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6 September 2006  
61994.01 LN0022R

Mr. Roger Nye  
Washington Department of Ecology  
Toxics Cleanup Program  
3190 – 160<sup>th</sup> Avenue Southeast  
Bellevue, Washington 98008-5452

RE: SeaTac Development Site, Summary of June 2006 Groundwater Monitoring Results  
Work Order #17079, Contract Number: 30700

**RECEIVED**

Dear Mr. Nye:

SEP 08 2006

EA Engineering, Science, and Technology, Inc. (EA) has prepared this summary of field activities and analytical results for groundwater sampling performed on 29 and 30 June 2006 at the SeaTac Development Site in SeaTac, Washington. DEPT OF ECOLOGY

## **1.0 FIELD ACTIVITIES**

On 29 and 30 June 2006, EA conducted groundwater sampling activities in accordance with the Sampling and Analysis Plan (SAP) Revision 0, dated January 2006, and the Work Plan for Groundwater Sampling at SeaTac Development Site, dated June 2006. EA measured water levels and checked for the presence of free product in onsite wells (MW-1, MW-5, MW-6, MW-7, MW-8A, MW-9 and MW-10), and offsite wells (Cemetery well, and Bai Tong MW-1, MW-2, and MW-3). No measurable product was noted. Ian Young of Golder Associates was onsite during water level measurements and sampling of the Bai Tong MW-3 and Cemetery wells. The following observations were made regarding the condition of the wells at the site.

- Wellhead risers of MW-6, MW-8A, and MW-10 were cut at a 45 degree angle with no mark or notch on the riser casing from which to measure. Therefore, the previously surveyed top of casing elevations for these wells are suspect, as are the water table elevations calculated from the depth to water measurements.
- Monuments and concrete seals on wells MW-1, MW-5, MW-6, MW-9 and MW-10 were in poor condition and were not secure.
- Less than 0.5 feet of water was in well MW-1.
- Well MW-8A was dry.

Following measurement of water levels, EA decontaminated the electric submersible pump to be used for groundwater purging and sampling. A rinsate sample (ST-Rinsate1) was collected from the pump prior to deploying the pump into well MW-6. The rinsate sample was submitted for GRO and BTEX analysis as outlined in the work plan for the site. A pump rinsate sample

(ST-Rinsate2) was collected during the second day of sampling, after sampling MW-9 and prior to sampling MW-7.

EA sampled monitoring wells MW-5, MW-6, MW-7, MW-9, MW-10, and the Bai Tong MW-3 well using a Grundfos submersible pump and low-flow sampling procedures. Wells were sampled in order from least to most contaminated, based on the available data from prior sampling events. The Cemetery well was sampled at the spigot, following purging overnight. Disposable LDPE tubing was used in each well. Samples could not be collected from wells MW-1 and MW-8A as planned, due to insufficient water. The pump was set near the bottom of the well during the purging and sampling of MW-5, MW-6, MW-7, MW-9, and Bai Tong MW-3, due to the limited column of water available in these wells (less than 2.5 feet). It should be noted that 75% of the screened zone in these wells were above the water table at the time of sampling. The pump intake was placed mid-screen during the purging and sampling of MW-10.

The submersible pump was used to purge groundwater at a rate of approximately 300-500 milliliters per minute (mL/min). Groundwater quality parameters were measured every three minutes during purging until parameters stabilized. Groundwater samples were then collected. Wells MW-5, MW-6, and MW-7 were pumped dry during purging. The pump was turned off and the well was allowed to recharge before resuming pumping and allowing at least one tubing volume of water to be purged before collecting the sample. A field duplicate sample was collected from MW-5 (ST-MW5D).

Table 1 summarizes monitoring well construction information, water level measurements, and the stabilized field parameter measurements.

In accordance with the SAP Addendum and the Work Plan prepared for sampling at the SeaTac Development Site, groundwater samples were collected for analysis of gasoline-range organics (GRO) and benzene, toluene, ethylbenzene, and total xylenes (BTEX). The sample collected from MW-10 was also analyzed for diesel range organics (DRO), at the request of Ecology. Purged groundwater and decontamination water was contained in two 55-gallon drums onsite.

## 2.0 GROUNDWATER MONITORING RESULTS

Analytical results for groundwater samples are attached and are summarized in Table 2. Following is a general discussion of the findings.

- MW-5 - Analytical results of the sample collected from MW-5 indicated the presence of benzene (9.00 µg/L) and GRO (1,990 µg/L) at concentrations exceeding the MTCA Method A cleanup criteria of 5 µg/L and 800 µg/L, respectively. Detected concentrations of toluene (2.45 µg/L), ethylbenzene (49.6 µg/L), and xylenes (4.44 µg/L) were below the MTCA Method A cleanup criteria.
- MW-6 - Analytical results for the groundwater sample from MW-6 were below the laboratory reporting limits for all parameters (GRO and BTEX).
- MW-7 - Analytical results for the groundwater sample from MW-7 exceeded MTCA Method A cleanup criteria for GRO and BTEX constituents, as follows: GRO at

48,900 µg/L, benzene at 919 µg/L, toluene at 7,330 µg/L, ethylbenzene at 1,260 µg/L, and xylenes at 6,100 µg/L.

- MW-9 - Analytical results for the groundwater sample from MW-9 exceeded MTCA Method A cleanup criteria for GRO and most BTEX constituents, as follows: GRO at 29,600 µg/L, benzene at 377 µg/L, ethylbenzene at 872 µg/L, and xylenes at 3,720 µg/L. Toluene was detected in the sample from MW-9 at a concentration of 332 µg/L, below the MTCA Method A criteria.
- MW-10 - Analytical results for the groundwater sample from MW-10 indicated the presence of benzene at a concentration of 7.98 µg/L, which exceeds the MTCA Method A cleanup criteria of 5.0 µg/L. Detected concentrations of GRO (84.4 µg/L), toluene (1.68 µg/L), ethylbenzene (0.66 µg/L), and xylenes (2.90 µg/L) were all below the MTCA Method A criteria. DRO and LRO were not detected.
- Bai Tong MW-3 - Analytical results for the groundwater sample from Bai Tong MW-3 were below the laboratory reporting limits for all parameters (GRO and BTEX).
- Cemetery Well - Analytical results for the groundwater sample from the Cemetery well were below the laboratory reporting limits for all parameters (GRO and BTEX).

Quality control (QC) samples were collected and analyzed according to the approved SAP. Analytical results for the duplicate sample were within acceptance limits. No GRO or BTEX were detected in the trip blank sample (ST-MW-TB).

In equipment rinsate sample ST-Rinsate1 (collected on 29 June 2006, prior to sampling Bai Tong MW-3) toluene was detected at a concentration of 0.674 µg/L. Remaining constituents in ST-Rinsate1 were below laboratory reporting limits. Analytical results for the associated samples were below the laboratory reporting limit for toluene; therefore the toluene results are not influenced by the rinsate blank contamination. See Table 3 for equipment rinsate analytical data.

In equipment rinsate sample ST-Rinsate2 (collected on 30 June 2006, between sampling of wells MW-9 and MW-7) the following constituents were detected: toluene (0.828 µg/L), ethylbenzene (0.555 µg/L), and xylenes (2.2 µg/L). Benzene and GRO were not detected. Detected concentrations of toluene, ethylbenzene, and xylenes in the sample from MW-10, collected on the same day, should be considered false positives due to rinsate blank contamination. The toluene concentration for the sample from MW-7 was more than five times greater than the rinsate blank contamination; therefore, the results for this sample are not influenced by the rinsate blank results. All other results are considered acceptable.

### 3.0 CONCLUSIONS

Petroleum contaminants were detected at concentrations exceeding MTCA Method A cleanup criteria in groundwater samples collected from 4 out of 7 wells (MW-5, MW-7, MW-9, and MW-10).

GRO detected in samples collected from MW-7 and MW-9 during the June 2006 groundwater sampling event were lower than concentrations reported during the 2001 groundwater sampling at this site. The 2006 groundwater table was lower than measured during the 2001 sampling event. Due to the low water table, samples were not collected from wells MW-1 and MW-8A.

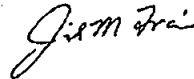
No contaminants were detected in the Cemetery well to the south of the SeaTac Development site or the Bai Tong MW-3 well to the north of the site.

Since the top of the PVC casing on wells MW-6, MW-8A, and MW-10 appears to have been altered, there is no assurance that surveyed elevations are still valid. Therefore it is not possible to create a groundwater gradient map across the entire area of concern. It is suggested that the wellheads and monuments be repaired and resurveyed. On the Bai Tong property, the groundwater flow direction was determined to be consistent with the westerly flow direction derived during prior sampling events.

Please feel free to contact me at (425) 451-7400 if you have any questions.

Sincerely,

EA ENGINEERING, SCIENCE,  
AND TECHNOLOGY, INC.



Jil Frain, P.E.  
Project Manager  
[jfrain@eaest.com](mailto:jfrain@eaest.com)

Attachments:

Table 1 – Monitoring Well Construction and Field Measurement Data, SeaTac Development Site

Table 2 – Summary of Groundwater Analytical Data, SeaTac Development Site

Table 3 – Summary of Quality Assurance Analytical Data, SeaTac Development Site

Attachment A – Purge and Sampling Forms

Attachment B – Laboratory Reports

## TABLES

**TABLE 1. MONITORING WELL CONSTRUCTION AND FIELD MEASUREMENT DATA, SEATAC DEVELOPMENT SITE**

| Well ID       | Date Installed | Well Diameter (inches) | Reported Screen Depth <sup>1</sup> (ft bgs) | Measured Total Depth 29-Jun-06 (ft btoc) | Top of Casing Elevation (ft) | Depth to Water 29-Jun-06 (ft btoc) | Groundwater Elevation 29-Jun-06 (ft) |
|---------------|----------------|------------------------|---------------------------------------------|------------------------------------------|------------------------------|------------------------------------|--------------------------------------|
| MW-1*         | --             | 2                      | 41.00-51.00                                 | 49.22                                    | 363.30                       | 48.74                              | 314.56                               |
| MW-5*         | --             | 2                      | 48.00-58.00                                 | 58.00                                    | 364.17                       | 55.19                              | 308.98                               |
| MW-6*         | --             | 2                      | 50.00-60.00                                 | 62.69                                    | 367.10                       | 60.56                              | 306.54                               |
| MW-7          | --             | 2                      | 43.50-53.50                                 | 53.26                                    | 358.65                       | 49.35                              | 309.30                               |
| MW-8A*        | --             | 2                      | 44.00-54.00                                 | 48.23                                    | 359.79                       | dry                                | --                                   |
| MW-9*         | --             | 2                      | 47.50-57.50                                 | 55.86                                    | 363.64                       | 53.06                              | 310.58                               |
| MW-10*        | --             | 2                      | 80.00-90.00                                 | 86.98                                    | 362.79                       | 51.36                              | 311.43                               |
| Cemetery Well | --             | 12                     | --                                          | 125.97                                   | --                           | 92.94                              | --                                   |
| Bai Tong MW-1 | --             | 2                      | --                                          | 49.00                                    | 349.13                       | 43.50                              | 305.63                               |
| Bai Tong MW-2 | --             | 2                      | --                                          | 54.08                                    | 351.69                       | 46.03                              | 305.66                               |
| Bai Tong MW-3 | --             | 2                      | --                                          | 52.12                                    | 350.7                        | 45.19                              | 305.51                               |

| Well          | Date Measured | Water Quality Parameters |                      |                  |                         |                  |                                    |
|---------------|---------------|--------------------------|----------------------|------------------|-------------------------|------------------|------------------------------------|
|               |               | pH                       | Conductivity (mS/cm) | Turbidity (NTUs) | Dissolved Oxygen (mg/L) | Temperature (°C) | Oxidation-Reduction Potential (mV) |
| MW-1          | --            | NS                       |                      |                  |                         |                  |                                    |
| MW-5          | 6/29/2006     | 6.13                     | 45.3                 | 300              | 1.00                    | 21.9             | -49                                |
| MW-6          | 6/29/2006     | 6.01                     | 49.8                 | 0                | 4.00                    | 21.9             | 136                                |
| MW-7          | 6/30/2006     | 6.54                     | 60.9                 | 0                | 2.20                    | 20.1             | -63                                |
| MW-8A         | 6/29/2006     | NS                       |                      |                  |                         |                  |                                    |
| MW-9          | 6/30/2006     | 6.21                     | 36.9                 | 0                | 0.90                    | 18.2             | -56                                |
| MW-10         | 6/30/2006     | 6.70                     | 70.7                 | 0                | 0.80                    | 16.0             | -4                                 |
| Cemetery Well | 6/29/2006     |                          | 36.3                 | 0                | 11.4                    | 14.2             | 182                                |
| Bai Tong MW-1 | --            | NS                       |                      |                  |                         |                  |                                    |
| Bai Tong MW-2 | --            | NS                       |                      |                  |                         |                  |                                    |
| Bai Tong MW-3 | 6/29/2006     | 6.67                     | 47.8                 | 89.2             | 1.00                    | 21.3             | 3                                  |

**NOTES:**

°C = degrees Celsius.

ft bgs = feet below ground surface.

ft btoc = feet below top of casing.

mg/L - milligrams per liter

mS/cm = milliSiemens per centimeter.

<sup>1</sup> = Screened depths were taken from Golder Associates report dated April 5, 2001.

\* = Top of PVC Casing appear to be altered - elevations uncertain, surface monuments also need of repair.

Elevations listed were obtained from letter dated 18 January 2001 from Core Designs, Inc. to Golder Associates.

Top of casing elevation information for Bai Tong wells was taken from summary page provided by EMS Consultants Inc.

mV = milliVolts

-- = Not Available.

NTUs = Nephelometric turbidity units

NS = Not Sampled.

ft msl = feet above mean sea level.

**TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA, SEATAC DEVELOPMENT SITE**

| Sample ID                      | Date Sampled | Benzene (ug/L) | Toluene (ug/L) | Ethylbenzene (ug/L) | Xylenes (total) (ug/L) | GRO (ug/L) | DRO (ug/L) | LRO (ug/L) |
|--------------------------------|--------------|----------------|----------------|---------------------|------------------------|------------|------------|------------|
| MW-5                           | 1/8/2001     | --             | --             | --                  | --                     | 780        | --         | --         |
| ST-MW5                         | 6/29/2006    | 9.00 I-06      | 2.45 I-06      | 49.60               | 4.44                   | 1,990      | NA         | NA         |
| ST-MW5D*                       | 6/29/2006    | 9.17 I-06      | 2.24 I-06      | 54.30               | 4.88                   | 2,190      | NA         | NA         |
| MW-6                           | 1/8/2001     | --             | --             | --                  | --                     | 100 U      | --         | --         |
| ST-MW6                         | 6/29/2006    | 0.50 U         | 0.50 U         | 0.50 U              | 1.00 U                 | 50.0 U     | NA         | NA         |
| MW-7                           | 1/8/2001     | --             | --             | --                  | --                     | 80,000     | --         | --         |
| ST-MW7                         | 6/30/2006    | 919            | 7,330          | 1,260               | 6,100                  | 48,900     | NA         | NA         |
| MW-9                           | 1/8/2001     | --             | --             | --                  | --                     | 90,000     | --         | --         |
| MW-9                           | 6/30/2006    | 377            | 332            | 872                 | 3,720                  | 29,600     | NA         | NA         |
| MW-10                          | 1/8/2001     | --             | --             | --                  | --                     | --         | --         | --         |
| ST-MW10                        | 6/30/2006    | 7.98           | 1.68 a         | 0.66 a              | 2.90 a                 | 84.4       | 250 U      | 500 U      |
| ST-Cemetery                    | 6/29/2006    | 0.50 U         | 0.50 U         | 0.50 U              | 1.00 U                 | 50.0 U     | NA         | NA         |
| ST-MW3 (BaiTong)               | 6/29/2006    | 0.50 U         | 0.50 U         | 0.50 U              | 1.00 U                 | 50.0 U     | NA         | NA         |
| MTCA Method A Cleanup Criteria |              | 5              | 1,000          | 700                 | 1,000                  | 800/1,000  | 500        | 500        |

**TABLE 3. SUMMARY OF QUALITY ASSURANCE ANALYTICAL DATA, SEATAC DEVELOPMENT SITE**

| Sample ID   | Date Sampled | Benzene (ug/L) | Toluene (ug/L) | Ethylbenzene (ug/L) | Xylenes (total) (ug/L) | GRO (ug/L) | DRO (ug/L) | LRO (ug/L) |
|-------------|--------------|----------------|----------------|---------------------|------------------------|------------|------------|------------|
| ST-Rinsate1 | 6/29/2006    | 0.50 U         | 0.674          | 0.50 U              | 1.0 U                  | 50.0 U     | NA         | NA         |
| ST-Rinsate2 | 6/30/2006    | 0.50 U         | 0.828          | 0.555               | 2.2                    | 50.0 U     | NA         | NA         |
| ST-MW-TB    | 6/29/2006    | 0.50 U         | 0.50 U         | 0.50 U              | 1.0 U                  | 50.0 U     | NA         | NA         |

**NOTES:**

Shaded cells indicate the results exceed the cleanup criteria.

\* = Duplicate sample.

-- = Data Not Available.

a = This result should be considered a false positive due to rinsate blank contamination.

DRO = Diesel-range organics.

GRO = Gasoline-range organics.

LRO = Lube oil-range organics.

I-06 = The analyte concentration may be artificially elevated due to coeluting compounds or components.

NA = Not Analyzed.

U = Not detected at or above the specified reporting limit.

The MTCA Method A cleanup criterion for GRO is 800 ug/L instead of 1000 ug/L when benzene is present.

**APPENDIX A**

**PURGE AND SAMPLING FORMS**



# Ground Water Purge and Sampling Form

Boi Tong

|                                                                                                     |                                                    |                                                                                                                                                        |       |                                                                       |       |       |       |  |  |  |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------|-------|-------|-------|--|--|--|
| Well Identification                                                                                 | MW - 3                                             | Site Location: Ecology - SeaTac Development Site                                                                                                       |       | Date: 6/29/06                                                         |       |       |       |  |  |  |
| Well Diameter (inches)                                                                              | 2"                                                 | Project Number: 6199401 7000 A                                                                                                                         |       | Personnel: MB, EM, Roger Nye, Jan Young                               |       |       |       |  |  |  |
| Well Monument Locked and Good Condition?                                                            | yes                                                | Purge Method: <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Conventional <input type="checkbox"/> None                         |       |                                                                       |       |       |       |  |  |  |
| Inside Well Head and Outside Well Casing (D=dry), (WAC=Water above Casing), WBC=Water Below Casing) | WAC                                                | Purge Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible    |       |                                                                       |       |       |       |  |  |  |
| Well Casing Plug Locked and Good Condition?                                                         | yes                                                | Sampling Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible |       |                                                                       |       |       |       |  |  |  |
| Initial Depth to Water (ft btoc)                                                                    | 110.4                                              | Weather Conditions: Sunny, 60°F                                                                                                                        |       |                                                                       |       |       |       |  |  |  |
| Well Total Depth (ft btoc)                                                                          | 51.84                                              | + 7.8 = 52.12'                                                                                                                                         |       | Well Volume Calculation: 2"=.16, 4"=.64, 6"=1.44 gallons              |       |       |       |  |  |  |
| Time                                                                                                | 1202                                               | 1205                                                                                                                                                   | 1208  | 1211                                                                  | 1214  | 1217  | *1220 |  |  |  |
| Depth to Ground water (ft btoc)                                                                     | 45.30                                              | 45.26                                                                                                                                                  | 45.26 | 45.26                                                                 | 45.26 | 45.26 | 45.26 |  |  |  |
| Total Groundwater Purged (gallons)                                                                  | 17.5                                               |                                                                                                                                                        |       |                                                                       |       |       |       |  |  |  |
| Purge Rate (gpm, ml/min, other)                                                                     | 300                                                | 300                                                                                                                                                    |       |                                                                       |       |       |       |  |  |  |
| pH                                                                                                  | 6.04                                               | 6.07                                                                                                                                                   | 6.20  | 6.38                                                                  | 6.58  | 6.62  | 6.67  |  |  |  |
| Conductivity (mS/cm)                                                                                | 48.6                                               | 47.9                                                                                                                                                   | 48.1  | 48.0                                                                  | 47.9  | 47.6  | 47.8  |  |  |  |
| Turbidity (NTU)                                                                                     | .5                                                 | 440                                                                                                                                                    | 240   | 135                                                                   | 88.2  | 74.2  | 89.2  |  |  |  |
| Dissolved Oxygen (mg/L)                                                                             | 2.4                                                | 1.4                                                                                                                                                    | 1.2   | 1.1                                                                   | 1.1   | 1.0   | 1.0   |  |  |  |
| Temperature (°C)                                                                                    | 17.7                                               | 20.3                                                                                                                                                   | 20.2  | 20.0                                                                  | 19.5  | 20.5  | 21.3  |  |  |  |
| ORP/eH (mV)                                                                                         | 13                                                 | 17                                                                                                                                                     | 21    | 16                                                                    | 4     | 2     | 3     |  |  |  |
| Color of Purged Water (gray, brown, red, clear)                                                     | brown                                              | brown                                                                                                                                                  | brown | brown                                                                 | brown | brown | brown |  |  |  |
| Sample Identification: ST- MW3                                                                      | Analysis                                           | # of Bottles                                                                                                                                           |       | Comments:                                                             |       |       |       |  |  |  |
| Time Sampled: 1225                                                                                  | <input checked="" type="checkbox"/> NWTPH-Gasoline | 3                                                                                                                                                      |       | # Pump lost pressure, increased freq. on control box to restore flow. |       |       |       |  |  |  |
|                                                                                                     | <input type="checkbox"/> BTEX (8021B)              |                                                                                                                                                        |       |                                                                       |       |       |       |  |  |  |
| Purge water disposed To: Drum Onsite                                                                | <input type="checkbox"/> NWTPH-Dx                  |                                                                                                                                                        |       |                                                                       |       |       |       |  |  |  |

\* Pump @ 49.5'



## Ground Water Purge and Sampling Form

|                                                                                                     |                 |                                                                                                                                             |                                         |
|-----------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Well Identification                                                                                 | Cemetery Spigot | Site Location: Ecology - SeaTac Development Site                                                                                            | Date: 6/29/06                           |
| Well Diameter (inches)                                                                              | 12"             | Project Number: 6199401 7000 A                                                                                                              | Personnel: EM, MB, Royce-Nye, Ian Young |
| Well Monument Locked and Good Condition?                                                            | Y               | Purge Method: <input type="checkbox"/> Low Flow <input type="checkbox"/> Conventional <input checked="" type="checkbox"/> None              |                                         |
| Inside Well Head and Outside Well Casing (D=dry), (WAC=Water above Casing), WBC=Water Below Casing) | —               | Purge Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input type="checkbox"/> Grundfos submersible    |                                         |
| Well Casing Plug Locked and Good Condition?                                                         | —               | Sampling Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input type="checkbox"/> Grundfos submersible |                                         |
| Initial Depth to Water (ft btoc)                                                                    | 92.94'          | Weather Conditions: Sunny, 65°F                                                                                                             |                                         |
| Well Total Depth (ft btoc)                                                                          | ~125.97'        | Well Volume Calculation: 2"=.16, 4"=.64, 6"=1.44 gallons                                                                                    |                                         |
| Time                                                                                                | 1340            |                                                                                                                                             |                                         |
| Depth to Ground water (ft btoc)                                                                     | 92.94'          |                                                                                                                                             |                                         |
| Total Groundwater Purged (gallons)                                                                  | —               |                                                                                                                                             |                                         |
| Purge Rate (gpm, ml/min, other)                                                                     | —               |                                                                                                                                             |                                         |
| pH                                                                                                  |                 |                                                                                                                                             |                                         |
| Conductivity (mS/cm)                                                                                | 36.3            |                                                                                                                                             |                                         |
| Turbidity (NTU)                                                                                     | 0               |                                                                                                                                             |                                         |
| Dissolved Oxygen (mg/L)                                                                             | 11.4            |                                                                                                                                             |                                         |
| Temperature (°C)                                                                                    | 17.2°           |                                                                                                                                             |                                         |
| ORP/eH (mV)                                                                                         | 182             |                                                                                                                                             |                                         |
| Color of Purged Water (gray, brown, red, clear)                                                     | clear           |                                                                                                                                             |                                         |
| Sample Identification: ST- Cemetery                                                                 |                 | Analysis                                                                                                                                    | # of Bottles                            |
| Time Sampled: 1345                                                                                  |                 | <input checked="" type="checkbox"/> NWTPH-Gasoline                                                                                          | 3                                       |
|                                                                                                     |                 | <input type="checkbox"/> BTEX (8021B)                                                                                                       | —                                       |
| Purge water disposed To: Drum Onsite                                                                |                 | <input type="checkbox"/> NWTPH-Dx                                                                                                           | —                                       |
| Comments: Production pump purging since midnight last night                                         |                 |                                                                                                                                             |                                         |



## Ground Water Purge and Sampling Form

|                                                                                                        |              |                                                                                                                                                        |        |              |        |                                          |  |  |  |
|--------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------|--------|------------------------------------------|--|--|--|
| Well Identification                                                                                    | MW-5         | Site Location: Ecology - SeaTac Development Site      Date: 6/29/06                                                                                    |        |              |        |                                          |  |  |  |
| Well Diameter (inches)                                                                                 | 2"           | Project Number: 6199401 7000 A                                                                                                                         |        |              |        | Personnel: MB, EM, Roger Nye - Ecology   |  |  |  |
| Well Monument Locked and Good Condition?                                                               | N            | Purge Method: <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Conventional <input type="checkbox"/> None                         |        |              |        |                                          |  |  |  |
| Inside Well Head and Outside Well Casing (D=dry),<br>(WAC=Water above Casing), WBC=Water Below Casing) | WBC          | Purge Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible    |        |              |        |                                          |  |  |  |
| Well Casing Plug Locked and Good Condition?                                                            | Y            | Sampling Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible |        |              |        |                                          |  |  |  |
| Initial Depth to Water (ft btoc)                                                                       | 55.21        | Weather Conditions: Sunny, 70°F                                                                                                                        |        |              |        |                                          |  |  |  |
| Well Total Depth (ft btoc)                                                                             | 57.72 ± 0.28 | Well Volume Calculation: 2"=.16, 4"=.64, 6"=1.44 gallons                                                                                               |        |              |        |                                          |  |  |  |
| Time                                                                                                   | 1614         | 1617                                                                                                                                                   | 1620   | 1623         | 1626   |                                          |  |  |  |
| Depth to Ground water (ft btoc)                                                                        | 55.43        | 55.43                                                                                                                                                  | 55.30  | 55.57        | 55.60  |                                          |  |  |  |
| Total Groundwater Purged (gallons)                                                                     |              |                                                                                                                                                        |        |              |        |                                          |  |  |  |
| Purge Rate (gpm, ml/min, other)                                                                        | 420          | VARIED                                                                                                                                                 |        |              |        |                                          |  |  |  |
| pH                                                                                                     | 6.64         | 6.15                                                                                                                                                   | 6.08   | 6.13         | 6.13   |                                          |  |  |  |
| Conductivity (mS/cm)                                                                                   | 46.0         | 45.9                                                                                                                                                   | 45.5   | 45.6         | 45.3   |                                          |  |  |  |
| Turbidity (NTU)                                                                                        | 5            | 645                                                                                                                                                    | 418.0  | 273          | 300    |                                          |  |  |  |
| Disssolved Oxygen (mg/L)                                                                               | 7.3          | 2.2                                                                                                                                                    | 1.3    | 1.2          | 1.0    |                                          |  |  |  |
| Temperature (°C)                                                                                       | 16.7         | 16.2                                                                                                                                                   | 18.0   | 17.5         | 21.9   |                                          |  |  |  |
| ORP/eH (mV)                                                                                            | -77          | -55                                                                                                                                                    | -50    | -51          | -49    |                                          |  |  |  |
| Color of Purged Water (gray, brown, red, clear)                                                        | gray         | gray                                                                                                                                                   | cloudy | cloudy       | cloudy |                                          |  |  |  |
| Sample Identification: ST-MW5 / ST-MW5D DUP                                                            |              | Analysis                                                                                                                                               |        | # of Bottles |        | Comments:                                |  |  |  |
| Time Sampled: 1630                                                                                     |              | <input checked="" type="checkbox"/> NWTPH-Gasoline                                                                                                     |        | 3            |        | # Hydrocarbon odor noted during purging. |  |  |  |
| 1635 - Duplicate                                                                                       |              | <input type="checkbox"/> BTEX (8021B)                                                                                                                  |        |              |        |                                          |  |  |  |
| Purge water disposed To: Drum Onsite                                                                   |              | <input type="checkbox"/> NWTPH-Dx                                                                                                                      |        |              |        | # Pump set just off bottom               |  |  |  |

\* Pumped dry just before we collected samples, clicked pump off and on and flow returned, collected samples

\* During pumping, flow rate varied, had to adjust frequency of control box to compensate for diminishing



## Ground Water Purge and Sampling Form

|                                                                                                     |                                                    |                                                                                                                                                        |              |        |                                                                                                  |            |                                                         |  |  |  |  |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------|--------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------|--|--|--|--|
| Well Identification                                                                                 | MW-6                                               | Site Location: Ecology - SeaTac Development Site                                                                                                       |              |        |                                                                                                  |            | Date: 6/29/06                                           |  |  |  |  |
| Well Diameter (inches)                                                                              | 2"                                                 | Project Number: 6199401 7000 A                                                                                                                         |              |        |                                                                                                  |            | Personnel: EM, MB, Roger Nye Ecology, Jan Hong - Golden |  |  |  |  |
| Well Monument Locked and Good Condition?                                                            | N                                                  | Purge Method: <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Conventional <input type="checkbox"/> None                         |              |        |                                                                                                  |            |                                                         |  |  |  |  |
| Inside Well Head and Outside Well Casing (D=dry), (WAC=Water above Casing), WBC=Water Below Casing) | D                                                  | Purge Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible    |              |        |                                                                                                  |            |                                                         |  |  |  |  |
| Well Casing Plug Locked and Good Condition?                                                         | Y                                                  | Sampling Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible |              |        |                                                                                                  |            |                                                         |  |  |  |  |
| Initial Depth to Water (ft btoc)                                                                    | 60.61'                                             | Weather Conditions: Sunny, 65° F                                                                                                                       |              |        |                                                                                                  |            |                                                         |  |  |  |  |
| Well Total Depth (ft btoc)                                                                          | 62.41 + 0.28 = 62.69'                              | Well Volume Calculation: 2"=.16, 4"=.64, 6"=1.44 gallons                                                                                               |              |        |                                                                                                  |            |                                                         |  |  |  |  |
| Time                                                                                                | 1450                                               | 1453                                                                                                                                                   | 1456         | 1459   | *1502                                                                                            | 1505       |                                                         |  |  |  |  |
| Depth to Ground water (ft btoc)                                                                     | 60.63'                                             | 60.68'                                                                                                                                                 | 60.68'       | 60.68' | 61.02'                                                                                           | 61.01'     |                                                         |  |  |  |  |
| Total Groundwater Purged (gallons)                                                                  |                                                    |                                                                                                                                                        |              |        |                                                                                                  | ~3 gallons |                                                         |  |  |  |  |
| Purge Rate (gpm, ml/min, other)                                                                     | VARIED                                             | BETWEEN                                                                                                                                                | 300          | 500    |                                                                                                  | →          |                                                         |  |  |  |  |
| pH                                                                                                  | 5.51                                               | 5.48                                                                                                                                                   | 5.51         | 5.75   | 6.23                                                                                             | 6.01       |                                                         |  |  |  |  |
| Conductivity (mS/cm)                                                                                | 49.7                                               | 50.0                                                                                                                                                   | 49.8         | 49.8   | 52.1                                                                                             | 49.8       |                                                         |  |  |  |  |
| Turbidity (NTU)                                                                                     | -5                                                 | -5                                                                                                                                                     | -5           | -5     | -5                                                                                               | -5         |                                                         |  |  |  |  |
| Dissolved Oxygen (mg/L)                                                                             | 3.9                                                | 2.7                                                                                                                                                    | 2.4          | 2.5    | 7.6                                                                                              | 4.0        |                                                         |  |  |  |  |
| Temperature (°C)                                                                                    | 18.2                                               | 18.2                                                                                                                                                   | 18.9         | 18.5   | 23.2                                                                                             | 21.9       |                                                         |  |  |  |  |
| ORP/eH (mV)                                                                                         | 280                                                | 271                                                                                                                                                    | 259          | 244    | 164                                                                                              | 136        |                                                         |  |  |  |  |
| Color of Purged Water (gray, brown, red, clear)                                                     | brown                                              | brown                                                                                                                                                  | brown        | brown  | brown                                                                                            | brown      |                                                         |  |  |  |  |
| Sample Identification: ST- MW6                                                                      | Analysis                                           |                                                                                                                                                        | # of Bottles |        | Comments:                                                                                        |            |                                                         |  |  |  |  |
| Time Sampled: 1515                                                                                  | <input checked="" type="checkbox"/> NWTPH-Gasoline |                                                                                                                                                        | 3            |        | Pump @ bottom of well.                                                                           |            |                                                         |  |  |  |  |
|                                                                                                     | <input type="checkbox"/> BTEX (8021B)              |                                                                                                                                                        |              |        |                                                                                                  |            |                                                         |  |  |  |  |
| Purge water disposed To: Drum Onsite                                                                | <input type="checkbox"/> NWTPH-Dx                  |                                                                                                                                                        |              |        | * Well pumped dry, stopped for recharge, resumed pumping @ 1507 + collected parameters + samples |            |                                                         |  |  |  |  |

\* Had to keep dailing up and to counter the drenching. \* Collected 2 rounds of parameters + samples



## Ground Water Purge and Sampling Form

|                                                                                                       |       |                                                                                                                                                        |  |  |  |                             |  |  |  |
|-------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------------------------|--|--|--|
| Well Identification                                                                                   | MW-7  | Site Location: Ecology - SeaTac Development Site                                                                                                       |  |  |  | Date: 6/30/06               |  |  |  |
| Well Diameter (inches)                                                                                | 2"    | Project Number: 6199401 7000 A                                                                                                                         |  |  |  | Personnel: EM, MB, RN (ECY) |  |  |  |
| Well Monument Locked and Good Condition?                                                              | Y     | Purge Method: <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Conventional <input type="checkbox"/> None                         |  |  |  |                             |  |  |  |
| Inside Well Head and Outside Well Casing (D=dry),<br>(WAC=Water above Casing, WBC=Water Below Casing) | D     | Purge Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible    |  |  |  |                             |  |  |  |
| Well Casing Plug Locked and Good Condition?                                                           | Y     | Sampling Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible |  |  |  |                             |  |  |  |
| Initial Depth to Water (ft btoc)                                                                      | 49.39 | Weather Conditions: Sunny, 70°F                                                                                                                        |  |  |  |                             |  |  |  |
| Well Total Depth (ft btoc) 52.98 + .28 =                                                              | 53.26 | Well Volume Calculation: 2"=.16, 4"=.64, 6"=1.44 gallons                                                                                               |  |  |  |                             |  |  |  |

|                                                 |       |       |       |      |  |  |  |  |  |
|-------------------------------------------------|-------|-------|-------|------|--|--|--|--|--|
| Time                                            | 1010  | 1016  | 1019  | 1022 |  |  |  |  |  |
| Depth to Ground water (ft btoc)                 | 51.62 | 51.62 | 51.40 |      |  |  |  |  |  |
| Total Groundwater Purged (gallons)              |       |       |       |      |  |  |  |  |  |
| Purge Rate (gpm, ml/min, other)                 | ~200  | →     |       |      |  |  |  |  |  |
| pH                                              | 6.29  | 6.24  | 6.32  | 6.54 |  |  |  |  |  |
| Conductivity (mS/cm)                            | 61.0  | 61.0  | 61.2  | 60.9 |  |  |  |  |  |
| Turbidity (NTU)                                 | -5    | -5    | -5    | -5   |  |  |  |  |  |
| Dissolved Oxygen (mg/L)                         | 8.4   | 5.1   | 2.8   | 2.2  |  |  |  |  |  |
| Temperature (°C)                                | 19.9  | 20.6  | 20.4  | 20.1 |  |  |  |  |  |
| ORP/eH (mV)                                     | -44   | -40   | -50   | -63  |  |  |  |  |  |
| Color of Purged Water (gray, brown, red, clear) | gray  | Gray  | Gray  | Gray |  |  |  |  |  |

|                                      |                                                    |              |                                                           |
|--------------------------------------|----------------------------------------------------|--------------|-----------------------------------------------------------|
| Sample Identification: ST-MW7        | Analysis                                           | # of Bottles | Comments:                                                 |
| Time Sampled: 1030                   | <input checked="" type="checkbox"/> NWTPH-Gasoline | 3            | * Pump placed at bottom of well                           |
|                                      | <input type="checkbox"/> BTEX (8021B)              |              |                                                           |
| Purge water disposed To: Drum Onsite | NWTPH-Dx                                           |              | * Flow diminishing, well will not recharge quickly enough |

\* Hydrocarbon odor when we pulled up pump, pretty heavy odor.

to sustain a flow. Pump continues to pump well long. Finally we stopped pump, let well recharge, and turned pump back on let



## Ground Water Purge and Sampling Form

|                                                                                                     |                       |                                                                                                                                                        |  |                   |
|-----------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------|
| Well Identification                                                                                 | MW-9                  | Site Location: Ecology - SeaTac Development Site                                                                                                       |  | Date: 6/30/06     |
| Well Diameter (inches)                                                                              | 2"                    | Project Number: 6199401 7000 A                                                                                                                         |  | Personnel: EM, MB |
| Well Monument Locked and Good Condition?                                                            | Y                     | Purge Method: <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Conventional <input type="checkbox"/> None                         |  |                   |
| Inside Well Head and Outside Well Casing (D=dry), (WAC=Water above Casing), WBC=Water Below Casing) | WBC                   | Purge Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible    |  |                   |
| Well Casing Plug Locked and Good Condition?                                                         | Y                     | Sampling Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible |  |                   |
| Initial Depth to Water (ft btoc)                                                                    | 53.12'                | Weather Conditions: Sunny, 70°F                                                                                                                        |  |                   |
| Well Total Depth (ft btoc)                                                                          | 55.58 + 0.28 = 55.86' | Well Volume Calculation: 2"=.16, 4"=.64, 6"=1.44 gallons                                                                                               |  |                   |

|                                                 |        |        |        |        |        |        |        |        |        |        |
|-------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Time                                            | 0838   | 0841   | 0844   | 0847   | 0850   | 0853   | 0856   | 0859   | 0902   | 0905   |
| Depth to Ground water (ft btoc)                 | 53.32' | 53.49' | 53.53' | 53.53' | 53.53' | 53.53' | 53.54' | 53.54' | 53.53' | 53.53' |
| Total Groundwater Purged (gallons)              |        |        |        |        |        |        |        |        |        |        |
| Purge Rate (gpm, <u>ml/min</u> , other)         | 330    |        |        |        |        |        |        |        |        |        |
| pH                                              | 6.57   | 5.71   | 5.59   | 5.61   | 5.69   | 5.76   | 5.80   | 6.14   | 6.17   | 6.21   |
| Conductivity (mS/cm)                            | 88.2   | 48.0   | 39.9   | 38.2   | 37.6   | 37.4   | 37.2   | 37.0   | 37.0   | 36.9   |
| Turbidity (NTU)                                 | -5     | -5     | 426    | 191    | 67.7   | 8.4    | 0*     | 0*     | 0*     | 0*     |
| Dissolved Oxygen (mg/L)                         | 8.0    | 3.7    | 2.1    | 1.5    | 1.2    | 1.1    | 1.0    | 1.0    | 0.9    | 0.9    |
| Temperature (°C)                                | 18.1   | 16.3   | 17.3   | 17.6   | 17.8   | 17.9   | 18.0   | 18.1   | 18.1   | 18.2   |
| ORP/eH (mV)                                     | -29    | -36    | -36    | -37    | -38    | -42    | -49    | -54    | -56    | -56    |
| Color of Purged Water (gray, brown, red, clear) | Gray   | Gray   | Gray   | Cloudy | cloudy | cloudy | cloudy | cloudy | cloudy | cloudy |

|                                      |                                                    |        |              |                                                          |
|--------------------------------------|----------------------------------------------------|--------|--------------|----------------------------------------------------------|
| Sample Identification: ST- MW9       | Analysis                                           | cloudy | # of Bottles | Comments:                                                |
| Time Sampled: 0910                   | <input checked="" type="checkbox"/> NWTPH-Gasoline |        | 3            | * Pump set just off bottom of well                       |
|                                      | <input type="checkbox"/> BTEX (8021B)              |        |              | * Hydrocarbon odor                                       |
| Purge water disposed To: Drum Onsite | <input type="checkbox"/> NWTPH-Dx                  |        |              | * Turbidity flashing 0.0, water is still visibly cloudy. |



## Ground Water Purge and Sampling Form

|                                                                                                     |                         |                                                                                                                                                        |  |                   |
|-----------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------|
| Well Identification                                                                                 | NW-10                   | Site Location: Ecology - SeaTac Development Site                                                                                                       |  | Date: 6/30/06     |
| Well Diameter (inches)                                                                              | 2"                      | Project Number: 6199401 7000 A                                                                                                                         |  | Personnel: EM, MB |
| Well Monument Locked and Good Condition?                                                            | Y                       | Purge Method: <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Conventional <input type="checkbox"/> None                         |  |                   |
| Inside Well Head and Outside Well Casing (D=dry), (WAC=Water above Casing), WBC=Water Below Casing) | WBC                     | Purge Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible    |  |                   |
| Well Casing Plug Locked and Good Condition?                                                         | Y                       | Sampling Equipment: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Grundfos submersible |  |                   |
| Initial Depth to Water (ft btoc)                                                                    | 51.41'                  | Weather Conditions: Sunny, 70°F                                                                                                                        |  |                   |
| Well Total Depth (ft btoc)                                                                          | 86.70' + 0.28' = 86.98' | Well Volume Calculation: 2"=.16, 4"=.64; 6"=1.44 gallons                                                                                               |  |                   |

|                                                 |       |        |        |        |                 |                 |                 |       |  |  |
|-------------------------------------------------|-------|--------|--------|--------|-----------------|-----------------|-----------------|-------|--|--|
| Time                                            | 1128  | 1131   | 1134   | 1137   | 1140            | 1143            | 1146            | 1149  |  |  |
| Depth to Ground water (ft btoc)                 | 51.60 | 51.60  | 51.60  | 51.62  | 51.64           | 51.64           | 51.63           | 51.63 |  |  |
| Total Groundwater Purged (gallons)              |       |        |        |        |                 |                 |                 |       |  |  |
| Purge Rate (gpm, ml/min, other)                 | 500+  |        |        |        |                 |                 |                 |       |  |  |
| pH                                              | 7.28  | 6.27   | 6.22   | 6.54   | 6.61            | 6.66            | 6.69            | 6.70  |  |  |
| Conductivity (mS/cm)                            | 58.9  | 68.5   | 68.1   | 70.4   | 70.5            | 70.7            | 70.9            | 70.7  |  |  |
| Turbidity (NTU)                                 | *0    | 233    | *0     | *0     | *0              | *0              | *0              | *0    |  |  |
| Dissolved Oxygen (mg/L)                         | 9.9   | 3.6    | 1.9    | 1.1    | 1.1             | 0.9             | 0.9             | 0.8   |  |  |
| Temperature (°C)                                | 16.2  | 15.0   | 16.0   | 16.1   | 16.1            | 16.0            | 15.9            | 16.0  |  |  |
| ORP/eH (mV)                                     | 108   | 103    | 71     | 18     | 11              | 1               | -3              | -4    |  |  |
| Color of Purged Water (gray, brown, red, clear) | clear | cloudy | cloudy | cloudy | slightly cloudy | slightly cloudy | slightly cloudy | clear |  |  |

|                                      |                                                    |              |                                                                             |
|--------------------------------------|----------------------------------------------------|--------------|-----------------------------------------------------------------------------|
| Sample Identification: ST- MW10      | Analysis                                           | # of Bottles | Comments:                                                                   |
| Time Sampled: 1155                   | <input checked="" type="checkbox"/> NWTPH-Gasoline | 3            | → Pump set 0 81' w/c<br>* Turbidity reads 0 but the water is visibly cloudy |
|                                      | <input type="checkbox"/> BTEX (8021B)              |              |                                                                             |
| Purge water disposed To: Drum Onsite | <input checked="" type="checkbox"/> NWTPH-Dx       | 2            |                                                                             |

# APPENDIX B

## LABORATORY REPORTS

July 14, 2006

Jill Frain  
EA Engineering, Science and Technology  
12011 NE 1st Street, Suite 100  
Bellevue, WA/USA 98005

RE: Sea Tac Development Site

Enclosed are the results of analyses for samples received by the laboratory on 06/30/06 13:55.  
The following list is a summary of the Work Orders contained in this report, generated on 07/14/06 07:31.

If you have any questions concerning this report, please feel free to contact me.

| <u>Work Order</u> | <u>Project</u>           | <u>ProjectNumber</u> |
|-------------------|--------------------------|----------------------|
| BPG0048           | Sea Tac Development Site | 61994.01 7000        |

**EA Engineering, Science and Technology**

12011 NE 1st Street, Suite 100  
Bellevue, WA/USA 98005

Project Name: **Sea Tac Development Site**

Project Number: 61994.01 7000

Project Manager: Jill Frain

Report Created:

07/14/06 07:31

**ANALYTICAL REPORT FOR SAMPLES**

| Sample ID   | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-------------|---------------|--------|----------------|----------------|
| ST-Rinsate1 | BPG0048-01    | Water  | 06/29/06 11:45 | 06/30/06 13:55 |
| ST-MW-TB    | BPG0048-02    | Water  | 06/29/06 12:00 | 06/30/06 13:55 |
| ST-MW3      | BPG0048-03    | Water  | 06/29/06 12:25 | 06/30/06 13:55 |
| ST-Cemetery | BPG0048-04    | Water  | 06/29/06 13:45 | 06/30/06 13:55 |
| ST-MW6      | BPG0048-05    | Water  | 06/29/06 15:15 | 06/30/06 13:55 |
| ST-MW5      | BPG0048-06    | Water  | 06/29/06 16:30 | 06/30/06 13:55 |
| ST-MW5D     | BPG0048-07    | Water  | 06/29/06 16:35 | 06/30/06 13:55 |
| ST-Rinsate2 | BPG0048-08    | Water  | 06/30/06 09:30 | 06/30/06 13:55 |
| ST-MW9      | BPG0048-09    | Water  | 06/30/06 09:10 | 06/30/06 13:55 |
| ST-MW7      | BPG0048-10    | Water  | 06/30/06 10:30 | 06/30/06 13:55 |
| ST-MW10     | BPG0048-11    | Water  | 06/30/06 11:55 | 06/30/06 13:55 |

TestAmerica - Seattle, WA

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Kortland-Orr, PM



**EA Engineering, Science and Technology**

12011 NE 1st Street, Suite 100  
 Bellevue, WA/USA 98005

Project Name: **Sea Tac Development Site**

Project Number: 61994.01 7000

Project Manager: Jill Frain

Report Created:

07/14/06 07:31

**Gasoline Hydrocarbons (Benzene to Naphthalene) and BTEX by NWTPH-G and EPA 8021B**  
 TestAmerica - Seattle, WA

| Analyte                         | Method             | Result       | MDL* | MRL                            | Units | Dil | Batch   | Prepared       | Analyzed       | Notes |
|---------------------------------|--------------------|--------------|------|--------------------------------|-------|-----|---------|----------------|----------------|-------|
| <b>BPG0048-01 (ST-Rinsate1)</b> |                    | <b>Water</b> |      | <b>Sampled: 06/29/06 11:45</b> |       |     |         |                |                |       |
| Gasoline Range Hydrocarbons     | NWTPH-Gx/802<br>IB | ND           | ---- | 50.0                           | ug/l  | 1x  | 6G06008 | 07/06/06 08:46 | 07/06/06 19:57 |       |
| Benzene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Toluene                         | "                  | 0.674        | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Ethylbenzene                    | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Xylenes (total)                 | "                  | ND           | ---- | 1.00                           | "     | "   | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)       |                    | 103%         |      | 58 - 144 %                     |       | "   |         | "              |                |       |
| 4-BFB (PID)                     |                    | 114%         |      | 68 - 140 %                     |       | "   |         | "              |                |       |
| <b>BPG0048-02 (ST-MW-TB)</b>    |                    | <b>Water</b> |      | <b>Sampled: 06/29/06 12:00</b> |       |     |         |                |                |       |
| Gasoline Range Hydrocarbons     | NWTPH-Gx/802<br>IB | ND           | ---- | 50.0                           | ug/l  | 1x  | 6G06008 | 07/06/06 08:46 | 07/07/06 01:25 |       |
| Benzene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Toluene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Ethylbenzene                    | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Xylenes (total)                 | "                  | ND           | ---- | 1.00                           | "     | "   | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)       |                    | 104%         |      | 58 - 144 %                     |       | "   |         | "              |                |       |
| 4-BFB (PID)                     |                    | 112%         |      | 68 - 140 %                     |       | "   |         | "              |                |       |
| <b>BPG0048-03 (ST-MW3)</b>      |                    | <b>Water</b> |      | <b>Sampled: 06/29/06 12:25</b> |       |     |         |                |                |       |
| Gasoline Range Hydrocarbons     | NWTPH-Gx/802<br>IB | ND           | ---- | 50.0                           | ug/l  | 1x  | 6G06008 | 07/06/06 08:46 | 07/06/06 20:27 |       |
| Benzene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Toluene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Ethylbenzene                    | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Xylenes (total)                 | "                  | ND           | ---- | 1.00                           | "     | "   | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)       |                    | 99.0%        |      | 58 - 144 %                     |       | "   |         | "              |                |       |
| 4-BFB (PID)                     |                    | 106%         |      | 68 - 140 %                     |       | "   |         | "              |                |       |
| <b>BPG0048-04 (ST-Cemetery)</b> |                    | <b>Water</b> |      | <b>Sampled: 06/29/06 13:45</b> |       |     |         |                |                |       |
| Gasoline Range Hydrocarbons     | NWTPH-Gx/802<br>IB | ND           | ---- | 50.0                           | ug/l  | 1x  | 6G06008 | 07/06/06 08:46 | 07/06/06 20:57 |       |
| Benzene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Toluene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Ethylbenzene                    | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Xylenes (total)                 | "                  | ND           | ---- | 1.00                           | "     | "   | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)       |                    | 96.3%        |      | 58 - 144 %                     |       | "   |         | "              |                |       |
| 4-BFB (PID)                     |                    | 110%         |      | 68 - 140 %                     |       | "   |         | "              |                |       |

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## EA Engineering, Science and Technology

12011 NE 1st Street, Suite 100  
Bellevue, WA/USA 98005

Project Name: **Sea Tac Development Site**

Project Number: 61994.01 7000

Project Manager: Jill Frain

Report Created:

07/14/06 07:31

## Gasoline Hydrocarbons (Benzene to Naphthalene) and BTEX by NWTTPH-G and EPA 8021B

TestAmerica - Seattle, WA

| Analyte                         | Method             | Result       | MDL* | MRL                            | Units | Dil | Batch   | Prepared       | Analyzed       | Notes |
|---------------------------------|--------------------|--------------|------|--------------------------------|-------|-----|---------|----------------|----------------|-------|
| <b>BPG0048-05 (ST-MW6)</b>      |                    | <b>Water</b> |      | <b>Sampled: 06/29/06 15:15</b> |       |     |         |                |                |       |
| Gasoline Range Hydrocarbons     | NWTPH-Gx/802<br>1B | ND           | ---- | 50.0                           | ug/l  | 1x  | 6G06008 | 07/06/06 08:46 | 07/06/06 21:26 |       |
| Benzene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Toluene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Ethylbenzene                    | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Xylenes (total)                 | "                  | ND           | ---- | 1.00                           | "     | "   | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)       |                    | 104%         |      | 58 - 144 %                     |       | "   |         | "              |                |       |
| 4-BFB (PID)                     |                    | 111%         |      | 68 - 140 %                     |       | "   |         | "              |                |       |
| <b>BPG0048-06 (ST-MW5)</b>      |                    | <b>Water</b> |      | <b>Sampled: 06/29/06 16:30</b> |       |     |         |                |                |       |
| Gasoline Range Hydrocarbons     | NWTPH-Gx/802<br>1B | 1990         | ---- | 50.0                           | ug/l  | 1x  | 6G06008 | 07/06/06 08:46 | 07/06/06 21:56 |       |
| Benzene                         | "                  | 9.00         | ---- | 0.500                          | "     | "   | "       | "              | "              | 1-    |
| Toluene                         | "                  | 2.45         | ---- | 0.500                          | "     | "   | "       | "              | "              | 1-    |
| Ethylbenzene                    | "                  | 49.6         | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Xylenes (total)                 | "                  | 4.44         | ---- | 1.00                           | "     | "   | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)       |                    | 139%         |      | 58 - 144 %                     |       | "   |         | "              |                |       |
| 4-BFB (PID)                     |                    | 104%         |      | 68 - 140 %                     |       | "   |         | "              |                |       |
| <b>BPG0048-07 (ST-MW5D)</b>     |                    | <b>Water</b> |      | <b>Sampled: 06/29/06 16:35</b> |       |     |         |                |                |       |
| Gasoline Range Hydrocarbons     | NWTPH-Gx/802<br>1B | 2190         | ---- | 50.0                           | ug/l  | 1x  | 6G06008 | 07/06/06 08:46 | 07/06/06 22:26 |       |
| Benzene                         | "                  | 9.17         | ---- | 0.500                          | "     | "   | "       | "              | "              | 1-    |
| Toluene                         | "                  | 2.24         | ---- | 0.500                          | "     | "   | "       | "              | "              | 1-    |
| Ethylbenzene                    | "                  | 54.3         | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Xylenes (total)                 | "                  | 4.88         | ---- | 1.00                           | "     | "   | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)       |                    | 142%         |      | 58 - 144 %                     |       | "   |         | "              |                |       |
| 4-BFB (PID)                     |                    | 103%         |      | 68 - 140 %                     |       | "   |         | "              |                |       |
| <b>BPG0048-08 (ST-Rinsate2)</b> |                    | <b>Water</b> |      | <b>Sampled: 06/30/06 09:30</b> |       |     |         |                |                |       |
| Gasoline Range Hydrocarbons     | NWTPH-Gx/802<br>1B | ND           | ---- | 50.0                           | ug/l  | 1x  | 6G06008 | 07/06/06 08:46 | 07/07/06 01:54 |       |
| Benzene                         | "                  | ND           | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Toluene                         | "                  | 0.828        | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Ethylbenzene                    | "                  | 0.555        | ---- | 0.500                          | "     | "   | "       | "              | "              |       |
| Xylenes (total)                 | "                  | 2.24         | ---- | 1.00                           | "     | "   | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)       |                    | 93.5%        |      | 58 - 144 %                     |       | "   |         | "              |                |       |
| 4-BFB (PID)                     |                    | 106%         |      | 68 - 140 %                     |       | "   |         | "              |                |       |

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**EA Engineering, Science and Technology**

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Bellevue, WA/USA 98005

Project Name: **Sea Tac Development Site**

Project Number: 61994.01 7000

Project Manager: Jill Frain

Report Created:

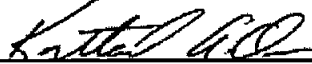
07/14/06 07:31

**Gasoline Hydrocarbons (Benzene to Naphthalene) and BTEX by NWTPH-G and EPA 8021B**  
TestAmerica - Seattle, WA

| Analyte                       | Method             | Result       | MDL* | MRL                            | Units | Dil  | Batch   | Prepared       | Analyzed       | Notes |
|-------------------------------|--------------------|--------------|------|--------------------------------|-------|------|---------|----------------|----------------|-------|
| <b>BPG0048-09 (ST-MW9)</b>    |                    | <b>Water</b> |      | <b>Sampled: 06/30/06 09:10</b> |       |      |         |                |                |       |
| Gasoline Range Hydrocarbons   | NWTPH-Gx/802<br>1B | 29600        | ---- | 2500                           | ug/l  | 50x  | 6G07053 | 07/07/06 14:05 | 07/07/06 16:01 |       |
| Benzene                       | "                  | 377          | ---- | 25.0                           | "     | "    | "       | "              | "              |       |
| Toluene                       | "                  | 332          | ---- | 25.0                           | "     | "    | "       | "              | "              |       |
| Ethylbenzene                  | "                  | 872          | ---- | 25.0                           | "     | "    | "       | "              | "              |       |
| Xylenes (total)               | "                  | 3720         | ---- | 50.0                           | "     | "    | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)     |                    | 101%         |      | 58 - 144 %                     |       | 1x   |         |                |                |       |
| 4-BFB (PID)                   |                    | 99.3%        |      | 68 - 140 %                     |       | "    |         |                |                |       |
| <b>BPG0048-10 (ST-MW7)</b>    |                    | <b>Water</b> |      | <b>Sampled: 06/30/06 10:30</b> |       |      |         |                |                |       |
| Gasoline Range Hydrocarbons   | NWTPH-Gx/802<br>1B | 48900        | ---- | 2500                           | ug/l  | 50x  | 6G07053 | 07/07/06 14:05 | 07/07/06 16:30 |       |
| Benzene                       | "                  | 919          | ---- | 25.0                           | "     | "    | "       | "              | "              |       |
| Ethylbenzene                  | "                  | 1260         | ---- | 25.0                           | "     | "    | "       | "              | "              |       |
| Xylenes (total)               | "                  | 6100         | ---- | 50.0                           | "     | "    | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)     |                    | 99.0%        |      | 58 - 144 %                     |       | 1x   |         |                |                |       |
| 4-BFB (PID)                   |                    | 99.3%        |      | 68 - 140 %                     |       | "    |         |                |                |       |
| <b>BPG0048-10RE1 (ST-MW7)</b> |                    | <b>Water</b> |      | <b>Sampled: 06/30/06 10:30</b> |       |      |         |                |                |       |
| Toluene                       | NWTPH-Gx/802<br>1B | 7330         | ---- | 50.0                           | ug/l  | 100x | 6G07053 | 07/07/06 14:05 | 07/07/06 18:56 |       |
| Surrogate(s): 4-BFB (PID)     |                    | 97.7%        |      | 68 - 140 %                     |       | 1x   |         |                |                |       |
| <b>BPG0048-11 (ST-MW10)</b>   |                    | <b>Water</b> |      | <b>Sampled: 06/30/06 11:55</b> |       |      |         |                |                |       |
| Gasoline Range Hydrocarbons   | NWTPH-Gx/802<br>1B | 84.4         | ---- | 50.0                           | ug/l  | 1x   | 6G07053 | 07/07/06 14:05 | 07/07/06 17:29 |       |
| Benzene                       | "                  | 7.98         | ---- | 0.500                          | "     | "    | "       | "              | "              |       |
| Toluene                       | "                  | 1.68         | ---- | 0.500                          | "     | "    | "       | "              | "              |       |
| Ethylbenzene                  | "                  | 0.661        | ---- | 0.500                          | "     | "    | "       | "              | "              |       |
| Xylenes (total)               | "                  | 2.90         | ---- | 1.00                           | "     | "    | "       | "              | "              |       |
| Surrogate(s): 4-BFB (FID)     |                    | 93.0%        |      | 58 - 144 %                     |       | "    |         |                |                |       |
| 4-BFB (PID)                   |                    | 94.5%        |      | 68 - 140 %                     |       | "    |         |                |                |       |

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**EA Engineering, Science and Technology**

12011 NE 1st Street, Suite 100  
 Bellevue, WA/USA 98005

Project Name: **Sea Tac Development Site**

Project Number: 61994.01 7000

Project Manager: Jill Frain

Report Created:

07/14/06 07:31

**Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)**

TestAmerica - Seattle, WA

| Analyte                     | Method   | Result | MDL*         | MRL   | Units      | Dil | Batch                          | Prepared       | Analyzed       | Notes |
|-----------------------------|----------|--------|--------------|-------|------------|-----|--------------------------------|----------------|----------------|-------|
| <b>BPG0048-11 (ST-MW10)</b> |          |        |              |       |            |     |                                |                |                |       |
|                             |          |        | <b>Water</b> |       |            |     | <b>Sampled: 06/30/06 11:55</b> |                |                |       |
| Diesel Range Hydrocarbons   | NWTPH-Dx | ND     | ---          | 0.250 | mg/l       | 1x  | 6G05014                        | 07/05/06 08:32 | 07/09/06 04:08 |       |
| Lube Oil Range Hydrocarbons | "        | ND     | ---          | 0.500 | "          | "   | "                              | "              | "              |       |
| Surrogate(s): 2-FBP         |          |        | 79.6%        |       | 50 - 150 % | "   |                                |                |                | "     |
| Octacosane                  |          |        | 84.0%        |       | 50 - 150 % | "   |                                |                |                | "     |

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## EA Engineering, Science and Technology

12011 NE 1st Street, Suite 100  
Bellevue, WA/USA 98005

Project Name: **Sea Tac Development Site**

Project Number: 61994.01 7000

Project Manager: Jill Frain

Report Created:

07/14/06 07:31

### Gasoline Hydrocarbons (Benzene to Naphthalene) and BTEX by NWTPH-G and EPA 8021B - Laboratory Quality Control Results

TestAmerica - Seattle, WA

QC Batch: 6G06008

Water Preparation Method: EPA 5030B (P/T)

| Analyte                     | Method             | Result    | MDL* | MRL   | Units           | Dil | Source Result | Spike Amt      | % REC | (Limits) | % RPD | (Limits) | Analyzed       | Notes |
|-----------------------------|--------------------|-----------|------|-------|-----------------|-----|---------------|----------------|-------|----------|-------|----------|----------------|-------|
| Blank (6G06008-BLK1)        |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Extracted: 07/06/06 08:46   |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Gasoline Range Hydrocarbons | NWTPH-Gx/<br>8021B | ND        | ---  | 50.0  | ug/l            | 1x  | --            | --             | --    | --       | --    | --       | 07/06/06 10:31 |       |
| Benzene                     | "                  | ND        | ---  | 0.500 | "               | "   | --            | --             | --    | --       | --    | --       | "              |       |
| Toluene                     | "                  | ND        | ---  | 0.500 | "               | "   | --            | --             | --    | --       | --    | --       | "              |       |
| Ethylbenzene                | "                  | ND        | ---  | 0.500 | "               | "   | --            | --             | --    | --       | --    | --       | "              |       |
| Xylenes (total)             | "                  | ND        | ---  | 1.00  | "               | "   | --            | --             | --    | --       | --    | --       | "              |       |
| Surrogate(s): 4-BFB (FID)   |                    | Recovery: |      | 101%  | Limits: 58-144% |     | "             | 07/06/06 10:31 |       |          |       |          |                |       |
| 4-BFB (PID)                 |                    |           |      | 103%  | 68-140%         |     | "             |                |       |          |       |          |                |       |
| LCS (6G06008-BS1)           |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Extracted: 07/06/06 08:46   |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Gasoline Range Hydrocarbons | NWTPH-Gx/<br>8021B | 911       | ---  | 50.0  | ug/l            | 1x  | --            | 1000           | 91.1% | (80-120) | --    | --       | 07/06/06 11:01 |       |
| Surrogate(s): 4-BFB (FID)   |                    | Recovery: |      | 107%  | Limits: 58-144% |     | "             | 07/06/06 11:01 |       |          |       |          |                |       |
| LCS (6G06008-BS2)           |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Extracted: 07/06/06 08:46   |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Benzene                     | NWTPH-Gx/<br>8021B | 26.9      | ---  | 0.500 | ug/l            | 1x  | --            | 30.0           | 89.7% | (80-120) | --    | --       | 07/06/06 11:31 |       |
| Toluene                     | "                  | 26.6      | ---  | 0.500 | "               | "   | --            | "              | 88.7% | "        | --    | --       | "              |       |
| Ethylbenzene                | "                  | 27.4      | ---  | 0.500 | "               | "   | --            | "              | 91.3% | "        | --    | --       | "              |       |
| Xylenes (total)             | "                  | 82.1      | ---  | 1.00  | "               | "   | --            | 90.0           | 91.2% | "        | --    | --       | "              |       |
| Surrogate(s): 4-BFB (PID)   |                    | Recovery: |      | 107%  | Limits: 68-140% |     | "             | 07/06/06 11:31 |       |          |       |          |                |       |
| Duplicate (6G06008-DUP1)    |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| QC Source: BPF0665-17       |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Extracted: 07/06/06 08:46   |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Gasoline Range Hydrocarbons | NWTPH-Gx/<br>8021B | ND        | ---  | 50.0  | ug/l            | 1x  | ND            | --             | --    | --       | 27.3% | (25)     | 07/06/06 12:47 | R     |
| Benzene                     | "                  | ND        | ---  | 0.500 | "               | "   | ND            | --             | --    | --       | 25.0% | "        | "              |       |
| Toluene                     | "                  | 0.522     | ---  | 0.500 | "               | "   | ND            | --             | --    | --       | 35.1% | "        | "              | R     |
| Ethylbenzene                | "                  | ND        | ---  | 0.500 | "               | "   | ND            | --             | --    | --       | "     | "        | "              |       |
| Xylenes (total)             | "                  | ND        | ---  | 1.00  | "               | "   | ND            | --             | --    | --       | "     | "        | "              |       |
| Surrogate(s): 4-BFB (FID)   |                    | Recovery: |      | 93.5% | Limits: 58-144% |     | "             | 07/06/06 12:47 |       |          |       |          |                |       |
| 4-BFB (PID)                 |                    |           |      | 101%  | 68-140%         |     | "             |                |       |          |       |          |                |       |
| Duplicate (6G06008-DUP2)    |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| QC Source: BPG0042-02       |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Extracted: 07/06/06 08:46   |                    |           |      |       |                 |     |               |                |       |          |       |          |                |       |
| Gasoline Range Hydrocarbons | NWTPH-Gx/<br>8021B | ND        | ---  | 50.0  | ug/l            | 1x  | ND            | --             | --    | --       | NR    | (25)     | 07/06/06 18:57 |       |
| Benzene                     | "                  | ND        | ---  | 0.500 | "               | "   | ND            | --             | --    | --       | NR    | "        | "              |       |
| Toluene                     | "                  | ND        | ---  | 0.500 | "               | "   | ND            | --             | --    | --       | NR    | "        | "              |       |
| Ethylbenzene                | "                  | ND        | ---  | 0.500 | "               | "   | ND            | --             | --    | --       | NR    | "        | "              |       |
| Xylenes (total)             | "                  | ND        | ---  | 1.00  | "               | "   | ND            | --             | --    | --       | NR    | "        | "              |       |
| Surrogate(s): 4-BFB (FID)   |                    | Recovery: |      | 102%  | Limits: 58-144% |     | "             | 07/06/06 18:57 |       |          |       |          |                |       |
| 4-BFB (PID)                 |                    |           |      | 105%  | 68-140%         |     | "             |                |       |          |       |          |                |       |

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|                                               |                                               |                        |
|-----------------------------------------------|-----------------------------------------------|------------------------|
| <b>EA Engineering, Science and Technology</b> | <b>Project Name:</b> Sea Tac Development Site | <b>Report Created:</b> |
| 12011 NE 1st Street, Suite 100                | <b>Project Number:</b> 61994.01 7000          | 07/14/06 07:31         |
| Bellevue, WA/USA 98005                        | <b>Project Manager:</b> Jill Frain            |                        |

**Gasoline Hydrocarbons (Benzene to Naphthalene) and BTEX by NWTPH-G and EPA 8021B - Laboratory Quality Control Results**  
TestAmerica - Seattle, WA

**QC Batch: 6G06008 Water Preparation Method: EPA 5030B (P/T)**

| Analyte                     | Method             | Result         | MDL*                  | MRL             | Units | Dil | Source Result | Spike Amt                 | % REC | (Limits) | % RPD | (Limits) | Analyzed       | Notes |
|-----------------------------|--------------------|----------------|-----------------------|-----------------|-------|-----|---------------|---------------------------|-------|----------|-------|----------|----------------|-------|
| Matrix Spike (6G06008-MS1)  |                    |                | QC Source: BPF0665-17 |                 |       |     |               | Extracted: 07/06/06 08:46 |       |          |       |          |                |       |
| Gasoline Range Hydrocarbons | NWTPH-Gx/<br>8021B | 1030           | ---                   | 50.0            | ug/l  | 1x  | 15.8          | 1000                      | 101%  | (75-131) | --    | --       | 07/06/06 15:29 |       |
| Surrogate(s): 4-BFB (FID)   |                    | Recovery: 109% |                       | Limits: 58-144% |       | "   |               |                           |       |          |       |          | 07/06/06 15:29 |       |
| Matrix Spike (6G06008-MS2)  |                    |                | QC Source: BPF0665-17 |                 |       |     |               | Extracted: 07/06/06 08:46 |       |          |       |          |                |       |
| Benzene                     | NWTPH-Gx/<br>8021B | 30.7           | ---                   | 0.500           | ug/l  | 1x  | 0.329         | 30.0                      | 101%  | (46-130) | --    | --       | 07/06/06 15:59 |       |
| Toluene                     | "                  | 30.0           | ---                   | 0.500           | "     | "   | 0.366         | "                         | 98.8% | (60-124) | --    | --       | "              |       |
| Ethylbenzene                | "                  | 30.8           | ---                   | 0.500           | "     | "   | ND            | "                         | 103%  | (56-141) | --    | --       | "              |       |
| Xylenes (total)             | "                  | 92.6           | ---                   | 1.00            | "     | "   | ND            | 90.0                      | 103%  | (66-132) | --    | --       | "              |       |
| Surrogate(s): 4-BFB (PID)   |                    | Recovery: 103% |                       | Limits: 68-140% |       | "   |               |                           |       |          |       |          | 07/06/06 15:59 |       |

**QC Batch: 6G07053 Water Preparation Method: EPA 5030B (P/T)**

| Analyte                     | Method             | Result    | MDL*  | MRL             | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed       | Notes                     |
|-----------------------------|--------------------|-----------|-------|-----------------|-------|-----|---------------|-----------|-------|----------|-------|----------|----------------|---------------------------|
| Blank (6G07053-BLK1)        |                    |           |       |                 |       |     |               |           |       |          |       |          |                | Extracted: 07/07/06 10:06 |
| Gasoline Range Hydrocarbons | NWTPH-Gx/<br>8021B | ND        | ---   | 50.0            | ug/l  | 1x  | --            | --        | --    | --       | --    | --       | 07/07/06 10:37 |                           |
| Benzene                     | "                  | ND        | ---   | 0.500           | "     | "   | --            | --        | --    | --       | --    | --       | "              |                           |
| Toluene                     | "                  | ND        | ---   | 0.500           | "     | "   | --            | --        | --    | --       | --    | --       | "              |                           |
| Ethylbenzene                | "                  | ND        | ---   | 0.500           | "     | "   | --            | --        | --    | --       | --    | --       | "              |                           |
| Xylenes (total)             | "                  | ND        | ---   | 1.00            | "     | "   | --            | --        | --    | --       | --    | --       | "              |                           |
| Surrogate(s): 4-BFB (FID)   |                    | Recovery: | 95.2% | Limits: 58-144% |       | "   |               |           |       |          |       |          |                | 07/07/06 10:37            |
| 4-BFB (PID)                 |                    |           | 96.8% | 68-140%         |       | "   |               |           |       |          |       |          |                | "                         |
| LCS (6G07053-BS1)           |                    |           |       |                 |       |     |               |           |       |          |       |          |                | Extracted: 07/07/06 10:06 |
| Gasoline Range Hydrocarbons | NWTPH-Gx/<br>8021B | 1080      | ---   | 50.0            | ug/l  | 1x  | --            | 1000      | 108%  | (80-120) | --    | --       | 07/07/06 11:06 |                           |
| Surrogate(s): 4-BFB (FID)   |                    | Recovery: | 108%  | Limits: 58-144% |       | "   |               |           |       |          |       |          |                | 07/07/06 11:06            |
| LCS (6G07053-BS2)           |                    |           |       |                 |       |     |               |           |       |          |       |          |                | Extracted: 07/07/06 10:06 |
| Benzene                     | NWTPH-Gx/<br>8021B | 29.4      | ---   | 0.500           | ug/l  | 1x  | --            | 30.0      | 98.0% | (80-120) | --    | --       | 07/07/06 11:35 |                           |
| Toluene                     | "                  | 28.7      | ---   | 0.500           | "     | "   | --            | "         | 95.7% | "        | --    | --       | "              |                           |
| Ethylbenzene                | "                  | 29.1      | ---   | 0.500           | "     | "   | --            | "         | 97.0% | "        | --    | --       | "              |                           |
| Xylenes (total)             | "                  | 85.7      | ---   | 1.00            | "     | "   | --            | 90.0      | 95.2% | "        | --    | --       | "              |                           |
| Surrogate(s): 4-BFB (PID)   |                    | Recovery: | 98.8% | Limits: 68-140% |       | "   |               |           |       |          |       |          |                | 07/07/06 11:35            |

TestAmerica - Seattle, WA

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*Kortland Orr*  
Kortland Orr, PM



**EA Engineering, Science and Technology**

12011 NE 1st Street, Suite 100  
 Bellevue, WA/USA 98005

Project Name: **Sea Tac Development Site**

Project Number: 61994.01 7000

Project Manager: Jill Frain

Report Created:

07/14/06 07:31

**Gasoline Hydrocarbons (Benzene to Naphthalene) and BTEX by NWTPH-G and EPA 8021B - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

QC Batch: 6G07053

Water Preparation Method: EPA 5030B (P/T)

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---------|--------|--------|------|-----|-------|-----|---------------|-----------|-------|----------|-------|----------|----------|-------|
|---------|--------|--------|------|-----|-------|-----|---------------|-----------|-------|----------|-------|----------|----------|-------|

**Duplicate (6G07053-DUP1)**

QC Source: BPG0048-09

Extracted: 07/07/06 10:06

|                             |                    |       |     |      |      |     |       |    |    |    |        |      |                |  |
|-----------------------------|--------------------|-------|-----|------|------|-----|-------|----|----|----|--------|------|----------------|--|
| Gasoline Range Hydrocarbons | NWTPH-Gx/<br>8021B | 27000 | --- | 2500 | ug/l | 50x | 29600 | -- | -- | -- | 9.19%  | (25) | 07/07/06 15:32 |  |
| Benzene                     | "                  | 378   | --- | 25.0 | "    | "   | 377   | -- | -- | -- | 0.265% | "    | "              |  |
| Toluene                     | "                  | 332   | --- | 25.0 | "    | "   | 332   | -- | -- | -- | 0.00%  | "    | "              |  |
| Ethylbenzene                | "                  | 866   | --- | 25.0 | "    | "   | 872   | -- | -- | -- | 0.690% | "    | "              |  |
| Xylenes (total)             | "                  | 3710  | --- | 50.0 | "    | "   | 3720  | -- | -- | -- | 0.269% | "    | "              |  |

Surrogate(s): 4-BFB (FID)  
 4-BFB (PID)

Recovery: 96.8%  
 102%

Limits: 58-144% 1x  
 68-140% "

07/07/06 15:32  
 "

**Matrix Spike (6G07053-MS1)**

QC Source: BPG0048-09

Extracted: 07/07/06 10:06

|                             |                    |       |     |      |      |     |       |       |       |          |    |    |                |  |
|-----------------------------|--------------------|-------|-----|------|------|-----|-------|-------|-------|----------|----|----|----------------|--|
| Gasoline Range Hydrocarbons | NWTPH-Gx/<br>8021B | 79300 | --- | 2500 | ug/l | 50x | 29600 | 50000 | 99.4% | (75-131) | -- | -- | 07/07/06 17:58 |  |
|-----------------------------|--------------------|-------|-----|------|------|-----|-------|-------|-------|----------|----|----|----------------|--|

Surrogate(s): 4-BFB (FID)

Recovery: 106%

Limits: 58-144% 1x

07/07/06 17:58

**Matrix Spike (6G07053-MS2)**

QC Source: BPG0048-09

Extracted: 07/07/06 10:06

|                 |                    |      |     |      |      |     |      |      |       |          |    |    |                |  |
|-----------------|--------------------|------|-----|------|------|-----|------|------|-------|----------|----|----|----------------|--|
| Benzene         | NWTPH-Gx/<br>8021B | 1860 | --- | 25.0 | ug/l | 50x | 377  | 1500 | 98.9% | (46-130) | -- | -- | 07/07/06 18:27 |  |
| Toluene         | "                  | 1800 | --- | 25.0 | "    | "   | 332  | "    | 97.9% | (60-124) | -- | -- | "              |  |
| Ethylbenzene    | "                  | 2310 | --- | 25.0 | "    | "   | 872  | "    | 95.9% | (56-141) | -- | -- | "              |  |
| Xylenes (total) | "                  | 7910 | --- | 50.0 | "    | "   | 3720 | 4500 | 93.1% | (66-132) | -- | -- | "              |  |

Surrogate(s): 4-BFB (PID)

Recovery: 99.5%

Limits: 68-140% 1x

07/07/06 18:27

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 Kortland Orr, PM



**EA Engineering, Science and Technology**

12011 NE 1st Street, Suite 100  
Bellevue, WA/USA 98005

Project Name: **Sea Tac Development Site**

Project Number: 61994.01 7000

Project Manager: Jill Frain

Report Created:

07/14/06 07:31

**Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) - Laboratory Quality Control Results**  
TestAmerica - Seattle, WA

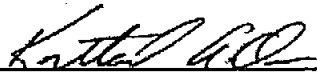
QC Batch: 6G05014

Water Preparation Method: EPA 3520C

| Analyte                     | Method   | Result    | MDL*  | MRL             | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed       | Notes                     |
|-----------------------------|----------|-----------|-------|-----------------|-------|-----|---------------|-----------|-------|----------|-------|----------|----------------|---------------------------|
| Blank (6G05014-BLK1)        |          |           |       |                 |       |     |               |           |       |          |       |          |                | Extracted: 07/05/06 08:32 |
| Diesel Range Hydrocarbons   | NWTPH-Dx | ND        | ---   | 0.250           | mg/l  | 1x  | --            | --        | --    | --       | --    | --       | 07/08/06 17:19 |                           |
| Lube Oil Range Hydrocarbons | "        | ND        | ---   | 0.500           | "     | "   | --            | --        | --    | --       | --    | --       | "              |                           |
| Surrogate(s): 2-FBP         |          | Recovery: | 78.8% | Limits: 50-150% |       | "   |               |           |       |          |       |          |                | 07/08/06 17:19            |
| Octacosane                  |          |           | 82.0% | 50-150%         |       | "   |               |           |       |          |       |          |                | "                         |
| LCS (6G05014-BS2)           |          |           |       |                 |       |     |               |           |       |          |       |          |                | Extracted: 07/05/06 08:32 |
| Diesel Range Hydrocarbons   | NWTPH-Dx | 1.73      | ---   | 0.250           | mg/l  | 1x  | --            | 2.00      | 86.5% | (58-125) | --    | --       | 07/08/06 18:48 |                           |
| Lube Oil Range Hydrocarbons | "        | 1.43      | ---   | 0.500           | "     | "   | --            | "         | 71.5% | (60-140) | --    | --       | "              |                           |
| Surrogate(s): 2-FBP         |          | Recovery: | 91.6% | Limits: 50-150% |       | "   |               |           |       |          |       |          |                | 07/08/06 18:48            |
| Octacosane                  |          |           | 98.0% | 50-150%         |       | "   |               |           |       |          |       |          |                | "                         |
| LCS Dup (6G05014-BSD2)      |          |           |       |                 |       |     |               |           |       |          |       |          |                | Extracted: 07/05/06 08:32 |
| Diesel Range Hydrocarbons   | NWTPH-Dx | 1.54      | ---   | 0.250           | mg/l  | 1x  | --            | 2.00      | 77.0% | (58-125) | 11.6% | (40)     | 07/08/06 19:17 |                           |
| Lube Oil Range Hydrocarbons | "        | 1.41      | ---   | 0.500           | "     | "   | --            | "         | 70.5% | (60-140) | 1.41% | "        | "              |                           |
| Surrogate(s): 2-FBP         |          | Recovery: | 72.8% | Limits: 50-150% |       | "   |               |           |       |          |       |          |                | 07/08/06 19:17            |
| Octacosane                  |          |           | 94.8% | 50-150%         |       | "   |               |           |       |          |       |          |                | "                         |

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**EA Engineering, Science and Technology**

12011 NE 1st Street, Suite 100  
Bellevue, WA/USA 98005

Project Name: **Sea Tac Development Site**

Project Number: 61994.01 7000

Project Manager: Jill Frain

Report Created:

07/14/06 07:31

## Notes and Definitions

### Report Specific Notes:

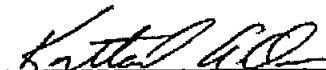
- I-06 - The analyte concentration may be artificially elevated due to coeluting compounds or components.
- Q-40 - This analyte had a low bias in the associated calibration verification standard.
- RP-4 - Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.

### Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL\* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B.  
\*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*.  
Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory.  
Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica - Seattle, WA

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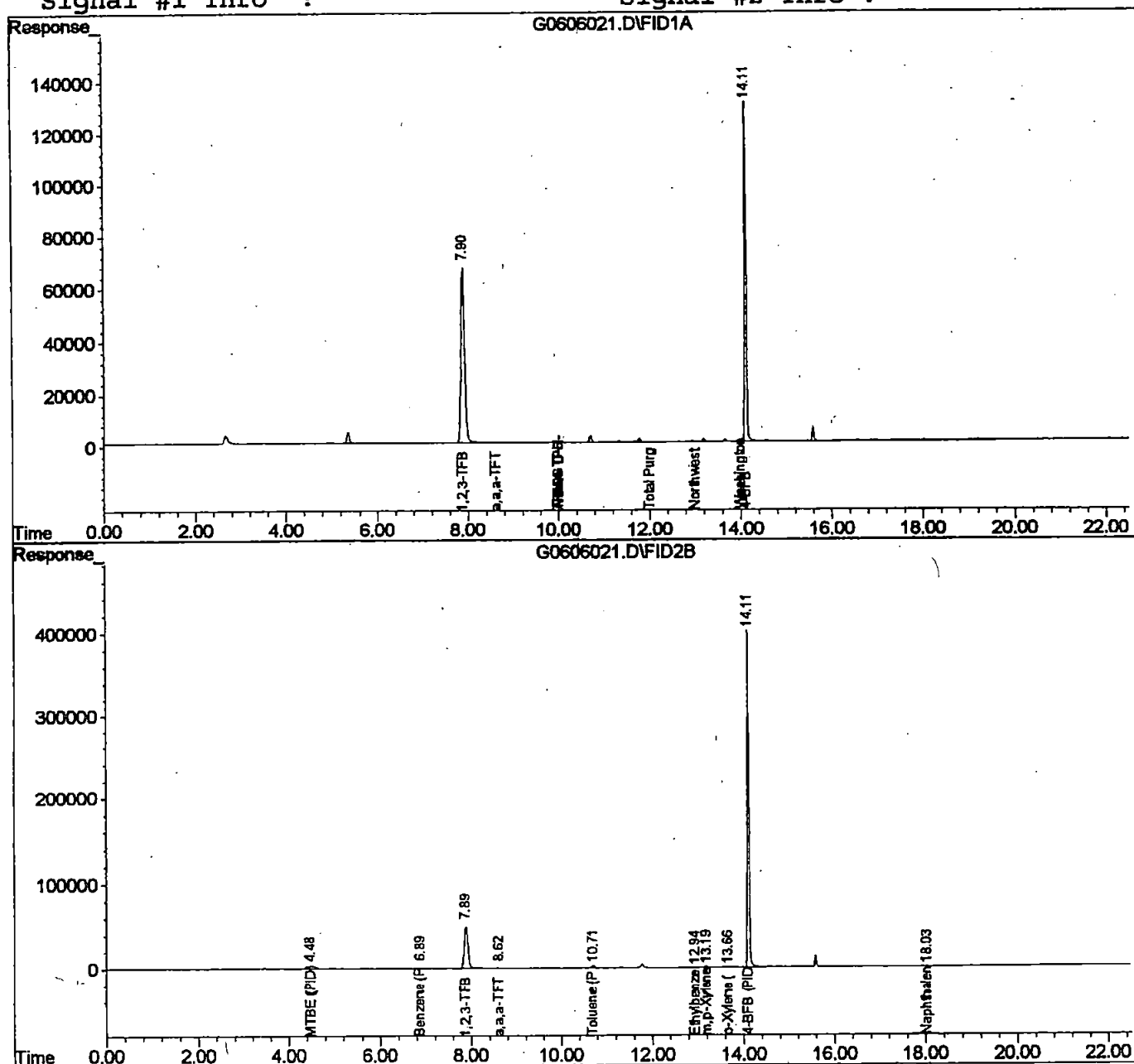


# Quantitation report

Signal #1 : D:\HPCHEM\1\DATA\070606\G0606021.D\FID1A.CH Vial: 21  
 Signal #2 : D:\HPCHEM\1\DATA\070606\G0606021.D\FID2B.CH  
 Acq On : 6 Jul 2006 19:57 Operator: sks  
 Sample : bpg0048-01 Inst : GC-10  
 Misc : 1x 5 mL Multiplr: 1.00  
 IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
 Quant Time: Jul 6 20:20 2006 Quant Results File: TGF0906.RES

Quant Method : D:\HPCHEM\1\METHODS\TGF0906.M (Chemstation Integrator)  
 Title : TPH-G/BTEX 8015/8021 Method  
 Last Update : Sat Jun 10 15:43:45 2006  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TGF0906.M

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

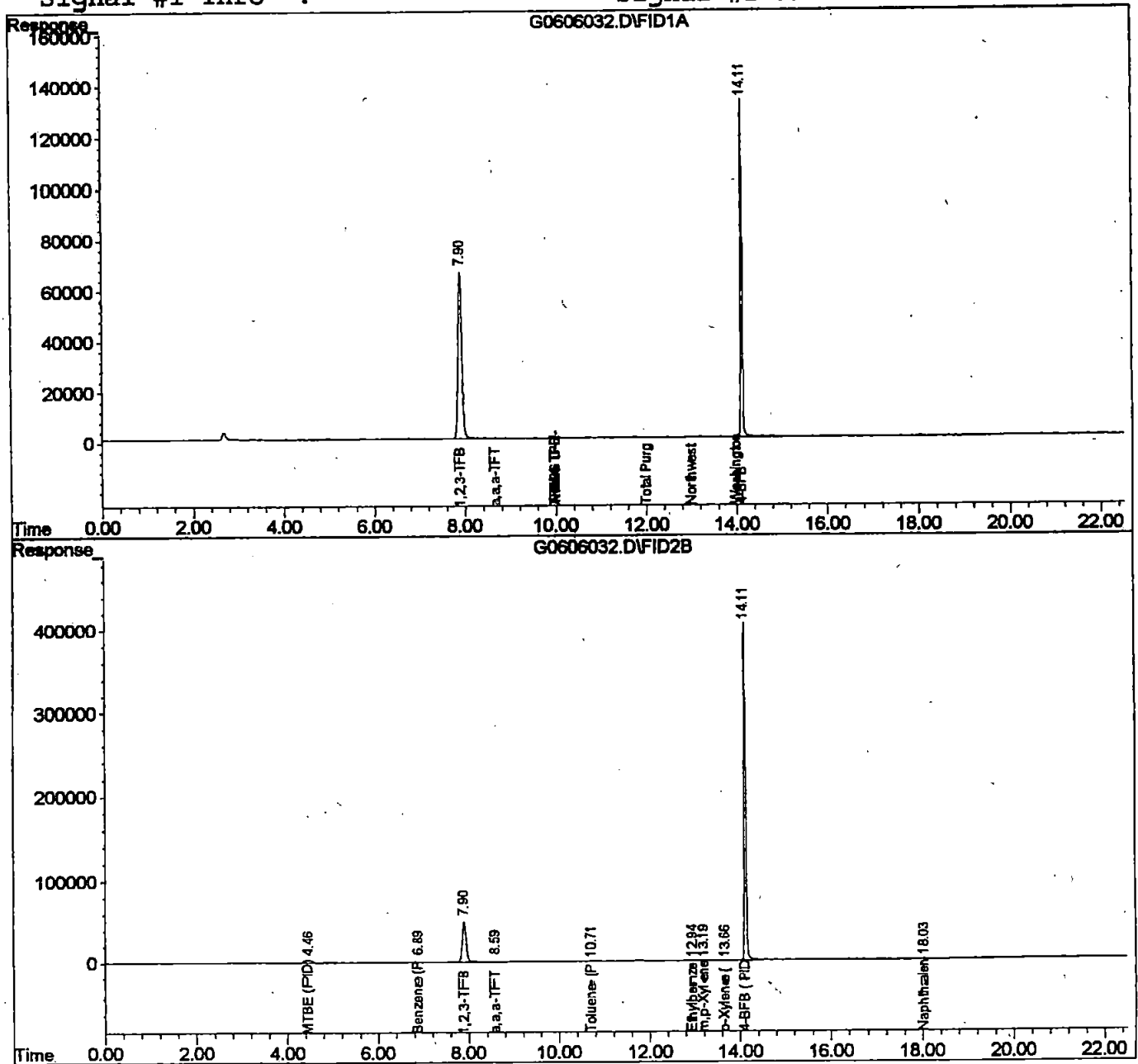


# Quantitation Report

Signal #1 : D:\HPCHEM\1\DATA\070606\G0606032.D\FID1A.CH Vial: 32  
 Signal #2 : D:\HPCHEM\1\DATA\070606\G0606032.D\FID2B.CH  
 Acq On : 7 Jul 2006 1:25 Operator: sks  
 Sample : bpg0048-02 Inst : GC-10  
 Misc : 1x 5 mL Multiplr: 1.00  
 IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
 Quant Time: Jul 7 1:48 2006 Quant Results File: TGF0906.RES

Quant Method : D:\HPCHEM\1\METHODS\TGF0906.M (Chemstation Integrator)  
 Title : TPH-G/BTEX 8015/8021 Method  
 Last Update : Sat Jun 10 15:43:45 2006  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TGF0906.M

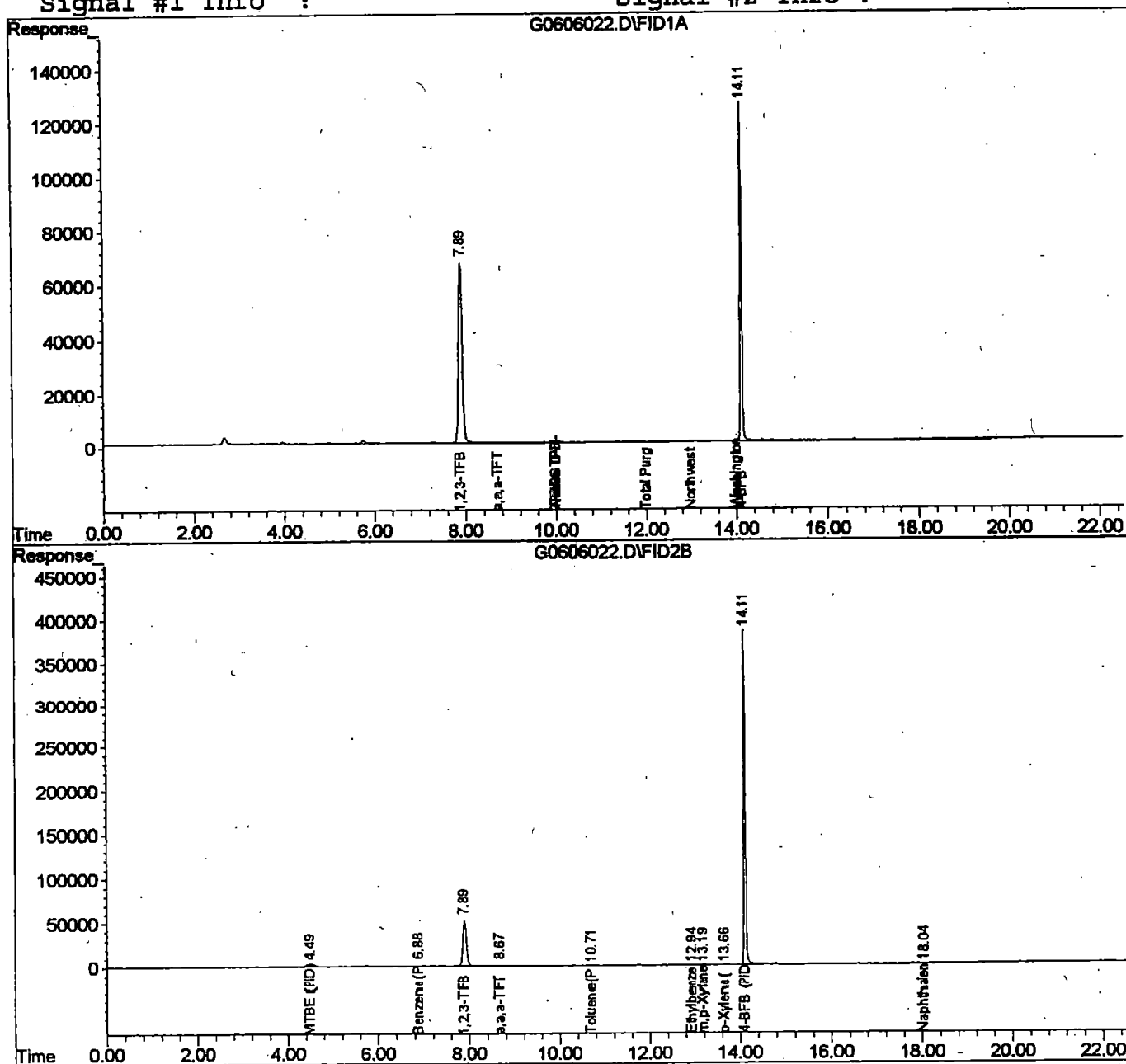
Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Signal #1 : D:\HPCHEM\1\DATA\070606\G0606022.D\FID1A.CH Vial: 22  
 Signal #2 : D:\HPCHEM\1\DATA\070606\G0606022.D\FID2B.CH  
 Acq On : 6 Jul 2006 20:27 Operator: sks  
 Sample : bpg0048-03 Inst : GC-10  
 Misc : 1x 5 mL Multiplr: 1.00  
 IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
 Quant Time: Jul 6 20:50 2006 Quant Results File: TGF0906.RES

Quant Method : D:\HPCHEM\1\METHODS\TGF0906.M (Chemstation Integrator)  
 Title : TPH-G/BTEX 8015/8021 Method  
 Last Update : Sat Jun 10 15:43:45 2006  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TGF0906.M

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

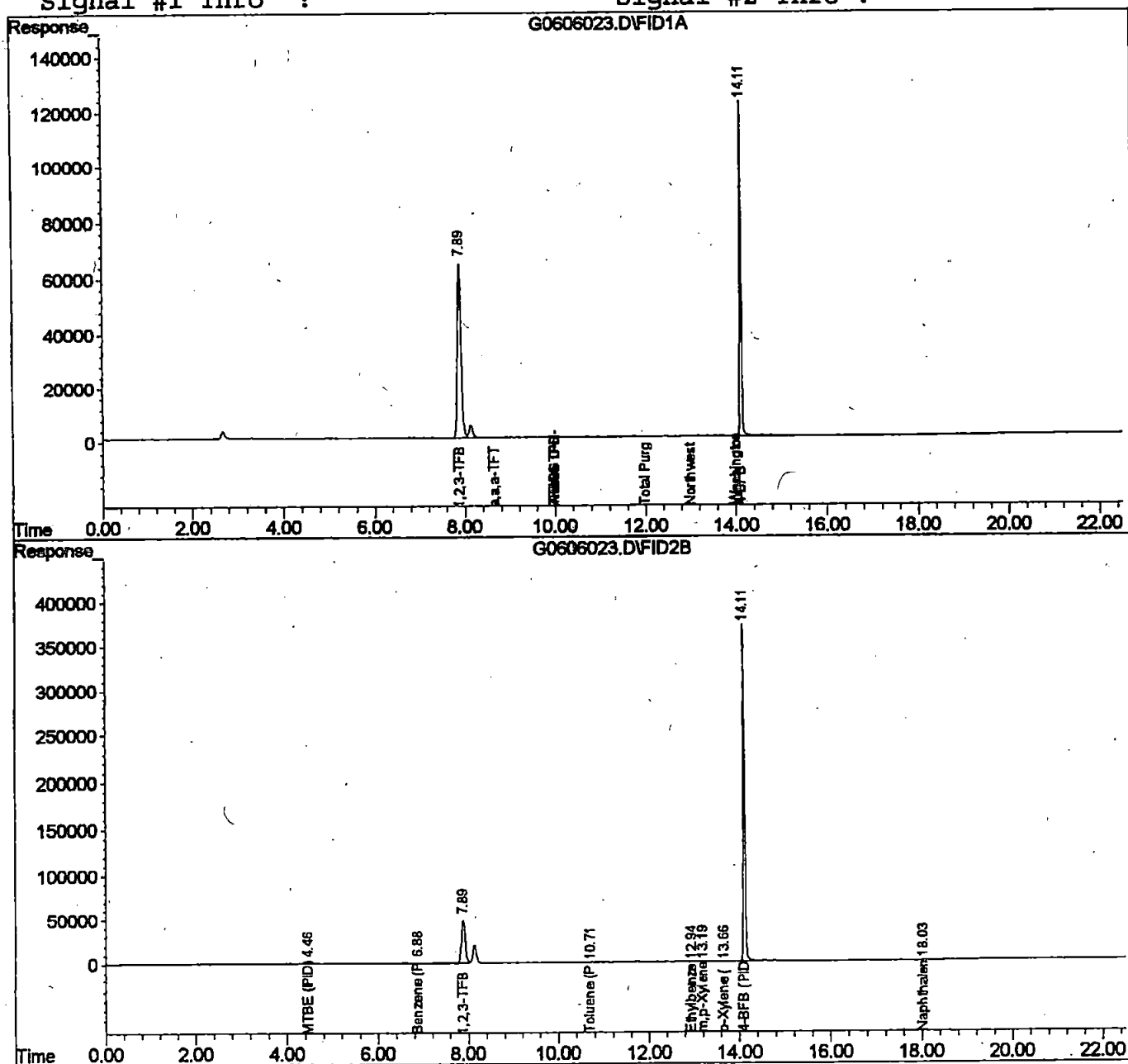


# Quantitation Report

Signal #1 : D:\HPCHEM\1\DATA\070606\G0606023.D\FID1A.CH Vial: 23  
 Signal #2 : D:\HPCHEM\1\DATA\070606\G0606023.D\FID2B.CH  
 Acq On : 6 Jul 2006 20:57 Operator: sks  
 Sample : bpg0048-04 Inst : GC-10  
 Misc : 1x 5 mL Multiplr: 1.00  
 IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
 Quant Time: Jul 6 21:19 2006 Quant Results File: TGF0906.RES

Quant Method : D:\HPCHEM\1\METHODS\TGF0906.M (Chemstation Integrator)  
 Title : TPH-G/BTEX 8015/8021 Method  
 Last Update : Sat Jun 10 15:43:45 2006  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TGF0906.M

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

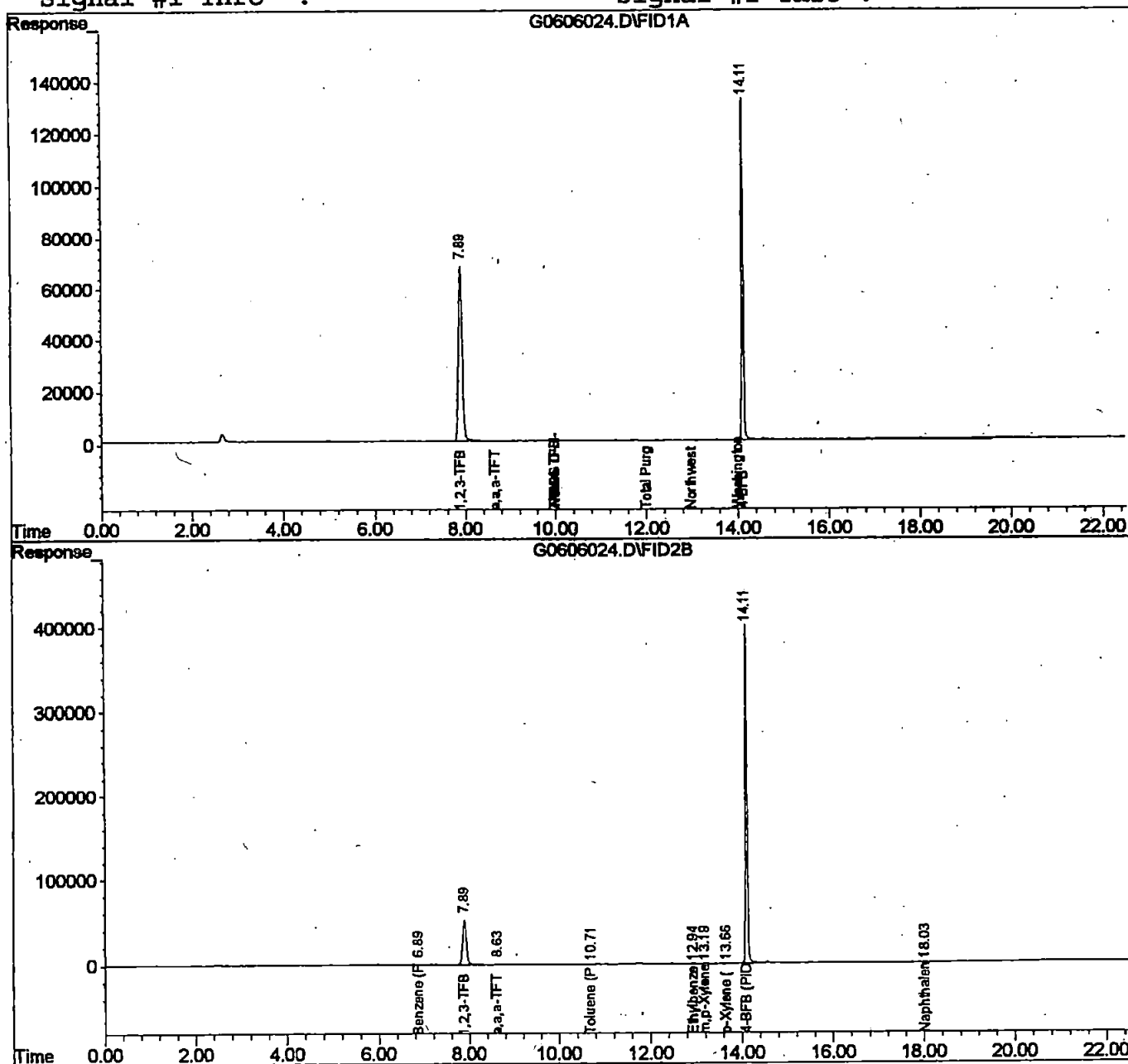


# Quantitation Report

Signal #1 : D:\HPCHEM\1\DATA\070606\G0606024.D\FID1A.CH Vial: 24  
 Signal #2 : D:\HPCHEM\1\DATA\070606\G0606024.D\FID2B.CH  
 Acq On : 6 Jul 2006 21:26 Operator: sks  
 Sample : bpg0048-05 Inst : GC-10  
 Misc : 1x 5 mL Multiplr: 1.00  
 IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
 Quant Time: Jul 6 21:49 2006 Quant Results File: TGF0906.RES

Quant Method : D:\HPCHEM\1\METHODS\TGF0906.M (Chemstation Integrator)  
 Title : TPH-G/BTEX 8015/8021 Method  
 Last Update : Sat Jun 10 15:43:45 2006  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TGF0906.M

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

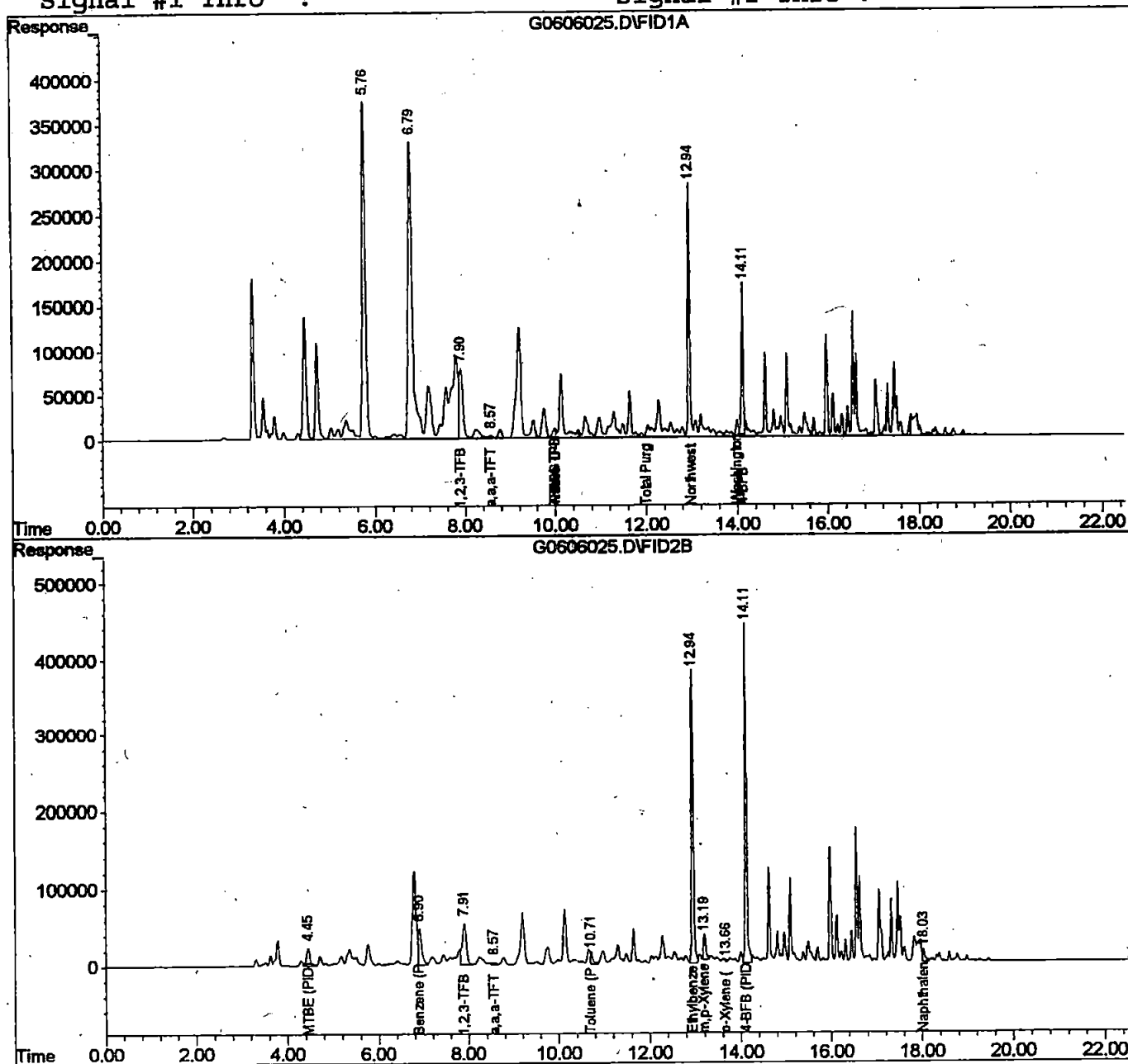


## Quantitation Report

Signal #1 : D:\HPCHEM\1\DATA\070606\G0606025.D\FID1A.CH Vial: 25  
Signal #2 : D:\HPCHEM\1\DATA\070606\G0606025.D\FID2B.CH  
Acq On : 6 Jul 2006 21:56 Operator: sks  
Sample : bpg0048-06 Inst : GC-10  
Misc : 1x 5 mL Multiplr: 1.00  
IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
Quant Time: Jul 7 13:34 2006 Quant Results File: TGF0906.RES

Quant Method : D:\HPCHEM\1\METHODS\TGF0906.M (Chemstation Integrator)  
Title : TPH-G/BTEX 8015/8021 Method  
Last Update : Sat Jun 10 15:43:45 2006  
Response via : Multiple Level Calibration  
DataAcq Meth : TGF0906.M

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

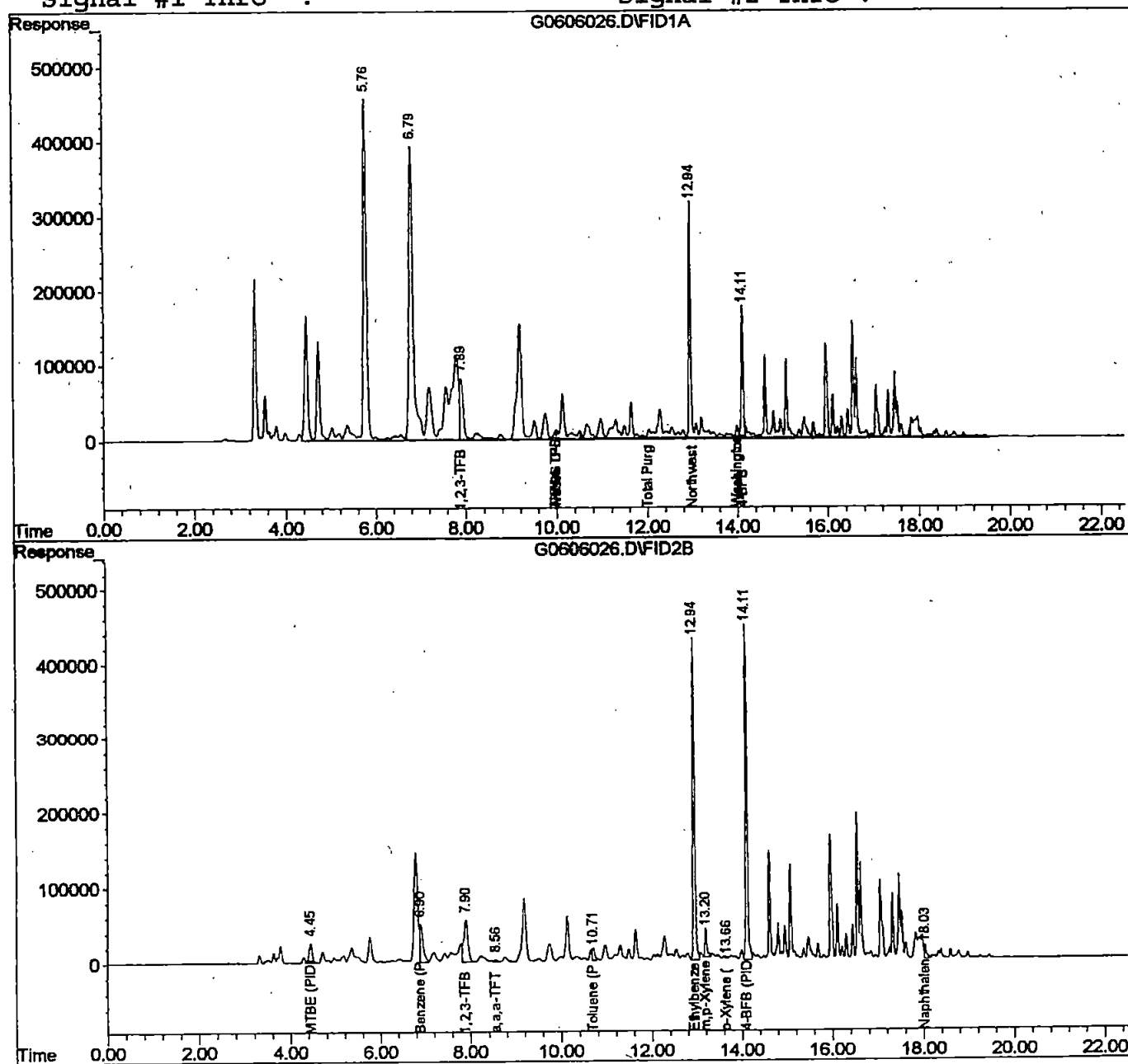


## Quantitation Report

Signal #1 : D:\HPCHEM\1\DATA\070606\G0606026.D\FID1A.CH Vial: 26  
Signal #2 : D:\HPCHEM\1\DATA\070606\G0606026.D\FID2B.CH  
Acq On : 6 Jul 2006 22:26 Operator: sks  
Sample : bpg0048-07 Inst : GC-10  
Misc : 1x 5 mL Multiplr: 1.00  
IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
Quant Time: Jul 7 13:36 2006 Quant Results File: TGF0906.RES

Quant Method : D:\HPCHEM\1\METHODS\TGF0906.M (Chemstation Integrator)  
Title : TPH-G/BTEX 8015/8021 Method  
Last Update : Sat Jun 10 15:43:45 2006  
Response via : Multiple Level Calibration  
DataAcq Meth : TGF0906.M

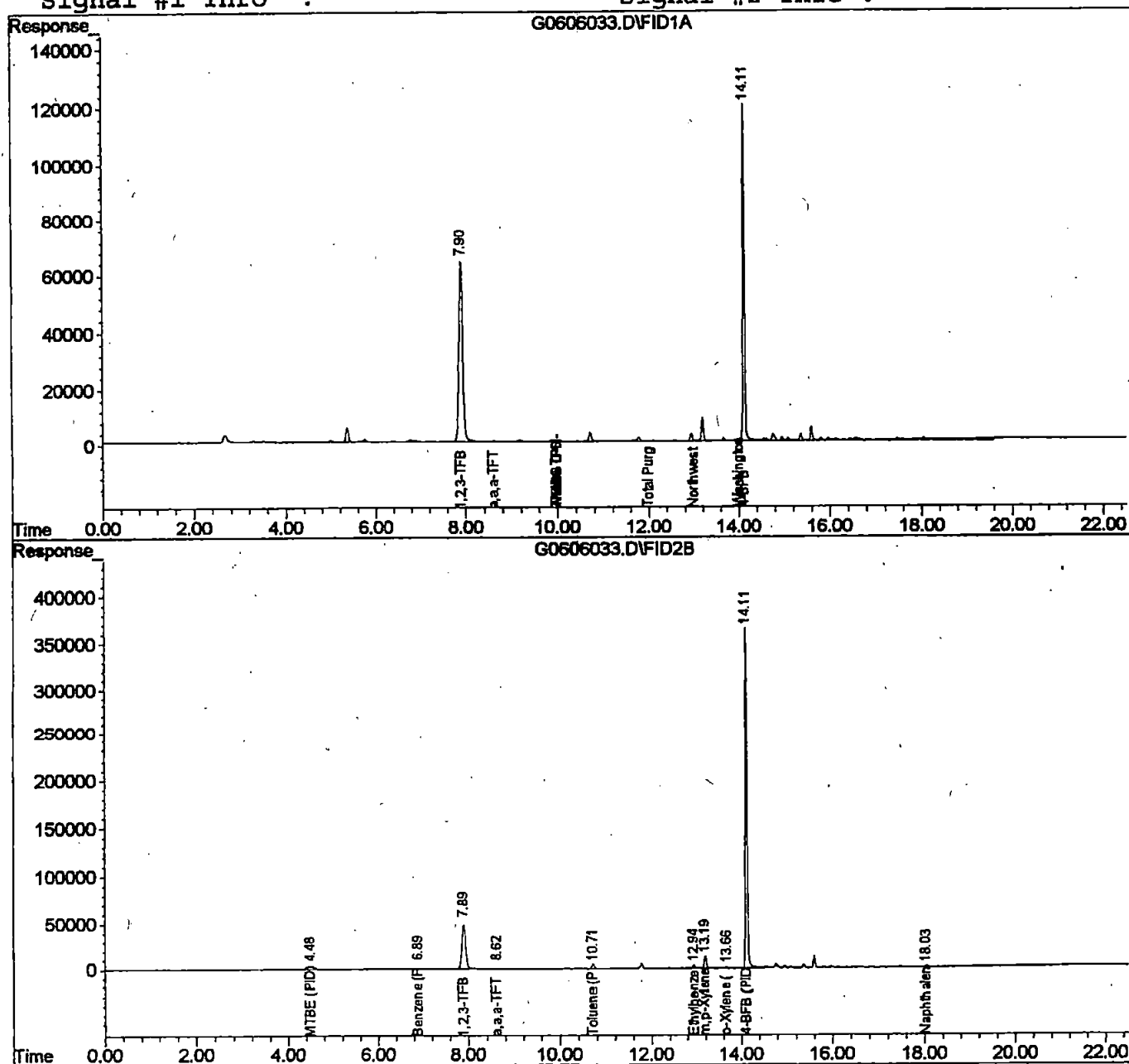
Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Signal #1 : D:\HPCHEM\1\DATA\070606\G0606033.D\FID1A.CH Vial: 33  
 Signal #2 : D:\HPCHEM\1\DATA\070606\G0606033.D\FID2B.CH  
 Acq On : 7 Jul 2006 1:54 Operator: sks  
 Sample : bpg0048-08 Inst : GC-10  
 Misc : 1x 5 mL Multiplr: 1.00  
 IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
 Quant Time: Jul 7 2:17 2006 Quant Results File: TGF0906.RES

Quant Method : D:\HPCHEM\1\METHODS\TGF0906.M (Chemstation Integrator)  
 Title : TPH-G/BTEX 8015/8021 Method  
 Last Update : Sat Jun 10 15:43:45 2006  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TGF0906.M

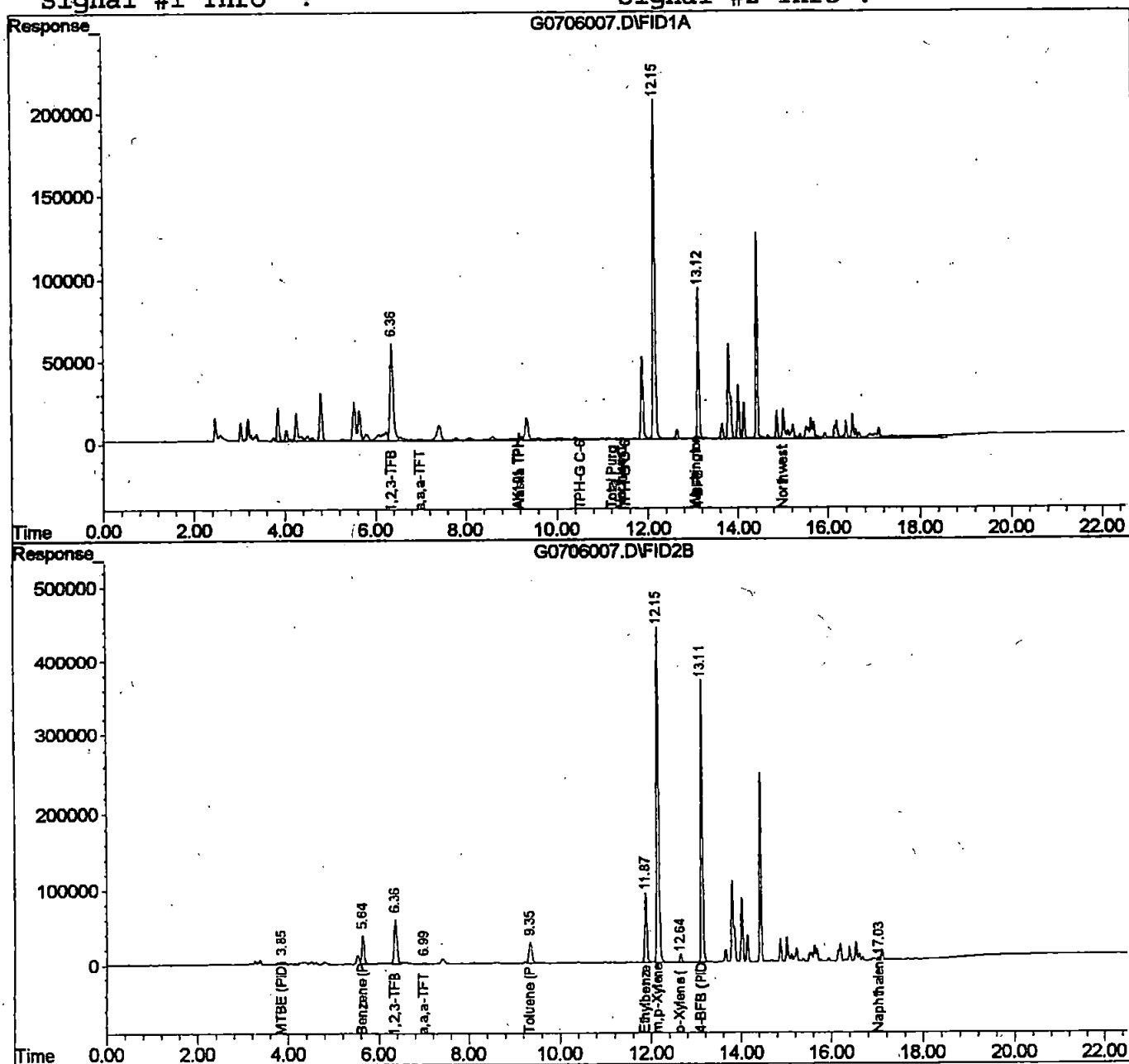
Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Signal #1 : C:\HPCHEM\1\DATA\070706\G0706007.D\FID1A.CH Vial: 8  
 Signal #2 : C:\HPCHEM\1\DATA\070706\G0706007.D\FID2B.CH  
 Acq On : 7 Jul 2006 16:01 Operator: jlh  
 Sample : bpg0048-09 Inst : GC #2  
 Misc : 50x 100ul Multiplr: 1.00  
 IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
 Quant Time: Jul 7 16:24 2006 Quant Results File: TGF0206.RES

Quant Method : C:\HPCHEM\1\METHODS\TGF0206.M (Chemstation Integrator)  
 Title : TPH-G/BTEX 8015/8021 Method  
 Last Update : Fri Jun 02 18:58:24 2006  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TGF0206.M

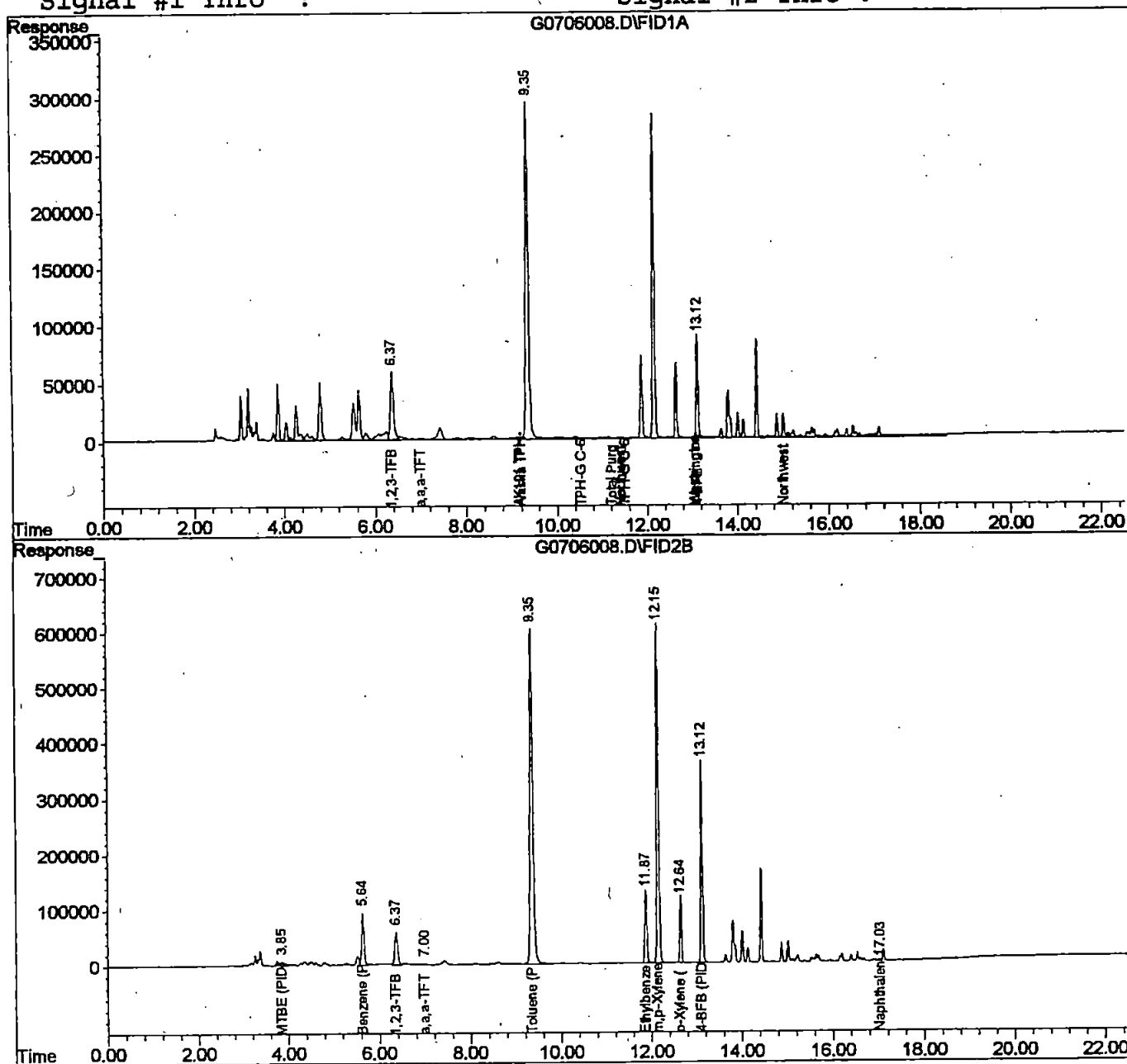
Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :



Signal #1 : C:\HPCHEM\1\DATA\070706\G0706008.D\FID1A.CH Vial: 9  
 Signal #2 : C:\HPCHEM\1\DATA\070706\G0706008.D\FID2B.CH  
 Acq On : 7 Jul 2006 16:30 Operator: jlh  
 Sample : bpg0048-10 Inst : GC #2  
 Misc : 50x 100ul Multiplr: 1.00  
 IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
 Quant Time: Jul 7 16:53 2006 Quant Results File: TGF0206.RES

Quant Method : C:\HPCHEM\1\METHODS\TGF0206.M (Chemstation Integrator)  
 Title : TPH-G/BTEX 8015/8021 Method  
 Last Update : Fri Jun 02 18:58:24 2006  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TGF0206.M

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



## Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\070706\G0706010.D\FID1A.CH Vial: 11  
Signal #2 : C:\HPCHEM\1\DATA\070706\G0706010.D\FID2B.CH  
Acq On : 7 Jul 2006 17:29 Operator: jlh  
Sample : bpg0048-11 Inst : GC #2  
Misc : 1x 5ml Multiplr: 1.00  
IntFile Signal #1: TPH.E IntFile Signal #2: SURR2.E  
Quant Time: Jul 7 17:52 2006 Quant Results File: TGF0206.RES

Quant Method : C:\HPCHEM\1\METHODS\TGF0206.M (Chemstation Integrator)  
Title : TPH-G/BTEX 8015/8021 Method  
Last Update : Fri Jun 02 18:58:24 2006  
Response via : Multiple Level Calibration  
DataAcq Meth : TGF0206.M

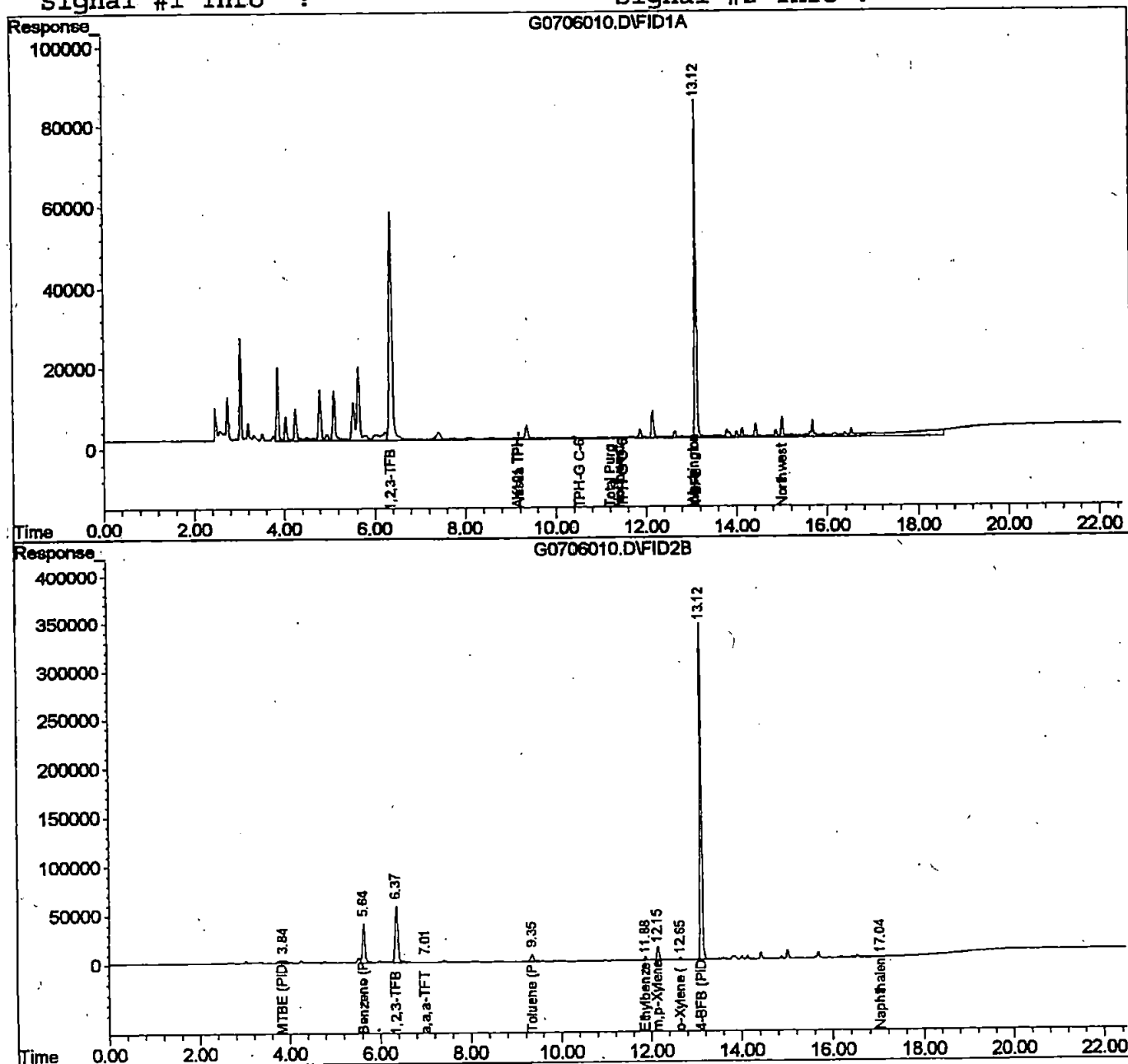
Volume Inj. :

Signal #1 Phase :

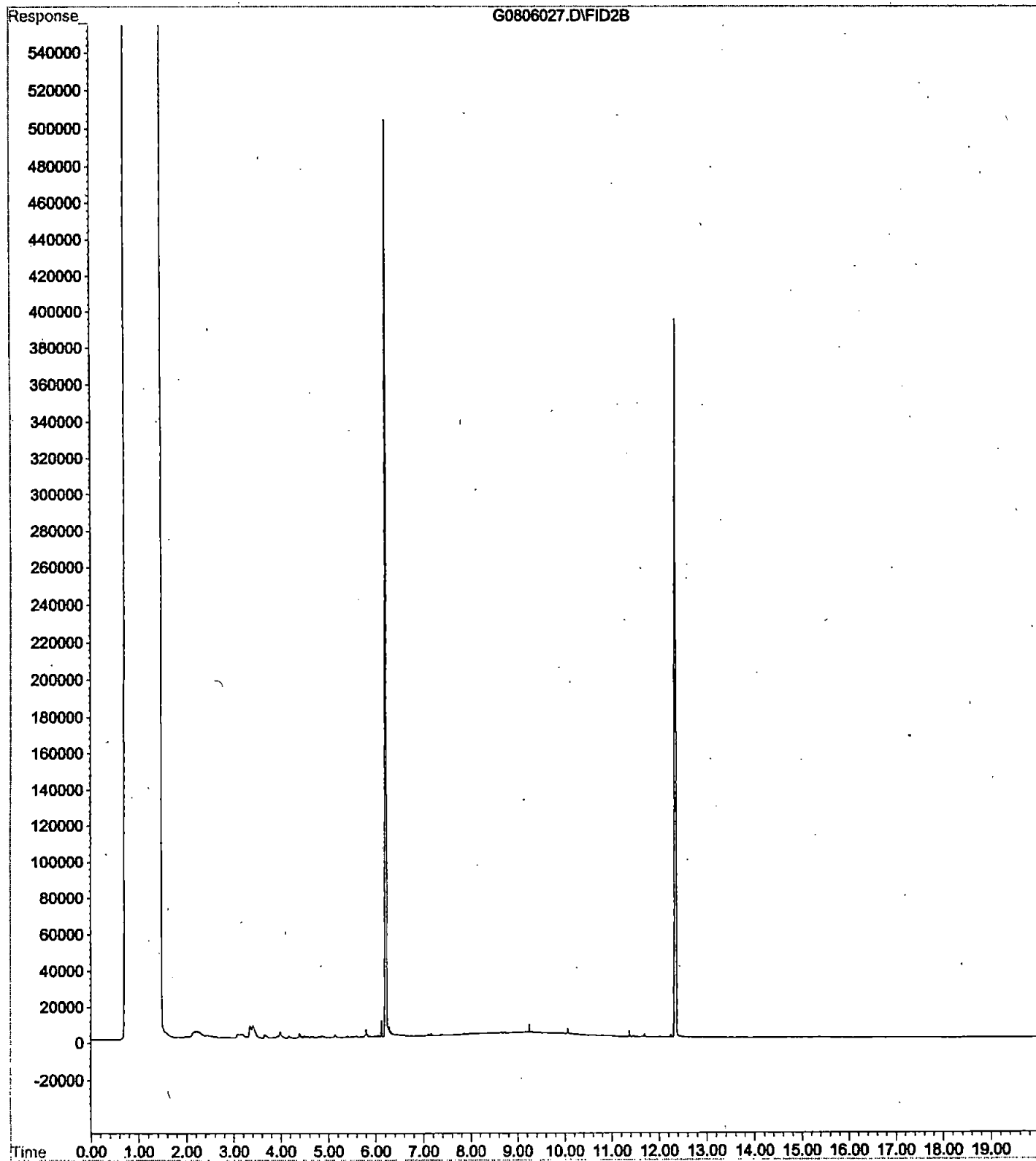
Signal #1 Info :

Signal #2 Phase:

Signal #2 Info :



File : C:\HPCHEM\4\DATA\070806.SEC\G0806027.D  
Operator : mam  
Acquired : 9 Jul 2006 4:08 using AcqMethod TPHF.M  
Instrument : GC-1  
Sample Name: bpg0048-11  
Misc Info : 1x nw dx h2o  
Vial Number: 72



# TestAmerica

ANALYTICAL TESTING CORPORATION

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244  
 11922 E. First Ave., Spokane, WA 99206-5302  
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145  
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

425-420-9200 FAX 420-9210  
 509-924-9200 FAX 924-9290  
 503-906-9200 FAX 906-9210  
 907-563-9200 FAX 563-9210

## CHAIN OF CUSTODY REPORT

Work Order #: **BP60048**

|                                                                                                                         |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------|-------------------|
| CLIENT: <b>WA Dept of Ecology</b>                                                                                       |                             | INVOICE TO: <b>WA Dept of Ecology - NWRO</b> |                   | <b>TURNAROUND REQUEST</b><br>In Business Days *<br>Organic & Inorganic Analyses<br><input checked="" type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1<br>STD.<br>Petroleum Hydrocarbon Analyses<br><input checked="" type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1<br>STD.<br><input type="checkbox"/> OTHER Specify:<br>* Turnaround Requests less than standard may incur Rush Charges. |                          |                       |                   |
| REPORT TO: <b>EA Eymann - Jill Frain</b><br>ADDRESS: <b>12011 NE 1st Street, Suite 100</b><br><b>Bellevue, WA 98005</b> |                             | P.O. NUMBER: <b>Field Order # PF 313180</b>  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| PHONE: <b>425-4571760</b> FAX: <b>2800</b>                                                                              |                             | PRESERVATIVE                                 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| PROJECT NAME: <b>SeaTac Development Site</b>                                                                            |                             | PROJECT NUMBER: <b>6199401 700 A</b>         |                   | REQUESTED ANALYSES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                       |                   |
| SAMPLED BY: <b>MBB, EM</b>                                                                                              |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| CLIENT SAMPLE IDENTIFICATION                                                                                            | SAMPLING DATE/TIME          |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 1 <b>ST-MW10</b>                                                                                                        | <b>6/30/06 1155</b>         | <b>X</b>                                     | <b>X</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 2                                                                                                                       |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 3                                                                                                                       |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 4                                                                                                                       |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 5                                                                                                                       |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 6                                                                                                                       |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 7                                                                                                                       |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 8                                                                                                                       |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 9                                                                                                                       |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| 10                                                                                                                      |                             |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |
| RELEASED BY: <b>Mark Blumstrib</b>                                                                                      | FIRM: <b>EA Engineering</b> | DATE: <b>6/30/06</b>                         | TIME: <b>1355</b> | RECEIVED BY: <b>Colette Weaver</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | FIRM: <b>TestAmerica</b> | DATE: <b>06-30-06</b> | TIME: <b>1355</b> |
| PRINT NAME:                                                                                                             |                             |                                              |                   | PRINT NAME:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                       |                   |
| RELEASED BY:                                                                                                            |                             | DATE:                                        |                   | RECEIVED BY:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          | DATE:                 |                   |
| PRINT NAME:                                                                                                             |                             | TIME:                                        |                   | PRINT NAME:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | TIME:                 |                   |
| ADDITIONAL REMARKS: <b>Temp Blank Included.</b>                                                                         |                             |                                              |                   | TEMP: <b>12</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                       |                   |

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and for any additional analyses performed on this project.  
 Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Sample(s) will be disposed of after 30 days unless otherwise contracted.

## CHAIN OF CUSTODY REPORT

Work Order #: **BPE0048**

|                                                                       |                    |                                              |  |
|-----------------------------------------------------------------------|--------------------|----------------------------------------------|--|
| CLIENT: <b>WA Dept of Ecology</b>                                     |                    | INVOICE TO: <b>WA Dept of Ecology - NWRO</b> |  |
| REPORT TO: <b>EA Engineering - Til Farm</b>                           |                    | P.O. NUMBER: <b>Field Order #: PF 313120</b> |  |
| ADDRESS: <b>12011 NE 1st Street, Suite 100<br/>Bellevue, WA 98005</b> |                    |                                              |  |
| PHONE: <b>425-457-7400</b> FAX: <b>206-780-7800</b>                   |                    |                                              |  |
| PROJECT NAME: <b>SeaTac Development Site</b>                          |                    | PRESERVATIVE                                 |  |
| PROJECT NUMBER: <b>6199401 7000</b>                                   |                    | REQUESTED ANALYSES                           |  |
| SAMPLED BY: <b>MBB, EM</b>                                            |                    |                                              |  |
| CLIENT SAMPLE IDENTIFICATION                                          | SAMPLING DATE/TIME |                                              |  |
| 1 ST-Rmsate 1                                                         | 6/29/06 1145       | X                                            |  |
| 2 ST-MW-TB                                                            |                    | X                                            |  |
| 3 ST-MW3                                                              | 1225               | X                                            |  |
| 4 ST-Cemetery                                                         | 1345               | X                                            |  |
| 5 ST-MW6                                                              | 1515               | X                                            |  |
| 6 ST-MW5                                                              | 1630               | X                                            |  |
| 7 ST-MW5D                                                             | 1635               | X                                            |  |
| 8 ST-Rmsate 2                                                         | 6/30/06 0930       | X                                            |  |
| 9 ST-MW9                                                              | 0910               | X                                            |  |
| 10 ST-MW7                                                             | 1030               | X                                            |  |
| RELEASED BY: <b>Mark Blustab</b>                                      |                    | DATE: <b>6/30/06</b>                         |  |
| PRINT NAME: <b>Mark Blustab</b>                                       |                    | TIME: <b>1355</b>                            |  |
| FIRM: <b>EA Engineering</b>                                           |                    |                                              |  |
| RELEASED BY: <b>Colette Weaver</b>                                    |                    | DATE: <b>06-30-06</b>                        |  |
| PRINT NAME: <b>Colette Weaver</b>                                     |                    | TIME: <b>1355</b>                            |  |
| FIRM: <b>TestAmerica</b>                                              |                    |                                              |  |
| ADDITIONAL REMARKS:                                                   |                    | TEMP: <b>1.2</b> PAGE <b>2</b> OF <b>2</b>   |  |

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