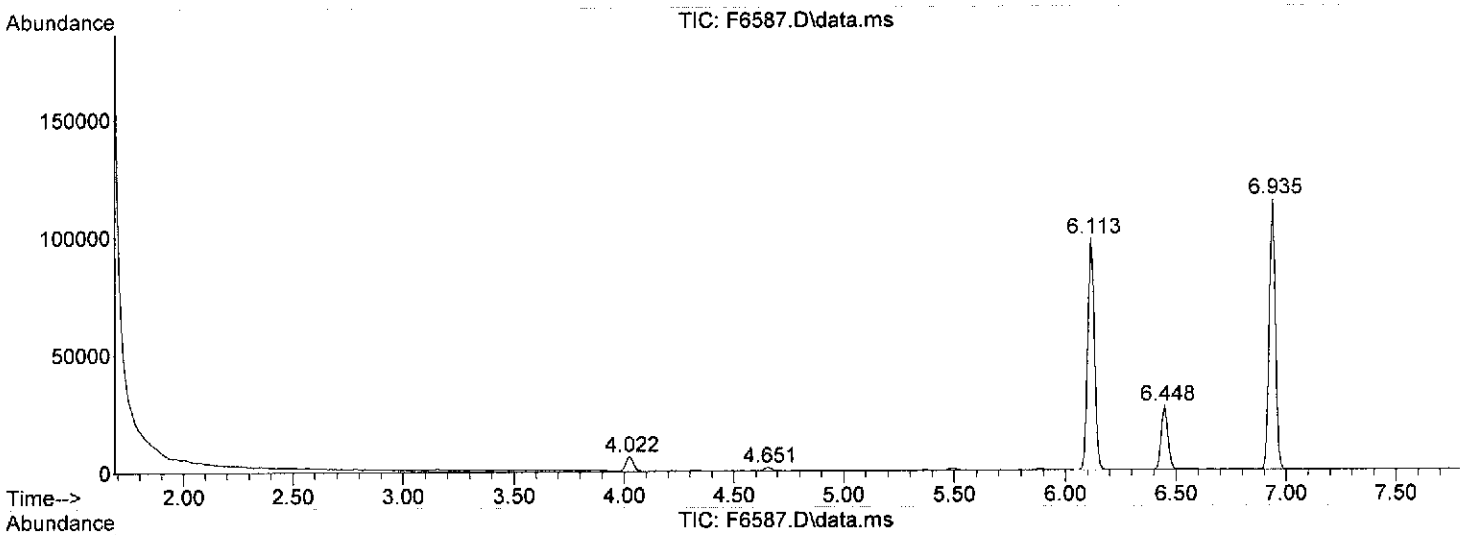
Sum of corrected areas: 1236072

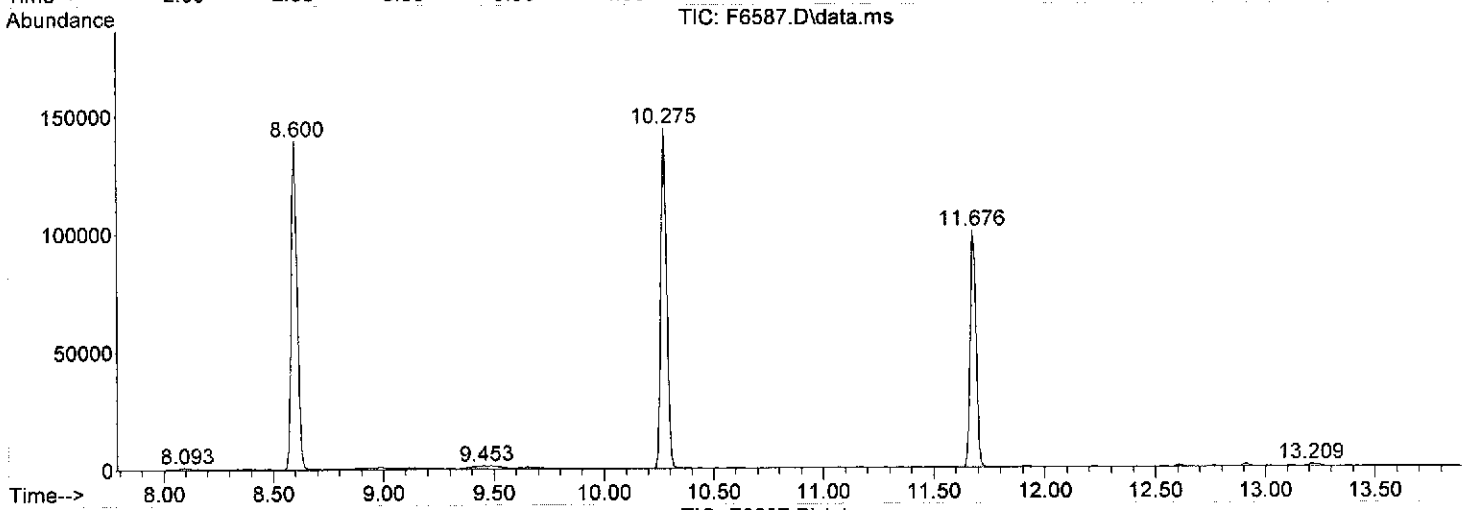
LSC Report - Integrated Chromatogram

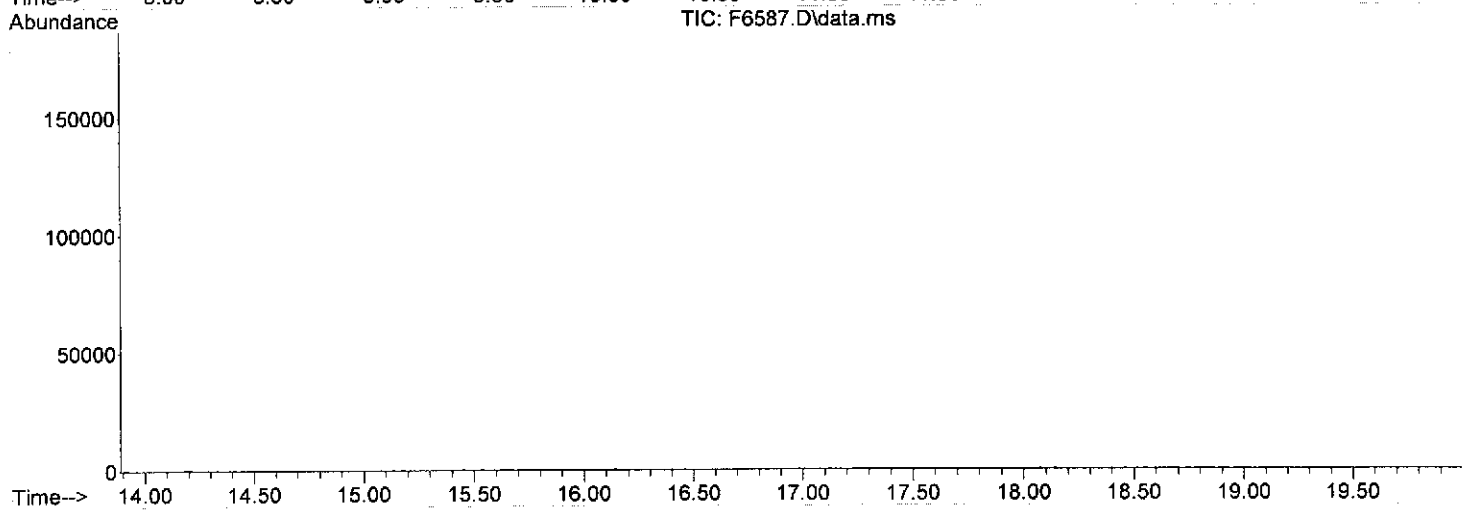
Data Path : C:\msdchem\1\DATA\07-03-12\
Data File : F6587.D
Acq On : 4 Jul 2012 7:22
Operator : XING
Sample : B3_(16-17)_-06,06466-002,S,5.8g,19.6
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1469.D
Acq On : 10 Jul 2012 3:04
Operator : XING
Sample : B3-062712-WATE,06466-009,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 10 13:54:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.82	168	221439	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.64	114	328838	50.00	UG	0.00
50) Chlorobenzene-d5	9.97	117	331852	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.14	65	117280	46.92	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 93.84%			
41) Toluene-d8	8.29	98	333456	45.11	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 90.22%			
59) Bromofluorobenzene	11.37	95	154012	48.09	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 96.18%			

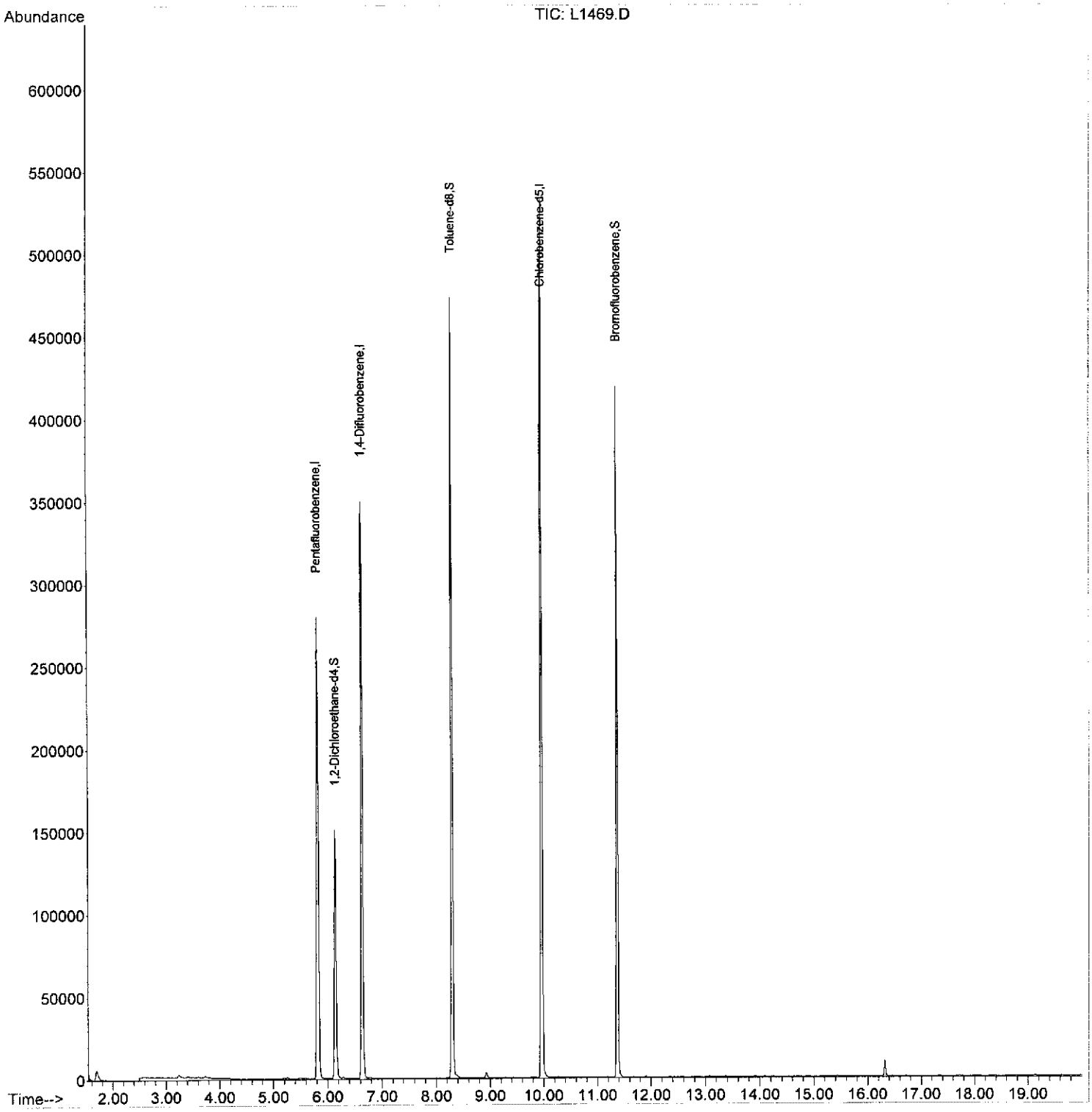
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1469.D
Acq On : 10 Jul 2012 3:04
Operator : XING
Sample : B3-062712-WATE,06466-009,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 10 13:54:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1469.D
Acq On : 10 Jul 2012 3:04
Operator : XING
Sample : B3-062712-WATE,06466-009,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 39 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM061912.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.588	98	109	113	rBV2	2256	15642	1.57%	0.361%
2	5.817	421	427	441	rBV	279739	620221	62.15%	14.297%
3	6.141	453	459	470	rBV	150777	329781	33.04%	7.602%
4	6.639	502	508	519	rBV	349809	740460	74.19%	17.069%
5	8.294	665	671	691	rVB	473514	879257	88.10%	20.269%
6	9.969	829	836	850	rBV	532612	998005	100.00%	23.006%
7	11.370	968	974	988	rBV	418972	737897	73.94%	17.010%
8	16.314	1457	1461	1469	rBV	9350	16749	1.68%	0.386%

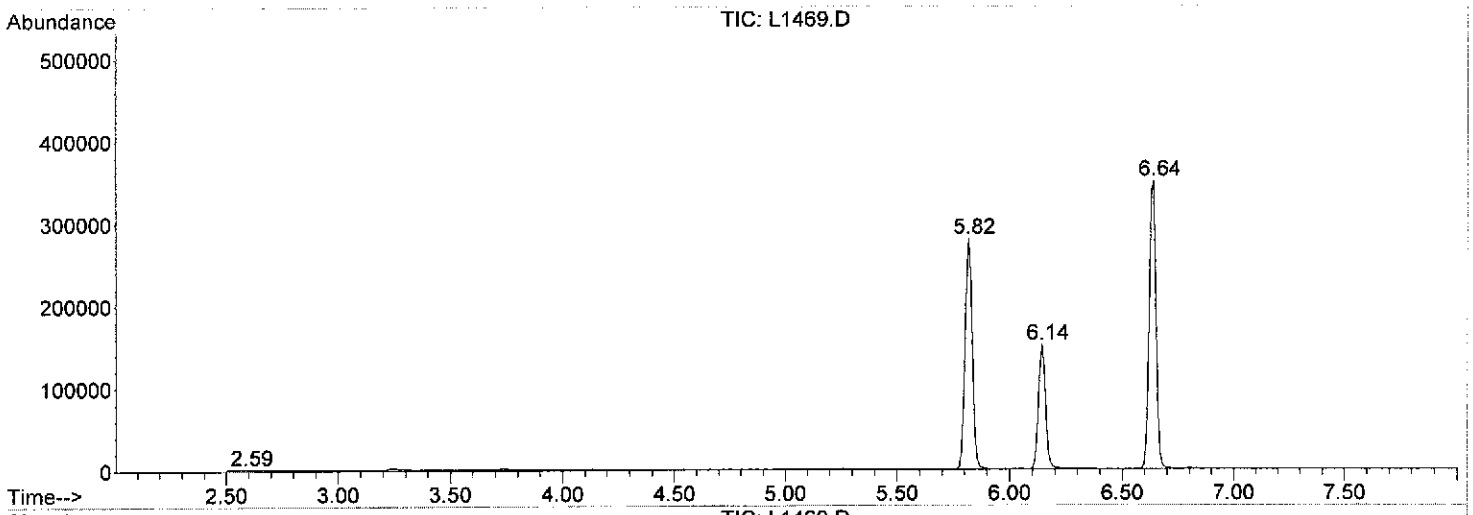
Sum of corrected areas: 4338012

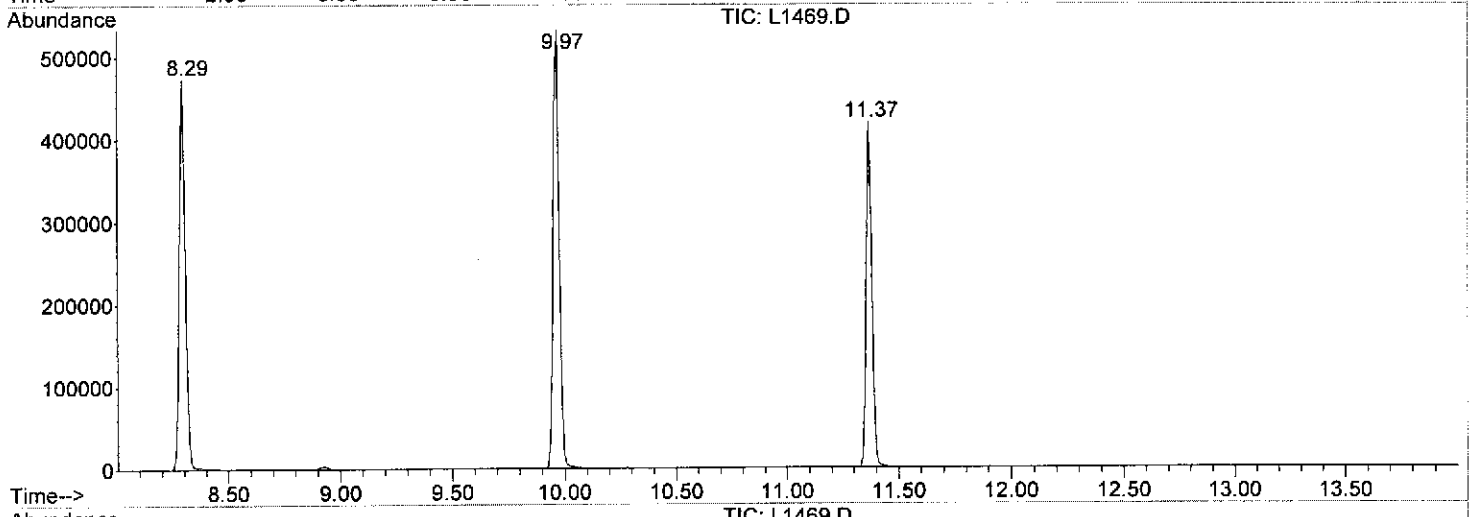
LSC Report - Integrated Chromatogram

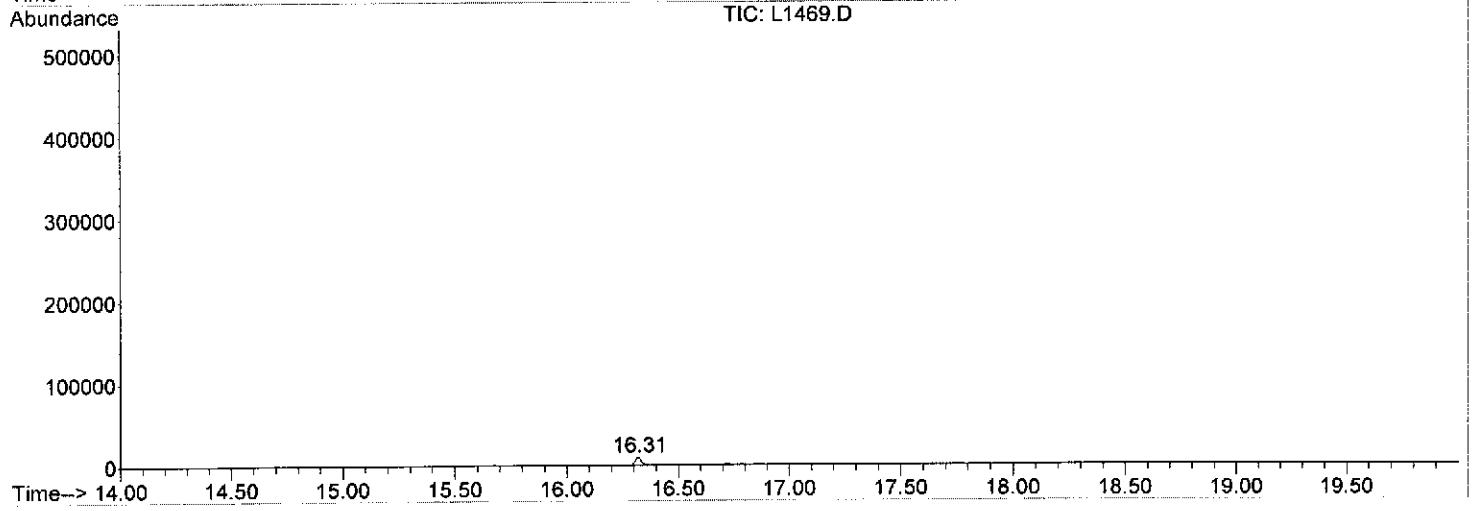
Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1469.D
Acq On : 10 Jul 2012 3:04
Operator : XING
Sample : B3-062712-WATE,06466-009,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1470.D
Acq On : 10 Jul 2012 3:32
Operator : XING
Sample : A1-062712-WATE,06466-010,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Jul 10 13:55:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	5.82	168	214742	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.64	114	320901	50.00 UG	0.00
50) Chlorobenzene-d5	9.97	117	321631	50.00 UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.14	65	115050	47.47 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 94.94%		
41) Toluene-d8	8.29	98	328685	45.57 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 91.14%		
59) Bromofluorobenzene	11.37	95	151620	48.85 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 97.70%		

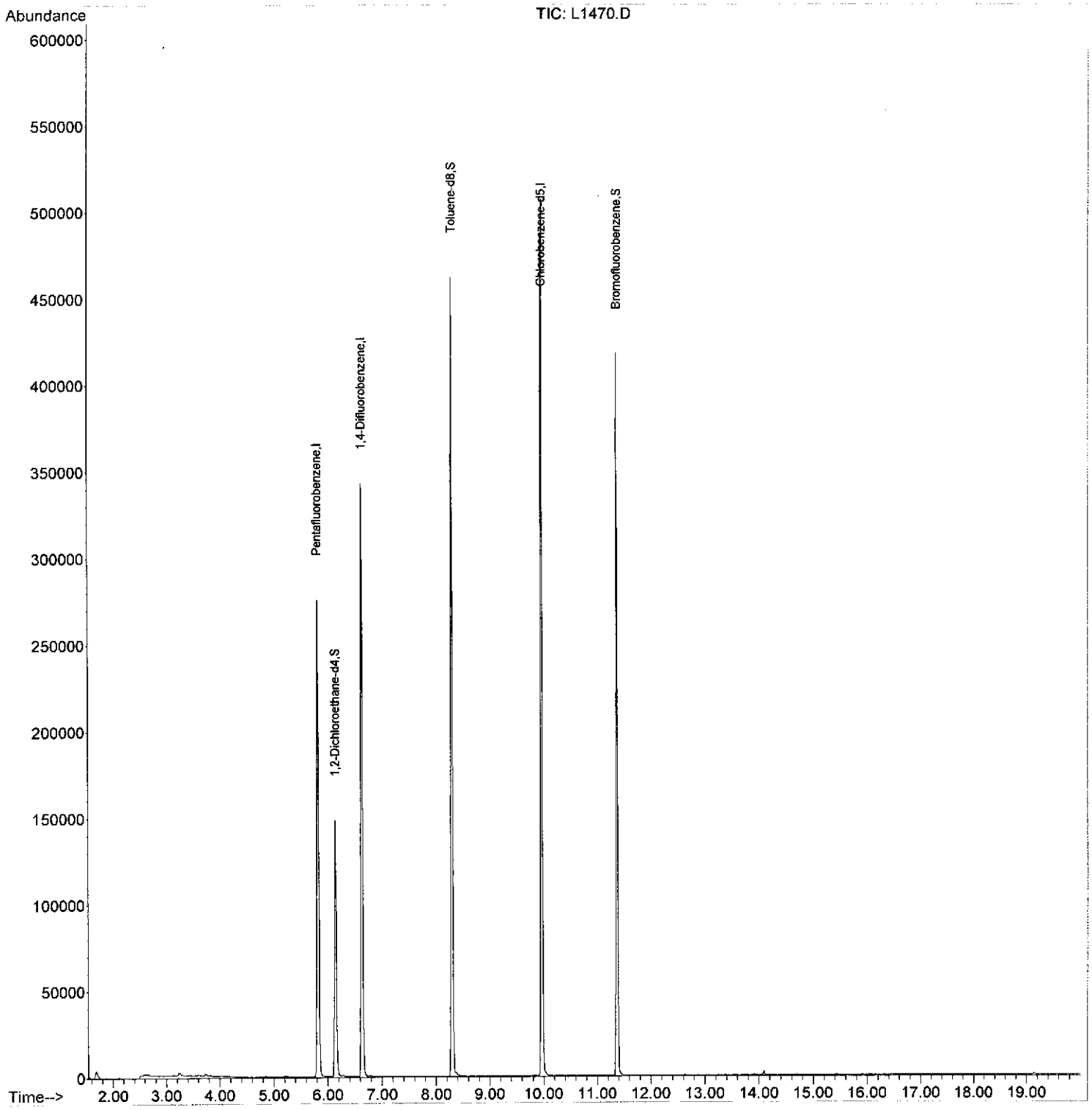
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1470.D
Acq On : 10 Jul 2012 3:32
Operator : XING
Sample : A1-062712-WATE,06466-010,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Jul 10 13:55:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1470.D
Acq On : 10 Jul 2012 3:32
Operator : XING
Sample : A1-062712-WATE,06466-010,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 40 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM061912.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.816	421	427	440	rBV	275831	605416	62.13%	14.336%
2	6.141	452	459	470	rBV	148071	321665	33.01%	7.617%
3	6.629	502	507	518	rBV	342535	725175	74.42%	17.172%
4	8.294	665	671	690	rBV	462068	867590	89.04%	20.545%
5	9.969	829	836	850	rBV	507301	974434	100.00%	23.075%
6	11.370	967	974	986	rVB	417740	728682	74.78%	17.255%

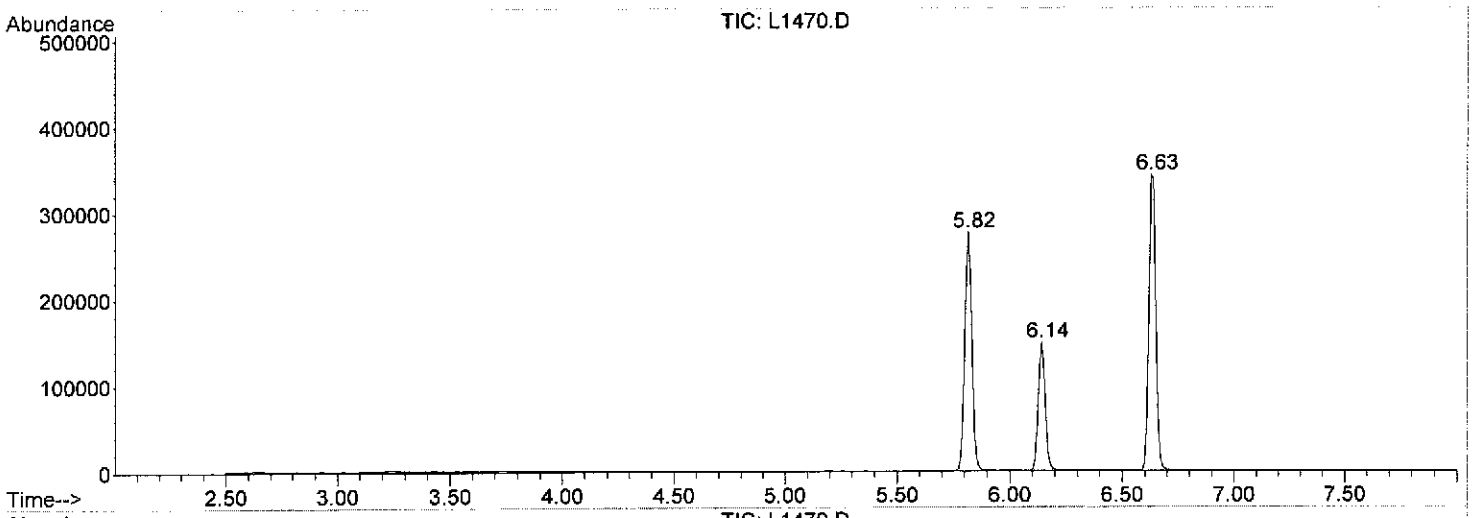
Sum of corrected areas: 4222962

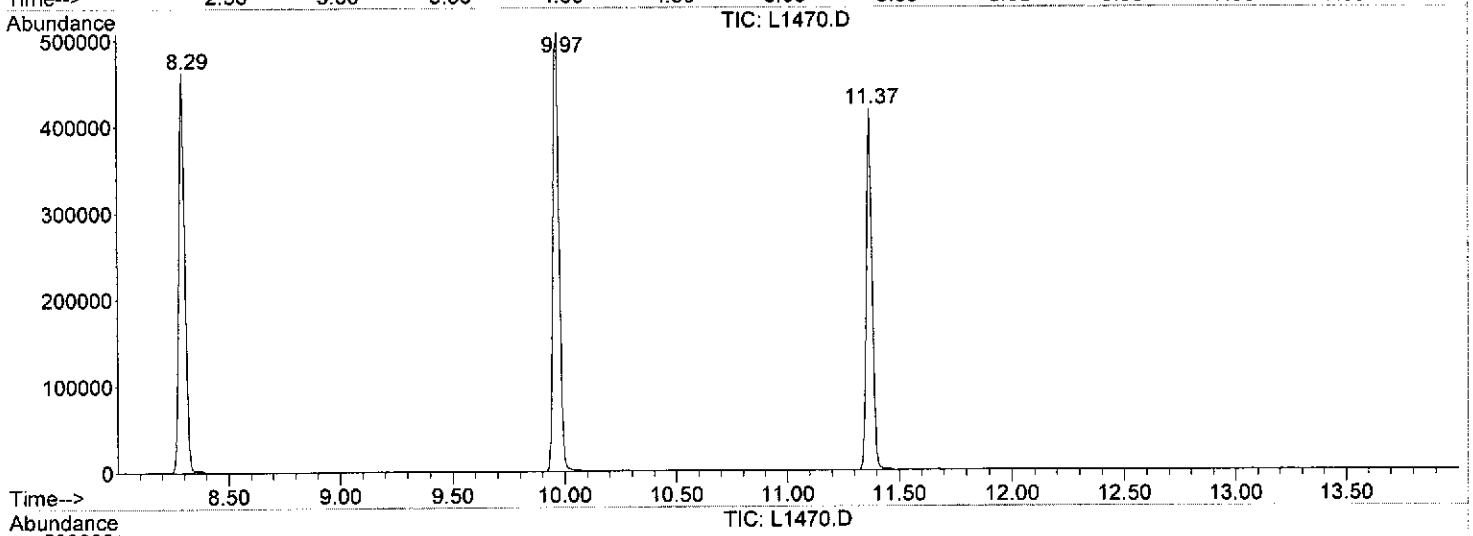
LSC Report - Integrated Chromatogram

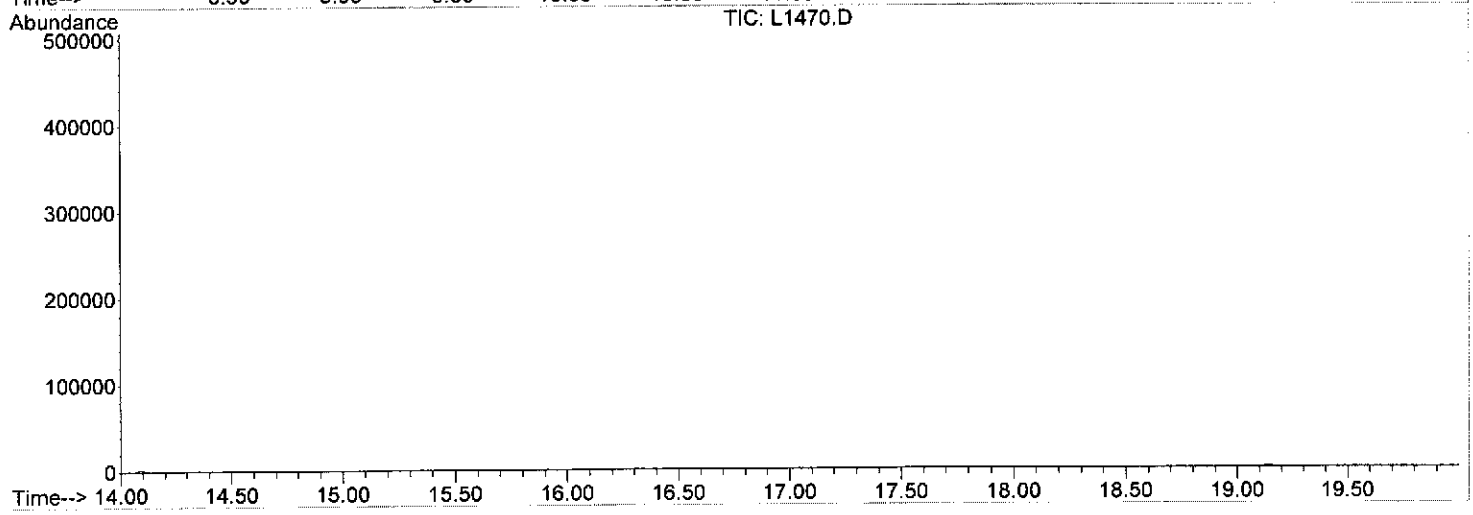
Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1470.D
Acq On : 10 Jul 2012 3:32
Operator : XING
Sample : A1-062712-WATE,06466-010,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1471.D
Acq On : 10 Jul 2012 4:00
Operator : XING
Sample : A2-062712-WATE,06466-011,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 10 13:56:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.82	168	212524	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.64	114	317596	50.00	UG	0.00
50) Chlorobenzene-d5	9.97	117	314344	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.14	65	113702	47.40	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 94.80%			
41) Toluene-d8	8.29	98	320972	44.96	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 89.92%			
59) Bromofluorobenzene	11.37	95	147903	48.76	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 97.52%			

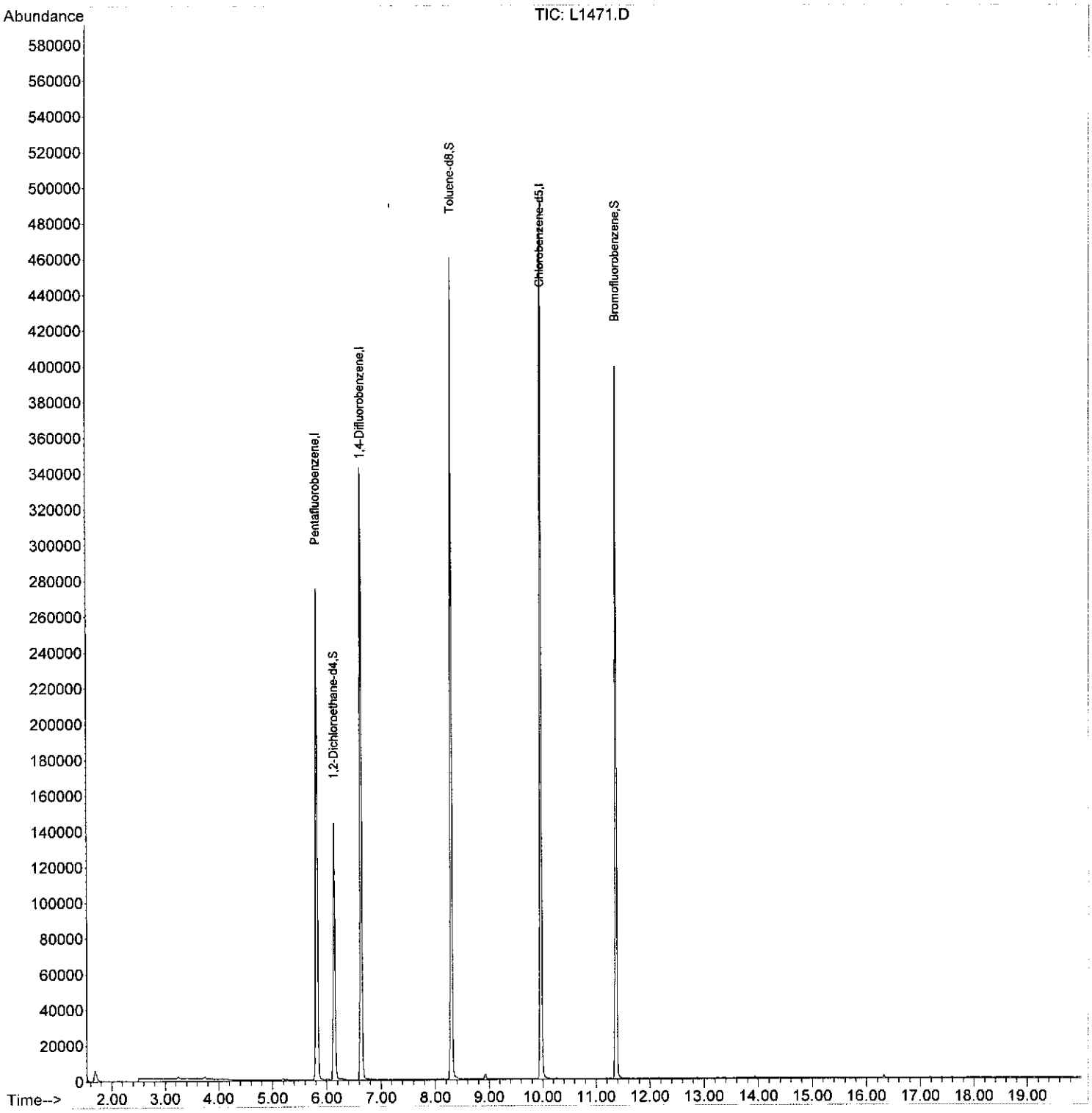
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1471.D
Acq On : 10 Jul 2012 4:00
Operator : XING
Sample : A2-062712-WATE,06466-011,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 10 13:56:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1471.D
Acq On : 10 Jul 2012 4:00
Operator : XING
Sample : A2-062712-WATE,06466-011,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 41 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM061912.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.817	419	427	441	rBV	274938	597869	62.85%	14.477%
2	6.142	453	459	471	rBV	143687	312004	32.80%	7.555%
3	6.629	502	507	518	rBV	342428	714128	75.07%	17.293%
4	8.294	665	671	690	rVB	460336	844214	88.74%	20.443%
5	9.969	830	836	860	rVB	492430	951287	100.00%	23.035%
6	11.370	968	974	987	rBV	399146	710189	74.66%	17.197%

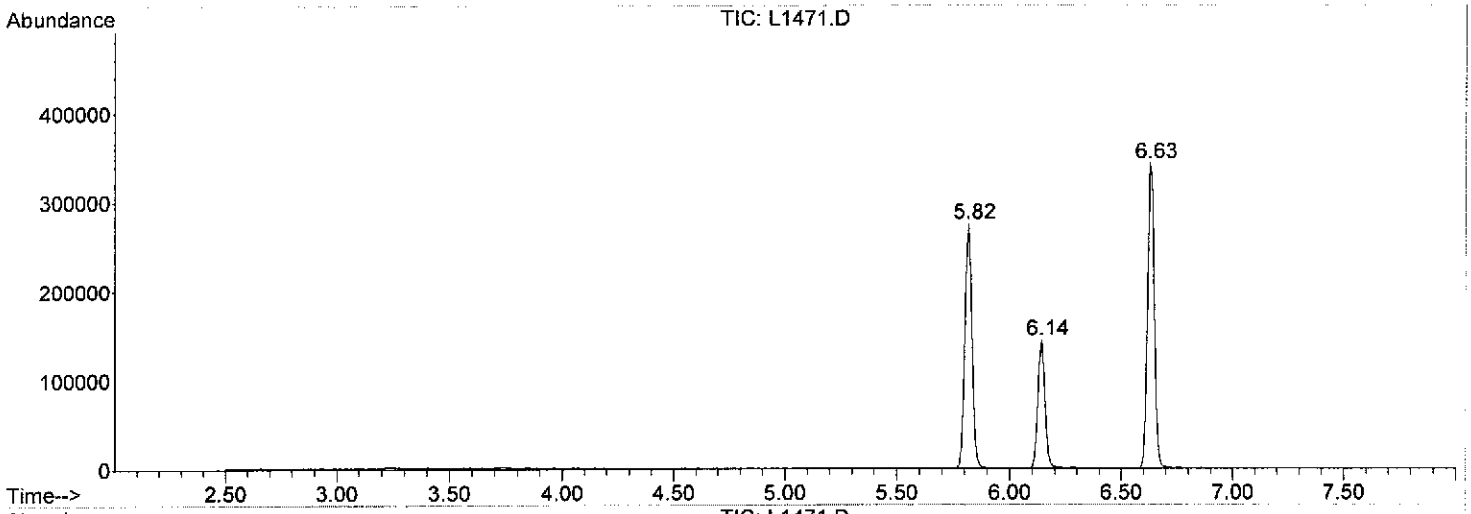
Sum of corrected areas: 4129691

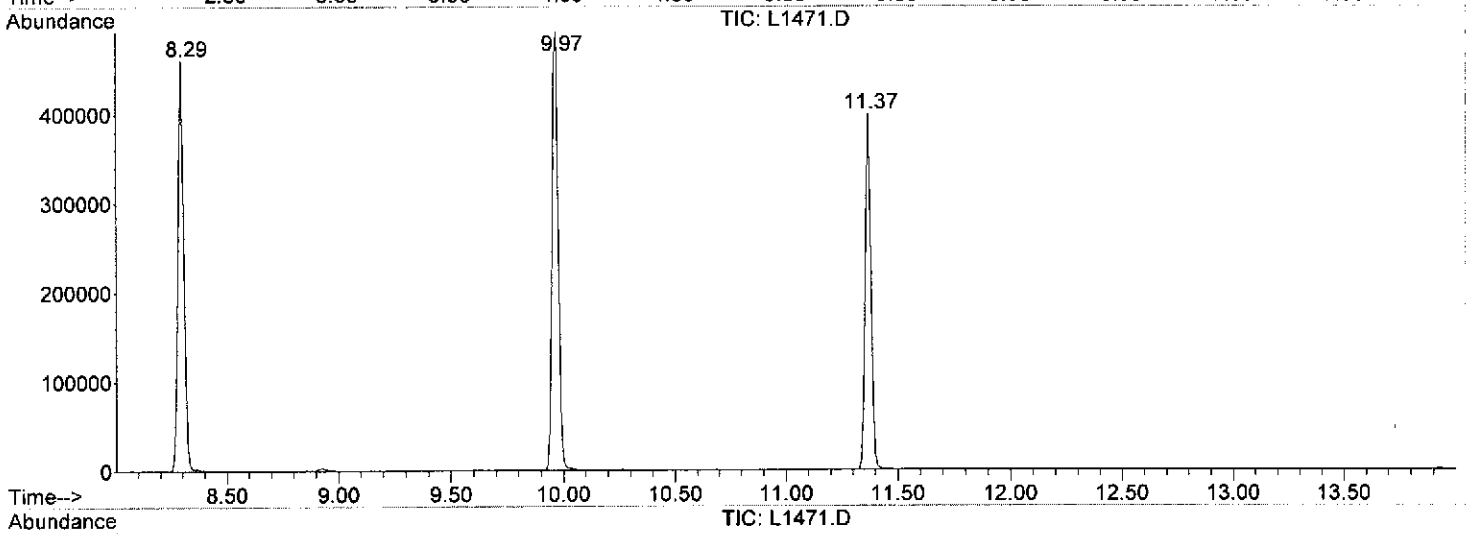
LSC Report - Integrated Chromatogram

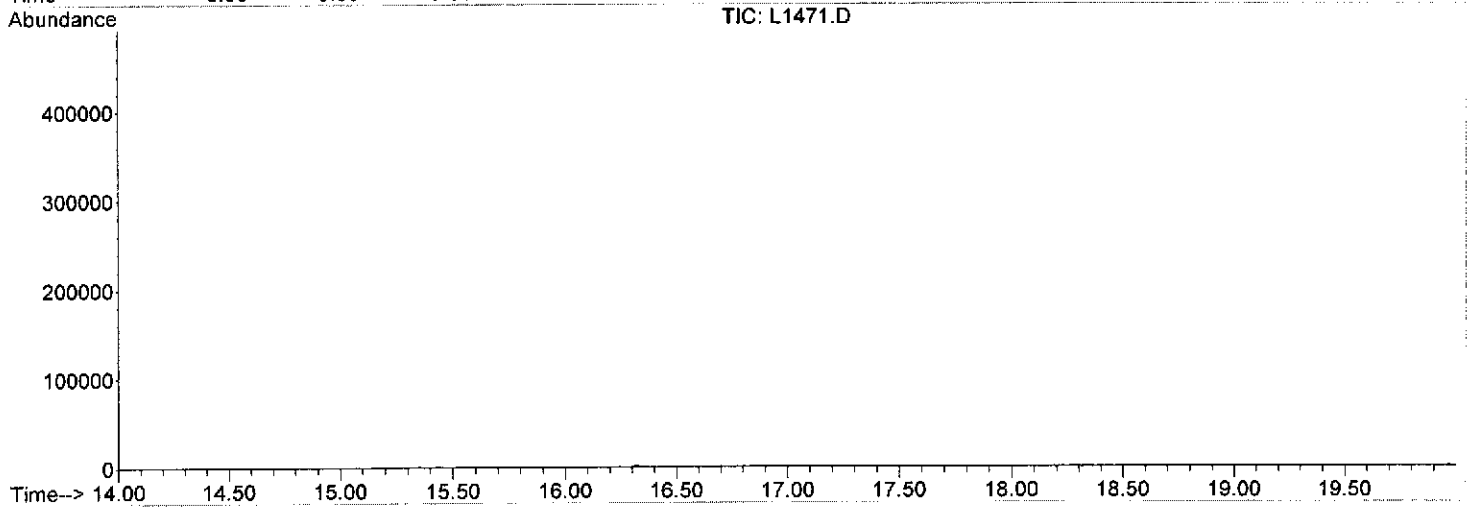
Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1471.D
Acq On : 10 Jul 2012 4:00
Operator : XING
Sample : A2-062712-WATE,06466-011,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1472.D
Acq On : 10 Jul 2012 4:27
Operator : XING
Sample : A7-062712-WATE,06466-012,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jul 10 13:56:55 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.82	168	206481	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.64	114	309433	50.00	UG	0.00
50) Chlorobenzene-d5	9.97	117	307933	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.14	65	110602	47.46	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 94.92%			
41) Toluene-d8	8.29	98	310528	44.64	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 89.28%			
59) Bromofluorobenzene	11.37	95	144173	48.52	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 97.04%			

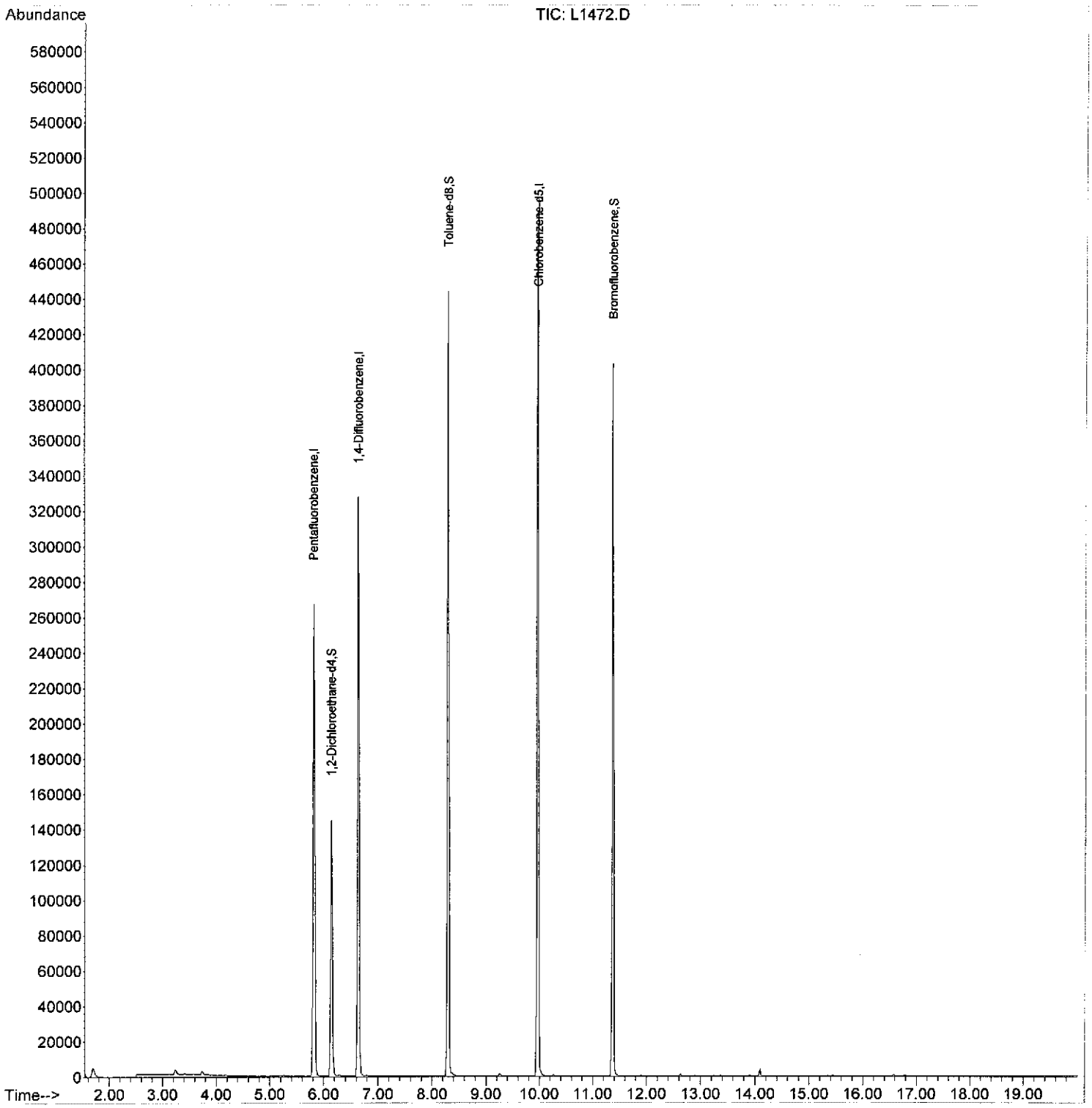
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1472.D
Acq On : 10 Jul 2012 4:27
Operator : XING
Sample : A7-062712-WATE,06466-012,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jul 10 13:56:55 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1472.D
Acq On : 10 Jul 2012 4:27
Operator : XING
Sample : A7-062712-WATE,06466-012,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 42 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM061912.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.817	421	427	442	rBV	266993	577402	61.81%	14.304%
2	6.141	453	459	469	rBV	144735	307248	32.89%	7.611%
3	6.629	502	507	518	rBV	327820	696799	74.59%	17.261%
4	8.294	664	671	692	rBV	444223	822225	88.01%	20.368%
5	9.969	829	836	850	rBV	496421	934216	100.00%	23.143%
6	11.370	968	974	985	rBV	403473	698893	74.81%	17.313%

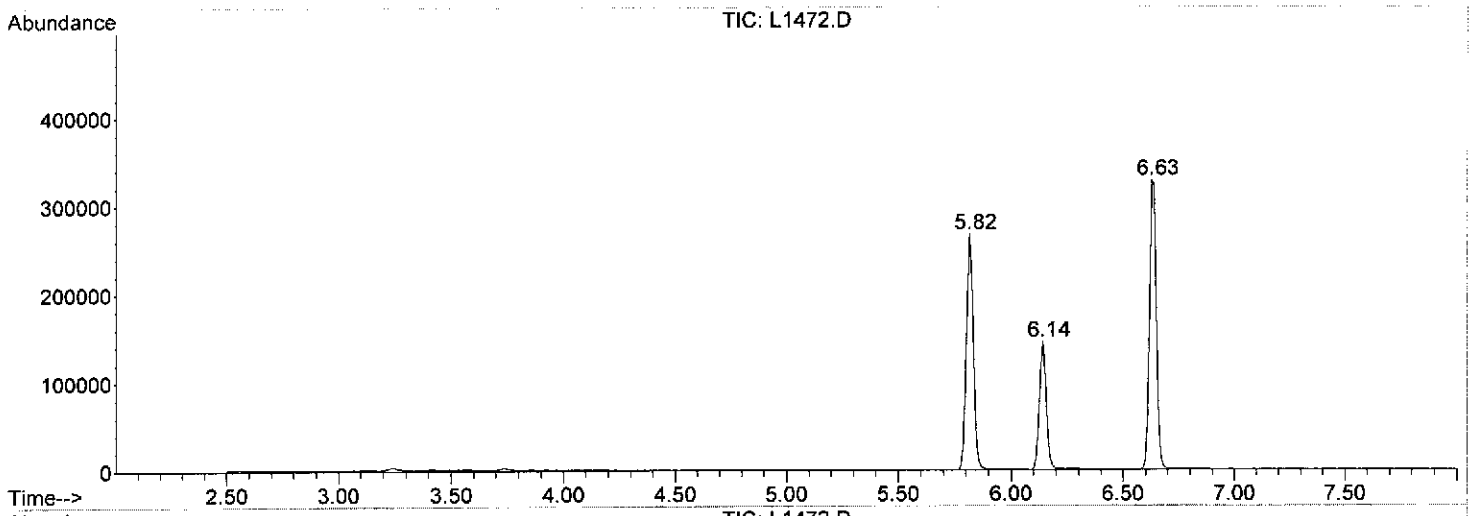
Sum of corrected areas: 4036783

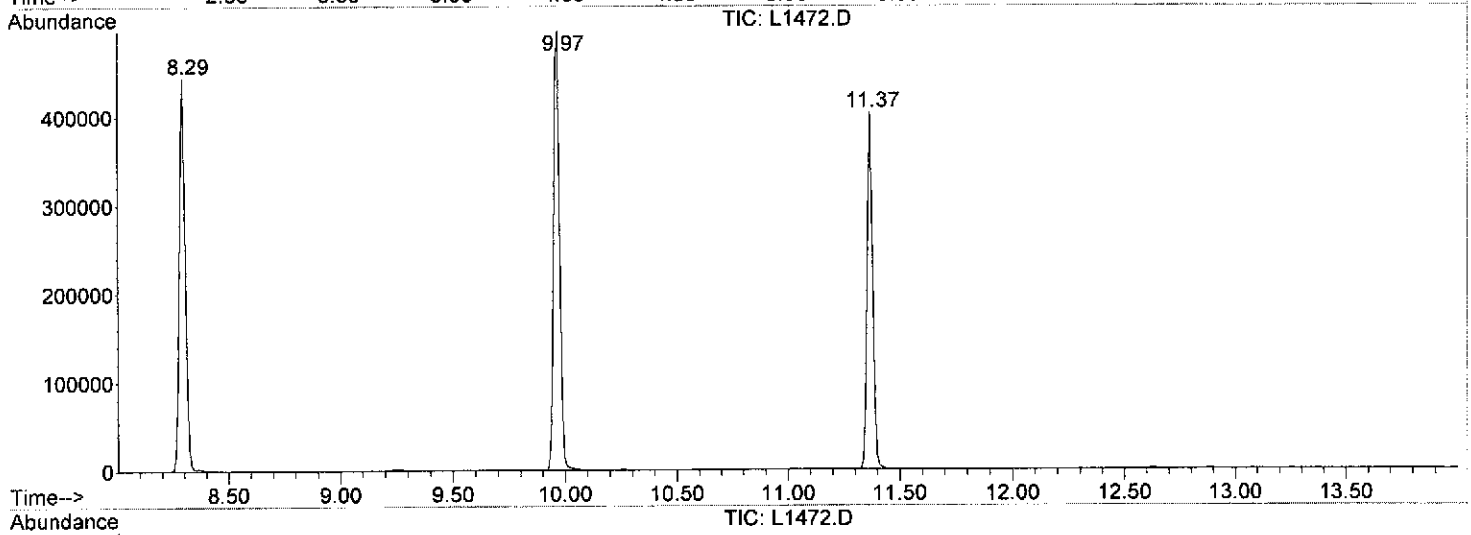
LSC Report - Integrated Chromatogram

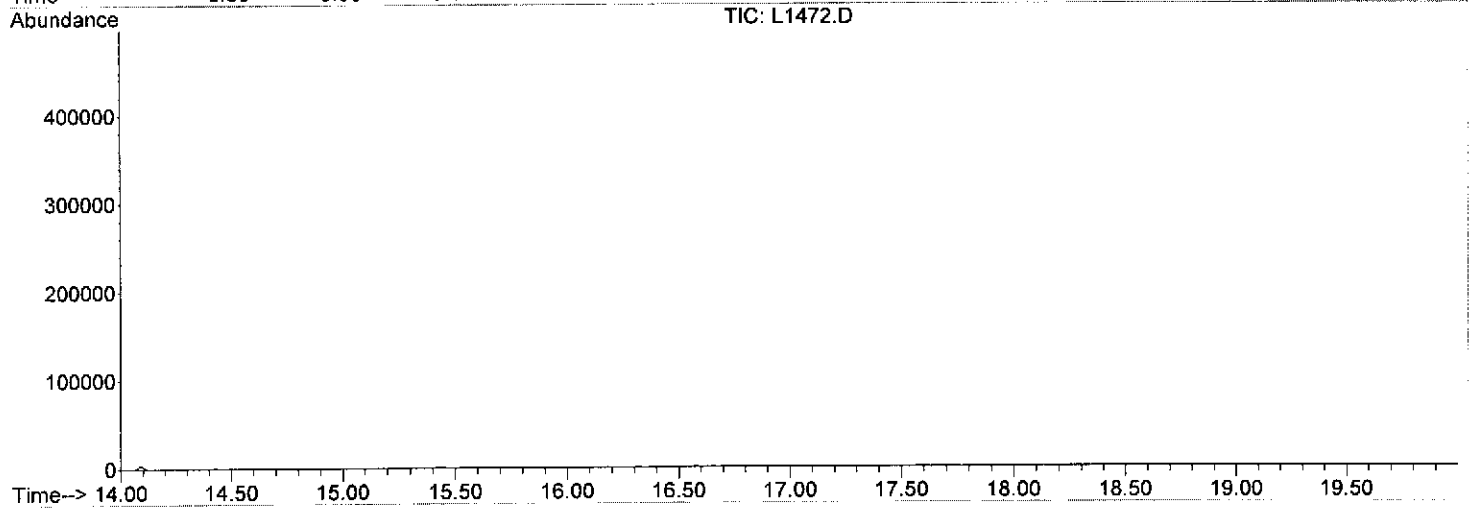
Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1472.D
Acq On : 10 Jul 2012 4:27
Operator : XING
Sample : A7-062712-WATE,06466-012,A,5ml,100
Misc : URS-FTWASH/VINELAN,06/27/12,06/28/12,
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS120703-01
Client ID: BLKS120703-01
Date Received:
Date Analyzed: 07/03/2012
Data file: F6571.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.0004
Chloromethane	ND		0.001	0.00041
Vinyl chloride	ND		0.001	0.00048
Bromomethane	ND		0.001	0.00035
Chloroethane	ND		0.001	0.00045
Trichlorofluoromethane	ND		0.001	0.00041
1,1-Dichloroethene	ND		0.001	0.0005
Acetone	ND		0.005	0.0007
Carbon disulfide	ND		0.001	0.00034
Methylene chloride	ND		0.002	0.00198
trans-1,2-Dichloroethene	ND		0.001	0.00043
Methyl tert-butyl ether (MTBE)	ND		0.001	0.00023
1,1-Dichloroethane	ND		0.001	0.00027
cis-1,2-Dichloroethene	ND		0.001	0.00031
2-Butanone (MEK)	ND		0.005	0.00037
Bromochloromethane	ND		0.001	0.00024
Chloroform	ND		0.001	0.00029
1,1,1-Trichloroethane	ND		0.001	0.00033
Carbon tetrachloride	ND		0.001	0.00041
1,2-Dichloroethane (EDC)	ND		0.001	0.00021
Benzene	ND		0.001	0.00024
Trichloroethene	ND		0.001	0.00032
1,2-Dichloropropane	ND		0.001	0.00022
1,4-Dioxane	ND		0.200	0.016
Bromodichloromethane	ND		0.001	0.00032
cis-1,3-Dichloropropene	ND		0.001	0.00026
4-Methyl-2-pentanone (MIBK)	ND		0.001	0.00024

E12-06466 0158

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS120703-01
Client ID: BLKS120703-01
Date Received:
Date Analyzed: 07/03/2012
Data file: F6571.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.00025
trans-1,3-Dichloropropene	ND		0.001	0.00026
1,1,2-Trichloroethane	ND		0.001	0.0002
Tetrachloroethene	ND		0.001	0.00026
2-Hexanone	ND		0.002	0.00036
Dibromochloromethane	ND		0.002	0.00022
1,2-Dibromoethane (EDB)	ND		0.001	0.00021
Chlorobenzene	ND		0.001	0.00022
Ethylbenzene	ND		0.001	0.00031
Total Xylenes	ND		0.002	0.00106
Styrene	ND		0.001	0.0003
Bromoform	ND		0.001	0.00032
Isopropylbenzene	ND		0.001	0.00041
1,1,2,2-Tetrachloroethane	ND		0.001	0.00023
1,3-Dichlorobenzene	ND		0.001	0.00031
1,4-Dichlorobenzene	ND		0.001	0.00031
1,2-Dichlorobenzene	ND		0.001	0.00036
1,2-Dibromo-3-chloropropane	ND		0.001	0.0005
1,2,4-Trichlorobenzene	ND		0.001	0.00052
1,2,3-Trichlorobenzene	ND		0.001	0.00048
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.00055
Methyl acetate	ND		0.005	0.00058
Cyclohexane	ND		0.002	0.00042
Methylcyclohexane	ND		0.001	0.0005
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.00026

Total Target Compounds (52): 0

E12-06466 0159

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Lab ID: BLKS120703-01
Client ID: BLKS120703-01
Date Received:
Date Analyzed: 07/03/2012
Data file: F6571.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-03-12\
Data File : F6571.D
Acq On : 3 Jul 2012 23:21
Operator : XING
Sample : BLKS120703-01,BLKS120703-01,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 05 16:40:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	77531	50.00	UG	0.00
31) 1,4-Difluorobenzene	6.935	114	111525	50.00	UG	0.00
50) Chlorobenzene-d5	10.275	117	98116	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.448	65	23265	34.30	UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 68.60%			
41) Toluene-d8	8.600	98	108537	45.59	UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 91.18%			
59) Bromofluorobenzene	11.676	95	43130	45.68	UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 91.36%			

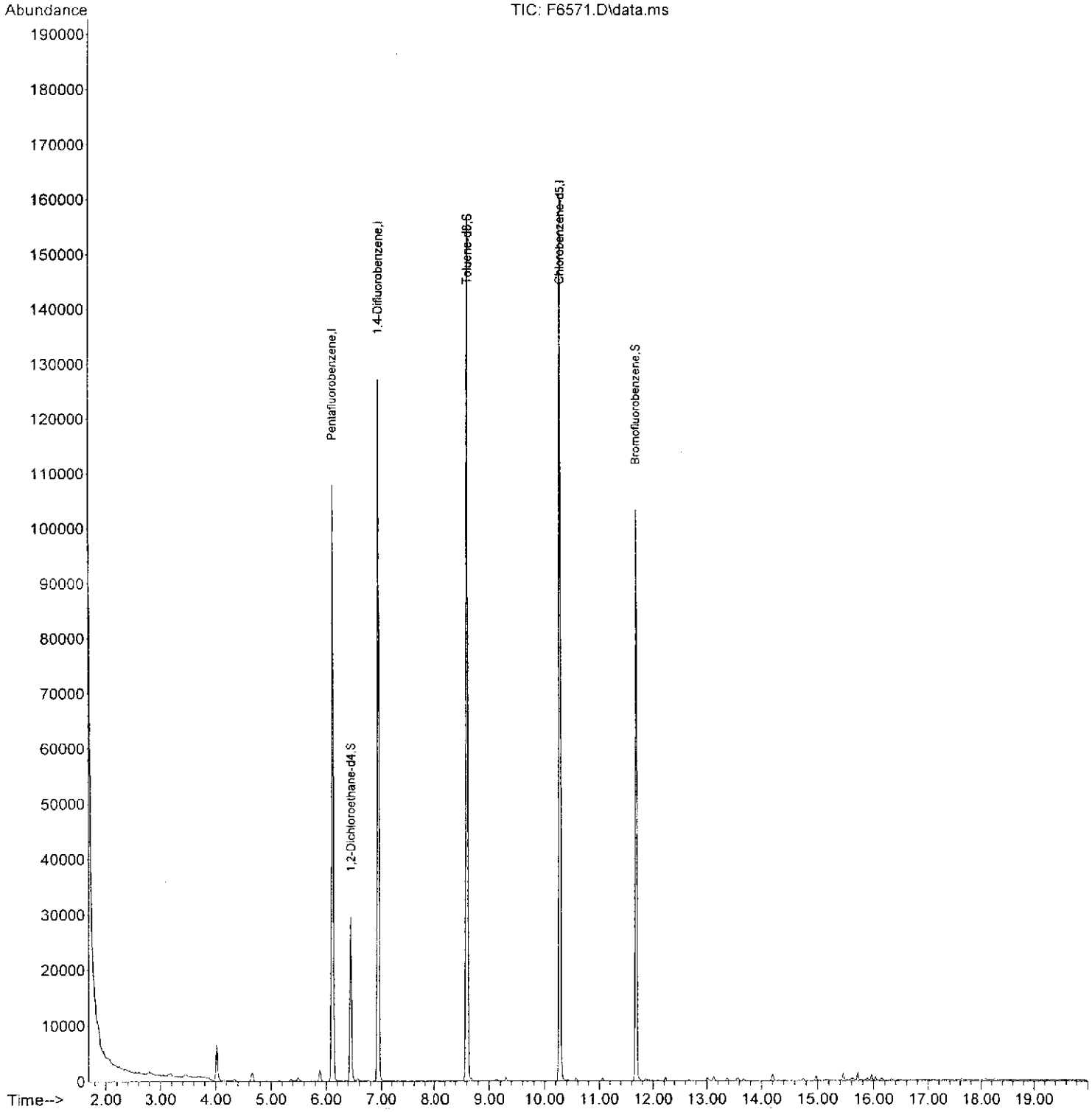
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-03-12\
Data File : F6571.D
Acq On : 3 Jul 2012 23:21
Operator : XING
Sample : BLKS120703-01,BLKS120703-01,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 05 16:40:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-03-12\
Data File : F6571.D
Acq On : 3 Jul 2012 23:21
Operator : XING
Sample : BLKS120703-01,BLKS120703-01,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FS00618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6571.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	226	231	240	rBV	6457	14828	5.02%	1.093%
2	4.651	286	293	300	rVB	1763	4324	1.47%	0.319%
3	5.890	408	415	421	rVB	2250	4945	1.68%	0.364%
4	6.113	431	437	449	rVB	108049	229834	77.88%	16.938%
5	6.448	462	470	479	rBV	29661	62215	21.08%	4.585%
6	6.935	509	518	532	rBV	127408	252847	85.68%	18.634%
7	8.600	674	682	700	rBV	156501	295119	100.00%	21.749%
8	10.275	841	847	860	rBV	160628	292509	99.12%	21.557%
9	11.676	979	985	998	rBV	103470	197225	66.83%	14.535%
10	14.194	1228	1233	1241	rBV	1310	3078	1.04%	0.227%

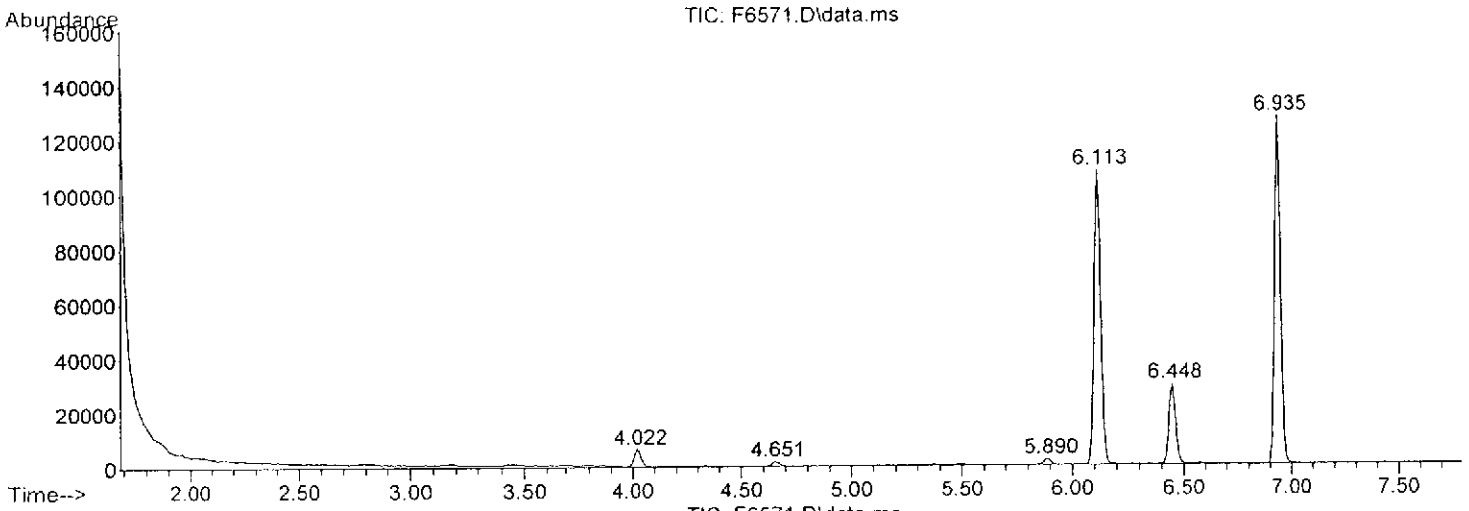
Sum of corrected areas: 1356924

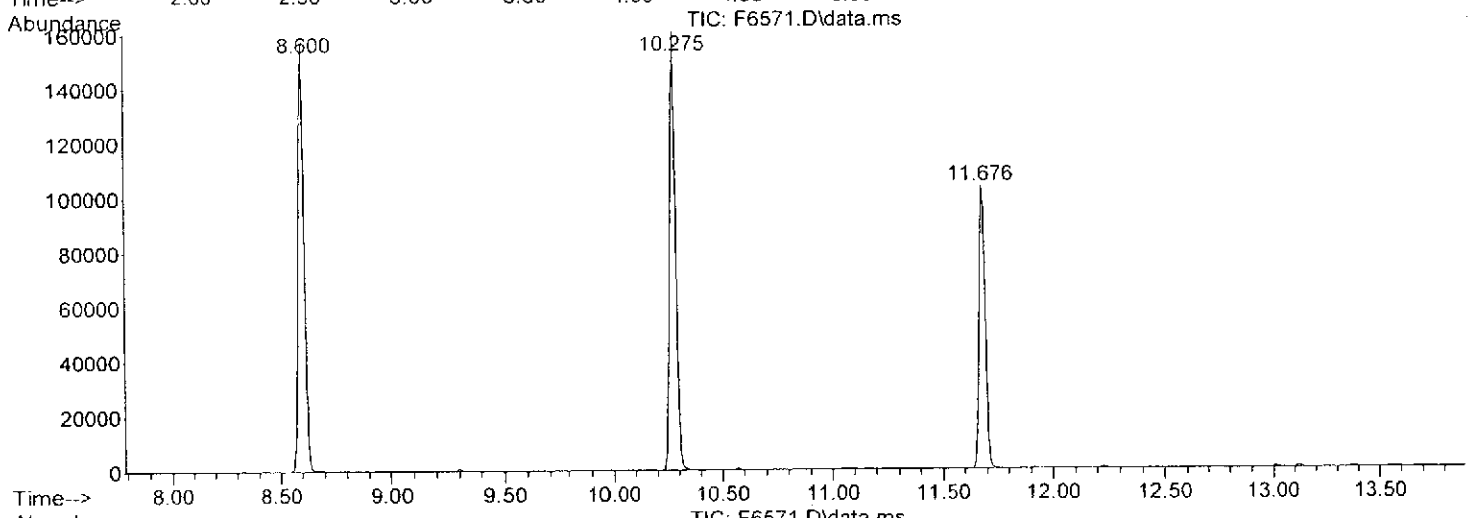
LSC Report - Integrated Chromatogram

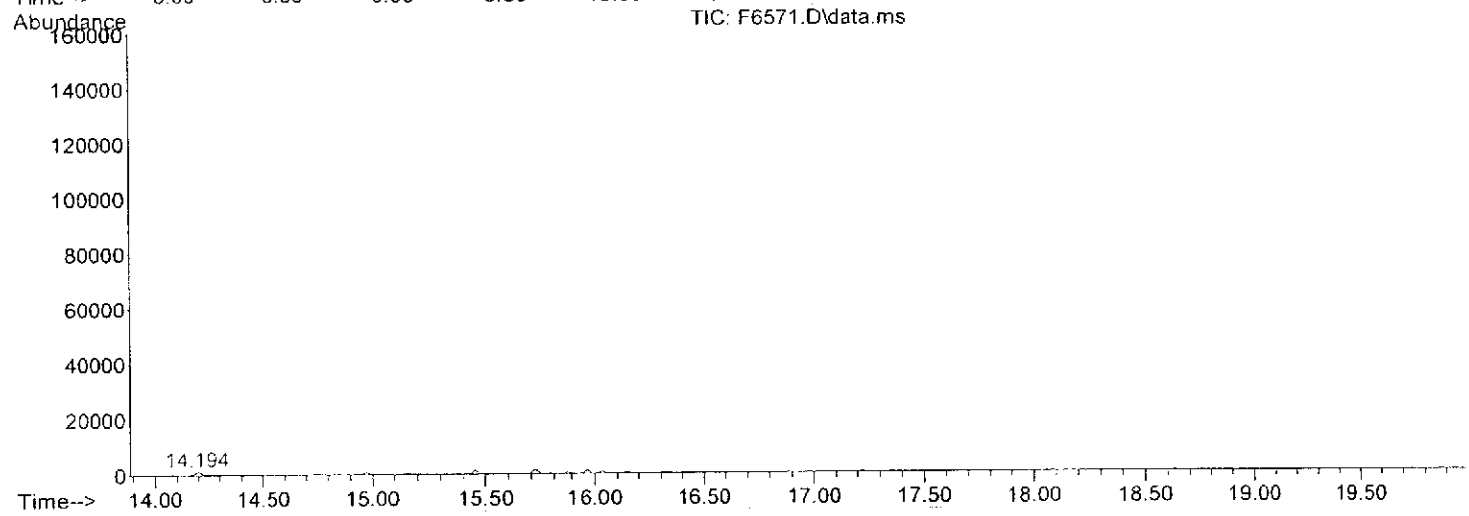
Data Path : C:\msdchem\1\DATA\07-03-12\
Data File : F6571.D
Acq On : 3 Jul 2012 23:21
Operator : XING
Sample : BLKS120703-01,BLKS120703-01,S,5g,0
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS120705-02
Client ID: BLKS120705-02
Date Received:
Date Analyzed: 07/06/2012
Data file: F6645.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.0004
Chloromethane	ND		0.001	0.00041
Vinyl chloride	ND		0.001	0.00048
Bromomethane	ND		0.001	0.00035
Chloroethane	ND		0.001	0.00045
Trichlorofluoromethane	ND		0.001	0.00041
1,1-Dichloroethene	ND		0.001	0.0005
Acetone	ND		0.005	0.0007
Carbon disulfide	ND		0.001	0.00034
Methylene chloride	ND		0.002	0.00198
trans-1,2-Dichloroethene	ND		0.001	0.00043
Methyl tert-butyl ether (MTBE)	ND		0.001	0.00023
1,1-Dichloroethane	ND		0.001	0.00027
cis-1,2-Dichloroethene	ND		0.001	0.00031
2-Butanone (MEK)	ND		0.005	0.00037
Bromochloromethane	ND		0.001	0.00024
Chloroform	ND		0.001	0.00029
1,1,1-Trichloroethane	ND		0.001	0.00033
Carbon tetrachloride	ND		0.001	0.00041
1,2-Dichloroethane (EDC)	ND		0.001	0.00021
Benzene	ND		0.001	0.00024
Trichloroethene	ND		0.001	0.00032
1,2-Dichloropropane	ND		0.001	0.00022
1,4-Dioxane	ND		0.200	0.016
Bromodichloromethane	ND		0.001	0.00032
cis-1,3-Dichloropropene	ND		0.001	0.00026
4-Methyl-2-pentanone (MIBK)	ND		0.001	0.00024

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS120705-02
Client ID: BLKS120705-02
Date Received:
Date Analyzed: 07/06/2012
Data file: F6645.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.00025
trans-1,3-Dichloropropene	ND		0.001	0.00026
1,1,2-Trichloroethane	ND		0.001	0.0002
Tetrachloroethene	ND		0.001	0.00026
2-Hexanone	ND		0.002	0.00036
Dibromochloromethane	ND		0.002	0.00022
1,2-Dibromoethane (EDB)	ND		0.001	0.00021
Chlorobenzene	ND		0.001	0.00022
Ethylbenzene	ND		0.001	0.00031
Total Xylenes	ND		0.002	0.00106
Styrene	ND		0.001	0.0003
Bromoform	ND		0.001	0.00032
Isopropylbenzene	ND		0.001	0.00041
1,1,2,2-Tetrachloroethane	ND		0.001	0.00023
1,3-Dichlorobenzene	ND		0.001	0.00031
1,4-Dichlorobenzene	ND		0.001	0.00031
1,2-Dichlorobenzene	ND		0.001	0.00036
1,2-Dibromo-3-chloropropane	ND		0.001	0.0005
1,2,4-Trichlorobenzene	ND		0.001	0.00052
1,2,3-Trichlorobenzene	ND		0.001	0.00048
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.00055
Methyl acetate	ND		0.005	0.00058
Cyclohexane	ND		0.002	0.00042
Methylcyclohexane	ND		0.001	0.0005
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.00026

Total Target Compounds (52): 0

E12-06466 0166

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS120705-02
Client ID: BLKS120705-02
Date Received:
Date Analyzed: 07/06/2012
Data file: F6645.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-05-12\
Data File : F6645.D
Acq On : 6 Jul 2012 6:51
Operator : XING
Sample : BLKS120705-02,BLKS120705-02,S,5g,0
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 06 18:09:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	67905	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	98649	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	90414	50.00 UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.448	65	21470	36.14 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 72.28%		
41) Toluene-d8	8.600	98	95747	45.47 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 90.94%		
59) Bromofluorobenzene	11.676	95	40371	46.40 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 92.80%		

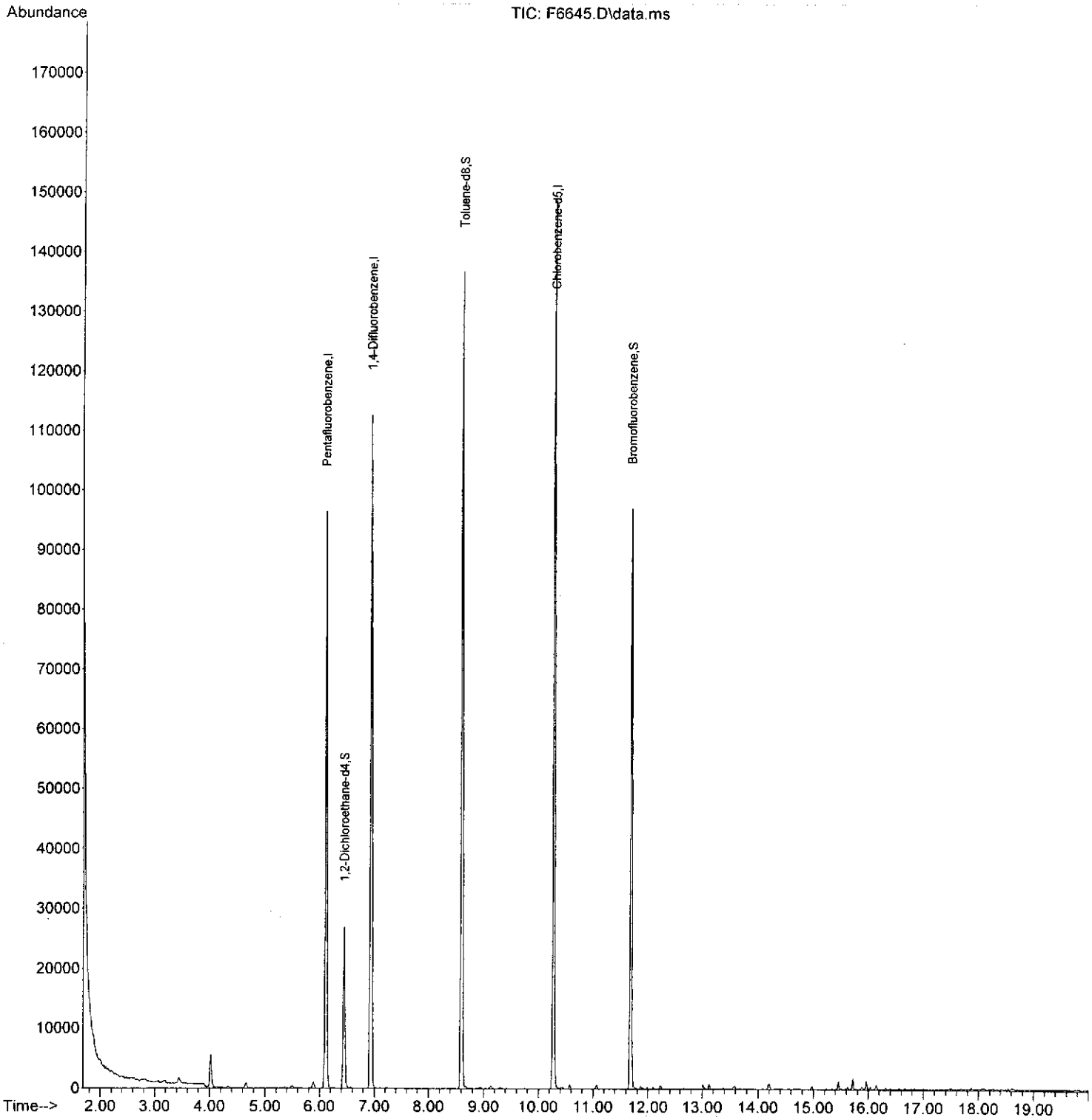
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-05-12\
Data File : F6645.D
Acq On : 6 Jul 2012 6:51
Operator : XING
Sample : BLKS120705-02,BLKS120705-02,S,5g,0
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 06 18:09:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-05-12\
Data File : F6645.D
Acq On : 6 Jul 2012 6:51
Operator : XING
Sample : BLKS120705-02,BLKS120705-02,S,5g,0
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6645.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.443	171	174	182	rVB3	959	2746	1.02%	0.226%
2	4.022	225	231	239	rVB	5358	12640	4.71%	1.042%
3	6.113	431	437	448	rVB	96527	201662	75.21%	16.624%
4	6.448	462	470	480	rBV	26992	57239	21.35%	4.718%
5	6.935	512	518	530	rBV	112689	223190	83.24%	18.398%
6	8.600	675	682	695	rBV	136679	262168	97.78%	21.611%
7	10.275	840	847	859	rBV	148693	268131	100.00%	22.103%
8	11.676	978	985	997	rVB	97080	185336	69.12%	15.278%

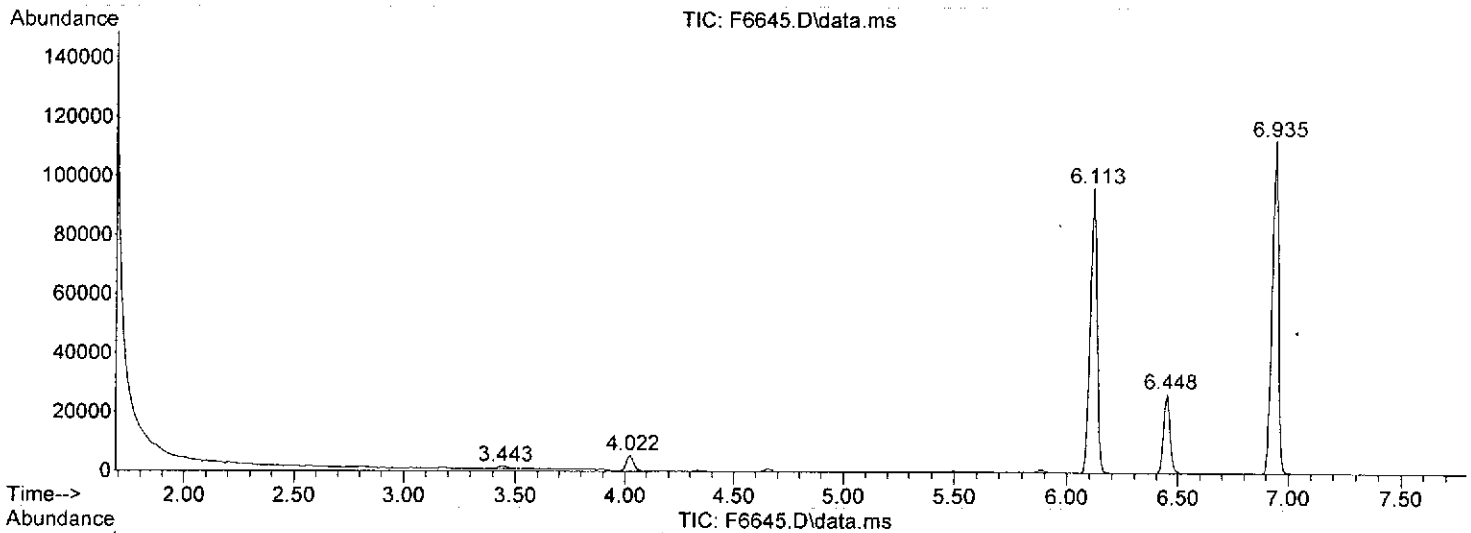
Sum of corrected areas: 1213112

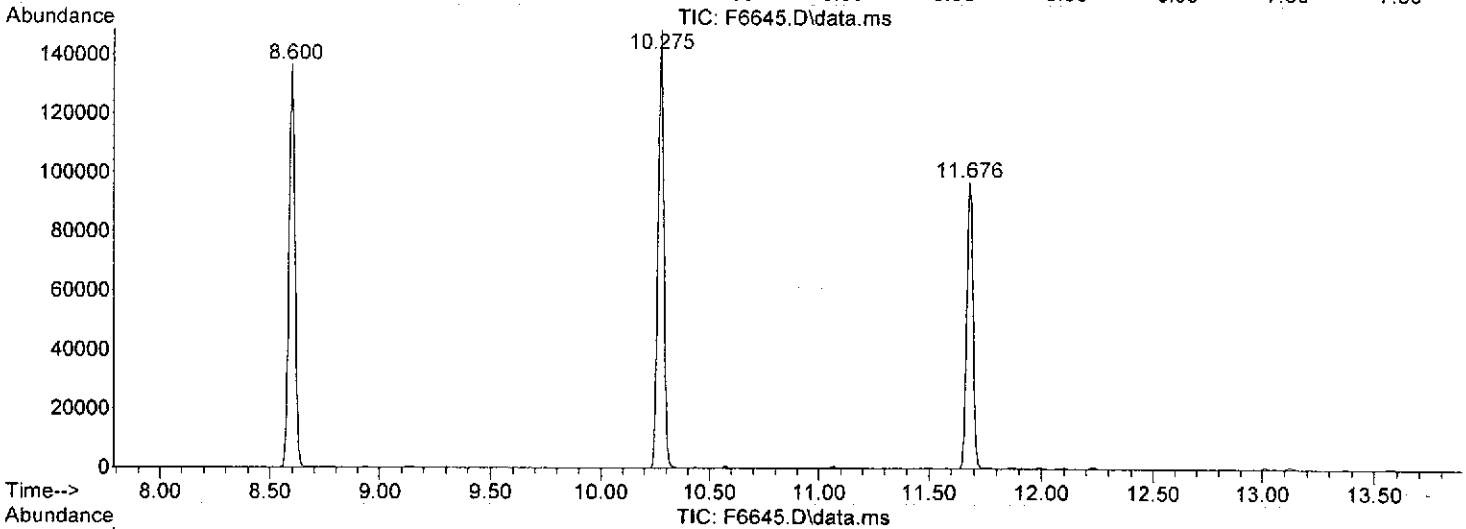
LSC Report - Integrated Chromatogram

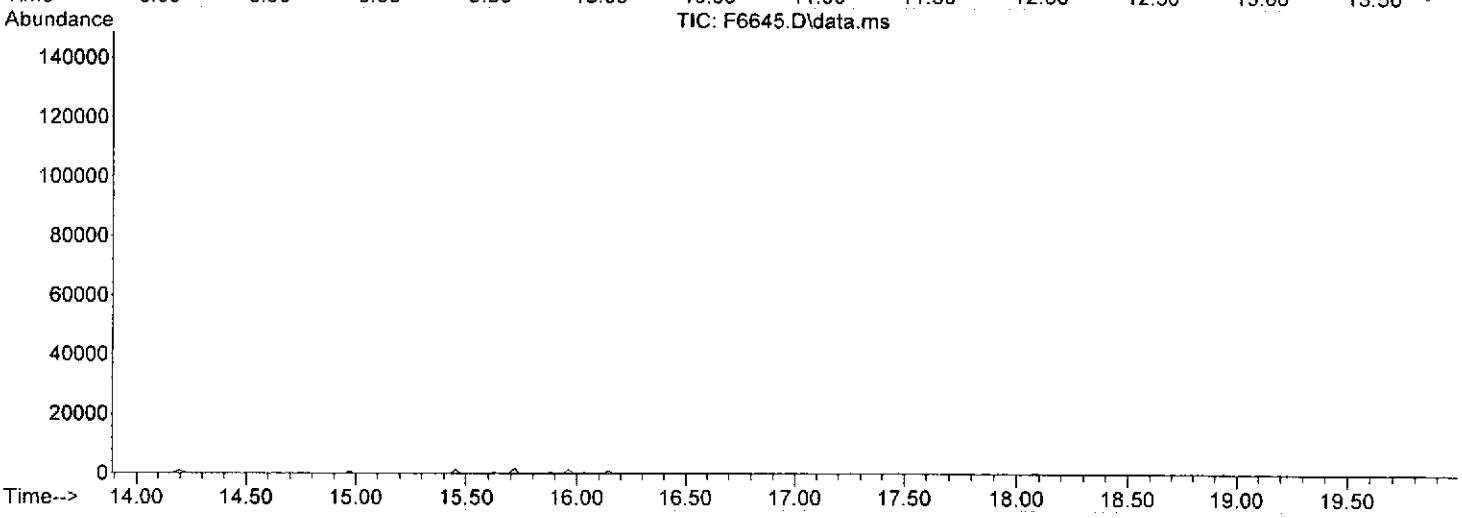
Data Path : C:\msdchem\1\DATA\07-05-12\
Data File : F6645.D
Acq On : 6 Jul 2012 6:51
Operator : XING
Sample : BLKS120705-02,BLKS120705-02,S,5g,0
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA120709
Client ID: BLKA120709
Date Received:
Date Analyzed: 07/10/2012
Data file: L1464.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.260
Chloromethane	ND		1.00	0.360
Vinyl chloride	ND		1.00	0.330
Bromomethane	ND		1.00	0.400
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.340
1,1-Dichloroethene	ND		1.00	0.310
Acetone	ND		1.00	0.330
Carbon disulfide	ND		1.00	0.230
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.370
Methyl tert-butyl ether (MTBE)	ND		1.00	0.300
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.340
2-Butanone (MEK)	ND		1.00	0.240
Bromochloromethane	ND		1.00	0.250
Chloroform	ND		1.00	0.240
1,1,1-Trichloroethane	ND		1.00	0.330
Carbon tetrachloride	ND		1.00	0.270
1,2-Dichloroethane (EDC)	ND		1.00	0.400
Benzene	ND		1.00	0.210
Trichloroethene	ND		1.00	0.280
1,2-Dichloropropane	ND		1.00	0.290
1,4-Dioxane	ND		200	39.1
Bromodichloromethane	ND		1.00	0.330
cis-1,3-Dichloropropene	ND		1.00	0.220
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.290

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA120709
Client ID: BLKA120709
Date Received:
Date Analyzed: 07/10/2012
Data file: L1464.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.230
trans-1,3-Dichloropropene	ND		1.00	0.230
1,1,2-Trichloroethane	ND		1.00	0.210
Tetrachloroethene	ND		1.00	0.220
2-Hexanone	ND		1.00	0.390
Dibromochloromethane	ND		1.00	0.250
1,2-Dibromoethane (EDB)	ND		1.00	0.260
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.290
Total Xylenes	ND		2.00	0.680
Styrene	ND		1.00	0.240
Bromoform	ND		1.00	0.260
Isopropylbenzene	ND		1.00	0.210
1,1,2,2-Tetrachloroethane	ND		1.00	0.330
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.220
1,2-Dichlorobenzene	ND		1.00	0.240
1,2-Dibromo-3-chloropropane	ND		1.00	0.220
1,2,4-Trichlorobenzene	ND		1.00	0.270
1,2,3-Trichlorobenzene	ND		1.00	0.480
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.210
Methyl acetate	ND		1.00	0.210
Cyclohexane	ND		2.00	0.360
Methylcyclohexane	ND		1.00	0.600
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.230

Total Target Compounds (52): 0

E12-06466 0173

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Lab ID: BLKA120709
Client ID: BLKA120709
Date Received:
Date Analyzed: 07/10/2012
Date File: L1464.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1464.D
Acq On : 10 Jul 2012 00:47
Operator : XING
Sample : BLKA120709,BLKA120709,A,5ml,100
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 10 13:45:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	5.82	168	247702	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.64	114	366329	50.00 UG	0.00
50) Chlorobenzene-d5	9.97	117	362507	50.00 UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.14	65	130737	46.76 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 93.52%		
41) Toluene-d8	8.29	98	367145	44.59 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 89.18%		
59) Bromofluorobenzene	11.37	95	171198	48.94 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 97.88%		

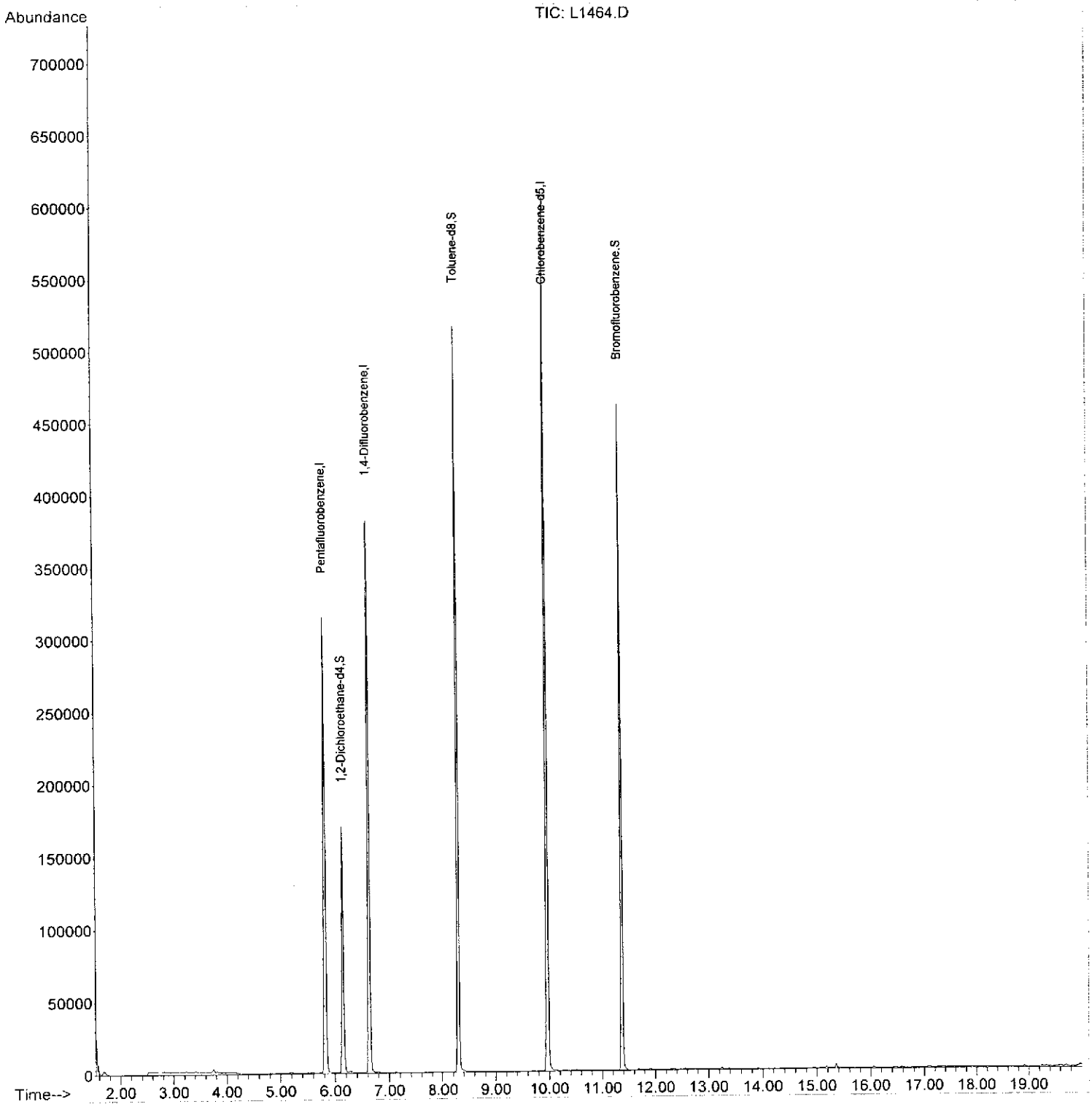
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1464.D
Acq On : 10 Jul 2012 00:47
Operator : XING
Sample : BLKA120709,BLKA120709,A,5ml,100
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 10 13:45:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1464.D
Acq On : 10 Jul 2012 00:47
Operator : XING
Sample : BLKA120709,BLKA120709,A,5ml,100
Misc :
ALS Vial : 34 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM061912.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.817	421	427	442	rBV	314989	692061	63.44%	14.573%
2	6.142	453	459	469	rBV	169829	359441	32.95%	7.569%
3	6.639	501	508	518	rBV	382146	822274	75.38%	17.315%
4	8.294	665	671	689	rVB	516125	967660	88.70%	20.377%
5	9.969	829	836	849	rBV	605149	1090893	100.00%	22.972%
6	11.370	968	974	988	rVB	461238	816516	74.85%	17.194%

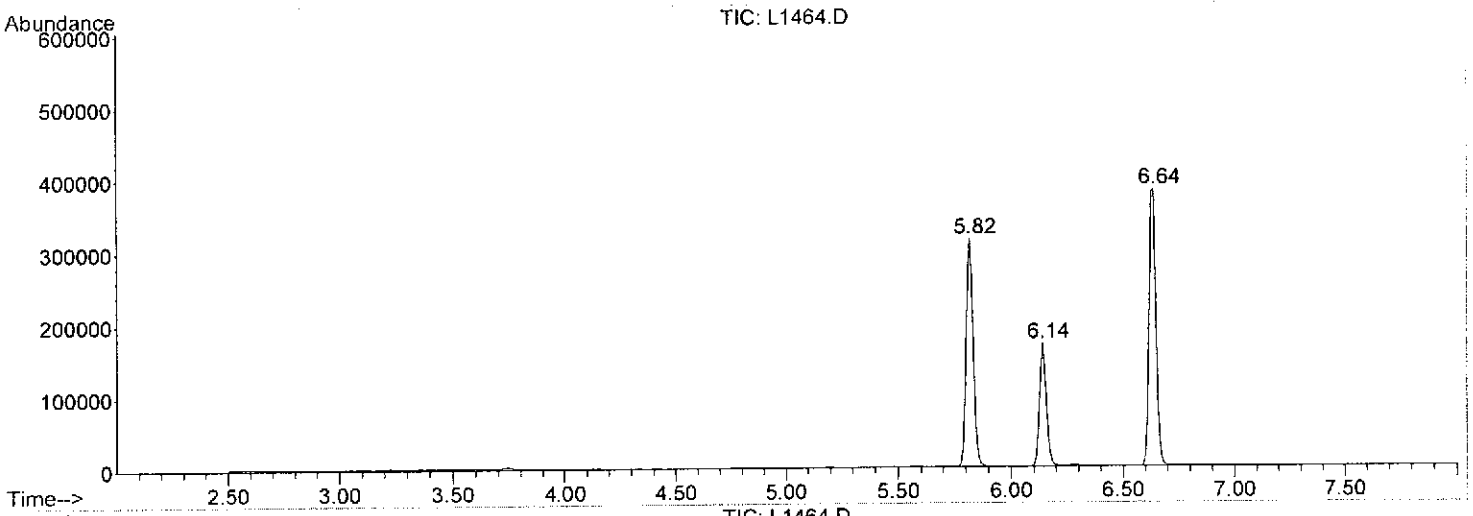
Sum of corrected areas: 4748845

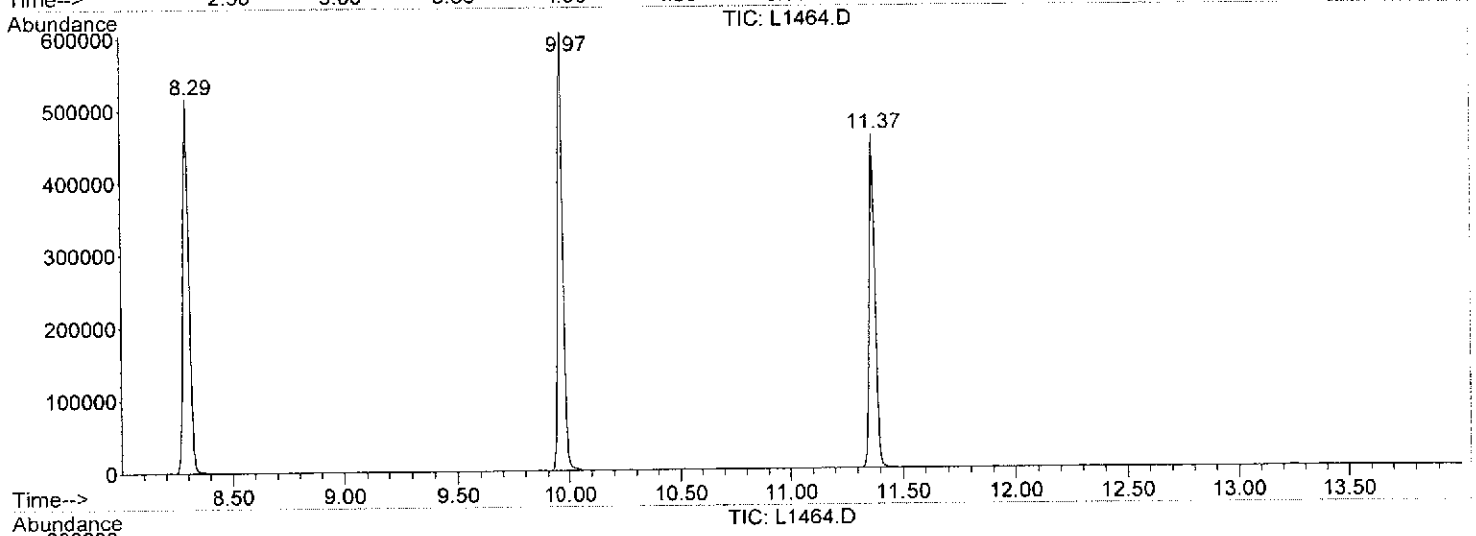
LSC Report - Integrated Chromatogram

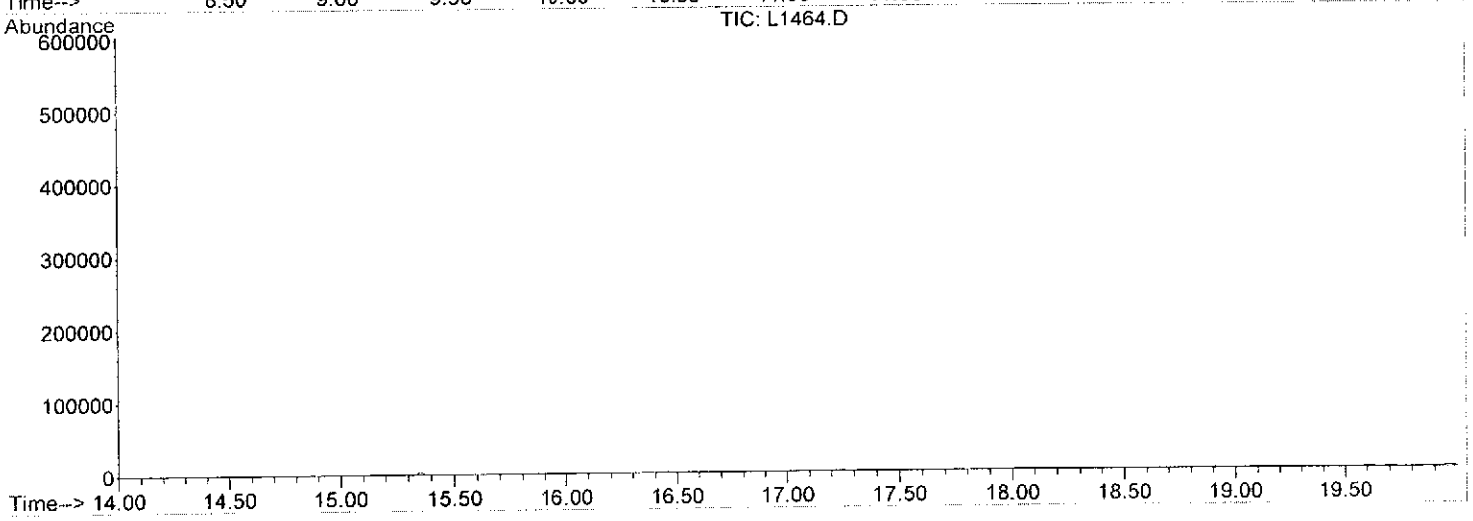
Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1464.D
Acq On : 10 Jul 2012 00:47
Operator : XING
Sample : BLKA120709,BLKA120709,A,5ml,100
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/03/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNAMIX2	AQUEOUS	B8584.D	N/A	N/A	N/A	N/A	N/A	N/A
BLKA120703-08	AQUEOUS	B8594.D	21	13	39	40	37	67
LCSA120703-08	AQUEOUS	B8595.D	18	12	45	47	44	71
E12-06373-002MS	AQUEOUS	B8596.D	35	36	47	42	30	40
E12-06486-001MSD	AQUEOUS	B8597.D	35	36	47	43	30	40
E12-06318-001	AQUEOUS	B8598.D	N/A	N/A	69	80	N/A	120
E12-06318-002	AQUEOUS	B8599.D	N/A	N/A	78	96	N/A	121
E12-06318-003	AQUEOUS	B8600.D	N/A	N/A	78	95	N/A	117
E12-06318-004	AQUEOUS	B8601.D	N/A	N/A	79	100	N/A	121
E12-06373-001	AQUEOUS	B8602.D	N/A	N/A	72	88	N/A	112
E12-06373-002	AQUEOUS	B8603.D	N/A	N/A	70	85	N/A	100
E12-06486-001	AQUEOUS	B8604.D	N/A	N/A	56	70	N/A	97
E12-06537-016	AQUEOUS	B8605.D	15	10	50	65	40	70
E12-06466-009	AQUEOUS	B8606.D	21	12	61	77	56	94
E12-06466-010	AQUEOUS	B8607.D	30	23	62	77	79	99
E12-06466-011	AQUEOUS	B8608.D	31	26	49	61	64	87
E12-06466-012	AQUEOUS	B8609.D	21	12	68	85	54	99

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	35-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
BLKS120709-03	SOIL	C7735.D	66	66	63	70	70	74
LCSS120709-03	SOIL	C7736.D	47	48	43	43	50	53
E12-06466-002MS	SOIL	C7737.D	63	71	47	58	113	101
E12-06466-002MSD	SOIL	C7738.D	63	70	48	57	111	102
E12-06385-001	SOIL	C7739.D	92	96	80	72	104	48
E12-06385-002	SOIL	C7740.D	52	50	42	44	82	34
E12-06385-004	SOIL	C7741.D	63	71	34	52	113	63
E12-06385-006	SOIL	C7742.D	60	64	44	62	96	64
E12-06385-007	SOIL	C7743.D	60	60	40	40	80	40
E12-06385-008	SOIL	C7744.D	62	64	78	60	100	62
E12-06385-009	SOIL	C7745.D	94	100	64	52	110	46
E12-06385-010	SOIL	C7746.D	50	50	30	80	80	50
E12-06385-011	SOIL	C7747.D	N/A	N/A	38	52	N/A	48
E12-06385-012	SOIL	C7748.D	N/A	N/A	30	48	NA	48
E12-06385-013	SOIL	C7749.D	N/A	N/A	60	60	N/A	30
E12-06466-001	SOIL	C7750.D	67	77	56	59	97	89
E12-06466-002	SOIL	C7751.D	65	71	46	52	63	89
E12-06466-003	SOIL	C7752.D	N/A	N/A	37	42	N/A	66
E12-06466-004	SOIL	C7753.D	N/A	N/A	43	60	N/A	64
E12-06466-005	SOIL	C7754.D	N/A	N/A	39	52	N/A	56
E12-06466-006	SOIL	C7755.D	N/A	N/A	40	51	N/A	59

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
E12-06466-007	SOIL	C7756.D	N/A	N/A	41	54	N/A	60
E12-06466-008	SOIL	C7757.D	N/A	N/A	43	71	N/A	57
E12-06413-004	SOIL	C7758.D	N/A	N/A	39	57	N/A	65

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	45-104	25-100
S2 (PHL) = Phenol-d5	52-106	25-108
S3 (NBZ) = Nitrobenzene-d5	57-107	24-91
S4 (FBP) = 2-Fluorobiphenyl	57-126	33-91
S5 (TBP) = 2,4,6-Tribromophenol	30-147	37-115
S6 (TPH) = Terphenyl-d14	68-133	15-122

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120703-08
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8595.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	30.0	19.9	66		40 - 140
Pyridine	30.0	9.8	33		20 - 120
Benzaldehyde	30.0	20.1	67		10 - 110
Phenol	30.0	17.8	59		30 - 140
Aniline	30.0	15.7	52		40 - 140
Bis(2-chloroethyl) ether	30.0	17.8	59		40 - 140
2-Chlorophenol	30.0	17.2	57		30 - 140
1,3-Dichlorobenzene	30.0	18.6	62		40 - 140
1,4-Dichlorobenzene	30.0	17.8	59		40 - 140
Benzyl alcohol	30.0	13.9	46		40 - 140
1,2-Dichlorobenzene	30.0	17.6	59		40 - 140
2-Methylphenol	30.0	31.4	105		30 - 140
Bis(2-chloroisopropyl) ether	30.0	19.2	64		40 - 140
4-Methylphenol	30.0	14.4	48		30 - 140
N-Nitrosodi-n-propylamine	30.0	17.8	59		40 - 140
Acetophenone	30.0	18.6	62		40 - 140
3-Methylphenol	30.0	14.4	48		30 - 140
Hexachloroethane	30.0	17.9	60		40 - 140
Nitrobenzene	30.0	18.2	61		40 - 140
Isophorone	30.0	15.2	51		40 - 140
2-Nitrophenol	30.0	15.0	50		30 - 140
2,4-Dimethylphenol	30.0	13.3	44		30 - 140
Bis(2-chloroethoxy) methane	30.0	16.9	56		40 - 140
Benzoic acid	30.0	11.8	39		30 - 140
2,4-Dimethylaniline	30.0	25.0	83		40 - 140
2,4-Dichlorophenol	30.0	16.6	55		30 - 140
1,2,4-Trichlorobenzene	30.0	16.8	56		40 - 140
Naphthalene	30.0	17.1	57		40 - 140
4-Chloroaniline	30.0	14.8	49		40 - 140
Hexachlorobutadiene	30.0	16.8	56		40 - 140
Caprolactam	30.0	17.7	59		40 - 140
4-Chloro-3-methylphenol	30.0	17.3	58		30 - 140
2-Methylnaphthalene	30.0	15.2	51		40 - 140
Hexachlorocyclopentadiene	30.0	12.1	40		5 - 105
2,4,6-Trichlorophenol	30.0	16.1	54		30 - 140
2,4,5-Trichlorophenol	30.0	14.0	47		30 - 140
1,1'-Biphenyl	30.0	18.1	60		40 - 140
2-Chloronaphthalene	30.0	17.8	59		40 - 140
2-Nitroaniline	30.0	14.4	48		40 - 140
Dimethyl phthalate	30.0	17.8	59		40 - 140
2,6-Dinitrotoluene	30.0	17.2	57		40 - 140
Acenaphthylene	30.0	17.1	57		40 - 140
3-Nitroaniline	30.0	13.8	46		40 - 140
Acenaphthene	30.0	17.8	59		40 - 140
2,4-Dinitrophenol	30.0	13.3	44		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120703-08
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8595.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	30.0	16.0	53		30 - 140
2,4-Dinitrotoluene	30.0	16.4	55		40 - 140
Dibenzofuran	30.0	14.5	48		40 - 140
Diethyl phthalate	30.0	16.5	55		40 - 140
Fluorene	30.0	17.1	57		40 - 140
4-Chlorophenyl phenyl ether	30.0	17.0	57		40 - 140
4-Nitroaniline	30.0	12.6	42		40 - 140
1,2,4,5-Tetrachlorobenzene	30.0	15.4	51		40 - 140
2,3,4,6-Tetrachlorophenol	30.0	20.0	67		40 - 140
4,6-Dinitro-2-methylphenol	30.0	15.5	52		10 - 110
N-Nitrosodiphenylamine	30.0	17.4	58		40 - 140
1,2-Diphenylhydrazine	30.0	18.9	63		40 - 140
4-Bromophenyl phenyl ether	30.0	16.9	56		40 - 140
Hexachlorobenzene	30.0	16.2	54		40 - 140
Atrazine	30.0	19.8	66		20 - 120
Pentachlorophenol	30.0	12.5	42		30 - 140
Phenanthrene	30.0	17.0	57		40 - 140
Anthracene	30.0	16.2	54		40 - 140
Carbazole	30.0	16.5	55		40 - 140
Di-n-butyl phthalate	30.0	14.8	49		40 - 140
Fluoranthene	30.0	14.4	48		40 - 140
Benzidine	30.0	9.6	32		5 - 105
Pyrene	30.0	18.2	61		40 - 140
3,3'-Dimethylbenzidine	30.0	8.4	28		5 - 105
Butyl benzyl phthalate	30.0	14.7	49		40 - 140
3,3'-Dichlorobenzidine	30.0	13.1	44		40 - 140
Benzo[a]anthracene	30.0	16.4	55		40 - 140
Chrysene	30.0	14.4	48		40 - 140
Bis(2-ethylhexyl) phthalate	30.0	13.5	45		40 - 140
Di-n-octyl phthalate	30.0	12.9	43		40 - 140
Benzo[b]fluoranthene	30.0	16.6	55		40 - 140
Benzo[k]fluoranthene	30.0	16.7	56		40 - 140
Benzo[a]pyrene	30.0	21.9	73		40 - 140
Indeno[1,2,3-cd]pyrene	30.0	20.9	70		40 - 140
Dibenz[a,h]anthracene	30.0	20.1	67		40 - 140
Benzo[g,h,i]perylene	30.0	21.3	71		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120709-03
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7736.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	50.0	26.3	53		40 - 140
Pyridine	50.0	15.7	31		20 - 120
Benzaldehyde	50.0	27.8	56		10 - 110
Phenol	50.0	33.1	66		30 - 140
Aniline	50.0	25.5	51		40 - 140
Bis(2-chloroethyl) ether	50.0	29.2	58		40 - 140
2-Chlorophenol	50.0	34.6	69		30 - 140
1,3-Dichlorobenzene	50.0	35.3	71		40 - 140
1,4-Dichlorobenzene	50.0	34.2	68		40 - 140
Benzyl alcohol	50.0	23.1	46		40 - 140
1,2-Dichlorobenzene	50.0	34.9	70		40 - 140
2-Methylphenol	50.0	35.3	71		30 - 140
Bis(2-chloroisopropyl) ether	50.0	29.9	60		40 - 140
4-Methylphenol	50.0	30.4	61		30 - 140
N-Nitrosodi-n-propylamine	50.0	33.6	67		40 - 140
Acetophenone	50.0	33.5	67		40 - 140
3-Methylphenol	50.0	30.4	61		30 - 140
Hexachloroethane	50.0	32.7	65		40 - 140
Nitrobenzene	50.0	31.9	64		40 - 140
Isophorone	50.0	30.4	61		40 - 140
2-Nitrophenol	50.0	36.9	74		30 - 140
2,4-Dimethylphenol	50.0	34.9	70		30 - 140
Bis(2-chloroethoxy) methane	50.0	32.1	64		40 - 140
Benzoic acid	50.0	39.5	79		30 - 140
2,4-Dimethylaniline	50.0	35.8	72		40 - 140
2,4-Dichlorophenol	50.0	36.7	73		30 - 140
1,2,4-Trichlorobenzene	50.0	36.0	72		40 - 140
Naphthalene	50.0	30.8	62		40 - 140
4-Chloroaniline	50.0	28.7	57		40 - 140
Hexachlorobutadiene	50.0	36.1	72		40 - 140
Caprolactam	50.0	32.7	65		40 - 140
4-Chloro-3-methylphenol	50.0	36.5	73		30 - 140
2-Methylnaphthalene	50.0	31.1	62		40 - 140
Hexachlorocyclopentadiene	50.0	2.7	5		5 - 105
2,4,6-Trichlorophenol	50.0	38.6	77		30 - 140
2,4,5-Trichlorophenol	50.0	30.1	60		30 - 140
1,1'-Biphenyl	50.0	34.3	69		40 - 140
2-Chloronaphthalene	50.0	35.4	71		40 - 140
2-Nitroaniline	50.0	27.2	54		40 - 140
Dimethyl phthalate	50.0	35.8	72		40 - 140
2,6-Dinitrotoluene	50.0	40.2	80		40 - 140
Acenaphthylene	50.0	33.5	67		40 - 140
3-Nitroaniline	50.0	32.0	64		40 - 140
Acenaphthene	50.0	33.3	67		40 - 140
2,4-Dinitrophenol	50.0	12.9	26		5 - 105

E12-06466 0186

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120709-03
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7736.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	50.0	30.5	61		30 - 140
2,4-Dinitrotoluene	50.0	40.0	80		40 - 140
Dibenzofuran	50.0	29.8	60		40 - 140
Diethyl phthalate	50.0	36.1	72		40 - 140
Fluorene	50.0	34.6	69		40 - 140
4-Chlorophenyl phenyl ether	50.0	38.2	76		40 - 140
4-Nitroaniline	50.0	31.4	63		40 - 140
1,2,4,5-Tetrachlorobenzene	50.0	23.9	48		40 - 140
2,3,4,6-Tetrachlorophenol	50.0	64.4	129		40 - 140
4,6-Dinitro-2-methylphenol	50.0	21.2	42		10 - 110
N-Nitrosodiphenylamine	50.0	33.4	67		40 - 140
1,2-Diphenylhydrazine	50.0	28.9	58		40 - 140
4-Bromophenyl phenyl ether	50.0	37.8	76		40 - 140
Hexachlorobenzene	50.0	37.7	75		40 - 140
Atrazine	50.0	18.9	38		20 - 120
Pentachlorophenol	50.0	32.7	65		30 - 140
Phenanthrene	50.0	33.3	67		40 - 140
Anthracene	50.0	33.1	66		40 - 140
Carbazole	50.0	35.1	70		40 - 140
Di-n-butyl phthalate	50.0	35.2	70		40 - 140
Fluoranthene	50.0	37.1	74		40 - 140
Benzidine	50.0	11.1	22		5 - 105
Pyrene	50.0	37.8	76		40 - 140
3,3'-Dimethylbenzidine	50.0	14.8	30		5 - 105
Butyl benzyl phthalate	50.0	36.3	73		40 - 140
3,3'-Dichlorobenzidine	50.0	34.7	69		40 - 140
Benzo[a]anthracene	50.0	32.3	65		40 - 140
Chrysene	50.0	30.4	61		40 - 140
Bis(2-ethylhexyl) phthalate	50.0	34.7	69		40 - 140
Di-n-octyl phthalate	50.0	43.2	86		40 - 140
Benzo[b]fluoranthene	50.0	31.9	64		40 - 140
Benzo[k]fluoranthene	50.0	41.5	83		40 - 140
Benzo[a]pyrene	50.0	41.9	84		40 - 140
Indeno[1,2,3-cd]pyrene	50.0	36.9	74		40 - 140
Dibenz[a,h]anthracene	50.0	35.9	72		40 - 140
Benzo[g,h,i]perylene	50.0	33.0	66		40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06373-002
Date Received: 06/27/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
MS Data file: B8596.D
MSD Data file: B8597.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	40.0	0.00	40.40	101		41.00	103		1		40-140/20
Pyridine	40.0	0.00	21.40	54		21.00	53		2		20-120/20
Benzaldehyde	40.0	0.00	35.80	90		36.40	91		2		10-110/20
Phenol	40.0	0.00	36.40	91		36.00	90		1		30-140/20
Aniline	40.0	0.00	31.10	78		31.10	78		0		40-140/20
Bis(2-chloroethyl) ether	40.0	0.00	39.80	100		39.40	99		1		40-140/20
2-Chlorophenol	40.0	0.00	34.70	87		33.80	85		3		30-140/20
1,3-Dichlorobenzene	40.0	0.00	37.80	95		37.40	94		1		40-140/20
1,4-Dichlorobenzene	40.0	0.00	36.00	90		35.70	89		1		40-140/20
Benzyl alcohol	40.0	0.00	27.20	68		27.40	69		1		40-140/20
1,2-Dichlorobenzene	40.0	0.00	35.70	89		34.80	87		3		40-140/20
2-Methylphenol	40.0	0.00	32.10	80		33.00	83		3		30-140/20
Bis(2-chloroisopropyl) ether	40.0	0.00	37.90	95		36.90	92		3		40-140/20
4-Methylphenol	40.0	0.00	29.70	74		29.20	73		2		30-140/20
N-Nitrosodi-n-propylamine	40.0	0.00	35.50	89		34.60	87		3		40-140/20
Acetophenone	40.0	0.00	37.90	95		37.80	95		0		40-140/20
3-Methylphenol	40.0	0.00	29.70	74		29.20	73		2		30-140/20
Hexachloroethane	40.0	0.00	36.50	91		37.00	93		1		40-140/20
Nitrobenzene	40.0	0.00	36.90	92		36.40	91		1		40-140/20
Isophorone	40.0	0.00	30.80	77		30.80	77		0		40-140/20
2-Nitrophenol	40.0	0.00	32.30	81		33.10	83		2		30-140/20
2,4-Dimethylphenol	40.0	0.00	36.80	92		37.50	94		2		30-140/20
Bis(2-chloroethoxy) methane	40.0	0.00	34.80	87		34.40	86		1		40-140/20
Benzoic acid	40.0	0.00	26.30	66		27.20	68		3		30-140/20
2,4-Dimethylaniline	40.0	0.00	53.20	133		53.20	133		0		40-140/20
2,4-Dichlorophenol	40.0	0.00	33.80	85		34.10	85		1		30-140/20
1,2,4-Trichlorobenzene	40.0	0.00	33.60	84		33.60	84		0		40-140/20
Naphthalene	40.0	0.00	34.80	87		34.80	87		0		40-140/20
4-Chloroaniline	40.0	0.00	30.10	75		30.40	76		1		40-140/20
Hexachlorobutadiene	40.0	0.00	33.20	83		33.70	84		1		40-140/20
Caprolactam	40.0	0.00	34.40	86		34.20	86		1		40-140/20
4-Chloro-3-methylphenol	40.0	0.00	35.10	88		36.00	90		3		30-140/20
2-Methylnaphthalene	40.0	0.00	31.10	78		30.90	77		1		40-140/20
Hexachlorocyclopentadiene	40.0	0.00	26.10	65		26.60	67		2		5-105/20
2,4,6-Trichlorophenol	40.0	0.00	32.60	82		33.00	83		1		30-140/20
2,4,5-Trichlorophenol	40.0	0.00	28.30	71		28.90	72		2		30-140/20
1,1'-Biphenyl	40.0	0.00	37.60	94		38.70	97		3		40-140/20
2-Chloronaphthalene	40.0	0.00	36.70	92		36.90	92		1		40-140/20
2-Nitroaniline	40.0	0.00	30.00	75		29.90	75		0		40-140/20
Dimethyl phthalate	40.0	0.00	36.00	90		37.30	93		4		40-140/20
2,6-Dinitrotoluene	40.0	0.00	36.10	90		36.50	91		1		40-140/20
Acenaphthylene	40.0	0.00	34.40	86		35.00	88		2		40-140/20
3-Nitroaniline	40.0	0.00	28.40	71		29.30	73		3		40-140/20
Acenaphthene	40.0	0.00	35.20	88		35.30	88		0		40-140/20
2,4-Dinitrophenol	40.0	0.00	27.40	69		27.70	69		1		5-105/20

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06373-002
Date Received: 06/27/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
MS Data file: B8596.D
MSD Data file: B8597.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	40.0	0.00	32.20	81		31.70	79		2		30-140/20
2,4-Dinitrotoluene	40.0	0.00	33.00	83		32.40	81		2		40-140/20
Dibenzofuran	40.0	0.00	27.80	70		27.70	69		0		40-140/20
Diethyl phthalate	40.0	0.00	32.10	80		32.00	80		0		40-140/20
Fluorene	40.0	0.00	32.40	81		32.70	82		1		40-140/20
4-Chlorophenyl phenyl ether	40.0	0.00	32.50	81		32.10	80		1		40-140/20
4-Nitroaniline	40.0	0.00	24.10	60		23.50	59		3		40-140/20
1,2,4,5-Tetrachlorobenzene	40.0	0.00	20.50	51		20.90	52		2		40-140/20
2,3,4,6-Tetrachlorophenol	40.0	0.00	47.60	119		48.20	121		1		40-140/20
4,6-Dinitro-2-methylphenol	40.0	0.00	25.30	63		26.00	65		3		10-110/20
N-Nitrosodiphenylamine	40.0	0.00	35.00	88		36.40	91		4		40-140/20
1,2-Diphenylhydrazine	40.0	0.00	39.20	98		40.00	100		2		40-140/20
4-Bromophenyl phenyl ether	40.0	0.00	34.90	87		35.30	88		1		40-140/20
Hexachlorobenzene	40.0	0.00	34.30	86		34.50	86		1		40-140/20
Atrazine	40.0	0.00	30.60	77		30.00	75		2		20-120/20
Pentachlorophenol	40.0	0.00	27.70	69		28.20	71		2		30-140/20
Phenanthrene	40.0	0.00	35.00	88		34.90	87		0		40-140/20
Anthracene	40.0	0.00	34.00	85		34.00	85		0		40-140/20
Carbazole	40.0	0.00	34.90	87		33.80	85		3		40-140/20
Di-n-butyl phthalate	40.0	0.00	31.10	78		30.50	76		2		40-140/20
Fluoranthene	40.0	0.00	29.30	73		29.20	73		0		40-140/20
Benzidine	40.0	0.00	13.40	34		13.10	33		2		5-105/20
Pyrene	40.0	0.00	35.90	90		36.00	90		0		40-140/20
3,3'-Dimethylbenzidine	40.0	0.00	17.40	44		17.80	45		2		5-105/20
Butyl benzyl phthalate	40.0	0.00	29.90	75		29.10	73		3		40-140/20
3,3'-Dichlorobenzidine	40.0	0.00	25.50	64		25.90	65		2		40-140/20
Benzo[a]anthracene	40.0	0.00	32.00	80		32.30	81		1		40-140/20
Chrysene	40.0	0.00	29.50	74		28.90	72		2		40-140/20
Bis(2-ethylhexyl) phthalate	40.0	0.00	27.30	68		27.70	69		1		40-140/20
Di-n-octyl phthalate	40.0	0.00	28.20	71		26.10	65		8		40-140/20
Benzo[b]fluoranthene	40.0	0.00	37.90	95		35.20	88		7		40-140/20
Benzo[k]fluoranthene	40.0	0.00	46.30	116		45.30	113		2		40-140/20
Benzo[a]pyrene	40.0	0.00	44.30	111		44.50	111		0		40-140/20
Indeno[1,2,3-cd]pyrene	40.0	0.00	40.00	100		40.20	101		0		40-140/20
Dibenz[a,h]anthracene	40.0	0.00	38.60	97		39.00	98		1		40-140/20
Benzo[g,h,i]perylene	40.0	0.00	40.50	101		40.70	102		0		40-140/20

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06466-002
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
MS Data file: C7737.D
MSD Data file: C7738.D

GC/MS Column: DB-5
Sample wt/vol: 15.09g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.6
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	50.0	0.00	21.00	42		20.50	41		2		40-140/30
Pyridine	50.0	0.00	11.70	23		11.90	24		2		20-120/30
Benzaldehyde	50.0	0.00	8.50	17		8.50	17		0		10-110/30
Phenol	50.0	0.00	27.70	55		28.10	56		1		30-140/30
Aniline	50.0	0.00	21.00	42		21.00	42		0		40-140/30
Bis(2-chloroethyl) ether	50.0	0.00	22.80	46		22.70	45		0		40-140/30
2-Chlorophenol	50.0	0.00	27.70	55		27.20	54		2		30-140/30
1,3-Dichlorobenzene	50.0	0.00	26.20	52		26.00	52		1		40-140/30
1,4-Dichlorobenzene	50.0	0.00	26.30	53		26.10	52		1		40-140/30
Benzyl alcohol	50.0	0.00	21.90	44		22.70	45		4		40-140/30
1,2-Dichlorobenzene	50.0	0.00	26.90	54		27.00	54		0		40-140/30
2-Methylphenol	50.0	0.00	29.50	59		29.30	59		1		30-140/30
Bis(2-chloroisopropyl) ether	50.0	0.00	23.20	46		23.20	46		0		40-140/30
4-Methylphenol	50.0	0.00	27.00	54		27.60	55		2		30-140/30
N-Nitrosodi-n-propylamine	50.0	0.00	29.20	58		29.40	59		1		40-140/30
Acetophenone	50.0	0.00	29.10	58		29.30	59		1		40-140/30
3-Methylphenol	50.0	0.00	27.00	54		27.60	55		2		30-140/30
Hexachloroethane	50.0	0.00	23.80	48		23.90	48		0		40-140/30
Nitrobenzene	50.0	0.00	26.40	53		26.80	54		2		40-140/30
Isophorone	50.0	0.00	29.50	59		29.60	59		0		40-140/30
2-Nitrophenol	50.0	0.00	32.10	64		32.60	65		2		30-140/30
2,4-Dimethylphenol	50.0	0.00	33.10	66		32.90	66		1		30-140/30
Bis(2-chloroethoxy) methane	50.0	0.00	29.20	58		28.80	58		1		40-140/30
Benzoic acid	50.0	0.00	36.35	73		30.63	61		17		30-140/30
2,4-Dimethylaniline	50.0	0.00	34.00	68		34.20	68		1		40-140/30
2,4-Dichlorophenol	50.0	0.00	34.90	70		35.20	70		1		30-140/30
1,2,4-Trichlorobenzene	50.0	0.00	29.70	59		30.10	60		1		40-140/30
Naphthalene	50.0	0.00	27.10	54		27.10	54		0		40-140/30
4-Chloroaniline	50.0	0.00	28.10	56		28.40	57		1		40-140/30
Hexachlorobutadiene	50.0	0.00	29.30	59		29.10	58		1		40-140/30
Caprolactam	50.0	0.00	40.10	80		41.20	82		3		40-140/30
4-Chloro-3-methylphenol	50.0	0.00	40.90	82		41.00	82		0		30-140/30
2-Methylnaphthalene	50.0	0.00	29.00	58		29.10	58		0		40-140/30
Hexachlorocyclopentadiene	50.0	0.00	2.50	5		2.85	6		13		5-105/30
2,4,6-Trichlorophenol	50.0	0.00	40.00	80		44.10	88		10		30-140/30
2,4,5-Trichlorophenol	50.0	0.00	35.70	71		34.40	69		4		30-140/30
1,1'-Biphenyl	50.0	0.00	35.20	70		34.30	69		3		40-140/30
2-Chloronaphthalene	50.0	0.00	35.50	71		35.10	70		1		40-140/30
2-Nitroaniline	50.0	0.00	32.00	64		31.60	63		1		40-140/30
Dimethyl phthalate	50.0	0.00	42.50	85		42.70	85		0		40-140/30
2,6-Dinitrotoluene	50.0	0.00	46.40	93		46.90	94		1		40-140/30
Acenaphthylene	50.0	0.00	35.80	72		36.00	72		1		40-140/30
3-Nitroaniline	50.0	0.00	39.50	79		39.30	79		1		40-140/30
Acenaphthene	50.0	0.00	36.40	73		35.70	71		2		40-140/30
2,4-Dinitrophenol	50.0	0.00	22.80	46		26.40	53		15		5-105/30

E12-06466 0190

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06466-002
Date Received: 06/28/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
MS Data file: C7737.D
MSD Data file: C7738.D

GC/MS Column: DB-5
Sample wt/vol: 15.09g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 19.6
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	50.0	0.00	43.10	86		43.10	86		0		30-140/30
2,4-Dinitrotoluene	50.0	0.00	51.60	103		51.90	104		1		40-140/30
Dibenzofuran	50.0	0.00	33.80	68		33.20	66		2		40-140/30
Diethyl phthalate	50.0	0.00	43.70	87		43.30	87		1		40-140/30
Fluorene	50.0	0.00	39.40	79		40.00	80		2		40-140/30
4-Chlorophenyl phenyl ether	50.0	0.00	44.80	90		43.70	87		2		40-140/30
4-Nitroaniline	50.0	0.00	32.10	64		33.30	67		4		40-140/30
1,2,4,5-Tetrachlorobenzene	50.0	0.00	23.00	46		22.40	45		3		40-140/30
2,3,4,6-Tetrachlorophenol	50.0	0.00	65.00	130		68.78	138		6		40-140/30
4,6-Dinitro-2-methylphenol	50.0	0.00	36.90	74		40.20	80		9		10-110/30
N-Nitrosodiphenylamine	50.0	0.00	42.40	85		41.60	83		2		40-140/30
1,2-Diphenylhydrazine	50.0	0.00	34.70	69		34.10	68		2		40-140/30
4-Bromophenyl phenyl ether	50.0	0.00	45.10	90		44.00	88		2		40-140/30
Hexachlorobenzene	50.0	0.00	47.40	95		48.50	97		2		40-140/30
Atrazine	50.0	0.00	27.10	54		27.40	55		1		20-120/30
Pentachlorophenol	50.0	0.00	48.00	96		49.90	100		4		30-140/30
Phenanthrene	50.0	0.00	41.90	84		42.40	85		1		40-140/30
Anthracene	50.0	0.00	42.40	85		43.70	87		3		40-140/30
Carbazole	50.0	0.00	47.50	95		49.30	99		4		40-140/30
Di-n-butyl phthalate	50.0	0.00	48.10	96		48.90	98		2		40-140/30
Fluoranthene	50.0	0.00	49.40	99		50.50	101		2		40-140/30
Benzidine	50.0	0.00	4.90	10		5.50	11		12		5-105/30
Pyrene	50.0	0.00	53.60	107		54.00	108		1		40-140/30
3,3'-Dimethylbenzidine	50.0	0.00	15.20	30		15.50	31		2		5-105/30
Butyl benzyl phthalate	50.0	0.00	51.80	104		52.90	106		2		40-140/30
3,3'-Dichlorobenzidine	50.0	0.00	48.00	96		47.50	95		1		40-140/30
Benzo[a]anthracene	50.0	0.00	45.40	91		46.90	94		3		40-140/30
Chrysene	50.0	0.00	42.80	86		41.90	84		2		40-140/30
Bis(2-ethylhexyl) phthalate	50.0	0.00	51.30	103		51.50	103		0		40-140/30
Di-n-octyl phthalate	50.0	0.00	58.70	117		63.10	126		7		40-140/30
Benzo[b]fluoranthene	50.0	0.00	44.90	90		47.80	96		6		40-140/30
Benzo[k]fluoranthene	50.0	0.00	59.10	118		57.30	115		3		40-140/30
Benzo[a]pyrene	50.0	0.00	59.40	119		60.80	122		2		40-140/30
Indeno[1,2,3-cd]pyrene	50.0	0.00	52.70	105		51.40	103		2		40-140/30
Dibenz[a,h]anthracene	50.0	0.00	51.80	104		51.10	102		1		40-140/30
Benzo[g,h,i]perylene	50.0	0.00	44.60	89		45.80	92		3		40-140/30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B8594.D

Instrument ID: MSDB

Date Extracted: 07/03/12

Matrix: AQUEOUS

Date Analyzed: 07/03/2012

Time Analyzed: 10:11

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSA120703-08	07/03/2012	10:29
.	E12-06373-002MS	07/03/2012	10:48
.	E12-06486-001MSD	07/03/2012	11:06
MW-1	E12-06318-001	07/03/2012	11:24
MW-2	E12-06318-002	07/03/2012	11:42
MW-3	E12-06318-003	07/04/2012	12:00
H-SUMP-1	E12-06318-004	07/04/2012	12:19
MW-1	E12-06373-001	07/04/2012	12:37
MW-2	E12-06373-002	07/04/2012	12:55
SR-MW6	E12-06486-001	07/04/2012	01:13
GW-1	E12-06537-016	07/04/2012	01:31
B3-06271	E12-06466-009	07/04/2012	01:49
A1-06271	E12-06466-010	07/04/2012	02:08
A2-06271	E12-06466-011	07/04/2012	02:25
A7-06271	E12-06466-012	07/04/2012	02:44

FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: C7739.D

Instrument ID: MSDC

Date Extracted: 07/09/12

Matrix: SOIL

Date Analyzed: 07/10/2012

Time Analyzed: 16:57

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSS120709-03	07/10/2012	16:08
.	E12-06466-002MS	07/10/2012	16:24
.	E12-06466-002MSD	07/10/2012	16:40
G1-06261	E12-06385-001	07/10/2012	16:57
G2-06261	E12-06385-002	07/10/2012	17:13
G8-06261	E12-06385-004	07/10/2012	17:30
G7-06261	E12-06385-006	07/10/2012	17:46
G3-06261	E12-06385-007	07/10/2012	18:03
G6-06261	E12-06385-008	07/10/2012	18:19
G5-06261	E12-06385-009	07/10/2012	18:36
G4-06261	E12-06385-010	07/10/2012	18:53
I3SED-06	E12-06385-011	07/10/2012	19:09
C1-06261	E12-06385-012	07/10/2012	19:26
C2-06261	E12-06385-013	07/10/2012	19:42
B1_(4-5)	E12-06466-001	07/10/2012	19:59
B3_(16-1	E12-06466-002	07/10/2012	20:16
C1_(12.5	E12-06466-003	07/10/2012	20:32
A1_(12-1	E12-06466-004	07/10/2012	20:49
C2_(11-1	E12-06466-005	07/10/2012	21:06
A2_(4-5)	E12-06466-006	07/10/2012	21:22
A7_(2-3)	E12-06466-007	07/10/2012	21:39
I1-06271	E12-06466-008	07/10/2012	21:55
T-4/4.5-	E12-06413-004	07/10/2012	22:12

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8501.D DFTPP Injection Date : 07/02/2012

Inst ID: MSDB DFTPP Injection Time: 09:07

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	31.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	10.5	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	40.0 - 60.0% of mass 198	43.8	
197	Less than 1.0% of mass 198	0.1	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	5.1	
275	10.0 - 30.0% of mass 198	28.2	
365	Greater than 1.0% of mass 198	3.7	
441	Present, but less than mass 443	11.44	(62.4)3
442	40.0 - 100.0% of mass 198	86.1	
443	17.0 - 23.0% of mass 442	18.3	(21.3)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN017-12	ICC001BNA1	B8502.D	07/02/2012	09:18
ABN019-12	ICC010BNA1	B8503.D	07/02/2012	09:36
ABN020-12	ICC020BNA1	B8504.D	07/02/2012	09:54
ABN021-12	ICC040BNA1	B8505.D	07/02/2012	10:11
ABN022-12	ICC080BNA1	B8506.D	07/02/2012	10:29
ABN023-12	ICC120BNA1	B8507.D	07/02/2012	11:05
ABN032-12	ICC120BNA2	B8508.D	07/02/2012	11:23
ABN031-12	ICC080BNA2	B8509.D	07/02/2012	11:41
ABN030-12	ICC040BNA2	B8510.D	07/02/2012	11:59
ABN029-12	ICC020BNA2	B8511.D	07/02/2012	12:17
ABN028-12	ICC010BNA2	B8512.D	07/02/2012	12:35
ABN026-12	ICC001BNA2	B8513.D	07/02/2012	12:53

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8582.D DFTPP Injection Date : 07/03/2012

Inst ID: MSDB DFTPP Injection Time: 07:07

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	41.0	
68	Less than 2.0% of mass 69	0.7	(1.7)1
69	Mass 69 relative abundance	40.5	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	40.0 - 60.0% of mass 198	51.6	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.8	
275	10.0 - 30.0% of mass 198	25.4	
365	Greater than 1.0% of mass 198	3.4	
441	Present, but less than mass 443	11.55	(72.2)3
442	40.0 - 100.0% of mass 198	80.8	
443	17.0 - 23.0% of mass 442	16.0	(19.8)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN088.12	CCV040BNAMIX1	B8583.D	07/03/2012	07:18
ABN089.12	CCV040BNAMIX2	B8584.D	07/03/2012	07:36
.	BLKA120703-08	B8594.D	07/03/2012	10:11
.	LCSA120703-08	B8595.D	07/03/2012	10:29
.	E12-06373-002MS	B8596.D	07/03/2012	10:48
.	E12-06486-001MSD	B8597.D	07/03/2012	11:06
MW-1	E12-06318-001	B8598.D	07/03/2012	11:24
MW-2	E12-06318-002	B8599.D	07/03/2012	11:42
MW-3	E12-06318-003	B8600.D	07/04/2012	12:00
H-SUMP-1	E12-06318-004	B8601.D	07/04/2012	12:19
MW-1	E12-06373-001	B8602.D	07/04/2012	12:37
MW-2	E12-06373-002	B8603.D	07/04/2012	12:55
SR-MW6	E12-06486-001	B8604.D	07/04/2012	01:13
GW-1	E12-06537-016	B8605.D	07/04/2012	01:31
B3-06271	E12-06466-009	B8606.D	07/04/2012	01:49
A1-06271	E12-06466-010	B8607.D	07/04/2012	02:08
A2-06271	E12-06466-011	B8608.D	07/04/2012	02:25
A7-06271	E12-06466-012	B8609.D	07/04/2012	02:44

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7494.D DFTPP Injection Date : 07/02/2012

Inst ID: MSDC DFTPP Injection Time: 11:00

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	47.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	49.9	
70	Less than 2.0% of mass 69	0.4	(0.8)1
127	40.0 - 60.0% of mass 198	56.4	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.4	
275	10.0 - 30.0% of mass 198	23.8	
365	Greater than 1.0% of mass 198	2.6	
441	Present, but less than mass 443	10.61	(82.1)3
442	40.0 - 100.0% of mass 198	66.3	
443	17.0 - 23.0% of mass 442	12.9	(19.5)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN073.12	ICC001BNA1	C7497.D	07/02/2012	11:43
ABN075.12	ICC010BNA1	C7498.D	07/02/2012	12:00
ABN076.12	ICC020BNA1	C7499.D	07/02/2012	12:16
ABN077.12	ICC040BNA1	C7500.D	07/02/2012	12:32
ABN078.12	ICC080BNA1	C7501.D	07/02/2012	12:48
ABN079.12	ICC120BNA1	C7502.D	07/02/2012	13:05
ABN088.12	ICV040BNA1	C7503.D	07/02/2012	13:21
ABN086.12	ICC120BNA2	C7504.D	07/02/2012	13:37
ABN085.12	ICC080BNA2	C7505.D	07/02/2012	13:54
ABN084.12	ICC040BNA2	C7506.D	07/02/2012	14:12
ABN083.12	ICC020BNA2	C7507.D	07/02/2012	14:29
ABN082.12	ICC010BNA2	C7508.D	07/02/2012	14:45
ABN080.12	ICC001BNA2	C7509.D	07/02/2012	15:02
ABN089.12	ICV040BNA2	C7510.D	07/02/2012	15:18

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7716.D DFTPP Injection Date : 07/10/2012

Inst ID: MSDC DFTPP Injection Time: 10:46

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	44.6	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	49.6	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	40.0 - 60.0% of mass 198	58.8	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.1	
275	10.0 - 30.0% of mass 198	25.8	
365	Greater than 1.0% of mass 198	2.8	
441	Present, but less than mass 443	11.74	(74.1)3
442	40.0 - 100.0% of mass 198	76.9	
443	17.0 - 23.0% of mass 442	15.8	(20.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN088.12	CCV040BNA1	C7717.D	07/10/2012	10:57
ABN089.12	CCV040BNA2	C7718.D	07/10/2012	11:13
.	E12-06389-001MS	C7719.D	07/10/2012	11:29
.	E12-06389-001MSD	C7720.D	07/10/2012	11:46
SAMPLE_7	E12-06389-001	C7721.D	07/10/2012	12:02
SAMPLE_7	E12-06389-002	C7722.D	07/10/2012	12:18
SAMPLE_7	E12-06389-003	C7723.D	07/10/2012	12:35
SAMPLE_7	E12-06389-004	C7724.D	07/10/2012	12:51
GPEC-SB-	E12-06507-005	C7725.D	07/10/2012	13:07
GPEC-SB-	E12-06507-003	C7726.D	07/10/2012	13:24
GPEC-SB-	E12-06507-004	C7727.D	07/10/2012	13:40
GPEC-SB-	E12-06507-006	C7728.D	07/10/2012	13:56
GPEC-SB-	E12-06507-011	C7729.D	07/10/2012	14:13
GPEC-SB-	E12-06507-013	C7730.D	07/10/2012	14:29
GPEC-SB-	E12-06507-014	C7731.D	07/10/2012	14:45
GPEC-SB-	E12-06507-004	C7732.D	07/10/2012	15:02
GPEC-SB-	E12-06507-006	C7733.D	07/10/2012	15:18
GPEC-SB-	E12-06507-013	C7734.D	07/10/2012	15:35
.	BLKS120709-03	C7735.D	07/10/2012	15:51
.	LCSS120709-03	C7736.D	07/10/2012	16:08
.	E12-06466-002MS	C7737.D	07/10/2012	16:24
.	E12-06466-002MSD	C7738.D	07/10/2012	16:40
G1-06261	E12-06385-001	C7739.D	07/10/2012	16:57

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: C7716.D DFTPP Injection Date : 07/10/2012

Inst ID: MSDC DFTPP Injection Time: 10:46

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	44.6	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	49.6	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	40.0 - 60.0% of mass 198	58.8	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.1	
275	10.0 - 30.0% of mass 198	25.8	
365	Greater than 1.0% of mass 198	2.8	
441	Present, but less than mass 443	11.74	(74.1)3
442	40.0 - 100.0% of mass 198	76.9	
443	17.0 - 23.0% of mass 442	15.8	(20.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
G2-06261	E12-06385-002	C7740.D	07/10/2012	17:13
G8-06261	E12-06385-004	C7741.D	07/10/2012	17:30
G7-06261	E12-06385-006	C7742.D	07/10/2012	17:46
G3-06261	E12-06385-007	C7743.D	07/10/2012	18:03
G6-06261	E12-06385-008	C7744.D	07/10/2012	18:19
G5-06261	E12-06385-009	C7745.D	07/10/2012	18:36
G4-06261	E12-06385-010	C7746.D	07/10/2012	18:53
I3SED-06	E12-06385-011	C7747.D	07/10/2012	19:09
C1-06261	E12-06385-012	C7748.D	07/10/2012	19:26
C2-06261	E12-06385-013	C7749.D	07/10/2012	19:42
B1_(4-5)	E12-06466-001	C7750.D	07/10/2012	19:59
B3_(16-1	E12-06466-002	C7751.D	07/10/2012	20:16
C1_(12.5	E12-06466-003	C7752.D	07/10/2012	20:32
A1_(12-1	E12-06466-004	C7753.D	07/10/2012	20:49
C2_(11-1	E12-06466-005	C7754.D	07/10/2012	21:06
A2_(4-5)	E12-06466-006	C7755.D	07/10/2012	21:22
A7_(2-3)	E12-06466-007	C7756.D	07/10/2012	21:39
I1-06271	E12-06466-008	C7757.D	07/10/2012	21:55
T-4/4.5-	E12-06413-004	C7758.D	07/10/2012	22:12

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BW1712.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Jul 02 12:14:53 2012
Response Via : Initial Calibration

Calibration Files
1 =B8502.D 10 =B8503.D 20 =B8504.D
40 =B8505.D 80 =B8506.D 120 =B8507.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.890	0.782	0.804	0.736	0.789	0.779	0.797	6.42
3)	T	Pyridine	1.943	1.702	1.833	1.572	1.811	1.684	1.758	7.44
4)	S	2-Fluorophenol	1.283	1.310	1.313	1.261	1.312	1.283	1.294	1.65
5)	T	Benzaldehyde	0.776	0.742	0.665	0.765	0.547	0.859	0.725	14.78
6)	S	Phenol-d5	1.678	1.728	1.684	1.619	1.710	1.683	1.684	2.20
7)	MC	Phenol	1.918	1.696	1.759	1.608	1.719	1.813	1.752	6.05
8)	T	Aniline	0.957	0.843	0.909	0.735	0.863	0.760	0.844	10.10
9)	T	Bis(2-chloroethyl	1.106	0.888	0.956	0.848	0.923	1.029	0.958	9.92
10)	M	2-Chlorophenol	1.709	1.285	1.459	1.299	1.414	1.509	1.446	10.79
11)	T	1,3-Dichlorobenze	1.489	1.367	1.552	1.398	1.568	1.722	1.516	8.52
12)	MC	1,4-Dichlorobenze	1.705	1.367	1.665	1.499	1.649	1.703	1.598	8.54
13)	T	Benzyl alcohol	1.187	1.025	1.180	1.047	1.184	0.946	1.095	9.40
14)	T	1,2-Dichlorobenze	1.736	1.366	1.572	1.421	1.581	1.648	1.554	8.92
15)	T	2-Methylphenol	1.319	1.402	1.625	1.412	1.559	1.306	1.437	8.97
16)	T	Bis(2-chloroisopr	1.790	1.646	1.804	1.586	1.719	1.778	1.721	5.11
17)	T	4-Methylphenol	1.890	1.469	1.639	1.501	1.684	1.430	1.602	10.75
18)	MP	N-Nitrosodi-n-pro	1.221	0.928	1.028	0.904	0.988	1.134	1.034	11.86
19)	T	Acetophenone	2.174	1.794	2.002	1.748	1.932	2.011	1.944	8.02
20)	T	3-Methylphenol	1.890	1.469	1.642	1.502	1.684	1.430	1.603	10.76
21)	T	Hexachloroethane	0.638	0.528	0.578	0.526	0.578	0.603	0.575	7.54
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.320	0.318	0.320	0.333	0.368	0.419	0.346	11.66
25)	T	Nitrobenzene	0.385	0.320	0.345	0.310	0.337	0.357	0.342	7.91
26)	T	Isophorone	0.760	0.596	0.656	0.586	0.631	0.570	0.633	11.03
27)	TC	2-Nitrophenol	0.213	0.166	0.185	0.171	0.197	0.224	0.193	11.96
28)	T	2,4-Dimethylpheno	0.387	0.292	0.340	0.299	0.362	0.410	0.348	13.55
29)	T	Bis(2-chloroethox	0.492	0.366	0.400	0.368	0.398	0.429	0.409	11.48
30)	T	Benzoic acid	0.244	0.220	0.229	0.221	0.245	0.217	0.229	5.35
31)	T	2,4-Dimethylanili	0.719	0.626	0.715	0.525	0.699	0.714	0.666	11.64
32)	TC	2,4-Dichloropheno	0.350	0.270	0.298	0.271	0.297	0.332	0.303	10.71
33)	M	1,2,4-Trichlorobe	0.381	0.294	0.334	0.302	0.336	0.367	0.336	10.19
34)	T	Naphthalene	1.248	0.970	1.080	0.987	1.067	1.145	1.083	9.53
35)	T	4-Chloroaniline	0.754	0.598	0.676	0.584	0.677	0.622	0.652	9.70
36)	T	4-Aminotoluene	1.155	0.932	1.036	0.865	1.101	1.053	1.024	10.50
37)	TC	Hexachlorobutadie	0.237	0.174	0.200	0.181	0.202	0.226	0.203	12.01
38)	T	Caprolactam	0.145	0.127	0.136	0.123	0.131	0.138	0.133	5.97
39)	T	2-Aminotoluene	1.155	0.932	1.036	0.865	1.101	1.031	1.020	10.46
40)	MC	4-Chloro-3-methyl	0.273	0.254	0.292	0.253	0.287	0.307	0.278	7.76
41)	T	2-Methylnaphthale	0.928	0.740	0.850	0.757	0.867	0.834	0.830	8.50
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.500	0.406	0.448	0.414	0.475	0.526	0.461	10.30
45)	TC	2,4,6-Trichloroph	0.462	0.351	0.373	0.345	0.393	0.443	0.394	12.31
46)	T	2,4,5-Trichloroph	0.547	0.451	0.496	0.466	0.511	0.448	0.486	7.96
47)	S	2-Fluorobiphenyl	1.428	1.345	1.317	1.340	1.309	1.384	1.354	3.31
48)	T	1,1'-Biphenyl	1.932	1.429	1.553	1.470	1.666	1.872	1.654	12.68
49)	T	2-Chloronaphthale	1.392	1.058	1.149	1.093	1.235	1.342	1.212	11.17
50)	T	2-Nitroaniline	0.413	0.338	0.360	0.338	0.367	0.322	0.356	9.04
51)	T	Dimethyl phthalat	1.402	1.179	1.290	1.199	1.328	1.405	1.301	7.46
52)	T	2,6-Dinitrotoluen	0.285	0.244	0.277	0.261	0.283	0.314	0.277	8.59
53)	T	Acenaphthylene	2.164	1.660	1.842	1.723	1.906	1.921	[illegible]	[illegible]

54)	T	3-Nitroaniline	0.417	0.336	0.378	0.339	0.371	0.320	0.360	9.88
55)	MC	Acenaphthene	1.235	0.982	1.083	0.988	1.074	1.147	1.085	8.89
56)	TP	2,4-Dinitrophenol	0.104	0.095	0.110	0.103	0.112	0.101	0.104	5.87
57)	MP	4-Nitrophenol	0.279	0.195	0.214	0.193	0.210	0.221	0.219	14.40
58)	M	2,4-Dinitrotoluen	0.390	0.298	0.347	0.320	0.342	0.367	0.344	9.49
59)	T	Dibenzofuran	2.183	1.741	1.914	1.739	1.879	1.632	1.848	10.48
60)	T	Diethyl phthalate	1.455	1.089	1.206	1.094	1.154	1.230	1.205	11.24
61)	T	Fluorene	1.416	1.180	1.276	1.174	1.297	1.399	1.290	8.02
62)	T	4-Chlorophenyl ph	0.710	0.564	0.623	0.561	0.618	0.682	0.626	9.69
63)	T	4-Nitroaniline	0.424	0.352	0.389	0.366	0.415	0.385	0.389	7.18
64)		1,2,4,5-Tetrachlo	1.268	1.033	1.150	1.098	1.248	0.707	1.084	18.91
65)	T	2,3,4,6-Tetrachlo	0.321	0.280	0.261	0.259	0.291	0.285	0.283	8.07
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.107	0.084	0.091	0.084	0.099	0.097	0.094	9.72
68)	TC	N-Nitrosodiphenyl	0.575	0.458	0.521	0.460	0.516	0.578	0.518	10.13
69)	T	1,2-Diphenylhydra	0.653	0.583	0.690	0.603	0.676	0.757	0.660	9.52
70)	S	2,4,6-Tribromophe	0.173	0.165	0.175	0.161	0.167	0.164	0.168	3.20
71)	T	4-Bromophenyl phe	0.267	0.214	0.245	0.220	0.253	0.284	0.247	10.87
72)	T	Hexachlorobenzene	0.335	0.258	0.300	0.266	0.312	0.352	0.304	12.23
73)	T	Atrazine	0.192	0.183	0.197	0.165	0.180	0.154	0.178	9.14
74)	MC	Pentachlorophenol	0.195	0.142	0.158	0.151	0.176	0.205	0.171	14.75
75)	T	Phenanthrene	1.210	0.946	1.085	0.995	1.118	1.230	1.097	10.33
76)	T	Anthracene	1.182	0.977	1.104	1.026	1.201	1.248	1.123	9.45
77)	T	Carbazole	1.118	0.884	1.007	0.919	1.051	1.134	1.019	10.03
78)	T	Di-n-butyl phthal	1.342	1.063	1.202	1.150	1.332	1.447	1.256	11.33
79)	TC	Fluoranthene	1.266	1.010	1.113	1.074	1.227	1.233	1.154	8.92
80)	T	Benzidine	0.358	0.363	0.355	0.326	0.283	0.300	0.331	10.15
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.256	0.980	1.187	1.042	1.148	1.173	1.131	8.98
84)	S	Terphenyl-d14	0.848	0.832	0.861	0.834	0.802	0.872	0.842	2.95
85)	T	3,3'-Dimethylbenz	0.262	0.305	0.238	0.274	0.252	0.214	0.258	12.05
86)	T	Butyl benzyl phth	0.530	0.407	0.484	0.444	0.486	0.462	0.469	8.90
87)	T	3,3'-Dichlorobenz	0.452	0.357	0.382	0.337	0.326	0.357	0.369	12.27
88)	T	Benzo[a]anthracen	1.218	0.930	1.034	0.944	1.034	1.169	1.055	11.07
89)	T	Chrysene	1.073	0.849	0.979	0.890	0.973	1.044	0.968	8.90
90)	T	Bis(2-ethylhexyl)	0.702	0.552	0.658	0.634	0.717	0.600	0.644	9.64
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.165	0.928	1.112	1.043	1.105	1.088	1.074	7.59
94)	T	Benzo[b]fluoranth	1.384	1.012	1.382	1.256	1.299	1.402	1.289	11.43
95)	T	Benzo[k]fluoranth	1.374	1.118	1.396	1.240	1.291	1.204	1.271	8.28
96)	TC	Benzo[a]pyrene	1.261	0.992	1.120	1.003	1.098	1.125	1.100	8.90
97)	T	Indeno[1,2,3-cd]p	1.553	1.282	1.460	1.421	1.605	1.507	1.471	7.73
98)	T	Dibenz[a,h]anthra	1.339	1.097	1.238	1.200	1.371	1.198	1.240	8.13
99)	T	Benzo[g,h,i]peryl	1.294	1.052	1.186	1.143	1.295	1.300	1.212	8.45

(#) = Out of Range

BW1712.M Mon Jul 02 13:19:37 2012 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : B8583.D
Acq On : 3 Jul 2012 7:18 pm
Operator : DANA
Sample : ABN088.12,CCV040BNAMIX1,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 03 20:01:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
2	T	N-Nitrosodimethylamine	0.797	0.803	-0.8	113	0.00
3	T	Pyridine	1.758	1.791	-1.9	118	0.00
4	S	2-Fluorophenol	1.294	1.254	3.1	103	0.00
5	T	Benzaldehyde	0.725	0.608	16.1	82	0.00
6	S	Phenol-d5	1.684	1.619	3.9	104	0.00
7	MC	Phenol	1.752	1.628	7.1	105	0.00
8	T	Aniline	0.844	0.699	17.2	99	0.00
9	T	Bis(2-chloroethyl) ether	0.958	0.873	8.9	107	0.00
10	M	2-Chlorophenol	1.446	1.239	14.3	99	0.00
11	T	1,3-Dichlorobenzene	1.516	1.364	10.0	101	0.00
12	MC	1,4-Dichlorobenzene	1.598	1.489	6.8	103	0.00
13	T	Benzyl alcohol	1.095	0.993	9.3	98	0.00
14	T	1,2-Dichlorobenzene	1.554	1.395	10.2	102	0.00
15	T	2-Methylphenol	1.437	1.417	1.4	104	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.721	1.639	4.8	107	0.00
17	T	4-Methylphenol	1.602	1.483	7.4	103	0.00
18	MP	N-Nitrosodi-n-propylamine	1.034	0.905	12.5	104	0.00
19	T	Acetophenone	1.944	1.800	7.4	107	0.00
20	T	3-Methylphenol	1.603	1.481	7.6	102	0.00
21	T	Hexachloroethane	0.575	0.526	8.5	104	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	106	0.00
24	S	Nitrobenzene-d5	0.346	0.343	0.9	109	0.00
25	T	Nitrobenzene	0.342	0.324	5.3	110	0.00
26	T	Isophorone	0.633	0.582	8.1	105	0.00
27	TC	2-Nitrophenol	0.193	0.166	14.0	103	0.00
28	T	2,4-Dimethylphenol	0.348	0.296	14.9	105	0.00
29	T	Bis(2-chloroethoxy) methane	0.409	0.361	11.7	104	0.00
30	T	Benzoic acid	0.229	0.188	17.9	90	0.00
31	T	2,4-Dimethylaniline	0.666	0.681	-2.3	137	0.00
32	TC	2,4-Dichlorophenol	0.303	0.269	11.2	105	0.00
33	M	1,2,4-Trichlorobenzene	0.336	0.301	10.4	105	0.00
34	T	Naphthalene	1.083	1.011	6.6	108	0.00
35	T	4-Chloroaniline	0.652	0.583	10.6	105	0.00
36	T	4-Aminotoluene	1.024	0.883	13.8	108	0.00
37	TC	Hexachlorobutadiene	0.203	0.182	10.3	106	0.00
38	T	Caprolactam	0.133	0.116	12.8	99	0.00
39	T	2-Aminotoluene	1.020	0.883	13.4	108	0.00
40	MC	4-Chloro-3-methylphenol	0.278	0.252	9.4	105	0.00
41	T	2-Methylnaphthalene	0.830	0.786	5.3	110	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	103	0.00
44	TP	Hexachlorocyclopentadiene	0.461	0.395	14.3	99	0.00
45	TC	2,4,6-Trichlorophenol	0.394	0.330	16.2	99	0.00
46	T	2,4,5-Trichlorophenol	0.486	0.451	7.2	100	0.00

47	S	2-Fluorobiphenyl	1.354	1.418	-4.7	109	0.00
48	T	1,1'-Biphenyl	1.654	1.531	7.4	108	0.00
49	T	2-Chloronaphthalene	1.212	1.103	9.0	104	0.00
50	T	2-Nitroaniline	0.356	0.360	-1.1	110	0.00
51	T	Dimethyl phthalate	1.301	1.224	5.9	106	0.00
52	T	2,6-Dinitrotoluene	0.277	0.260	6.1	103	0.00
53	T	Acenaphthylene	1.869	1.750	6.4	105	0.00
54	T	3-Nitroaniline	0.360	0.326	9.4	100	0.00
55	MC	Acenaphthene	1.085	0.992	8.6	104	0.00
56	TP	2,4-Dinitrophenol	0.104	0.117	-12.5	118	0.00
57	MP	4-Nitrophenol	0.219	0.176	19.6	94	0.00
58	M	2,4-Dinitrotoluene	0.344	0.312	9.3	101	0.00
59	T	Dibenzofuran	1.848	1.737	6.0	103	0.00
60	T	Diethyl phthalate	1.205	1.043	13.4	99	0.00
61	T	Fluorene	1.290	1.182	8.4	104	0.00
62	T	4-Chlorophenyl phenyl ether	0.626	0.560	10.5	103	0.00
63	T	4-Nitroaniline	0.389	0.352	9.5	99	0.00
64		1,2,4,5-Tetrachlorobenzene	1.084	1.176	-8.5	111	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.283	0.240	15.2	96	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	105	-0.01
67	T	4,6-Dinitro-2-methylphenol	0.094	0.091	3.2	113	0.00
68	TC	N-Nitrosodiphenylamine	0.518	0.448	13.5	102	0.00
69	T	1,2-Diphenylhydrazine	0.660	0.622	5.8	108	0.00
70	S	2,4,6-Tribromophenol	0.168	0.160	4.8	104	0.00
71	T	4-Bromophenyl phenyl ether	0.247	0.226	8.5	108	0.00
72	T	Hexachlorobenzene	0.304	0.277	8.9	109	-0.01
73	T	Atrazine	0.178	0.173	2.8	146	0.00
74	MC	Pentachlorophenol	0.171	0.140	18.1	97	-0.01
75	T	Phenanthrene	1.097	1.022	6.8	108	-0.01
76	T	Anthracene	1.123	1.018	9.3	104	-0.02
77	T	Carbazole	1.019	0.915	10.2	104	-0.02
78	T	Di-n-butyl phthalate	1.256	1.075	14.4	98	-0.02
79	TC	Fluoranthene	1.154	1.031	10.7	101	-0.04
80	T	Benzidine	0.331	0.300	9.4	128	-0.04
82	I	Chrysene-d12	1.000	1.000	0.0	90	-0.08
83	M	Pyrene	1.131	1.182	-4.5	103	-0.05
84	S	Terphenyl-d14	0.842	0.953	-13.2	103	-0.05
85	T	3,3'-Dimethylbenzidine	0.258	0.303	-17.4	110	-0.06
86	T	Butyl benzyl phthalate	0.469	0.438	6.6	89	-0.06
87	T	3,3'-Dichlorobenzidine	0.369	0.392	-6.2	105	-0.08
88	T	Benzo[a]anthracene	1.055	1.017	3.6	97	-0.08
89	T	Chrysene	0.968	0.984	-1.7	100	-0.07
90	T	Bis(2-ethylhexyl) phthalate	0.644	0.577	10.4	82	-0.09
92	I	Perylene-d12	1.000	1.000	0.0	71	-0.09
93	TC	Di-n-octyl phthalate	1.074	0.930	13.4	63	-0.09
94	T	Benzo[b]fluoranthene	1.289	1.324	-2.7	75	-0.09
95	T	Benzo[k]fluoranthene	1.271	1.491	-17.3	85	-0.09
96	TC	Benzo[a]pyrene	1.100	1.283	-16.6	91	-0.09
97	T	Indeno[1,2,3-cd]pyrene	1.471	1.604	-9.0	80	-0.09
98	T	Dibenz[a,h]anthracene	1.240	1.375	-10.9	81	-0.10
99	T	Benzo[g,h,i]perylene	1.212	1.368	-12.9	85	-0.10

(#) = Out of Range

BW1712.M Tue Jul 05 09:36:41 2012 MSD_B

Response Factor Report MSD_C

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CS1212.M
Title : BNA CALIBRATION METHOD
Last Update : Thu Jul 05 10:52:35 2012
Response Via : Initial Calibration

Calibration Files
1 =C7497.D 10 =C7498.D 20 =C7499.D
40 =C7500.D 80 =C7501.D 120 =C7502.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	1.193	1.035	1.120	1.103	1.040	0.987	1.080	6.83
3)	T	Pyridine	1.529	1.789	1.939	1.544	2.126	1.683	1.768	13.19
4)	S	2-Fluorophenol	1.382	1.378	1.381	1.337	1.405	1.401	1.381	1.74
5)	T	Benzaldehyde	0.953	1.080	1.143	1.075	0.835	1.011	1.016	10.82
6)	S	Phenol-d5	1.837	1.897	1.896	1.878	1.898	1.880	1.881	1.23
7)	MC	Phenol	2.514	1.762	1.942	1.954	1.964	1.885	2.003	13.02
8)	T	Aniline	1.199	1.031	1.100	0.936	1.024	0.872	1.027	11.31
9)	T	Bis(2-chloroethyl	1.448	1.186	1.307	1.216	1.202	1.180	1.256	8.31
10)	M	2-Chlorophenol	1.921	1.366	1.531	1.534	1.439	1.531	1.554	12.39
11)	T	1,3-Dichlorobenze	1.727	1.398	1.556	1.619	1.569	1.639	1.585	6.93
12)	MC	1,4-Dichlorobenze	1.779	1.378	1.557	1.508	1.499	1.634	1.559	8.75
13)	T	Benzyl alcohol	0.924	0.983	1.109	0.958	1.135	0.867	0.996	10.57
14)	T	1,2-Dichlorobenze	1.671	1.325	1.490	1.488	1.493	1.615	1.514	7.93
15)	T	2-Methylphenol	1.701	1.621	1.747	1.512	1.643	1.420	1.607	7.57
16)	T	Bis(2-chloroisopr	2.411	1.983	2.138	2.048	1.893	1.904	2.063	9.39
17)	T	4-Methylphenol	1.991	1.568	1.746	1.493	1.721	1.432	1.658	12.33
18)	MP	N-Nitrosodi-n-pro	1.081	1.053	1.218	1.230	1.147	1.080	1.135	6.68
19)	T	Acetophenone	2.614	1.958	2.169	2.125	2.002	2.160	2.171	10.75
20)	T	3-Methylphenol	1.991	1.568	1.768	1.513	1.742	1.445	1.671	12.07
21)	T	Hexachloroethane	0.736	0.540	0.598	0.593	0.586	0.606	0.610	10.82
22)	T	2,6-Dimethylpheno							0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.372	0.359	0.377	0.403	0.405	0.450	0.394	8.28
25)	T	Nitrobenzene	0.426	0.365	0.407	0.392	0.384	0.413	0.398	5.52
26)	T	Isophorone	0.685	0.655	0.766	0.679	0.708	0.632	0.687	6.76
27)	TC	2-Nitrophenol	0.193	0.160	0.194	0.196	0.189	0.215	0.191	9.34
28)	T	2,4-Dimethylpheno	0.404	0.303	0.351	0.360	0.350	0.396	0.361	10.15
29)	T	Bis(2-chloroethox	0.585	0.421	0.481	0.493	0.472	0.477	0.488	10.94
30)	T	Benzoic acid	0.075	0.084	0.089	0.075	0.089	0.077	0.081	7.92
31)	T	2,4-Dimethylanili	0.208	0.156	0.180	0.184	0.182	0.209	0.187	10.67
32)	TC	2,4-Dichloropheno	0.307	0.233	0.274	0.277	0.276	0.302	0.278	9.46
33)	M	1,2,4-Trichlorobe	0.317	0.247	0.289	0.300	0.308	0.336	0.300	10.05
34)	T	Naphthalene	1.301	0.945	1.142	1.141	1.160	1.172	1.143	9.98
35)	T	4-Chloroaniline	0.768	0.587	0.696	0.645	0.699	0.638	0.672	9.34
36)	T	4-Aminotoluene	1.368	1.505	1.189	1.643	1.198	1.164	1.345	14.66
37)	TC	Hexachlorobutadie	0.195	0.130	0.155	0.161	0.157	0.175	0.162	13.32
38)	T	Caprolactam	0.195	0.131	0.153	0.155	0.137	0.148	0.153	14.62
39)	T	2-Aminotoluene	1.368	1.505	1.189	1.643	1.198	1.164	1.345	14.66
40)	MC	4-Chloro-3-methyl	0.352	0.247	0.293	0.291	0.282	0.305	0.295	11.53
41)	T	2-Methylnaphthale	0.885	0.692	0.800	0.767	0.810	0.731	0.781	8.61
42)	T	2,5-Dimethylpheno							0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.090	0.070	0.065	0.074	0.090	0.092	0.080	14.74
45)	TC	2,4,6-Trichloroph	0.322	0.259	0.300	0.324	0.323	0.392	0.320	13.51
46)	T	2,4,5-Trichloroph	0.418	0.390	0.428	0.393	0.438	0.394	0.410	4.98
47)	S	2-Fluorobiphenyl	1.206	1.241	1.218	1.252	1.247	1.447	1.269	7.01
48)	T	1,1'-Biphenyl	1.707	1.282	1.461	1.533	1.484	1.764	1.539	11.41
49)	T	2-Chloronaphthale	1.154	0.946	1.054	1.080	1.105	1.224	1.094	8.62
50)	T	2-Nitroaniline	0.464	0.382	0.426	0.382	0.420	0.337	0.4	
51)	T	Dimethyl phthalat	1.325	1.003	1.145	1.188	1.197	1.280	1.190	9.46

52)	T	2,6-Dinitrotoluen	0.262	0.218	0.253	0.255	0.261	0.284	0.255	8.39
53)	T	Acenaphthylene	1.991	1.540	1.741	1.713	1.728	1.847	1.760	8.53
54)	T	3-Nitroaniline	0.384	0.326	0.364	0.337	0.364	0.307	0.347	8.27
55)	MC	Acenaphthene	1.279	0.965	1.107	1.106	1.119	1.214	1.132	9.49
56)	TP	2,4-Dinitrophenol	0.065	0.064	0.063	0.073	0.087	0.084	0.073	14.49
57)	MP	4-Nitrophenol	0.189	0.176	0.208	0.220	0.207	0.220	0.203	8.58
58)	M	2,4-Dinitrotoluen	0.364	0.269	0.321	0.334	0.335	0.338	0.327	9.66
59)	T	Dibenzofuran	2.052	1.619	1.830	1.649	1.837	1.556	1.757	10.49
60)	T	Diethyl phthalate	1.284	1.025	1.168	1.165	1.202	1.180	1.171	7.16
61)	T	Fluorene	1.364	1.058	1.197	1.204	1.298	1.290	1.235	8.68
62)	T	4-Chlorophenyl ph	0.635	0.476	0.541	0.564	0.586	0.614	0.569	9.98
63)	T	4-Nitroaniline	0.422	0.327	0.370	0.341	0.403	0.336	0.366	10.63
64)		1,2,4,5-Tetrachlo	0.780	0.787	0.913	0.681	0.691	0.616	0.745	14.05
65)	T	2,3,4,6-Tetrachlo	0.331	0.283	0.364	0.364	0.250	0.356	0.325	14.71
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.060	0.065	0.065	0.086	0.078	0.081	0.073	14.33
68)	TC	N-Nitrosodiphenyl	0.646	0.516	0.602	0.620	0.628	0.760	0.629	12.56
69)	T	1,2-Diphenylhydra	0.996	0.862	0.990	0.989	0.952	1.105	0.983	7.98
70)	S	2,4,6-Tribromophe	0.123	0.142	0.151	0.145	0.151	0.156	0.145	8.07
71)	T	4-Bromophenyl phe	0.220	0.194	0.221	0.230	0.235	0.284	0.231	12.89
72)	T	Hexachlorobenzene	0.252	0.211	0.249	0.253	0.267	0.309	0.257	12.32
73)	T	Atrazine	0.198	0.166	0.186	0.159	0.170	0.215	0.182	11.63
74)	MC	Pentachlorophenol	0.101	0.090	0.091	0.110	0.117	0.095	0.101	10.79
75)	T	Phenanthrene	1.165	0.920	1.068	1.099	1.128	1.242	1.104	9.80
76)	T	Anthracene	1.246	0.958	1.111	1.121	1.160	1.281	1.146	9.99
77)	T	Carbazole	1.086	0.835	0.979	0.997	1.002	1.138	1.006	10.29
78)	T	Di-n-butyl phthal	1.394	1.098	1.313	1.340	1.353	1.431	1.321	8.86
79)	TC	Fluoranthene	1.095	0.806	0.957	0.978	1.030	1.063	0.988	10.42
80)	T	Benzidine	0.453	0.496	0.506	0.557	0.581	0.669	0.544	14.02
81)		4-Aminoaniline							0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.328	1.152	1.251	1.276	1.187	1.322	1.253	5.70
84)	S	Terphenyl-d14	0.877	0.912	0.854	0.916	0.796	0.838	0.865	5.30
85)	T	3,3'-Dimethylbenz	0.610	0.718	0.752	0.840	0.781	0.879	0.763	12.47
86)	T	Butyl benzyl phth	0.695	0.559	0.608	0.631	0.578	0.651	0.621	8.02
87)	T	3,3'-Dichlorobenz	0.414	0.330	0.375	0.402	0.376	0.398	0.382	7.84
88)	T	Benzo[a]anthracen	1.211	0.927	1.019	1.057	1.015	1.146	1.063	9.56
89)	T	Chrysene	1.037	0.867	0.972	1.028	0.986	1.028	0.986	6.49
90)	T	Bis(2-ethylhexyl)	0.970	0.780	0.867	0.922	0.873	0.965	0.896	8.01
91)	T	3,3'-Dimethoxyben							0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.917	1.699	1.812	2.201	1.540	2.120	1.882	13.33
94)	T	Benzo[b]fluoranth	1.548	1.231	1.374	1.547	1.294	1.794	1.465	14.14
95)	T	Benzo[k]fluoranth	1.325	1.210	1.240	1.674	1.271	1.629	1.391	14.76
96)	TC	Benzo[a]pyrene	1.051	1.156	1.168	1.190	1.092	1.351	1.168	8.87
97)	T	Indeno[1,2,3-cd]p	1.359	1.461	1.650	1.589	1.610	1.995	1.611	13.47
98)	T	Dibenz[a,h]anthra	1.158	1.269	1.374	1.455	1.330	1.668	1.376	12.69
99)	T	Benzo[g,h,i]peryl	1.367	1.219	1.375	1.671	1.290	1.616	1.423	12.70

(#) = Out of Range

CS1212.M Thu Jul 05 10:52:42 2012 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7717.D
Acq On : 10 Jul 2012 10:57
Operator : EDM
Sample : ABN088.12,CCV040BNA1,S,30.00g,0,1
Misc : NA,07/10/12,NA,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Jul 10 11:30:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Min. RRF : 0.000 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	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	76	0.00
2	T	N-Nitrosodimethylamine	1.080	0.912	15.6	63	0.00
3	T	Pyridine	1.768	1.453	17.8	72	0.00
4	S	2-Fluorophenol	1.381	1.385	-0.3	79	0.00
5	T	Benzaldehyde	1.016	0.877	13.7	66	0.00
6	S	Phenol-d5	1.881	1.831	2.7	74	0.00
7	MC	Phenol	2.003	1.829	8.7	71	0.00
8	T	Aniline	1.027	0.982	4.4	80	0.00
9	T	Bis(2-chloroethyl) ether	1.256	1.100	12.4	69	0.00
10	M	2-Chlorophenol	1.554	1.417	8.8	71	0.00
11	T	1,3-Dichlorobenzene	1.585	1.445	8.8	68	0.00
12	MC	1,4-Dichlorobenzene	1.559	1.472	5.6	74	-0.01
13	T	Benzyl alcohol	0.996	0.981	1.5	78	0.00
14	T	1,2-Dichlorobenzene	1.514	1.401	7.5	72	0.00
15	T	2-Methylphenol	1.607	1.871	-16.4	94	-0.01
16	T	Bis(2-chloroisopropyl) ethe	2.063	1.739	15.7	65	0.00
17	T	4-Methylphenol	1.658	1.793	-8.1	92	-0.01
18	MP	N-Nitrosodi-n-propylamine	1.135	0.989	12.9	61	-0.02
19	T	Acetophenone	2.171	1.908	12.1	68	-0.01
20	T	3-Methylphenol	1.671	1.801	-7.8	91	-0.01
21	T	Hexachloroethane	0.610	0.548	10.2	71	-0.01
22	T	2,6-Dimethylphenol	0.000	0.000	0.0	60	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	75	-0.02
24	S	Nitrobenzene-d5	0.394	0.363	7.9	68	-0.01
25	T	Nitrobenzene	0.398	0.349	12.3	67	-0.01
26	T	Isophorone	0.687	0.663	3.5	74	-0.02
27	TC	2-Nitrophenol	0.191	0.193	-1.0	74	-0.01
28	T	2,4-Dimethylphenol	0.361	0.331	8.3	69	-0.01
29	T	Bis(2-chloroethoxy) methane	0.488	0.428	12.3	65	-0.02
30	T	Benzoic acid	0.081	0.093	-14.8	93	-0.02
31	T	2,4-Dimethylaniline	0.187	0.172	8.0	70	-0.01
32	TC	2,4-Dichlorophenol	0.278	0.272	2.2	74	-0.01
33	M	1,2,4-Trichlorobenzene	0.300	0.284	5.3	71	-0.02
34	T	Naphthalene	1.143	1.055	7.7	70	-0.02
35	T	4-Chloroaniline	0.672	0.679	-1.0	79	-0.01
36	T	4-Aminotoluene	1.345	1.114	17.2	51	-0.01
37	TC	Hexachlorobutadiene	0.162	0.158	2.5	74	-0.01
38	T	Caprolactam	0.153	0.128	16.3	62	-0.03
39	T	2-Aminotoluene	1.345	1.114	17.2	51	0.00
40	MC	4-Chloro-3-methylphenol	0.295	0.281	4.7	73	-0.02
41	T	2-Methylnaphthalene	0.781	0.840	-7.6	83	-0.02
42	T	2,5-Dimethylphenol	0.000	0.000	0.0	60	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	75	-0.01
44	TP	Hexachlorocyclopentadiene	0.080	0.072	10.0	73	-0.02

45	TC	2,4,6-Trichlorophenol	0.320	0.304	5.0	70	-0.05
46	T	2,4,5-Trichlorophenol	0.410	0.453	-10.5	86	-0.02
47	S	2-Fluorobiphenyl	1.269	1.291	-1.7	77	-0.02
48	T	1,1'-Biphenyl	1.539	1.453	5.6	71	-0.03
49	T	2-Chloronaphthalene	1.094	1.061	3.0	73	-0.02
50	T	2-Nitroaniline	0.402	0.424	-5.5	83	-0.02
51	T	Dimethyl phthalate	1.190	1.148	3.5	72	-0.03
52	T	2,6-Dinitrotoluene	0.255	0.258	-1.2	76	-0.03
53	T	Acenaphthylene	1.760	1.733	1.5	76	-0.03
54	T	3-Nitroaniline	0.347	0.407	-17.3	90	-0.03
55	MC	Acenaphthene	1.132	1.070	5.5	72	-0.03
56	TP	2,4-Dinitrophenol	0.073	0.081	-11.0	83	0.00
57	MP	4-Nitrophenol	0.203	0.196	3.4	67	-0.03
58	M	2,4-Dinitrotoluene	0.327	0.336	-2.8	75	-0.03
59	T	Dibenzofuran	1.757	1.965	-11.8	89	-0.03
60	T	Diethyl phthalate	1.171	1.127	3.8	72	-0.04
61	T	Fluorene	1.235	1.207	2.3	75	-0.04
62	T	4-Chlorophenyl phenyl ether	0.569	0.562	1.2	74	-0.04
63	T	4-Nitroaniline	0.366	0.413	-12.8	91	-0.04
64		1,2,4,5-Tetrachlorobenzene	0.745	0.611	18.0	67	-0.02
65	T	2,3,4,6-Tetrachlorophenol	0.325	0.271	16.6	56	-0.04
66	I	Phenanthrene-d10	1.000	1.000	0.0	81	-0.05
67	T	4,6-Dinitro-2-methylphenol	0.073	0.068	6.8	63	-0.04
68	TC	N-Nitrosodiphenylamine	0.629	0.555	11.8	72	-0.04
69	T	1,2-Diphenylhydrazine	0.983	0.797	18.9	65	-0.04
70	S	2,4,6-Tribromophenol	0.145	0.154	-6.2	85	-0.04
71	T	4-Bromophenyl phenyl ether	0.231	0.223	3.5	78	-0.04
72	T	Hexachlorobenzene	0.257	0.251	2.3	80	-0.05
73	T	Atrazine	0.182	0.159	12.6	81	-0.05
74	MC	Pentachlorophenol	0.101	0.109	-7.9	80	-0.04
75	T	Phenanthrene	1.104	0.983	11.0	72	-0.05
76	T	Anthracene	1.146	1.050	8.4	75	-0.05
77	T	Carbazole	1.006	0.905	10.0	73	-0.05
78	T	Di-n-butyl phthalate	1.321	1.203	8.9	72	-0.06
79	TC	Fluoranthene	0.988	0.984	0.4	81	-0.08
80	T	Benzidine	0.544	0.446	18.0	75	0.00
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	90	-0.07
83	M	Pyrene	1.253	1.197	4.5	85	-0.09
84	S	Terphenyl-d14	0.865	0.913	-5.5	90	-0.09
85	T	3,3'-Dimethylbenzidine	0.763	0.640	16.1	77	0.00
86	T	Butyl benzyl phthalate	0.621	0.546	12.1	78	-0.07
87	T	3,3'-Dichlorobenzidine	0.382	0.354	7.3	79	-0.06
88	T	Benzo[a]anthracene	1.063	0.929	12.6	79	-0.07
89	T	Chrysene	0.986	0.931	5.6	82	-0.07
90	T	Bis(2-ethylhexyl) phthalate	0.896	0.773	13.7	76	-0.07
91	T	3,3'-Dimethoxybenzidine	0.000	0.000	0.0	0#	-0.01
92	I	Perylene-d12	1.000	1.000	0.0	95	-0.06
93	TC	Di-n-octyl phthalate	1.882	1.776	5.6	77	-0.08
94	T	Benzo[b]fluoranthene	1.465	1.312	10.4	81	-0.08
95	T	Benzo[k]fluoranthene	1.391	1.398	-0.5	80	-0.09
96	TC	Benzo[a]pyrene	1.168	1.151	1.5	92	-0.08
97	T	Indeno[1,2,3-cd]pyrene	1.611	1.581	1.9	95	-0.11
98	T	Dibenz[a,h]anthracene	1.376	1.321	4.0	87	-0.11
99	T	Benzo[g,h,i]perylene	1.423	1.241	12.8	71	-0.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CS1212.M Tue Jul 10 11:30:58 2012 RPT1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8505.D

Date Analyzed: 07/02/2012

Instrument ID: MSDB

Time Analyzed: 10:11

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	24 HOUR STD	239704		3.75		962459		4.52		540708		5.56	
	UPPER LIMIT	479408		4.25		1924918		5.02		1081416		6.06	
	LOWER LIMIT	119852		3.25		481230		4.02		270354		5.06	
	LAB SAMPLE ID												
01	ICC001BNA1	259167		3.75		1050481		4.51		573203		5.56	
02	ICC010BNA1	225499		3.75		905018		4.51		491468		5.56	
03	ICC020BNA1	231123		3.75		950164		4.51		556847		5.56	
04	ICC080BNA1	184187		3.75		741957		4.52		414626		5.56	
05	ICC120BNA1	156562		3.75		623489		4.52		349807		5.56	
06	ICC120BNA2	192144		3.75		778740		4.51		441071		5.55	
07	ICC080BNA2	208755		3.75		855356		4.51		480107		5.56	
08	ICC040BNA2	217086		3.75		882797		4.51		497250		5.56	
09	ICC020BNA2	213269		3.75		869916		4.51		477389		5.56	
10	ICC010BNA2	200968		3.75		819824		4.51		437243		5.56	
11	ICC001BNA2	179502		3.75		744360		4.51		405476		5.56	
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8505.D

Date Analyzed: 07/02/2012

Instrument ID: MSDB

Time Analyzed: 10:11

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	24 HOUR STD	966501		6.46		1003753		8.10		886482		9.47	
	UPPER LIMIT	1933002		6.96		2007506		8.60		1772964		9.97	
	LOWER LIMIT	483251		5.96		501877		7.60		443241		8.97	
	LAB SAMPLE ID												
01	ICC001BNA1	1119768		6.46		1163337		8.07		1055796		9.43	
02	ICC010BNA1	876068		6.46		918570		8.06		839676		9.42	
03	ICC020BNA1	955015		6.46		907353		8.11		784037		9.50	
04	ICC080BNA1	723292		6.46		768377		8.07		701605		9.43	
05	ICC120BNA1	608717		6.46		603936		8.09		445354		9.46	
06	ICC120BNA2	765459		6.46		716417		8.10		529483		9.49	
07	ICC080BNA2	866195		6.46		850691		8.06		738733		9.42	
08	ICC040BNA2	935793		6.46		884928		8.06		743058		9.42	
09	ICC020BNA2	889067		6.46		847005		8.08		716290		9.46	
10	ICC010BNA2	833172		6.46		801874		8.09		681239		9.46	
11	ICC001BNA2	781279		6.46		774336		8.08		661734		9.44	
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8583.D

Date Analyzed: 07/03/2012

Instrument ID: MSDB

Time Analyzed: 07:18

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	248767	3.75	1016022	4.51	559120	5.56
	UPPER LIMIT	497534	4.25	2032044	5.01	1118240	6.06
	LOWER LIMIT	124384	3.25	508011	4.01	279560	5.06
	LAB SAMPLE ID						
01	CCV040BNAMIX2	332193	3.75	1360289	4.51	744644	5.56
02	BLKA120703-08	337235	3.75	1450207	4.51	761912	5.55
03	LCSA120703-08	241301	3.75	1035389	4.51	562339	5.55
04	E12-06373-002MS	146897	3.75	630168	4.51	338691	5.55
05	E12-06486-001MSD	153731	3.75	648150	4.51	342641	5.55
06	E12-06318-001	172823	3.75	717510	4.51	394664	5.55
07	E12-06318-002	170552	3.74	712330	4.51	381312	5.55
08	E12-06318-003	174727	3.74	712336	4.51	392082	5.55
09	E12-06318-004	198848	3.75	833843	4.51	440506	5.55
10	E12-06373-001	156381	3.74	647455	4.51	342982	5.55
11	E12-06373-002	167706	3.74	689961	4.51	367177	5.55
12	E12-06486-001	157584	3.74	664838	4.51	350875	5.55
13	E12-06537-016	179969	3.74	746320	4.51	395670	5.55
14	E12-06466-009	159373	3.74	656391	4.51	346341	5.55
15	E12-06466-010	207187	3.75	838191	4.51	440347	5.55
16	E12-06466-011	194952	3.75	800608	4.51	409478	5.55
17	E12-06466-012	142203	3.74	581907	4.51	296999	5.55
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8583.D Date Analyzed: 07/03/2012

Instrument ID: MSDB Time Analyzed: 07:18

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	1013084	6.45	907112	8.02	629901	9.38
	UPPER LIMIT	2026168	6.95	1814224	8.52	1259802	9.88
	LOWER LIMIT	506542	5.95	453556	7.52	314951	8.88
	LAB SAMPLE ID						
01	CCV040BNAMIX2	1345418	6.45	1002025	8.01	643586	9.38
02	BLKA120703-08	1433880	6.45	1068637	8.01	768866	9.36
03	LCSA120703-08	1009972	6.45	853286	8.01	611148	9.38
04	E12-06373-002MS	589917	6.46	516107	8.06	381620	9.42
05	E12-06486-001MSD	581905	6.46	498680	8.07	385506	9.43
06	E12-06318-001	720636	6.45	546922	7.99	386301	9.34
07	E12-06318-002	686566	6.45	522263	8.00	365055	9.35
08	E12-06318-003	705974	6.45	539220	8.00	375152	9.35
09	E12-06318-004	794197	6.45	611456	8.00	432730	9.36
10	E12-06373-001	628423	6.45	488482	7.99	336836	9.34
11	E12-06373-002	656766	6.45	522709	8.02	368045	9.40
12	E12-06486-001	644005	6.45	457637	7.99	316755	9.34
13	E12-06537-016	686865	6.46	620327	8.09	544918	9.46
14	E12-06466-009	607895	6.45	482716	7.99	379149	9.35
15	E12-06466-010	739102	6.46	621856	8.08	522463	9.45
16	E12-06466-011	693596	6.46	567733	8.11	453282	9.49
17	E12-06466-012	534098	6.45	470188	7.99	318929	9.34
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7497.D

Date Analyzed: 07/02/2012

Instrument ID: MSDC

Time Analyzed: 11:43

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	392961	4.73	308331	6.54	204397	8.03
	UPPER LIMIT	785922	5.23	616662	7.04	408794	8.53
	LOWER LIMIT	196481	4.23	154166	6.04	102199	7.53
	LAB SAMPLE ID						
01	ICC010BNA1	427764	4.75	292877	6.57	198191	8.06
02	ICC020BNA1	381413	4.76	289950	6.59	202850	8.08
03	ICC040BNA1	371457	4.75	279290	6.57	172612	8.06
04	ICC080BNA1	339281	4.77	285644	6.60	227839	8.09
05	ICC120BNA1	309386	4.78	253336	6.62	177206	8.11
06	ICV040BNA1	403131	4.76	312820	6.59	192243	8.08
07	ICC120BNA2	407992	4.75	303005	6.56	181054	8.05
08	ICC080BNA2	404793	4.73	330894	6.55	234861	8.04
09	ICC040BNA2	491356	4.76	367280	6.58	238748	8.06
10	ICC020BNA2	487062	4.75	350506	6.57	228062	8.05
11	ICC010BNA2	514931	4.72	354359	6.52	231556	8.01
12	ICC001BNA2	495472	4.70	348417	6.50	224104	7.98
13	ICV040BNA2	546254	4.72	377200	6.52	237132	8.01
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7497.D

Date Analyzed: 07/02/2012

Instrument ID: MSDC

Time Analyzed: 11:43

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	107050	2.55	439014	3.10	253584	3.94
	UPPER LIMIT	214100	3.05	878028	3.60	507168	4.44
	LOWER LIMIT	53525	2.05	219507	2.60	126792	3.44
	LAB SAMPLE ID						
01	ICC010BNA1	129421	2.55	550672	3.11	302809	3.95
02	ICC020BNA1	118742	2.55	481201	3.11	274238	3.96
03	ICC040BNA1	118760	2.55	476075	3.11	264484	3.95
04	ICC080BNA1	116950	2.55	456455	3.11	247038	3.96
05	ICC120BNA1	123503	2.55	470706	3.12	243557	3.97
06	ICV040BNA1	128459	2.55	511349	3.11	285161	3.96
07	ICC120BNA2	109203	2.55	451543	3.11	256576	3.95
08	ICC080BNA2	108620	2.55	454598	3.10	263735	3.94
09	ICC040BNA2	124879	2.55	524567	3.11	313223	3.96
10	ICC020BNA2	127865	2.55	547714	3.11	322798	3.95
11	ICC010BNA2	133466	2.55	555394	3.10	334465	3.93
12	ICC001BNA2	126572	2.55	532954	3.10	320051	3.92
13	ICV040BNA2	145089	2.55	600107	3.10	353836	3.93
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7717.D

Date Analyzed: 07/10/2012

Instrument ID: MSDC

Time Analyzed: 10:57

	40 ppm	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	90599		2.55		358624		3.10		197480		3.94	
	UPPER LIMIT	181198		3.05		717248		3.60		394960		4.44	
	LOWER LIMIT	45300		2.05		179312		2.60		98740		3.44	
	LAB SAMPLE ID												
01	CCV040BNA2	96131		2.55		394250		3.11		225346		3.95	
02	E12-06389-001MS	112899		2.55		464208		3.10		269488		3.93	
03	E12-06389-001MSD	113793		2.55		459318		3.10		264582		3.94	
04	E12-06389-001	117453		2.55		499779		3.11		283805		3.94	
05	E12-06389-002	117527		2.55		491581		3.11		281006		3.94	
06	E12-06389-003	128966		2.55		542835		3.11		313001		3.94	
07	E12-06389-004	116453		2.55		487750		3.11		284841		3.95	
08	E12-06507-005	115761		2.55		476946		3.11		268426		3.95	
09	E12-06507-003	130851		2.55		582360		3.10		312414		3.94	
10	E12-06507-004	127766		2.56		546119		3.10		304457		3.94	
11	E12-06507-006	124644		2.55		533917		3.11		300435		3.95	
12	E12-06507-011	123976		2.56		538231		3.10		303711		3.95	
13	E12-06507-013	142712		2.55		572152		3.10		317665		3.93	
14	E12-06507-014	127001		2.55		524148		3.11		297096		3.92	
15	E12-06507-004	122359		2.56		521584		3.10		294775		3.93	
16	E12-06507-006	127811		2.56		550049		3.10		306002		3.92	
17	E12-06507-013	150907		2.55		632619		3.10		354896		3.92	
18	BLKS120709-03	108721		2.55		442815		3.11		249810		3.92	
19	LCSS120709-03	137349		2.55		582496		3.10		345565		3.94	
20	E12-06466-002MS	138092		2.55		573151		3.10		336422		3.92	
21	E12-06466-002MSD	138117		2.55		573251		3.10		347819		3.92	
22	E12-06385-001	140275		2.55		538061		3.10		273505		3.91	

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7717.D

Date Analyzed: 07/10/2012

Instrument ID: MSDC

Time Analyzed: 10:57

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	299067	4.74	251704	6.55	164485	8.05
	UPPER LIMIT	598134	5.24	503408	7.05	328970	8.55
	LOWER LIMIT	149534	4.24	125852	6.05	82243	7.55
	LAB SAMPLE ID						
01	CCV040BNA2	346473	4.75	282646	6.56	196842	8.05
02	E12-06389-001MS	397281	4.71	324331	6.52	230677	8.01
03	E12-06389-001MSD	392112	4.72	316480	6.53	230977	8.02
04	E12-06389-001	426406	4.72	360013	6.54	258247	8.03
05	E12-06389-002	411162	4.74	353201	6.56	250199	8.05
06	E12-06389-003	457181	4.73	389568	6.55	282514	8.04
07	E12-06389-004	421677	4.75	351719	6.57	253450	8.06
08	E12-06507-005	385687	4.75	321603	6.57	231863	8.06
09	E12-06507-003	453332	4.73	365848	6.55	269219	8.03
10	E12-06507-004	439298	4.74	361239	6.55	258344	8.05
11	E12-06507-006	440096	4.76	363995	6.59	262586	8.08
12	E12-06507-011	460948	4.75	379926	6.57	269109	8.06
13	E12-06507-013	5441*	4.74	444955	6.52	342101*	8.01
14	E12-06507-014	423479	4.70	384591	6.51	288708	7.99
15	E12-06507-004	425280	4.71	376418	6.50	279034	8.01
16	E12-06507-006	448094	4.70	392110	6.50	286747	8.00
17	E12-06507-013	502420	4.70	452819	6.50	327788	7.99
18	BLKS120709-03	359959	4.69	314168	6.49	219831	7.98
19	LCSS120709-03	542291	4.72	435740	6.53	248811	8.02
20	E12-06466-002MS	518112	4.70	399947	6.50	233463	8.00
21	E12-06466-002MSD	535125	4.69	420955	6.49	232984	7.99
22	E12-06385-001	364153	4.68	366122	6.48	274285	8.02

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7717.D

Date Analyzed: 07/10/2012

Instrument ID: MSDC

Time Analyzed: 10:57

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	90599	2.55	358624	3.10	197480	3.94
	UPPER LIMIT	181198	3.05	717248	3.60	394960	4.44
	LOWER LIMIT	45300	2.05	179312	2.60	98740	3.44
	LAB SAMPLE ID						
01	E12-06385-002	151643	2.55	583301	3.10	295871	3.9
02	E12-06385-004	135534	2.55	542749	3.1	294409	3.91
03	E12-06385-006	128990	2.55	500789	3.1	259629	3.91
04	E12-06385-007	156174	2.55	657016	3.1	390704	3.92
05	E12-06385-008	144785	2.55	557584	3.1	281601	3.92
06	E12-06385-009	147157	2.55	542508	3.1	262793	3.92
07	E12-06385-010	155138	2.55	637531	3.1	201572	3.93
08	E12-06385-011	138176	2.55	503493	3.1	237799	3.94
09	E12-06385-012	127507	2.55	446302	3.1	224054	3.95
10	E12-06385-013	162761	2.55	633294	3.1	327688	3.93
11	E12-06466-001	159000	2.55	592012	3.11	378442	3.95
12	E12-06466-002	94659	2.55	403118	3.1	238975	3.92
13	E12-06466-003	92010	2.56	397393	3.1	235756	3.92
14	E12-06466-004	124336	2.56	501492	3.11	259226	3.92
15	E12-06466-005	119804	2.56	483230	3.11	247321	3.91
16	E12-06466-006	121161	2.56	483903	3.11	251372	3.92
17	E12-06466-007	99619	2.56	411274	3.11	218841	3.91
18	E12-06466-008	133170	2.55	519226	3.1	196401	3.9
19	E12-06413-004	135126	2.56	533957	3.1	266725	3.91
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): C7717.D

Date Analyzed: 07/10/2012

Instrument ID: MSDC

Time Analyzed: 10:57

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	299067	4.74	251704	6.55	164485	8.05
	UPPER LIMIT	598134	5.24	503408	7.05	328970	8.55
	LOWER LIMIT	149534	4.24	125852	6.05	82243	7.55
	LAB SAMPLE ID						
01	E12-06385-002	401246	4.66	435572	6.47	323035	8.04
02	E12-06385-004	393570	4.68	374476	6.47	290611	7.98
03	E12-06385-006	344334	4.67	335877	6.46	264912	7.96
04	E12-06385-007	578826	4.70	423541	6.50	300755	8
05	E12-06385-008	366242	4.69	403861	6.49	308216	8.04
06	E12-06385-009	351434	4.68	436409	6.49	306582	8.06
07	E12-06385-010	292107	4.72	228961	6.53	164497	8.03
08	E12-06385-011	317762	4.73	380324	6.55	281647	8.12
09	E12-06385-012	317539	4.73	356375	6.55	263069	8.11
10	E12-06385-013	443921	4.72	426698	6.54	256590	8.11
11	E12-06466-001	574133	4.76	423958	6.57	239640	8.08
12	E12-06466-002	373800	4.69	286906	6.49	150782	7.99
13	E12-06466-003	378955	4.70	304119	6.51	160498	8.01
14	E12-06466-004	345721	4.69	371235	6.48	274899	7.98
15	E12-06466-005	326375	4.67	346796	6.45	255594	7.96
16	E12-06466-006	326252	4.70	354040	6.49	262261	8.01
17	E12-06466-007	303561	4.67	341552	6.45	251932	7.96
18	E12-06466-008	319662	4.66	355352	6.45	266402	7.98
19	E12-06413-004	339205	4.68	351389	6.47	263280	7.98
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7750.D
Acq On : 10 Jul 2012 19:59
Operator : EDM
Sample : B1_(4-5),E12-06466-001,S,15.03g,18.5,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 11 09:40:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	159000	40.00	UG	0.00
23) Naphthalene-d8	3.11	136	592012m	40.00	UG	-0.01
43) Acenaphthene-d10	3.95	164	378442m	40.00	UG	-0.02
66) Phenanthrene-d10	4.76	188	574133m	40.00	UG	-0.03
82) Chrysene-d12	6.57	240	423958	40.00	UG	-0.05
92) Perylene-d12	8.08	264	239640	40.00	UG	-0.04

System Monitoring Compounds						
4) 2-Fluorophenol	2.04	112	367219	66.91	UG	0.01
Spiked Amount 100.000	Range 25 - 100		Recovery = 66.91%			
6) Phenol-d5	2.38	99	579098	77.45	UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 77.45%			
24) Nitrobenzene-d5	2.79	82	164861	28.24	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 56.48%			
47) 2-Fluorobiphenyl	3.59	172	355370	29.61	UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 59.22%			
70) 2,4,6-Tribromophenol	4.37	330	201745	97.12	UG	-0.02
Spiked Amount 100.000	Range 37 - 115		Recovery = 97.12%			
84) Terphenyl-d14	5.74	244	409411	44.64	UG	-0.06
Spiked Amount 50.000	Range 15 - 122		Recovery = 89.28%			

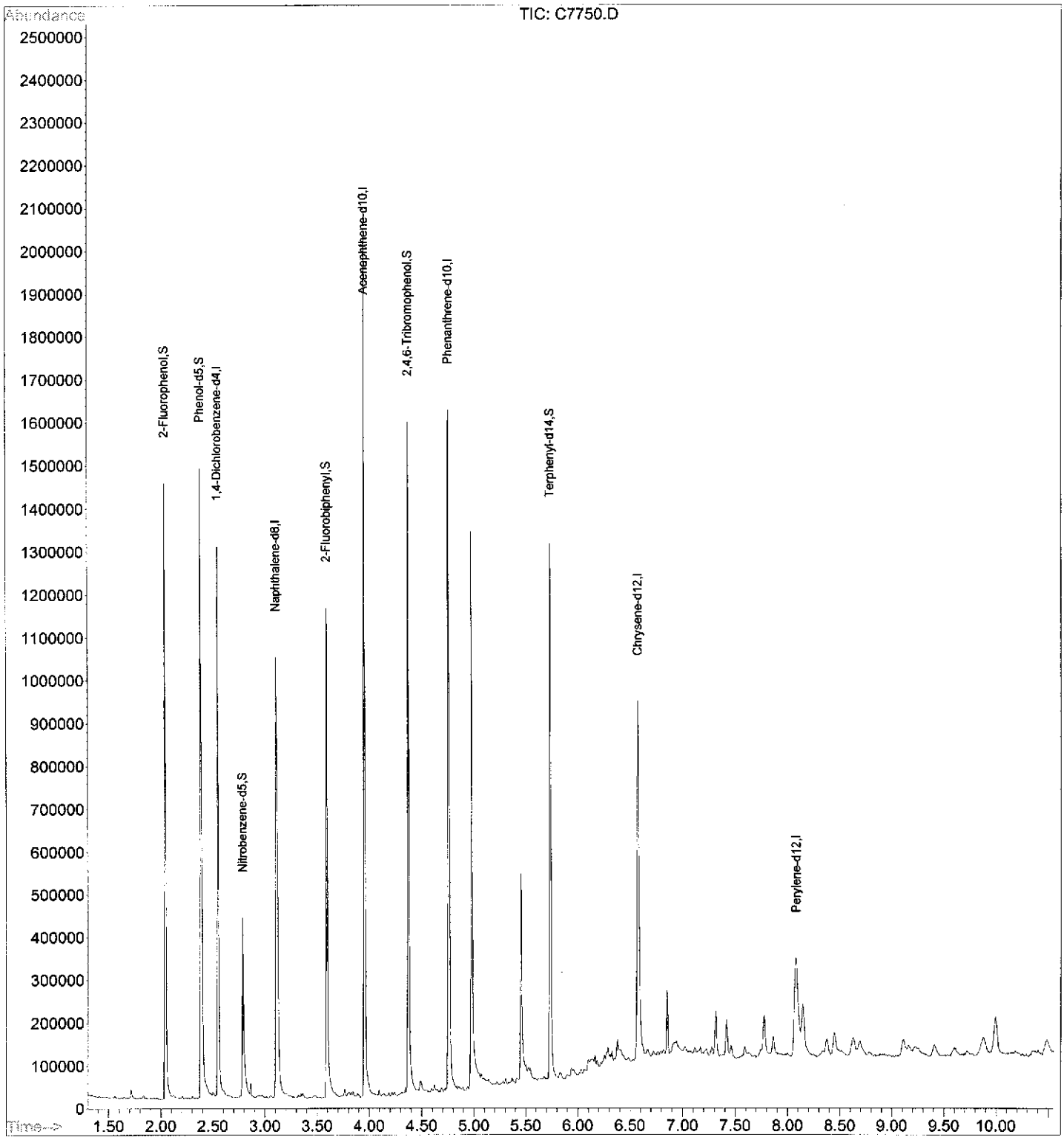
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7750.D
Acq On : 10 Jul 2012 19:59
Operator : EDM
Sample : B1_(4-5),E12-06466-001,S,15.03g,18.5,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 11 09:40:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7751.D
Acq On : 10 Jul 2012 20:16
Operator : EDM
Sample : B3_(16-1,E12-06466-002,S,15.09g,19.6,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 11 10:16:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	94659	40.00	UG	0.00
23) Naphthalene-d8	3.10	136	403118	40.00	UG	-0.02
43) Acenaphthene-d10	3.92	164	238975	40.00	UG	-0.05
66) Phenanthrene-d10	4.69	188	373800	40.00	UG	-0.10
82) Chrysene-d12	6.49	240	286906	40.00	UG	-0.13
92) Perylene-d12	7.99	264	150782	40.00	UG	-0.12
System Monitoring Compounds						
4) 2-Fluorophenol	2.04	112	213761	65.42	UG	0.01
Spiked Amount 100.000	Range 25 - 100		Recovery = 65.42%			
6) Phenol-d5	2.38	99	316645	71.13	UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 71.13%			
24) Nitrobenzene-d5	2.79	82	90549	22.78	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 45.56%			
47) 2-Fluorobiphenyl	3.57	172	196190	25.89	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 51.78%			
70) 2,4,6-Tribromophenol	4.33	330	85570	63.27	UG	-0.07
Spiked Amount 100.000	Range 37 - 115		Recovery = 63.27%			
84) Terphenyl-d14	5.61	244	277264m	44.67	UG	-0.19
Spiked Amount 50.000	Range 15 - 122		Recovery = 89.34%			

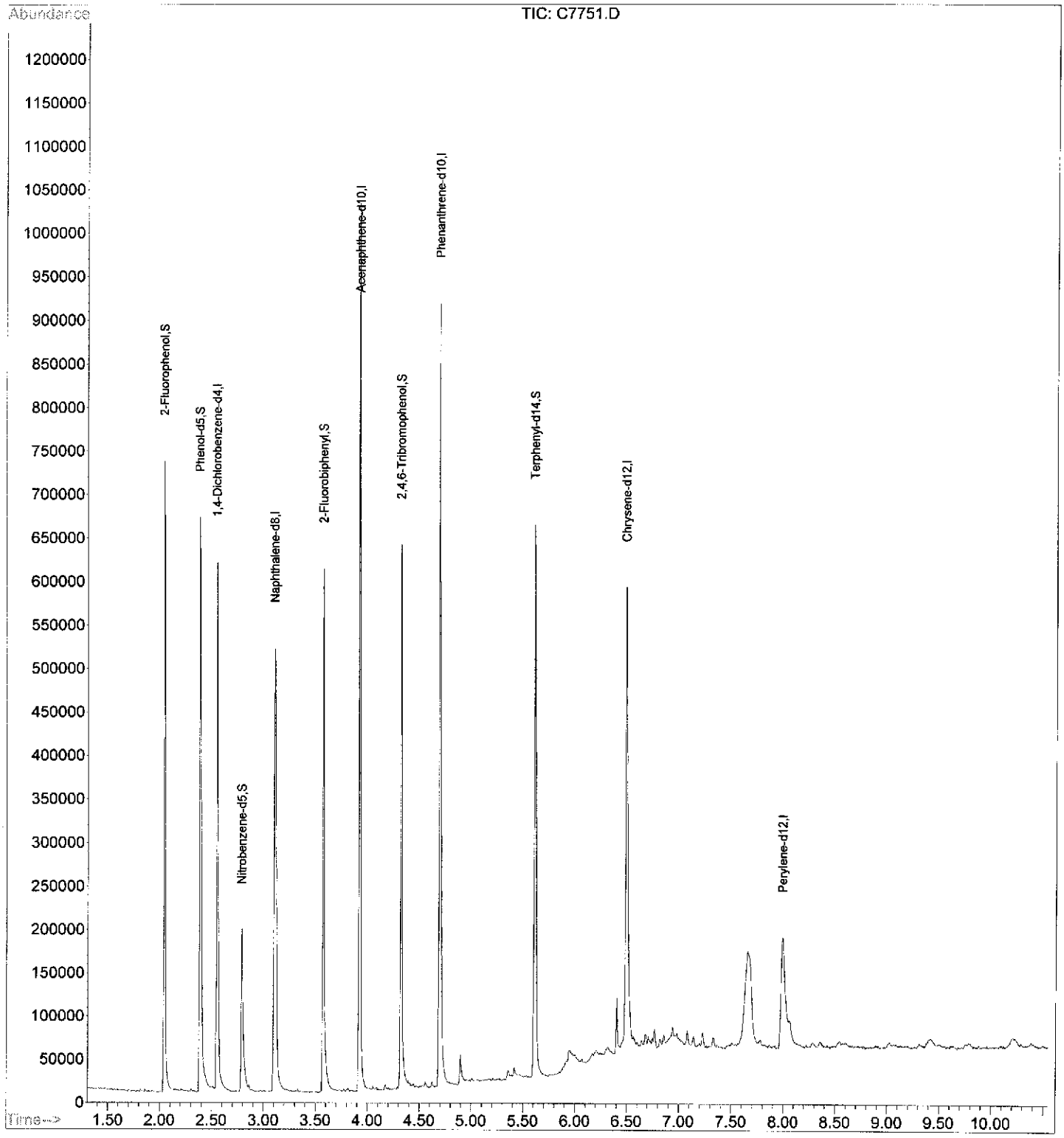
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7751.D
Acq On : 10 Jul 2012 20:16
Operator : EDM
Sample : B3_(16-1,E12-06466-002,S,15.09g,19.6,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 11 10:16:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7752.D
Acq On : 10 Jul 2012 20:32
Operator : EDM
Sample : C1_(12.5,E12-06466-003,S,15.17g,15.7,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 11 10:17:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.56	152	92010	40.00 UG	0.00
23) Naphthalene-d8	3.10	136	397393	40.00 UG	-0.02
43) Acenaphthene-d10	3.92	164	235756	40.00 UG	-0.05
66) Phenanthrene-d10	4.70	188	378955	40.00 UG	-0.09
82) Chrysene-d12	6.51	240	304119	40.00 UG	-0.12
92) Perylene-d12	8.01	264	160498	40.00 UG	-0.11

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#		
6) Phenol-d5	0.00	99	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#		
24) Nitrobenzene-d5	2.79	82	72709	18.56 UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 37.12%		
47) 2-Fluorobiphenyl	3.57	172	158029	21.14 UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 42.28%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00 UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#		
84) Terphenyl-d14	5.63	244	218715	33.24 UG	-0.16
Spiked Amount 50.000	Range 15 - 122		Recovery = 66.48%		

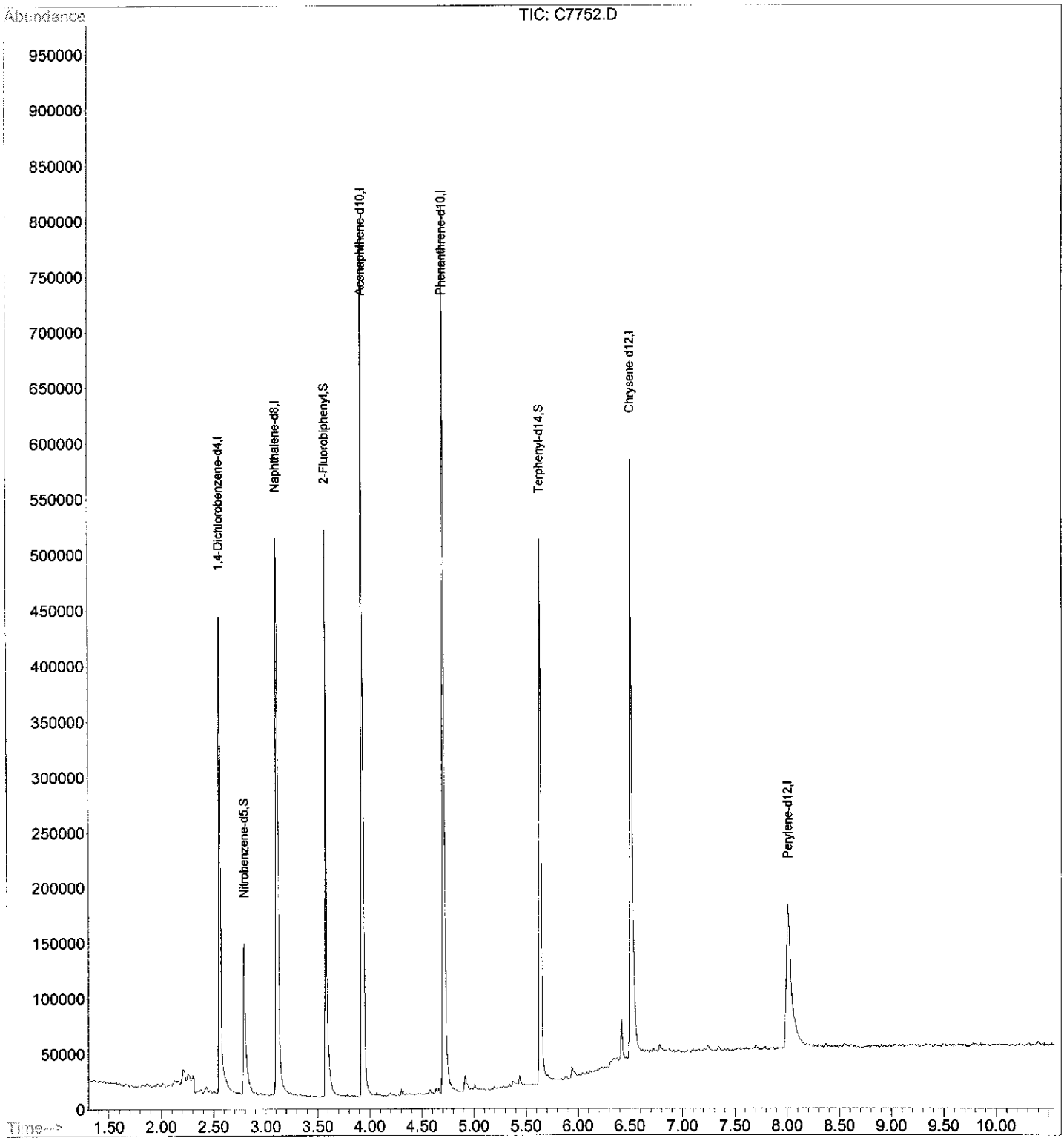
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7752.D
Acq On : 10 Jul 2012 20:32
Operator : EDM
Sample : C1_(12.5,E12-06466-003,S,15.17g,15.7,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 11 10:17:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7753.D
Acq On : 10 Jul 2012 20:49
Operator : EDM
Sample : A1_(12-1,E12-06466-004,S,15.02g,4.70,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 11 09:41:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.56	152	124336	40.00	UG	0.00
23) Naphthalene-d8	3.11	136	501492	40.00	UG	-0.01
43) Acenaphthene-d10	3.92	164	259226	40.00	UG	-0.05
66) Phenanthrene-d10	4.69	188	345721	40.00	UG	-0.10
82) Chrysene-d12	6.48	240	371235	40.00	UG	-0.14
92) Perylene-d12	7.98	264	274899	40.00	UG	-0.13

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.79	82	106804	21.60	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 43.20%			
47) 2-Fluorobiphenyl	3.57	172	245319	29.84	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 59.68%			
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	5.60	244	258116m	32.14	UG	-0.19
Spiked Amount 50.000	Range 15 - 122		Recovery = 64.28%			

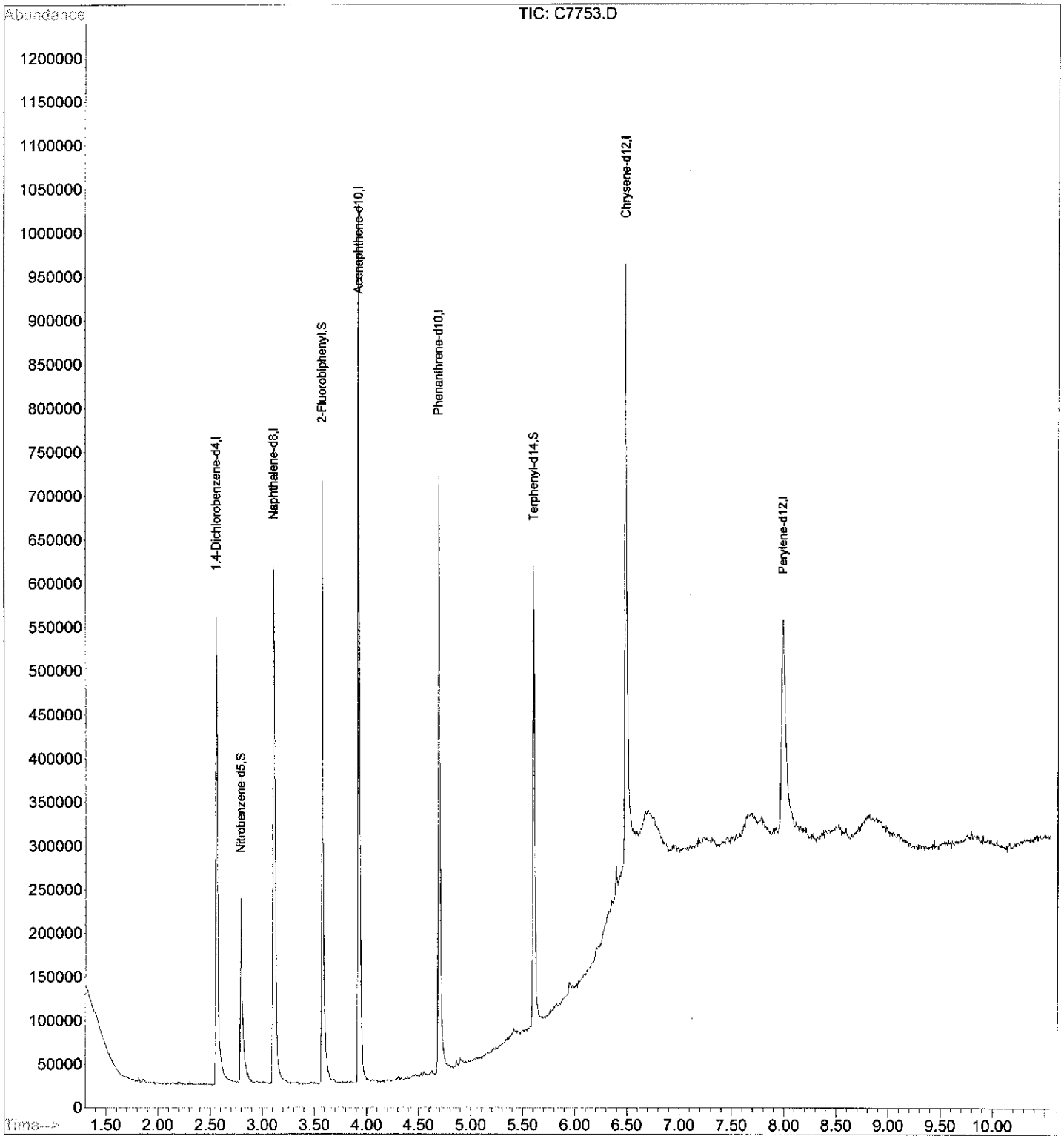
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7753.D
Acq On : 10 Jul 2012 20:49
Operator : EDM
Sample : A1_(12-1,E12-06466-004,S,15.02g,4.70,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 11 09:41:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7754.D
Acq On : 10 Jul 2012 21:06
Operator : EDM
Sample : C2_(11-1,E12-06466-005,S,15.17g,9.00,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 11 09:42:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.56	152	119804	40.00	UG	0.00
23) Naphthalene-d8	3.11	136	483230	40.00	UG	-0.01
43) Acenaphthene-d10	3.91	164	247321	40.00	UG	-0.06
66) Phenanthrene-d10	4.67	188	326375	40.00	UG	-0.12
82) Chrysene-d12	6.45	240	346796	40.00	UG	-0.17
92) Perylene-d12	7.96	264	255594	40.00	UG	-0.15

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.79	82	92097	19.33	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 38.66%			
47) 2-Fluorobiphenyl	3.57	172	204053	26.02	UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 52.04%			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	5.56	244	211818	28.23	UG	-0.24
Spiked Amount 50.000	Range 15 - 122		Recovery = 56.46%			

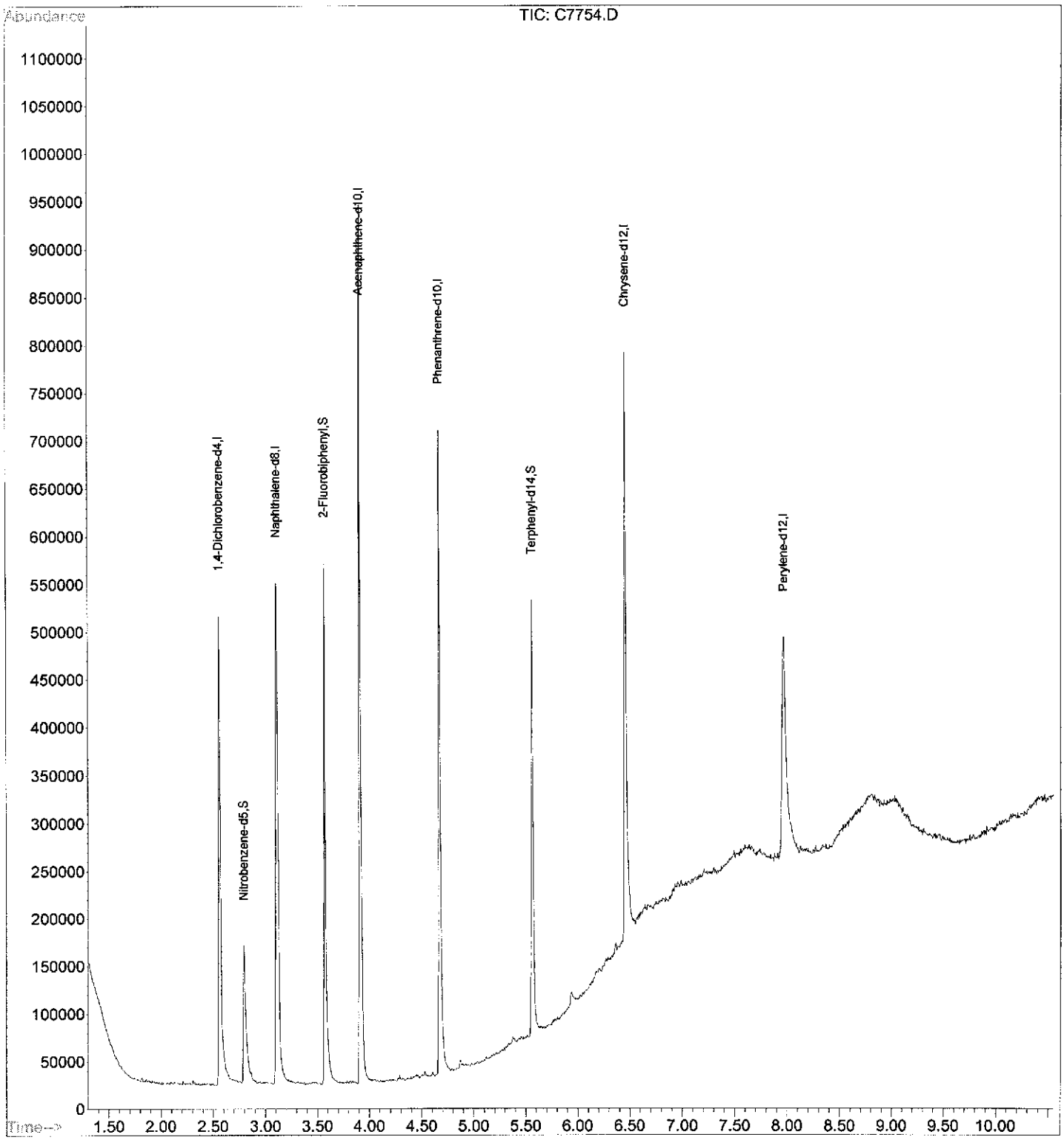
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7754.D
Acq On : 10 Jul 2012 21:06
Operator : EDM
Sample : C2_(11-1,E12-06466-005,S,15.17g,9.00,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 11 09:42:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7755.D
Acq On : 10 Jul 2012 21:22
Operator : EDM
Sample : A2_(4-5),E12-06466-006,S,15.13g,3.40,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 11 09:42:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.56	152	121161	40.00	UG	0.00
23) Naphthalene-d8	3.11	136	483903	40.00	UG	-0.01
43) Acenaphthene-d10	3.92	164	251372	40.00	UG	-0.05
66) Phenanthrene-d10	4.70	188	326252	40.00	UG	-0.09
82) Chrysene-d12	6.49	240	354040	40.00	UG	-0.13
92) Perylene-d12	8.01	264	262261	40.00	UG	-0.11

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.00	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	2.80	82	95599	20.03	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 40.06%			
47) 2-Fluorobiphenyl	3.58	172	205125	25.73	UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 51.46%			
70) 2,4,6-Tribromophenol	0.00	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	5.61	244	226873	29.62	UG	-0.18
Spiked Amount 50.000	Range 15 - 122		Recovery = 59.24%			

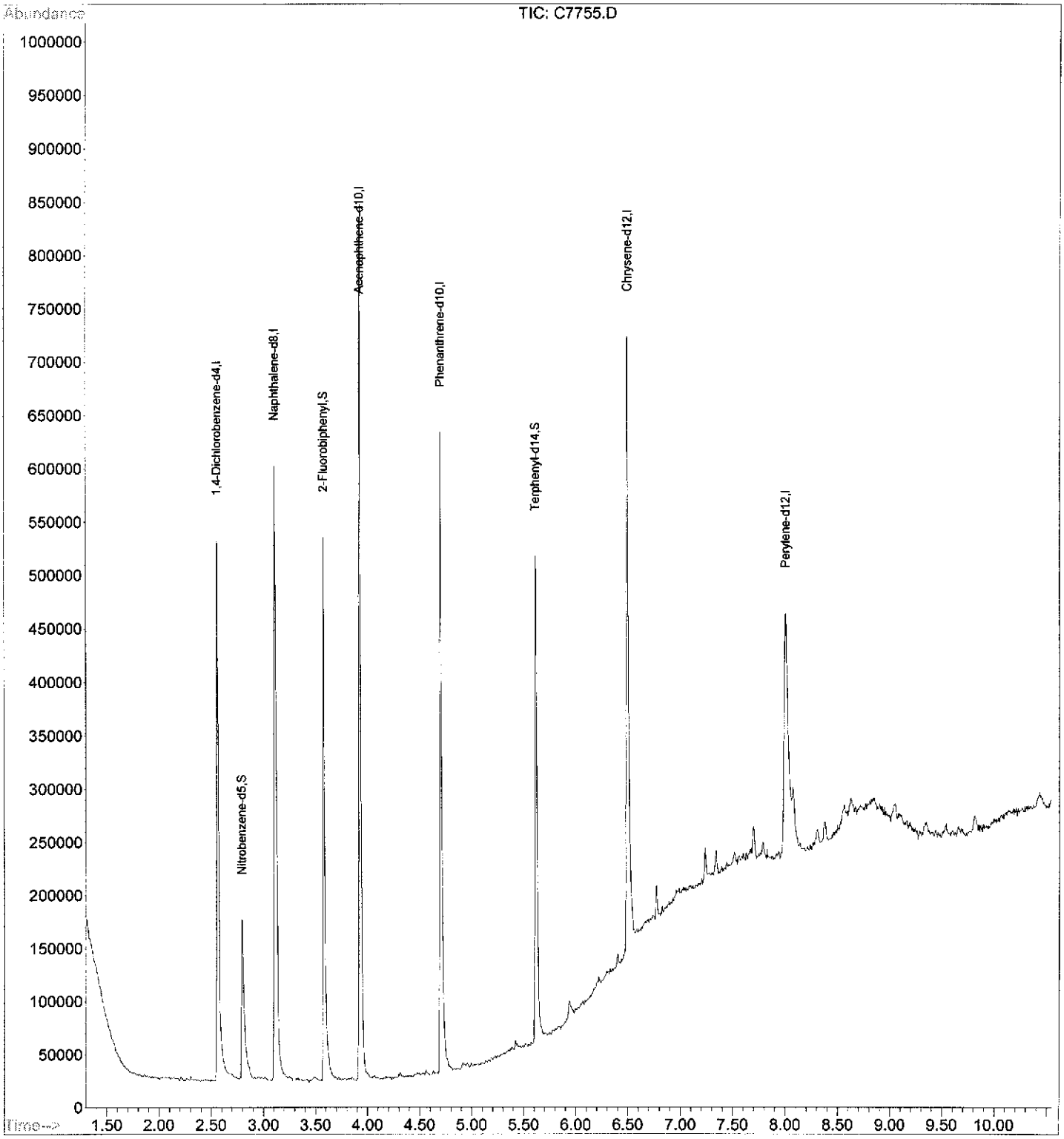
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7755.D
Acq On : 10 Jul 2012 21:22
Operator : EDM
Sample : A2_(4-5),E12-06466-006,S,15.13g,3.40,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 11 09:42:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7756.D
Acq On : 10 Jul 2012 21:39
Operator : EDM
Sample : A7_(2-3),E12-06466-007,S,15.18g,4.30,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 11 09:44:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.56	152	99619	40.00 UG	0.01
23) Naphthalene-d8	3.11	136	411274	40.00 UG	-0.01
43) Acenaphthene-d10	3.91	164	218841	40.00 UG	-0.06
66) Phenanthrene-d10	4.67	188	303561	40.00 UG	-0.12
82) Chrysene-d12	6.45	240	341552	40.00 UG	-0.17
92) Perylene-d12	7.96	264	251932	40.00 UG	-0.15

System Monitoring Compounds					
4) 2-Fluorophenol	0.00	112	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#		
6) Phenol-d5	0.00	99	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#		
24) Nitrobenzene-d5	2.80	82	83339	20.55 UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 41.10%		
47) 2-Fluorobiphenyl	3.57	172	185843	26.78 UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery = 53.56%		
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00 UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#		
84) Terphenyl-d14	5.56	244	219975m	29.77 UG	-0.24
Spiked Amount 50.000	Range 15 - 122		Recovery = 59.54%		

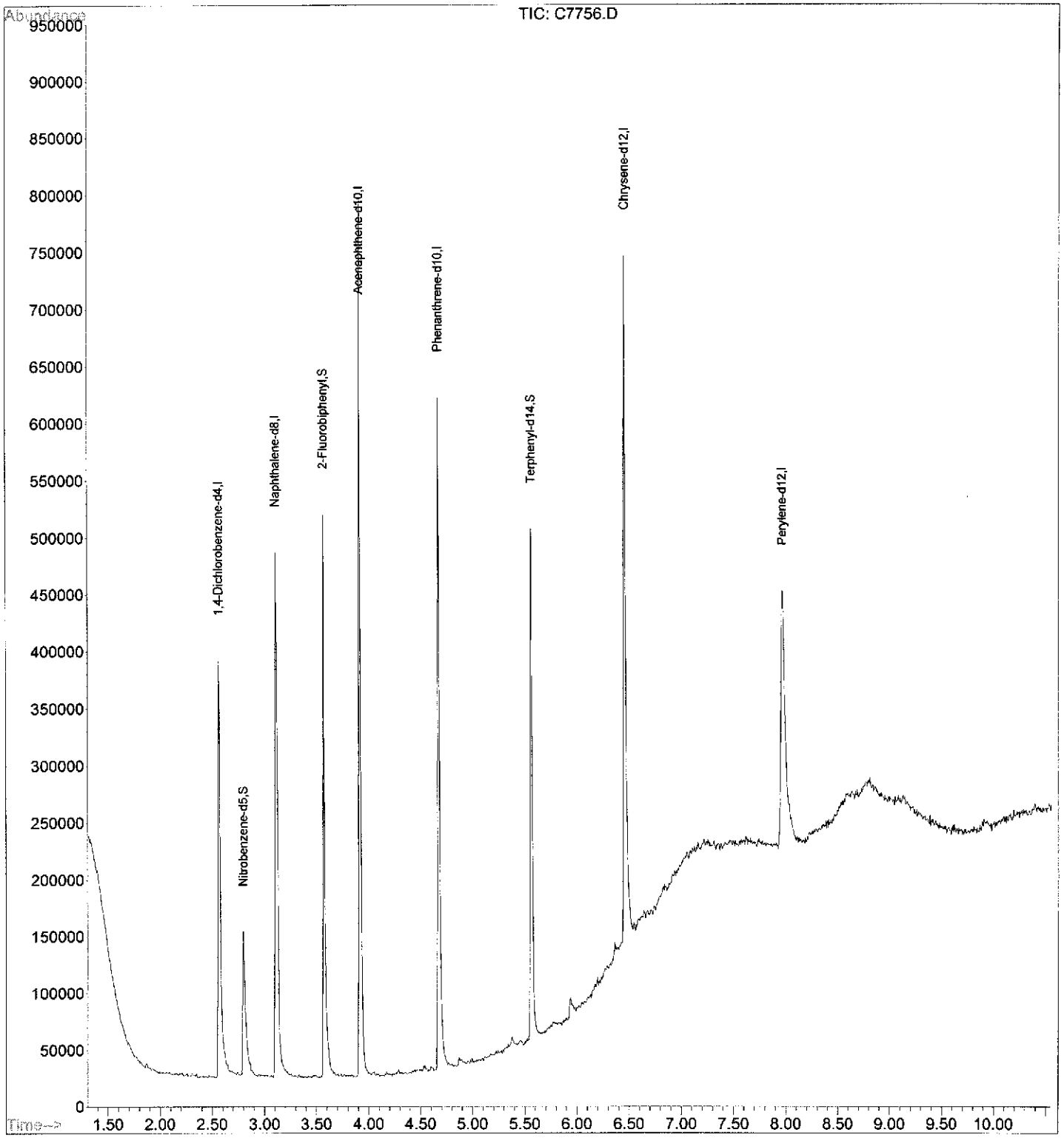
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7756.D
Acq On : 10 Jul 2012 21:39
Operator : EDM
Sample : A7_(2-3),E12-06466-007,S,15.18g,4.30,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 11 09:44:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7757.D
Acq On : 10 Jul 2012 21:55
Operator : EDM
Sample : I1-06271,E12-06466-008,S,15.05g,17.0,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 11 10:20:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	133170	40.00 UG	0.00
23) Naphthalene-d8	3.10	136	519226m	40.00 UG	-0.02
43) Acenaphthene-d10	3.90	164	196401	40.00 UG	-0.07
66) Phenanthrene-d10	4.66	188	319662m	40.00 UG	-0.13
82) Chrysene-d12	6.45	240	355352m	40.00 UG	-0.17
92) Perylene-d12	7.98	264	266402	40.00 UG	-0.13
System Monitoring Compounds					
4) 2-Fluorophenol	0.00	112	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 100		Recovery =	0.00%#	
6) Phenol-d5	0.00	99	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 108		Recovery =	0.00%#	
24) Nitrobenzene-d5	2.78	82	109967	21.48 UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery =	42.96%	
47) 2-Fluorobiphenyl	3.56	172	221515	35.57 UG	-0.04
Spiked Amount 50.000	Range 33 - 91		Recovery =	71.14%	
70) 2,4,6-Tribromophenol	0.00	330	0d	0.00 UG	
Spiked Amount 100.000	Range 37 - 115		Recovery =	0.00%#	
84) Terphenyl-d14	5.55	244	218430m	28.41 UG	-0.25
Spiked Amount 50.000	Range 15 - 122		Recovery =	56.82%	

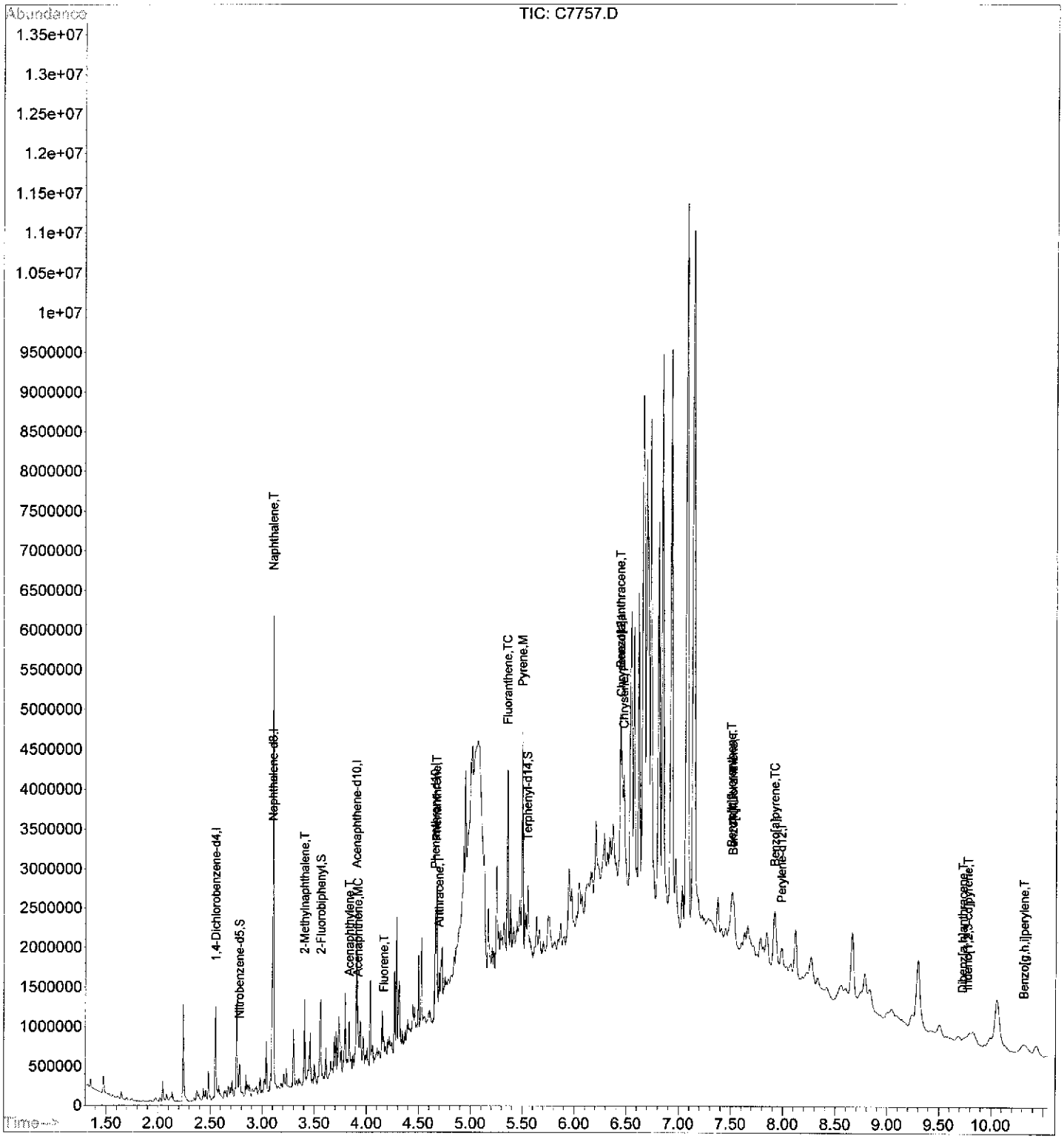
Target Compounds						Qvalue
34) Naphthalene	3.11	128	1616381	108.90 UG	#	54
41) 2-Methylnaphthalene	3.41	142	202211m	19.95 UG		
53) Acenaphthylene	3.83	152	108740	12.58 UG		97
55) Acenaphthene	3.92	153	25901	4.66 UG		89
61) Fluorene	4.17	166	34911	5.76 UG	#	82
75) Phenanthrene	4.67	178	447713m	50.75 UG		
76) Anthracene	4.70	178	169010m	18.45 UG		
79) Fluoranthene	5.36	202	668384m	84.63 UG		
83) Pyrene	5.50	202	971838m	87.32 UG		
88) Benzo[a]anthracene	6.44	228	364338m	38.59 UG		
89) Chrysene	6.47	228	382924m	43.70 UG		
94) Benzo[b]fluoranthene	7.51	252	236433m	24.24 UG		
95) Benzo[k]fluoranthene	7.53	252	267077m	28.82 UG		
96) Benzo[a]pyrene	7.92	252	295810	38.03 UG	#	95
97) Indeno[1,2,3-cd]pyrene	9.77	276	102997	9.60 UG	#	77
98) Dibenz[a,h]anthracene	9.73	278	40241	4.39 UG	#	77
99) Benzo[g,h,i]perylene	10.31	276	94482m	9.97 UG		

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7757.D
Acq On : 10 Jul 2012 21:55
Operator : EDM
Sample : I1-06271,E12-06466-008,S,15.05g,17.0,0.5
Misc : 120709-03,07/09/12,06/28/12,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 11 10:20:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8606.D
Acq On : 4 Jul 2012 1:49 am
Operator : DANA
Sample : B3-06271,E12-06466-009,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 59 Sample Multiplier: 1

Quant Time: Jul 05 09:55:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.74	152	159373	40.00	UG	0.00
23) Naphthalene-d8	4.51	136	656391	40.00	UG	0.00
43) Acenaphthene-d10	5.55	164	346341	40.00	UG	0.00
66) Phenanthrene-d10	6.45	188	607895	40.00	UG	-0.01
82) Chrysene-d12	7.99	240	482716m	40.00	UG	-0.11
92) Perylene-d12	9.35	264	379149	40.00	UG	-0.12

System Monitoring Compounds

4) 2-Fluorophenol	2.93	112	107896	20.93	UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 20.93%			
6) Phenol-d5	3.50	99	80014	11.92	UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 11.92%			
24) Nitrobenzene-d5	4.08	82	173374	30.51	UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 61.02%			
47) 2-Fluorobiphenyl	5.13	172	451601	38.53	UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 77.06%			
70) 2,4,6-Tribromophenol	6.08	330	142667	55.99	UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 55.99%			
84) Terphenyl-d14	7.31	244	476704m	46.94	UG	-0.06
Spiked Amount 50.000	Range 23 - 124		Recovery = 93.88%			

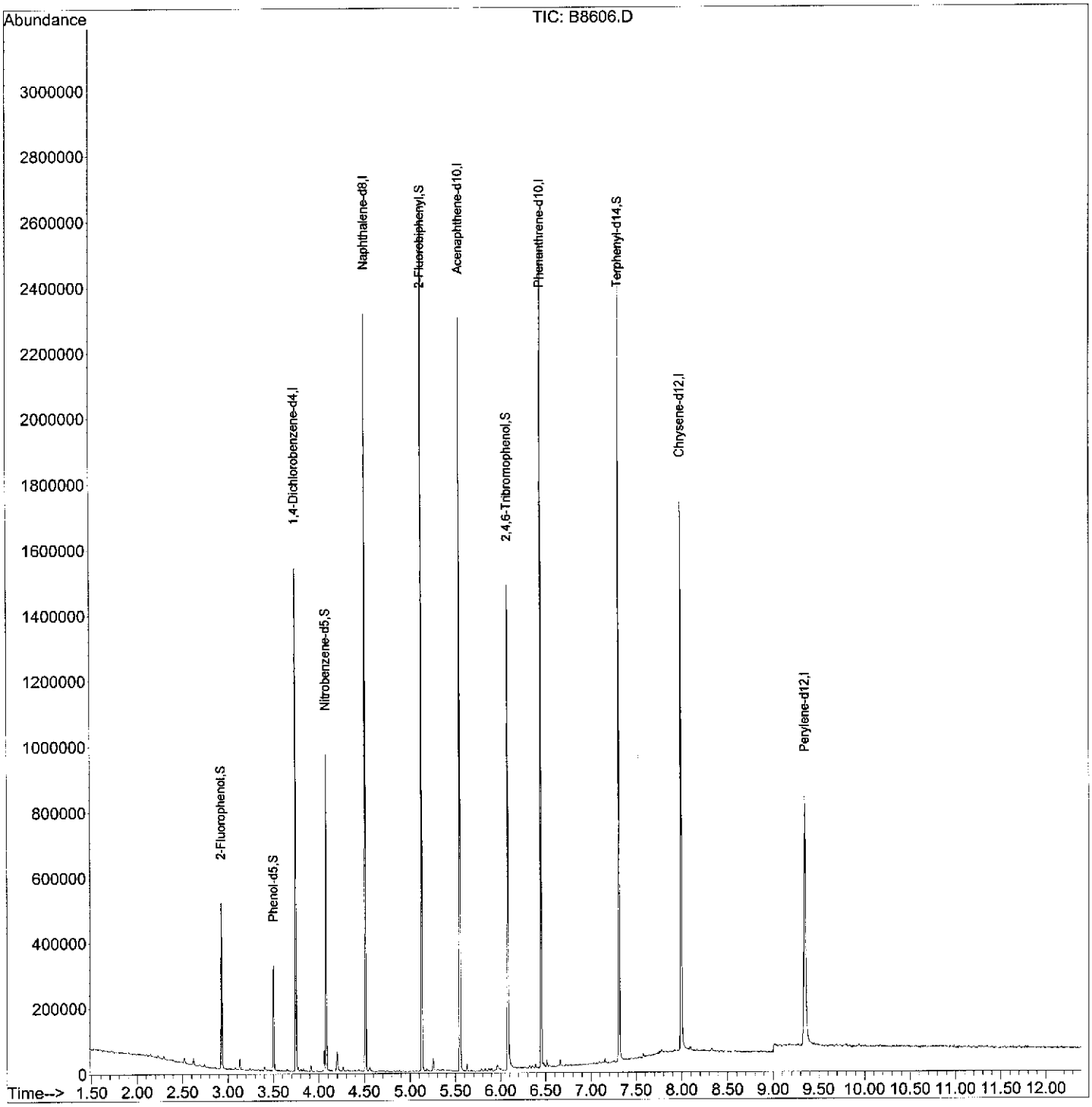
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8606.D
Acq On : 4 Jul 2012 1:49 am
Operator : DANA
Sample : B3-06271,E12-06466-009,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 59 Sample Multiplier: 1

Quant Time: Jul 05 09:55:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8606.D
Acq On : 4 Jul 2012 1:49 am
Operator : DANA
Sample : B3-06271,E12-06466-009,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 59 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BW1712.M Thu Jul 05 10:05:06 2012 MSD_B

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8607.D
Acq On : 4 Jul 2012 2:08 am
Operator : DANA
Sample : A1-06271,E12-06466-010,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 60 Sample Multiplier: 1

Quant Time: Jul 05 09:55:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.75	152	207187	40.00 UG	0.00
23) Naphthalene-d8	4.51	136	838191	40.00 UG	0.00
43) Acenaphthene-d10	5.55	164	440347	40.00 UG	0.00
66) Phenanthrene-d10	6.46	188	739102	40.00 UG	0.00
82) Chrysene-d12	8.08	240	621856	40.00 UG	-0.02
92) Perylene-d12	9.45	264	522463	40.00 UG	-0.02

System Monitoring Compounds

4) 2-Fluorophenol	2.93	112	202327m	30.19 UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 30.19%		
6) Phenol-d5	3.50	99	202248m	23.19 UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 23.19%		
24) Nitrobenzene-d5	4.08	82	226379	31.20 UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 62.40%		
47) 2-Fluorobiphenyl	5.13	172	574598	38.55 UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 77.10%		
70) 2,4,6-Tribromophenol	6.08	330	245182	79.14 UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 79.14%		
84) Terphenyl-d14	7.36	244	647311	49.48 UG	-0.01
Spiked Amount 50.000	Range 23 - 124		Recovery = 98.96%		

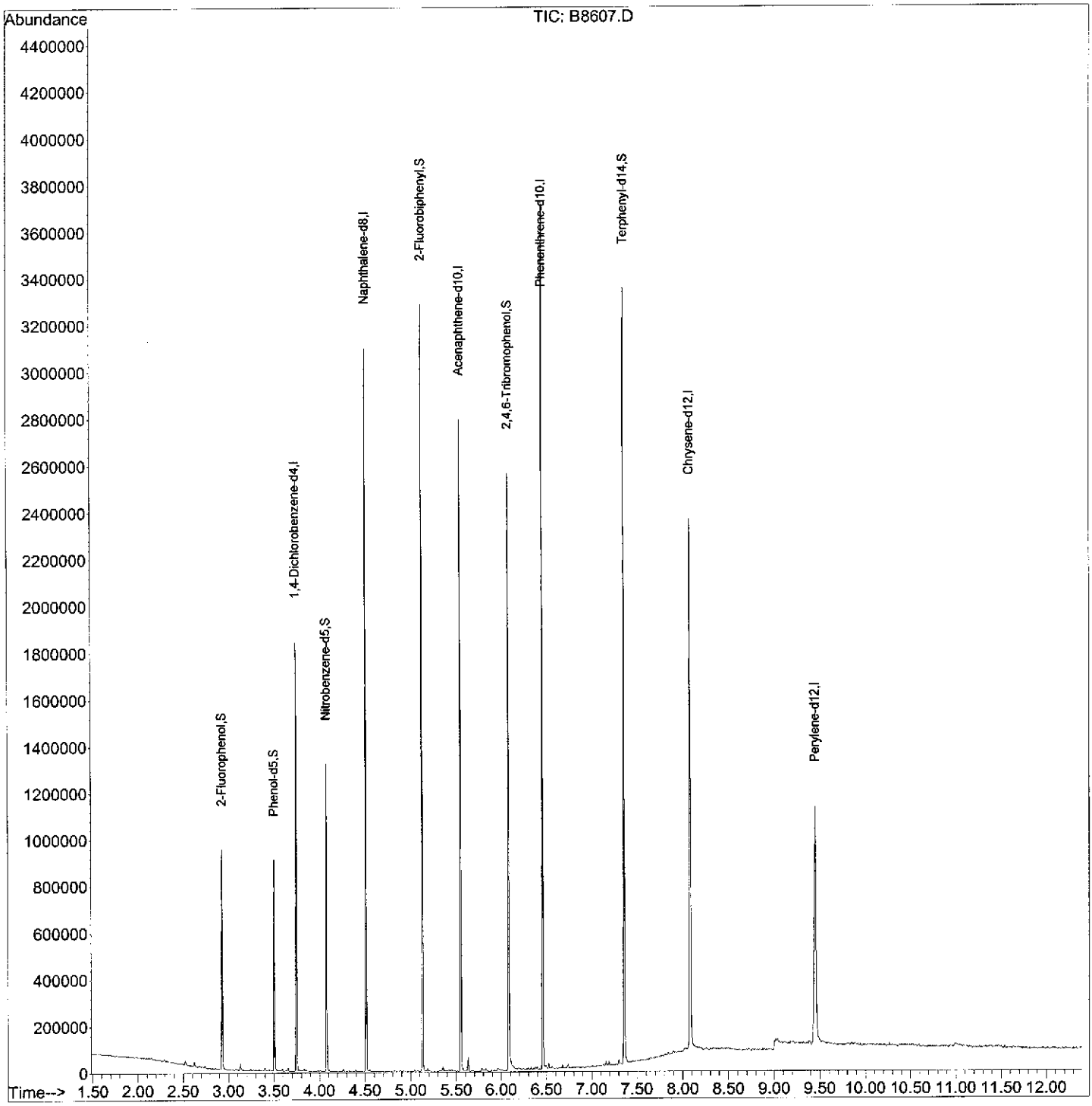
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8607.D
Acq On : 4 Jul 2012 2:08 am
Operator : DANA
Sample : A1-06271,E12-06466-010,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 60 Sample Multiplier: 1

Quant Time: Jul 05 09:55:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8607.D
Acq On : 4 Jul 2012 2:08 am
Operator : DANA
Sample : A1-06271,E12-06466-010,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 60 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BW1712.M Thu Jul 05 10:05:13 2012 MSD_B

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8608.D
Acq On : 4 Jul 2012 2:25 am
Operator : DANA
Sample : A2-06271,E12-06466-011,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 61 Sample Multiplier: 1

Quant Time: Jul 05 09:55:12 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.75	152	194952	40.00 UG	0.00
23) Naphthalene-d8	4.51	136	800608	40.00 UG	0.00
43) Acenaphthene-d10	5.55	164	409478	40.00 UG	0.00
66) Phenanthrene-d10	6.46	188	693596	40.00 UG	0.00
82) Chrysene-d12	8.11	240	567733	40.00 UG	0.01
92) Perylene-d12	9.49	264	453282	40.00 UG	0.03

System Monitoring Compounds

4) 2-Fluorophenol	2.93	112	197892m	31.38 UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 31.38%		
6) Phenol-d5	3.50	99	212597	25.90 UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 25.90%		
24) Nitrobenzene-d5	4.08	82	170793	24.64 UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 49.28%		
47) 2-Fluorobiphenyl	5.13	172	425084	30.67 UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 61.34%		
70) 2,4,6-Tribromophenol	6.07	330	186288	64.07 UG	-0.02
Spiked Amount 100.000	Range 22 - 115		Recovery = 64.07%		
84) Terphenyl-d14	7.38	244	517965	43.36 UG	0.00
Spiked Amount 50.000	Range 23 - 124		Recovery = 86.72%		

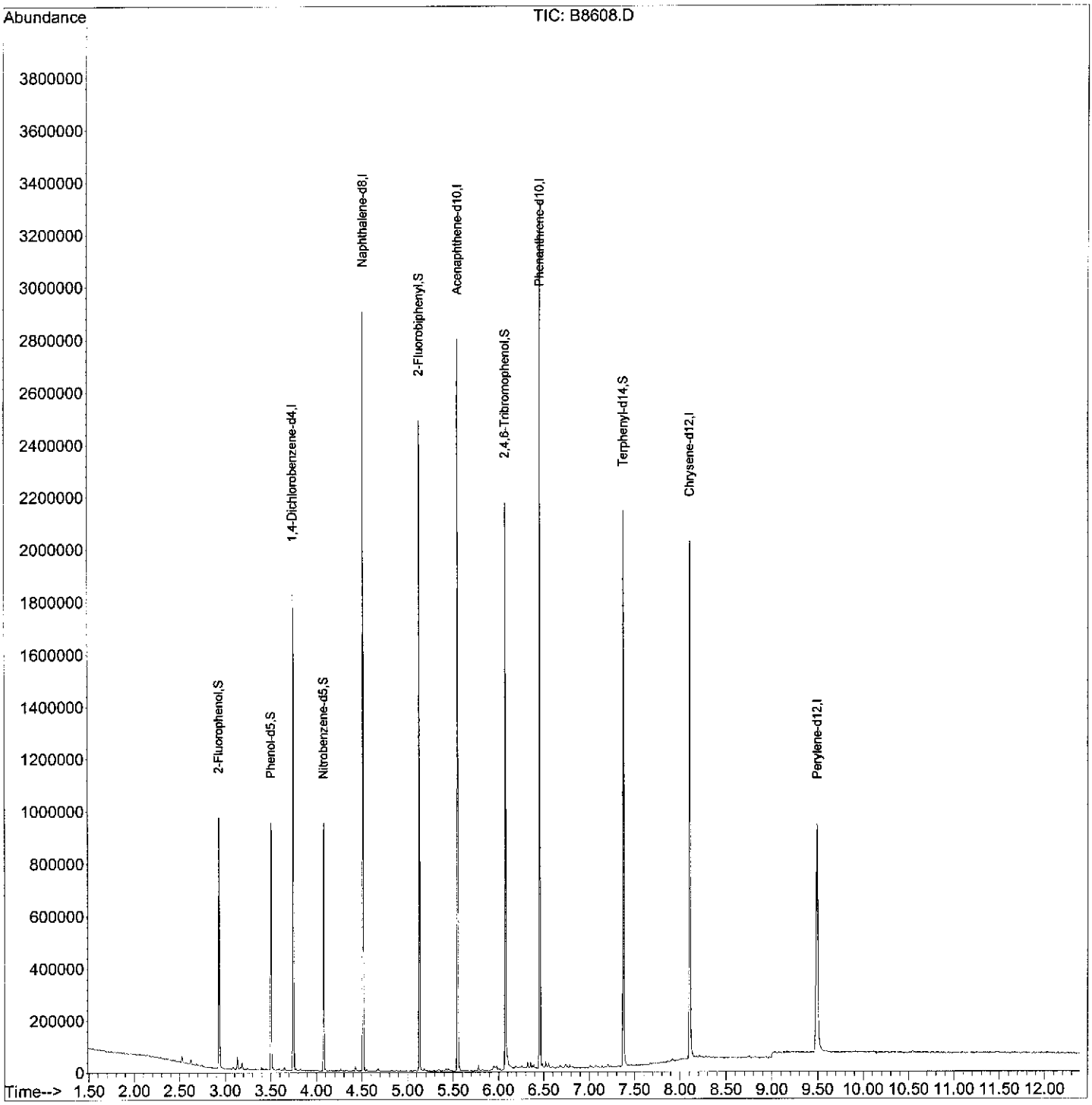
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8608.D
Acq On : 4 Jul 2012 2:25 am
Operator : DANA
Sample : A2-06271,E12-06466-011,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 61 Sample Multiplier: 1

Quant Time: Jul 05 09:55:12 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8608.D
Acq On : 4 Jul 2012 2:25 am
Operator : DANA
Sample : A2-06271,E12-06466-011,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 61 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BW1712.M Thu Jul 05 10:05:19 2012 MSD_B

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8609.D
Acq On : 4 Jul 2012 2:44 am
Operator : DANA
Sample : A7-06271,E12-06466-012,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 62 Sample Multiplier: 1

Quant Time: Jul 05 09:55:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.74	152	142203	40.00 UG	0.00
23) Naphthalene-d8	4.51	136	581907	40.00 UG	0.00
43) Acenaphthene-d10	5.55	164	296999	40.00 UG	0.00
66) Phenanthrene-d10	6.45	188	534098	40.00 UG	-0.01
82) Chrysene-d12	7.99	240	470188m	40.00 UG	-0.11
92) Perylene-d12	9.34	264	318929m	40.00 UG	-0.12

System Monitoring Compounds

4) 2-Fluorophenol	2.93	112	97355	21.17 UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 21.17%		
6) Phenol-d5	3.50	99	71270	11.90 UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 11.90%		
24) Nitrobenzene-d5	4.08	82	171319	34.01 UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 68.02%		
47) 2-Fluorobiphenyl	5.13	172	427067	42.49 UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 84.98%		
70) 2,4,6-Tribromophenol	6.08	330	121871	54.44 UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 54.44%		
84) Terphenyl-d14	7.31	244	488077m	49.34 UG	-0.06
Spiked Amount 50.000	Range 23 - 124		Recovery = 98.68%		

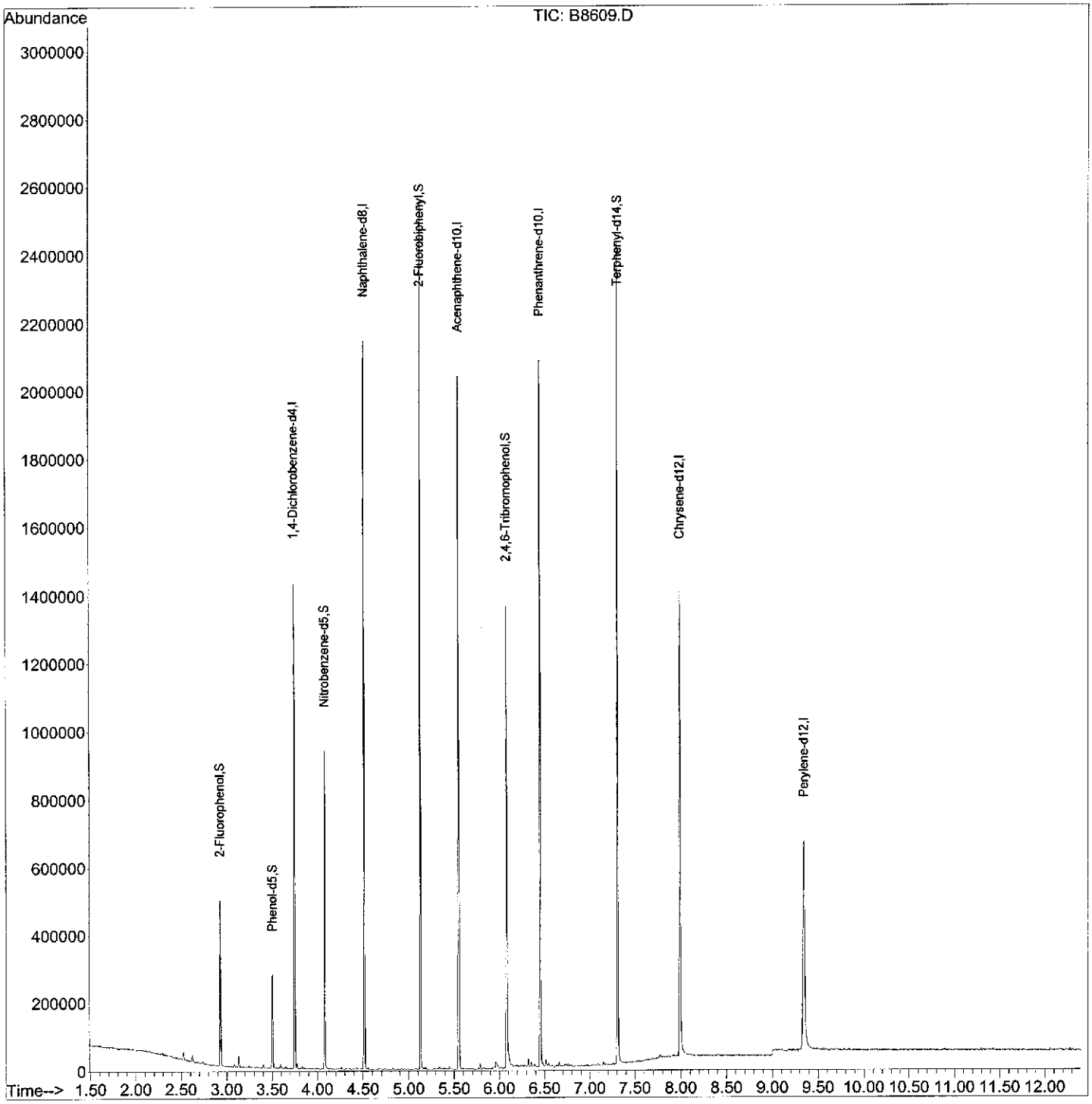
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8609.D
Acq On : 4 Jul 2012 2:44 am
Operator : DANA
Sample : A7-06271,E12-06466-012,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 62 Sample Multiplier: 1

Quant Time: Jul 05 09:55:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-03-12\
Data File : B8609.D
Acq On : 4 Jul 2012 2:44 am
Operator : DANA
Sample : A7-06271,E12-06466-012,A,500ml,100,0.5
Misc : 120703-08,07/03/12,06/28/12,1
ALS Vial : 62 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BW1712.M Thu Jul 05 10:05:25 2012 MSD_B

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA120703-08
Client ID: .
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8594.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.090
Pyridine	ND		1.00	0.110
Benzaldehyde	ND		1.00	0.880
Phenol	ND		1.00	0.110
Aniline	ND		1.00	0.110
Bis(2-chloroethyl) ether	ND		1.00	0.100
2-Chlorophenol	ND		1.00	0.130
1,3-Dichlorobenzene	ND		1.00	0.170
1,4-Dichlorobenzene	ND		1.00	0.120
Benzyl alcohol	ND		1.00	0.120
1,2-Dichlorobenzene	ND		1.00	0.160
2-Methylphenol	ND		1.00	0.100
Bis(2-chloroisopropyl) ether	ND		1.00	0.140
4-Methylphenol **	ND		1.00	0.110
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.100
3-Methylphenol	ND		1.00	0.110
Hexachloroethane	ND		1.00	0.100
Nitrobenzene	ND		1.00	0.120
Isophorone	ND		1.00	0.110
2-Nitrophenol	ND		1.00	0.090
2,4-Dimethylphenol	ND		1.00	0.110
Bis(2-chloroethoxy) methane	ND		1.00	0.080
Benzoic acid	ND		1.00	0.110
2,4-Dimethylaniline	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.100
1,2,4-Trichlorobenzene	ND		1.00	0.100
Naphthalene	ND		1.00	0.175
4-Chloroaniline	ND		1.00	0.150
4-Aminotoluene	ND		1.00	0.200
Hexachlorobutadiene	ND		1.00	0.120
Caprolactam	ND		1.00	0.170
2-Aminotoluene	ND		1.00	0.210
4-Chloro-3-methylphenol	ND		1.00	0.100
2-Methylnaphthalene	ND		1.00	0.109
Hexachlorocyclopentadiene	ND		1.00	0.100
2,4,6-Trichlorophenol	ND		1.00	0.100
2,4,5-Trichlorophenol	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.100
2-Chloronaphthalene	ND		1.00	0.090
2-Nitroaniline	ND		1.00	0.130
Dimethyl phthalate	ND		1.00	0.120

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA120703-08
Client ID: .
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8594.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.120
Acenaphthylene	ND		1.00	0.113
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.100
2,4-Dinitrophenol	ND		1.00	0.120
4-Nitrophenol	ND		1.00	0.380
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.190
Fluorene	ND		1.00	0.145
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.100
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
2,3,4,6-Tetrachlorophenol	ND		1.00	0.110
4,6-Dinitro-2-methylphenol	ND		1.00	0.110
N-Nitrosodiphenylamine	ND		1.00	0.110
1,2-Diphenylhydrazine	ND		1.00	0.140
4-Bromophenyl phenyl ether	ND		1.00	0.110
Hexachlorobenzene	ND		1.00	0.130
Atrazine	ND		1.00	0.170
Pentachlorophenol	ND		1.00	0.110
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Carbazole	ND		1.00	0.160
Di-n-butyl phthalate	ND		1.00	0.140
Fluoranthene	ND		1.00	0.141
Benzidine	ND		1.00	0.200
Pyrene	ND		1.00	0.744
3,3'-Dimethylbenzidine	ND		1.00	0.320
Butyl benzyl phthalate	ND		1.00	0.100
3,3'-Dichlorobenzidine	ND		1.00	0.170
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Bis(2-ethylhexyl) phthalate	ND		1.00	0.120
Di-n-octyl phthalate	ND		1.00	0.090
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216

Total Target Compounds (83): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA120703-08
Client ID: .
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8594.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : B8594.D
Acq On : 3 Jul 2012 10:11 pm
Operator : DANA
Sample : .,BLKA120703-08,A,1000ml,100,1
Misc : 120703-08,07/03/12,NA,1
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jul 05 09:39:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.75	152	337235	40.00 UG	0.00
23) Naphthalene-d8	4.51	136	1450207	40.00 UG	0.00
43) Acenaphthene-d10	5.55	164	761912	40.00 UG	0.00
66) Phenanthrene-d10	6.45	188	1433880	40.00 UG	-0.01
82) Chrysene-d12	8.01	240	1068637m	40.00 UG	-0.09
92) Perylene-d12	9.36	264	768866m	40.00 UG	-0.10

System Monitoring Compounds					
4) 2-Fluorophenol	2.93	112	223792m	20.52 UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 20.52%		
6) Phenol-d5	3.50	99	177488	12.50 UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 12.50%		
24) Nitrobenzene-d5	4.08	82	243379m	19.38 UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 38.76%		
47) 2-Fluorobiphenyl	5.13	172	521244	20.21 UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 40.42%		
70) 2,4,6-Tribromophenol	6.08	330	220006	36.60 UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 36.60%		
84) Terphenyl-d14	7.31	244	751182m	33.41 UG	-0.06
Spiked Amount 50.000	Range 23 - 124		Recovery = 66.82%		

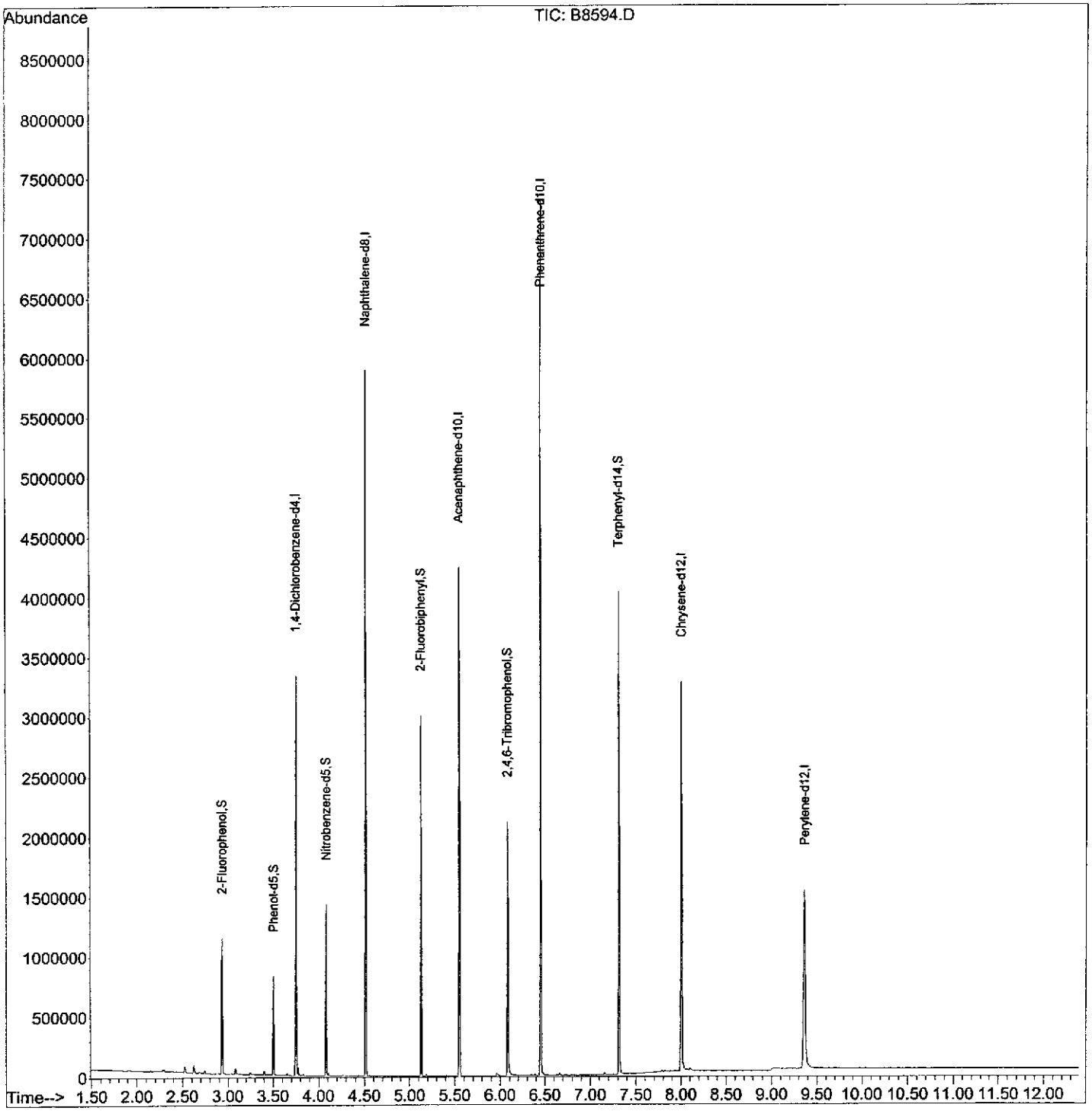
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : B8594.D
Acq On : 3 Jul 2012 10:11 pm
Operator : DANA
Sample : .,BLKA120703-08,A,1000ml,100,1
Misc : 120703-08,07/03/12,NA,1
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jul 05 09:39:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : B8594.D
Acq On : 3 Jul 2012 10:11 pm
Operator : DANA
Sample : .,BLKA120703-08,A,1000ml,100,1
Misc : 120703-08,07/03/12,NA,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BW1712.M Thu Jul 05 09:39:41 2012 MSD_B

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS120709-03
Client ID: .
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7735.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.023
Pyridine	ND		0.033	0.011
Benzaldehyde	ND		0.033	0.013
Phenol	ND		0.033	0.015
Aniline	ND		0.033	0.026
Bis(2-chloroethyl) ether	ND		0.033	0.023
2-Chlorophenol	ND		0.033	0.014
1,3-Dichlorobenzene	ND		0.033	0.015
1,4-Dichlorobenzene	ND		0.033	0.013
Benzyl alcohol	ND		0.033	0.021
1,2-Dichlorobenzene	ND		0.033	0.013
2-Methylphenol	ND		0.033	0.027
Bis(2-chloroisopropyl) ether	ND		0.033	0.012
4-Methylphenol **	ND		0.033	0.019
N-Nitrosodi-n-propylamine	ND		0.033	0.022
Acetophenone	ND		0.033	0.011
3-Methylphenol	ND		0.033	0.013
Hexachloroethane	ND		0.033	0.013
Nitrobenzene	ND		0.033	0.029
Isophorone	ND		0.033	0.022
2-Nitrophenol	ND		0.033	0.025
2,4-Dimethylphenol	ND		0.033	0.026
Bis(2-chloroethoxy) methane	ND		0.033	0.028
Benzoic acid	ND		0.033	0.033
2,4-Dimethylaniline	ND		0.033	0.025
2,4-Dichlorophenol	ND		0.033	0.033
1,2,4-Trichlorobenzene	ND		0.033	0.026
Naphthalene	ND		0.033	0.025
4-Chloroaniline	ND		0.033	0.031
4-Aminotoluene	ND		0.033	0.028
Hexachlorobutadiene	ND		0.033	0.032
Caprolactam	ND		0.033	0.021
2-Aminotoluene	ND		0.033	0.028
4-Chloro-3-methylphenol	ND		0.033	0.030
2-Methylnaphthalene	ND		0.033	0.027
Hexachlorocyclopentadiene	ND		0.033	0.011
2,4,6-Trichlorophenol	ND		0.033	0.011
2,4,5-Trichlorophenol	ND		0.033	0.013
1,1'-Biphenyl	ND		0.033	0.010
2-Chloronaphthalene	ND		0.033	0.031
2-Nitroaniline	ND		0.033	0.020
Dimethyl phthalate	ND		0.033	0.010

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS120709-03
Client ID: .
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7735.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.019
Acenaphthylene	ND		0.033	0.023
3-Nitroaniline	ND		0.033	0.010
Acenaphthene	ND		0.033	0.027
2,4-Dinitrophenol	ND		0.033	0.013
4-Nitrophenol	ND		0.033	0.025
2,4-Dinitrotoluene	ND		0.033	0.029
Dibenzofuran	ND		0.033	0.011
Diethyl phthalate	ND		0.033	0.025
Fluorene	ND		0.033	0.018
4-Chlorophenyl phenyl ether	ND		0.033	0.015
4-Nitroaniline	ND		0.033	0.021
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.010
2,3,4,6-Tetrachlorophenol	ND		0.033	0.014
4,6-Dinitro-2-methylphenol	ND		0.033	0.019
N-Nitrosodiphenylamine	ND		0.033	0.014
1,2-Diphenylhydrazine	ND		0.033	0.031
4-Bromophenyl phenyl ether	ND		0.033	0.019
Hexachlorobenzene	ND		0.033	0.024
Atrazine	ND		0.033	0.023
Pentachlorophenol	ND		0.033	0.014
Phenanthrene	ND		0.033	0.022
Anthracene	ND		0.033	0.032
Carbazole	ND		0.033	0.019
Di-n-butyl phthalate	ND		0.033	0.024
Fluoranthene	ND		0.033	0.013
Benzidine	ND		0.033	0.031
Pyrene	ND		0.033	0.025
3,3'-Dimethylbenzidine	ND		0.033	0.011
Butyl benzyl phthalate	ND		0.033	0.021
3,3'-Dichlorobenzidine	ND		0.033	0.023
Benzo[a]anthracene	ND		0.033	0.032
Chrysene	ND		0.033	0.023
Bis(2-ethylhexyl) phthalate	ND		0.033	0.016
Di-n-octyl phthalate	ND		0.033	0.013
Benzo[b]fluoranthene	ND		0.033	0.017
Benzo[k]fluoranthene	ND		0.033	0.012
Benzo[a]pyrene	ND		0.033	0.018
Indeno[1,2,3-cd]pyrene	ND		0.033	0.017
Dibenz[a,h]anthracene	ND		0.033	0.020
Benzo[g,h,i]perylene	ND		0.033	0.011

Total Target Compounds (83): 0

** - represents the total of 3+4-Methylphenol

E12-06466 0253

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS120709-03
Client ID: .
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: C7735.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7735.D
Acq On : 10 Jul 2012 15:51
Operator : EDM
Sample : .,BLKS120709-03,S,15.00g,0,0.5
Misc : 120709-03,07/09/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 16:06:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	2.55	152	108721	40.00 UG	0.00
23) Naphthalene-d8	3.11	136	442815	40.00 UG	0.00
43) Acenaphthene-d10	3.92	164	249810	40.00 UG	-0.05
66) Phenanthrene-d10	4.69	188	359959	40.00 UG	-0.09
82) Chrysene-d12	6.49	240	314168	40.00 UG	-0.13
92) Perylene-d12	7.98	264	219831	40.00 UG	-0.13
System Monitoring Compounds					
4) 2-Fluorophenol	2.03	112	247996	66.08 UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 66.08%		
6) Phenol-d5	2.37	99	337115	65.93 UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 65.93%		
24) Nitrobenzene-d5	2.80	82	137077	31.39 UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 62.78%		
47) 2-Fluorobiphenyl	3.58	172	276561	34.91 UG	-0.03
Spiked Amount 50.000	Range 33 - 91		Recovery = 69.82%		
70) 2,4,6-Tribromophenol	4.33	330	91343	70.14 UG	-0.07
Spiked Amount 100.000	Range 37 - 115		Recovery = 70.14%		
84) Terphenyl-d14	5.62	244	251645	37.02 UG	-0.18
Spiked Amount 50.000	Range 15 - 122		Recovery = 74.04%		

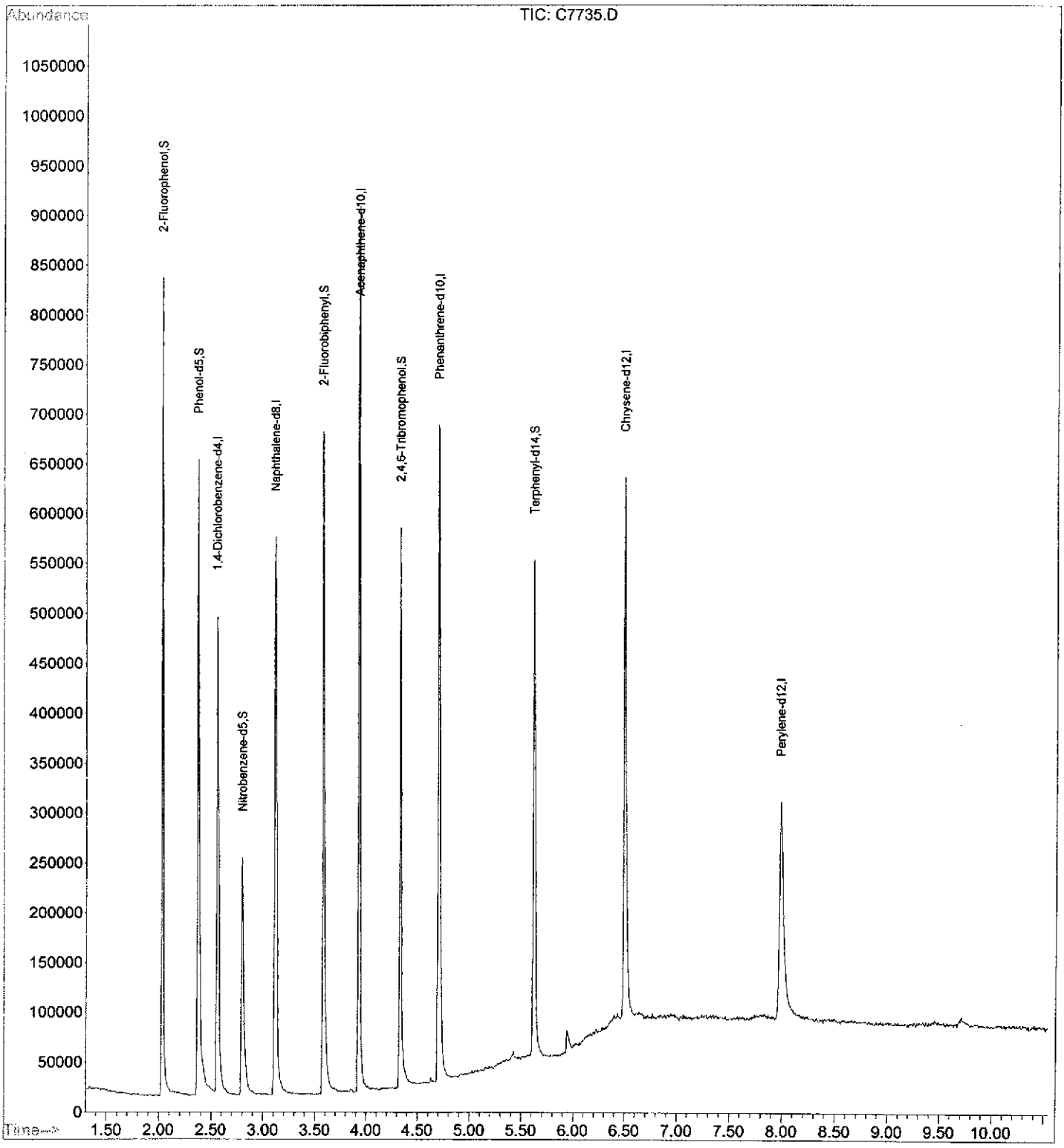
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7735.D
Acq On : 10 Jul 2012 15:51
Operator : EDM
Sample : .,BLKS120709-03,S,15.00g,0,0.5
Misc : 120709-03,07/09/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 16:06:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Thu Jul 05 10:52:35 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : C7735.D
Acq On : 10 Jul 2012 15:51
Operator : EDM
Sample : .,BLKS120709-03,S,15.00g,0,0.5
Misc : 120709-03,07/09/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\CS1212.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

CS1212.M Tue Jul 10 16:06:43 2012 RPT1

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 06/28/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS120627-03	SOIL	93		43		84		44	
CS-9	06226-001	SOIL	54		42		48		45	
CS-10	06226-002	SOIL	71		36		63		36	
CS-11	06226-003	SOIL	63		31		56		33	
RS-2/1.5-2	06225-016	SOIL	63		35		58		37	
RS-4/4-4.5	06225-020	SOIL	74		37		66		37	
PCB	06226-003MS	SOIL	78		38		69		38	
PCB	06226-003MSD	SOIL	85		42		74		43	
PCB	LCSS120627-03	SOIL	115		53		97		50	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/13/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS120706-06	SOIL	86		75		98		113	
I1-062712-	06466-008	SOIL	33		43		47		62	
PCB	LCSS120706-06	SOIL	66		42		70		68	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/13/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS120706-05	SOIL	91		74		99		97	
B1_(4-5)_-	06466-001	SOIL	89		79		97		93	
B3_(16-17)	06466-002	SOIL	91		76		100		102	
SB-1/0.5-1	06473-001	SOIL	86		77		95		87	
SB-2/0.5-1	06473-002	SOIL	88		77		95		98	
SLF-TW-40/	06625-001	SOIL	86		69		95		97	
SLF-TW-41/	06625-002	SOIL	40		51		122		78	
SLF-TW-41/	06625-003	SOIL	41		58		72		73	
SLF-TW-41/	06625-004	SOIL	39		51		73		74	
SLF-TW-41/	06625-005	SOIL	76		66		92		99	
SLF-TW-42/	06625-007	SOIL	78		54		89		91	
SLF-TW-42/	06625-008	SOIL	84		64		92		83	
PCB	06466-001MS	SOIL	88		65		94		83	
PCB	06466-001MSD	SOIL	88		71		94		99	
PCB	LCSS120706-05	SOIL	86		67		92		81	
SLF-TW-41/	06625-006	SOIL	47		60		71		89	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSS120706-06

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	419.1	84	40 - 140
Aroclor-1260	500.0	0.0	320.0	64	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSS120706-05

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	425.9	85	70 - 130
Aroclor-1260	500.0	0.0	425.1	85	70 - 130

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06226-003MSD

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	343.1	69	40 - 140
Aroclor-1260	500.0	0.0	234.2	47	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	400.2	80	15	50	40 - 140
Aroclor-1260	0.0	277.5	56	17	50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06466-001MSD

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	389.3	78	40 - 140
Aroclor-1260	500.0	0.0	392.8	79	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	#	MSD % REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	405.9		81	4	50	40 - 140
Aroclor-1260	0.0	391.1		78	1	50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

PCB METHOD BLANK SUMMARY

Lab File ID:	R0871.D	Instrument ID:	GC-R
Date Extracted:	06/27/2012	Matrix:	SOIL
Date Analyzed:	06/28/2012	Time Analyzed:	22:17

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
CS-9	06226-001	06/28/2012	22:35
CS-10	06226-002	06/28/2012	22:52
CS-11	06226-003	06/28/2012	23:09
RS-2/1.5-2	06225-016	06/28/2012	23:26
RS-4/4-4.5	06225-020	06/28/2012	23:44
PCB	06226-003MS	06/29/2012	00:01
PCB	06226-003MSD	06/29/2012	00:18
PCB	LCSS120627-03	06/29/2012	00:35

PCB METHOD BLANK SUMMARY

Lab File ID:	Y6672.D	Instrument ID:	GC-Y
Date Extracted:	07/06/2012	Matrix:	SOIL
Date Analyzed:	07/13/2012	Time Analyzed:	11:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
I1-062712-	06466-008	07/13/2012	12:55
PCB	LCSS120706-06	07/13/2012	13:12

PCB METHOD BLANK SUMMARY

Lab File ID: Y6646.D

Instrument ID: GC-Y

Date Extracted: 07/06/2012

Matrix: SOIL

Date Analyzed: 07/13/2012

Time Analyzed: 02:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
B1_(4-5)_-	06466-001	07/13/2012	03:14
B3_(16-17)	06466-002	07/13/2012	03:31
SB-1/0.5-1	06473-001	07/13/2012	03:48
SB-2/0.5-1	06473-002	07/13/2012	04:06
SLF-TW-40/	06625-001	07/13/2012	04:23
SLF-TW-41/	06625-002	07/13/2012	04:40
SLF-TW-41/	06625-003	07/13/2012	04:57
SLF-TW-41/	06625-004	07/13/2012	05:14
SLF-TW-41/	06625-005	07/13/2012	05:31
SLF-TW-42/	06625-007	07/13/2012	06:06
SLF-TW-42/	06625-008	07/13/2012	06:23
PCB	06466-001MS	07/13/2012	06:40
PCB	06466-001MSD	07/13/2012	06:57
PCB	LCSS120706-05	07/13/2012	07:14
SLF-TW-41/	06625-006	07/13/2012	11:40

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/21/2012

Instrument ID: GC-R
GC Column (1st): DB-5

Data File: R0578.D R0577.D R0576.D R0575.D R0574.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.94	3.93	3.93	3.93	3.92	3.93	3.86	4.00
Aroclor-1016 {2}	4.82	4.82	4.82	4.82	4.81	4.82	4.75	4.89
Aroclor-1016 {3}	5.40	5.40	5.40	5.40	5.39	5.40	5.33	5.47
Aroclor-1016 {4}	5.93	5.93	5.92	5.93	5.92	5.92	5.85	5.99
Aroclor-1016 {5}	6.34	6.33	6.33	6.33	6.33	6.33	6.26	6.40
Aroclor-1221			2.71				2.64	2.78
Aroclor-1221 {2}			3.71				3.64	3.78
Aroclor-1221 {3}			3.84				3.77	3.91
Aroclor-1221 {4}			3.93				3.86	4.00
Aroclor-1221 {5}			4.56				4.49	4.63
Aroclor-1232			3.93				3.86	4.00
Aroclor-1232 {2}			4.82				4.75	4.89
Aroclor-1232 {3}			5.52				5.45	5.59
Aroclor-1232 {4}			6.13				6.06	6.20
Aroclor-1232 {5}			6.33				6.26	6.40
Aroclor-1242			4.82				4.75	4.89
Aroclor-1242 {2}			5.80				5.73	5.87
Aroclor-1242 {3}			6.13				6.06	6.20
Aroclor-1242 {4}			6.85				6.78	6.92
Aroclor-1242 {5}			7.13				7.06	7.20
Aroclor-1248			5.24				5.16	5.32
Aroclor-1248 {2}			5.80				5.72	5.88
Aroclor-1248 {3}			6.13				6.05	6.21
Aroclor-1248 {4}			6.85				6.77	6.93
Aroclor-1248 {5}			7.13				7.05	7.21
Aroclor-1254			7.25				7.17	7.33
Aroclor-1254 {2}			7.70				7.62	7.78
Aroclor-1254 {3}			7.86				7.77	7.95
Aroclor-1254 {4}			8.31				8.22	8.40
Aroclor-1254 {5}			9.16				9.07	9.25
Aroclor-1260	9.16	9.16	9.16	9.16	9.15	9.16	8.26	10.06
Aroclor-1260 {2}	9.84	9.84	9.84	9.84	9.84	9.84	8.94	10.74
Aroclor-1260 {3}	10.31	10.31	10.31	10.31	10.31	10.31	9.41	11.21
Aroclor-1260 {4}	10.80	10.80	10.80	10.80	10.80	10.80	9.90	11.70
Aroclor-1260 {5}	11.86	11.87	11.87	11.87	11.86	11.87	10.97	12.77

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/21/2012

Instrument ID: GC-R
GC Column (1st): DB-5

Data File: R0578.D R0577.D R0576.D R0575.D R0574.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	2618535	2418756	2282581	2177196	2313050	2362024	7.08
Aroclor-1016 {2}	3088191	2728935	2838264	2451844	2631558	2747758	8.64
Aroclor-1016 {3}	4636805	4223244	4010518	3796953	4105520	4154608	7.50
Aroclor-1016 {4}	2600881	1956019	1828073	1774615	1949679	2021853	16.47
Aroclor-1016 {5}	3810135	3754533	3219418	3147069	3457441	3477719	8.67
Aroclor-1221			1351873				
Aroclor-1221 {2}			2012544				
Aroclor-1221 {3}			1519506				
Aroclor-1221 {4}			3994890				
Aroclor-1221 {5}			1011046				
Aroclor-1232			2660588				
Aroclor-1232 {2}			1311794				
Aroclor-1232 {3}			1577236				
Aroclor-1232 {4}			1256835				
Aroclor-1232 {5}			2111157				
Aroclor-1242			2419999				
Aroclor-1242 {2}			1825612				
Aroclor-1242 {3}			2087731				
Aroclor-1242 {4}			3674810				
Aroclor-1242 {5}			3634139				
Aroclor-1248			5979012				
Aroclor-1248 {2}			3379303				
Aroclor-1248 {3}			3199041				
Aroclor-1248 {4}			6735891				
Aroclor-1248 {5}			5763470				
Aroclor-1254			7839643				
Aroclor-1254 {2}			4958791				
Aroclor-1254 {3}			9172576				
Aroclor-1254 {4}			11626859				
Aroclor-1254 {5}			10267851				
Aroclor-1260	11249185	11042123	10152857	10742490	8472781	10331887	10.82
Aroclor-1260 {2}	4997982	5571228	4873732	4648696	4976390	5013605	6.80
Aroclor-1260 {3}	14824315	14479926	13931205	14079787	15628788	14588804	4.65
Aroclor-1260 {4}	10366340	7700178	7596209	7378622	7248757	8058021	16.16
Aroclor-1260 {5}	3095222	3346062	3442346	3494917	2719416	3219593	9.91
						Average %RSD	9.67

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/21/2012

Instrument ID: GC-R
GC Column (2nd): RTX-CLP2

Data File: R0578.C R0577.C R0576.C R0575.C R0574.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1016	4.50	4.50	4.50	4.50	4.50	4.50	4.43	4.57
Aroclor-1016 {2}	5.14	5.13	5.13	5.13	5.14	5.13	5.06	5.20
Aroclor-1016 {3}	5.92	5.92	5.92	5.92	5.92	5.92	5.85	5.99
Aroclor-1016 {4}	6.14	6.14	6.14	6.14	6.14	6.14	6.07	6.21
Aroclor-1016 {5}	6.32	6.32	6.32	6.32	6.32	6.32	6.25	6.39
Aroclor-1221			3.06				2.99	3.13
Aroclor-1221 {2}			4.16				4.09	4.23
Aroclor-1221 {3}			4.41				4.34	4.48
Aroclor-1221 {4}			4.51				4.44	4.58
Aroclor-1221 {5}			5.93				5.86	6.00
Aroclor-1232			4.50				4.43	4.57
Aroclor-1232 {2}			5.54				5.47	5.61
Aroclor-1232 {3}			6.14				6.07	6.21
Aroclor-1232 {4}			6.32				6.25	6.39
Aroclor-1232 {5}			6.93				6.86	7.00
Aroclor-1242			5.54				5.47	5.61
Aroclor-1242 {2}			6.32				6.25	6.39
Aroclor-1242 {3}			6.93				6.86	7.00
Aroclor-1242 {4}			7.09				7.02	7.16
Aroclor-1242 {5}			7.63				7.56	7.70
Aroclor-1248			5.92				5.84	6.00
Aroclor-1248 {2}			6.53				6.45	6.61
Aroclor-1248 {3}			6.93				6.85	7.01
Aroclor-1248 {4}			7.09				7.01	7.17
Aroclor-1248 {5}			7.45				7.37	7.53
Aroclor-1254			7.95				7.87	8.03
Aroclor-1254 {2}			8.55				8.47	8.63
Aroclor-1254 {3}			9.17				9.08	9.26
Aroclor-1254 {4}			9.40				9.31	9.49
Aroclor-1254 {5}			10.01				9.92	10.10
Aroclor-1260	8.99	8.99	8.99	8.99	9.00	8.99	8.09	9.89
Aroclor-1260 {2}	9.40	9.40	9.40	9.40	9.41	9.40	8.50	10.30
Aroclor-1260 {3}	10.61	10.61	10.61	10.61	10.62	10.61	9.71	11.51
Aroclor-1260 {4}	11.12	11.12	11.12	11.12	11.12	11.12	10.22	12.02
Aroclor-1260 {5}	11.72	11.72	11.72	11.72	11.73	11.72	10.82	12.62

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/21/2012

Instrument ID: GC-R

GC Column (2nd): RTX-CLP2

Data File: R0578.C R0577.C R0576.C R0575.C R0574.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	2218263	1868806	1593014	1463221	1550532	1738767	17.71
Aroclor-1016 {2}	4225302	3747790	3054604	2797528	2863548	3337754	18.67
Aroclor-1016 {3}	8790007	7873996	6850901	6235409	6400648	7230192	14.94
Aroclor-1016 {4}	3121658	2728179	2727619	2475423	2586192	2727814	8.96
Aroclor-1016 {5}	3329803	2786783	2339238	2149249	2250457	2571106	19.02
Aroclor-1221			895427				
Aroclor-1221 {2}			1242682				
Aroclor-1221 {3}			820473				
Aroclor-1221 {4}			2738639				
Aroclor-1221 {5}			634186				
Aroclor-1232			1840575				
Aroclor-1232 {2}			693624				
Aroclor-1232 {3}			1393420				
Aroclor-1232 {4}			1219423				
Aroclor-1232 {5}			1677705				
Aroclor-1242			1212035				
Aroclor-1242 {2}			2099156				
Aroclor-1242 {3}			2760820				
Aroclor-1242 {4}			2304972				
Aroclor-1242 {5}			4366302				
Aroclor-1248			4016504				
Aroclor-1248 {2}			3325431				
Aroclor-1248 {3}			4228331				
Aroclor-1248 {4}			3588736				
Aroclor-1248 {5}			2065034				
Aroclor-1254			3435692				
Aroclor-1254 {2}			2755491				
Aroclor-1254 {3}			3760707				
Aroclor-1254 {4}			2101261				
Aroclor-1254 {5}			4863962				
Aroclor-1260	4496779	4274022	3534037	3267550	3229472	3760372	15.63
Aroclor-1260 {2}	5229717	4903193	4021573	3728620	3543382	4285297	17.32
Aroclor-1260 {3}	4106406	3492789	2925933	2739840	2910430	3235080	17.43
Aroclor-1260 {4}	8008942	7069724	5787677	5655324	5914024	6487138	15.73
Aroclor-1260 {5}	6078873	5016145	4405669	4304003	4391934	4839325	15.47
					Average %RSD		16.09

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/21/2012

Instrument ID: GC-R
GC Column (1st): DB-5

Data File: R0578.D R0577.D R0576.D R0575.D R0574.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			9.45				8.55	8.55
Aroclor-1262 {2}			10.31				9.41	9.41
Aroclor-1262 {3}			10.96				10.06	10.06
Aroclor-1262 {4}			11.04				10.04	10.04
Aroclor-1262 {5}			11.87				10.87	10.87
Aroclor-1268			10.96				9.96	9.96
Aroclor-1268 {2}			11.04				9.94	9.94
Aroclor-1268 {3}			11.52				10.42	10.42
Aroclor-1268 {4}			11.65				10.55	10.55
Aroclor-1268 {5}			12.48				11.38	11.38

GC Column (2nd): DB-1701P

Data File: R0578.C R0577.C R0576.C R0575.C R0574.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1262			10.61				9.71	9.71
Aroclor-1262 {2}			11.12				10.22	10.22
Aroclor-1262 {3}			11.62				10.72	10.72
Aroclor-1262 {4}			11.72				10.72	10.72
Aroclor-1262 {5}			12.33				11.33	11.33
Aroclor-1268			11.62				10.62	10.62
Aroclor-1268 {2}			11.71				10.61	10.61
Aroclor-1268 {3}			11.97				10.87	10.87
Aroclor-1268 {4}			12.11				11.01	11.01
Aroclor-1268 {5}			13.20				12.10	12.10

PCB INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/21/2012

Instrument ID: GC-R
GC Column (1st): DB-5

Data File: R0578.D R0577.D R0576.D R0575.D R0574.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			13943508				
Aroclor-1262 {2}			23969333				
Aroclor-1262 {3}			9169730				
Aroclor-1262 {4}			10741253				
Aroclor-1262 {5}			7422795				
Aroclor-1268			26416664				
Aroclor-1268 {2}			24226429				
Aroclor-1268 {3}			20448122				
Aroclor-1268 {4}			5401457				
Aroclor-1268 {5}			48037266				

GC Column (2nd): DB-1701P

Data File: R0578.C R0577.C R0576.C R0575.C R0574.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			4144724				
Aroclor-1262 {2}			8452771				
Aroclor-1262 {3}			3035617				
Aroclor-1262 {4}			5989126				
Aroclor-1262 {5}			1253472				
Aroclor-1268			8723300				
Aroclor-1268 {2}			8761193				
Aroclor-1268 {3}			7086705				
Aroclor-1268 {4}			2142726				
Aroclor-1268 {5}			19757367				

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.27	3.28	3.28	3.28	3.28	3.28	3.21	3.35
Aroclor-1016 {2}	4.11	4.10	4.11	4.11	4.11	4.11	4.04	4.18
Aroclor-1016 {3}	4.65	4.66	4.65	4.65	4.65	4.65	4.58	4.72
Aroclor-1016 {4}	5.16	5.16	5.16	5.16	5.16	5.16	5.09	5.23
Aroclor-1016 {5}	5.55	5.55	5.55	5.55	5.55	5.55	5.48	5.62
Aroclor-1221			2.17				2.10	2.24
Aroclor-1221 {2}			3.07				3.00	3.14
Aroclor-1221 {3}			3.19				3.12	3.26
Aroclor-1221 {4}			3.27				3.20	3.34
Aroclor-1221 {5}			3.86				3.79	3.93
Aroclor-1232			3.27				3.20	3.34
Aroclor-1232 {2}			4.10				4.03	4.17
Aroclor-1232 {3}			4.76				4.69	4.83
Aroclor-1232 {4}			5.35				5.28	5.42
Aroclor-1232 {5}			5.55				5.48	5.62
Aroclor-1242			4.11				4.04	4.18
Aroclor-1242 {2}			5.04				4.97	5.11
Aroclor-1242 {3}			5.36				5.29	5.43
Aroclor-1242 {4}			6.05				5.98	6.12
Aroclor-1242 {5}			6.32				6.25	6.39
Aroclor-1248			4.50				4.42	4.58
Aroclor-1248 {2}			5.04				4.96	5.12
Aroclor-1248 {3}			5.36				5.28	5.44
Aroclor-1248 {4}			6.06				5.98	6.14
Aroclor-1248 {5}			6.33				6.25	6.41
Aroclor-1254			6.45				6.37	6.53
Aroclor-1254 {2}			6.88				6.80	6.96
Aroclor-1254 {3}			7.05				6.96	7.14
Aroclor-1254 {4}			7.48				7.39	7.57
Aroclor-1254 {5}			8.33				8.24	8.42
Aroclor-1260	8.32	8.32	8.32	8.33	8.32	8.32	7.42	9.22
Aroclor-1260 {2}	9.00	9.00	9.00	9.00	9.00	9.00	8.10	9.90
Aroclor-1260 {3}	9.47	9.47	9.47	9.47	9.47	9.47	8.57	10.37
Aroclor-1260 {4}	9.95	9.95	9.95	9.95	9.95	9.95	9.05	10.85
Aroclor-1260 {5}	11.01	11.01	11.01	11.01	11.01	11.01	10.11	11.91

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y

GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	2158526	1576000	1698131	1764462	1711954	1781815	12.44
Aroclor-1016 {2}	2402575	2200752	2357394	2475021	2422935	2371736	4.41
Aroclor-1016 {3}	3011949	2882239	3177441	3334621	3218928	3125036	5.71
Aroclor-1016 {4}	1681635	1432658	1450872	1515174	1485014	1513071	6.57
Aroclor-1016 {5}	2597064	2368911	2578717	2724853	2708544	2595618	5.49
Aroclor-1221			828520				
Aroclor-1221 {2}			1275655				
Aroclor-1221 {3}			857847				
Aroclor-1221 {4}			2894853				
Aroclor-1221 {5}			670112				
Aroclor-1232			2063367				
Aroclor-1232 {2}			1131048				
Aroclor-1232 {3}			1055895				
Aroclor-1232 {4}			1126126				
Aroclor-1232 {5}			1450731				
Aroclor-1242			2034139				
Aroclor-1242 {2}			1293898				
Aroclor-1242 {3}			1881596				
Aroclor-1242 {4}			2805290				
Aroclor-1242 {5}			2579945				
Aroclor-1248			4238052				
Aroclor-1248 {2}			2416821				
Aroclor-1248 {3}			3236060				
Aroclor-1248 {4}			5160666				
Aroclor-1248 {5}			4144900				
Aroclor-1254			4674394				
Aroclor-1254 {2}			3742416				
Aroclor-1254 {3}			7049491				
Aroclor-1254 {4}			7076508				
Aroclor-1254 {5}			6604307				
Aroclor-1260	6883885	6422839	7458788	7740786	7175397	7136339	7.16
Aroclor-1260 {2}	3543900	3011968	3350316	3459291	3428078	3358711	6.13
Aroclor-1260 {3}	8936763	7244082	8370413	8710148	8431730	8338627	7.83
Aroclor-1260 {4}	4086888	4169347	4220226	4362104	4255205	4218754	2.42
Aroclor-1260 {5}	1823349	1628762	1601873	1633329	1570813	1651625	6.01
						Average %RSD	6.41

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (2nd): RTX-CLP2

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.82	3.81	3.82	3.82	3.82	3.82	3.75	3.89
Aroclor-1016 {2}	4.42	4.42	4.42	4.42	4.42	4.42	4.35	4.49
Aroclor-1016 {3}	5.17	5.17	5.17	5.17	5.17	5.17	5.10	5.24
Aroclor-1016 {4}	5.38	5.38	5.38	5.38	5.38	5.38	5.31	5.45
Aroclor-1016 {5}	5.56	5.56	5.56	5.56	5.56	5.56	5.49	5.63
Aroclor-1221			2.49				2.42	2.56
Aroclor-1221 {2}			3.50				3.43	3.57
Aroclor-1221 {3}			3.73				3.66	3.80
Aroclor-1221 {4}			3.83				3.76	3.90
Aroclor-1221 {5}			5.18				5.11	5.25
Aroclor-1232			3.83				3.76	3.90
Aroclor-1232 {2}			4.82				4.75	4.89
Aroclor-1232 {3}			5.39				5.32	5.46
Aroclor-1232 {4}			5.57				5.50	5.64
Aroclor-1232 {5}			6.17				6.10	6.24
Aroclor-1242			4.81				4.74	4.88
Aroclor-1242 {2}			5.56				5.49	5.63
Aroclor-1242 {3}			6.16				6.09	6.23
Aroclor-1242 {4}			6.32				6.25	6.39
Aroclor-1242 {5}			6.85				6.78	6.92
Aroclor-1248			5.17				5.09	5.25
Aroclor-1248 {2}			5.76				5.68	5.84
Aroclor-1248 {3}			6.16				6.08	6.24
Aroclor-1248 {4}			6.31				6.23	6.39
Aroclor-1248 {5}			6.66				6.58	6.74
Aroclor-1254			7.16				7.08	7.24
Aroclor-1254 {2}			7.75				7.67	7.83
Aroclor-1254 {3}			8.36				8.27	8.45
Aroclor-1254 {4}			8.59				8.50	8.68
Aroclor-1254 {5}			9.18				9.09	9.27
Aroclor-1260	7.93	7.93	7.93	7.93	7.93	7.93	7.03	8.83
Aroclor-1260 {2}	8.18	8.18	8.18	8.18	8.18	8.18	7.28	9.08
Aroclor-1260 {3}	9.78	9.78	9.78	9.78	9.78	9.78	8.88	10.68
Aroclor-1260 {4}	10.28	10.28	10.28	10.28	10.28	10.28	9.38	11.18
Aroclor-1260 {5}	10.87	10.87	10.87	10.87	10.87	10.87	9.97	11.77

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y

GC Column (2nd): RTX-CLP2

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	639129	556083	544610	543480	516688	559998	8.31
Aroclor-1016 {2}	1365709	1182903	1092201	1079621	1029700	1150027	11.53
Aroclor-1016 {3}	2992384	2496318	2480225	2496406	2421461	2577359	9.08
Aroclor-1016 {4}	1105095	1106203	1048532	1040620	999297	1059949	4.31
Aroclor-1016 {5}	1169612	852192	813028	812368	784228	886286	18.08
Aroclor-1221			258324				
Aroclor-1221 {2}			355681				
Aroclor-1221 {3}			235125				
Aroclor-1221 {4}			860404				
Aroclor-1221 {5}			159575				
Aroclor-1232			657366				
Aroclor-1232 {2}			243462				
Aroclor-1232 {3}			535109				
Aroclor-1232 {4}			410759				
Aroclor-1232 {5}			569667				
Aroclor-1242			407951				
Aroclor-1242 {2}			694356				
Aroclor-1242 {3}			923104				
Aroclor-1242 {4}			770055				
Aroclor-1242 {5}			1481229				
Aroclor-1248			1317451				
Aroclor-1248 {2}			1948855				
Aroclor-1248 {3}			1413456				
Aroclor-1248 {4}			1205391				
Aroclor-1248 {5}			660352				
Aroclor-1254			1777649				
Aroclor-1254 {2}			1317035				
Aroclor-1254 {3}			1340827				
Aroclor-1254 {4}			737293				
Aroclor-1254 {5}			1811680				
Aroclor-1260	917650	964102	906415	900990	871776	912187	3.68
Aroclor-1260 {2}	1607423	1384418	1296595	1285273	1245243	1363790	10.66
Aroclor-1260 {3}	1232724	1193984	1095226	1068774	1055784	1129299	7.02
Aroclor-1260 {4}	2390638	2154327	2351228	2354437	2330183	2316162	4.02
Aroclor-1260 {5}	1690329	1459572	1755368	1697742	1795274	1679657	7.76
						Average %RSD	8.45

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1262			8.62				7.72	7.72
Aroclor-1262 {2}			9.47				8.57	8.57
Aroclor-1262 {3}			10.10				9.20	9.20
Aroclor-1262 {4}			10.19				9.19	9.19
Aroclor-1262 {5}			11.01				10.01	10.01
Aroclor-1268			10.10				9.10	9.10
Aroclor-1268 {2}			10.19				9.09	9.09
Aroclor-1268 {3}			10.66				9.56	9.56
Aroclor-1268 {4}			10.79				9.69	9.69
Aroclor-1268 {5}			11.61				10.51	10.51

GC Column (2nd): DB-1701P

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1262			9.78				8.88	8.88
Aroclor-1262 {2}			10.28				9.38	9.38
Aroclor-1262 {3}			10.78				9.88	9.88
Aroclor-1262 {4}			10.87				9.87	9.87
Aroclor-1262 {5}			11.47				10.47	10.47
Aroclor-1268			10.78				9.78	9.78
Aroclor-1268 {2}			10.86				9.76	9.76
Aroclor-1268 {3}			11.12				10.02	10.02
Aroclor-1268 {4}			11.26				10.16	10.16
Aroclor-1268 {5}			12.34				11.24	11.24

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012 **Instrument ID:** GC-Y

GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			7073891				
Aroclor-1262 {2}			13053876				
Aroclor-1262 {3}			3301435				
Aroclor-1262 {4}			4436742				
Aroclor-1262 {5}			3777047				
Aroclor-1268			11864453				
Aroclor-1268 {2}			12465549				
Aroclor-1268 {3}			7914907				
Aroclor-1268 {4}			2259144				
Aroclor-1268 {5}			29144624				

GC Column (2nd): DB-1701P

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			1362153				
Aroclor-1262 {2}			3461876				
Aroclor-1262 {3}			1183328				
Aroclor-1262 {4}			2333360				
Aroclor-1262 {5}			429177				
Aroclor-1268			3479624				
Aroclor-1268 {2}			3499079				
Aroclor-1268 {3}			2918320				
Aroclor-1268 {4}			824937				
Aroclor-1268 {5}			9305585				

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 06/28/2012 **Instrument ID:** GC-R

Data File: R0855.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.93	3.86	4.00	2362024	2492653	5.53
Aroclor-1016 {2}	4.82	4.75	4.89	2747758	2765701	0.65
Aroclor-1016 {3}	5.39	5.33	5.47	4154608	4282291	3.07
Aroclor-1016 {4}	5.92	5.85	5.99	2021853	2338284	15.65
Aroclor-1016 {5}	6.33	6.26	6.40	3477719	3427016	1.46
Aroclor-1260	9.16	8.26	10.06	10331887	11374658	10.09
Aroclor-1260 {2}	9.84	8.94	10.74	5013605	5356210	6.83
Aroclor-1260 {3}	10.31	9.41	11.21	14588804	14277096	2.14
Aroclor-1260 {4}	10.80	9.90	11.70	8058021	6782417	15.83
Aroclor-1260 {5}	11.87	10.97	12.77	3219593	3148033	2.22
					Average %D	6.35

Data File: R0855.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	4.51	4.43	4.57	1738767	1818620	4.59
Aroclor-1016 {2}	5.14	5.06	5.20	3337754	3528221	5.71
Aroclor-1016 {3}	5.93	5.85	5.99	7230192	7968512	10.21
Aroclor-1016 {4}	6.14	6.07	6.21	2727814	2873900	5.36
Aroclor-1016 {5}	6.33	6.25	6.39	2571106	2879054	11.98
Aroclor-1260	9.00	8.09	9.89	3760372	3858124	2.60
Aroclor-1260 {2}	9.41	8.50	10.30	4285297	4319437	0.80
Aroclor-1260 {3}	10.62	9.71	11.51	3235080	2911189	10.01
Aroclor-1260 {4}	11.13	10.22	12.02	6487138	5437628	16.18
Aroclor-1260 {5}	11.73	10.82	12.62	4839325	4066951	15.96
					Average %D	8.34

PCB CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 06/29/2012 **Instrument ID:** GC-R

Data File: R0880.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.94	3.86	4.00	2362024	2483606	5.15
Aroclor-1016 {2}	4.83	4.75	4.89	2747758	3161289	15.05
Aroclor-1016 {3}	5.41	5.33	5.47	4154608	4429467	6.62
Aroclor-1016 {4}	5.94	5.85	5.99	2021853	2122524	4.98
Aroclor-1016 {5}	6.35	6.26	6.40	3477719	3578767	2.91
Aroclor-1260	9.17	8.26	10.06	10331887	10216940	1.11
Aroclor-1260 {2}	9.85	8.94	10.74	5013605	4232192	15.59
Aroclor-1260 {3}	10.32	9.41	11.21	14588804	12311172	15.61
Aroclor-1260 {4}	10.81	9.90	11.70	8058021	6794706	15.68
Aroclor-1260 {5}	11.87	10.97	12.77	3219593	2791167	13.31
					Average %D	9.60

Data File: R0880.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	4.50	4.43	4.57	1738767	1645377	5.37
Aroclor-1016 {2}	5.14	5.06	5.20	3337754	3140821	5.90
Aroclor-1016 {3}	5.92	5.85	5.99	7230192	6964363	3.68
Aroclor-1016 {4}	6.14	6.07	6.21	2727814	3013742	10.48
Aroclor-1016 {5}	6.32	6.25	6.39	2571106	2325370	9.56
Aroclor-1260	8.99	8.09	9.89	3760372	3190707	15.15
Aroclor-1260 {2}	9.40	8.50	10.30	4285297	3553124	17.09
Aroclor-1260 {3}	10.61	9.71	11.51	3235080	2696783	16.64
Aroclor-1260 {4}	11.12	10.22	12.02	6487138	5387618	16.95
Aroclor-1260 {5}	11.72	10.82	12.62	4839325	4187794	13.46
					Average %D	11.43

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/13/2012 **Instrument ID:** GC-Y

Data File: Y6663.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1525474	14.39
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2093087	11.75
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2880812	7.82
Aroclor-1016 {4}	5.16	5.09	5.23	1513071	1341059	11.37
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2320657	10.59
Aroclor-1260	8.33	7.42	9.22	7136339	6864481	3.81
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	2912336	13.29
Aroclor-1260 {3}	9.47	8.57	10.37	8338627	7500283	10.05
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	3817498	9.51
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1790952	8.44
					Average %D	10.10

Data File: Y6663.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.80	3.75	3.89	559998	569153	1.63
Aroclor-1016 {2}	4.40	4.35	4.49	1150027	1134055	1.39
Aroclor-1016 {3}	5.15	5.10	5.24	2577359	2627377	1.94
Aroclor-1016 {4}	5.36	5.31	5.45	1059949	1106395	4.38
Aroclor-1016 {5}	5.54	5.49	5.63	886286	861169	2.83
Aroclor-1260	7.90	7.03	8.83	912187	983038	7.77
Aroclor-1260 {2}	8.15	7.28	9.08	1363790	1423194	4.36
Aroclor-1260 {3}	9.74	8.88	10.68	1129299	1159665	2.69
Aroclor-1260 {4}	10.25	9.38	11.18	2316162	2554937	10.31
Aroclor-1260 {5}	10.84	9.97	11.77	1679657	1799125	7.11
					Average %D	4.44

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/13/2012 **Instrument ID:** GC-Y

Data File: Y6675.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1513330	15.07
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2057045	13.27
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2780453	11.03
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1296666	14.30
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2213696	14.71
Aroclor-1260	8.33	7.42	9.22	7136339	6059387	15.09
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	2841639	15.39
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	6955755	16.58
Aroclor-1260 {4}	9.95	9.05	10.85	4218754	3638388	13.76
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1651140	0.03
					Average %D	12.92

Data File: Y6675.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.80	3.75	3.89	559998	559757	0.04
Aroclor-1016 {2}	4.40	4.35	4.49	1150027	1117586	2.82
Aroclor-1016 {3}	5.15	5.10	5.24	2577359	2554919	0.87
Aroclor-1016 {4}	5.36	5.31	5.45	1059949	1075868	1.50
Aroclor-1016 {5}	5.54	5.49	5.63	886286	837101	5.55
Aroclor-1260	7.90	7.03	8.83	912187	909863	0.25
Aroclor-1260 {2}	8.16	7.28	9.08	1363790	1303504	4.42
Aroclor-1260 {3}	9.75	8.88	10.68	1129299	1111354	1.59
Aroclor-1260 {4}	10.25	9.38	11.18	2316162	2359479	1.87
Aroclor-1260 {5}	10.84	9.97	11.77	1679657	1696199	0.98
					Average %D	1.99

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/13/2012 **Instrument ID:** GC-Y

Data File: Y6645.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1440772	19.14
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2421252	2.09
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2679253	14.26
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1610837	6.46
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2122979	18.21
Aroclor-1260	8.33	7.42	9.22	7136339	6014276	15.72
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	3294493	1.91
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	7385303	11.43
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	4405974	4.44
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1377968	16.57
					Average %D	11.02

Data File: Y6645.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.80	3.75	3.89	559998	533431	4.74
Aroclor-1016 {2}	4.40	4.35	4.49	1150027	1074305	6.58
Aroclor-1016 {3}	5.15	5.10	5.24	2577359	2472376	4.07
Aroclor-1016 {4}	5.36	5.31	5.45	1059949	1020054	3.76
Aroclor-1016 {5}	5.54	5.49	5.63	886286	796991	10.08
Aroclor-1260	7.90	7.03	8.83	912187	899273	1.42
Aroclor-1260 {2}	8.15	7.28	9.08	1363790	1281115	6.06
Aroclor-1260 {3}	9.74	8.88	10.68	1129299	1092909	3.22
Aroclor-1260 {4}	10.25	9.38	11.18	2316162	2362149	1.99
Aroclor-1260 {5}	10.84	9.97	11.77	1679657	1746172	3.96
					Average %D	4.59

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/13/2012 **Instrument ID:** GC-Y

Data File: Y6662.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1484333	16.70
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2045359	13.76
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2800511	10.38
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1310405	13.39
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2241595	13.64
Aroclor-1260	8.33	7.42	9.22	7136339	6473734	9.28
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	2941405	12.42
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	6946515	16.69
Aroclor-1260 {4}	9.95	9.05	10.85	4218754	3797302	9.99
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1331655	19.37
					Average %D	13.56

Data File: Y6662.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.80	3.75	3.89	559998	559433	0.10
Aroclor-1016 {2}	4.40	4.35	4.49	1150027	1103806	4.02
Aroclor-1016 {3}	5.15	5.10	5.24	2577359	2556266	0.82
Aroclor-1016 {4}	5.36	5.31	5.45	1059949	1073192	1.25
Aroclor-1016 {5}	5.54	5.49	5.63	886286	835533	5.73
Aroclor-1260	7.90	7.03	8.83	912187	943660	3.45
Aroclor-1260 {2}	8.15	7.28	9.08	1363790	1370062	0.46
Aroclor-1260 {3}	9.74	8.88	10.68	1129299	1218225	7.87
Aroclor-1260 {4}	10.25	9.38	11.18	2316162	2536726	9.52
Aroclor-1260 {5}	10.84	9.97	11.77	1679657	1812884	7.93
					Average %D	4.12

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-R **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 3.44 **DCB 1** 12.98 **TCMX 2** 3.55 **DCB 2** 13.45

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS120627-03	06/28/2012	22:17	3.44		12.98		3.55		13.45	
CS-9	06226-001	06/28/2012	22:35	3.44		12.98		3.55		13.45	
CS-10	06226-002	06/28/2012	22:52	3.44		12.98		3.55		13.45	
CS-11	06226-003	06/28/2012	23:09	3.44		12.98		3.56		13.45	
RS-2/1.5-2	06225-016	06/28/2012	23:26	3.44		12.98		3.55		13.45	
RS-4/4-4.5	06225-020	06/28/2012	23:44	3.44		12.98		3.55		13.45	
PCB	06226-003MS	06/29/2012	00:01	3.44		12.98		3.55		13.45	
PCB	06226-003MSD	06/29/2012	00:18	3.44		12.98		3.55		13.45	
PCB	LCSS120627-03	06/29/2012	00:35	3.44		12.98		3.55		13.45	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1	2.82	DCB 1	12.10	TCMX 2	2.92	DCB 2	12.52

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS120706-06	07/13/2012	11:57	2.82		12.10		2.92		12.52	
I1-062712-	06466-008	07/13/2012	12:55	2.81		12.11		2.93		12.54	
PCB	LCSS120706-06	07/13/2012	13:12	2.82		12.10		2.92		12.52	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.82 **DCB 1** 12.10 **TCMX 2** 2.92 **DCB 2** 12.52

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS120706-05	07/13/2012	02:57	2.82		12.10		2.92		12.52	
B1_(4-5)_-	06466-001	07/13/2012	03:14	2.82		12.10		2.92		12.52	
B3_(16-17)	06466-002	07/13/2012	03:31	2.82		12.10		2.92		12.52	
SB-1/0.5-1	06473-001	07/13/2012	03:48	2.82		12.10		2.92		12.52	
SB-2/0.5-1	06473-002	07/13/2012	04:06	2.82		12.10		2.92		12.52	
SLF-TW-40/	06625-001	07/13/2012	04:23	2.82		12.10		2.92		12.52	
SLF-TW-41/	06625-002	07/13/2012	04:40	2.82		12.10		2.92		12.52	
SLF-TW-41/	06625-003	07/13/2012	04:57	2.82		12.10		2.92		12.52	
SLF-TW-41/	06625-004	07/13/2012	05:14	2.82		12.10		2.92		12.52	
SLF-TW-41/	06625-005	07/13/2012	05:31	2.82		12.10		2.92		12.52	
SLF-TW-42/	06625-007	07/13/2012	06:06	2.82		12.10		2.92		12.52	
SLF-TW-42/	06625-008	07/13/2012	06:23	2.82		12.10		2.92		12.52	
PCB	06466-001MS	07/13/2012	06:40	2.82		12.10		2.92		12.52	
PCB	06466-001MSD	07/13/2012	06:57	2.82		12.10		2.92		12.52	
PCB	LCSS120706-05	07/13/2012	07:14	2.82		12.10		2.92		12.52	
SLF-TW-41/	06625-006	07/13/2012	11:40	2.81		12.10		2.93		12.53	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : Y6647.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 3:14
Operator : YG
Sample : B1_(4-5)_-,06466-001,S,5.80g,18.5,07/06/12,4
Misc : 120706-05,06/27/12,06/28/12,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 09:06:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	18745.5E6	6714.2E6	178.229	193.684
Spiked Amount 200.000			Recovery	=	89.11%	96.84%
2) S DCB	12.10	12.52	3736.0E6	1663.8E6	158.281	185.968m
Spiked Amount 200.000			Recovery	=	79.14%	92.98%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

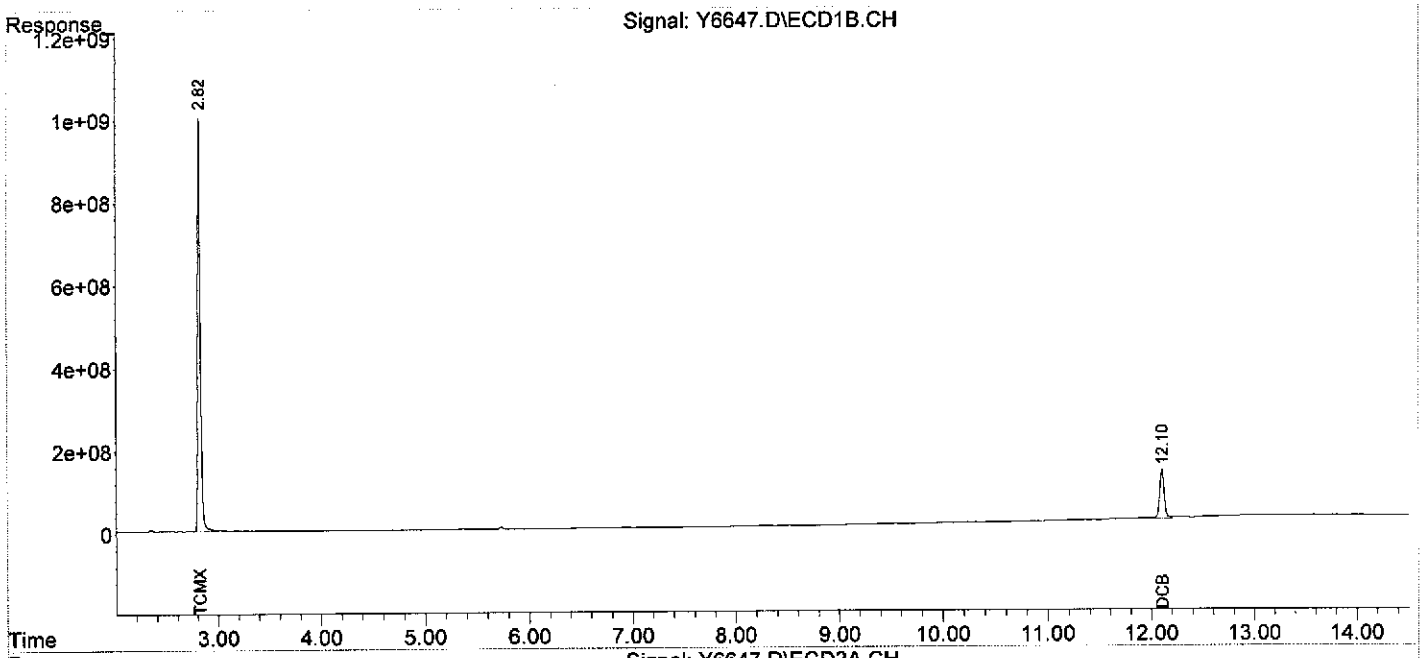
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

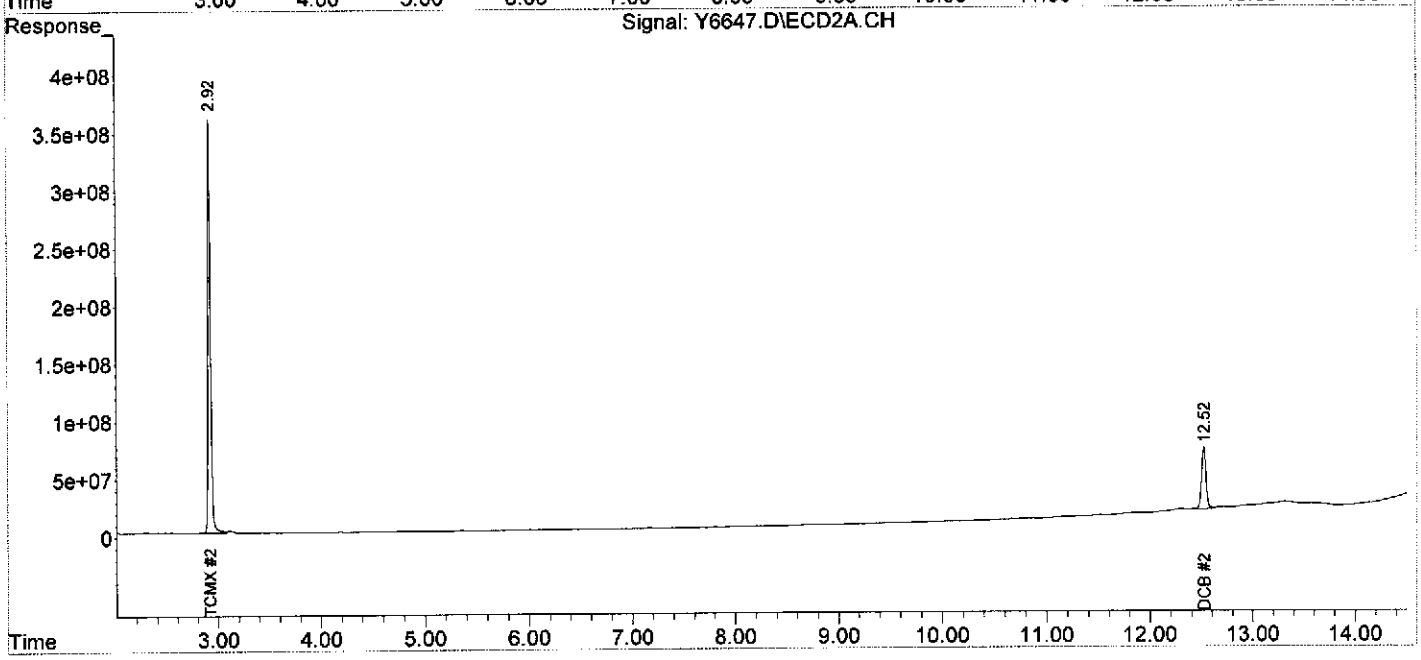
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : Y6647.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 3:14
Operator : YG
Sample : B1_(4-5)_-,06466-001,S,5.80g,18.5,07/06/12,4
Misc : 120706-05,06/27/12,06/28/12,1
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 09:06:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : Y6648.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 3:31
Operator : YG
Sample : B3_(16-17),06466-002,S,5.45g,19.6,07/06/12,4
Misc : 120706-05,06/27/12,06/28/12,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 09:07:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	19097.1E6	6938.7E6	181.572	200.161
Spiked Amount 200.000			Recovery	=	90.79%	100.08%
2) S DCB	12.10	12.52	3576.2E6	1823.2E6	151.509	203.787 #
Spiked Amount 200.000			Recovery	=	75.75%	101.89%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

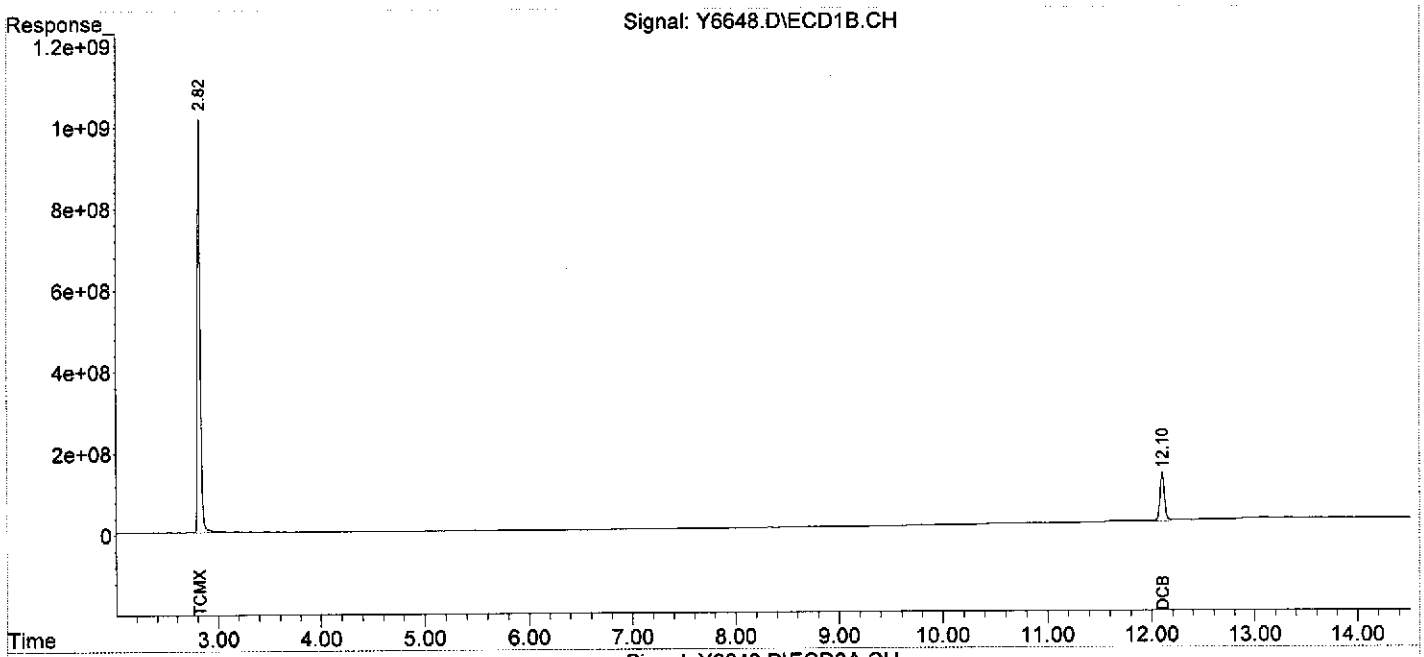
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

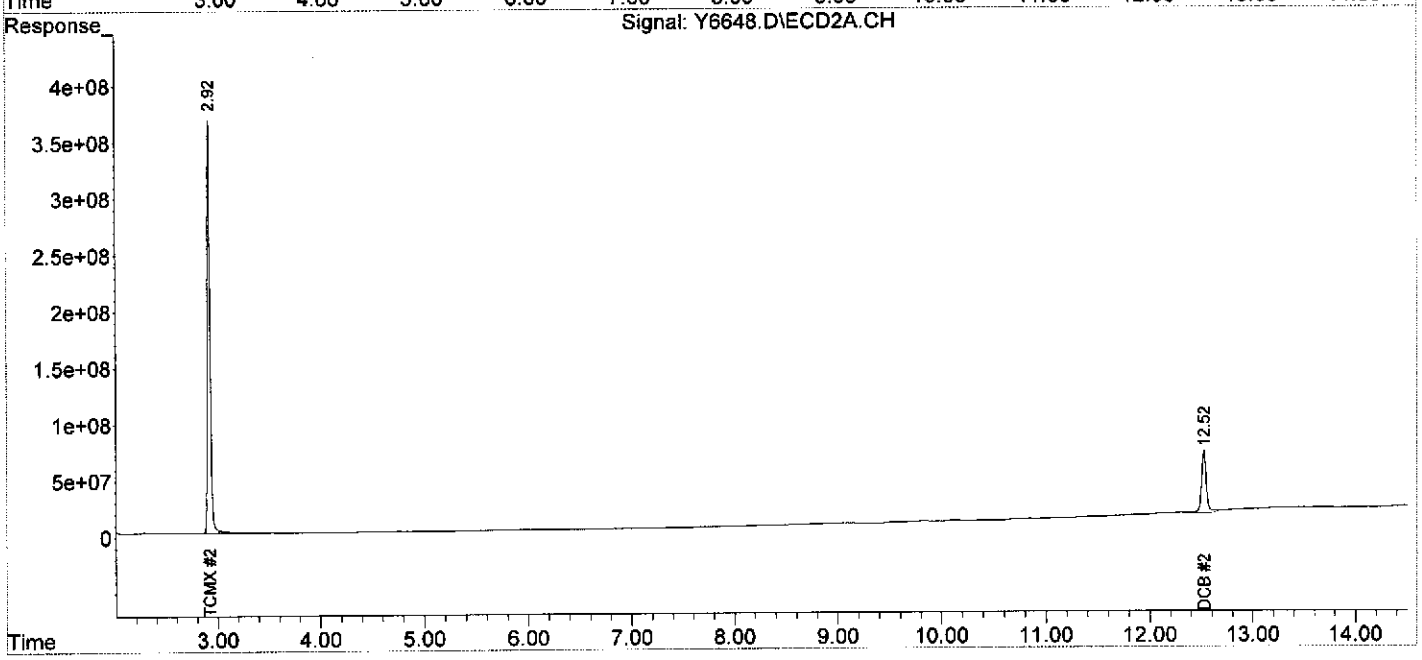
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : Y6648.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 3:31
Operator : YG
Sample : B3_(16-17),06466-002,S,5.45g,19.6,07/06/12,4
Misc : 120706-05,06/27/12,06/28/12,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 09:07:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-13\
Data File : Y6673.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 12:55
Operator : YG
Sample : I1-062712-,06466-008,S,32.39g,17.0,07/06/12,4
Misc : 120706-06,06/27/12,06/28/12,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 15:00:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.81	2.93	6151.5E6	2955.9E6	65.011	94.046 #
Spiked Amount 200.000			Recovery	=	32.51%	47.02%
2) S DCB	12.11	12.54	1686.9E6	947.0E6	86.679m	124.236m#
Spiked Amount 200.000			Recovery	=	43.34%	62.12%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.51	5.16	203.5E6	99855376	48.027	75.794m#
24) L6 Aroclor-1248 {2}	5.04	5.75	121.7E6	141.5E6	50.346	72.614m#
25) L6 Aroclor-1248 {3}	5.36	6.15	151.8E6	105.5E6	46.905	74.649m#
26) L6 Aroclor-1248 {4}	6.06	6.30	354.9E6	93326274	68.771	77.424
27) L6 Aroclor-1248 {5}	6.33	6.65	276.3E6	59309507	66.659	89.815m#
Sum Aroclor-1248			1108.2E6	499.5E6	280.709	390.297
Average Aroclor-1248					56.142	78.059
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
33) L8 Aroclor-1260	8.33	7.91	398.2E6	200.6E6	55.900m	220.181m#
34) L8 Aroclor-1260 {2}	9.01	8.17	110.6E6	129.4E6	32.955	95.592 #
35) L8 Aroclor-1260 {3}	9.48	9.76	314.9E6	75047450	38.604	69.462 #
36) L8 Aroclor-1260 {4}	9.96	10.26	154.1E6	103.4E6	36.432	44.712
37) L8 Aroclor-1260 {5}	11.03	10.85	110.0E6	106.8E6	68.918m	62.504
Sum Aroclor-1260			1087.8E6	615.3E6	232.810	492.451
Average Aroclor-1260					46.562	98.490
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-13\
Data File : Y6673.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 12:55
Operator : YG
Sample : I1-062712-,06466-008,S,32.39g,17.0,07/06/12,4
Misc : 120706-06,06/27/12,06/28/12,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 15:00:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2

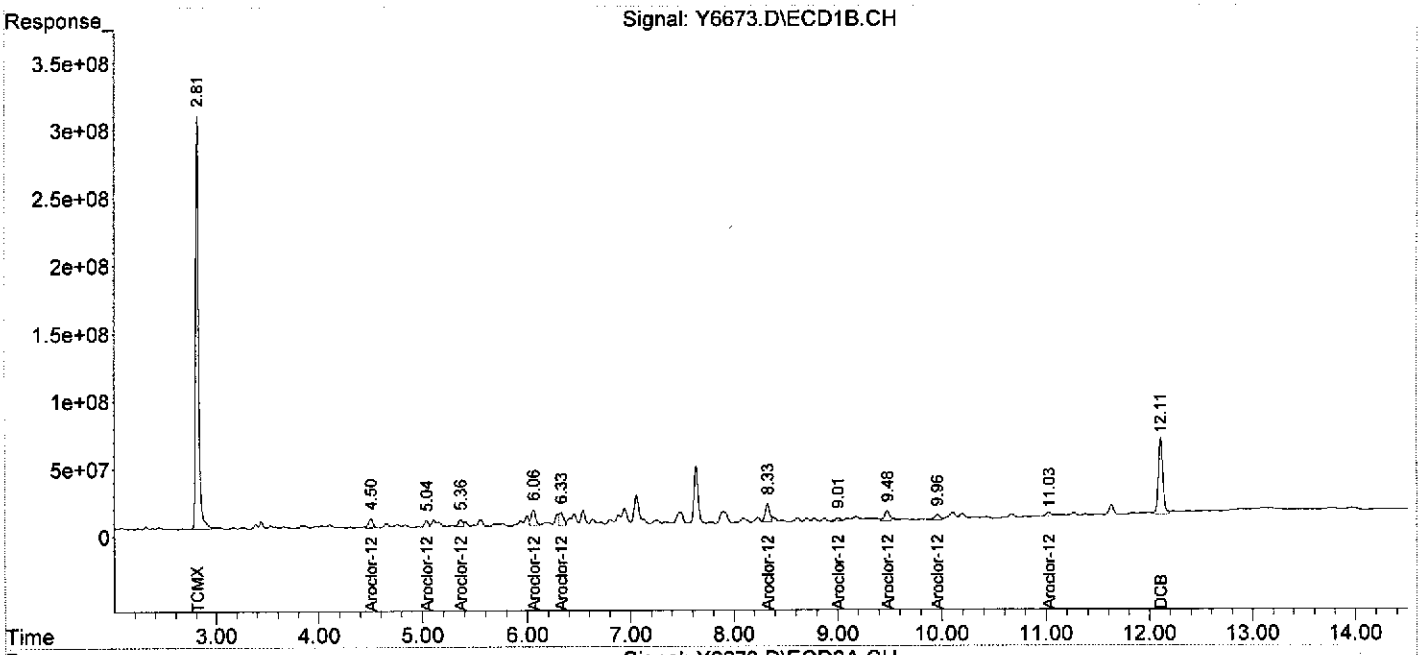
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

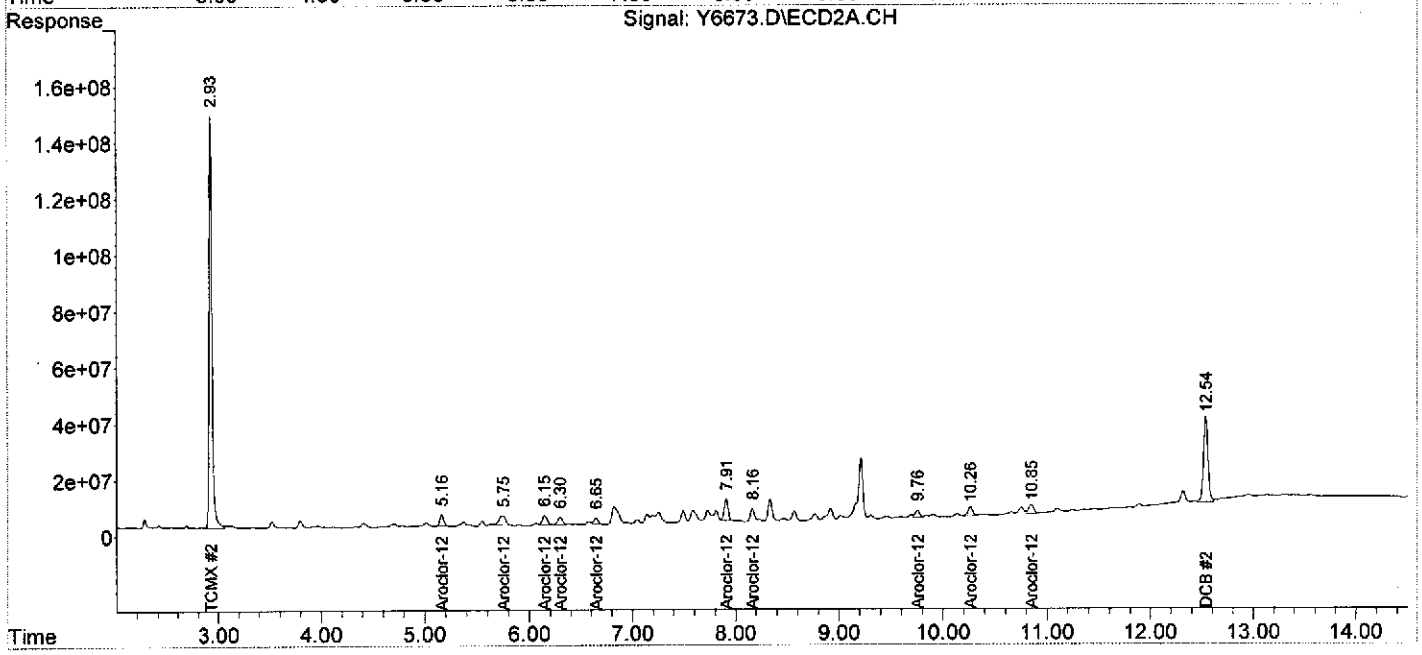
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-13\
Data File : Y6673.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 12:55
Operator : YG
Sample : I1-062712-,06466-008,S,32.39g,17.0,07/06/12,4
Misc : 120706-06,06/27/12,06/28/12,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 15:00:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS120627-03
Client ID: PCB
Date Received: NA
Date Extracted: 06/27/2012
Date Analyzed: 06/28/2012
Data file: R0871.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00167	0.000668
Aroclor-1221	ND		0.00167	0.000668
Aroclor-1232	ND		0.00167	0.000668
Aroclor-1242	ND		0.00167	0.000668
Aroclor-1248	ND		0.00167	0.000668
Aroclor-1254	ND		0.00167	0.000668
Aroclor-1260	ND		0.00167	0.000668
Aroclor-1262	ND		0.00167	0.000668
Aroclor-1268	ND		0.00167	0.000668
PCBs	ND		0.00167	0.000668

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS120706-06
Client ID: PCB
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/13/2012
Data file: Y6672.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00167	0.000668
Aroclor-1221	ND		0.00167	0.000668
Aroclor-1232	ND		0.00167	0.000668
Aroclor-1242	ND		0.00167	0.000668
Aroclor-1248	ND		0.00167	0.000668
Aroclor-1254	ND		0.00167	0.000668
Aroclor-1260	ND		0.00167	0.000668
Aroclor-1262	ND		0.00167	0.000668
Aroclor-1268	ND		0.00167	0.000668
PCBs	ND		0.00167	0.000668

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-13\
Data File : Y6672.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 11:57
Operator : YG
Sample : PCB,BLKS120706-06,S,30.00g,0,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 14:25:55 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	16341.0E6	6130.6E6	172.696	195.049
Spiked Amount 200.000			Recovery	=	86.35%	97.52%
2) S DCB	12.10	12.52	2923.5E6	1724.1E6	150.220	226.182m#
Spiked Amount 200.000			Recovery	=	75.11%	113.09%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

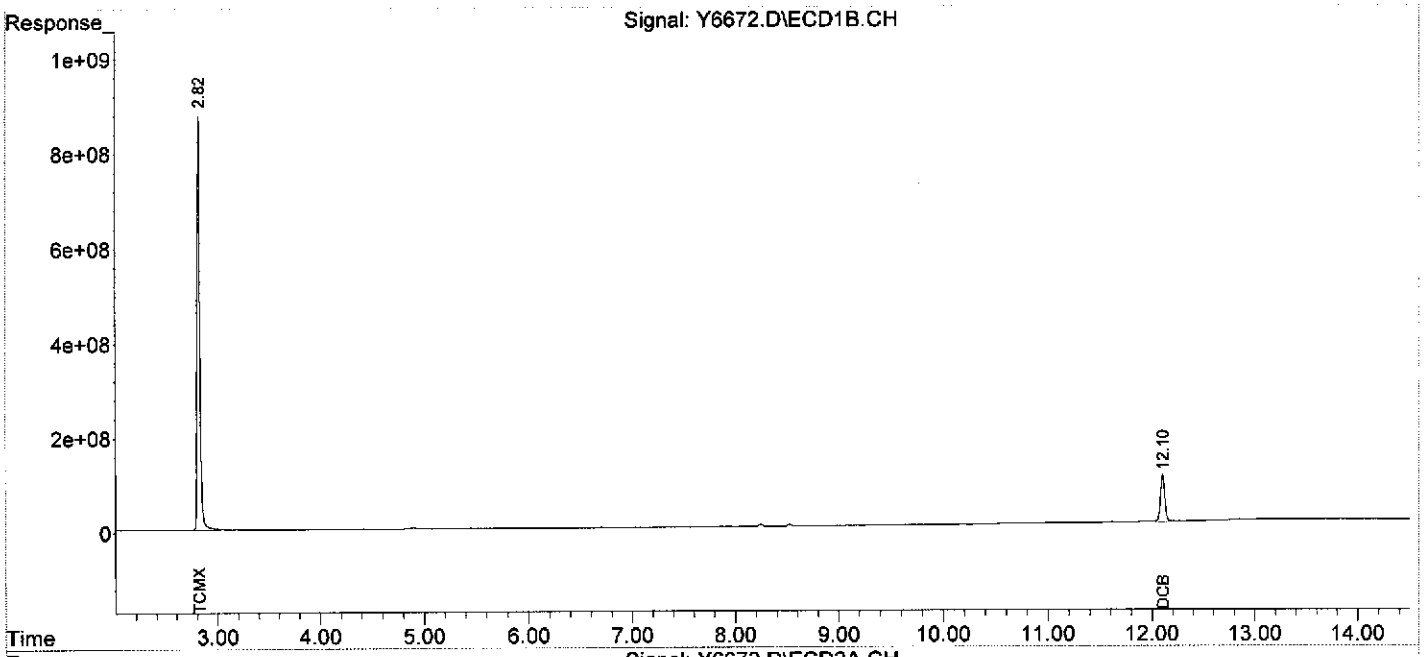
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

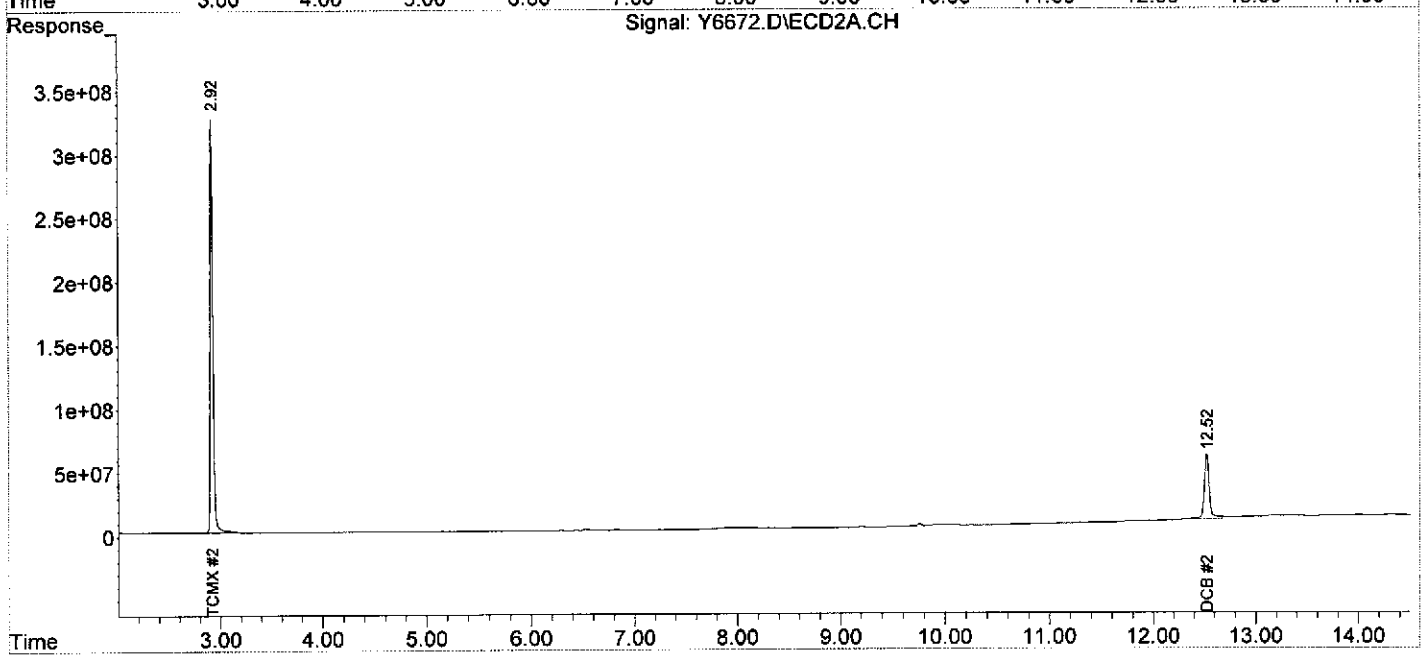
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-13\
Data File : Y6672.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 11:57
Operator : YG
Sample : PCB,BLKS120706-06,S,30.00g,0,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 14:25:55 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS120706-05
Client ID: PCB
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/13/2012
Data file: Y6646.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : Y6646.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 2:57
Operator : YG
Sample : PCB,BLKS120706-05,S,5.00g,0,07/06/12,4
Misc : NA,NA,NA,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 09:06:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	19111.1E6	6838.5E6	181.706	197.270
Spiked Amount 200.000			Recovery	=	90.85%	98.64%
2) S DCB	12.10	12.52	3488.2E6	1739.0E6	147.782	194.373m#
Spiked Amount 200.000			Recovery	=	73.89%	97.19%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

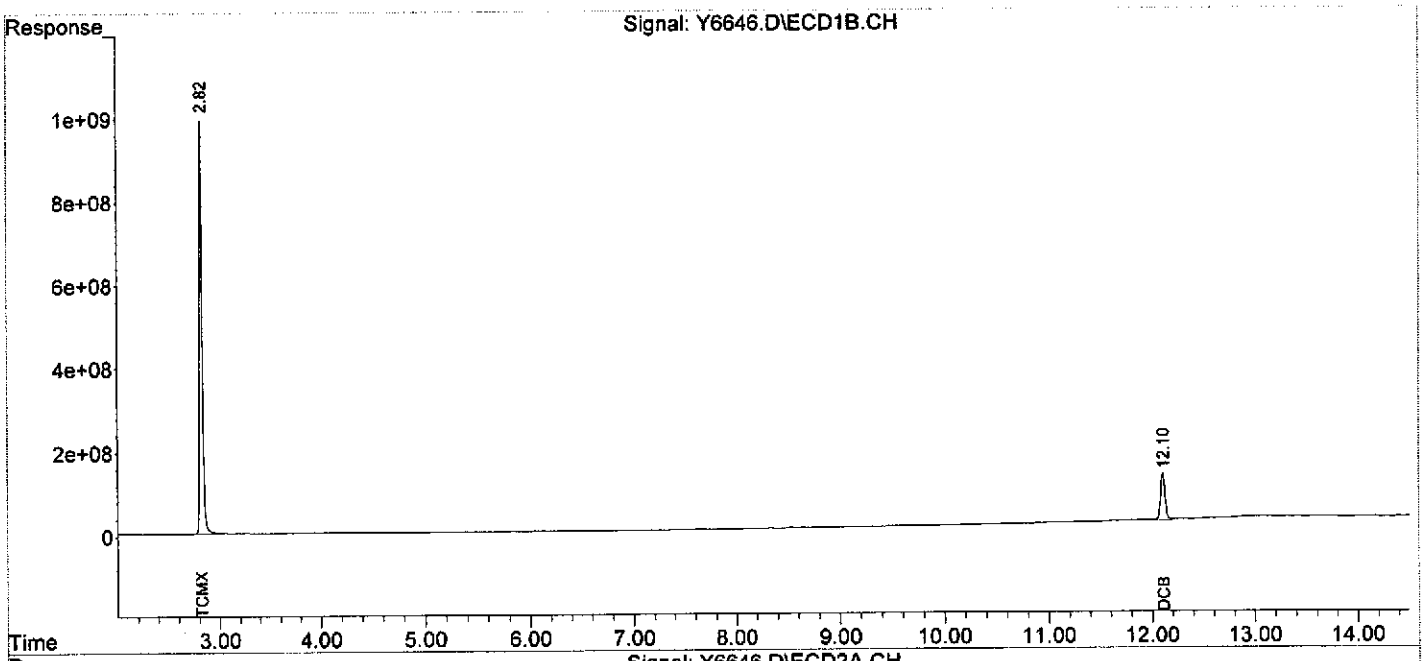
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

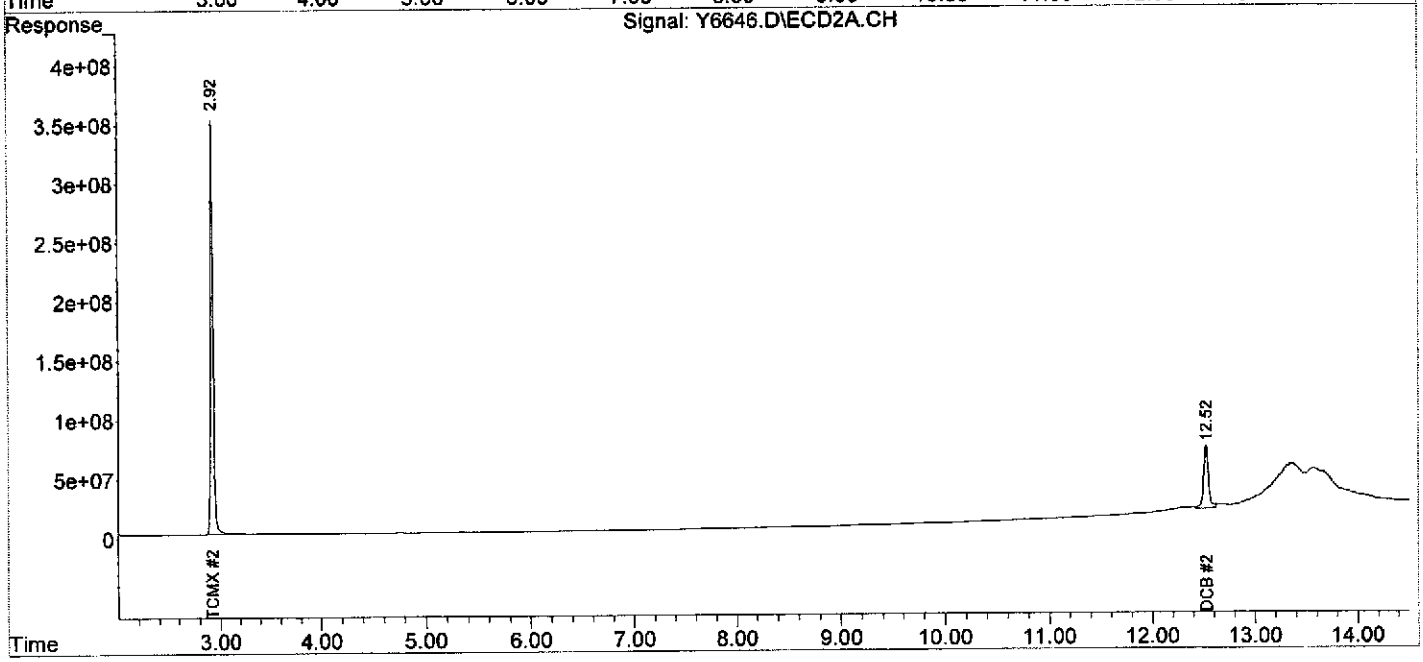
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : Y6646.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 2:57
Operator : YG
Sample : PCB,BLKS120706-05,S,5.00g,0,07/06/12,4
Misc : NA,NA,NA,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 13 09:06:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/03/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKA021207-12	AQUEOUS	50		52		46		51	
ORD-V12-17	06490-001	AQUEOUS	59		69		53		92	
FIELD_BLAN	06388-022	AQUEOUS	57		64		52		63	
I2-062612-	06385-003	AQUEOUS	49		72		42		87	
I1-062612-	06385-005	AQUEOUS	50		79		38		79	
SS-7/0-5	06438-001	AQUEOUS	55		69		53		76	
A2-062712-	06466-011	AQUEOUS	50		75		46		76	
A7-062712-	06466-012	AQUEOUS	57		73		52		83	
GPECFB0628	06507-016	AQUEOUS	67		73		60		69	
Pest	06466-011MS	AQUEOUS	49		74		45		62	
Pest	06466-011MSD	AQUEOUS	59		69		53		90	
Pest	LCSA021207-12	AQUEOUS	36		53		34		52	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/05/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKA120703-10	AQUEOUS	58		71		61		61	
A1-062712-	06466-010	AQUEOUS	47		63		50		64	
Pest	LCSA120703-10	AQUEOUS	77		83		84		80	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS120706-06	SOIL	69		66		73		61	
I1-062712-	06466-008	SOIL	51		57		38		68	
S-1/0-0.5	06467-001	SOIL	43		53		45		49	
S-2/0-0.5	06467-002	SOIL	40		37		39		36	
S-3/0-0.5	06467-003	SOIL	37		42		40		34	
S-4/0-0.5	06467-005	SOIL	38		40		37		42	
S-5/1-1.5	06467-007	SOIL	40		49		42		47	
S-6/0-0.5	06467-008	SOIL	34		37		33		35	
S-7/0-0.5	06467-009	SOIL	43		43		51		46	
S-8/0-0.5	06467-010	SOIL	22		35		22		34	
S-9/0-0.5	06467-011	SOIL	21		32		23		32	
S-10/1-1.5	06467-012	SOIL	41		58		43		47	
Pest	06467-012MS	SOIL	49		60		54		56	
Pest	06467-012MSD	SOIL	41		55		44		52	
Pest	LCSS120706-06	SOIL	112		117		118		105	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA021207-12
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
Data file: O9525.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	77.41	77
beta-BHC	100.0	0.00	71.94	72
gamma-BHC (Lindane)	100.0	0.00	80.30	80
delta-BHC	100.0	0.00	40.25	40
Heptachlor	100.0	0.00	89.45	89
Aldrin	100.0	0.00	93.29	93
Heptachlor epoxide	100.0	0.00	92.13	92
Endosulfan I	100.0	0.00	95.77	96
4,4'-DDE	100.0	0.00	100.33	100
Dieldrin	100.0	0.00	85.72	86
Endrin	100.0	0.00	98.57	99
Endosulfan II	100.0	0.00	96.42	96
4,4'-DDD	100.0	0.00	107.19	107
Endrin aldehyde	100.0	0.00	89.33	89
Endosulfan sulfate	100.0	0.00	80.53	81
4,4'-DDT	100.0	0.00	61.47	61
Endrin ketone	100.0	0.00	91.94	92
Methoxychlor	100.0	0.00	70.16	70
alpha-Chlordane	100.0	0.00	94.30	94
gamma-Chlordane	100.0	0.00	94.63	95

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120703-10
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/05/2012
Data file: V8175.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	83.78	84
beta-BHC	100.0	0.00	72.63	73
gamma-BHC (Lindane)	100.0	0.00	84.79	85
delta-BHC	100.0	0.00	77.56	78
Heptachlor	100.0	0.00	78.92	79
Aldrin	100.0	0.00	82.93	83
Heptachlor epoxide	100.0	0.00	82.93	83
Endosulfan I	100.0	0.00	82.05	82
4,4'-DDE	100.0	0.00	80.07	80
Dieldrin	100.0	0.00	68.42	68
Endrin	100.0	0.00	81.19	81
Endosulfan II	100.0	0.00	83.84	84
4,4'-DDD	100.0	0.00	77.67	78
Endrin aldehyde	100.0	0.00	79.13	79
Endosulfan sulfate	100.0	0.00	77.48	77
4,4'-DDT	100.0	0.00	84.08	84
Endrin ketone	100.0	0.00	76.47	76
Methoxychlor	100.0	0.00	81.47	81
alpha-Chlordane	100.0	0.00	80.76	81
gamma-Chlordane	100.0	0.00	81.78	82

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120706-06
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: V8277.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	121.58	122
beta-BHC	100.0	0.00	112.24	112
gamma-BHC (Lindane)	100.0	0.00	112.60	113
delta-BHC	100.0	0.00	110.71	111
Heptachlor	100.0	0.00	101.28	101
Aldrin	100.0	0.00	128.81	129
Heptachlor epoxide	100.0	0.00	123.98	124
Endosulfan I	100.0	0.00	138.82	139
4,4'-DDE	100.0	0.00	124.68	125
Dieldrin	100.0	0.00	109.55	110
Endrin	100.0	0.00	131.65	132
Endosulfan II	100.0	0.00	128.87	129
4,4'-DDD	100.0	0.00	127.60	128
Endrin aldehyde	100.0	0.00	113.36	113
Endosulfan sulfate	100.0	0.00	124.53	125
4,4'-DDT	100.0	0.00	110.71	111
Endrin ketone	100.0	0.00	114.53	115
Methoxychlor	100.0	0.00	107.09	107
alpha-Chlordane	100.0	0.00	127.28	127
gamma-Chlordane	100.0	0.00	129.26	129

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06466-011
Date Received: 06/28/2012
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
MS Data file: O9523.D
MSD Data file: O9524.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	55.13	55		58.17	58	5
beta-BHC	100.00	0.00	49.45	49		52.73	53	6
gamma-BHC (Lindane)	100.00	0.00	54.51	55		56.41	56	3
delta-BHC	100.00	0.00	55.19	55		56.22	56	2
Heptachlor	100.00	0.00	60.89	61		64.46	64	6
Aldrin	100.00	0.00	64.50	65		66.08	66	2
Heptachlor epoxide	100.00	0.00	64.49	64		65.70	66	2
Endosulfan I	100.00	0.00	67.02	67		68.20	68	2
4,4'-DDE	100.00	0.00	70.82	71		70.89	71	0
Dieldrin	100.00	0.00	61.12	61		61.62	62	1
Endrin	100.00	0.00	71.44	71		72.31	72	1
Endosulfan II	100.00	0.00	67.50	68		69.00	69	2
4,4'-DDD	100.00	0.00	69.45	69		70.05	70	1
Endrin aldehyde	100.00	0.00	62.38	62		64.49	64	3
Endosulfan sulfate	100.00	0.00	64.84	65		67.46	67	4
4,4'-DDT	100.00	0.00	74.17	74		76.03	76	2
Endrin ketone	100.00	0.00	68.77	69		72.17	72	5
Methoxychlor	100.00	0.00	76.51	77		78.20	78	2
alpha-Chlordane	100.00	0.00	67.58	68		68.10	68	1
gamma-Chlordane	100.00	0.00	67.43	67		67.87	68	1

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 05817-001
Date Received: 06/13/2012
Date Extracted: 06/20/2012
Date Analyzed: 06/22/2012
MS Data file: V7976.D
MSD Data file: V7977.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	80.08	80		74.95	75	7
beta-BHC	100.00	0.00	70.06	70		69.96	70	0
gamma-BHC (Lindane)	100.00	0.00	79.86	80		73.88	74	8
delta-BHC	100.00	0.00	72.80	73		69.77	70	4
Heptachlor	100.00	0.00	74.46	74		67.93	68	9
Aldrin	100.00	0.00	80.88	81		75.69	76	7
Heptachlor epoxide	100.00	0.00	80.60	81		75.92	76	6
Endosulfan I	100.00	0.00	85.50	86		82.55	83	4
4,4'-DDE	100.00	0.00	73.33	73		68.01	68	8
Dieldrin	100.00	0.00	67.47	67		63.45	63	6
Endrin	100.00	0.00	72.72	73		66.40	66	9
Endosulfan II	100.00	0.00	77.13	77		72.94	73	6
4,4'-DDD	100.00	0.00	69.90	70		66.46	66	5
Endrin aldehyde	100.00	0.00	72.65	73		69.46	69	4
Endosulfan sulfate	100.00	0.00	67.94	68		64.47	64	5
4,4'-DDT	100.00	0.00	65.95	66		59.61	60	10
Endrin ketone	100.00	0.00	63.52	64		60.90	61	4
Methoxychlor	100.00	0.00	60.74	61		54.91	55	10
alpha-Chlordane	100.00	0.00	79.01	79		74.26	74	6
gamma-Chlordane	100.00	0.00	80.59	81		76.03	76	6

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06467-012
Date Received: 06/28/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
MS Data file: V8275.D
MSD Data file: V8276.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.17g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 15.1
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	61.11	61		52.43	52	15
beta-BHC	100.00	0.00	63.34	63		56.82	57	11
gamma-BHC (Lindane)	100.00	0.00	58.51	59		50.82	51	14
delta-BHC	100.00	0.00	61.76	62		54.64	55	12
Heptachlor	100.00	0.00	50.21	50		43.96	44	13
Aldrin	100.00	0.00	66.89	67		59.56	60	12
Heptachlor epoxide	100.00	0.00	69.93	70		62.37	62	11
Endosulfan I	100.00	0.00	76.54	77		68.29	68	11
4,4'-DDE	100.00	0.00	72.53	73		62.78	63	14
Dieldrin	100.00	0.00	62.68	63		55.05	55	13
Endrin	100.00	0.00	76.12	76		66.18	66	14
Endosulfan II	100.00	0.00	76.82	77		67.21	67	13
4,4'-DDD	100.00	0.00	79.83	80		69.56	70	14
Endrin aldehyde	100.00	0.00	68.52	69		59.77	60	14
Endosulfan sulfate	100.00	0.00	74.01	74		64.76	65	13
4,4'-DDT	100.00	0.00	57.13	57		49.17	49	15
Endrin ketone	100.00	0.00	69.17	69		60.40	60	14
Methoxychlor	100.00	0.00	57.89	58		50.05	50	15
alpha-Chlordane	100.00	0.00	71.74	72		63.54	64	12
gamma-Chlordane	100.00	0.00	72.46	72		64.33	64	12

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	O9514.D	Instrument ID:	GC-O
Date Extracted:	07/02/2012	Matrix:	AQUEOUS
Date Analyzed:	07/03/2012	Time Analyzed:	12:47

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ORD-V12-17	06490-001	07/03/2012	13:00
FIELD_BLAN	06388-022	07/03/2012	13:12
I2-062612-	06385-003	07/03/2012	13:24
I1-062612-	06385-005	07/03/2012	13:36
SS-7/0-5	06438-001	07/03/2012	13:48
A2-062712-	06466-011	07/03/2012	14:00
A7-062712-	06466-012	07/03/2012	14:12
GPECFB0628	06507-016	07/03/2012	14:24
Pest	06466-011MS	07/03/2012	14:36
Pest	06466-011MSD	07/03/2012	14:48
Pest	LCSA021207-12	07/03/2012	15:00

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	V7974.D	Instrument ID:	GC-V
Date Extracted:	06/20/2012	Matrix:	AQUEOUS
Date Analyzed:	06/22/2012	Time Analyzed:	18:36

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
BASIN_002	05817-001	06/22/2012	18:48
Pest	05817-001-MS10	06/22/2012	19:00
Pest	05817-001-MSD10	06/22/2012	19:13
Pest	PBA0620-MS10	06/22/2012	19:25

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	V8173.D	Instrument ID:	GC-V
Date Extracted:	07/03/2012	Matrix:	AQUEOUS
Date Analyzed:	07/05/2012	Time Analyzed:	13:37

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
A1-062712-	06466-010	07/05/2012	13:49
Pest	LCSA120703-10	07/05/2012	14:02

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V8263.D

Instrument ID: GC-V

Date Extracted: 07/06/2012

Matrix: SOIL

Date Analyzed: 07/10/2012

Time Analyzed: 13:04

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
I1-062712-	06466-008	07/10/2012	13:17
S-1/0-0.5	06467-001	07/10/2012	13:29
S-2/0-0.5	06467-002	07/10/2012	13:41
S-3/0-0.5	06467-003	07/10/2012	13:53
S-4/0-0.5	06467-005	07/10/2012	14:05
S-5/1-1.5	06467-007	07/10/2012	14:18
S-6/0-0.5	06467-008	07/10/2012	14:30
S-7/0-0.5	06467-009	07/10/2012	14:42
S-8/0-0.5	06467-010	07/10/2012	14:54
S-9/0-0.5	06467-011	07/10/2012	15:06
S-10/1-1.5	06467-012	07/10/2012	15:19
Pest	06467-012MS	07/10/2012	15:31
Pest	06467-012MSD	07/10/2012	15:43
Pest	LCSS120706-06	07/10/2012	15:55

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (1st): RTX-CLP1

Data File: V7799.D V7798.D V7797.D V7796.D V7795.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WI NDOW FROM	TO
alpha-BHC	2.45	2.45	2.45	2.45	2.45	2.45	2.39	2.51
beta-BHC	2.77	2.77	2.77	2.77	2.77	2.77	2.71	2.83
gamma-BHC	2.70	2.70	2.70	2.70	2.70	2.70	2.64	2.76
delta-BHC	2.93	2.93	2.93	2.93	2.93	2.93	2.87	2.99
Heptachlor	3.13	3.13	3.13	3.13	3.13	3.13	3.05	3.21
Aldrin	3.43	3.43	3.43	3.43	3.43	3.43	3.35	3.51
Heptachlor epoxide	4.08	4.08	4.08	4.08	4.08	4.08	4.00	4.16
Endosulfan I	4.54	4.54	4.54	4.54	4.54	4.54	4.46	4.62
4,4'-DDE	4.49	4.49	4.49	4.49	4.49	4.49	4.39	4.59
Dieldrin	4.84	4.84	4.84	4.84	4.84	4.84	4.74	4.94
Endrin	5.13	5.13	5.13	5.13	5.13	5.13	5.03	5.23
Endosulfan II	5.42	5.43	5.43	5.43	5.43	5.43	5.33	5.53
4,4'-DDD	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Endrin aldehyde	6.00	6.00	6.00	6.00	6.00	6.00	5.88	6.12
Endosulfan sulfate	6.62	6.62	6.62	6.62	6.62	6.62	6.50	6.74
4,4'-DDT	5.63	5.63	5.63	5.63	5.63	5.63	5.51	5.75
Endrin ketone	6.96	6.96	6.97	6.97	6.96	6.96	6.84	7.08
Methoxychlor	6.35	6.35	6.35	6.35	6.35	6.35	6.23	6.47
alpha-Chlordane	4.38	4.38	4.38	4.38	4.38	4.38	4.30	4.46
gamma-Chlordane	4.22	4.22	4.22	4.22	4.22	4.22	4.14	4.30
Chlordane 500 ppb			3.05				2.97	3.13
Chlordane {2}			3.56				3.48	3.64
Chlordane {3}			4.22				4.14	4.30
Chlordane {4}			4.37				4.29	4.45
Chlordane {5}			5.34				5.26	5.42
Toxaphene 500 ppb			5.07				4.99	5.15
Toxaphene {2}			5.51				5.43	5.59
Toxaphene {3}			5.98				5.90	6.06
Toxaphene {4}			6.48				6.40	6.56
Toxaphene {5}			6.94				6.86	7.02

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012 **Instrument ID:** GC-V
GC Column (1st): RTX-CLP1

Data File: V7799.D V7798.D V7797.D V7796.D V7795.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	231257	224713	233984	262339	261262	242711	7.31
beta-BHC	109613	90446	95659	99560	102234	99502	7.22
gamma-BHC	212959	199262	198894	229202	224154	212894	6.54
delta-BHC	227496	206922	213329	240121	238274	225228	6.56
Heptachlor	215343	195409	196407	223896	224617	211134	6.81
Aldrin	223963	200931	204098	226660	224024	215935	5.72
Heptachlor epoxide	204500	183395	184454	203707	199651	195141	5.33
Endosulfan I	186050	181746	193857	206959	205778	194878	5.83
4,4'-DDE	178468	167967	163108	188044	185631	176644	6.15
Dieldrin	231518	191987	190323	211310	209343	206896	8.12
Endrin	183964	166275	162213	186269	185600	176864	6.58
Endosulfan II	178338	151279	157070	173756	170270	166142	6.91
4,4'-DDD	176633	155301	157262	173138	170373	166541	5.79
Endrin aldehyde	142886	125626	120437	133897	132434	131056	6.52
Endosulfan sulfate	167693	141243	140887	153474	151651	150990	7.28
4,4'-DDT	101400	113961	110956	140542	144942	122360	15.72
Endrin ketone	215131	166019	157428	177875	176108	178512	12.36
Methoxychlor	63950	61329	56207	68844	69859	64038	8.75
alpha-Chlordane	196078	178126	178171	199409	197991	189955	5.71
gamma-Chlordane	193667	184170	186513	208671	207100	196024	5.81
Chlordane 500 ppb			6481				
Chlordane {2}			8087				
Chlordane {3}			23855				
Chlordane {4}			38345				
Chlordane {5}			6951				
Toxaphene 500 ppb			3975				
Toxaphene {2}			4642				
Toxaphene {3}			5316				
Toxaphene {4}			4811				
Toxaphene {5}			5234				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (2nd): RTX-CLP2

Data File: V7799.C V7798.C V7797.C V7796.C V7795.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.92	2.93	2.93	2.93	2.93	2.93	2.87	2.99
beta-BHC	3.37	3.37	3.37	3.37	3.37	3.37	3.31	3.43
gamma-BHC	3.29	3.29	3.29	3.29	3.29	3.29	3.23	3.35
delta-BHC	3.70	3.70	3.70	3.70	3.70	3.70	3.64	3.76
Heptachlor	3.79	3.79	3.79	3.79	3.79	3.79	3.71	3.87
Aldrin	4.18	4.18	4.18	4.18	4.18	4.18	4.10	4.26
Heptachlor epoxide	4.91	4.91	4.91	4.91	4.91	4.91	4.83	4.99
Endosulfan I	5.44	5.45	5.45	5.45	5.45	5.45	5.37	5.53
4,4'-DDE	5.61	5.61	5.61	5.61	5.61	5.61	5.51	5.71
Dieldrin	5.83	5.83	5.83	5.83	5.83	5.83	5.73	5.93
Endrin	6.27	6.27	6.27	6.27	6.27	6.27	6.17	6.37
Endosulfan II	6.58	6.58	6.59	6.58	6.58	6.58	6.48	6.68
4,4'-DDD	6.46	6.46	6.46	6.46	6.46	6.46	6.36	6.56
Endrin aldehyde	7.02	7.02	7.02	7.02	7.02	7.02	6.90	7.14
Endosulfan sulfate	7.33	7.33	7.33	7.33	7.33	7.33	7.21	7.45
4,4'-DDT	6.89	6.89	6.89	6.89	6.89	6.89	6.77	7.01
Endrin ketone	7.82	7.82	7.82	7.82	7.82	7.82	7.70	7.94
Methoxychlor	7.62	7.63	7.63	7.63	7.63	7.63	7.51	7.75
alpha-Chlordane	5.37	5.37	5.37	5.37	5.37	5.37	5.29	5.45
gamma-Chlordane	5.17	5.17	5.17	5.17	5.17	5.17	5.09	5.25
Chlordane 500 ppb			3.62				3.54	3.70
Chlordane {2}			4.36				4.28	4.44
Chlordane {3}			5.17				5.09	5.25
Chlordane {4}			5.30				5.22	5.38
Chlordane {5}			5.37				5.29	5.45
Toxaphene 500 ppb			5.81				5.73	5.89
Toxaphene {2}			6.71				6.63	6.79
Toxaphene {3}			7.04				6.96	7.12
Toxaphene {4}			7.56				7.48	7.64
Toxaphene {5}			7.91				7.83	7.99

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012 **Instrument ID:** GC-V

GC Column (2nd): RTX-CLP2

Data File: V7799.C V7798.C V7797.C V7796.C V7795.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	927502	941410	939496	1039724	1014689	972564	5.24
beta-BHC	427467	367667	376083	391013	384833	389412	5.92
gamma-BHC	879655	817425	816519	907696	878974	860054	4.77
delta-BHC	894047	813212	802437	894320	872503	855304	5.19
Heptachlor	775100	704353	756685	829336	819647	777024	6.52
Aldrin	873438	793667	803657	872346	844923	837606	4.48
Heptachlor epoxide	802324	696235	700811	743842	716805	732003	5.94
Endosulfan I	746347	648298	657649	691608	671267	683034	5.70
4,4'-DDE	677119	629315	628820	690561	679161	660995	4.48
Dieldrin	729603	661697	668051	722851	710324	698505	4.52
Endrin	638171	563265	546674	612208	599171	591898	6.25
Endosulfan II	673950	555015	569034	602930	579308	596047	7.87
4,4'-DDD	615161	442912	513004	564334	538359	534754	11.92
Endrin aldehyde	536928	386134	375670	403181	392237	418830	15.94
Endosulfan sulfate	539628	421514	405756	449247	437864	450802	11.60
4,4'-DDT	258826	310532	295971	377756	385037	325624	16.69
Endrin ketone	483538	427357	425080	460223	452540	449748	5.41
Methoxychlor	142042	151615	141819	173624	175892	156998	10.64
alpha-Chlordane	778212	662617	643791	704907	688797	695665	7.44
gamma-Chlordane	769490	700071	700700	755251	737736	732650	4.30
Chlordane 500 ppb			28296				
Chlordane {2}			32811				
Chlordane {3}			86013				
Chlordane {4}			75409				
Chlordane {5}			73806				
Toxaphene 500 ppb			8036				
Toxaphene {2}			20026				
Toxaphene {3}			19206				
Toxaphene {4}			12858				
Toxaphene {5}			6023				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/02/2012

Instrument ID: GC-O
GC Column (1st): RTX-CLP1

Data File: O9481.D O9480.D O9479.D O9478.D O9477.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WI NDOW FROM	TO
alpha-BHC	2.30	2.30	2.30	2.30	2.30	2.30	2.24	2.36
beta-BHC	2.59	2.59	2.59	2.59	2.59	2.59	2.53	2.65
gamma-BHC	2.53	2.53	2.53	2.53	2.53	2.53	2.47	2.59
delta-BHC	2.73	2.73	2.73	2.73	2.73	2.73	2.67	2.79
Heptachlor	2.89	2.89	2.89	2.89	2.89	2.89	2.81	2.97
Aldrin	3.14	3.14	3.14	3.14	3.14	3.14	3.06	3.22
Heptachlor epoxide	3.67	3.67	3.67	3.67	3.67	3.67	3.59	3.75
Endosulfan I	4.03	4.03	4.03	4.03	4.03	4.03	3.95	4.11
4,4'-DDE	3.98	3.98	3.98	3.98	3.98	3.98	3.88	4.08
Dieldrin	4.26	4.26	4.26	4.26	4.26	4.26	4.16	4.36
Endrin	4.48	4.49	4.48	4.49	4.48	4.49	4.39	4.59
Endosulfan II	4.71	4.71	4.71	4.71	4.71	4.71	4.61	4.81
4,4'-DDD	4.56	4.56	4.56	4.56	4.56	4.56	4.46	4.66
Endrin aldehyde	5.14	5.14	5.14	5.14	5.14	5.14	5.02	5.26
Endosulfan sulfate	5.66	5.66	5.66	5.66	5.66	5.66	5.54	5.78
4,4'-DDT	4.84	4.84	4.84	4.84	4.84	4.84	4.72	4.96
Endrin ketone	6.03	6.03	6.03	6.03	6.03	6.03	5.91	6.15
Methoxychlor	5.39	5.39	5.39	5.39	5.39	5.39	5.27	5.51
alpha-Chlordane	3.91	3.91	3.91	3.91	3.91	3.91	3.83	3.99
gamma-Chlordane	3.78	3.78	3.78	3.78	3.78	3.78	3.70	3.86
Chlordane 500 ppb			2.83				2.75	2.91
Chlordane {2}			3.26				3.18	3.34
Chlordane {3}			3.78				3.70	3.86
Chlordane {4}			3.90				3.82	3.98
Chlordane {5}			4.64				4.56	4.72
Toxaphene 500 ppb			4.42				4.34	4.50
Toxaphene {2}			4.77				4.69	4.85
Toxaphene {3}			5.11				5.03	5.19
Toxaphene {4}			5.53				5.45	5.61
Toxaphene {5}			6.22				6.14	6.30

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/02/2012

Instrument ID: GC-O

GC Column (1st): RTX-CLP1

Data File: O9481.D O9480.D O9479.D O9478.D O9477.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	138432	144923	162651	180776	164280	158213	10.64
beta-BHC	83612	65635	69843	72961	70102	72431	9.35
gamma-BHC	124012	123829	138258	155095	137975	135834	9.49
delta-BHC	130503	130250	148084	163133	149015	144197	9.68
Heptachlor	136949	128652	141092	157084	142510	141258	7.34
Aldrin	126684	124401	136176	153625	138559	135889	8.54
Heptachlor epoxide	128554	114669	123793	137948	124412	125875	6.71
Endosulfan I	125942	112157	121244	134653	121998	123199	6.62
4,4'-DDE	99060	98973	111391	127669	116772	110773	11.04
Dieldrin	121325	112308	123075	139853	126335	124579	8.03
Endrin	115094	101233	111959	125746	113735	113554	7.69
Endosulfan II	115307	95521	103182	115119	104406	106707	7.95
4,4'-DDD	102702	89135	97227	109102	99688	99571	7.36
Endrin aldehyde	103406	76009	80704	88316	77310	85149	13.24
Endosulfan sulfate	114632	89873	95801	105122	93328	99751	10.08
4,4'-DDT	86078	75101	87973	100423	94420	88799	10.72
Endrin ketone	128056	105106	113692	124827	113512	117039	7.97
Methoxychlor	51068	41196	43943	47844	42951	45401	8.80
alpha-Chlordane	128240	113062	121936	135983	123019	124448	6.79
gamma-Chlordane	129553	115409	125340	141295	127880	127895	7.26
Chlordane 500 ppb			3694				
Chlordane {2}			5043				
Chlordane {3}			14409				
Chlordane {4}			23022				
Chlordane {5}			3713				
Toxaphene 500 ppb			2951				
Toxaphene {2}			2619				
Toxaphene {3}			3332				
Toxaphene {4}			3535				
Toxaphene {5}			1645				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/02/2012

Instrument ID: GC-O
GC Column (2nd): RTX-CLP2

Data File: O9481.C O9480.C O9479.C O9478.C O9477.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.77	2.78	2.77	2.77	2.78	2.77	2.71	2.83
beta-BHC	3.15	3.15	3.15	3.15	3.15	3.15	3.09	3.21
gamma-BHC	3.09	3.09	3.09	3.09	3.09	3.09	3.03	3.15
delta-BHC	3.43	3.43	3.43	3.43	3.43	3.43	3.37	3.49
Heptachlor	3.51	3.51	3.51	3.51	3.51	3.51	3.43	3.59
Aldrin	3.83	3.83	3.83	3.83	3.83	3.83	3.75	3.91
Heptachlor epoxide	4.39	4.39	4.39	4.39	4.39	4.39	4.31	4.47
Endosulfan I	4.80	4.80	4.80	4.80	4.80	4.80	4.72	4.88
4,4'-DDE	4.91	4.91	4.91	4.91	4.91	4.91	4.81	5.01
Dieldrin	5.09	5.10	5.10	5.10	5.10	5.10	5.00	5.20
Endrin	5.46	5.46	5.46	5.46	5.46	5.46	5.36	5.56
Endosulfan II	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
4,4'-DDD	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Endrin aldehyde	6.20	6.20	6.20	6.20	6.21	6.20	6.08	6.32
Endosulfan sulfate	6.58	6.58	6.58	6.58	6.58	6.58	6.46	6.70
4,4'-DDT	6.04	6.04	6.04	6.04	6.04	6.04	5.92	6.16
Endrin ketone	7.25	7.25	7.25	7.25	7.25	7.25	7.13	7.37
Methoxychlor	6.97	6.97	6.97	6.97	6.97	6.97	6.85	7.09
alpha-Chlordane	4.74	4.74	4.74	4.74	4.74	4.74	4.66	4.82
gamma-Chlordane	4.59	4.59	4.59	4.59	4.59	4.59	4.51	4.67
Chlordane 500 ppb			3.37				3.29	3.45
Chlordane {2}			3.97				3.89	4.05
Chlordane {3}			4.59				4.51	4.67
Chlordane {4}			4.69				4.61	4.77
Chlordane {5}			4.74				4.66	4.82
Toxaphene 500 ppb			5.08				5.00	5.16
Toxaphene {2}			5.85				5.77	5.93
Toxaphene {3}			6.22				6.14	6.30
Toxaphene {4}			6.90				6.82	6.98
Toxaphene {5}			7.38				7.30	7.46

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/02/2012

Instrument ID: GC-O
GC Column (2nd): RTX-CLP2

Data File: O9481.C O9480.C O9479.C O9478.C O9477.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	333080	315653	336831	365668	329289	336104	5.46
beta-BHC	172966	124948	128347	131634	120109	135601	15.72
gamma-BHC	299740	271904	286028	314258	284423	291271	5.56
delta-BHC	300773	271701	289103	312990	286231	292160	5.33
Heptachlor	299550	257172	268113	298560	269448	278569	6.93
Aldrin	309121	265482	278432	302352	272196	285517	6.71
Heptachlor epoxide	276277	234241	244100	262071	235471	250432	7.28
Endosulfan I	247703	210677	218907	235339	212947	225115	7.06
4,4'-DDE	223524	209804	224665	244644	222943	225116	5.54
Dieldrin	252922	223757	236372	255533	230719	239861	5.79
Endrin	228673	197756	209809	225642	204045	213185	6.33
Endosulfan II	227821	195368	202345	214425	193249	206642	6.99
4,4'-DDD	197549	179825	187661	201658	182505	189840	4.98
Endrin aldehyde	183381	143813	151037	160776	144336	156668	10.49
Endosulfan sulfate	207148	162819	173254	186430	169880	179906	9.71
4,4'-DDT	147943	125563	145919	163650	152250	147065	9.41
Endrin ketone	214574	180208	190395	205174	187456	195561	7.15
Methoxychlor	81267	68751	76034	82466	75648	76833	7.09
alpha-Chlordane	266512	222044	231692	250751	226432	239486	7.79
gamma-Chlordane	270362	233310	245218	266746	241122	251352	6.50
Chlordane 500 ppb			8821				
Chlordane {2}			9098				
Chlordane {3}			27530				
Chlordane {4}			21789				
Chlordane {5}			22632				
Toxaphene 500 ppb			2458				
Toxaphene {2}			4603				
Toxaphene {3}			4454				
Toxaphene {4}			4868				
Toxaphene {5}			3847				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/03/2012 **Instrument ID:** GC-O

Data File: O9503.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.30	2.24	2.36	158213	132596	16.19
beta-BHC	2.58	2.53	2.65	72431	68207	5.83
gamma-BHC	2.52	2.47	2.59	135834	114629	15.61
delta-BHC	2.73	2.67	2.79	144197	125595	12.90
Heptachlor	2.89	2.81	2.97	141258	123914	12.28
Aldrin	3.14	3.06	3.22	135889	124243	8.57
Heptachlor epoxide	3.67	3.59	3.75	125875	116333	7.58
Endosulfan I	4.03	3.95	4.11	123199	120179	2.45
4,4'-DDE	3.98	3.88	4.08	110773	111959	1.07
Dieldrin	4.26	4.16	4.36	124579	116093	6.81
Endrin	4.49	4.39	4.59	113554	105977	6.67
Endosulfan II	4.71	4.61	4.81	106707	101972	4.44
4,4'-DDD	4.56	4.46	4.66	99571	102069	2.51
Endrin aldehyde	5.14	5.02	5.26	85149	80493	5.47
Endosulfan sulfate	5.66	5.54	5.78	99751	91472	8.30
4,4'-DDT	4.84	4.72	4.96	88799	78617	11.47
Endrin ketone	6.04	5.91	6.15	117039	113646	2.90
Methoxychlor	5.39	5.27	5.51	45401	39635	12.70
alpha-Chlordane	3.91	3.83	3.99	124448	115324	7.33
gamma-Chlordane	3.78	3.70	3.86	127895	128735	0.66
Chlordane 500 ppb	2.83	2.75	2.91	3694	3693	0.03
Chlordane {2}	3.26	3.18	3.34	5043	5151	2.13
Chlordane {3}	3.79	3.70	3.86	14409	14867	3.18
Chlordane {4}	3.90	3.82	3.98	23022	23948	4.02
Chlordane {5}	4.64	4.56	4.72	3713	3672	1.09
Toxaphene 500 ppb	4.42	4.34	4.50	2951	3325	12.70
Toxaphene {2}	4.77	4.69	4.85	2619	2573	1.73
Toxaphene {3}	5.11	5.03	5.19	3332	3438	3.17
Toxaphene {4}	5.53	5.45	5.61	3535	3560	0.71
Toxaphene {5}	6.22	6.14	6.30	1645	1529	7.00

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/03/2012 **Instrument ID:** GC-O

Data File: O9503.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.78	2.71	2.83	336104	328558	2.25
beta-BHC	3.16	3.09	3.21	135601	131157	3.28
gamma-BHC	3.09	3.03	3.15	291271	284007	2.49
delta-BHC	3.44	3.37	3.49	292160	292644	0.17
Heptachlor	3.52	3.43	3.59	278569	251172	9.83
Aldrin	3.83	3.75	3.91	285517	287297	0.62
Heptachlor epoxide	4.40	4.31	4.47	250432	251656	0.49
Endosulfan I	4.81	4.72	4.88	225115	219939	2.30
4,4'-DDE	4.92	4.81	5.01	225116	248529	10.40
Dieldrin	5.10	5.00	5.20	239861	247747	3.29
Endrin	5.47	5.36	5.56	213185	214856	0.78
Endosulfan II	5.74	5.63	5.83	206642	211570	2.38
4,4'-DDD	5.61	5.50	5.70	189840	209084	10.14
Endrin aldehyde	6.21	6.08	6.32	156668	156000	0.43
Endosulfan sulfate	6.59	6.46	6.70	179906	159013	11.61
4,4'-DDT	6.05	5.92	6.16	147065	153557	4.41
Endrin ketone	7.26	7.13	7.37	195561	198217	1.36
Methoxychlor	6.98	6.85	7.09	76833	70216	8.61
alpha-Chlordane	4.75	4.66	4.82	239486	234417	2.12
gamma-Chlordane	4.60	4.51	4.67	251352	254090	1.09
Chlordane 500 ppb	3.37	3.29	3.45	8821	8137	7.75
Chlordane {2}	3.97	3.89	4.05	9098	8941	1.72
Chlordane {3}	4.59	4.51	4.67	27530	28559	3.74
Chlordane {4}	4.69	4.61	4.77	21789	22254	2.14
Chlordane {5}	4.74	4.66	4.82	22632	23871	5.47
Toxaphene 500 ppb	5.08	5.00	5.16	2458	2852	16.00
Toxaphene {2}	5.85	5.77	5.93	4603	5236	13.76
Toxaphene {3}	6.22	6.14	6.30	4454	5182	16.34
Toxaphene {4}	6.90	6.82	6.98	4868	5089	4.53
Toxaphene {5}	7.39	7.30	7.46	3847	4177	8.59

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/03/2012 **Instrument ID:** GC-O

Data File: O9531.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.30	2.24	2.36	158213	141523	10.55
beta-BHC	2.59	2.53	2.65	72431	65737	9.24
gamma-BHC	2.53	2.47	2.59	135834	120230	11.49
delta-BHC	2.73	2.67	2.79	144197	131836	8.57
Heptachlor	2.89	2.81	2.97	141258	130310	7.75
Aldrin	3.14	3.06	3.22	135889	132865	2.23
Heptachlor epoxide	3.67	3.59	3.75	125875	124690	0.94
Endosulfan I	4.04	3.95	4.11	123199	125024	1.48
4,4'-DDE	3.98	3.88	4.08	110773	119452	7.83
Dieldrin	4.26	4.16	4.36	124579	125055	0.38
Endrin	4.49	4.39	4.59	113554	116921	2.97
Endosulfan II	4.71	4.61	4.81	106707	106777	0.07
4,4'-DDD	4.56	4.46	4.66	99571	117652	18.16
Endrin aldehyde	5.14	5.02	5.26	85149	83562	1.86
Endosulfan sulfate	5.66	5.54	5.78	99751	96796	2.96
4,4'-DDT	4.84	4.72	4.96	88799	73433	17.30
Endrin ketone	6.04	5.91	6.15	117039	119852	2.40
Methoxychlor	5.39	5.27	5.51	45401	39646	12.67
alpha-Chlordane	3.91	3.83	3.99	124448	122994	1.17
gamma-Chlordane	3.79	3.70	3.86	127895	137337	7.38

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/03/2012 **Instrument ID:** GC-O

Data File: O9531.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.77	2.71	2.83	336104	287888	14.35
beta-BHC	3.15	3.09	3.21	135601	111470	17.79
gamma-BHC	3.09	3.03	3.15	291271	253070	13.12
delta-BHC	3.43	3.37	3.49	292160	261152	10.61
Heptachlor	3.51	3.43	3.59	278569	227422	18.36
Aldrin	3.83	3.75	3.91	285517	256078	10.31
Heptachlor epoxide	4.40	4.31	4.47	250432	226751	9.46
Endosulfan I	4.80	4.72	4.88	225115	199733	11.27
4,4'-DDE	4.91	4.81	5.01	225116	224836	0.12
Dieldrin	5.10	5.00	5.20	239861	226380	5.62
Endrin	5.46	5.36	5.56	213185	202411	5.05
Endosulfan II	5.74	5.63	5.83	206642	194903	5.68
4,4'-DDD	5.60	5.50	5.70	189840	209691	10.46
Endrin aldehyde	6.20	6.08	6.32	156668	142867	8.81
Endosulfan sulfate	6.58	6.46	6.70	179906	164765	8.42
4,4'-DDT	6.04	5.92	6.16	147065	119358	18.84
Endrin ketone	7.25	7.13	7.37	195561	190781	2.44
Methoxychlor	6.97	6.85	7.09	76833	63313	17.60
alpha-Chlordane	4.74	4.66	4.82	239486	213007	11.06
gamma-Chlordane	4.59	4.51	4.67	251352	229825	8.56

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/05/2012 **Instrument ID:** GC-V

Data File: V8170.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	224005	7.71
beta-BHC	2.76	2.71	2.83	99502	91170	8.37
gamma-BHC	2.70	2.64	2.76	212894	189556	10.96
delta-BHC	2.92	2.87	2.99	225228	193425	14.12
Heptachlor	3.12	3.05	3.21	211134	192728	8.72
Aldrin	3.42	3.35	3.51	215935	199652	7.54
Heptachlor epoxide	4.07	4.00	4.16	195141	179355	8.09
Endosulfan I	4.53	4.46	4.62	194878	178171	8.57
4,4'-DDE	4.48	4.39	4.59	176644	167901	4.95
Dieldrin	4.83	4.74	4.94	206896	183694	11.21
Endrin	5.12	5.03	5.23	176864	159358	9.90
Endosulfan II	5.42	5.33	5.53	166142	141165	15.03
4,4'-DDD	5.24	5.15	5.35	166541	148004	11.13
Endrin aldehyde	6.00	5.88	6.12	131056	111416	14.99
Endosulfan sulfate	6.61	6.50	6.74	150990	127564	15.51
4,4'-DDT	5.62	5.51	5.75	122360	115032	5.99
Endrin ketone	6.96	6.84	7.08	178512	153301	14.12
Methoxychlor	6.34	6.23	6.47	64038	58342	8.89
alpha-Chlordane	4.37	4.30	4.46	189955	172595	9.14
gamma-Chlordane	4.22	4.14	4.30	196024	203540	3.83
Chlordane 500 ppb	3.05	2.97	3.13	6481	6022	7.08
Chlordane {2}	3.56	3.48	3.64	8087	8688	7.43
Chlordane {3}	4.22	4.14	4.30	23855	24637	3.28
Chlordane {4}	4.37	4.29	4.45	38345	39412	2.78
Chlordane {5}	5.33	5.26	5.42	6951	7116	2.37
Toxaphene 500 ppb	5.07	4.99	5.15	3975	3795	4.54
Toxaphene {2}	5.51	5.43	5.59	4642	4051	12.73
Toxaphene {3}	5.97	5.90	6.06	5316	5150	3.12
Toxaphene {4}	6.47	6.40	6.56	4811	4868	1.18
Toxaphene {5}	6.94	6.86	7.02	5234	6018	14.97

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/05/2012 **Instrument ID:** GC-V

Data File: V8170.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	875617	9.97
beta-BHC	3.36	3.31	3.43	389412	324967	16.55
gamma-BHC	3.28	3.23	3.35	860054	758777	11.78
delta-BHC	3.69	3.64	3.76	855304	730532	14.59
Heptachlor	3.78	3.71	3.87	777024	721832	7.10
Aldrin	4.17	4.10	4.26	837606	733974	12.37
Heptachlor epoxide	4.90	4.83	4.99	732003	649182	11.31
Endosulfan I	5.44	5.37	5.53	683034	598274	12.41
4,4'-DDE	5.61	5.51	5.71	660995	598508	9.45
Dieldrin	5.82	5.73	5.93	698505	612252	12.35
Endrin	6.26	6.17	6.37	591898	513374	13.27
Endosulfan II	6.58	6.48	6.68	596047	490414	17.72
4,4'-DDD	6.45	6.36	6.56	534754	482592	9.75
Endrin aldehyde	7.02	6.90	7.14	418830	340786	18.63
Endosulfan sulfate	7.32	7.21	7.45	450802	371696	17.55
4,4'-DDT	6.89	6.77	7.01	325624	296072	9.08
Endrin ketone	7.82	7.70	7.94	449748	385524	14.28
Methoxychlor	7.62	7.51	7.75	156998	139996	10.83
alpha-Chlordane	5.36	5.29	5.45	695665	604756	13.07
gamma-Chlordane	5.16	5.09	5.25	732650	646680	11.73
Chlordane 500 ppb	3.62	3.54	3.70	28296	29225	3.28
Chlordane {2}	4.35	4.28	4.44	32811	33665	2.60
Chlordane {3}	5.16	5.09	5.25	86013	90551	5.28
Chlordane {4}	5.29	5.22	5.38	75409	75975	0.75
Chlordane {5}	5.36	5.29	5.45	73806	74143	0.46
Toxaphene 500 ppb	5.81	5.73	5.89	8036	7889	1.83
Toxaphene {2}	6.71	6.63	6.79	20026	18134	9.45
Toxaphene {3}	7.04	6.96	7.12	19206	19404	1.03
Toxaphene {4}	7.56	7.48	7.64	12858	13416	4.35
Toxaphene {5}	7.91	7.83	7.99	6023	6386	6.03

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/05/2012 **Instrument ID:** GC-V

Data File: V8184.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	225326	7.16
beta-BHC	2.77	2.71	2.83	99502	89352	10.20
gamma-BHC	2.70	2.64	2.76	212894	196387	7.75
delta-BHC	2.93	2.87	2.99	225228	191306	15.06
Heptachlor	3.13	3.05	3.21	211134	197443	6.48
Aldrin	3.42	3.35	3.51	215935	202828	6.07
Heptachlor epoxide	4.07	4.00	4.16	195141	184196	5.61
Endosulfan I	4.54	4.46	4.62	194878	185561	4.78
4,4'-DDE	4.48	4.39	4.59	176644	174113	1.43
Dieldrin	4.83	4.74	4.94	206896	189205	8.55
Endrin	5.13	5.03	5.23	176864	170482	3.61
Endosulfan II	5.42	5.33	5.53	166142	153393	7.67
4,4'-DDD	5.25	5.15	5.35	166541	161214	3.20
Endrin aldehyde	6.00	5.88	6.12	131056	116215	11.32
Endosulfan sulfate	6.62	6.50	6.74	150990	134688	10.80
4,4'-DDT	5.63	5.51	5.75	122360	119606	2.25
Endrin ketone	6.96	6.84	7.08	178512	158395	11.27
Methoxychlor	6.35	6.23	6.47	64038	62236	2.81
alpha-Chlordane	4.38	4.30	4.46	189955	178031	6.28
gamma-Chlordane	4.22	4.14	4.30	196024	208854	6.54

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/05/2012 **Instrument ID:** GC-V

Data File: V8184.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	877512	9.77
beta-BHC	3.36	3.31	3.43	389412	328610	15.61
gamma-BHC	3.28	3.23	3.35	860054	767610	10.75
delta-BHC	3.69	3.64	3.76	855304	711293	16.84
Heptachlor	3.79	3.71	3.87	777024	724087	6.81
Aldrin	4.18	4.10	4.26	837606	728926	12.98
Heptachlor epoxide	4.90	4.83	4.99	732003	639675	12.61
Endosulfan I	5.44	5.37	5.53	683034	595445	12.82
4,4'-DDE	5.61	5.51	5.71	660995	604388	8.56
Dieldrin	5.82	5.73	5.93	698505	610654	12.58
Endrin	6.26	6.17	6.37	591898	537412	9.21
Endosulfan II	6.58	6.48	6.68	596047	499997	16.11
4,4'-DDD	6.45	6.36	6.56	534754	506904	5.21
Endrin aldehyde	7.02	6.90	7.14	418830	347499	17.03
Endosulfan sulfate	7.32	7.21	7.45	450802	380280	15.64
4,4'-DDT	6.89	6.77	7.01	325624	319080	2.01
Endrin ketone	7.82	7.70	7.94	449748	410983	8.62
Methoxychlor	7.62	7.51	7.75	156998	154464	1.61
alpha-Chlordane	5.36	5.29	5.45	695665	598779	13.93
gamma-Chlordane	5.16	5.09	5.25	732650	642471	12.31

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/10/2012 **Instrument ID:** GC-V

Data File: V8247.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	251105	3.46
beta-BHC	2.76	2.71	2.83	99502	113464	14.03
gamma-BHC	2.70	2.64	2.76	212894	204665	3.87
delta-BHC	2.92	2.87	2.99	225228	229870	2.06
Heptachlor	3.12	3.05	3.21	211134	213908	1.31
Aldrin	3.42	3.35	3.51	215935	218680	1.27
Heptachlor epoxide	4.07	4.00	4.16	195141	200925	2.96
Endosulfan I	4.54	4.46	4.62	194878	220208	13.00
4,4'-DDE	4.48	4.39	4.59	176644	171528	2.90
Dieldrin	4.83	4.74	4.94	206896	204728	1.05
Endrin	5.13	5.03	5.23	176864	179383	1.42
Endosulfan II	5.42	5.33	5.53	166142	168474	1.40
4,4'-DDD	5.25	5.15	5.35	166541	174076	4.52
Endrin aldehyde	6.00	5.88	6.12	131056	130720	0.26
Endosulfan sulfate	6.62	6.50	6.74	150990	154407	2.26
4,4'-DDT	5.63	5.51	5.75	122360	124249	1.54
Endrin ketone	6.96	6.84	7.08	178512	172387	3.43
Methoxychlor	6.35	6.23	6.47	64038	63548	0.77
alpha-Chlordane	4.38	4.30	4.46	189955	193095	1.65
gamma-Chlordane	4.22	4.14	4.30	196024	205422	4.79
Chlordane 500 ppb	3.05	2.97	3.13	6481	6509	0.43
Chlordane {2}	3.56	3.48	3.64	8087	9331	15.38
Chlordane {3}	4.22	4.14	4.30	23855	26498	11.08
Chlordane {4}	4.37	4.29	4.45	38345	43098	12.39
Chlordane {5}	5.33	5.26	5.42	6951	6918	0.47
Toxaphene 500 ppb	5.06	4.99	5.15	3975	4296	8.06
Toxaphene {2}	5.51	5.43	5.59	4642	4432	4.53
Toxaphene {3}	5.97	5.90	6.06	5316	5092	4.22
Toxaphene {4}	6.47	6.40	6.56	4811	4350	9.59
Toxaphene {5}	6.94	6.86	7.02	5234	5642	7.80

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/10/2012 **Instrument ID:** GC-V

Data File: V8247.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	1110591	14.19
beta-BHC	3.37	3.31	3.43	389412	446626	14.69
gamma-BHC	3.29	3.23	3.35	860054	950161	10.48
delta-BHC	3.70	3.64	3.76	855304	942874	10.24
Heptachlor	3.79	3.71	3.87	777024	853281	9.81
Aldrin	4.18	4.10	4.26	837606	917633	9.55
Heptachlor epoxide	4.91	4.83	4.99	732003	798664	9.11
Endosulfan I	5.45	5.37	5.53	683034	764710	11.96
4,4'-DDE	5.62	5.51	5.71	660995	730876	10.57
Dieldrin	5.83	5.73	5.93	698505	772782	10.63
Endrin	6.27	6.17	6.37	591898	648309	9.53
Endosulfan II	6.59	6.48	6.68	596047	625163	4.88
4,4'-DDD	6.46	6.36	6.56	534754	610507	14.17
Endrin aldehyde	7.02	6.90	7.14	418830	418852	0.01
Endosulfan sulfate	7.33	7.21	7.45	450802	452720	0.43
4,4'-DDT	6.90	6.77	7.01	325624	364189	11.84
Endrin ketone	7.82	7.70	7.94	449748	449895	0.03
Methoxychlor	7.63	7.51	7.75	156998	144923	7.69
alpha-Chlordane	5.37	5.29	5.45	695665	737049	5.95
gamma-Chlordane	5.17	5.09	5.25	732650	802069	9.48
Chlordane 500 ppb	3.62	3.54	3.70	28296	30161	6.59
Chlordane {2}	4.35	4.28	4.44	32811	34538	5.26
Chlordane {3}	5.16	5.09	5.25	86013	98694	14.74
Chlordane {4}	5.29	5.22	5.38	75409	82137	8.92
Chlordane {5}	5.36	5.29	5.45	73806	84700	14.76
Toxaphene 500 ppb	5.80	5.73	5.89	8036	8892	10.66
Toxaphene {2}	6.70	6.63	6.79	20026	20340	1.57
Toxaphene {3}	7.03	6.96	7.12	19206	18875	1.73
Toxaphene {4}	7.56	7.48	7.64	12858	11272	12.33
Toxaphene {5}	7.91	7.83	7.99	6023	6557	8.87

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/10/2012 **Instrument ID:** GC-V

Data File: V8291.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	245716	1.24
beta-BHC	2.76	2.71	2.83	99502	97320	2.19
gamma-BHC	2.70	2.64	2.76	212894	209866	1.42
delta-BHC	2.93	2.87	2.99	225228	222296	1.30
Heptachlor	3.12	3.05	3.21	211134	207786	1.59
Aldrin	3.42	3.35	3.51	215935	210108	2.70
Heptachlor epoxide	4.07	4.00	4.16	195141	191402	1.92
Endosulfan I	4.53	4.46	4.62	194878	199215	2.23
4,4'-DDE	4.48	4.39	4.59	176644	171105	3.14
Dieldrin	4.83	4.74	4.94	206896	197224	4.67
Endrin	5.12	5.03	5.23	176864	176054	0.46
Endosulfan II	5.42	5.33	5.53	166142	160087	3.65
4,4'-DDD	5.24	5.15	5.35	166541	161408	3.08
Endrin aldehyde	5.99	5.88	6.12	131056	124590	4.93
Endosulfan sulfate	6.61	6.50	6.74	150990	142428	5.67
4,4'-DDT	5.62	5.51	5.75	122360	131515	7.48
Endrin ketone	6.96	6.84	7.08	178512	166814	6.55
Methoxychlor	6.34	6.23	6.47	64038	66370	3.64
alpha-Chlordane	4.37	4.30	4.46	189955	184103	3.08
gamma-Chlordane	4.22	4.14	4.30	196024	196976	0.49

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/10/2012 **Instrument ID:** GC-V

Data File: V8291.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	1101271	13.23
beta-BHC	3.36	3.31	3.43	389412	430780	10.62
gamma-BHC	3.28	3.23	3.35	860054	951247	10.60
delta-BHC	3.69	3.64	3.76	855304	939588	9.85
Heptachlor	3.78	3.71	3.87	777024	873740	12.45
Aldrin	4.17	4.10	4.26	837606	935428	11.68
Heptachlor epoxide	4.90	4.83	4.99	732003	806868	10.23
Endosulfan I	5.43	5.37	5.53	683034	756794	10.80
4,4'-DDE	5.60	5.51	5.71	660995	734394	11.10
Dieldrin	5.82	5.73	5.93	698505	771064	10.39
Endrin	6.26	6.17	6.37	591898	674807	14.01
Endosulfan II	6.57	6.48	6.68	596047	654565	9.82
4,4'-DDD	6.45	6.36	6.56	534754	584805	9.36
Endrin aldehyde	7.01	6.90	7.14	418830	421648	0.67
Endosulfan sulfate	7.32	7.21	7.45	450802	462590	2.62
4,4'-DDT	6.88	6.77	7.01	325624	382047	17.33
Endrin ketone	7.81	7.70	7.94	449748	471829	4.91
Methoxychlor	7.62	7.51	7.75	156998	179464	14.31
alpha-Chlordane	5.36	5.29	5.45	695665	744522	7.02
gamma-Chlordane	5.16	5.09	5.25	732650	808289	10.32

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-O **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.94 **DCB 1** 7.36 **TCMX 2** 2.29 **DCB 2** 8.82

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKA021207-12	07/03/2012	12:47	1.94		7.36		2.29		8.82	
ORD-V12-17	06490-001	07/03/2012	13:00	1.94		7.35		2.29		8.82	
FIELD_BLAN	06388-022	07/03/2012	13:12	1.94		7.35		2.29		8.82	
I2-062612-	06385-003	07/03/2012	13:24	1.94		7.35		2.29		8.82	
I1-062612-	06385-005	07/03/2012	13:36	1.94		7.35		2.29		8.82	
SS-7/0-5	06438-001	07/03/2012	13:48	1.94		7.35		2.29		8.82	
A2-062712-	06466-011	07/03/2012	14:00	1.94		7.35		2.29		8.82	
A7-062712-	06466-012	07/03/2012	14:12	1.94		7.35		2.29		8.82	
GPECFB0628	06507-016	07/03/2012	14:24	1.94		7.35		2.29		8.82	
Pest	06466-011MS	07/03/2012	14:36	1.94		7.35		2.29		8.82	
Pest	06466-011MSD	07/03/2012	14:48	1.94		7.36		2.29		8.82	
Pest	LCSA021207-12	07/03/2012	15:00	1.94		7.35		2.29		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 2.05 **DCB 1** 7.94 **TCMX 2** 2.38 **DCB 2** 8.86

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKA120703-10	07/05/2012	13:37	2.05		7.94		2.38		8.86	
A1-062712-	06466-010	07/05/2012	13:49	2.05		7.95		2.38		8.86	
Pest	LCSA120703-10	07/05/2012	14:02	2.05		7.95		2.38		8.86	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 2.05 **DCB 1** 7.95 **TCMX 2** 2.38 **DCB 2** 8.86

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS120706-06	07/10/2012	13:04	2.05		7.95		2.38		8.86	
I1-062712-	06466-008	07/10/2012	13:17	2.04		7.95		2.37		8.87	
S-1/0-0.5	06467-001	07/10/2012	13:29	2.04		7.95		2.38		8.86	
S-2/0-0.5	06467-002	07/10/2012	13:41	2.04		7.95		2.37		8.86	
S-3/0-0.5	06467-003	07/10/2012	13:53	2.05		7.95		2.38		8.86	
S-4/0-0.5	06467-005	07/10/2012	14:05	2.04		7.95		2.38		8.86	
S-5/1-1.5	06467-007	07/10/2012	14:18	2.05		7.95		2.38		8.86	
S-6/0-0.5	06467-008	07/10/2012	14:30	2.05		7.95		2.38		8.86	
S-7/0-0.5	06467-009	07/10/2012	14:42	2.05		7.95		2.38		8.86	
S-8/0-0.5	06467-010	07/10/2012	14:54	2.04		7.95		2.38		8.86	
S-9/0-0.5	06467-011	07/10/2012	15:06	2.05		7.95		2.38		8.86	
S-10/1-1.5	06467-012	07/10/2012	15:19	2.05		7.95		2.38		8.86	
Pest	06467-012MS	07/10/2012	15:31	2.05		7.95		2.38		8.86	
Pest	06467-012MSD	07/10/2012	15:43	2.05		7.95		2.37		8.86	
Pest	LCSS120706-06	07/10/2012	15:55	2.05		7.95		2.38		8.86	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 07/03/2012

Data file: O9502.D Tue Jul 03 09:08:21 2012

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	6897827	Endrin (1)	9043874	9.36	5.68
DDD	551041	Endrin ketone	544558		
DDE	160863	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	15020906	Endrin (2)	20691229	12.09	3.20
DDD	1653658	Endrin ketone	683291		
DDE	412658	Endrin aldehyde	0		

Date Analyzed: 07/05/2012

Data file: V8169.D Fri Jul 06 16:11:30 2012

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	11469763	Endrin (1)	13814906	5.97	2.20
DDD	443519	Endrin ketone	310992		
DDE	285198	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	28990628	Endrin (2)	48257914	7.97	1.60
DDD	1384996	Endrin ketone	785706		
DDE	1124032	Endrin aldehyde	0		

Date Analyzed: 07/10/2012

Data file: V8246.D Tue Jul 10 09:24:15 2012

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	12157460	Endrin (1)	16655124	11.06	2.70
DDD	1192757	Endrin ketone	461651		
DDE	318851	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	38264440	Endrin (2)	64884894	11.99	1.82
DDD	3794320	Endrin ketone	1205045		
DDE	1417431	Endrin aldehyde	0		

PESTICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8264.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 13:17
Operator : IB
Sample : I1-062712-,06466-008,S,32.39g,17.0,07/06/12,1
Misc : 120706-06,06/27/12,06/28/12,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 15:43:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.04	2.37	16332333	50637622	101.698m	76.406m
Spiked Amount 200.000			Recovery	=	50.85%	38.20%
2) S DCB	7.95	8.87	6241470	21298496	113.660m	136.325m
Spiked Amount 200.000			Recovery	=	56.83%	68.16%
Target Compounds						
15) T 4,4'-DDD	5.25	6.45	2935095	9395193	17.659m	17.569
18) T 4,4'-DDT	5.61	6.89	1841059	5056634	15.085m	15.529
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

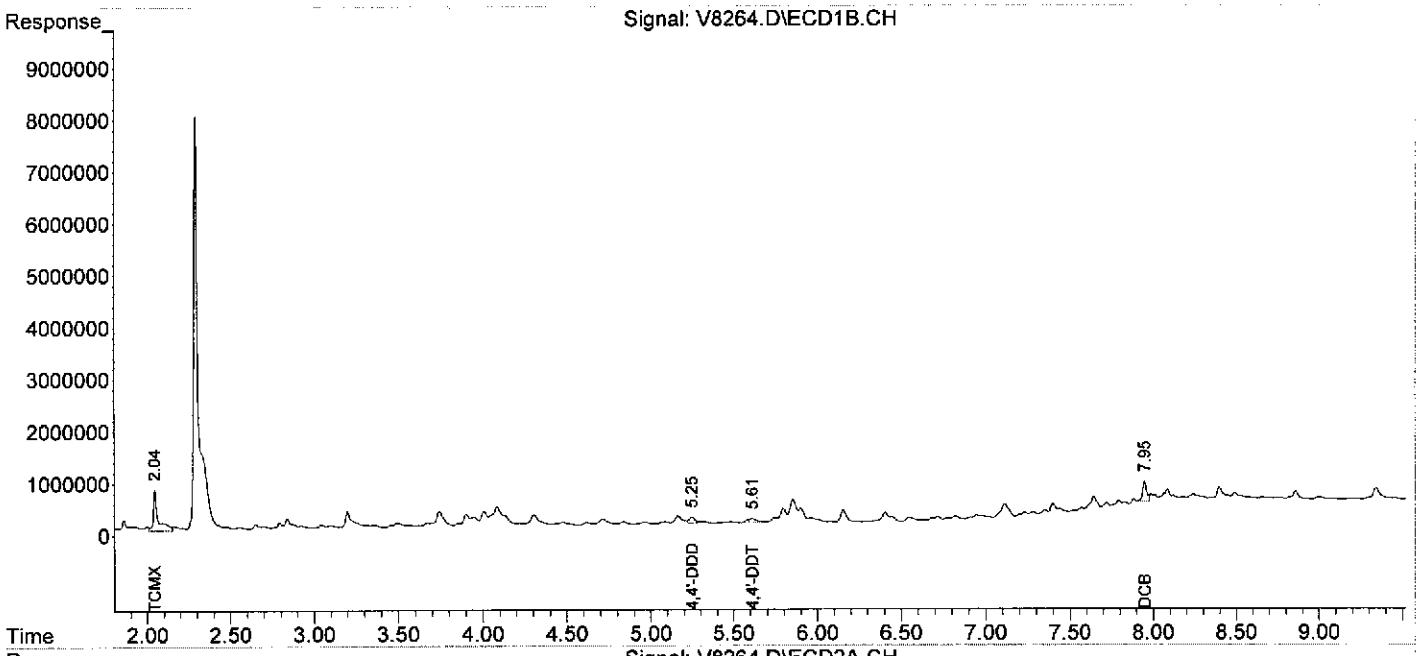
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

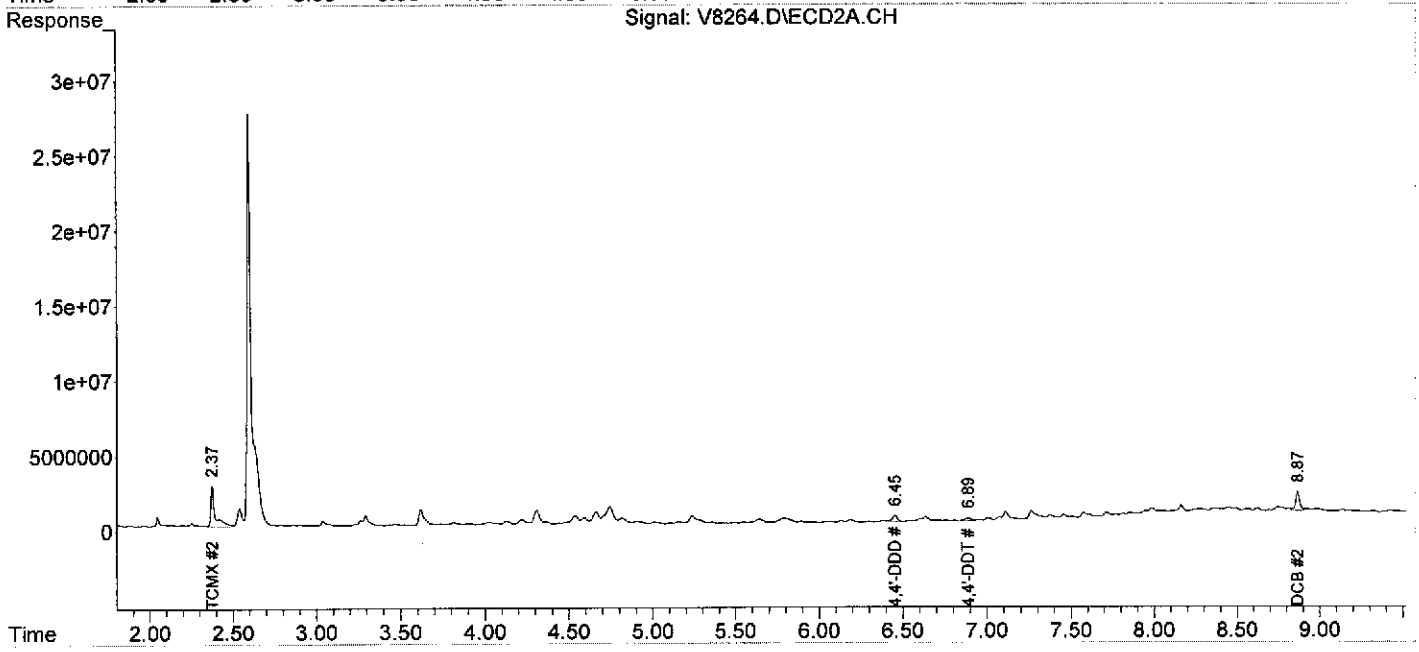
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8264.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 13:17
Operator : IB
Sample : I1-062712-,06466-008,S,32.39g,17.0,07/06/12,1
Misc : 120706-06,06/27/12,06/28/12,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 15:43:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-05-12\
Data File : V8174.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2012 13:49
Operator : IB
Sample : A1-062712-,06466-010,A,1000ml,100,07/03/12,1
Misc : 120703-10,06/27/12,06/28/12,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:50:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Thu Jul 05 12:35:32 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	15127755	66438970	94.198	100.249
Spiked Amount 200.000			Recovery	=	47.10%	50.12%
2) S DCB	7.95	8.86	6959737	20111753	126.740	128.729
Spiked Amount 200.000			Recovery	=	63.37%	64.36%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

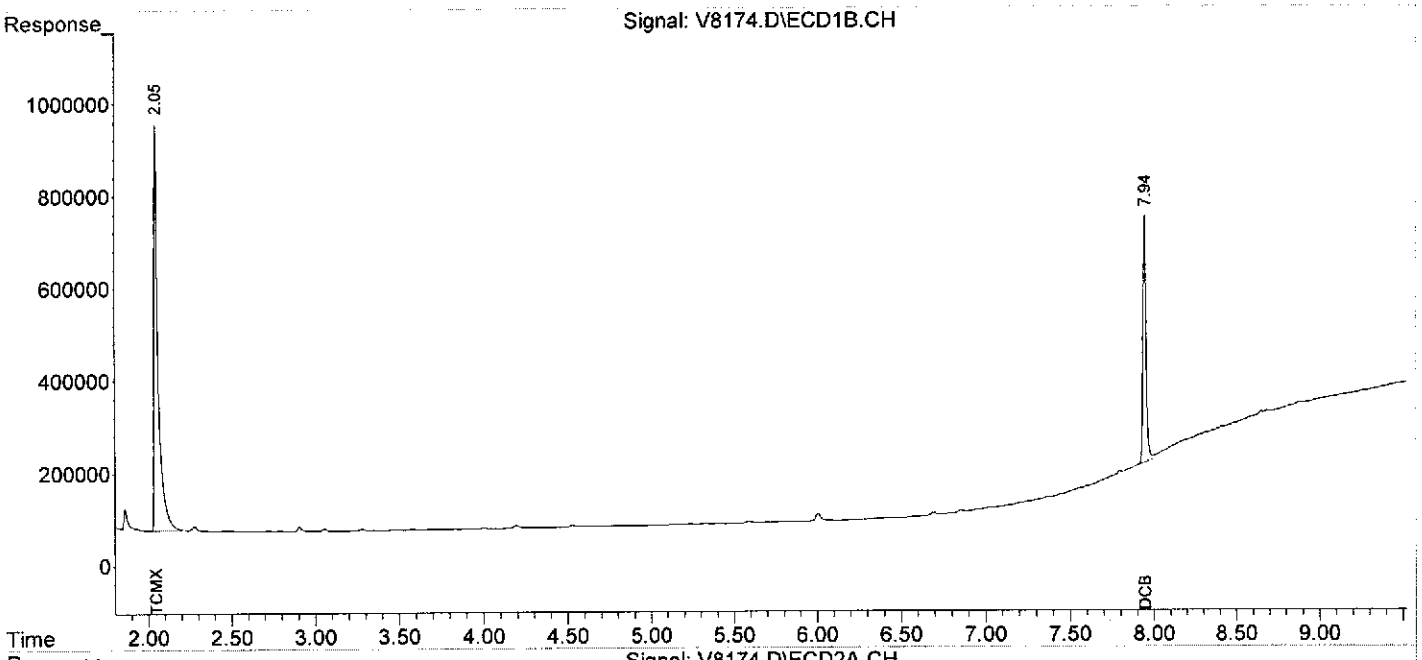
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

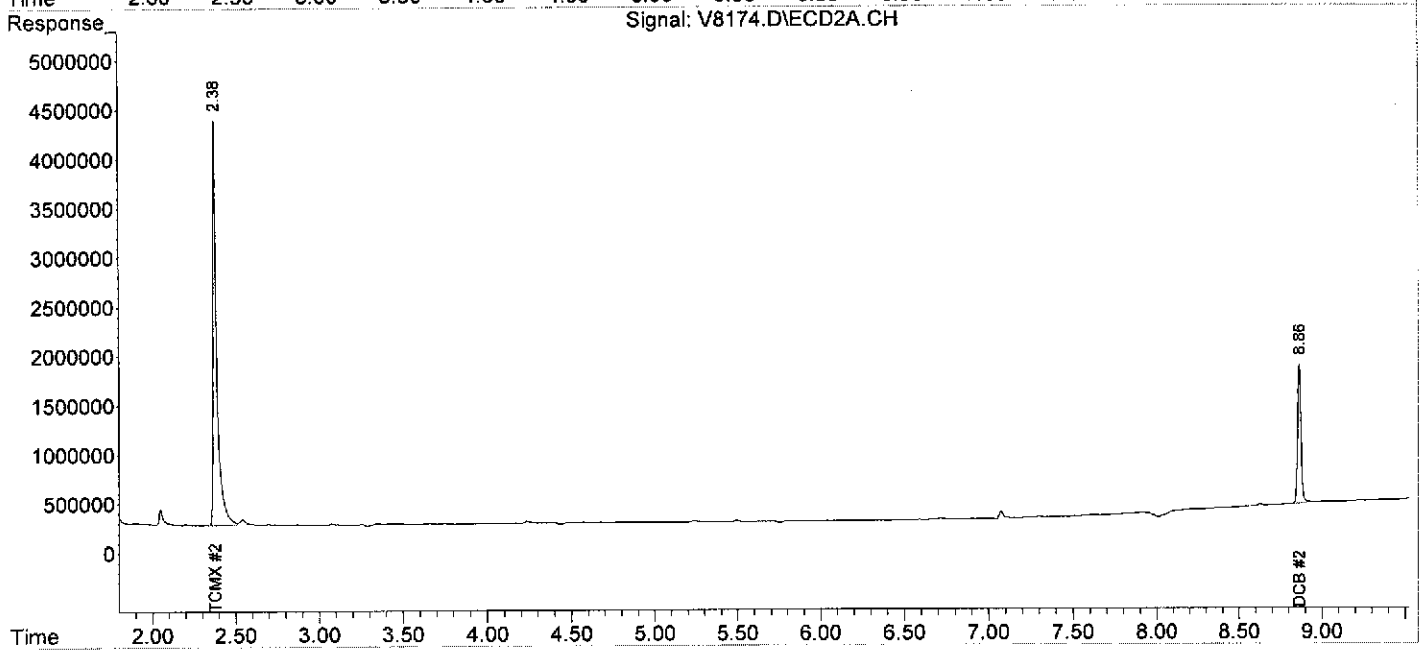
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-05-12\
Data File : V8174.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2012 13:49
Operator : IB
Sample : A1-062712-,06466-010,A,1000ml,100,07/03/12,1
Misc : 120703-10,06/27/12,06/28/12,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 15:50:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Thu Jul 05 12:35:32 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : 09520.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 14:00
Operator : IB
Sample : A2-062712-,06466-011,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/27/12,06/28/12,1
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:39:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.94	2.29	11590183	21413171	99.951m	92.208m
Spiked Amount 200.000	Range	10 - 180	Recovery	=	49.98%	46.10%
2) S DCB	7.35	8.82	6477847	9238523	150.887	151.391m
Spiked Amount 200.000	Range	10 - 180	Recovery	=	75.44%	75.70%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

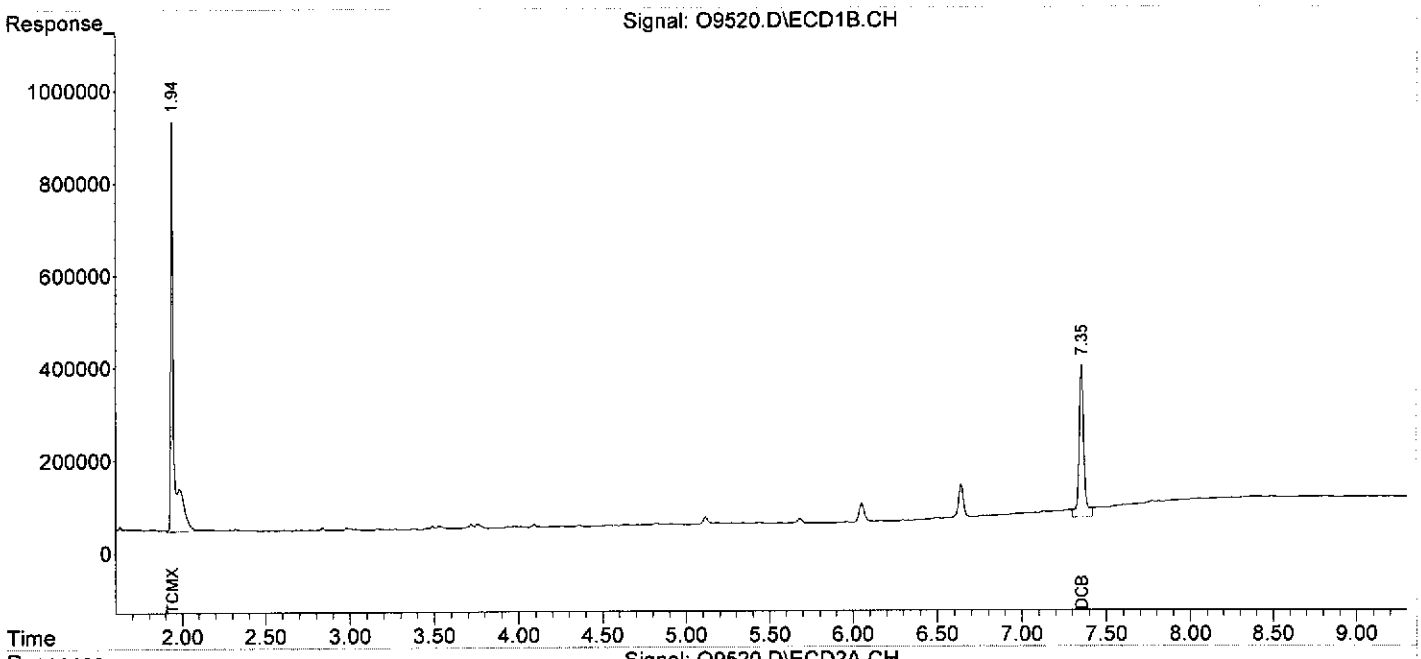
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

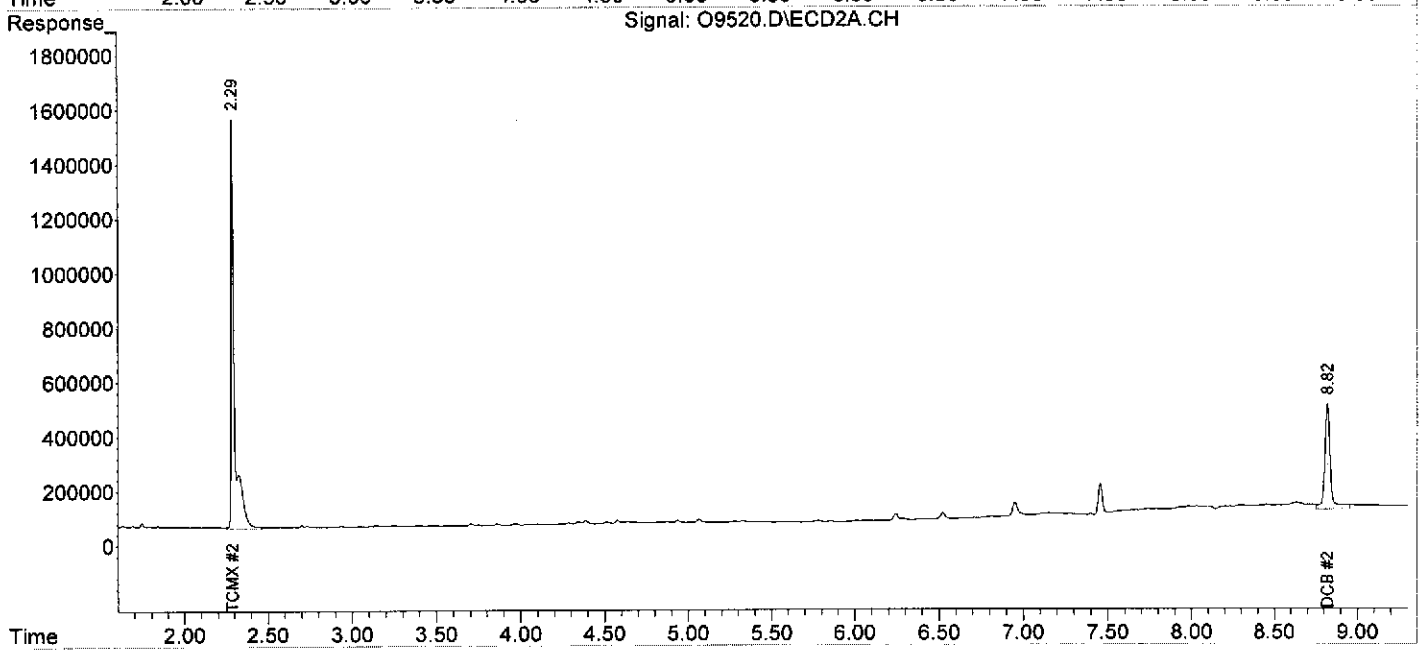
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : O9520.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 14:00
Operator : IB
Sample : A2-062712-,06466-011,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/27/12,06/28/12,1
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:39:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : O9521.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 14:12
Operator : IB
Sample : A7-062712-,06466-012,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/27/12,06/28/12,1
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:40:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.94	2.29	13188169	23971492	113.731	103.224
Spiked Amount 200.000	Range	10 - 180	Recovery	=	56.87%	51.61%
2) S DCB	7.35	8.82	6237842	10103231	145.297	165.561m
Spiked Amount 200.000	Range	10 - 180	Recovery	=	72.65%	82.78%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

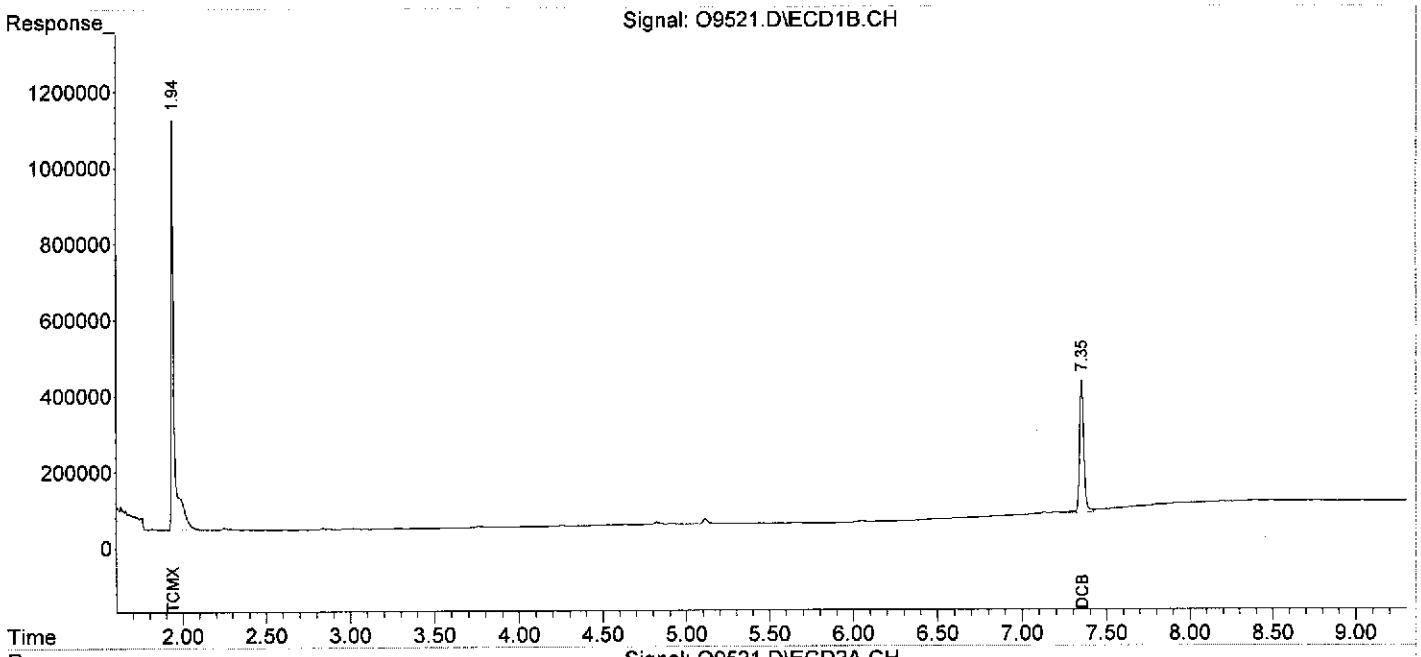
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

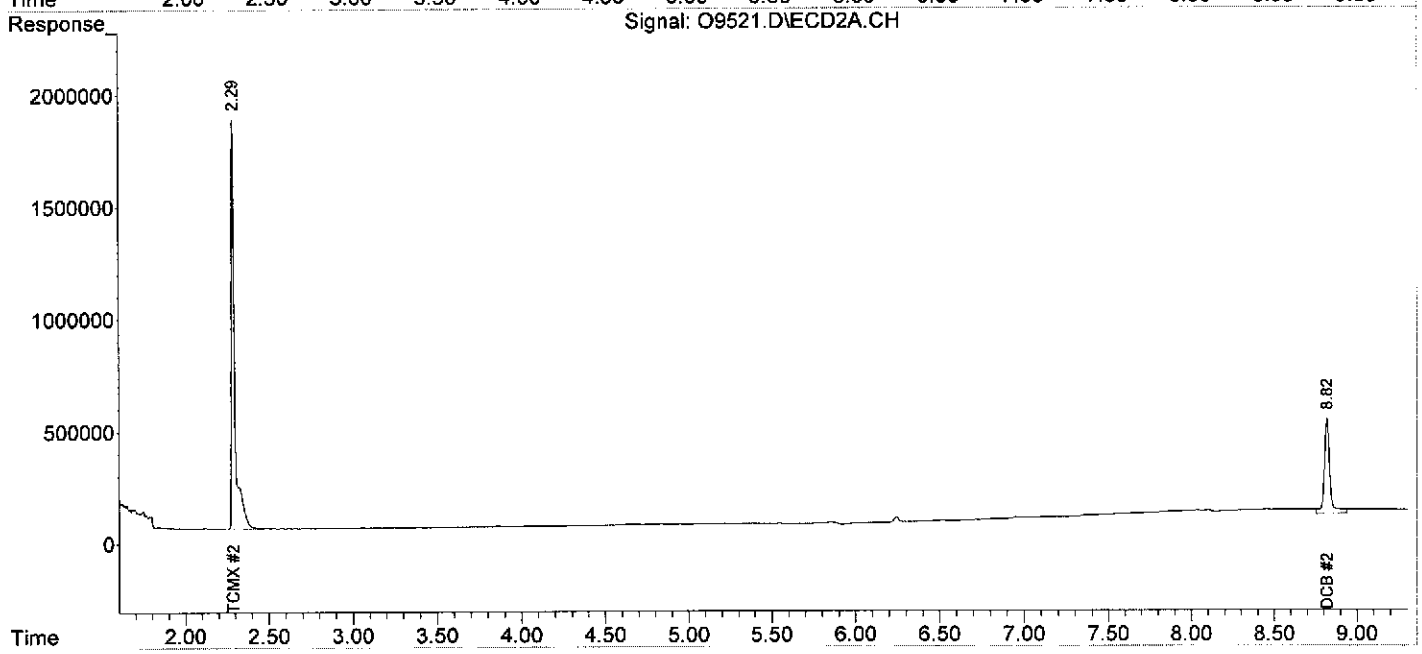
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : O9521.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 14:12
Operator : IB
Sample : A7-062712-,06466-012,A,1000ml,100,07/02/12,1
Misc : 120702-12,06/27/12,06/28/12,1
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:40:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKA021207-12
Client ID: Pest
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/03/2012
Data file: O9514.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Chlordane	ND		0.125	0.060
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : 09514.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 12:47
Operator : IB
Sample : Pest,BLKA021207-12,A,1000ml,100,07/02/12,1
Misc : NA,NA,NA,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:34:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.94	2.29	11687165	21364708	100.787m	91.999m
Spiked Amount 200.000 Range 10 - 180 Recovery =					50.39%	46.00%
2) S DCB	7.36	8.82	4489319	6191870	104.569	101.466
Spiked Amount 200.000 Range 10 - 180 Recovery =					52.28%	50.73%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

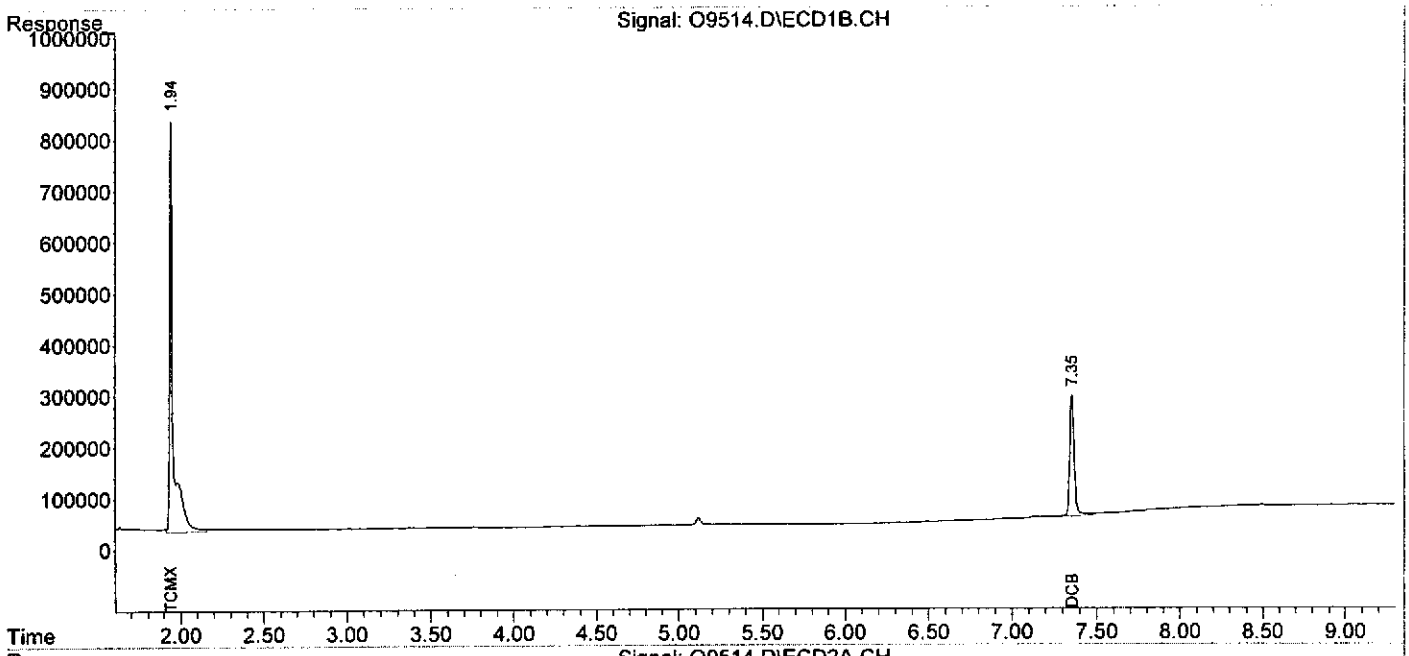
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

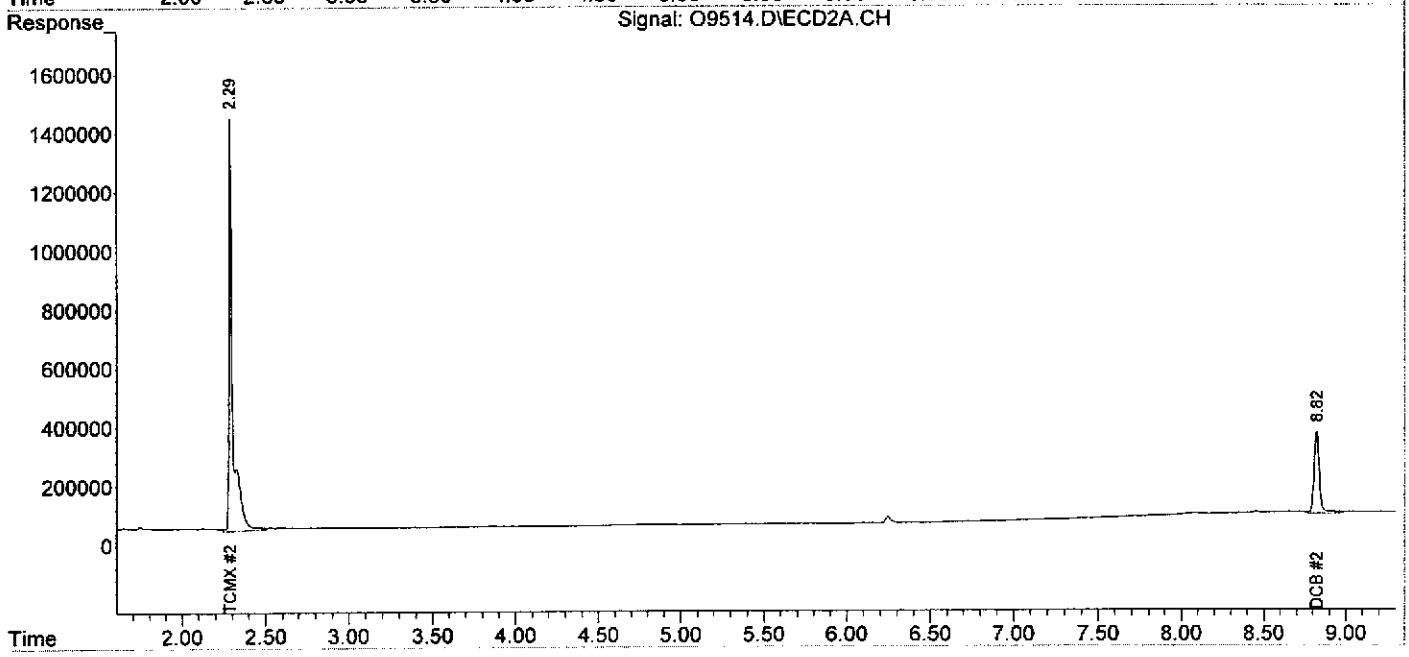
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : O9514.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 03 Jul 2012 12:47
Operator : IB
Sample : Pest,BLKA021207-12,A,1000ml,100,07/02/12,1
Misc : NA,NA,NA,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 03 15:34:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0702.M
Quant Title :
QLast Update : Tue Jul 03 09:49:12 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 0620-BLK10
Client ID: Pest
Date Received: NA
Date Extracted: 06/20/2012
Date Analyzed: 06/22/2012
Data file: V7974.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
Chlordane	ND		0.125	0.060
Toxaphene	ND		0.125	0.060

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKA120703-10
Client ID: Pest
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/05/2012
Data file: V8173.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-05-12\
Data File : V8173.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2012 13:37
Operator : IB
Sample : Pest,BLKA120703-10,A,1000ml,100,07/03/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:47:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Thu Jul 05 12:35:32 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	18751721	80641766	116.764	121.679
Spiked Amount 200.000			Recovery	=	58.38%	60.84%
2) S DCB	7.94	8.86	7794346	19141057	141.939	122.516
Spiked Amount 200.000			Recovery	=	70.97%	61.26%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

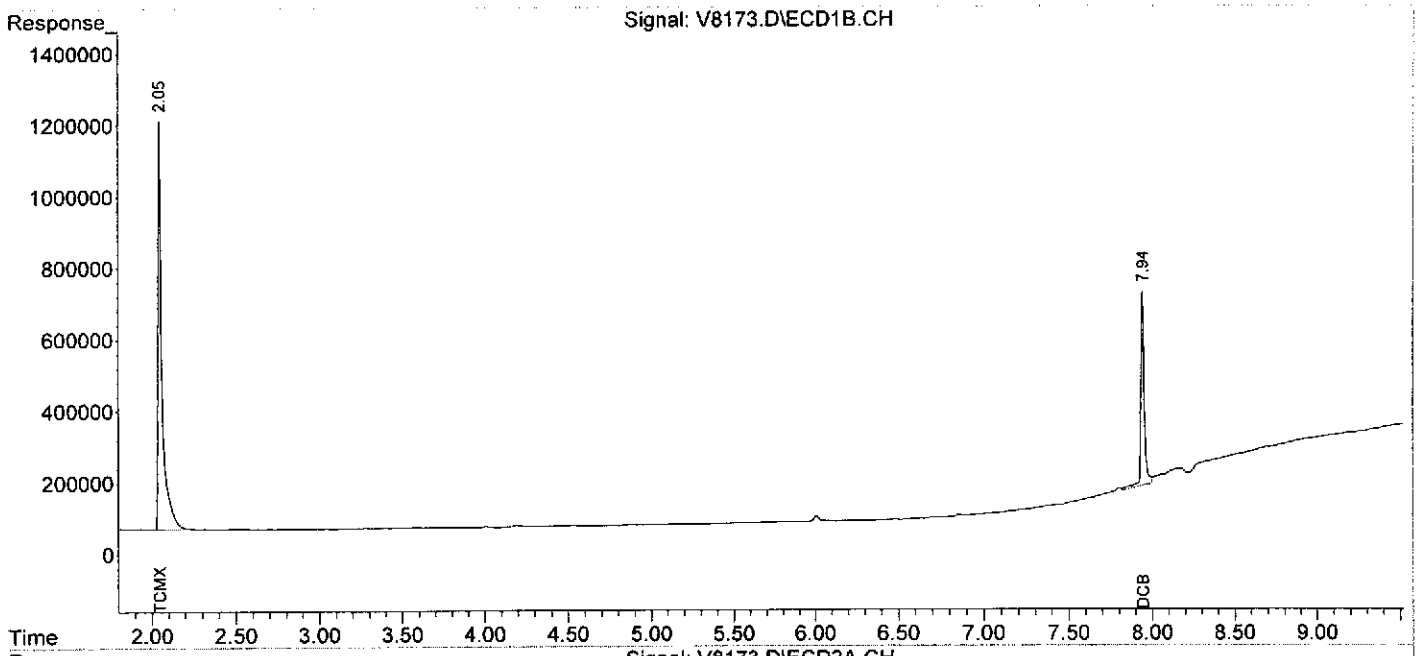
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

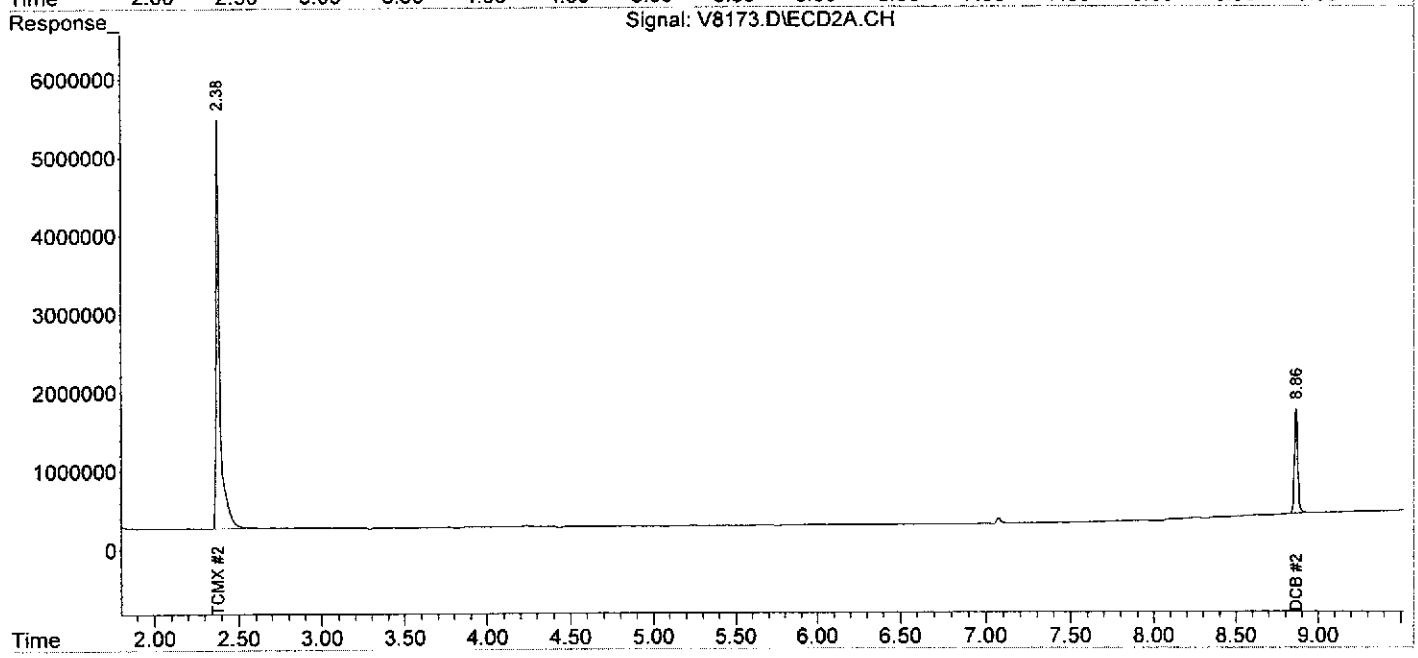
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-05-12\
Data File : V8173.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 05 Jul 2012 13:37
Operator : IB
Sample : Pest,BLKA120703-10,A,1000ml,100,07/03/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 05 13:47:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Thu Jul 05 12:35:32 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS120706-06
Client ID: Pest
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: V8263.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000334	0.000167
beta-BHC	ND		0.000334	0.000167
gamma-BHC (Lindane)	ND		0.000334	0.000167
delta-BHC	ND		0.000334	0.000167
Heptachlor	ND		0.000334	0.000167
Aldrin	ND		0.000334	0.000167
Heptachlor epoxide	ND		0.000334	0.000167
Endosulfan I	ND		0.000334	0.000167
4,4'-DDE	ND		0.000334	0.000167
Dieldrin	ND		0.000334	0.000167
Endrin	ND		0.000334	0.000167
Endosulfan II	ND		0.000334	0.000167
4,4'-DDD	ND		0.000334	0.000167
Endrin aldehyde	ND		0.000334	0.000167
Endosulfan sulfate	ND		0.000334	0.000167
4,4'-DDT	ND		0.000334	0.000167
Endrin ketone	ND		0.000334	0.000167
Methoxychlor	ND		0.000334	0.000167
alpha-Chlordane	ND		0.000334	0.000167
gamma-Chlordane	ND		0.000334	0.000167
Toxaphene	ND		0.00418	0.002
Endosulfan (I and II)	ND		0.000334	0.000167
Chlordane (alpha and gamma)	ND		0.000334	0.000167

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8263.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 13:04
Operator : IB
Sample : Pest,BLKS120706-06,S,30.00g,0,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 15:39:04 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	22000853	97267859	136.995	146.766
Spiked Amount 200.000			Recovery	=	68.50%	73.38%
2) S DCB	7.95	8.86	7264468	19001220	132.290	121.621
Spiked Amount 200.000			Recovery	=	66.14%	60.81%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

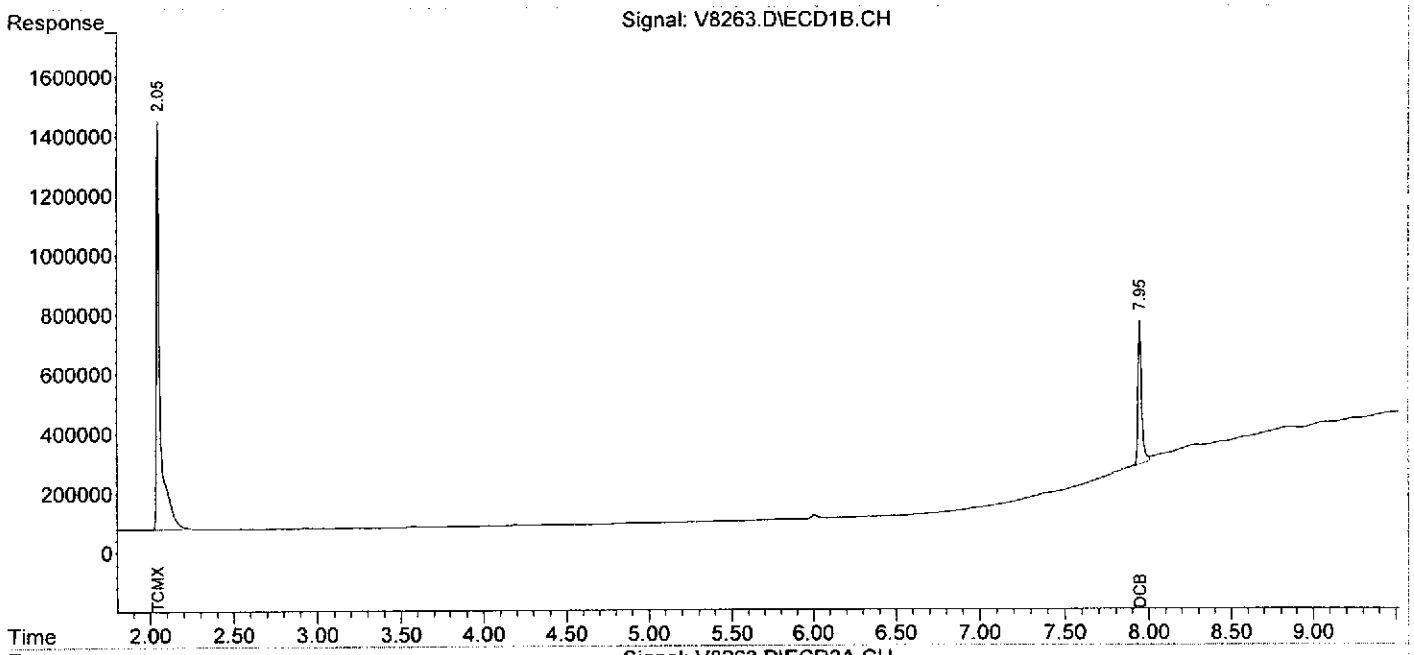
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

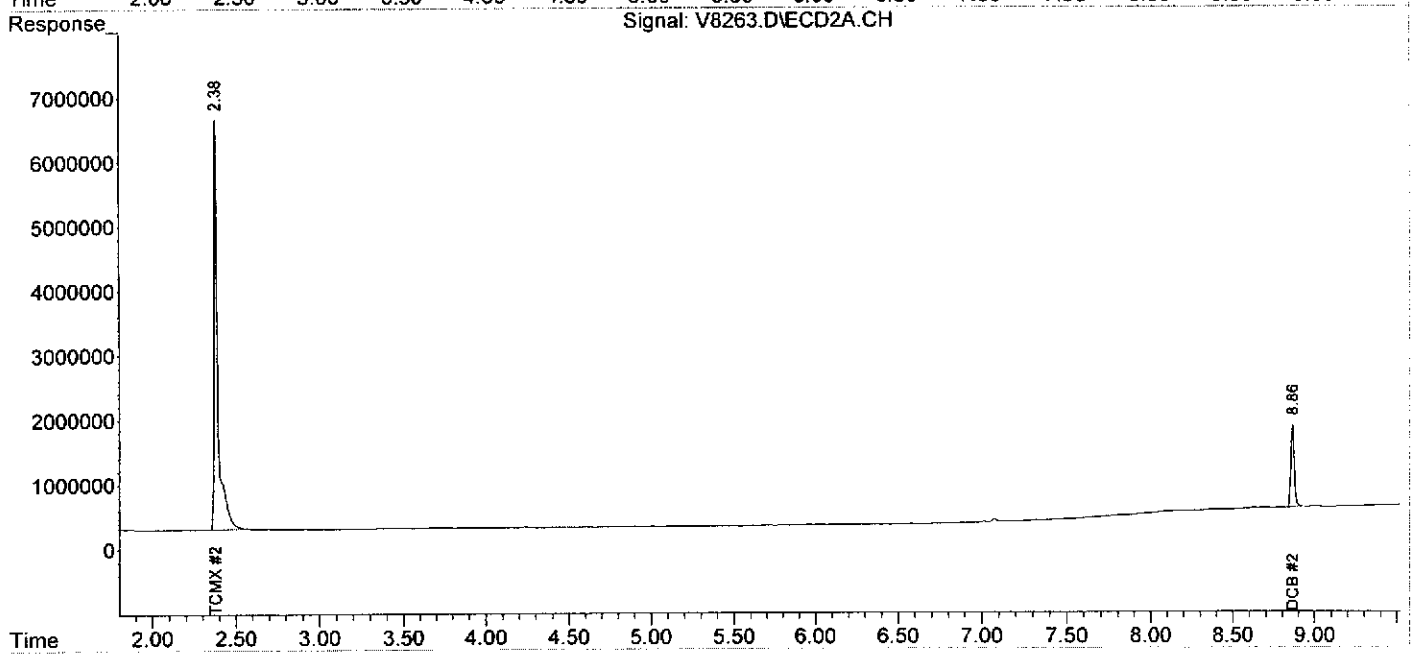
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : V8263.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 13:04
Operator : IB
Sample : Pest,BLKS120706-06,S,30.00g,0,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 15:39:04 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Tue Jul 10 09:36:20 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





HERBICIDE DATA

HERBICIDE QC SUMMARY

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/04/2012

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKA120703-02	AQUEOUS	64		72	
A1-062712-	06466-010	AQUEOUS	51		57	
A2-062712-	06466-011	AQUEOUS	52		58	
A7-062712-	06466-012	AQUEOUS	57		61	
GPECFB0628	06507-016	AQUEOUS	60		75	
Herb	LCSA120703-02	AQUEOUS	120		114	
A6-062912-	06546-001	AQUEOUS	35		32	

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/11/2012

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKS120709-06	SOIL	77		83	
GPEC-SB-20	06507-008	SOIL	73		72	
GPEC-SB-20	06507-009	SOIL	82		82	
GPEC-SB-21	06507-010	SOIL	80		82	
GPEC-SB-22	06507-012	SOIL	94		98	
GPEC-SB-20	06507-014	SOIL	112		109	
I1-062712-	06466-008	SOIL	107		112	
GPEC-SB-20	06507-004	SOIL	88		69	
Herb	LCSS120709-06	SOIL	115		100	

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

AQUEOUS HERBICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSA120703-02

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
2,4-D	200.0	0.0	242.9	121	40 - 140
2,4,5-TP (Silvex)	200.0	0.0	231.3	116	40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

Spike Recovery: __0___ out of __2__ outside limits

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120709-06
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/11/2012
Data file: W7098.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
Dalapon	200.0	0.00	189.70	95
Dicamba	200.0	0.00	219.87	110
2,4-D	200.0	0.00	203.56	102
2,4,5-TP (Silvex)	200.0	0.00	200.47	100
2,4,5-T	200.0	0.00	176.81	88
2,4-DB	200.0	0.00	185.02	93
Dinoseb	200.0	0.00	205.61	103

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

AQUEOUS HERBICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06295-001MSD

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
2,4-D	200.0	0.0	191.3	96	30 - 150
2,4,5-TP (Silvex)	200.0	0.0	207.0	104	30 - 150

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	#	MSD % REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	0.0	206.1		103	7	30	30 - 150
2,4,5-TP (Silvex)	0.0	179.6		90	14	30	30 - 150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06212-021
Date Received: 06/22/2012
Date Extracted: 06/27/2012
Date Analyzed: 06/28/2012
MS Data file: W7022.D
MSD Data file: W7023.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.81g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 22.4
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD	#
Dalapon	200.00	0.00	47.28	24	*	99.35	50	71	*
Dicamba	200.00	0.00	113.99	57		123.98	62	8	
2,4-D	200.00	0.00	104.57	52		179.07	90	53	*
2,4,5-TP (Silvex)	200.00	0.00	133.92	67		189.90	95	35	*
2,4,5-T	200.00	0.00	131.46	66		151.19	76	14	
2,4-DB	200.00	0.00	154.54	77		182.25	91	16	
Dinoseb	200.00	0.00	106.07	53		135.70	68	25	

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W7040.D	Instrument ID:	GC-W
Date Extracted:	06/29/2012	Matrix:	AQUEOUS
Date Analyzed:	07/02/2012	Time Analyzed:	11:27

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-2-06221	06295-001	07/02/2012	11:41
Herb	LCSA291206-08	07/02/2012	15:19
I2-062612-	06385-003	07/02/2012	17:22
I1-062612-	06385-005	07/02/2012	17:36
Herb	06295-001MS	07/02/2012	17:51
Herb	06295-001MSD	07/02/2012	18:06

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W7055.D	Instrument ID:	GC-W
Date Extracted:	07/03/2012	Matrix:	AQUEOUS
Date Analyzed:	07/04/2012	Time Analyzed:	12:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
A1-062712-	06466-010	07/04/2012	12:40
A2-062712-	06466-011	07/04/2012	12:55
A7-062712-	06466-012	07/04/2012	13:09
GPECFB0628	06507-016	07/04/2012	13:38
Herb	LCSA120703-02	07/04/2012	13:53
A6-062912-	06546-001	07/10/2012	17:57

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W7020.D	Instrument ID:	GC-W
Date Extracted:	06/27/2012	Matrix:	SOIL
Date Analyzed:	06/28/2012	Time Analyzed:	11:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SAMPLE_21	06212-021	06/28/2012	11:40
Herb	06212-021MS	06/28/2012	11:55
Herb	06212-021MSD	06/29/2012	12:10
Herb	LCSS120627-07	06/29/2012	12:39

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W7090.D	Instrument ID:	GC-W
Date Extracted:	07/09/2012	Matrix:	SOIL
Date Analyzed:	07/11/2012	Time Analyzed:	11:00

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
GPEC-SB-20	06507-008	07/11/2012	11:15
GPEC-SB-20	06507-009	07/11/2012	11:29
GPEC-SB-21	06507-010	07/11/2012	11:44
GPEC-SB-22	06507-012	07/11/2012	11:58
GPEC-SB-20	06507-014	07/11/2012	12:13
I1-062712-	06466-008	07/11/2012	12:27
GPEC-SB-20	06507-004	07/11/2012	12:42
Herb	LCSS120709-06	07/11/2012	12:56

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	50	100	200	250	400	RT	FROM	TO
Dalapon	2.25	2.25	2.25	2.25	2.25	2.25	2.18	2.32
Dicamba	4.83	4.83	4.83	4.83	4.83	4.83	4.76	4.90
2,4-D	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.71	5.71	5.71	5.71	5.71	5.62	5.80
2,4,5-T	5.86	5.86	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.16	6.16	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.90	6.90	6.90	6.90	6.90	6.90	6.81	6.99

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	50	100	200	250	400	RT	FROM	TO
Dalapon	2.22	2.22	2.22	2.22	2.22	2.22	2.15	2.29
Dicamba	5.05	5.05	5.05	5.05	5.05	5.05	4.98	5.12
2,4-D	5.57	5.57	5.57	5.57	5.57	5.57	5.49	5.65
2,4,5-TP (Silvex)	6.03	6.03	6.03	6.03	6.03	6.03	5.94	6.12
2,4,5-T	6.26	6.26	6.26	6.26	6.26	6.26	6.17	6.35
2,4-DB	6.60	6.60	6.60	6.60	6.60	6.60	6.51	6.69
Dinoseb	6.85	6.85	6.85	6.85	6.85	6.85	6.76	6.94

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: F GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	CALIBRATION FACTORS					MEAN	
	50	100	200	250	400	CF	%RSD
Dalapon	544629	516909	587161	593365	592777	566968	6.09
Dicamba	1566067	1483926	1703827	1725758	1784211	1652758	7.49
2,4-D	732699	593094	607561	587862	573382	618920	10.46
2,4,5-TP (Silvex)	2764514	2539588	2884094	2964481	3076025	2845741	7.22
2,4,5-T	2721247	2545426	2799059	2811924	2893447	2754221	4.78
2,4-DB	526806	369714	505885	464867	435362	460527	13.45
Dinoseb	2134374	1946223	2155301	2067354	2096146	2079880	3.95
			Average %RSD				7.64

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	CALIBRATION FACTORS					MEAN	
	50	100	200	250	400	CF	%RSD
Dalapon	72214	66210	75805	76517	78181	73785	6.45
Dicamba	198580	186187	209675	212355	212325	203824	5.58
2,4-D	79995	65353	74252	72372	72026	72800	7.21
2,4,5-TP (Silvex)	349332	320514	368049	366443	374046	355677	6.10
2,4,5-T	333377	298305	351814	348173	345577	335449	6.52
2,4-DB	52239	36291	50263	49819	49769	47676	13.52
Dinoseb	233458	205681	247545	250958	256622	238853	8.55
			Average %RSD				7.70

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/04/2012 **Instrument ID:** GC-W

Data File: W7054.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	627486	10.67
Dicamba	4.83	4.76	4.90	1652758	1778148	7.59
2,4-D	5.28	5.20	5.36	618920	646367	4.43
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3037398	6.73
2,4,5-T	5.86	5.77	5.95	2754221	2921168	6.06
2,4-DB	6.16	6.07	6.25	460527	435430	5.45
Dinoseb	6.90	6.81	6.99	2079880	2201423	5.84

GC Column (2nd): DB-1701P

Data File: W7054.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.22	2.15	2.29	73785	80470	9.06
Dicamba	5.05	4.98	5.12	203824	218147	7.03
2,4-D	5.57	5.49	5.65	72800	77081	5.88
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	381242	7.19
2,4,5-T	6.26	6.17	6.35	335449	363723	8.43
2,4-DB	6.61	6.51	6.69	47676	52617	10.36
Dinoseb	6.86	6.76	6.94	238853	268110	12.25

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/04/2012 **Instrument ID:** GC-W

Data File: W7071.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	670919	18.33
Dicamba	4.83	4.76	4.90	1652758	1911439	15.65
2,4-D	5.28	5.20	5.36	618920	719468	16.25
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3331039	17.05
2,4,5-T	5.86	5.77	5.95	2754221	3042317	10.46
2,4-DB	6.16	6.07	6.25	460527	450073	2.27
Dinoseb	6.90	6.81	6.99	2079880	2293477	10.27

GC Column (2nd): DB-1701P

Data File: W7071.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.22	2.15	2.29	73785	81449	10.39
Dicamba	5.05	4.98	5.12	203824	221500	8.67
2,4-D	5.57	5.49	5.65	72800	78445	7.75
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	395897	11.31
2,4,5-T	6.26	6.17	6.35	335449	376078	12.11
2,4-DB	6.60	6.51	6.69	47676	49662	4.17
Dinoseb	6.85	6.76	6.94	238853	258575	8.26

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 **Instrument ID:** GC-W

Data File: W7085.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	532664	6.05
Dicamba	4.83	4.76	4.90	1652758	1596479	3.41
2,4-D	5.28	5.20	5.36	618920	603658	2.47
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	2760173	3.01
2,4,5-T	5.86	5.77	5.95	2754221	2719750	1.25
2,4-DB	6.16	6.07	6.25	460527	491419	6.71
Dinoseb	6.90	6.81	6.99	2079880	1953978	6.05

GC Column (2nd): DB-1701P

Data File: W7085.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.23	2.15	2.29	73785	67373	8.69
Dicamba	5.05	4.98	5.12	203824	195454	4.11
2,4-D	5.57	5.49	5.65	72800	70803	2.74
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	346338	2.63
2,4,5-T	6.26	6.17	6.35	335449	337070	0.48
2,4-DB	6.60	6.51	6.69	47676	47532	0.30
Dinoseb	6.86	6.76	6.94	238853	243591	1.98

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 **Instrument ID:** GC-W

Data File: W7087.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.26	2.18	2.32	566968	535479	5.55
Dicamba	4.83	4.76	4.90	1652758	1634055	1.13
2,4-D	5.28	5.20	5.36	618920	649642	4.96
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	2821704	0.84
2,4,5-T	5.86	5.77	5.95	2754221	2789977	1.30
2,4-DB	6.16	6.07	6.25	460527	446684	3.01
Dinoseb	6.90	6.81	6.99	2079880	2156482	3.68

GC Column (2nd): DB-1701P

Data File: W7087.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.23	2.15	2.29	73785	66462	9.92
Dicamba	5.05	4.98	5.12	203824	191912	5.84
2,4-D	5.57	5.49	5.65	72800	71986	1.12
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	343599	3.40
2,4,5-T	6.26	6.17	6.35	335449	334818	0.19
2,4-DB	6.60	6.51	6.69	47676	53454	12.12
Dinoseb	6.85	6.76	6.94	238853	232354	2.72

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-W

Data File: W7089.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	617319	8.88
Dicamba	4.83	4.76	4.90	1652758	1778734	7.62
2,4-D	5.28	5.20	5.36	618920	672302	8.63
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3080508	8.25
2,4,5-T	5.86	5.77	5.95	2754221	3030364	10.03
2,4-DB	6.16	6.07	6.25	460527	396145	13.98
Dinoseb	6.90	6.81	6.99	2079880	2172209	4.44

GC Column (2nd): DB-1701P

Data File: W7089.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.23	2.15	2.29	73785	77790	5.43
Dicamba	5.05	4.98	5.12	203824	216487	6.21
2,4-D	5.57	5.49	5.65	72800	77496	6.45
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	383160	7.73
2,4,5-T	6.26	6.17	6.35	335449	366719	9.32
2,4-DB	6.60	6.51	6.69	47676	49545	3.92
Dinoseb	6.85	6.76	6.94	238853	270347	13.19

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-W

Data File: W7099.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	637352	12.41
Dicamba	4.83	4.76	4.90	1652758	1863005	12.72
2,4-D	5.28	5.20	5.36	618920	619350	0.07
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3191607	12.15
2,4,5-T	5.86	5.77	5.95	2754221	2953498	7.24
2,4-DB	6.16	6.07	6.25	460527	425133	7.69
Dinoseb	6.90	6.81	6.99	2079880	2230582	7.25

GC Column (2nd): DB-1701P

Data File: W7099.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.22	2.15	2.29	73785	77685	5.29
Dicamba	5.05	4.98	5.12	203824	212368	4.19
2,4-D	5.57	5.49	5.65	72800	79618	9.37
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	386838	8.76
2,4,5-T	6.26	6.17	6.35	335449	366422	9.23
2,4-DB	6.60	6.51	6.69	47676	49533	3.90
Dinoseb	6.85	6.76	6.94	238853	265062	10.97

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 4.74 **DCPA 2** 4.96

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKA120703-02	07/04/2012	12:26	4.74		4.96	
A1-062712-	06466-010	07/04/2012	12:40	4.74		4.96	
A2-062712-	06466-011	07/04/2012	12:55	4.74		4.96	
A7-062712-	06466-012	07/04/2012	13:09	4.74		4.96	
GPECFB0628	06507-016	07/04/2012	13:38	4.74		4.96	
Herb	LCSA120703-02	07/04/2012	13:53	4.74		4.96	
A6-062912-	06546-001	07/10/2012	17:57	4.74		4.96	

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 **4.74** **DCPA 2** **4.96**

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKS120709-06	07/11/2012	11:00	4.74		4.96	
GPEC-SB-20	06507-008	07/11/2012	11:15	4.74		4.96	
GPEC-SB-20	06507-009	07/11/2012	11:29	4.74		4.96	
GPEC-SB-21	06507-010	07/11/2012	11:44	4.74		4.96	
GPEC-SB-22	06507-012	07/11/2012	11:58	4.74		4.96	
GPEC-SB-20	06507-014	07/11/2012	12:13	4.74		4.96	
I1-062712-	06466-008	07/11/2012	12:27	4.74		4.96	
GPEC-SB-20	06507-004	07/11/2012	12:42	4.74		4.96	
Herb	LCSS120709-06	07/11/2012	12:56	4.74		4.96	

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : W7096.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 12:27 pm
Operator : YG
Sample : I1-062712-,06466-008,S,5.59g,17.0,07/09/12,1
Misc : 120709-06,06/27/12,06/28/12,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 13 10:53:41 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	222.6E6	28891480	106.850	112.294
Spiked Amount 100.000			Recovery	=	106.85%	112.29%

Target Compounds

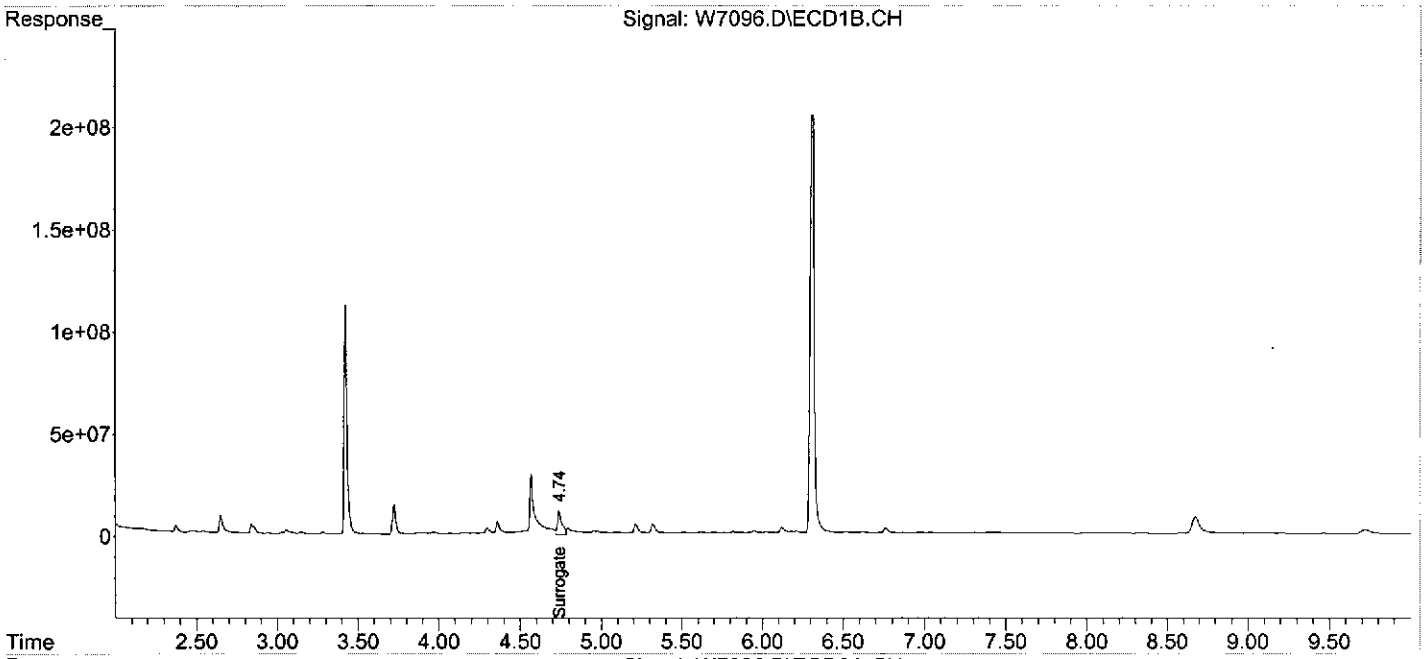
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

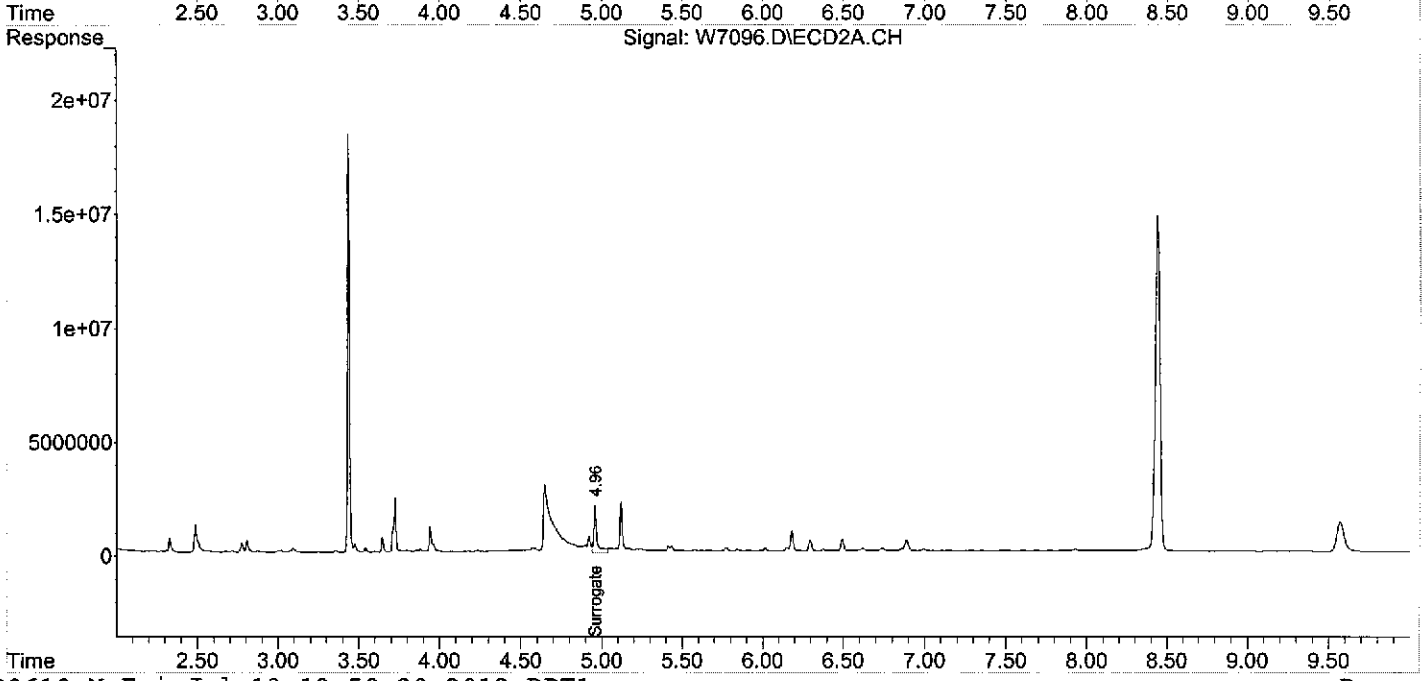
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : W7096.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 12:27 pm
Operator : YG
Sample : I1-062712-,06466-008,S,5.59g,17.0,07/09/12,1
Misc : 120709-06,06/27/12,06/28/12,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 13 10:53:41 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7056.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 12:40
Operator : YG
Sample : A1-062712-,06466-010,A,500ml,100,07/03/12,1
Misc : 120703-02,06/27/12,06/28/12,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:01:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	106.1E6	14619929	50.906	56.824
Spiked Amount 100.000			Recovery	=	50.91%	56.82%
Target Compounds						

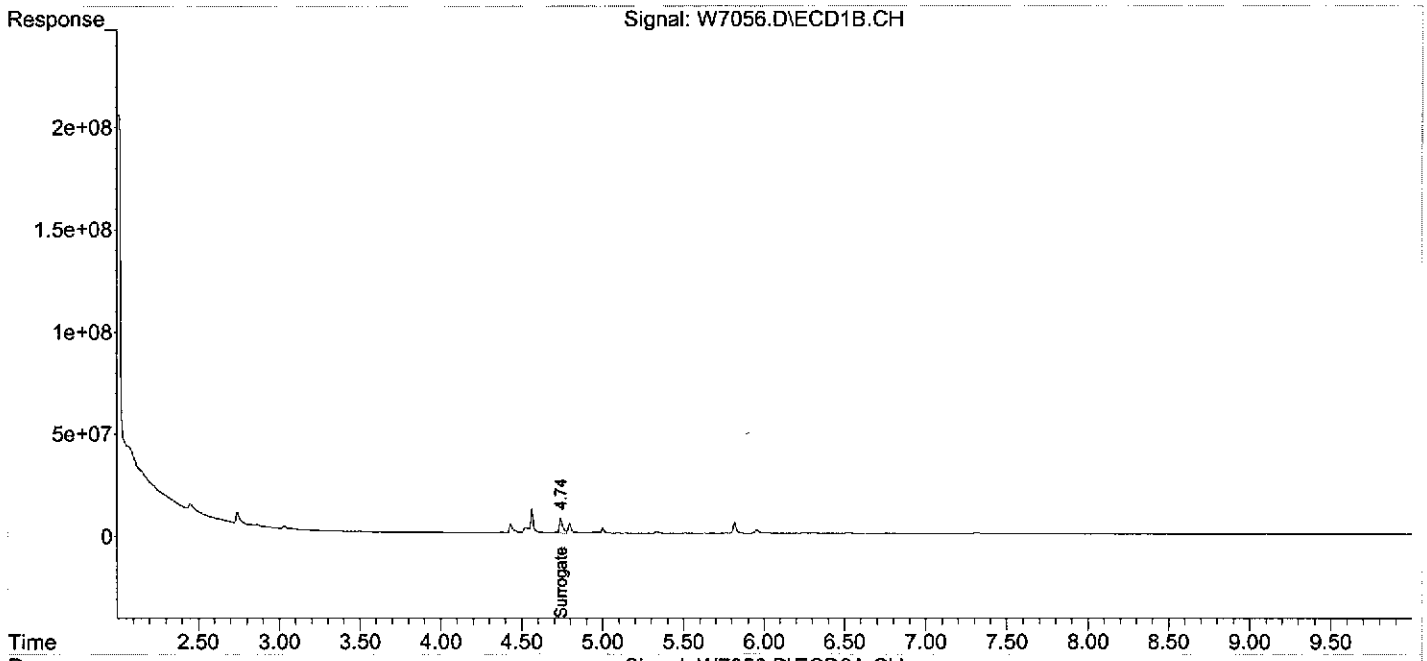
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

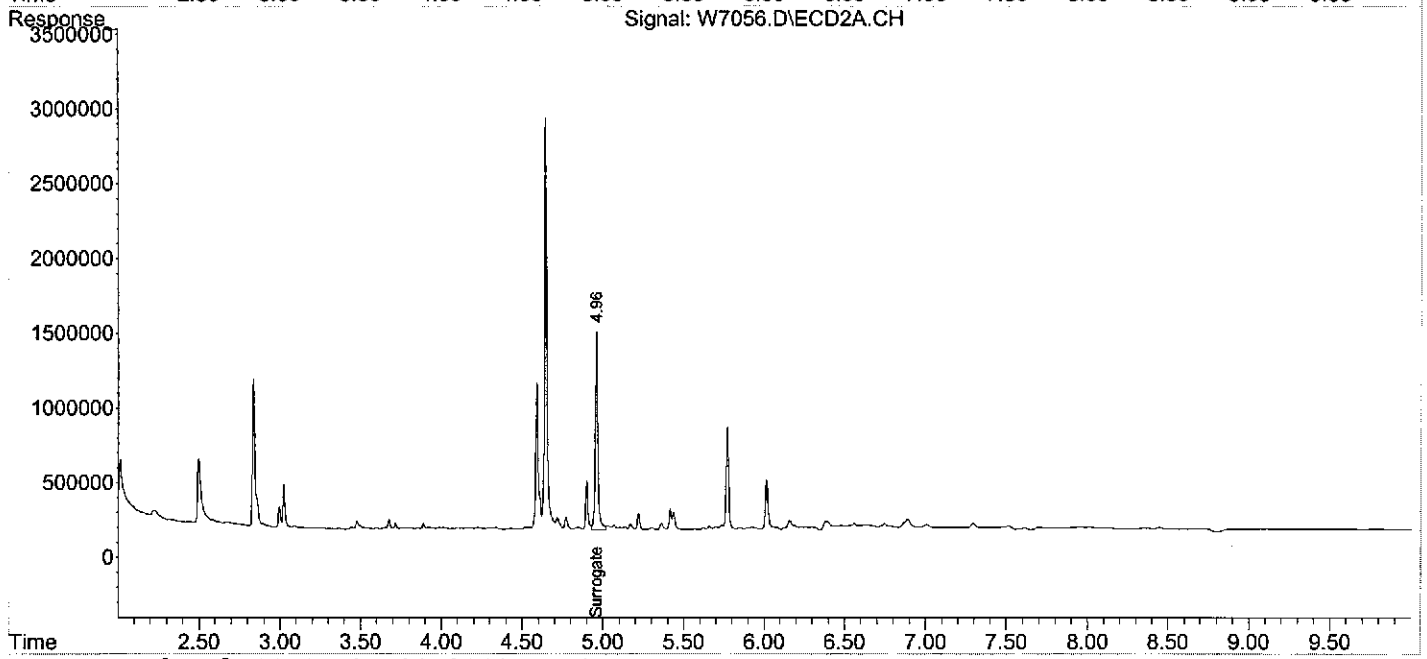
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7056.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 12:40
Operator : YG
Sample : A1-062712-,06466-010,A,500ml,100,07/03/12,1
Misc : 120703-02,06/27/12,06/28/12,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:01:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7057.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 12:55
Operator : YG
Sample : A2-062712-,06466-011,A,500ml,100,07/03/12,1
Misc : 120703-02,06/27/12,06/28/12,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:01:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	108.9E6	14833634	52.284	57.654
Spiked Amount 100.000			Recovery	=	52.28%	57.65%

Target Compounds

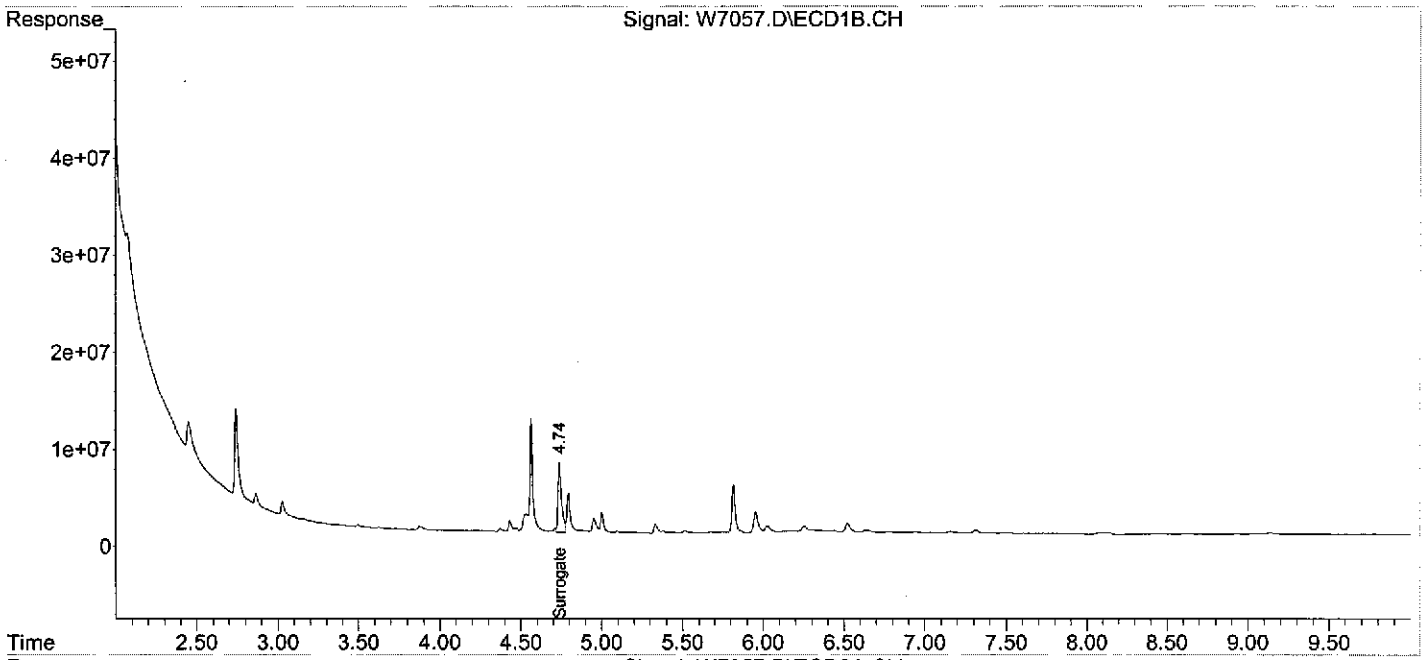
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

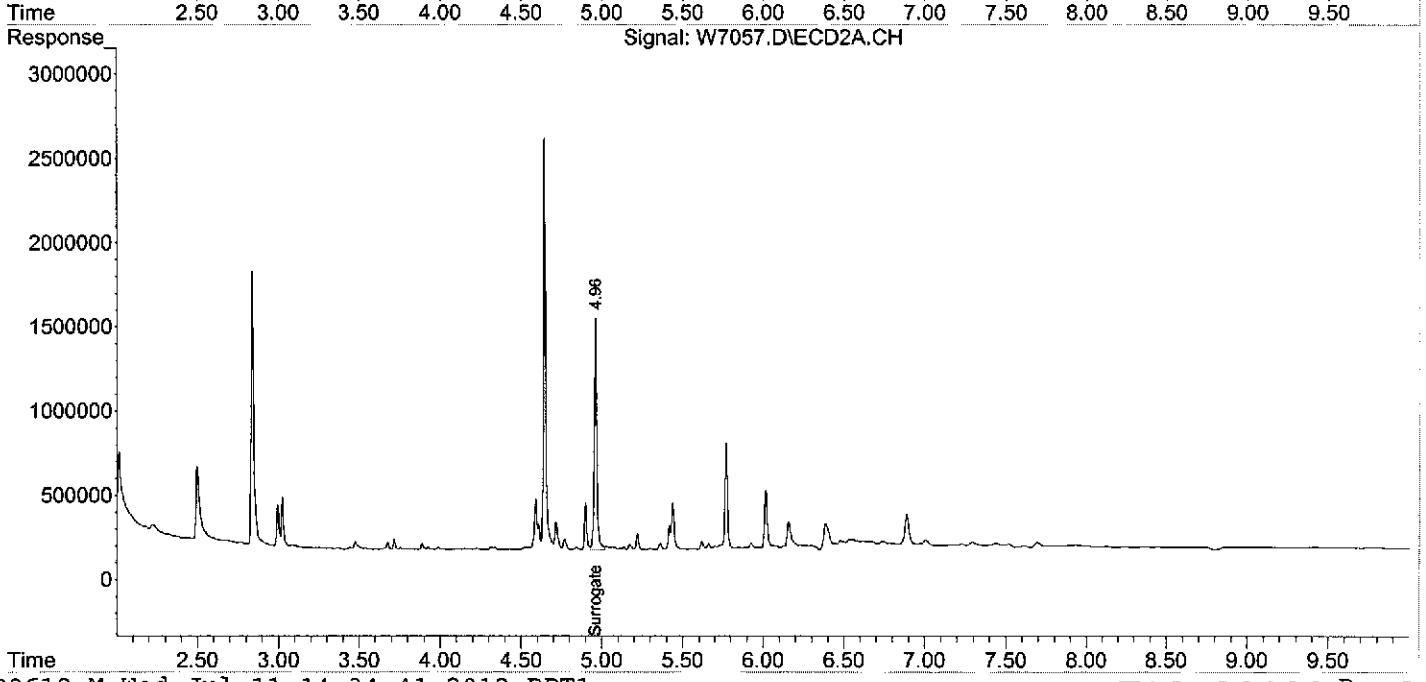
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7057.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 12:55
Operator : YG
Sample : A2-062712-,06466-011,A,500ml,100,07/03/12,1
Misc : 120703-02,06/27/12,06/28/12,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:01:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7058.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 13:09
Operator : YG
Sample : A7-062712-,06466-012,A,1000ml,100,07/03/12,1
Misc : 120703-02,06/27/12,06/28/12,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:02:40 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	118.5E6	15678227	56.866	60.937
Spiked Amount 100.000			Recovery	=	56.87%	60.94%
Target Compounds						

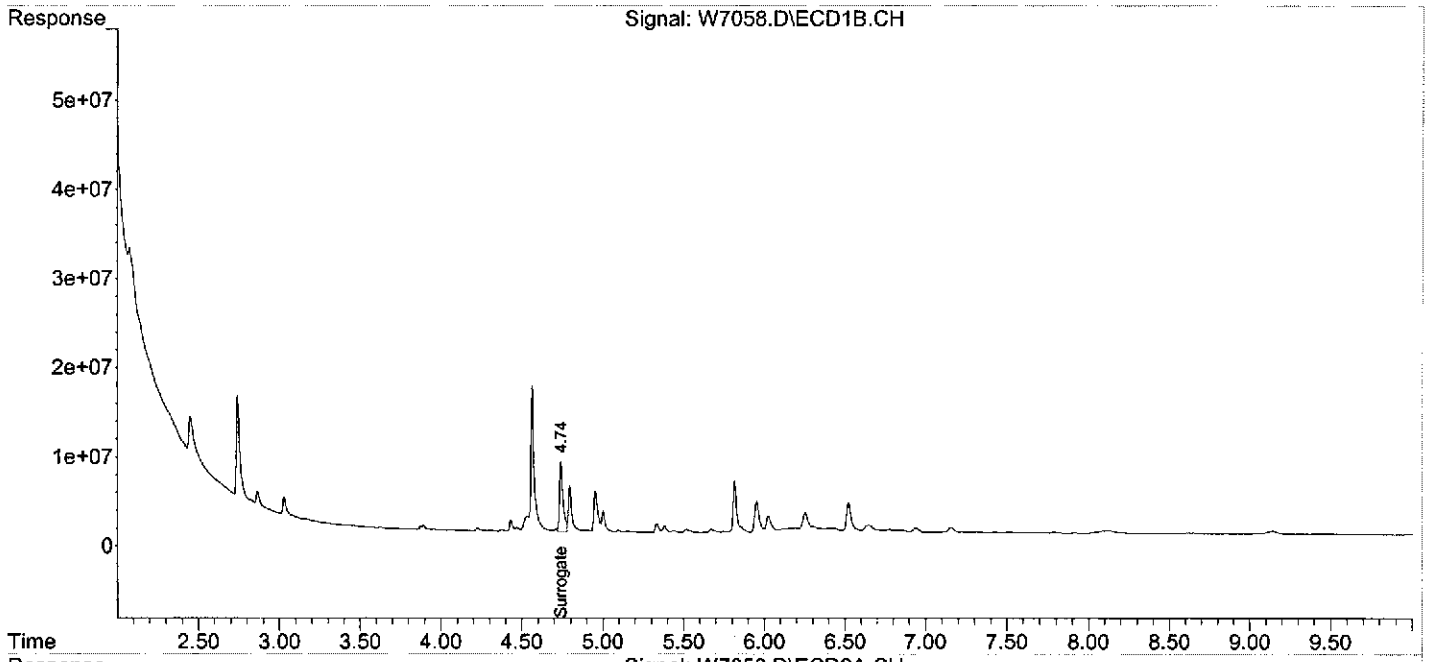
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

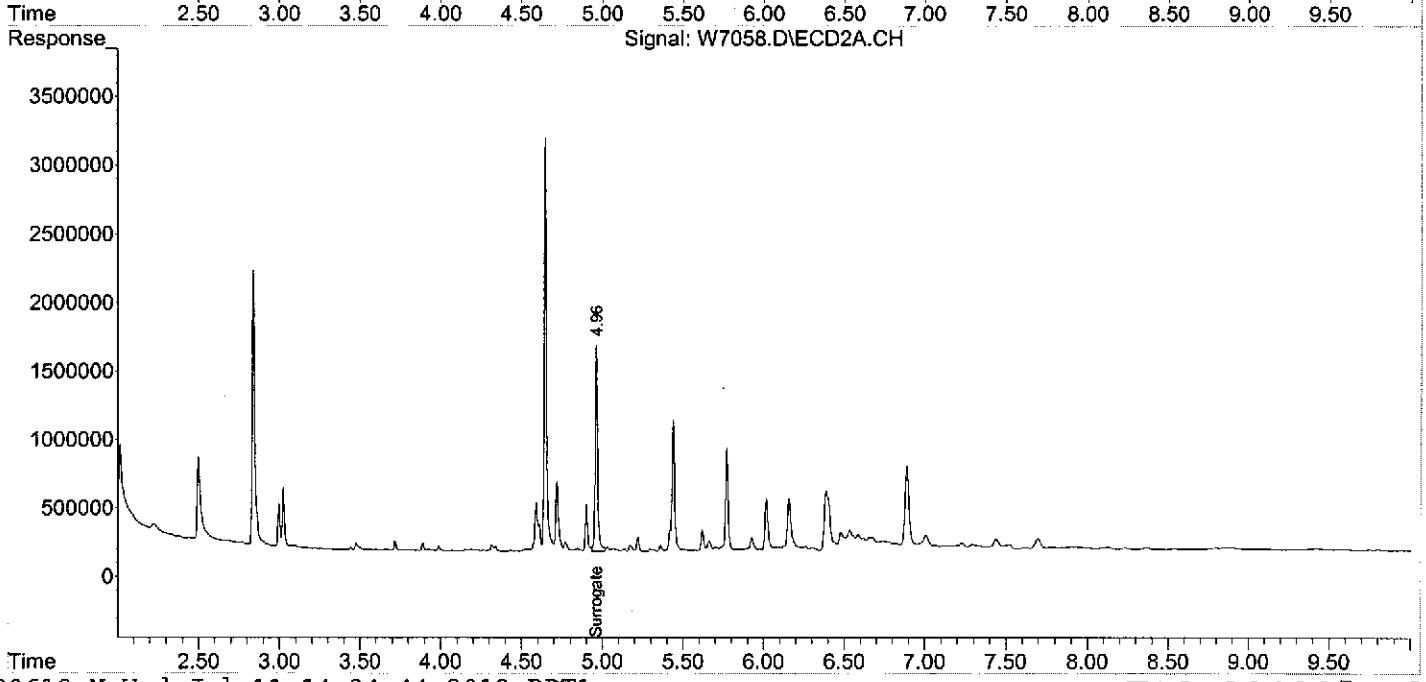
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7058.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 13:09
Operator : YG
Sample : A7-062712-,06466-012,A,1000ml,100,07/03/12,1
Misc : 120703-02,06/27/12,06/28/12,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:02:40 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKA291206-08
Client ID: Herb
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 07/02/2012
Data file: W7040.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKA120703-02
Client ID: Herb
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: W7055.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7055.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 12:26
Operator : YG
Sample : Herb,BLKA120703-02,A,1000ml,100,07/03/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:00:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	133.0E6	18637542	63.818	72.439
Spiked Amount 100.000			Recovery	=	63.82%	72.44%
Target Compounds						

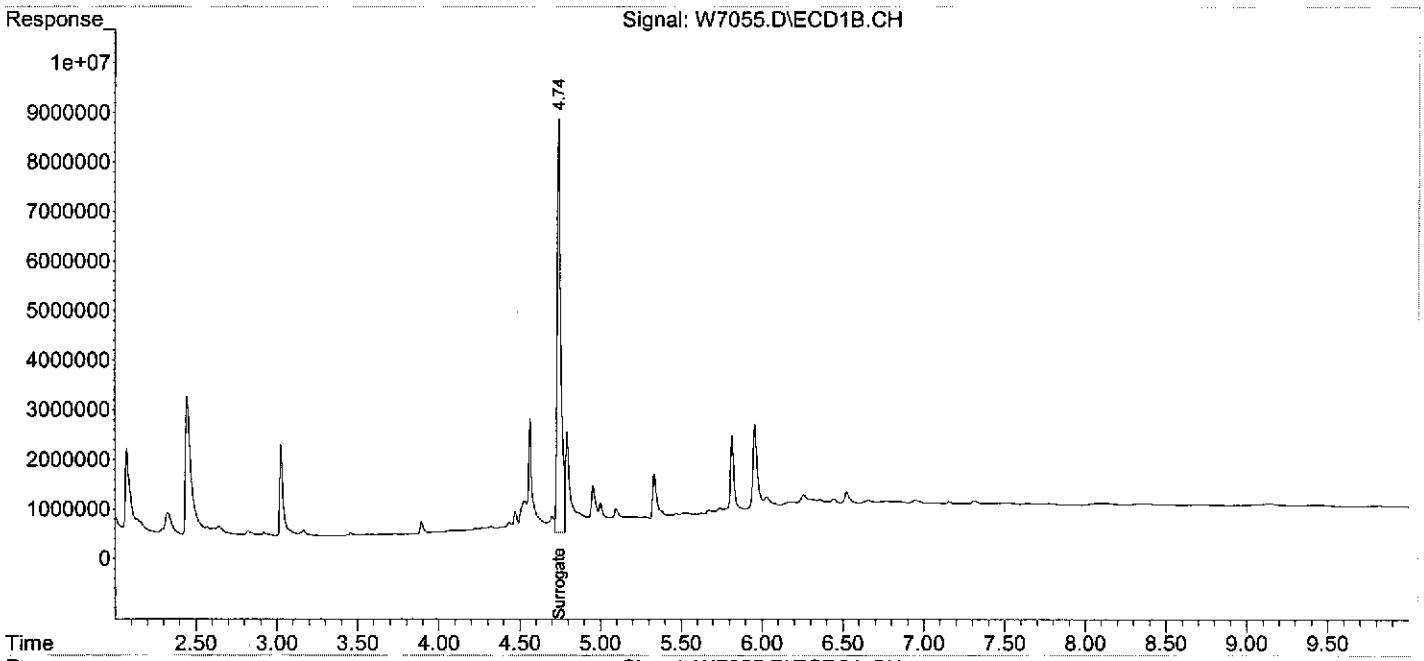
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

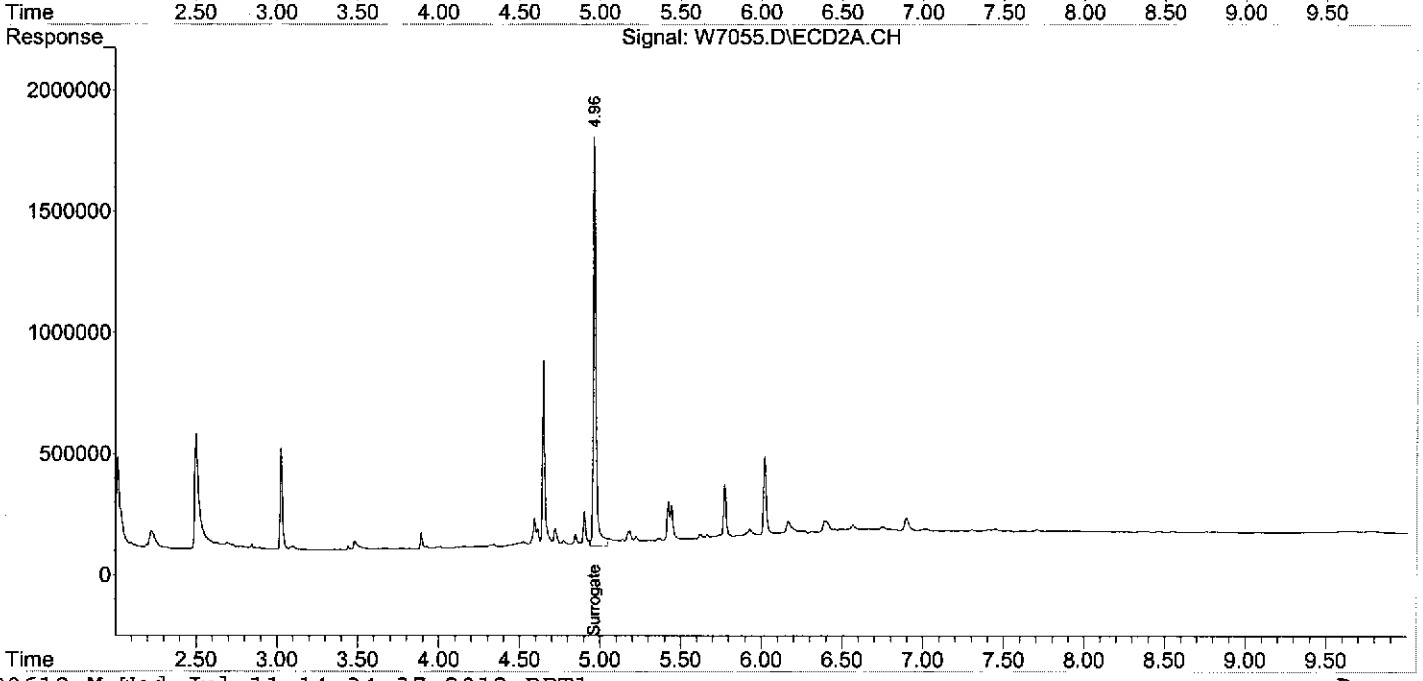
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7055.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 12:26
Operator : YG
Sample : Herb,BLKA120703-02,A,1000ml,100,07/03/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:00:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKS120627-07
Client ID: Herb
Date Received: NA
Date Extracted: 06/27/2012
Date Analyzed: 06/28/2012
Data file: W7020.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.00835	0.00334
Dicamba	ND		0.00835	0.00334
2,4-D	ND		0.00835	0.00334
2,4,5-TP (Silvex)	ND		0.00835	0.00334
2,4,5-T	ND		0.00835	0.00334
2,4-DB	ND		0.00835	0.00334
Dinoseb	ND		0.00835	0.00334

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKS120709-06
Client ID: Herb
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/11/2012
Data file: W7090.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.050	0.020
Dicamba	ND		0.050	0.020
2,4-D	ND		0.050	0.020
2,4,5-TP (Silvex)	ND		0.050	0.020
2,4,5-T	ND		0.050	0.020
2,4-DB	ND		0.050	0.020
Dinoseb	ND		0.050	0.020

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : W7090.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 11:00 am
Operator : YG
Sample : Herb,BLKS120709-06,S,5.00g,0,07/09/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 13 10:49:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	159.9E6	21284364	76.723	82.727
Spiked Amount 100.000			Recovery =		76.72%	82.73%

Target Compounds

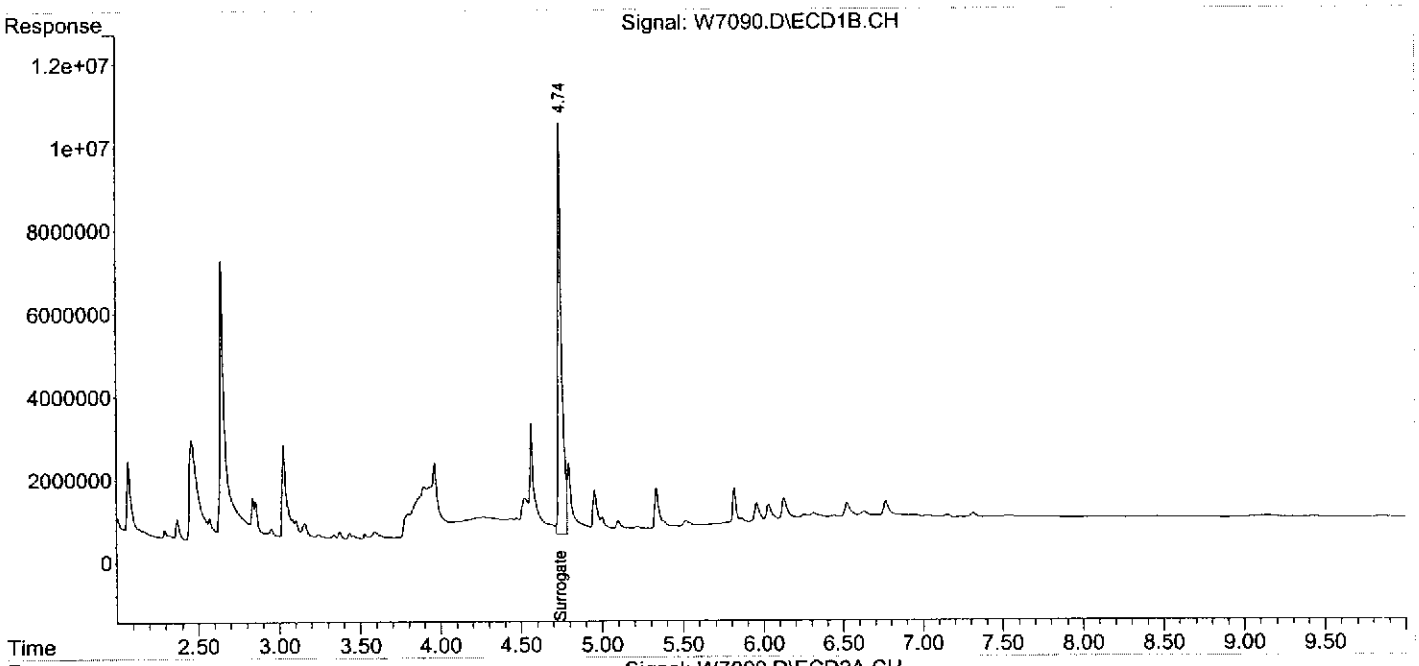
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

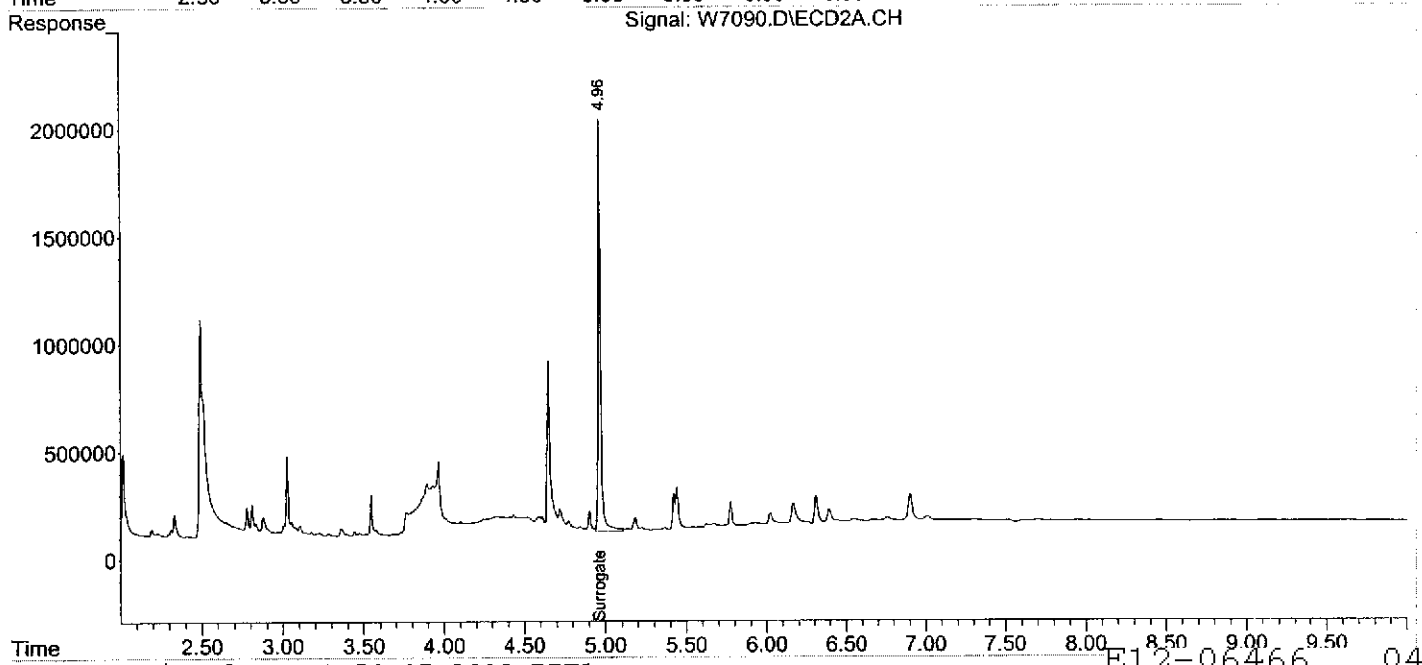
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : W7090.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 11 Jul 2012 11:00 am
Operator : YG
Sample : Herb,BLKS120709-06,S,5.00g,0,07/09/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 13 10:49:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON

FRACTIOANTED
EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/06/2012

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	BLKS120703-07	SOIL	62	
ALI	LCSS120703-07	SOIL	63	
ALI	LCSDS120703-07	SOIL	58	
PET-GP-1	06499-001	SOIL	45	
PET-GP-2	06499-002	SOIL	46	
PET-GP-3	06499-003	SOIL	41	
PET-GP-4	06499-004	SOIL	42	
PET-GP-6	06499-005	SOIL	56	
PET-GP-7	06499-006	SOIL	50	
PET-GP-8	06499-007	SOIL	43	
PET-GP-8	06499-008	SOIL	46	
PET-GP-9	06499-009	SOIL	48	
PET-GP-1	06499-010	SOIL	40	
I3SED-06	06385-011	SOIL	49	
C1-06261	06385-012	SOIL	69	
C2-06261	06385-013	SOIL	66	
A7_(2-3)	06466-007	SOIL	44	
I1-06271	06466-008	SOIL	65	
PET-GP-1	06499-10D	SOIL	58	
ALI	06499-010MS	SOIL	60	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/07/2012

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	BLKS120702-13	SOIL	58	
ALI	LCSS120702-13	SOIL	69	
ALI	LCSDS120702-13	SOIL	65	
SS-3	06535-003	SOIL	41	
SS-4	06535-004	SOIL	42	
SS-6	06535-006	SOIL	53	
SS-9	06535-009	SOIL	47	
SS-10	06535-010	SOIL	45	
A1/4-4.5	06542-001	SOIL	40	
A2/4-4.5	06542-002	SOIL	40	
A3/4-4.5	06542-003	SOIL	41	
A4/4-4.5	06542-004	SOIL	41	
A5/4-4.5	06542-005	SOIL	40	
A6/4-4.5	06542-006	SOIL	40	
A2_(4-5)	06466-6D	SOIL	41	
ALI	06466-006MS	SOIL	40	
SS-1	06535-001	SOIL	82	
SS-2	06535-002	SOIL	41	
SS-5	06535-005	SOIL	D	
SS-7	06535-007	SOIL	88	
SS-8	06535-008	SOIL	56	
B1_(4-5)	06466-001	SOIL	61	
B3_(16-1	06466-002	SOIL	62	
A1_(12-1	06466-004	SOIL	52	
A2_(4-5)	06466-006	SOIL	58	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	BLKS120706-09	SOIL	60	
ALI	LCSS120706-09	SOIL	57	
ALI	LCSDS120706-09	SOIL	60	
C1_(12.5	06466-003	SOIL	54	
C2_(11-1	06466-005	SOIL	56	
A6(4-5)-	06545-001	SOIL	47	
A5(9-10)	06545-002	SOIL	49	
A4(10.5-	06545-003	SOIL	48	
E1(6.5-7	06545-004	SOIL	44	
D1(9-10)	06545-005	SOIL	50	
D2(9-10)	06545-006	SOIL	52	
D3(4-5)-	06545-007	SOIL	48	
F1(9-10)	06545-008	SOIL	53	
F2(9-10)	06545-009	SOIL	49	
PET-GP-1	06499-011	SOIL	45	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/06/2012

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	BLKS120703-07	SOIL	73		80		100	
ARO	LCSS120703-07	SOIL	91		96		113	
ARO	LCSDS120703-07	SOIL	76		83		104	
PET-GP-1	06499-001	SOIL	82		92		98	
PET-GP-2	06499-002	SOIL	80		90		88	
PET-GP-3	06499-003	SOIL	92		101		93	
PET-GP-4	06499-004	SOIL	79		87		78	
PET-GP-6	06499-005	SOIL	88		95		110	
PET-GP-7	06499-006	SOIL	74		80		103	
PET-GP-8	06499-007	SOIL	78		85		90	
PET-GP-8	06499-008	SOIL	76		81		80	
PET-GP-9	06499-009	SOIL	78		83		85	
PET-GP-1	06499-010	SOIL	91		93		79	
I3SED-06	06385-011	SOIL	55		51		95	
C1-06261	06385-012	SOIL	76		69		96	
C2-06261	06385-013	SOIL	62		45		92	
A7_(2-3)	06466-007	SOIL	54		59		79	
I1-06271	06466-008	SOIL	61		73		99	
PET-GP-1	06499-10D	SOIL	50		53		81	
ARO	06499-010MS	SOIL	57		57		81	

Surrogate QC Limits	Soil	Aqueous
FBP = 2-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/07/2012

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	BLKS120702-13	SOIL	51		69		94	
ARO	LCSS120702-13	SOIL	82		87		109	
ARO	LCSDS120702-13	SOIL	76		81		102	
SS-2	06535-002	SOIL	81		88		71	
SS-3	06535-003	SOIL	55		62		62	
SS-4	06535-004	SOIL	90		105		85	
SS-6	06535-006	SOIL	96		97		82	
SS-7	06535-007	SOIL	83		78		97	
SS-8	06535-008	SOIL	90		101		84	
SS-9	06535-009	SOIL	55		64		85	
SS-10	06535-010	SOIL	51		56		73	
A1/4-4.5	06542-001	SOIL	49		56		63	
A2/4-4.5	06542-002	SOIL	50		56		61	
A3/4-4.5	06542-003	SOIL	52		56		61	
A4/4-4.5	06542-004	SOIL	45		49		54	
A5/4-4.5	06542-005	SOIL	57		63		66	
A6/4-4.5	06542-006	SOIL	48		52		58	
A2_(4-5)	06466-6D	SOIL	56		63		69	
ARO	06466-006MS	SOIL	48		54		71	
SS-1	06535-001	SOIL	64		110		100	
SS-5	06535-005	SOIL	D		D		D	
B1_(4-5)	06466-001	SOIL	84		89		103	
B3_(16-1	06466-002	SOIL	89		103		109	
A1_(12-1	06466-004	SOIL	75		78		79	
A2_(4-5)	06466-006	SOIL	86		89		80	

Surrogate QC Limits	Soil	Aqueous
FBP = 2-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	BLKS120706-09	SOIL	51		52		73	
ARO	LCSS120706-09	SOIL	52		56		79	
ARO	LCSDS120706-09	SOIL	55		58		80	
C1_(12.5	06466-003	SOIL	40		41		63	
A6(4-5)-	06545-001	SOIL	48		53		74	
A4(10.5-	06545-003	SOIL	47		55		74	
E1(6.5-7	06545-004	SOIL	50		56		82	
D1(9-10)	06545-005	SOIL	40		42		61	
D3(4-5)-	06545-007	SOIL	49		47		73	
F1(9-10)	06545-008	SOIL	50		54		75	
F2(9-10)	06545-009	SOIL	45		50		70	
PET-GP-1	06499-011	SOIL	46		52		71	
C2_(11-1	06466-005	SOIL	53		57		84	
A5(9-10)	06545-002	SOIL	52		57		81	
D2(9-10)	06545-006	SOIL	52		55		82	

Surrogate QC Limits	Soil	Aqueous
FBP = 2-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120703-07
Client ID: ALI
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1623.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	50	0.00	23	46	20	40	14
n-Decane (C10)	50	0.00	27	54	24	48	12
n-Dodecane (C12)	50	0.00	34	68	30	60	13
n-Tetradecane (C14)	50	0.00	38	76	34	68	11
n-Hexadecane (C16)	50	0.00	41	82	36	72	13
n-Octadecane (C18)	50	0.00	42	84	37	74	13
n-Eicosane (C20)	50	0.00	42	84	38	76	10
n-Heneicosane (C21)	50	0.00	47	94	43	86	9
n-Docosane (C22)	50	0.00	44	88	40	80	10
n-Tetracosane (C24)	50	0.00	39	78	36	72	8
n-Hexacosane (C26)	50	0.00	39	78	36	72	8
n-Octacosane (C28)	50	0.00	40	80	37	74	8
n-Triacontane (C30)	50	0.00	41	82	38	76	8
n-Dotriacontane (C32)	50	0.00	42	84	39	78	7
n-Tetratriacontane (C34)	50	0.00	43	86	40	80	7
n-Hexatriacontane (C36)	50	0.00	41	82	38	76	8
n-Octatriacontane (C38)	50	0.00	38	76	35	70	8
n-Tetracontane (40)	50	0.00	34	68	31	62	9
C9-C12	150	0.00	99	66	79	53	22
C12-C16	100	0.00	91	91	78	78	15
C16-C21	150	0.00	146	97	132	88	10
C21-C40	500	0.00	453	91	423	85	7

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120702-13
Client ID: ALI
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/07/2012
Data file: N1646.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD	
n-Nonane (C9)	50	0.00	20	40	19	38	5	*
n-Decane (C10)	50	0.00	25	50	24	48	4	
n-Dodecane (C12)	50	0.00	33	66	31	62	6	
n-Tetradecane (C14)	50	0.00	38	76	36	72	5	
n-Hexadecane (C16)	50	0.00	41	82	39	78	5	
n-Octadecane (C18)	50	0.00	42	84	39	78	7	
n-Eicosane (C20)	50	0.00	42	84	39	78	7	
n-Heneicosane (C21)	50	0.00	48	96	46	92	4	
n-Docosane (C22)	50	0.00	44	88	42	84	5	
n-Tetracosane (C24)	50	0.00	39	78	37	74	5	
n-Hexacosane (C26)	50	0.00	39	78	38	76	3	
n-Octacosane (C28)	50	0.00	40	80	39	78	3	
n-Triacontane (C30)	50	0.00	41	82	40	80	2	
n-Dotriacontane (C32)	50	0.00	42	84	40	80	5	
n-Tetratriacontane (C34)	50	0.00	43	86	41	82	5	
n-Hexatriacontane (C36)	50	0.00	41	82	39	78	5	
n-Octatriacontane (C38)	50	0.00	37	74	36	72	3	
n-Tetracontane (40)	50	0.00	32	64	31	62	3	
C9-C12	150	0.00	84	56	75	50	11	
C12-C16	100	0.00	87	87	81	81	7	
C16-C21	150	0.00	142	95	134	89	6	
C21-C40	500	0.00	433	87	420	84	3	

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120706-09
Client ID: ALI
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1712.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD	
n-Nonane (C9)	50	0.00	18	36	19	38	5	*
n-Decane (C10)	50	0.00	21	42	23	46	9	
n-Dodecane (C12)	50	0.00	26	52	28	56	7	
n-Tetradecane (C14)	50	0.00	29	58	31	62	7	
n-Hexadecane (C16)	50	0.00	31	62	33	66	6	
n-Octadecane (C18)	50	0.00	32	64	34	68	6	
n-Eicosane (C20)	50	0.00	32	64	34	68	6	
n-Heneicosane (C21)	50	0.00	37	74	40	80	8	
n-Docosane (C22)	50	0.00	35	70	37	74	6	
n-Tetracosane (C24)	50	0.00	31	62	33	66	6	
n-Hexacosane (C26)	50	0.00	31	62	33	66	6	
n-Octacosane (C28)	50	0.00	31	62	33	66	6	
n-Triacontane (C30)	50	0.00	31	62	33	66	6	
n-Dotriacontane (C32)	50	0.00	31	62	33	66	6	
n-Tetratriacontane (C34)	50	0.00	33	66	35	70	6	
n-Hexatriacontane (C36)	50	0.00	32	64	34	68	6	
n-Octatriacontane (C38)	50	0.00	31	62	33	66	6	
n-Tetracontane (40)	50	0.00	31	62	33	66	6	
C9-C12	150	0.00	67	45	71	47	6	
C12-C16	100	0.00	65	65	70	70	7	
C16-C21	150	0.00	110	73	117	78	6	
C21-C40	500	0.00	366	73	391	78	7	

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120703-07
Client ID: ARO
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: NB1256.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	34	68	27	54	23
Napthalene	50	0.00	41	82	33	66	22
2-Methylnaphthalene	50	0.00	43	86	36	72	18
Acenaphthylene	50	0.00	48	96	41	82	16
Acenaphthene	50	0.00	49	98	42	84	15
Fluorene	50	0.00	48	96	42	84	13
Phenanthrene	50	0.00	48	96	44	88	9
Anthracene	50	0.00	45	90	42	84	7
Fluoroanthene	50	0.00	43	86	40	80	7
Pyrene	50	0.00	42	84	39	78	7
Benzo[a]anthracene	50	0.00	41	82	36	72	13
Chrysene	50	0.00	41	82	38	76	8
Benzo[b]fluoranthene	50	0.00	41	82	37	74	10
Benzo[k]fluoranthene	50	0.00	41	82	37	74	10
Benzo[a]pyrene	50	0.00	37	74	34	68	8
Indeno[1,2,3-cd]pyrene	50	0.00	40	80	36	72	11
Dibenz[a,h]anthracene	50	0.00	40	80	36	72	11
Benzo[g,h,i]perylene	50	0.00	39	78	35	70	11
C10-C12	100	0.00	81	81	69	69	16
C12-C16	150	0.00	152	101	130	87	16
C16-C21	250	0.00	264	106	241	96	9
C21-C36	400	0.00	369	92	336	84	9

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120702-13
Client ID: ARO
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/07/2012
Data file: NB1279.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	27	54	25	50	8
Napthalene	50	0.00	34	68	32	64	6
2-Methylnaphthalene	50	0.00	37	74	35	70	6
Acenaphthylene	50	0.00	41	82	38	76	8
Acenaphthene	50	0.00	43	86	40	80	7
Fluorene	50	0.00	43	86	40	80	7
Phenanthrene	50	0.00	44	88	41	82	7
Anthracene	50	0.00	43	86	40	80	7
Fluoroanthene	50	0.00	40	80	38	76	5
Pyrene	50	0.00	39	78	37	74	5
Benzo[a]anthracene	50	0.00	37	74	35	70	6
Chrysene	50	0.00	39	78	36	72	8
Benzo[b]fluoranthene	50	0.00	38	76	35	70	8
Benzo[k]fluoranthene	50	0.00	38	76	35	70	8
Benzo[a]pyrene	50	0.00	35	70	32	64	9
Indeno[1,2,3-cd]pyrene	50	0.00	36	72	34	68	6
Dibenz[a,h]anthracene	50	0.00	36	72	34	68	6
Benzo[g,h,i]perylene	50	0.00	36	72	34	68	6
C10-C12	100	0.00	66	66	61	61	8
C12-C16	150	0.00	129	86	120	80	7
C16-C21	250	0.00	234	94	219	88	7
C21-C36	400	0.00	346	87	324	81	7

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120706-09
Client ID: ARO
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: NB1344.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	22	44	23	46	4
Napthalene	50	0.00	25	50	26	52	4
2-Methylnaphthalene	50	0.00	26	52	27	54	4
Acenaphthylene	50	0.00	29	58	30	60	3
Acenaphthene	50	0.00	30	60	32	64	6
Fluorene	50	0.00	31	62	32	64	3
Phenanthrene	50	0.00	32	64	35	70	9
Anthracene	50	0.00	32	64	34	68	6
Fluoroanthene	50	0.00	37	74	37	74	0
Pyrene	50	0.00	38	76	37	74	3
Benzo[a]anthracene	50	0.00	41	82	39	78	5
Chrysene	50	0.00	43	86	40	80	7
Benzo[b]fluoranthene	50	0.00	45	90	41	82	9
Benzo[k]fluoranthene	50	0.00	45	90	41	82	9
Benzo[a]pyrene	50	0.00	41	82	37	74	10
Indeno[1,2,3-cd]pyrene	50	0.00	47	94	42	84	11
Dibenz[a,h]anthracene	50	0.00	47	94	42	84	11
Benzo[g,h,i]perylene	50	0.00	47	94	43	86	9
C10-C12	100	0.00	49	49	52	52	6
C12-C16	150	0.00	91	61	96	64	5
C16-C21	250	0.00	195	78	197	79	1
C21-C36	400	0.00	400	100	365	91	9

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 06499-010MS
Client ID: ALI
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1640.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C9-C12	150	0	69	46
C12-C16	100	0	70	70
C16-C21	150	0	117	78
C21-C40	500	0	370	74

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 06466-006MS
Client ID: ALI
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/07/2012
Data file: N1668.D

GC Column: DB-5
Sample wt/vol: 5.29g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C9-C12	150	0	74	49
C12-C16	100	0	54	54
C16-C21	150	0	88	59
C21-C40	500	0	412	82

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 06400-001MS
Client ID: ALI
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 06/29/2012
Data file: N1606.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C9-C12	150	0	138	92
C12-C16	100	0	87	87
C16-C21	150	0	130	87
C21-C40	500	0	380	76

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 06499-010MS
Client ID: ARO
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/09/2012
Data file: NB1306.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C10-C12	100	0	54	54
C12-C16	150	0	100	67
C16-C21	250	0	169	68
C21-C36	400	0	321	80

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 06466-006MS
Client ID: ARO
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/07/2012
Data file: NB1301.D

GC Column: DB-5
Sample wt/vol: 5.29g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C10-C12	100	0	50	50
C12-C16	150	0	80	53
C16-C21	250	0	159	64
C21-C36	400	0	334	84

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 06400-001MS
Client ID: ARO
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 06/29/2012
Data file: NB1239.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C10-C12	100	0	69	69
C12-C16	150	0	124	83
C16-C21	250	0	224	90
C21-C36	400	0	315	79

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: PET-GP-1
Date Received: 06/29/2012
Date Extracted: 07/03/2012
Lab ID: 06499-010
Sample wt/vol: 5.27g
Date Analyzed: 07/06/2012
Aliphatics Sample Data file: N1633.D
Dilution Factor: 1
Date Analyzed: 07/06/2012
Aromatics Sample Data file: NB1266.D
Dilution Factor: 1

GC Column: DB-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 8.10
Lab ID: 06499-10D
Sample wt/vol: 5.00g
Date Analyzed: 07/06/2012
Aliphatics Sample Dup Data file: N1639.D
Dilution Factor: 1
Date Analyzed: 07/09/2012
Aromatics Sample Dup Data file: NB1305.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C12 Aliphatics	ND	ND	NA
C12-C16 Aliphatics	ND	ND	NA
C16-C21 Aliphatics	ND	ND	NA
C21-C40 Aliphatics	ND	ND	NA
Total Aliphatics	0	0	NA
C10-C12 Aromatics	ND	ND	NA
C12-C16 Aromatics	ND	ND	NA
C16-C21 Aromatics	ND	ND	NA
C21-C36 Aromatics	ND	ND	NA
Total Aromatics	0	0	NA
Total NJ-EPH	0	0	NA

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NA --- Not Applied

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: A2_(4-5)
Date Received: 06/28/2012
Date Extracted: 07/02/2012
Lab ID: 06466-006
Sample wt/vol: 5.28g
Date Analyzed: 07/09/2012
Aliphatics Sample Data file: N1680.D
Dilution Factor: 1
Date Analyzed: 07/09/2012
Aromatics Sample Data file: NB1312.D
Dilution Factor: 1

GC Column: DB-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 3.40
Lab ID: 06466-6D
Sample wt/vol: 5.33g
Date Analyzed: 07/07/2012
Aliphatics Sample Dup Data file: N1667.D
Dilution Factor: 1
Date Analyzed: 07/07/2012
Aromatics Sample Dup Data file: NB1300.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C12 Aliphatics	ND	ND	NA
C12-C16 Aliphatics	ND	ND	NA
C16-C21 Aliphatics	ND	ND	NA
C21-C40 Aliphatics	ND	ND	NA
Total Aliphatics	0	0	NA
C10-C12 Aromatics	ND	ND	NA
C12-C16 Aromatics	ND	ND	NA
C16-C21 Aromatics	ND	ND	NA
C21-C36 Aromatics	ND	ND	NA
Total Aromatics	0	0	NA
Total NJ-EPH	0	0	NA

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NA --- Not Applied

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: EH-1/1-1
Date Received: 06/27/2012
Date Extracted: 06/29/2012
Lab ID: 06400-001
Sample wt/vol: 5.10g
Date Analyzed: 06/29/2012
Aliphatics Sample Data file: N1604.D
Dilution Factor: 1
Date Analyzed: 06/29/2012
Aromatics Sample Data file: NB1237.D
Dilution Factor: 1

GC Column: DB-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 13.8
Lab ID: 06400-1D
Sample wt/vol: 5.00g
Date Analyzed: 06/29/2012
Aliphatics Sample Dup Data file: N1605.D
Dilution Factor: 1
Date Analyzed: 06/29/2012
Aromatics Sample Dup Data file: NB1238.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C12 Aliphatics	ND	ND	NA
C12-C16 Aliphatics	ND	ND	NA
C16-C21 Aliphatics	ND	ND	NA
C21-C40 Aliphatics	ND	ND	NA
Total Aliphatics	0	0	NA
C10-C12 Aromatics	ND	ND	NA
C12-C16 Aromatics	ND	ND	NA
C16-C21 Aromatics	ND	ND	NA
C21-C36 Aromatics	ND	ND	NA
Total Aromatics	0	0	NA
Total NJ-EPH	0	0	NA

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NA --- Not Applied

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID:	N1599.D	Instrument ID:	GC-N
Date Extracted:	06/29/2012	Matrix:	SOIL
Date Analyzed:	06/29/2012	Time Analyzed:	19:39

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS120629-01	06/29/2012	20:13
ALI	LCSDS120629-01	06/29/2012	20:48
SB-12A	06297-030	06/29/2012	21:22
HS4-TW-5	06368-001	06/29/2012	21:56
EH-1/1-1	06400-001	06/29/2012	22:30
EH-1/1-1	06400-1D	06/29/2012	23:05
ALI	06400-001MS	06/29/2012	23:39

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID:	N1621.D	Instrument ID:	GC-N
Date Extracted:	07/03/2012	Matrix:	SOIL
Date Analyzed:	07/06/2012	Time Analyzed:	12:09

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS120703-07	07/06/2012	12:44
ALI	LCSDS120703-07	07/06/2012	13:18
PET-GP-1	06499-001	07/06/2012	13:52
PET-GP-2	06499-002	07/06/2012	14:26
PET-GP-3	06499-003	07/06/2012	15:00
PET-GP-4	06499-004	07/06/2012	15:42
PET-GP-6	06499-005	07/06/2012	16:16
PET-GP-7	06499-006	07/06/2012	16:50
PET-GP-8	06499-007	07/06/2012	17:24
PET-GP-8	06499-008	07/06/2012	17:59
PET-GP-9	06499-009	07/06/2012	18:33
PET-GP-1	06499-010	07/06/2012	19:07
I3SED-06	06385-011	07/06/2012	19:42
C1-06261	06385-012	07/06/2012	20:16
C2-06261	06385-013	07/06/2012	20:50
A7_(2-3)	06466-007	07/06/2012	21:24
I1-06271	06466-008	07/06/2012	21:59
PET-GP-1	06499-10D	07/06/2012	22:33
ALI	06499-010MS	07/06/2012	23:07

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID: N1644.D | Instrument ID: GC-N

Date Extracted: 07/02/2012 | Matrix: SOIL

Date Analyzed: 07/07/2012 | Time Analyzed: 01:24

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS120702-13	07/07/2012	01:58
ALI	LCSDS120702-13	07/07/2012	02:33
SS-3	06535-003	07/07/2012	04:15
SS-4	06535-004	07/07/2012	04:50
SS-6	06535-006	07/07/2012	05:58
SS-9	06535-009	07/07/2012	07:40
SS-10	06535-010	07/07/2012	08:15
A1/4-4.5	06542-001	07/07/2012	08:49
A2/4-4.5	06542-002	07/07/2012	09:23
A3/4-4.5	06542-003	07/07/2012	09:57
A4/4-4.5	06542-004	07/07/2012	10:32
A5/4-4.5	06542-005	07/07/2012	11:06
A6/4-4.5	06542-006	07/07/2012	11:40
A2_(4-5)	06466-6D	07/07/2012	14:31
ALI	06466-006MS	07/07/2012	15:06
SS-1	06535-001	07/09/2012	10:14
SS-2	06535-002	07/09/2012	10:47
SS-5	06535-005	07/09/2012	11:22
SS-7	06535-007	07/09/2012	11:56
SS-8	06535-008	07/09/2012	12:29
B1_(4-5)	06466-001	07/09/2012	13:03
B3_(16-1	06466-002	07/09/2012	13:37
A1_(12-1	06466-004	07/09/2012	14:11
A2_(4-5)	06466-006	07/09/2012	14:46

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID:	N1710.D	Instrument ID:	GC-N
Date Extracted:	07/06/2012	Matrix:	SOIL
Date Analyzed:	07/10/2012	Time Analyzed:	10:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS120706-09	07/10/2012	11:23
ALI	LCSDS120706-09	07/10/2012	11:57
C1_(12.5	06466-003	07/10/2012	12:32
C2_(11-1	06466-005	07/10/2012	13:06
A6(4-5)-	06545-001	07/10/2012	13:40
A5(9-10)	06545-002	07/10/2012	14:14
A4(10.5-	06545-003	07/10/2012	14:52
E1(6.5-7	06545-004	07/10/2012	15:26
D1(9-10)	06545-005	07/10/2012	16:00
D2(9-10)	06545-006	07/10/2012	16:34
D3(4-5)-	06545-007	07/10/2012	17:09
F1(9-10)	06545-008	07/10/2012	17:43
F2(9-10)	06545-009	07/10/2012	18:17
PET-GP-1	06499-011	07/11/2012	07:40

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID: NB1232.D

Instrument ID: GC-N

Date Extracted: 06/29/2012

Matrix: SOIL

Date Analyzed: 06/29/2012

Time Analyzed: 19:39

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS120629-01	06/29/2012	20:13
ARO	LCSDS120629-01	06/29/2012	20:48
SB-12A	06297-030	06/29/2012	21:22
HS4-TW-5	06368-001	06/29/2012	21:56
EH-1/1-1	06400-001	06/29/2012	22:30
EH-1/1-1	06400-1D	06/29/2012	23:05
ARO	06400-001MS	06/29/2012	23:39

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID: NB1254.D Instrument ID: GC-N

Date Extracted: 07/03/2012 Matrix: SOIL

Date Analyzed: 07/06/2012 Time Analyzed: 12:09

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS120703-07	07/06/2012	12:44
ARO	LCSDS120703-07	07/06/2012	13:18
PET-GP-1	06499-001	07/06/2012	13:52
PET-GP-2	06499-002	07/06/2012	14:26
PET-GP-3	06499-003	07/06/2012	15:00
PET-GP-4	06499-004	07/06/2012	15:42
PET-GP-6	06499-005	07/06/2012	16:16
PET-GP-7	06499-006	07/06/2012	16:50
PET-GP-8	06499-007	07/06/2012	17:24
PET-GP-8	06499-008	07/06/2012	17:59
PET-GP-9	06499-009	07/06/2012	18:33
PET-GP-1	06499-010	07/06/2012	19:07
I3SED-06	06385-011	07/06/2012	19:42
C1-06261	06385-012	07/06/2012	20:16
C2-06261	06385-013	07/06/2012	20:50
A7_(2-3)	06466-007	07/06/2012	21:24
I1-06271	06466-008	07/06/2012	21:59
PET-GP-1	06499-10D	07/09/2012	09:04
ARO	06499-010MS	07/09/2012	09:39

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID:	NB1277.D	Instrument ID:	GC-N
Date Extracted:	07/02/2012	Matrix:	SOIL
Date Analyzed:	07/07/2012	Time Analyzed:	01:24

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS120702-13	07/07/2012	01:58
ARO	LCSDS120702-13	07/07/2012	02:33
SS-2	06535-002	07/07/2012	03:41
SS-3	06535-003	07/07/2012	04:15
SS-4	06535-004	07/07/2012	04:50
SS-6	06535-006	07/07/2012	05:58
SS-7	06535-007	07/07/2012	06:32
SS-8	06535-008	07/07/2012	07:06
SS-9	06535-009	07/07/2012	07:40
SS-10	06535-010	07/07/2012	08:15
A1/4-4.5	06542-001	07/07/2012	08:49
A2/4-4.5	06542-002	07/07/2012	09:23
A3/4-4.5	06542-003	07/07/2012	09:57
A4/4-4.5	06542-004	07/07/2012	10:32
A5/4-4.5	06542-005	07/07/2012	11:06
A6/4-4.5	06542-006	07/07/2012	11:40
A2_(4-5)	06466-6D	07/07/2012	14:31
ARO	06466-006MS	07/07/2012	15:06
SS-1	06535-001	07/09/2012	10:14
SS-5	06535-005	07/09/2012	11:22
B1_(4-5)	06466-001	07/09/2012	13:03
B3_(16-1	06466-002	07/09/2012	13:37
A1_(12-1	06466-004	07/09/2012	14:11
A2_(4-5)	06466-006	07/09/2012	14:46

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID: NB1342.D

Instrument ID: GC-N

Date Extracted: 07/06/2012

Matrix: SOIL

Date Analyzed: 07/10/2012

Time Analyzed: 10:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS120706-09	07/10/2012	11:23
ARO	LCSDS120706-09	07/10/2012	11:57
C1_(12.5	06466-003	07/10/2012	12:32
A6(4-5)-	06545-001	07/10/2012	13:40
A4(10.5-	06545-003	07/10/2012	14:52
E1(6.5-7	06545-004	07/10/2012	15:26
D1(9-10)	06545-005	07/10/2012	16:00
D3(4-5)-	06545-007	07/10/2012	17:09
F1(9-10)	06545-008	07/10/2012	17:43
F2(9-10)	06545-009	07/10/2012	18:17
PET-GP-1	06499-011	07/10/2012	18:51
C2_(11-1	06466-005	07/11/2012	10:02
A5(9-10)	06545-002	07/11/2012	10:36
D2(9-10)	06545-006	07/11/2012	11:11

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

COD **12.15**

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	BLKS120703-07	07/06/2012	12:09	12.15	
ALI	LCSS120703-07	07/06/2012	12:44	12.15	
ALI	LCSDS120703-07	07/06/2012	13:18	12.15	
PET-GP-1	06499-001	07/06/2012	13:52	12.15	
PET-GP-2	06499-002	07/06/2012	14:26	12.15	
PET-GP-3	06499-003	07/06/2012	15:00	12.15	
PET-GP-4	06499-004	07/06/2012	15:42	12.15	
PET-GP-6	06499-005	07/06/2012	16:16	12.15	
PET-GP-7	06499-006	07/06/2012	16:50	12.15	
PET-GP-8	06499-007	07/06/2012	17:24	12.15	
PET-GP-8	06499-008	07/06/2012	17:59	12.15	
PET-GP-9	06499-009	07/06/2012	18:33	12.15	
PET-GP-1	06499-010	07/06/2012	19:07	12.14	
I3SED-06	06385-011	07/06/2012	19:42	12.15	
C1-06261	06385-012	07/06/2012	20:16	12.15	
C2-06261	06385-013	07/06/2012	20:50	12.15	
A7_(2-3)	06466-007	07/06/2012	21:24	12.15	
I1-06271	06466-008	07/06/2012	21:59	12.15	
PET-GP-1	06499-10D	07/06/2012	22:33	12.15	
ALI	06499-010MS	07/06/2012	23:07	12.15	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

COD **12.15**

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	BLKS120702-13	07/07/2012	01:24	12.15	
ALI	LCSS120702-13	07/07/2012	01:58	12.15	
ALI	LCSDS120702-13	07/07/2012	02:33	12.15	
SS-3	06535-003	07/07/2012	04:15	12.15	
SS-4	06535-004	07/07/2012	04:50	12.16	
SS-6	06535-006	07/07/2012	05:58	12.17	
SS-9	06535-009	07/07/2012	07:40	12.15	
SS-10	06535-010	07/07/2012	08:15	12.15	
A1/4-4.5	06542-001	07/07/2012	08:49	12.14	
A2/4-4.5	06542-002	07/07/2012	09:23	12.15	
A3/4-4.5	06542-003	07/07/2012	09:57	12.15	
A4/4-4.5	06542-004	07/07/2012	10:32	12.15	
A5/4-4.5	06542-005	07/07/2012	11:06	12.15	
A6/4-4.5	06542-006	07/07/2012	11:40	12.15	
A2_(4-5)	06466-6D	07/07/2012	14:31	12.14	
ALI	06466-006MS	07/07/2012	15:06	12.15	
SS-1	06535-001	07/09/2012	10:14	12.17	
SS-2	06535-002	07/09/2012	10:47	12.15	
SS-5	06535-005	07/09/2012	11:22	D	
SS-7	06535-007	07/09/2012	11:56	12.16	
SS-8	06535-008	07/09/2012	12:29	12.15	
B1_(4-5)	06466-001	07/09/2012	13:03	12.15	
B3_(16-1	06466-002	07/09/2012	13:37	12.15	
A1_(12-1	06466-004	07/09/2012	14:11	12.15	
A2_(4-5)	06466-006	07/09/2012	14:46	12.15	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

COD **12.15**

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	BLKS120706-09	07/10/2012	10:49	12.15	
ALI	LCSS120706-09	07/10/2012	11:23	12.15	
ALI	LCSDS120706-09	07/10/2012	11:57	12.15	
C1_(12.5	06466-003	07/10/2012	12:32	12.15	
C2_(11-1	06466-005	07/10/2012	13:06	12.15	
A6(4-5)-	06545-001	07/10/2012	13:40	12.15	
A5(9-10)	06545-002	07/10/2012	14:14	12.15	
A4(10.5-	06545-003	07/10/2012	14:52	12.15	
E1(6.5-7	06545-004	07/10/2012	15:26	12.15	
D1(9-10)	06545-005	07/10/2012	16:00	12.15	
D2(9-10)	06545-006	07/10/2012	16:34	12.15	
D3(4-5)-	06545-007	07/10/2012	17:09	12.16	
F1(9-10)	06545-008	07/10/2012	17:43	12.15	
F2(9-10)	06545-009	07/10/2012	18:17	12.15	
PET-GP-1	06499-011	07/11/2012	07:40	12.16	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

FBP 4.58 **BNP** 5.61 **OTP** 9.97

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	BLKS120703-07	07/06/2012	12:09	4.58		5.61		9.97	
ARO	LCSS120703-07	07/06/2012	12:44	4.58		5.61		9.98	
ARO	LCSDS120703-07	07/06/2012	13:18	4.58		5.61		9.98	
PET-GP-1	06499-001	07/06/2012	13:52	4.58		5.61		9.97	
PET-GP-2	06499-002	07/06/2012	14:26	4.58		5.61		9.97	
PET-GP-3	06499-003	07/06/2012	15:00	4.58		5.61		9.97	
PET-GP-4	06499-004	07/06/2012	15:42	4.57		5.61		9.97	
PET-GP-6	06499-005	07/06/2012	16:16	4.58		5.61		9.97	
PET-GP-7	06499-006	07/06/2012	16:50	4.58		5.61		9.97	
PET-GP-8	06499-007	07/06/2012	17:24	4.58		5.61		9.97	
PET-GP-8	06499-008	07/06/2012	17:59	4.58		5.61		9.97	
PET-GP-9	06499-009	07/06/2012	18:33	4.58		5.61		9.97	
PET-GP-1	06499-010	07/06/2012	19:07	4.58		5.61		9.97	
I3SED-06	06385-011	07/06/2012	19:42	4.58		5.61		9.99	
C1-06261	06385-012	07/06/2012	20:16	4.58		5.68		9.99	
C2-06261	06385-013	07/06/2012	20:50	4.58		5.62		9.97	
A7_(2-3)	06466-007	07/06/2012	21:24	4.58		5.62		9.97	
I1-06271	06466-008	07/06/2012	21:59	4.58		5.61		9.98	
PET-GP-1	06499-10D	07/09/2012	09:04	4.58		5.61		9.97	
ARO	06499-010MS	07/09/2012	09:39	4.57		5.61		9.97	

Surrogate QC Limits

FBP = 2-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

FBP 4.57 **BNP** 5.61 **OTP** 9.97

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	BLKS120702-13	07/07/2012	01:24	4.57		5.61		9.97	
ARO	LCSS120702-13	07/07/2012	01:58	4.58		5.61		9.97	
ARO	LCSDS120702-13	07/07/2012	02:33	4.58		5.61		9.97	
SS-2	06535-002	07/07/2012	03:41	4.57		5.61		9.97	
SS-3	06535-003	07/07/2012	04:15	4.57		5.61		9.97	
SS-4	06535-004	07/07/2012	04:50	4.58		5.61		9.98	
SS-6	06535-006	07/07/2012	05:58	4.57		5.61		9.98	
SS-7	06535-007	07/07/2012	06:32	4.58		5.62		10.01	
SS-8	06535-008	07/07/2012	07:06	4.57		5.61		9.97	
SS-9	06535-009	07/07/2012	07:40	4.57		5.61		9.97	
SS-10	06535-010	07/07/2012	08:15	4.57		5.61		9.97	
A1/4-4.5	06542-001	07/07/2012	08:49	4.57		5.61		9.97	
A2/4-4.5	06542-002	07/07/2012	09:23	4.57		5.61		9.97	
A3/4-4.5	06542-003	07/07/2012	09:57	4.57		5.61		9.97	
A4/4-4.5	06542-004	07/07/2012	10:32	4.57		5.61		9.97	
A5/4-4.5	06542-005	07/07/2012	11:06	4.58		5.61		9.97	
A6/4-4.5	06542-006	07/07/2012	11:40	4.58		5.61		9.97	
A2_(4-5)	06466-6D	07/07/2012	14:31	4.58		5.61		9.97	
ARO	06466-006MS	07/07/2012	15:06	4.57		5.61		9.97	
SS-1	06535-001	07/09/2012	10:14	4.57		5.63		9.98	
SS-5	06535-005	07/09/2012	11:22	D		D		D	
B1_(4-5)	06466-001	07/09/2012	13:03	4.57		5.61		9.97	
B3_(16-1	06466-002	07/09/2012	13:37	4.57		5.61		9.97	
A1_(12-1	06466-004	07/09/2012	14:11	4.57		5.61		9.97	
A2_(4-5)	06466-006	07/09/2012	14:46	4.57		5.61		9.97	

Surrogate QC Limits

FBP = 2-Fluorobiphenyl (± 0.10 Minutes)
BNP = 2-Bromonaphthalene (± 0.10 Minutes)
OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

FBP 4.57 **BNP** 5.61 **OTP** 9.96

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	BLKS120706-09	07/10/2012	10:49	4.57		5.61		9.96	
ARO	LCSS120706-09	07/10/2012	11:23	4.57		5.60		9.96	
ARO	LCSDS120706-09	07/10/2012	11:57	4.57		5.60		9.96	
C1_(12.5	06466-003	07/10/2012	12:32	4.57		5.61		9.96	
A6(4-5)-	06545-001	07/10/2012	13:40	4.57		5.61		9.96	
A4(10.5-	06545-003	07/10/2012	14:52	4.57		5.60		9.96	
E1(6.5-7	06545-004	07/10/2012	15:26	4.57		5.61		9.96	
D1(9-10)	06545-005	07/10/2012	16:00	4.57		5.61		9.96	
D3(4-5)-	06545-007	07/10/2012	17:09	4.57		5.61		9.97	
F1(9-10)	06545-008	07/10/2012	17:43	4.57		5.61		9.96	
F2(9-10)	06545-009	07/10/2012	18:17	4.57		5.61		9.96	
PET-GP-1	06499-011	07/10/2012	18:51	4.57		5.60		9.96	
C2_(11-1	06466-005	07/11/2012	10:02	4.57		5.60		9.96	
A5(9-10)	06545-002	07/11/2012	10:36	4.57		5.61		9.96	
D2(9-10)	06545-006	07/11/2012	11:11	4.57		5.61		9.96	

Surrogate QC Limits

FBP = 2-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH Naphthalene & 2-Methylnaphthalene BREAKTHROUGH REPORT

	Fraction Data file:	Fraction Data file:
Lab ID: LCSS120703-07	Aliphatic N1622.D	Aromatic NB1255.D
Lab ID: LCSDS120703-07	Aliphatic N1623.D	Aromatic NB1256.D

Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Matrix-Units: Soil-mg/Kg (ppm)

	LCS			LCSD			
Compound	Aromatic	Aliphatic	% BT	Aromatic	Aliphatic	% BT	
Naphthalene	41.3	0.0	0.0	33.4	0.0	0.0	Pass
2-Methylnaphthalene	43.3	0.0	0.0	35.7	0.0	0.0	Pass

Total Naphthalene & 2-Methylnaphthalene in the aliphatic fraction < 5%
% BT ---- % Breakthrough

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH Naphthalene & 2-Methylnaphthalene BREAKTHROUGH REPORT

	Fraction Data file:	Fraction Data file:
Lab ID: LCSS120702-13	Aliphatic N1645.D	Aromatic NB1278.D
Lab ID: LCSDS120702-13	Aliphatic N1646.D	Aromatic NB1279.D

Date Extracted: 07/02/2012
Date Analyzed: 07/07/2012
Matrix-Units: Soil-mg/Kg (ppm)

	LCS			LCSD			
Compound	Aromatic	Aliphatic	% BT	Aromatic	Aliphatic	% BT	
Naphthalene	34.5	0.0	0.0	31.8	0.0	0.0	Pass
2-Methylnaphthalene	36.7	0.0	0.0	34.7	0.0	0.0	Pass

Total Naphthalene & 2-Methylnaphthalene in the aliphatic fraction < 5%
% BT ---- % Breakthrough

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH Naphthalene & 2-Methylnaphthalene BREAKTHROUGH REPORT

	Fraction Data file:	Fraction Data file:
Lab ID: LCSS120706-09	Aliphatic N1711.D	Aromatic NB1343.D
Lab ID: LCSDS120706-09	Aliphatic N1712.D	Aromatic NB1344.D

Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Matrix-Units: Soil-mg/Kg (ppm)

	LCS			LCSD			
Compound	Aromatic	Aliphatic	% BT	Aromatic	Aliphatic	% BT	
Naphthalene	24.6	0.0	0.0	25.8	0.0	0.0	Pass
2-Methylnaphthalene	25.6	0.0	0.0	27.0	0.0	0.0	Pass

Total Naphthalene & 2-Methylnaphthalene in the aliphatic fraction < 5%
% BT ---- % Breakthrough

FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : N1677.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 13:03
Operator : MJ
Sample : B1_(4-5),06466-001,S,5.39g,18.5,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 43 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:16:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	29417586	30.439 ng
Spiked Amount 50.000		Recovery =	60.88%
Target Compounds			

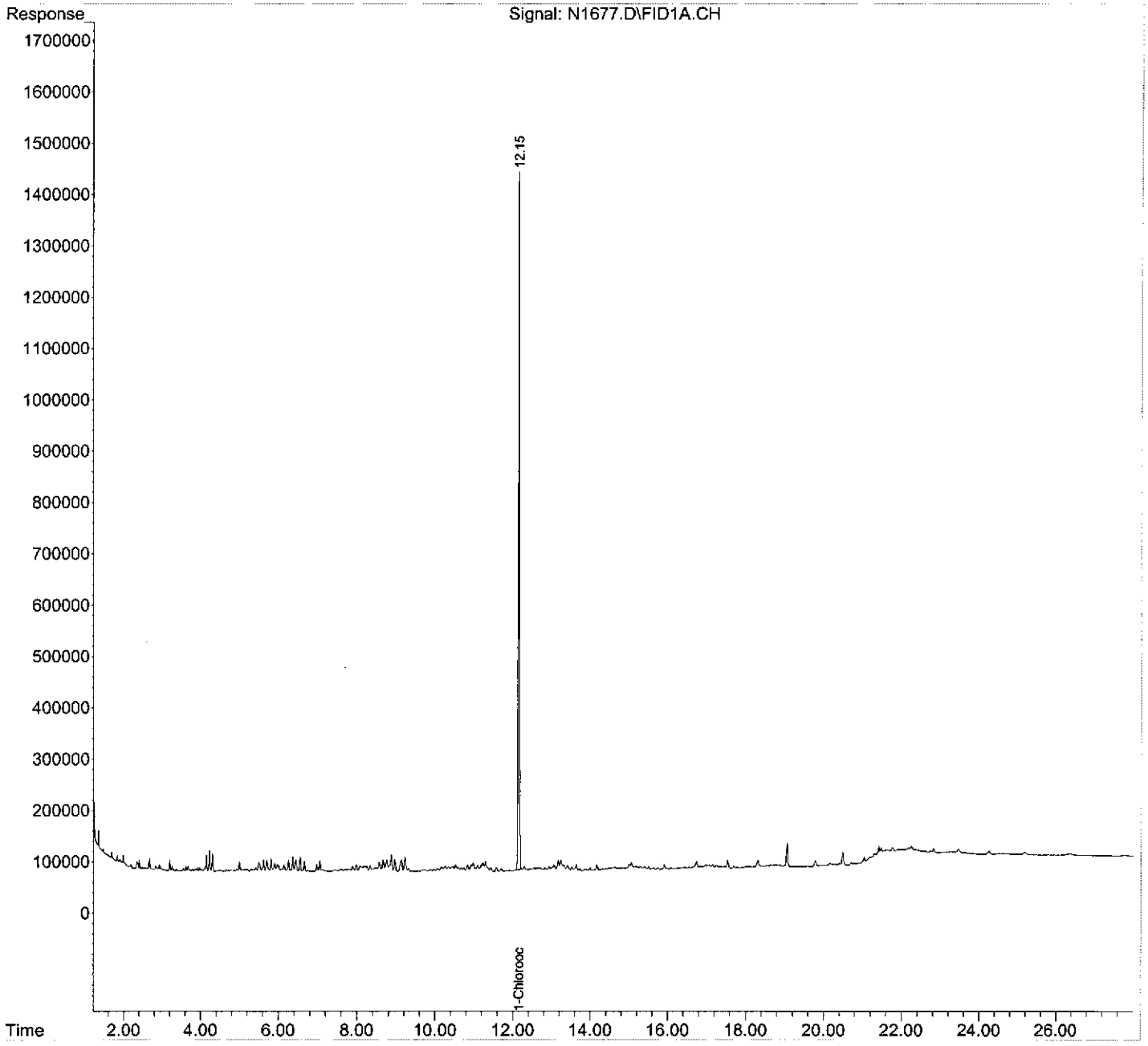
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : N1677.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 13:03
Operator : MJ
Sample : B1_(4-5),06466-001,S,5.39g,18.5,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 43 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:16:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1309.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 13:03
Operator : MJ
Sample : B1_(4-5),06466-001,S,5.39g,18.5,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 93 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:21:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	30069874	41.901 ng
Spiked Amount 50.000		Recovery =	83.80%
2) S 2-Bromonaphthalene	5.61	22261719	44.502 ng
Spiked Amount 50.000		Recovery =	89.00%
3) S o-Terphenyl	9.97	47456682	51.294 ng
Spiked Amount 50.000		Recovery =	102.59%
Target Compounds			

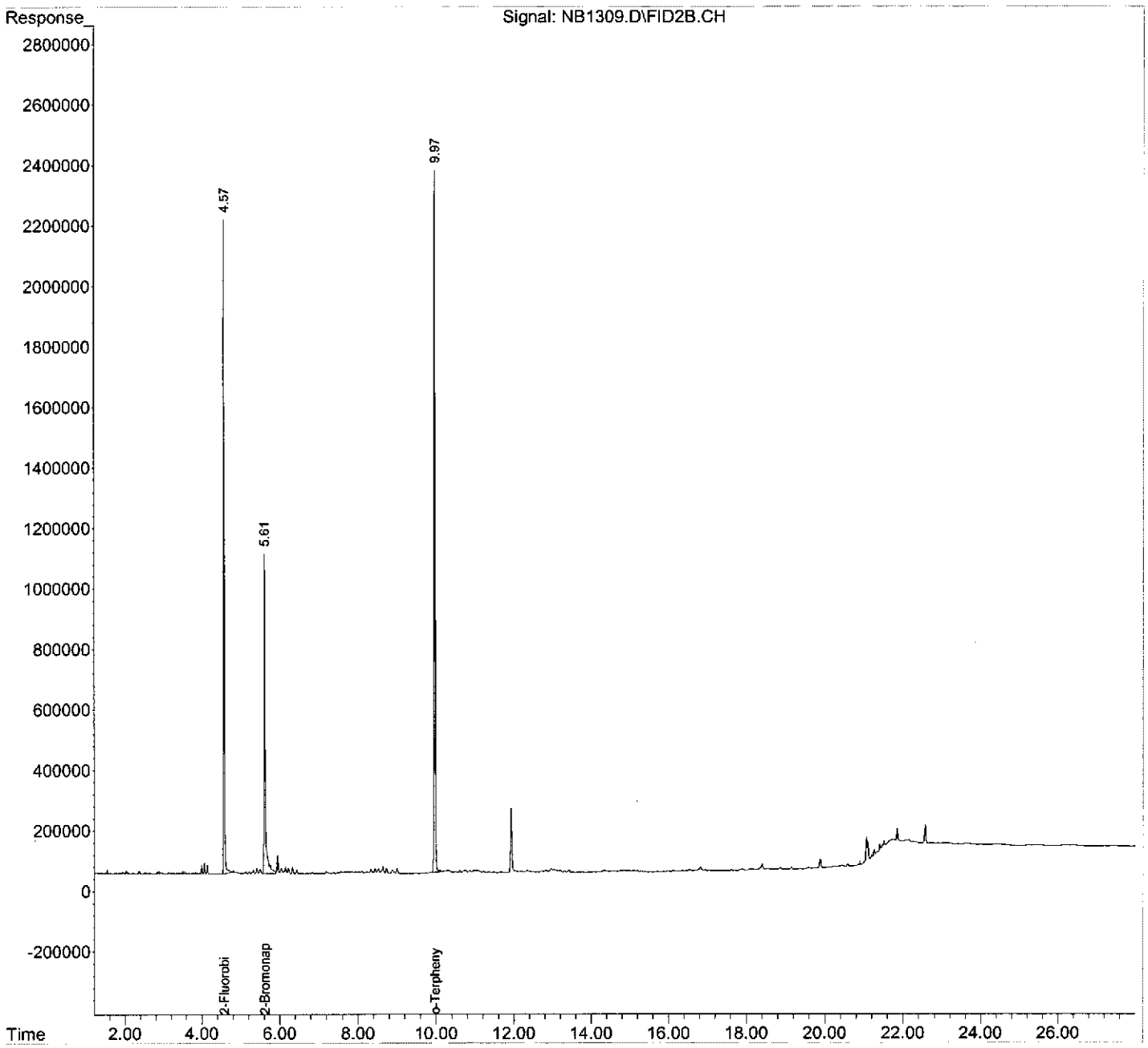
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1309.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 13:03
Operator : MJ
Sample : B1_(4-5),06466-001,S,5.39g,18.5,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 93 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:21:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1678.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 13:37
Operator : MJ
Sample : B3_(16-1,06466-002,S,5.35g,19.6,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 44 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:16:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	29982670	31.024 ng
Spiked Amount 50.000		Recovery =	62.05%
Target Compounds			

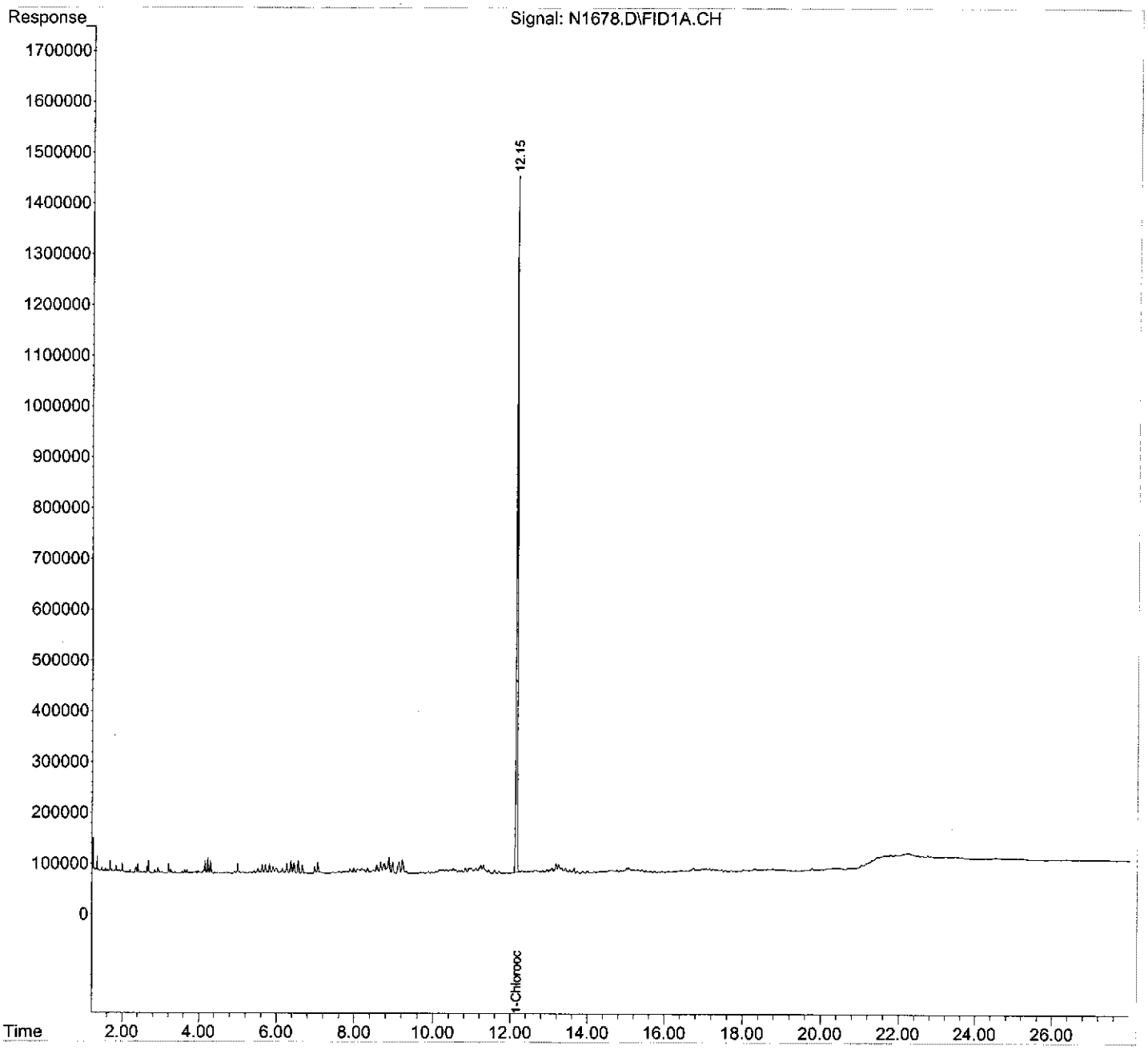
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1678.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 13:37
Operator : MJ
Sample : B3_(16-1,06466-002,S,5.35g,19.6,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 44 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:16:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1310.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 13:37
Operator : MJ
Sample : B3_(16-1,06466-002,S,5.35g,19.6,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 94 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:21:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	31822912	44.344 ng
Spiked Amount 50.000		Recovery =	88.69%
2) S 2-Bromonaphthalene	5.61	25647646	51.271 ng
Spiked Amount 50.000		Recovery =	102.54%
3) S o-Terphenyl	9.97	50609159	54.701 ng
Spiked Amount 50.000		Recovery =	109.40%
Target Compounds			

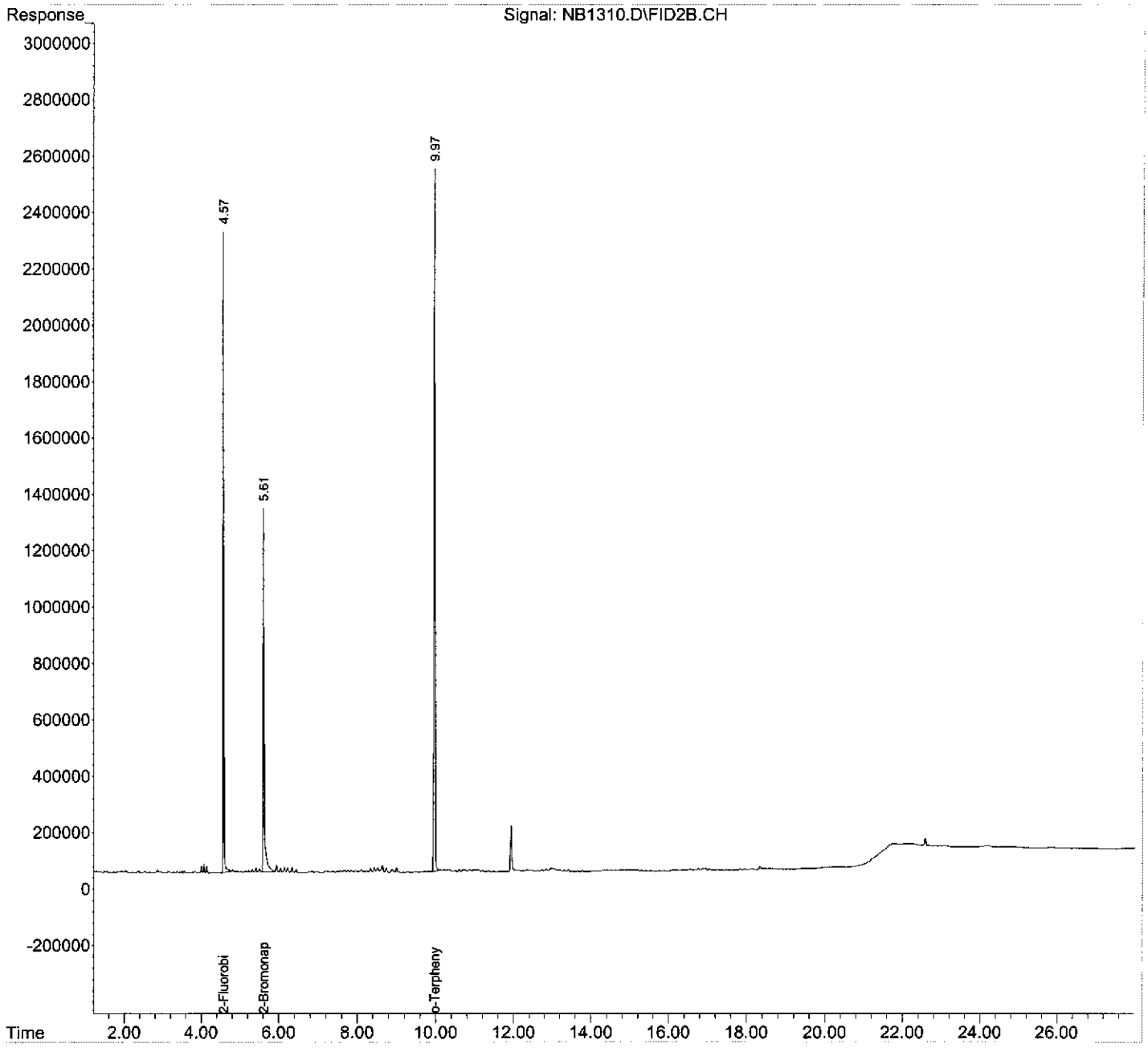
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1310.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 13:37
Operator : MJ
Sample : B3_(16-1,06466-002,S,5.35g,19.6,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 94 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:21:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1713.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 12:32
Operator : MJ
Sample : C1_(12.5,06466-003,S,5.01g,15.7,07/06/12,1
Misc : 120706-09,06/27/12,06/28/12,1
ALS Vial : 33 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:36:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	26223186	27.134 ng
Spiked Amount 50.000		Recovery =	54.27%
Target Compounds			

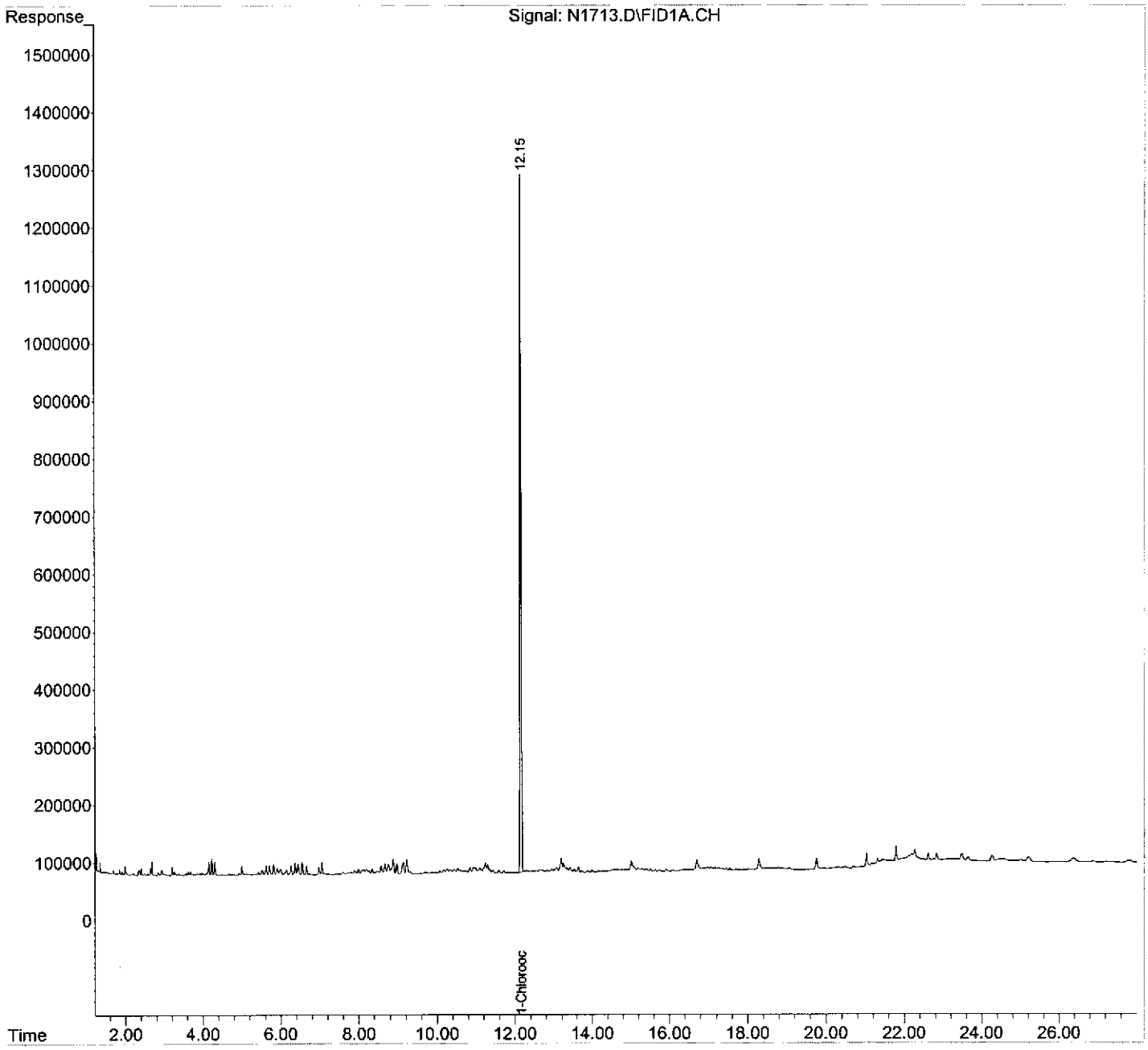
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1713.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 12:32
Operator : MJ
Sample : C1_(12.5,06466-003,S,5.01g,15.7,07/06/12,1
Misc : 120706-09,06/27/12,06/28/12,1
ALS Vial : 33 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:36:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1345.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 12:32
Operator : MJ
Sample : C1_(12.5,06466-003,S,5.01g,15.7,07/06/12,1
Misc : 120706-09,06/27/12,06/28/12,1
ALS Vial : 83 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:38:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.57	14496652	20.200 ng	m
Spiked Amount 50.000		Recovery =	40.40%	
2) S 2-Bromonaphthalene	5.61	10150596	20.291 ng	
Spiked Amount 50.000		Recovery =	40.58%	
3) S o-Terphenyl	9.96	29150413	31.508 ng	
Spiked Amount 50.000		Recovery =	63.02%	
Target Compounds				

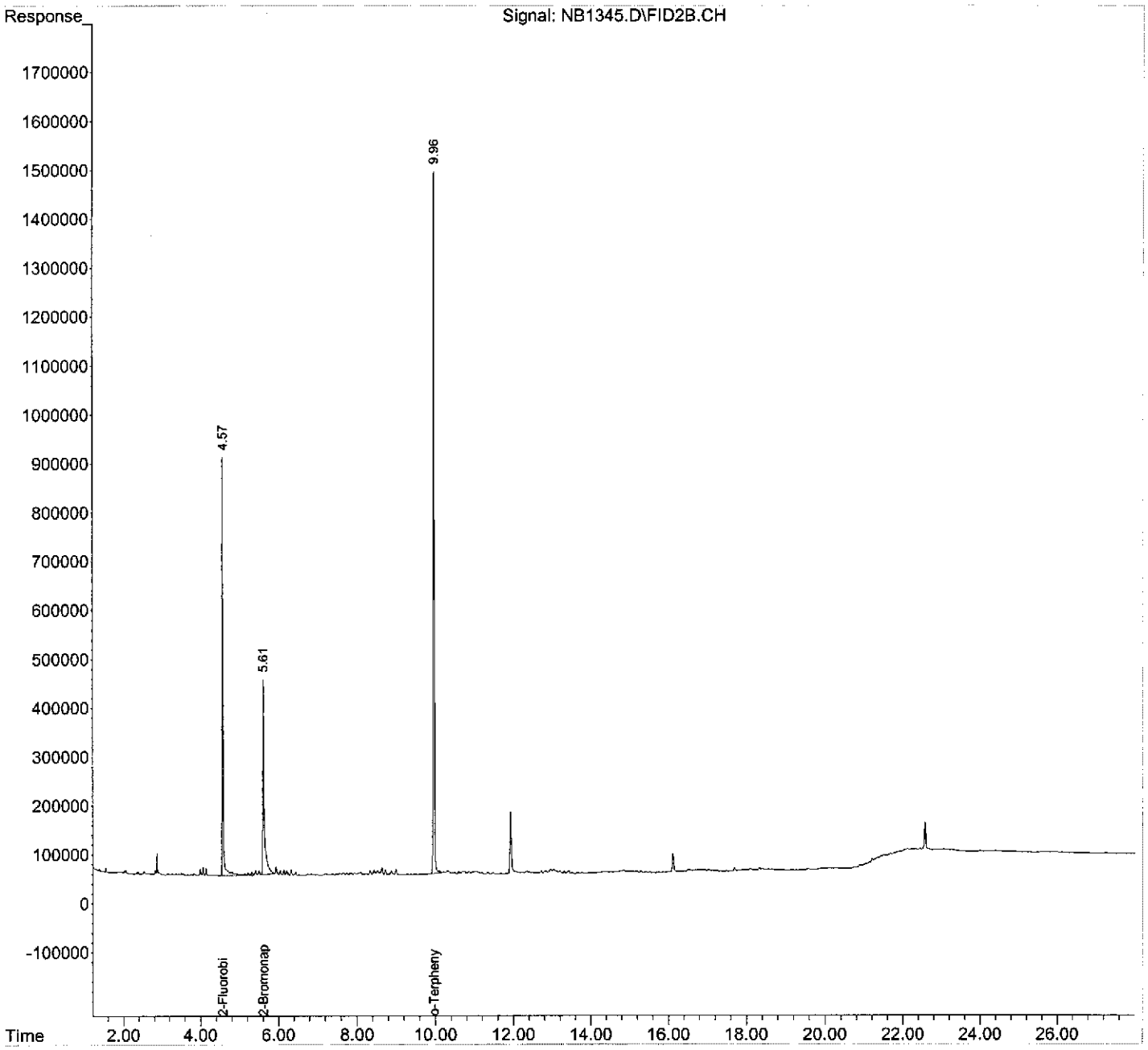
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1345.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 12:32
Operator : MJ
Sample : C1_(12.5,06466-003,S,5.01g,15.7,07/06/12,1
Misc : 120706-09,06/27/12,06/28/12,1
ALS Vial : 83 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:38:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1679.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 14:11
Operator : MJ
Sample : A1_(12-1,06466-004,S,5.25g,4.70,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 45 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:16:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	25023931	25.893 ng
Spiked Amount 50.000		Recovery =	51.79%
Target Compounds			

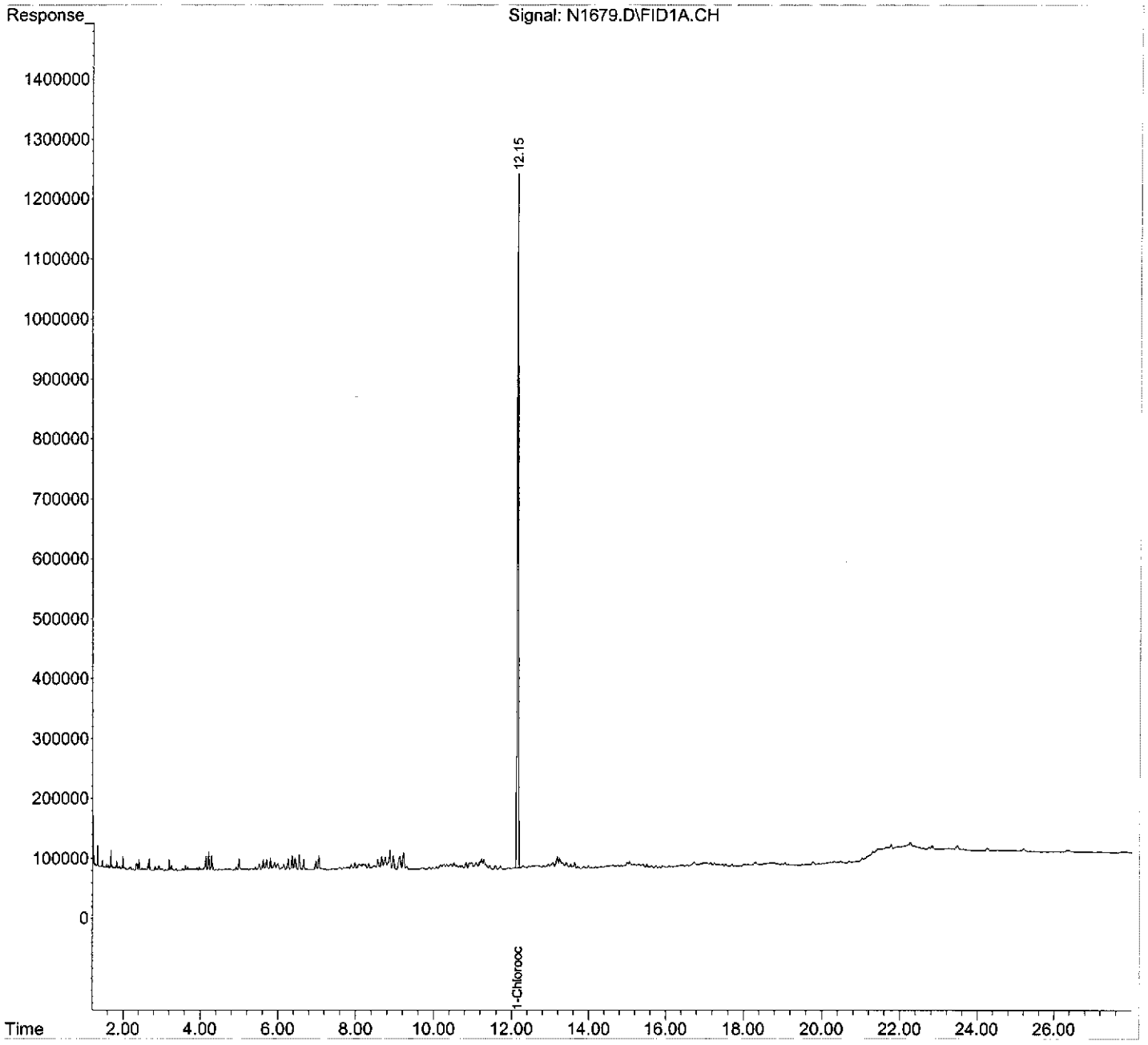
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1679.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 14:11
Operator : MJ
Sample : A1_(12-1,06466-004,S,5.25g,4.70,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 45 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:16:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1311.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 14:11
Operator : MJ
Sample : A1_(12-1,06466-004,S,5.25g,4.70,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 95 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:21:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	26895740	37.478 ng
Spiked Amount 50.000		Recovery =	74.96%
2) S 2-Bromonaphthalene	5.61	19433417	38.848 ng
Spiked Amount 50.000		Recovery =	77.70%
3) S o-Terphenyl	9.97	36698393	39.666 ng
Spiked Amount 50.000		Recovery =	79.33%
Target Compounds			

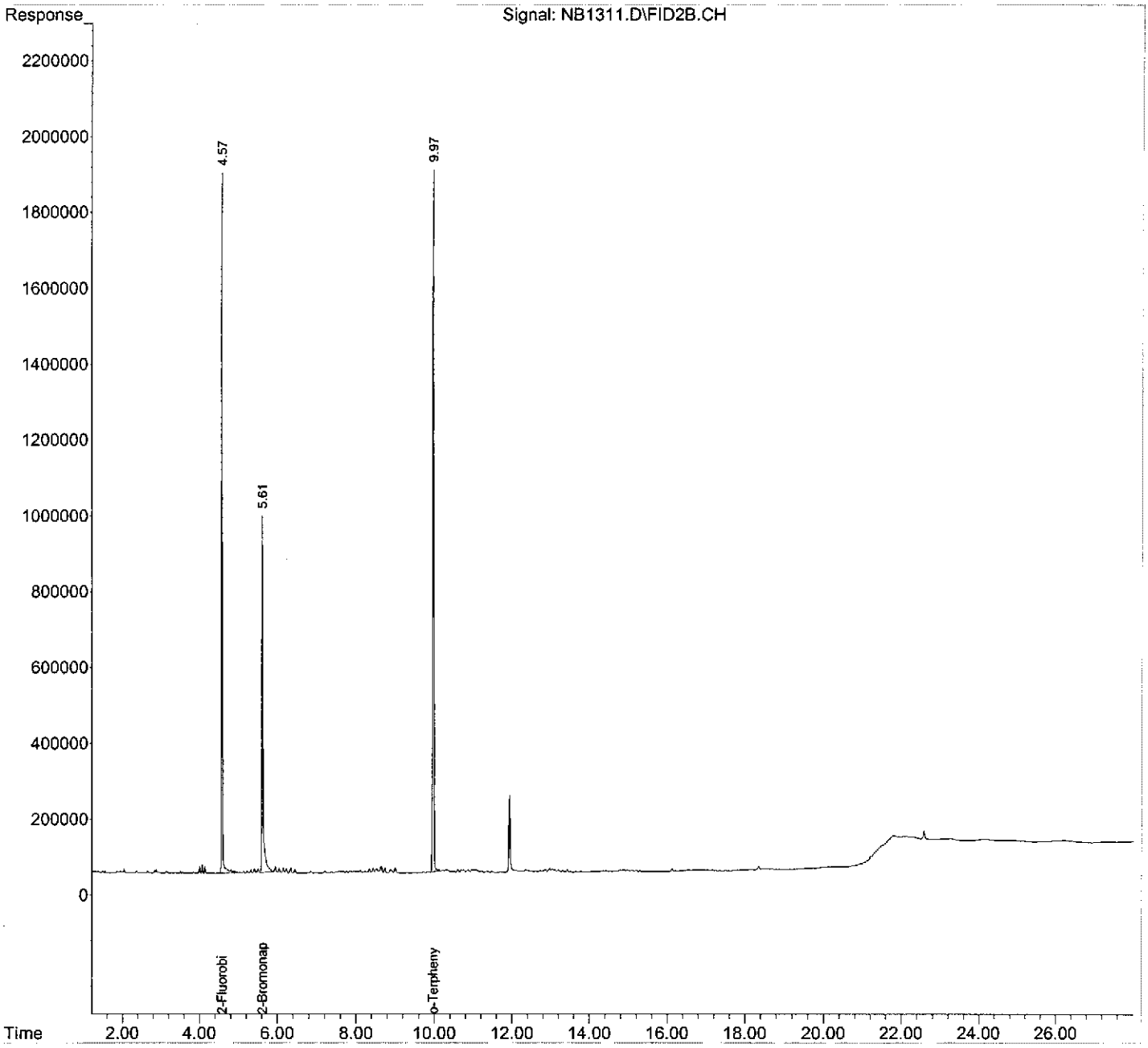
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1311.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 14:11
Operator : MJ
Sample : A1_(12-1,06466-004,S,5.25g,4.70,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 95 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:21:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1714.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 13:06
Operator : MJ
Sample : C2_(11-1,06466-005,S,5.31g,9.00,07/06/12,1
Misc : 120706-09,06/27/12,06/28/12,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:36:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	26872271	27.805 ng
Spiked Amount 50.000		Recovery =	55.61%
Target Compounds			

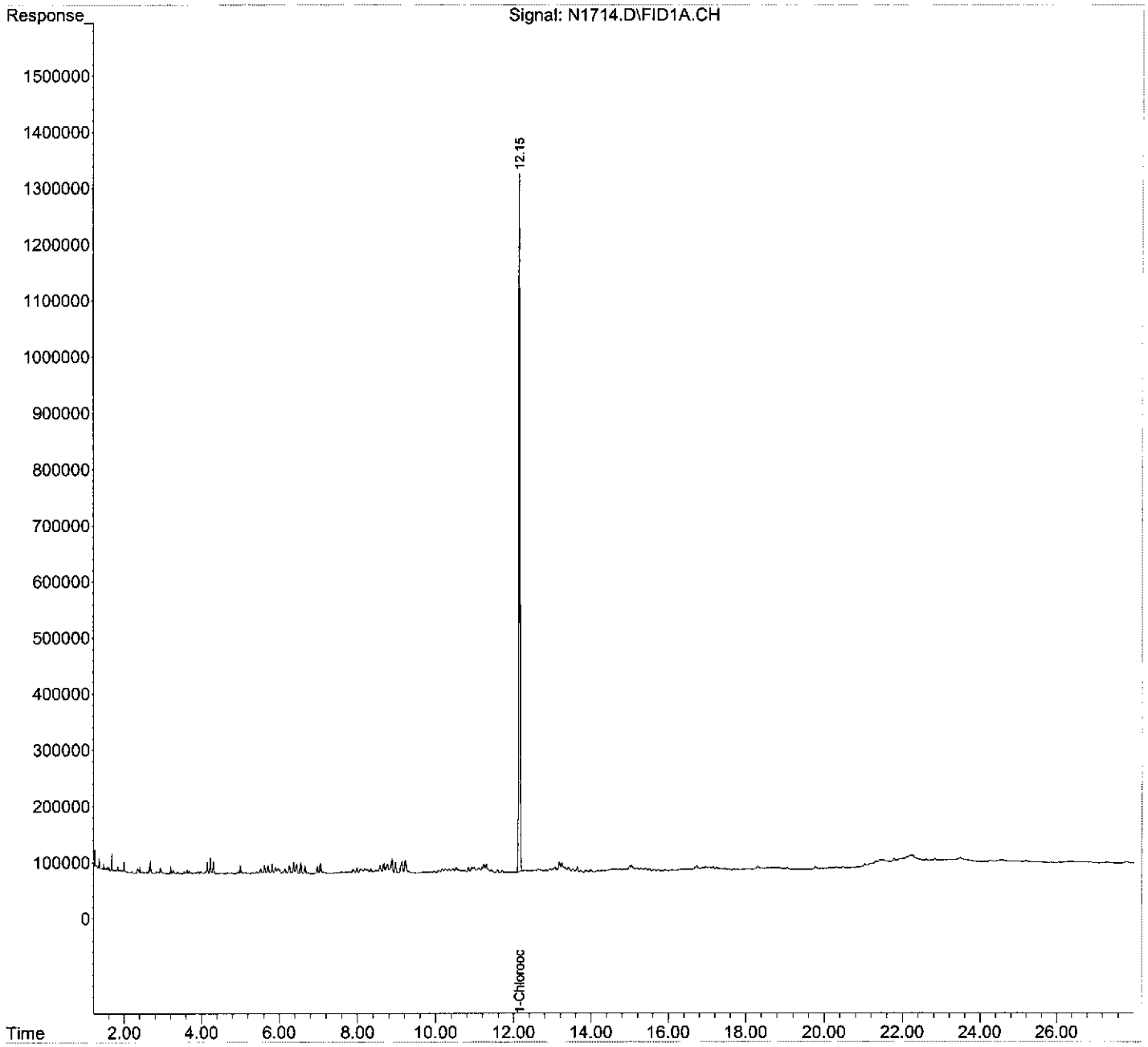
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1714.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 13:06
Operator : MJ
Sample : C2_(11-1,06466-005,S,5.31g,9.00,07/06/12,1
Misc : 120706-09,06/27/12,06/28/12,1
ALS Vial : 34 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:36:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1360.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 10:02
Operator : MJ
Sample : C2_(11-1,06466-005,S,5.31g,9.00,07/06/12,1
Misc : 120706-09,06/27/12,06/28/12,1
ALS Vial : 84 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 10:48:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	19117491	26.639 ng
Spiked Amount 50.000		Recovery =	53.28%
2) S 2-Bromonaphthalene	5.60	14265440	28.517 ng
Spiked Amount 50.000		Recovery =	57.03%
3) S o-Terphenyl	9.96	38729163	41.861 ng
Spiked Amount 50.000		Recovery =	83.72%
Target Compounds			

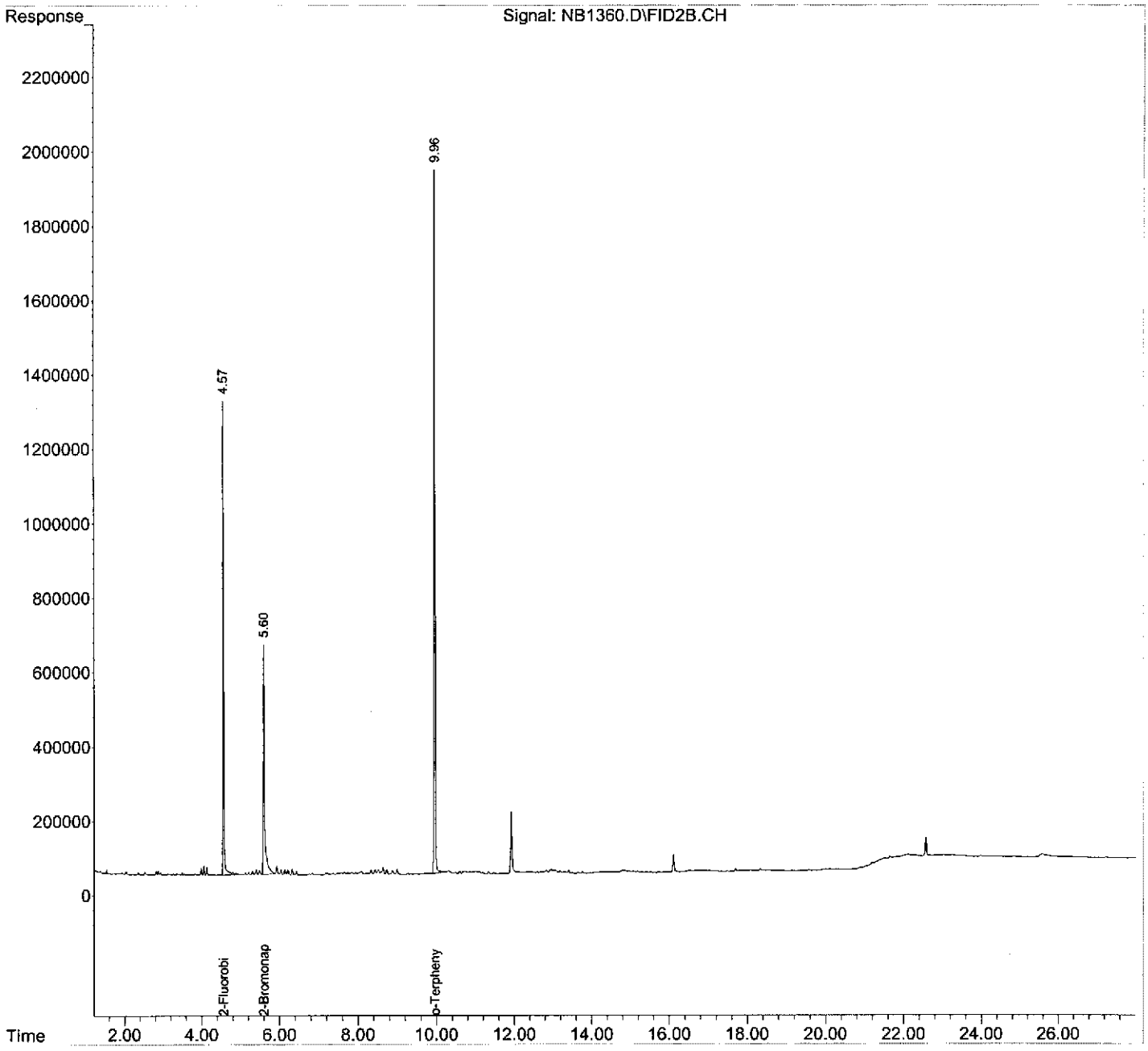
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1360.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 10:02
Operator : MJ
Sample : C2_(11-1,06466-005,S,5.31g,9.00,07/06/12,1
Misc : 120706-09,06/27/12,06/28/12,1
ALS Vial : 84 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 10:48:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1680.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 14:46
Operator : MJ
Sample : A2_(4-5),06466-006,S,5.28g,3.40,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 46 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:17:09 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	28228570	29.209 ng
Spiked Amount 50.000		Recovery =	58.42%
Target Compounds			

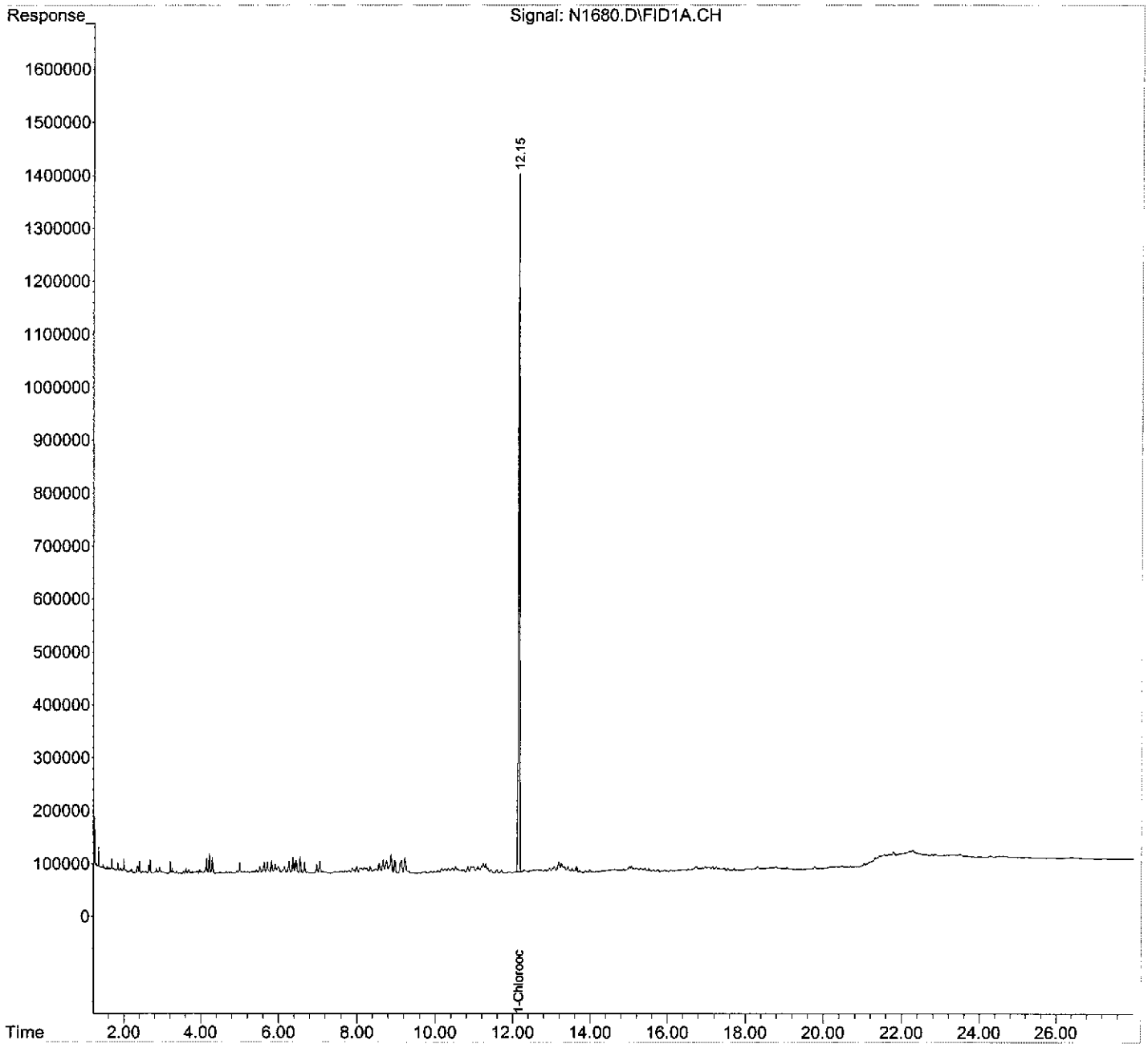
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1680.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 14:46
Operator : MJ
Sample : A2_(4-5),06466-006,S,5.28g,3.40,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 46 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:17:09 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1312.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 14:46
Operator : MJ
Sample : A2_(4-5),06466-006,S,5.28g,3.40,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 96 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:22:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	30834401	42.966 ng
Spiked Amount 50.000		Recovery =	85.93%
2) S 2-Bromonaphthalene	5.61	22339216	44.657 ng
Spiked Amount 50.000		Recovery =	89.31%
3) S o-Terphenyl	9.97	36837016	39.816 ng
Spiked Amount 50.000		Recovery =	79.63%
Target Compounds			

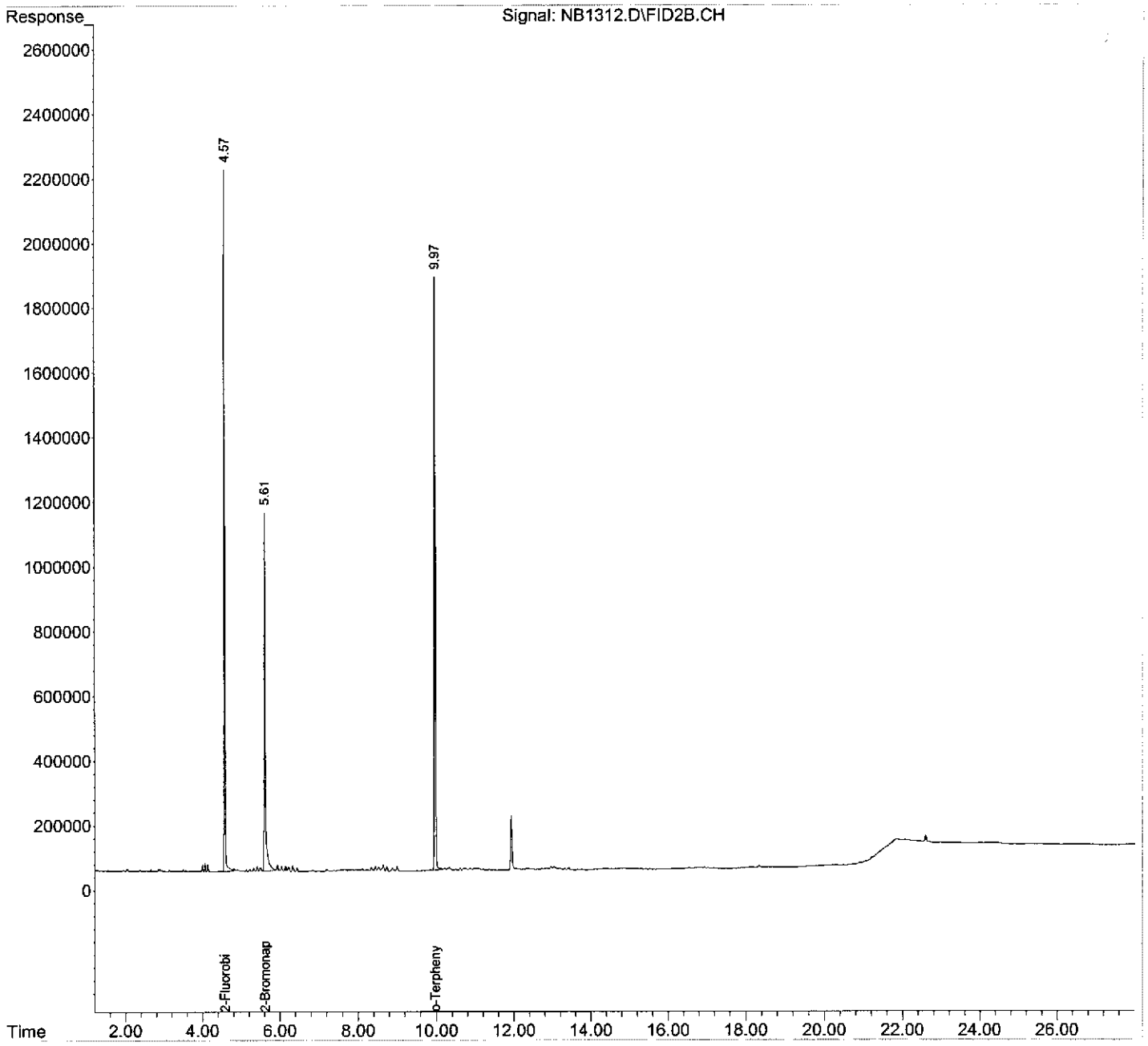
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1312.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 14:46
Operator : MJ
Sample : A2_(4-5),06466-006,S,5.28g,3.40,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 96 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:22:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1637.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 21:24
Operator : DK
Sample : A7_(2-3),06466-007,S,5.09g,4.30,07/03/12,1
Misc : 120703-07,06/27/12,06/28/12,1
ALS Vial : 19 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:16:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	21254933	21.993 ng
Spiked Amount 50.000		Recovery =	43.99%
Target Compounds			

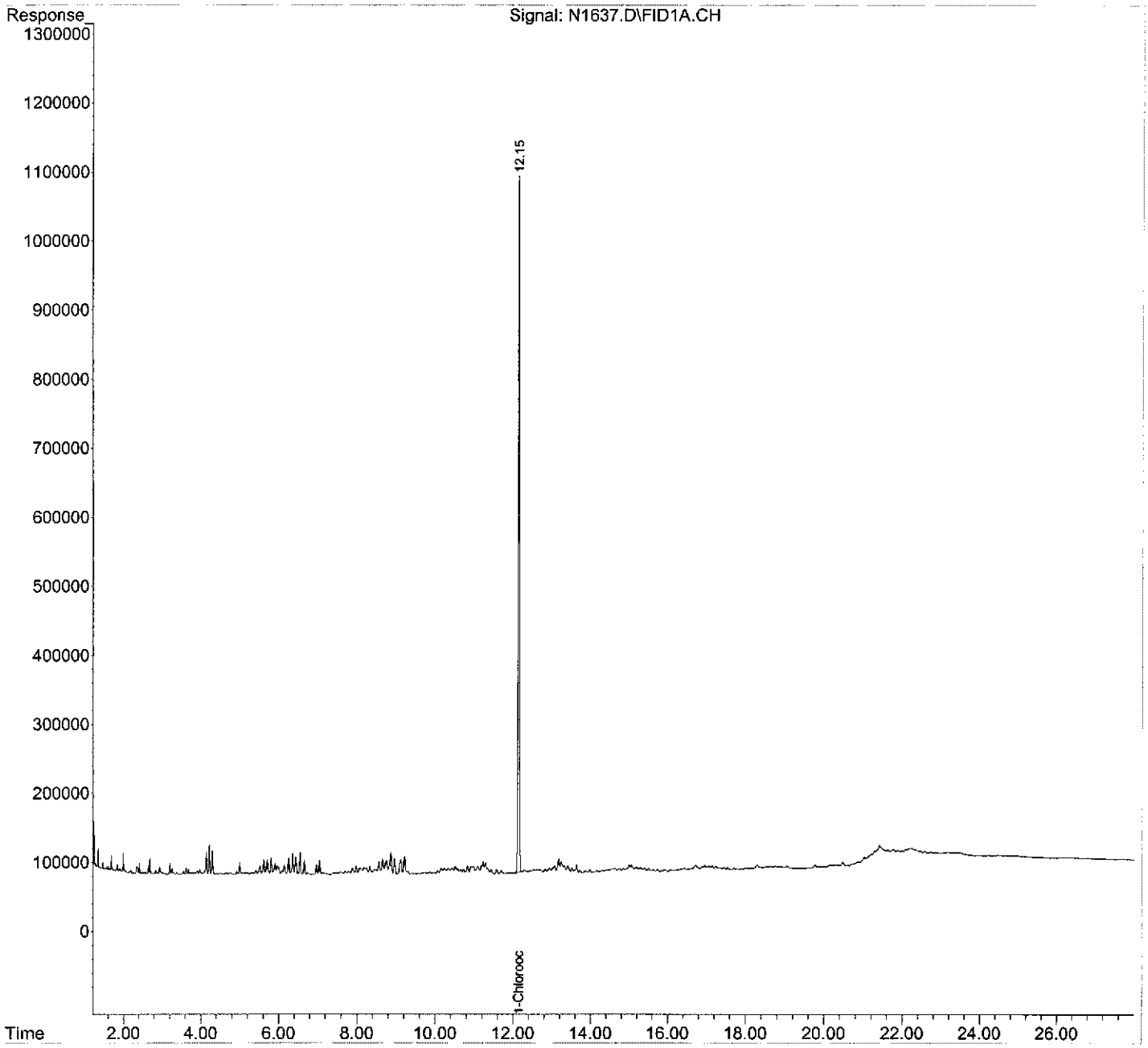
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1637.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 21:24
Operator : DK
Sample : A7_(2-3),06466-007,S,5.09g,4.30,07/03/12,1
Misc : 120703-07,06/27/12,06/28/12,1
ALS Vial : 19 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:16:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1270.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 21:24
Operator : DK
Sample : A7_(2-3),06466-007,S,5.09g,4.30,07/03/12,1
Misc : 120703-07,06/27/12,06/28/12,1
ALS Vial : 69 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:29:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	19493053	27.163 ng
Spiked Amount 50.000		Recovery =	54.33%
2) S 2-Bromonaphthalene	5.62	14830780	29.647 ng
Spiked Amount 50.000		Recovery =	59.29%
3) S o-Terphenyl	9.97	36656994	39.621 ng
Spiked Amount 50.000		Recovery =	79.24%
Target Compounds			

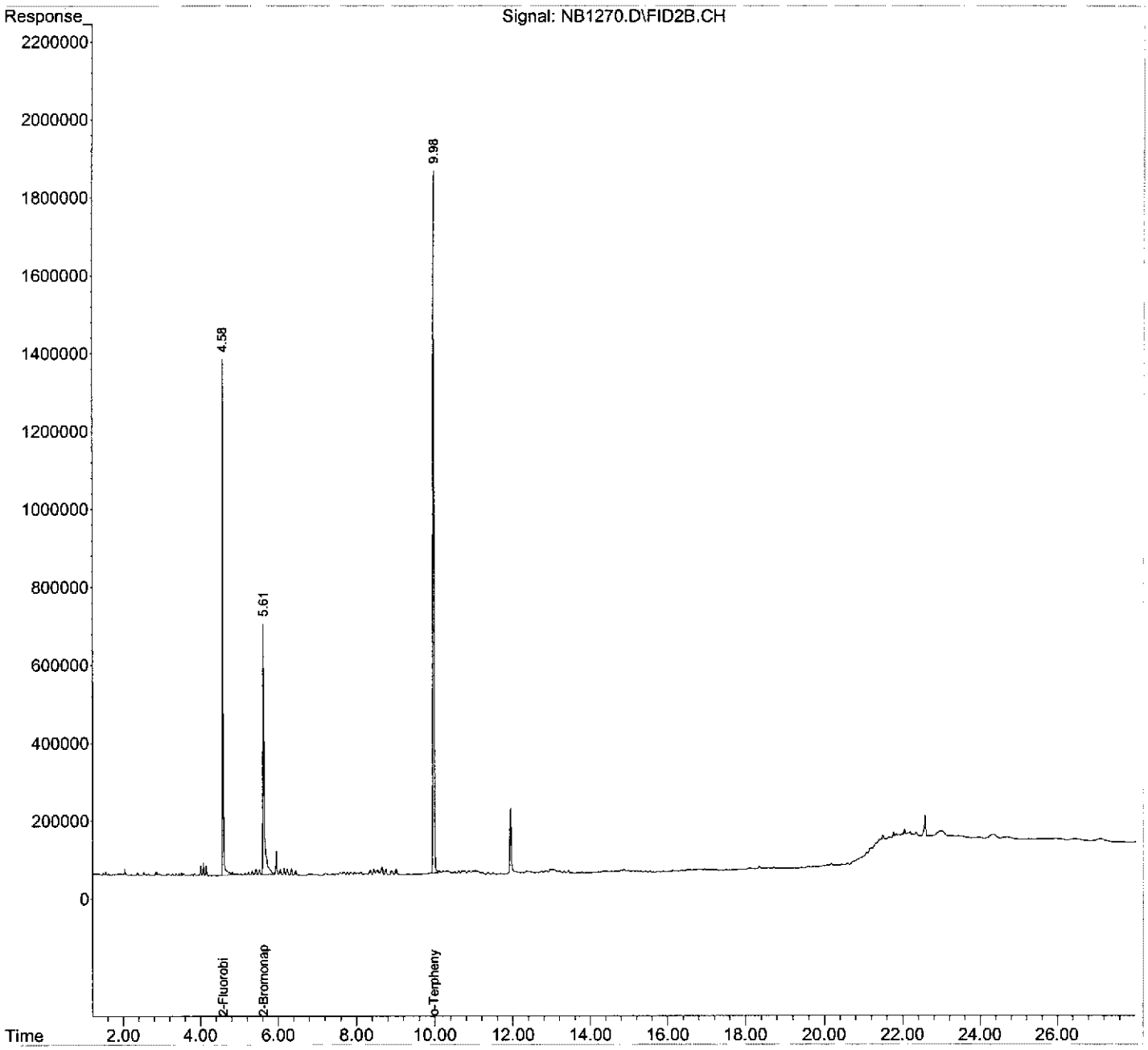
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1270.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 21:24
Operator : DK
Sample : A7_(2-3),06466-007,S,5.09g,4.30,07/03/12,1
Misc : 120703-07,06/27/12,06/28/12,1
ALS Vial : 69 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:29:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1638.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 21:59
Operator : DK
Sample : I1-06271,06466-008,S,5.28g,17.0,07/03/12,1
Misc : 120703-07,06/27/12,06/28/12,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:12:57 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	31611141	32.709 ng
Spiked Amount 50.000		Recovery =	65.42%
Target Compounds			
21) H C12-C16	5.40	69457781	65.229 ng
22) H C16-C21	9.95	243988581	231.790 ng
23) H C21-C40	18.95	1747307601	1908.045 ng

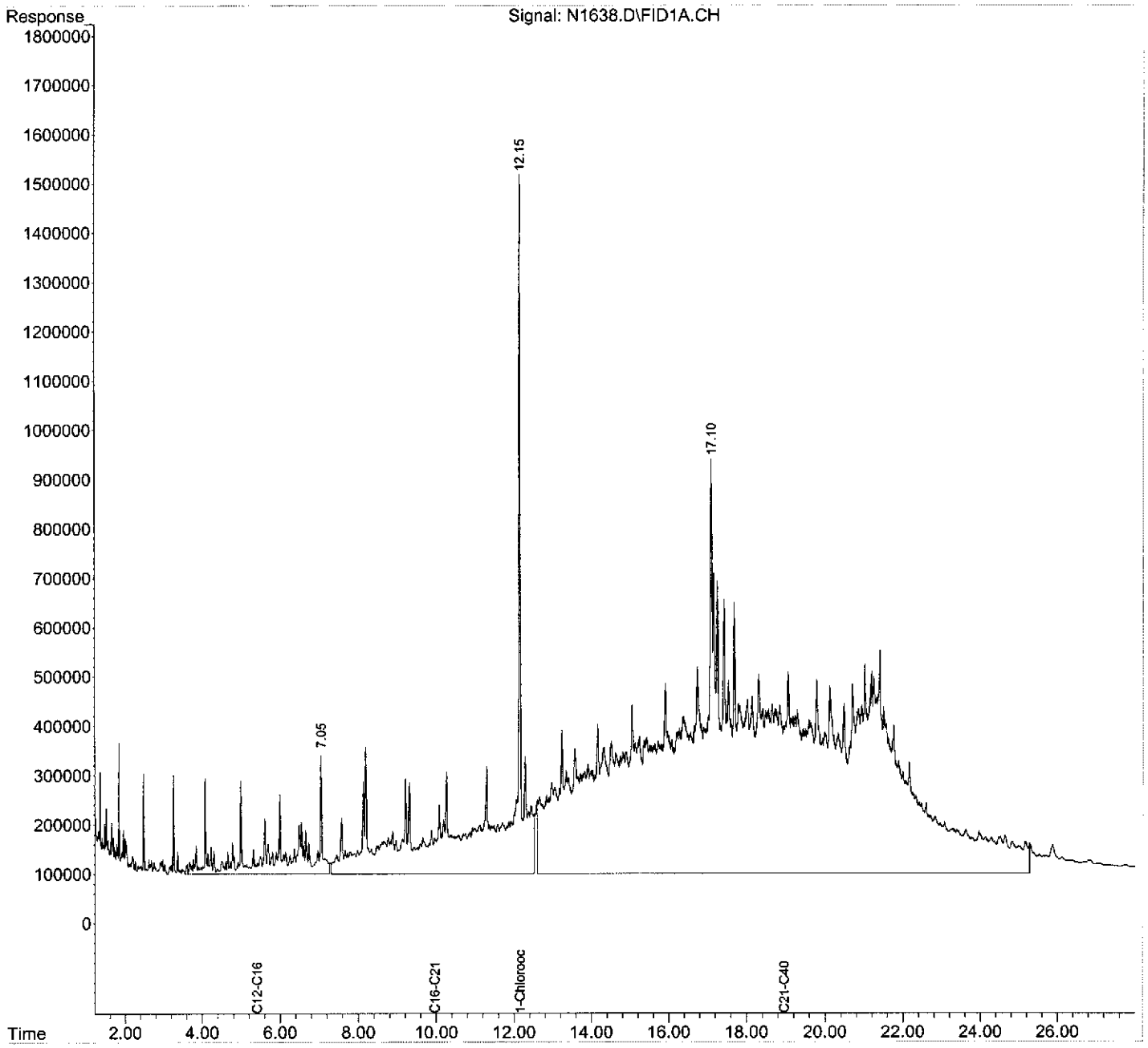
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1638.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 21:59
Operator : DK
Sample : I1-06271,06466-008,S,5.28g,17.0,07/03/12,1
Misc : 120703-07,06/27/12,06/28/12,1
ALS Vial : 20 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:12:57 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1271.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 21:59
Operator : DK
Sample : I1-06271,06466-008,S,5.28g,17.0,07/03/12,1
Misc : 120703-07,06/27/12,06/28/12,1
ALS Vial : 70 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:30:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	21773985	30.341 ng
Spiked Amount 50.000		Recovery =	60.68%
2) S 2-Bromonaphthalene	5.61	18279383	36.541 ng
Spiked Amount 50.000		Recovery =	73.08%
3) S o-Terphenyl	9.98	45730849	49.429 ng
Spiked Amount 50.000		Recovery =	98.86%
Target Compounds			
23) H C12-C16	4.95	30169839	42.615 ng
24) H C16-C21	9.60	175069826	222.225 ng
25) H C21-C36	17.20	965769225	1080.911 ng

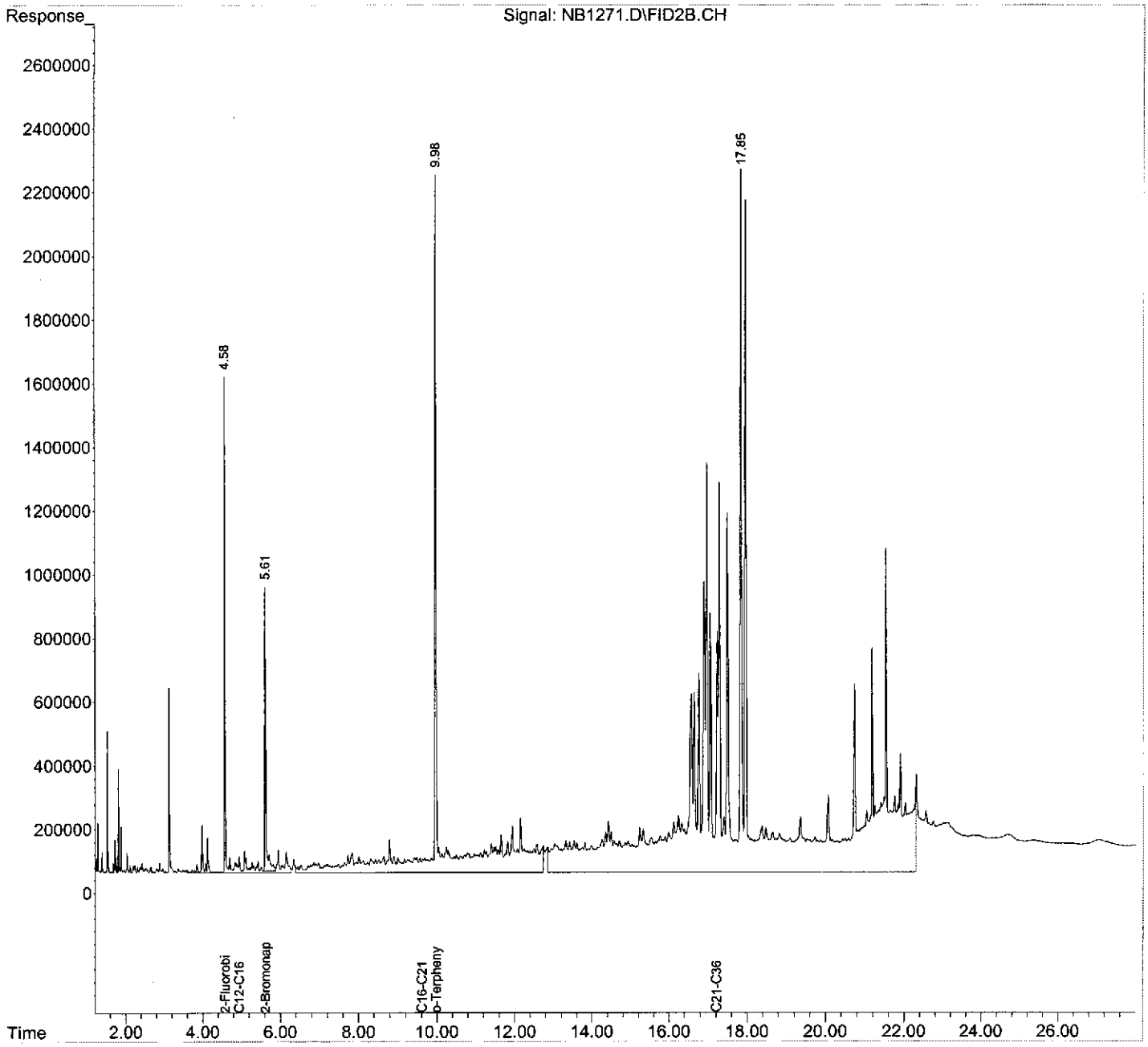
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1271.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 21:59
Operator : DK
Sample : I1-06271,06466-008,S,5.28g,17.0,07/03/12,1
Misc : 120703-07,06/27/12,06/28/12,1
ALS Vial : 70 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:30:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/22/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: N1490.D N1489.D N1488.D N1486.D N1487.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	1.34	1.34	1.34	1.35	1.35	1.35	1.28	1.42
n-Decane (C10)	1.84	1.84	1.85	1.85	1.86	1.85	1.78	1.92
n-Dodecane (C12)	3.25	3.26	3.27	3.28	3.30	3.27	3.20	3.34
n-Tetradecane (C14)	4.99	5.00	5.02	5.03	5.05	5.02	4.95	5.09
n-Hexadecane (C16)	7.05	7.06	7.08	7.10	7.13	7.08	7.00	7.16
n-Octadecane (C18)	9.21	9.22	9.24	9.26	9.30	9.25	9.17	9.33
n-Eicosane (C20)	11.29	11.31	11.33	11.35	11.39	11.33	11.25	11.41
n-Heneicosane (C21)	12.28	12.30	12.33	12.35	12.40	12.33	12.25	12.41
n-Docosane (C22)	13.24	13.26	13.28	13.30	13.35	13.29	13.20	13.38
n-Tetracosane (C24)	15.05	15.07	15.09	15.11	15.15	15.10	15.01	15.19
n-Hexacosane (C26)	16.74	16.75	16.78	16.80	16.84	16.78	16.69	16.87
n_Octacosane (C28)	18.31	18.32	18.34	18.36	18.41	18.35	18.26	18.44
n-Triacontane (C30)	19.78	19.79	19.82	19.83	19.88	19.82	19.72	19.92
n-Dotriacontane (C32)	21.03	21.04	21.05	21.07	21.11	21.06	20.96	21.16
n-Tetratriacontane (C34)	21.78	21.79	21.80	21.83	21.87	21.81	21.71	21.91
n-Hexatriacontane (C36)	22.60	22.61	22.63	22.66	22.72	22.64	22.49	22.79
n-Octatriacontane (C38)	23.63	23.65	23.67	23.71	23.78	23.69	23.54	23.84
n-Tetracontane (40)	25.00	25.02	25.06	25.11	25.20	25.08	24.93	25.23
C9-C12	2.36	2.36	2.36	2.36	2.36	2.36	2.26	2.46
C12-C16	5.40	5.40	5.40	5.40	5.40	5.40	5.30	5.50
C16-C21	9.95	9.95	9.95	9.95	9.95	9.95	9.84	10.06
C21-C40	18.95	18.95	18.95	18.95	18.95	18.95	18.84	19.06

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/22/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: N1490.D N1489.D N1488.D N1486.D N1487.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	1056805	891634	975928	819917	896807	928218	9.77
n-Decane (C10)	1124663	921218	1008835	844795	931890	966280	10.96
n-Dodecane (C12)	1130526	923061	1036440	864213	880246	966897	11.74
n-Tetradecane (C14)	1120378	929655	1070244	908130	1016433	1008968	8.96
n-Hexadecane (C16)	1141099	948829	1089217	915226	1024466	1023767	9.20
n-Octadecane (C18)	1176703	981397	1113961	915644	1016727	1040886	10.03
n-Eicosane (C20)	1202215	1023920	1105285	847190	924693	1020661	13.81
n-Heneicosane (C21)	1202549	1022631	1046656	839247	897103	1001637	14.13
n-Docosane (C22)	1198871	1029836	1026716	818258	877227	990182	15.05
n-Tetracosane (C24)	1176665	994574	990199	772419	817715	950314	16.97
n-Hexacosane (C26)	1175685	962848	934164	714213	779084	913199	19.69
n_Octacosane (C28)	1144812	913533	844953	667131	765637	867213	20.79
n-Triacontane (C30)	1106307	846023	783890	653803	777735	833552	20.11
n-Dotriacontane (C32)	1022998	761800	748196	661498	784839	795866	17.00
n-Tetratriacontane (C34)	976894	721694	773345	699887	809643	796293	13.78
n-Hexatriacontane (C36)	892844	695883	785710	700488	804329	775851	10.52
n-Octatriacontane (C38)	836551	698308	790208	693010	793553	762326	8.34
n-Tetracontane (40)	815086	705645	784387	697256	789142	758303	7.03
C9-C12	4177087	2838351	3046781	2559957	2679217	3060279	21.25
C12-C16	2596682	1928429	2197959	1853403	2071890	2129672	13.75
C16-C21	3684858	3062757	3375255	2706290	2960232	3157878	12.03
C21-C40	12631355	8917290	8810193	7283801	8145262	9157580	22.37

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1487.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:34
Operator : MJ
Sample : ALI_L5_IAS_4193,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:07:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1-Chlorooctadecane	12.25	901865645	933.182	ng	
Spiked Amount	50.000		Recovery	= 1866.36%		
24) S	o-Terphenyl	10.31	1312358658	1065.940	ng	
Spiked Amount	50.000		Recovery	= 2131.88%		
25) S	Naphthalene	3.24	1186981560	1079.121	ng	
Spiked Amount	50.000		Recovery	= 2158.24%		
26) S	2-Methylnaphthalene	4.17	1083245046	990.198	ng	
Spiked Amount	50.000		Recovery	= 1980.40%		
Target Compounds						
2) T	n-Nonane (C9)	1.35	896806526	966.159	ng	
3) T	n-Decane (C10)	1.86	931890101	964.410	ng	
4) T	n-Dodecane (C12)	3.30	880245609	918.472	ng	m
5) T	n-Tetradecane (C14)	5.05	1016433253	1007.399	ng	
6) T	n-Hexadecane (C16)	7.13	1024466497	1000.683	ng	
7) T	n-Octadecane (C18)	9.30	1016727354	976.790	ng	
8) T	n-Eicosane (C20)	11.39	924692864	905.975	ng	
9) T	n-Heneicosane (C21)	12.40	897102987	895.637	ng	
10) T	n-Docosane (C22)	13.35	877227123	885.926	ng	
11) T	n-Tetracosane (C24)	15.15	817714522	860.468	ng	
12) T	n-Hexacosane (C26)	16.84	779084355	853.138	ng	
13) T	n-Octacosane (C28)	18.41	765637044	882.871	ng	
14) T	n-Triacontane (C30)	19.88	777735127	933.038	ng	
15) T	n-Dotriacontane (C32)	21.11	784838907	986.145	ng	
16) T	n-Tetratriacontane (C34)	21.87	809642867	1016.765	ng	
17) T	n-Hexatriacontane (C36)	22.72	804329402	1036.706	ng	
18) T	n-Octatriacontane (C38)	23.78	793553122	1040.963	ng	
19) T	n-Tetracontane (40)	25.20	789141690	1040.668	ng	
20) H	C9-C12	2.36	2679217194	2722.372	ng	
21) H	C12-C16	5.40	2071889969	1945.736	ng	
22) H	C16-C21	9.95	2960231594	2812.235	ng	
23) H	C21-C40	18.95	8145261846	8894.557	ng	

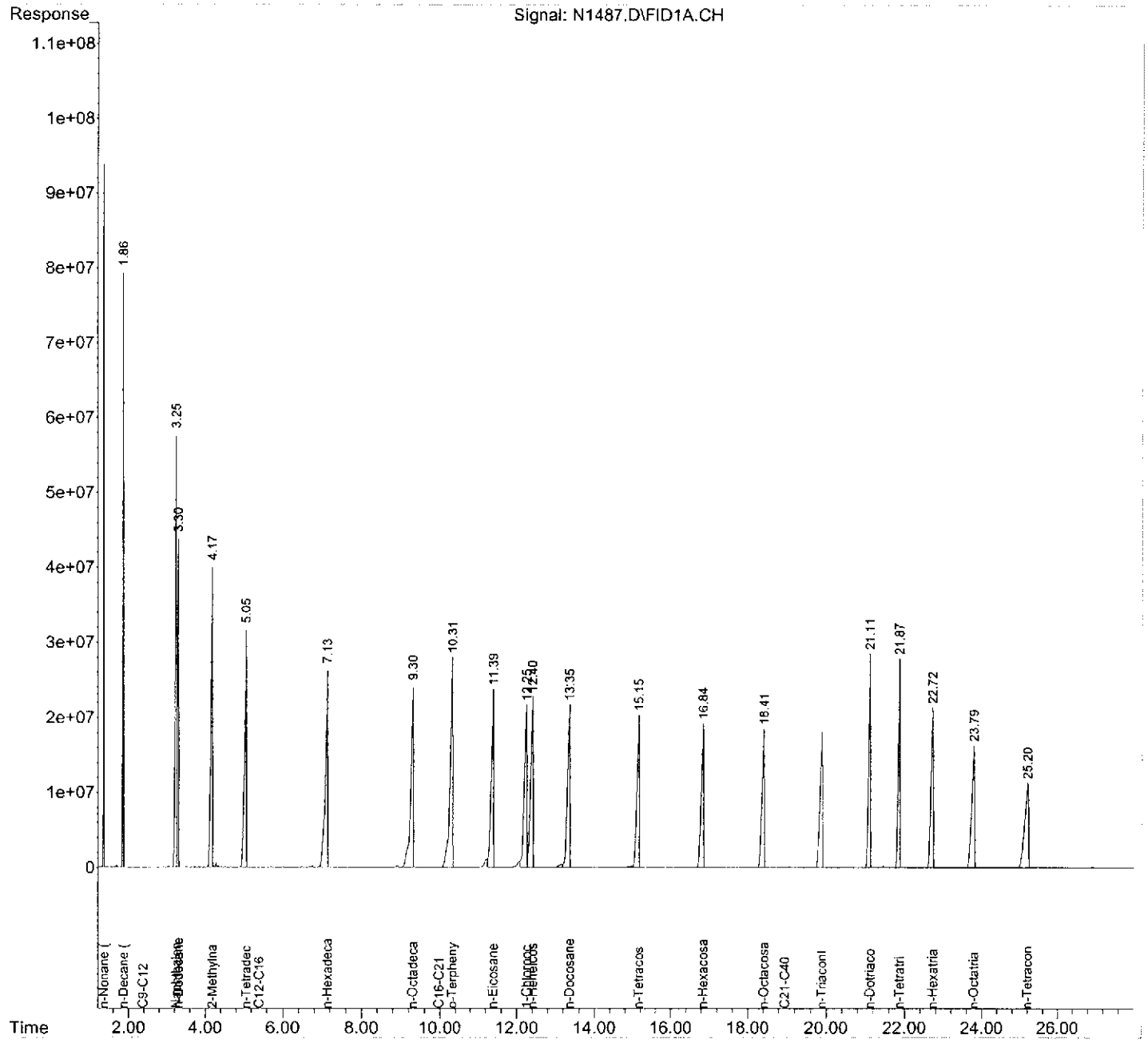
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1487.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:34
Operator : MJ
Sample : ALI_L5_IAS_4193,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:07:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-22-12\
Data File : N1486.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:00
Operator : MJ
Sample : ALI_L4_IAS_4194,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.20	413595231	427.957 ng
Spiked Amount 50.000		Recovery	= 855.91%
24) S o-Terphenyl	10.26	593093550	481.730 ng
Spiked Amount 50.000		Recovery	= 963.46%
25) S Naphthalene	3.22	478920714	435.401 ng
Spiked Amount 50.000		Recovery	= 870.80%
26) S 2-Methylnaphthalene	4.15	486821315	445.005 ng
Spiked Amount 50.000		Recovery	= 890.01%
Target Compounds			
2) T n-Nonane (C9)	1.35	409958476	441.662 ng
3) T n-Decane (C10)	1.85	422397697	437.138 ng
4) T n-Dodecane (C12)	3.28	432106401	450.871 ng
5) T n-Tetradecane (C14)	5.03	454065244	450.029 ng
6) T n-Hexadecane (C16)	7.10	457613093	446.989 ng
7) T n-Octadecane (C18)	9.26	457822090	439.839 ng
8) T n-Eicosane (C20)	11.35	423595047	415.020 ng
9) T n-Heneicosane (C21)	12.35	419623251	418.937 ng
10) T n-Docosane (C22)	13.30	409128933	413.186 ng
11) T n-Tetracosane (C24)	15.11	386209372	406.402 ng
12) T n-Hexacosane (C26)	16.80	357106565	391.050 ng
13) T n-Octacosane (C28)	18.36	333565449	384.641 ng
14) T n-Triacontane (C30)	19.83	326901325	392.179 ng
15) T n-Dotriacontane (C32)	21.07	330749070	415.584 ng
16) T n-Tetratriacontane (C34)	21.83	349943748	439.466 ng
17) T n-Hexatriacontane (C36)	22.66	350243795	451.432 ng
18) T n-Octatriacontane (C38)	23.71	346504896	454.536 ng
19) T n-Tetracontane (40)	25.11	348627951	459.748 ng
20) H C9-C12	2.36	1279978670	1300.596 ng
21) H C12-C16	5.40	926701353	870.276 ng
22) H C16-C21	9.95	1353144756	1285.494 ng
23) H C21-C40	18.95	3641900267	3976.924 ng

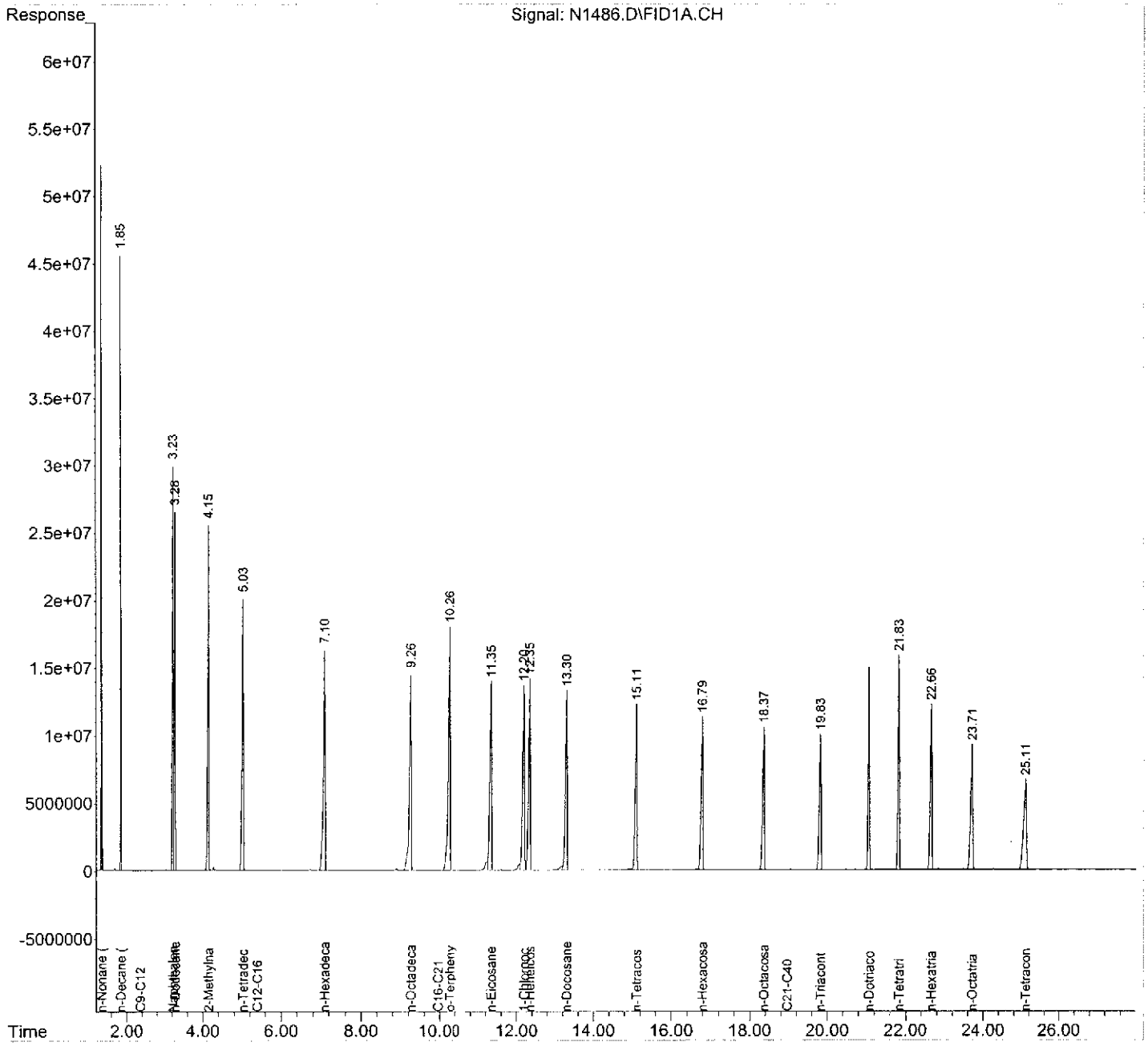
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-22-12\
Data File : N1486.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:00
Operator : MJ
Sample : ALI_L4_IAS_4194,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1488.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:08
Operator : MJ
Sample : ALI_L3_IAS_4195,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	268148070	277.459 ng
Spiked Amount 50.000		Recovery	= 554.92%
24) S o-Terphenyl	10.24	291937292	237.121 ng
Spiked Amount 50.000		Recovery	= 474.24%
25) S Naphthalene	3.21	280824974	255.306 ng
Spiked Amount 50.000		Recovery	= 510.61%
26) S 2-Methylnaphthalene	4.13	287905108	263.175 ng
Spiked Amount 50.000		Recovery	= 526.35%
Target Compounds			
2) T n-Nonane (C9)	1.34	243981962	262.850 ng
3) T n-Decane (C10)	1.85	252208814	261.010 ng
4) T n-Dodecane (C12)	3.27	259109996	270.362 ng
5) T n-Tetradecane (C14)	5.02	267561052	265.183 ng
6) T n-Hexadecane (C16)	7.08	272304146	265.982 ng
7) T n-Octadecane (C18)	9.24	278490293	267.551 ng
8) T n-Eicosane (C20)	11.33	276321282	270.728 ng
9) T n-Heneicosane (C21)	12.33	261664109	261.236 ng
10) T n-Docosane (C22)	13.28	256678960	259.224 ng
11) T n-Tetracosane (C24)	15.09	247549821	260.493 ng
12) T n-Hexacosane (C26)	16.78	233541027	255.739 ng
13) T n-Octacosane (C28)	18.34	211238145	243.583 ng
14) T n-Triacontane (C30)	19.82	195972411	235.105 ng
15) T n-Dotriacontane (C32)	21.05	187048929	235.026 ng
16) T n-Tetratriacontane (C34)	21.80	193336319	242.796 ng
17) T n-Hexatriacontane (C36)	22.63	196427595	253.177 ng
18) T n-Octatriacontane (C38)	23.67	197551966	259.144 ng
19) T n-Tetracontane (40)	25.06	196096755	258.599 ng
20) H C9-C12	2.36	761695270	773.964 ng
21) H C12-C16	5.40	549489698	516.032 ng
22) H C16-C21	9.95	843813757	801.627 ng
23) H C21-C40	18.95	2202548138	2405.164 ng

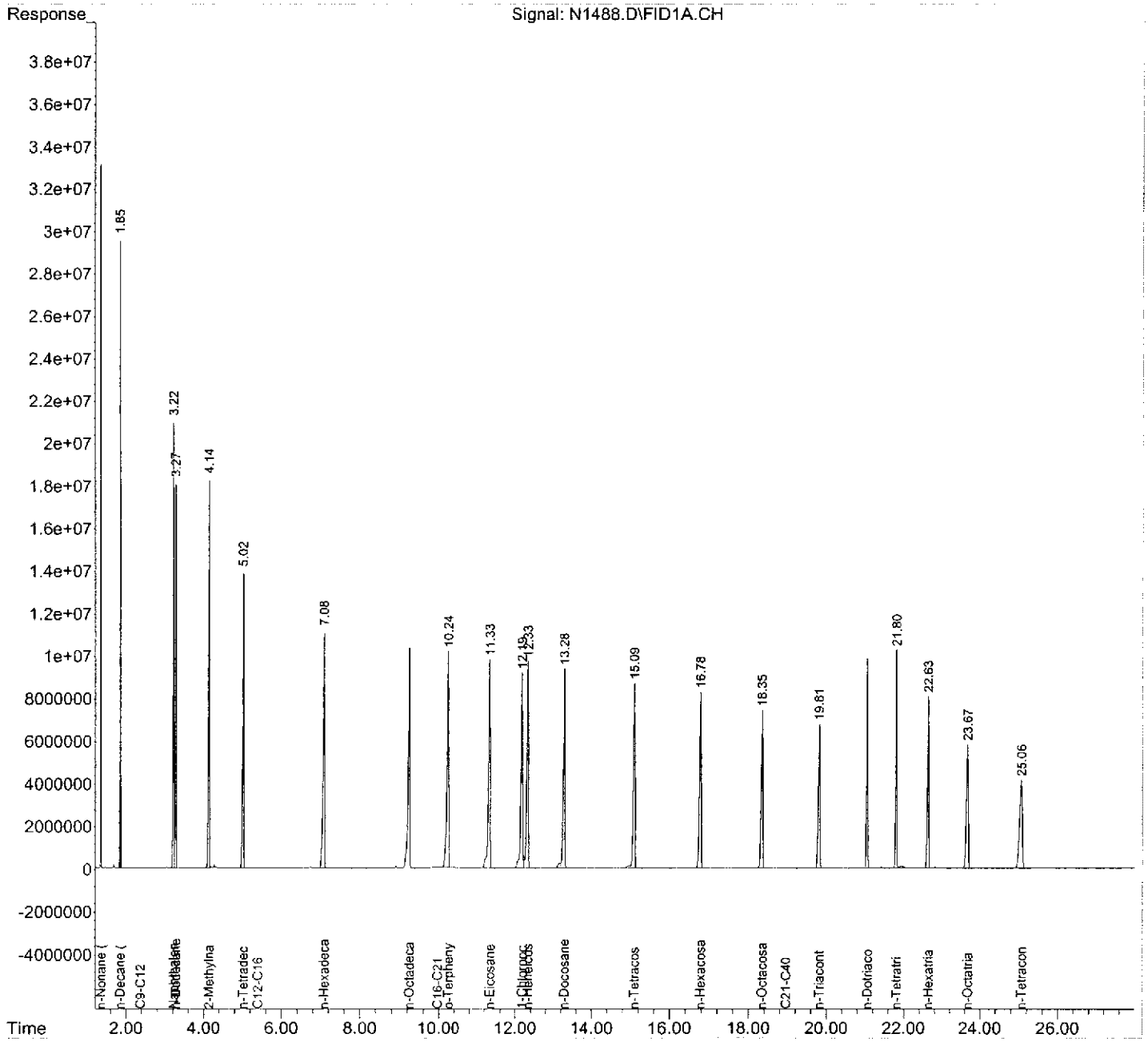
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1488.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:08
Operator : MJ
Sample : ALI_L3_IAS_4195,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1489.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:42
Operator : MJ
Sample : ALI_L2_IAS_4196,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	93056671	96.288 ng
Spiked Amount 50.000		Recovery =	192.58%
24) S o-Terphenyl	10.21	113147262	91.902 ng
Spiked Amount 50.000		Recovery =	183.80%
25) S Naphthalene	3.20	101515095	92.290 ng
Spiked Amount 50.000		Recovery =	184.58%
26) S 2-Methylnaphthalene	4.12	102977318	94.132 ng
Spiked Amount 50.000		Recovery =	188.26%
Target Compounds			
2) T n-Nonane (C9)	1.34	89163394	96.059 ng
3) T n-Decane (C10)	1.84	92121788	95.336 ng
4) T n-Dodecane (C12)	3.26	92306107	96.315 ng
5) T n-Tetradecane (C14)	5.00	92965464	92.139 ng
6) T n-Hexadecane (C16)	7.06	94882872	92.680 ng
7) T n-Octadecane (C18)	9.22	98139677	94.285 ng
8) T n-Eicosane (C20)	11.31	102392010	100.319 ng
9) T n-Heneicosane (C21)	12.30	102263149	102.096 ng
10) T n-Docosane (C22)	13.26	102983603	104.005 ng
11) T n-Tetracosane (C24)	15.07	99457350	104.657 ng
12) T n-Hexacosane (C26)	16.75	96284832	105.437 ng
13) T n-Octacosane (C28)	18.32	91353260	105.341 ng
14) T n-Triacontane (C30)	19.79	84602338	101.496 ng
15) T n-Dotriacontane (C32)	21.04	76179956	95.720 ng
16) T n-Tetratriacontane (C34)	21.79	72169384	90.632 ng
17) T n-Hexatriacontane (C36)	22.61	69588290	89.693 ng
18) T n-Octatriacontane (C38)	23.65	69830815	91.602 ng
19) T n-Tetracontane (40)	25.02	70564464	93.056 ng
20) H C9-C12	2.36	283835084	288.407 ng
21) H C12-C16	5.40	192842871	181.101 ng
22) H C16-C21	9.95	306275685	290.963 ng
23) H C21-C40	18.95	891729022	973.761 ng

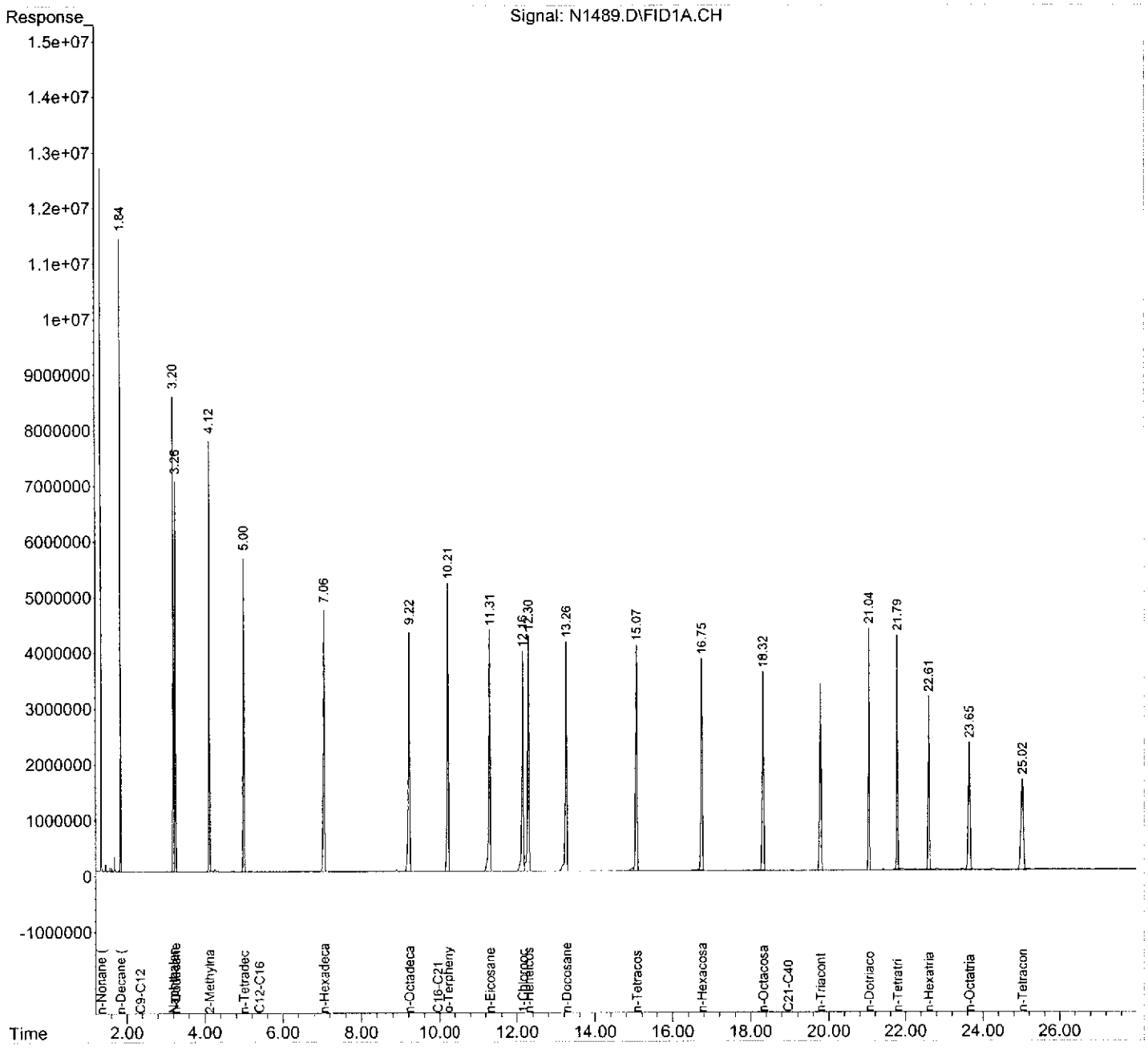
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1489.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:42
Operator : MJ
Sample : ALI_L2_IAS_4196,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1490.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 16:17
Operator : MJ
Sample : ALI_L1_IAS_4197,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:20:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.14	21999807	22.764 ng
Spiked Amount 50.000		Recovery =	45.53%
24) S o-Terphenyl	10.20	27162177	22.062 ng
Spiked Amount 50.000		Recovery =	44.12%
25) S Naphthalene	3.20	24329780	22.119 ng
Spiked Amount 50.000		Recovery =	44.24%
26) S 2-Methylnaphthalene	4.11	24631217	22.515 ng
Spiked Amount 50.000		Recovery =	45.03%
Target Compounds			
2) T n-Nonane (C9)	1.34	21136105	22.771 ng
3) T n-Decane (C10)	1.84	22493269	23.278 ng
4) T n-Dodecane (C12)	3.25	22610510	23.592 ng
5) T n-Tetradecane (C14)	4.99	22407559	22.208 ng
6) T n-Hexadecane (C16)	7.05	22821989	22.292 ng
7) T n-Octadecane (C18)	9.21	23534055	22.610 ng
8) T n-Eicosane (C20)	11.29	24044291	23.558 ng
9) T n-Heneicosane (C21)	12.28	24050973	24.012 ng
10) T n-Docosane (C22)	13.24	23977417	24.215 ng
11) T n-Tetracosane (C24)	15.05	23533303	24.764 ng
12) T n-Hexacosane (C26)	16.74	23513693	25.749 ng
13) T n-Octacosane (C28)	18.31	22896249	26.402 ng
14) T n-Triacontane (C30)	19.78	22126135	26.544 ng
15) T n-Dotriacontane (C32)	21.03	20459954	25.708 ng
16) T n-Tetratriacontane (C34)	21.78	19537878	24.536 ng
17) T n-Hexatriacontane (C36)	22.60	17856889	23.016 ng
18) T n-Octatriacontane (C38)	23.63	16731027	21.947 ng
19) T n-Tetracontane (40)	25.00	16301713	21.498 ng
20) H C9-C12	2.36	83541734	84.887 ng
21) H C12-C16	5.40	51933633	48.771 ng
22) H C16-C21	9.95	73697151	70.013 ng
23) H C21-C40	18.95	252627091	275.867 ng

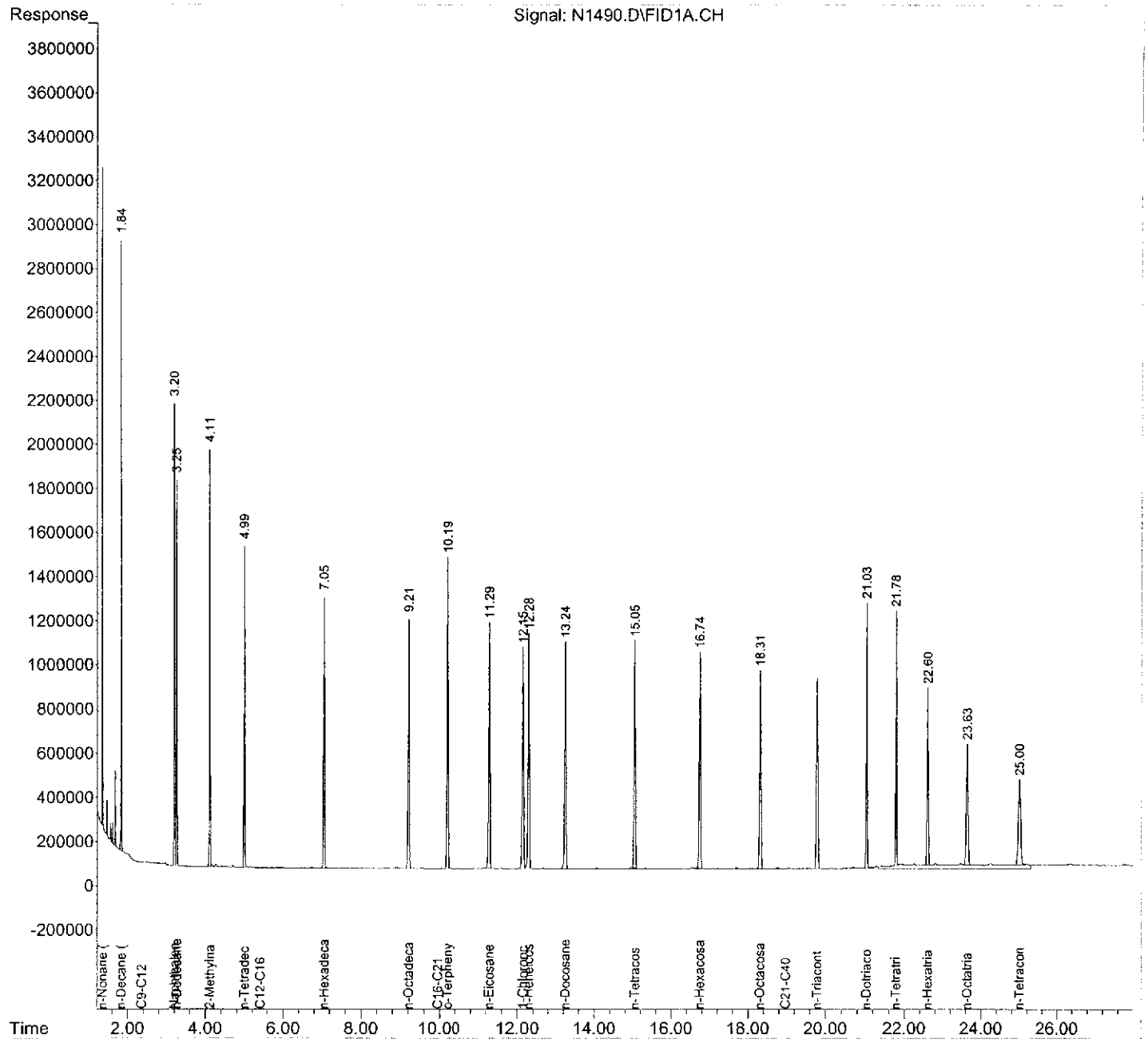
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1490.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 16:17
Operator : MJ
Sample : ALI_L1_IAS_4197,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:20:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: NB1129.D NB1128.D NB1127.D NB1126.D NB1125.D

Compound	RT OF STANDARDS 20	100	250	500	1000	MEAN RT	RT WI NDOW FROM	TO
1,2,3-Trimethylbenzene	2.03	2.03	2.03	2.04	2.04	2.04	1.92	2.16
Napthalene	3.14	3.14	3.14	3.15	3.16	3.14	3.02	3.26
2-Methylnaphthalene	3.98	3.99	3.99	4.00	4.02	4.00	3.88	4.12
Acenaphthylene	5.38	5.39	5.40	5.42	5.44	5.40	5.28	5.52
Acenaphthene	5.73	5.74	5.75	5.77	5.80	5.76	5.64	5.88
Fluorene	6.73	6.74	6.75	6.77	6.80	6.76	6.64	6.88
Phenanthrene	8.80	8.81	8.83	8.86	8.89	8.84	8.72	8.96
Anthracene	8.90	8.92	8.95	8.98	9.03	8.96	8.84	9.08
Fluoroanthene	11.66	11.68	11.70	11.74	11.77	11.71	11.59	11.83
Pyrene	12.16	12.19	12.21	12.25	12.29	12.22	12.10	12.34
Benzo[a]anthracene	15.24	15.27	15.29	15.34	15.38	15.30	15.18	15.42
Chrysene	15.33	15.37	15.41	15.46	15.53	15.42	15.30	15.54
Benzo[b]fluoranthene	17.86	17.93	17.97	18.02	18.10	17.98	17.86	18.10
Benzo[k]fluoranthene	17.86	17.93	17.97	18.02	18.10	17.98	17.86	18.10
Benzo[a]pyrene	18.48	18.52	18.55	18.61	18.68	18.57	18.45	18.69
Indeno[1,2,3-cd]pyrene	20.72	20.84	20.87	20.92	20.99	20.87	20.75	20.99
Dibenz[a,h]anthracene	20.72	20.84	20.87	20.92	20.99	20.87	20.75	20.99
Benzo[g,h,i]perylene	21.05	21.09	21.13	21.18	21.25	21.14	21.02	21.26
C10-C12	2.70	2.70	2.70	2.70	2.70	2.70	2.58	2.82
C12-C16	4.95	4.95	4.95	4.95	4.95	4.95	4.83	5.07
C16-C21	9.60	9.60	9.60	9.60	9.60	9.60	9.48	9.72
C21-C36	17.20	17.20	17.20	17.20	17.20	17.20	17.08	17.32

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: NB1129.D NB1128.D NB1127.D NB1126.D NB1125.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
1,2,3-Trimethylbenzene	580224	705113	597648	572374	557451	602562	9.81
Napthalene	611787	760658	662737	633446	607027	655131	9.61
2-Methylnaphthalene	640827	773063	690177	661863	625313	678249	8.60
Acenaphthylene	662203	797722	711519	691098	636899	699888	8.80
Acenaphthene	700870	818468	727270	707021	649483	720622	8.57
Fluorene	688910	828035	744285	731261	659798	730458	8.77
Phenanthrene	688338	859473	767476	771510	681455	753650	9.66
Anthracene	732289	859253	773610	768509	677053	762143	8.74
Fluoroanthene	766763	932468	814938	818305	704258	807346	10.38
Pyrene	793710	951679	836120	839704	722692	828781	10.05
Benzo[a]anthracene	797379	980452	812346	828112	739839	831625	10.78
Chrysene	852327	990789	811367	808283	712089	834971	12.12
Benzo[b]fluoranthene	1742568	2020232	1595569	1614831	1449764	1684593	12.73
Benzo[k]fluoranthene	1742568	2020666	1595768	1614831	1449764	1684720	12.74
Benzo[a]pyrene	862974	989857	783386	794905	717779	829780	12.44
Indeno[1,2,3-cd]pyrene	1690742	1930812	1514654	1545561	1424426	1621239	12.20
Dibenz[a,h]anthracene	1688559	1933848	1514654	1545561	1424426	1621409	12.26
Benzo[g,h,i]perylene	839672	955710	760725	778940	717520	810513	11.38
C10-C12	1269321	1490949	1270978	1209795	1172426	1282694	9.64
C12-C16	2065469	2416993	2143437	2071842	1921724	2123893	8.59
C16-C21	3789640	4496883	3978432	3965670	3464500	3939025	9.51
C21-C36	8643688	8301317	6483514	6495559	5815001	7147816	17.43

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1125.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 11:47
Operator : MJ
Sample : ARO_L5_IAS_4187,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.62	701398746	977.367 ng	
Spiked Amount	50.000		Recovery	= 1954.73%	
2) S	2-Bromonaphthalene	5.68	488635076	976.801 ng	
Spiked Amount	50.000		Recovery	= 1953.60%	
3) S	o-Terphenyl	10.07	848437453	917.042 ng	
Spiked Amount	50.000		Recovery	= 1834.08%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.04	557450854	925.135 ng	
5) T	Napthalene	3.16	607027159	926.574 ng	
6) T	2-Methylnaphthalene	4.02	625313278	921.953 ng	
7) T	Acenaphthylene	5.44	636899066	910.001 ng	
8) T	Acenaphthene	5.80	649483454	900.907 ng	
9) T	Fluorene	6.80	659798167	903.267 ng	
10) T	Phenanthrene	8.89	681454798	904.206 ng	
11) T	Anthracene	9.03	677052615	887.329 ng	m
12) T	Fluoroanthene	11.77	704258402	872.313 ng	
13) T	Pyrene	12.29	722692269	871.994 ng	
14) T	Benzo[a]anthracene	15.38	739838628	890.735 ng	
15) T	Chrysene	15.53	712089022	852.425 ng	m
16) T	Benzo[b]fluoranthene	18.10	1449764235	860.510 ng	
17) T	Benzo[k]fluoranthene	18.10	1449764235	860.511 ng	
18) T	Benzo[a]pyrene	18.68	717779399	865.024 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.99	1424425631	879.350 ng	
20) T	Dibenz[a,h]anthracene	20.99	1424425631	878.495 ng	
21) T	Benzo[g,h,i]perylene	21.25	717520360	884.327 ng	
22) H	C10-C12	2.70	1172426414	1828.069 ng	
23) H	C12-C16	4.95	1921723592	2714.436 ng	
24) H	C16-C21	9.60	3464499978	4397.662 ng	
25) H	C21-C36	17.20	5815001353	6508.283 ng	

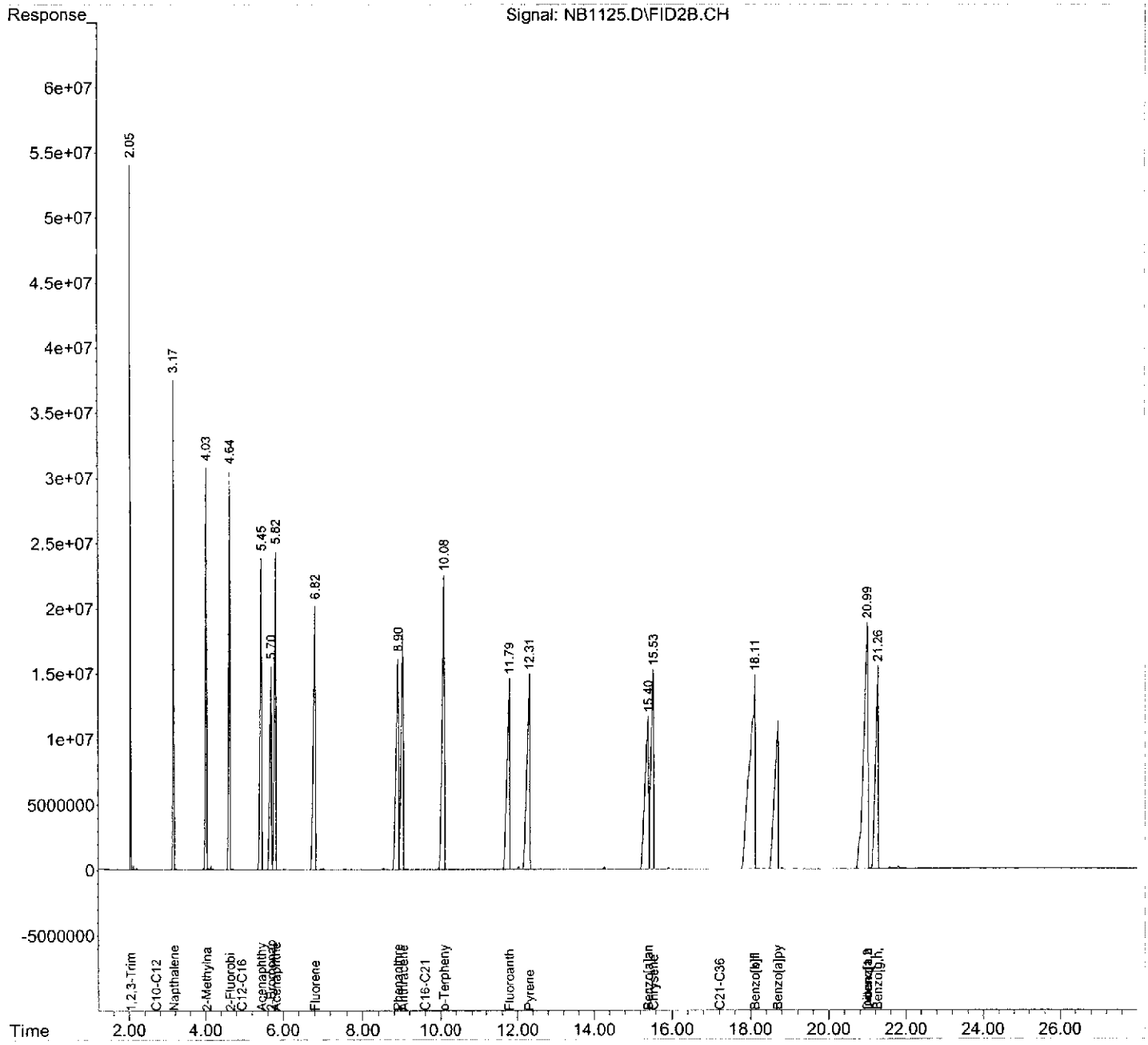
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1125.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 11:47
Operator : MJ
Sample : ARO_L5_IAS_4187,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1126.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:21
Operator : MJ
Sample : ARO_L4_IAS_4188,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.61	373384494	520.294 ng
Spiked Amount 50.000		Recovery	= 1040.59%
2) S 2-Bromonaphthalene	5.66	265893453	531.532 ng
Spiked Amount 50.000		Recovery	= 1063.06%
3) S o-Terphenyl	10.04	482663145	521.691 ng
Spiked Amount 50.000		Recovery	= 1043.38%
Target Compounds			
4) T 1,2,3-Trimethylbenzene	2.04	286186898	474.950 ng
5) T Napthalene	3.15	316722774	483.449 ng
6) T 2-Methylnaphthalene	4.00	330931573	487.921 ng
7) T Acenaphthylene	5.42	345549061	493.720 ng
8) T Acenaphthene	5.77	353510516	490.359 ng
9) T Fluorene	6.77	365630258	500.550 ng
10) T Phenanthrene	8.86	385754870	511.849 ng
11) T Anthracene	8.98	384254252	503.594 ng
12) T Fluoroanthene	11.74	409152490	506.787 ng
13) T Pyrene	12.25	419851818	506.590 ng
14) T Benzo[a]anthracene	15.34	414056020	498.506 ng
15) T Chrysene	15.46	404141395	483.788 ng
16) T Benzo[b]fluoranthene	18.02	807415654	479.243 ng
17) T Benzo[k]fluoranthene	18.02	807415654	479.243 ng
18) T Benzo[a]pyrene	18.61	397452636	478.985 ng
19) T Indeno[1,2,3-cd]pyrene	20.92	772780261	477.066 ng
20) T Dibenz[a,h]anthracene	20.92	772780261	476.602 ng
21) T Benzo[g,h,i]perylene	21.18	389470210	480.013 ng
22) H C10-C12	2.70	604897451	943.167 ng
23) H C12-C16	4.95	1035920831	1463.239 ng
24) H C16-C21	9.60	1982834764	2516.911 ng
25) H C21-C36	17.20	3247779561	3634.990 ng

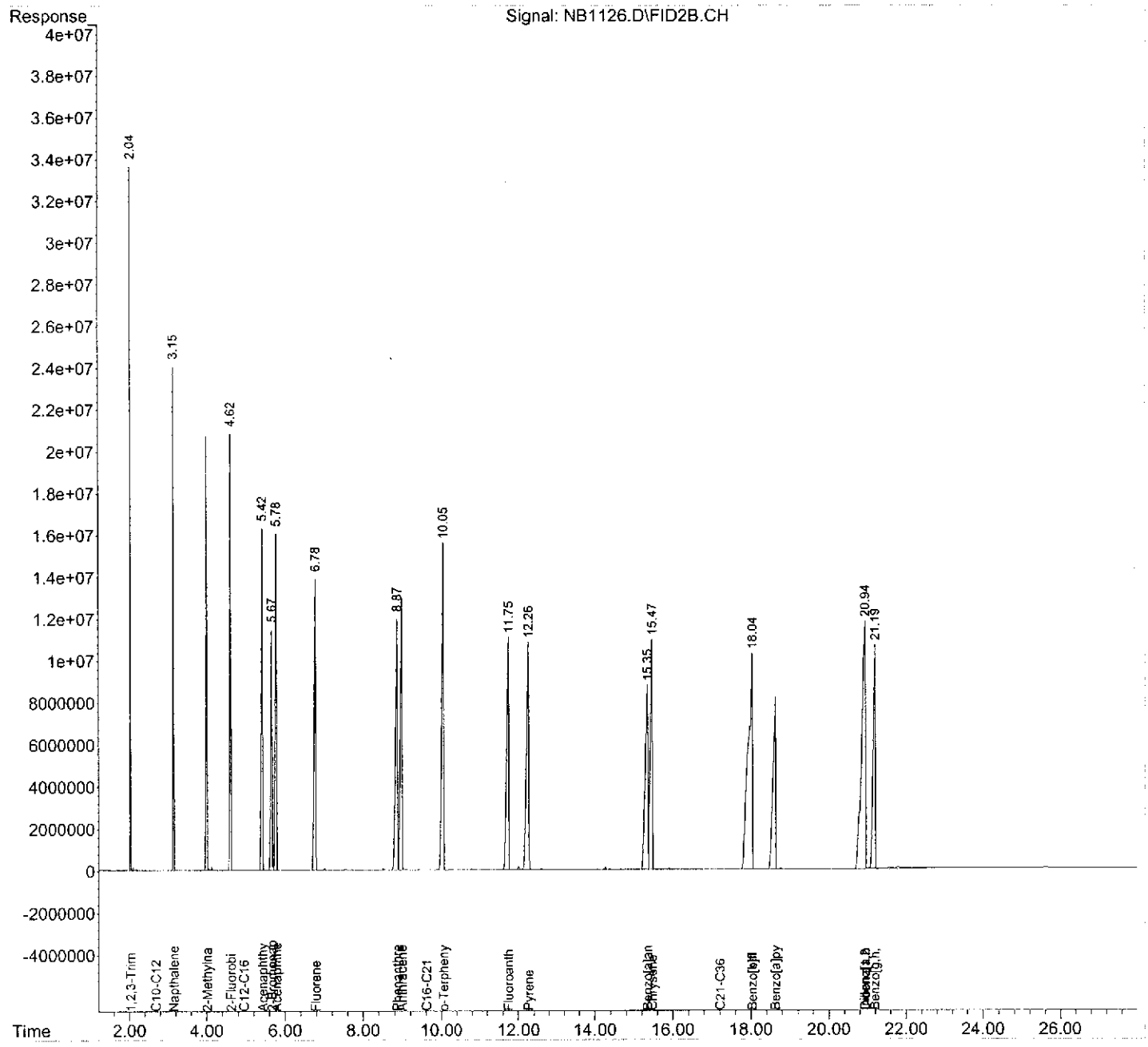
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1126.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:21
Operator : MJ
Sample : ARO_L4_IAS_4188,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1127.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:55
Operator : MJ
Sample : ARO_L3_IAS_4189,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:42:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.60	194830709	271.488	ng	
Spiked Amount	50.000		Recovery	= 542.98%		
2) S	2-Bromonaphthalene	5.64	136763207	273.395	ng	
Spiked Amount	50.000		Recovery	= 546.79%		
3) S	o-Terphenyl	10.01	243366307	263.045	ng	
Spiked Amount	50.000		Recovery	= 526.09%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	149411986	247.961	ng	
5) T	Napthalene	3.14	165684219	252.902	ng	
6) T	2-Methylnaphthalene	3.99	172544241	254.397	ng	
7) T	Acenaphthylene	5.40	177879861	254.155	ng	
8) T	Acenaphthene	5.75	181817513	252.201	ng	
9) T	Fluorene	6.75	186071177	254.732	ng	
10) T	Phenanthrene	8.83	191869066	254.586	ng	
11) T	Anthracene	8.95	193402590	253.469	ng	
12) T	Fluoroanthene	11.70	203734434	252.351	ng	
13) T	Pyrene	12.21	209030082	252.214	ng	
14) T	Benzo[a]anthracene	15.29	203086538	244.508	ng	
15) T	Chrysene	15.41	202841674	242.817	ng	
16) T	Benzo[b]fluoranthene	17.97	398892195	236.763	ng	m
17) T	Benzo[k]fluoranthene	17.97	398941912	236.793	ng	m
18) T	Benzo[a]pyrene	18.55	195846385	236.022	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.87	378663417	233.763	ng	
20) T	Dibenz[a,h]anthracene	20.87	378663417	233.536	ng	
21) T	Benzo[g,h,i]perylene	21.13	190181177	234.394	ng	
22) H	C10-C12	2.70	317744378	495.433	ng	
23) H	C12-C16	4.95	535859326	756.902	ng	
24) H	C16-C21	9.60	994607917	1262.505	ng	
25) H	C21-C36	17.20	1620878598	1814.125	ng	

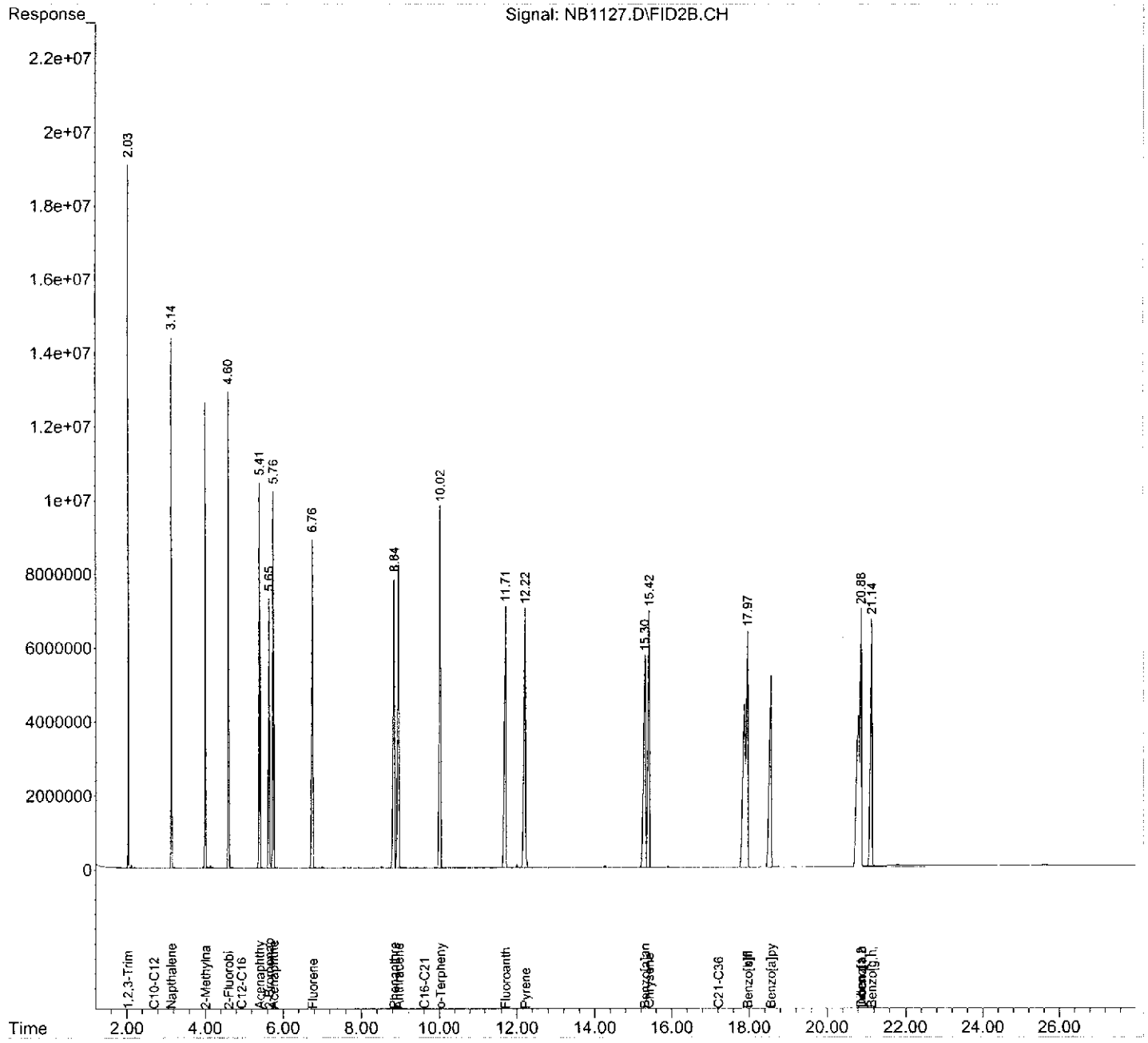
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1127.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:55
Operator : MJ
Sample : ARO_L3_IAS_4189,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:42:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1128.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 13:29
Operator : MJ
Sample : ARO_L2_IAS_4190,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.59	64132072	89.365 ng	
Spiked Amount	50.000		Recovery	= 178.73%	
2) S	2-Bromonaphthalene	5.62	44573835	89.105 ng	
Spiked Amount	50.000		Recovery	= 178.21%	
3) S	o-Terphenyl	9.99	92621995	100.111 ng	
Spiked Amount	50.000		Recovery	= 200.22%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	70511283	117.019 ng	
5) T	Napthalene	3.14	76065845	116.108 ng	
6) T	2-Methylnaphthalene	3.99	77306294	113.979 ng	
7) T	Acenaphthylene	5.39	79772197	113.978 ng	
8) T	Acenaphthene	5.74	81846752	113.531 ng	
9) T	Fluorene	6.74	82803478	113.358 ng	
10) T	Phenanthrene	8.81	85947257	114.041 ng	
11) T	Anthracene	8.92	85925335	112.612 ng	
12) T	Fluoroanthene	11.68	93246803	115.498 ng	
13) T	Pyrene	12.19	95167853	114.829 ng	
14) T	Benzo[a]anthracene	15.27	98045169	118.042 ng	
15) T	Chrysene	15.37	99078853	118.605 ng	
16) T	Benzo[b]fluoranthene	17.93	202023215	119.911 ng	m
17) T	Benzo[k]fluoranthene	17.93	202066642	119.937 ng	m
18) T	Benzo[a]pyrene	18.52	98985712	119.291 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.84	193081204	119.196 ng	m
20) T	Dibenz[a,h]anthracene	20.84	193384839	119.268 ng	m
21) T	Benzo[g,h,i]perylene	21.09	95571046	117.789 ng	
22) H	C10-C12	2.70	149094880	232.472 ng	
23) H	C12-C16	4.95	241699343	341.400 ng	
24) H	C16-C21	9.60	449688328	570.812 ng	
25) H	C21-C36	17.20	830131702	929.102 ng	

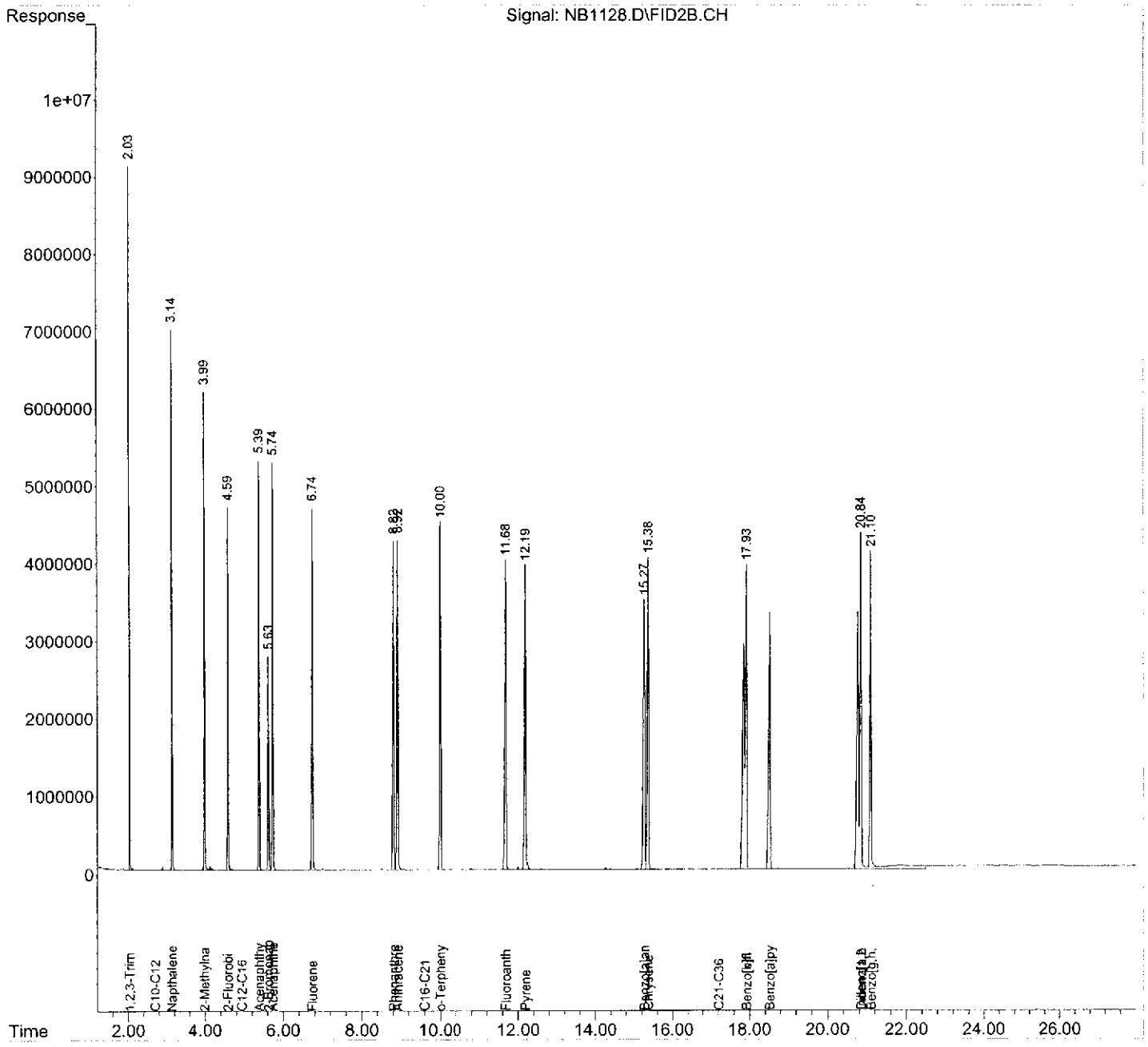
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1128.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 13:29
Operator : MJ
Sample : ARO_L2_IAS_4190,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1129.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 14:02
Operator : MJ
Sample : ARO_L1_IAS_4191,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:44:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.58	14387894	20.049 ng	
Spiked Amount	50.000		Recovery =	40.10%	
2) S	2-Bromonaphthalene	5.62	9759727	19.510 ng	
Spiked Amount	50.000		Recovery =	39.02%	
3) S	o-Terphenyl	9.98	18249947	19.726 ng	
Spiked Amount	50.000		Recovery =	39.45%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	11604486	19.259 ng	
5) T	Napthalene	3.14	12235744	18.677 ng	
6) T	2-Methylnaphthalene	3.98	12816538	18.897 ng	
7) T	Acenaphthylene	5.38	13244051	18.923 ng	
8) T	Acenaphthene	5.73	14017409	19.444 ng	
9) T	Fluorene	6.73	13778210	18.862 ng	
10) T	Phenanthrene	8.80	13766761	18.267 ng	
11) T	Anthracene	8.90	14645781	19.194 ng	
12) T	Fluoroanthene	11.66	15335262	18.995 ng	
13) T	Pyrene	12.16	15874192	19.154 ng	
14) T	Benzo[a]anthracene	15.24	15947577	19.200 ng	m
15) T	Chrysene	15.33	17046540	20.406 ng	
16) T	Benzo[b]fluoranthene	17.86	34851367	20.686 ng	
17) T	Benzo[k]fluoranthene	17.86	34851367	20.686 ng	
18) T	Benzo[a]pyrene	18.48	17259475	20.800 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.72	33814840	20.875 ng	m
20) T	Dibenz[a,h]anthracene	20.72	33771184	20.828 ng	m
21) T	Benzo[g,h,i]perylene	21.05	16793431	20.698 ng	
22) H	C10-C12	2.70	25386428	39.583 ng	
23) H	C12-C16	4.95	41309388	58.350 ng	
24) H	C16-C21	9.60	75792800	96.208 ng	
25) H	C21-C36	17.20	172873759	193.484 ng	

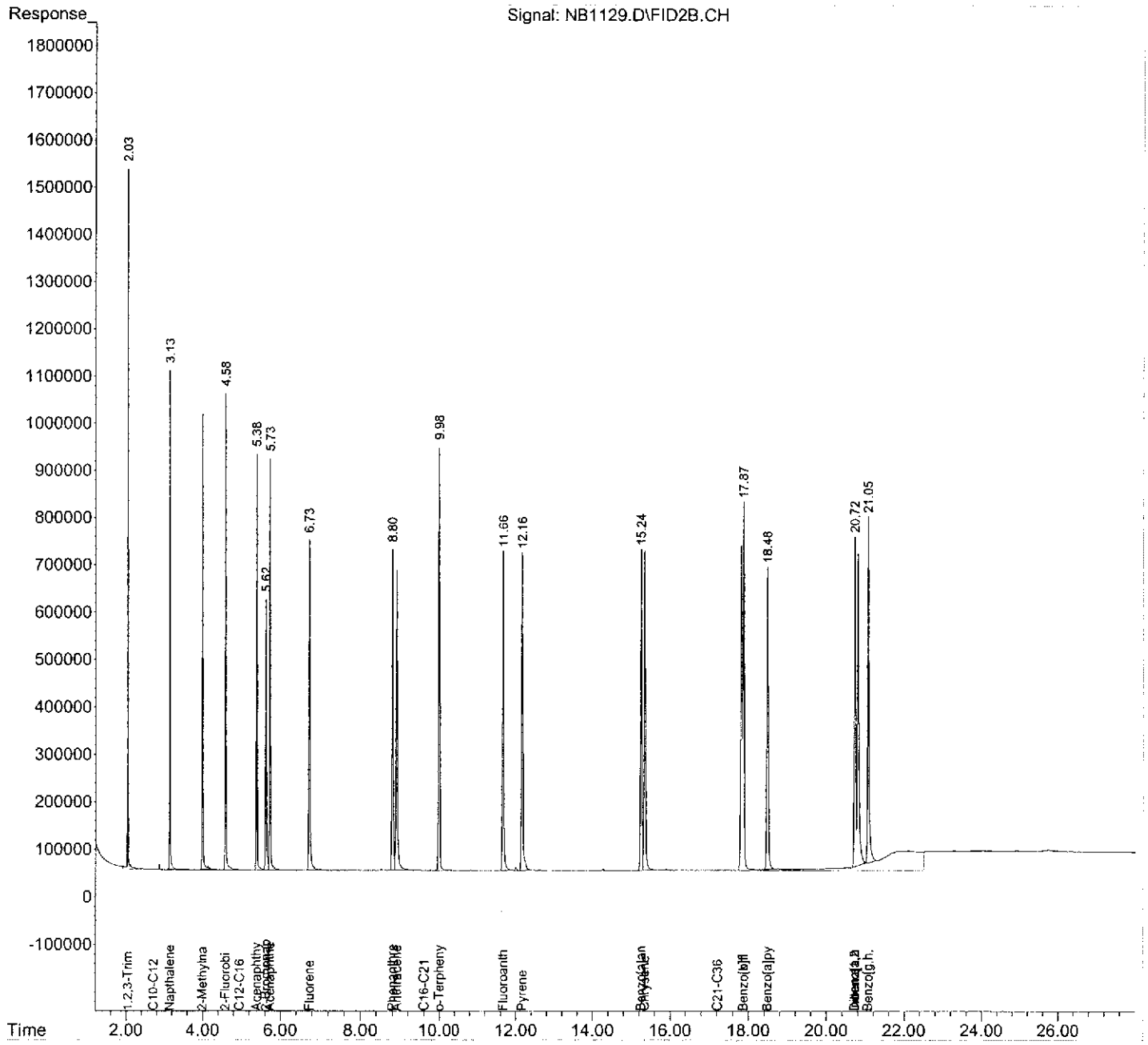
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1129.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 14:02
Operator : MJ
Sample : ARO_L1_IAS_4191,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:44:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2012 **Instrument ID:** GC-N

Data File: N1620.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.34	1.28	1.42	928218	980017	5.58
n-Decane (C10)	1.85	1.78	1.92	966280	1043607	8.00
n-Dodecane (C12)	3.27	3.20	3.34	966897	1075392	11.22
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	1110283	10.04
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	1112899	8.71
n-Octadecane (C18)	9.25	9.17	9.33	1040886	1101037	5.78
n-Eicosane (C20)	11.34	11.25	11.41	1020661	1059382	3.79
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	981269	2.03
n-Docosane (C22)	13.29	13.20	13.38	990182	950010	4.06
n-Tetracosane (C24)	15.09	15.01	15.19	950314	908359	4.41
n-Hexacosane (C26)	16.78	16.69	16.87	913199	884088	3.19
n_Octacosane (C28)	18.35	18.26	18.44	867213	872771	0.64
n-Triacontane (C30)	19.82	19.72	19.92	833552	871526	4.56
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	863180	8.46
n-Tetratriacontane (C34)	21.81	21.71	21.91	796293	890269	11.80
n-Hexatriacontane (C36)	22.65	22.49	22.79	775851	884773	14.04
n-Octatriacontane (C38)	23.69	23.54	23.84	762326	843834	10.69
n-Tetracontane (40)	25.07	24.93	25.23	758303	748482	1.30
C9-C12	2.36	2.26	2.46	3060279	3136956	2.51
C12-C16	5.40	5.30	5.50	2129672	2264050	6.31
C16-C21	9.95	9.84	10.06	3157878	3164455	0.21
C21-C40	18.95	18.84	19.06	9157580	9011981	1.59

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2012 **Instrument ID:** GC-N

Data File: N1641.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.34	1.28	1.42	928218	992429	6.92
n-Decane (C10)	1.85	1.78	1.92	966280	1049130	8.57
n-Dodecane (C12)	3.27	3.20	3.34	966897	1072717	10.94
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	1110215	10.03
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	1118668	9.27
n-Octadecane (C18)	9.25	9.17	9.33	1040886	1112036	6.84
n-Eicosane (C20)	11.33	11.25	11.41	1020661	1075926	5.41
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	996298	0.53
n-Docosane (C22)	13.29	13.20	13.38	990182	968143	2.23
n-Tetracosane (C24)	15.09	15.01	15.19	950314	946659	0.38
n-Hexacosane (C26)	16.78	16.69	16.87	913199	937397	2.65
n_Octacosane (C28)	18.35	18.26	18.44	867213	932651	7.55
n-Triacontane (C30)	19.82	19.72	19.92	833552	932371	11.86
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	922397	15.90
n-Tetratriacontane (C34)	21.80	21.71	21.91	796293	949919	19.29
n-Hexatriacontane (C36)	22.63	22.49	22.79	775851	935786	20.61
n-Octatriacontane (C38)	23.67	23.54	23.84	762326	871721	14.35
n-Tetracontane (40)	25.05	24.93	25.23	758303	734480	3.14
C9-C12	2.36	2.26	2.46	3060279	3141287	2.65
C12-C16	5.40	5.30	5.50	2129672	2268047	6.50
C16-C21	9.95	9.84	10.06	3157878	3207507	1.57
C21-C40	18.95	18.84	19.06	9157580	9465103	3.36

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1620.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 11:35
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 06 12:04:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	249406152	258.067 ng
Spiked Amount 50.000		Recovery	= 516.13%
24) S o-Terphenyl	10.25	346104898	281.117 ng
Spiked Amount 50.000		Recovery	= 562.23%
25) S Naphthalene	3.22	294452596	267.696 ng
Spiked Amount 50.000		Recovery	= 535.39%
26) S 2-Methylnaphthalene	4.14	300626955	274.804 ng
Spiked Amount 50.000		Recovery	= 549.61%
Target Compounds			
2) T n-Nonane (C9)	1.34	245004323	263.951 ng
3) T n-Decane (C10)	1.85	260901875	270.006 ng
4) T n-Dodecane (C12)	3.27	268847901	278.052 ng
5) T n-Tetradecane (C14)	5.02	277570768	275.104 ng
6) T n-Hexadecane (C16)	7.09	278224688	271.766 ng
7) T n-Octadecane (C18)	9.25	275259144	264.447 ng
8) T n-Eicosane (C20)	11.34	264845460	259.484 ng
9) T n-Heneicosane (C21)	12.33	245317217	244.916 ng
10) T n-Docosane (C22)	13.29	237502506	239.858 ng
11) T n-Tetracosane (C24)	15.09	227089665	238.963 ng
12) T n-Hexacosane (C26)	16.78	221022056	242.031 ng
13) T n-Octacosane (C28)	18.35	218192858	251.602 ng
14) T n-Triacontane (C30)	19.82	217881494	261.389 ng
15) T n-Dotriacontane (C32)	21.06	215795049	271.145 ng
16) T n-Tetratriacontane (C34)	21.81	222567287	279.504 ng
17) T n-Hexatriacontane (C36)	22.65	221193236	285.098 ng
18) T n-Octatriacontane (C38)	23.69	210958417	276.730 ng
19) T n-Tetracontane (40)	25.07	187120553	246.762 ng
20) H C9-C12	2.36	784238907	768.792 ng
21) H C12-C16	5.40	566012575	531.549 ng
22) H C16-C21	9.95	791113806	751.562 ng
23) H C21-C40	18.95	2252995271	2460.252 ng

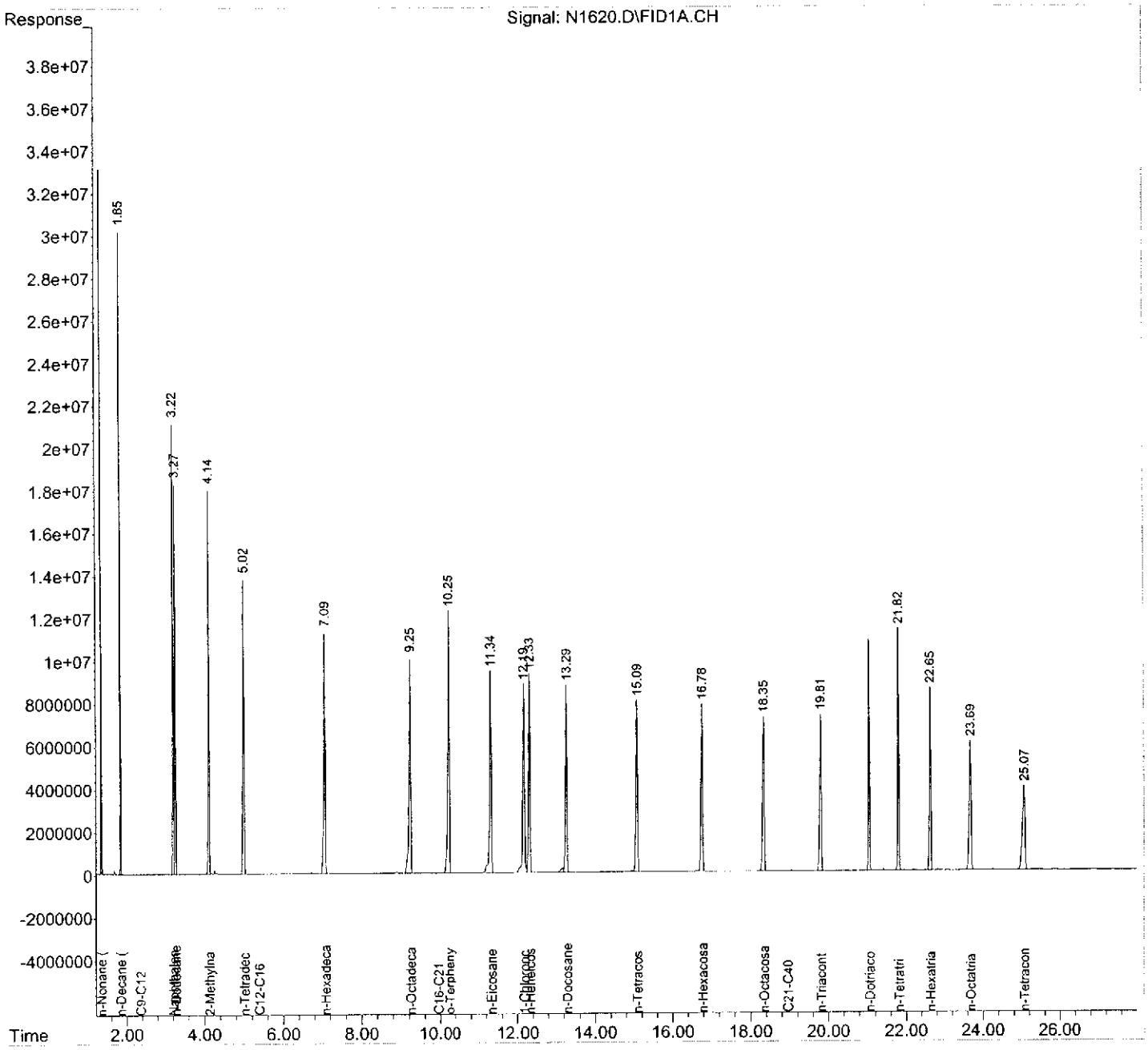
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1620.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 11:35
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 06 12:04:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Mon Jul 09 06:50:14 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1641.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 23:41
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 07 00:09:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	255492554	264.364 ng
Spiked Amount 50.000		Recovery	= 528.73%
24) S o-Terphenyl	10.24	350810732	284.940 ng
Spiked Amount 50.000		Recovery	= 569.88%
25) S Naphthalene	3.22	294280435	267.539 ng
Spiked Amount 50.000		Recovery	= 535.08%
26) S 2-Methylnaphthalene	4.14	300189318	274.404 ng
Spiked Amount 50.000		Recovery	= 548.81%
Target Compounds			
2) T n-Nonane (C9)	1.34	248107181	267.294 ng
3) T n-Decane (C10)	1.85	262282614	271.435 ng
4) T n-Dodecane (C12)	3.27	268179156	277.361 ng
5) T n-Tetradecane (C14)	5.02	277553814	275.087 ng
6) T n-Hexadecane (C16)	7.09	279667004	273.174 ng
7) T n-Octadecane (C18)	9.25	278009016	267.089 ng
8) T n-Eicosane (C20)	11.33	268981509	263.537 ng
9) T n-Heneicosane (C21)	12.33	249074453	248.667 ng
10) T n-Docosane (C22)	13.29	242035678	244.436 ng
11) T n-Tetracosane (C24)	15.09	236664654	249.038 ng
12) T n-Hexacosane (C26)	16.78	234349301	256.625 ng
13) T n-Octacosane (C28)	18.35	233162867	268.865 ng
14) T n-Triacontane (C30)	19.82	233092759	279.638 ng
15) T n-Dotriacontane (C32)	21.06	230599296	289.746 ng
16) T n-Tetratriacontane (C34)	21.80	237479845	298.232 ng
17) T n-Hexatriacontane (C36)	22.63	233946417	301.535 ng
18) T n-Octatriacontane (C38)	23.67	217930172	285.875 ng
19) T n-Tetracontane (40)	25.05	183620075	242.146 ng
20) H C9-C12	2.36	785321802	769.853 ng
21) H C12-C16	5.40	567011654	532.487 ng
22) H C16-C21	9.95	801876831	761.787 ng
23) H C21-C40	18.95	2366275671	2583.953 ng

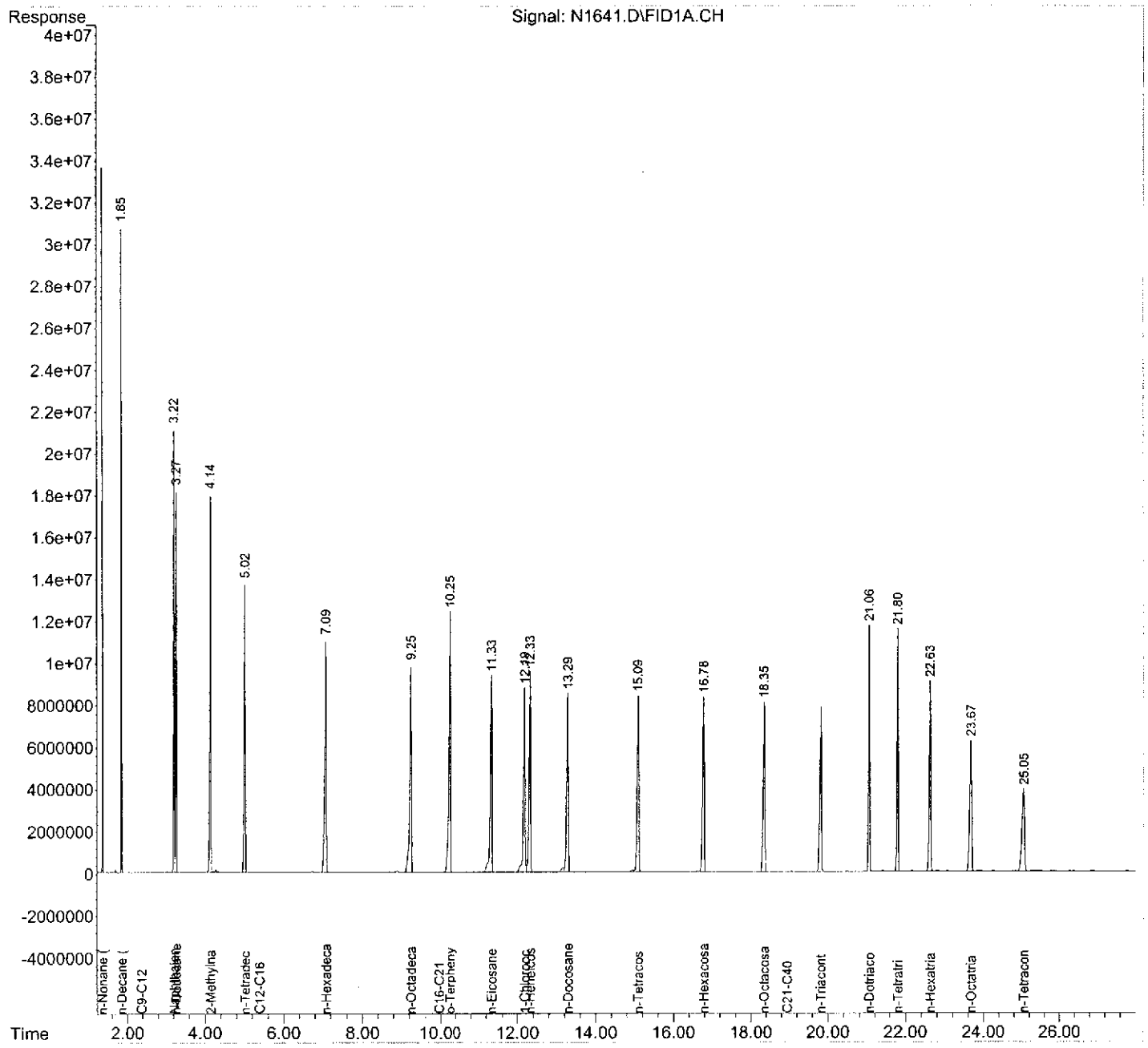
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1641.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 23:41
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 07 00:09:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/07/2012 **Instrument ID:** GC-N

Data File: N1643.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.34	1.28	1.42	928218	1042787	12.34
n-Decane (C10)	1.85	1.78	1.92	966280	1103888	14.24
n-Dodecane (C12)	3.27	3.20	3.34	966897	1125928	16.45
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	1162838	15.25
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	1166906	13.98
n-Octadecane (C18)	9.25	9.17	9.33	1040886	1155079	10.97
n-Eicosane (C20)	11.33	11.25	11.41	1020661	1112512	9.00
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	1024039	2.24
n-Docosane (C22)	13.29	13.20	13.38	990182	999927	0.98
n-Tetracosane (C24)	15.10	15.01	15.19	950314	974541	2.55
n-Hexacosane (C26)	16.78	16.69	16.87	913199	965376	5.71
n_Octacosane (C28)	18.35	18.26	18.44	867213	961927	10.92
n-Triacontane (C30)	19.82	19.72	19.92	833552	961854	15.39
n-Dotriacontane (C32)	21.05	20.96	21.16	795866	951469	19.55
n-Tetratriacontane (C34)	21.80	21.71	21.91	796293	979030	22.95
n-Hexatriacontane (C36)	22.63	22.49	22.79	775851	962859	24.10
n-Octatriacontane (C38)	23.67	23.54	23.84	762326	893044	17.15
n-Tetracontane (40)	25.05	24.93	25.23	758303	751742	0.87
C9-C12	2.36	2.26	2.46	3060279	3465217	13.23
C12-C16	5.40	5.30	5.50	2129672	2381365	11.82
C16-C21	9.95	9.84	10.06	3157878	3315671	5.00
C21-C40	18.95	18.84	19.06	9157580	9705829	5.99

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/07/2012 **Instrument ID:** GC-N

Data File: N1669.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.34	1.28	1.42	928218	884169	4.75
n-Decane (C10)	1.85	1.78	1.92	966280	929926	3.76
n-Dodecane (C12)	3.27	3.20	3.34	966897	961589	0.55
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	965835	4.27
n-Hexadecane (C16)	7.08	7.00	7.16	1023767	935828	8.59
n-Octadecane (C18)	9.24	9.17	9.33	1040886	891309	14.37
n-Eicosane (C20)	11.33	11.25	11.41	1020661	828902	18.79
n-Hencicosane (C21)	12.32	12.25	12.41	1001637	779243	22.20
n-Docosane (C22)	13.27	13.20	13.38	990182	750851	24.17
n-Tetracosane (C24)	15.09	15.01	15.19	950314	732399	22.93
n-Hexacosane (C26)	16.77	16.69	16.87	913199	726318	20.46
n_Octacosane (C28)	18.34	18.26	18.44	867213	726372	16.24
n-Triacontane (C30)	19.81	19.72	19.92	833552	729232	12.52
n-Dotriacontane (C32)	21.05	20.96	21.16	795866	721739	9.31
n-Tetratriacontane (C34)	21.79	21.71	21.91	796293	730861	8.22
n-Hexatriacontane (C36)	22.62	22.49	22.79	775851	679889	12.37
n-Octatriacontane (C38)	23.65	23.54	23.84	762326	574997	24.57
n-Tetracontane (40)	25.02	24.93	25.23	758303	530993	29.98
C9-C12	2.36	2.26	2.46	3060279	2807792	8.25
C12-C16	5.40	5.30	5.50	2129672	1935987	9.09
C16-C21	9.95	9.84	10.06	3157878	2518858	20.24
C21-C40	18.95	18.84	19.06	9157580	7447229	18.68

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 **Instrument ID:** GC-N

Data File: N1671.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.35	1.28	1.42	928218	775291	16.48
n-Decane (C10)	1.85	1.78	1.92	966280	803386	16.86
n-Dodecane (C12)	3.27	3.20	3.34	966897	829235	14.24
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	837834	16.96
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	821950	19.71
n-Octadecane (C18)	9.25	9.17	9.33	1040886	794938	23.63
n-Eicosane (C20)	11.33	11.25	11.41	1020661	748820	26.63
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	704313	29.68
n-Docosane (C22)	13.28	13.20	13.38	990182	693243	29.99
n-Tetracosane (C24)	15.09	15.01	15.19	950314	665890	29.93
n-Hexacosane (C26)	16.78	16.69	16.87	913199	645310	29.34
n_Octacosane (C28)	18.35	18.26	18.44	867213	644629	25.67
n-Triacontane (C30)	19.82	19.72	19.92	833552	648121	22.25
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	643194	19.18
n-Tetratriacontane (C34)	21.81	21.71	21.91	796293	657596	17.42
n-Hexatriacontane (C36)	22.65	22.49	22.79	775851	634624	18.20
n-Octatriacontane (C38)	23.68	23.54	23.84	762326	570590	25.15
n-Tetracontane (40)	25.07	24.93	25.23	758303	535606	29.37
C9-C12	2.36	2.26	2.46	3060279	2439778	20.28
C12-C16	5.40	5.30	5.50	2129672	1693128	20.50
C16-C21	9.95	9.84	10.06	3157878	2600897	17.64
C21-C40	18.95	18.84	19.06	9157580	7326606	19.99

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 **Instrument ID:** GC-N

Data File: N1681.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.34	1.28	1.42	928218	694642	25.16
n-Decane (C10)	1.84	1.78	1.92	966280	716396	25.86
n-Dodecane (C12)	3.27	3.20	3.34	966897	744471	23.00
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	764754	24.20
n-Hexadecane (C16)	7.08	7.00	7.16	1023767	767240	25.06
n-Octadecane (C18)	9.24	9.17	9.33	1040886	760637	26.92
n-Eicosane (C20)	11.33	11.25	11.41	1020661	737105	27.78
n-Heneicosane (C21)	12.32	12.25	12.41	1001637	714645	28.65
n-Docosane (C22)	13.28	13.20	13.38	990182	701656	29.14
n-Tetracosane (C24)	15.09	15.01	15.19	950314	671364	29.35
n-Hexacosane (C26)	16.77	16.69	16.87	913199	668291	26.82
n_Octacosane (C28)	18.34	18.26	18.44	867213	662799	23.57
n-Triacontane (C30)	19.81	19.72	19.92	833552	660650	20.74
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	651763	18.11
n-Tetratriacontane (C34)	21.81	21.71	21.91	796293	662916	16.75
n-Hexatriacontane (C36)	22.64	22.49	22.79	775851	631711	18.58
n-Octatriacontane (C38)	23.68	23.54	23.84	762326	555015	27.19
n-Tetracontane (40)	25.05	24.93	25.23	758303	532395	29.79
C9-C12	2.36	2.26	2.46	3060279	2482837	18.87
C12-C16	5.40	5.30	5.50	2129672	1796352	15.65
C16-C21	9.95	9.84	10.06	3157878	2561296	18.89
C21-C40	18.95	18.84	19.06	9157580	7242240	20.92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1643.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 00:50
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 07 01:18:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	264821242	274.017 ng
Spiked Amount 50.000		Recovery	= 548.03%
24) S o-Terphenyl	10.25	363496210	295.243 ng
Spiked Amount 50.000		Recovery	= 590.49%
25) S Naphthalene	3.22	309161446	281.068 ng
Spiked Amount 50.000		Recovery	= 562.14%
26) S 2-Methylnaphthalene	4.14	314654990	287.627 ng
Spiked Amount 50.000		Recovery	= 575.25%
Target Compounds			
2) T n-Nonane (C9)	1.34	260696825	280.857 ng
3) T n-Decane (C10)	1.85	275972108	285.603 ng
4) T n-Dodecane (C12)	3.27	281481964	291.119 ng
5) T n-Tetradecane (C14)	5.02	290709471	288.126 ng
6) T n-Hexadecane (C16)	7.09	291726605	284.954 ng
7) T n-Octadecane (C18)	9.25	288769782	277.427 ng
8) T n-Eicosane (C20)	11.33	278127960	272.498 ng
9) T n-Heneicosane (C21)	12.33	256009840	255.591 ng
10) T n-Docosane (C22)	13.29	249981667	252.460 ng
11) T n-Tetracosane (C24)	15.10	243635263	256.373 ng
12) T n-Hexacosane (C26)	16.78	241344101	264.284 ng
13) T n-Octacosane (C28)	18.35	240481819	277.304 ng
14) T n-Triacontane (C30)	19.82	240463441	288.481 ng
15) T n-Dotriacontane (C32)	21.05	237867183	298.878 ng
16) T n-Tetratriacontane (C34)	21.80	244757452	307.371 ng
17) T n-Hexatriacontane (C36)	22.63	240714629	310.259 ng
18) T n-Octatriacontane (C38)	23.67	223260924	292.868 ng
19) T n-Tetracontane (40)	25.05	187935474	247.837 ng
20) H C9-C12	2.36	866304171	849.240 ng
21) H C12-C16	5.40	595341212	559.092 ng
22) H C16-C21	9.95	828917692	787.476 ng
23) H C21-C40	18.95	2426457169	2649.671 ng

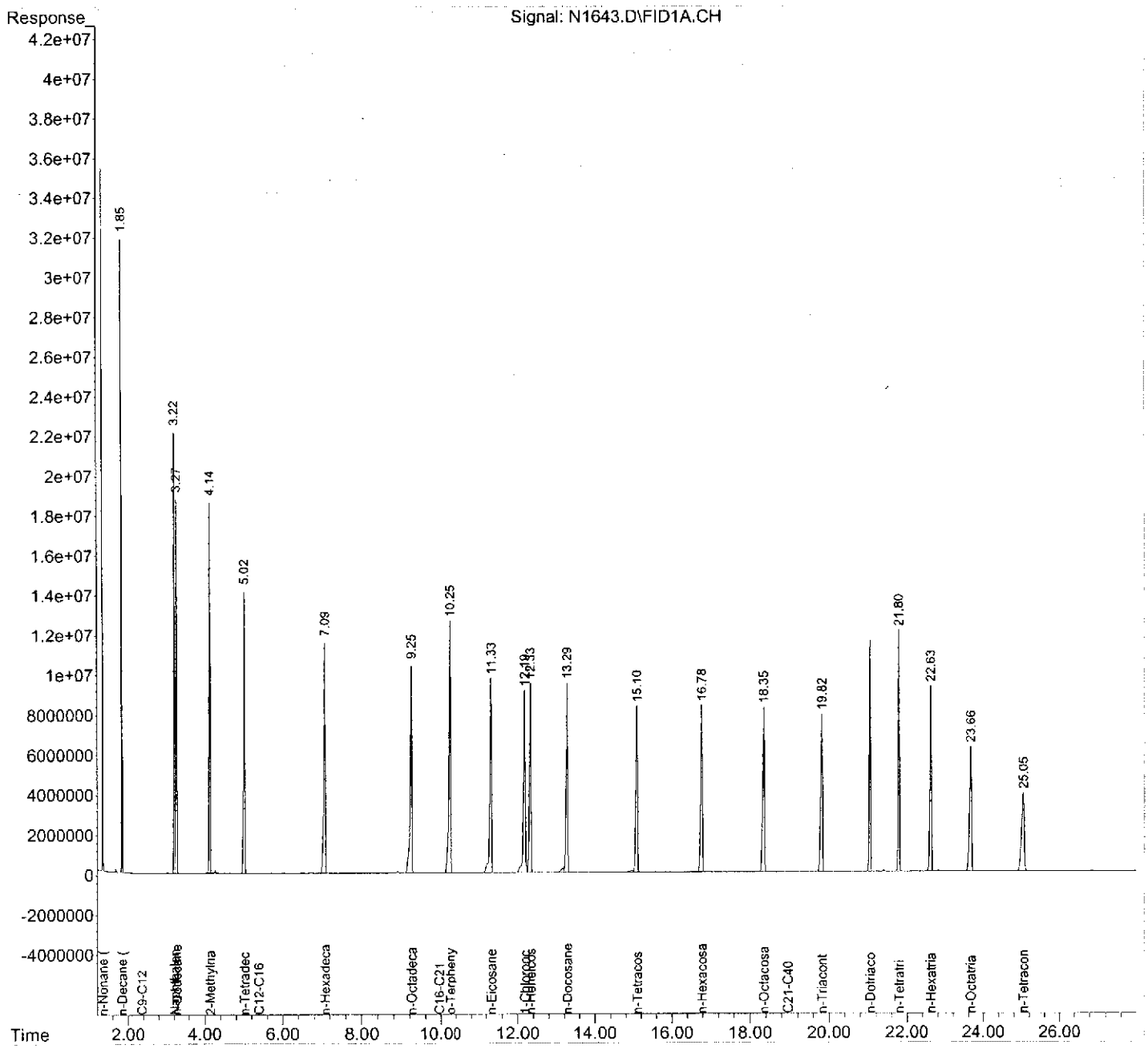
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1643.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 00:50
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 07 01:18:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1669.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 15:40
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1-Chlorooctadecane	12.18	189829279	196.421	ng	
Spiked Amount	50.000		Recovery	= 392.84%		
24) S	o-Terphenyl	10.24	276528768	224.606	ng	
Spiked Amount	50.000		Recovery	= 449.21%		
25) S	Naphthalene	3.21	259161398	235.611	ng	
Spiked Amount	50.000		Recovery	= 471.22%		
26) S	2-Methylnaphthalene	4.13	263749554	241.094	ng	
Spiked Amount	50.000		Recovery	= 482.19%		
Target Compounds						
2) T	n-Nonane (C9)	1.34	221042153	238.136	ng	
3) T	n-Decane (C10)	1.85	232481539	240.594	ng	
4) T	n-Dodecane (C12)	3.27	240397289	248.628	ng	
5) T	n-Tetradecane (C14)	5.02	241458731	239.313	ng	
6) T	n-Hexadecane (C16)	7.08	233956884	228.525	ng	
7) T	n-Octadecane (C18)	9.24	222827185	214.074	ng	
8) T	n-Eicosane (C20)	11.33	207225398	203.031	ng	
9) T	n-Heneicosane (C21)	12.32	194810716	194.492	ng	
10) T	n-Docosane (C22)	13.27	187712718	189.574	ng	
11) T	n-Tetracosane (C24)	15.09	183099857	192.673	ng	
12) T	n-Hexacosane (C26)	16.77	181579481	198.839	ng	
13) T	n-Octacosane (C28)	18.34	181593121	209.398	ng	
14) T	n-Triacontane (C30)	19.81	182308025	218.712	ng	
15) T	n-Dotriacontane (C32)	21.05	180434865	226.715	ng	
16) T	n-Tetratriacontane (C34)	21.79	182715309	229.457	ng	
17) T	n-Hexatriacontane (C36)	22.62	169972274	219.079	ng	
18) T	n-Octatriacontane (C38)	23.65	143749156	188.567	ng	
19) T	n-Tetracontane (40)	25.02	132748203	175.060	ng	m
20) H	C9-C12	2.36	701947943	688.122	ng	
21) H	C12-C16	5.40	483996699	454.527	ng	
22) H	C16-C21	9.95	629714526	598.232	ng	
23) H	C21-C40	18.95	1861807324	2033.078	ng	

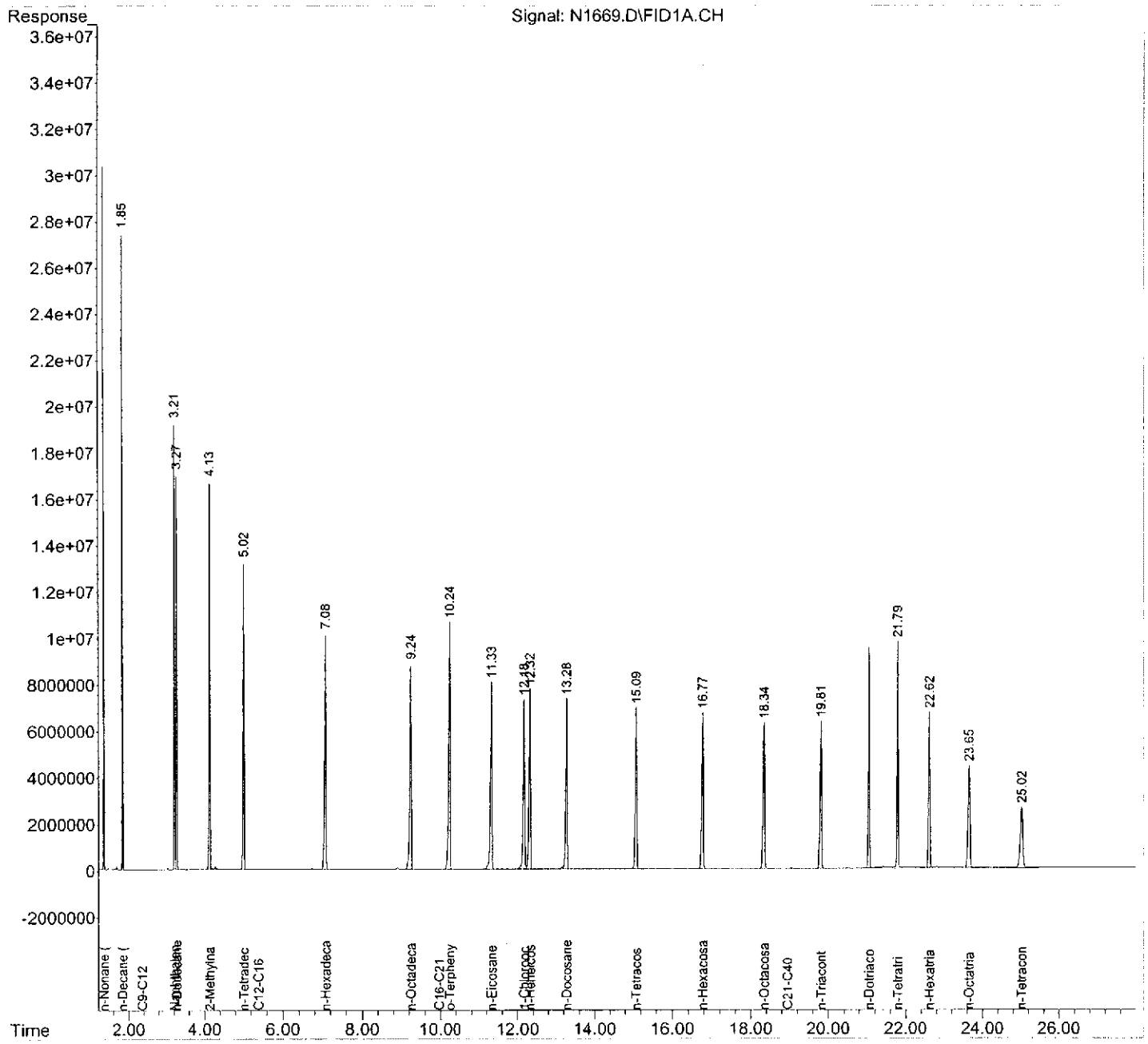
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1669.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 15:40
Operator : DK
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1671.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 8:30
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 08:01:57 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 1-Chlorooctadecane	12.19	172227658	178.208 ng	
Spiked Amount 50.000		Recovery	= 356.42%	
24) S o-Terphenyl	10.24	247909360	201.360 ng	
Spiked Amount 50.000		Recovery	= 402.72%	
25) S Naphthalene	3.22	223304966	203.013 ng	
Spiked Amount 50.000		Recovery	= 406.03%	
26) S 2-Methylnaphthalene	4.14	226689731	207.218 ng	
Spiked Amount 50.000		Recovery	= 414.44%	
Target Compounds				
2) T n-Nonane (C9)	1.35	193822673	208.812 ng	
3) T n-Decane (C10)	1.85	200846421	207.855 ng	
4) T n-Dodecane (C12)	3.27	207308866	214.406 ng	
5) T n-Tetradecane (C14)	5.02	209458566	207.597 ng	
6) T n-Hexadecane (C16)	7.09	205487441	200.717 ng	
7) T n-Octadecane (C18)	9.25	198734528	190.928 ng	
8) T n-Eicosane (C20)	11.33	187205016	183.416 ng	
9) T n-Heneicosane (C21)	12.33	176078232	175.790 ng	
10) T n-Docosane (C22)	13.28	173310703	175.029 ng	m
11) T n-Tetracosane (C24)	15.09	166472593	175.176 ng	m
12) T n-Hexacosane (C26)	16.78	161327411	176.662 ng	
13) T n-Octacosane (C28)	18.35	161157184	185.833 ng	
14) T n-Triacontane (C30)	19.82	162030141	194.385 ng	
15) T n-Dotriacontane (C32)	21.06	160798475	202.042 ng	
16) T n-Tetratriacontane (C34)	21.81	164399110	206.456 ng	
17) T n-Hexatriacontane (C36)	22.65	158656025	204.493 ng	
18) T n-Octatriacontane (C38)	23.68	142647552	187.121 ng	
19) T n-Tetracontane (40)	25.07	133901471	176.580 ng	m
20) H C9-C12	2.36	609944529	597.930 ng	
21) H C12-C16	5.40	423282020	397.509 ng	
22) H C16-C21	9.95	650224168	617.716 ng	
23) H C21-C40	18.95	1831651394	2000.148 ng	

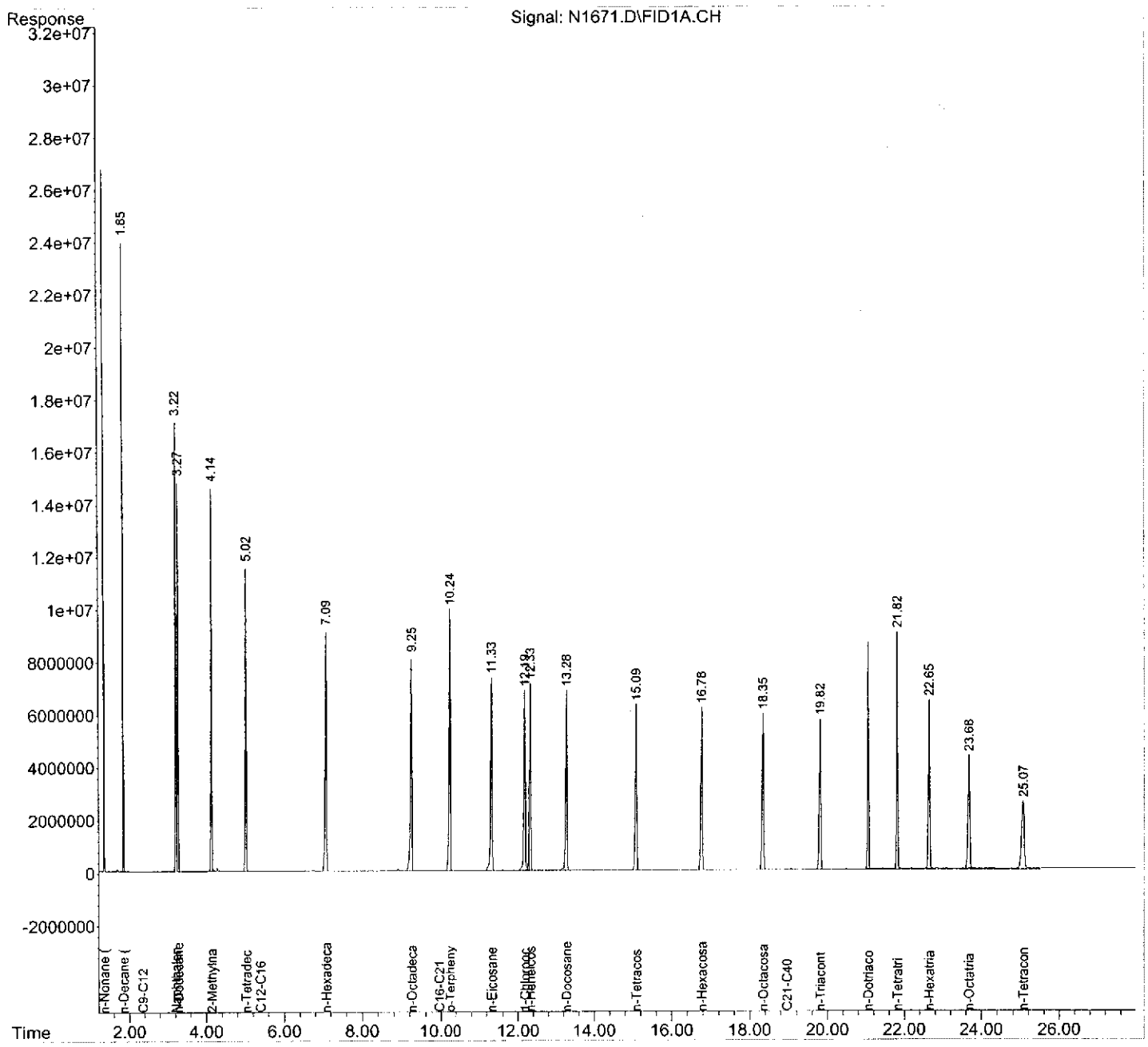
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1671.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 8:30
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 08:01:57 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1681.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 15:20
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 07:58:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 1-Chlorooctadecane	12.18	174086001	180.131 ng	
Spiked Amount 50.000		Recovery	= 360.26%	
24) S o-Terphenyl	10.24	240240651	195.131 ng	
Spiked Amount 50.000		Recovery	= 390.26%	
25) S Naphthalene	3.21	200837111	182.587 ng	
Spiked Amount 50.000		Recovery	= 365.17%	
26) S 2-Methylnaphthalene	4.13	206282233	188.563 ng	
Spiked Amount 50.000		Recovery	= 377.13%	
Target Compounds				
2) T n-Nonane (C9)	1.34	173660395	187.090 ng	
3) T n-Decane (C10)	1.84	179099083	185.349 ng	
4) T n-Dodecane (C12)	3.27	186117815	192.490 ng	
5) T n-Tetradecane (C14)	5.02	191188526	189.489 ng	
6) T n-Hexadecane (C16)	7.08	191810082	187.357 ng	
7) T n-Octadecane (C18)	9.24	190159129	182.690 ng	
8) T n-Eicosane (C20)	11.33	184276170	180.546 ng	
9) T n-Heneicosane (C21)	12.32	178661186	178.369 ng	m
10) T n-Docosane (C22)	13.28	175413987	177.153 ng	m
11) T n-Tetracosane (C24)	15.09	167841101	176.616 ng	
12) T n-Hexacosane (C26)	16.77	167072636	182.953 ng	
13) T n-Octacosane (C28)	18.34	165699810	191.072 ng	
14) T n-Triacontane (C30)	19.81	165162426	198.143 ng	
15) T n-Dotriacontane (C32)	21.06	162940777	204.734 ng	
16) T n-Tetratriacontane (C34)	21.81	165729004	208.126 ng	
17) T n-Hexatriacontane (C36)	22.64	157927760	203.554 ng	
18) T n-Octatriacontane (C38)	23.68	138753735	182.014 ng	
19) T n-Tetracontane (40)	25.05	133098776	175.522 ng	m
20) H C9-C12	2.36	620709126	608.483 ng	
21) H C12-C16	5.40	449087908	421.744 ng	
22) H C16-C21	9.95	640323927	608.311 ng	
23) H C21-C40	18.95	1810559963	1977.116 ng	

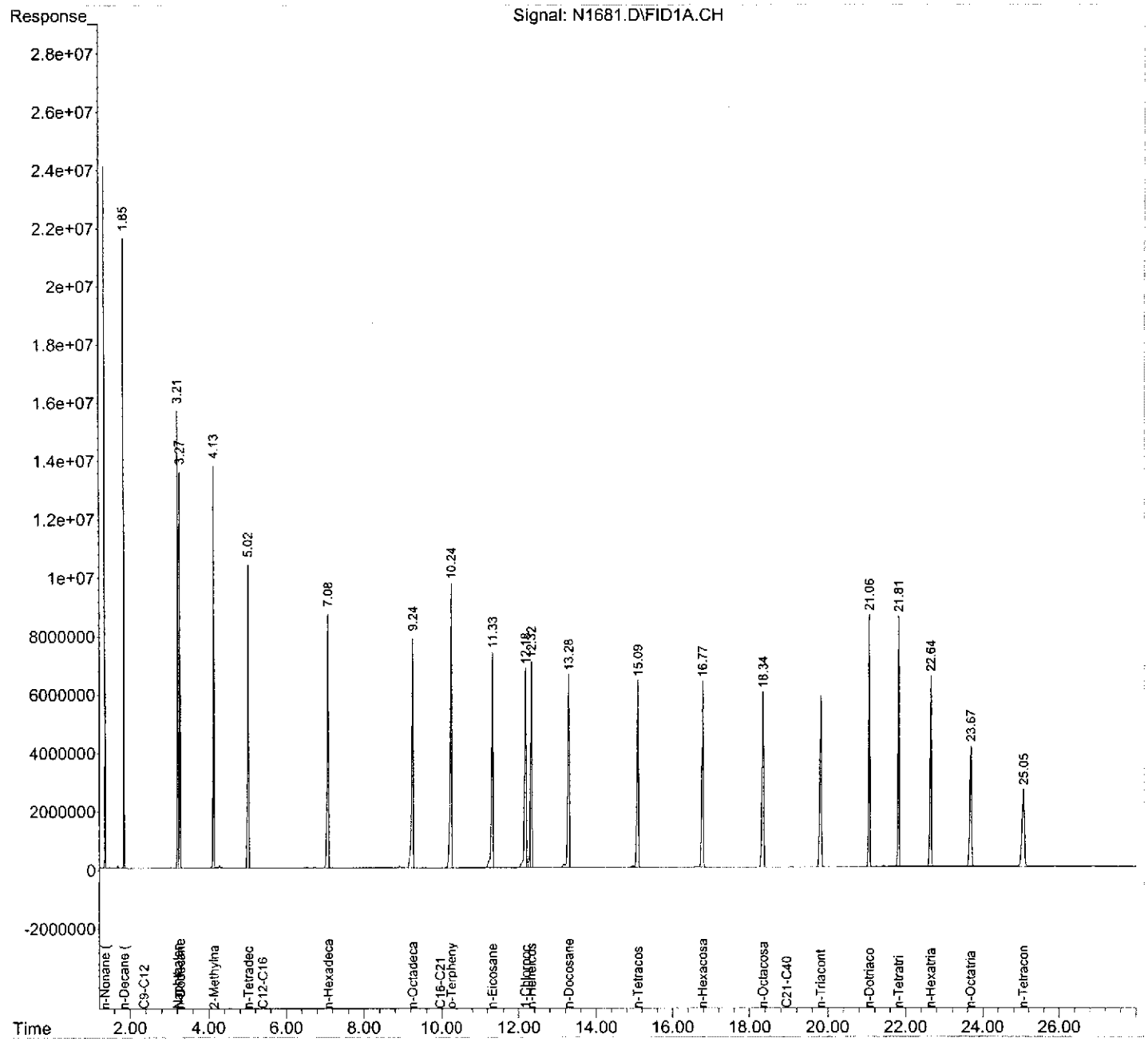
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : N1681.D
Signal(s) : FID1A.CH
Acq On : 09 Jul 2012 15:20
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 07:58:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 **Instrument ID:** GC-N

Data File: N1709.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.34	1.28	1.42	928218	722485	22.16
n-Decane (C10)	1.85	1.78	1.92	966280	741707	23.24
n-Dodecane (C12)	3.27	3.20	3.34	966897	763892	21.00
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	778989	22.79
n-Hexadecane (C16)	7.08	7.00	7.16	1023767	771750	24.62
n-Octadecane (C18)	9.24	9.17	9.33	1040886	758346	27.14
n-Eicosane (C20)	11.33	11.25	11.41	1020661	735964	27.89
n-Heneicosane (C21)	12.32	12.25	12.41	1001637	713346	28.78
n-Docosane (C22)	13.28	13.20	13.38	990182	696635	29.65
n-Tetracosane (C24)	15.09	15.01	15.19	950314	667672	29.74
n-Hexacosane (C26)	16.77	16.69	16.87	913199	642140	29.68
n_Octacosane (C28)	18.34	18.26	18.44	867213	635079	26.77
n-Triacontane (C30)	19.81	19.72	19.92	833552	642876	22.88
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	648515	18.51
n-Tetratriacontane (C34)	21.82	21.71	21.91	796293	677173	14.96
n-Hexatriacontane (C36)	22.65	22.49	22.79	775851	679259	12.45
n-Octatriacontane (C38)	23.69	23.54	23.84	762326	674045	11.58
n-Tetracontane (40)	25.08	24.93	25.23	758303	673054	11.24
C9-C12	2.36	2.26	2.46	3060279	2323822	24.07
C12-C16	5.40	5.30	5.50	2129672	1622030	23.84
C16-C21	9.95	9.84	10.06	3157878	2449187	22.44
C21-C40	18.95	18.84	19.06	9157580	6885743	24.81

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: N1727.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.35	1.28	1.42	928218	738596	20.43
n-Decane (C10)	1.85	1.78	1.92	966280	759987	21.35
n-Dodecane (C12)	3.28	3.20	3.34	966897	778329	19.50
n-Tetradecane (C14)	5.03	4.95	5.09	1008968	786988	22.00
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	779113	23.90
n-Octadecane (C18)	9.25	9.17	9.33	1040886	772580	25.78
n-Eicosane (C20)	11.34	11.25	11.41	1020661	761297	25.41
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	743657	25.76
n-Docosane (C22)	13.29	13.20	13.38	990182	736351	25.63
n-Tetracosane (C24)	15.10	15.01	15.19	950314	720836	24.15
n-Hexacosane (C26)	16.78	16.69	16.87	913199	707519	22.52
n_Octacosane (C28)	18.35	18.26	18.44	867213	700242	19.25
n-Triacontane (C30)	19.82	19.72	19.92	833552	701459	15.85
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	696258	12.52
n-Tetratriacontane (C34)	21.82	21.71	21.91	796293	727072	8.69
n-Hexatriacontane (C36)	22.65	22.49	22.79	775851	713191	8.08
n-Octatriacontane (C38)	23.69	23.54	23.84	762326	681468	10.61
n-Tetracontane (40)	25.08	24.93	25.23	758303	643488	15.14
C9-C12	2.36	2.26	2.46	3060279	2303607	24.73
C12-C16	5.40	5.30	5.50	2129672	1597390	24.99
C16-C21	9.95	9.84	10.06	3157878	2407818	23.75
C21-C40	18.95	18.84	19.06	9157580	8713298	4.85

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1709.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 10:15
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:28:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 1-Chlorooctadecane	12.18	170513424	176.434 ng	
Spiked Amount 50.000		Recovery	= 352.87%	
24) S o-Terphenyl	10.24	247880044	201.336 ng	
Spiked Amount 50.000		Recovery	= 402.67%	
25) S Naphthalene	3.21	205619764	186.935 ng	
Spiked Amount 50.000		Recovery	= 373.87%	
26) S 2-Methylnaphthalene	4.14	210216434	192.160 ng	
Spiked Amount 50.000		Recovery	= 384.32%	
Target Compounds				
2) T n-Nonane (C9)	1.34	180621169	194.589 ng	
3) T n-Decane (C10)	1.85	185426650	191.897 ng	
4) T n-Dodecane (C12)	3.27	190973103	197.511 ng	
5) T n-Tetradecane (C14)	5.02	194747203	193.016 ng	
6) T n-Hexadecane (C16)	7.08	192937540	188.458 ng	
7) T n-Octadecane (C18)	9.24	189586380	182.139 ng	
8) T n-Eicosane (C20)	11.33	183990977	180.267 ng	
9) T n-Heneicosane (C21)	12.32	178336581	178.045 ng	
10) T n-Docosane (C22)	13.28	174158770	175.886 ng	
11) T n-Tetracosane (C24)	15.09	166917930	175.645 ng	m
12) T n-Hexacosane (C26)	16.77	160535003	175.794 ng	
13) T n-Octacosane (C28)	18.34	158769764	183.080 ng	
14) T n-Triacontane (C30)	19.81	160719033	192.812 ng	
15) T n-Dotriacontane (C32)	21.06	162128677	203.714 ng	
16) T n-Tetratriacontane (C34)	21.82	169293310	212.602 ng	
17) T n-Hexatriacontane (C36)	22.65	169814639	218.875 ng	
18) T n-Octatriacontane (C38)	23.69	168511354	221.049 ng	
19) T n-Tetracontane (40)	25.08	168263418	221.895 ng	
20) H C9-C12	2.36	580955616	569.512 ng	
21) H C12-C16	5.40	405507519	380.817 ng	
22) H C16-C21	9.95	612296681	581.685 ng	
23) H C21-C40	18.95	1721435738	1879.793 ng	

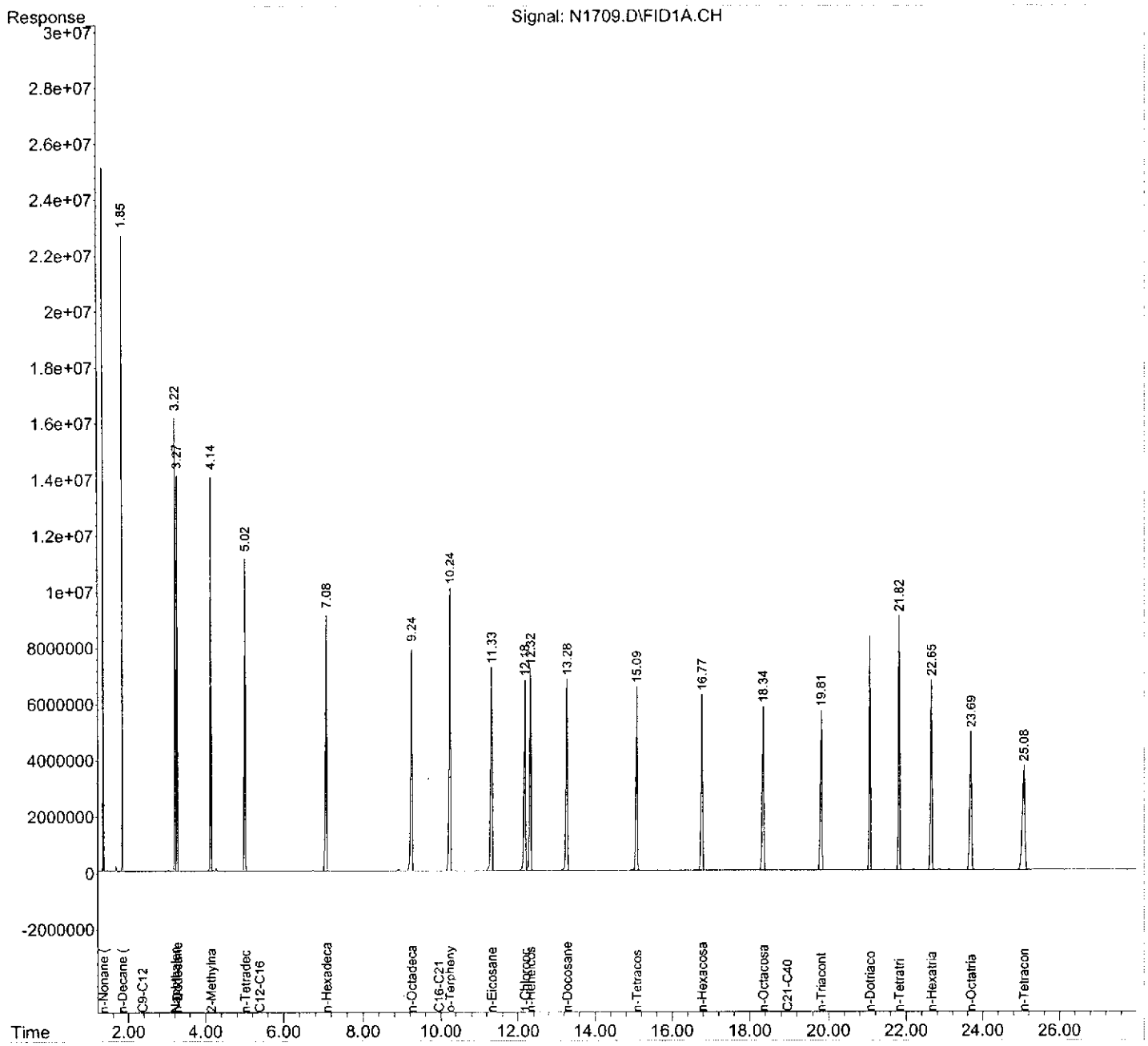
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1709.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 10:15
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:28:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1727.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 8:14
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 45 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:44:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	177182423	183.335 ng
Spiked Amount 50.000		Recovery	= 366.67%
24) S o-Terphenyl	10.25	249362432	202.540 ng
Spiked Amount 50.000		Recovery	= 405.08%
25) S Naphthalene	3.22	209566305	190.523 ng
Spiked Amount 50.000		Recovery	= 381.05%
26) S 2-Methylnaphthalene	4.14	213142699	194.834 ng
Spiked Amount 50.000		Recovery	= 389.67%
Target Compounds			
2) T n-Nonane (C9)	1.35	184648989	198.928 ng
3) T n-Decane (C10)	1.85	189996798	196.627 ng
4) T n-Dodecane (C12)	3.28	194582135	201.244 ng
5) T n-Tetradecane (C14)	5.03	196747125	194.998 ng
6) T n-Hexadecane (C16)	7.09	194778373	190.256 ng
7) T n-Octadecane (C18)	9.25	193145078	185.558 ng
8) T n-Eicosane (C20)	11.34	190324263	186.472 ng
9) T n-Heneicosane (C21)	12.33	185914339	185.610 ng
10) T n-Docosane (C22)	13.29	184087819	185.913 ng
11) T n-Tetracosane (C24)	15.10	180209095	189.631 ng
12) T n-Hexacosane (C26)	16.78	176879843	193.693 ng
13) T n-Octacosane (C28)	18.35	175060414	201.866 ng
14) T n-Triacontane (C30)	19.82	175364824	210.383 ng
15) T n-Dotriacontane (C32)	21.06	174064556	218.711 ng
16) T n-Tetratriacontane (C34)	21.82	181768115	228.268 ng
17) T n-Hexatriacontane (C36)	22.65	178297790	229.809 ng
18) T n-Octatriacontane (C38)	23.69	170367019	223.483 ng
19) T n-Tetracontane (40)	25.08	160872101	212.148 ng
20) H C9-C12	2.36	575901802	564.558 ng
21) H C12-C16	5.40	399347602	375.032 ng
22) H C16-C21	9.95	601954446	571.860 ng
23) H C21-C40	18.95	2178324431	2378.712 ng

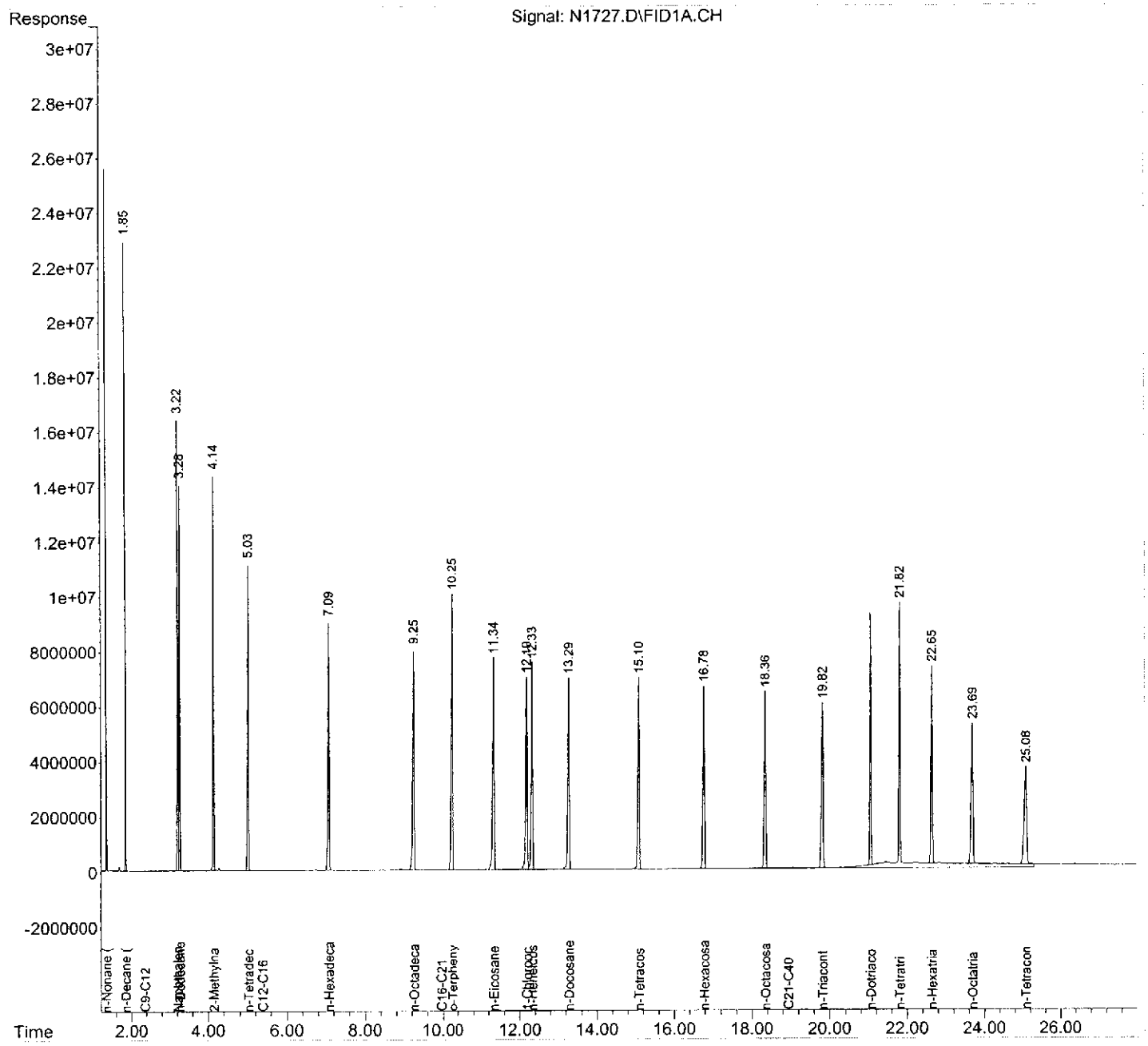
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1727.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 8:14
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 45 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:44:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2012 **Instrument ID:** GC-N

Data File: NB1253.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	639907	6.20
Napthalene	3.14	3.02	3.26	655131	771539	17.77
2-Methylnaphthalene	3.99	3.88	4.12	678249	833666	22.91
Acenaphthylene	5.40	5.28	5.52	699888	898558	28.39
Acenaphthene	5.75	5.64	5.88	720622	924413	28.28
Fluorene	6.76	6.64	6.88	730458	946525	29.58
Phenanthrene	8.84	8.72	8.96	753650	976137	29.52
Anthracene	8.95	8.84	9.08	762143	981554	28.79
Fluoroanthene	11.70	11.59	11.83	807346	964320	19.44
Pyrene	12.21	12.10	12.34	828781	963918	16.31
Benzo[a]anthracene	15.29	15.18	15.42	831625	859937	3.40
Chrysene	15.40	15.30	15.54	834971	858571	2.83
Benzo[b]fluoranthene	17.96	17.86	18.10	1684593	1699857	0.91
Benzo[k]fluoranthene	17.96	17.86	18.10	1684720	1699857	0.90
Benzo[a]pyrene	18.55	18.45	18.69	829780	839327	1.15
Indeno[1,2,3-cd]pyrene	20.87	20.75	20.99	1621239	1615555	0.35
Dibenz[a,h]anthracene	20.87	20.75	20.99	1621409	1615555	0.36
Benzo[g,h,i]perylene	21.13	21.02	21.26	810513	795977	1.79
C10-C12	2.70	2.58	2.82	1282694	1417045	10.47
C12-C16	4.95	4.83	5.07	2123893	2628469	23.76
C16-C21	9.60	9.48	9.72	3939025	4915757	24.80
C21-C36	17.20	17.08	17.32	7147816	6884734	3.68

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/06/2012 **Instrument ID:** GC-N

Data File: NB1274.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	531502	11.79
Napthalene	3.14	3.02	3.26	655131	643569	1.76
2-Methylnaphthalene	3.99	3.88	4.12	678249	694798	2.44
Acenaphthylene	5.39	5.28	5.52	699888	745874	6.57
Acenaphthene	5.75	5.64	5.88	720622	767146	6.46
Fluorene	6.75	6.64	6.88	730458	791780	8.40
Phenanthrene	8.83	8.72	8.96	753650	797233	5.78
Anthracene	8.94	8.84	9.08	762143	790832	3.76
Fluoroanthene	11.69	11.59	11.83	807346	765574	5.17
Pyrene	12.20	12.10	12.34	828781	764928	7.70
Benzo[a]anthracene	15.28	15.18	15.42	831625	695343	16.39
Chrysene	15.39	15.30	15.54	834971	691339	17.20
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1393392	17.29
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1394046	17.25
Benzo[a]pyrene	18.54	18.45	18.69	829780	686680	17.25
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1316174	18.82
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1318806	18.66
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	637951	21.29
C10-C12	2.70	2.58	2.82	1282694	1182293	7.83
C12-C16	4.95	4.83	5.07	2123893	2222740	4.65
C16-C21	9.60	9.48	9.72	3939025	3972934	0.86
C21-C36	17.20	17.08	17.32	7147816	5737704	19.73

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 **Instrument ID:** GC-N

Data File: NB1304.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	618993	2.73
Napthalene	3.13	3.02	3.26	655131	733529	11.97
2-Methylnaphthalene	3.99	3.88	4.12	678249	780786	15.12
Acenaphthylene	5.39	5.28	5.52	699888	823393	17.65
Acenaphthene	5.75	5.64	5.88	720622	841554	16.78
Fluorene	6.75	6.64	6.88	730458	859625	17.68
Phenanthrene	8.83	8.72	8.96	753650	855317	13.49
Anthracene	8.95	8.84	9.08	762143	857994	12.58
Fluoroanthene	11.70	11.59	11.83	807346	824289	2.10
Pyrene	12.21	12.10	12.34	828781	825759	0.36
Benzo[a]anthracene	15.29	15.18	15.42	831625	768058	7.64
Chrysene	15.40	15.30	15.54	834971	762915	8.63
Benzo[b]fluoranthene	17.96	17.86	18.10	1684593	720117	57.25
Benzo[k]fluoranthene	17.96	17.86	18.10	1684720	720117	57.26
Benzo[a]pyrene	18.56	18.45	18.69	829780	745461	10.16
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1231428	24.04
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1231428	24.05
Benzo[g,h,i]perylene	21.12	21.02	21.26	810513	574082	29.17
C10-C12	2.70	2.58	2.82	1282694	1357189	5.81
C12-C16	4.95	4.83	5.07	2123893	2462432	15.94
C16-C21	9.60	9.48	9.72	3939025	4270724	8.42
C21-C36	17.20	17.08	17.32	7147816	6056989	15.26

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 **Instrument ID:** GC-N

Data File: NB1313.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	684077	13.53
Napthalene	3.14	3.02	3.26	655131	798425	21.87
2-Methylnaphthalene	3.99	3.88	4.12	678249	842975	24.29
Acenaphthylene	5.40	5.28	5.52	699888	875136	25.04
Acenaphthene	5.75	5.64	5.88	720622	893069	23.93
Fluorene	6.75	6.64	6.88	730458	902290	23.52
Phenanthrene	8.83	8.72	8.96	753650	873832	15.95
Anthracene	8.94	8.84	9.08	762143	875247	14.84
Fluoroanthene	11.70	11.59	11.83	807346	829126	2.70
Pyrene	12.20	12.10	12.34	828781	832044	0.39
Benzo[a]anthracene	15.28	15.18	15.42	831625	781805	5.99
Chrysene	15.39	15.30	15.54	834971	780727	6.50
Benzo[b]fluoranthene	17.96	17.86	18.10	1684593	1567647	6.94
Benzo[k]fluoranthene	17.96	17.86	18.10	1684720	1568867	6.88
Benzo[a]pyrene	18.55	18.45	18.69	829780	763485	7.99
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1269197	21.71
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1269197	21.72
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	585276	27.79
C10-C12	2.70	2.58	2.82	1282694	1486871	15.92
C12-C16	4.95	4.83	5.07	2123893	2629167	23.79
C16-C21	9.60	9.48	9.72	3939025	4365509	10.83
C21-C36	17.20	17.08	17.32	7147816	6070755	15.07

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1253.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 11:35
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:35:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.59	223263522	311.107	ng	
Spiked Amount	50.000		Recovery	= 622.21%		
2) S	2-Bromonaphthalene	5.64	163804552	327.452	ng	
Spiked Amount	50.000		Recovery	= 654.90%		
3) S	o-Terphenyl	10.01	311890698	337.110	ng	
Spiked Amount	50.000		Recovery	= 674.22%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	159976831	265.494	ng	
5) T	Napthalene	3.14	192884680	294.422	ng	
6) T	2-Methylnaphthalene	3.99	208416456	307.286	ng	
7) T	Acenaphthylene	5.40	224639397	320.965	ng	
8) T	Acenaphthene	5.75	231103318	320.566	ng	
9) T	Fluorene	6.76	236631228	323.949	ng	m
10) T	Phenanthrene	8.84	244034359	323.803	ng	m
11) T	Anthracene	8.95	245388471	321.600	ng	
12) T	Fluoroanthene	11.70	241080048	298.608	ng	
13) T	Pyrene	12.21	240979561	290.764	ng	
14) T	Benzo[a]anthracene	15.29	214984210	258.832	ng	
15) T	Chrysene	15.40	214642716	256.944	ng	
16) T	Benzo[b]fluoranthene	17.96	424964236	252.238	ng	
17) T	Benzo[k]fluoranthene	17.96	424964236	252.238	ng	
18) T	Benzo[a]pyrene	18.55	209831802	252.876	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.87	403888835	249.335	ng	
20) T	Dibenz[a,h]anthracene	20.87	403888835	249.093	ng	
21) T	Benzo[g,h,i]perylene	21.13	198994257	245.256	ng	
22) H	C10-C12	2.70	354261168	552.371	ng	
23) H	C12-C16	4.95	657117346	928.179	ng	
24) H	C16-C21	9.60	1228939149	1559.954	ng	
25) H	C21-C36	17.20	1721183406	1926.388	ng	

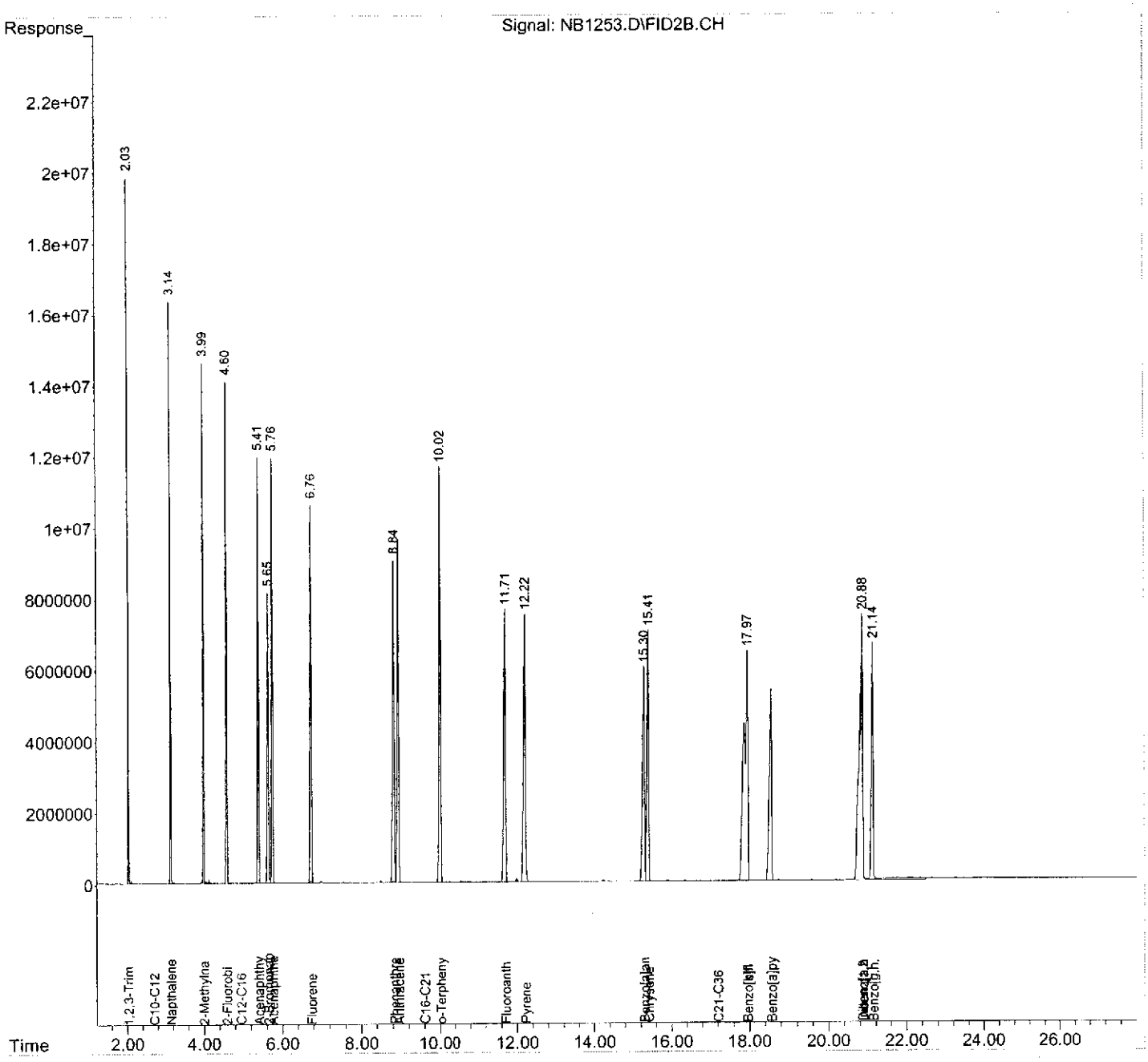
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1253.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 11:35
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:35:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Mon Jul 09 07:39:13 2012 RPT1

E12-06466 0532

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1274.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 23:41
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 73 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:31:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.59	185933459	259.090	ng	
Spiked Amount	50.000		Recovery	= 518.18%		
2) S	2-Bromonaphthalene	5.63	135669543	271.209	ng	
Spiked Amount	50.000		Recovery	= 542.42%		
3) S	o-Terphenyl	10.01	254372728	274.941	ng	
Spiked Amount	50.000		Recovery	= 549.88%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	132875516	220.518	ng	
5) T	Napthalene	3.14	160892284	245.588	ng	
6) T	2-Methylnaphthalene	3.99	173699467	256.100	ng	
7) T	Acenaphthylene	5.39	186468390	266.426	ng	
8) T	Acenaphthene	5.75	191786509	266.029	ng	
9) T	Fluorene	6.75	197945054	270.988	ng	
10) T	Phenanthrene	8.83	199308159	264.457	ng	
11) T	Anthracene	8.94	197708020	259.111	ng	
12) T	Fluoroanthene	11.69	191393588	237.065	ng	
13) T	Pyrene	12.20	191232110	230.739	ng	
14) T	Benzo[a]anthracene	15.28	173835690	209.291	ng	
15) T	Chrysene	15.39	172834797	206.896	ng	
16) T	Benzo[b]fluoranthene	17.95	348347944	206.763	ng	m
17) T	Benzo[k]fluoranthene	17.95	348511561	206.860	ng	m
18) T	Benzo[a]pyrene	18.54	171670043	206.886	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	329043543	203.131	ng	m
20) T	Dibenz[a,h]anthracene	20.86	329701541	203.339	ng	m
21) T	Benzo[g,h,i]perylene	21.11	159487780	196.565	ng	
22) H	C10-C12	2.70	295573141	460.863	ng	
23) H	C12-C16	4.95	555685050	784.905	ng	
24) H	C16-C21	9.60	993233581	1260.761	ng	
25) H	C21-C36	17.20	1434426057	1605.443	ng	

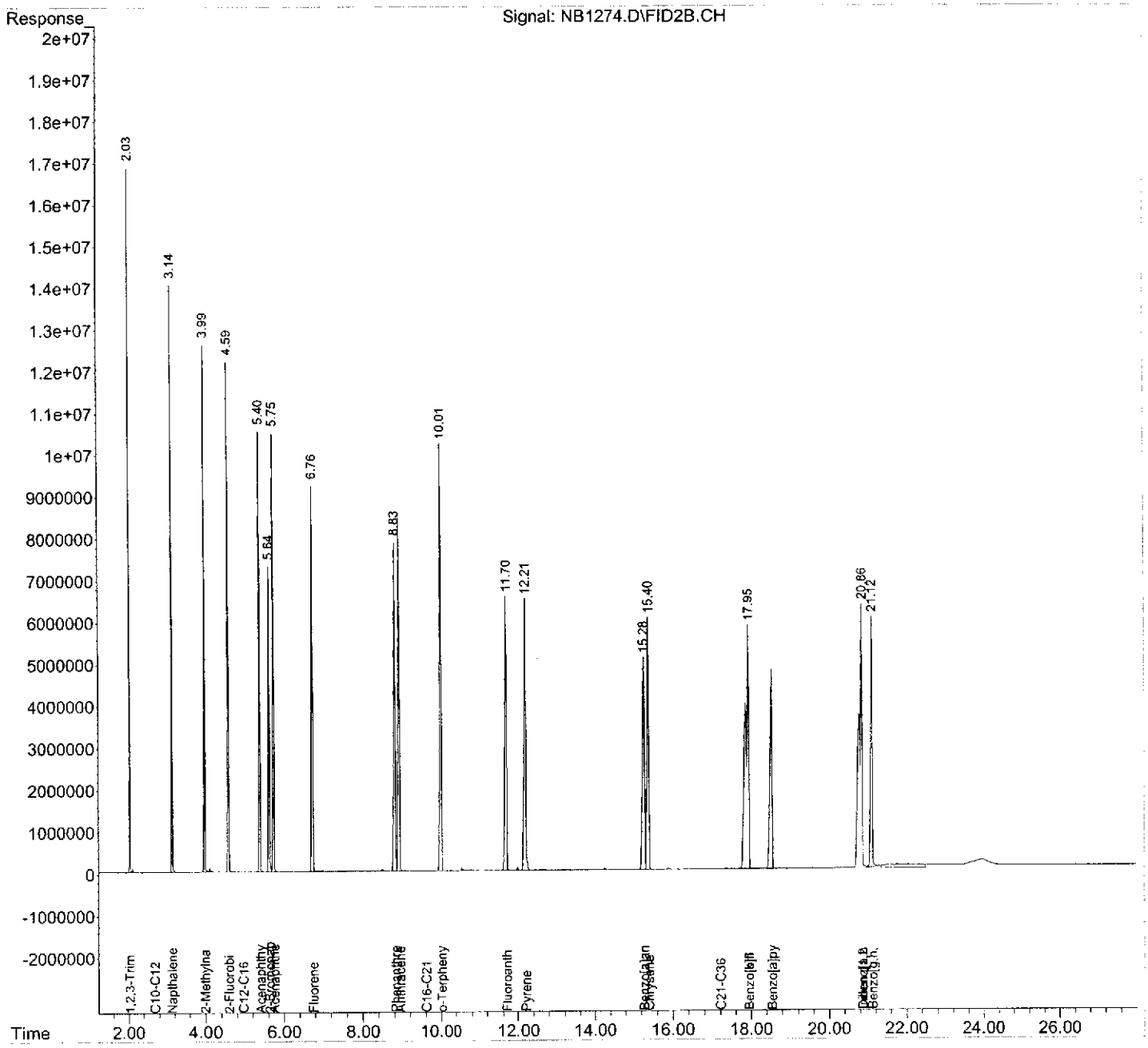
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1274.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 23:41
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 73 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:31:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1313.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 15:20
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:49:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.59	237132199	330.433 ng	
Spiked Amount	50.000		Recovery	= 660.87%	
2) S	2-Bromonaphthalene	5.64	167355371	334.550 ng	
Spiked Amount	50.000		Recovery	= 669.10%	
3) S	o-Terphenyl	10.01	279908044	302.541 ng	
Spiked Amount	50.000		Recovery	= 605.08%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	171019265	283.820 ng	
5) T	Napthalene	3.14	199606325	304.682 ng	
6) T	2-Methylnaphthalene	3.99	210743641	310.717 ng	
7) T	Acenaphthylene	5.40	218784023	312.599 ng	
8) T	Acenaphthene	5.75	223267275	309.697 ng	
9) T	Fluorene	6.75	225572487	308.810 ng	
10) T	Phenanthrene	8.83	218457909	289.866 ng	
11) T	Anthracene	8.94	218811780	286.769 ng	
12) T	Fluoroanthene	11.70	207281595	256.744 ng	
13) T	Pyrene	12.20	208010923	250.984 ng	
14) T	Benzo[a]anthracene	15.28	195451340	235.315 ng	
15) T	Chrysene	15.39	195181635	233.647 ng	
16) T	Benzo[b]fluoranthene	17.96	391911800	232.620 ng	m
17) T	Benzo[k]fluoranthene	17.96	392216721	232.801 ng	m
18) T	Benzo[a]pyrene	18.55	190871341	230.026 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	317299285	195.880 ng	
20) T	Dibenz[a,h]anthracene	20.86	317299285	195.690 ng	
21) T	Benzo[g,h,i]perylene	21.11	146318892	180.335 ng	
22) H	C10-C12	2.70	371717830	579.589 ng	
23) H	C12-C16	4.95	657291718	928.425 ng	
24) H	C16-C21	9.60	1091377285	1385.339 ng	
25) H	C21-C36	17.20	1517688735	1698.632 ng	

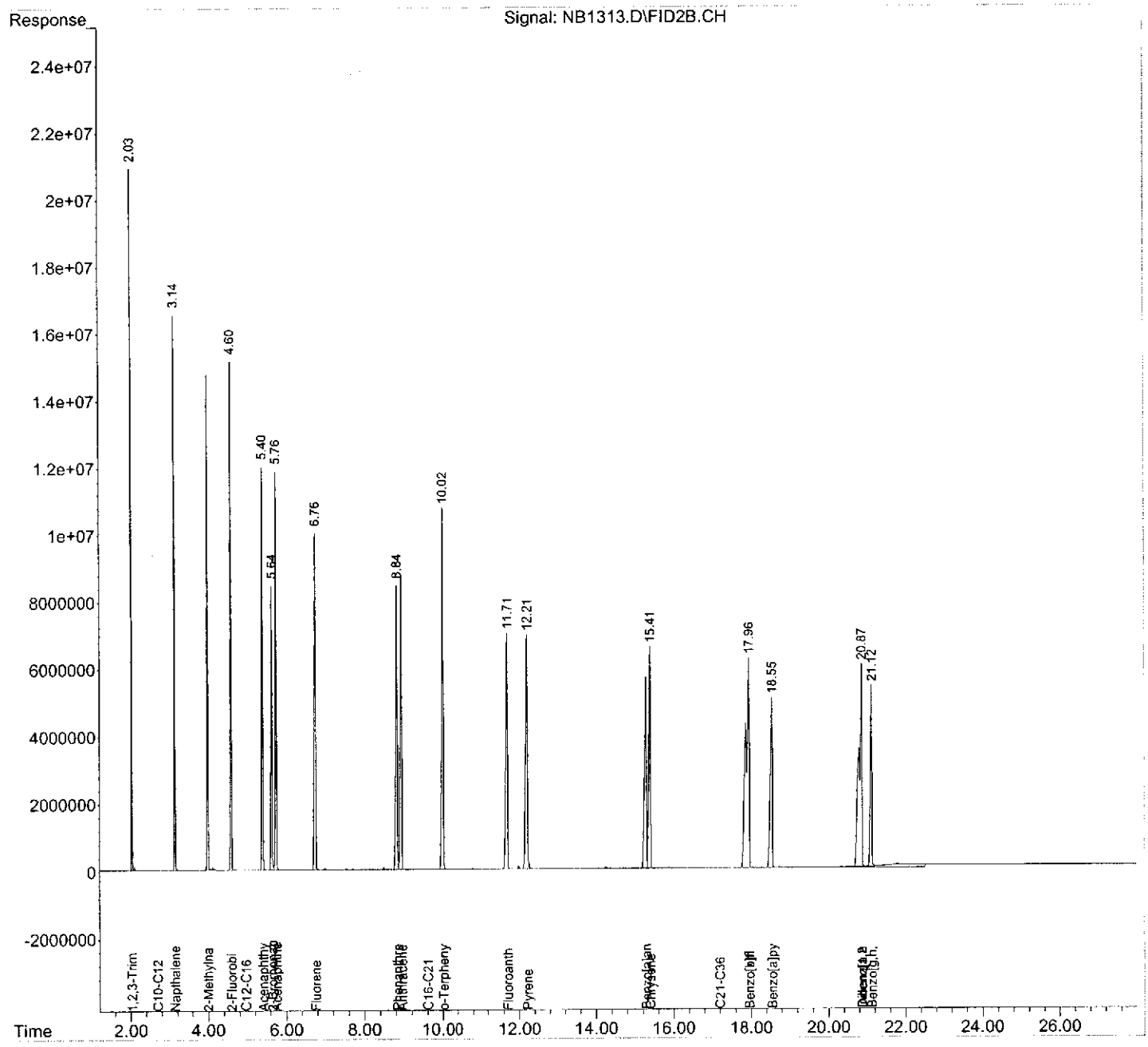
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1313.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 15:20
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:49:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Mon Jul 09 15:56:26 2012 RPT1

E12-06466 0536

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1304.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 8:30
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:57:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.59	220106534	306.708	ng	
Spiked Amount	50.000		Recovery	= 613.42%		
2) S	2-Bromonaphthalene	5.64	157978626	315.806	ng	
Spiked Amount	50.000		Recovery	= 631.61%		
3) S	o-Terphenyl	10.01	271458943	293.409	ng	
Spiked Amount	50.000		Recovery	= 586.82%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	154748272	256.817	ng	
5) T	Napthalene	3.13	183382303	279.917	ng	
6) T	2-Methylnaphthalene	3.99	195196425	287.795	ng	
7) T	Acenaphthylene	5.39	205848220	294.116	ng	
8) T	Acenaphthene	5.75	210388418	291.832	ng	
9) T	Fluorene	6.75	214906274	294.208	ng	
10) T	Phenanthrene	8.83	213829309	283.725	ng	
11) T	Anthracene	8.95	214498435	281.117	ng	
12) T	Fluoroanthene	11.70	206072369	255.247	ng	
13) T	Pyrene	12.21	206439675	249.088	ng	
14) T	Benzo[a]anthracene	15.29	192014471	231.177	ng	
15) T	Chrysene	15.40	190728806	228.317	ng	
16) T	Benzo[b]fluoranthene	17.97	383130557	227.408	ng	m
17) T	Benzo[k]fluoranthene	17.97	383061531	227.367	ng	m
18) T	Benzo[a]pyrene	18.56	186365263	224.596	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	307856928	190.051	ng	
20) T	Dibenz[a,h]anthracene	20.86	307856928	189.867	ng	
21) T	Benzo[g,h,i]perylene	21.12	143520466	176.886	ng	
22) H	C10-C12	2.70	339297341	529.039	ng	
23) H	C12-C16	4.95	615608047	869.547	ng	
24) H	C16-C21	9.60	1067680883	1355.260	ng	
25) H	C21-C36	17.20	1514247312	1694.780	ng	

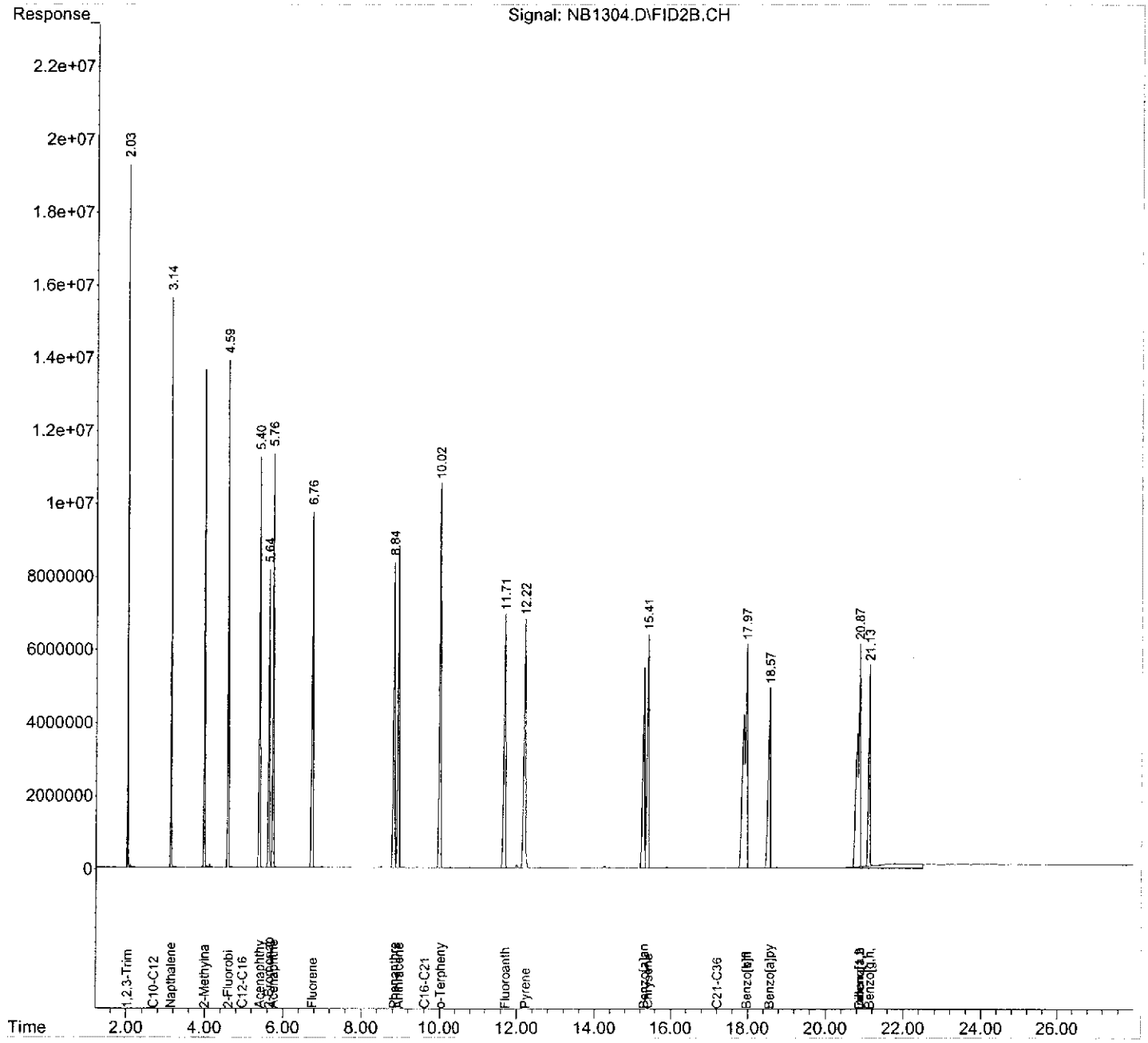
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1304.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 8:30
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:57:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/07/2012 **Instrument ID:** GC-N

Data File: NB1276.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	560941	6.91
Napthalene	3.14	3.02	3.26	655131	676337	3.24
2-Methylnaphthalene	3.99	3.88	4.12	678249	728571	7.42
Acenaphthylene	5.39	5.28	5.52	699888	778100	11.17
Acenaphthene	5.75	5.64	5.88	720622	799473	10.94
Fluorene	6.75	6.64	6.88	730458	824600	12.89
Phenanthrene	8.83	8.72	8.96	753650	827467	9.79
Anthracene	8.94	8.84	9.08	762143	820351	7.64
Fluoroanthene	11.69	11.59	11.83	807346	791737	1.93
Pyrene	12.20	12.10	12.34	828781	791216	4.53
Benzo[a]anthracene	15.28	15.18	15.42	831625	721070	13.29
Chrysene	15.39	15.30	15.54	834971	718754	13.92
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1440695	14.48
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1441597	14.43
Benzo[a]pyrene	18.54	18.45	18.69	829780	709533	14.49
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1354957	16.42
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1354957	16.43
Benzo[g,h,i]perylene	21.10	21.02	21.26	810513	662290	18.29
C10-C12	2.70	2.58	2.82	1282694	1242688	3.12
C12-C16	4.95	4.83	5.07	2123893	2320905	9.28
C16-C21	9.60	9.48	9.72	3939025	4120631	4.61
C21-C36	17.20	17.08	17.32	7147816	5882847	17.70

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/07/2012 **Instrument ID:** GC-N

Data File: NB1302.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	633925	5.20
Napthalene	3.14	3.02	3.26	655131	756933	15.54
2-Methylnaphthalene	3.99	3.88	4.12	678249	806906	18.97
Acenaphthylene	5.40	5.28	5.52	699888	848104	21.18
Acenaphthene	5.75	5.64	5.88	720622	867969	20.45
Fluorene	6.75	6.64	6.88	730458	885088	21.17
Phenanthrene	8.83	8.72	8.96	753650	874727	16.07
Anthracene	8.94	8.84	9.08	762143	873525	14.61
Fluoroanthene	11.70	11.59	11.83	807346	843254	4.45
Pyrene	12.21	12.10	12.34	828781	850243	2.59
Benzo[a]anthracene	15.29	15.18	15.42	831625	799533	3.86
Chrysene	15.40	15.30	15.54	834971	795751	4.70
Benzo[b]fluoranthene	17.97	17.86	18.10	1684593	1586405	5.83
Benzo[k]fluoranthene	17.97	17.86	18.10	1684720	1586394	5.84
Benzo[a]pyrene	18.55	18.45	18.69	829780	765234	7.78
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1253447	22.69
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1253447	22.69
Benzo[g,h,i]perylene	21.10	21.02	21.26	810513	587016	27.57
C10-C12	2.70	2.58	2.82	1282694	1396579	8.88
C12-C16	4.95	4.83	5.07	2123893	2540600	19.62
C16-C21	9.60	9.48	9.72	3939025	4382040	11.25
C21-C36	17.20	17.08	17.32	7147816	6306184	11.77

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 **Instrument ID:** GC-N

Data File: NB1304.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	618993	2.73
Napthalene	3.13	3.02	3.26	655131	733529	11.97
2-Methylnaphthalene	3.99	3.88	4.12	678249	780786	15.12
Acenaphthylene	5.39	5.28	5.52	699888	823393	17.65
Acenaphthene	5.75	5.64	5.88	720622	841554	16.78
Fluorene	6.75	6.64	6.88	730458	859625	17.68
Phenanthrene	8.83	8.72	8.96	753650	855317	13.49
Anthracene	8.95	8.84	9.08	762143	857994	12.58
Fluoroanthene	11.70	11.59	11.83	807346	824289	2.10
Pyrene	12.21	12.10	12.34	828781	825759	0.36
Benzo[a]anthracene	15.29	15.18	15.42	831625	768058	7.64
Chrysene	15.40	15.30	15.54	834971	762915	8.63
Benzo[b]fluoranthene	17.97	17.86	18.10	1684593	1532522	9.03
Benzo[k]fluoranthene	17.97	17.86	18.10	1684720	1532246	9.05
Benzo[a]pyrene	18.56	18.45	18.69	829780	745461	10.16
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1231428	24.04
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1231428	24.05
Benzo[g,h,i]perylene	21.12	21.02	21.26	810513	574082	29.17
C10-C12	2.70	2.58	2.82	1282694	1357189	5.81
C12-C16	4.95	4.83	5.07	2123893	2462432	15.94
C16-C21	9.60	9.48	9.72	3939025	4270724	8.42
C21-C36	17.20	17.08	17.32	7147816	6056989	15.26

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 **Instrument ID:** GC-N

Data File: NB1313.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	684077	13.53
Napthalene	3.14	3.02	3.26	655131	798425	21.87
2-Methylnaphthalene	3.99	3.88	4.12	678249	842975	24.29
Acenaphthylene	5.40	5.28	5.52	699888	875136	25.04
Acenaphthene	5.75	5.64	5.88	720622	893069	23.93
Fluorene	6.75	6.64	6.88	730458	902290	23.52
Phenanthrene	8.83	8.72	8.96	753650	873832	15.95
Anthracene	8.94	8.84	9.08	762143	875247	14.84
Fluoroanthene	11.70	11.59	11.83	807346	829126	2.70
Pyrene	12.20	12.10	12.34	828781	832044	0.39
Benzo[a]anthracene	15.28	15.18	15.42	831625	781805	5.99
Chrysene	15.39	15.30	15.54	834971	780727	6.50
Benzo[b]fluoranthene	17.96	17.86	18.10	1684593	1567647	6.94
Benzo[k]fluoranthene	17.96	17.86	18.10	1684720	1568867	6.88
Benzo[a]pyrene	18.55	18.45	18.69	829780	763485	7.99
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1269197	21.71
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1269197	21.72
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	585276	27.79
C10-C12	2.70	2.58	2.82	1282694	1486871	15.92
C12-C16	4.95	4.83	5.07	2123893	2629167	23.79
C16-C21	9.60	9.48	9.72	3939025	4365509	10.83
C21-C36	17.20	17.08	17.32	7147816	6070755	15.07

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1276.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 00:50
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 73 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:55:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.59	194777865	271.414 ng	
Spiked Amount	50.000		Recovery	= 542.83%	
2) S	2-Bromonaphthalene	5.63	141679657	283.223 ng	
Spiked Amount	50.000		Recovery	= 566.45%	
3) S	o-Terphenyl	10.01	264546140	285.937 ng	
Spiked Amount	50.000		Recovery	= 571.87%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	140235217	232.732 ng	
5) T	Napthalene	3.14	169084218	258.092 ng	
6) T	2-Methylnaphthalene	3.99	182142673	268.549 ng	
7) T	Acenaphthylene	5.39	194524922	277.937 ng	
8) T	Acenaphthene	5.75	199868337	277.240 ng	
9) T	Fluorene	6.75	206150095	282.220 ng	
10) T	Phenanthrene	8.83	206866640	274.486 ng	
11) T	Anthracene	8.94	205087823	268.783 ng	
12) T	Fluoroanthene	11.69	197934128	245.166 ng	
13) T	Pyrene	12.20	197803976	238.669 ng	
14) T	Benzo[a]anthracene	15.28	180267547	217.035 ng	
15) T	Chrysene	15.39	179688616	215.101 ng	
16) T	Benzo[b]fluoranthene	17.95	360173823	213.782 ng	m
17) T	Benzo[k]fluoranthene	17.95	360399274	213.916 ng	m
18) T	Benzo[a]pyrene	18.54	177383323	213.771 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.85	338739134	209.116 ng	
20) T	Dibenz[a,h]anthracene	20.85	338739134	208.913 ng	
21) T	Benzo[g,h,i]perylene	21.10	165572543	204.064 ng	
22) H	C10-C12	2.70	310672029	484.406 ng	
23) H	C12-C16	4.95	580226314	819.570 ng	
24) H	C16-C21	9.60	1030157855	1307.631 ng	
25) H	C21-C36	17.20	1470711841	1646.055 ng	

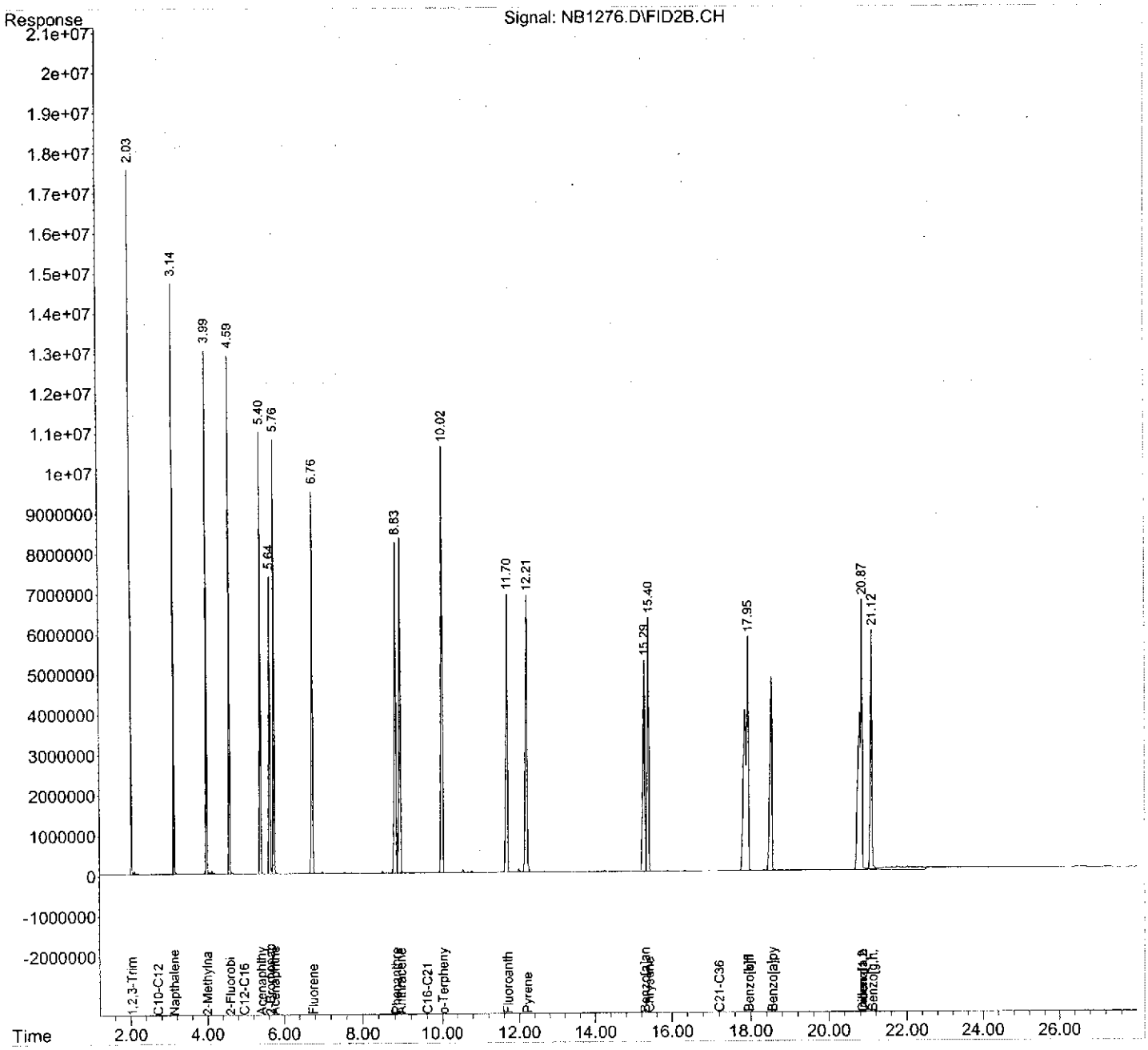
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1276.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 00:50
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 73 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:55:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1302.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 15:40
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 08:24:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.59	222717387	310.346 ng	
Spiked Amount	50.000		Recovery	= 620.69%	
2) S	2-Bromonaphthalene	5.64	159446871	318.741 ng	
Spiked Amount	50.000		Recovery	= 637.48%	
3) S	o-Terphenyl	10.01	278891006	301.442 ng	
Spiked Amount	50.000		Recovery	= 602.88%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	158481313	263.012 ng	
5) T	Napthalene	3.14	189233213	288.848 ng	
6) T	2-Methylnaphthalene	3.99	201726398	297.422 ng	
7) T	Acenaphthylene	5.40	212026005	302.943 ng	
8) T	Acenaphthene	5.75	216992361	300.993 ng	
9) T	Fluorene	6.75	221272051	302.922 ng	
10) T	Phenanthrene	8.83	218681701	290.163 ng	
11) T	Anthracene	8.94	218381244	286.205 ng	
12) T	Fluoroanthene	11.70	210813623	261.119 ng	
13) T	Pyrene	12.21	212560780	256.474 ng	
14) T	Benzo[a]anthracene	15.29	199883290	240.651 ng	
15) T	Chrysene	15.40	198937695	238.144 ng	
16) T	Benzo[b]fluoranthene	17.97	396601369	235.403 ng	m
17) T	Benzo[k]fluoranthene	17.97	396598565	235.402 ng	m
18) T	Benzo[a]pyrene	18.55	191308487	230.553 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.85	313361714	193.450 ng	
20) T	Dibenz[a,h]anthracene	20.85	313361714	193.262 ng	
21) T	Benzo[g,h,i]perylene	21.10	146753983	180.871 ng	
22) H	C10-C12	2.70	349144661	544.393 ng	
23) H	C12-C16	4.95	635149983	897.150 ng	
24) H	C16-C21	9.60	1095510039	1390.585 ng	
25) H	C21-C36	17.20	1576546107	1764.507 ng	

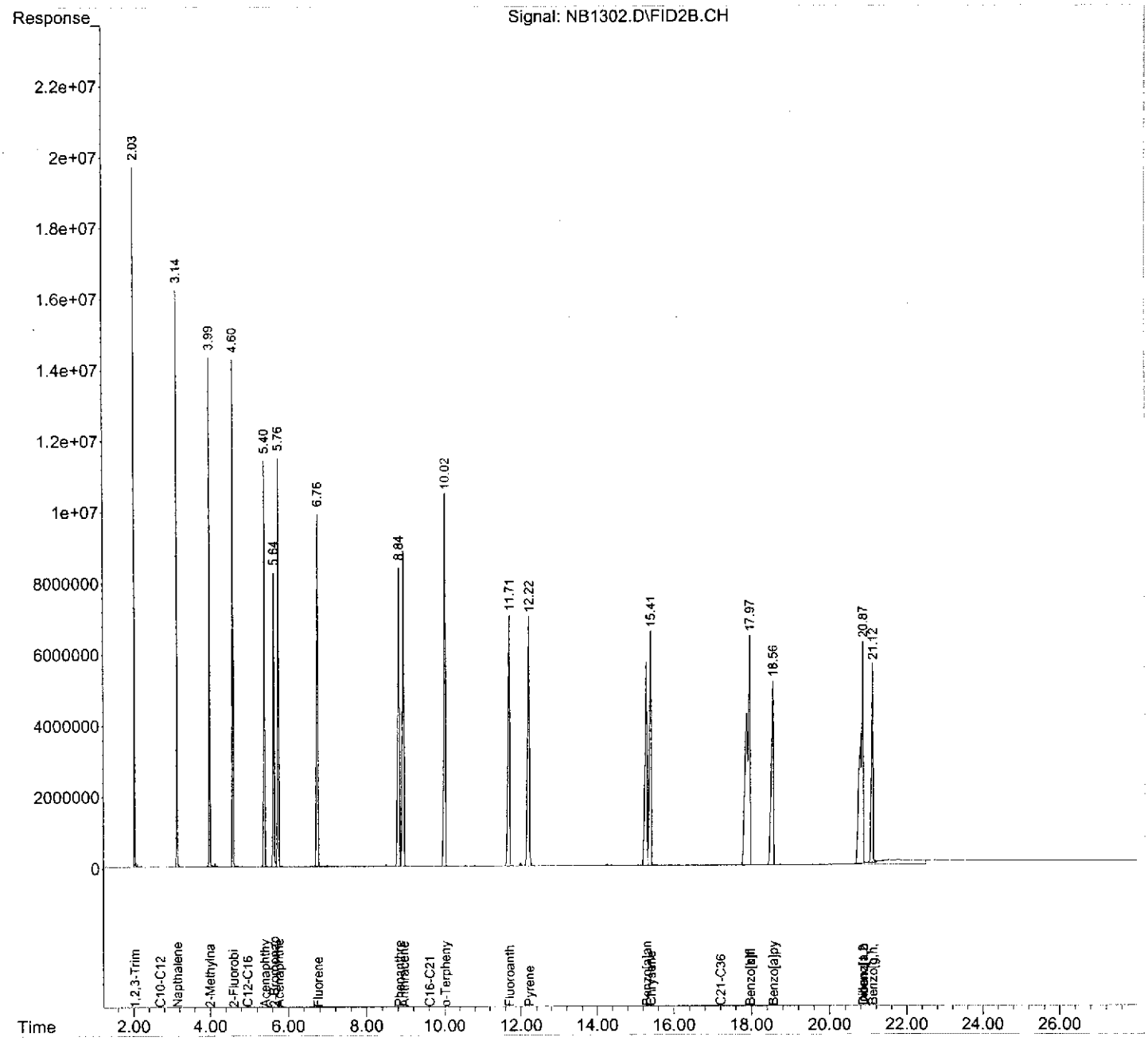
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1302.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 15:40
Operator : DK
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 08:24:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1304.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 8:30
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:57:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.59	220106534	306.708	ng	
Spiked Amount	50.000		Recovery	= 613.42%		
2) S	2-Bromonaphthalene	5.64	157978626	315.806	ng	
Spiked Amount	50.000		Recovery	= 631.61%		
3) S	o-Terphenyl	10.01	271458943	293.409	ng	
Spiked Amount	50.000		Recovery	= 586.82%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	154748272	256.817	ng	
5) T	Napthalene	3.13	183382303	279.917	ng	
6) T	2-Methylnaphthalene	3.99	195196425	287.795	ng	
7) T	Acenaphthylene	5.39	205848220	294.116	ng	
8) T	Acenaphthene	5.75	210388418	291.832	ng	
9) T	Fluorene	6.75	214906274	294.208	ng	
10) T	Phenanthrene	8.83	213829309	283.725	ng	
11) T	Anthracene	8.95	214498435	281.117	ng	
12) T	Fluoroanthene	11.70	206072369	255.247	ng	
13) T	Pyrene	12.21	206439675	249.088	ng	
14) T	Benzo[a]anthracene	15.29	192014471	231.177	ng	
15) T	Chrysene	15.40	190728806	228.317	ng	
16) T	Benzo[b]fluoranthene	17.97	383130557	227.408	ng	m
17) T	Benzo[k]fluoranthene	17.97	383061531	227.367	ng	m
18) T	Benzo[a]pyrene	18.56	186365263	224.596	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	307856928	190.051	ng	
20) T	Dibenz[a,h]anthracene	20.86	307856928	189.867	ng	
21) T	Benzo[g,h,i]perylene	21.12	143520466	176.886	ng	
22) H	C10-C12	2.70	339297341	529.039	ng	
23) H	C12-C16	4.95	615608047	869.547	ng	
24) H	C16-C21	9.60	1067680883	1355.260	ng	
25) H	C21-C36	17.20	1514247312	1694.780	ng	

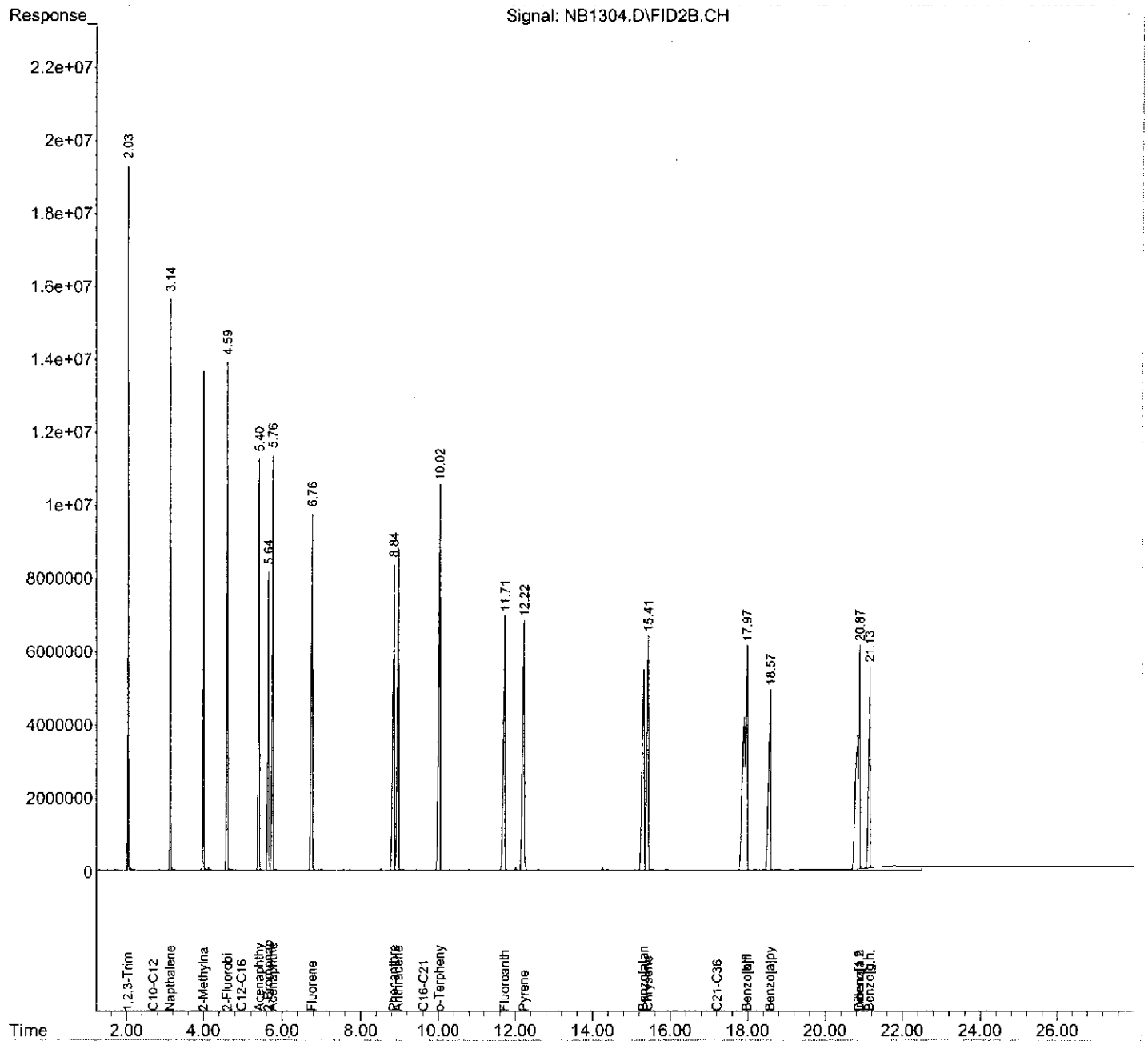
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1304.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 8:30
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:57:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1313.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 15:20
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:49:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.59	237132199	330.433	ng	
Spiked Amount	50.000		Recovery	= 660.87%		
2) S	2-Bromonaphthalene	5.64	167355371	334.550	ng	
Spiked Amount	50.000		Recovery	= 669.10%		
3) S	o-Terphenyl	10.01	279908044	302.541	ng	
Spiked Amount	50.000		Recovery	= 605.08%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	171019265	283.820	ng	
5) T	Napthalene	3.14	199606325	304.682	ng	
6) T	2-Methylnaphthalene	3.99	210743641	310.717	ng	
7) T	Acenaphthylene	5.40	218784023	312.599	ng	
8) T	Acenaphthene	5.75	223267275	309.697	ng	
9) T	Fluorene	6.75	225572487	308.810	ng	
10) T	Phenanthrene	8.83	218457909	289.866	ng	
11) T	Anthracene	8.94	218811780	286.769	ng	
12) T	Fluoroanthene	11.70	207281595	256.744	ng	
13) T	Pyrene	12.20	208010923	250.984	ng	
14) T	Benzo[a]anthracene	15.28	195451340	235.315	ng	
15) T	Chrysene	15.39	195181635	233.647	ng	
16) T	Benzo[b]fluoranthene	17.96	391911800	232.620	ng	m
17) T	Benzo[k]fluoranthene	17.96	392216721	232.801	ng	m
18) T	Benzo[a]pyrene	18.55	190871341	230.026	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	317299285	195.880	ng	
20) T	Dibenz[a,h]anthracene	20.86	317299285	195.690	ng	
21) T	Benzo[g,h,i]perylene	21.11	146318892	180.335	ng	
22) H	C10-C12	2.70	371717830	579.589	ng	
23) H	C12-C16	4.95	657291718	928.425	ng	
24) H	C16-C21	9.60	1091377285	1385.339	ng	
25) H	C21-C36	17.20	1517688735	1698.632	ng	

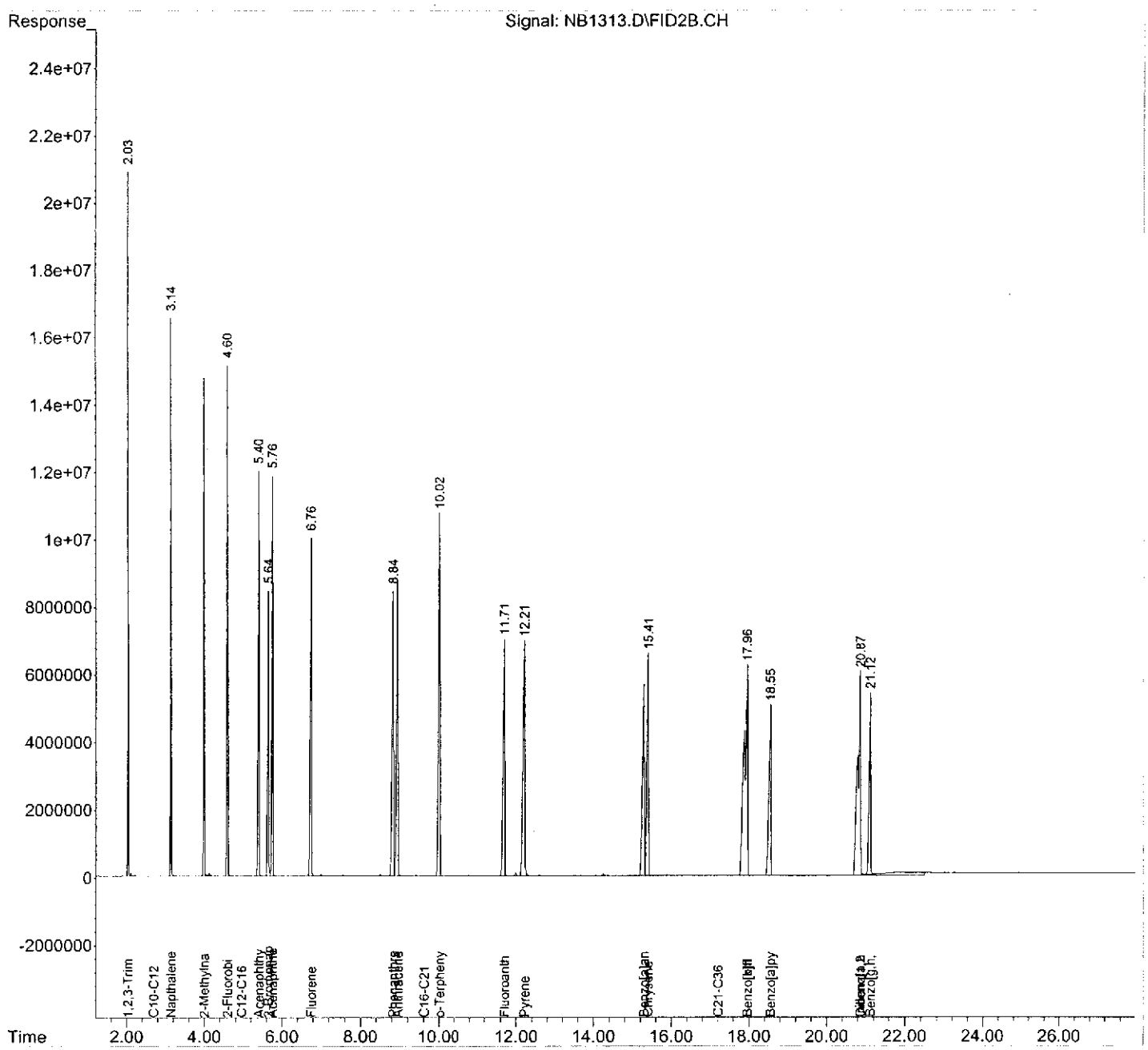
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1313.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 15:20
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 15:49:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 Instrument ID: GC-N

Data File: NB1341.D GC Column : DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	483789	19.71
Napthalene	3.13	3.02	3.26	655131	538171	17.85
2-Methylnaphthalene	3.98	3.88	4.12	678249	561280	17.25
Acenaphthylene	5.38	5.28	5.52	699888	584964	16.42
Acenaphthene	5.73	5.64	5.88	720622	599687	16.78
Fluorene	6.73	6.64	6.88	730458	618085	15.38
Phenanthrene	8.81	8.72	8.96	753650	652857	13.37
Anthracene	8.92	8.84	9.08	762143	660027	13.40
Fluoroanthene	11.68	11.59	11.83	807346	737214	8.69
Pyrene	12.19	12.10	12.34	828781	765469	7.64
Benzo[a]anthracene	15.28	15.18	15.42	831625	807667	2.88
Chrysene	15.39	15.30	15.54	834971	811775	2.78
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1665630	1.13
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1664933	1.17
Benzo[a]pyrene	18.54	18.45	18.69	829780	813626	1.95
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1460140	9.94
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1460140	9.95
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	709531	12.46
C10-C12	2.70	2.58	2.82	1282694	1026880	19.94
C12-C16	4.95	4.83	5.07	2123893	1758063	17.22
C16-C21	9.60	9.48	9.72	3939025	3476068	11.75
C21-C36	17.20	17.08	17.32	7147816	6462592	9.59

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: NB1357.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.02	1.92	2.16	602562	503174	16.49
Napthalene	3.12	3.02	3.26	655131	576402	12.02
2-Methylnaphthalene	3.97	3.88	4.12	678249	612500	9.69
Acenaphthylene	5.37	5.28	5.52	699888	654725	6.45
Acenaphthene	5.73	5.64	5.88	720622	673384	6.56
Fluorene	6.73	6.64	6.88	730458	703852	3.64
Phenanthrene	8.80	8.72	8.96	753650	748871	0.63
Anthracene	8.92	8.84	9.08	762143	755473	0.88
Fluoroanthene	11.68	11.59	11.83	807346	807097	0.03
Pyrene	12.19	12.10	12.34	828781	825181	0.43
Benzo[a]anthracene	15.27	15.18	15.42	831625	774511	6.87
Chrysene	15.38	15.30	15.54	834971	772448	7.49
Benzo[b]fluoranthene	17.93	17.86	18.10	1684593	1438525	14.61
Benzo[k]fluoranthene	17.93	17.86	18.10	1684720	1438525	14.61
Benzo[a]pyrene	18.53	18.45	18.69	829780	701031	15.52
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1357527	16.27
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1357527	16.27
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	689811	14.89
C10-C12	2.70	2.58	2.82	1282694	1083481	15.53
C12-C16	4.95	4.83	5.07	2123893	1956125	7.90
C16-C21	9.60	9.48	9.72	3939025	3915014	0.61
C21-C36	17.20	17.08	17.32	7147816	5983978	16.28

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: NB1359.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	572769	4.94
Napthalene	3.13	3.02	3.26	655131	647519	1.16
2-Methylnaphthalene	3.98	3.88	4.12	678249	683766	0.81
Acenaphthylene	5.39	5.28	5.52	699888	720706	2.97
Acenaphthene	5.74	5.64	5.88	720622	739883	2.67
Fluorene	6.74	6.64	6.88	730458	763739	4.56
Phenanthrene	8.81	8.72	8.96	753650	790181	4.85
Anthracene	8.93	8.84	9.08	762143	795683	4.40
Fluoroanthene	11.68	11.59	11.83	807346	824184	2.09
Pyrene	12.19	12.10	12.34	828781	840824	1.45
Benzo[a]anthracene	15.27	15.18	15.42	831625	793297	4.61
Chrysene	15.38	15.30	15.54	834971	786884	5.76
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1552077	7.87
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1552640	7.84
Benzo[a]pyrene	18.53	18.45	18.69	829780	765175	7.79
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1497391	7.64
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1497391	7.65
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	759257	6.32
C10-C12	2.70	2.58	2.82	1282694	1224114	4.57
C12-C16	4.95	4.83	5.07	2123893	2158054	1.61
C16-C21	9.60	9.48	9.72	3939025	4061111	3.10
C21-C36	17.20	17.08	17.32	7147816	6361156	11.01

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: NB1363.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	565737	6.11
Napthalene	3.13	3.02	3.26	655131	641883	2.02
2-Methylnaphthalene	3.98	3.88	4.12	678249	680111	0.27
Acenaphthylene	5.39	5.28	5.52	699888	717702	2.55
Acenaphthene	5.74	5.64	5.88	720622	737521	2.35
Fluorene	6.74	6.64	6.88	730458	762332	4.36
Phenanthrene	8.81	8.72	8.96	753650	794641	5.44
Anthracene	8.93	8.84	9.08	762143	800704	5.06
Fluoroanthene	11.68	11.59	11.83	807346	841515	4.23
Pyrene	12.19	12.10	12.34	828781	860269	3.80
Benzo[a]anthracene	15.27	15.18	15.42	831625	818743	1.55
Chrysene	15.38	15.30	15.54	834971	811190	2.85
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1599459	5.05
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1600576	4.99
Benzo[a]pyrene	18.53	18.45	18.69	829780	786687	5.19
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1530744	5.58
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1530744	5.59
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	778081	4.00
C10-C12	2.70	2.58	2.82	1282694	1213349	5.41
C12-C16	4.95	4.83	5.07	2123893	2148945	1.18
C16-C21	9.60	9.48	9.72	3939025	4106236	4.24
C21-C36	17.20	17.08	17.32	7147816	6519640	8.79

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1341.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 10:15
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 77 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:53:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.58	158829735	221.322	ng	
Spiked Amount	50.000		Recovery	= 442.64%		
2) S	2-Bromonaphthalene	5.62	112171141	224.235	ng	
Spiked Amount	50.000		Recovery	= 448.47%		
3) S	o-Terphenyl	9.99	206407437	223.098	ng	
Spiked Amount	50.000		Recovery	= 446.20%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	120947261	200.722	ng	
5) T	Napthalene	3.13	134542721	205.368	ng	
6) T	2-Methylnaphthalene	3.98	140320035	206.886	ng	
7) T	Acenaphthylene	5.38	146241123	208.949	ng	
8) T	Acenaphthene	5.73	149921690	207.958	ng	
9) T	Fluorene	6.73	154521336	211.540	ng	
10) T	Phenanthrene	8.81	163214308	216.565	ng	
11) T	Anthracene	8.92	165006818	216.254	ng	
12) T	Fluoroanthene	11.68	184303567	228.283	ng	
13) T	Pyrene	12.19	191367231	230.902	ng	
14) T	Benzo[a]anthracene	15.28	201916851	243.099	ng	
15) T	Chrysene	15.39	202943866	242.939	ng	
16) T	Benzo[b]fluoranthene	17.95	416407402	247.159	ng	m
17) T	Benzo[k]fluoranthene	17.95	416233269	247.056	ng	m
18) T	Benzo[a]pyrene	18.54	203406455	245.133	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	365034978	225.349	ng	
20) T	Dibenz[a,h]anthracene	20.86	365034978	225.130	ng	
21) T	Benzo[g,h,i]perylene	21.11	177382743	218.620	ng	
22) H	C10-C12	2.70	256720073	400.283	ng	
23) H	C12-C16	4.95	439515866	620.816	ng	
24) H	C16-C21	9.60	869017003	1103.086	ng	
25) H	C21-C36	17.20	1615647933	1808.270	ng	

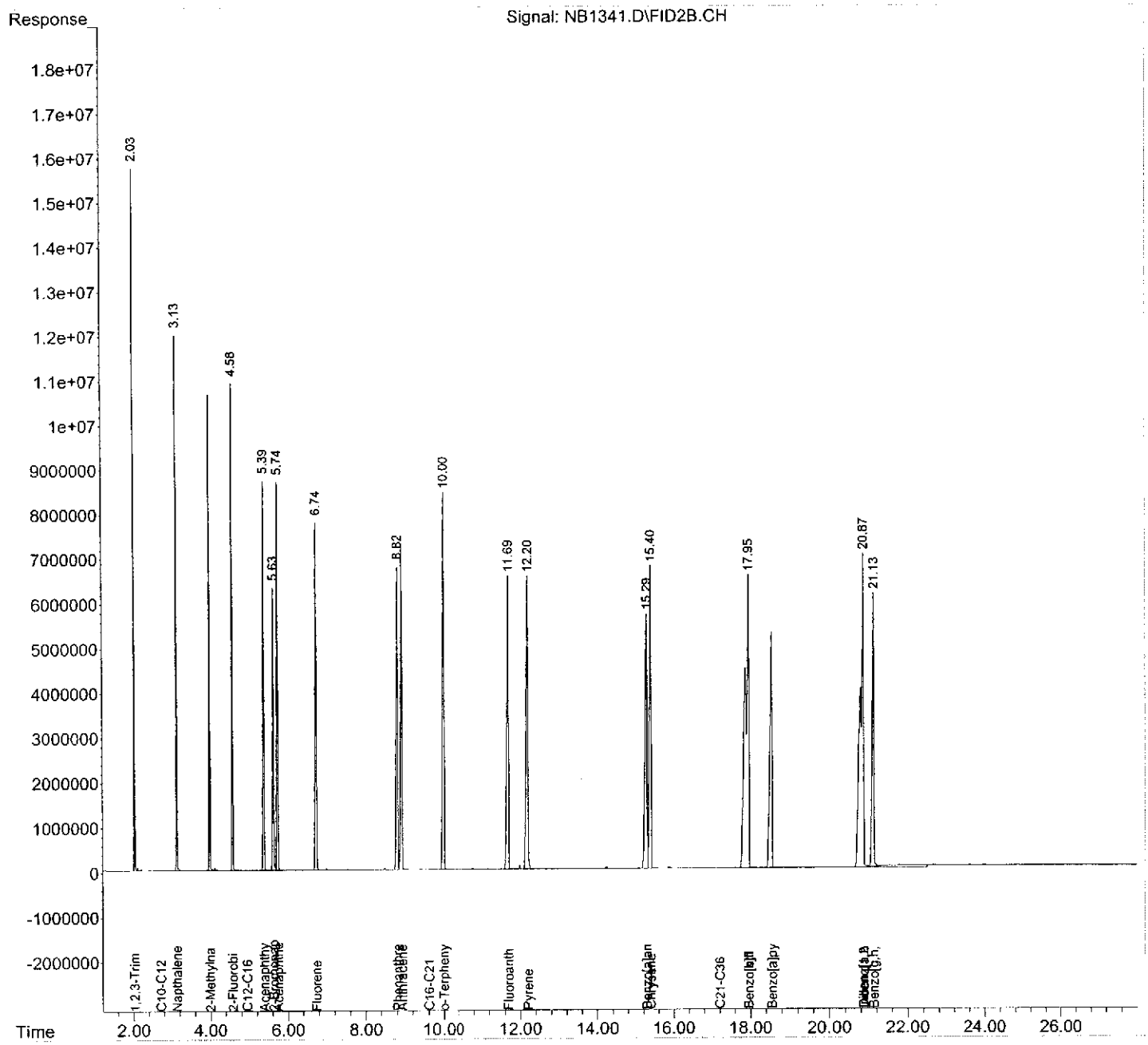
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1341.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 10:15
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 77 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:53:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Wed Jul 11 08:01:54 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1357.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 7:40
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 95 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:22:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	175015525	243.876 ng
Spiked Amount 50.000		Recovery	= 487.75%
2) S 2-Bromonaphthalene	5.61	126233380	252.346 ng
Spiked Amount 50.000		Recovery	= 504.69%
3) S o-Terphenyl	9.99	239085517	258.418 ng
Spiked Amount 50.000		Recovery	= 516.84%
Target Compounds			
4) T 1,2,3-Trimethylbenzene	2.02	125793378	208.764 ng
5) T Napthalene	3.12	144100377	219.957 ng
6) T 2-Methylnaphthalene	3.97	153125030	225.765 ng
7) T Acenaphthylene	5.37	163681365	233.868 ng
8) T Acenaphthene	5.73	168346113	233.515 ng
9) T Fluorene	6.72	175963067	240.894 ng
10) T Phenanthrene	8.80	187217797	248.415 ng
11) T Anthracene	8.92	188868222	247.526 ng
12) T Fluoroanthene	11.68	201774342	249.923 ng
13) T Pyrene	12.19	206295306	248.914 ng
14) T Benzo[a]anthracene	15.27	193627800	233.120 ng
15) T Chrysene	15.38	193112026	231.170 ng
16) T Benzo[b]fluoranthene	17.93	359631213	213.460 ng
17) T Benzo[k]fluoranthene	17.93	359631213	213.460 ng
18) T Benzo[a]pyrene	18.53	175257753	211.210 ng
19) T Indeno[1,2,3-cd]pyrene	20.85	339381649	209.513 ng
20) T Dibenz[a,h]anthracene	20.85	339381649	209.309 ng
21) T Benzo[g,h,i]perylene	21.11	172452858	212.544 ng
22) H C10-C12	2.70	270870340	422.346 ng
23) H C12-C16	4.95	489031200	690.757 ng
24) H C16-C21	9.60	978753550	1242.381 ng
25) H C21-C36	17.20	1495994440	1674.351 ng

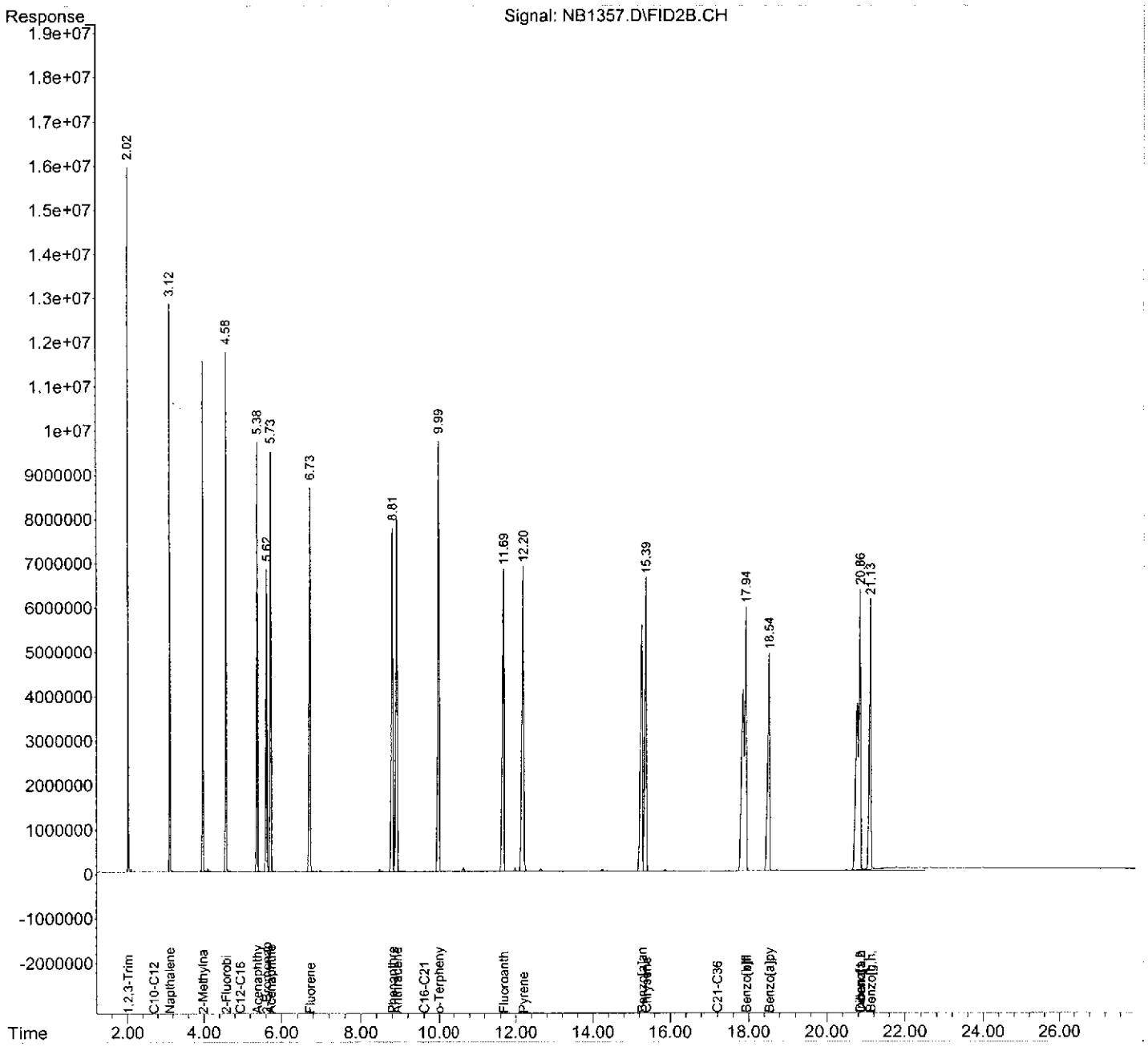
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1357.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 7:40
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 95 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:22:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1363.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 11:45
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 13:26:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.58	194406082	270.896	ng	
Spiked Amount	50.000		Recovery	= 541.79%		
2) S	2-Bromonaphthalene	5.63	138198888	276.265	ng	
Spiked Amount	50.000		Recovery	= 552.53%		
3) S	o-Terphenyl	9.99	253418818	273.910	ng	
Spiked Amount	50.000		Recovery	= 547.82%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	141434330	234.722	ng	
5) T	Napthalene	3.13	160470780	244.945	ng	
6) T	2-Methylnaphthalene	3.98	170027628	250.686	ng	
7) T	Acenaphthylene	5.39	179425491	256.363	ng	
8) T	Acenaphthene	5.74	184380344	255.756	ng	
9) T	Fluorene	6.74	190583043	260.909	ng	
10) T	Phenanthrene	8.81	198660154	263.597	ng	
11) T	Anthracene	8.93	200175962	262.346	ng	
12) T	Fluoroanthene	11.68	210378634	260.580	ng	
13) T	Pyrene	12.19	215067309	259.498	ng	
14) T	Benzo[a]anthracene	15.27	204685836	246.433	ng	
15) T	Chrysene	15.38	202797401	242.764	ng	
16) T	Benzo[b]fluoranthene	17.95	399864659	237.340	ng	m
17) T	Benzo[k]fluoranthene	17.95	400144069	237.506	ng	m
18) T	Benzo[a]pyrene	18.53	196671740	237.017	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.85	382686071	236.246	ng	
20) T	Dibenz[a,h]anthracene	20.85	382686071	236.017	ng	
21) T	Benzo[g,h,i]perylene	21.11	194520361	239.742	ng	
22) H	C10-C12	2.70	303337334	472.969	ng	
23) H	C12-C16	4.95	537236285	758.847	ng	
24) H	C16-C21	9.60	1026558946	1303.062	ng	
25) H	C21-C36	17.20	1629909893	1824.233	ng	

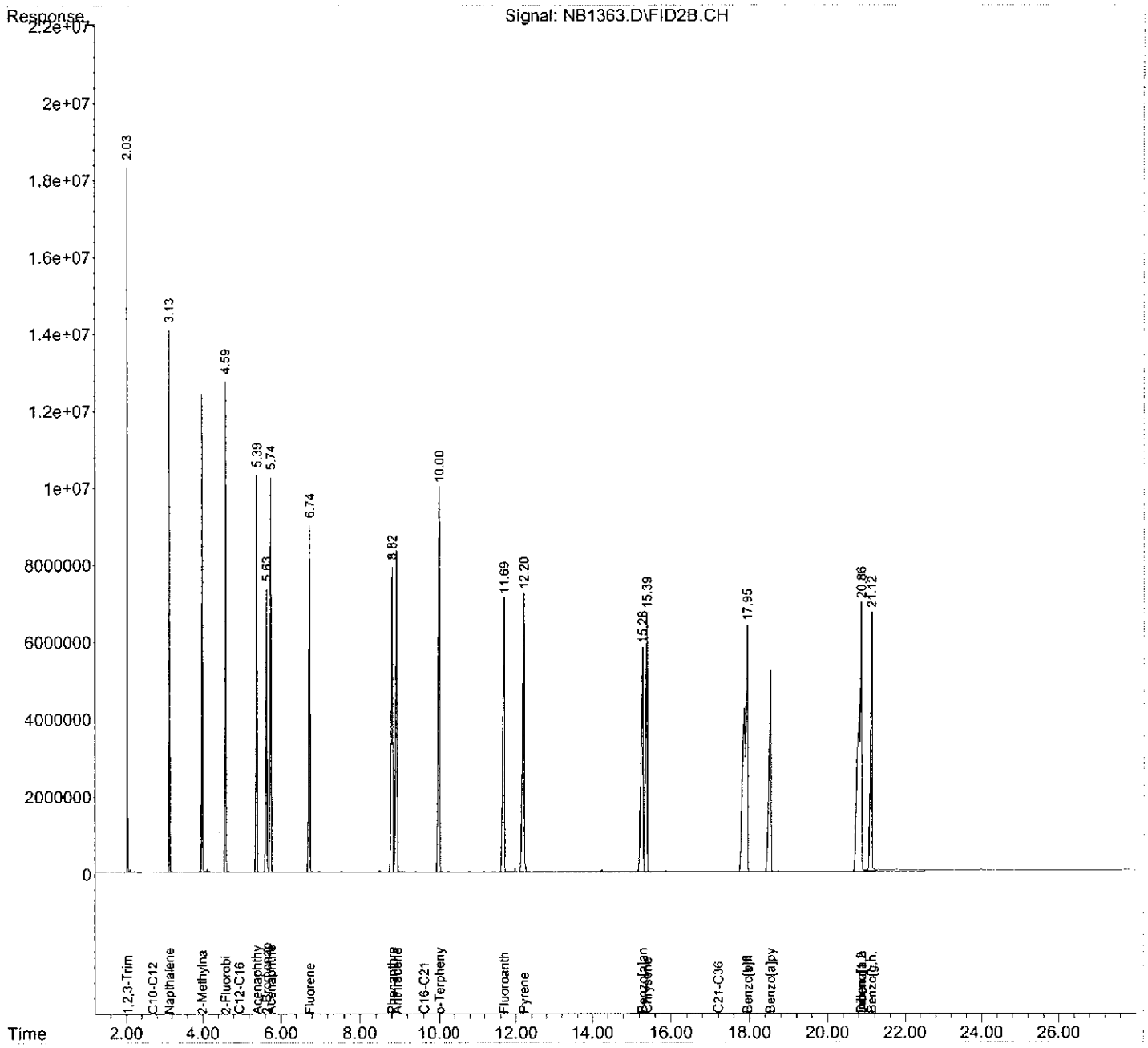
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1363.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 11:45
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 13:26:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Wed Jul 11 13:27:00 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1359.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 9:26
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 09:57:51 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.58	195169769	271.960	ng	
Spiked Amount	50.000		Recovery	= 543.92%		
2) S	2-Bromonaphthalene	5.63	138517839	276.903	ng	
Spiked Amount	50.000		Recovery	= 553.81%		
3) S	o-Terphenyl	9.99	251777998	272.137	ng	
Spiked Amount	50.000		Recovery	= 544.27%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	143192151	237.639	ng	
5) T	Napthalene	3.13	161879864	247.095	ng	
6) T	2-Methylnaphthalene	3.98	170941566	252.034	ng	
7) T	Acenaphthylene	5.39	180176525	257.436	ng	
8) T	Acenaphthene	5.74	184970636	256.575	ng	
9) T	Fluorene	6.74	190934813	261.391	ng	
10) T	Phenanthrene	8.81	197545155	262.118	ng	
11) T	Anthracene	8.93	198920846	260.701	ng	
12) T	Fluoroanthene	11.68	206045968	255.214	ng	
13) T	Pyrene	12.19	210206088	253.633	ng	
14) T	Benzo[a]anthracene	15.27	198324252	238.774	ng	
15) T	Chrysene	15.38	196720893	235.490	ng	
16) T	Benzo[b]fluoranthene	17.95	388019354	230.310	ng	m
17) T	Benzo[k]fluoranthene	17.95	388159966	230.393	ng	m
18) T	Benzo[a]pyrene	18.53	191293874	230.536	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.85	374347644	231.099	ng	
20) T	Dibenz[a,h]anthracene	20.85	374347644	230.874	ng	
21) T	Benzo[g,h,i]perylene	21.11	189814323	233.942	ng	
22) H	C10-C12	2.70	306028518	477.165	ng	
23) H	C12-C16	4.95	539513590	762.063	ng	
24) H	C16-C21	9.60	1015277806	1288.743	ng	
25) H	C21-C36	17.20	1590288943	1779.888	ng	

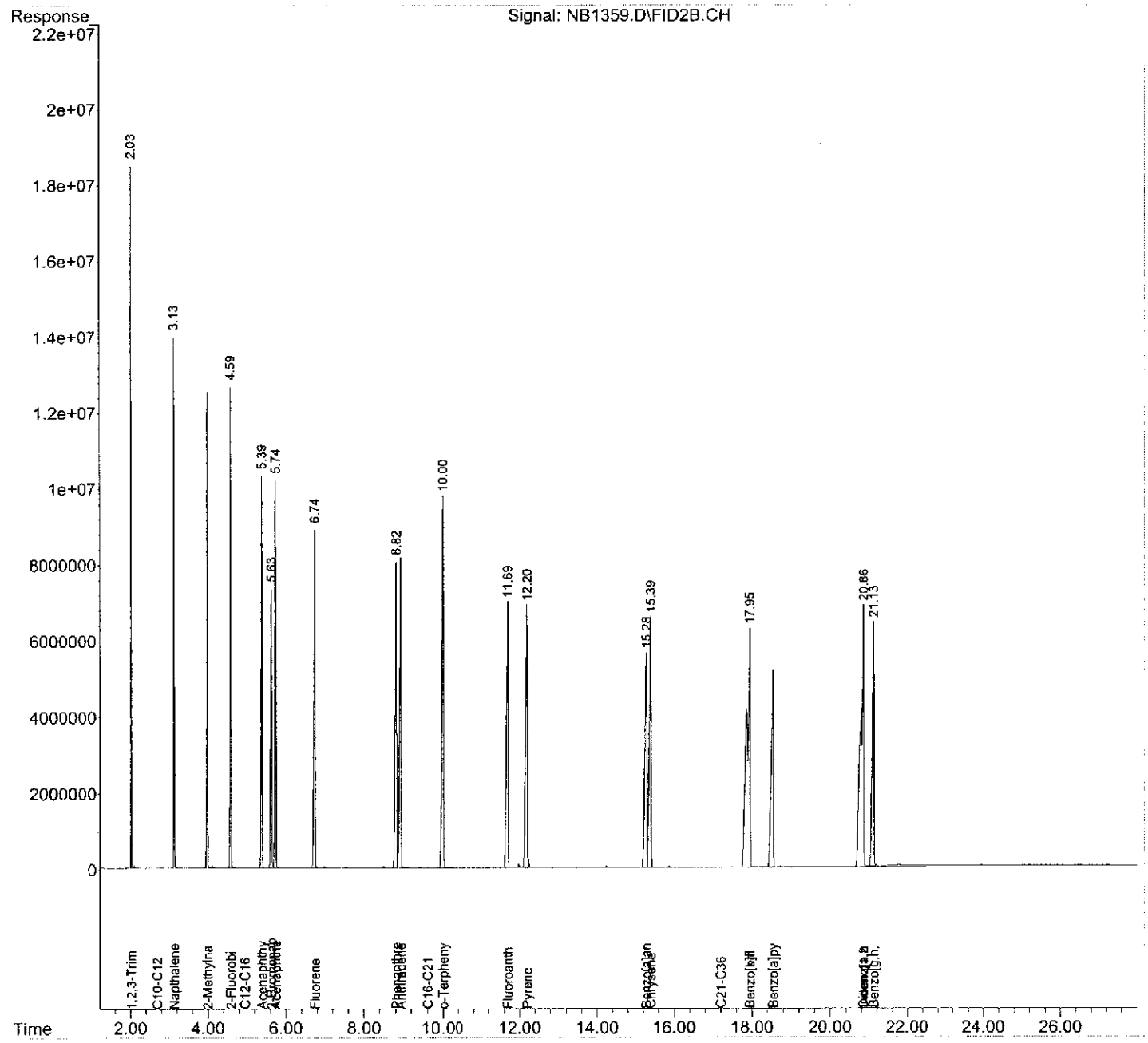
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1359.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 9:26
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 09:57:51 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1622.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 12:44
Operator : DK
Sample : ALI,LCSS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:08:05 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.15	30448917	31.506 ng
Spiked Amount	50.000		Recovery =	63.01%
Target Compounds				
2) T	n-Nonane (C9)	1.34	20985194	22.608 ng
3) T	n-Decane (C10)	1.84	26189497	27.103 ng
4) T	n-Dodecane (C12)	3.26	32651244	33.769 ng
5) T	n-Tetradecane (C14)	5.00	38605442	38.262 ng
6) T	n-Hexadecane (C16)	7.06	42089051	41.112 ng
7) T	n-Octadecane (C18)	9.22	43411888	41.707 ng
8) T	n-Eicosane (C20)	11.30	42859428	41.992 ng
9) T	n-Heneicosane (C21)	12.29	47570232	47.492 ng
10) T	n-Docosane (C22)	13.25	43462779	43.894 ng
11) T	n-Tetracosane (C24)	15.06	36661360	38.578 ng
12) T	n-Hexacosane (C26)	16.74	35400286	38.765 ng
13) T	n-Octacosane (C28)	18.31	34475665	39.755 ng
14) T	n-Triacontane (C30)	19.78	34228858	41.064 ng
15) T	n-Dotriacontane (C32)	21.04	33189783	41.703 ng
16) T	n-Tetratriacontane (C34)	21.80	34348896	43.136 ng
17) T	n-Hexatriacontane (C36)	22.62	32102960	41.378 ng
18) T	n-Octatriacontane (C38)	23.66	29345316	38.494 ng
19) T	n-Tetracontane (40)	25.03	25773021	33.988 ng
20) H	C9-C12	2.36	100865512	98.879 ng
21) H	C12-C16	5.40	96763817	90.872 ng
22) H	C16-C21	9.95	154035457	146.334 ng
23) H	C21-C40	18.95	414508487	452.640 ng

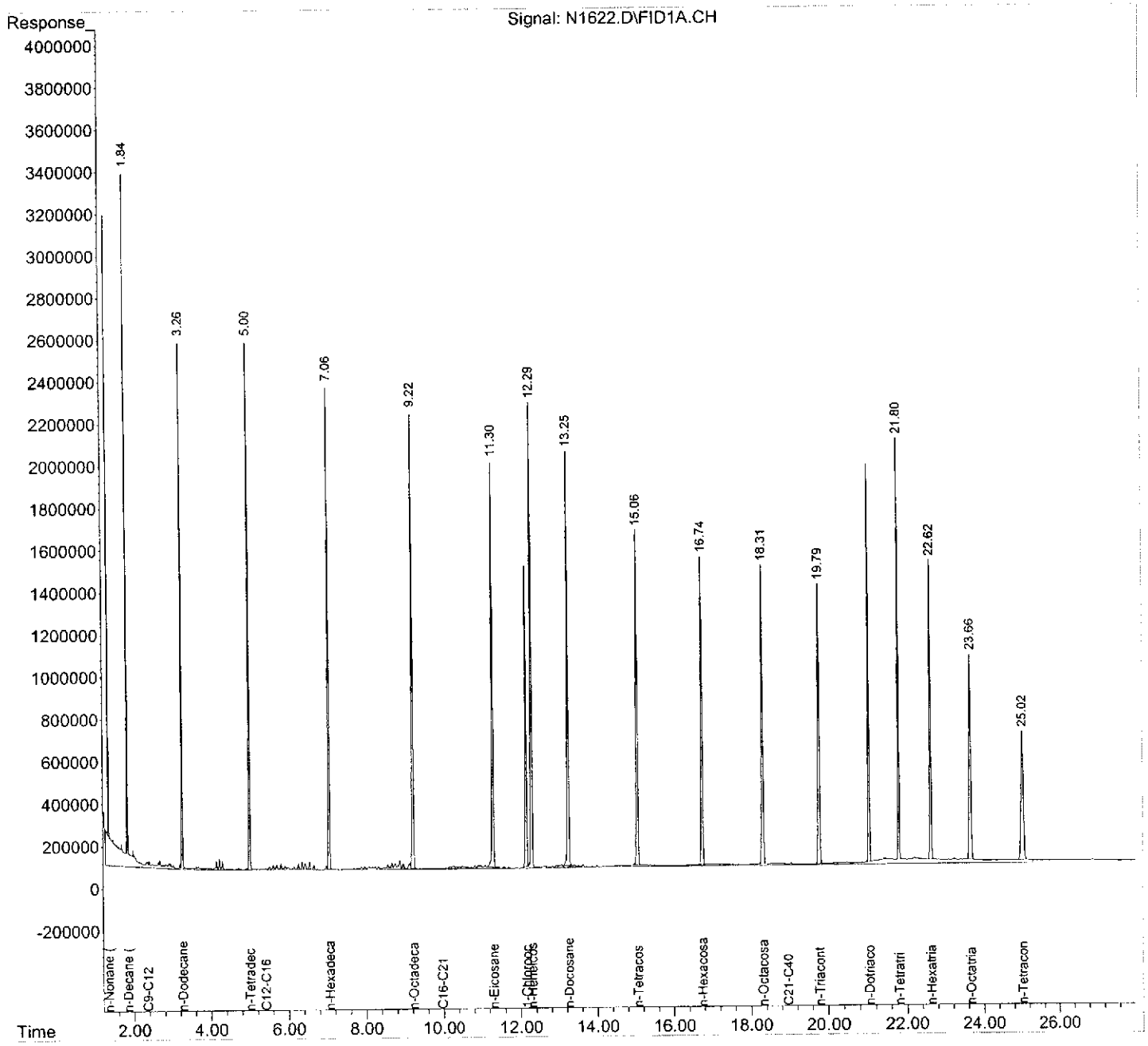
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1622.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 12:44
Operator : DK
Sample : ALI,LCSS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:08:05 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Mon Jul 09 06:50:30 2012 RPT1

E12-06466 0565

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1623.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 13:18
Operator : DK
Sample : ALI,LCSDS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:16:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	1-Chlorooctadecane	12.15	27892302	28.861	ng	
Spiked Amount		50.000		Recovery =	57.72%		
Target Compounds							
2)	T	n-Nonane (C9)	1.34	18644298	20.086	ng	m
3)	T	n-Decane (C10)	1.84	22908906	23.708	ng	
4)	T	n-Dodecane (C12)	3.26	28568945	29.547	ng	
5)	T	n-Tetradecane (C14)	5.00	33974033	33.672	ng	
6)	T	n-Hexadecane (C16)	7.06	37233121	36.369	ng	
7)	T	n-Octadecane (C18)	9.21	38764242	37.242	ng	
8)	T	n-Eicosane (C20)	11.30	38704454	37.921	ng	
9)	T	n-Heneicosane (C21)	12.29	43542463	43.471	ng	
10)	T	n-Docosane (C22)	13.25	39517474	39.909	ng	
11)	T	n-Tetracosane (C24)	15.06	33731817	35.495	ng	
12)	T	n-Hexacosane (C26)	16.74	32921282	36.051	ng	
13)	T	n-Octacosane (C28)	18.31	32157989	37.082	ng	
14)	T	n-Triacontane (C30)	19.78	31848808	38.209	ng	
15)	T	n-Dotriacontane (C32)	21.03	30817117	38.721	ng	
16)	T	n-Tetratriacontane (C34)	21.78	31814300	39.953	ng	
17)	T	n-Hexatriacontane (C36)	22.61	29721412	38.308	ng	
18)	T	n-Octatriacontane (C38)	23.64	27044167	35.476	ng	
19)	T	n-Tetracontane (40)	25.01	23542361	31.046	ng	
20)	H	C9-C12	2.36	80928829	79.335	ng	
21)	H	C12-C16	5.40	82711989	77.676	ng	
22)	H	C16-C21	9.95	138990732	132.042	ng	
23)	H	C21-C40	18.95	387182263	422.800	ng	

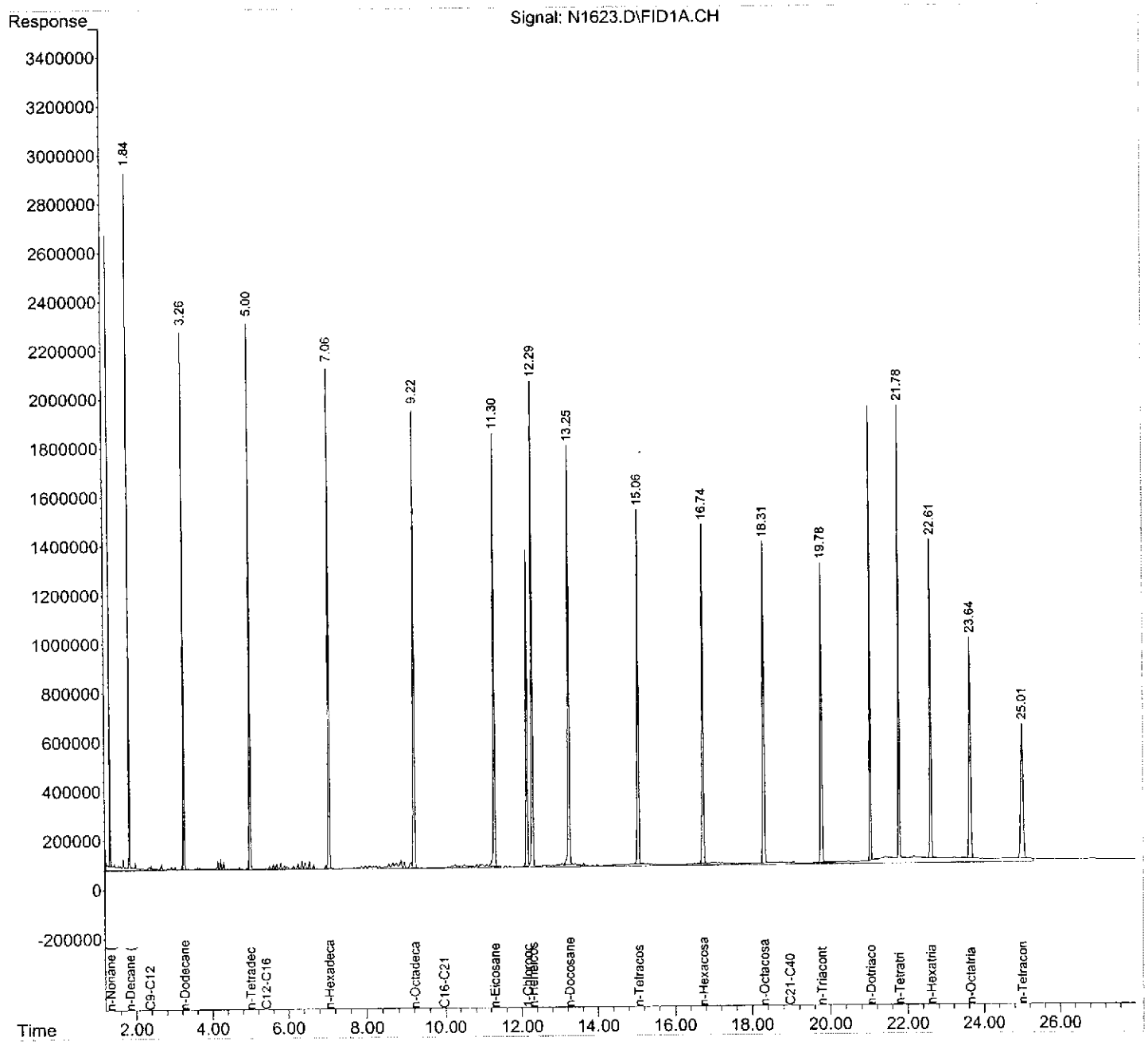
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1623.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 13:18
Operator : DK
Sample : ALI,LCSDS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:16:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Mon Jul 09 14:40:15 2012 RPT1

E12-06466 0567

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1255.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 12:44
Operator : DK
Sample : ARO,LCSS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:19:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.58	32759071	45.648 ng	
Spiked Amount	50.000		Recovery	= 91.30%	
2) S	2-Bromonaphthalene	5.61	24085321	48.148 ng	
Spiked Amount	50.000		Recovery	= 96.30%	
3) S	o-Terphenyl	9.98	52401208	56.638 ng	
Spiked Amount	50.000		Recovery	= 113.28%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	20627359	34.233 ng	
5) T	Napthalene	3.13	27020682	41.245 ng	
6) T	2-Methylnaphthalene	3.98	29338876	43.257 ng	
7) T	Acenaphthylene	5.38	33529418	47.907 ng	
8) T	Acenaphthene	5.72	35370934	49.063 ng	
9) T	Fluorene	6.72	35018776	47.941 ng	
10) T	Phenanthrene	8.79	35881939	47.611 ng	
11) T	Anthracene	8.90	34104284	44.696 ng	
12) T	Fluoroanthene	11.65	34862104	43.181 ng	
13) T	Pyrene	12.16	35055028	42.297 ng	
14) T	Benzo[a]anthracene	15.24	33713005	40.589 ng	m
15) T	Chrysene	15.33	34457430	41.248 ng	
16) T	Benzo[b]fluoranthene	17.87	68980563	40.944 ng	
17) T	Benzo[k]fluoranthene	17.87	68980563	40.944 ng	
18) T	Benzo[a]pyrene	18.47	31043067	37.411 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.80	64959850	40.102 ng	m
20) T	Dibenz[a,h]anthracene	20.80	65151761	40.181 ng	m
21) T	Benzo[g,h,i]perylene	21.06	31724134	39.099 ng	
22) H	C10-C12	2.70	51854920	80.853 ng	
23) H	C12-C16	4.95	107424405	151.737 ng	
24) H	C16-C21	9.60	207831616	263.811 ng	
25) H	C21-C36	17.20	329443748	368.721 ng	

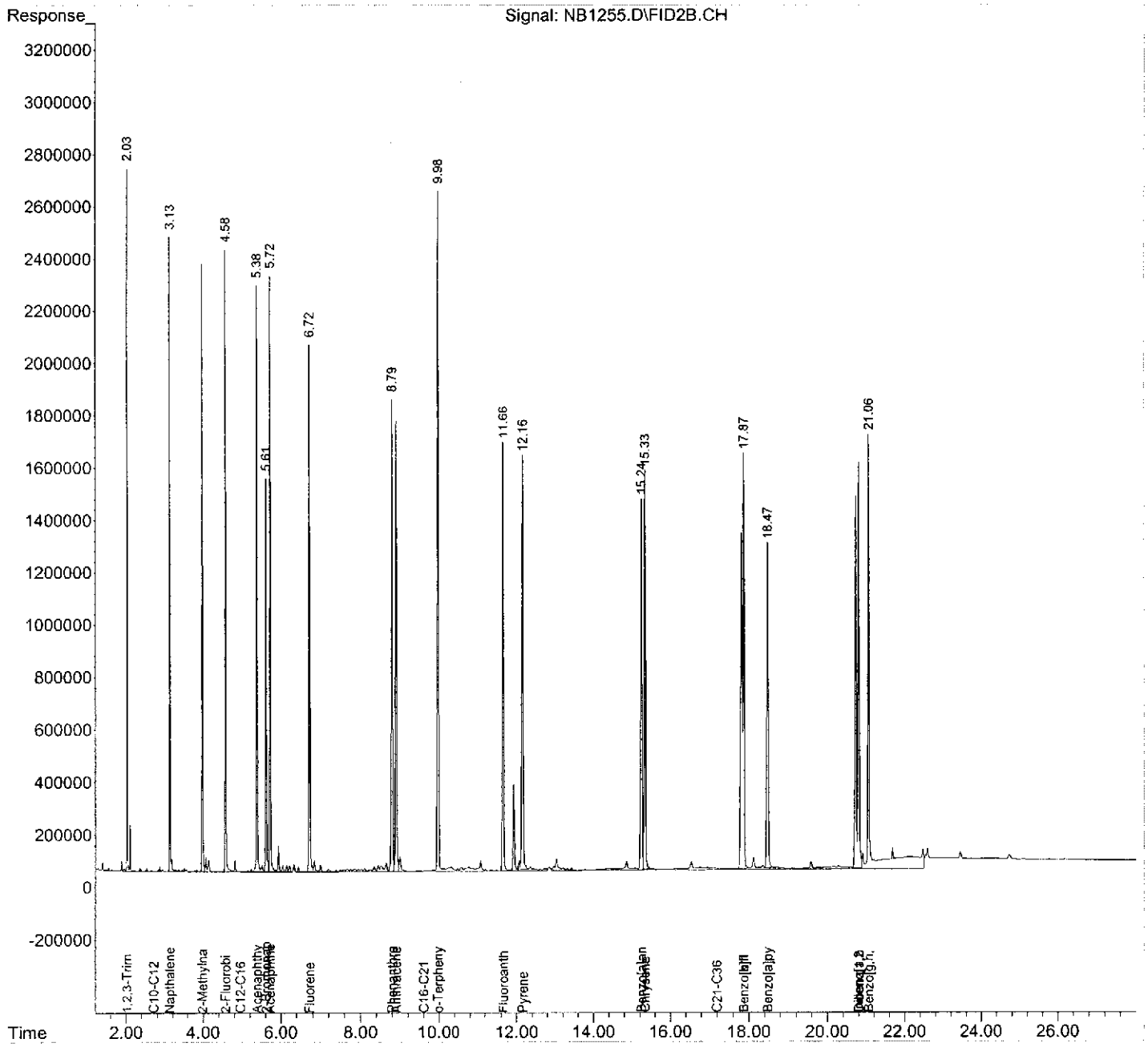
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1255.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 12:44
Operator : DK
Sample : ARO,LCSS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:19:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1256.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 13:18
Operator : DK
Sample : ARO,LCSDS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:20:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
	System Monitoring Compounds				
1) S	2-Fluorobiphenyl	4.58	27132170	37.807 ng	
Spiked Amount	50.000		Recovery =	75.61%	
2) S	2-Bromonaphthalene	5.61	20776977	41.534 ng	
Spiked Amount	50.000		Recovery =	83.07%	
3) S	o-Terphenyl	9.98	48293938	52.199 ng	
Spiked Amount	50.000		Recovery =	104.40%	
	Target Compounds				
4) T	1,2,3-Trimethylbenzene	2.03	16226957	26.930 ng	
5) T	Napthalene	3.13	21878698	33.396 ng	
6) T	2-Methylnaphthalene	3.98	24188876	35.664 ng	
7) T	Acenaphthylene	5.37	28591614	40.852 ng	
8) T	Acenaphthene	5.72	30562053	42.393 ng	
9) T	Fluorene	6.72	30935007	42.350 ng	
10) T	Phenanthrene	8.79	33118766	43.944 ng	
11) T	Anthracene	8.90	31915673	41.828 ng	m
12) T	Fluoroanthene	11.65	32585862	40.362 ng	
13) T	Pyrene	12.16	32547996	39.272 ng	
14) T	Benzo[a]anthracene	15.23	30301535	36.482 ng	m
15) T	Chrysene	15.33	31597748	37.825 ng	
16) T	Benzo[b]fluoranthene	17.87	61552379	36.535 ng	
17) T	Benzo[k]fluoranthene	17.87	61552379	36.535 ng	
18) T	Benzo[a]pyrene	18.47	27813370	33.519 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.80	58199580	35.929 ng	m
20) T	Dibenz[a,h]anthracene	20.80	58633672	36.162 ng	m
21) T	Benzo[g,h,i]perylene	21.05	28369161	34.964 ng	
22) H	C10-C12	2.70	44154592	68.847 ng	
23) H	C12-C16	4.95	91952283	129.883 ng	
24) H	C16-C21	9.60	189814756	240.941 ng	
25) H	C21-C36	17.20	299873914	335.626 ng	

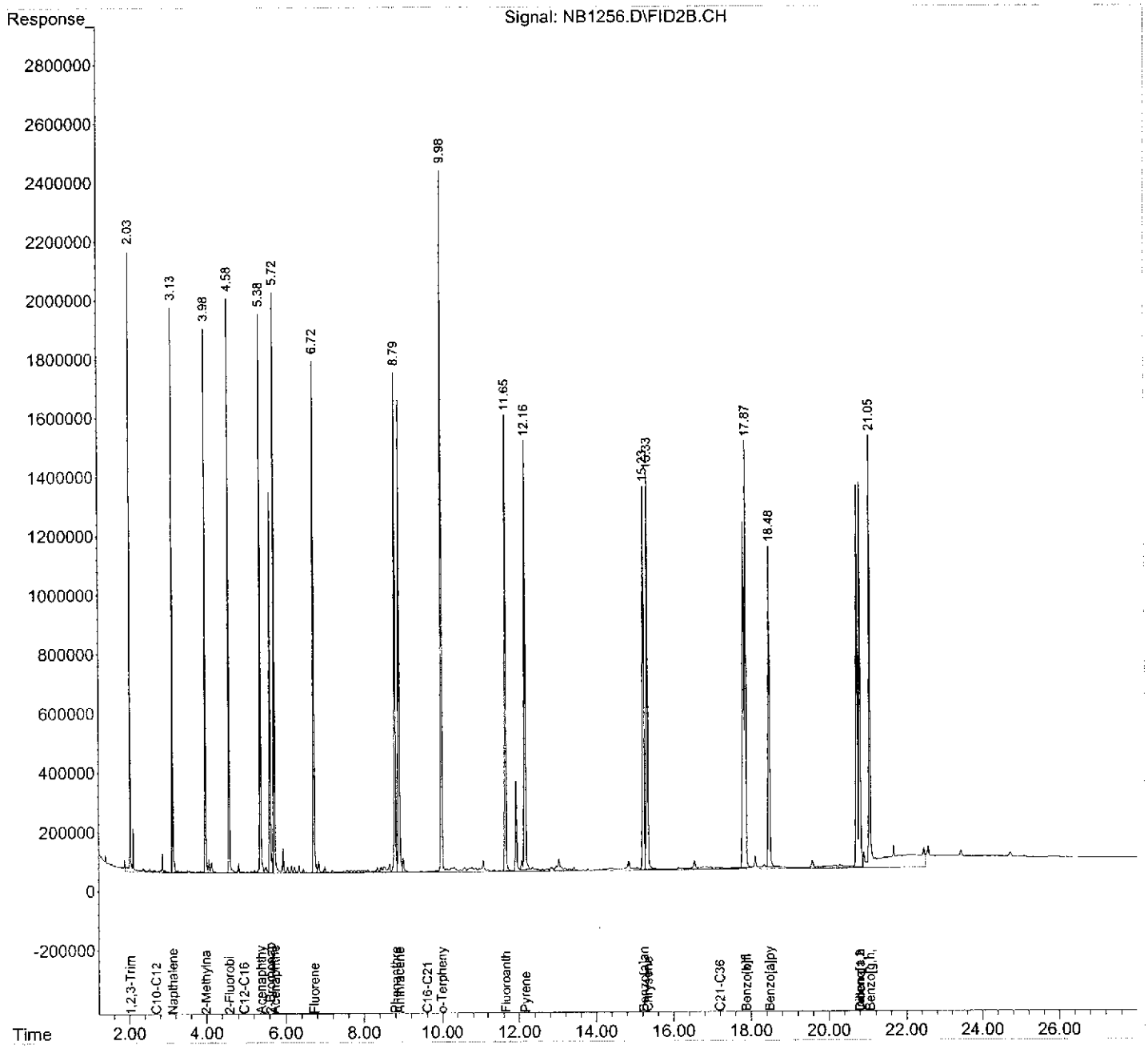
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1256.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 13:18
Operator : DK
Sample : ARO,LCSDS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:20:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1645.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 1:58
Operator : DK
Sample : ALI,LCSS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 07:42:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.15	33434062	34.595 ng
Spiked Amount	50.000		Recovery =	69.19%
Target Compounds				
2) T	n-Nonane (C9)	1.34	18853587	20.312 ng
3) T	n-Decane (C10)	1.84	24574898	25.432 ng
4) T	n-Dodecane (C12)	3.26	32103681	33.203 ng
5) T	n-Tetradecane (C14)	5.00	38494864	38.153 ng
6) T	n-Hexadecane (C16)	7.06	42387132	41.403 ng
7) T	n-Octadecane (C18)	9.21	43716664	41.999 ng
8) T	n-Eicosane (C20)	11.30	42889463	42.021 ng
9) T	n-Heneicosane (C21)	12.29	48207892	48.129 ng
10) T	n-Docosane (C22)	13.25	43133578	43.561 ng
11) T	n-Tetracosane (C24)	15.06	36706817	38.626 ng
12) T	n-Hexacosane (C26)	16.74	35640798	39.029 ng
13) T	n-Octacosane (C28)	18.31	34658188	39.965 ng
14) T	n-Triacontane (C30)	19.78	34266706	41.109 ng
15) T	n-Dotriacontane (C32)	21.03	33088878	41.576 ng
16) T	n-Tetratriacontane (C34)	21.77	34137366	42.870 ng
17) T	n-Hexatriacontane (C36)	22.59	31611059	40.744 ng
18) T	n-Octatriacontane (C38)	23.62	28319905	37.149 ng
19) T	n-Tetracontane (40)	24.99	24150233	31.848 ng
20) H	C9-C12	2.36	85208709	83.530 ng
21) H	C12-C16	5.40	92222760	86.607 ng
22) H	C16-C21	9.95	149693407	142.209 ng
23) H	C21-C40	18.95	396645650	433.134 ng

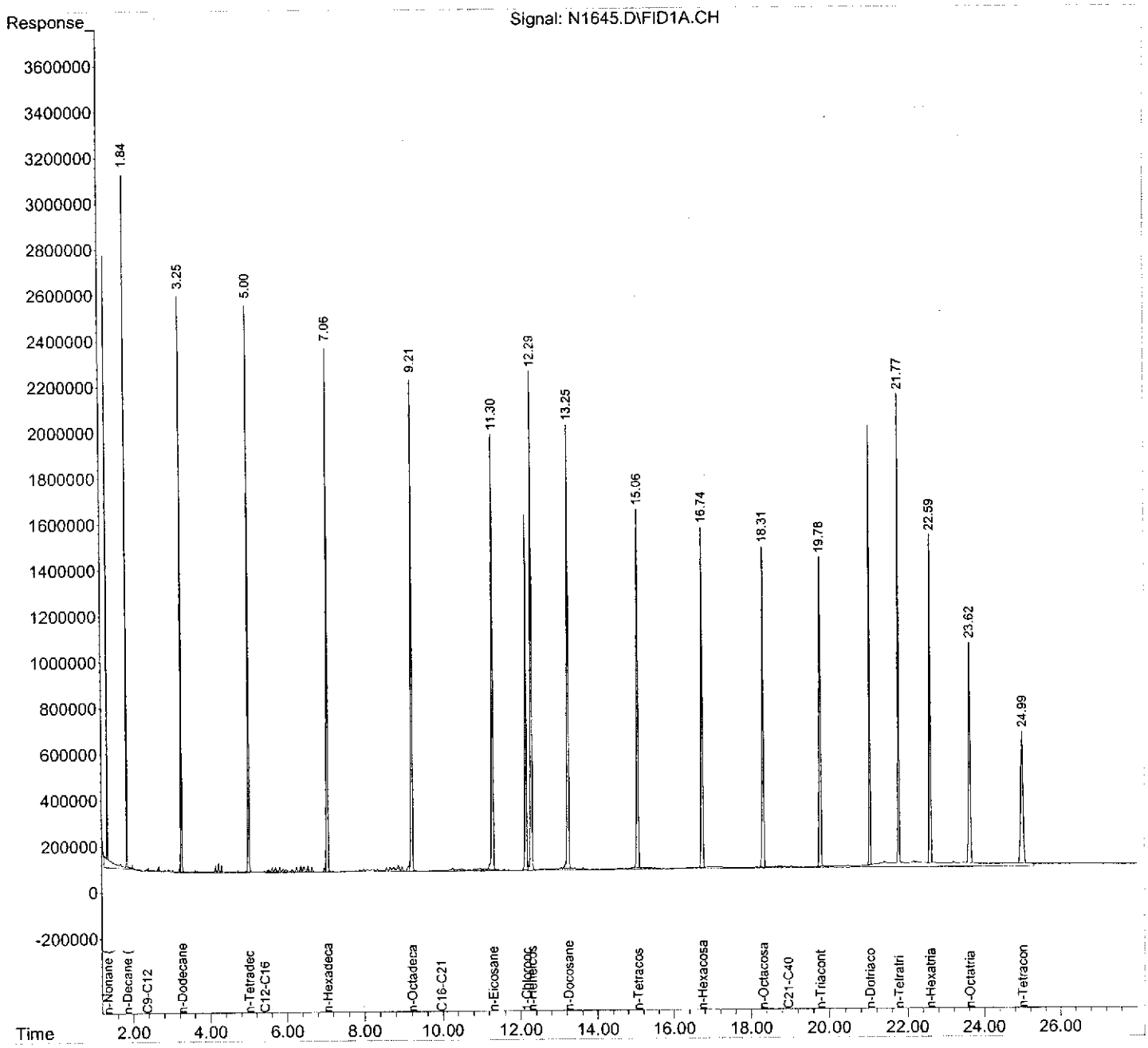
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1645.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 1:58
Operator : DK
Sample : ALI,LCSS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 07:42:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1646.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 2:33
Operator : DK
Sample : ALI,LCSDS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:55:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.15	31592521	32.690 ng
Spiked Amount	50.000		Recovery =	65.38%
Target Compounds				
2) T	n-Nonane (C9)	1.34	17528586	18.884 ng
3) T	n-Decane (C10)	1.84	22824994	23.622 ng
4) T	n-Dodecane (C12)	3.25	29828538	30.850 ng
5) T	n-Tetradecane (C14)	5.00	35919085	35.600 ng
6) T	n-Hexadecane (C16)	7.06	39584038	38.665 ng
7) T	n-Octadecane (C18)	9.21	41009405	39.399 ng
8) T	n-Eicosane (C20)	11.30	40071766	39.261 ng
9) T	n-Heneicosane (C21)	12.29	45674587	45.600 ng
10) T	n-Docosane (C22)	13.25	41171547	41.580 ng
11) T	n-Tetracosane (C24)	15.06	35289523	37.135 ng
12) T	n-Hexacosane (C26)	16.74	34324580	37.587 ng
13) T	n-Octacosane (C28)	18.31	33444109	38.565 ng
14) T	n-Triacontane (C30)	19.78	33055101	39.656 ng
15) T	n-Dotriacontane (C32)	21.03	31975379	40.177 ng
16) T	n-Tetratriacontane (C34)	21.78	33012535	41.458 ng
17) T	n-Hexatriacontane (C36)	22.60	30638869	39.491 ng
18) T	n-Octatriacontane (C38)	23.63	27469384	36.034 ng
19) T	n-Tetracontane (40)	25.00	23432378	30.901 ng
20) H	C9-C12	2.36	76311258	74.808 ng
21) H	C12-C16	5.40	86611065	81.337 ng
22) H	C16-C21	9.95	141565109	134.488 ng
23) H	C21-C40	18.95	385008484	420.426 ng

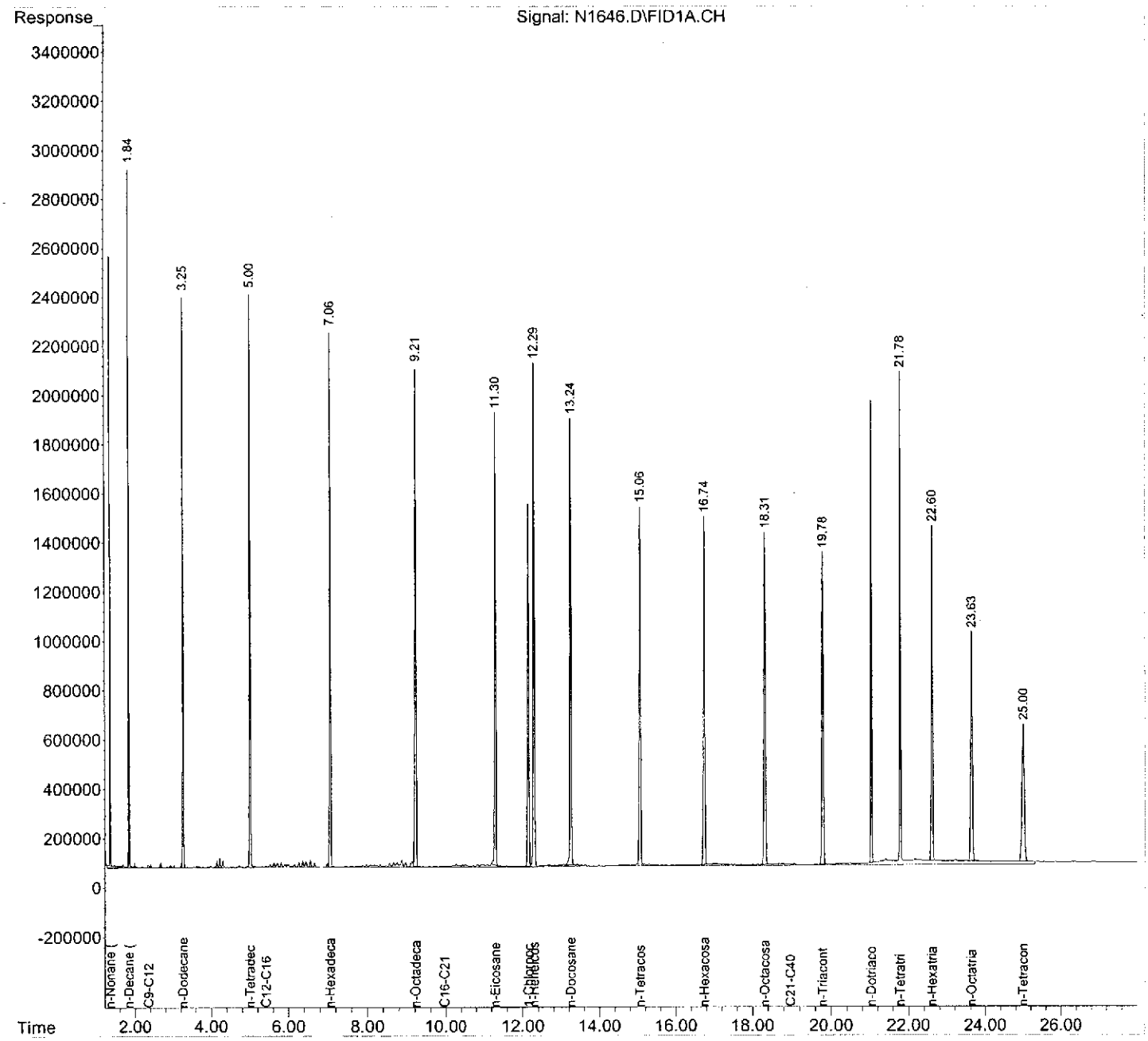
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1646.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 2:33
Operator : DK
Sample : ALI,LCSDS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:55:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1278.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 1:58
Operator : DK
Sample : ARO,LCSS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 75 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:56:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.58	29513185	41.125 ng	
Spiked Amount 50.000		Recovery =	82.25%	
2) S 2-Bromonaphthalene	5.61	21794458	43.568 ng	
Spiked Amount 50.000		Recovery =	87.14%	
3) S o-Terphenyl	9.97	50504643	54.588 ng	
Spiked Amount 50.000		Recovery =	109.18%	
Target Compounds				
4) T 1,2,3-Trimethylbenzene	2.03	16351096	27.136 ng	
5) T Napthalene	3.13	22587616	34.478 ng	
6) T 2-Methylnaphthalene	3.98	24869140	36.667 ng	
7) T Acenaphthylene	5.37	29016656	41.459 ng	
8) T Acenaphthene	5.72	31044183	43.062 ng	
9) T Fluorene	6.72	31496051	43.118 ng	
10) T Phenanthrene	8.79	32921357	43.683 ng	
11) T Anthracene	8.89	32690282	42.843 ng	
12) T Fluoroanthene	11.65	32613039	40.395 ng	
13) T Pyrene	12.16	32685917	39.439 ng	
14) T Benzo[a]anthracene	15.24	31052726	37.386 ng	m
15) T Chrysene	15.33	32192582	38.537 ng	
16) T Benzo[b]fluoranthene	17.87	63898734	37.927 ng	
17) T Benzo[k]fluoranthene	17.87	63898734	37.927 ng	
18) T Benzo[a]pyrene	18.47	28647567	34.524 ng	
19) T Indeno[1,2,3-cd]pyrene	20.72	58989612	36.416 ng	m
20) T Dibenz[a,h]anthracene	20.72	57994871	35.768 ng	m
21) T Benzo[g,h,i]perylene	21.04	29470513	36.322 ng	
22) H C10-C12	2.70	42016176	65.512 ng	
23) H C12-C16	4.95	91370111	129.060 ng	
24) H C16-C21	9.60	184189122	233.800 ng	
25) H C21-C36	17.20	309295024	346.170 ng	

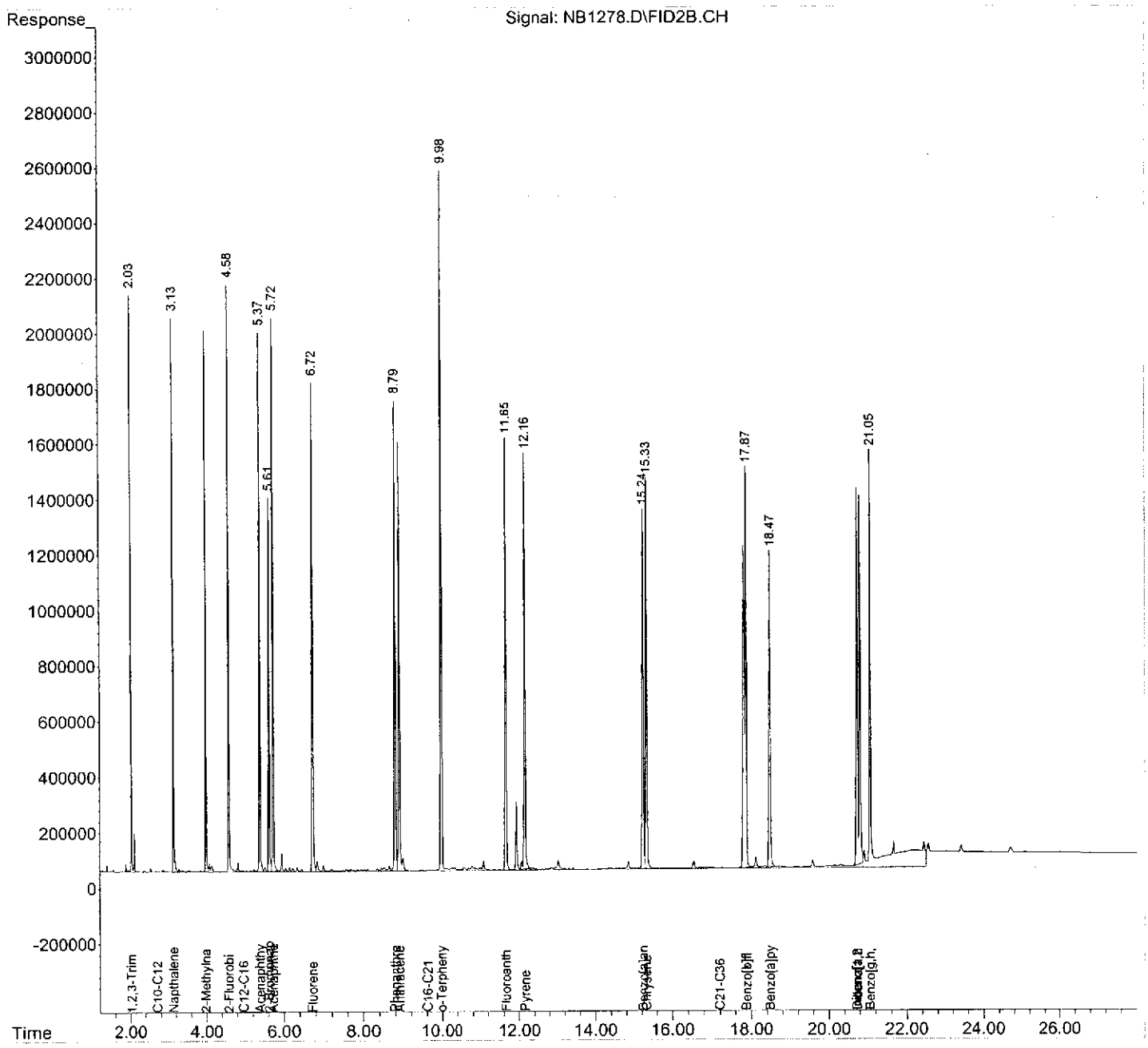
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1278.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 1:58
Operator : DK
Sample : ARO,LCSS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 75 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:56:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1279.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 2:33
Operator : DK
Sample : ARO,LCSDS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 76 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:56:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.58	27247969	37.969 ng	
Spiked Amount	50.000		Recovery =	75.94%	
2) S	2-Bromonaphthalene	5.61	20184188	40.349 ng	
Spiked Amount	50.000		Recovery =	80.70%	
3) S	o-Terphenyl	9.97	47276011	51.099 ng	
Spiked Amount	50.000		Recovery =	102.20%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	15058997	24.992 ng	
5) T	Napthalene	3.13	20853537	31.831 ng	
6) T	2-Methylnaphthalene	3.97	23508409	34.660 ng	
7) T	Acenaphthylene	5.37	26837499	38.345 ng	
8) T	Acenaphthene	5.72	28825300	39.984 ng	
9) T	Fluorene	6.72	29295678	40.106 ng	
10) T	Phenanthrene	8.79	30806969	40.877 ng	
11) T	Anthracene	8.89	30661966	40.185 ng	
12) T	Fluoroanthene	11.65	30616160	37.922 ng	
13) T	Pyrene	12.16	30641490	36.972 ng	
14) T	Benzo[a]anthracene	15.23	29065863	34.994 ng	m
15) T	Chrysene	15.33	30165617	36.111 ng	
16) T	Benzo[b]fluoranthene	17.86	59627118	35.392 ng	
17) T	Benzo[k]fluoranthene	17.86	59627118	35.392 ng	
18) T	Benzo[a]pyrene	18.47	26711937	32.192 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.80	54767811	33.810 ng	m
20) T	Dibenz[a,h]anthracene	20.80	55072544	33.965 ng	m
21) T	Benzo[g,h,i]perylene	21.05	27586191	33.999 ng	
22) H	C10-C12	2.70	38865172	60.599 ng	
23) H	C12-C16	4.95	84710692	119.654 ng	
24) H	C16-C21	9.60	172330043	218.747 ng	
25) H	C21-C36	17.20	289576877	324.101 ng	

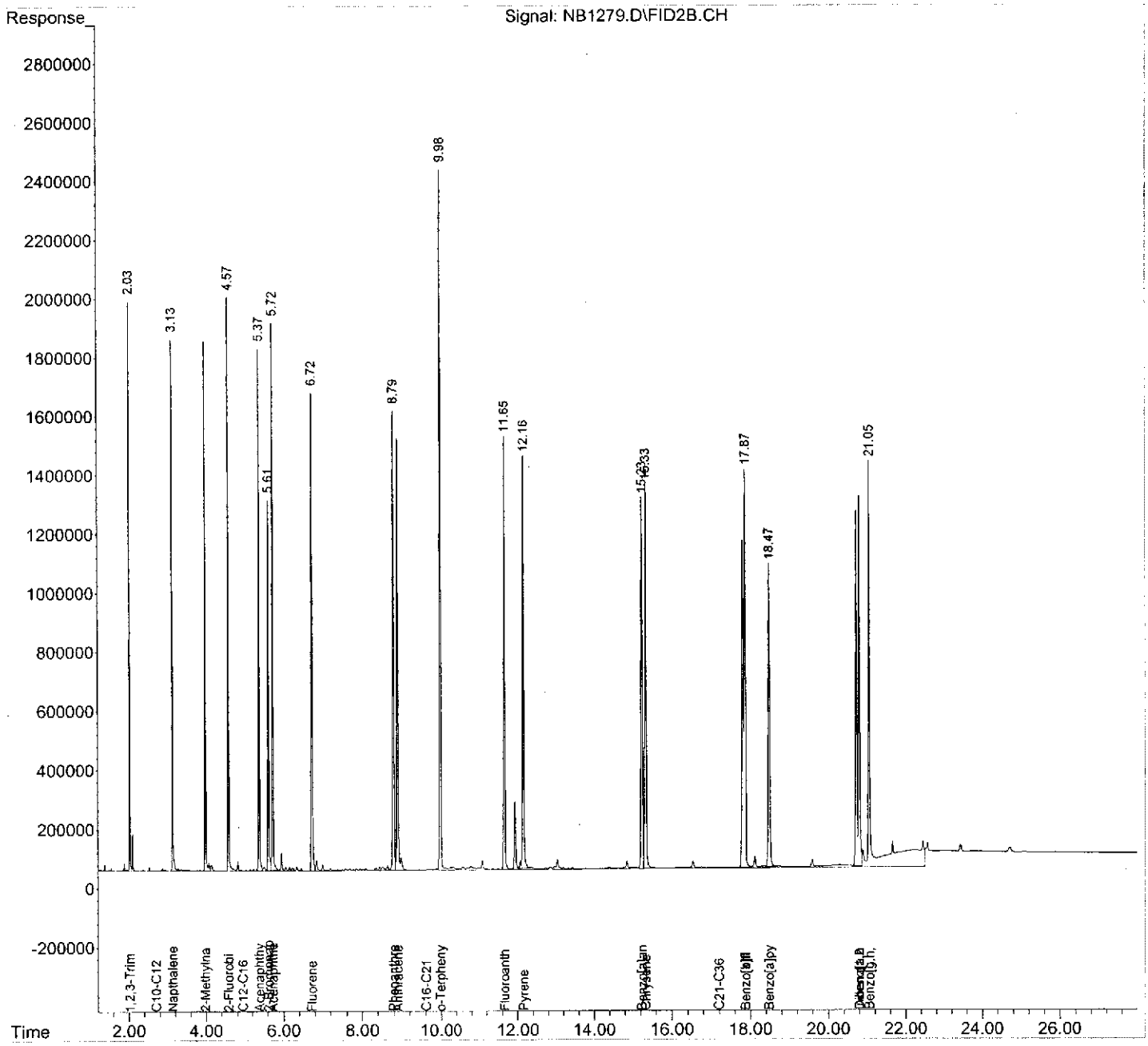
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1279.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 2:33
Operator : DK
Sample : ARO,LCSDS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 76 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:56:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1711.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 11:23
Operator : MJ
Sample : ALI,LCSS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:33:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.15	27304245	28.252 ng
Spiked Amount	50.000		Recovery =	56.50%
Target Compounds				
2) T	n-Nonane (C9)	1.34	16459143	17.732 ng
3) T	n-Decane (C10)	1.84	20540937	21.258 ng
4) T	n-Dodecane (C12)	3.26	24831480	25.682 ng
5) T	n-Tetradecane (C14)	5.00	29221688	28.962 ng
6) T	n-Hexadecane (C16)	7.06	31939518	31.198 ng
7) T	n-Octadecane (C18)	9.22	33022618	31.725 ng
8) T	n-Eicosane (C20)	11.30	32476443	31.819 ng
9) T	n-Heneicosane (C21)	12.30	37472955	37.412 ng
10) T	n-Docosane (C22)	13.25	34200165	34.539 ng
11) T	n-Tetracosane (C24)	15.06	29677856	31.230 ng
12) T	n-Hexacosane (C26)	16.75	28415073	31.116 ng
13) T	n-Octacosane (C28)	18.32	26820332	30.927 ng
14) T	n-Triacontane (C30)	19.78	25919452	31.095 ng
15) T	n-Dotriacontane (C32)	21.04	24849411	31.223 ng
16) T	n-Tetratriacontane (C34)	21.79	25946491	32.584 ng
17) T	n-Hexatriacontane (C36)	22.62	24686243	31.818 ng
18) T	n-Octatriacontane (C38)	23.65	23792796	31.211 ng
19) T	n-Tetracontane (40)	25.02	23821794	31.415 ng
20) H	C9-C12	2.36	67843005	66.507 ng
21) H	C12-C16	5.40	69279065	65.061 ng
22) H	C16-C21	9.95	115832600	110.042 ng
23) H	C21-C40	18.95	335291101	366.135 ng

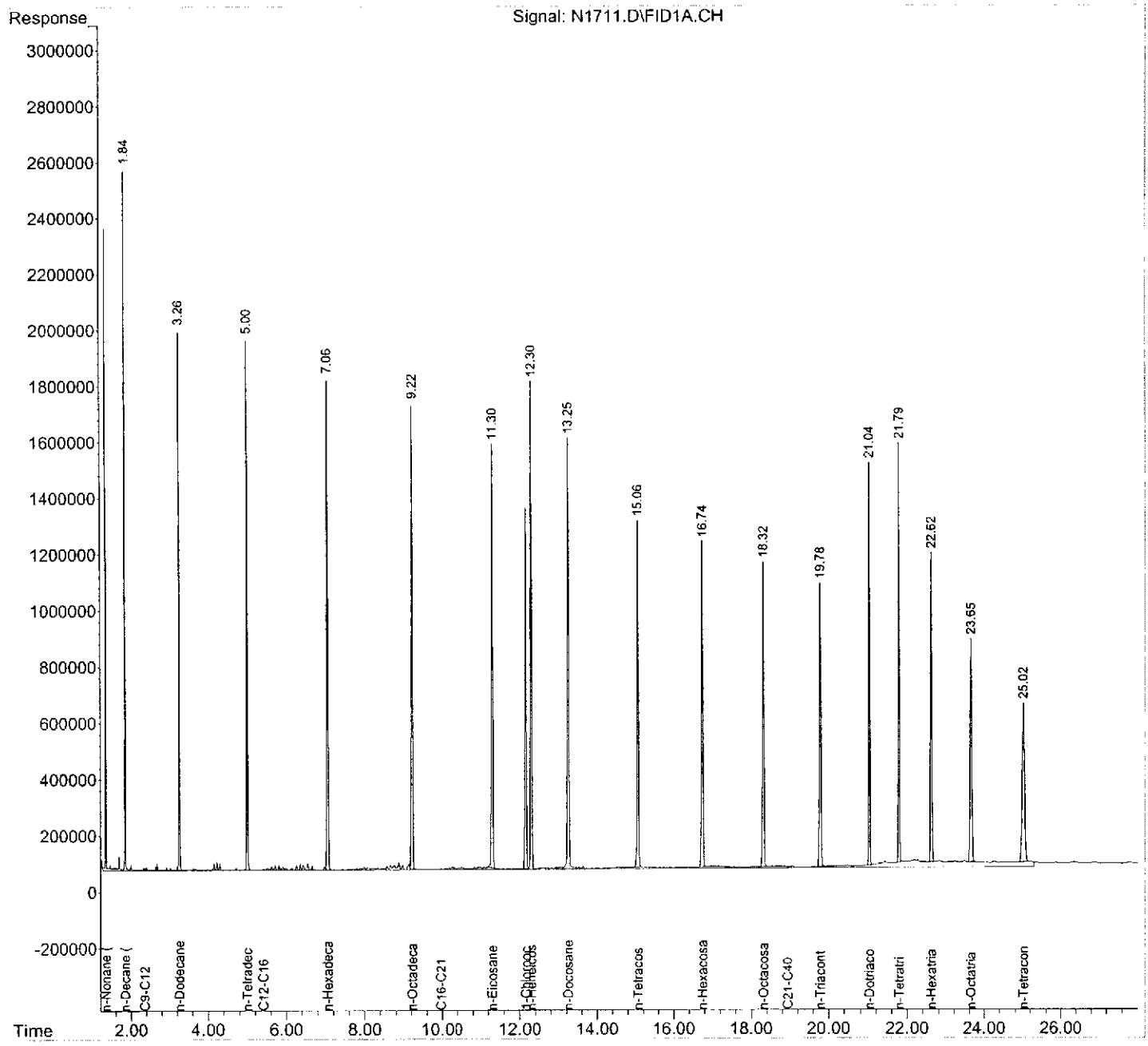
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1711.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 11:23
Operator : MJ
Sample : ALI,LCSS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:33:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1712.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 11:57
Operator : MJ
Sample : ALI,LCSDS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:33:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	28976854	29.983 ng
Spiked Amount 50.000		Recovery =	59.97%
Target Compounds			
2) T n-Nonane (C9)	1.34	17640374	19.005 ng
3) T n-Decane (C10)	1.84	22044971	22.814 ng
4) T n-Dodecane (C12)	3.26	26682977	27.597 ng
5) T n-Tetradecane (C14)	5.00	31323081	31.045 ng
6) T n-Hexadecane (C16)	7.06	34090713	33.299 ng
7) T n-Octadecane (C18)	9.22	35131814	33.752 ng
8) T n-Eicosane (C20)	11.30	34484755	33.787 ng
9) T n-Heneicosane (C21)	12.30	39748531	39.684 ng
10) T n-Docosane (C22)	13.25	36324636	36.685 ng
11) T n-Tetracosane (C24)	15.06	31414752	33.057 ng
12) T n-Hexacosane (C26)	16.74	30032095	32.887 ng
13) T n-Octacosane (C28)	18.31	28357783	32.700 ng
14) T n-Triacontane (C30)	19.78	27625881	33.142 ng
15) T n-Dotriacontane (C32)	21.04	26568701	33.383 ng
16) T n-Tetratriacontane (C34)	21.79	27931866	35.077 ng
17) T n-Hexatriacontane (C36)	22.61	26344705	33.956 ng
18) T n-Octatriacontane (C38)	23.64	25318030	33.212 ng
19) T n-Tetracontane (40)	25.01	25221217	33.260 ng
20) H C9-C12	2.36	71954379	70.537 ng
21) H C12-C16	5.40	74054461	69.545 ng
22) H C16-C21	9.95	122903356	116.759 ng
23) H C21-C40	18.95	357843884	390.763 ng

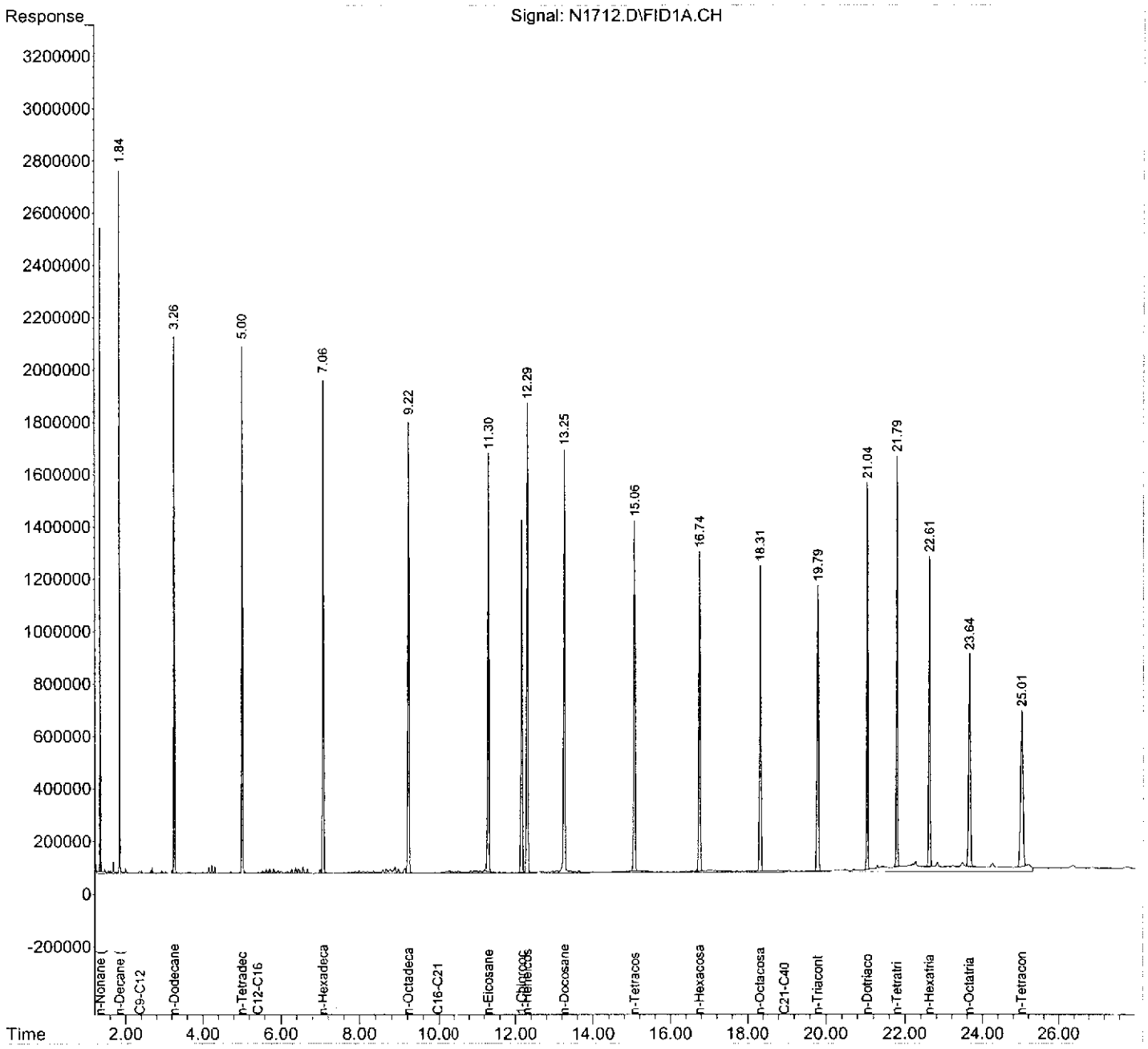
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1712.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 11:57
Operator : MJ
Sample : ALI,LCSDS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:33:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1343.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 11:23
Operator : MJ
Sample : ARO,LCSS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 81 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:54:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.57	18788647	26.181	ng	
Spiked Amount	50.000		Recovery =	52.36%		
2) S	2-Bromonaphthalene	5.60	13918624	27.824	ng	
Spiked Amount	50.000		Recovery =	55.65%		
3) S	o-Terphenyl	9.96	36336343	39.274	ng	
Spiked Amount	50.000		Recovery =	78.55%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.02	13384051	22.212	ng	
5) T	Napthalene	3.12	16109529	24.590	ng	
6) T	2-Methylnaphthalene	3.97	17356270	25.590	ng	
7) T	Acenaphthylene	5.37	20066852	28.672	ng	
8) T	Acenaphthene	5.71	21829722	30.280	ng	
9) T	Fluorene	6.71	22618007	30.964	ng	
10) T	Phenanthrene	8.88	24426378	32.411	ng	
11) T	Anthracene	8.89	24299917	31.847	ng	m
12) T	Fluoroanthene	11.64	30096056	37.278	ng	
13) T	Pyrene	12.15	31201776	37.648	ng	
14) T	Benzo[a]anthracene	15.23	33675753	40.544	ng	m
15) T	Chrysene	15.32	35595424	42.610	ng	
16) T	Benzo[b]fluoranthene	17.86	75395910	44.751	ng	
17) T	Benzo[k]fluoranthene	17.86	75395910	44.751	ng	
18) T	Benzo[a]pyrene	18.47	33876374	40.826	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.80	76154894	47.013	ng	m
20) T	Dibenz[a,h]anthracene	20.80	75807682	46.753	ng	m
21) T	Benzo[g,h,i]perylene	21.05	38315309	47.223	ng	
22) H	C10-C12	2.70	31290424	48.789	ng	
23) H	C12-C16	4.95	64326383	90.861	ng	
24) H	C16-C21	9.60	153898418	195.351	ng	
25) H	C21-C36	17.20	357243921	399.836	ng	

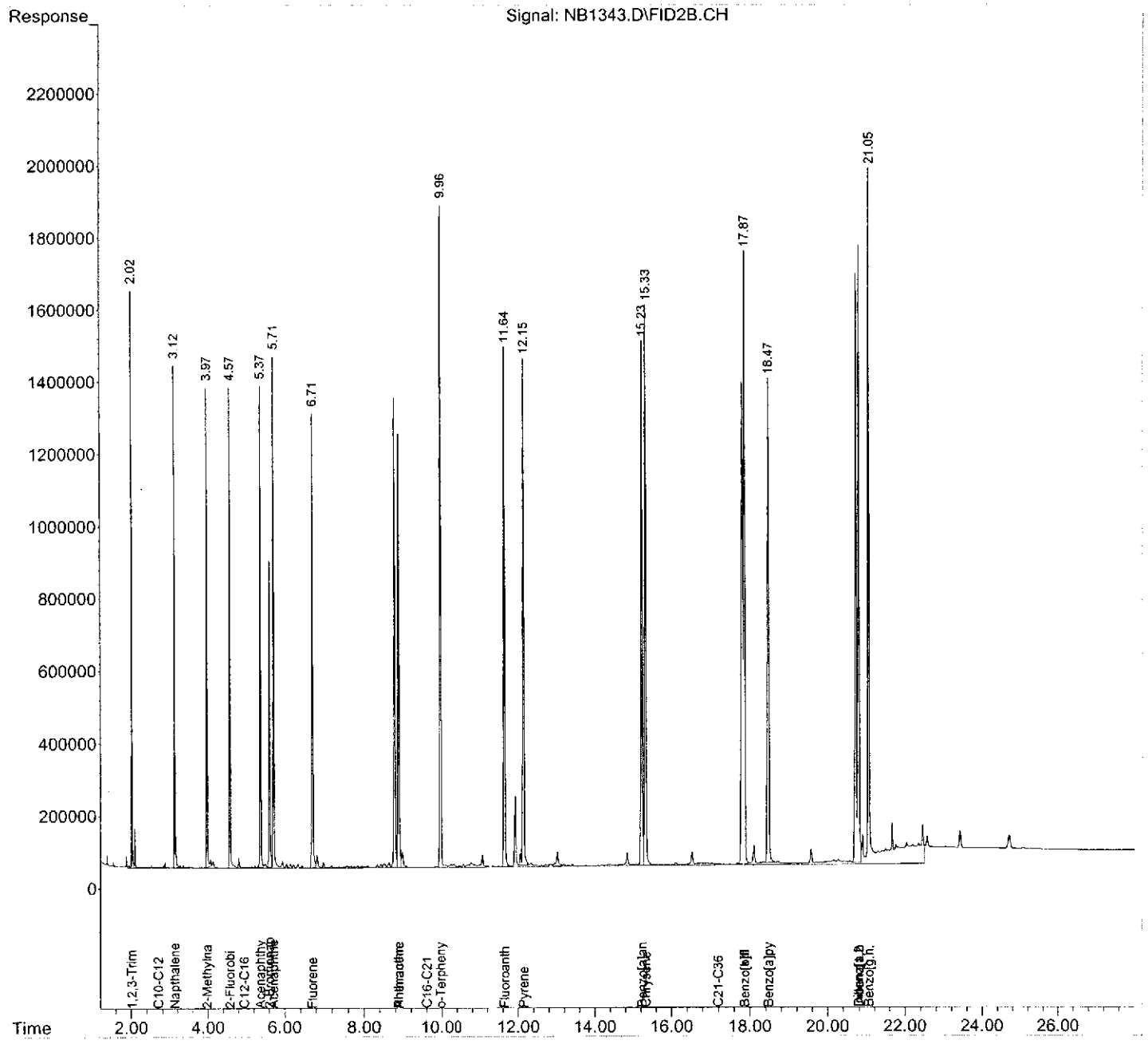
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1343.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 11:23
Operator : MJ
Sample : ARO,LCSS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 81 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:54:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1344.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 11:57
Operator : MJ
Sample : ARO,LCSDS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 82 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:55:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.57	19843267	27.651	ng	
Spiked Amount	50.000		Recovery =	55.30%		
2) S	2-Bromonaphthalene	5.60	14550278	29.087	ng	
Spiked Amount	50.000		Recovery =	58.17%		
3) S	o-Terphenyl	9.96	36979890	39.970	ng	
Spiked Amount	50.000		Recovery =	79.94%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.02	13650106	22.653	ng	
5) T	Napthalene	3.12	16888118	25.778	ng	
6) T	2-Methylnaphthalene	3.97	18316504	27.006	ng	
7) T	Acenaphthylene	5.37	21034857	30.055	ng	
8) T	Acenaphthene	5.71	22859789	31.709	ng	
9) T	Fluorene	6.71	23514496	32.191	ng	
10) T	Phenanthrene	8.78	26227887	34.801	ng	
11) T	Anthracene	8.89	26256855	34.412	ng	
12) T	Fluoroanthene	11.64	29568553	36.624	ng	
13) T	Pyrene	12.15	30531487	36.839	ng	
14) T	Benzo[a]anthracene	15.23	32188489	38.754	ng	m
15) T	Chrysene	15.32	33582917	40.201	ng	
16) T	Benzo[b]fluoranthene	17.86	69532613	41.271	ng	m
17) T	Benzo[k]fluoranthene	17.86	69476623	41.238	ng	m
18) T	Benzo[a]pyrene	18.46	30858403	37.189	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.79	67602941	41.734	ng	m
20) T	Dibenz[a,h]anthracene	20.79	67377800	41.554	ng	m
21) T	Benzo[g,h,i]perylene	21.05	34495975	42.515	ng	
22) H	C10-C12	2.70	33567986	52.340	ng	
23) H	C12-C16	4.95	67714102	95.646	ng	
24) H	C16-C21	9.60	154970811	196.712	ng	
25) H	C21-C36	17.20	326141702	365.025	ng	

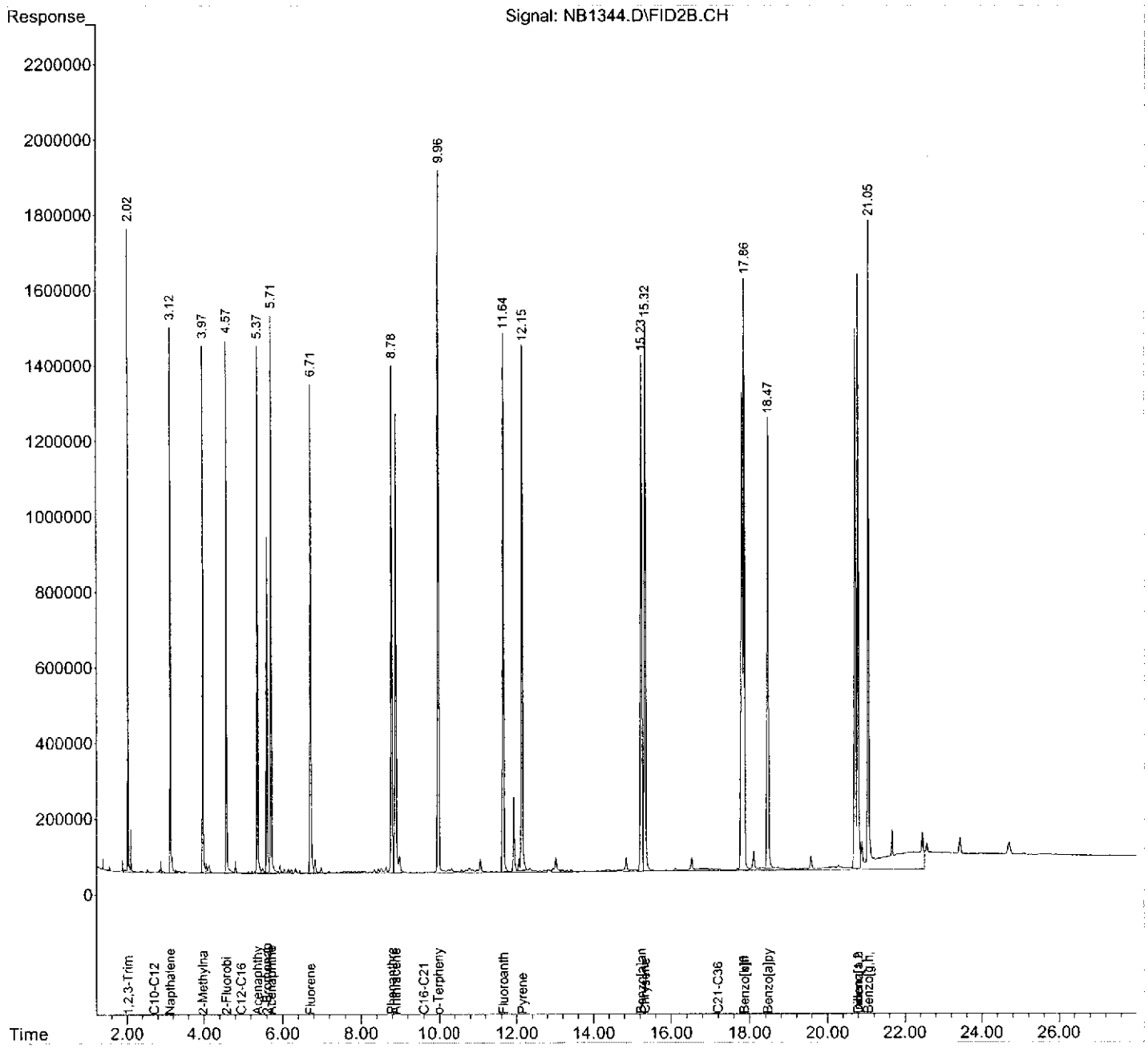
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1344.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 11:57
Operator : MJ
Sample : ARO,LCSDS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 82 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:55:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1640.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 23:07
Operator : DK
Sample : ALI,06499-010MS,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:59:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	28897091	29.901 ng
Spiked Amount 50.000		Recovery =	59.80%
Target Compounds			
20) H C9-C12	2.36	70507010	69.118 ng
21) H C12-C16	5.40	74898035	70.338 ng
22) H C16-C21	9.95	123652345	117.470 ng
23) H C21-C40	18.95	338971165	370.154 ng

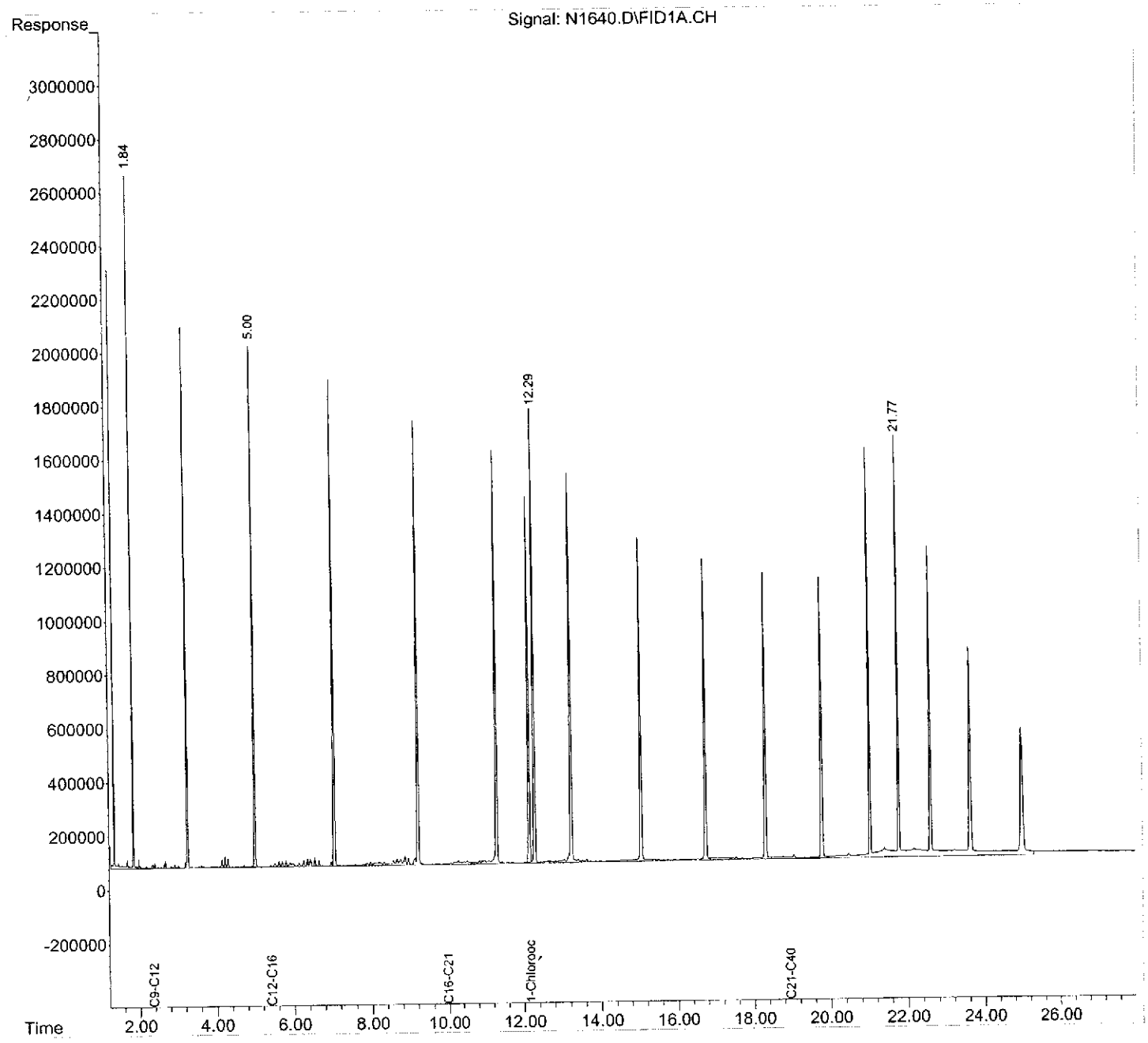
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1640.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 23:07
Operator : DK
Sample : ALI,06499-010MS,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 22 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:59:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1306.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 9:39
Operator : MJ
Sample : ARO,06499-010MS,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 13:58:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	20280768	28.260 ng
Spiked Amount 50.000		Recovery =	56.52%
2) S 2-Bromonaphthalene	5.61	14276069	28.538 ng
Spiked Amount 50.000		Recovery =	57.08%
3) S o-Terphenyl	9.97	37239052	40.250 ng
Spiked Amount 50.000		Recovery =	80.50%
Target Compounds			
22) H C10-C12	2.70	34755149	54.191 ng
23) H C12-C16	4.95	71089959	100.415 ng
24) H C16-C21	9.60	132765510	168.526 ng
25) H C21-C36	17.20	286661703	320.838 ng

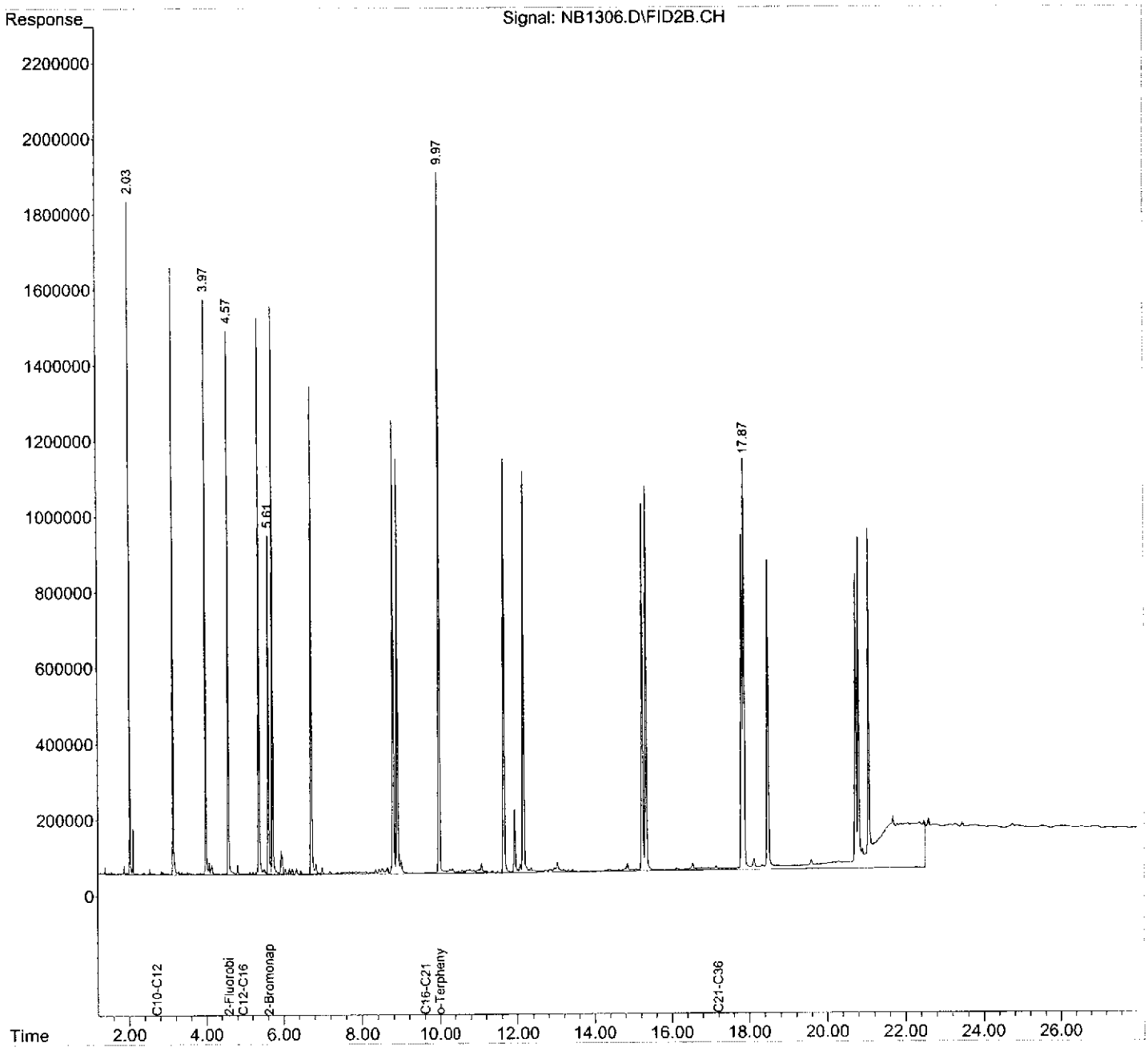
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1306.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 9:39
Operator : MJ
Sample : ARO,06499-010MS,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 13:58:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1668.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 15:06
Operator : DK
Sample : ALI,06466-006MS,S,5.29g,0,07/02/12,1
Misc : ,NA,NA,1
ALS Vial : 48 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:48:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	19365174	20.038 ng m
Spiked Amount 50.000		Recovery =	40.08%
Target Compounds			
20) H C9-C12	2.36	75560432	74.072 ng
21) H C12-C16	5.40	57848913	54.327 ng
22) H C16-C21	9.95	92924075	88.278 ng
23) H C21-C40	18.95	377612064	412.349 ng

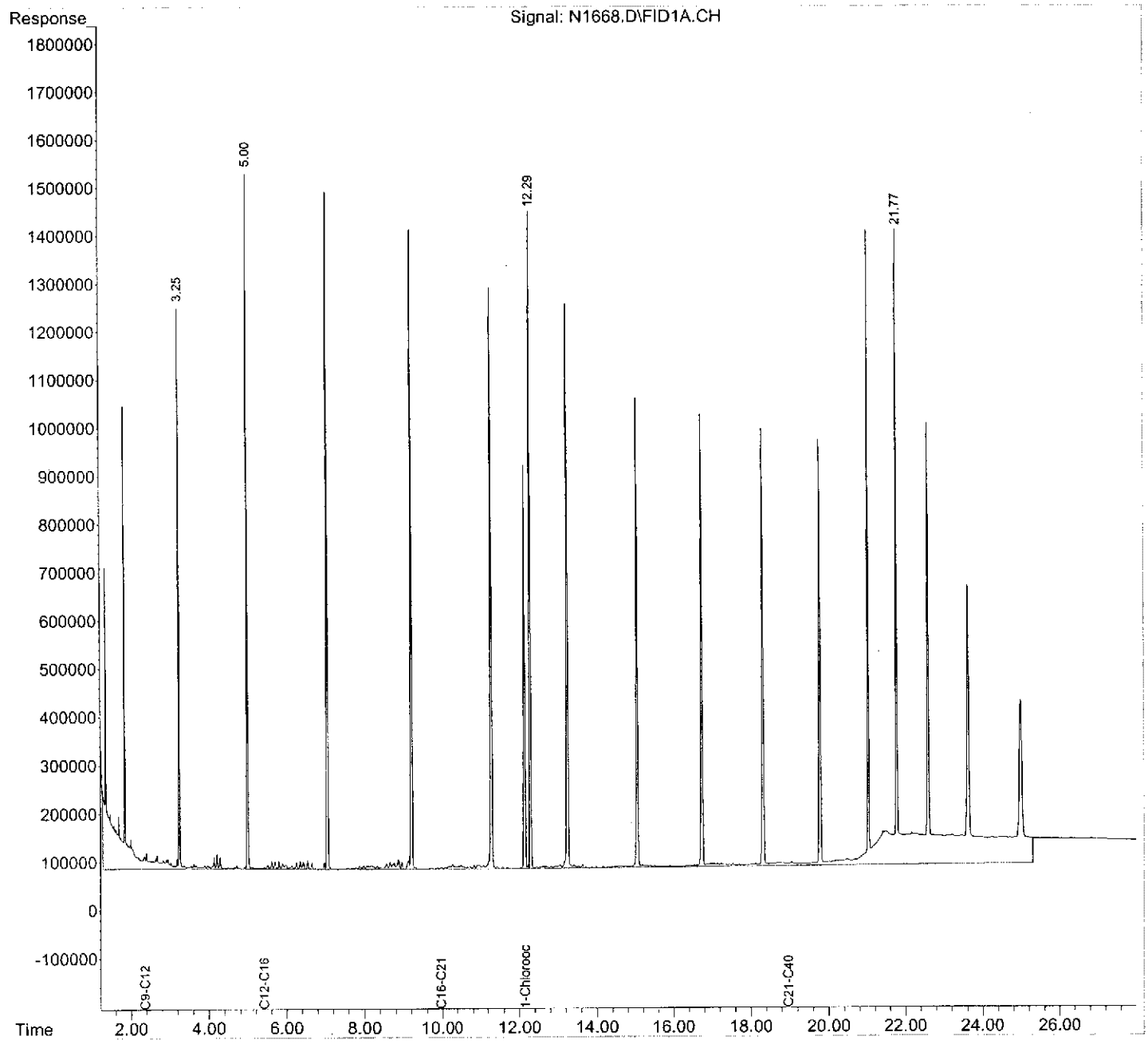
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1668.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 15:06
Operator : DK
Sample : ALI,06466-006MS,S,5.29g,0,07/02/12,1
Misc : ,NA,NA,1
ALS Vial : 48 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:48:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-06-12\
Data File : NB1301.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 15:06
Operator : DK
Sample : ARO,06466-006MS,S,5.29g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 98 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 07:46:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	17122342	23.859 ng
Spiked Amount 50.000		Recovery =	47.72%
2) S 2-Bromonaphthalene	5.61	13402903	26.793 ng
Spiked Amount 50.000		Recovery =	53.59%
3) S o-Terphenyl	9.97	32851214	35.508 ng
Spiked Amount 50.000		Recovery =	71.02%
Target Compounds			
22) H C10-C12	2.70	31935236	49.794 ng
23) H C12-C16	4.95	56332546	79.570 ng
24) H C16-C21	9.60	125132728	158.837 ng
25) H C21-C36	17.20	298455874	334.039 ng

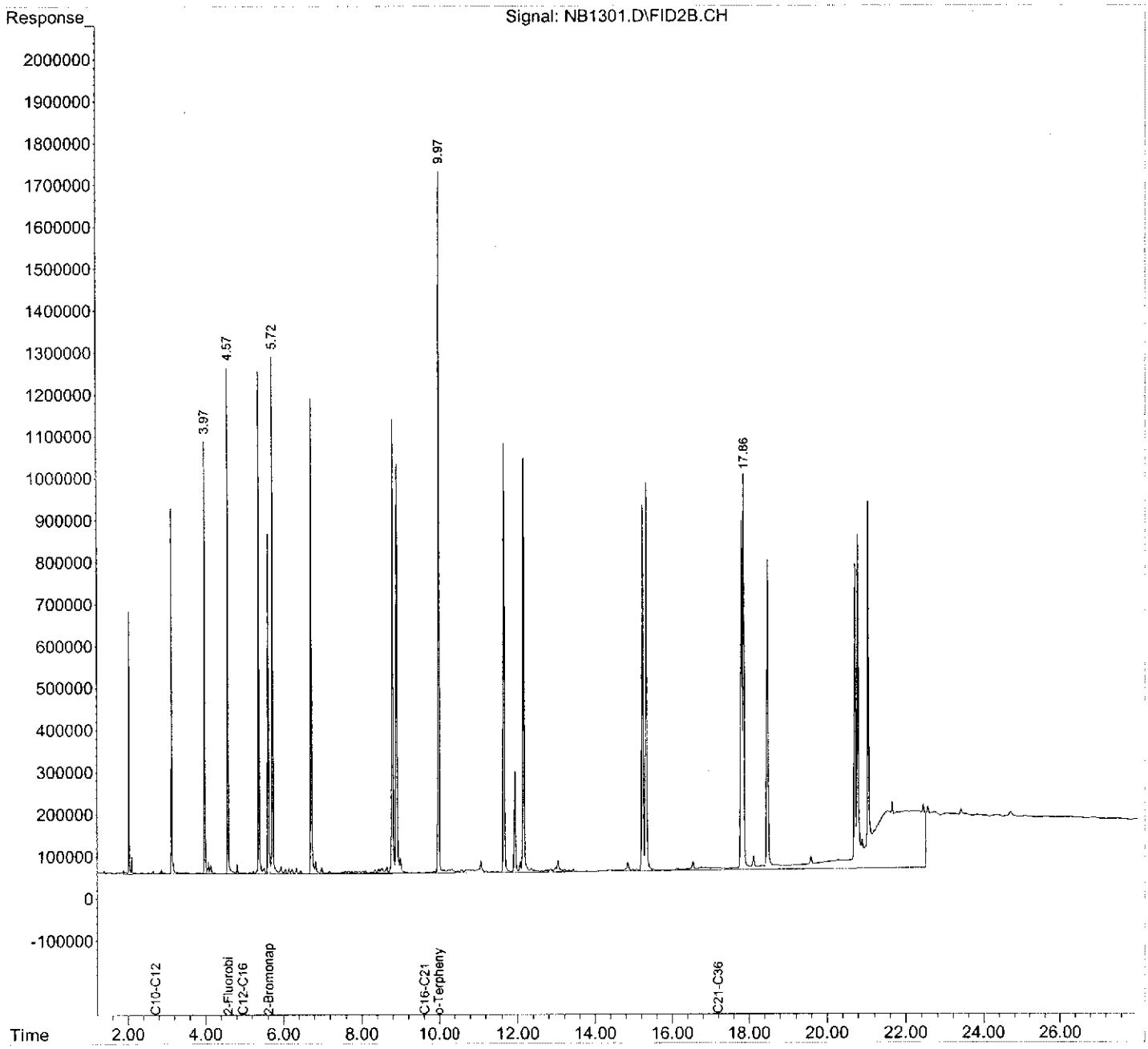
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-06-12\
Data File : NB1301.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 15:06
Operator : DK
Sample : ARO,06466-006MS,S,5.29g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 98 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 07:46:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-29-12\
Data File : N1606.D
Signal(s) : FID1A.CH
Acq On : 29 Jun 2012 23:39
Operator : MJ
Sample : ALI,06400-001MS,S,5.00g,0,06/29/12,1
Misc : 062912-01,NA,NA,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 09:28:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.14	34838380	36.048 ng
Spiked Amount 50.000		Recovery =	72.10%
Target Compounds			
20) H C9-C12	2.36	140734466	137.962 ng
21) H C12-C16	5.40	92470686	86.840 ng
22) H C16-C21	9.95	137022167	130.172 ng
23) H C21-C40	18.95	348304965	380.346 ng

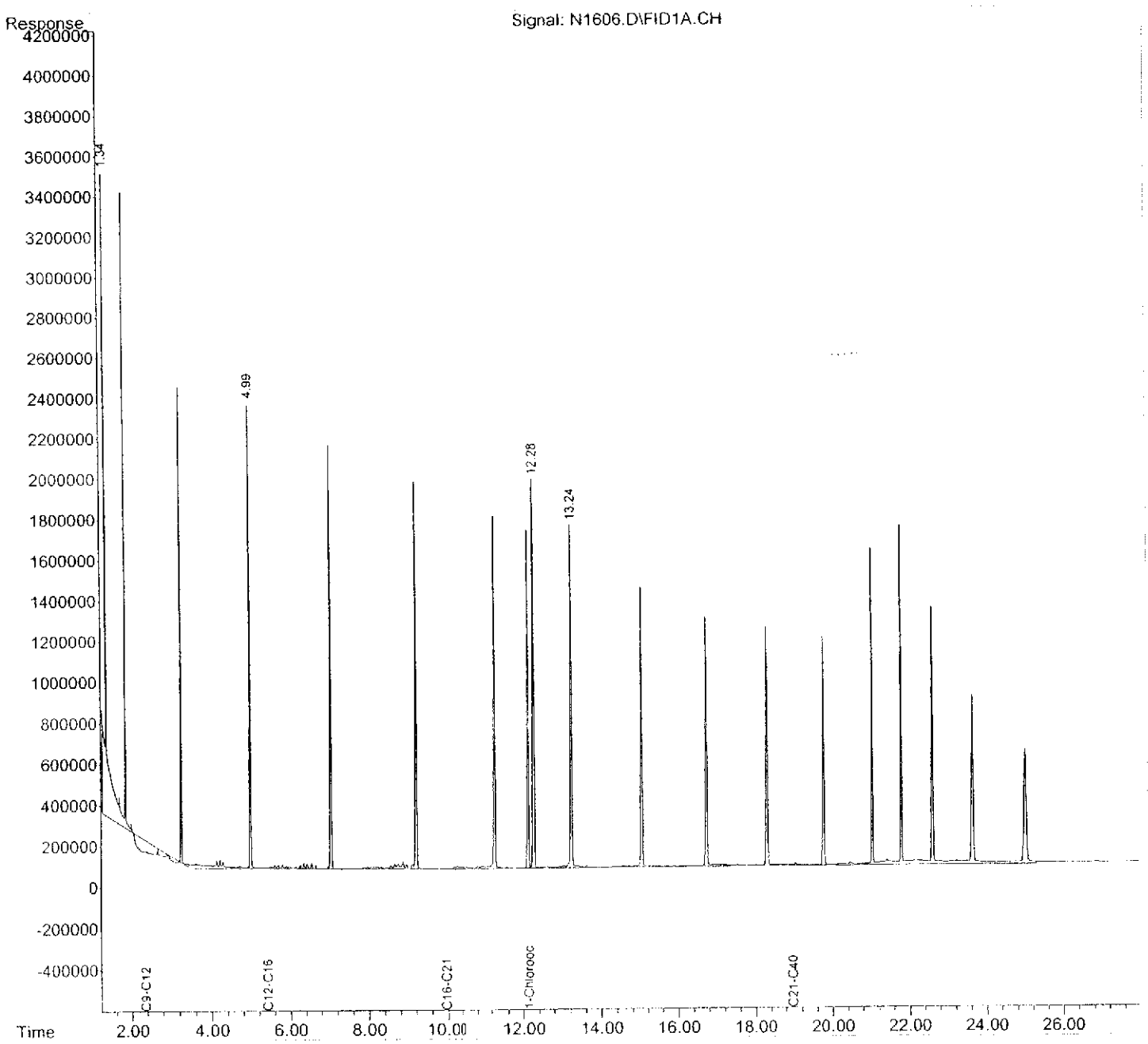
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-29-12\
Data File : N1606.D
Signal(s) : FID1A.CH
Acq On : 29 Jun 2012 23:39
Operator : MJ
Sample : ALI,06400-001MS,S,5.00g,0,06/29/12,1
Misc : 062912-01,NA,NA,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 09:28:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-29-12\
Data File : NB1239.D
Signal(s) : FID2B.CH
Acq On : 29 Jun 2012 23:39
Operator : MJ
Sample : ARO,06400-001MS,S,5.00g,0,06/29/12,1
Misc : 062912-01,NA,NA,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 07:47:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	29974359	41.768 ng
Spiked Amount 50.000		Recovery =	83.54%
2) S 2-Bromonaphthalene	5.62	21778384	43.536 ng
Spiked Amount 50.000		Recovery =	87.07%
3) S o-Terphenyl	9.98	43940651	47.494 ng
Spiked Amount 50.000		Recovery =	94.99%
Target Compounds			
22) H C10-C12	2.70	44490910	69.371 ng
23) H C12-C16	4.95	88083335	124.418 ng
24) H C16-C21	9.60	176377083	223.884 ng
25) H C21-C36	17.20	281406517	314.957 ng

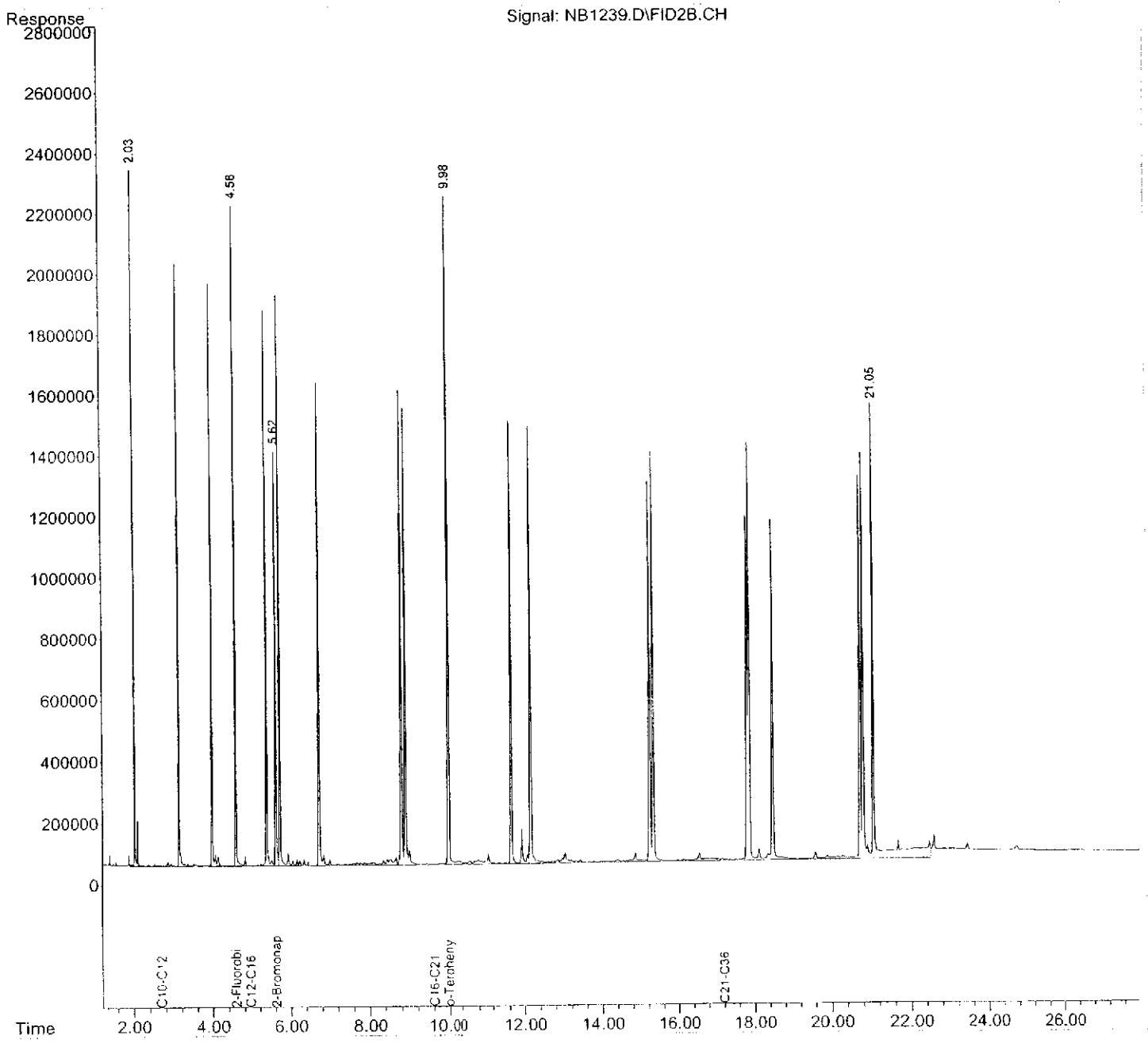
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-29-12\
Data File : NB1239.D
Signal(s) : FID2B.CH
Acq On : 29 Jun 2012 23:39
Operator : MJ
Sample : ARO,06400-001MS,S,5.00g,0,06/29/12,1
Misc : 062912-01,NA,NA,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 07:47:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1639.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 22:33
Operator : DK
Sample : PET-GP-1,06499-10D,S,5.00g,8.10,07/03/12,1
Misc : 120703-07,06/29/12,06/29/12,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:18:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	28050961	29.025 ng
Spiked Amount 50.000		Recovery =	58.05%
Target Compounds			

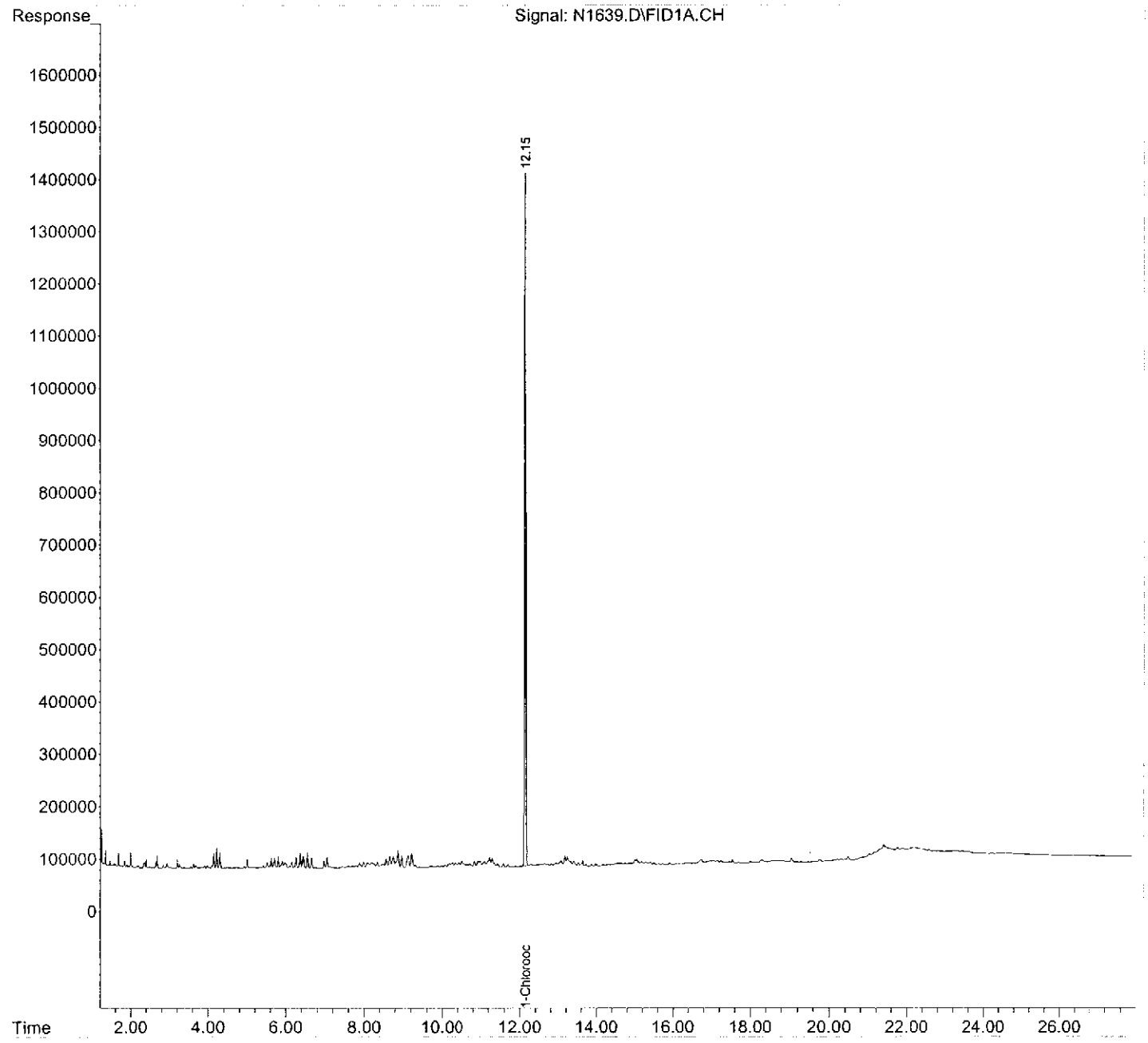
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1639.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 22:33
Operator : DK
Sample : PET-GP-1,06499-10D,S,5.00g,8.10,07/03/12,1
Misc : 120703-07,06/29/12,06/29/12,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:18:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1305.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 9:04
Operator : MJ
Sample : PET-GP-1,06499-10D,S,5.00g,8.10,07/03/12,1
Misc : 120703-07,06/29/12,06/29/12,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 13:57:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	18073365	25.184 ng
Spiked Amount 50.000		Recovery =	50.37%
2) S 2-Bromonaphthalene	5.61	13348977	26.685 ng
Spiked Amount 50.000		Recovery =	53.37%
3) S o-Terphenyl	9.97	37492559	40.524 ng
Spiked Amount 50.000		Recovery =	81.05%
Target Compounds			

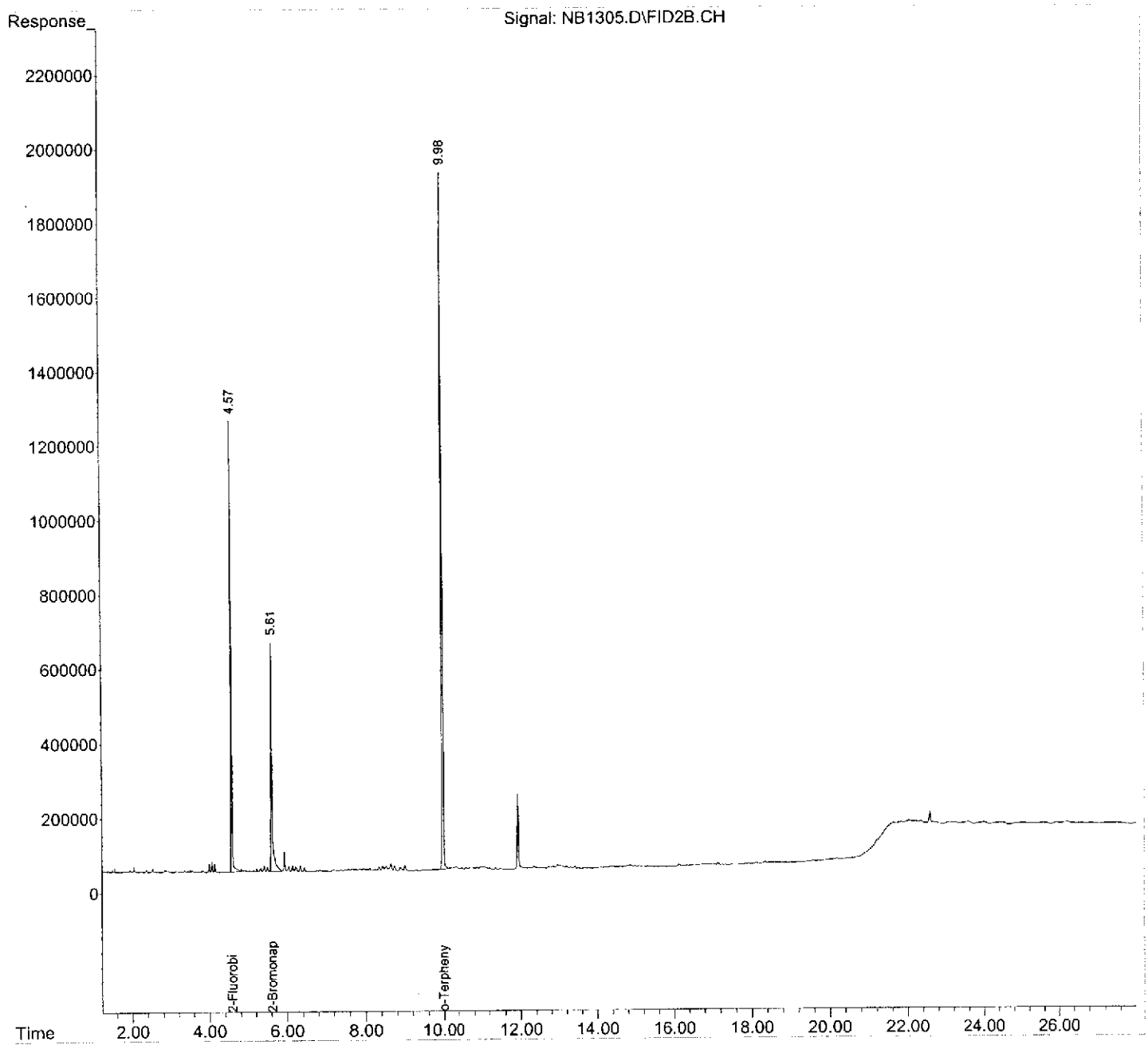
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-09-12\
Data File : NB1305.D
Signal(s) : FID2B.CH
Acq On : 09 Jul 2012 9:04
Operator : MJ
Sample : PET-GP-1,06499-10D,S,5.00g,8.10,07/03/12,1
Misc : 120703-07,06/29/12,06/29/12,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 13:57:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1667.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 14:31
Operator : DK
Sample : A2_(4-5),06466-6D,S,5.33g,3.40,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 47 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:58:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	12.14	19924232	20.616	ng	m
Spiked Amount 50.000		Recovery = 41.23%			

Target Compounds

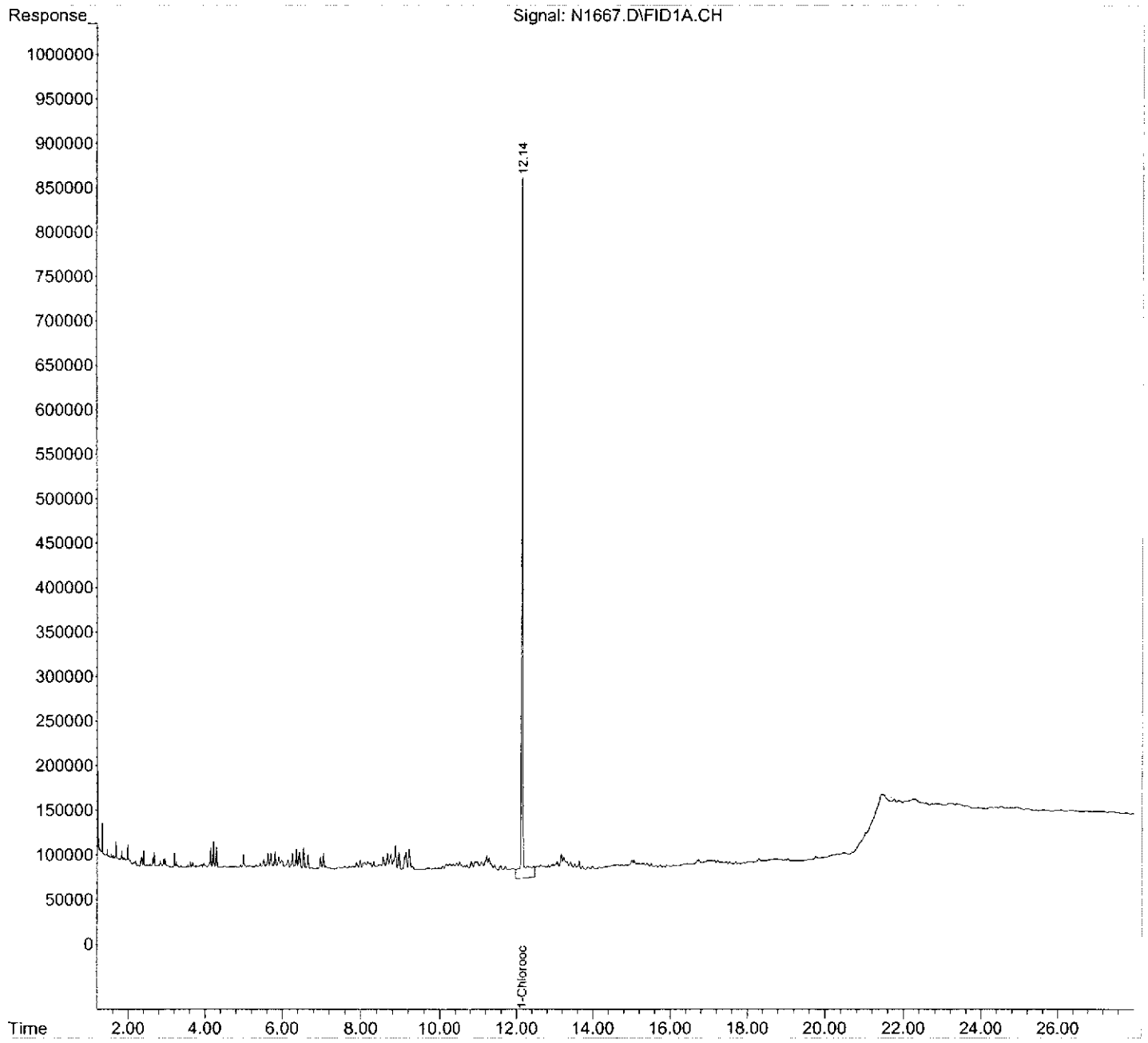
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-06-12\
Data File : N1667.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 14:31
Operator : DK
Sample : A2_(4-5),06466-6D,S,5.33g,3.40,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 47 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:58:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-06-12\
Data File : NB1300.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 14:31
Operator : DK
Sample : A2_(4-5),06466-6D,S,5.33g,3.40,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 97 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:44:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	19956303	27.808 ng
Spiked Amount 50.000		Recovery =	55.62%
2) S 2-Bromonaphthalene	5.61	15761763	31.508 ng
Spiked Amount 50.000		Recovery =	63.02%
3) S o-Terphenyl	9.97	32076320	34.670 ng
Spiked Amount 50.000		Recovery =	69.34%
Target Compounds			

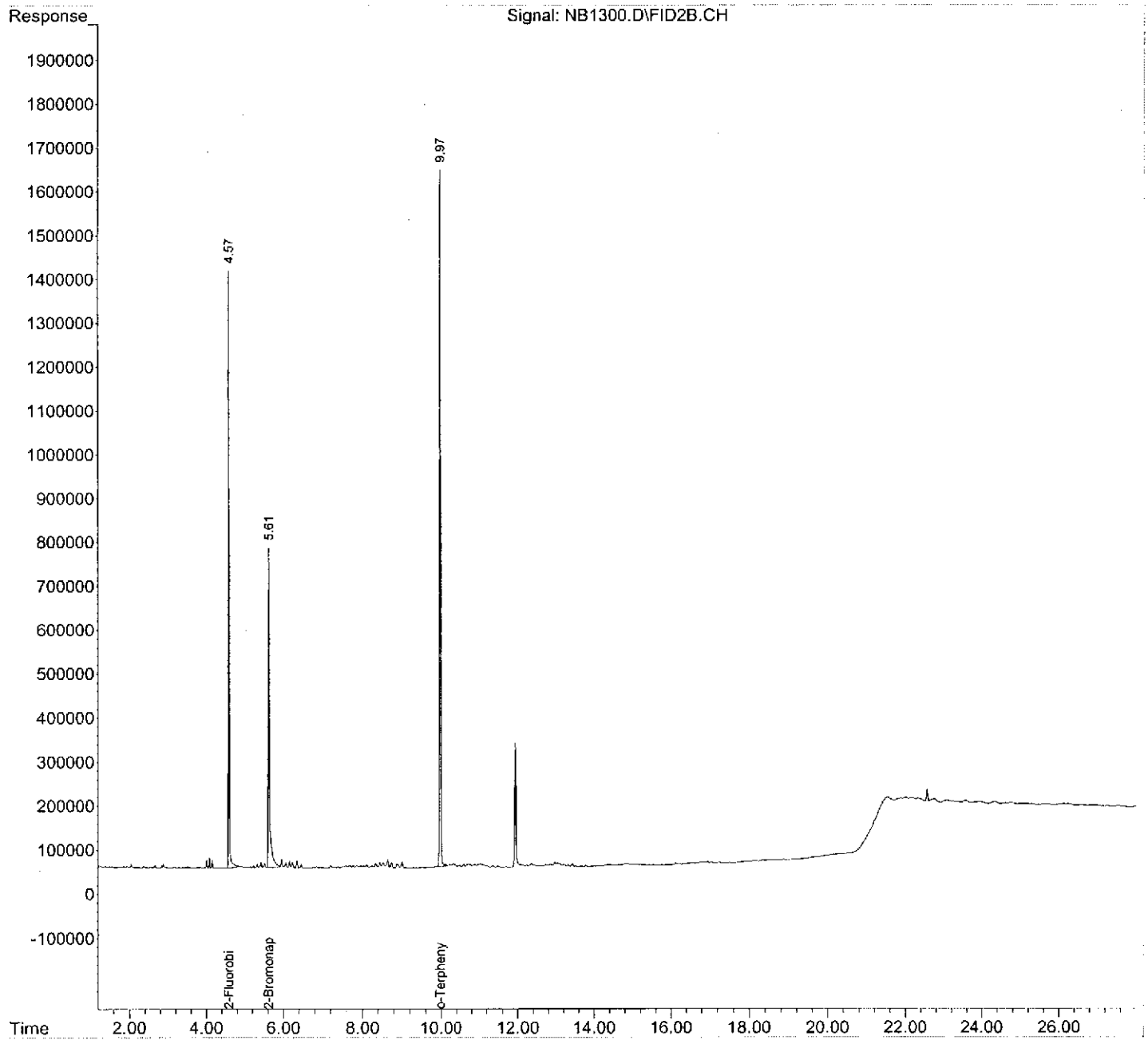
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-06-12\
Data File : NB1300.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 14:31
Operator : DK
Sample : A2_(4-5),06466-6D,S,5.33g,3.40,07/02/12,1
Misc : 120702-13,06/27/12,06/28/12,1
ALS Vial : 97 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 14:44:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-29-12\
Data File : N1605.D
Signal(s) : FID1A.CH
Acq On : 29 Jun 2012 23:05
Operator : MJ
Sample : EH-1/1-1,06400-1D,S,5.00g,13.8,06/29/12,1
Misc : 062912-01,06/25/12,06/27/12,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 09:27:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.14	31236561	32.321 ng
Spiked Amount 50.000		Recovery =	64.64%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

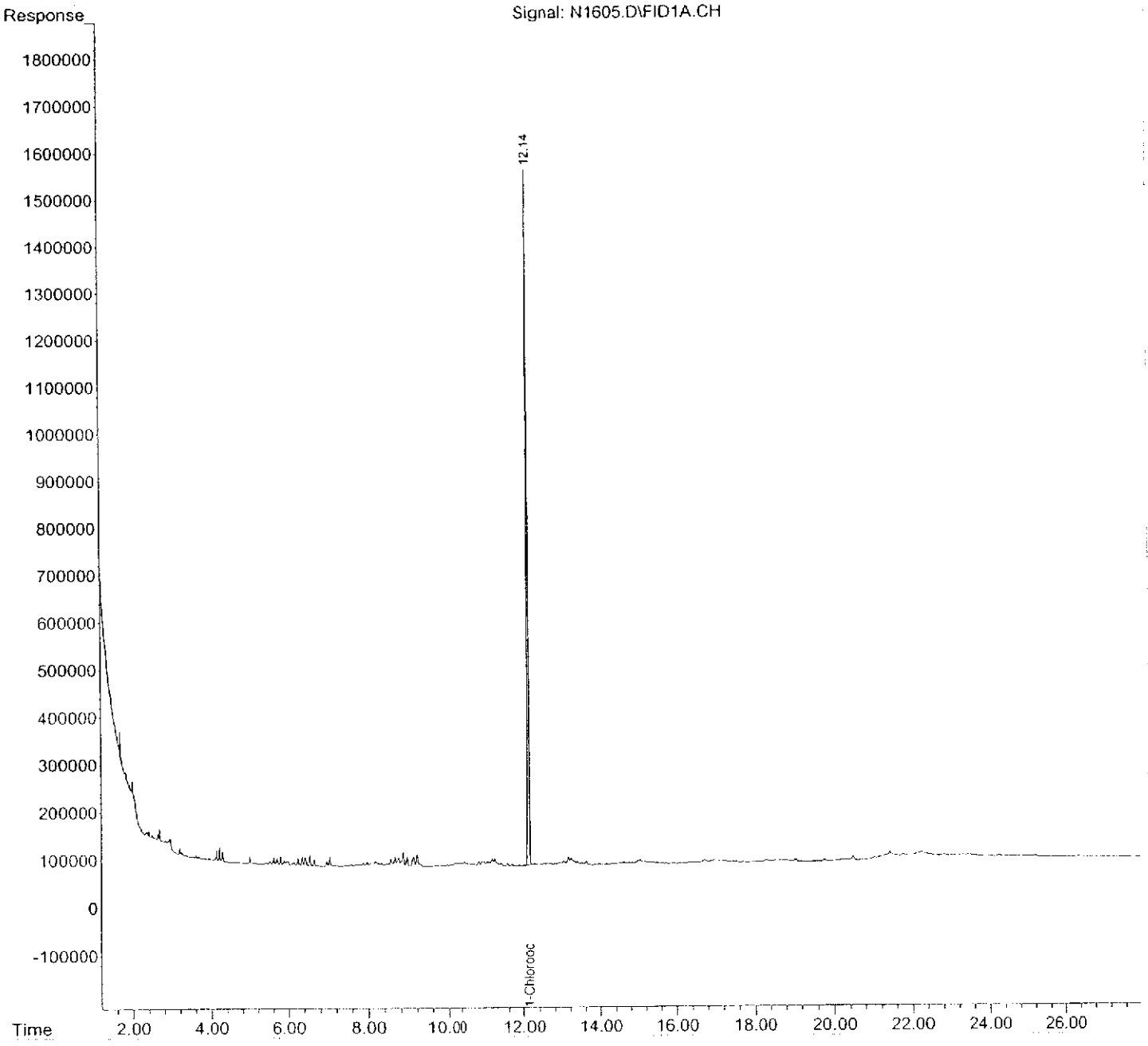
E12-06466 0608

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-29-12\
Data File : N1605.D
Signal(s) : FID1A.CH
Acq On : 29 Jun 2012 23:05
Operator : MJ
Sample : EH-1/1-1,06400-1D,S,5.00g,13.8,06/29/12,1
Misc : 062912-01,06/25/12,06/27/12,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 09:27:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-29-12\
Data File : NB1238.D
Signal(s) : FID2B.CH
Acq On : 29 Jun 2012 23:05
Operator : MJ
Sample : EH-1/1-1,06400-1D,S,5.00g,13.8,06/29/12,1
Misc : 062912-01,06/25/12,06/27/12,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 07:47:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	25492048	35.522 ng
Spiked Amount 50.000		Recovery =	71.04%
2) S 2-Bromonaphthalene	5.61	19250609	38.483 ng
Spiked Amount 50.000		Recovery =	76.97%
3) S o-Terphenyl	9.98	39099318	42.261 ng
Spiked Amount 50.000		Recovery =	84.52%
Target Compounds			

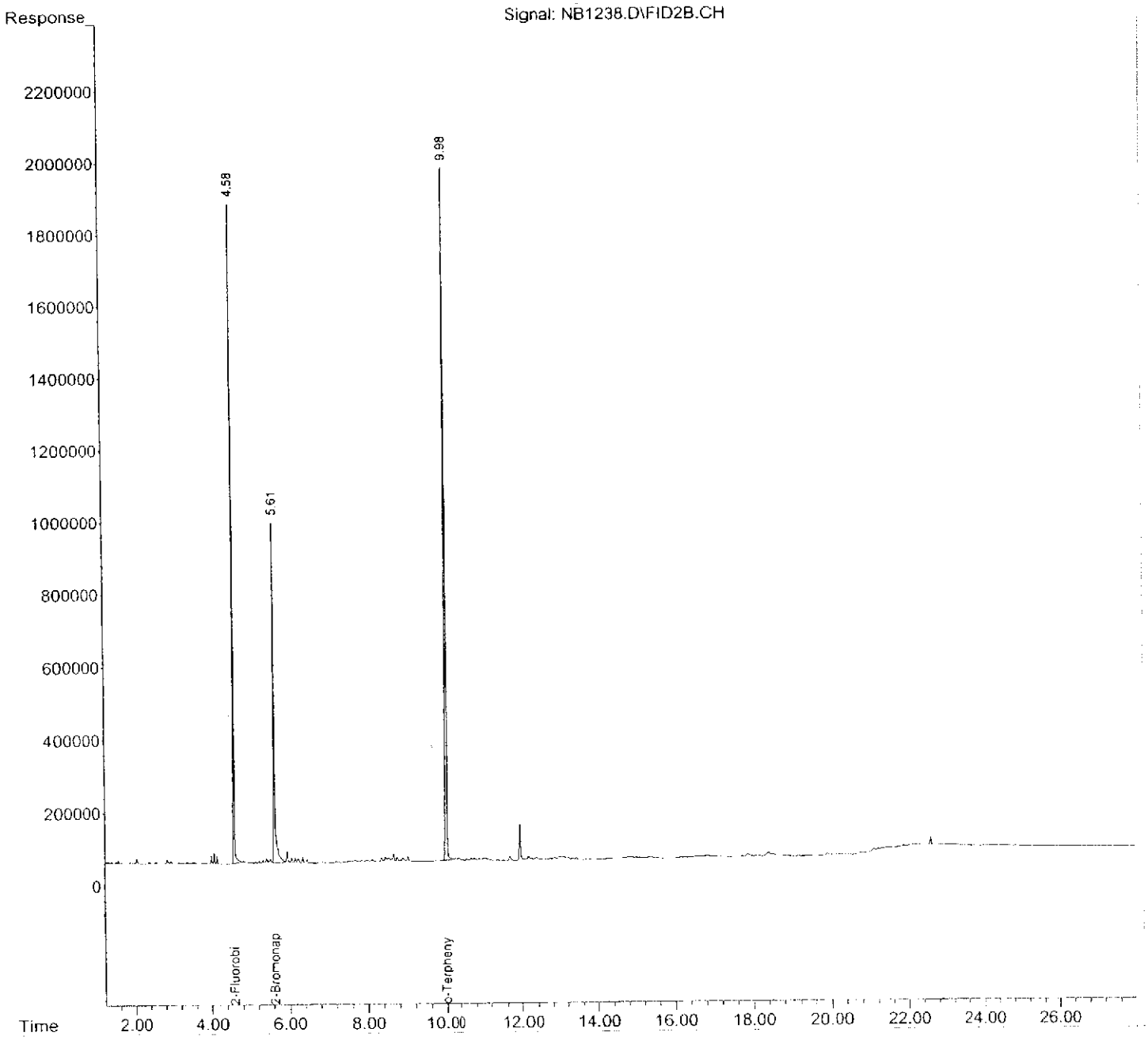
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-29-12\
Data File : NB1238.D
Signal(s) : FID2B.CH
Acq On : 29 Jun 2012 23:05
Operator : MJ
Sample : EH-1/1-1,06400-1D,S,5.00g,13.8,06/29/12,1
Misc : 062912-01,06/25/12,06/27/12,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 07:47:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS120703-07
Client ID: ARO
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/06/2012
Data file: N1621.D
Data file: NB1254.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	2.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	2.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0		40.0	10.0
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0		32.0	8.00
Total NJ-EPH	0		40.0	10.0

E12-06466 0612

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1621.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 12:09
Operator : DK
Sample : ALI,BLKS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:07:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	29745414	30.778 ng
Spiked Amount 50.000		Recovery =	61.56%
Target Compounds			

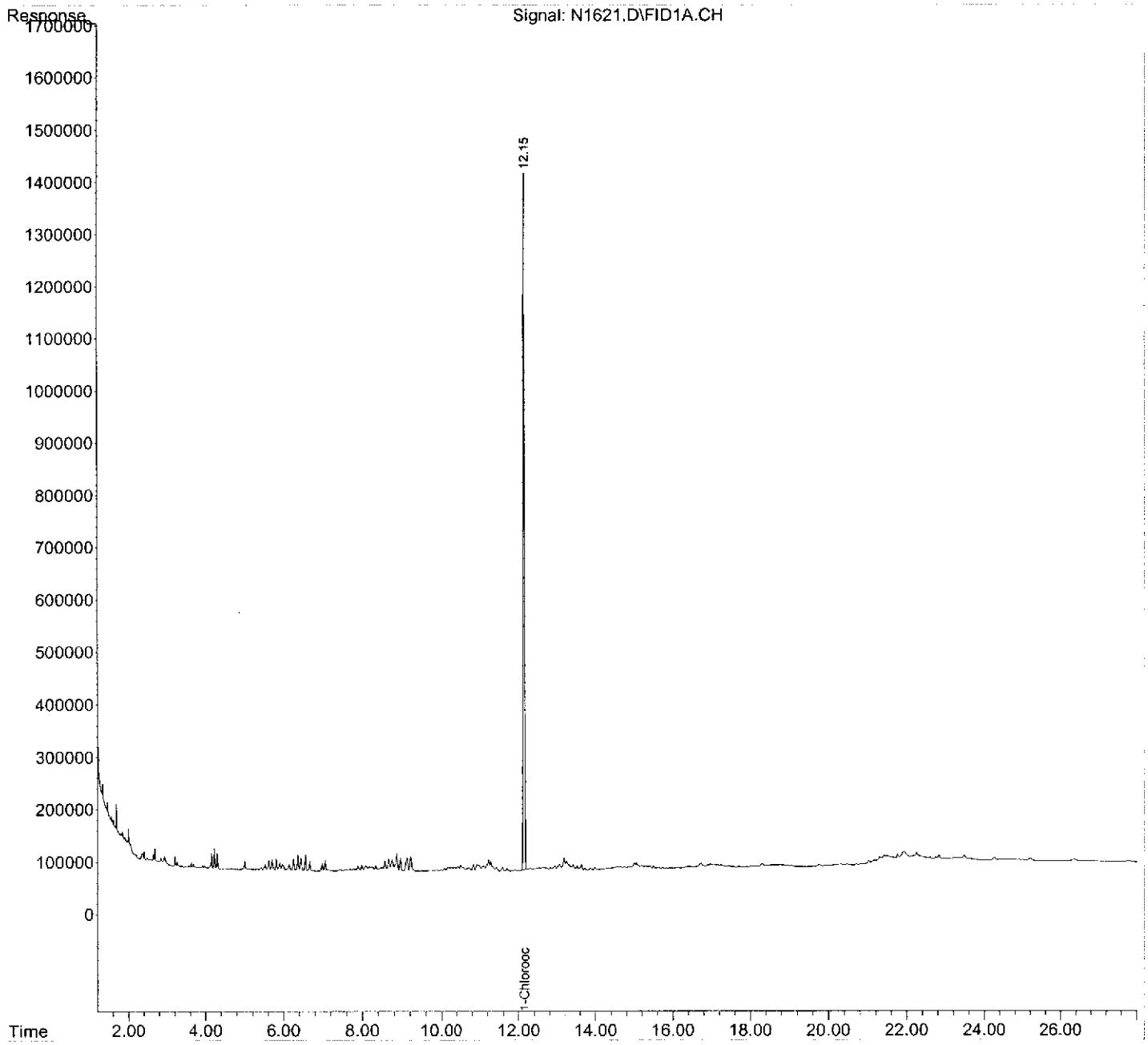
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1621.D
Signal(s) : FID1A.CH
Acq On : 06 Jul 2012 12:09
Operator : DK
Sample : ALI,BLKS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:07:47 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1254.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 12:09
Operator : DK
Sample : ARO,BLKS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:18:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	26117090	36.393 ng
Spiked Amount 50.000		Recovery =	72.79%
2) S 2-Bromonaphthalene	5.61	19977961	39.937 ng
Spiked Amount 50.000		Recovery =	79.87%
3) S o-Terphenyl	9.97	46048042	49.771 ng
Spiked Amount 50.000		Recovery =	99.54%
Target Compounds			

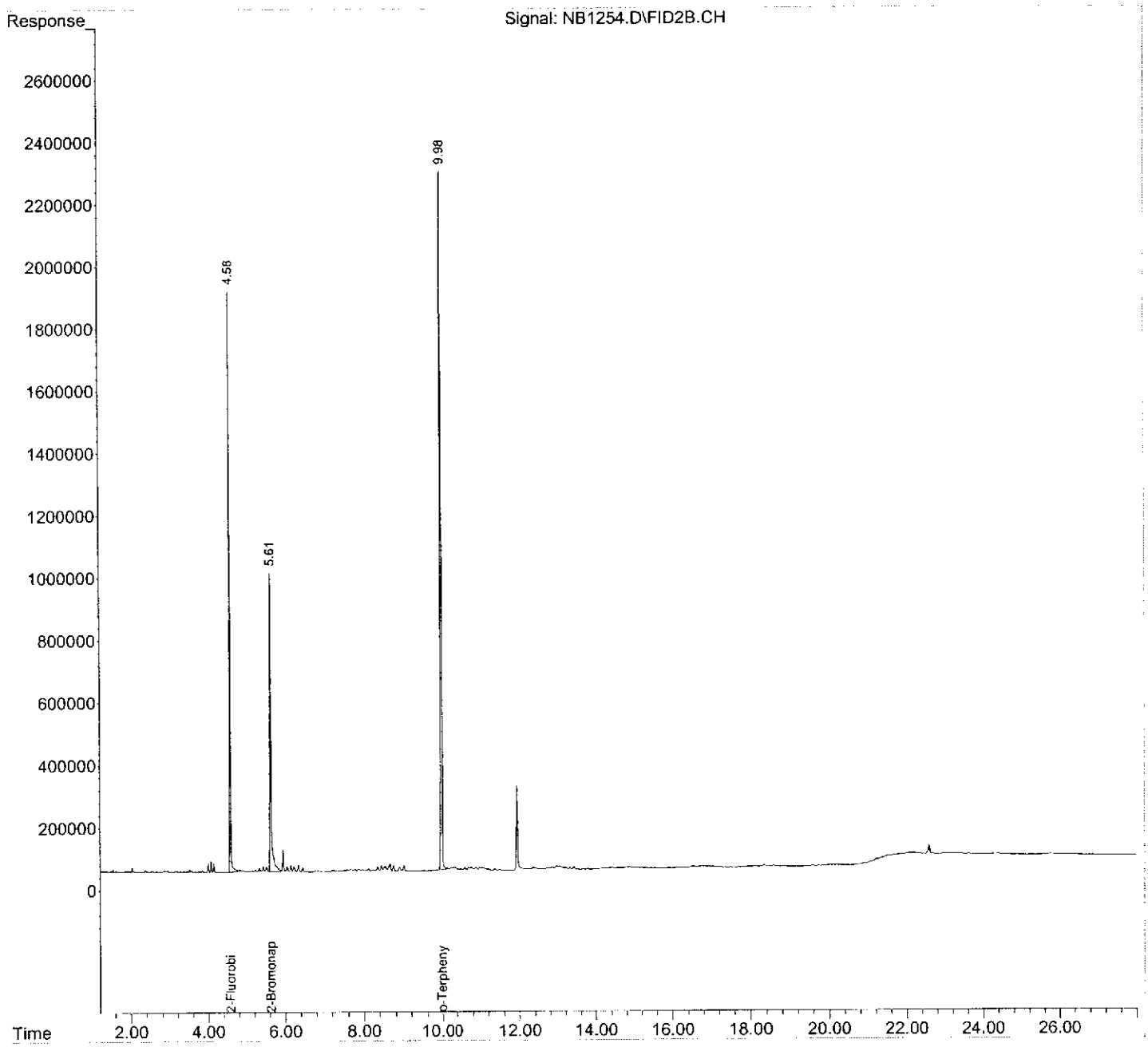
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1254.D
Signal(s) : FID2B.CH
Acq On : 06 Jul 2012 12:09
Operator : DK
Sample : ARO,BLKS120703-07,S,5.00g,0,07/03/12,1
Misc : 120703-07,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:18:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS120702-13
Client ID: ARO
Date Received: NA
Date Extracted: 07/02/2012
Date Analyzed: 07/07/2012
Data file: N1644.D
Data file: NB1277.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	2.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	2.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0		40.0	10.0
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0		32.0	8.00
Total NJ-EPH	0		40.0	10.0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1644.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 1:24
Operator : DK
Sample : ALI,BLKS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 24 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:19:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	28201899	29.181 ng
Spiked Amount 50.000		Recovery =	58.36%
Target Compounds			

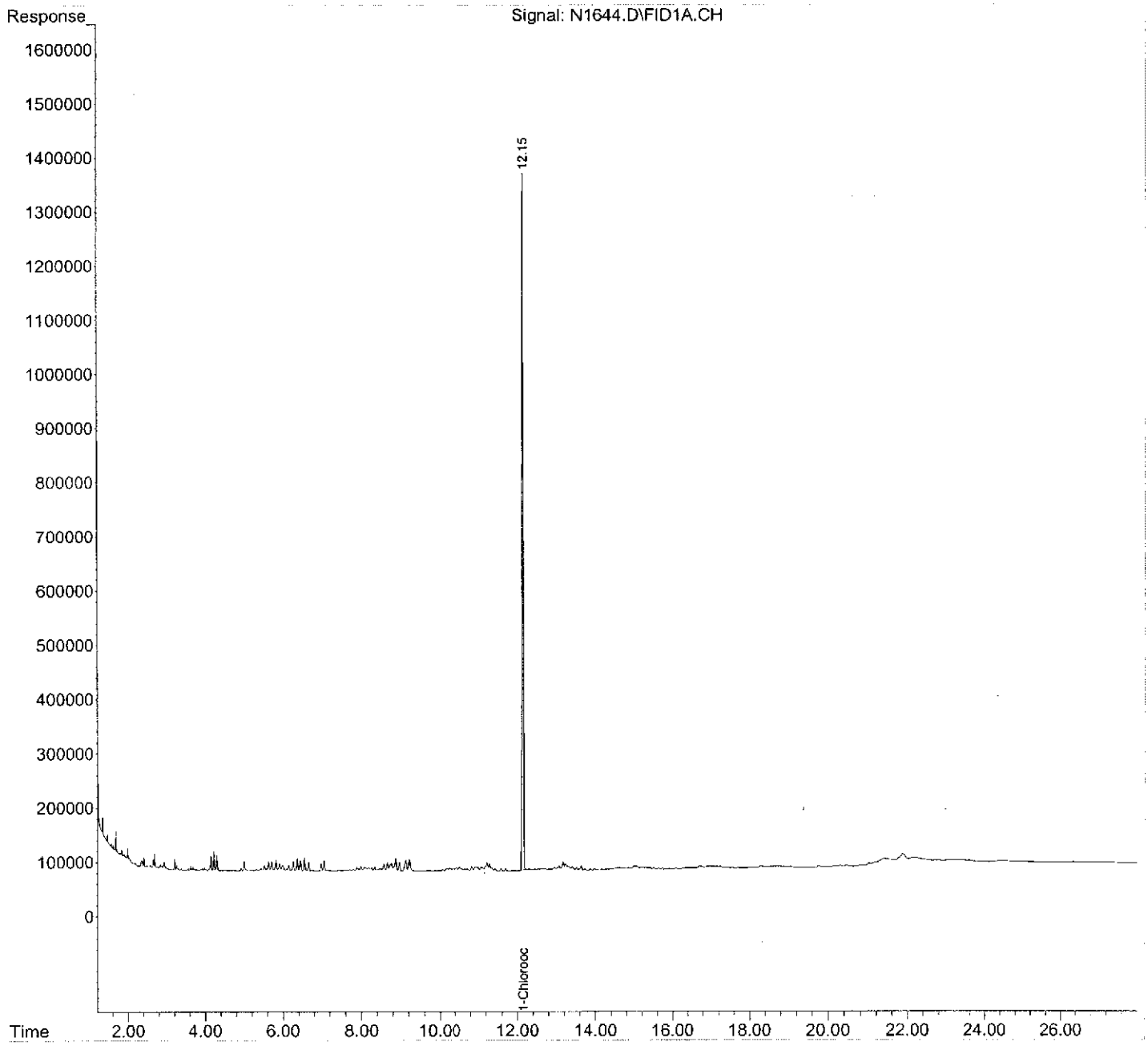
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-06-12\
Data File : N1644.D
Signal(s) : FID1A.CH
Acq On : 07 Jul 2012 1:24
Operator : DK
Sample : ALI,BLKS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 24 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 06:19:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1277.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 1:24
Operator : DK
Sample : ARO,BLKS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 74 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:55:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	18420649	25.668 ng
Spiked Amount 50.000		Recovery =	51.34%
2) S 2-Bromonaphthalene	5.61	17122695	34.229 ng
Spiked Amount 50.000		Recovery =	68.46%
3) S o-Terphenyl	9.97	43483977	47.000 ng
Spiked Amount 50.000		Recovery =	94.00%
Target Compounds			

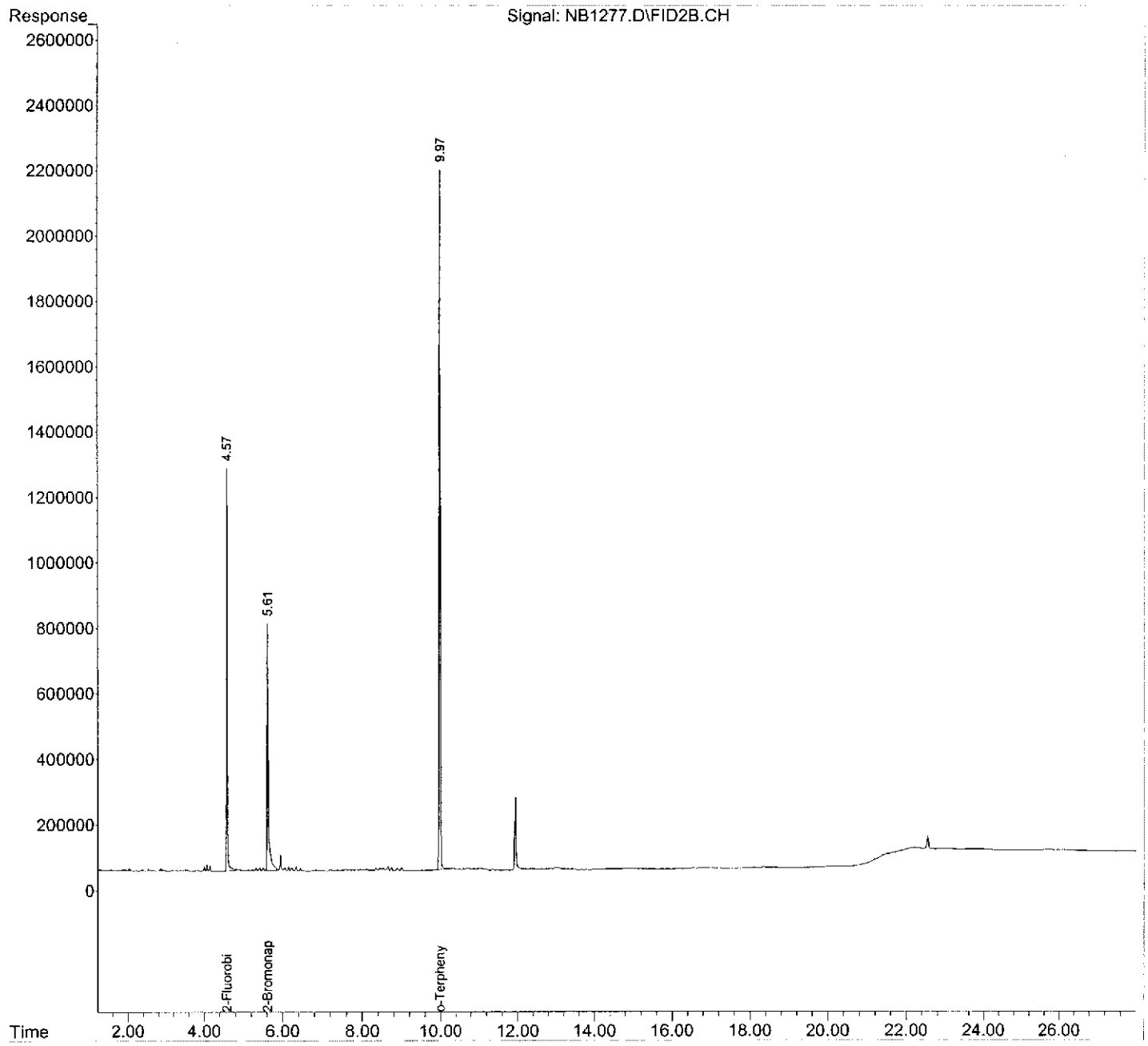
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-06-12\
Data File : NB1277.D
Signal(s) : FID2B.CH
Acq On : 07 Jul 2012 1:24
Operator : DK
Sample : ARO,BLKS120702-13,S,5.00g,0,07/02/12,1
Misc : 120702-13,NA,NA,1
ALS Vial : 74 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 09 07:55:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS120629-01
Client ID: ARO
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 06/29/2012
Data file: N1599.D
Data file: NB1232.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	2.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	2.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0		40.0	10.0
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0		32.0	8.00
Total NJ-EPH	0		40.0	10.0

E12-06466 0622

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS120706-09
Client ID: ARO
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1710.D
Data file: NB1342.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	2.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	2.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0		40.0	10.0
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0		32.0	8.00
Total NJ-EPH	0		40.0	10.0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1710.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 10:49
Operator : MJ
Sample : ALI,BLKS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:35:30 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	28964145	29.970 ng
Spiked Amount 50.000		Recovery =	59.94%
Target Compounds			

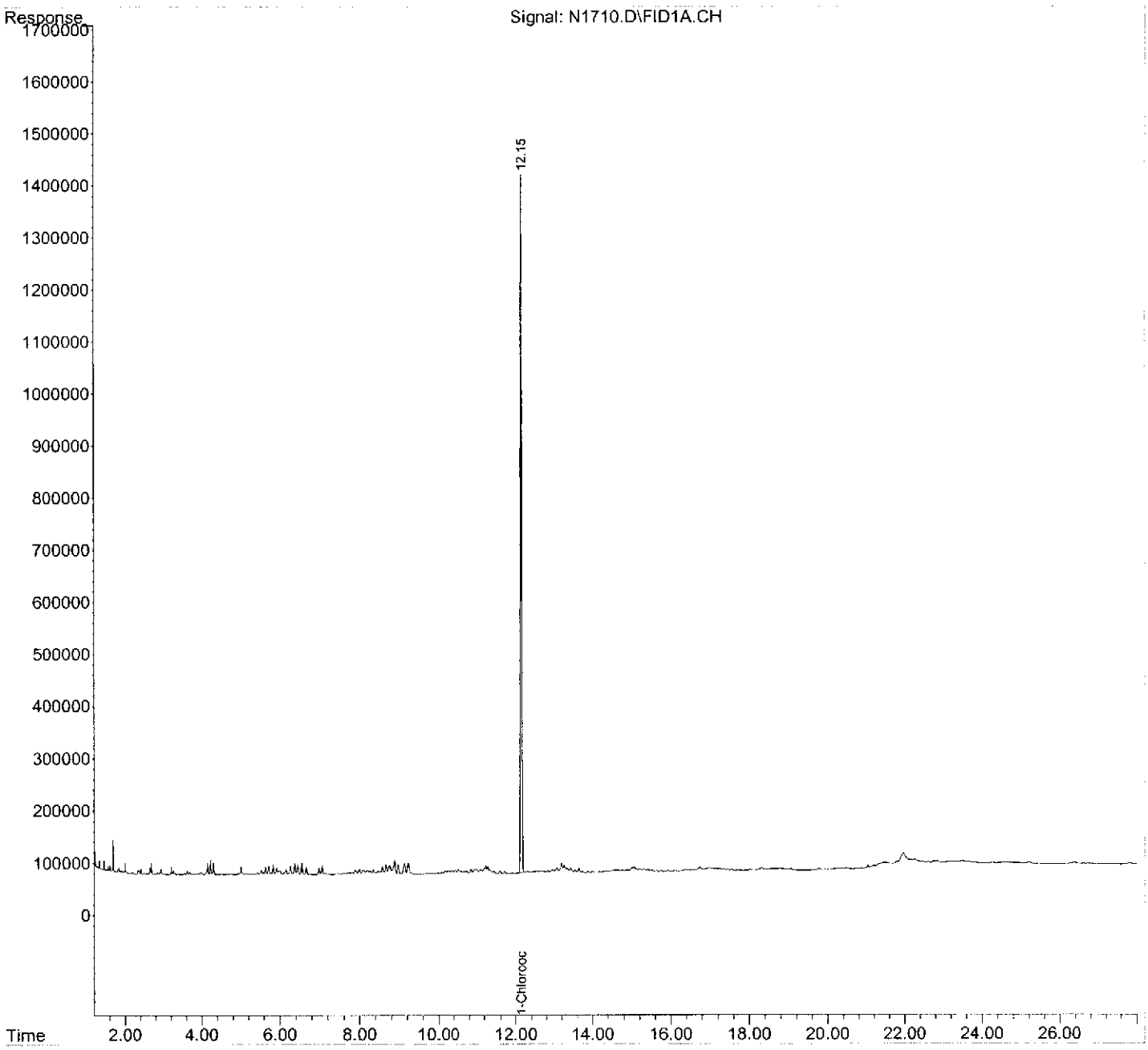
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1710.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 10:49
Operator : MJ
Sample : ALI,BLKS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:35:30 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1342.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 10:49
Operator : MJ
Sample : ARO,BLKS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 80 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:02:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	18211132	25.376 ng
Spiked Amount 50.000		Recovery =	50.75%
2) S 2-Bromonaphthalene	5.61	13063299	26.114 ng
Spiked Amount 50.000		Recovery =	52.23%
3) S o-Terphenyl	9.96	33723647	36.451 ng
Spiked Amount 50.000		Recovery =	72.90%
Target Compounds			

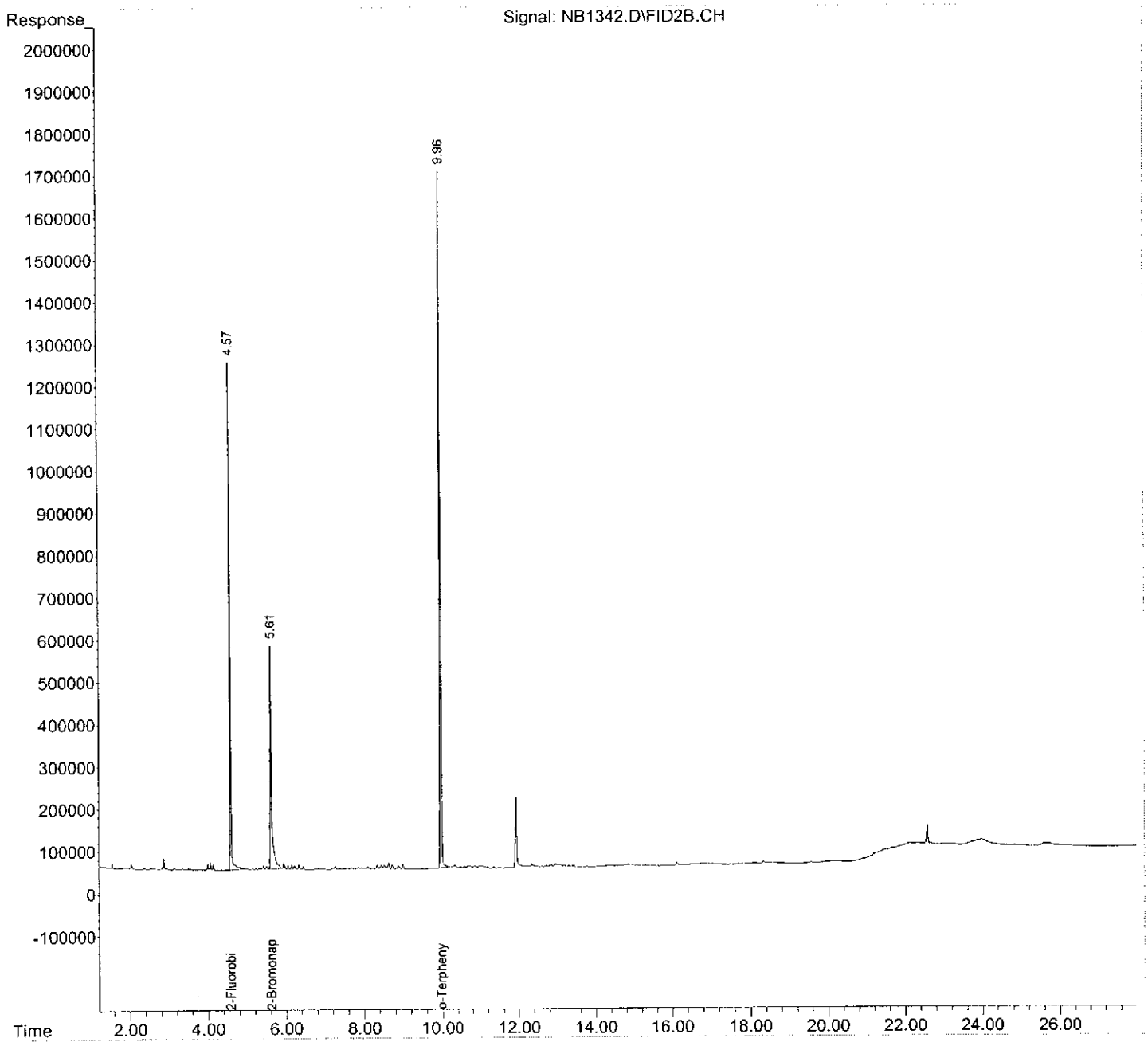
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1342.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 10:49
Operator : MJ
Sample : ARO,BLKS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 80 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:02:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 275
SDG #: 06507, 06466, 06498, 06503, 06492, 06459, 06173

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	47.3	94.6	47.6	95.2	47.1	94.2	49.3	98.6
Antimony	0.250	50.0	45.7	91.4	50.3	101	52.3	105	50.2	100
Arsenic	0.250	50.0	46.8	93.6	47.1	94.2	45.8	91.6	47.6	95.2
Barium	2.50	50.0	45.3	90.6	49.7	99.4	51.6	103	50.0	100
Beryllium	0.200	50.0	49.9	99.8	51.1	102	50.8	102	49.2	98.4
Cadmium	0.125	50.0	46.0	92.0	47.3	94.6	47.9	95.8	45.2	90.4
Calcium	25.0	500	469	93.8	471	94.2	467	93.4	480	96.0
Chromium	0.500	50.0	47.2	94.4	46.7	93.4	46.1	92.2	47.6	95.2
Cobalt	0.500	50.0	47.7	95.4	47.8	95.6	46.9	93.8	48.5	97.0
Copper	0.500	50.0	47.2	94.4	46.6	93.2	46.2	92.4	47.7	95.4
Iron	12.5	500	478	95.6	500	100	510	102	498	99.6
Lead	0.125	50.0	46.9	93.8	46.3	92.6	47.7	95.4	50.1	100
Magnesium	12.5	500	499	99.8	494	98.8	489	97.8	503	101
Manganese	0.250	50.0	46.4	92.8	46.3	92.6	45.4	90.8	46.9	93.8
Mercury	0.120	5.00	5.12	102	5.36	107	5.54	111	5.62	112
Nickel	0.500	50.0	47.3	94.6	46.7	93.4	46.1	92.2	47.2	94.4
Potassium	12.5	500	496	99.2	491	98.2	489	97.8	508	102
Selenium	1.00	50.0	49.7	99.4	50.7	101	51.4	103	53.1	106
Silver	0.125	10.0	9.55	95.5	9.46	94.6	9.68	96.8	9.26	92.6
Sodium	25.0	500	487	97.4	498	99.6	506	101	528	106
Thallium	0.125	50.0	47.5	95.0	47.1	94.2	48.8	97.6	45.5	91.0
Vanadium	0.500	50.0	46.6	93.2	46.2	92.4	45.5	91.0	47.4	94.8
Zinc	2.00	50.0	47.9	95.8	47.4	94.8	47.4	94.8	48.6	97.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 275
SDG #: 06507, 06466, 06498, 06503, 06492, 06459, 06173

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	46.8	93.6						
Antimony	0.250	50.0	53.7	107						
Arsenic	0.250	50.0	47.2	94.4						
Barium	2.50	50.0	53.2	106						
Beryllium	0.200	50.0	51.5	103						
Cadmium	0.125	50.0	46.4	92.8						
Calcium	25.0	500	481	96.2						
Chromium	0.500	50.0	47.9	95.8						
Cobalt	0.500	50.0	48.4	96.8						
Copper	0.500	50.0	47.2	94.4						
Iron	12.5	500	491	98.2						
Lead	0.125	50.0	52.9	106						
Magnesium	12.5	500	495	99.0						
Manganese	0.250	50.0	47.1	94.2						
Mercury	0.120	5.00	5.99	120						
Nickel	0.500	50.0	47.4	94.8						
Potassium	12.5	500	497	99.4						
Selenium	1.00	50.0	52.5	105						
Silver	0.125	10.0	9.69	96.9						
Sodium	25.0	500	481	96.2						
Thallium	0.125	50.0	48.4	96.8						
Vanadium	0.500	50.0	47.6	95.2						
Zinc	2.00	50.0	48.5	97.0						

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	51.5	103	51.5	103	53.2	106	52.6	105
Antimony	0.250	50.0	48.6	97.2	48.6	97.2	45.1	90.2	51.0	102
Arsenic	0.250	50.0	49.5	99.0	49.5	99.0	50.4	101	50.0	100
Barium	2.50	50.0	47.4	94.8	47.4	94.8	49.7	99.4	48.9	97.8
Beryllium	0.200	50.0	45.6	91.2	45.6	91.2	49.7	99.4	50.5	101
Cadmium	0.125	50.0	48.2	96.4	48.2	96.4	49.8	99.6	49.1	98.2
Calcium	25.0	500	500	100	500	100	524	105	534	107
Chromium	0.500	50.0	49.9	99.8	49.9	99.8	51.3	103	50.1	100
Cobalt	0.500	50.0	45.0	90.0	45.0	90.0	46.2	92.4	45.0	90.0
Copper	0.500	50.0	50.0	100	50.0	100	51.7	103	50.1	100
Iron	12.5	500	452	90.4	452	90.4	468	93.6	474	94.8
Lead	0.125	50.0	48.6	97.2	48.6	97.2	50.7	101	50.1	100
Magnesium	12.5	500	457	91.4	457	91.4	463	92.6	455	91.0
Manganese	0.250	50.0	49.7	99.4	49.7	99.4	51.0	102	50.0	100
Mercury	0.120	5.00	5.49	110	5.54	111	5.78	116	5.86	117
Nickel	0.500	50.0	50.2	100	50.2	100	51.3	103	50.4	101
Potassium	12.5	500	458	91.6	458	91.6	470	94.0	462	92.4
Selenium	1.00	50.0	49.5	99.0	49.5	99.0	50.2	100	49.9	99.8
Silver	0.125	10.0	10.0	100	10.0	100	9.30	93.0	9.22	92.2
Sodium	25.0	500	520	104	520	104	541	108	497	99.4
Thallium	0.125	50.0	49.7	99.4	49.7	99.4	45.4	90.8	50.1	100
Vanadium	0.500	50.0	48.4	96.8	48.4	96.8	49.9	99.8	49.4	98.8
Zinc	2.00	50.0	50.3	101	50.3	101	51.7	103	50.2	100

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R
Aluminum	5.00	50.0	46.9	93.8	49.2	98.4	50.9	102	50.9	102
Antimony	0.250	50.0	51.0	102	51.8	104	53.9	108	52.4	105
Arsenic	0.250	50.0	46.4	92.8	49.6	99.2	49.8	99.6	49.8	99.6
Barium	2.50	50.0	48.6	97.2	49.9	99.8	52.0	104	50.5	101
Beryllium	0.200	50.0	48.8	97.6	51.1	102	51.9	104	51.7	103
Cadmium	0.125	50.0	48.2	96.4	50.7	101	50.6	101	50.3	101
Calcium	25.0	500	475	95.0	493	98.6	502	100	500	100
Chromium	0.500	50.0	46.0	92.0	49.0	98.0	49.7	99.4	49.4	98.8
Cobalt	0.500	50.0	51.9	104	49.6	99.2	49.6	99.2	49.6	99.2
Copper	0.500	50.0	46.9	93.8	49.3	98.6	49.3	98.6	49.4	98.8
Iron	12.5	500	497	99.4	531	106	542	108	542	108
Lead	0.125	50.0	49.2	98.4	51.4	103	52.0	104	51.6	103
Magnesium	12.5	500	460	92.0	480	96.0	476	95.2	478	95.6
Manganese	0.250	50.0	46.3	92.6	49.5	99.0	49.6	99.2	49.8	99.6
Mercury	0.120	5.00	5.70	114	5.93	119				
Nickel	0.500	50.0	46.9	93.8	49.1	98.2	49.4	98.8	49.8	99.6
Potassium	12.5	500	508	102	530	106	515	103	516	103
Selenium	1.00	50.0	46.7	93.4	50.1	100	50.2	100	50.3	101
Silver	0.125	10.0	9.10	91.0	9.49	94.9	9.34	93.4	9.38	93.8
Sodium	25.0	500	496	99.2	516	103	456	91.2	462	92.4
Thallium	0.125	50.0	49.8	99.6	52.9	106	52.6	105	52.1	104
Vanadium	0.500	50.0	45.0	90.0	47.9	95.8	48.5	97.0	47.9	95.8
Zinc	2.00	50.0	47.1	94.2	50.4	101	50.6	101	49.6	99.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	49.7	99.4	50.5	101	50.9	102	49.8	99.6
Antimony	0.250	50.0	48.1	96.2	48.3	96.6	51.6	103	51.3	103
Arsenic	0.250	50.0	46.7	93.4	46.8	93.6	47.1	94.2	48.4	96.8
Barium	2.50	50.0	48.6	97.2	48.5	97.0	51.0	102	51.7	103
Beryllium	0.250	50.0	47.0	94.0	46.2	92.4	47.1	94.2	51.6	103
Cadmium	0.125	50.0	49.3	98.6	49.0	98.0	48.9	97.8	52.6	105
Calcium	25.0	500	483	96.6	475	95.0	508	102	503	101
Chromium	0.500	50.0	47.3	94.6	47.8	95.6	48.8	97.6	50.3	101
Cobalt	0.500	50.0	48.4	96.8	48.5	97.0	48.8	97.6	50.5	101
Copper	1.00	50.0	47.2	94.4	48.0	96.0	47.8	95.6	49.1	98.2
Iron	12.5	500	484	96.8	488	97.6	493	98.6	515	103
Lead	0.125	50.0	48.7	97.4	47.7	95.4	49.6	99.2	50.2	100
Magnesium	12.5	500	465	93.0	477	95.4	527	105	517	103
Manganese	0.500	50.0	46.6	93.2	46.9	93.8	47.7	95.4	48.6	97.2
Nickel	0.250	50.0	46.9	93.8	47.2	94.4	48.4	96.8	49.8	99.6
Potassium	12.5	500	489	97.8	500	100	538	108	539	108
Selenium	1.00	50.0	47.4	94.8	46.5	93.0	45.5	91.0	46.6	93.2
Silver	0.125	10.0	9.49	94.9	9.59	95.9	9.83	98.3	9.93	99.3
Sodium	25.0	500	462	92.4	499	99.8	521	104	502	100
Thallium	0.125	50.0	49.4	98.8	48.5	97.0	50.5	101	51.1	102
Vanadium	0.500	50.0	46.7	93.4	47.1	94.2	48.6	97.2	49.2	98.4
Zinc	1.00	50.0	48.8	97.6	49.1	98.2	48.5	97.0	49.7	99.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	FOUND	% R
Aluminum	5.00	50.0	50.3	101	49.8	99.6	51.1	102		
Antimony	0.250	50.0	49.8	99.6	50.8	102	50.4	101		
Arsenic	0.250	50.0	46.6	93.2	47.2	94.4	47.1	94.2		
Barium	2.50	50.0	49.9	99.8	50.6	101	50.3	101		
Beryllium	0.250	50.0	47.0	94.0	50.9	102	51.1	102		
Cadmium	0.125	50.0	49.3	98.6	48.0	96.0	46.9	93.8		
Calcium	25.0	500	494	98.8	512	102	531	106		
Chromium	0.500	50.0	48.6	97.2	49.1	98.2	49.7	99.4		
Cobalt	0.500	50.0	48.6	97.2	49.5	99.0	49.0	98.0		
Copper	1.00	50.0	47.4	94.8	47.5	95.0	47.4	94.8		
Iron	12.5	500	486	97.2	493	98.6	502	100		
Lead	0.125	50.0	49.2	98.4	48.9	97.8	48.8	97.6		
Magnesium	12.5	500	513	103	493	98.6	506	101		
Manganese	0.500	50.0	46.9	93.8	47.8	95.6	48.8	97.6		
Nickel	0.250	50.0	47.7	95.4	48.4	96.8	48.3	96.6		
Potassium	12.5	500	515	103	548	110	497	99.4		
Selenium	1.00	50.0	51.4	103	46.2	92.4	46.0	92.0		
Silver	0.125	10.0	9.57	95.7	9.52	95.2	9.46	94.6		
Sodium	25.0	500	542	108	506	101	507	101		
Thallium	0.125	50.0	50.7	101	50.3	101	49.6	99.2		
Vanadium	0.500	50.0	47.9	95.8	48.6	97.2	49.4	98.8		
Zinc	1.00	50.0	48.3	96.6	48.3	96.6	49.2	98.4		

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 275
SDG #: 06507, 06466, 06498, 06503, 06492, 06459, 06173

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	
Aluminum	0.005	ND	ND	ND	ND	ND	
Antimony	0.00025	ND	ND	ND	ND	ND	
Arsenic	0.00025	ND	ND	ND	ND	ND	
Barium	0.0025	ND	ND	ND	ND	ND	
Beryllium	0.0002	ND	ND	ND	ND	ND	
Cadmium	0.000125	ND	ND	ND	ND	ND	
Calcium	0.025	ND	ND	ND	ND	ND	
Chromium	0.0005	ND	ND	ND	ND	ND	
Cobalt	0.0005	ND	ND	ND	ND	ND	
Copper	0.0005	ND	ND	ND	ND	ND	
Iron	0.013	ND	ND	ND	ND	ND	
Lead	0.000125	ND	ND	ND	ND	ND	
Magnesium	0.013	ND	ND	ND	ND	ND	
Manganese	0.00025	ND	ND	ND	ND	ND	
Mercury	0.00012	ND	ND	ND	ND	ND	
Nickel	0.0005	ND	ND	ND	ND	ND	
Potassium	0.013	ND	ND	ND	ND	ND	
Selenium	0.001	ND	ND	ND	ND	ND	
Silver	0.000125	ND	ND	ND	ND	ND	
Sodium	0.025	ND	ND	ND	ND	ND	
Thallium	0.000125	ND	ND	ND	ND	ND	
Vanadium	0.0005	ND	ND	ND	ND	ND	
Zinc	0.002	ND	ND	ND	ND	ND	

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	0.005	ND	ND	ND	ND	ND	ND
Antimony	0.00025	ND	ND	ND	ND	ND	ND
Arsenic	0.00025	ND	ND	ND	ND	ND	ND
Barium	0.0025	ND	ND	ND	ND	ND	ND
Beryllium	0.0002	ND	ND	ND	ND	ND	ND
Cadmium	0.000125	ND	ND	ND	ND	ND	ND
Calcium	0.025	ND	ND	ND	ND	ND	ND
Chromium	0.0005	ND	ND	ND	ND	ND	ND
Cobalt	0.0005	ND	ND	ND	ND	ND	ND
Copper	0.0005	ND	ND	ND	ND	ND	ND
Iron	0.013	ND	ND	ND	ND	ND	ND
Lead	0.000125	ND	ND	ND	ND	ND	ND
Magnesium	0.013	ND	ND	ND	ND	ND	ND
Manganese	0.00025	ND	ND	ND	ND	ND	ND
Mercury	0.00012	ND	ND	ND	ND	ND	ND
Nickel	0.0005	ND	ND	ND	ND	ND	ND
Potassium	0.013	ND	ND	ND	ND	ND	ND
Selenium	0.001	ND	ND	ND	ND	ND	ND
Silver	0.000125	ND	ND	ND	ND	ND	ND
Sodium	0.025	ND	ND	ND	ND	ND	ND
Thallium	0.000125	ND	ND	ND	ND	ND	ND
Vanadium	0.0005	ND	ND	ND	ND	ND	ND
Zinc	0.002	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	CCB					
Aluminum	0.005	ND					
Antimony	0.00025	ND					
Arsenic	0.00025	ND					
Barium	0.0025	ND					
Beryllium	0.0002	ND					
Cadmium	0.000125	ND					
Calcium	0.025	ND					
Chromium	0.0005	ND					
Cobalt	0.0005	ND					
Copper	0.0005	ND					
Iron	0.013	ND					
Lead	0.000125	ND					
Magnesium	0.013	ND					
Manganese	0.00025	ND					
Nickel	0.0005	ND					
Potassium	0.013	ND					
Selenium	0.001	ND					
Silver	0.000125	ND					
Sodium	0.025	ND					
Thallium	0.000125	ND					
Vanadium	0.0005	ND					
Zinc	0.002	ND					

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	5.00	ND	ND	ND	ND	ND	ND
Antimony	0.250	ND	ND	ND	ND	ND	ND
Arsenic	0.250	ND	ND	ND	ND	ND	ND
Barium	2.50	ND	ND	ND	ND	ND	ND
Beryllium	0.250	ND	ND	ND	ND	ND	ND
Cadmium	0.125	ND	ND	ND	ND	ND	ND
Calcium	25.0	ND	ND	ND	ND	ND	ND
Chromium	0.500	ND	ND	ND	ND	ND	ND
Cobalt	0.500	ND	ND	ND	ND	ND	ND
Copper	1.00	ND	ND	ND	ND	ND	ND
Iron	12.5	ND	ND	ND	ND	ND	ND
Lead	0.125	ND	ND	ND	ND	ND	ND
Magnesium	12.5	ND	ND	ND	ND	ND	ND
Manganese	0.500	ND	ND	ND	ND	ND	ND
Mercury	0.150	ND	ND	ND	ND	ND	ND
Nickel	0.250	ND	ND	ND	ND	ND	ND
Potassium	12.5	ND	ND	ND	ND	ND	ND
Selenium	1.00	ND	ND	ND	ND	ND	ND
Silver	0.125	ND	ND	ND	ND	ND	ND
Sodium	25.0	ND	ND	ND	ND	ND	ND
Thallium	0.125	ND	ND	ND	ND	ND	ND
Vanadium	0.500	ND	ND	ND	ND	ND	ND
Zinc	1.00	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	CCB					
Aluminum	5.00	ND					
Antimony	0.250	ND					
Arsenic	0.250	ND					
Barium	2.50	ND					
Beryllium	0.250	ND					
Cadmium	0.125	ND					
Calcium	25.0	ND					
Chromium	0.500	ND					
Cobalt	0.500	ND					
Copper	1.00	ND					
Iron	12.5	ND					
Lead	0.125	ND					
Magnesium	12.5	ND					
Manganese	0.500	ND					
Nickel	0.250	ND					
Potassium	12.5	ND					
Selenium	1.00	ND					
Silver	0.125	ND					
Sodium	25.0	ND					
Thallium	0.125	ND					
Vanadium	0.500	ND					
Zinc	1.00	ND					

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 275
Associated Lab Case for Blank 1: 06466, 06507

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	5.00	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	2.50	ND
Beryllium	0.200	ND
Cadmium	0.125	ND
Calcium	25.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	12.5	ND
Lead	0.125	ND
Magnesium	12.5	ND
Manganese	0.250	ND
Mercury	0.006	ND
Nickel	0.500	ND
Potassium	12.5	ND
Selenium	1.00	ND
Silver	0.125	ND
Sodium	25.0	ND
Thallium	0.125	ND
Vanadium	0.500	ND
Zinc	2.00	ND

Associated Sample for Blank 1:
06466-001~002,004,006~008; 06507-001~014

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 278
Associated Lab Case for Blank 1: 06466, 06545, 06577

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	5.00	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	2.50	ND
Beryllium	0.200	ND
Cadmium	0.125	ND
Calcium	25.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	12.5	ND
Lead	0.125	ND
Magnesium	12.5	ND
Manganese	0.250	ND
Mercury	0.006	ND
Nickel	0.500	ND
Potassium	12.5	ND
Selenium	1.00	ND
Silver	0.125	ND
Sodium	25.0	ND
Thallium	0.125	ND
Vanadium	0.500	ND
Zinc	2.00	ND

Associated Sample for Blank 1:
06466-003,005; 06545-001~003; 06577-001~015

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 283
Associated Lab Case for Blank 1: 04564, 06226, 06466, 06618, 06628, 06657, 06658

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	20.0	ND
Antimony	1.00	ND
Arsenic	1.00	ND
Barium	10.0	ND
Beryllium	1.00	ND
Cadmium	0.500	ND
Calcium	100	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	4.00	ND
Iron	50.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	2.00	ND
Mercury	0.300	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	4.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.500	ND
Vanadium	2.00	ND
Zinc	4.00	ND

Associated Sample for Blank 1:
04564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 275
SDG #: 06507, 06466, 06498, 06503, 06492, 06459, 06173

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	92300	88400	88.4	NA
Iron	100000	-	92700	88400	88.4	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2140	1990	99.5	NA
Titanium	2000	-	1980	1900	95.0	NA
Silver	-	20.0	-	19.4	97.0	80-120
Arsenic	-	20.0	-	19.9	99.5	80-120
Cadmium	-	20.0	-	18.4	92.0	80-120
Cobalt	-	20.0	-	18.7	93.5	80-120
Chromium	-	20.0	-	19.5	97.5	80-120
Copper	-	20.0	-	16.7	83.5	80-120
Manganese	-	20.0	-	19.0	95.0	80-120
Nickel	-	20.0	-	17.3	86.5	80-120
Zinc	-	20.0	-	18.7	93.5	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	79000	80800	80.8	NA
Iron	100000	-	81700	85500	85.5	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2120	4720	236	NA
Titanium	2000	-	1640	1720	86.0	NA
Silver	-	20.0	-	22.9	115	80-120
Arsenic	-	20.0	-	19.2	96.0	80-120
Cadmium	-	20.0	-	20.7	104	80-120
Cobalt	-	20.0	-	17.0	85.0	80-120
Chromium	-	20.0	-	17.5	87.5	80-120
Copper	-	20.0	-	16.5	82.5	80-120
Manganese	-	20.0	-	17.3	86.5	80-120
Nickel	-	20.0	-	16.3	81.5	80-120
Zinc	-	20.0	-	19.2	96.0	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	87600	87700	87.7	NA
Iron	100000	-	86800	86300	86.3	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2150	2140	107	NA
Titanium	2000	-	1840	1870	93.5	NA
Silver	-	20.0	-	19.9	99.5	80-120
Arsenic	-	20.0	-	18.8	94.0	80-120
Cadmium	-	20.0	-	19.5	97.5	80-120
Cobalt	-	20.0	-	17.2	86.0	80-120
Chromium	-	20.0	-	18.6	93.0	80-120
Copper	-	20.0	-	16.9	84.5	80-120
Manganese	-	20.0	-	17.6	88.0	80-120
Nickel	-	20.0	-	16.6	83.0	80-120
Zinc	-	20.0	-	18.8	94.0	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 275
SDG #: 06466, 06507, 06173, 06459, 06498, 06503

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	BSS1			BSS2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	180	90.0	200	201	101
Antimony	40.0	35.4	88.5	40.0	37.3	93.3
Arsenic	40.0	35.8	89.5	40.0	36.7	91.8
Barium	40.0	36.0	90.0	40.0	37.9	94.8
Beryllium	40.0	35.1	87.8	40.0	36.2	90.5
Cadmium	40.0	36.4	91.0	40.0	36.6	91.5
Calcium	200	177	88.5	200	174	87.0
Chromium	40.0	36.2	90.5	40.0	36.9	92.3
Cobalt	40.0	36.7	91.8	40.0	37.8	94.5
Copper	40.0	35.7	89.3	40.0	37.0	92.5
Iron	200	185	92.5	200	194	97.0
Lead	40.0	36.7	91.8	40.0	37.6	94.0
Magnesium	200	185	92.5	200	185	92.5
Manganese	40.0	34.9	87.3	40.0	36.1	90.3
Mercury	0.250	0.219	87.6	0.250	0.241	96.4
Nickel	40.0	35.9	89.8	40.0	36.6	91.5
Potassium	200	186	93.0	200	191	95.5
Selenium	40.0	34.8	87.0	40.0	37.3	93.3
Silver	40.0	37.0	92.5	40.0	37.7	94.3
Sodium	200	174	87.0	200	195	97.5
Thallium	40.0	36.2	90.5	40.0	38.5	96.3
Vanadium	40.0	35.9	89.8	40.0	36.7	91.8
Zinc	40.0	35.9	89.8	40.0	36.5	91.3

(1) Control Limits % Recovery = 85-115%

BSS1
06466-001~002,004,006~008; 06507-001~014

BSS2
06173-001~002; 06459-001; 06498-001,003,005,007
06503-001~005

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 278
SDG #: 06466, 06545, 06577, 06607, 06636

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	BSS1			BSS2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	206	103	200	198	99.0
Antimony	40.0	35.5	88.8	40.0	36.6	91.5
Arsenic	40.0	34.2	85.5	40.0	40.6	102
Barium	40.0	35.9	89.8	40.0	36.5	91.3
Beryllium	40.0	36.2	90.5	40.0	36.8	92.0
Cadmium	40.0	36.0	90.0	40.0	35.8	89.5
Calcium	200	170	85.0	200	191	95.5
Chromium	40.0	34.7	86.8	40.0	39.9	99.8
Cobalt	40.0	35.9	89.8	40.0	41.8	105
Copper	40.0	34.7	86.8	40.0	39.6	99.0
Iron	200	189	94.5	200	178	89.0
Lead	40.0	36.3	90.8	40.0	36.7	91.8
Magnesium	200	172	86.0	200	192	96.0
Manganese	40.0	35.1	87.8	40.0	38.8	97.0
Mercury	0.250	0.283	113	0.250	0.265	106
Nickel	40.0	34.6	86.5	40.0	39.5	98.8
Potassium	200	174	87.0	200	206	103
Selenium	40.0	34.1	85.3	40.0	40.5	101
Silver	40.0	37.1	92.8	40.0	37.9	94.8
Sodium	200	173	86.5	200	197	98.5
Thallium	40.0	37.6	94.0	40.0	38.2	95.5
Vanadium	40.0	35.4	88.5	40.0	39.3	98.3
Zinc	40.0	34.9	87.3	40.0	39.7	99.3

(1) Control Limits % Recovery = 85-115%

BSS1
06466-003,005; 06545-001~003; 06577-001~015

BSS2
06545-004~009; 06607-001~006; 06636-001

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 283
SDG #: 04564, 06226, 06466, 06618, 06628, 06657, 06658, 06451, 06558

Matrix: Aqueous Unit: ppb (µg/L)

ANALYTE	BSW1			BSW2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	400	416	104	400	393	98.3
Antimony	400	361	90.3	400	376	94.0
Arsenic	400	340	85.0	400	354	88.5
Barium	400	358	89.5	400	375	93.8
Beryllium	400	370	92.5	400	372	93.0
Cadmium	400	371	92.8	400	371	92.8
Calcium	8000	7940	99.3	8000	6830	85.4
Chromium	400	403	101	400	352	88.0
Cobalt	400	407	102	400	351	87.8
Copper	400	406	102	400	347	86.8
Iron	8000	8140	102	8000	6940	86.8
Lead	400	368	92.0	400	371	92.8
Magnesium	8000	8230	103	8000	6870	85.9
Manganese	400	404	101	400	343	85.8
Mercury	10.0	10.0	100	10.0	10.7	107
Nickel	400	408	102	400	352	88.0
Potassium	8000	8030	100	8000	6950	86.9
Selenium	400	411	103	400	350	87.5
Silver	400	357	89.3	400	363	90.8
Sodium	8000	8060	101	8000	7000	87.5
Thallium	400	374	93.5	400	379	94.8
Vanadium	400	413	103	400	357	89.3
Zinc	400	408	102	400	349	87.3

(1) Control Limits % Recovery = 85-115%

BSW1
)4564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

BSW2
06451-002~006,008~014; 06558-001~004,006~009

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 275
SDG #: 06466, 06507, 06173, 06459, 06498, 06503

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	2320	2280	NC	220	1360	1180	81.8	220	75-125
Antimony	40.5	ND	92.0	44.0	39.5	ND	89.8	44.0	75-125
Arsenic	39.6	0.768	88.3	44.0	40.2	0.909	89.3	44.0	75-125
Barium	50.4	9.35	93.3	44.0	46.4	6.25	91.3	44.0	75-125
Beryllium	40.7	ND	92.5	44.0	39.1	ND	88.9	44.0	75-125
Cadmium	40.4	ND	91.8	44.0	38.6	ND	87.7	44.0	75-125
Calcium	10400	10600	NC	220	613	416	89.5	220	75-125
Chromium	43.1	4.14	88.5	44.0	42.7	2.90	90.5	44.0	75-125
Cobalt	41.4	2.22	89.0	44.0	41.1	1.15	90.8	44.0	75-125
Copper	42.5	5.10	85.0	44.0	41.4	3.20	86.8	44.0	75-125
Iron	4850	4780	NC	220	2580	2310	123	220	75-125
Lead	41.9	1.43	92.0	44.0	49.6	10.8	88.2	44.0	75-125
Magnesium	4820	4920	NC	220	767	555	96.4	220	75-125
Manganese	137	102	79.5	44.0	72.9	33.5	89.5	44.0	75-125
Mercury	0.246	ND	89.5	0.275	0.289	0.025	96.0	0.275	75-125
Nickel	43.0	4.36	87.8	44.0	42.8	3.42	89.5	44.0	75-125
Potassium	605	433	78.2	220	425	219	93.6	220	75-125
Selenium	39.4	ND	89.5	44.0	39.3	ND	89.3	44.0	75-125
Silver	41.6	ND	94.5	44.0	38.7	ND	88.0	44.0	75-125
Sodium	284	82.8	91.5	220	191	ND	86.8	220	75-125
Thallium	40.6	ND	92.3	44.0	40.6	ND	92.3	44.0	75-125
Vanadium	45.0	5.46	89.9	44.0	43.8	4.17	90.1	44.0	75-125
Zinc	49.7	15.8	77.0	44.0	49.5	10.8	88.0	44.0	75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 06507-007
QC Sample 1 for following samples:
06466-001~002,004,006~008; 06507-001~014

QC Sample 2 06498-001
QC Sample 2 for following samples:
06173-001~002; 06459-001; 06498-001,003,005,007
06503-001~005

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 278
SDG #: 06466, 06545, 06577, 06607, 06636

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	1210	864	NC	220	775	613	77.9	208	75-125
Antimony	44.2	ND	100	44.0	37.1	ND	89.2	41.6	75-125
Arsenic	45.5	0.357	103	44.0	34.6	ND	83.2	41.6	75-125
Barium	47.8	2.80	102	44.0	40.2	3.11	89.2	41.6	75-125
Beryllium	44.5	ND	101	44.0	37.4	ND	89.9	41.6	75-125
Cadmium	44.1	ND	100	44.0	36.9	ND	88.7	41.6	75-125
Calcium	262	ND	119	220	197	ND	94.7	208	75-125
Chromium	48.3	2.08	105	44.0	35.4	1.30	82.0	41.6	75-125
Cobalt	48.8	ND	111	44.0	36.0	ND	86.5	41.6	75-125
Copper	46.0	ND	105	44.0	34.4	ND	82.7	41.6	75-125
Iron	1490	1080	NC	220	800	633	80.3	208	75-125
Lead	45.9	0.689	103	44.0	37.6	0.407	89.4	41.6	75-125
Magnesium	297	56.2	109	220	203	40.8	78.0	208	75-125
Manganese	53.4	5.26	109	44.0	37.3	2.42	83.8	41.6	75-125
Mercury	0.336	ND	122	0.275	0.322	ND	124	0.260	75-125
Nickel	47.1	0.784	105	44.0	34.4	ND	82.7	41.6	75-125
Potassium	325	71.8	115	220	221	45.4	84.4	208	75-125
Selenium	44.9	ND	102	44.0	36.2	ND	87.0	41.6	75-125
Silver	46.2	ND	105	44.0	38.3	ND	92.1	41.6	75-125
Sodium	278	43.0	107	220	203	ND	97.6	208	75-125
Thallium	46.4	ND	105	44.0	38.5	ND	92.5	41.6	75-125
Vanadium	49.2	2.18	107	44.0	35.7	1.38	82.5	41.6	75-125
Zinc	46.8	ND	106	44.0	34.8	ND	83.7	41.6	75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 06466-005
QC Sample 1 for following samples:
06466-003,005; 06545-001~003; 06577-001~015

QC Sample 2 06545-005
QC Sample 2 for following samples:
06545-004~009; 06607-001~006; 06636-001

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 283
SDG #: 04564, 06226, 06466, 06618, 06628, 06657, 06658, 06451, 06558

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	305	ND	76.3	400	342	ND	85.5	400	75-125
Antimony	352	ND	88.0	400	357	ND	89.3	400	75-125
Arsenic	341	ND	85.3	400	348	ND	87.0	400	75-125
Barium	401	61.9	84.8	400	374	27.8	86.6	400	75-125
Beryllium	355	ND	88.8	400	351	ND	87.8	400	75-125
Cadmium	347	ND	86.8	400	349	ND	87.3	400	75-125
Calcium	42300	35200	88.8	8000	61900	59100	NC	8000	75-125
Chromium	323	ND	80.8	400	337	ND	84.3	400	75-125
Cobalt	327	2.18	81.2	400	330	ND	82.5	400	75-125
Copper	323	ND	80.8	400	327	ND	81.8	400	75-125
Iron	6350	ND	79.4	8000	6440	ND	80.5	8000	75-125
Lead	362	ND	90.5	400	352	ND	88.0	400	75-125
Magnesium	23200	17000	77.5	8000	32200	28200	NC	8000	75-125
Manganese	1110	807	75.8	400	330	3.24	81.7	400	75-125
Mercury	9.09	ND	90.9	10.0	10.1	ND	101	10.0	75-125
Nickel	323	4.38	79.7	400	330	ND	82.5	400	75-125
Potassium	30900	24600	78.8	8000	7860	1210	83.1	8000	75-125
Selenium	340	5.29	83.7	400	341	ND	85.3	400	75-125
Silver	335	ND	83.8	400	345	ND	86.3	400	75-125
Sodium	199000	189000	125	8000	32400	28600	NC	8000	75-125
Thallium	359	ND	89.8	400	362	ND	90.5	400	75-125
Vanadium	337	ND	84.3	400	346	ND	86.5	400	75-125
Zinc	338	7.65	82.6	400	346	6.42	84.9	400	75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 06466-013
QC Sample 1 for following samples:
04564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

QC Sample 2 06558-001
QC Sample 2 for following samples:
06451-002~006,008~014; 06558-001~004,006~009

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 275
SDG #: 06466, 06507, 06173, 06459, 06498, 06503

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	2280	2140	6.33	20	1180	1120	5.22
Antimony	NA	ND	ND	NC	NA	ND	ND	NC
Arsenic	20	0.768	0.751	2.24	20	0.909	0.915	0.658
Barium	20	9.35	9.56	2.22	20	6.25	6.10	2.43
Beryllium	NA	ND	ND	NC	NA	ND	ND	NC
Cadmium	NA	ND	ND	NC	NA	ND	ND	NC
Calcium	20	10600	10200	3.85	20	416	404	2.93
Chromium	20	4.14	3.89	6.23	20	2.90	2.92	0.687
Cobalt	20	2.22	2.08	6.51	20	1.15	1.14	0.873
Copper	20	5.10	5.00	1.98	20	3.20	3.00	6.45
Iron	20	4780	4620	3.40	20	2310	2280	1.31
Lead	20	1.43	1.45	1.39	20	10.8	10.5	2.82
Magnesium	20	4920	4670	5.21	20	555	538	3.11
Manganese	20	102	98.5	3.49	20	33.5	33.1	1.20
Mercury	NA	ND	ND	NC	20	0.025	0.026	3.92
Nickel	20	4.36	5.03	14.3	20	3.42	3.95	14.4
Potassium	20	433	419	3.29	20	219	209	4.67
Selenium	NA	ND	ND	NC	NA	ND	ND	NC
Silver	NA	ND	ND	NC	NA	ND	ND	NC
Sodium	20	82.8	83.8	1.20	NA	ND	ND	NC
Thallium	NA	ND	ND	NC	NA	ND	ND	NC
Vanadium	20	5.46	5.37	1.66	20	4.17	4.12	1.21
Zinc	20	15.8	15.6	1.27	20	10.8	9.80	9.71

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 06507-007
QC Sample 1 for following samples:
06466-001~002,004,006~008; 06507-001~014

QC Sample 2 06498-001
QC Sample 2 for following samples:
06173-001~002; 06459-001; 06498-001,003,005,007
06503-001~005

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 278
SDG #: 06466, 06545, 06577, 06607, 06636

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	864	845	2.22	20	613	607	0.984
Antimony	NA	ND	ND	NC	NA	ND	ND	NC
Arsenic	20	0.357	0.344	3.71	NA	ND	ND	NC
Barium	20	2.80	2.85	1.77	20	3.11	3.16	1.59
Beryllium	NA	ND	ND	NC	NA	ND	ND	NC
Cadmium	NA	ND	ND	NC	NA	ND	ND	NC
Calcium	NA	ND	ND	NC	NA	ND	ND	NC
Chromium	20	2.08	2.04	1.94	20	1.30	1.26	3.13
Cobalt	NA	ND	ND	NC	NA	ND	ND	NC
Copper	NA	ND	ND	NC	NA	ND	ND	NC
Iron	20	1080	1050	2.82	20	633	618	2.40
Lead	20	0.689	0.700	1.58	20	0.407	0.396	2.74
Magnesium	20	56.2	54.7	2.71	20	40.8	39.4	3.49
Manganese	20	5.26	5.31	0.946	20	2.42	2.23	8.17
Mercury	NA	ND	ND	NC	NA	ND	ND	NC
Nickel	20	0.784	0.694	12.2	NA	ND	ND	NC
Potassium	20	71.8	63.8	11.8	20	45.4	42.8	5.90
Selenium	NA	ND	ND	NC	NA	ND	ND	NC
Silver	NA	ND	ND	NC	NA	ND	ND	NC
Sodium	20	43.0	42.4	1.41	NA	ND	ND	NC
Thallium	NA	ND	ND	NC	NA	ND	ND	NC
Vanadium	20	2.18	2.04	6.64	20	1.38	1.37	0.727
Zinc	NA	ND	ND	NC	NA	ND	ND	NC

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 06466-005
QC Sample 1 for following samples:
06466-003,005; 06545-001~003; 06577-001~015

QC Sample 2 06545-005
QC Sample 2 for following samples:
06545-004~009; 06607-001~006; 06636-001

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 283
SDG #: 04564, 06226, 06466, 06618, 06628, 06657, 06658, 06451, 06558

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	NA	ND	ND	NC	NA	ND	ND	NC
Antimony	NA	ND	ND	NC	NA	ND	ND	NC
Arsenic	NA	ND	ND	NC	NA	ND	ND	NC
Barium	20	61.9	59.8	3.45	20	27.8	25.4	9.02
Beryllium	NA	ND	ND	NC	NA	ND	ND	NC
Cadmium	NA	ND	ND	NC	NA	ND	ND	NC
Calcium	20	35200	36900	4.72	20	59100	60600	2.51
Chromium	NA	ND	ND	NC	NA	ND	ND	NC
Cobalt	20	2.18	2.36	7.93	NA	ND	ND	NC
Copper	NA	ND	ND	NC	NA	ND	ND	NC
Iron	NA	ND	ND	NC	NA	ND	ND	NC
Lead	NA	ND	ND	NC	NA	ND	ND	NC
Magnesium	20	17000	18000	5.71	20	28200	28200	0
Manganese	20	807	841	4.13	20	3.24	3.24	0
Mercury	NA	ND	ND	NC	NA	ND	ND	NC
Nickel	20	4.38	4.74	7.89	NA	ND	ND	NC
Potassium	20	24600	25600	3.98	20	1210	1260	4.05
Selenium	20	5.29	4.90	7.65	NA	ND	ND	NC
Silver	NA	ND	ND	NC	NA	ND	ND	NC
Sodium	20	189000	200000	5.66	20	28600	28400	0.702
Thallium	NA	ND	ND	NC	NA	ND	ND	NC
Vanadium	NA	ND	ND	NC	NA	ND	ND	NC
Zinc	20	7.65	6.26	20.0	20	6.42	5.41	17.1

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 06466-013
QC Sample 1 for following samples:
04564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

QC Sample 2 06558-001
QC Sample 2 for following samples:
06451-002~006,008~014; 06558-001~004,006~009

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 275
SDG #: 06466, 06507

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	2280	2110	7.74			
Antimony	ND			50.8	44.0	115
Arsenic	0.768			55.1	44.0	123.0
Barium	9.35			54.0	44.0	101.0
Beryllium	ND			52.6	44.0	120
Cadmium	ND			52.1	44.0	118
Calcium	10600	10100	4.83			
Chromium	4.14			44.1	44.0	90.8
Cobalt	2.22			55.3	44.0	121.0
Copper	5.10			59.6	44.0	124.0
Iron	4780	4620	3.40			
Lead	1.43			55.9	44.0	124.0
Magnesium	4920	4780	2.89			
Manganese	102	96.7	5.33			
Nickel	4.36			48.3	44.0	99.9
Potassium	433	430	0.695			
Selenium	ND			53.6	44.0	122
Silver	ND			52.9	44.0	120
Sodium	82.8			966	880	100.0
Thallium	ND			54.9	44.0	125
Vanadium	5.46			51.5	44.0	105.0
Zinc	15.8			59.4	44.0	99.1

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 06507-007
QC Sample 1 for following samples:
06466-001~002,004,006~008; 06507-001~014

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 278
SDG #: 06466, 06545, 06577

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	864	862	0.232			
Antimony	ND			50.3	44.0	114
Arsenic	0.357			51.0	44.0	115.0
Barium	2.80			55.2	44.0	119.0
Beryllium	ND			51.8	44.0	118
Cadmium	ND			50.5	44.0	115
Calcium	ND			1070	880	122
Chromium	2.08			52.9	44.0	116.0
Cobalt	ND			50.3	44.0	114
Copper	ND			49.4	44.0	112
Iron	1080	1080	0			
Lead	0.689			53.4	44.0	120.0
Magnesium	56.2			1130	880	122.0
Manganese	5.26			59.3	44.0	123.0
Nickel	0.784			51.4	44.0	115.0
Potassium	71.8			1160	880	124.0
Selenium	ND			50.2	44.0	114
Silver	ND			53.0	44.0	120
Sodium	43.0			1050	880	114.0
Thallium	ND			54.4	44.0	124
Vanadium	2.18			53.4	44.0	116.0
Zinc	ND			52.1	44.0	118

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 06466-005
QC Sample 1 for following samples:
06466-003,005; 06545-001~003; 06577-001~015

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 283
SDG #: 04564, 06226, 06466, 06618, 06628, 06657, 06658

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	ND			305	400	76.3
Antimony	ND			350	400	87.5
Arsenic	ND			337	400	84.3
Barium	61.9			392	400	82.5
Beryllium	ND			351	400	87.8
Cadmium	ND			335	400	83.8
Calcium	35200	38100	7.91			
Chromium	ND			319	400	79.8
Cobalt	2.18			324	400	80.5
Copper	ND			324	400	81.0
Iron	ND			6370	8000	79.6
Lead	ND			349	400	87.3
Magnesium	17000	17800	4.60			
Manganese	807	871	7.63			
Nickel	4.38			327	400	80.7
Potassium	24600	24600	0			
Selenium	5.29			336	400	82.7
Silver	ND			333	400	83.3
Sodium	189000	191000	1.05			
Thallium	ND			352	400	88.0
Vanadium	ND			333	400	83.3
Zinc	7.65			339	400	82.8

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 06466-013
QC Sample 1 for following samples:
04564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG275
July 5, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1203827**	**71604**	**222015**	**1455645**	**2944369**	**2022424**	
Sample Lower Limit		**361148**	**21481**	**66604**	**436694**	**883311**	**606727**	
	QC Lower Limit	**842679**	**50123**	**155410**	**1018951**	**2061058**	**1415697**	
Sample & QC Upper Limit		**1444592**	**85925**	**266418**	**1746774**	**3533243**	**2426909**	
003CALS.D	STD1	1178183	72101	226604	1479442	2936149	2034094	
004CALS.D	STD2	1165511	70867	219531	1446823	2917912	1994677	
005CALS.D	STD3	1200523	69268	227959	1490472	2925151	1994746	
006CALS.D	STD4	1204907	74116	226087	1449947	2911662	2002058	
008_ICV.D	ICV	1247023	73178	229504	1488950	2969070	2022393	
009_ICB.D	ICB	1226686	70992	225560	1493610	2938255	1983720	
010SMPL.D	BMS1	1217512	72201	222947	1450931	2904364	1980154	
011SMPL.D	BSS1	1186748	71171	218773	1421163	2864888	1974954	
012SMPL.D	06507-007	1206539	69603	233411	1489789	2997974	1980678	
013SMPL.D	06507-007R	1182324	74055	238653	1485835	2979722	1975076	
014SMPL.D	06507-007SD	1214275	76658	240349	1572068	3007833	2014248	
015SMPL.D	06507-007RS	1167808	75335	226689	1461120	2893252	1960726	
016SMPL.D	06507-007PS	1153901	72921	225314	1428848	2983030	1961374	
017SMPL.D	06507-001	1221135	73216	227871	1488376	3033339	2031983	
0186CCV.D	CCV	1190186	71712	224726	1493567	3045564	2061462	
0196CCB.D	CCB	1226639	73050	231620	1528847	3017082	2026961	
020SMPL.D	06507-002	1192688	80842	249931	1469549	2975530	1959966	
021SMPL.D	06507-003	1196498	72638	224006	1416749	2882559	1971096	
022SMPL.D	06507-004	1189502	69801	220086	1404116	2847015	1910353	
023SMPL.D	06507-005	1201933	70448	224559	1436716	2960265	1980267	
024SMPL.D	06507-006	1190846	73027	223706	1399315	2912345	1954502	
025SMPL.D	06507-008	1223089	74931	233670	1468249	2929920	1917587	
026SMPL.D	06507-009	1184037	73116	223948	1395343	2930597	1910822	
027SMPL.D	06507-010	1247696	72779	236428	1499426	2996908	1982494	
028SMPL.D	06507-011	1242109	76394	232539	1491385	3004761	1975152	
029SMPL.D	06507-012	1236930	76490	241064	1529646	2990518	1995155	
0306CCV.D	CCV	1238205	73057	224720	1470783	2955757	1964433	
0316CCB.D	CCB	1204401	72705	225086	1482324	2937351	1926837	
032SMPL.D	06507-013	1246829	71425	245434	1499960	3042830	1933806	
033SMPL.D	06507-014	1261405	74632	239188	1502205	3019673	1937309	
034SMPL.D	06498-001	1215300	74358	230317	1496072	2903103	1892132	
035SMPL.D	06498-003	1287243	74293	245870	1615313	3099932	2019836	
036SMPL.D	06498-005	1246138	75189	235486	1527907	2941268	1968950	
037SMPL.D	06498-007	1248505	77976	248275	1502388	3035245	1968235	
038SMPL.D	06492-006	1320424	78686	255622	1593689	3185474	2065646	
039SMPL.D	06466-001	1268053	74499	233427	1523805	2983176	1930180	
040SMPL.D	06466-002	1219342	74785	223810	1487021	2859968	1875606	
041SMPL.D	06466-004	1253604	73807	233837	1527303	2967780	1916223	
0426CCV.D	CCV	1300897	72849	241549	1585918	3124894	2074579	
0436CCB.D	CCB	1316643	76461	248575	1641196	3141195	2062207	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG275
July 5, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1203827**	**71604**	**222015**	**1455645**	**2944369**	**2022424**	
	Sample Lower Limit	**361148**	**21481**	**66604**	**436694**	**883311**	**606727**	
	QC Lower Limit	**842679**	**50123**	**155410**	**1018951**	**2061058**	**1415697**	
	Sample & QC Upper Limit	**1444592**	**85925**	**266418**	**1746774**	**3533243**	**2426909**	
044SMPL.D	06466-006	1222602	75420	232821	1511729	2938828	1874477	
045SMPL.D	06466-007	1293303	80579	244548	1607185	3055291	1971676	
046SMPL.D	06466-008	1224109	77194	235895	1466445	2937354	1886161	
047SMPL.D	06354-001	1156368	71010	233503	1415487	2774099	1669846	
048SMPL.D	06384-003	1140175	75844	238882	1453885	2800065	1699772	
050SMPL.D	BMS2	1261550	78489	249996	1625010	3060435	1958169	
051SMPL.D	BSS2	1252910	75154	241130	1562216	2972979	1914455	
052SMPL.D	06498-001R	1309345	80748	258755	1654575	3148459	1998678	
053SMPL.D	06498-001SD	1304116	80150	259723	1689519	3143212	1983519	
0546CCV.D	CCV	1275330	77268	244985	1598334	3025934	1972609	
0556CCB.D	CCB	1279292	77569	250251	1641621	3090287	2002515	
056SMPL.D	06498-001RS	1282248	77672	250569	1665580	3093833	1986432	
057SMPL.D	06498-001PS	1240474	77184	245055	1596197	3042764	1963346	
058SMPL.D	06503-001	1205667	79177	253508	1507447	3047000	1867092	
059SMPL.D	06503-002	1244702	81630	254651	1570069	3062037	1901389	
060SMPL.D	06503-003	1270889	76399	258355	1616996	3135815	1974938	
061SMPL.D	06503-004	701383	83800	149096	855158	1678500	1010278	
062SMPL.D	06503-005	1232741	84773	261397	1565624	3077676	1898586	
063SMPL.D	06459-001	1135736	77901	240106	1448407	2887895	1730333	
064SMPL.D	06173-001	1283128	81969	263094	1690610	3178915	1935405	
065SMPL.D	06173-002	1325817	80091	261080	1735290	3344465	2037437	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG278
July 9, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1361512**	**83779**	**351344**	**2084000**	**3157159**	**1909613**	
Sample Lower Limit		**408454**	**25134**	**105403**	**625200**	**947148**	**572884**	
	QC Lower Limit	**953058**	**58645**	**245941**	**1458800**	**2210011**	**1336729**	
Sample & QC Upper Limit		**1633814**	**100535**	**421613**	**2500800**	**3788591**	**2291536**	
003CALS.D	STD1	1300025	84003	331137	1982560	3003275	1816185	
004CALS.D	STD2	1348227	84046	327121	1958885	3046063	1862618	
005CALS.D	STD3	1322906	85561	328206	1974919	3036362	1855489	
006CALS.D	STD4	1302131	81720	323071	1927051	2978129	1835548	
008_ICV.D	ICV	1261778	83778	306053	1838001	2846455	1744390	
009_ICB.D	ICB	1193168	87758	320694	1907217	2967641	1794990	
010_ICV.D	ICV	1261778	83778	306053	1838001	2846455	1744390	
011SMPL.D	BMS1	1174878	83054	327176	1957484	2998844	1793726	
012SMPL.D	06466-005	1201079	79280	326778	1923570	2991865	1805047	
013SMPL.D	06466-005R	1163975	82832	325632	1939272	2963963	1795064	
014SMPL.D	06466-005SD	1198580	91091	327679	1993929	3010665	1800932	
015SMPL.D	BSS1	1147125	85572	323582	1970580	3034943	1811477	
016SMPL.D	06466-005RS	1133766	79447	319393	1909646	2964904	1777312	
017SMPL.D	06466-005PS	1127741	83351	318299	1870928	2995452	1755383	
0196CCV.D	CCV	1274394	81787	324228	1944649	2989870	1844544	
0206CCB.D	CCB	1185848	82709	321552	1965111	3015714	1823292	
021SMPL.D	06636-001	971150	92276	386356	1730471	2769908	1687481	
022SMPL.D	06466-003	1097345	86397	324264	1928822	3064671	1849382	
023SMPL.D	06577-001	1024997	79666	303701	1734097	2803372	1675446	
024SMPL.D	06577-002	1087619	79940	338301	1944832	3098747	1831106	
025SMPL.D	06636-001	1029645	84671	326718	1870999	2874885	1719988	
026SMPL.D	06577-003	978897	78855	306470	1741812	2755374	1605089	
027SMPL.D	06577-004	976479	82050	310175	1769745	2751975	1605610	
028SMPL.D	06577-005	957639	79476	305300	1745433	2771613	1573995	
029SMPL.D	06577-006	957675	80006	307748	1740951	2714402	1583629	
030SMPL.D	06577-007	930924	78716	302476	1707122	2680407	1574648	
0316CCV.D	CCV	1222750	84413	327857	1974716	3028348	1798916	
0326CCB.D	CCB	1045110	83899	321054	1929372	2895544	1713581	
033SMPL.D	06577-008	950974	77906	303016	1732788	2735465	1610476	
034SMPL.D	06577-009	936714	79389	297662	1718292	2649128	1568198	
035SMPL.D	06577-010	929670	78602	298340	1667504	2660398	1518657	
036SMPL.D	06577-011	928687	80268	300305	1683454	2674087	1549457	
037SMPL.D	06577-012	896519	77941	303629	1704689	2696763	1554912	
038SMPL.D	06577-013	985226	78572	316163	1825855	2835207	1627629	
039SMPL.D	06577-014	913726	78793	304741	1717783	2732378	1583652	
040SMPL.D	06577-015	905609	79848	305752	1732679	2747066	1573100	
041SMPL.D	06545-001	983391	82759	316950	1903800	2855285	1697058	
042SMPL.D	06545-002	958616	83008	314618	1853814	2833248	1645372	
0436CCV.D	CCV	1238776	84653	331640	1969854	2994930	1798116	
0446CCB.D	CCB	997936	82193	319684	1896085	2830936	1657949	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG278
July 9, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1361512**	**83779**	**351344**	**2084000**	**3157159**	**1909613**	
Sample Lower Limit		**408454**	**25134**	**105403**	**625200**	**947148**	**572884**	
	QC Lower Limit	**953058**	**58645**	**245941**	**1458800**	**2210011**	**1336729**	
Sample & QC Upper Limit		**1633814**	**100535**	**421613**	**2500800**	**3788591**	**2291536**	
045SMPL.D	06545-003	916074	82094	309232	1769826	2792378	1663611	
046SMPL.D	BMS2	967814	81727	319815	1927726	2894335	1666599	
047SMPL.D	06545-005	959561	83098	319414	1904092	2888148	1695563	
048SMPL.D	06545-005R	972667	83958	322719	1930970	2942287	1708818	
049SMPL.D	06545-005SD	957422	81879	318633	1919075	2886520	1662013	
050SMPL.D	BSS2	965935	82706	312124	1852492	2850012	1689233	
051SMPL.D	06545-005RS	959702	84581	316249	1909456	2957231	1743233	
052SMPL.D	06545-005PS	870792	82624	284200	1680118	2640875	1519639	
054SMPL.D	06545-004	960503	81246	317991	1892811	2925038	1752650	
0556CCV.D	CCV	1134128	81497	318764	1900109	3018643	1789846	
0566CCB.D	CCB	976954	83056	317718	1900014	2911456	1731260	
057SMPL.D	06545-006	974693	84026	315071	1894718	2910082	1726024	
059SMPL.D	06545-008	959243	90566	316644	1897225	2931696	1764404	
060SMPL.D	06545-007	894220	82627	316324	1856298	2912426	1692929	
061SMPL.D	06545-009	959578	84465	329907	1986838	3098148	1787045	
062SMPL.D	06607-001	901453	83718	322227	1902026	2975263	1729486	
063SMPL.D	06607-002	875552	82682	317107	1844960	2896504	1662064	
064SMPL.D	06607-003	867785	84822	322568	1869279	2970556	1675028	
065SMPL.D	06607-004	854474	82114	321308	1875189	2917104	1646742	
066SMPL.D	06607-005	866995	84995	319247	1904883	2977343	1704488	
0676CCV.D	CCV	1116267	85384	326554	1965932	2930902	1767565	
0686CCB.D	CCB	960686	83338	324797	1948887	3027771	1726404	
069SMPL.D	06607-006	870816	82233	311664	1848356	2859224	1638700	
0706CCV.D	FINAL CCV	1119269	85608	327544	1973617	3000861	1773765	
0716CCB.D	FINAL CCB	961549	82219	313964	1910830	2879096	1717144	
072ICSA.D	ICSA	742238	76749	289316	1487361	2413865	1300170	
073ICSB.D	ICSAB	474631	74301	192947	916487	1468834	760190	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG283
July 9, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**758323**	**84057**	**311445**	**1871131**	**2945645**	**1681200**	
Sample Lower Limit		**227497**	**25217**	**93434**	**561339**	**883694**	**504360**	
	QC Lower Limit	**530826**	**58840**	**218012**	**1309792**	**2061951**	**1176840**	
Sample & QC Upper Limit		**909988**	**100868**	**373734**	**2245357**	**3534774**	**2017440**	
003CALS.D	STD1	766336	82574	314702	1912543	3002875	1755842	
004CALS.D	STD2	772213	83950	314856	1938434	3072896	1785078	
005CALS.D	STD3	739977	83054	305721	1853465	2967583	1736949	
006CALS.D	STD4	737533	81076	322768	1961125	3152500	1815622	
008_ICV.D	ICV	725628	84078	320103	1972395	3127075	1817261	
009_ICB.D	ICB	622369	85069	314032	1939726	3123900	1796032	
010SMPL.D	BMW1	640043	83713	320466	2031436	3205261	1861353	
011SMPL.D	BSW1	599135	83638	310871	1892526	3126443	1783239	
012SMPL.D	06466-013	580804	81872	298254	1728941	2876679	1562012	
013SMPL.D	06466-013R	603309	80189	302308	1763455	2901138	1577503	
014SMPL.D	06466-013SD	604741	78308	310891	1861095	2980448	1719967	
015SMPL.D	06466-013RS	588298	78108	292913	1719020	2887563	1566820	
016SMPL.D	06466-013PS	602774	78239	299114	1714918	2898661	1578241	
017SMPL.D	06657-004 FB	632155	82701	302850	1886524	2941988	1713794	
0186CCV.D	CCV	731537	81952	315364	1898969	3086988	1820551	
0196CCB.D	CCB	667851	86953	307680	1894854	3019400	1750567	
020SMPL.D	06618-003 FB	654817	82948	311556	1914124	3018617	1779321	
021SMPL.D	06466-014	666022	83992	320160	1960052	3157347	1799914	
022SMPL.D	06466-015	632434	82356	322913	1965311	3216271	1879103	
023SMPL.D	06466-016	613687	81148	310447	1907152	3090339	1796413	
024SMPL.D	06628-001	450525	78093	289211	1614920	2779528	1440384	
025SMPL.D	06628-002	564616	80154	304145	1710904	2909427	1527646	
027SMPL.D	06657-002	677249	75066	284169	1600780	2613731	1395598	
028SMPL.D	06657-003	691832	80398	300496	1732041	2821103	1535514	
029SMPL.D	06658-006	678191	76960	297268	1715312	2771583	1483555	
0306CCV.D	CCV	786780	80066	300069	1806360	2734425	1597425	
0316CCB.D	CCB	735415	81400	313450	1905864	2926346	1682547	
032SMPL.D	06658-007	673119	72154	289410	1662564	2696447	1434667	
033SMPL.D	06658-008	685009	81113	303609	1765053	2820592	1570333	
034SMPL.D	06658-009	660915	82607	302419	1746822	2745530	1507418	
035SMPL.D	06658-010	707325	80395	310390	1852627	2854190	1584066	
036SMPL.D	06226-001	660884	78639	301178	1751329	2787336	1517816	
037SMPL.D	04564-002	678370	77852	303165	1716792	2753614	1521024	
038SMPL.D	04564-005	681029	79891	303571	1749524	2790802	1523531	
039SMPL.D	06618-001	710852	80668	320479	1900631	2970247	1697351	
040SMPL.D	BMW2	649329	79209	298001	1844868	2825942	1615963	
041SMPL.D	BSW2	641713	79814	295455	1766244	2774284	1561584	
0426CCV.D	CCV	664392	78469	264908	1616330	2460029	1397316	
0436CCB.D	CCB	653088	78804	294994	1818750	2763282	1585442	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG283
July 9, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**758323**	**84057**	**311445**	**1871131**	**2945645**	**1681200**	
Sample Lower Limit		**227497**	**25217**	**93434**	**561339**	**883694**	**504360**	
	QC Lower Limit	**530826**	**58840**	**218012**	**1309792**	**2061951**	**1176840**	
Sample & QC Upper Limit		**909988**	**100868**	**373734**	**2245357**	**3534774**	**2017440**	
044SMPL.D	06558-001	660474	80089	299403	1755000	2759880	1534056	
045SMPL.D	06558-001R	691281	77164	308945	1799965	2876958	1602086	
046SMPL.D	06558-001SD	663586	79336	307115	1876906	2906693	1677868	
047SMPL.D	06558-001RS	643213	77369	297031	1743882	2840972	1579563	
048SMPL.D	06558-001PS	657784	77281	292217	1710205	2782780	1532541	
049SMPL.D	06558-004 FB	671275	81222	314724	1984185	2990973	1728168	
050SMPL.D	06558-009 FB	715810	80884	324026	2033136	3124848	1797099	
051SMPL.D	06451-008 FB	669505	78492	303253	1782091	2884131	1620571	
052SMPL.D	06451-009 FB	675372	77978	312125	1838910	3004568	1658305	
053SMPL.D	06451-013 FB	645161	83462	292869	1728673	2791236	1532214	
0546CCV.D	CCV	760081	80511	302802	1864281	2843860	1655684	
0556CCB.D	CCB	674659	81558	298466	1842150	2852676	1609542	
056SMPL.D	06451-014 FB	665643	75820	297466	1731766	2826718	1547823	
057SMPL.D	06558-002	678695	78969	304017	1765395	2885237	1586285	
058SMPL.D	06558-003	607968	80001	277524	1551251	2591785	1403075	
059SMPL.D	06558-006	667624	77081	306011	1770566	2851382	1604473	
060SMPL.D	06558-007	569963	79123	266615	1533139	2513832	1385327	
061SMPL.D	06558-008	658750	76163	289311	1660634	2684108	1452540	
062SMPL.D	06451-002	817570	69039	283305	1593229	2516527	1342388	
063SMPL.D	06451-003	822121	79025	308851	1836596	2732146	1566661	
064SMPL.D	06451-004	815610	83838	310043	1859094	2765542	1561102	
065SMPL.D	06451-005	712943	76448	284884	1576252	2503457	1325092	
0666CCV.D	CCV	839829	81588	308950	1853645	2766920	1584828	
0676CCB.D	CCB	798995	82563	315678	1906074	2848494	1618379	
068SMPL.D	06451-006	774909	77739	299411	1664142	2638972	1378305	
069SMPL.D	06451-010	838601	72336	281616	1560374	2408584	1236341	
070SMPL.D	06451-011	902366	85581	320484	1894732	2808319	1570598	
071SMPL.D	06451-012	890973	82368	318488	1900503	2760280	1537306	
0726CCV.D	FINAL CCV	890740	83963	319054	1897452	2821412	1580925	
0736CCB.D	FINAL CCB	900740	84330	323792	1944571	2919713	1622546	
074ICSA.D	ICSA	706279	77680	298983	1503516	2427964	1229650	
075ICSB.D	ICSAB	690562	78251	297713	1531742	2480174	1301077	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

GENERAL ANALYTICAL CHEMISTRY

GENERAL ANALYTICAL CHEMISTRY QC SUMMARY

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

TPHC

Matrix: Aqueous
Unit: mg/L

Batch: AP040-0055
Method: 418.1M

Date: 07/05/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	TBW-001-0705	< 0.500	NA	NA	NA	NA	NA
LCS	LCW-001-0705	3.98	4	NA	NA	99.5	90-110
MS	TBW-001S-0705	3.98	4	NA	NA	99.5	75-125
MSD	TBW-001SD-0705	4.04	4	1.5	20	101	75-125

Date: 07/03/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	TBW-001-0703	< 0.500	NA	NA	NA	NA	NA
LCS	LCW-001-0703	3.98	4	NA	NA	99.5	90-110
MS	TBW-001S-0703	3.98	4	NA	NA	99.5	75-125
MSD	TBW-001SD-0703	4.04	4	1.5	20	101	75-125

The above blank result applies to the follow samples:

E12-06385-003
E12-06385-005
E12-06466-009
E12-06466-010
E12-06466-011
E12-06466-012
E12-06546-001
E12-06546-002

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

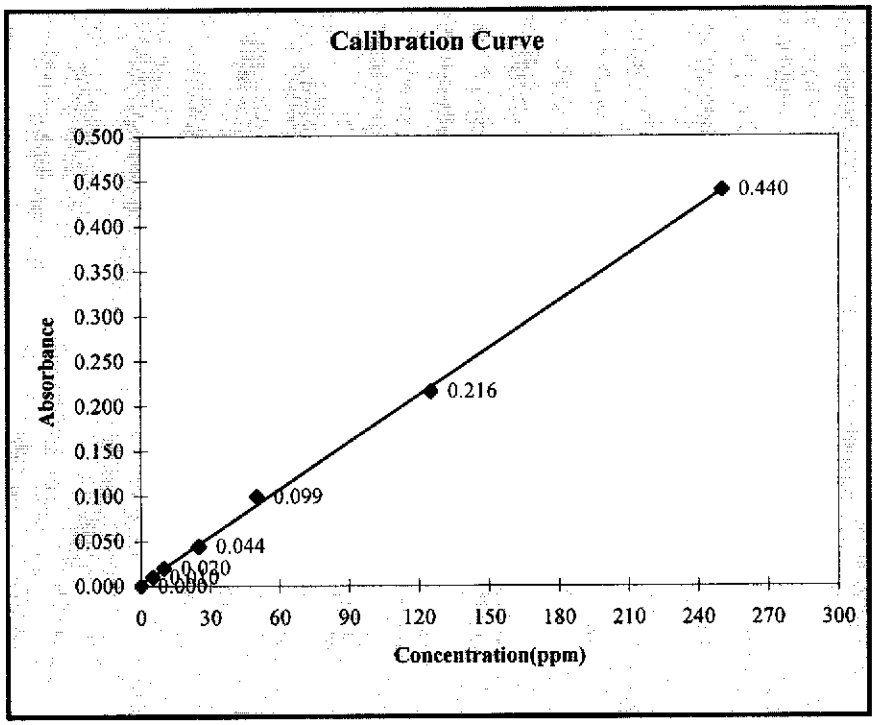
Integrated Analytical Laboratories

TPH

Date:	11-May-12
Method:	418.1
Matrix:	S/A
Analyst:	ED

Conc.	Abs.
0.000	0.000
5.000	0.010
10.000	0.020
25.000	0.044
50.000	0.099
125.000	0.216
250.000	0.440

R^2=	0.999609709
Slope=	0.00175
Intercept=	0.00234



Comments:

y = 0.00175x + .00234

SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Integrated Analytical Laboratories LLC

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO	REPORTING INFO
Company: URS	REPORT TO: Neil Laird
Address: 335 Commerce Drive	Address: Same
Ft. Washington, PA 19034	
Telephone #: 215-367-2500	Attn:
Fax #: 215-367-1000	FAX #
Project Manager: George Keil	INVOICE TO: George Keil
EMAIL Address: george.keil@urs.com	Address: Same
Sampler: Neil Laird	
Project Name: Vineland Phase II	
Project Location (State): NJ	Attn:
Bottle Order #:	PO #
Quote # :	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) NJ EPH Fractionated (5 day TAT)

NJ EPH - C40 (5 day TAT)

DRO-8015 (3-5 day TAT) QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified

24 hr** 48 hr** 72 hr** 96 hr** 1 wk**

Other** (specify):

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **	Report Format	EDDs
24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%	Results Only Reduced Regulatory - 15% Surcharge applies Other (describe)	SRP format lab approved custom EDD NO EDD/CD REQ'D

Cooler Temp 4 °C

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS / # BOTTLES & PRESERVATIVES

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	VOC	SVOC	TPH	METALS	PCB's	PAH	PESTICIDES	HERBICIDES			HCL	HNO3	MeOH	Other	None	Encore
B1 (4-5)-062712		6/27/12	1115	S	5	1	X	X	X	X	X										X	3
B3 (16-17)-062712		6/27/12	1225	S	5	2	X	X	X	X	X										X	3
C1 (12.5-13.5)-062712		6/27/12	1340	S	2	3															X	
A1 (12-13)-062712		6/27/12	1415	S	1	4			X	X		X									X	
C2 (11-12)-062712		6/27/12	1450	S	3	5															X	
A2 (4-5)-062712		6/27/12	1530	S	1	6			X	X		X									X	
A7 (2-3)-062712		6/27/12	1600	S	1	7			X	X		X									X	
I1-062712-SED		6/27/12	1015	SOL	1	8			X	X			X	X							X	

Known Hazard: Yes or No Describe: Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): X IAL Courier ____ Client Courier ____ FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: Neil Laird / URS	6/28/12	11:20	Received by: Fred Lowell / IAL	6/28/12	11:20
Relinquished by: Fred Lowell / IAL	6/28/12	19:30	Received by:	6/28/12	19:30
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 06466

PAGE: of

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

2010 REV COC

10/2010 rev

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO		REPORTING INFO	
Company:	URS	REPORT TO:	Neil Laird
Address:	335 Commerce Drive	Address:	Same
	Ft. Washington, PA 19034		
Telephone #:	215-367-2500	Attn:	
Fax #:	215-367-1000	FAX #	
Project Manager:	George Keil	INVOICE TO:	George Keil
EMAIL Address:	george.keil@urs.com	Address:	Same
Sampler:	Neil Laird		
Project Name:	Vineland Phase II		
Project Location (State):	NJ	Attn:	
Bottle Order #:		PO #	
Quote # :			

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) NJ EPH Fractionated (5 day TAT)

NJ EPH - C40 (5 day TAT)

DRO-8015 (3-5 day TAT) QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified

24 hr** 48 hr** 72 hr** 96 hr** 1 wk**

Other** (specify):

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **	Report Format	EDDs
24 hr - 100%...	Results Only	SRP format
48 hr - 75%....	Reduced	lab approved custom EDD
72 hr - 50%....	Regulatory - 15% Surcharge applies	
96 hr - 35%....		NO EDD/CD REQ'D
5 day - 25%....	Other (describe)	
6-9 day 10%		

Cooler Temp 4 °C

SAMPLE INFORMATION

Sample Matrix: DW - Drinking Water AQ - Aqueous WW - Waste Water OI - Oil LIQ - Liquid (Specify) OT - Other (Specify) S - Soil SL - Sludge SOL - Solid W - Wipe

ANALYTICAL PARAMETERS / # BOTTLES & PRESERVATIVES

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	VOC	SVOC	TPH	METALS*	PESTICIDES	HERBICIDES	HCL	HNO3	MeOH	Other	None	Encore
B3-062712-WATER		6/27/12	1355	AQ	8	9	X	X	X	X			6				2	
A1-062712-WATER		6/27/12	1510	AQ	9	10	X	X	X	X	X	X	6				5	
A2-062712-WATER		6/27/12	1555	AQ	9	11	X	X	X	X	X	X	6				5	
A7-062712-WATER		6/27/12	1640	AQ	11	12	X	X	X	X	X	X	6				5	

Known Hazard: Yes or No Describe: Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): X IAL Courier ___ Client Courier ___ FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: Neil Laird / URS	6/28/12	11:20	Received by: Frank Lowell / IAL	6/28/12	11:20
Relinquished by: Frank Lowell / IAL	6/28/12	19:30	Received by:	6/28/12	1930
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments: * PLEASE COLLECT METALS SAMPLES FROM UNPRESERVED AMBER GLASS BOTTLES AND FILTER BEFORE ANALYSIS

Lab Case # 06466

PAGE: of

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2010 REV COC

10/2010 rev

PROJECT INFORMATION

E12-06466

Case No. E12-06466 **Project** VINELAND PHASE II - VENDOR #1168636

Customer	URS Corporation - Ft. Washington	**P.O. #**	GEORGE KEIL
Contact	George Keil	**Received**	6/28/2012 19:30
EMail	George_Keil@URSCorp.com ☑ EMail EDDs	**Verbal Due**	7/16/2012
Phone	(215) 367-2500 **Fax** 1(215) 367-1000	**Report Due**	7/23/2012

Report To
335 Commerce Dr.
Suite 300
Fort Washington, PA 19034
Attn: George Keil

Bill To
PO Box 203970
Austin, TX 78720
Attn: George Keil

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
06466-001	B1 (4-5) -062712	n/a	6/27/2012@11:15	Soil	mg/Kg	5
06466-002	B3 (16-17) -062712	n/a	6/27/2012@12:25	Soil	mg/Kg	5
06466-003	C1 (12.5-13.5) -062712	n/a	6/27/2012@13:40	Soil	mg/Kg	2
06466-004	A1 (12-13) -062712	n/a	6/27/2012@14:15	Soil	mg/Kg	1
06466-005	C2 (11-12) -062712	n/a	6/27/2012@14:50	Soil	mg/Kg	3
06466-006	A2 (4-5) -062712	n/a	6/27/2012@15:30	Soil	mg/Kg	1
06466-007	A7 (2-3) -062712	n/a	6/27/2012@16:00	Soil	mg/Kg	1
06466-008	I1-062712-SED	n/a	6/27/2012@10:15	Soil	mg/Kg	1
06466-009	B3-062712-WATER	n/a	6/27/2012@13:55	Aqueous	ug/L	8
06466-010	A1-062712-WATER	n/a	6/27/2012@15:10	Aqueous	ug/L	11
06466-011	A2-062712-WATER	n/a	6/27/2012@15:55	Aqueous	ug/L	11
06466-012	A7-062712-WATER	n/a	6/27/2012@16:40	Aqueous	ug/L	11
06466-013	B3-062712-WATER FILT.	n/a	6/27/2012@13:55	Aqueous	ug/L	1
06466-014	A1-062712-WATER FILT.	n/a	6/27/2012@15:10	Aqueous	ug/L	1
06466-015	A2-062712-WATER FILT.	n/a	6/27/2012@15:55	Aqueous	ug/L	1
06466-016	A7-062712-WATER FILT.	n/a	6/27/2012@16:40	Aqueous	ug/L	1

Sample #	Tests	Status	QA Method
001	TCL VO + 15	In Process	8260B
"	TCL BNA + 15	In Process	8270C
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TCL PCB	In Process	8082
"	TAL Metals	In Process	6020/7471A
002	TCL VO + 15	In Process	8260B
"	TCL BNA + 15	In Process	8270C
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TCL PCB	In Process	8082
"	TAL Metals	In Process	6020/7471A
003	TCL/PAH	In Process	8270C
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

PROJECT INFORMATION

E12-06466

Case No. E12-06466 **Project VINELAND PHASE II - VENDOR #1168636**

Sample #	Tests	Status	QA Method
004	TCL/PAH	**In Process**	8270C
"	NJ-EPH-Fractionated	**In Process**	Method 10.08 Rev 3
"	TAL Metals	**In Process**	6020/7471A
005	TCL/PAH	**In Process**	8270C
"	NJ-EPH-Fractionated	**In Process**	Method 10.08 Rev 3
"	TAL Metals	**In Process**	6020/7471A
006	TCL/PAH	**In Process**	8270C
"	NJ-EPH-Fractionated	**In Process**	Method 10.08 Rev 3
"	TAL Metals	**In Process**	6020/7471A
007	TCL/PAH	**In Process**	8270C
"	NJ-EPH-Fractionated	**In Process**	Method 10.08 Rev 3
"	TAL Metals	**In Process**	6020/7471A
008	TCL/PAH	**In Process**	8270C
"	Herbicides	**In Process**	8151A
"	NJ-EPH-Fractionated	**In Process**	Method 10.08 Rev 3
"	TCL PCB	**In Process**	8082
"	TCL Pesticides	**In Process**	8081A
"	TAL Metals	**In Process**	6020/7471A
009	TCL VO + 15	Run	8260B
"	TCL BNA + 15	Complete	8270C
"	Metals Filtration	Complete	
"	TPHC	Complete	418.1
010	TCL VO + 15	Run	8260B
"	TCL BNA + 15	Complete	8270C
"	Herbicides	**In Process**	8151A
"	TCL Pesticides	Complete	8081A
"	Metals Filtration	Complete	
"	TPHC	Complete	418.1
011	TCL VO + 15	Run	8260B
"	TCL BNA + 15	Complete	8270C
"	Herbicides	**In Process**	8151A
"	TCL Pesticides	Complete	8081A
"	Metals Filtration	Complete	
"	TPHC	Complete	418.1
012	TCL VO + 15	Run	8260B
"	TCL BNA + 15	Complete	8270C
"	Herbicides	**In Process**	8151A
"	TCL Pesticides	Complete	8081A
"	Metals Filtration	Complete	
"	TPHC	Complete	418.1
013	TAL Metals	**In Process**	6020/7470A
014	TAL Metals	**In Process**	6020/7470A
015	TAL Metals	**In Process**	6020/7470A
016	TAL Metals	**In Process**	6020/7470A

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PROJECT INFORMATION

E12-06466

Case No. E12-06466 **Project VINELAND PHASE II - VENDOR #1168636**

06/29/2012 13:41 by Ellen - NOTE 1

AS PER QUOTE DONE BY ALAN ON 6/21/12, TPH FOR SOILS = EPH-FRACTIONATED & FOR AQUEOUS = 418.1. TCL LIST FOR ALL ORGANICS & TAL LIST FOR METALS.

AS PER KIM'S CONVERSATION W/ GEORGE K., 8011 NOT REQUIRED FOR AQUEOUS VO.

NO ANALYSIS LISTED FOR SAMPLES #3 & #5. WAITING FOR CALL BACK FROM CLIENT.

07/02/2012 16:56 by Ellen - REV 1

AS PER MARK'S CONVERSATION W/ SHERRY A., SIMS NOT REQUIRED FOR BNA.

07/03/2012 08:48 by Ellen - REV 2

AS PER MARK'S E-MAIL FROM GEORGE K.:

SAMPLES #3 & #5 TO BE ANALYZED FOR TAL METALS, EPH-FRACTIONATED & PAH.

SAMPLE #8 ALSO NEEDS TO BE ANALYZED FOR PAH & PCB.

SAMPLES #10 ALSO NEED TO BE ANALYZED FOR PEST & HERB.

07/09/2012 14:36 by Ellen - REV 4

AQUEOUS SAMPLES TO BE RUN BY 8260 & 8720.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 12** **06466** CLIENT: URS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓ Bottles Intact
✓ no-Missing Bottles
✓ no-Extra Bottles

✓ Sufficient Sample Volume
✓ no-headspace/bubbles in VOs
✓ Labels intact/correct
✓ pH Check (exclude VOs)[1]
✓ Correct bottles/preservative
✓ Sufficient Holding/Prep Time[1]
[ ] Sample to be Subcontracted
✓ **Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [signature] DATE 6/28/12

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL UMS DATE 6/2

E12-06466 0675

REV 03/2009

Laboratory Custody Chronicle

IAL Case No. E12-06466

Client URS Corporation - Ft. Washington

Project VINELAND PHASE II - VENDOR #1168636

Received On 6/28/2012@19:30

Department: Volatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL VO + 15	06466-001	Soil	n/a	n/a	7/ 6/12	Xing
"	-002	"	n/a	n/a	7/ 4/12	Xing
"	-009	Aqueous	n/a	n/a	7/10/12	Xing
"	-010	"	n/a	n/a	7/10/12	Xing
"	-011	"	n/a	n/a	7/10/12	Xing
"	-012	"	n/a	n/a	7/10/12	Xing

Department: Semivolatiles			Prep. Date	Analyst	Analysis Date	Analyst
TCL BNA + 15	-001	Soil	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-002	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-009	Aqueous	7/ 3/12	Kou-Liang	7/ 4/12	Dana
"	-010	"	7/ 3/12	Kou-Liang	7/ 4/12	Dana
"	-011	"	7/ 3/12	Kou-Liang	7/ 4/12	Dana
"	-012	"	7/ 3/12	Kou-Liang	7/ 4/12	Dana
TCL/PAH	-003	Soil	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-004	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-005	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-006	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-007	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor
"	-008	"	7/ 9/12	Kou-Liang	7/10/12	Eleanor

Department: GC			Prep. Date	Analyst	Analysis Date	Analyst
Herbicides	-008	Soil	7/ 9/12	Archimede	7/11/12	Julia
"	-010	Aqueous	7/ 3/12	Archimede	7/ 4/12	Julia
"	-011	"	7/ 3/12	Archimede	7/ 4/12	Julia
"	-012	"	7/ 3/12	Archimede	7/ 4/12	Julia
NJ-EPH-Fractionated	-001	Soil	7/ 2/12	Archimede	7/ 9/12	Margaret
"	-002	"	7/ 2/12	Archimede	7/ 9/12	Margaret
"	-003	"	7/ 6/12	Archimede	7/10/12	Margaret
"	-004	"	7/ 2/12	Archimede	7/ 9/12	Margaret
"	-005	"	7/ 6/12	Archimede	7/11/12	Margaret
"	-006	"	7/ 2/12	Archimede	7/ 9/12	Margaret
"	-007	"	7/ 3/12	Archimede	7/ 6/12	Margaret
"	-008	"	7/ 3/12	Archimede	7/ 6/12	Margaret
TCL PCB	-001	Soil	7/ 6/12	Archimede	7/13/12	Julia
"	-002	"	7/ 6/12	Archimede	7/13/12	Julia
"	-008	"	7/ 6/12	Archimede	7/13/12	Julia
TCL Pesticides	-008	Soil	7/ 6/12	Archimede	7/10/12	Iwona
"	-010	Aqueous	7/ 3/12	Archimede	7/ 5/12	Iwona
"	-011	"	7/ 2/12	Archimede	7/ 3/12	Iwona
"	-012	"	7/ 2/12	Archimede	7/ 3/12	Iwona

Department: Metals			Prep. Date	Analyst	Analysis Date	Analyst
TAL Metals	-001	Soil	7/ 1/12	Lisa	7/ 5/12	En
"	-002	"	7/ 1/12	Lisa	7/ 5/12	En

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Laboratory Custody Chronicle

IAL Case No. E12-06466

Client URS Corporation - Ft. Washington

Project VINELAND PHASE II - VENDOR #1168636

Received On 6/28/2012@19:30

"	-003	"	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-004	"	7/ 1/12	Lisa	7/ 5/12	En
"	-005	"	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-006	"	7/ 1/12	Lisa	7/ 5/12	En
"	-007	"	7/ 1/12	Lisa	7/ 5/12	En
"	-008	"	7/ 1/12	Lisa	7/ 5/12	En
"	-013	Aqueous	7/ 9/12	Lisa	7/ 9/12	En
"	-014	"	7/ 9/12	Lisa	7/ 9/12	En
"	-015	"	7/ 9/12	Lisa	7/ 9/12	En
"	-016	"	7/ 9/12	Lisa	7/ 9/12	En

Department: Wet Chemistry			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TPHC	-009	Aqueous	n/a	n/a	7/ 3/12	Elma
"	-010	"	n/a	n/a	7/ 3/12	Elma
"	-011	"	n/a	n/a	7/ 3/12	Elma
"	-012	"	n/a	n/a	7/ 3/12	Elma

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5200

Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

URS Corporation - Ft. Washington
335 Commerce Dr.
Suite 300
Fort Washington, PA 19034

Project Name: **TRADEBE - VENDOR #1168636**
IAL Case Number: **E12-06545**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E12-06545

Client URS Corporation - Ft. Washington

Project TRADEBE - VENDOR #1168636

Received On 6/29/2012@20:40

Lab ID	*Client Sample ID*	*Depth Top/Bottom*	*Sampling Time*	*Matrix*	*# of Container*
06545-001	A6(4-5)-062912	n/a	6/29/2012@08:55	Soil	1
06545-002	A5(9-10)-062912	n/a	6/29/2012@09:35	Soil	1
06545-003	A4(10.5-11.5)-062912	n/a	6/29/2012@10:20	Soil	1
06545-004	E1(6.5-7.5)-062912	n/a	6/29/2012@10:55	Soil	1
06545-005	D1(9-10)-062912	n/a	6/29/2012@11:35	Soil	1
06545-006	D2(9-10)-062912	n/a	6/29/2012@12:10	Soil	1
06545-007	D3(4-5)-062912	n/a	6/29/2012@12:30	Soil	1
06545-008	F1(9-10)-062912	n/a	6/29/2012	Soil	1
06545-009	F2(9-10)-062912	n/a	6/29/2012@13:55	Soil	1

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received nine (9) soil sample(s) from URS Corporation - Ft. Washington (IAL SDG # E12-06545, Project: TRADEBE - VENDOR #1168636) on June 29, 2012 for the analysis of:

(9) TCL/PAH
(9) NJ-EPH-Fractionated
(9) TAL Metals

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

7/18/12
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06545

Semivolatiles By **8270C/625**

Batch ID: 120710-04	**Matrix:** Soil

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E12-06545
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - NJ EPH - FRACTIONATED

Lab Case Number: E12 - 06545

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike (MS)/Matrix Spike Duplicate (MSD) (as needed) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7a.	Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7b.	n-Nonane LCS/LCSD % Recoveries were found to be less than 40% but within the acceptance range of 25 - 140%.		✓
8.	Retention Time Shift Meets Criteria (if applicable).		✓
9.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
10.	Fractionation Holding Time Met. If not met, list number of days exceeded for each sample:		✓
11.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/11/2012 Date

rev 01/12

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06545

METAL By Method 6020

Matrix: SOIL	Batch ID: 278A

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06545
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

Matrix: SOIL	Batch ID: 278B

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06545
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06545

Lab ID:	06545-001			06545-002			06545-003			06545-004		
Client ID:	A6(4-5)-062912			A5(9-10)-062912			A4(10.5-11.5)-062912			E1(6.5-7.5)-062912		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/29/12			6/29/12			6/29/12			6/29/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Naphthalene	ND		0.012	ND		0.012	0.089		0.013	ND		0.010
2-Methylnaphthalene	ND		0.018	ND		0.017	0.076		0.019	ND		0.016
Acenaphthylene	ND		0.017	ND		0.017	ND		0.018	ND		0.015
Acenaphthene	ND		0.012	ND		0.012	0.019	J	0.013	ND		0.011
Fluorene	ND		0.013	ND		0.012	0.032	J	0.013	ND		0.011
Phenanthrene	ND		0.013	ND		0.012	0.323		0.014	ND		0.011
Anthracene	ND		0.017	ND		0.017	0.082		0.019	ND		0.015
Fluoranthene	ND		0.015	ND		0.014	0.227		0.016	ND		0.013
Pyrene	ND		0.014	ND		0.013	0.309		0.014	ND		0.012
Benzo[a]anthracene	ND		0.019	ND		0.018	0.138		0.020	ND		0.016
Chrysene	ND		0.016	ND		0.015	0.190		0.017	ND		0.014
Benzo[b]fluoranthene	ND		0.021	ND		0.021	0.140		0.023	ND		0.019
Benzo[k]fluoranthene	ND		0.022	ND		0.021	0.140		0.023	ND		0.019
Benzo[a]pyrene	ND		0.019	ND		0.018	0.146		0.020	ND		0.016
Indeno[1,2,3-cd]pyrene	ND		0.012	ND		0.012	0.103		0.013	ND		0.011
Dibenz[a,h]anthracene	ND		0.013	ND		0.013	0.030	J	0.014	ND		0.011
Benzo[g,h,i]perylene	ND		0.018	ND		0.017	0.153		0.019	ND		0.015
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	ND		2.45	ND		2.27	ND		2.63	ND		2.04
C12-C16 Aliphatics	ND		2.45	ND		2.27	ND		2.63	ND		2.04
C16-C21 Aliphatics	ND		2.45	ND		2.27	8.52	J	2.63	ND		2.04
C21-C40 Aliphatics	ND		12.3	ND		11.3	54.2		13.2	ND		10.2
Total Aliphatics	0		12.3	0		11.3	62.7		13.2	0		10.2
C10-C12 Aromatics	ND		4.90	ND		4.54	ND		5.26	ND		4.08
C12-C16 Aromatics	ND		4.90	ND		4.54	ND		5.26	ND		4.08
C16-C21 Aromatics	ND		4.90	ND		4.54	24.2	J	5.26	ND		4.08
C21-C36 Aromatics	ND		9.81	ND		9.08	53.7		10.5	ND		8.17
Total Aromatics	0		9.81	0		9.08	77.9		10.5	0		8.17
Total NJ-EPH	0		12.3	0		11.3	141		13.2	0		10.2
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	2260		6.32	3560		6.49	22800		7.25	3510		5.69
Antimony	ND		0.316	ND		0.324	0.901	J	0.363	ND		0.284
Arsenic	0.607	J	0.316	0.886		0.324	10.1		0.363	0.722		0.284
Barium	10.4	J	3.16	14.0		3.24	186		3.63	11.5		2.84
Beryllium	ND		0.253	ND		0.259	1.03		0.290	ND		0.227
Cadmium	ND		0.158	ND		0.162	0.815		0.181	ND		0.142
Calcium	465		31.6	357		32.4	12600		36.3	48.2	J	28.4
Chromium	3.26		0.632	4.76		0.649	57.5		0.725	4.66		0.569
Cobalt	ND		0.632	0.711	J	0.649	16.0		0.725	0.650	J	0.569
Copper	1.82	J	0.632	1.12	J	0.649	114		0.725	1.06	J	0.569
Iron	1440		15.8	3500		16.2	26300		18.1	3280		14.2
Lead	9.10		0.158	2.83		0.162	172		0.181	2.67		0.142
Magnesium	181		15.8	303		16.2	5310		18.1	228		14.2

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
Continued on Next Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06545

Lab ID:	06545-001			06545-002			06545-003			06545-004		
Client ID:	A6(4-5)-062912			A5(9-10)-062912			A4(10.5-11.5)-062912			E1(6.5-7.5)-062912		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/29/12			6/29/12			6/29/12			6/29/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Manganese	16.1		0.316	14.0		0.324	381		0.363	13.5		0.284
Mercury	0.023		0.00693	0.021		0.00642	0.273		0.00838	0.016		0.00701
Nickel	1.52		0.632	1.84		0.649	79.9		0.725	1.59		0.569
Potassium	106		15.8	166		16.2	3480		18.1	128		14.2
Selenium	ND		1.26	ND		1.30	1.78	J	1.45	ND		1.14
Silver	ND		0.158	ND		0.162	0.520	J	0.181	ND		0.142
Sodium	72.7	J	31.6	99.2	J	32.4	1340		36.3	44.7	J	28.4
Thallium	ND		0.158	ND		0.162	0.298	J	0.181	ND		0.142
Vanadium	4.80		0.632	6.86		0.649	65.0		0.725	6.75		0.569
Zinc	6.10		2.53	5.84		2.59	253		2.90	5.20		2.27

Lab ID:	06545-005			06545-006			06545-007			06545-008		
Client ID:	D1(9-10)-062912			D2(9-10)-062912			D3(4-5)-062912			F1(9-10)-062912		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/29/12			6/29/12			6/29/12			6/29/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Naphthalene	ND		0.00978	ND		0.011	0.183		0.010	ND		0.011
2-Methylnaphthalene	ND		0.015	ND		0.017	0.269		0.016	ND		0.016
Acenaphthylene	ND		0.014	ND		0.016	0.092		0.015	ND		0.015
Acenaphthene	ND		0.00999	ND		0.011	0.491		0.011	ND		0.011
Fluorene	ND		0.010	ND		0.012	0.732		0.011	ND		0.011
Phenanthrene	ND		0.010	ND		0.012	0.911		0.011	ND		0.011
Anthracene	ND		0.014	ND		0.016	0.653		0.015	ND		0.015
Fluoranthene	ND		0.012	ND		0.014	0.141		0.013	ND		0.013
Pyrene	ND		0.011	ND		0.012	0.365		0.012	ND		0.012
Benzo[a]anthracene	ND		0.015	ND		0.017	ND		0.016	ND		0.016
Chrysene	ND		0.013	ND		0.014	0.032	J	0.014	ND		0.014
Benzo[b]fluoranthene	ND		0.017	ND		0.020	ND		0.019	ND		0.019
Benzo[k]fluoranthene	ND		0.018	ND		0.020	ND		0.019	ND		0.019
Benzo[a]pyrene	ND		0.015	ND		0.017	ND		0.016	ND		0.016
Indeno[1,2,3-cd]pyrene	ND		0.00992	ND		0.011	ND		0.011	ND		0.011
Dibenz[a,h]anthracene	ND		0.011	ND		0.012	ND		0.011	ND		0.012
Benzo[g,h,i]perylene	ND		0.014	ND		0.016	ND		0.015	ND		0.016
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	ND		2.03	ND		2.15	111		2.17	ND		2.13
C12-C16 Aliphatics	ND		2.03	ND		2.15	431		2.17	ND		2.13
C16-C21 Aliphatics	ND		2.03	ND		2.15	424		2.17	ND		2.13
C21-C40 Aliphatics	ND		10.2	ND		10.7	91.8		10.9	ND		10.7
Total Aliphatics	0		10.2	0		10.7	1060		10.9	0		10.7
C10-C12 Aromatics	ND		4.06	ND		4.29	68.1		4.35	ND		4.26
C12-C16 Aromatics	ND		4.06	ND		4.29	216		4.35	ND		4.26
C16-C21 Aromatics	ND		4.06	ND		4.29	338		4.35	ND		4.26
C21-C36 Aromatics	ND		8.12	ND		8.58	51.3		8.69	ND		8.53
Total Aromatics	0		8.12	0		8.58	673		8.69	0		8.53
Total NJ-EPH	0		10.2	0		10.7	1730		10.9	0		10.7

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06545

Lab ID:	06545-005			06545-006			06545-007			06545-008		
Client ID:	D1(9-10)-062912			D2(9-10)-062912			D3(4-5)-062912			F1(9-10)-062912		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	6/29/12			6/29/12			6/29/12			6/29/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	613		5.20	591		5.99	4650		5.85	1850		5.67
Antimony	ND		0.260	ND		0.300	ND		0.293	ND		0.283
Arsenic	ND		0.260	ND		0.300	0.838		0.293	0.289	J	0.283
Barium	3.11	J	2.60	ND		3.00	21.3		2.93	5.58	J	2.83
Beryllium	ND		0.208	ND		0.240	ND		0.234	ND		0.227
Cadmium	ND		0.130	ND		0.150	ND		0.146	ND		0.142
Calcium	ND		26.0	ND		30.0	6690		29.3	31.5	J	28.3
Chromium	1.30	J	0.520	1.63	J	0.599	5.13		0.585	3.26		0.567
Cobalt	ND		0.520	ND		0.599	ND		0.585	ND		0.567
Copper	ND		0.520	ND		0.599	1.47	J	0.585	ND		0.567
Iron	633		13.0	624		15.0	3680		14.6	1110		14.2
Lead	0.407	J	0.130	0.596	J	0.150	3.05		0.146	1.05		0.142
Magnesium	40.8	J	13.0	41.8	J	15.0	3670		14.6	106		14.2
Manganese	2.42		0.260	3.01		0.300	17.8		0.293	4.94		0.283
Mercury	ND		0.00624	ND		0.00703	0.028		0.0068	0.00658	J	0.00652
Nickel	ND		0.520	ND		0.599	1.76		0.585	0.974	J	0.567
Potassium	45.4	J	13.0	39.9	J	15.0	138		14.6	70.8		14.2
Selenium	ND		1.04	ND		1.20	ND		1.17	ND		1.13
Silver	ND		0.130	ND		0.150	ND		0.146	ND		0.142
Sodium	ND		26.0	ND		30.0	74.4	J	29.3	ND		28.3
Thallium	ND		0.130	ND		0.150	ND		0.146	ND		0.142
Vanadium	1.38	J	0.520	1.44	J	0.599	8.09		0.585	3.60		0.567
Zinc	ND		2.08	ND		2.40	12.0		2.34	ND		2.27

Lab ID:	06545-009		
Client ID:	F2(9-10)-062912		
Matrix:	Soil		
Sampled Date	6/29/12		
PARAMETER(Units)	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(mg/Kg-ppm)*		
Naphthalene	ND		0.011
2-Methylnaphthalene	ND		0.016
Acenaphthylene	ND		0.015
Acenaphthene	ND		0.011
Fluorene	ND		0.011
Phenanthrene	ND		0.011
Anthracene	ND		0.016
Fluoranthene	ND		0.014
Pyrene	ND		0.012
Benzo[a]anthracene	ND		0.017
Chrysene	ND		0.014
Benzo[b]fluoranthene	ND		0.019
Benzo[k]fluoranthene	ND		0.020
Benzo[a]pyrene	ND		0.017
Indeno[1,2,3-cd]pyrene	ND		0.011
Dibenz[a,h]anthracene	ND		0.012
Benzo[g,h,i]perylene	ND		0.016

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06545

Lab ID:	**06545-009**		
Client ID:	**F2(9-10)-062912**		
Matrix:	**Soil**		
Sampled Date	**6/29/12**		
PARAMETER(Units)	Conc	Q	MDL
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*		
C9-C12 Aliphatics	ND		2.21
C12-C16 Aliphatics	ND		2.21
C16-C21 Aliphatics	ND		2.21
C21-C40 Aliphatics	ND		11.0
Total Aliphatics	0		11.0
C10-C12 Aromatics	ND		4.41
C12-C16 Aromatics	ND		4.41
C16-C21 Aromatics	4.70	J	4.41
C21-C36 Aromatics	62.6		8.83
Total Aromatics	67.3		8.83
Total NJ-EPH	67.3		11.0
Metals (Units)	*(mg/Kg-ppm)*		
Aluminum	481		6.09
Antimony	ND		0.304
Arsenic	ND		0.304
Barium	ND		3.04
Beryllium	ND		0.244
Cadmium	ND		0.152
Calcium	201		30.4
Chromium	1.27	J	0.609
Cobalt	ND		0.609
Copper	ND		0.609
Iron	411		15.2
Lead	0.684		0.152
Magnesium	56.9	J	15.2
Manganese	1.60		0.304
Mercury	ND		0.00698
Nickel	ND		0.609
Potassium	39.4	J	15.2
Selenium	ND		1.22
Silver	ND		0.152
Sodium	49.9	J	30.4
Thallium	ND		0.152
Vanadium	1.59	J	0.609
Zinc	ND		2.44

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06545-001
Client ID: A6(4-5)-
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2145.D

GC/MS Column: DB-5
Sample wt/vol: 15.13g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 21.4

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.042	0.012
2-Methylnaphthalene	ND		0.042	0.018
Acenaphthylene	ND		0.042	0.017
Acenaphthene	ND		0.042	0.012
Fluorene	ND		0.042	0.013
Phenanthrene	ND		0.042	0.013
Anthracene	ND		0.042	0.017
Fluoranthene	ND		0.042	0.015
Pyrene	ND		0.042	0.014
Benzo[a]anthracene	ND		0.042	0.019
Chrysene	ND		0.042	0.016
Benzo[b]fluoranthene	ND		0.042	0.021
Benzo[k]fluoranthene	ND		0.042	0.022
Benzo[a]pyrene	ND		0.042	0.019
Indeno[1,2,3-cd]pyrene	ND		0.042	0.012
Dibenz[a,h]anthracene	ND		0.042	0.013
Benzo[g,h,i]perylene	ND		0.042	0.018

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06545-002
Client ID: A5(9-10)
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2146.D

GC/MS Column: DB-5
Sample wt/vol: 15.18g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.4

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.040	0.012
2-Methylnaphthalene	ND		0.040	0.017
Acenaphthylene	ND		0.040	0.017
Acenaphthene	ND		0.040	0.012
Fluorene	ND		0.040	0.012
Phenanthrene	ND		0.040	0.012
Anthracene	ND		0.040	0.017
Fluoranthene	ND		0.040	0.014
Pyrene	ND		0.040	0.013
Benzo[a]anthracene	ND		0.040	0.018
Chrysene	ND		0.040	0.015
Benzo[b]fluoranthene	ND		0.040	0.021
Benzo[k]fluoranthene	ND		0.040	0.021
Benzo[a]pyrene	ND		0.040	0.018
Indeno[1,2,3-cd]pyrene	ND		0.040	0.012
Dibenz[a,h]anthracene	ND		0.040	0.013
Benzo[g,h,i]perylene	ND		0.040	0.017

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06545-003
Client ID: A4(10.5-
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2147.D

GC/MS Column: DB-5
Sample wt/vol: 15.02g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 25.6

Compound	Concentration	Q	RL	MDL
Naphthalene	0.089		0.045	0.013
2-Methylnaphthalene	0.076		0.045	0.019
Acenaphthylene	ND		0.045	0.018
Acenaphthene	0.019	J	0.045	0.013
Fluorene	0.032	J	0.045	0.013
Phenanthrene	0.323		0.045	0.014
Anthracene	0.082		0.045	0.019
Fluoranthene	0.227		0.045	0.016
Pyrene	0.309		0.045	0.014
Benzo[a]anthracene	0.138		0.045	0.020
Chrysene	0.190		0.045	0.017
Benzo[b]fluoranthene	0.140		0.045	0.023
Benzo[k]fluoranthene	0.140		0.045	0.023
Benzo[a]pyrene	0.146		0.045	0.020
Indeno[1,2,3-cd]pyrene	0.103		0.045	0.013
Dibenz[a,h]anthracene	0.030	J	0.045	0.014
Benzo[g,h,i]perylene	0.153		0.045	0.019
Total Target Compounds (17):	2.20	J		

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06545-004
Client ID: E1(6.5-7
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2148.D

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.80

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.037	0.010
2-Methylnaphthalene	ND		0.037	0.016
Acenaphthylene	ND		0.037	0.015
Acenaphthene	ND		0.037	0.011
Fluorene	ND		0.037	0.011
Phenanthrene	ND		0.037	0.011
Anthracene	ND		0.037	0.015
Fluoranthene	ND		0.037	0.013
Pyrene	ND		0.037	0.012
Benzo[a]anthracene	ND		0.037	0.016
Chrysene	ND		0.037	0.014
Benzo[b]fluoranthene	ND		0.037	0.019
Benzo[k]fluoranthene	ND		0.037	0.019
Benzo[a]pyrene	ND		0.037	0.016
Indeno[1,2,3-cd]pyrene	ND		0.037	0.011
Dibenz[a,h]anthracene	ND		0.037	0.011
Benzo[g,h,i]perylene	ND		0.037	0.015

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06545-005
Client ID: D1(9-10)
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2149.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 3.60

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.034	0.00978
2-Methylnaphthalene	ND		0.034	0.015
Acenaphthylene	ND		0.034	0.014
Acenaphthene	ND		0.034	0.00999
Fluorene	ND		0.034	0.010
Phenanthrene	ND		0.034	0.010
Anthracene	ND		0.034	0.014
Fluoranthene	ND		0.034	0.012
Pyrene	ND		0.034	0.011
Benzo[a]anthracene	ND		0.034	0.015
Chrysene	ND		0.034	0.013
Benzo[b]fluoranthene	ND		0.034	0.017
Benzo[k]fluoranthene	ND		0.034	0.018
Benzo[a]pyrene	ND		0.034	0.015
Indeno[1,2,3-cd]pyrene	ND		0.034	0.00992
Dibenz[a,h]anthracene	ND		0.034	0.011
Benzo[g,h,i]perylene	ND		0.034	0.014

Total Target Compounds (17): 0

E12-06545 0017

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06545-006
Client ID: D2(9-10)
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2150.D

GC/MS Column: DB-5
Sample wt/vol: 15.10g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 14.0

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.039	0.011
2-Methylnaphthalene	ND		0.039	0.017
Acenaphthylene	ND		0.039	0.016
Acenaphthene	ND		0.039	0.011
Fluorene	ND		0.039	0.012
Phenanthrene	ND		0.039	0.012
Anthracene	ND		0.039	0.016
Fluoranthene	ND		0.039	0.014
Pyrene	ND		0.039	0.012
Benzo[a]anthracene	ND		0.039	0.017
Chrysene	ND		0.039	0.014
Benzo[b]fluoranthene	ND		0.039	0.020
Benzo[k]fluoranthene	ND		0.039	0.020
Benzo[a]pyrene	ND		0.039	0.017
Indeno[1,2,3-cd]pyrene	ND		0.039	0.011
Dibenz[a,h]anthracene	ND		0.039	0.012
Benzo[g,h,i]perylene	ND		0.039	0.016

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06545-007
Client ID: D3(4-5)-
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2151.D

GC/MS Column: DB-5
Sample wt/vol: 15.09g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 9.60

Compound	Concentration	Q	RL	MDL
Naphthalene	0.183		0.037	0.010
2-Methylnaphthalene	0.269		0.037	0.016
Acenaphthylene	0.092		0.037	0.015
Acenaphthene	0.491		0.037	0.011
Fluorene	0.732		0.037	0.011
Phenanthrene	0.911		0.037	0.011
Anthracene	0.653		0.037	0.015
Fluoranthene	0.141		0.037	0.013
Pyrene	0.365		0.037	0.012
Benzo[a]anthracene	ND		0.037	0.016
Chrysene	0.032	J	0.037	0.014
Benzo[b]fluoranthene	ND		0.037	0.019
Benzo[k]fluoranthene	ND		0.037	0.019
Benzo[a]pyrene	ND		0.037	0.016
Indeno[1,2,3-cd]pyrene	ND		0.037	0.011
Dibenz[a,h]anthracene	ND		0.037	0.011
Benzo[g,h,i]perylene	ND		0.037	0.015
Total Target Compounds (17):	3.87	J		

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06545-008
Client ID: F1(9-10)
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2152.D

GC/MS Column: DB-5
Sample wt/vol: 15.15g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 11.0

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.037	0.011
2-Methylnaphthalene	ND		0.037	0.016
Acenaphthylene	ND		0.037	0.015
Acenaphthene	ND		0.037	0.011
Fluorene	ND		0.037	0.011
Phenanthrene	ND		0.037	0.011
Anthracene	ND		0.037	0.015
Fluoranthene	ND		0.037	0.013
Pyrene	ND		0.037	0.012
Benzo[a]anthracene	ND		0.037	0.016
Chrysene	ND		0.037	0.014
Benzo[b]fluoranthene	ND		0.037	0.019
Benzo[k]fluoranthene	ND		0.037	0.019
Benzo[a]pyrene	ND		0.037	0.016
Indeno[1,2,3-cd]pyrene	ND		0.037	0.011
Dibenz[a,h]anthracene	ND		0.037	0.012
Benzo[g,h,i]perylene	ND		0.037	0.016

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06545-009
Client ID: F2(9-10)
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2153.D

GC/MS Column: DB-5
Sample wt/vol: 15.18g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.5

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.038	0.011
2-Methylnaphthalene	ND		0.038	0.016
Acenaphthylene	ND		0.038	0.015
Acenaphthene	ND		0.038	0.011
Fluorene	ND		0.038	0.011
Phenanthrene	ND		0.038	0.011
Anthracene	ND		0.038	0.016
Fluoranthene	ND		0.038	0.014
Pyrene	ND		0.038	0.012
Benzo[a]anthracene	ND		0.038	0.017
Chrysene	ND		0.038	0.014
Benzo[b]fluoranthene	ND		0.038	0.019
Benzo[k]fluoranthene	ND		0.038	0.020
Benzo[a]pyrene	ND		0.038	0.017
Indeno[1,2,3-cd]pyrene	ND		0.038	0.011
Dibenz[a,h]anthracene	ND		0.038	0.012
Benzo[g,h,i]perylene	ND		0.038	0.016

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06545-001
Client ID: A6(4-5)-
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1715.D
Data file: NB1347.D

GC Column: DB-5
Sample wt/vol: 5.19g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 21.4

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		14.7	2.45
C12-C16 Aliphatics	ND		9.81	2.45
C16-C21 Aliphatics	ND		14.7	2.45
C21-C40 Aliphatics	ND		49.0	12.3
Total Aliphatics	0		49.0	12.3
C10-C12 Aromatics	ND		9.81	4.90
C12-C16 Aromatics	ND		14.7	4.90
C16-C21 Aromatics	ND		24.5	4.90
C21-C36 Aromatics	ND		39.2	9.81
Total Aromatics	0		39.2	9.81
Total NJ-EPH	0		49.0	12.3

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06545-002
Client ID: A5(9-10)
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/11/2012
Data file: N1716.D
Data file: NB1361.D

GC Column: DB-5
Sample wt/vol: 5.40g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 18.4

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		13.6	2.27
C12-C16 Aliphatics	ND		9.08	2.27
C16-C21 Aliphatics	ND		13.6	2.27
C21-C40 Aliphatics	ND		45.4	11.3
Total Aliphatics	0		45.4	11.3
C10-C12 Aromatics	ND		9.08	4.54
C12-C16 Aromatics	ND		13.6	4.54
C16-C21 Aromatics	ND		22.7	4.54
C21-C36 Aromatics	ND		36.3	9.08
Total Aromatics	0		36.3	9.08
Total NJ-EPH	0		45.4	11.3

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06545-003
Client ID: A4(10.5-
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1717.D
Data file: NB1349.D

GC Column: DB-5
Sample wt/vol: 5.11g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 25.6

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		15.8	2.63
C12-C16 Aliphatics	ND		10.5	2.63
C16-C21 Aliphatics	8.52	J	15.8	2.63
C21-C40 Aliphatics	54.2		52.6	13.2
Total Aliphatics	62.7		52.6	13.2
C10-C12 Aromatics	ND		10.5	5.26
C12-C16 Aromatics	ND		15.8	5.26
C16-C21 Aromatics	24.2	J	26.3	5.26
C21-C36 Aromatics	53.7		42.1	10.5
Total Aromatics	77.9		42.1	10.5
Total NJ-EPH	141		52.6	13.2

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06545-004
Client ID: E1(6.5-7
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1718.D
Data file: NB1350.D

GC Column: DB-5
Sample wt/vol: 5.43g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 9.80

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.3	2.04
C12-C16 Aliphatics	ND		8.17	2.04
C16-C21 Aliphatics	ND		12.3	2.04
C21-C40 Aliphatics	ND		40.8	10.2
Total Aliphatics	0		40.8	10.2
C10-C12 Aromatics	ND		8.17	4.08
C12-C16 Aromatics	ND		12.3	4.08
C16-C21 Aromatics	ND		20.4	4.08
C21-C36 Aromatics	ND		32.7	8.17
Total Aromatics	0		32.7	8.17
Total NJ-EPH	0		40.8	10.2

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06545-005
Client ID: D1(9-10)
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1719.D
Data file: NB1351.D

GC Column: DB-5
Sample wt/vol: 5.11g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 3.60

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.2	2.03
C12-C16 Aliphatics	ND		8.12	2.03
C16-C21 Aliphatics	ND		12.2	2.03
C21-C40 Aliphatics	ND		40.6	10.2
Total Aliphatics	0		40.6	10.2
C10-C12 Aromatics	ND		8.12	4.06
C12-C16 Aromatics	ND		12.2	4.06
C16-C21 Aromatics	ND		20.3	4.06
C21-C36 Aromatics	ND		32.5	8.12
Total Aromatics	0		32.5	8.12
Total NJ-EPH	0		40.6	10.2

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06545-006
Client ID: D2(9-10)
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/11/2012
Data file: N1720.D
Data file: NB1362.D

GC Column: DB-5
Sample wt/vol: 5.42g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 14.0

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.9	2.15
C12-C16 Aliphatics	ND		8.58	2.15
C16-C21 Aliphatics	ND		12.9	2.15
C21-C40 Aliphatics	ND		42.9	10.7
Total Aliphatics	0		42.9	10.7
C10-C12 Aromatics	ND		8.58	4.29
C12-C16 Aromatics	ND		12.9	4.29
C16-C21 Aromatics	ND		21.5	4.29
C21-C36 Aromatics	ND		34.3	8.58
Total Aromatics	0		34.3	8.58
Total NJ-EPH	0		42.9	10.7

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06545-007
Client ID: D3(4-5)-
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1721.D
Data file: NB1353.D

GC Column: DB-5
Sample wt/vol: 5.09g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 9.60

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	111		13.0	2.17
C12-C16 Aliphatics	431		8.69	2.17
C16-C21 Aliphatics	424		13.0	2.17
C21-C40 Aliphatics	91.8		43.5	10.9
Total Aliphatics	1060		43.5	10.9
C10-C12 Aromatics	68.1		8.69	4.35
C12-C16 Aromatics	216		13.0	4.35
C16-C21 Aromatics	338		21.7	4.35
C21-C36 Aromatics	51.3		34.8	8.69
Total Aromatics	673		34.8	8.69
Total NJ-EPH	1730		43.5	10.9

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06545-008
Client ID: F1(9-10)
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1722.D
Data file: NB1354.D

GC Column: DB-5
Sample wt/vol: 5.27g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.0

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.8	2.13
C12-C16 Aliphatics	ND		8.53	2.13
C16-C21 Aliphatics	ND		12.8	2.13
C21-C40 Aliphatics	ND		42.6	10.7
Total Aliphatics	0		42.6	10.7
C10-C12 Aromatics	ND		8.53	4.26
C12-C16 Aromatics	ND		12.8	4.26
C16-C21 Aromatics	ND		21.3	4.26
C21-C36 Aromatics	ND		34.1	8.53
Total Aromatics	0		34.1	8.53
Total NJ-EPH	0		42.6	10.7

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06545-009
Client ID: F2(9-10)
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1723.D
Data file: NB1355.D

GC Column: DB-5
Sample wt/vol: 5.18g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 12.5

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		13.2	2.21
C12-C16 Aliphatics	ND		8.83	2.21
C16-C21 Aliphatics	ND		13.2	2.21
C21-C40 Aliphatics	ND		44.1	11.0
Total Aliphatics	0		44.1	11.0
C10-C12 Aromatics	ND		8.83	4.41
C12-C16 Aromatics	ND		13.2	4.41
C16-C21 Aromatics	4.70	J	22.1	4.41
C21-C36 Aromatics	62.6		35.3	8.83
Total Aromatics	67.3		35.3	8.83
Total NJ-EPH	67.3		44.1	11.0

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06545-001
Client ID: A6(4-5)-062912
Date Received: 6/29/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 21.4
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	2260		1	12.6	6.32	07/09/12	6020
Antimony	ND		1	1.26	0.316	07/09/12	6020
Arsenic	0.607	J	1	0.632	0.316	07/09/12	6020
Barium	10.4	J	1	12.6	3.16	07/09/12	6020
Beryllium	ND		1	0.632	0.253	07/09/12	6020
Cadmium	ND		1	0.632	0.158	07/09/12	6020
Calcium	465		1	63.2	31.6	07/09/12	6020
Chromium	3.26		1	2.53	0.632	07/09/12	6020
Cobalt	ND		1	2.53	0.632	07/09/12	6020
Copper	1.82	J	1	2.53	0.632	07/09/12	6020
Iron	1440		1	31.6	15.8	07/09/12	6020
Lead	9.10		1	0.632	0.158	07/09/12	6020
Magnesium	181		1	63.2	15.8	07/09/12	6020
Manganese	16.1		1	1.26	0.316	07/09/12	6020
Mercury	0.023		1	0.014	0.00693	07/06/12	7471A
Nickel	1.52		1	1.26	0.632	07/09/12	6020
Potassium	106		1	63.2	15.8	07/09/12	6020
Selenium	ND		1	2.53	1.26	07/09/12	6020
Silver	ND		1	0.632	0.158	07/09/12	6020
Sodium	72.7	J	1	126	31.6	07/09/12	6020
Thallium	ND		1	0.632	0.158	07/09/12	6020
Vanadium	4.80		1	2.53	0.632	07/09/12	6020
Zinc	6.10		1	2.53	2.53	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06545-002
Client ID: A5(9-10)-062912
Date Received: 6/29/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 18.4
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	3560		1	13.0	6.49	07/09/12	6020
Antimony	ND		1	1.30	0.324	07/09/12	6020
Arsenic	0.886		1	0.649	0.324	07/09/12	6020
Barium	14.0		1	13.0	3.24	07/09/12	6020
Beryllium	ND		1	0.649	0.259	07/09/12	6020
Cadmium	ND		1	0.649	0.162	07/09/12	6020
Calcium	357		1	64.9	32.4	07/09/12	6020
Chromium	4.76		1	2.59	0.649	07/09/12	6020
Cobalt	0.711	J	1	2.59	0.649	07/09/12	6020
Copper	1.12	J	1	2.59	0.649	07/09/12	6020
Iron	3500		1	32.4	16.2	07/09/12	6020
Lead	2.83		1	0.649	0.162	07/09/12	6020
Magnesium	303		1	64.9	16.2	07/09/12	6020
Manganese	14.0		1	1.30	0.324	07/09/12	6020
Mercury	0.021		1	0.013	0.00642	07/06/12	7471A
Nickel	1.84		1	1.30	0.649	07/09/12	6020
Potassium	166		1	64.9	16.2	07/09/12	6020
Selenium	ND		1	2.59	1.30	07/09/12	6020
Silver	ND		1	0.649	0.162	07/09/12	6020
Sodium	99.2	J	1	130	32.4	07/09/12	6020
Thallium	ND		1	0.649	0.162	07/09/12	6020
Vanadium	6.86		1	2.59	0.649	07/09/12	6020
Zinc	5.84		1	2.59	2.59	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06545-003
Client ID: A4(10.5-11.5)-062912
Date Received: 6/29/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 25.6
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	22800		1	14.5	7.25	07/09/12	6020
Antimony	0.901	J	1	1.45	0.363	07/09/12	6020
Arsenic	10.1		1	0.725	0.363	07/09/12	6020
Barium	186		1	14.5	3.63	07/09/12	6020
Beryllium	1.03		1	0.725	0.290	07/09/12	6020
Cadmium	0.815		1	0.725	0.181	07/09/12	6020
Calcium	12600		1	72.5	36.3	07/09/12	6020
Chromium	57.5		1	2.90	0.725	07/09/12	6020
Cobalt	16.0		1	2.90	0.725	07/09/12	6020
Copper	114		1	2.90	0.725	07/09/12	6020
Iron	26300		1	36.3	18.1	07/09/12	6020
Lead	172		1	0.725	0.181	07/09/12	6020
Magnesium	5310		1	72.5	18.1	07/09/12	6020
Manganese	381		1	1.45	0.363	07/09/12	6020
Mercury	0.273		1	0.017	0.00838	07/06/12	7471A
Nickel	79.9		1	1.45	0.725	07/09/12	6020
Potassium	3480		1	72.5	18.1	07/09/12	6020
Selenium	1.78	J	1	2.90	1.45	07/09/12	6020
Silver	0.520	J	1	0.725	0.181	07/09/12	6020
Sodium	1340		1	145	36.3	07/09/12	6020
Thallium	0.298	J	1	0.725	0.181	07/09/12	6020
Vanadium	65.0		1	2.90	0.725	07/09/12	6020
Zinc	253		1	2.90	2.90	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06545-004
Client ID: E1(6.5-7.5)-062912
Date Received: 6/29/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 9.80
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	3510		1	11.4	5.69	07/09/12	6020
Antimony	ND		1	1.14	0.284	07/09/12	6020
Arsenic	0.722		1	0.569	0.284	07/09/12	6020
Barium	11.5		1	11.4	2.84	07/09/12	6020
Beryllium	ND		1	0.569	0.227	07/09/12	6020
Cadmium	ND		1	0.569	0.142	07/09/12	6020
Calcium	48.2	J	1	56.9	28.4	07/09/12	6020
Chromium	4.66		1	2.27	0.569	07/09/12	6020
Cobalt	0.650	J	1	2.27	0.569	07/09/12	6020
Copper	1.06	J	1	2.27	0.569	07/09/12	6020
Iron	3280		1	28.4	14.2	07/09/12	6020
Lead	2.67		1	0.569	0.142	07/09/12	6020
Magnesium	228		1	56.9	14.2	07/09/12	6020
Manganese	13.5		1	1.14	0.284	07/09/12	6020
Mercury	0.016		1	0.015	0.00701	07/06/12	7471A
Nickel	1.59		1	1.14	0.569	07/09/12	6020
Potassium	128		1	56.9	14.2	07/09/12	6020
Selenium	ND		1	2.27	1.14	07/09/12	6020
Silver	ND		1	0.569	0.142	07/09/12	6020
Sodium	44.7	J	1	114	28.4	07/09/12	6020
Thallium	ND		1	0.569	0.142	07/09/12	6020
Vanadium	6.75		1	2.27	0.569	07/09/12	6020
Zinc	5.20		1	2.27	2.27	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06545-005
Client ID: D1(9-10)-062912
Date Received: 6/29/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 3.60
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	613		1	10.4	5.20	07/09/12	6020
Antimony	ND		1	1.04	0.260	07/09/12	6020
Arsenic	ND		1	0.520	0.260	07/09/12	6020
Barium	3.11	J	1	10.4	2.60	07/09/12	6020
Beryllium	ND		1	0.520	0.208	07/09/12	6020
Cadmium	ND		1	0.520	0.130	07/09/12	6020
Calcium	ND		1	52.0	26.0	07/09/12	6020
Chromium	1.30	J	1	2.08	0.520	07/09/12	6020
Cobalt	ND		1	2.08	0.520	07/09/12	6020
Copper	ND		1	2.08	0.520	07/09/12	6020
Iron	633		1	26.0	13.0	07/09/12	6020
Lead	0.407	J	1	0.520	0.130	07/09/12	6020
Magnesium	40.8	J	1	52.0	13.0	07/09/12	6020
Manganese	2.42		1	1.04	0.260	07/09/12	6020
Mercury	ND		1	0.013	0.00624	07/06/12	7471A
Nickel	ND		1	1.04	0.520	07/09/12	6020
Potassium	45.4	J	1	52.0	13.0	07/09/12	6020
Selenium	ND		1	2.08	1.04	07/09/12	6020
Silver	ND		1	0.520	0.130	07/09/12	6020
Sodium	ND		1	104	26.0	07/09/12	6020
Thallium	ND		1	0.520	0.130	07/09/12	6020
Vanadium	1.38	J	1	2.08	0.520	07/09/12	6020
Zinc	ND		1	2.08	2.08	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06545-006
Client ID: D2(9-10)-062912
Date Received: 6/29/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 14.0
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	591		1	12.0	5.99	07/09/12	6020
Antimony	ND		1	1.20	0.300	07/09/12	6020
Arsenic	ND		1	0.599	0.300	07/09/12	6020
Barium	ND		1	12.0	3.00	07/09/12	6020
Beryllium	ND		1	0.599	0.240	07/09/12	6020
Cadmium	ND		1	0.599	0.150	07/09/12	6020
Calcium	ND		1	59.9	30.0	07/09/12	6020
Chromium	1.63	J	1	2.40	0.599	07/09/12	6020
Cobalt	ND		1	2.40	0.599	07/09/12	6020
Copper	ND		1	2.40	0.599	07/09/12	6020
Iron	624		1	30.0	15.0	07/09/12	6020
Lead	0.596	J	1	0.599	0.150	07/09/12	6020
Magnesium	41.8	J	1	59.9	15.0	07/09/12	6020
Manganese	3.01		1	1.20	0.300	07/09/12	6020
Mercury	ND		1	0.015	0.00703	07/06/12	7471A
Nickel	ND		1	1.20	0.599	07/09/12	6020
Potassium	39.9	J	1	59.9	15.0	07/09/12	6020
Selenium	ND		1	2.40	1.20	07/09/12	6020
Silver	ND		1	0.599	0.150	07/09/12	6020
Sodium	ND		1	120	30.0	07/09/12	6020
Thallium	ND		1	0.599	0.150	07/09/12	6020
Vanadium	1.44	J	1	2.40	0.599	07/09/12	6020
Zinc	ND		1	2.40	2.40	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06545-007
Client ID: D3(4-5)-062912
Date Received: 6/29/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 9.60
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	4650		1	11.7	5.85	07/09/12	6020
Antimony	ND		1	1.17	0.293	07/09/12	6020
Arsenic	0.838		1	0.585	0.293	07/09/12	6020
Barium	21.3		1	11.7	2.93	07/09/12	6020
Beryllium	ND		1	0.585	0.234	07/09/12	6020
Cadmium	ND		1	0.585	0.146	07/09/12	6020
Calcium	6690		1	58.5	29.3	07/09/12	6020
Chromium	5.13		1	2.34	0.585	07/09/12	6020
Cobalt	ND		1	2.34	0.585	07/09/12	6020
Copper	1.47	J	1	2.34	0.585	07/09/12	6020
Iron	3680		1	29.3	14.6	07/09/12	6020
Lead	3.05		1	0.585	0.146	07/09/12	6020
Magnesium	3670		1	58.5	14.6	07/09/12	6020
Manganese	17.8		1	1.17	0.293	07/09/12	6020
Mercury	0.028		1	0.014	0.0068	07/06/12	7471A
Nickel	1.76		1	1.17	0.585	07/09/12	6020
Potassium	138		1	58.5	14.6	07/09/12	6020
Selenium	ND		1	2.34	1.17	07/09/12	6020
Silver	ND		1	0.585	0.146	07/09/12	6020
Sodium	74.4	J	1	117	29.3	07/09/12	6020
Thallium	ND		1	0.585	0.146	07/09/12	6020
Vanadium	8.09		1	2.34	0.585	07/09/12	6020
Zinc	12.0		1	2.34	2.34	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06545-008
Client ID: F1(9-10)-062912
Date Received: 6/29/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.0
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	1850		1	11.3	5.67	07/09/12	6020
Antimony	ND		1	1.13	0.283	07/09/12	6020
Arsenic	0.289	J	1	0.567	0.283	07/09/12	6020
Barium	5.58	J	1	11.3	2.83	07/09/12	6020
Beryllium	ND		1	0.567	0.227	07/09/12	6020
Cadmium	ND		1	0.567	0.142	07/09/12	6020
Calcium	31.5	J	1	56.7	28.3	07/09/12	6020
Chromium	3.26		1	2.27	0.567	07/09/12	6020
Cobalt	ND		1	2.27	0.567	07/09/12	6020
Copper	ND		1	2.27	0.567	07/09/12	6020
Iron	1110		1	28.3	14.2	07/09/12	6020
Lead	1.05		1	0.567	0.142	07/09/12	6020
Magnesium	106		1	56.7	14.2	07/09/12	6020
Manganese	4.94		1	1.13	0.283	07/09/12	6020
Mercury	0.00658	J	1	0.014	0.00652	07/06/12	7471A
Nickel	0.974	J	1	1.13	0.567	07/09/12	6020
Potassium	70.8		1	56.7	14.2	07/09/12	6020
Selenium	ND		1	2.27	1.13	07/09/12	6020
Silver	ND		1	0.567	0.142	07/09/12	6020
Sodium	ND		1	113	28.3	07/09/12	6020
Thallium	ND		1	0.567	0.142	07/09/12	6020
Vanadium	3.60		1	2.27	0.567	07/09/12	6020
Zinc	ND		1	2.27	2.27	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06545-009
Client ID: F2(9-10)-062912
Date Received: 6/29/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 12.5
Batch #: 278

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	481		1	12.2	6.09	07/09/12	6020
Antimony	ND		1	1.22	0.304	07/09/12	6020
Arsenic	ND		1	0.609	0.304	07/09/12	6020
Barium	ND		1	12.2	3.04	07/09/12	6020
Beryllium	ND		1	0.609	0.244	07/09/12	6020
Cadmium	ND		1	0.609	0.152	07/09/12	6020
Calcium	201		1	60.9	30.4	07/09/12	6020
Chromium	1.27	J	1	2.44	0.609	07/09/12	6020
Cobalt	ND		1	2.44	0.609	07/09/12	6020
Copper	ND		1	2.44	0.609	07/09/12	6020
Iron	411		1	30.4	15.2	07/09/12	6020
Lead	0.684		1	0.609	0.152	07/09/12	6020
Magnesium	56.9	J	1	60.9	15.2	07/09/12	6020
Manganese	1.60		1	1.22	0.304	07/09/12	6020
Mercury	ND		1	0.015	0.00698	07/06/12	7471A
Nickel	ND		1	1.22	0.609	07/09/12	6020
Potassium	39.4	J	1	60.9	15.2	07/09/12	6020
Selenium	ND		1	2.44	1.22	07/09/12	6020
Silver	ND		1	0.609	0.152	07/09/12	6020
Sodium	49.9	J	1	122	30.4	07/09/12	6020
Thallium	ND		1	0.609	0.152	07/09/12	6020
Vanadium	1.59	J	1	2.44	0.609	07/09/12	6020
Zinc	ND		1	2.44	2.44	07/09/12	6020

SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/11/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNA2		A2140.D	N/A	N/A	N/A	N/A	N/A	N/A
BLKS120710-04	SOIL	A2141.D	63	66	83	85	52	101
LCSS120710-04	SOIL	A2142.D	50	51	46	67	48	45
E12-06545-005MS	SOIL	A2143.D	39	42	58	53	50	66
E12-06545-005MSD	SOIL	A2144.D	40	43	59	56	51	69
E12-06545-001	SOIL	A2145.D	N/A	N/A	35	43	N/A	48
E12-06545-002	SOIL	A2146.D	N/A	N/A	37	43	N/A	53
E12-06545-003	SOIL	A2147.D	N/A	N/A	43	47	N/A	57
E12-06545-004	SOIL	A2148.D	N/A	N/A	40	45	N/A	59
E12-06545-005	SOIL	A2149.D	N/A	N/A	43	45	N/A	59
E12-06545-006	SOIL	A2150.D	N/A	N/A	44	49	N/A	60
E12-06545-007	SOIL	A2151.D	N/A	N/A	86	66	N/A	63
E12-06545-008	SOIL	A2152.D	N/A	N/A	44	51	N/A	69
E12-06545-009	SOIL	A2153.D	N/A	N/A	57	66	N/A	65
E12-06625-001	SOIL	A2154.D	N/A	N/A	49	54	N/A	53
E12-06625-002	SOIL	A2155.D	N/A	N/A	65	51	N/A	31
E12-06625-002	SOIL	A2156.D	N/A	N/A	62	38	N/A	34
E12-06625-003	SOIL	A2157.D	N/A	N/A	46	56	N/A	47
E12-06625-006	SOIL	A2158.D	N/A	N/A	48	48	N/A	52
E12-06625-004	SOIL	A2159.D	N/A	N/A	45	48	N/A	39
E12-06625-007	SOIL	A2160.D	N/A	N/A	36	44	N/A	44
E12-06625-008	SOIL	A2161.D	N/A	N/A	48	54	N/A	52

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10.-83	25-100
S2 (PHL) = Phenol-d5	10.-91	25-108
S3 (NBZ) = Nitrobenzene-d5	25-94	24-91
S4 (FBP) = 2-Fluorobiphenyl	23-102	33-91
S5 (TBP) = 2,4,6-Tribromophenol	27-110	37-115
S6 (TPH) = Terphenyl-d14	33-113	15-122

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/11/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
E12-06625-005	SOIL	A2162.D	N/A	N/A	38	45	N/A	53
E12-06699-001	SOIL	A2163.D	59	65	36	43	80	49
E12-06699-002	SOIL	A2164.D	68	78	38	45	105	54
E12-06699-003	SOIL	A2165.D	41	49	32	42	69	56
BLKS120706-03	SOIL	A2166.D	60	60	64	69	57	62
LCSS120706-03	SOIL	A2167.D	55	56	60	84	54	54
E12-0606224-010	SOIL	A2168.D	N/A	N/A	73	59	N/A	50
E12-06224-008	SOIL	A2169.D	N/A	N/A	51	54	N/A	55

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10.-83	25-100
S2 (PHL) = Phenol-d5	10.-91	25-108
S3 (NBZ) = Nitrobenzene-d5	25-94	24-91
S4 (FBP) = 2-Fluorobiphenyl	23-102	33-91
S5 (TBP) = 2,4,6-Tribromophenol	27-110	37-115
S6 (TPH) = Terphenyl-d14	33-113	15-122

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120710-04
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2142.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	50.0	23.9	48		40 - 140
Pyridine	50.0	12.1	24		20 - 120
Benzaldehyde	50.0	18.7	37		10 - 110
Phenol	50.0	26.7	53		30 - 140
Aniline	50.0	21.1	42		40 - 140
Bis(2-chloroethyl) ether	50.0	24.2	48		40 - 140
2-Chlorophenol	50.0	25.4	51		30 - 140
1,3-Dichlorobenzene	50.0	25.5	51		40 - 140
1,4-Dichlorobenzene	50.0	24.6	49		40 - 140
Benzyl alcohol	50.0	20.4	41		40 - 140
1,2-Dichlorobenzene	50.0	24.8	50		40 - 140
2-Methylphenol	50.0	20.4	41		30 - 140
Bis(2-chloroisopropyl) ether	50.0	27.3	55		40 - 140
4-Methylphenol	50.0	22.5	45		30 - 140
N-Nitrosodi-n-propylamine	50.0	27.2	54		40 - 140
Acetophenone	50.0	26.9	54		40 - 140
3-Methylphenol	50.0	22.5	45		30 - 140
Hexachloroethane	50.0	24.2	48		40 - 140
Nitrobenzene	50.0	25.1	50		40 - 140
Isophorone	50.0	23.0	46		40 - 140
2-Nitrophenol	50.0	26.5	53		30 - 140
2,4-Dimethylphenol	50.0	27.6	55		30 - 140
Bis(2-chloroethoxy) methane	50.0	26.2	52		40 - 140
Benzoic acid	50.0	20.5	41		30 - 140
2,4-Dimethylaniline	50.0	34.0	68		40 - 140
2,4-Dichlorophenol	50.0	25.9	52		30 - 140
1,2,4-Trichlorobenzene	50.0	24.0	48		40 - 140
Naphthalene	50.0	24.4	49		40 - 140
4-Chloroaniline	50.0	22.6	45		40 - 140
Hexachlorobutadiene	50.0	23.3	47		40 - 140
Caprolactam	50.0	28.9	58		40 - 140
4-Chloro-3-methylphenol	50.0	28.5	57		30 - 140
2-Methylnaphthalene	50.0	23.7	47		40 - 140
Hexachlorocyclopentadiene	50.0	30.0	60		5 - 105
2,4,6-Trichlorophenol	50.0	37.2	74		30 - 140
2,4,5-Trichlorophenol	50.0	31.9	64		30 - 140
1,1'-Biphenyl	50.0	36.1	72		40 - 140
2-Chloronaphthalene	50.0	36.5	73		40 - 140
2-Nitroaniline	50.0	33.3	67		40 - 140
Dimethyl phthalate	50.0	38.6	77		40 - 140
2,6-Dinitrotoluene	50.0	40.4	81		40 - 140
Acenaphthylene	50.0	36.3	73		40 - 140
3-Nitroaniline	50.0	35.6	71		40 - 140
Acenaphthene	50.0	37.6	75		40 - 140
2,4-Dinitrophenol	50.0	44.8	90		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120710-04
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2142.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	50.0	44.8	90		30 - 140
2,4-Dinitrotoluene	50.0	45.8	92		40 - 140
Dibenzofuran	50.0	31.4	63		40 - 140
Diethyl phthalate	50.0	41.7	83		40 - 140
Fluorene	50.0	39.6	79		40 - 140
4-Chlorophenyl phenyl ether	50.0	40.1	80		40 - 140
4-Nitroaniline	50.0	36.7	73		40 - 140
1,2,4,5-Tetrachlorobenzene	50.0	21.1	42		40 - 140
2,3,4,6-Tetrachlorophenol	50.0	53.9	108		40 - 140
4,6-Dinitro-2-methylphenol	50.0	20.7	41		10 - 110
N-Nitrosodiphenylamine	50.0	26.9	54		40 - 140
1,2-Diphenylhydrazine	50.0	25.3	51		40 - 140
4-Bromophenyl phenyl ether	50.0	25.4	51		40 - 140
Hexachlorobenzene	50.0	24.8	50		40 - 140
Atrazine	50.0	12.6	25		20 - 120
Pentachlorophenol	50.0	24.6	49		30 - 140
Phenanthrene	50.0	24.7	49		40 - 140
Anthracene	50.0	25.3	51		40 - 140
Carbazole	50.0	26.8	54		40 - 140
Di-n-butyl phthalate	50.0	26.1	52		40 - 140
Fluoranthene	50.0	24.1	48		40 - 140
Benzidine	50.0	9.8	20		5 - 105
Pyrene	50.0	25.9	52		40 - 140
3,3'-Dimethylbenzidine	50.0	15.2	30		5 - 105
Butyl benzyl phthalate	50.0	26.9	54		40 - 140
3,3'-Dichlorobenzidine	50.0	27.4	55		40 - 140
Benzo[a]anthracene	50.0	24.3	49		40 - 140
Chrysene	50.0	21.7	43		40 - 140
Bis(2-ethylhexyl) phthalate	50.0	25.5	51		40 - 140
Di-n-octyl phthalate	50.0	27.9	56		40 - 140
Benzo[b]fluoranthene	50.0	24.8	50		40 - 140
Benzo[k]fluoranthene	50.0	28.6	57		40 - 140
Benzo[a]pyrene	50.0	30.7	61		40 - 140
Indeno[1,2,3-cd]pyrene	50.0	29.5	59		40 - 140
Dibenz[a,h]anthracene	50.0	29.8	60		40 - 140
Benzo[g,h,i]perylene	50.0	27.2	54		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06545-005
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
MS Data file: A2143.D
MSD Data file: A2144.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	50.0	0.00	40.00	80		42.00	84		5		40-140/30
Pyridine	50.0	0.00	19.40	39		20.60	41		6		20-120/30
Benzaldehyde	50.0	0.00	9.40	19		8.40	17		11		10-110/30
Phenol	50.0	0.00	44.30	89		45.60	91		3		30-140/30
Aniline	50.0	0.00	35.30	71		37.00	74		5		40-140/30
Bis(2-chloroethyl) ether	50.0	0.00	38.60	77		40.30	81		4		40-140/30
2-Chlorophenol	50.0	0.00	41.60	83		42.90	86		3		30-140/30
1,3-Dichlorobenzene	50.0	0.00	42.10	84		43.60	87		4		40-140/30
1,4-Dichlorobenzene	50.0	0.00	39.20	78		41.10	82		5		40-140/30
Benzyl alcohol	50.0	0.00	33.40	67		35.10	70		5		40-140/30
1,2-Dichlorobenzene	50.0	0.00	39.80	80		42.00	84		5		40-140/30
2-Methylphenol	50.0	0.00	34.20	68		34.80	70		2		30-140/30
Bis(2-chloroisopropyl) ether	50.0	0.00	40.90	82		43.40	87		6		40-140/30
4-Methylphenol	50.0	0.00	38.00	76		39.30	79		3		30-140/30
N-Nitrosodi-n-propylamine	50.0	0.00	44.50	89		46.30	93		4		40-140/30
Acetophenone	50.0	0.00	44.40	89		46.30	93		4		40-140/30
3-Methylphenol	50.0	0.00	38.00	76		39.30	79		3		30-140/30
Hexachloroethane	50.0	0.00	40.00	80		41.10	82		3		40-140/30
Nitrobenzene	50.0	0.00	40.30	81		41.50	83		3		40-140/30
Isophorone	50.0	0.00	37.20	74		38.00	76		2		40-140/30
2-Nitrophenol	50.0	0.00	44.50	89		45.50	91		2		30-140/30
2,4-Dimethylphenol	50.0	0.00	46.50	93		47.40	95		2		30-140/30
Bis(2-chloroethoxy) methane	50.0	0.00	42.20	84		42.70	85		1		40-140/30
Benzoic acid	50.0	0.00	37.30	75		37.80	76		1		30-140/30
2,4-Dimethylaniline	50.0	0.00	38.40	77		39.90	80		4		40-140/30
2,4-Dichlorophenol	50.0	0.00	42.40	85		43.70	87		3		30-140/30
1,2,4-Trichlorobenzene	50.0	0.00	37.60	75		38.80	78		3		40-140/30
Naphthalene	50.0	0.00	39.60	79		40.80	82		3		40-140/30
4-Chloroaniline	50.0	0.00	39.40	79		39.90	80		1		40-140/30
Hexachlorobutadiene	50.0	0.00	37.90	76		38.20	76		1		40-140/30
Caprolactam	50.0	0.00	54.90	110		56.20	112		2		40-140/30
4-Chloro-3-methylphenol	50.0	0.00	50.90	102		51.60	103		1		30-140/30
2-Methylnaphthalene	50.0	0.00	41.00	82		40.50	81		1		40-140/30
Hexachlorocyclopentadiene	50.0	0.00	36.20	72		38.30	77		6		5-105/30
2,4,6-Trichlorophenol	50.0	0.00	42.50	85		44.80	90		5		30-140/30
2,4,5-Trichlorophenol	50.0	0.00	36.60	73		38.10	76		4		30-140/30
1,1'-Biphenyl	50.0	0.00	40.20	80		41.90	84		4		40-140/30
2-Chloronaphthalene	50.0	0.00	40.60	81		42.50	85		5		40-140/30
2-Nitroaniline	50.0	0.00	39.90	80		41.40	83		4		40-140/30
Dimethyl phthalate	50.0	0.00	45.10	90		46.80	94		4		40-140/30
2,6-Dinitrotoluene	50.0	0.00	53.00	106		54.50	109		3		40-140/30
Acenaphthylene	50.0	0.00	43.40	87		45.60	91		5		40-140/30
3-Nitroaniline	50.0	0.00	45.10	90		47.80	96		6		40-140/30
Acenaphthene	50.0	0.00	41.30	83		43.30	87		5		40-140/30
2,4-Dinitrophenol	50.0	0.00	44.90	90		44.00	88		2		5-105/30

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06545-005
Date Received: 06/29/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
MS Data file: A2143.D
MSD Data file: A2144.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	50.0	0.00	51.50	103		65.00	130		23		30-140/30
2,4-Dinitrotoluene	50.0	0.00	60.10	120		62.30	125		4		40-140/30
Dibenzofuran	50.0	0.00	34.30	69		36.80	74		7		40-140/30
Diethyl phthalate	50.0	0.00	50.60	101		52.80	106		4		40-140/30
Fluorene	50.0	0.00	46.50	93		48.50	97		4		40-140/30
4-Chlorophenyl phenyl ether	50.0	0.00	44.80	90		46.90	94		5		40-140/30
4-Nitroaniline	50.0	0.00	48.30	97		48.60	97		1		40-140/30
1,2,4,5-Tetrachlorobenzene	50.0	0.00	20.80	42		22.10	44		6		40-140/30
2,3,4,6-Tetrachlorophenol	50.0	0.00	56.20	112		52.30	105		7		40-140/30
4,6-Dinitro-2-methylphenol	50.0	0.00	50.00	100		53.10	106		6		10-110/30
N-Nitrosodiphenylamine	50.0	0.00	48.50	97		50.70	101		4		40-140/30
1,2-Diphenylhydrazine	50.0	0.00	43.50	87		45.80	92		5		40-140/30
4-Bromophenyl phenyl ether	50.0	0.00	45.20	90		48.90	98		8		40-140/30
Hexachlorobenzene	50.0	0.00	46.10	92		47.80	96		4		40-140/30
Atrazine	50.0	0.00	46.80	94		49.20	98		5		20-120/30
Pentachlorophenol	50.0	0.00	54.70	109		56.20	112		3		30-140/30
Phenanthrene	50.0	0.00	45.50	91		48.50	97		6		40-140/30
Anthracene	50.0	0.00	49.70	99		52.20	104		5		40-140/30
Carbazole	50.0	0.00	52.70	105		54.40	109		3		40-140/30
Di-n-butyl phthalate	50.0	0.00	53.40	107		56.60	113		6		40-140/30
Fluoranthene	50.0	0.00	49.50	99		52.00	104		5		40-140/30
Benzidine	50.0	0.00	14.20	28		13.90	28		2		5-105/30
Pyrene	50.0	0.00	51.20	102		53.70	107		5		40-140/30
3,3'-Dimethylbenzidine	50.0	0.00	27.60	55		27.90	56		1		5-105/30
Butyl benzyl phthalate	50.0	0.00	56.10	112		59.70	119		6		40-140/30
3,3'-Dichlorobenzidine	50.0	0.00	55.80	112		57.00	114		2		40-140/30
Benzo[a]anthracene	50.0	0.00	49.10	98		51.00	102		4		40-140/30
Chrysene	50.0	0.00	41.10	82		43.60	87		6		40-140/30
Bis(2-ethylhexyl) phthalate	50.0	0.00	54.50	109		55.50	111		2		40-140/30
Di-n-octyl phthalate	50.0	0.00	64.60	129		47.60	95		30		40-140/30
Benzo[b]fluoranthene	50.0	0.00	53.50	107		64.10	128		18		40-140/30
Benzo[k]fluoranthene	50.0	0.00	61.70	123		58.00	116		6		40-140/30
Benzo[a]pyrene	50.0	0.00	65.00	130		68.30	137		5		40-140/30
Indeno[1,2,3-cd]pyrene	50.0	0.00	61.00	122		64.80	130		6		40-140/30
Dibenz[a,h]anthracene	50.0	0.00	60.20	120		63.00	126		5		40-140/30
Benzo[g,h,i]perylene	50.0	0.00	58.60	117		61.20	122		4		40-140/30

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: A2141.D

Instrument ID: MSDA

Date Extracted: 07/10/12

Matrix: SOIL

Date Analyzed: 07/11/2012

Time Analyzed: 05:18

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSS120710-04	07/11/2012	05:34
.	E12-06545-005MS	07/11/2012	05:50
.	E12-06545-005MSD	07/11/2012	06:05
A6(4-5)-	E12-06545-001	07/11/2012	06:22
A5(9-10)	E12-06545-002	07/11/2012	06:38
A4(10.5-	E12-06545-003	07/11/2012	06:54
E1(6.5-7	E12-06545-004	07/11/2012	07:09
D1(9-10)	E12-06545-005	07/11/2012	07:26
D2(9-10)	E12-06545-006	07/11/2012	07:41
D3(4-5)-	E12-06545-007	07/11/2012	07:57
F1(9-10)	E12-06545-008	07/11/2012	08:13
F2(9-10)	E12-06545-009	07/11/2012	08:29
SLF-TW-4	E12-06625-001	07/11/2012	08:45
SLF-TW-4	E12-06625-002	07/11/2012	09:01
SLF-TW-4	E12-06625-002	07/11/2012	09:17
SLF-TW-4	E12-06625-003	07/11/2012	09:33
SLF-TW-4	E12-06625-006	07/11/2012	09:49
SLF-TW-4	E12-06625-004	07/11/2012	10:05
SLF-TW-4	E12-06625-007	07/11/2012	10:21
SLF-TW-4	E12-06625-008	07/11/2012	10:37
SLF-TW-4	E12-06625-005	07/11/2012	11:09
1-COMP-1	E12-06699-001	07/11/2012	11:41
2-COMP-1	E12-06699-002	07/11/2012	11:57
3-COMP-2	E12-06699-003	07/11/2012	12:13

FORM IV SV

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A2044.D DFTPP Injection Date : 07/05/2012

Inst ID: MSDA DFTPP Injection Time: 09:04

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	40.2	
68	Less than 2.0% of mass 69	0.5	(1.4)1
69	Mass 69 relative abundance	36.5	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	40.0 - 60.0% of mass 198	52.0	
197	Less than 1.0% of mass 198	0.4	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.9	
275	10.0 - 30.0% of mass 198	25.0	
365	Greater than 1.0% of mass 198	3.1	
441	Present, but less than mass 443	13.24	(73.2)3
442	40.0 - 100.0% of mass 198	86.1	
443	17.0 - 23.0% of mass 442	18.1	(21.0)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN077-12	ICC040BNA1	A2049.D	07/05/2012	10:37
ABN075-12	ICC010BNA1	A2050.D	07/05/2012	11:19
ABN076-12	ICC020BNA1	A2051.D	07/05/2012	11:34
ABN085-12	ICC080BNA2	A2052.D	07/05/2012	11:50
ABN082-12	ICC002BNA2	A2053.D	07/05/2012	12:06
ABN086-12	ICC120BNA2	A2054.D	07/05/2012	12:22
ABN078-12	ICC080BNA1	A2055.D	07/05/2012	12:38
ABN073-12	ICC001BNA1	A2056.D	07/05/2012	12:54
ABN079-12	ICC120BNA1	A2057.D	07/05/2012	13:12
ABN074-12	ICC002BNA1	A2058.D	07/05/2012	13:27
ABN077-12	ICC040BNA1	A2059.D	07/05/2012	13:43
ABN080-12	ICC001BNA2	A2060.D	07/05/2012	13:59
ABN083-12	ICC020BNA2	A2061.D	07/05/2012	14:15
ABN082-12	ICC010BNA2	A2062.D	07/05/2012	14:31
ABN084-12	ICC040BNA2	A2063.D	07/05/2012	14:47
ABN088-12	ICV040BNA1	A2064.D	07/05/2012	15:05
ABN089-12	ICV040BNA2	A2065.D	07/05/2012	15:21

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A2138.D DFTPP Injection Date : 07/11/2012

Inst ID: MSDA DFTPP Injection Time: 04:34

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	52.4	
68	Less than 2.0% of mass 69	0.8	(1.9)1
69	Mass 69 relative abundance	44.2	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	40.0 - 60.0% of mass 198	59.6	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.7	
275	10.0 - 30.0% of mass 198	20.5	
365	Greater than 1.0% of mass 198	2.5	
441	Present, but less than mass 443	7.98	(64.9)3
442	40.0 - 100.0% of mass 198	58.0	
443	17.0 - 23.0% of mass 442	12.3	(21.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN088-12	CCV040BNA1	A2139.D	07/11/2012	04:44
ABN089-12	CCV040BNA2	A2140.D	07/11/2012	04:59
.	BLKS120710-04	A2141.D	07/11/2012	05:18
.	LCSS120710-04	A2142.D	07/11/2012	05:34
.	E12-06545-005MS	A2143.D	07/11/2012	05:50
.	E12-06545-005MSD	A2144.D	07/11/2012	06:05
A6(4-5)-	E12-06545-001	A2145.D	07/11/2012	06:22
A5(9-10)	E12-06545-002	A2146.D	07/11/2012	06:38
A4(10.5-	E12-06545-003	A2147.D	07/11/2012	06:54
E1(6.5-7	E12-06545-004	A2148.D	07/11/2012	07:09
D1(9-10)	E12-06545-005	A2149.D	07/11/2012	07:26
D2(9-10)	E12-06545-006	A2150.D	07/11/2012	07:41
D3(4-5)-	E12-06545-007	A2151.D	07/11/2012	07:57
F1(9-10)	E12-06545-008	A2152.D	07/11/2012	08:13
F2(9-10)	E12-06545-009	A2153.D	07/11/2012	08:29
SLF-TW-4	E12-06625-001	A2154.D	07/11/2012	08:45
SLF-TW-4	E12-06625-002	A2155.D	07/11/2012	09:01
SLF-TW-4	E12-06625-002	A2156.D	07/11/2012	09:17
SLF-TW-4	E12-06625-003	A2157.D	07/11/2012	09:33
SLF-TW-4	E12-06625-006	A2158.D	07/11/2012	09:49
SLF-TW-4	E12-06625-004	A2159.D	07/11/2012	10:05
SLF-TW-4	E12-06625-007	A2160.D	07/11/2012	10:21
SLF-TW-4	E12-06625-008	A2161.D	07/11/2012	10:37

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A2138.D DFTPP Injection Date : 07/11/2012

Inst ID: MSDA DFTPP Injection Time: 04:34

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	52.4	
68	Less than 2.0% of mass 69	0.8	(1.9)1
69	Mass 69 relative abundance	44.2	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	40.0 - 60.0% of mass 198	59.6	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.7	
275	10.0 - 30.0% of mass 198	20.5	
365	Greater than 1.0% of mass 198	2.5	
441	Present, but less than mass 443	7.98	(64.9)3
442	40.0 - 100.0% of mass 198	58.0	
443	17.0 - 23.0% of mass 442	12.3	(21.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
SLF-TW-4	E12-06625-005	A2162.D	07/11/2012	11:09
1-COMP-1	E12-06699-001	A2163.D	07/11/2012	11:41
2-COMP-1	E12-06699-002	A2164.D	07/11/2012	11:57
3-COMP-2	E12-06699-003	A2165.D	07/11/2012	12:13
.	BLKS120706-03	A2166.D	07/11/2012	12:29
.	LCSS120706-03	A2167.D	07/11/2012	12:45
WPE-18	E12-0606224-010	A2168.D	07/11/2012	13:01
WPE-16	E12-06224-008	A2169.D	07/11/2012	13:17

Response Factor Report MSD_A

Method Path : C:\MSDCHEM\1\METHODS\
Method File : AW1112.M
Title : BNA CALIBRATION METHOD
Last Update : Fri Jul 06 08:42:04 2012
Response Via : Initial Calibration

Calibration Files
1 =A2056.D 2 =A2058.D 10 =A2050.D 20 =A2051.D 40 =A2059.D 80 =A2055.D
120 =A2057.D

		Compound	1	2	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------								
2)	T	N-Nitrosodimet...	0.895	0.858	0.819	0.908	0.837	0.855	0.787	0.851	4.96
3)	T	Pyridine	2.359	1.985	1.895	2.039	1.783	1.747	1.929	1.962	10.35
4)	S	2-Fluorophenol	1.245	1.286	1.259	1.265	1.268	1.273	1.169	1.252	3.09
5)	T	Benzaldehyde	0.946	1.017	0.937	0.953	0.962	0.838	0.882	0.933	6.20
6)	S	Phenol-d5	1.527	1.525	1.529	1.532	1.522	1.488	1.334	1.494	4.82
7)	MC	Phenol	1.583	1.824	1.596	1.720	1.569	1.492	1.435	1.603	8.24
8)	T	Aniline	1.080	0.950	0.834	0.897	0.768	0.779	0.826	0.876	12.58
9)	T	Bis(2-chloroet...	1.263	1.152	1.004	1.098	0.983	0.980	0.856	1.048	12.76
10)	M	2-Chlorophenol	1.735	1.450	1.357	1.476	1.299	1.301	1.250	1.410	11.73
11)	T	1,3-Dichlorobe...	1.791	1.649	1.496	1.631	1.523	1.490	1.397	1.568	8.35
12)	MC	1,4-Dichlorobe...	1.936	1.790	1.588	1.720	1.545	1.538	1.384	1.643	11.22
13)	T	Benzyl alcohol	1.031	0.855	0.915	1.023	0.893	0.907	0.730	0.908	11.31
14)	T	1,2-Dichlorobe...	1.804	1.638	1.491	1.627	1.429	1.429	1.304	1.532	10.96
15)	T	2-Methylphenol	1.805	1.915	1.482	1.602	1.430	1.433	1.536	1.601	11.87
16)	T	Bis(2-chlorois...	2.181	1.895	1.733	1.899	1.675	1.663	1.459	1.786	12.88
17)	T	4-Methylphenol	1.690	1.546	1.448	1.557	1.400	1.380	1.035	1.437	14.39
18)	MP	N-Nitrosodi-n-...	1.066	0.953	0.888	0.941	0.847	0.832	0.703	0.890	12.78
19)	T	Acetophenone	2.144	1.903	1.764	1.842	1.667	1.634	1.594	1.793	10.68
20)	T	3-Methylphenol	1.690	1.546	1.448	1.557	1.400	1.379	1.034	1.436	14.42
21)	T	Hexachloroethane	0.694	0.589	0.556	0.606	0.543	0.561	0.520	0.581	9.86
22)	T	ISTD								0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------								
24)	S	Nitrobenzene-d5	0.336	0.329	0.331	0.341	0.341	0.388	0.383	0.350	7.15
25)	T	Nitrobenzene	0.407	0.421	0.363	0.379	0.343	0.344	0.334	0.370	9.11
26)	T	Isophorone	0.764	0.677	0.624	0.661	0.589	0.599	0.467	0.626	14.64
27)	TC	2-Nitrophenol	0.192	0.168	0.174	0.195	0.173	0.177	0.167	0.178	6.22
28)	T	2,4-Dimethylph...	0.375	0.322	0.317	0.345	0.306	0.321	0.303	0.327	7.72
29)	T	Bis(2-chloroet...	0.456	0.422	0.381	0.413	0.359	0.370	0.334	0.391	10.68
30)	T	Benzoic acid	0.200	0.181	0.187	0.211	0.191	0.195	0.140	0.186	12.07
31)	T	2,4-Dimethylan...	0.783	0.713	0.629	0.679	0.572	0.594	0.657	0.661	10.93
32)	TC	2,4-Dichloroph...	0.323	0.294	0.279	0.305	0.265	0.269	0.238	0.282	9.92
33)	M	1,2,4-Trichlor...	0.383	0.355	0.305	0.335	0.295	0.301	0.265	0.320	12.56
34)	T	Naphthalene	1.356	1.185	1.044	1.135	0.993	0.997	0.859	1.081	14.85
35)	T	4-Chloroaniline	0.699	0.642	0.578	0.638	0.556	0.568	0.451	0.590	13.47
36)	T	4-Aminotoluene	1.255	1.129	0.998	1.096	0.966	0.946	0.999	1.056	10.46
37)	TC	Hexachlorobuta...	0.184	0.166	0.153	0.164	0.144	0.146	0.131	0.155	11.31
38)	T	Caprolactam	0.117	0.099	0.095	0.106	0.096	0.102	0.096	0.101	7.66
39)	T	2-Aminotoluene	1.255	1.129	0.998	1.096	0.966	0.946	0.999	1.056	10.46
40)	MC	4-Chloro-3-met...	0.256	0.250	0.235	0.261	0.241	0.251	0.226	0.246	5.01
41)	T	2-Methylnaphth...	0.918	0.824	0.764	0.800	0.738	0.727	0.571	0.763	13.92
42)	T	2,5-Dimethylph...								0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------								
44)	TP	Hexachlorocycl...	0.204	0.301	0.268	0.319	0.276	0.300	0.274	0.277	13.37
45)	TC	2,4,6-Trichlor...	0.322	0.293	0.308	0.344	0.300	0.315	0.294	0.311	5.82
46)	T	2,4,5-Trichlor...	0.381	0.367	0.387	0.425	0.382	0.382	0.285	0.373	11.47
47)	S	2-Fluorobiphenyl	1.260	1.252	1.244	1.235	1.198	1.248	1.166	1.229	2.78
48)	T	1,1'-Biphenyl	2.022	1.810	1.590	1.728	1.528	1.498	1.444	1.660	12.37
49)	T	2-Chloronaphth...	1.373	1.260	1.144	1.224	1.117	1.116	1.021	1.179	9.83
50)	T	2-Nitroaniline	0.322	0.313	0.328	0.380	0.349	0.350	0.269	0.330	10.66
51)	T	Dimethyl phtha...	1.344	1.181	1.121	1.239	1.105	1.122	1.054	1.167	8.40
52)	T	2,6-Dinitrotol...	0.203	0.193	0.220	0.254	0.238	0.250	0.237	0.228	10.24

53)	T	Acenaphthylene	2.027	1.792	1.721	1.918	1.708	1.753	1.559	1.783	8.51
54)	T	3-Nitroaniline	0.300	0.281	0.313	0.359	0.326	0.344	0.270	0.313	10.26
55)	MC	Acenaphthene	1.388	1.231	1.088	1.212	1.073	1.063	0.985	1.148	11.88
56)	TP	2,4-Dinitrophenol	0.047	0.058	0.059	0.067	0.067	0.067	0.066	0.062	12.38
57)	MP	4-Nitrophenol	0.169	0.146	0.186	0.225	0.212	0.194	0.206	0.191	14.14
58)	M	2,4-Dinitrotol...	0.217	0.222	0.275	0.313	0.296	0.313	0.296	0.276	14.74
59)	T	Dibenzofuran	2.281	2.001	1.804	2.008	1.762	1.763	1.551	1.881	12.54
60)	T	Diethyl phthalate	1.221	1.139	1.117	1.196	1.116	1.153	1.103	1.149	3.87
61)	T	Fluorene	1.392	1.195	1.165	1.252	1.104	1.214	1.087	1.201	8.53
62)	T	4-Chlorophenyl...	0.583	0.509	0.494	0.522	0.475	0.467	0.438	0.498	9.31
63)	T	4-Nitroaniline	0.269	0.273	0.302	0.344	0.320	0.347	0.275	0.305	11.00
64)	T	1,2,4,5-Tetrac...	1.101	0.951	0.848	0.929	0.787	0.806	0.829	0.893	12.35
65)	T	2,3,4,6-Tetrac...	0.180	0.159	0.185	0.184	0.187	0.199	0.144	0.177	10.70
66)	I	Phenanthrene-d10	----------ISTD----------								
67)	T	4,6-Dinitro-2-...	0.100	0.120	0.113	0.112	0.116	0.117	0.125	0.115	6.64
68)	TC	N-Nitrosodiphe...	0.745	0.618	0.622	0.695	0.655	0.615	0.591	0.649	8.30
69)	T	1,2-Diphenylhy...	1.088	0.945	0.944	0.997	0.867	0.906	0.855	0.943	8.52
70)	S	2,4,6-Tribromo...	0.123	0.123	0.126	0.134	0.126	0.134	0.119	0.127	4.36
71)	T	4-Bromophenyl ...	0.241	0.216	0.196	0.215	0.196	0.196	0.182	0.206	9.46
72)	T	Hexachlorobenzene	0.276	0.251	0.230	0.243	0.226	0.221	0.209	0.237	9.32
73)	T	Atrazine	0.187	0.169	0.179	0.189	0.146	0.162	0.160	0.170	9.10
74)	MC	Pentachlorophenol	0.099	0.097	0.114	0.126	0.123	0.131	0.129	0.117	11.93
75)	T	Phenanthrene	1.442	1.274	1.143	1.216	1.093	1.078	1.029	1.182	12.02
76)	T	Anthracene	1.284	1.146	1.119	1.214	1.094	1.131	1.015	1.143	7.54
77)	T	Carbazole	1.089	0.973	0.979	1.081	0.999	0.956	0.936	1.002	6.01
78)	T	Di-n-butyl pht...	1.288	1.154	1.250	1.405	1.330	1.342	1.271	1.292	6.16
79)	TC	Fluoranthene	0.996	0.907	0.921	1.023	0.901	0.921	0.813	0.926	7.40
80)	T	Benzidine	0.334	0.303	0.321	0.366	0.434	0.423	0.356	0.362	13.75
81)		4-Aminoaniline								0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------								
83)	M	Pyrene	1.454	1.368	1.291	1.454	1.280	1.323	1.290	1.351	5.63
84)	S	Terphenyl-d14	0.858	0.864	0.858	0.841	0.808	0.823	0.802	0.836	3.07
85)	T	3,3'-Dimethylb...	0.366	0.452	0.456	0.490	0.549	0.418	0.384	0.445	14.14
86)	T	Butyl benzyl p...	0.601	0.576	0.616	0.716	0.658	0.684	0.710	0.652	8.45
87)	T	3,3'-Dichlorob...	0.313	0.275	0.303	0.347	0.314	0.304	0.282	0.306	7.68
88)	T	Benzo[a]anthra...	1.225	1.014	0.959	1.097	0.989	0.996	0.980	1.037	9.03
89)	T	Chrysene	1.160	1.023	0.940	1.056	0.940	0.939	0.855	0.988	10.14
90)	T	Bis(2-ethylhex...	0.783	0.743	0.859	0.961	0.917	0.950	0.958	0.882	10.10
91)	T	3,3-Dimethoxyb...								0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------								
93)	TC	Di-n-octyl pht...	1.391	1.539	1.550	1.851	1.788	1.681	1.624	1.632	9.63
94)	T	Benzo[b]fluora...	1.366	1.260	1.223	1.224	1.354	1.431	1.243	1.300	6.34
95)	T	Benzo[k]fluora...	1.387	1.271	1.163	1.463	1.265	1.227	1.037	1.259	11.13
96)	TC	Benzo[a]pyrene	1.351	1.134	0.956	1.080	0.985	1.049	1.088	1.092	11.87
97)	T	Indeno[1,2,3-c...	1.591	1.389	1.378	1.547	1.492	1.498	1.480	1.482	5.23
98)	T	Dibenz[a,h]ant...	1.143	0.984	1.138	1.327	1.255	1.203	1.215	1.181	9.18
99)	T	Benzo[g,h,i]pe...	1.781	1.347	1.295	1.314	1.262	1.221	1.228	1.350	14.48

(#) = Out of Range

AW1112.M Fri Jul 06 08:43:44 2012 MSD_A

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2139.D
Acq On : 11 Jul 2012 4:44
Operator : LIMS import
Sample : ABN088-12,CCV040BNA1,.,.,.,.,1
Misc : N/A,07/11/12,N/A,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Jul 11 09:25:58 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
2	T	N-Nitrosodimethylamine	0.851	0.812	4.6	91	0.00
3	T	Pyridine	1.962	1.690	13.9	89	-0.01
4	S	2-Fluorophenol	1.252	1.299	-3.8	96	0.00
5	T	Benzaldehyde	0.933	0.948	-1.6	104	0.00
6	S	Phenol-d5	1.494	1.536	-2.8	94	0.00
7	MC	Phenol	1.603	1.570	2.1	94	0.00
8	T	Aniline	0.876	0.838	4.3	102	0.00
9	T	Bis(2-chloroethyl) ether	1.048	1.021	2.6	97	0.00
10	M	2-Chlorophenol	1.410	1.315	6.7	95	0.00
11	T	1,3-Dichlorobenzene	1.568	1.472	6.1	90	0.00
12	MC	1,4-Dichlorobenzene	1.643	1.551	5.6	94	0.00
13	T	Benzyl alcohol	0.908	0.902	0.7	94	0.00
14	T	1,2-Dichlorobenzene	1.532	1.453	5.2	95	0.00
15	T	2-Methylphenol	1.601	1.522	4.9	100	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.786	1.761	1.4	98	0.00
17	T	4-Methylphenol	1.437	1.483	-3.2	99	0.00
18	MP	N-Nitrosodi-n-propylamine	0.890	0.906	-1.8	100	0.00
19	T	Acetophenone	1.793	1.768	1.4	99	0.00
20	T	3-Methylphenol	1.436	1.481	-3.1	99	0.00
21	T	Hexachloroethane	0.581	0.563	3.1	97	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	98	0.00
24	S	Nitrobenzene-d5	0.350	0.342	2.3	99	0.00
25	T	Nitrobenzene	0.370	0.352	4.9	101	0.00
26	T	Isophorone	0.626	0.615	1.8	103	0.00
27	TC	2-Nitrophenol	0.178	0.175	1.7	100	0.00
28	T	2,4-Dimethylphenol	0.327	0.308	5.8	99	0.00
29	T	Bis(2-chloroethoxy) methane	0.391	0.372	4.9	102	0.00
30	T	Benzoic acid	0.186	0.173	7.0	89	0.00
31	T	2,4-Dimethylaniline	0.661	0.582	12.0	100	0.00
32	TC	2,4-Dichlorophenol	0.282	0.266	5.7	99	0.00
33	M	1,2,4-Trichlorobenzene	0.320	0.285	10.9	95	0.00
34	T	Naphthalene	1.081	0.994	8.0	98	0.00
35	T	4-Chloroaniline	0.590	0.574	2.7	101	0.00
36	T	4-Aminotoluene	1.056	0.910	13.8	93	0.00
37	TC	Hexachlorobutadiene	0.155	0.133	14.2	91	0.00
38	T	Caprolactam	0.101	0.105	-4.0	107	0.01
39	T	2-Aminotoluene	1.056	0.910	13.8	93	0.00
40	MC	4-Chloro-3-methylphenol	0.246	0.260	-5.7	106	0.00
41	T	2-Methylnaphthalene	0.763	0.753	1.3	100	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	107	0.00
44	TP	Hexachlorocyclopentadiene	0.277	0.237	14.4	92	0.00
45	TC	2,4,6-Trichlorophenol	0.311	0.287	7.7	102	0.00
46	T	2,4,5-Trichlorophenol	0.373	0.369	1.1	103	0.00

47	S	2-Fluorobiphenyl	1.229	1.150	6.4	103	0.00
48	T	1,1'-Biphenyl	1.660	1.466	11.7	103	0.00
49	T	2-Chloronaphthalene	1.179	1.077	8.7	103	0.00
50	T	2-Nitroaniline	0.330	0.347	-5.2	106	0.00
51	T	Dimethyl phthalate	1.167	1.131	3.1	109	0.00
52	T	2,6-Dinitrotoluene	0.228	0.238	-4.4	107	0.00
53	T	Acenaphthylene	1.783	1.716	3.8	107	0.00
54	T	3-Nitroaniline	0.313	0.353	-12.8	116	0.00
55	MC	Acenaphthene	1.148	1.061	7.6	106	0.00
56	TP	2,4-Dinitrophenol	0.062	0.070	-12.9	112	0.00
57	MP	4-Nitrophenol	0.191	0.220	-15.2	111	0.00
58	M	2,4-Dinitrotoluene	0.276	0.309	-12.0	112	0.00
59	T	Dibenzofuran	1.881	1.794	4.6	109	0.00
60	T	Diethyl phthalate	1.149	1.198	-4.3	115	0.00
61	T	Fluorene	1.201	1.175	2.2	114	0.00
62	T	4-Chlorophenyl phenyl ether	0.498	0.498	0.0	112	0.00
63	T	4-Nitroaniline	0.305	0.342	-12.1	114	0.00
64	T	1,2,4,5-Tetrachlorobenzene	0.893	0.737	17.5	100	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.177	0.197	-11.3	112	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	113	0.00
67	T	4,6-Dinitro-2-methylphenol	0.115	0.099	13.9	96	0.00
68	TC	N-Nitrosodiphenylamine	0.649	0.646	0.5	112	0.00
69	T	1,2-Diphenylhydrazine	0.943	0.830	12.0	108	0.00
70	S	2,4,6-Tribromophenol	0.127	0.124	2.4	111	0.00
71	T	4-Bromophenyl phenyl ether	0.206	0.201	2.4	116	0.00
72	T	Hexachlorobenzene	0.237	0.220	7.2	110	0.00
73	T	Atrazine	0.170	0.142	16.5	110	0.00
74	MC	Pentachlorophenol	0.117	0.121	-3.4	111	0.00
75	T	Phenanthrene	1.182	1.073	9.2	111	0.00
76	T	Anthracene	1.143	1.126	1.5	116	0.00
77	T	Carbazole	1.002	1.013	-1.1	115	0.00
78	T	Di-n-butyl phthalate	1.292	1.275	1.3	108	0.00
79	TC	Fluoranthene	0.926	0.879	5.1	110	0.00
80	T	Benzidine	0.362	0.421	-16.3	128	-0.01
82	I	Chrysene-d12	1.000	1.000	0.0	106	0.00
83	M	Pyrene	1.351	1.326	1.9	110	0.00
84	S	Terphenyl-d14	0.836	0.800	4.3	105	0.00
85	T	3,3'-Dimethylbenzidine	0.445	0.480	-7.9	102	-0.02
86	T	Butyl benzyl phthalate	0.652	0.681	-4.4	110	0.00
87	T	3,3'-Dichlorobenzidine	0.306	0.332	-8.5	112	0.00
88	T	Benzo[a]anthracene	1.037	0.994	4.1	107	0.00
89	T	Chrysene	0.988	0.956	3.2	108	-0.01
90	T	Bis(2-ethylhexyl) phthalate	0.882	0.895	-1.5	104	0.00
92	I	Perylene-d12	1.000	1.000	0.0	115	-0.01
93	TC	Di-n-octyl phthalate	1.632	1.605	1.7	103	0.00
94	T	Benzo[b]fluoranthene	1.300	1.273	2.1	108	0.00
95	T	Benzo[k]fluoranthene	1.259	1.159	7.9	105	0.00
96	TC	Benzo[a]pyrene	1.092	1.024	6.2	119	0.00
97	T	Indeno[1,2,3-cd]pyrene	1.482	1.519	-2.5	117	0.00
98	T	Dibenz[a,h]anthracene	1.181	1.244	-5.3	114	0.00
99	T	Benzo[g,h,i]perylene	1.350	1.280	5.2	116	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

AS1112.M Wed Jul 11 09:27:30 2012 MSD_A

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2049.D

Date Analyzed: 07/05/2012

Instrument ID: MSDA

Time Analyzed: 10:37

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	173945	3.63	612797	4.45	292041	5.37
	UPPER LIMIT	347890	4.13	1225594	4.95	584082	5.87
	LOWER LIMIT	86973	3.13	306399	3.95	146021	4.87
	LAB SAMPLE ID						
01	ICC010BNA1	175061	3.63	640943	4.45	308294	5.37
02	ICC020BNA1	170080	3.63	616358	4.45	291208	5.37
03	ICC080BNA2	172743	3.63	642492	4.45	309430	5.37
04	ICC002BNA2	180011	3.62	681131	4.45	335867	5.37
05	ICC120BNA2	166708	3.62	611306	4.45	289238	5.37
06	ICC080BNA1	156138	3.63	552618	4.45	260821	5.37
07	ICC001BNA1	176285	3.62	638289	4.45	317357	5.37
08	ICC120BNA1	172481	3.63	623146	4.46	282687	5.37
09	ICC002BNA1	169470	3.62	621868	4.45	309361	5.37
10	ICC040BNA1	168617	3.63	619098	4.45	296678	5.37
11	ICC001BNA2	166949	3.62	634614	4.45	314741	5.37
12	ICC020BNA2	171124	3.62	643604	4.45	325340	5.37
13	ICC010BNA2	176544	3.62	654697	4.45	323945	5.37
14	ICC040BNA2	177324	3.62	655167	4.45	325516	5.37
15	ICV040BNA1	193104	3.63	705586	4.45	331334	5.38
16	ICV040BNA2	215857	3.62	808552	4.45	403283	5.38
17							
18							
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20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2049.D

Date Analyzed: 07/05/2012

Instrument ID: MSDA

Time Analyzed: 10:37

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	361578	6.11	253523	7.79	218250	9.19
	UPPER LIMIT	723156	6.61	507046	8.29	436500	9.69
	LOWER LIMIT	180789	5.61	126762	7.29	109125	8.69
	LAB SAMPLE ID						
01	ICC010BNA1	374640	6.12	267221	7.81	253970	9.21
02	ICC020BNA1	366826	6.11	262542	7.77	258342	9.17
03	ICC080BNA2	377028	6.11	273091	7.76	253619	9.15
04	ICC002BNA2	397829	6.11	262075	7.76	250731	9.15
05	ICC120BNA2	360611	6.11	244056	7.76	196162	9.15
06	ICC080BNA1	330933	6.11	239429	7.78	262845	9.17
07	ICC001BNA1	380561	6.11	265094	7.77	259865	9.17
08	ICC120BNA1	362203	6.12	238974	7.81	295231	9.21
09	ICC002BNA1	378828	6.11	253763	7.76	255086	9.15
10	ICC040BNA1	369288	6.11	265870	7.77	272195	9.16
11	ICC001BNA2	389274	6.11	247558	7.76	246052	9.15
12	ICC020BNA2	392010	6.11	255751	7.76	249946	9.16
13	ICC010BNA2	397037	6.11	260776	7.77	254201	9.16
14	ICC040BNA2	400893	6.11	272535	7.76	258379	9.16
15	ICV040BNA1	419860	6.12	320592	7.80	328019	9.20
16	ICV040BNA2	472463	6.11	328662	7.75	326950	9.14
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2139.D

Date Analyzed: 07/11/2012

Instrument ID: MSDA

Time Analyzed: 04:44

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	157656	3.63	608320	4.45	317035	5.37
	UPPER LIMIT	315312	4.13	1216640	4.95	634070	5.87
	LOWER LIMIT	78828	3.13	304160	3.95	158518	4.87
	LAB SAMPLE ID						
01	CCV040BNA2	177816	3.62	696615	4.45	370340	5.38
02	BLKS120710-04	119346	3.62	463422	4.45	238827	5.37
03	LCSS120710-04	141716	3.62	546396	4.45	193003	5.37
04	E12-06545-005MS	122691	3.62	478225	4.45	256713	5.37
05	E12-06545-005MSD	120037	3.62	475138	4.45	248553	5.37
06	E12-06545-001	109675	3.62	414529	4.45	221184	5.37
07	E12-06545-002	117501	3.62	458378	4.45	244079	5.37
08	E12-06545-003	111494	3.62	436317	4.45	236272	5.37
09	E12-06545-004	104630	3.62	407354	4.45	214109	5.37
10	E12-06545-005	117807	3.62	454427	4.45	246296	5.37
11	E12-06545-006	110322	3.62	426339	4.45	223174	5.37
12	E12-06545-007	96465	3.62	398367	4.45	201495	5.38
13	E12-06545-008	115993	3.62	454398	4.45	235202	5.37
14	E12-06545-009	109791	3.62	425475	4.45	227511	5.37
15	E12-06625-001	99851	3.62	390637	4.45	219263	5.37
16	E12-06625-002	85457	3.63	350946	4.45	146732*	5.38
17	E12-06625-002	91769	3.63	372066	4.45	188347	5.37
18	E12-06625-003	96076	3.63	384946	4.45	169849	5.37
19	E12-06625-006	93025	3.63	364354	4.45	191548	5.37
20	E12-06625-004	96491	3.63	386312	4.45	173202	5.37
21	E12-06625-007	90488	3.63	348439	4.45	177605	5.37
22	E12-06625-008	101808	3.63	392476	4.45	210603	5.37

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2139.D

Date Analyzed: 07/11/2012

Instrument ID: MSDA

Time Analyzed: 04:44

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	417745	6.11	282305	7.76	312502	9.15
	UPPER LIMIT	835490	6.61	564610	8.26	625004	9.65
	LOWER LIMIT	208873	5.61	141153	7.26	156251	8.65
	LAB SAMPLE ID						
01	CCV040BNA2	487079	6.11	311413	7.75	318929	9.13
02	BLKS120710-04	316618	6.11	189317	7.78	161884	9.17
03	LCSS120710-04	381434	6.11	252666	7.75	230410	9.13
04	E12-06545-005MS	338835	6.11	229676	7.74	214230	9.12
05	E12-06545-005MSD	323896	6.11	219978	7.76	203649	9.15
06	E12-06545-001	278077	6.10	203962	7.73	206032	9.12
07	E12-06545-002	319878	6.10	226050	7.73	221909	9.12
08	E12-06545-003	299201	6.10	220818	7.74	226425	9.12
09	E12-06545-004	283322	6.10	207553	7.73	206253	9.11
10	E12-06545-005	316193	6.10	220291	7.74	217895	9.12
11	E12-06545-006	291353	6.10	200140	7.74	198179	9.12
12	E12-06545-007	232649	6.12	254789	7.75	254213	9.13
13	E12-06545-008	314012	6.10	226076	7.75	221690	9.13
14	E12-06545-009	296164	6.10	269437	7.75	282269	9.14
15	E12-06625-001	307959	6.10	302025	7.75	296145	9.14
16	E12-06625-002	152314*	6.13	246525	7.79	225270	9.20
17	E12-06625-002	210381	6.12	236424	7.75	230373	9.15
18	E12-06625-003	233698	6.12	255024	7.75	257725	9.15
19	E12-06625-006	243959	6.11	261657	7.76	231512	9.15
20	E12-06625-004	237771	6.12	258720	7.75	260233	9.15
21	E12-06625-007	248746	6.11	266988	7.74	232737	9.13
22	E12-06625-008	298547	6.11	315398	7.74	322841	9.13

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2139.D

Date Analyzed: 07/11/2012

Instrument ID: MSDA

Time Analyzed: 04:44

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	157656	3.63	608320	4.45	317035	5.37
	UPPER LIMIT	315312	4.13	1216640	4.95	634070	5.87
	LOWER LIMIT	78828	3.13	304160	3.95	158518	4.87
	LAB SAMPLE ID						
01	E12-06625-005	86362	3.63	330484	4.45	177496	5.37
02	E12-06699-001	94825	3.62	373714	4.45	200734	5.37
03	E12-06699-002	81586	3.62	319334	4.45	173273	5.37
04	E12-06699-003	82024	3.62	323924	4.45	175460	5.37
05	BLKS120706-03	92288	3.62	354655	4.45	190028	5.37
06	LCSS120706-03	108302	3.63	426232	4.45	160806	5.37
07	E12-0606224-010	91823	3.63	371779	4.45	176372	5.37
08	E12-06224-008	94414	3.62	383089	4.45	208722	5.37
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2139.D

Date Analyzed: 07/11/2012

Instrument ID: MSDA

Time Analyzed: 04:44

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	417745	6.11	282305	7.76	312502	9.15
	UPPER LIMIT	835490	6.61	564610	8.26	625004	9.65
	LOWER LIMIT	208873	5.61	141153	7.26	156251	8.65
	LAB SAMPLE ID						
01	E12-06625-005	253930	6.11	248648	7.75	261538	9.14
02	E12-06699-001	290929	6.11	286487	7.76	298601	9.15
03	E12-06699-002	252232	6.10	254262	7.75	264308	9.14
04	E12-06699-003	252883	6.10	255608	7.75	258050	9.14
05	BLKS120706-03	271759	6.10	255480	7.74	262388	9.13
06	LCSS120706-03	330040	6.11	308358	7.74	303528	9.12
07	E12-0606224-010	245142	6.11	281768	7.74	264631	9.12
08	E12-06224-008	291356	6.11	284788	7.73	263145	9.11
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22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2145.D
Acq On : 11 Jul 2012 6:22
Operator : LIMS import
Sample : A6(4-5)-,E12-06545-001,S,15.13g,21.4,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 11 09:54:16 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.625	152	109675	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	414529	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	221184	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	278077	40.00	UG	-0.01
82) Chrysene-d12	7.732	240	203962	40.00	UG	-0.04
92) Perylene-d12	9.118	264	206032	40.00	UG	-0.05

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.983	82	64118	17.69	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 35.38%			
47) 2-Fluorobiphenyl	4.983	172	144594	21.28	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 42.56%			
70) 2,4,6-Tribromophenol	0.000	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	7.000	244	102772	24.10	UG	-0.02
Spiked Amount 50.000	Range 15 - 122		Recovery = 48.20%			

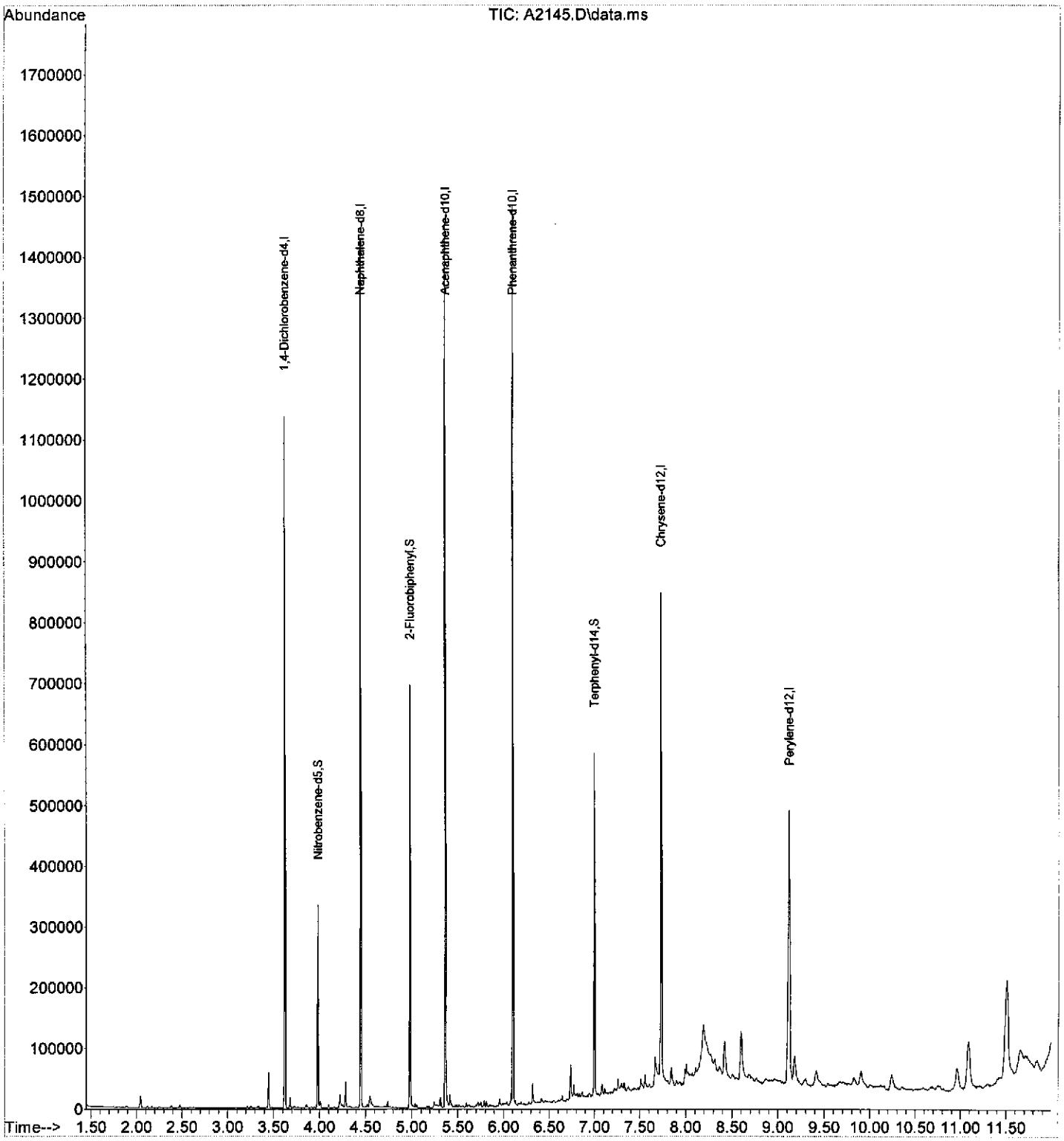
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2145.D
Acq On : 11 Jul 2012 6:22
Operator : LIMS import
Sample : A6(4-5)-,E12-06545-001,S,15.13g,21.4,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 11 09:54:16 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2146.D
Acq On : 11 Jul 2012 6:38
Operator : LIMS import
Sample : A5(9-10),E12-06545-002,S,15.18g,18.4,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 11 10:11:36 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.624	152	117501	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	458378	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	244079	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	319878	40.00	UG	-0.01
82) Chrysene-d12	7.732	240	226050	40.00	UG	-0.04
92) Perylene-d12	9.117	264	221909	40.00	UG	-0.05

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.983	82	74820	18.66	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 37.32%			
47) 2-Fluorobiphenyl	4.983	172	160562	21.41	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 42.82%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	6.999	244	124871	26.42	UG	-0.02
Spiked Amount 50.000	Range 15 - 122		Recovery = 52.84%			

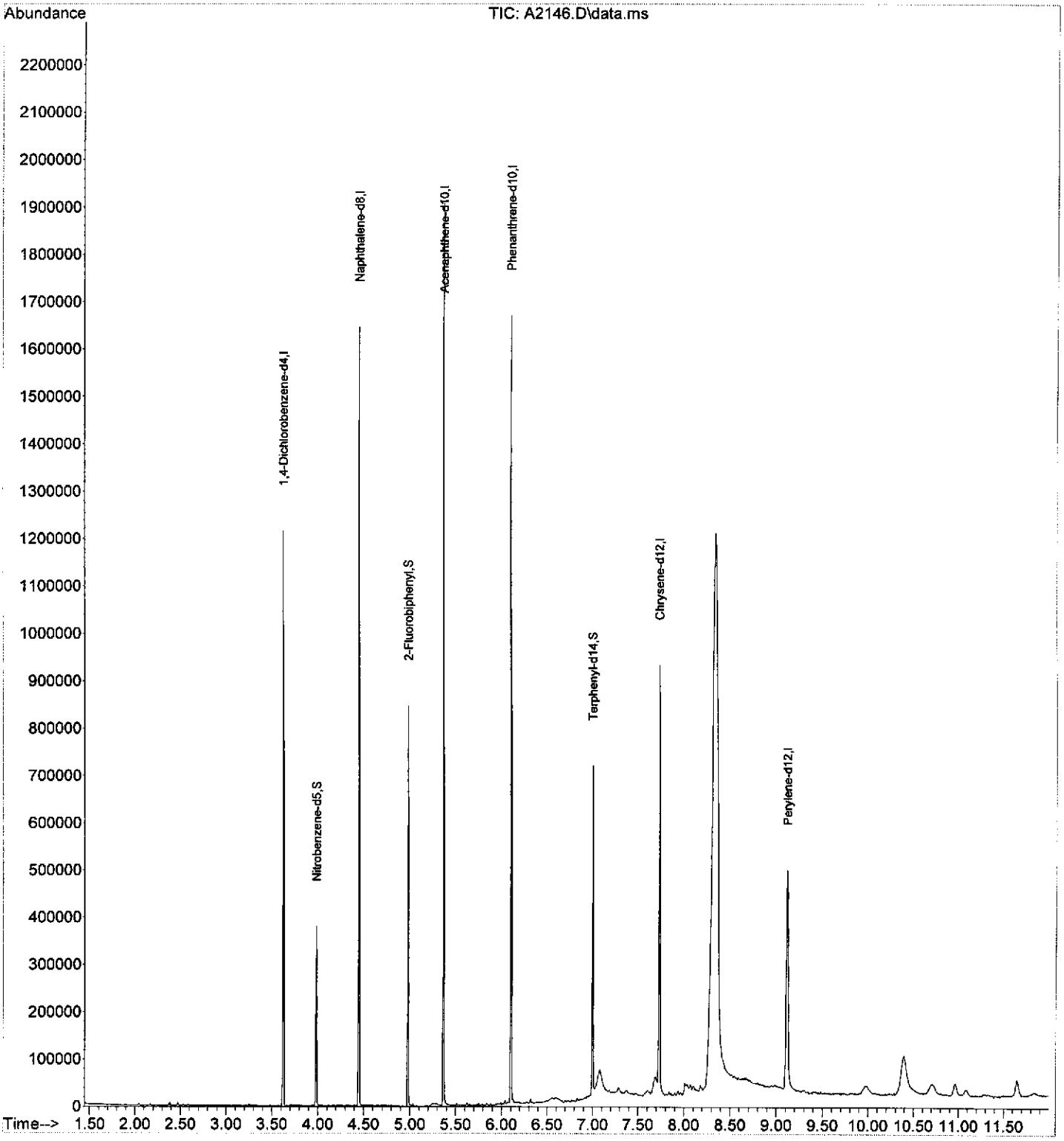
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2146.D
Acq On : 11 Jul 2012 6:38
Operator : LIMS import
Sample : A5(9-10),E12-06545-002,S,15.18g,18.4,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 11 10:11:36 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2147.D
Acq On : 11 Jul 2012 6:54
Operator : LIMS import
Sample : A4(10.5-,E12-06545-003,S,15.02g,25.6,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 11 11:07:50 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.624	152	111494	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	436317	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	236272	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	299201	40.00	UG	-0.01
82) Chrysene-d12	7.738	240	220818	40.00	UG	-0.03
92) Perylene-d12	9.118	264	226425	40.00	UG	-0.05

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.983	82	82341	21.58	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 43.16%			
47) 2-Fluorobiphenyl	4.983	172	170927	23.55	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 47.10%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	6.999	244	131384	28.46	UG	-0.02
Spiked Amount 50.000	Range 15 - 122		Recovery = 56.92%			

Target Compounds

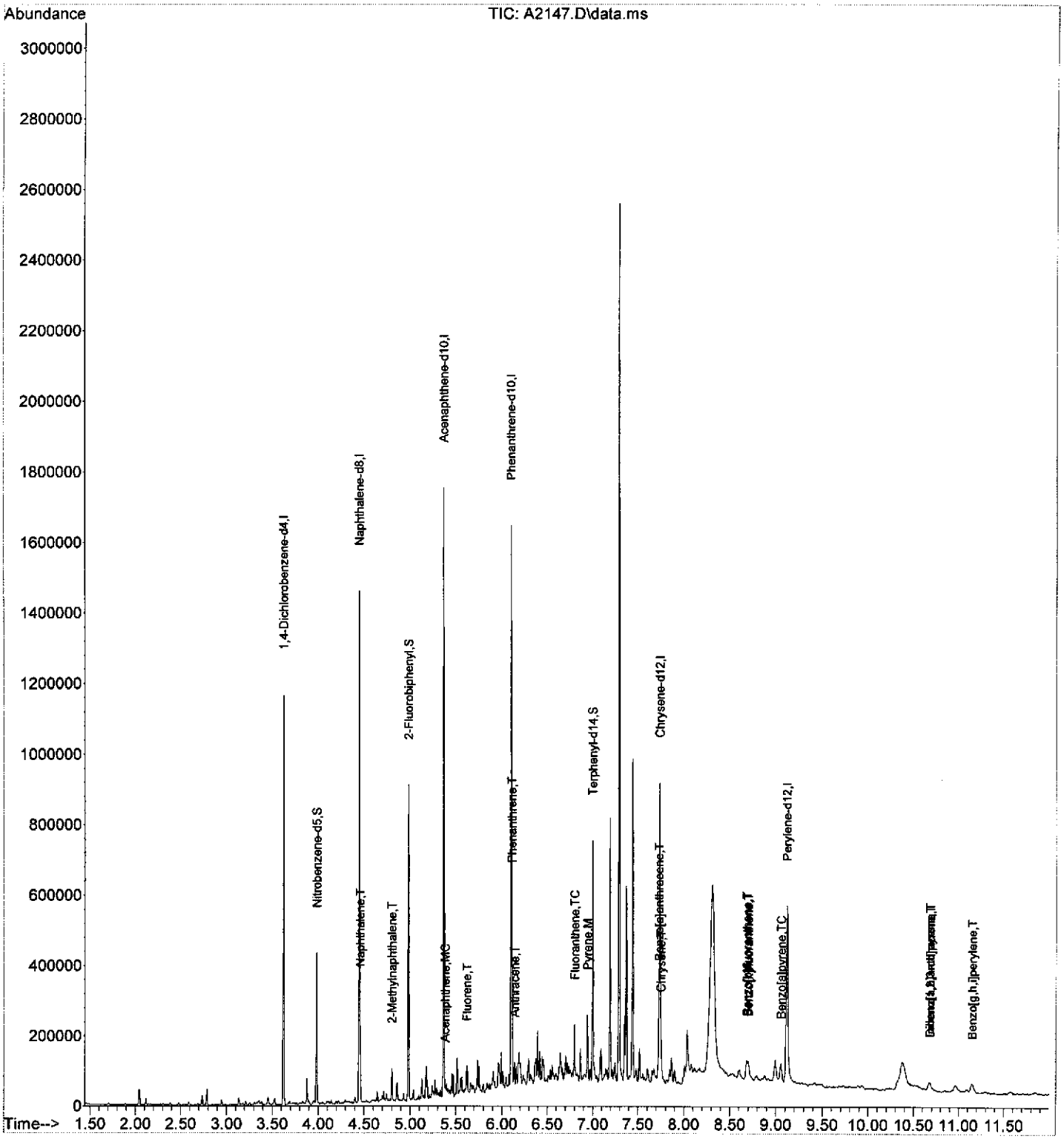
							Qvalue
34) Naphthalene	4.459	128	23363	1.98	UG	#	49
41) 2-Methylnaphthalene	4.801	142	14241	1.71	UG		97
55) Acenaphthene	5.384	153	2859m	0.42	UG		
61) Fluorene	5.620	166	5161	0.73	UG	#	95
75) Phenanthrene	6.112	178	63929	7.23	UG		98
76) Anthracene	6.138	178	15643	1.83	UG		97
79) Fluoranthene	6.802	202	35117	5.07	UG		97
83) Pyrene	6.941	202	51548	6.91	UG		100
88) Benzo[a]anthracene	7.722	228	17691	3.09	UG	#	84
89) Chrysene	7.754	228	23171	4.25	UG	#	89
94) Benzo[b]fluoranthene	8.684	252	23055m	3.13	UG		
95) Benzo[k]fluoranthene	8.700	252	22229m	3.12	UG		
96) Benzo[a]pyrene	9.053	252	20181	3.26	UG		95
97) Indeno[1,2,3-cd]pyrene	10.679	276	19230	2.29	UG		97
98) Dibenz[a,h]anthracene	10.674	278	4485	0.67	UG	#	88
99) Benzo[g,h,i]perylene	11.150	276	26074	3.41	UG		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2147.D
Acq On : 11 Jul 2012 6:54
Operator : LIMS import
Sample : A4(10.5-,E12-06545-003,S,15.02g,25.6,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 11 11:07:50 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2148.D
Acq On : 11 Jul 2012 7:09
Operator : LIMS import
Sample : E1(6.5-7,E12-06545-004,S,15.07g,9.80,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 11 11:09:31 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.625	152	104630	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	407354	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	214109	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	283322	40.00	UG	-0.01
82) Chrysene-d12	7.727	240	207553	40.00	UG	-0.04
92) Perylene-d12	9.107	264	206253	40.00	UG	-0.06

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.983	82	70662	19.83	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 39.66%			
47) 2-Fluorobiphenyl	4.983	172	146783	22.31	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 44.62%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	6.994	244	127247	29.32	UG	-0.03
Spiked Amount 50.000	Range 15 - 122		Recovery = 58.64%			

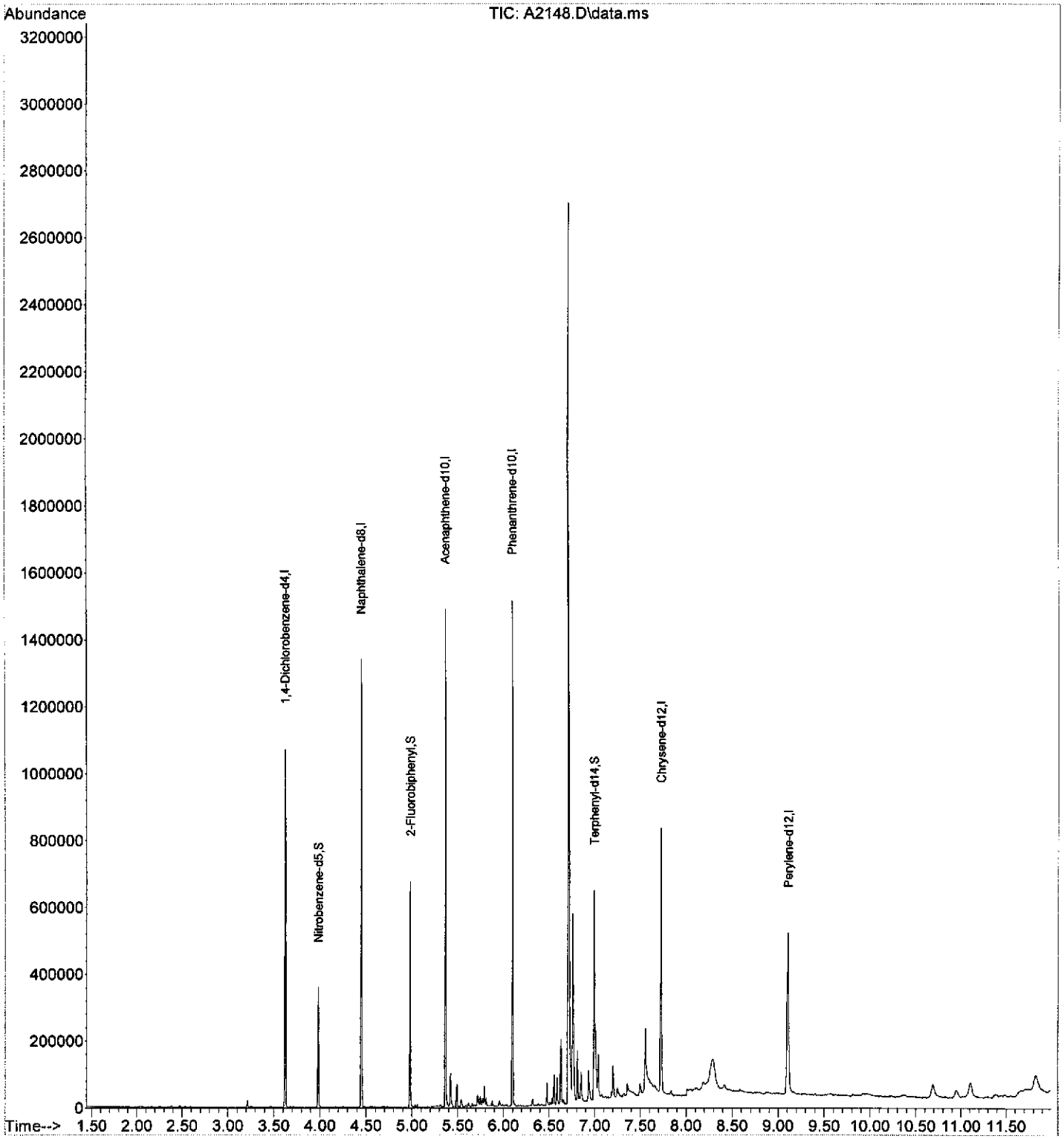
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2148.D
Acq On : 11 Jul 2012 7:09
Operator : LIMS import
Sample : E1(6.5-7,E12-06545-004,S,15.07g,9.80,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 11 11:09:31 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2149.D
Acq On : 11 Jul 2012 7:26
Operator : LIMS import
Sample : D1(9-10),E12-06545-005,S,15.16g,3.60,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 11 11:10:24 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.625	152	117807	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	454427	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	246296	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	316193	40.00	UG	-0.01
82) Chrysene-d12	7.738	240	220291	40.00	UG	-0.03
92) Perylene-d12	9.123	264	217895	40.00	UG	-0.04

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.983	82	86342	21.73	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 43.46%			
47) 2-Fluorobiphenyl	4.983	172	171507	22.67	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 45.34%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	7.000	244	135012	29.31	UG	-0.02
Spiked Amount 50.000	Range 15 - 122		Recovery = 58.62%			

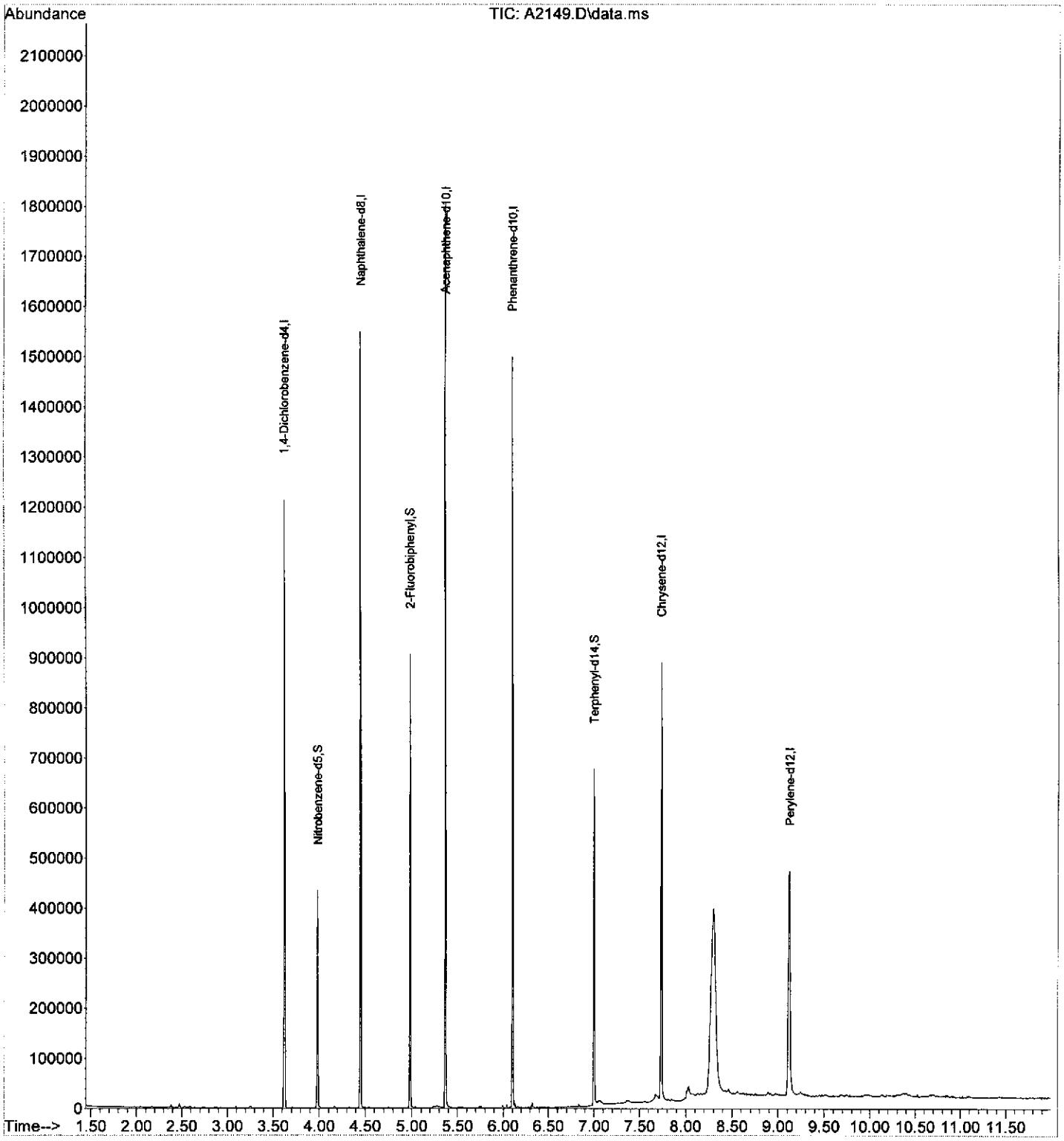
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2149.D
Acq On : 11 Jul 2012 7:26
Operator : LIMS import
Sample : D1(9-10),E12-06545-005,S,15.16g,3.60,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 11 11:10:24 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2150.D
Acq On : 11 Jul 2012 7:41
Operator : LIMS import
Sample : D2(9-10),E12-06545-006,S,15.10g,14.0,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 11 11:12:13 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.624	152	110322	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	426339	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	223174	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	291353	40.00	UG	-0.01
82) Chrysene-d12	7.737	240	200140	40.00	UG	-0.03
92) Perylene-d12	9.123	264	198179	40.00	UG	-0.04

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.983	82	82033	22.00	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 44.00%			
47) 2-Fluorobiphenyl	4.983	172	167088	24.37	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 48.74%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	7.005	244	125002	29.87	UG	-0.02
Spiked Amount 50.000	Range 15 - 122		Recovery = 59.74%			

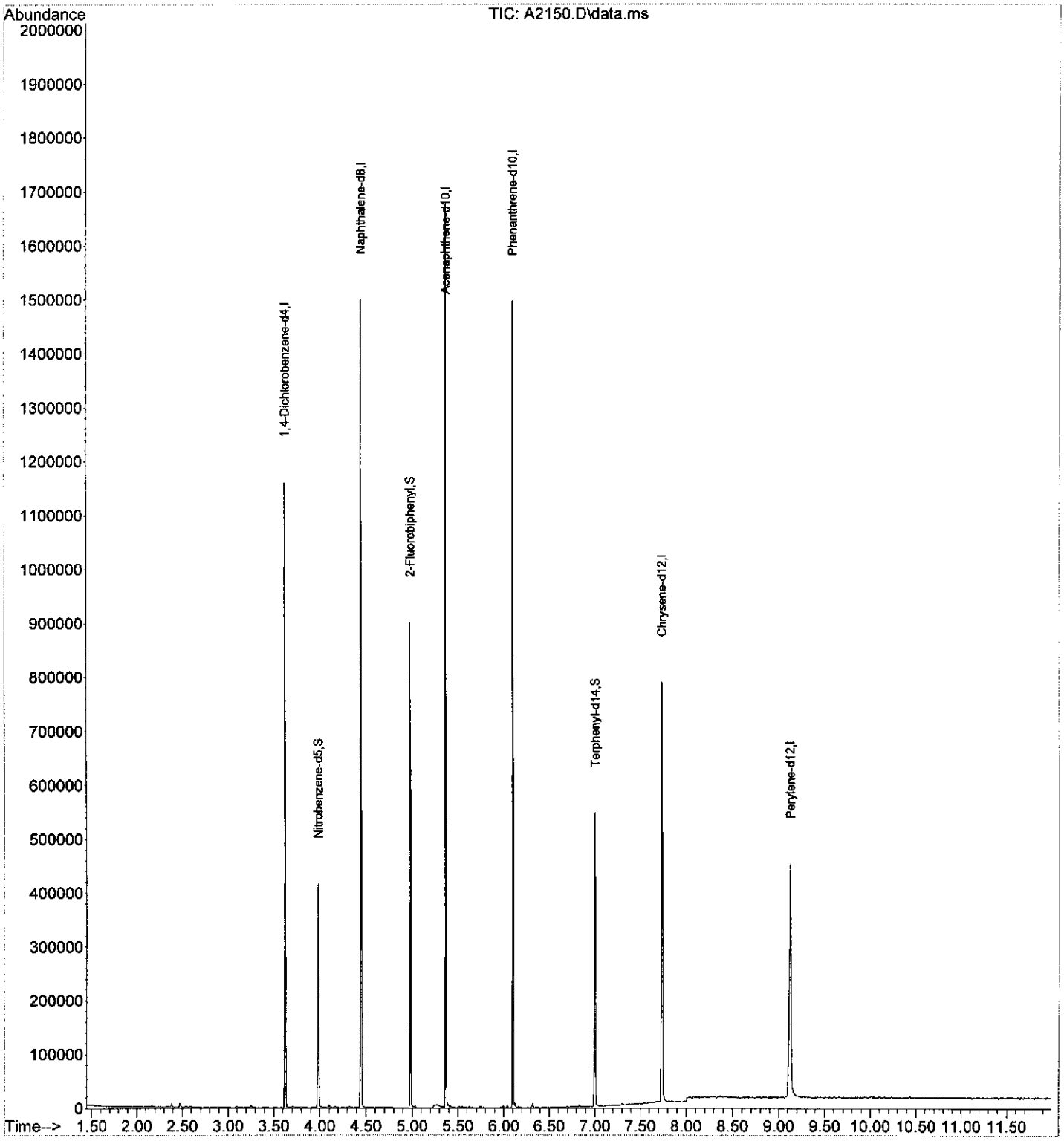
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2150.D
Acq On : 11 Jul 2012 7:41
Operator : LIMS import
Sample : D2(9-10),E12-06545-006,S,15.10g,14.0,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 11 11:12:13 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2151.D
Acq On : 11 Jul 2012 7:57
Operator : LIMS import
Sample : D3(4-5)-,E12-06545-007,S,15.09g,9.60,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 11 11:37:03 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.624	152	96465	40.00	UG	0.00
23) Naphthalene-d8	4.453	136	398367	40.00	UG	0.00
43) Acenaphthene-d10	5.379	164	201495	40.00	UG	0.00
66) Phenanthrene-d10	6.117	188	232649	40.00	UG	0.00
82) Chrysene-d12	7.753	240	254789	40.00	UG	-0.02
92) Perylene-d12	9.133	264	254213	40.00	UG	-0.03

System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.988	82	149729	42.98	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 85.96%			
47) 2-Fluorobiphenyl	4.994	172	204720	33.07	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 66.14%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	7.015	244	167052	31.36	UG	0.00
Spiked Amount 50.000	Range 15 - 122		Recovery = 62.72%			

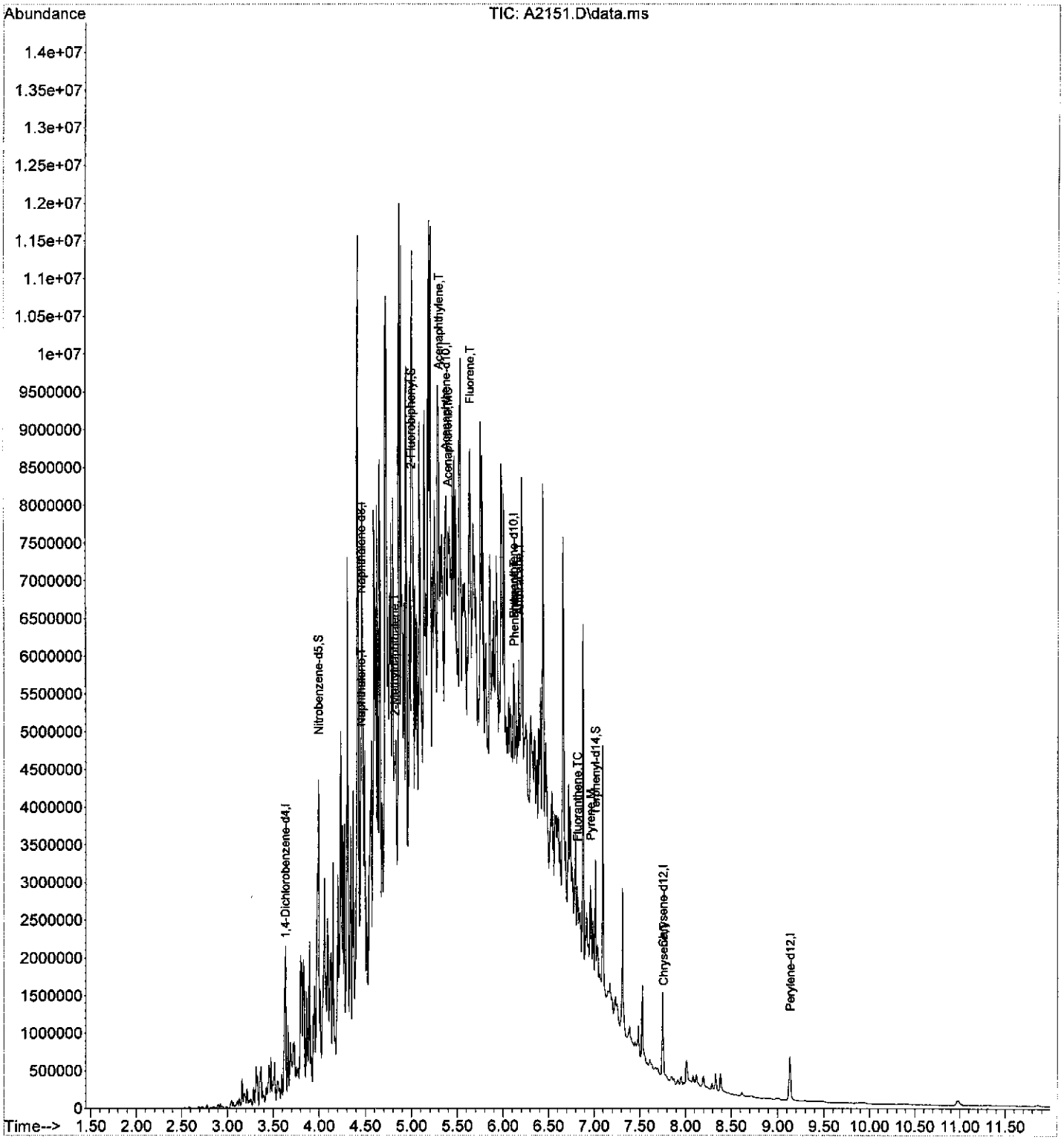
Target Compounds						Qvalue
34) Naphthalene	4.443	128	53655m	4.98	UG	
41) 2-Methylnaphthalene	4.812	142	55772	7.34	UG	# 64
53) Acenaphthylene	5.304	152	22562	2.51	UG	# 1
55) Acenaphthene	5.395	153	77464	13.39	UG	# 85
61) Fluorene	5.635	166	120897	19.98	UG	# 44
75) Phenanthrene	6.128	178	170937	24.86	UG	# 53
76) Anthracene	6.176	178	118387	17.80	UG	# 1
79) Fluoranthene	6.817	202	20664	3.84	UG	# 91
83) Pyrene	6.957	202	85792	9.97	UG	# 88
89) Chrysene	7.764	228	5463	0.87	UG	# 87

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2151.D
Acq On : 11 Jul 2012 7:57
Operator : LIMS import
Sample : D3(4-5)-,E12-06545-007,S,15.09g,9.60,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 11 11:37:03 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2152.D
Acq On : 11 Jul 2012 8:13
Operator : LIMS import
Sample : F1(9-10),E12-06545-008,S,15.15g,11.0,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 11 11:55:19 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.624	152	115993	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	454398	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	235202	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	314012	40.00	UG	-0.01
82) Chrysene-d12	7.748	240	226076	40.00	UG	-0.02
92) Perylene-d12	9.134	264	221690	40.00	UG	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.983	82	86692	21.81	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 43.62%			
47) 2-Fluorobiphenyl	4.983	172	183437	25.39	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 50.78%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	7.005	244	162640	34.41	UG	-0.02
Spiked Amount 50.000	Range 15 - 122		Recovery = 68.82%			

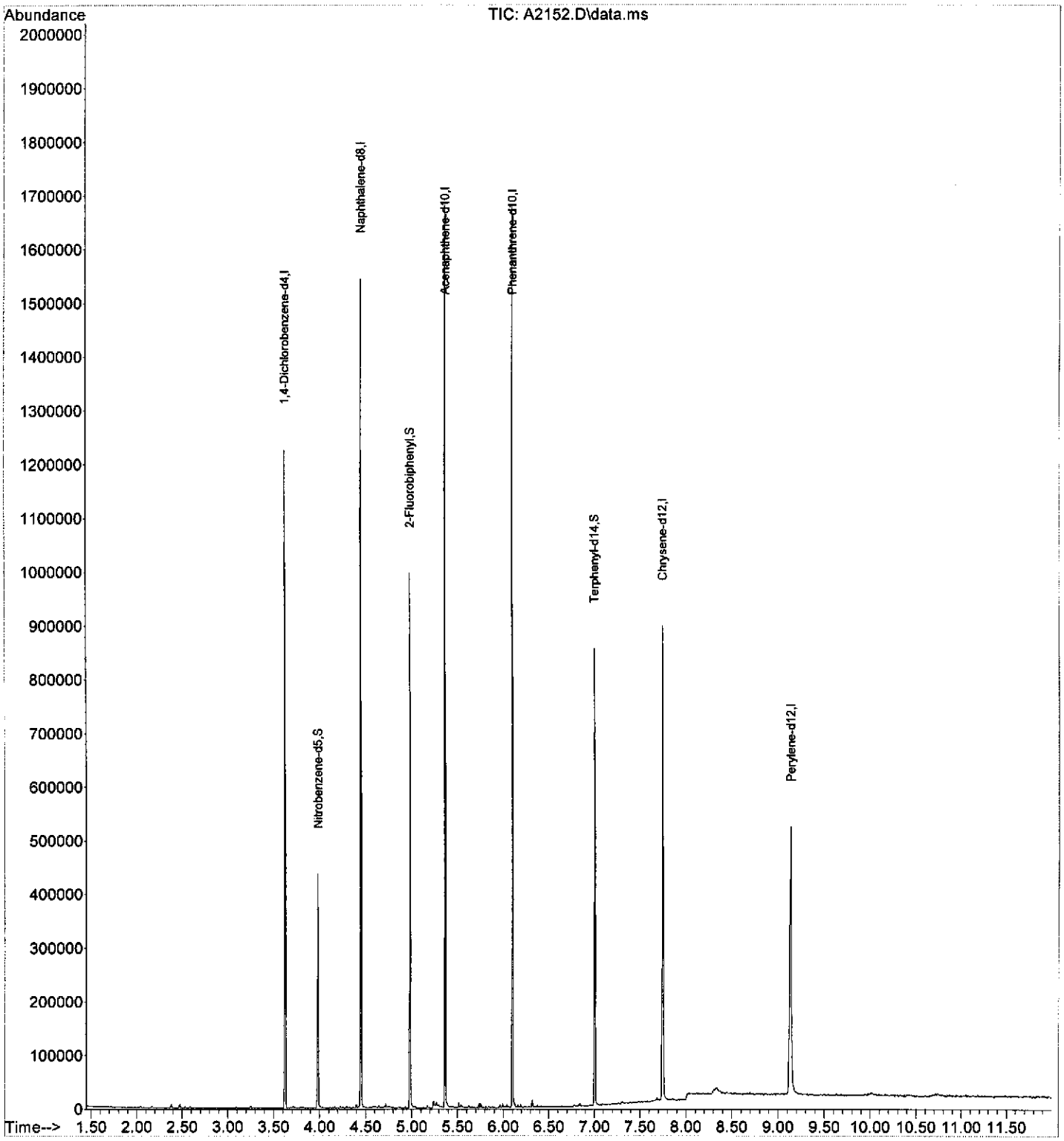
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2152.D
Acq On : 11 Jul 2012 8:13
Operator : LIMS import
Sample : F1(9-10),E12-06545-008,S,15.15g,11.0,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 11 11:55:19 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2153.D
Acq On : 11 Jul 2012 8:29
Operator : LIMS import
Sample : F2(9-10),E12-06545-009,S,15.18g,12.5,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 11 12:15:21 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.624	152	109791	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	425475	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	227511	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	296164	40.00	UG	-0.01
82) Chrysene-d12	7.748	240	269437	40.00	UG	-0.02
92) Perylene-d12	9.139	264	282269	40.00	UG	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.983	82	106399	28.59	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 57.18%			
47) 2-Fluorobiphenyl	4.983	172	232330	33.24	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 66.48%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	7.010	244	184463	32.74	UG	-0.01
Spiked Amount 50.000	Range 15 - 122		Recovery = 65.48%			

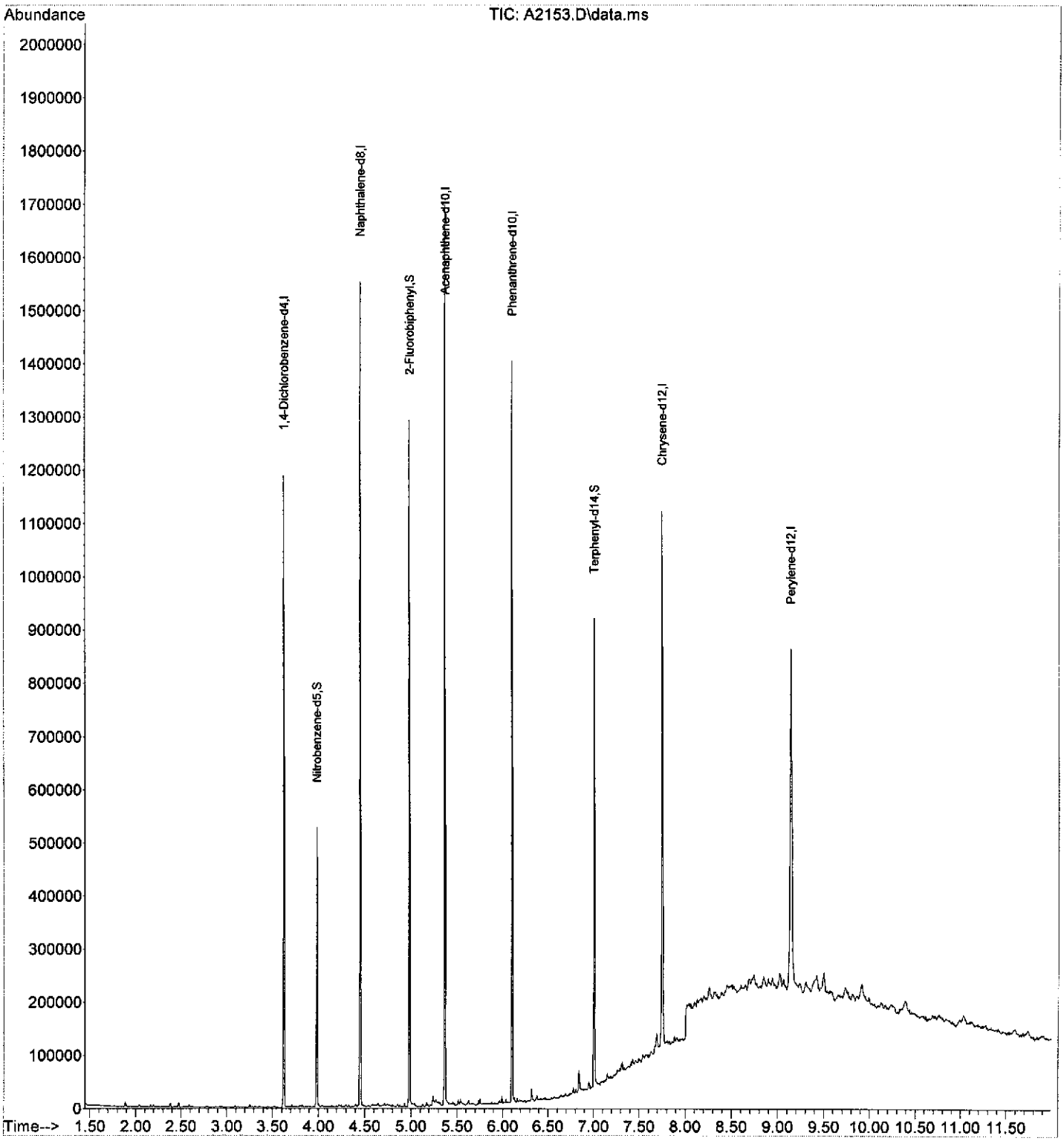
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2153.D
Acq On : 11 Jul 2012 8:29
Operator : LIMS import
Sample : F2(9-10),E12-06545-009,S,15.18g,12.5,0.5
Misc : 120710-04,07/10/12,06/29/12,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 11 12:15:21 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS120710-04
Client ID: .
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2141.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.012
Pyridine	ND		0.033	0.00967
Benzaldehyde	ND		0.033	0.011
Phenol	ND		0.033	0.012
Aniline	ND		0.033	0.013
Bis(2-chloroethyl) ether	ND		0.033	0.012
2-Chlorophenol	ND		0.033	0.010
1,3-Dichlorobenzene	ND		0.033	0.017
1,4-Dichlorobenzene	ND		0.033	0.010
Benzyl alcohol	ND		0.033	0.012
1,2-Dichlorobenzene	ND		0.033	0.010
2-Methylphenol	ND		0.033	0.010
Bis(2-chloroisopropyl) ether	ND		0.033	0.016
4-Methylphenol **	ND		0.033	0.011
N-Nitrosodi-n-propylamine	ND		0.033	0.012
Acetophenone	ND		0.033	0.012
3-Methylphenol	ND		0.033	0.011
Hexachloroethane	ND		0.033	0.00967
Nitrobenzene	ND		0.033	0.012
Isophorone	ND		0.033	0.016
2-Nitrophenol	ND		0.033	0.012
2,4-Dimethylphenol	ND		0.033	0.010
Bis(2-chloroethoxy) methane	ND		0.033	0.010
Benzoic acid	ND		0.033	0.013
2,4-Dimethylaniline	ND		0.033	0.020
2,4-Dichlorophenol	ND		0.033	0.010
1,2,4-Trichlorobenzene	ND		0.033	0.00967
Naphthalene	ND		0.033	0.00953
4-Chloroaniline	ND		0.033	0.010
4-Aminotoluene	ND		0.033	0.019
Hexachlorobutadiene	ND		0.033	0.010
Caprolactam	ND		0.033	0.017
2-Aminotoluene	ND		0.033	0.019
4-Chloro-3-methylphenol	ND		0.033	0.011
2-Methylnaphthalene	ND		0.033	0.014
Hexachlorocyclopentadiene	ND		0.033	0.010
2,4,6-Trichlorophenol	ND		0.033	0.011
2,4,5-Trichlorophenol	ND		0.033	0.011
1,1'-Biphenyl	ND		0.033	0.010
2-Chloronaphthalene	ND		0.033	0.011
2-Nitroaniline	ND		0.033	0.017
Dimethyl phthalate	ND		0.033	0.012

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS120710-04
Client ID: .
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2141.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.011
Acenaphthylene	ND		0.033	0.014
3-Nitroaniline	ND		0.033	0.013
Acenaphthene	ND		0.033	0.00973
2,4-Dinitrophenol	ND		0.033	0.014
4-Nitrophenol	ND		0.033	0.014
2,4-Dinitrotoluene	ND		0.033	0.010
Dibenzofuran	ND		0.033	0.011
Diethyl phthalate	ND		0.033	0.010
Fluorene	ND		0.033	0.00997
4-Chlorophenyl phenyl ether	ND		0.033	0.011
4-Nitroaniline	ND		0.033	0.010
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.014
2,3,4,6-Tetrachlorophenol	ND		0.033	0.016
4,6-Dinitro-2-methylphenol	ND		0.033	0.012
N-Nitrosodiphenylamine	ND		0.033	0.010
1,2-Diphenylhydrazine	ND		0.033	0.013
4-Bromophenyl phenyl ether	ND		0.033	0.011
Hexachlorobenzene	ND		0.033	0.014
Atrazine	ND		0.033	0.010
Pentachlorophenol	ND		0.033	0.012
Phenanthrene	ND		0.033	0.010
Anthracene	ND		0.033	0.014
Carbazole	ND		0.033	0.013
Di-n-butyl phthalate	ND		0.033	0.011
Fluoranthene	ND		0.033	0.012
Benzidine	ND		0.033	0.010
Pyrene	ND		0.033	0.011
3,3'-Dimethylbenzidine	ND		0.033	0.010
Butyl benzyl phthalate	ND		0.033	0.00967
3,3'-Dichlorobenzidine	ND		0.033	0.011
Benzo[a]anthracene	ND		0.033	0.015
Chrysene	ND		0.033	0.012
Bis(2-ethylhexyl) phthalate	ND		0.033	0.016
Di-n-octyl phthalate	ND		0.033	0.012
Benzo[b]fluoranthene	ND		0.033	0.017
Benzo[k]fluoranthene	ND		0.033	0.017
Benzo[a]pyrene	ND		0.033	0.015
Indeno[1,2,3-cd]pyrene	ND		0.033	0.00967
Dibenz[a,h]anthracene	ND		0.033	0.010
Benzo[g,h,i]perylene	ND		0.033	0.014

Total Target Compounds (83): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS120710-04
Client ID: .
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: A2141.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2141.D
Acq On : 11 Jul 2012 5:18
Operator : LIMS import
Sample : .,BLKS120710-04,S,15.00g,0,0.5
Misc : 120710-04,07/10/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 11 11:19:48 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.624	152	119346	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	463422	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	238827	40.00	UG	0.00
66) Phenanthrene-d10	6.106	188	316618	40.00	UG	0.00
82) Chrysene-d12	7.780	240	189317	40.00	UG	0.01
92) Perylene-d12	9.171	264	161884	40.00	UG	0.00

System Monitoring Compounds						
4) 2-Fluorophenol	2.779	112	233624	62.53	UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 62.53%			
6) Phenol-d5	3.368	99	292320	65.58	UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 65.58%			
24) Nitrobenzene-d5	3.983	82	169093	41.72	UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 83.44%			
47) 2-Fluorobiphenyl	4.983	172	312434m	42.58	UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 85.16%			
70) 2,4,6-Tribromophenol	5.748	330	51604m	51.52	UG	0.00
Spiked Amount 100.000	Range 37 - 115		Recovery = 51.52%			
84) Terphenyl-d14	7.026	244	200832	50.74	UG	0.00
Spiked Amount 50.000	Range 15 - 122		Recovery = 101.48%			

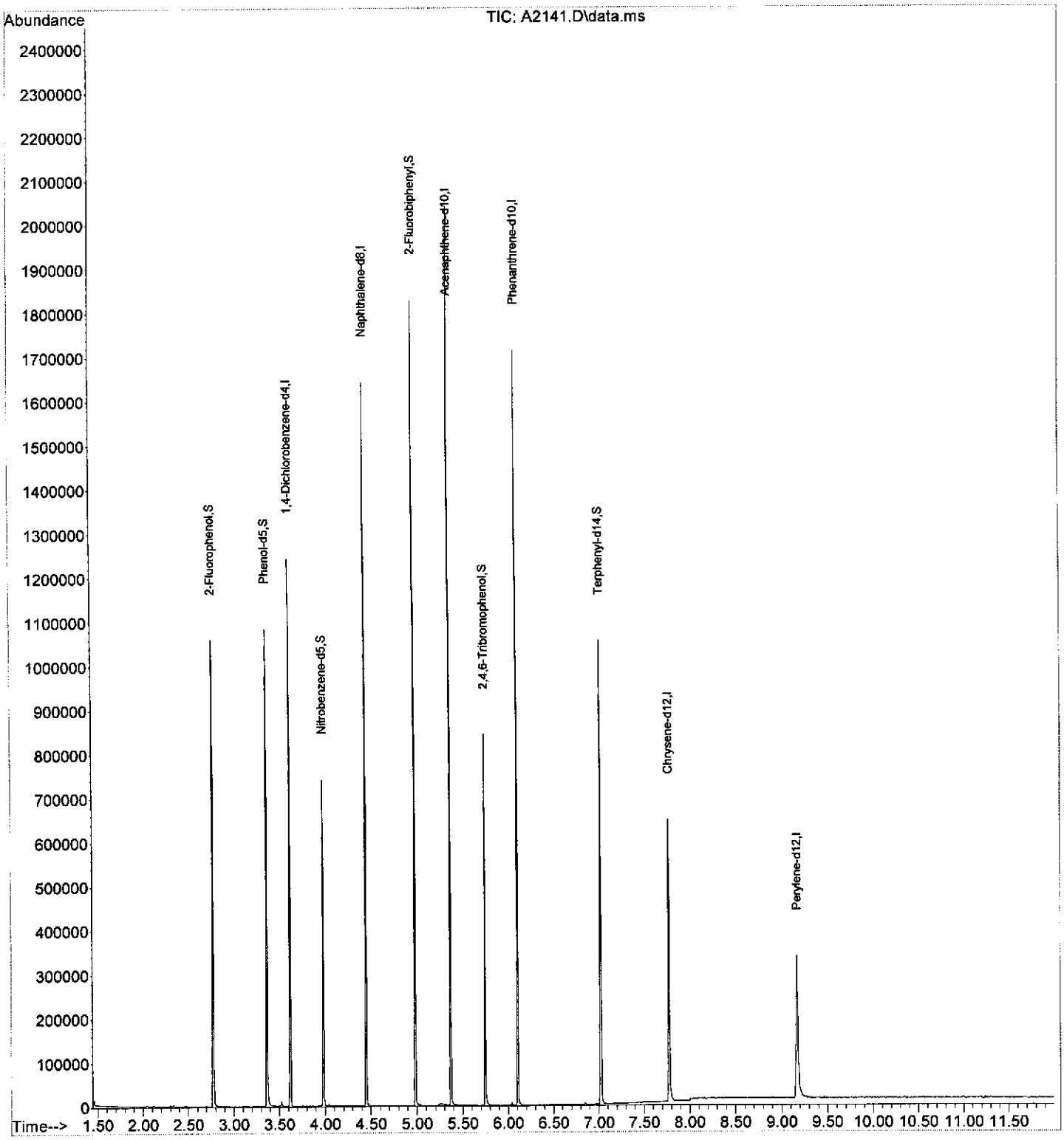
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2141.D
Acq On : 11 Jul 2012 5:18
Operator : LIMS import
Sample : .,BLKS120710-04,S,15.00g,0,0.5
Misc : 120710-04,07/10/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 11 11:19:48 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-11-12\
Data File : A2141.D
Acq On : 11 Jul 2012 5:18
Operator : LIMS import
Sample : .,BLKS120710-04,S,15.00g,0,0.5
Misc : 120710-04,07/10/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

AS1112.M Wed Jul 11 09:30:08 2012 MSD_A

FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON

FRACTIOANTED
EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	BLKS120706-09	SOIL	60	
ALI	LCSS120706-09	SOIL	57	
ALI	LCSDS120706-09	SOIL	60	
C1_(12.5	06466-003	SOIL	54	
C2_(11-1	06466-005	SOIL	56	
A6(4-5)-	06545-001	SOIL	47	
A5(9-10)	06545-002	SOIL	49	
A4(10.5-	06545-003	SOIL	48	
E1(6.5-7	06545-004	SOIL	44	
D1(9-10)	06545-005	SOIL	50	
D2(9-10)	06545-006	SOIL	52	
D3(4-5)-	06545-007	SOIL	48	
F1(9-10)	06545-008	SOIL	53	
F2(9-10)	06545-009	SOIL	49	
PET-GP-1	06499-011	SOIL	45	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	BLKS120706-09	SOIL	51		52		73	
ARO	LCSS120706-09	SOIL	52		56		79	
ARO	LCSDS120706-09	SOIL	55		58		80	
C1_(12.5	06466-003	SOIL	40		41		63	
A6(4-5)-	06545-001	SOIL	48		53		74	
A4(10.5-	06545-003	SOIL	47		55		74	
E1(6.5-7	06545-004	SOIL	50		56		82	
D1(9-10)	06545-005	SOIL	40		42		61	
D3(4-5)-	06545-007	SOIL	49		47		73	
F1(9-10)	06545-008	SOIL	50		54		75	
F2(9-10)	06545-009	SOIL	45		50		70	
PET-GP-1	06499-011	SOIL	46		52		71	
C2_(11-1	06466-005	SOIL	53		57		84	
A5(9-10)	06545-002	SOIL	52		57		81	
D2(9-10)	06545-006	SOIL	52		55		82	

Surrogate QC Limits	Soil	Aqueous
FBP = 2-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120706-09
Client ID: ALI
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1712.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD	
n-Nonane (C9)	50	0.00	18	36	19	38	5	*
n-Decane (C10)	50	0.00	21	42	23	46	9	
n-Dodecane (C12)	50	0.00	26	52	28	56	7	
n-Tetradecane (C14)	50	0.00	29	58	31	62	7	
n-Hexadecane (C16)	50	0.00	31	62	33	66	6	
n-Octadecane (C18)	50	0.00	32	64	34	68	6	
n-Eicosane (C20)	50	0.00	32	64	34	68	6	
n-Heneicosane (C21)	50	0.00	37	74	40	80	8	
n-Docosane (C22)	50	0.00	35	70	37	74	6	
n-Tetracosane (C24)	50	0.00	31	62	33	66	6	
n-Hexacosane (C26)	50	0.00	31	62	33	66	6	
n-Octacosane (C28)	50	0.00	31	62	33	66	6	
n-Triacontane (C30)	50	0.00	31	62	33	66	6	
n-Dotriacontane (C32)	50	0.00	31	62	33	66	6	
n-Tetratriacontane (C34)	50	0.00	33	66	35	70	6	
n-Hexatriacontane (C36)	50	0.00	32	64	34	68	6	
n-Octatriacontane (C38)	50	0.00	31	62	33	66	6	
n-Tetracontane (40)	50	0.00	31	62	33	66	6	
C9-C12	150	0.00	67	45	71	47	6	
C12-C16	100	0.00	65	65	70	70	7	
C16-C21	150	0.00	110	73	117	78	6	
C21-C40	500	0.00	366	73	391	78	7	

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120706-09
Client ID: ARO
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: NB1344.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	22	44	23	46	4
Napthalene	50	0.00	25	50	26	52	4
2-Methylnaphthalene	50	0.00	26	52	27	54	4
Acenaphthylene	50	0.00	29	58	30	60	3
Acenaphthene	50	0.00	30	60	32	64	6
Fluorene	50	0.00	31	62	32	64	3
Phenanthrene	50	0.00	32	64	35	70	9
Anthracene	50	0.00	32	64	34	68	6
Fluoroanthene	50	0.00	37	74	37	74	0
Pyrene	50	0.00	38	76	37	74	3
Benzo[a]anthracene	50	0.00	41	82	39	78	5
Chrysene	50	0.00	43	86	40	80	7
Benzo[b]fluoranthene	50	0.00	45	90	41	82	9
Benzo[k]fluoranthene	50	0.00	45	90	41	82	9
Benzo[a]pyrene	50	0.00	41	82	37	74	10
Indeno[1,2,3-cd]pyrene	50	0.00	47	94	42	84	11
Dibenz[a,h]anthracene	50	0.00	47	94	42	84	11
Benzo[g,h,i]perylene	50	0.00	47	94	43	86	9
C10-C12	100	0.00	49	49	52	52	6
C12-C16	150	0.00	91	61	96	64	5
C16-C21	250	0.00	195	78	197	79	1
C21-C36	400	0.00	400	100	365	91	9

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 06400-001MS
Client ID: ALI
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 06/29/2012
Data file: N1606.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C9-C12	150	0	138	92
C12-C16	100	0	87	87
C16-C21	150	0	130	87
C21-C40	500	0	380	76

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 06400-001MS
Client ID: ARO
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 06/29/2012
Data file: NB1239.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C10-C12	100	0	69	69
C12-C16	150	0	124	83
C16-C21	250	0	224	90
C21-C36	400	0	315	79

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: EH-1/1-1
Date Received: 06/27/2012
Date Extracted: 06/29/2012
Lab ID: 06400-001
Sample wt/vol: 5.10g
Date Analyzed: 06/29/2012
Aliphatics Sample Data file: N1604.D
Dilution Factor: 1
Date Analyzed: 06/29/2012
Aromatics Sample Data file: NB1237.D
Dilution Factor: 1

GC Column: DB-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 13.8
Lab ID: 06400-1D
Sample wt/vol: 5.00g
Date Analyzed: 06/29/2012
Aliphatics Sample Dup Data file: N1605.D
Dilution Factor: 1
Date Analyzed: 06/29/2012
Aromatics Sample Dup Data file: NB1238.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C12 Aliphatics	ND	ND	NA
C12-C16 Aliphatics	ND	ND	NA
C16-C21 Aliphatics	ND	ND	NA
C21-C40 Aliphatics	ND	ND	NA
Total Aliphatics	0	0	NA
C10-C12 Aromatics	ND	ND	NA
C12-C16 Aromatics	ND	ND	NA
C16-C21 Aromatics	ND	ND	NA
C21-C36 Aromatics	ND	ND	NA
Total Aromatics	0	0	NA
Total NJ-EPH	0	0	NA

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NA --- Not Applied

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID:	N1599.D	Instrument ID:	GC-N
Date Extracted:	06/29/2012	Matrix:	SOIL
Date Analyzed:	06/29/2012	Time Analyzed:	19:39

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS120629-01	06/29/2012	20:13
ALI	LCSDS120629-01	06/29/2012	20:48
SB-12A	06297-030	06/29/2012	21:22
HS4-TW-5	06368-001	06/29/2012	21:56
EH-1/1-1	06400-001	06/29/2012	22:30
EH-1/1-1	06400-1D	06/29/2012	23:05
ALI	06400-001MS	06/29/2012	23:39

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID: NB1232.D

Instrument ID: GC-N

Date Extracted: 06/29/2012

Matrix: SOIL

Date Analyzed: 06/29/2012

Time Analyzed: 19:39

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS120629-01	06/29/2012	20:13
ARO	LCSDS120629-01	06/29/2012	20:48
SB-12A	06297-030	06/29/2012	21:22
HS4-TW-5	06368-001	06/29/2012	21:56
EH-1/1-1	06400-001	06/29/2012	22:30
EH-1/1-1	06400-1D	06/29/2012	23:05
ARO	06400-001MS	06/29/2012	23:39

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID: N1710.D

Instrument ID: GC-N

Date Extracted: 07/06/2012

Matrix: SOIL

Date Analyzed: 07/10/2012

Time Analyzed: 10:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ALI	LCSS120706-09	07/10/2012	11:23
ALI	LCSDS120706-09	07/10/2012	11:57
C1_(12.5	06466-003	07/10/2012	12:32
C2_(11-1	06466-005	07/10/2012	13:06
A6(4-5)-	06545-001	07/10/2012	13:40
A5(9-10)	06545-002	07/10/2012	14:14
A4(10.5-	06545-003	07/10/2012	14:52
E1(6.5-7	06545-004	07/10/2012	15:26
D1(9-10)	06545-005	07/10/2012	16:00
D2(9-10)	06545-006	07/10/2012	16:34
D3(4-5)-	06545-007	07/10/2012	17:09
F1(9-10)	06545-008	07/10/2012	17:43
F2(9-10)	06545-009	07/10/2012	18:17
PET-GP-1	06499-011	07/11/2012	07:40

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID: NB1342.D

Instrument ID: GC-N

Date Extracted: 07/06/2012

Matrix: SOIL

Date Analyzed: 07/10/2012

Time Analyzed: 10:49

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS120706-09	07/10/2012	11:23
ARO	LCSDS120706-09	07/10/2012	11:57
C1_(12.5	06466-003	07/10/2012	12:32
A6(4-5)-	06545-001	07/10/2012	13:40
A4(10.5-	06545-003	07/10/2012	14:52
E1(6.5-7	06545-004	07/10/2012	15:26
D1(9-10)	06545-005	07/10/2012	16:00
D3(4-5)-	06545-007	07/10/2012	17:09
F1(9-10)	06545-008	07/10/2012	17:43
F2(9-10)	06545-009	07/10/2012	18:17
PET-GP-1	06499-011	07/10/2012	18:51
C2_(11-1	06466-005	07/11/2012	10:02
A5(9-10)	06545-002	07/11/2012	10:36
D2(9-10)	06545-006	07/11/2012	11:11

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

COD **12.15**

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	BLKS120706-09	07/10/2012	10:49	12.15	
ALI	LCSS120706-09	07/10/2012	11:23	12.15	
ALI	LCSDS120706-09	07/10/2012	11:57	12.15	
C1_(12.5	06466-003	07/10/2012	12:32	12.15	
C2_(11-1	06466-005	07/10/2012	13:06	12.15	
A6(4-5)-	06545-001	07/10/2012	13:40	12.15	
A5(9-10)	06545-002	07/10/2012	14:14	12.15	
A4(10.5-	06545-003	07/10/2012	14:52	12.15	
E1(6.5-7	06545-004	07/10/2012	15:26	12.15	
D1(9-10)	06545-005	07/10/2012	16:00	12.15	
D2(9-10)	06545-006	07/10/2012	16:34	12.15	
D3(4-5)-	06545-007	07/10/2012	17:09	12.16	
F1(9-10)	06545-008	07/10/2012	17:43	12.15	
F2(9-10)	06545-009	07/10/2012	18:17	12.15	
PET-GP-1	06499-011	07/11/2012	07:40	12.16	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

FBP 4.57 **BNP** 5.61 **OTP** 9.96

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	BLKS120706-09	07/10/2012	10:49	4.57		5.61		9.96	
ARO	LCSS120706-09	07/10/2012	11:23	4.57		5.60		9.96	
ARO	LCSDS120706-09	07/10/2012	11:57	4.57		5.60		9.96	
C1_(12.5	06466-003	07/10/2012	12:32	4.57		5.61		9.96	
A6(4-5)-	06545-001	07/10/2012	13:40	4.57		5.61		9.96	
A4(10.5-	06545-003	07/10/2012	14:52	4.57		5.60		9.96	
E1(6.5-7	06545-004	07/10/2012	15:26	4.57		5.61		9.96	
D1(9-10)	06545-005	07/10/2012	16:00	4.57		5.61		9.96	
D3(4-5)-	06545-007	07/10/2012	17:09	4.57		5.61		9.97	
F1(9-10)	06545-008	07/10/2012	17:43	4.57		5.61		9.96	
F2(9-10)	06545-009	07/10/2012	18:17	4.57		5.61		9.96	
PET-GP-1	06499-011	07/10/2012	18:51	4.57		5.60		9.96	
C2_(11-1	06466-005	07/11/2012	10:02	4.57		5.60		9.96	
A5(9-10)	06545-002	07/11/2012	10:36	4.57		5.61		9.96	
D2(9-10)	06545-006	07/11/2012	11:11	4.57		5.61		9.96	

Surrogate QC Limits

FBP = 2-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH Naphthalene & 2-Methylnaphthalene BREAKTHROUGH REPORT

	Fraction Data file:	Fraction Data file:
Lab ID: LCSS120706-09	Aliphatic N1711.D	Aromatic NB1343.D
Lab ID: LCSDS120706-09	Aliphatic N1712.D	Aromatic NB1344.D

Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Matrix-Units: Soil-mg/Kg (ppm)

	LCS			LCSD			
Compound	Aromatic	Aliphatic	% BT	Aromatic	Aliphatic	% BT	
Naphthalene	24.6	0.0	0.0	25.8	0.0	0.0	Pass
2-Methylnaphthalene	25.6	0.0	0.0	27.0	0.0	0.0	Pass

Total Naphthalene & 2-Methylnaphthalene in the aliphatic fraction < 5%
% BT ---- % Breakthrough

FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1715.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 13:40
Operator : MJ
Sample : A6(4-5)-,06545-001,S,5.19g,21.4,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 14:18:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	22869340	23.663 ng
Spiked Amount 50.000		Recovery =	47.33%
Target Compounds			

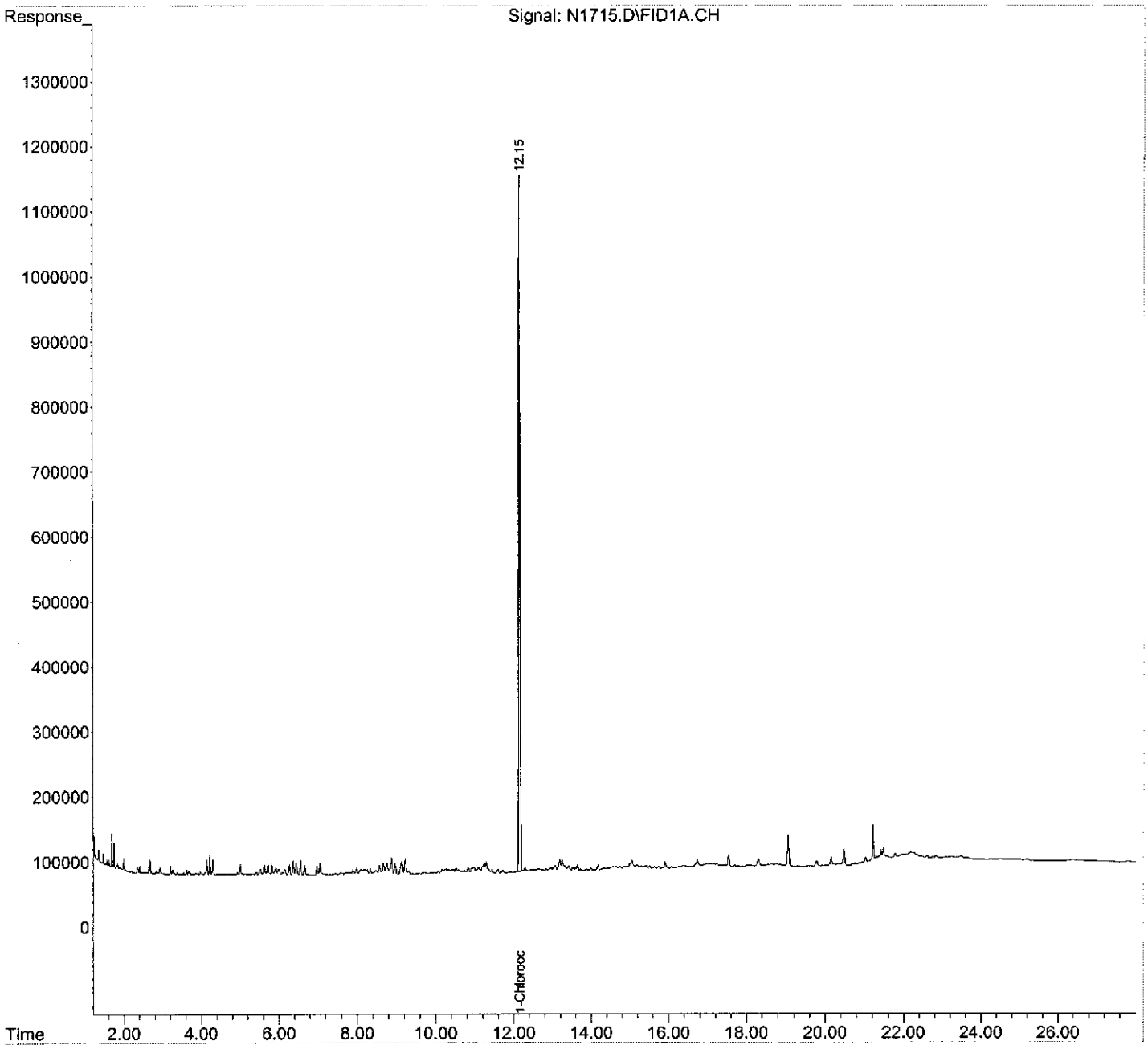
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1715.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 13:40
Operator : MJ
Sample : A6(4-5)-,06545-001,S,5.19g,21.4,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 35 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 14:18:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1347.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 13:40
Operator : MJ
Sample : A6(4-5)-,06545-001,S,5.19g,21.4,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 85 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 14:17:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	17162164	23.915 ng
Spiked Amount 50.000		Recovery =	47.83%
2) S 2-Bromonaphthalene	5.61	13366094	26.719 ng
Spiked Amount 50.000		Recovery =	53.44%
3) S o-Terphenyl	9.96	34332203	37.108 ng
Spiked Amount 50.000		Recovery =	74.22%
Target Compounds			

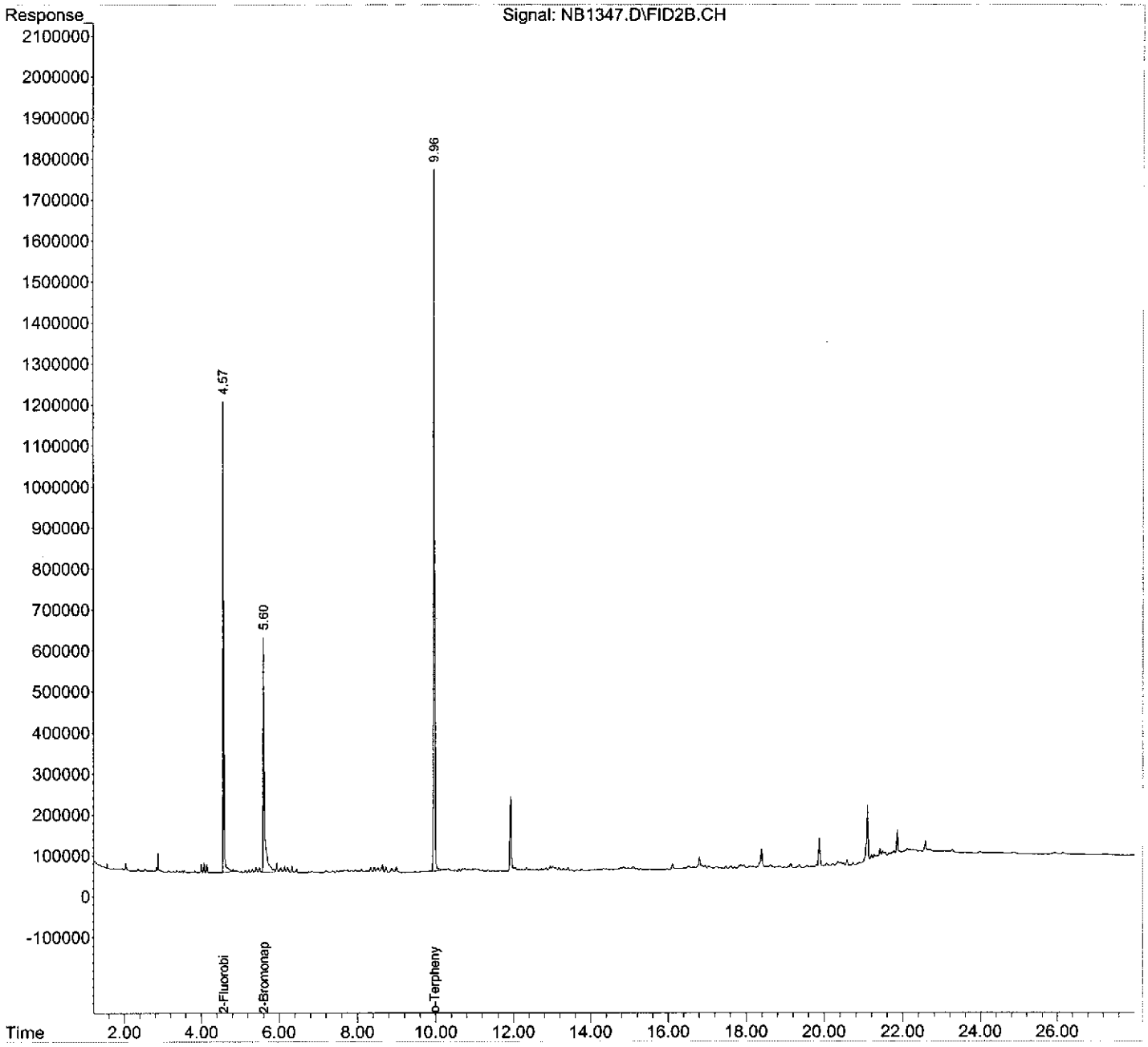
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1347.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 13:40
Operator : MJ
Sample : A6(4-5)-,06545-001,S,5.19g,21.4,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 85 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 14:17:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1716.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 14:14
Operator : MJ
Sample : A5(9-10),06545-002,S,5.40g,18.4,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 14:48:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	23564698	24.383 ng
Spiked Amount 50.000		Recovery =	48.77%
Target Compounds			

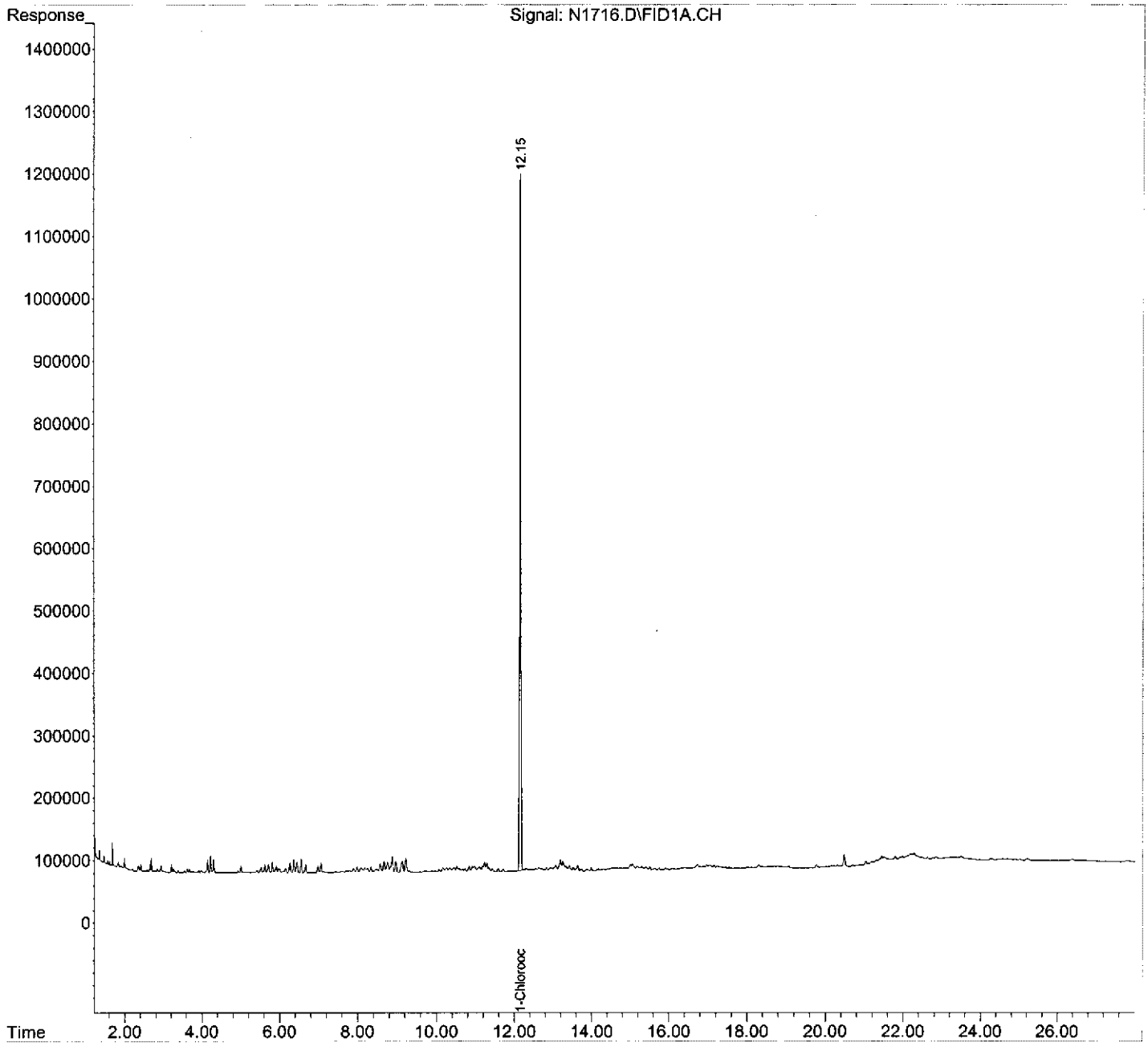
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1716.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 14:14
Operator : MJ
Sample : A5(9-10),06545-002,S,5.40g,18.4,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 36 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 14:48:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1361.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 10:36
Operator : MJ
Sample : A5(9-10),06545-002,S,5.40g,18.4,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 86 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 11:05:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	18472569	25.741 ng
Spiked Amount 50.000		Recovery =	51.48%
2) S 2-Bromonaphthalene	5.61	14321095	28.628 ng
Spiked Amount 50.000		Recovery =	57.26%
3) S o-Terphenyl	9.96	37469114	40.499 ng
Spiked Amount 50.000		Recovery =	81.00%
Target Compounds			

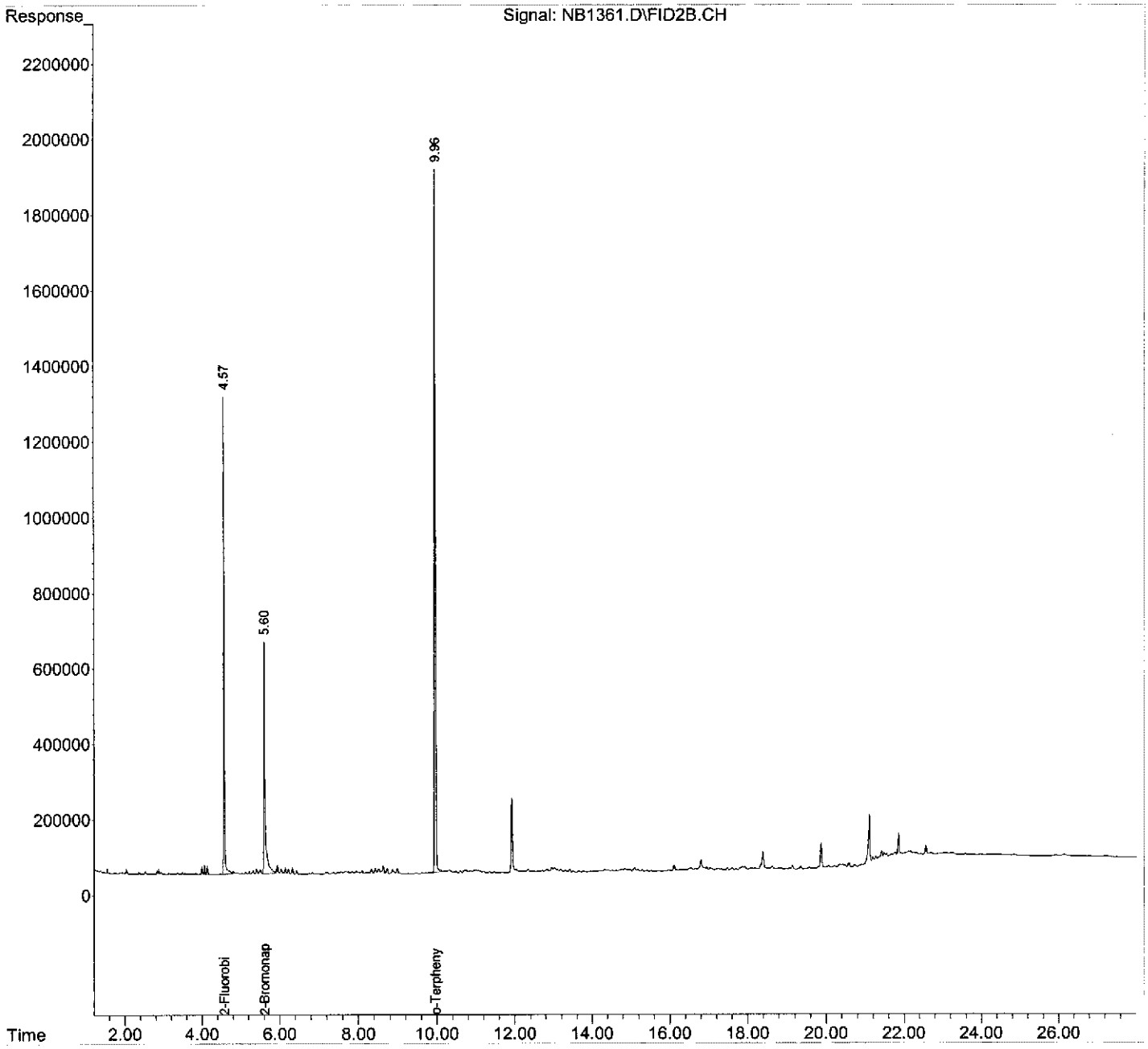
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1361.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 10:36
Operator : MJ
Sample : A5(9-10),06545-002,S,5.40g,18.4,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 86 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 11:05:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1717.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 14:52
Operator : MJ
Sample : A4(10.5-,06545-003,S,5.11g,25.6,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 15:24:35 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	23302261	24.111 ng
Spiked Amount 50.000		Recovery =	48.22%
Target Compounds			
22) H C16-C21	9.95	34086066	32.382 ng
23) H C21-C40	18.95	188826824	206.197 ng

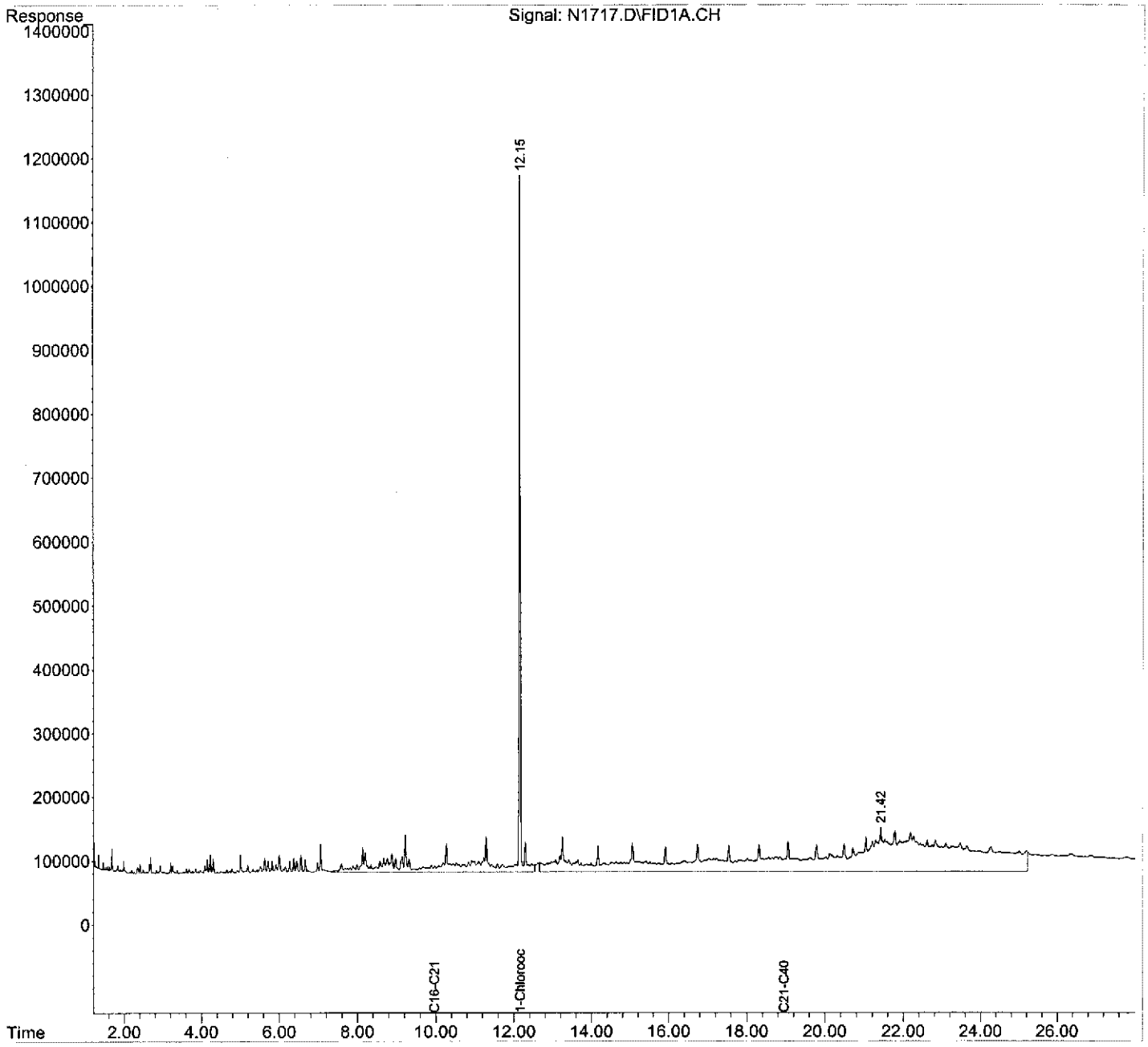
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1717.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 14:52
Operator : MJ
Sample : A4(10.5-,06545-003,S,5.11g,25.6,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 37 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 15:24:35 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1349.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 14:52
Operator : MJ
Sample : A4(10.5-,06545-003,S,5.11g,25.6,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 87 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 15:23:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.57	16907557	23.560 ng	
Spiked Amount 50.000		Recovery =	47.12%	
2) S 2-Bromonaphthalene	5.60	13650186	27.287 ng	
Spiked Amount 50.000		Recovery =	54.57%	
3) S o-Terphenyl	9.96	34073286	36.828 ng	m
Spiked Amount 50.000		Recovery =	73.66%	
Target Compounds				
24) H C16-C21	9.60	72508861	92.039 ng	
25) H C21-C36	17.20	182326196	204.064 ng	

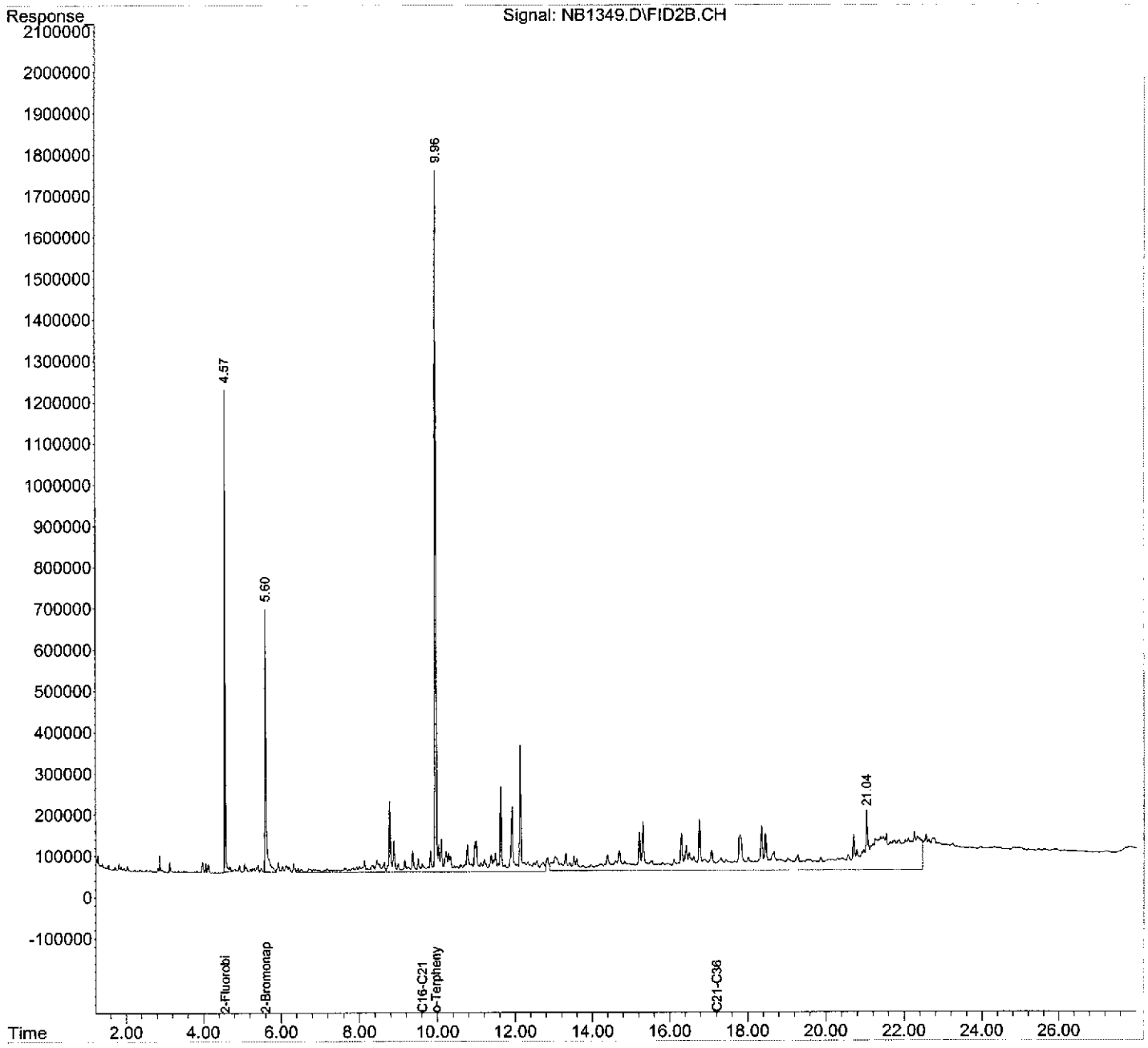
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1349.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 14:52
Operator : MJ
Sample : A4(10.5-,06545-003,S,5.11g,25.6,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 87 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 15:23:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1718.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 15:26
Operator : MJ
Sample : E1(6.5-7,06545-004,S,5.43g,9.80,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 38 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:19:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	21460179	22.205 ng
Spiked Amount 50.000		Recovery =	44.41%
Target Compounds			

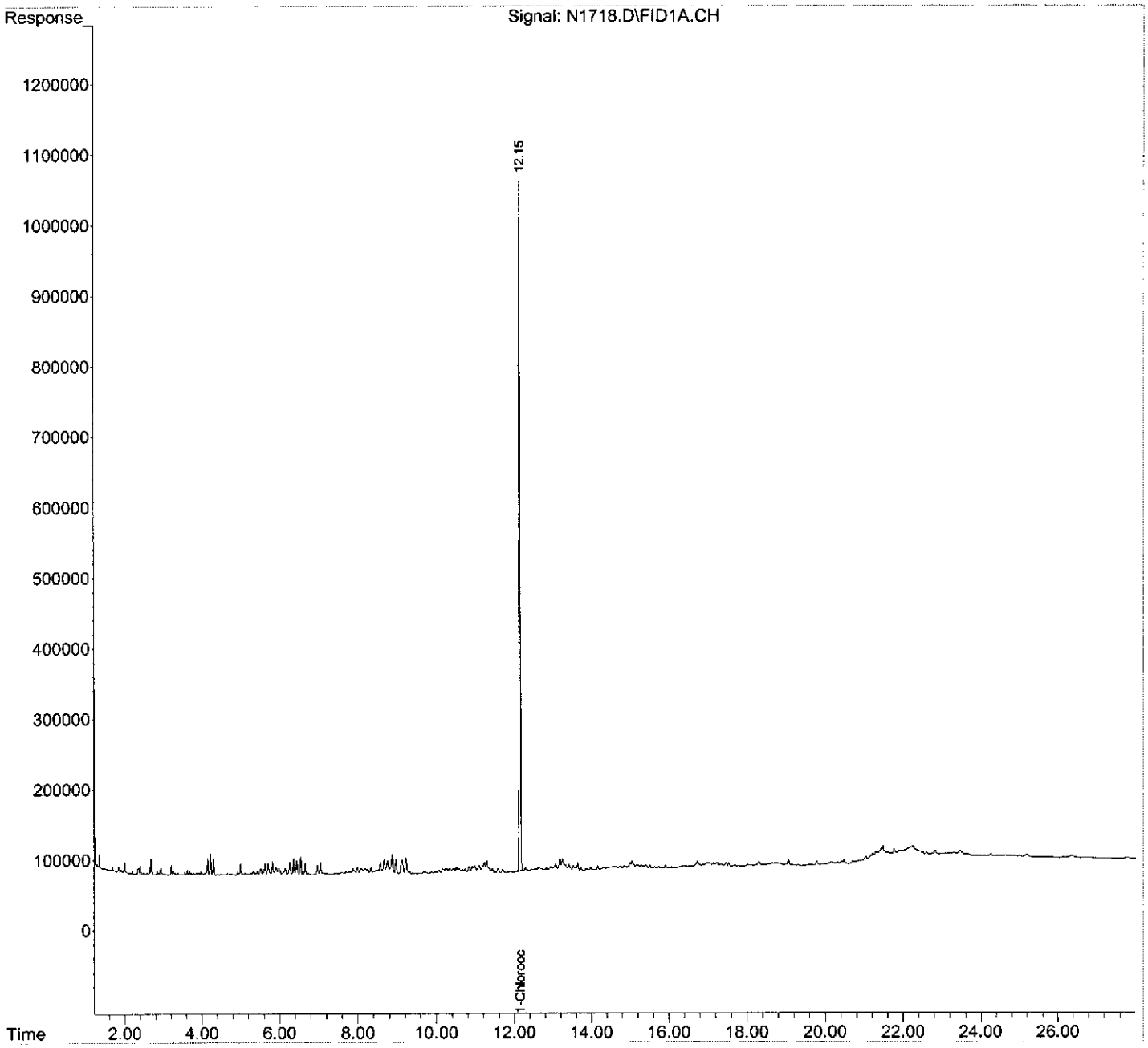
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1718.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 15:26
Operator : MJ
Sample : E1(6.5-7,06545-004,S,5.43g,9.80,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 38 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:19:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1350.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 15:26
Operator : MJ
Sample : E1(6.5-7,06545-004,S,5.43g,9.80,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 88 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:23:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	18041132	25.139 ng
Spiked Amount 50.000		Recovery =	50.28%
2) S 2-Bromonaphthalene	5.61	14076737	28.140 ng
Spiked Amount 50.000		Recovery =	56.28%
3) S o-Terphenyl	9.96	37762842	40.816 ng
Spiked Amount 50.000		Recovery =	81.63%
Target Compounds			

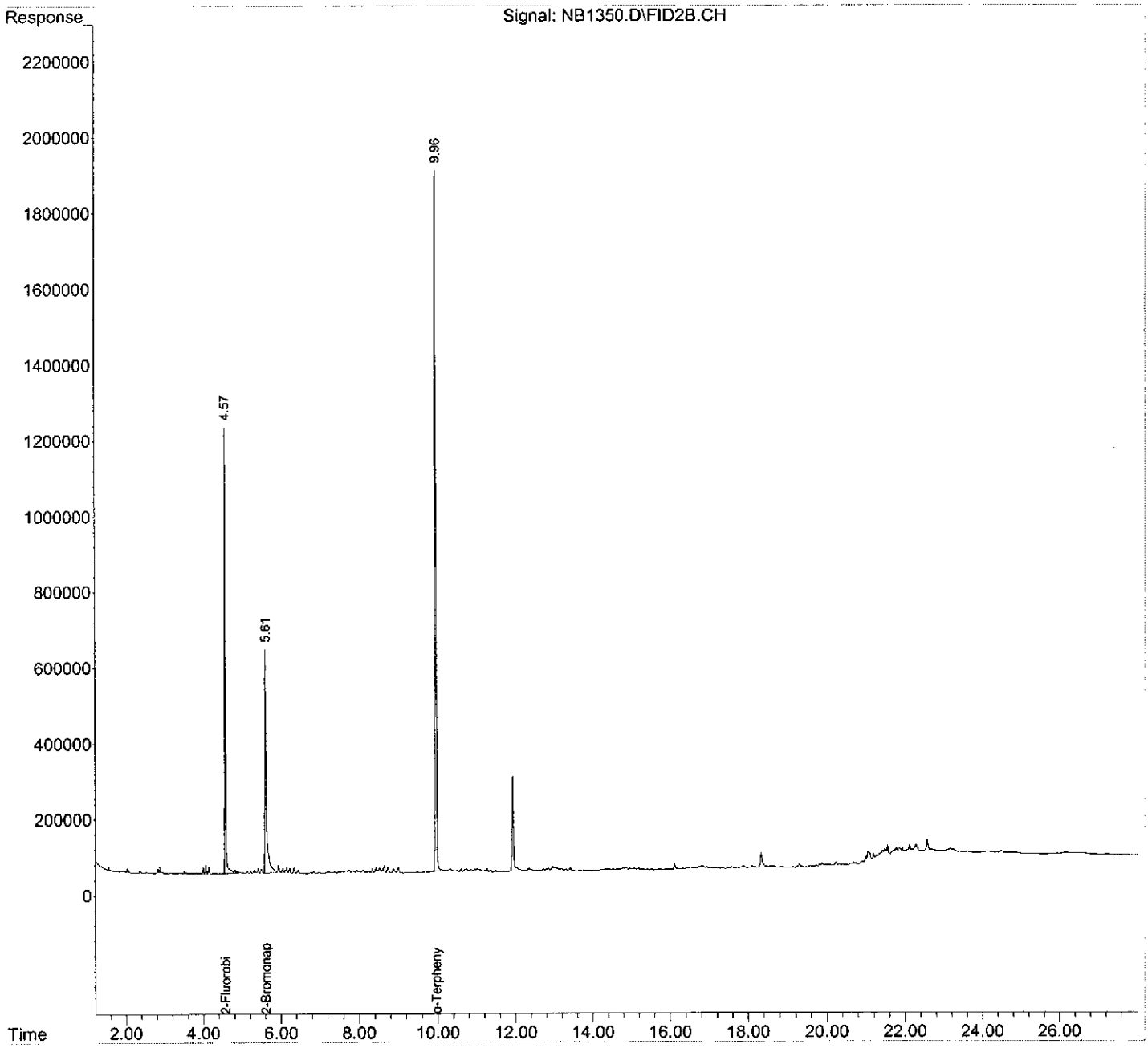
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1350.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 15:26
Operator : MJ
Sample : E1(6.5-7,06545-004,S,5.43g,9.80,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 88 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:23:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1719.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 16:00
Operator : MJ
Sample : D1(9-10),06545-005,S,5.11g,3.60,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 39 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:20:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	24214403	25.055 ng
Spiked Amount 50.000		Recovery =	50.11%
Target Compounds			

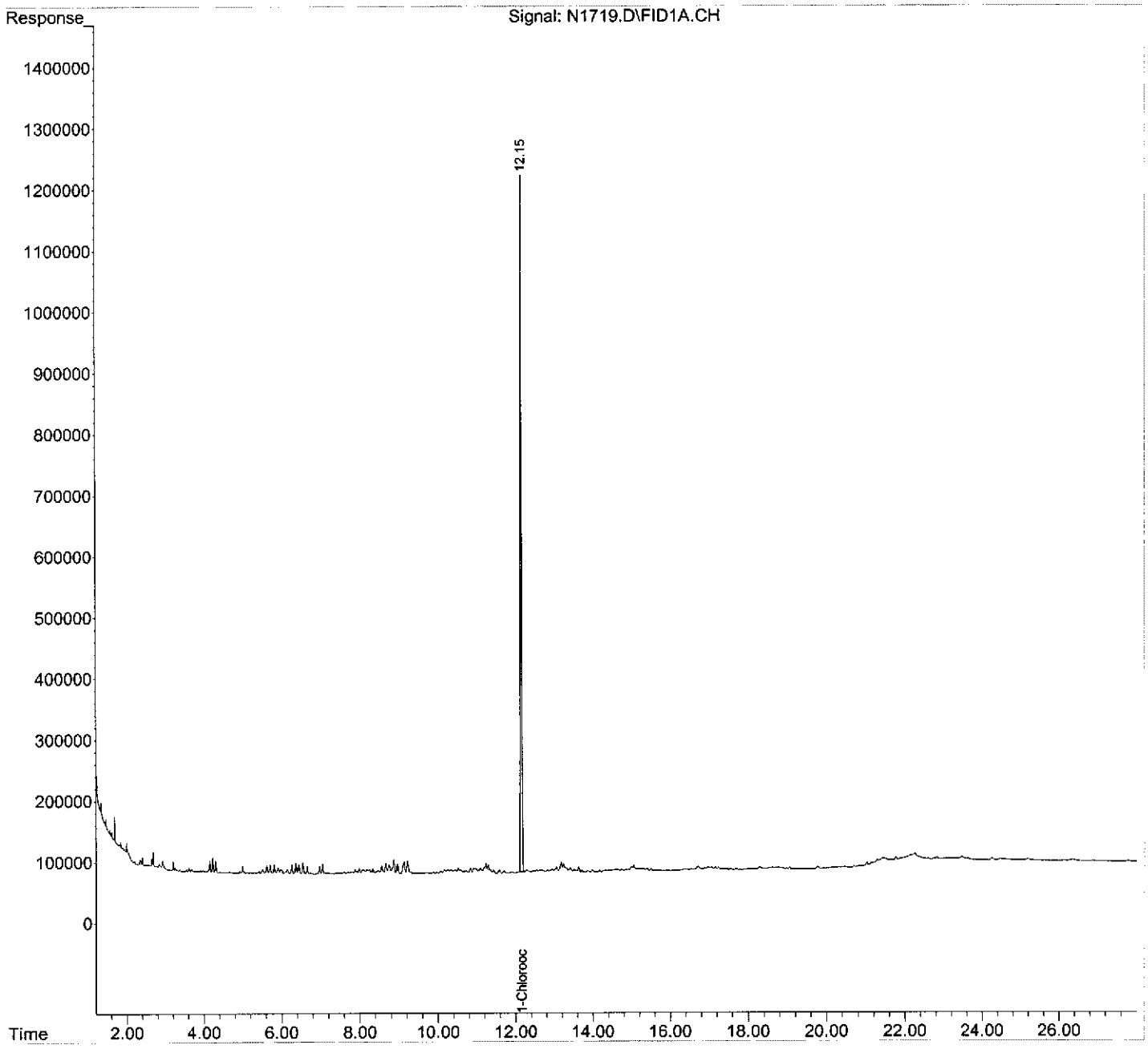
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1719.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 16:00
Operator : MJ
Sample : D1(9-10),06545-005,S,5.11g,3.60,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 39 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:20:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1351.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 16:00
Operator : MJ
Sample : D1(9-10),06545-005,S,5.11g,3.60,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 89 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:24:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.57	14378883	20.036 ng	m
Spiked Amount 50.000		Recovery =	40.07%	
2) S 2-Bromonaphthalene	5.61	10529112	21.048 ng	m
Spiked Amount 50.000		Recovery =	42.10%	
3) S o-Terphenyl	9.96	28376263	30.671 ng	
Spiked Amount 50.000		Recovery =	61.34%	
Target Compounds				

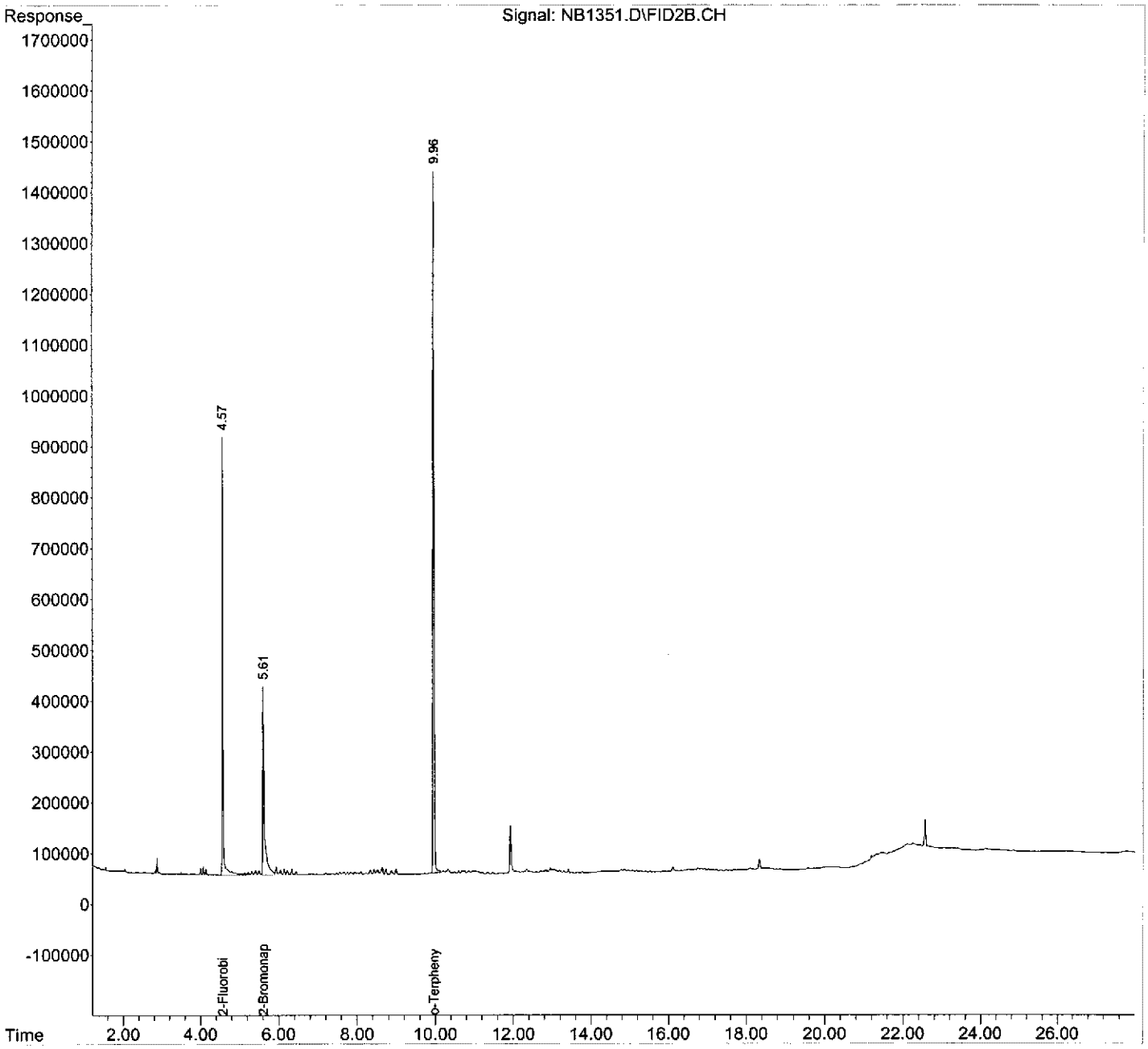
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1351.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 16:00
Operator : MJ
Sample : D1(9-10),06545-005,S,5.11g,3.60,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 89 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:24:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1720.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 16:34
Operator : MJ
Sample : D2(9-10),06545-006,S,5.42g,14.0,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 40 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:20:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	25045711	25.915 ng
Spiked Amount 50.000		Recovery =	51.83%
Target Compounds			

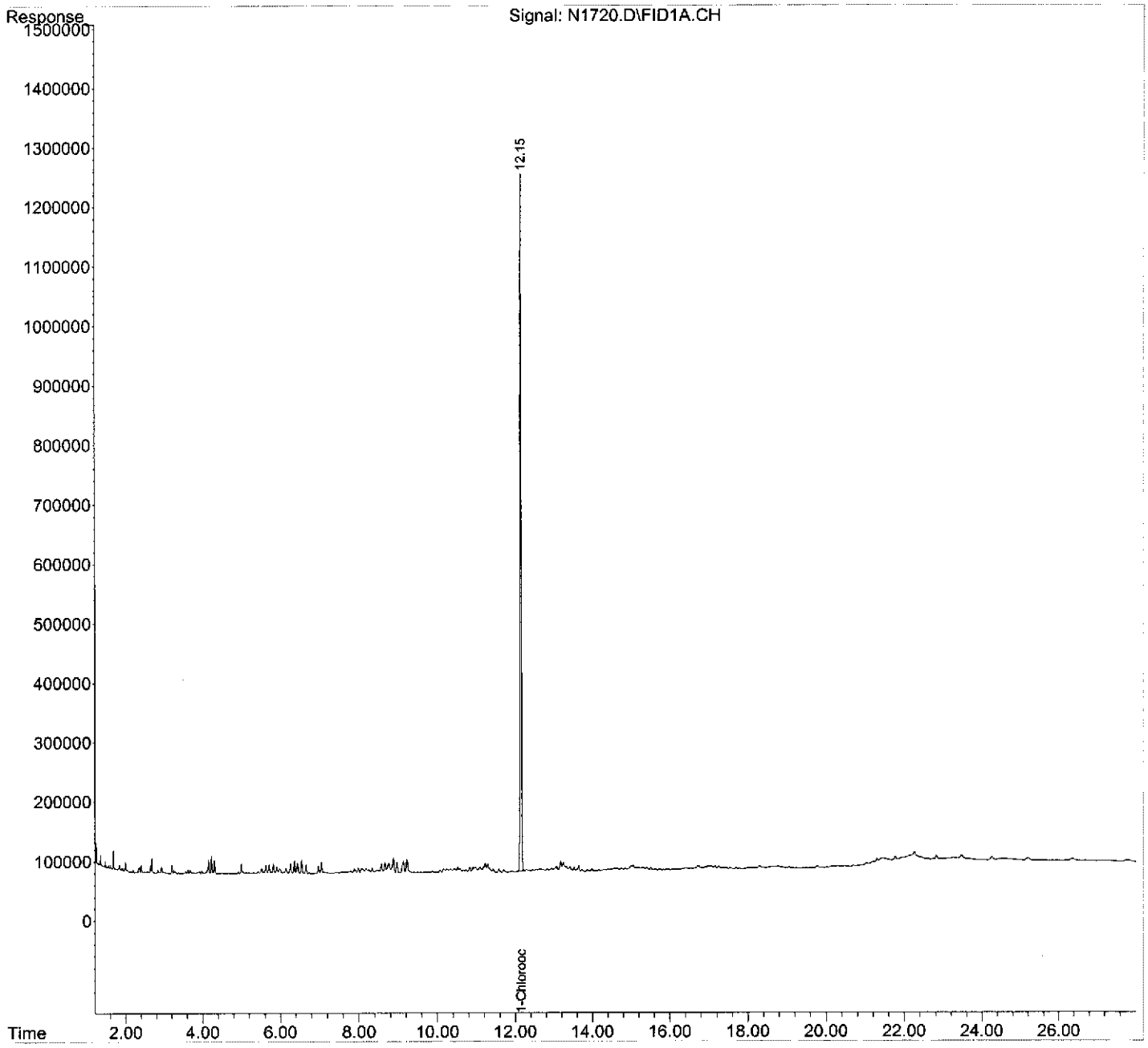
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1720.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 16:34
Operator : MJ
Sample : D2(9-10),06545-006,S,5.42g,14.0,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 40 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:20:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1362.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 11:11
Operator : MJ
Sample : D2(9-10),06545-006,S,5.42g,14.0,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 90 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 11:43:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	18781538	26.171 ng
Spiked Amount 50.000		Recovery =	52.34%
2) S 2-Bromonaphthalene	5.61	13835027	27.657 ng
Spiked Amount 50.000		Recovery =	55.31%
3) S o-Terphenyl	9.96	38096673	41.177 ng
Spiked Amount 50.000		Recovery =	82.35%
Target Compounds			

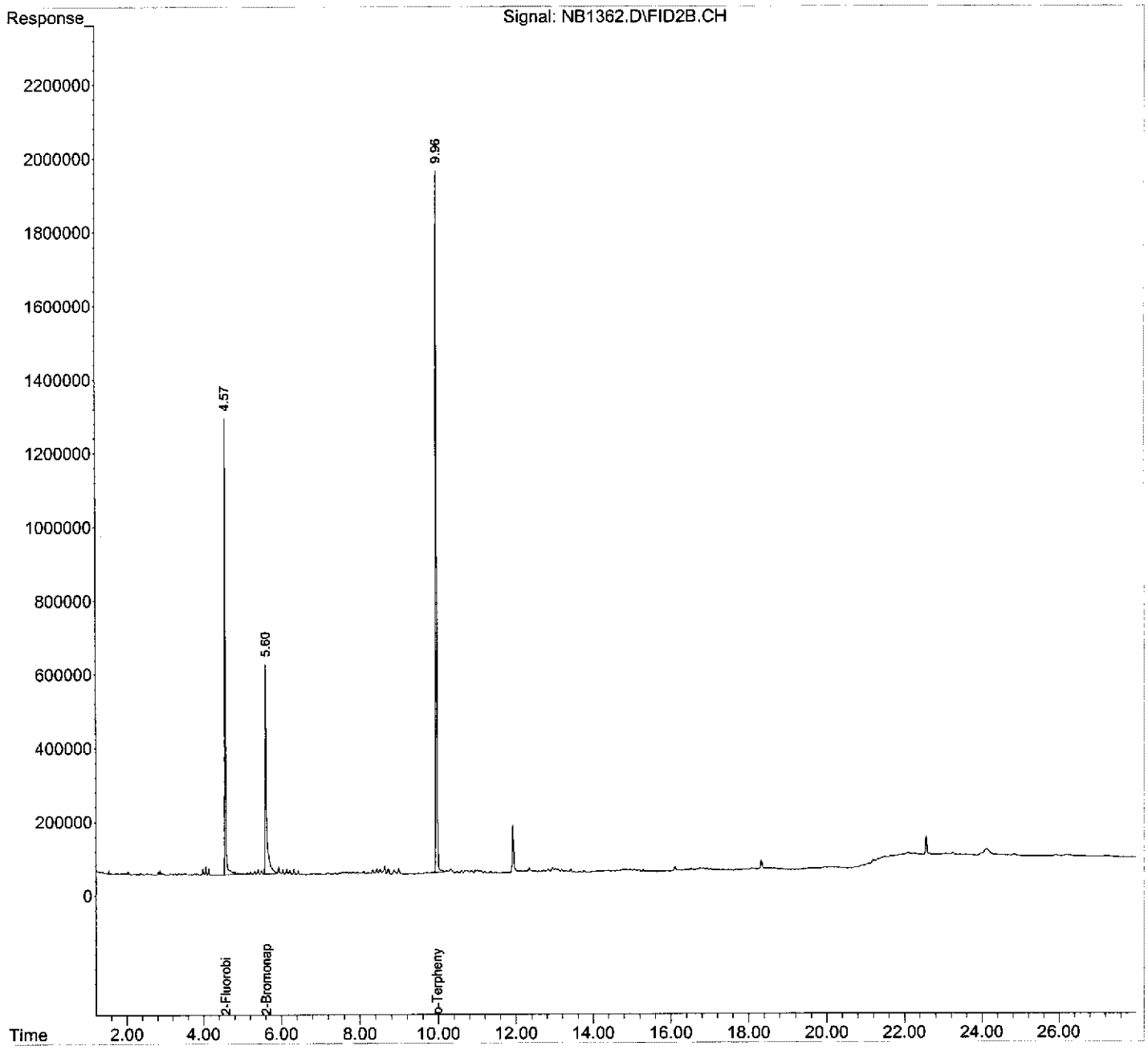
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1362.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 11:11
Operator : MJ
Sample : D2(9-10),06545-006,S,5.42g,14.0,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 90 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 11:43:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1721.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 17:09
Operator : MJ
Sample : D3(4-5)-,06545-007,S,5.09g,9.60,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 41 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:21:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	23309662	24.119 ng
Spiked Amount 50.000		Recovery =	48.24%
Target Compounds			
20) H C9-C12	2.36	520686867	510.431 ng
21) H C12-C16	5.40	2109976199	1981.503 ng
22) H C16-C21	9.95	2053233486	1950.582 ng
23) H C21-C40	18.95	386667742	422.238 ng

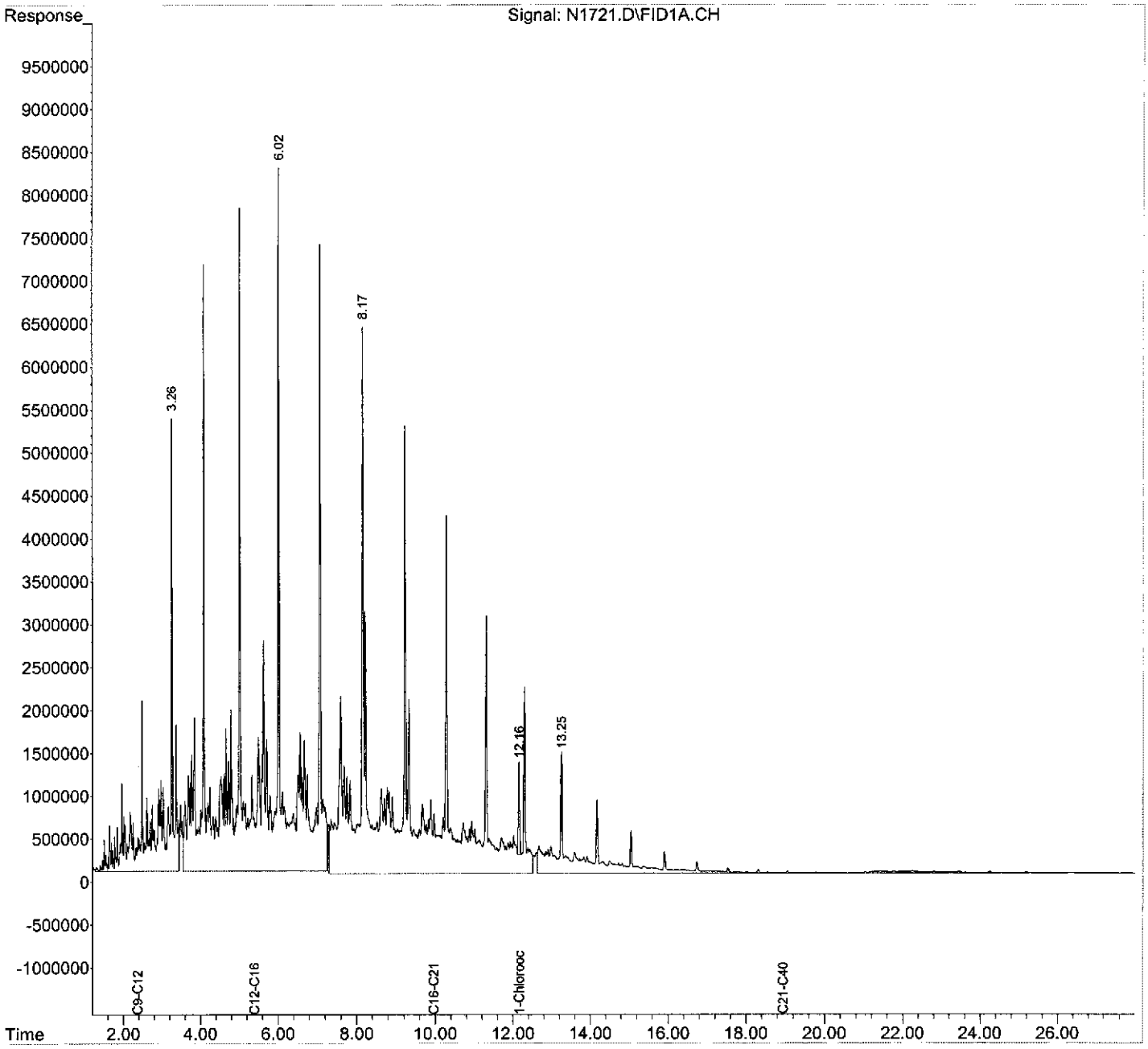
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1721.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 17:09
Operator : MJ
Sample : D3(4-5)-,06545-007,S,5.09g,9.60,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 41 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:21:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1353.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 17:09
Operator : MJ
Sample : D3(4-5)-,06545-007,S,5.09g,9.60,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 91 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:26:16 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.57	17661735	24.611 ng	m
Spiked Amount 50.000		Recovery =	49.22%	
2) S 2-Bromonaphthalene	5.61	11801033	23.591 ng	m
Spiked Amount 50.000		Recovery =	47.18%	
3) S o-Terphenyl	9.97	33690343	36.415 ng	m
Spiked Amount 50.000		Recovery =	72.83%	
Target Compounds				
22) H C10-C12	2.70	200958905	313.339 ng	
23) H C12-C16	4.95	704381089	994.939 ng	
24) H C16-C21	9.60	1225172497	1555.172 ng	
25) H C21-C36	17.20	210851629	235.990 ng	

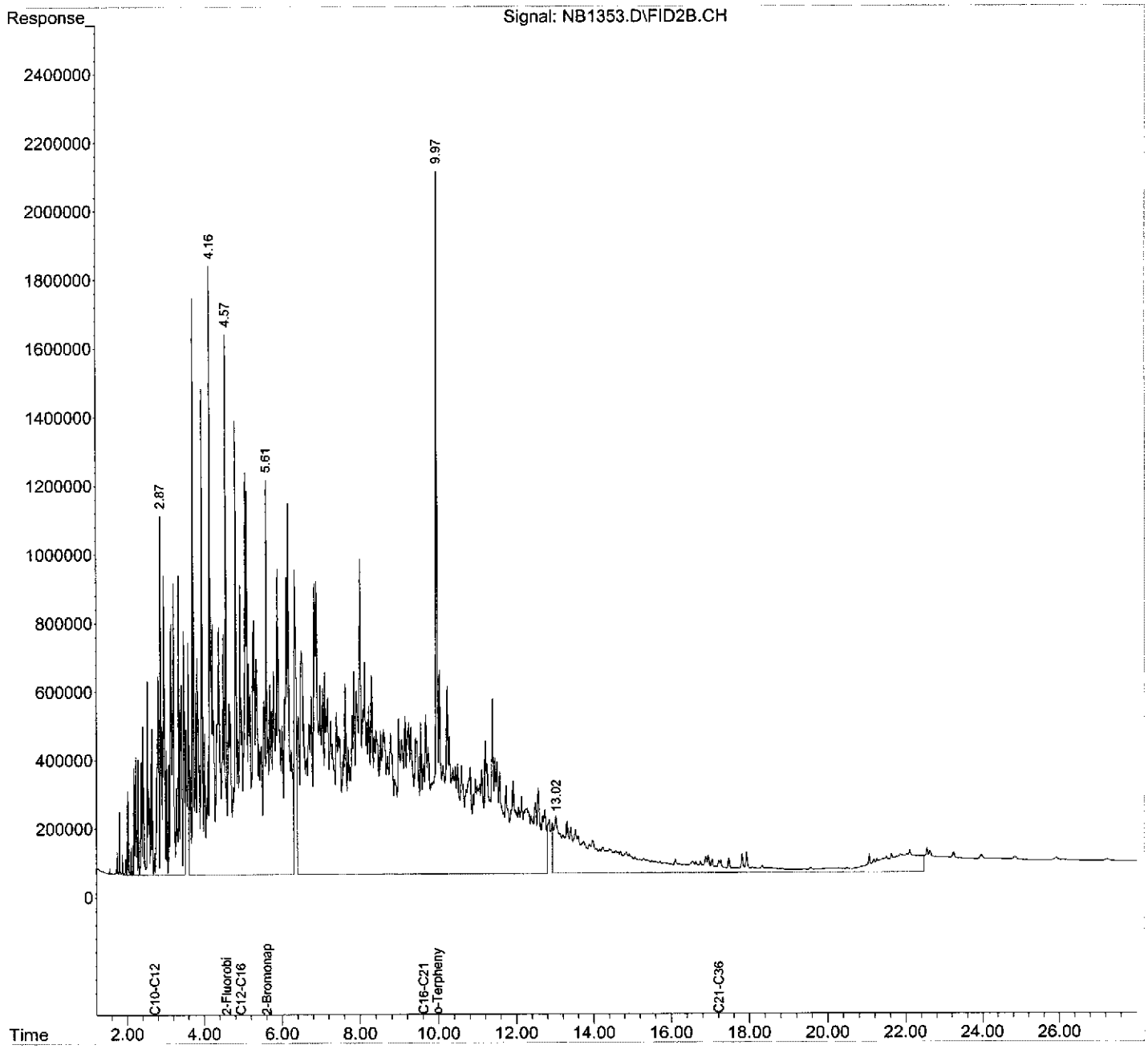
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1353.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 17:09
Operator : MJ
Sample : D3(4-5)-,06545-007,S,5.09g,9.60,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 91 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:26:16 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1722.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 17:43
Operator : MJ
Sample : F1(9-10),06545-008,S,5.27g,11.0,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 42 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:21:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	25640194	26.531 ng
Spiked Amount 50.000		Recovery =	53.06%
Target Compounds			

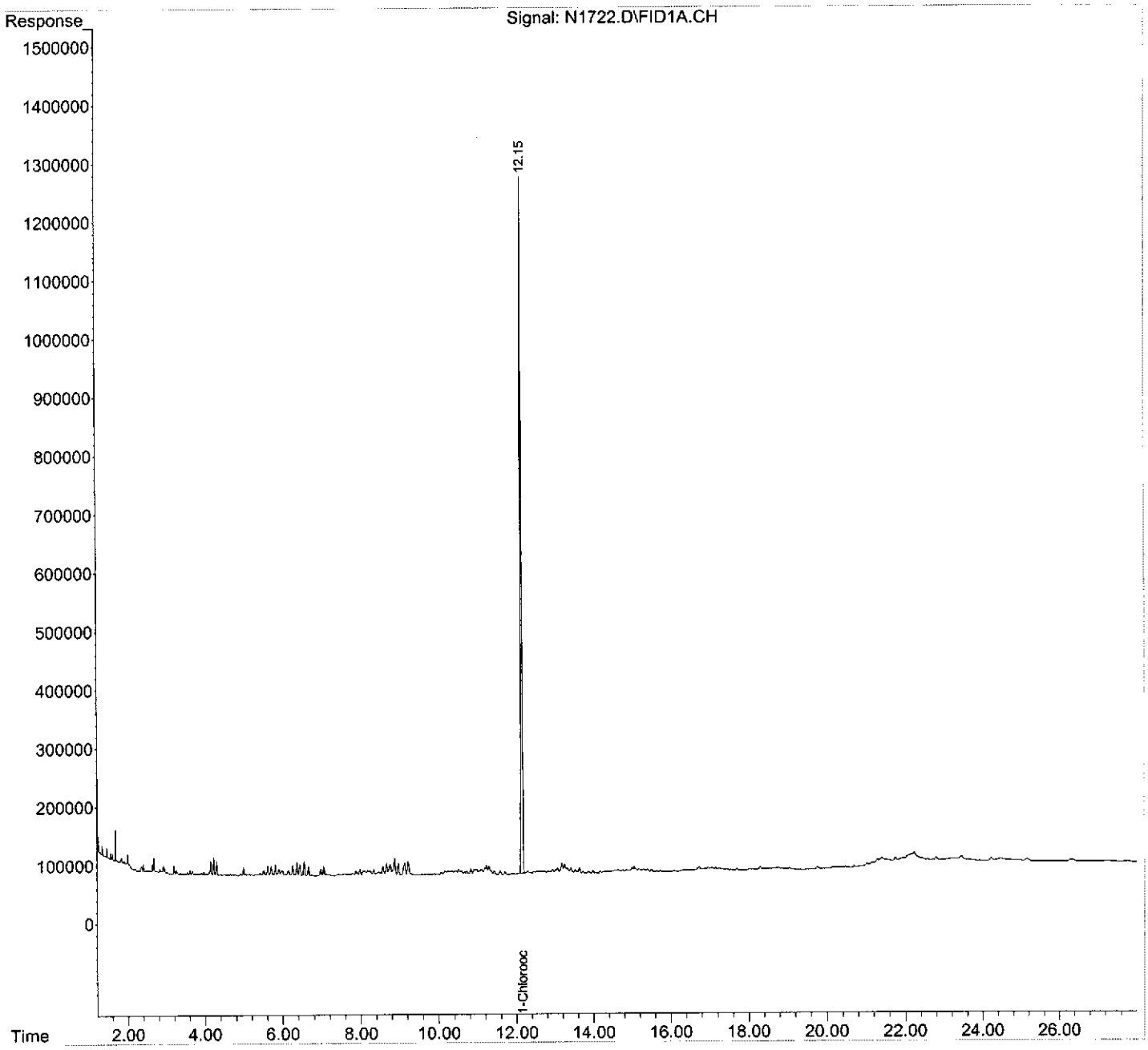
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1722.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 17:43
Operator : MJ
Sample : F1(9-10),06545-008,S,5.27g,11.0,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 42 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:21:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1354.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 17:43
Operator : MJ
Sample : F1(9-10),06545-008,S,5.27g,11.0,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 92 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:26:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	17967117	25.036 ng
Spiked Amount 50.000		Recovery =	50.07%
2) S 2-Bromonaphthalene	5.61	13445170	26.877 ng
Spiked Amount 50.000		Recovery =	53.75%
3) S o-Terphenyl	9.96	34530037	37.322 ng
Spiked Amount 50.000		Recovery =	74.64%
Target Compounds			

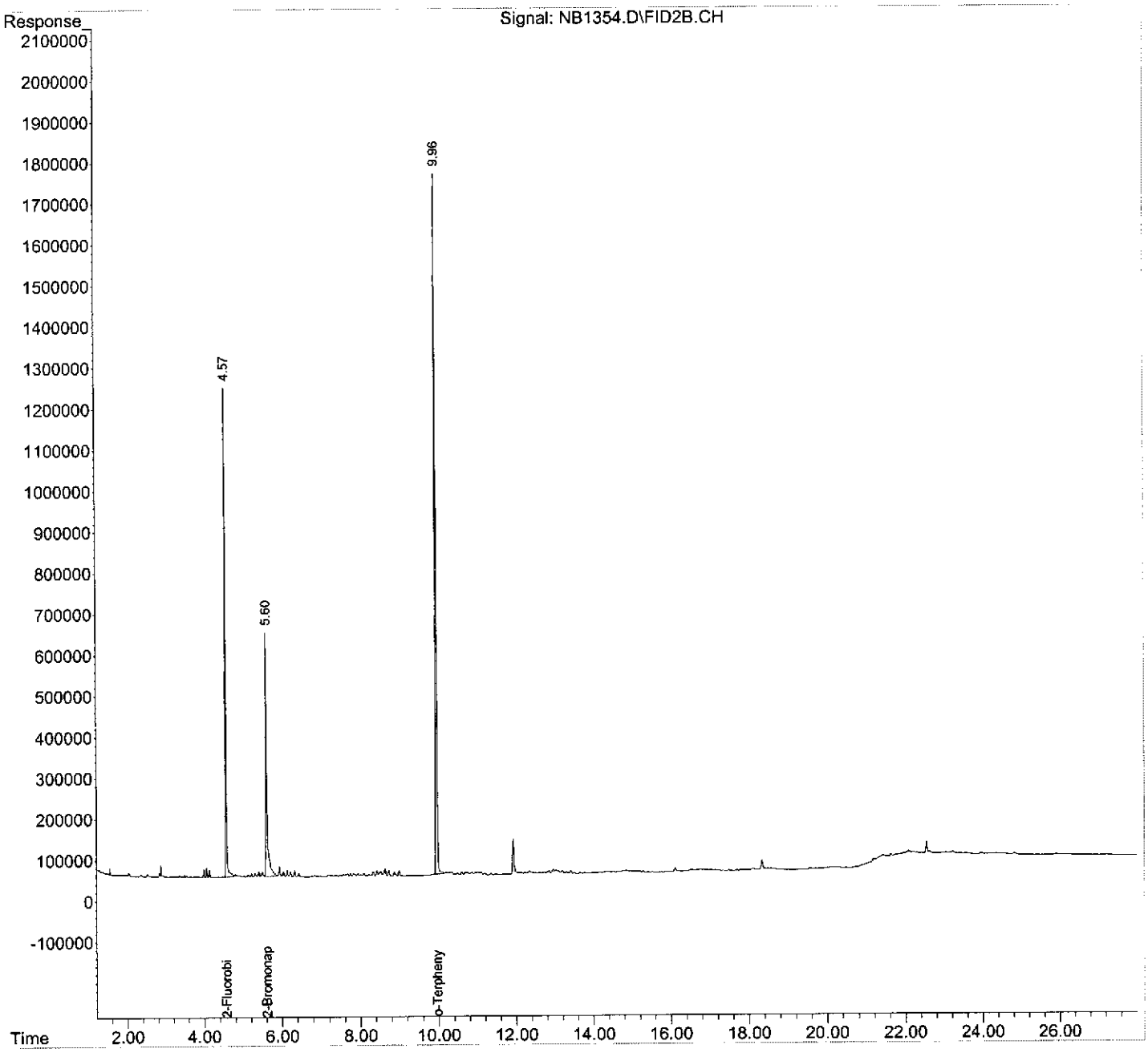
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1354.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 17:43
Operator : MJ
Sample : F1(9-10),06545-008,S,5.27g,11.0,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 92 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:26:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1723.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 18:17
Operator : MJ
Sample : F2(9-10),06545-009,S,5.18g,12.5,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 43 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:22:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	23761062	24.586 ng
Spiked Amount 50.000		Recovery =	49.17%
Target Compounds			

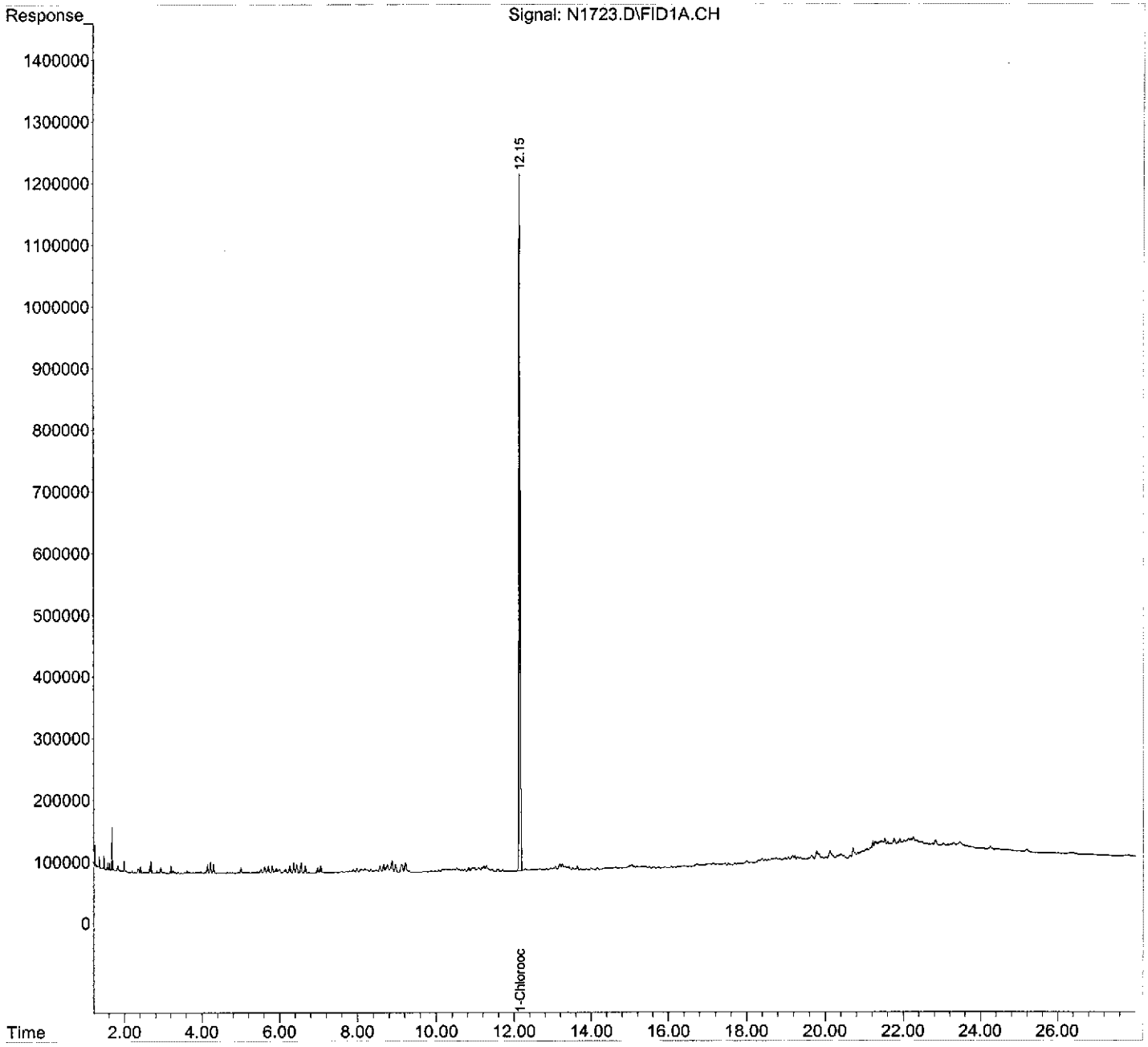
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1723.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 18:17
Operator : MJ
Sample : F2(9-10),06545-009,S,5.18g,12.5,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 43 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 07:22:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1355.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 18:17
Operator : MJ
Sample : F2(9-10),06545-009,S,5.18g,12.5,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 93 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:07:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	16074321	22.399 ng
Spiked Amount 50.000		Recovery =	44.80%
2) S 2-Bromonaphthalene	5.61	12402562	24.793 ng
Spiked Amount 50.000		Recovery =	49.59%
3) S o-Terphenyl	9.96	32552925	35.185 ng
Spiked Amount 50.000		Recovery =	70.37%
Target Compounds			
24) H C16-C21	9.60	16780058	21.300 ng
25) H C21-C36	17.20	253427482	283.642 ng

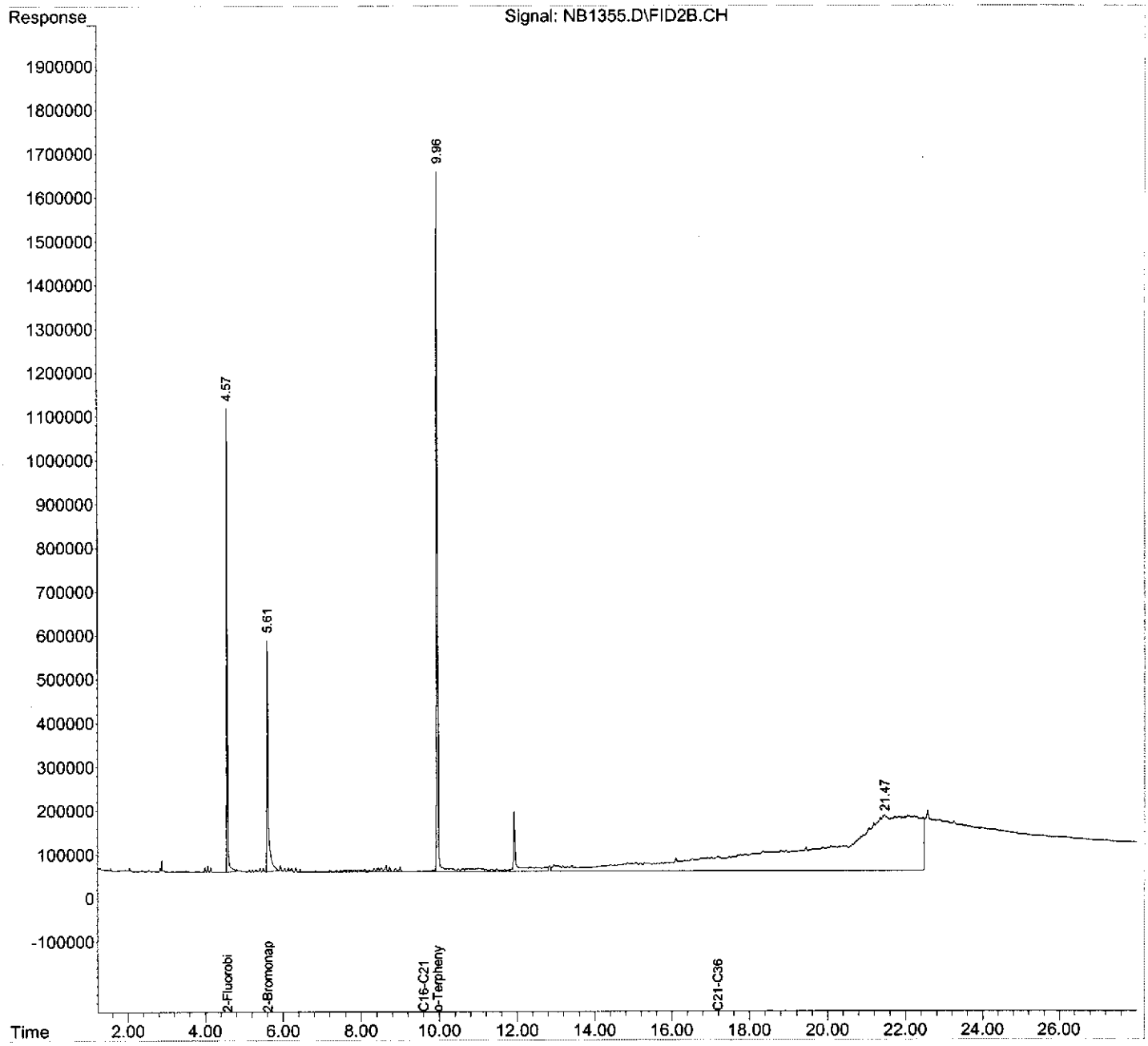
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1355.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 18:17
Operator : MJ
Sample : F2(9-10),06545-009,S,5.18g,12.5,07/06/12,1
Misc : 120706-09,06/29/12,06/29/12,1
ALS Vial : 93 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:07:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/22/2012 **Instrument ID:** GC-N

GC Column : DB-5

Data File: N1490.D N1489.D N1488.D N1486.D N1487.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	1.34	1.34	1.34	1.35	1.35	1.35	1.28	1.42
n-Decane (C10)	1.84	1.84	1.85	1.85	1.86	1.85	1.78	1.92
n-Dodecane (C12)	3.25	3.26	3.27	3.28	3.30	3.27	3.20	3.34
n-Tetradecane (C14)	4.99	5.00	5.02	5.03	5.05	5.02	4.95	5.09
n-Hexadecane (C16)	7.05	7.06	7.08	7.10	7.13	7.08	7.00	7.16
n-Octadecane (C18)	9.21	9.22	9.24	9.26	9.30	9.25	9.17	9.33
n-Eicosane (C20)	11.29	11.31	11.33	11.35	11.39	11.33	11.25	11.41
n-Heneicosane (C21)	12.28	12.30	12.33	12.35	12.40	12.33	12.25	12.41
n-Docosane (C22)	13.24	13.26	13.28	13.30	13.35	13.29	13.20	13.38
n-Tetracosane (C24)	15.05	15.07	15.09	15.11	15.15	15.10	15.01	15.19
n-Hexacosane (C26)	16.74	16.75	16.78	16.80	16.84	16.78	16.69	16.87
n_Octacosane (C28)	18.31	18.32	18.34	18.36	18.41	18.35	18.26	18.44
n-Triacontane (C30)	19.78	19.79	19.82	19.83	19.88	19.82	19.72	19.92
n-Dotriacontane (C32)	21.03	21.04	21.05	21.07	21.11	21.06	20.96	21.16
n-Tetratriacontane (C34)	21.78	21.79	21.80	21.83	21.87	21.81	21.71	21.91
n-Hexatriacontane (C36)	22.60	22.61	22.63	22.66	22.72	22.64	22.49	22.79
n-Octatriacontane (C38)	23.63	23.65	23.67	23.71	23.78	23.69	23.54	23.84
n-Tetracontane (40)	25.00	25.02	25.06	25.11	25.20	25.08	24.93	25.23
C9-C12	2.36	2.36	2.36	2.36	2.36	2.36	2.26	2.46
C12-C16	5.40	5.40	5.40	5.40	5.40	5.40	5.30	5.50
C16-C21	9.95	9.95	9.95	9.95	9.95	9.95	9.84	10.06
C21-C40	18.95	18.95	18.95	18.95	18.95	18.95	18.84	19.06

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/22/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: N1490.D N1489.D N1488.D N1486.D N1487.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	1056805	891634	975928	819917	896807	928218	9.77
n-Decane (C10)	1124663	921218	1008835	844795	931890	966280	10.96
n-Dodecane (C12)	1130526	923061	1036440	864213	880246	966897	11.74
n-Tetradecane (C14)	1120378	929655	1070244	908130	1016433	1008968	8.96
n-Hexadecane (C16)	1141099	948829	1089217	915226	1024466	1023767	9.20
n-Octadecane (C18)	1176703	981397	1113961	915644	1016727	1040886	10.03
n-Eicosane (C20)	1202215	1023920	1105285	847190	924693	1020661	13.81
n-Heneicosane (C21)	1202549	1022631	1046656	839247	897103	1001637	14.13
n-Docosane (C22)	1198871	1029836	1026716	818258	877227	990182	15.05
n-Tetracosane (C24)	1176665	994574	990199	772419	817715	950314	16.97
n-Hexacosane (C26)	1175685	962848	934164	714213	779084	913199	19.69
n_Octacosane (C28)	1144812	913533	844953	667131	765637	867213	20.79
n-Triacontane (C30)	1106307	846023	783890	653803	777735	833552	20.11
n-Dotriacontane (C32)	1022998	761800	748196	661498	784839	795866	17.00
n-Tetratriacontane (C34)	976894	721694	773345	699887	809643	796293	13.78
n-Hexatriacontane (C36)	892844	695883	785710	700488	804329	775851	10.52
n-Octatriacontane (C38)	836551	698308	790208	693010	793553	762326	8.34
n-Tetracontane (40)	815086	705645	784387	697256	789142	758303	7.03
C9-C12	4177087	2838351	3046781	2559957	2679217	3060279	21.25
C12-C16	2596682	1928429	2197959	1853403	2071890	2129672	13.75
C16-C21	3684858	3062757	3375255	2706290	2960232	3157878	12.03
C21-C40	12631355	8917290	8810193	7283801	8145262	9157580	22.37

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1487.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:34
Operator : MJ
Sample : ALI_L5_IAS_4193,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:07:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	1-Chlorooctadecane	12.25	901865645	933.182	ng	
Spiked Amount		50.000		Recovery	= 1866.36%		
24)	S	o-Terphenyl	10.31	1312358658	1065.940	ng	
Spiked Amount		50.000		Recovery	= 2131.88%		
25)	S	Naphthalene	3.24	1186981560	1079.121	ng	
Spiked Amount		50.000		Recovery	= 2158.24%		
26)	S	2-Methylnaphthalene	4.17	1083245046	990.198	ng	
Spiked Amount		50.000		Recovery	= 1980.40%		
Target Compounds							
2)	T	n-Nonane (C9)	1.35	896806526	966.159	ng	
3)	T	n-Decane (C10)	1.86	931890101	964.410	ng	
4)	T	n-Dodecane (C12)	3.30	880245609	918.472	ng	m
5)	T	n-Tetradecane (C14)	5.05	1016433253	1007.399	ng	
6)	T	n-Hexadecane (C16)	7.13	1024466497	1000.683	ng	
7)	T	n-Octadecane (C18)	9.30	1016727354	976.790	ng	
8)	T	n-Eicosane (C20)	11.39	924692864	905.975	ng	
9)	T	n-Heneicosane (C21)	12.40	897102987	895.637	ng	
10)	T	n-Docosane (C22)	13.35	877227123	885.926	ng	
11)	T	n-Tetracosane (C24)	15.15	817714522	860.468	ng	
12)	T	n-Hexacosane (C26)	16.84	779084355	853.138	ng	
13)	T	n-Octacosane (C28)	18.41	765637044	882.871	ng	
14)	T	n-Triacontane (C30)	19.88	777735127	933.038	ng	
15)	T	n-Dotriacontane (C32)	21.11	784838907	986.145	ng	
16)	T	n-Tetratriacontane (C34)	21.87	809642867	1016.765	ng	
17)	T	n-Hexatriacontane (C36)	22.72	804329402	1036.706	ng	
18)	T	n-Octatriacontane (C38)	23.78	793553122	1040.963	ng	
19)	T	n-Tetracontane (40)	25.20	789141690	1040.668	ng	
20)	H	C9-C12	2.36	2679217194	2722.372	ng	
21)	H	C12-C16	5.40	2071889969	1945.736	ng	
22)	H	C16-C21	9.95	2960231594	2812.235	ng	
23)	H	C21-C40	18.95	8145261846	8894.557	ng	

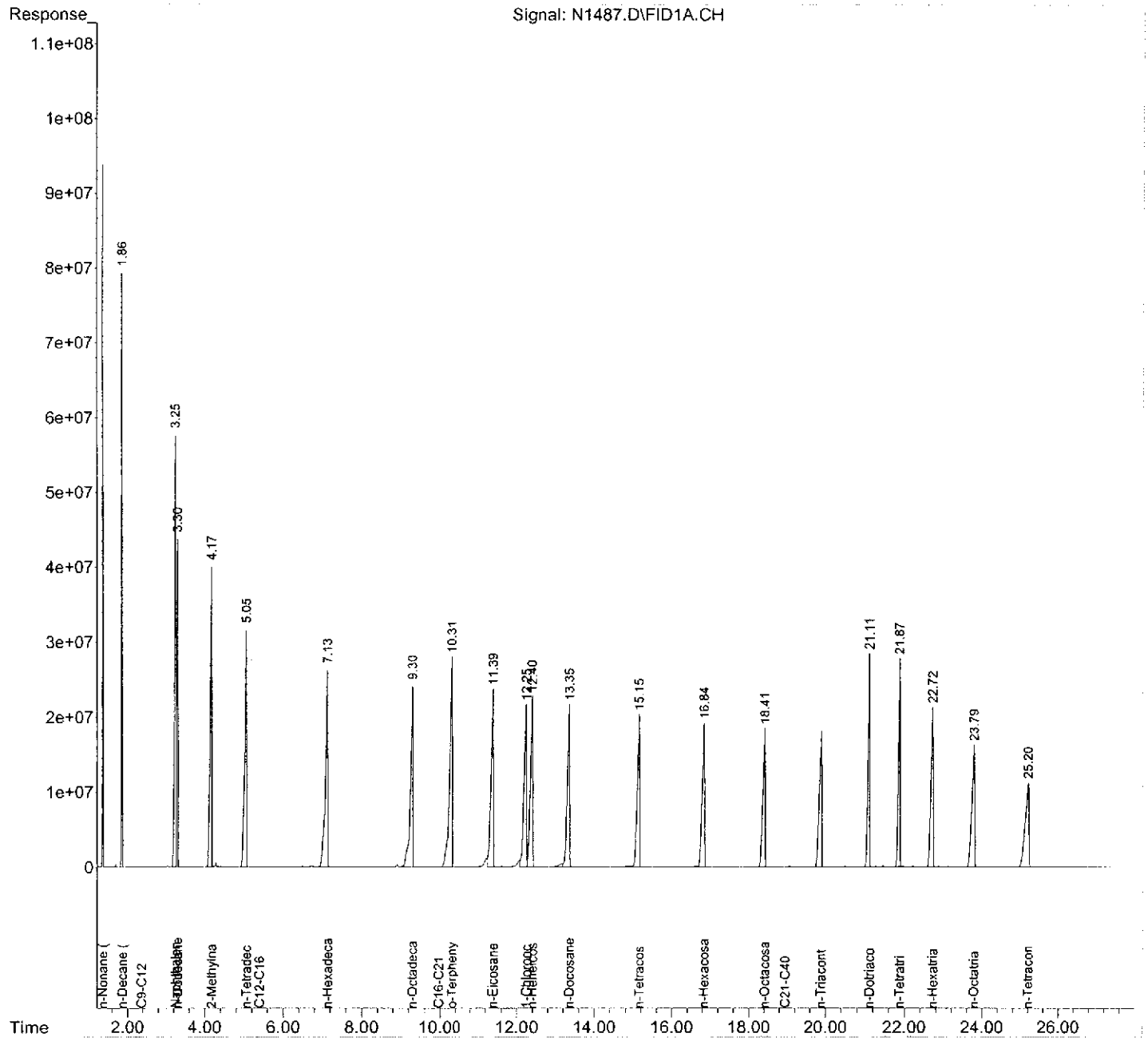
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1487.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:34
Operator : MJ
Sample : ALI_L5_IAS_4193,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:07:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-22-12\
Data File : N1486.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:00
Operator : MJ
Sample : ALI_L4_IAS_4194,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.20	413595231	427.957 ng
Spiked Amount	50.000		Recovery	= 855.91%
24) S	o-Terphenyl	10.26	593093550	481.730 ng
Spiked Amount	50.000		Recovery	= 963.46%
25) S	Naphthalene	3.22	478920714	435.401 ng
Spiked Amount	50.000		Recovery	= 870.80%
26) S	2-Methylnaphthalene	4.15	486821315	445.005 ng
Spiked Amount	50.000		Recovery	= 890.01%
Target Compounds				
2) T	n-Nonane (C9)	1.35	409958476	441.662 ng
3) T	n-Decane (C10)	1.85	422397697	437.138 ng
4) T	n-Dodecane (C12)	3.28	432106401	450.871 ng
5) T	n-Tetradecane (C14)	5.03	454065244	450.029 ng
6) T	n-Hexadecane (C16)	7.10	457613093	446.989 ng
7) T	n-Octadecane (C18)	9.26	457822090	439.839 ng
8) T	n-Eicosane (C20)	11.35	423595047	415.020 ng
9) T	n-Heneicosane (C21)	12.35	419623251	418.937 ng
10) T	n-Docosane (C22)	13.30	409128933	413.186 ng
11) T	n-Tetracosane (C24)	15.11	386209372	406.402 ng
12) T	n-Hexacosane (C26)	16.80	357106565	391.050 ng
13) T	n-Octacosane (C28)	18.36	333565449	384.641 ng
14) T	n-Triacontane (C30)	19.83	326901325	392.179 ng
15) T	n-Dotriacontane (C32)	21.07	330749070	415.584 ng
16) T	n-Tetratriacontane (C34)	21.83	349943748	439.466 ng
17) T	n-Hexatriacontane (C36)	22.66	350243795	451.432 ng
18) T	n-Octatriacontane (C38)	23.71	346504896	454.536 ng
19) T	n-Tetracontane (40)	25.11	348627951	459.748 ng
20) H	C9-C12	2.36	1279978670	1300.596 ng
21) H	C12-C16	5.40	926701353	870.276 ng
22) H	C16-C21	9.95	1353144756	1285.494 ng
23) H	C21-C40	18.95	3641900267	3976.924 ng

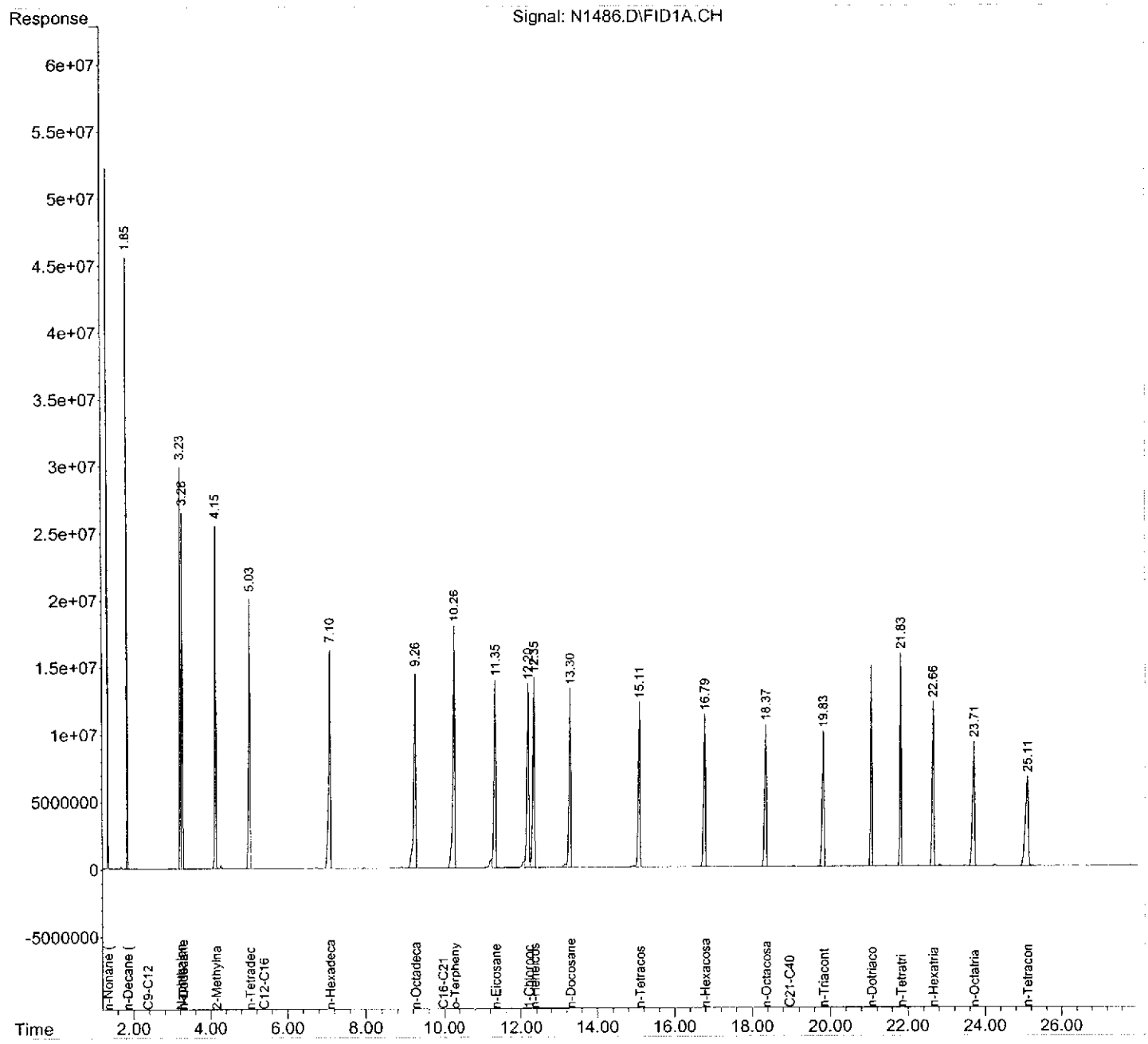
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-22-12\
Data File : N1486.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:00
Operator : MJ
Sample : ALI_L4_IAS_4194,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1488.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:08
Operator : MJ
Sample : ALI_L3_IAS_4195,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.19	268148070	277.459 ng
Spiked Amount	50.000		Recovery	= 554.92%
24) S	o-Terphenyl	10.24	291937292	237.121 ng
Spiked Amount	50.000		Recovery	= 474.24%
25) S	Naphthalene	3.21	280824974	255.306 ng
Spiked Amount	50.000		Recovery	= 510.61%
26) S	2-Methylnaphthalene	4.13	287905108	263.175 ng
Spiked Amount	50.000		Recovery	= 526.35%
Target Compounds				
2) T	n-Nonane (C9)	1.34	243981962	262.850 ng
3) T	n-Decane (C10)	1.85	252208814	261.010 ng
4) T	n-Dodecane (C12)	3.27	259109996	270.362 ng
5) T	n-Tetradecane (C14)	5.02	267561052	265.183 ng
6) T	n-Hexadecane (C16)	7.08	272304146	265.982 ng
7) T	n-Octadecane (C18)	9.24	278490293	267.551 ng
8) T	n-Eicosane (C20)	11.33	276321282	270.728 ng
9) T	n-Heneicosane (C21)	12.33	261664109	261.236 ng
10) T	n-Docosane (C22)	13.28	256678960	259.224 ng
11) T	n-Tetracosane (C24)	15.09	247549821	260.493 ng
12) T	n-Hexacosane (C26)	16.78	233541027	255.739 ng
13) T	n-Octacosane (C28)	18.34	211238145	243.583 ng
14) T	n-Triacontane (C30)	19.82	195972411	235.105 ng
15) T	n-Dotriacontane (C32)	21.05	187048929	235.026 ng
16) T	n-Tetratriacontane (C34)	21.80	193336319	242.796 ng
17) T	n-Hexatriacontane (C36)	22.63	196427595	253.177 ng
18) T	n-Octatriacontane (C38)	23.67	197551966	259.144 ng
19) T	n-Tetracontane (40)	25.06	196096755	258.599 ng
20) H	C9-C12	2.36	761695270	773.964 ng
21) H	C12-C16	5.40	549489698	516.032 ng
22) H	C16-C21	9.95	843813757	801.627 ng
23) H	C21-C40	18.95	2202548138	2405.164 ng

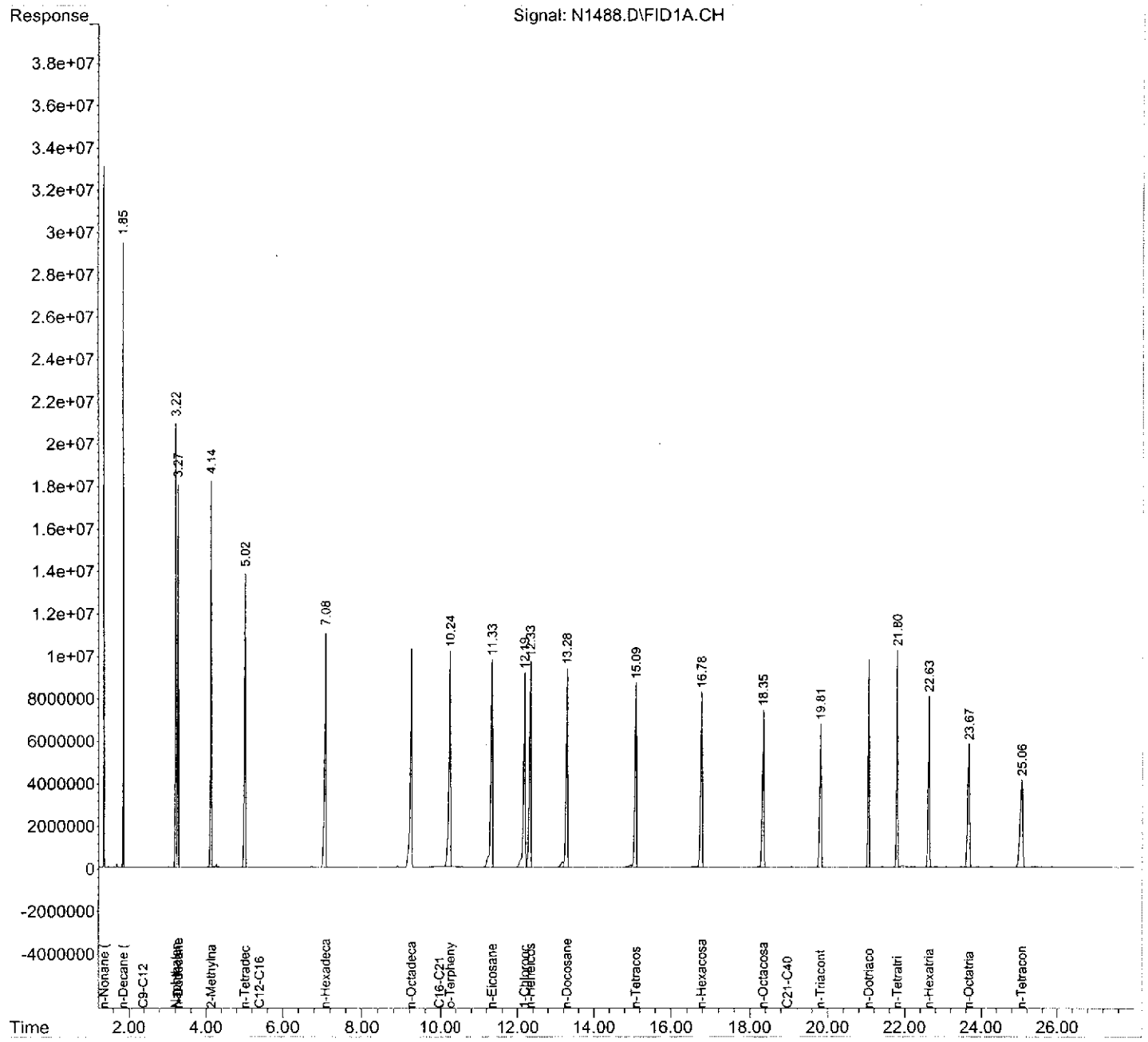
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1488.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:08
Operator : MJ
Sample : ALI_L3_IAS_4195,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Mon Jun 25 12:23:31 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1489.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:42
Operator : MJ
Sample : ALI_L2_IAS_4196,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.16	93056671	96.288 ng
Spiked Amount	50.000		Recovery	= 192.58%
24) S	o-Terphenyl	10.21	113147262	91.902 ng
Spiked Amount	50.000		Recovery	= 183.80%
25) S	Naphthalene	3.20	101515095	92.290 ng
Spiked Amount	50.000		Recovery	= 184.58%
26) S	2-Methylnaphthalene	4.12	102977318	94.132 ng
Spiked Amount	50.000		Recovery	= 188.26%
Target Compounds				
2) T	n-Nonane (C9)	1.34	89163394	96.059 ng
3) T	n-Decane (C10)	1.84	92121788	95.336 ng
4) T	n-Dodecane (C12)	3.26	92306107	96.315 ng
5) T	n-Tetradecane (C14)	5.00	92965464	92.139 ng
6) T	n-Hexadecane (C16)	7.06	94882872	92.680 ng
7) T	n-Octadecane (C18)	9.22	98139677	94.285 ng
8) T	n-Eicosane (C20)	11.31	102392010	100.319 ng
9) T	n-Heneicosane (C21)	12.30	102263149	102.096 ng
10) T	n-Docosane (C22)	13.26	102983603	104.005 ng
11) T	n-Tetracosane (C24)	15.07	99457350	104.657 ng
12) T	n-Hexacosane (C26)	16.75	96284832	105.437 ng
13) T	n-Octacosane (C28)	18.32	91353260	105.341 ng
14) T	n-Triacontane (C30)	19.79	84602338	101.496 ng
15) T	n-Dotriacontane (C32)	21.04	76179956	95.720 ng
16) T	n-Tetratriacontane (C34)	21.79	72169384	90.632 ng
17) T	n-Hexatriacontane (C36)	22.61	69588290	89.693 ng
18) T	n-Octatriacontane (C38)	23.65	69830815	91.602 ng
19) T	n-Tetracontane (40)	25.02	70564464	93.056 ng
20) H	C9-C12	2.36	283835084	288.407 ng
21) H	C12-C16	5.40	192842871	181.101 ng
22) H	C16-C21	9.95	306275685	290.963 ng
23) H	C21-C40	18.95	891729022	973.761 ng

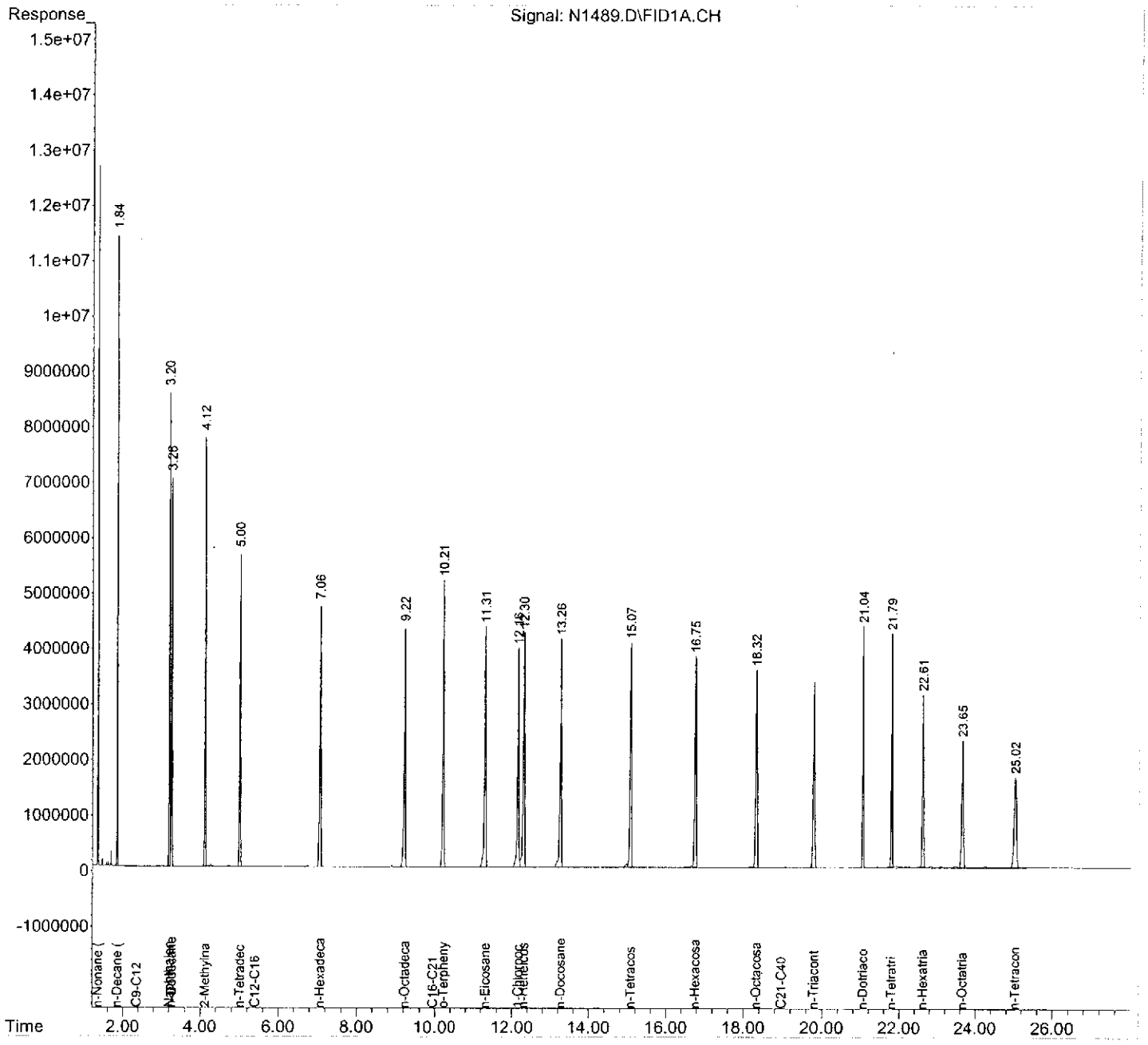
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1489.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:42
Operator : MJ
Sample : ALI_L2_IAS_4196,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Mon Jun 25 12:23:39 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1490.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 16:17
Operator : MJ
Sample : ALI_L1_IAS_4197,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:20:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.14	21999807	22.764 ng
Spiked Amount	50.000		Recovery =	45.53%
24) S	o-Terphenyl	10.20	27162177	22.062 ng
Spiked Amount	50.000		Recovery =	44.12%
25) S	Naphthalene	3.20	24329780	22.119 ng
Spiked Amount	50.000		Recovery =	44.24%
26) S	2-Methylnaphthalene	4.11	24631217	22.515 ng
Spiked Amount	50.000		Recovery =	45.03%
Target Compounds				
2) T	n-Nonane (C9)	1.34	21136105	22.771 ng
3) T	n-Decane (C10)	1.84	22493269	23.278 ng
4) T	n-Dodecane (C12)	3.25	22610510	23.592 ng
5) T	n-Tetradecane (C14)	4.99	22407559	22.208 ng
6) T	n-Hexadecane (C16)	7.05	22821989	22.292 ng
7) T	n-Octadecane (C18)	9.21	23534055	22.610 ng
8) T	n-Eicosane (C20)	11.29	24044291	23.558 ng
9) T	n-Heneicosane (C21)	12.28	24050973	24.012 ng
10) T	n-Docosane (C22)	13.24	23977417	24.215 ng
11) T	n-Tetracosane (C24)	15.05	23533303	24.764 ng
12) T	n-Hexacosane (C26)	16.74	23513693	25.749 ng
13) T	n-Octacosane (C28)	18.31	22896249	26.402 ng
14) T	n-Triacontane (C30)	19.78	22126135	26.544 ng
15) T	n-Dotriacontane (C32)	21.03	20459954	25.708 ng
16) T	n-Tetratriacontane (C34)	21.78	19537878	24.536 ng
17) T	n-Hexatriacontane (C36)	22.60	17856889	23.016 ng
18) T	n-Octatriacontane (C38)	23.63	16731027	21.947 ng
19) T	n-Tetracontane (40)	25.00	16301713	21.498 ng
20) H	C9-C12	2.36	83541734	84.887 ng
21) H	C12-C16	5.40	51933633	48.771 ng
22) H	C16-C21	9.95	73697151	70.013 ng
23) H	C21-C40	18.95	252627091	275.867 ng

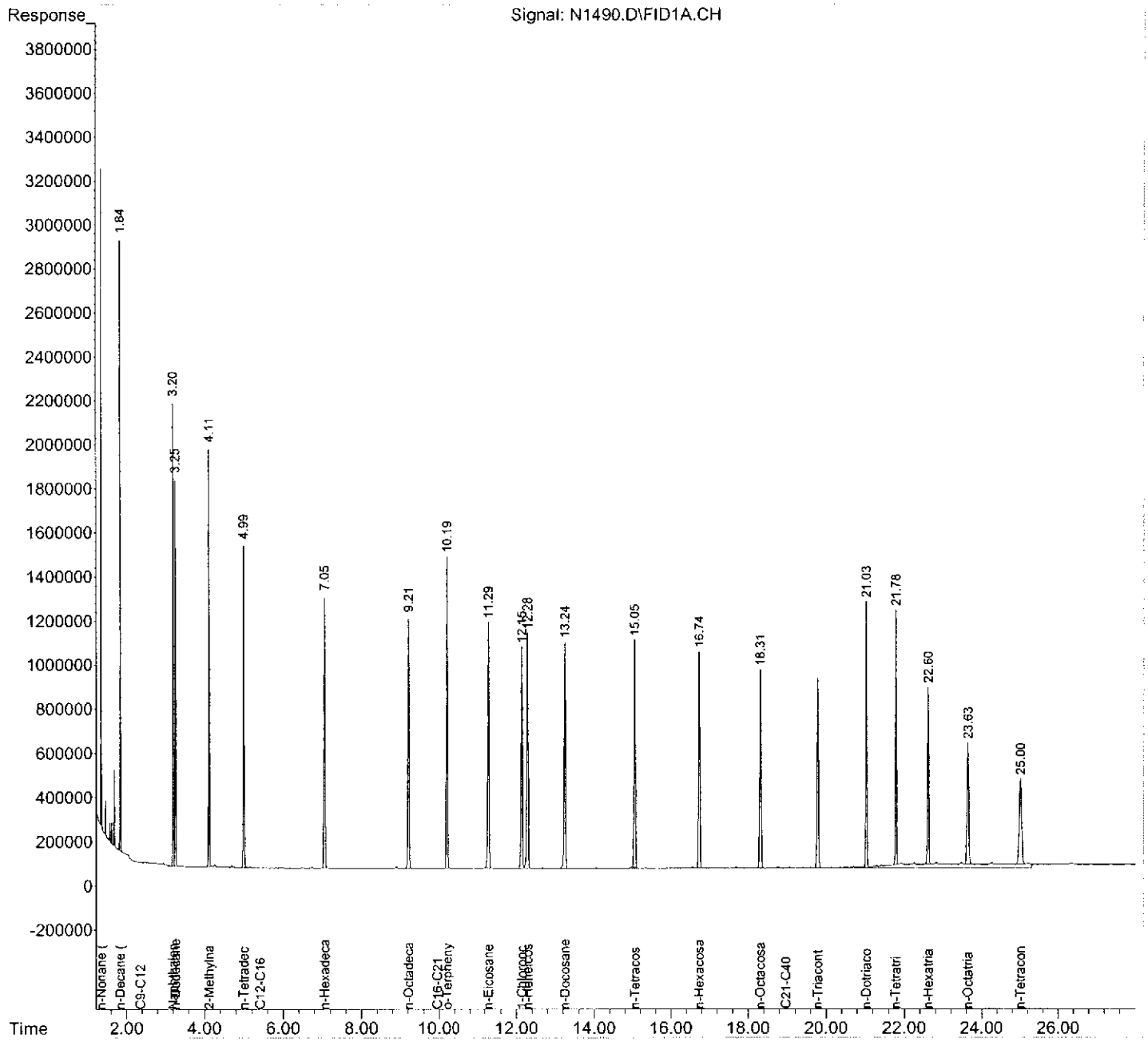
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1490.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 16:17
Operator : MJ
Sample : ALI_L1_IAS_4197,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:20:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: NB1129.D NB1128.D NB1127.D NB1126.D NB1125.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
1,2,3-Trimethylbenzene	2.03	2.03	2.03	2.04	2.04	2.04	1.92	2.16
Napthalene	3.14	3.14	3.14	3.15	3.16	3.14	3.02	3.26
2-Methylnaphthalene	3.98	3.99	3.99	4.00	4.02	4.00	3.88	4.12
Acenaphthylene	5.38	5.39	5.40	5.42	5.44	5.40	5.28	5.52
Acenaphthene	5.73	5.74	5.75	5.77	5.80	5.76	5.64	5.88
Fluorene	6.73	6.74	6.75	6.77	6.80	6.76	6.64	6.88
Phenanthrene	8.80	8.81	8.83	8.86	8.89	8.84	8.72	8.96
Anthracene	8.90	8.92	8.95	8.98	9.03	8.96	8.84	9.08
Fluoroanthene	11.66	11.68	11.70	11.74	11.77	11.71	11.59	11.83
Pyrene	12.16	12.19	12.21	12.25	12.29	12.22	12.10	12.34
Benzo[a]anthracene	15.24	15.27	15.29	15.34	15.38	15.30	15.18	15.42
Chrysene	15.33	15.37	15.41	15.46	15.53	15.42	15.30	15.54
Benzo[b]fluoranthene	17.86	17.93	17.97	18.02	18.10	17.98	17.86	18.10
Benzo[k]fluoranthene	17.86	17.93	17.97	18.02	18.10	17.98	17.86	18.10
Benzo[a]pyrene	18.48	18.52	18.55	18.61	18.68	18.57	18.45	18.69
Indeno[1,2,3-cd]pyrene	20.72	20.84	20.87	20.92	20.99	20.87	20.75	20.99
Dibenz[a,h]anthracene	20.72	20.84	20.87	20.92	20.99	20.87	20.75	20.99
Benzo[g,h,i]perylene	21.05	21.09	21.13	21.18	21.25	21.14	21.02	21.26
C10-C12	2.70	2.70	2.70	2.70	2.70	2.70	2.58	2.82
C12-C16	4.95	4.95	4.95	4.95	4.95	4.95	4.83	5.07
C16-C21	9.60	9.60	9.60	9.60	9.60	9.60	9.48	9.72
C21-C36	17.20	17.20	17.20	17.20	17.20	17.20	17.08	17.32

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: NB1129.D NB1128.D NB1127.D NB1126.D NB1125.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
1,2,3-Trimethylbenzene	580224	705113	597648	572374	557451	602562	9.81
Napthalene	611787	760658	662737	633446	607027	655131	9.61
2-Methylnaphthalene	640827	773063	690177	661863	625313	678249	8.60
Acenaphthylene	662203	797722	711519	691098	636899	699888	8.80
Acenaphthene	700870	818468	727270	707021	649483	720622	8.57
Fluorene	688910	828035	744285	731261	659798	730458	8.77
Phenanthrene	688338	859473	767476	771510	681455	753650	9.66
Anthracene	732289	859253	773610	768509	677053	762143	8.74
Fluoroanthene	766763	932468	814938	818305	704258	807346	10.38
Pyrene	793710	951679	836120	839704	722692	828781	10.05
Benzo[a]anthracene	797379	980452	812346	828112	739839	831625	10.78
Chrysene	852327	990789	811367	808283	712089	834971	12.12
Benzo[b]fluoranthene	1742568	2020232	1595569	1614831	1449764	1684593	12.73
Benzo[k]fluoranthene	1742568	2020666	1595768	1614831	1449764	1684720	12.74
Benzo[a]pyrene	862974	989857	783386	794905	717779	829780	12.44
Indeno[1,2,3-cd]pyrene	1690742	1930812	1514654	1545561	1424426	1621239	12.20
Dibenz[a,h]anthracene	1688559	1933848	1514654	1545561	1424426	1621409	12.26
Benzo[g,h,i]perylene	839672	955710	760725	778940	717520	810513	11.38
C10-C12	1269321	1490949	1270978	1209795	1172426	1282694	9.64
C12-C16	2065469	2416993	2143437	2071842	1921724	2123893	8.59
C16-C21	3789640	4496883	3978432	3965670	3464500	3939025	9.51
C21-C36	8643688	8301317	6483514	6495559	5815001	7147816	17.43

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1125.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 11:47
Operator : MJ
Sample : ARO_L5_IAS_4187,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.62	701398746	977.367 ng	
Spiked Amount	50.000		Recovery	= 1954.73%	
2) S	2-Bromonaphthalene	5.68	488635076	976.801 ng	
Spiked Amount	50.000		Recovery	= 1953.60%	
3) S	o-Terphenyl	10.07	848437453	917.042 ng	
Spiked Amount	50.000		Recovery	= 1834.08%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.04	557450854	925.135 ng	
5) T	Napthalene	3.16	607027159	926.574 ng	
6) T	2-Methylnaphthalene	4.02	625313278	921.953 ng	
7) T	Acenaphthylene	5.44	636899066	910.001 ng	
8) T	Acenaphthene	5.80	649483454	900.907 ng	
9) T	Fluorene	6.80	659798167	903.267 ng	
10) T	Phenanthrene	8.89	681454798	904.206 ng	
11) T	Anthracene	9.03	677052615	887.329 ng	m
12) T	Fluoroanthene	11.77	704258402	872.313 ng	
13) T	Pyrene	12.29	722692269	871.994 ng	
14) T	Benzo[a]anthracene	15.38	739838628	890.735 ng	
15) T	Chrysene	15.53	712089022	852.425 ng	m
16) T	Benzo[b]fluoranthene	18.10	1449764235	860.510 ng	
17) T	Benzo[k]fluoranthene	18.10	1449764235	860.511 ng	
18) T	Benzo[a]pyrene	18.68	717779399	865.024 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.99	1424425631	879.350 ng	
20) T	Dibenz[a,h]anthracene	20.99	1424425631	878.495 ng	
21) T	Benzo[g,h,i]perylene	21.25	717520360	884.327 ng	
22) H	C10-C12	2.70	1172426414	1828.069 ng	
23) H	C12-C16	4.95	1921723592	2714.436 ng	
24) H	C16-C21	9.60	3464499978	4397.662 ng	
25) H	C21-C36	17.20	5815001353	6508.283 ng	

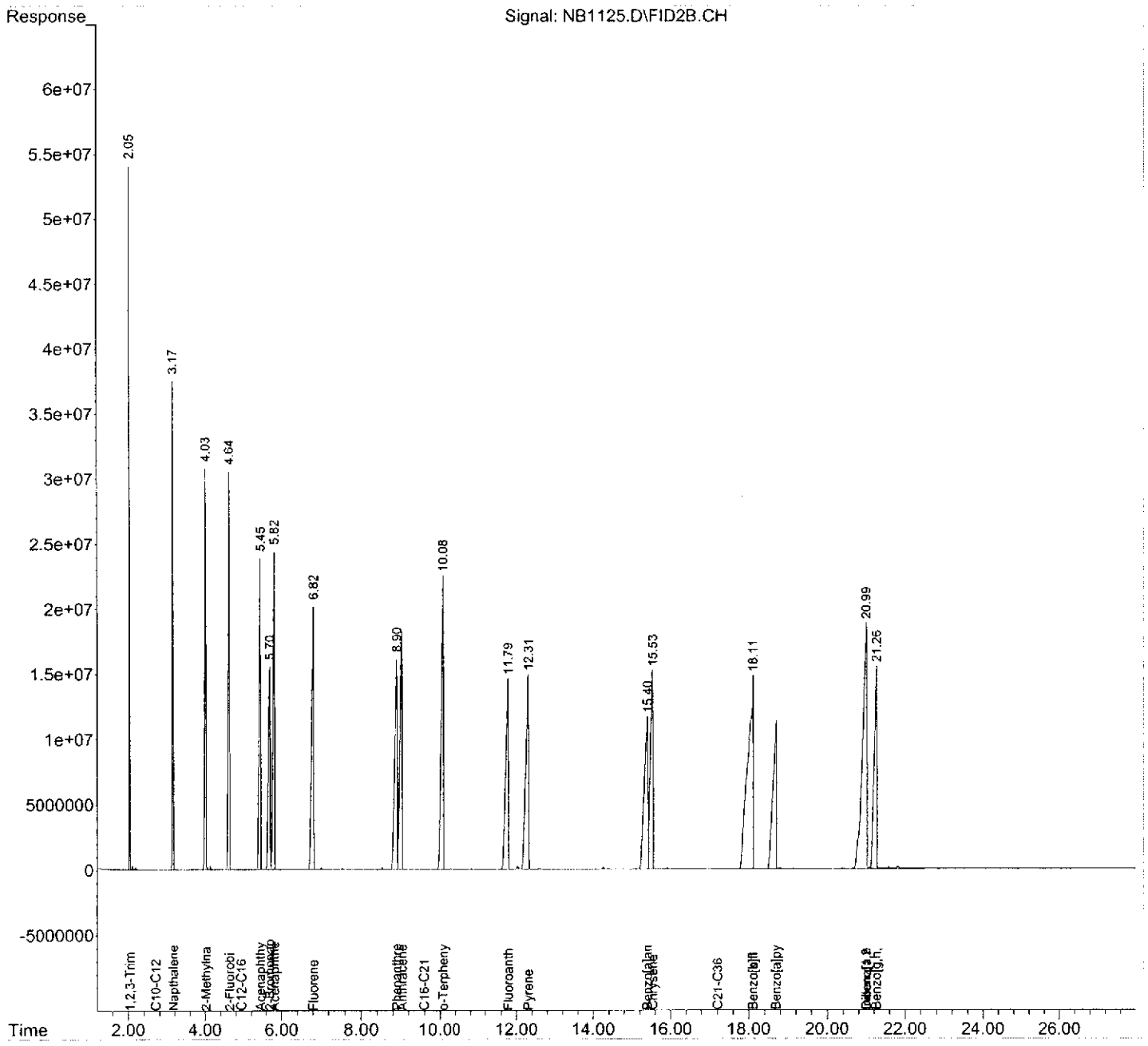
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1125.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 11:47
Operator : MJ
Sample : ARO_L5_IAS_4187,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1126.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:21
Operator : MJ
Sample : ARO_L4_IAS_4188,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	2-Fluorobiphenyl	4.61	373384494	520.294 ng
Spiked Amount	50.000		Recovery	= 1040.59%
2) S	2-Bromonaphthalene	5.66	265893453	531.532 ng
Spiked Amount	50.000		Recovery	= 1063.06%
3) S	o-Terphenyl	10.04	482663145	521.691 ng
Spiked Amount	50.000		Recovery	= 1043.38%
Target Compounds				
4) T	1,2,3-Trimethylbenzene	2.04	286186898	474.950 ng
5) T	Napthalene	3.15	316722774	483.449 ng
6) T	2-Methylnaphthalene	4.00	330931573	487.921 ng
7) T	Acenaphthylene	5.42	345549061	493.720 ng
8) T	Acenaphthene	5.77	353510516	490.359 ng
9) T	Fluorene	6.77	365630258	500.550 ng
10) T	Phenanthrene	8.86	385754870	511.849 ng
11) T	Anthracene	8.98	384254252	503.594 ng
12) T	Fluoroanthene	11.74	409152490	506.787 ng
13) T	Pyrene	12.25	419851818	506.590 ng
14) T	Benzo[a]anthracene	15.34	414056020	498.506 ng
15) T	Chrysene	15.46	404141395	483.788 ng
16) T	Benzo[b]fluoranthene	18.02	807415654	479.243 ng
17) T	Benzo[k]fluoranthene	18.02	807415654	479.243 ng
18) T	Benzo[a]pyrene	18.61	397452636	478.985 ng
19) T	Indeno[1,2,3-cd]pyrene	20.92	772780261	477.066 ng
20) T	Dibenz[a,h]anthracene	20.92	772780261	476.602 ng
21) T	Benzo[g,h,i]perylene	21.18	389470210	480.013 ng
22) H	C10-C12	2.70	604897451	943.167 ng
23) H	C12-C16	4.95	1035920831	1463.239 ng
24) H	C16-C21	9.60	1982834764	2516.911 ng
25) H	C21-C36	17.20	3247779561	3634.990 ng

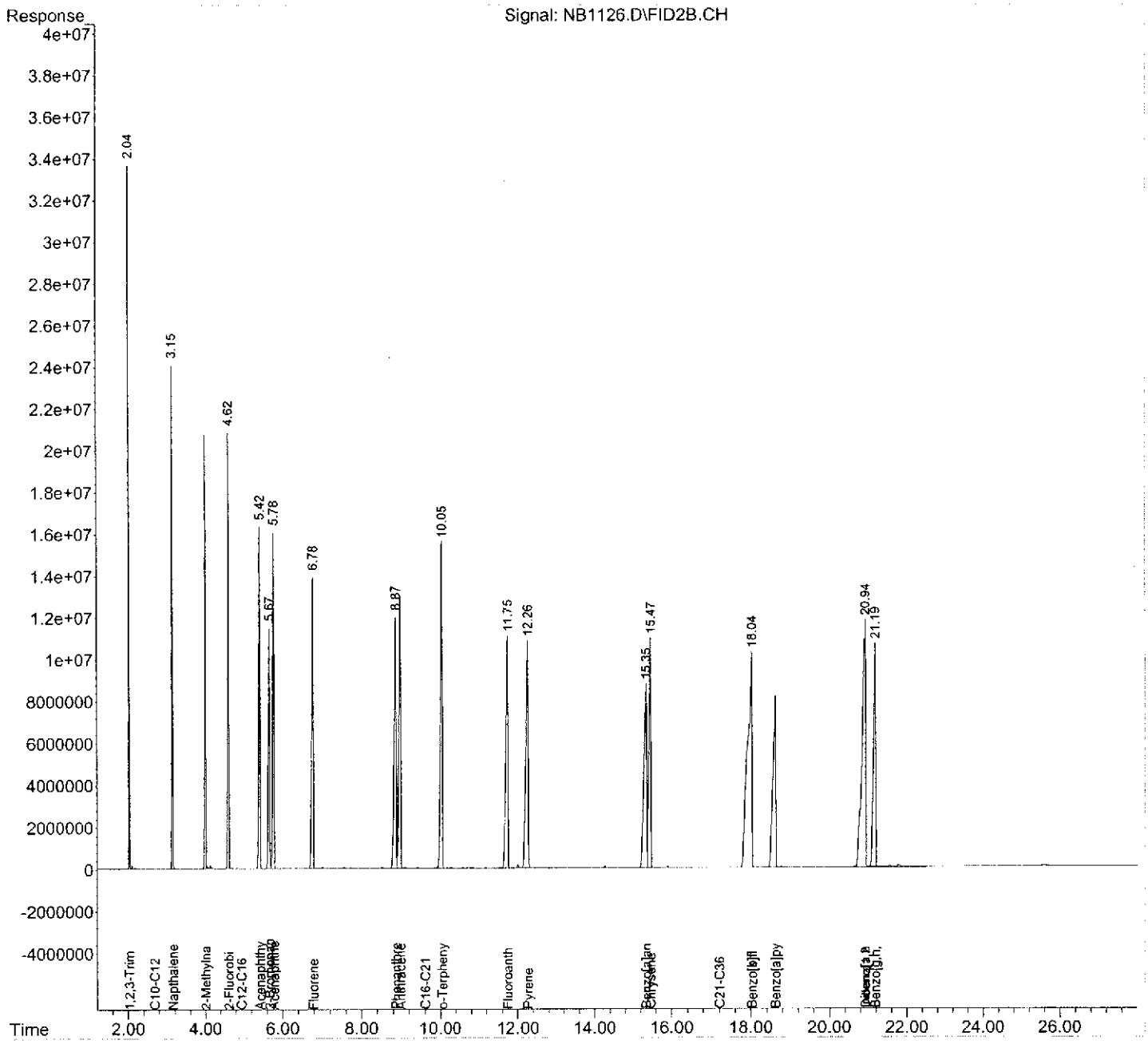
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1126.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:21
Operator : MJ
Sample : ARO_L4_IAS_4188,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1127.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:55
Operator : MJ
Sample : ARO_L3_IAS_4189,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:42:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	2-Fluorobiphenyl	4.60	194830709	271.488	ng	
Spiked Amount		50.000		Recovery	= 542.98%		
2)	S	2-Bromonaphthalene	5.64	136763207	273.395	ng	
Spiked Amount		50.000		Recovery	= 546.79%		
3)	S	o-Terphenyl	10.01	243366307	263.045	ng	
Spiked Amount		50.000		Recovery	= 526.09%		
Target Compounds							
4)	T	1,2,3-Trimethylbenzene	2.03	149411986	247.961	ng	
5)	T	Napthalene	3.14	165684219	252.902	ng	
6)	T	2-Methylnaphthalene	3.99	172544241	254.397	ng	
7)	T	Acenaphthylene	5.40	177879861	254.155	ng	
8)	T	Acenaphthene	5.75	181817513	252.201	ng	
9)	T	Fluorene	6.75	186071177	254.732	ng	
10)	T	Phenanthrene	8.83	191869066	254.586	ng	
11)	T	Anthracene	8.95	193402590	253.469	ng	
12)	T	Fluoroanthene	11.70	203734434	252.351	ng	
13)	T	Pyrene	12.21	209030082	252.214	ng	
14)	T	Benzo[a]anthracene	15.29	203086538	244.508	ng	
15)	T	Chrysene	15.41	202841674	242.817	ng	
16)	T	Benzo[b]fluoranthene	17.97	398892195	236.763	ng	m
17)	T	Benzo[k]fluoranthene	17.97	398941912	236.793	ng	m
18)	T	Benzo[a]pyrene	18.55	195846385	236.022	ng	
19)	T	Indeno[1,2,3-cd]pyrene	20.87	378663417	233.763	ng	
20)	T	Dibenz[a,h]anthracene	20.87	378663417	233.536	ng	
21)	T	Benzo[g,h,i]perylene	21.13	190181177	234.394	ng	
22)	H	C10-C12	2.70	317744378	495.433	ng	
23)	H	C12-C16	4.95	535859326	756.902	ng	
24)	H	C16-C21	9.60	994607917	1262.505	ng	
25)	H	C21-C36	17.20	1620878598	1814.125	ng	

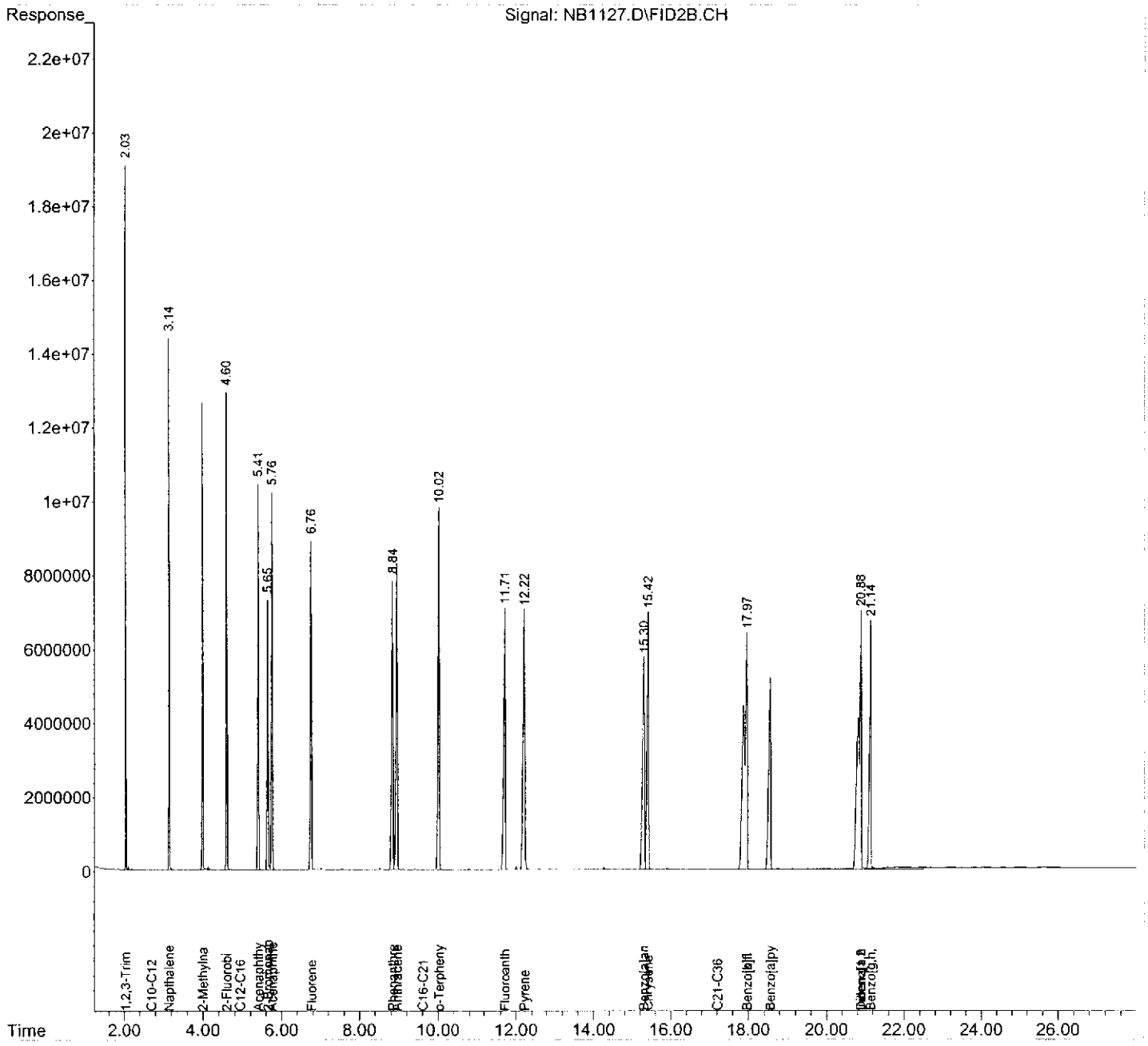
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1127.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:55
Operator : MJ
Sample : ARO_L3_IAS_4189,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:42:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Tue Jun 26 14:45:51 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1128.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 13:29
Operator : MJ
Sample : ARO_L2_IAS_4190,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	2-Fluorobiphenyl	4.59	64132072	89.365	ng	
Spiked Amount		50.000		Recovery	= 178.73%		
2)	S	2-Bromonaphthalene	5.62	44573835	89.105	ng	
Spiked Amount		50.000		Recovery	= 178.21%		
3)	S	o-Terphenyl	9.99	92621995	100.111	ng	
Spiked Amount		50.000		Recovery	= 200.22%		
Target Compounds							
4)	T	1,2,3-Trimethylbenzene	2.03	70511283	117.019	ng	
5)	T	Napthalene	3.14	76065845	116.108	ng	
6)	T	2-Methylnaphthalene	3.99	77306294	113.979	ng	
7)	T	Acenaphthylene	5.39	79772197	113.978	ng	
8)	T	Acenaphthene	5.74	81846752	113.531	ng	
9)	T	Fluorene	6.74	82803478	113.358	ng	
10)	T	Phenanthrene	8.81	85947257	114.041	ng	
11)	T	Anthracene	8.92	85925335	112.612	ng	
12)	T	Fluoroanthene	11.68	93246803	115.498	ng	
13)	T	Pyrene	12.19	95167853	114.829	ng	
14)	T	Benzo[a]anthracene	15.27	98045169	118.042	ng	
15)	T	Chrysene	15.37	99078853	118.605	ng	
16)	T	Benzo[b]fluoranthene	17.93	202023215	119.911	ng	m
17)	T	Benzo[k]fluoranthene	17.93	202066642	119.937	ng	m
18)	T	Benzo[a]pyrene	18.52	98985712	119.291	ng	
19)	T	Indeno[1,2,3-cd]pyrene	20.84	193081204	119.196	ng	m
20)	T	Dibenz[a,h]anthracene	20.84	193384839	119.268	ng	m
21)	T	Benzo[g,h,i]perylene	21.09	95571046	117.789	ng	
22)	H	C10-C12	2.70	149094880	232.472	ng	
23)	H	C12-C16	4.95	241699343	341.400	ng	
24)	H	C16-C21	9.60	449688328	570.812	ng	
25)	H	C21-C36	17.20	830131702	929.102	ng	

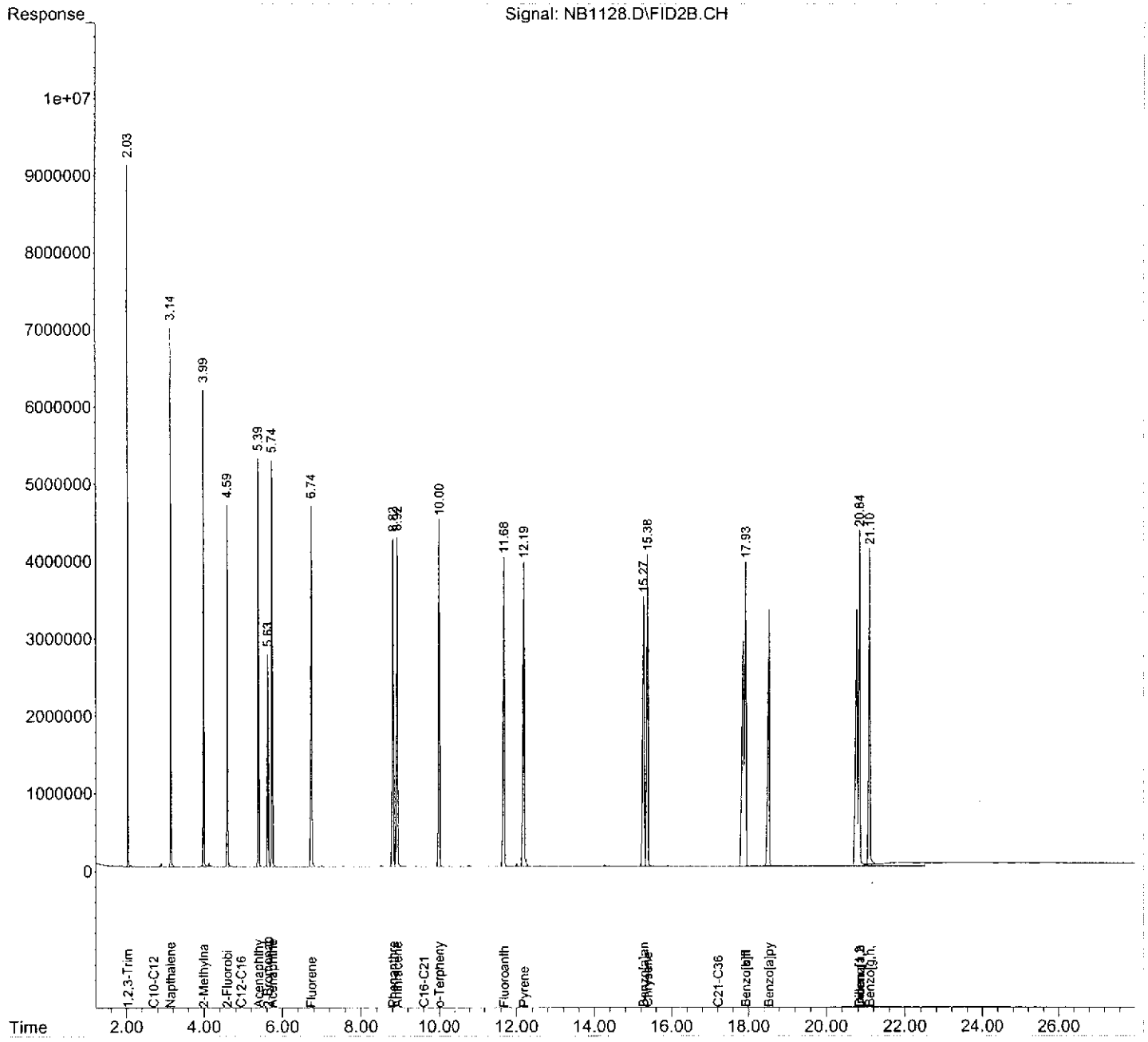
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1128.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 13:29
Operator : MJ
Sample : ARO_L2_IAS_4190,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1129.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 14:02
Operator : MJ
Sample : ARO_L1_IAS_4191,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:44:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.58	14387894	20.049 ng	
Spiked Amount	50.000		Recovery =	40.10%	
2) S	2-Bromonaphthalene	5.62	9759727	19.510 ng	
Spiked Amount	50.000		Recovery =	39.02%	
3) S	o-Terphenyl	9.98	18249947	19.726 ng	
Spiked Amount	50.000		Recovery =	39.45%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	11604486	19.259 ng	
5) T	Napthalene	3.14	12235744	18.677 ng	
6) T	2-Methylnaphthalene	3.98	12816538	18.897 ng	
7) T	Acenaphthylene	5.38	13244051	18.923 ng	
8) T	Acenaphthene	5.73	14017409	19.444 ng	
9) T	Fluorene	6.73	13778210	18.862 ng	
10) T	Phenanthrene	8.80	13766761	18.267 ng	
11) T	Anthracene	8.90	14645781	19.194 ng	
12) T	Fluoroanthene	11.66	15335262	18.995 ng	
13) T	Pyrene	12.16	15874192	19.154 ng	
14) T	Benzo[a]anthracene	15.24	15947577	19.200 ng	m
15) T	Chrysene	15.33	17046540	20.406 ng	
16) T	Benzo[b]fluoranthene	17.86	34851367	20.686 ng	
17) T	Benzo[k]fluoranthene	17.86	34851367	20.686 ng	
18) T	Benzo[a]pyrene	18.48	17259475	20.800 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.72	33814840	20.875 ng	m
20) T	Dibenz[a,h]anthracene	20.72	33771184	20.828 ng	m
21) T	Benzo[g,h,i]perylene	21.05	16793431	20.698 ng	
22) H	C10-C12	2.70	25386428	39.583 ng	
23) H	C12-C16	4.95	41309388	58.350 ng	
24) H	C16-C21	9.60	75792800	96.208 ng	
25) H	C21-C36	17.20	172873759	193.484 ng	

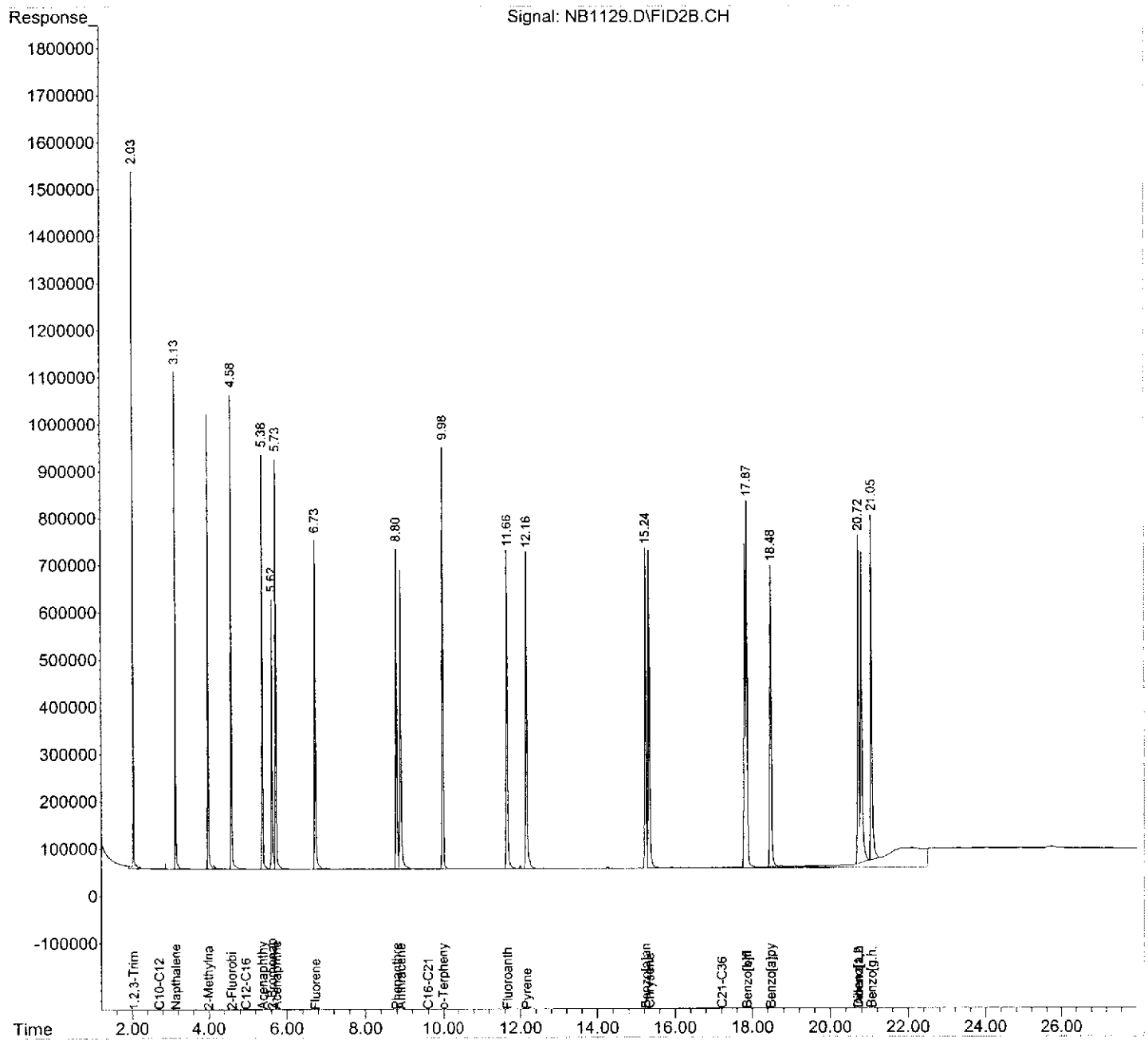
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1129.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 14:02
Operator : MJ
Sample : ARO_L1_IAS_4191,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:44:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 **Instrument ID:** GC-N

Data File: N1709.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.34	1.28	1.42	928218	722485	22.16
n-Decane (C10)	1.85	1.78	1.92	966280	741707	23.24
n-Dodecane (C12)	3.27	3.20	3.34	966897	763892	21.00
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	778989	22.79
n-Hexadecane (C16)	7.08	7.00	7.16	1023767	771750	24.62
n-Octadecane (C18)	9.24	9.17	9.33	1040886	758346	27.14
n-Eicosane (C20)	11.33	11.25	11.41	1020661	735964	27.89
n-Heneicosane (C21)	12.32	12.25	12.41	1001637	713346	28.78
n-Docosane (C22)	13.28	13.20	13.38	990182	696635	29.65
n-Tetracosane (C24)	15.09	15.01	15.19	950314	667672	29.74
n-Hexacosane (C26)	16.77	16.69	16.87	913199	642140	29.68
n_Octacosane (C28)	18.34	18.26	18.44	867213	635079	26.77
n-Triacontane (C30)	19.81	19.72	19.92	833552	642876	22.88
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	648515	18.51
n-Tetratriacontane (C34)	21.82	21.71	21.91	796293	677173	14.96
n-Hexatriacontane (C36)	22.65	22.49	22.79	775851	679259	12.45
n-Octatriacontane (C38)	23.69	23.54	23.84	762326	674045	11.58
n-Tetracontane (40)	25.08	24.93	25.23	758303	673054	11.24
C9-C12	2.36	2.26	2.46	3060279	2323822	24.07
C12-C16	5.40	5.30	5.50	2129672	1622030	23.84
C16-C21	9.95	9.84	10.06	3157878	2449187	22.44
C21-C40	18.95	18.84	19.06	9157580	6885743	24.81

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: N1727.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.35	1.28	1.42	928218	738596	20.43
n-Decane (C10)	1.85	1.78	1.92	966280	759987	21.35
n-Dodecane (C12)	3.28	3.20	3.34	966897	778329	19.50
n-Tetradecane (C14)	5.03	4.95	5.09	1008968	786988	22.00
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	779113	23.90
n-Octadecane (C18)	9.25	9.17	9.33	1040886	772580	25.78
n-Eicosane (C20)	11.34	11.25	11.41	1020661	761297	25.41
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	743657	25.76
n-Docosane (C22)	13.29	13.20	13.38	990182	736351	25.63
n-Tetracosane (C24)	15.10	15.01	15.19	950314	720836	24.15
n-Hexacosane (C26)	16.78	16.69	16.87	913199	707519	22.52
n_Octacosane (C28)	18.35	18.26	18.44	867213	700242	19.25
n-Triacontane (C30)	19.82	19.72	19.92	833552	701459	15.85
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	696258	12.52
n-Tetratriacontane (C34)	21.82	21.71	21.91	796293	727072	8.69
n-Hexatriacontane (C36)	22.65	22.49	22.79	775851	713191	8.08
n-Octatriacontane (C38)	23.69	23.54	23.84	762326	681468	10.61
n-Tetracontane (40)	25.08	24.93	25.23	758303	643488	15.14
C9-C12	2.36	2.26	2.46	3060279	2303607	24.73
C12-C16	5.40	5.30	5.50	2129672	1597390	24.99
C16-C21	9.95	9.84	10.06	3157878	2407818	23.75
C21-C40	18.95	18.84	19.06	9157580	8713298	4.85

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1709.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 10:15
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:28:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 1-Chlorooctadecane	12.18	170513424	176.434 ng	
Spiked Amount 50.000		Recovery	= 352.87%	
24) S o-Terphenyl	10.24	247880044	201.336 ng	
Spiked Amount 50.000		Recovery	= 402.67%	
25) S Naphthalene	3.21	205619764	186.935 ng	
Spiked Amount 50.000		Recovery	= 373.87%	
26) S 2-Methylnaphthalene	4.14	210216434	192.160 ng	
Spiked Amount 50.000		Recovery	= 384.32%	
Target Compounds				
2) T n-Nonane (C9)	1.34	180621169	194.589 ng	
3) T n-Decane (C10)	1.85	185426650	191.897 ng	
4) T n-Dodecane (C12)	3.27	190973103	197.511 ng	
5) T n-Tetradecane (C14)	5.02	194747203	193.016 ng	
6) T n-Hexadecane (C16)	7.08	192937540	188.458 ng	
7) T n-Octadecane (C18)	9.24	189586380	182.139 ng	
8) T n-Eicosane (C20)	11.33	183990977	180.267 ng	
9) T n-Heneicosane (C21)	12.32	178336581	178.045 ng	
10) T n-Docosane (C22)	13.28	174158770	175.886 ng	
11) T n-Tetracosane (C24)	15.09	166917930	175.645 ng	m
12) T n-Hexacosane (C26)	16.77	160535003	175.794 ng	
13) T n-Octacosane (C28)	18.34	158769764	183.080 ng	
14) T n-Triacontane (C30)	19.81	160719033	192.812 ng	
15) T n-Dotriacontane (C32)	21.06	162128677	203.714 ng	
16) T n-Tetratriacontane (C34)	21.82	169293310	212.602 ng	
17) T n-Hexatriacontane (C36)	22.65	169814639	218.875 ng	
18) T n-Octatriacontane (C38)	23.69	168511354	221.049 ng	
19) T n-Tetracontane (40)	25.08	168263418	221.895 ng	
20) H C9-C12	2.36	580955616	569.512 ng	
21) H C12-C16	5.40	405507519	380.817 ng	
22) H C16-C21	9.95	612296681	581.685 ng	
23) H C21-C40	18.95	1721435738	1879.793 ng	

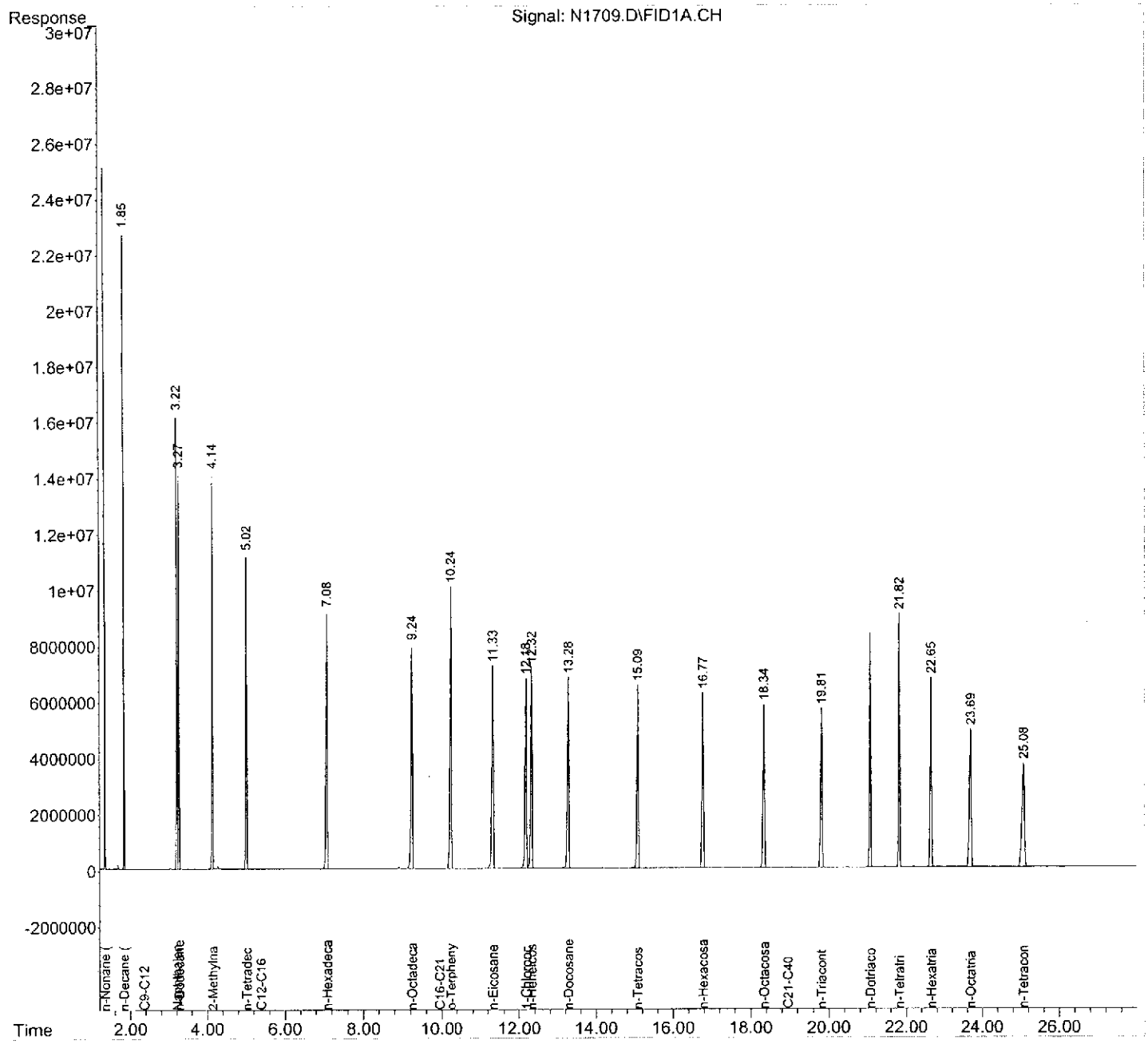
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1709.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 10:15
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:28:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1727.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 8:14
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 45 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:44:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	177182423	183.335 ng
Spiked Amount 50.000		Recovery	= 366.67%
24) S o-Terphenyl	10.25	249362432	202.540 ng
Spiked Amount 50.000		Recovery	= 405.08%
25) S Naphthalene	3.22	209566305	190.523 ng
Spiked Amount 50.000		Recovery	= 381.05%
26) S 2-Methylnaphthalene	4.14	213142699	194.834 ng
Spiked Amount 50.000		Recovery	= 389.67%
Target Compounds			
2) T n-Nonane (C9)	1.35	184648989	198.928 ng
3) T n-Decane (C10)	1.85	189996798	196.627 ng
4) T n-Dodecane (C12)	3.28	194582135	201.244 ng
5) T n-Tetradecane (C14)	5.03	196747125	194.998 ng
6) T n-Hexadecane (C16)	7.09	194778373	190.256 ng
7) T n-Octadecane (C18)	9.25	193145078	185.558 ng
8) T n-Eicosane (C20)	11.34	190324263	186.472 ng
9) T n-Heneicosane (C21)	12.33	185914339	185.610 ng
10) T n-Docosane (C22)	13.29	184087819	185.913 ng
11) T n-Tetracosane (C24)	15.10	180209095	189.631 ng
12) T n-Hexacosane (C26)	16.78	176879843	193.693 ng
13) T n-Octacosane (C28)	18.35	175060414	201.866 ng
14) T n-Triacontane (C30)	19.82	175364824	210.383 ng
15) T n-Dotriacontane (C32)	21.06	174064556	218.711 ng
16) T n-Tetratriacontane (C34)	21.82	181768115	228.268 ng
17) T n-Hexatriacontane (C36)	22.65	178297790	229.809 ng
18) T n-Octatriacontane (C38)	23.69	170367019	223.483 ng
19) T n-Tetracontane (40)	25.08	160872101	212.148 ng
20) H C9-C12	2.36	575901802	564.558 ng
21) H C12-C16	5.40	399347602	375.032 ng
22) H C16-C21	9.95	601954446	571.860 ng
23) H C21-C40	18.95	2178324431	2378.712 ng

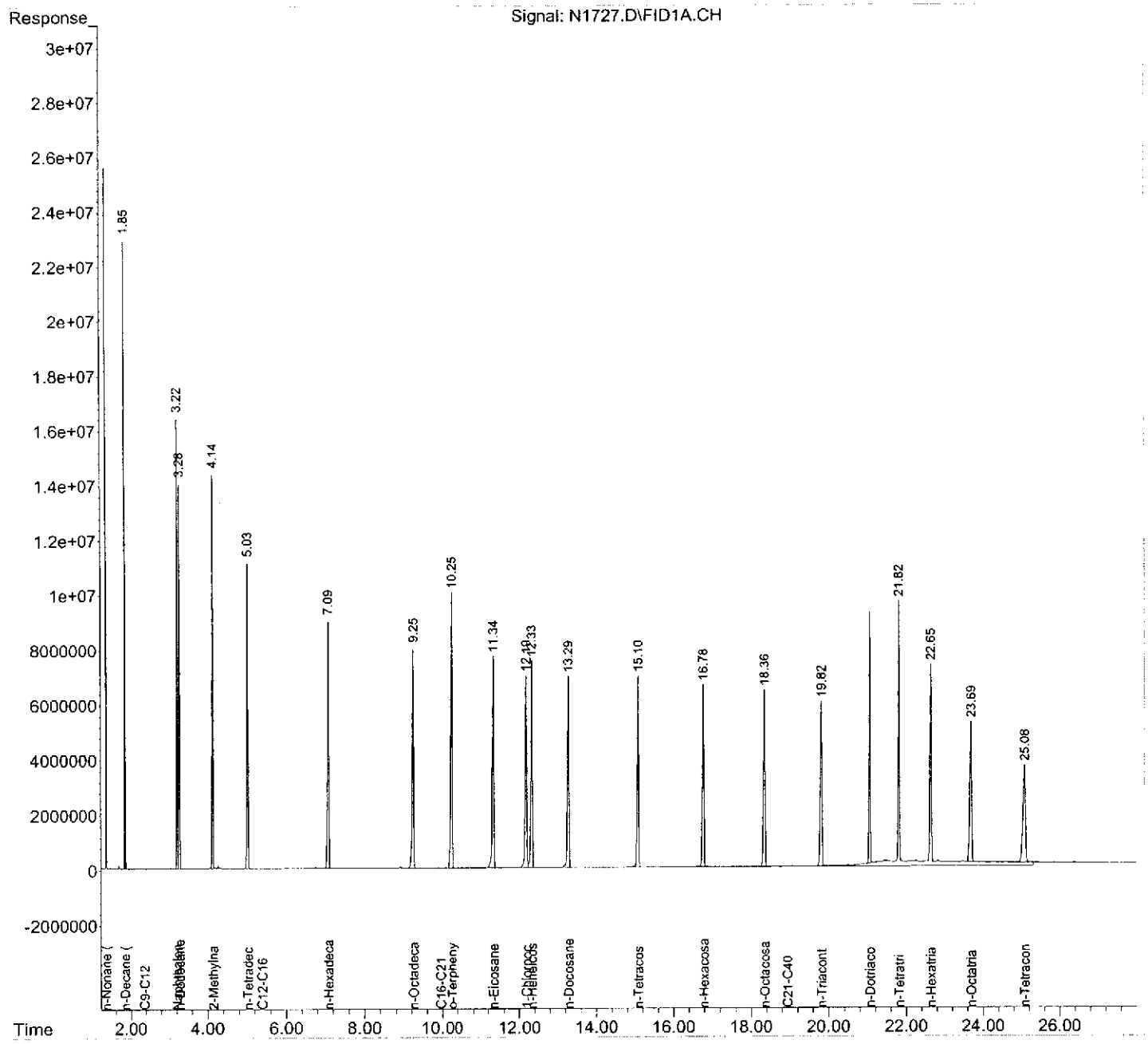
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1727.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 8:14
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 45 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:44:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 **Instrument ID:** GC-N

Data File: NB1341.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	483789	19.71
Napthalene	3.13	3.02	3.26	655131	538171	17.85
2-Methylnaphthalene	3.98	3.88	4.12	678249	561280	17.25
Acenaphthylene	5.38	5.28	5.52	699888	584964	16.42
Acenaphthene	5.73	5.64	5.88	720622	599687	16.78
Fluorene	6.73	6.64	6.88	730458	618085	15.38
Phenanthrene	8.81	8.72	8.96	753650	652857	13.37
Anthracene	8.92	8.84	9.08	762143	660027	13.40
Fluoroanthene	11.68	11.59	11.83	807346	737214	8.69
Pyrene	12.19	12.10	12.34	828781	765469	7.64
Benzo[a]anthracene	15.28	15.18	15.42	831625	807667	2.88
Chrysene	15.39	15.30	15.54	834971	811775	2.78
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1665630	1.13
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1664933	1.17
Benzo[a]pyrene	18.54	18.45	18.69	829780	813626	1.95
Indeno[1,2,3-cd]pyrene	20.86	20.75	20.99	1621239	1460140	9.94
Dibenz[a,h]anthracene	20.86	20.75	20.99	1621409	1460140	9.95
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	709531	12.46
C10-C12	2.70	2.58	2.82	1282694	1026880	19.94
C12-C16	4.95	4.83	5.07	2123893	1758063	17.22
C16-C21	9.60	9.48	9.72	3939025	3476068	11.75
C21-C36	17.20	17.08	17.32	7147816	6462592	9.59

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: NB1357.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.02	1.92	2.16	602562	503174	16.49
Napthalene	3.12	3.02	3.26	655131	576402	12.02
2-Methylnaphthalene	3.97	3.88	4.12	678249	612500	9.69
Acenaphthylene	5.37	5.28	5.52	699888	654725	6.45
Acenaphthene	5.73	5.64	5.88	720622	673384	6.56
Fluorene	6.73	6.64	6.88	730458	703852	3.64
Phenanthrene	8.80	8.72	8.96	753650	748871	0.63
Anthracene	8.92	8.84	9.08	762143	755473	0.88
Fluoroanthene	11.68	11.59	11.83	807346	807097	0.03
Pyrene	12.19	12.10	12.34	828781	825181	0.43
Benzo[a]anthracene	15.27	15.18	15.42	831625	774511	6.87
Chrysene	15.38	15.30	15.54	834971	772448	7.49
Benzo[b]fluoranthene	17.93	17.86	18.10	1684593	1438525	14.61
Benzo[k]fluoranthene	17.93	17.86	18.10	1684720	1438525	14.61
Benzo[a]pyrene	18.53	18.45	18.69	829780	701031	15.52
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1357527	16.27
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1357527	16.27
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	689811	14.89
C10-C12	2.70	2.58	2.82	1282694	1083481	15.53
C12-C16	4.95	4.83	5.07	2123893	1956125	7.90
C16-C21	9.60	9.48	9.72	3939025	3915014	0.61
C21-C36	17.20	17.08	17.32	7147816	5983978	16.28

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: NB1359.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	572769	4.94
Napthalene	3.13	3.02	3.26	655131	647519	1.16
2-Methylnaphthalene	3.98	3.88	4.12	678249	683766	0.81
Acenaphthylene	5.39	5.28	5.52	699888	720706	2.97
Acenaphthene	5.74	5.64	5.88	720622	739883	2.67
Fluorene	6.74	6.64	6.88	730458	763739	4.56
Phenanthrene	8.81	8.72	8.96	753650	790181	4.85
Anthracene	8.93	8.84	9.08	762143	795683	4.40
Fluoroanthene	11.68	11.59	11.83	807346	824184	2.09
Pyrene	12.19	12.10	12.34	828781	840824	1.45
Benzo[a]anthracene	15.27	15.18	15.42	831625	793297	4.61
Chrysene	15.38	15.30	15.54	834971	786884	5.76
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1552077	7.87
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1552640	7.84
Benzo[a]pyrene	18.53	18.45	18.69	829780	765175	7.79
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1497391	7.64
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1497391	7.65
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	759257	6.32
C10-C12	2.70	2.58	2.82	1282694	1224114	4.57
C12-C16	4.95	4.83	5.07	2123893	2158054	1.61
C16-C21	9.60	9.48	9.72	3939025	4061111	3.10
C21-C36	17.20	17.08	17.32	7147816	6361156	11.01

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: NB1363.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	565737	6.11
Napthalene	3.13	3.02	3.26	655131	641883	2.02
2-Methylnaphthalene	3.98	3.88	4.12	678249	680111	0.27
Acenaphthylene	5.39	5.28	5.52	699888	717702	2.55
Acenaphthene	5.74	5.64	5.88	720622	737521	2.35
Fluorene	6.74	6.64	6.88	730458	762332	4.36
Phenanthrene	8.81	8.72	8.96	753650	794641	5.44
Anthracene	8.93	8.84	9.08	762143	800704	5.06
Fluoroanthene	11.68	11.59	11.83	807346	841515	4.23
Pyrene	12.19	12.10	12.34	828781	860269	3.80
Benzo[a]anthracene	15.27	15.18	15.42	831625	818743	1.55
Chrysene	15.38	15.30	15.54	834971	811190	2.85
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1599459	5.05
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1600576	4.99
Benzo[a]pyrene	18.53	18.45	18.69	829780	786687	5.19
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1530744	5.58
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1530744	5.59
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	778081	4.00
C10-C12	2.70	2.58	2.82	1282694	1213349	5.41
C12-C16	4.95	4.83	5.07	2123893	2148945	1.18
C16-C21	9.60	9.48	9.72	3939025	4106236	4.24
C21-C36	17.20	17.08	17.32	7147816	6519640	8.79

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1341.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 10:15
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 77 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:53:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.58	158829735	221.322	ng	
Spiked Amount	50.000		Recovery	= 442.64%		
2) S	2-Bromonaphthalene	5.62	112171141	224.235	ng	
Spiked Amount	50.000		Recovery	= 448.47%		
3) S	o-Terphenyl	9.99	206407437	223.098	ng	
Spiked Amount	50.000		Recovery	= 446.20%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	120947261	200.722	ng	
5) T	Napthalene	3.13	134542721	205.368	ng	
6) T	2-Methylnaphthalene	3.98	140320035	206.886	ng	
7) T	Acenaphthylene	5.38	146241123	208.949	ng	
8) T	Acenaphthene	5.73	149921690	207.958	ng	
9) T	Fluorene	6.73	154521336	211.540	ng	
10) T	Phenanthrene	8.81	163214308	216.565	ng	
11) T	Anthracene	8.92	165006818	216.254	ng	
12) T	Fluoroanthene	11.68	184303567	228.283	ng	
13) T	Pyrene	12.19	191367231	230.902	ng	
14) T	Benzo[a]anthracene	15.28	201916851	243.099	ng	
15) T	Chrysene	15.39	202943866	242.939	ng	
16) T	Benzo[b]fluoranthene	17.95	416407402	247.159	ng	m
17) T	Benzo[k]fluoranthene	17.95	416233269	247.056	ng	m
18) T	Benzo[a]pyrene	18.54	203406455	245.133	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.86	365034978	225.349	ng	
20) T	Dibenz[a,h]anthracene	20.86	365034978	225.130	ng	
21) T	Benzo[g,h,i]perylene	21.11	177382743	218.620	ng	
22) H	C10-C12	2.70	256720073	400.283	ng	
23) H	C12-C16	4.95	439515866	620.816	ng	
24) H	C16-C21	9.60	869017003	1103.086	ng	
25) H	C21-C36	17.20	1615647933	1808.270	ng	

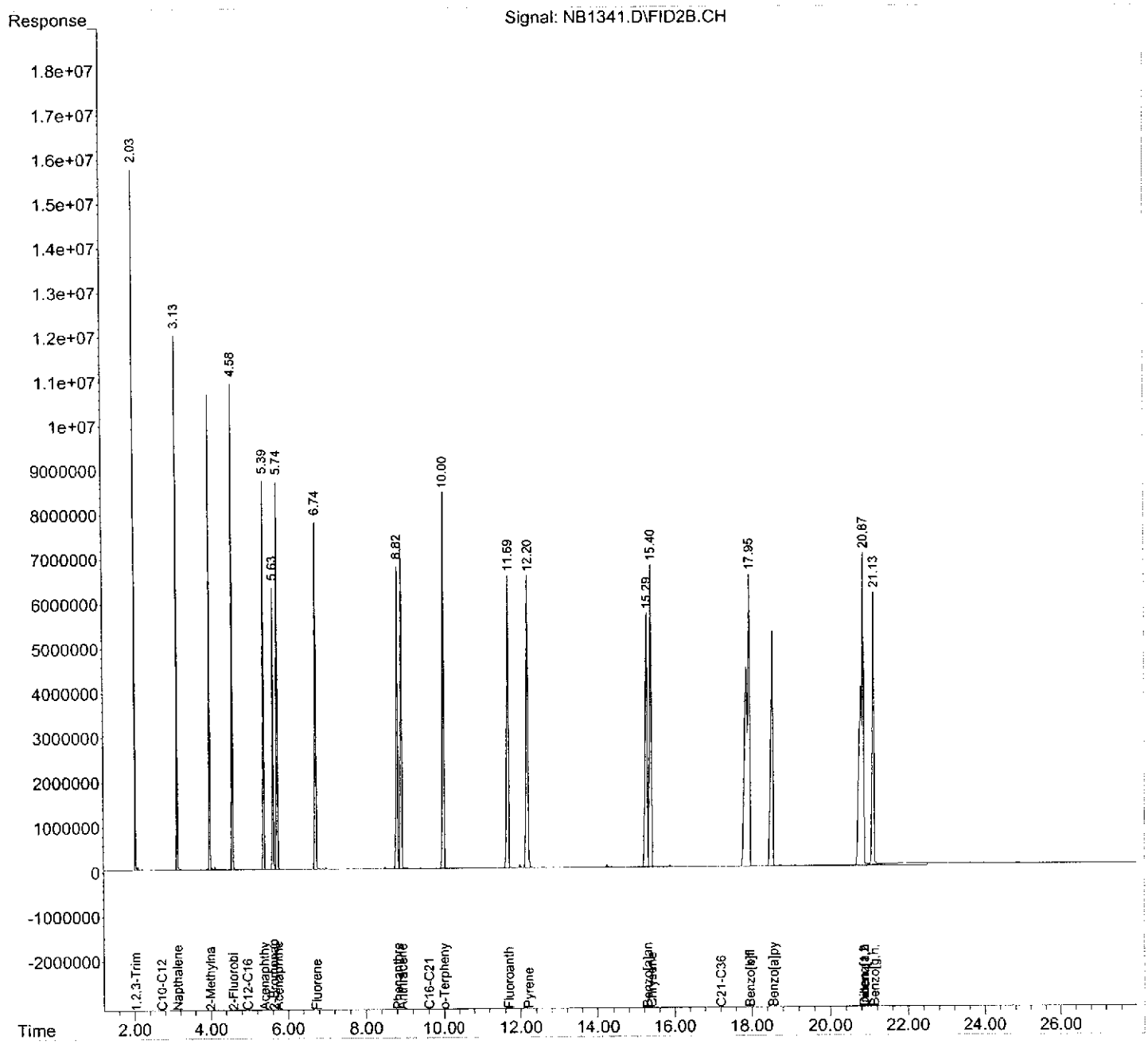
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1341.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 10:15
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 77 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:53:59 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1357.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 7:40
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 95 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:22:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	175015525	243.876 ng
Spiked Amount 50.000		Recovery	= 487.75%
2) S 2-Bromonaphthalene	5.61	126233380	252.346 ng
Spiked Amount 50.000		Recovery	= 504.69%
3) S o-Terphenyl	9.99	239085517	258.418 ng
Spiked Amount 50.000		Recovery	= 516.84%
Target Compounds			
4) T 1,2,3-Trimethylbenzene	2.02	125793378	208.764 ng
5) T Napthalene	3.12	144100377	219.957 ng
6) T 2-Methylnaphthalene	3.97	153125030	225.765 ng
7) T Acenaphthylene	5.37	163681365	233.868 ng
8) T Acenaphthene	5.73	168346113	233.515 ng
9) T Fluorene	6.72	175963067	240.894 ng
10) T Phenanthrene	8.80	187217797	248.415 ng
11) T Anthracene	8.92	188868222	247.526 ng
12) T Fluoroanthene	11.68	201774342	249.923 ng
13) T Pyrene	12.19	206295306	248.914 ng
14) T Benzo[a]anthracene	15.27	193627800	233.120 ng
15) T Chrysene	15.38	193112026	231.170 ng
16) T Benzo[b]fluoranthene	17.93	359631213	213.460 ng
17) T Benzo[k]fluoranthene	17.93	359631213	213.460 ng
18) T Benzo[a]pyrene	18.53	175257753	211.210 ng
19) T Indeno[1,2,3-cd]pyrene	20.85	339381649	209.513 ng
20) T Dibenz[a,h]anthracene	20.85	339381649	209.309 ng
21) T Benzo[g,h,i]perylene	21.11	172452858	212.544 ng
22) H C10-C12	2.70	270870340	422.346 ng
23) H C12-C16	4.95	489031200	690.757 ng
24) H C16-C21	9.60	978753550	1242.381 ng
25) H C21-C36	17.20	1495994440	1674.351 ng

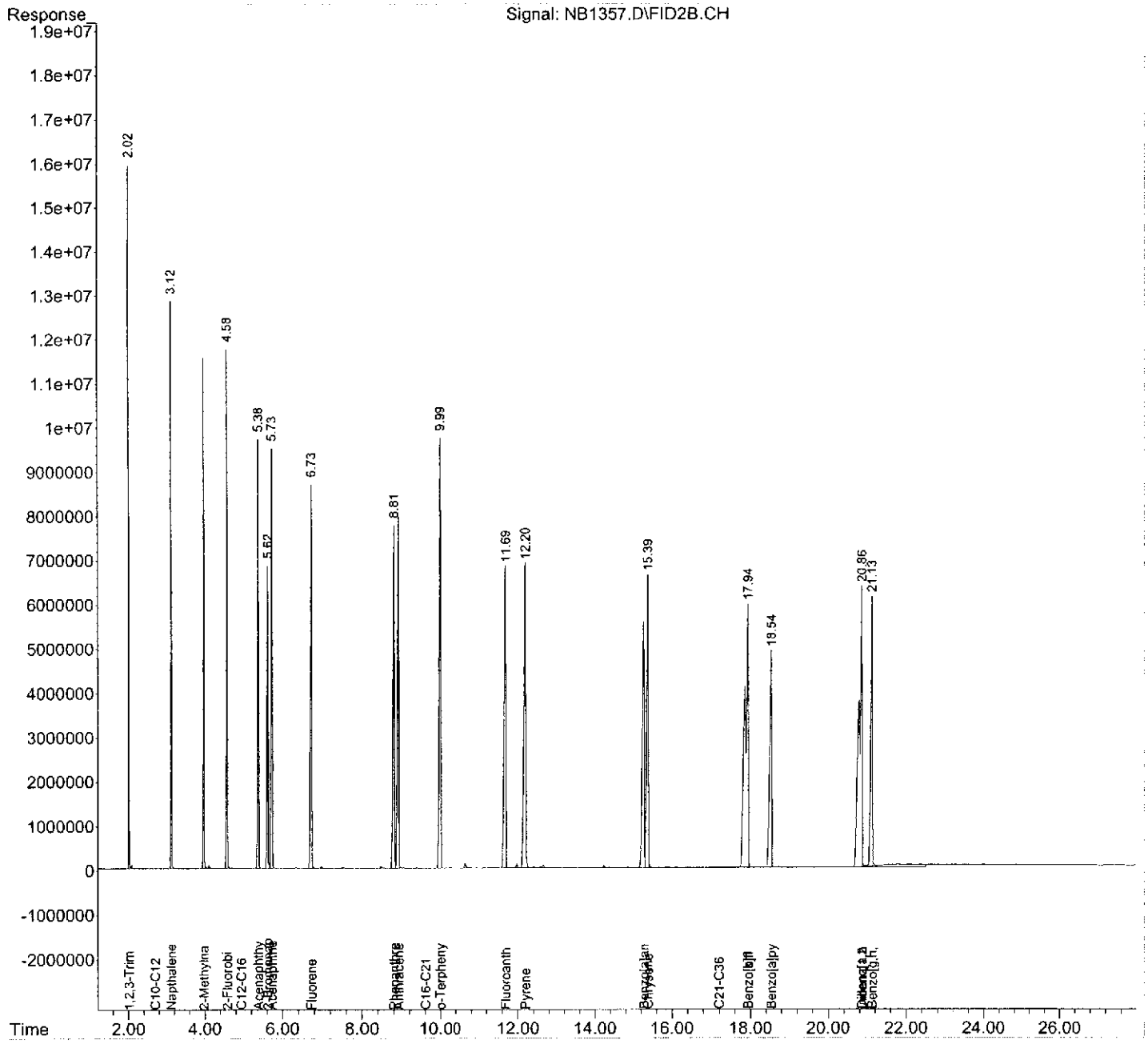
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1357.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 7:40
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 95 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:22:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1363.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 11:45
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 13:26:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.58	194406082	270.896	ng	
Spiked Amount	50.000		Recovery	= 541.79%		
2) S	2-Bromonaphthalene	5.63	138198888	276.265	ng	
Spiked Amount	50.000		Recovery	= 552.53%		
3) S	o-Terphenyl	9.99	253418818	273.910	ng	
Spiked Amount	50.000		Recovery	= 547.82%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	141434330	234.722	ng	
5) T	Napthalene	3.13	160470780	244.945	ng	
6) T	2-Methylnaphthalene	3.98	170027628	250.686	ng	
7) T	Acenaphthylene	5.39	179425491	256.363	ng	
8) T	Acenaphthene	5.74	184380344	255.756	ng	
9) T	Fluorene	6.74	190583043	260.909	ng	
10) T	Phenanthrene	8.81	198660154	263.597	ng	
11) T	Anthracene	8.93	200175962	262.346	ng	
12) T	Fluoroanthene	11.68	210378634	260.580	ng	
13) T	Pyrene	12.19	215067309	259.498	ng	
14) T	Benzo[a]anthracene	15.27	204685836	246.433	ng	
15) T	Chrysene	15.38	202797401	242.764	ng	
16) T	Benzo[b]fluoranthene	17.95	399864659	237.340	ng	m
17) T	Benzo[k]fluoranthene	17.95	400144069	237.506	ng	m
18) T	Benzo[a]pyrene	18.53	196671740	237.017	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.85	382686071	236.246	ng	
20) T	Dibenz[a,h]anthracene	20.85	382686071	236.017	ng	
21) T	Benzo[g,h,i]perylene	21.11	194520361	239.742	ng	
22) H	C10-C12	2.70	303337334	472.969	ng	
23) H	C12-C16	4.95	537236285	758.847	ng	
24) H	C16-C21	9.60	1026558946	1303.062	ng	
25) H	C21-C36	17.20	1629909893	1824.233	ng	

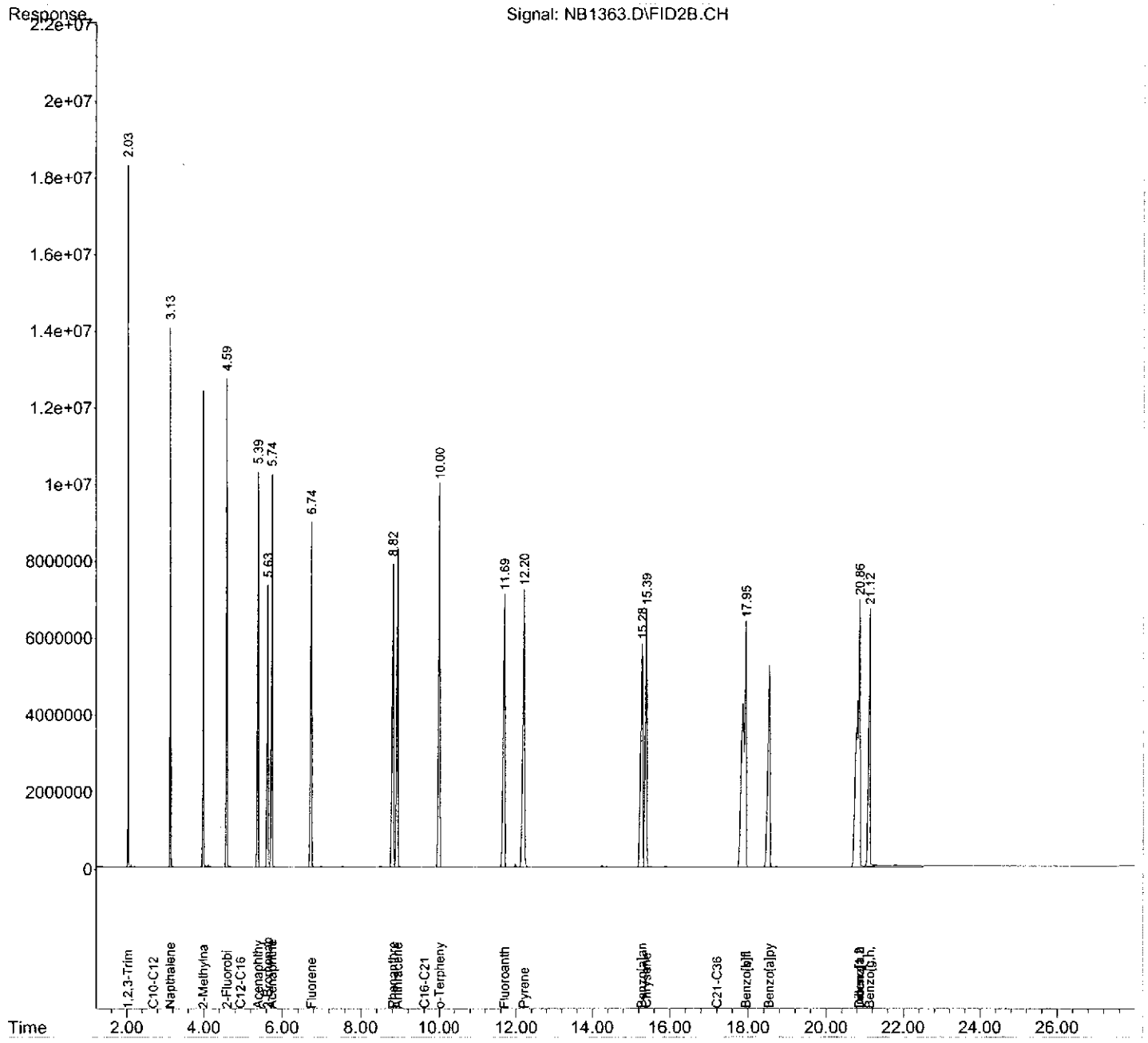
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1363.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 11:45
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 13:26:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1359.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 9:26
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 09:57:51 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.58	195169769	271.960	ng	
Spiked Amount	50.000		Recovery	= 543.92%		
2) S	2-Bromonaphthalene	5.63	138517839	276.903	ng	
Spiked Amount	50.000		Recovery	= 553.81%		
3) S	o-Terphenyl	9.99	251777998	272.137	ng	
Spiked Amount	50.000		Recovery	= 544.27%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.03	143192151	237.639	ng	
5) T	Napthalene	3.13	161879864	247.095	ng	
6) T	2-Methylnaphthalene	3.98	170941566	252.034	ng	
7) T	Acenaphthylene	5.39	180176525	257.436	ng	
8) T	Acenaphthene	5.74	184970636	256.575	ng	
9) T	Fluorene	6.74	190934813	261.391	ng	
10) T	Phenanthrene	8.81	197545155	262.118	ng	
11) T	Anthracene	8.93	198920846	260.701	ng	
12) T	Fluoroanthene	11.68	206045968	255.214	ng	
13) T	Pyrene	12.19	210206088	253.633	ng	
14) T	Benzo[a]anthracene	15.27	198324252	238.774	ng	
15) T	Chrysene	15.38	196720893	235.490	ng	
16) T	Benzo[b]fluoranthene	17.95	388019354	230.310	ng	m
17) T	Benzo[k]fluoranthene	17.95	388159966	230.393	ng	m
18) T	Benzo[a]pyrene	18.53	191293874	230.536	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.85	374347644	231.099	ng	
20) T	Dibenz[a,h]anthracene	20.85	374347644	230.874	ng	
21) T	Benzo[g,h,i]perylene	21.11	189814323	233.942	ng	
22) H	C10-C12	2.70	306028518	477.165	ng	
23) H	C12-C16	4.95	539513590	762.063	ng	
24) H	C16-C21	9.60	1015277806	1288.743	ng	
25) H	C21-C36	17.20	1590288943	1779.888	ng	

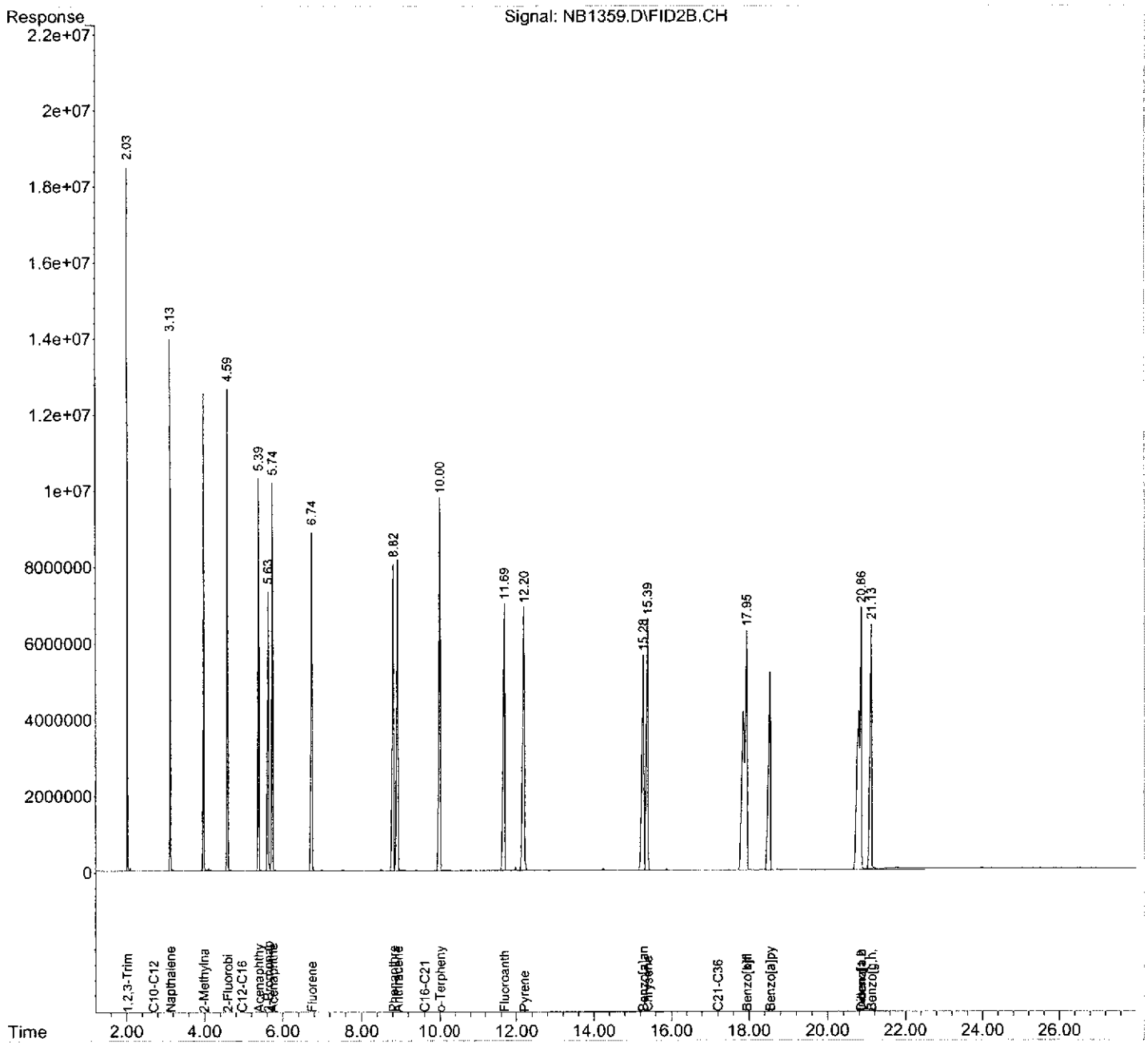
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1359.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 9:26
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 09:57:51 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Wed Jul 11 13:31:53 2012 RPT1

FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1711.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 11:23
Operator : MJ
Sample : ALI,LCSS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:33:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.15	27304245	28.252 ng
Spiked Amount	50.000		Recovery =	56.50%
Target Compounds				
2) T	n-Nonane (C9)	1.34	16459143	17.732 ng
3) T	n-Decane (C10)	1.84	20540937	21.258 ng
4) T	n-Dodecane (C12)	3.26	24831480	25.682 ng
5) T	n-Tetradecane (C14)	5.00	29221688	28.962 ng
6) T	n-Hexadecane (C16)	7.06	31939518	31.198 ng
7) T	n-Octadecane (C18)	9.22	33022618	31.725 ng
8) T	n-Eicosane (C20)	11.30	32476443	31.819 ng
9) T	n-Heneicosane (C21)	12.30	37472955	37.412 ng
10) T	n-Docosane (C22)	13.25	34200165	34.539 ng
11) T	n-Tetracosane (C24)	15.06	29677856	31.230 ng
12) T	n-Hexacosane (C26)	16.75	28415073	31.116 ng
13) T	n-Octacosane (C28)	18.32	26820332	30.927 ng
14) T	n-Triacontane (C30)	19.78	25919452	31.095 ng
15) T	n-Dotriacontane (C32)	21.04	24849411	31.223 ng
16) T	n-Tetratriacontane (C34)	21.79	25946491	32.584 ng
17) T	n-Hexatriacontane (C36)	22.62	24686243	31.818 ng
18) T	n-Octatriacontane (C38)	23.65	23792796	31.211 ng
19) T	n-Tetracontane (40)	25.02	23821794	31.415 ng
20) H	C9-C12	2.36	67843005	66.507 ng
21) H	C12-C16	5.40	69279065	65.061 ng
22) H	C16-C21	9.95	115832600	110.042 ng
23) H	C21-C40	18.95	335291101	366.135 ng

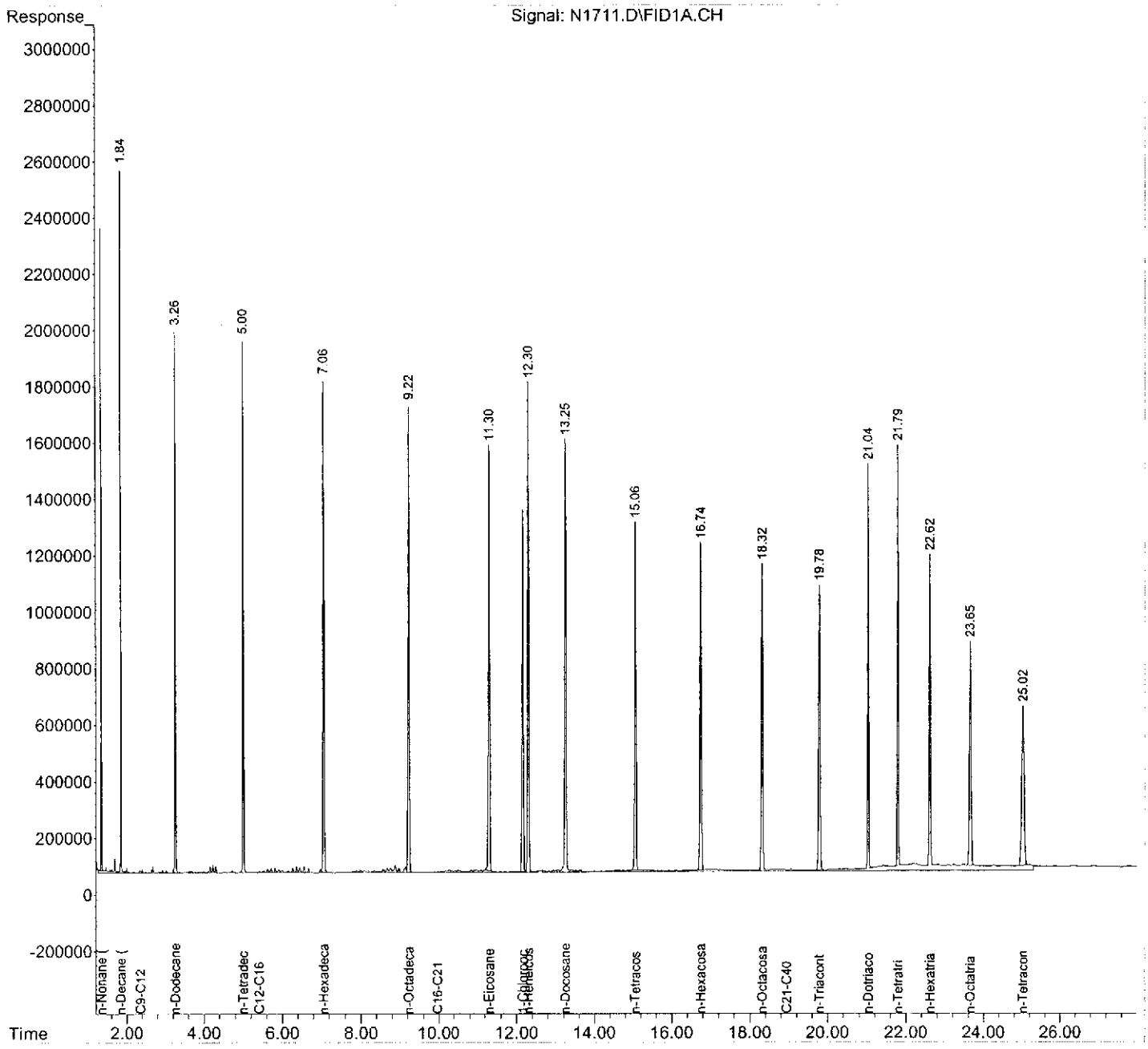
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1711.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 11:23
Operator : MJ
Sample : ALI,LCSS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 31 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:33:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1712.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 11:57
Operator : MJ
Sample : ALI,LCSDS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:33:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.15	28976854	29.983 ng
Spiked Amount	50.000		Recovery =	59.97%
Target Compounds				
2) T	n-Nonane (C9)	1.34	17640374	19.005 ng
3) T	n-Decane (C10)	1.84	22044971	22.814 ng
4) T	n-Dodecane (C12)	3.26	26682977	27.597 ng
5) T	n-Tetradecane (C14)	5.00	31323081	31.045 ng
6) T	n-Hexadecane (C16)	7.06	34090713	33.299 ng
7) T	n-Octadecane (C18)	9.22	35131814	33.752 ng
8) T	n-Eicosane (C20)	11.30	34484755	33.787 ng
9) T	n-Heneicosane (C21)	12.30	39748531	39.684 ng
10) T	n-Docosane (C22)	13.25	36324636	36.685 ng
11) T	n-Tetracosane (C24)	15.06	31414752	33.057 ng
12) T	n-Hexacosane (C26)	16.74	30032095	32.887 ng
13) T	n-Octacosane (C28)	18.31	28357783	32.700 ng
14) T	n-Triacontane (C30)	19.78	27625881	33.142 ng
15) T	n-Dotriacontane (C32)	21.04	26568701	33.383 ng
16) T	n-Tetratriacontane (C34)	21.79	27931866	35.077 ng
17) T	n-Hexatriacontane (C36)	22.61	26344705	33.956 ng
18) T	n-Octatriacontane (C38)	23.64	25318030	33.212 ng
19) T	n-Tetracontane (40)	25.01	25221217	33.260 ng
20) H	C9-C12	2.36	71954379	70.537 ng
21) H	C12-C16	5.40	74054461	69.545 ng
22) H	C16-C21	9.95	122903356	116.759 ng
23) H	C21-C40	18.95	357843884	390.763 ng

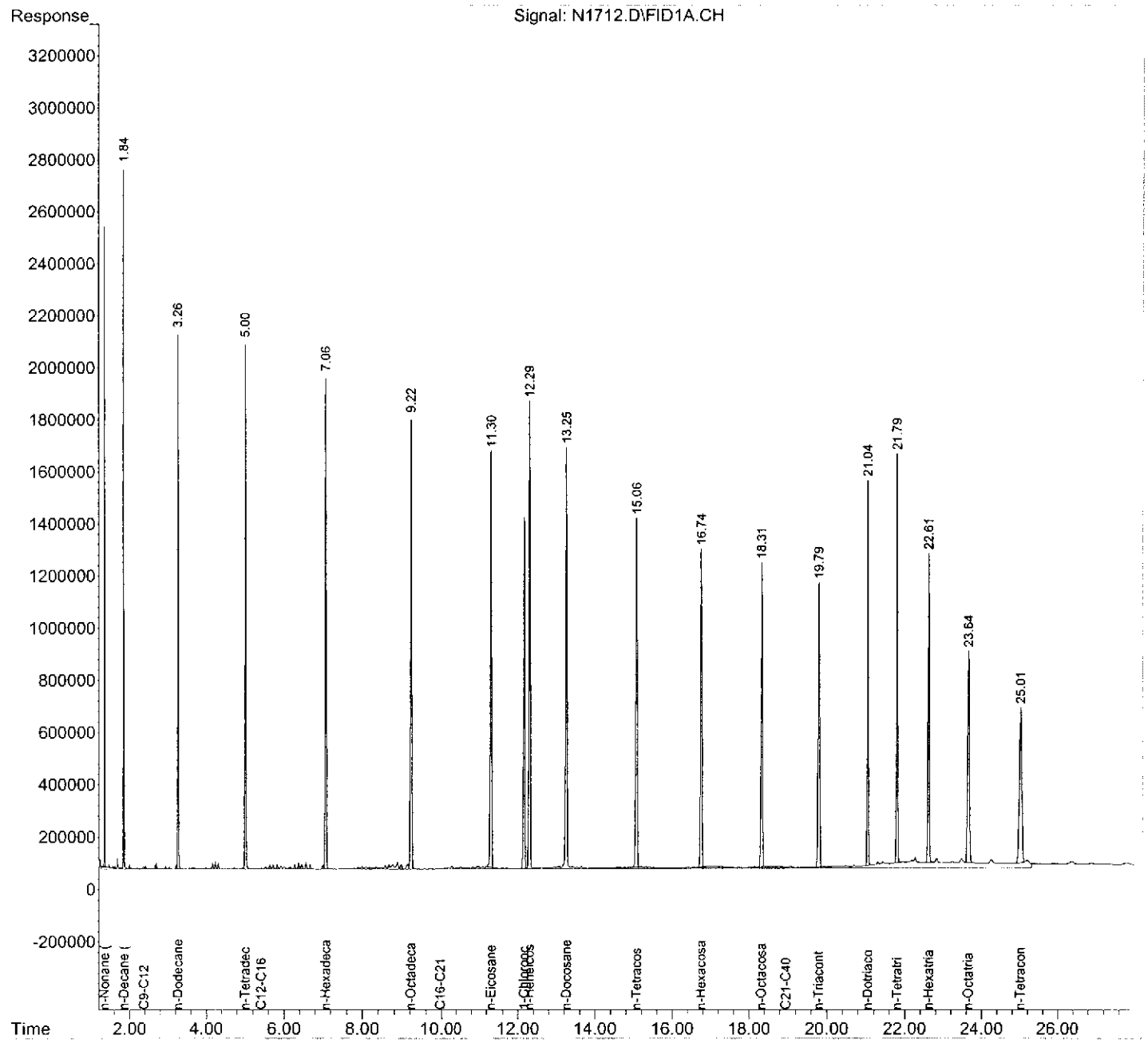
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1712.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 11:57
Operator : MJ
Sample : ALI,LCSDS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 32 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:33:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1343.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 11:23
Operator : MJ
Sample : ARO,LCSS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 81 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:54:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.57	18788647	26.181 ng	
Spiked Amount	50.000		Recovery =	52.36%	
2) S	2-Bromonaphthalene	5.60	13918624	27.824 ng	
Spiked Amount	50.000		Recovery =	55.65%	
3) S	o-Terphenyl	9.96	36336343	39.274 ng	
Spiked Amount	50.000		Recovery =	78.55%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.02	13384051	22.212 ng	
5) T	Napthalene	3.12	16109529	24.590 ng	
6) T	2-Methylnaphthalene	3.97	17356270	25.590 ng	
7) T	Acenaphthylene	5.37	20066852	28.672 ng	
8) T	Acenaphthene	5.71	21829722	30.280 ng	
9) T	Fluorene	6.71	22618007	30.964 ng	
10) T	Phenanthrene	8.88	24426378	32.411 ng	
11) T	Anthracene	8.89	24299917	31.847 ng	m
12) T	Fluoroanthene	11.64	30096056	37.278 ng	
13) T	Pyrene	12.15	31201776	37.648 ng	
14) T	Benzo[a]anthracene	15.23	33675753	40.544 ng	m
15) T	Chrysene	15.32	35595424	42.610 ng	
16) T	Benzo[b]fluoranthene	17.86	75395910	44.751 ng	
17) T	Benzo[k]fluoranthene	17.86	75395910	44.751 ng	
18) T	Benzo[a]pyrene	18.47	33876374	40.826 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.80	76154894	47.013 ng	m
20) T	Dibenz[a,h]anthracene	20.80	75807682	46.753 ng	m
21) T	Benzo[g,h,i]perylene	21.05	38315309	47.223 ng	
22) H	C10-C12	2.70	31290424	48.789 ng	
23) H	C12-C16	4.95	64326383	90.861 ng	
24) H	C16-C21	9.60	153898418	195.351 ng	
25) H	C21-C36	17.20	357243921	399.836 ng	

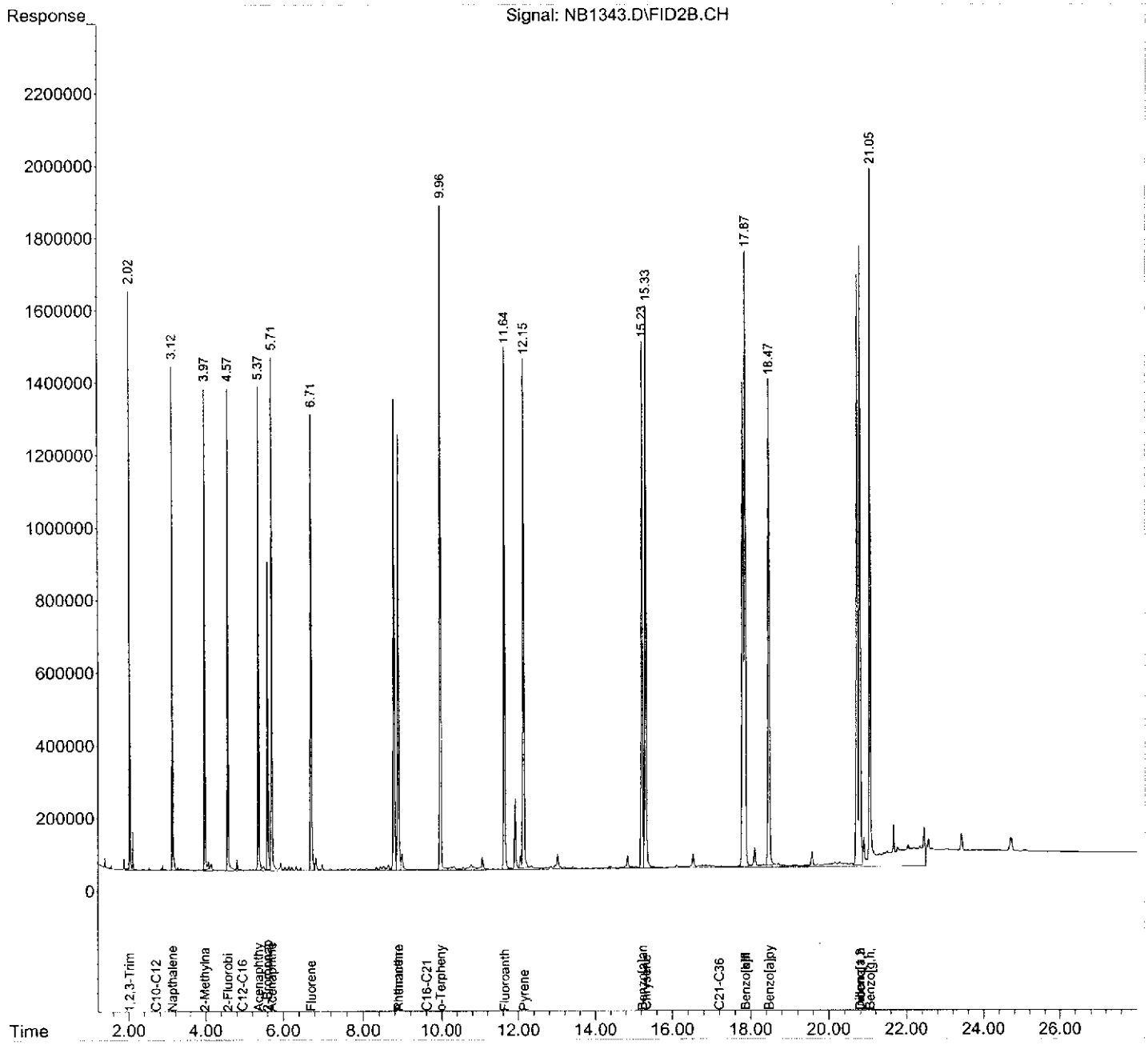
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1343.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 11:23
Operator : MJ
Sample : ARO,LCSS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 81 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:54:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1344.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 11:57
Operator : MJ
Sample : ARO,LCSDS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 82 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:55:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.57	19843267	27.651 ng	
Spiked Amount 50.000		Recovery =	55.30%	
2) S 2-Bromonaphthalene	5.60	14550278	29.087 ng	
Spiked Amount 50.000		Recovery =	58.17%	
3) S o-Terphenyl	9.96	36979890	39.970 ng	
Spiked Amount 50.000		Recovery =	79.94%	
Target Compounds				
4) T 1,2,3-Trimethylbenzene	2.02	13650106	22.653 ng	
5) T Napthalene	3.12	16888118	25.778 ng	
6) T 2-Methylnaphthalene	3.97	18316504	27.006 ng	
7) T Acenaphthylene	5.37	21034857	30.055 ng	
8) T Acenaphthene	5.71	22859789	31.709 ng	
9) T Fluorene	6.71	23514496	32.191 ng	
10) T Phenanthrene	8.78	26227887	34.801 ng	
11) T Anthracene	8.89	26256855	34.412 ng	
12) T Fluoroanthene	11.64	29568553	36.624 ng	
13) T Pyrene	12.15	30531487	36.839 ng	
14) T Benzo[a]anthracene	15.23	32188489	38.754 ng	m
15) T Chrysene	15.32	33582917	40.201 ng	
16) T Benzo[b]fluoranthene	17.86	69532613	41.271 ng	m
17) T Benzo[k]fluoranthene	17.86	69476623	41.238 ng	m
18) T Benzo[a]pyrene	18.46	30858403	37.189 ng	
19) T Indeno[1,2,3-cd]pyrene	20.79	67602941	41.734 ng	m
20) T Dibenz[a,h]anthracene	20.79	67377800	41.554 ng	m
21) T Benzo[g,h,i]perylene	21.05	34495975	42.515 ng	
22) H C10-C12	2.70	33567986	52.340 ng	
23) H C12-C16	4.95	67714102	95.646 ng	
24) H C16-C21	9.60	154970811	196.712 ng	
25) H C21-C36	17.20	326141702	365.025 ng	

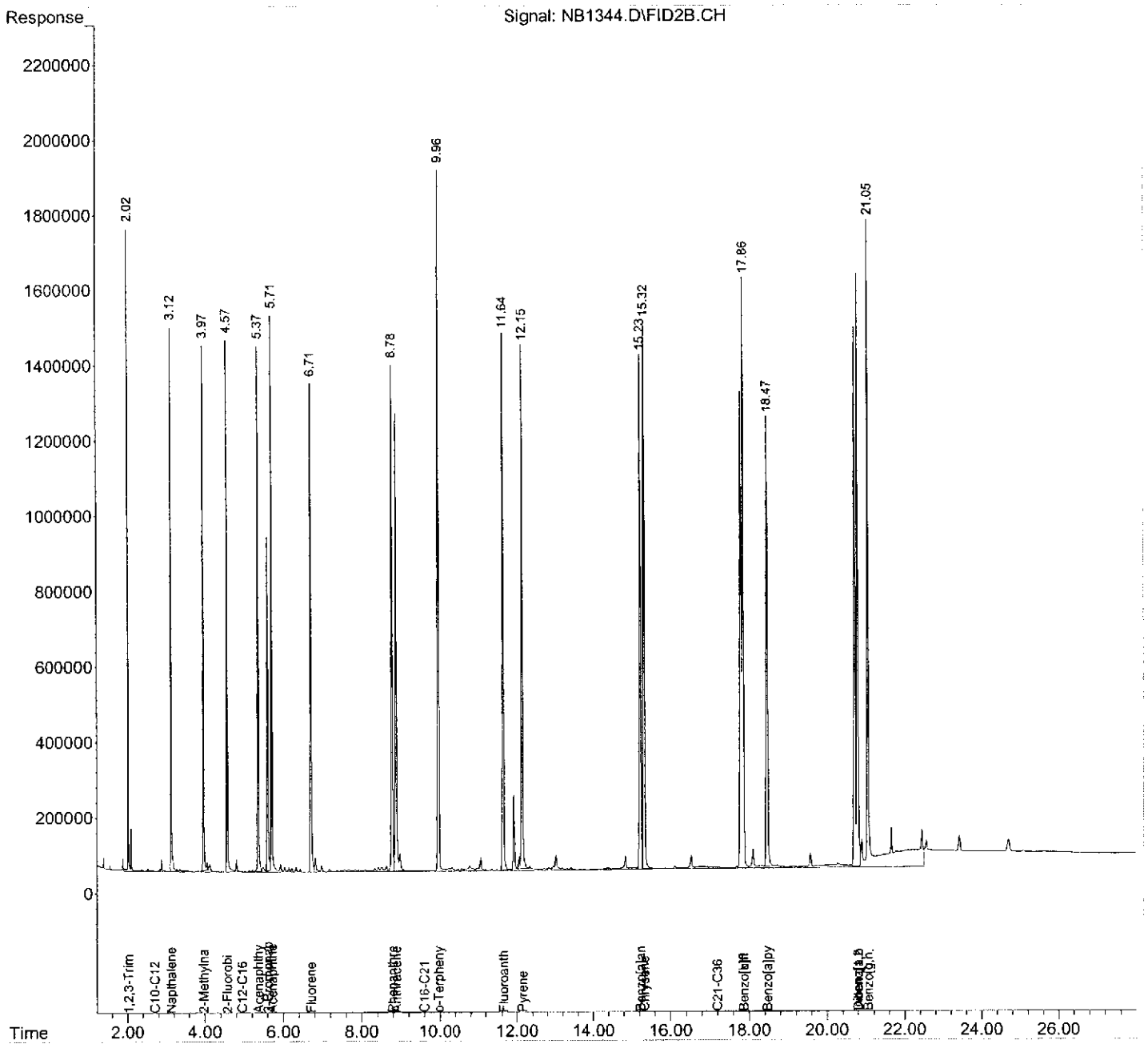
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-10-12\
Data File : NB1344.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 11:57
Operator : MJ
Sample : ARO,LCSDS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 82 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:55:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-29-12\
Data File : N1606.D
Signal(s) : FID1A.CH
Acq On : 29 Jun 2012 23:39
Operator : MJ
Sample : ALI,06400-001MS,S,5.00g,0,06/29/12,1
Misc : 062912-01,NA,NA,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 09:28:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.14	34838380	36.048 ng
Spiked Amount 50.000		Recovery =	72.10%
Target Compounds			
20) H C9-C12	2.36	140734466	137.962 ng
21) H C12-C16	5.40	92470686	86.840 ng
22) H C16-C21	9.95	137022167	130.172 ng
23) H C21-C40	18.95	348304965	380.346 ng

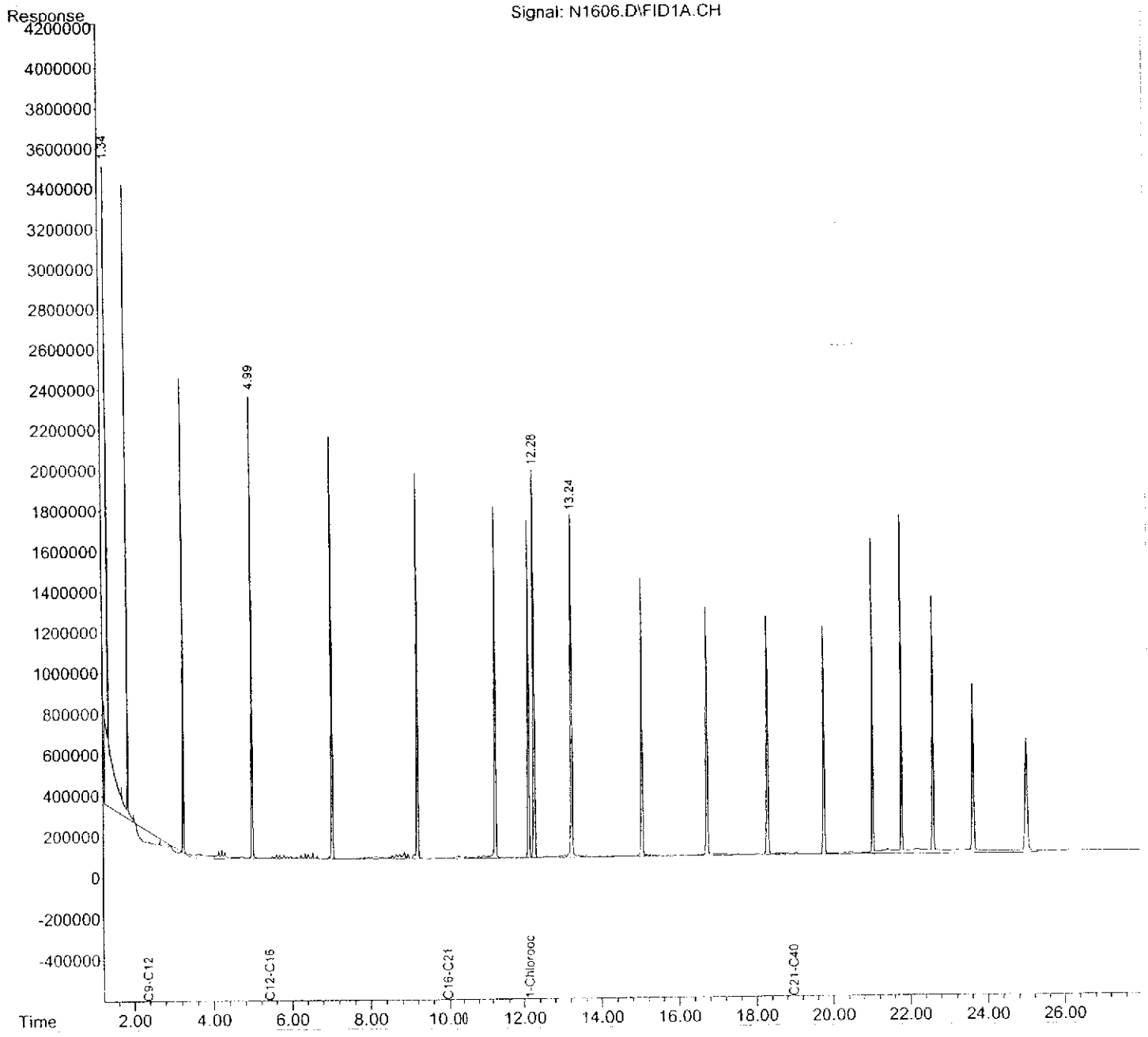
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-29-12\
Data File : N1606.D
Signal(s) : FID1A.CH
Acq On : 29 Jun 2012 23:39
Operator : MJ
Sample : ALI,06400-001MS,S,5.00g,0,06/29/12,1
Misc : 062912-01,NA,NA,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 09:28:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-29-12\
Data File : NB1239.D
Signal(s) : FID2B.CH
Acq On : 29 Jun 2012 23:39
Operator : MJ
Sample : ARO,06400-001MS,S,5.00g,0,06/29/12,1
Misc : 062912-01,NA,NA,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 07:47:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	29974359	41.768 ng
Spiked Amount 50.000		Recovery =	83.54%
2) S 2-Bromonaphthalene	5.62	21778384	43.536 ng
Spiked Amount 50.000		Recovery =	87.07%
3) S o-Terphenyl	9.98	43940651	47.494 ng
Spiked Amount 50.000		Recovery =	94.99%
Target Compounds			
22) H C10-C12	2.70	44490910	69.371 ng
23) H C12-C16	4.95	88083335	124.418 ng
24) H C16-C21	9.60	176377083	223.884 ng
25) H C21-C36	17.20	281406517	314.957 ng

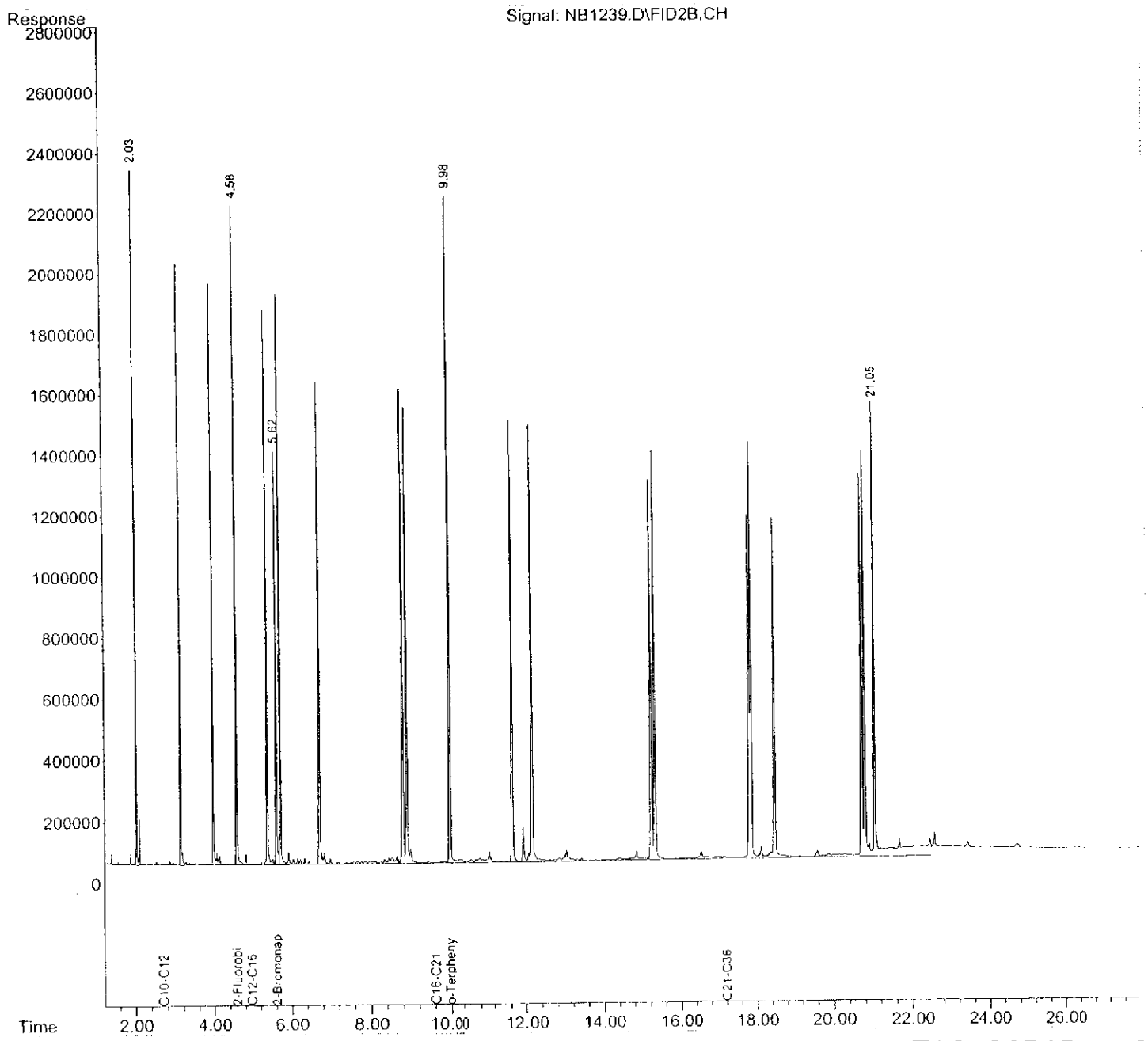
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-29-12\
Data File : NB1239.D
Signal(s) : FID2B.CH
Acq On : 29 Jun 2012 23:39
Operator : MJ
Sample : ARO,06400-001MS,S,5.00g,0,06/29/12,1
Misc : 062912-01,NA,NA,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 07:47:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-29-12\
Data File : N1605.D
Signal(s) : FID1A.CH
Acq On : 29 Jun 2012 23:05
Operator : MJ
Sample : EH-1/1-1,06400-1D,S,5.00g,13.8,06/29/12,1
Misc : 062912-01,06/25/12,06/27/12,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 09:27:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.14	31236561	32.321 ng
Spiked Amount 50.000		Recovery =	64.64%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

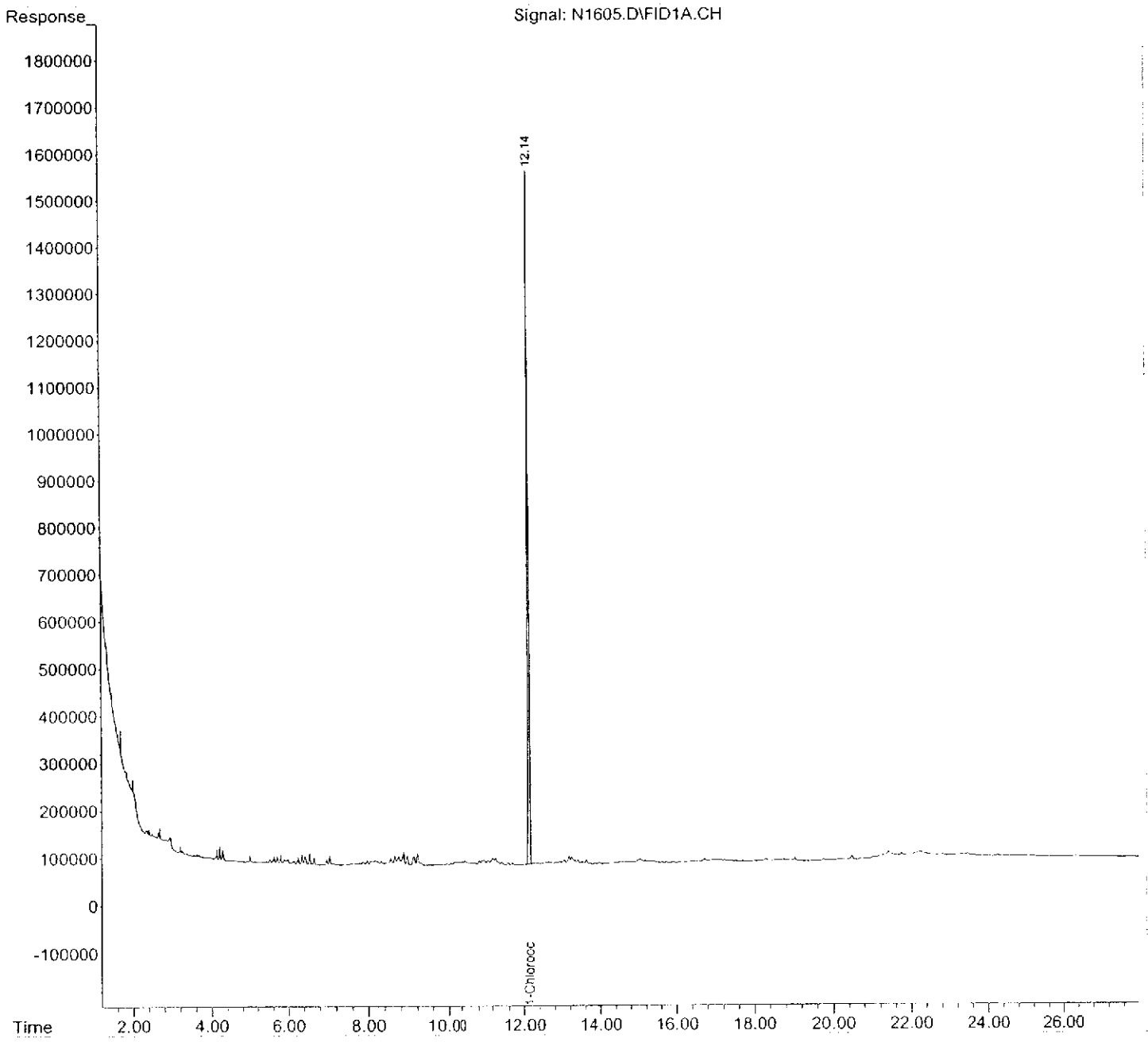
E12-06545 Page: 0196

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-29-12\
Data File : N1605.D
Signal(s) : FID1A.CH
Acq On : 29 Jun 2012 23:05
Operator : MJ
Sample : EH-1/1-1,06400-1D,S,5.00g,13.8,06/29/12,1
Misc : 062912-01,06/25/12,06/27/12,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 09:27:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-29-12\
Data File : NB1238.D
Signal(s) : FID2B.CH
Acq On : 29 Jun 2012 23:05
Operator : MJ
Sample : EH-1/1-1,06400-1D,S,5.00g,13.8,06/29/12,1
Misc : 062912-01,06/25/12,06/27/12,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 07:47:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.58	25492048	35.522 ng
Spiked Amount 50.000		Recovery =	71.04%
2) S 2-Bromonaphthalene	5.61	19250609	38.483 ng
Spiked Amount 50.000		Recovery =	76.97%
3) S o-Terphenyl	9.98	39099318	42.261 ng
Spiked Amount 50.000		Recovery =	84.52%
Target Compounds			

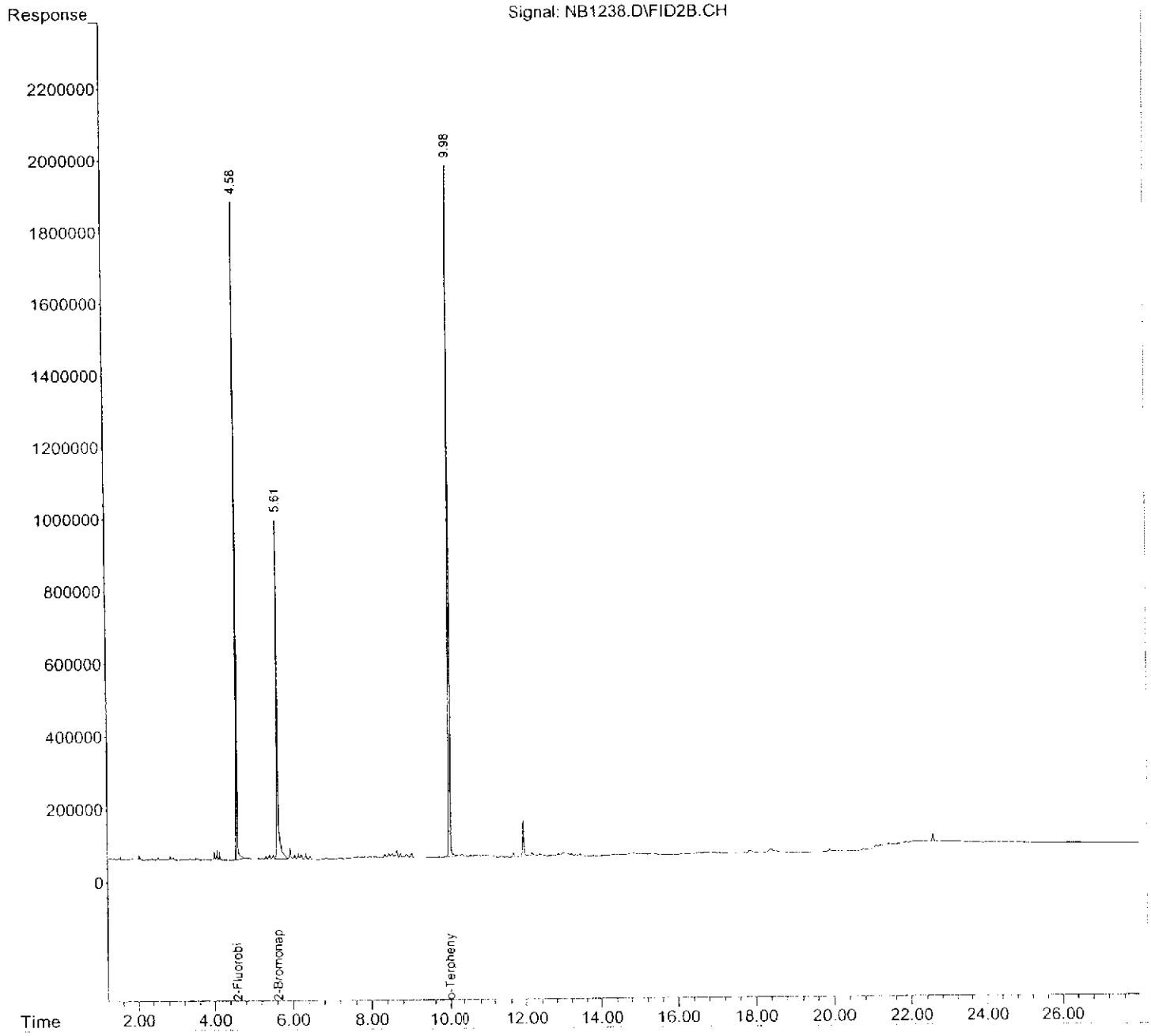
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-29-12\
Data File : NB1238.D
Signal(s) : FID2B.CH
Acq On : 29 Jun 2012 23:05
Operator : MJ
Sample : EH-1/1-1,06400-1D,S,5.00g,13.8,06/29/12,1
Misc : 062912-01,06/25/12,06/27/12,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 02 07:47:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS120629-01
Client ID: ARO
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 06/29/2012
Data file: N1599.D
Data file: NB1232.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	2.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	2.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0		40.0	10.0
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0		32.0	8.00
Total NJ-EPH	0		40.0	10.0

E12-06545 0200

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS120706-09
Client ID: ARO
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: N1710.D
Data file: NB1342.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	2.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	2.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0		40.0	10.0
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0		32.0	8.00
Total NJ-EPH	0		40.0	10.0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1710.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 10:49
Operator : MJ
Sample : ALI,BLKS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:35:30 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.15	28964145	29.970 ng
Spiked Amount 50.000		Recovery =	59.94%
Target Compounds			

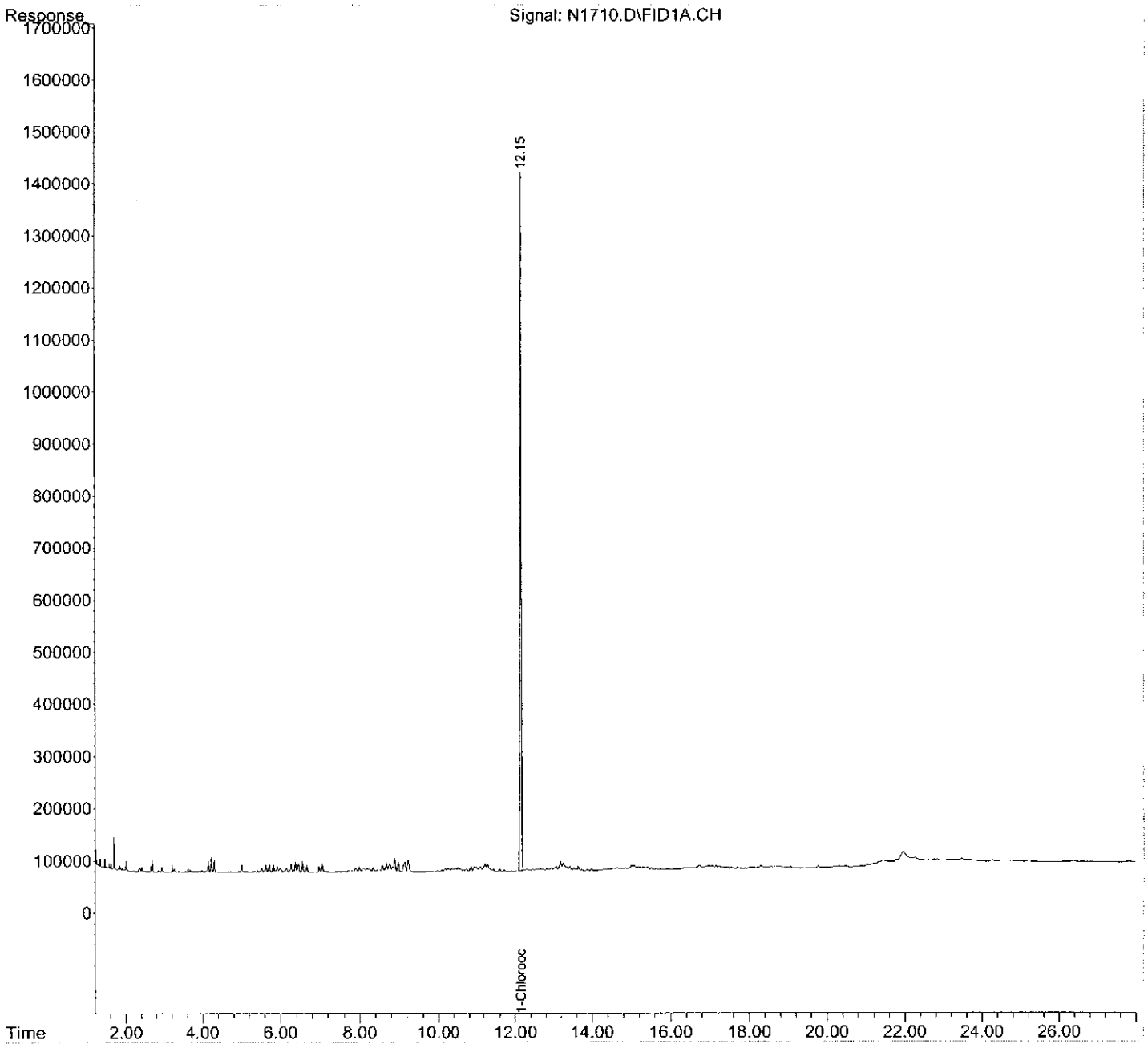
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : N1710.D
Signal(s) : FID1A.CH
Acq On : 10 Jul 2012 10:49
Operator : MJ
Sample : ALI,BLKS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 30 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 10 13:35:30 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1342.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 10:49
Operator : MJ
Sample : ARO,BLKS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 80 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:02:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	18211132	25.376 ng
Spiked Amount 50.000		Recovery =	50.75%
2) S 2-Bromonaphthalene	5.61	13063299	26.114 ng
Spiked Amount 50.000		Recovery =	52.23%
3) S o-Terphenyl	9.96	33723647	36.451 ng
Spiked Amount 50.000		Recovery =	72.90%
Target Compounds			

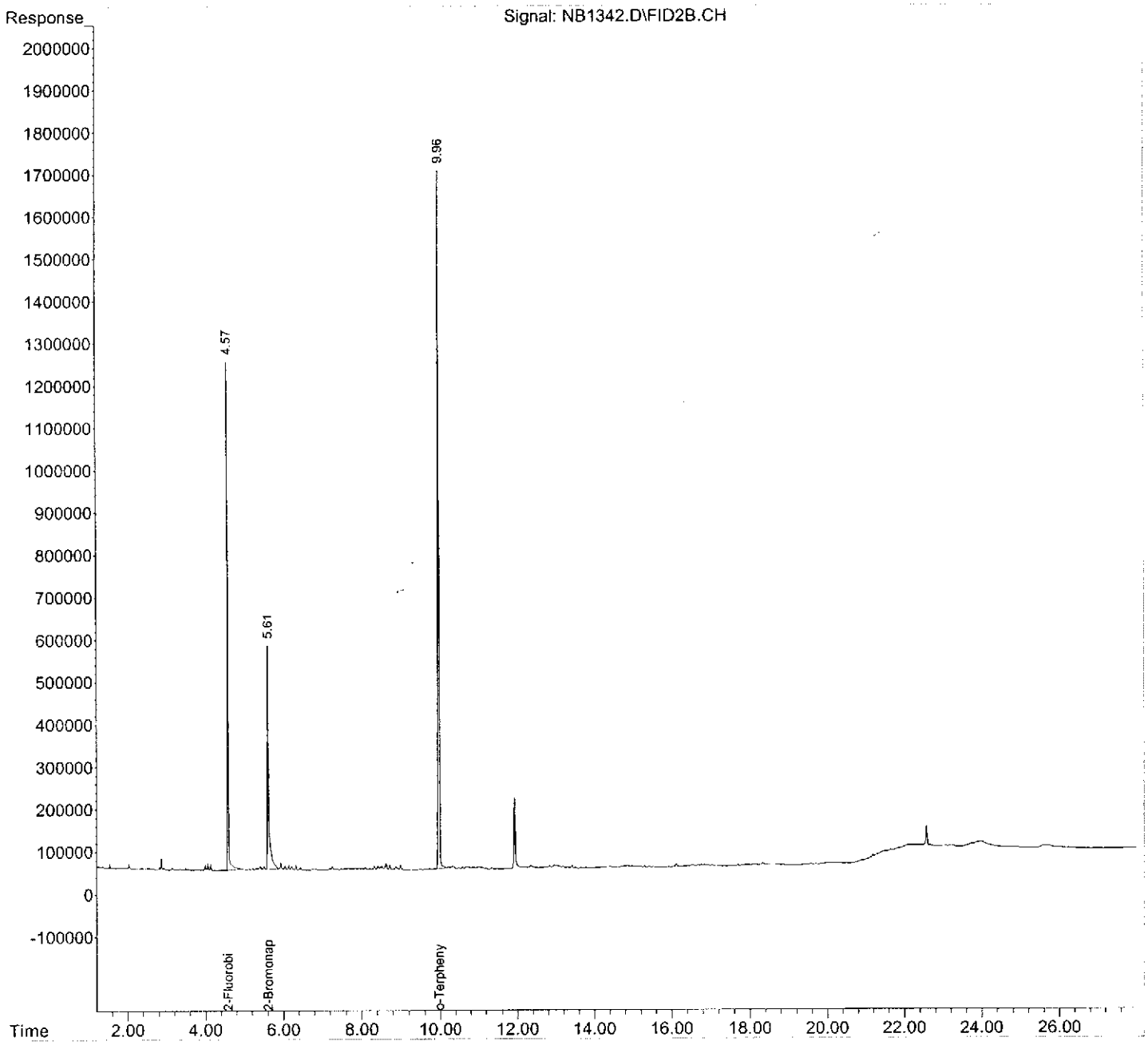
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-10-12\
Data File : NB1342.D
Signal(s) : FID2B.CH
Acq On : 10 Jul 2012 10:49
Operator : MJ
Sample : ARO,BLKS120706-09,S,5.00g,0,07/06/12,1
Misc : 120706-09,NA,NA,1
ALS Vial : 80 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 08:02:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	51.5	103	51.5	103	53.2	106	52.6	105
Antimony	0.250	50.0	48.6	97.2	48.6	97.2	45.1	90.2	51.0	102
Arsenic	0.250	50.0	49.5	99.0	49.5	99.0	50.4	101	50.0	100
Barium	2.50	50.0	47.4	94.8	47.4	94.8	49.7	99.4	48.9	97.8
Beryllium	0.200	50.0	45.6	91.2	45.6	91.2	49.7	99.4	50.5	101
Cadmium	0.125	50.0	48.2	96.4	48.2	96.4	49.8	99.6	49.1	98.2
Calcium	25.0	500	500	100	500	100	524	105	534	107
Chromium	0.500	50.0	49.9	99.8	49.9	99.8	51.3	103	50.1	100
Cobalt	0.500	50.0	45.0	90.0	45.0	90.0	46.2	92.4	45.0	90.0
Copper	0.500	50.0	50.0	100	50.0	100	51.7	103	50.1	100
Iron	12.5	500	452	90.4	452	90.4	468	93.6	474	94.8
Lead	0.125	50.0	48.6	97.2	48.6	97.2	50.7	101	50.1	100
Magnesium	12.5	500	457	91.4	457	91.4	463	92.6	455	91.0
Manganese	0.250	50.0	49.7	99.4	49.7	99.4	51.0	102	50.0	100
Mercury	0.120	5.00	5.49	110	5.54	111	5.78	116	5.86	117
Nickel	0.500	50.0	50.2	100	50.2	100	51.3	103	50.4	101
Potassium	12.5	500	458	91.6	458	91.6	470	94.0	462	92.4
Selenium	1.00	50.0	49.5	99.0	49.5	99.0	50.2	100	49.9	99.8
Silver	0.125	10.0	10.0	100	10.0	100	9.30	93.0	9.22	92.2
Sodium	25.0	500	520	104	520	104	541	108	497	99.4
Thallium	0.125	50.0	49.7	99.4	49.7	99.4	45.4	90.8	50.1	100
Vanadium	0.500	50.0	48.4	96.8	48.4	96.8	49.9	99.8	49.4	98.8
Zinc	2.00	50.0	50.3	101	50.3	101	51.7	103	50.2	100

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R
Aluminum	5.00	50.0	46.9	93.8	49.2	98.4	50.9	102	50.9	102
Antimony	0.250	50.0	51.0	102	51.8	104	53.9	108	52.4	105
Arsenic	0.250	50.0	46.4	92.8	49.6	99.2	49.8	99.6	49.8	99.6
Barium	2.50	50.0	48.6	97.2	49.9	99.8	52.0	104	50.5	101
Beryllium	0.200	50.0	48.8	97.6	51.1	102	51.9	104	51.7	103
Cadmium	0.125	50.0	48.2	96.4	50.7	101	50.6	101	50.3	101
Calcium	25.0	500	475	95.0	493	98.6	502	100	500	100
Chromium	0.500	50.0	46.0	92.0	49.0	98.0	49.7	99.4	49.4	98.8
Cobalt	0.500	50.0	51.9	104	49.6	99.2	49.6	99.2	49.6	99.2
Copper	0.500	50.0	46.9	93.8	49.3	98.6	49.3	98.6	49.4	98.8
Iron	12.5	500	497	99.4	531	106	542	108	542	108
Lead	0.125	50.0	49.2	98.4	51.4	103	52.0	104	51.6	103
Magnesium	12.5	500	460	92.0	480	96.0	476	95.2	478	95.6
Manganese	0.250	50.0	46.3	92.6	49.5	99.0	49.6	99.2	49.8	99.6
Mercury	0.120	5.00	5.70	114	5.93	119				
Nickel	0.500	50.0	46.9	93.8	49.1	98.2	49.4	98.8	49.8	99.6
Potassium	12.5	500	508	102	530	106	515	103	516	103
Selenium	1.00	50.0	46.7	93.4	50.1	100	50.2	100	50.3	101
Silver	0.125	10.0	9.10	91.0	9.49	94.9	9.34	93.4	9.38	93.8
Sodium	25.0	500	496	99.2	516	103	456	91.2	462	92.4
Thallium	0.125	50.0	49.8	99.6	52.9	106	52.6	105	52.1	104
Vanadium	0.500	50.0	45.0	90.0	47.9	95.8	48.5	97.0	47.9	95.8
Zinc	2.00	50.0	47.1	94.2	50.4	101	50.6	101	49.6	99.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	0.005	ND	ND	ND	ND	ND	ND
Antimony	0.00025	ND	ND	ND	ND	ND	ND
Arsenic	0.00025	ND	ND	ND	ND	ND	ND
Barium	0.0025	ND	ND	ND	ND	ND	ND
Beryllium	0.0002	ND	ND	ND	ND	ND	ND
Cadmium	0.000125	ND	ND	ND	ND	ND	ND
Calcium	0.025	ND	ND	ND	ND	ND	ND
Chromium	0.0005	ND	ND	ND	ND	ND	ND
Cobalt	0.0005	ND	ND	ND	ND	ND	ND
Copper	0.0005	ND	ND	ND	ND	ND	ND
Iron	0.013	ND	ND	ND	ND	ND	ND
Lead	0.000125	ND	ND	ND	ND	ND	ND
Magnesium	0.013	ND	ND	ND	ND	ND	ND
Manganese	0.00025	ND	ND	ND	ND	ND	ND
Mercury	0.00012	ND	ND	ND	ND	ND	ND
Nickel	0.0005	ND	ND	ND	ND	ND	ND
Potassium	0.013	ND	ND	ND	ND	ND	ND
Selenium	0.001	ND	ND	ND	ND	ND	ND
Silver	0.000125	ND	ND	ND	ND	ND	ND
Sodium	0.025	ND	ND	ND	ND	ND	ND
Thallium	0.000125	ND	ND	ND	ND	ND	ND
Vanadium	0.0005	ND	ND	ND	ND	ND	ND
Zinc	0.002	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	CCB					
Aluminum	0.005	ND					
Antimony	0.00025	ND					
Arsenic	0.00025	ND					
Barium	0.0025	ND					
Beryllium	0.0002	ND					
Cadmium	0.000125	ND					
Calcium	0.025	ND					
Chromium	0.0005	ND					
Cobalt	0.0005	ND					
Copper	0.0005	ND					
Iron	0.013	ND					
Lead	0.000125	ND					
Magnesium	0.013	ND					
Manganese	0.00025	ND					
Nickel	0.0005	ND					
Potassium	0.013	ND					
Selenium	0.001	ND					
Silver	0.000125	ND					
Sodium	0.025	ND					
Thallium	0.000125	ND					
Vanadium	0.0005	ND					
Zinc	0.002	ND					

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 278
Associated Lab Case for Blank 1: 06466, 06545, 06577

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	5.00	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	2.50	ND
Beryllium	0.200	ND
Cadmium	0.125	ND
Calcium	25.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	12.5	ND
Lead	0.125	ND
Magnesium	12.5	ND
Manganese	0.250	ND
Mercury	0.006	ND
Nickel	0.500	ND
Potassium	12.5	ND
Selenium	1.00	ND
Silver	0.125	ND
Sodium	25.0	ND
Thallium	0.125	ND
Vanadium	0.500	ND
Zinc	2.00	ND

Associated Sample for Blank 1:
06466-003,005; 06545-001~003; 06577-001~015

METALS QUALITY CONTROL

BLANK 2 RESULTS SUMMARY

Batch (Page) #: 278
Associated Lab Case for Blank 2: 06545, 06607, 06636

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	5.00	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	2.50	ND
Beryllium	0.200	ND
Cadmium	0.125	ND
Calcium	25.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	12.5	ND
Lead	0.125	ND
Magnesium	12.5	ND
Manganese	0.250	ND
Mercury	0.006	ND
Nickel	0.500	ND
Potassium	12.5	ND
Selenium	1.00	ND
Silver	0.125	ND
Sodium	25.0	ND
Thallium	0.125	ND
Vanadium	0.500	ND
Zinc	2.00	ND

Associated Sample for Blank 2:
06545-004~009; 06607-001~006; 06636-001

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 278
SDG #: 06466, 06577, 06545, 06607, 06636

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	79000	80800	80.8	NA
Iron	100000	-	81700	85500	85.5	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2120	4720	236	NA
Titanium	2000	-	1640	1720	86.0	NA
Silver	-	20.0	-	22.9	115	80-120
Arsenic	-	20.0	-	19.2	96.0	80-120
Cadmium	-	20.0	-	20.7	104	80-120
Cobalt	-	20.0	-	17.0	85.0	80-120
Chromium	-	20.0	-	17.5	87.5	80-120
Copper	-	20.0	-	16.5	82.5	80-120
Manganese	-	20.0	-	17.3	86.5	80-120
Nickel	-	20.0	-	16.3	81.5	80-120
Zinc	-	20.0	-	19.2	96.0	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 278
SDG #: 06466, 06545, 06577, 06607, 06636

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	BSS1			BSS2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	206	103	200	198	99.0
Antimony	40.0	35.5	88.8	40.0	36.6	91.5
Arsenic	40.0	34.2	85.5	40.0	40.6	102
Barium	40.0	35.9	89.8	40.0	36.5	91.3
Beryllium	40.0	36.2	90.5	40.0	36.8	92.0
Cadmium	40.0	36.0	90.0	40.0	35.8	89.5
Calcium	200	170	85.0	200	191	95.5
Chromium	40.0	34.7	86.8	40.0	39.9	99.8
Cobalt	40.0	35.9	89.8	40.0	41.8	105
Copper	40.0	34.7	86.8	40.0	39.6	99.0
Iron	200	189	94.5	200	178	89.0
Lead	40.0	36.3	90.8	40.0	36.7	91.8
Magnesium	200	172	86.0	200	192	96.0
Manganese	40.0	35.1	87.8	40.0	38.8	97.0
Mercury	0.250	0.283	113	0.250	0.265	106
Nickel	40.0	34.6	86.5	40.0	39.5	98.8
Potassium	200	174	87.0	200	206	103
Selenium	40.0	34.1	85.3	40.0	40.5	101
Silver	40.0	37.1	92.8	40.0	37.9	94.8
Sodium	200	173	86.5	200	197	98.5
Thallium	40.0	37.6	94.0	40.0	38.2	95.5
Vanadium	40.0	35.4	88.5	40.0	39.3	98.3
Zinc	40.0	34.9	87.3	40.0	39.7	99.3

(1) Control Limits % Recovery = 85-115%

BSS1
06466-003,005; 06545-001~003; 06577-001~015

BSS2
06545-004~009; 06607-001~006; 06636-001

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 278
SDG #: 06466, 06545, 06577, 06607, 06636

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	1210	864	NC	220	775	613	77.9	208	75-125
Antimony	44.2	ND	100	44.0	37.1	ND	89.2	41.6	75-125
Arsenic	45.5	0.357	103	44.0	34.6	ND	83.2	41.6	75-125
Barium	47.8	2.80	102	44.0	40.2	3.11	89.2	41.6	75-125
Beryllium	44.5	ND	101	44.0	37.4	ND	89.9	41.6	75-125
Cadmium	44.1	ND	100	44.0	36.9	ND	88.7	41.6	75-125
Calcium	262	ND	119	220	197	ND	94.7	208	75-125
Chromium	48.3	2.08	105	44.0	35.4	1.30	82.0	41.6	75-125
Cobalt	48.8	ND	111	44.0	36.0	ND	86.5	41.6	75-125
Copper	46.0	ND	105	44.0	34.4	ND	82.7	41.6	75-125
Iron	1490	1080	NC	220	800	633	80.3	208	75-125
Lead	45.9	0.689	103	44.0	37.6	0.407	89.4	41.6	75-125
Magnesium	297	56.2	109	220	203	40.8	78.0	208	75-125
Manganese	53.4	5.26	109	44.0	37.3	2.42	83.8	41.6	75-125
Mercury	0.336	ND	122	0.275	0.322	ND	124	0.260	75-125
Nickel	47.1	0.784	105	44.0	34.4	ND	82.7	41.6	75-125
Potassium	325	71.8	115	220	221	45.4	84.4	208	75-125
Selenium	44.9	ND	102	44.0	36.2	ND	87.0	41.6	75-125
Silver	46.2	ND	105	44.0	38.3	ND	92.1	41.6	75-125
Sodium	278	43.0	107	220	203	ND	97.6	208	75-125
Thallium	46.4	ND	105	44.0	38.5	ND	92.5	41.6	75-125
Vanadium	49.2	2.18	107	44.0	35.7	1.38	82.5	41.6	75-125
Zinc	46.8	ND	106	44.0	34.8	ND	83.7	41.6	75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 06466-005
QC Sample 1 for following samples:
06466-003,005; 06545-001~003; 06577-001~015

QC Sample 2 06545-005
QC Sample 2 for following samples:
06545-004~009; 06607-001~006; 06636-001

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 278
SDG #: 06466, 06545, 06577, 06607, 06636

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	864	845	2.22	20	613	607	0.984
Antimony	NA	ND	ND	NC	NA	ND	ND	NC
Arsenic	20	0.357	0.344	3.71	NA	ND	ND	NC
Barium	20	2.80	2.85	1.77	20	3.11	3.16	1.59
Beryllium	NA	ND	ND	NC	NA	ND	ND	NC
Cadmium	NA	ND	ND	NC	NA	ND	ND	NC
Calcium	NA	ND	ND	NC	NA	ND	ND	NC
Chromium	20	2.08	2.04	1.94	20	1.30	1.26	3.13
Cobalt	NA	ND	ND	NC	NA	ND	ND	NC
Copper	NA	ND	ND	NC	NA	ND	ND	NC
Iron	20	1080	1050	2.82	20	633	618	2.40
Lead	20	0.689	0.700	1.58	20	0.407	0.396	2.74
Magnesium	20	56.2	54.7	2.71	20	40.8	39.4	3.49
Manganese	20	5.26	5.31	0.946	20	2.42	2.23	8.17
Mercury	NA	ND	ND	NC	NA	ND	ND	NC
Nickel	20	0.784	0.694	12.2	NA	ND	ND	NC
Potassium	20	71.8	63.8	11.8	20	45.4	42.8	5.90
Selenium	NA	ND	ND	NC	NA	ND	ND	NC
Silver	NA	ND	ND	NC	NA	ND	ND	NC
Sodium	20	43.0	42.4	1.41	NA	ND	ND	NC
Thallium	NA	ND	ND	NC	NA	ND	ND	NC
Vanadium	20	2.18	2.04	6.64	20	1.38	1.37	0.727
Zinc	NA	ND	ND	NC	NA	ND	ND	NC

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 06466-005
QC Sample 1 for following samples:
06466-003,005; 06545-001~003; 06577-001~015

QC Sample 2 06545-005
QC Sample 2 for following samples:
06545-004~009; 06607-001~006; 06636-001

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 278
SDG #: 06466, 06545, 06577

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	864	862	0.232			
Antimony	ND			50.3	44.0	114
Arsenic	0.357			51.0	44.0	115.0
Barium	2.80			55.2	44.0	119.0
Beryllium	ND			51.8	44.0	118
Cadmium	ND			50.5	44.0	115
Calcium	ND			1070	880	122
Chromium	2.08			52.9	44.0	116.0
Cobalt	ND			50.3	44.0	114
Copper	ND			49.4	44.0	112
Iron	1080	1080	0			
Lead	0.689			53.4	44.0	120.0
Magnesium	56.2			1130	880	122.0
Manganese	5.26			59.3	44.0	123.0
Nickel	0.784			51.4	44.0	115.0
Potassium	71.8			1160	880	124.0
Selenium	ND			50.2	44.0	114
Silver	ND			53.0	44.0	120
Sodium	43.0			1050	880	114.0
Thallium	ND			54.4	44.0	124
Vanadium	2.18			53.4	44.0	116.0
Zinc	ND			52.1	44.0	118

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 06466-005
QC Sample 1 for following samples:
06466-003,005; 06545-001~003; 06577-001~015

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 2

Batch (Page) #: 278
SDG #: 06545, 06607, 06636

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	613	607	0.984			
Antimony	ND			49.4	41.6	119
Arsenic	ND			41.9	41.6	101
Barium	3.11			54.5	41.6	124.0
Beryllium	ND			50.0	41.6	120
Cadmium	ND			48.5	41.6	117
Calcium	ND			899	832	108
Chromium	1.30			41.6	41.6	96.9
Cobalt	ND			40.6	41.6	97.6
Copper	ND			40.3	41.6	96.9
Iron	633	656	3.57			
Lead	0.407			51.5	41.6	123.0
Magnesium	40.8			868	832	99.4
Manganese	2.42			44.3	41.6	101.0
Nickel	ND			41.0	41.6	98.6
Potassium	45.4			938	832	107.0
Selenium	ND			42.6	41.6	102
Silver	ND			50.2	41.6	121
Sodium	ND			794	832	95.4
Thallium	ND			49.2	41.6	118
Vanadium	1.38			42.1	41.6	97.9
Zinc	ND			42.5	41.6	102

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample2 : 06545-005
QC Sample 2 for following samples:
06545-004~009; 06607-001~006; 06636-001

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG278
July 9, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1361512**	**83779**	**351344**	**2084000**	**3157159**	**1909613**	
	Sample Lower Limit	**408454**	**25134**	**105403**	**625200**	**947148**	**572884**	
	QC Lower Limit	**953058**	**58645**	**245941**	**1458800**	**2210011**	**1336729**	
	Sample & QC Upper Limit	**1633814**	**100535**	**421613**	**2500800**	**3788591**	**2291536**	
003CALS.D	STD1	1300025	84003	331137	1982560	3003275	1816185	
004CALS.D	STD2	1348227	84046	327121	1958885	3046063	1862618	
005CALS.D	STD3	1322906	85561	328206	1974919	3036362	1855489	
006CALS.D	STD4	1302131	81720	323071	1927051	2978129	1835548	
008_ICV.D	ICV	1261778	83778	306053	1838001	2846455	1744390	
009_ICB.D	ICB	1193168	87758	320694	1907217	2967641	1794990	
010_ICV.D	ICV	1261778	83778	306053	1838001	2846455	1744390	
011SMPL.D	BMS1	1174878	83054	327176	1957484	2998844	1793726	
012SMPL.D	06466-005	1201079	79280	326778	1923570	2991865	1805047	
013SMPL.D	06466-005R	1163975	82832	325632	1939272	2963963	1795064	
014SMPL.D	06466-005SD	1198580	91091	327679	1993929	3010665	1800932	
015SMPL.D	BSS1	1147125	85572	323582	1970580	3034943	1811477	
016SMPL.D	06466-005RS	1133766	79447	319393	1909646	2964904	1777312	
017SMPL.D	06466-005PS	1127741	83351	318299	1870928	2995452	1755383	
0196CCV.D	CCV	1274394	81787	324228	1944649	2989870	1844544	
0206CCB.D	CCB	1185848	82709	321552	1965111	3015714	1823292	
021SMPL.D	06636-001	971150	92276	386356	1730471	2769908	1687481	
022SMPL.D	06466-003	1097345	86397	324264	1928822	3064671	1849382	
023SMPL.D	06577-001	1024997	79666	303701	1734097	2803372	1675446	
024SMPL.D	06577-002	1087619	79940	338301	1944832	3098747	1831106	
025SMPL.D	06636-001	1029645	84671	326718	1870999	2874885	1719988	
026SMPL.D	06577-003	978897	78855	306470	1741812	2755374	1605089	
027SMPL.D	06577-004	976479	82050	310175	1769745	2751975	1605610	
028SMPL.D	06577-005	957639	79476	305300	1745433	2771613	1573995	
029SMPL.D	06577-006	957675	80006	307748	1740951	2714402	1583629	
030SMPL.D	06577-007	930924	78716	302476	1707122	2680407	1574648	
0316CCV.D	CCV	1222750	84413	327857	1974716	3028348	1798916	
0326CCB.D	CCB	1045110	83899	321054	1929372	2895544	1713581	
033SMPL.D	06577-008	950974	77906	303016	1732788	2735465	1610476	
034SMPL.D	06577-009	936714	79389	297662	1718292	2649128	1568198	
035SMPL.D	06577-010	929670	78602	298340	1667504	2660398	1518657	
036SMPL.D	06577-011	928687	80268	300305	1683454	2674087	1549457	
037SMPL.D	06577-012	896519	77941	303629	1704689	2696763	1554912	
038SMPL.D	06577-013	985226	78572	316163	1825855	2835207	1627629	
039SMPL.D	06577-014	913726	78793	304741	1717783	2732378	1583652	
040SMPL.D	06577-015	905609	79848	305752	1732679	2747066	1573100	
041SMPL.D	06545-001	983391	82759	316950	1903800	2855285	1697058	
042SMPL.D	06545-002	958616	83008	314618	1853814	2833248	1645372	
0436CCV.D	CCV	1238776	84653	331640	1969854	2994930	1798116	
0446CCB.D	CCB	997936	82193	319684	1896085	2830936	1657949	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG278
July 9, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1361512**	**83779**	**351344**	**2084000**	**3157159**	**1909613**	
	Sample Lower Limit	**408454**	**25134**	**105403**	**625200**	**947148**	**572884**	
	QC Lower Limit	**953058**	**58645**	**245941**	**1458800**	**2210011**	**1336729**	
	Sample & QC Upper Limit	**1633814**	**100535**	**421613**	**2500800**	**3788591**	**2291536**	
045SMPL.D	06545-003	916074	82094	309232	1769826	2792378	1663611	
046SMPL.D	BMS2	967814	81727	319815	1927726	2894335	1666599	
047SMPL.D	06545-005	959561	83098	319414	1904092	2888148	1695563	
048SMPL.D	06545-005R	972667	83958	322719	1930970	2942287	1708818	
049SMPL.D	06545-005SD	957422	81879	318633	1919075	2886520	1662013	
050SMPL.D	BSS2	965935	82706	312124	1852492	2850012	1689233	
051SMPL.D	06545-005RS	959702	84581	316249	1909456	2957231	1743233	
052SMPL.D	06545-005PS	870792	82624	284200	1680118	2640875	1519639	
054SMPL.D	06545-004	960503	81246	317991	1892811	2925038	1752650	
0556CCV.D	CCV	1134128	81497	318764	1900109	3018643	1789846	
0566CCB.D	CCB	976954	83056	317718	1900014	2911456	1731260	
057SMPL.D	06545-006	974693	84026	315071	1894718	2910082	1726024	
059SMPL.D	06545-008	959243	90566	316644	1897225	2931696	1764404	
060SMPL.D	06545-007	894220	82627	316324	1856298	2912426	1692929	
061SMPL.D	06545-009	959578	84465	329907	1986838	3098148	1787045	
062SMPL.D	06607-001	901453	83718	322227	1902026	2975263	1729486	
063SMPL.D	06607-002	875552	82682	317107	1844960	2896504	1662064	
064SMPL.D	06607-003	867785	84822	322568	1869279	2970556	1675028	
065SMPL.D	06607-004	854474	82114	321308	1875189	2917104	1646742	
066SMPL.D	06607-005	866995	84995	319247	1904883	2977343	1704488	
0676CCV.D	CCV	1116267	85384	326554	1965932	2930902	1767565	
0686CCB.D	CCB	960686	83338	324797	1948887	3027771	1726404	
069SMPL.D	06607-006	870816	82233	311664	1848356	2859224	1638700	
0706CCV.D	FINAL CCV	1119269	85608	327544	1973617	3000861	1773765	
0716CCB.D	FINAL CCB	961549	82219	313964	1910830	2879096	1717144	
072ICSA.D	ICSA	742238	76749	289316	1487361	2413865	1300170	
073ICSB.D	ICSAB	474631	74301	192947	916487	1468834	760190	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

SAMPLE TRACKING

IAL Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO		REPORTING INFO	
Company:	URS CORP.	REPORT TO:	GEORGE KEIL / NEIL LAIRD
Address:	335 COMMERCE DR	Address:	335 COMMERCE DR
	FORT WASHINGTON, PA		FORT WASHINGTON, PA
Telephone #:	(215) 367-2500	Attn:	
Fax #:	(215) 367-1000	FAX #	
Project Manager:	GEORGE KEIL	INVOICE TO:	GEORGE KEIL - URS
EMAIL Address:	GEORGE.KEIL@URS.COM	Address:	
Sampler:	N. LAIRD / J. RAMOS		
Project Name:	TRADEBE		
Project Location (State):	VINELAND, NJ	Attn:	
Bottle Order #:		PO #	
Quote # :			

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) NJ EPH Fractionated (5 day TAT)

NJ EPH - C40 (5 day TAT)

DRO-8015 (3-5 day TAT) QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified

24 hr** 48 hr** 72 hr** 96 hr** 1 wk**

Other** (specify):

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **: 24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only; Reduced; Regulatory - 15% Surcharge applies; Other (describe)

EDDs: SRP format; lab approved custom EDD; NO EDD/CD REQ'D

Cooler Temp 4 °C

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS / # BOTTLES & PRESERVATIVES

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	TPH/EPH	PAH	METALS	HCL	HNO3	MeOH	Other	None	Encore
A6(4-5)-062912		6/29/12	0855	S	1	1	X	X	X					1	
A5(9-10)-062912		6/29/12	0935	S	1	2	X	X	X					1	
A4(10.5-11.5)-062912		6/29/12	1020	S	1	3	X	X	X					1	
E1(6.5-7.5)-062912		6/29/12	1055	S	1	4	X	X	X					1	
D1(9-10)-062912		6/29/12	1135	S	1	5	X	X	X					1	
D2(9-10)-062912		6/29/12	1210	S	1	6	X	X	X					1	
D3(4-5)-062912		6/29/12	1230	S	1	7	X	X	X					1	
F1(9-10)-062912		6/29/12		S	1	8	X	X	X						

Known Hazard: Yes or No Describe: Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): _____ IAL Courier _____ Client Courier _____ FedEx/UPS

	Signature/Company	Date	Time		Signature/Company	Date	Time
Relinquished by:	N. Laird URS	6/29/12	1640	Received by:	[illegible]	6/29/12	1640
Relinquished by:	[illegible]	6/29/12	2040	Received by:	[illegible]	6/29/12	2040
Relinquished by:				Received by:			
Relinquished by:				Received by:			
Relinquished by:				Received by:			

Comments:

Lab Case # 06545

PAGE: 1 of 2

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

2010 REV COC

10/2010 rev

IAL Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

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Web: www.ialonline.com

CUSTOMER INFO		REPORTING INFO	
Company:	URS CORP.	REPORT TO:	GEORGE KEIL / NEIL LAIRD
Address:	335 COMMERCE DR	Address:	335 COMMERCE DR
	FORT WASHINGTON, PA		FORT WASHINGTON, PA
Telephone #:	(215) 367-2500	Attn:	
Fax #:	(215) 367-1000	FAX #	
Project Manager:	GEORGE KEIL	INVOICE TO:	GEORGE KEIL URS
EMAIL Address:	GEORGE.KEIL@URS.COM	Address:	
Sampler:	N. LAIRD / J. RAMOS		
Project Name:	TRADEBE		
Project Location (State):	VINELAND, NJ	Attn:	
Bottle Order #:		PO #	
Quote # :			

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) NJ EPH Fractionated (5 day TAT)

NJ EPH - C40 (5 day TAT)

DRO-8015 (3-5 day TAT) QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified

24 hr** 48 hr** 72 hr** 96 hr** 1 wk**

Other** (specify):

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **	Report Format	EDDs
24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%	Results Only Reduced Regulatory - 15% Surcharge applies Other (describe)	SRP format lab approved custom EDD NO EDD/CD REQ'D

Cooler Temp 4 °C

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS

BOTTLES & PRESERVATIVES

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	TPH/EPH	PAH	METALS	HCL	HNO3	MeOH	Other	None	Encore
F2(9-10)-062912		6/29/12	1355	S	1	9	X	X	X					1	

Known Hazard: Yes or No Describe:

Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): ____ IAL Courier ____ Client Courier ____ FedEx/UPS

CUSTODY	Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by:	Neil Laird / URS	6/29/12	1640	Received by:	6/29/12	1640
Relinquished by:	[illegible]	6/29/12	2040	Received by:	6/29/12	2040
Relinquished by:				Received by:		
Relinquished by:				Received by:		
Relinquished by:				Received by:		

Comments:

Lab Case # 06545

PAGE: 2 of 2

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

IAL 10 REV COC

10/2010 rev

PROJECT INFORMATION

E12-06545

Case No. E12-06545 **Project** TRADEBE - VENDOR #1168636

Customer	URS Corporation - Ft. Washington	**P.O. #**	GEORGE KEIL
Contact	George Keil	**Received**	6/29/2012 20:40
EMail	George_Keil@URSCorp.com ☑ EMail EDDs	**Verbal Due**	7/17/2012
Phone	(215) 367-2500 **Fax** 1(215) 367-1000	**Report Due**	7/24/2012

Report To
335 Commerce Dr.
Suite 300
Fort Washington, PA 19034
Attn: George Keil

Bill To
PO Box 203970
Austin, TX 78720
Attn: George Keil

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
06545-001	A6(4-5)-062912	n/a	6/29/2012@08:55	Soil	mg/Kg	1
06545-002	A5(9-10)-062912	n/a	6/29/2012@09:35	Soil	mg/Kg	1
06545-003	A4(10.5-11.5)-062912	n/a	6/29/2012@10:20	Soil	mg/Kg	1
06545-004	E1(6.5-7.5)-062912	n/a	6/29/2012@10:55	Soil	mg/Kg	1
06545-005	D1(9-10)-062912	n/a	6/29/2012@11:35	Soil	mg/Kg	1
06545-006	D2(9-10)-062912	n/a	6/29/2012@12:10	Soil	mg/Kg	1
06545-007	D3(4-5)-062912	n/a	6/29/2012@12:30	Soil	mg/Kg	1
06545-008	F1(9-10)-062912	n/a	6/29/2012	Soil	mg/Kg	1
06545-009	F2(9-10)-062912	n/a	6/29/2012@13:55	Soil	mg/Kg	1

Sample #	Tests	Status	QA Method
001	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	Run	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
002	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	Run	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
003	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	Run	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
004	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	Run	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
005	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	Run	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
006	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	Run	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
007	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	Run	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A

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PROJECT INFORMATION

E12-06545

Case No. E12-06545 **Project** TRADEBE - VENDOR #1168636

Sample #	Tests	Status	QA Method
008	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	Run	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
009	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	Run	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 12** **06545** CLIENT: ORS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
✗ = NO

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
[ ]	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 6/29/12

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [✓]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 7.3.12

REV 03/2009

Laboratory Custody Chronicle

IAL Case No.

E12-06545

Client URS Corporation - Ft. Washington

Project TRADEBE - VENDOR #1168636

Received On 6/29/2012@20:40

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL/PAH	06545-001	Soil	7/10/12	Kou-Liang	7/11/12	JC
"	-002	"	7/10/12	Kou-Liang	7/11/12	JC
"	-003	"	7/10/12	Kou-Liang	7/11/12	JC
"	-004	"	7/10/12	Kou-Liang	7/11/12	JC
"	-005	"	7/10/12	Kou-Liang	7/11/12	JC
"	-006	"	7/10/12	Kou-Liang	7/11/12	JC
"	-007	"	7/10/12	Kou-Liang	7/11/12	JC
"	-008	"	7/10/12	Kou-Liang	7/11/12	JC
"	-009	"	7/10/12	Kou-Liang	7/11/12	JC

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
NJ-EPH-Fractionated	-001	Soil	7/ 6/12	Archimede	7/10/12	Margaret
"	-002	"	7/ 6/12	Archimede	7/11/12	Margaret
"	-003	"	7/ 6/12	Archimede	7/10/12	Margaret
"	-004	"	7/ 6/12	Archimede	7/10/12	Margaret
"	-005	"	7/ 6/12	Archimede	7/10/12	Margaret
"	-006	"	7/ 6/12	Archimede	7/11/12	Margaret
"	-007	"	7/ 6/12	Archimede	7/10/12	Margaret
"	-008	"	7/ 6/12	Archimede	7/10/12	Margaret
"	-009	"	7/ 6/12	Archimede	7/10/12	Margaret

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TAL Metals	-001	Soil	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-002	"	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-003	"	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-004	"	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-005	"	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-006	"	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-007	"	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-008	"	7/ 5/12	Lisa	7/ 9/12	RPittenger
"	-009	"	7/ 5/12	Lisa	7/ 9/12	RPittenger

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Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

URS Corporation - Ft. Washington
335 Commerce Dr.
Suite 300
Fort Washington, PA 19034

Project Name: **TRADEBE - VENDOR #1168636**
IAL Case Number: **E12-06546**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E12-06546

Client URS Corporation - Ft. Washington

Project TRADEBE - VENDOR #1168636

Received On 6/29/2012@20:40

Lab ID	Client Sample ID	Depth Top/Bottom	Sampling Time	Matrix	# of Container
06546-001	A6-062912-WATER	n/a	6/29/2012@10:30	Aqueous	10
06546-002	E1-062912-WATER	n/a	6/29/2012@12:45	Aqueous	5
06546-003	A6-062912-WATER FILT.	n/a	6/29/2012@10:30	Aqueous	1
06546-004	E1-062912-WATER FILT.	n/a	6/29/2012@12:45	Aqueous	1

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received four (4) aqueous sample(s) from URS Corporation - Ft. Washington (IAL SDG # E12-06546, Project: TRADEBE - VENDOR #1168636) on June 29, 2012 for the analysis of:

(1) TCL VO + 15
(1) TCL BNA + 15
(1) TCL/PAH
(1) TCL Pesticides
(1) Herbicides
(2) TAL Metals
(2) TPHC

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

7/18/12
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06546

Volatiles By 8260B

Batch ID: 120709

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate met criteria.

E12-06546
- Analysis holding time met requirement for each sample.

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06546

Semivolatiles By **8270C/625**

Batch ID: 120706-01	**Matrix:** Aqueous

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E12-06546
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PESTICIDES

Lab Case Number: E12 - 06546

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. Standards Summary submitted.		✓
3. Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7. Retention Time Shift Meet Criteria (if applicable).		✓
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/10/12
Date

rev 01/12

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - HERBICIDES

Lab Case Number: E12 - 06546

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07-11-12
Date

rev 01/12

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06546

METAL By Method 6020

Matrix: AQUEOUS	Batch ID: 279A

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06546
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES

CONFORMANCE/NONCONFORMANCE SUMMARY

PHC ANALYSIS

SDG #: E12-06546

		No	Yes
1.	Blank Contamination If yes, list the sample and the concentration in each blanks:		
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the samples and corresponding recovery which falls outside the acceptable range)		
3.	IR spectra submitted for all standards, blanks & samples. Comments: Integrated Analytical Laboratories (IAL) generates TPHC results on a fixed wavelength IR Spectrophotometer. Like all fixed wavelength IR Spectrophotometers, IAL's cannot generate spectra. However, the instrument used is approved both under the apparatus section of EPA 418.1 for TPHC and by the Office of Quality Assurance of the NJDEP for generating TPHC results.		
4.	Chromatograms submitted for all standards, blanks & samples if GC fingerprinting was conducted.		
5.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:		

Additional Comments:

Dept. Supervisor

7/5/2012
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06546

Lab ID:	06546-001			06546-002			06546-003			06546-004		
Client ID:	A6-062912			E1-062912			A6-062912			E1-062912		
Client ID Cont.:	-WATER			-WATER			-WATER FILT.			-WATER FILT.		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	6/29/12			6/29/12			6/29/12			6/29/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
TOTAL VO's:	ND			~		~	~		~	~		~
TOTAL TIC's:	ND			~		~	~		~	~		~
TOTAL VO's & TIC's:	ND			~		~	~		~	~		~
Semivolatiles - PAH (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Naphthalene	~		~	ND		0.104	~		~	~		~
2-Methylnaphthalene	~		~	ND		0.142	~		~	~		~
Acenaphthylene	~		~	ND		0.100	~		~	~		~
Acenaphthene	~		~	ND		0.112	~		~	~		~
Fluorene	~		~	ND		0.126	~		~	~		~
Phenanthrene	~		~	ND		0.187	~		~	~		~
Anthracene	~		~	ND		0.218	~		~	~		~
Fluoranthene	~		~	ND		0.174	~		~	~		~
Pyrene	~		~	ND		0.103	~		~	~		~
Benzo[a]anthracene	~		~	ND		0.200	~		~	~		~
Chrysene	~		~	ND		0.120	~		~	~		~
Benzo[b]fluoranthene	~		~	ND		0.260	~		~	~		~
Benzo[k]fluoranthene	~		~	ND		0.240	~		~	~		~
Benzo[a]pyrene	~		~	ND		0.210	~		~	~		~
Indeno[1,2,3-cd]pyrene	~		~	ND		0.170	~		~	~		~
Dibenz[a,h]anthracene	~		~	ND		0.230	~		~	~		~
Benzo[g,h,i]perylene	~		~	ND		0.122	~		~	~		~
Semivolatiles - BNA (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
TOTAL BNA'S:	ND			~		~	~		~	~		~
TOTAL TIC's:	102			~		~	~		~	~		~
TOTAL BNA'S & TIC's:	102			~		~	~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06546

Lab ID:	06546-001			06546-002			06546-003			06546-004		
Client ID:	A6-062912			E1-062912			A6-062912			E1-062912		
Client ID Cont.:	-WATER			-WATER			-WATER FILT.			-WATER FILT.		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	6/29/12			6/29/12			6/29/12			6/29/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Pesticides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
alpha-BHC	ND		0.005	~		~	~		~	~		~
beta-BHC	ND		0.005	~		~	~		~	~		~
gamma-BHC (Lindane)	ND		0.005	~		~	~		~	~		~
delta-BHC	ND		0.005	~		~	~		~	~		~
Heptachlor	ND		0.005	~		~	~		~	~		~
Aldrin	ND		0.005	~		~	~		~	~		~
Heptachlor epoxide	ND		0.005	~		~	~		~	~		~
Endosulfan I	ND		0.005	~		~	~		~	~		~
4,4'-DDE	ND		0.005	~		~	~		~	~		~
Dieldrin	ND		0.005	~		~	~		~	~		~
Endrin	ND		0.005	~		~	~		~	~		~
Endosulfan II	ND		0.005	~		~	~		~	~		~
4,4'-DDD	ND		0.005	~		~	~		~	~		~
Endrin aldehyde	ND		0.005	~		~	~		~	~		~
Endosulfan sulfate	ND		0.005	~		~	~		~	~		~
4,4'-DDT	ND		0.005	~		~	~		~	~		~
Endrin ketone	ND		0.005	~		~	~		~	~		~
Methoxychlor	ND		0.005	~		~	~		~	~		~
alpha-Chlordane	ND		0.005	~		~	~		~	~		~
gamma-Chlordane	ND		0.005	~		~	~		~	~		~
Toxaphene	ND		0.060	~		~	~		~	~		~
Endosulfan (I and II)	ND		0.005	~		~	~		~	~		~
Chlordane (alpha and gamma)	ND		0.005	~		~	~		~	~		~
Herbicides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Dalapon	ND		0.100	~		~	~		~	~		~
Dicamba	ND		0.100	~		~	~		~	~		~
2,4-D	ND		0.100	~		~	~		~	~		~
2,4,5-TP (Silvex)	ND		0.100	~		~	~		~	~		~
2,4,5-T	ND		0.100	~		~	~		~	~		~
2,4-DB	ND		0.100	~		~	~		~	~		~
Dinoseb	ND		0.100	~		~	~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06546

Lab ID:	06546-001			06546-002			06546-003			06546-004		
Client ID:	A6-062912			E1-062912			A6-062912			E1-062912		
Client ID Cont.:	-WATER			-WATER			-WATER FILT.			-WATER FILT.		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	6/29/12			6/29/12			6/29/12			6/29/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Aluminum	~		~	~		~	81.9		20.0	ND		20.0
Antimony	~		~	~		~	ND		1.00	1.19	J	1.00
Arsenic	~		~	~		~	1.43	J	1.00	1.21	J	1.00
Barium	~		~	~		~	50.0		10.0	72.4		10.0
Beryllium	~		~	~		~	ND		1.00	ND		1.00
Cadmium	~		~	~		~	ND		0.500	ND		0.500
Calcium	~		~	~		~	15900		100	29700		100
Chromium	~		~	~		~	ND		2.00	ND		2.00
Cobalt	~		~	~		~	ND		2.00	ND		2.00
Copper	~		~	~		~	ND		4.00	ND		4.00
Iron	~		~	~		~	1400		50.0	13500		50.0
Lead	~		~	~		~	ND		0.500	ND		0.500
Magnesium	~		~	~		~	3240		50.0	5850		50.0
Manganese	~		~	~		~	113		2.00	395		2.00
Mercury	~		~	~		~	ND		0.300	ND		0.300
Nickel	~		~	~		~	ND		1.00	1.48	J	1.00
Potassium	~		~	~		~	3480		50.0	6440		50.0
Selenium	~		~	~		~	ND		4.00	ND		4.00
Silver	~		~	~		~	ND		0.500	ND		0.500
Sodium	~		~	~		~	26000		100	36800		100
Thallium	~		~	~		~	ND		0.500	ND		0.500
Vanadium	~		~	~		~	ND		2.00	ND		2.00
Zinc	~		~	~		~	11.0		4.00	10.7		4.00
General Analytical (Units)												
Total Petroleum Hydrocarbons(ug/L)	ND		500	609		500	~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06546-001
Client ID: A6-062912-WATE
Date Received: 06/29/2012
Date Analyzed: 07/10/2012
Data file: L1468.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.260
Chloromethane	ND		1.00	0.360
Vinyl chloride	ND		1.00	0.330
Bromomethane	ND		1.00	0.400
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.340
1,1-Dichloroethene	ND		1.00	0.310
Acetone	ND		1.00	0.330
Carbon disulfide	ND		1.00	0.230
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.370
Methyl tert-butyl ether (MTBE)	ND		1.00	0.300
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.340
2-Butanone (MEK)	ND		1.00	0.240
Bromochloromethane	ND		1.00	0.250
Chloroform	ND		1.00	0.240
1,1,1-Trichloroethane	ND		1.00	0.330
Carbon tetrachloride	ND		1.00	0.270
1,2-Dichloroethane (EDC)	ND		1.00	0.400
Benzene	ND		1.00	0.210
Trichloroethene	ND		1.00	0.280
1,2-Dichloropropane	ND		1.00	0.290
1,4-Dioxane	ND		200	39.1
Bromodichloromethane	ND		1.00	0.330
cis-1,3-Dichloropropene	ND		1.00	0.220
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.290

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06546-001
Client ID: A6-062912-WATE
Date Received: 06/29/2012
Date Analyzed: 07/10/2012
Data file: L1468.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.230
trans-1,3-Dichloropropene	ND		1.00	0.230
1,1,2-Trichloroethane	ND		1.00	0.210
Tetrachloroethene	ND		1.00	0.220
2-Hexanone	ND		1.00	0.390
Dibromochloromethane	ND		1.00	0.250
1,2-Dibromoethane (EDB)	ND		1.00	0.260
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.290
Total Xylenes	ND		2.00	0.680
Styrene	ND		1.00	0.240
Bromoform	ND		1.00	0.260
Isopropylbenzene	ND		1.00	0.210
1,1,2,2-Tetrachloroethane	ND		1.00	0.330
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.220
1,2-Dichlorobenzene	ND		1.00	0.240
1,2-Dibromo-3-chloropropane	ND		1.00	0.220
1,2,4-Trichlorobenzene	ND		1.00	0.270
1,2,3-Trichlorobenzene	ND		1.00	0.480
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.210
Methyl acetate	ND		1.00	0.210
Cyclohexane	ND		2.00	0.360
Methylcyclohexane	ND		1.00	0.600
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.230

Total Target Compounds (52): 0

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06546-001
Client ID: A6-062912-WATE
Date Received: 06/29/2012
Date Analyzed: 07/10/2012
Date File: L1468.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06546-001
Client ID: A6-06291
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/06/2012
Data file: A2103.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		1.00	0.420
Phenol	ND		1.00	0.100
Bis(2-chloroethyl) ether	ND		1.00	0.080
2-Chlorophenol	ND		1.00	0.150
2-Methylphenol	ND		1.00	0.120
Bis(2-chloroisopropyl) ether	ND		1.00	0.100
4-Methylphenol **	ND		1.00	0.140
N-Nitrosodi-n-propylamine	ND		1.00	0.160
Acetophenone	ND		1.00	0.110
Hexachloroethane	ND		1.00	0.140
Nitrobenzene	ND		1.00	0.130
Isophorone	ND		1.00	0.110
2-Nitrophenol	ND		1.00	0.310
2,4-Dimethylphenol	ND		1.00	0.170
Bis(2-chloroethoxy) methane	ND		1.00	0.110
2,4-Dichlorophenol	ND		1.00	0.150
Naphthalene	ND		1.00	0.104
4-Chloroaniline	ND		1.00	0.140
Hexachlorobutadiene	ND		1.00	0.140
Caprolactam	ND		1.00	0.250
4-Chloro-3-methylphenol	ND		1.00	0.100
2-Methylnaphthalene	ND		1.00	0.142
Hexachlorocyclopentadiene	ND		1.00	0.200
2,4,6-Trichlorophenol	ND		1.00	0.100
2,4,5-Trichlorophenol	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.110
2-Chloronaphthalene	ND		1.00	0.110
2-Nitroaniline	ND		1.00	0.140
Dimethyl phthalate	ND		1.00	0.100

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06546-001
Client ID: A6-06291
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/06/2012
Data file: A2103.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.190
Acenaphthylene	ND		1.00	0.100
3-Nitroaniline	ND		1.00	0.170
Acenaphthene	ND		1.00	0.112
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.250
2,4-Dinitrotoluene	ND		1.00	0.160
Dibenzofuran	ND		1.00	0.100
Diethyl phthalate	ND		1.00	0.130
Fluorene	ND		1.00	0.126
4-Chlorophenyl phenyl ether	ND		1.00	0.130
4-Nitroaniline	ND		1.00	0.160
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.150
2,3,4,6-Tetrachlorophenol	ND		1.00	0.260
4,6-Dinitro-2-methylphenol	ND		1.00	0.130
N-Nitrosodiphenylamine	ND		1.00	0.180
4-Bromophenyl phenyl ether	ND		1.00	0.210
Hexachlorobenzene	ND		1.00	0.150
Atrazine	ND		1.00	0.210
Pentachlorophenol	ND		1.00	0.140
Phenanthrene	ND		1.00	0.187
Anthracene	ND		1.00	0.218
Carbazole	ND		1.00	0.180
Di-n-butyl phthalate	ND		1.00	0.120
Fluoranthene	ND		1.00	0.174
Pyrene	ND		1.00	0.103
Butyl benzyl phthalate	ND		1.00	0.180
3,3'-Dichlorobenzidine	ND		1.00	0.230
Benzo[a]anthracene	ND		1.00	0.200
Chrysene	ND		1.00	0.120
Bis(2-ethylhexyl) phthalate	ND		1.00	0.210
Di-n-octyl phthalate	ND		1.00	0.310
Benzo[b]fluoranthene	ND		1.00	0.260
Benzo[k]fluoranthene	ND		1.00	0.240
Benzo[a]pyrene	ND		1.00	0.210
Indeno[1,2,3-cd]pyrene	ND		1.00	0.170
Dibenz[a,h]anthracene	ND		1.00	0.230
Benzo[g,h,i]perylene	ND		1.00	0.122
Dinitrotoluene (2,4- and 2,6-)	ND		1.00	0.190

Total Target Compounds (68): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06546-001
Client ID: A6-06291
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/06/2012
Date File: A2103.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	Unknown SV	5.90	4.11
	Unknown SV	15.5	5.11
	Unknown SV	80.5	5.19

Total TICs = 102

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06546-002
Client ID: E1-06291
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/06/2012
Data file: A2104.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		1.00	0.104
2-Methylnaphthalene	ND		1.00	0.142
Acenaphthylene	ND		1.00	0.100
Acenaphthene	ND		1.00	0.112
Fluorene	ND		1.00	0.126
Phenanthrene	ND		1.00	0.187
Anthracene	ND		1.00	0.218
Fluoranthene	ND		1.00	0.174
Pyrene	ND		1.00	0.103
Benzo[a]anthracene	ND		1.00	0.200
Chrysene	ND		1.00	0.120
Benzo[b]fluoranthene	ND		1.00	0.260
Benzo[k]fluoranthene	ND		1.00	0.240
Benzo[a]pyrene	ND		1.00	0.210
Indeno[1,2,3-cd]pyrene	ND		1.00	0.170
Dibenz[a,h]anthracene	ND		1.00	0.230
Benzo[g,h,i]perylene	ND		1.00	0.122

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06546-001
Client ID: A6-062912-
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: V8212.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 06546-001
Client ID: A6-062912-
Date Received: 06/29/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/10/2012
Data file: W7086.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06546-003
Client ID: A6-062912-WATER FILT.
Date Received: 6/29/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 279

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	81.9		1	40.0	20.0	07/06/12	6020
Antimony	ND		1	4.00	1.00	07/06/12	6020
Arsenic	1.43	J	1	2.00	1.00	07/06/12	6020
Barium	50.0		1	40.0	10.0	07/06/12	6020
Beryllium	ND		1	2.00	1.00	07/06/12	6020
Cadmium	ND		1	2.00	0.500	07/06/12	6020
Calcium	15900		1	200	100	07/06/12	6020
Chromium	ND		1	8.00	2.00	07/06/12	6020
Cobalt	ND		1	8.00	2.00	07/06/12	6020
Copper	ND		1	8.00	4.00	07/06/12	6020
Iron	1400		1	100	50.0	07/06/12	6020
Lead	ND		1	2.00	0.500	07/06/12	6020
Magnesium	3240		1	200	50.0	07/06/12	6020
Manganese	113		1	4.00	2.00	07/06/12	6020
Mercury	ND		1	0.500	0.300	07/06/12	7470A
Nickel	ND		1	4.00	1.00	07/06/12	6020
Potassium	3480		1	200	50.0	07/06/12	6020
Selenium	ND		1	8.00	4.00	07/06/12	6020
Silver	ND		1	2.00	0.500	07/06/12	6020
Sodium	26000		1	400	100	07/06/12	6020
Thallium	ND		1	2.00	0.500	07/06/12	6020
Vanadium	ND		1	8.00	2.00	07/06/12	6020
Zinc	11.0		1	8.00	4.00	07/06/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06546-004
Client ID: E1-062912-WATER FILT.
Date Received: 6/29/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 279

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	ND		1	40.0	20.0	07/06/12	6020
Antimony	1.19	J	1	4.00	1.00	07/06/12	6020
Arsenic	1.21	J	1	2.00	1.00	07/06/12	6020
Barium	72.4		1	40.0	10.0	07/06/12	6020
Beryllium	ND		1	2.00	1.00	07/06/12	6020
Cadmium	ND		1	2.00	0.500	07/06/12	6020
Calcium	29700		1	200	100	07/06/12	6020
Chromium	ND		1	8.00	2.00	07/06/12	6020
Cobalt	ND		1	8.00	2.00	07/06/12	6020
Copper	ND		1	8.00	4.00	07/06/12	6020
Iron	13500		1	100	50.0	07/06/12	6020
Lead	ND		1	2.00	0.500	07/06/12	6020
Magnesium	5850		1	200	50.0	07/06/12	6020
Manganese	395		1	4.00	2.00	07/06/12	6020
Mercury	ND		1	0.500	0.300	07/06/12	7470A
Nickel	1.48	J	1	4.00	1.00	07/06/12	6020
Potassium	6440		1	200	50.0	07/06/12	6020
Selenium	ND		1	8.00	4.00	07/06/12	6020
Silver	ND		1	2.00	0.500	07/06/12	6020
Sodium	36800		1	400	100	07/06/12	6020
Thallium	ND		1	2.00	0.500	07/06/12	6020
Vanadium	ND		1	8.00	2.00	07/06/12	6020
Zinc	10.7		1	8.00	4.00	07/06/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TOTAL PETROLEUM HYDROCARBONS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Date Received: 06/29/12 20:40
Batch ID: AP040-0055

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	RL	% Solid	Date Analyzed
E12-06546-001	A6-062912-WATER	ND		1	Aqueous-ug/L	500	500	0	07/03/12 16:30
E12-06546-002	E1-062912-WATER	609		1	Aqueous-ug/L	500	500	0	07/03/12 16:30

J = The concentration was detected at a value below the RL and above the MDL

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA120709	AQUEOUS	L1464.D	94	89	98
TCLP120709	AQUEOUS	L1465.D	95	89	97
06642-025	AQUEOUS	L1466.D	95	90	98
06605-001	AQUEOUS	L1467.D	93	89	98
06546-001	AQUEOUS	L1468.D	94	90	97
06466-009	AQUEOUS	L1469.D	94	90	96
06466-010	AQUEOUS	L1470.D	95	91	98
06466-011	AQUEOUS	L1471.D	95	90	98
06466-012	AQUEOUS	L1472.D	95	89	97
LCSA120709	AQUEOUS	L1473.D	94	91	99
06546-001MS	AQUEOUS	L1474.D	93	91	100
06546-001MSD	AQUEOUS	L1475.D	92	91	99
06212-018	AQUEOUS	L1476.D	93	88	98
06420-001	AQUEOUS	L1477.D	95	89	98
06677-001	AQUEOUS	L1478.D	96	89	99
06724-001	AQUEOUS	L1480.D	95	87	96
06699-001	AQUEOUS	L1481.D	95	86	95
06699-002	AQUEOUS	L1482.D	96	88	96
06699-003	AQUEOUS	L1483.D	97	87	96
06723-001	AQUEOUS	L1484.D	96	86	95

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	45-154	39-165
SMC2 = Toluene-d8	50 ppb	47-151	45-162
SMC3 = Bromofluorobenzene	50 ppb	48-149	40-152

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

8260LCS

LCS ACCURACY REPORT

Lab ID: LCSA120709
Date Received:
Date Analyzed: 07/10/2012
LCS Data file: L1473.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.
Dichlorodifluoromethane	50.0	0.00	45.0	90
Chloromethane	50.0	0.00	46.2	92
Vinyl chloride	50.0	0.00	56.0	112
Bromomethane	50.0	0.00	62.8	126
Chloroethane	50.0	0.00	59.0	118
Trichlorofluoromethane	50.0	0.00	53.7	107
Acrolein	150	0.00	107.8	72
1,1-Dichloroethene	50.0	0.00	56.8	114
Acetone	50.0	0.00	46.4	93
Carbon disulfide	50.0	0.00	53.0	106
Vinyl acetate	50.0	0.00	48.2	96
Methylene chloride	50.0	0.00	52.0	104
Acrylonitrile	150.0	0.00	187.8	125
tert-Butyl alcohol (TBA)	100.0	0.00	94.5	95
trans-1,2-Dichloroethene	50.0	0.00	53.2	106
Methyl tert-butyl ether (MTBE)	50.0	0.00	51.7	103
1,1-Dichloroethane	50.0	0.00	52.8	106
Diisopropyl ether (DIPE)	50.0	0.00	52.0	104
cis-1,2-Dichloroethene	50.0	0.00	51.7	103
2,2-Dichloropropane	50.0	0.00	49.7	99
2-Butanone (MEK)	50.0	0.00	48.0	96
Bromochloromethane	50.0	0.00	51.3	103
Chloroform	50.0	0.00	50.6	101
1,1,1-Trichloroethane	50.0	0.00	62.0	124
Carbon tetrachloride	50.0	0.00	57.5	115
1,1-Dichloropropene	50.0	0.00	53.0	106
1,2-Dichloroethane (EDC)	50.0	0.00	50.0	100
Benzene	50.0	0.00	50.8	102
Trichloroethene	50.0	0.00	51.6	103
1,2-Dichloropropane	50.0	0.00	49.8	100
Dibromomethane	50.0	0.00	49.9	100
1,4-Dioxane	1500	0.00	1850	123
Bromodichloromethane	50.0	0.00	45.8	92
2-Chloroethyl vinyl ether	50.0	0.00	61.5	123
cis-1,3-Dichloropropene	50.0	0.00	44.9	90
4-Methyl-2-pentanone (MIBK)	50.0	0.00	52.2	104
Toluene	50.0	0.00	48.3	97
trans-1,3-Dichloropropene	50.0	0.00	41.7	83
1,1,2-Trichloroethane	50.0	0.00	48.2	96
Tetrachloroethene	50.0	0.00	47.6	95

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120709
Date Received:
Date Analyzed: 07/10/2012
LCS Data file: L1473.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.
1,3-Dichloropropane	50.0	0.00	48.3	97
2-Hexanone	50.0	0.00	52.5	105
Dibromochloromethane	50.0	0.00	44.6	89
1,2-Dibromoethane (EDB)	50.0	0.00	48.9	98
Chlorobenzene	50.0	0.00	48.9	98
1,1,1,2-Tetrachloroethane	50.0	0.00	50.2	100
Ethylbenzene	50.0	0.00	49.5	99
m,p-Xylene	100	0.00	99.4	99
Styrene	50.0	0.00	49.9	100
Bromoform	50.0	0.00	51.9	104
Isopropylbenzene	50.0	0.00	51.5	103
1,1,2,2-Tetrachloroethane	50.0	0.00	49.6	99
Bromobenzene	50.0	0.00	48.9	98
1,2,3-Trichloropropane	50.0	0.00	50.6	101
n-Propylbenzene	50.0	0.00	48.4	97
2-Chlorotoluene	50.0	0.00	49.6	99
1,3,5-Trimethylbenzene	50.0	0.00	49.7	99
4-Chlorotoluene	50.0	0.00	48.2	96
tert-Butylbenzene	50.0	0.00	50.6	101
1,2,4-Trimethylbenzene	50.0	0.00	49.5	99
sec-Butylbenzene	50.0	0.00	49.2	98
1,3-Dichlorobenzene	50.0	0.00	47.4	95
4-Isopropyltoluene	50.0	0.00	48.6	97
1,4-Dichlorobenzene	50.0	0.00	47.7	95
n-Butylbenzene	50.0	0.00	46.2	92
1,2-Dichlorobenzene	50.0	0.00	50.3	101
1,2-Dibromo-3-chloropropane	50.0	0.00	51.1	102
1,2,4-Trichlorobenzene	50.0	0.00	46.7	93
Hexachlorobutadiene	50.0	0.00	44.7	89
Naphthalene	50.0	0.00	51.7	103
1,2,3-Trichlorobenzene	50.0	0.00	47.7	95
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.00	60.8	122
Methyl acetate	50.0	0.00	52.1	104
Cyclohexane	50.0	0.00	55.3	111
Methylcyclohexane	50.0	0.00	47.0	94

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

* Values outside of QC limits
Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD **MS/MSD SPIKE REPORT**

Lab ID: 06546-001
Client ID: A6-062912-WATE
Date Received:
Date Analyzed: 07/10/2012
MS Data file: L1474.D
MSD Data file: L1475.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	47.2	94		47.0	94		0	
Chloromethane	50	0.0	46.3	93		45.5	91		2	
Vinyl chloride	50	0.0	55.5	111		54.1	108		3	
Bromomethane	50	0.0	63.2	126		63.0	126		0	
Chloroethane	50	0.0	57.2	114		56.8	114		1	
Trichlorofluoromethane	50	0.0	54.6	109		54.7	109		0	
Acrolein	150	0.0	155	103		132	88		16	
1,1-Dichloroethene	50	0.0	55.8	112		54.7	109		2	
Acetone	50	0.0	47.3	95		45.0	90		5	
Carbon disulfide	50	0.0	52.1	104		51.9	104		0	
Vinyl acetate	50	0.0	47.6	95		47.9	96		1	
Methylene chloride	50	0.0	51.5	103		50.7	101		2	
Acrylonitrile	150	0.0	180	120		167	111		7	
tert-Butyl alcohol (TBA)	100	0.0	95.0	95		92.4	92		3	
trans-1,2-Dichloroethene	50	0.0	52.7	105		52.4	105		1	
Methyl tert-butyl ether (MTE	50	0.0	51.1	102		51.3	103		0	
1,1-Dichloroethane	50	0.0	52.5	105		52.1	104		1	
Diisopropyl ether (DIPE)	50	0.0	51.9	104		52.2	104		1	
cis-1,2-Dichloroethene	50	0.0	51.9	104		51.5	103		1	
2,2-Dichloropropane	50	0.0	51.1	102		54.0	108		6	
2-Butanone (MEK)	50	0.0	45.7	91		45.6	91		0	
Bromochloromethane	50	0.0	50.6	101		50.3	101		1	
Chloroform	50	0.0	50.0	100		49.8	100		0	
1,1,1-Trichloroethane	50	0.0	62.6	125		63.5	127		1	
Carbon tetrachloride	50	0.0	58.4	117		58.5	117		0	
1,1-Dichloropropene	50	0.0	51.9	104		52.9	106		2	
1,2-Dichloroethane (EDC)	50	0.0	49.7	99		49.9	100		0	
Benzene	50	0.0	50.4	101		50.8	102		1	
Trichloroethene	50	0.0	51.4	103		51.9	104		1	
1,2-Dichloropropane	50	0.0	49.8	100		50.4	101		1	
Dibromomethane	50	0.0	50.2	100		49.5	99		1	
1,4-Dioxane	1,500	0.0	1844	123		1771	118		4	
Bromodichloromethane	50	0.0	46.0	92		46.4	93		1	
2-Chloroethyl vinyl ether	50	0.0	59.3	119		63.3	127		7	
cis-1,3-Dichloropropene	50	0.0	44.9	90		45.9	92		2	
4-Methyl-2-pentanone (MIBI	50	0.0	51.4	103		51.6	103		0	
Toluene	50	0.0	48.2	96		48.7	97		1	
trans-1,3-Dichloropropene	50	0.0	41.2	82		42.7	85		4	
1,1,2-Trichloroethane	50	0.0	48.4	97		48.7	97		1	
Tetrachloroethene	50	0.0	46.7	93		48.1	96		3	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06546-001
Client ID: A6-062912-WATE
Date Received:
Date Analyzed: 07/10/2012
MS Data file: L1474.D
MSD Data file: L1475.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
1,3-Dichloropropane	50	0.00	47.6	95		48.3	97		1	
2-Hexanone	50	0.00	52.5	105		52.0	104		1	
Dibromochloromethane	50	0.00	45.7	91		45.9	92		0	
1,2-Dibromoethane (EDB)	50	0.00	48.9	98		48.8	98		0	
Chlorobenzene	50	0.00	49.4	99		50.0	100		1	
1,1,1,2-Tetrachloroethane	50	0.00	50.3	101		50.8	102		1	
Ethylbenzene	50	0.00	50.0	100		50.7	101		1	
m,p-Xylene	100	0.00	100.0	100		100.2	100		0	
Styrene	50	0.00	50.4	101		50.4	101		0	
Bromoform	50	0.00	57.3	115		53.3	107		7	
Isopropylbenzene	50	0.00	52.1	104		51.9	104		0	
1,1,2,2-Tetrachloroethane	50	0.00	49.4	99		49.2	98		0	
Bromobenzene	50	0.00	49.7	99		49.6	99		0	
1,2,3-Trichloropropane	50	0.00	50.9	102		50.0	100		2	
n-Propylbenzene	50	0.00	48.8	98		49.0	98		0	
2-Chlorotoluene	50	0.00	50.1	100		49.3	99		2	
1,3,5-Trimethylbenzene	50	0.00	50.3	101		50.1	100		0	
4-Chlorotoluene	50	0.00	48.9	98		48.5	97		1	
tert-Butylbenzene	50	0.00	50.9	102		51.3	103		1	
1,2,4-Trimethylbenzene	50	0.00	50.2	100		49.5	99		1	
sec-Butylbenzene	50	0.00	49.7	99		49.4	99		1	
1,3-Dichlorobenzene	50	0.00	47.9	96		47.6	95		1	
4-Isopropyltoluene	50	0.00	49.1	98		48.5	97		1	
1,4-Dichlorobenzene	50	0.00	48.6	97		47.5	95		2	
n-Butylbenzene	50	0.00	47.2	94		47.7	95		1	
1,2-Dichlorobenzene	50	0.00	50.9	102		50.1	100		2	
1,2-Dibromo-3-chloropropan	50	0.00	51.3	103		51.9	104		1	
1,2,4-Trichlorobenzene	50	0.00	48.2	96		48.4	97		0	
Hexachlorobutadiene	50	0.00	47.5	95		48.9	98		3	
Naphthalene	50	0.00	54.3	109		54.0	108		1	
1,2,3-Trichlorobenzene	50	0.00	49.1	98		49.8	100		1	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	61.9	124		60.0	120		3	
Methyl acetate	50	0.00	51.3	103		50.6	101		1	
Cyclohexane	50	0.00	58.3	117		57.5	115		1	
Methylcyclohexane	50	0.00	49.3	99		48.0	96		3	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

VOLATILE METHOD BLANK SUMMARY

Lab File ID: L1464.D Instrument ID: MSD_L

Date Analyzed: 07/10/2012 Time Analyzed: 00:47

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TCLP120709	TCLP120709	07/10/2012	1:14
GPECTB070212	06642-025	07/10/2012	1:41
BLDG_710	06605-001	07/10/2012	2:09
A6-062912-WATE	06546-001	07/10/2012	2:36
B3-062712-WATE	06466-009	07/10/2012	3:04
A1-062712-WATE	06466-010	07/10/2012	3:32
A2-062712-WATE	06466-011	07/10/2012	4:00
A7-062712-WATE	06466-012	07/10/2012	4:27
LCS-50PPB	LCSA120709	07/10/2012	4:55
MS	06546-001MS	07/10/2012	5:22
MSD	06546-001MSD	07/10/2012	5:49
SAMPLE_18	06212-018	07/10/2012	6:16
BLDG_404_PIPE_	06420-001	07/10/2012	6:43
PLA-V12-1821	06677-001	07/10/2012	7:11
EO-V12-1826	06724-001	07/10/2012	8:04
1-COMP-1-10	06699-001	07/10/2012	8:31
2-COMP-11-20	06699-002	07/10/2012	8:59
3-COMP-21-31	06699-003	07/10/2012	9:27
HAR-V12-1832	06723-001	07/10/2012	9:55

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L0836.D BFB Injection Date: 06/19/2012

Inst ID: MSD_L BFB Injection Time: 8:56

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.9			
75	30.0 - 60.0% of mass 95	48.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.5			
173	Less than 2.0% of mass 174	0.7	(	0.9	)1
174	Great than 50.0% of mass 95	79.4			
175	5.0 - 9.0% of mass 174	5.8	(	7.3	)1
176	95.0 - 101.0% of mass 174	76.3	(	96.1	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.7	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC20	ICC20	L0837.D	06/19/2012	11:05
ICC100	ICC100	L0838.D	06/19/2012	11:32
ICC150	ICC150	L0839.D	06/19/2012	11:59
ICC200	ICC200	L0840.D	06/19/2012	12:27
ICC2	ICC2	L0843.D	06/19/2012	13:49
ICC5	ICC5	L0845.D	06/19/2012	14:59
ICC1	ICC1	L0846.D	06/19/2012	15:49
ICV100	ICV100	L0847.D	06/19/2012	16:21

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L1459.D BFB Injection Date: 07/09/2012

Inst ID: MSD_L BFB Injection Time: 22:29

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.2			
75	30.0 - 60.0% of mass 95	46.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.7	(	0.9	)1
174	Great than 50.0% of mass 95	79.4			
175	5.0 - 9.0% of mass 174	5.6	(	7.1	)1
176	95.0 - 101.0% of mass 174	76.7	(	96.6	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.6	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	L1461.D	07/09/2012	23:23
BLKA120709	BLKA120709	L1464.D	07/10/2012	0:47
TCLP120709	TCLP120709	L1465.D	07/10/2012	1:14
GPECTB070212	06642-025	L1466.D	07/10/2012	1:41
BLDG_710	06605-001	L1467.D	07/10/2012	2:09
A6-062912-WATE	06546-001	L1468.D	07/10/2012	2:36
B3-062712-WATE	06466-009	L1469.D	07/10/2012	3:04
A1-062712-WATE	06466-010	L1470.D	07/10/2012	3:32
A2-062712-WATE	06466-011	L1471.D	07/10/2012	4:00
A7-062712-WATE	06466-012	L1472.D	07/10/2012	4:27
LCS-50PPB	LCSA120709	L1473.D	07/10/2012	4:55
MS	06546-001MS	L1474.D	07/10/2012	5:22
MSD	06546-001MSD	L1475.D	07/10/2012	5:49
SAMPLE_18	06212-018	L1476.D	07/10/2012	6:16
BLDG_404_PIPE_	06420-001	L1477.D	07/10/2012	6:43
PLA-V12-1821	06677-001	L1478.D	07/10/2012	7:11
EO-V12-1826	06724-001	L1480.D	07/10/2012	8:04
1-COMP-1-10	06699-001	L1481.D	07/10/2012	8:31
2-COMP-11-20	06699-002	L1482.D	07/10/2012	8:59
3-COMP-21-31	06699-003	L1483.D	07/10/2012	9:27

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: L1459.D

BFB Injection Date : 07/09/201

Inst ID: MSD_L

BFB Injection Time: 22:29

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	19.2			
75	30.0 - 60.0% of mass 95	46.8			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.7	(	0.9	)1
174	Great than 50.0% of mass 95	79.4			
175	5.0 - 9.0% of mass 174	5.6	(	7.1	)1
176	95.0 - 101.0% of mass 174	76.7	(	96.6	)1
177	5.0 - 9.0% of mass 176	5.1	(	6.6	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
HAR-V12-1832	06723-001	L1484.D	07/10/2012	9:55

Response Factor Report MSD_L

Method Path : C:\MSDCHEM\1\METHODS\
Method File : LM061912.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Wed Jun 20 11:26:03 2012
Response Via : Initial Calibration

Calibration Files
1 =L0846.D 2 =L0843.D 5 =L0845.D
20 =L0837.D 100 =L0838.D 200 =L0840.D 150 =L0839.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.305	0.285	0.273	0.325	0.347	0.294	0.276	0.301	9.01
3)	TP	Chloromethane	0.848	0.777	0.695	0.693	0.709	0.690	0.667	0.726	8.81
4)	C	Vinyl chloride	0.606	0.550	0.472	0.568	0.581	0.538	0.520	0.548	7.97
5)	T	Bromomethane	0.308	0.244	0.257	0.232	0.276	0.204	0.272	0.256	13.14
6)	T	Chloroethane	0.283	0.310	0.286	0.288	0.255	0.223	0.205	0.264	14.39
7)	T	Trichlorofluorome	0.631	0.602	0.562	0.625	0.660	0.519	0.518	0.588	9.57
8)	T	Acrolein	0.080	0.084		0.088	0.079	0.084	0.084	0.083	4.11
9)	MC	1,1-Dichloroethen	0.427	0.426	0.375	0.473	0.490	0.457	0.442	0.441	8.47
10)	T	Acetone	0.313		0.318	0.269	0.268	0.234	0.244	0.274	12.63
11)	T	Carbon disulfide	1.598	1.555	1.236	1.488	1.560	1.474	1.440	1.479	8.14
12)	T	Vinyl acetate	1.620	1.807	1.710	1.799	2.066	2.068	2.052	1.875	9.93
13)	T	Methylene chlorid		0.646	0.587	0.564	0.573	0.532	0.542	0.574	7.02
14)	T	Acrylonitrile	0.196	0.201		0.206	0.187	0.186	0.195	0.195	3.92
15)	T	tert-Butyl alcoho	0.068	0.081	0.074	0.066	0.071	0.067	0.067	0.071	7.53
16)	T	trans-1,2-Dichlor	0.602	0.598	0.514	0.548	0.558	0.509	0.517	0.549	7.08
17)	T	Methyl tert-butyl	1.665	1.741	1.659	1.597	1.651	1.535	1.583	1.633	4.12
18)	TP	1,1-Dichloroethan	0.893	0.952	0.868	0.904	1.009	1.040	0.998	0.952	6.89
19)	T	Diisopropyl ether	1.861	2.024	1.863	1.940	2.184	2.201	2.144	2.031	7.27
20)	T	cis-1,2-Dichloroe	0.561	0.606	0.549	0.554	0.640	0.665	0.632	0.601	7.79
21)	T	2,2-Dichloropropa	0.244	0.270	0.241	0.282	0.284	0.283		0.267	7.46
22)	T	2-Butanone (MEK)	0.361	0.398	0.375	0.368	0.412	0.397	0.390	0.386	4.72
23)	T	Bromochloromethan	0.288	0.304	0.273	0.287	0.324	0.333	0.319	0.304	7.28
25)	C	Chloroform	1.102		0.936	0.928	1.034	1.067	1.023	1.015	6.87
26)	T	1,1,1-Trichloroet	0.490	0.537	0.460	0.549	0.635	0.644	0.622	0.563	12.99
27)	T	Carbon tetrachlor	0.484	0.427		0.445	0.579	0.593	0.554	0.514	13.85
28)	T	1,1-Dichloroprope	0.675	0.699	0.532	0.651	0.737	0.745	0.697	0.677	10.59
29)	T	1,2-Dichloroethan	0.793	0.850	0.780	0.785	0.887	0.907	0.884	0.841	6.44
30)	S	1,2-Dichloroethan	0.575	0.578	0.579	0.569	0.556	0.547	0.545	0.564	2.57
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.361	1.513	1.335	1.394	1.629	1.708	1.626	1.510	9.87
33)	M	Trichloroethene	0.376	0.389	0.329	0.348	0.403	0.426	0.403	0.382	8.92
34)	C	1,2-Dichloropropa	0.355	0.383	0.357	0.365	0.425	0.441	0.427	0.393	9.38
35)	T	Dibromomethane	0.234	0.254	0.244	0.246	0.288	0.299	0.289	0.265	9.93
36)	T	1,4-Dioxane	0.005	0.006	0.005	0.006	0.006	0.005	0.006	0.005	10.20
37)	T	Bromodichlorometh	0.535	0.533	0.496	0.551	0.555	0.583	0.562	0.545	5.03
38)	T	2-Chloroethyl vin	0.301		0.285	0.269	0.315	0.325	0.319	0.302	7.25
39)	T	cis-1,3-Dichlorop	0.517	0.573		0.489	0.648	0.687	0.664	0.597	13.75
40)	T	4-Methyl-2-pentan	0.376	0.443	0.422	0.438	0.521	0.511	0.506	0.460	11.82
41)	S	Toluene-d8	1.110	1.107	1.121	1.126	1.133	1.131	1.138	1.124	1.03
42)	MC	Toluene	0.907	0.960	0.822	0.862	1.050	1.112	1.042	0.965	11.11
43)	T	trans-1,3-Dichlor	0.468			0.575	0.594	0.640	0.615	0.578	11.47
44)	T	1,1,2-Trichloroet	0.274	0.299	0.284	0.292	0.339	0.351	0.340	0.311	10.02
45)	T	Tetrachloroethene	0.366	0.377	0.290	0.334	0.386	0.396	0.366	0.359	10.14
46)	T	1,3-Dichloropropa	0.559	0.595	0.563	0.564	0.663	0.680	0.658	0.612	8.70
47)	T	2-Hexanone	0.282	0.300	0.317	0.336	0.394	0.384	0.381	0.342	13.12
48)	T	Dibromochlorometh	0.450	0.377		0.348	0.460	0.486	0.466	0.431	12.82
49)	T	1,2-Dibromoethane	0.342	0.352	0.334	0.350	0.422	0.435	0.422	0.379	11.70
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	TP	Chlorobenzene	1.008	1.108	0.954	0.970	1.123	1.166	1.121	1.064	7.98
52)	T	1,1,1,2-Tetrachlo	0.294	0.400	0.381	0.287	0.381	0.399	0.381	0.	

53)	C	Ethylbenzene	1.507	1.711	1.452	1.565	1.853	1.932	1.825	1.692	11.04
54)	T	m,p-Xylene	0.602	0.684	0.583	0.618	0.767	0.778	0.756	0.684	12.30
55)	T	o-Xylene	0.580	0.655	0.577	0.609	0.750	0.775	0.750	0.671	12.83
56)	T	Styrene	0.988	1.113	1.014	1.063	1.344	1.380	1.333	1.176	14.43
57)	TP	Bromoform	0.228	0.239		0.203	0.279	0.288	0.280	0.253	13.71
58)	T	Isopropylbenzene	1.338	1.510	1.246	1.403	1.699	1.764	1.664	1.518	13.04
59)	S	Bromofluorobenzen	0.472	0.472	0.484	0.486	0.490	0.488	0.484	0.483	1.50
60)	TP	1,1,2,2-Tetrachlo	0.503	0.526	0.473	0.479	0.578	0.575	0.576	0.530	8.76
61)	T	Bromobenzene	0.416	0.458	0.419	0.411	0.498	0.510	0.493	0.458	9.36
62)	T	1,2,3-Trichloropr	0.360	0.373	0.363	0.355	0.406	0.407	0.398	0.380	5.92
63)	T	n-Propylbenzene	1.746	1.874	1.513	1.664	1.985	2.055	1.940	1.825	10.57
64)	T	2-Chlorotoluene	1.097	1.228	1.034	1.070	1.269	1.327	1.254	1.183	9.61
65)	T	1,3,5-Trimethylbe	1.136	1.345	1.110	1.206	1.501	1.570	1.498	1.338	14.18
66)	T	4-Chlorotoluene	1.359	1.516	1.253	1.301	1.613	1.649	1.597	1.470	11.06
67)	T	tert-Butylbenzene	0.896	1.010	0.793	0.936	1.106	1.164	1.094	1.000	13.21
68)	T	1,2,4-Trimethylbe	1.219	1.397	1.173	1.250	1.534	1.613	1.552	1.391	12.89
69)	T	sec-Butylbenzene	1.336	1.457	1.111	1.318	1.551	1.635	1.521	1.418	12.49
70)	T	1,3-Dichlorobenze	0.819	0.881	0.739	0.749	0.890	0.913	0.886	0.840	8.53
71)	T	4-Isopropyltoluen	1.151	1.211	0.971	1.107	1.340	1.410	1.311	1.215	12.50
72)	T	1,4-Dichlorobenze	0.805	0.924	0.778	0.770	0.924	0.954	0.928	0.869	9.29
73)	T	n-Butylbenzene	0.608	0.631	0.501	0.543	0.688	0.712	0.682	0.624	12.65
74)	T	1,2-Dichlorobenze	0.755	0.836	0.715	0.748	0.907	0.930	0.907	0.828	10.73
75)	T	1,2-Dibromo-3-chl	0.085	0.087	0.068	0.069	0.091	0.094	0.091	0.084	12.75
76)	T	1,2,4-Trichlorobe	0.485	0.548	0.422	0.433	0.548	0.511		0.491	11.16
77)	T	Hexachlorobutadie	0.138		0.127	0.128	0.144	0.145		0.137	6.21
78)	T	Naphthalene	1.249	1.343	1.182	1.249	1.587	1.660	1.605	1.411	14.19
79)	T	1,2,3-Trichlorobe	0.434	0.489	0.400	0.401	0.484	0.465		0.445	8.99
80)	T	1,1,2-Trichloro-1	0.213	0.192		0.201	0.228	0.180	0.184	0.200	9.22
81)	T	Methyl acetate	0.380	0.392	0.340	0.312	0.309	0.285	0.292	0.330	12.76
82)	T	Cyclohexane		0.400	0.376	0.490	0.467	0.398	0.386	0.420	11.27
83)	T	Methylcyclohexane	0.323	0.308		0.308	0.305	0.258	0.248	0.292	10.58

(#) = Out of Range ### Number of calibration levels exceeded format ###

LM061912.M Wed Jun 20 11:26:08 2012 RPT1

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1461.D
Acq On : 9 Jul 2012 23:23
Operator : XING
Sample : CCV100,CCV100,A,5ml,100
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 10 12:34:05 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration

Min. RRF : 0.000 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	I	Pentafluorobenzene	1.000	1.000	0.0	120	0.00
2	T	Dichlorodifluoromethane	0.301	0.316	-5.0	110	0.00
3	TP	Chloromethane	0.726	0.612	15.7	104	-0.02
4	C	Vinyl chloride	0.548	0.536	2.2	111	0.00
5	T	Bromomethane	0.256	0.218	14.8	95	-0.03
6	T	Chloroethane	0.264	0.214	18.9	101	-0.03
7	T	Trichlorofluoromethane	0.588	0.541	8.0	99	0.03
8	T	Acrolein	0.083	0.090	-8.4	137	-0.02
9	MC	1,1-Dichloroethene	0.441	0.428	2.9	105	0.00
10	T	Acetone	0.274	0.222	19.0	100	-0.01
11	T	Carbon disulfide	1.479	1.313	11.2	101	-0.01
12	T	Vinyl acetate	1.875	1.802	3.9	105	-0.01
13	T	Methylene chloride	0.574	0.490	14.6	103	0.00
14	T	Acrylonitrile	0.195	0.219	-12.3	141	-0.01
15	T	tert-Butyl alcohol (TBA)	0.071	0.059	16.9	100	-0.02
16	T	trans-1,2-Dichloroethene	0.549	0.477	13.1	103	0.00
17	T	Methyl tert-butyl ether (MT	1.633	1.425	12.7	104	-0.01
18	TP	1,1-Dichloroethane	0.952	0.959	-0.7	115	-0.01
19	T	Diisopropyl ether (DIPE)	2.031	2.019	0.6	111	-0.01
20	T	cis-1,2-Dichloroethene	0.601	0.606	-0.8	114	0.00
21	T	2,2-Dichloropropane	0.267	0.316	-18.4	134	0.00
22	T	2-Butanone (MEK)	0.386	0.324	16.1	95	-0.01
23	T	Bromochloromethane	0.304	0.301	1.0	112	-0.01
25	C	Chloroform	1.015	0.974	4.0	113	0.00
26	T	1,1,1-Trichloroethane	0.563	0.644	-14.4	122	0.00
27	T	Carbon tetrachloride	0.514	0.602	-17.1	125	0.00
28	T	1,1-Dichloropropene	0.677	0.693	-2.4	113	0.00
29	T	1,2-Dichloroethane (EDC)	0.841	0.795	5.5	108	-0.01
30	S	1,2-Dichloroethane-d4	0.564	0.515	8.7	111	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	123	-0.01
32	M	Benzene	1.510	1.471	2.6	111	-0.01
33	M	Trichloroethene	0.382	0.375	1.8	114	-0.01
34	C	1,2-Dichloropropane	0.393	0.381	3.1	110	0.00
35	T	Dibromomethane	0.265	0.251	5.3	107	0.00
36	T	1,4-Dioxane	0.005	0.006	-20.0	126	0.00
37	T	Bromodichloromethane	0.545	0.490	10.1	109	0.00
38	T	2-Chloroethyl vinyl ether	0.302	0.350	-15.9	137	0.00
39	T	cis-1,3-Dichloropropene	0.597	0.559	6.4	106	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.460	0.444	3.5	105	0.00
41	S	Toluene-d8	1.124	1.010	10.1	110	0.00
42	MC	Toluene	0.965	0.912	5.5	107	0.00
43	T	trans-1,3-Dichloropropene	0.578	0.508	12.1	105	-0.01
44	T	1,1,2-Trichloroethane	0.311	0.293	5.8	106	0.00
45	T	Tetrachloroethene	0.359	0.334	7.0	106	0.00
46	T	1,3-Dichloropropane	0.612	0.566	7.5	105	0.00

47	T	2-Hexanone	0.342	0.335	2.0	104	0.00
48	T	Dibromochloromethane	0.431	0.388	10.0	104	0.00
49	T	1,2-Dibromoethane (EDB)	0.379	0.361	4.7	105	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	116	0.00
51	TP	Chlorobenzene	1.064	1.022	3.9	105	0.00
52	T	1,1,1,2-Tetrachloroethane	0.360	0.356	1.1	108	0.00
53	C	Ethylbenzene	1.692	1.663	1.7	104	0.00
54	T	m,p-Xylene	0.684	0.674	1.5	102	0.00
55	T	o-Xylene	0.671	0.673	-0.3	104	0.00
56	T	Styrene	1.176	1.172	0.3	101	0.00
57	TP	Bromoform	0.253	0.253	0.0	105	0.00
58	T	Isopropylbenzene	1.518	1.508	0.7	103	0.00
59	S	Bromofluorobenzene	0.483	0.480	0.6	114	0.00
60	TP	1,1,2,2-Tetrachloroethane	0.530	0.501	5.5	101	0.00
61	T	Bromobenzene	0.458	0.436	4.8	101	0.00
62	T	1,2,3-Trichloropropane	0.380	0.360	5.3	103	0.00
63	T	n-Propylbenzene	1.825	1.701	6.8	99	0.00
64	T	2-Chlorotoluene	1.183	1.124	5.0	103	0.00
65	T	1,3,5-Trimethylbenzene	1.338	1.295	3.2	100	0.00
66	T	4-Chlorotoluene	1.470	1.383	5.9	99	0.00
67	T	tert-Butylbenzene	1.000	0.977	2.3	102	0.00
68	T	1,2,4-Trimethylbenzene	1.391	1.341	3.6	101	0.00
69	T	sec-Butylbenzene	1.418	1.364	3.8	102	0.00
70	T	1,3-Dichlorobenzene	0.840	0.763	9.2	99	0.00
71	T	4-Isopropyltoluene	1.215	1.150	5.3	99	0.00
72	T	1,4-Dichlorobenzene	0.869	0.792	8.9	99	0.00
73	T	n-Butylbenzene	0.624	0.572	8.3	96	0.00
74	T	1,2-Dichlorobenzene	0.828	0.783	5.4	100	0.00
75	T	1,2-Dibromo-3-chloropropane	0.084	0.081	3.6	104	-0.01
76	T	1,2,4-Trichlorobenzene	0.491	0.437	11.0	93	-0.01
77	T	Hexachlorobutadiene	0.137	0.128	6.6	103	0.00
78	T	Naphthalene	1.411	1.362	3.5	100	-0.01
79	T	1,2,3-Trichlorobenzene	0.445	0.390	12.4	93	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.200	0.234	-17.0	119	-0.01
81	T	Methyl acetate	0.330	0.286	13.3	107	-0.01
82	T	Cyclohexane	0.420	0.492	-17.1	122	0.00
83	T	Methylcyclohexane	0.292	0.318	-8.9	121	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

LM061912.M Tue Jul 10 12:34:12 2012 RPT1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L0838.D

Date Analyzed: 06/19/2012

Instrument ID: MSD_L

Time Analyzed: 11:32

	50UG/L	IS1 AREA	#	RT	#	IS2 AREA	#	RT	#	IS3 AREA	#	RT	#
	12 HOUR STD	234510		5.83		339300		6.64		361338		9.97	
	UPPER LIMIT	469020		6.33		678600		7.14		722676		10.47	
	LOWER LIMIT	117255		5.33		169650		6.14		180669		9.47	
	LAB SAMPLE ID												
01	ICC20	223838		5.83		332939		6.64		344911		9.97	
02	ICC150	249825		5.82		359373		6.64		386380		9.97	
03	ICC200	262141		5.82		378605		6.64		406874		9.97	
04	ICC2	224781		5.83		337019		6.64		348678		9.97	
05	ICC5	217327		5.83		324443		6.64		332290		9.97	
06	ICC1	210322		5.83		316137		6.64		324665		9.97	
07	ICV100	227438		5.83		330403		6.64		354322		9.97	
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): L1461.D

Date Analyzed: 07/09/2012

Instrument ID: MSD_L

Time Analyzed: 23:23

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	282471	5.82	417427	6.63	418893	9.97
	UPPER LIMIT	564942	6.32	834854	7.13	837786	10.47
	LOWER LIMIT	141235.5	5.32	208713.5	6.13	209446.5	9.47
	LAB SAMPLE ID						
01	BLKA120709	247702	5.82	366329	6.64	362507	9.97
02	TCLP120709	241200	5.82	365142	6.63	353635	9.97
03	06642-025	238755	5.82	358110	6.64	350190	9.97
04	06605-001	234506	5.82	352808	6.64	344943	9.97
05	06546-001	227956	5.82	341464	6.64	337597	9.97
06	06466-009	221439	5.82	328838	6.64	331852	9.97
07	06466-010	214742	5.82	320901	6.64	321631	9.97
08	06466-011	212524	5.82	317596	6.64	314344	9.97
09	06466-012	206481	5.82	309433	6.64	307933	9.97
10	LCSA120709	216087	5.82	317598	6.64	322862	9.97
11	06546-001MS	216911	5.82	317988	6.63	320693	9.97
12	06546-001MSD	219201	5.82	321186	6.64	325143	9.97
13	06212-018	213691	5.82	316614	6.64	305927	9.97
14	06420-001	199244	5.82	300611	6.64	298049	9.97
15	06677-001	196992	5.82	297697	6.64	294212	9.97
16	06724-001	187315	5.82	278459	6.64	261885	9.97
17	06699-001	184759	5.82	276676	6.64	261461	9.97
18	06699-002	180362	5.82	270012	6.63	259803	9.97
19	06699-003	179382	5.82	273118	6.64	260720	9.97
20	06723-001	174403	5.82	263260	6.64	249218	9.97
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1468.D
Acq On : 10 Jul 2012 2:36
Operator : XING
Sample : A6-062912-WATE,06546-001,A,5ml,100
Misc : URS-FTWASH/TRADEBE,06/29/12,06/29/12,
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 10 13:53:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	5.82	168	227956	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.64	114	341464	50.00 UG	0.00
50) Chlorobenzene-d5	9.97	117	337597	50.00 UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.14	65	120808	46.95 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 93.90%		
41) Toluene-d8	8.29	98	344343	44.86 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 89.72%		
59) Bromofluorobenzene	11.37	95	157540	48.36 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 96.72%		

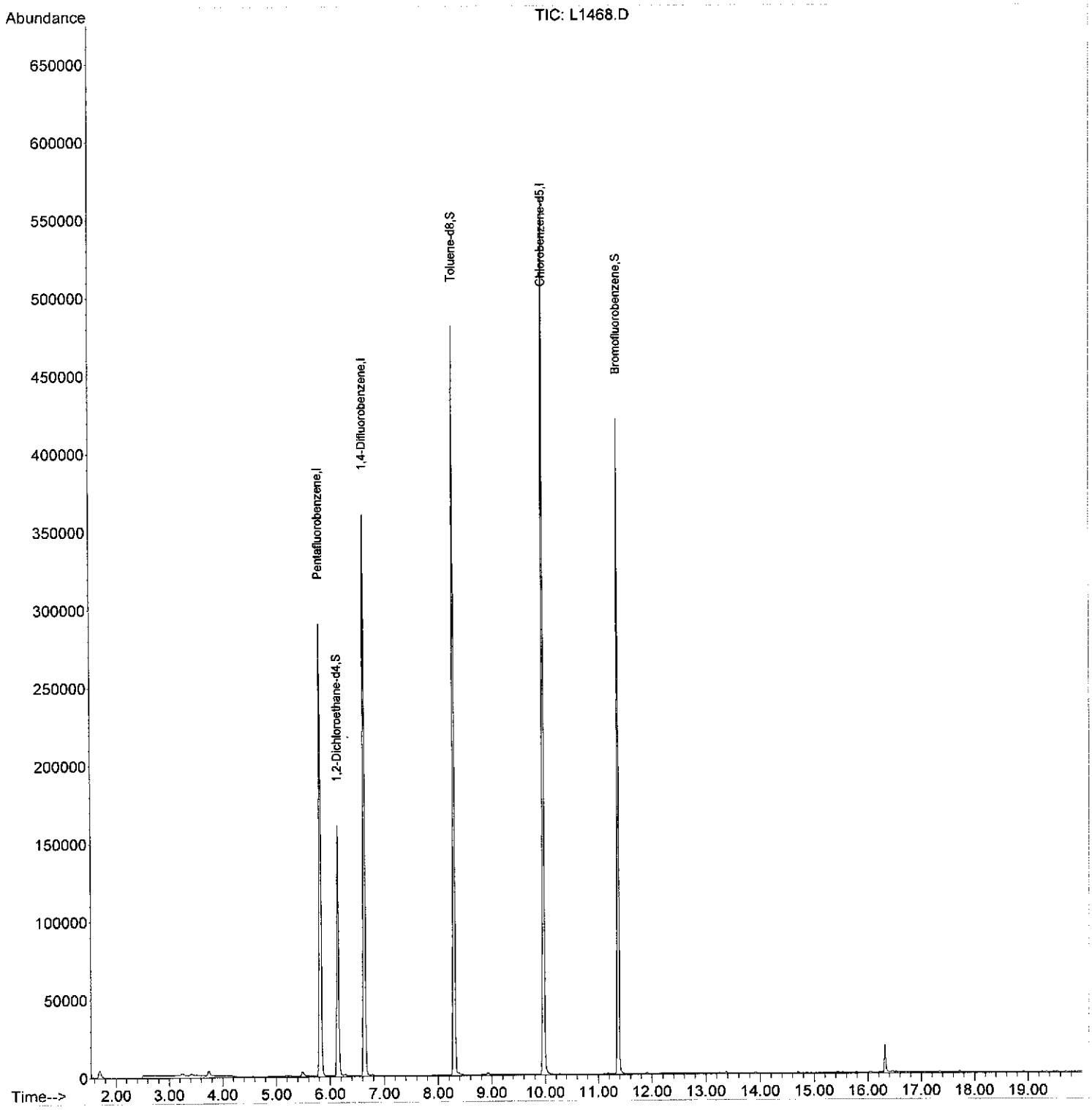
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1468.D
Acq On : 10 Jul 2012 2:36
Operator : XING
Sample : A6-062912-WATE,06546-001,A,5ml,100
Misc : URS-FTWASH/TRADEBE,06/29/12,06/29/12,
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 10 13:53:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1468.D
Acq On : 10 Jul 2012 2:36
Operator : XING
Sample : A6-062912-WATE,06546-001,A,5ml,100
Misc : URS-FTWASH/TRADEBE,06/29/12,06/29/12,
ALS Vial : 38 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM061912.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.736	219	222	236	rVB2	3365	12036	1.18%	0.269%
2	5.817	421	427	441	rBV	290398	638202	62.36%	14.254%
3	6.142	452	459	469	rBV	160561	338482	33.07%	7.560%
4	6.639	502	508	518	rBV	360265	766655	74.91%	17.124%
5	8.294	665	671	694	rVB	480650	907048	88.63%	20.259%
6	9.969	830	836	855	rVB	561919	1023404	100.00%	22.858%
7	11.370	968	974	986	rVB	420860	758153	74.08%	16.934%
8	16.314	1457	1461	1471	rBV	17336	33220	3.25%	0.742%

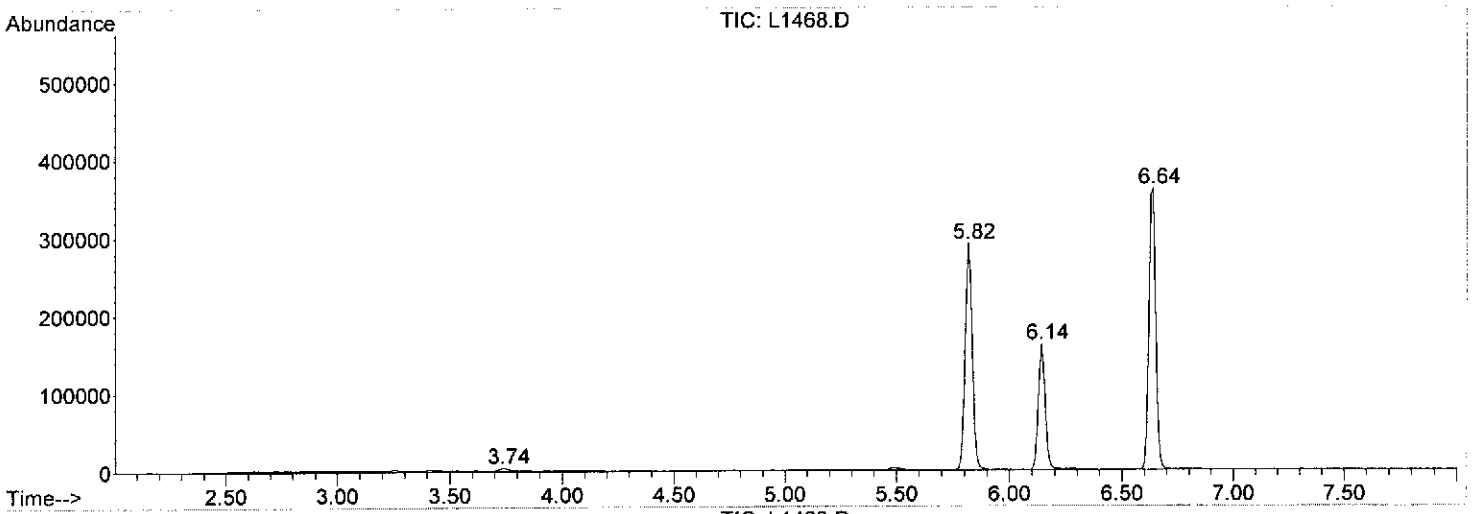
Sum of corrected areas: 4477200

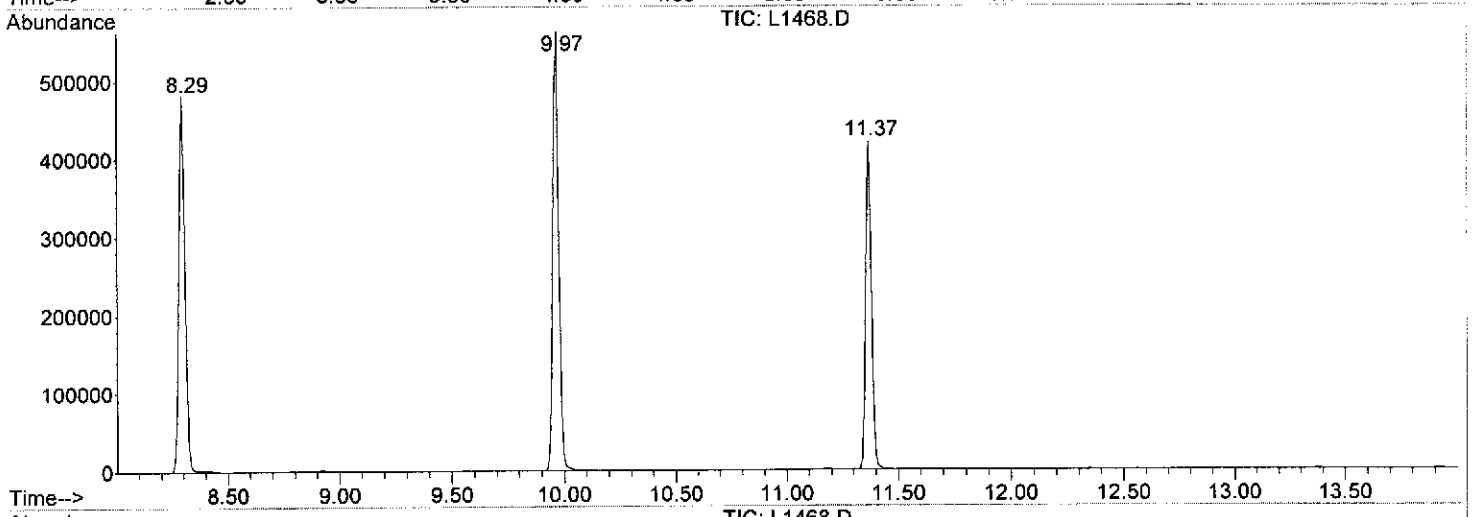
LSC Report - Integrated Chromatogram

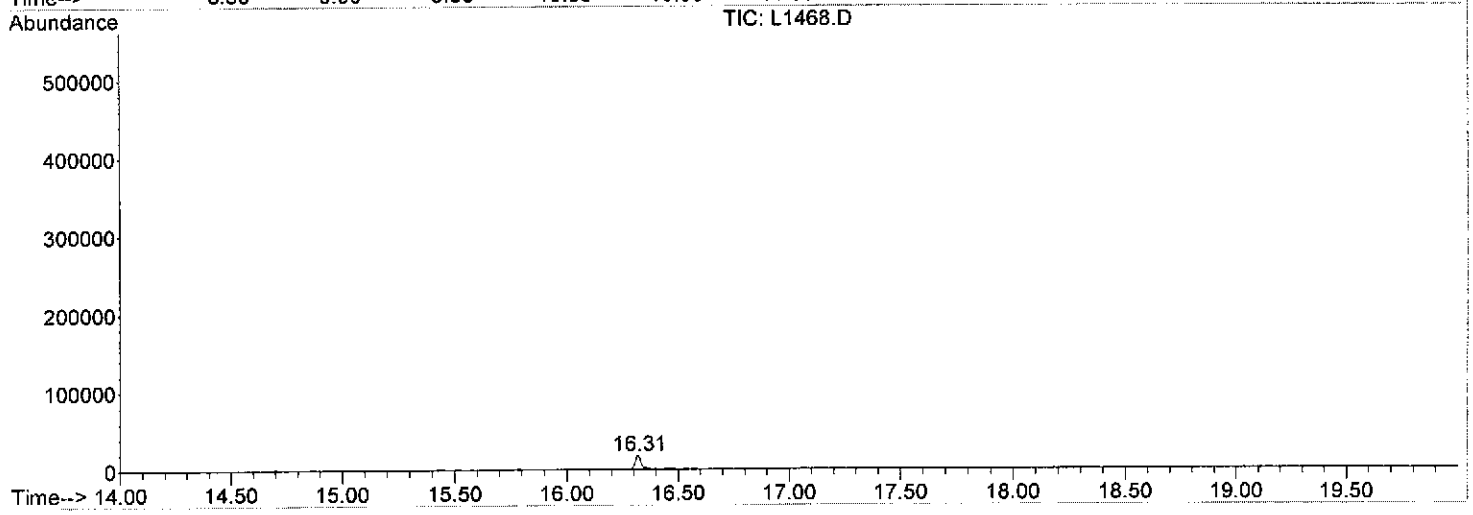
Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1468.D
Acq On : 10 Jul 2012 2:36
Operator : XING
Sample : A6-062912-WATE,06546-001,A,5ml,100
Misc : URS-FTWASH/TRADEBE,06/29/12,06/29/12,
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA120709
Client ID: BLKA120709
Date Received:
Date Analyzed: 07/10/2012
Data file: L1464.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.260
Chloromethane	ND		1.00	0.360
Vinyl chloride	ND		1.00	0.330
Bromomethane	ND		1.00	0.400
Chloroethane	ND		1.00	0.400
Trichlorofluoromethane	ND		1.00	0.340
1,1-Dichloroethene	ND		1.00	0.310
Acetone	ND		1.00	0.330
Carbon disulfide	ND		1.00	0.230
Methylene chloride	ND		2.00	1.98
trans-1,2-Dichloroethene	ND		1.00	0.370
Methyl tert-butyl ether (MTBE)	ND		1.00	0.300
1,1-Dichloroethane	ND		1.00	0.210
cis-1,2-Dichloroethene	ND		1.00	0.340
2-Butanone (MEK)	ND		1.00	0.240
Bromochloromethane	ND		1.00	0.250
Chloroform	ND		1.00	0.240
1,1,1-Trichloroethane	ND		1.00	0.330
Carbon tetrachloride	ND		1.00	0.270
1,2-Dichloroethane (EDC)	ND		1.00	0.400
Benzene	ND		1.00	0.210
Trichloroethene	ND		1.00	0.280
1,2-Dichloropropane	ND		1.00	0.290
1,4-Dioxane	ND		200	39.1
Bromodichloromethane	ND		1.00	0.330
cis-1,3-Dichloropropene	ND		1.00	0.220
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.290

E12-06546 0049

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKA120709
Client ID: BLKA120709
Date Received:
Date Analyzed: 07/10/2012
Data file: L1464.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		1.00	0.230
trans-1,3-Dichloropropene	ND		1.00	0.230
1,1,2-Trichloroethane	ND		1.00	0.210
Tetrachloroethene	ND		1.00	0.220
2-Hexanone	ND		1.00	0.390
Dibromochloromethane	ND		1.00	0.250
1,2-Dibromoethane (EDB)	ND		1.00	0.260
Chlorobenzene	ND		1.00	0.220
Ethylbenzene	ND		1.00	0.290
Total Xylenes	ND		2.00	0.680
Styrene	ND		1.00	0.240
Bromoform	ND		1.00	0.260
Isopropylbenzene	ND		1.00	0.210
1,1,2,2-Tetrachloroethane	ND		1.00	0.330
1,3-Dichlorobenzene	ND		1.00	0.250
1,4-Dichlorobenzene	ND		1.00	0.220
1,2-Dichlorobenzene	ND		1.00	0.240
1,2-Dibromo-3-chloropropane	ND		1.00	0.220
1,2,4-Trichlorobenzene	ND		1.00	0.270
1,2,3-Trichlorobenzene	ND		1.00	0.480
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.210
Methyl acetate	ND		1.00	0.210
Cyclohexane	ND		2.00	0.360
Methylcyclohexane	ND		1.00	0.600
1,3-Dichloropropene (cis- and trans-)	ND		1.00	0.230

Total Target Compounds (52): 0

E12-06546 0050

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Lab ID: BLKA120709
Client ID: BLKA120709
Date Received:
Date Analyzed: 07/10/2012
Date File: L1464.D

GC/MS Column: DB-624
Sample wt/vol: 5ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1464.D
Acq On : 10 Jul 2012 00:47
Operator : XING
Sample : BLKA120709,BLKA120709,A,5ml,100
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 10 13:45:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	5.82	168	247702	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.64	114	366329	50.00 UG	0.00
50) Chlorobenzene-d5	9.97	117	362507	50.00 UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.14	65	130737	46.76 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 93.52%		
41) Toluene-d8	8.29	98	367145	44.59 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 89.18%		
59) Bromofluorobenzene	11.37	95	171198	48.94 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 97.88%		

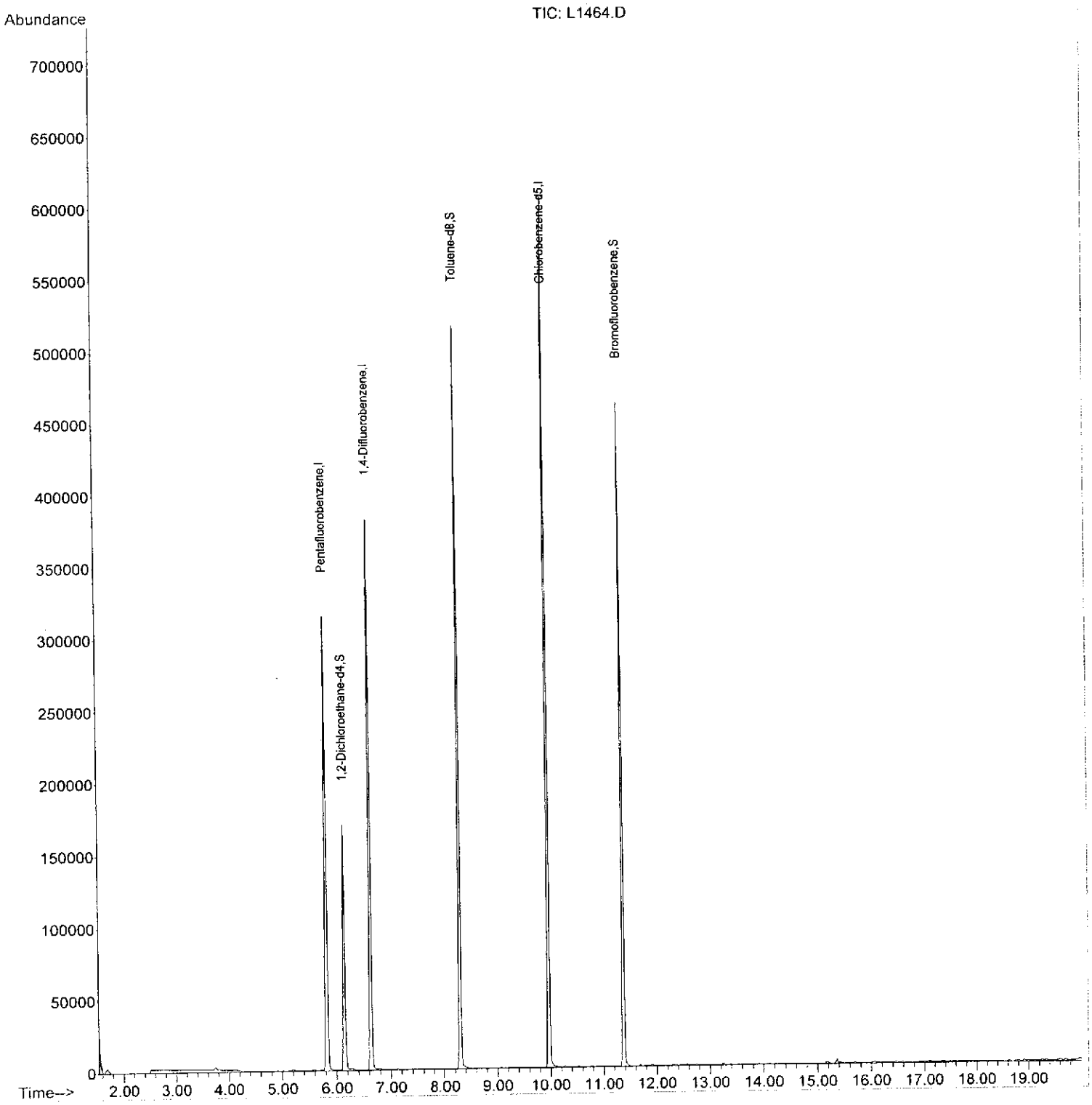
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1464.D
Acq On : 10 Jul 2012 00:47
Operator : XING
Sample : BLKA120709,BLKA120709,A,5ml,100
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 10 13:45:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Wed Jun 20 11:26:51 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1464.D
Acq On : 10 Jul 2012 00:47
Operator : XING
Sample : BLKA120709,BLKA120709,A,5ml,100
Misc :
ALS Vial : 34 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\LM061912.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.817	421	427	442	rBV	314989	692061	63.44%	14.573%
2	6.142	453	459	469	rBV	169829	359441	32.95%	7.569%
3	6.639	501	508	518	rBV	382146	822274	75.38%	17.315%
4	8.294	665	671	689	rVB	516125	967660	88.70%	20.377%
5	9.969	829	836	849	rBV	605149	1090893	100.00%	22.972%
6	11.370	968	974	988	rVB	461238	816516	74.85%	17.194%

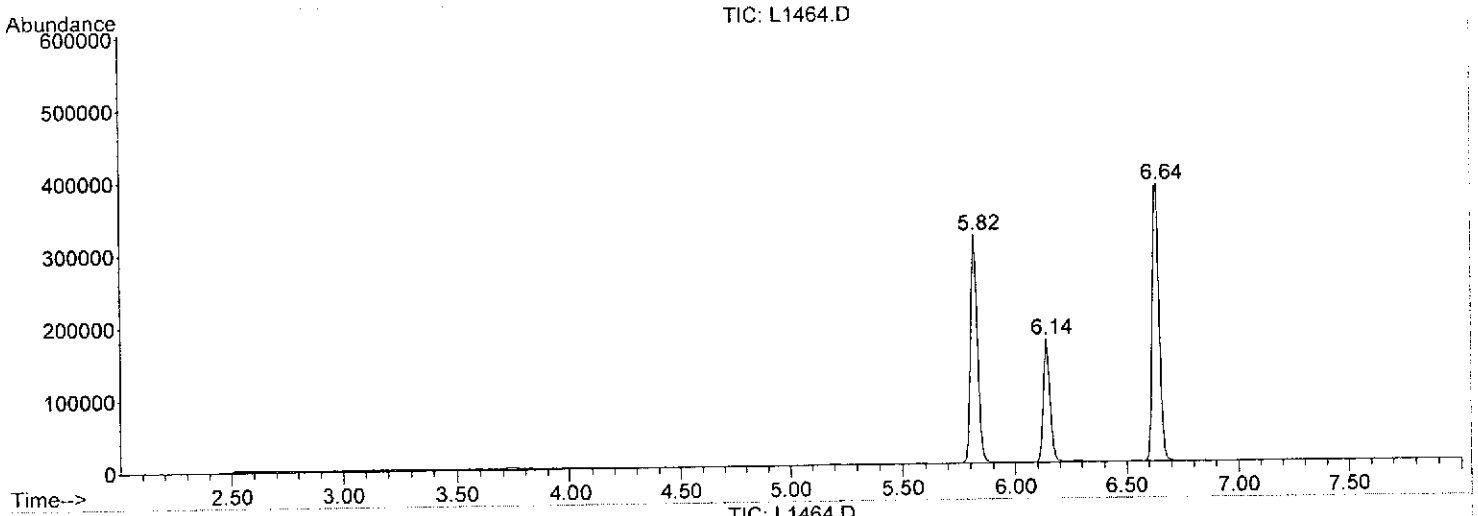
Sum of corrected areas: 4748845

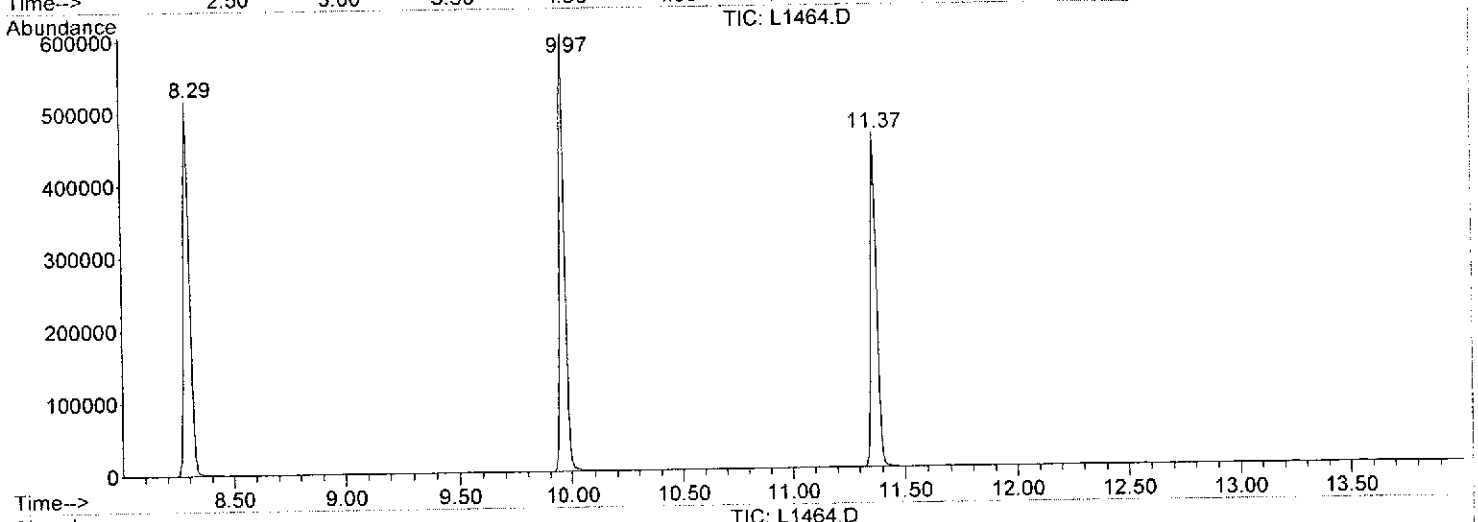
LSC Report - Integrated Chromatogram

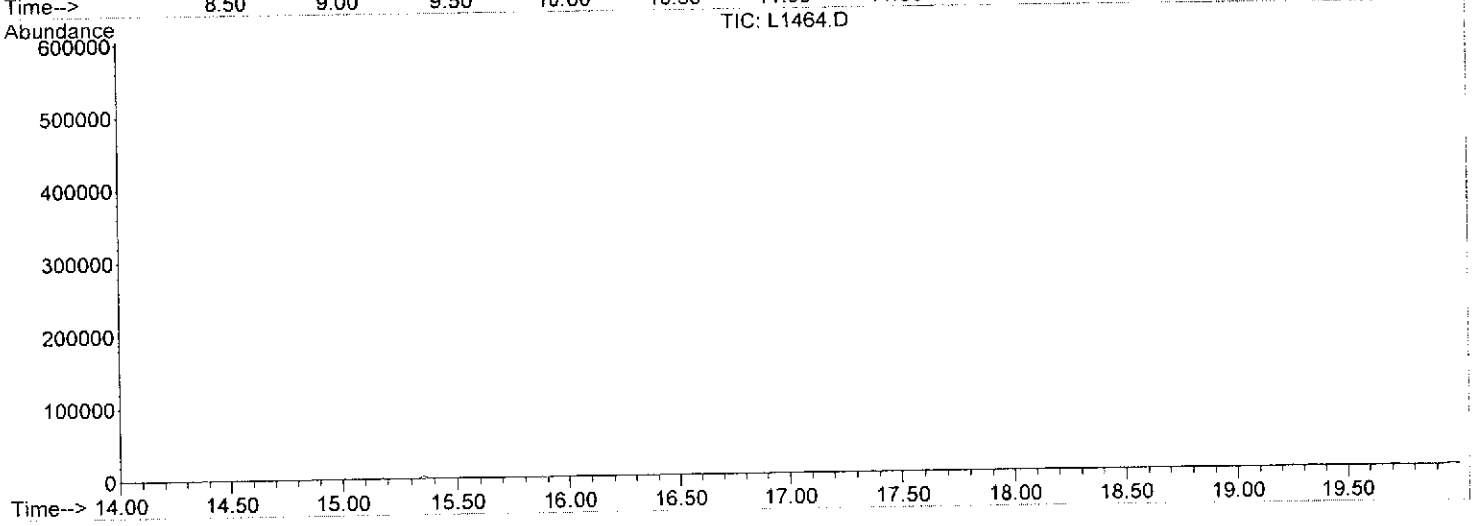
Data Path : C:\MSDChem\1\DATA\07-09-12\
Data File : L1464.D
Acq On : 10 Jul 2012 00:47
Operator : XING
Sample : BLKA120709,BLKA120709,A,5ml,100
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\LM061912.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P







SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/03/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNAMIX2	AQUEOUS	B8550.D	N/A	N/A	N/A	N/A	N/A	N/A
BLKA120703-08	AQUEOUS	B8594.D	21	13	39	40	37	67
LCSA120703-08	AQUEOUS	B8595.D	18	12	45	47	44	71
E12-06373-002MS	AQUEOUS	B8596.D	35	36	47	42	30	40
E12-06373-002MSD	AQUEOUS	B8597.D	35	36	47	43	30	40
E12-06373-001	AQUEOUS	B8602.D	N/A	N/A	72	88	N/A	112
E12-06373-002	AQUEOUS	B8603.D	N/A	N/A	70	85	N/A	100
E12-06486-001	AQUEOUS	B8604.D	N/A	N/A	56	70	N/A	97
E12-06537-016	AQUEOUS	B8605.D	15	10	50	65	40	70
E12-06466-009	AQUEOUS	B8606.D	21	12	61	77	56	94
E12-06466-010	AQUEOUS	B8607.D	30	23	62	77	79	99
E12-06466-011	AQUEOUS	B8608.D	31	26	49	61	64	87
E12-06466-012	AQUEOUS	B8609.D	21	12	68	85	54	99

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	35-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/06/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNA2		A2072.D	N/A	N/A	N/A	N/A	N/A	N/A
BLKA120706-01	AQUEOUS	A2097.D	31	30	42	46	28	38
TCLP120703	AQUEOUS	A2098.D	64	63	66	73	55	59
TCLP120629	AQUEOUS	A2099.D	25	16	47	50	54	52
TCLP120702	AQUEOUS	A2100.D	27	18	52	54	58	56
LCSA120706-01	AQUEOUS	A2101.D	55	53	61	61	49	50
E12-06534-001	AQUEOUS	A2102.D	26	16	78	90	80	87
E12-06546-001	AQUEOUS	A2103.D	12	12	36	40	36	43
E12-06546-002	AQUEOUS	A2104.D	N/A	N/A	59	72	N/A	72
E12-06584-007	AQUEOUS	A2105.D	N/A	N/A	85	98	N/A	89
E12-06569-002	AQUEOUS	A2106.D	70	36	82	96	88	91
E12-06450-001	AQUEOUS	A2107.D	70	68	75	83	87	83
E12-06420-001	AQUEOUS	A2108.D	62	59	86	97	80	89
E12-06521-002	AQUEOUS	A2109.D	N/A	N/A	87	97	N/A	89
E12-06525-001	AQUEOUS	A2110.D	N/A	N/A	88	98	N/A	100
E12-06494-001	AQUEOUS	A2111.D	N/A	N/A	90	100	N/A	98
E12-06524-001	AQUEOUS	A2112.D	N/A	N/A	75	87	N/A	88

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10.-83	25-100
S2 (PHL) = Phenol-d5	10.-91	25-108
S3 (NBZ) = Nitrobenzene-d5	25-94	24-91
S4 (FBP) = 2-Fluorobiphenyl	23-102	33-91
S5 (TBP) = 2,4,6-Tribromophenol	27-110	37-115
S6 (TPH) = Terphenyl-d14	33-113	15-122

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120703-08
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8595.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	30.0	19.9	66		40 - 140
Pyridine	30.0	9.8	33		20 - 120
Benzaldehyde	30.0	20.1	67		10 - 110
Phenol	30.0	17.8	59		30 - 140
Aniline	30.0	15.7	52		40 - 140
Bis(2-chloroethyl) ether	30.0	17.8	59		40 - 140
2-Chlorophenol	30.0	17.2	57		30 - 140
1,3-Dichlorobenzene	30.0	18.6	62		40 - 140
1,4-Dichlorobenzene	30.0	17.8	59		40 - 140
Benzyl alcohol	30.0	13.9	46		40 - 140
1,2-Dichlorobenzene	30.0	17.6	59		40 - 140
2-Methylphenol	30.0	31.4	105		30 - 140
Bis(2-chloroisopropyl) ether	30.0	19.2	64		40 - 140
4-Methylphenol	30.0	14.4	48		30 - 140
N-Nitrosodi-n-propylamine	30.0	17.8	59		40 - 140
Acetophenone	30.0	18.6	62		40 - 140
3-Methylphenol	30.0	14.4	48		30 - 140
Hexachloroethane	30.0	17.9	60		40 - 140
Nitrobenzene	30.0	18.2	61		40 - 140
Isophorone	30.0	15.2	51		40 - 140
2-Nitrophenol	30.0	15.0	50		30 - 140
2,4-Dimethylphenol	30.0	13.3	44		30 - 140
Bis(2-chloroethoxy) methane	30.0	16.9	56		40 - 140
Benzoic acid	30.0	11.8	39		30 - 140
2,4-Dimethylaniline	30.0	25.0	83		40 - 140
2,4-Dichlorophenol	30.0	16.6	55		30 - 140
1,2,4-Trichlorobenzene	30.0	16.8	56		40 - 140
Naphthalene	30.0	17.1	57		40 - 140
4-Chloroaniline	30.0	14.8	49		40 - 140
Hexachlorobutadiene	30.0	16.8	56		40 - 140
Caprolactam	30.0	17.7	59		40 - 140
4-Chloro-3-methylphenol	30.0	17.3	58		30 - 140
2-Methylnaphthalene	30.0	15.2	51		40 - 140
Hexachlorocyclopentadiene	30.0	12.1	40		5 - 105
2,4,6-Trichlorophenol	30.0	16.1	54		30 - 140
2,4,5-Trichlorophenol	30.0	14.0	47		30 - 140
1,1'-Biphenyl	30.0	18.1	60		40 - 140
2-Chloronaphthalene	30.0	17.8	59		40 - 140
2-Nitroaniline	30.0	14.4	48		40 - 140
Dimethyl phthalate	30.0	17.8	59		40 - 140
2,6-Dinitrotoluene	30.0	17.2	57		40 - 140
Acenaphthylene	30.0	17.1	57		40 - 140
3-Nitroaniline	30.0	13.8	46		40 - 140
Acenaphthene	30.0	17.8	59		40 - 140
2,4-Dinitrophenol	30.0	13.3	44		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120703-08
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8595.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	30.0	16.0	53		30 - 140
2,4-Dinitrotoluene	30.0	16.4	55		40 - 140
Dibenzofuran	30.0	14.5	48		40 - 140
Diethyl phthalate	30.0	16.5	55		40 - 140
Fluorene	30.0	17.1	57		40 - 140
4-Chlorophenyl phenyl ether	30.0	17.0	57		40 - 140
4-Nitroaniline	30.0	12.6	42		40 - 140
1,2,4,5-Tetrachlorobenzene	30.0	15.4	51		40 - 140
2,3,4,6-Tetrachlorophenol	30.0	20.0	67		40 - 140
4,6-Dinitro-2-methylphenol	30.0	15.5	52		10 - 110
N-Nitrosodiphenylamine	30.0	17.4	58		40 - 140
1,2-Diphenylhydrazine	30.0	18.9	63		40 - 140
4-Bromophenyl phenyl ether	30.0	16.9	56		40 - 140
Hexachlorobenzene	30.0	16.2	54		40 - 140
Atrazine	30.0	19.8	66		20 - 120
Pentachlorophenol	30.0	12.5	42		30 - 140
Phenanthrene	30.0	17.0	57		40 - 140
Anthracene	30.0	16.2	54		40 - 140
Carbazole	30.0	16.5	55		40 - 140
Di-n-butyl phthalate	30.0	14.8	49		40 - 140
Fluoranthene	30.0	14.4	48		40 - 140
Benzidine	30.0	9.6	32		5 - 105
Pyrene	30.0	18.2	61		40 - 140
3,3'-Dimethylbenzidine	30.0	8.4	28		5 - 105
Butyl benzyl phthalate	30.0	14.7	49		40 - 140
3,3'-Dichlorobenzidine	30.0	13.1	44		40 - 140
Benzo[a]anthracene	30.0	16.4	55		40 - 140
Chrysene	30.0	14.4	48		40 - 140
Bis(2-ethylhexyl) phthalate	30.0	13.5	45		40 - 140
Di-n-octyl phthalate	30.0	12.9	43		40 - 140
Benzo[b]fluoranthene	30.0	16.6	55		40 - 140
Benzo[k]fluoranthene	30.0	16.7	56		40 - 140
Benzo[a]pyrene	30.0	21.9	73		40 - 140
Indeno[1,2,3-cd]pyrene	30.0	20.9	70		40 - 140
Dibenz[a,h]anthracene	30.0	20.1	67		40 - 140
Benzo[g,h,i]perylene	30.0	21.3	71		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120706-01
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/06/2012
Data file: A2101.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	30.0	25.2	84		40 - 140
Pyridine	30.0	13.0	43		20 - 120
Benzaldehyde	30.0	17.0	57		10 - 110
Phenol	30.0	25.7	86		30 - 140
Aniline	30.0	20.6	69		40 - 140
Bis(2-chloroethyl) ether	30.0	22.9	76		40 - 140
2-Chlorophenol	30.0	24.5	82		30 - 140
1,3-Dichlorobenzene	30.0	24.3	81		40 - 140
1,4-Dichlorobenzene	30.0	23.5	78		40 - 140
Benzyl alcohol	30.0	18.2	61		40 - 140
1,2-Dichlorobenzene	30.0	23.7	79		40 - 140
2-Methylphenol	30.0	19.4	65		30 - 140
Bis(2-chloroisopropyl) ether	30.0	24.6	82		40 - 140
4-Methylphenol	30.0	20.7	69		30 - 140
N-Nitrosodi-n-propylamine	30.0	25.1	84		40 - 140
Acetophenone	30.0	23.9	80		40 - 140
3-Methylphenol	30.0	20.7	69		30 - 140
Hexachloroethane	30.0	22.9	76		40 - 140
Nitrobenzene	30.0	24.3	81		40 - 140
Isophorone	30.0	22.1	74		40 - 140
2-Nitrophenol	30.0	25.6	85		30 - 140
2,4-Dimethylphenol	30.0	27.3	91		30 - 140
Bis(2-chloroethoxy) methane	30.0	25.0	83		40 - 140
Benzoic acid	30.0	20.8	69		30 - 140
2,4-Dimethylaniline	30.0	33.3	111		40 - 140
2,4-Dichlorophenol	30.0	24.7	82		30 - 140
1,2,4-Trichlorobenzene	30.0	23.3	78		40 - 140
Naphthalene	30.0	22.9	76		40 - 140
4-Chloroaniline	30.0	21.1	70		40 - 140
Hexachlorobutadiene	30.0	24.0	80		40 - 140
Caprolactam	30.0	28.1	94		40 - 140
4-Chloro-3-methylphenol	30.0	25.7	86		30 - 140
2-Methylnaphthalene	30.0	21.1	70		40 - 140
Hexachlorocyclopentadiene	30.0	17.1	57		5 - 105
2,4,6-Trichlorophenol	30.0	25.0	83		30 - 140
2,4,5-Trichlorophenol	30.0	20.3	68		30 - 140
1,1'-Biphenyl	30.0	23.6	79		40 - 140
2-Chloronaphthalene	30.0	23.0	77		40 - 140
2-Nitroaniline	30.0	21.5	72		40 - 140
Dimethyl phthalate	30.0	25.2	84		40 - 140
2,6-Dinitrotoluene	30.0	24.4	81		40 - 140
Acenaphthylene	30.0	23.1	77		40 - 140
3-Nitroaniline	30.0	22.1	74		40 - 140
Acenaphthene	30.0	22.5	75		40 - 140
2,4-Dinitrophenol	30.0	19.6	65		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120706-01
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/06/2012
Data file: A2101.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	30.0	28.2	94		30 - 140
2,4-Dinitrotoluene	30.0	25.3	84		40 - 140
Dibenzofuran	30.0	19.0	63		40 - 140
Diethyl phthalate	30.0	24.0	80		40 - 140
Fluorene	30.0	23.0	77		40 - 140
4-Chlorophenyl phenyl ether	30.0	23.5	78		40 - 140
4-Nitroaniline	30.0	21.4	71		40 - 140
1,2,4,5-Tetrachlorobenzene	30.0	17.6	59		40 - 140
2,3,4,6-Tetrachlorophenol	30.0	26.6	89		40 - 140
4,6-Dinitro-2-methylphenol	30.0	12.9	43		10 - 110
N-Nitrosodiphenylamine	30.0	25.4	85		40 - 140
1,2-Diphenylhydrazine	30.0	23.2	77		40 - 140
4-Bromophenyl phenyl ether	30.0	23.4	78		40 - 140
Hexachlorobenzene	30.0	22.9	76		40 - 140
Atrazine	30.0	22.0	73		20 - 120
Pentachlorophenol	30.0	25.9	86		30 - 140
Phenanthrene	30.0	23.4	78		40 - 140
Anthracene	30.0	23.8	79		40 - 140
Carbazole	30.0	25.5	85		40 - 140
Di-n-butyl phthalate	30.0	25.6	85		40 - 140
Fluoranthene	30.0	24.6	82		40 - 140
Benzidine	30.0	14.5	48		5 - 105
Pyrene	30.0	20.6	69		40 - 140
3,3'-Dimethylbenzidine	30.0	18.3	61		5 - 105
Butyl benzyl phthalate	30.0	22.1	74		40 - 140
3,3'-Dichlorobenzidine	30.0	27.5	92		40 - 140
Benzo[a]anthracene	30.0	23.0	77		40 - 140
Chrysene	30.0	20.6	69		40 - 140
Bis(2-ethylhexyl) phthalate	30.0	22.3	74		40 - 140
Di-n-octyl phthalate	30.0	27.8	93		40 - 140
Benzo[b]fluoranthene	30.0	27.4	91		40 - 140
Benzo[k]fluoranthene	30.0	26.5	88		40 - 140
Benzo[a]pyrene	30.0	29.3	98		40 - 140
Indeno[1,2,3-cd]pyrene	30.0	25.6	85		40 - 140
Dibenz[a,h]anthracene	30.0	26.6	89		40 - 140
Benzo[g,h,i]perylene	30.0	22.6	75		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06373-002
Date Received: 06/27/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
MS Data file: B8596.D
MSD Data file: B8597.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	40.0	0.00	40.40	101		41.00	103		1		40-140/20
Pyridine	40.0	0.00	21.40	54		21.00	53		2		20-120/20
Benzaldehyde	40.0	0.00	35.80	90		36.40	91		2		10-110/20
Phenol	40.0	0.00	36.40	91		36.00	90		1		30-140/20
Aniline	40.0	0.00	31.10	78		31.10	78		0		40-140/20
Bis(2-chloroethyl) ether	40.0	0.00	39.80	100		39.40	99		1		40-140/20
2-Chlorophenol	40.0	0.00	34.70	87		33.80	85		3		30-140/20
1,3-Dichlorobenzene	40.0	0.00	37.80	95		37.40	94		1		40-140/20
1,4-Dichlorobenzene	40.0	0.00	36.00	90		35.70	89		1		40-140/20
Benzyl alcohol	40.0	0.00	27.20	68		27.40	69		1		40-140/20
1,2-Dichlorobenzene	40.0	0.00	35.70	89		34.80	87		3		40-140/20
2-Methylphenol	40.0	0.00	32.10	80		33.00	83		3		30-140/20
Bis(2-chloroisopropyl) ether	40.0	0.00	37.90	95		36.90	92		3		40-140/20
4-Methylphenol	40.0	0.00	29.70	74		29.20	73		2		30-140/20
N-Nitrosodi-n-propylamine	40.0	0.00	35.50	89		34.60	87		3		40-140/20
Acetophenone	40.0	0.00	37.90	95		37.80	95		0		40-140/20
3-Methylphenol	40.0	0.00	29.70	74		29.20	73		2		30-140/20
Hexachloroethane	40.0	0.00	36.50	91		37.00	93		1		40-140/20
Nitrobenzene	40.0	0.00	36.90	92		36.40	91		1		40-140/20
Isophorone	40.0	0.00	30.80	77		30.80	77		0		40-140/20
2-Nitrophenol	40.0	0.00	32.30	81		33.10	83		2		30-140/20
2,4-Dimethylphenol	40.0	0.00	36.80	92		37.50	94		2		30-140/20
Bis(2-chloroethoxy) methane	40.0	0.00	34.80	87		34.40	86		1		40-140/20
Benzoic acid	40.0	0.00	26.30	66		27.20	68		3		30-140/20
2,4-Dimethylaniline	40.0	0.00	53.20	133		53.20	133		0		40-140/20
2,4-Dichlorophenol	40.0	0.00	33.80	85		34.10	85		1		30-140/20
1,2,4-Trichlorobenzene	40.0	0.00	33.60	84		33.60	84		0		40-140/20
Naphthalene	40.0	0.00	34.80	87		34.80	87		0		40-140/20
4-Chloroaniline	40.0	0.00	30.10	75		30.40	76		1		40-140/20
Hexachlorobutadiene	40.0	0.00	33.20	83		33.70	84		1		40-140/20
Caprolactam	40.0	0.00	34.40	86		34.20	86		1		40-140/20
4-Chloro-3-methylphenol	40.0	0.00	35.10	88		36.00	90		3		30-140/20
2-Methylnaphthalene	40.0	0.00	31.10	78		30.90	77		1		40-140/20
Hexachlorocyclopentadiene	40.0	0.00	26.10	65		26.60	67		2		5-105/20
2,4,6-Trichlorophenol	40.0	0.00	32.60	82		33.00	83		1		30-140/20
2,4,5-Trichlorophenol	40.0	0.00	28.30	71		28.90	72		2		30-140/20
1,1'-Biphenyl	40.0	0.00	37.60	94		38.70	97		3		40-140/20
2-Chloronaphthalene	40.0	0.00	36.70	92		36.90	92		1		40-140/20
2-Nitroaniline	40.0	0.00	30.00	75		29.90	75		0		40-140/20
Dimethyl phthalate	40.0	0.00	36.00	90		37.30	93		4		40-140/20
2,6-Dinitrotoluene	40.0	0.00	36.10	90		36.50	91		1		40-140/20
Acenaphthylene	40.0	0.00	34.40	86		35.00	88		2		40-140/20
3-Nitroaniline	40.0	0.00	28.40	71		29.30	73		3		40-140/20
Acenaphthene	40.0	0.00	35.20	88		35.30	88		0		40-140/20
2,4-Dinitrophenol	40.0	0.00	27.40	69		27.70	69		1		5-105/20

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06373-002
Date Received: 06/27/2012
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
MS Data file: B8596.D
MSD Data file: B8597.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	40.0	0.00	32.20	81		31.70	79		2		30-140/20
2,4-Dinitrotoluene	40.0	0.00	33.00	83		32.40	81		2		40-140/20
Dibenzofuran	40.0	0.00	27.80	70		27.70	69		0		40-140/20
Diethyl phthalate	40.0	0.00	32.10	80		32.00	80		0		40-140/20
Fluorene	40.0	0.00	32.40	81		32.70	82		1		40-140/20
4-Chlorophenyl phenyl ether	40.0	0.00	32.50	81		32.10	80		1		40-140/20
4-Nitroaniline	40.0	0.00	24.10	60		23.50	59		3		40-140/20
1,2,4,5-Tetrachlorobenzene	40.0	0.00	20.50	51		20.90	52		2		40-140/20
2,3,4,6-Tetrachlorophenol	40.0	0.00	47.60	119		48.20	121		1		40-140/20
4,6-Dinitro-2-methylphenol	40.0	0.00	25.30	63		26.00	65		3		10-110/20
N-Nitrosodiphenylamine	40.0	0.00	35.00	88		36.40	91		4		40-140/20
1,2-Diphenylhydrazine	40.0	0.00	39.20	98		40.00	100		2		40-140/20
4-Bromophenyl phenyl ether	40.0	0.00	34.90	87		35.30	88		1		40-140/20
Hexachlorobenzene	40.0	0.00	34.30	86		34.50	86		1		40-140/20
Atrazine	40.0	0.00	30.60	77		30.00	75		2		20-120/20
Pentachlorophenol	40.0	0.00	27.70	69		28.20	71		2		30-140/20
Phenanthrene	40.0	0.00	35.00	88		34.90	87		0		40-140/20
Anthracene	40.0	0.00	34.00	85		34.00	85		0		40-140/20
Carbazole	40.0	0.00	34.90	87		33.80	85		3		40-140/20
Di-n-butyl phthalate	40.0	0.00	31.10	78		30.50	76		2		40-140/20
Fluoranthene	40.0	0.00	29.30	73		29.20	73		0		40-140/20
Benzidine	40.0	0.00	13.40	34		13.10	33		2		5-105/20
Pyrene	40.0	0.00	35.90	90		36.00	90		0		40-140/20
3,3'-Dimethylbenzidine	40.0	0.00	17.40	44		17.80	45		2		5-105/20
Butyl benzyl phthalate	40.0	0.00	29.90	75		29.10	73		3		40-140/20
3,3'-Dichlorobenzidine	40.0	0.00	25.50	64		25.90	65		2		40-140/20
Benzo[a]anthracene	40.0	0.00	32.00	80		32.30	81		1		40-140/20
Chrysene	40.0	0.00	29.50	74		28.90	72		2		40-140/20
Bis(2-ethylhexyl) phthalate	40.0	0.00	27.30	68		27.70	69		1		40-140/20
Di-n-octyl phthalate	40.0	0.00	28.20	71		26.10	65		8		40-140/20
Benzo[b]fluoranthene	40.0	0.00	37.90	95		35.20	88		7		40-140/20
Benzo[k]fluoranthene	40.0	0.00	46.30	116		45.30	113		2		40-140/20
Benzo[a]pyrene	40.0	0.00	44.30	111		44.50	111		0		40-140/20
Indeno[1,2,3-cd]pyrene	40.0	0.00	40.00	100		40.20	101		0		40-140/20
Dibenz[a,h]anthracene	40.0	0.00	38.60	97		39.00	98		1		40-140/20
Benzo[g,h,i]perylene	40.0	0.00	40.50	101		40.70	102		0		40-140/20

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B8594.D

Instrument ID: MSDB

Date Extracted: 07/03/12

Matrix: AQUEOUS

Date Analyzed: 07/03/2012

Time Analyzed: 10:11

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSA120703-08	07/03/2012	10:29
.	E12-06373-002MS	07/03/2012	10:48
.	E12-06373-002MSD	07/03/2012	11:06
MW-1	E12-06373-001	07/04/2012	12:37
MW-2	E12-06373-002	07/04/2012	12:55
SR-MW6	E12-06486-001	07/04/2012	01:13
GW-1	E12-06537-016	07/04/2012	01:31
B3-06271	E12-06466-009	07/04/2012	01:49
A1-06271	E12-06466-010	07/04/2012	02:08
A2-06271	E12-06466-011	07/04/2012	02:25
A7-06271	E12-06466-012	07/04/2012	02:44

FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: A2097.D

Instrument ID: MSDA

Date Extracted: 07/06/12

Matrix: AQUEOUS

Date Analyzed: 07/06/2012

Time Analyzed: 17:06

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	TCLP120703	07/06/2012	17:22
.	TCLP120629	07/06/2012	17:38
.	TCLP120702	07/06/2012	17:54
.	LCSA120706-01	07/06/2012	18:11
062912-C	E12-06534-001	07/06/2012	18:27
A6-06291	E12-06546-001	07/06/2012	18:43
E1-06291	E12-06546-002	07/06/2012	19:00
FB	E12-06584-007	07/06/2012	19:16
TRE-V12-	E12-06569-002	07/06/2012	19:32
SIPHON_G	E12-06450-001	07/06/2012	19:49
BLDG_404	E12-06420-001	07/06/2012	20:05
T-190	E12-06521-002	07/06/2012	20:21
MW	E12-06525-001	07/06/2012	20:37
SEFFF062912	E12-06494-001	07/06/2012	20:53
TMP-1/10.62	E12-06524-001	07/06/2012	21:09

FORM IV SV

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8501.D DFTPP Injection Date : 07/02/2012

Inst ID: MSDB DFTPP Injection Time: 09:07

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	31.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	10.5	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	40.0 - 60.0% of mass 198	43.8	
197	Less than 1.0% of mass 198	0.1	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	5.1	
275	10.0 - 30.0% of mass 198	28.2	
365	Greater than 1.0% of mass 198	3.7	
441	Present, but less than mass 443	11.44	(62.4)3
442	40.0 - 100.0% of mass 198	86.1	
443	17.0 - 23.0% of mass 442	18.3	(21.3)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN017-12	ICC001BNA1	B8502.D	07/02/2012	09:18
ABN019-12	ICC010BNA1	B8503.D	07/02/2012	09:36
ABN020-12	ICC020BNA1	B8504.D	07/02/2012	09:54
ABN021-12	ICC040BNA1	B8505.D	07/02/2012	10:11
ABN022-12	ICC080BNA1	B8506.D	07/02/2012	10:29
ABN023-12	ICC120BNA1	B8507.D	07/02/2012	11:05
ABN032-12	ICC120BNA2	B8508.D	07/02/2012	11:23
ABN031-12	ICC080BNA2	B8509.D	07/02/2012	11:41
ABN030-12	ICC040BNA2	B8510.D	07/02/2012	11:59
ABN029-12	ICC020BNA2	B8511.D	07/02/2012	12:17
ABN028-12	ICC010BNA2	B8512.D	07/02/2012	12:35
ABN026-12	ICC001BNA2	B8513.D	07/02/2012	12:53

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8548.D DFTPP Injection Date : 07/03/2012

Inst ID: MSDB DFTPP Injection Time: 09:25

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	40.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	41.7	
70	Less than 2.0% of mass 69	0.2	(0.4)1
127	40.0 - 60.0% of mass 198	52.6	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	7.0	
275	10.0 - 30.0% of mass 198	25.7	
365	Greater than 1.0% of mass 198	3.3	
441	Present, but less than mass 443	13.00	(71.7)3
442	40.0 - 100.0% of mass 198	92.5	
443	17.0 - 23.0% of mass 442	18.1	(19.6)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN088.12	CCV040BNAMIX1	B8549.D	07/03/2012	09:36
ABN089.12	CCV040BNAMIX2	B8550.D	07/03/2012	09:54
.	BLKA120703-08	B8594.D	07/03/2012	10:11
.	LCSA120703-08	B8595.D	07/03/2012	10:29
.	E12-06373-002MS	B8596.D	07/03/2012	10:48
.	E12-06373-002MSD	B8597.D	07/03/2012	11:06
MW-1	E12-06373-001	B8602.D	07/04/2012	12:37
MW-2	E12-06373-002	B8603.D	07/04/2012	12:55
SR-MW6	E12-06486-001	B8604.D	07/04/2012	01:13
GW-1	E12-06537-016	B8605.D	07/04/2012	01:31
B3-06271	E12-06466-009	B8606.D	07/04/2012	01:49
A1-06271	E12-06466-010	B8607.D	07/04/2012	02:08
A2-06271	E12-06466-011	B8608.D	07/04/2012	02:25
A7-06271	E12-06466-012	B8609.D	07/04/2012	02:44

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A2044.D

DFTPP Injection Date : 07/05/2012

Inst ID: MSDA

DFTPP Injection Time: 09:04

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	40.2	
68	Less than 2.0% of mass 69	0.5	(1.4)1
69	Mass 69 relative abundance	36.5	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	40.0 - 60.0% of mass 198	52.0	
197	Less than 1.0% of mass 198	0.4	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.9	
275	10.0 - 30.0% of mass 198	25.0	
365	Greater than 1.0% of mass 198	3.1	
441	Present, but less than mass 443	13.24	(73.2)3
442	40.0 - 100.0% of mass 198	86.1	
443	17.0 - 23.0% of mass 442	18.1	(21.0)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN077-12	ICC040BNA1	A2049.D	07/05/2012	10:37
ABN075-12	ICC010BNA1	A2050.D	07/05/2012	11:19
ABN076-12	ICC020BNA1	A2051.D	07/05/2012	11:34
ABN085-12	ICC080BNA2	A2052.D	07/05/2012	11:50
ABN082-12	ICC002BNA2	A2053.D	07/05/2012	12:06
ABN086-12	ICC120BNA2	A2054.D	07/05/2012	12:22
ABN078-12	ICC080BNA1	A2055.D	07/05/2012	12:38
ABN073-12	ICC001BNA1	A2056.D	07/05/2012	12:54
ABN079-12	ICC120BNA1	A2057.D	07/05/2012	13:12
ABN074-12	ICC002BNA1	A2058.D	07/05/2012	13:27
ABN077-12	ICC040BNA1	A2059.D	07/05/2012	13:43
ABN080-12	ICC001BNA2	A2060.D	07/05/2012	13:59
ABN083-12	ICC020BNA2	A2061.D	07/05/2012	14:15
ABN082-12	ICC010BNA2	A2062.D	07/05/2012	14:31
ABN084-12	ICC040BNA2	A2063.D	07/05/2012	14:47
ABN088-12	ICV040BNA1	A2064.D	07/05/2012	15:05
ABN089-12	ICV040BNA2	A2065.D	07/05/2012	15:21

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A2070.D DFTPP Injection Date : 07/06/2012

Inst ID: MSDA DFTPP Injection Time: 09:41

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	54.6	
68	Less than 2.0% of mass 69	0.7	(1.5)1
69	Mass 69 relative abundance	45.6	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	40.0 - 60.0% of mass 198	57.7	
197	Less than 1.0% of mass 198	0.4	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.3	
275	10.0 - 30.0% of mass 198	20.4	
365	Greater than 1.0% of mass 198	2.4	
441	Present, but less than mass 443	8.07	(71.8)3
442	40.0 - 100.0% of mass 198	55.1	
443	17.0 - 23.0% of mass 442	11.2	(20.4)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN088-12	CCV040BNA1	A2071.D	07/06/2012	09:51
ABN089-12	CCV040BNA2	A2072.D	07/06/2012	10:07
.	BLKA120706-01	A2097.D	07/06/2012	17:06
.	TCLP120703	A2098.D	07/06/2012	17:22
.	TCLP120629	A2099.D	07/06/2012	17:38
.	TCLP120702	A2100.D	07/06/2012	17:54
.	LCSA120706-01	A2101.D	07/06/2012	18:11
062912-C	E12-06534-001	A2102.D	07/06/2012	18:27
A6-06291	E12-06546-001	A2103.D	07/06/2012	18:43
E1-06291	E12-06546-002	A2104.D	07/06/2012	19:00
FB	E12-06584-007	A2105.D	07/06/2012	19:16
TRE-V12-	E12-06569-002	A2106.D	07/06/2012	19:32
SIPHON_G	E12-06450-001	A2107.D	07/06/2012	19:49
BLDG_404	E12-06420-001	A2108.D	07/06/2012	20:05
T-190	E12-06521-002	A2109.D	07/06/2012	20:21
MW	E12-06525-001	A2110.D	07/06/2012	20:37
SEFFF062912	E12-06494-001	A2111.D	07/06/2012	20:53
TMP-1/10.62	E12-06524-001	A2112.D	07/06/2012	21:09

Response Factor Report MS_2

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BW1712.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Jul 02 12:14:53 2012
Response Via : Initial Calibration

Calibration Files
1 =B8502.D 10 =B8503.D 20 =B8504.D
40 =B8505.D 80 =B8506.D 120 =B8507.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.890	0.782	0.804	0.736	0.789	0.779	0.797	6.42
3)	T	Pyridine	1.943	1.702	1.833	1.572	1.811	1.684	1.758	7.44
4)	S	2-Fluorophenol	1.283	1.310	1.313	1.261	1.312	1.283	1.294	1.65
5)	T	Benzaldehyde	0.776	0.742	0.665	0.765	0.547	0.859	0.725	14.78
6)	S	Phenol-d5	1.678	1.728	1.684	1.619	1.710	1.683	1.684	2.20
7)	MC	Phenol	1.918	1.696	1.759	1.608	1.719	1.813	1.752	6.05
8)	T	Aniline	0.957	0.843	0.909	0.735	0.863	0.760	0.844	10.10
9)	T	Bis(2-chloroethyl	1.106	0.888	0.956	0.848	0.923	1.029	0.958	9.92
10)	M	2-Chlorophenol	1.709	1.285	1.459	1.299	1.414	1.509	1.446	10.79
11)	T	1,3-Dichlorobenze	1.489	1.367	1.552	1.398	1.568	1.722	1.516	8.52
12)	MC	1,4-Dichlorobenze	1.705	1.367	1.665	1.499	1.649	1.703	1.598	8.54
13)	T	Benzyl alcohol	1.187	1.025	1.180	1.047	1.184	0.946	1.095	9.40
14)	T	1,2-Dichlorobenze	1.736	1.366	1.572	1.421	1.581	1.648	1.554	8.92
15)	T	2-Methylphenol	1.319	1.402	1.625	1.412	1.559	1.306	1.437	8.97
16)	T	Bis(2-chloroisopr	1.790	1.646	1.804	1.586	1.719	1.778	1.721	5.11
17)	T	4-Methylphenol	1.890	1.469	1.639	1.501	1.684	1.430	1.602	10.75
18)	MP	N-Nitrosodi-n-pro	1.221	0.928	1.028	0.904	0.988	1.134	1.034	11.86
19)	T	Acetophenone	2.174	1.794	2.002	1.748	1.932	2.011	1.944	8.02
20)	T	3-Methylphenol	1.890	1.469	1.642	1.502	1.684	1.430	1.603	10.76
21)	T	Hexachloroethane	0.638	0.528	0.578	0.526	0.578	0.603	0.575	7.54
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.320	0.318	0.320	0.333	0.368	0.419	0.346	11.66
25)	T	Nitrobenzene	0.385	0.320	0.345	0.310	0.337	0.357	0.342	7.91
26)	T	Isophorone	0.760	0.596	0.656	0.586	0.631	0.570	0.633	11.03
27)	TC	2-Nitrophenol	0.213	0.166	0.185	0.171	0.197	0.224	0.193	11.96
28)	T	2,4-Dimethylpheno	0.387	0.292	0.340	0.299	0.362	0.410	0.348	13.55
29)	T	Bis(2-chloroethox	0.492	0.366	0.400	0.368	0.398	0.429	0.409	11.48
30)	T	Benzoic acid	0.244	0.220	0.229	0.221	0.245	0.217	0.229	5.35
31)	T	2,4-Dimethylanili	0.719	0.626	0.715	0.525	0.699	0.714	0.666	11.64
32)	TC	2,4-Dichloropheno	0.350	0.270	0.298	0.271	0.297	0.332	0.303	10.71
33)	M	1,2,4-Trichlorobe	0.381	0.294	0.334	0.302	0.336	0.367	0.336	10.19
34)	T	Naphthalene	1.248	0.970	1.080	0.987	1.067	1.145	1.083	9.53
35)	T	4-Chloroaniline	0.754	0.598	0.676	0.584	0.677	0.622	0.652	9.70
36)	T	4-Aminotoluene	1.155	0.932	1.036	0.865	1.101	1.053	1.024	10.50
37)	TC	Hexachlorobutadie	0.237	0.174	0.200	0.181	0.202	0.226	0.203	12.01
38)	T	Caprolactam	0.145	0.127	0.136	0.123	0.131	0.138	0.133	5.97
39)	T	2-Aminotoluene	1.155	0.932	1.036	0.865	1.101	1.031	1.020	10.46
40)	MC	4-Chloro-3-methyl	0.273	0.254	0.292	0.253	0.287	0.307	0.278	7.76
41)	T	2-Methylnaphthale	0.928	0.740	0.850	0.757	0.867	0.834	0.830	8.50
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.500	0.406	0.448	0.414	0.475	0.526	0.461	10.30
45)	TC	2,4,6-Trichloroph	0.462	0.351	0.373	0.345	0.393	0.443	0.394	12.31
46)	T	2,4,5-Trichloroph	0.547	0.451	0.496	0.466	0.511	0.448	0.486	7.96
47)	S	2-Fluorobiphenyl	1.428	1.345	1.317	1.340	1.309	1.384	1.354	3.31
48)	T	1,1'-Biphenyl	1.932	1.429	1.553	1.470	1.666	1.872	1.654	12.68
49)	T	2-Chloronaphthale	1.392	1.058	1.149	1.093	1.235	1.342	1.212	11.17
50)	T	2-Nitroaniline	0.413	0.338	0.360	0.338	0.367	0.322	0.356	9.04
51)	T	Dimethyl phthalat	1.402	1.179	1.290	1.199	1.328	1.405	1.301	7.46
52)	T	2,6-Dinitrotoluen	0.285	0.244	0.277	0.261	0.283	0.314	0.277	8.59
53)	T	Acenaphthylene	2.164	1.660	1.842	1.723	1.906	1.921	1	

54)	T	3-Nitroaniline	0.417	0.350	0.378	0.339	0.371	0.320	[illegible]	[illegible]
55)	MC	Acenaphthene	1.235	0.982	1.083	0.988	1.074	1.147	1.085	8.89
56)	TP	2,4-Dinitrophenol	0.104	0.095	0.110	0.103	0.112	0.101	0.104	5.87
57)	MP	4-Nitrophenol	0.279	0.195	0.214	0.193	0.210	0.221	0.219	14.40
58)	M	2,4-Dinitrotoluen	0.390	0.298	0.347	0.320	0.342	0.367	0.344	9.49
59)	T	Dibenzofuran	2.183	1.741	1.914	1.739	1.879	1.632	1.848	10.48
60)	T	Diethyl phthalate	1.455	1.089	1.206	1.094	1.154	1.230	1.205	11.24
61)	T	Fluorene	1.416	1.180	1.276	1.174	1.297	1.399	1.290	8.02
62)	T	4-Chlorophenyl ph	0.710	0.564	0.623	0.561	0.618	0.682	0.626	9.69
63)	T	4-Nitroaniline	0.424	0.352	0.389	0.366	0.415	0.385	0.389	7.18
64)		1,2,4,5-Tetrachlo	1.268	1.033	1.150	1.098	1.248	0.707	1.084	18.91
65)	T	2,3,4,6-Tetrachlo	0.321	0.280	0.261	0.259	0.291	0.285	0.283	8.07
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.107	0.084	0.091	0.084	0.099	0.097	0.094	9.72
68)	TC	N-Nitrosodiphenyl	0.575	0.458	0.521	0.460	0.516	0.578	0.518	10.13
69)	T	1,2-Diphenylhydra	0.653	0.583	0.690	0.603	0.676	0.757	0.660	9.52
70)	S	2,4,6-Tribromophe	0.173	0.165	0.175	0.161	0.167	0.164	0.168	3.20
71)	T	4-Bromophenyl phe	0.267	0.214	0.245	0.220	0.253	0.284	0.247	10.87
72)	T	Hexachlorobenzene	0.335	0.258	0.300	0.266	0.312	0.352	0.304	12.23
73)	T	Atrazine	0.192	0.183	0.197	0.165	0.180	0.154	0.178	9.14
74)	MC	Pentachlorophenol	0.195	0.142	0.158	0.151	0.176	0.205	0.171	14.75
75)	T	Phenanthrene	1.210	0.946	1.085	0.995	1.118	1.230	1.097	10.33
76)	T	Anthracene	1.182	0.977	1.104	1.026	1.201	1.248	1.123	9.45
77)	T	Carbazole	1.118	0.884	1.007	0.919	1.051	1.134	1.019	10.03
78)	T	Di-n-butyl phthal	1.342	1.063	1.202	1.150	1.332	1.447	1.256	11.33
79)	TC	Fluoranthene	1.266	1.010	1.113	1.074	1.227	1.233	1.154	8.92
80)	T	Benzidine	0.358	0.363	0.355	0.326	0.283	0.300	0.331	10.15
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.256	0.980	1.187	1.042	1.148	1.173	1.131	8.98
84)	S	Terphenyl-d14	0.848	0.832	0.861	0.834	0.802	0.872	0.842	2.95
85)	T	3,3'-Dimethylbenz	0.262	0.305	0.238	0.274	0.252	0.214	0.258	12.05
86)	T	Butyl benzyl phth	0.530	0.407	0.484	0.444	0.486	0.462	0.469	8.90
87)	T	3,3'-Dichlorobenz	0.452	0.357	0.382	0.337	0.326	0.357	0.369	12.27
88)	T	Benzo[a]anthracen	1.218	0.930	1.034	0.944	1.034	1.169	1.055	11.07
89)	T	Chrysene	1.073	0.849	0.979	0.890	0.973	1.044	0.968	8.90
90)	T	Bis(2-ethylhexyl)	0.702	0.552	0.658	0.634	0.717	0.600	0.644	9.64
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.165	0.928	1.112	1.043	1.105	1.088	1.074	7.59
94)	T	Benzo[b]fluoranth	1.384	1.012	1.382	1.256	1.299	1.402	1.289	11.43
95)	T	Benzo[k]fluoranth	1.374	1.118	1.396	1.240	1.291	1.204	1.271	8.28
96)	TC	Benzo[a]pyrene	1.261	0.992	1.120	1.003	1.098	1.125	1.100	8.90
97)	T	Indeno[1,2,3-cd]p	1.553	1.282	1.460	1.421	1.605	1.507	1.471	7.73
98)	T	Dibenz[a,h]anthra	1.339	1.097	1.238	1.200	1.371	1.198	1.240	8.13
99)	T	Benzo[g,h,i]peryl	1.294	1.052	1.186	1.143	1.295	1.300	1.212	8.45

(#) = Out of Range

BW1712.M Mon Jul 02 13:19:37 2012 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : B8583.D
Acq On : 3 Jul 2012 7:18 pm
Operator : DANA
Sample : ABN088.12,CCV040BNAMIX1,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 03 20:01:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
2	T	N-Nitrosodimethylamine	0.797	0.803	-0.8	113	0.00
3	T	Pyridine	1.758	1.791	-1.9	118	0.00
4	S	2-Fluorophenol	1.294	1.254	3.1	103	0.00
5	T	Benzaldehyde	0.725	0.608	16.1	82	0.00
6	S	Phenol-d5	1.684	1.619	3.9	104	0.00
7	MC	Phenol	1.752	1.628	7.1	105	0.00
8	T	Aniline	0.844	0.699	17.2	99	0.00
9	T	Bis(2-chloroethyl) ether	0.958	0.873	8.9	107	0.00
10	M	2-Chlorophenol	1.446	1.239	14.3	99	0.00
11	T	1,3-Dichlorobenzene	1.516	1.364	10.0	101	0.00
12	MC	1,4-Dichlorobenzene	1.598	1.489	6.8	103	0.00
13	T	Benzyl alcohol	1.095	0.993	9.3	98	0.00
14	T	1,2-Dichlorobenzene	1.554	1.395	10.2	102	0.00
15	T	2-Methylphenol	1.437	1.417	1.4	104	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.721	1.639	4.8	107	0.00
17	T	4-Methylphenol	1.602	1.483	7.4	103	0.00
18	MP	N-Nitrosodi-n-propylamine	1.034	0.905	12.5	104	0.00
19	T	Acetophenone	1.944	1.800	7.4	107	0.00
20	T	3-Methylphenol	1.603	1.481	7.6	102	0.00
21	T	Hexachloroethane	0.575	0.526	8.5	104	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	106	0.00
24	S	Nitrobenzene-d5	0.346	0.343	0.9	109	0.00
25	T	Nitrobenzene	0.342	0.324	5.3	110	0.00
26	T	Isophorone	0.633	0.582	8.1	105	0.00
27	TC	2-Nitrophenol	0.193	0.166	14.0	103	0.00
28	T	2,4-Dimethylphenol	0.348	0.296	14.9	105	0.00
29	T	Bis(2-chloroethoxy) methane	0.409	0.361	11.7	104	0.00
30	T	Benzoic acid	0.229	0.188	17.9	90	0.00
31	T	2,4-Dimethylaniline	0.666	0.681	-2.3	137	0.00
32	TC	2,4-Dichlorophenol	0.303	0.269	11.2	105	0.00
33	M	1,2,4-Trichlorobenzene	0.336	0.301	10.4	105	0.00
34	T	Naphthalene	1.083	1.011	6.6	108	0.00
35	T	4-Chloroaniline	0.652	0.583	10.6	105	0.00
36	T	4-Aminotoluene	1.024	0.883	13.8	108	0.00
37	TC	Hexachlorobutadiene	0.203	0.182	10.3	106	0.00
38	T	Caprolactam	0.133	0.116	12.8	99	0.00
39	T	2-Aminotoluene	1.020	0.883	13.4	108	0.00
40	MC	4-Chloro-3-methylphenol	0.278	0.252	9.4	105	0.00
41	T	2-Methylnaphthalene	0.830	0.786	5.3	110	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	103	0.00
44	TP	Hexachlorocyclopentadiene	0.461	0.395	14.3	99	0.00
45	TC	2,4,6-Trichlorophenol	0.394	0.330	16.2	99	0.00
46	T	2,4,5-Trichlorophenol	0.486	0.451	7.2	100	0.00

47	S	2-Fluorobiphenyl	1.354	1.418	-4.7	109	0.00
48	T	1,1'-Biphenyl	1.654	1.531	7.4	108	0.00
49	T	2-Chloronaphthalene	1.212	1.103	9.0	104	0.00
50	T	2-Nitroaniline	0.356	0.360	-1.1	110	0.00
51	T	Dimethyl phthalate	1.301	1.224	5.9	106	0.00
52	T	2,6-Dinitrotoluene	0.277	0.260	6.1	103	0.00
53	T	Acenaphthylene	1.869	1.750	6.4	105	0.00
54	T	3-Nitroaniline	0.360	0.326	9.4	100	0.00
55	MC	Acenaphthene	1.085	0.992	8.6	104	0.00
56	TP	2,4-Dinitrophenol	0.104	0.117	-12.5	118	0.00
57	MP	4-Nitrophenol	0.219	0.176	19.6	94	0.00
58	M	2,4-Dinitrotoluene	0.344	0.312	9.3	101	0.00
59	T	Dibenzofuran	1.848	1.737	6.0	103	0.00
60	T	Diethyl phthalate	1.205	1.043	13.4	99	0.00
61	T	Fluorene	1.290	1.182	8.4	104	0.00
62	T	4-Chlorophenyl phenyl ether	0.626	0.560	10.5	103	0.00
63	T	4-Nitroaniline	0.389	0.352	9.5	99	0.00
64		1,2,4,5-Tetrachlorobenzene	1.084	1.176	-8.5	111	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.283	0.240	15.2	96	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	105	-0.01
67	T	4,6-Dinitro-2-methylphenol	0.094	0.091	3.2	113	0.00
68	TC	N-Nitrosodiphenylamine	0.518	0.448	13.5	102	0.00
69	T	1,2-Diphenylhydrazine	0.660	0.622	5.8	108	0.00
70	S	2,4,6-Tribromophenol	0.168	0.160	4.8	104	0.00
71	T	4-Bromophenyl phenyl ether	0.247	0.226	8.5	108	0.00
72	T	Hexachlorobenzene	0.304	0.277	8.9	109	-0.01
73	T	Atrazine	0.178	0.173	2.8	146	0.00
74	MC	Pentachlorophenol	0.171	0.140	18.1	97	-0.01
75	T	Phenanthrene	1.097	1.022	6.8	108	-0.01
76	T	Anthracene	1.123	1.018	9.3	104	-0.02
77	T	Carbazole	1.019	0.915	10.2	104	-0.02
78	T	Di-n-butyl phthalate	1.256	1.075	14.4	98	-0.02
79	TC	Fluoranthene	1.154	1.031	10.7	101	-0.04
80	T	Benzidine	0.331	0.300	9.4	128	-0.04
82	I	Chrysene-d12	1.000	1.000	0.0	90	-0.08
83	M	Pyrene	1.131	1.182	-4.5	103	-0.05
84	S	Terphenyl-d14	0.842	0.953	-13.2	103	-0.05
85	T	3,3'-Dimethylbenzidine	0.258	0.303	-17.4	110	-0.06
86	T	Butyl benzyl phthalate	0.469	0.438	6.6	89	-0.06
87	T	3,3'-Dichlorobenzidine	0.369	0.392	-6.2	105	-0.08
88	T	Benzo[a]anthracene	1.055	1.017	3.6	97	-0.08
89	T	Chrysene	0.968	0.984	-1.7	100	-0.07
90	T	Bis(2-ethylhexyl) phthalate	0.644	0.577	10.4	82	-0.09
92	I	Perylene-d12	1.000	1.000	0.0	71	-0.09
93	TC	Di-n-octyl phthalate	1.074	0.930	13.4	63	-0.09
94	T	Benzo[b]fluoranthene	1.289	1.324	-2.7	75	-0.09
95	T	Benzo[k]fluoranthene	1.271	1.491	-17.3	85	-0.09
96	TC	Benzo[a]pyrene	1.100	1.283	-16.6	91	-0.09
97	T	Indeno[1,2,3-cd]pyrene	1.471	1.604	-9.0	80	-0.09
98	T	Dibenz[a,h]anthracene	1.240	1.375	-10.9	81	-0.10
99	T	Benzo[g,h,i]perylene	1.212	1.368	-12.9	85	-0.10

(#) = Out of Range

BW1712.M Tue Jul 05 09:36:41 2012 MSD_B

Response Factor Report MSD_A

Method Path : C:\MSDCHEM\1\METHODS\
Method File : AW1112.M
Title : BNA CALIBRATION METHOD
Last Update : Fri Jul 06 08:42:04 2012
Response Via : Initial Calibration

Calibration Files
1 =A2056.D 2 =A2058.D 10 =A2050.D 20 =A2051.D 40 =A2059.D 80 =A2055.D
120 =A2057.D

		Compound	1	2	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------								
2)	T	N-Nitrosodimet...	0.895	0.858	0.819	0.908	0.837	0.855	0.787	0.851	4.96
3)	T	Pyridine	2.359	1.985	1.895	2.039	1.783	1.747	1.929	1.962	10.35
4)	S	2-Fluorophenol	1.245	1.286	1.259	1.265	1.268	1.273	1.169	1.252	3.09
5)	T	Benzaldehyde	0.946	1.017	0.937	0.953	0.962	0.838	0.882	0.933	6.20
6)	S	Phenol-d5	1.527	1.525	1.529	1.532	1.522	1.488	1.334	1.494	4.82
7)	MC	Phenol	1.583	1.824	1.596	1.720	1.569	1.492	1.435	1.603	8.24
8)	T	Aniline	1.080	0.950	0.834	0.897	0.768	0.779	0.826	0.876	12.58
9)	T	Bis(2-chloroet...	1.263	1.152	1.004	1.098	0.983	0.980	0.856	1.048	12.76
10)	M	2-Chlorophenol	1.735	1.450	1.357	1.476	1.299	1.301	1.250	1.410	11.73
11)	T	1,3-Dichlorobe...	1.791	1.649	1.496	1.631	1.523	1.490	1.397	1.568	8.35
12)	MC	1,4-Dichlorobe...	1.936	1.790	1.588	1.720	1.545	1.538	1.384	1.643	11.22
13)	T	Benzyl alcohol	1.031	0.855	0.915	1.023	0.893	0.907	0.730	0.908	11.31
14)	T	1,2-Dichlorobe...	1.804	1.638	1.491	1.627	1.429	1.429	1.304	1.532	10.96
15)	T	2-Methylphenol	1.805	1.915	1.482	1.602	1.430	1.433	1.536	1.601	11.87
16)	T	Bis(2-chlorois...	2.181	1.895	1.733	1.899	1.675	1.663	1.459	1.786	12.88
17)	T	4-Methylphenol	1.690	1.546	1.448	1.557	1.400	1.380	1.035	1.437	14.39
18)	MP	N-Nitrosodi-n-...	1.066	0.953	0.888	0.941	0.847	0.832	0.703	0.890	12.78
19)	T	Acetophenone	2.144	1.903	1.764	1.842	1.667	1.634	1.594	1.793	10.68
20)	T	3-Methylphenol	1.690	1.546	1.448	1.557	1.400	1.379	1.034	1.436	14.42
21)	T	Hexachloroethane	0.694	0.589	0.556	0.606	0.543	0.561	0.520	0.581	9.86
22)	T	ISTD								0.000	-1.00
23)	I	Naphthalene-d8	----------ISTD----------								
24)	S	Nitrobenzene-d5	0.336	0.329	0.331	0.341	0.341	0.388	0.383	0.350	7.15
25)	T	Nitrobenzene	0.407	0.421	0.363	0.379	0.343	0.344	0.334	0.370	9.11
26)	T	Isophorone	0.764	0.677	0.624	0.661	0.589	0.599	0.467	0.626	14.64
27)	TC	2-Nitrophenol	0.192	0.168	0.174	0.195	0.173	0.177	0.167	0.178	6.22
28)	T	2,4-Dimethylph...	0.375	0.322	0.317	0.345	0.306	0.321	0.303	0.327	7.72
29)	T	Bis(2-chloroet...	0.456	0.422	0.381	0.413	0.359	0.370	0.334	0.391	10.68
30)	T	Benzoic acid	0.200	0.181	0.187	0.211	0.191	0.195	0.140	0.186	12.07
31)	T	2,4-Dimethylan...	0.783	0.713	0.629	0.679	0.572	0.594	0.657	0.661	10.93
32)	TC	2,4-Dichloroph...	0.323	0.294	0.279	0.305	0.265	0.269	0.238	0.282	9.92
33)	M	1,2,4-Trichlor...	0.383	0.355	0.305	0.335	0.295	0.301	0.265	0.320	12.56
34)	T	Naphthalene	1.356	1.185	1.044	1.135	0.993	0.997	0.859	1.081	14.85
35)	T	4-Chloroaniline	0.699	0.642	0.578	0.638	0.556	0.568	0.451	0.590	13.47
36)	T	4-Aminotoluene	1.255	1.129	0.998	1.096	0.966	0.946	0.999	1.056	10.46
37)	TC	Hexachlorobuta...	0.184	0.166	0.153	0.164	0.144	0.146	0.131	0.155	11.31
38)	T	Caprolactam	0.117	0.099	0.095	0.106	0.096	0.102	0.096	0.101	7.66
39)	T	2-Aminotoluene	1.255	1.129	0.998	1.096	0.966	0.946	0.999	1.056	10.46
40)	MC	4-Chloro-3-met...	0.256	0.250	0.235	0.261	0.241	0.251	0.226	0.246	5.01
41)	T	2-Methylnaphth...	0.918	0.824	0.764	0.800	0.738	0.727	0.571	0.763	13.92
42)	T	2,5-Dimethylph...								0.000	-1.00
43)	I	Acenaphthene-d10	----------ISTD----------								
44)	TP	Hexachlorocycl...	0.204	0.301	0.268	0.319	0.276	0.300	0.274	0.277	13.37
45)	TC	2,4,6-Trichlor...	0.322	0.293	0.308	0.344	0.300	0.315	0.294	0.311	5.82
46)	T	2,4,5-Trichlor...	0.381	0.367	0.387	0.425	0.382	0.382	0.285	0.373	11.47
47)	S	2-Fluorobiphenyl	1.260	1.252	1.244	1.235	1.198	1.248	1.166	1.229	2.78
48)	T	1,1'-Biphenyl	2.022	1.810	1.590	1.728	1.528	1.498	1.444	1.660	12.37
49)	T	2-Chloronaphth...	1.373	1.260	1.144	1.224	1.117	1.116	1.021	1.179	9.83
50)	T	2-Nitroaniline	0.322	0.313	0.328	0.380	0.349	0.350	0.269	0.330	10.66
51)	T	Dimethyl phtha...	1.344	1.181	1.121	1.239	1.105	1.122	1.054	1.167	8.40
52)	T	2,6-Dinitrotol...	0.203	0.193	0.220	0.254	0.238	0.250	0.237	0	

53)	T	Acenaphthylene	2.027	1.792	1.721	1.918	1.708	1.753	1.559	1.783	8.51
54)	T	3-Nitroaniline	0.300	0.281	0.313	0.359	0.326	0.344	0.270	0.313	10.26
55)	MC	Acenaphthene	1.388	1.231	1.088	1.212	1.073	1.063	0.985	1.148	11.88
56)	TP	2,4-Dinitrophenol	0.047	0.058	0.059	0.067	0.067	0.067	0.066	0.062	12.38
57)	MP	4-Nitrophenol	0.169	0.146	0.186	0.225	0.212	0.194	0.206	0.191	14.14
58)	M	2,4-Dinitrotol...	0.217	0.222	0.275	0.313	0.296	0.313	0.296	0.276	14.74
59)	T	Dibenzofuran	2.281	2.001	1.804	2.008	1.762	1.763	1.551	1.881	12.54
60)	T	Diethyl phthalate	1.221	1.139	1.117	1.196	1.116	1.153	1.103	1.149	3.87
61)	T	Fluorene	1.392	1.195	1.165	1.252	1.104	1.214	1.087	1.201	8.53
62)	T	4-Chlorophenyl...	0.583	0.509	0.494	0.522	0.475	0.467	0.438	0.498	9.31
63)	T	4-Nitroaniline	0.269	0.273	0.302	0.344	0.320	0.347	0.275	0.305	11.00
64)	T	1,2,4,5-Tetrac...	1.101	0.951	0.848	0.929	0.787	0.806	0.829	0.893	12.35
65)	T	2,3,4,6-Tetrac...	0.180	0.159	0.185	0.184	0.187	0.199	0.144	0.177	10.70
66)	I	Phenanthrene-d10	----------ISTD----------								
67)	T	4,6-Dinitro-2-...	0.100	0.120	0.113	0.112	0.116	0.117	0.125	0.115	6.64
68)	TC	N-Nitrosodiphe...	0.745	0.618	0.622	0.695	0.655	0.615	0.591	0.649	8.30
69)	T	1,2-Diphenylhy...	1.088	0.945	0.944	0.997	0.867	0.906	0.855	0.943	8.52
70)	S	2,4,6-Tribromo...	0.123	0.123	0.126	0.134	0.126	0.134	0.119	0.127	4.36
71)	T	4-Bromophenyl ...	0.241	0.216	0.196	0.215	0.196	0.196	0.182	0.206	9.46
72)	T	Hexachlorobenzene	0.276	0.251	0.230	0.243	0.226	0.221	0.209	0.237	9.32
73)	T	Atrazine	0.187	0.169	0.179	0.189	0.146	0.162	0.160	0.170	9.10
74)	MC	Pentachlorophenol	0.099	0.097	0.114	0.126	0.123	0.131	0.129	0.117	11.93
75)	T	Phenanthrene	1.442	1.274	1.143	1.216	1.093	1.078	1.029	1.182	12.02
76)	T	Anthracene	1.284	1.146	1.119	1.214	1.094	1.131	1.015	1.143	7.54
77)	T	Carbazole	1.089	0.973	0.979	1.081	0.999	0.956	0.936	1.002	6.01
78)	T	Di-n-butyl pht...	1.288	1.154	1.250	1.405	1.330	1.342	1.271	1.292	6.16
79)	TC	Fluoranthene	0.996	0.907	0.921	1.023	0.901	0.921	0.813	0.926	7.40
80)	T	Benzidine	0.334	0.303	0.321	0.366	0.434	0.423	0.356	0.362	13.75
81)		4-Aminoaniline								0.000	-1.00
82)	I	Chrysene-d12	----------ISTD----------								
83)	M	Pyrene	1.454	1.368	1.291	1.454	1.280	1.323	1.290	1.351	5.63
84)	S	Terphenyl-d14	0.858	0.864	0.858	0.841	0.808	0.823	0.802	0.836	3.07
85)	T	3,3'-Dimethylb...	0.366	0.452	0.456	0.490	0.549	0.418	0.384	0.445	14.14
86)	T	Butyl benzyl p...	0.601	0.576	0.616	0.716	0.658	0.684	0.710	0.652	8.45
87)	T	3,3'-Dichlorob...	0.313	0.275	0.303	0.347	0.314	0.304	0.282	0.306	7.68
88)	T	Benzo[a]anthra...	1.225	1.014	0.959	1.097	0.989	0.996	0.980	1.037	9.03
89)	T	Chrysene	1.160	1.023	0.940	1.056	0.940	0.939	0.855	0.988	10.14
90)	T	Bis(2-ethylhex...	0.783	0.743	0.859	0.961	0.917	0.950	0.958	0.882	10.10
91)	T	3,3-Dimethoxyb...								0.000	-1.00
92)	I	Perylene-d12	----------ISTD----------								
93)	TC	Di-n-octyl pht...	1.391	1.539	1.550	1.851	1.788	1.681	1.624	1.632	9.63
94)	T	Benzo[b]fluora...	1.366	1.260	1.223	1.224	1.354	1.431	1.243	1.300	6.34
95)	T	Benzo[k]fluora...	1.387	1.271	1.163	1.463	1.265	1.227	1.037	1.259	11.13
96)	TC	Benzo[a]pyrene	1.351	1.134	0.956	1.080	0.985	1.049	1.088	1.092	11.87
97)	T	Indeno[1,2,3-c...	1.591	1.389	1.378	1.547	1.492	1.498	1.480	1.482	5.23
98)	T	Dibenz[a,h]ant...	1.143	0.984	1.138	1.327	1.255	1.203	1.215	1.181	9.18
99)	T	Benzo[g,h,i]pe...	1.781	1.347	1.295	1.314	1.262	1.221	1.228	1.350	14.48

(#) = Out of Range

AW1112.M Fri Jul 06 08:43:44 2012 MSD_A

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2071.D
Acq On : 6 Jul 2012 9:51
Operator : JC
Sample : ABN088-12,CCV040BNA1,.,.,.,1
Misc : N/A,07/06/12,N/A,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Jul 06 13:55:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:53:59 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	106	0.00
2	T	N-Nitrosodimethylamine	0.851	0.816	4.1	103	0.00
3	T	Pyridine	1.962	1.806	8.0	107	0.00
4	S	2-Fluorophenol	1.252	1.270	-1.4	106	0.00
5	T	Benzaldehyde	0.933	0.927	0.6	108	0.00
6	S	Phenol-d5	1.494	1.466	1.9	102	0.00
7	MC	Phenol	1.603	1.500	6.4	101	0.00
8	T	Aniline	0.876	0.779	11.1	107	0.00
9	T	Bis(2-chloroethyl) ether	1.048	0.990	5.5	107	0.00
10	M	2-Chlorophenol	1.410	1.287	8.7	105	0.00
11	T	1,3-Dichlorobenzene	1.568	1.473	6.1	102	0.00
12	MC	1,4-Dichlorobenzene	1.643	1.515	7.8	104	0.00
13	T	Benzyl alcohol	0.908	0.839	7.6	99	0.00
14	T	1,2-Dichlorobenzene	1.532	1.384	9.7	103	0.00
15	T	2-Methylphenol	1.601	1.413	11.7	105	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.786	1.676	6.2	106	0.00
17	T	4-Methylphenol	1.437	1.407	2.1	106	0.00
18	MP	N-Nitrosodi-n-propylamine	0.890	0.823	7.5	103	0.01
19	T	Acetophenone	1.793	1.651	7.9	105	0.00
20	T	3-Methylphenol	1.436	1.405	2.2	106	0.00
21	T	Hexachloroethane	0.581	0.541	6.9	106	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	103	0.00
24	S	Nitrobenzene-d5	0.350	0.338	3.4	103	0.00
25	T	Nitrobenzene	0.370	0.344	7.0	104	0.00
26	T	Isophorone	0.626	0.593	5.3	104	0.00
27	TC	2-Nitrophenol	0.178	0.171	3.9	102	0.00
28	T	2,4-Dimethylphenol	0.327	0.306	6.4	103	0.00
29	T	Bis(2-chloroethoxy) methane	0.391	0.367	6.1	106	0.00
30	T	Benzoic acid	0.186	0.190	-2.2	103	0.04
31	T	2,4-Dimethylaniline	0.661	0.573	13.3	103	0.00
32	TC	2,4-Dichlorophenol	0.282	0.264	6.4	103	0.00
33	M	1,2,4-Trichlorobenzene	0.320	0.292	8.8	102	0.00
34	T	Naphthalene	1.081	0.997	7.8	104	0.00
35	T	4-Chloroaniline	0.590	0.558	5.4	104	0.00
36	T	4-Aminotoluene	1.056	0.956	9.5	102	0.01
37	TC	Hexachlorobutadiene	0.155	0.143	7.7	103	0.00
38	T	Caprolactam	0.101	0.094	6.9	101	0.03
39	T	2-Aminotoluene	1.056	0.956	9.5	102	0.01
40	MC	4-Chloro-3-methylphenol	0.246	0.240	2.4	103	0.00
41	T	2-Methylnaphthalene	0.763	0.733	3.9	103	0.00
43	I	Acenaphthene-d10	1.000	1.000	0.0	103	0.00
44	TP	Hexachlorocyclopentadiene	0.277	0.260	6.1	97	0.00
45	TC	2,4,6-Trichlorophenol	0.311	0.300	3.5	103	0.00
46	T	2,4,5-Trichlorophenol	0.373	0.363	2.7	98	

47	S	2-Fluorobiphenyl	1.229	1.171	4.7	101	0.00
48	T	1,1'-Biphenyl	1.660	1.486	10.5	100	0.00
49	T	2-Chloronaphthalene	1.179	1.079	8.5	99	0.00
50	T	2-Nitroaniline	0.330	0.334	-1.2	98	0.00
51	T	Dimethyl phthalate	1.167	1.090	6.6	102	0.00
52	T	2,6-Dinitrotoluene	0.228	0.228	0.0	98	0.01
53	T	Acenaphthylene	1.783	1.737	2.6	105	0.00
54	T	3-Nitroaniline	0.313	0.340	-8.6	107	0.01
55	MC	Acenaphthene	1.148	1.050	8.5	101	0.00
56	TP	2,4-Dinitrophenol	0.062	0.068	-9.7	105	0.00
57	MP	4-Nitrophenol	0.191	0.207	-8.4	100	0.00
58	M	2,4-Dinitrotoluene	0.276	0.297	-7.6	103	0.00
59	T	Dibenzofuran	1.881	1.701	9.6	99	0.00
60	T	Diethyl phthalate	1.149	1.128	1.8	104	0.01
61	T	Fluorene	1.201	1.166	2.9	109	0.00
62	T	4-Chlorophenyl phenyl ether	0.498	0.448	10.0	97	0.00
63	T	4-Nitroaniline	0.305	0.341	-11.8	110	0.01
64	T	1,2,4,5-Tetrachlorobenzene	0.893	0.769	13.9	101	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.177	0.179	-1.1	98	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	102	0.00
67	T	4,6-Dinitro-2-methylphenol	0.115	0.100	13.0	88	0.00
68	TC	N-Nitrosodiphenylamine	0.649	0.631	2.8	98	0.00
69	T	1,2-Diphenylhydrazine	0.943	0.911	3.4	107	0.00
70	S	2,4,6-Tribromophenol	0.127	0.126	0.8	102	0.00
71	T	4-Bromophenyl phenyl ether	0.206	0.195	5.3	102	0.00
72	T	Hexachlorobenzene	0.237	0.221	6.8	100	0.00
73	T	Atrazine	0.170	0.139	18.2	97	0.01
74	MC	Pentachlorophenol	0.117	0.122	-4.3	101	0.00
75	T	Phenanthrene	1.182	1.095	7.4	102	0.00
76	T	Anthracene	1.143	1.120	2.0	105	0.00
77	T	Carbazole	1.002	0.977	2.5	100	0.00
78	T	Di-n-butyl phthalate	1.292	1.316	-1.9	101	0.00
79	TC	Fluoranthene	0.926	0.927	-0.1	105	0.00
80	T	Benzidine	0.362	0.386	-6.6	102	-0.01
82	I	Chrysene-d12	1.000	1.000	0.0	101	0.00
83	M	Pyrene	1.351	1.285	4.9	102	0.00
84	S	Terphenyl-d14	0.836	0.804	3.8	101	0.00
85	T	3,3'-Dimethylbenzidine	0.445	0.514	-15.5	100	-0.02
86	T	Butyl benzyl phthalate	0.652	0.649	0.5	100	0.00
87	T	3,3'-Dichlorobenzidine	0.306	0.310	-1.3	100	0.00
88	T	Benzo[a]anthracene	1.037	0.965	6.9	99	0.00
89	T	Chrysene	0.988	0.952	3.6	103	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.882	0.894	-1.4	99	0.00
92	I	Perylene-d12	1.000	1.000	0.0	102	0.00
93	TC	Di-n-octyl phthalate	1.632	1.604	1.7	92	0.00
94	T	Benzo[b]fluoranthene	1.300	1.140	12.3	86	0.00
95	T	Benzo[k]fluoranthene	1.259	1.225	2.7	99	0.00
96	TC	Benzo[a]pyrene	1.092	0.970	11.2	101	0.00
97	T	Indeno[1,2,3-cd]pyrene	1.482	1.463	1.3	100	0.00
98	T	Dibenz[a,h]anthracene	1.181	1.202	-1.8	98	0.01
99	T	Benzo[g,h,i]perylene	1.350	1.186	12.1	96	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

AW1112.M Fri Jul 06 13:55:26 2012 MSD_A

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8505.D

Date Analyzed: 07/02/2012

Instrument ID: MSDB

Time Analyzed: 10:11

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	239704	3.75	962459	4.52	540708	5.56
	UPPER LIMIT	479408	4.25	1924918	5.02	1081416	6.06
	LOWER LIMIT	119852	3.25	481230	4.02	270354	5.06
	LAB SAMPLE ID						
01	ICC001BNA1	259167	3.75	1050481	4.51	573203	5.56
02	ICC010BNA1	225499	3.75	905018	4.51	491468	5.56
03	ICC020BNA1	231123	3.75	950164	4.51	556847	5.56
04	ICC080BNA1	184187	3.75	741957	4.52	414626	5.56
05	ICC120BNA1	156562	3.75	623489	4.52	349807	5.56
06	ICC120BNA2	192144	3.75	778740	4.51	441071	5.55
07	ICC080BNA2	208755	3.75	855356	4.51	480107	5.56
08	ICC040BNA2	217086	3.75	882797	4.51	497250	5.56
09	ICC020BNA2	213269	3.75	869916	4.51	477389	5.56
10	ICC010BNA2	200968	3.75	819824	4.51	437243	5.56
11	ICC001BNA2	179502	3.75	744360	4.51	405476	5.56
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8505.D

Date Analyzed: 07/02/2012

Instrument ID: MSDB

Time Analyzed: 10:11

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	966501	6.46	1003753	8.10	886482	9.47
	UPPER LIMIT	1933002	6.96	2007506	8.60	1772964	9.97
	LOWER LIMIT	483251	5.96	501877	7.60	443241	8.97
	LAB SAMPLE ID						
01	ICC001BNA1	1119768	6.46	1163337	8.07	1055796	9.43
02	ICC010BNA1	876068	6.46	918570	8.06	839676	9.42
03	ICC020BNA1	955015	6.46	907353	8.11	784037	9.50
04	ICC080BNA1	723292	6.46	768377	8.07	701605	9.43
05	ICC120BNA1	608717	6.46	603936	8.09	445354	9.46
06	ICC120BNA2	765459	6.46	716417	8.10	529483	9.49
07	ICC080BNA2	866195	6.46	850691	8.06	738733	9.42
08	ICC040BNA2	935793	6.46	884928	8.06	743058	9.42
09	ICC020BNA2	889067	6.46	847005	8.08	716290	9.46
10	ICC010BNA2	833172	6.46	801874	8.09	681239	9.46
11	ICC001BNA2	781279	6.46	774336	8.08	661734	9.44
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8549.D

Date Analyzed: 07/03/2012

Instrument ID: MSDB

Time Analyzed: 09:36

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	202967	3.75	817944	4.52	429083	5.56
	UPPER LIMIT	405934	4.25	1635888	5.02	858166	6.06
	LOWER LIMIT	101484	3.25	408972	4.02	214542	5.06
	LAB SAMPLE ID						
01	CCV040BNAMIX2	345722	3.75	1396907	4.51	788123	5.56
02	BLKA120703-08	337235	3.75	1450207	4.51	761912	5.55
03	LCSA120703-08	241301	3.75	1035389	4.51	562339	5.55
04	E12-06373-002MS	146897	3.75	630168	4.51	338691	5.55
05	E12-06373-002MSD	153731	3.75	648150	4.51	342641	5.55
06	E12-06373-001	156381	3.74	647455	4.51	342982	5.55
07	E12-06373-002	167706	3.74	689961	4.51	367177	5.55
08	E12-06486-001	157584	3.74	664838	4.51	350875	5.55
09	E12-06537-016	179969	3.74	746320	4.51	395670	5.55
10	E12-06466-009	159373	3.74	656391	4.51	346341	5.55
11	E12-06466-010	207187	3.75	838191	4.51	440347	5.55
12	E12-06466-011	194952	3.75	800608	4.51	409478	5.55
13	E12-06466-012	142203	3.74	581907	4.51	296999	5.55
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8549.D Date Analyzed: 07/03/2012

Instrument ID: MSDB Time Analyzed: 09:36

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	762407	6.47	725383	8.12	540302	9.50
	UPPER LIMIT	1524814	6.97	1450766	8.62	1080604	10.00
	LOWER LIMIT	381204	5.97	362692	7.62	270151	9.00
	LAB SAMPLE ID						
01	CCV040BNAMIX2	1350755	6.46	1154642	8.07	795598	9.43
02	BLKA120703-08	1433880	6.45	1068637	8.01	768866	9.36
03	LCSA120703-08	1009972	6.45	853286	8.01	611148	9.38
04	E12-06373-002MS	589917	6.46	516107	8.06	381620	9.42
05	E12-06373-002MSD	581905	6.46	498680	8.07	385506	9.43
06	E12-06373-001	628423	6.45	488482	7.99	336836	9.34
07	E12-06373-002	656766	6.45	522709	8.02	368045	9.40
08	E12-06486-001	644005	6.45	457637	7.99	316755	9.34
09	E12-06537-016	686865	6.46	620327	8.09	544918	9.46
10	E12-06466-009	607895	6.45	482716	7.99	379149	9.35
11	E12-06466-010	739102	6.46	621856	8.08	522463	9.45
12	E12-06466-011	693596	6.46	567733	8.11	453282	9.49
13	E12-06466-012	534098	6.45	470188	7.99	318929	9.34
14							
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22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2049.D

Date Analyzed: 07/05/2012

Instrument ID: MSDA

Time Analyzed: 10:37

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	173945	3.63	612797	4.45	292041	5.37
	UPPER LIMIT	347890	4.13	1225594	4.95	584082	5.87
	LOWER LIMIT	86973	3.13	306399	3.95	146021	4.87
	LAB SAMPLE ID						
01	ICC010BNA1	175061	3.63	640943	4.45	308294	5.37
02	ICC020BNA1	170080	3.63	616358	4.45	291208	5.37
03	ICC080BNA2	172743	3.63	642492	4.45	309430	5.37
04	ICC002BNA2	180011	3.62	681131	4.45	335867	5.37
05	ICC120BNA2	166708	3.62	611306	4.45	289238	5.37
06	ICC080BNA1	156138	3.63	552618	4.45	260821	5.37
07	ICC001BNA1	176285	3.62	638289	4.45	317357	5.37
08	ICC120BNA1	172481	3.63	623146	4.46	282687	5.37
09	ICC002BNA1	169470	3.62	621868	4.45	309361	5.37
10	ICC040BNA1	168617	3.63	619098	4.45	296678	5.37
11	ICC001BNA2	166949	3.62	634614	4.45	314741	5.37
12	ICC020BNA2	171124	3.62	643604	4.45	325340	5.37
13	ICC010BNA2	176544	3.62	654697	4.45	323945	5.37
14	ICC040BNA2	177324	3.62	655167	4.45	325516	5.37
15	ICV040BNA1	193104	3.63	705586	4.45	331334	5.38
16	ICV040BNA2	215857	3.62	808552	4.45	403283	5.38
17							
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22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2049.D

Date Analyzed: 07/05/2012

Instrument ID: MSDA

Time Analyzed: 10:37

	40 ppm	IS4 AREA	#	RT	#	IS5 AREA	#	RT	#	IS6 AREA	#	RT	#
	12 HOUR STD	361578		6.11		253523		7.79		218250		9.19	
	UPPER LIMIT	723156		6.61		507046		8.29		436500		9.69	
	LOWER LIMIT	180789		5.61		126762		7.29		109125		8.69	
	LAB SAMPLE ID												
01	ICC010BNA1	374640		6.12		267221		7.81		253970		9.21	
02	ICC020BNA1	366826		6.11		262542		7.77		258342		9.17	
03	ICC080BNA2	377028		6.11		273091		7.76		253619		9.15	
04	ICC002BNA2	397829		6.11		262075		7.76		250731		9.15	
05	ICC120BNA2	360611		6.11		244056		7.76		196162		9.15	
06	ICC080BNA1	330933		6.11		239429		7.78		262845		9.17	
07	ICC001BNA1	380561		6.11		265094		7.77		259865		9.17	
08	ICC120BNA1	362203		6.12		238974		7.81		295231		9.21	
09	ICC002BNA1	378828		6.11		253763		7.76		255086		9.15	
10	ICC040BNA1	369288		6.11		265870		7.77		272195		9.16	
11	ICC001BNA2	389274		6.11		247558		7.76		246052		9.15	
12	ICC020BNA2	392010		6.11		255751		7.76		249946		9.16	
13	ICC010BNA2	397037		6.11		260776		7.77		254201		9.16	
14	ICC040BNA2	400893		6.11		272535		7.76		258379		9.16	
15	ICV040BNA1	419860		6.12		320592		7.80		328019		9.20	
16	ICV040BNA2	472463		6.11		328662		7.75		326950		9.14	
17													
18													
19													
20													
21													
22													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2071.D

Date Analyzed: 07/06/2012

Instrument ID: MSDA

Time Analyzed: 09:51

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	178550	3.63	639824	4.45	305363	5.37
	UPPER LIMIT	357100	4.13	1279648	4.95	610726	5.87
	LOWER LIMIT	89275	3.13	319912	3.95	152682	4.87
	LAB SAMPLE ID						
01	CCV040BNA2	188832	3.62	703978	4.45	349629	5.37
02	BLKA120706-01	141798	3.62	484980	4.45	226235	5.37
03	TCLP120703	133425	3.62	464974	4.45	213214	5.37
04	TCLP120629	247111	3.62	844555	4.45	390688	5.37
05	TCLP120702	229727	3.62	786358	4.45	369074	5.37
06	LCSA120706-01	134385	3.62	471735	4.45	225330	5.37
07	E12-06534-001	126180	3.62	436849	4.45	208578	5.37
08	E12-06546-001	102984	3.62	349942	4.45	167044	5.37
09	E12-06546-002	108751	3.62	375551	4.45	174176	5.37
10	E12-06584-007	136535	3.62	465286	4.45	212716	5.37
11	E12-06569-002	135794	3.62	483268	4.45	223975	5.37
12	E12-06450-001	123744	3.62	432946	4.45	206171	5.37
13	E12-06420-001	122260	3.62	410748	4.45	197005	5.37
14	E12-06521-002	122361	3.62	417167	4.45	204707	5.37
15	E12-06525-001	141320	3.62	485366	4.45	216232	5.37
16	E12-06494-001	136617	3.62	471404	4.45	216606	5.37
17	E12-06524-001	124987	3.62	421336	4.45	191885	5.37
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2071.D

Date Analyzed: 07/06/2012

Instrument ID: MSDA

Time Analyzed: 09:51

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	377402	6.11	269534	7.76	278135	9.15
	UPPER LIMIT	754804	6.61	539068	8.26	556270	9.65
	LOWER LIMIT	188701	5.61	134767	7.26	139068	8.65
	LAB SAMPLE ID						
01	CCV040BNA2	423938	6.11	282988	7.75	275681	9.13
02	BLKA120706-01	233141	6.10	219342	7.72	207209	9.10
03	TCLP120703	253858	6.10	209247	7.72	190789	9.10
04	TCLP120629	487937	6.10	409001	7.72	404540	9.10
05	TCLP120702	453259	6.11	378982	7.72	371882	9.10
06	LCSA120706-01	277332	6.10	235746	7.72	224867	9.10
07	E12-06534-001	250048	6.10	207159	7.73	189102	9.11
08	E12-06546-001	205669	6.10	164780	7.72	148846	9.10
09	E12-06546-002	211628	6.10	169640	7.72	153795	9.10
10	E12-06584-007	258053	6.10	208591	7.73	187463	9.11
11	E12-06569-002	275054	6.10	225291	7.72	211334	9.10
12	E12-06450-001	245984	6.10	196864	7.72	180676	9.10
13	E12-06420-001	239171	6.10	210141	7.72	202670	9.10
14	E12-06521-002	254060	6.10	211694	7.71	166359	9.09
15	E12-06525-001	256748	6.12	215061	7.83	199817	9.23
16	E12-06494-001	255741	6.11	204431	7.76	186119	9.15
17	E12-06524-001	234697	6.11	188749	7.75	170440	9.14
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2103.D
Acq On : 6 Jul 2012 18:43
Operator : JC
Sample : A6-06291,E12-06546-001,A,500ml,100,0.5
Misc : 120706-01,07/06/12,06/29/12,1
ALS Vial : 82 Sample Multiplier: 1

Quant Time: Jul 09 08:35:12 2012
Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:53:59 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.624	152	102984	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	349942	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	167044	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	205669	40.00	UG	0.00
82) Chrysene-d12	7.721	240	164780	40.00	UG	-0.04
92) Perylene-d12	9.101	264	148846	40.00	UG	-0.05

System Monitoring Compounds						
4) 2-Fluorophenol	2.779	112	39598	12.28	UG	0.00
Spiked Amount 100.000	Range 10 - 83		Recovery = 12.28%			
6) Phenol-d5	3.362	99	45165m	11.74	UG	-0.01
Spiked Amount 100.000	Range 10 - 91		Recovery = 11.74%			
24) Nitrobenzene-d5	3.983	82	55723	18.21	UG	0.00
Spiked Amount 50.000	Range 25 - 94		Recovery = 36.42%			
47) 2-Fluorobiphenyl	4.983	172	103534	20.17	UG	0.00
Spiked Amount 50.000	Range 23 - 102		Recovery = 40.34%			
70) 2,4,6-Tribromophenol	5.748	330	23627	36.32	UG	0.00
Spiked Amount 100.000	Range 27 - 110		Recovery = 36.32%			
84) Terphenyl-d14	6.994	244	74052	21.49	UG	-0.03
Spiked Amount 50.000	Range 33 - 113		Recovery = 42.98%			

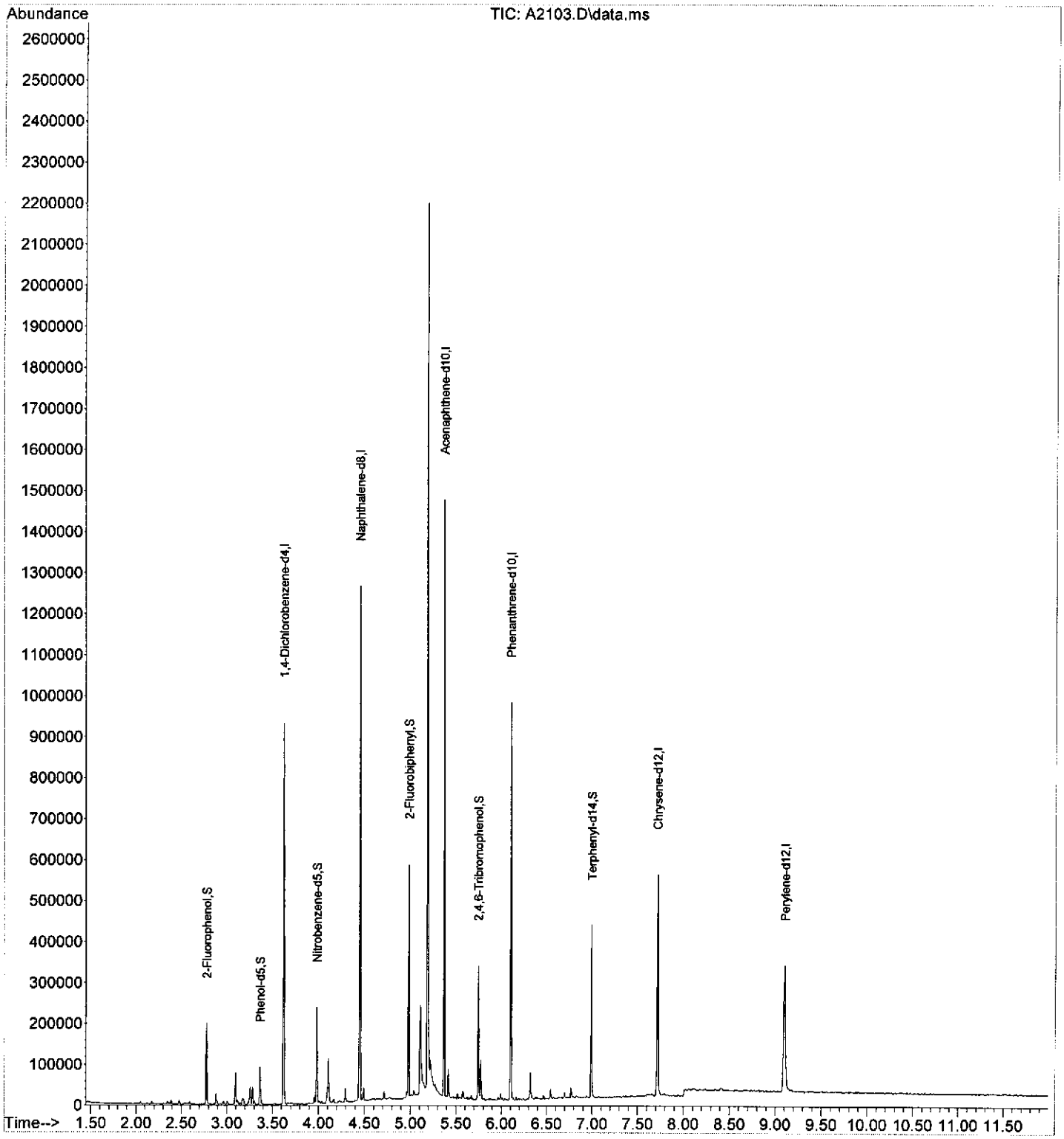
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2103.D
Acq On : 6 Jul 2012 18:43
Operator : JC
Sample : A6-06291,E12-06546-001,A,500ml,100,0.5
Misc : 120706-01,07/06/12,06/29/12,1
ALS Vial : 82 Sample Multiplier: 1

Quant Time: Jul 09 08:35:12 2012
Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:53:59 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2103.D
Acq On : 6 Jul 2012 18:43
Operator : JC
Sample : A6-06291,E12-06546-001,A,500ml,100,0.5
Misc : 120706-01,07/06/12,06/29/12,1
ALS Vial : 82 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 Area counts
Start Thrs: 0.001 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\AW1112.M
Title : BNA CALIBRATION METHOD

Signal : TIC: A2103.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.779	248	251	254	rBV	196840	132498	9.62%	1.994%
2	3.095	307	310	312	rBV	74297	46485	3.37%	0.700%
3	3.255	337	340	342	rVB	40072	26357	1.91%	0.397%
4	3.277	342	344	347	rBV	41869	28910	2.10%	0.435%
5	3.362	357	360	370	rVB	91365	74513	5.41%	1.122%
6	3.624	405	409	412	rBV	930545	630475	45.77%	9.490%
7	3.983	473	476	479	rVB	232924	157694	11.45%	2.374%
8	4.111	493	500	507	rBV	108157	107665	7.82%	1.621%
9	4.293	531	534	538	rBV	33848	23479	1.70%	0.353%
10	4.448	557	563	566	rBV	1255850	732892	53.21%	11.032%
11	4.491	566	571	573	rVB	30829	21765	1.58%	0.328%
12	4.983	660	663	665	rVB	565172	298769	21.69%	4.497%
13	5.106	683	686	693	rBV	219609	265836	19.30%	4.001%
14	5.186	698	701	704	rBV	2156146	1377376	100.00%	20.733%
15	5.368	732	735	738	rVB	1455483	684168	49.67%	10.298%
16	5.416	741	744	746	rBV	67010	29480	2.14%	0.444%
17	5.742	803	805	808	rBV2	325324	201962	14.66%	3.040%
18	5.775	809	811	816	rVB	95575	61974	4.50%	0.933%
19	6.101	869	872	875	rBV	968744	548275	39.81%	8.253%
20	6.320	908	913	919	rBV2	65678	49969	3.63%	0.752%
21	6.994	1036	1039	1042	rBV	420379	243692	17.69%	3.668%
22	7.716	1171	1174	1182	rVB	537669	467468	33.94%	7.036%
23	9.101	1427	1433	1444	rBV	304715	431810	31.35%	6.500%

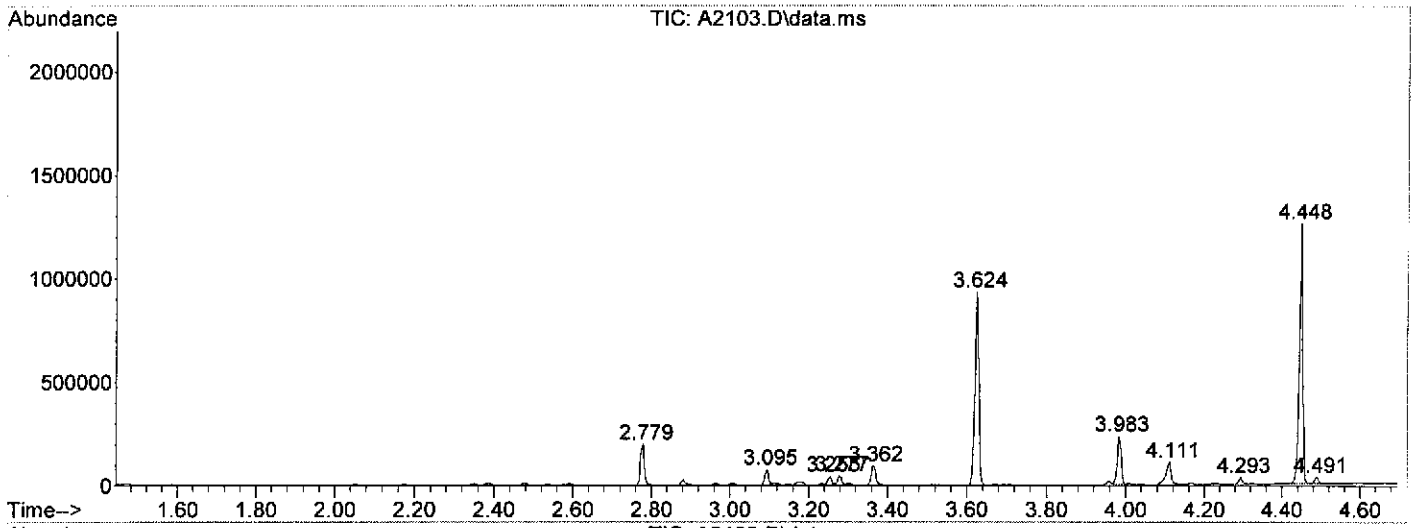
Sum of corrected areas: 6643512

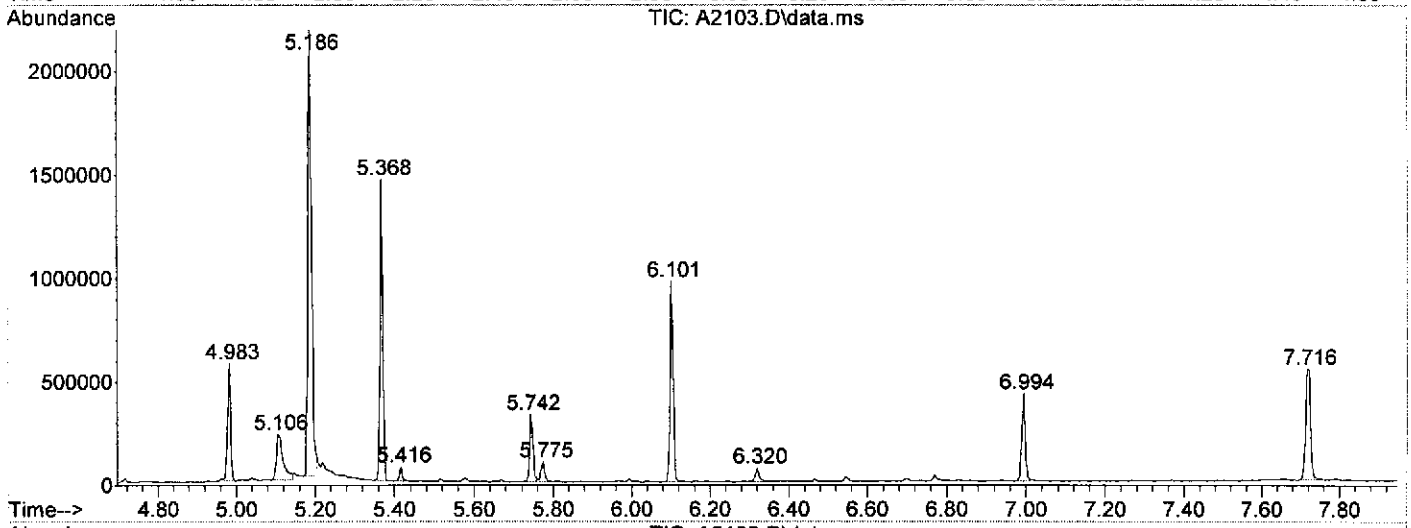
LSC Report - Integrated Chromatogram

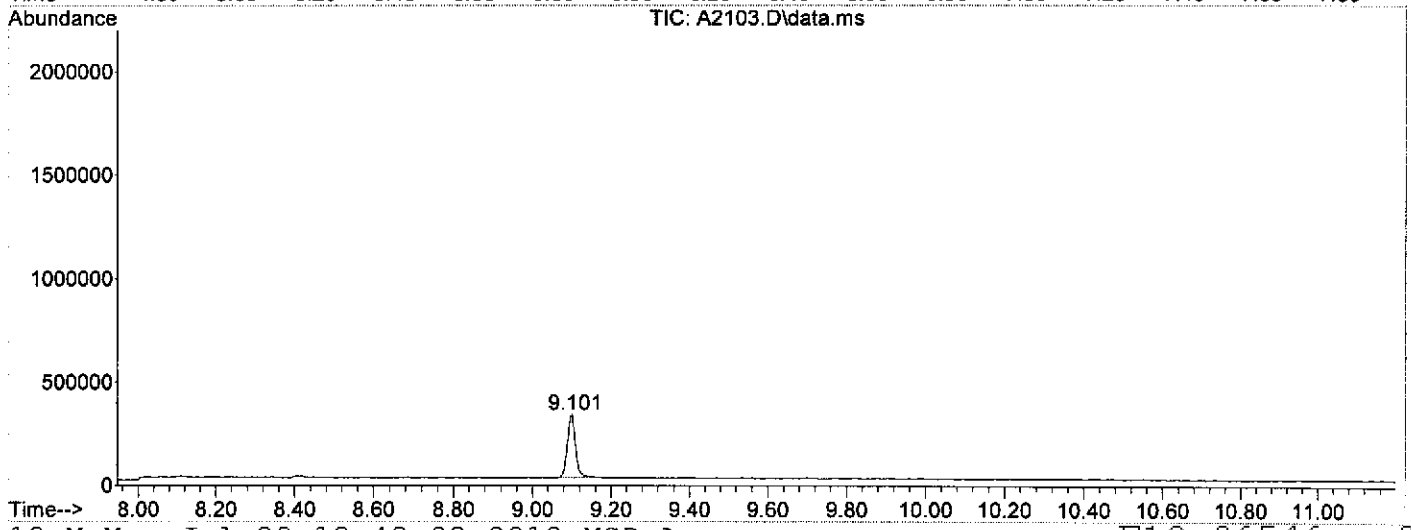
Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2103.D
Acq On : 6 Jul 2012 18:43
Operator : JC
Sample : A6-06291,E12-06546-001,A,500ml,100,0.5
Misc : 120706-01,07/06/12,06/29/12,1
ALS Vial : 82 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2103.D
Acq On : 6 Jul 2012 18:43
Operator : JC
Sample : A6-06291,E12-06546-001,A,500ml,100,0.5
Misc : 120706-01,07/06/12,06/29/12,1
ALS Vial : 82 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD

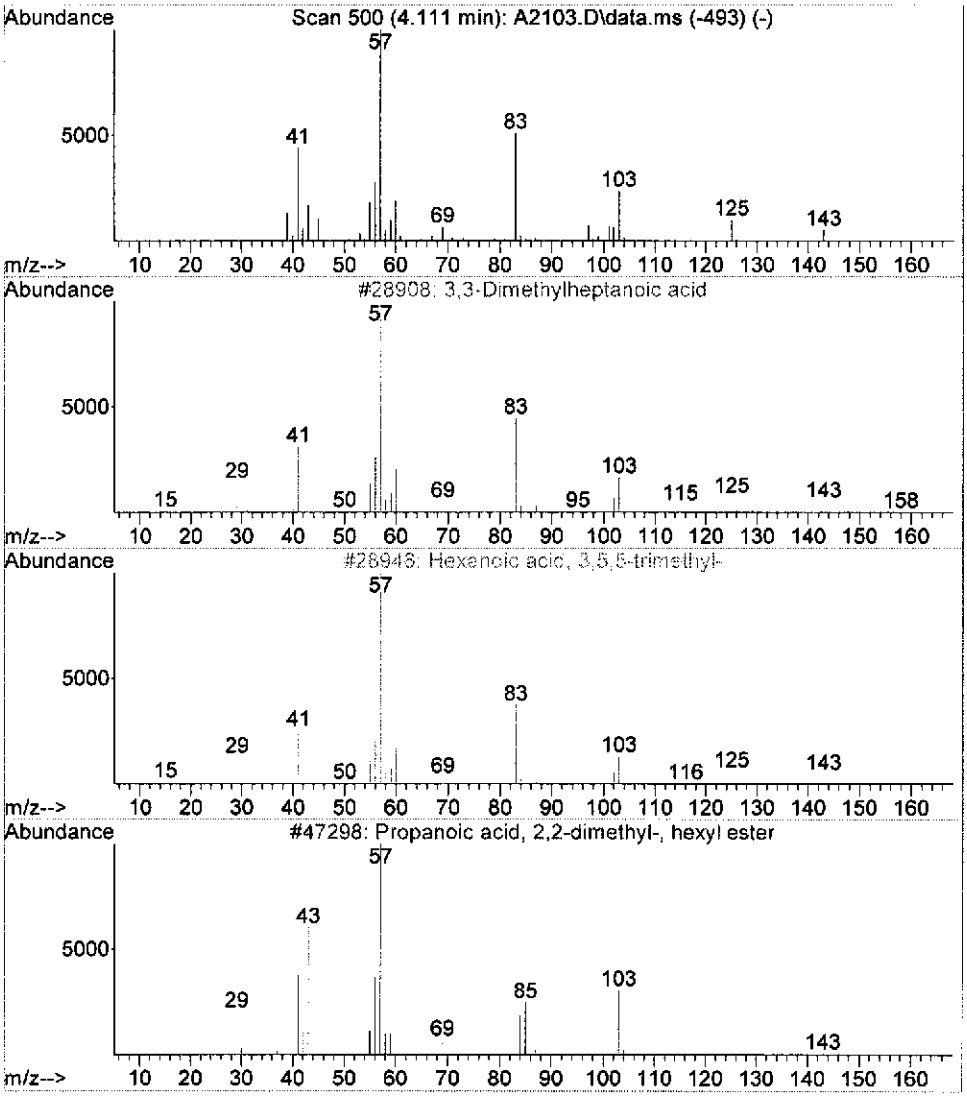
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

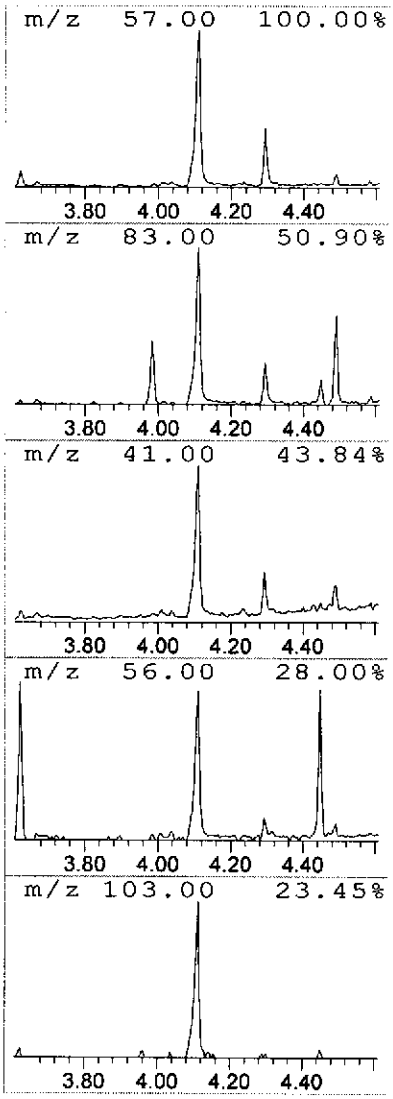
****

Peak Number 1 Unknown SV Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.11	5.88 UG	107665	Naphthalene-d8	4.45

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,3-Dimethylheptanoic acid	158	C9H18O2	067061-30-7	86
2	Hexanoic acid, 3,5,5-trimethyl-	158	C9H18O2	003302-10-1	86
3	Propanoic acid, 2,2-dimethyl-, h...	186	C11H22O2	005434-57-1	25
4	Propanoic acid, 2,2-dimethyl-, p...	144	C8H16O2	005129-35-1	16
5	Butanoic acid, 3,3-dimethyl-	116	C6H12O2	001070-83-3	14





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2103.D
Acq On : 6 Jul 2012 18:43
Operator : JC
Sample : A6-06291,E12-06546-001,A,500ml,100,0.5
Misc : 120706-01,07/06/12,06/29/12,1
ALS Vial : 82 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD

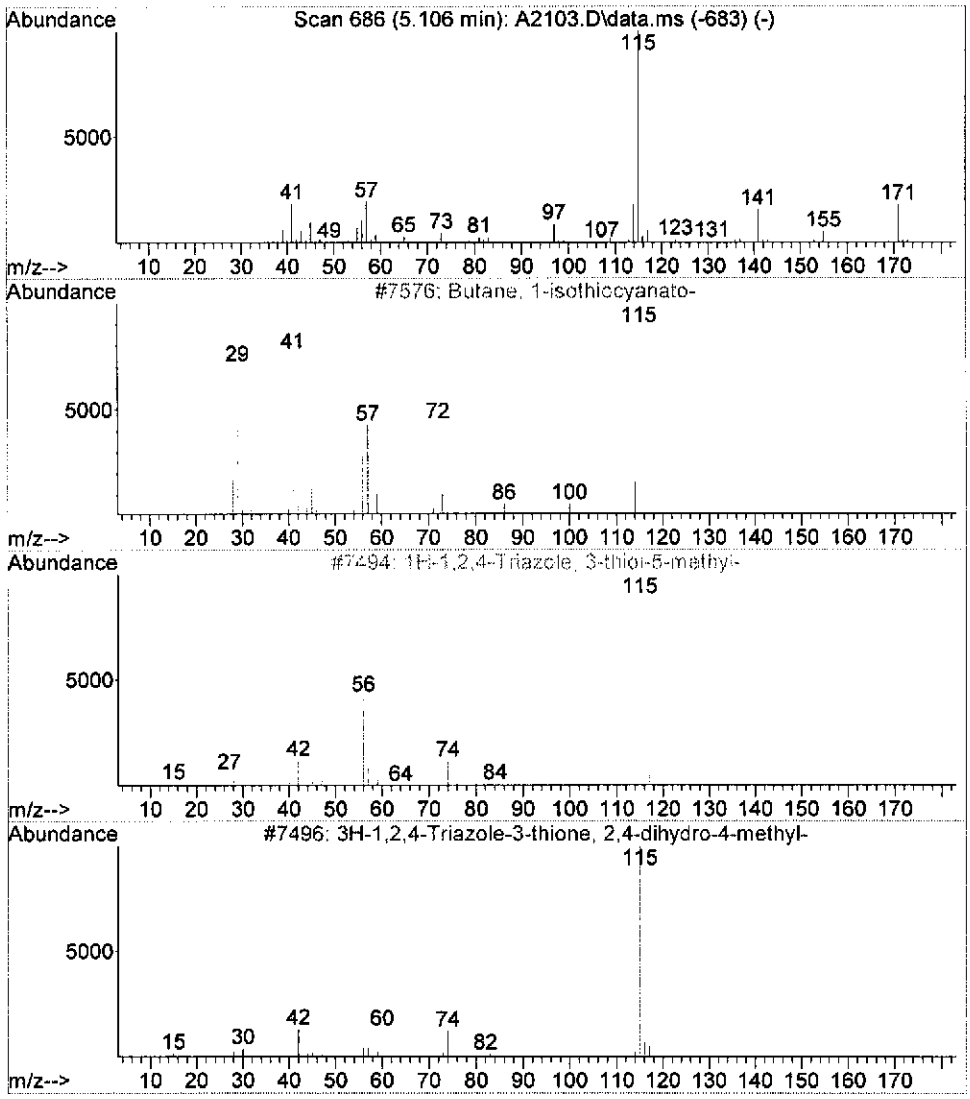
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

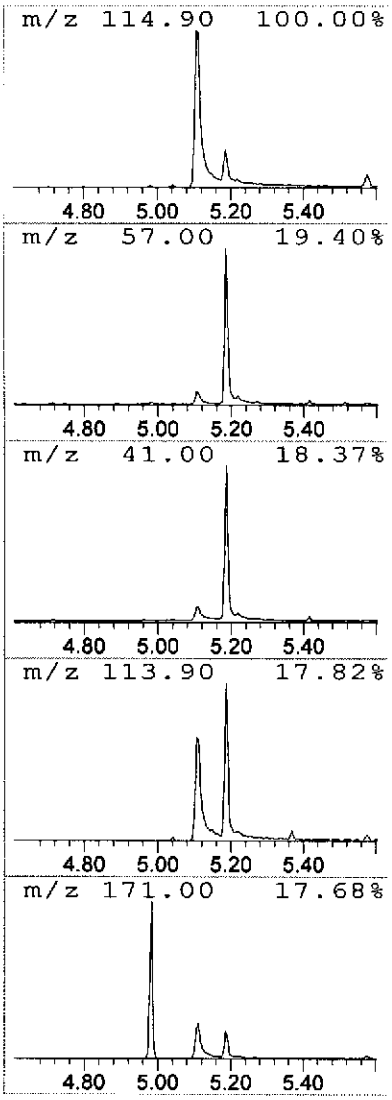
****

Peak Number 2 Unknown SV Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.11	15.54 UG	265836	Acenaphthene-d10	5.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 1-isothiocyanato-	115	C5H9NS	000592-82-5	59
2	1H-1,2,4-Triazole, 3-thiol-5-met...	115	C3H5N3S	007271-44-5	40
3	3H-1,2,4-Triazole-3-thione, 2,4-...	115	C3H5N3S	024854-43-1	36
4	[1,3,4]Thiadiazole, 2-amino-5-(2...	171	C7H13N3S	1000302-57-1	36
5	1,3,2-Dioxaborinane, 2-(pentyloxy)-	172	C8H17BO3	055162-68-0	36





Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2103.D
Acq On : 6 Jul 2012 18:43
Operator : JC
Sample : A6-06291,E12-06546-001,A,500ml,100,0.5
Misc : 120706-01,07/06/12,06/29/12,1
ALS Vial : 82 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD

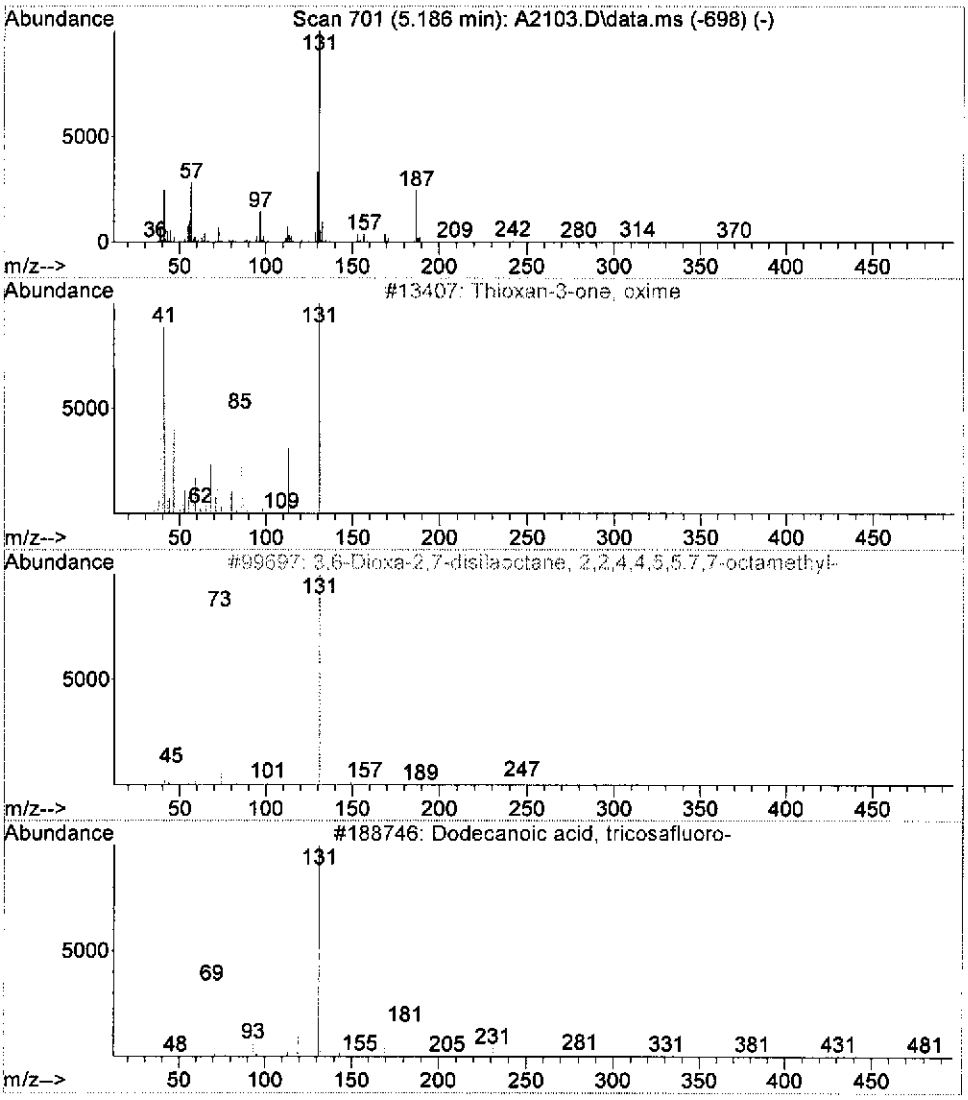
TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

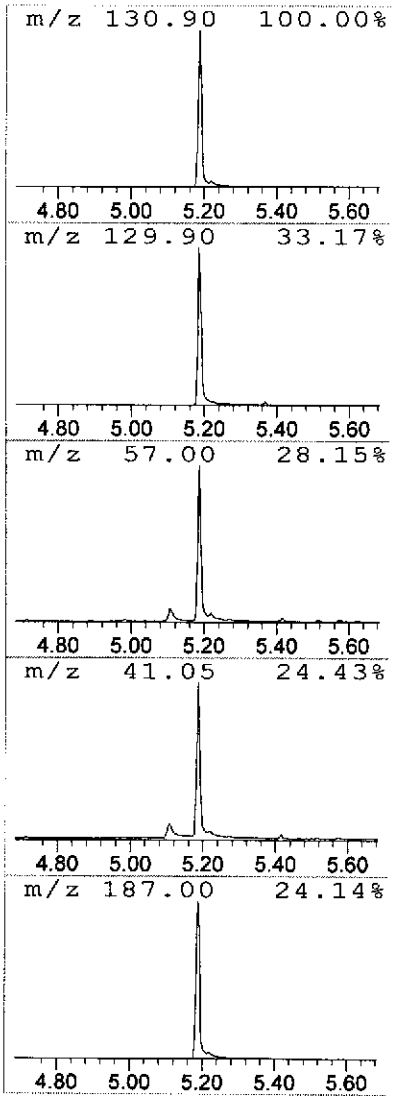
****

Peak Number 3 Unknown SV Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.19	80.53 UG	1377380	Acenaphthene-d10	5.37

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thioxan-3-one, oxime	131	C5H9NOS	058230-51-6	38
2	3,6-Dioxa-2,7-disilaoctane, 2,2,...	262	C12H30O2Si2	006730-96-7	9
3	Dodecanoic acid, tricosafluoro-	614	C12HF23O2	000307-55-1	9
4	Tributyl(ethoxy) silane	244	C14H32OSi	004782-00-7	7
5	1,2,4-Triazolidin-3-one, 4-methy...	131	C3H5N3OS	022244-61-7	7





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2104.D
Acq On : 6 Jul 2012 19:00
Operator : JC
Sample : E1-06291,E12-06546-002,A,500ml,100,0.5
Misc : 120706-01,07/06/12,06/29/12,1
ALS Vial : 83 Sample Multiplier: 1

Quant Time: Jul 09 08:36:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:53:59 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.625	152	108751	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	375551	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	174176	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	211628	40.00	UG	0.00
82) Chrysene-d12	7.716	240	169640	40.00	UG	-0.05
92) Perylene-d12	9.096	264	153795	40.00	UG	-0.06

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 83		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 91		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.983	82	96286	29.32	UG	0.00
Spiked Amount 50.000	Range 25 - 94		Recovery = 58.64%			
47) 2-Fluorobiphenyl	4.983	172	192826	36.03	UG	0.00
Spiked Amount 50.000	Range 23 - 102		Recovery = 72.06%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 27 - 110		Recovery = 0.00%#			
84) Terphenyl-d14	6.994	244	127305m	35.89	UG	-0.03
Spiked Amount 50.000	Range 33 - 113		Recovery = 71.78%			

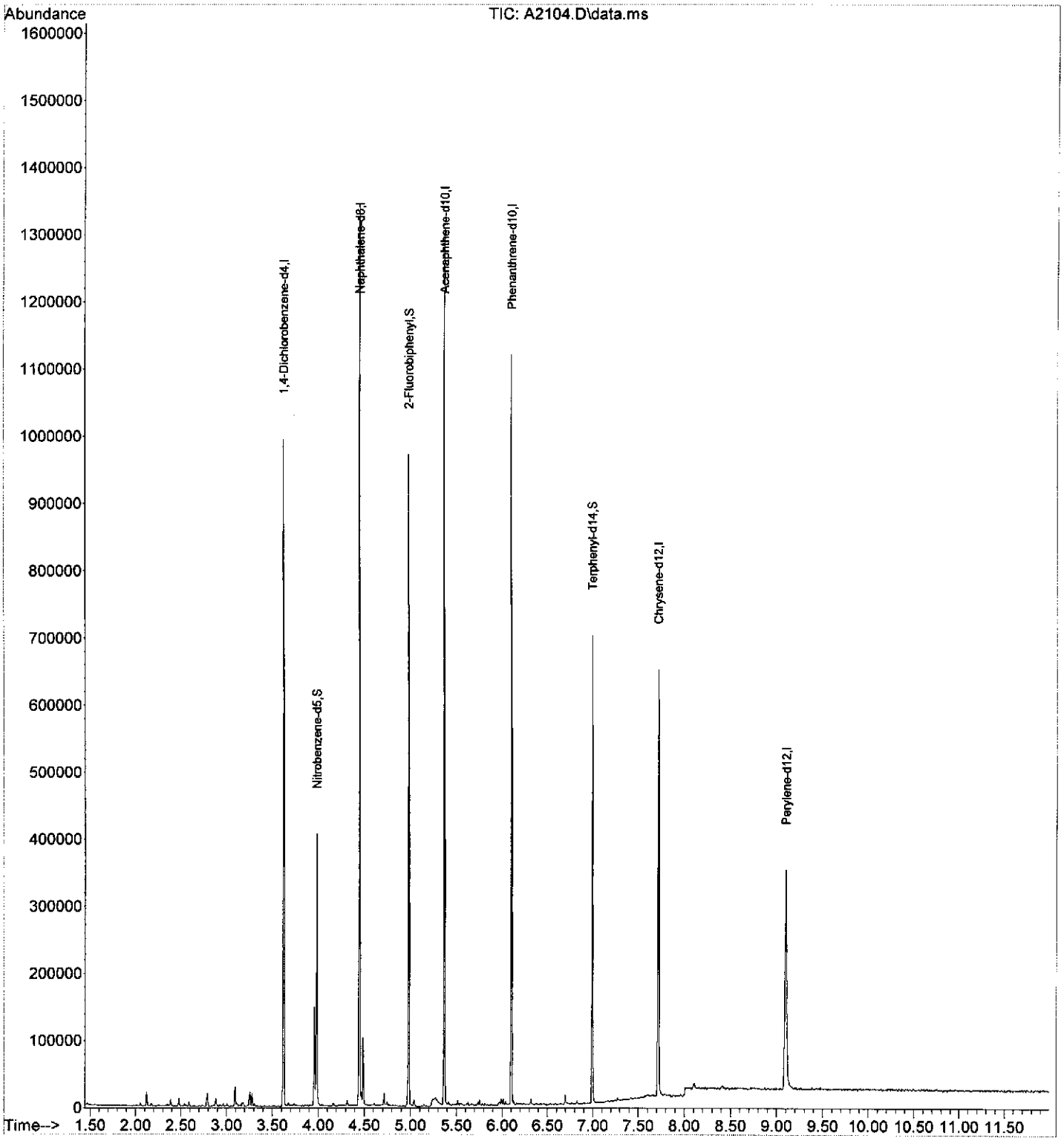
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2104.D
Acq On : 6 Jul 2012 19:00
Operator : JC
Sample : E1-06291,E12-06546-002,A,500ml,100,0.5
Misc : 120706-01,07/06/12,06/29/12,1
ALS Vial : 83 Sample Multiplier: 1

Quant Time: Jul 09 08:36:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:53:59 2012
Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA120703-08
Client ID: .
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8594.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.090
Pyridine	ND		1.00	0.110
Benzaldehyde	ND		1.00	0.880
Phenol	ND		1.00	0.110
Aniline	ND		1.00	0.110
Bis(2-chloroethyl) ether	ND		1.00	0.100
2-Chlorophenol	ND		1.00	0.130
1,3-Dichlorobenzene	ND		1.00	0.170
1,4-Dichlorobenzene	ND		1.00	0.120
Benzyl alcohol	ND		1.00	0.120
1,2-Dichlorobenzene	ND		1.00	0.160
2-Methylphenol	ND		1.00	0.100
Bis(2-chloroisopropyl) ether	ND		1.00	0.140
4-Methylphenol **	ND		1.00	0.110
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.100
3-Methylphenol	ND		1.00	0.110
Hexachloroethane	ND		1.00	0.100
Nitrobenzene	ND		1.00	0.120
Isophorone	ND		1.00	0.110
2-Nitrophenol	ND		1.00	0.090
2,4-Dimethylphenol	ND		1.00	0.110
Bis(2-chloroethoxy) methane	ND		1.00	0.080
Benzoic acid	ND		1.00	0.110
2,4-Dimethylaniline	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.100
1,2,4-Trichlorobenzene	ND		1.00	0.100
Naphthalene	ND		1.00	0.175
4-Chloroaniline	ND		1.00	0.150
4-Aminotoluene	ND		1.00	0.200
Hexachlorobutadiene	ND		1.00	0.120
Caprolactam	ND		1.00	0.170
2-Aminotoluene	ND		1.00	0.210
4-Chloro-3-methylphenol	ND		1.00	0.100
2-Methylnaphthalene	ND		1.00	0.109
Hexachlorocyclopentadiene	ND		1.00	0.100
2,4,6-Trichlorophenol	ND		1.00	0.100
2,4,5-Trichlorophenol	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.100
2-Chloronaphthalene	ND		1.00	0.090
2-Nitroaniline	ND		1.00	0.130
Dimethyl phthalate	ND		1.00	0.120

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA120703-08
Client ID: .
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8594.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.120
Acenaphthylene	ND		1.00	0.113
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.100
2,4-Dinitrophenol	ND		1.00	0.120
4-Nitrophenol	ND		1.00	0.380
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.190
Fluorene	ND		1.00	0.145
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.100
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
2,3,4,6-Tetrachlorophenol	ND		1.00	0.110
4,6-Dinitro-2-methylphenol	ND		1.00	0.110
N-Nitrosodiphenylamine	ND		1.00	0.110
1,2-Diphenylhydrazine	ND		1.00	0.140
4-Bromophenyl phenyl ether	ND		1.00	0.110
Hexachlorobenzene *	ND		0.020	0.020
Atrazine	ND		1.00	0.170
Pentachlorophenol *	ND		0.100	0.100
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Carbazole	ND		1.00	0.160
Di-n-butyl phthalate	ND		1.00	0.140
Fluoranthene	ND		1.00	0.141
Benzidine	ND		1.00	0.200
Pyrene	ND		1.00	0.744
3,3'-Dimethylbenzidine	ND		1.00	0.320
Butyl benzyl phthalate	ND		1.00	0.100
3,3'-Dichlorobenzidine	ND		1.00	0.170
Benzo[a]anthracene *	ND		0.100	0.100
Chrysene	ND		1.00	0.263
Bis(2-ethylhexyl) phthalate	ND		1.00	0.120
Di-n-octyl phthalate	ND		1.00	0.090
Benzo[b]fluoranthene *	ND		0.100	0.100
Benzo[k]fluoranthene *	ND		0.100	0.100
Benzo[a]pyrene *	ND		0.100	0.100
Indeno[1,2,3-cd]pyrene *	ND		0.100	0.100
Dibenz[a,h]anthracene *	ND		0.100	0.100
Benzo[g,h,i]perylene	ND		1.00	0.216

* - RL & MDL from SIM run

Total Target Compounds (83): 0

** - represents the total of 3+4-Methylphenol

E12-06546 0099

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA120703-08
Client ID: .
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/03/2012
Data file: B8594.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : B8594.D
Acq On : 3 Jul 2012 10:11 pm
Operator : DANA
Sample : .,BLKA120703-08,A,1000ml,100,1
Misc : 120703-08,07/03/12,NA,1
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jul 05 09:39:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.75	152	337235	40.00 UG	0.00
23) Naphthalene-d8	4.51	136	1450207	40.00 UG	0.00
43) Acenaphthene-d10	5.55	164	761912	40.00 UG	0.00
66) Phenanthrene-d10	6.45	188	1433880	40.00 UG	-0.01
82) Chrysene-d12	8.01	240	1068637m	40.00 UG	-0.09
92) Perylene-d12	9.36	264	768866m	40.00 UG	-0.10

System Monitoring Compounds

4) 2-Fluorophenol	2.93	112	223792m	20.52 UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 20.52%		
6) Phenol-d5	3.50	99	177488	12.50 UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 12.50%		
24) Nitrobenzene-d5	4.08	82	243379m	19.38 UG	0.00
Spiked Amount 50.000	Range 27 - 102		Recovery = 38.76%		
47) 2-Fluorobiphenyl	5.13	172	521244	20.21 UG	0.00
Spiked Amount 50.000	Range 26 - 101		Recovery = 40.42%		
70) 2,4,6-Tribromophenol	6.08	330	220006	36.60 UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 36.60%		
84) Terphenyl-d14	7.31	244	751182m	33.41 UG	-0.06
Spiked Amount 50.000	Range 23 - 124		Recovery = 66.82%		

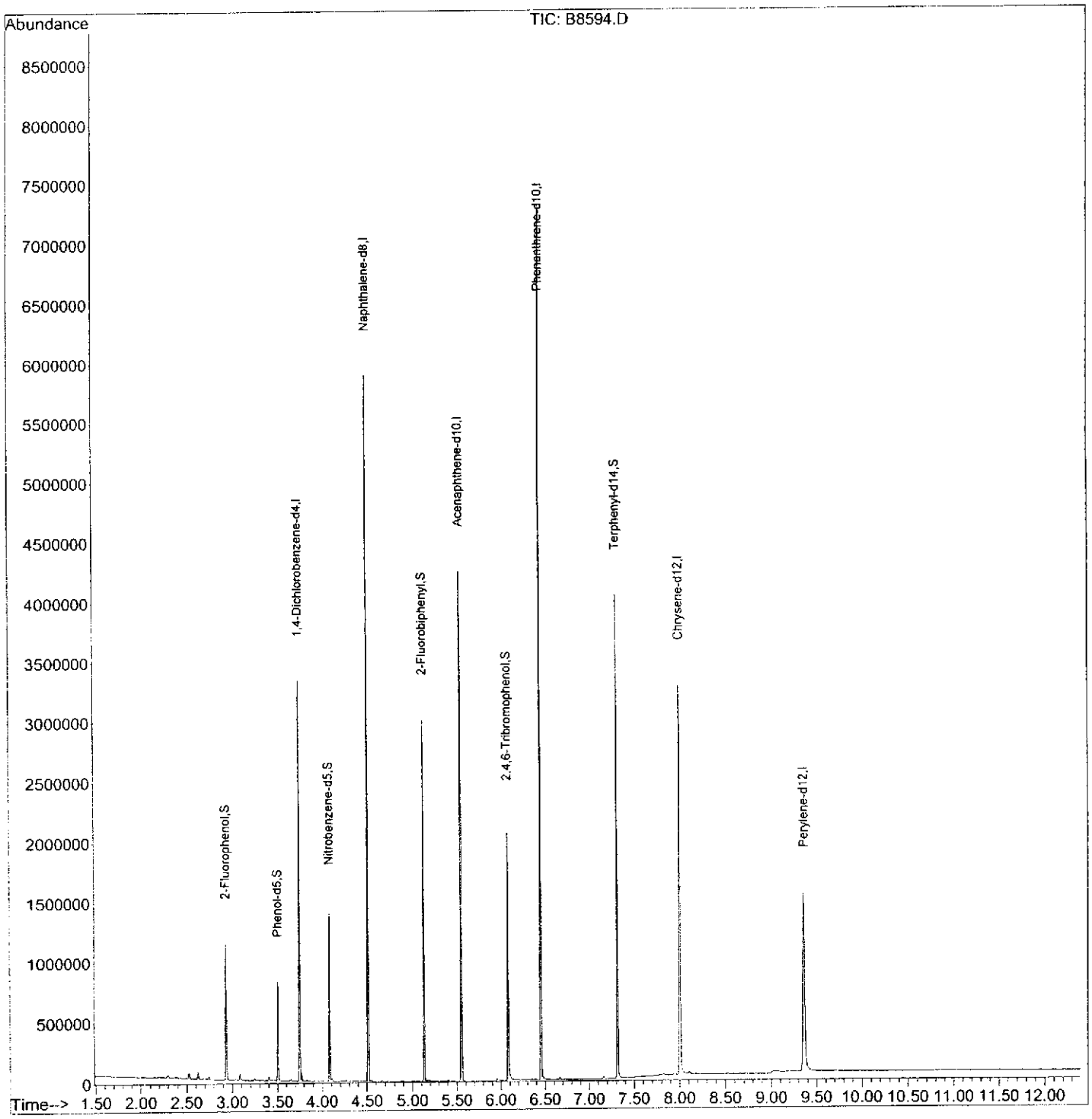
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : B8594.D
Acq On : 3 Jul 2012 10:11 pm
Operator : DANA
Sample : .,BLKA120703-08,A,1000ml,100,1
Misc : 120703-08,07/03/12,NA,1
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jul 05 09:39:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\07-03-12\
Data File : B8594.D
Acq On : 3 Jul 2012 10:11 pm
Operator : DANA
Sample : .,BLKA120703-08,A,1000ml,100,1
Misc : 120703-08,07/03/12,NA,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BW1712.M Thu Jul 05 09:39:41 2012 MSD_B

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA120706-01
Client ID: .
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/06/2012
Data file: A2097.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.160
Pyridine	ND		1.00	0.100
Benzaldehyde	ND		1.00	0.420
Phenol	ND		1.00	0.100
Aniline	ND		1.00	0.110
Bis(2-chloroethyl) ether	ND		1.00	0.080
2-Chlorophenol	ND		1.00	0.150
1,3-Dichlorobenzene	ND		1.00	0.110
1,4-Dichlorobenzene	ND		1.00	0.160
Benzyl alcohol	ND		1.00	0.160
1,2-Dichlorobenzene	ND		1.00	0.130
2-Methylphenol	ND		1.00	0.120
Bis(2-chloroisopropyl) ether	ND		1.00	0.100
4-Methylphenol **	ND		1.00	0.140
N-Nitrosodi-n-propylamine	ND		1.00	0.160
Acetophenone	ND		1.00	0.110
3-Methylphenol	ND		1.00	0.140
Hexachloroethane	ND		1.00	0.140
Nitrobenzene	ND		1.00	0.130
Isophorone	ND		1.00	0.110
2-Nitrophenol	ND		1.00	0.310
2,4-Dimethylphenol	ND		1.00	0.170
Bis(2-chloroethoxy) methane	ND		1.00	0.110
Benzoic acid	ND		1.00	0.140
2,4-Dimethylaniline	ND		1.00	0.120
2,4-Dichlorophenol	ND		1.00	0.150
1,2,4-Trichlorobenzene	ND		1.00	0.110
Naphthalene	ND		1.00	0.104
4-Chloroaniline	ND		1.00	0.140
4-Aminotoluene	ND		1.00	0.220
Hexachlorobutadiene	ND		1.00	0.140
Caprolactam	ND		1.00	0.250
2-Aminotoluene	ND		1.00	0.220
4-Chloro-3-methylphenol	ND		1.00	0.100
2-Methylnaphthalene	ND		1.00	0.142
Hexachlorocyclopentadiene	ND		1.00	0.200
2,4,6-Trichlorophenol	ND		1.00	0.100
2,4,5-Trichlorophenol	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.110
2-Chloronaphthalene	ND		1.00	0.110
2-Nitroaniline	ND		1.00	0.140
Dimethyl phthalate	ND		1.00	0.100

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA120706-01
Client ID: .
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/06/2012
Data file: A2097.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.190
Acenaphthylene	ND		1.00	0.100
3-Nitroaniline	ND		1.00	0.170
Acenaphthene	ND		1.00	0.112
2,4-Dinitrophenol	ND		1.00	0.270
4-Nitrophenol	ND		1.00	0.250
2,4-Dinitrotoluene	ND		1.00	0.160
Dibenzofuran	ND		1.00	0.100
Diethyl phthalate	ND		1.00	0.130
Fluorene	ND		1.00	0.126
4-Chlorophenyl phenyl ether	ND		1.00	0.130
4-Nitroaniline	ND		1.00	0.160
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.150
2,3,4,6-Tetrachlorophenol	ND		1.00	0.260
4,6-Dinitro-2-methylphenol	ND		1.00	0.130
N-Nitrosodiphenylamine	ND		1.00	0.180
1,2-Diphenylhydrazine	ND		1.00	0.150
4-Bromophenyl phenyl ether	ND		1.00	0.210
Hexachlorobenzene	ND		1.00	0.150
Atrazine	ND		1.00	0.210
Pentachlorophenol	ND		1.00	0.140
Phenanthrene	ND		1.00	0.187
Anthracene	ND		1.00	0.218
Carbazole	ND		1.00	0.180
Di-n-butyl phthalate	ND		1.00	0.120
Fluoranthene	ND		1.00	0.174
Benzidine	ND		1.00	0.210
Pyrene	ND		1.00	0.103
3,3'-Dimethylbenzidine	ND		1.00	0.230
Butyl benzyl phthalate	ND		1.00	0.180
3,3'-Dichlorobenzidine	ND		1.00	0.230
Benzo[a]anthracene	ND		1.00	0.200
Chrysene	ND		1.00	0.120
Bis(2-ethylhexyl) phthalate	ND		1.00	0.210
Di-n-octyl phthalate	ND		1.00	0.310
Benzo[b]fluoranthene	ND		1.00	0.260
Benzo[k]fluoranthene	ND		1.00	0.240
Benzo[a]pyrene	ND		1.00	0.210
Indeno[1,2,3-cd]pyrene	ND		1.00	0.170
Dibenz[a,h]anthracene	ND		1.00	0.230
Benzo[g,h,i]perylene	ND		1.00	0.122

Total Target Compounds (83): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA120706-01
Client ID: .
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/06/2012
Data file: A2097.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2097.D
Acq On : 6 Jul 2012 17:06
Operator : JC
Sample : .,BLKA120706-01,A,1000ml,100,1
Misc : 120706-01,07/06/12,NA,1
ALS Vial : 76 Sample Multiplier: 1

Quant Time: Jul 09 09:37:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:53:59 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.624	152	141798	40.00	UG	0.00
23) Naphthalene-d8	4.448	136	484980	40.00	UG	0.00
43) Acenaphthene-d10	5.368	164	226235	40.00	UG	0.00
66) Phenanthrene-d10	6.101	188	233141m	40.00	UG	0.00
82) Chrysene-d12	7.721	240	219342	40.00	UG	-0.04
92) Perylene-d12	9.101	264	207209	40.00	UG	-0.05

System Monitoring Compounds						
4) 2-Fluorophenol	2.779	112	136599	30.77	UG	0.00
Spiked Amount 100.000	Range 10 - 83		Recovery = 30.77%			
6) Phenol-d5	3.368	99	159286	30.08	UG	0.00
Spiked Amount 100.000	Range 10 - 91		Recovery = 30.08%			
24) Nitrobenzene-d5	3.983	82	90095	21.24	UG	0.00
Spiked Amount 50.000	Range 25 - 94		Recovery = 42.48%			
47) 2-Fluorobiphenyl	4.983	172	161534	23.24	UG	0.00
Spiked Amount 50.000	Range 23 - 102		Recovery = 46.48%			
70) 2,4,6-Tribromophenol	5.748	330	20373m	27.62	UG	0.00
Spiked Amount 100.000	Range 27 - 110		Recovery = 27.62%			
84) Terphenyl-d14	6.994	244	86800	18.93	UG	-0.03
Spiked Amount 50.000	Range 33 - 113		Recovery = 37.86%			

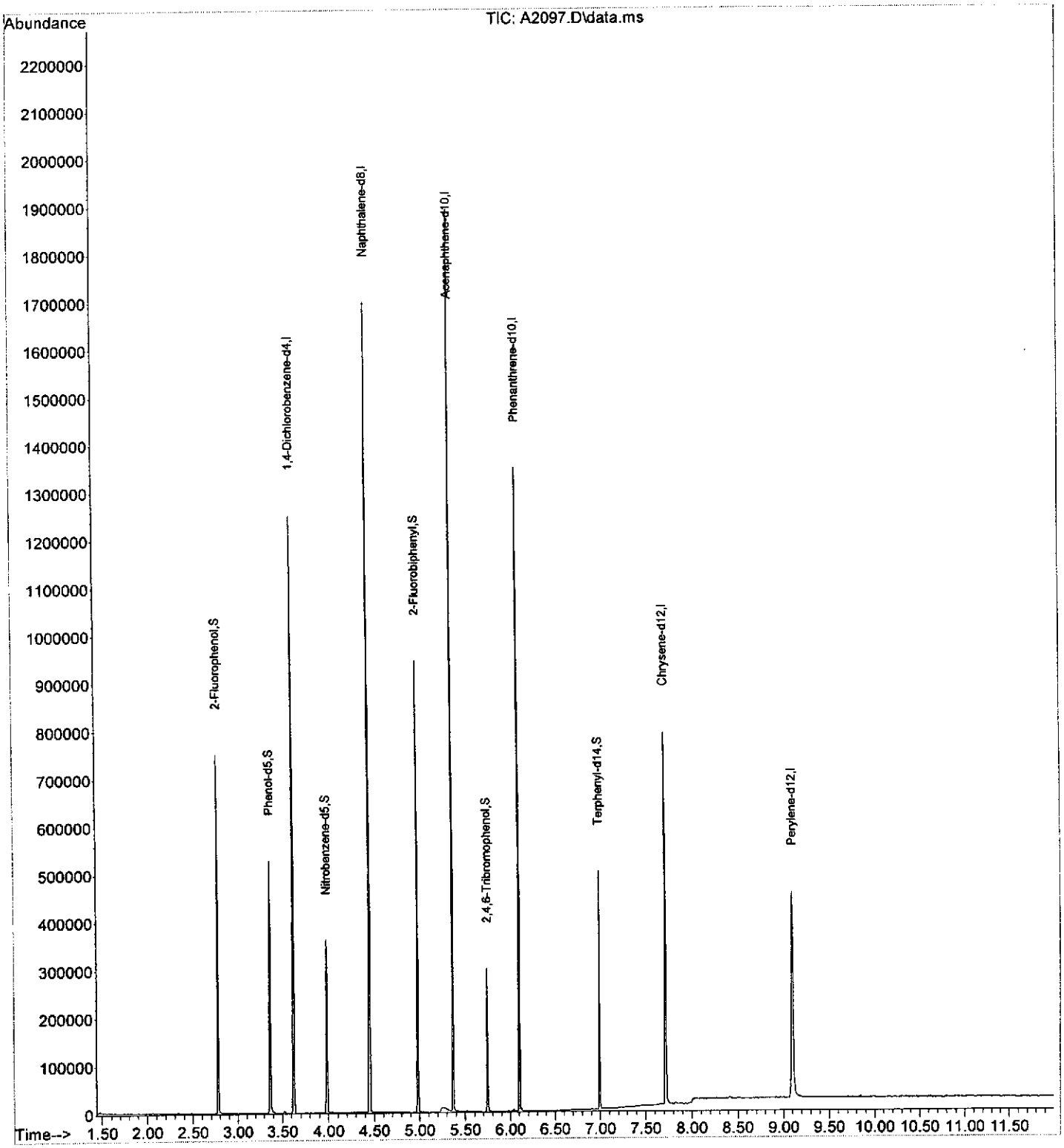
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2097.D
Acq On : 6 Jul 2012 17:06
Operator : JC
Sample : .,BLKA120706-01,A,1000ml,100,1
Misc : 120706-01,07/06/12,NA,1
ALS Vial : 76 Sample Multiplier: 1

Quant Time: Jul 09 09:37:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:53:59 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\07-06-12\
Data File : A2097.D
Acq On : 6 Jul 2012 17:06
Operator : JC
Sample : .,BLKA120706-01,A,1000ml,100,1
Misc : 120706-01,07/06/12,NA,1
ALS Vial : 76 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\AW1112.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

AW1112.M Mon Jul 09 09:38:22 2012 MSD_A

PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/09/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKA120706-02	AQUEOUS	91		100		92		94	
062912-C	06534-001	AQUEOUS	66		92		53		90	
A6-062912-	06546-001	AQUEOUS	48		52		45		46	
Pest	BLKA120706-02	AQUEOUS	79		79		78		74	
SAMPLE_10	06212-010	AQUEOUS	65		87		63		75	
SAMPLE_14	06212-014	AQUEOUS	67		94		67		84	
SAMPLE_15	06212-015	AQUEOUS	74		86		73		86	
SAMPLE_18	06212-018	AQUEOUS	71		91		69		83	
TRE-V12-17	06569-002	AQUEOUS	61		88		56		72	
MW-1/12.25	06657-001	AQUEOUS	57		81		56		72	
MW-2/11.69	06657-002	AQUEOUS	53		64		53		59	
MW-3/12.94	06657-003	AQUEOUS	49		68		49		69	
FIELD_BLAN	06657-004	AQUEOUS	73		81		73		89	
I4-070212-	06658-005	AQUEOUS	60		71		62		75	
Pest	06534-001MS	AQUEOUS	58		95		58		73	
Pest	06534-001MSD	AQUEOUS	51		73		51		63	
Pest	LCSA120706-02	AQUEOUS	76		82		78		75	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120706-02
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: V8226.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	80.10	80
beta-BHC	100.0	0.00	66.52	67
gamma-BHC (Lindane)	100.0	0.00	76.72	77
delta-BHC	100.0	0.00	67.77	68
Heptachlor	100.0	0.00	86.07	86
Aldrin	100.0	0.00	86.02	86
Heptachlor epoxide	100.0	0.00	83.15	83
Endosulfan I	100.0	0.00	86.95	87
4,4'-DDE	100.0	0.00	83.24	83
Dieldrin	100.0	0.00	71.90	72
Endrin	100.0	0.00	85.43	85
Endosulfan II	100.0	0.00	78.12	78
4,4'-DDD	100.0	0.00	78.95	79
Endrin aldehyde	100.0	0.00	68.52	69
Endosulfan sulfate	100.0	0.00	74.78	75
4,4'-DDT	100.0	0.00	96.34	96
Endrin ketone	100.0	0.00	74.65	75
Methoxychlor	100.0	0.00	92.99	93
alpha-Chlordane	100.0	0.00	82.51	83
gamma-Chlordane	100.0	0.00	85.69	86

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06534-001
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
MS Data file: V8224.D
MSD Data file: V8225.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	77.59	78		62.18	62	22
beta-BHC	100.00	0.00	62.95	63		52.28	52	19
gamma-BHC (Lindane)	100.00	0.00	75.52	76		62.75	63	18
delta-BHC	100.00	0.00	70.88	71		57.46	57	21
Heptachlor	100.00	0.00	86.24	86		70.09	70	21
Aldrin	100.00	0.00	84.55	85		68.80	69	21
Heptachlor epoxide	100.00	0.00	86.73	87		69.79	70	22
Endosulfan I	100.00	0.00	93.62	94		75.75	76	21
4,4'-DDE	100.00	0.00	87.04	87		68.82	69	23
Dieldrin	100.00	0.00	73.35	73		61.14	61	18
Endrin	100.00	0.00	94.32	94		75.22	75	23
Endosulfan II	100.00	0.00	84.10	84		68.11	68	21
4,4'-DDD	100.00	0.00	82.22	82		65.55	66	23
Endrin aldehyde	100.00	0.00	70.76	71		57.56	58	21
Endosulfan sulfate	100.00	0.00	83.27	83		66.62	67	22
4,4'-DDT	100.00	0.00	110.91	111		86.94	87	24
Endrin ketone	100.00	0.00	81.70	82		65.09	65	23
Methoxychlor	100.00	0.00	106.07	106		83.44	83	24
alpha-Chlordane	100.00	0.00	86.72	87		70.06	70	21
gamma-Chlordane	100.00	0.00	91.32	91		70.13	70	26

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V8210.D

Instrument ID: GC-V

Date Extracted: 07/06/2012

Matrix: AQUEOUS

Date Analyzed: 07/09/2012

Time Analyzed: 13:08

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
062912-C	06534-001	07/09/2012	13:20
A6-062912-	06546-001	07/09/2012	13:33
Pest	BLKA120706-02	07/09/2012	13:45
SAMPLE_10	06212-010	07/09/2012	13:57
SAMPLE_14	06212-014	07/09/2012	14:09
SAMPLE_15	06212-015	07/09/2012	14:21
SAMPLE_18	06212-018	07/09/2012	14:34
TRE-V12-17	06569-002	07/09/2012	14:46
MW-1/12.25	06657-001	07/09/2012	14:58
MW-2/11.69	06657-002	07/09/2012	15:10
MW-3/12.94	06657-003	07/09/2012	15:22
FIELD_BLAN	06657-004	07/09/2012	15:47
I4-070212-	06658-005	07/09/2012	15:59
Pest	06534-001MS	07/09/2012	16:11
Pest	06534-001MSD	07/09/2012	16:24
Pest	LCSA120706-02	07/09/2012	16:36

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V8213.D

Instrument ID: GC-V

Date Extracted: 07/06/2012

Matrix: AQUEOUS

Date Analyzed: 07/09/2012

Time Analyzed: 13:45

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
062912-C	06534-001	07/09/2012	13:20
A6-062912-	06546-001	07/09/2012	13:33
SAMPLE_10	06212-010	07/09/2012	13:57
SAMPLE_14	06212-014	07/09/2012	14:09
SAMPLE_15	06212-015	07/09/2012	14:21
SAMPLE_18	06212-018	07/09/2012	14:34
TRE-V12-17	06569-002	07/09/2012	14:46
MW-1/12.25	06657-001	07/09/2012	14:58
MW-2/11.69	06657-002	07/09/2012	15:10
MW-3/12.94	06657-003	07/09/2012	15:22
FIELD_BLAN	06657-004	07/09/2012	15:47
I4-070212-	06658-005	07/09/2012	15:59
Pest	06534-001MS	07/09/2012	16:11
Pest	06534-001MSD	07/09/2012	16:24
Pest	LCSA120706-02	07/09/2012	16:36

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (1st): RTX-CLP1

Data File: V7799.D V7798.D V7797.D V7796.D V7795.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WI NDOW FROM	TO
alpha-BHC	2.45	2.45	2.45	2.45	2.45	2.45	2.39	2.51
beta-BHC	2.77	2.77	2.77	2.77	2.77	2.77	2.71	2.83
gamma-BHC	2.70	2.70	2.70	2.70	2.70	2.70	2.64	2.76
delta-BHC	2.93	2.93	2.93	2.93	2.93	2.93	2.87	2.99
Heptachlor	3.13	3.13	3.13	3.13	3.13	3.13	3.05	3.21
Aldrin	3.43	3.43	3.43	3.43	3.43	3.43	3.35	3.51
Heptachlor epoxide	4.08	4.08	4.08	4.08	4.08	4.08	4.00	4.16
Endosulfan I	4.54	4.54	4.54	4.54	4.54	4.54	4.46	4.62
4,4'-DDE	4.49	4.49	4.49	4.49	4.49	4.49	4.39	4.59
Dieldrin	4.84	4.84	4.84	4.84	4.84	4.84	4.74	4.94
Endrin	5.13	5.13	5.13	5.13	5.13	5.13	5.03	5.23
Endosulfan II	5.42	5.43	5.43	5.43	5.43	5.43	5.33	5.53
4,4'-DDD	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Endrin aldehyde	6.00	6.00	6.00	6.00	6.00	6.00	5.88	6.12
Endosulfan sulfate	6.62	6.62	6.62	6.62	6.62	6.62	6.50	6.74
4,4'-DDT	5.63	5.63	5.63	5.63	5.63	5.63	5.51	5.75
Endrin ketone	6.96	6.96	6.97	6.97	6.96	6.96	6.84	7.08
Methoxychlor	6.35	6.35	6.35	6.35	6.35	6.35	6.23	6.47
alpha-Chlordane	4.38	4.38	4.38	4.38	4.38	4.38	4.30	4.46
gamma-Chlordane	4.22	4.22	4.22	4.22	4.22	4.22	4.14	4.30
Chlordane 500 ppb			3.05				2.97	3.13
Chlordane {2}			3.56				3.48	3.64
Chlordane {3}			4.22				4.14	4.30
Chlordane {4}			4.37				4.29	4.45
Chlordane {5}			5.34				5.26	5.42
Toxaphene 500 ppb			5.07				4.99	5.15
Toxaphene {2}			5.51				5.43	5.59
Toxaphene {3}			5.98				5.90	6.06
Toxaphene {4}			6.48				6.40	6.56
Toxaphene {5}			6.94				6.86	7.02

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (1st): RTX-CLP1

Data File: V7799.D V7798.D V7797.D V7796.D V7795.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	231257	224713	233984	262339	261262	242711	7.31
beta-BHC	109613	90446	95659	99560	102234	99502	7.22
gamma-BHC	212959	199262	198894	229202	224154	212894	6.54
delta-BHC	227496	206922	213329	240121	238274	225228	6.56
Heptachlor	215343	195409	196407	223896	224617	211134	6.81
Aldrin	223963	200931	204098	226660	224024	215935	5.72
Heptachlor epoxide	204500	183395	184454	203707	199651	195141	5.33
Endosulfan I	186050	181746	193857	206959	205778	194878	5.83
4,4'-DDE	178468	167967	163108	188044	185631	176644	6.15
Dieldrin	231518	191987	190323	211310	209343	206896	8.12
Endrin	183964	166275	162213	186269	185600	176864	6.58
Endosulfan II	178338	151279	157070	173756	170270	166142	6.91
4,4'-DDD	176633	155301	157262	173138	170373	166541	5.79
Endrin aldehyde	142886	125626	120437	133897	132434	131056	6.52
Endosulfan sulfate	167693	141243	140887	153474	151651	150990	7.28
4,4'-DDT	101400	113961	110956	140542	144942	122360	15.72
Endrin ketone	215131	166019	157428	177875	176108	178512	12.36
Methoxychlor	63950	61329	56207	68844	69859	64038	8.75
alpha-Chlordane	196078	178126	178171	199409	197991	189955	5.71
gamma-Chlordane	193667	184170	186513	208671	207100	196024	5.81
Chlordane 500 ppb			6481				
Chlordane {2}			8087				
Chlordane {3}			23855				
Chlordane {4}			38345				
Chlordane {5}			6951				
Toxaphene 500 ppb			3975				
Toxaphene {2}			4642				
Toxaphene {3}			5316				
Toxaphene {4}			4811				
Toxaphene {5}			5234				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (2nd): RTX-CLP2

Data File: V7799.C V7798.C V7797.C V7796.C V7795.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WI NDOW FROM	TO
alpha-BHC	2.92	2.93	2.93	2.93	2.93	2.93	2.87	2.99
beta-BHC	3.37	3.37	3.37	3.37	3.37	3.37	3.31	3.43
gamma-BHC	3.29	3.29	3.29	3.29	3.29	3.29	3.23	3.35
delta-BHC	3.70	3.70	3.70	3.70	3.70	3.70	3.64	3.76
Heptachlor	3.79	3.79	3.79	3.79	3.79	3.79	3.71	3.87
Aldrin	4.18	4.18	4.18	4.18	4.18	4.18	4.10	4.26
Heptachlor epoxide	4.91	4.91	4.91	4.91	4.91	4.91	4.83	4.99
Endosulfan I	5.44	5.45	5.45	5.45	5.45	5.45	5.37	5.53
4,4'-DDE	5.61	5.61	5.61	5.61	5.61	5.61	5.51	5.71
Dieldrin	5.83	5.83	5.83	5.83	5.83	5.83	5.73	5.93
Endrin	6.27	6.27	6.27	6.27	6.27	6.27	6.17	6.37
Endosulfan II	6.58	6.58	6.59	6.58	6.58	6.58	6.48	6.68
4,4'-DDD	6.46	6.46	6.46	6.46	6.46	6.46	6.36	6.56
Endrin aldehyde	7.02	7.02	7.02	7.02	7.02	7.02	6.90	7.14
Endosulfan sulfate	7.33	7.33	7.33	7.33	7.33	7.33	7.21	7.45
4,4'-DDT	6.89	6.89	6.89	6.89	6.89	6.89	6.77	7.01
Endrin ketone	7.82	7.82	7.82	7.82	7.82	7.82	7.70	7.94
Methoxychlor	7.62	7.63	7.63	7.63	7.63	7.63	7.51	7.75
alpha-Chlordane	5.37	5.37	5.37	5.37	5.37	5.37	5.29	5.45
gamma-Chlordane	5.17	5.17	5.17	5.17	5.17	5.17	5.09	5.25
Chlordane 500 ppb			3.62				3.54	3.70
Chlordane {2}			4.36				4.28	4.44
Chlordane {3}			5.17				5.09	5.25
Chlordane {4}			5.30				5.22	5.38
Chlordane {5}			5.37				5.29	5.45
Toxaphene 500 ppb			5.81				5.73	5.89
Toxaphene {2}			6.71				6.63	6.79
Toxaphene {3}			7.04				6.96	7.12
Toxaphene {4}			7.56				7.48	7.64
Toxaphene {5}			7.91				7.83	7.99

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (2nd): RTX-CLP2

Data File: V7799.C V7798.C V7797.C V7796.C V7795.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	927502	941410	939496	1039724	1014689	972564	5.24
beta-BHC	427467	367667	376083	391013	384833	389412	5.92
gamma-BHC	879655	817425	816519	907696	878974	860054	4.77
delta-BHC	894047	813212	802437	894320	872503	855304	5.19
Heptachlor	775100	704353	756685	829336	819647	777024	6.52
Aldrin	873438	793667	803657	872346	844923	837606	4.48
Heptachlor epoxide	802324	696235	700811	743842	716805	732003	5.94
Endosulfan I	746347	648298	657649	691608	671267	683034	5.70
4,4'-DDE	677119	629315	628820	690561	679161	660995	4.48
Dieldrin	729603	661697	668051	722851	710324	698505	4.52
Endrin	638171	563265	546674	612208	599171	591898	6.25
Endosulfan II	673950	555015	569034	602930	579308	596047	7.87
4,4'-DDD	615161	442912	513004	564334	538359	534754	11.92
Endrin aldehyde	536928	386134	375670	403181	392237	418830	15.94
Endosulfan sulfate	539628	421514	405756	449247	437864	450802	11.60
4,4'-DDT	258826	310532	295971	377756	385037	325624	16.69
Endrin ketone	483538	427357	425080	460223	452540	449748	5.41
Methoxychlor	142042	151615	141819	173624	175892	156998	10.64
alpha-Chlordane	778212	662617	643791	704907	688797	695665	7.44
gamma-Chlordane	769490	700071	700700	755251	737736	732650	4.30
Chlordane 500 ppb			28296				
Chlordane {2}			32811				
Chlordane {3}			86013				
Chlordane {4}			75409				
Chlordane {5}			73806				
Toxaphene 500 ppb			8036				
Toxaphene {2}			20026				
Toxaphene {3}			19206				
Toxaphene {4}			12858				
Toxaphene {5}			6023				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8207.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	237261	2.25
beta-BHC	2.76	2.71	2.83	99502	99852	0.35
gamma-BHC	2.69	2.64	2.76	212894	196795	7.56
delta-BHC	2.92	2.87	2.99	225228	210981	6.33
Heptachlor	3.12	3.05	3.21	211134	208738	1.14
Aldrin	3.42	3.35	3.51	215935	203661	5.68
Heptachlor epoxide	4.07	4.00	4.16	195141	184906	5.25
Endosulfan I	4.53	4.46	4.62	194878	198170	1.69
4,4'-DDE	4.48	4.39	4.59	176644	160841	8.95
Dieldrin	4.83	4.74	4.94	206896	189570	8.37
Endrin	5.12	5.03	5.23	176864	165026	6.69
Endosulfan II	5.42	5.33	5.53	166142	151913	8.56
4,4'-DDD	5.24	5.15	5.35	166541	151613	8.96
Endrin aldehyde	6.00	5.88	6.12	131056	122070	6.86
Endosulfan sulfate	6.61	6.50	6.74	150990	138281	8.42
4,4'-DDT	5.62	5.51	5.75	122360	123907	1.26
Endrin ketone	6.96	6.84	7.08	178512	157031	12.03
Methoxychlor	6.34	6.23	6.47	64038	64091	0.08
alpha-Chlordane	4.37	4.30	4.46	189955	178615	5.97
gamma-Chlordane	4.22	4.14	4.30	196024	189771	3.19
Chlordane 500 ppb	3.05	2.97	3.13	6481	5883	9.23
Chlordane {2}	3.56	3.48	3.64	8087	7703	4.76
Chlordane {3}	4.22	4.14	4.30	23855	24322	1.96
Chlordane {4}	4.37	4.29	4.45	38345	40913	6.70
Chlordane {5}	5.33	5.26	5.42	6951	6750	2.89
Toxaphene 500 ppb	5.07	4.99	5.15	3975	3836	3.51
Toxaphene {2}	5.51	5.43	5.59	4642	4433	4.50
Toxaphene {3}	5.97	5.90	6.06	5316	5359	0.81
Toxaphene {4}	6.47	6.40	6.56	4811	4741	1.47
Toxaphene {5}	6.94	6.86	7.02	5234	6056	15.71

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8207.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	1009581	3.81
beta-BHC	3.37	3.31	3.43	389412	390331	0.24
gamma-BHC	3.29	3.23	3.35	860054	851250	1.02
delta-BHC	3.70	3.64	3.76	855304	809424	5.36
Heptachlor	3.79	3.71	3.87	777024	826756	6.40
Aldrin	4.18	4.10	4.26	837606	783312	6.48
Heptachlor epoxide	4.91	4.83	4.99	732003	688217	5.98
Endosulfan I	5.45	5.37	5.53	683034	654132	4.23
4,4'-DDE	5.62	5.51	5.71	660995	616168	6.78
Dieldrin	5.83	5.73	5.93	698505	651365	6.75
Endrin	6.27	6.17	6.37	591898	543843	8.12
Endosulfan II	6.58	6.48	6.68	596047	515884	13.45
4,4'-DDD	6.46	6.36	6.56	534754	485101	9.29
Endrin aldehyde	7.02	6.90	7.14	418830	361503	13.69
Endosulfan sulfate	7.33	7.21	7.45	450802	391099	13.24
4,4'-DDT	6.89	6.77	7.01	325624	343607	5.52
Endrin ketone	7.82	7.70	7.94	449748	390716	13.13
Methoxychlor	7.63	7.51	7.75	156998	148344	5.51
alpha-Chlordane	5.37	5.29	5.45	695665	630779	9.33
gamma-Chlordane	5.17	5.09	5.25	732650	691478	5.62
Chlordane 500 ppb	3.62	3.54	3.70	28296	27163	4.01
Chlordane {2}	4.35	4.28	4.44	32811	29973	8.65
Chlordane {3}	5.16	5.09	5.25	86013	82538	4.04
Chlordane {4}	5.29	5.22	5.38	75409	69012	8.48
Chlordane {5}	5.36	5.29	5.45	73806	71737	2.80
Toxaphene 500 ppb	5.81	5.73	5.89	8036	7243	9.86
Toxaphene {2}	6.71	6.63	6.79	20026	17927	10.48
Toxaphene {3}	7.04	6.96	7.12	19206	17499	8.89
Toxaphene {4}	7.56	7.48	7.64	12858	11788	8.32
Toxaphene {5}	7.91	7.83	7.99	6023	5584	7.29

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8227.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	233296	3.88
beta-BHC	2.76	2.71	2.83	99502	106039	6.57
gamma-BHC	2.70	2.64	2.76	212894	185095	13.06
delta-BHC	2.93	2.87	2.99	225228	203540	9.63
Heptachlor	3.12	3.05	3.21	211134	202606	4.04
Aldrin	3.42	3.35	3.51	215935	202930	6.02
Heptachlor epoxide	4.07	4.00	4.16	195141	183401	6.02
Endosulfan I	4.53	4.46	4.62	194878	196285	0.72
4,4'-DDE	4.48	4.39	4.59	176644	158250	10.41
Dieldrin	4.83	4.74	4.94	206896	189334	8.49
Endrin	5.13	5.03	5.23	176864	163788	7.39
Endosulfan II	5.42	5.33	5.53	166142	152876	7.98
4,4'-DDD	5.25	5.15	5.35	166541	159079	4.48
Endrin aldehyde	6.00	5.88	6.12	131056	122240	6.73
Endosulfan sulfate	6.62	6.50	6.74	150990	137388	9.01
4,4'-DDT	5.62	5.51	5.75	122360	115904	5.28
Endrin ketone	6.96	6.84	7.08	178512	164702	7.74
Methoxychlor	6.34	6.23	6.47	64038	61147	4.51
alpha-Chlordane	4.37	4.30	4.46	189955	177215	6.71
gamma-Chlordane	4.22	4.14	4.30	196024	187621	4.29

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8227.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	960701	1.22
beta-BHC	3.36	3.31	3.43	389412	376299	3.37
gamma-BHC	3.28	3.23	3.35	860054	810563	5.75
delta-BHC	3.69	3.64	3.76	855304	774868	9.40
Heptachlor	3.78	3.71	3.87	777024	808912	4.10
Aldrin	4.17	4.10	4.26	837606	809405	3.37
Heptachlor epoxide	4.90	4.83	4.99	732003	700767	4.27
Endosulfan I	5.44	5.37	5.53	683034	654247	4.21
4,4'-DDE	5.60	5.51	5.71	660995	618258	6.47
Dieldrin	5.82	5.73	5.93	698505	660179	5.49
Endrin	6.26	6.17	6.37	591898	554073	6.39
Endosulfan II	6.57	6.48	6.68	596047	532466	10.67
4,4'-DDD	6.45	6.36	6.56	534754	520455	2.67
Endrin aldehyde	7.01	6.90	7.14	418830	371955	11.19
Endosulfan sulfate	7.32	7.21	7.45	450802	398597	11.58
4,4'-DDT	6.89	6.77	7.01	325624	325705	0.02
Endrin ketone	7.82	7.70	7.94	449748	421511	6.28
Methoxychlor	7.62	7.51	7.75	156998	152478	2.88
alpha-Chlordane	5.36	5.29	5.45	695665	634544	8.79
gamma-Chlordane	5.16	5.09	5.25	732650	692615	5.46

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 2.05 **DCB 1** 7.95 **TCMX 2** 2.38 **DCB 2** 8.87

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKA120706-02	07/09/2012	13:08	2.05		7.95		2.38		8.87	
062912-C	06534-001	07/09/2012	13:20	2.05		7.94		2.38		8.86	
A6-062912-	06546-001	07/09/2012	13:33	2.05		7.95		2.38		8.86	
Pest	BLKA120706-02	07/09/2012	13:45	2.05		7.95		2.38		8.86	
SAMPLE_10	06212-010	07/09/2012	13:57	2.05		7.94		2.38		8.86	
SAMPLE_14	06212-014	07/09/2012	14:09	2.05		7.95		2.38		8.86	
SAMPLE_15	06212-015	07/09/2012	14:21	2.05		7.94		2.38		8.86	
SAMPLE_18	06212-018	07/09/2012	14:34	2.05		7.94		2.38		8.86	
TRE-V12-17	06569-002	07/09/2012	14:46	2.05		7.94		2.38		8.86	
MW-1/12.25	06657-001	07/09/2012	14:58	2.05		7.94		2.38		8.86	
MW-2/11.69	06657-002	07/09/2012	15:10	2.05		7.94		2.38		8.86	
MW-3/12.94	06657-003	07/09/2012	15:22	2.05		7.94		2.38		8.86	
FIELD_BLAN	06657-004	07/09/2012	15:47	2.05		7.94		2.38		8.86	
I4-070212-	06658-005	07/09/2012	15:59	2.05		7.94		2.38		8.86	
Pest	06534-001MS	07/09/2012	16:11	2.05		7.94		2.38		8.86	
Pest	06534-001MSD	07/09/2012	16:24	2.05		7.95		2.38		8.86	
Pest	LCSA120706-02	07/09/2012	16:36	2.05		7.95		2.38		8.86	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 07/09/2012

Data file: V8206.D Mon Jul 09 09:50:29 2012

1st Column				**% Breakdown**	
				DDT (1)	**Endrin (1)**
DDT (1)	11518016	Endrin (1)	14115776	5.38	1.96
DDD	391256	Endrin ketone	281683		
DDE	263591	Endrin aldehyde	0		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	28289293	Endrin (2)	46803655	7.93	1.69
DDD	1270571	Endrin ketone	804183		
DDE	1164361	Endrin aldehyde	0		

PESTICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8212.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:33
Operator : IB
Sample : A6-062912-,06546-001,A,1000ml,100,07/06/12,1
Misc : 120706-02,06/29/12,06/29/12,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 13:57:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	15333998	59371277	95.482m	89.584m
Spiked Amount 200.000			Recovery	=	47.74%	44.79%
2) S DCB	7.95	8.86	5730654	14383467	104.358m	92.064
Spiked Amount 200.000			Recovery	=	52.18%	46.03%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

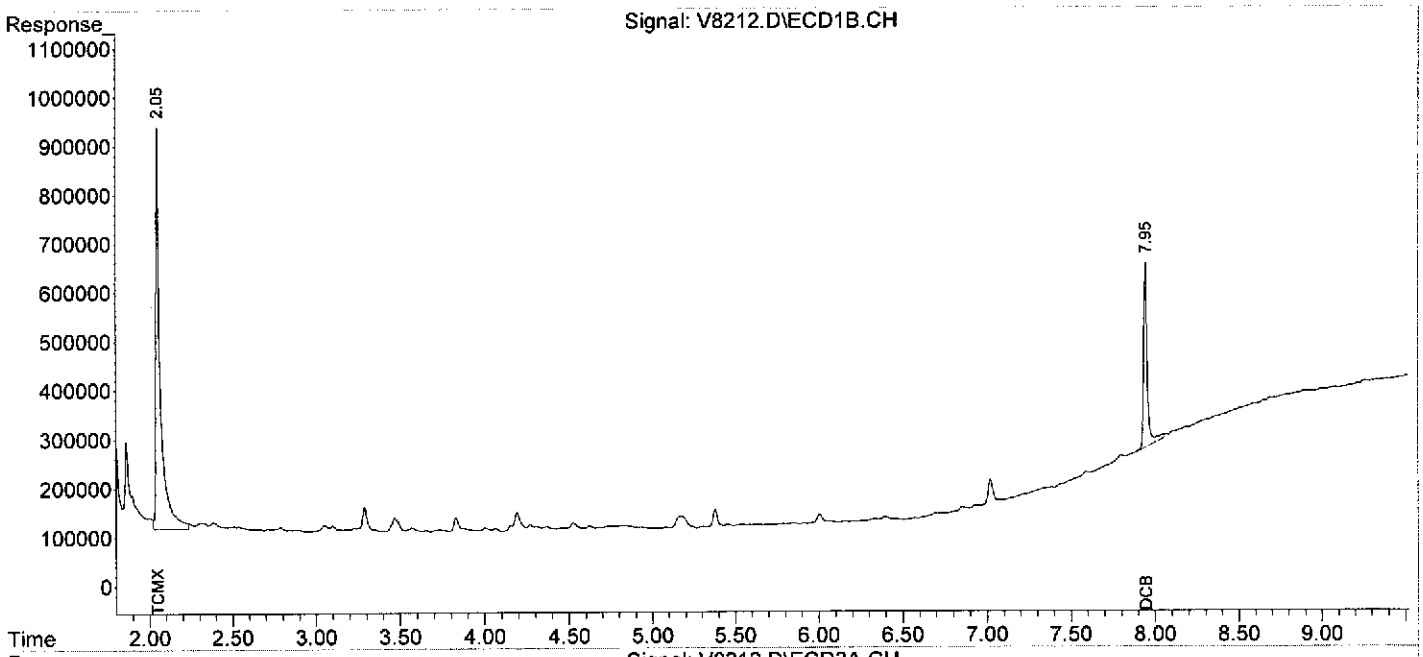
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

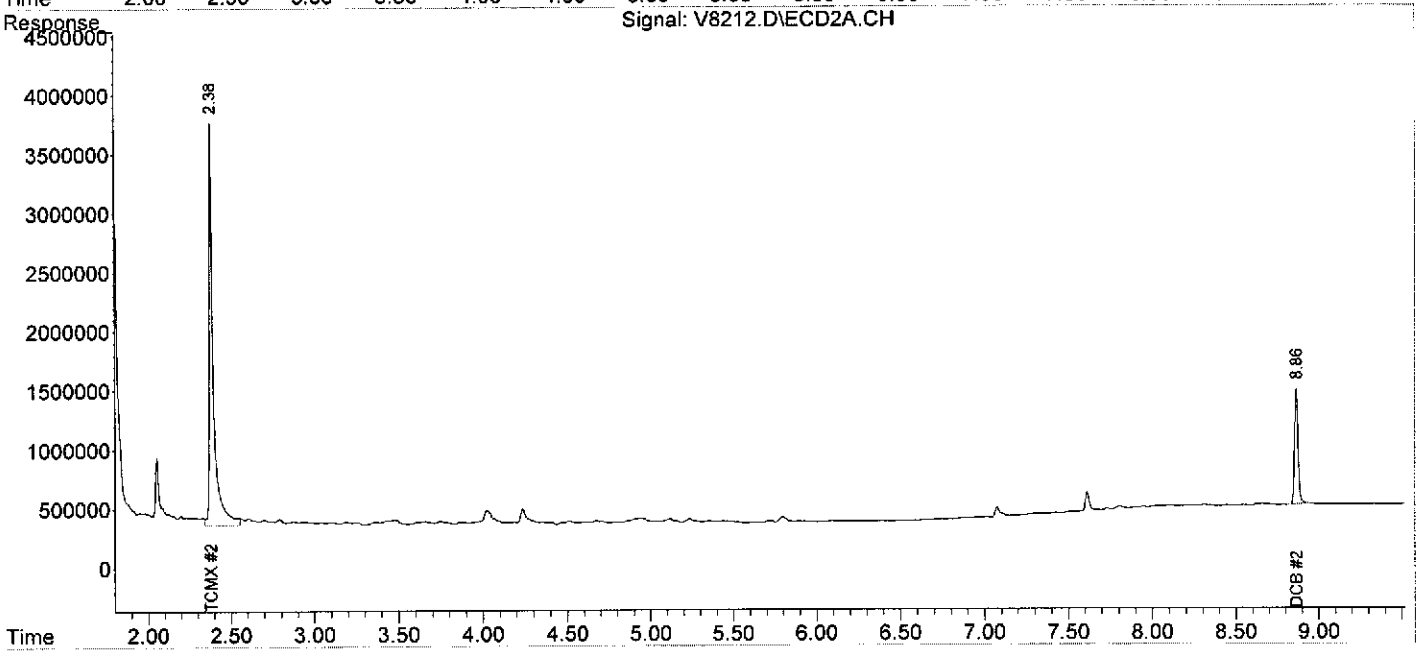
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8212.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:33
Operator : IB
Sample : A6-062912-,06546-001,A,1000ml,100,07/06/12,1
Misc : 120706-02,06/29/12,06/29/12,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 13:57:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKA120706-02
Client ID: Pest
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: V8210.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Chlordane	ND		0.125	0.060
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

INTEGRATED ANALYTICAL LABORATORIES

TCLP PESTICIDES

Lab ID: BLKA120706-02
Client ID: Pest
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: V8213.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 200ml
Matrix-Units: Leachate-mg/L (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
gamma-BHC (Lindane)	ND		0.00005	0.000025
Heptachlor	ND		0.00005	0.000025
Heptachlor epoxide	ND		0.00005	0.000025
Endrin	ND		0.00005	0.000025
Methoxychlor	ND		0.00005	0.000025
Chlordane	ND		0.000625	0.0003
Toxaphene	ND		0.000625	0.0003

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8210.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:08
Operator : IB
Sample : Pest,BLKA120706-02,A,1000ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 14:03:04 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	29194660	121.3E6	181.790	183.042
Spiked Amount 200.000			Recovery	=	90.89%	91.52%
2) S DCB	7.95	8.87	11027014	29265401	200.807	187.319
Spiked Amount 200.000			Recovery	=	100.40%	93.66%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

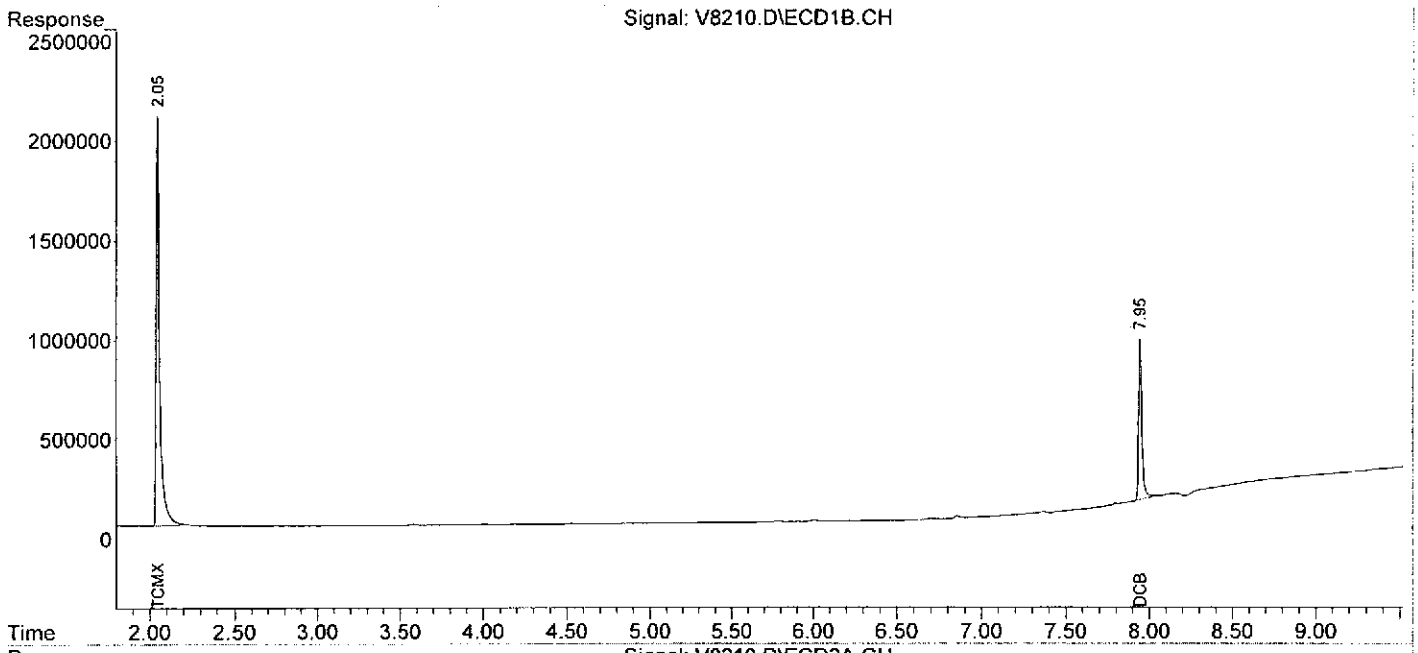
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

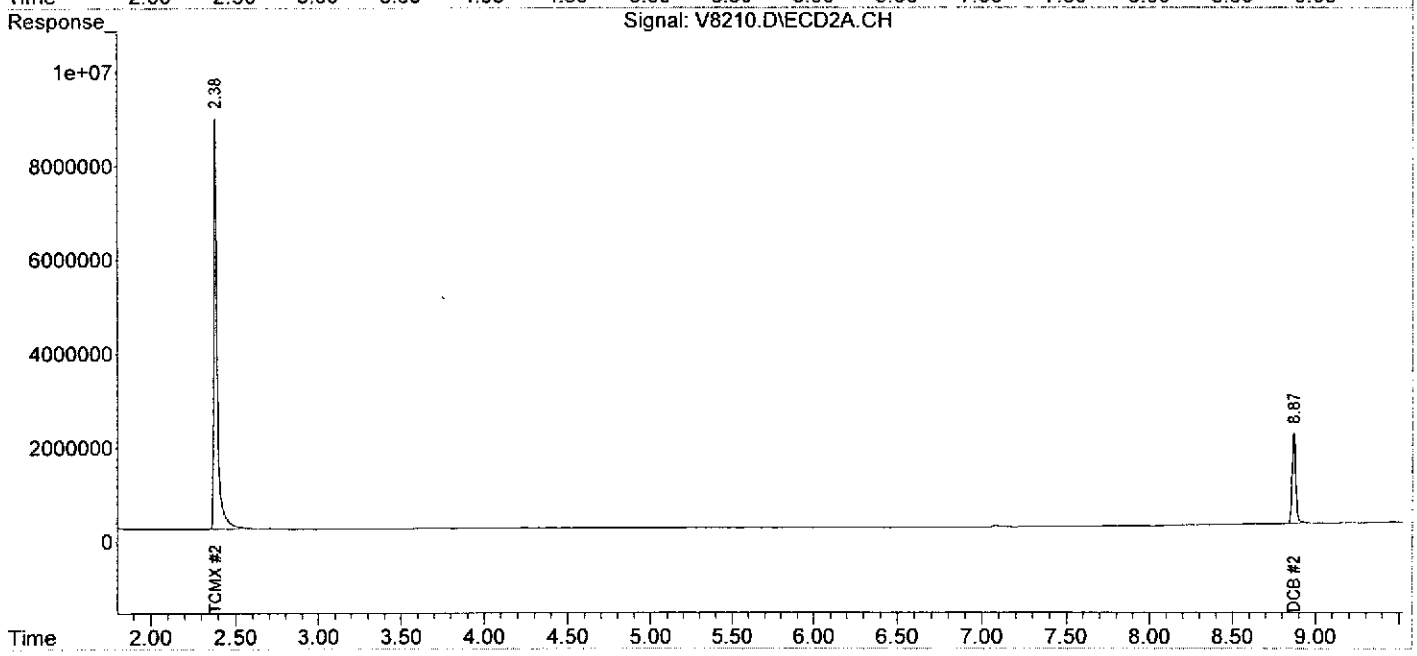
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8210.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:08
Operator : IB
Sample : Pest,BLKA120706-02,A,1000ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 14:03:04 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8213.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:45
Operator : IB
Sample : Pest,BLKA120706-02,A,200ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 13:55:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	25402936	103.4E6	158.179	156.041
Spiked Amount 200.000			Recovery	=	79.09%	78.02%
2) S DCB	7.95	8.86	8680741	23187713	158.081	148.418
Spiked Amount 200.000			Recovery	=	79.04%	74.21%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

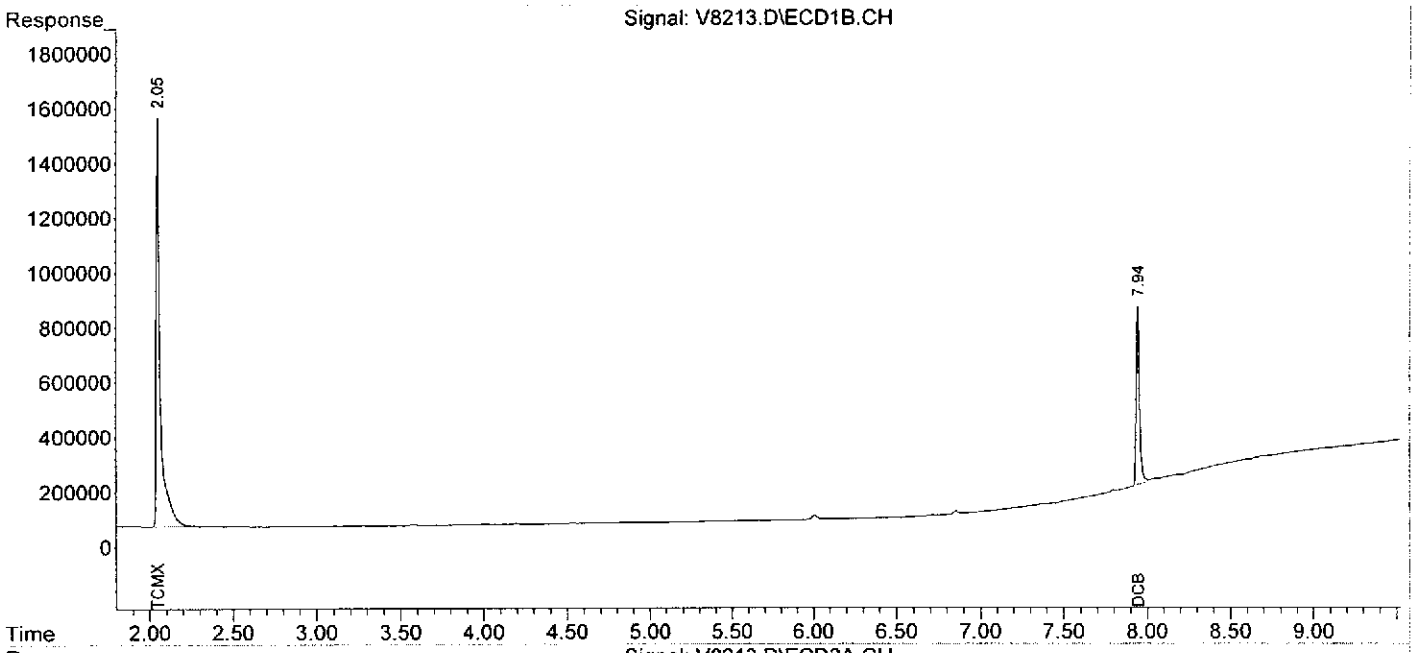
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

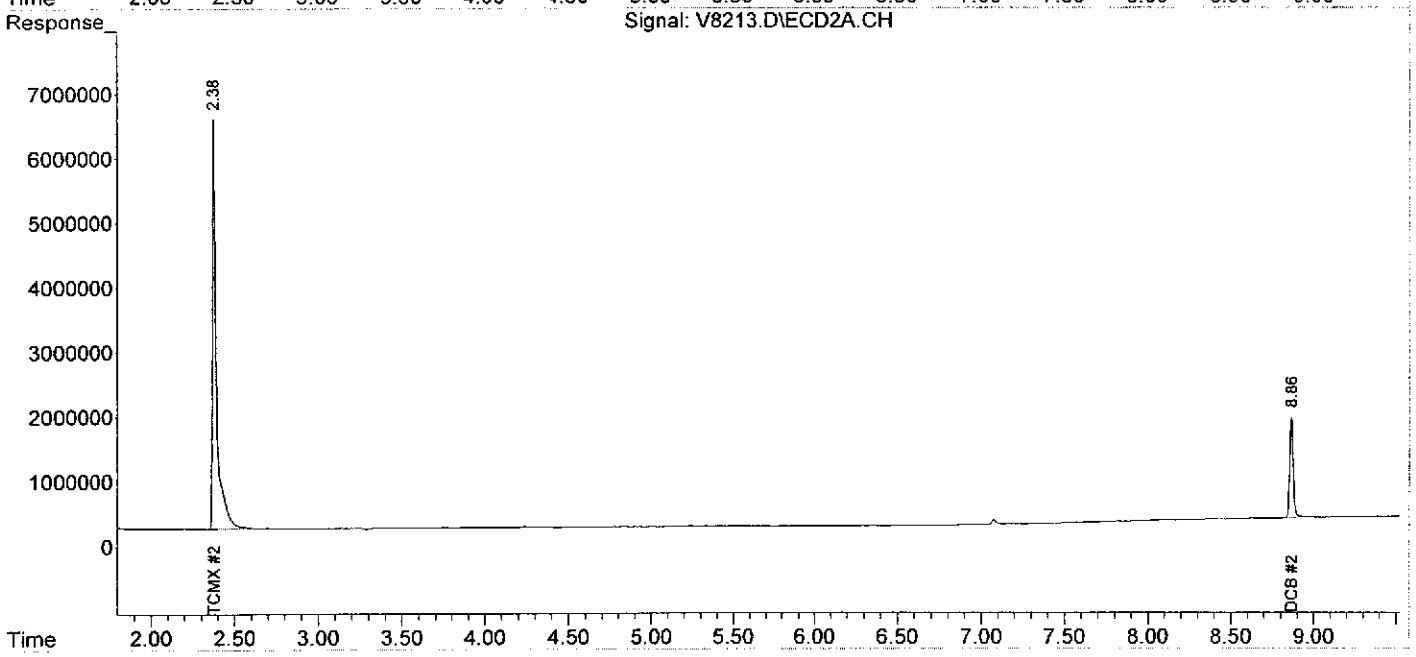
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8213.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:45
Operator : IB
Sample : Pest,BLKA120706-02,A,200ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 13:55:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





HERBICIDE DATA

HERBICIDE QC SUMMARY

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/04/2012

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKA120703-02	AQUEOUS	64		72	
A1-062712-	06466-010	AQUEOUS	51		57	
A2-062712-	06466-011	AQUEOUS	52		58	
A7-062712-	06466-012	AQUEOUS	57		61	
GPECFB0628	06507-016	AQUEOUS	60		75	
Herb	LCSA120703-02	AQUEOUS	120		114	
A6-062912-	06546-001	AQUEOUS	35		32	

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

AQUEOUS HERBICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSA120703-02

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
2,4-D	200.0	0.0	242.9	121	40 - 140
2,4,5-TP (Silvex)	200.0	0.0	231.3	116	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Spike Recovery: __0___ out of __2__ outside limits

AQUEOUS HERBICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06295-001MSD

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
2,4-D	200.0	0.0	191.3	96	30 - 150
2,4,5-TP (Silvex)	200.0	0.0	207.0	104	30 - 150

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	# MSD % REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	0.0	206.1	103	7	30	30 - 150
2,4,5-TP (Silvex)	0.0	179.6	90	14	30	30 - 150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W7040.D	Instrument ID:	GC-W
Date Extracted:	06/29/2012	Matrix:	AQUEOUS
Date Analyzed:	07/02/2012	Time Analyzed:	11:27

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-2-06221	06295-001	07/02/2012	11:41
Herb	LCSA291206-08	07/02/2012	15:19
I2-062612-	06385-003	07/02/2012	17:22
I1-062612-	06385-005	07/02/2012	17:36
Herb	06295-001MS	07/02/2012	17:51
Herb	06295-001MSD	07/02/2012	18:06

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W7055.D	Instrument ID:	GC-W
Date Extracted:	07/03/2012	Matrix:	AQUEOUS
Date Analyzed:	07/04/2012	Time Analyzed:	12:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
A1-062712-	06466-010	07/04/2012	12:40
A2-062712-	06466-011	07/04/2012	12:55
A7-062712-	06466-012	07/04/2012	13:09
GPECFB0628	06507-016	07/04/2012	13:38
Herb	LCSA120703-02	07/04/2012	13:53
A6-062912-	06546-001	07/10/2012	17:57

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	50	100	200	250	400	RT	FROM	TO
Dalapon	2.25	2.25	2.25	2.25	2.25	2.25	2.18	2.32
Dicamba	4.83	4.83	4.83	4.83	4.83	4.83	4.76	4.90
2,4-D	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.71	5.71	5.71	5.71	5.71	5.62	5.80
2,4,5-T	5.86	5.86	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.16	6.16	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.90	6.90	6.90	6.90	6.90	6.90	6.81	6.99

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	50	100	200	250	400	RT	FROM	TO
Dalapon	2.22	2.22	2.22	2.22	2.22	2.22	2.15	2.29
Dicamba	5.05	5.05	5.05	5.05	5.05	5.05	4.98	5.12
2,4-D	5.57	5.57	5.57	5.57	5.57	5.57	5.49	5.65
2,4,5-TP (Silvex)	6.03	6.03	6.03	6.03	6.03	6.03	5.94	6.12
2,4,5-T	6.26	6.26	6.26	6.26	6.26	6.26	6.17	6.35
2,4-DB	6.60	6.60	6.60	6.60	6.60	6.60	6.51	6.69
Dinoseb	6.85	6.85	6.85	6.85	6.85	6.85	6.76	6.94

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: F GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	CALIBRATION FACTORS 50	100	200	250	400	MEAN CF	%RSD
Dalapon	544629	516909	587161	593365	592777	566968	6.09
Dicamba	1566067	1483926	1703827	1725758	1784211	1652758	7.49
2,4-D	732699	593094	607561	587862	573382	618920	10.46
2,4,5-TP (Silvex)	2764514	2539588	2884094	2964481	3076025	2845741	7.22
2,4,5-T	2721247	2545426	2799059	2811924	2893447	2754221	4.78
2,4-DB	526806	369714	505885	464867	435362	460527	13.45
Dinoseb	2134374	1946223	2155301	2067354	2096146	2079880	3.95
					Average %RSD		7.64

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	CALIBRATION FACTORS 50	100	200	250	400	MEAN CF	%RSD
Dalapon	72214	66210	75805	76517	78181	73785	6.45
Dicamba	198580	186187	209675	212355	212325	203824	5.58
2,4-D	79995	65353	74252	72372	72026	72800	7.21
2,4,5-TP (Silvex)	349332	320514	368049	366443	374046	355677	6.10
2,4,5-T	333377	298305	351814	348173	345577	335449	6.52
2,4-DB	52239	36291	50263	49819	49769	47676	13.52
Dinoseb	233458	205681	247545	250958	256622	238853	8.55
					Average %RSD		7.70

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/04/2012 **Instrument ID:** GC-W

Data File: W7054.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	627486	10.67
Dicamba	4.83	4.76	4.90	1652758	1778148	7.59
2,4-D	5.28	5.20	5.36	618920	646367	4.43
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3037398	6.73
2,4,5-T	5.86	5.77	5.95	2754221	2921168	6.06
2,4-DB	6.16	6.07	6.25	460527	435430	5.45
Dinoseb	6.90	6.81	6.99	2079880	2201423	5.84

GC Column (2nd): DB-1701P

Data File: W7054.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.22	2.15	2.29	73785	80470	9.06
Dicamba	5.05	4.98	5.12	203824	218147	7.03
2,4-D	5.57	5.49	5.65	72800	77081	5.88
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	381242	7.19
2,4,5-T	6.26	6.17	6.35	335449	363723	8.43
2,4-DB	6.61	6.51	6.69	47676	52617	10.36
Dinoseb	6.86	6.76	6.94	238853	268110	12.25

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/04/2012 **Instrument ID:** GC-W

Data File: W7071.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	670919	18.33
Dicamba	4.83	4.76	4.90	1652758	1911439	15.65
2,4-D	5.28	5.20	5.36	618920	719468	16.25
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3331039	17.05
2,4,5-T	5.86	5.77	5.95	2754221	3042317	10.46
2,4-DB	6.16	6.07	6.25	460527	450073	2.27
Dinoseb	6.90	6.81	6.99	2079880	2293477	10.27

GC Column (2nd): DB-1701P

Data File: W7071.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.22	2.15	2.29	73785	81449	10.39
Dicamba	5.05	4.98	5.12	203824	221500	8.67
2,4-D	5.57	5.49	5.65	72800	78445	7.75
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	395897	11.31
2,4,5-T	6.26	6.17	6.35	335449	376078	12.11
2,4-DB	6.60	6.51	6.69	47676	49662	4.17
Dinoseb	6.85	6.76	6.94	238853	258575	8.26

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 **Instrument ID:** GC-W

Data File: W7085.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	532664	6.05
Dicamba	4.83	4.76	4.90	1652758	1596479	3.41
2,4-D	5.28	5.20	5.36	618920	603658	2.47
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	2760173	3.01
2,4,5-T	5.86	5.77	5.95	2754221	2719750	1.25
2,4-DB	6.16	6.07	6.25	460527	491419	6.71
Dinoseb	6.90	6.81	6.99	2079880	1953978	6.05

GC Column (2nd): DB-1701P

Data File: W7085.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.23	2.15	2.29	73785	67373	8.69
Dicamba	5.05	4.98	5.12	203824	195454	4.11
2,4-D	5.57	5.49	5.65	72800	70803	2.74
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	346338	2.63
2,4,5-T	6.26	6.17	6.35	335449	337070	0.48
2,4-DB	6.60	6.51	6.69	47676	47532	0.30
Dinoseb	6.86	6.76	6.94	238853	243591	1.98

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 **Instrument ID:** GC-W

Data File: W7087.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.26	2.18	2.32	566968	535479	5.55
Dicamba	4.83	4.76	4.90	1652758	1634055	1.13
2,4-D	5.28	5.20	5.36	618920	649642	4.96
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	2821704	0.84
2,4,5-T	5.86	5.77	5.95	2754221	2789977	1.30
2,4-DB	6.16	6.07	6.25	460527	446684	3.01
Dinoseb	6.90	6.81	6.99	2079880	2156482	3.68

GC Column (2nd): DB-1701P

Data File: W7087.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.23	2.15	2.29	73785	66462	9.92
Dicamba	5.05	4.98	5.12	203824	191912	5.84
2,4-D	5.57	5.49	5.65	72800	71986	1.12
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	343599	3.40
2,4,5-T	6.26	6.17	6.35	335449	334818	0.19
2,4-DB	6.60	6.51	6.69	47676	53454	12.12
Dinoseb	6.85	6.76	6.94	238853	232354	2.72

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 4.74 **DCPA 2** 4.96

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKA120703-02	07/04/2012	12:26	4.74		4.96	
A1-062712-	06466-010	07/04/2012	12:40	4.74		4.96	
A2-062712-	06466-011	07/04/2012	12:55	4.74		4.96	
A7-062712-	06466-012	07/04/2012	13:09	4.74		4.96	
GPECFB0628	06507-016	07/04/2012	13:38	4.74		4.96	
Herb	LCSA120703-02	07/04/2012	13:53	4.74		4.96	
A6-062912-	06546-001	07/10/2012	17:57	4.74		4.96	

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : W7086.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 17:57
Operator : YG
Sample : A6-062912-,06546-001,A,1000ml,100,07/03/12,1
Misc : 120703-02,06/29/12,06/29/12,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 11 14:23:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	72496522	8224198	34.794	31.965m
Spiked Amount 100.000			Recovery	=	34.79%	31.97%
Target Compounds						

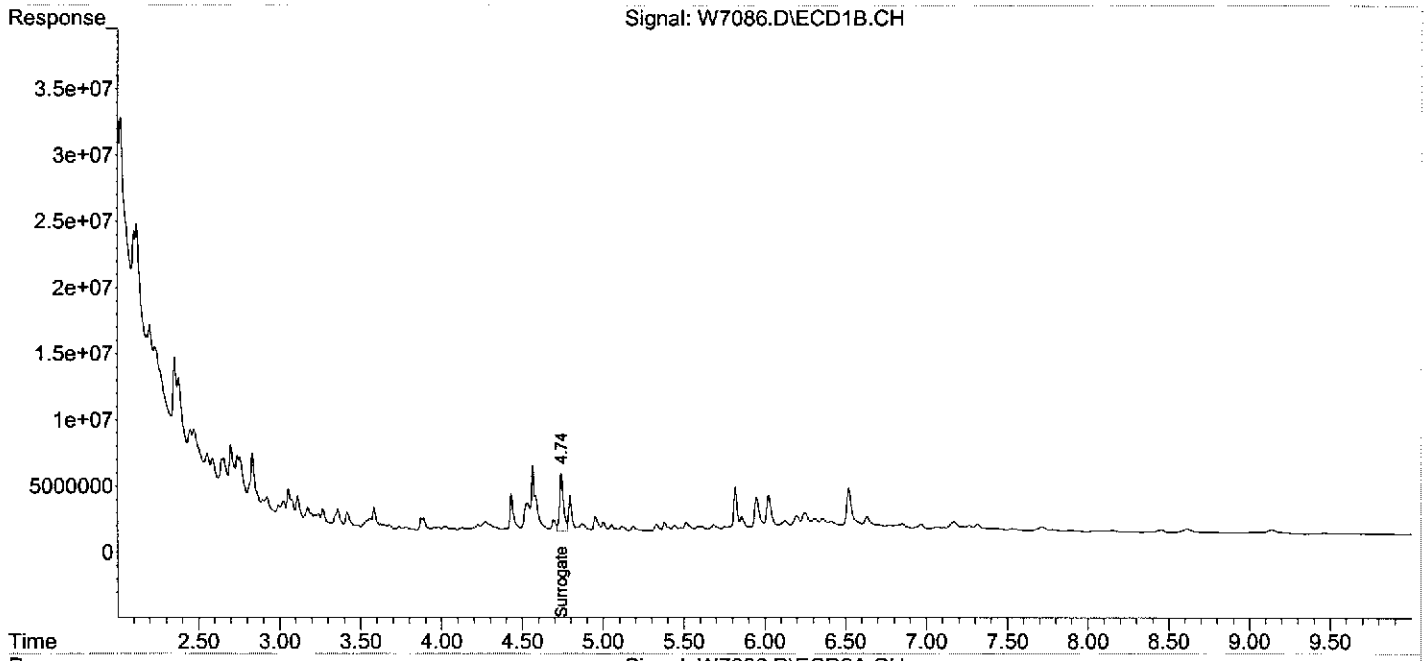
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

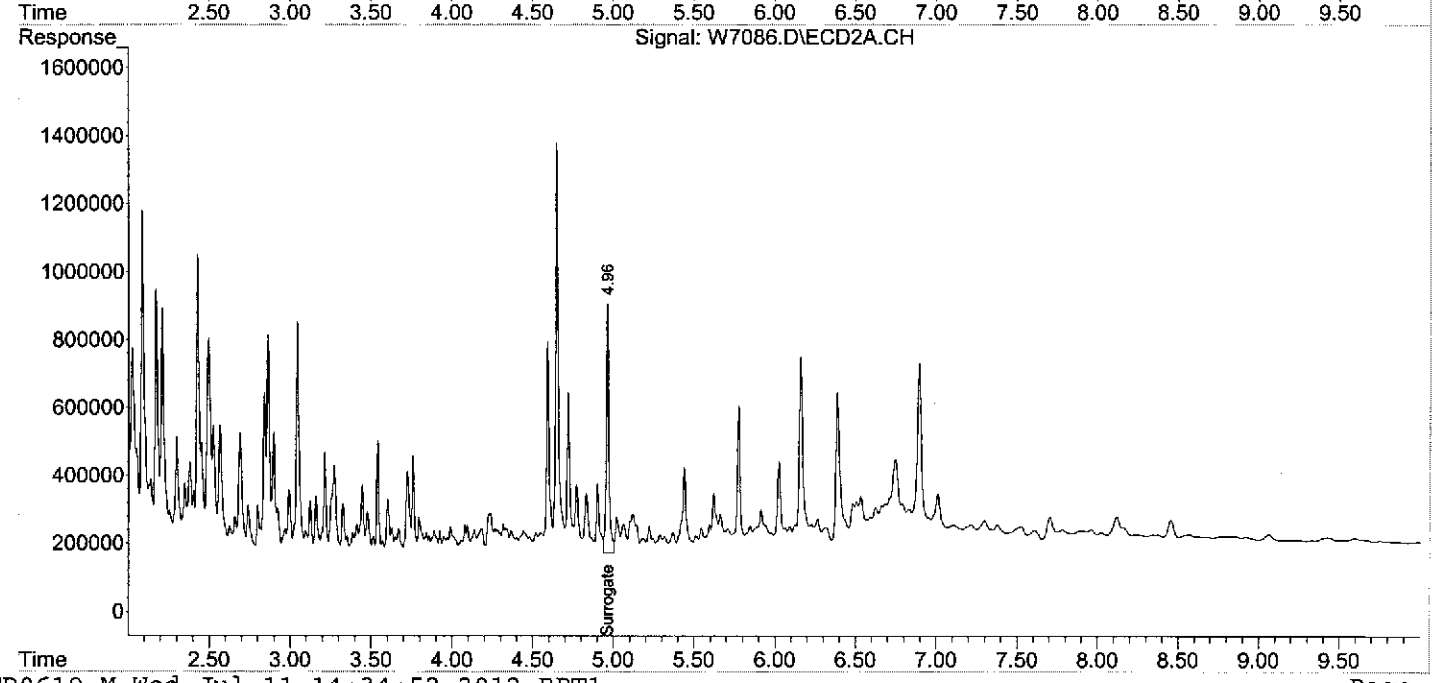
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : W7086.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 17:57
Operator : YG
Sample : A6-062912-,06546-001,A,1000ml,100,07/03/12,1
Misc : 120703-02,06/29/12,06/29/12,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 11 14:23:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKA291206-08
Client ID: Herb
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 07/02/2012
Data file: W7040.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKA120703-02
Client ID: Herb
Date Received: NA
Date Extracted: 07/03/2012
Date Analyzed: 07/04/2012
Data file: W7055.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7055.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 12:26
Operator : YG
Sample : Herb,BLKA120703-02,A,1000ml,100,07/03/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:00:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	133.0E6	18637542	63.818	72.439
Spiked Amount 100.000			Recovery	=	63.82%	72.44%

Target Compounds

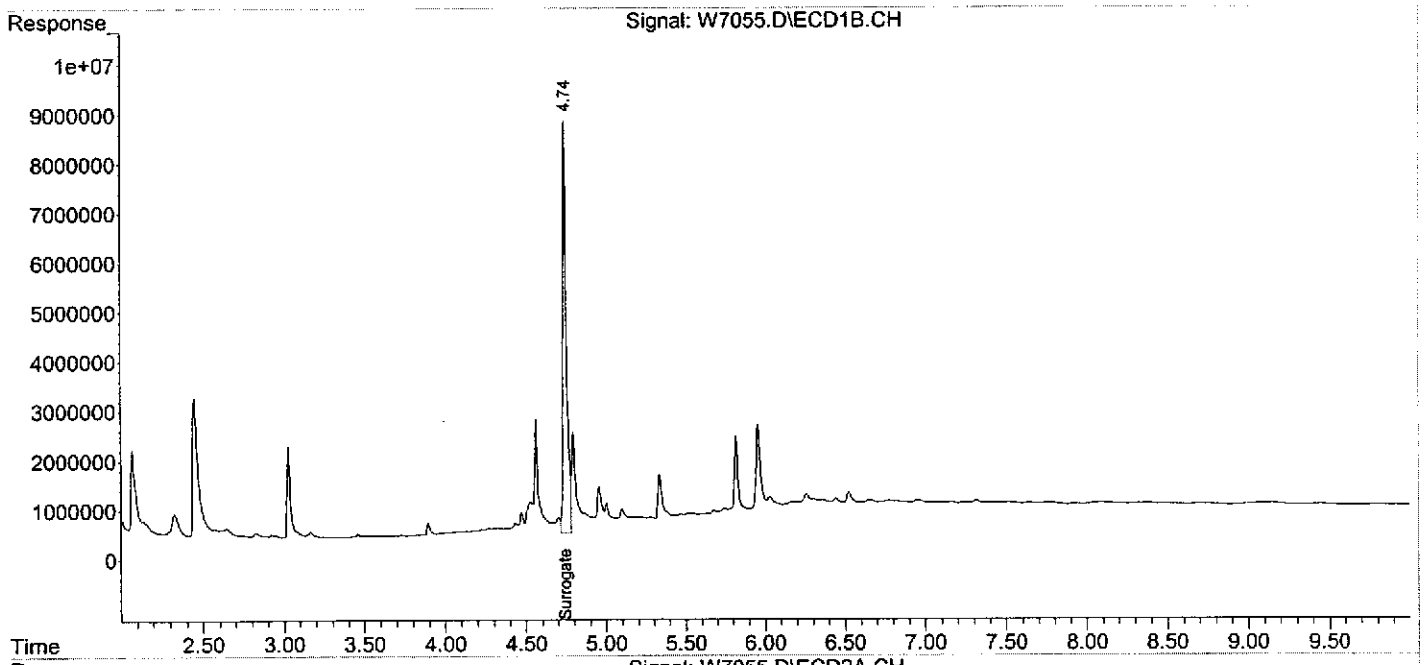
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

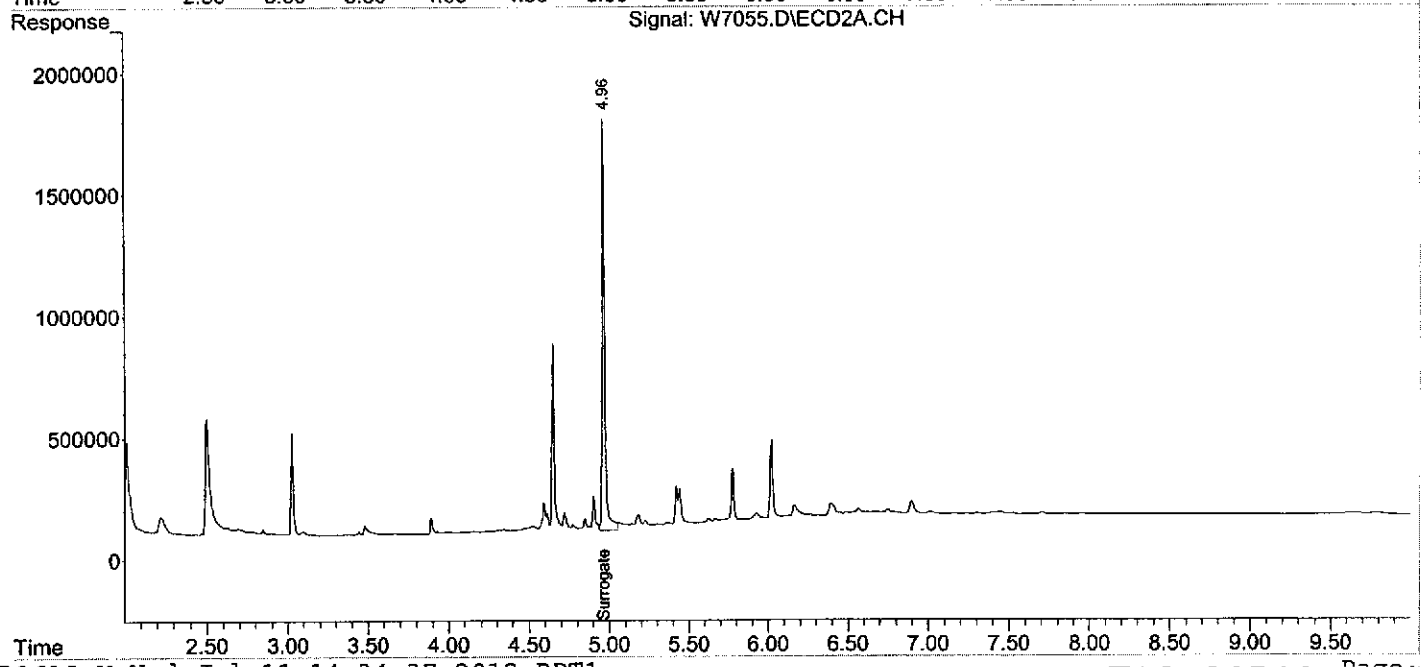
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-04-12\
Data File : W7055.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 04 Jul 2012 12:26
Operator : YG
Sample : Herb,BLKA120703-02,A,1000ml,100,07/03/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 09 13:00:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





METALS

METALS QC SUMMARY

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 279
SDG #: 06546, 05867, 06564, 06607, 06212, 06440, 06422, 06440, 06422, 06556

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	50.8	102	49.6	99.2	45.1	90.2	50.3	101
Antimony	0.250	50.0	46.9	93.8	47.1	94.2	46.8	93.6	45.9	91.8
Arsenic	0.250	50.0	49.3	98.6	46.9	93.8	46.6	93.2	50.3	101
Barium	2.50	50.0	45.2	90.4	45.9	91.8	45.2	90.4	50.0	100
Beryllium	0.250	50.0	45.7	91.4	45.2	90.4	45.7	91.4	45.0	90.0
Cadmium	0.125	50.0	50.6	101	45.6	91.2	50.8	102	50.8	102
Calcium	25.0	500	489	97.8	464	92.8	469	93.8	506	101
Chromium	0.500	50.0	49.5	99.0	47.8	95.6	48.3	96.6	45.6	91.2
Cobalt	0.500	50.0	50.8	102	48.0	96.0	48.2	96.4	45.1	90.2
Copper	1.00	50.0	49.5	99.0	47.0	94.0	46.6	93.2	50.1	100
Iron	12.5	500	508	102	507	101	506	101	469	93.8
Lead	0.125	50.0	45.4	90.8	45.4	90.8	45.1	90.2	45.2	90.4
Magnesium	12.5	500	499	99.8	486	97.2	494	98.8	453	90.6
Manganese	0.500	50.0	49.3	98.6	46.6	93.2	47.6	95.2	51.2	102
Nickel	0.250	50.0	49.8	99.6	46.6	93.2	46.8	93.6	49.8	99.6
Potassium	12.5	500	508	102	481	96.2	481	96.2	450	90.0
Selenium	1.00	50.0	49.5	99.0	51.2	102	47.0	94.0	49.7	99.4
Silver	0.125	10.0	9.35	93.5	9.19	91.9	9.07	90.7	9.02	90.2
Sodium	25.0	500	517	103	495	99.0	502	100	461	92.2
Thallium	0.125	50.0	45.7	91.4	45.7	91.4	46.4	92.8	45.4	90.8
Vanadium	0.500	50.0	52.1	104	47.0	94.0	47.3	94.6	50.7	101
Zinc	1.00	50.0	50.0	100	47.4	94.8	46.9	93.8	50.7	101

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 279
SDG #: 06546, 05867, 06564, 06607, 06212, 06440, 06422, 06440, 06422, 06556

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	FOUND	% R
Aluminum	5.00	50.0	50.9	102	49.5	99.0	49.2	98.4		
Antimony	0.250	50.0	46.4	92.8	47.0	94.0	47.3	94.6		
Arsenic	0.250	50.0	50.9	102	50.7	101	50.5	101		
Barium	2.50	50.0	51.4	103	52.1	104	52.2	104		
Beryllium	0.250	50.0	46.0	92.0	46.6	93.2	46.6	93.2		
Cadmium	0.125	50.0	50.9	102	51.3	103	51.7	103		
Calcium	25.0	500	519	104	499	99.8	510	102		
Chromium	0.500	50.0	45.6	91.2	51.1	102	52.0	104		
Cobalt	0.500	50.0	45.7	91.4	50.7	101	51.3	103		
Copper	1.00	50.0	50.6	101	48.9	97.8	49.5	99.0		
Iron	12.5	500	465	93.0	455	91.0	459	91.8		
Lead	0.125	50.0	45.6	91.2	46.1	92.2	45.7	91.4		
Magnesium	12.5	500	463	92.6	520	104	516	103		
Manganese	0.500	50.0	51.4	103	50.4	101	51.0	102		
Nickel	0.250	50.0	50.3	101	49.1	98.2	49.6	99.2		
Potassium	12.5	500	467	93.4	452	90.4	453	90.6		
Selenium	1.00	50.0	49.5	99.0	48.4	96.8	50.3	101		
Silver	0.125	10.0	9.22	92.2	9.30	93.0	9.33	93.3		
Sodium	25.0	500	472	94.4	452	90.4	456	91.2		
Thallium	0.125	50.0	46.9	93.8	46.7	93.4	46.7	93.4		
Vanadium	0.500	50.0	51.1	102	49.9	99.8	51.0	102		
Zinc	1.00	50.0	50.5	101	50.4	101	50.9	102		

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 279
SDG #: 06546, 05867, 06564, 06607, 06212, 06440, 06422, 06440, 06422, 06556

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	5.00	ND	ND	ND	ND	ND	ND
Antimony	0.250	ND	ND	ND	ND	ND	ND
Arsenic	0.250	ND	ND	ND	ND	ND	ND
Barium	2.50	ND	ND	ND	ND	ND	ND
Beryllium	0.250	ND	ND	ND	ND	ND	ND
Cadmium	0.125	ND	ND	ND	ND	ND	ND
Calcium	25.0	ND	ND	ND	ND	ND	ND
Chromium	0.500	ND	ND	ND	ND	ND	ND
Cobalt	0.500	ND	ND	ND	ND	ND	ND
Copper	1.00	ND	ND	ND	ND	ND	ND
Iron	12.5	ND	ND	ND	ND	ND	ND
Lead	0.125	ND	ND	ND	ND	ND	ND
Magnesium	12.5	ND	ND	ND	ND	ND	ND
Manganese	0.500	ND	ND	ND	ND	ND	ND
Mercury	0.150	ND	ND	ND			
Nickel	0.250	ND	ND	ND	ND	ND	ND
Potassium	12.5	ND	ND	ND	ND	ND	ND
Selenium	1.00	ND	ND	ND	ND	ND	ND
Silver	0.125	ND	ND	ND	ND	ND	ND
Sodium	25.0	ND	ND	ND	ND	ND	ND
Thallium	0.125	ND	ND	ND	ND	ND	ND
Vanadium	0.500	ND	ND	ND	ND	ND	ND
Zinc	1.00	ND	ND	ND	ND	ND	ND

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 279
SDG #: 06546, 05867, 06564, 06607, 06212, 06440, 06422, 06440, 06422, 06556

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	CCB					
Aluminum	5.00	ND					
Antimony	0.250	ND					
Arsenic	0.250	ND					
Barium	2.50	ND					
Beryllium	0.250	ND					
Cadmium	0.125	ND					
Calcium	25.0	ND					
Chromium	0.500	ND					
Cobalt	0.500	ND					
Copper	1.00	ND					
Iron	12.5	ND					
Lead	0.125	ND					
Magnesium	12.5	ND					
Manganese	0.500	ND					
Nickel	0.250	ND					
Potassium	12.5	ND					
Selenium	1.00	ND					
Silver	0.125	ND					
Sodium	25.0	ND					
Thallium	0.125	ND					
Vanadium	0.500	ND					
Zinc	1.00	ND					

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 279
Associated Lab Case for Blank 1: 05867, 06212, 06546, 06564, 06607

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	20.0	ND
Antimony	1.00	ND
Arsenic	1.00	ND
Barium	10.0	ND
Beryllium	1.00	ND
Cadmium	0.500	ND
Calcium	100	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	4.00	ND
Iron	50.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	2.00	ND
Mercury	0.300	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	4.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.500	ND
Vanadium	2.00	ND
Zinc	4.00	ND

Associated Sample for Blank 1:
05867-001~003; 06212-001~007,009,011,013,016~017,019
06212-021; 06546-003~004; 06564-001~003; 06607-007~008

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 279
SDG #: 06546, 05867, 06564, 06607, 06212, 06440, 06422, 06440, 06422, 06556

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	80400	78200	78.2	NA
Iron	100000	-	85200	83300	83.3	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2140	2130	107	NA
Titanium	2000	-	1720	1680	84.0	NA
Silver	-	20.0	-	20.6	103	80-120
Arsenic	-	20.0	-	18.3	91.5	80-120
Cadmium	-	20.0	-	19.1	95.5	80-120
Cobalt	-	20.0	-	16.4	82.0	80-120
Chromium	-	20.0	-	17.2	86.0	80-120
Copper	-	20.0	-	22	111.0	80-120
Manganese	-	20.0	-	16.8	84.0	80-120
Nickel	-	20.0	-	22	108	80-120
Zinc	-	20.0	-	18.3	91.5	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 279
SDG #: 05867, 06212, 06546, 06564, 06607, 06422, 06440, 06556

Matrix: Aqueous Unit: ppb (µg/L)

ANALYTE	BSW1			BSW2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	400	402	101			
Antimony	400	363	90.8			
Arsenic	400	367	91.8			
Barium	400	355	88.8			
Beryllium	400	370	92.5			
Cadmium	400	357	89.3			
Calcium	8000	7130	89.1			
Chromium	400	371	92.8			
Cobalt	400	365	91.3			
Copper	400	358	89.5	400	350	87.5
Iron	8000	7330	91.6	8000	7080	88.5
Lead	400	365	91.3	400	398	99.5
Magnesium	8000	7050	88.1			
Manganese	400	367	91.8			
Mercury	10.0	11.2	112			
Nickel	400	364	91.0			
Potassium	8000	7020	87.8			
Selenium	400	365	91.3			
Silver	400	364	91.0			
Sodium	8000	7130	89.1			
Thallium	400	360	90.0			
Vanadium	400	369	92.3			
Zinc	400	366	91.5			

(1) Control Limits % Recovery = 85-115%

BSW1
05867-001~003; 06212-001~007,009,011,013,016~017,019
6212-021; 06546-003~004; 06564-001~003; 06607-007~008

BSW2
06422-001~008; 06440-001~006; 06556-001~002

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 279
SDG #: 05867, 06212, 06546, 06564, 06607, 06422, 06440, 06556

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	390	81.9	77.0	400					75-125
Antimony	374	ND	93.5	400					75-125
Arsenic	339	1.43	84.4	400					75-125
Barium	409	50.0	89.8	400					75-125
Beryllium	373	ND	93.3	400					75-125
Cadmium	355	ND	88.8	400					75-125
Calcium	24100	15900	103	8000					75-125
Chromium	331	ND	82.8	400					75-125
Cobalt	329	ND	82.3	400					75-125
Copper	325	ND	81.3	400	414	15.0	99.8	400	75-125
Iron	7720	1400	79.0	8000	12500	4590	98.9	8000	75-125
Lead	368	ND	92.0	400	377	2.81	93.5	400	75-125
Magnesium	11400	3240	102	8000					75-125
Manganese	437	113	81.0	400					75-125
Mercury	10.6	ND	106	10.0					75-125
Nickel	327	ND	81.8	400					75-125
Potassium	9630	3480	76.9	8000					75-125
Selenium	330	ND	82.5	400					75-125
Silver	364	ND	91.0	400					75-125
Sodium	35300	26000	116	8000					75-125
Thallium	364	ND	91.0	400					75-125
Vanadium	336	ND	84.0	400					75-125
Zinc	346	11.0	83.8	400					75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 06546-003
QC Sample 1 for following samples:
05867-001~003; 06212-001~007,009,011,013,016~017,019
06212-021; 06546-003~004; 06564-001~003; 06607-007~008

QC Sample 2 06440-001
QC Sample 2 for following samples:
06422-001~008; 06440-001~006; 06556-001~002

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 279
SDG #: 05867, 06212, 06546, 06564, 06607, 06422, 06440, 06556

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	81.9	75.8	7.74				
Antimony	NA	ND	ND	NC				
Arsenic	20	1.43	1.37	4.29				
Barium	20	50.0	49.0	2.02				
Beryllium	NA	ND	ND	NC				
Cadmium	NA	ND	ND	NC				
Calcium	20	15900	15500	2.55				
Chromium	NA	ND	ND	NC				
Cobalt	NA	ND	ND	NC				
Copper	NA	ND	ND	NC	20	15.0	14.0	6.90
Iron	20	1400	1370	2.17	20	4590	4190	9.11
Lead	NA	ND	ND	NC	20	2.81	2.56	9.31
Magnesium	20	3240	3180	1.87				
Manganese	20	113	111	1.79				
Mercury	NA	ND	ND	NC				
Nickel	NA	ND	ND	NC				
Potassium	20	3480	3500	0.573				
Selenium	NA	ND	ND	NC				
Silver	NA	ND	ND	NC				
Sodium	20	26000	25100	3.52				
Thallium	NA	ND	ND	NC				
Vanadium	NA	ND	ND	NC				
Zinc	20	11.0	9.57	13.9				

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 06546-003
QC Sample 1 for following samples:
05867-001~003; 06212-001~007,009,011,013,016~017,019
06212-021; 06546-003~004; 06564-001~003; 06607-007~008

QC Sample 2 06440-001
QC Sample 2 for following samples:
06422-001~008; 06440-001~006; 06556-001~002

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 279
SDG #: 05867, 06212, 06546, 06564, 06607

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	81.9			409	400	81.8
Antimony	ND			373	400	93.3
Arsenic	1.43			350	400	87.1
Barium	50.0			410	400	90.0
Beryllium	ND			378	400	94.5
Cadmium	ND			348	400	87.0
Calcium	15900	15500	2.55			
Chromium	ND			344	400	86.0
Cobalt	ND			341	400	85.3
Copper	ND			338	400	84.5
Iron	1400	1400	0			
Lead	ND			364	400	91.0
Magnesium	3240	3090	4.74			
Manganese	113	110	2.69			
Nickel	ND			338	400	84.5
Potassium	3480	3550	1.99			
Selenium	ND			343	400	85.8
Silver	ND			366	400	91.5
Sodium	26000	25500	1.94			
Thallium	ND			363	400	90.8
Vanadium	ND			348	400	87.0
Zinc	11.0			357	400	86.5

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 06546-003
QC Sample 1 for following samples:
05867-001~003; 06212-001~007,009,011,013,016~017,019
06212-021; 06546-003~004; 06564-001~003; 06607-007~008

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG279
July 6, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1763575**	**120594**	**403765**	**2464720**	**4357860**	**2818456**	
	Sample Lower Limit	**529072**	**36178**	**121130**	**739416**	**1307358**	**845537**	
	QC Lower Limit	**1234502**	**84416**	**282636**	**1725304**	**3050502**	**1972919**	
	Sample & QC Upper Limit	**2116290**	**144713**	**484518**	**2957664**	**5229432**	**3382147**	
003CALS.D	STD1	1744845	121813	398308	2431810	4251022	2746343	
004CALS.D	STD2	1725067	118560	383333	2380912	4148105	2642870	
005CALS.D	STD3	1748859	118724	399184	2413503	4200642	2690848	
006CALS.D	STD4	1679429	118289	386069	2334295	4112039	2617439	
008_ICV.D	ICV	1460907	115749	379993	2303098	3900157	2453954	
009_ICB.D	ICB	1460490	115321	377538	2285918	3884360	2432686	
010SMPL.D	BMW1	1492045	118519	384185	2321365	3969524	2461931	
011SMPL.D	BSW1	1463896	112614	381318	2308873	4030762	2530019	
012SMPL.D	06546-003	1550850	116076	391899	2317158	4040026	2504530	
013SMPL.D	06546-003R	1562731	116377	391149	2281717	4049220	2498214	
014SMPL.D	06546-003SD	1535186	118465	385377	2302752	3924064	2479684	
015SMPL.D	06546-003RS	1511935	122277	377439	2211205	3910167	2392580	
016SMPL.D	06546-003PS	1525727	121184	389331	2276044	3896442	2411691	
017SMPL.D	06546-004	1512683	113311	387397	2228630	3839466	2331932	
0186CCV.D	CCV	1518439	112843	381033	2337440	3939696	2474676	
0196CCB.D	CCB	1520480	118827	388090	2342780	3977935	2457476	
020SMPL.D	05867-002	1549735	119179	392131	2303909	3973408	2464752	
021SMPL.D	05867-003	1557566	114564	387700	2290294	3879067	2425149	
022SMPL.D	06607-007	1497710	118247	395880	2283674	4033717	2423403	
023SMPL.D	06607-008	1457333	118603	394720	2243481	3919633	2293238	
024SMPL.D	06212-001	1543533	121913	395848	2361210	3985409	2429913	
025SMPL.D	06212-002	1495800	126034	393453	2338064	3961516	2432163	
026SMPL.D	06212-003	1496938	119756	391605	2321911	3879741	2373851	
027SMPL.D	06212-004	1531223	120556	402013	2394812	4148984	2492258	
028SMPL.D	06212-005	1521341	122566	391611	2325453	3976917	2427060	
029SMPL.D	06212-006	1527355	117498	387724	2311323	3855450	2401732	
0306CCV.D	CCV	1468399	112890	384227	2366095	3962509	2470026	
0316CCB.D	CCB	1460135	115502	393210	2382930	3990091	2457277	
032SMPL.D	06212-007	1574602	115731	400389	2362716	4142689	2515410	
033SMPL.D	06212-009	1553548	121512	388672	2352443	4018919	2472647	
034SMPL.D	06212-011	1508256	119478	380192	2245146	3899043	2405726	
035SMPL.D	06212-013	1526612	117518	388241	2324589	4025537	2418447	
036SMPL.D	06212-016	1475403	120944	382550	2273184	3939590	2425418	
037SMPL.D	06212-017	1458636	114064	368941	2214233	3822885	2351148	
038SMPL.D	06212-019	1520581	113431	390275	2316646	3993362	2435058	
039SMPL.D	06212-021	1417116	115876	362218	2121684	3676142	2257817	
040SMPL.D	BMW2	1401022	114295	367962	2209492	3759211	2295906	
041SMPL.D	BSW2	1381126	115251	355728	2123438	3699858	2279651	
0426CCV.D	CCV	1472833	115253	378378	2323638	4025328	2501101	
0436CCB.D	CCB	1442942	115059	371611	2275386	3896273	2416860	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG279
July 6, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1763575**	**120594**	**403765**	**2464720**	**4357860**	**2818456**	
	Sample Lower Limit	**529072**	**36178**	**121130**	**739416**	**1307358**	**845537**	
	QC Lower Limit	**1234502**	**84416**	**282636**	**1725304**	**3050502**	**1972919**	
	Sample & QC Upper Limit	**2116290**	**144713**	**484518**	**2957664**	**5229432**	**3382147**	
044SMPL.D	06440-001	1433007	117500	376464	2170275	3861760	2349502	
045SMPL.D	06440-001R	1471334	117955	381823	2208667	3861249	2379952	
046SMPL.D	06440-001SD	1462807	114444	383968	2272455	3956637	2421443	
047SMPL.D	06440-001RS	1422832	74421	373821	2163710	3824630	2296916	
048SMPL.D	06440-001PS	1515919	115467	393628	2275617	4047787	2425422	
049SMPL.D	06422-008 FB	1436056	114361	378134	2293022	3867544	2378802	
050SMPL.D	06440-002	1444898	115704	378912	2174329	3830290	2271349	
051SMPL.D	06440-003	1454398	118297	385164	2231209	3898543	2354167	
052SMPL.D	06440-004	1430088	116205	382827	2205434	3874771	2290270	
053SMPL.D	06440-005	1462221	116059	380132	2231270	3814912	2271861	
0546CCV.D	CCV	1440491	114845	375504	2322447	3908903	2371764	
0556CCB.D	CCB	1428573	115208	378215	2308669	3846305	2353270	
056SMPL.D	06440-006	1442548	117979	385930	2210975	3916880	2365932	
057SMPL.D	06422-001	1441915	111909	390512	2256373	3946675	2354308	
058SMPL.D	06422-002	1444506	117957	385488	2228298	3816613	2303264	
059SMPL.D	06422-003	1442348	117550	383414	2250449	3902211	2278676	
060SMPL.D	06422-004	1414359	116975	388812	2271983	3850669	2289009	
061SMPL.D	06422-005	1439674	117613	383785	2272716	3873751	2299351	
062SMPL.D	06422-006	1420954	118960	379851	2253136	3786378	2327317	
063SMPL.D	06422-007	1400895	115992	381030	2217784	3859301	2281414	
064SMPL.D	06556-001	1395889	107469	376344	2311373	3848972	2311401	
065SMPL.D	06556-002	1426474	118352	383378	2333260	3948445	2383858	
0666CCV.D	CCV	1369025	116522	372796	2280768	3851059	2344602	
0676CCB.D	CCB	1385223	115324	378133	2305337	3850898	2346443	
0686CCV.D	FINAL CCV	1382681	115428	374207	2293341	3876756	2396274	
0696CCB.D	FINAL CCB	1387663	113810	375383	2302131	3826572	2398708	
070ICSA.D	ICSA	933362	106156	348279	1794190	3203336	1745313	
071ICSB.D	ICSAB	921128	105539	350562	1790282	3184392	1699842	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

GENERAL ANALYTICAL CHEMISTRY

GENERAL ANALYTICAL CHEMISTRY QC SUMMARY

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

TPHC

Matrix: Aqueous
Unit: mg/L

Batch: AP040-0055
Method: 418.1M

Date: 07/03/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	TBW-001-0705	< 0.500	NA	NA	NA	NA	NA
LCS	LCW-001-0705	3.98	4	NA	NA	99.5	90-110
MS	TBW-001S-0705	3.98	4	NA	NA	99.5	75-125
MSD	TBW-001SD-0705	4.04	4	1.5	NA	101	75-125

The above blank result applies to the follow samples:

E12-06385-003
E12-06385-005
E12-06466-009
E12-06466-010
E12-06466-011
E12-06466-012
E12-06546-001
E12-06546-002

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

SAMPLE TRACKING

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Integrated Analytical Laboratories LLC

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO	REPORTING INFO
Company: URS Corp	REPORT TO: URS
Address: 335 Commerce Dr	Address: 335 Commerce Dr
Fort Washington, PA	Fort Washington, PA
Telephone #: (215) 367-2500	Attn: George Keil / Neil Laird
Fax #: (215) 367-1000	FAX #
Project Manager: George Keil	INVOICE TO: URS
EMAIL Address: George.keil@URS.com	Address: 335 Commerce Dr
Sampler: N. Laird / J. Ramos	Fort Washington, PA
Project Name: Tradebe	
Project Location (State): Vineland, NJ	Attn: George Keil
Bottle Order #:	PO #
Quote # :	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) — NJ EPH Fractionated (5 day TAT)
NJ EPH - C40 (5 day TAT)
DRO-8015 (3-5 day TAT) — QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified
24 hr** 48 hr** 72 hr** 96 hr** 1 wk**
Other** (specify):

Hard Copy: Std 3 week * — Other - call for price

Rush TAT Charge **: 24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only — Reduced — Regulatory - 15% Surcharge applies — Other (describe)

EDDs: SRP format — lab approved custom EDD — NO EDD/CD REQ'D

Cooler Temp 4 °C

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS / # BOTTLES & PRESERVATIVES

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	VOC	SVOC	METALS*	TPH	PESTICIDES	HERBICIDES	PAH				HCL	HNO3	MeOH	Other	None	Encore
AG-062912-WATER		6/29/12	~~AQ~~ 1030	AQ	10	1	X	X	X	X	X	X			~~2~~ 3	4					6	
EI-062912-WATER		6/29/12	1245	AQ	5	2			X	X			X		3	4	2				3	

Known Hazard: Yes or No Describe: — Conc. Expected: Low Med High — MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): ____ IAL Courier ____ Client Courier ____ FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: Neil Laird / URS	6/29/12	1640	Received by:	6/29/12	1640
Relinquished by:	6-29-12	2040	Received by:	6/29/12	2040
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments: *METALS COLLECTED IN UNPRESERVED BOTTLES - FILTER BEFORE ANALYSIS

Lab Case # 06546

PAGE: 1 of 1

WHITE COPY

B COPIES - WHITE & YELLOW; CLIENT COPY - PINK

10 REV COC

10/2010 rev

PROJECT INFORMATION

E12-06546

Case No. E12-06546 **Project** TRADEBE - VENDOR #1168636

Customer URS Corporation - Ft. Washington

Contact George Keil

EMail George_Keil@URSCorp.com ☑ EMail EDDs

Phone (215) 367-2500 **Fax** 1(215) 367-1000

Report To

335 Commerce Dr.

Suite 300

Fort Washington, PA 19034

Attn: George Keil

P.O. # GEORGE KEIL

Received 6/29/2012 20:40

Verbal Due 7/17/2012

Report Due 7/24/2012

Bill To

PO Box 203970

Austin, TX 78720

Attn: George Keil

Report Format **Reduced**

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
06546-001	A6-062912-WATER	n/a	6/29/2012@10:30	Aqueous	ug/L	10
06546-002	E1-062912-WATER	n/a	6/29/2012@12:45	Aqueous	ug/L	5
06546-003	A6-062912-WATER FILT.	n/a	6/29/2012@10:30	Aqueous	ug/L	1
06546-004	E1-062912-WATER FILT.	n/a	6/29/2012@12:45	Aqueous	ug/L	1

Sample #	Tests	Status	QA Method
001	TCL VO + 15	Complete	8260B
"	VO Project Revision	Complete	624
"	TCL BNA + 15	Complete	8270C
"	Herbicides	Complete	8151A
"	TCL Pesticides	Complete	8081A
"	Metals Filtration	Complete	
"	TPHC	Complete	418.1
002	TCL/PAH	Complete	8270C
"	Metals Filtration	Complete	
"	TPHC	Complete	418.1
003	TAL Metals	Complete	6020/7470A
004	TAL Metals	Complete	6020/7470A

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 12** **06546** CLIENT: ORS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = **YES/NA**
✗ = **NO**

✓ Bottles Intact
✓ no-Missing Bottles
✓ no-Extra Bottles

✓ Sufficient Sample Volume
✓ no-headspace/bubbles in VOs
✓ Labels intact/correct
✓ pH Check (exclude VOs)[1]
✓ Correct bottles/preservative
✓ Sufficient Holding/Prep Time[1]
[ ] Sample to be Subcontracted
✓ **Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 6/29/12

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 7-3-12

REV 03/2009

Laboratory Custody Chronicle

IAL Case No.

E12-06546

Client URS Corporation - Ft. Washington

Project TRADEBE - VENDOR #1168636

Received On 6/29/2012@20:40

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	06546-001	Aqueous	n/a	n/a	7/10/12	Xing

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BNA + 15	-001	Aqueous	n/a	n/a	7/ 6/12	JC
TCL/PAH	-002	Aqueous	n/a	n/a	7/ 6/12	JC

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Herbicides	-001	Aqueous	7/ 3/12	Archimede	7/10/12	Julia
TCL Pesticides	-001	Aqueous	7/ 6/12	Archimede	7/ 9/12	Iwona

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TAL Metals	-003	Aqueous	7/ 5/12	Lisa	7/ 6/12	RPittenger
"	-004	"	7/ 5/12	Lisa	7/ 6/12	RPittenger

Department: Wet Chemistry			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TPHC	-001	Aqueous	n/a	n/a	7/ 3/12	Elma
"	-002	"	n/a	n/a	7/ 3/12	Elma

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Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

URS Corporation - Ft. Washington
335 Commerce Dr.
Suite 300
Fort Washington, PA 19034

Project Name: **TRADEBE - VINELAND NJ - VENDOR #1168636**
IAL Case Number: **E12-06640**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E12-06640

Client URS Corporation - Ft. Washington

Project TRADEBE - VINELAND NJ - VENDOR #1168636

Received On 7/ 3/2012@17:19

Lab ID	Client Sample ID	Depth Top/Bottom	Sampling Time	Matrix	# of Container
06640-001	H1 (11-12)-070212	11/12	7/ 2/2012@09:40	Soil	1
06640-002	H2 (9.5-10.5)-070212	9.5/10.5	7/ 2/2012	Soil	1
06640-003	H3 (9-10)-070212	9/10	7/ 2/2012@09:50	Soil	1
06640-004	E2 (11-12)-070212	11/12	7/ 2/2012@10:55	Soil	1
06640-005	E3 (7-8)-070212	7/8	7/ 2/2012@11:15	Soil	1
06640-006	I4 (9-10)-070212	9/10	7/ 2/2012@11:45	Soil	2
06640-007	K1 (9-10)-070212	9/10	7/ 2/2012@12:25	Soil	4
06640-008	J1 (9-10)-070212	9/10	7/ 2/2012@13:15	Soil	1
06640-009	J2 (9-10)-070212	9/10	7/ 2/2012@13:25	Soil	1

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received nine (9) soil sample(s) from URS Corporation - Ft. Washington (IAL SDG # E12-06640, Project: TRADEBE - VINELAND NJ - VENDOR #1168636) on July 3, 2012 for the analysis of:

(1) TCL VO + 15
(3) TCL BNA + 15
(6) TCL/PAH
(3) TCL PCB
(1) TCL Pesticides
(1) Herbicides
(7) NJ-EPH-Fractionated
(9) TAL Metals

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

7/19/12
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06640

Volatiles By 8260B

Batch ID: 120708

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate met criteria.

E12-06640
- Analysis holding time met requirement for each sample.

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06640

Semivolatiles By **8270C/625**

Batch ID: 120713-02	**Matrix:** Soil

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E12-06640
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S

Lab Case Number: E12 - 06640

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07-16-12
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PESTICIDES

Lab Case Number: E12 - 06640

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2. Standards Summary submitted.		✓
3. Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5. Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6. Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range)	✓	
7. Retention Time Shift Meet Criteria (if applicable).		✓
8. Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9. Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

6. OB, MSD failed criteria due to matrix interference

Comments:

Organic Manager

07/16/12
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - HERBICIDES

Lab Case Number: E12 - 06640

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range: MS, MSD failed criteria due to matrix interference	✓	
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/13/12
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - NJ EPH - FRACTIONATED

Lab Case Number: E12 - 6640

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days prior to sample analysis and continuing calibration performed within 24 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike (MS)/Matrix Spike Duplicate (MSD) (as needed) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7a.	Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) meet criteria. If not, list those compounds and their recovery/% differences which fall outside the acceptable range:		✓
7b.	n-Nonane LCS/LCSD % Recoveries were found to be less than 40% but within the acceptance range of 25 - 140%.	✓	
8.	Retention Time Shift Meets Criteria (if applicable).		✓
9.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
10.	Fractionation Holding Time Met. If not met, list number of days exceeded for each sample:		✓
11.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/15/2011
Date

E12-06640 0009

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06640

METAL By Method 6020

Matrix: SOIL	Batch ID: 282A

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06640
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VINELAND NJ - VENDOR #1168636
Lab Case No.: E12-06640

Lab ID:	06640-001			06640-002			06640-003			06640-004		
Client ID:	H1 (11-12)-070212			H2 (9.5-10.5)-070212			H3 (9-10)-070212			E2 (11-12)-070212		
Depth:	11/12			9.5/10.5			9/10			11/12		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Naphthalene	ND		0.011	0.932		0.011	ND		0.011	ND		0.011
2-Methylnaphthalene	ND		0.017	0.329		0.017	ND		0.016	ND		0.016
Acenaphthylene	ND		0.016	0.072		0.016	ND		0.015	ND		0.016
Acenaphthene	ND		0.012	0.342		0.011	ND		0.011	ND		0.011
Fluorene	ND		0.012	0.324		0.012	ND		0.011	ND		0.011
Phenanthrene	ND		0.012	1.56		0.012	ND		0.011	ND		0.011
Anthracene	ND		0.017	0.688		0.016	ND		0.016	ND		0.016
Fluoranthene	ND		0.014	1.35		0.014	ND		0.014	ND		0.014
Pyrene	ND		0.013	1.26		0.013	ND		0.012	ND		0.012
Benzo[a]anthracene	ND		0.018	1.03		0.017	ND		0.016	ND		0.017
Chrysene	ND		0.015	1.13		0.015	ND		0.014	ND		0.014
Benzo[b]fluoranthene	ND		0.020	0.873		0.020	ND		0.019	ND		0.019
Benzo[k]fluoranthene	ND		0.021	0.839		0.020	ND		0.020	ND		0.020
Benzo[a]pyrene	ND		0.018	1.23		0.017	ND		0.016	ND		0.017
Indeno[1,2,3-cd]pyrene	ND		0.012	0.662		0.011	ND		0.011	ND		0.011
Dibenz[a,h]anthracene	ND		0.012	0.274		0.012	ND		0.012	ND		0.012
Benzo[g,h,i]perylene	ND		0.017	0.741		0.016	ND		0.016	ND		0.016
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	ND		2.29	ND		2.35	ND		2.27	ND		2.27
C12-C16 Aliphatics	ND		2.29	10.5		2.35	ND		2.27	ND		2.27
C16-C21 Aliphatics	ND		2.29	16.5		2.35	ND		2.27	ND		2.27
C21-C40 Aliphatics	ND		11.4	126		11.7	ND		11.3	ND		11.4
Total Aliphatics	0		11.4	153		11.7	0		11.3	0		11.4
C10-C12 Aromatics	ND		4.57	ND		4.69	ND		4.53	ND		4.55
C12-C16 Aromatics	ND		4.57	12.2	J	4.69	ND		4.53	ND		4.55
C16-C21 Aromatics	ND		4.57	50.5		4.69	ND		4.53	ND		4.55
C21-C36 Aromatics	ND		9.14	182		9.38	ND		9.06	ND		9.09
Total Aromatics	0		9.14	245		9.38	0		9.06	0		9.09
Total NJ-EPH	0		11.4	398		11.7	0		11.3	0		11.4

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VINELAND NJ - VENDOR #1168636
Lab Case No.: E12-06640

Lab ID:	06640-001			06640-002			06640-003			06640-004		
Client ID:	H1 (11-12)-070212			H2 (9.5-10.5)-070212			H3 (9-10)-070212			E2 (11-12)-070212		
Depth:	11/12			9.5/10.5			9/10			11/12		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	940		6.44	8780		6.58	1360		5.89	722		5.89
Antimony	ND		0.322	0.568	J	0.329	ND		0.294	ND		0.295
Arsenic	ND		0.322	11.1		0.329	0.522	J	0.294	ND		0.295
Barium	3.79	J	3.22	289		3.29	12.4		2.94	3.15	J	2.95
Beryllium	ND		0.257	2.90		0.263	ND		0.235	ND		0.236
Cadmium	ND		0.161	0.711		0.165	ND		0.147	ND		0.147
Calcium	101		32.2	23700		32.9	670		29.4	38.2	J	29.5
Chromium	2.16	J	0.644	32.3		0.658	2.91		0.589	1.63	J	0.589
Cobalt	ND		0.644	13.9		0.658	0.794	J	0.589	ND		0.589
Copper	1.74	J	0.644	182		0.658	6.32		0.589	1.44	J	0.589
Iron	865		16.1	21600		16.5	1880		14.7	481		14.7
Lead	1.07		0.161	294		0.165	9.57		0.147	1.37		0.147
Magnesium	93.9		16.1	4000		16.5	206		14.7	57.6	J	14.7
Manganese	5.74		0.322	361		0.329	15.4		0.294	2.76		0.295
Mercury	ND		0.00712	0.164		0.00714	ND		0.00652	ND		0.00645
Nickel	1.39		0.644	222		0.658	7.34		0.589	1.21		0.589
Potassium	59.9	J	16.1	1880		16.5	130		14.7	49.3	J	14.7
Selenium	ND		1.29	ND		1.32	ND		1.18	ND		1.18
Silver	ND		0.161	0.359	J	0.165	ND		0.147	ND		0.147
Sodium	ND		32.2	1190		32.9	ND		29.4	ND		29.5
Thallium	ND		0.161	0.221	J	0.165	ND		0.147	ND		0.147
Vanadium	2.10	J	0.644	33.3		0.658	3.28		0.589	1.14	J	0.589
Zinc	ND		2.57	1170		2.63	31.3		2.35	3.04		2.36

Lab ID:	06640-005			06640-006			06640-007			06640-008		
Client ID:	E3 (7-8)-070212			I4 (9-10)-070212			K1 (9-10)-070212			J1 (9-10)-070212		
Depth:	7/8			9/10			9/10			9/10		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TOTAL VO's:	~		~	~		~	ND			~		~
TOTAL TIC's:	~		~	~		~	ND			~		~
TOTAL VO's & TIC's:	~		~	~		~	ND			~		~

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All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.
~=Sample not analyzed for

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VINELAND NJ - VENDOR #1168636
Lab Case No.: E12-06640

Lab ID:	06640-005			06640-006			06640-007			06640-008		
Client ID:	E3 (7-8)-070212			I4 (9-10)-070212			K1 (9-10)-070212			J1 (9-10)-070212		
Depth:	7/8			9/10			9/10			9/10		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Naphthalene	ND		0.010	ND		0.011	~		~	~		~
2-Methylnaphthalene	ND		0.015	ND		0.016	~		~	~		~
Acenaphthylene	ND		0.014	ND		0.016	~		~	~		~
Acenaphthene	ND		0.010	ND		0.011	~		~	~		~
Fluorene	ND		0.010	ND		0.011	~		~	~		~
Phenanthrene	ND		0.011	ND		0.012	~		~	~		~
Anthracene	ND		0.014	ND		0.016	~		~	~		~
Fluoranthene	ND		0.013	ND		0.014	~		~	~		~
Pyrene	ND		0.011	ND		0.012	~		~	~		~
Benzo[a]anthracene	ND		0.015	ND		0.017	~		~	~		~
Chrysene	ND		0.013	ND		0.014	~		~	~		~
Benzo[b]fluoranthene	ND		0.018	ND		0.020	~		~	~		~
Benzo[k]fluoranthene	ND		0.018	ND		0.020	~		~	~		~
Benzo[a]pyrene	ND		0.015	ND		0.017	~		~	~		~
Indeno[1,2,3-cd]pyrene	ND		0.010	ND		0.011	~		~	~		~
Dibenz[a,h]anthracene	ND		0.011	ND		0.012	~		~	~		~
Benzo[g,h,i]perylene	ND		0.015	ND		0.016	~		~	~		~
Semivolatiles - BNA (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
TOTAL BNA'S:	~		~	~		~	ND			ND		
TOTAL TIC's:	~		~	~		~	ND			ND		
TOTAL BNA'S & TIC's:	~		~	~		~	ND			ND		
PCB's (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aroclor-1016	~		~	ND		0.000756	~		~	ND		0.018
Aroclor-1221	~		~	ND		0.000756	~		~	ND		0.018
Aroclor-1232	~		~	ND		0.000756	~		~	ND		0.018
Aroclor-1242	~		~	ND		0.000756	~		~	ND		0.018
Aroclor-1248	~		~	ND		0.000756	~		~	ND		0.018
Aroclor-1254	~		~	ND		0.000756	~		~	ND		0.018
Aroclor-1260	~		~	ND		0.000756	~		~	ND		0.018
Aroclor-1262	~		~	ND		0.000756	~		~	ND		0.018
Aroclor-1268	~		~	ND		0.000756	~		~	ND		0.018
PCBs	~		~	ND		0.000756	~		~	ND		0.018

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~=Sample not analyzed for

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VINELAND NJ - VENDOR #1168636
Lab Case No.: E12-06640

Lab ID:	06640-005			06640-006			06640-007			06640-008		
Client ID:	E3 (7-8)-070212			I4 (9-10)-070212			K1 (9-10)-070212			J1 (9-10)-070212		
Depth:	7/8			9/10			9/10			9/10		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Pesticides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
alpha-BHC	~		~	ND		0.000189	~		~	~		~
beta-BHC	~		~	ND		0.000189	~		~	~		~
gamma-BHC (Lindane)	~		~	ND		0.000189	~		~	~		~
delta-BHC	~		~	ND		0.000189	~		~	~		~
Heptachlor	~		~	ND		0.000189	~		~	~		~
Aldrin	~		~	ND		0.000189	~		~	~		~
Heptachlor epoxide	~		~	ND		0.000189	~		~	~		~
Endosulfan I	~		~	ND		0.000189	~		~	~		~
4,4'-DDE	~		~	ND		0.000189	~		~	~		~
Dieldrin	~		~	ND		0.000189	~		~	~		~
Endrin	~		~	ND		0.000189	~		~	~		~
Endosulfan II	~		~	ND		0.000189	~		~	~		~
4,4'-DDD	~		~	ND		0.000189	~		~	~		~
Endrin aldehyde	~		~	ND		0.000189	~		~	~		~
Endosulfan sulfate	~		~	ND		0.000189	~		~	~		~
4,4'-DDT	~		~	ND		0.000189	~		~	~		~
Endrin ketone	~		~	ND		0.000189	~		~	~		~
Methoxychlor	~		~	ND		0.000189	~		~	~		~
alpha-Chlordane	~		~	ND		0.000189	~		~	~		~
gamma-Chlordane	~		~	ND		0.000189	~		~	~		~
Toxaphene	~		~	ND		0.00227	~		~	~		~
Endosulfan (I and II)	~		~	ND		0.000189	~		~	~		~
Chlordane (alpha and gamma)	~		~	ND		0.000189	~		~	~		~
Herbicides (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Dalapon	~		~	ND		0.021	~		~	~		~
Dicamba	~		~	ND		0.021	~		~	~		~
2,4-D	~		~	ND		0.021	~		~	~		~
2,4,5-TP (Silvex)	~		~	ND		0.021	~		~	~		~
2,4,5-T	~		~	ND		0.021	~		~	~		~
2,4-DB	~		~	ND		0.021	~		~	~		~
Dinoseb	~		~	ND		0.021	~		~	~		~
NJ-EPH-Fractionated (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
C9-C12 Aliphatics	ND		1.99	ND		2.21	ND		2.35	~		~
C12-C16 Aliphatics	ND		1.99	ND		2.21	ND		2.35	~		~
C16-C21 Aliphatics	ND		1.99	ND		2.21	ND		2.35	~		~
C21-C40 Aliphatics	ND		9.97	ND		11.0	ND		11.7	~		~
Total Aliphatics	0		9.97	0		11.0	0		11.7	~		~
C10-C12 Aromatics	ND		3.99	ND		4.42	ND		4.69	~		~
C12-C16 Aromatics	ND		3.99	ND		4.42	ND		4.69	~		~
C16-C21 Aromatics	ND		3.99	ND		4.42	ND		4.69	~		~
C21-C36 Aromatics	ND		7.98	ND		8.83	ND		9.38	~		~
Total Aromatics	0		7.98	0		8.83	0		9.38	~		~
Total NJ-EPH	0		9.97	0		11.0	0		11.7	~		~

ND = Analyzed for but Not Detected at the MDL
~=Sample not analyzed for

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VINELAND NJ - VENDOR #1168636
Lab Case No.: E12-06640

Lab ID:	06640-005			06640-006			06640-007			06640-008		
Client ID:	E3 (7-8)-070212			I4 (9-10)-070212			K1 (9-10)-070212			J1 (9-10)-070212		
Depth:	7/8			9/10			9/10			9/10		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*			*(mg/Kg-ppm)*		
Aluminum	1980		5.66	658		6.17	558		6.71	956		6.41
Antimony	ND		0.283	ND		0.308	ND		0.336	ND		0.320
Arsenic	ND		0.283	ND		0.308	ND		0.336	0.381	J	0.320
Barium	6.67	J	2.83	ND		3.08	ND		3.36	ND		3.20
Beryllium	ND		0.226	ND		0.247	ND		0.269	ND		0.256
Cadmium	ND		0.142	ND		0.154	ND		0.168	ND		0.160
Calcium	40.0	J	28.3	49.1	J	30.8	ND		33.6	ND		32.0
Chromium	2.19	J	0.566	1.53	J	0.617	1.80	J	0.671	3.90		0.641
Cobalt	ND		0.566	ND		0.617	ND		0.671	ND		0.641
Copper	1.31	J	0.566	1.23	J	0.617	1.30	J	0.671	2.13	J	0.641
Iron	589		14.2	518		15.4	888		16.8	2260		16.0
Lead	1.54		0.142	0.638		0.154	0.682		0.168	1.53		0.160
Magnesium	119		14.2	48.8	J	15.4	39.7	J	16.8	64.3		16.0
Manganese	4.34		0.283	2.17		0.308	3.88		0.336	17.5		0.320
Mercury	0.00729	J	0.006	ND		0.0069	ND		0.00696	ND		0.00679
Nickel	1.53		0.566	0.848	J	0.617	0.785	J	0.671	1.33		0.641
Potassium	51.1	J	14.2	43.3	J	15.4	29.2	J	16.8	74.8		16.0
Selenium	ND		1.13	ND		1.23	ND		1.34	ND		1.28
Silver	ND		0.142	ND		0.154	ND		0.168	ND		0.160
Sodium	ND		28.3	ND		30.8	ND		33.6	ND		32.0
Thallium	ND		0.142	ND		0.154	ND		0.168	ND		0.160
Vanadium	2.71		0.566	1.35	J	0.617	1.80	J	0.671	2.82		0.641
Zinc	3.90		2.26	ND		2.47	ND		2.69	ND		2.56

~=Sample not analyzed for
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INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VINELAND NJ - VENDOR #1168636
Lab Case No.: E12-06640

Lab ID:	**06640-009**		
Client ID:	**J2 (9-10)-070212**		
Depth:	**9/10**		
Matrix:	**Soil**		
Sampled Date	**7/2/12**		
PARAMETER(Units)	Conc	Q	MDL
Semivolatiles - BNA (Units)	*(mg/Kg-ppm)*		
TOTAL BNA'S:	ND		
TOTAL TIC's:	ND		
TOTAL BNA'S & TIC's:	ND		
PCB's (Units)	*(mg/Kg-ppm)*		
Aroclor-1016	ND		0.017
Aroclor-1221	ND		0.017
Aroclor-1232	ND		0.017
Aroclor-1242	ND		0.017
Aroclor-1248	ND		0.017
Aroclor-1254	ND		0.017
Aroclor-1260	ND		0.017
Aroclor-1262	ND		0.017
Aroclor-1268	ND		0.017
PCBs	ND		0.017
Metals (Units)	*(mg/Kg-ppm)*		
Aluminum	1050		6.25
Antimony	ND		0.313
Arsenic	0.978		0.313
Barium	ND		3.13
Beryllium	ND		0.250
Cadmium	ND		0.156
Calcium	ND		31.3
Chromium	3.61		0.625
Cobalt	ND		0.625
Copper	1.59	J	0.625
Iron	2210		15.6
Lead	1.01		0.156
Magnesium	51.8	J	15.6
Manganese	3.40		0.313
Mercury	ND		0.00703
Nickel	0.973	J	0.625
Potassium	49.5	J	15.6
Selenium	ND		1.25
Silver	ND		0.156
Sodium	ND		31.3
Thallium	ND		0.156
Vanadium	4.69		0.625
Zinc	ND		2.50

ND = Analyzed for but Not Detected at the MDL

J = The concentration was detected at a value below the RL and above the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06640-007
Client ID: K1_(9-10)-0702
Date Received: 07/03/2012
Date Analyzed: 07/08/2012
Data file: F6734.D

GC/MS Column: DB-624
Sample wt/vol: 3.9g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.3
% Moisture: 18.5

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.00157	0.000628
Chloromethane	ND		0.00157	0.000644
Vinyl chloride	ND		0.00157	0.000754
Bromomethane	ND		0.00157	0.00055
Chloroethane	ND		0.00157	0.000707
Trichlorofluoromethane	ND		0.00157	0.000644
1,1-Dichloroethene	ND		0.00157	0.000785
Acetone	ND		0.00785	0.0011
Carbon disulfide	ND		0.00157	0.000534
Methylene chloride	ND		0.00314	0.00311
trans-1,2-Dichloroethene	ND		0.00157	0.000675
Methyl tert-butyl ether (MTBE)	ND		0.00157	0.000361
1,1-Dichloroethane	ND		0.00157	0.000424
cis-1,2-Dichloroethene	ND		0.00157	0.000487
2-Butanone (MEK)	ND		0.00785	0.000581
Bromochloromethane	ND		0.00157	0.000377
Chloroform	ND		0.00157	0.000455
1,1,1-Trichloroethane	ND		0.00157	0.000518
Carbon tetrachloride	ND		0.00157	0.000644
1,2-Dichloroethane (EDC)	ND		0.00157	0.00033
Benzene	ND		0.00157	0.000377
Trichloroethene	ND		0.00157	0.000502
1,2-Dichloropropane	ND		0.00157	0.000345
1,4-Dioxane	ND		0.314	0.024
Bromodichloromethane	ND		0.00157	0.000502
cis-1,3-Dichloropropene	ND		0.00157	0.000408
4-Methyl-2-pentanone (MIBK)	ND		0.00157	0.000377

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INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: 06640-007
Client ID: K1_(9-10)-0702
Date Received: 07/03/2012
Date Analyzed: 07/08/2012
Data file: F6734.D

GC/MS Column: DB-624
Sample wt/vol: 3.9g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.3
% Moisture: 18.5

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.00157	0.000393
trans-1,3-Dichloropropene	ND		0.00157	0.000408
1,1,2-Trichloroethane	ND		0.00157	0.000314
Tetrachloroethene	ND		0.00157	0.000408
2-Hexanone	ND		0.00314	0.000565
Dibromochloromethane	ND		0.00314	0.000345
1,2-Dibromoethane (EDB)	ND		0.00157	0.00033
Chlorobenzene	ND		0.00157	0.000345
Ethylbenzene	ND		0.00157	0.000487
Total Xylenes	ND		0.00314	0.00166
Styrene	ND		0.00157	0.000471
Bromoform	ND		0.00157	0.000502
Isopropylbenzene	ND		0.00157	0.000644
1,1,2,2-Tetrachloroethane	ND		0.00157	0.000361
1,3-Dichlorobenzene	ND		0.00157	0.000487
1,4-Dichlorobenzene	ND		0.00157	0.000487
1,2-Dichlorobenzene	ND		0.00157	0.000565
1,2-Dibromo-3-chloropropane	ND		0.00157	0.000785
1,2,4-Trichlorobenzene	ND		0.00157	0.000816
1,2,3-Trichlorobenzene	ND		0.00157	0.000754
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.00157	0.000864
Methyl acetate	ND		0.00785	0.000911
Cyclohexane	ND		0.00314	0.000659
Methylcyclohexane	ND		0.00157	0.000785
1,3-Dichloropropene (cis- and trans-)	ND		0.00157	0.000408

Total Target Compounds (52): 0

E12-06640 0020

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: 06640-007
Client ID: K1_(9-10)-0702
Date Received: 07/03/2012
Date Analyzed: 07/08/2012
Data file: F6734.D

GC/MS Column: DB-624
Sample wt/vol: 3.9g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1.3
% Moisture: 18.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-001
Client ID: H1_(11-1
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2147.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.3

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.040	0.011
2-Methylnaphthalene	ND		0.040	0.017
Acenaphthylene	ND		0.040	0.016
Acenaphthene	ND		0.040	0.012
Fluorene	ND		0.040	0.012
Phenanthrene	ND		0.040	0.012
Anthracene	ND		0.040	0.017
Fluoranthene	ND		0.040	0.014
Pyrene	ND		0.040	0.013
Benzo[a]anthracene	ND		0.040	0.018
Chrysene	ND		0.040	0.015
Benzo[b]fluoranthene	ND		0.040	0.020
Benzo[k]fluoranthene	ND		0.040	0.021
Benzo[a]pyrene	ND		0.040	0.018
Indeno[1,2,3-cd]pyrene	ND		0.040	0.012
Dibenz[a,h]anthracene	ND		0.040	0.012
Benzo[g,h,i]perylene	ND		0.040	0.017

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-002
Client ID: H2_(9.5-
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2148.D

GC/MS Column: DB-5
Sample wt/vol: 15.18g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 15.9

Compound	Concentration	Q	RL	MDL
Naphthalene	0.932		0.039	0.011
2-Methylnaphthalene	0.329		0.039	0.017
Acenaphthylene	0.072		0.039	0.016
Acenaphthene	0.342		0.039	0.011
Fluorene	0.324		0.039	0.012
Phenanthrene	1.56		0.039	0.012
Anthracene	0.688		0.039	0.016
Fluoranthene	1.35		0.039	0.014
Pyrene	1.26		0.039	0.013
Benzo[a]anthracene	1.03		0.039	0.017
Chrysene	1.13		0.039	0.015
Benzo[b]fluoranthene	0.873		0.039	0.020
Benzo[k]fluoranthene	0.839		0.039	0.020
Benzo[a]pyrene	1.23		0.039	0.017
Indeno[1,2,3-cd]pyrene	0.662		0.039	0.011
Dibenz[a,h]anthracene	0.274		0.039	0.012
Benzo[g,h,i]perylene	0.741		0.039	0.016

Total Target Compounds (17): 13.6

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-003
Client ID: H3_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2149.D

GC/MS Column: DB-5
Sample wt/vol: 15.06g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 11.7

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.038	0.011
2-Methylnaphthalene	ND		0.038	0.016
Acenaphthylene	ND		0.038	0.015
Acenaphthene	ND		0.038	0.011
Fluorene	ND		0.038	0.011
Phenanthrene	ND		0.038	0.011
Anthracene	ND		0.038	0.016
Fluoranthene	ND		0.038	0.014
Pyrene	ND		0.038	0.012
Benzo[a]anthracene	ND		0.038	0.016
Chrysene	ND		0.038	0.014
Benzo[b]fluoranthene	ND		0.038	0.019
Benzo[k]fluoranthene	ND		0.038	0.020
Benzo[a]pyrene	ND		0.038	0.016
Indeno[1,2,3-cd]pyrene	ND		0.038	0.011
Dibenz[a,h]anthracene	ND		0.038	0.012
Benzo[g,h,i]perylene	ND		0.038	0.016

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-004
Client ID: E2_(11-1
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2150.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.7

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.038	0.011
2-Methylnaphthalene	ND		0.038	0.016
Acenaphthylene	ND		0.038	0.016
Acenaphthene	ND		0.038	0.011
Fluorene	ND		0.038	0.011
Phenanthrene	ND		0.038	0.011
Anthracene	ND		0.038	0.016
Fluoranthene	ND		0.038	0.014
Pyrene	ND		0.038	0.012
Benzo[a]anthracene	ND		0.038	0.017
Chrysene	ND		0.038	0.014
Benzo[b]fluoranthene	ND		0.038	0.019
Benzo[k]fluoranthene	ND		0.038	0.020
Benzo[a]pyrene	ND		0.038	0.017
Indeno[1,2,3-cd]pyrene	ND		0.038	0.011
Dibenz[a,h]anthracene	ND		0.038	0.012
Benzo[g,h,i]perylene	ND		0.038	0.016

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-005
Client ID: E3_(7-8)
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2151.D

GC/MS Column: DB-5
Sample wt/vol: 15.19g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 5.90

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.035	0.010
2-Methylnaphthalene	ND		0.035	0.015
Acenaphthylene	ND		0.035	0.014
Acenaphthene	ND		0.035	0.010
Fluorene	ND		0.035	0.010
Phenanthrene	ND		0.035	0.011
Anthracene	ND		0.035	0.014
Fluoranthene	ND		0.035	0.013
Pyrene	ND		0.035	0.011
Benzo[a]anthracene	ND		0.035	0.015
Chrysene	ND		0.035	0.013
Benzo[b]fluoranthene	ND		0.035	0.018
Benzo[k]fluoranthene	ND		0.035	0.018
Benzo[a]pyrene	ND		0.035	0.015
Indeno[1,2,3-cd]pyrene	ND		0.035	0.010
Dibenz[a,h]anthracene	ND		0.035	0.011
Benzo[g,h,i]perylene	ND		0.035	0.015

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-006
Client ID: I4_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2152.D

GC/MS Column: DB-5
Sample wt/vol: 15.02g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.9

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		0.038	0.011
2-Methylnaphthalene	ND		0.038	0.016
Acenaphthylene	ND		0.038	0.016
Acenaphthene	ND		0.038	0.011
Fluorene	ND		0.038	0.011
Phenanthrene	ND		0.038	0.012
Anthracene	ND		0.038	0.016
Fluoranthene	ND		0.038	0.014
Pyrene	ND		0.038	0.012
Benzo[a]anthracene	ND		0.038	0.017
Chrysene	ND		0.038	0.014
Benzo[b]fluoranthene	ND		0.038	0.020
Benzo[k]fluoranthene	ND		0.038	0.020
Benzo[a]pyrene	ND		0.038	0.017
Indeno[1,2,3-cd]pyrene	ND		0.038	0.011
Dibenz[a,h]anthracene	ND		0.038	0.012
Benzo[g,h,i]perylene	ND		0.038	0.016

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-007
Client ID: K1_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2153.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.5

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.040	0.013
Phenol	ND		0.040	0.014
Bis(2-chloroethyl) ether	ND		0.040	0.015
2-Chlorophenol	ND		0.040	0.013
2-Methylphenol	ND		0.040	0.013
Bis(2-chloroisopropyl) ether	ND		0.040	0.019
4-Methylphenol **	ND		0.040	0.014
N-Nitrosodi-n-propylamine	ND		0.040	0.015
Acetophenone	ND		0.040	0.015
Hexachloroethane	ND		0.040	0.012
Nitrobenzene	ND		0.040	0.014
Isophorone	ND		0.040	0.019
2-Nitrophenol	ND		0.040	0.015
2,4-Dimethylphenol	ND		0.040	0.013
Bis(2-chloroethoxy) methane	ND		0.040	0.012
2,4-Dichlorophenol	ND		0.040	0.013
Naphthalene	ND		0.040	0.012
4-Chloroaniline	ND		0.040	0.012
Hexachlorobutadiene	ND		0.040	0.012
Caprolactam	ND		0.040	0.020
4-Chloro-3-methylphenol	ND		0.040	0.014
2-Methylnaphthalene	ND		0.040	0.017
Hexachlorocyclopentadiene	ND		0.040	0.012
2,4,6-Trichlorophenol	ND		0.040	0.013
2,4,5-Trichlorophenol	ND		0.040	0.014
1,1'-Biphenyl	ND		0.040	0.013
2-Chloronaphthalene	ND		0.040	0.013
2-Nitroaniline	ND		0.040	0.020
Dimethyl phthalate	ND		0.040	0.015

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-007
Client ID: K1_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2153.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.5

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.040	0.013
Acenaphthylene	ND		0.040	0.017
3-Nitroaniline	ND		0.040	0.016
Acenaphthene	ND		0.040	0.012
2,4-Dinitrophenol	ND		0.040	0.017
4-Nitrophenol	ND		0.040	0.017
2,4-Dinitrotoluene	ND		0.040	0.012
Dibenzofuran	ND		0.040	0.013
Diethyl phthalate	ND		0.040	0.012
Fluorene	ND		0.040	0.012
4-Chlorophenyl phenyl ether	ND		0.040	0.013
4-Nitroaniline	ND		0.040	0.012
1,2,4,5-Tetrachlorobenzene	ND		0.040	0.017
2,3,4,6-Tetrachlorophenol	ND		0.040	0.020
4,6-Dinitro-2-methylphenol	ND		0.040	0.014
N-Nitrosodiphenylamine	ND		0.040	0.013
4-Bromophenyl phenyl ether	ND		0.040	0.014
Hexachlorobenzene	ND		0.040	0.017
Atrazine	ND		0.040	0.013
Pentachlorophenol	ND		0.040	0.015
Phenanthrene	ND		0.040	0.012
Anthracene	ND		0.040	0.017
Carbazole	ND		0.040	0.016
Di-n-butyl phthalate	ND		0.040	0.013
Fluoranthene	ND		0.040	0.014
Pyrene	ND		0.040	0.013
Butyl benzyl phthalate	ND		0.040	0.012
3,3'-Dichlorobenzidine	ND		0.040	0.014
Benzo[a]anthracene	ND		0.040	0.018
Chrysene	ND		0.040	0.015
Bis(2-ethylhexyl) phthalate	ND		0.040	0.020
Di-n-octyl phthalate	ND		0.040	0.015
Benzo[b]fluoranthene	ND		0.040	0.021
Benzo[k]fluoranthene	ND		0.040	0.021
Benzo[a]pyrene	ND		0.040	0.018
Indeno[1,2,3-cd]pyrene	ND		0.040	0.012
Dibenz[a,h]anthracene	ND		0.040	0.013
Benzo[g,h,i]perylene	ND		0.040	0.017
Dinitrotoluene (2,4- and 2,6-)	ND		0.040	0.013

Total Target Compounds (68): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06640-007
Client ID: K1_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Date File: A2153.D

GC/MS Column: DB-5
Sample wt/vol: 15.16g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 18.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-008
Client ID: J1_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2154.D

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.5

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.040	0.013
Phenol	ND		0.040	0.014
Bis(2-chloroethyl) ether	ND		0.040	0.015
2-Chlorophenol	ND		0.040	0.013
2-Methylphenol	ND		0.040	0.013
Bis(2-chloroisopropyl) ether	ND		0.040	0.019
4-Methylphenol **	ND		0.040	0.014
N-Nitrosodi-n-propylamine	ND		0.040	0.014
Acetophenone	ND		0.040	0.015
Hexachloroethane	ND		0.040	0.012
Nitrobenzene	ND		0.040	0.014
Isophorone	ND		0.040	0.019
2-Nitrophenol	ND		0.040	0.014
2,4-Dimethylphenol	ND		0.040	0.013
Bis(2-chloroethoxy) methane	ND		0.040	0.012
2,4-Dichlorophenol	ND		0.040	0.013
Naphthalene	ND		0.040	0.012
4-Chloroaniline	ND		0.040	0.012
Hexachlorobutadiene	ND		0.040	0.012
Caprolactam	ND		0.040	0.020
4-Chloro-3-methylphenol	ND		0.040	0.014
2-Methylnaphthalene	ND		0.040	0.017
Hexachlorocyclopentadiene	ND		0.040	0.012
2,4,6-Trichlorophenol	ND		0.040	0.013
2,4,5-Trichlorophenol	ND		0.040	0.014
1,1'-Biphenyl	ND		0.040	0.013
2-Chloronaphthalene	ND		0.040	0.013
2-Nitroaniline	ND		0.040	0.020
Dimethyl phthalate	ND		0.040	0.014

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-008
Client ID: J1_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2154.D

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.5

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.040	0.013
Acenaphthylene	ND		0.040	0.017
3-Nitroaniline	ND		0.040	0.016
Acenaphthene	ND		0.040	0.012
2,4-Dinitrophenol	ND		0.040	0.016
4-Nitrophenol	ND		0.040	0.016
2,4-Dinitrotoluene	ND		0.040	0.012
Dibenzofuran	ND		0.040	0.013
Diethyl phthalate	ND		0.040	0.012
Fluorene	ND		0.040	0.012
4-Chlorophenyl phenyl ether	ND		0.040	0.013
4-Nitroaniline	ND		0.040	0.012
1,2,4,5-Tetrachlorobenzene	ND		0.040	0.016
2,3,4,6-Tetrachlorophenol	ND		0.040	0.020
4,6-Dinitro-2-methylphenol	ND		0.040	0.014
N-Nitrosodiphenylamine	ND		0.040	0.013
4-Bromophenyl phenyl ether	ND		0.040	0.014
Hexachlorobenzene	ND		0.040	0.016
Atrazine	ND		0.040	0.013
Pentachlorophenol	ND		0.040	0.014
Phenanthrene	ND		0.040	0.012
Anthracene	ND		0.040	0.017
Carbazole	ND		0.040	0.016
Di-n-butyl phthalate	ND		0.040	0.013
Fluoranthene	ND		0.040	0.014
Pyrene	ND		0.040	0.013
Butyl benzyl phthalate	ND		0.040	0.012
3,3'-Dichlorobenzidine	ND		0.040	0.014
Benzo[a]anthracene	ND		0.040	0.018
Chrysene	ND		0.040	0.015
Bis(2-ethylhexyl) phthalate	ND		0.040	0.020
Di-n-octyl phthalate	ND		0.040	0.015
Benzo[b]fluoranthene	ND		0.040	0.021
Benzo[k]fluoranthene	ND		0.040	0.021
Benzo[a]pyrene	ND		0.040	0.018
Indeno[1,2,3-cd]pyrene	ND		0.040	0.012
Dibenz[a,h]anthracene	ND		0.040	0.013
Benzo[g,h,i]perylene	ND		0.040	0.017
Dinitrotoluene (2,4- and 2,6-)	ND		0.040	0.013

Total Target Compounds (68): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06640-008
Client ID: J1_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Date File: A2154.D

GC/MS Column: DB-5
Sample wt/vol: 15.07g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-009
Client ID: J2_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2155.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

Compound	Concentration	Q	RL	MDL
Benzaldehyde	ND		0.038	0.012
Phenol	ND		0.038	0.013
Bis(2-chloroethyl) ether	ND		0.038	0.014
2-Chlorophenol	ND		0.038	0.012
2-Methylphenol	ND		0.038	0.012
Bis(2-chloroisopropyl) ether	ND		0.038	0.018
4-Methylphenol **	ND		0.038	0.013
N-Nitrosodi-n-propylamine	ND		0.038	0.014
Acetophenone	ND		0.038	0.014
Hexachloroethane	ND		0.038	0.011
Nitrobenzene	ND		0.038	0.013
Isophorone	ND		0.038	0.018
2-Nitrophenol	ND		0.038	0.014
2,4-Dimethylphenol	ND		0.038	0.012
Bis(2-chloroethoxy) methane	ND		0.038	0.012
2,4-Dichlorophenol	ND		0.038	0.012
Naphthalene	ND		0.038	0.011
4-Chloroaniline	ND		0.038	0.012
Hexachlorobutadiene	ND		0.038	0.012
Caprolactam	ND		0.038	0.019
4-Chloro-3-methylphenol	ND		0.038	0.013
2-Methylnaphthalene	ND		0.038	0.016
Hexachlorocyclopentadiene	ND		0.038	0.012
2,4,6-Trichlorophenol	ND		0.038	0.013
2,4,5-Trichlorophenol	ND		0.038	0.013
1,1'-Biphenyl	ND		0.038	0.012
2-Chloronaphthalene	ND		0.038	0.013
2-Nitroaniline	ND		0.038	0.019
Dimethyl phthalate	ND		0.038	0.014

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06640-009
Client ID: J2_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2155.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.038	0.012
Acenaphthylene	ND		0.038	0.016
3-Nitroaniline	ND		0.038	0.015
Acenaphthene	ND		0.038	0.011
2,4-Dinitrophenol	ND		0.038	0.016
4-Nitrophenol	ND		0.038	0.016
2,4-Dinitrotoluene	ND		0.038	0.012
Dibenzofuran	ND		0.038	0.012
Diethyl phthalate	ND		0.038	0.012
Fluorene	ND		0.038	0.011
4-Chlorophenyl phenyl ether	ND		0.038	0.012
4-Nitroaniline	ND		0.038	0.012
1,2,4,5-Tetrachlorobenzene	ND		0.038	0.016
2,3,4,6-Tetrachlorophenol	ND		0.038	0.019
4,6-Dinitro-2-methylphenol	ND		0.038	0.013
N-Nitrosodiphenylamine	ND		0.038	0.012
4-Bromophenyl phenyl ether	ND		0.038	0.013
Hexachlorobenzene	ND		0.038	0.016
Atrazine	ND		0.038	0.012
Pentachlorophenol	ND		0.038	0.014
Phenanthrene	ND		0.038	0.012
Anthracene	ND		0.038	0.016
Carbazole	ND		0.038	0.015
Di-n-butyl phthalate	ND		0.038	0.012
Fluoranthene	ND		0.038	0.014
Pyrene	ND		0.038	0.012
Butyl benzyl phthalate	ND		0.038	0.011
3,3'-Dichlorobenzidine	ND		0.038	0.013
Benzo[a]anthracene	ND		0.038	0.017
Chrysene	ND		0.038	0.014
Bis(2-ethylhexyl) phthalate	ND		0.038	0.019
Di-n-octyl phthalate	ND		0.038	0.014
Benzo[b]fluoranthene	ND		0.038	0.020
Benzo[k]fluoranthene	ND		0.038	0.020
Benzo[a]pyrene	ND		0.038	0.017
Indeno[1,2,3-cd]pyrene	ND		0.038	0.011
Dibenz[a,h]anthracene	ND		0.038	0.012
Benzo[g,h,i]perylene	ND		0.038	0.016
Dinitrotoluene (2,4- and 2,6-)	ND		0.038	0.012

Total Target Compounds (68): 0

** - represents the total of 3+4-Methylphenol

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E12-06640-009
Client ID: J2_(9-10
Date Received: 07/03/2012
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Date File: A2155.D

GC/MS Column: DB-5
Sample wt/vol: 15.12g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06640-006
Client ID: I4_(9-10)-
Date Received: 07/03/2012
Date Extracted: 07/11/2012
Date Analyzed: 07/14/2012
Data file: Y6720.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.39g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.9

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00189	0.000756
Aroclor-1221	ND		0.00189	0.000756
Aroclor-1232	ND		0.00189	0.000756
Aroclor-1242	ND		0.00189	0.000756
Aroclor-1248	ND		0.00189	0.000756
Aroclor-1254	ND		0.00189	0.000756
Aroclor-1260	ND		0.00189	0.000756
Aroclor-1262	ND		0.00189	0.000756
Aroclor-1268	ND		0.00189	0.000756
PCBs	ND		0.00189	0.000756

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06640-008
Client ID: J1_(9-10)-
Date Received: 07/03/2012
Date Extracted: 07/12/2012
Date Analyzed: 07/14/2012
Data file: Y6728.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.26g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 17.5

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.046	0.018
Aroclor-1221	ND		0.046	0.018
Aroclor-1232	ND		0.046	0.018
Aroclor-1242	ND		0.046	0.018
Aroclor-1248	ND		0.046	0.018
Aroclor-1254	ND		0.046	0.018
Aroclor-1260	ND		0.046	0.018
Aroclor-1262	ND		0.046	0.018
Aroclor-1268	ND		0.046	0.018
PCBs	ND		0.046	0.018

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06640-009
Client ID: J2_(9-10)-
Date Received: 07/03/2012
Date Extracted: 07/12/2012
Date Analyzed: 07/14/2012
Data file: Y6729.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.41g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 13.5

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.043	0.017
Aroclor-1221	ND		0.043	0.017
Aroclor-1232	ND		0.043	0.017
Aroclor-1242	ND		0.043	0.017
Aroclor-1248	ND		0.043	0.017
Aroclor-1254	ND		0.043	0.017
Aroclor-1260	ND		0.043	0.017
Aroclor-1262	ND		0.043	0.017
Aroclor-1268	ND		0.043	0.017
PCBs	ND		0.043	0.017

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06640-006
Client ID: I4_(9-10)-
Date Received: 07/03/2012
Date Extracted: 07/11/2012
Date Analyzed: 07/13/2012
Data file: O9655.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.39g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.9

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000378	0.000189
beta-BHC	ND		0.000378	0.000189
gamma-BHC (Lindane)	ND		0.000378	0.000189
delta-BHC	ND		0.000378	0.000189
Heptachlor	ND		0.000378	0.000189
Aldrin	ND		0.000378	0.000189
Heptachlor epoxide	ND		0.000378	0.000189
Endosulfan I	ND		0.000378	0.000189
4,4'-DDE	ND		0.000378	0.000189
Dieldrin	ND		0.000378	0.000189
Endrin	ND		0.000378	0.000189
Endosulfan II	ND		0.000378	0.000189
4,4'-DDD	ND		0.000378	0.000189
Endrin aldehyde	ND		0.000378	0.000189
Endosulfan sulfate	ND		0.000378	0.000189
4,4'-DDT	ND		0.000378	0.000189
Endrin ketone	ND		0.000378	0.000189
Methoxychlor	ND		0.000378	0.000189
alpha-Chlordane	ND		0.000378	0.000189
gamma-Chlordane	ND		0.000378	0.000189
Toxaphene	ND		0.00473	0.00227
Endosulfan (I and II)	ND		0.000378	0.000189
Chlordane (alpha and gamma)	ND		0.000378	0.000189

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 06640-006
Client ID: I4_(9-10)-
Date Received: 07/03/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/12/2012
Data file: W7143.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.52g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: 12.9

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.052	0.021
Dicamba	ND		0.052	0.021
2,4-D	ND		0.052	0.021
2,4,5-TP (Silvex)	ND		0.052	0.021
2,4,5-T	ND		0.052	0.021
2,4-DB	ND		0.052	0.021
Dinoseb	ND		0.052	0.021

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06640-001
Client ID: H1_(11-1
Date Received: 07/03/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/12/2012
Data file: N1756.D
Data file: NB1390.D

GC Column: DB-5
Sample wt/vol: 5.29g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.3

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		13.7	2.29
C12-C16 Aliphatics	ND		9.14	2.29
C16-C21 Aliphatics	ND		13.7	2.29
C21-C40 Aliphatics	ND		45.7	11.4
Total Aliphatics	0		45.7	11.4
C10-C12 Aromatics	ND		9.14	4.57
C12-C16 Aromatics	ND		13.7	4.57
C16-C21 Aromatics	ND		22.9	4.57
C21-C36 Aromatics	ND		36.6	9.14
Total Aromatics	0		36.6	9.14
Total NJ-EPH	0		45.7	11.4

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06640-002
Client ID: H2_(9.5-
Date Received: 07/03/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: N1735.D
Data file: NB1369.D

GC Column: DB-5
Sample wt/vol: 5.07g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 15.9

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		14.1	2.35
C12-C16 Aliphatics	10.5		9.38	2.35
C16-C21 Aliphatics	16.5		14.1	2.35
C21-C40 Aliphatics	126		46.9	11.7
Total Aliphatics	153		46.9	11.7
C10-C12 Aromatics	ND		9.38	4.69
C12-C16 Aromatics	12.2	J	14.1	4.69
C16-C21 Aromatics	50.5		23.5	4.69
C21-C36 Aromatics	182		37.5	9.38
Total Aromatics	245		37.5	9.38
Total NJ-EPH	398		46.9	11.7

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06640-003
Client ID: H3_(9-10
Date Received: 07/03/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: N1736.D
Data file: NB1370.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.7

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		13.6	2.27
C12-C16 Aliphatics	ND		9.06	2.27
C16-C21 Aliphatics	ND		13.6	2.27
C21-C40 Aliphatics	ND		45.3	11.3
Total Aliphatics	0		45.3	11.3
C10-C12 Aromatics	ND		9.06	4.53
C12-C16 Aromatics	ND		13.6	4.53
C16-C21 Aromatics	ND		22.7	4.53
C21-C36 Aromatics	ND		36.2	9.06
Total Aromatics	0		36.2	9.06
Total NJ-EPH	0		45.3	11.3

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06640-004
Client ID: E2_(11-1
Date Received: 07/03/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: N1737.D
Data file: NB1371.D

GC Column: DB-5
Sample wt/vol: 5.04g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 12.7

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		13.6	2.27
C12-C16 Aliphatics	ND		9.09	2.27
C16-C21 Aliphatics	ND		13.6	2.27
C21-C40 Aliphatics	ND		45.5	11.4
Total Aliphatics	0		45.5	11.4
C10-C12 Aromatics	ND		9.09	4.55
C12-C16 Aromatics	ND		13.6	4.55
C16-C21 Aromatics	ND		22.7	4.55
C21-C36 Aromatics	ND		36.4	9.09
Total Aromatics	0		36.4	9.09
Total NJ-EPH	0		45.5	11.4

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06640-005
Client ID: E3_(7-8)
Date Received: 07/03/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: N1738.D
Data file: NB1372.D

GC Column: DB-5
Sample wt/vol: 5.33g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 5.90

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	1.99
C12-C16 Aliphatics	ND		7.98	1.99
C16-C21 Aliphatics	ND		12.0	1.99
C21-C40 Aliphatics	ND		39.9	9.97
Total Aliphatics	0		39.9	9.97
C10-C12 Aromatics	ND		7.98	3.99
C12-C16 Aromatics	ND		12.0	3.99
C16-C21 Aromatics	ND		19.9	3.99
C21-C36 Aromatics	ND		31.9	7.98
Total Aromatics	0		31.9	7.98
Total NJ-EPH	0		39.9	9.97

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06640-006
Client ID: I4_(9-10
Date Received: 07/03/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: N1739.D
Data file: NB1373.D

GC Column: DB-5
Sample wt/vol: 5.20g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 12.9

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		13.2	2.21
C12-C16 Aliphatics	ND		8.83	2.21
C16-C21 Aliphatics	ND		13.2	2.21
C21-C40 Aliphatics	ND		44.2	11.0
Total Aliphatics	0		44.2	11.0
C10-C12 Aromatics	ND		8.83	4.42
C12-C16 Aromatics	ND		13.2	4.42
C16-C21 Aromatics	ND		22.1	4.42
C21-C36 Aromatics	ND		35.3	8.83
Total Aromatics	0		35.3	8.83
Total NJ-EPH	0		44.2	11.0

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: 06640-007
Client ID: K1_(9-10
Date Received: 07/03/2012
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: N1740.D
Data file: NB1374.D

GC Column: DB-5
Sample wt/vol: 5.23g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 18.5

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		14.1	2.35
C12-C16 Aliphatics	ND		9.38	2.35
C16-C21 Aliphatics	ND		14.1	2.35
C21-C40 Aliphatics	ND		46.9	11.7
Total Aliphatics	0		46.9	11.7
C10-C12 Aromatics	ND		9.38	4.69
C12-C16 Aromatics	ND		14.1	4.69
C16-C21 Aromatics	ND		23.5	4.69
C21-C36 Aromatics	ND		37.5	9.38
Total Aromatics	0		37.5	9.38
Total NJ-EPH	0		46.9	11.7

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VINELAND NJ - VENDOR #1168636

Lab ID: E12-06640-001
Client ID: H1 (11-12)-070212
Date Received: 7/3/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.3
Batch #: 282

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	940		1	12.9	6.44	07/10/12	6020
Antimony	ND		1	1.29	0.322	07/10/12	6020
Arsenic	ND		1	0.644	0.322	07/10/12	6020
Barium	3.79	J	1	12.9	3.22	07/10/12	6020
Beryllium	ND		1	0.644	0.257	07/10/12	6020
Cadmium	ND		1	0.644	0.161	07/10/12	6020
Calcium	101		1	64.4	32.2	07/10/12	6020
Chromium	2.16	J	1	2.57	0.644	07/10/12	6020
Cobalt	ND		1	2.57	0.644	07/10/12	6020
Copper	1.74	J	1	2.57	0.644	07/10/12	6020
Iron	865		1	32.2	16.1	07/10/12	6020
Lead	1.07		1	0.644	0.161	07/10/12	6020
Magnesium	93.9		1	64.4	16.1	07/10/12	6020
Manganese	5.74		1	1.29	0.322	07/10/12	6020
Mercury	ND		1	0.015	0.00712	07/09/12	7471A
Nickel	1.39		1	1.29	0.644	07/10/12	6020
Potassium	59.9	J	1	64.4	16.1	07/10/12	6020
Selenium	ND		1	2.57	1.29	07/10/12	6020
Silver	ND		1	0.644	0.161	07/10/12	6020
Sodium	ND		1	129	32.2	07/10/12	6020
Thallium	ND		1	0.644	0.161	07/10/12	6020
Vanadium	2.10	J	1	2.57	0.644	07/10/12	6020
Zinc	ND		1	2.57	2.57	07/10/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VINELAND NJ - VENDOR #1168636

Lab ID: E12-06640-002
Client ID: H2 (9.5-10.5)-070212
Date Received: 7/3/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 15.9
Batch #: 282

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	8780		1	13.2	6.58	07/10/12	6020
Antimony	0.568	J	1	1.32	0.329	07/10/12	6020
Arsenic	11.1		1	0.658	0.329	07/10/12	6020
Barium	289		1	13.2	3.29	07/10/12	6020
Beryllium	2.90		1	0.658	0.263	07/10/12	6020
Cadmium	0.711		1	0.658	0.165	07/10/12	6020
Calcium	23700		1	65.8	32.9	07/10/12	6020
Chromium	32.3		1	2.63	0.658	07/10/12	6020
Cobalt	13.9		1	2.63	0.658	07/10/12	6020
Copper	182		1	2.63	0.658	07/10/12	6020
Iron	21600		1	32.9	16.5	07/10/12	6020
Lead	294		1	0.658	0.165	07/10/12	6020
Magnesium	4000		1	65.8	16.5	07/10/12	6020
Manganese	361		1	1.32	0.329	07/10/12	6020
Mercury	0.164		1	0.015	0.00714	07/09/12	7471A
Nickel	222		1	1.32	0.658	07/10/12	6020
Potassium	1880		1	65.8	16.5	07/10/12	6020
Selenium	ND		1	2.63	1.32	07/10/12	6020
Silver	0.359	J	1	0.658	0.165	07/10/12	6020
Sodium	1190		1	132	32.9	07/10/12	6020
Thallium	0.221	J	1	0.658	0.165	07/10/12	6020
Vanadium	33.3		1	2.63	0.658	07/10/12	6020
Zinc	1170		1	2.63	2.63	07/10/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VINELAND NJ - VENDOR #1168636

Lab ID: E12-06640-003
Client ID: H3 (9-10)-070212
Date Received: 7/3/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.7
Batch #: 282

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	1360		1	11.8	5.89	07/10/12	6020
Antimony	ND		1	1.18	0.294	07/10/12	6020
Arsenic	0.522	J	1	0.589	0.294	07/10/12	6020
Barium	12.4		1	11.8	2.94	07/10/12	6020
Beryllium	ND		1	0.589	0.235	07/10/12	6020
Cadmium	ND		1	0.589	0.147	07/10/12	6020
Calcium	670		1	58.9	29.4	07/10/12	6020
Chromium	2.91		1	2.35	0.589	07/10/12	6020
Cobalt	0.794	J	1	2.35	0.589	07/10/12	6020
Copper	6.32		1	2.35	0.589	07/10/12	6020
Iron	1880		1	29.4	14.7	07/10/12	6020
Lead	9.57		1	0.589	0.147	07/10/12	6020
Magnesium	206		1	58.9	14.7	07/10/12	6020
Manganese	15.4		1	1.18	0.294	07/10/12	6020
Mercury	ND		1	0.014	0.00652	07/09/12	7471A
Nickel	7.34		1	1.18	0.589	07/10/12	6020
Potassium	130		1	58.9	14.7	07/10/12	6020
Selenium	ND		1	2.35	1.18	07/10/12	6020
Silver	ND		1	0.589	0.147	07/10/12	6020
Sodium	ND		1	118	29.4	07/10/12	6020
Thallium	ND		1	0.589	0.147	07/10/12	6020
Vanadium	3.28		1	2.35	0.589	07/10/12	6020
Zinc	31.3		1	2.35	2.35	07/10/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VINELAND NJ - VENDOR #1168636

Lab ID: E12-06640-004
Client ID: E2 (11-12)-070212
Date Received: 7/3/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 12.7
Batch #: 282

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	722		1	11.8	5.89	07/10/12	6020
Antimony	ND		1	1.18	0.295	07/10/12	6020
Arsenic	ND		1	0.589	0.295	07/10/12	6020
Barium	3.15	J	1	11.8	2.95	07/10/12	6020
Beryllium	ND		1	0.589	0.236	07/10/12	6020
Cadmium	ND		1	0.589	0.147	07/10/12	6020
Calcium	38.2	J	1	58.9	29.5	07/10/12	6020
Chromium	1.63	J	1	2.36	0.589	07/10/12	6020
Cobalt	ND		1	2.36	0.589	07/10/12	6020
Copper	1.44	J	1	2.36	0.589	07/10/12	6020
Iron	481		1	29.5	14.7	07/10/12	6020
Lead	1.37		1	0.589	0.147	07/10/12	6020
Magnesium	57.6	J	1	58.9	14.7	07/10/12	6020
Manganese	2.76		1	1.18	0.295	07/10/12	6020
Mercury	ND		1	0.013	0.00645	07/09/12	7471A
Nickel	1.21		1	1.18	0.589	07/10/12	6020
Potassium	49.3	J	1	58.9	14.7	07/10/12	6020
Selenium	ND		1	2.36	1.18	07/10/12	6020
Silver	ND		1	0.589	0.147	07/10/12	6020
Sodium	ND		1	118	29.5	07/10/12	6020
Thallium	ND		1	0.589	0.147	07/10/12	6020
Vanadium	1.14	J	1	2.36	0.589	07/10/12	6020
Zinc	3.04		1	2.36	2.36	07/10/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VINELAND NJ - VENDOR #1168636

Lab ID: E12-06640-005
Client ID: E3 (7-8)-070212
Date Received: 7/3/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 5.90
Batch #: 282

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	1980		1	11.3	5.66	07/10/12	6020
Antimony	ND		1	1.13	0.283	07/10/12	6020
Arsenic	ND		1	0.566	0.283	07/10/12	6020
Barium	6.67	J	1	11.3	2.83	07/10/12	6020
Beryllium	ND		1	0.566	0.226	07/10/12	6020
Cadmium	ND		1	0.566	0.142	07/10/12	6020
Calcium	40.0	J	1	56.6	28.3	07/10/12	6020
Chromium	2.19	J	1	2.26	0.566	07/10/12	6020
Cobalt	ND		1	2.26	0.566	07/10/12	6020
Copper	1.31	J	1	2.26	0.566	07/10/12	6020
Iron	589		1	28.3	14.2	07/10/12	6020
Lead	1.54		1	0.566	0.142	07/10/12	6020
Magnesium	119		1	56.6	14.2	07/10/12	6020
Manganese	4.34		1	1.13	0.283	07/10/12	6020
Mercury	0.00729	J	1	0.013	0.006	07/09/12	7471A
Nickel	1.53		1	1.13	0.566	07/10/12	6020
Potassium	51.1	J	1	56.6	14.2	07/10/12	6020
Selenium	ND		1	2.26	1.13	07/10/12	6020
Silver	ND		1	0.566	0.142	07/10/12	6020
Sodium	ND		1	113	28.3	07/10/12	6020
Thallium	ND		1	0.566	0.142	07/10/12	6020
Vanadium	2.71		1	2.26	0.566	07/10/12	6020
Zinc	3.90		1	2.26	2.26	07/10/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VINELAND NJ - VENDOR #1168636

Lab ID: E12-06640-006
Client ID: I4 (9-10)-070212
Date Received: 7/3/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 12.9
Batch #: 282

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	658		1	12.3	6.17	07/10/12	6020
Antimony	ND		1	1.23	0.308	07/10/12	6020
Arsenic	ND		1	0.617	0.308	07/10/12	6020
Barium	ND		1	12.3	3.08	07/10/12	6020
Beryllium	ND		1	0.617	0.247	07/10/12	6020
Cadmium	ND		1	0.617	0.154	07/10/12	6020
Calcium	49.1	J	1	61.7	30.8	07/10/12	6020
Chromium	1.53	J	1	2.47	0.617	07/10/12	6020
Cobalt	ND		1	2.47	0.617	07/10/12	6020
Copper	1.23	J	1	2.47	0.617	07/10/12	6020
Iron	518		1	30.8	15.4	07/10/12	6020
Lead	0.638		1	0.617	0.154	07/10/12	6020
Magnesium	48.8	J	1	61.7	15.4	07/10/12	6020
Manganese	2.17		1	1.23	0.308	07/10/12	6020
Mercury	ND		1	0.014	0.0069	07/09/12	7471A
Nickel	0.848	J	1	1.23	0.617	07/10/12	6020
Potassium	43.3	J	1	61.7	15.4	07/10/12	6020
Selenium	ND		1	2.47	1.23	07/10/12	6020
Silver	ND		1	0.617	0.154	07/10/12	6020
Sodium	ND		1	123	30.8	07/10/12	6020
Thallium	ND		1	0.617	0.154	07/10/12	6020
Vanadium	1.35	J	1	2.47	0.617	07/10/12	6020
Zinc	ND		1	2.47	2.47	07/10/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VINELAND NJ - VENDOR #1168636

Lab ID: E12-06640-007
Client ID: K1 (9-10)-070212
Date Received: 7/3/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 18.5
Batch #: 282

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	558		1	13.4	6.71	07/10/12	6020
Antimony	ND		1	1.34	0.336	07/10/12	6020
Arsenic	ND		1	0.671	0.336	07/10/12	6020
Barium	ND		1	13.4	3.36	07/10/12	6020
Beryllium	ND		1	0.671	0.269	07/10/12	6020
Cadmium	ND		1	0.671	0.168	07/10/12	6020
Calcium	ND		1	67.1	33.6	07/10/12	6020
Chromium	1.80	J	1	2.69	0.671	07/10/12	6020
Cobalt	ND		1	2.69	0.671	07/10/12	6020
Copper	1.30	J	1	2.69	0.671	07/10/12	6020
Iron	888		1	33.6	16.8	07/10/12	6020
Lead	0.682		1	0.671	0.168	07/10/12	6020
Magnesium	39.7	J	1	67.1	16.8	07/10/12	6020
Manganese	3.88		1	1.34	0.336	07/10/12	6020
Mercury	ND		1	0.015	0.00696	07/09/12	7471A
Nickel	0.785	J	1	1.34	0.671	07/10/12	6020
Potassium	29.2	J	1	67.1	16.8	07/10/12	6020
Selenium	ND		1	2.69	1.34	07/10/12	6020
Silver	ND		1	0.671	0.168	07/10/12	6020
Sodium	ND		1	134	33.6	07/10/12	6020
Thallium	ND		1	0.671	0.168	07/10/12	6020
Vanadium	1.80	J	1	2.69	0.671	07/10/12	6020
Zinc	ND		1	2.69	2.69	07/10/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VINELAND NJ - VENDOR #1168636

Lab ID: E12-06640-008
Client ID: J1 (9-10)-070212
Date Received: 7/3/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 17.5
Batch #: 282

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	956		1	12.8	6.41	07/10/12	6020
Antimony	ND		1	1.28	0.320	07/10/12	6020
Arsenic	0.381	J	1	0.641	0.320	07/10/12	6020
Barium	ND		1	12.8	3.20	07/10/12	6020
Beryllium	ND		1	0.641	0.256	07/10/12	6020
Cadmium	ND		1	0.641	0.160	07/10/12	6020
Calcium	ND		1	64.1	32.0	07/10/12	6020
Chromium	3.90		1	2.56	0.641	07/10/12	6020
Cobalt	ND		1	2.56	0.641	07/10/12	6020
Copper	2.13	J	1	2.56	0.641	07/10/12	6020
Iron	2260		1	32.0	16.0	07/10/12	6020
Lead	1.53		1	0.641	0.160	07/10/12	6020
Magnesium	64.3		1	64.1	16.0	07/10/12	6020
Manganese	17.5		1	1.28	0.320	07/10/12	6020
Mercury	ND		1	0.014	0.00679	07/09/12	7471A
Nickel	1.33		1	1.28	0.641	07/10/12	6020
Potassium	74.8		1	64.1	16.0	07/10/12	6020
Selenium	ND		1	2.56	1.28	07/10/12	6020
Silver	ND		1	0.641	0.160	07/10/12	6020
Sodium	ND		1	128	32.0	07/10/12	6020
Thallium	ND		1	0.641	0.160	07/10/12	6020
Vanadium	2.82		1	2.56	0.641	07/10/12	6020
Zinc	ND		1	2.56	2.56	07/10/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VINELAND NJ - VENDOR #1168636

Lab ID: E12-06640-009
Client ID: J2 (9-10)-070212
Date Received: 7/3/2012
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 13.5
Batch #: 282

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	1050		1	12.5	6.25	07/10/12	6020
Antimony	ND		1	1.25	0.313	07/10/12	6020
Arsenic	0.978		1	0.625	0.313	07/10/12	6020
Barium	ND		1	12.5	3.13	07/10/12	6020
Beryllium	ND		1	0.625	0.250	07/10/12	6020
Cadmium	ND		1	0.625	0.156	07/10/12	6020
Calcium	ND		1	62.5	31.3	07/10/12	6020
Chromium	3.61		1	2.50	0.625	07/10/12	6020
Cobalt	ND		1	2.50	0.625	07/10/12	6020
Copper	1.59	J	1	2.50	0.625	07/10/12	6020
Iron	2210		1	31.3	15.6	07/10/12	6020
Lead	1.01		1	0.625	0.156	07/10/12	6020
Magnesium	51.8	J	1	62.5	15.6	07/10/12	6020
Manganese	3.40		1	1.25	0.313	07/10/12	6020
Mercury	ND		1	0.015	0.00703	07/09/12	7471A
Nickel	0.973	J	1	1.25	0.625	07/10/12	6020
Potassium	49.5	J	1	62.5	15.6	07/10/12	6020
Selenium	ND		1	2.50	1.25	07/10/12	6020
Silver	ND		1	0.625	0.156	07/10/12	6020
Sodium	ND		1	125	31.3	07/10/12	6020
Thallium	ND		1	0.625	0.156	07/10/12	6020
Vanadium	4.69		1	2.50	0.625	07/10/12	6020
Zinc	ND		1	2.50	2.50	07/10/12	6020

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/08/2012

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKS120708-01	SOIL	F6720.D	60	92	90
06507-001	SOIL	F6721.D	60	94	93
06507-002	SOIL	F6722.D	61	92	91
06507-005	SOIL	F6723.D	63	92	91
06507-008	SOIL	F6724.D	63	92	91
06507-009	SOIL	F6725.D	64	90	92
06507-010	SOIL	F6726.D	63	92	92
LCSS120708-01	SOIL	F6727.D	108	94	98
06507-009MS	SOIL	F6728.D	113	95	99
06507-009MSD	SOIL	F6729.D	112	92	99
06577-001	SOIL	F6730.D	81	90	90
06577-004	SOIL	F6731.D	86	91	91
06577-005	SOIL	F6732.D	81	91	91
06577-008	SOIL	F6733.D	78	92	89
06640-007	SOIL	F6734.D	84	92	91
06625-001	SOIL	F6735.D	71	92	92
06625-007	SOIL	F6737.D	68	93	91
06625-008	SOIL	F6738.D	67	91	91
06625-003	SOIL	F6739.D	74	96	95
06625-004	SOIL	F6740.D	70	98	98

	Concentration	Aqueous/Meoh	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	55-153	39-165
SMC2 = Toluene-d8	50 ppb	56-151	45-162
SMC3 = Bromofluorobenzene	50 ppb	67-140	40-152

Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

8260LCS

LCS ACCURACY REPORT

Lab ID: LCSS120708-01
Date Received:
Date Analyzed: 07/08/2012
LCS Data file: F6727.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	LCS Conc.	%Rec.
Dichlorodifluoromethane	50.0	0.00	46.7	93
Chloromethane	50.0	0.00	47.7	95
Vinyl chloride	50.0	0.00	50.2	100
Bromomethane	50.0	0.00	46.4	93
Chloroethane	50.0	0.00	48.9	98
Trichlorofluoromethane	50.0	0.00	45.6	91
Acrolein	150	0.00	189.3	126
1,1-Dichloroethene	50.0	0.00	52.9	106
Acetone	50.0	0.00	62.2	124
Carbon disulfide	50.0	0.00	53.0	106
Vinyl acetate	50.0	0.00	55.2	110
Methylene chloride	50.0	0.00	56.8	114
Acrylonitrile	150.0	0.00	181.3	121
tert-Butyl alcohol (TBA)	100.0	0.00	111.6	112
trans-1,2-Dichloroethene	50.0	0.00	53.9	108
Methyl tert-butyl ether (MTBE)	50.0	0.00	58.0	116
1,1-Dichloroethane	50.0	0.00	54.2	108
Diisopropyl ether (DIPE)	50.0	0.00	53.6	107
cis-1,2-Dichloroethene	50.0	0.00	54.5	109
2,2-Dichloropropane	50.0	0.00	41.3	83
2-Butanone (MEK)	50.0	0.00	61.6	123
Bromochloromethane	50.0	0.00	61.5	123
Chloroform	50.0	0.00	52.2	104
1,1,1-Trichloroethane	50.0	0.00	45.1	90
Carbon tetrachloride	50.0	0.00	46.5	93
1,1-Dichloropropene	50.0	0.00	54.3	109
1,2-Dichloroethane (EDC)	50.0	0.00	56.9	114
Benzene	50.0	0.00	53.0	106
Trichloroethene	50.0	0.00	50.0	100
1,2-Dichloropropane	50.0	0.00	51.3	103
Dibromomethane	50.0	0.00	59.7	119
1,4-Dioxane	1500	0.00	1775	118
Bromodichloromethane	50.0	0.00	51.3	103
2-Chloroethyl vinyl ether	50.0	0.00	59.1	118
cis-1,3-Dichloropropene	50.0	0.00	53.8	108
4-Methyl-2-pentanone (MIBK)	50.0	0.00	57.8	116
Toluene	50.0	0.00	48.9	98
trans-1,3-Dichloropropene	50.0	0.00	51.7	103
1,1,2-Trichloroethane	50.0	0.00	56.9	114
Tetrachloroethene	50.0	0.00	45.9	92

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120708-01
Date Received:
Date Analyzed: 07/08/2012
LCS Data file: F6727.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Blank	MS Conc.	%Rec.
1,3-Dichloropropane	50.0	0.00	55.3	111
2-Hexanone	50.0	0.00	56.2	112
Dibromochloromethane	50.0	0.00	55.2	110
1,2-Dibromoethane (EDB)	50.0	0.00	58.7	117
Chlorobenzene	50.0	0.00	44.3	89
1,1,1,2-Tetrachloroethane	50.0	0.00	46.3	93
Ethylbenzene	50.0	0.00	43.7	87
m,p-Xylene	150	0.00	122.1	81
Styrene	50.0	0.00	44.6	89
Bromoform	50.0	0.00	55.5	111
Isopropylbenzene	50.0	0.00	43.0	86
1,1,2,2-Tetrachloroethane	50.0	0.00	44.8	90
Bromobenzene	50.0	0.00	45.5	91
1,2,3-Trichloropropane	50.0	0.00	55.5	111
n-Propylbenzene	50.0	0.00	43.1	86
2-Chlorotoluene	50.0	0.00	41.9	84
1,3,5-Trimethylbenzene	50.0	0.00	42.6	85
4-Chlorotoluene	50.0	0.00	41.9	84
tert-Butylbenzene	50.0	0.00	43.9	88
1,2,4-Trimethylbenzene	50.0	0.00	41.6	83
sec-Butylbenzene	50.0	0.00	42.8	86
1,3-Dichlorobenzene	50.0	0.00	42.0	84
4-Isopropyltoluene	50.0	0.00	42.0	84
1,4-Dichlorobenzene	50.0	0.00	42.9	86
n-Butylbenzene	50.0	0.00	41.2	82
1,2-Dichlorobenzene	50.0	0.00	44.5	89
1,2-Dibromo-3-chloropropane	50.0	0.00	52.5	105
1,2,4-Trichlorobenzene	50.0	0.00	41.6	83
Hexachlorobutadiene	50.0	0.00	40.7	81
Naphthalene	50.0	0.00	55.2	110
1,2,3-Trichlorobenzene	50.0	0.00	44.5	89
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	0.00	43.1	86
Methyl acetate	50.0	0.00	61.2	122
Cyclohexane	50.0	0.00	41.9	84
Methylcyclohexane	50.0	0.00	41.0	82

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

* Values outside of QC limits

Up to 10% of the compounds may be out , but must be within 40-160%

INTEGRATED ANALYTICAL LABORATORIES

8260MS/MSD **MS/MSD SPIKE REPORT**

Lab ID: 06507-008
Client ID: GPEC-SB-203_(6
Date Received:
Date Analyzed: 07/08/2012
MS Data file: F6728.D
MSD Data file: F6729.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dichlorodifluoromethane	50	0.0	49.0	98		51.3	103		5	
Chloromethane	50	0.0	47.3	95		50.5	101		7	
Vinyl chloride	50	0.0	49.9	100		53.2	106		6	
Bromomethane	50	0.0	47.0	94		50.0	100		6	
Chloroethane	50	0.0	48.1	96		52.6	105		9	
Trichlorofluoromethane	50	0.0	46.4	93		49.3	99		6	
Acrolein	150	0.0	173	115		171	114		1	
1,1-Dichloroethene	50	0.0	52.7	105		56.0	112		6	
Acetone	50	0.0	53.5	107		55.2	110		3	
Carbon disulfide	50	0.0	53.6	107		57.1	114		6	
Vinyl acetate	50	0.0	54.7	109		56.5	113		3	
Methylene chloride	50	0.0	57.4	115		59.6	119		4	
Acrylonitrile	150	0.0	184	123		184	123		0	
tert-Butyl alcohol (TBA)	100	0.0	112.2	112		120.1	120		7	
trans-1,2-Dichloroethene	50	0.0	54.5	109		57.9	116		6	
Methyl tert-butyl ether (MTE	50	0.0	58.4	117		62.3	125		6	
1,1-Dichloroethane	50	0.0	54.3	109		57.6	115		6	
Diisopropyl ether (DIPE)	50	0.0	53.3	107		56.7	113		6	
cis-1,2-Dichloroethene	50	0.0	55.1	110		59.9	120		8	
2,2-Dichloropropane	50	0.0	42.5	85		45.6	91		7	
2-Butanone (MEK)	50	0.0	59.9	120		62.3	125		4	
Bromochloromethane	50	0.0	63.2	126		62.5	125		1	
Chloroform	50	0.0	52.3	105		55.6	111		6	
1,1,1-Trichloroethane	50	0.0	45.2	90		48.2	96		6	
Carbon tetrachloride	50	0.0	46.5	93		49.4	99		6	
1,1-Dichloropropene	50	0.0	53.8	108		57.0	114		6	
1,2-Dichloroethane (EDC)	50	0.0	56.5	113		59.0	118		4	
Benzene	50	0.0	53.7	107		56.8	114		6	
Trichloroethene	50	0.0	50.1	100		53.0	106		6	
1,2-Dichloropropane	50	0.0	50.7	101		52.2	104		3	
Dibromomethane	50	0.0	59.2	118		64.1	128		8	
1,4-Dioxane	1,500	0.0	1775	118		1831	122		3	
Bromodichloromethane	50	0.0	51.1	102		54.0	108		6	
2-Chloroethyl vinyl ether	50	0.0	57.7	115		56.0	112		3	
cis-1,3-Dichloropropene	50	0.0	51.8	104		53.8	108		4	
4-Methyl-2-pentanone (MIBI	50	0.0	57.6	115		58.4	117		1	
Toluene	50	0.0	47.7	95		49.3	99		3	
trans-1,3-Dichloropropene	50	0.0	52.2	104		52.2	104		0	
1,1,2-Trichloroethane	50	0.0	56.9	114		56.6	113		1	
Tetrachloroethene	50	0.0	45.5	91		46.7	93		3	

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06507-008
Client ID: GPEC-SB-203_(6
Date Received:
Date Analyzed: 07/08/2012
MS Data file: F6728.D
MSD Data file: F6729.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
1,3-Dichloropropane	50	0.00	53.5	107		54.5	109		2	
2-Hexanone	50	0.00	55.8	112		55.9	112		0	
Dibromochloromethane	50	0.00	54.5	109		56.5	113		4	
1,2-Dibromoethane (EDB)	50	0.00	59.8	120		59.7	119		0	
Chlorobenzene	50	0.00	43.3	87		45.3	91		5	
1,1,1,2-Tetrachloroethane	50	0.00	45.5	91		49.3	99		8	
Ethylbenzene	50	0.00	43.0	86		45.0	90		5	
m,p-Xylene	100	0.00	85.3	85		90.4	90		6	
Styrene	50	0.00	43.6	87		46.0	92		5	
Bromoform	50	0.00	54.4	109		58.8	118		8	
Isopropylbenzene	50	0.00	42.6	85		44.8	90		5	
1,1,2,2-Tetrachloroethane	50	0.00	43.1	86		46.1	92		7	
Bromobenzene	50	0.00	44.6	89		46.3	93		4	
1,2,3-Trichloropropane	50	0.00	55.5	111		58.3	117		5	
n-Propylbenzene	50	0.00	42.4	85		44.7	89		5	
2-Chlorotoluene	50	0.00	41.4	83		43.7	87		5	
1,3,5-Trimethylbenzene	50	0.00	41.7	83		44.2	88		6	
4-Chlorotoluene	50	0.00	40.8	82		43.6	87		7	
tert-Butylbenzene	50	0.00	43.6	87		45.7	91		5	
1,2,4-Trimethylbenzene	50	0.00	40.9	82		43.3	87		6	
sec-Butylbenzene	50	0.00	43.1	86		44.7	89		4	
1,3-Dichlorobenzene	50	0.00	41.4	83		44.1	88		6	
4-Isopropyltoluene	50	0.00	41.7	83		43.5	87		4	
1,4-Dichlorobenzene	50	0.00	42.2	84		44.6	89		6	
n-Butylbenzene	50	0.00	42.3	85		43.8	88		3	
1,2-Dichlorobenzene	50	0.00	44.8	90		47.3	95		5	
1,2-Dibromo-3-chloropropan	50	0.00	52.5	105		57.8	116		10	
1,2,4-Trichlorobenzene	50	0.00	40.9	82		44.1	88		8	
Hexachlorobutadiene	50	0.00	42.0	84		42.2	84		0	
Naphthalene	50	0.00	55.6	111		61.0	122		9	
1,2,3-Trichlorobenzene	50	0.00	44.2	88		47.4	95		7	
1,1,2-Trichloro-1,2,2-trifluor	50	0.00	44.1	88		47.9	96		8	
Methyl acetate	50	0.00	62.7	125		61.5	123		2	
Cyclohexane	50	0.00	42.3	85		45.8	92		8	
Methylcyclohexane	50	0.00	41.3	83		44.9	90		8	

	Aqueous	Soil
MS/MSD ACCURACY (%REC)	70-130	70-130
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Up to 10% of the compounds may be out , but must be within 40-160%

VOLATILE METHOD BLANK SUMMARY

Lab File ID: F6720.D Instrument ID: MSD_F

Date Analyzed: 07/08/2012 Time Analyzed: 11:19

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
GPEC-SB-219_(5	06507-001	07/08/2012	11:49
GPEC-SB-219_(1	06507-002	07/08/2012	12:19
GPEC-SB-206_(8	06507-005	07/08/2012	12:49
GPEC-SB-203_(6	06507-008	07/08/2012	13:19
GPEC-SB-206_(7	06507-009	07/08/2012	13:49
GPEC-SB-219_(6	06507-010	07/08/2012	14:19
LCS-50PPB	LCSS120708-01	07/08/2012	14:50
MS	06507-009MS	07/08/2012	15:20
MSD	06507-009MSD	07/08/2012	15:50
12-136-TP-1	06577-001	07/08/2012	16:20
12-136-TP-4	06577-004	07/08/2012	16:50
12-136-TP-5	06577-005	07/08/2012	17:20
12-136-TP-8	06577-008	07/08/2012	17:50
K1_(9-10)-0702	06640-007	07/08/2012	18:20
SLF-TW-40/1-1.	06625-001	07/08/2012	18:50
SLF-TW-42/1-1.	06625-007	07/08/2012	19:50
SLF-TW-42/2-2.	06625-008	07/08/2012	20:20
SLF-TW-41/2.5-	06625-003	07/08/2012	20:50
SLF-TW-41/4-4.	06625-004	07/08/2012	21:20

FORM 4

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F6026.D BFB Injection Date: 06/18/2012

Inst ID: MSD_F BFB Injection Time: 9:18

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	22.6			
75	30.0 - 60.0% of mass 95	47.0			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.8			
173	Less than 2.0% of mass 174	0.5	(	0.7	)1
174	Great than 50.0% of mass 95	69.5			
175	5.0 - 9.0% of mass 174	5.5	(	7.9	)1
176	95.0 - 101.0% of mass 174	66.2	(	95.3	)1
177	5.0 - 9.0% of mass 176	4.3	(	6.5	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC1	ICC1	F6027.D	06/18/2012	10:03
ICC2	ICC2	F6029.D	06/18/2012	11:44
ICC5	ICC5	F6030.D	06/18/2012	12:16
ICC20	ICC20	F6033.D	06/18/2012	13:53
ICC100	ICC100	F6034.D	06/18/2012	14:27
ICC200	ICC200	F6035.D	06/18/2012	14:57
ICC150	ICC150	F6036.D	06/18/2012	15:27
ICV100	ICV100	F6038.D	06/18/2012	16:26

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F6717.D BFB Injection Date: 07/08/2012

Inst ID: MSD_F BFB Injection Time: 9:49

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.2			
75	30.0 - 60.0% of mass 95	49.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	92.2			
175	5.0 - 9.0% of mass 174	7.3	(	7.9	)1
176	95.0 - 101.0% of mass 174	89.2	(	96.8	)1
177	5.0 - 9.0% of mass 176	5.9	(	6.6	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV100	CCV100	F6718.D	07/08/2012	10:19
BLKS120708-01	BLKS120708-01	F6720.D	07/08/2012	11:19
GPEC-SB-219_(5	06507-001	F6721.D	07/08/2012	11:49
GPEC-SB-219_(1	06507-002	F6722.D	07/08/2012	12:19
GPEC-SB-206_(8	06507-005	F6723.D	07/08/2012	12:49
GPEC-SB-203_(6	06507-008	F6724.D	07/08/2012	13:19
GPEC-SB-206_(7	06507-009	F6725.D	07/08/2012	13:49
GPEC-SB-219_(6	06507-010	F6726.D	07/08/2012	14:19
LCS-50PPB	LCSS120708-01	F6727.D	07/08/2012	14:50
MS	06507-009MS	F6728.D	07/08/2012	15:20
MSD	06507-009MSD	F6729.D	07/08/2012	15:50
12-136-TP-1	06577-001	F6730.D	07/08/2012	16:20
12-136-TP-4	06577-004	F6731.D	07/08/2012	16:50
12-136-TP-5	06577-005	F6732.D	07/08/2012	17:20
12-136-TP-8	06577-008	F6733.D	07/08/2012	17:50
K1_(9-10)-0702	06640-007	F6734.D	07/08/2012	18:20
SLF-TW-40/1-1.	06625-001	F6735.D	07/08/2012	18:50
SLF-TW-42/1-1.	06625-007	F6737.D	07/08/2012	19:50
SLF-TW-42/2-2.	06625-008	F6738.D	07/08/2012	20:20
SLF-TW-41/2.5-	06625-003	F6739.D	07/08/2012	20:50

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: F6717.D BFB Injection Date : 07/08/201

Inst ID: MSD_F BFB Injection Time: 9:49

m/z	Ion Abudance Criteria	%Relative Abundance			
50	15 - 40.0% of mass 95	20.2			
75	30.0 - 60.0% of mass 95	49.5			
95	Base peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	7.6			
173	Less than 2.0% of mass 174	0.0	(	0.0	)1
174	Great than 50.0% of mass 95	92.2			
175	5.0 - 9.0% of mass 174	7.3	(	7.9	)1
176	95.0 - 101.0% of mass 174	89.2	(	96.8	)1
177	5.0 - 9.0% of mass 176	5.9	(	6.6	)2

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

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
SLF-TW-41/4-4.	06625-004	F6740.D	07/08/2012	21:20

Method Path : C:\MSDCHEM\1\METHODS\
Method File : FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B
Last Update : Mon Jun 18 17:00:12 2012
Response Via : Initial Calibration

Calibration Files
1 =F6027.D 2 =F6029.D 5 =F6030.D
20 =F6033.D 100 =F6034.D 200 =F6035.D 150 =F6036.D

		Compound	1	2	5	20	100	200	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.647	0.664		0.828	0.871	0.837	0.886	0.789	13.38
3)	P	Chloromethane	0.964	0.969	0.844	0.937	0.895	0.907	1.006	0.932	5.81
4)	C	Vinyl chloride	0.793	0.758	0.690	0.857	0.834	0.836	0.882	0.807	8.18
5)	T	Bromomethane	0.505	0.448	0.444	0.448	0.419	0.416	0.428	0.444	6.71
6)	T	Chloroethane	0.412	0.395	0.403	0.434	0.409	0.409	0.431	0.413	3.47
7)	T	Trichlorofluorome	1.111	1.014		1.306	1.263	1.251	1.300	1.208	9.79
8)	T	Acrolein	0.051	0.044	0.044	0.046	0.037	0.038	0.054	0.045	13.59
9)	MC	1,1-Dichloroethen	0.551	0.522	0.493	0.624	0.599	0.616	0.646	0.579	9.88
10)	T	Acetone			0.143	0.143	0.116	0.116	0.125	0.129	10.54
11)	T	Carbon disulfide	1.719	1.476	1.439	1.817	1.869	1.908	2.013	1.749	12.47
12)	T	Vinyl acetate	1.802	1.841	1.865	1.778	1.734	1.738	1.823	1.797	2.79
13)	T	Methylene chlorid		0.545	0.504	0.480	0.492	0.465	0.453	0.490	6.65
14)	T	Acrylonitrile	0.127	0.115	0.118	0.126	0.103	0.109	0.150	0.121	12.63
15)	T	tert-Butyl alcoho		0.046	0.046	0.040	0.037	0.035	0.038	0.040	10.72
16)	T	trans-1,2-Dichlor	0.621	0.624	0.601	0.694	0.658	0.670	0.722	0.656	6.63
17)	T	Methyl tert-butyl	1.415	1.415	1.289	1.217	1.164	1.174	1.271	1.278	8.16
18)	P	1,1-Dichloroethan	1.208	1.097	1.140	1.199	1.146	1.185	1.253	1.175	4.39
19)	T	Diisopropyl ether	2.559	2.489	2.471	2.443	2.337	2.383	2.501	2.455	3.05
20)	T	cis-1,2-Dichloroe	0.725	0.615	0.629	0.612	0.594	0.613	0.658	0.635	7.00
21)	T	2,2-Dichloropropa	1.044	0.928	0.913	1.119	1.154	1.177	1.204	1.077	10.98
22)	T	2-Butanone (MEK)			0.181	0.226	0.185	0.180	0.194	0.193	10.01
23)	T	Bromochloromethan	0.279	0.252	0.252	0.248	0.240	0.244	0.263	0.254	5.23
25)	C	Chloroform	1.299	1.078	1.040	1.061	1.018	1.045	1.089	1.090	8.76
26)	T	1,1,1-Trichloroet	1.282	1.585	1.251	1.353	1.350	1.397	1.442	1.380	8.04
27)	T	Carbon tetrachlor	1.047			1.250	1.370	1.428	1.457	1.310	12.76
28)	T	1,1-Dichloroprope	0.799	0.771	0.736	0.901	0.935	0.947	0.944	0.862	10.47
29)	T	1,2-Dichloroethan	0.792	0.834	0.786	0.753	0.736	0.746	0.763	0.773	4.40
30)	S	1,2-Dichloroethan	0.466	0.452	0.449	0.434	0.418	0.416	0.428	0.437	4.28
31)	I	1,4-Difluorobenzene	----------ISTD----------								
32)	M	Benzene	1.327	1.099	1.348	1.416	1.458	1.514	1.527	1.384	10.62
33)	M	Trichloroethene	0.427	0.432	0.422	0.470	0.494	0.510	0.509	0.466	8.41
34)	C	1,2-Dichloropropa	0.426	0.382	0.368	0.360	0.372	0.385	0.400	0.385	5.79
35)	T	Dibromomethane	0.144	0.145	0.173	0.153	0.155	0.157	0.166	0.156	6.77
36)	T	1,4-Dioxane	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	9.74
37)	T	Bromodichlorometh	0.473	0.445	0.434	0.431	0.472	0.492	0.500	0.464	5.92
38)	T	2-Chloroethyl vin	0.126		0.170	0.157	0.141	0.144	0.154	0.149	10.32
39)	T	cis-1,3-Dichlorop	0.402	0.438	0.435	0.460	0.482	0.501	0.520	0.463	8.89
40)	T	4-Methyl-2-pentan	0.329	0.277	0.264	0.273	0.268	0.271	0.292	0.282	8.05
41)	S	Toluene-d8	1.014	1.035	1.041	1.067	1.102	1.076	1.137	1.067	3.94
42)	MC	Toluene	0.900	0.977	0.998	1.038	1.101	1.120	1.176	1.044	9.08
43)	T	trans-1,3-Dichlor	0.369	0.387	0.363	0.379	0.424	0.439	0.472	0.405	10.12
44)	T	1,1,2-Trichloroet	0.178	0.170	0.159	0.157	0.161	0.167	0.177	0.167	5.07
45)	T	Tetrachloroethene	0.455	0.447	0.439	0.536	0.565	0.575	0.593	0.516	12.89
46)	T	1,3-Dichloropropa	0.365	0.353	0.368	0.338	0.362	0.370	0.394	0.364	4.69
47)	T	2-Hexanone		0.205	0.211	0.214	0.217	0.219	0.240	0.218	5.57
48)	T	Dibromochlorometh		0.282	0.300	0.304	0.347	0.368	0.390	0.332	12.96
49)	T	1,2-Dibromoethane	0.202	0.197	0.212	0.207	0.220	0.227	0.243	0.216	7.40
50)	I	Chlorobenzene-d5	----------ISTD----------								
51)	MP	Chlorobenzene	1.273	1.199	1.245	1.271	1.273	1.290	1.288	1.263	2.52
52)	T	1,1,1,2-Tetrachlo	0.468	0.431	0.447	0.448	0.457	0.469	0.454	0.454	2.82

53)	C	Ethylbenzene	2.110	2.049	2.123	2.374	2.455	2.504	2.468	2.297	8.51
54)	T	m,p-Xylene	0.777	0.792	0.826	0.881	0.930	0.957	0.944	0.872	8.54
55)	T	o-Xylene	0.746	0.853	0.785	0.838	0.829	0.846	0.832	0.818	4.71
56)	T	Styrene	1.242	1.217	1.250	1.259	1.315	1.385	1.372	1.291	5.15
57)	P	Bromoform	0.142	0.174	0.162	0.131	0.154	0.163	0.165	0.156	9.41
58)	T	Isopropylbenzene	2.259	2.203	2.210	2.610	2.640	2.632	2.587	2.449	8.64
59)	S	Bromofluorobenzen	0.501	0.482	0.469	0.472	0.471	0.478	0.495	0.481	2.62
60)	P	1,1,2,2-Tetrachlo	0.305		0.338	0.288	0.304	0.292	0.292	0.303	6.11
61)	T	Bromobenzene	0.533	0.484	0.489	0.433	0.459	0.478	0.483	0.480	6.35
62)	T	1,2,3-Trichloropr	0.218	0.182	0.201	0.191	0.176	0.169	0.181	0.188	8.84
63)	T	n-Propylbenzene	2.390	2.440	2.424	2.772	2.905	2.929	2.889	2.678	9.29
64)	T	2-Chlorotoluene	1.700	1.600	1.646	1.594	1.635	1.678	1.646	1.643	2.34
65)	T	1,3,5-Trimethylbe	1.869	1.970	1.960	2.170	2.215	2.217	2.189	2.084	7.01
66)	T	4-Chlorotoluene	1.968	1.845	1.864	1.820	1.898	1.973	1.963	1.904	3.35
67)	T	tert-Butylbenzene	1.622	1.741	1.788	2.107	2.069	2.041	1.990	1.908	9.90
68)	T	1,2,4-Trimethylbe	2.068	1.936	2.090	2.103	2.149	2.169	2.156	2.096	3.81
69)	T	sec-Butylbenzene	2.231	2.230	2.330	2.895	2.935	2.880	2.846	2.621	12.84
70)	T	1,3-Dichlorobenze	1.164	1.043	1.055	0.944	0.948	0.984	0.981	1.017	7.64
71)	T	4-Isopropyltoluen	2.171	2.100	2.230	2.571	2.694	2.692	2.652	2.444	10.85
72)	T	1,4-Dichlorobenze	1.174	1.108	0.993	0.910	0.923	0.960	0.964	1.005	9.83
73)	T	n-Butylbenzene	0.981	0.929	0.960	1.140	1.181	1.186	1.154	1.076	10.55
74)	T	1,2-Dichlorobenze	1.010	0.887	0.943	0.832	0.838	0.852	0.864	0.890	7.31
75)	T	1,2-Dibromo-3-chl	0.057	0.053	0.048	0.046	0.048	0.047	0.049	0.050	7.67
76)	T	1,2,4-Trichlorobe	0.669	0.605	0.582	0.537	0.533	0.524	0.522	0.567	9.65
77)	T	Hexachlorobutadie	0.306	0.304	0.301	0.371	0.359	0.359	0.351	0.336	9.09
78)	T	Naphthalene		1.070	1.072	1.021	1.061	1.044	1.084	1.058	2.14
79)	T	1,2,3-Trichlorobe	0.565	0.464	0.521	0.449	0.454	0.433	0.447	0.476	10.10
80)	T	1,1,2-Trichloro-1	0.481	0.439		0.606	0.549	0.543	0.532	0.525	11.05
81)	T	Methyl acetate			0.173	0.166	0.141	0.136	0.141	0.151	11.04
82)	T	Cyclohexane		1.374	1.034	1.404	1.321	1.324	1.286	1.291	10.27
83)	T	Methylcyclohexane	0.945			1.136	1.103	1.094	1.061	1.068	6.90

(#) = Out of Range ### Number of calibration levels exceeded format ###

TSO0618.M Tue Jun 19 10:04:10 2012 RP1

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\07-08-12\
Data File : F6718.D
Acq On : 8 Jul 2012 10:19
Operator : XING
Sample : CCV100,CCV100,S,5g,0
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 08 10:47:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Min. RRF : 0.000 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	I	Pentafluorobenzene	1.000	1.000	0.0	101	0.00
2	T	Dichlorodifluoromethane	0.789	0.722	8.5	84	0.00
3	P	Chloromethane	0.932	0.831	10.8	94	0.01
4	C	Vinyl chloride	0.807	0.779	3.5	94	0.00
5	T	Bromomethane	0.444	0.383	13.7	92	0.01
6	T	Chloroethane	0.413	0.379	8.2	94	0.01
7	T	Trichlorofluoromethane	1.208	1.025	15.1	82	0.01
8	T	Acrolein	0.045	0.044	2.2	121	0.00
9	MC	1,1-Dichloroethene	0.579	0.582	-0.5	98	0.00
10	T	Acetone	0.129	0.133	-3.1	116	0.00
11	T	Carbon disulfide	1.749	1.832	-4.7	99	0.01
12	T	Vinyl acetate	1.797	2.027	-12.8	118	0.00
13	T	Methylene chloride	0.490	0.511	-4.3	105	0.00
14	T	Acrylonitrile	0.121	0.127	-5.0	124	0.00
15	T	tert-Butyl alcohol (TBA)	0.040	0.046	-15.0	126	0.00
16	T	trans-1,2-Dichloroethene	0.656	0.681	-3.8	104	0.00
17	T	Methyl tert-butyl ether (MT	1.278	1.444	-13.0	125	0.00
18	P	1,1-Dichloroethane	1.175	1.227	-4.4	108	0.00
19	T	Diisopropyl ether (DIPE)	2.455	2.501	-1.9	108	0.00
20	T	cis-1,2-Dichloroethene	0.635	0.680	-7.1	116	0.00
21	T	2,2-Dichloropropane	1.077	0.871	19.1	76	0.00
22	T	2-Butanone (MEK)	0.193	0.229	-18.7	125	0.00
23	T	Bromochloromethane	0.254	0.301	-18.5	127	0.00
25	C	Chloroform	1.090	1.082	0.7	107	0.00
26	T	1,1,1-Trichloroethane	1.380	1.185	14.1	89	0.00
27	T	Carbon tetrachloride	1.310	1.165	11.1	86	0.01
28	T	1,1-Dichloropropene	0.862	0.914	-6.0	99	0.00
29	T	1,2-Dichloroethane (EDC)	0.773	0.846	-9.4	116	0.00
30	S	1,2-Dichloroethane-d4	0.437	0.480	-9.8	116	0.00
31	I	1,4-Difluorobenzene	1.000	1.000	0.0	109	0.00
32	M	Benzene	1.384	1.451	-4.8	109	0.00
33	M	Trichloroethene	0.466	0.446	4.3	99	0.00
34	C	1,2-Dichloropropane	0.385	0.381	1.0	112	0.00
35	T	Dibromomethane	0.156	0.181	-16.0	128	0.00
36	T	1,4-Dioxane	0.002	0.002	0.0	115	0.00
37	T	Bromodichloromethane	0.464	0.473	-1.9	110	0.00
38	T	2-Chloroethyl vinyl ether	0.149	0.163	-9.4	127	0.00
39	T	cis-1,3-Dichloropropene	0.463	0.493	-6.5	112	0.00
40	T	4-Methyl-2-pentanone (MIBK)	0.282	0.305	-8.2	125	0.00
41	S	Toluene-d8	1.067	0.998	6.5	99	0.00
42	MC	Toluene	1.044	0.982	5.9	98	0.00
43	T	trans-1,3-Dichloropropene	0.405	0.424	-4.7	109	0.00
44	T	1,1,2-Trichloroethane	0.167	0.184	-10.2	125	0.00
45	T	Tetrachloroethene	0.516	0.459	11.0	89	0.00
46	T	1,3-Dichloropropane	0.364	0.387	-6.3	117	0.00

47	T	2-Hexanone	0.218	0.229	-5.0	115	0.00
48	T	Dibromochloromethane	0.332	0.364	-9.6	115	0.00
49	T	1,2-Dibromoethane (EDB)	0.216	0.244	-13.0	121	0.00
50	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00
51	MP	Chlorobenzene	1.263	1.087	13.9	97	0.00
52	T	1,1,1,2-Tetrachloroethane	0.454	0.422	7.0	105	0.00
53	C	Ethylbenzene	2.297	1.967	14.4	91	0.00
54	T	m,p-Xylene	0.872	0.751	13.9	92	0.00
55	T	o-Xylene	0.818	0.702	14.2	96	0.00
56	T	Styrene	1.291	1.140	11.7	99	0.00
57	P	Bromoform	0.156	0.176	-12.8	131	0.00
58	T	Isopropylbenzene	2.449	2.063	15.8	89	0.00
59	S	Bromofluorobenzene	0.481	0.476	1.0	115	0.00
60	P	1,1,2,2-Tetrachloroethane	0.303	0.351	-15.8	131	0.00
61	T	Bromobenzene	0.480	0.422	12.1	105	0.00
62	T	1,2,3-Trichloropropane	0.188	0.200	-6.4	129	0.00
63	T	n-Propylbenzene	2.678	2.263	15.5	89	0.00
64	T	2-Chlorotoluene	1.643	1.359	17.3	95	0.00
65	T	1,3,5-Trimethylbenzene	2.084	1.738	16.6	89	0.00
66	T	4-Chlorotoluene	1.904	1.578	17.1	95	0.00
67	T	tert-Butylbenzene	1.908	1.652	13.4	91	0.00
68	T	1,2,4-Trimethylbenzene	2.096	1.715	18.2	91	0.00
69	T	sec-Butylbenzene	2.621	2.205	15.9	86	0.00
70	T	1,3-Dichlorobenzene	1.017	0.855	15.9	103	0.00
71	T	4-Isopropyltoluene	2.444	2.009	17.8	85	0.00
72	T	1,4-Dichlorobenzene	1.005	0.861	14.3	106	0.00
73	T	n-Butylbenzene	1.076	0.895	16.8	86	0.00
74	T	1,2-Dichlorobenzene	0.890	0.778	12.6	106	0.00
75	T	1,2-Dibromo-3-chloropropane	0.050	0.051	-2.0	119	0.00
76	T	1,2,4-Trichlorobenzene	0.567	0.481	15.2	103	0.00
77	T	Hexachlorobutadiene	0.336	0.259	22.9#	82	0.00
78	T	Naphthalene	1.058	1.134	-7.2	122	0.00
79	T	1,2,3-Trichlorobenzene	0.476	0.422	11.3	106	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.525	0.433	17.5	90	0.01
81	T	Methyl acetate	0.151	0.179	-18.5	144	0.00
82	T	Cyclohexane	1.291	1.044	19.1	90	0.01
83	T	Methylcyclohexane	1.068	0.862	19.3	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FSO0618.M Mon Jul 09 13:52:51 2012 RP1

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F6034.D

Date Analyzed: 06/18/2012

Instrument ID: MSD_F

Time Analyzed: 14:27

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	82964	6.11	121160	6.94	117988	10.28
	UPPER LIMIT	165928	6.61	242320	7.44	235976	10.78
	LOWER LIMIT	41482	5.61	60580	6.44	58994	9.78
	LAB SAMPLE ID						
01	ICC1	72530	6.11	107271	6.94	94917	10.28
02	ICC2	78227	6.11	121220	6.94	105298	10.28
03	ICC5	77751	6.11	119932	6.94	103524	10.27
04	ICC20	76048	6.11	114958	6.94	104107	10.28
05	ICC200	90561	6.11	129735	6.94	129760	10.28
06	ICC150	84656	6.11	121265	6.94	128416	10.28
07	ICV100	87791	6.11	131067	6.94	126852	10.28
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): F6718.D

Date Analyzed: 07/08/2012

Instrument ID: MSD_F

Time Analyzed: 10:19

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	83799	6.11	132502	6.94	134282	10.28
	UPPER LIMIT	167598	6.61	265004	7.44	268564	10.78
	LOWER LIMIT	41899.5	5.61	66251	6.44	67141	9.78
	LAB SAMPLE ID						
01	BLKS120708-01	70132	6.11	99032	6.94	91013	10.28
02	06507-001	61774	6.11	88064	6.94	80654	10.28
03	06507-002	65375	6.11	92484	6.94	83995	10.28
04	06507-005	64910	6.11	92944	6.94	85445	10.28
05	06507-008	68153	6.11	99560	6.94	91065	10.28
06	06507-009	65162	6.11	94652	6.94	86198	10.28
07	06507-010	66603	6.11	94473	6.94	87523	10.28
08	LCSS120708-01	76509	6.11	121065	6.94	124655	10.28
09	06507-009MS	75416	6.11	118066	6.94	121453	10.28
10	06507-009MSD	73670	6.11	114315	6.94	115549	10.28
11	06577-001	81547	6.11	126357	6.94	117116	10.28
12	06577-004	77833	6.11	119182	6.94	109531	10.28
13	06577-005	69547	6.11	106716	6.94	99425	10.28
14	06577-008	72403	6.11	110289	6.94	102844	10.28
15	06640-007	69806	6.11	105456	6.94	103113	10.28
16	06625-001	65246	6.11	97475	6.94	91770	10.28
17	06625-007	67106	6.11	100131	6.94	91254	10.28
18	06625-008	66905	6.11	99957	6.94	91511	10.28
19	06625-003	65168	6.11	99265	6.94	97469	10.28
20	06625-004	67135	6.11	97465	6.94	93565	10.28
21							
22							

IS1 = PENTAFLUOROBENZENE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM 8

VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-08-12\
Data File : F6734.D
Acq On : 8 Jul 2012 18:20
Operator : XING
Sample : K1_(9-10)-0702,06640-007,S,3.9g,18.5
Misc : URS-FTWASH/TRADEBE,07/02/12,07/03/12,
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 09 14:15:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	69806	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	105456	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	103113	50.00 UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.448	65	25546	41.83 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 83.66%		
41) Toluene-d8	8.600	98	103830	46.13 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 92.26%		
59) Bromofluorobenzene	11.676	95	45223	45.58 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 91.16%		

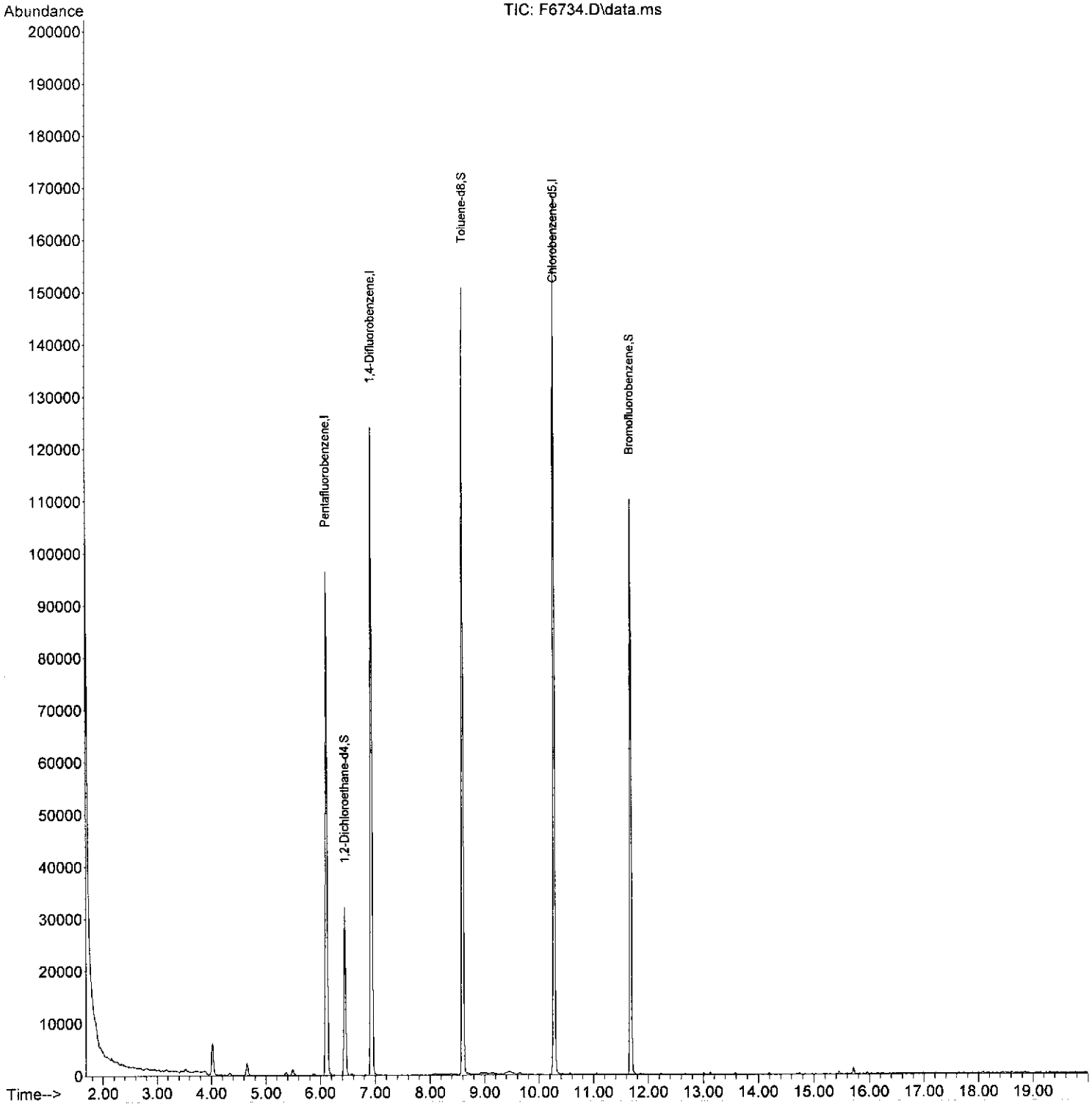
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-08-12\
Data File : F6734.D
Acq On : 8 Jul 2012 18:20
Operator : XING
Sample : K1_(9-10)-0702,06640-007,S,3.9g,18.5
Misc : URS-FTWASH/TRADEBE,07/02/12,07/03/12,
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 09 14:15:43 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



FSO0618.M Mon Jul 09 14:15:48 2012 RP1

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-08-12\
Data File : F6734.D
Acq On : 8 Jul 2012 18:20
Operator : XING
Sample : K1_(9-10)-0702,06640-007,S,3.9g,18.5
Misc : URS-FTWASH/TRADEBE,07/02/12,07/03/12,
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6734.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.022	224	231	243	rVB	6047	14960	4.89%	1.113%
2	4.651	287	293	302	rVB2	2388	5936	1.94%	0.442%
3	5.494	369	376	389	rVB2	1090	3372	1.10%	0.251%
4	6.113	430	437	447	rBV	96520	207710	67.91%	15.460%
5	6.448	463	470	479	rBV	32156	67228	21.98%	5.004%
6	6.935	511	518	528	rBV	124073	240377	78.59%	17.891%
7	8.600	676	682	696	rBV	150767	283725	92.76%	21.118%
8	9.453	753	766	779	rBV4	543	4243	1.39%	0.316%
9	10.275	839	847	860	rBV	168538	305860	100.00%	22.765%
10	11.676	979	985	999	rBV	110195	210116	68.70%	15.639%

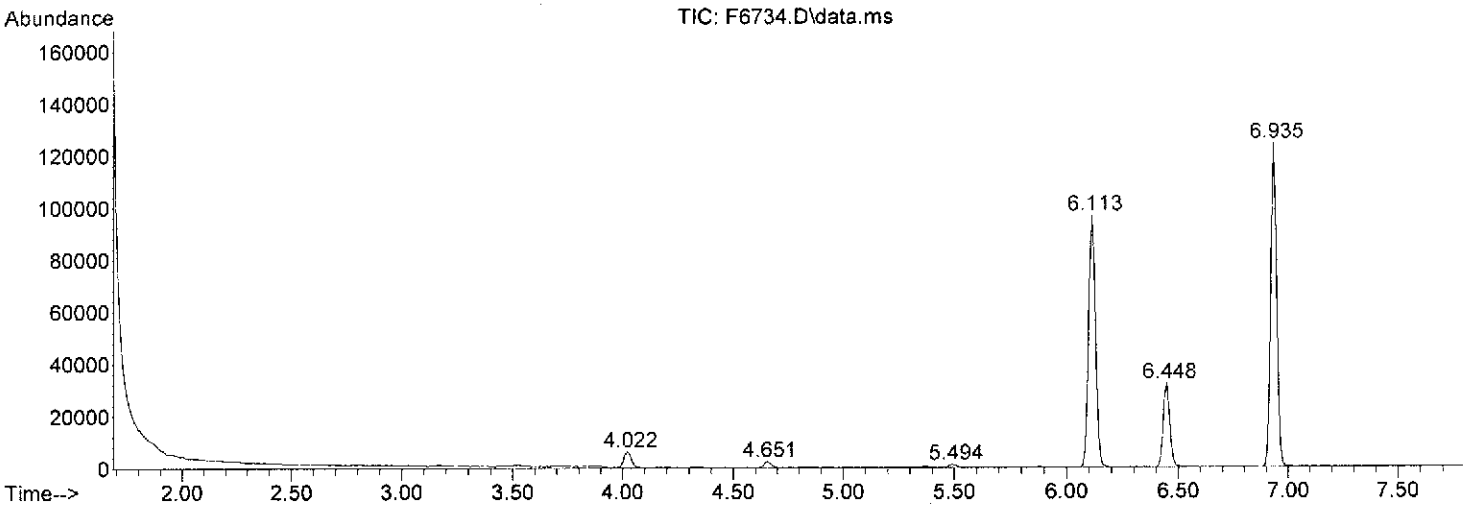
Sum of corrected areas: 1343527

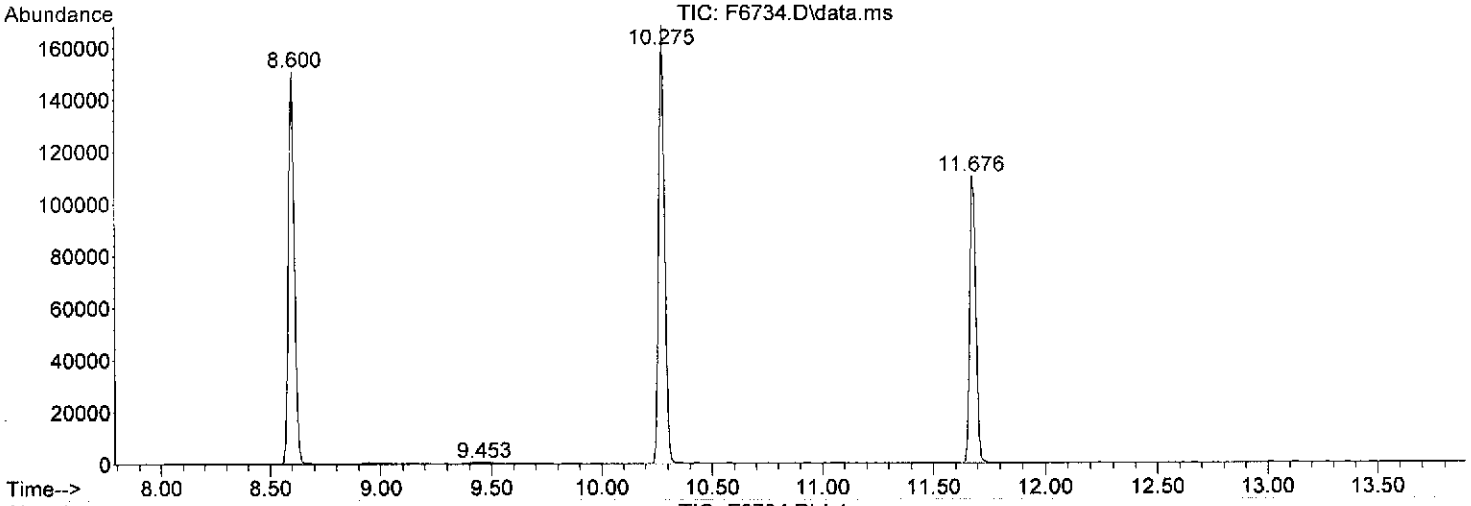
LSC Report - Integrated Chromatogram

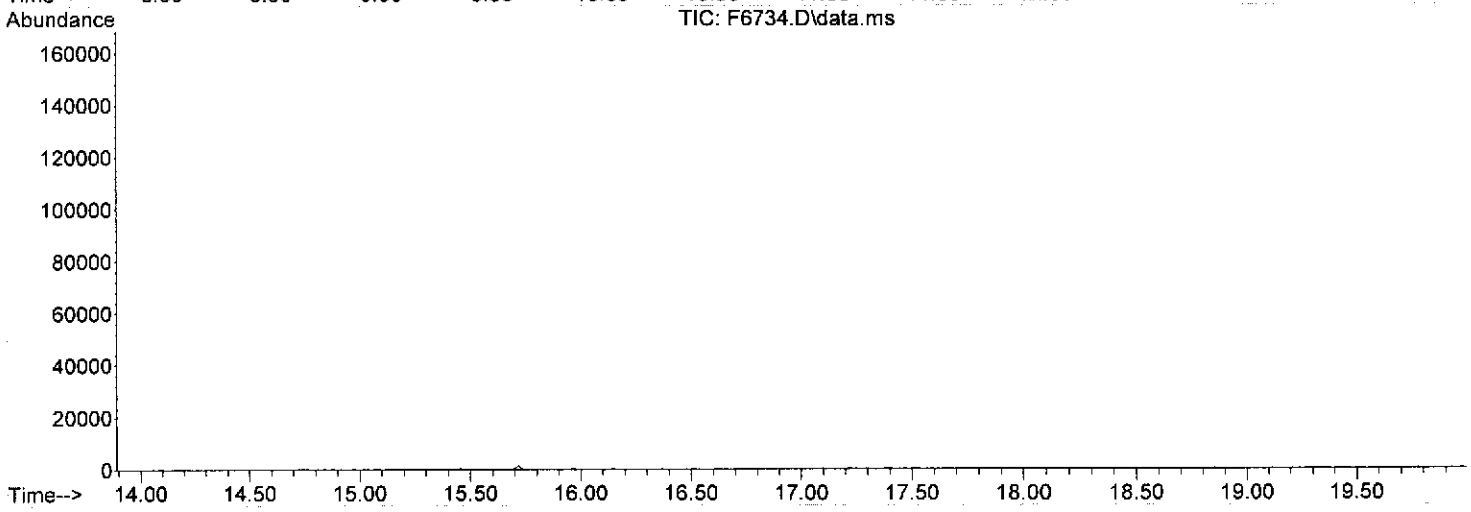
Data Path : C:\msdchem\1\DATA\07-08-12\
Data File : F6734.D
Acq On : 8 Jul 2012 18:20
Operator : XING
Sample : K1_(9-10)-0702,06640-007,S,3.9g,18.5
Misc : URS-FTWASH/TRADEBE,07/02/12,07/03/12,
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS120708-01
Client ID: BLKS120708-01
Date Received:
Date Analyzed: 07/08/2012
Data file: F6720.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		0.001	0.0004
Chloromethane	ND		0.001	0.00041
Vinyl chloride	ND		0.001	0.00048
Bromomethane	ND		0.001	0.00035
Chloroethane	ND		0.001	0.00045
Trichlorofluoromethane	ND		0.001	0.00041
1,1-Dichloroethene	ND		0.001	0.0005
Acetone	ND		0.005	0.0007
Carbon disulfide	ND		0.001	0.00034
Methylene chloride	ND		0.002	0.00198
trans-1,2-Dichloroethene	ND		0.001	0.00043
Methyl tert-butyl ether (MTBE)	ND		0.001	0.00023
1,1-Dichloroethane	ND		0.001	0.00027
cis-1,2-Dichloroethene	ND		0.001	0.00031
2-Butanone (MEK)	ND		0.005	0.00037
Bromochloromethane	ND		0.001	0.00024
Chloroform	ND		0.001	0.00029
1,1,1-Trichloroethane	ND		0.001	0.00033
Carbon tetrachloride	ND		0.001	0.00041
1,2-Dichloroethane (EDC)	ND		0.001	0.00021
Benzene	ND		0.001	0.00024
Trichloroethene	ND		0.001	0.00032
1,2-Dichloropropane	ND		0.001	0.00022
1,4-Dioxane	ND		0.200	0.016
Bromodichloromethane	ND		0.001	0.00032
cis-1,3-Dichloropropene	ND		0.001	0.00026
4-Methyl-2-pentanone (MIBK)	ND		0.001	0.00024

E12-06640 0080

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Lab ID: BLKS120708-01
Client ID: BLKS120708-01
Date Received:
Date Analyzed: 07/08/2012
Data file: F6720.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.001	0.00025
trans-1,3-Dichloropropene	ND		0.001	0.00026
1,1,2-Trichloroethane	ND		0.001	0.0002
Tetrachloroethene	ND		0.001	0.00026
2-Hexanone	ND		0.002	0.00036
Dibromochloromethane	ND		0.002	0.00022
1,2-Dibromoethane (EDB)	ND		0.001	0.00021
Chlorobenzene	ND		0.001	0.00022
Ethylbenzene	ND		0.001	0.00031
Total Xylenes	ND		0.002	0.00106
Styrene	ND		0.001	0.0003
Bromoform	ND		0.001	0.00032
Isopropylbenzene	ND		0.001	0.00041
1,1,2,2-Tetrachloroethane	ND		0.001	0.00023
1,3-Dichlorobenzene	ND		0.001	0.00031
1,4-Dichlorobenzene	ND		0.001	0.00031
1,2-Dichlorobenzene	ND		0.001	0.00036
1,2-Dibromo-3-chloropropane	ND		0.001	0.0005
1,2,4-Trichlorobenzene	ND		0.001	0.00052
1,2,3-Trichlorobenzene	ND		0.001	0.00048
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.001	0.00055
Methyl acetate	ND		0.005	0.00058
Cyclohexane	ND		0.002	0.00042
Methylcyclohexane	ND		0.001	0.0005
1,3-Dichloropropene (cis- and trans-)	ND		0.001	0.00026

Total Target Compounds (52): 0

E12-06640 0081

INTEGRATED ANALYTICAL LABORATORIES

VOLATILE ORGANICS

Tentatively Identified Compounds

Lab ID: BLKS120708-01
Client ID: BLKS120708-01
Date Received:
Date Analyzed: 07/08/2012
Data file: F6720.D

GC/MS Column: DB-624
Sample wt/vol: 5g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-08-12\
Data File : F6720.D
Acq On : 8 Jul 2012 11:19
Operator : XING
Sample : BLKS120708-01,BLKS120708-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 08 12:14:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.113	168	70132	50.00 UG	0.00
31) 1,4-Difluorobenzene	6.935	114	99032	50.00 UG	0.00
50) Chlorobenzene-d5	10.275	117	91013	50.00 UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.448	65	18533	30.20 UG	0.00
Spiked Amount 50.000	Range 43 - 133		Recovery = 60.40%		
41) Toluene-d8	8.600	98	97188	45.98 UG	0.00
Spiked Amount 50.000	Range 39 - 137		Recovery = 91.96%		
59) Bromofluorobenzene	11.676	95	39275	44.84 UG	0.00
Spiked Amount 50.000	Range 23 - 145		Recovery = 89.68%		

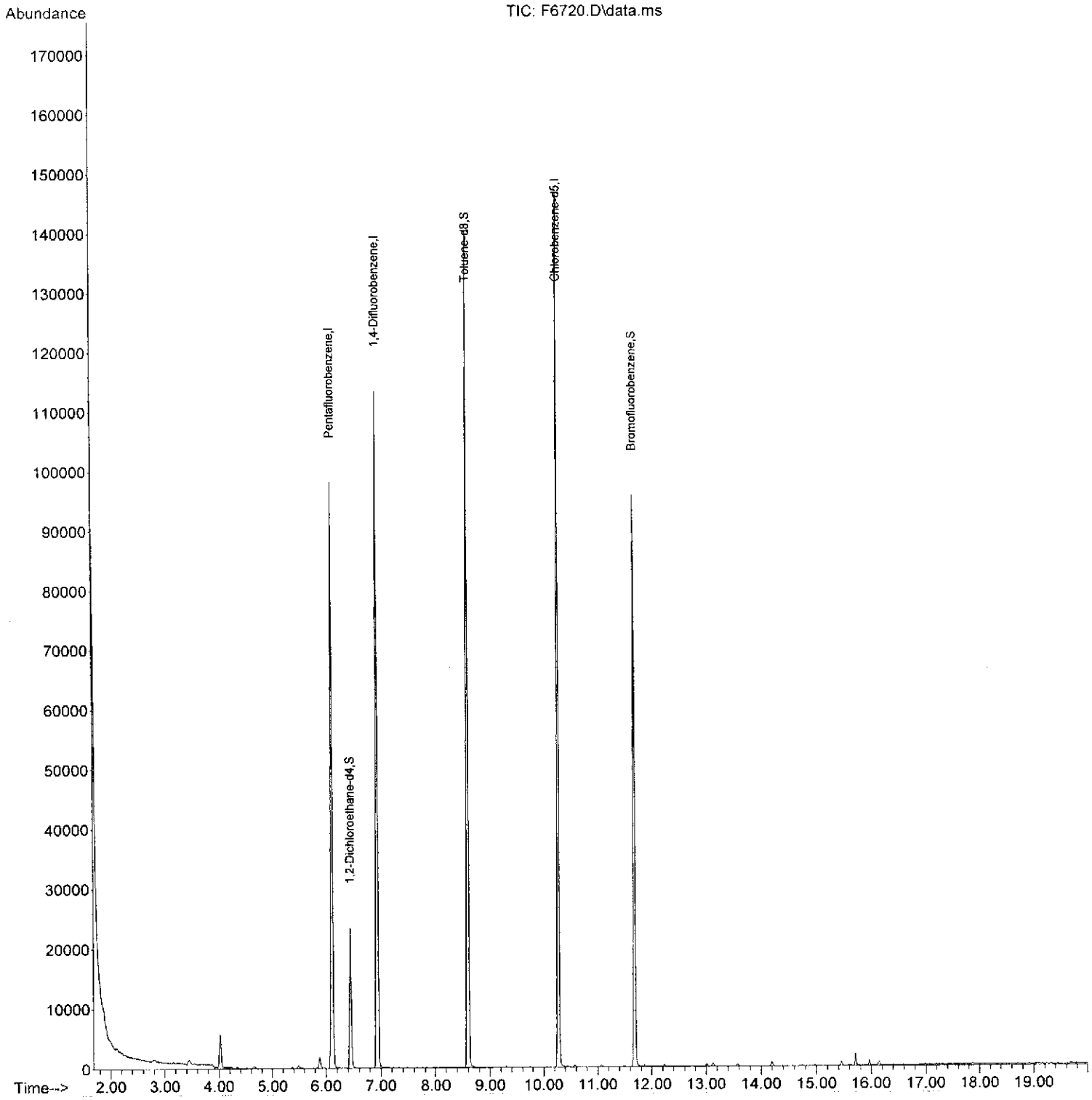
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\07-08-12\
Data File : F6720.D
Acq On : 8 Jul 2012 11:19
Operator : XING
Sample : BLKS120708-01,BLKS120708-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 08 12:14:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B
QLast Update : Mon Jun 18 17:00:12 2012
Response via : Initial Calibration



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\07-08-12\
Data File : F6720.D
Acq On : 8 Jul 2012 11:19
Operator : XING
Sample : BLKS120708-01,BLKS120708-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: LSCINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Title : VOLATILE ORGANICS BY EPA METHOD 8260B

Signal : TIC: F6720.

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.443	170	174	182	rBV5	817	2841	1.06%	0.233%
2	4.022	226	231	237	rBV	5473	13547	5.04%	1.111%
3	5.890	406	415	420	rVB	1857	4145	1.54%	0.340%
4	6.113	429	437	447	rBV	98179	205389	76.49%	16.839%
5	6.448	463	470	481	rBV	23407	49183	18.32%	4.032%
6	6.935	512	518	528	rBV	113498	225870	84.11%	18.518%
7	8.600	675	682	695	rBV	140108	265668	98.93%	21.781%
8	10.275	839	847	861	rBV	146351	268531	100.00%	22.015%
9	11.676	978	985	998	rBV	95797	181211	67.48%	14.857%
10	15.716	1378	1383	1389	rBV	2041	3352	1.25%	0.275%

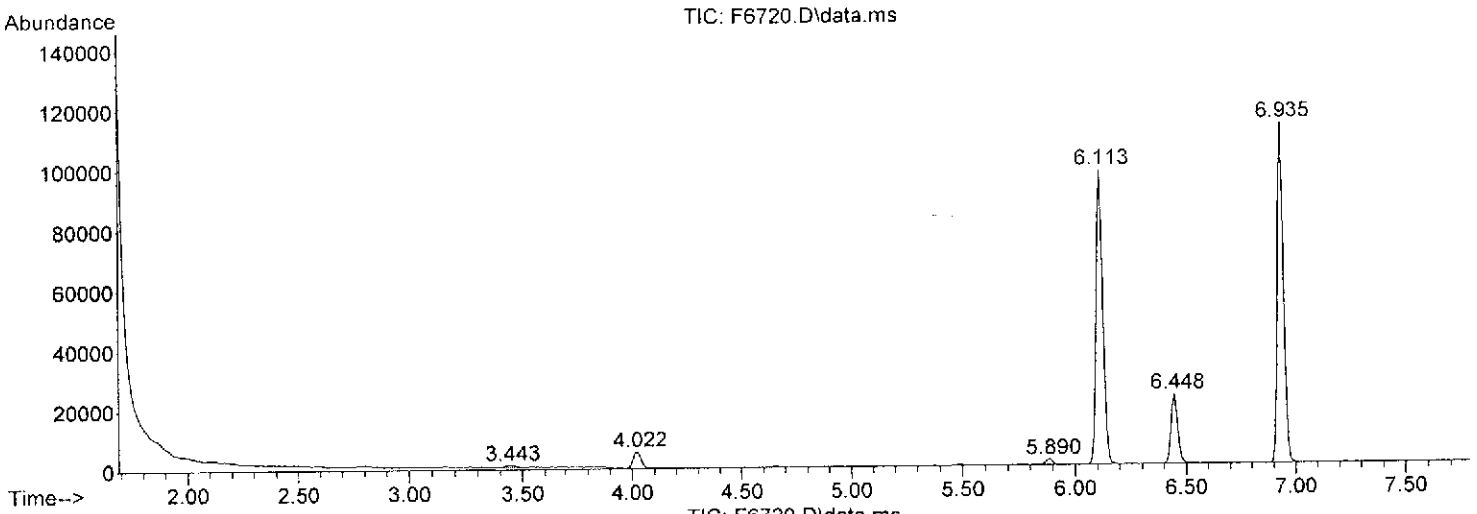
Sum of corrected areas: 1219737

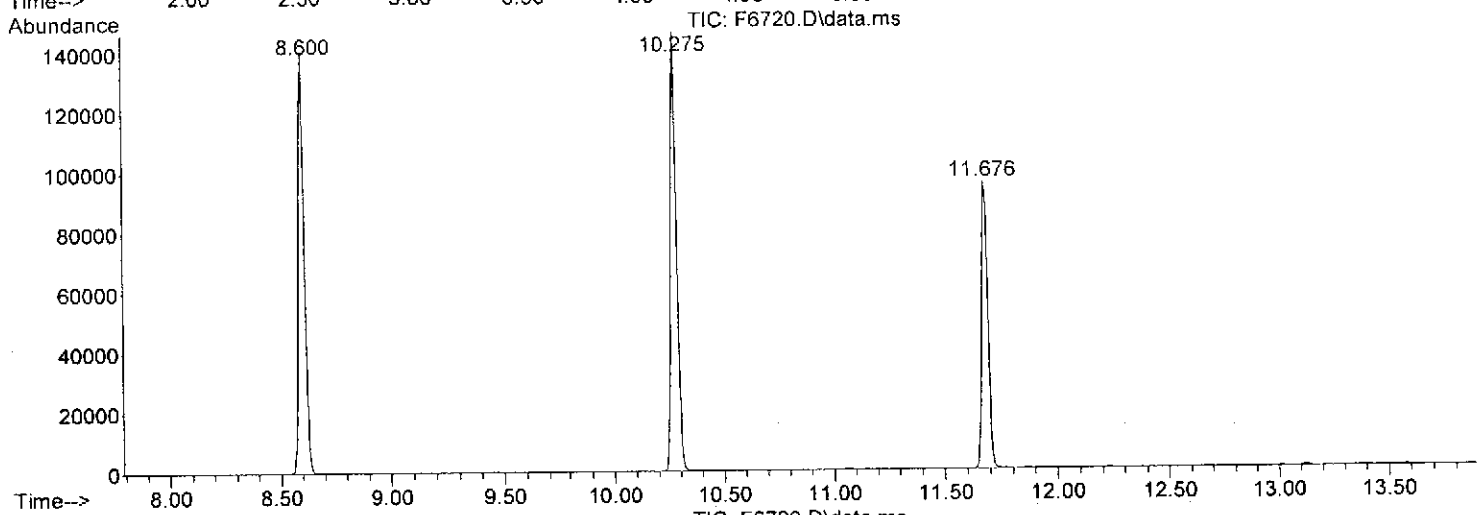
LSC Report - Integrated Chromatogram

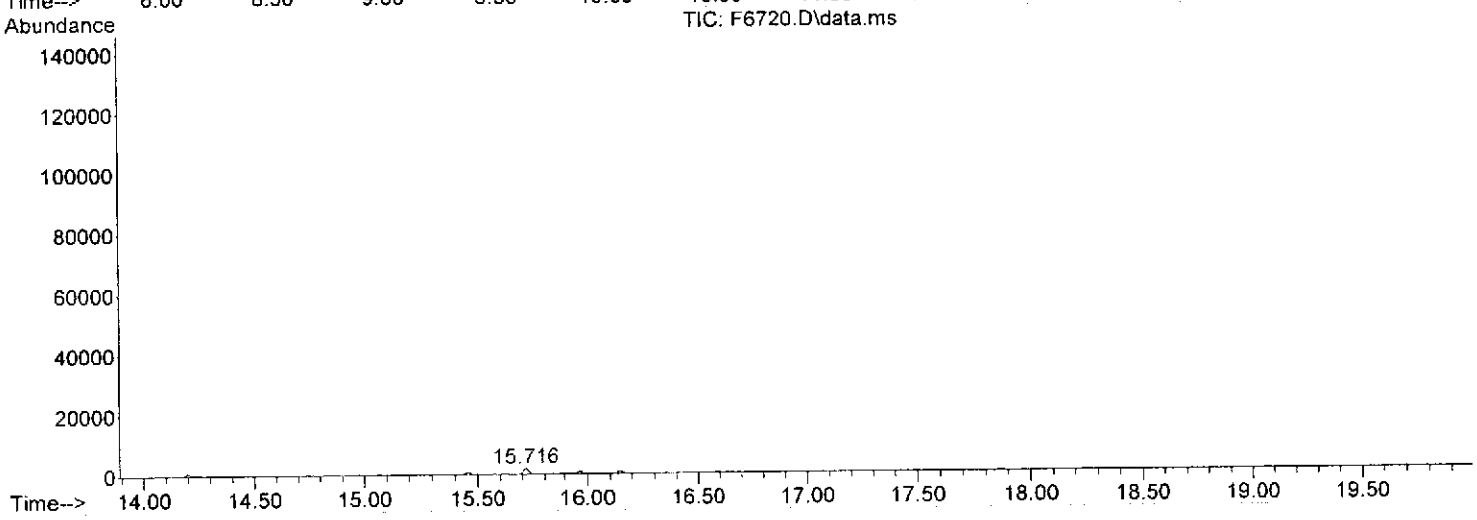
Data Path : C:\msdchem\1\DATA\07-08-12\
Data File : F6720.D
Acq On : 8 Jul 2012 11:19
Operator : XING
Sample : BLKS120708-01,BLKS120708-01,S,5g,0
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\FSO0618.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260B

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P







SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/14/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
BLKS120713-02	SOIL	A2143.D	77	84	73	75	88	117
LCSS120713-02	SOIL	A2144.D	55	67	70	91	107	112
E12-06640-004MS	SOIL	A2145.D	74	84	70	70	104	88
E12-06640-004MSD	SOIL	A2146.D	73	84	70	68	103	91
E12-06640-001	SOIL	A2147.D	N/A	N/A	50	54	N/A	83
E12-06640-002	SOIL	A2148.D	N/A	N/A	50	59	N/A	56
E12-06640-003	SOIL	A2149.D	N/A	N/A	57	63	N/A	71
E12-06640-004	SOIL	A2150.D	N/A	N/A	51	54	N/A	68
E12-06640-005	SOIL	A2151.D	N/A	N/A	50	55	N/A	67
E12-06640-006	SOIL	A2152.D	N/A	N/A	44	49	N/A	66
E12-06640-007	SOIL	A2153.D	67	77	51	59	101	76
E12-06640-008	SOIL	A2154.D	53	61	46	52	81	79
E12-06640-009	SOIL	A2155.D	72	82	44	50	92	59
E12-06800-021	SOIL	A2156.D	73	83	51	60	100	69
E12-06800-022	SOIL	A2157.D	59	72	40	50	99	59
E12-06800-023	SOIL	A2158.D	69	80	54	67	96	75
E12-06800-024	SOIL	A2159.D	70	81	50	60	97	65
E12-06730-001	SOIL	A2160.D	70	81	51	63	100	58
E12-06730-002	SOIL	A2161.D	79	85	51	50	104	51
E12-06730-003	SOIL	A2162.D	70	80	60	68	102	66
E12-06730-004	SOIL	A2163.D	85	92	61	55	100	64

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10.-83	25-100
S2 (PHL) = Phenol-d5	10.-91	25-108
S3 (NBZ) = Nitrobenzene-d5	25-94	24-91
S4 (FBP) = 2-Fluorobiphenyl	23-102	33-91
S5 (TBP) = 2,4,6-Tribromophenol	27-110	37-115
S6 (TPH) = Terphenyl-d14	33-113	15-122

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120713-02
Date Received: NA
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2144.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	50.0	23.9	48		40 - 140
Pyridine	50.0	10.9	22		20 - 120
Benzaldehyde	50.0	5.1	10		10 - 110
Phenol	50.0	31.0	62		30 - 140
Aniline	50.0	24.6	49		40 - 140
Bis(2-chloroethyl) ether	50.0	26.6	53		40 - 140
2-Chlorophenol	50.0	27.3	55		30 - 140
1,3-Dichlorobenzene	50.0	25.5	51		40 - 140
1,4-Dichlorobenzene	50.0	23.7	47		40 - 140
Benzyl alcohol	50.0	24.4	49		40 - 140
1,2-Dichlorobenzene	50.0	24.8	50		40 - 140
2-Methylphenol	50.0	25.6	51		30 - 140
Bis(2-chloroisopropyl) ether	50.0	29.2	58		40 - 140
4-Methylphenol	50.0	27.6	55		30 - 140
N-Nitrosodi-n-propylamine	50.0	33.8	68		40 - 140
Acetophenone	50.0	31.1	62		40 - 140
3-Methylphenol	50.0	27.6	55		30 - 140
Hexachloroethane	50.0	24.7	49		40 - 140
Nitrobenzene	50.0	30.2	60		40 - 140
Isophorone	50.0	31.1	62		40 - 140
2-Nitrophenol	50.0	34.1	68		30 - 140
2,4-Dimethylphenol	50.0	30.7	61		30 - 140
Bis(2-chloroethoxy) methane	50.0	32.8	66		40 - 140
Benzoic acid	50.0	27.5	55		30 - 140
2,4-Dimethylaniline	50.0	44.5	89		40 - 140
2,4-Dichlorophenol	50.0	33.7	67		30 - 140
1,2,4-Trichlorobenzene	50.0	28.1	56		40 - 140
Naphthalene	50.0	28.0	56		40 - 140
4-Chloroaniline	50.0	29.3	59		40 - 140
Hexachlorobutadiene	50.0	26.8	54		40 - 140
Caprolactam	50.0	51.7	103		40 - 140
4-Chloro-3-methylphenol	50.0	40.7	81		30 - 140
2-Methylnaphthalene	50.0	27.8	56		40 - 140
Hexachlorocyclopentadiene	50.0	35.4	71		5 - 105
2,4,6-Trichlorophenol	50.0	46.3	93		30 - 140
2,4,5-Trichlorophenol	50.0	39.9	80		30 - 140
1,1'-Biphenyl	50.0	39.3	79		40 - 140
2-Chloronaphthalene	50.0	40.1	80		40 - 140
2-Nitroaniline	50.0	43.3	87		40 - 140
Dimethyl phthalate	50.0	48.0	96		40 - 140
2,6-Dinitrotoluene	50.0	56.0	112		40 - 140
Acenaphthylene	50.0	41.6	83		40 - 140
3-Nitroaniline	50.0	46.1	92		40 - 140
Acenaphthene	50.0	41.8	84		40 - 140
2,4-Dinitrophenol	50.0	37.9	76		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120713-02
Date Received: NA
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2144.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	50.0	66.2	132		30 - 140
2,4-Dinitrotoluene	50.0	62.0	124		40 - 140
Dibenzofuran	50.0	35.5	71		40 - 140
Diethyl phthalate	50.0	52.9	106		40 - 140
Fluorene	50.0	45.8	92		40 - 140
4-Chlorophenyl phenyl ether	50.0	47.3	95		40 - 140
4-Nitroaniline	50.0	51.7	103		40 - 140
1,2,4,5-Tetrachlorobenzene	50.0	19.9	40		40 - 140
2,3,4,6-Tetrachlorophenol	50.0	68.7	137		40 - 140
4,6-Dinitro-2-methylphenol	50.0	50.4	101		10 - 110
N-Nitrosodiphenylamine	50.0	46.9	94		40 - 140
1,2-Diphenylhydrazine	50.0	42.7	85		40 - 140
4-Bromophenyl phenyl ether	50.0	45.8	92		40 - 140
Hexachlorobenzene	50.0	44.0	88		40 - 140
Atrazine	50.0	49.4	99		20 - 120
Pentachlorophenol	50.0	51.5	103		30 - 140
Phenanthrene	50.0	43.4	87		40 - 140
Anthracene	50.0	45.4	91		40 - 140
Carbazole	50.0	46.7	93		40 - 140
Di-n-butyl phthalate	50.0	47.6	95		40 - 140
Fluoranthene	50.0	42.9	86		40 - 140
Benzidine	50.0	15.2	30		5 - 105
Pyrene	50.0	49.2	98		40 - 140
3,3'-Dimethylbenzidine	50.0	16.0	32		5 - 105
Butyl benzyl phthalate	50.0	56.2	112		40 - 140
3,3'-Dichlorobenzidine	50.0	45.5	91		40 - 140
Benzo[a]anthracene	50.0	49.0	98		40 - 140
Chrysene	50.0	43.1	86		40 - 140
Bis(2-ethylhexyl) phthalate	50.0	56.4	113		40 - 140
Di-n-octyl phthalate	50.0	66.6	133		40 - 140
Benzo[b]fluoranthene	50.0	66.2	132		40 - 140
Benzo[k]fluoranthene	50.0	68.4	137		40 - 140
Benzo[a]pyrene	50.0	66.8	134		40 - 140
Indeno[1,2,3-cd]pyrene	50.0	64.7	129		40 - 140
Dibenz[a,h]anthracene	50.0	66.6	133		40 - 140
Benzo[g,h,i]perylene	50.0	61.1	122		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06640-004
Date Received: NA
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
MS Data file: A2145.D
MSD Data file: A2146.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	50.0	0.00	32.90	66		32.60	65		1		40-140/30
Pyridine	50.0	0.00	14.80	30		14.50	29		2		20-120/30
Benzaldehyde	50.0	0.00	6.60	13		6.80	14		3		10-110/30
Phenol	50.0	0.00	41.40	83		41.40	83		0		30-140/30
Aniline	50.0	0.00	31.20	62		31.40	63		1		40-140/30
Bis(2-chloroethyl) ether	50.0	0.00	35.20	70		35.50	71		1		40-140/30
2-Chlorophenol	50.0	0.00	37.80	76		37.00	74		2		30-140/30
1,3-Dichlorobenzene	50.0	0.00	34.60	69		34.50	69		0		40-140/30
1,4-Dichlorobenzene	50.0	0.00	33.30	67		32.20	64		3		40-140/30
Benzyl alcohol	50.0	0.00	31.60	63		31.30	63		1		40-140/30
1,2-Dichlorobenzene	50.0	0.00	33.80	68		33.50	67		1		40-140/30
2-Methylphenol	50.0	0.00	32.60	65		32.60	65		0		30-140/30
Bis(2-chloroisopropyl) ether	50.0	0.00	38.60	77		38.80	78		1		40-140/30
4-Methylphenol	50.0	0.00	35.40	71		35.50	71		0		30-140/30
N-Nitrosodi-n-propylamine	50.0	0.00	42.10	84		42.70	85		1		40-140/30
Acetophenone	50.0	0.00	39.00	78		38.40	77		2		40-140/30
3-Methylphenol	50.0	0.00	35.40	71		35.50	71		0		30-140/30
Hexachloroethane	50.0	0.00	33.30	67		32.90	66		1		40-140/30
Nitrobenzene	50.0	0.00	38.20	76		37.50	75		2		40-140/30
Isophorone	50.0	0.00	36.70	73		36.70	73		0		40-140/30
2-Nitrophenol	50.0	0.00	42.30	85		42.50	85		0		30-140/30
2,4-Dimethylphenol	50.0	0.00	44.50	89		44.20	88		1		30-140/30
Bis(2-chloroethoxy) methane	50.0	0.00	40.70	81		40.60	81		0		40-140/30
Benzoic acid	50.0	0.00	46.20	92		43.80	88		5		30-140/30
2,4-Dimethylaniline	50.0	0.00	24.20	48		24.50	49		1		40-140/30
2,4-Dichlorophenol	50.0	0.00	42.60	85		41.00	82		4		30-140/30
1,2,4-Trichlorobenzene	50.0	0.00	34.70	69		34.10	68		2		40-140/30
Naphthalene	50.0	0.00	34.80	70		34.50	69		1		40-140/30
4-Chloroaniline	50.0	0.00	35.10	70		34.60	69		1		40-140/30
Hexachlorobutadiene	50.0	0.00	33.50	67		33.20	66		1		40-140/30
Caprolactam	50.0	0.00	52.50	105		51.50	103		2		40-140/30
4-Chloro-3-methylphenol	50.0	0.00	49.60	99		48.40	97		2		30-140/30
2-Methylnaphthalene	50.0	0.00	34.80	70		35.00	70		1		40-140/30
Hexachlorocyclopentadiene	50.0	0.00	37.10	74		37.20	74		0		5-105/30
2,4,6-Trichlorophenol	50.0	0.00	47.20	94		47.00	94		0		30-140/30
2,4,5-Trichlorophenol	50.0	0.00	39.70	79		39.40	79		1		30-140/30
1,1'-Biphenyl	50.0	0.00	39.50	79		38.70	77		2		40-140/30
2-Chloronaphthalene	50.0	0.00	40.20	80		40.60	81		1		40-140/30
2-Nitroaniline	50.0	0.00	41.80	84		40.60	81		3		40-140/30
Dimethyl phthalate	50.0	0.00	46.00	92		46.20	92		0		40-140/30
2,6-Dinitrotoluene	50.0	0.00	52.80	106		52.40	105		1		40-140/30
Acenaphthylene	50.0	0.00	43.00	86		41.90	84		3		40-140/30
3-Nitroaniline	50.0	0.00	43.50	87		42.90	86		1		40-140/30
Acenaphthene	50.0	0.00	41.60	83		40.70	81		2		40-140/30
2,4-Dinitrophenol	50.0	0.00	48.90	98		49.10	98		0		5-105/30

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06640-004
Date Received: NA
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
MS Data file: A2145.D
MSD Data file: A2146.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	50.0	0.00	62.00	124		61.50	123		1		30-140/30
2,4-Dinitrotoluene	50.0	0.00	54.50	109		53.30	107		2		40-140/30
Dibenzofuran	50.0	0.00	35.00	70		33.80	68		3		40-140/30
Diethyl phthalate	50.0	0.00	47.50	95		47.70	95		0		40-140/30
Fluorene	50.0	0.00	44.30	89		45.10	90		2		40-140/30
4-Chlorophenyl phenyl ether	50.0	0.00	47.00	94		46.40	93		1		40-140/30
4-Nitroaniline	50.0	0.00	47.30	95		47.30	95		0		40-140/30
1,2,4,5-Tetrachlorobenzene	50.0	0.00	20.80	42		20.50	41		1		40-140/30
2,3,4,6-Tetrachlorophenol	50.0	0.00	57.00	114		55.60	111		2		40-140/30
4,6-Dinitro-2-methylphenol	50.0	0.00	54.40	109		50.40	101		8		10-110/30
N-Nitrosodiphenylamine	50.0	0.00	51.00	102		50.40	101		1		40-140/30
1,2-Diphenylhydrazine	50.0	0.00	45.40	91		46.50	93		2		40-140/30
4-Bromophenyl phenyl ether	50.0	0.00	48.70	97		49.10	98		1		40-140/30
Hexachlorobenzene	50.0	0.00	47.90	96		45.90	92		4		40-140/30
Atrazine	50.0	0.00	50.90	102		51.20	102		1		20-120/30
Pentachlorophenol	50.0	0.00	56.10	112		55.70	111		1		30-140/30
Phenanthrene	50.0	0.00	44.60	89		44.50	89		0		40-140/30
Anthracene	50.0	0.00	49.10	98		48.30	97		2		40-140/30
Carbazole	50.0	0.00	48.90	98		49.30	99		1		40-140/30
Di-n-butyl phthalate	50.0	0.00	51.80	104		51.50	103		1		40-140/30
Fluoranthene	50.0	0.00	46.00	92		46.60	93		1		40-140/30
Benzidine	50.0	0.00	21.20	42		20.10	40		5		5-105/30
Pyrene	50.0	0.00	54.40	109		52.90	106		3		40-140/30
3,3'-Dimethylbenzidine	50.0	0.00	20.50	41		19.50	39		5		5-105/30
Butyl benzyl phthalate	50.0	0.00	60.30	121		59.70	119		1		40-140/30
3,3'-Dichlorobenzidine	50.0	0.00	53.90	108		54.30	109		1		40-140/30
Benzo[a]anthracene	50.0	0.00	52.60	105		51.80	104		2		40-140/30
Chrysene	50.0	0.00	40.30	81		40.30	81		0		40-140/30
Bis(2-ethylhexyl) phthalate	50.0	0.00	59.80	120		60.60	121		1		40-140/30
Di-n-octyl phthalate	50.0	0.00	68.30	137		68.80	138		1		40-140/30
Benzo[b]fluoranthene	50.0	0.00	57.30	115		57.10	114		0		40-140/30
Benzo[k]fluoranthene	50.0	0.00	64.70	129		63.10	126		3		40-140/30
Benzo[a]pyrene	50.0	0.00	66.60	133		69.20	138		4		40-140/30
Indeno[1,2,3-cd]pyrene	50.0	0.00	66.70	133		68.70	137		3		40-140/30
Dibenz[a,h]anthracene	50.0	0.00	64.10	128		65.90	132		3		40-140/30
Benzo[g,h,i]perylene	50.0	0.00	64.00	128		65.40	131		2		40-140/30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: A2143.D | Instrument ID: MSDA

Date Extracted: 07/13/12 | Matrix: SOIL

Date Analyzed: 07/14/2012 | Time Analyzed: 10:11

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
.	LCSS120713-02	07/14/2012	10:26
.	E12-06640-004MS	07/14/2012	10:42
.	E12-06640-004MSD	07/14/2012	10:58
H1_(11-1	E12-06640-001	07/14/2012	11:14
H2_(9.5-	E12-06640-002	07/14/2012	11:30
H3_(9-10	E12-06640-003	07/14/2012	11:46
E2_(11-1	E12-06640-004	07/14/2012	12:02
E3_(7-8)	E12-06640-005	07/14/2012	12:18
I4_(9-10	E12-06640-006	07/14/2012	12:34
K1_(9-10	E12-06640-007	07/14/2012	12:50
J1_(9-10	E12-06640-008	07/14/2012	13:06
J2_(9-10	E12-06640-009	07/14/2012	13:22
803_BASI	E12-06800-021	07/14/2012	13:37
803_BASI	E12-06800-022	07/14/2012	13:53
803_BASI	E12-06800-023	07/14/2012	14:09
803_BASI	E12-06800-024	07/14/2012	14:25
12-137-N	E12-06730-001	07/14/2012	14:41
12-137-S	E12-06730-002	07/14/2012	14:57
12-137-E	E12-06730-003	07/14/2012	15:13
12-137-W	E12-06730-004	07/14/2012	15:29

FORM IV SV

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: A2044.D

DFTPP Injection Date : 07/05/2012

Inst ID: MSDA

DFTPP Injection Time: 09:04

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	40.2	
68	Less than 2.0% of mass 69	0.5	(1.4)1
69	Mass 69 relative abundance	36.5	
70	Less than 2.0% of mass 69	0.3	(0.7)1
127	40.0 - 60.0% of mass 198	52.0	
197	Less than 1.0% of mass 198	0.4	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.9	
275	10.0 - 30.0% of mass 198	25.0	
365	Greater than 1.0% of mass 198	3.1	
441	Present, but less than mass 443	13.24	(73.2)3
442	40.0 - 100.0% of mass 198	86.1	
443	17.0 - 23.0% of mass 442	18.1	(21.0)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN077-12	ICC040BNA1	A2049.D	07/05/2012	10:37
ABN075-12	ICC010BNA1	A2050.D	07/05/2012	11:19
ABN076-12	ICC020BNA1	A2051.D	07/05/2012	11:34
ABN085-12	ICC080BNA2	A2052.D	07/05/2012	11:50
ABN082-12	ICC002BNA2	A2053.D	07/05/2012	12:06
ABN086-12	ICC120BNA2	A2054.D	07/05/2012	12:22
ABN078-12	ICC080BNA1	A2055.D	07/05/2012	12:38
ABN073-12	ICC001BNA1	A2056.D	07/05/2012	12:54
ABN079-12	ICC120BNA1	A2057.D	07/05/2012	13:12
ABN074-12	ICC002BNA1	A2058.D	07/05/2012	13:27
ABN077-12	ICC040BNA1	A2059.D	07/05/2012	13:43
ABN080-12	ICC001BNA2	A2060.D	07/05/2012	13:59
ABN083-12	ICC020BNA2	A2061.D	07/05/2012	14:15
ABN082-12	ICC010BNA2	A2062.D	07/05/2012	14:31
ABN084-12	ICC040BNA2	A2063.D	07/05/2012	14:47
ABN088-12	ICV040BNA1	A2064.D	07/05/2012	15:05
ABN089-12	ICV040BNA2	A2065.D	07/05/2012	15:21

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: DFTPP Injection Date : 07/14/2012

Inst ID: MSDA DFTPP Injection Time: 09:06

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	50.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	40.3	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	40.0 - 60.0% of mass 198	55.2	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.6	
275	10.0 - 30.0% of mass 198	21.5	
365	Greater than 1.0% of mass 198	2.5	
441	Present, but less than mass 443	6.32	(64.0)3
442	40.0 - 100.0% of mass 198	45.1	
443	17.0 - 23.0% of mass 442	9.9	(21.9)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN089-12	CCV040BNA2	A2141.D	07/14/2012	09:32
ABN088-12	CCV040BNA1	A2142.D	07/14/2012	09:51
.	BLKS120713-02	A2143.D	07/14/2012	10:11
.	LCSS120713-02	A2144.D	07/14/2012	10:26
.	E12-06640-004MS	A2145.D	07/14/2012	10:42
.	E12-06640-004MSD	A2146.D	07/14/2012	10:58
H1_(11-1	E12-06640-001	A2147.D	07/14/2012	11:14
H2_(9.5-	E12-06640-002	A2148.D	07/14/2012	11:30
H3_(9-10	E12-06640-003	A2149.D	07/14/2012	11:46
E2_(11-1	E12-06640-004	A2150.D	07/14/2012	12:02
E3_(7-8)	E12-06640-005	A2151.D	07/14/2012	12:18
I4_(9-10	E12-06640-006	A2152.D	07/14/2012	12:34
K1_(9-10	E12-06640-007	A2153.D	07/14/2012	12:50
J1_(9-10	E12-06640-008	A2154.D	07/14/2012	13:06
J2_(9-10	E12-06640-009	A2155.D	07/14/2012	13:22
803_BASI	E12-06800-021	A2156.D	07/14/2012	13:37
803_BASI	E12-06800-022	A2157.D	07/14/2012	13:53
803_BASI	E12-06800-023	A2158.D	07/14/2012	14:09
803_BASI	E12-06800-024	A2159.D	07/14/2012	14:25
12-137-N	E12-06730-001	A2160.D	07/14/2012	14:41
12-137-S	E12-06730-002	A2161.D	07/14/2012	14:57
12-137-E	E12-06730-003	A2162.D	07/14/2012	15:13
12-137-W	E12-06730-004	A2163.D	07/14/2012	15:29

Response Factor Report MSD_A

Method Path : C:\msdchem\1\METHODS\
Method File : AS1112.M
Title : BNA CALIBRATION METHOD
Last Update : Fri Jul 06 10:54:42 2012
Response Via : Initial Calibration

Calibration Files
1 =A2056.D 2 =A2058.D 10 =A2050.D 20 =A2051.D 40 =A2059.D 80 =A2055.D
120 =A2057.D

		Compound	1	2	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------								
2)	T	N-Nitrosodimet...	0.895	0.858	0.819	0.908	0.837	0.855	0.787	0.851	4.96
3)	T	Pyridine	2.359	1.985	1.895	2.039	1.783	1.747	1.929	1.962	10.35
4)	S	2-Fluorophenol	1.245	1.286	1.259	1.265	1.268	1.273	1.169	1.252	3.09
5)	T	Benzaldehyde	0.946	1.017	0.937	0.953	0.962	0.838	0.882	0.933	6.20
6)	S	Phenol-d5	1.527	1.525	1.529	1.532	1.522	1.488	1.334	1.494	4.82
7)	MC	Phenol	1.583	1.824	1.596	1.720	1.569	1.492	1.435	1.603	8.24
8)	T	Aniline	1.080	0.950	0.834	0.897	0.768	0.779	0.826	0.876	12.58
9)	T	Bis(2-chloroet...	1.263	1.152	1.004	1.098	0.983	0.980	0.856	1.048	12.76
10)	M	2-Chlorophenol	1.735	1.450	1.357	1.476	1.299	1.301	1.250	1.410	11.73
11)	T	1,3-Dichlorobe...	1.791	1.649	1.496	1.631	1.523	1.490	1.397	1.568	8.35
12)	MC	1,4-Dichlorobe...	1.936	1.790	1.588	1.720	1.545	1.538	1.384	1.643	11.22
13)	T	Benzyl alcohol	1.031	0.855	0.915	1.023	0.893	0.907	0.730	0.908	11.31
14)	T	1,2-Dichlorobe...	1.804	1.638	1.491	1.627	1.429	1.429	1.304	1.532	10.96
15)	T	2-Methylphenol	1.805	1.915	1.482	1.602	1.430	1.433	1.536	1.601	11.87
16)	T	Bis(2-chlorois...	2.181	1.895	1.733	1.899	1.675	1.663	1.459	1.786	12.88
17)	T	4-Methylphenol	1.690	1.546	1.448	1.557	1.400	1.380	1.035	1.437	14.39
18)	MP	N-Nitrosodi-n-...	1.066	0.953	0.888	0.941	0.847	0.832	0.703	0.890	12.78
19)	T	Acetophenone	2.144	1.903	1.764	1.842	1.667	1.634	1.594	1.793	10.68
20)	T	3-Methylphenol	1.690	1.546	1.448	1.557	1.400	1.379	1.034	1.436	14.42
21)	T	Hexachloroethane	0.694	0.589	0.556	0.606	0.543	0.561	0.520	0.581	9.86
23)	I	Naphthalene-d8	----------ISTD----------								
24)	S	Nitrobenzene-d5	0.336	0.329	0.331	0.341	0.341	0.388	0.383	0.350	7.15
25)	T	Nitrobenzene	0.407	0.421	0.363	0.379	0.343	0.344	0.334	0.370	9.11
26)	T	Isophorone	0.764	0.677	0.624	0.661	0.589	0.599	0.467	0.626	14.64
27)	TC	2-Nitrophenol	0.192	0.168	0.174	0.195	0.173	0.177	0.167	0.178	6.22
28)	T	2,4-Dimethylph...	0.375	0.322	0.317	0.345	0.306	0.321	0.303	0.327	7.72
29)	T	Bis(2-chloroet...	0.456	0.422	0.381	0.413	0.359	0.370	0.334	0.391	10.68
30)	T	Benzoic acid	0.200	0.181	0.187	0.211	0.191	0.195	0.140	0.186	12.07
31)	T	2,4-Dimethylan...	0.783	0.713	0.629	0.679	0.572	0.594	0.657	0.661	10.93
32)	TC	2,4-Dichloroph...	0.323	0.294	0.279	0.305	0.265	0.269	0.238	0.282	9.92
33)	M	1,2,4-Trichlor...	0.383	0.355	0.305	0.335	0.295	0.301	0.265	0.320	12.56
34)	T	Naphthalene	1.356	1.185	1.044	1.135	0.993	0.997	0.859	1.081	14.85
35)	T	4-Chloroaniline	0.699	0.642	0.578	0.638	0.556	0.568	0.451	0.590	13.47
36)	T	4-Aminotoluene	1.255	1.129	0.998	1.096	0.966	0.946	0.999	1.056	10.46
37)	TC	Hexachlorobuta...	0.184	0.166	0.153	0.164	0.144	0.146	0.131	0.155	11.31
38)	T	Caprolactam	0.117	0.099	0.095	0.106	0.096	0.102	0.096	0.101	7.66
39)	T	2-Aminotoluene	1.255	1.129	0.998	1.096	0.966	0.946	0.999	1.056	10.46
40)	MC	4-Chloro-3-met...	0.256	0.250	0.235	0.261	0.241	0.251	0.226	0.246	5.01
41)	T	2-Methylnaphth...	0.918	0.824	0.764	0.800	0.738	0.727	0.571	0.763	13.92
43)	I	Acenaphthene-d10	----------ISTD----------								
44)	TP	Hexachlorocycl...	0.204	0.301	0.268	0.319	0.276	0.300	0.274	0.277	13.37
45)	TC	2,4,6-Trichlor...	0.322	0.293	0.308	0.344	0.300	0.315	0.294	0.311	5.82
46)	T	2,4,5-Trichlor...	0.381	0.367	0.387	0.425	0.382	0.382	0.285	0.373	11.47
47)	S	2-Fluorobiphenyl	1.260	1.252	1.244	1.235	1.198	1.248	1.166	1.229	2.78
48)	T	1,1'-Biphenyl	2.022	1.810	1.590	1.728	1.528	1.498	1.444	1.660	12.37
49)	T	2-Chloronaphth...	1.373	1.260	1.144	1.224	1.117	1.116	1.021	1.179	9.83
50)	T	2-Nitroaniline	0.322	0.313	0.328	0.380	0.349	0.350	0.269	0.330	10.66
51)	T	Dimethyl phtha...	1.344	1.181	1.121	1.239	1.105	1.122	1.054	1.167	8.40
52)	T	2,6-Dinitrotol...	0.203	0.193	0.220	0.254	0.238	0.250	0.237	0.228	10.24
53)	T	Acenaphthylene	2.027	1.792	1.721	1.918	1.708	1.753	1.559	1.783	8.51
54)	T	3-Nitroaniline	0.300	0.281	0.313	0.359	0.326	0.344	0.270	0.31[illegible]	[illegible]

55)	MC	Acenaphthene	1.388	1.231	1.088	1.212	1.073	1.063	0.985	1.148	11.88
56)	TP	2,4-Dinitrophenol	0.047	0.058	0.059	0.067	0.067	0.067	0.066	0.062	12.38
57)	MP	4-Nitrophenol	0.169	0.146	0.186	0.225	0.212	0.194	0.206	0.191	14.14
58)	M	2,4-Dinitrotol...	0.217	0.222	0.275	0.313	0.296	0.313	0.296	0.276	14.74
59)	T	Dibenzofuran	2.281	2.001	1.804	2.008	1.762	1.763	1.551	1.881	12.54
60)	T	Diethyl phthalate	1.221	1.139	1.117	1.196	1.116	1.153	1.103	1.149	3.87
61)	T	Fluorene	1.392	1.195	1.165	1.252	1.104	1.214	1.087	1.201	8.53
62)	T	4-Chlorophenyl...	0.583	0.509	0.494	0.522	0.475	0.467	0.438	0.498	9.31
63)	T	4-Nitroaniline	0.269	0.273	0.302	0.344	0.320	0.347	0.275	0.305	11.00
64)	T	1,2,4,5-Tetrac...	1.101	0.951	0.848	0.929	0.787	0.806	0.829	0.893	12.35
65)	T	2,3,4,6-Tetrac...	0.180	0.159	0.185	0.184	0.187	0.199	0.144	0.177	10.70
66)	I	Phenanthrene-d10	----------ISTD----------								
67)	T	4,6-Dinitro-2-...	0.100	0.120	0.113	0.112	0.116	0.117	0.125	0.115	6.64
68)	TC	N-Nitrosodiphe...	0.745	0.618	0.622	0.695	0.655	0.615	0.591	0.649	8.30
69)	T	1,2-Diphenylhy...	1.088	0.945	0.944	0.997	0.867	0.906	0.855	0.943	8.52
70)	S	2,4,6-Tribromo...	0.123	0.123	0.126	0.134	0.126	0.134	0.119	0.127	4.36
71)	T	4-Bromophenyl ...	0.241	0.216	0.196	0.215	0.196	0.196	0.182	0.206	9.46
72)	T	Hexachlorobenzene	0.276	0.251	0.230	0.243	0.226	0.221	0.209	0.237	9.32
73)	T	Atrazine	0.187	0.169	0.179	0.189	0.146	0.162	0.160	0.170	9.10
74)	MC	Pentachlorophenol	0.099	0.097	0.114	0.126	0.123	0.131	0.129	0.117	11.93
75)	T	Phenanthrene	1.442	1.274	1.143	1.216	1.093	1.078	1.029	1.182	12.02
76)	T	Anthracene	1.284	1.146	1.119	1.214	1.094	1.131	1.015	1.143	7.54
77)	T	Carbazole	1.089	0.973	0.979	1.081	0.999	0.956	0.936	1.002	6.01
78)	T	Di-n-butyl pht...	1.288	1.154	1.250	1.405	1.330	1.342	1.271	1.292	6.16
79)	TC	Fluoranthene	0.996	0.907	0.921	1.023	0.901	0.921	0.813	0.926	7.40
80)	T	Benzidine	0.334	0.303	0.321	0.366	0.434	0.423	0.356	0.362	13.75
82)	I	Chrysene-d12	----------ISTD----------								
83)	M	Pyrene	1.454	1.368	1.291	1.454	1.280	1.323	1.290	1.351	5.63
84)	S	Terphenyl-d14	0.858	0.864	0.858	0.841	0.808	0.823	0.802	0.836	3.07
85)	T	3,3'-Dimethylb...	0.366	0.452	0.456	0.490	0.549	0.418	0.384	0.445	14.14
86)	T	Butyl benzyl p...	0.601	0.576	0.616	0.716	0.658	0.684	0.710	0.652	8.45
87)	T	3,3'-Dichlorob...	0.313	0.275	0.303	0.347	0.314	0.304	0.282	0.306	7.68
88)	T	Benzo[a]anthra...	1.225	1.014	0.959	1.097	0.989	0.996	0.980	1.037	9.03
89)	T	Chrysene	1.160	1.023	0.940	1.056	0.940	0.939	0.855	0.988	10.14
90)	T	Bis(2-ethylhex...	0.783	0.743	0.859	0.961	0.917	0.950	0.958	0.882	10.10
92)	I	Perylene-d12	----------ISTD----------								
93)	TC	Di-n-octyl pht...	1.391	1.539	1.550	1.851	1.788	1.681	1.624	1.632	9.63
94)	T	Benzo[b]fluora...	1.366	1.260	1.223	1.224	1.354	1.431	1.243	1.300	6.34
95)	T	Benzo[k]fluora...	1.387	1.271	1.163	1.463	1.265	1.227	1.037	1.259	11.13
96)	TC	Benzo[a]pyrene	1.351	1.134	0.956	1.080	0.985	1.049	1.088	1.092	11.87
97)	T	Indeno[1,2,3-c...	1.591	1.389	1.378	1.547	1.492	1.498	1.480	1.482	5.23
98)	T	Dibenz[a,h]ant...	1.143	0.984	1.138	1.327	1.255	1.203	1.215	1.181	9.18
99)	T	Benzo[g,h,i]pe...	1.781	1.347	1.295	1.314	1.262	1.221	1.228	1.350	14.48

(#) = Out of Range

AS1112.M Fri Jul 06 10:54:50 2012 MSD_A

Evaluate Continuing Calibration Report

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2142.D
Acq On : 14 Jul 2012 9:51
Operator : LIMS import
Sample : ABN088-12,CCV040BNA1,.,.,.,1
Misc : N/A,07/14/12,N/A,1
ALS Vial : 97 Sample Multiplier: 1

Quant Time: Jul 14 10:11:55 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	123	0.00
2	T	N-Nitrosodimethylamine	0.851	0.795	6.6	117	0.00
3	T	Pyridine	1.962	1.603	18.3	111	0.00
4	S	2-Fluorophenol	1.252	1.268	-1.3	123	0.00
5	T	Benzaldehyde	0.933	0.931	0.2	68	0.00
6	S	Phenol-d5	1.494	1.511	-1.1	122	0.00
7	MC	Phenol	1.603	1.555	3.0	122	0.00
8	T	Aniline	0.876	0.738	15.8	118	0.00
9	T	Bis(2-chloroethyl) ether	1.048	1.002	4.4	126	0.00
10	M	2-Chlorophenol	1.410	1.314	6.8	125	0.00
11	T	1,3-Dichlorobenzene	1.568	1.448	7.7	117	0.00
12	MC	1,4-Dichlorobenzene	1.643	1.486	9.6	118	0.00
13	T	Benzyl alcohol	0.908	0.922	-1.5	127	0.00
14	T	1,2-Dichlorobenzene	1.532	1.450	5.4	125	0.00
15	T	2-Methylphenol	1.601	1.557	2.7	134	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.786	1.808	-1.2	133	0.00
17	T	4-Methylphenol	1.437	1.477	-2.8	130	0.00
18	MP	N-Nitrosodi-n-propylamine	0.890	0.910	-2.2	132	0.00
19	T	Acetophenone	1.793	1.765	1.6	130	0.00
20	T	3-Methylphenol	1.436	1.477	-2.9	130	0.00
21	T	Hexachloroethane	0.581	0.564	2.9	128	0.00
22	T	ISTD					
23	I	Naphthalene-d8	1.000	1.000	0.0	128	0.00
24	S	Nitrobenzene-d5	0.350	0.369	-5.4	139	0.00
25	T	Nitrobenzene	0.370	0.352	4.9	131	0.00
26	T	Isophorone	0.626	0.619	1.1	134	0.00
27	TC	2-Nitrophenol	0.178	0.181	-1.7	134	0.00
28	T	2,4-Dimethylphenol	0.327	0.311	4.9	130	0.00
29	T	Bis(2-chloroethoxy) methane	0.391	0.381	2.6	136	0.00
30	T	Benzoic acid	0.186	0.192	-3.2	129	0.02
31	T	2,4-Dimethylaniline	0.661	0.548	17.1	123	0.00
32	TC	2,4-Dichlorophenol	0.282	0.272	3.5	131	0.00
33	M	1,2,4-Trichlorobenzene	0.320	0.291	9.1	126	0.00
34	T	Naphthalene	1.081	0.987	8.7	127	0.00
35	T	4-Chloroaniline	0.590	0.563	4.6	130	0.00
36	T	4-Aminotoluene	1.056	0.909	13.9	120	0.00
37	TC	Hexachlorobutadiene	0.155	0.136	12.3	121	0.00
38	T	Caprolactam	0.101	0.101	0.0	135	0.01
39	T	2-Aminotoluene	1.056	0.909	13.9	120	0.00
40	MC	4-Chloro-3-methylphenol	0.246	0.250	-1.6	133	0.00
41	T	2-Methylnaphthalene	0.763	0.727	4.7	126	0.00
42	T	2,5-Dimethylphenol					
43	I	Acenaphthene-d10	1.000	1.000	0.0	133	0.00
44	TP	Hexachlorocyclopentadiene	0.277	0.269	2.9	129	0.00
45	TC	2,4,6-Trichlorophenol	0.311	0.293	5.8	130	0.00
46	T	2,4,5-Trichlorophenol	0.373	0.367	1.6	128	0.00

47	S	2-Fluorobiphenyl	1.229	1.235	-0.5	137	0.00
48	T	1,1'-Biphenyl	1.660	1.506	9.3	131	0.00
49	T	2-Chloronaphthalene	1.179	1.063	9.8	126	0.00
50	T	2-Nitroaniline	0.330	0.359	-8.8	137	0.00
51	T	Dimethyl phthalate	1.167	1.101	5.7	132	0.00
52	T	2,6-Dinitrotoluene	0.228	0.242	-6.1	135	0.00
53	T	Acenaphthylene	1.783	1.681	5.7	131	0.00
54	T	3-Nitroaniline	0.313	0.349	-11.5	142	0.00
55	MC	Acenaphthene	1.148	1.069	6.9	132	0.00
56	TP	2,4-Dinitrophenol	0.062	0.071	-14.5	142	0.00
57	MP	4-Nitrophenol	0.191	0.227	-18.8	142	0.00
58	M	2,4-Dinitrotoluene	0.276	0.315	-14.1	142	0.00
59	T	Dibenzofuran	1.881	1.774	5.7	134	0.00
60	T	Diethyl phthalate	1.149	1.081	5.9	129	0.00
61	T	Fluorene	1.201	1.141	5.0	137	0.00
62	T	4-Chlorophenyl phenyl ether	0.498	0.482	3.2	135	0.00
63	T	4-Nitroaniline	0.305	0.352	-15.4	146	0.00
64	T	1,2,4,5-Tetrachlorobenzene	0.893	0.756	15.3	128	0.00
65	T	2,3,4,6-Tetrachlorophenol	0.177	0.189	-6.8	134	0.00
66	I	Phenanthrene-d10	1.000	1.000	0.0	131	0.00
67	T	4,6-Dinitro-2-methylphenol	0.115	0.120	-4.3	136	0.00
68	TC	N-Nitrosodiphenylamine	0.649	0.660	-1.7	132	0.00
69	T	1,2-Diphenylhydrazine	0.943	0.858	9.0	130	0.00
70	S	2,4,6-Tribromophenol	0.127	0.141	-11.0	146	0.00
71	T	4-Bromophenyl phenyl ether	0.206	0.209	-1.5	140	0.00
72	T	Hexachlorobenzene	0.237	0.233	1.7	135	0.00
73	T	Atrazine	0.170	0.183	-7.6	106	0.00
74	MC	Pentachlorophenol	0.117	0.125	-6.8	133	0.00
75	T	Phenanthrene	1.182	1.106	6.4	132	0.00
76	T	Anthracene	1.143	1.076	5.9	129	0.00
77	T	Carbazole	1.002	0.966	3.6	127	0.00
78	T	Di-n-butyl phthalate	1.292	1.328	-2.8	131	0.00
79	TC	Fluoranthene	0.926	0.888	4.1	129	0.00
80	T	Benzidine	0.362	0.374	-3.3	73	-0.02
81		4-Aminoaniline					
82	I	Chrysene-d12	1.000	1.000	0.0	123	0.00
83	M	Pyrene	1.351	1.299	3.8	125	0.00
84	S	Terphenyl-d14	0.836	0.863	-3.2	131	0.00
85	T	3,3'-Dimethylbenzidine	0.445	0.473	-6.3	62	-0.02
86	T	Butyl benzyl phthalate	0.652	0.701	-7.5	131	0.00
87	T	3,3'-Dichlorobenzidine	0.306	0.320	-4.6	125	0.00
88	T	Benzo[a]anthracene	1.037	0.977	5.8	121	0.00
89	T	Chrysene	0.988	0.933	5.6	122	0.00
90	T	Bis(2-ethylhexyl) phthalate	0.882	0.963	-9.2	129	0.00
91	T	3,3-Dimethoxybenzidine					
92	I	Perylene-d12	1.000	1.000	0.0	107	0.00
93	TC	Di-n-octyl phthalate	1.632	1.760	-7.8	106	0.00
94	T	Benzo[b]fluoranthene	1.300	1.197	7.9	95	0.00
95	T	Benzo[k]fluoranthene	1.259	1.132	10.1	96	0.00
96	TC	Benzo[a]pyrene	1.092	0.993	9.1	108	0.00
97	T	Indeno[1,2,3-cd]pyrene	1.482	1.532	-3.4	110	0.02
98	T	Dibenz[a,h]anthracene	1.181	1.258	-6.5	108	0.01
99	T	Benzo[g,h,i]perylene	1.350	1.306	3.3	111	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

AS1112.M Sat Jul 14 10:13:08 2012 MSD_A

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2049.D

Date Analyzed: 07/05/2012

Instrument ID: MSDA

Time Analyzed: 10:37

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	173945	3.63	612797	4.45	292041	5.37
	UPPER LIMIT	347890	4.13	1225594	4.95	584082	5.87
	LOWER LIMIT	86973	3.13	306399	3.95	146021	4.87
	LAB SAMPLE ID						
01	ICC010BNA1	175061	3.63	640943	4.45	308294	5.37
02	ICC020BNA1	170080	3.63	616358	4.45	291208	5.37
03	ICC080BNA2	172743	3.63	642492	4.45	309430	5.37
04	ICC002BNA2	180011	3.62	681131	4.45	335867	5.37
05	ICC120BNA2	166708	3.62	611306	4.45	289238	5.37
06	ICC080BNA1	156138	3.63	552618	4.45	260821	5.37
07	ICC001BNA1	176285	3.62	638289	4.45	317357	5.37
08	ICC120BNA1	172481	3.63	623146	4.46	282687	5.37
09	ICC002BNA1	169470	3.62	621868	4.45	309361	5.37
10	ICC040BNA1	168617	3.63	619098	4.45	296678	5.37
11	ICC001BNA2	166949	3.62	634614	4.45	314741	5.37
12	ICC020BNA2	171124	3.62	643604	4.45	325340	5.37
13	ICC010BNA2	176544	3.62	654697	4.45	323945	5.37
14	ICC040BNA2	177324	3.62	655167	4.45	325516	5.37
15	ICV040BNA1	193104	3.63	705586	4.45	331334	5.38
16	ICV040BNA2	215857	3.62	808552	4.45	403283	5.38
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2049.D

Date Analyzed: 07/05/2012

Instrument ID: MSDA

Time Analyzed: 10:37

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	361578	6.11	253523	7.79	218250	9.19
	UPPER LIMIT	723156	6.61	507046	8.29	436500	9.69
	LOWER LIMIT	180789	5.61	126762	7.29	109125	8.69
	LAB SAMPLE ID						
01	ICC010BNA1	374640	6.12	267221	7.81	253970	9.21
02	ICC020BNA1	366826	6.11	262542	7.77	258342	9.17
03	ICC080BNA2	377028	6.11	273091	7.76	253619	9.15
04	ICC002BNA2	397829	6.11	262075	7.76	250731	9.15
05	ICC120BNA2	360611	6.11	244056	7.76	196162	9.15
06	ICC080BNA1	330933	6.11	239429	7.78	262845	9.17
07	ICC001BNA1	380561	6.11	265094	7.77	259865	9.17
08	ICC120BNA1	362203	6.12	238974	7.81	295231	9.21
09	ICC002BNA1	378828	6.11	253763	7.76	255086	9.15
10	ICC040BNA1	369288	6.11	265870	7.77	272195	9.16
11	ICC001BNA2	389274	6.11	247558	7.76	246052	9.15
12	ICC020BNA2	392010	6.11	255751	7.76	249946	9.16
13	ICC010BNA2	397037	6.11	260776	7.77	254201	9.16
14	ICC040BNA2	400893	6.11	272535	7.76	258379	9.16
15	ICV040BNA1	419860	6.12	320592	7.80	328019	9.20
16	ICV040BNA2	472463	6.11	328662	7.75	326950	9.14
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2141.D

Date Analyzed: 07/14/2012

Instrument ID: MSDA

Time Analyzed: 09:32

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	117735	3.62	459453	4.44	241538	5.37
	UPPER LIMIT	235470	4.12	918906	4.94	483076	5.87
	LOWER LIMIT	58868	3.12	229727	3.94	120769	4.87
	LAB SAMPLE ID						
01	CCV040BNA1	207651	3.62	792007	4.45	394215	5.37
02	BLKS120713-02	95169	3.62	371848	4.44	196164	5.37
03	LCSS120713-02	118881	3.62	446898	4.45	187070	5.38
04	E12-06640-004MS	83450	3.62	322093	4.45	159296	5.36
05	E12-06640-004MSD	82598	3.62	319455	4.44	156914	5.36
06	E12-06640-001	88295	3.62	344109	4.44	179724	5.36
07	E12-06640-002	81926	3.62	297791	4.44	134034	5.36
08	E12-06640-003	78406	3.62	303174	4.44	147081	5.36
09	E12-06640-004	88305	3.62	332740	4.44	163861	5.36
10	E12-06640-005	83992	3.62	315739	4.44	157373	5.36
11	E12-06640-006	89135	3.62	338745	4.44	165917	5.36
12	E12-06640-007	83825	3.62	313516	4.44	150780	5.36
13	E12-06640-008	82719	3.62	312956	4.44	152744	5.36
14	E12-06640-009	83805	3.62	315170	4.44	150880	5.36
15	E12-06800-021	93182	3.62	343414	4.44	166922	5.36
16	E12-06800-022	92551	3.62	340452	4.44	160684	5.36
17	E12-06800-023	94122	3.62	354896	4.44	165587	5.36
18	E12-06800-024	85690	3.62	321711	4.44	150515	5.36
19	E12-06730-001	86475	3.62	302851	4.44	134581	5.36
20	E12-06730-002	77007	3.62	266783	4.44	136605	5.36
21	E12-06730-003	75640	3.62	263371	4.44	124587	5.36
22	E12-06730-004	60451	3.62	231791	4.44	121954	5.36

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A2141.D

Date Analyzed: 07/14/2012

Instrument ID: MSDA

Time Analyzed: 09:32

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	12 HOUR STD	312392	6.10	190198	7.74	162356	9.12
	UPPER LIMIT	624784	6.60	380396	8.24	324712	9.62
	LOWER LIMIT	156196	5.60	95099	7.24	81178	8.62
	LAB SAMPLE ID						
01	CCV040BNA1	483416	6.11	326927	7.77	292172	9.16
02	BLKS120713-02	266019	6.10	149879	7.75	114986	9.14
03	LCSS120713-02	267769	6.11	166241	7.73	140217	9.11
04	E12-06640-004MS	196302	6.10	117624	7.73	97893	9.11
05	E12-06640-004MSD	192899	6.10	117016	7.73	94835	9.10
06	E12-06640-001	242873	6.10	147564	7.73	116660	9.11
07	E12-06640-002	167225	6.10	136130	7.73	149068	9.12
08	E12-06640-003	171975	6.10	116232	7.72	120003	9.10
09	E12-06640-004	191788	6.10	127643	7.73	129952	9.10
10	E12-06640-005	181439	6.10	119160	7.72	117098	9.10
11	E12-06640-006	201062	6.10	129374	7.72	123040	9.09
12	E12-06640-007	178603	6.10	113582	7.71	109816	9.08
13	E12-06640-008	183108	6.10	116928	7.70	109796	9.07
14	E12-06640-009	183041	6.10	115210	7.71	104889	9.07
15	E12-06800-021	188787	6.10	123313	7.71	119431	9.07
16	E12-06800-022	187277	6.10	128292	7.71	120501	9.08
17	E12-06800-023	198622	6.10	128286	7.71	121989	9.08
18	E12-06800-024	175850	6.10	117123	7.71	116766	9.09
19	E12-06730-001	165568	6.10	137656	7.71	151718	9.09
20	E12-06730-002	162932	6.10	146733	7.72	148880	9.10
21	E12-06730-003	158675	6.10	147437	7.71	162171	9.09
22	E12-06730-004	174042	6.10	128262	7.72	139793	9.11

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2147.D
Acq On : 14 Jul 2012 11:14
Operator : LIMS import
Sample : H1_(11-1,E12-06640-001,S,15.12g,17.3,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 14 11:44:36 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	88295	40.00	UG	-0.01
23) Naphthalene-d8	4.443	136	344109	40.00	UG	-0.01
43) Acenaphthene-d10	5.363	164	179724	40.00	UG	-0.01
66) Phenanthrene-d10	6.096	188	242873	40.00	UG	-0.02
82) Chrysene-d12	7.727	240	147564	40.00	UG	-0.04
92) Perylene-d12	9.107	264	116660	40.00	UG	-0.06

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.977	82	74866	24.88	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 49.76%			
47) 2-Fluorobiphenyl	4.978	172	147974	26.80	UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 53.60%			
70) 2,4,6-Tribromophenol	0.000	330	0d	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	6.994	244	127956	41.47	UG	-0.03
Spiked Amount 50.000	Range 15 - 122		Recovery = 82.94%			

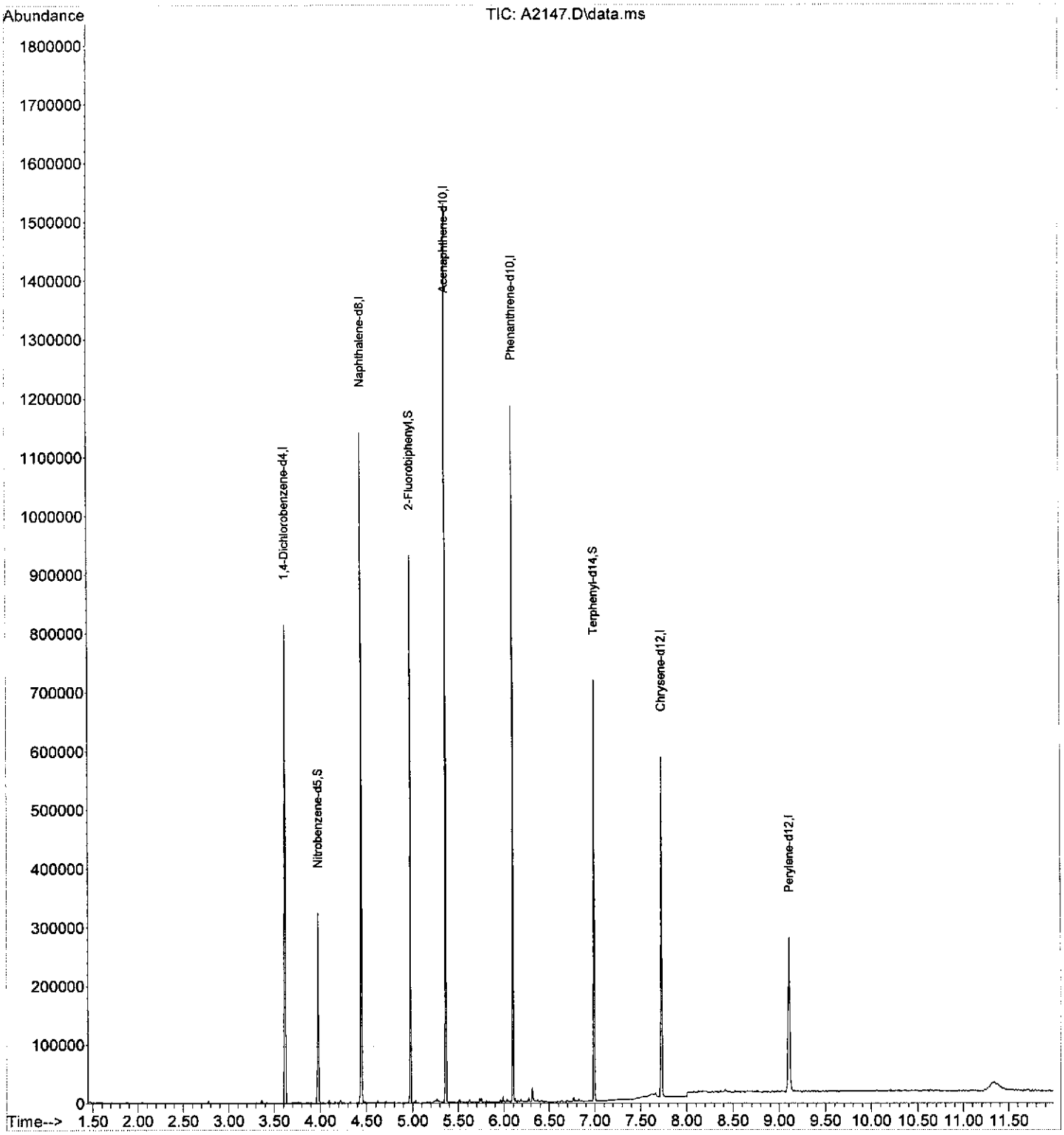
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2147.D
Acq On : 14 Jul 2012 11:14
Operator : LIMS import
Sample : H1_(11-1,E12-06640-001,S,15.12g,17.3,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 14 11:44:36 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2147.D
Acq On : 14 Jul 2012 11:14
Operator : LIMS import
Sample : H1_(11-1,E12-06640-001,S,15.12g,17.3,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

AS1112.M Sat Jul 14 11:46:10 2012 MSD_A

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2148.D
Acq On : 14 Jul 2012 11:30
Operator : LIMS import
Sample : H2_(9.5-,E12-06640-002,S,15.18g,15.9,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 14 11:48:05 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	81926	40.00	UG	-0.01
23) Naphthalene-d8	4.443	136	297791	40.00	UG	-0.01
43) Acenaphthene-d10	5.363	164	134034	40.00	UG	-0.01
66) Phenanthrene-d10	6.095	188	167225	40.00	UG	-0.02
82) Chrysene-d12	7.727	240	136130	40.00	UG	-0.04
92) Perylene-d12	9.117	264	149068	40.00	UG	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	0.000	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.977	82	64539	24.78	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 49.56%			
47) 2-Fluorobiphenyl	4.978	172	121029	29.39	UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 58.78%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	6.994	244	79558	27.95	UG	-0.03
Spiked Amount 50.000	Range 15 - 122		Recovery = 55.90%			

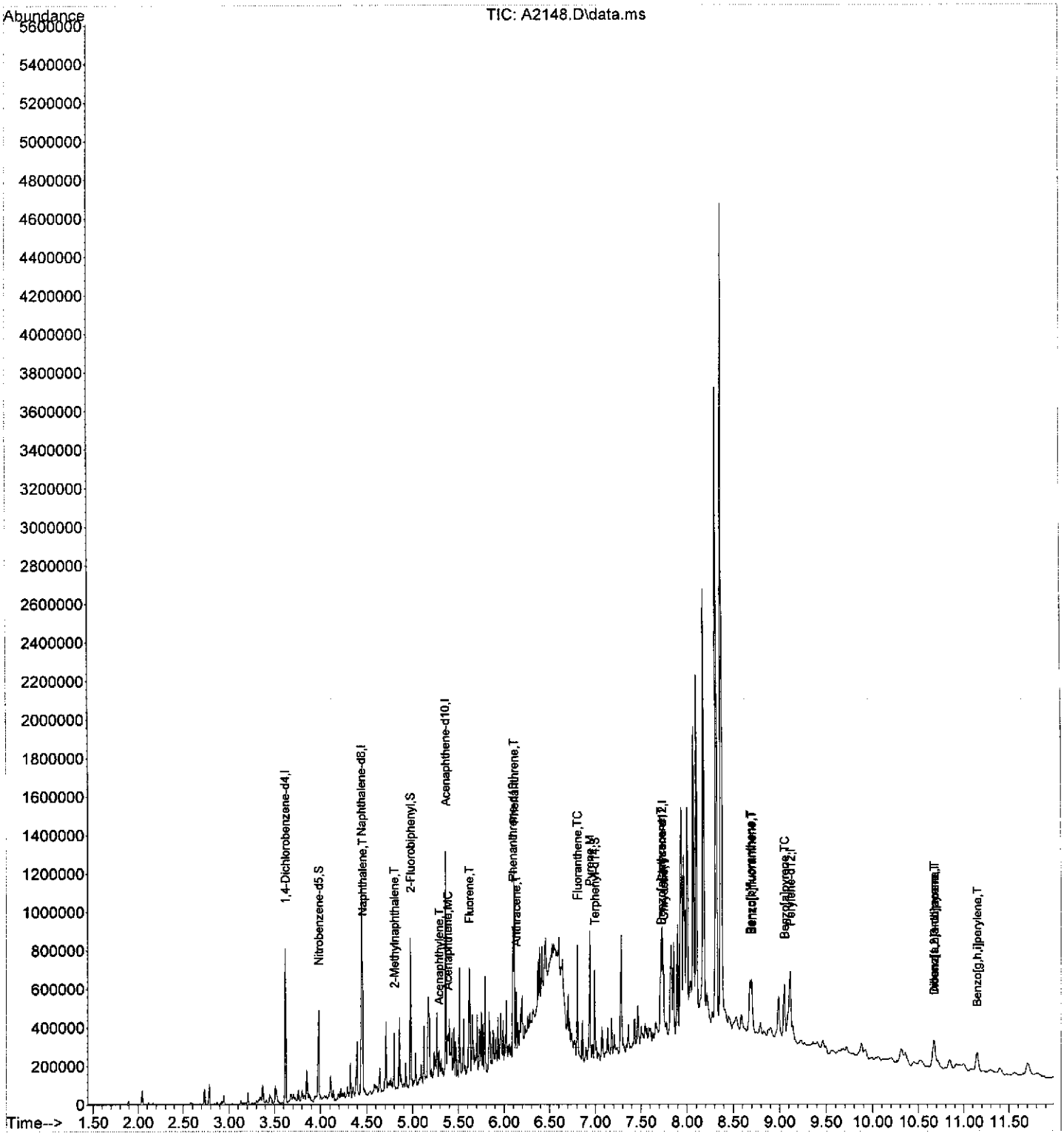
Target Compounds						Qvalue
34) Naphthalene	4.453	128	191554	23.80	UG #	49
41) 2-Methylnaphthalene	4.801	142	47756	8.40	UG	99
53) Acenaphthylene	5.288	152	10995	1.84	UG #	79
55) Acenaphthene	5.379	153	33591	8.73	UG	90
61) Fluorene	5.619	166	33304	8.27	UG #	87
75) Phenanthrene	6.111	178	197300	39.92	UG	99
76) Anthracene	6.133	178	83960	17.57	UG	99
79) Fluoranthene	6.807	202	133884	34.59	UG	99
83) Pyrene	6.940	202	148501	32.29	UG	99
88) Benzo[a]anthracene	7.716	228	93024	26.35	UG #	90
89) Chrysene	7.748	228	96643	28.75	UG #	90
94) Benzo[b]fluoranthene	8.684	252	108025	22.30	UG #	60
95) Benzo[k]fluoranthene	8.700	252	100544	21.43	UG #	52
96) Benzo[a]pyrene	9.053	252	128291	31.53	UG	98
97) Indeno[1,2,3-cd]pyrene	10.674	276	93408	16.91	UG	91
98) Dibenz[a,h]anthracene	10.668	278	30793	7.00	UG	94
99) Benzo[g,h,i]perylene	11.150	276	95143	18.92	UG	98

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2148.D
Acq On : 14 Jul 2012 11:30
Operator : LIMS import
Sample : H2_(9.5-,E12-06640-002,S,15.18g,15.9,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 14 11:48:05 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2149.D
Acq On : 14 Jul 2012 11:46
Operator : LIMS import
Sample : H3_(9-10,E12-06640-003,S,15.06g,11.7,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 14 11:59:29 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	78406	40.00 UG	-0.01
23) Naphthalene-d8	4.443	136	303174	40.00 UG	-0.01
43) Acenaphthene-d10	5.363	164	147081	40.00 UG	-0.01
66) Phenanthrene-d10	6.096	188	171975	40.00 UG	-0.02
82) Chrysene-d12	7.722	240	116232	40.00 UG	-0.05
92) Perylene-d12	9.096	264	120003	40.00 UG	-0.07

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#		
6) Phenol-d5	0.000	99	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#		
24) Nitrobenzene-d5	3.978	82	75613	28.52 UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 57.04%		
47) 2-Fluorobiphenyl	4.978	172	143188	31.69 UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 63.38%		
70) 2,4,6-Tribromophenol	0.000	330	0	0.00 UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#		
84) Terphenyl-d14	6.989	244	86727	35.69 UG	-0.03
Spiked Amount 50.000	Range 15 - 122		Recovery = 71.38%		

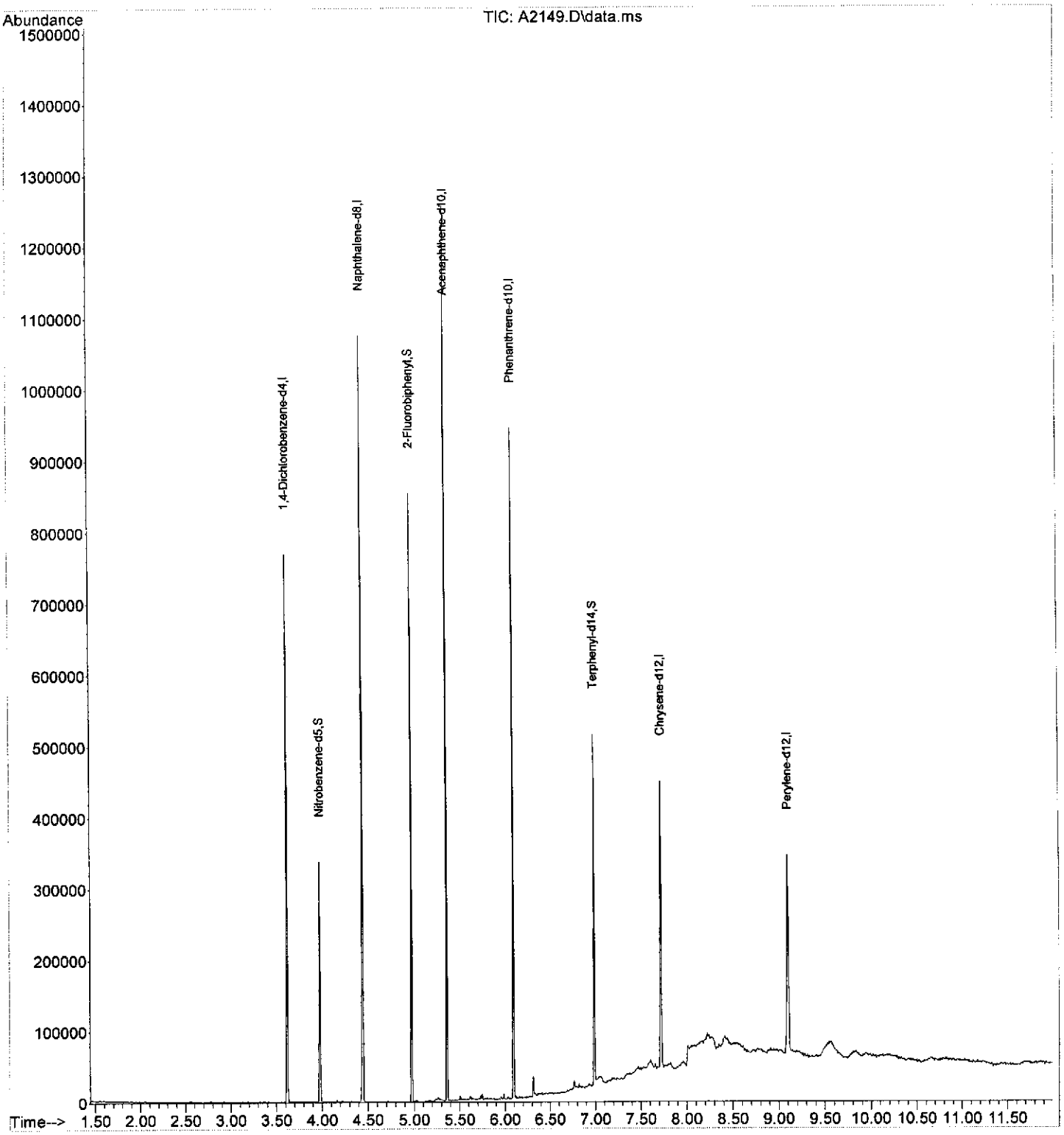
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2149.D
Acq On : 14 Jul 2012 11:46
Operator : LIMS import
Sample : H3_(9-10,E12-06640-003,S,15.06g,11.7,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 14 11:59:29 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2150.D
Acq On : 14 Jul 2012 12:02
Operator : LIMS import
Sample : E2_(11-1,E12-06640-004,S,15.12g,12.7,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 14 12:46:49 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	88305	40.00 UG	-0.01
23) Naphthalene-d8	4.443	136	332740	40.00 UG	-0.01
43) Acenaphthene-d10	5.363	164	163861	40.00 UG	-0.01
66) Phenanthrene-d10	6.095	188	191788	40.00 UG	-0.02
82) Chrysene-d12	7.727	240	127643	40.00 UG	-0.04
92) Perylene-d12	9.101	264	129952	40.00 UG	-0.06

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#		
6) Phenol-d5	0.000	99	0d	0.00 UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#		
24) Nitrobenzene-d5	3.977	82	73869	25.38 UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 50.76%		
47) 2-Fluorobiphenyl	4.978	172	136093	27.03 UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 54.06%		
70) 2,4,6-Tribromophenol	0.000	330	0	0.00 UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#		
84) Terphenyl-d14	6.994	244	90643	33.96 UG	-0.03
Spiked Amount 50.000	Range 15 - 122		Recovery = 67.92%		

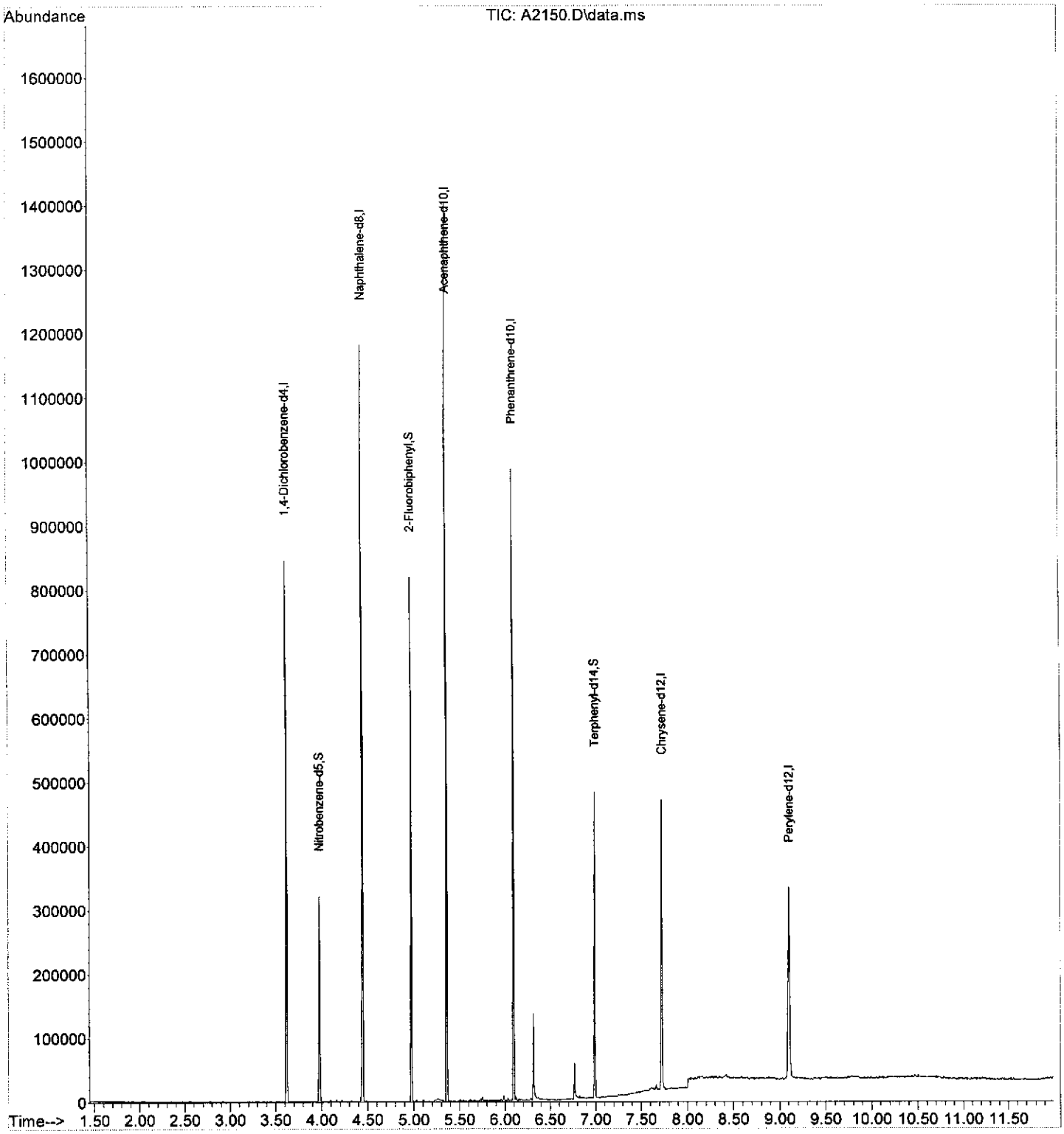
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2150.D
Acq On : 14 Jul 2012 12:02
Operator : LIMS import
Sample : E2_(11-1,E12-06640-004,S,15.12g,12.7,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 14 12:46:49 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2151.D
Acq On : 14 Jul 2012 12:18
Operator : LIMS import
Sample : E3_(7-8),E12-06640-005,S,15.19g,5.90,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 14 12:50:18 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	83992	40.00	UG	-0.01
23) Naphthalene-d8	4.443	136	315739	40.00	UG	-0.01
43) Acenaphthene-d10	5.363	164	157373	40.00	UG	-0.01
66) Phenanthrene-d10	6.096	188	181439	40.00	UG	-0.02
82) Chrysene-d12	7.722	240	119160	40.00	UG	-0.05
92) Perylene-d12	9.096	264	117098	40.00	UG	-0.07

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.978	82	69104	25.03	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 50.06%			
47) 2-Fluorobiphenyl	4.978	172	133620	27.64	UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 55.28%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	6.989	244	83598	33.55	UG	-0.03
Spiked Amount 50.000	Range 15 - 122		Recovery = 67.10%			

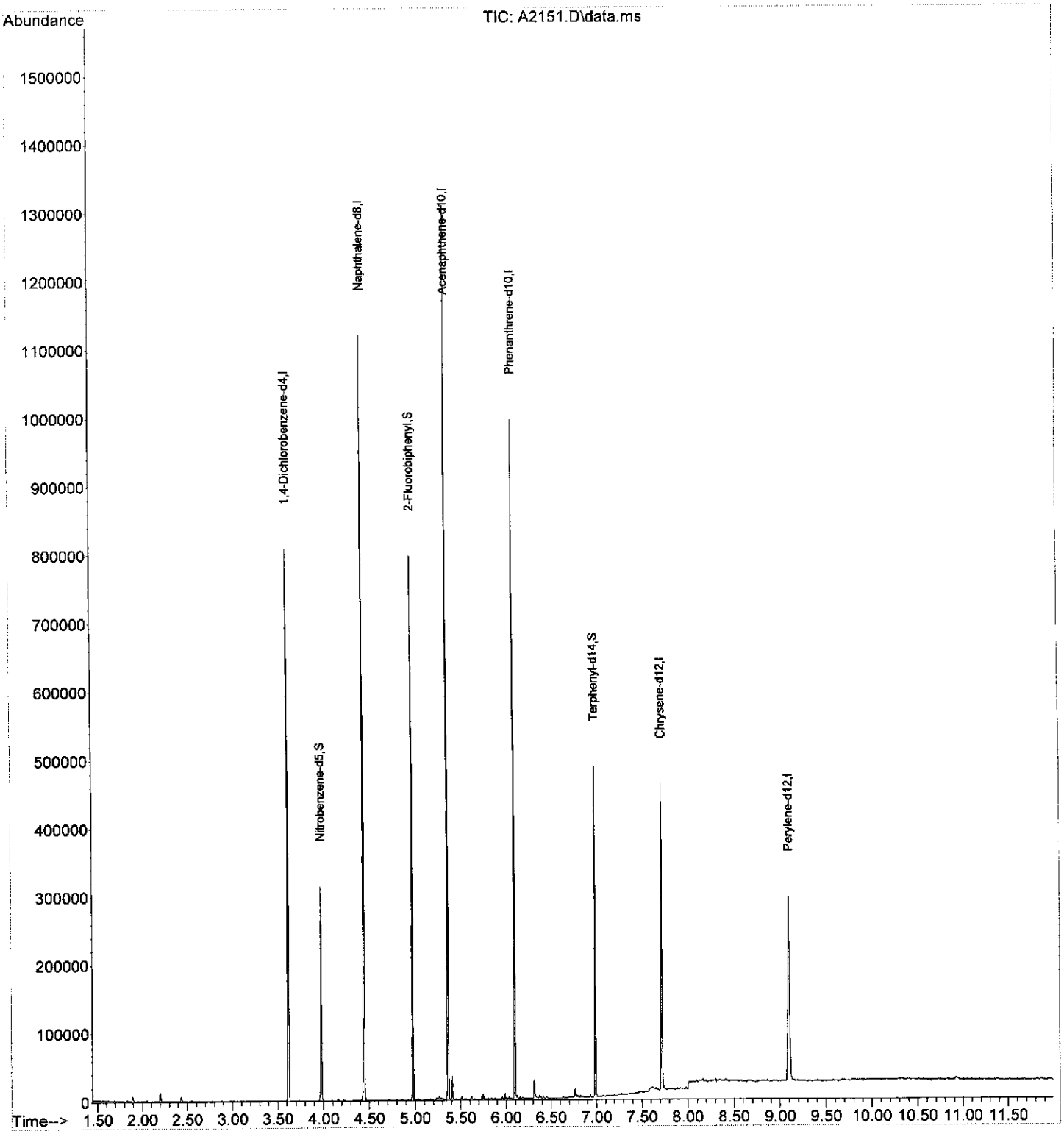
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2151.D
Acq On : 14 Jul 2012 12:18
Operator : LIMS import
Sample : E3_(7-8),E12-06640-005,S,15.19g,5.90,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 14 12:50:18 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2152.D
Acq On : 14 Jul 2012 12:34
Operator : LIMS import
Sample : I4_(9-10,E12-06640-006,S,15.02g,12.9,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 14 12:51:58 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	89135	40.00	UG	-0.01
23) Naphthalene-d8	4.443	136	338745	40.00	UG	-0.01
43) Acenaphthene-d10	5.363	164	165917	40.00	UG	-0.01
66) Phenanthrene-d10	6.095	188	201062	40.00	UG	-0.02
82) Chrysene-d12	7.716	240	129374	40.00	UG	-0.05
92) Perylene-d12	9.091	264	123040	40.00	UG	-0.08

System Monitoring Compounds

4) 2-Fluorophenol	0.000	112	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 100		Recovery = 0.00%#			
6) Phenol-d5	0.000	99	0d	0.00	UG	
Spiked Amount 100.000	Range 25 - 108		Recovery = 0.00%#			
24) Nitrobenzene-d5	3.977	82	65179	22.00	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 44.00%			
47) 2-Fluorobiphenyl	4.978	172	124775	24.48	UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 48.96%			
70) 2,4,6-Tribromophenol	0.000	330	0	0.00	UG	
Spiked Amount 100.000	Range 37 - 115		Recovery = 0.00%#			
84) Terphenyl-d14	6.989	244	88926	32.87	UG	-0.03
Spiked Amount 50.000	Range 15 - 122		Recovery = 65.74%			

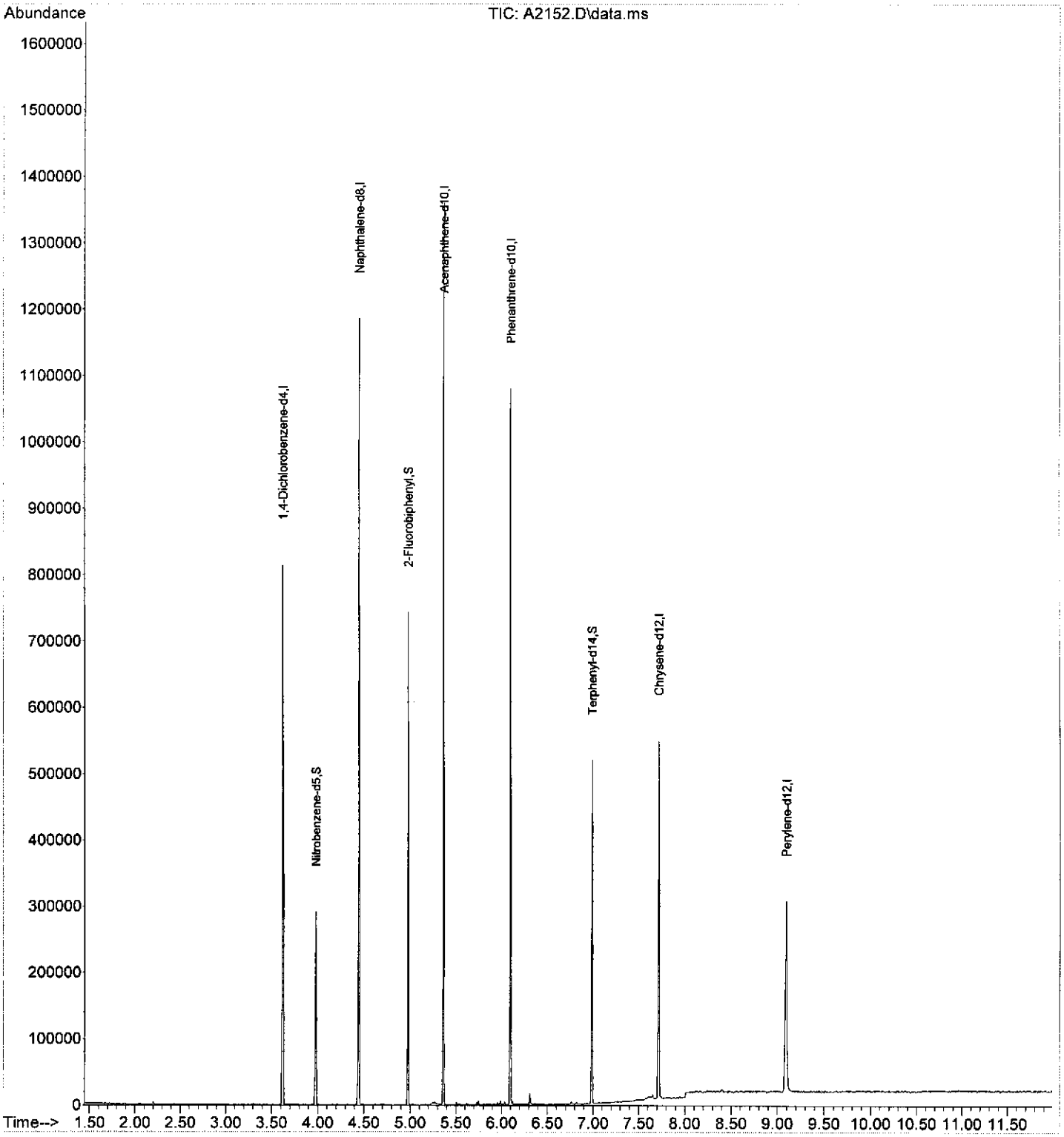
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2152.D
Acq On : 14 Jul 2012 12:34
Operator : LIMS import
Sample : I4_(9-10,E12-06640-006,S,15.02g,12.9,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 14 12:51:58 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2153.D
Acq On : 14 Jul 2012 12:50
Operator : LIMS import
Sample : K1_(9-10,E12-06640-007,S,15.16g,18.5,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 14 13:38:32 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	83825	40.00	UG	-0.01
23) Naphthalene-d8	4.443	136	313516	40.00	UG	-0.01
43) Acenaphthene-d10	5.363	164	150780	40.00	UG	-0.01
66) Phenanthrene-d10	6.096	188	178603	40.00	UG	-0.02
82) Chrysene-d12	7.705	240	113582	40.00	UG	-0.06
92) Perylene-d12	9.080	264	109816	40.00	UG	-0.09
System Monitoring Compounds						
4) 2-Fluorophenol	2.774	112	174773	66.61	UG	-0.01
Spiked Amount 100.000	Range 25 - 100		Recovery = 66.61%			
6) Phenol-d5	3.362	99	242523	77.47	UG	-0.01
Spiked Amount 100.000	Range 25 - 108		Recovery = 77.47%			
24) Nitrobenzene-d5	3.977	82	70450	25.69	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 51.38%			
47) 2-Fluorobiphenyl	4.978	172	136393	29.44	UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 58.88%			
70) 2,4,6-Tribromophenol	5.742	330	56849	100.62	UG	-0.01
Spiked Amount 100.000	Range 37 - 115		Recovery = 100.62%			
84) Terphenyl-d14	6.983	244	90425	38.08	UG	-0.04
Spiked Amount 50.000	Range 15 - 122		Recovery = 76.16%			

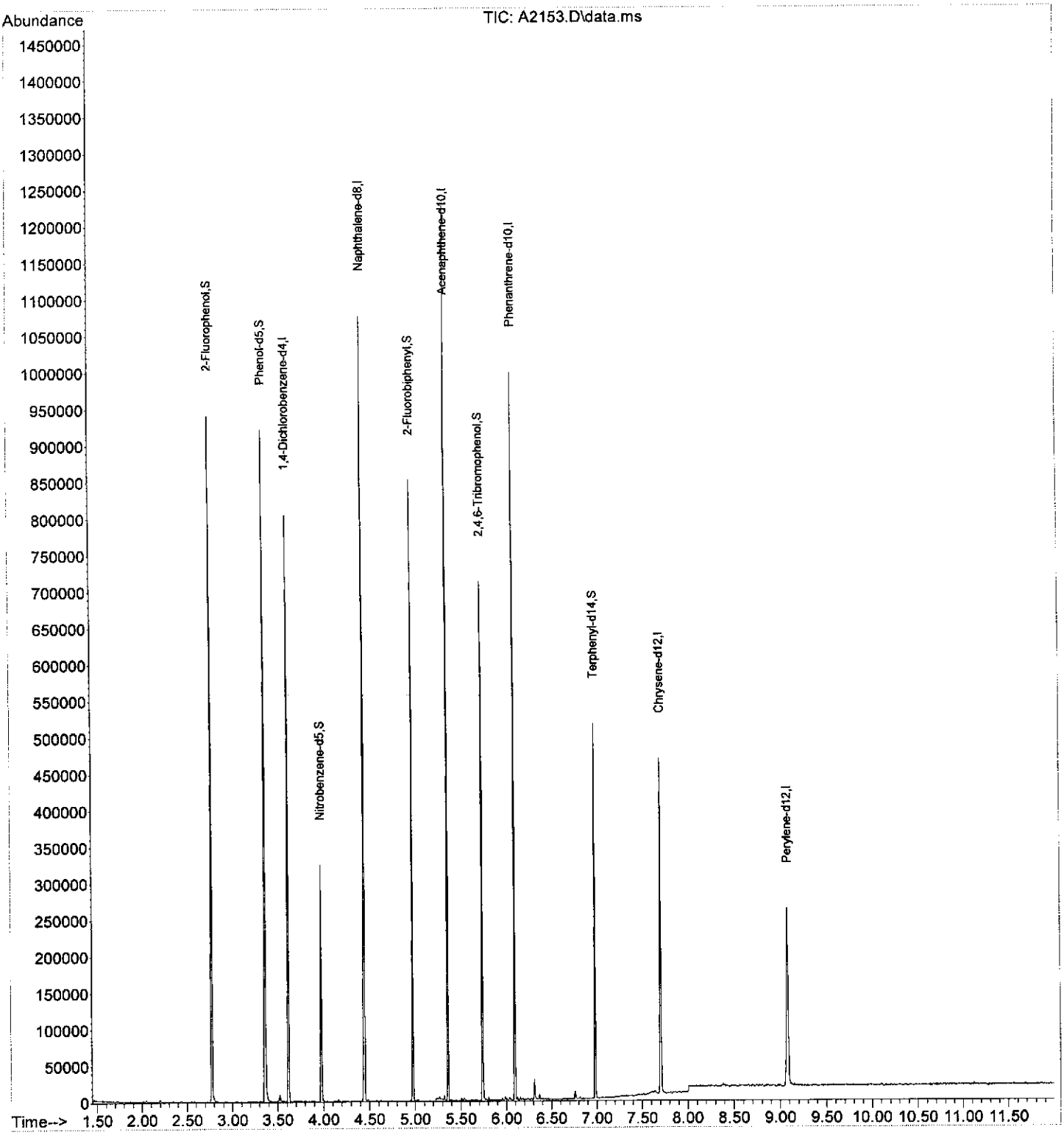
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2153.D
Acq On : 14 Jul 2012 12:50
Operator : LIMS import
Sample : K1_(9-10,E12-06640-007,S,15.16g,18.5,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 14 13:38:32 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2153.D
Acq On : 14 Jul 2012 12:50
Operator : LIMS import
Sample : K1_(9-10,E12-06640-007,S,15.16g,18.5,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

AS1112.M Sat Jul 14 13:40:01 2012 MSD_A

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2154.D
Acq On : 14 Jul 2012 13:06
Operator : LIMS import
Sample : J1_(9-10,E12-06640-008,S,15.07g,17.5,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 14 13:40:44 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	82719	40.00	UG	-0.01
23) Naphthalene-d8	4.443	136	312956	40.00	UG	-0.01
43) Acenaphthene-d10	5.363	164	152744	40.00	UG	-0.01
66) Phenanthrene-d10	6.095	188	183108	40.00	UG	-0.02
82) Chrysene-d12	7.700	240	116928	40.00	UG	-0.07
92) Perylene-d12	9.075	264	109796	40.00	UG	-0.09

System Monitoring Compounds						
4) 2-Fluorophenol	2.774	112	138062	53.32	UG	-0.01
Spiked Amount 100.000	Range 25 - 100		Recovery = 53.32%			
6) Phenol-d5	3.362	99	187949	60.84	UG	-0.01
Spiked Amount 100.000	Range 25 - 108		Recovery = 60.84%			
24) Nitrobenzene-d5	3.977	82	62878	22.97	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 45.94%			
47) 2-Fluorobiphenyl	4.978	172	122836	26.18	UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 52.36%			
70) 2,4,6-Tribromophenol	5.742	330	46802	80.80	UG	-0.01
Spiked Amount 100.000	Range 37 - 115		Recovery = 80.80%			
84) Terphenyl-d14	6.983	244	95976	39.26	UG	-0.04
Spiked Amount 50.000	Range 15 - 122		Recovery = 78.52%			

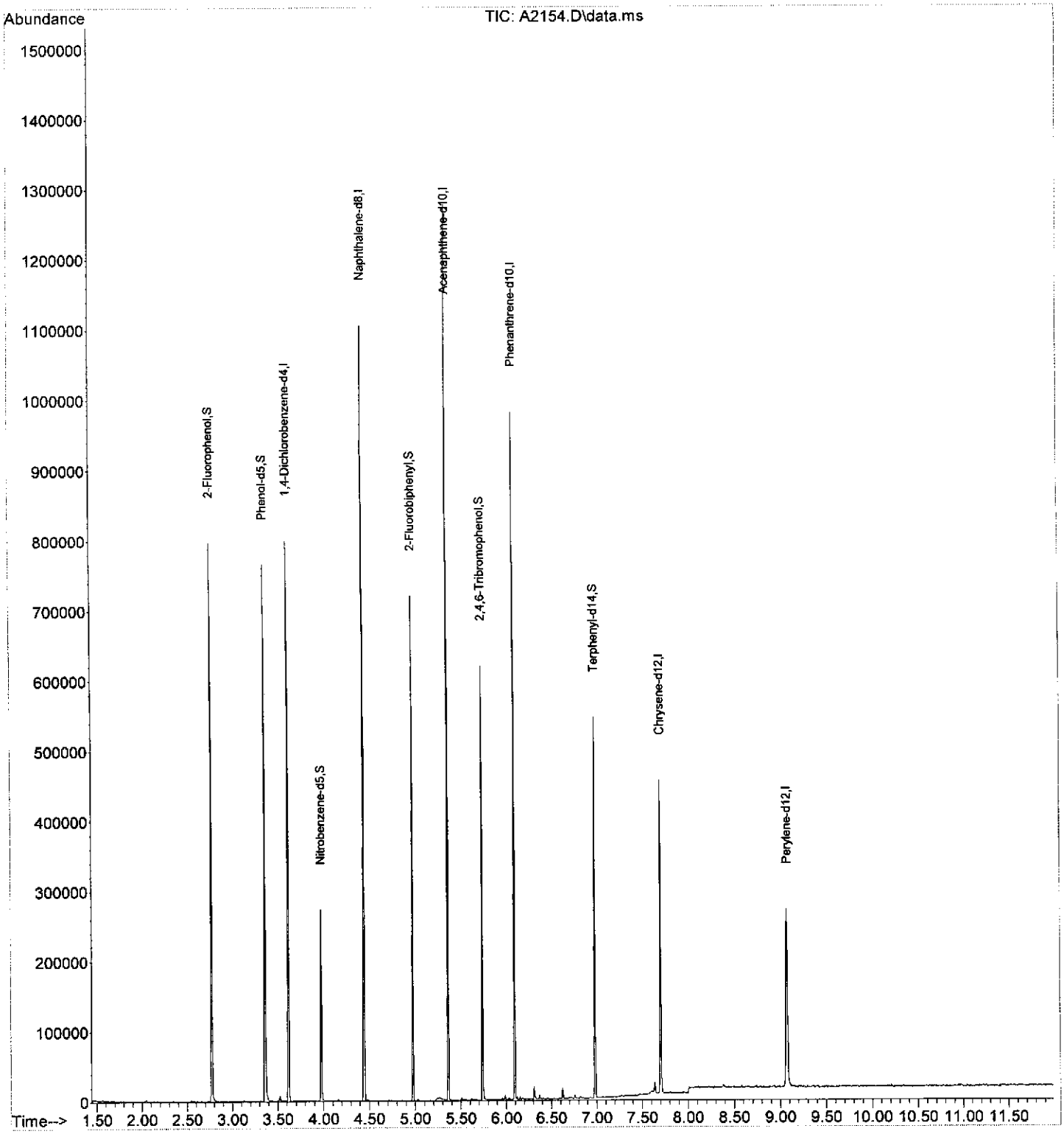
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2154.D
Acq On : 14 Jul 2012 13:06
Operator : LIMS import
Sample : J1_(9-10,E12-06640-008,S,15.07g,17.5,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 14 13:40:44 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2154.D
Acq On : 14 Jul 2012 13:06
Operator : LIMS import
Sample : J1_(9-10,E12-06640-008,S,15.07g,17.5,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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AS1112.M Sat Jul 14 13:42:20 2012 MSD_A

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2155.D
Acq On : 14 Jul 2012 13:22
Operator : LIMS import
Sample : J2_(9-10,E12-06640-009,S,15.12g,13.5,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 14 13:43:48 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	83805	40.00	UG	-0.01
23) Naphthalene-d8	4.443	136	315170	40.00	UG	-0.01
43) Acenaphthene-d10	5.363	164	150880	40.00	UG	-0.01
66) Phenanthrene-d10	6.096	188	183041	40.00	UG	-0.02
82) Chrysene-d12	7.706	240	115210	40.00	UG	-0.06
92) Perylene-d12	9.075	264	104889	40.00	UG	-0.09

System Monitoring Compounds

4) 2-Fluorophenol	2.774	112	189518	72.24	UG	-0.01
Spiked Amount 100.000	Range 25 - 100		Recovery = 72.24%			
6) Phenol-d5	3.362	99	255636	81.68	UG	-0.01
Spiked Amount 100.000	Range 25 - 108		Recovery = 81.68%			
24) Nitrobenzene-d5	3.978	82	60838	22.07	UG	-0.01
Spiked Amount 50.000	Range 24 - 91		Recovery = 44.14%			
47) 2-Fluorobiphenyl	4.978	172	116995	25.24	UG	-0.01
Spiked Amount 50.000	Range 33 - 91		Recovery = 50.48%			
70) 2,4,6-Tribromophenol	5.743	330	53043	91.61	UG	-0.01
Spiked Amount 100.000	Range 37 - 115		Recovery = 91.61%			
84) Terphenyl-d14	6.983	244	70527	29.28	UG	-0.04
Spiked Amount 50.000	Range 15 - 122		Recovery = 58.56%			

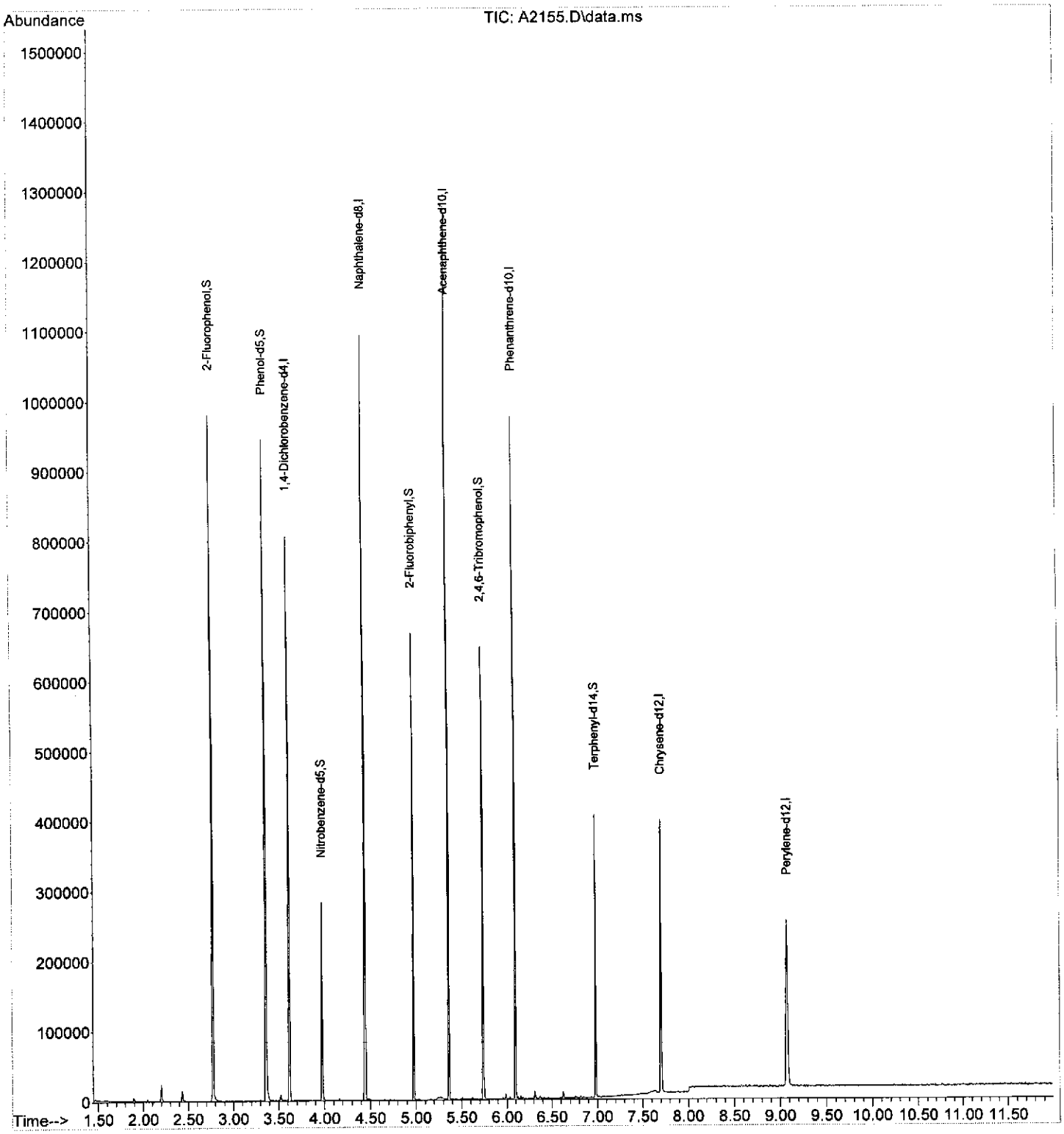
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2155.D
Acq On : 14 Jul 2012 13:22
Operator : LIMS import
Sample : J2_(9-10,E12-06640-009,S,15.12g,13.5,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 14 13:43:48 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2155.D
Acq On : 14 Jul 2012 13:22
Operator : LIMS import
Sample : J2_(9-10,E12-06640-009,S,15.12g,13.5,0.5
Misc : 120713-02,07/13/12,07/03/12,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

S1112.M Sat Jul 14 13:45:09 2012 MSD_A

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS120713-02
Client ID: .
Date Received: NA
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2143.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		0.033	0.012
Pyridine	ND		0.033	0.00967
Benzaldehyde	ND		0.033	0.011
Phenol	ND		0.033	0.012
Aniline	ND		0.033	0.013
Bis(2-chloroethyl) ether	ND		0.033	0.012
2-Chlorophenol	ND		0.033	0.010
1,3-Dichlorobenzene	ND		0.033	0.017
1,4-Dichlorobenzene	ND		0.033	0.010
Benzyl alcohol	ND		0.033	0.012
1,2-Dichlorobenzene	ND		0.033	0.010
2-Methylphenol	ND		0.033	0.010
Bis(2-chloroisopropyl) ether	ND		0.033	0.016
4-Methylphenol **	ND		0.033	0.011
N-Nitrosodi-n-propylamine	ND		0.033	0.012
Acetophenone	ND		0.033	0.012
3-Methylphenol	ND		0.033	0.011
Hexachloroethane	ND		0.033	0.00967
Nitrobenzene	ND		0.033	0.012
Isophorone	ND		0.033	0.016
2-Nitrophenol	ND		0.033	0.012
2,4-Dimethylphenol	ND		0.033	0.010
Bis(2-chloroethoxy) methane	ND		0.033	0.010
Benzoic acid	ND		0.033	0.013
2,4-Dimethylaniline	ND		0.033	0.020
2,4-Dichlorophenol	ND		0.033	0.010
1,2,4-Trichlorobenzene	ND		0.033	0.00967
Naphthalene	ND		0.033	0.00953
4-Chloroaniline	ND		0.033	0.010
4-Aminotoluene	ND		0.033	0.019
Hexachlorobutadiene	ND		0.033	0.010
Caprolactam	ND		0.033	0.017
2-Aminotoluene	ND		0.033	0.019
4-Chloro-3-methylphenol	ND		0.033	0.011
2-Methylnaphthalene	ND		0.033	0.014
Hexachlorocyclopentadiene	ND		0.033	0.010
2,4,6-Trichlorophenol	ND		0.033	0.011
2,4,5-Trichlorophenol	ND		0.033	0.011
1,1'-Biphenyl	ND		0.033	0.010
2-Chloronaphthalene	ND		0.033	0.011
2-Nitroaniline	ND		0.033	0.017
Dimethyl phthalate	ND		0.033	0.012

E12-06640 0128

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKS120713-02
Client ID: .
Date Received: NA
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2143.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		0.033	0.011
Acenaphthylene	ND		0.033	0.014
3-Nitroaniline	ND		0.033	0.013
Acenaphthene	ND		0.033	0.00973
2,4-Dinitrophenol	ND		0.033	0.014
4-Nitrophenol	ND		0.033	0.014
2,4-Dinitrotoluene	ND		0.033	0.010
Dibenzofuran	ND		0.033	0.011
Diethyl phthalate	ND		0.033	0.010
Fluorene	ND		0.033	0.00997
4-Chlorophenyl phenyl ether	ND		0.033	0.011
4-Nitroaniline	ND		0.033	0.010
1,2,4,5-Tetrachlorobenzene	ND		0.033	0.014
2,3,4,6-Tetrachlorophenol	ND		0.033	0.016
4,6-Dinitro-2-methylphenol	ND		0.033	0.012
N-Nitrosodiphenylamine	ND		0.033	0.010
1,2-Diphenylhydrazine	ND		0.033	0.013
4-Bromophenyl phenyl ether	ND		0.033	0.011
Hexachlorobenzene	ND		0.033	0.014
Atrazine	ND		0.033	0.010
Pentachlorophenol	ND		0.033	0.012
Phenanthrene	ND		0.033	0.010
Anthracene	ND		0.033	0.014
Carbazole	ND		0.033	0.013
Di-n-butyl phthalate	ND		0.033	0.011
Fluoranthene	ND		0.033	0.012
Benzidine	ND		0.033	0.010
Pyrene	ND		0.033	0.011
3,3'-Dimethylbenzidine	ND		0.033	0.010
Butyl benzyl phthalate	ND		0.033	0.00967
3,3'-Dichlorobenzidine	ND		0.033	0.011
Benzo[a]anthracene	ND		0.033	0.015
Chrysene	ND		0.033	0.012
Bis(2-ethylhexyl) phthalate	ND		0.033	0.016
Di-n-octyl phthalate	ND		0.033	0.012
Benzo[b]fluoranthene	ND		0.033	0.017
Benzo[k]fluoranthene	ND		0.033	0.017
Benzo[a]pyrene	ND		0.033	0.015
Indeno[1,2,3-cd]pyrene	ND		0.033	0.00967
Dibenz[a,h]anthracene	ND		0.033	0.010
Benzo[g,h,i]perylene	ND		0.033	0.014

Total Target Compounds (83): 0

** - represents the total of 3+4-Methylphenol

E12-06640 0129

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKS120713-02
Client ID: .
Date Received: NA
Date Extracted: 07/13/2012
Date Analyzed: 07/14/2012
Data file: A2143.D

GC/MS Column: DB-5
Sample wt/vol: 15.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2143.D
Acq On : 14 Jul 2012 10:11
Operator : LIMS import
Sample : .,BLKS120713-02,S,15.00g,0,0.5
Misc : 120713-02,07/13/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 14 11:23:00 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.619	152	95169	40.00 UG	-0.01
23) Naphthalene-d8	4.443	136	371848	40.00 UG	-0.01
43) Acenaphthene-d10	5.368	164	196164	40.00 UG	0.00
66) Phenanthrene-d10	6.101	188	266019	40.00 UG	-0.01
82) Chrysene-d12	7.754	240	149879	40.00 UG	-0.02
92) Perylene-d12	9.139	264	114986	40.00 UG	-0.03

System Monitoring Compounds					
4) 2-Fluorophenol	2.779	112	229137	76.91 UG	0.00
Spiked Amount 100.000	Range 25 - 100		Recovery = 76.91%		
6) Phenol-d5	3.368	99	299885	84.37 UG	0.00
Spiked Amount 100.000	Range 25 - 108		Recovery = 84.37%		
24) Nitrobenzene-d5	3.983	82	119082	36.62 UG	0.00
Spiked Amount 50.000	Range 24 - 91		Recovery = 73.24%		
47) 2-Fluorobiphenyl	4.988	172	226589	37.60 UG	0.00
Spiked Amount 50.000	Range 33 - 91		Recovery = 75.20%		
70) 2,4,6-Tribromophenol	5.748	330	73815	87.72 UG	0.00
Spiked Amount 100.000	Range 37 - 115		Recovery = 87.72%		
84) Terphenyl-d14	7.010	244	182827	58.34 UG	-0.01
Spiked Amount 50.000	Range 15 - 122		Recovery = 116.68%		

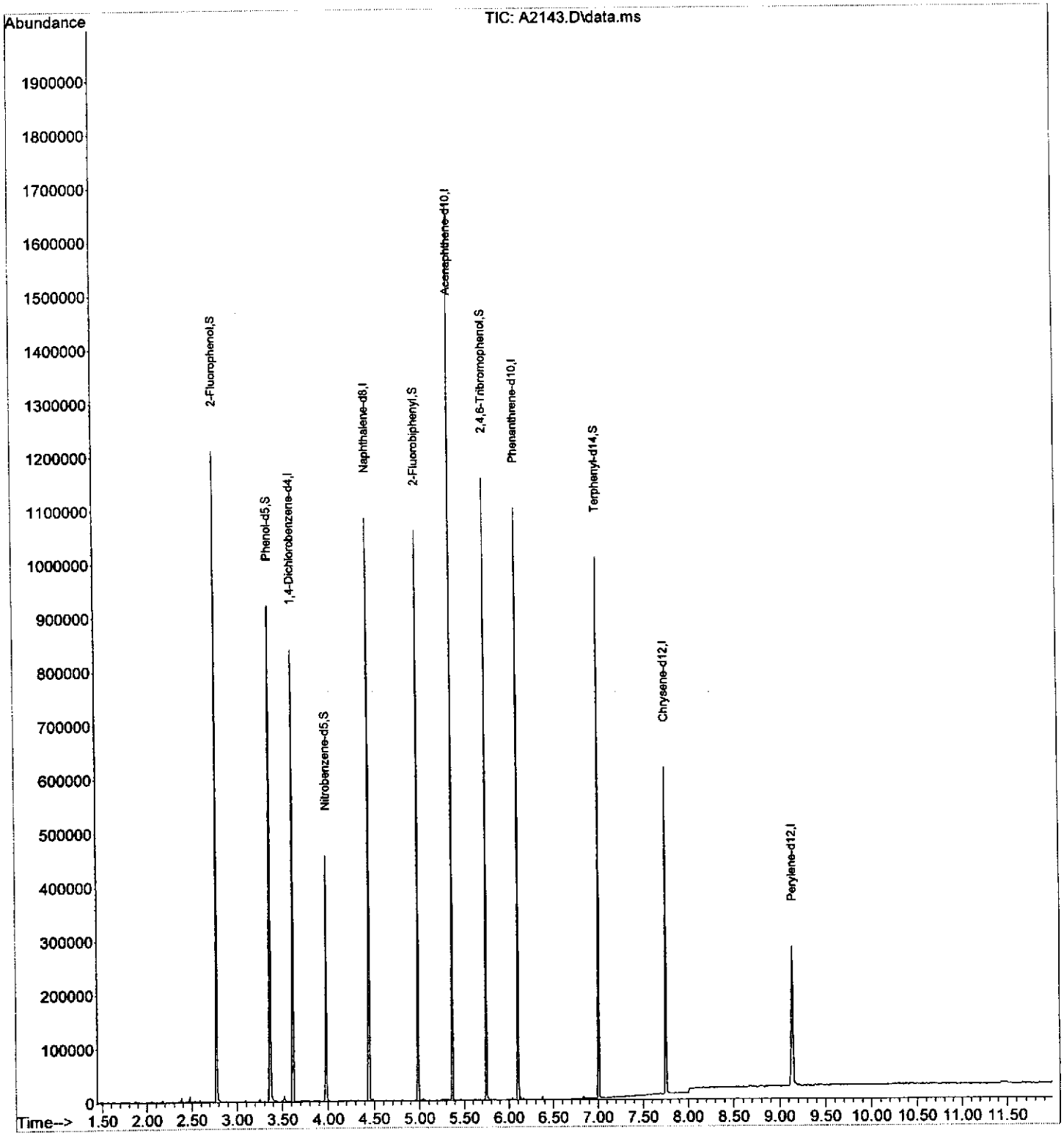
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2143.D
Acq On : 14 Jul 2012 10:11
Operator : LIMS import
Sample : .,BLKS120713-02,S,15.00g,0,0.5
Misc : 120713-02,07/13/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 14 11:23:00 2012
Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Fri Jul 06 10:54:42 2012
Response via : Initial Calibration



AS1112.M Sat Jul 14 11:24:38 2012 MSD_A

E12-06640 _0132

Library Search Compound Report

Data Path : Z:\A_Jul-12\07-14-12\
Data File : A2143.D
Acq On : 14 Jul 2012 10:11
Operator : LIMS import
Sample : .,BLKS120713-02,S,15.00g,0,0.5
Misc : 120713-02,07/13/12,NA,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\AS1112.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\Database\NIST05a.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

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AS1112.M Sat Jul 14 11:24:44 2012 MSD_A

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/14/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS120711-04	SOIL	67		62		72		72	
803_BASIN_	06800-007	SOIL	67		86		75		94	
803_BASIN_	06800-008	SOIL	67		89		75		111	
803_BASIN_	06800-009	SOIL	38		45		41		61	
803_BASIN_	06800-010	SOIL	67		83		76		107	
803_BASIN_	06800-011	SOIL	62		79		70		110	
803_BASIN_	06800-012	SOIL	65		79		75		120	
803_BASIN_	06800-013	SOIL	52		71		59		90	
803_BASIN_	06800-014	SOIL	69		84		79		110	
803_BASIN_	06800-015	SOIL	55		71		63		88	
803_BASIN_	06800-016	SOIL	61		80		70		101	
803_BASIN_	06800-017	SOIL	72		95		84		117	
803_BASIN_	06800-018	SOIL	63		76		75		106	
803_BASIN_	06800-019	SOIL	66		86		75		106	
803_BASIN_	06800-020	SOIL	63		76		71		91	
803_BASIN_	06800-021	SOIL	50		71		57		98	
803_BASIN_	06800-022	SOIL	59		80		68		103	
803_BASIN_	06800-023	SOIL	53		73		60		89	
803_BASIN_	06800-024	SOIL	52		76		58		94	
12-139	06826-001	SOIL	63		76		76		98	
I4_(9-10)-	06640-006	SOIL	71		70		81		158	
PCB	06800-024MS	SOIL	63		71		70		85	
PCB	06800-024MSD	SOIL	58		71		65		98	
PCB	LCSS120711-04	SOIL	90		92		100		119	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/14/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKS120712-04	SOIL	107		111		114		119	
GISELLE-BR	06892-001	SOIL	102		105		109		112	
J1_(9-10)-	06640-008	SOIL	101		103		107		108	
J2_(9-10)-	06640-009	SOIL	102		104		107		109	
K-41_(2.0-	06784-005	SOIL	69		95		107		71	
K-41_(4.0-	06784-006	SOIL	116		138		129		137	
J-38_(0-2.	06784-013	SOIL	90		78		108		115	
J-38_(2.0-	06784-014	SOIL	61		145		102		109	
J-38_(4.0-	06784-015	SOIL	111		118		125		121	
H-37_(4.0-	06784-021	SOIL	94		80		119		160	
PCB	06892-001MS	SOIL	88		77		106		105	
PCB	06892-001MSD	SOIL	93		75		109		102	
PCB	LCSS120712-04	SOIL	94		73		107		100	
J-40_(0-2.	06784-007	SOIL	79		98		124		73	
J-40_(2.0-	06784-008	SOIL	D		D		D		D	
J-40_(4.0-	06784-009	SOIL	100		79		124		116	
J-39_(0-2.	06784-010	SOIL	D		D		D		D	
J-39_(2.0-	06784-011	SOIL	98		93		125		125	
J-39_(4.0-	06784-012	SOIL	116		93		143		150	
I-38_(0-2.	06784-016	SOIL	102		90		122		106	
I-38_(2.0-	06784-017	SOIL	D		D		D		D	
I-38_(4.0-	06784-018	SOIL	D		D		D		D	
H-37_(0-2.	06784-019	SOIL	D		D		D		D	
H-37_(2.0-	06784-020	SOIL	76		88		124		115	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSS120711-04

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	386.5	77	70 - 130
Aroclor-1260	500.0	0.0	388.5	78	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

SOIL PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSS120712-04

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	369.1	74	70 - 130
Aroclor-1260	500.0	0.0	410.7	82	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06800-024MSD

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	291.3	58	40 - 140
Aroclor-1260	500.0	0.0	325.6	65	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	#	MSD % REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	277.1		55	5	50	40 - 140
Aroclor-1260	0.0	327.7		66	2	50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

SOIL PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06892-001MSD

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	339.5	68	40 - 140
Aroclor-1260	500.0	0.0	444.0	89	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	#	MSD % REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	353.0		71	4	50	40 - 140
Aroclor-1260	0.0	447.8		90	1	50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

PCB METHOD BLANK SUMMARY

Lab File ID:	Y6700.D	Instrument ID:	GC-Y
Date Extracted:	07/11/2012	Matrix:	SOIL
Date Analyzed:	07/14/2012	Time Analyzed:	01:02

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
803_BASIN_	06800-007	07/14/2012	01:19
803_BASIN_	06800-008	07/14/2012	01:36
803_BASIN_	06800-009	07/14/2012	01:53
803_BASIN_	06800-010	07/14/2012	02:11
803_BASIN_	06800-011	07/14/2012	02:28
803_BASIN_	06800-012	07/14/2012	02:45
803_BASIN_	06800-013	07/14/2012	03:02
803_BASIN_	06800-014	07/14/2012	03:19
803_BASIN_	06800-015	07/14/2012	03:37
803_BASIN_	06800-016	07/14/2012	03:54
803_BASIN_	06800-017	07/14/2012	04:11
803_BASIN_	06800-018	07/14/2012	04:29
803_BASIN_	06800-019	07/14/2012	04:46
803_BASIN_	06800-020	07/14/2012	05:03
803_BASIN_	06800-021	07/14/2012	05:20
803_BASIN_	06800-022	07/14/2012	05:37
803_BASIN_	06800-023	07/14/2012	05:54
803_BASIN_	06800-024	07/14/2012	06:12
12-139	06826-001	07/14/2012	06:29
I4_(9-10)-	06640-006	07/14/2012	06:46
PCB	06800-024MS	07/14/2012	07:03
PCB	06800-024MSD	07/14/2012	07:21
PCB	LCSS120711-04	07/14/2012	07:38

PCB METHOD BLANK SUMMARY

Lab File ID: Y6726.D Instrument ID: GC-Y

Date Extracted: 07/12/2012 Matrix: SOIL

Date Analyzed: 07/14/2012 Time Analyzed: 10:30

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
GISELLE-BR	06892-001	07/14/2012	10:47
J1_(9-10)-	06640-008	07/14/2012	11:04
J2_(9-10)-	06640-009	07/14/2012	11:21
K-41_(2.0-	06784-005	07/14/2012	11:38
K-41_(4.0-	06784-006	07/14/2012	11:56
J-38_(0-2.	06784-013	07/14/2012	13:56
J-38_(2.0-	06784-014	07/14/2012	14:13
J-38_(4.0-	06784-015	07/14/2012	14:30
H-37_(4.0-	06784-021	07/14/2012	16:14
PCB	06892-001MS	07/14/2012	16:31
PCB	06892-001MSD	07/14/2012	16:48
PCB	LCSS120712-04	07/14/2012	17:05
J-40_(0-2.	06784-007	07/15/2012	22:43
J-40_(2.0-	06784-008	07/15/2012	23:00
J-40_(4.0-	06784-009	07/15/2012	23:17
J-39_(0-2.	06784-010	07/15/2012	23:34
J-39_(2.0-	06784-011	07/15/2012	23:52
J-39_(4.0-	06784-012	07/16/2012	00:09
I-38_(0-2.	06784-016	07/16/2012	00:26
I-38_(2.0-	06784-017	07/16/2012	00:43
I-38_(4.0-	06784-018	07/16/2012	01:00
H-37_(0-2.	06784-019	07/16/2012	01:18
H-37_(2.0-	06784-020	07/16/2012	01:35

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.27	3.28	3.28	3.28	3.28	3.28	3.21	3.35
Aroclor-1016 {2}	4.11	4.10	4.11	4.11	4.11	4.11	4.04	4.18
Aroclor-1016 {3}	4.65	4.66	4.65	4.65	4.65	4.65	4.58	4.72
Aroclor-1016 {4}	5.16	5.16	5.16	5.16	5.16	5.16	5.09	5.23
Aroclor-1016 {5}	5.55	5.55	5.55	5.55	5.55	5.55	5.48	5.62
Aroclor-1221			2.17				2.10	2.24
Aroclor-1221 {2}			3.07				3.00	3.14
Aroclor-1221 {3}			3.19				3.12	3.26
Aroclor-1221 {4}			3.27				3.20	3.34
Aroclor-1221 {5}			3.86				3.79	3.93
Aroclor-1232			3.27				3.20	3.34
Aroclor-1232 {2}			4.10				4.03	4.17
Aroclor-1232 {3}			4.76				4.69	4.83
Aroclor-1232 {4}			5.35				5.28	5.42
Aroclor-1232 {5}			5.55				5.48	5.62
Aroclor-1242			4.11				4.04	4.18
Aroclor-1242 {2}			5.04				4.97	5.11
Aroclor-1242 {3}			5.36				5.29	5.43
Aroclor-1242 {4}			6.05				5.98	6.12
Aroclor-1242 {5}			6.32				6.25	6.39
Aroclor-1248			4.50				4.42	4.58
Aroclor-1248 {2}			5.04				4.96	5.12
Aroclor-1248 {3}			5.36				5.28	5.44
Aroclor-1248 {4}			6.06				5.98	6.14
Aroclor-1248 {5}			6.33				6.25	6.41
Aroclor-1254			6.45				6.37	6.53
Aroclor-1254 {2}			6.88				6.80	6.96
Aroclor-1254 {3}			7.05				6.96	7.14
Aroclor-1254 {4}			7.48				7.39	7.57
Aroclor-1254 {5}			8.33				8.24	8.42
Aroclor-1260	8.32	8.32	8.32	8.33	8.32	8.32	7.42	9.22
Aroclor-1260 {2}	9.00	9.00	9.00	9.00	9.00	9.00	8.10	9.90
Aroclor-1260 {3}	9.47	9.47	9.47	9.47	9.47	9.47	8.57	10.37
Aroclor-1260 {4}	9.95	9.95	9.95	9.95	9.95	9.95	9.05	10.85
Aroclor-1260 {5}	11.01	11.01	11.01	11.01	11.01	11.01	10.11	11.91

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	2158526	1576000	1698131	1764462	1711954	1781815	12.44
Aroclor-1016 {2}	2402575	2200752	2357394	2475021	2422935	2371736	4.41
Aroclor-1016 {3}	3011949	2882239	3177441	3334621	3218928	3125036	5.71
Aroclor-1016 {4}	1681635	1432658	1450872	1515174	1485014	1513071	6.57
Aroclor-1016 {5}	2597064	2368911	2578717	2724853	2708544	2595618	5.49
Aroclor-1221			828520				
Aroclor-1221 {2}			1275655				
Aroclor-1221 {3}			857847				
Aroclor-1221 {4}			2894853				
Aroclor-1221 {5}			670112				
Aroclor-1232			2063367				
Aroclor-1232 {2}			1131048				
Aroclor-1232 {3}			1055895				
Aroclor-1232 {4}			1126126				
Aroclor-1232 {5}			1450731				
Aroclor-1242			2034139				
Aroclor-1242 {2}			1293898				
Aroclor-1242 {3}			1881596				
Aroclor-1242 {4}			2805290				
Aroclor-1242 {5}			2579945				
Aroclor-1248			4238052				
Aroclor-1248 {2}			2416821				
Aroclor-1248 {3}			3236060				
Aroclor-1248 {4}			5160666				
Aroclor-1248 {5}			4144900				
Aroclor-1254			4674394				
Aroclor-1254 {2}			3742416				
Aroclor-1254 {3}			7049491				
Aroclor-1254 {4}			7076508				
Aroclor-1254 {5}			6604307				
Aroclor-1260	6883885	6422839	7458788	7740786	7175397	7136339	7.16
Aroclor-1260 {2}	3543900	3011968	3350316	3459291	3428078	3358711	6.13
Aroclor-1260 {3}	8936763	7244082	8370413	8710148	8431730	8338627	7.83
Aroclor-1260 {4}	4086888	4169347	4220226	4362104	4255205	4218754	2.42
Aroclor-1260 {5}	1823349	1628762	1601873	1633329	1570813	1651625	6.01
						Average %RSD	6.41

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (2nd): RTX-CLP2

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1016	3.82	3.81	3.82	3.82	3.82	3.82	3.75	3.89
Aroclor-1016 {2}	4.42	4.42	4.42	4.42	4.42	4.42	4.35	4.49
Aroclor-1016 {3}	5.17	5.17	5.17	5.17	5.17	5.17	5.10	5.24
Aroclor-1016 {4}	5.38	5.38	5.38	5.38	5.38	5.38	5.31	5.45
Aroclor-1016 {5}	5.56	5.56	5.56	5.56	5.56	5.56	5.49	5.63
Aroclor-1221			2.49				2.42	2.56
Aroclor-1221 {2}			3.50				3.43	3.57
Aroclor-1221 {3}			3.73				3.66	3.80
Aroclor-1221 {4}			3.83				3.76	3.90
Aroclor-1221 {5}			5.18				5.11	5.25
Aroclor-1232			3.83				3.76	3.90
Aroclor-1232 {2}			4.82				4.75	4.89
Aroclor-1232 {3}			5.39				5.32	5.46
Aroclor-1232 {4}			5.57				5.50	5.64
Aroclor-1232 {5}			6.17				6.10	6.24
Aroclor-1242			4.81				4.74	4.88
Aroclor-1242 {2}			5.56				5.49	5.63
Aroclor-1242 {3}			6.16				6.09	6.23
Aroclor-1242 {4}			6.32				6.25	6.39
Aroclor-1242 {5}			6.85				6.78	6.92
Aroclor-1248			5.17				5.09	5.25
Aroclor-1248 {2}			5.76				5.68	5.84
Aroclor-1248 {3}			6.16				6.08	6.24
Aroclor-1248 {4}			6.31				6.23	6.39
Aroclor-1248 {5}			6.66				6.58	6.74
Aroclor-1254			7.16				7.08	7.24
Aroclor-1254 {2}			7.75				7.67	7.83
Aroclor-1254 {3}			8.36				8.27	8.45
Aroclor-1254 {4}			8.59				8.50	8.68
Aroclor-1254 {5}			9.18				9.09	9.27
Aroclor-1260	7.93	7.93	7.93	7.93	7.93	7.93	7.03	8.83
Aroclor-1260 {2}	8.18	8.18	8.18	8.18	8.18	8.18	7.28	9.08
Aroclor-1260 {3}	9.78	9.78	9.78	9.78	9.78	9.78	8.88	10.68
Aroclor-1260 {4}	10.28	10.28	10.28	10.28	10.28	10.28	9.38	11.18
Aroclor-1260 {5}	10.87	10.87	10.87	10.87	10.87	10.87	9.97	11.77

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (2nd): RTX-CLP2

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	639129	556083	544610	543480	516688	559998	8.31
Aroclor-1016 {2}	1365709	1182903	1092201	1079621	1029700	1150027	11.53
Aroclor-1016 {3}	2992384	2496318	2480225	2496406	2421461	2577359	9.08
Aroclor-1016 {4}	1105095	1106203	1048532	1040620	999297	1059949	4.31
Aroclor-1016 {5}	1169612	852192	813028	812368	784228	886286	18.08
Aroclor-1221			258324				
Aroclor-1221 {2}			355681				
Aroclor-1221 {3}			235125				
Aroclor-1221 {4}			860404				
Aroclor-1221 {5}			159575				
Aroclor-1232			657366				
Aroclor-1232 {2}			243462				
Aroclor-1232 {3}			535109				
Aroclor-1232 {4}			410759				
Aroclor-1232 {5}			569667				
Aroclor-1242			407951				
Aroclor-1242 {2}			694356				
Aroclor-1242 {3}			923104				
Aroclor-1242 {4}			770055				
Aroclor-1242 {5}			1481229				
Aroclor-1248			1317451				
Aroclor-1248 {2}			1948855				
Aroclor-1248 {3}			1413456				
Aroclor-1248 {4}			1205391				
Aroclor-1248 {5}			660352				
Aroclor-1254			1777649				
Aroclor-1254 {2}			1317035				
Aroclor-1254 {3}			1340827				
Aroclor-1254 {4}			737293				
Aroclor-1254 {5}			1811680				
Aroclor-1260	917650	964102	906415	900990	871776	912187	3.68
Aroclor-1260 {2}	1607423	1384418	1296595	1285273	1245243	1363790	10.66
Aroclor-1260 {3}	1232724	1193984	1095226	1068774	1055784	1129299	7.02
Aroclor-1260 {4}	2390638	2154327	2351228	2354437	2330183	2316162	4.02
Aroclor-1260 {5}	1690329	1459572	1755368	1697742	1795274	1679657	7.76
						Average %RSD	8.45

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1262			8.62				7.72	7.72
Aroclor-1262 {2}			9.47				8.57	8.57
Aroclor-1262 {3}			10.10				9.20	9.20
Aroclor-1262 {4}			10.19				9.19	9.19
Aroclor-1262 {5}			11.01				10.01	10.01
Aroclor-1268			10.10				9.10	9.10
Aroclor-1268 {2}			10.19				9.09	9.09
Aroclor-1268 {3}			10.66				9.56	9.56
Aroclor-1268 {4}			10.79				9.69	9.69
Aroclor-1268 {5}			11.61				10.51	10.51

GC Column (2nd): DB-1701P

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1262			9.78				8.88	8.88
Aroclor-1262 {2}			10.28				9.38	9.38
Aroclor-1262 {3}			10.78				9.88	9.88
Aroclor-1262 {4}			10.87				9.87	9.87
Aroclor-1262 {5}			11.47				10.47	10.47
Aroclor-1268			10.78				9.78	9.78
Aroclor-1268 {2}			10.86				9.76	9.76
Aroclor-1268 {3}			11.12				10.02	10.02
Aroclor-1268 {4}			11.26				10.16	10.16
Aroclor-1268 {5}			12.34				11.24	11.24

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			7073891				
Aroclor-1262 {2}			13053876				
Aroclor-1262 {3}			3301435				
Aroclor-1262 {4}			4436742				
Aroclor-1262 {5}			3777047				
Aroclor-1268			11864453				
Aroclor-1268 {2}			12465549				
Aroclor-1268 {3}			7914907				
Aroclor-1268 {4}			2259144				
Aroclor-1268 {5}			29144624				

GC Column (2nd): DB-1701P

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			1362153				
Aroclor-1262 {2}			3461876				
Aroclor-1262 {3}			1183328				
Aroclor-1262 {4}			2333360				
Aroclor-1262 {5}			429177				
Aroclor-1268			3479624				
Aroclor-1268 {2}			3499079				
Aroclor-1268 {3}			2918320				
Aroclor-1268 {4}			824937				
Aroclor-1268 {5}			9305585				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/14/2012 **Instrument ID:** GC-Y

Data File: Y6699.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1541351	13.50
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2100817	11.42
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2887840	7.59
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1353869	10.52
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2339955	9.85
Aroclor-1260	8.33	7.42	9.22	7136339	6856324	3.92
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	2816816	16.13
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	7416673	11.06
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	3731850	11.54
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1394462	15.57
					Average %D	11.11

Data File: Y6699.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.80	3.75	3.89	559998	579339	3.45
Aroclor-1016 {2}	4.40	4.35	4.49	1150027	1150239	0.02
Aroclor-1016 {3}	5.15	5.10	5.24	2577359	2650161	2.82
Aroclor-1016 {4}	5.36	5.31	5.45	1059949	1117172	5.40
Aroclor-1016 {5}	5.54	5.49	5.63	886286	869317	1.91
Aroclor-1260	7.90	7.03	8.83	912187	1001899	9.83
Aroclor-1260 {2}	8.15	7.28	9.08	1363790	1447136	6.11
Aroclor-1260 {3}	9.74	8.88	10.68	1129299	1243832	10.14
Aroclor-1260 {4}	10.25	9.38	11.18	2316162	2634013	13.72
Aroclor-1260 {5}	10.84	9.97	11.77	1679657	1886251	12.30
					Average %D	6.57

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/14/2012 **Instrument ID:** GC-Y

Data File: Y6724.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1547038	13.18
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2135838	9.95
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2920511	6.54
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1358513	10.21
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2376702	8.43
Aroclor-1260	8.33	7.42	9.22	7136339	7399823	3.69
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	3071435	8.55
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	8169116	2.03
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	4094067	2.96
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1584225	4.08
					Average %D	6.96

Data File: Y6724.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.80	3.75	3.89	559998	583914	4.27
Aroclor-1016 {2}	4.40	4.35	4.49	1150027	1164992	1.30
Aroclor-1016 {3}	5.15	5.10	5.24	2577359	2670413	3.61
Aroclor-1016 {4}	5.36	5.31	5.45	1059949	1131761	6.78
Aroclor-1016 {5}	5.53	5.49	5.63	886286	879060	0.82
Aroclor-1260	7.90	7.03	8.83	912187	1047017	14.78
Aroclor-1260 {2}	8.15	7.28	9.08	1363790	1525466	11.85
Aroclor-1260 {3}	9.74	8.88	10.68	1129299	1203545	6.57
Aroclor-1260 {4}	10.25	9.38	11.18	2316162	2646400	14.26
Aroclor-1260 {5}	10.84	9.97	11.77	1679657	1955377	16.42
					Average %D	8.07

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/14/2012 **Instrument ID:** GC-Y

Data File: Y6725.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1559385	12.48
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2152457	9.25
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2956327	5.40
Aroclor-1016 {4}	5.16	5.09	5.23	1513071	1377178	8.98
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2402690	7.43
Aroclor-1260	8.33	7.42	9.22	7136339	7493327	5.00
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	3129257	6.83
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	8275941	0.75
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	4185215	0.79
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1591267	3.65
					Average %D	6.06

Data File: Y6725.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.80	3.75	3.89	559998	590769	5.49
Aroclor-1016 {2}	4.40	4.35	4.49	1150027	1175824	2.24
Aroclor-1016 {3}	5.15	5.10	5.24	2577359	2702076	4.84
Aroclor-1016 {4}	5.36	5.31	5.45	1059949	1145602	8.08
Aroclor-1016 {5}	5.54	5.49	5.63	886286	890789	0.51
Aroclor-1260	7.90	7.03	8.83	912187	1065586	16.82
Aroclor-1260 {2}	8.15	7.28	9.08	1363790	1550643	13.70
Aroclor-1260 {3}	9.74	8.88	10.68	1129299	1264777	12.00
Aroclor-1260 {4}	10.25	9.38	11.18	2316162	2670283	15.29
Aroclor-1260 {5}	10.84	9.97	11.77	1679657	2002445	19.22
					Average %D	9.82

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/14/2012 **Instrument ID:** GC-Y

Data File: Y6750.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1505558	15.50
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	1997612	15.77
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2772421	11.28
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1533251	1.33
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2185556	15.80
Aroclor-1260	8.33	7.42	9.22	7136339	7092023	0.62
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	3605155	7.34
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	8040178	3.58
Aroclor-1260 {4}	9.95	9.05	10.85	4218754	4693514	11.25
Aroclor-1260 {5}	11.02	10.11	11.91	1651625	1730847	4.80
					Average %D	8.73

Data File: Y6750.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.80	3.75	3.89	559998	580486	3.66
Aroclor-1016 {2}	4.40	4.35	4.49	1150027	1152182	0.19
Aroclor-1016 {3}	5.15	5.10	5.24	2577359	2648717	2.77
Aroclor-1016 {4}	5.36	5.31	5.45	1059949	1087691	2.62
Aroclor-1016 {5}	5.54	5.49	5.63	886286	848508	4.26
Aroclor-1260	7.90	7.03	8.83	912187	939531	3.00
Aroclor-1260 {2}	8.15	7.28	9.08	1363790	1354517	0.68
Aroclor-1260 {3}	9.74	8.88	10.68	1129299	1141365	1.07
Aroclor-1260 {4}	10.25	9.38	11.18	2316162	2434896	5.13
Aroclor-1260 {5}	10.84	9.97	11.77	1679657	1700897	1.26
					Average %D	2.46

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.82 **DCB 1** 12.10 **TCMX 2** 2.92 **DCB 2** 12.52

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS120711-04	07/14/2012	01:02	2.82		12.10		2.92		12.52	
803_BASIN_	06800-007	07/14/2012	01:19	2.82		12.10		2.92		12.52	
803_BASIN_	06800-008	07/14/2012	01:36	2.82		12.10		2.92		12.52	
803_BASIN_	06800-009	07/14/2012	01:53	2.82		12.10		2.92		12.52	
803_BASIN_	06800-010	07/14/2012	02:11	2.82		12.10		2.92		12.52	
803_BASIN_	06800-011	07/14/2012	02:28	2.82		12.10		2.92		12.52	
803_BASIN_	06800-012	07/14/2012	02:45	2.82		12.10		2.92		12.52	
803_BASIN_	06800-013	07/14/2012	03:02	2.82		12.10		2.92		12.52	
803_BASIN_	06800-014	07/14/2012	03:19	2.82		12.10		2.92		12.52	
803_BASIN_	06800-015	07/14/2012	03:37	2.82		12.10		2.91		12.52	
803_BASIN_	06800-016	07/14/2012	03:54	2.82		12.10		2.92		12.52	
803_BASIN_	06800-017	07/14/2012	04:11	2.82		12.10		2.92		12.52	
803_BASIN_	06800-018	07/14/2012	04:29	2.82		12.10		2.92		12.52	
803_BASIN_	06800-019	07/14/2012	04:46	2.82		12.10		2.92		12.52	
803_BASIN_	06800-020	07/14/2012	05:03	2.82		12.10		2.92		12.52	
803_BASIN_	06800-021	07/14/2012	05:20	2.82		12.10		2.92		12.52	
803_BASIN_	06800-022	07/14/2012	05:37	2.82		12.10		2.92		12.52	
803_BASIN_	06800-023	07/14/2012	05:54	2.82		12.10		2.92		12.52	
803_BASIN_	06800-024	07/14/2012	06:12	2.82		12.10		2.92		12.52	
12-139	06826-001	07/14/2012	06:29	2.82		12.10		2.92		12.52	
I4_(9-10)-	06640-006	07/14/2012	06:46	2.82		12.11		2.92		12.52	
PCB	06800-024MS	07/14/2012	07:03	2.82		12.10		2.91		12.52	
PCB	06800-024MSD	07/14/2012	07:21	2.82		12.10		2.92		12.52	
PCB	LCSS120711-04	07/14/2012	07:38	2.82		12.10		2.92		12.52	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.82 **DCB 1** 12.10 **TCMX 2** 2.92 **DCB 2** 12.52

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKS120712-04	07/14/2012	10:30	2.82		12.10		2.92		12.52	
GISELLE-BR	06892-001	07/14/2012	10:47	2.82		12.10		2.92		12.52	
J1_(9-10)-	06640-008	07/14/2012	11:04	2.82		12.10		2.92		12.52	
J2_(9-10)-	06640-009	07/14/2012	11:21	2.82		12.10		2.92		12.52	
K-41_(2.0-	06784-005	07/14/2012	11:38	2.82		12.10		2.92		12.60	
K-41_(4.0-	06784-006	07/14/2012	11:56	2.82		12.10		2.92		12.52	
J-38_(0-2.	06784-013	07/14/2012	13:56	2.82		12.10		2.92		12.52	
J-38_(2.0-	06784-014	07/14/2012	14:13	2.82		12.10		2.92		12.52	
J-38_(4.0-	06784-015	07/14/2012	14:30	2.82		12.10		2.92		12.52	
H-37_(4.0-	06784-021	07/14/2012	16:14	2.82		12.10		2.92		12.52	
PCB	06892-001MS	07/14/2012	16:31	2.82		12.11		2.92		12.52	
PCB	06892-001MSD	07/14/2012	16:48	2.82		12.11		2.92		12.52	
PCB	LCSS120712-04	07/14/2012	17:05	2.82		12.11		2.92		12.52	
J-40_(0-2.	06784-007	07/15/2012	22:43	2.82		12.11		2.92		12.52	
J-40_(2.0-	06784-008	07/15/2012	23:00	D		D		D		D	
J-40_(4.0-	06784-009	07/15/2012	23:17	2.82		12.10		2.92		12.52	
J-39_(0-2.	06784-010	07/15/2012	23:34	D		D		D		D	
J-39_(2.0-	06784-011	07/15/2012	23:52	2.82		12.10		2.92		12.52	
J-39_(4.0-	06784-012	07/16/2012	00:09	2.82		12.11		2.92		12.52	
I-38_(0-2.	06784-016	07/16/2012	00:26	2.82		12.10		2.92		12.52	
I-38_(2.0-	06784-017	07/16/2012	00:43	D		D		D		D	
I-38_(4.0-	06784-018	07/16/2012	01:00	D		D		D		D	
H-37_(0-2.	06784-019	07/16/2012	01:18	D		D		D		D	
H-37_(2.0-	06784-020	07/16/2012	01:35	2.82		12.10		2.92		12.52	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6720.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 6:46
Operator : YG
Sample : I4_(9-10)-,06640-006,S,30.39g,12.9,07/11/12,1
Misc : 120711-04,07/02/12,07/03/12,1
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 17 12:20:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	13457.6E6	5077.0E6	142.223	161.527
Spiked Amount 200.000			Recovery	=	71.11%	80.76%
2) S DCB	12.11	12.52	2735.8E6	2407.4E6	140.573m	315.830m#
Spiked Amount 200.000			Recovery	=	70.29%	157.91%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

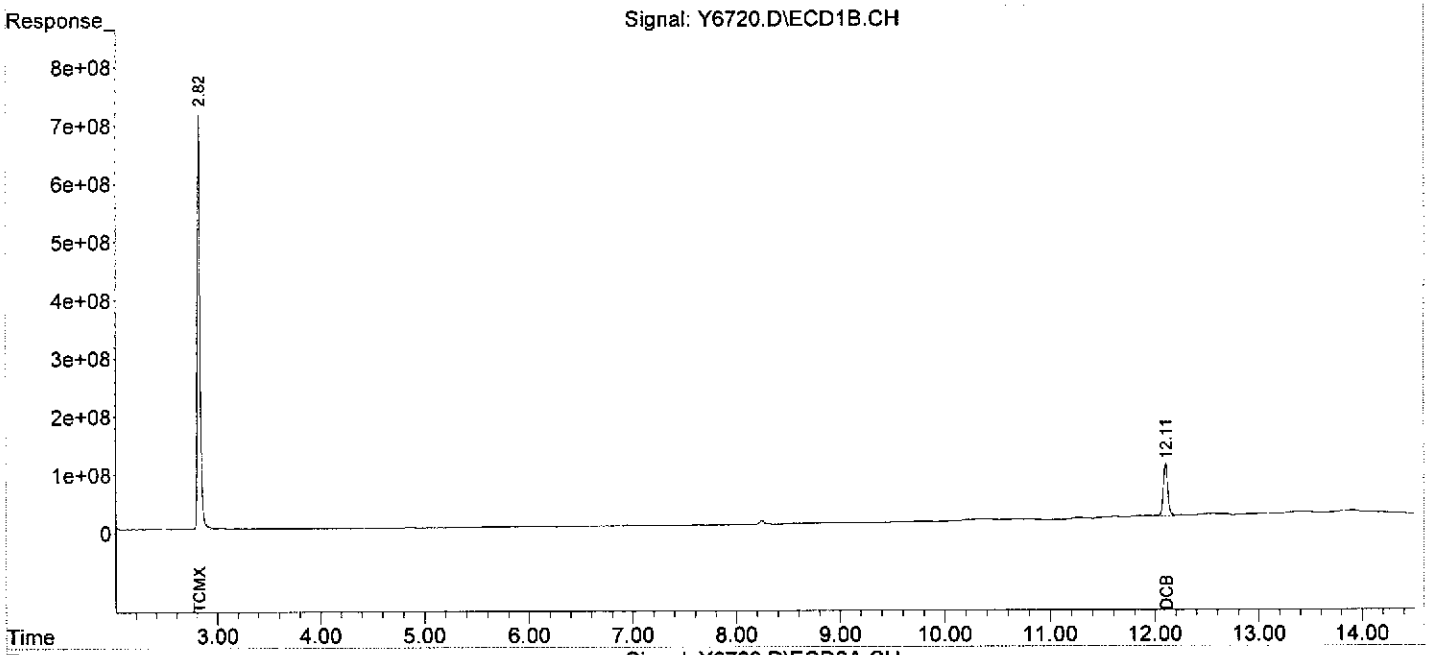
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

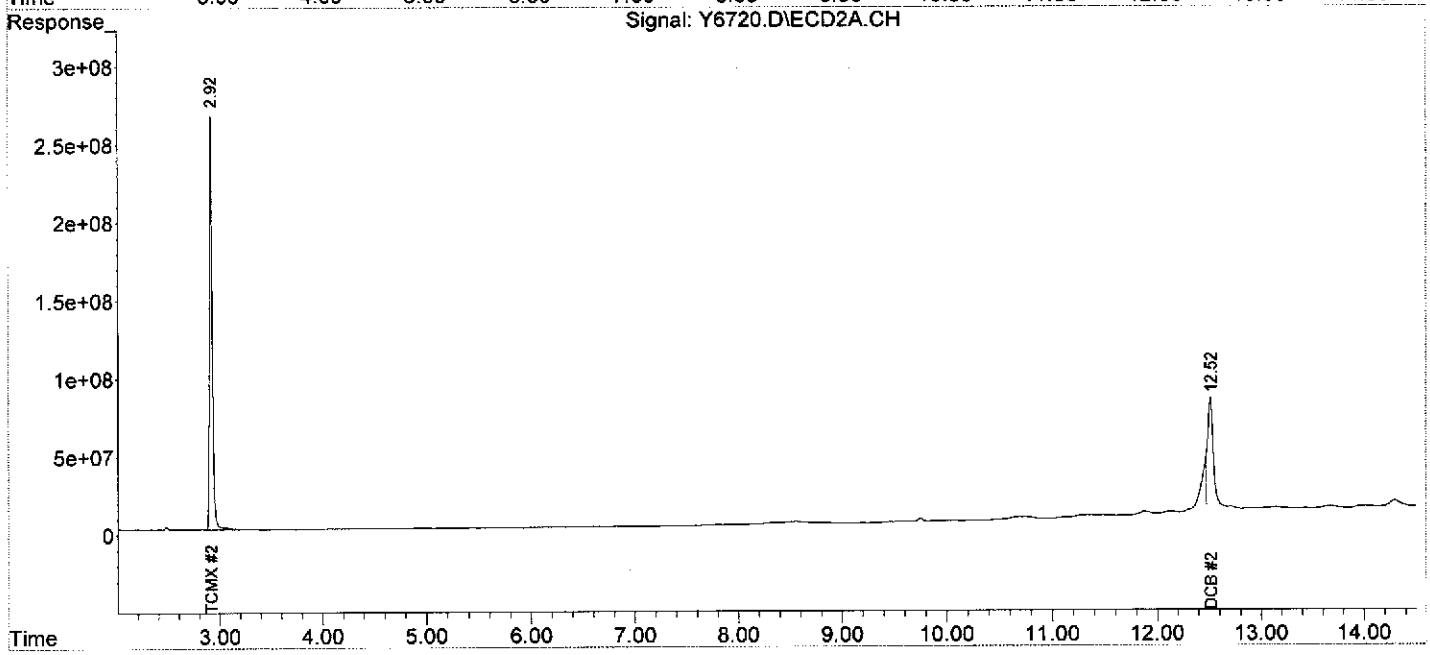
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6720.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 6:46
Operator : YG
Sample : I4_(9-10)-,06640-006,S,30.39g,12.9,07/11/12,1
Misc : 120711-04,07/02/12,07/03/12,1
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 17 12:20:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6728.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 11:04
Operator : YG
Sample : J1_(9-10)-,06640-008,S,5.26g,17.5,07/12/12,4
Misc : 120712-04,07/02/12,07/03/12,1
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 16:08:12 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	19125.4E6	6742.2E6	202.123	214.509
Spiked Amount 200.000			Recovery	=	101.06%	107.25%
2) S DCB	12.10	12.52	4009.6E6	1640.2E6	206.028	215.187m
Spiked Amount 200.000			Recovery	=	103.01%	107.59%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

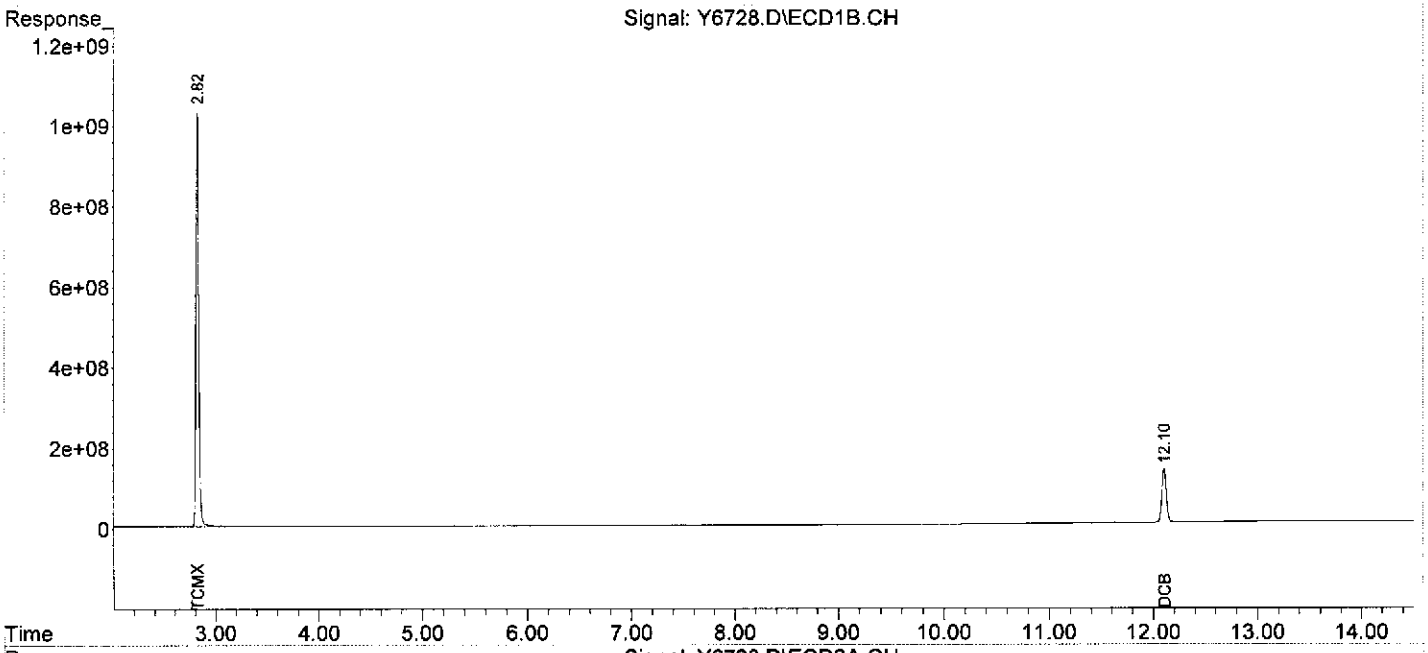
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

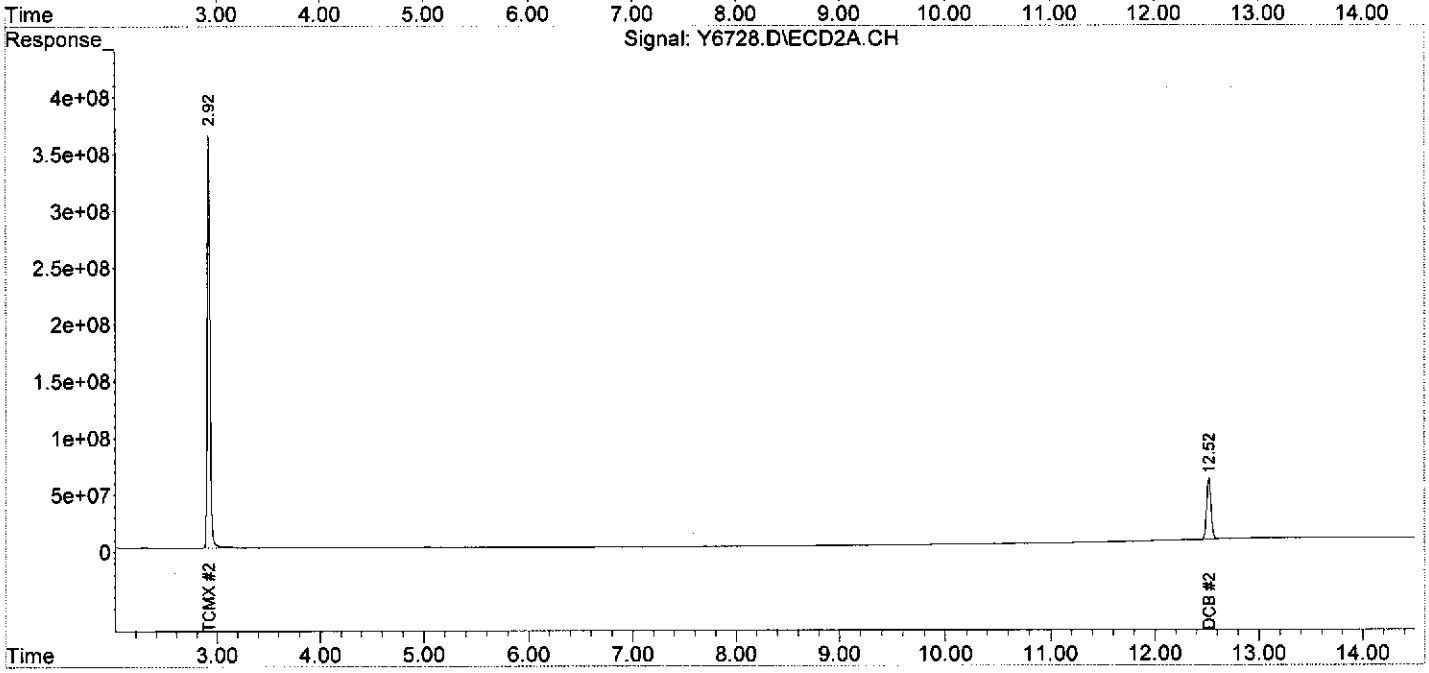
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6728.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 11:04
Operator : YG
Sample : J1_(9-10)-,06640-008,S,5.26g,17.5,07/12/12,4
Misc : 120712-04,07/02/12,07/03/12,1
ALS Vial : 33 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 16:08:12 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6729.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 11:21
Operator : YG
Sample : J2_(9-10)-,06640-009,S,5.41g,13.5,07/12/12,4
Misc : 120712-04,07/02/12,07/03/12,1
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 16:08:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	19325.5E6	6750.7E6	204.237	214.779
Spiked Amount 200.000			Recovery	=	102.12%	107.39%
2) S DCB	12.10	12.52	4041.2E6	1653.5E6	207.648	216.926m
Spiked Amount 200.000			Recovery	=	103.82%	108.46%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

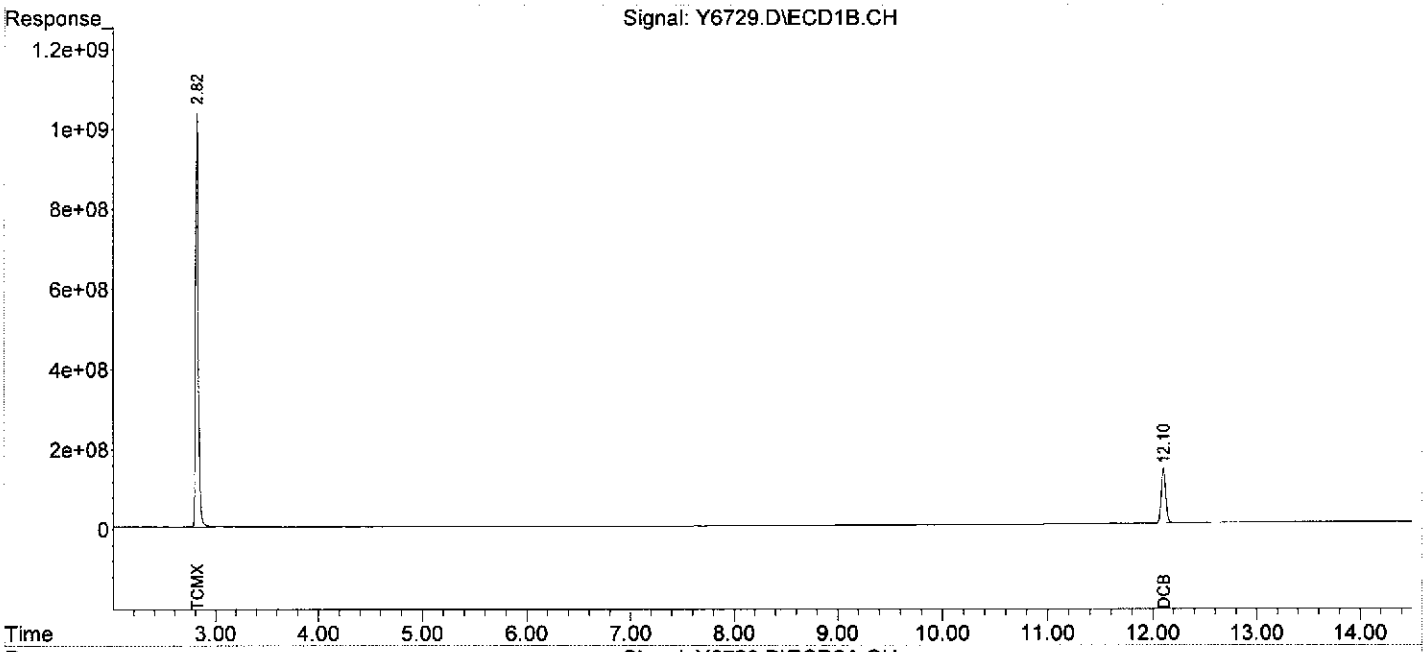
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

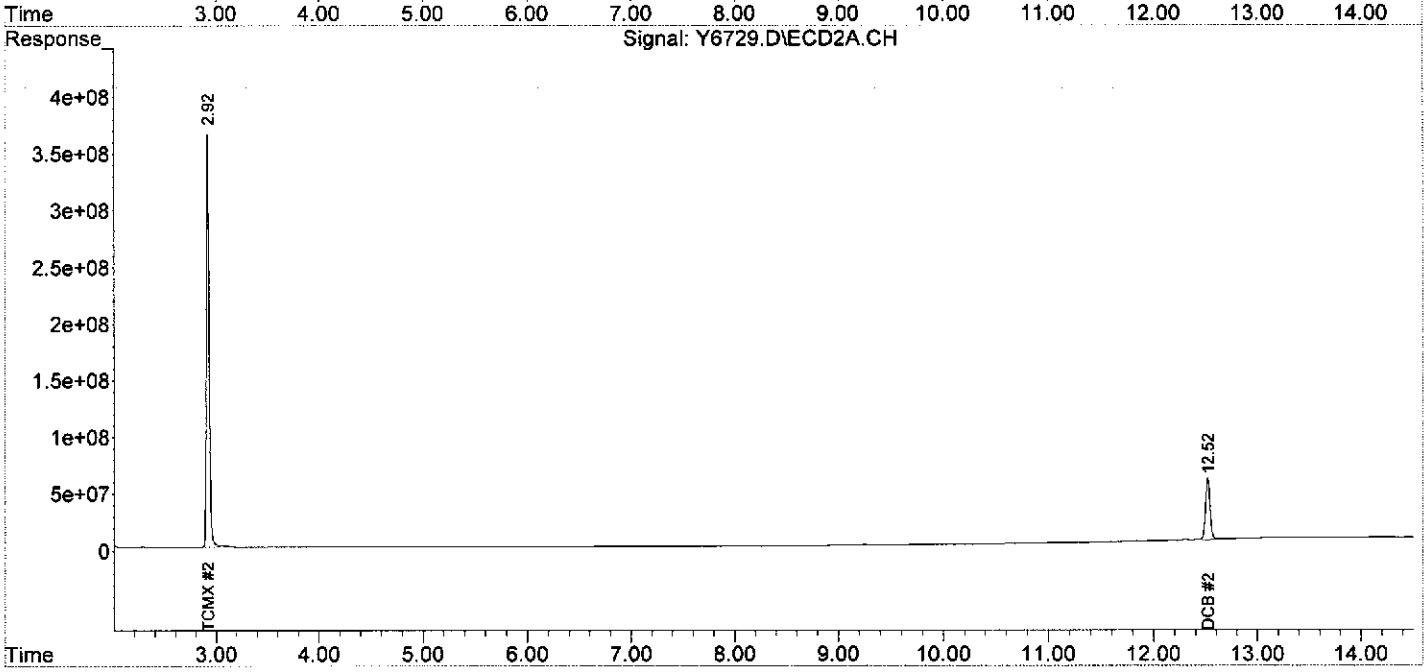
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6729.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 11:21
Operator : YG
Sample : J2_(9-10)-,06640-009,S,5.41g,13.5,07/12/12,4
Misc : 120712-04,07/02/12,07/03/12,1
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 16:08:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS120711-04
Client ID: PCB
Date Received: NA
Date Extracted: 07/11/2012
Date Analyzed: 07/14/2012
Data file: Y6700.D

GC Column: DB-5/DB1701P
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.00167	0.000668
Aroclor-1221	ND		0.00167	0.000668
Aroclor-1232	ND		0.00167	0.000668
Aroclor-1242	ND		0.00167	0.000668
Aroclor-1248	ND		0.00167	0.000668
Aroclor-1254	ND		0.00167	0.000668
Aroclor-1260	ND		0.00167	0.000668
Aroclor-1262	ND		0.00167	0.000668
Aroclor-1268	ND		0.00167	0.000668
PCBs	ND		0.00167	0.000668

E12-06640 0163

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6700.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 1:02
Operator : YG
Sample : PCB,BLKS120711-04,S,30.00g,0,07/11/12,1
Misc : NA,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 17 12:07:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	12721.9E6	4525.5E6	134.449	143.982
Spiked Amount 200.000			Recovery	=	67.22%	71.99%
2) S DCB	12.10	12.52	2398.3E6	1102.6E6	123.233m	144.647m
Spiked Amount 200.000			Recovery	=	61.62%	72.32%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

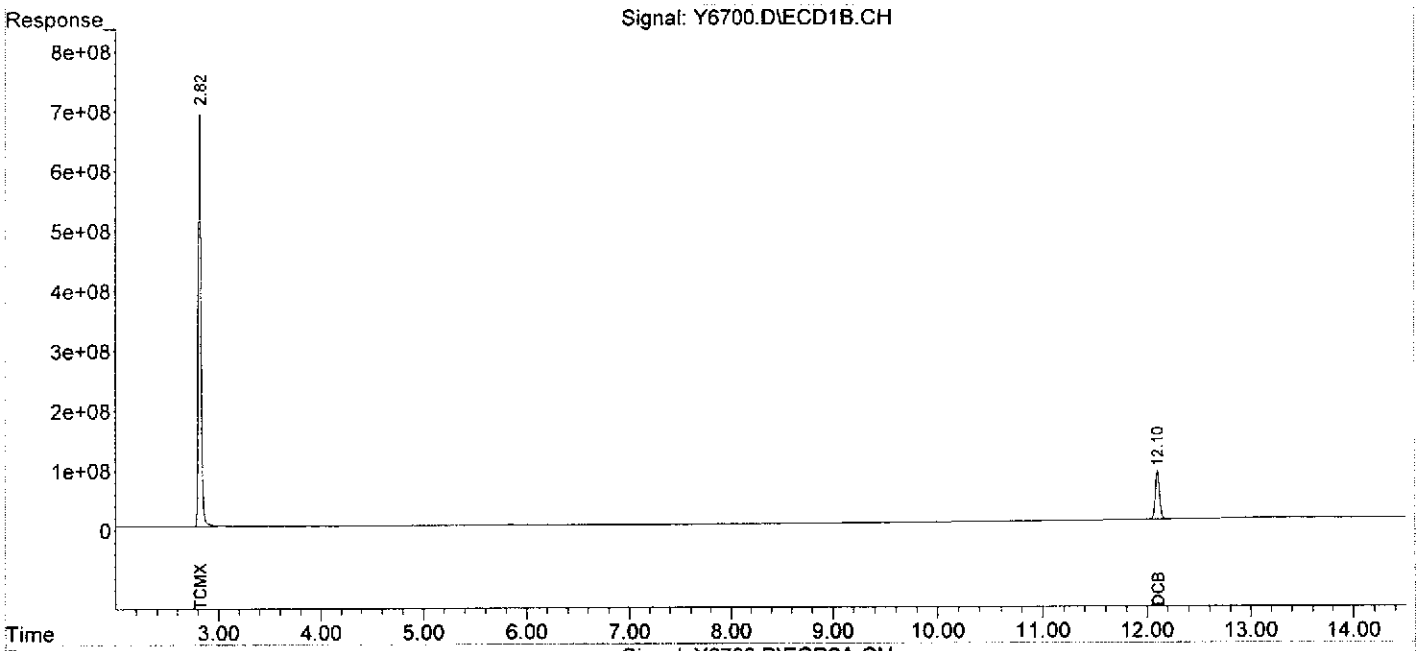
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

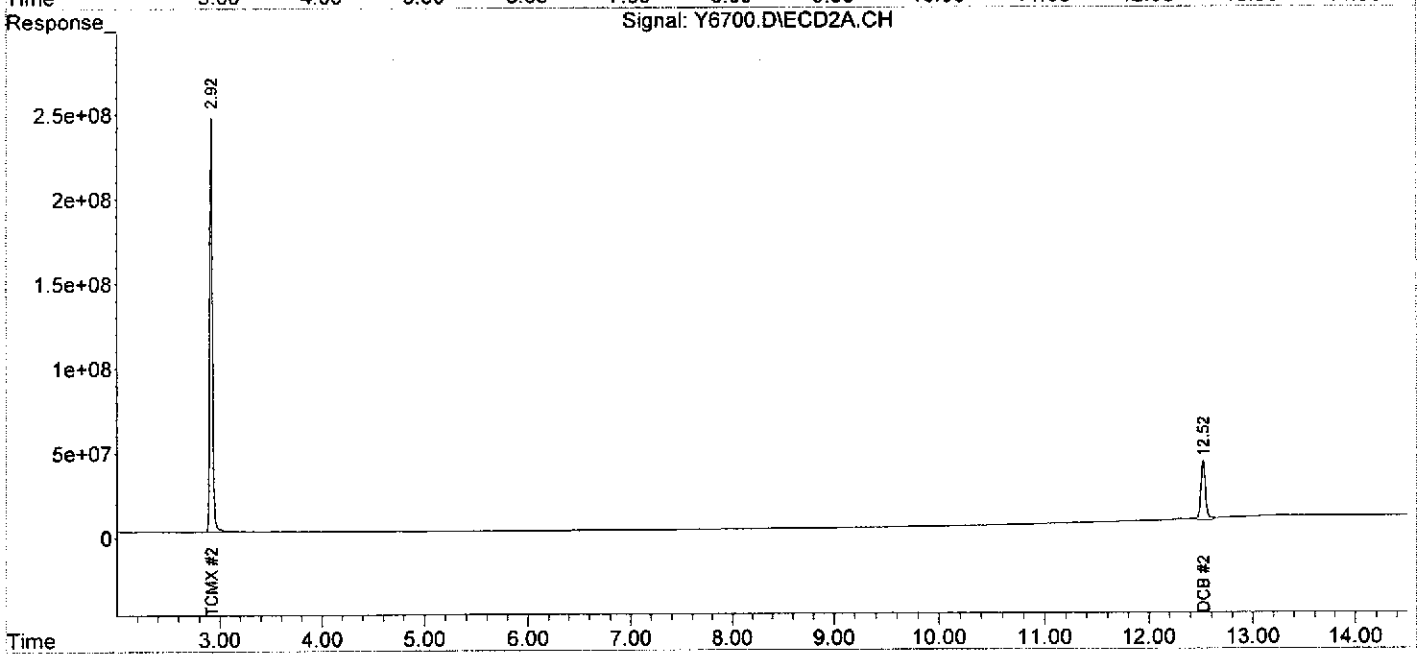
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6700.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 1:02
Operator : YG
Sample : PCB,BLKS120711-04,S,30.00g,0,07/11/12,1
Misc : NA,NA,NA,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 17 12:07:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKS120712-04
Client ID: PCB
Date Received: NA
Date Extracted: 07/12/2012
Date Analyzed: 07/14/2012
Data file: Y6726.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

E12-06640 0166

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6726.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 10:30
Operator : YG
Sample : PCB,BLKS120712-04,S,5.00g,0,07/12/12,4
Misc : NA,NA,NA,1
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 15:01:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	20246.8E6	7148.9E6	213.974	227.446
Spiked Amount 200.000			Recovery	=	106.99%	113.72%
2) S DCB	12.10	12.52	4300.9E6	1818.6E6	220.995	238.587m
Spiked Amount 200.000			Recovery	=	110.50%	119.29%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

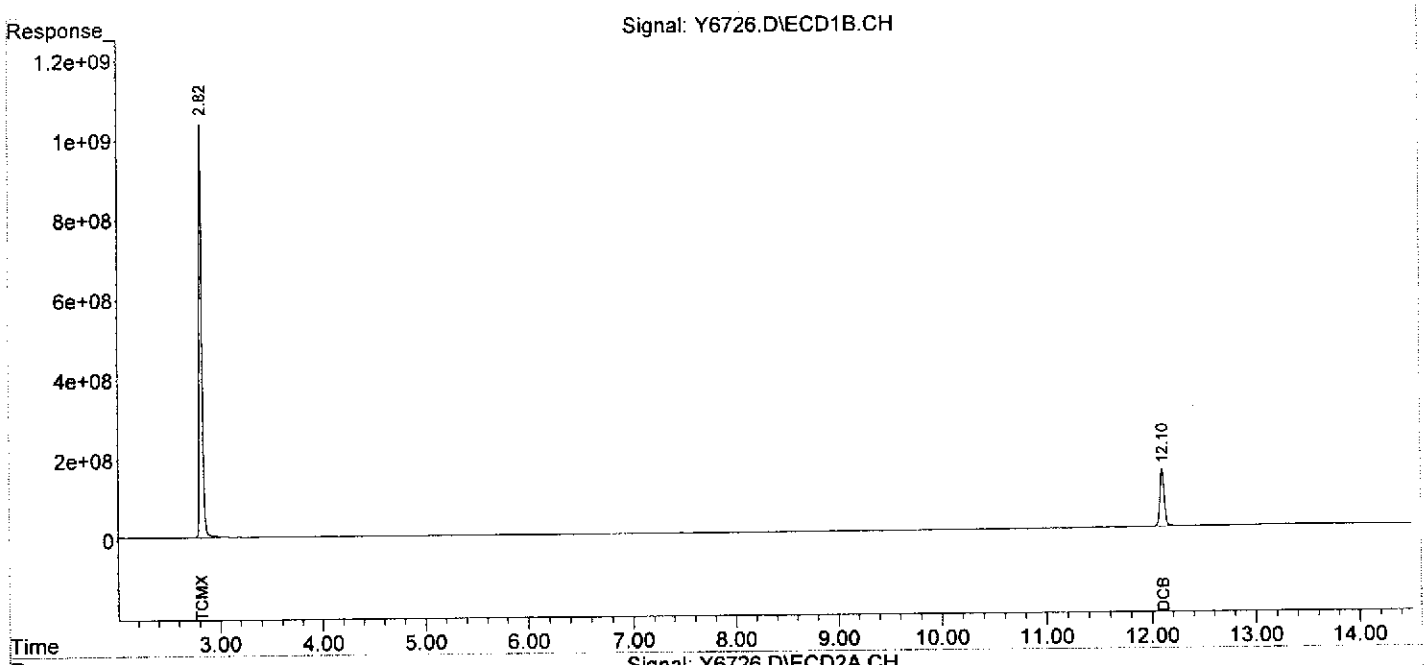
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

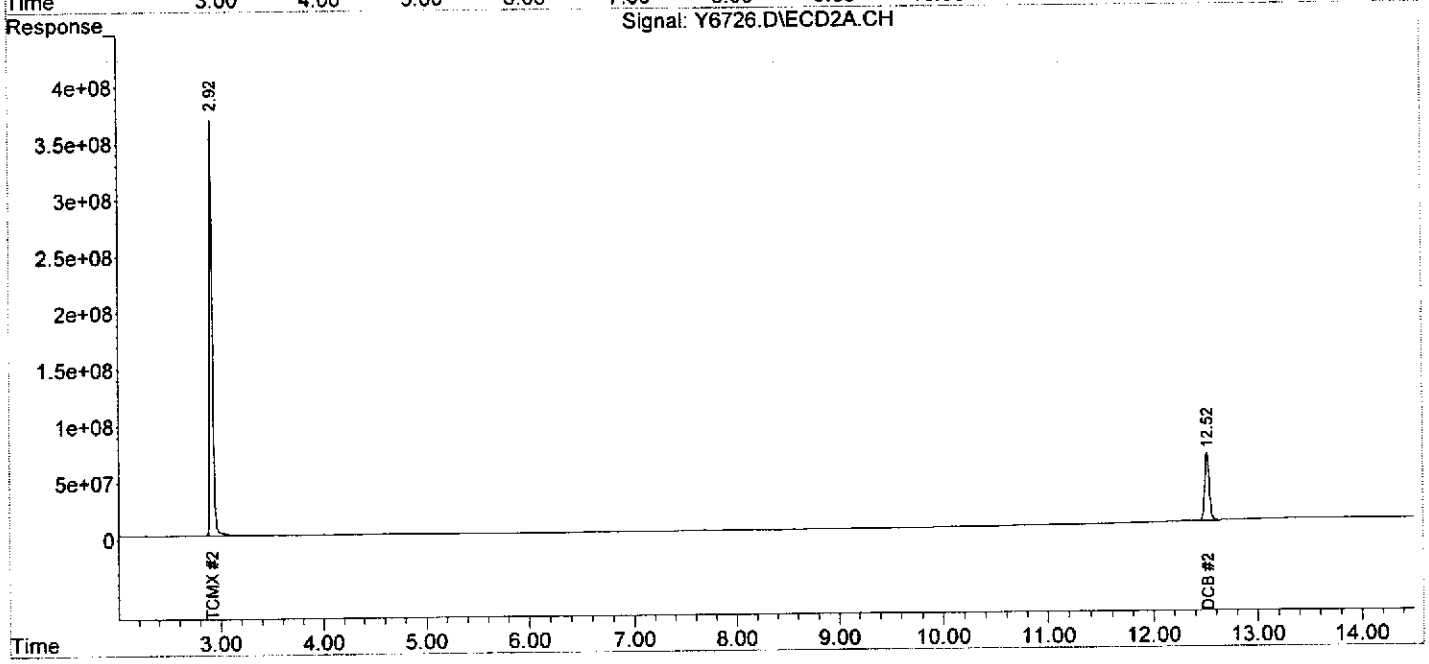
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : Y6726.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 14 Jul 2012 10:30
Operator : YG
Sample : PCB,BLKS120712-04,S,5.00g,0,07/12/12,4
Misc : NA,NA,NA,1
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 15:01:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Fri Jul 13 10:01:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/16/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS120711-04	SOIL	76		75		78		72	
803_BASIN_	06800-024	SOIL	47		77		52		74	
Pest	06800-024MS	SOIL	52		60		52		62	
Pest	06800-024MSD	SOIL	47		70		47		64	
Pest	LCSS120711-04	SOIL	57		61		58		60	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/13/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKS120711-04	SOIL	56		55		56		56	
12-139	06826-001	SOIL	55		60		52		97	
I4_(9-10)-	06640-006	SOIL	50		67		48		73	
Pest	LCSS120711-04	SOIL	59		71		58		62	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120711-04
Date Received: NA
Date Extracted: 07/11/2012
Date Analyzed: 07/13/2012
Data file: O9658.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	67.78	68
beta-BHC	100.0	0.00	49.32	49
gamma-BHC (Lindane)	100.0	0.00	66.09	66
delta-BHC	100.0	0.00	61.92	62
Heptachlor	100.0	0.00	75.75	76
Aldrin	100.0	0.00	77.62	78
Heptachlor epoxide	100.0	0.00	71.31	71
Endosulfan I	100.0	0.00	72.50	73
4,4'-DDE	100.0	0.00	76.86	77
Dieldrin	100.0	0.00	63.66	64
Endrin	100.0	0.00	76.85	77
Endosulfan II	100.0	0.00	68.76	69
4,4'-DDD	100.0	0.00	67.94	68
Endrin aldehyde	100.0	0.00	61.13	61
Endosulfan sulfate	100.0	0.00	64.37	64
4,4'-DDT	100.0	0.00	90.60	91
Endrin ketone	100.0	0.00	64.57	65
Methoxychlor	100.0	0.00	80.27	80
alpha-Chlordane	100.0	0.00	73.41	73
gamma-Chlordane	100.0	0.00	73.48	73

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06800-024
Date Received: 07/09/2012
Date Extracted: 07/11/2012
Date Analyzed: 07/16/2012
MS Data file: V8438.D
MSD Data file: V8439.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.67g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 12.1
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
alpha-BHC	100.00	0.00	60.73	61		56.30	56		8	
beta-BHC	100.00	0.00	55.86	56		54.86	55		2	
gamma-BHC (Lindane)	100.00	0.00	59.13	59		56.48	56		5	
delta-BHC	100.00	0.00	56.91	57		56.34	56		1	
Heptachlor	100.00	0.00	68.23	68		63.73	64		7	
Aldrin	100.00	0.00	72.06	72		67.45	67		7	
Heptachlor epoxide	100.00	0.00	73.07	73		69.50	70		5	
Endosulfan I	100.00	0.00	77.27	77		75.74	76		2	
4,4'-DDE	100.00	84.77	420.85	336	*	491.98	407	*	16	
Dieldrin	100.00	0.00	66.70	67		68.99	69		3	
Endrin	100.00	0.00	75.75	76		77.72	78		3	
Endosulfan II	100.00	0.00	77.67	78		81.11	81		4	
4,4'-DDD	100.00	13.00	140.56	128		151.67	139		8	
Endrin aldehyde	100.00	0.00	64.78	65		66.93	67		3	
Endosulfan sulfate	100.00	2.60	80.39	78		85.24	83		6	
4,4'-DDT	100.00	192.56	856.61	664	*	1042.34	850	*	20	
Endrin ketone	100.00	0.00	69.02	69		75.81	76		9	
Methoxychlor	100.00	0.00	86.86	87		99.25	99		13	
alpha-Chlordane	100.00	0.00	73.87	74		74.04	74		0	
gamma-Chlordane	100.00	0.00	73.31	73		73.08	73		0	

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	V8431.D	Instrument ID:	GC-V
Date Extracted:	07/11/2012	Matrix:	SOIL
Date Analyzed:	07/16/2012	Time Analyzed:	12:19

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
803_BASIN_	06800-024	07/16/2012	14:25
Pest	06800-024MS	07/16/2012	14:37
Pest	06800-024MSD	07/16/2012	14:49
Pest	LCSS120711-04	07/16/2012	15:01

PESTICIDE METHOD BLANK SUMMARY

Lab File ID:	O9635.D	Instrument ID:	GC-O
Date Extracted:	07/11/2012	Matrix:	SOIL
Date Analyzed:	07/13/2012	Time Analyzed:	12:04

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
12-139	06826-001	07/13/2012	16:07
I4_(9-10)-	06640-006	07/13/2012	16:19
Pest	LCSS120711-04	07/13/2012	16:56

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/13/2012

Instrument ID: GC-V
GC Column (1st): RTX-CLP1

Data File: V8394.D V8393.D V8392.D V8391.D V8390.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.44	2.44	2.44	2.44	2.44	2.44	2.38	2.50
beta-BHC	2.76	2.76	2.76	2.76	2.76	2.76	2.70	2.82
gamma-BHC	2.70	2.70	2.70	2.70	2.70	2.70	2.64	2.76
delta-BHC	2.92	2.93	2.93	2.93	2.93	2.93	2.87	2.99
Heptachlor	3.12	3.12	3.12	3.12	3.12	3.12	3.04	3.20
Aldrin	3.42	3.42	3.42	3.42	3.42	3.42	3.34	3.50
Heptachlor epoxide	4.07	4.07	4.07	4.07	4.07	4.07	3.99	4.15
Endosulfan I	4.53	4.53	4.53	4.53	4.53	4.53	4.45	4.61
4,4'-DDE	4.48	4.48	4.48	4.48	4.48	4.48	4.38	4.58
Dieldrin	4.83	4.83	4.83	4.83	4.83	4.83	4.73	4.93
Endrin	5.12	5.12	5.12	5.12	5.12	5.12	5.02	5.22
Endosulfan II	5.42	5.42	5.42	5.42	5.42	5.42	5.32	5.52
4,4'-DDD	5.24	5.24	5.24	5.24	5.24	5.24	5.14	5.34
Endrin aldehyde	5.99	5.99	5.99	5.99	5.99	5.99	5.87	6.11
Endosulfan sulfate	6.61	6.61	6.61	6.61	6.61	6.61	6.49	6.73
4,4'-DDT	5.62	5.62	5.62	5.62	5.62	5.62	5.50	5.74
Endrin ketone	6.96	6.96	6.96	6.96	6.96	6.96	6.84	7.08
Methoxychlor	6.34	6.34	6.34	6.34	6.34	6.34	6.22	6.46
alpha-Chlordane	4.37	4.37	4.37	4.37	4.37	4.37	4.29	4.45
gamma-Chlordane	4.21	4.22	4.22	4.22	4.22	4.22	4.14	4.30
Chlordane 500 ppb			3.05				2.97	3.13
Chlordane {2}			3.56				3.48	3.64
Chlordane {3}			4.22				4.14	4.30
Chlordane {4}			4.37				4.29	4.45
Chlordane {5}			5.33				5.25	5.41
Toxaphene 500 ppb			5.05				4.97	5.13
Toxaphene {2}			5.50				5.42	5.58
Toxaphene {3}			5.97				5.89	6.05
Toxaphene {4}			6.47				6.39	6.55
Toxaphene {5}			6.94				6.86	7.02

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/13/2012

Instrument ID: GC-V

GC Column (1st): RTX-CLP1

Data File: V8394.D V8393.D V8392.D V8391.D V8390.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	261775	257211	261235	253354	248068	256329	2.24
beta-BHC	109937	96599	96254	93163	89153	97021	8.06
gamma-BHC	234253	227674	228042	220870	217919	225752	2.86
delta-BHC	224593	231793	231371	225392	221037	226837	2.04
Heptachlor	224228	219118	215089	209680	209364	215496	2.94
Aldrin	231351	224963	225233	216705	210347	221720	3.71
Heptachlor epoxide	211903	205746	204694	195353	188583	201256	4.59
Endosulfan I	206084	199515	203844	198470	187248	199032	3.66
4,4'-DDE	190838	184631	181323	175082	173418	181059	3.93
Dieldrin	236671	206855	204998	200227	194297	208610	7.87
Endrin	181484	184961	182803	175164	173780	179638	2.73
Endosulfan II	170227	164462	167626	159680	156312	163661	3.47
4,4'-DDD	169493	170095	169433	160096	155550	164933	4.06
Endrin aldehyde	142605	138436	134099	126249	124192	133116	5.89
Endosulfan sulfate	170259	159117	152689	144784	140304	153430	7.73
4,4'-DDT	103888	121310	122530	123792	132425	120789	8.62
Endrin ketone	196776	187132	178053	166066	164788	178563	7.68
Methoxychlor	57316	65377	63437	61346	64635	62422	5.18
alpha-Chlordane	209554	197932	196840	189873	184699	195779	4.80
gamma-Chlordane	208271	204076	205621	198303	192370	201728	3.16
Chlordane 500 ppb			5997				
Chlordane {2}			6604				
Chlordane {3}			20934				
Chlordane {4}			32909				
Chlordane {5}			4962				
Toxaphene 500 ppb			3993				
Toxaphene {2}			2732				
Toxaphene {3}			4272				
Toxaphene {4}			4589				
Toxaphene {5}			4915				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/13/2012

Instrument ID: GC-V
GC Column (2nd): RTX-CLP2

Data File: V8394.C V8393.C V8392.C V8391.C V8390.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.92	2.92	2.92	2.92	2.92	2.92	2.86	2.98
beta-BHC	3.36	3.36	3.36	3.36	3.36	3.36	3.30	3.42
gamma-BHC	3.28	3.28	3.28	3.28	3.28	3.28	3.22	3.34
delta-BHC	3.69	3.69	3.69	3.69	3.69	3.69	3.63	3.75
Heptachlor	3.78	3.78	3.78	3.78	3.78	3.78	3.70	3.86
Aldrin	4.17	4.17	4.17	4.17	4.17	4.17	4.09	4.25
Heptachlor epoxide	4.90	4.90	4.90	4.90	4.90	4.90	4.82	4.98
Endosulfan I	5.43	5.43	5.43	5.43	5.43	5.43	5.35	5.51
4,4'-DDE	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Dieldrin	5.82	5.82	5.82	5.82	5.82	5.82	5.72	5.92
Endrin	6.26	6.26	6.26	6.26	6.26	6.26	6.16	6.36
Endosulfan II	6.57	6.57	6.57	6.57	6.57	6.57	6.47	6.67
4,4'-DDD	6.45	6.45	6.45	6.45	6.45	6.45	6.35	6.55
Endrin aldehyde	7.01	7.01	7.01	7.01	7.01	7.01	6.89	7.13
Endosulfan sulfate	7.32	7.32	7.32	7.32	7.32	7.32	7.20	7.44
4,4'-DDT	6.88	6.88	6.88	6.88	6.88	6.88	6.76	7.00
Endrin ketone	7.81	7.81	7.81	7.81	7.81	7.81	7.69	7.93
Methoxychlor	7.62	7.62	7.62	7.62	7.62	7.62	7.50	7.74
alpha-Chlordane	5.36	5.36	5.36	5.36	5.36	5.36	5.28	5.44
gamma-Chlordane	5.15	5.15	5.15	5.16	5.15	5.15	5.07	5.23
Chlordane 500 ppb			3.62				3.54	3.70
Chlordane {2}			4.35				4.27	4.43
Chlordane {3}			5.16				5.08	5.24
Chlordane {4}			5.29				5.21	5.37
Chlordane {5}			5.36				5.28	5.44
Toxaphene 500 ppb			5.81				5.73	5.89
Toxaphene {2}			6.69				6.61	6.77
Toxaphene {3}			7.03				6.95	7.11
Toxaphene {4}			7.55				7.47	7.63
Toxaphene {5}			7.90				7.82	7.98

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/13/2012 **Instrument ID:** GC-V

GC Column (2nd): RTX-CLP2

Data File: V8394.C V8393.C V8392.C V8391.C V8390.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	1150893	1137302	1142450	1097628	1062664	1118187	3.32
beta-BHC	486973	431114	425318	402721	381966	425619	9.27
gamma-BHC	1054046	1005667	997545	958188	930200	989129	4.79
delta-BHC	996111	986151	968187	921470	900106	954405	4.37
Heptachlor	890429	918846	896521	862085	839239	881424	3.53
Aldrin	975365	968267	965278	917303	872189	939680	4.70
Heptachlor epoxide	934022	853198	840489	788564	738716	830998	8.83
Endosulfan I	852787	787325	780944	739439	694822	771064	7.63
4,4'-DDE	805488	766047	756781	730369	703958	752528	5.08
Dieldrin	843560	818699	806768	769468	732144	794128	5.51
Endrin	732129	698183	679683	643908	628799	676540	6.14
Endosulfan II	756546	690711	659516	619315	597862	664790	9.41
4,4'-DDD	619450	663586	635997	599515	575526	618815	5.45
Endrin aldehyde	562802	469859	448724	417798	406482	461133	13.47
Endosulfan sulfate	617157	509880	487700	456266	449044	504009	13.46
4,4'-DDT	311638	381321	379325	380702	406218	371841	9.54
Endrin ketone	563948	509999	496378	457417	446971	494943	9.42
Methoxychlor	162883	175667	170022	163989	175041	169520	3.53
alpha-Chlordane	892915	806911	786541	747999	721064	791086	8.34
gamma-Chlordane	887465	846767	843822	806187	764486	829745	5.60
Chlordane 500 ppb			26749				
Chlordane {2}			28223				
Chlordane {3}			84025				
Chlordane {4}			70584				
Chlordane {5}			76058				
Toxaphene 500 ppb			6878				
Toxaphene {2}			10951				
Toxaphene {3}			13239				
Toxaphene {4}			12288				
Toxaphene {5}			9564				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/13/2012

Instrument ID: GC-O
GC Column (1st): RTX-CLP1

Data File: O9631.D O9630.D O9629.D O9628.D O9627.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.30	2.30	2.30	2.30	2.30	2.30	2.24	2.36
beta-BHC	2.59	2.59	2.59	2.59	2.59	2.59	2.53	2.65
gamma-BHC	2.53	2.53	2.53	2.53	2.53	2.53	2.47	2.59
delta-BHC	2.73	2.73	2.73	2.73	2.73	2.73	2.67	2.79
Heptachlor	2.89	2.89	2.89	2.89	2.89	2.89	2.81	2.97
Aldrin	3.14	3.14	3.14	3.14	3.14	3.14	3.06	3.22
Heptachlor epoxide	3.67	3.67	3.67	3.67	3.67	3.67	3.59	3.75
Endosulfan I	4.03	4.03	4.03	4.03	4.03	4.03	3.95	4.11
4,4'-DDE	3.98	3.98	3.98	3.98	3.98	3.98	3.88	4.08
Dieldrin	4.26	4.26	4.26	4.26	4.26	4.26	4.16	4.36
Endrin	4.48	4.48	4.48	4.48	4.48	4.48	4.38	4.58
Endosulfan II	4.70	4.71	4.70	4.70	4.70	4.70	4.60	4.80
4,4'-DDD	4.56	4.56	4.56	4.56	4.56	4.56	4.46	4.66
Endrin aldehyde	5.14	5.14	5.14	5.14	5.14	5.14	5.02	5.26
Endosulfan sulfate	5.66	5.66	5.66	5.66	5.66	5.66	5.54	5.78
4,4'-DDT	4.84	4.84	4.84	4.84	4.84	4.84	4.72	4.96
Endrin ketone	6.03	6.03	6.03	6.03	6.03	6.03	5.91	6.15
Methoxychlor	5.38	5.39	5.39	5.38	5.38	5.38	5.26	5.50
alpha-Chlordane	3.91	3.91	3.91	3.91	3.91	3.91	3.83	3.99
gamma-Chlordane	3.78	3.78	3.78	3.78	3.78	3.78	3.70	3.86
Chlordane 500 ppb			2.83				2.75	2.91
Chlordane {2}			3.26				3.18	3.34
Chlordane {3}			3.78				3.70	3.86
Chlordane {4}			3.90				3.82	3.98
Chlordane {5}			4.64				4.56	4.72
Toxaphene 500 ppb			4.42				4.34	4.50
Toxaphene {2}			4.77				4.69	4.85
Toxaphene {3}			5.11				5.03	5.19
Toxaphene {4}			5.53				5.45	5.61
Toxaphene {5}			6.22				6.14	6.30

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/13/2012

Instrument ID: GC-O
GC Column (1st): RTX-CLP1

Data File: O9631.D O9630.D O9629.D O9628.D O9627.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	138736	168489	180534	172880	171767	166481	9.69
beta-BHC	89221	69219	76146	67354	61849	72758	14.47
gamma-BHC	132301	147237	152474	149428	151068	146502	5.58
delta-BHC	139897	151178	161015	155051	152880	152004	5.08
Heptachlor	140130	143969	154105	146454	143237	145579	3.62
Aldrin	142872	146141	155841	148817	145595	147853	3.34
Heptachlor epoxide	142418	135229	142673	135315	131153	137357	3.66
Endosulfan I	141984	133998	142639	134249	129442	136462	4.16
4,4'-DDE	109436	116634	125511	123580	121247	119281	5.39
Dieldrin	164906	132891	140910	137819	131574	141620	9.57
Endrin	120994	115178	122737	118981	115126	118603	2.88
Endosulfan II	122837	113026	118420	113296	108945	115305	4.67
4,4'-DDD	120013	118065	123963	118651	113914	118921	3.05
Endrin aldehyde	117813	91935	92387	89287	84169	95118	13.77
Endosulfan sulfate	139323	105481	107836	103980	98066	110937	14.67
4,4'-DDT	56416	64137	70016	74629	73605	67761	11.15
Endrin ketone	144115	129874	135443	129829	123121	132476	5.91
Methoxychlor	31657	34079	36455	37707	36390	35257	6.81
alpha-Chlordane	142783	133605	139992	133345	129214	135788	4.04
gamma-Chlordane	141397	136001	144154	138005	134668	138845	2.81
Chlordane 500 ppb			3971				
Chlordane {2}			5388				
Chlordane {3}			15710				
Chlordane {4}			25067				
Chlordane {5}			3534				
Toxaphene 500 ppb			3337				
Toxaphene {2}			2206				
Toxaphene {3}			2994				
Toxaphene {4}			3028				
Toxaphene {5}			947				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/13/2012

Instrument ID: GC-O
GC Column (2nd): RTX-CLP2

Data File: O9631.C O9630.C O9629.C O9628.C O9627.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.77	2.78	2.78	2.78	2.78	2.78	2.72	2.84
beta-BHC	3.15	3.16	3.16	3.15	3.16	3.16	3.10	3.22
gamma-BHC	3.09	3.09	3.09	3.09	3.09	3.09	3.03	3.15
delta-BHC	3.43	3.43	3.43	3.43	3.43	3.43	3.37	3.49
Heptachlor	3.51	3.51	3.51	3.51	3.51	3.51	3.43	3.59
Aldrin	3.83	3.83	3.83	3.83	3.83	3.83	3.75	3.91
Heptachlor epoxide	4.39	4.39	4.40	4.39	4.39	4.39	4.31	4.47
Endosulfan I	4.80	4.80	4.80	4.80	4.80	4.80	4.72	4.88
4,4'-DDE	4.91	4.91	4.91	4.91	4.91	4.91	4.81	5.01
Dieldrin	5.09	5.10	5.10	5.10	5.10	5.10	5.00	5.20
Endrin	5.46	5.46	5.46	5.46	5.46	5.46	5.36	5.56
Endosulfan II	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
4,4'-DDD	5.60	5.60	5.60	5.60	5.60	5.60	5.50	5.70
Endrin aldehyde	6.20	6.20	6.20	6.20	6.20	6.20	6.08	6.32
Endosulfan sulfate	6.58	6.58	6.58	6.58	6.58	6.58	6.46	6.70
4,4'-DDT	6.04	6.04	6.04	6.04	6.04	6.04	5.92	6.16
Endrin ketone	7.25	7.25	7.25	7.25	7.25	7.25	7.13	7.37
Methoxychlor	6.97	6.97	6.97	6.97	6.97	6.97	6.85	7.09
alpha-Chlordane	4.74	4.74	4.74	4.74	4.74	4.74	4.66	4.82
gamma-Chlordane	4.59	4.59	4.59	4.59	4.59	4.59	4.51	4.67
Chlordane 500 ppb			3.37				3.29	3.45
Chlordane {2}			3.97				3.89	4.05
Chlordane {3}			4.59				4.51	4.67
Chlordane {4}			4.69				4.61	4.77
Chlordane {5}			4.74				4.66	4.82
Toxaphene 500 ppb			5.08				5.00	5.16
Toxaphene {2}			5.85				5.77	5.93
Toxaphene {3}			6.22				6.14	6.30
Toxaphene {4}			6.90				6.82	6.98
Toxaphene {5}			7.38				7.30	7.46

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 07/13/2012

Instrument ID: GC-O

GC Column (2nd): RTX-CLP2

Data File: O9631.C O9630.C O9629.C O9628.C O9627.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	267408	267048	277184	258557	251635	264366	3.67
beta-BHC	137568	101002	106713	94605	88529	105683	18.06
gamma-BHC	245635	234781	238141	223847	220811	232643	4.41
delta-BHC	246348	232039	238334	222773	216493	231197	5.16
Heptachlor	253120	204685	216150	207502	191691	214630	10.83
Aldrin	253241	230939	239183	220906	213716	231597	6.69
Heptachlor epoxide	241595	207472	213329	195656	188037	209218	9.86
Endosulfan I	241386	186600	190953	176989	167137	192613	14.94
4,4'-DDE	206910	189451	196313	183643	177022	190668	6.05
Dieldrin	226487	205960	211413	196122	188531	205703	7.09
Endrin	194073	170329	176000	165271	157743	172683	7.94
Endosulfan II	215077	180805	181407	166445	157820	180311	12.11
4,4'-DDD	205718	183525	184721	170409	161765	181228	9.20
Endrin aldehyde	172746	131669	133045	123768	116782	135602	16.06
Endosulfan sulfate	199283	149356	151636	142431	134739	155489	16.31
4,4'-DDT	75449	75553	86547	91800	88929	83656	9.17
Endrin ketone	207289	178289	177805	167462	161665	178502	9.84
Methoxychlor	44008	45751	50335	51941	50024	48412	6.95
alpha-Chlordane	240801	197608	202779	184960	179713	201172	11.94
gamma-Chlordane	241336	207327	213715	196971	191101	210090	9.31
Chlordane 500 ppb			7075				
Chlordane {2}			7412				
Chlordane {3}			22921				
Chlordane {4}			18100				
Chlordane {5}			18997				
Toxaphene 500 ppb			2862				
Toxaphene {2}			3617				
Toxaphene {3}			3441				
Toxaphene {4}			3197				
Toxaphene {5}			2608				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/16/2012 **Instrument ID:** GC-V

Data File: V8422.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.38	2.50	256329	240787	6.06
beta-BHC	2.76	2.70	2.82	97021	114509	18.03
gamma-BHC	2.69	2.64	2.76	225752	193008	14.50
delta-BHC	2.93	2.87	2.99	226837	221075	2.54
Heptachlor	3.12	3.04	3.20	215496	206146	4.34
Aldrin	3.42	3.34	3.50	221720	213564	3.68
Heptachlor epoxide	4.07	3.99	4.15	201256	192771	4.22
Endosulfan I	4.54	4.45	4.61	199032	200599	0.79
4,4'-DDE	4.49	4.38	4.58	181059	171482	5.29
Dieldrin	4.83	4.73	4.93	208610	171491	17.79
Endrin	5.13	5.02	5.22	179638	181785	1.19
Endosulfan II	5.42	5.32	5.52	163661	169433	3.53
4,4'-DDD	5.25	5.14	5.34	164933	170543	3.40
Endrin aldehyde	6.00	5.87	6.11	133116	133948	0.62
Endosulfan sulfate	6.62	6.49	6.73	153430	150221	2.09
4,4'-DDT	5.63	5.50	5.74	120789	119077	1.42
Endrin ketone	6.96	6.84	7.08	178563	168727	5.51
Methoxychlor	6.35	6.22	6.46	62422	63951	2.45
alpha-Chlordane	4.38	4.29	4.45	195779	187847	4.05
gamma-Chlordane	4.22	4.14	4.30	201728	195561	3.06
Chlordane 500 ppb	3.05	2.97	3.13	5997	6670	11.21
Chlordane {2}	3.56	3.48	3.64	6604	7880	19.33
Chlordane {3}	4.22	4.14	4.30	20934	24262	15.90
Chlordane {4}	4.37	4.29	4.45	32909	38552	17.15
Chlordane {5}	5.33	5.25	5.41	4962	5251	5.84
Toxaphene 500 ppb	5.06	4.97	5.13	3993	4482	12.25
Toxaphene {2}	5.51	5.42	5.58	2732	2642	3.26
Toxaphene {3}	5.97	5.89	6.05	4272	3983	6.75
Toxaphene {4}	6.47	6.39	6.55	4589	3840	16.31
Toxaphene {5}	6.95	6.86	7.02	4915	4070	17.18

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/16/2012 **Instrument ID:** GC-V

Data File: V8422.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.93	2.86	2.98	1118187	1054820	5.67
beta-BHC	3.37	3.30	3.42	425619	400465	5.91
gamma-BHC	3.29	3.22	3.34	989129	934222	5.55
delta-BHC	3.70	3.63	3.75	954405	912838	4.36
Heptachlor	3.79	3.70	3.86	881424	869482	1.35
Aldrin	4.19	4.09	4.25	939680	902992	3.90
Heptachlor epoxide	4.92	4.82	4.98	830998	769334	7.42
Endosulfan I	5.45	5.35	5.51	771064	716725	7.05
4,4'-DDE	5.62	5.50	5.70	752528	716589	4.78
Dieldrin	5.84	5.72	5.92	794128	659903	16.90
Endrin	6.28	6.16	6.36	676540	636220	5.96
Endosulfan II	6.59	6.47	6.67	664790	631370	5.03
4,4'-DDD	6.47	6.35	6.55	618815	579011	6.43
Endrin aldehyde	7.03	6.89	7.13	461133	418953	9.15
Endosulfan sulfate	7.33	7.20	7.44	504009	435655	13.56
4,4'-DDT	6.90	6.76	7.00	371841	347536	6.54
Endrin ketone	7.82	7.69	7.93	494943	415730	16.00
Methoxychlor	7.63	7.50	7.74	169520	140877	16.90
alpha-Chlordane	5.37	5.28	5.44	791086	718610	9.16
gamma-Chlordane	5.17	5.07	5.23	829745	771971	6.96
Chlordane 500 ppb	3.63	3.54	3.70	26749	29734	11.16
Chlordane {2}	4.36	4.27	4.43	28223	30785	9.08
Chlordane {3}	5.17	5.08	5.24	84025	89690	6.74
Chlordane {4}	5.30	5.21	5.37	70584	74531	5.59
Chlordane {5}	5.37	5.28	5.44	76058	79883	5.03
Toxaphene 500 ppb	5.82	5.73	5.89	6878	8188	19.05
Toxaphene {2}	6.71	6.61	6.77	10951	9432	13.88
Toxaphene {3}	7.04	6.95	7.11	13239	11830	10.65
Toxaphene {4}	7.57	7.47	7.63	12288	10526	14.34
Toxaphene {5}	7.91	7.82	7.98	9564	8674	9.31

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/16/2012 **Instrument ID:** GC-V

Data File: V8441.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.38	2.50	256329	261870	2.16
beta-BHC	2.76	2.70	2.82	97021	110998	14.41
gamma-BHC	2.69	2.64	2.76	225752	221985	1.67
delta-BHC	2.92	2.87	2.99	226837	238850	5.30
Heptachlor	3.12	3.04	3.20	215496	214038	0.68
Aldrin	3.42	3.34	3.50	221720	231968	4.62
Heptachlor epoxide	4.07	3.99	4.15	201256	208735	3.72
Endosulfan I	4.53	4.45	4.61	199032	213598	7.32
4,4'-DDE	4.48	4.38	4.58	181059	186840	3.19
Dieldrin	4.83	4.73	4.93	208610	186336	10.68
Endrin	5.12	5.02	5.22	179638	192854	7.36
Endosulfan II	5.42	5.32	5.52	163661	182929	11.77
4,4'-DDD	5.25	5.14	5.34	164933	188876	14.52
Endrin aldehyde	5.99	5.87	6.11	133116	145522	9.32
Endosulfan sulfate	6.61	6.49	6.73	153430	163036	6.26
4,4'-DDT	5.62	5.50	5.74	120789	117431	2.78
Endrin ketone	6.96	6.84	7.08	178563	189765	6.27
Methoxychlor	6.34	6.22	6.46	62422	62548	0.20
alpha-Chlordane	4.37	4.29	4.45	195779	202628	3.50
gamma-Chlordane	4.22	4.14	4.30	201728	211046	4.62

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/16/2012 **Instrument ID:** GC-V

Data File: V8441.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.86	2.98	1118187	1207538	7.99
beta-BHC	3.36	3.30	3.42	425619	444714	4.49
gamma-BHC	3.28	3.22	3.34	989129	1075880	8.77
delta-BHC	3.70	3.63	3.75	954405	1043450	9.33
Heptachlor	3.79	3.70	3.86	881424	958892	8.79
Aldrin	4.18	4.09	4.25	939680	1045443	11.26
Heptachlor epoxide	4.91	4.82	4.98	830998	895102	7.71
Endosulfan I	5.44	5.35	5.51	771064	841587	9.15
4,4'-DDE	5.61	5.50	5.70	752528	840399	11.68
Dieldrin	5.83	5.72	5.92	794128	780825	1.68
Endrin	6.26	6.16	6.36	676540	750202	10.89
Endosulfan II	6.58	6.47	6.67	664790	752328	13.17
4,4'-DDD	6.46	6.35	6.55	618815	693973	12.15
Endrin aldehyde	7.02	6.89	7.13	461133	514942	11.67
Endosulfan sulfate	7.32	7.20	7.44	504009	537945	6.73
4,4'-DDT	6.89	6.76	7.00	371841	384569	3.42
Endrin ketone	7.82	7.69	7.93	494943	511121	3.27
Methoxychlor	7.62	7.50	7.74	169520	166074	2.03
alpha-Chlordane	5.36	5.28	5.44	791086	847278	7.10
gamma-Chlordane	5.16	5.07	5.23	829745	909715	9.64

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2012 **Instrument ID:** GC-O

Data File: O9634.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.30	2.24	2.36	166481	185923	11.68
beta-BHC	2.59	2.53	2.65	72758	62883	13.57
gamma-BHC	2.53	2.47	2.59	146502	166510	13.66
delta-BHC	2.73	2.67	2.79	152004	165657	8.98
Heptachlor	2.89	2.81	2.97	145579	152401	4.69
Aldrin	3.14	3.06	3.22	147853	162723	10.06
Heptachlor epoxide	3.67	3.59	3.75	137357	144480	5.19
Endosulfan I	4.03	3.95	4.11	136462	142390	4.34
4,4'-DDE	3.98	3.88	4.08	119281	130746	9.61
Dieldrin	4.26	4.16	4.36	141620	129168	8.79
Endrin	4.48	4.38	4.58	118603	126425	6.59
Endosulfan II	4.70	4.60	4.80	115305	126133	9.39
4,4'-DDD	4.56	4.46	4.66	118921	125242	5.32
Endrin aldehyde	5.14	5.02	5.26	95118	99306	4.40
Endosulfan sulfate	5.66	5.54	5.78	110937	108456	2.24
4,4'-DDT	4.84	4.72	4.96	67761	72892	7.57
Endrin ketone	6.03	5.91	6.15	132476	138438	4.50
Methoxychlor	5.39	5.26	5.50	35257	37931	7.58
alpha-Chlordane	3.91	3.83	3.99	135788	143298	5.53
gamma-Chlordane	3.78	3.70	3.86	138845	147175	6.00

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2012 **Instrument ID:** GC-O

Data File: O9634.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.78	2.72	2.84	264366	281613	6.52
beta-BHC	3.16	3.10	3.22	105683	93758	11.28
gamma-BHC	3.09	3.03	3.15	232643	255773	9.94
delta-BHC	3.43	3.37	3.49	231197	245742	6.29
Heptachlor	3.51	3.43	3.59	214630	223744	4.25
Aldrin	3.83	3.75	3.91	231597	244963	5.77
Heptachlor epoxide	4.40	4.31	4.47	209218	214005	2.29
Endosulfan I	4.80	4.72	4.88	192613	196620	2.08
4,4'-DDE	4.91	4.81	5.01	190668	200388	5.10
Dieldrin	5.10	5.00	5.20	205703	188930	8.15
Endrin	5.46	5.36	5.56	172683	179929	4.20
Endosulfan II	5.73	5.63	5.83	180311	191664	6.30
4,4'-DDD	5.60	5.50	5.70	181228	184432	1.77
Endrin aldehyde	6.20	6.08	6.32	135602	139307	2.73
Endosulfan sulfate	6.58	6.46	6.70	155489	154443	0.67
4,4'-DDT	6.04	5.92	6.16	83656	86126	2.95
Endrin ketone	7.25	7.13	7.37	178502	177509	0.56
Methoxychlor	6.97	6.85	7.09	48412	49619	2.49
alpha-Chlordane	4.74	4.66	4.82	201172	205974	2.39
gamma-Chlordane	4.59	4.51	4.67	210090	216538	3.07

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2012 **Instrument ID:** GC-O

Data File: O9659.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.30	2.24	2.36	166481	177647	6.71
beta-BHC	2.59	2.53	2.65	72758	60146	17.33
gamma-BHC	2.53	2.47	2.59	146502	163621	11.69
delta-BHC	2.73	2.67	2.79	152004	161451	6.22
Heptachlor	2.89	2.81	2.97	145579	144503	0.74
Aldrin	3.14	3.06	3.22	147853	152062	2.85
Heptachlor epoxide	3.67	3.59	3.75	137357	134909	1.78
Endosulfan I	4.03	3.95	4.11	136462	130034	4.71
4,4'-DDE	3.98	3.88	4.08	119281	122657	2.83
Dieldrin	4.26	4.16	4.36	141620	118682	16.20
Endrin	4.48	4.38	4.58	118603	121767	2.67
Endosulfan II	4.71	4.60	4.80	115305	117094	1.55
4,4'-DDD	4.56	4.46	4.66	118921	116172	2.31
Endrin aldehyde	5.14	5.02	5.26	95118	94917	0.21
Endosulfan sulfate	5.66	5.54	5.78	110937	102016	8.04
4,4'-DDT	4.84	4.72	4.96	67761	70368	3.85
Endrin ketone	6.03	5.91	6.15	132476	126613	4.43
Methoxychlor	5.39	5.26	5.50	35257	37999	7.78
alpha-Chlordane	3.91	3.83	3.99	135788	132643	2.32
gamma-Chlordane	3.78	3.70	3.86	138845	136157	1.94

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/13/2012 **Instrument ID:** GC-O

Data File: O9659.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.78	2.72	2.84	264366	266893	0.96
beta-BHC	3.16	3.10	3.22	105683	89442	15.37
gamma-BHC	3.09	3.03	3.15	232643	242895	4.41
delta-BHC	3.43	3.37	3.49	231197	237520	2.73
Heptachlor	3.51	3.43	3.59	214630	206616	3.73
Aldrin	3.83	3.75	3.91	231597	228081	1.52
Heptachlor epoxide	4.39	4.31	4.47	209218	197291	5.70
Endosulfan I	4.80	4.72	4.88	192613	177461	7.87
4,4'-DDE	4.91	4.81	5.01	190668	186292	2.29
Dieldrin	5.09	5.00	5.20	205703	174644	15.10
Endrin	5.46	5.36	5.56	172683	172558	0.07
Endosulfan II	5.73	5.63	5.83	180311	174668	3.13
4,4'-DDD	5.60	5.50	5.70	181228	170034	6.18
Endrin aldehyde	6.20	6.08	6.32	135602	131575	2.97
Endosulfan sulfate	6.58	6.46	6.70	155489	144259	7.22
4,4'-DDT	6.04	5.92	6.16	83656	88544	5.84
Endrin ketone	7.25	7.13	7.37	178502	162212	9.13
Methoxychlor	6.97	6.85	7.09	48412	47568	1.74
alpha-Chlordane	4.74	4.66	4.82	201172	185657	7.71
gamma-Chlordane	4.59	4.51	4.67	210090	196284	6.57

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 2.04 **DCB 1** 7.95 **TCMX 2** 2.38 **DCB 2** 8.87

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS120711-04	07/16/2012	12:19	2.04		7.95		2.38		8.87	
803_BASIN_	06800-024	07/16/2012	14:25	2.05		7.95		2.38		8.87	
Pest	06800-024MS	07/16/2012	14:37	2.04		7.95		2.38		8.87	
Pest	06800-024MSD	07/16/2012	14:49	2.05		7.94		2.38		8.87	
Pest	LCSS120711-04	07/16/2012	15:01	2.04		7.94		2.38		8.87	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-O **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 1.94 **DCB 1** 7.35 **TCMX 2** 2.29 **DCB 2** 8.83

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKS120711-04	07/13/2012	12:04	1.94		7.35		2.29		8.83	
12-139	06826-001	07/13/2012	16:07	1.94		7.35		2.29		8.82	
I4_(9-10)-	06640-006	07/13/2012	16:19	1.94		7.35		2.29		8.82	
Pest	LCSS120711-04	07/13/2012	16:56	1.94		7.35		2.29		8.82	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 07/13/2012

Data file: O9624.D Fri Jul 13 09:46:51 2012

				% Breakdown	
1st Column				**DDT (1)**	**Endrin (1)**
DDT (1)	6624983	Endrin (1)	11221450	11.32	4.34
DDD	618165	Endrin ketone	411091		
DDE	227534	Endrin aldehyde	98129		
2nd Column				**DDT (2)**	**Endrin (2)**
DDT (2)	9495535	Endrin (2)	16740097	13.00	4.05
DDD	1082636	Endrin ketone	705801		
DDE	335725	Endrin aldehyde	0		

PESTICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : O9655.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 16:19
Operator : IB
Sample : I4_(9-10)-,06640-006,S,30.39g,12.9,07/11/12,1
Misc : 120711-04,07/02/12,07/03/12,1
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 11:08:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0713.M
Quant Title :
QLast Update : Fri Jul 13 12:03:59 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.94	2.29	12278192	17655858	100.385	96.733
Spiked Amount 200.000	Range	10 - 180	Recovery	=	50.19%	48.37%
2) S DCB	7.35	8.82	6438632	8168427	134.845	146.770
Spiked Amount 200.000	Range	10 - 180	Recovery	=	67.42%	73.39%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

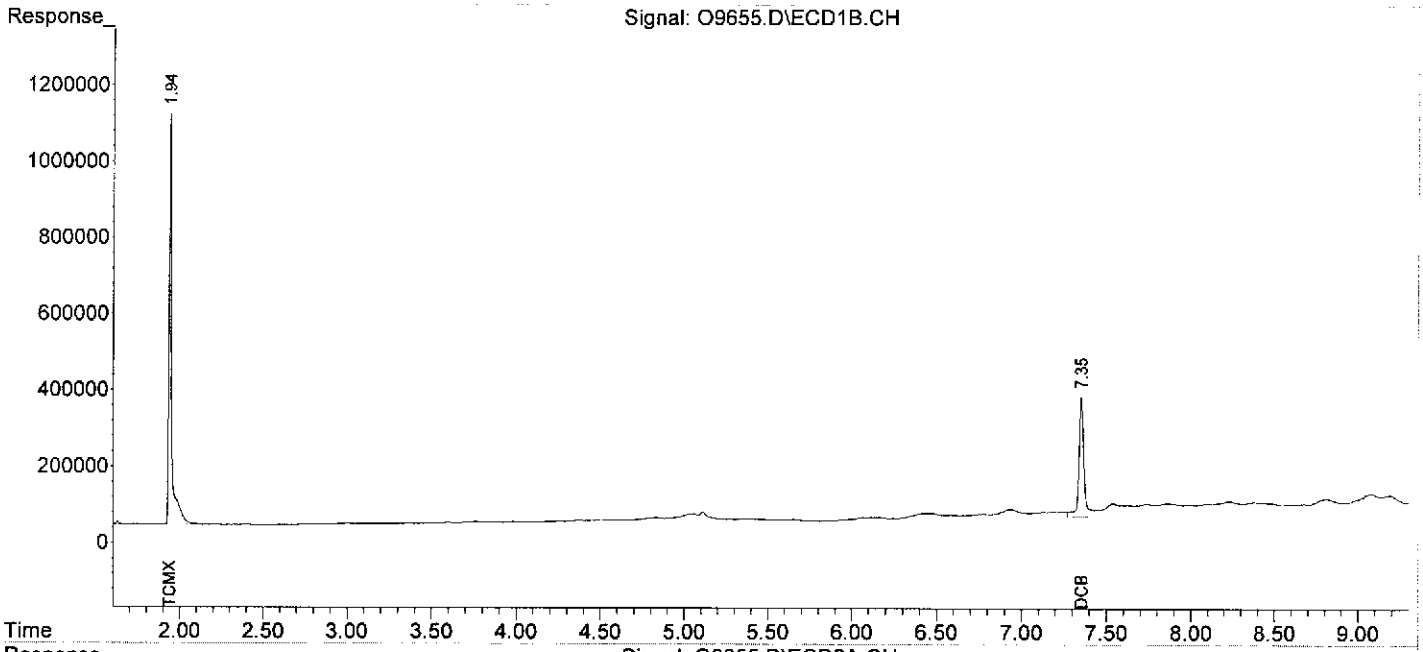
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

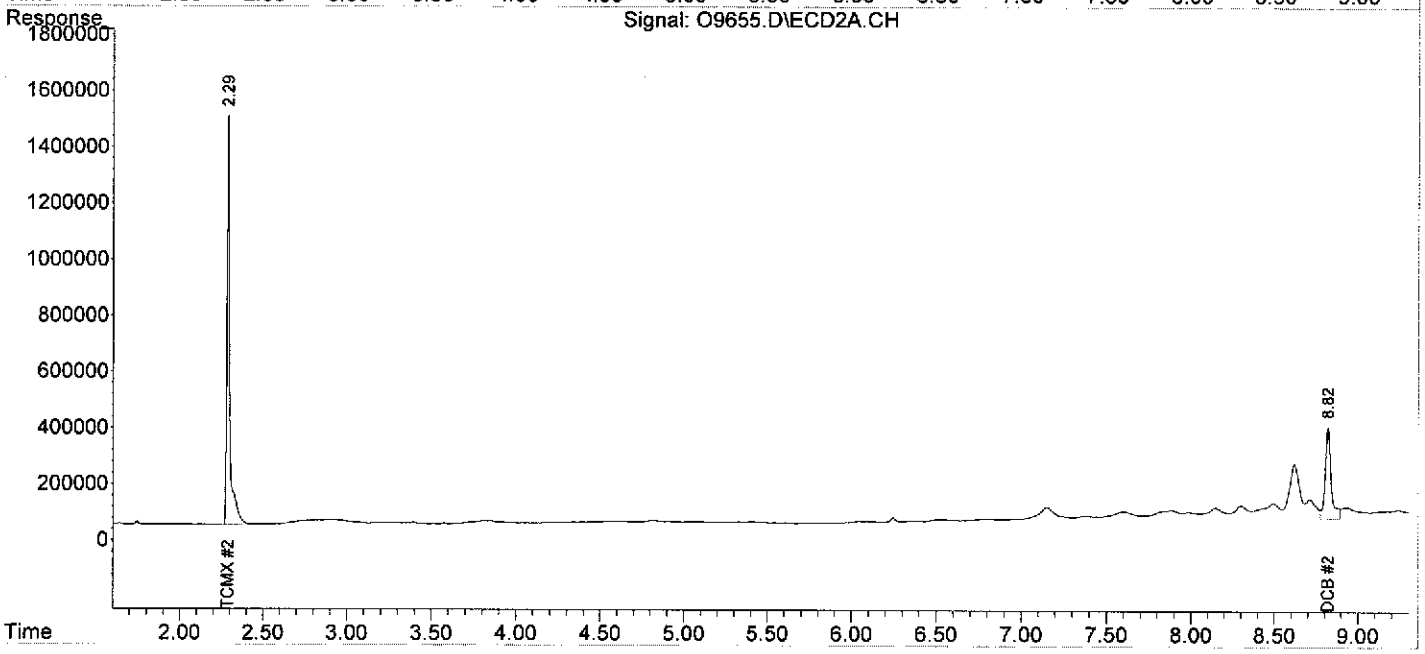
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : O9655.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 16:19
Operator : IB
Sample : I4_(9-10)-,06640-006,S,30.39g,12.9,07/11/12,1
Misc : 120711-04,07/02/12,07/03/12,1
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 11:08:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0713.M
Quant Title :
QLast Update : Fri Jul 13 12:03:59 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS120711-04
Client ID: Pest
Date Received: NA
Date Extracted: 07/11/2012
Date Analyzed: 07/16/2012
Data file: V8431.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000334	0.000167
beta-BHC	ND		0.000334	0.000167
gamma-BHC (Lindane)	ND		0.000334	0.000167
delta-BHC	ND		0.000334	0.000167
Heptachlor	ND		0.000334	0.000167
Aldrin	ND		0.000334	0.000167
Heptachlor epoxide	ND		0.000334	0.000167
Endosulfan I	ND		0.000334	0.000167
4,4'-DDE	ND		0.000334	0.000167
Dieldrin	ND		0.000334	0.000167
Endrin	ND		0.000334	0.000167
Endosulfan II	ND		0.000334	0.000167
4,4'-DDD	ND		0.000334	0.000167
Endrin aldehyde	ND		0.000334	0.000167
Endosulfan sulfate	ND		0.000334	0.000167
4,4'-DDT	ND		0.000334	0.000167
Endrin ketone	ND		0.000334	0.000167
Methoxychlor	ND		0.000334	0.000167
alpha-Chlordane	ND		0.000334	0.000167
gamma-Chlordane	ND		0.000334	0.000167
Toxaphene	ND		0.00418	0.002
Endosulfan (I and II)	ND		0.000334	0.000167
Chlordane (alpha and gamma)	ND		0.000334	0.000167

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKS120711-04
Client ID: Pest
Date Received: NA
Date Extracted: 07/11/2012
Date Analyzed: 07/13/2012
Data file: O9635.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 30.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.000334	0.000167
beta-BHC	ND		0.000334	0.000167
gamma-BHC (Lindane)	ND		0.000334	0.000167
delta-BHC	ND		0.000334	0.000167
Heptachlor	ND		0.000334	0.000167
Aldrin	ND		0.000334	0.000167
Heptachlor epoxide	ND		0.000334	0.000167
Endosulfan I	ND		0.000334	0.000167
4,4'-DDE	ND		0.000334	0.000167
Dieldrin	ND		0.000334	0.000167
Endrin	ND		0.000334	0.000167
Endosulfan II	ND		0.000334	0.000167
4,4'-DDD	ND		0.000334	0.000167
Endrin aldehyde	ND		0.000334	0.000167
Endosulfan sulfate	ND		0.000334	0.000167
4,4'-DDT	ND		0.000334	0.000167
Endrin ketone	ND		0.000334	0.000167
Methoxychlor	ND		0.000334	0.000167
alpha-Chlordane	ND		0.000334	0.000167
gamma-Chlordane	ND		0.000334	0.000167
Toxaphene	ND		0.00418	0.002
Endosulfan (I and II)	ND		0.000334	0.000167
Chlordane (alpha and gamma)	ND		0.000334	0.000167

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : O9635.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 12:04
Operator : IB
Sample : Pest,BLKS120711-04,S,30.00g,0,07/11/12,1
Misc : NA,NA,NA,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 10:56:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0713.M
Quant Title :
QLast Update : Fri Jul 13 12:03:59 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	1.94	2.29	13721196	20371341	112.183	111.610
Spiked Amount 200.000 Range 10 - 180 Recovery =					56.09%	55.81%
2) S DCB	7.35	8.83	5229723	6245832	109.527	112.225
Spiked Amount 200.000 Range 10 - 180 Recovery =					54.76%	56.11%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

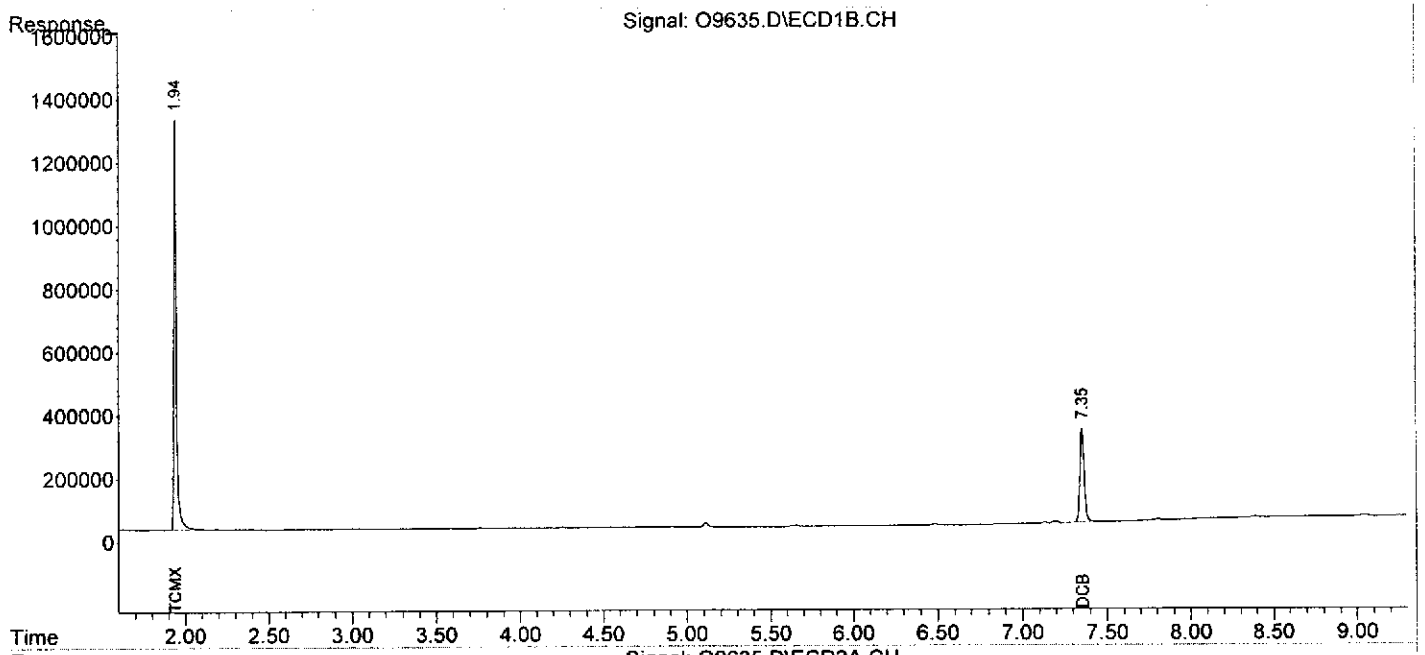
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

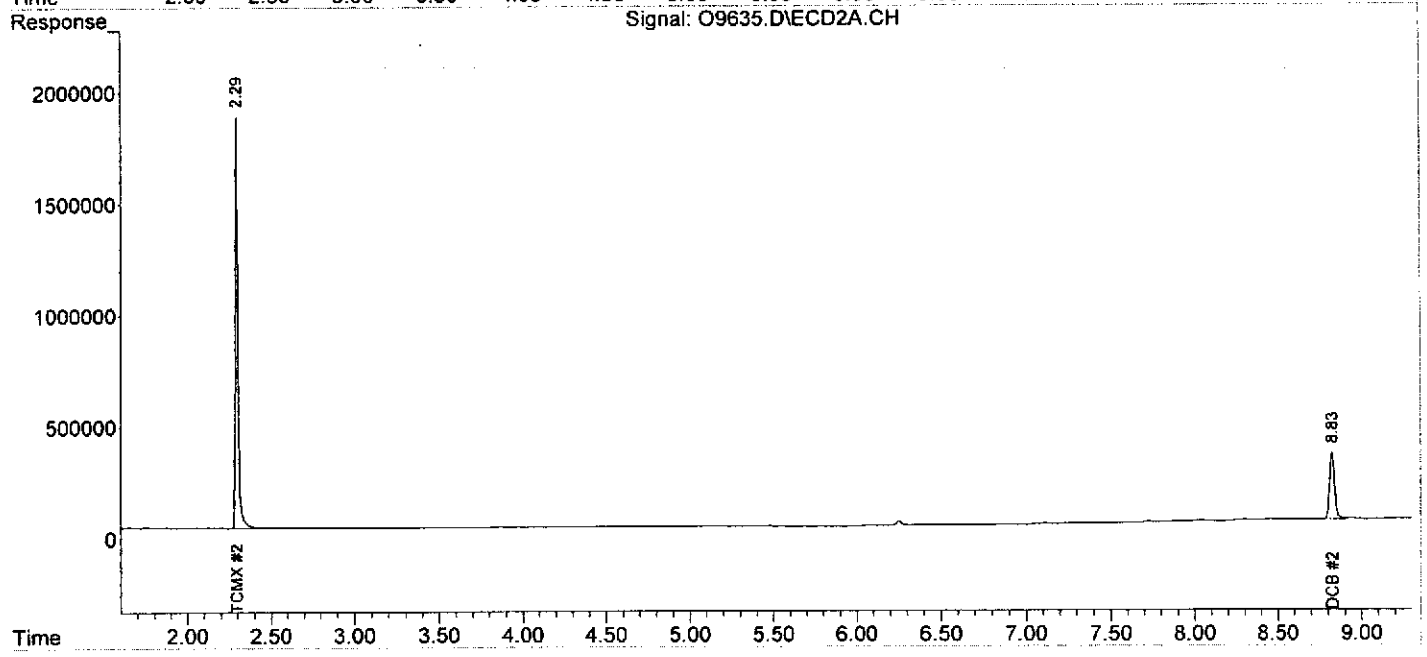
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-13-12\
Data File : O9635.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 13 Jul 2012 12:04
Operator : IB
Sample : Pest,BLKS120711-04,S,30.00g,0,07/11/12,1
Misc : NA,NA,NA,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 16 10:56:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\OPST0713.M
Quant Title :
QLast Update : Fri Jul 13 12:03:59 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





HERBICIDE DATA

HERBICIDE QC SUMMARY

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/12/2012

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKS120709-08	SOIL	85		96	
803_N2-SP-	06705-021	SOIL	73		98	
803_N2-SP-	06705-022	SOIL	41		47	
803_N2-SP-	06705-023	SOIL	75		84	
803_N2-SP-	06705-024	SOIL	34		42	
803_N3-IS-	06705-025	SOIL	61		96	
803_N3-IS-	06705-026	SOIL	85		125	
GPEC-SB-21	06642-002	SOIL	40		73	
GPEC-SB-21	06642-005	SOIL	48		51	
GPEC-SB-21	06642-007	SOIL	120		88	
GPEC-SB-21	06642-008	SOIL	46		40	
GPEC-SB-21	06642-013	SOIL	42		52	
GPEC-SB-20	06642-014	SOIL	33		36	
GPEC-SB-21	06642-016	SOIL	77		92	
GPEC-SB-20	06642-017	SOIL	65		80	
I4_(9-10)-	06640-006	SOIL	61		86	
Herb	06642-013MS	SOIL	59		59	
Herb	06642-013MSD	SOIL	62		52	
Herb	LCSS120709-08	SOIL	135		135	

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSS120709-08
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/12/2012
Data file: W7146.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.00g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: NA
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
Dalapon	200.0	0.00	191.86	96
Dicamba	200.0	0.00	242.37	121
2,4-D	200.0	0.00	228.32	114
2,4,5-TP (Silvex)	200.0	0.00	226.52	113
2,4,5-T	200.0	0.00	225.29	113
2,4-DB	200.0	0.00	206.17	103
Dinoseb	200.0	0.00	224.55	112

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06642-013
Date Received: 07/03/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/12/2012
MS Data file: W7144.D
MSD Data file: W7145.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.23g
Matrix-Units: Soil-µg/Kg (ppb)
% Moisture: 11.8
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#
Dalapon	200.00	0.00	21.27	11	*	22.42	11	*	5	
Dicamba	200.00	0.00	25.61	13	*	20.25	10	*	23	
2,4-D	200.00	0.00	83.08	42		79.49	40		4	
2,4,5-TP (Silvex)	200.00	0.00	41.57	21	*	36.07	18	*	14	
2,4,5-T	200.00	0.00	53.41	27	*	49.37	25	*	8	
2,4-DB	200.00	0.00	128.44	64		133.93	67		4	
Dinoseb	200.00	0.00	124.58	62		147.05	74		17	

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

HERBICIDE METHOD BLANK SUMMARY

Lab File ID: W7128.D

Instrument ID: GC-W

Date Extracted: 07/09/2012

Matrix: SOIL

Date Analyzed: 07/12/2012

Time Analyzed: 05:36

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
803_N2-SP-	06705-021	07/12/2012	05:51
803_N2-SP-	06705-022	07/12/2012	06:05
803_N2-SP-	06705-023	07/12/2012	06:20
803_N2-SP-	06705-024	07/12/2012	06:35
803_N3-IS-	06705-025	07/12/2012	06:49
803_N3-IS-	06705-026	07/12/2012	07:04
GPEC-SB-21	06642-002	07/12/2012	07:19
GPEC-SB-21	06642-005	07/12/2012	07:34
GPEC-SB-21	06642-007	07/12/2012	07:48
GPEC-SB-21	06642-008	07/12/2012	08:03
GPEC-SB-21	06642-013	07/12/2012	08:18
GPEC-SB-20	06642-014	07/12/2012	08:32
GPEC-SB-21	06642-016	07/12/2012	08:47
GPEC-SB-20	06642-017	07/12/2012	09:02
I4_(9-10)-	06640-006	07/12/2012	09:16
Herb	06642-013MS	07/12/2012	09:31
Herb	06642-013MSD	07/12/2012	09:46
Herb	LCSS120709-08	07/12/2012	10:00

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	RT OF STANDARDS					MEAN RT	RT WI NDOW	
	50	100	200	250	400		FROM	TO
Dalapon	2.25	2.25	2.25	2.25	2.25	2.25	2.18	2.32
Dicamba	4.83	4.83	4.83	4.83	4.83	4.83	4.76	4.90
2,4-D	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.71	5.71	5.71	5.71	5.71	5.62	5.80
2,4,5-T	5.86	5.86	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.16	6.16	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.90	6.90	6.90	6.90	6.90	6.90	6.81	6.99

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	RT OF STANDARDS					MEAN RT	RT WI NDOW	
	50	100	200	250	400		FROM	TO
Dalapon	2.22	2.22	2.22	2.22	2.22	2.22	2.15	2.29
Dicamba	5.05	5.05	5.05	5.05	5.05	5.05	4.98	5.12
2,4-D	5.57	5.57	5.57	5.57	5.57	5.57	5.49	5.65
2,4,5-TP (Silvex)	6.03	6.03	6.03	6.03	6.03	6.03	5.94	6.12
2,4,5-T	6.26	6.26	6.26	6.26	6.26	6.26	6.17	6.35
2,4-DB	6.60	6.60	6.60	6.60	6.60	6.60	6.51	6.69
Dinoseb	6.85	6.85	6.85	6.85	6.85	6.85	6.76	6.94

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: F GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	544629	516909	587161	593365	592777	566968	6.09
Dicamba	1566067	1483926	1703827	1725758	1784211	1652758	7.49
2,4-D	732699	593094	607561	587862	573382	618920	10.46
2,4,5-TP (Silvex)	2764514	2539588	2884094	2964481	3076025	2845741	7.22
2,4,5-T	2721247	2545426	2799059	2811924	2893447	2754221	4.78
2,4-DB	526806	369714	505885	464867	435362	460527	13.45
Dinoseb	2134374	1946223	2155301	2067354	2096146	2079880	3.95
						Average %RSD	7.64

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	72214	66210	75805	76517	78181	73785	6.45
Dicamba	198580	186187	209675	212355	212325	203824	5.58
2,4-D	79995	65353	74252	72372	72026	72800	7.21
2,4,5-TP (Silvex)	349332	320514	368049	366443	374046	355677	6.10
2,4,5-T	333377	298305	351814	348173	345577	335449	6.52
2,4-DB	52239	36291	50263	49819	49769	47676	13.52
Dinoseb	233458	205681	247545	250958	256622	238853	8.55
						Average %RSD	7.70

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/12/2012 **Instrument ID:** GC-W

Data File: W7127.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	530944	6.35
Dicamba	4.83	4.76	4.90	1652758	1585764	4.05
2,4-D	5.28	5.20	5.36	618920	577089	6.76
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	2701235	5.08
2,4,5-T	5.86	5.77	5.95	2754221	2628492	4.56
2,4-DB	6.16	6.07	6.25	460527	449831	2.32
Dinoseb	6.90	6.81	6.99	2079880	1965569	5.50

GC Column (2nd): DB-1701P

Data File: W7127.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.23	2.15	2.29	73785	66903	9.33
Dicamba	5.05	4.98	5.12	203824	193684	4.98
2,4-D	5.57	5.49	5.65	72800	66311	8.91
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	335099	5.79
2,4,5-T	6.26	6.17	6.35	335449	317571	5.33
2,4-DB	6.61	6.51	6.69	47676	42708	10.42
Dinoseb	6.85	6.76	6.94	238853	224233	6.12

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/12/2012 **Instrument ID:** GC-W

Data File: W7147.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	560403	1.16
Dicamba	4.83	4.76	4.90	1652758	1777040	7.52
2,4-D	5.28	5.20	5.36	618920	700638	13.20
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3123290	9.75
2,4,5-T	5.86	5.77	5.95	2754221	3113339	13.04
2,4-DB	6.16	6.07	6.25	460527	438497	4.78
Dinoseb	6.90	6.81	6.99	2079880	2147686	3.26

GC Column (2nd): DB-1701P

Data File: W7147.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.22	2.15	2.29	73785	67219	8.90
Dicamba	5.05	4.98	5.12	203824	202518	0.64
2,4-D	5.57	5.49	5.65	72800	75366	3.53
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	366915	3.16
2,4,5-T	6.26	6.17	6.35	335449	356396	6.24
2,4-DB	6.60	6.51	6.69	47676	47435	0.51
Dinoseb	6.85	6.76	6.94	238853	257241	7.70

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 4.74 **DCPA 2** 4.96

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKS120709-08	07/12/2012	05:36	4.74		4.96	
803_N2-SP-	06705-021	07/12/2012	05:51	4.74		4.96	
803_N2-SP-	06705-022	07/12/2012	06:05	4.74		4.96	
803_N2-SP-	06705-023	07/12/2012	06:20	4.74		4.96	
803_N2-SP-	06705-024	07/12/2012	06:35	4.74		4.96	
803_N3-IS-	06705-025	07/12/2012	06:49	4.74		4.96	
803_N3-IS-	06705-026	07/12/2012	07:04	4.74		4.96	
GPEC-SB-21	06642-002	07/12/2012	07:19	4.74		4.96	
GPEC-SB-21	06642-005	07/12/2012	07:34	4.74		4.96	
GPEC-SB-21	06642-007	07/12/2012	07:48	4.74		4.96	
GPEC-SB-21	06642-008	07/12/2012	08:03	4.74		4.96	
GPEC-SB-21	06642-013	07/12/2012	08:18	4.74		4.96	
GPEC-SB-20	06642-014	07/12/2012	08:32	4.74		4.96	
GPEC-SB-21	06642-016	07/12/2012	08:47	4.74		4.96	
GPEC-SB-20	06642-017	07/12/2012	09:02	4.74		4.96	
I4_(9-10)-	06640-006	07/12/2012	09:16	4.74		4.96	
Herb	06642-013MS	07/12/2012	09:31	4.74		4.96	
Herb	06642-013MSD	07/12/2012	09:46	4.74		4.96	
Herb	LCSS120709-08	07/12/2012	10:00	4.74		4.96	

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : W7143.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jul 2012 9:16 pm
Operator : YG
Sample : I4_(9-10)-,06640-006,S,5.52g,12.9,07/09/12,1
Misc : 120709-08,07/02/12,07/03/12,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 13 11:05:27 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	127.6E6	22057107	61.224	85.730 #
Spiked Amount 100.000			Recovery	=	61.22%	85.73%
Target Compounds						

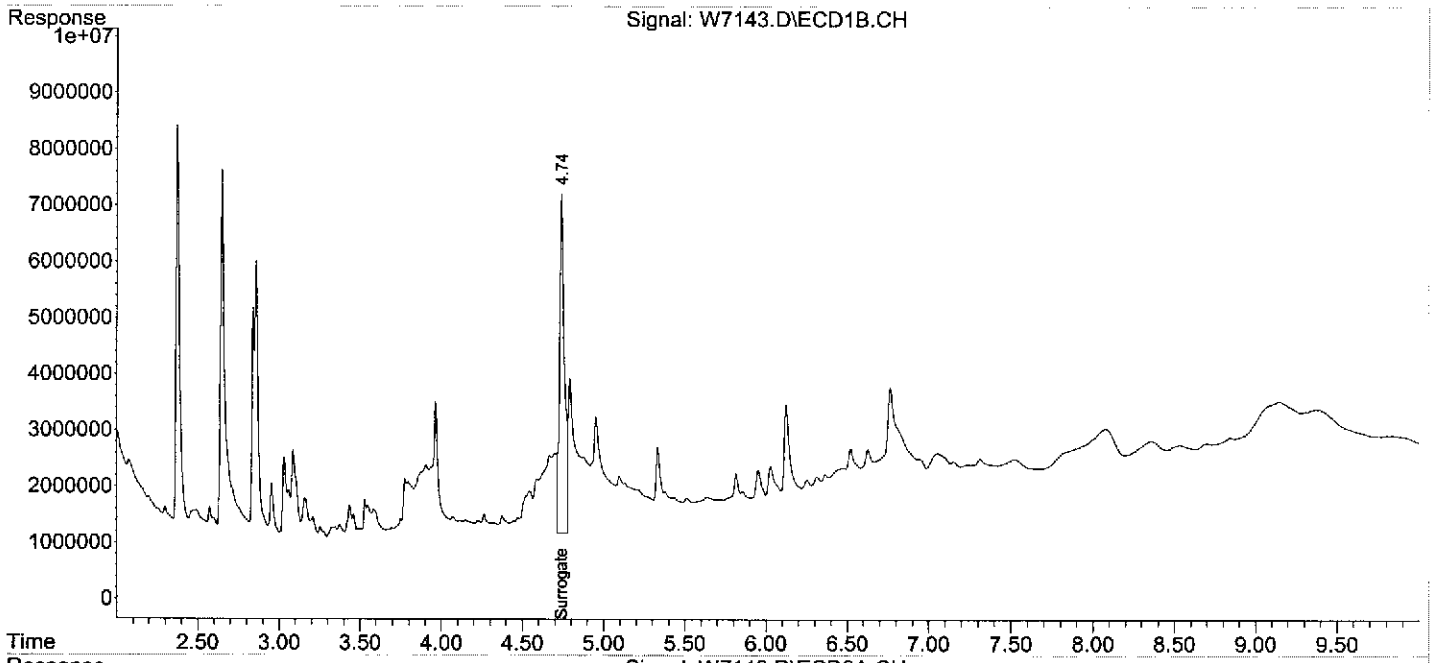
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

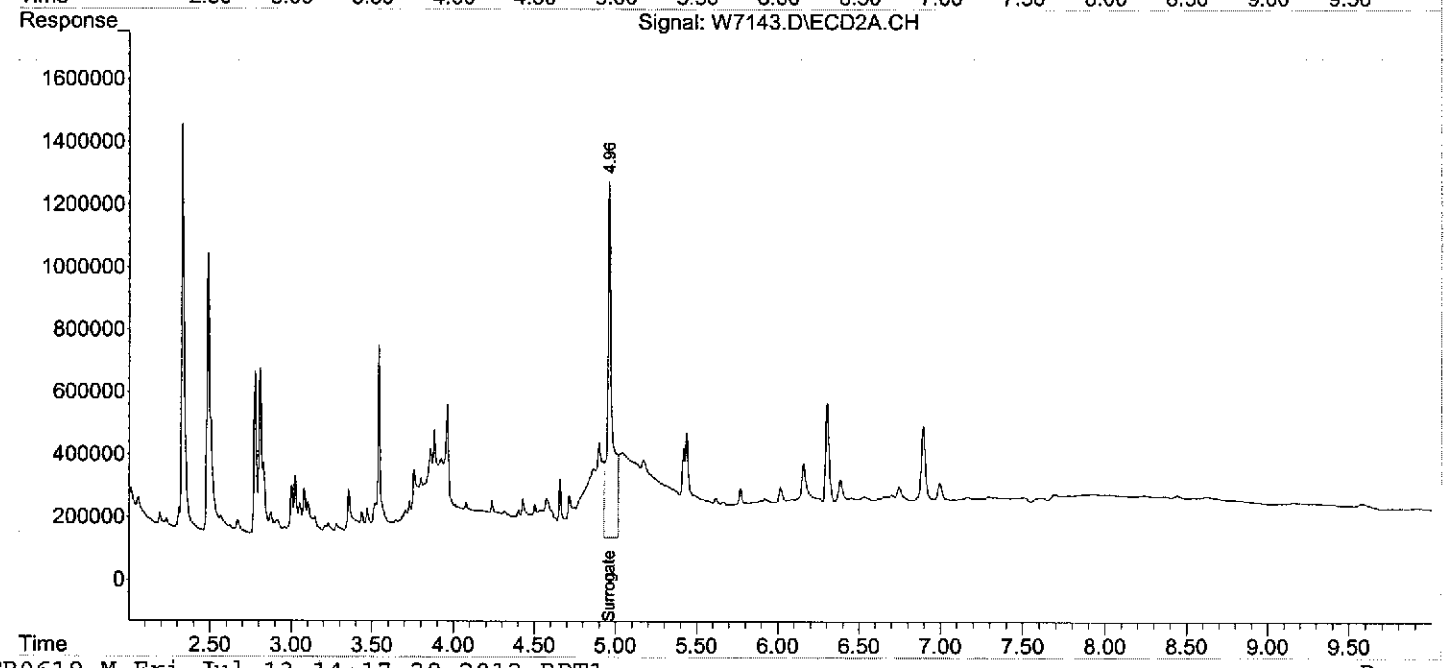
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : W7143.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jul 2012 9:16 pm
Operator : YG
Sample : I4_(9-10)-,06640-006,S,5.52g,12.9,07/09/12,1
Misc : 120709-08,07/02/12,07/03/12,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 13 11:05:27 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKS120709-08
Client ID: Herb
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/12/2012
Data file: W7128.D

GC Column: DB-5/DB1701P
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.050	0.020
Dicamba	ND		0.050	0.020
2,4-D	ND		0.050	0.020
2,4,5-TP (Silvex)	ND		0.050	0.020
2,4,5-T	ND		0.050	0.020
2,4-DB	ND		0.050	0.020
Dinoseb	ND		0.050	0.020

E12-06640 0217

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : W7128.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jul 2012 5:36 pm
Operator : YG
Sample : Herb,BLKS120709-08,S,5.00g,0,07/09/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 13 10:56:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	177.2E6	24609816	85.032	95.652
Spiked Amount 100.000			Recovery	=	85.03%	95.65%

Target Compounds

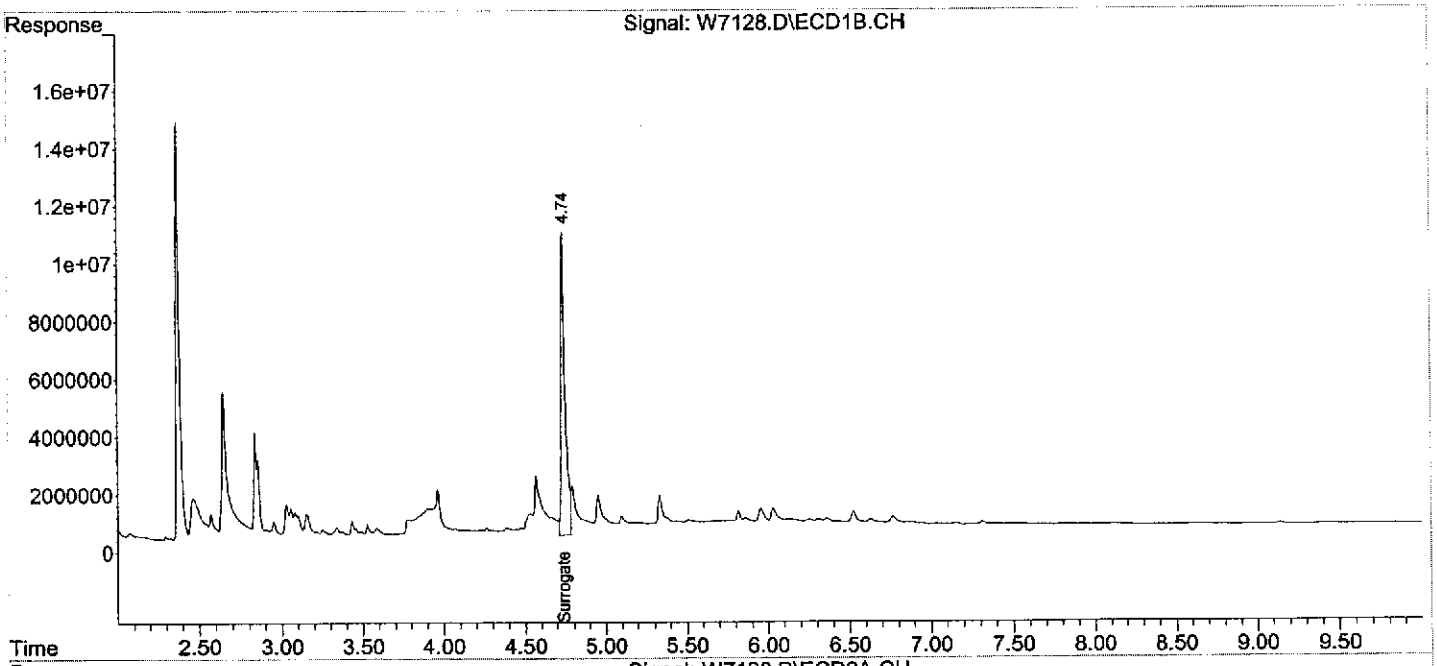
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

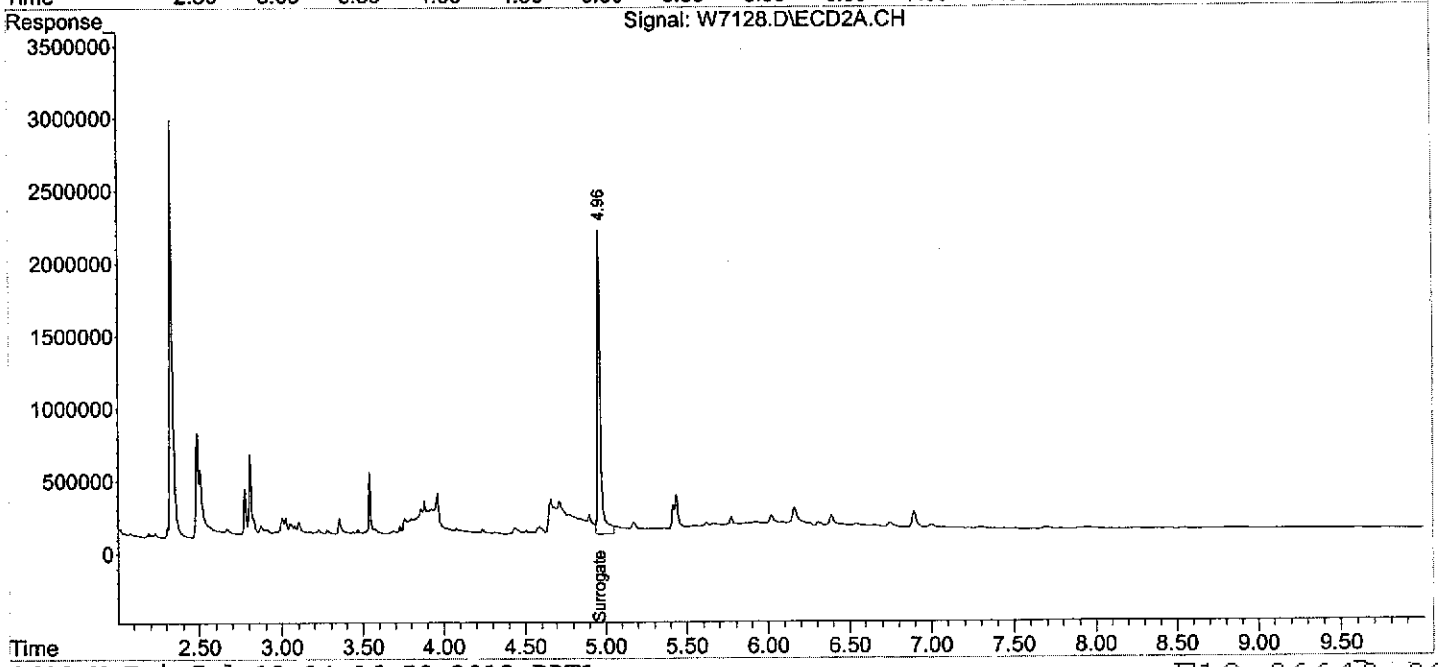
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-12-12\
Data File : W7128.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 12 Jul 2012 5:36 pm
Operator : YG
Sample : Herb,BLKS120709-08,S,5.00g,0,07/09/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 13 10:56:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON

FRACTIOANTED
EXTRACTABLE PETROLEUM HYDROCARBON
QC SUMMARY

NJ-EPH ALIPHATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/11/2012

Client ID	Lab Sample ID	Matrix	COD % rec	#
ALI	BLKS120710-01	SOIL	53	
SIPHON_G	06450-001	SOIL	42	
H2_(9.5-	06640-002	SOIL	47	
H3_(9-10	06640-003	SOIL	43	
E2_(11-1	06640-004	SOIL	47	
E3_(7-8)	06640-005	SOIL	50	
I4_(9-10	06640-006	SOIL	44	
K1_(9-10	06640-007	SOIL	41	
SS-2	06673-002	SOIL	45	
SS-3	06673-003	SOIL	45	
SS-4	06673-004	SOIL	40	
SS-5	06673-005	SOIL	43	
SS-6	06673-006	SOIL	40	
SS-7	06673-007	SOIL	40	
S-1__10/	06675-002	SOIL	46	
S-4/10	06675-005	SOIL	41	
S-5/10	06675-006	SOIL	44	
S-6/10	06675-007	SOIL	40	
ALI	06640-003MS	SOIL	48	
H1_(11-1	06640-001	SOIL	41	
ALI	LCSS120710-01	SOIL	51	
ALI	LCSDS120710-01	SOIL	51	
SS-1	06673-001	SOIL	139	
S-3/10	06675-004	SOIL	45	
H3_(9-10	06640-3D	SOIL	44	

Surrogate QC Limits	Soil	Aqueous
COD = 1-Chlorooctadecane	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/11/2012

Client ID	Lab Sample ID	Matrix	FBP % rec	#	BNP % rec	#	OTP % rec	#
ARO	BLKS120710-01	SOIL	42		57		112	
ARO	LCSS120710-01	SOIL	71		76		103	
ARO	LCSDS120710-01	SOIL	62		67		94	
SIPHON_G	06450-001	SOIL	96		83		62	
H2_(9.5-	06640-002	SOIL	64		67		98	
H3_(9-10	06640-003	SOIL	51		55		79	
E2_(11-1	06640-004	SOIL	57		60		82	
E3_(7-8)	06640-005	SOIL	52		56		80	
I4_(9-10	06640-006	SOIL	52		57		88	
K1_(9-10	06640-007	SOIL	55		58		82	
SS-1	06673-001	SOIL	55		58		77	
SS-2	06673-002	SOIL	55		60		76	
SS-3	06673-003	SOIL	60		65		85	
SS-4	06673-004	SOIL	55		58		74	
SS-5	06673-005	SOIL	60		64		84	
SS-6	06673-006	SOIL	62		66		91	
SS-7	06673-007	SOIL	52		59		82	
S-1__10/	06675-002	SOIL	61		64		85	
S-3/10	06675-004	SOIL	44		48		62	
S-4/10	06675-005	SOIL	55		57		77	
S-5/10	06675-006	SOIL	60		65		88	
S-6/10	06675-007	SOIL	58		62		82	
H3_(9-10	06640-3D	SOIL	50		53		74	
ARO	06640-003MS	SOIL	59		61		81	
H1_(11-1	06640-001	SOIL	54		57		83	

Surrogate QC Limits	Soil	Aqueous
FBP = 2-Fluorobiphenyl	40-140	40-140
BNP = 2-Bromonaphthalene	40-140	40-140
OTP = o-Terphenyl	40-140	40-140

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120710-01
Client ID: ALI
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/12/2012
Data file: N1761.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
n-Nonane (C9)	50	0.00	20	40	20	40	0
n-Decane (C10)	50	0.00	21	42	21	42	0
n-Dodecane (C12)	50	0.00	25	50	25	50	0
n-Tetradecane (C14)	50	0.00	27	54	27	54	0
n-Hexadecane (C16)	50	0.00	29	58	28	56	4
n-Octadecane (C18)	50	0.00	29	58	29	58	0
n-Eicosane (C20)	50	0.00	29	58	29	58	0
n-Heneicosane (C21)	50	0.00	35	70	35	70	0
n-Docosane (C22)	50	0.00	32	64	32	64	0
n-Tetracosane (C24)	50	0.00	31	62	30	60	3
n-Hexacosane (C26)	50	0.00	32	64	32	64	0
n-Octacosane (C28)	50	0.00	34	68	34	68	0
n-Triacontane (C30)	50	0.00	35	70	35	70	0
n-Dotriacontane (C32)	50	0.00	36	72	36	72	0
n-Tetratriacontane (C34)	50	0.00	37	74	37	74	0
n-Hexatriacontane (C36)	50	0.00	35	70	34	68	3
n-Octatriacontane (C38)	50	0.00	31	62	31	62	0
n-Tetracontane (40)	50	0.00	27	54	27	54	0
C9-C12	150	0.00	71	47	70	47	1
C12-C16	100	0.00	61	61	60	60	2
C16-C21	150	0.00	101	67	101	67	0
C21-C40	500	0.00	374	75	370	74	1

	Aqueous	Soil/Sediment
n-Nonane (C9) ACCURACY (%REC)	25-140	25-140
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC LCS/LCSD ACCURACY REPORT

Lab ID: LCSDS120710-01
Client ID: ARO
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: NB1366.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	Conc. LCS	%Rec. LCS	Conc. LCSD	%Rec. LCSD	%RPD
1,2,3-Trimethylbenzene	50	0.00	20	40	20	40	0
Napthalene	50	0.00	27	54	24	48	12
2-Methylnaphthalene	50	0.00	32	64	28	56	13
Acenaphthylene	50	0.00	38	76	34	68	11
Acenaphthene	50	0.00	40	80	36	72	11
Fluorene	50	0.00	41	82	37	74	10
Phenanthrene	50	0.00	44	88	40	80	10
Anthracene	50	0.00	42	84	38	76	10
Fluoroanthene	50	0.00	44	88	41	82	7
Pyrene	50	0.00	44	88	41	82	7
Benzo[a]anthracene	50	0.00	43	86	41	82	5
Chrysene	50	0.00	44	88	42	84	5
Benzo[b]fluoranthene	50	0.00	41	82	40	80	2
Benzo[k]fluoranthene	50	0.00	41	82	40	80	2
Benzo[a]pyrene	50	0.00	37	74	37	74	0
Indeno[1,2,3-cd]pyrene	50	0.00	41	82	39	78	5
Dibenz[a,h]anthracene	50	0.00	40	80	39	78	3
Benzo[g,h,i]perylene	50	0.00	41	82	39	78	5
C10-C12	100	0.00	49	49	45	45	9
C12-C16	150	0.00	117	78	104	69	12
C16-C21	250	0.00	239	96	218	87	9
C21-C36	400	0.00	358	90	351	88	2

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140
MS/MSD PRECISION (RPD)	25	25

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH ALIPHATIC MS ACCURACY REPORT

Lab ID: 06640-003MS
Client ID: ALI
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/12/2012
Data file: N1754.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C9-C12	150	0	87	58
C12-C16	100	0	56	56
C16-C21	150	0	93	62
C21-C40	500	0	351	70

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH AROMATIC MS ACCURACY REPORT

Lab ID: 06640-003MS
Client ID: ARO
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/12/2012
Data file: NB1388.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Conc. Add	Sample	MS Conc.	%Rec.
C10-C12	100	0	55	55
C12-C16	150	0	98	65
C16-C21	250	0	185	74
C21-C36	400	0	276	69

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	40-140	40-140

NC Non calculable

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH DUPLICATE SAMPLE RESULTS SUMMARY

Client ID: H3_(9-10
Date Received: 07/03/2012
Date Extracted: 07/10/2012
Lab ID: 06640-003
Sample wt/vol: 5.00g
Date Analyzed: 07/11/2012
Aliphatics Sample Data file: N1736.D
Dilution Factor: 1
Date Analyzed: 07/11/2012
Aromatics Sample Data file: NB1370.D
Dilution Factor: 1

GC Column: DB-5
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: 11.7
Lab ID: 06640-3D
Sample wt/vol: 5.00g
Date Analyzed: 07/12/2012
Aliphatics Sample Dup Data file: N1764.D
Dilution Factor: 1
Date Analyzed: 07/12/2012
Aromatics Sample Dup Data file: NB1387.D
Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD
C9-C12 Aliphatics	ND	ND	NA
C12-C16 Aliphatics	ND	ND	NA
C16-C21 Aliphatics	ND	ND	NA
C21-C40 Aliphatics	ND	ND	NA
Total Aliphatics	0	0	NA
C10-C12 Aromatics	ND	ND	NA
C12-C16 Aromatics	ND	ND	NA
C16-C21 Aromatics	ND	ND	NA
C21-C36 Aromatics	ND	ND	NA
Total Aromatics	0	0	NA
Total NJ-EPH	0	0	NA

	Aqueous	Soil/Sediment
Sample/Sample Dup PRECISION (% RPD)	50	50

NA --- Not Applied

NJ-EPH ALIPHATIC METHOD BLANK SUMMARY

Lab File ID:	N1730.D	Instrument ID:	GC-N
Date Extracted:	07/10/2012	Matrix:	SOIL
Date Analyzed:	07/11/2012	Time Analyzed:	14:44

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
SIPHON_G	06450-001	07/11/2012	16:26
H2_(9.5-	06640-002	07/11/2012	17:34
H3_(9-10	06640-003	07/11/2012	18:08
E2_(11-1	06640-004	07/11/2012	18:42
E3_(7-8)	06640-005	07/11/2012	19:17
I4_(9-10	06640-006	07/11/2012	19:51
K1_(9-10	06640-007	07/11/2012	20:25
SS-2	06673-002	07/11/2012	21:33
SS-3	06673-003	07/11/2012	22:07
SS-4	06673-004	07/11/2012	22:41
SS-5	06673-005	07/11/2012	23:16
SS-6	06673-006	07/11/2012	23:50
SS-7	06673-007	07/12/2012	00:24
S-1__10/	06675-002	07/12/2012	00:58
S-4/10	06675-005	07/12/2012	02:06
S-5/10	06675-006	07/12/2012	02:40
S-6/10	06675-007	07/12/2012	03:15
ALI	06640-003MS	07/12/2012	04:23
H1_(11-1	06640-001	07/12/2012	07:18
ALI	LCSS120710-01	07/12/2012	09:37
ALI	LCSDS120710-01	07/12/2012	10:11
SS-1	06673-001	07/12/2012	11:19
S-3/10	06675-004	07/12/2012	11:55
H3_(9-10	06640-3D	07/12/2012	12:28

NJ-EPH AROMATIC METHOD BLANK SUMMARY

Lab File ID:	NB1364.D	Instrument ID:	GC-N
Date Extracted:	07/10/2012	Matrix:	SOIL
Date Analyzed:	07/11/2012	Time Analyzed:	14:44

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
ARO	LCSS120710-01	07/11/2012	15:18
ARO	LCSDS120710-01	07/11/2012	15:52
SIPHON_G	06450-001	07/11/2012	16:26
H2_(9.5-	06640-002	07/11/2012	17:34
H3_(9-10	06640-003	07/11/2012	18:08
E2_(11-1	06640-004	07/11/2012	18:42
E3_(7-8)	06640-005	07/11/2012	19:17
I4_(9-10	06640-006	07/11/2012	19:51
K1_(9-10	06640-007	07/11/2012	20:25
SS-1	06673-001	07/11/2012	20:59
SS-2	06673-002	07/11/2012	21:33
SS-3	06673-003	07/11/2012	22:07
SS-4	06673-004	07/11/2012	22:41
SS-5	06673-005	07/11/2012	23:16
SS-6	06673-006	07/11/2012	23:50
SS-7	06673-007	07/12/2012	00:24
S-1__10/	06675-002	07/12/2012	00:58
S-3/10	06675-004	07/12/2012	01:32
S-4/10	06675-005	07/12/2012	02:06
S-5/10	06675-006	07/12/2012	02:40
S-6/10	06675-007	07/12/2012	03:15
H3_(9-10	06640-3D	07/12/2012	03:49
ARO	06640-003MS	07/12/2012	04:23
H1_(11-1	06640-001	07/12/2012	07:18

NJ-EPH ALIPHATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

COD 12.16

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	COD RT	#
ALI	BLKS120710-01	07/11/2012	14:44	12.16	
SIPHON_G	06450-001	07/11/2012	16:26	12.16	
H2_(9.5-	06640-002	07/11/2012	17:34	12.16	
H3_(9-10	06640-003	07/11/2012	18:08	12.16	
E2_(11-1	06640-004	07/11/2012	18:42	12.16	
E3_(7-8)	06640-005	07/11/2012	19:17	12.16	
I4_(9-10	06640-006	07/11/2012	19:51	12.16	
K1_(9-10	06640-007	07/11/2012	20:25	12.16	
SS-2	06673-002	07/11/2012	21:33	12.16	
SS-3	06673-003	07/11/2012	22:07	12.16	
SS-4	06673-004	07/11/2012	22:41	12.16	
SS-5	06673-005	07/11/2012	23:16	12.16	
SS-6	06673-006	07/11/2012	23:50	12.16	
SS-7	06673-007	07/12/2012	00:24	12.16	
S-1__10/	06675-002	07/12/2012	00:58	12.16	
S-4/10	06675-005	07/12/2012	02:06	12.16	
S-5/10	06675-006	07/12/2012	02:40	12.16	
S-6/10	06675-007	07/12/2012	03:15	12.16	
ALI	06640-003MS	07/12/2012	04:23	12.16	
H1_(11-1	06640-001	07/12/2012	07:18	12.16	
ALI	LCSS120710-01	07/12/2012	09:37	12.16	
ALI	LCSDS120710-01	07/12/2012	10:11	12.16	
SS-1	06673-001	07/12/2012	11:19	12.17	
S-3/10	06675-004	07/12/2012	11:55	12.16	
H3_(9-10	06640-3D	07/12/2012	12:28	12.16	

Surrogate QC Limits

COD = 1-Chlorooctadecane (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

NJ-EPH AROMATIC RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-N **Column:** DB-5

Surrogate RT from initial calibration :

FBP 4.57 **BNP** 5.61 **OTP** 9.96

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	FBP RT	#	BNP RT	#	OTP RT	#
ARO	BLKS120710-01	07/11/2012	14:44	4.57		5.61		9.96	
ARO	LCSS120710-01	07/11/2012	15:18	4.57		5.60		9.96	
ARO	LCSDS120710-01	07/11/2012	15:52	4.57		5.60		9.96	
SIPHON_G	06450-001	07/11/2012	16:26	4.57		5.61		9.98	
H2_(9.5-	06640-002	07/11/2012	17:34	4.57		5.60		9.96	
H3_(9-10	06640-003	07/11/2012	18:08	4.57		5.61		9.96	
E2_(11-1	06640-004	07/11/2012	18:42	4.57		5.60		9.96	
E3_(7-8)	06640-005	07/11/2012	19:17	4.57		5.60		9.96	
I4_(9-10	06640-006	07/11/2012	19:51	4.57		5.61		9.96	
K1_(9-10	06640-007	07/11/2012	20:25	4.57		5.61		9.96	
SS-1	06673-001	07/11/2012	20:59	4.57		5.60		9.96	
SS-2	06673-002	07/11/2012	21:33	4.57		5.60		9.96	
SS-3	06673-003	07/11/2012	22:07	4.57		5.60		9.96	
SS-4	06673-004	07/11/2012	22:41	4.57		5.61		9.96	
SS-5	06673-005	07/11/2012	23:16	4.57		5.60		9.96	
SS-6	06673-006	07/11/2012	23:50	4.57		5.60		9.96	
SS-7	06673-007	07/12/2012	00:24	4.57		5.60		9.96	
S-1__10/	06675-002	07/12/2012	00:58	4.57		5.60		9.96	
S-3/10	06675-004	07/12/2012	01:32	4.57		5.61		9.96	
S-4/10	06675-005	07/12/2012	02:06	4.57		5.60		9.96	
S-5/10	06675-006	07/12/2012	02:40	4.57		5.61		9.96	
S-6/10	06675-007	07/12/2012	03:15	4.57		5.60		9.96	
H3_(9-10	06640-3D	07/12/2012	03:49	4.57		5.60		9.96	
ARO	06640-003MS	07/12/2012	04:23	4.57		5.60		9.96	
H1_(11-1	06640-001	07/12/2012	07:18	4.57		5.60		9.96	

Surrogate QC Limits

FBP = 2-Fluorobiphenyl (± 0.10 Minutes)

BNP = 2-Bromonaphthalene (± 0.10 Minutes)

OTP = o-Terphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH Naphthalene & 2-Methylnaphthalene BREAKTHROUGH REPORT

	Fraction Data file:	Fraction Data file:
Lab ID: LCSS120710-01	Aliphatic N1760.D	Aromatic NB1365.D
Lab ID: LCSDS120710-01	Aliphatic N1761.D	Aromatic NB1366.D

Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Matrix-Units: Soil-mg/Kg (ppm)

	LCS			LCSD			
Compound	Aromatic	Aliphatic	% BT	Aromatic	Aliphatic	% BT	
Naphthalene	27.4	0.0	0.0	23.9	0.0	0.0	Pass
2-Methylnaphthalene	32.4	0.0	0.0	28.1	0.0	0.0	Pass

Total Naphthalene & 2-Methylnaphthalene in the aliphatic fraction < 5%
% BT ---- % Breakthrough

FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-11-12\
Data File : N1756.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 7:18
Operator : MJ
Sample : H1_(11-1,06640-001,S,5.29g,17.3,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:29:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	19941377	20.634 ng
Spiked Amount 50.000		Recovery =	41.27%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

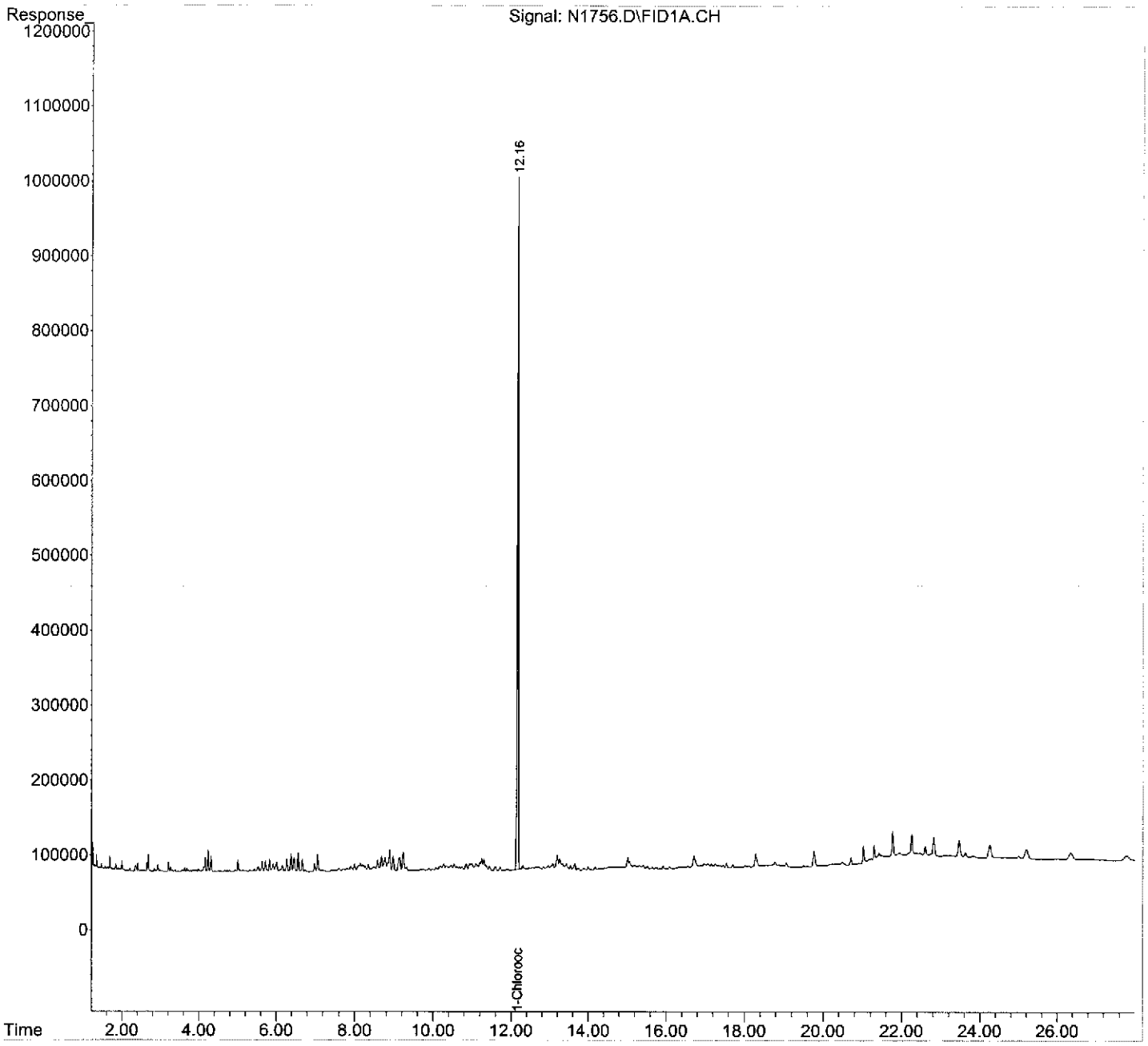
E12-06640 0235

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-11-12\
Data File : N1756.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 7:18
Operator : MJ
Sample : H1_(11-1,06640-001,S,5.29g,17.3,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 7 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:29:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1390.D
Signal(s) : FID2B.CH
Acq On : 12 Jul 2012 7:18
Operator : MJ
Sample : H1_(11-1,06640-001,S,5.29g,17.3,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:33:42 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	19397220	27.029 ng
Spiked Amount 50.000		Recovery =	54.06%
2) S 2-Bromonaphthalene	5.60	14367189	28.721 ng
Spiked Amount 50.000		Recovery =	57.44%
3) S o-Terphenyl	9.96	38497333	41.610 ng
Spiked Amount 50.000		Recovery =	83.22%
Target Compounds			

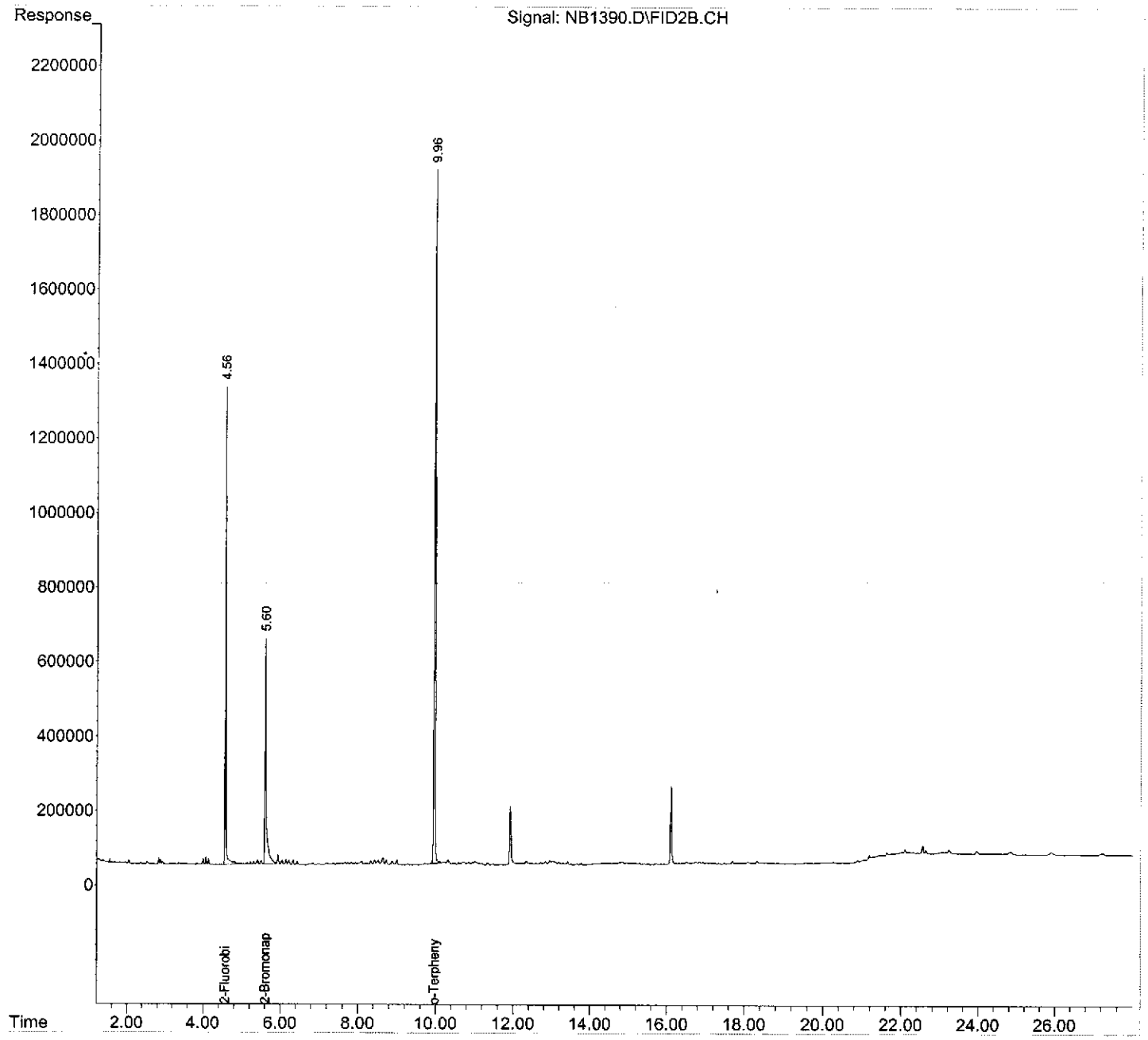
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1390.D
Signal(s) : FID2B.CH
Acq On : 12 Jul 2012 7:18
Operator : MJ
Sample : H1_(11-1,06640-001,S,5.29g,17.3,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 57 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:33:42 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-11-12\
Data File : N1735.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 17:34
Operator : MJ
Sample : H2_(9.5-,06640-002,S,5.07g,15.9,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:41:09 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	22619448	23.405 ng
Spiked Amount 50.000		Recovery =	46.81%
Target Compounds			
21) H C12-C16	5.40	47694090	44.790 ng
22) H C16-C21	9.95	74215181	70.505 ng
23) H C21-C40	18.95	492486257	537.791 ng

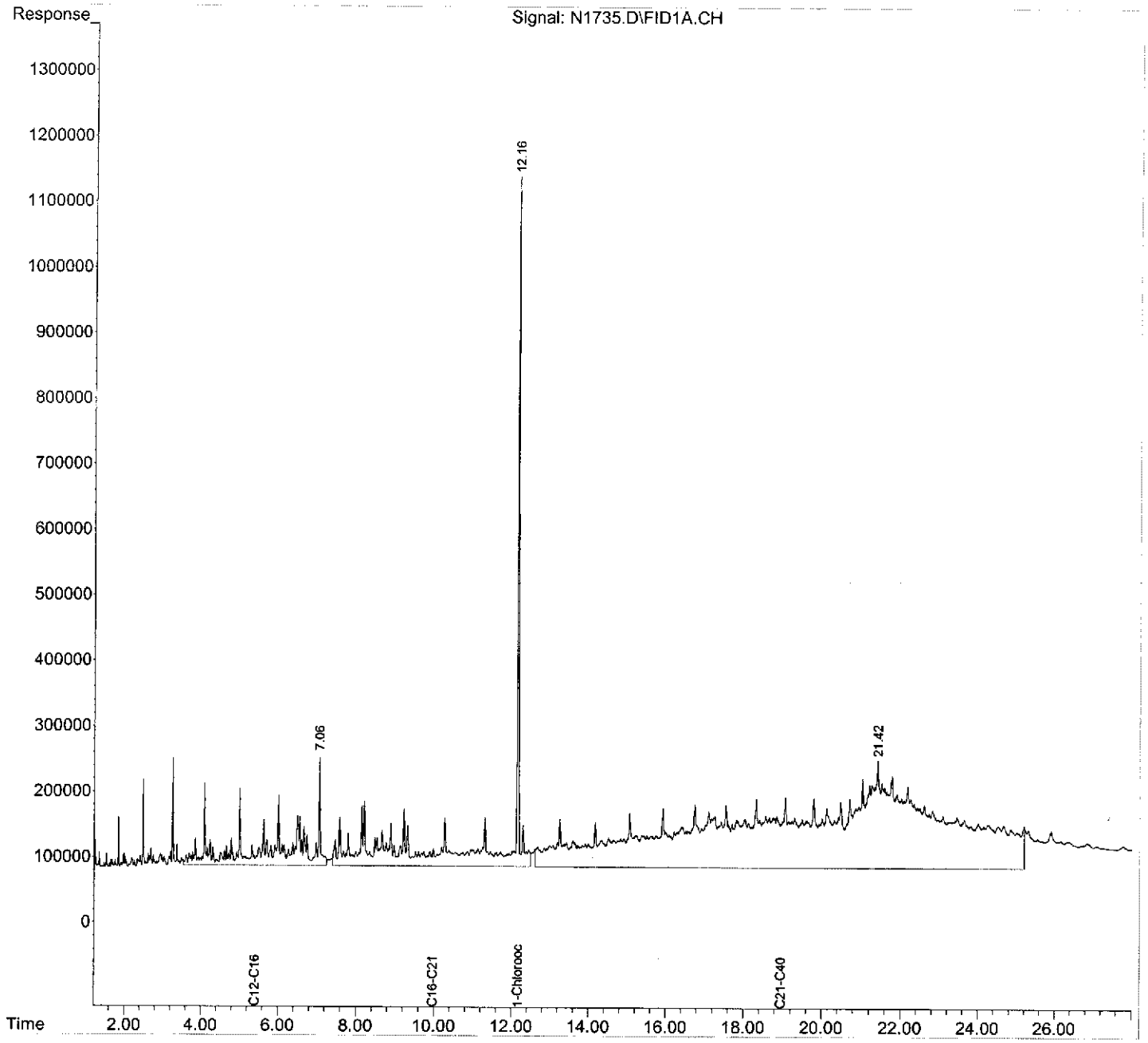
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-11-12\
Data File : N1735.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 17:34
Operator : MJ
Sample : H2_(9.5-,06640-002,S,5.07g,15.9,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:41:09 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Thu Jul 12 07:41:20 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1369.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 17:34
Operator : MJ
Sample : H2_(9.5-,06640-002,S,5.07g,15.9,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:14:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
1) S 2-Fluorobiphenyl	4.57	22928042	31.949 ng	
Spiked Amount 50.000		Recovery =	63.90%	
2) S 2-Bromonaphthalene	5.60	16844521	33.673 ng	
Spiked Amount 50.000		Recovery =	67.35%	
3) S o-Terphenyl	9.96	45389110	49.059 ng	m
Spiked Amount 50.000		Recovery =	98.12%	
Target Compounds				
23) H C12-C16	4.95	36799859	51.980 ng	
24) H C16-C21	9.60	169757579	215.482 ng	
25) H C21-C36	17.20	693891648	776.619 ng	

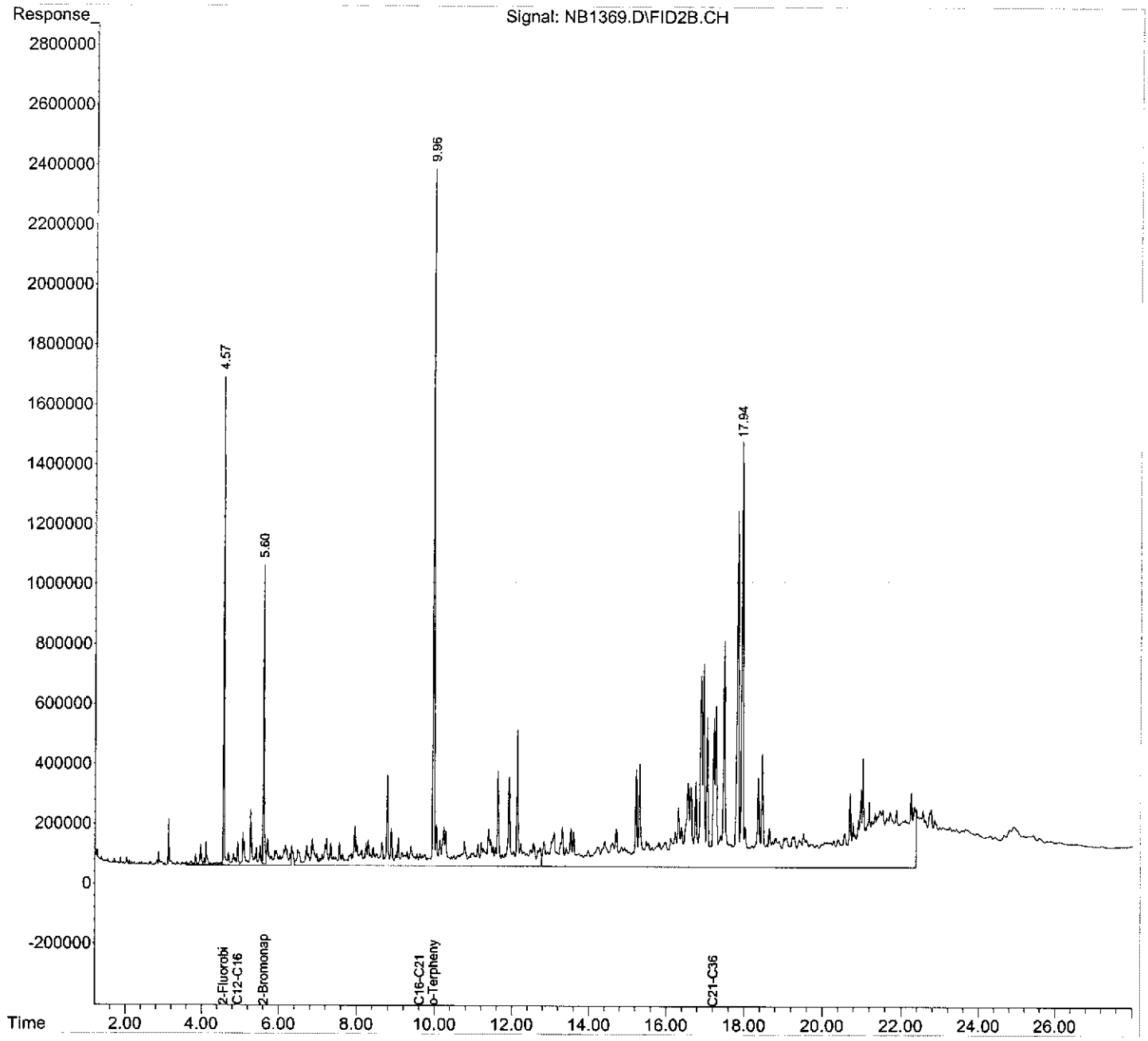
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1369.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 17:34
Operator : MJ
Sample : H2_(9.5-,06640-002,S,5.07g,15.9,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:14:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



N2AR0626.M Thu Jul 12 07:14:59 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1736.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 18:08
Operator : MJ
Sample : H3_(9-10,06640-003,S,5.00g,11.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:24:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	20601774	21.317 ng
Spiked Amount 50.000		Recovery =	42.63%
Target Compounds			

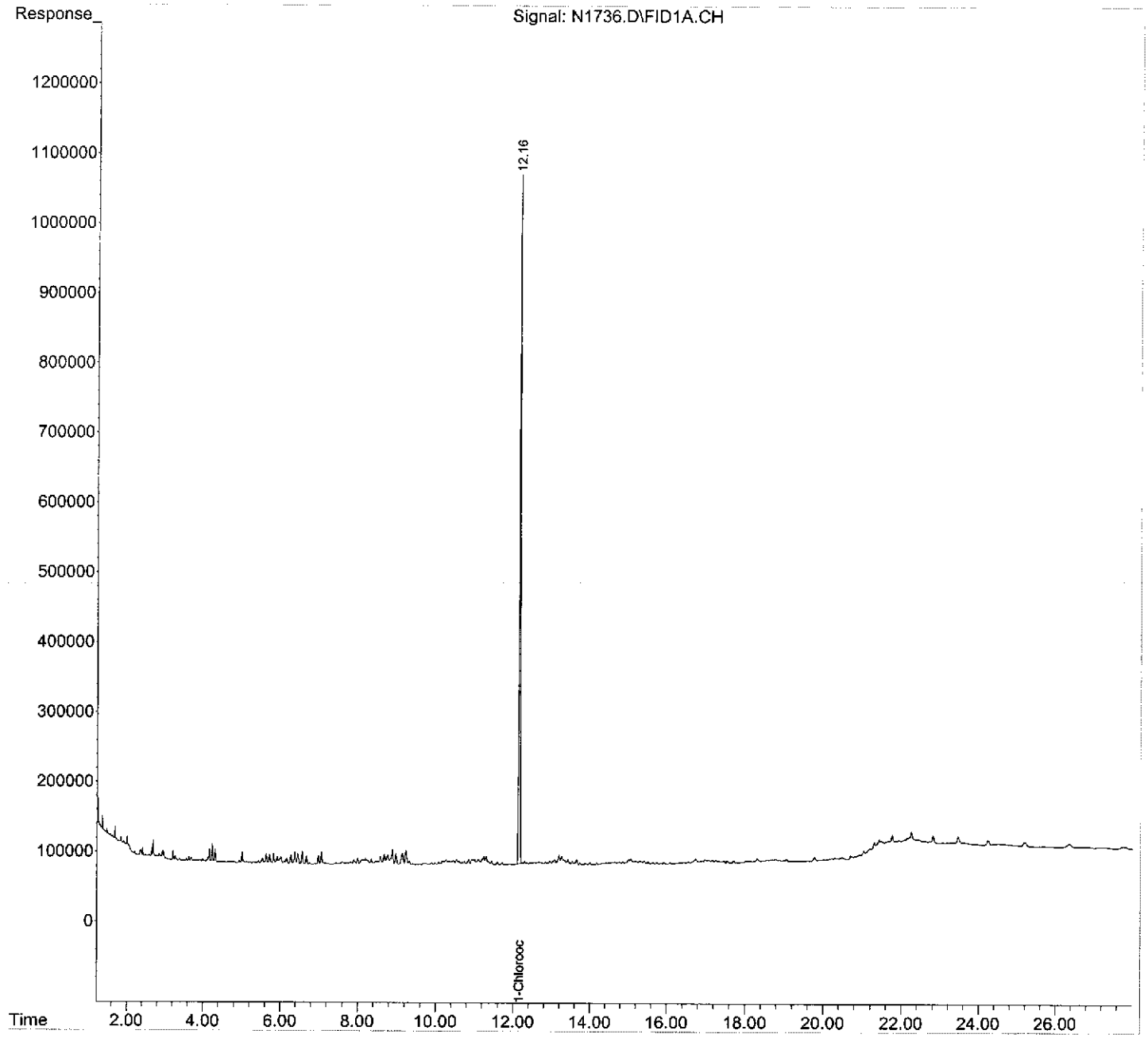
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1736.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 18:08
Operator : MJ
Sample : H3_(9-10,06640-003,S,5.00g,11.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 9 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:24:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1370.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 18:08
Operator : MJ
Sample : H3_(9-10,06640-003,S,5.00g,11.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:56:57 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	18370269	25.598 ng
Spiked Amount 50.000		Recovery =	51.20%
2) S 2-Bromonaphthalene	5.61	13725430	27.438 ng
Spiked Amount 50.000		Recovery =	54.88%
3) S o-Terphenyl	9.96	36508349	39.460 ng
Spiked Amount 50.000		Recovery =	78.92%
Target Compounds			

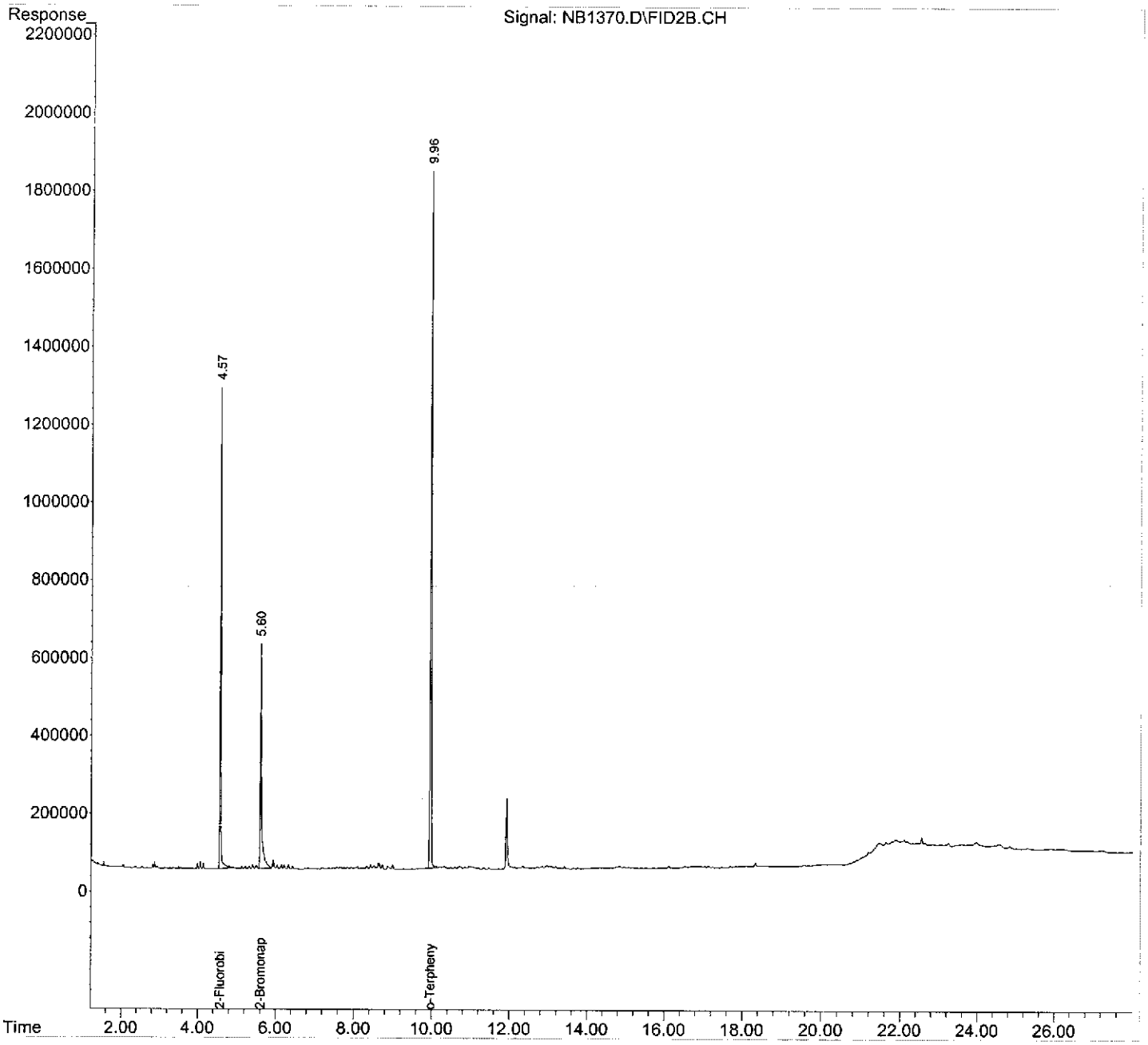
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1370.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 18:08
Operator : MJ
Sample : H3_(9-10,06640-003,S,5.00g,11.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 59 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:56:57 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1737.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 18:42
Operator : MJ
Sample : E2_(11-1,06640-004,S,5.04g,12.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:24:16 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	22666855	23.454 ng
Spiked Amount 50.000		Recovery =	46.91%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

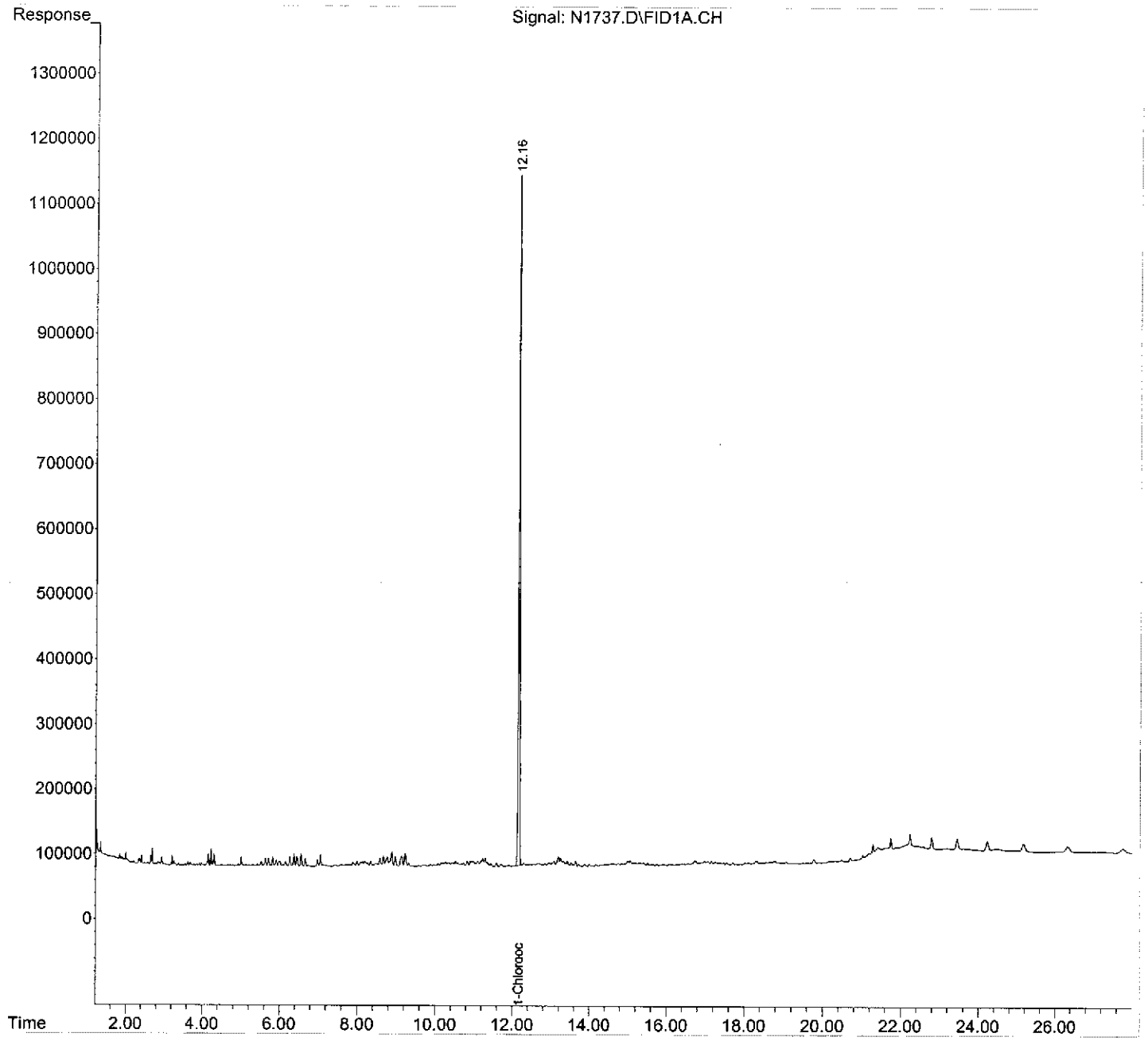
E12-06640 0247

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1737.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 18:42
Operator : MJ
Sample : E2_(11-1,06640-004,S,5.04g,12.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 10 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:24:16 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Thu Jul 12 07:35:26 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1371.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 18:42
Operator : MJ
Sample : E2_(11-1,06640-004,S,5.04g,12.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:57:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	20386214	28.407 ng
Spiked Amount 50.000		Recovery =	56.81%
2) S 2-Bromonaphthalene	5.60	14968195	29.922 ng
Spiked Amount 50.000		Recovery =	59.84%
3) S o-Terphenyl	9.96	37743140	40.795 ng
Spiked Amount 50.000		Recovery =	81.59%
Target Compounds			

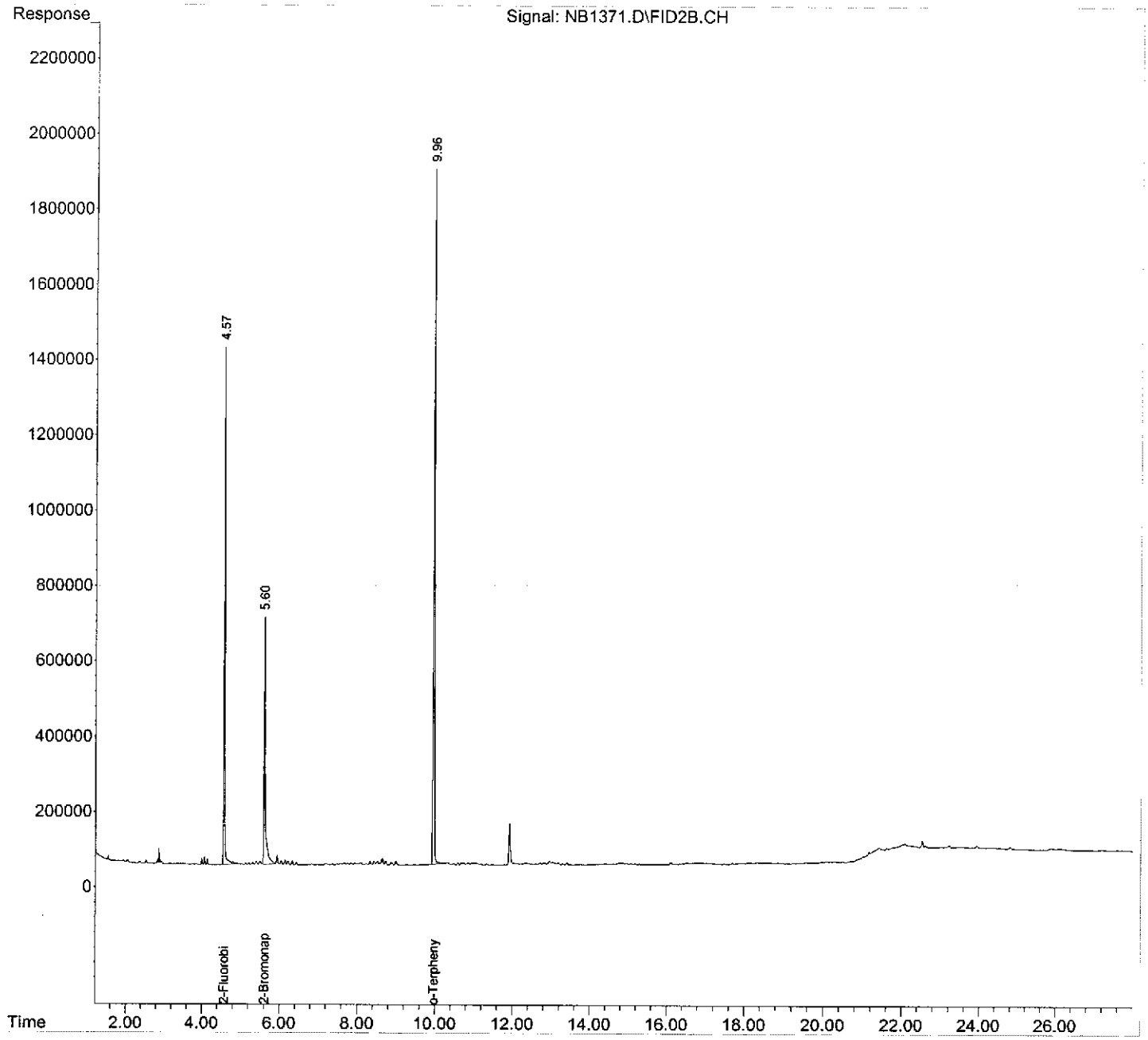
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1371.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 18:42
Operator : MJ
Sample : E2_(11-1,06640-004,S,5.04g,12.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:57:22 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1738.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 19:17
Operator : MJ
Sample : E3_(7-8),06640-005,S,5.33g,5.90,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 11 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:24:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	24261528	25.104 ng
Spiked Amount 50.000		Recovery =	50.21%
Target Compounds			

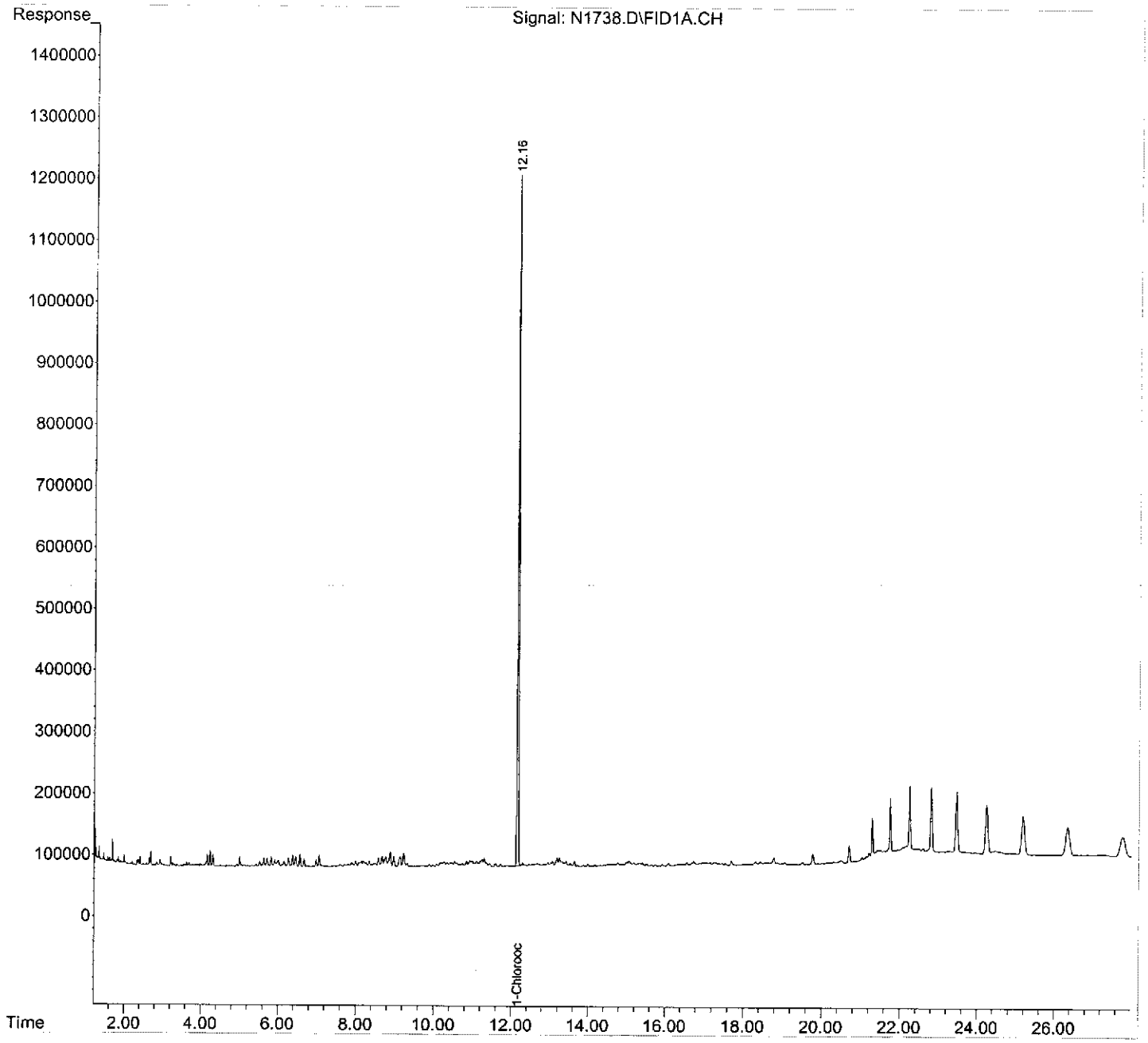
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1738.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 19:17
Operator : MJ
Sample : E3_(7-8),06640-005,S,5.33g,5.90,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 11 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:24:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1372.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 19:17
Operator : MJ
Sample : E3_(7-8),06640-005,S,5.33g,5.90,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 61 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:57:35 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	18743817	26.119 ng
Spiked Amount 50.000		Recovery =	52.24%
2) S 2-Bromonaphthalene	5.60	14113319	28.213 ng
Spiked Amount 50.000		Recovery =	56.43%
3) S o-Terphenyl	9.96	37045418	40.041 ng
Spiked Amount 50.000		Recovery =	80.08%
Target Compounds			

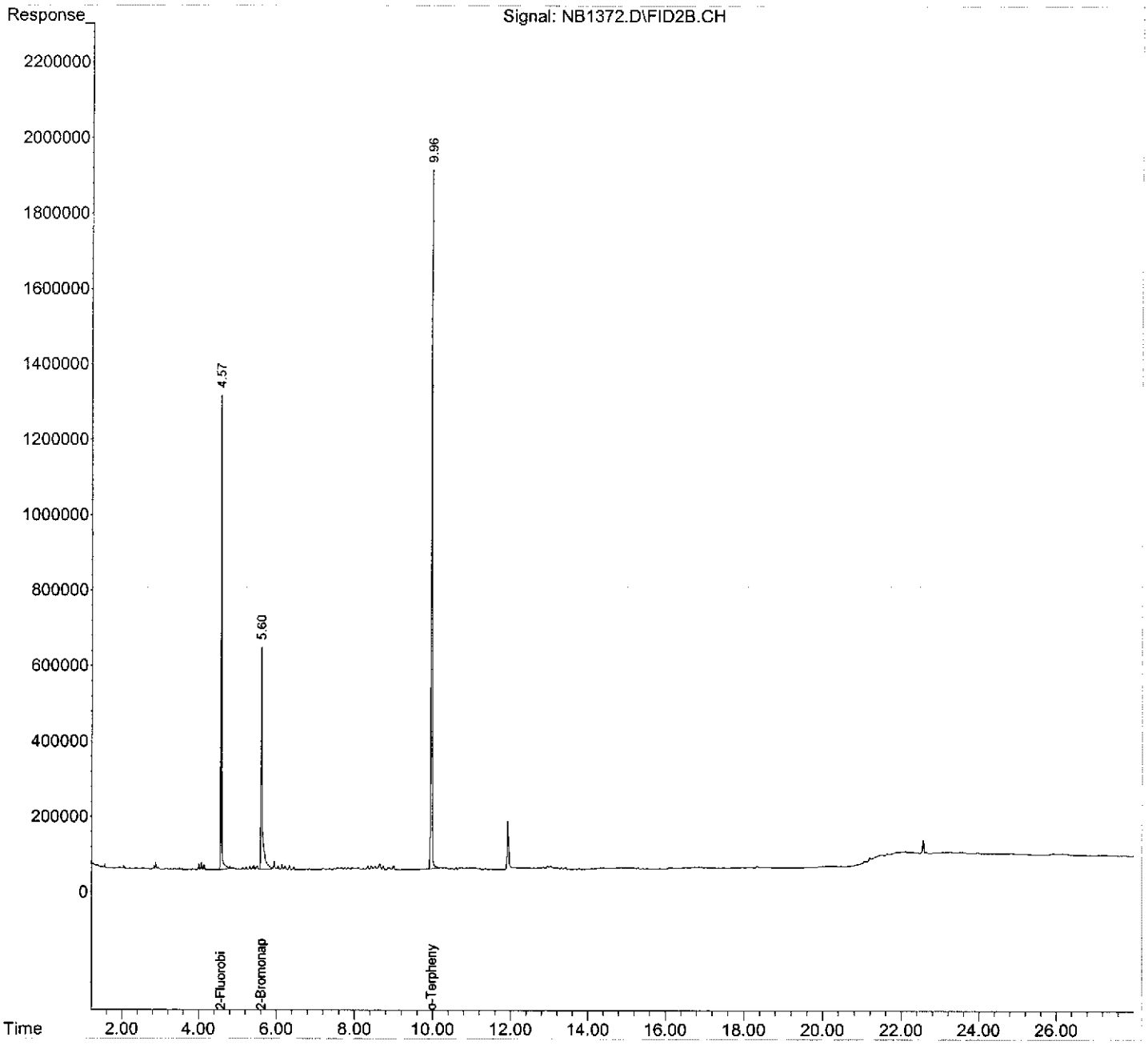
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1372.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 19:17
Operator : MJ
Sample : E3_(7-8),06640-005,S,5.33g,5.90,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 61 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:57:35 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1739.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 19:51
Operator : MJ
Sample : I4_(9-10,06640-006,S,5.20g,12.9,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:24:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	21359725	22.101 ng
Spiked Amount 50.000		Recovery =	44.20%
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

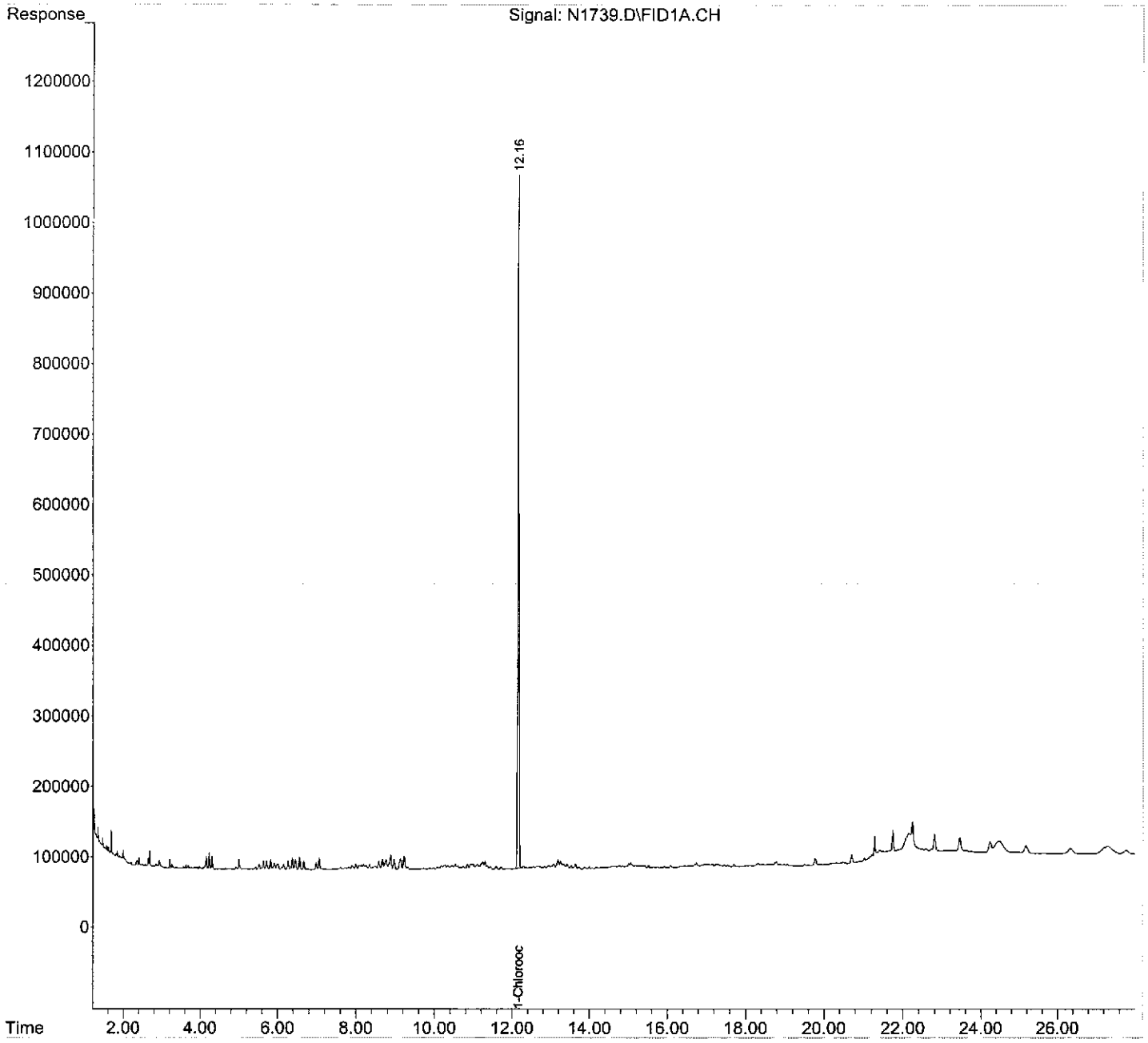
E12-06640 0255

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1739.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 19:51
Operator : MJ
Sample : I4_(9-10,06640-006,S,5.20g,12.9,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:24:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1373.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 19:51
Operator : MJ
Sample : I4_(9-10,06640-006,S,5.20g,12.9,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 62 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:57:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	18654932	25.995 ng
Spiked Amount 50.000		Recovery =	51.99%
2) S 2-Bromonaphthalene	5.61	14220688	28.428 ng
Spiked Amount 50.000		Recovery =	56.86%
3) S o-Terphenyl	9.96	40534954	43.813 ng
Spiked Amount 50.000		Recovery =	87.63%
Target Compounds			

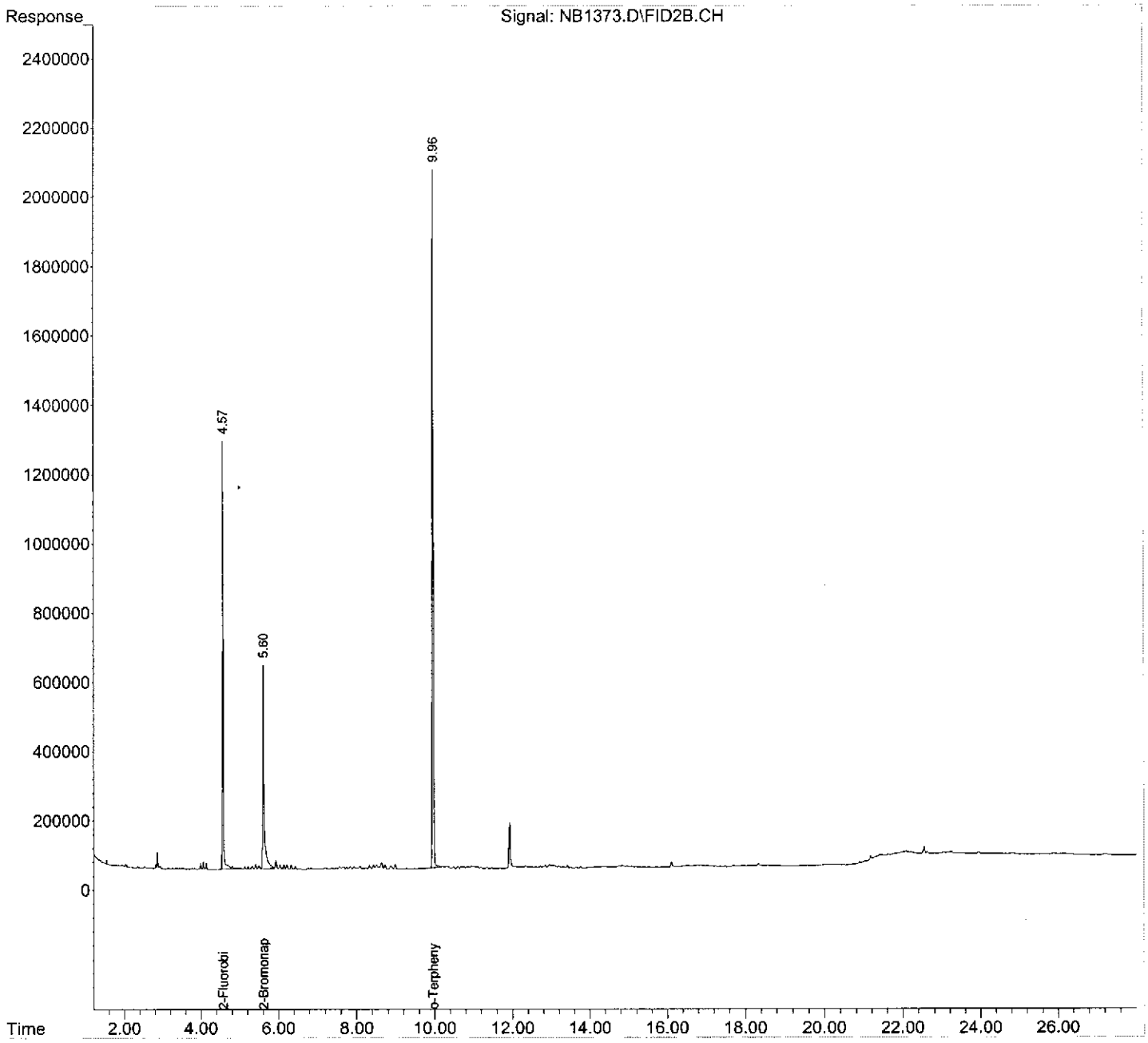
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1373.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 19:51
Operator : MJ
Sample : I4_(9-10,06640-006,S,5.20g,12.9,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 62 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:57:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1740.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 20:25
Operator : MJ
Sample : K1_(9-10,06640-007,S,5.23g,18.5,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:25:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	19552076	20.231 ng
Spiked Amount 50.000		Recovery =	40.46%
Target Compounds			

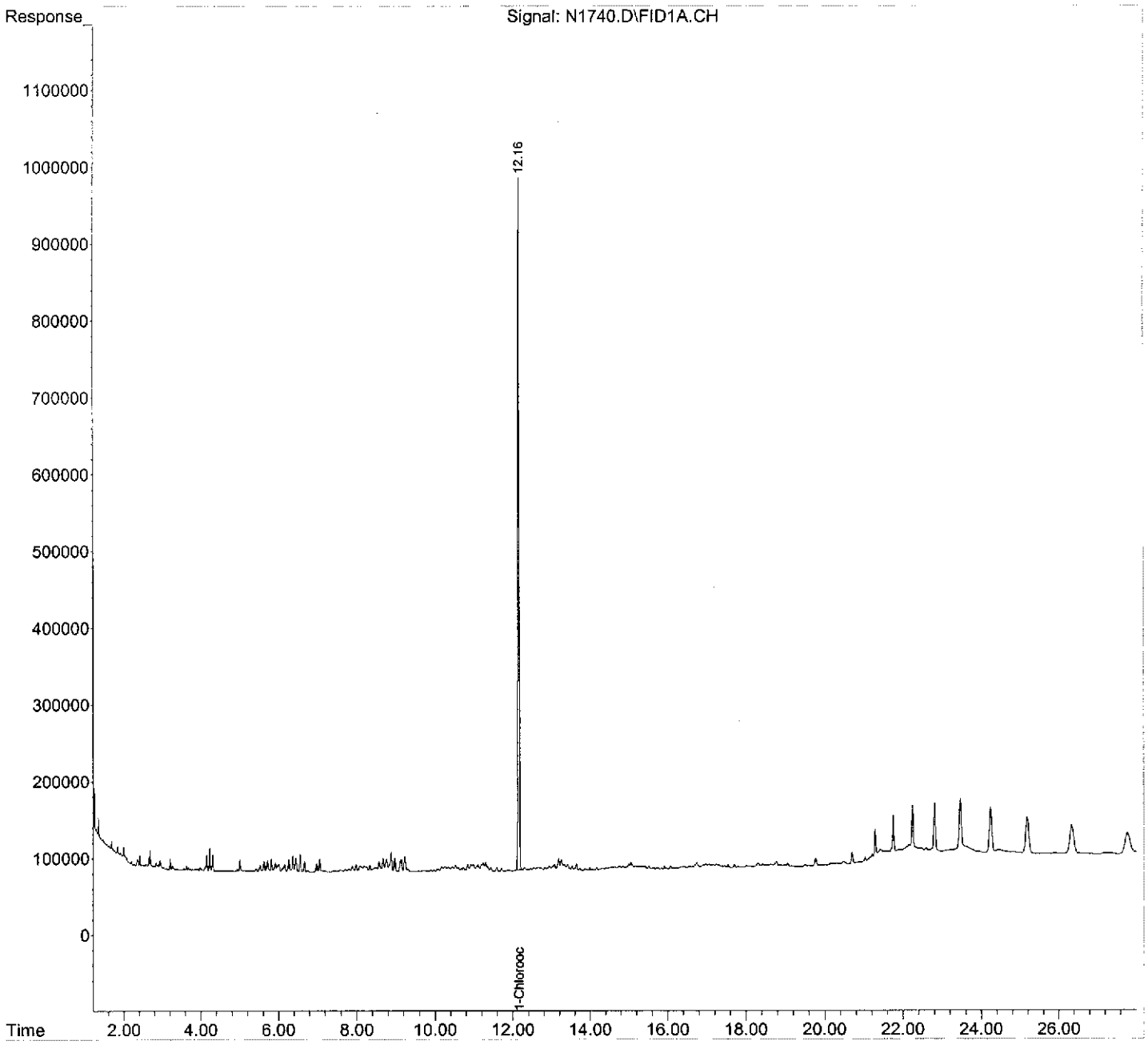
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1740.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 20:25
Operator : MJ
Sample : K1_(9-10,06640-007,S,5.23g,18.5,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:25:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1374.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 20:25
Operator : MJ
Sample : K1_(9-10,06640-007,S,5.23g,18.5,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:58:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	19710246	27.465 ng
Spiked Amount 50.000		Recovery =	54.93%
2) S 2-Bromonaphthalene	5.61	14550227	29.086 ng
Spiked Amount 50.000		Recovery =	58.17%
3) S o-Terphenyl	9.96	38081763	41.161 ng
Spiked Amount 50.000		Recovery =	82.32%
Target Compounds			

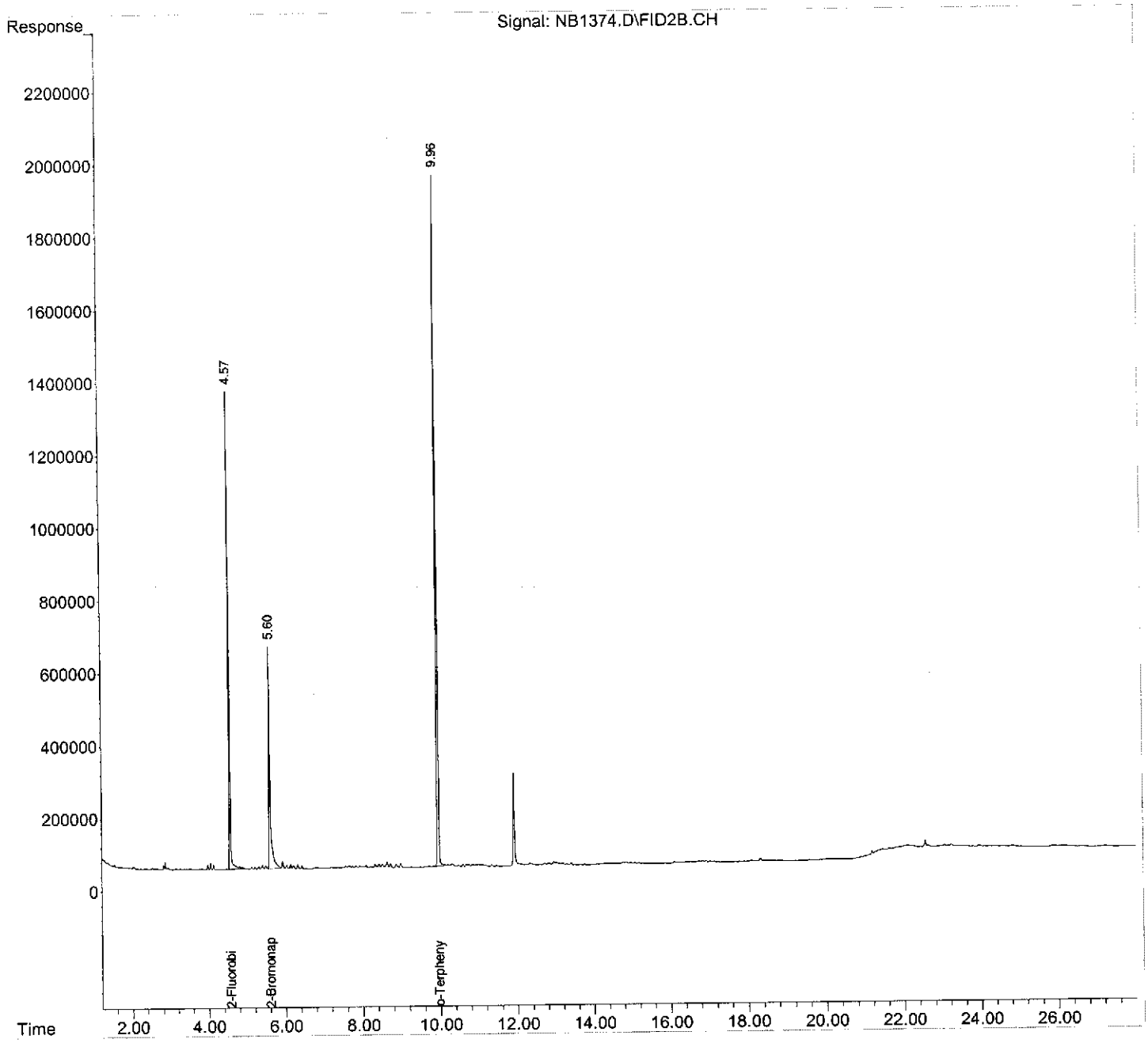
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1374.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 20:25
Operator : MJ
Sample : K1_(9-10,06640-007,S,5.23g,18.5,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 63 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:58:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
STANDARDS

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/22/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: N1490.D N1489.D N1488.D N1486.D N1487.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
n-Nonane (C9)	1.34	1.34	1.34	1.35	1.35	1.35	1.28	1.42
n-Decane (C10)	1.84	1.84	1.85	1.85	1.86	1.85	1.78	1.92
n-Dodecane (C12)	3.25	3.26	3.27	3.28	3.30	3.27	3.20	3.34
n-Tetradecane (C14)	4.99	5.00	5.02	5.03	5.05	5.02	4.95	5.09
n-Hexadecane (C16)	7.05	7.06	7.08	7.10	7.13	7.08	7.00	7.16
n-Octadecane (C18)	9.21	9.22	9.24	9.26	9.30	9.25	9.17	9.33
n-Eicosane (C20)	11.29	11.31	11.33	11.35	11.39	11.33	11.25	11.41
n-Heneicosane (C21)	12.28	12.30	12.33	12.35	12.40	12.33	12.25	12.41
n-Docosane (C22)	13.24	13.26	13.28	13.30	13.35	13.29	13.20	13.38
n-Tetracosane (C24)	15.05	15.07	15.09	15.11	15.15	15.10	15.01	15.19
n-Hexacosane (C26)	16.74	16.75	16.78	16.80	16.84	16.78	16.69	16.87
n_Octacosane (C28)	18.31	18.32	18.34	18.36	18.41	18.35	18.26	18.44
n-Triacontane (C30)	19.78	19.79	19.82	19.83	19.88	19.82	19.72	19.92
n-Dotriacontane (C32)	21.03	21.04	21.05	21.07	21.11	21.06	20.96	21.16
n-Tetratriacontane (C34)	21.78	21.79	21.80	21.83	21.87	21.81	21.71	21.91
n-Hexatriacontane (C36)	22.60	22.61	22.63	22.66	22.72	22.64	22.49	22.79
n-Octatriacontane (C38)	23.63	23.65	23.67	23.71	23.78	23.69	23.54	23.84
n-Tetracontane (40)	25.00	25.02	25.06	25.11	25.20	25.08	24.93	25.23
C9-C12	2.36	2.36	2.36	2.36	2.36	2.36	2.26	2.46
C12-C16	5.40	5.40	5.40	5.40	5.40	5.40	5.30	5.50
C16-C21	9.95	9.95	9.95	9.95	9.95	9.95	9.84	10.06
C21-C40	18.95	18.95	18.95	18.95	18.95	18.95	18.84	19.06

NJ-EPH ALIPHATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/22/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: N1490.D N1489.D N1488.D N1486.D N1487.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
n-Nonane (C9)	1056805	891634	975928	819917	896807	928218	9.77
n-Decane (C10)	1124663	921218	1008835	844795	931890	966280	10.96
n-Dodecane (C12)	1130526	923061	1036440	864213	880246	966897	11.74
n-Tetradecane (C14)	1120378	929655	1070244	908130	1016433	1008968	8.96
n-Hexadecane (C16)	1141099	948829	1089217	915226	1024466	1023767	9.20
n-Octadecane (C18)	1176703	981397	1113961	915644	1016727	1040886	10.03
n-Eicosane (C20)	1202215	1023920	1105285	847190	924693	1020661	13.81
n-Heneicosane (C21)	1202549	1022631	1046656	839247	897103	1001637	14.13
n-Docosane (C22)	1198871	1029836	1026716	818258	877227	990182	15.05
n-Tetracosane (C24)	1176665	994574	990199	772419	817715	950314	16.97
n-Hexacosane (C26)	1175685	962848	934164	714213	779084	913199	19.69
n_Octacosane (C28)	1144812	913533	844953	667131	765637	867213	20.79
n-Triacontane (C30)	1106307	846023	783890	653803	777735	833552	20.11
n-Dotriacontane (C32)	1022998	761800	748196	661498	784839	795866	17.00
n-Tetratriacontane (C34)	976894	721694	773345	699887	809643	796293	13.78
n-Hexatriacontane (C36)	892844	695883	785710	700488	804329	775851	10.52
n-Octatriacontane (C38)	836551	698308	790208	693010	793553	762326	8.34
n-Tetracontane (40)	815086	705645	784387	697256	789142	758303	7.03
C9-C12	4177087	2838351	3046781	2559957	2679217	3060279	21.25
C12-C16	2596682	1928429	2197959	1853403	2071890	2129672	13.75
C16-C21	3684858	3062757	3375255	2706290	2960232	3157878	12.03
C21-C40	12631355	8917290	8810193	7283801	8145262	9157580	22.37

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1487.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:34
Operator : MJ
Sample : ALI_L5_IAS_4193,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:07:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1-Chlorooctadecane	12.25	901865645	933.182	ng	
Spiked Amount	50.000		Recovery	= 1866.36%		
24) S	o-Terphenyl	10.31	1312358658	1065.940	ng	
Spiked Amount	50.000		Recovery	= 2131.88%		
25) S	Naphthalene	3.24	1186981560	1079.121	ng	
Spiked Amount	50.000		Recovery	= 2158.24%		
26) S	2-Methylnaphthalene	4.17	1083245046	990.198	ng	
Spiked Amount	50.000		Recovery	= 1980.40%		
Target Compounds						
2) T	n-Nonane (C9)	1.35	896806526	966.159	ng	
3) T	n-Decane (C10)	1.86	931890101	964.410	ng	
4) T	n-Dodecane (C12)	3.30	880245609	918.472	ng	m
5) T	n-Tetradecane (C14)	5.05	1016433253	1007.399	ng	
6) T	n-Hexadecane (C16)	7.13	1024466497	1000.683	ng	
7) T	n-Octadecane (C18)	9.30	1016727354	976.790	ng	
8) T	n-Eicosane (C20)	11.39	924692864	905.975	ng	
9) T	n-Heneicosane (C21)	12.40	897102987	895.637	ng	
10) T	n-Docosane (C22)	13.35	877227123	885.926	ng	
11) T	n-Tetracosane (C24)	15.15	817714522	860.468	ng	
12) T	n-Hexacosane (C26)	16.84	779084355	853.138	ng	
13) T	n-Octacosane (C28)	18.41	765637044	882.871	ng	
14) T	n-Triacontane (C30)	19.88	777735127	933.038	ng	
15) T	n-Dotriacontane (C32)	21.11	784838907	986.145	ng	
16) T	n-Tetratriacontane (C34)	21.87	809642867	1016.765	ng	
17) T	n-Hexatriacontane (C36)	22.72	804329402	1036.706	ng	
18) T	n-Octatriacontane (C38)	23.78	793553122	1040.963	ng	
19) T	n-Tetracontane (40)	25.20	789141690	1040.668	ng	
20) H	C9-C12	2.36	2679217194	2722.372	ng	
21) H	C12-C16	5.40	2071889969	1945.736	ng	
22) H	C16-C21	9.95	2960231594	2812.235	ng	
23) H	C21-C40	18.95	8145261846	8894.557	ng	

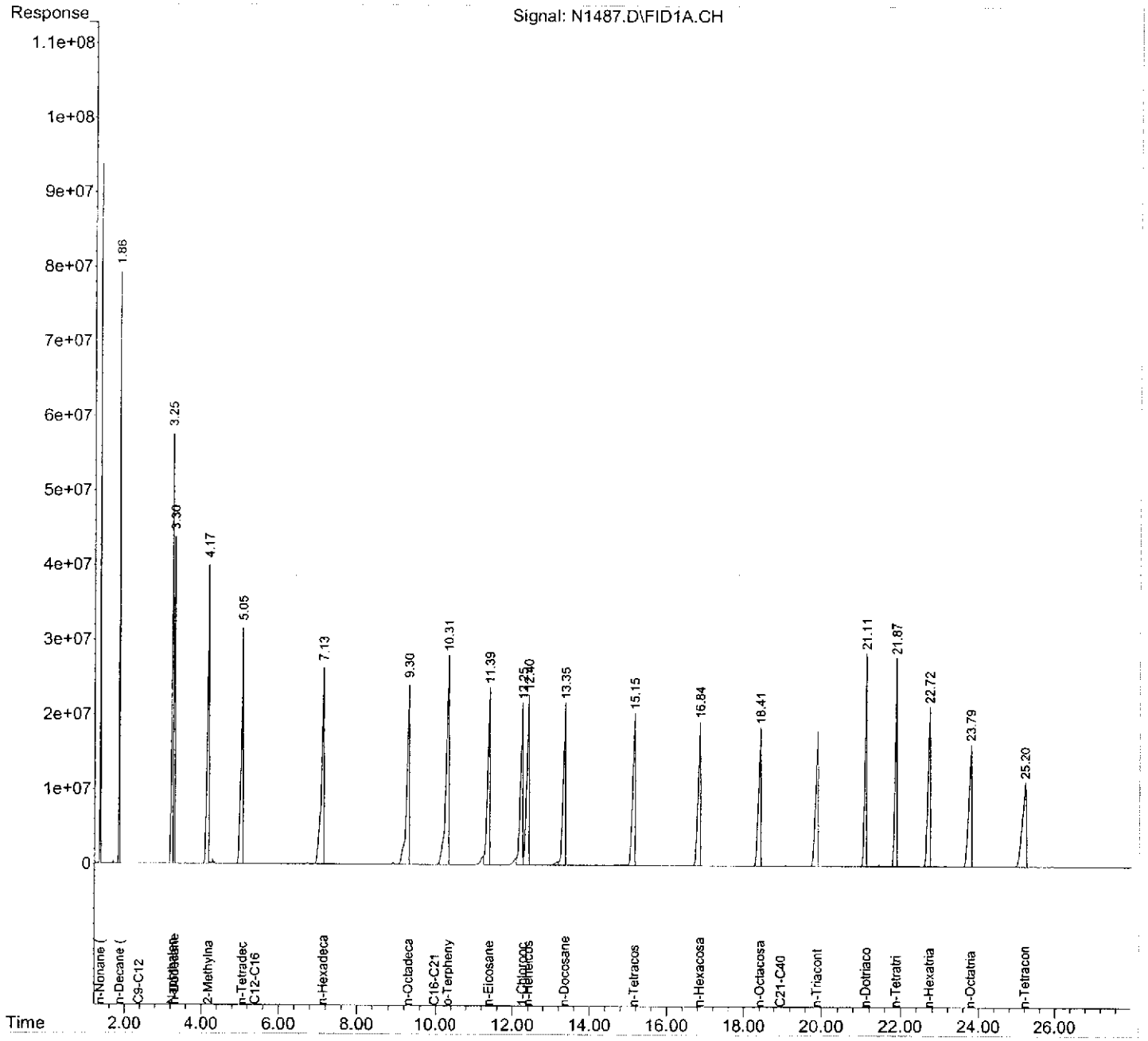
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1487.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:34
Operator : MJ
Sample : ALI_L5_IAS_4193,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:07:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-22-12\
Data File : N1486.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:00
Operator : MJ
Sample : ALI_L4_IAS_4194,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.20	413595231	427.957 ng
Spiked Amount	50.000		Recovery	= 855.91%
24) S	o-Terphenyl	10.26	593093550	481.730 ng
Spiked Amount	50.000		Recovery	= 963.46%
25) S	Naphthalene	3.22	478920714	435.401 ng
Spiked Amount	50.000		Recovery	= 870.80%
26) S	2-Methylnaphthalene	4.15	486821315	445.005 ng
Spiked Amount	50.000		Recovery	= 890.01%
Target Compounds				
2) T	n-Nonane (C9)	1.35	409958476	441.662 ng
3) T	n-Decane (C10)	1.85	422397697	437.138 ng
4) T	n-Dodecane (C12)	3.28	432106401	450.871 ng
5) T	n-Tetradecane (C14)	5.03	454065244	450.029 ng
6) T	n-Hexadecane (C16)	7.10	457613093	446.989 ng
7) T	n-Octadecane (C18)	9.26	457822090	439.839 ng
8) T	n-Eicosane (C20)	11.35	423595047	415.020 ng
9) T	n-Heneicosane (C21)	12.35	419623251	418.937 ng
10) T	n-Docosane (C22)	13.30	409128933	413.186 ng
11) T	n-Tetracosane (C24)	15.11	386209372	406.402 ng
12) T	n-Hexacosane (C26)	16.80	357106565	391.050 ng
13) T	n-Octacosane (C28)	18.36	333565449	384.641 ng
14) T	n-Triacontane (C30)	19.83	326901325	392.179 ng
15) T	n-Dotriacontane (C32)	21.07	330749070	415.584 ng
16) T	n-Tetratriacontane (C34)	21.83	349943748	439.466 ng
17) T	n-Hexatriacontane (C36)	22.66	350243795	451.432 ng
18) T	n-Octatriacontane (C38)	23.71	346504896	454.536 ng
19) T	n-Tetracontane (40)	25.11	348627951	459.748 ng
20) H	C9-C12	2.36	1279978670	1300.596 ng
21) H	C12-C16	5.40	926701353	870.276 ng
22) H	C16-C21	9.95	1353144756	1285.494 ng
23) H	C21-C40	18.95	3641900267	3976.924 ng

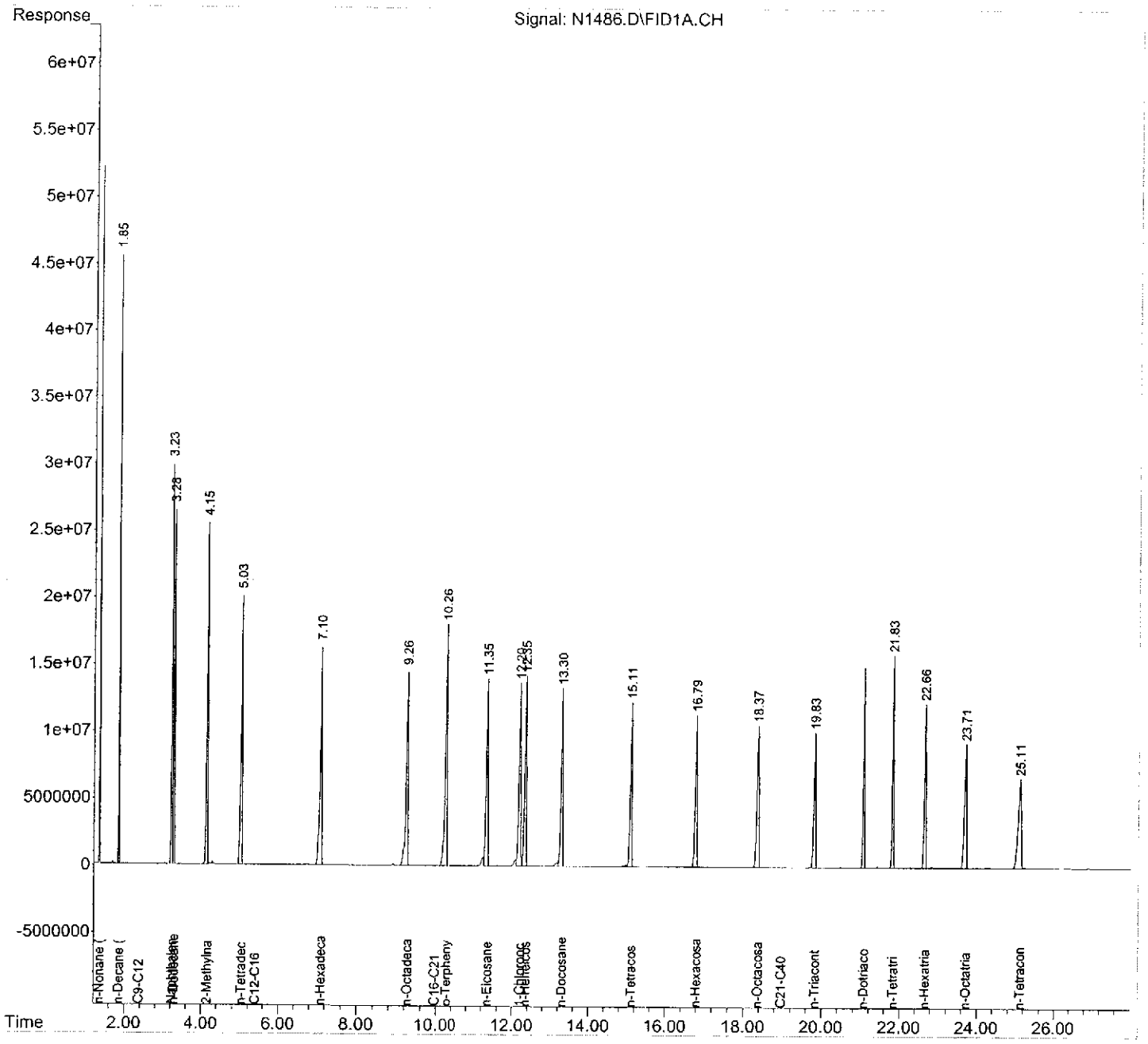
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\06-22-12\
Data File : N1486.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 14:00
Operator : MJ
Sample : ALI_L4_IAS_4194,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NALI0622.M Mon Jun 25 12:24:27 2012 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1488.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:08
Operator : MJ
Sample : ALI_L3_IAS_4195,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	268148070	277.459 ng
Spiked Amount 50.000		Recovery	= 554.92%
24) S o-Terphenyl	10.24	291937292	237.121 ng
Spiked Amount 50.000		Recovery	= 474.24%
25) S Naphthalene	3.21	280824974	255.306 ng
Spiked Amount 50.000		Recovery	= 510.61%
26) S 2-Methylnaphthalene	4.13	287905108	263.175 ng
Spiked Amount 50.000		Recovery	= 526.35%
Target Compounds			
2) T n-Nonane (C9)	1.34	243981962	262.850 ng
3) T n-Decane (C10)	1.85	252208814	261.010 ng
4) T n-Dodecane (C12)	3.27	259109996	270.362 ng
5) T n-Tetradecane (C14)	5.02	267561052	265.183 ng
6) T n-Hexadecane (C16)	7.08	272304146	265.982 ng
7) T n-Octadecane (C18)	9.24	278490293	267.551 ng
8) T n-Eicosane (C20)	11.33	276321282	270.728 ng
9) T n-Heneicosane (C21)	12.33	261664109	261.236 ng
10) T n-Docosane (C22)	13.28	256678960	259.224 ng
11) T n-Tetracosane (C24)	15.09	247549821	260.493 ng
12) T n-Hexacosane (C26)	16.78	233541027	255.739 ng
13) T n-Octacosane (C28)	18.34	211238145	243.583 ng
14) T n-Triacontane (C30)	19.82	195972411	235.105 ng
15) T n-Dotriacontane (C32)	21.05	187048929	235.026 ng
16) T n-Tetratriacontane (C34)	21.80	193336319	242.796 ng
17) T n-Hexatriacontane (C36)	22.63	196427595	253.177 ng
18) T n-Octatriacontane (C38)	23.67	197551966	259.144 ng
19) T n-Tetracontane (40)	25.06	196096755	258.599 ng
20) H C9-C12	2.36	761695270	773.964 ng
21) H C12-C16	5.40	549489698	516.032 ng
22) H C16-C21	9.95	843813757	801.627 ng
23) H C21-C40	18.95	2202548138	2405.164 ng

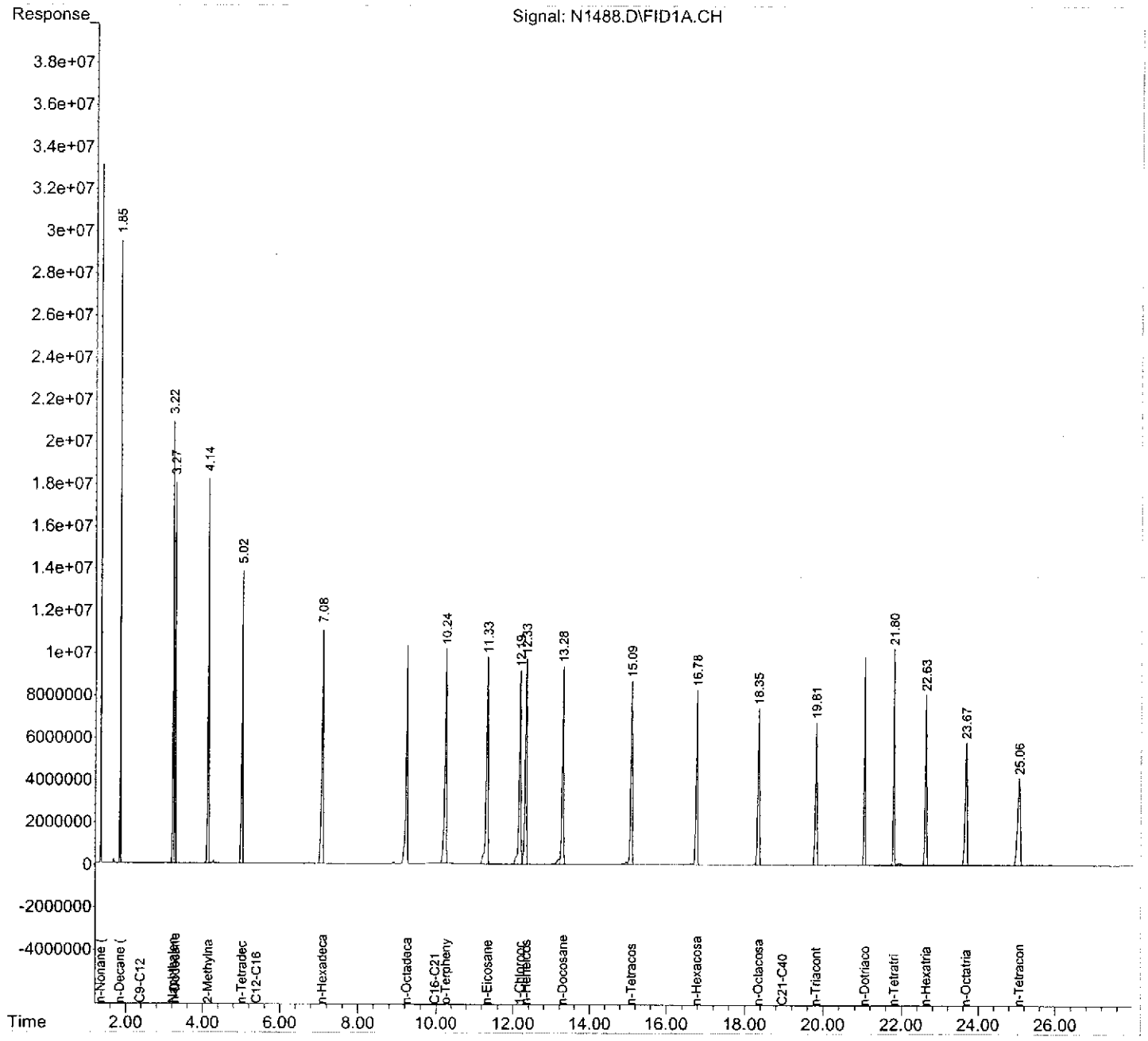
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1488.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:08
Operator : MJ
Sample : ALI_L3_IAS_4195,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:36 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1489.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:42
Operator : MJ
Sample : ALI_L2_IAS_4196,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	1-Chlorooctadecane	12.16	93056671	96.288 ng
Spiked Amount	50.000		Recovery	= 192.58%
24) S	o-Terphenyl	10.21	113147262	91.902 ng
Spiked Amount	50.000		Recovery	= 183.80%
25) S	Naphthalene	3.20	101515095	92.290 ng
Spiked Amount	50.000		Recovery	= 184.58%
26) S	2-Methylnaphthalene	4.12	102977318	94.132 ng
Spiked Amount	50.000		Recovery	= 188.26%
	Target Compounds			
2) T	n-Nonane (C9)	1.34	89163394	96.059 ng
3) T	n-Decane (C10)	1.84	92121788	95.336 ng
4) T	n-Dodecane (C12)	3.26	92306107	96.315 ng
5) T	n-Tetradecane (C14)	5.00	92965464	92.139 ng
6) T	n-Hexadecane (C16)	7.06	94882872	92.680 ng
7) T	n-Octadecane (C18)	9.22	98139677	94.285 ng
8) T	n-Eicosane (C20)	11.31	102392010	100.319 ng
9) T	n-Heneicosane (C21)	12.30	102263149	102.096 ng
10) T	n-Docosane (C22)	13.26	102983603	104.005 ng
11) T	n-Tetracosane (C24)	15.07	99457350	104.657 ng
12) T	n-Hexacosane (C26)	16.75	96284832	105.437 ng
13) T	n-Octacosane (C28)	18.32	91353260	105.341 ng
14) T	n-Triacontane (C30)	19.79	84602338	101.496 ng
15) T	n-Dotriacontane (C32)	21.04	76179956	95.720 ng
16) T	n-Tetratriacontane (C34)	21.79	72169384	90.632 ng
17) T	n-Hexatriacontane (C36)	22.61	69588290	89.693 ng
18) T	n-Octatriacontane (C38)	23.65	69830815	91.602 ng
19) T	n-Tetracontane (40)	25.02	70564464	93.056 ng
20) H	C9-C12	2.36	283835084	288.407 ng
21) H	C12-C16	5.40	192842871	181.101 ng
22) H	C16-C21	9.95	306275685	290.963 ng
23) H	C21-C40	18.95	891729022	973.761 ng

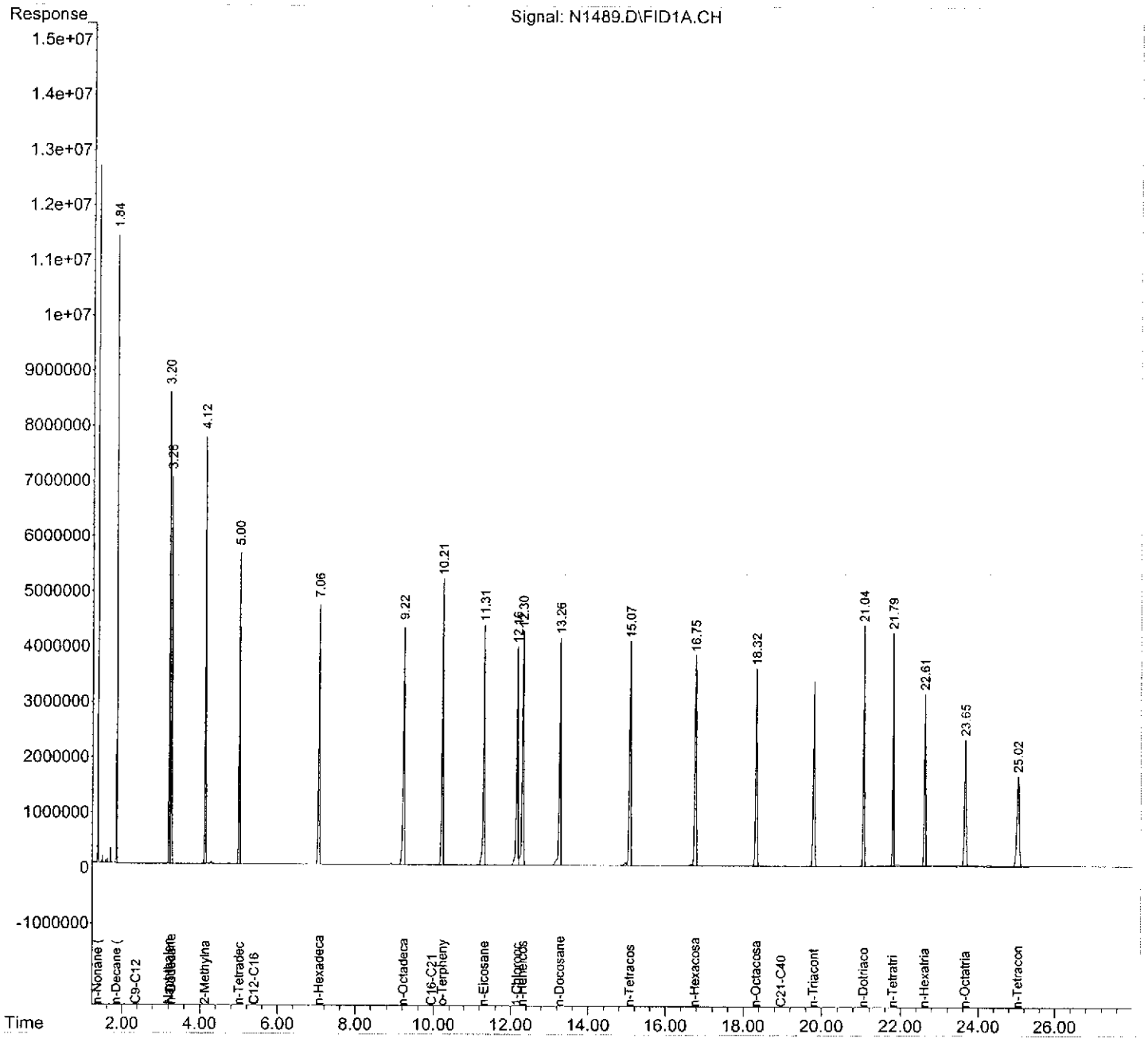
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1489.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 15:42
Operator : MJ
Sample : ALI_L2_IAS_4196,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1490.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 16:17
Operator : MJ
Sample : ALI_L1_IAS_4197,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:20:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.14	21999807	22.764 ng
Spiked Amount 50.000		Recovery =	45.53%
24) S o-Terphenyl	10.20	27162177	22.062 ng
Spiked Amount 50.000		Recovery =	44.12%
25) S Naphthalene	3.20	24329780	22.119 ng
Spiked Amount 50.000		Recovery =	44.24%
26) S 2-Methylnaphthalene	4.11	24631217	22.515 ng
Spiked Amount 50.000		Recovery =	45.03%
Target Compounds			
2) T n-Nonane (C9)	1.34	21136105	22.771 ng
3) T n-Decane (C10)	1.84	22493269	23.278 ng
4) T n-Dodecane (C12)	3.25	22610510	23.592 ng
5) T n-Tetradecane (C14)	4.99	22407559	22.208 ng
6) T n-Hexadecane (C16)	7.05	22821989	22.292 ng
7) T n-Octadecane (C18)	9.21	23534055	22.610 ng
8) T n-Eicosane (C20)	11.29	24044291	23.558 ng
9) T n-Heneicosane (C21)	12.28	24050973	24.012 ng
10) T n-Docosane (C22)	13.24	23977417	24.215 ng
11) T n-Tetracosane (C24)	15.05	23533303	24.764 ng
12) T n-Hexacosane (C26)	16.74	23513693	25.749 ng
13) T n-Octacosane (C28)	18.31	22896249	26.402 ng
14) T n-Triacontane (C30)	19.78	22126135	26.544 ng
15) T n-Dotriacontane (C32)	21.03	20459954	25.708 ng
16) T n-Tetratriacontane (C34)	21.78	19537878	24.536 ng
17) T n-Hexatriacontane (C36)	22.60	17856889	23.016 ng
18) T n-Octatriacontane (C38)	23.63	16731027	21.947 ng
19) T n-Tetracontane (40)	25.00	16301713	21.498 ng
20) H C9-C12	2.36	83541734	84.887 ng
21) H C12-C16	5.40	51933633	48.771 ng
22) H C16-C21	9.95	73697151	70.013 ng
23) H C21-C40	18.95	252627091	275.867 ng

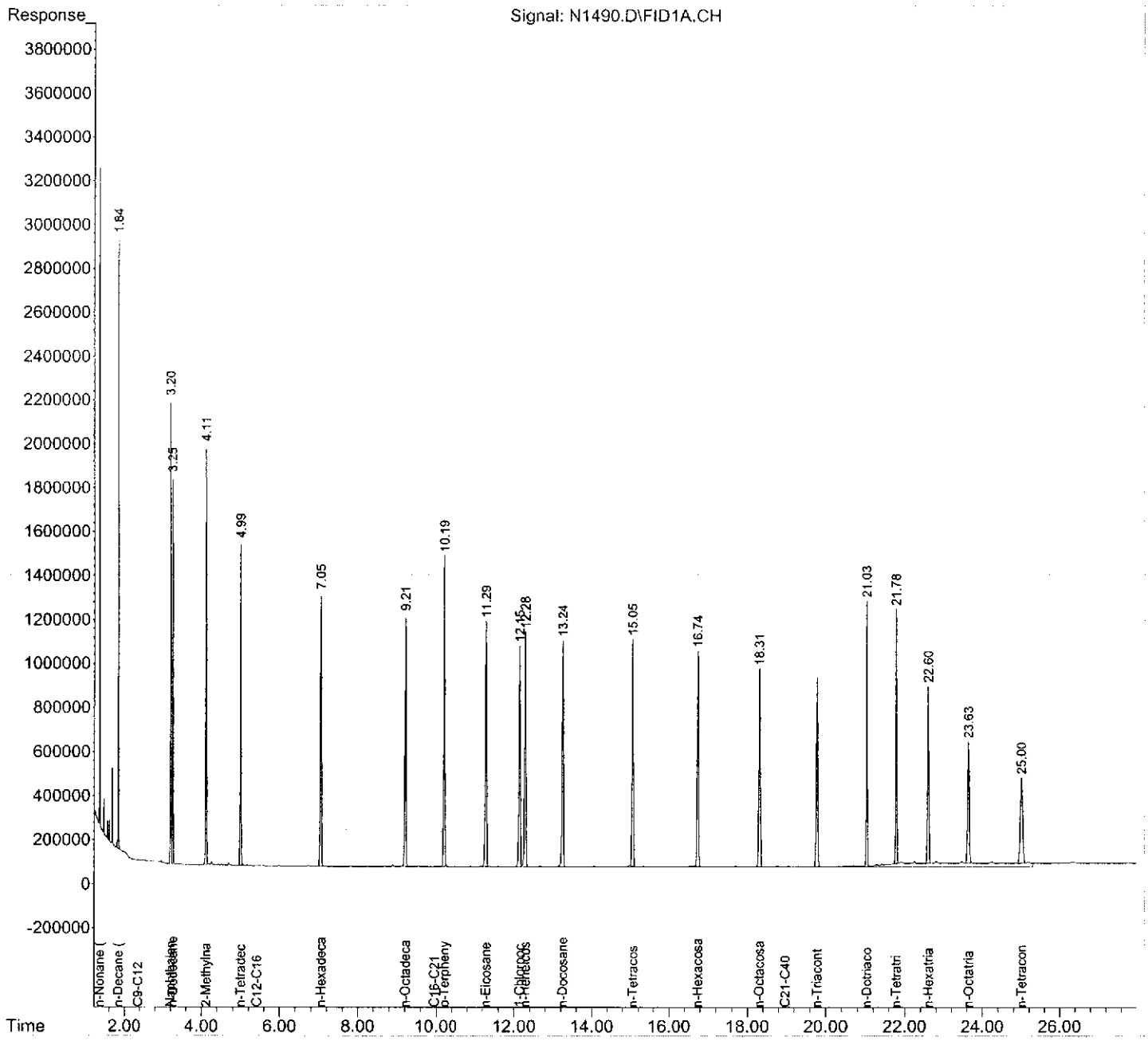
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\06-22-12\
Data File : N1490.D
Signal(s) : FID1A.CH
Acq On : 22 Jun 2012 16:17
Operator : MJ
Sample : ALI_L1_IAS_4197,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 25 09:20:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:03:40 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: NB1129.D NB1128.D NB1127.D NB1126.D NB1125.D

Compound	RT OF STANDARDS					MEAN	RT WI NDOW	
	20	100	250	500	1000	RT	FROM	TO
1,2,3-Trimethylbenzene	2.03	2.03	2.03	2.04	2.04	2.04	1.92	2.16
Napthalene	3.14	3.14	3.14	3.15	3.16	3.14	3.02	3.26
2-Methylnaphthalene	3.98	3.99	3.99	4.00	4.02	4.00	3.88	4.12
Acenaphthylene	5.38	5.39	5.40	5.42	5.44	5.40	5.28	5.52
Acenaphthene	5.73	5.74	5.75	5.77	5.80	5.76	5.64	5.88
Fluorene	6.73	6.74	6.75	6.77	6.80	6.76	6.64	6.88
Phenanthrene	8.80	8.81	8.83	8.86	8.89	8.84	8.72	8.96
Anthracene	8.90	8.92	8.95	8.98	9.03	8.96	8.84	9.08
Fluoroanthene	11.66	11.68	11.70	11.74	11.77	11.71	11.59	11.83
Pyrene	12.16	12.19	12.21	12.25	12.29	12.22	12.10	12.34
Benzo[a]anthracene	15.24	15.27	15.29	15.34	15.38	15.30	15.18	15.42
Chrysene	15.33	15.37	15.41	15.46	15.53	15.42	15.30	15.54
Benzo[b]fluoranthene	17.86	17.93	17.97	18.02	18.10	17.98	17.86	18.10
Benzo[k]fluoranthene	17.86	17.93	17.97	18.02	18.10	17.98	17.86	18.10
Benzo[a]pyrene	18.48	18.52	18.55	18.61	18.68	18.57	18.45	18.69
Indeno[1,2,3-cd]pyrene	20.72	20.84	20.87	20.92	20.99	20.87	20.75	20.99
Dibenz[a,h]anthracene	20.72	20.84	20.87	20.92	20.99	20.87	20.75	20.99
Benzo[g,h,i]perylene	21.05	21.09	21.13	21.18	21.25	21.14	21.02	21.26
C10-C12	2.70	2.70	2.70	2.70	2.70	2.70	2.58	2.82
C12-C16	4.95	4.95	4.95	4.95	4.95	4.95	4.83	5.07
C16-C21	9.60	9.60	9.60	9.60	9.60	9.60	9.48	9.72
C21-C36	17.20	17.20	17.20	17.20	17.20	17.20	17.08	17.32

NJ-EPH AROMATIC INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-N
GC Column : DB-5

Data File: NB1129.D NB1128.D NB1127.D NB1126.D NB1125.D

Compound	CALIBRATION FACTORS 20	100	250	500	1000	MEAN	%RSD
1,2,3-Trimethylbenzene	580224	705113	597648	572374	557451	602562	9.81
Napthalene	611787	760658	662737	633446	607027	655131	9.61
2-Methylnaphthalene	640827	773063	690177	661863	625313	678249	8.60
Acenaphthylene	662203	797722	711519	691098	636899	699888	8.80
Acenaphthene	700870	818468	727270	707021	649483	720622	8.57
Fluorene	688910	828035	744285	731261	659798	730458	8.77
Phenanthrene	688338	859473	767476	771510	681455	753650	9.66
Anthracene	732289	859253	773610	768509	677053	762143	8.74
Fluoroanthene	766763	932468	814938	818305	704258	807346	10.38
Pyrene	793710	951679	836120	839704	722692	828781	10.05
Benzo[a]anthracene	797379	980452	812346	828112	739839	831625	10.78
Chrysene	852327	990789	811367	808283	712089	834971	12.12
Benzo[b]fluoranthene	1742568	2020232	1595569	1614831	1449764	1684593	12.73
Benzo[k]fluoranthene	1742568	2020666	1595768	1614831	1449764	1684720	12.74
Benzo[a]pyrene	862974	989857	783386	794905	717779	829780	12.44
Indeno[1,2,3-cd]pyrene	1690742	1930812	1514654	1545561	1424426	1621239	12.20
Dibenz[a,h]anthracene	1688559	1933848	1514654	1545561	1424426	1621409	12.26
Benzo[g,h,i]perylene	839672	955710	760725	778940	717520	810513	11.38
C10-C12	1269321	1490949	1270978	1209795	1172426	1282694	9.64
C12-C16	2065469	2416993	2143437	2071842	1921724	2123893	8.59
C16-C21	3789640	4496883	3978432	3965670	3464500	3939025	9.51
C21-C36	8643688	8301317	6483514	6495559	5815001	7147816	17.43

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1125.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 11:47
Operator : MJ
Sample : ARO_L5_IAS_4187,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	2-Fluorobiphenyl	4.62	701398746	977.367	ng	
Spiked Amount		50.000		Recovery	= 1954.73%		
2)	S	2-Bromonaphthalene	5.68	488635076	976.801	ng	
Spiked Amount		50.000		Recovery	= 1953.60%		
3)	S	o-Terphenyl	10.07	848437453	917.042	ng	
Spiked Amount		50.000		Recovery	= 1834.08%		
Target Compounds							
4)	T	1,2,3-Trimethylbenzene	2.04	557450854	925.135	ng	
5)	T	Napthalene	3.16	607027159	926.574	ng	
6)	T	2-Methylnaphthalene	4.02	625313278	921.953	ng	
7)	T	Acenaphthylene	5.44	636899066	910.001	ng	
8)	T	Acenaphthene	5.80	649483454	900.907	ng	
9)	T	Fluorene	6.80	659798167	903.267	ng	
10)	T	Phenanthrene	8.89	681454798	904.206	ng	
11)	T	Anthracene	9.03	677052615	887.329	ng	m
12)	T	Fluoroanthene	11.77	704258402	872.313	ng	
13)	T	Pyrene	12.29	722692269	871.994	ng	
14)	T	Benzo[a]anthracene	15.38	739838628	890.735	ng	
15)	T	Chrysene	15.53	712089022	852.425	ng	m
16)	T	Benzo[b]fluoranthene	18.10	1449764235	860.510	ng	
17)	T	Benzo[k]fluoranthene	18.10	1449764235	860.511	ng	
18)	T	Benzo[a]pyrene	18.68	717779399	865.024	ng	
19)	T	Indeno[1,2,3-cd]pyrene	20.99	1424425631	879.350	ng	
20)	T	Dibenz[a,h]anthracene	20.99	1424425631	878.495	ng	
21)	T	Benzo[g,h,i]perylene	21.25	717520360	884.327	ng	
22)	H	C10-C12	2.70	1172426414	1828.069	ng	
23)	H	C12-C16	4.95	1921723592	2714.436	ng	
24)	H	C16-C21	9.60	3464499978	4397.662	ng	
25)	H	C21-C36	17.20	5815001353	6508.283	ng	

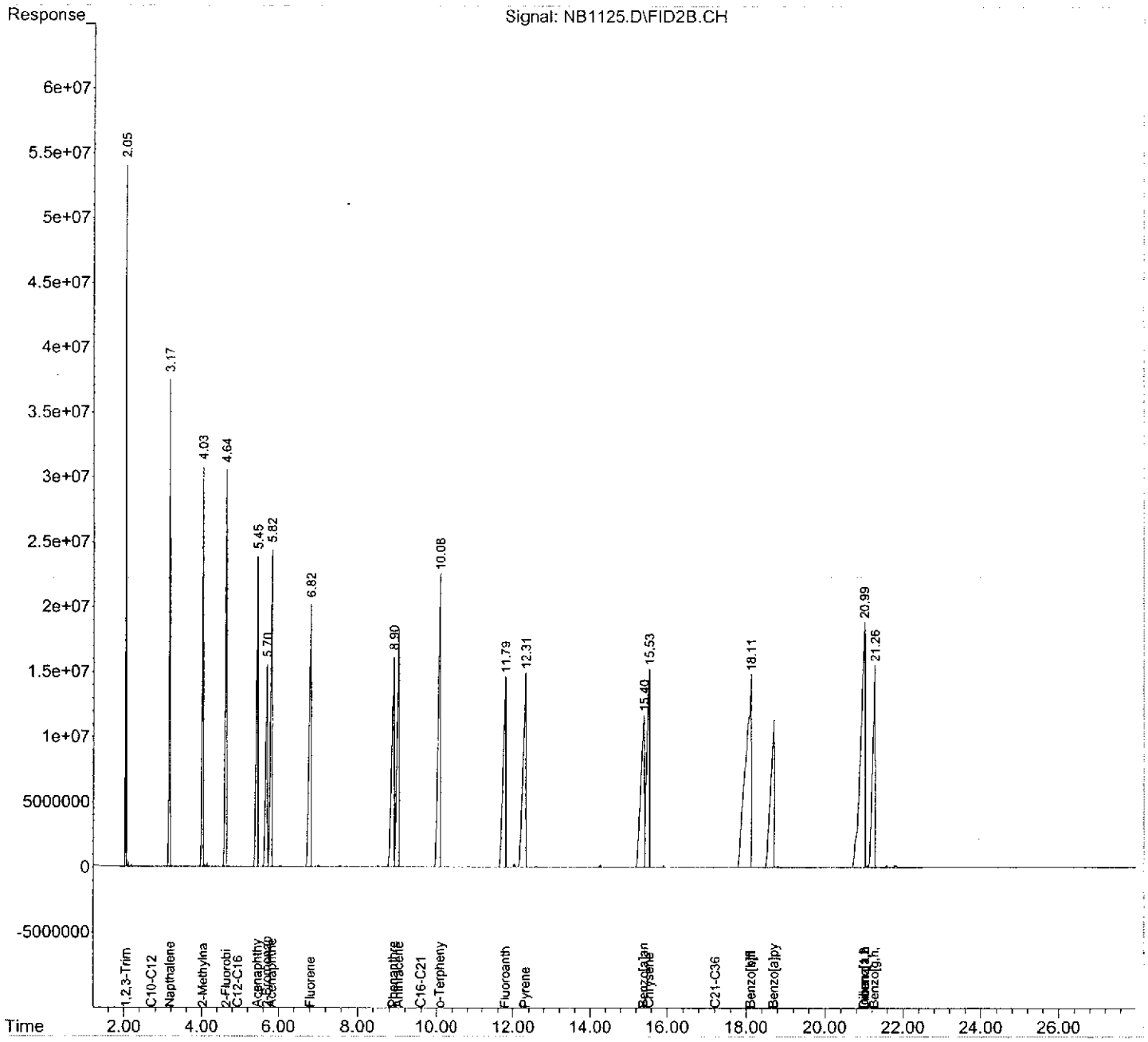
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1125.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 11:47
Operator : MJ
Sample : ARO_L5_IAS_4187,1000_PPM
Misc : NA,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:37 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1126.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:21
Operator : MJ
Sample : ARO_L4_IAS_4188,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	2-Fluorobiphenyl	4.61	373384494	520.294 ng
Spiked Amount	50.000		Recovery	= 1040.59%
2) S	2-Bromonaphthalene	5.66	265893453	531.532 ng
Spiked Amount	50.000		Recovery	= 1063.06%
3) S	o-Terphenyl	10.04	482663145	521.691 ng
Spiked Amount	50.000		Recovery	= 1043.38%
Target Compounds				
4) T	1,2,3-Trimethylbenzene	2.04	286186898	474.950 ng
5) T	Napthalene	3.15	316722774	483.449 ng
6) T	2-Methylnaphthalene	4.00	330931573	487.921 ng
7) T	Acenaphthylene	5.42	345549061	493.720 ng
8) T	Acenaphthene	5.77	353510516	490.359 ng
9) T	Fluorene	6.77	365630258	500.550 ng
10) T	Phenanthrene	8.86	385754870	511.849 ng
11) T	Anthracene	8.98	384254252	503.594 ng
12) T	Fluoroanthene	11.74	409152490	506.787 ng
13) T	Pyrene	12.25	419851818	506.590 ng
14) T	Benzo[a]anthracene	15.34	414056020	498.506 ng
15) T	Chrysene	15.46	404141395	483.788 ng
16) T	Benzo[b]fluoranthene	18.02	807415654	479.243 ng
17) T	Benzo[k]fluoranthene	18.02	807415654	479.243 ng
18) T	Benzo[a]pyrene	18.61	397452636	478.985 ng
19) T	Indeno[1,2,3-cd]pyrene	20.92	772780261	477.066 ng
20) T	Dibenz[a,h]anthracene	20.92	772780261	476.602 ng
21) T	Benzo[g,h,i]perylene	21.18	389470210	480.013 ng
22) H	C10-C12	2.70	604897451	943.167 ng
23) H	C12-C16	4.95	1035920831	1463.239 ng
24) H	C16-C21	9.60	1982834764	2516.911 ng
25) H	C21-C36	17.20	3247779561	3634.990 ng

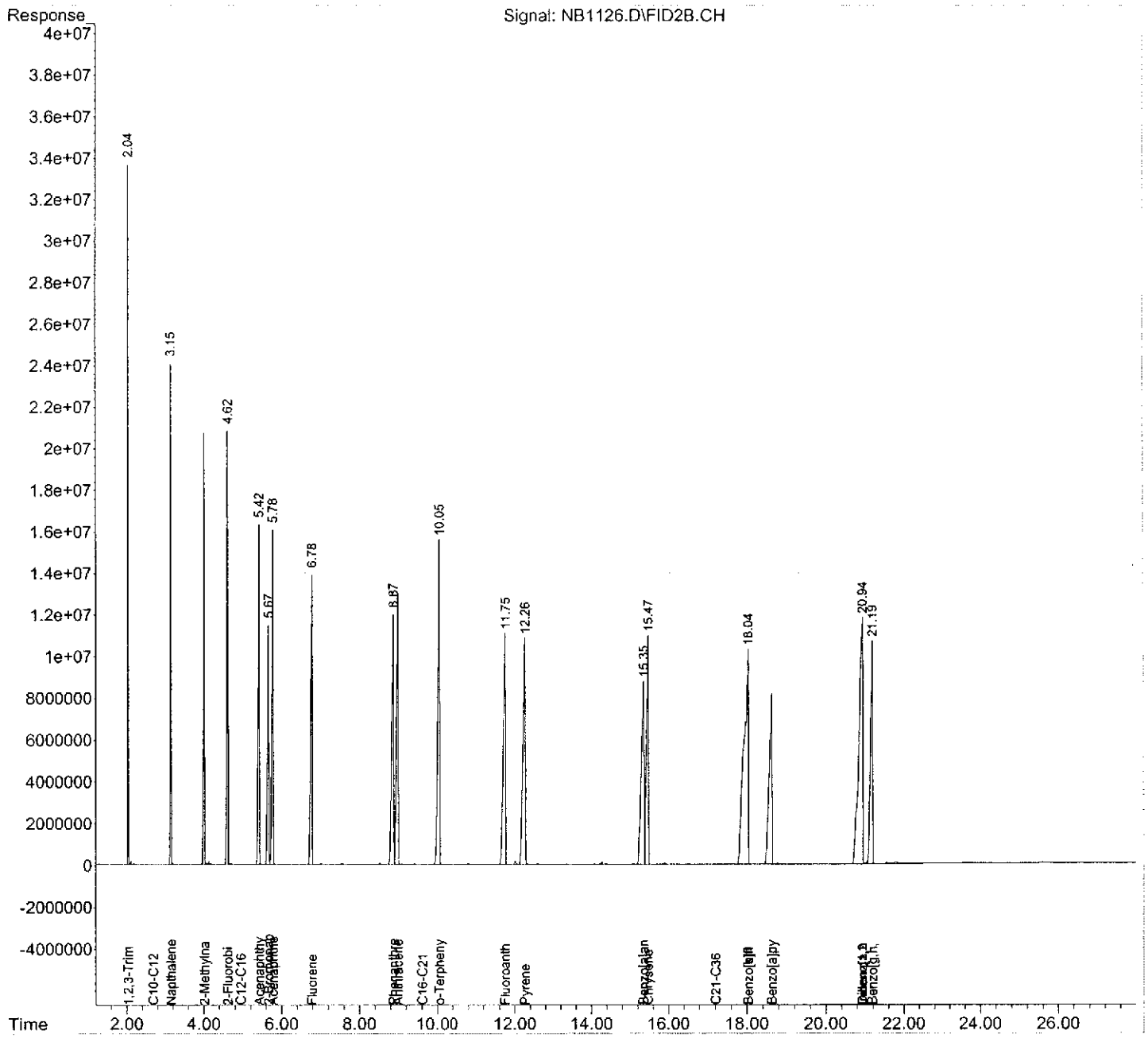
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1126.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:21
Operator : MJ
Sample : ARO_L4_IAS_4188,500_PPM
Misc : NA,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:41:15 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1127.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:55
Operator : MJ
Sample : ARO_L3_IAS_4189,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:42:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	2-Fluorobiphenyl	4.60	194830709	271.488	ng	
Spiked Amount		50.000		Recovery	= 542.98%		
2)	S	2-Bromonaphthalene	5.64	136763207	273.395	ng	
Spiked Amount		50.000		Recovery	= 546.79%		
3)	S	o-Terphenyl	10.01	243366307	263.045	ng	
Spiked Amount		50.000		Recovery	= 526.09%		
Target Compounds							
4)	T	1,2,3-Trimethylbenzene	2.03	149411986	247.961	ng	
5)	T	Napthalene	3.14	165684219	252.902	ng	
6)	T	2-Methylnaphthalene	3.99	172544241	254.397	ng	
7)	T	Acenaphthylene	5.40	177879861	254.155	ng	
8)	T	Acenaphthene	5.75	181817513	252.201	ng	
9)	T	Fluorene	6.75	186071177	254.732	ng	
10)	T	Phenanthrene	8.83	191869066	254.586	ng	
11)	T	Anthracene	8.95	193402590	253.469	ng	
12)	T	Fluoroanthene	11.70	203734434	252.351	ng	
13)	T	Pyrene	12.21	209030082	252.214	ng	
14)	T	Benzo[a]anthracene	15.29	203086538	244.508	ng	
15)	T	Chrysene	15.41	202841674	242.817	ng	
16)	T	Benzo[b]fluoranthene	17.97	398892195	236.763	ng	m
17)	T	Benzo[k]fluoranthene	17.97	398941912	236.793	ng	m
18)	T	Benzo[a]pyrene	18.55	195846385	236.022	ng	
19)	T	Indeno[1,2,3-cd]pyrene	20.87	378663417	233.763	ng	
20)	T	Dibenz[a,h]anthracene	20.87	378663417	233.536	ng	
21)	T	Benzo[g,h,i]perylene	21.13	190181177	234.394	ng	
22)	H	C10-C12	2.70	317744378	495.433	ng	
23)	H	C12-C16	4.95	535859326	756.902	ng	
24)	H	C16-C21	9.60	994607917	1262.505	ng	
25)	H	C21-C36	17.20	1620878598	1814.125	ng	

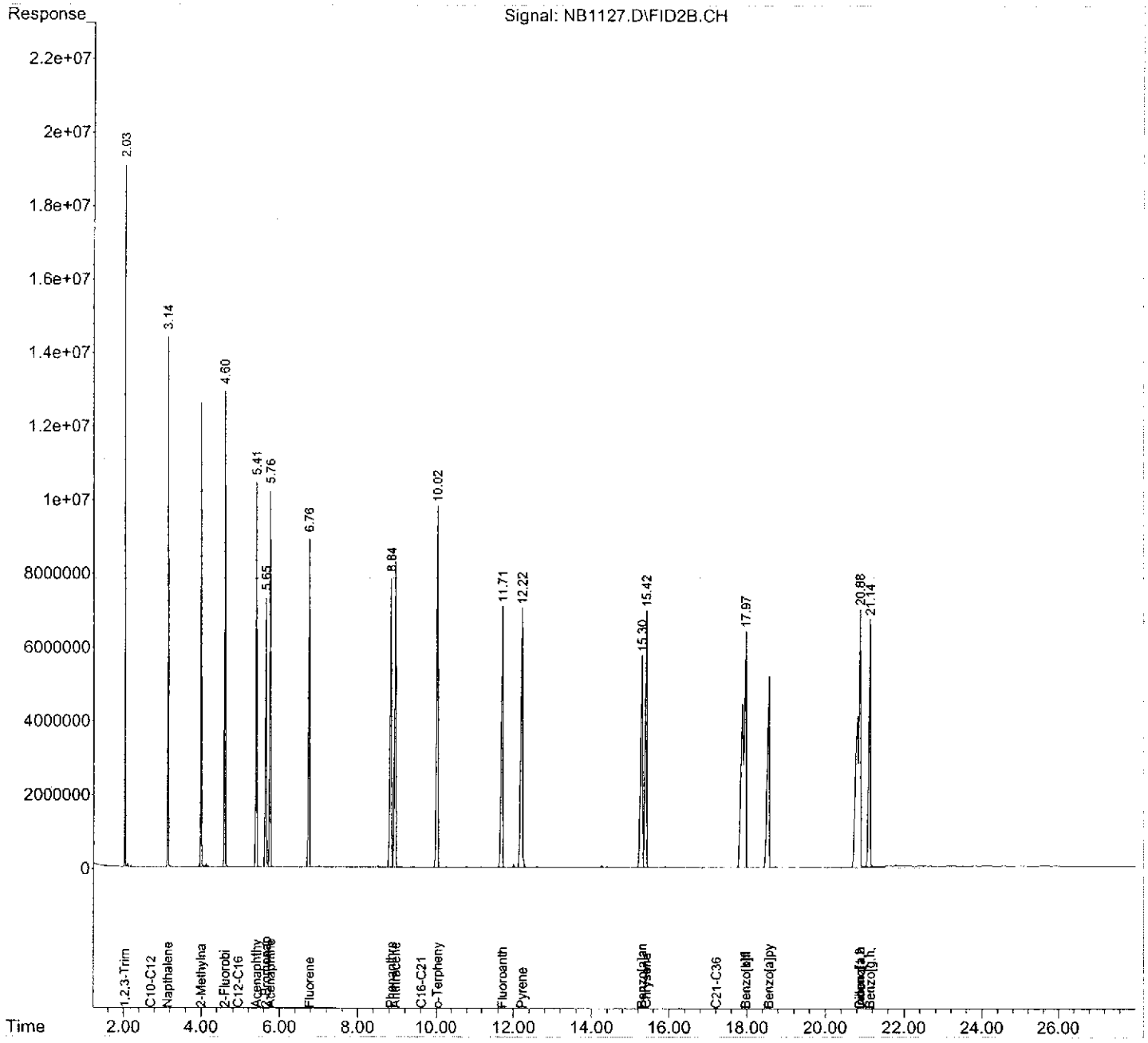
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1127.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 12:55
Operator : MJ
Sample : ARO_L3_IAS_4189,250_PPM
Misc : NA,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:42:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1128.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 13:29
Operator : MJ
Sample : ARO_L2_IAS_4190,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	2-Fluorobiphenyl	4.59	64132072	89.365	ng	
Spiked Amount		50.000		Recovery	= 178.73%		
2)	S	2-Bromonaphthalene	5.62	44573835	89.105	ng	
Spiked Amount		50.000		Recovery	= 178.21%		
3)	S	o-Terphenyl	9.99	92621995	100.111	ng	
Spiked Amount		50.000		Recovery	= 200.22%		
Target Compounds							
4)	T	1,2,3-Trimethylbenzene	2.03	70511283	117.019	ng	
5)	T	Napthalene	3.14	76065845	116.108	ng	
6)	T	2-Methylnaphthalene	3.99	77306294	113.979	ng	
7)	T	Acenaphthylene	5.39	79772197	113.978	ng	
8)	T	Acenaphthene	5.74	81846752	113.531	ng	
9)	T	Fluorene	6.74	82803478	113.358	ng	
10)	T	Phenanthrene	8.81	85947257	114.041	ng	
11)	T	Anthracene	8.92	85925335	112.612	ng	
12)	T	Fluoroanthene	11.68	93246803	115.498	ng	
13)	T	Pyrene	12.19	95167853	114.829	ng	
14)	T	Benzo[a]anthracene	15.27	98045169	118.042	ng	
15)	T	Chrysene	15.37	99078853	118.605	ng	
16)	T	Benzo[b]fluoranthene	17.93	202023215	119.911	ng	m
17)	T	Benzo[k]fluoranthene	17.93	202066642	119.937	ng	m
18)	T	Benzo[a]pyrene	18.52	98985712	119.291	ng	
19)	T	Indeno[1,2,3-cd]pyrene	20.84	193081204	119.196	ng	m
20)	T	Dibenz[a,h]anthracene	20.84	193384839	119.268	ng	m
21)	T	Benzo[g,h,i]perylene	21.09	95571046	117.789	ng	
22)	H	C10-C12	2.70	149094880	232.472	ng	
23)	H	C12-C16	4.95	241699343	341.400	ng	
24)	H	C16-C21	9.60	449688328	570.812	ng	
25)	H	C21-C36	17.20	830131702	929.102	ng	

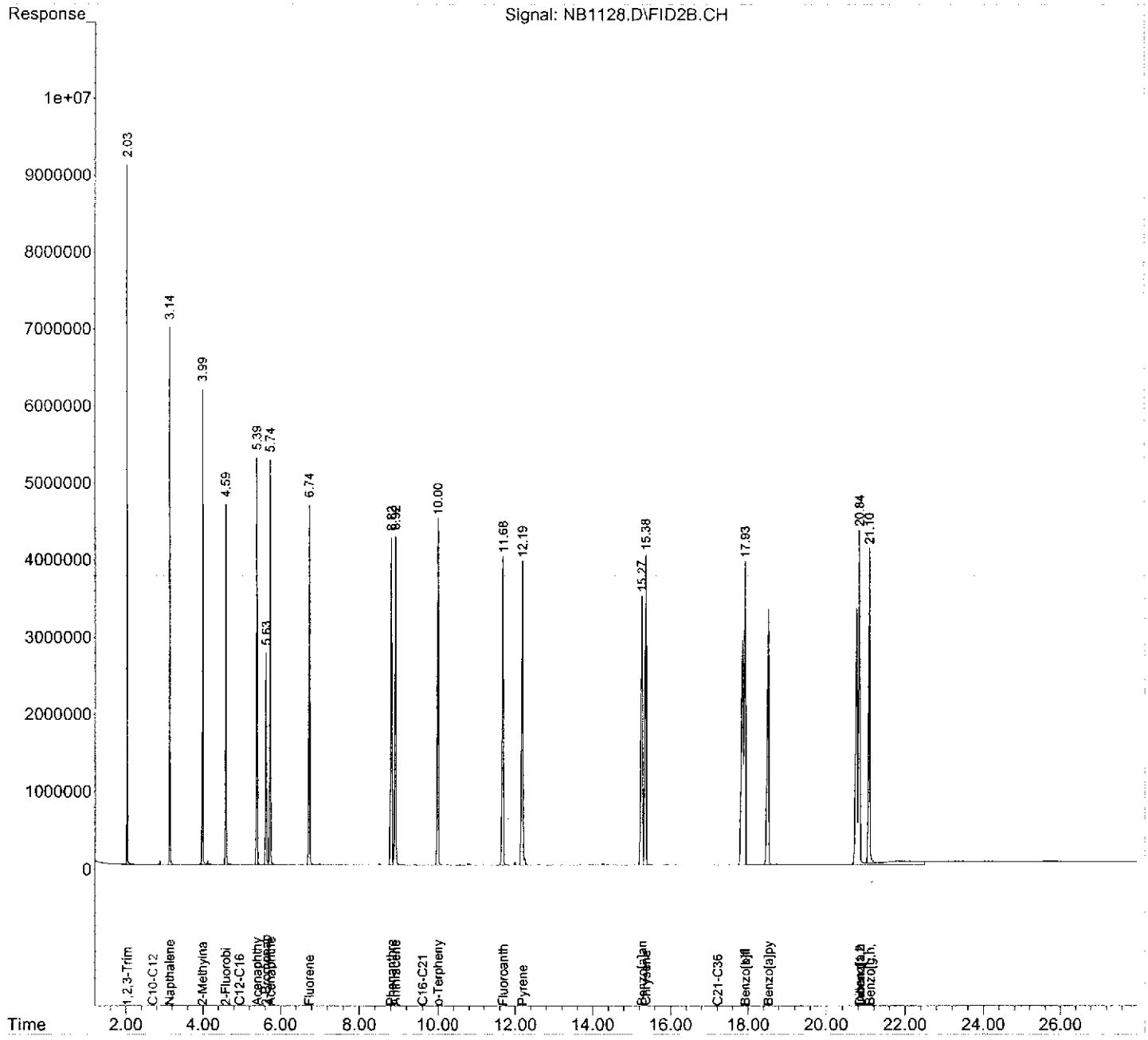
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1128.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 13:29
Operator : MJ
Sample : ARO_L2_IAS_4190,100_PPM
Misc : NA,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:43:14 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1129.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 14:02
Operator : MJ
Sample : ARO_L1_IAS_4191,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:44:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.58	14387894	20.049 ng	
Spiked Amount	50.000		Recovery =	40.10%	
2) S	2-Bromonaphthalene	5.62	9759727	19.510 ng	
Spiked Amount	50.000		Recovery =	39.02%	
3) S	o-Terphenyl	9.98	18249947	19.726 ng	
Spiked Amount	50.000		Recovery =	39.45%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	11604486	19.259 ng	
5) T	Napthalene	3.14	12235744	18.677 ng	
6) T	2-Methylnaphthalene	3.98	12816538	18.897 ng	
7) T	Acenaphthylene	5.38	13244051	18.923 ng	
8) T	Acenaphthene	5.73	14017409	19.444 ng	
9) T	Fluorene	6.73	13778210	18.862 ng	
10) T	Phenanthrene	8.80	13766761	18.267 ng	
11) T	Anthracene	8.90	14645781	19.194 ng	
12) T	Fluoroanthene	11.66	15335262	18.995 ng	
13) T	Pyrene	12.16	15874192	19.154 ng	
14) T	Benzo[a]anthracene	15.24	15947577	19.200 ng	m
15) T	Chrysene	15.33	17046540	20.406 ng	
16) T	Benzo[b]fluoranthene	17.86	34851367	20.686 ng	
17) T	Benzo[k]fluoranthene	17.86	34851367	20.686 ng	
18) T	Benzo[a]pyrene	18.48	17259475	20.800 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.72	33814840	20.875 ng	m
20) T	Dibenz[a,h]anthracene	20.72	33771184	20.828 ng	m
21) T	Benzo[g,h,i]perylene	21.05	16793431	20.698 ng	
22) H	C10-C12	2.70	25386428	39.583 ng	
23) H	C12-C16	4.95	41309388	58.350 ng	
24) H	C16-C21	9.60	75792800	96.208 ng	
25) H	C21-C36	17.20	172873759	193.484 ng	

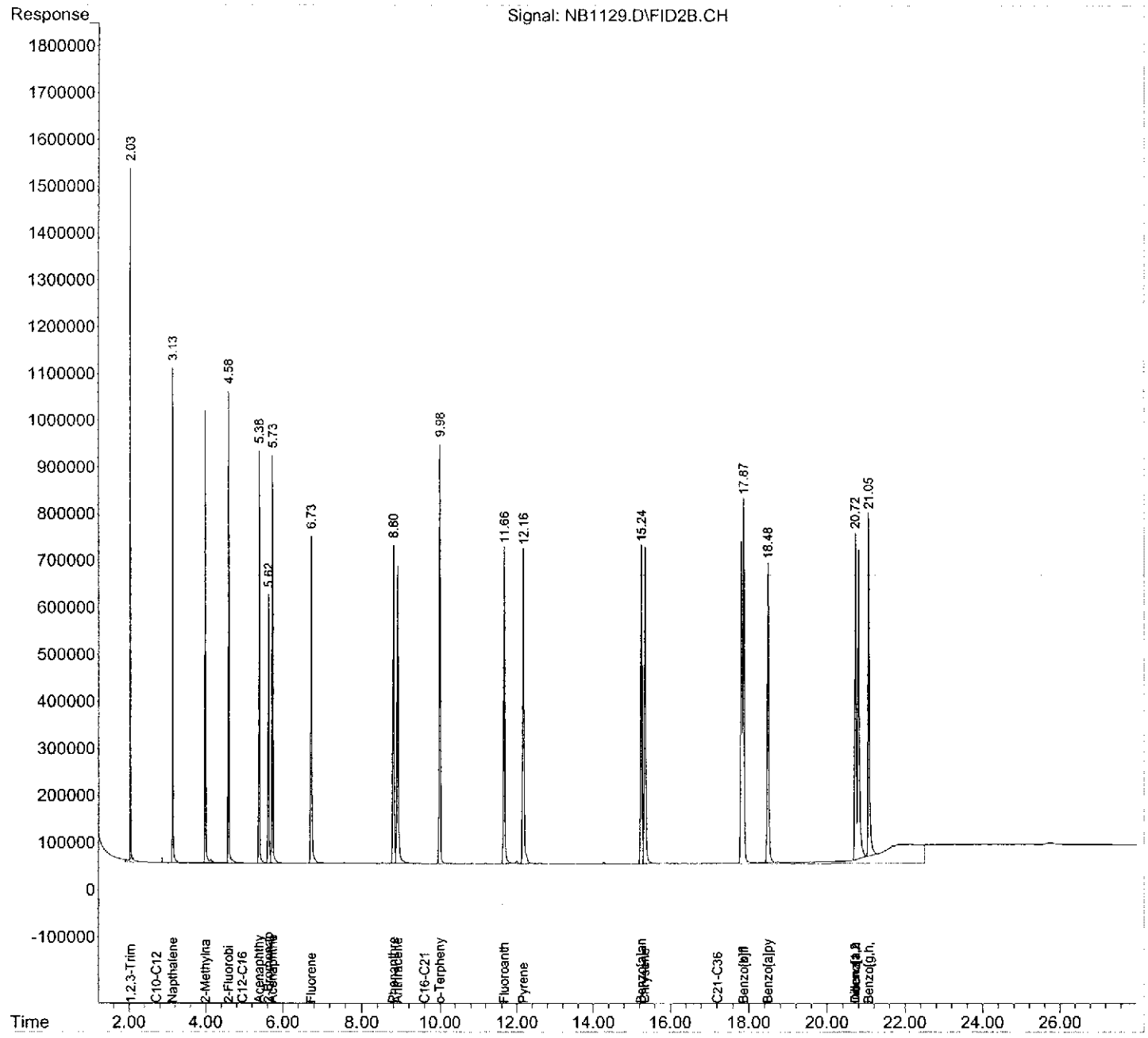
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\06-26-12\
Data File : NB1129.D
Signal(s) : FID2B.CH
Acq On : 26 Jun 2012 14:02
Operator : MJ
Sample : ARO_L1_IAS_4191,20_PPM
Misc : NA,NA,NA,1
ALS Vial : 56 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jun 26 14:44:11 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: N1729.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.35	1.28	1.42	928218	723642	22.04
n-Decane (C10)	1.85	1.78	1.92	966280	742450	23.16
n-Dodecane (C12)	3.27	3.20	3.34	966897	755462	21.87
n-Tetradecane (C14)	5.02	4.95	5.09	1008968	759625	24.71
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	747019	27.03
n-Octadecane (C18)	9.25	9.17	9.33	1040886	733227	29.56
n-Eicosane (C20)	11.33	11.25	11.41	1020661	716604	29.79
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	702899	29.82
n-Docosane (C22)	13.28	13.20	13.38	990182	698136	29.49
n-Tetracosane (C24)	15.09	15.01	15.19	950314	699295	26.41
n-Hexacosane (C26)	16.78	16.69	16.87	913199	704994	22.80
n_Octacosane (C28)	18.35	18.26	18.44	867213	712265	17.87
n-Triacontane (C30)	19.82	19.72	19.92	833552	716647	14.02
n-Dotriacontane (C32)	21.07	20.96	21.16	795866	708637	10.96
n-Tetratriacontane (C34)	21.83	21.71	21.91	796293	724070	9.07
n-Hexatriacontane (C36)	22.66	22.49	22.79	775851	710955	8.36
n-Octatriacontane (C38)	23.70	23.54	23.84	762326	672494	11.78
n-Tetracontane (40)	25.09	24.93	25.23	758303	609313	19.65
C9-C12	2.36	2.26	2.46	3060279	2311758	24.46
C12-C16	5.40	5.30	5.50	2129672	1622481	23.82
C16-C21	9.95	9.84	10.06	3157878	2398582	24.04
C21-C40	18.95	18.84	19.06	9157580	7331391	19.94

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/12/2012 **Instrument ID:** GC-N

Data File: N1757.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.35	1.28	1.42	928218	731114	21.23
n-Decane (C10)	1.85	1.78	1.92	966280	749514	22.43
n-Dodecane (C12)	3.28	3.20	3.34	966897	757248	21.68
n-Tetradecane (C14)	5.03	4.95	5.09	1008968	752968	25.37
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	732007	28.50
n-Octadecane (C18)	9.25	9.17	9.33	1040886	729297	29.93
n-Eicosane (C20)	11.33	11.25	11.41	1020661	715075	29.94
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	704816	29.63
n-Docosane (C22)	13.28	13.20	13.38	990182	700930	29.21
n-Tetracosane (C24)	15.10	15.01	15.19	950314	711737	25.11
n-Hexacosane (C26)	16.78	16.69	16.87	913199	723687	20.75
n_Octacosane (C28)	18.35	18.26	18.44	867213	729959	15.83
n-Triacontane (C30)	19.82	19.72	19.92	833552	735022	11.82
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	728788	8.43
n-Tetratriacontane (C34)	21.83	21.71	21.91	796293	745964	6.32
n-Hexatriacontane (C36)	22.66	22.49	22.79	775851	721706	6.98
n-Octatriacontane (C38)	23.70	23.54	23.84	762326	657930	13.69
n-Tetracontane (40)	25.08	24.93	25.23	758303	567329	25.18
C9-C12	2.36	2.26	2.46	3060279	2319681	24.20
C12-C16	5.40	5.30	5.50	2129672	1672776	21.45
C16-C21	9.95	9.84	10.06	3157878	2378636	24.68
C21-C40	18.95	18.84	19.06	9157580	7253635	20.79

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/12/2012 **Instrument ID:** GC-N

Data File: N1759.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.35	1.28	1.42	928218	768766	17.18
n-Decane (C10)	1.85	1.78	1.92	966280	785655	18.69
n-Dodecane (C12)	3.27	3.20	3.34	966897	792183	18.07
n-Tetradecane (C14)	5.03	4.95	5.09	1008968	790135	21.69
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	775259	24.27
n-Octadecane (C18)	9.25	9.17	9.33	1040886	767184	26.30
n-Eicosane (C20)	11.33	11.25	11.41	1020661	766086	24.94
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	759438	24.18
n-Docosane (C22)	13.29	13.20	13.38	990182	761824	23.06
n-Tetracosane (C24)	15.10	15.01	15.19	950314	768670	19.11
n-Hexacosane (C26)	16.78	16.69	16.87	913199	770064	15.67
n_Octacosane (C28)	18.35	18.26	18.44	867213	768564	11.38
n-Triacontane (C30)	19.82	19.72	19.92	833552	769447	7.69
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	760916	4.39
n-Tetratriacontane (C34)	21.82	21.71	21.91	796293	775673	2.59
n-Hexatriacontane (C36)	22.65	22.49	22.79	775851	751333	3.16
n-Octatriacontane (C38)	23.69	23.54	23.84	762326	690549	9.42
n-Tetracontane (40)	25.07	24.93	25.23	758303	603715	20.39
C9-C12	2.36	2.26	2.46	3060279	2383459	22.12
C12-C16	5.40	5.30	5.50	2129672	1618991	23.98
C16-C21	9.95	9.84	10.06	3157878	2426555	23.16
C21-C40	18.95	18.84	19.06	9157580	7642408	16.55

NJ-EPH ALIPHATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/12/2012 **Instrument ID:** GC-N

Data File: N1765.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
n-Nonane (C9)	1.35	1.28	1.42	928218	813916	12.31
n-Decane (C10)	1.85	1.78	1.92	966280	830758	14.03
n-Dodecane (C12)	3.27	3.20	3.34	966897	830850	14.07
n-Tetradecane (C14)	5.03	4.95	5.09	1008968	820456	18.68
n-Hexadecane (C16)	7.09	7.00	7.16	1023767	793889	22.45
n-Octadecane (C18)	9.25	9.17	9.33	1040886	773913	25.65
n-Eicosane (C20)	11.33	11.25	11.41	1020661	764747	25.07
n-Heneicosane (C21)	12.33	12.25	12.41	1001637	759049	24.22
n-Docosane (C22)	13.28	13.20	13.38	990182	760356	23.21
n-Tetracosane (C24)	15.10	15.01	15.19	950314	772095	18.75
n-Hexacosane (C26)	16.78	16.69	16.87	913199	782960	14.26
n_Octacosane (C28)	18.35	18.26	18.44	867213	784236	9.57
n-Triacontane (C30)	19.82	19.72	19.92	833552	787652	5.51
n-Dotriacontane (C32)	21.06	20.96	21.16	795866	780023	1.99
n-Tetratriacontane (C34)	21.82	21.71	21.91	796293	795291	0.13
n-Hexatriacontane (C36)	22.65	22.49	22.79	775851	763344	1.61
n-Octatriacontane (C38)	23.69	23.54	23.84	762326	687273	9.85
n-Tetracontane (40)	25.07	24.93	25.23	758303	588326	22.42
C9-C12	2.36	2.26	2.46	3060279	2504138	18.17
C12-C16	5.40	5.30	5.50	2129672	1643408	22.83
C16-C21	9.95	9.84	10.06	3157878	2393631	24.20
C21-C40	18.95	18.84	19.06	9157580	7728011	15.61

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1729.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 14:09
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 14:46:42 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.18	166515717	172.298 ng
Spiked Amount 50.000		Recovery	= 344.60%
24) S o-Terphenyl	10.24	236876935	192.399 ng
Spiked Amount 50.000		Recovery	= 384.80%
25) S Naphthalene	3.22	204896098	186.277 ng
Spiked Amount 50.000		Recovery	= 372.55%
26) S 2-Methylnaphthalene	4.14	208125028	190.248 ng
Spiked Amount 50.000		Recovery	= 380.50%
Target Compounds			
2) T n-Nonane (C9)	1.35	180910612	194.901 ng
3) T n-Decane (C10)	1.85	185612464	192.090 ng
4) T n-Dodecane (C12)	3.27	188865616	195.332 ng
5) T n-Tetradecane (C14)	5.02	189906248	188.218 ng
6) T n-Hexadecane (C16)	7.09	186754827	182.419 ng
7) T n-Octadecane (C18)	9.25	183306731	176.106 ng
8) T n-Eicosane (C20)	11.33	179151117	175.525 ng
9) T n-Heneicosane (C21)	12.33	175724793	175.438 ng
10) T n-Docosane (C22)	13.28	174534111	176.265 ng
11) T n-Tetracosane (C24)	15.09	174823711	183.964 ng
12) T n-Hexacosane (C26)	16.78	176248553	193.001 ng
13) T n-Octacosane (C28)	18.35	178066184	205.332 ng
14) T n-Triacontane (C30)	19.82	179161758	214.938 ng
15) T n-Dotriacontane (C32)	21.07	177159154	222.599 ng
16) T n-Tetratriacontane (C34)	21.83	181017539	227.325 ng
17) T n-Hexatriacontane (C36)	22.66	177738795	229.089 ng
18) T n-Octatriacontane (C38)	23.70	168123603	220.540 ng
19) T n-Tetracontane (40)	25.09	152328215	200.880 ng
20) H C9-C12	2.36	577939462	566.556 ng
21) H C12-C16	5.40	405620317	380.923 ng
22) H C16-C21	9.95	599645442	569.666 ng
23) H C21-C40	18.95	1832847759	2001.454 ng

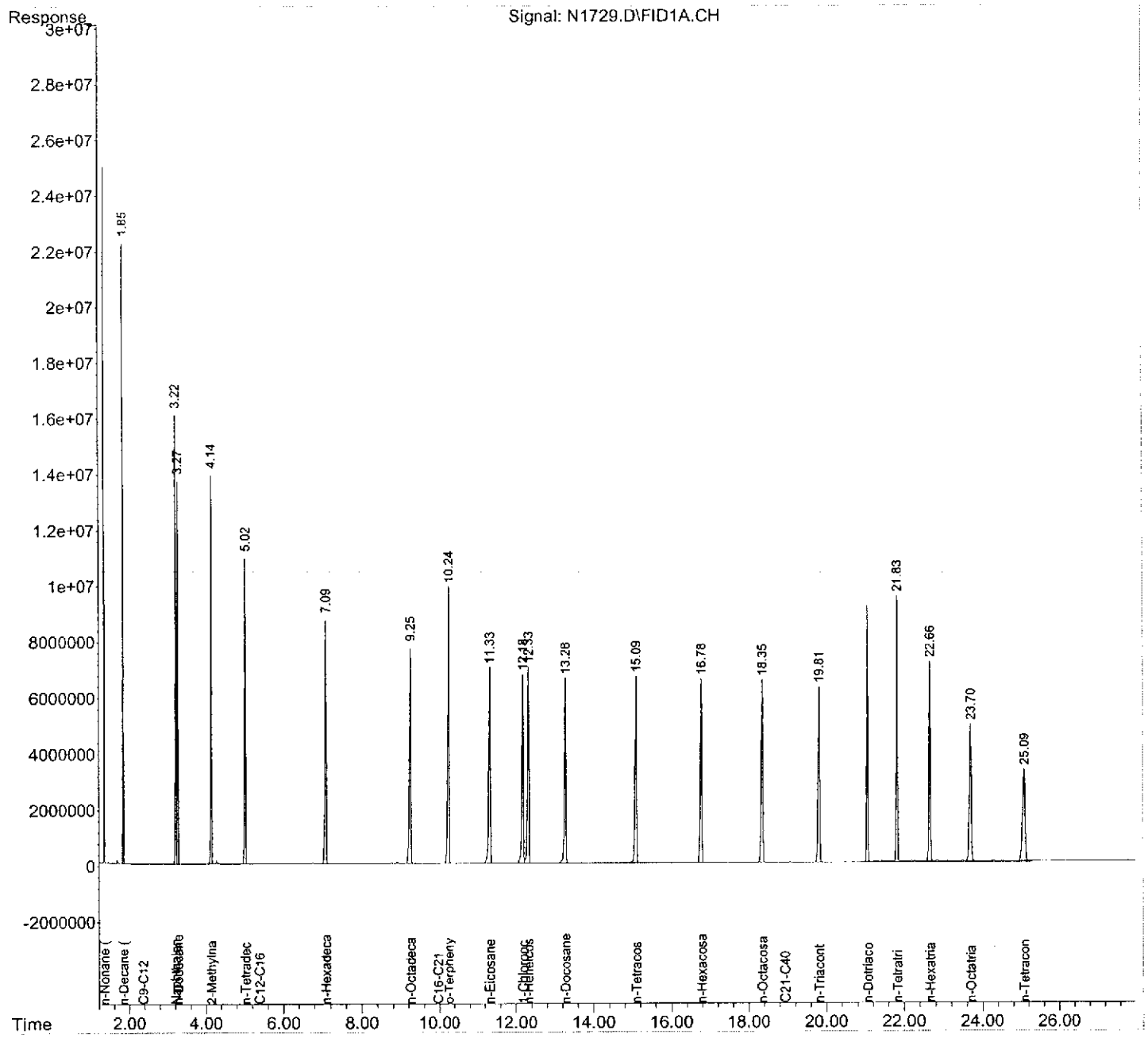
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1729.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 14:09
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 14:46:42 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-11-12\
Data File : N1757.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 7:52
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:25:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S 1-Chlorooctadecane	12.19	164384654	170.093	ng	
Spiked Amount 50.000		Recovery = 340.19%			
24) S o-Terphenyl	10.25	230891159	187.537	ng	
Spiked Amount 50.000		Recovery = 375.07%			
25) S Naphthalene	3.22	205750308	187.054	ng	
Spiked Amount 50.000		Recovery = 374.11%			
26) S 2-Methylnaphthalene	4.14	207259431	189.457	ng	
Spiked Amount 50.000		Recovery = 378.91%			
Target Compounds					
2) T n-Nonane (C9)	1.35	182778385	196.913	ng	
3) T n-Decane (C10)	1.85	187378505	193.917	ng	
4) T n-Dodecane (C12)	3.27	189312057	195.793	ng	
5) T n-Tetradecane (C14)	5.03	188242075	186.569	ng	
6) T n-Hexadecane (C16)	7.09	183001863	178.753	ng	
7) T n-Octadecane (C18)	9.25	182324349	175.163	ng	m
8) T n-Eicosane (C20)	11.33	178768797	175.150	ng	m
9) T n-Heneicosane (C21)	12.33	176204117	175.916	ng	m
10) T n-Docosane (C22)	13.28	175232470	176.970	ng	
11) T n-Tetracosane (C24)	15.10	177934192	187.237	ng	
12) T n-Hexacosane (C26)	16.78	180921712	198.119	ng	
13) T n-Octacosane (C28)	18.35	182489833	210.433	ng	
14) T n-Triacontane (C30)	19.82	183755586	220.449	ng	
15) T n-Dotriacontane (C32)	21.06	182197024	228.929	ng	
16) T n-Tetratriacontane (C34)	21.83	186490884	234.199	ng	
17) T n-Hexatriacontane (C36)	22.66	180426375	232.553	ng	
18) T n-Octatriacontane (C38)	23.70	164482385	215.764	ng	
19) T n-Tetracontane (40)	25.08	141832260	187.039	ng	
20) H C9-C12	2.36	579920212	568.497	ng	
21) H C12-C16	5.40	418193899	392.731	ng	
22) H C16-C21	9.95	594658999	564.929	ng	
23) H C21-C40	18.95	1813408802	1980.227	ng	

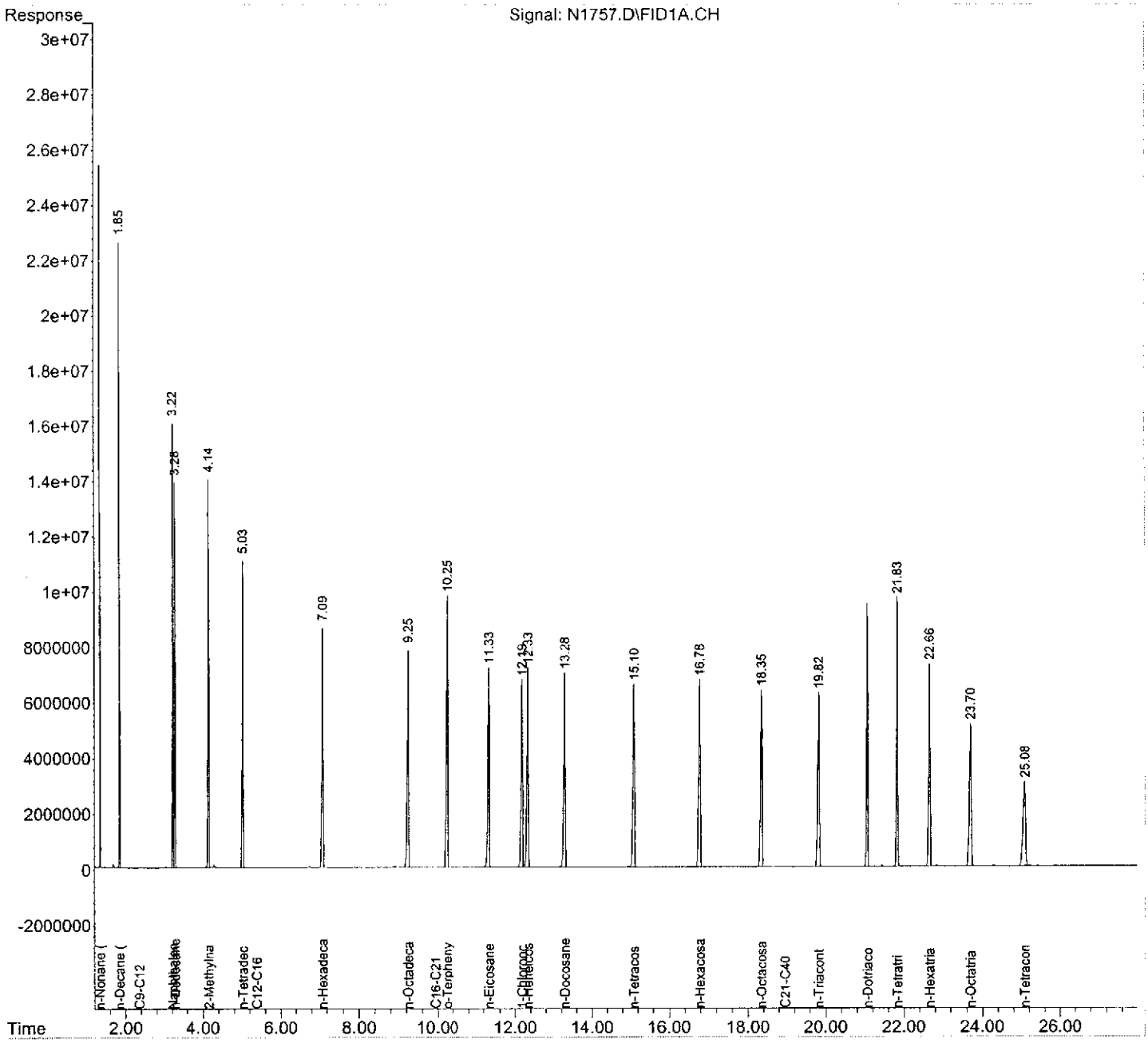
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-11-12\
Data File : N1757.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 7:52
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:25:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1759.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 9:03
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:32:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	179074548	185.293 ng
Spiked Amount 50.000		Recovery	= 370.59%
24) S o-Terphenyl	10.25	247579548	201.092 ng
Spiked Amount 50.000		Recovery	= 402.18%
25) S Naphthalene	3.22	215083157	195.539 ng
Spiked Amount 50.000		Recovery	= 391.08%
26) S 2-Methylnaphthalene	4.14	216758533	198.140 ng
Spiked Amount 50.000		Recovery	= 396.28%
Target Compounds			
2) T n-Nonane (C9)	1.35	192191623	207.054 ng
3) T n-Decane (C10)	1.85	196413742	203.268 ng
4) T n-Dodecane (C12)	3.27	198045735	204.826 ng
5) T n-Tetradecane (C14)	5.03	197533761	195.778 ng
6) T n-Hexadecane (C16)	7.09	193814823	189.315 ng
7) T n-Octadecane (C18)	9.25	191796086	184.262 ng
8) T n-Eicosane (C20)	11.33	191521424	187.645 ng
9) T n-Heneicosane (C21)	12.33	189859528	189.549 ng
10) T n-Docosane (C22)	13.29	190456059	192.345 ng
11) T n-Tetracosane (C24)	15.10	192167543	202.215 ng
12) T n-Hexacosane (C26)	16.78	192515908	210.815 ng
13) T n-Octacosane (C28)	18.35	192141005	221.561 ng
14) T n-Triacontane (C30)	19.82	192361691	230.774 ng
15) T n-Dotriacontane (C32)	21.06	190229093	239.022 ng
16) T n-Tetratriacontane (C34)	21.82	193918172	243.526 ng
17) T n-Hexatriacontane (C36)	22.65	187833206	242.100 ng
18) T n-Octatriacontane (C38)	23.69	172637319	226.461 ng
19) T n-Tetracontane (40)	25.07	150928745	199.035 ng
20) H C9-C12	2.36	595864702	584.128 ng
21) H C12-C16	5.40	404747735	380.103 ng
22) H C16-C21	9.95	606638745	576.310 ng
23) H C21-C40	18.95	1910602103	2086.361 ng

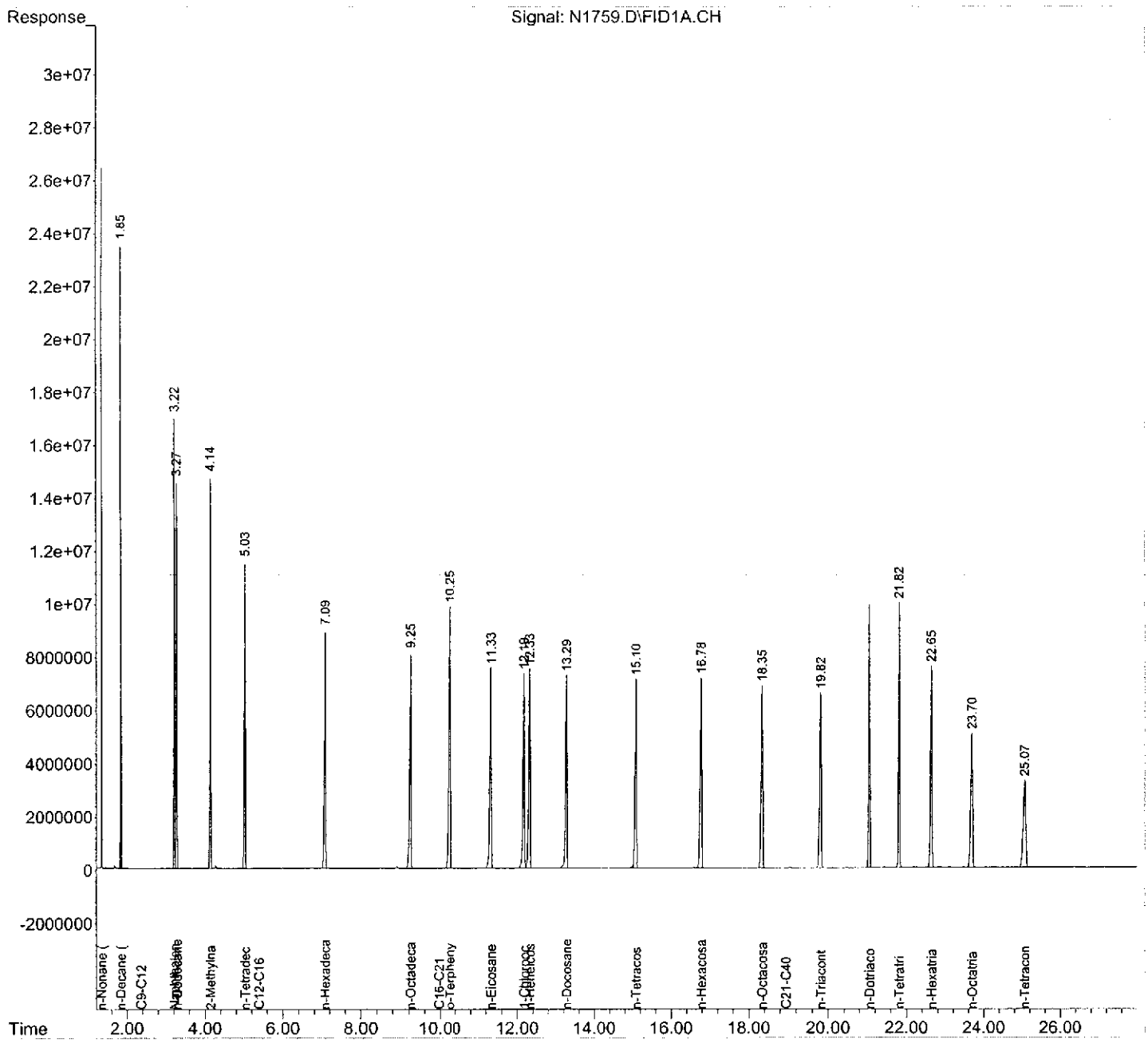
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1759.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 9:03
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:32:34 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1765.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 14:41
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:33:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.19	178201407	184.389 ng
Spiked Amount 50.000		Recovery	= 368.78%
24) S o-Terphenyl	10.25	250198858	203.220 ng
Spiked Amount 50.000		Recovery	= 406.44%
25) S Naphthalene	3.22	226671141	206.074 ng
Spiked Amount 50.000		Recovery	= 412.15%
26) S 2-Methylnaphthalene	4.14	227777343	208.212 ng
Spiked Amount 50.000		Recovery	= 416.42%
Target Compounds			
2) T n-Nonane (C9)	1.35	203479074	219.215 ng
3) T n-Decane (C10)	1.85	207689418	214.937 ng
4) T n-Dodecane (C12)	3.27	207712546	214.824 ng
5) T n-Tetradecane (C14)	5.03	205113908	203.291 ng
6) T n-Hexadecane (C16)	7.09	198472178	193.865 ng
7) T n-Octadecane (C18)	9.25	193478138	185.878 ng
8) T n-Eicosane (C20)	11.33	191186725	187.317 ng
9) T n-Heneicosane (C21)	12.33	189762206	189.452 ng
10) T n-Docosane (C22)	13.28	190088967	191.974 ng
11) T n-Tetracosane (C24)	15.10	193023829	203.116 ng
12) T n-Hexacosane (C26)	16.78	195739931	214.345 ng
13) T n-Octacosane (C28)	18.35	196059074	226.079 ng
14) T n-Triacontane (C30)	19.82	196912970	236.234 ng
15) T n-Dotriacontane (C32)	21.06	195005733	245.023 ng
16) T n-Tetratriacontane (C34)	21.82	198822818	249.686 ng
17) T n-Hexatriacontane (C36)	22.65	190836080	245.970 ng
18) T n-Octatriacontane (C38)	23.69	171818241	225.387 ng
19) T n-Tetracontane (40)	25.07	147081577	193.961 ng
20) H C9-C12	2.36	626034456	613.703 ng
21) H C12-C16	5.40	410851934	385.836 ng
22) H C16-C21	9.95	598407766	568.490 ng
23) H C21-C40	18.95	1932002819	2109.731 ng

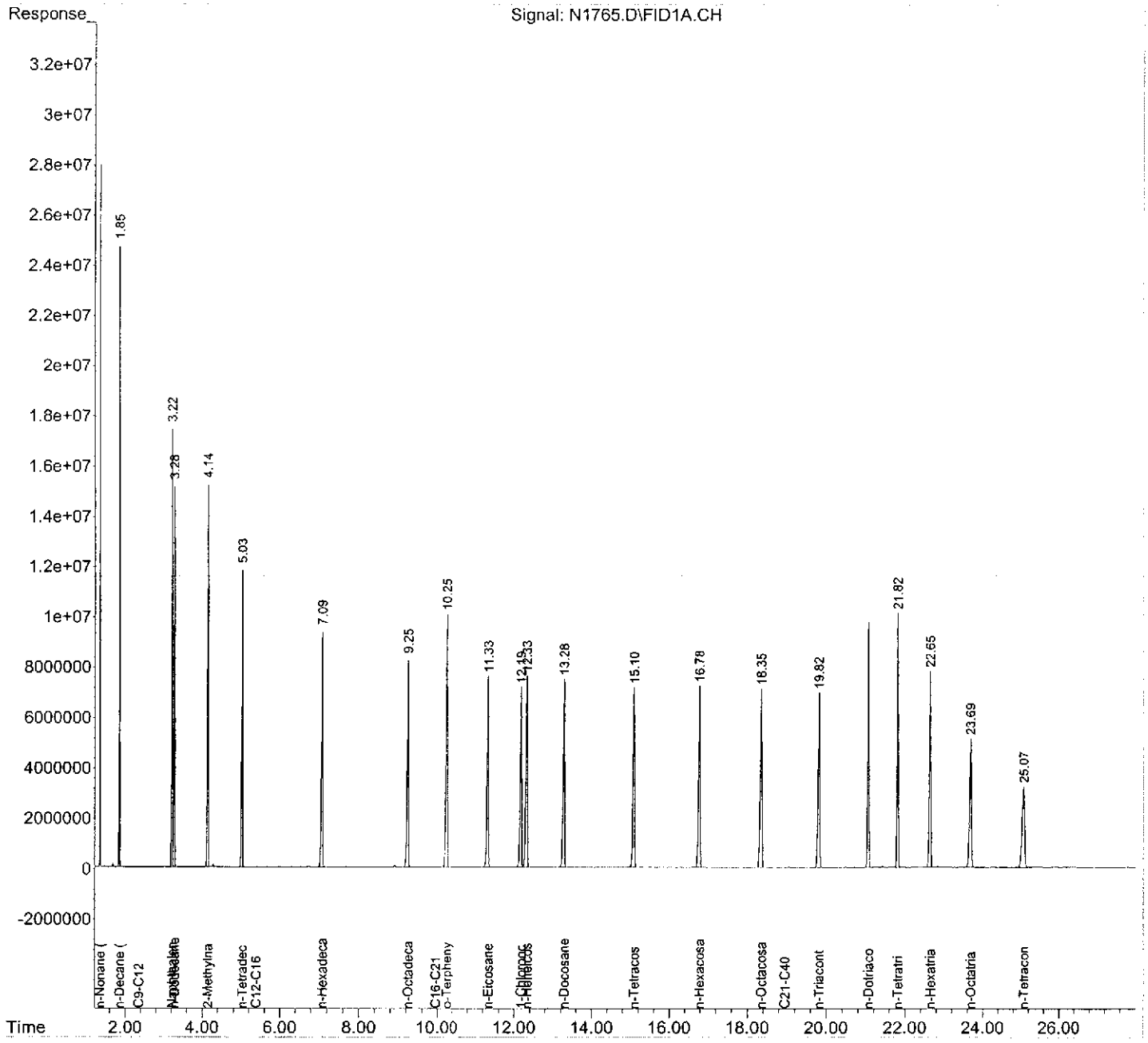
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1765.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 14:41
Operator : MJ
Sample : ALI_C_IAS_4195,250_PPM
Misc : ,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:33:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/11/2012 **Instrument ID:** GC-N

Data File: NB1363.D **GC Column :** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	565737	6.11
Napthalene	3.13	3.02	3.26	655131	641883	2.02
2-Methylnaphthalene	3.98	3.88	4.12	678249	680111	0.27
Acenaphthylene	5.39	5.28	5.52	699888	717702	2.55
Acenaphthene	5.74	5.64	5.88	720622	737521	2.35
Fluorene	6.74	6.64	6.88	730458	762332	4.36
Phenanthrene	8.81	8.72	8.96	753650	794641	5.44
Anthracene	8.93	8.84	9.08	762143	800704	5.06
Fluoroanthene	11.68	11.59	11.83	807346	841515	4.23
Pyrene	12.19	12.10	12.34	828781	860269	3.80
Benzo[a]anthracene	15.27	15.18	15.42	831625	818743	1.55
Chrysene	15.38	15.30	15.54	834971	811190	2.85
Benzo[b]fluoranthene	17.95	17.86	18.10	1684593	1599459	5.05
Benzo[k]fluoranthene	17.95	17.86	18.10	1684720	1600576	4.99
Benzo[a]pyrene	18.53	18.45	18.69	829780	786687	5.19
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1530744	5.58
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1530744	5.59
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	778081	4.00
C10-C12	2.70	2.58	2.82	1282694	1213349	5.41
C12-C16	4.95	4.83	5.07	2123893	2148945	1.18
C16-C21	9.60	9.48	9.72	3939025	4106236	4.24
C21-C36	17.20	17.08	17.32	7147816	6519640	8.79

NJ-EPH AROMATIC CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/12/2012 **Instrument ID:** GC-N

Data File: NB1391.D **GC Column :** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
1,2,3-Trimethylbenzene	2.03	1.92	2.16	602562	620583	2.99
Napthalene	3.13	3.02	3.26	655131	707304	7.96
2-Methylnaphthalene	3.98	3.88	4.12	678249	747694	10.24
Acenaphthylene	5.38	5.28	5.52	699888	789234	12.77
Acenaphthene	5.74	5.64	5.88	720622	810629	12.49
Fluorene	6.74	6.64	6.88	730458	837098	14.60
Phenanthrene	8.81	8.72	8.96	753650	867237	15.07
Anthracene	8.93	8.84	9.08	762143	872877	14.53
Fluoroanthene	11.68	11.59	11.83	807346	895006	10.86
Pyrene	12.19	12.10	12.34	828781	909044	9.68
Benzo[a]anthracene	15.27	15.18	15.42	831625	829426	0.26
Chrysene	15.38	15.30	15.54	834971	828108	0.82
Benzo[b]fluoranthene	17.94	17.86	18.10	1684593	1605873	4.67
Benzo[k]fluoranthene	17.94	17.86	18.10	1684720	1606287	4.66
Benzo[a]pyrene	18.53	18.45	18.69	829780	791137	4.66
Indeno[1,2,3-cd]pyrene	20.85	20.75	20.99	1621239	1556773	3.98
Dibenz[a,h]anthracene	20.85	20.75	20.99	1621409	1556773	3.99
Benzo[g,h,i]perylene	21.11	21.02	21.26	810513	788877	2.67
C10-C12	2.70	2.58	2.82	1282694	1332710	3.90
C12-C16	4.95	4.83	5.07	2123893	2364008	11.31
C16-C21	9.60	9.48	9.72	3939025	4429988	12.46
C21-C36	17.20	17.08	17.32	7147816	6551460	8.34

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1363.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 11:45
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 13:26:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.58	194406082	270.896	ng	
Spiked Amount	50.000		Recovery	= 541.79%		
2) S	2-Bromonaphthalene	5.63	138198888	276.265	ng	
Spiked Amount	50.000		Recovery	= 552.53%		
3) S	o-Terphenyl	9.99	253418818	273.910	ng	
Spiked Amount	50.000		Recovery	= 547.82%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	141434330	234.722	ng	
5) T	Napthalene	3.13	160470780	244.945	ng	
6) T	2-Methylnaphthalene	3.98	170027628	250.686	ng	
7) T	Acenaphthylene	5.39	179425491	256.363	ng	
8) T	Acenaphthene	5.74	184380344	255.756	ng	
9) T	Fluorene	6.74	190583043	260.909	ng	
10) T	Phenanthrene	8.81	198660154	263.597	ng	
11) T	Anthracene	8.93	200175962	262.346	ng	
12) T	Fluoroanthene	11.68	210378634	260.580	ng	
13) T	Pyrene	12.19	215067309	259.498	ng	
14) T	Benzo[a]anthracene	15.27	204685836	246.433	ng	
15) T	Chrysene	15.38	202797401	242.764	ng	
16) T	Benzo[b]fluoranthene	17.95	399864659	237.340	ng	m
17) T	Benzo[k]fluoranthene	17.95	400144069	237.506	ng	m
18) T	Benzo[a]pyrene	18.53	196671740	237.017	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.85	382686071	236.246	ng	
20) T	Dibenz[a,h]anthracene	20.85	382686071	236.017	ng	
21) T	Benzo[g,h,i]perylene	21.11	194520361	239.742	ng	
22) H	C10-C12	2.70	303337334	472.969	ng	
23) H	C12-C16	4.95	537236285	758.847	ng	
24) H	C16-C21	9.60	1026558946	1303.062	ng	
25) H	C21-C36	17.20	1629909893	1824.233	ng	

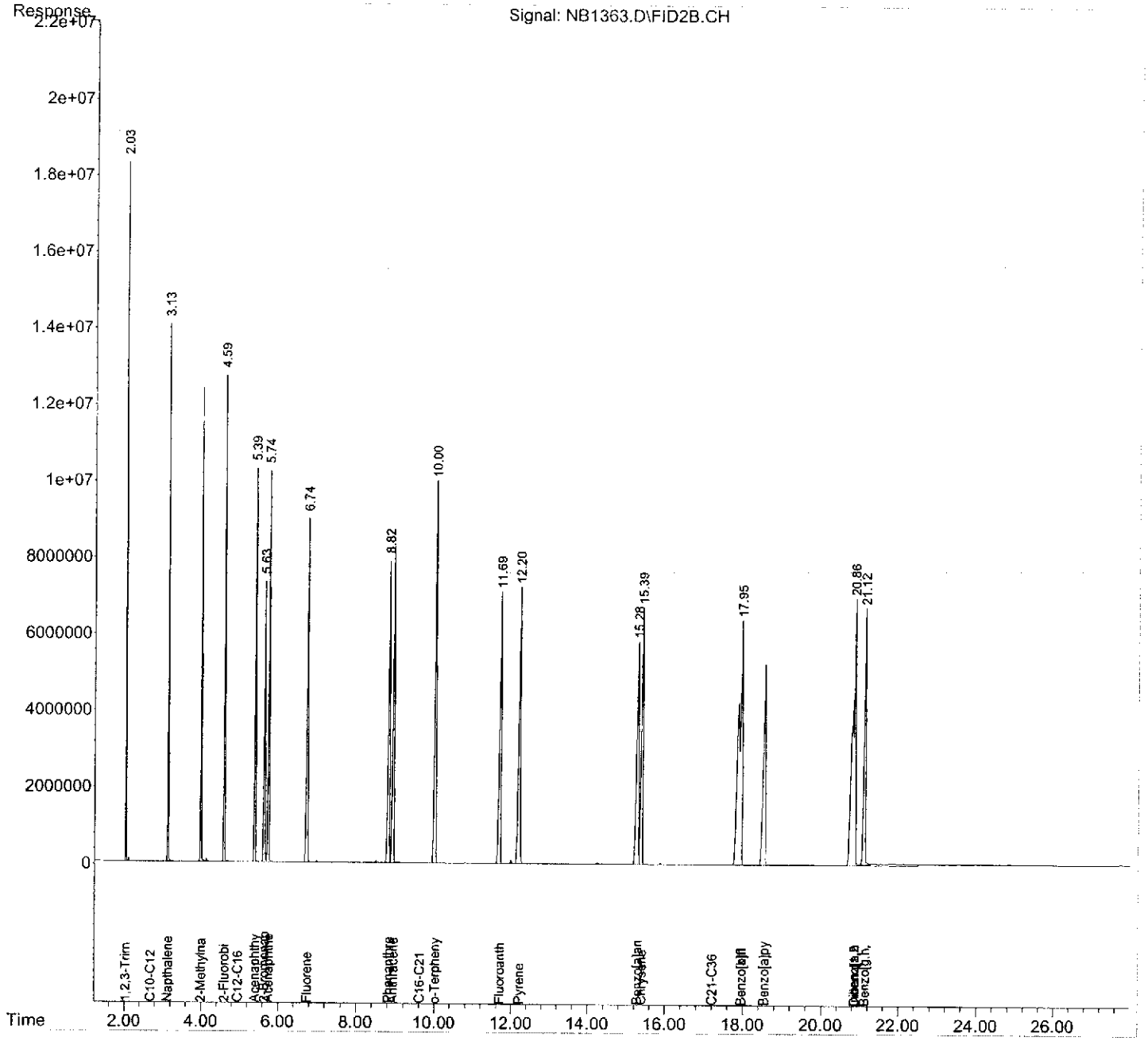
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1363.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 11:45
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 11 13:26:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1391.D
Signal(s) : FID2B.CH
Acq On : 12 Jul 2012 7:52
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 78 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:34:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.58	212561420	296.195	ng	
Spiked Amount	50.000		Recovery	= 592.39%		
2) S	2-Bromonaphthalene	5.62	151691890	303.238	ng	
Spiked Amount	50.000		Recovery	= 606.48%		
3) S	o-Terphenyl	9.99	275771345	298.070	ng	
Spiked Amount	50.000		Recovery	= 596.14%		
	Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.03	155145792	257.477	ng	
5) T	Napthalene	3.13	176825981	269.909	ng	
6) T	2-Methylnaphthalene	3.98	186923559	275.597	ng	
7) T	Acenaphthylene	5.38	197308399	281.914	ng	
8) T	Acenaphthene	5.74	202657344	281.109	ng	
9) T	Fluorene	6.74	209274431	286.498	ng	
10) T	Phenanthrene	8.81	216809220	287.679	ng	
11) T	Anthracene	8.93	218219168	285.993	ng	
12) T	Fluoroanthene	11.68	223751526	277.144	ng	
13) T	Pyrene	12.19	227261123	274.211	ng	
14) T	Benzo[a]anthracene	15.27	207356517	249.649	ng	
15) T	Chrysene	15.38	207027047	247.827	ng	
16) T	Benzo[b]fluoranthene	17.94	401468367	238.292	ng	m
17) T	Benzo[k]fluoranthene	17.94	401571771	238.354	ng	m
18) T	Benzo[a]pyrene	18.53	197784278	238.357	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.85	389193367	240.263	ng	
20) T	Dibenz[a,h]anthracene	20.85	389193367	240.030	ng	
21) T	Benzo[g,h,i]perylene	21.11	197219371	243.068	ng	
22) H	C10-C12	2.70	333177472	519.497	ng	
23) H	C12-C16	4.95	591002067	834.791	ng	
24) H	C16-C21	9.60	1107496946	1405.801	ng	
25) H	C21-C36	17.20	1637865058	1833.136	ng	

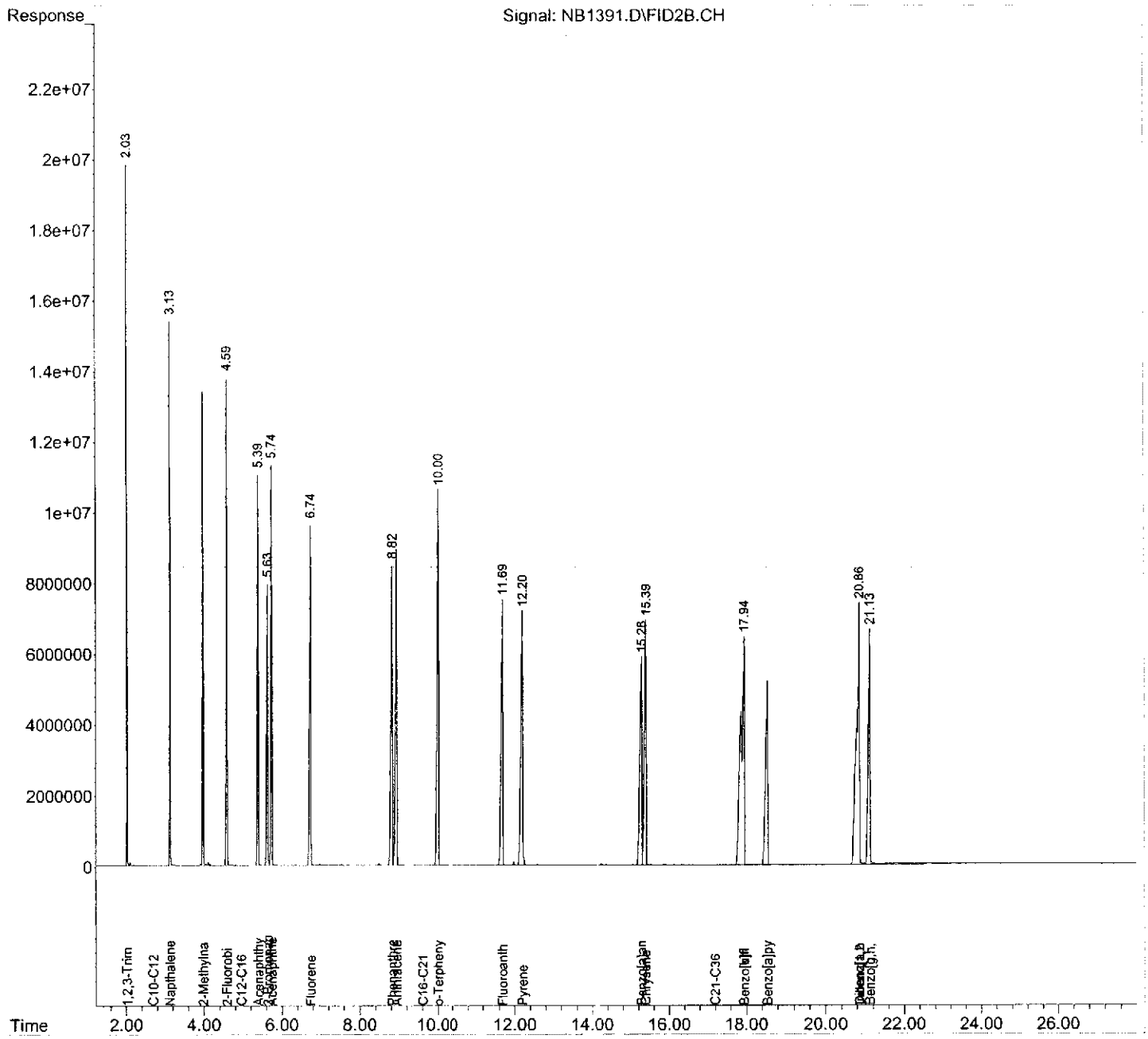
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA_2\07-11-12\
Data File : NB1391.D
Signal(s) : FID2B.CH
Acq On : 12 Jul 2012 7:52
Operator : MJ
Sample : ARO_C_IAS_4189,250_PPM
Misc : ,NA,NA,1
ALS Vial : 78 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:34:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



FRACTIONATED
EXTRACTABLE PETROLEUM HYDROCARBON
RAW QC DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1760.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 9:37
Operator : MJ
Sample : ALI,LCSS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:38:40 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	24825544	25.688 ng
Spiked Amount 50.000		Recovery =	51.38%
Target Compounds			
2) T n-Nonane (C9)	1.34	18442165	19.868 ng
3) T n-Decane (C10)	1.84	20330748	21.040 ng
4) T n-Dodecane (C12)	3.26	24205585	25.034 ng
5) T n-Tetradecane (C14)	5.01	27594047	27.349 ng
6) T n-Hexadecane (C16)	7.07	29362808	28.681 ng
7) T n-Octadecane (C18)	9.22	29942595	28.766 ng
8) T n-Eicosane (C20)	11.31	29524136	28.926 ng
9) T n-Heneicosane (C21)	12.30	35429034	35.371 ng
10) T n-Docosane (C22)	13.25	31849004	32.165 ng
11) T n-Tetracosane (C24)	15.07	29083012	30.604 ng
12) T n-Hexacosane (C26)	16.75	29592213	32.405 ng
13) T n-Octacosane (C28)	18.32	29503217	34.021 ng
14) T n-Triacontane (C30)	19.79	29517259	35.411 ng
15) T n-Dotriacontane (C32)	21.04	28552115	35.876 ng
16) T n-Tetratriacontane (C34)	21.80	29336485	36.841 ng
17) T n-Hexatriacontane (C36)	22.62	26972211	34.765 ng
18) T n-Octatriacontane (C38)	23.65	23967282	31.440 ng
19) T n-Tetracontane (40)	25.02	20834915	27.476 ng
20) H C9-C12	2.36	72181904	70.760 ng
21) H C12-C16	5.40	64704921	60.765 ng
22) H C16-C21	9.95	106568472	101.241 ng
23) H C21-C40	18.95	342121318	373.594 ng

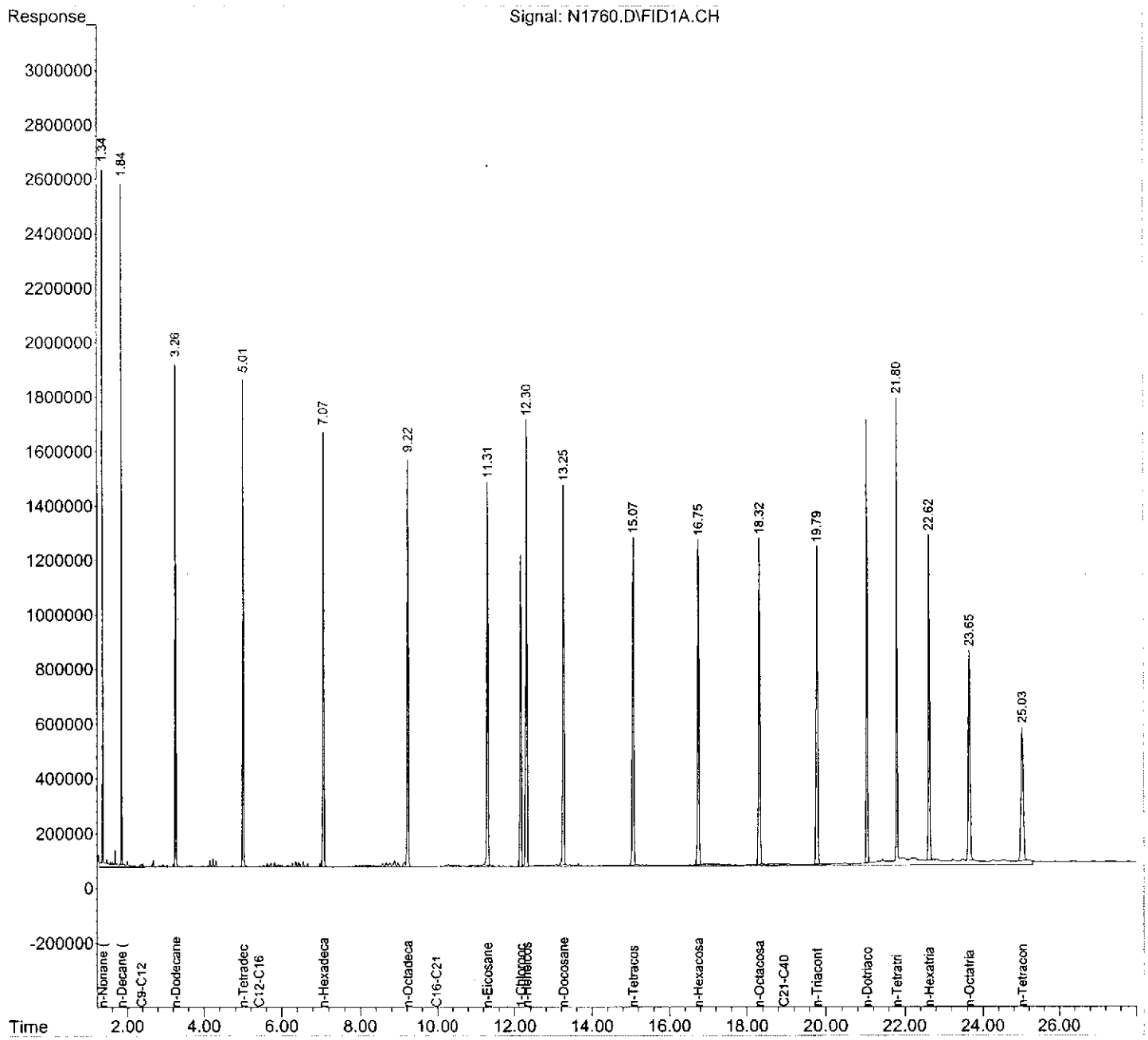
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1760.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 9:37
Operator : MJ
Sample : ALI,LCSS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:38:40 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1761.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 10:11
Operator : MJ
Sample : ALI,LCSDS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:38:51 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1-Chlorooctadecane	12.16	24665423	25.522 ng
Spiked Amount	50.000		Recovery =	51.04%
Target Compounds				
2) T	n-Nonane (C9)	1.34	18280191	19.694 ng
3) T	n-Decane (C10)	1.84	20128366	20.831 ng
4) T	n-Dodecane (C12)	3.26	23960019	24.780 ng
5) T	n-Tetradecane (C14)	5.01	27317147	27.074 ng
6) T	n-Hexadecane (C16)	7.07	29093806	28.418 ng
7) T	n-Octadecane (C18)	9.22	29721640	28.554 ng
8) T	n-Eicosane (C20)	11.31	29281552	28.689 ng
9) T	n-Heneicosane (C21)	12.30	35194390	35.137 ng
10) T	n-Docosane (C22)	13.25	31590345	31.904 ng
11) T	n-Tetracosane (C24)	15.06	28800491	30.306 ng
12) T	n-Hexacosane (C26)	16.75	29216318	31.993 ng
13) T	n-Octacosane (C28)	18.32	29150518	33.614 ng
14) T	n-Triacontane (C30)	19.79	29159036	34.982 ng
15) T	n-Dotriacontane (C32)	21.04	28249164	35.495 ng
16) T	n-Tetratriacontane (C34)	21.79	29089444	36.531 ng
17) T	n-Hexatriacontane (C36)	22.61	26691051	34.402 ng
18) T	n-Octatriacontane (C38)	23.64	23716836	31.111 ng
19) T	n-Tetracontane (40)	25.01	20765985	27.385 ng
20) H	C9-C12	2.36	71898546	70.482 ng
21) H	C12-C16	5.40	64003788	60.107 ng
22) H	C16-C21	9.95	105831767	100.541 ng
23) H	C21-C40	18.95	339021189	370.208 ng

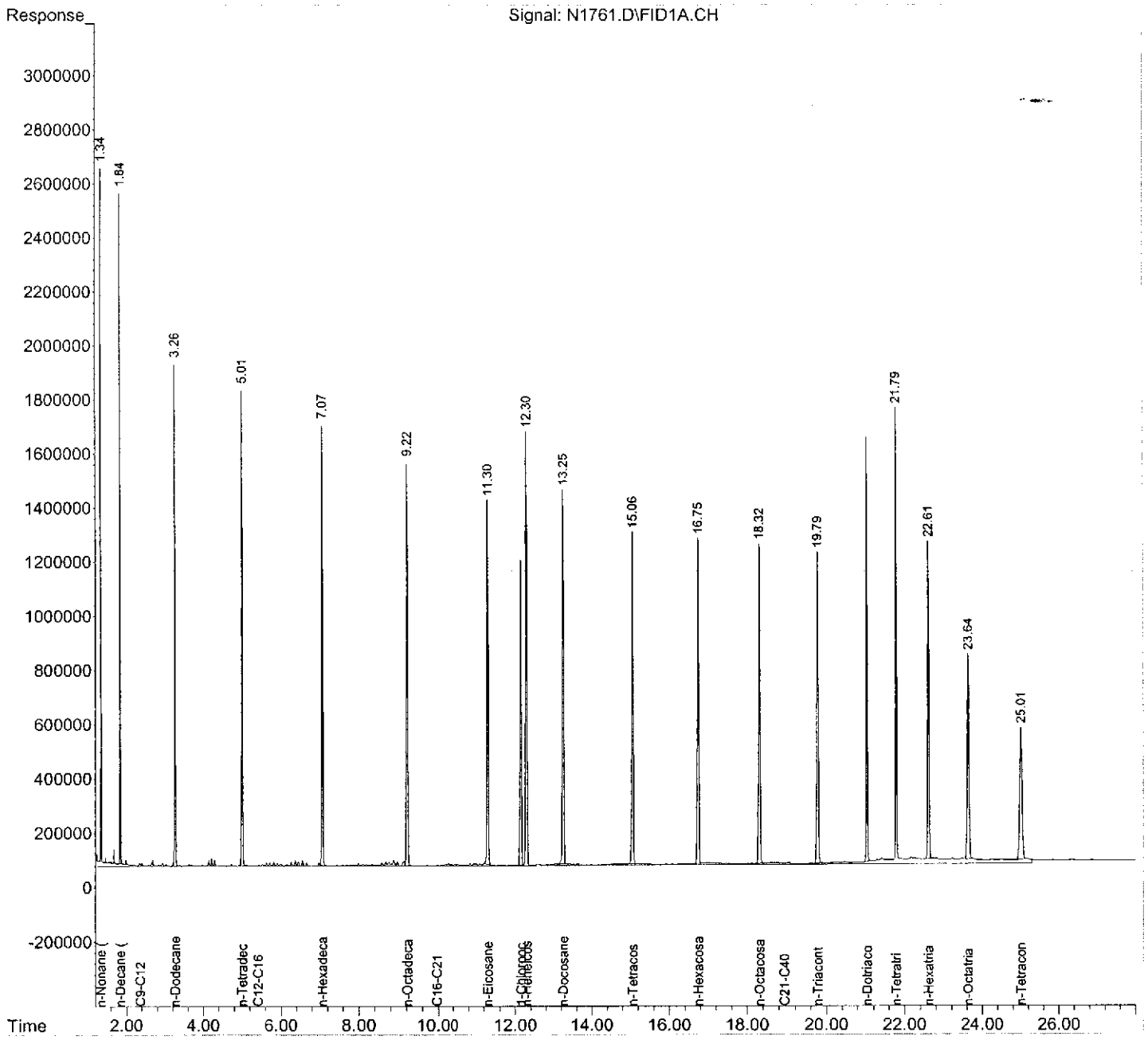
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1761.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 10:11
Operator : MJ
Sample : ALI,LCSDS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 16:38:51 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1365.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 15:18
Operator : MJ
Sample : ARO,LCSS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:52:24 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units	
System Monitoring Compounds					
1) S	2-Fluorobiphenyl	4.57	25335850	35.304 ng	
Spiked Amount	50.000		Recovery	= 70.61%	
2) S	2-Bromonaphthalene	5.60	19073291	38.128 ng	
Spiked Amount	50.000		Recovery	= 76.26%	
3) S	o-Terphenyl	9.96	47603253	51.452 ng	
Spiked Amount	50.000		Recovery	= 102.90%	
Target Compounds					
4) T	1,2,3-Trimethylbenzene	2.02	12123663	20.120 ng	m
5) T	Napthalene	3.12	17974078	27.436 ng	
6) T	2-Methylnaphthalene	3.97	22004863	32.444 ng	
7) T	Acenaphthylene	5.36	26647837	38.074 ng	
8) T	Acenaphthene	5.71	29121241	40.394 ng	
9) T	Fluorene	6.71	30053305	41.143 ng	
10) T	Phenanthrene	8.78	33108547	43.931 ng	m
11) T	Anthracene	8.88	32118370	42.094 ng	
12) T	Fluoroanthene	11.64	35463949	43.927 ng	
13) T	Pyrene	12.14	36184331	43.660 ng	
14) T	Benzo[a]anthracene	15.22	35721482	43.007 ng	m
15) T	Chrysene	15.32	36420609	43.598 ng	
16) T	Benzo[b]fluoranthene	17.85	69330891	41.151 ng	
17) T	Benzo[k]fluoranthene	17.85	69330891	41.151 ng	
18) T	Benzo[a]pyrene	18.46	30816972	37.139 ng	
19) T	Indeno[1,2,3-cd]pyrene	20.79	65751837	40.591 ng	m
20) T	Dibenz[a,h]anthracene	20.79	65650524	40.489 ng	m
21) T	Benzo[g,h,i]perylene	21.05	32971559	40.637 ng	
22) H	C10-C12	2.70	31159924	48.585 ng	
23) H	C12-C16	4.95	83111221	117.395 ng	
24) H	C16-C21	9.60	188206622	238.900 ng	
25) H	C21-C36	17.20	319864925	358.000 ng	

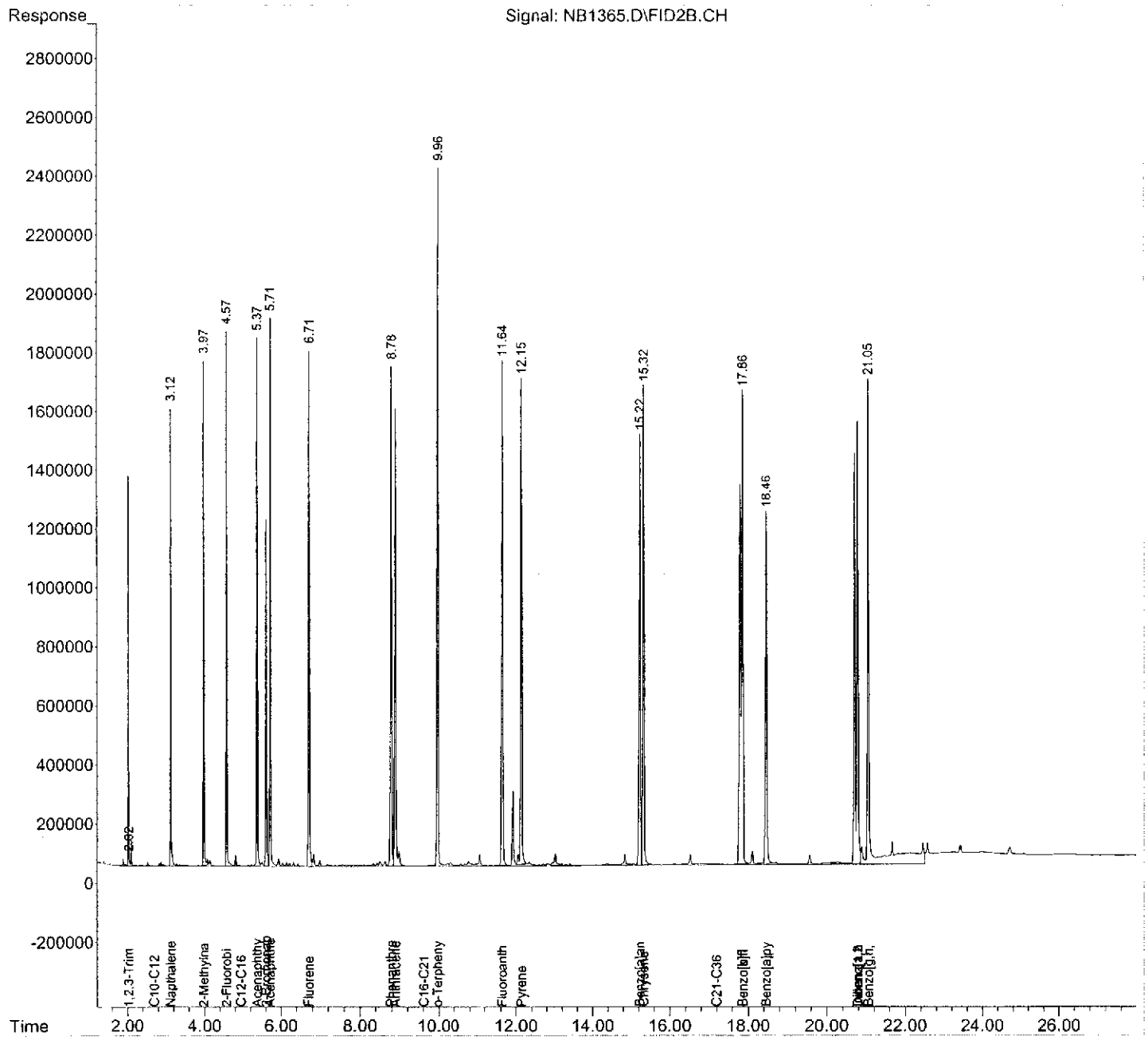
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1365.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 15:18
Operator : MJ
Sample : ARO,LCSS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:52:24 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1366.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 15:52
Operator : MJ
Sample : ARO,LCSDS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:53:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	2-Fluorobiphenyl	4.57	22188590	30.919	ng	
Spiked Amount	50.000		Recovery	= 61.84%		
2) S	2-Bromonaphthalene	5.60	16838448	33.661	ng	
Spiked Amount	50.000		Recovery	= 67.32%		
3) S	o-Terphenyl	9.96	43306911	46.809	ng	
Spiked Amount	50.000		Recovery	= 93.62%		
Target Compounds						
4) T	1,2,3-Trimethylbenzene	2.02	12165082	20.189	ng	m
5) T	Napthalene	3.12	15623001	23.847	ng	
6) T	2-Methylnaphthalene	3.97	19055140	28.095	ng	
7) T	Acenaphthylene	5.36	23537213	33.630	ng	
8) T	Acenaphthene	5.71	25849635	35.856	ng	
9) T	Fluorene	6.71	26727859	36.591	ng	
10) T	Phenanthrene	8.78	29979986	39.780	ng	m
11) T	Anthracene	8.88	29147985	38.201	ng	
12) T	Fluoroanthene	11.64	32803516	40.631	ng	
13) T	Pyrene	12.14	33588802	40.528	ng	
14) T	Benzo[a]anthracene	15.22	34264293	41.253	ng	m
15) T	Chrysene	15.32	35048189	41.955	ng	
16) T	Benzo[b]fluoranthene	17.85	68122272	40.434	ng	
17) T	Benzo[k]fluoranthene	17.85	68122272	40.434	ng	
18) T	Benzo[a]pyrene	18.46	30399793	36.636	ng	
19) T	Indeno[1,2,3-cd]pyrene	20.79	63471820	39.183	ng	m
20) T	Dibenz[a,h]anthracene	20.79	63748436	39.316	ng	m
21) T	Benzo[g,h,i]perylene	21.04	31826860	39.226	ng	
22) H	C10-C12	2.70	28578372	44.560	ng	
23) H	C12-C16	4.95	73659944	104.045	ng	
24) H	C16-C21	9.60	171370950	217.530	ng	
25) H	C21-C36	17.20	313302473	350.655	ng	

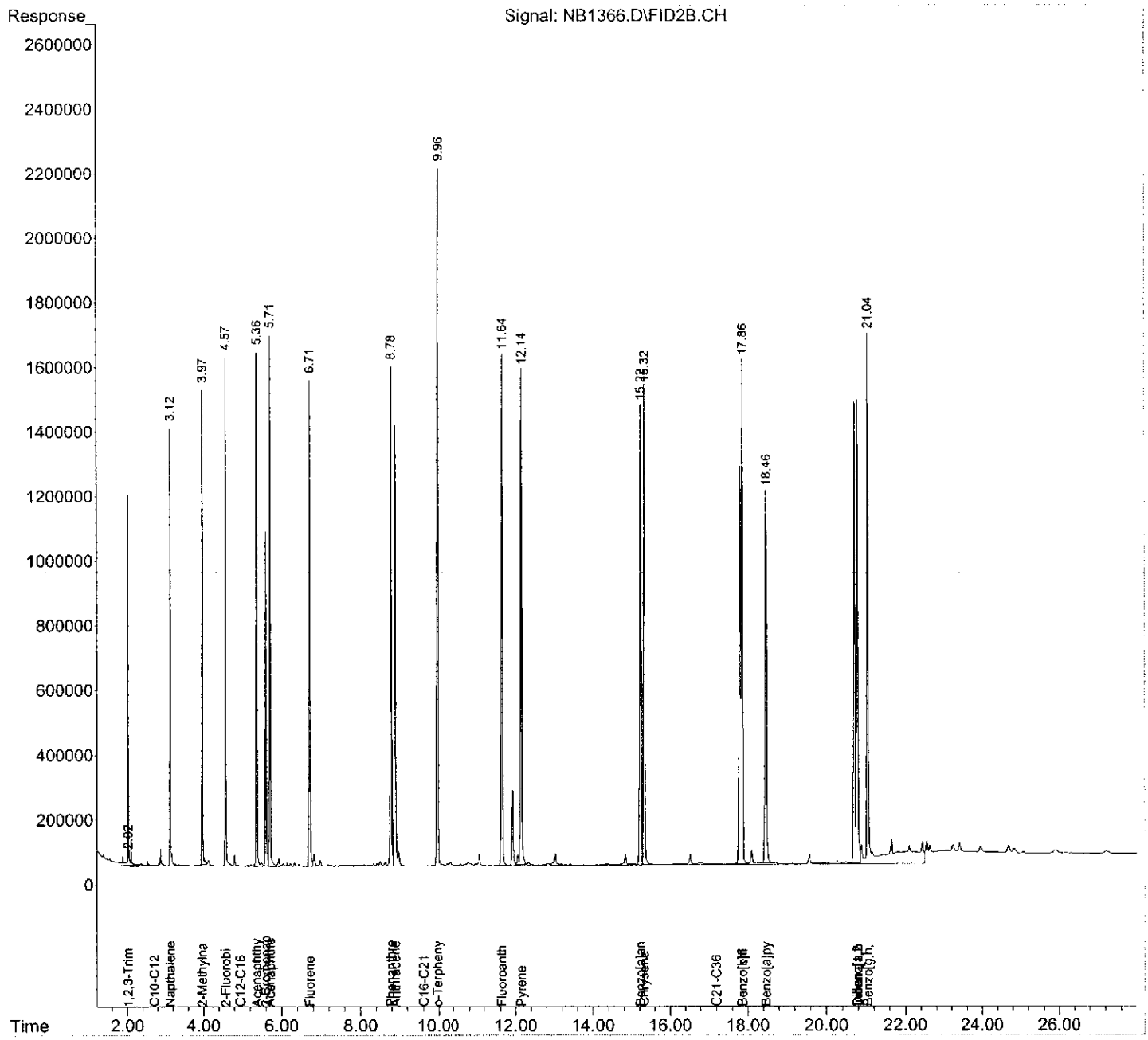
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1366.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 15:52
Operator : MJ
Sample : ARO,LCSDS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 55 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:53:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1754.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 4:23
Operator : MJ
Sample : ALI,06640-003MS,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:32:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	23039573	23.840 ng
Spiked Amount 50.000		Recovery =	47.68%
Target Compounds			
20) H C9-C12	2.36	89033547	87.280 ng
21) H C12-C16	5.40	59948286	56.298 ng
22) H C16-C21	9.95	97947757	93.051 ng
23) H C21-C40	18.95	320991465	350.520 ng

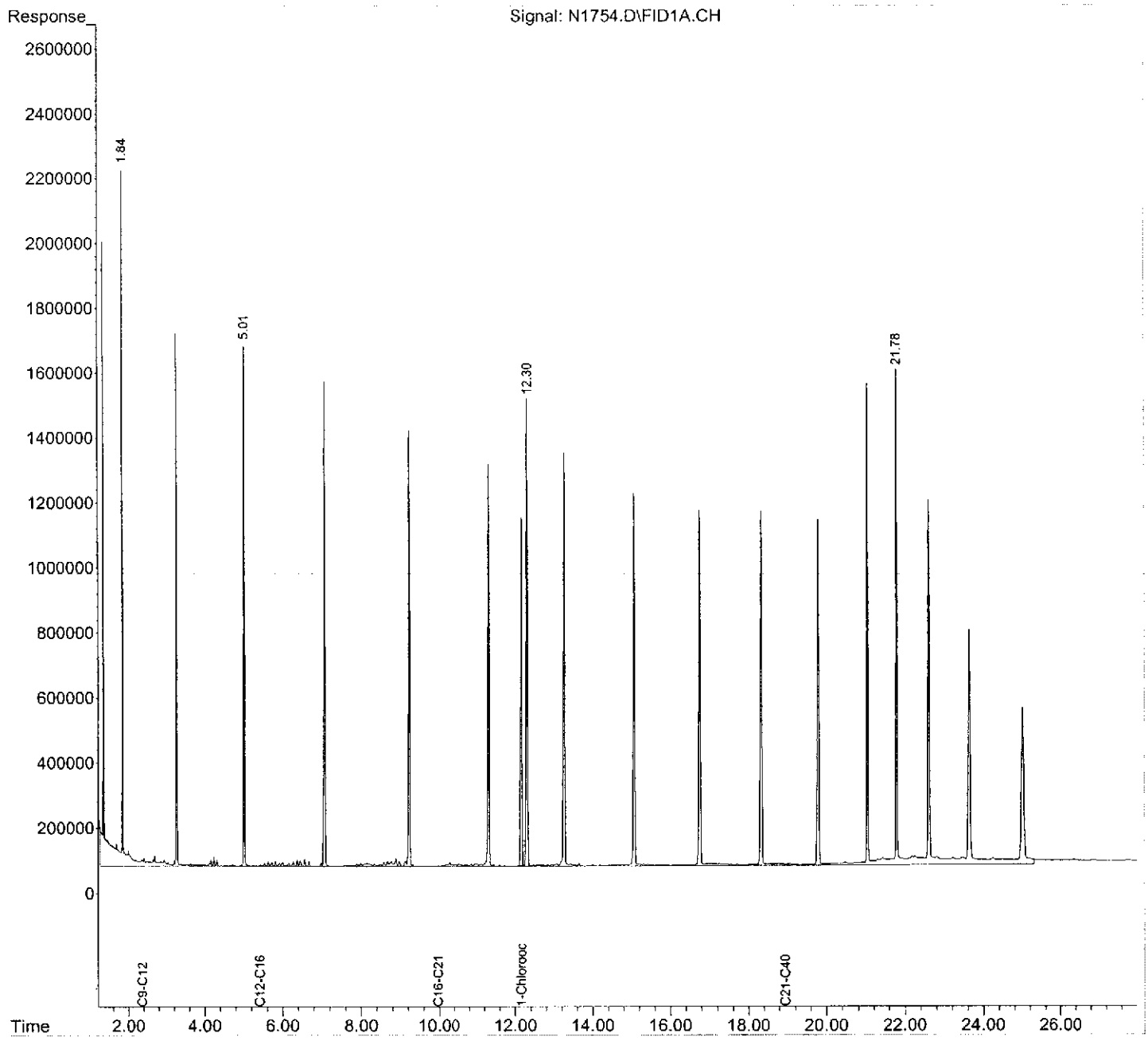
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1754.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 4:23
Operator : MJ
Sample : ALI,06640-003MS,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:32:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1388.D
Signal(s) : FID2B.CH
Acq On : 12 Jul 2012 4:23
Operator : MJ
Sample : ARO,06640-003MS,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 77 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:05:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	21049229	29.331 ng
Spiked Amount 50.000		Recovery =	58.66%
2) S 2-Bromonaphthalene	5.60	15214327	30.414 ng
Spiked Amount 50.000		Recovery =	60.83%
3) S o-Terphenyl	9.96	37585867	40.625 ng
Spiked Amount 50.000		Recovery =	81.25%
Target Compounds			
22) H C10-C12	2.70	35101144	54.730 ng
23) H C12-C16	4.95	69250354	97.816 ng
24) H C16-C21	9.60	145383265	184.542 ng
25) H C21-C36	17.20	247019526	276.470 ng

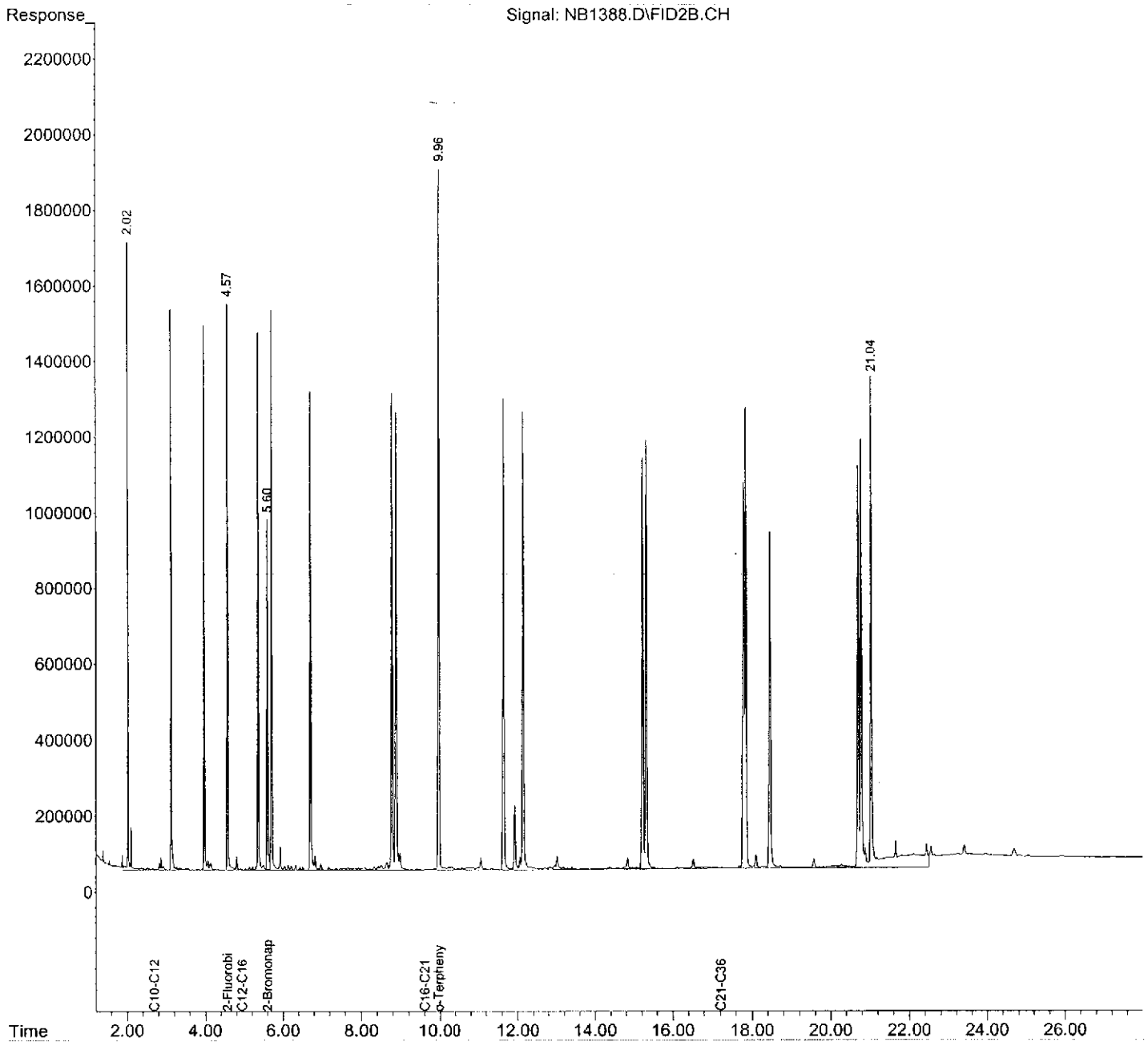
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1388.D
Signal(s) : FID2B.CH
Acq On : 12 Jul 2012 4:23
Operator : MJ
Sample : ARO,06640-003MS,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 77 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:05:23 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1387.D
Signal(s) : FID2B.CH
Acq On : 12 Jul 2012 3:49
Operator : MJ
Sample : H3_(9-10,06640-3D,S,5.00g,11.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 76 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:04:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	17944856	25.005 ng
Spiked Amount 50.000		Recovery =	50.01%
2) S 2-Bromonaphthalene	5.60	13323884	26.635 ng
Spiked Amount 50.000		Recovery =	53.27%
3) S o-Terphenyl	9.96	34156369	36.918 ng
Spiked Amount 50.000		Recovery =	73.84%
Target Compounds			

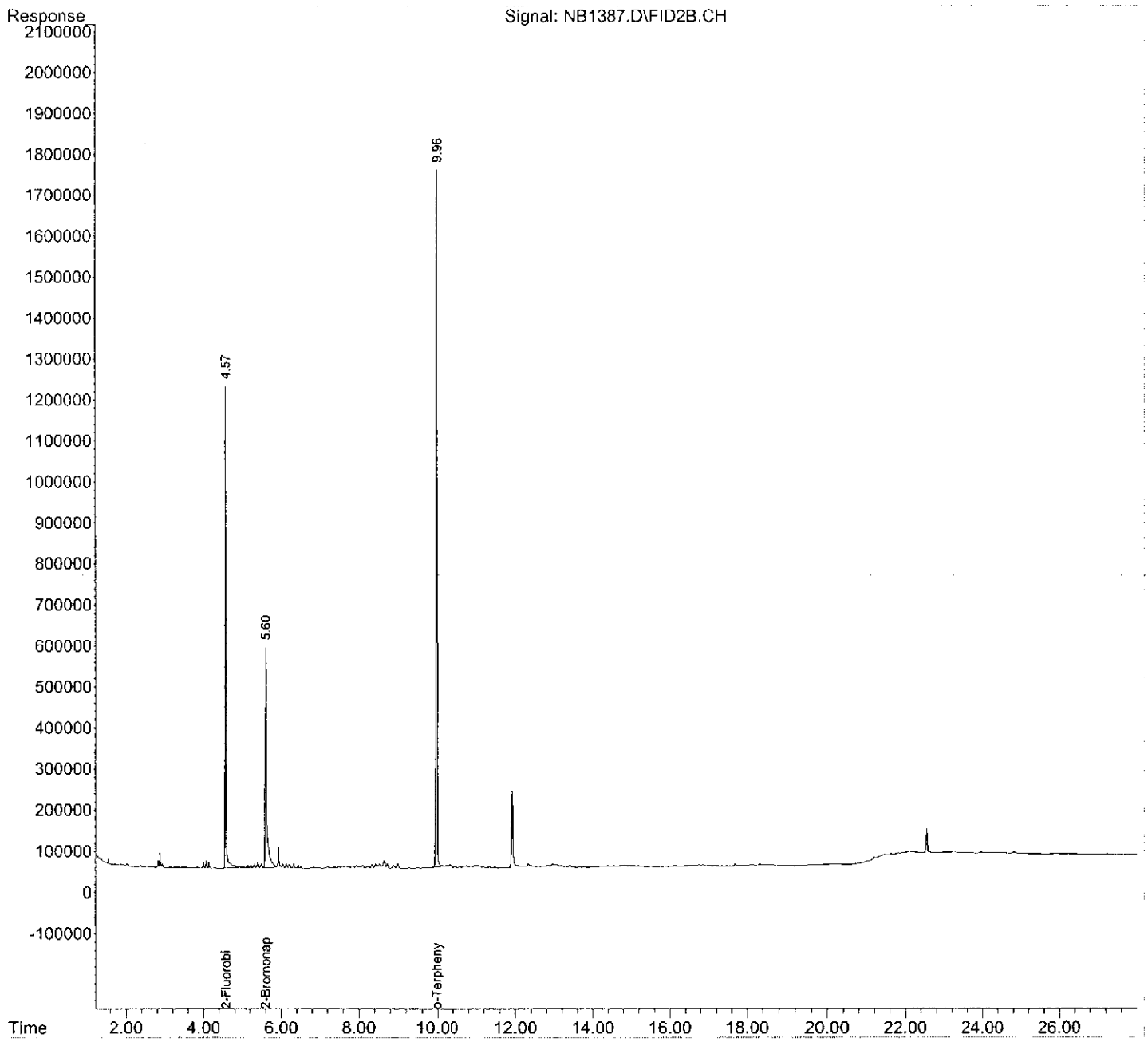
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1387.D
Signal(s) : FID2B.CH
Acq On : 12 Jul 2012 3:49
Operator : MJ
Sample : H3_(9-10,06640-3D,S,5.00g,11.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 76 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:04:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1764.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 12:28
Operator : MJ
Sample : H3_(9-10,06640-3D,S,5.00g,11.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 14:36:24 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	21309176	22.049 ng
Spiked Amount 50.000		Recovery =	44.10%
Target Compounds			

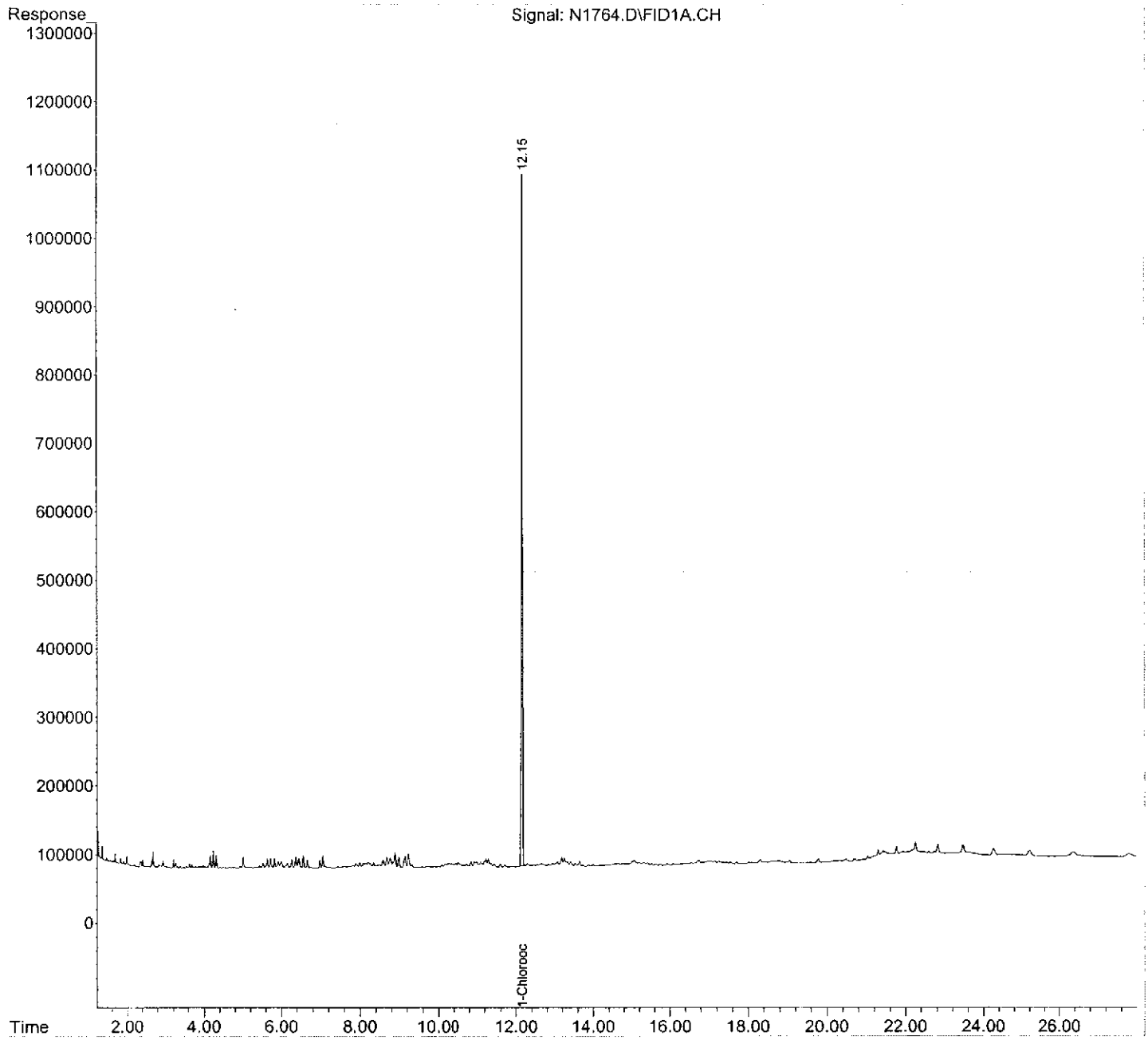
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-12-12\
Data File : N1764.D
Signal(s) : FID1A.CH
Acq On : 12 Jul 2012 12:28
Operator : MJ
Sample : H3_(9-10,06640-3D,S,5.00g,11.7,07/10/12,1
Misc : 120710-01,07/02/12,07/03/12,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 14:36:24 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



INTEGRATED ANALYTICAL LABORATORIES

NJ-EPH-Fractionated

Lab ID: BLKS120710-01
Client ID: ARO
Date Received: NA
Date Extracted: 07/10/2012
Date Analyzed: 07/11/2012
Data file: N1730.D
Data file: NB1364.D

GC Column: DB-5
Sample wt/vol: 5.00g
Matrix-Units: Soil-mg/Kg (ppm)
% Moisture: NA

Dilution Factor: 1
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
C9-C12 Aliphatics	ND		12.0	2.00
C12-C16 Aliphatics	ND		8.00	2.00
C16-C21 Aliphatics	ND		12.0	2.00
C21-C40 Aliphatics	ND		40.0	10.0
Total Aliphatics	0		40.0	10.0
C10-C12 Aromatics	ND		8.00	4.00
C12-C16 Aromatics	ND		12.0	4.00
C16-C21 Aromatics	ND		20.0	4.00
C21-C36 Aromatics	ND		32.0	8.00
Total Aromatics	0		32.0	8.00
Total NJ-EPH	0		40.0	10.0

E12-06640 0323

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1730.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 14:44
Operator : MJ
Sample : ALI,BLKS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:09:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1-Chlorooctadecane	12.16	25435361	26.319 ng
Spiked Amount 50.000		Recovery =	52.64%
Target Compounds			

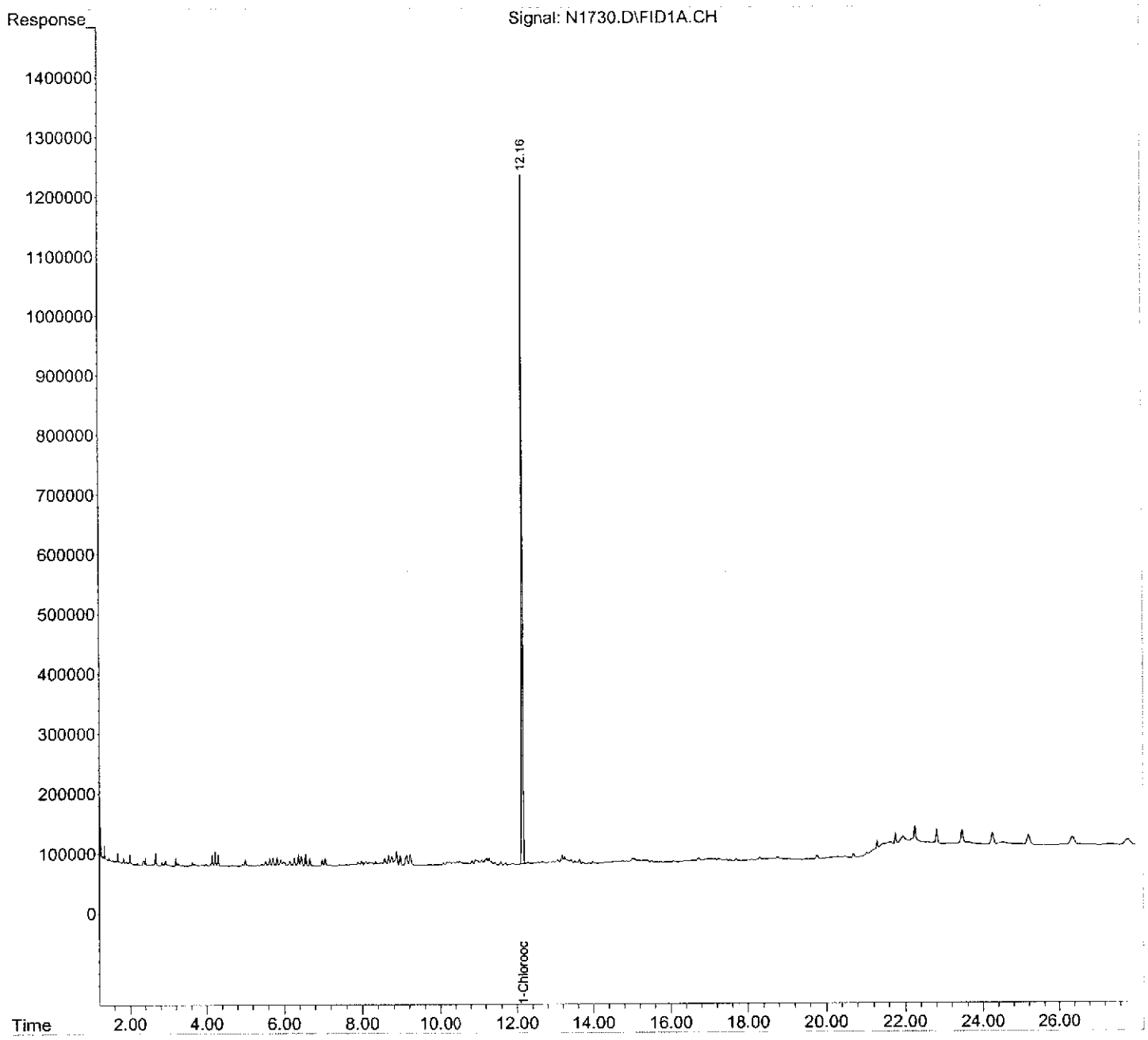
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-11-12\
Data File : N1730.D
Signal(s) : FID1A.CH
Acq On : 11 Jul 2012 14:44
Operator : MJ
Sample : ALI,BLKS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 3 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 08:09:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\NALI0622.M
Quant Title :
QLast Update : Mon Jun 25 09:20:46 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1364.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 14:44
Operator : MJ
Sample : ARO,BLKS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:40:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 2-Fluorobiphenyl	4.57	15138385	21.095 ng
Spiked Amount 50.000		Recovery =	42.19%
2) S 2-Bromonaphthalene	5.61	14140393	28.267 ng
Spiked Amount 50.000		Recovery =	56.53%
3) S o-Terphenyl	9.96	51677110	55.856 ng
Spiked Amount 50.000		Recovery =	111.71%
Target Compounds			

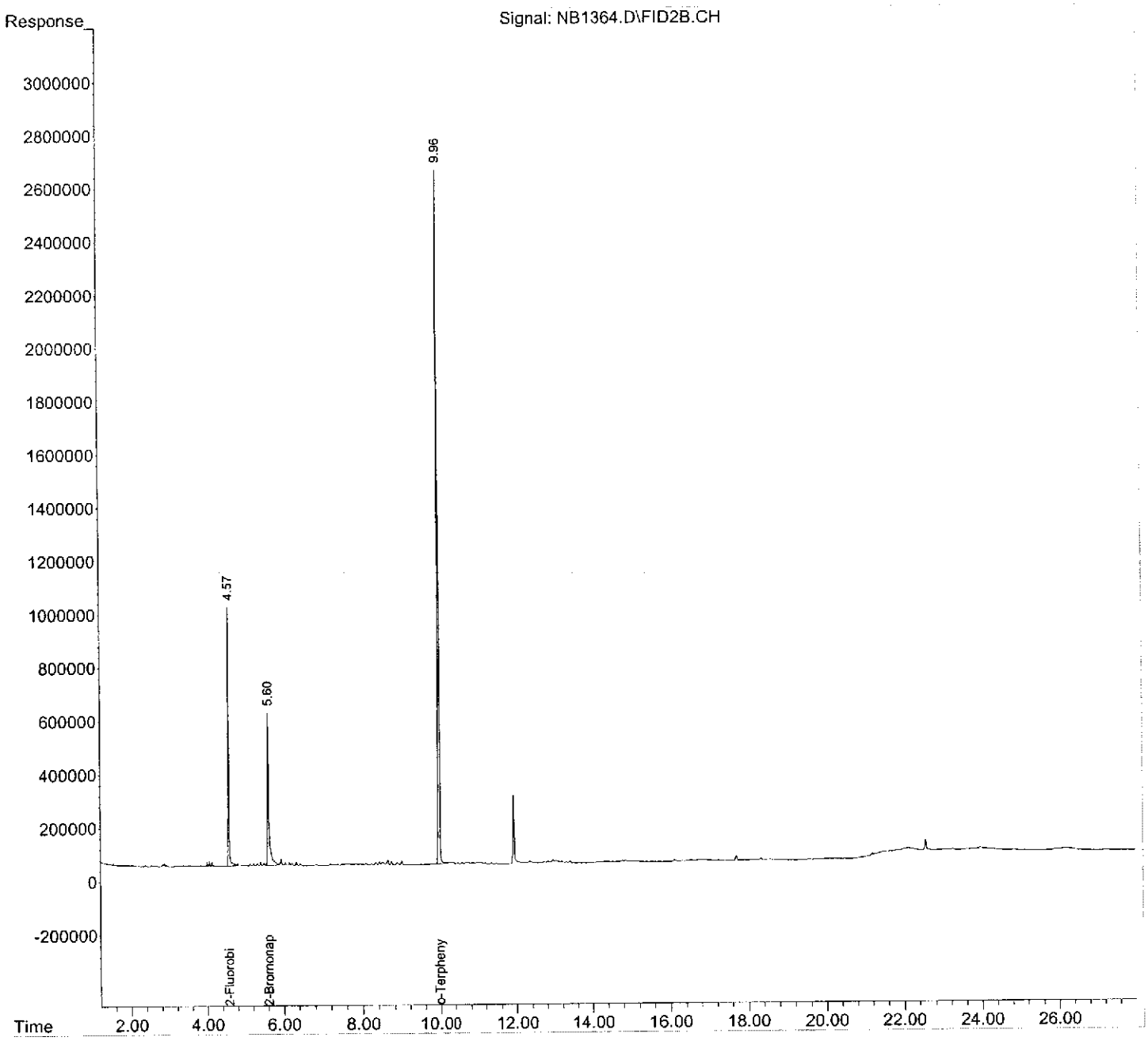
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA_2\07-11-12\
Data File : NB1364.D
Signal(s) : FID2B.CH
Acq On : 11 Jul 2012 14:44
Operator : MJ
Sample : ARO,BLKS120710-01,S,5.00g,0,07/10/12,1
Misc : 120710-01,NA,NA,1
ALS Vial : 53 Sample Multiplier: 1

Integration File: AUTOINT1.E
Quant Time: Jul 12 07:40:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\N2AR0626.M
Quant Title :
QLast Update : Tue Jun 26 14:34:03 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 282
SDG #: 06674, 06225, 06640, 06673, 06626, 06699

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	50.8	102	52.1	104	46.3	92.6	48.9	97.8
Antimony	0.250	50.0	48.9	97.8	47.9	95.8	49.4	98.8	49.3	98.6
Arsenic	0.250	50.0	47.6	95.2	49.3	98.6	50.9	102	53.6	107
Barium	2.50	50.0	46.7	93.4	46.4	92.8	48.2	96.4	47.6	95.2
Beryllium	0.200	50.0	47.7	95.4	46.4	92.8	47.7	95.4	47.7	95.4
Cadmium	0.125	50.0	47.8	95.6	50.7	101	51.9	104	49.4	98.8
Calcium	25.0	500	470	94.0	487	97.4	497	99.4	526	105
Chromium	0.500	50.0	47.4	94.8	48.4	96.8	50.1	100	53.4	107
Cobalt	0.500	50.0	48.2	96.4	50.1	100	51.2	102	54.3	109
Copper	0.500	50.0	48.2	96.4	49.5	99.0	50.9	102	54.0	108
Iron	12.5	500	486	97.2	540	108	476	95.2	489	97.8
Lead	0.125	50.0	48.9	97.8	49.8	99.6	50.9	102	50.3	101
Magnesium	12.5	500	483	96.6	478	95.6	504	101	539	108
Manganese	0.250	50.0	47.1	94.2	48.0	96.0	49.9	99.8	53.5	107
Mercury	0.120	5.00	4.53	90.6	4.50	90.0	4.95	99.0	5.04	101
Nickel	0.500	50.0	48.2	96.4	49.5	99.0	50.3	101	54.2	108
Potassium	12.5	500	485	97.0	489	97.8	505	101	537	107
Selenium	1.00	50.0	46.3	92.6	49.1	98.2	45.2	90.4	47.8	95.6
Silver	0.125	10.0	10.2	102	10.5	105	10.7	107	10.5	105
Sodium	25.0	500	514	103	489	97.8	509	102	550	110
Thallium	0.125	50.0	48.3	96.6	49.1	98.2	50.0	100	49.7	99.4
Vanadium	0.500	50.0	46.7	93.4	47.7	95.4	51.0	102	54.2	108
Zinc	2.00	50.0	49.2	98.4	51.1	102	45.8	91.6	48.7	97.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 282
SDG #: 06674, 06225, 06640, 06673, 06626, 06699

Matrix: Soil Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	FOUND	% R
Aluminum	5.00	50.0	51.4	103	50.9	102	50.7	101		
Antimony	0.250	50.0	50.0	100	53.9	108	49.4	98.8		
Arsenic	0.250	50.0	50.3	101	49.8	99.6	49.1	98.2		
Barium	2.50	50.0	49.6	99.2	53.2	106	47.2	94.4		
Beryllium	0.200	50.0	50.1	100	52.6	105	46.5	93.0		
Cadmium	0.125	50.0	46.1	92.2	48.6	97.2	47.6	95.2		
Calcium	25.0	500	496	99.2	493	98.6	487	97.4		
Chromium	0.500	50.0	49.4	98.8	49.0	98.0	48.9	97.8		
Cobalt	0.500	50.0	51.2	102	50.5	101	50.2	100		
Copper	0.500	50.0	50.8	102	50.3	101	49.9	99.8		
Iron	12.5	500	519	104	504	101	541	108		
Lead	0.125	50.0	45.7	91.4	49.5	99.0	50.1	100		
Magnesium	12.5	500	501	100	501	100	487	97.4		
Manganese	0.250	50.0	54.9	110	54.5	109	48.6	97.2		
Mercury	0.120	5.00	5.08	102	5.15	103	5.23	105		
Nickel	0.500	50.0	54.7	109	54.4	109	49.4	98.8		
Potassium	12.5	500	520	104	508	102	499	99.8		
Selenium	1.00	50.0	48.8	97.6	46.9	93.8	49.4	98.8		
Silver	0.125	10.0	9.43	94.3	10.2	102	10.2	102		
Sodium	25.0	500	518	104	531	106	481	96.2		
Thallium	0.125	50.0	50.7	101	51.0	102	49.3	98.6		
Vanadium	0.500	50.0	50.8	102	49.7	99.4	47.9	95.8		
Zinc	2.00	50.0	50.0	100	49.9	99.8	51.8	104		

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 282
SDG #: 06674, 06225, 06640, 06673, 06626, 06699

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	0.005	ND	ND	ND	ND	ND	ND
Antimony	0.00025	ND	ND	ND	ND	ND	ND
Arsenic	0.00025	ND	ND	ND	ND	ND	ND
Barium	0.0025	ND	ND	ND	ND	ND	ND
Beryllium	0.0002	ND	ND	ND	ND	ND	ND
Cadmium	0.000125	ND	ND	ND	ND	ND	ND
Calcium	0.025	ND	ND	ND	ND	ND	ND
Chromium	0.0005	ND	ND	ND	ND	ND	ND
Cobalt	0.0005	ND	ND	ND	ND	ND	ND
Copper	0.0005	ND	ND	ND	ND	ND	ND
Iron	0.013	ND	ND	ND	ND	ND	ND
Lead	0.000125	ND	ND	ND	ND	ND	ND
Magnesium	0.013	ND	ND	ND	ND	ND	ND
Manganese	0.00025	ND	ND	ND	ND	ND	ND
Mercury	0.00012	ND	ND	ND	ND	ND	ND
Nickel	0.0005	ND	ND	ND	ND	ND	ND
Potassium	0.013	ND	ND	ND	ND	ND	ND
Selenium	0.001	ND	ND	ND	ND	ND	ND
Silver	0.000125	ND	ND	ND	ND	ND	ND
Sodium	0.025	ND	ND	ND	ND	ND	ND
Thallium	0.000125	ND	ND	ND	ND	ND	ND
Vanadium	0.0005	ND	ND	ND	ND	ND	ND
Zinc	0.002	ND	ND	ND	ND	ND	ND

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 282
SDG #: 06674, 06225, 06640, 06673, 06626, 06699

Matrix: Soil Method: 6020 Concentration/Units: ppm (mg/kg)

ANALYTE	INST. MDL	CCB					
Aluminum	0.005	ND					
Antimony	0.00025	ND					
Arsenic	0.00025	ND					
Barium	0.0025	ND					
Beryllium	0.0002	ND					
Cadmium	0.000125	ND					
Calcium	0.025	ND					
Chromium	0.0005	ND					
Cobalt	0.0005	ND					
Copper	0.0005	ND					
Iron	0.013	ND					
Lead	0.000125	ND					
Magnesium	0.013	ND					
Manganese	0.00025	ND					
Mercury	0.00012	ND					
Nickel	0.0005	ND					
Potassium	0.013	ND					
Selenium	0.001	ND					
Silver	0.000125	ND					
Sodium	0.025	ND					
Thallium	0.000125	ND					
Vanadium	0.0005	ND					
Zinc	0.002	ND					

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 282
Associated Lab Case for Blank 1: 06225, 06640, 06674

Matrix: Soil Unit: ppm (mg/kg) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	5.00	ND
Antimony	0.250	ND
Arsenic	0.250	ND
Barium	2.50	ND
Beryllium	0.200	ND
Cadmium	0.125	ND
Calcium	25.0	ND
Chromium	0.500	ND
Cobalt	0.500	ND
Copper	0.500	ND
Iron	12.5	ND
Lead	0.125	ND
Magnesium	12.5	ND
Manganese	0.250	ND
Mercury	0.006	ND
Nickel	0.500	ND
Potassium	12.5	ND
Selenium	1.00	ND
Silver	0.125	ND
Sodium	25.0	ND
Thallium	0.125	ND
Vanadium	0.500	ND
Zinc	2.00	ND

Associated Sample for Blank 1:
06225-018; 06640-001~009; 06674-001~010

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 282
SDG #: 06674, 06225, 06640, 06673, 06626, 06699

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL LIMIT %R
	SOL A	SOL B	SOL A	SOL A+B	%R	
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	90100	84500	84.5	NA
Iron	100000	-	90600	88000	88.0	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2150	2160	108	NA
Titanium	2000	-	1900	1820	91.0	NA
Silver	-	20.0	-	21.9	110	80-120
Arsenic	-	20.0	-	19.9	99.5	80-120
Cadmium	-	20.0	-	20.2	101	80-120
Cobalt	-	20.0	-	17.7	88.5	80-120
Chromium	-	20.0	-	18.3	91.5	80-120
Copper	-	20.0	-	17.6	88.0	80-120
Manganese	-	20.0	-	18.0	90.0	80-120
Nickel	-	20.0	-	17.1	85.5	80-120
Zinc	-	20.0	-	19.8	99.0	80-120

%R = Percent Recovery

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 282
SDG #: 06225, 06640, 06674, 06626, 06673, 06699

Matrix: Soil Unit: ppm (mg/kg)

ANALYTE	BSS1			BSS2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	200	205	103	200	198	99.0
Antimony	40.0	41.3	103	40.0	38.3	95.8
Arsenic	40.0	40.3	101	40.0	41.1	103
Barium	40.0	34.2	85.5	40.0	39.2	98.0
Beryllium	40.0	40.1	100	40.0	41.0	103
Cadmium	40.0	34.7	86.8	40.0	35.2	88.0
Calcium	200	192	96.0	200	195	97.5
Chromium	40.0	40.2	101	40.0	39.3	98.3
Cobalt	40.0	34.1	85.3	40.0	34.0	85.0
Copper	40.0	41.3	103	40.0	41.3	103
Iron	200	172	86.0	200	176	88.0
Lead	40.0	36.0	90.0	40.0	34.7	86.8
Magnesium	200	170	85.0	200	197	98.5
Manganese	40.0	40.4	101	40.0	39.6	99.0
Mercury	0.250	0.256	102	0.250	0.247	98.8
Nickel	40.0	40.7	102	40.0	40.9	102
Potassium	200	189	94.5	200	201	101
Selenium	40.0	41.3	103	40.0	41.6	104
Silver	40.0	36.7	91.8	40.0	35.9	89.8
Sodium	200	205	103	200	201	101
Thallium	40.0	35.4	88.5	40.0	34.4	86.0
Vanadium	40.0	40.8	102	40.0	39.9	99.8
Zinc	40.0	40.2	101	40.0	40.8	102

(1) Control Limits % Recovery = 85-115%

BSS1
06225-018; 06640-001~009; 06674-001~010

BSS2
06626-001~008; 06673-001~007; 06699-001~003

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 282
SDG #: 06225, 06640, 06674, 06626, 06673, 06699

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	5620	5860	NC	228	3310	3310	NC	202	75-125
Antimony	35.6	ND	78.1	45.6	31.1	ND	77.0	40.4	75-125
Arsenic	59.7	22.6	81.4	45.6	41.5	8.59	81.5	40.4	75-125
Barium	41.7	5.83	78.7	45.6	38.3	7.42	76.4	40.4	75-125
Beryllium	37.8	ND	82.9	45.6	33.9	ND	83.9	40.4	75-125
Cadmium	39.6	ND	86.8	45.6	39.2	3.44	88.5	40.4	75-125
Calcium	536	297	105	228	1190	1080	NC	202	75-125
Chromium	60.4	24.9	77.9	45.6	45.8	15.1	76.0	40.4	75-125
Cobalt	39.2	ND	86.0	45.6	36.9	3.26	83.3	40.4	75-125
Copper	40.2	3.63	80.2	45.6	175	128	116	40.4	75-125
Iron	12100	12200	NC	228	8740	8830	NC	202	75-125
Lead	42.8	4.17	84.7	45.6	49.7	16.3	82.7	40.4	75-125
Magnesium	507	288	96.1	228	1060	952	NC	202	75-125
Manganese	46.8	10.7	79.2	45.6	112	71.5	100	40.4	75-125
Mercury	0.295	ND	104	0.285	0.256	0.016	94.9	0.253	75-125
Nickel	39.6	2.69	80.9	45.6	38.0	5.73	79.9	40.4	75-125
Potassium	680	457	97.8	228	473	277	97.0	202	75-125
Selenium	38.3	ND	84.0	45.6	34.1	ND	84.4	40.4	75-125
Silver	40.8	ND	89.5	45.6	36.2	ND	89.6	40.4	75-125
Sodium	226	ND	99.1	228	246	45.4	99.3	202	75-125
Thallium	39.3	ND	86.2	45.6	33.9	ND	83.9	40.4	75-125
Vanadium	79.7	44.2	77.9	45.6	53.5	22.5	76.7	40.4	75-125
Zinc	46.6	10.1	80.0	45.6	122	81.8	99.5	40.4	75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 06674-002
QC Sample 1 for following samples:
06225-018; 06640-001~009; 06674-001~010

QC Sample 2 06673-002
QC Sample 2 for following samples:
06626-001~008; 06673-001~007; 06699-001~003

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 282
SDG #: 06225, 06640, 06674, 06626, 06673, 06699

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	20	5860	5550	5.43	20	3310	3030	8.83
Antimony	NA	ND	ND	NC	NA	ND	ND	NC
Arsenic	20	22.6	22.1	2.24	20	8.59	8.23	4.28
Barium	20	5.83	6.13	5.02	20	7.42	7.28	1.90
Beryllium	NA	ND	ND	NC	NA	ND	ND	NC
Cadmium	NA	ND	ND	NC	20	3.44	3.42	0.583
Calcium	20	297	276	7.33	20	1080	997	7.99
Chromium	20	24.9	24.1	3.27	20	15.1	14.1	6.85
Cobalt	NA	ND	ND	NC	20	3.26	3.07	6.00
Copper	20	3.63	3.34	8.32	20	128	122	4.80
Iron	20	12200	11700	4.18	20	8830	8400	4.99
Lead	20	4.17	4.35	4.23	20	16.3	16.0	1.86
Magnesium	20	288	271	6.08	20	952	875	8.43
Manganese	20	10.7	10.1	5.77	20	71.5	67.3	6.05
Mercury	NA	ND	ND	NC	20	0.016	0.016	0
Nickel	20	2.69	2.51	6.92	20	5.73	5.42	5.56
Potassium	20	457	419	8.68	20	277	254	8.66
Selenium	NA	ND	ND	NC	NA	ND	ND	NC
Silver	NA	ND	ND	NC	NA	ND	ND	NC
Sodium	NA	ND	ND	NC	20	45.4	45.3	0.221
Thallium	NA	ND	ND	NC	NA	ND	ND	NC
Vanadium	20	44.2	42.2	4.63	20	22.5	21.2	5.95
Zinc	20	10.1	9.70	4.04	20	81.8	77.0	6.05

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 06674-002
QC Sample 1 for following samples:
06225-018; 06640-001~009; 06674-001~010

QC Sample 2 06673-002
QC Sample 2 for following samples:
06626-001~008; 06673-001~007; 06699-001~003

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 282
SDG #: 06225, 06640, 06674

Matrix: Soil Concentration/Units: ppm (mg/kg)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	5860	5880	0.341			
Antimony	ND			39.6	45.6	86.8
Arsenic	22.6	23.3	3.05			
Barium	5.83			45.7	45.6	87.4
Beryllium	ND			41.4	45.6	90.8
Cadmium	ND			42.7	45.6	93.6
Calcium	297			1090	912	87.0
Chromium	24.9	24.9	0			
Cobalt	ND			38.5	45.6	84.4
Copper	3.63			41.4	45.6	82.8
Iron	12200	12300	0.816			
Lead	4.17	4.40	5.37			
Magnesium	288	286	0.697			
Manganese	10.7	11.7	8.93			
Nickel	2.69			40.5	45.6	82.9
Potassium	457	423	7.73			
Selenium	ND			41.6	45.6	91.2
Silver	ND			43.7	45.6	95.8
Sodium	ND			724	912	79.4
Thallium	ND			42.4	45.6	93.0
Vanadium	44.2	44.3	0.226			
Zinc	10.1			49.6	45.6	86.6

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 06674-002
QC Sample 1 for following samples:
06225-018; 06640-001~009; 06674-001~010

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG282
July 10, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1062290**	**98003**	**459251**	**2871140**	**5139883**	**3098888**	
	Sample Lower Limit	**318687**	**29401**	**137775**	**861342**	**1541965**	**929666**	
	QC Lower Limit	**743603**	**68602**	**321476**	**2009798**	**3597918**	**2169222**	
	Sample & QC Upper Limit	**1274748**	**117604**	**551101**	**3445368**	**6167860**	**3718666**	
003CALS.D	STD1	1074482	100616	435331	2693511	4783867	2861802	
004CALS.D	STD2	1101420	102407	444191	2791524	5076020	3137027	
005CALS.D	STD3	1119017	102994	454164	2855476	5185753	3137267	
006CALS.D	STD4	1006849	99724	431176	2684966	4801010	2967578	
008_ICV.D	ICV	997435	102191	438800	2772103	5073236	3100670	
009_ICB.D	ICB	809356	102472	423007	2703670	5001688	3032520	
011SMPL.D	BMS1	1100375	116441	452354	2826927	5096768	3075058	
012SMPL.D	BSS1	1031968	107100	448076	2846546	5251980	3200012	
013SMPL.D	06674-002	1012877	101307	466054	2981430	5726324	3382998	
014SMPL.D	06674-002R	956308	106151	450705	2829836	5498661	3278534	
015SMPL.D	06674-002SD	917717	102540	446132	2909456	5500936	3444411	
016SMPL.D	06674-002RS	886296	102275	441569	2891801	5756913	3556301	
017SMPL.D	06674-002PS	832485	104858	437411	2801253	5740364	3553282	
0186CCV.D	CCV	973867	101818	447867	2891528	5636363	3457037	
0196CCB.D	CCB	881533	102222	456284	3023816	5949572	3715124	
020SMPL.D	06305-001	891217	94132	413040	2515612	4750846	2593810	
021SMPL.D	06674-001	868660	105905	437989	2793054	5608245	3440811	
022SMPL.D	06674-003	883267	105684	446674	2903842	5808143	3708027	
023SMPL.D	06674-004	865924	94661	448367	2878786	5906747	3678536	
026SMPL.D	06674-005	815857	104949	450895	2974050	6074808	3662315	
027SMPL.D	06674-006	834708	103124	461913	3029847	6147884	3684296	
028SMPL.D	06674-007	792741	102635	433853	2840259	5875942	3623296	
029SMPL.D	06674-008	792312	105263	437066	2893075	5851099	3607503	
0306CCV.D	CCV	928949	103561	427999	2767608	5410537	3413281	
0316CCB.D	CCB	819763	103261	437922	2897247	5672355	3621565	
032SMPL.D	06674-009	821738	105347	440449	2809165	5631366	3540868	
033SMPL.D	06674-010	787197	106343	430308	2779988	5735330	3678181	
034SMPL.D	06225-018	766327	68470	427693	2686784	5656395	3373553	
035SMPL.D	06640-001	831977	105632	466136	3133710	6126466	3317421	
036SMPL.D	06640-002	756059	92024	446392	2849892	5827603	3664806	
037SMPL.D	06640-003	785136	100896	434079	2856801	5532046	3582071	
038SMPL.D	06640-004	822570	107502	458842	3009026	5972986	3377177	
039SMPL.D	06640-005	778776	107285	441809	2934324	5823486	3364164	
040SMPL.D	06640-006	775534	99868	447379	2983612	5890128	3361539	
041SMPL.D	06640-007	793153	103322	452318	3020231	5868744	3415622	
0426CCV.D	CCV	996281	105031	455180	2904115	5483600	3344449	
0436CCB.D	CCB	851117	101969	449010	2942342	5592902	3495160	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG282
July 10, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**1062290**	**98003**	**459251**	**2871140**	**5139883**	**3098888**	
	Sample Lower Limit	**318687**	**29401**	**137775**	**861342**	**1541965**	**929666**	
	QC Lower Limit	**743603**	**68602**	**321476**	**2009798**	**3597918**	**2169222**	
	Sample & QC Upper Limit	**1274748**	**117604**	**551101**	**3445368**	**6167860**	**3718666**	
044SMPL.D	06640-008	805850	95838	446398	2968870	5959302	3638650	
045SMPL.D	06640-009	771625	102123	425868	2816409	5656216	3627825	
046SMPL.D	BMS2	800925	104047	440275	2918031	5664513	3615424	
047SMPL.D	BSS2	814403	101107	442321	2936503	5675075	3585327	
048SMPL.D	06673-002	776768	98893	434423	2849780	5691965	3606255	
049SMPL.D	06673-002R	758275	100528	431915	2829099	5765374	3658302	
050SMPL.D	06673-002SD	785394	97736	435480	2915450	5794649	3692806	
051SMPL.D	06673-002RS	785730	99297	434916	2882082	5831490	3633417	
052SMPL.D	06673-002PS	749541	101490	426266	2722298	5630461	3602809	
053SMPL.D	06673-001	785602	98420	441476	2908910	6011081	3690900	
0546CCV.D	CCV	1062901	101749	486823	3155391	5936260	3661948	
0556CCB.D	CCB	899702	105364	480582	3149668	6115847	3668257	
056SMPL.D	06673-003	713521	107254	478739	2716087	5631841	3485928	
057SMPL.D	06673-004	786813	98087	426762	2801546	5670954	3624148	
058SMPL.D	06673-005	815927	97824	450980	2972216	5638432	3645733	
059SMPL.D	06673-006	765314	97004	423154	2825253	5894296	3624699	
060SMPL.D	06673-007	768772	95878	415655	2707744	5564785	3565821	
061SMPL.D	06626-001	749851	96453	420782	2740593	5672558	3654419	
062SMPL.D	06626-002	782338	97348	424185	2769210	5664632	3693086	
063SMPL.D	06626-003	791001	97282	438855	2888239	5875827	3740335	
064SMPL.D	06626-004	775262	96424	430097	2816668	5825283	3740690	
065SMPL.D	06626-005	759831	103415	427448	2856975	5929131	3832315	
0666CCV.D	CCV	1015129	98712	447210	2828214	5463212	3314816	
0676CCB.D	CCB	868978	94391	435187	2824136	5422039	3503841	
068SMPL.D	06626-006	846800	100340	441640	2833866	5774970	3607304	
069SMPL.D	06626-007	765137	99408	423719	2676289	5471710	3488136	
070SMPL.D	06626-008	773328	101334	432023	2801557	5790689	3554192	
071SMPL.D	06699-001	793101	93898	430953	2753802	5579104	3398450	
072SMPL.D	06699-002	763735	100647	431057	2776266	5725615	3588792	
073SMPL.D	06699-003	793055	98019	438037	2814605	5703418	3498345	
0746CCV.D	FINAL CCV	1067802	98662	450179	2839005	5250544	3157238	
0756CCB.D	FINAL CCB	752935	112839	355028	2245163	4198361	2551178	
076ICSA.D	ICSA	737987	86322	396572	2123345	4193658	2222861	
077ICSB.D	ICSAB	662543	89623	402209	2213049	4580558	2473815	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

SAMPLE TRACKING

IAL Integrated Analytical Laboratories LLC
Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO	REPORTING INFO
Company: URS Corp	REPORT TO: George Keil - URS
Address: 335 Commerce Dr	Address: 335 Commerce Dr
Fort Washington, PA	Fort Washington, PA
Telephone #: (215) 367-2500	Attn:
Fax #: (215) 367-1000	FAX #
Project Manager: George Keil	INVOICE TO: George Keil - URS
EMAIL Address: George.Keil@URS.com	Address: 335 Commerce Dr
Sampler: N. Laird	Fort Washington, PA
Project Name: Tradebe - Vineland, NJ	
Project Location (State): Vineland, NJ	Attn:
Bottle Order #:	PO #
Quote # :	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) — NJ EPH Fractionated (5 day TAT)
NJ EPH - C40 (5 day TAT)
DRO-8015 (3-5 day TAT) — QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified
24 hr** 48 hr** 72 hr** 96 hr** 1 wk**
Other** (specify):

Hard Copy: Std 3 week * — Other - call for price

Rush TAT Charge **: 24 hr - 100%... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%

Report Format: Results Only — Reduced — Regulatory - 15% Surcharge applies — Other (describe)

EDDs: SRP format — lab approved custom EDD — NO EDD/CD REQ'D

Cooler Temp 4 °C

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS / # BOTTLES & PRESERVATIVES

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	TPH/EPH	PAH	METALS	PESTICIDES	HERBICIDES	SVOCs	PCBs	VOCs			HCL	HNO3	MeOH	Other	None	Encore
H1 (9.5-11-12)-070212		7/2/12	0940	S	1	1	X	X	X												1	
H2 (9.5-10.5) ~~(11-12)~~-070212		7/2/12	~~0940~~	S	1	2	X	X	X												1	
H3 (9-10)-070212		7/2/12	0950	S	1	3	X	X	X												1	
E2 (11-12)-070212		7/2/12	1055	S	1	4	X	X	X												1	
E3 (7-8)-070212		7/2/12	1115	S	1	5	X	X	X												1	
I4 (9-10)-070212		7/2/12	1145	S	2	6	X		X	X	X										2	
K1 (9-10)-070212		7/2/12	1225	S	4	7	X		X			X		X							1	3
J1 (9-10)-070212		7/2/12	1315	S	1	8			X			X	X								1	

Known Hazard: Yes or No Describe: — Conc. Expected: Low Med High — MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): _____ IAL Courier _____ Client Courier _____ FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: URS	7/3/12	0900	Received by:	7/3/12	10:32
Relinquished by:	7/3/12	1719	Received by:	7/3/12	1719
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 06640

PAGE: 1 of 2

10 COPIES - WHITE & YELLOW; CLIENT COPY - PINK

EQ0 REV COC

10/2010 rev

IAL Integrated Analytical Laboratories LLC
Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO	REPORTING INFO
Company: URS Corp	REPORT TO: George Keil - URS
Address: 335 Commerce Dr	Address: 335 Commerce Dr
Fort Washington, PA	Fort Washington, PA
Telephone #: (215)367-2500	Attn:
Fax #: (215)367-1000	FAX #
Project Manager: George Keil	INVOICE TO: George Keil - URS
EMAIL Address: George.Keil@urs.com	Address: 335 Commerce Dr
Sampler: N. Lairo	Fort Washington, PA
Project Name: Traeger	
Project Location (State): Vineland, NJ	Attn:
Bottle Order #:	PO #
Quote # :	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) — NJ EPH Fractionated (5 day TAT)
NJ EPH - C40 (5 day TAT)
DRO-8015 (3-5 day TAT) — QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified
24 hr** 48 hr** 72 hr** 96 hr** 1 wk**
Other** (specify):

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **	Report Format	EDDs
24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%	Results Only Reduced Regulatory - 15% Surcharge applies Other (describe)	SRP format lab approved custom EDD NO EDD/CD REQ'D

Cooler Temp 4 °C

Sample Matrix
DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS

BOTTLES & PRESERVATIVES

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	TPH/EPH	PAH	METALS	PESTICIDES	HERBICIDES	SVOC's	PCB's	VOC's			HCL	HNO3	MeOH	Other	None	Encore
J2(9-10)-070212		7/2/12	1325	S	1	9			X			X	X								1	

Known Hazard: Yes or No Describe:
Conc. Expected: Low Med High
MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): X IAL Courier ____ Client Courier ____ FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: URS	7/3/12	0900	Received by:	7/3/12	10:32
Relinquished by:	7/3/12	1719	Received by:	7/3/12	1719
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

Lab Case # 06640

PAGE: 2 of 2

B COPIES - WHITE & YELLOW; CLIENT COPY - PINK

10 REV COC

10/2010 rev

PROJECT INFORMATION

E12-06640

Case No. E12-06640 **Project** TRADEBE - VINELAND NJ - VENDOR #1168636

Customer URS Corporation - Ft. Washington

Contact George Keil

EMail George_Keil@URSCorp.com ☑ EMail EDDs

Phone (215) 367-2500 **Fax** 1(215) 367-1000

P.O. # GEORGE KEIL

Received 7/3/2012 17:19

Verbal Due 7/19/2012

Report Due 7/26/2012

Report To

335 Commerce Dr.

Suite 300

Fort Washington, PA 19034

Attn: George Keil

Bill To

PO Box 203970

Austin, TX 78720

Attn: George Keil

Report Format Reduced

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
06640-001	H1 (11-12)-070212	11 / 12	7/2/2012@09:40	Soil	mg/Kg	1
06640-002	H2 (9.5-10.5)-070212	9.5 / 10.5	7/2/2012	Soil	mg/Kg	1
06640-003	H3 (9-10)-070212	9 / 10	7/2/2012@09:50	Soil	mg/Kg	1
06640-004	E2 (11-12)-070212	11 / 12	7/2/2012@10:55	Soil	mg/Kg	1
06640-005	E3 (7-8)-070212	7 / 8	7/2/2012@11:15	Soil	mg/Kg	1
06640-006	I4 (9-10)-070212	9 / 10	7/2/2012@11:45	Soil	mg/Kg	2
06640-007	K1 (9-10)-070212	9 / 10	7/2/2012@12:25	Soil	mg/Kg	4
06640-008	J1 (9-10)-070212	9 / 10	7/2/2012@13:15	Soil	mg/Kg	1
06640-009	J2 (9-10)-070212	9 / 10	7/2/2012@13:25	Soil	mg/Kg	1

Sample #	Tests	Status	QA Method
001	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
002	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
003	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
004	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
005	TCL/PAH	Run	8270C
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
006	TCL/PAH	Run	8270C
"	Herbicides	In Process	8151A
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TCL PCB	Run	8082
"	TCL Pesticides	Run	8081A
"	TAL Metals	In Process	6020/7471A

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July 10, 2012

PROJECT INFORMATION

E12-06640

Case No. E12-06640 **Project** TRADEBE - VINELAND NJ - VENDOR #1168636

Sample #	Tests	Status	QA Method
007	TCL VO + 15	In Process	8260B
"	TCL BNA + 15	Run	8270C
"	NJ-EPH-Fractionated	In Process	Method 10.08 Rev 3
"	TAL Metals	In Process	6020/7471A
008	TCL BNA + 15	Run	8270C
"	TCL PCB	Run	8082
"	TAL Metals	In Process	6020/7471A
009	TCL BNA + 15	Run	8270C
"	TCL PCB	Run	8082
"	TAL Metals	In Process	6020/7471A

07/05/2012 11:37 by Ellen - NOTE 1

3 ENCORS RECEIVED - 1 INTO MEOH/2 INTO H2O

07/05/2012 11:38 by Ellen - NOTE 2

AS PER QUOTE DONE BY ALAN ON 6/21/12, TPH FOR SOILS = EPH-FRACTIONATED. TCL LIST FOR ALL ORGANICS & TAL LIST FOR METALS. SVOC = BNA. SEE QUOTE DONE BY ALAN ON 6/21/12.

07/06/2012 10:32 by Ellen - NOTE 4

AS PER GEORGE K., TCL PCB REQUIRED ON SAMPLE #6.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 12** **06640** CLIENT: URS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓	**= YES/NA**
✗	**= NO**

✓	Bottles Intact	
✓	no-Missing Bottles	
✓	no-Extra Bottles	
✓	Sufficient Sample Volume	
✓	no-headspace/bubbles in VOs	
✓	Labels intact/correct	
✓	pH Check (exclude VOs)[1]	
✓	Correct bottles/preservative	
✓	Sufficient Holding/Prep Time[1]	
[ ]	Sample to be Subcontracted	
✓	**Chain of Custody is Clear**	

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [illegible] DATE 7/3/12

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [illegible] DATE 7-9-12

E12-06640 0347

REV 03/2009

Laboratory Custody Chronicle

IAL Case No.

E12-06640

Client URS Corporation - Ft. Washington

Project TRADEBE - VINELAND NJ - VENDOR #1168636

Received On 7/ 3/2012@17:19

Department: Volatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL VO + 15	06640-007	Soil	n/a	n/a	7/ 8/12	Xing

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL BNA + 15	-007	Soil	7/13/12	Kou-Liang	7/14/12	Eleanor
"	-008	"	7/13/12	Kou-Liang	7/14/12	Eleanor
"	-009	"	7/13/12	Kou-Liang	7/14/12	Eleanor
TCL/PAH	-001	Soil	7/13/12	Kou-Liang	7/14/12	Eleanor
"	-002	"	7/13/12	Kou-Liang	7/14/12	Eleanor
"	-003	"	7/13/12	Kou-Liang	7/14/12	Eleanor
"	-004	"	7/13/12	Kou-Liang	7/14/12	Eleanor
"	-005	"	7/13/12	Kou-Liang	7/14/12	Eleanor
"	-006	"	7/13/12	Kou-Liang	7/14/12	Eleanor

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Herbicides	-006	Soil	7/ 9/12	Archimede	7/12/12	Julia
NJ-EPH-Fractionated	-001	Soil	7/10/12	Archimede	7/11/12	Margaret
"	-002	"	7/10/12	Archimede	7/11/12	Margaret
"	-003	"	7/10/12	Archimede	7/11/12	Margaret
"	-004	"	7/10/12	Archimede	7/11/12	Margaret
"	-005	"	7/10/12	Archimede	7/11/12	Margaret
"	-006	"	7/10/12	Archimede	7/11/12	Margaret
"	-007	"	7/10/12	Archimede	7/11/12	Margaret
TCL PCB	-006	Soil	7/11/12	Archimede	7/14/12	Julia
"	-008	"	7/12/12	Archimede	7/14/12	Julia
"	-009	"	7/12/12	Archimede	7/14/12	Julia
TCL Pesticides	-006	Soil	7/11/12	Archimede	7/13/12	Iwona

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TAL Metals	-001	Soil	7/ 8/12	Lisa	7/10/12	En
"	-002	"	7/ 8/12	Lisa	7/10/12	En
"	-003	"	7/ 8/12	Lisa	7/10/12	En
"	-004	"	7/ 8/12	Lisa	7/10/12	En
"	-005	"	7/ 8/12	Lisa	7/10/12	En
"	-006	"	7/ 8/12	Lisa	7/10/12	En
"	-007	"	7/ 8/12	Lisa	7/10/12	En
"	-008	"	7/ 8/12	Lisa	7/10/12	En
"	-009	"	7/ 8/12	Lisa	7/10/12	En

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Integrated Analytical Laboratories LLC

ANALYTICAL DATA REPORT

URS Corporation - Ft. Washington
335 Commerce Dr.
Suite 300
Fort Washington, PA 19034

Project Name: **TRADEBE - VENDOR #1168636**
IAL Case Number: **E12-06658**

These data have been reviewed and accepted by:

Michael H. Leffin, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed.

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
Fax: 973 989 5288

IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

Sample Summary

IAL Case No.

E12-06658

Client URS Corporation - Ft. Washington

Project TRADEBE - VENDOR #1168636

Received On 7/ 3/2012@17:19

Lab ID	Client Sample ID	Depth Top/Bottom	Sampling Time	Matrix	# of Container
06658-001	H1-070212-WATER	n/a	7/ 2/2012@10:25	Aqueous	5
06658-002	H2-070212-WATER	n/a	7/ 2/2012@09:45	Aqueous	5
06658-003	H3-070212-WATER	n/a	7/ 2/2012@11:05	Aqueous	5
06658-004	E2-070212-WATER	n/a	7/ 2/2012@11:53	Aqueous	5
06658-005	I4-070212-WATER	n/a	7/ 2/2012@12:51	Aqueous	6
06658-006	H1-070212-WATER FILT.	n/a	7/ 2/2012@10:25	Aqueous	1
06658-007	H2-070212-WATER FILT.	n/a	7/ 2/2012@09:45	Aqueous	1
06658-008	H3-070212-WATER FILT.	n/a	7/ 2/2012@11:05	Aqueous	1
06658-009	E2-070212-WATER FILT.	n/a	7/ 2/2012@11:53	Aqueous	1
06658-010	I4-070212-WATER FILT.	n/a	7/ 2/2012@12:51	Aqueous	1

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INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

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* Methodology is included in the IAL Project Information Page

INTEGRATED ANALYTICAL LABORATORIES, LLC.

DEFINITIONS / QUALIFIERS

DATA QUALIFIERS

B Indicates the analyte was found in the associated method blank as well as in the sample. It indicates probable laboratory contamination.

C Indicates analyte is a common laboratory contaminant.

D Indicated analyte was reported from diluted analysis.

E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument for that specific analysis.

J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL.

REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

CONFORMANCE / NON-CONFORMANCE SUMMARIES

INTEGRATED ANALYTICAL LABORATORIES, LLC.

CONFORMANCE / NONCONFORMANCE SUMMARY

Integrated Analytical Laboratories, LLC. received ten (10) aqueous sample(s) from URS Corporation - Ft. Washington (IAL SDG # E12-06658, Project: TRADEBE - VENDOR #1168636) on July 3, 2012 for the analysis of:

(4) TCL/PAH
(1) TCL PCB
(1) TCL Pesticides
(1) Herbicides
(5) TAL Metals
(5) TPHC

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Reviewed by

7/19/12
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06658

Semivolatiles By **8270C/625**

Batch ID: 120709-01	**Matrix:** Aqueous

QC
- Calibration Curve met criteria.
- Internal standard recovery met criteria.
- Surrogate recovery met criteria.
- Method blank met criteria.
- Laboratory control sample recovery met criteria.
- Matrix Spike / Matrix Spike Duplicate recoveries met criteria.

E12-06658
- Extraction holding time met requirement for each sample.
- Analysis holding time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PCB'S

Lab Case Number: E12 - 06658

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07-10-12
Date

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - PESTICIDES

Lab Case Number: E12 - 06658

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07/10/12
Date

rev 01/12

INTEGRATED ANALYTICAL LABORATORIES
CONFORMANCE/NONCONFORMANCE SUMMARY
GC ANALYSIS - HERBICIDES

Lab Case Number: E12 - 06658

		No	Yes
1.	Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks).		✓
2.	Standards Summary submitted.		✓
3.	Calibration - Initial calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hrs of the sample analysis.		✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	
5.	Surrogate Recoveries meet criteria (if applicable). If not met, list those compounds and their recoveries which fall outside the acceptable range:		✓
6.	Matrix Spike/Matrix Spike Duplicate meet criteria (if not, list those compounds and their recoveries/% differences which fall outside the acceptable range) acceptable range:		✓
7.	Retention Time Shift Meet Criteria (if applicable).		✓
8.	Extraction Holding Time Met. If not met, list number of days exceeded for each sample:		✓
9.	Analysis Holding Time Met. If not met, list number of days exceeded for each sample:		✓

Comments:

Organic Manager

07-10-12
Date

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E12-06658

METAL By Method 6020

Matrix: AQUEOUS	Batch ID: 283A

QC
- Calibration Curve Linearity met criteria.
- Internal Standard Recovery met criteria.
- Laboratory Control Sample Recovery met criteria.
- Matrix Spike Recoveries met criteria.
- Serial Dilution / Post Spike results met criteria.

E12-06658
- Digestion Holding Time met requirement for each sample.
- Analysis Holding Time met requirement for each sample.

INTEGRATED ANALYTICAL LABORATORIES

CONFORMANCE/NONCONFORMANCE SUMMARY

PHC ANALYSIS

SDG #: E12-06658

		No	Yes
1.	Blank Contamination If yes, list the sample and the concentration in each blanks:	____	____
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the samples and corresponding recovery which falls outside the acceptable range)	____	____
3.	IR spectra submitted for all standards, blanks & samples. Comments: Integrated Analytical Laboratories (IAL) generates TPHC results on a fixed wavelength IR Spectrophotometer. Like all fixed wavelength IR Spectrophotometers, IAL's cannot generate spectra. However, the instrument used is approved both under the apparatus section of EPA 418.1 for TPHC and by the Office of Quality Assurance of the NJDEP for generating TPHC results.	____	____
4.	Chromatograms submitted for all standards, blanks & samples if GC fingerprinting was conducted.	____	____
5.	Extraction Holding Time Met If not met, list number of days exceeded for each sample:	____	____
6.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:	____	____

Additional Comments:

Dept. Supervisor

7/11/2012
Date

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06658

Lab ID:	06658-001			06658-002			06658-003			06658-004		
Client ID:	H1-070212-			H2-070212-			H3-070212-			E2-070212-		
Client ID Cont.:	WATER			WATER			WATER			WATER		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - PAH (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Naphthalene	0.866	J	0.175	ND		0.175	ND		0.175	ND		0.175
2-Methylnaphthalene	ND		0.109	ND		0.109	ND		0.109	ND		0.109
Acenaphthylene	ND		0.113	ND		0.113	ND		0.113	ND		0.113
Acenaphthene	0.460	J	0.100	ND		0.100	ND		0.100	ND		0.100
Fluorene	ND		0.145	ND		0.145	ND		0.145	ND		0.145
Phenanthrene	0.490	J	0.112	ND		0.112	ND		0.112	ND		0.112
Anthracene	ND		0.124	ND		0.124	ND		0.124	ND		0.124
Fluoranthene	ND		0.141	ND		0.141	ND		0.141	ND		0.141
Pyrene	ND		0.744	ND		0.744	ND		0.744	ND		0.744
Benzo[a]anthracene	ND		0.800	ND		0.800	ND		0.800	ND		0.800
Chrysene	ND		0.263	ND		0.263	ND		0.263	ND		0.263
Benzo[b]fluoranthene	ND		0.240	ND		0.240	ND		0.240	ND		0.240
Benzo[k]fluoranthene	ND		0.290	ND		0.290	ND		0.290	ND		0.290
Benzo[a]pyrene	ND		0.160	ND		0.160	ND		0.160	ND		0.160
Indeno[1,2,3-cd]pyrene	ND		0.120	ND		0.120	ND		0.120	ND		0.120
Dibenz[a,h]anthracene	ND		0.190	ND		0.190	ND		0.190	ND		0.190
Benzo[g,h,i]perylene	ND		0.216	ND		0.216	ND		0.216	ND		0.216
General Analytical (Units)												
Total Petroleum Hydrocarbons(ug/L)	ND		500	1870		500	723		500	2720		500

Lab ID:	06658-005			06658-006			06658-007			06658-008		
Client ID:	I4-070212-			H1-070212-			H2-070212-			H3-070212-		
Client ID Cont.:	WATER			WATER FILT.			WATER FILT.			WATER FILT.		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Aroclor-1016	ND		0.020	~		~	~		~	~		~
Aroclor-1221	ND		0.020	~		~	~		~	~		~
Aroclor-1232	ND		0.020	~		~	~		~	~		~
Aroclor-1242	ND		0.020	~		~	~		~	~		~
Aroclor-1248	ND		0.020	~		~	~		~	~		~
Aroclor-1254	ND		0.020	~		~	~		~	~		~
Aroclor-1260	ND		0.020	~		~	~		~	~		~
Aroclor-1262	ND		0.020	~		~	~		~	~		~
Aroclor-1268	ND		0.020	~		~	~		~	~		~
PCBs	ND		0.020	~		~	~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06658

Lab ID:	06658-005			06658-006			06658-007			06658-008		
Client ID:	I4-070212-			H1-070212-			H2-070212-			H3-070212-		
Client ID Cont.:	WATER			WATER FILT.			WATER FILT.			WATER FILT.		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Pesticides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
alpha-BHC	ND		0.005	~		~	~		~	~		~
beta-BHC	ND		0.005	~		~	~		~	~		~
gamma-BHC (Lindane)	ND		0.005	~		~	~		~	~		~
delta-BHC	ND		0.005	~		~	~		~	~		~
Heptachlor	ND		0.005	~		~	~		~	~		~
Aldrin	ND		0.005	~		~	~		~	~		~
Heptachlor epoxide	ND		0.005	~		~	~		~	~		~
Endosulfan I	ND		0.005	~		~	~		~	~		~
4,4'-DDE	ND		0.005	~		~	~		~	~		~
Dieldrin	ND		0.005	~		~	~		~	~		~
Endrin	ND		0.005	~		~	~		~	~		~
Endosulfan II	ND		0.005	~		~	~		~	~		~
4,4'-DDD	ND		0.005	~		~	~		~	~		~
Endrin aldehyde	ND		0.005	~		~	~		~	~		~
Endosulfan sulfate	ND		0.005	~		~	~		~	~		~
4,4'-DDT	ND		0.005	~		~	~		~	~		~
Endrin ketone	ND		0.005	~		~	~		~	~		~
Methoxychlor	ND		0.005	~		~	~		~	~		~
alpha-Chlordane	ND		0.005	~		~	~		~	~		~
gamma-Chlordane	ND		0.005	~		~	~		~	~		~
Toxaphene	ND		0.060	~		~	~		~	~		~
Endosulfan (I and II)	ND		0.005	~		~	~		~	~		~
Chlordane (alpha and gamma)	ND		0.005	~		~	~		~	~		~
Herbicides (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Dalapon	ND		0.200	~		~	~		~	~		~
Dicamba	ND		0.200	~		~	~		~	~		~
2,4-D	ND		0.200	~		~	~		~	~		~
2,4,5-TP (Silvex)	ND		0.200	~		~	~		~	~		~
2,4,5-T	ND		0.200	~		~	~		~	~		~
2,4-DB	ND		0.200	~		~	~		~	~		~
Dinoseb	ND		0.200	~		~	~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06658

Lab ID:	06658-005			06658-006			06658-007			06658-008		
Client ID:	I4-070212-			H1-070212-			H2-070212-			H3-070212-		
Client ID Cont.:	WATER			WATER FILT.			WATER FILT.			WATER FILT.		
Matrix:	Aqueous			Aqueous			Aqueous			Aqueous		
Sampled Date	7/2/12			7/2/12			7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*			*(ug/L-ppb)*		
Aluminum	~		~	ND		20.0	ND		20.0	ND		20.0
Antimony	~		~	3.28	J	1.00	ND		1.00	ND		1.00
Arsenic	~		~	99.3		1.00	1.74	J	1.00	ND		1.00
Barium	~		~	23.6	J	10.0	22.9	J	10.0	22.8	J	10.0
Beryllium	~		~	ND		1.00	ND		1.00	ND		1.00
Cadmium	~		~	ND		0.500	ND		0.500	ND		0.500
Calcium	~		~	19400		100	85300		100	100000		100
Chromium	~		~	ND		2.00	ND		2.00	ND		2.00
Cobalt	~		~	ND		2.00	3.08	J	2.00	7.27	J	2.00
Copper	~		~	ND		4.00	ND		4.00	ND		4.00
Iron	~		~	1070		50.0	5410		50.0	2970		50.0
Lead	~		~	ND		0.500	ND		0.500	ND		0.500
Magnesium	~		~	1560		50.0	12600		50.0	10800		50.0
Manganese	~		~	77.4		2.00	787		2.00	718		2.00
Mercury	~		~	ND		0.300	ND		0.300	ND		0.300
Nickel	~		~	4.09		1.00	3.93	J	1.00	7.37		1.00
Potassium	~		~	15500		50.0	11500		50.0	5870		50.0
Selenium	~		~	ND		4.00	ND		4.00	ND		4.00
Silver	~		~	ND		0.500	ND		0.500	ND		0.500
Sodium	~		~	346000		100	229000		100	44300		100
Thallium	~		~	ND		0.500	ND		0.500	ND		0.500
Vanadium	~		~	4.72	J	2.00	ND		2.00	ND		2.00
Zinc	~		~	5.61	J	4.00	16.2		4.00	16.9		4.00
General Analytical (Units)												
Total Petroleum Hydrocarbons(ug/L)	ND		500	~		~	~		~	~		~

~ = Sample not analyzed for
ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: URS Corporation - Ft. Washington
Project: TRADEBE - VENDOR #1168636
Lab Case No.: E12-06658

Lab ID:	06658-009			06658-010		
Client ID:	E2-070212-			I4-070212-		
Client ID Cont.:	WATER FILT.			WATER FILT.		
Matrix:	Aqueous			Aqueous		
Sampled Date	7/2/12			7/2/12		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
Metals (Units)	*(ug/L-ppb)*			*(ug/L-ppb)*		
Aluminum	ND		20.0	803		20.0
Antimony	ND		1.00	ND		1.00
Arsenic	ND		1.00	ND		1.00
Barium	104		10.0	153		10.0
Beryllium	ND		1.00	ND		1.00
Cadmium	ND		0.500	ND		0.500
Calcium	8260		100	8310		100
Chromium	ND		2.00	ND		2.00
Cobalt	5.00	J	2.00	10.0		2.00
Copper	ND		4.00	ND		4.00
Iron	95800		50.0	2090		50.0
Lead	ND		0.500	ND		0.500
Magnesium	4940		50.0	4090		50.0
Manganese	748		2.00	350		2.00
Mercury	ND		0.300	ND		0.300
Nickel	ND		1.00	4.03		1.00
Potassium	1100		50.0	4470		50.0
Selenium	ND		4.00	ND		4.00
Silver	ND		0.500	ND		0.500
Sodium	58300		100	6530		100
Thallium	ND		0.500	ND		0.500
Vanadium	ND		2.00	ND		2.00
Zinc	14.6		4.00	11.8		4.00

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the RL and above the MDL

ANALYTICAL RESULTS

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06658-001
Client ID: H1-07021
Date Received: 07/03/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: B8820.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Naphthalene	0.866	J	1.00	0.175
2-Methylnaphthalene	ND		1.00	0.109
Acenaphthylene	ND		1.00	0.113
Acenaphthene	0.460	J	1.00	0.100
Fluorene	ND		1.00	0.145
Phenanthrene	0.490	J	1.00	0.112
Anthracene	ND		1.00	0.124
Fluoranthene	ND		1.00	0.141
Pyrene	ND		1.00	0.744
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216
Total Target Compounds (17):	1.82	J		

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06658-002
Client ID: H2-07021
Date Received: 07/03/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: B8821.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		1.00	0.175
2-Methylnaphthalene	ND		1.00	0.109
Acenaphthylene	ND		1.00	0.113
Acenaphthene	ND		1.00	0.100
Fluorene	ND		1.00	0.145
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Fluoranthene	ND		1.00	0.141
Pyrene	ND		1.00	0.744
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06658-003
Client ID: H3-07021
Date Received: 07/03/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: B8822.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		1.00	0.175
2-Methylnaphthalene	ND		1.00	0.109
Acenaphthylene	ND		1.00	0.113
Acenaphthene	ND		1.00	0.100
Fluorene	ND		1.00	0.145
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Fluoranthene	ND		1.00	0.141
Pyrene	ND		1.00	0.744
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: E12-06658-004
Client ID: E2-07021
Date Received: 07/03/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: B8823.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Naphthalene	ND		1.00	0.175
2-Methylnaphthalene	ND		1.00	0.109
Acenaphthylene	ND		1.00	0.113
Acenaphthene	ND		1.00	0.100
Fluorene	ND		1.00	0.145
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Fluoranthene	ND		1.00	0.141
Pyrene	ND		1.00	0.744
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216

Total Target Compounds (17): 0

INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: 06658-005
Client ID: I4-070212-
Date Received: 07/03/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: Y6453.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: 06658-005
Client ID: I4-070212-
Date Received: 07/03/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: V8223.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: 06658-005
Client ID: I4-070212-
Date Received: 07/03/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: W7076.D

GC Column: DB-5/DB1701P
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.500	0.200
Dicamba	ND		0.500	0.200
2,4-D	ND		0.500	0.200
2,4,5-TP (Silvex)	ND		0.500	0.200
2,4,5-T	ND		0.500	0.200
2,4-DB	ND		0.500	0.200
Dinoseb	ND		0.500	0.200

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06658-006
Client ID: H1-070212-WATER FILT.
Date Received: 7/3/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 283

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	ND		1	40.0	20.0	07/09/12	6020
Antimony	3.28	J	1	4.00	1.00	07/09/12	6020
Arsenic	99.3		1	2.00	1.00	07/09/12	6020
Barium	23.6	J	1	40.0	10.0	07/09/12	6020
Beryllium	ND		1	2.00	1.00	07/09/12	6020
Cadmium	ND		1	2.00	0.500	07/09/12	6020
Calcium	19400		1	200	100	07/09/12	6020
Chromium	ND		1	8.00	2.00	07/09/12	6020
Cobalt	ND		1	8.00	2.00	07/09/12	6020
Copper	ND		1	8.00	4.00	07/09/12	6020
Iron	1070		1	100	50.0	07/09/12	6020
Lead	ND		1	2.00	0.500	07/09/12	6020
Magnesium	1560		1	200	50.0	07/09/12	6020
Manganese	77.4		1	4.00	2.00	07/09/12	6020
Mercury	ND		1	0.500	0.300	07/09/12	7470A
Nickel	4.09		1	4.00	1.00	07/09/12	6020
Potassium	15500		1	200	50.0	07/09/12	6020
Selenium	ND		1	8.00	4.00	07/09/12	6020
Silver	ND		1	2.00	0.500	07/09/12	6020
Sodium	346000		1	400	100	07/09/12	6020
Thallium	ND		1	2.00	0.500	07/09/12	6020
Vanadium	4.72	J	1	8.00	2.00	07/09/12	6020
Zinc	5.61	J	1	8.00	4.00	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06658-007
Client ID: H2-070212-WATER FILT.
Date Received: 7/3/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 283

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	ND		1	40.0	20.0	07/09/12	6020
Antimony	ND		1	4.00	1.00	07/09/12	6020
Arsenic	1.74	J	1	2.00	1.00	07/09/12	6020
Barium	22.9	J	1	40.0	10.0	07/09/12	6020
Beryllium	ND		1	2.00	1.00	07/09/12	6020
Cadmium	ND		1	2.00	0.500	07/09/12	6020
Calcium	85300		1	200	100	07/09/12	6020
Chromium	ND		1	8.00	2.00	07/09/12	6020
Cobalt	3.08	J	1	8.00	2.00	07/09/12	6020
Copper	ND		1	8.00	4.00	07/09/12	6020
Iron	5410		1	100	50.0	07/09/12	6020
Lead	ND		1	2.00	0.500	07/09/12	6020
Magnesium	12600		1	200	50.0	07/09/12	6020
Manganese	787		1	4.00	2.00	07/09/12	6020
Mercury	ND		1	0.500	0.300	07/09/12	7470A
Nickel	3.93	J	1	4.00	1.00	07/09/12	6020
Potassium	11500		1	200	50.0	07/09/12	6020
Selenium	ND		1	8.00	4.00	07/09/12	6020
Silver	ND		1	2.00	0.500	07/09/12	6020
Sodium	229000		1	400	100	07/09/12	6020
Thallium	ND		1	2.00	0.500	07/09/12	6020
Vanadium	ND		1	8.00	2.00	07/09/12	6020
Zinc	16.2		1	8.00	4.00	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06658-008
Client ID: H3-070212-WATER FILT.
Date Received: 7/3/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 283

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	ND		1	40.0	20.0	07/09/12	6020
Antimony	ND		1	4.00	1.00	07/09/12	6020
Arsenic	ND		1	2.00	1.00	07/09/12	6020
Barium	22.8	J	1	40.0	10.0	07/09/12	6020
Beryllium	ND		1	2.00	1.00	07/09/12	6020
Cadmium	ND		1	2.00	0.500	07/09/12	6020
Calcium	100000		1	200	100	07/09/12	6020
Chromium	ND		1	8.00	2.00	07/09/12	6020
Cobalt	7.27	J	1	8.00	2.00	07/09/12	6020
Copper	ND		1	8.00	4.00	07/09/12	6020
Iron	2970		1	100	50.0	07/09/12	6020
Lead	ND		1	2.00	0.500	07/09/12	6020
Magnesium	10800		1	200	50.0	07/09/12	6020
Manganese	718		1	4.00	2.00	07/09/12	6020
Mercury	ND		1	0.500	0.300	07/09/12	7470A
Nickel	7.37		1	4.00	1.00	07/09/12	6020
Potassium	5870		1	200	50.0	07/09/12	6020
Selenium	ND		1	8.00	4.00	07/09/12	6020
Silver	ND		1	2.00	0.500	07/09/12	6020
Sodium	44300		1	400	100	07/09/12	6020
Thallium	ND		1	2.00	0.500	07/09/12	6020
Vanadium	ND		1	8.00	2.00	07/09/12	6020
Zinc	16.9		1	8.00	4.00	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06658-009
Client ID: E2-070212-WATER FILT.
Date Received: 7/3/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 283

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	ND		1	40.0	20.0	07/09/12	6020
Antimony	ND		1	4.00	1.00	07/09/12	6020
Arsenic	ND		1	2.00	1.00	07/09/12	6020
Barium	104		1	40.0	10.0	07/09/12	6020
Beryllium	ND		1	2.00	1.00	07/09/12	6020
Cadmium	ND		1	2.00	0.500	07/09/12	6020
Calcium	8260		1	200	100	07/09/12	6020
Chromium	ND		1	8.00	2.00	07/09/12	6020
Cobalt	5.00	J	1	8.00	2.00	07/09/12	6020
Copper	ND		1	8.00	4.00	07/09/12	6020
Iron	95800		1	100	50.0	07/09/12	6020
Lead	ND		1	2.00	0.500	07/09/12	6020
Magnesium	4940		1	200	50.0	07/09/12	6020
Manganese	748		1	4.00	2.00	07/09/12	6020
Mercury	ND		1	0.500	0.300	07/09/12	7470A
Nickel	ND		1	4.00	1.00	07/09/12	6020
Potassium	1100		1	200	50.0	07/09/12	6020
Selenium	ND		1	8.00	4.00	07/09/12	6020
Silver	ND		1	2.00	0.500	07/09/12	6020
Sodium	58300		1	400	100	07/09/12	6020
Thallium	ND		1	2.00	0.500	07/09/12	6020
Vanadium	ND		1	8.00	2.00	07/09/12	6020
Zinc	14.6		1	8.00	4.00	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

METALS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Lab ID: E12-06658-010
Client ID: I4-070212-WATER FILT.
Date Received: 7/3/2012
Matrix-Units: Aqueous-ug/L (ppb)
% Moisture: 100
Batch #: 283

Compound	Result	Q	DF	RL	MDL	Date Analyzed	Method
Aluminum	803		1	40.0	20.0	07/09/12	6020
Antimony	ND		1	4.00	1.00	07/09/12	6020
Arsenic	ND		1	2.00	1.00	07/09/12	6020
Barium	153		1	40.0	10.0	07/09/12	6020
Beryllium	ND		1	2.00	1.00	07/09/12	6020
Cadmium	ND		1	2.00	0.500	07/09/12	6020
Calcium	8310		1	200	100	07/09/12	6020
Chromium	ND		1	8.00	2.00	07/09/12	6020
Cobalt	10.0		1	8.00	2.00	07/09/12	6020
Copper	ND		1	8.00	4.00	07/09/12	6020
Iron	2090		1	100	50.0	07/09/12	6020
Lead	ND		1	2.00	0.500	07/09/12	6020
Magnesium	4090		1	200	50.0	07/09/12	6020
Manganese	350		1	4.00	2.00	07/09/12	6020
Mercury	ND		1	0.500	0.300	07/09/12	7470A
Nickel	4.03		1	4.00	1.00	07/09/12	6020
Potassium	4470		1	200	50.0	07/09/12	6020
Selenium	ND		1	8.00	4.00	07/09/12	6020
Silver	ND		1	2.00	0.500	07/09/12	6020
Sodium	6530		1	400	100	07/09/12	6020
Thallium	ND		1	2.00	0.500	07/09/12	6020
Vanadium	ND		1	8.00	2.00	07/09/12	6020
Zinc	11.8		1	8.00	4.00	07/09/12	6020

INTEGRATED ANALYTICAL LABORATORIES, LLC.

TOTAL PETROLEUM HYDROCARBONS

Client/Project: URS-FTWASH/TRADEBE - VENDOR #1168636

Date Received: 07/03/12 17:19
Batch ID: AP040-0057

Lab ID	Client ID	Result	Q	DF	Matrix-Units	MDL	RL	% Solid	Date Analyzed
E12-06658-001	H1-070212-WATER	ND		1	Aqueous-ug/L	500	500	0	07/09/12 16:00
E12-06658-002	H2-070212-WATER	1870		1	Aqueous-ug/L	500	500	0	07/09/12 16:00
E12-06658-003	H3-070212-WATER	723		1	Aqueous-ug/L	500	500	0	07/09/12 16:00
E12-06658-004	E2-070212-WATER	2720		1	Aqueous-ug/L	500	500	0	07/09/12 16:00
E12-06658-005	I4-070212-WATER	ND		1	Aqueous-ug/L	500	500	0	07/09/12 16:00

J = The concentration was detected at a value below the RL and above the MDL

SEMI-VOLATILE ORGANICS

SEMI-VOLATILE ORGANICS QC SUMMARY

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
CCV040BNAMIX2	AQUEOUS	B8787.D	N/A	N/A	N/A	N/A	N/A	N/A
E12-06607-007	AQUEOUS	B8792.D	N/A	N/A	78	85	N/A	101
E12-06607-008	AQUEOUS	B8793.D	N/A	N/A	81	92	N/A	110
BLKA120709-01	AQUEOUS	B8805.D	93	69	101	54	26	97
LCSA120709-01	AQUEOUS	B8806.D	50	53	56	76	33	53
E12-06558-003MS	AQUEOUS	B8807.D	55	58	86	89	40	98
E12-06558-003MSD	AQUEOUS	B8808.D	55	58	84	93	38	96
E12-06662-001	AQUEOUS	B8809.D	N/A	N/A	93	99	N/A	117
E12-06558-001	AQUEOUS	B8810.D	N/A	N/A	87	101	N/A	115
E12-06558-002	AQUEOUS	B8811.D	N/A	N/A	97	100	N/A	115
E12-06558-003	AQUEOUS	B8812.D	N/A	N/A	55	90	N/A	96
E12-06558-004	AQUEOUS	B8813.D	N/A	N/A	70	100	N/A	118
E12-06638-001	AQUEOUS	B8814.D	N/A	N/A	70	98	N/A	119
E12-06660-001	AQUEOUS	B8815.D	N/A	N/A	60	94	N/A	102
E12-06657-001	AQUEOUS	B8816.D	21	12	68	99	39	116
E12-06657-002	AQUEOUS	B8817.D	26	16	75	97	59	115
E12-06657-003	AQUEOUS	B8818.D	26	15	77	101	64	119
E12-06657-004	AQUEOUS	B8819.D	10	10	61	100	12	114
E12-06658-001	AQUEOUS	B8820.D	N/A	N/A	58	98	N/A	97
E12-06658-002	AQUEOUS	B8821.D	N/A	N/A	28	36	N/A	40
E12-06658-003	AQUEOUS	B8822.D	N/A	N/A	49	83	N/A	91
E12-06658-004	AQUEOUS	B8823.D	N/A	N/A	48	95	N/A	89

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	35-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

SEMIVOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Lab Sample ID	Matrix	File ID	S1	S2	S3	S4	S5	S6
E12-06743-001	AQUEOUS	B8825.D	N/A	N/A	49	80	N/A	68

	Aqueous	Soil
S1 (2FP) = 2-Fluorophenol	10-100	28-108
S2 (PHL) = Phenol-d5	10-102	34-107
S3 (NBZ) = Nitrobenzene-d5	27-102	26-104
S4 (FBP) = 2-Fluorobiphenyl	26-101	32-128
S5 (TBP) = 2,4,6-Tribromophenol	22-115	35-126
S6 (TPH) = Terphenyl-d14	23-124	32-135

* Column to be used to flag recovery values

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120709-01
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: B8806.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
N-Nitrosodimethylamine	30.0	23.4	78		40 - 140
Pyridine	30.0	12.7	42		20 - 120
Benzaldehyde	30.0	27.8	93		10 - 110
Phenol	30.0	26.7	89		30 - 140
Aniline	30.0	22.3	74		40 - 140
Bis(2-chloroethyl) ether	30.0	29.1	97		40 - 140
2-Chlorophenol	30.0	22.9	76		30 - 140
1,3-Dichlorobenzene	30.0	24.6	82		40 - 140
1,4-Dichlorobenzene	30.0	24.1	80		40 - 140
Benzyl alcohol	30.0	16.1	54		40 - 140
1,2-Dichlorobenzene	30.0	22.7	76		40 - 140
2-Methylphenol	30.0	22.4	75		30 - 140
Bis(2-chloroisopropyl) ether	30.0	27.6	92		40 - 140
4-Methylphenol	30.0	20.2	67		30 - 140
N-Nitrosodi-n-propylamine	30.0	25.8	86		40 - 140
Acetophenone	30.0	26.2	87		40 - 140
3-Methylphenol	30.0	20.2	67		30 - 140
Hexachloroethane	30.0	25.4	85		40 - 140
Nitrobenzene	30.0	24.5	82		40 - 140
Isophorone	30.0	19.8	66		40 - 140
2-Nitrophenol	30.0	19.8	66		30 - 140
2,4-Dimethylphenol	30.0	22.2	74		30 - 140
Bis(2-chloroethoxy) methane	30.0	22.1	74		40 - 140
Benzoic acid	30.0	18.1	60		30 - 140
2,4-Dimethylaniline	30.0	30.8	103		40 - 140
2,4-Dichlorophenol	30.0	20.4	68		30 - 140
1,2,4-Trichlorobenzene	30.0	19.2	64		40 - 140
Naphthalene	30.0	22.7	76		40 - 140
4-Chloroaniline	30.0	18.9	63		40 - 140
Hexachlorobutadiene	30.0	18.8	63		40 - 140
Caprolactam	30.0	22.7	76		40 - 140
4-Chloro-3-methylphenol	30.0	21.6	72		30 - 140
2-Methylnaphthalene	30.0	19.1	64		40 - 140
Hexachlorocyclopentadiene	30.0	18.4	61		5 - 105
2,4,6-Trichlorophenol	30.0	24.9	83		30 - 140
2,4,5-Trichlorophenol	30.0	21.9	73		30 - 140
1,1'-Biphenyl	30.0	31.3	104		40 - 140
2-Chloronaphthalene	30.0	29.7	99		40 - 140
2-Nitroaniline	30.0	27.4	91		40 - 140
Dimethyl phthalate	30.0	28.9	96		40 - 140
2,6-Dinitrotoluene	30.0	26.3	88		40 - 140
Acenaphthylene	30.0	27.9	93		40 - 140
3-Nitroaniline	30.0	19.8	66		40 - 140
Acenaphthene	30.0	27.5	92		40 - 140
2,4-Dinitrophenol	30.0	22.9	76		5 - 105

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120709-01
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: B8806.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits Rec
4-Nitrophenol	30.0	32.6	109		30 - 140
2,4-Dinitrotoluene	30.0	17.6	59		40 - 140
Dibenzofuran	30.0	18.2	61		40 - 140
Diethyl phthalate	30.0	18.8	63		40 - 140
Fluorene	30.0	23.2	77		40 - 140
4-Chlorophenyl phenyl ether	30.0	18.8	63		40 - 140
4-Nitroaniline	30.0	17.8	59		40 - 140
1,2,4,5-Tetrachlorobenzene	30.0	24.5	82		40 - 140
2,3,4,6-Tetrachlorophenol	30.0	24.6	82		40 - 140
4,6-Dinitro-2-methylphenol	30.0	10.7	36		10 - 110
N-Nitrosodiphenylamine	30.0	17.0	57		40 - 140
1,2-Diphenylhydrazine	30.0	24.6	82		40 - 140
4-Bromophenyl phenyl ether	30.0	18.4	61		40 - 140
Hexachlorobenzene	30.0	18.8	63		40 - 140
Atrazine	30.0	10.5	35		20 - 120
Pentachlorophenol	30.0	15.0	50		30 - 140
Phenanthrene	30.0	23.5	78		40 - 140
Anthracene	30.0	21.5	72		40 - 140
Carbazole	30.0	22.2	74		40 - 140
Di-n-butyl phthalate	30.0	18.8	63		40 - 140
Fluoranthene	30.0	19.4	65		40 - 140
Benzidine	30.0	8.0	27		5 - 105
Pyrene	30.0	23.1	77		40 - 140
3,3'-Dimethylbenzidine	30.0	7.9	26		5 - 105
Butyl benzyl phthalate	30.0	16.0	53		40 - 140
3,3'-Dichlorobenzidine	30.0	15.3	51		40 - 140
Benzo[a]anthracene	30.0	21.1	70		40 - 140
Chrysene	30.0	25.0	83		40 - 140
Bis(2-ethylhexyl) phthalate	30.0	16.7	56		40 - 140
Di-n-octyl phthalate	30.0	23.7	79		40 - 140
Benzo[b]fluoranthene	30.0	25.6	85		40 - 140
Benzo[k]fluoranthene	30.0	38.8	129		40 - 140
Benzo[a]pyrene	30.0	29.3	98		40 - 140
Indeno[1,2,3-cd]pyrene	30.0	22.1	74		40 - 140
Dibenz[a,h]anthracene	30.0	19.3	64		40 - 140
Benzo[g,h,i]perylene	30.0	23.2	77		40 - 140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06558-003
Date Received: 07/02/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
MS Data file: B8807.D
MSD Data file: B8808.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
N-Nitrosodimethylamine	40.0	0.00	44.40	111		44.80	112		1		40-140/20
Pyridine	40.0	0.00	24.60	62		24.80	62		1		20-120/20
Benzaldehyde	40.0	0.00	40.00	100		40.20	101		0		10-110/20
Phenol	40.0	0.00	49.40	124		49.20	123		0		30-140/20
Aniline	40.0	0.00	43.20	108		44.60	112		3		40-140/20
Bis(2-chloroethyl) ether	40.0	0.00	39.60	99		35.20	88		12		40-140/20
2-Chlorophenol	40.0	0.00	45.20	113		46.30	116		2		30-140/20
1,3-Dichlorobenzene	40.0	0.00	46.60	117		46.10	115		1		40-140/20
1,4-Dichlorobenzene	40.0	0.00	44.80	112		45.50	114		2		40-140/20
Benzyl alcohol	40.0	0.00	44.95	112		48.10	120		7		40-140/20
1,2-Dichlorobenzene	40.0	0.00	44.00	110		44.30	111		1		40-140/20
2-Methylphenol	40.0	0.00	44.30	111		46.00	115		4		30-140/20
Bis(2-chloroisopropyl) ether	40.0	0.00	42.90	107		41.80	105		3		40-140/20
4-Methylphenol	40.0	0.00	40.90	102		43.20	108		5		30-140/20
N-Nitrosodi-n-propylamine	40.0	0.00	47.40	119		47.40	119		0		40-140/20
Acetophenone	40.0	0.00	45.00	113		43.40	109		4		40-140/20
3-Methylphenol	40.0	0.00	40.90	102		43.20	108		5		30-140/20
Hexachloroethane	40.0	0.00	49.00	123		47.50	119		3		40-140/20
Nitrobenzene	40.0	0.00	45.40	114		45.10	113		1		40-140/20
Isophorone	40.0	0.00	40.50	101		41.00	103		1		40-140/20
2-Nitrophenol	40.0	0.00	42.20	106		42.00	105		0		30-140/20
2,4-Dimethylphenol	40.0	0.00	48.70	122		47.90	120		2		30-140/20
Bis(2-chloroethoxy) methane	40.0	0.00	47.20	118		46.80	117		1		40-140/20
Benzoic acid	40.0	0.00	32.50	81		34.40	86		6		30-140/20
2,4-Dimethylaniline	40.0	0.00	39.00	98		37.80	95		3		40-140/20
2,4-Dichlorophenol	40.0	0.00	43.80	110		43.40	109		1		30-140/20
1,2,4-Trichlorobenzene	40.0	0.00	41.20	103		41.20	103		0		40-140/20
Naphthalene	40.0	0.00	46.50	116		46.20	116		1		40-140/20
4-Chloroaniline	40.0	0.00	39.10	98		40.10	100		3		40-140/20
Hexachlorobutadiene	40.0	0.00	39.00	98		39.50	99		1		40-140/20
Caprolactam	40.0	0.00	47.60	119		48.60	122		2		40-140/20
4-Chloro-3-methylphenol	40.0	0.00	46.20	116		45.90	115		1		30-140/20
2-Methylnaphthalene	40.0	0.00	41.20	103		40.90	102		1		40-140/20
Hexachlorocyclopentadiene	40.0	0.00	36.10	90		35.80	90		1		5-105/20
2,4,6-Trichlorophenol	40.0	0.00	39.80	100		35.60	89		11		30-140/20
2,4,5-Trichlorophenol	40.0	0.00	42.00	105		41.40	104		1		30-140/20
1,1'-Biphenyl	40.0	0.00	48.40	121		44.90	112		8		40-140/20
2-Chloronaphthalene	40.0	0.00	47.40	119		46.00	115		3		40-140/20
2-Nitroaniline	40.0	0.00	35.40	89		39.14	98		10		40-140/20
Dimethyl phthalate	40.0	0.00	47.40	119		46.40	116		2		40-140/20
2,6-Dinitrotoluene	40.0	0.00	47.60	119		49.70	124		4		40-140/20
Acenaphthylene	40.0	0.00	45.60	114		47.70	119		5		40-140/20
3-Nitroaniline	40.0	0.00	37.90	95		38.50	96		2		40-140/20
Acenaphthene	40.0	0.00	42.30	106		44.80	112		6		40-140/20
2,4-Dinitrophenol	40.0	0.00	40.90	102		39.53	99		3		5-105/20

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: E12-06558-003
Date Received: 07/02/2012
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
MS Data file: B8807.D
MSD Data file: B8808.D

GC/MS Column: DB-5
Sample wt/vol: 500ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	#	%RPD	#	Limits Rec/RPD
4-Nitrophenol	40.0	0.00	34.80	87		37.40	94		7		30-140/20
2,4-Dinitrotoluene	40.0	0.00	33.90	85		34.30	86		1		40-140/20
Dibenzofuran	40.0	0.00	35.60	89		35.70	89		0		40-140/20
Diethyl phthalate	40.0	0.00	36.70	92		36.70	92		0		40-140/20
Fluorene	40.0	0.00	46.20	116		46.20	116		0		40-140/20
4-Chlorophenyl phenyl ether	40.0	0.00	38.90	97		39.10	98		1		40-140/20
4-Nitroaniline	40.0	0.00	36.20	91		38.30	96		6		40-140/20
1,2,4,5-Tetrachlorobenzene	40.0	0.00	23.60	59		23.80	60		1		40-140/20
2,3,4,6-Tetrachlorophenol	40.0	0.00	48.70	122		40.40	101		19		40-140/20
4,6-Dinitro-2-methylphenol	40.0	0.00	31.60	79		30.00	75		5		10-110/20
N-Nitrosodiphenylamine	40.0	0.00	39.10	98		39.80	100		2		40-140/20
1,2-Diphenylhydrazine	40.0	0.00	39.80	100		40.60	102		2		40-140/20
4-Bromophenyl phenyl ether	40.0	0.00	42.70	107		41.70	104		2		40-140/20
Hexachlorobenzene	40.0	0.00	41.40	104		42.50	106		3		40-140/20
Atrazine	40.0	0.00	28.10	70		29.60	74		5		20-120/20
Pentachlorophenol	40.0	0.00	33.00	83		30.40	76		8		30-140/20
Phenanthrene	40.0	0.00	49.80	125		49.40	124		1		40-140/20
Anthracene	40.0	0.00	48.30	121		48.50	121		0		40-140/20
Carbazole	40.0	0.00	47.60	119		50.00	125		5		40-140/20
Di-n-butyl phthalate	40.0	0.00	42.30	106		44.00	110		4		40-140/20
Fluoranthene	40.0	0.00	44.50	111		44.80	112		1		40-140/20
Benzidine	40.0	0.00	21.80	55		24.20	61		10		5-105/20
Pyrene	40.0	0.00	48.40	121		47.20	118		3		40-140/20
3,3'-Dimethylbenzidine	40.0	0.00	15.90	40		17.30	43		8		5-105/20
Butyl benzyl phthalate	40.0	0.00	36.10	90		36.60	92		1		40-140/20
3,3'-Dichlorobenzidine	40.0	0.00	30.10	75		32.60	82		8		40-140/20
Benzo[a]anthracene	40.0	0.00	42.90	107		42.90	107		0		40-140/20
Chrysene	40.0	0.00	40.00	100		41.00	103		2		40-140/20
Bis(2-ethylhexyl) phthalate	40.0	0.00	35.94	90		37.00	93		3		40-140/20
Di-n-octyl phthalate	40.0	0.00	48.70	122		46.40	116		5		40-140/20
Benzo[b]fluoranthene	40.0	0.00	49.10	123		47.70	119		3		40-140/20
Benzo[k]fluoranthene	40.0	0.00	38.50	96		40.40	101		5		40-140/20
Benzo[a]pyrene	40.0	0.00	39.60	99		41.50	104		5		40-140/20
Indeno[1,2,3-cd]pyrene	40.0	0.00	41.90	105		45.80	115		9		40-140/20
Dibenz[a,h]anthracene	40.0	0.00	42.20	106		43.20	108		2		40-140/20
Benzo[g,h,i]perylene	40.0	0.00	45.40	114		43.80	110		4		40-140/20

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

SEMIVOLATILE METHOD BLANK SUMMARY

Lab File ID: B8792.D

Instrument ID: MSDB

Date Extracted: 07/09/12

Matrix: AQUEOUS

Date Analyzed: 07/10/2012

Time Analyzed: 12:17

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

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TW-19/7	E12-06607-008	07/10/2012	12:35
.	BLKA120709-01	07/10/2012	03:38
.	LCSA120709-01	07/10/2012	03:56
.	E12-06558-003MS	07/10/2012	04:13
.	E12-06558-003MSD	07/10/2012	04:32
HL-TWP-1	E12-06662-001	07/10/2012	04:50
27MW-1	E12-06558-001	07/10/2012	05:09
27MW-2	E12-06558-002	07/10/2012	05:27
27MW-3	E12-06558-003	07/10/2012	05:45
FB	E12-06558-004	07/10/2012	06:03
CE-MW1	E12-06638-001	07/10/2012	06:21
TW-1/7	E12-06660-001	07/10/2012	06:38
MW-1/12.	E12-06657-001	07/10/2012	06:56
MW-2/11.	E12-06657-002	07/10/2012	07:14
MW-3/12.	E12-06657-003	07/10/2012	07:32
FIELD_BL	E12-06657-004	07/10/2012	07:50
H1-07021	E12-06658-001	07/10/2012	08:08
H2-07021	E12-06658-002	07/10/2012	08:26
H3-07021	E12-06658-003	07/10/2012	08:44
E2-07021	E12-06658-004	07/10/2012	09:02
TWP-1	E12-06743-001	07/10/2012	09:39

FORM IV SV

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8501.D DFTPP Injection Date : 07/02/2012

Inst ID: MSDB DFTPP Injection Time: 09:07

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	31.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	10.5	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	40.0 - 60.0% of mass 198	43.8	
197	Less than 1.0% of mass 198	0.1	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	5.1	
275	10.0 - 30.0% of mass 198	28.2	
365	Greater than 1.0% of mass 198	3.7	
441	Present, but less than mass 443	11.44	(62.4)3
442	40.0 - 100.0% of mass 198	86.1	
443	17.0 - 23.0% of mass 442	18.3	(21.3)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN017-12	ICC001BNA1	B8502.D	07/02/2012	09:18
ABN019-12	ICC010BNA1	B8503.D	07/02/2012	09:36
ABN020-12	ICC020BNA1	B8504.D	07/02/2012	09:54
ABN021-12	ICC040BNA1	B8505.D	07/02/2012	10:11
ABN022-12	ICC080BNA1	B8506.D	07/02/2012	10:29
ABN023-12	ICC120BNA1	B8507.D	07/02/2012	11:05
ABN032-12	ICC120BNA2	B8508.D	07/02/2012	11:23
ABN031-12	ICC080BNA2	B8509.D	07/02/2012	11:41
ABN030-12	ICC040BNA2	B8510.D	07/02/2012	11:59
ABN029-12	ICC020BNA2	B8511.D	07/02/2012	12:17
ABN028-12	ICC010BNA2	B8512.D	07/02/2012	12:35
ABN026-12	ICC001BNA2	B8513.D	07/02/2012	12:53

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8785.D DFTPP Injection Date : 07/10/2012

Inst ID: MSDB DFTPP Injection Time: 10:30

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	30.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	29.4	
70	Less than 2.0% of mass 69	0.2	(0.7)1
127	40.0 - 60.0% of mass 198	42.8	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.5	
275	10.0 - 30.0% of mass 198	26.6	
365	Greater than 1.0% of mass 198	2.7	
441	Present, but less than mass 443	6.76	(68.9)3
442	40.0 - 100.0% of mass 198	48.6	
443	17.0 - 23.0% of mass 442	9.8	(20.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ABN088.12	CCV040BNAMIX1	B8786.D	07/10/2012	10:40
ABN089.12	CCV040BNAMIX2	B8787.D	07/10/2012	10:59
TW-18/12	E12-06607-007	B8792.D	07/10/2012	12:17
TW-19/7	E12-06607-008	B8793.D	07/10/2012	12:35
.	BLKA120709-01	B8805.D	07/10/2012	03:38
.	LCSA120709-01	B8806.D	07/10/2012	03:56
.	E12-06558-003MS	B8807.D	07/10/2012	04:13
.	E12-06558-003MSD	B8808.D	07/10/2012	04:32
HL-TWP-1	E12-06662-001	B8809.D	07/10/2012	04:50
27MW-1	E12-06558-001	B8810.D	07/10/2012	05:09
27MW-2	E12-06558-002	B8811.D	07/10/2012	05:27
27MW-3	E12-06558-003	B8812.D	07/10/2012	05:45
FB	E12-06558-004	B8813.D	07/10/2012	06:03
CE-MW1	E12-06638-001	B8814.D	07/10/2012	06:21
TW-1/7	E12-06660-001	B8815.D	07/10/2012	06:38
MW-1/12.	E12-06657-001	B8816.D	07/10/2012	06:56
MW-2/11.	E12-06657-002	B8817.D	07/10/2012	07:14
MW-3/12.	E12-06657-003	B8818.D	07/10/2012	07:32
FIELD_BL	E12-06657-004	B8819.D	07/10/2012	07:50
H1-07021	E12-06658-001	B8820.D	07/10/2012	08:08
H2-07021	E12-06658-002	B8821.D	07/10/2012	08:26
H3-07021	E12-06658-003	B8822.D	07/10/2012	08:44
E2-07021	E12-06658-004	B8823.D	07/10/2012	09:02

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: B8785.D DFTPP Injection Date : 07/10/2012

Inst ID: MSDB DFTPP Injection Time: 10:30

m/z	Ion Abudance Criteria	%Relative Abundance	
51	30.0 - 60.0% of mass 198	30.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	29.4	
70	Less than 2.0% of mass 69	0.2	(0.7)1
127	40.0 - 60.0% of mass 198	42.8	
197	Less than 1.0% of mass 198	0.0	
198	Base peak, 100% relative abundance	100.0	
199	5.0 - 9.0% of mass 198	6.5	
275	10.0 - 30.0% of mass 198	26.6	
365	Greater than 1.0% of mass 198	2.7	
441	Present, but less than mass 443	6.76	(68.9)3
442	40.0 - 100.0% of mass 198	48.6	
443	17.0 - 23.0% of mass 442	9.8	(20.2)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
TWP-1	E12-06743-001	B8825.D	07/10/2012	09:39

Response Factor Report MSD_B

Method Path : C:\MSDCHEM\1\METHODS\
Method File : BW1712.M
Title : BNA CALIBRATION METHOD
Last Update : Mon Jul 02 12:14:53 2012
Response Via : Initial Calibration

Calibration Files
1 =B8502.D 10 =B8503.D 20 =B8504.D
40 =B8505.D 80 =B8506.D 120 =B8507.D =

		Compound	1	10	20	40	80	120	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	N-Nitrosodimethyl	0.890	0.782	0.804	0.736	0.789	0.779	0.797	6.42
3)	T	Pyridine	1.943	1.702	1.833	1.572	1.811	1.684	1.758	7.44
4)	S	2-Fluorophenol	1.283	1.310	1.313	1.261	1.312	1.283	1.294	1.65
5)	T	Benzaldehyde	0.776	0.742	0.665	0.765	0.547	0.859	0.725	14.78
6)	S	Phenol-d5	1.678	1.728	1.684	1.619	1.710	1.683	1.684	2.20
7)	MC	Phenol	1.918	1.696	1.759	1.608	1.719	1.813	1.752	6.05
8)	T	Aniline	0.957	0.843	0.909	0.735	0.863	0.760	0.844	10.10
9)	T	Bis(2-chloroethyl	1.106	0.888	0.956	0.848	0.923	1.029	0.958	9.92
10)	M	2-Chlorophenol	1.709	1.285	1.459	1.299	1.414	1.509	1.446	10.79
11)	T	1,3-Dichlorobenze	1.489	1.367	1.552	1.398	1.568	1.722	1.516	8.52
12)	MC	1,4-Dichlorobenze	1.705	1.367	1.665	1.499	1.649	1.703	1.598	8.54
13)	T	Benzyl alcohol	1.187	1.025	1.180	1.047	1.184	0.946	1.095	9.40
14)	T	1,2-Dichlorobenze	1.736	1.366	1.572	1.421	1.581	1.648	1.554	8.92
15)	T	2-Methylphenol	1.319	1.402	1.625	1.412	1.559	1.306	1.437	8.97
16)	T	Bis(2-chloroisopr	1.790	1.646	1.804	1.586	1.719	1.778	1.721	5.11
17)	T	4-Methylphenol	1.890	1.469	1.639	1.501	1.684	1.430	1.602	10.75
18)	MP	N-Nitrosodi-n-pro	1.221	0.928	1.028	0.904	0.988	1.134	1.034	11.86
19)	T	Acetophenone	2.174	1.794	2.002	1.748	1.932	2.011	1.944	8.02
20)	T	3-Methylphenol	1.890	1.469	1.642	1.502	1.684	1.430	1.603	10.76
21)	T	Hexachloroethane	0.638	0.528	0.578	0.526	0.578	0.603	0.575	7.54
23)	I	Naphthalene-d8	----------ISTD----------							
24)	S	Nitrobenzene-d5	0.320	0.318	0.320	0.333	0.368	0.419	0.346	11.66
25)	T	Nitrobenzene	0.385	0.320	0.345	0.310	0.337	0.357	0.342	7.91
26)	T	Isophorone	0.760	0.596	0.656	0.586	0.631	0.570	0.633	11.03
27)	TC	2-Nitrophenol	0.213	0.166	0.185	0.171	0.197	0.224	0.193	11.96
28)	T	2,4-Dimethylpheno	0.387	0.292	0.340	0.299	0.362	0.410	0.348	13.55
29)	T	Bis(2-chloroethox	0.492	0.366	0.400	0.368	0.398	0.429	0.409	11.48
30)	T	Benzoic acid	0.244	0.220	0.229	0.221	0.245	0.217	0.229	5.35
31)	T	2,4-Dimethylanili	0.719	0.626	0.715	0.525	0.699	0.714	0.666	11.64
32)	TC	2,4-Dichloropheno	0.350	0.270	0.298	0.271	0.297	0.332	0.303	10.71
33)	M	1,2,4-Trichlorobe	0.381	0.294	0.334	0.302	0.336	0.367	0.336	10.19
34)	T	Naphthalene	1.248	0.970	1.080	0.987	1.067	1.145	1.083	9.53
35)	T	4-Chloroaniline	0.754	0.598	0.676	0.584	0.677	0.622	0.652	9.70
36)	T	4-Aminotoluene	1.155	0.932	1.036	0.865	1.101	1.053	1.024	10.50
37)	TC	Hexachlorobutadie	0.237	0.174	0.200	0.181	0.202	0.226	0.203	12.01
38)	T	Caprolactam	0.145	0.127	0.136	0.123	0.131	0.138	0.133	5.97
39)	T	2-Aminotoluene	1.155	0.932	1.036	0.865	1.101	1.031	1.020	10.46
40)	MC	4-Chloro-3-methyl	0.273	0.254	0.292	0.253	0.287	0.307	0.278	7.76
41)	T	2-Methylnaphthale	0.928	0.740	0.850	0.757	0.867	0.834	0.830	8.50
43)	I	Acenaphthene-d10	----------ISTD----------							
44)	TP	Hexachlorocyclope	0.500	0.406	0.448	0.414	0.475	0.526	0.461	10.30
45)	TC	2,4,6-Trichloroph	0.462	0.351	0.373	0.345	0.393	0.443	0.394	12.31
46)	T	2,4,5-Trichloroph	0.547	0.451	0.496	0.466	0.511	0.448	0.486	7.96
47)	S	2-Fluorobiphenyl	1.428	1.345	1.317	1.340	1.309	1.384	1.354	3.31
48)	T	1,1'-Biphenyl	1.932	1.429	1.553	1.470	1.666	1.872	1.654	12.68
49)	T	2-Chloronaphthale	1.392	1.058	1.149	1.093	1.235	1.342	1.212	11.17
50)	T	2-Nitroaniline	0.413	0.338	0.360	0.338	0.367	0.322	0.356	9.04
51)	T	Dimethyl phthalat	1.402	1.179	1.290	1.199	1.328	1.405	1.301	7.46
52)	T	2,6-Dinitrotoluen	0.285	0.244	0.277	0.261	0.283	0.314	0.277	8.59
53)	T	Acenaphthylene	2.164	1.660	1.842	1.723	1.906	1.921	[illegible]	[illegible]

54)	T	3-Nitroaniline	0.417	0.336	0.378	0.339	0.371	0.320	0.360	9.88
55)	MC	Acenaphthene	1.235	0.982	1.083	0.988	1.074	1.147	1.085	8.89
56)	TP	2,4-Dinitrophenol	0.104	0.095	0.110	0.103	0.112	0.101	0.104	5.87
57)	MP	4-Nitrophenol	0.279	0.195	0.214	0.193	0.210	0.221	0.219	14.40
58)	M	2,4-Dinitrotoluen	0.390	0.298	0.347	0.320	0.342	0.367	0.344	9.49
59)	T	Dibenzofuran	2.183	1.741	1.914	1.739	1.879	1.632	1.848	10.48
60)	T	Diethyl phthalate	1.455	1.089	1.206	1.094	1.154	1.230	1.205	11.24
61)	T	Fluorene	1.416	1.180	1.276	1.174	1.297	1.399	1.290	8.02
62)	T	4-Chlorophenyl ph	0.710	0.564	0.623	0.561	0.618	0.682	0.626	9.69
63)	T	4-Nitroaniline	0.424	0.352	0.389	0.366	0.415	0.385	0.389	7.18
64)		1,2,4,5-Tetrachlo	1.268	1.033	1.150	1.098	1.248	0.707	1.084	18.91
65)	T	2,3,4,6-Tetrachlo	0.321	0.280	0.261	0.259	0.291	0.285	0.283	8.07
66)	I	Phenanthrene-d10	----------ISTD----------							
67)	T	4,6-Dinitro-2-met	0.107	0.084	0.091	0.084	0.099	0.097	0.094	9.72
68)	TC	N-Nitrosodiphenyl	0.575	0.458	0.521	0.460	0.516	0.578	0.518	10.13
69)	T	1,2-Diphenylhydra	0.653	0.583	0.690	0.603	0.676	0.757	0.660	9.52
70)	S	2,4,6-Tribromophe	0.173	0.165	0.175	0.161	0.167	0.164	0.168	3.20
71)	T	4-Bromophenyl phe	0.267	0.214	0.245	0.220	0.253	0.284	0.247	10.87
72)	T	Hexachlorobenzene	0.335	0.258	0.300	0.266	0.312	0.352	0.304	12.23
73)	T	Atrazine	0.192	0.183	0.197	0.165	0.180	0.154	0.178	9.14
74)	MC	Pentachlorophenol	0.195	0.142	0.158	0.151	0.176	0.205	0.171	14.75
75)	T	Phenanthrene	1.210	0.946	1.085	0.995	1.118	1.230	1.097	10.33
76)	T	Anthracene	1.182	0.977	1.104	1.026	1.201	1.248	1.123	9.45
77)	T	Carbazole	1.118	0.884	1.007	0.919	1.051	1.134	1.019	10.03
78)	T	Di-n-butyl phthal	1.342	1.063	1.202	1.150	1.332	1.447	1.256	11.33
79)	TC	Fluoranthene	1.266	1.010	1.113	1.074	1.227	1.233	1.154	8.92
80)	T	Benzidine	0.358	0.363	0.355	0.326	0.283	0.300	0.331	10.15
82)	I	Chrysene-d12	----------ISTD----------							
83)	M	Pyrene	1.256	0.980	1.187	1.042	1.148	1.173	1.131	8.98
84)	S	Terphenyl-d14	0.848	0.832	0.861	0.834	0.802	0.872	0.842	2.95
85)	T	3,3'-Dimethylbenz	0.262	0.305	0.238	0.274	0.252	0.214	0.258	12.05
86)	T	Butyl benzyl phth	0.530	0.407	0.484	0.444	0.486	0.462	0.469	8.90
87)	T	3,3'-Dichlorobenz	0.452	0.357	0.382	0.337	0.326	0.357	0.369	12.27
88)	T	Benzo[a]anthracen	1.218	0.930	1.034	0.944	1.034	1.169	1.055	11.07
89)	T	Chrysene	1.073	0.849	0.979	0.890	0.973	1.044	0.968	8.90
90)	T	Bis(2-ethylhexyl)	0.702	0.552	0.658	0.634	0.717	0.600	0.644	9.64
92)	I	Perylene-d12	----------ISTD----------							
93)	TC	Di-n-octyl phthal	1.165	0.928	1.112	1.043	1.105	1.088	1.074	7.59
94)	T	Benzo[b]fluoranth	1.384	1.012	1.382	1.256	1.299	1.402	1.289	11.43
95)	T	Benzo[k]fluoranth	1.374	1.118	1.396	1.240	1.291	1.204	1.271	8.28
96)	TC	Benzo[a]pyrene	1.261	0.992	1.120	1.003	1.098	1.125	1.100	8.90
97)	T	Indeno[1,2,3-cd]p	1.553	1.282	1.460	1.421	1.605	1.507	1.471	7.73
98)	T	Dibenz[a,h]anthra	1.339	1.097	1.238	1.200	1.371	1.198	1.240	8.13
99)	T	Benzo[g,h,i]peryl	1.294	1.052	1.186	1.143	1.295	1.300	1.212	8.45

(#) = Out of Range

BW1712.M Mon Jul 02 13:19:37 2012 MSD_B

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : B8786.D
Acq On : 10 Jul 2012 10:40 am
Operator : DANA
Sample : ABN088.12,CCV040BNAMIX1,A,1000ml,100,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 10 10:59:00 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 5.00min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	81	-0.01
2	T	N-Nitrosodimethylamine	0.797	0.892	-11.9	99	-0.01
3	T	Pyridine	1.758	1.847	-5.1	96	-0.01
4	S	2-Fluorophenol	1.294	1.491	-15.2	96	0.00
5	T	Benzaldehyde	0.725	0.713	1.7	76	0.00
6	S	Phenol-d5	1.684	1.846	-9.6	93	0.00
7	MC	Phenol	1.752	1.829	-4.4	92	0.00
8	T	Aniline	0.844	0.967	-14.6	107	0.00
9	T	Bis(2-chloroethyl) ether	0.958	1.133	-18.3	109	-0.01
10	M	2-Chlorophenol	1.446	1.535	-6.2	96	0.00
11	T	1,3-Dichlorobenzene	1.516	1.771	-16.8	103	0.00
12	MC	1,4-Dichlorobenzene	1.598	1.802	-12.8	98	-0.01
13	T	Benzyl alcohol	1.095	0.928	15.3	72	0.00
14	T	1,2-Dichlorobenzene	1.554	1.670	-7.5	96	-0.01
15	T	2-Methylphenol	1.437	1.497	-4.2	86	0.00
16	T	Bis(2-chloroisopropyl) ethe	1.721	1.767	-2.7	91	-0.01
17	T	4-Methylphenol	1.602	1.585	1.1	86	0.00
18	MP	N-Nitrosodi-n-propylamine	1.034	1.229	-18.9	111	-0.01
19	T	Acetophenone	1.944	2.127	-9.4	99	-0.01
20	T	3-Methylphenol	1.603	1.582	1.3	86	0.00
21	T	Hexachloroethane	0.575	0.668	-16.2	103	0.00
23	I	Naphthalene-d8	1.000	1.000	0.0	90	-0.01
24	S	Nitrobenzene-d5	0.346	0.411	-18.8	111	-0.01
25	T	Nitrobenzene	0.342	0.402	-17.5	117	-0.01
26	T	Isophorone	0.633	0.620	2.1	95	-0.01
27	TC	2-Nitrophenol	0.193	0.191	1.0	101	-0.01
28	T	2,4-Dimethylphenol	0.348	0.402	-15.5	121	0.00
29	T	Bis(2-chloroethoxy) methane	0.409	0.452	-10.5	111	-0.01
30	T	Benzoic acid	0.229	0.194	15.3	79	-0.01
31	T	2,4-Dimethylaniline	0.666	0.625	6.2	107	-0.01
32	TC	2,4-Dichlorophenol	0.303	0.287	5.3	95	-0.01
33	M	1,2,4-Trichlorobenzene	0.336	0.317	5.7	94	-0.01
34	T	Naphthalene	1.083	1.243	-14.8	113	-0.01
35	T	4-Chloroaniline	0.652	0.618	5.2	95	0.00
36	T	4-Aminotoluene	1.024	0.989	3.4	103	-0.01
37	TC	Hexachlorobutadiene	0.203	0.183	9.9	91	-0.01
38	T	Caprolactam	0.133	0.155	-16.5	113	-0.01
39	T	2-Aminotoluene	1.020	1.005	1.5	105	-0.01
40	MC	4-Chloro-3-methylphenol	0.278	0.287	-3.2	102	0.00
41	T	2-Methylnaphthalene	0.830	0.824	0.7	98	-0.01
43	I	Acenaphthene-d10	1.000	1.000	0.0	67	-0.02
44	TP	Hexachlorocyclopentadiene	0.461	0.426	7.6	69	-0.01
45	TC	2,4,6-Trichlorophenol	0.394	0.413	-4.8	80	-0.01
46	T	2,4,5-Trichlorophenol	0.486	0.511	-5.1	74	[illegible]

47	S	2-Fluorobiphenyl	1.354	1.407	-3.9	70	-0.01
48	T	1,1'-Biphenyl	1.654	1.923	-16.3	88	-0.02
49	T	2-Chloronaphthalene	1.212	1.372	-13.2	84	-0.01
50	T	2-Nitroaniline	0.356	0.325	8.7	64	-0.01
51	T	Dimethyl phthalate	1.301	1.530	-17.6	86	-0.01
52	T	2,6-Dinitrotoluene	0.277	0.322	-16.2	83	-0.02
53	T	Acenaphthylene	1.869	2.162	-15.7	84	-0.02
54	T	3-Nitroaniline	0.360	0.353	1.9	70	-0.01
55	MC	Acenaphthene	1.085	1.155	-6.5	78	-0.02
56	TP	2,4-Dinitrophenol	0.104	0.098	5.8	64	-0.02
57	MP	4-Nitrophenol	0.219	0.261	-19.2	90	0.00
58	M	2,4-Dinitrotoluene	0.344	0.279	18.9	58	-0.02
59	T	Dibenzofuran	1.848	1.580	14.5	61	-0.02
60	T	Diethyl phthalate	1.205	1.055	12.4	65	-0.02
61	T	Fluorene	1.290	1.534	-18.9	88	-0.02
62	T	4-Chlorophenyl phenyl ether	0.626	0.548	12.5	65	-0.02
63	T	4-Nitroaniline	0.389	0.356	8.5	65	-0.02
64		1,2,4,5-Tetrachlorobenzene	1.084	0.871	19.6	53	-0.01
65	T	2,3,4,6-Tetrachlorophenol	0.283	0.239	15.5	62	-0.02
66	I	Phenanthrene-d10	1.000	1.000	0.0	85	-0.02
67	T	4,6-Dinitro-2-methylphenol	0.094	0.084	10.6	85	-0.02
68	TC	N-Nitrosodiphenylamine	0.518	0.443	14.5	82	-0.01
69	T	1,2-Diphenylhydrazine	0.660	0.690	-4.5	97	-0.02
70	S	2,4,6-Tribromophenol	0.168	0.145	13.7	77	-0.02
71	T	4-Bromophenyl phenyl ether	0.247	0.222	10.1	86	-0.02
72	T	Hexachlorobenzene	0.304	0.293	3.6	94	-0.02
73	T	Atrazine	0.178	0.207	-16.3	107	-0.02
74	MC	Pentachlorophenol	0.171	0.141	17.5	79	-0.02
75	T	Phenanthrene	1.097	1.280	-16.7	109	-0.02
76	T	Anthracene	1.123	1.277	-13.7	106	-0.02
77	T	Carbazole	1.019	1.150	-12.9	106	-0.02
78	T	Di-n-butyl phthalate	1.256	1.184	5.7	88	-0.03
79	TC	Fluoranthene	1.154	1.259	-9.1	100	-0.04
80	T	Benzidine	0.331	0.333	-0.6	110	-0.01
82	I	Chrysene-d12	1.000	1.000	0.0	83	-0.06
83	M	Pyrene	1.131	1.347	-19.1	107	-0.05
84	S	Terphenyl-d14	0.842	0.940	-11.6	93	-0.05
85	T	3,3'-Dimethylbenzidine	0.258	0.217	15.9	66	-0.34
86	T	Butyl benzyl phthalate	0.469	0.396	15.6	74	-0.05
87	T	3,3'-Dichlorobenzidine	0.369	0.339	8.1	83	-0.06
88	T	Benzo[a]anthracene	1.055	1.114	-5.6	98	-0.06
89	T	Chrysene	0.968	0.812	16.1	76	-0.06
90	T	Bis(2-ethylhexyl) phthalate	0.644	0.535	16.9	70	-0.06
92	I	Perylene-d12	1.000	1.000	0.0	51	-0.09
93	TC	Di-n-octyl phthalate	1.074	1.231	-14.6	60	-0.07
94	T	Benzo[b]fluoranthene	1.289	1.383	-7.3	56	-0.07
95	T	Benzo[k]fluoranthene	1.271	1.372	-7.9	56	-0.08
96	TC	Benzo[a]pyrene	1.100	1.133	-3.0	57	-0.08
97	T	Indeno[1,2,3-cd]pyrene	1.471	1.532	-4.1	55	-0.11
98	T	Dibenz[a,h]anthracene	1.240	1.228	1.0	52	-0.11
99	T	Benzo[g,h,i]perylene	1.212	1.296	-6.9	57	-0.12

(#) = Out of Range

BW1712.M Tue Jul 10 16:18:18 2012 MSD_B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8505.D

Date Analyzed: 07/02/2012

Instrument ID: MSDB

Time Analyzed: 10:11

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	239704	3.75	962459	4.52	540708	5.56
	UPPER LIMIT	479408	4.25	1924918	5.02	1081416	6.06
	LOWER LIMIT	119852	3.25	481230	4.02	270354	5.06
	LAB SAMPLE ID						
01	ICC001BNA1	259167	3.75	1050481	4.51	573203	5.56
02	ICC010BNA1	225499	3.75	905018	4.51	491468	5.56
03	ICC020BNA1	231123	3.75	950164	4.51	556847	5.56
04	ICC080BNA1	184187	3.75	741957	4.52	414626	5.56
05	ICC120BNA1	156562	3.75	623489	4.52	349807	5.56
06	ICC120BNA2	192144	3.75	778740	4.51	441071	5.55
07	ICC080BNA2	208755	3.75	855356	4.51	480107	5.56
08	ICC040BNA2	217086	3.75	882797	4.51	497250	5.56
09	ICC020BNA2	213269	3.75	869916	4.51	477389	5.56
10	ICC010BNA2	200968	3.75	819824	4.51	437243	5.56
11	ICC001BNA2	179502	3.75	744360	4.51	405476	5.56
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8505.D

Date Analyzed: 07/02/2012

Instrument ID: MSDB

Time Analyzed: 10:11

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	966501	6.46	1003753	8.10	886482	9.47
	UPPER LIMIT	1933002	6.96	2007506	8.60	1772964	9.97
	LOWER LIMIT	483251	5.96	501877	7.60	443241	8.97
	LAB SAMPLE ID						
01	ICC001BNA1	1119768	6.46	1163337	8.07	1055796	9.43
02	ICC010BNA1	876068	6.46	918570	8.06	839676	9.42
03	ICC020BNA1	955015	6.46	907353	8.11	784037	9.50
04	ICC080BNA1	723292	6.46	768377	8.07	701605	9.43
05	ICC120BNA1	608717	6.46	603936	8.09	445354	9.46
06	ICC120BNA2	765459	6.46	716417	8.10	529483	9.49
07	ICC080BNA2	866195	6.46	850691	8.06	738733	9.42
08	ICC040BNA2	935793	6.46	884928	8.06	743058	9.42
09	ICC020BNA2	889067	6.46	847005	8.08	716290	9.46
10	ICC010BNA2	833172	6.46	801874	8.09	681239	9.46
11	ICC001BNA2	781279	6.46	774336	8.08	661734	9.44
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8786.D

Date Analyzed: 07/10/2012

Instrument ID: MSDB

Time Analyzed: 10:40

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	194937	3.74	866770	4.51	362345	5.54
	UPPER LIMIT	389874	4.24	1733540	5.01	724690	6.04
	LOWER LIMIT	97469	3.24	433385	4.01	181173	5.04
	LAB SAMPLE ID						
01	CCV040BNAMIX2	362715	3.74	1680015	4.51	642579	5.55
02	E12-06607-007	275419	3.74	1017365	4.51	548623	5.54
03	E12-06607-008	244967	3.74	885543	4.51	438993	5.54
04	BLKA120709-01	227589	3.74	714078	4.50	322978	5.54
05	LCSA120709-01	349598	3.74	1674293	4.51	657550	5.55
06	E12-06558-003MS	207034	3.74	925476	4.51	421263	5.54
07	E12-06558-003MSD	210718	3.74	946152	4.51	439587	5.54
08	E12-06662-001	239513	3.74	781443	4.50	355860	5.54
09	E12-06558-001	230326	3.74	710587	4.51	301522	5.54
10	E12-06558-002	219644	3.74	666677	4.51	273164	5.54
11	E12-06558-003	236263	3.74	1038161	4.50	421398	5.54
12	E12-06558-004	207848	3.74	902614	4.50	351735	5.54
13	E12-06638-001	222619	3.74	976817	4.50	416415	5.54
14	E12-06660-001	190089	3.74	820858	4.50	355247	5.54
15	E12-06657-001	217676	3.74	943739	4.50	389925	5.54
16	E12-06657-002	233060	3.74	1031922	4.50	413698	5.54
17	E12-06657-003	217705	3.74	918397	4.50	358523	5.54
18	E12-06657-004	222188	3.74	963366	4.50	389018	5.54
19	E12-06658-001	142765	3.74	634163	4.50	228756	5.54
20	E12-06658-002	248860	3.74	1124615	4.50	515732	5.54
21	E12-06658-003	262816	3.74	1143433	4.50	465175	5.54
22	E12-06658-004	213795	3.74	965385	4.50	359395	5.54

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8786.D

Date Analyzed: 07/10/2012

Instrument ID: MSDB

Time Analyzed: 10:40

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	821909	6.45	831935	8.03	449449	9.38
	UPPER LIMIT	1643818	6.95	1663870	8.53	898898	9.88
	LOWER LIMIT	410955	5.95	415968	7.53	224725	8.88
	LAB SAMPLE ID						
01	CCV040BNAMIX2	1038438	6.45	1647852	8.08	858837	9.43
02	E12-06607-007	1281512	6.45	1174199	8.10	629250	9.48
03	E12-06607-008	1095615	6.45	910826	8.08	475836	9.44
04	BLKA120709-01	961052	6.44	878754	8.01	405987	9.35
05	LCSA120709-01	1632547	6.46	1535176	8.09	751568	9.45
06	E12-06558-003MS	849378	6.44	836556	8.06	485460	9.42
07	E12-06558-003MSD	902973	6.45	942324	8.07	580704	9.43
08	E12-06662-001	1008142	6.44	792701	8.00	414374	9.34
09	E12-06558-001	889324	6.44	660763	8.00	307578	9.35
10	E12-06558-002	720724	6.44	576836	8.03	230995	9.40
11	E12-06558-003	994259	6.44	742755	8.02	378112	9.37
12	E12-06558-004	850863	6.45	670548	8.03	351667	9.38
13	E12-06638-001	971987	6.44	692002	8.05	328130	9.41
14	E12-06660-001	895389	6.44	677595	8.03	344471	9.39
15	E12-06657-001	957647	6.44	735085	8.04	418214	9.39
16	E12-06657-002	973937	6.45	680193	8.05	383715	9.40
17	E12-06657-003	915763	6.45	607926	8.06	339200	9.41
18	E12-06657-004	913120	6.45	618039	8.04	319505	9.39
19	E12-06658-001	576969	6.44	450857	8.07	231472	9.42
20	E12-06658-002	1096073	6.44	743596	8.07	342304	9.44
21	E12-06658-003	1115847	6.44	783470	8.03	390175	9.38
22	E12-06658-004	945319	6.44	731101	8.03	386527	9.38

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8786.D

Date Analyzed: 07/10/2012

Instrument ID: MSDB

Time Analyzed: 10:40

	40 ppm	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	24 HOUR STD	194937	3.74	866770	4.51	362345	5.54
	UPPER LIMIT	389874	4.24	1733540	5.01	724690	6.04
	LOWER LIMIT	97469	3.24	433385	4.01	181173	5.04
	LAB SAMPLE ID						
01	E12-06743-001	113921	3.74	534954	4.51	221767	5.54
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8786.D

Date Analyzed: 07/10/2012

Instrument ID: MSDB

Time Analyzed: 10:40

	40 ppm	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
	24 HOUR STD	821909	6.45	831935	8.03	449449	9.38
	UPPER LIMIT	1643818	6.95	1663870	8.53	898898	9.88
	LOWER LIMIT	410955	5.95	415968	7.53	224725	8.88
	LAB SAMPLE ID						
01	E12-06743-001	805676	6.46	831811	8.11	297522	9.47
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

SEMI-VOLATILE ORGANICS SAMPLE DATA

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : B8820.D
Acq On : 10 Jul 2012 8:08 pm
Operator : DANA
Sample : H1-07021,E12-06658-001,A,500ml,100,0.5
Misc : 120709-01,07/09/12,07/03/12,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 11 13:16:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

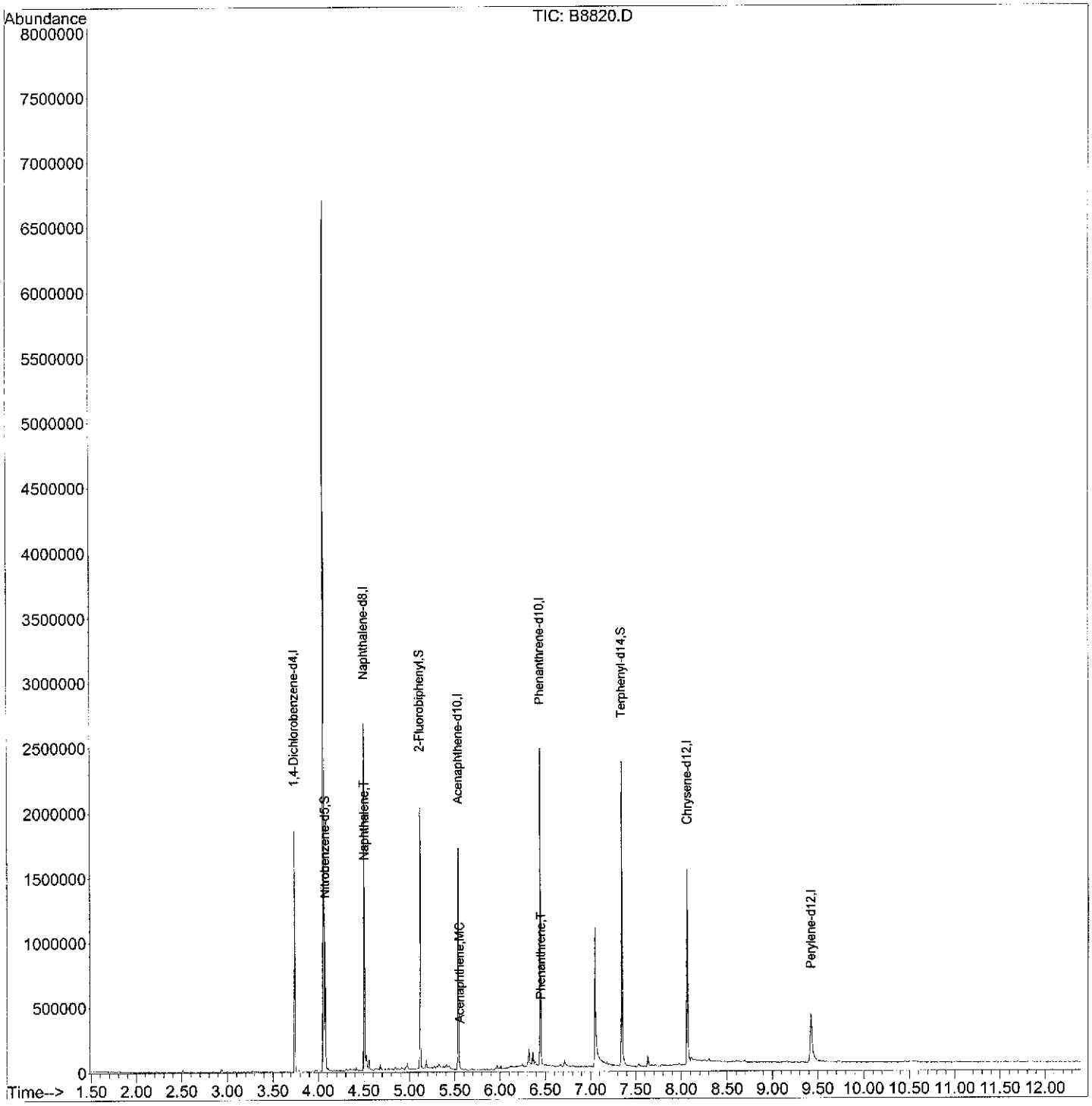
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.74	152	142765	40.00 UG	-0.01
23) Naphthalene-d8	4.50	136	634163	40.00 UG	-0.02
43) Acenaphthene-d10	5.54	164	228756	40.00 UG	-0.02
66) Phenanthrene-d10	6.44	188	576969	40.00 UG	-0.02
82) Chrysene-d12	8.07	240	450857m	40.00 UG	-0.03
92) Perylene-d12	9.42	264	231472m	40.00 UG	-0.04
System Monitoring Compounds					
4) 2-Fluorophenol	3.05	112	79	0.02 UG	0.12
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.02%#		
6) Phenol-d5	3.55	99	71	0.01 UG	0.04
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.01%#		
24) Nitrobenzene-d5	4.08	82	158281	28.83 UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 57.66%		
47) 2-Fluorobiphenyl	5.12	172	378303m	48.86 UG	-0.02
Spiked Amount 50.000	Range 26 - 101		Recovery = 97.72%		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00 UG	
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.00%#		
84) Terphenyl-d14	7.35	244	459843m	48.48 UG	-0.03
Spiked Amount 50.000	Range 23 - 124		Recovery = 96.96%		
Target Compounds					Qvalue
34) Naphthalene	4.51	128	14861	0.87 UG	# 57
55) Acenaphthene	5.56	153	2852	0.46 UG	# 68
75) Phenanthrene	6.46	178	7762	0.49 UG	# 80

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

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : B8820.D
Acq On : 10 Jul 2012 8:08 pm
Operator : DANA
Sample : H1-07021,E12-06658-001,A,500ml,100,0.5
Misc : 120709-01,07/09/12,07/03/12,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 11 13:16:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : B8821.D
Acq On : 10 Jul 2012 8:26 pm
Operator : DANA
Sample : H2-07021,E12-06658-002,A,500ml,100,0.5
Misc : 120709-01,07/09/12,07/03/12,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jul 11 13:17:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.74	152	248860	40.00	UG	-0.01
23) Naphthalene-d8	4.50	136	1124615	40.00	UG	-0.02
43) Acenaphthene-d10	5.54	164	515732	40.00	UG	-0.02
66) Phenanthrene-d10	6.44	188	1096073	40.00	UG	-0.02
82) Chrysene-d12	8.07	240	743596	40.00	UG	-0.03
92) Perylene-d12	9.44	264	342304	40.00	UG	-0.03

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0d	0.00	UG	
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.00%#			
6) Phenol-d5	3.52	99	65	0.01	UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.01%#			
24) Nitrobenzene-d5	4.08	82	138506	14.23	UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 28.46%			
47) 2-Fluorobiphenyl	5.12	172	317460	18.19	UG	-0.02
Spiked Amount 50.000	Range 26 - 101		Recovery = 36.38%			
70) 2,4,6-Tribromophenol	6.08	330	64	0.01	UG	0.00
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.01%#			
84) Terphenyl-d14	7.35	244	310758	19.86	UG	-0.03
Spiked Amount 50.000	Range 23 - 124		Recovery = 39.72%			

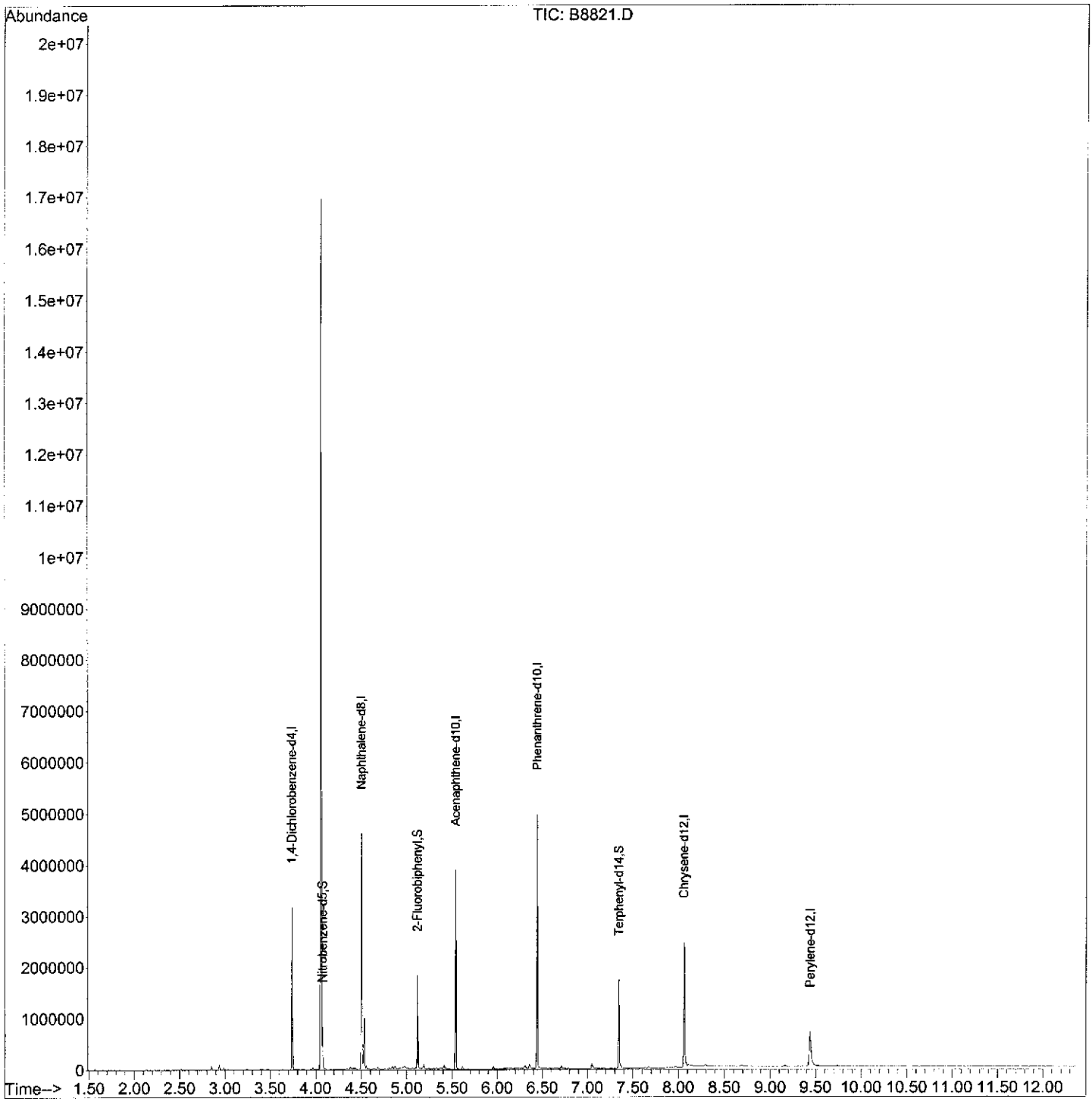
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : B8821.D
Acq On : 10 Jul 2012 8:26 pm
Operator : DANA
Sample : H2-07021,E12-06658-002,A,500ml,100,0.5
Misc : 120709-01,07/09/12,07/03/12,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jul 11 13:17:03 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : B8822.D
Acq On : 10 Jul 2012 8:44 pm
Operator : DANA
Sample : H3-07021,E12-06658-003,A,1000ml,100,1
Misc : 120709-01,07/09/12,07/03/12,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 11 13:17:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.74	152	262816	40.00 UG	-0.01
23) Naphthalene-d8	4.50	136	1143433	40.00 UG	-0.02
43) Acenaphthene-d10	5.54	164	465175	40.00 UG	-0.02
66) Phenanthrene-d10	6.44	188	1115847	40.00 UG	-0.02
82) Chrysene-d12	8.03	240	783470m	40.00 UG	-0.07
92) Perylene-d12	9.38	264	390175	40.00 UG	-0.09

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0d	0.00 UG	
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.00%#		
6) Phenol-d5	0.00	99	0d	0.00 UG	
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.00%#		
24) Nitrobenzene-d5	4.08	82	240426	24.29 UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 48.58%		
47) 2-Fluorobiphenyl	5.12	172	649518	41.26 UG	-0.02
Spiked Amount 50.000	Range 26 - 101		Recovery = 82.52%		
70) 2,4,6-Tribromophenol	0.00	330	0	0.00 UG	
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.00%#		
84) Terphenyl-d14	7.32	244	747485m	45.35 UG	-0.05
Spiked Amount 50.000	Range 23 - 124		Recovery = 90.70%		

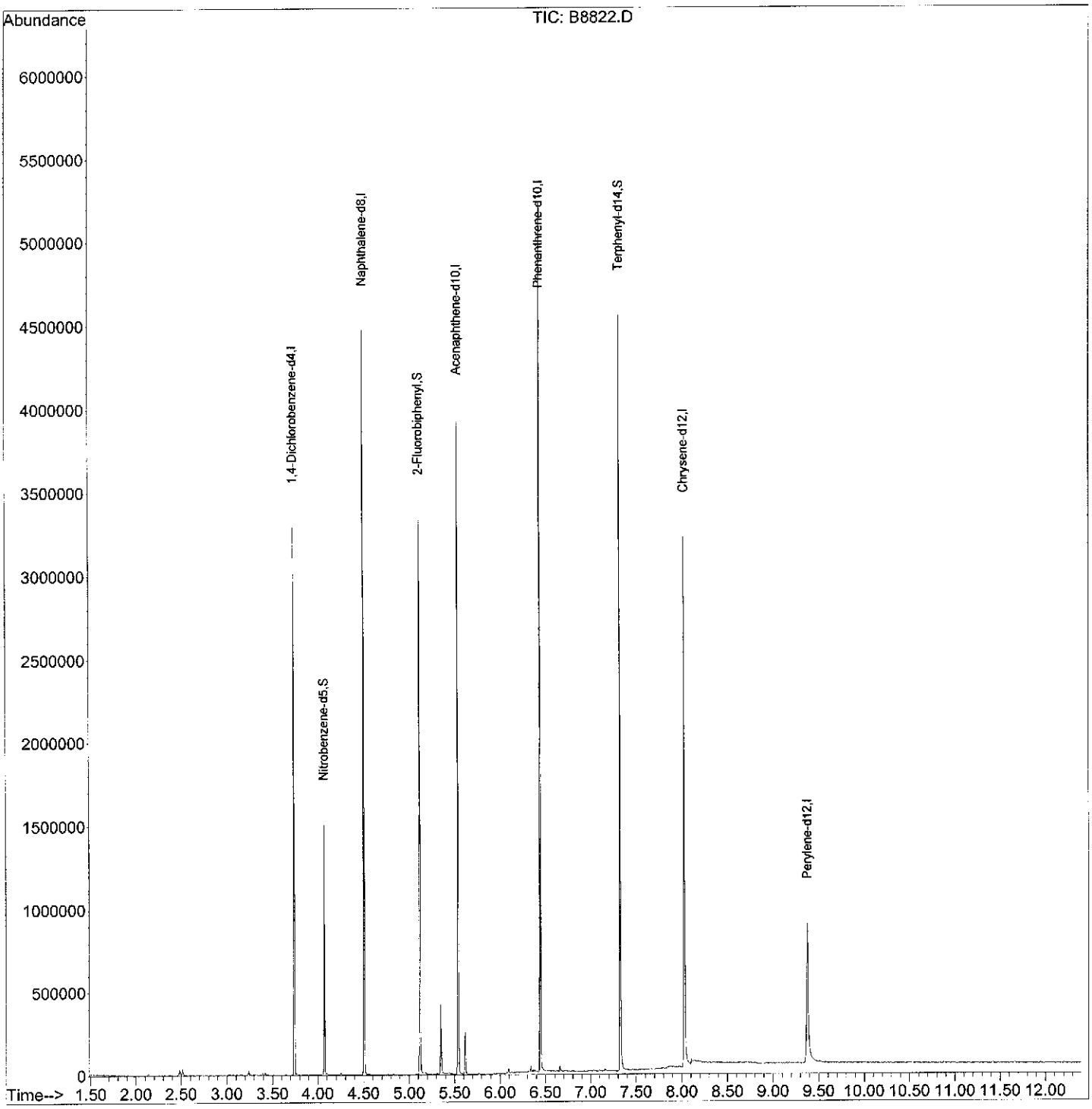
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : B8822.D
Acq On : 10 Jul 2012 8:44 pm
Operator : DANA
Sample : H3-07021,E12-06658-003,A,1000ml,100,1
Misc : 120709-01,07/09/12,07/03/12,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 11 13:17:13 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : B8823.D
Acq On : 10 Jul 2012 9:02 pm
Operator : DANA
Sample : E2-07021,E12-06658-004,A,1000ml,100,1
Misc : 120709-01,07/09/12,07/03/12,1
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 11 13:17:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.74	152	213795	40.00 UG	-0.01
23) Naphthalene-d8	4.50	136	965385	40.00 UG	-0.02
43) Acenaphthene-d10	5.54	164	359395	40.00 UG	-0.02
66) Phenanthrene-d10	6.44	188	945319	40.00 UG	-0.02
82) Chrysene-d12	8.03	240	731101	40.00 UG	-0.06
92) Perylene-d12	9.38	264	386527	40.00 UG	-0.09

System Monitoring Compounds

4) 2-Fluorophenol	0.00	112	0d	0.00 UG	
Spiked Amount 100.000	Range 10 - 100		Recovery = 0.00%#		
6) Phenol-d5	3.50	99	67	0.01 UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 0.01%#		
24) Nitrobenzene-d5	4.08	82	198665	23.77 UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 47.54%		
47) 2-Fluorobiphenyl	5.12	172	575077	47.28 UG	-0.01
Spiked Amount 50.000	Range 26 - 101		Recovery = 94.56%		
70) 2,4,6-Tribromophenol	6.07	330	47	0.01 UG	-0.02
Spiked Amount 100.000	Range 22 - 115		Recovery = 0.01%#		
84) Terphenyl-d14	7.33	244	686739	44.65 UG	-0.04
Spiked Amount 50.000	Range 23 - 124		Recovery = 89.30%		

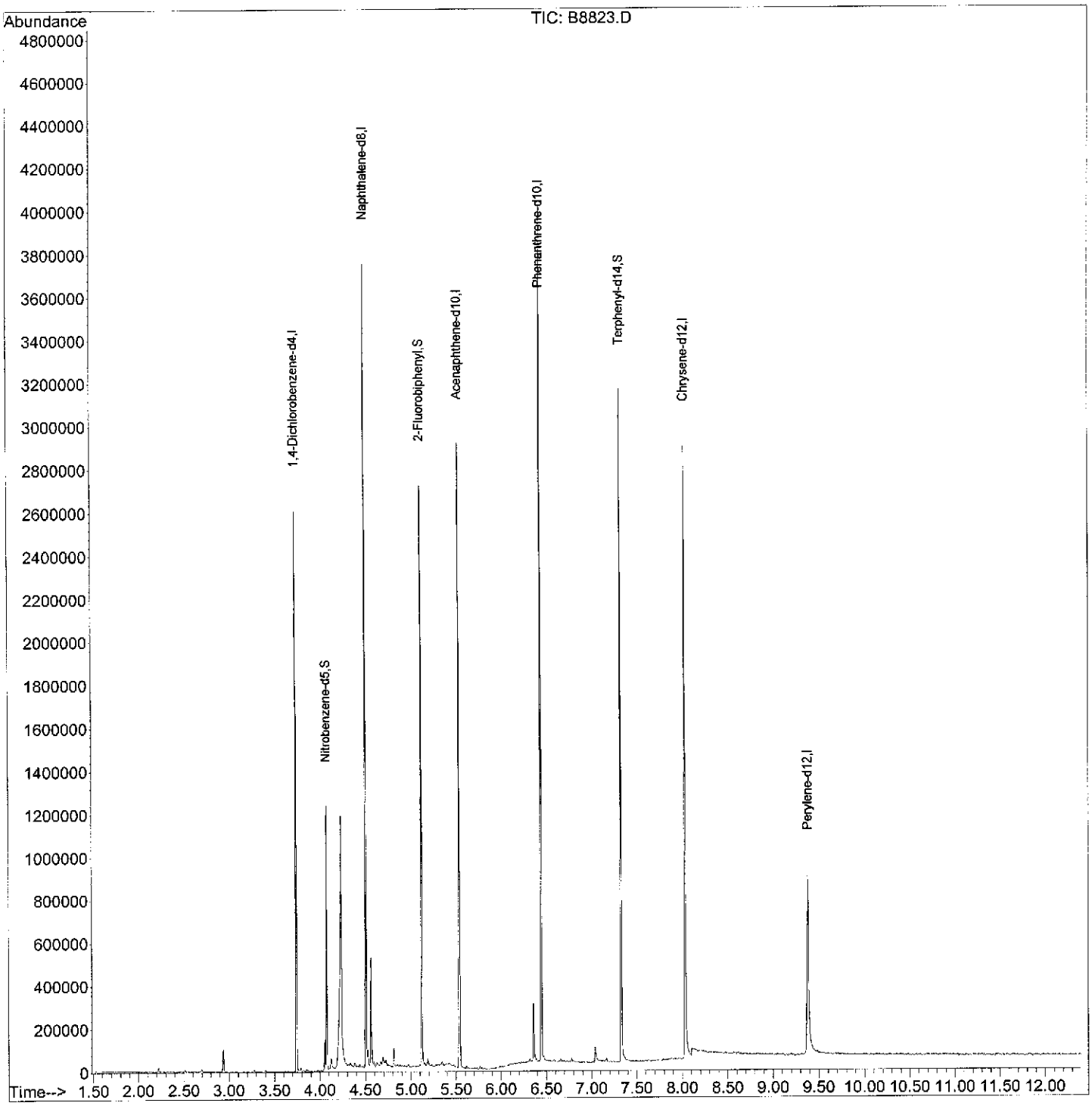
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\07-10-12\
Data File : B8823.D
Acq On : 10 Jul 2012 9:02 pm
Operator : DANA
Sample : E2-07021,E12-06658-004,A,1000ml,100,1
Misc : 120709-01,07/09/12,07/03/12,1
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 11 13:17:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA120709-01
Client ID: .
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: B8805.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
N-Nitrosodimethylamine	ND		1.00	0.090
Pyridine	ND		1.00	0.110
Benzaldehyde	ND		1.00	0.880
Phenol	ND		1.00	0.110
Aniline	ND		1.00	0.110
Bis(2-chloroethyl) ether	ND		1.00	0.100
2-Chlorophenol	ND		1.00	0.130
1,3-Dichlorobenzene	ND		1.00	0.170
1,4-Dichlorobenzene	ND		1.00	0.120
Benzyl alcohol	ND		1.00	0.120
1,2-Dichlorobenzene	ND		1.00	0.160
2-Methylphenol	ND		1.00	0.100
Bis(2-chloroisopropyl) ether	ND		1.00	0.140
4-Methylphenol **	ND		1.00	0.110
N-Nitrosodi-n-propylamine	ND		1.00	0.150
Acetophenone	ND		1.00	0.100
3-Methylphenol	ND		1.00	0.110
Hexachloroethane	ND		1.00	0.100
Nitrobenzene	ND		1.00	0.120
Isophorone	ND		1.00	0.110
2-Nitrophenol	ND		1.00	0.090
2,4-Dimethylphenol	ND		1.00	0.110
Bis(2-chloroethoxy) methane	ND		1.00	0.080
Benzoic acid	ND		1.00	0.110
2,4-Dimethylaniline	ND		1.00	0.130
2,4-Dichlorophenol	ND		1.00	0.100
1,2,4-Trichlorobenzene	ND		1.00	0.100
Naphthalene	ND		1.00	0.175
4-Chloroaniline	ND		1.00	0.150
4-Aminotoluene	ND		1.00	0.200
Hexachlorobutadiene	ND		1.00	0.120
Caprolactam	ND		1.00	0.170
2-Aminotoluene	ND		1.00	0.210
4-Chloro-3-methylphenol	ND		1.00	0.100
2-Methylnaphthalene	ND		1.00	0.109
Hexachlorocyclopentadiene	ND		1.00	0.100
2,4,6-Trichlorophenol	ND		1.00	0.100
2,4,5-Trichlorophenol	ND		1.00	0.100
1,1'-Biphenyl	ND		1.00	0.100
2-Chloronaphthalene	ND		1.00	0.090
2-Nitroaniline	ND		1.00	0.130
Dimethyl phthalate	ND		1.00	0.120

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS

Lab ID: BLKA120709-01
Client ID: .
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: B8805.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
2,6-Dinitrotoluene	ND		1.00	0.120
Acenaphthylene	ND		1.00	0.113
3-Nitroaniline	ND		1.00	0.130
Acenaphthene	ND		1.00	0.100
2,4-Dinitrophenol	ND		1.00	0.120
4-Nitrophenol	ND		1.00	0.380
2,4-Dinitrotoluene	ND		1.00	0.180
Dibenzofuran	ND		1.00	0.130
Diethyl phthalate	ND		1.00	0.190
Fluorene	ND		1.00	0.145
4-Chlorophenyl phenyl ether	ND		1.00	0.110
4-Nitroaniline	ND		1.00	0.100
1,2,4,5-Tetrachlorobenzene	ND		1.00	0.110
2,3,4,6-Tetrachlorophenol	ND		1.00	0.110
4,6-Dinitro-2-methylphenol	ND		1.00	0.110
N-Nitrosodiphenylamine	ND		1.00	0.110
1,2-Diphenylhydrazine	ND		1.00	0.140
4-Bromophenyl phenyl ether	ND		1.00	0.110
Hexachlorobenzene	ND		1.00	0.130
Atrazine	ND		1.00	0.170
Pentachlorophenol	ND		1.00	0.110
Phenanthrene	ND		1.00	0.112
Anthracene	ND		1.00	0.124
Carbazole	ND		1.00	0.160
Di-n-butyl phthalate	ND		1.00	0.140
Fluoranthene	ND		1.00	0.141
Benzidine	ND		1.00	0.200
Pyrene	ND		1.00	0.744
3,3'-Dimethylbenzidine	ND		1.00	0.320
Butyl benzyl phthalate	ND		1.00	0.100
3,3'-Dichlorobenzidine	ND		1.00	0.170
Benzo[a]anthracene	ND		1.00	0.800
Chrysene	ND		1.00	0.263
Bis(2-ethylhexyl) phthalate	ND		1.00	0.120
Di-n-octyl phthalate	ND		1.00	0.090
Benzo[b]fluoranthene	ND		1.00	0.240
Benzo[k]fluoranthene	ND		1.00	0.290
Benzo[a]pyrene	ND		1.00	0.160
Indeno[1,2,3-cd]pyrene	ND		1.00	0.120
Dibenz[a,h]anthracene	ND		1.00	0.190
Benzo[g,h,i]perylene	ND		1.00	0.216

Total Target Compounds (83): 0

** - represents the total of 3+4-Methylphenol

E12-06658 0061

INTEGRATED ANALYTICAL LABORATORIES

SEMIVOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA120709-01
Client ID: .
Date Received: NA
Date Extracted: 07/09/2012
Date Analyzed: 07/10/2012
Data file: B8805.D

GC/MS Column: DB-5
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

CAS #	Compound	Estimated Concentration	Retention Time
	No peaks detected		

Total TICs = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : B8805.D
Acq On : 10 Jul 2012 3:38 pm
Operator : DANA
Sample : .,BLKA120709-01,A,1000ml,100,1
Misc : 120709-01,07/09/12,NA,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 10 16:16:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	3.74	152	227589	40.00 UG	-0.01
23) Naphthalene-d8	4.50	136	714078	40.00 UG	-0.02
43) Acenaphthene-d10	5.54	164	322978m	40.00 UG	-0.02
66) Phenanthrene-d10	6.44	188	961052	40.00 UG	-0.02
82) Chrysene-d12	8.01	240	878754m	40.00 UG	-0.09
92) Perylene-d12	9.35	264	405987m	40.00 UG	-0.11

System Monitoring Compounds

4) 2-Fluorophenol	2.93	112	683014	92.79 UG	0.00
Spiked Amount 100.000	Range 10 - 100		Recovery = 92.79%		
6) Phenol-d5	3.51	99	665704	69.48 UG	0.00
Spiked Amount 100.000	Range 10 - 102		Recovery = 69.48%		
24) Nitrobenzene-d5	4.08	82	310779	50.27 UG	-0.01
Spiked Amount 50.000	Range 27 - 102		Recovery = 100.54%		
47) 2-Fluorobiphenyl	5.12	172	295638m	27.05 UG	-0.01
Spiked Amount 50.000	Range 26 - 101		Recovery = 54.10%		
70) 2,4,6-Tribromophenol	6.07	330	103991	25.81 UG	-0.02
Spiked Amount 100.000	Range 22 - 115		Recovery = 25.81%		
84) Terphenyl-d14	7.31	244	893799m	48.34 UG	-0.06
Spiked Amount 50.000	Range 23 - 124		Recovery = 96.68%		

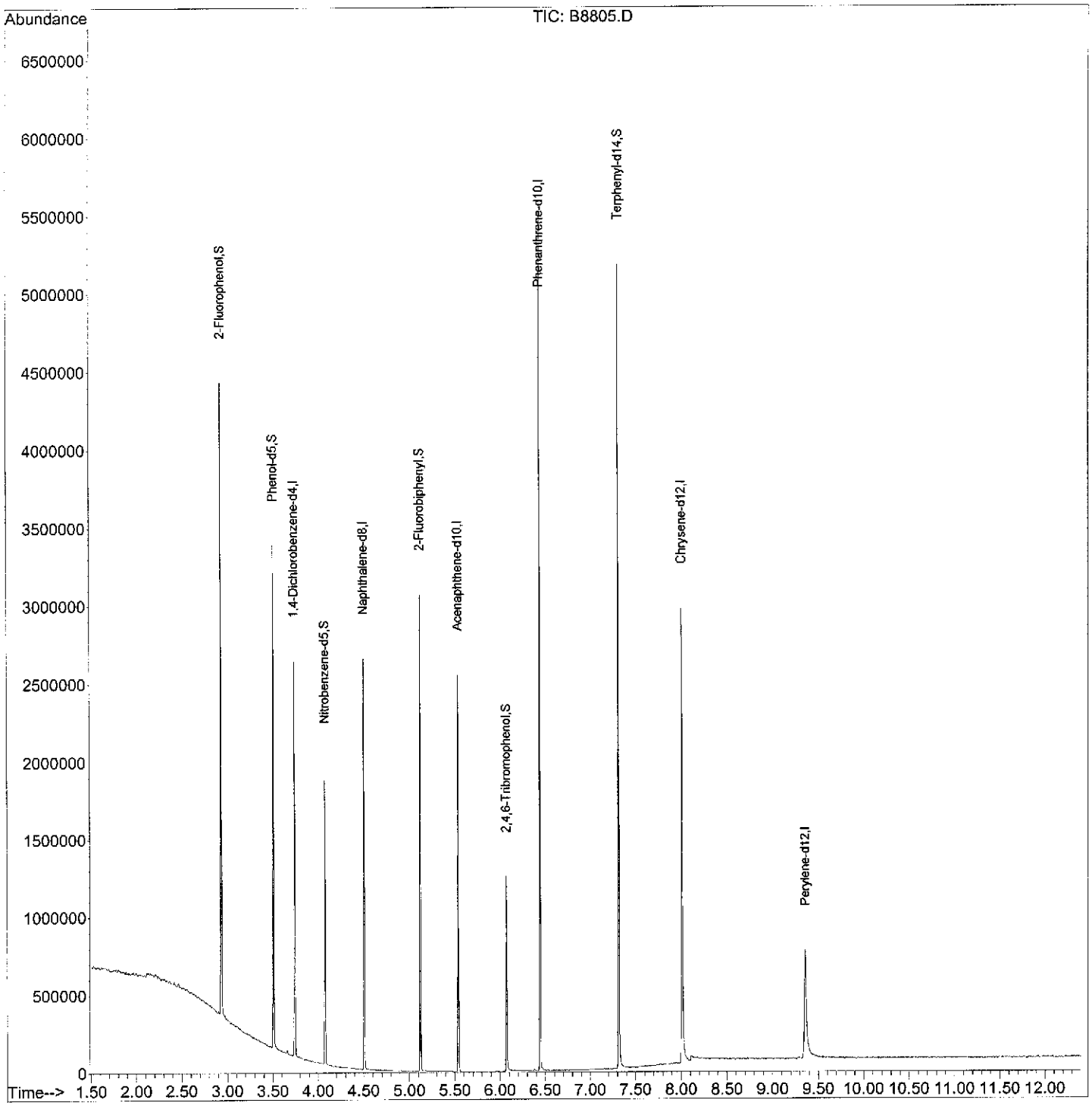
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : B8805.D
Acq On : 10 Jul 2012 3:38 pm
Operator : DANA
Sample : .,BLKA120709-01,A,1000ml,100,1
Misc : 120709-01,07/09/12,NA,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 10 16:16:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD
QLast Update : Mon Jul 02 12:14:53 2012
Response via : Initial Calibration



Library Search Compound Report

Data Path : C:\MSDCHEM\1\DATA\07-10-12\
Data File : B8805.D
Acq On : 10 Jul 2012 3:38 pm
Operator : DANA
Sample : .,BLKA120709-01,A,1000ml,100,1
Misc : 120709-01,07/09/12,NA,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\BW1712.M
Quant Title : BNA CALIBRATION METHOD

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

BW1712.M Tue Jul 10 16:15:14 2012 MSD_B

PCB DATA

PCB QC SUMMARY

PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/10/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
PCB	BLKA120706-02	AQUEOUS	100		65		111		84	
062912-C	06534-001	AQUEOUS	45		59		65		74	
MW-12	06552-017	AQUEOUS	54		49		66		68	
FB	06552-019	AQUEOUS	71		59		81		81	
SAMPLE_10	06212-010	AQUEOUS	58		53		72		71	
SAMPLE_14	06212-014	AQUEOUS	65		67		77		77	
SAMPLE_15	06212-015	AQUEOUS	62		69		79		82	
SAMPLE_18	06212-018	AQUEOUS	60		70		72		89	
TW-18/12.5	06607-007	AQUEOUS	56		70		67		76	
TW-19/7	06607-008	AQUEOUS	129		132		143		154	
FB-4	06583-061	AQUEOUS	65		70		72		76	
MW-1/12.25	06657-001	AQUEOUS	50		54		63		69	
MW-2/11.69	06657-002	AQUEOUS	50		46		58		59	
MW-3/12.94	06657-003	AQUEOUS	52		47		60		66	
FIELD_BLAN	06657-004	AQUEOUS	67		66		76		77	
I4-070212-	06658-005	AQUEOUS	79		73		83		96	
PLA-V12-18	06677-001	AQUEOUS	48		59		65		76	
FB-5	06634-061	AQUEOUS	70		67		79		75	
FB-6	06684-048	AQUEOUS	77		59		84		83	
PCB	06534-001MS	AQUEOUS	55		77		73		90	
PCB	06534-001MSD	AQUEOUS	57		76		76		90	
PCB	LCSA120706-02	AQUEOUS	98		78		105		85	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

AQUEOUS PCB BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSA120706-02

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	473.9	95	70 - 130
Aroclor-1260	500.0	0.0	523.3	105	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

Spike Recovery: __0___ out of __2__ outside limits

AQUEOUS PCB MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06534-001MSD

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	409.4	82	40 - 140
Aroclor-1260	500.0	0.0	478.1	96	40 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	0.0	375.1	75	9	50	40 - 140
Aroclor-1260	0.0	457.2	91	5	50	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

PCB METHOD BLANK SUMMARY

Lab File ID: Y6437.D

Instrument ID: GC-Y

Date Extracted: 07/06/2012

Matrix: AQUEOUS

Date Analyzed: 07/10/2012

Time Analyzed: 02:39

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
062912-C	06534-001	07/10/2012	03:13
MW-12	06552-017	07/10/2012	03:30
FB	06552-019	07/10/2012	03:48
SAMPLE_10	06212-010	07/10/2012	04:05
SAMPLE_14	06212-014	07/10/2012	04:22
SAMPLE_15	06212-015	07/10/2012	04:39
SAMPLE_18	06212-018	07/10/2012	04:56
TW-18/12.5	06607-007	07/10/2012	05:13
TW-19/7	06607-008	07/10/2012	05:30
FB-4	06583-061	07/10/2012	05:48
MW-1/12.25	06657-001	07/10/2012	06:05
MW-2/11.69	06657-002	07/10/2012	06:22
MW-3/12.94	06657-003	07/10/2012	06:39
FIELD_BLAN	06657-004	07/10/2012	06:56
I4-070212-	06658-005	07/10/2012	07:14
PLA-V12-18	06677-001	07/10/2012	07:31
FB-5	06634-061	07/10/2012	07:48
FB-6	06684-048	07/10/2012	08:05
PCB	06534-001MS	07/10/2012	08:22
PCB	06534-001MSD	07/10/2012	08:40
PCB	LCSA120706-02	07/10/2012	08:57

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WINDOW FROM	TO
Aroclor-1016	3.27	3.28	3.28	3.28	3.28	3.28	3.21	3.35
Aroclor-1016 {2}	4.11	4.10	4.11	4.11	4.11	4.11	4.04	4.18
Aroclor-1016 {3}	4.65	4.66	4.65	4.65	4.65	4.65	4.58	4.72
Aroclor-1016 {4}	5.16	5.16	5.16	5.16	5.16	5.16	5.09	5.23
Aroclor-1016 {5}	5.55	5.55	5.55	5.55	5.55	5.55	5.48	5.62
Aroclor-1221			2.17				2.10	2.24
Aroclor-1221 {2}			3.07				3.00	3.14
Aroclor-1221 {3}			3.19				3.12	3.26
Aroclor-1221 {4}			3.27				3.20	3.34
Aroclor-1221 {5}			3.86				3.79	3.93
Aroclor-1232			3.27				3.20	3.34
Aroclor-1232 {2}			4.10				4.03	4.17
Aroclor-1232 {3}			4.76				4.69	4.83
Aroclor-1232 {4}			5.35				5.28	5.42
Aroclor-1232 {5}			5.55				5.48	5.62
Aroclor-1242			4.11				4.04	4.18
Aroclor-1242 {2}			5.04				4.97	5.11
Aroclor-1242 {3}			5.36				5.29	5.43
Aroclor-1242 {4}			6.05				5.98	6.12
Aroclor-1242 {5}			6.32				6.25	6.39
Aroclor-1248			4.50				4.42	4.58
Aroclor-1248 {2}			5.04				4.96	5.12
Aroclor-1248 {3}			5.36				5.28	5.44
Aroclor-1248 {4}			6.06				5.98	6.14
Aroclor-1248 {5}			6.33				6.25	6.41
Aroclor-1254			6.45				6.37	6.53
Aroclor-1254 {2}			6.88				6.80	6.96
Aroclor-1254 {3}			7.05				6.96	7.14
Aroclor-1254 {4}			7.48				7.39	7.57
Aroclor-1254 {5}			8.33				8.24	8.42
Aroclor-1260	8.32	8.32	8.32	8.33	8.32	8.32	7.42	9.22
Aroclor-1260 {2}	9.00	9.00	9.00	9.00	9.00	9.00	8.10	9.90
Aroclor-1260 {3}	9.47	9.47	9.47	9.47	9.47	9.47	8.57	10.37
Aroclor-1260 {4}	9.95	9.95	9.95	9.95	9.95	9.95	9.05	10.85
Aroclor-1260 {5}	11.01	11.01	11.01	11.01	11.01	11.01	10.11	11.91

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	2158526	1576000	1698131	1764462	1711954	1781815	12.44
Aroclor-1016 {2}	2402575	2200752	2357394	2475021	2422935	2371736	4.41
Aroclor-1016 {3}	3011949	2882239	3177441	3334621	3218928	3125036	5.71
Aroclor-1016 {4}	1681635	1432658	1450872	1515174	1485014	1513071	6.57
Aroclor-1016 {5}	2597064	2368911	2578717	2724853	2708544	2595618	5.49
Aroclor-1221			828520				
Aroclor-1221 {2}			1275655				
Aroclor-1221 {3}			857847				
Aroclor-1221 {4}			2894853				
Aroclor-1221 {5}			670112				
Aroclor-1232			2063367				
Aroclor-1232 {2}			1131048				
Aroclor-1232 {3}			1055895				
Aroclor-1232 {4}			1126126				
Aroclor-1232 {5}			1450731				
Aroclor-1242			2034139				
Aroclor-1242 {2}			1293898				
Aroclor-1242 {3}			1881596				
Aroclor-1242 {4}			2805290				
Aroclor-1242 {5}			2579945				
Aroclor-1248			4238052				
Aroclor-1248 {2}			2416821				
Aroclor-1248 {3}			3236060				
Aroclor-1248 {4}			5160666				
Aroclor-1248 {5}			4144900				
Aroclor-1254			4674394				
Aroclor-1254 {2}			3742416				
Aroclor-1254 {3}			7049491				
Aroclor-1254 {4}			7076508				
Aroclor-1254 {5}			6604307				
Aroclor-1260	6883885	6422839	7458788	7740786	7175397	7136339	7.16
Aroclor-1260 {2}	3543900	3011968	3350316	3459291	3428078	3358711	6.13
Aroclor-1260 {3}	8936763	7244082	8370413	8710148	8431730	8338627	7.83
Aroclor-1260 {4}	4086888	4169347	4220226	4362104	4255205	4218754	2.42
Aroclor-1260 {5}	1823349	1628762	1601873	1633329	1570813	1651625	6.01
						Average %RSD	6.41

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (2nd): RTX-CLP2

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1016	3.82	3.81	3.82	3.82	3.82	3.82	3.75	3.89
Aroclor-1016 {2}	4.42	4.42	4.42	4.42	4.42	4.42	4.35	4.49
Aroclor-1016 {3}	5.17	5.17	5.17	5.17	5.17	5.17	5.10	5.24
Aroclor-1016 {4}	5.38	5.38	5.38	5.38	5.38	5.38	5.31	5.45
Aroclor-1016 {5}	5.56	5.56	5.56	5.56	5.56	5.56	5.49	5.63
Aroclor-1221			2.49				2.42	2.56
Aroclor-1221 {2}			3.50				3.43	3.57
Aroclor-1221 {3}			3.73				3.66	3.80
Aroclor-1221 {4}			3.83				3.76	3.90
Aroclor-1221 {5}			5.18				5.11	5.25
Aroclor-1232			3.83				3.76	3.90
Aroclor-1232 {2}			4.82				4.75	4.89
Aroclor-1232 {3}			5.39				5.32	5.46
Aroclor-1232 {4}			5.57				5.50	5.64
Aroclor-1232 {5}			6.17				6.10	6.24
Aroclor-1242			4.81				4.74	4.88
Aroclor-1242 {2}			5.56				5.49	5.63
Aroclor-1242 {3}			6.16				6.09	6.23
Aroclor-1242 {4}			6.32				6.25	6.39
Aroclor-1242 {5}			6.85				6.78	6.92
Aroclor-1248			5.17				5.09	5.25
Aroclor-1248 {2}			5.76				5.68	5.84
Aroclor-1248 {3}			6.16				6.08	6.24
Aroclor-1248 {4}			6.31				6.23	6.39
Aroclor-1248 {5}			6.66				6.58	6.74
Aroclor-1254			7.16				7.08	7.24
Aroclor-1254 {2}			7.75				7.67	7.83
Aroclor-1254 {3}			8.36				8.27	8.45
Aroclor-1254 {4}			8.59				8.50	8.68
Aroclor-1254 {5}			9.18				9.09	9.27
Aroclor-1260	7.93	7.93	7.93	7.93	7.93	7.93	7.03	8.83
Aroclor-1260 {2}	8.18	8.18	8.18	8.18	8.18	8.18	7.28	9.08
Aroclor-1260 {3}	9.78	9.78	9.78	9.78	9.78	9.78	8.88	10.68
Aroclor-1260 {4}	10.28	10.28	10.28	10.28	10.28	10.28	9.38	11.18
Aroclor-1260 {5}	10.87	10.87	10.87	10.87	10.87	10.87	9.97	11.77

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y

GC Column (2nd): RTX-CLP2

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1016	639129	556083	544610	543480	516688	559998	8.31
Aroclor-1016 {2}	1365709	1182903	1092201	1079621	1029700	1150027	11.53
Aroclor-1016 {3}	2992384	2496318	2480225	2496406	2421461	2577359	9.08
Aroclor-1016 {4}	1105095	1106203	1048532	1040620	999297	1059949	4.31
Aroclor-1016 {5}	1169612	852192	813028	812368	784228	886286	18.08
Aroclor-1221			258324				
Aroclor-1221 {2}			355681				
Aroclor-1221 {3}			235125				
Aroclor-1221 {4}			860404				
Aroclor-1221 {5}			159575				
Aroclor-1232			657366				
Aroclor-1232 {2}			243462				
Aroclor-1232 {3}			535109				
Aroclor-1232 {4}			410759				
Aroclor-1232 {5}			569667				
Aroclor-1242			407951				
Aroclor-1242 {2}			694356				
Aroclor-1242 {3}			923104				
Aroclor-1242 {4}			770055				
Aroclor-1242 {5}			1481229				
Aroclor-1248			1317451				
Aroclor-1248 {2}			1948855				
Aroclor-1248 {3}			1413456				
Aroclor-1248 {4}			1205391				
Aroclor-1248 {5}			660352				
Aroclor-1254			1777649				
Aroclor-1254 {2}			1317035				
Aroclor-1254 {3}			1340827				
Aroclor-1254 {4}			737293				
Aroclor-1254 {5}			1811680				
Aroclor-1260	917650	964102	906415	900990	871776	912187	3.68
Aroclor-1260 {2}	1607423	1384418	1296595	1285273	1245243	1363790	10.66
Aroclor-1260 {3}	1232724	1193984	1095226	1068774	1055784	1129299	7.02
Aroclor-1260 {4}	2390638	2154327	2351228	2354437	2330183	2316162	4.02
Aroclor-1260 {5}	1690329	1459572	1755368	1697742	1795274	1679657	7.76
						Average %RSD	8.45

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012

Instrument ID: GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1262			8.62				7.72	7.72
Aroclor-1262 {2}			9.47				8.57	8.57
Aroclor-1262 {3}			10.10				9.20	9.20
Aroclor-1262 {4}			10.19				9.19	9.19
Aroclor-1262 {5}			11.01				10.01	10.01
Aroclor-1268			10.10				9.10	9.10
Aroclor-1268 {2}			10.19				9.09	9.09
Aroclor-1268 {3}			10.66				9.56	9.56
Aroclor-1268 {4}			10.79				9.69	9.69
Aroclor-1268 {5}			11.61				10.51	10.51

GC Column (2nd): DB-1701P

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	RT OF STANDARDS 10	50	500	1000	2000	MEAN RT	RT WI NDOW FROM	TO
Aroclor-1262			9.78				8.88	8.88
Aroclor-1262 {2}			10.28				9.38	9.38
Aroclor-1262 {3}			10.78				9.88	9.88
Aroclor-1262 {4}			10.87				9.87	9.87
Aroclor-1262 {5}			11.47				10.47	10.47
Aroclor-1268			10.78				9.78	9.78
Aroclor-1268 {2}			10.86				9.76	9.76
Aroclor-1268 {3}			11.12				10.02	10.02
Aroclor-1268 {4}			11.26				10.16	10.16
Aroclor-1268 {5}			12.34				11.24	11.24

AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/26/2012 **Instrument ID:** GC-Y
GC Column (1st): DB-5

Data File: Y5693.D Y5692.D Y5691.D Y5690.D Y5689.D

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			7073891				
Aroclor-1262 {2}			13053876				
Aroclor-1262 {3}			3301435				
Aroclor-1262 {4}			4436742				
Aroclor-1262 {5}			3777047				
Aroclor-1268			11864453				
Aroclor-1268 {2}			12465549				
Aroclor-1268 {3}			7914907				
Aroclor-1268 {4}			2259144				
Aroclor-1268 {5}			29144624				

GC Column (2nd): DB-1701P

Data File: Y5693.C Y5692.C Y5691.C Y5690.C Y5689.C

Compound	CALIBRATION FACTORS 10	50	500	1000	2000	MEAN	%RSD
Aroclor-1262			1362153				
Aroclor-1262 {2}			3461876				
Aroclor-1262 {3}			1183328				
Aroclor-1262 {4}			2333360				
Aroclor-1262 {5}			429177				
Aroclor-1268			3479624				
Aroclor-1268 {2}			3499079				
Aroclor-1268 {3}			2918320				
Aroclor-1268 {4}			824937				
Aroclor-1268 {5}			9305585				

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 **Instrument ID:** GC-Y

Data File: Y6436.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1512342	15.12
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2061541	13.08
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2812077	10.01
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1613118	6.61
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2237805	13.79
Aroclor-1260	8.33	7.42	9.22	7136339	6038812	15.38
Aroclor-1260 {2}	9.01	8.10	9.90	3358711	3075213	8.44
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	7312411	12.31
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	3798555	9.96
Aroclor-1260 {5}	11.02	10.11	11.91	1651625	1708923	3.47
					Average %D	10.82

Data File: Y6436.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.80	3.75	3.89	559998	551630	1.49
Aroclor-1016 {2}	4.41	4.35	4.49	1150027	1096775	4.63
Aroclor-1016 {3}	5.16	5.10	5.24	2577359	2535689	1.62
Aroclor-1016 {4}	5.37	5.31	5.45	1059949	1051129	0.83
Aroclor-1016 {5}	5.54	5.49	5.63	886286	812921	8.28
Aroclor-1260	7.91	7.03	8.83	912187	884673	3.02
Aroclor-1260 {2}	8.16	7.28	9.08	1363790	1282482	5.96
Aroclor-1260 {3}	9.75	8.88	10.68	1129299	1048889	7.12
Aroclor-1260 {4}	10.26	9.38	11.18	2316162	2307246	0.38
Aroclor-1260 {5}	10.85	9.97	11.77	1679657	1570871	6.48
					Average %D	3.98

AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/10/2012 **Instrument ID:** GC-Y

Data File: Y6460.D **GC Column (1st):** DB-5

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.28	3.21	3.35	1781815	1595618	10.45
Aroclor-1016 {2}	4.11	4.04	4.18	2371736	2126572	10.34
Aroclor-1016 {3}	4.66	4.58	4.72	3125036	2921642	6.51
Aroclor-1016 {4}	5.17	5.09	5.23	1513071	1325726	12.38
Aroclor-1016 {5}	5.56	5.48	5.62	2595618	2311857	10.93
Aroclor-1260	8.33	7.42	9.22	7136339	6396458	10.37
Aroclor-1260 {2}	9.00	8.10	9.90	3358711	2979818	11.28
Aroclor-1260 {3}	9.48	8.57	10.37	8338627	6829072	18.10
Aroclor-1260 {4}	9.96	9.05	10.85	4218754	3677517	12.83
Aroclor-1260 {5}	11.01	10.11	11.91	1651625	1395256	15.52
					Average %D	11.87

Data File: Y6460.C **GC Column (2nd):** DB-1701P

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
Aroclor-1016	3.81	3.75	3.89	559998	568708	1.56
Aroclor-1016 {2}	4.41	4.35	4.49	1150027	1131701	1.59
Aroclor-1016 {3}	5.16	5.10	5.24	2577359	2629381	2.02
Aroclor-1016 {4}	5.37	5.31	5.45	1059949	1110387	4.76
Aroclor-1016 {5}	5.54	5.49	5.63	886286	855970	3.42
Aroclor-1260	7.91	7.03	8.83	912187	972227	6.58
Aroclor-1260 {2}	8.16	7.28	9.08	1363790	1399788	2.64
Aroclor-1260 {3}	9.75	8.88	10.68	1129299	1195357	5.85
Aroclor-1260 {4}	10.26	9.38	11.18	2316162	2614200	12.87
Aroclor-1260 {5}	10.85	9.97	11.77	1679657	1765390	5.10
					Average %D	4.64

PCB RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-Y **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1 2.82 **DCB 1** 12.10 **TCMX 2** 2.92 **DCB 2** 12.53

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
PCB	BLKA120706-02	07/10/2012	02:39	2.82		12.10		2.92		12.53	
062912-C	06534-001	07/10/2012	03:13	2.82		12.11		2.92		12.53	
MW-12	06552-017	07/10/2012	03:30	2.82		12.11		2.92		12.53	
FB	06552-019	07/10/2012	03:48	2.82		12.11		2.93		12.53	
SAMPLE_10	06212-010	07/10/2012	04:05	2.83		12.11		2.93		12.53	
SAMPLE_14	06212-014	07/10/2012	04:22	2.82		12.11		2.92		12.53	
SAMPLE_15	06212-015	07/10/2012	04:39	2.82		12.10		2.92		12.53	
SAMPLE_18	06212-018	07/10/2012	04:56	2.82		12.11		2.92		12.53	
TW-18/12.5	06607-007	07/10/2012	05:13	2.82		12.10		2.92		12.53	
TW-19/7	06607-008	07/10/2012	05:30	2.82		12.10		2.92		12.53	
FB-4	06583-061	07/10/2012	05:48	2.82		12.11		2.92		12.53	
MW-1/12.25	06657-001	07/10/2012	06:05	2.82		12.11		2.92		12.53	
MW-2/11.69	06657-002	07/10/2012	06:22	2.82		12.11		2.92		12.53	
MW-3/12.94	06657-003	07/10/2012	06:39	2.82		12.11		2.93		12.53	
FIELD_BLAN	06657-004	07/10/2012	06:56	2.82		12.10		2.92		12.53	
I4-070212-	06658-005	07/10/2012	07:14	2.82		12.11		2.92		12.53	
PLA-V12-18	06677-001	07/10/2012	07:31	2.82		12.10		2.92		12.53	
FB-5	06634-061	07/10/2012	07:48	2.82		12.11		2.93		12.53	
FB-6	06684-048	07/10/2012	08:05	2.82		12.11		2.92		12.53	
PCB	06534-001MS	07/10/2012	08:22	2.82		12.10		2.92		12.53	
PCB	06534-001MSD	07/10/2012	08:40	2.82		12.11		2.92		12.53	
PCB	LCSA120706-02	07/10/2012	08:57	2.82		12.10		2.92		12.53	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

PCB SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : Y6453.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 7:14
Operator : YG
Sample : I4-070212-,06658-005,A,1000ml,100,07/06/12,1
Misc : 120706-02,07/02/12,07/03/12,1
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 13:15:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	16681.4E6	5775.4E6	158.604	166.604
Spiked Amount 200.000			Recovery	=	79.30%	83.30%
2) S DCB	12.11	12.53	3457.1E6	1723.6E6	146.466m	192.652m#
Spiked Amount 200.000			Recovery	=	73.23%	96.33%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

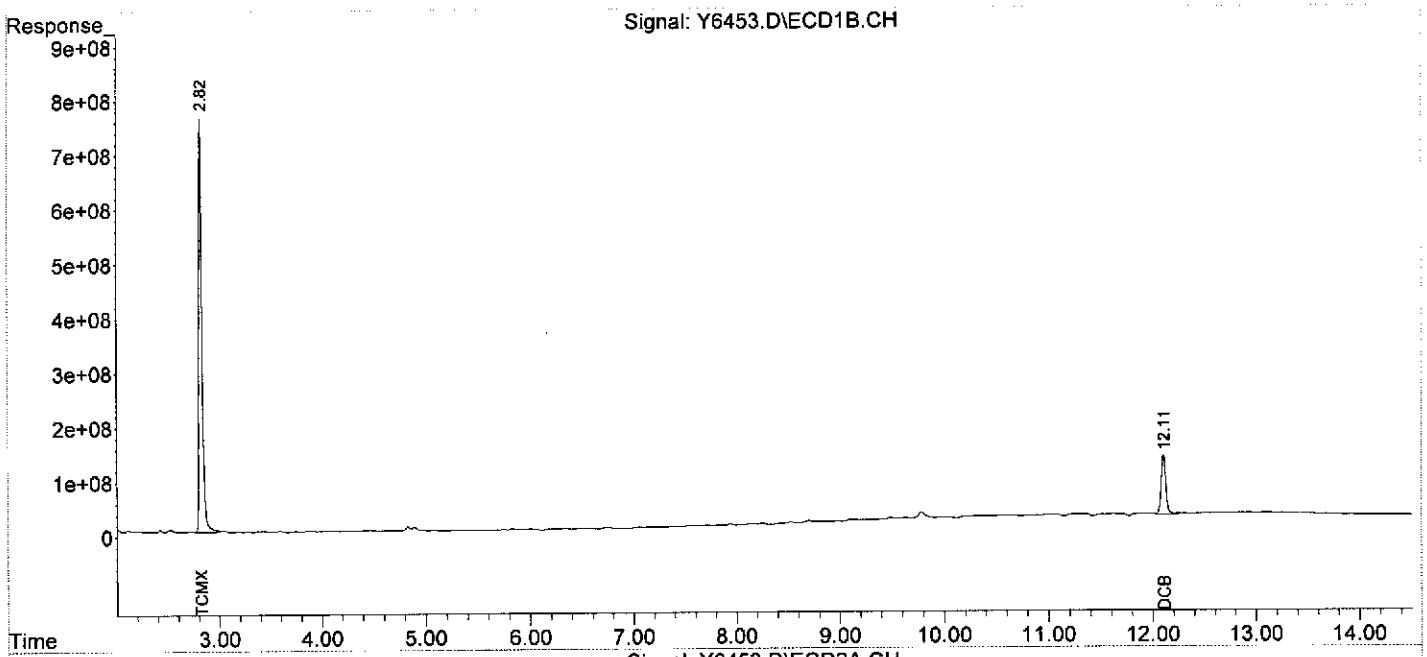
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

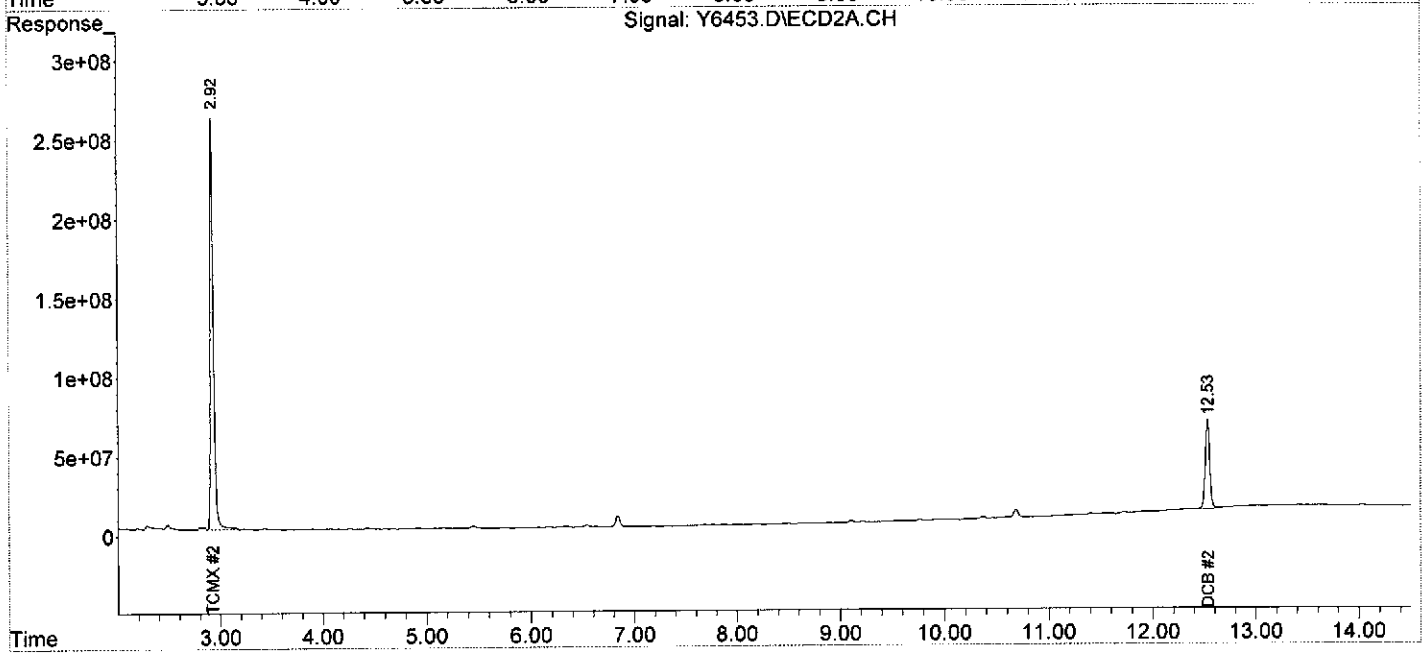
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : Y6453.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 7:14
Operator : YG
Sample : I4-070212-,06658-005,A,1000ml,100,07/06/12,1
Misc : 120706-02,07/02/12,07/03/12,1
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 13:15:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PCB's

Lab ID: BLKA120706-02
Client ID: PCB
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/10/2012
Data file: Y6437.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : Y6437.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 2:39
Operator : YG
Sample : PCB,BLKA120706-02,A,1000ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 13:01:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.82	2.92	21021.6E6	7687.4E6	199.870	221.759
Spiked Amount 200.000			Recovery	=	99.94%	110.88%
2) S DCB	12.10	12.53	3064.5E6	1501.6E6	129.833m	167.843m#
Spiked Amount 200.000			Recovery	=	64.92%	83.92%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

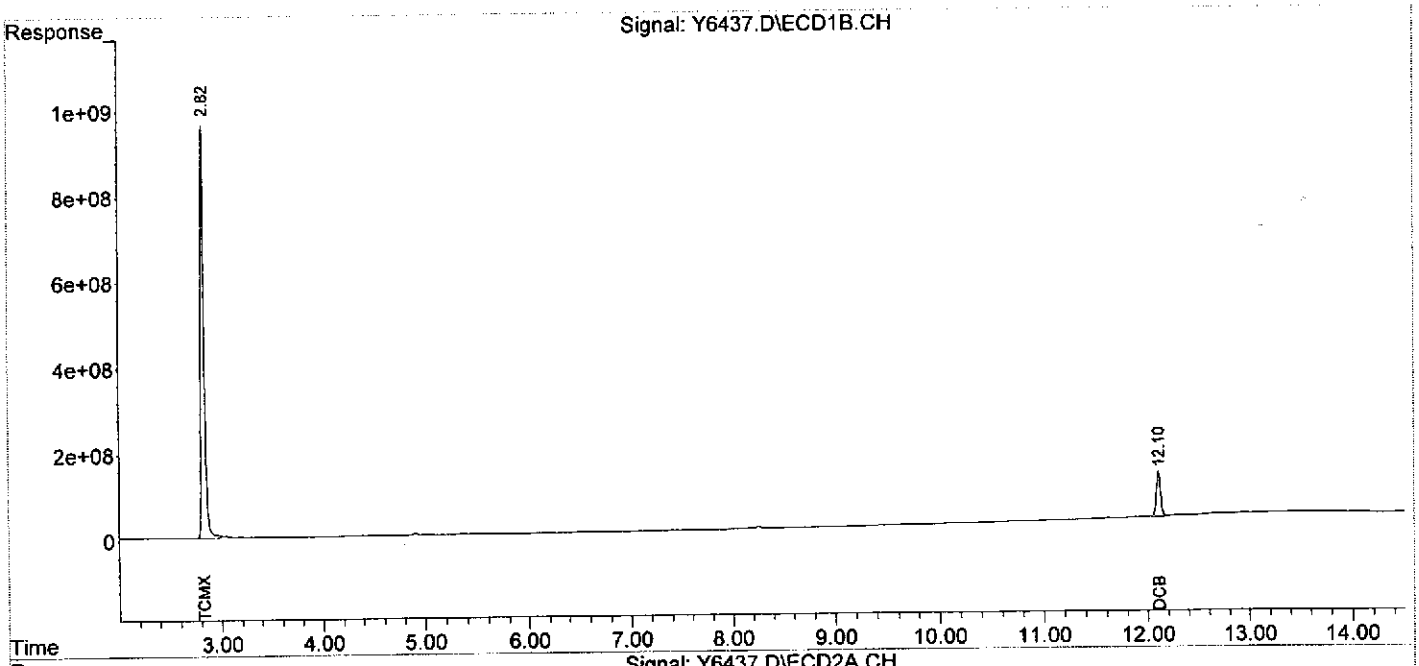
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

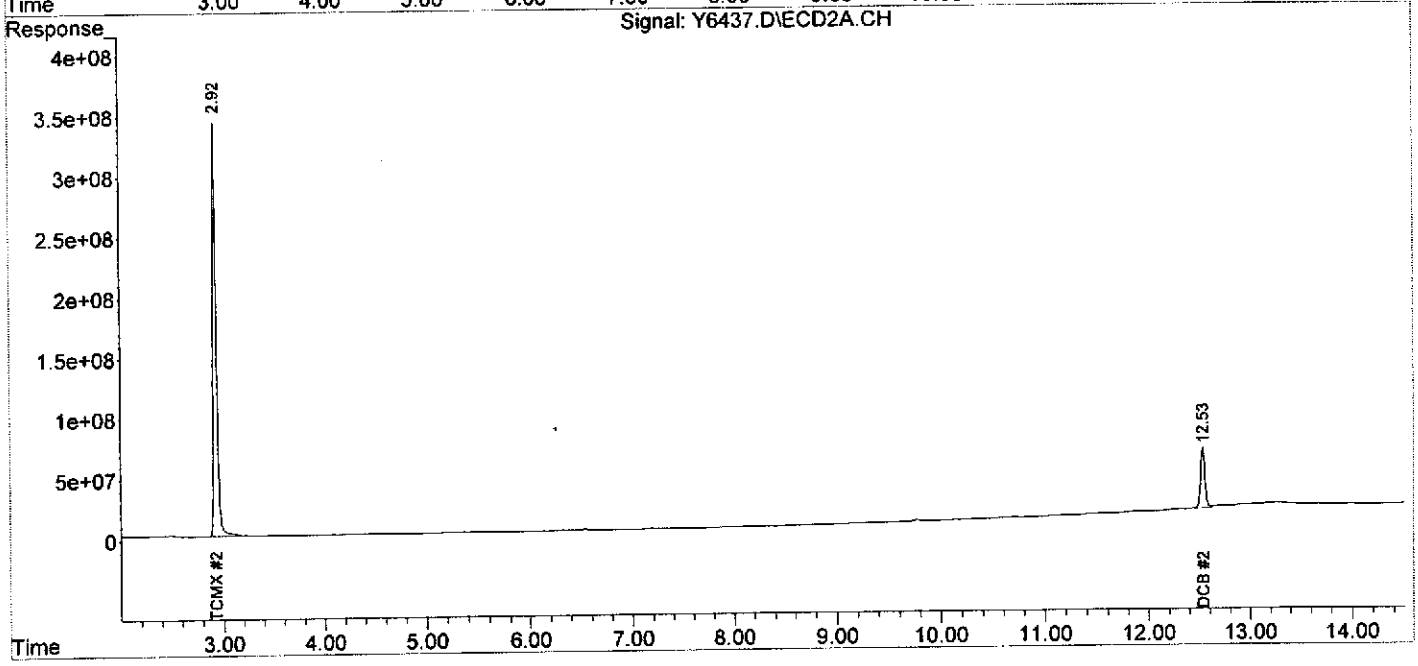
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : Y6437.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 10 Jul 2012 2:39
Operator : YG
Sample : PCB,BLKA120706-02,A,1000ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 13:01:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0626.M
Quant Title :
QLast Update : Wed Jun 27 09:56:22 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

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





PESTICIDE DATA

PESTICIDE QC SUMMARY

PESTICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/09/2012

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec	#	DCB 1 % rec	#	TCMX 2 % rec	#	DCB 2 % rec	#
Pest	BLKA120706-02	AQUEOUS	91		100		92		94	
062912-C	06534-001	AQUEOUS	66		92		53		90	
A6-062912-	06546-001	AQUEOUS	48		52		45		46	
Pest	BLKA120706-02	AQUEOUS	79		79		78		74	
SAMPLE_10	06212-010	AQUEOUS	65		87		63		75	
SAMPLE_14	06212-014	AQUEOUS	67		94		67		84	
SAMPLE_15	06212-015	AQUEOUS	74		86		73		86	
SAMPLE_18	06212-018	AQUEOUS	71		91		69		83	
TRE-V12-17	06569-002	AQUEOUS	61		88		56		72	
MW-1/12.25	06657-001	AQUEOUS	57		81		56		72	
MW-2/11.69	06657-002	AQUEOUS	53		64		53		59	
MW-3/12.94	06657-003	AQUEOUS	49		68		49		69	
FIELD_BLAN	06657-004	AQUEOUS	73		81		73		89	
I4-070212-	06658-005	AQUEOUS	60		71		62		75	
Pest	06534-001MS	AQUEOUS	58		95		58		73	
Pest	06534-001MSD	AQUEOUS	51		73		51		63	
Pest	LCSA120706-02	AQUEOUS	76		82		78		75	

Surrogate QC Limits	Soil	Aqueous
TCMX = Tetrachloro-m-xylene	21-163	11-163
DCB = Decachlorobiphenyl	30-172	13-170

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

INTEGRATED ANALYTICAL LABORATORIES

LCS ACCURACY REPORT

Lab ID: LCSA120706-02
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: V8226.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Sample	MS Conc.	%Rec.
alpha-BHC	100.0	0.00	80.10	80
beta-BHC	100.0	0.00	66.52	67
gamma-BHC (Lindane)	100.0	0.00	76.72	77
delta-BHC	100.0	0.00	67.77	68
Heptachlor	100.0	0.00	86.07	86
Aldrin	100.0	0.00	86.02	86
Heptachlor epoxide	100.0	0.00	83.15	83
Endosulfan I	100.0	0.00	86.95	87
4,4'-DDE	100.0	0.00	83.24	83
Dieldrin	100.0	0.00	71.90	72
Endrin	100.0	0.00	85.43	85
Endosulfan II	100.0	0.00	78.12	78
4,4'-DDD	100.0	0.00	78.95	79
Endrin aldehyde	100.0	0.00	68.52	69
Endosulfan sulfate	100.0	0.00	74.78	75
4,4'-DDT	100.0	0.00	96.34	96
Endrin ketone	100.0	0.00	74.65	75
Methoxychlor	100.0	0.00	92.99	93
alpha-Chlordane	100.0	0.00	82.51	83
gamma-Chlordane	100.0	0.00	85.69	86

	Aqueous	Soil/Sediment
LCS ACCURACY (%REC)	40-140	40-140

* Values outside of QC limits

INTEGRATED ANALYTICAL LABORATORIES

MS/MSD SPIKE REPORT

Lab ID: 06534-001
Date Received: 06/29/2012
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
MS Data file: V8224.D
MSD Data file: V8225.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
% Moisture: 100
Dilution Factor: 1
Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Conc. MSD	%Rec. MSD	# %RPD #
alpha-BHC	100.00	0.00	77.59	78		62.18	62	22
beta-BHC	100.00	0.00	62.95	63		52.28	52	19
gamma-BHC (Lindane)	100.00	0.00	75.52	76		62.75	63	18
delta-BHC	100.00	0.00	70.88	71		57.46	57	21
Heptachlor	100.00	0.00	86.24	86		70.09	70	21
Aldrin	100.00	0.00	84.55	85		68.80	69	21
Heptachlor epoxide	100.00	0.00	86.73	87		69.79	70	22
Endosulfan I	100.00	0.00	93.62	94		75.75	76	21
4,4'-DDE	100.00	0.00	87.04	87		68.82	69	23
Dieldrin	100.00	0.00	73.35	73		61.14	61	18
Endrin	100.00	0.00	94.32	94		75.22	75	23
Endosulfan II	100.00	0.00	84.10	84		68.11	68	21
4,4'-DDD	100.00	0.00	82.22	82		65.55	66	23
Endrin aldehyde	100.00	0.00	70.76	71		57.56	58	21
Endosulfan sulfate	100.00	0.00	83.27	83		66.62	67	22
4,4'-DDT	100.00	0.00	110.91	111		86.94	87	24
Endrin ketone	100.00	0.00	81.70	82		65.09	65	23
Methoxychlor	100.00	0.00	106.07	106		83.44	83	24
alpha-Chlordane	100.00	0.00	86.72	87		70.06	70	21
gamma-Chlordane	100.00	0.00	91.32	91		70.13	70	26

	Aqueous	Soil/Sediment
MS/MSD ACCURACY (%REC)	30-150	30-150
MS/MSD PRECISION (RPD)	30	30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V8210.D

Instrument ID: GC-V

Date Extracted: 07/06/2012

Matrix: AQUEOUS

Date Analyzed: 07/09/2012

Time Analyzed: 13:08

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
062912-C	06534-001	07/09/2012	13:20
A6-062912-	06546-001	07/09/2012	13:33
Pest	BLKA120706-02	07/09/2012	13:45
SAMPLE_10	06212-010	07/09/2012	13:57
SAMPLE_14	06212-014	07/09/2012	14:09
SAMPLE_15	06212-015	07/09/2012	14:21
SAMPLE_18	06212-018	07/09/2012	14:34
TRE-V12-17	06569-002	07/09/2012	14:46
MW-1/12.25	06657-001	07/09/2012	14:58
MW-2/11.69	06657-002	07/09/2012	15:10
MW-3/12.94	06657-003	07/09/2012	15:22
FIELD_BLAN	06657-004	07/09/2012	15:47
I4-070212-	06658-005	07/09/2012	15:59
Pest	06534-001MS	07/09/2012	16:11
Pest	06534-001MSD	07/09/2012	16:24
Pest	LCSA120706-02	07/09/2012	16:36

PESTICIDE METHOD BLANK SUMMARY

Lab File ID: V8213.D

Instrument ID: GC-V

Date Extracted: 07/06/2012

Matrix: AQUEOUS

Date Analyzed: 07/09/2012

Time Analyzed: 13:45

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
062912-C	06534-001	07/09/2012	13:20
A6-062912-	06546-001	07/09/2012	13:33
SAMPLE_10	06212-010	07/09/2012	13:57
SAMPLE_14	06212-014	07/09/2012	14:09
SAMPLE_15	06212-015	07/09/2012	14:21
SAMPLE_18	06212-018	07/09/2012	14:34
TRE-V12-17	06569-002	07/09/2012	14:46
MW-1/12.25	06657-001	07/09/2012	14:58
MW-2/11.69	06657-002	07/09/2012	15:10
MW-3/12.94	06657-003	07/09/2012	15:22
FIELD_BLAN	06657-004	07/09/2012	15:47
I4-070212-	06658-005	07/09/2012	15:59
Pest	06534-001MS	07/09/2012	16:11
Pest	06534-001MSD	07/09/2012	16:24
Pest	LCSA120706-02	07/09/2012	16:36

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (1st): RTX-CLP1

Data File: V7799.D V7798.D V7797.D V7796.D V7795.D

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	2.45	2.45	2.45	2.45	2.45	2.45	2.39	2.51
beta-BHC	2.77	2.77	2.77	2.77	2.77	2.77	2.71	2.83
gamma-BHC	2.70	2.70	2.70	2.70	2.70	2.70	2.64	2.76
delta-BHC	2.93	2.93	2.93	2.93	2.93	2.93	2.87	2.99
Heptachlor	3.13	3.13	3.13	3.13	3.13	3.13	3.05	3.21
Aldrin	3.43	3.43	3.43	3.43	3.43	3.43	3.35	3.51
Heptachlor epoxide	4.08	4.08	4.08	4.08	4.08	4.08	4.00	4.16
Endosulfan I	4.54	4.54	4.54	4.54	4.54	4.54	4.46	4.62
4,4'-DDE	4.49	4.49	4.49	4.49	4.49	4.49	4.39	4.59
Dieldrin	4.84	4.84	4.84	4.84	4.84	4.84	4.74	4.94
Endrin	5.13	5.13	5.13	5.13	5.13	5.13	5.03	5.23
Endosulfan II	5.42	5.43	5.43	5.43	5.43	5.43	5.33	5.53
4,4'-DDD	5.25	5.25	5.25	5.25	5.25	5.25	5.15	5.35
Endrin aldehyde	6.00	6.00	6.00	6.00	6.00	6.00	5.88	6.12
Endosulfan sulfate	6.62	6.62	6.62	6.62	6.62	6.62	6.50	6.74
4,4'-DDT	5.63	5.63	5.63	5.63	5.63	5.63	5.51	5.75
Endrin ketone	6.96	6.96	6.97	6.97	6.96	6.96	6.84	7.08
Methoxychlor	6.35	6.35	6.35	6.35	6.35	6.35	6.23	6.47
alpha-Chlordane	4.38	4.38	4.38	4.38	4.38	4.38	4.30	4.46
gamma-Chlordane	4.22	4.22	4.22	4.22	4.22	4.22	4.14	4.30
Chlordane 500 ppb			3.05				2.97	3.13
Chlordane {2}			3.56				3.48	3.64
Chlordane {3}			4.22				4.14	4.30
Chlordane {4}			4.37				4.29	4.45
Chlordane {5}			5.34				5.26	5.42
Toxaphene 500 ppb			5.07				4.99	5.15
Toxaphene {2}			5.51				5.43	5.59
Toxaphene {3}			5.98				5.90	6.06
Toxaphene {4}			6.48				6.40	6.56
Toxaphene {5}			6.94				6.86	7.02

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V

GC Column (1st): RTX-CLP1

Data File: V7799.D V7798.D V7797.D V7796.D V7795.D

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	231257	224713	233984	262339	261262	242711	7.31
beta-BHC	109613	90446	95659	99560	102234	99502	7.22
gamma-BHC	212959	199262	198894	229202	224154	212894	6.54
delta-BHC	227496	206922	213329	240121	238274	225228	6.56
Heptachlor	215343	195409	196407	223896	224617	211134	6.81
Aldrin	223963	200931	204098	226660	224024	215935	5.72
Heptachlor epoxide	204500	183395	184454	203707	199651	195141	5.33
Endosulfan I	186050	181746	193857	206959	205778	194878	5.83
4,4'-DDE	178468	167967	163108	188044	185631	176644	6.15
Dieldrin	231518	191987	190323	211310	209343	206896	8.12
Endrin	183964	166275	162213	186269	185600	176864	6.58
Endosulfan II	178338	151279	157070	173756	170270	166142	6.91
4,4'-DDD	176633	155301	157262	173138	170373	166541	5.79
Endrin aldehyde	142886	125626	120437	133897	132434	131056	6.52
Endosulfan sulfate	167693	141243	140887	153474	151651	150990	7.28
4,4'-DDT	101400	113961	110956	140542	144942	122360	15.72
Endrin ketone	215131	166019	157428	177875	176108	178512	12.36
Methoxychlor	63950	61329	56207	68844	69859	64038	8.75
alpha-Chlordane	196078	178126	178171	199409	197991	189955	5.71
gamma-Chlordane	193667	184170	186513	208671	207100	196024	5.81
Chlordane 500 ppb			6481				
Chlordane {2}			8087				
Chlordane {3}			23855				
Chlordane {4}			38345				
Chlordane {5}			6951				
Toxaphene 500 ppb			3975				
Toxaphene {2}			4642				
Toxaphene {3}			5316				
Toxaphene {4}			4811				
Toxaphene {5}			5234				

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (2nd): RTX-CLP2

Data File: V7799.C V7798.C V7797.C V7796.C V7795.C

Compound	RT OF STANDARDS 2	50	100	200	300	MEAN RT	RT WI NDOW FROM	TO
alpha-BHC	2.92	2.93	2.93	2.93	2.93	2.93	2.87	2.99
beta-BHC	3.37	3.37	3.37	3.37	3.37	3.37	3.31	3.43
gamma-BHC	3.29	3.29	3.29	3.29	3.29	3.29	3.23	3.35
delta-BHC	3.70	3.70	3.70	3.70	3.70	3.70	3.64	3.76
Heptachlor	3.79	3.79	3.79	3.79	3.79	3.79	3.71	3.87
Aldrin	4.18	4.18	4.18	4.18	4.18	4.18	4.10	4.26
Heptachlor epoxide	4.91	4.91	4.91	4.91	4.91	4.91	4.83	4.99
Endosulfan I	5.44	5.45	5.45	5.45	5.45	5.45	5.37	5.53
4,4'-DDE	5.61	5.61	5.61	5.61	5.61	5.61	5.51	5.71
Dieldrin	5.83	5.83	5.83	5.83	5.83	5.83	5.73	5.93
Endrin	6.27	6.27	6.27	6.27	6.27	6.27	6.17	6.37
Endosulfan II	6.58	6.58	6.59	6.58	6.58	6.58	6.48	6.68
4,4'-DDD	6.46	6.46	6.46	6.46	6.46	6.46	6.36	6.56
Endrin aldehyde	7.02	7.02	7.02	7.02	7.02	7.02	6.90	7.14
Endosulfan sulfate	7.33	7.33	7.33	7.33	7.33	7.33	7.21	7.45
4,4'-DDT	6.89	6.89	6.89	6.89	6.89	6.89	6.77	7.01
Endrin ketone	7.82	7.82	7.82	7.82	7.82	7.82	7.70	7.94
Methoxychlor	7.62	7.63	7.63	7.63	7.63	7.63	7.51	7.75
alpha-Chlordane	5.37	5.37	5.37	5.37	5.37	5.37	5.29	5.45
gamma-Chlordane	5.17	5.17	5.17	5.17	5.17	5.17	5.09	5.25
Chlordane 500 ppb			3.62				3.54	3.70
Chlordane {2}			4.36				4.28	4.44
Chlordane {3}			5.17				5.09	5.25
Chlordane {4}			5.30				5.22	5.38
Chlordane {5}			5.37				5.29	5.45
Toxaphene 500 ppb			5.81				5.73	5.89
Toxaphene {2}			6.71				6.63	6.79
Toxaphene {3}			7.04				6.96	7.12
Toxaphene {4}			7.56				7.48	7.64
Toxaphene {5}			7.91				7.83	7.99

PESTICIDE INITIAL CALIBRATION SUMMARY

Date Analyzed: 06/14/2012

Instrument ID: GC-V
GC Column (2nd): RTX-CLP2

Data File: V7799.C V7798.C V7797.C V7796.C V7795.C

Compound	CALIBRATION FACTORS 2	50	100	200	300	MEAN	%RSD
alpha-BHC	927502	941410	939496	1039724	1014689	972564	5.24
beta-BHC	427467	367667	376083	391013	384833	389412	5.92
gamma-BHC	879655	817425	816519	907696	878974	860054	4.77
delta-BHC	894047	813212	802437	894320	872503	855304	5.19
Heptachlor	775100	704353	756685	829336	819647	777024	6.52
Aldrin	873438	793667	803657	872346	844923	837606	4.48
Heptachlor epoxide	802324	696235	700811	743842	716805	732003	5.94
Endosulfan I	746347	648298	657649	691608	671267	683034	5.70
4,4'-DDE	677119	629315	628820	690561	679161	660995	4.48
Dieldrin	729603	661697	668051	722851	710324	698505	4.52
Endrin	638171	563265	546674	612208	599171	591898	6.25
Endosulfan II	673950	555015	569034	602930	579308	596047	7.87
4,4'-DDD	615161	442912	513004	564334	538359	534754	11.92
Endrin aldehyde	536928	386134	375670	403181	392237	418830	15.94
Endosulfan sulfate	539628	421514	405756	449247	437864	450802	11.60
4,4'-DDT	258826	310532	295971	377756	385037	325624	16.69
Endrin ketone	483538	427357	425080	460223	452540	449748	5.41
Methoxychlor	142042	151615	141819	173624	175892	156998	10.64
alpha-Chlordane	778212	662617	643791	704907	688797	695665	7.44
gamma-Chlordane	769490	700071	700700	755251	737736	732650	4.30
Chlordane 500 ppb			28296				
Chlordane {2}			32811				
Chlordane {3}			86013				
Chlordane {4}			75409				
Chlordane {5}			73806				
Toxaphene 500 ppb			8036				
Toxaphene {2}			20026				
Toxaphene {3}			19206				
Toxaphene {4}			12858				
Toxaphene {5}			6023				

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8207.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	237261	2.25
beta-BHC	2.76	2.71	2.83	99502	99852	0.35
gamma-BHC	2.69	2.64	2.76	212894	196795	7.56
delta-BHC	2.92	2.87	2.99	225228	210981	6.33
Heptachlor	3.12	3.05	3.21	211134	208738	1.14
Aldrin	3.42	3.35	3.51	215935	203661	5.68
Heptachlor epoxide	4.07	4.00	4.16	195141	184906	5.25
Endosulfan I	4.53	4.46	4.62	194878	198170	1.69
4,4'-DDE	4.48	4.39	4.59	176644	160841	8.95
Dieldrin	4.83	4.74	4.94	206896	189570	8.37
Endrin	5.12	5.03	5.23	176864	165026	6.69
Endosulfan II	5.42	5.33	5.53	166142	151913	8.56
4,4'-DDD	5.24	5.15	5.35	166541	151613	8.96
Endrin aldehyde	6.00	5.88	6.12	131056	122070	6.86
Endosulfan sulfate	6.61	6.50	6.74	150990	138281	8.42
4,4'-DDT	5.62	5.51	5.75	122360	123907	1.26
Endrin ketone	6.96	6.84	7.08	178512	157031	12.03
Methoxychlor	6.34	6.23	6.47	64038	64091	0.08
alpha-Chlordane	4.37	4.30	4.46	189955	178615	5.97
gamma-Chlordane	4.22	4.14	4.30	196024	189771	3.19
Chlordane 500 ppb	3.05	2.97	3.13	6481	5883	9.23
Chlordane {2}	3.56	3.48	3.64	8087	7703	4.76
Chlordane {3}	4.22	4.14	4.30	23855	24322	1.96
Chlordane {4}	4.37	4.29	4.45	38345	40913	6.70
Chlordane {5}	5.33	5.26	5.42	6951	6750	2.89
Toxaphene 500 ppb	5.07	4.99	5.15	3975	3836	3.51
Toxaphene {2}	5.51	5.43	5.59	4642	4433	4.50
Toxaphene {3}	5.97	5.90	6.06	5316	5359	0.81
Toxaphene {4}	6.47	6.40	6.56	4811	4741	1.47
Toxaphene {5}	6.94	6.86	7.02	5234	6056	15.71

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8207.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WINDOW FROM	RT WINDOW TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	1009581	3.81
beta-BHC	3.37	3.31	3.43	389412	390331	0.24
gamma-BHC	3.29	3.23	3.35	860054	851250	1.02
delta-BHC	3.70	3.64	3.76	855304	809424	5.36
Heptachlor	3.79	3.71	3.87	777024	826756	6.40
Aldrin	4.18	4.10	4.26	837606	783312	6.48
Heptachlor epoxide	4.91	4.83	4.99	732003	688217	5.98
Endosulfan I	5.45	5.37	5.53	683034	654132	4.23
4,4'-DDE	5.62	5.51	5.71	660995	616168	6.78
Dieldrin	5.83	5.73	5.93	698505	651365	6.75
Endrin	6.27	6.17	6.37	591898	543843	8.12
Endosulfan II	6.58	6.48	6.68	596047	515884	13.45
4,4'-DDD	6.46	6.36	6.56	534754	485101	9.29
Endrin aldehyde	7.02	6.90	7.14	418830	361503	13.69
Endosulfan sulfate	7.33	7.21	7.45	450802	391099	13.24
4,4'-DDT	6.89	6.77	7.01	325624	343607	5.52
Endrin ketone	7.82	7.70	7.94	449748	390716	13.13
Methoxychlor	7.63	7.51	7.75	156998	148344	5.51
alpha-Chlordane	5.37	5.29	5.45	695665	630779	9.33
gamma-Chlordane	5.17	5.09	5.25	732650	691478	5.62
Chlordane 500 ppb	3.62	3.54	3.70	28296	27163	4.01
Chlordane {2}	4.35	4.28	4.44	32811	29973	8.65
Chlordane {3}	5.16	5.09	5.25	86013	82538	4.04
Chlordane {4}	5.29	5.22	5.38	75409	69012	8.48
Chlordane {5}	5.36	5.29	5.45	73806	71737	2.80
Toxaphene 500 ppb	5.81	5.73	5.89	8036	7243	9.86
Toxaphene {2}	6.71	6.63	6.79	20026	17927	10.48
Toxaphene {3}	7.04	6.96	7.12	19206	17499	8.89
Toxaphene {4}	7.56	7.48	7.64	12858	11788	8.32
Toxaphene {5}	7.91	7.83	7.99	6023	5584	7.29

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8227.D **GC Column (1st):** RTX-CLP1

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.44	2.39	2.51	242711	233296	3.88
beta-BHC	2.76	2.71	2.83	99502	106039	6.57
gamma-BHC	2.70	2.64	2.76	212894	185095	13.06
delta-BHC	2.93	2.87	2.99	225228	203540	9.63
Heptachlor	3.12	3.05	3.21	211134	202606	4.04
Aldrin	3.42	3.35	3.51	215935	202930	6.02
Heptachlor epoxide	4.07	4.00	4.16	195141	183401	6.02
Endosulfan I	4.53	4.46	4.62	194878	196285	0.72
4,4'-DDE	4.48	4.39	4.59	176644	158250	10.41
Dieldrin	4.83	4.74	4.94	206896	189334	8.49
Endrin	5.13	5.03	5.23	176864	163788	7.39
Endosulfan II	5.42	5.33	5.53	166142	152876	7.98
4,4'-DDD	5.25	5.15	5.35	166541	159079	4.48
Endrin aldehyde	6.00	5.88	6.12	131056	122240	6.73
Endosulfan sulfate	6.62	6.50	6.74	150990	137388	9.01
4,4'-DDT	5.62	5.51	5.75	122360	115904	5.28
Endrin ketone	6.96	6.84	7.08	178512	164702	7.74
Methoxychlor	6.34	6.23	6.47	64038	61147	4.51
alpha-Chlordane	4.37	4.30	4.46	189955	177215	6.71
gamma-Chlordane	4.22	4.14	4.30	196024	187621	4.29

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Date Analyzed: 07/09/2012 **Instrument ID:** GC-V

Data File: V8227.C **GC Column (2nd):** RTX-CLP2

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
alpha-BHC	2.92	2.87	2.99	972564	960701	1.22
beta-BHC	3.36	3.31	3.43	389412	376299	3.37
gamma-BHC	3.28	3.23	3.35	860054	810563	5.75
delta-BHC	3.69	3.64	3.76	855304	774868	9.40
Heptachlor	3.78	3.71	3.87	777024	808912	4.10
Aldrin	4.17	4.10	4.26	837606	809405	3.37
Heptachlor epoxide	4.90	4.83	4.99	732003	700767	4.27
Endosulfan I	5.44	5.37	5.53	683034	654247	4.21
4,4'-DDE	5.60	5.51	5.71	660995	618258	6.47
Dieldrin	5.82	5.73	5.93	698505	660179	5.49
Endrin	6.26	6.17	6.37	591898	554073	6.39
Endosulfan II	6.57	6.48	6.68	596047	532466	10.67
4,4'-DDD	6.45	6.36	6.56	534754	520455	2.67
Endrin aldehyde	7.01	6.90	7.14	418830	371955	11.19
Endosulfan sulfate	7.32	7.21	7.45	450802	398597	11.58
4,4'-DDT	6.89	6.77	7.01	325624	325705	0.02
Endrin ketone	7.82	7.70	7.94	449748	421511	6.28
Methoxychlor	7.62	7.51	7.75	156998	152478	2.88
alpha-Chlordane	5.36	5.29	5.45	695665	634544	8.79
gamma-Chlordane	5.16	5.09	5.25	732650	692615	5.46

PESTICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-V **Column:** RTX-CLP1/CLP2

Surrogate RT from initial calibration :

TCMX 1 2.05 **DCB 1** 7.95 **TCMX 2** 2.38 **DCB 2** 8.87

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCMX 1 RT	#	DCB 1 RT	#	TCMX 2 RT	#	DCB 2 RT	#
Pest	BLKA120706-02	07/09/2012	13:08	2.05		7.95		2.38		8.87	
062912-C	06534-001	07/09/2012	13:20	2.05		7.94		2.38		8.86	
A6-062912-	06546-001	07/09/2012	13:33	2.05		7.95		2.38		8.86	
Pest	BLKA120706-02	07/09/2012	13:45	2.05		7.95		2.38		8.86	
SAMPLE_10	06212-010	07/09/2012	13:57	2.05		7.94		2.38		8.86	
SAMPLE_14	06212-014	07/09/2012	14:09	2.05		7.95		2.38		8.86	
SAMPLE_15	06212-015	07/09/2012	14:21	2.05		7.94		2.38		8.86	
SAMPLE_18	06212-018	07/09/2012	14:34	2.05		7.94		2.38		8.86	
TRE-V12-17	06569-002	07/09/2012	14:46	2.05		7.94		2.38		8.86	
MW-1/12.25	06657-001	07/09/2012	14:58	2.05		7.94		2.38		8.86	
MW-2/11.69	06657-002	07/09/2012	15:10	2.05		7.94		2.38		8.86	
MW-3/12.94	06657-003	07/09/2012	15:22	2.05		7.94		2.38		8.86	
FIELD_BLAN	06657-004	07/09/2012	15:47	2.05		7.94		2.38		8.86	
I4-070212-	06658-005	07/09/2012	15:59	2.05		7.94		2.38		8.86	
Pest	06534-001MS	07/09/2012	16:11	2.05		7.94		2.38		8.86	
Pest	06534-001MSD	07/09/2012	16:24	2.05		7.95		2.38		8.86	
Pest	LCSA120706-02	07/09/2012	16:36	2.05		7.95		2.38		8.86	

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene (± 0.10 Minutes)

DCB = Decachlorobiphenyl (± 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

Date Analyzed: 07/09/2012

Data file: V8206.D Mon Jul 09 09:50:29 2012

1st Column

DDT (1)	11518016	Endrin (1)	14115776
DDD	391256	Endrin ketone	281683
DDE	263591	Endrin aldehyde	0

2nd Column

DDT (2)	28289293	Endrin (2)	46803655
DDD	1270571	Endrin ketone	804183
DDE	1164361	Endrin aldehyde	0

% Breakdown

DDT (1)	Endrin (1)
5.38	1.96

DDT (2)	Endrin (2)
7.93	1.69

PESTICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8223.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 15:59
Operator : IB
Sample : I4-070212-,06658-005,A,1000ml,100,07/06/12,1
Misc : 120706-02,07/02/12,07/03/12,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 08:53:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	19211902	82095287	119.629	123.872
Spiked Amount 200.000			Recovery	=	59.81%	61.94%
2) S DCB	7.94	8.86	7788013	23465702	141.824	150.197
Spiked Amount 200.000			Recovery	=	70.91%	75.10%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

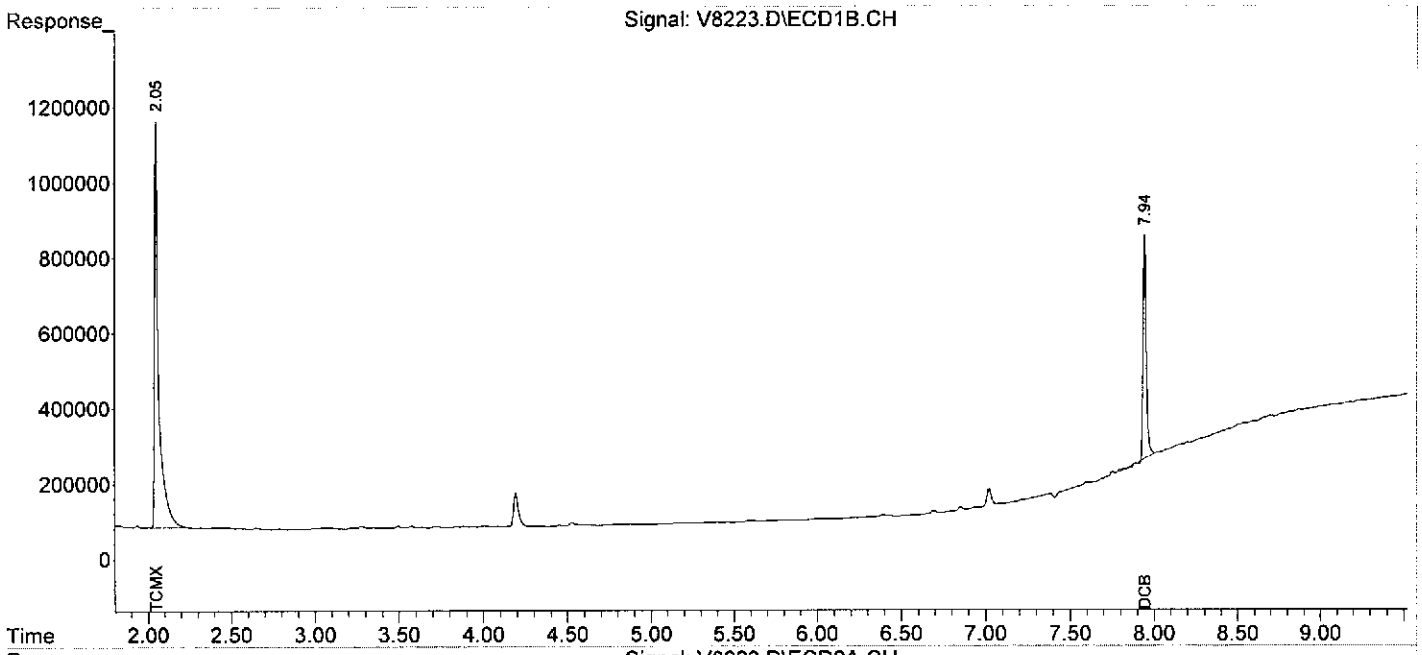
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

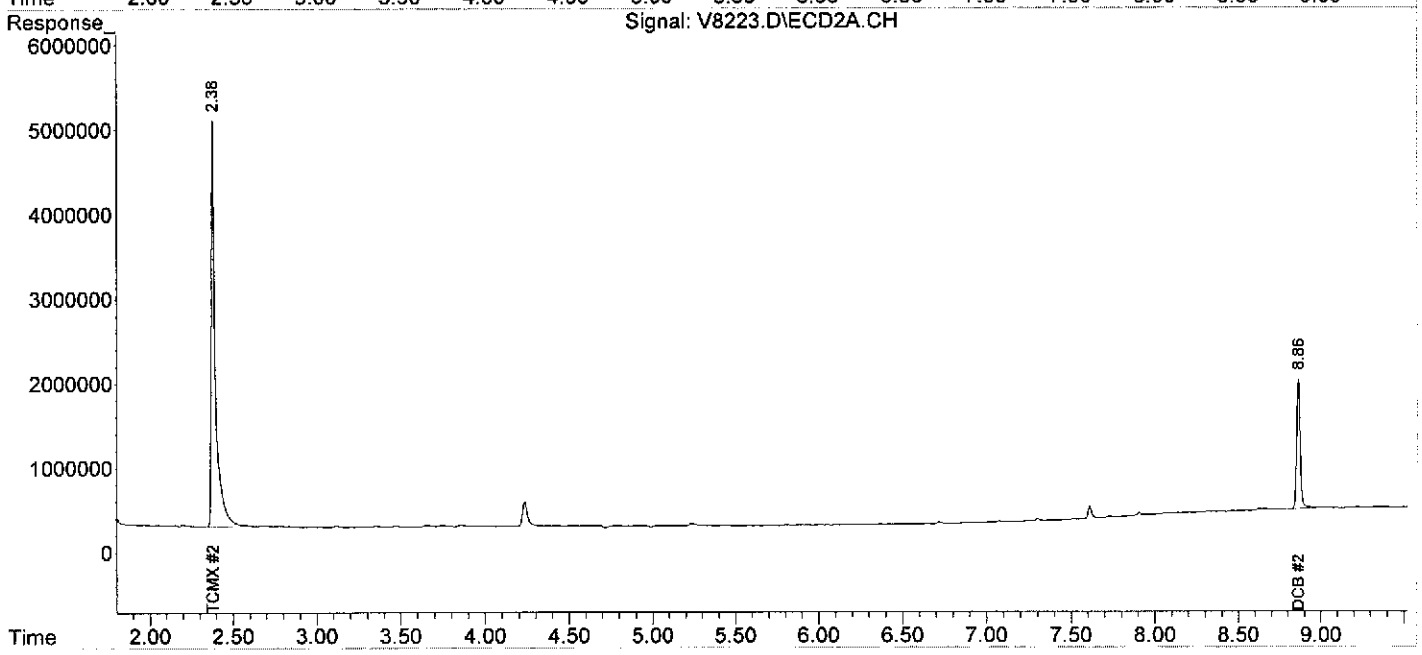
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8223.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 15:59
Operator : IB
Sample : I4-070212-,06658-005,A,1000ml,100,07/06/12,1
Misc : 120706-02,07/02/12,07/03/12,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 10 08:53:21 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

PESTICIDES

Lab ID: BLKA120706-02
Client ID: Pest
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: V8210.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
alpha-BHC	ND		0.010	0.005
beta-BHC	ND		0.010	0.005
gamma-BHC (Lindane)	ND		0.010	0.005
delta-BHC	ND		0.010	0.005
Heptachlor	ND		0.010	0.005
Aldrin	ND		0.010	0.005
Heptachlor epoxide	ND		0.010	0.005
Endosulfan I	ND		0.010	0.005
4,4'-DDE	ND		0.010	0.005
Dieldrin	ND		0.010	0.005
Endrin	ND		0.010	0.005
Endosulfan II	ND		0.010	0.005
4,4'-DDD	ND		0.010	0.005
Endrin aldehyde	ND		0.010	0.005
Endosulfan sulfate	ND		0.010	0.005
4,4'-DDT	ND		0.010	0.005
Endrin ketone	ND		0.010	0.005
Methoxychlor	ND		0.010	0.005
alpha-Chlordane	ND		0.010	0.005
gamma-Chlordane	ND		0.010	0.005
Chlordane	ND		0.125	0.060
Toxaphene	ND		0.125	0.060
Endosulfan (I and II)	ND		0.010	0.005
Chlordane (alpha and gamma)	ND		0.010	0.005

INTEGRATED ANALYTICAL LABORATORIES

TCLP PESTICIDES

Lab ID: BLKA120706-02
Client ID: Pest
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: V8213.D

GC Column: RTX-CLP1/CLP2
Sample wt/vol: 200ml
Matrix-Units: Leachate-mg/L (ppm)
Dilution Factor: 1
% Moisture: NA

Compound	Concentration	Q	RL	MDL
gamma-BHC (Lindane)	ND		0.00005	0.000025
Heptachlor	ND		0.00005	0.000025
Heptachlor epoxide	ND		0.00005	0.000025
Endrin	ND		0.00005	0.000025
Methoxychlor	ND		0.00005	0.000025
Chlordane	ND		0.000625	0.0003
Toxaphene	ND		0.000625	0.0003

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8210.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:08
Operator : IB
Sample : Pest,BLKA120706-02,A,1000ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 14:03:04 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	29194660	121.3E6	181.790	183.042
Spiked Amount 200.000			Recovery	=	90.89%	91.52%
2) S DCB	7.95	8.87	11027014	29265401	200.807	187.319
Spiked Amount 200.000			Recovery	=	100.40%	93.66%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

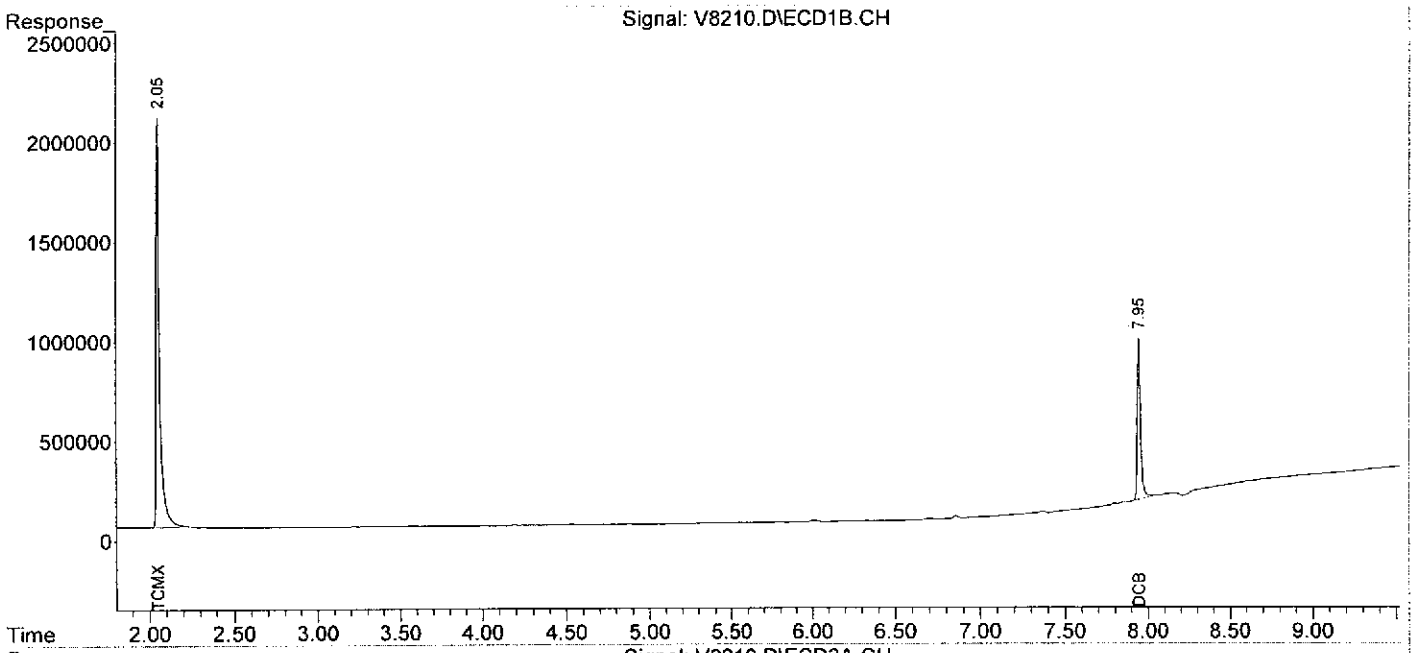
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

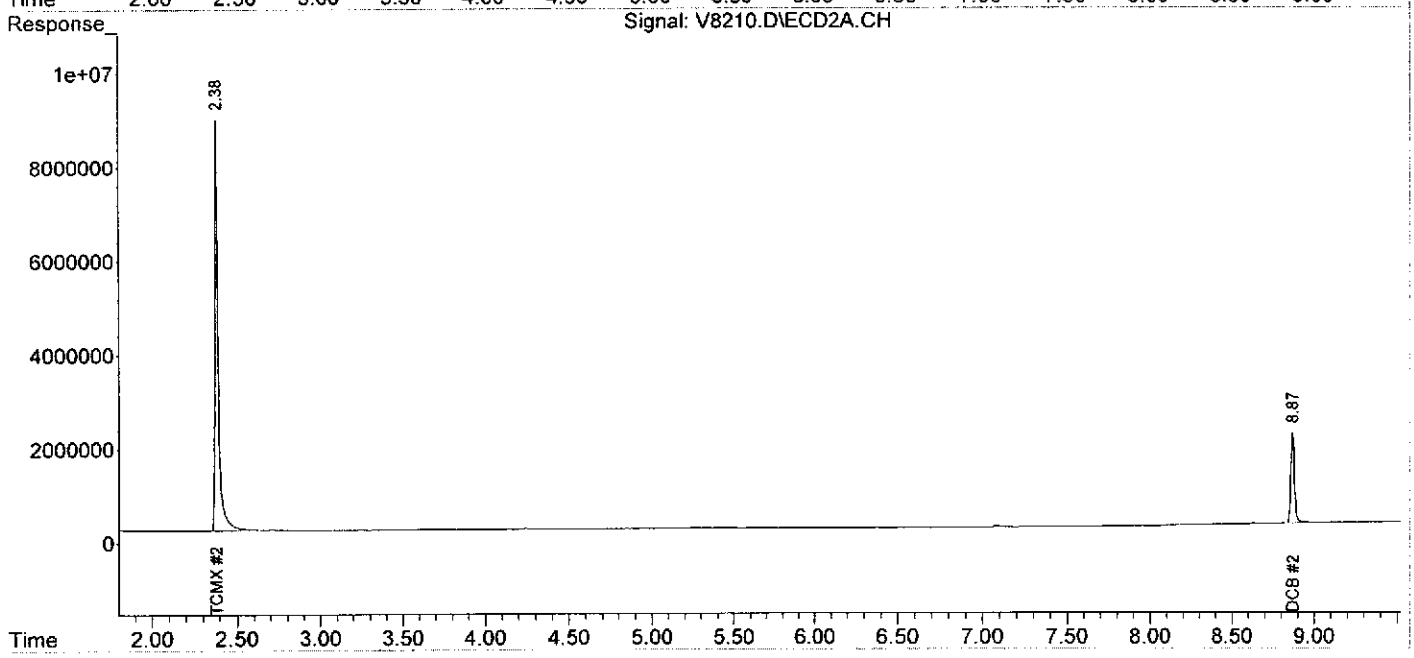
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8210.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:08
Operator : IB
Sample : Pest,BLKA120706-02,A,1000ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 14:03:04 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8213.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:45
Operator : IB
Sample : Pest,BLKA120706-02,A,200ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 13:55:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S TCMX	2.05	2.38	25402936	103.4E6	158.179	156.041
Spiked Amount 200.000			Recovery	=	79.09%	78.02%
2) S DCB	7.95	8.86	8680741	23187713	158.081	148.418
Spiked Amount 200.000			Recovery	=	79.04%	74.21%
Target Compounds						
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000

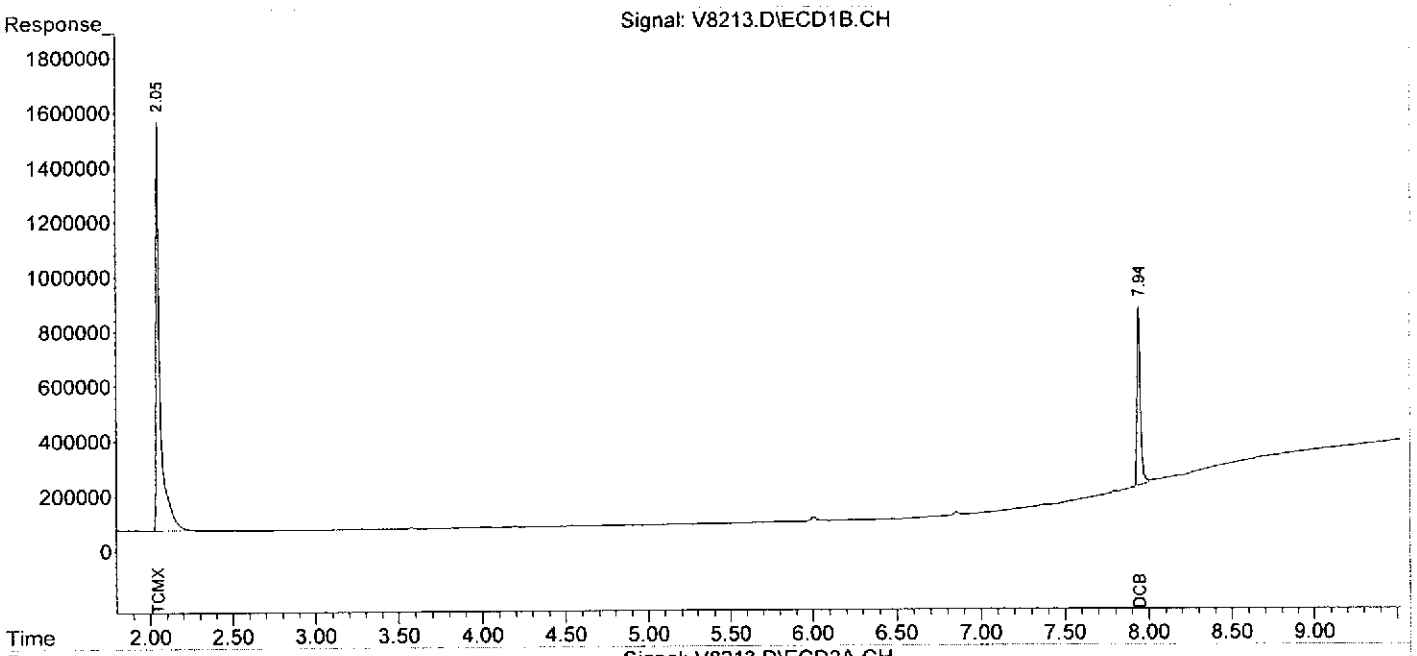
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

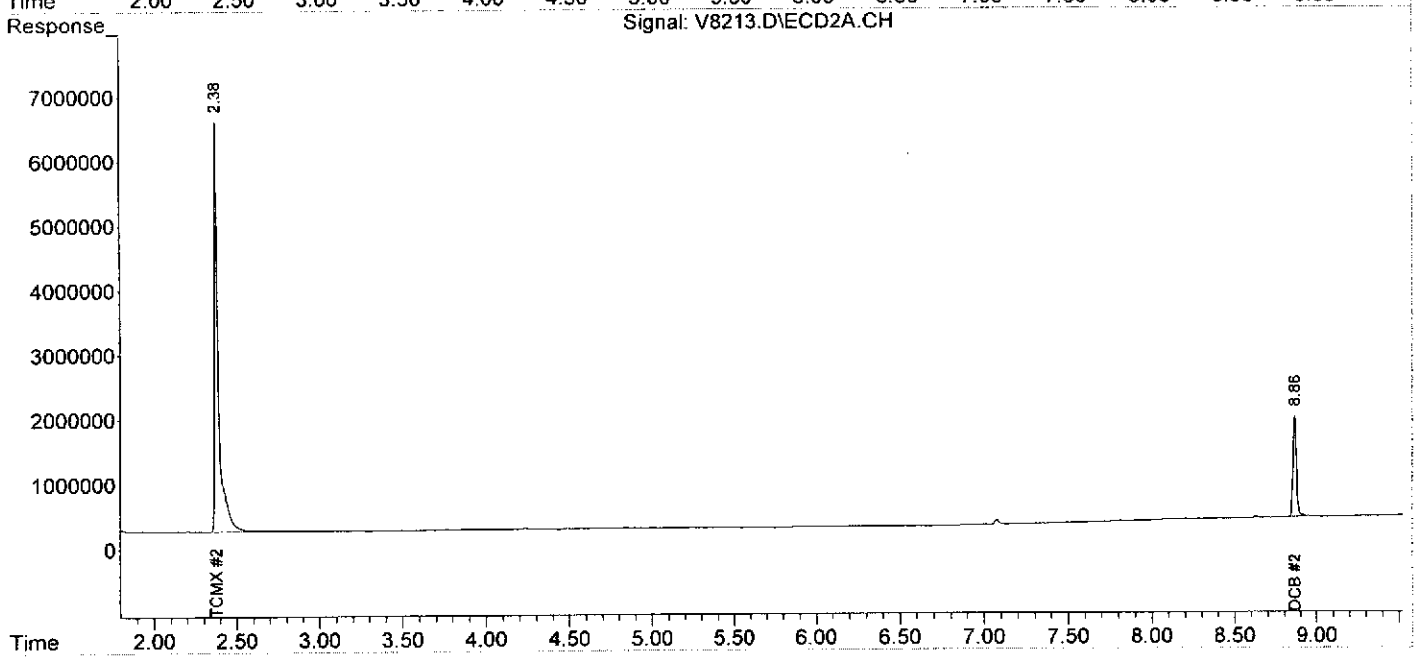
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : V8213.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 13:45
Operator : IB
Sample : Pest,BLKA120706-02,A,200ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: EVENTS2.E
Quant Time: Jul 09 13:55:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\VPST0614.M
Quant Title :
QLast Update : Mon Jul 09 12:36:51 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





HERBICIDE DATA

HERBICIDE QC SUMMARY

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W7074.D	Instrument ID:	GC-W
Date Extracted:	07/06/2012	Matrix:	AQUEOUS
Date Analyzed:	07/09/2012	Time Analyzed:	18:46

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
I4-070212-	06658-005	07/09/2012	19:16
SAMPLE_10	06212-010	07/09/2012	19:31
SAMPLE_14	06212-014	07/09/2012	19:45
SAMPLE_15	06212-015	07/09/2012	20:00
SAMPLE_18	06212-018	07/09/2012	20:15
TRE-V12-17	06569-002	07/09/2012	20:29
Herb	LCSA120706-03	07/09/2012	20:44

AQUEOUS HERBICIDES BLANK SPIKE RECOVERY

Matrix spike Lab sample ID: LCSA120706-03

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
2,4-D	200.0	0.0	185.5	93	40 - 140
2,4,5-TP (Silvex)	200.0	0.0	197.8	99	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Not calculable

Spike Recovery: __0___ out of __2__ outside limits

AQUEOUS HERBICIDES MATRIX SPIKE/SPIKE DUPLICATE RECOVERY

Matrix spike Lab sample ID: 06295-001MSD

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
2,4-D	200.0	0.0	183.9	92	40 - 140
2,4,5-TP (Silvex)	200.0	0.0	232.5	116	40 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	#	MSD % REC	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	0.0	189.0		95	3	30	40 - 140
2,4,5-TP (Silvex)	0.0	182.2		91	24	30	40 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NC Non calculable

RPD: __0___ out of __2__ outside limits

Spike Recovery: __0___ out of __4__ outside limits

HERBICIDE METHOD BLANK SUMMARY

Lab File ID:	W7040.D	Instrument ID:	GC-W
Date Extracted:	06/29/2012	Matrix:	AQUEOUS
Date Analyzed:	07/02/2012	Time Analyzed:	11:27

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
MW-2-06221	06295-001	07/02/2012	11:41
Herb	LCSA291206-08	07/02/2012	15:19
I2-062612-	06385-003	07/02/2012	17:22
I1-062612-	06385-005	07/02/2012	17:36
Herb	06295-001MS	07/02/2012	17:51
Herb	06295-001MSD	07/02/2012	18:06

HERBICIDE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 07/09/2012

Client ID	Lab Sample ID	Matrix	DCPA 1 % rec	#	DCPA 2 % rec	#
Herb	BLKA120706-03	AQUEOUS	85		73	
I4-070212-	06658-005	AQUEOUS	52		46	
SAMPLE_10	06212-010	AQUEOUS	44		33	
SAMPLE_14	06212-014	AQUEOUS	58		44	
SAMPLE_15	06212-015	AQUEOUS	46		34	
SAMPLE_18	06212-018	AQUEOUS	53		44	
TRE-V12-17	06569-002	AQUEOUS	95		65	
Herb	LCSA120706-03	AQUEOUS	96		78	

Surrogate QC Limits	Soil	Aqueous
DCPA = 2,4-Dichlorophenylacetic acid	30-150	30-150
	30-150	30-150

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	RT OF STANDARDS					MEAN RT	RT WI NDOW	
	50	100	200	250	400		FROM	TO
Dalapon	2.25	2.25	2.25	2.25	2.25	2.25	2.18	2.32
Dicamba	4.83	4.83	4.83	4.83	4.83	4.83	4.76	4.90
2,4-D	5.28	5.28	5.28	5.28	5.28	5.28	5.20	5.36
2,4,5-TP (Silvex)	5.71	5.71	5.71	5.71	5.71	5.71	5.62	5.80
2,4,5-T	5.86	5.86	5.86	5.86	5.86	5.86	5.77	5.95
2,4-DB	6.16	6.16	6.16	6.16	6.16	6.16	6.07	6.25
Dinoseb	6.90	6.90	6.90	6.90	6.90	6.90	6.81	6.99

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	RT OF STANDARDS					MEAN RT	RT WI NDOW	
	50	100	200	250	400		FROM	TO
Dalapon	2.22	2.22	2.22	2.22	2.22	2.22	2.15	2.29
Dicamba	5.05	5.05	5.05	5.05	5.05	5.05	4.98	5.12
2,4-D	5.57	5.57	5.57	5.57	5.57	5.57	5.49	5.65
2,4,5-TP (Silvex)	6.03	6.03	6.03	6.03	6.03	6.03	5.94	6.12
2,4,5-T	6.26	6.26	6.26	6.26	6.26	6.26	6.17	6.35
2,4-DB	6.60	6.60	6.60	6.60	6.60	6.60	6.51	6.69
Dinoseb	6.85	6.85	6.85	6.85	6.85	6.85	6.76	6.94

HERBICIDE INITIAL CALIBRATION

Date Analyzed: 06/19/2012

Instrument ID: F GC-W
GC Column (1st): DB-5

Data File: W6923.D W6922.D W6921.D W6920.D W6919.D

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	544629	516909	587161	593365	592777	566968	6.09
Dicamba	1566067	1483926	1703827	1725758	1784211	1652758	7.49
2,4-D	732699	593094	607561	587862	573382	618920	10.46
2,4,5-TP (Silvex)	2764514	2539588	2884094	2964481	3076025	2845741	7.22
2,4,5-T	2721247	2545426	2799059	2811924	2893447	2754221	4.78
2,4-DB	526806	369714	505885	464867	435362	460527	13.45
Dinoseb	2134374	1946223	2155301	2067354	2096146	2079880	3.95
					Average %RSD		7.64

GC Column (2nd): DB1701P

Data File: W6923.C W6922.C W6921.C W6920.C W6919.C

Compound	CALIBRATION FACTORS					MEAN CF	%RSD
	50	100	200	250	400		
Dalapon	72214	66210	75805	76517	78181	73785	6.45
Dicamba	198580	186187	209675	212355	212325	203824	5.58
2,4-D	79995	65353	74252	72372	72026	72800	7.21
2,4,5-TP (Silvex)	349332	320514	368049	366443	374046	355677	6.10
2,4,5-T	333377	298305	351814	348173	345577	335449	6.52
2,4-DB	52239	36291	50263	49819	49769	47676	13.52
Dinoseb	233458	205681	247545	250958	256622	238853	8.55
					Average %RSD		7.70

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 **Instrument ID:** GC-W

Data File: W7073.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.25	2.18	2.32	566968	624630	10.17
Dicamba	4.83	4.76	4.90	1652758	1831038	10.79
2,4-D	5.28	5.20	5.36	618920	673516	8.82
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3126264	9.86
2,4,5-T	5.86	5.77	5.95	2754221	2966883	7.72
2,4-DB	6.16	6.07	6.25	460527	397722	13.64
Dinoseb	6.90	6.81	6.99	2079880	2106769	1.29

GC Column (2nd): DB-1701P

Data File: W7073.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.23	2.15	2.29	73785	77111	4.51
Dicamba	5.06	4.98	5.12	203824	216972	6.45
2,4-D	5.57	5.49	5.65	72800	72028	1.06
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	372732	4.80
2,4,5-T	6.27	6.17	6.35	335449	339345	1.16
2,4-DB	6.61	6.51	6.69	47676	45970	3.58
Dinoseb	6.86	6.76	6.94	238853	234979	1.62

HERBCIDE CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 07/09/2012 **Instrument ID:** GC-W

Data File: W7083.D **GC Column (1st):** DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.26	2.18	2.32	566968	600119	5.85
Dicamba	4.83	4.76	4.90	1652758	1750534	5.92
2,4-D	5.28	5.20	5.36	618920	680586	9.96
2,4,5-TP (Silvex)	5.71	5.62	5.80	2845741	3081455	8.28
2,4,5-T	5.86	5.77	5.95	2754221	3054025	10.89
2,4-DB	6.16	6.07	6.25	460527	436745	5.16
Dinoseb	6.90	6.81	6.99	2079880	2222672	6.87

GC Column (2nd): DB-1701P

Data File: W7083.C

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Dalapon	2.23	2.15	2.29	73785	70608	4.31
Dicamba	5.05	4.98	5.12	203824	193819	4.91
2,4-D	5.57	5.49	5.65	72800	71055	2.40
2,4,5-TP (Silvex)	6.03	5.94	6.12	355677	357107	0.40
2,4,5-T	6.26	6.17	6.35	335449	333820	0.49
2,4-DB	6.60	6.51	6.69	47676	48126	0.94
Dinoseb	6.85	6.76	6.94	238853	236550	0.96

HERBICIDE RETENTION TIME SHIFT SUMMARY

Instrument ID: GC-W **Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

DCPA 1 **4.74** **DCPA 2** **4.96**

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed	DCPA 1 RT	#	DCPA 2 RT	#
Herb	BLKA120706-03	07/09/2012	18:46	4.74		4.96	
I4-070212-	06658-005	07/09/2012	19:16	4.74		4.96	
SAMPLE_10	06212-010	07/09/2012	19:31	4.74		4.96	
SAMPLE_14	06212-014	07/09/2012	19:45	4.74		4.96	
SAMPLE_15	06212-015	07/09/2012	20:00	4.74		4.96	
SAMPLE_18	06212-018	07/09/2012	20:15	4.74		4.96	
TRE-V12-17	06569-002	07/09/2012	20:29	4.74		4.96	
Herb	LCSA120706-03	07/09/2012	20:44	4.74		4.96	

Surrogate QC Limits

DCPA = 2,4-Dichlorophenylacetic acid ($\pm$ 0.10 Minutes)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out
M Matrix interference

HERBICIDE SAMPLE DATA

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : W7076.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 19:16
Operator : YG
Sample : I4-070212-,06658-005,A,500ml,100,07/06/12,1
Misc : 120706-03,07/02/12,07/03/12,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 10 14:36:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	108.9E6	11918884	52.270	46.326m
Spiked Amount 100.000			Recovery	=	52.27%	46.33%
Target Compounds						

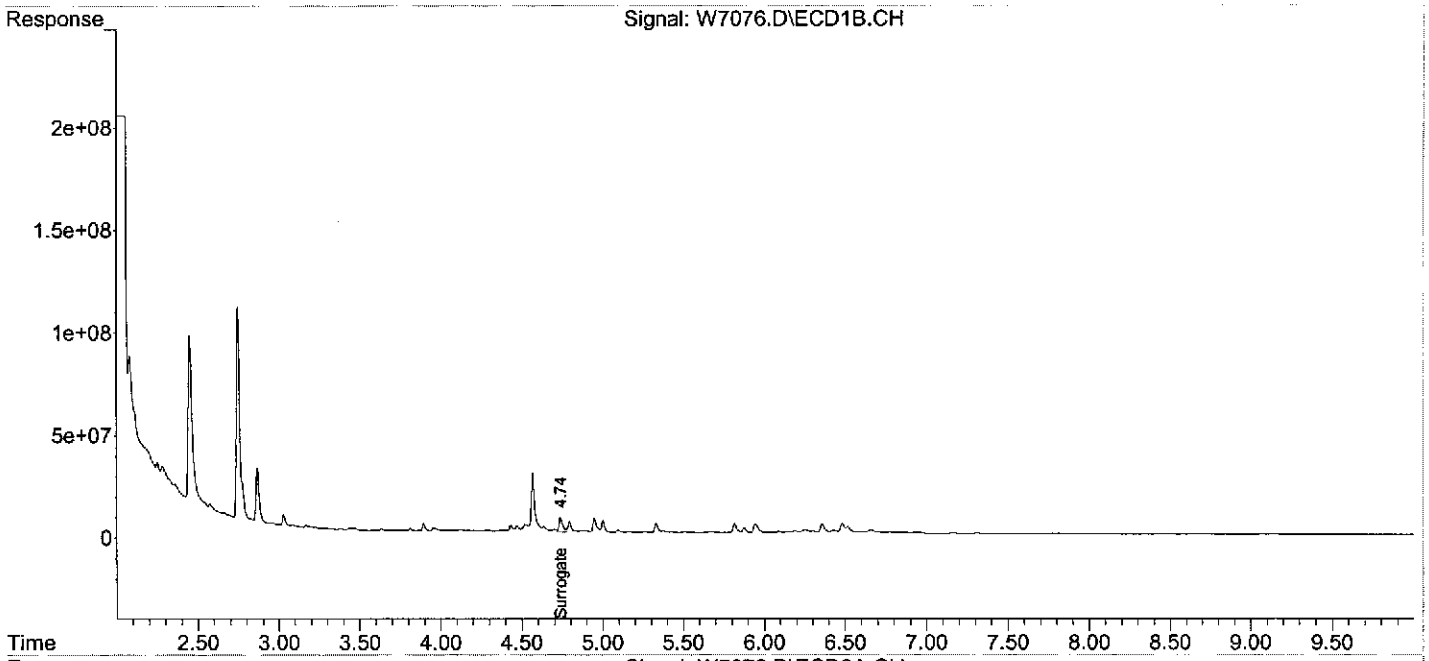
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

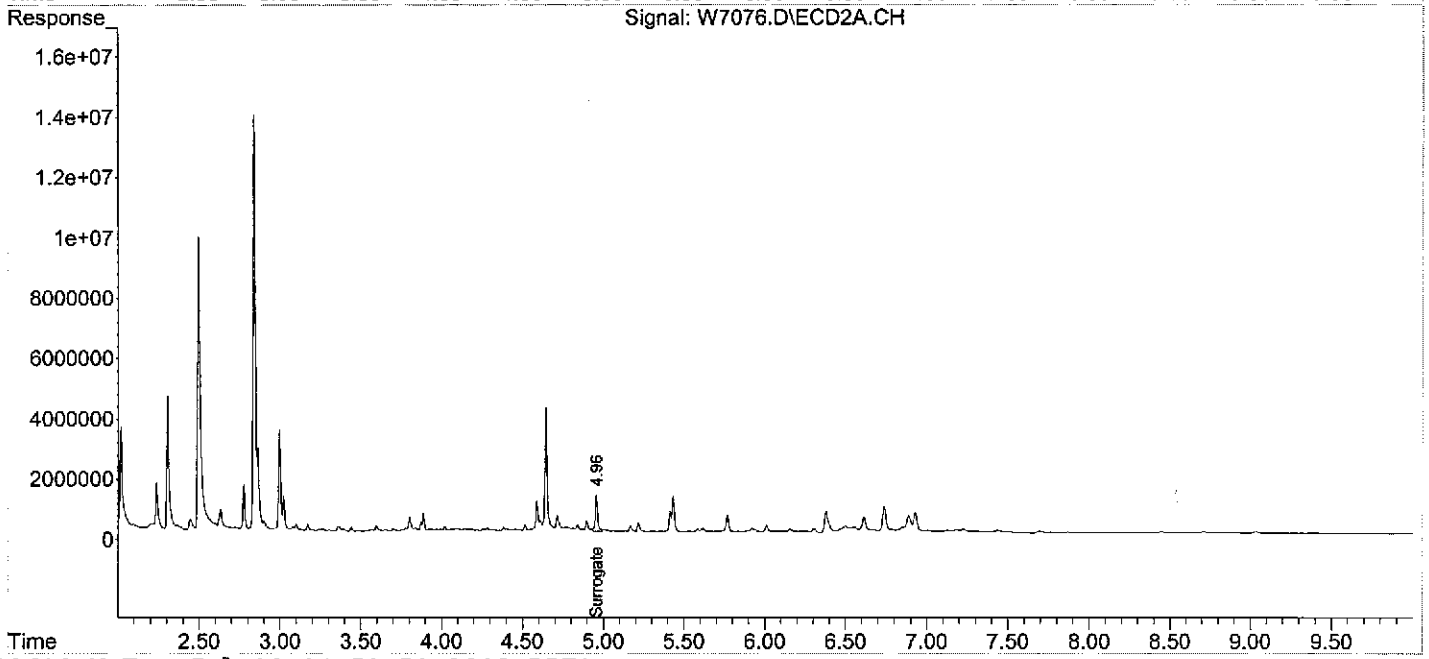
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : W7076.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 19:16
Operator : YG
Sample : I4-070212-,06658-005,A,500ml,100,07/06/12,1
Misc : 120706-03,07/02/12,07/03/12,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 10 14:36:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKA291206-08
Client ID: Herb
Date Received: NA
Date Extracted: 06/29/2012
Date Analyzed: 07/02/2012
Data file: W7040.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

E12-06658 0128

INTEGRATED ANALYTICAL LABORATORIES

HERBICIDES

Lab ID: BLKA120706-03
Client ID: Herb
Date Received: NA
Date Extracted: 07/06/2012
Date Analyzed: 07/09/2012
Data file: W7074.D

GC Column: DB-5/DB1701P
Sample wt/vol: 1000ml
Matrix-Units: Aqueous-µg/L (ppb)
Dilution Factor: 1
% Moisture: 100

Compound	Concentration	Q	RL	MDL
Dalapon	ND		0.250	0.100
Dicamba	ND		0.250	0.100
2,4-D	ND		0.250	0.100
2,4,5-TP (Silvex)	ND		0.250	0.100
2,4,5-T	ND		0.250	0.100
2,4-DB	ND		0.250	0.100
Dinoseb	ND		0.250	0.100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : W7074.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 18:46
Operator : YG
Sample : Herb,BLKA120706-03,A,1000ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 10 14:36:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
System Monitoring Compounds						
1) S Surrogate	4.74	4.96	177.5E6	18841221	85.175	73.231
Spiked Amount 100.000			Recovery	=	85.17%	73.23%

Target Compounds

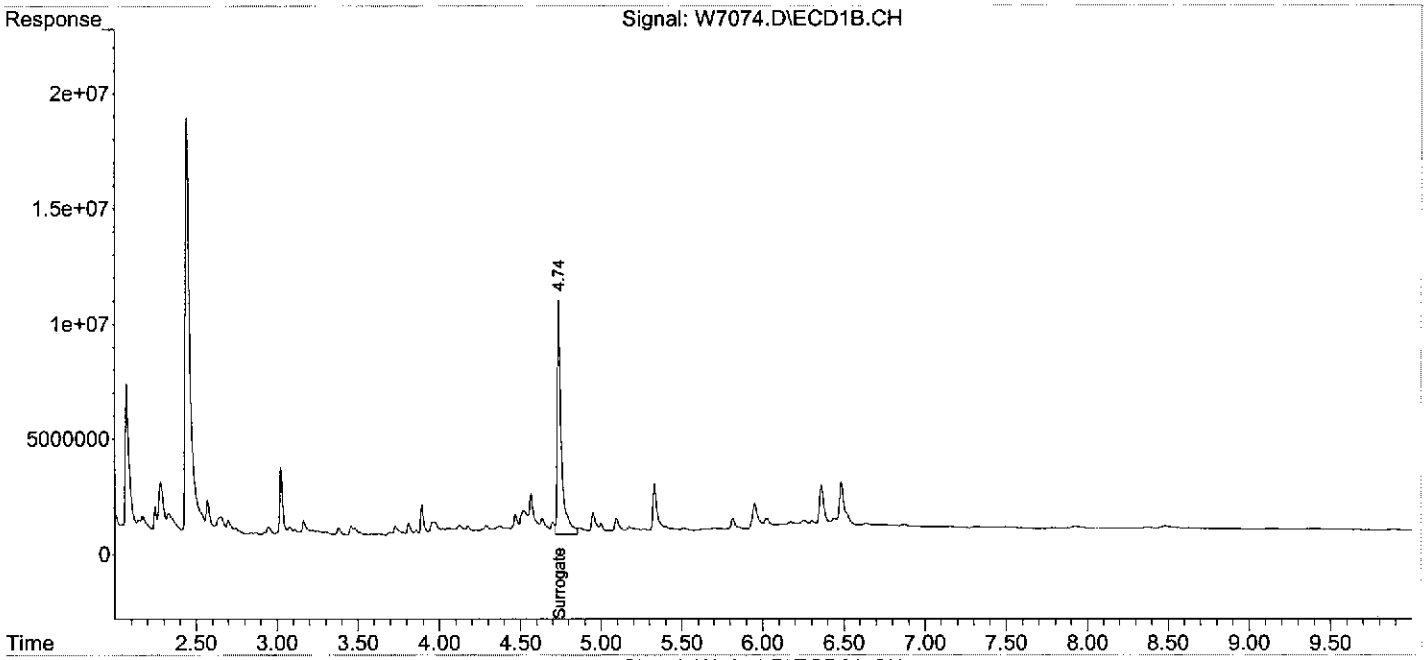
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

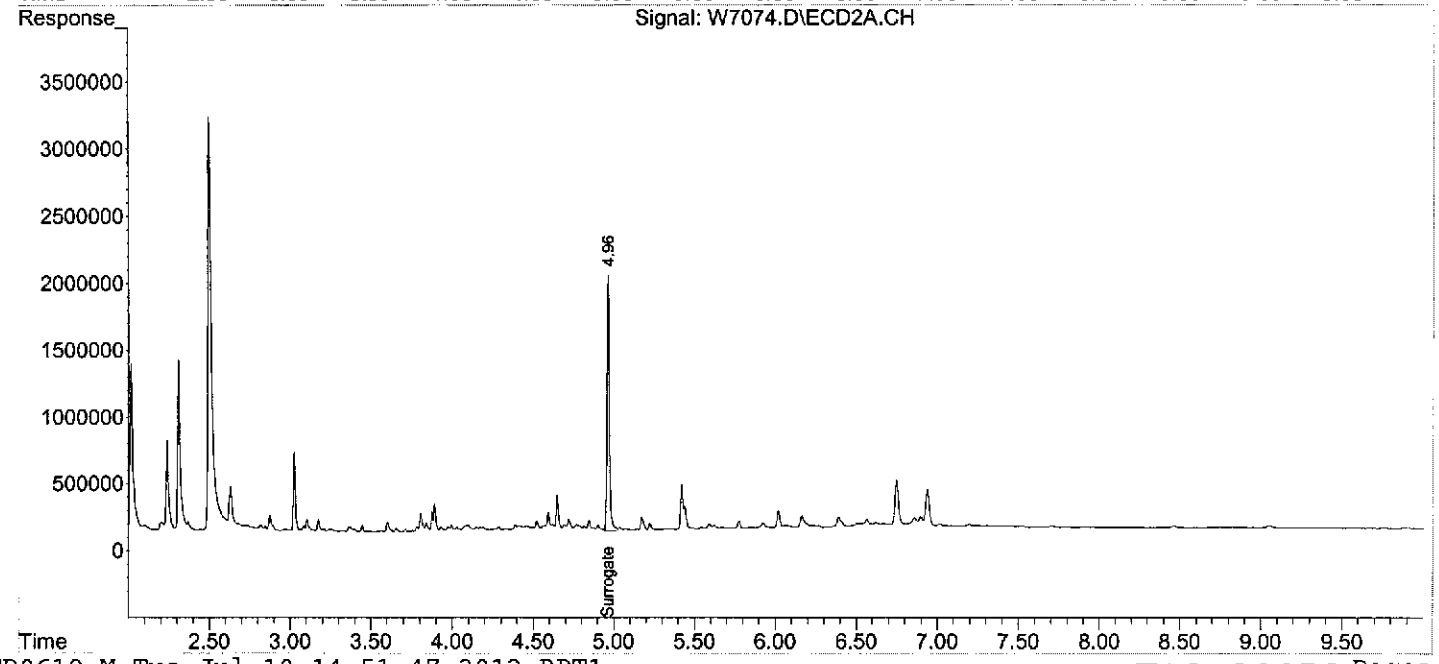
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\07-09-12\
Data File : W7074.D
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH
Acq On : 09 Jul 2012 18:46
Operator : YG
Sample : Herb,BLKA120706-03,A,1000ml,100,07/06/12,1
Misc : NA,NA,NA,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: events.e
Integration File signal 2: events2.e
Quant Time: Jul 10 14:36:10 2012
Quant Method : C:\MSDCHEM\1\METHODS\WHEB0619.M
Quant Title :
QLast Update : Fri Jun 29 09:43:18 2012
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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





METALS

METALS QC SUMMARY

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Aluminum	5.00	50.0	49.7	99.4	50.5	101	50.9	102	49.8	99.6
Antimony	0.250	50.0	48.1	96.2	48.3	96.6	51.6	103	51.3	103
Arsenic	0.250	50.0	46.7	93.4	46.8	93.6	47.1	94.2	48.4	96.8
Barium	2.50	50.0	48.6	97.2	48.5	97.0	51.0	102	51.7	103
Beryllium	0.250	50.0	47.0	94.0	46.2	92.4	47.1	94.2	51.6	103
Cadmium	0.125	50.0	49.3	98.6	49.0	98.0	48.9	97.8	52.6	105
Calcium	25.0	500	483	96.6	475	95.0	508	102	503	101
Chromium	0.500	50.0	47.3	94.6	47.8	95.6	48.8	97.6	50.3	101
Cobalt	0.500	50.0	48.4	96.8	48.5	97.0	48.8	97.6	50.5	101
Copper	1.00	50.0	47.2	94.4	48.0	96.0	47.8	95.6	49.1	98.2
Iron	12.5	500	484	96.8	488	97.6	493	98.6	515	103
Lead	0.125	50.0	48.7	97.4	47.7	95.4	49.6	99.2	50.2	100
Magnesium	12.5	500	465	93.0	477	95.4	527	105	517	103
Manganese	0.500	50.0	46.6	93.2	46.9	93.8	47.7	95.4	48.6	97.2
Nickel	0.250	50.0	46.9	93.8	47.2	94.4	48.4	96.8	49.8	99.6
Potassium	12.5	500	489	97.8	500	100	538	108	539	108
Selenium	1.00	50.0	47.4	94.8	46.5	93.0	45.5	91.0	46.6	93.2
Silver	0.125	10.0	9.49	94.9	9.59	95.9	9.83	98.3	9.93	99.3
Sodium	25.0	500	462	92.4	499	99.8	521	104	502	100
Thallium	0.125	50.0	49.4	98.8	48.5	97.0	50.5	101	51.1	102
Vanadium	0.500	50.0	46.7	93.4	47.1	94.2	48.6	97.2	49.2	98.4
Zinc	1.00	50.0	48.8	97.6	49.1	98.2	48.5	97.0	49.7	99.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Method: 6020 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV FOUND	CCV % R	CCV FOUND	CCV % R	CCV FOUND	CCV % R	FOUND	% R
Aluminum	5.00	50.0	50.3	101	49.8	99.6	51.1	102		
Antimony	0.250	50.0	49.8	99.6	50.8	102	50.4	101		
Arsenic	0.250	50.0	46.6	93.2	47.2	94.4	47.1	94.2		
Barium	2.50	50.0	49.9	99.8	50.6	101	50.3	101		
Beryllium	0.250	50.0	47.0	94.0	50.9	102	51.1	102		
Cadmium	0.125	50.0	49.3	98.6	48.0	96.0	46.9	93.8		
Calcium	25.0	500	494	98.8	512	102	531	106		
Chromium	0.500	50.0	48.6	97.2	49.1	98.2	49.7	99.4		
Cobalt	0.500	50.0	48.6	97.2	49.5	99.0	49.0	98.0		
Copper	1.00	50.0	47.4	94.8	47.5	95.0	47.4	94.8		
Iron	12.5	500	486	97.2	493	98.6	502	100		
Lead	0.125	50.0	49.2	98.4	48.9	97.8	48.8	97.6		
Magnesium	12.5	500	513	103	493	98.6	506	101		
Manganese	0.500	50.0	46.9	93.8	47.8	95.6	48.8	97.6		
Nickel	0.250	50.0	47.7	95.4	48.4	96.8	48.3	96.6		
Potassium	12.5	500	515	103	548	110	497	99.4		
Selenium	1.00	50.0	51.4	103	46.2	92.4	46.0	92.0		
Silver	0.125	10.0	9.57	95.7	9.52	95.2	9.46	94.6		
Sodium	25.0	500	542	108	506	101	507	101		
Thallium	0.125	50.0	50.7	101	50.3	101	49.6	99.2		
Vanadium	0.500	50.0	47.9	95.8	48.6	97.2	49.4	98.8		
Zinc	1.00	50.0	48.3	96.6	48.3	96.6	49.2	98.4		

(1) Control Limits: Mercury 80-120; Other Metals 90-110

METALS QUALITY CONTROL

BLANK 1 RESULTS SUMMARY

Batch (Page) #: 283
Associated Lab Case for Blank 1: 04564, 06226, 06466, 06618, 06628, 06657, 06658

Matrix: Aqueous Unit: ppb (µg/L) Method: 6020

ANALYTE	SAMPLE MDL	REAGENT BLANK
Aluminum	20.0	ND
Antimony	1.00	ND
Arsenic	1.00	ND
Barium	10.0	ND
Beryllium	1.00	ND
Cadmium	0.500	ND
Calcium	100	ND
Chromium	2.00	ND
Cobalt	2.00	ND
Copper	4.00	ND
Iron	50.0	ND
Lead	0.500	ND
Magnesium	50.0	ND
Manganese	2.00	ND
Mercury	0.300	ND
Nickel	1.00	ND
Potassium	50.0	ND
Selenium	4.00	ND
Silver	0.500	ND
Sodium	100	ND
Thallium	0.500	ND
Vanadium	2.00	ND
Zinc	4.00	ND

Associated Sample for Blank 1:
04564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

METALS QUALITY CONTROL

ICP-MS ICSAB RESULTS SUMMARY

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	TRUE		INITIAL FOUND			CONTROL
	SOL A	SOL B	SOL A	SOL A+B	%R	LIMIT %R
Chlorine	1000000	-	-	-	-	NA
Carbon	200000	-	-	-	-	NA
Aluminum	100000	-	LRG	> LRG	NA	NA
Calcium	100000	-	87600	87700	87.7	NA
Iron	100000	-	86800	86300	86.3	NA
Potassium	100000	-	> LRG	> LRG	NA	NA
Magnesium	100000	-	> LRG	> LRG	NA	NA
Sodium	100000	-	> LRG	> LRG	NA	NA
Phosphorus	100000	-	-	-	-	NA
Sulfur	100000	-	-	-	-	NA
Molybdenum	2000	-	2150	2140	107	NA
Titanium	2000	-	1840	1870	93.5	NA
Silver	-	20.0	-	19.9	99.5	80-120
Arsenic	-	20.0	-	18.8	94.0	80-120
Cadmium	-	20.0	-	19.5	97.5	80-120
Cobalt	-	20.0	-	17.2	86.0	80-120
Chromium	-	20.0	-	18.6	93.0	80-120
Copper	-	20.0	-	16.9	84.5	80-120
Manganese	-	20.0	-	17.6	88.0	80-120
Nickel	-	20.0	-	16.6	83.0	80-120
Zinc	-	20.0	-	18.8	94.0	80-120

%R = Percent Recovery

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Aluminum	5.00	ND	ND	ND	ND	ND	ND
Antimony	0.250	ND	ND	ND	ND	ND	ND
Arsenic	0.250	ND	ND	ND	ND	ND	ND
Barium	2.50	ND	ND	ND	ND	ND	ND
Beryllium	0.250	ND	ND	ND	ND	ND	ND
Cadmium	0.125	ND	ND	ND	ND	ND	ND
Calcium	25.0	ND	ND	ND	ND	ND	ND
Chromium	0.500	ND	ND	ND	ND	ND	ND
Cobalt	0.500	ND	ND	ND	ND	ND	ND
Copper	1.00	ND	ND	ND	ND	ND	ND
Iron	12.5	ND	ND	ND	ND	ND	ND
Lead	0.125	ND	ND	ND	ND	ND	ND
Magnesium	12.5	ND	ND	ND	ND	ND	ND
Manganese	0.500	ND	ND	ND	ND	ND	ND
Mercury	0.150	ND	ND	ND	ND	ND	ND
Nickel	0.250	ND	ND	ND	ND	ND	ND
Potassium	12.5	ND	ND	ND	ND	ND	ND
Selenium	1.00	ND	ND	ND	ND	ND	ND
Silver	0.125	ND	ND	ND	ND	ND	ND
Sodium	25.0	ND	ND	ND	ND	ND	ND
Thallium	0.125	ND	ND	ND	ND	ND	ND
Vanadium	0.500	ND	ND	ND	ND	ND	ND
Zinc	1.00	ND	ND	ND	ND	ND	ND

METALS QUALITY CONTROL

INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 283
SDG #: 06466, 06657, 06618, 06466, 06628, 06657, 06658, 06226, 04564, 06618, 06558, 06451
06558, 06451

Matrix: Aqueous Method: 6020 Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	CCB					
Aluminum	5.00	ND					
Antimony	0.250	ND					
Arsenic	0.250	ND					
Barium	2.50	ND					
Beryllium	0.250	ND					
Cadmium	0.125	ND					
Calcium	25.0	ND					
Chromium	0.500	ND					
Cobalt	0.500	ND					
Copper	1.00	ND					
Iron	12.5	ND					
Lead	0.125	ND					
Magnesium	12.5	ND					
Manganese	0.500	ND					
Nickel	0.250	ND					
Potassium	12.5	ND					
Selenium	1.00	ND					
Silver	0.125	ND					
Sodium	25.0	ND					
Thallium	0.125	ND					
Vanadium	0.500	ND					
Zinc	1.00	ND					

METALS QUALITY CONTROL

LABORATORY CONTROL SAMPLE

Batch (Page) #: 283
SDG #: 04564, 06226, 06466, 06618, 06628, 06657, 06658, 06451, 06558

Matrix: Aqueous Unit: ppb (µg/L)

ANALYTE	BSW1			BSW2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Aluminum	400	416	104	400	393	98.3
Antimony	400	361	90.3	400	376	94.0
Arsenic	400	340	85.0	400	354	88.5
Barium	400	358	89.5	400	375	93.8
Beryllium	400	370	92.5	400	372	93.0
Cadmium	400	371	92.8	400	371	92.8
Calcium	8000	7940	99.3	8000	6830	85.4
Chromium	400	403	101	400	352	88.0
Cobalt	400	407	102	400	351	87.8
Copper	400	406	102	400	347	86.8
Iron	8000	8140	102	8000	6940	86.8
Lead	400	368	92.0	400	371	92.8
Magnesium	8000	8230	103	8000	6870	85.9
Manganese	400	404	101	400	343	85.8
Mercury	10.0	10.0	100	10.0	10.7	107
Nickel	400	408	102	400	352	88.0
Potassium	8000	8030	100	8000	6950	86.9
Selenium	400	411	103	400	350	87.5
Silver	400	357	89.3	400	363	90.8
Sodium	8000	8060	101	8000	7000	87.5
Thallium	400	374	93.5	400	379	94.8
Vanadium	400	413	103	400	357	89.3
Zinc	400	408	102	400	349	87.3

(1) Control Limits % Recovery = 85-115%

BSW1
04564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

BSW2
06451-002~006,008~014; 06558-001~004,006~009

METALS QUALITY CONTROL
SPIKE SAMPLE RECOVERY

Batch (Page) #: 283
SDG #: 04564, 06226, 06466, 06618, 06628, 06657, 06658, 06451, 06558

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Aluminum	305	ND	76.3	400	342	ND	85.5	400	75-125
Antimony	352	ND	88.0	400	357	ND	89.3	400	75-125
Arsenic	341	ND	85.3	400	348	ND	87.0	400	75-125
Barium	401	61.9	84.8	400	374	27.8	86.6	400	75-125
Beryllium	355	ND	88.8	400	351	ND	87.8	400	75-125
Cadmium	347	ND	86.8	400	349	ND	87.3	400	75-125
Calcium	42300	35200	88.8	8000	61900	59100	NC	8000	75-125
Chromium	323	ND	80.8	400	337	ND	84.3	400	75-125
Cobalt	327	2.18	81.2	400	330	ND	82.5	400	75-125
Copper	323	ND	80.8	400	327	ND	81.8	400	75-125
Iron	6350	ND	79.4	8000	6440	ND	80.5	8000	75-125
Lead	362	ND	90.5	400	352	ND	88.0	400	75-125
Magnesium	23200	17000	77.5	8000	32200	28200	NC	8000	75-125
Manganese	1110	807	75.8	400	330	3.24	81.7	400	75-125
Mercury	9.09	ND	90.9	10.0	10.1	ND	101	10.0	75-125
Nickel	323	4.38	79.7	400	330	ND	82.5	400	75-125
Potassium	30900	24600	78.8	8000	7860	1210	83.1	8000	75-125
Selenium	340	5.29	83.7	400	341	ND	85.3	400	75-125
Silver	335	ND	83.8	400	345	ND	86.3	400	75-125
Sodium	199000	189000	125	8000	32400	28600	NC	8000	75-125
Thallium	359	ND	89.8	400	362	ND	90.5	400	75-125
Vanadium	337	ND	84.3	400	346	ND	86.5	400	75-125
Zinc	338	7.65	82.6	400	346	6.42	84.9	400	75-125

SSR = Spike Sample Result
SA = Spike Added
SR = Sample Result
%R = Percent Recovery
NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 06466-013
QC Sample 1 for following samples:
04564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

QC Sample 2 06558-001
QC Sample 2 for following samples:
06451-002~006,008~014; 06558-001~004,006~009

METALS QUALITY CONTROL
DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 283
SDG #: 04564, 06226, 06466, 06618, 06628, 06657, 06658, 06451, 06558

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Aluminum	NA	ND	ND	NC	NA	ND	ND	NC
Antimony	NA	ND	ND	NC	NA	ND	ND	NC
Arsenic	NA	ND	ND	NC	NA	ND	ND	NC
Barium	20	61.9	59.8	3.45	20	27.8	25.4	9.02
Beryllium	NA	ND	ND	NC	NA	ND	ND	NC
Cadmium	NA	ND	ND	NC	NA	ND	ND	NC
Calcium	20	35200	36900	4.72	20	59100	60600	2.51
Chromium	NA	ND	ND	NC	NA	ND	ND	NC
Cobalt	20	2.18	2.36	7.93	NA	ND	ND	NC
Copper	NA	ND	ND	NC	NA	ND	ND	NC
Iron	NA	ND	ND	NC	NA	ND	ND	NC
Lead	NA	ND	ND	NC	NA	ND	ND	NC
Magnesium	20	17000	18000	5.71	20	28200	28200	0
Manganese	20	807	841	4.13	20	3.24	3.24	0
Mercury	NA	ND	ND	NC	NA	ND	ND	NC
Nickel	20	4.38	4.74	7.89	NA	ND	ND	NC
Potassium	20	24600	25600	3.98	20	1210	1260	4.05
Selenium	20	5.29	4.90	7.65	NA	ND	ND	NC
Silver	NA	ND	ND	NC	NA	ND	ND	NC
Sodium	20	189000	200000	5.66	20	28600	28400	0.702
Thallium	NA	ND	ND	NC	NA	ND	ND	NC
Vanadium	NA	ND	ND	NC	NA	ND	ND	NC
Zinc	20	7.65	6.26	20.0	20	6.42	5.41	17.1

S1 = Sample 1
D1 = Duplicate 1
NA = Not Applicable
NC = Non-calculable RPD due to result (s) less than the detection limit.

S2 = Sample 2
D2 = Duplicate 2

QC Sample 1 06466-013
QC Sample 1 for following samples:
04564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

QC Sample 2 06558-001
QC Sample 2 for following samples:
06451-002~006,008~014; 06558-001~004,006~009

METALS QUALITY CONTROL
SERIAL DILUTIONS & POST SPIKES 1

Batch (Page) #: 283
SDG #: 04564, 06226, 06466, 06618, 06628, 06657, 06658

Matrix: Aqueous Concentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION		%	POST SPIKE		%
	SR	SDR	Difference	SPR	SA	Recovery
Aluminum	ND			305	400	76.3
Antimony	ND			350	400	87.5
Arsenic	ND			337	400	84.3
Barium	61.9			392	400	82.5
Beryllium	ND			351	400	87.8
Cadmium	ND			335	400	83.8
Calcium	35200	38100	7.91			
Chromium	ND			319	400	79.8
Cobalt	2.18			324	400	80.5
Copper	ND			324	400	81.0
Iron	ND			6370	8000	79.6
Lead	ND			349	400	87.3
Magnesium	17000	17800	4.60			
Manganese	807	871	7.63			
Nickel	4.38			327	400	80.7
Potassium	24600	24600	0			
Selenium	5.29			336	400	82.7
Silver	ND			333	400	83.3
Sodium	189000	191000	1.05			
Thallium	ND			352	400	88.0
Vanadium	ND			333	400	83.3
Zinc	7.65			339	400	82.8

SR = Sample Result
SDR = Sample Dilution Result
SPR = Sample Post Spike Result
SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 06466-013
QC Sample 1 for following samples:
04564-002,005; 06226-001; 06466-013~016; 06618-001,003
06628-001~002; 06657-001~004; 06658-006~010

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG283
July 9, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**758323**	**84057**	**311445**	**1871131**	**2945645**	**1681200**	
	Sample Lower Limit	**227497**	**25217**	**93434**	**561339**	**883694**	**504360**	
	QC Lower Limit	**530826**	**58840**	**218012**	**1309792**	**2061951**	**1176840**	
	Sample & QC Upper Limit	**909988**	**100868**	**373734**	**2245357**	**3534774**	**2017440**	
003CALS.D	STD1	766336	82574	314702	1912543	3002875	1755842	
004CALS.D	STD2	772213	83950	314856	1938434	3072896	1785078	
005CALS.D	STD3	739977	83054	305721	1853465	2967583	1736949	
006CALS.D	STD4	737533	81076	322768	1961125	3152500	1815622	
008_ICV.D	ICV	725628	84078	320103	1972395	3127075	1817261	
009_ICB.D	ICB	622369	85069	314032	1939726	3123900	1796032	
010SMPL.D	BMW1	640043	83713	320466	2031436	3205261	1861353	
011SMPL.D	BSW1	599135	83638	310871	1892526	3126443	1783239	
012SMPL.D	06466-013	580804	81872	298254	1728941	2876679	1562012	
013SMPL.D	06466-013R	603309	80189	302308	1763455	2901138	1577503	
014SMPL.D	06466-013SD	604741	78308	310891	1861095	2980448	1719967	
015SMPL.D	06466-013RS	588298	78108	292913	1719020	2887563	1566820	
016SMPL.D	06466-013PS	602774	78239	299114	1714918	2898661	1578241	
017SMPL.D	06657-004 FB	632155	82701	302850	1886524	2941988	1713794	
0186CCV.D	CCV	731537	81952	315364	1898969	3086988	1820551	
0196CCB.D	CCB	667851	86953	307680	1894854	3019400	1750567	
020SMPL.D	06618-003 FB	654817	82948	311556	1914124	3018617	1779321	
021SMPL.D	06466-014	666022	83992	320160	1960052	3157347	1799914	
022SMPL.D	06466-015	632434	82356	322913	1965311	3216271	1879103	
023SMPL.D	06466-016	613687	81148	310447	1907152	3090339	1796413	
024SMPL.D	06628-001	450525	78093	289211	1614920	2779528	1440384	
025SMPL.D	06628-002	564616	80154	304145	1710904	2909427	1527646	
027SMPL.D	06657-002	677249	75066	284169	1600780	2613731	1395598	
028SMPL.D	06657-003	691832	80398	300496	1732041	2821103	1535514	
029SMPL.D	06658-006	678191	76960	297268	1715312	2771583	1483555	
0306CCV.D	CCV	786780	80066	300069	1806360	2734425	1597425	
0316CCB.D	CCB	735415	81400	313450	1905864	2926346	1682547	
032SMPL.D	06658-007	673119	72154	289410	1662564	2696447	1434667	
033SMPL.D	06658-008	685009	81113	303609	1765053	2820592	1570333	
034SMPL.D	06658-009	660915	82607	302419	1746822	2745530	1507418	
035SMPL.D	06658-010	707325	80395	310390	1852627	2854190	1584066	
036SMPL.D	06226-001	660884	78639	301178	1751329	2787336	1517816	
037SMPL.D	04564-002	678370	77852	303165	1716792	2753614	1521024	
038SMPL.D	04564-005	681029	79891	303571	1749524	2790802	1523531	
039SMPL.D	06618-001	710852	80668	320479	1900631	2970247	1697351	
040SMPL.D	BMW2	649329	79209	298001	1844868	2825942	1615963	
041SMPL.D	BSW2	641713	79814	295455	1766244	2774284	1561584	
0426CCV.D	CCV	664392	78469	264908	1616330	2460029	1397316	
0436CCB.D	CCB	653088	78804	294994	1818750	2763282	1585442	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

METALS INTERNAL STANDARD AREA SUMMARY
2012 PG283
July 9, 2012

	ISTD	Mass 6 [2]	Mass 72 [1]	Mass 72 [2]	Mass 103 [2]	Mass 159 [2]	Mass 209 [2]	
002CALB.D	**STD BLANK**	**758323**	**84057**	**311445**	**1871131**	**2945645**	**1681200**	
	Sample Lower Limit	**227497**	**25217**	**93434**	**561339**	**883694**	**504360**	
	QC Lower Limit	**530826**	**58840**	**218012**	**1309792**	**2061951**	**1176840**	
	Sample & QC Upper Limit	**909988**	**100868**	**373734**	**2245357**	**3534774**	**2017440**	
044SMPL.D	06558-001	660474	80089	299403	1755000	2759880	1534056	
045SMPL.D	06558-001R	691281	77164	308945	1799965	2876958	1602086	
046SMPL.D	06558-001SD	663586	79336	307115	1876906	2906693	1677868	
047SMPL.D	06558-001RS	643213	77369	297031	1743882	2840972	1579563	
048SMPL.D	06558-001PS	657784	77281	292217	1710205	2782780	1532541	
049SMPL.D	06558-004 FB	671275	81222	314724	1984185	2990973	1728168	
050SMPL.D	06558-009 FB	715810	80884	324026	2033136	3124848	1797099	
051SMPL.D	06451-008 FB	669505	78492	303253	1782091	2884131	1620571	
052SMPL.D	06451-009 FB	675372	77978	312125	1838910	3004568	1658305	
053SMPL.D	06451-013 FB	645161	83462	292869	1728673	2791236	1532214	
0546CCV.D	CCV	760081	80511	302802	1864281	2843860	1655684	
0556CCB.D	CCB	674659	81558	298466	1842150	2852676	1609542	
056SMPL.D	06451-014 FB	665643	75820	297466	1731766	2826718	1547823	
057SMPL.D	06558-002	678695	78969	304017	1765395	2885237	1586285	
058SMPL.D	06558-003	607968	80001	277524	1551251	2591785	1403075	
059SMPL.D	06558-006	667624	77081	306011	1770566	2851382	1604473	
060SMPL.D	06558-007	569963	79123	266615	1533139	2513832	1385327	
061SMPL.D	06558-008	658750	76163	289311	1660634	2684108	1452540	
062SMPL.D	06451-002	817570	69039	283305	1593229	2516527	1342388	
063SMPL.D	06451-003	822121	79025	308851	1836596	2732146	1566661	
064SMPL.D	06451-004	815610	83838	310043	1859094	2765542	1561102	
065SMPL.D	06451-005	712943	76448	284884	1576252	2503457	1325092	
0666CCV.D	CCV	839829	81588	308950	1853645	2766920	1584828	
0676CCB.D	CCB	798995	82563	315678	1906074	2848494	1618379	
068SMPL.D	06451-006	774909	77739	299411	1664142	2638972	1378305	
069SMPL.D	06451-010	838601	72336	281616	1560374	2408584	1236341	
070SMPL.D	06451-011	902366	85581	320484	1894732	2808319	1570598	
071SMPL.D	06451-012	890973	82368	318488	1900503	2760280	1537306	
0726CCV.D	FINAL CCV	890740	83963	319054	1897452	2821412	1580925	
0736CCB.D	FINAL CCB	900740	84330	323792	1944571	2919713	1622546	
074ICSA.D	ICSA	706279	77680	298983	1503516	2427964	1229650	
075ICSB.D	ICSAB	690562	78251	297713	1531742	2480174	1301077	

A* in last column indicates the analysis has failed QC criteria
Sample Limits = 30-120% of reference Standard (CAL BLANK L1)
QC Sample Limits = 70-120% of reference Standard (CAL BLANK L1)

GENERAL ANALYTICAL CHEMISTRY

GENERAL ANALYTICAL CHEMISTRY QC SUMMARY

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Certified for NJDEP, NY(DOH)
NJ ID# 14751
NY ID# 11402

General Chemistry Quality Control

TPHC

Matrix: Aqueous
Unit: mg/L

Batch: AP040-0057
Method: 418.1M

Date: 07/09/2012

	Sample ID	Result	TrueValue / SpikeAdded	RPD	RPD Limit	% Recovery	%Recovery Limit
BLK	TBW-001-0709	< 0.500	NA	NA	NA	NA	NA

The above blank result applies to the follow samples:

E12-LVW-0709
E12-06658-001
E12-06658-002
E12-06658-003
E12-06658-004
E12-06658-005

NA - Not Applicable
ND - Not Detected
NC - Non calculable RPD due to value less than the detection limit

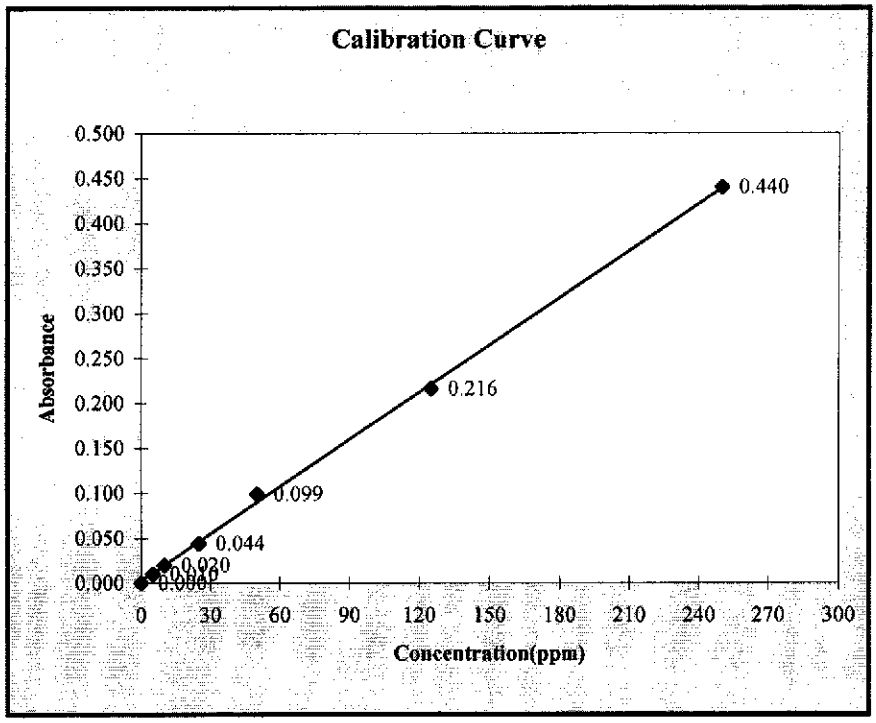
Integrated Analytical Laboratories

TPH

Date:	11-May-12
Method:	418.1
Matrix:	S/A
Analyst:	ED

Conc.	Abs.
0.000	0.000
5.000	0.010
10.000	0.020
25.000	0.044
50.000	0.099
125.000	0.216
250.000	0.440

R^2=	0.999609709
Slope=	0.00175
Intercept=	0.00234



Comments:

y = 0.00175x + .00234

SAMPLE TRACKING

IAL Integrated Analytical Laboratories LLC

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

CUSTOMER INFO	REPORTING INFO
Company: URS CORP	REPORT TO: GEORGE KEIL - URS
Address: 335 COMMERCE DR	Address: 335 COMMERCE DR
FORT WASHINGTON, PA	FORT WASHINGTON, PA
Telephone #: (215) 367-2500	Attn:
Fax #: (215) 367-1000	FAX #
Project Manager: GEORGE KEIL	INVOICE TO: GEORGE KEIL - URS
EMAIL Address: GEORGE.KEIL@URS.COM	Address: 335 COMMERCE DR
Sampler: N. LAIRD	FORT WASHINGTON, PA
Project Name: TRADEBE	
Project Location (State): VINELAND, NJ	Attn:
Bottle Order #:	PO #
Quote # :	

Turnaround Time (starts the following day if samples rec'd at lab > 5PM)

*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE

PHC - MUST CHOOSE

NJ EPH DRO (5 day TAT) NJ EPH Fractionated (5 day TAT)

NJ EPH - C40 (5 day TAT)

DRO-8015 (3-5 day TAT) QAM025 (5 day TAT)

Verbal/Fax: Std 2 wk unless otherwise specified

24 hr** 48 hr** 72 hr** 96 hr** 1 wk**

Other** (specify):

Hard Copy: Std 3 week * Other - call for price

Rush TAT Charge **	Report Format	EDDs
24 hr - 100%.... 48 hr - 75%.... 72 hr - 50%.... 96 hr - 35%.... 5 day - 25%.... 6-9 day 10%	Results Only Reduced Regulatory - 15% Surcharge applies Other (describe)	SRP format lab approved custom EDD NO EDD/CD REQ'D

Cooler Temp 4 °C

Sample Matrix

DW - Drinking Water AQ - Aqueous WW - Waste Water
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)
S - Soil SL - Sludge SOL - Solid W - Wipe

SAMPLE INFORMATION

ANALYTICAL PARAMETERS / # BOTTLES & PRESERVATIVES

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# container	IAL #	TPH/EPH	PAH	METALS*	PESTICIDES	HERBICIDES						HCL	HNO3	MeOH	Other	None	Encore
H1-070212-WATER		7/2/12	1025	AQ	5	1	X	X	X				6				2				3	
H2-070212-WATER		7/2/12	945	AQ	5	2	X	X	X				7				2				3	
H3-070212-WATER		7/2/12	1105	AQ	5	3	X	X	X				8				2				3	
E2-070212-WATER		7/2/12	1153	AQ	5	4	X	X	X				9				2				3	
I4-070212-WATER		7/2/12	1251	AQ	6	5	X		X	X	X		10							2	4	

Known Hazard: Yes or No Describe: Conc. Expected: Low Med High

MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one): _____ IAL Courier _____ Client Courier _____ FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: [signature] (URS)	7/3/12	0900	Received by: [signature]	7/3/12	10:32
Relinquished by: [signature]	7/3/12	1719	Received by: [signature]	7/3/12	1719
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments: *LAB FILTER METALS - COLLECTED UNPRESERVED

Lab Case # 06658

PAGE: of

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

2010 REV COC

10/2010 rev

PROJECT INFORMATION

E12-06658

Case No. E12-06658 **Project** TRADEBE - VENDOR #1168636

Customer URS Corporation - Ft. Washington

Contact George Keil

EMail George_Keil@URSCorp.com ☑ EMail EDDs

Phone (215) 367-2500 **Fax** 1(215) 367-1000

Report To

335 Commerce Dr.

Suite 300

Fort Washington, PA 19034

Attn: George Keil

P.O. #

Received 7/3/2012 17:19

Verbal Due 7/19/2012

Report Due 7/26/2012

Bill To

PO Box 203970

Austin, TX 78720

Attn: George Keil

Report Format **Reduced**

Additional Info ☐ State Form ☐ Field Sampling ☐ Conditional VOA

Lab ID	Client Sample ID	Depth Top / Bottom	Sampling Time	Matrix	Unit	# of Containers
06658-001	H1-070212-WATER	n/a	7/2/2012@10:25	Aqueous	ug/L	5
06658-002	H2-070212-WATER	n/a	7/2/2012@09:45	Aqueous	ug/L	5
06658-003	H3-070212-WATER	n/a	7/2/2012@11:05	Aqueous	ug/L	5
06658-004	E2-070212-WATER	n/a	7/2/2012@11:53	Aqueous	ug/L	5
06658-005	I4-070212-WATER	n/a	7/2/2012@12:51	Aqueous	ug/L	6
06658-006	H1-070212-WATER FILT.	n/a	7/2/2012@10:25	Aqueous	ug/L	1
06658-007	H2-070212-WATER FILT.	n/a	7/2/2012@09:45	Aqueous	ug/L	1
06658-008	H3-070212-WATER FILT.	n/a	7/2/2012@11:05	Aqueous	ug/L	1
06658-009	E2-070212-WATER FILT.	n/a	7/2/2012@11:53	Aqueous	ug/L	1
06658-010	I4-070212-WATER FILT.	n/a	7/2/2012@12:51	Aqueous	ug/L	1

Sample #	Tests	Status	QA Method
001	TCL/PAH	In Process	8270C
"	Metals Filtration	Complete	
"	TPHC	Run	418.1
002	TCL/PAH	In Process	8270C
"	Metals Filtration	Complete	
"	TPHC	Run	418.1
003	TCL/PAH	In Process	8270C
"	Metals Filtration	Complete	
"	TPHC	Run	418.1
004	TCL/PAH	In Process	8270C
"	Metals Filtration	Complete	
"	TPHC	Run	418.1
005	Herbicides	In Process	8151A
"	TCL PCB	In Process	8082
"	TCL Pesticides	In Process	8081A
"	Metals Filtration	Complete	
"	TPHC	Run	418.1
006	TAL Metals	In Process	6020/7470A
007	TAL Metals	In Process	6020/7470A
008	TAL Metals	In Process	6020/7470A

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252 ~ Fax (973) 989-5288

July 10, 2012

PROJECT INFORMATION

E12-06658

Case No. E12-06658 **Project** TRADEBE - VENDOR #1168636

Sample #	Tests	Status	QA Method
009	TAL Metals	In Process	6020/7470A
010	TAL Metals	In Process	6020/7470A

07/06/2012 10:30 by Ellen - NOTE 1

AS PER GEORGE K., TCL PCB REQUIRED ON SAMPLE #5.

07/06/2012 10:33 by Ellen - NOTE 2

AS PER QUOTE DONE BY ALAN ON 6/21/12, TPH FOR SOILS = EPH-FRACTIONATED. TCL LIST FOR ALL ORGANICS & TAL LIST FOR METALS. SVOC = BNA. SEE QUOTE DONE BY ALAN ON 6/21/12.

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INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 12** **06658** CLIENT: URS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody)

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = **YES/NA**
✗ = **NO**

✓ Bottles Intact
✓ no-Missing Bottles
✓ no-Extra Bottles

✓ Sufficient Sample Volume
✓ no-headspace/bubbles in VOs
✓ Labels intact/correct
✓ pH Check (exclude VOs)[1]
✓ Correct bottles/preservative
✓ Sufficient Holding/Prep Time[1]
[ ] Sample to be Subcontracted
✓ **Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL [ ] DATE 7/3/12

CORRECTIVE ACTION REQUIRED: **YES** [ ] (SEE BELOW) **NO** [ ]

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES [ ] Date/ Time: _____ NO [ ]

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL [ ] DATE 7-9-12

REV 03/2009

Laboratory Custody Chronicle

IAL Case No.

E12-06658

Client URS Corporation - Ft. Washington

Project TRADEBE - VENDOR #1168636

Received On 7/ 3/2012@17:19

Department: Semivolatiles			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TCL/PAH	06658-001	Aqueous	7/ 9/12	Kou-Liang	7/10/12	Dana
"	-002	"	7/ 9/12	Kou-Liang	7/10/12	Dana
"	-003	"	7/ 9/12	Kou-Liang	7/10/12	Dana
"	-004	"	7/ 9/12	Kou-Liang	7/10/12	Dana

Department: GC			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
Herbicides	-005	Aqueous	7/ 6/12	Archimede	7/ 9/12	Julia
TCL PCB	-005	Aqueous	7/ 6/12	Archimede	7/10/12	Julia
TCL Pesticides	-005	Aqueous	7/ 6/12	Archimede	7/ 9/12	Iwona

Department: Metals			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TAL Metals	-006	Aqueous	7/ 9/12	Lisa	7/ 9/12	En
"	-007	"	7/ 9/12	Lisa	7/ 9/12	En
"	-008	"	7/ 9/12	Lisa	7/ 9/12	En
"	-009	"	7/ 9/12	Lisa	7/ 9/12	En
"	-010	"	7/ 9/12	Lisa	7/ 9/12	En

Department: Wet Chemistry			***Prep. Date***	***Analyst***	***Analysis Date***	***Analyst***
TPHC	-001	Aqueous	n/a	n/a	7/ 9/12	Elma
"	-002	"	n/a	n/a	7/ 9/12	Elma
"	-003	"	n/a	n/a	7/ 9/12	Elma
"	-004	"	n/a	n/a	7/ 9/12	Elma
"	-005	"	n/a	n/a	7/ 9/12	Elma

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APPENDIX C

RESUMES

Jessica B. Malone

Senior Environmental Scientist

Areas of Expertise

Phase I and Phase II Site Assessments
Wetland Delineation
NEPA Documentation
Asbestos Inspection

Years of Experience

With URS: 9 Years
With Other Firms: 4 Years

Education

BS/1998/Environmental Biology/ Kutztown University

Registration/Certification

Asbestos Building Inspector License No. 033690

2008/URS Project Manager Certification

Overview

Ms. Malone is an environmental professional providing environmental and ecological sciences services. She has 13 years of experience in both technical and project management roles. Ms. Malone has conducted NEPA Compliance Checklists and tracking for over 600 telecommunications sites and conducted over 300 Phase I Environmental Site Assessments. She has performed field delineation and functional assessment of wetlands; rare, threatened, and endangered species evaluation; environmental regulatory permitting, wetland mitigation and monitoring, aquatic macroinvertebrate sampling, asbestos surveys, groundwater and soil samplings for Phase II and Act 2 monitoring/ approval, technical report writing, permit applications, and ASTM transaction screens. Ms. Malone has prepared documents including Categorical Exclusion Evaluations (CEE), General Permit Application, and Joint Permit Applications (JPA).

Project Specific Experience

Project Manager, PA Turnpike/I-95 Interchange Project, Bucks County, PA (2003-2012): URS conducting environmental studies and engineering design for a direct connection between the Pennsylvania Turnpike (I-276) and Interstate 95 (I-95) in lower Bucks County, Pennsylvania, with I-276 and I-95 interstate improvements extending east into Burlington County, New Jersey. The project study area limits extend approximately 9.2 miles along I-276. Ms. Malone served as the *Project Manager and Environmental Scientist* for this project. Ms. Malone prepared the Phase I Environmental Site Assessment, several Phase II Environmental Site Assessments in accordance with PennDOT's Publication 281, and conducted sampling in accordance with PADEP's Fill Management Policy.

Senior Environmental Scientist, Washington Lane Bridge and West Coulter Street Bridge Rehabilitation/Replacement, PENNDOT Engineering District 6-0, Philadelphia, PA (2012): Preliminary engineering as well as environmental clearance services for the superstructure replacement/rehabilitation of the Washington Lane Bridge and West Coulter Street Bridge. Ms. Malone served as Senior *Environmental Scientist* for the preparation of the Phase I Environmental Site Assessments in accordance with PennDOT's Publication 281. In addition, Ms. Malone conducted asbestos sampling of the bridges.

Deputy Environmental Project Manager, Old Betzwood Bridge Replacement, Montgomery County, PA (2003-2008): Preliminary and final design, environmental clearance, and construction services of historic bridge in Valley Forge National Historic District and asbestos release Superfund site. Ms. Malone served as the *Deputy Environmental Project Manager and Environmental Scientist* for this project. Ms. Malone created a Health and Safety Plan for archeological studies, wetland delineations, and subsurface investigations with regards to asbestos and associated contamination. Ms. Malone performed Health and Safety Officer duty during the earth disturbance and collected air

and soil samples. Ms. Malone collected soil samples from Geoprobe® direct push probe borings and through the use of hand auguring techniques during this investigation. Ms. Malone has also conducted a wetland investigation and prepared a Wetland Identification and Delineation Report. In addition, Ms. Malone has prepared a Soil Management Plan in conjunction with an application for a Special Use Permit.

Deputy Environmental Project Manager, Pennsylvania Turnpike (PTC), PA (2007-2008): Ms. Malone acted as *Deputy Environmental Project Manager and Senior Environmental Scientist* for the preparation of a Preliminary Environmental Assessment and a Phase I Environmental Site Assessment of the entire Pennsylvania Turnpike facility, approximately 500 miles, on behalf of the Commonwealth of Pennsylvania in support of the potential Concession Lease of the Pennsylvania Turnpike. Ms. Malone conducted and coordinated the project team's, field work, file reviews, report coordination. Ms. Malone was also charged with requisition of the historical and agency information provided by subcontractors.

Deputy Environmental Project Manager, PA Route 263 Reconstruction, PENNDOT Engineering District 6-0, Bucks County, PA (2005-2010): Preliminary and final design for reconstruction of 10 miles of PA Route 263 in Bucks County, PA. Ms. Malone served as the *Deputy Environmental Project Manager and Environmental Scientist* for this project. Ms. Malone prepared the Phase I Environmental Site Assessment and Wetland Identification and Delineation Report.

Environmental Project Manager, Elwyn to Wawa Service Restoration, SEPTA, Middletown, Delaware County, PA (2005-2010): Preliminary and final engineering, environmental assessment, permitting, public involvement, and construction management for 3.5-mile restoration of commuter rail service, a new station and parking facility, and a rail new car storage yard. Ms. Malone served as *Environmental Scientist* for the preparation of the Phase I Environmental Site Assessment, Wetland Identification and Delineation Report, and Environmental Assessment. Ms. Malone performed a limited subsurface investigation and collected photoionization detector readings and soil samples.

Environmental Project Manager, Red Rose Transit Authority (RRTA), Paradise Station Alternative Site Analysis, Paradise, Lancaster County, PA (2006-2007): Ms. Malone served as the *Deputy Environmental Project Manager and Environmental Scientist* for an alternatives study for potential sites for a new rail station providing inter-modal connectivity for Red Rose Transit Authority buses, Amtrak commuter trains, and Strasburg Rail tourist trains in Paradise Township. Project tasks included preparing an alternative site analysis, ridership estimate, operating cost estimate, and a NEPA Environmental Assessment reevaluation. A major focus of the study is compliance with ADA guidelines for commuter stations and platforms. Ms. Malone performed preliminary; wetland studies, hazardous waste investigations, and floodplain impact analyses for the alternative site analysis. Ms. Malone also arranged all appropriate Amtrak permits and employee safety training.

Environmental Scientist, US Route 202 Section 610 Improvements, PENNDOT Engineering District 6-0, Montgomery County, PA (2004-2010): Final design of the widening and reconstruction of 4 miles of urban

arterial roadway and associated off-line improvements in Montgomery County, PA, including FEIS reevaluation. The reconstruction in 2007-2009 will impact 4 historic districts, waters, a minority community, and 13 hazardous waste sites. Ms. Malone served as *Environmental Scientist* for the preparation of the Wetland Identification and Delineation Report. Ms. Malone also prepared the Joint Permit Application for the stream mitigation/stream restoration. In addition, Ms. Malone created a Health and Safety Plan for geotechnical borings at an abandoned gas station. Performed Health and Safety Officer duty during the geotechnical borings. Collected photoionization detector readings and soil samples. Arranged for removal of waste from site. Ms. Malone as also conducted sediment sampling for the stream mitigation within the Wissahickon Creek.

Environmental Scientist, Passyunk Avenue Drawbridge Rehabilitation, PENNDOT Engineering District 6-0, Philadelphia, PA (2006): Preliminary and final engineering as well as environmental clearance and construction services for the superstructure replacement of the Passyunk Avenue Drawbridge over the Schuylkill River. Ms. Malone served as *Environmental Scientist* for the preparation of the Categorical Exclusion Evaluation, Wetland Identification and Delineation Report, and Phase I Environmental Site Assessment.

Environmental Scientist, SR 0001 DBS Bridge Rehabilitation, PENNDOT Engineering District 6-0, Delaware County, PA (2005): Preliminary and final engineering as well as environmental clearance and construction services for the superstructure replacement of the Baltimore Pike Bridge over the West Branch of the Chester Creek. Ms. Malone served as *Environmental Scientist* for the preparation of the Categorical Exclusion Evaluation and Wetland Identification and Delineation Report.

Environmental Scientist, Norfolk Southern Keystone Buildout (2003-2004): URS provided preliminary and final engineering, environmental clearance, and construction services for construction of 5 miles of new track and rehabilitation of 11 miles of track. Ms. Malone served as *Environmental Scientist* for the preparation of the Wetland Identification and Delineation Report. Ms. Malone also conducted a retaining wall feasibility study. Ms. Malone conducted a Rapid Bio-Assessment to assess stream quality, which consisted of cataloging the fish community in waterways draining more than 100 acres by means of electro-shocking. In addition, performed aquatic macroinvertebrate identification for samples that were collected in 43 waterways.

Environmental Scientist, Environmental Site Assessments in PA, NJ, MD, FL and CA (1999-2006): Performed NEPA Compliance Checklists for over 600 telecommunication sites. Conducted Phase I Environmental Site Assessments and transaction screenings for over 250 sites at manufacturing plants and commercial buildings, located Pennsylvania, New Jersey, Delaware, Maryland, New York, Florida, and California. Assessment responsibilities include site inspections, background database searches, file reviews, historical reference research, chain-of-title searches, and report preparation.

Postal Service Phase II and Groundwater Monitoring, Philadelphia, PA (2002-2003): Ms. Malone performed quarterly groundwater sampling at three

facilities in order to assist in remediation activities and the ultimate closure of the facilities. Tabulated quarterly reports results to facilitate assessment.

Wetlands Creation, Golf Community, Chester County, PA (2002): Ms. Malone supervised the creation of 0.28-acre of replacement wetlands for impacts to 0.14 acre of wetlands at the Tattersall Golf Course. Responsible for field work, survey coordination, supervising planting, and technical report writing for permitting and final report. Responsibilities also included interfacing with regulatory agencies in Pennsylvania, in addition to local agencies.

Wetland Monitoring, Falls Township, Bucks County, PA (2000-2002): Ms. Malone was involved in the monitoring of a 45-acre created tidal and non-tidal habitat on Biles Island. The monitoring consisted of vegetation identification within the created areas and final report preparation.

Soil and Groundwater Investigation, Astoria, NY (2002): Ms. Malone conducted a limited soil and groundwater investigation of a 20.9 acre site. Soil samples were collected from Geoprobe® direct push probe borings and groundwater grab samples were collected during this investigation. Performed MiniRAE photoionization detector, combustible gas indicator, visual and olfactory examination of the soil samples for evidence of contamination. Aided in the report preparation.

Aquatic Macroinvertebrate Sampling, Abington Township, Montgomery County, PA (2001): Ms. Malone performed a qualitative macroinvertebrate survey on an unnamed tributary of Pennypack Creek. Identified aquatic macroinvertebrates collected. The organisms present were used to determine the value and functions of the stream.

Wetland Mitigation, Landfill, Berks County, PA (2000): Ms. Malone was involved in the creation of a mitigation plan for a 98-acre site. Responsible for field work, survey coordination, and technical report writing for permitting.

Professional Societies/Affiliations

Society of Women Environmental Professionals

Specialized Training

2000/Wetland Plant Identification Course
2001/OSHA 40-Hours Hazardous Waste Site Worker
2003/Asbestos Building Inspector Refresher
2004/Hydrology of Wetlands Course
2005/Stream Restoration
2006/Phase I-Phase II Environmental Site Assessments for Commercial Real Estate
2008/PennDOT Publication 281 – Waste Site Evaluation Refresher

Chronology

10/02 – Present: URS Corporation, Fort Washington, Pennsylvania
02/99 – 10/02: ATC Associates, Incorporated, Plymouth Meeting, Pennsylvania

Contact Information

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URS

Neil F. Laird

Senior Staff Geoscientist

Areas of Expertise

Groundwater and Soil Investigation, Characterization, and Regulatory Compliance
ASTM Phase I and II Environmental Site Assessments
Underground Storage Tank Closure Oversight and Report Preparation
Aquifer and Remedial Feasibility Testing
Chemical and Microbiological Laboratory Analysis
Retail Petroleum Site Management
Brownfields
PA Act 2

Years of Experience

With URS: 9 Years
With Other Firms: 4 Years

Education

Millersville University, B.S. (Cum Laude), Geology (Engineering Geology Option), 1994

Project Specific Experience

- Performed Environmental Impact Assessments on RCRA sites including well installations, soil and groundwater sampling, excavation oversight, and report preparation.
- Provided oversight for UST closure activities in PA and NJ.
- Performed ASTM Phase I Environmental Site Assessments and Transaction Screens on commercial, industrial, agricultural, and industrial properties.
- Completed Phase II Environmental Site Assessments including well installation, area of impact delineation investigation, soil and groundwater sampling, and report preparation.
- Performed chemical and microbiological analysis of hemodialysis solution and raw materials.
- Served as the head of the plant safety committee for a pharmaceutical manufacturer.
- Collected soil and groundwater samples for laboratory analysis.
- Collected remedial feasibility testing including dual-phase extraction tests, biovent injection tests, bioslurping tests, and slug tests.
- Performed field analyses of groundwater intrinsic biological parameters.
- Managed the environmental work performed at nineteen retail gasoline station sites in PA for four years. The work completed at the sites included well installation, investigation and delineation of soil and groundwater impacts, groundwater and vapor intrusion modeling, routine monitoring, regulatory compliance, meetings with the client and PADEP, reporting, UST closure, and site closure under PA Act 2.
- Provided oversight and sampling support for an oil refinery landfill regrading project.
- Completed geotechnical soil and rock sampling.
- Completed shallow subsurface geophysical investigations.
- Completed groundwater fate and transport models using PADEP and EPA modeling tools.
- Completed modeling of indoor vapor intrusion from impacted soil, groundwater, and non-aqueous phase liquids.
- Completed surface water modeling using PADEP modeling tools.
- Performed mercury analysis of wastewater from a pharmaceutical manufacturing plant.
- Completed aquifer testing to determine well yields for industrial production wells, remedial feasibility, and excavation dewatering.
- Managed RCRA and other permits for solid waste management units at an oil refinery.
- Supervised routine groundwater monitoring programs at a refinery.
- Completed a due diligence investigation of a refinery storm and process sewer system.

Certifications

OSHA Hazardous Waste Operations and Emergency Response, 1994
OSHA Hazardous Waste Operations and Emergency Response Annual Refresher, 1995 through 2008.
OSHA Site Supervisor, 2007
OSHA Confined Spaces Entry Certification, 1998
URS Certified Project Manager, 2008

Chronology

June 1999 – Present/URS, Senior Staff Geoscientist
May 1998 – June 1999/Earth Sciences Consultants, Inc., Environmental Scientist II
January 1997 – May 1998/Di-Chem Concentrate, Inc., QA/QC Laboratory Technician
August 1995 – December 1996/Integrated Science and Technology, Inc., Geologist

Contact Information

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URS

George H. Keil, CEM

Principal Geoscientist

Regional Commercial Business Line Leader

General Overview

Mr. Keil has over twenty-four years of experience in remedial investigations and action, hazardous waste management, regulatory compliance, site assessment, and due diligence. He has participated in projects located in over 20 states and focused on due diligence, remedial investigation and remedial action, regulatory compliance, waste characterization and classification, waste minimization and waste disposal issues.

Areas of Expertise

Due Diligence
Remedial Investigation and Action
Environmental Compliance Audits
Hazardous Waste Management
Waste Classification
Waste Disposal Services
Environmental Site Assessments

Years of Experience

With URS: 10 Years
With Other Firms: 14 Years

Education

Bachelor Degree - Earth and Space Science (1983), State University of New York at Stony Brook

Certification

Environmental Assessment Association – Certified Environmental Manager; Certified Remediation Specialist - Certification #12233

Marketing Related Responsibilities

Mr. Keil serves as URS Client Account Manager (CAM) for three major nationwide and global commercial clients. As a CAM, Mr. Keil promotes cross-selling of URS' full range of capabilities and grew sales volume for these major clients year to year. Mr. Keil also serves as Philadelphia Office Commercial Business Line (CBL) Leader. As CBL Leader, Mr. Keil increased 2010 sales 246% from 2009 levels by developing a relationship based sales and marketing plan as well as mentoring junior staff in marketing efforts. Mr. Keil currently serves as regional CBL Leader and has increased 2010 sales 168% over 2009 levels. Mr. Keil is also responsible for the sold time of ten department employees.

Marketing Specific Experience

- Prepared a successful proposal and presentation for a major nationally based cable and entertainment company. Mr. Keil's winning strategy included a single point of contact for corporate projects and mimicked the client's regional based operational structure by pairing local URS managers to each regional manager for marketing and project related activities.
- Mr. Keil also prepared winning proposals and presentations for a major rail company, global food and services company and a retail shopping center developer. Each win resulted in an executed Master Service Agreement.

Project Specific Experience

- (1996 – 2009 – Various Confidential Clients) Managed and conducted investigation and closure activities at various sites in Pennsylvania under the Act 2 Land Recycling Program. Developed site specific standards, for numerous sites, using risk assessments and **contaminant screening** to show remediation was protective of human health and the environment. Managed the preparation of Act 2 Program documents, such as Remedial Investigation Report, Clean-Up Plan, Request for Reduction of Monitoring Rounds, Risk Assessment Report, Final Report and

Post-Remediation Care Plan. Coordinated and negotiated with PADEP to achieve site closure. Sites included former manufactured gas plants, retail shopping centers and various industrial properties.

- (1992-2004 – Various Confidential Clients) Provided management oversight for numerous underground storage tank (UST) removal projects in Pennsylvania and New Jersey. Worked with state regulatory agencies during field project work and provided closure reports upon project completion.

- (1995 (10 months) – Frenchtown Ceramics) Responsible for the closure of a nickel/copper and precious metals plating operation used in the production of metal plated ceramic components. Work included oversight of plating bath (acids, cyanides) and wastewater treatment systems decommissioning. In addition, oversight was provided on floor cleaning which included high-pressure water cleaning and scarification down to one-half inch below former grade. Inventoried and sampled out-dated chemicals found in facility for lab pack and disposal. Approximately 100 pages of chemicals were identified, inventoried and segregated by hazard class prior to packing using field **contaminant screening** methodology.

- (1994-1995 (6 months) - Diamond Alkali) Task leader for the sampling of 800 unknown drums at a USEPA dioxin Superfund Site in Newark, New Jersey. Was also responsible for onsite **contaminant screening**, analysis and developing treatment regiments for like batch chemicals.

- (2005 (4 months) – Confidential Client) Managed activities associated with the remediation/removal of sediment at the bottom of a stream in northeast Pennsylvania. The stream is classified as a Class A trout stream by the PADNR and as such, stream diversion included the removal of native trout to a downstream location. Access to the stream was through one-quarter mile of heavy brush and forested area. Developed remediation strategy including **contaminant screening** techniques that incorporated a sediment removal pump system, excavation using mini-excavating equipment and hand removal.

- (2004-2005 (18 months) – North Penn 7) Prepared bid submittal for soil remediation at a USEPA Superfund project site located in Lansdale, Pennsylvania. Upon project award, prepared Site Specific Health and Safety Plan, Excavation Plan, Decontamination Plan, Water Management Plan and Traffic Control Plan. Provided management oversight for project, which included excavation down to twenty-five (25) feet below ground surface, **contaminant screening**, removal of 29,000 cubic yards of TCE contaminated soil, water management, stockpiling,

sampling and laboratory analysis for every 100 cubic yard pile per USEPA requirements. Provided dewatering services that removed, transported and disposed of approximately 300,000-gallons of TCE impacted water.

Specialized Training

- Certified OSHA 1910.120 40-hour Training with 8-hour updates
- URS Client Account Manager (CAM) Training
- HAZWOPER
- HM – 181 USDOT Hazardous Material Training
- Confined Space Entry / Level "B" Training
- OSHA Site Supervisor
- Hazardous Waste Treatment Chemistry
- Advanced RCRA topics, McCoy & Associates
- Emergency Spill Response Training
- Natural Resource Damages Assessment emergency response

Chronology

2007 – Present	URS Corporation
2000 - 2007	Environmental Waste Minimization, Inc. Senior Project Manager
1999 - 2000	Hampton–Clark, Inc. Director of Remediation
1992 - 1999	Woodward-Clyde/URS Corporation Asst. Project Scientist to Project Scientist
1988 - 1992	Stout Environmental/Republic Environmental Coordinator to Technical Compliance Manager
1986 - 1988	Rogers & Taylor, Inc. Site Assessor
1984 - 1986	Magnetico, Inc. Design Engineer

Contact Information

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